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**UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF NEW YORK**

In re:	:	Chapter 11 Case
MOTORS LIQUIDATION COMPANY, <i>et al.</i> ,	:	Case No. 09-50026 (MG)
Debtors.	:	(Jointly Administered)
<hr/>		
MOTORS LIQUIDATION COMPANY AVOIDANCE	:	Adversary Proceeding
ACTION TRUST, by and through the Wilmington Trust	:	
Company, solely in its capacity as Trust Administrator and	:	Case No. 09-00504 (MG)
Trustee,	:	
Plaintiff,	:	
vs.	:	
JPMORGAN CHASE BANK, N.A., individually and as	:	
Administrative Agent for Various Lenders Party to the Term	:	
Loan Agreement described herein, <i>et al.</i> ,	:	
Defendants.	:	

DEFENDANTS' PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW

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EXHIBITS¹

Exhibit A — Joint Valuation Chart

Exhibit B — Term Lenders' Supplement to the Joint Valuation Chart

¹ These Exhibits are being provided physically in a separate binder entitled "Valuation Exhibits Accompanying Defendants' Proposed Findings of Fact and Conclusions of Law."

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Representative Asset Number and Description	Findings of Fact	Points of Law
1 OP-150 Shims Station	282-285	415
2 Pits & Trenches	237-238	395
3 Power Zone Conveyor	254-258	408
4 Electro-Coat Paint Operations (“ELPO”) Waste System	205-206	387
5 Paint Circulation Electrical System	206-210	387-388
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12 Overhead Body Shop Welding Robot	181-185	382-383
13 Weld Bus Ducts	188-192	384
14 Leak Test Machine	258-262	409
15 Soap, Mount and Inflate System	227-230	393-394
16 Skid Conveyor	196-199	385-386
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20 Wheel & Tire Conveyor	231-234	394-395
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22 Fanuc Gantry Robot	266-269	411
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26 Core Delivery Conveyor System	300-302	418-419
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28 Holding Furnace	306-311	420-421
29 GG-1 Transfer Press	174-176	381

Representative Asset Number and Description		Findings of Fact	Points of Law
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31	Danly Press	167-170	379
32	AA Transfer Press	161-164	378
33	B3-5 Transfer Press	164-167	378
34	Build Line w/ Foundation	288-291	416-417
35	Button Up Conveyor System	285-288	415-416
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Pursuant to the Joint Pretrial Order and the further guidance received from the Court during the trial, the Term Lenders respectfully make this post-trial submission. The first part of this submission contains proposed findings of fact, organized by topic. There then follows a legal memorandum addressing each of the issues tried, and applying the law to the facts proven at trial.

INTRODUCTION

While the trial undoubtedly advanced everyone's appreciation of the facts and the strengths and weaknesses of the parties' positions, it also emphasized the truth of a point made on page 1 of the Term Lenders' pretrial brief: while over \$1 billion is at stake in this trial for the parties and others, applying the law to the facts is quite straightforward.

As to what is a fixture:

Just two weeks ago, the Michigan Court of Appeals reiterated that the "test for determining whether something is a fixture on real property is old and well established." *Grand Traverse Cnty. Land Bank Auth. v. Verizon Wireless*, 2017 WL 1908535, at *2 (Mich. Ct. App. May 9, 2017). That longstanding test has three elements. As the Michigan Supreme Court has held: "Property is a fixture if (1) it is annexed to the realty, whether the annexation is actual or constructive; (2) its adaptation or application to the realty being used is appropriate; and (3) there is an intention to make the property a permanent accession to the realty." *Wayne Cty. v. Britton Trust*, 563 N.W.2d 674, 676 (Mich. 1997). Ohio law does not yield a different conclusion. *See* Section XII below.

The Term Lenders presented the testimony of the GM experts who, collectively, have over 200 years of experience in designing, purchasing, installing, operating and maintaining precisely the kind of manufacturing equipment that makes up the Representative Assets. These highly experienced, knowledgeable, and credible witnesses testified clearly, cogently and compellingly as to the salient facts that show that the Representative Assets meet the three-part fixture test. The plaintiff's fixture witness, David Goesling, advanced a test that has no basis in

the law, and opinions applying that test unmoored from both the engineering and business realities of modern, mass-production automobile manufacturing.

As to the proper measure of value:

The law is likewise clear as to the other principal dispute between the parties: the Representative Assets should be valued on a going-concern basis. Nothing in the expert testimony did, or for that matter could, change this conclusion. Under section 506(a)(1) of the Bankruptcy Code, the Term Lenders' collateral has to be valued in light of its "proposed disposition." For all but two of the Representative Assets, the proposed disposition was a sale to New GM for continued use in manufacturing automobiles. These assets were in place making GM automobiles on the June 30, 2009 valuation date, days later when the section 363 sale closed, and continuously thereafter. Indeed, that was the very purpose of the proposed disposition. So the proper valuation measure is going-concern value.

As for precisely what value should be ascribed to each Representative Asset, the evidence at trial overwhelmingly showed that the best evidence of going-concern value for each asset was the Replacement Cost New Less Depreciation ("RCNLD") value arrived at by KPMG for the assets it valued. With respect, any reservations that the Court may have had as to the relevance of KPMG's fresh start accounting exercise most certainly should have been put to rest by the testimony of KPMG's Patrick Furey. He testified authoritatively that KPMG's ground-up, asset-by-asset RCNLD valuation was thorough and reliable — and replicable to the 100,000-plus assets that were not included in the trial. Mr. Furey's testimony was so convincing that the plaintiff's expert, Gordon Klein, recanted his claim that KPMG did not value individual assets.

The evidence likewise showed that KPMG's TIC Adjustment should not be taken into account by the Court in valuing the Representative Assets. As a threshold matter, the TIC for New GM derived by KPMG — the equivalent of a *hypothetical* purchase price for New GM — cannot be reconciled with the *actual* purchase price paid to Old GM in the section 363 sale, which was much higher than the TIC estimate. Under section 506(a)(1) and the case law, that actual purchase price is controlling. The TIC Adjustment, moreover, was flawed in multiple

ways, most obviously by the selection of a weighted average cost of capital that was far too high. Indeed, the WACC used by KPMG was so indefensible that neither Professor Fischel nor Mr. Klein offered a substantive defense of it. KPMG's WACC cannot be reconciled with Evercore's contemporaneous valuation of New GM, with the WACC that GM itself used in its pre-bankruptcy S-4 and its submission to the Auto Taskforce, with analysts' contemporaneous estimates of WACC for GM and other market participants, with finance theory and practice, or with the fundamental premise of the 363 sale itself: that the reorganized GM would be viable. KPMG's 23% WACC thus should not be accepted.

Without the TIC Adjustment, KPMG's RCNLD values stand as the best evidence of value of the Representative Assets and for the balance as well, resulting in the ultimate conclusion that the Term Lenders were significantly over-secured and the end of this case.

As for the remaining issues:

First, the Term Lenders had an enforceable security interest in the fixtures at GM Lansing Delta Township, an integrated assembly and stamping plant. While the time for the Avoidance Trust to have challenged the perfection of that lien passed long ago, the only evidence at trial confirmed the obvious: a prospective purchaser of or lender to GM would, at a minimum, be put on constructive notice that the bold-faced legend "**GM Assembly Lansing Delta**" meant that the Term Lenders had a lien on the fixtures at that plant.

Second, the Term Lenders also held a perfected security interest in the fixtures at GM Powertrain Engineering Pontiac. It is undisputed that the Term Lenders were granted a security interest in the GM Metal Fabricating Division Pontiac plant, and all machinery and equipment located on land or in facilities "related or appurtenant" thereto. The only evidence at trial on this issue established beyond doubt that Powertrain Engineering Pontiac was related or appurtenant to the adjoining manufacturing plant located on the Pontiac North Campus.

PROPOSED FINDINGS OF FACT: OVERVIEW

I. The Term Loan and Security Interest

1. General Motors Corporation (“Old GM”) was the borrower under a \$1.5 billion secured loan (the “Term Loan”) governed by a Term Loan Agreement among Old GM, Saturn Corporation (“Saturn”), JPMorgan Chase Bank, N.A. (“JPMorgan”) as administrative agent, and a syndicate of lenders (with JPMorgan, collectively, the “Term Lenders”). Amended Joint Pretrial Order Stipulated Fact (“Pretrial Order”) ¶ 44; JX1. Under the governing Collateral Agreement, the Term Loan was secured by, among other things, Old GM’s and Saturn’s equipment, fixtures and related general intangibles at “any plant or facility of [GM] listed on Schedule 1, including all related or appurtenant land, buildings, Equipment and Fixtures.” Pretrial Order ¶ 69; JX2 at 6, 35-37, 40-43.

2. The Term Lenders’ security interests were perfected by: (a) an umbrella UCC-1 financing statement filed in Delaware covering equipment, fixtures, and related intangibles at 42 GM plants and facilities; (b) an additional Delaware UCC-1 filing covering Saturn assets; and (c) 26 fixture filings filed in county real estate records that covered the fixtures at 26 plants plus the fixtures located at facilities that were on “related” land or that themselves were “related” to the 26 plants. Pretrial Order ¶¶ 47-52; DX127.

3. The Second Circuit has held that (as to JPMorgan) the umbrella UCC-1 financing statement was not effective as of the Petition Date due to the filing of an erroneous termination statement in October 2008. *In re Motors Liquidation Co.*, 777 F.3d 100 (2d Cir. 2015).

4. The Term Loan Agreement contained a covenant requiring that the borrowers not permit the ratio of “Collateral Value” — defined as “aggregate net book value” — to the aggregate unpaid principal amount under the Term Loan to fall below 2.5. JX1 at 11, 45. The Term Loan Agreement also required GM to deliver collateral value certificates to JPMorgan, as administrative agent, certifying that the ratio was at or above the contractual requirement. JX1 at 38-39; Duker Dep. 58:16-59:7, 59:23-60-14.

5. From the origination of the loan until GM's bankruptcy filing, GM delivered collateral value certificates documenting its compliance with the ratio requirement. PX23. The collateral value certificates were based on the net book value of the Term Loan collateral as reflected on GM's books and records. *Id.*; Duker Dep. 61:5-23. According to a collateral value certificate delivered by GM to JPMorgan on or about May 28, 2009, only three days before GM's bankruptcy filing, the Term Loan collateral had an aggregate net book value of more than \$5.6 billion dollars as of March 31, 2009. PX23 at 22-24. JPMorgan relied on the accuracy of GM's collateral value certificates. Duker Dep. 110:24-111:10.

PROPOSED FINDINGS OF FACT: VALUATION

II. The GM Bankruptcy and Section 363 Sale

A. Pre-bankruptcy support for GM by the U.S. Government

6. In 2008, as a result of a decline in market demand for full-size trucks and SUVs, rising oil prices and overall economic conditions, as well as rising structural costs relating to labor, GM was facing financial difficulties including impaired liquidity. Pretrial Order ¶¶ 1-9; Tr. 1801:24-1802:14 (Worth); Keller Direct ¶¶ 22-25. GM North America's operating loss in 2005 totaled \$9.5 billion. Although the loss at GMNA was reduced to \$6.2 billion in 2006 and \$1.2 billion in 2007, the company lacked sufficient liquidity in 2008 when economic conditions caused a precipitous drop in vehicle demand in North America. Keller Direct ¶ 22.

7. Although GM's financial position was deteriorating, its products were improving. GM retired over a dozen outdated models between 2005 and 2009. GM's product quality was also rising, as measured by a drop in customer complaints and reported problems. GM's manufacturing performance had likewise improved, as measured by the numbers of hours needed to assemble vehicles as compared to competitors. DX13 at 18-19; Keller Direct ¶¶ 26-27.

8. GM retained Evercore in June 2008 to advise on the company's liquidity position and alternatives to raise capital. Over the following year, Evercore advised GM on potential transactions and restructuring options, including Old GM's bankruptcy and the section 363 sale.

J. Stephen Worth of Evercore, a lead member of the Evercore team advising GM, testified at trial regarding Evercore's work on behalf of GM. Tr. 1801:24-1805:6 (Worth).

9. In November 2008, GM turned to the United States Government for assistance in addressing its liquidity challenges. GM initially received a three-year, \$13.4 billion secured bridge loan through the Troubled Asset Relief Program ("TARP"). In April 2009, Old GM received a second TARP loan of \$2 billion. On May 20, 2009, Old GM received a third TARP loan of \$4 billion. Pretrial Order ¶¶ 17-18, 20-26; Keller Direct ¶¶ 29, 149.

10. In connection with its requests for government assistance, GM management prepared a series of projections setting forth its plans for sustained profitability, known as the "Viability Plans." Pretrial Order ¶¶ 28-30; DX12 (VP1); DX13 (VP2); DX14 at 100-07 (VP4); Keller Direct ¶ 29. As financial advisor to GM, Evercore was involved in the "development" of the projections included in the Viability Plans. Tr. 1858:21-23 (Worth).

11. GM's projections, and in particular the projections used in connection with Old GM's bankruptcy filing and the section 363 sale, "were developed after a significant amount of iteration with the U.S. Treasury and their advisers," including the U.S. Treasury's Auto Task Force and Rothschild as financial advisor to the Auto Task Force. Tr. 1853:5-22 (Worth). Between November 2008 and June 2009, the U.S. Treasury scrutinized each set of GM's projections and required the company to revise the projections multiple times. Pretrial Order ¶ 29; Keller Direct ¶¶ 30-41.

12. On March 30, 2009, the U.S. Treasury's Auto Task Force rejected the "VP2" viability plan on the basis that its market share and pricing projections were too optimistic. DX14 at 103; Keller Direct ¶ 31.

13. In a statement on March 30, 2009 concerning the viability plan process, President Obama noted that Old GM might need to use the "bankruptcy code as a mechanism to help them restructure quickly and emerge stronger," by using the "existing legal structure as a tool that, with the backing of the U.S. government, can make it easier for General Motors . . . to quickly

clear away old debts that are weighing [it] down so that [it] can get back on [its] feet and onto a path to success.” DX276 at 5.

14. During the months leading up to the bankruptcy filing on June 1, 2009, the U.S. Treasury and Old GM negotiated with GM’s unions and with bondholders regarding a restructuring of Old GM’s liabilities that would occur in connection with a chapter 11 case. Ultimately, both the UAW and a majority of Old GM bondholders agreed to support the restructuring. The UAW reached an agreement with the U.S. Treasury under which New GM would provide UAW retirees with 17.5% of the equity of New GM, plus \$6.5 billion in preferred stock and warrants for 2.5% of the equity, and would also enter into modified collective bargaining agreements with the UAW. JX6 at 9-10. Old GM’s bondholders likewise reached an agreement with the U.S. Treasury under which Old GM — for the benefit of its unsecured creditors — would receive 10% of the common equity of New GM and warrants to purchase an additional 15% of New GM’s equity. Pretrial Order ¶ 36; DX9 at 12.

15. GM released its “VP4 Plan” on April 27, 2009. DX14. That plan incorporated more conservative market share and dealer inventory assumptions than previous viability plans. Keller Direct ¶ 35 (citing DX14).

16. On May 30, 2009, the VP4 projections were further modified by GM management to include the projected effects of a bankruptcy filing. The U.S. Treasury concluded that this plan — “VP4_b” — was viable and cited the revised projections as a basis for its decision to advance more than \$30 billion in additional financing in the form of a DIP loan. Pretrial Order ¶ 30; DX277 at 2. The Obama administration concluded more broadly that the negotiated labor concessions, cost reductions, elimination of low volume brands and streamlining of GM’s dealer network would allow GM to continue as a “stronger, leaner, and more competitive” company. DX277 at 1.

17. The VP4_b projections were ultimately provided to the Bankruptcy Court and, as discussed below, were used by KPMG in conducting an enterprise valuation of New GM. Keller Direct ¶ 36; DX141 at 63.

B. Old GM's bankruptcy filing

18. On June 1, 2009, Old GM filed a voluntary chapter 11 petition in this Court to effectuate the agreements reached with the U.S. Treasury, the UAW and bondholders, among others. On the same day, Old GM filed a motion pursuant to section 363 of the Bankruptcy Code (the "Sale Motion") proposing to sell substantially all of its manufacturing assets as a going concern to an entity sponsored by the U.S. Treasury and Export Development Canada ("New GM"). Pretrial Order ¶¶ 31-32; DX4; DX1.

19. The terms of the section 363 sale were the product of "extensive, arm's-length negotiations among the parties" prior to June 1, 2009. DX4 at 4, 8. The Old GM board approved the sale terms at a meeting held on May 31, 2009. Tr. 1809:11-22 (Worth).

20. On June 1, 2009, GM also filed a motion for approval of a \$33 billion DIP facility funded by the U.S. Treasury and Export Development Canada (the "DIP Motion"). Pretrial Order ¶ 37; DX3. The DIP Motion and accompanying papers made clear that the DIP financing and sale were inextricably linked — the DIP agreement included as an "event of default" the failure to obtain Court approval of the section 363 sale by July 10, 2009. DX3 at 6, 12-13. The DIP Motion stated that the post-petition financing would fund the Debtors' operations pending the proposed sale and was "necessary to preserve going concern value." DX3 at 3, 28. The DIP Motion sought approval of immediate, interim loans of up to \$15 billion and final loans of up to \$33.3 billion. Pretrial Order ¶ 37; DX3 at 3, 27.

21. The primary goal of the section 363 sale was "unquestionably" to preserve the going concern value of GM. Tr. 1812:5-8 (Worth). As stated in the Sale Motion, "[t]he result of the sale will be the continuation of the business represented by the assets to be sold," so that New GM — like its predecessor — would be "one of the leading automotive manufacturers in the world." DX4 at 3. The goal of the negotiations between the U.S. Government and Old GM was to "preserve the going concern value of the GM enterprise" for the benefit of all stakeholders and in the "national interest." DX4 at 4.

22. The Sale Motion contemplated that New GM would purchase Old GM's assets with a credit bid that would include Old GM's pre-petition TARP loans and the vast majority of the DIP financing. DX4 at 9. As additional consideration, New GM agreed to distribute to Old GM — for the benefit of Old GM's unsecured creditors — 10% of the common equity of New GM, plus warrants to purchase an additional 15% of New GM's stock. Pretrial Order ¶ 36; DX4 at 9. As described further below, Old GM's financial advisor, Evercore, estimated that the total purchase price paid to Old GM was between \$91.2 and \$93.6 billion, and valued the common equity and warrants provided to Old GM at \$7.4 to \$9.8 billion. JX3 at 106.

23. At the first-day hearing of the Old GM chapter 11 case, counsel for an ad hoc group of unsecured bondholders explained to the Court that the New GM equity and warrants that would be provided to Old GM — for the benefit of unsecured creditors — resulted from extensive negotiations between the bondholders and the U.S. Government. Counsel to the ad hoc group represented that holders of 54% of the approximately \$27.2 billion in aggregate principal amount of GM bonds had agreed to support the proposed 363 sale. Bk. Docket No. 374 (June 1, 2009 Tr.) at 86-88; Tr. 1811:7-23 (Worth).²

24. As a result of the agreement reached to provide Old GM with 10% of New GM's common equity plus warrants, unsecured creditors of Old GM stood to receive — and ultimately did receive — a substantial portion of the going-concern value that the proposed sale sought to preserve. Tr. 1837:4-18 (Worth); JX3 at 96-97.

25. As reflected in the Amended Master Purchase and Sale Agreement dated June 26, 2009, Old GM's proposed disposition of the vast bulk of the Term Lenders' collateral as of the relevant valuation date, June 30, 2009, was for New GM to continue the use of the assets in place as part of a going concern. Pretrial Order ¶¶ 31-35; DX2. There is no genuine dispute on this point. The Avoidance Trust's valuation expert, Professor Daniel Fischel, testified that, as of

² “Bk. Docket No.” refers to docket entries in *In re Motors Liquidation Co.*, No. 09-50026. “Docket No.” refers to docket entries in this adversary proceeding.

June 30, 2009, the proposed disposition of the vast bulk of the collateral was that “New GM would acquire the collateral to enable new GM to use those assets as part of its going concern.” Tr. 2557:5-2558:14. The Avoidance Trust’s appraisal expert, David Goesling, likewise agreed that a going concern sale to New GM was the proposed disposition of most of the collateral, that New GM was expected to be a profitable enterprise, and that “the 363 sale and attendant arrangements were in place” as of June 30, 2009. Tr. 3360:7-3362:6 (Goesling). And in its Pretrial Brief, the Avoidance Trust stated that “[t]he proposed disposition of the Representative Assets was to sell them to [New GM] in a 363 sale.” Pls. Pretrial Br. 6. All of the evidence from the Term Lenders’ experts is in accord. Tr. 2486:22-2487:12 (Hubbard); Tr. 1886:15-1887:8, 2002:16-2003:7 (Chrappa); Hubbard Direct ¶¶ 230-40; Keller Direct ¶¶ 140-41, 148-55; Chrappa Direct ¶¶ 31-33; Lakhani Direct ¶¶ 21-24.

C. Evercore’s fairness opinion

26. Prior to Old GM’s bankruptcy filing, Evercore prepared a fairness opinion for the board of Old GM, in which it concluded that the 363 sale transaction was “fair, from a financial point of view, to” Old GM, and was preferable to liquidation. JX3 at 16-23; Tr. 1813:8-1814:7 (Worth). Evercore presented its fairness opinion to Old GM’s board of directors on May 31, 2009, and Old GM submitted the opinion and accompanying valuation materials to the Bankruptcy Court in support of the 363 sale. JX3.

1. Evercore’s enterprise valuation

27. In connection with its fairness opinion, Evercore conducted a valuation of New GM and calculated the purchase price paid by New GM for Old GM’s assets. JX3 at 105, 107.

28. In conducting its valuation of New GM, Evercore considered both the base case and the downside case that GM management had prepared in connection with its viability plans. Tr. 1817:13-1819:14 (Worth); JX3 at 105, 112-13. Although GM management prepared those projections and directed Evercore to rely on them, Evercore had assisted GM with the projections and was comfortable relying on them for purposes of its valuation work. Tr.

1822:20-23. As noted, the projections were the result of “quite a lot of discussion” between GM and the U.S. Treasury about GM’s business plans, including the “number of brands [and] number of dealers, and these projections were developed after a significant amount of iteration with the U.S. Treasury and their advisors.” Tr. 1853:5-22 (Worth).

29. Evercore valued New GM using three standard approaches: a Discounted Cash Flow (“DCF”) approach; a Trading Multiples approach, which involved applying multiples to New GM’s projected revenue; and a Present Value of Future Equity approach, which was a “blend between the multiples analysis and the discounted cash flow” and “involved discounting back the future share price at the cost of equity back to the valuation date.” JX3 at 105; Tr. 1820:3-1821:18 (Worth).

30. Evercore concluded that New GM’s equity had a value in the range of \$38 billion to \$48 billion. JX3 at 105. In reaching this conclusion, Evercore relied primarily on the DCF and the Present Value of Future Equity approaches and used the values that resulted from those approaches in “the bottom two-thirds of the base case and the top two-thirds of the downside case.” Tr. 1822:4-14 (Worth); JX3 at 105.

31. Using the DCF methodology in particular, Evercore calculated an equity value for New GM of \$37.3 to \$53.9 billion in the base case and \$33.6 to \$49.8 billion in the downside case. JX3 at 114, 105.

32. A key input to the DCF valuation was New GM’s weighted average cost of capital (“WACC”) — which Evercore concluded should be 10.6%. DX191 at 67. Based on the 10.6% WACC, Evercore derived a WACC range of 9.5 to 11.5%, which it applied in both its base case and its downside case analysis. JX3 at 105, 114; Tr. 1823:12-24 (Worth).

33. Evercore’s WACC analysis was based on standard inputs including market risk, the risk-free Treasury rate, the cost of debt, and the beta, which is intended to capture the company’s “underlying business risk relative to the market.” Tr. 1830:19-23 (Worth); DX191 at 67. To determine the beta for New GM, Evercore calculated an “unlevered beta,” which

reflected New GM's "baseline business risk," and then re-levered the beta using the target capital structure of New GM. Tr. 1830:24-1831:22 (Worth); DX191 at 67.

34. Evercore calculated an unlevered beta for New GM of 0.85%. DX191 at 67. In determining this figure, Evercore looked both to recent betas of comparable companies, as well as Old GM's observed raw betas. DX191 at 68. Ultimately, in light of GM's risk profile after its restructuring, Evercore was "swayed more by the business risk inherent in the pure set [*i.e.*, the figures for comparable companies] than [it was] in any recently observable data by General Motors." Tr. 1829:16-1830:17 (Worth).

35. In calculating the WACC for New GM, Evercore did not use a company-specific risk premium. Tr. 1831:24-1832:3 (Worth). Evercore concluded instead that "the beta was sufficient to capture company-specific risks." Tr. 1832:4-7 (Worth). As Mr. Worth explained at trial:

[T]he business risk of a reasonably capitalized automotive OEM was observable in the market through an analysis of its peers, which is how we derived the .85. And we felt the relevering of the beta based on a capital structure of new GM was the best way to factor in the risk inherent in the capital structure of the new company. So business risk, capital structure risk both embedded in the levered beta. (Tr. 1832:14-1833:4 (Worth)).

36. Evercore concluded that the reasonable range for New GM's WACC was 9.5 - 11.5 percent. Tr. 1826:10-13. Evercore captured the risk that GM would not meet its projections by using the downside projections prepared by GM management rather than just the base case. Tr. 1817:13-1818:11 (Worth) ("The difference between the base case and the downside case was some level of conservatism on the long term or medium term of the prospects of the company once out of bankruptcy."); JX3 at 105.

2. Evercore's purchase price calculation

37. In addition to its enterprise valuation, Evercore calculated the purchase price paid by New GM to compare that price to AlixPartners' liquidation analysis on an "apples-to-apples"

basis. JX3 at 107; Tr. 1837:22-1838:19 (Worth). According to Evercore, the purchase price consisted of the following elements:

a) *Credit Bid of \$48.7 billion.* Evercore calculated the funding provided in connection with the credit bid as \$52.7 billion, the sum of the \$19.4 billion in prepetition TARP loans plus the \$33.3 billion in DIP financing. JX3 at 104. The \$33.3 billion DIP facility was allocated as follows: \$5.9 billion for repayment of Old GM's secured debt, including the Term Loan; \$7.0 billion of funding for Delphi and other suppliers; \$2.1 billion in dealer financing; and \$18.3 billion to address other obligations. Evercore also added \$2.8 billion in warrant notes that had been granted to the U.S. Treasury in December 2008, and subtracted the \$6.7 billion in U.S. Treasury debt that New GM would assume rather than bidding in. The credit bid thus was valued at \$48.7 billion. JX3 at 107, 104; Tr. 1841:14-1847:7 (Worth).

b) *Assumed Liabilities of \$48.4 billion.* In calculating the purchase price, Evercore also included the Old GM liabilities assumed by New GM. Tr. 1838:5-23 (Worth); JX3 at 107.

c) *Equity and Warrants in NewCo of \$7.4-9.8 billion.* Based on its New GM equity valuation of \$38 to \$48 billion, Evercore calculated the value of 10% of the equity in New GM at \$3.8 to \$4.8 billion, and valued the warrants that would be given to Old GM (using a Black-Scholes model) at \$3.6 to \$5.0 billion, for a total value of equity and warrants of \$7.4 to \$9.8 billion. JX3 at 106, 127.

38. These items summed to a total purchase price of \$104.5 to \$106.9 billion. Evercore subtracted from that total the \$13.4 billion in cash that was transferred to New GM, resulting in a net purchase price of \$91.2 to \$93.6 billion. JX3 at 107. Evercore compared this total net purchase price to the liquidation value of Old GM's assets calculated by AlixPartners, and concluded that the purchase price paid by New GM to purchase Old GM's assets as a going concern was much higher than the value that would be obtained in a hypothetical liquidation scenario. JX3 at 107; Tr. 1837:22-1838:19 (Worth).

D. The Court's approval of the section 363 sale

39. The Court approved the DIP loan on June 25, 2009. Pretrial Order ¶ 41; DX10. On June 30, 2009, GM drew on the DIP facility and repaid the Term Loan and other outstanding secured debt. Pretrial Order ¶ 54. The \$33 billion DIP loan was funded and used for the credit bid. Tr. 1844:23-1845:6 (Worth); JX3 at 104.

40. By June 30, 2009, in addition to the substantial support that GM had on the first day of its bankruptcy case for the proposed sale, GM had the support of the Official Committee of Unsecured Creditors, the predecessor in interest in this action to the Avoidance Action Trust. While objecting on narrow grounds to language in the sale order that would cut off state-law successor liability claims, the Creditors Committee made clear in a June 24, 2009 filing that it “support[ed] the proposed asset sale” as the best alternative to “preserve the going-concern value of the Debtors’ businesses.” DX9 at 7. The remaining objections to the sale were comparatively few and represented a small portion of the overall claims against GM, such as an ad hoc committee of bondholders holding approximately .01% of GM’s unsecured bonds. JX8 at 10.

41. On July 5, 2009, the Court approved the section 363 sale on substantially identical terms to those proposed on June 1, 2009. Pretrial Order ¶ 42; JX8; *In re Gen. Motors Corp.*, 407 B.R. 463 (Bankr. S.D.N.Y. 2009). In its opinion filed on July 5, the Court emphasized that the sale would “preserve the going concern value” of GM and cited the Evercore fairness opinion as showing that “the purchase price was fair to GM, from a financial point of view.” JX8 at 21-22, 47; *In re Gen. Motors Corp.*, 407 B.R. at 480-81. The Court also concluded that New GM, as the purchaser, had acted in good faith and that “the 363 Transaction was the product of intense arms’-length negotiations” among the parties. JX8 at 48; *In re Gen. Motors Corp.*, 407 B.R. at 494.

42. In the Court’s order approving the sale, the Court reiterated that the section 363 transaction was “negotiated, proposed, and entered into . . . in good faith, and from arm’s-length bargaining positions.” Bk. Docket No. 2968 ¶ Q. The Court also found that, in exchange for “substantially all” of its assets, Old GM would receive consideration that would include:

“(i) cancellation of billions of dollars in secured debt; (ii) assumption by the Purchaser of a portion of the Debtors’ business obligations and liabilities that the Purchaser will satisfy; and (iii) no less than 10% of the Common Stock of the Purchaser as of the Closing (100% of which the Debtors’ retained financial advisor values at between \$38 billion and \$48 billion) and warrants to purchase an additional 15% of the Common Stock of the Purchaser as of the Closing, the combination of which the Debtors’ retained financial advisor values at between \$7.4 billion and \$9.8 billion. . . .”

Id. ¶ T. The Court’s order also expressly recognized that “[t]he consideration provided by the Purchaser for the Purchased Assets” is “fair and reasonable.” *Id.* ¶ 50.

43. Following the approval of the sale, certain objecting creditors moved for certification of a direct appeal to the Second Circuit and for a stay. In opposing those motions, the Creditors’ Committee — again, the predecessor in interest to the Avoidance Trust — expressly invoked the Evercore enterprise valuation of \$63.1 to \$73.1 billion, arguing that “a stay of the transaction risks total value to all GM creditors” equal to the difference between the Evercore-calculated going-concern value and liquidation value. Bk. Docket No. 3028 at 6-7, 14-15, 24-25.

44. The Court denied the stay motions, pointing to the same Evercore valuation as “persuasive[.]” evidence of the losses that unsecured creditors and others would face in the event of a liquidation. Bk. Docket No. 3046 at 1-2.

45. The section 363 sale closed on July 10, 2009. Pretrial Order ¶ 43; *see also* Docket No. 3106 (Amended Notice of Change of Case Caption) at 2. Between the bankruptcy filing on June 1, 2009 and the closing of the section 363 transaction on July 10, 2009, Old GM never proposed to liquidate its assets rather than selling the assets to New GM as a going concern. Tr. 1812:9-14 (Worth). Mr. Worth of Evercore did not know what would have happened had the sale not been approved, and Evercore did not conduct an analysis of that counterfactual scenario. Tr. 1854:6-18 (Worth).

III. KPMG's RCNLD Values

A. KPMG's engagement by New GM

46. Following the closing of the section 363 sale, KPMG LLC's Economic and Valuation Services practice was retained by New GM to provide an opinion regarding the fair value of total invested capital ("TIC") and certain assets, liabilities and equity interests acquired by New GM as of July 10, 2009. DX141 at 2.

47. An important part of KPMG's assignment was to provide New GM with "individual opinions of value" with respect to each of the hundreds of thousands of individual assets that New GM purchased. Tr. 1336:24-1337:15; DX364 (spreadsheet showing KPMG's valuations of building and improvement assets); DX365 (spreadsheet showing KPMG's valuations of machinery and equipment assets). Although the KPMG Report, discussed below, included charts with aggregate values of individual assets, "[t]he values for the individual plant property and equipment assets were provided to GM's accounting team in an electronic format, in a large spreadsheet." Tr. 1337:19-25 (Furey).

48. KPMG determined the values of 33³ of the 39 Representative Assets.⁴ As explained in detail below, KPMG determined each asset's replacement cost new adjusted for physical depreciation, functional obsolescence and capacity-based economic obsolescence (the "RCNLD"), and then made a further adjustment based on GMNA's overall Total Invested Capital (the "TIC Adjustment"). Thirty of the Representative Assets were valued as part of KPMG's valuation of machinery and equipment, *see* DX151A, and three were valued as part of

³ The parties have agreed they will not present evidence regarding the value of Asset 39, the Core Box Robot, at trial. However, this asset was valued by KPMG.

⁴ Several of the individual assets appear on multiple entries in KPMG's asset valuation spreadsheets. Such a "parent child" relationship would exist between entries when, after an original asset was placed in service, additional cost relating to the asset was capitalized. Tr. 1493:20-1494:10 (Furey). Examples of such capitalized line items include repairs or additional control systems. *Id.* These capitalized repairs, additions and improvements are included in the value of the Representative Assets.

KPMG's valuation of buildings and improvements, *see* DX150A.⁵ The values determined by KPMG are summarized in the Joint Valuation Chart, which was jointly submitted by the parties.⁶

49. Patrick Furey, a managing director in KPMG's economic and valuation services practice, testified at trial concerning KPMG's valuation work for New GM. Tr. 1322:24-1323:9. Mr. Furey is an accredited senior member of the American Society of Appraisers in the area of machinery and technical specialties and a member of the Royal Institution of Charter Surveyors. Tr. 1324:21-1325:3. In 2009, Mr. Furey was a senior manager with KPMG and led the 16-person team that valued assets classified as "Personal Property," which consisted primarily of machinery and equipment. Tr. 1328:21-1329:5.

50. KPMG's classification of assets as "personal" or "real" property for purposes of its valuation work is irrelevant for determining whether any asset is a "fixture." KPMG did not consider or make any judgment about state real estate law in defining assets as "personal" or "real" property. Tr. 1366:9-17, 1484:18-1485:10 (Furey).

51. Mr. Furey managed the machinery and equipment team as it conducted site visits, data gathering, interviews and other aspects of the valuation process. Tr. 1329:6-14. Mr. Furey spent nine months working on the GM engagement; during most of that period, he worked full time on the engagement. Tr. 1326:9-25.

⁵ Of the Representative Assets, two assets (asset numbers 10 and 31) are identified in KPMG's valuation spreadsheet (DX365) as "removed from analysis," and the spreadsheet contains no concluded values for them (IDs 100041920, BUY11820901). Two assets are not included in DX365 because they were not part of the assets sold to New GM in the section 363 sale (IDs BF201682201 and BGI20163301). Two assets that are identified in GM's fixed asset ledger as sale/leaseback assets also do not appear in DX365 (IDs BUYR503469FA and BUYR503481FA).

⁶ The Joint Valuation Chart, attached to this brief as Exhibit A, is being submitted jointly with the Avoidance Trust at the request of the Court. It includes information regarding the values ascribed to the Representative Assets by KPMG, GM's eFAST ledger, and the parties' appraisal experts. The Term Lenders' Supplement to the Joint Valuation Chart (the "Supplemental Valuation Chart"), attached to this brief as Exhibit B, is submitted only by the Term Lenders to summarize additional valuation evidence addressed in this brief, including additional information requested by the Court.

52. Mr. Furey was a knowledgeable and credible witness concerning KPMG's determination of RCNLD values for the Representative Assets. Based on his testimony and work product from KPMG, it is evident that the RCNLD values calculated by KPMG were the result of a thorough process intended to yield estimates of the fair values of the assets sold to New GM prior to any TIC Adjustment.

53. The written testimony offered by the Avoidance Trust's accounting expert, Gordon Klein, that "KPMG's principal task was to determine aggregate 'Subject Asset' balance sheet values, not to determine individual-level asset values" (Klein Direct ¶ 58), is squarely contradicted by the record. As Mr. Furey testified repeatedly, KPMG provided New GM with "individual opinions of value" for each of the relevant assets. Tr. 1336:24-1337:15, 1352:23-1353:6. KPMG's "analysis was done at the asset level," and the aggregate summaries prepared by KPMG represented the sum of its individual asset values. Tr. 1464:20-1465:16 (Furey).

54. Indeed, Mr. Klein recanted his opinion at trial based on Mr. Furey's testimony and acknowledged that providing a value for each individual asset *was* a "principal task" of KPMG's assignment, as Mr. Furey had made clear. Tr. 2715:6-2716:4, 2717:12-15.⁷

B. The KPMG Report

55. KPMG's valuation work for New GM was presented and summarized in a document dated April 5, 2010 entitled "General Motors Company: Valuation of Total Invested Capital and Certain Assets, Liabilities and Equity Interests of General Motors Company As of July 10, 2009" (the "KPMG Report"). The KPMG Report consists of a 241-page narrative report and 317 additional pages of appendices and schedules. DX141.

⁷ Mr. Klein continued to insist that KPMG "never completed" its valuation task because KPMG did not incorporate a post-RCNLD balance sheet adjustment into its final concluded values. Tr. 2715:21-2716:4. However, GM's fixed asset ledger records as its Gross Book Values the "Fresh Start Value provided by KPMG," which reflects final individual asset values taking into account the balance sheet adjustment. DX33 at 1; *see also* Section IV.A below.

56. KPMG conducted multiple levels of review to ensure that the KPMG Report was free from factual errors, inconsistencies, or conflicting assumptions. In general, the first draft of a particular section of the KPMG Report was prepared by a KPMG senior associate or manager with a particular valuation group. It was then reviewed by a senior manager, such as Mr. Furey, further reviewed by a managing director, and then reviewed by the lead partner and other partners on the engagement. Tr. 1333:9-1334:5 (Furey).

57. Beyond the KPMG Report, KPMG created work papers — including spreadsheets — that contain additional conclusions and analyses. The introduction to the KPMG Report states: “Our working papers contain the documentation that sets forth our analyses and support our conclusions.” DX141 at 4.

58. Contrary to Mr. Klein’s assertion, the work papers do *not* “merely present supporting calculations” as opposed to conclusions themselves. Klein Direct ¶ 20. As Mr. Furey testified, KPMG’s opinions of value on a *categorical* level are summarized in the KPMG Report, including in Schedule 6.1 of the report, but KPMG’s opinions concerning the values of *individual assets* were separately provided to New GM in spreadsheet form. Tr. 1336:24-1338:10; DX364; DX365; DX141 at 366. Mr. Furey also explained that, while KPMG’s methodologies and assumptions are summarized in the KPMG Report, the work papers have a “further level of granularity around the individual assumptions, and some of the supporting data that was used to reach those assumptions.” Tr. 1338:11-25 (Furey).

59. At trial, Mr. Klein again revised his prior testimony regarding KPMG, “accept[ing]” Mr. Furey’s testimony that KPMG’s spreadsheets “were indeed part of their final conclusions.” Tr. 2721:22-2722:7. Notably, KPMG’s spreadsheets, versions of which were cited in Mr. Klein’s expert report, expressly include a column for the “Concluded Value” of individual assets. DX151A at 2-3. And yet Mr. Klein still testified that KPMG’s work papers had no such concluded values. Klein Direct ¶ 20.

C. Summary of KPMG's valuation work

1. The premise of value applied by KPMG

60. In valuing the assets sold to New GM, KPMG applied the "fair value" standard set forth in the Financial Accounting Standards Board's Accounting Standards Codification 820 ("ASC 820," formerly known as Statement of Financial Accounting Standards No. 157), which provides that fair value is "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date." DX172 at 9; *accord* DX141 at 3; Tr. 1339:5-1340:16 (Furey).

61. Consistent with this fair value standard, KPMG considered the "highest and best use of the asset," which "should reflect the highest value that could be realized for [an] asset" so long as that use is feasible and legally permissible. Tr. 1340:17-1341:24 (Furey).

62. KPMG valued New GM's assets "as part of a going concern business," a valuation premise known as "value in use." The valuation approach "presumes the continued utilization of the assets as a component of the business in connection with all other assets." DX141 at 4. Mr. Furey testified that "the value in use yielded the highest and best use in [KPMG's] opinion." Tr. 1342:8-1343:9; *accord* DX172 at 10.

63. In valuing the assets sold to New GM as of July 10, 2009, KPMG applied a "market participant assumption," meaning that the valuation of an asset was "independent of it being specifically held by GM." Tr. 1553:5-10 (Furey). The assets were valued "as configured and utilized by a market participant," whether it was New GM or another market participant using the assets in accordance with their highest and best use. Tr. 1552:25-1553:10; Tr. 1528:16-22 (Furey). Thus, as Mr. Furey made clear, KPMG did not conclude that the assets had a different value in the hands of New GM than they would have in the hands of Old GM or another party. Tr. 1528:13-16.

2. KPMG's valuation process

64. KPMG's valuation was a massive undertaking. KPMG spent approximately nine to ten months working on the valuation. Tr. 1332:17-22 (Furey). In all, approximately 57

KPMG “Valuation Specialists” worked on the asset-by-asset valuation. DX141 at 246; Tr. 1331:21-1333:8 (Furey).

65. In conducting the valuation of GM’s fixed assets, KPMG’s machinery and equipment team and its real property team had extensive access to GM’s facilities and to its engineers and management. KPMG’s valuation teams conducted site visits to 15 GM manufacturing facilities in North America, in order to “verify the accuracy of the underlying information that was provided to [KPMG],” and KPMG was able to make “specific, in some cases, asset-by-asset adjustments to reflect the results of the site visits.” Tr. 1467:9-24 (Furey); DX141 at 125.

66. KPMG conducted “countless meetings with [GM’s] engineering and management teams to understand situations where there were adjustments that needed to be done, either at the asset level, line level, or in some cases even in a facility level.” Tr. 1467:9-24 (Furey). Mr. Furey and his team met with GM personnel two to three times each week, including making weekly visits to the Warren Technical Center to review drafts and discuss adjustments. Tr. 1467:25-1468:18 (Furey). KPMG valuation professionals met with line-level managers in order to understand the day-to-day operation of GM facilities, and with senior corporate personnel to discuss higher-level issues and KPMG’s conclusions. Tr. 1468:19-1469:11 (Furey).

3. KPMG’s valuation methodology

67. KPMG considered three generally recognized valuation approaches — the cost approach, income approach and market approach — for determining the value of GM’s plant, property and equipment, and primarily used the cost approach. Tr. 1366:25-1369:18 (Furey); *see also* DX141 at 107, 126-27, 140; DX354 at 12-13.

68. Under the cost approach, an appraiser “estimate[s] the replacement cost of the current functionality that exists within the subject assets, and then adjust[s] that for various forms of obsolescence, including physical depreciation, functional obsolescence, and economic obsolescence.” Tr. 1367:18-1368:3; *accord* DX141 at 126.

69. Under the market approach, “the fair value reflects the price at which comparable assets . . . are purchased under similar circumstances.” DX141 at 56. This approach values an asset “based on either identical or comparable market transactions of very similar assets.” Tr. 1367:11-14.

70. The income approach “is generally a way of assigning value to an asset based on its ability to generate cash flows,” typically using the discounted cash flow method. Tr. 1367:3-10; DX141 at 127.

71. As Mr. Furey testified, the cost approach is the “predominant method” used by valuation specialists for valuing complex manufacturing assets and is the preferred approach for “custom configured assemblages of assets” such as those sold to New GM. Tr. 1368:4-1369:2. Plaintiff’s appraisal witness, David Goesling, and the Term Lenders’ expert, Carl Chrappa, agreed that the cost approach is the appropriate method to value manufacturing assets in continued use. Tr. 3428:8-13, 3511:24-3512:15 (Goesling); Chrappa Direct ¶¶ 37-39. The appraisal literature is in accord. DX354 (ASA Manual) at 116 (noting that for appraisals of an installed group of assets or industrial facility under fair market value in continued use premise, “the appraised value may be more appropriately found through the cost approach”); *id.* at 94 (“The sales comparison approach is not feasible when the subject property is unique, and it generally will not be feasible if an active market for the property does not exist. . . . When an inactive market exists, property might be better analyzed using the income or cost approaches.”).

72. According to Mr. Furey:

[I]f you think about an assembly plant, the value of that assembly plant is not just the value of the individual pieces of machinery that are sitting there. There is a large soft cost or indirect cost component that goes into that for things like engineering, assemblage, installation. So by trying to take one individual asset[] on a standalone basis and do a — say, a market approach on it. You would be potentially undercounting the value of that assemblage of assets that helps that product line produce whatever product it is that it’s produced. Tr. 1368:4-1369:1 (Furey).

73. In choosing the cost approach over the market approach, KPMG concluded that it lacked adequate comparable transactions for the assets being sold to New GM, since “most of the comparables that we had were liquidation sales of much older assets, and we didn’t feel that those were good comparables for the assets that New GM was trying to value.” Tr. 1369:3-12 (Furey).⁸

74. KPMG concluded that the income approach also was not appropriate for valuing the individual assets, because it was “not reasonable to try to attribute revenue and expenses to individual assets within a complicated plant like GM runs.” Tr. 1369:13-18 (Furey); *accord* DX141 at 127 (stating that the income approach was not used because “it was not feasible to attribute income to the individual assets.”).

75. Similarly, with respect to assets within the category of Buildings and Improvements, KPMG concluded that the cost approach would in most cases be preferable to other approaches. As Mr. Furey explained: “for older, occupied properties such as most of the GM production facilities that are very specifically configured for the use they have, the cost approach is generally the preferred way of valuing those buildings given that they have limited comparables in the market.” Tr. 1497:2-20.

D. KPMG’s valuation of GM’s machinery & equipment

76. In order to calculate fair values for each of GM’s machinery and equipment assets, KPMG conducted a detailed, “ground up” valuation of each individual asset listed on New GM’s fixed asset ledger. Tr. 1360:2-1365:7 (Furey).

77. KPMG devoted tremendous resources to its “ground up” valuation of the hundreds of thousands of items on GM’s fixed asset ledger. In all, as many as 16 KPMG

⁸ Where such comparable transactions are lacking, the professional literature recognizes that the sales comparison approach is not feasible. *E.g.*, DX 354 at 13 (“The sales comparison approach would be impossible to use for a one-of-a-kind machine that has never been exposed to, or sold in, the marketplace.”), at 94 (“The sales comparison approach is most reliable when there is an active market providing a sufficient number of sales of comparable property that can be independently verified through reliable sources.”).

employees worked on the machinery and equipment team; a team of a similar size worked on the real estate valuation. Tr. 1332:17-1333:8 (Furey).

78. KPMG's opinions of the fair values of individual machinery and equipment assets was provided to GM in the form of a spreadsheet showing, among other things, the "individual adjustments that are made to each individual line item, as well as the fair value conclusions for each line item." DX364; DX365; Tr. 1369:20-1371:16 (Furey).

79. DX151A is a summary exhibit showing the 30 Representative Assets that appear in DX365 as well as the "key adjustments" needed to build up the RCNLD for each asset. DX151A; Tr. 1374:19-1375:5 (Furey).

1. Replacement cost new

80. The starting point of KPMG's RCNLD calculation for each asset was the calculation of "a theoretical replacement cost of the assets as of the valuation date." Tr. 1382:20-23 (Furey). The concept of replacement cost new is that "a prudent investor would pay no more for an asset than the amount for which the asset could be replaced." DX141 at 126.

81. KPMG calculated the replacement cost of the assets based on the "direct method" or the "indirect method."

82. *Indirect Method.* KPMG calculated the "indirect replacement cost" of each asset, sometimes called "cost of reproduction new" or "CRN," by multiplying the original installed cost of the asset by a trend factor. Tr. 1380:9-18 (Furey). KPMG determined the applicable trends on a categorical basis using published sources — in total, KPMG used 22 different trend factors. DX141 at 128; DX151A at 1. Trend factors are intended to account for inflation, but they vary significantly based on the type of asset involved. Tr. 1381:14-1382:17 (Furey); DX141 at 128. For certain assets, in particular technological assets, the trend is deflationary, because the asset can be replaced more cheaply with a more functional alternative. Tr. 1382:18-1383:10, 1385:5-19 (Furey).

83. Mr. Klein criticized the indirect method by arguing that assets with limited utility, such as a 2005 Blackberry, would have a high reproduction cost. Klein Direct ¶ 76. That criticism is unfounded. As Mr. Furey testified, the use of an appropriate trend factor — in particular, a negative trend factor for aging technology such as an old Blackberry — would address the issue raised by Mr. Klein and reduce the reproduction cost of the asset. Tr. 1385:5-19 (Furey). Mr. Klein also admitted that his example did not take into account any functional obsolescence that would apply to the Blackberry. Tr. 2771:25-2772:5.

84. *Direct Method.* To estimate the “direct replacement cost” of machinery and equipment, KPMG first determined, based on information provided by New GM management, the total replacement cost of the production equipment at a manufacturing facility. KPMG then allocated the facility-wide RCN by each asset’s proportionate share of the facility’s total indirect replacement cost, namely the historical cost of installation adjusted based on inflation metrics. DX141 at 131; Lakhani Direct ¶ 42; Tr. 1391:14-25 (Furey). KPMG’s methodology in applying the direct approach is set forth in a detailed memorandum prepared by Mr. Furey. DX153; Tr. 1386:15-1387:14 (Furey).

85. As part of its regular business, GM maintained what it called a “Bill of Process,” which defined the standard process and build sequence for each type of vehicle manufactured by GM. Ewing Direct ¶ 7. From the Bill of Process, GM developed a “Bill of Equipment” consisting of a “detailed plan that identified all the machinery and equipment (“M&E”) necessary to manufacture a vehicle.” Ewing Direct ¶ 7. GM compiled, tracked and updated this information regularly so that its manufacturing personnel could rely on the data in planning future projects. Ewing Direct ¶¶ 11-13. The Bills of Equipment, which included replacement cost information for GM’s manufacturing processes, were the basis for the replacement cost data that GM provided to KPMG. Ewing Direct ¶ 14-16.

86. Upon receiving the replacement-cost data from GM, KPMG reviewed the data and met with GM management to discuss it. Tr. 1388:23-1390:18 (Furey). KPMG considered GM’s benchmarking data to be reliable, because the GM teams providing the information were

“heavily involved in the construction and planning of these facilities” and KPMG “spent a lot of time reviewing those results with those same teams to make sure [KPMG was] getting to a reasonable answer.” Tr. 1393:21-1394:13 (Furey). Moreover, third-party sources were not available “given the unique nature of the assemblage of assets in most of the GM facilities.” Tr. 1500:18-24 (Furey).

87. GM provided the benchmarking data to KPMG on a line-by-line basis, meaning that if a facility contained multiple types of lines, such as assembly lines, body shop and paint, GM provided replacement cost estimates for each line; GM also provided replacement cost data for each individual stamping press. Tr. 1390:11-1391:11 (Furey); DX153 at 1; Ewing Direct ¶ 17. KPMG summed those line-by-line replacement costs to determine the replacement cost for each facility, which is included in Appendix A of KPMG’s cost benchmarking memo. DX153 at 2, 4-6.

88. As noted, to determine the direct replacement cost of the individual assets within a facility, KPMG allocated the facility-wide replacement cost to each asset based on its indirect replacement cost as a proportion of the indirect replacement cost of all the assets at the facility or on the line. DX141 at 131; Lakhani Direct ¶ 42; Tr. 1391:14-25 (Furey).

89. Mr. Klein tried without success to find fault with KPMG’s “direct method.” First, Mr. Klein criticized KPMG for using management inputs; but he could not be “more specific” in identifying third-party sources that would be more reliable, nor did he offer any basis for questioning GM’s internal benchmarking data. Tr. 2710:17-2712:18. Mr. Klein admitted that he *did not even read* KPMG’s memorandum explaining the cost benchmarking approach before issuing his report, and that he merely “skim[med]” Mr. Ewing’s critical testimony concerning GM’s benchmarking process. Tr. 2712:8-18, 2761:23-2762:9.

90. Mr. Klein also criticized KPMG for using facility-wide replacement cost numbers, arguing that it was a “formulaic” approach and “not a careful determination.” Klein Direct ¶¶ 70-71. At trial, he walked back this criticism, noting that the methodology was “acceptable” and that he “didn’t have the ability” to identify any errors. Tr. 2758:23-2760:16.

Moreover, as Mr. Furey explained, conducting replacement cost analysis on a facility or line level was not merely expedient, but was “appropriate, given that most of these assets represent an assemblage of assets that were put together to produce a certain product, rather than a collection of unrelated individual assets in that listing.” Tr. 1466:7-1467:8 (Furey). Mr. Klein had no answer to Mr. Furey.

91. *Choice of method.* After calculating asset values based on both the direct and indirect methods, KPMG “went through each facility on a line-by-line basis,” comparing the two approaches to determine which method to use. Tr. 1391:14-1393:20 (Furey). To check the “reasonableness” of the direct replacement cost for particular assets, KPMG looked at the indirect replacement costs of the assets and also analyzed the estimates in meetings with GM management. DX153 at 2; Tr. 1391:14-1393:20; 1397:7-1399:10 (Furey).

92. In general, KPMG preferred the direct method to the indirect method, because it “represents current costs, current technology.” Tr. 1392:11-13; 1397:16-1398:6 (Furey). As Mr. Furey testified, use of the direct method avoids the “excess capital costs” reflected in historical costs, which would be eliminated if GM were to build a brand-new facility with the latest technology. Tr. 1399:11-1400:19.

93. In some cases, however, KPMG determined that the indirect method was likely to provide a more accurate valuation estimate for a particular facility. For example, in some cases the indirect method captured assets that were outside the major production lines and therefore would not be included in the line-by-line direct replacement cost approach, but that KPMG, in discussion with GM, determined should be included in the value of the facility. Tr. 1391:14-1393:20, 1397:16-1399:10 (Furey).

94. Both the direct and the indirect method of determining replacement cost are generally accepted approaches and are used in guides published by the American Society of Appraisers. Tr. 1394:14-1395:11 (Furey); DX354 at 46-51.

95. Of the 30 Representative Assets that KPMG valued in the machinery and equipment portion of its Fresh Start Accounting exercise, 22 were valued using the direct

method, and eight were valued using the indirect method. DX151A at 2-3. Of the 30 GMNA facilities that KPMG evaluated as part of its valuation project, 24 were valued using the direct method and six were valued using the indirect method. DX141 at 130. The methodology used for each plant is noted on page 130 of the KPMG Report. DX141 at 130.

2. Physical deterioration

96. After estimating the replacement cost new for a particular asset, KPMG reduced that amount to account for physical deterioration. KPMG used the “age-life method” to calculate physical deterioration. DX141 at 131; Tr. 1419:21-1420:16 (Furey). The age/life method is based on a determination of the “remaining useful life” of the asset, calculated based on the normal useful life of the asset minus the asset’s chronological age. Tr. 1420:17-1421:18, 1411:20-1412:7, (Furey); DX141 at 131-32. This is a standard approach to estimating physical deterioration and is consistent with guidance from the American Society of Appraisers. DX354 at 60-62.

97. KPMG derived the normal useful lives of assets from sources including the American Society of Appraisers and Marshall Valuation Service, with additional input from GM engineers. Tr. 1421:6-12, 1423:10-15 (Furey). To do so, KPMG broke the assets down into 28 categories and further refined those categories into short life, medium life and long life sub-categories. Tr. 1421:19-1422:14 (Furey); DX141 at 119-21.

98. For certain assets, KPMG applied an “RUL Override,” which reflected situations in which particular assets would likely be taken out of service before the end of their useful lives, based on KPMG’s site visits and communications with GM management. Tr. 1423:17-1425:6: (Furey). The “RUL Override” column reflected both functional and technological reasons for shortened useful lives, as well as other business reasons (such as a plan to shut down a particular line). Tr. 1426:23-1427:19 (Furey).

99. KPMG then divided the remaining useful life by the normal useful life to determine a “percent good” of the asset, which was multiplied by the replacement cost of the asset to derive the replacement cost post physical deterioration. *See* DX151A at 2-3.

100. Defendants’ fixture experts — all former GM engineers — provided their own opinions concerning the expected useful lives of the Representative Assets. As set forth in the following table, KPMG’s normal useful life estimates were conservative compared with the useful lives estimated by the former GM engineers. The experts’ useful life estimates exceeded those used by KPMG for all but one Representative Asset, in most cases by a large margin:

Asset Number and Description		KPMG NUL	Expert Useful Life Estimate	In-Service Date	Source
1	OP-150 Shims Station	12	20	6/1/2006	Deeds Direct Ex. A at 61
2	Pits & Trenches	35	50	7/20/2006	Stevens Direct Ex. A at 59
3	Power Zone Conveyor	12	20	2/15/2007	Deeds Direct Ex. A at 15
4	Electro-Coat Paint Operations ("ELPO") Waste System	35	30	4/12/2006	Topping Direct Ex. A at 23
5	Paint Circulation Electrical System	10	30	11/14/2006	Topping Direct Ex. A at 29
6	ELPO Oven Conveyor	12	30	11/14/2006	Topping Direct Ex. A at 17
7	Top-Coat Software	5	15	11/14/2006	Topping Direct Ex. A at 41
8	Paint Mix Room	15	30	11/14/2006	Topping Direct Ex. A at 45
9	Top-Coat Bells	15	15	11/14/2006	Topping Direct Ex. A at 35
10	Opticell Robotic System	--	15	3/15/2006	Miller Direct Ex. A at 35
11	Central Utilities Complex	20	30	4/2/2006	Stevens Direct Ex. A at 73
12	Overhead Body Shop Welding Robot	10	10	11/14/2006	Stevens Direct Ex. A at 17
13	Weld Bus Ducts	15	30	7/20/2006	Stevens Direct Ex. A at 27
14	Leak Test Machine	15	20	7/31/2007	Deeds Direct Ex. A at 21
15	Soap, Mount and Inflate System	15	20	11/14/2006	Stevens Direct Ex. A at 65
16	Skid Conveyor	12	25	11/14/2006	Stevens Direct Ex. A at 35
17	Power and Free Conveyor	12	25	11/14/2006	Stevens Direct Ex. A at 21
18	Vertical Adjusting Carriers	12	25	11/14/2006	Stevens Direct Ex. A at 45
19	Full Body Coordinate Measurement Machine ("CMM")	15	25	11/14/2006	Stevens Direct Ex. A at 31
20	Wheel & Tire Conveyor	12	25	11/14/2006	Stevens Direct Ex. A at 49

Asset Number and Description	KPMG NUL	Expert Useful Life Estimate	In-Service Date	Source
21 Final Line Skillet Conveyor	12	25	11/14/2006	Stevens Direct Ex. A at 53
22 Fanuc Gantry Robot	10	20	7/31/2007	Deeds Direct Ex. A at 37
23 Aluminum Machining System	12	25	6/1/2006	Deeds Direct Ex. A at 27
24 Base Shaping Machine	12	25	12/3/2007	Deeds Direct Ex. A at 43
25 Liebherr Hobb Machine	12	25	1/1/2008	Deeds Direct Ex. A at 49
26 Core Delivery Conveyor System	15	25	11/15/2007	Thomas Direct Ex. A at 33
27 Emissions System	12	25	11/15/2007	Thomas Direct Ex. A at 39
28 Holding Furnace	15	25	12/15/2007	Thomas Direct Ex. A at 21
29 GG-1 Transfer Press (Grand Rapids)	--	30	9/28/1989	Miller Direct Ex. A at 41
30 TP-14 Transfer Press (Mansfield)	--	30	9/1/1987	Miller Direct Ex. A at 47
31 Danly Press	15	30+	10/1/1980	Miller Direct Ex. A at 29
32 AA Transfer Press	--	35	9/1/2003	Miller Direct Ex. A at 17
33 B3-5 Transfer Press	--	35	12/2/2003	Miller Direct Ex. A at 23
34 Build Line w/ Foundation	12	35	12/1/1983	Deeds Direct Ex. A at 73
35 Button Up Conveyor System	12	20	6/1/2006	Deeds Direct Ex. A at 67
36 Helical Broach	12	25	6/1/2006	Deeds Direct Ex. A at 55
37 Courtyard Enclosure	35	50	12/1/1982	Deeds Direct Ex. A at 33; DX181 at 4
38 Gas Cleaning System	15	25	5/1/1976	Thomas Direct Ex. A at 45
39 Core Box Robot	10	25	3/1/2005	Thomas Direct Ex. A at 27
40 Charger Crane	20	25	7/28/1997	Thomas Direct Ex. A at 13

101. For GMNA assets that were operating beyond their estimated useful lives, KPMG valued the assets by assigning them a “floor percentage” or “hold factor” of 3%, which was multiplied by their replacement cost. Tr. 1427:21-1428:16, 1430:13-24 (Furey); DX151A at 3; DX141 at 145. The 3% value was based on the sale of GM’s Wilmington facility, which KPMG viewed as a reliable indicator of orderly liquidation value in place. Tr. 1430:25-1432:18 (Furey). Mr. Furey testified that the Wilmington facility was a “failed facility,” or a facility that was unable to produce cash flows sufficient to support the assets at the facility. Tr. 1432:5-18. Using the sale of the Wilmington facility was a conservative assumption, as assets whose age exceeded their normal useful lives were assigned liquidation value even if there was no indication that they

would be imminently removed. Lakhani Direct ¶ 49. The hold value of each asset is recorded in KPMG's papers as "Salvage Value USD." Tr. 1415:3-15, 1430:13-1431:23 (Furey).⁹

3. Functional obsolescence

102. "Functional obsolescence is the loss in value caused by inefficiencies or inadequacies of the asset itself. Functional obsolescence is internal to the asset and is related to such factors as technological advancement, super adequacies, excess capital costs, and excess operating costs." DX141 at 132; Tr. 1434:7-21 (Furey).

103. As Mr. Furey testified at trial, KPMG's valuation approach accounted for functional obsolescence in several different ways. *First*, KPMG's valuation spreadsheet contained a column called "Functional Obsolescence," which showed that KPMG applied substantial functional obsolescence penalties to hundreds of assets at the GM Powertrain Tonawanda plant. *See, e.g.*, DX365, "Asset Details" tab, Rows 85713, 85716, 85727, 85822. KPMG made these determinations based on site visits and discussions with management. Tr. 1437:16-1439:19, 1440:22-1441:25 (Furey).

104. *Second*, KPMG made reductions to the remaining useful life of particular assets based on functionality limits. In particular, when KPMG learned through site inspections or communications with GM about a "functional issue or an operational issue that will cause its RUL to be different than our calculation," KPMG addressed that issue by adjusting the RULs of particular assets in the "RUL Override" column. Tr. 1411:13-1412:7, 1414:5-18 (Furey).

105. *Third*, KPMG substantially reduced the replacement cost values of GM's powertrain assets due to functional obsolescence. "Based on discussions and information provided by GM, KPMG determined that the current Powertrain engineering design specification

⁹ KPMG's auditor Deloitte conducted a sensitivity analysis on KPMG's RCNLD calculations, applying a 5% floor percentage compared with KPMG's 1% to 3%. Lakhani Direct ¶ 69 (citing DX162). Had KPMG used this higher floor percentage, the value of all assets the Term Lenders claim as fixtures would increase by \$166 million. Lakhani Direct ¶¶ 69-70 & Exs. 3A & 4

represents a facility superior to the Subject Assets in terms of both capability and flexibility. To adjust for these differences in functionality, Management indicated that a downward adjustment of approximately 35 percent should be applied to the powertrain RCN estimates provided by GM to appropriately estimate the RCN of assets similar in functionality to the Subject Assets.” DX153 at 1-2; *see also* Tr. 1400:20-1402:8 (Furey) (describing the “significant adjustments” made to the powertrain asset replacement costs due to “functionality”).

106. As Mr. Furey explained in response to questions from the Court, the significant downward adjustments to the replacement costs of the powertrain assets were made because the assets in place were “less capable than th[e] theoretical agile flex replacement” that GM would use in a new plant. Because GM would use the “lean agile flex platform” in constructing a new plant rather than the less functional equipment that existed in the current powertrain plants, KPMG significantly reduced the estimated replacement cost of the assets in those plants. Tr. 1560:19-1563:6.¹⁰

107. *Fourth*, and finally, Mr. Furey testified that functionality limitations were addressed by using the direct replacement cost method instead of the indirect method. As Mr. Furey explained, “excess capital costs are the difference between cost of reproduction of an asset and the replacement cost in that asset.” Tr. 1435:23-1436:2. Using the direct method “basically eliminates any excess value that can be ascribed to an asset, due to inefficiencies in the way that that asset was built. So our application of the direct replacement cost approach quantifies, by its nature, quantifies those excess capital costs and eliminates functional obsolescence.” Tr. 1436:3-11.

108. Mr. Klein was simply wrong in asserting that “KPMG did not observe even a single dollar of” functional obsolescence in valuing the Representative Assets. Klein Direct ¶ 89. As shown above, the evidence at trial established that KPMG accounted for functional

¹⁰ This was a conservative assumption, as the 6-speed line at Warren Transmission, which went into service in 2006, incorporated Lean Agile Flex technology. Deeds Direct ¶¶ 40-42; Deeds Direct Ex. A at 10, 24.

obsolescence in multiple ways and made significant deductions, including to the replacement cost estimated for powertrain assets.

4. Capacity-based economic obsolescence

109. KPMG also considered whether the Replacement Cost of each asset should be reduced as a result of capacity-based economic obsolescence. As described by KPMG, economic obsolescence is “[t]he loss in value of a property caused by factors external to the property such as economics of the industry; availability of financing; loss of material and/or labor sources; passage of new legislation; changes in ordinances; increased cost of raw materials, labor, or utilities; reduced demand for the product; increased competition; inflation or high interest rates; or similar factors.” DX141 at 108.

110. KPMG’s “capacity utilization analysis” is set forth in a memorandum dated January 14, 2010. DX156. As explained in that memo, the capacity utilization analysis “was used in estimating the appropriate economic obsolescence penalty for the manufacturing equipment at each major manufacturing facility.” DX156 at 1. “To the extent a plant does not use its available capacity, it suffers from economic obsolescence.” *Id.*

111. KPMG relied on data from GM in determining the level of capacity-based economic obsolescence at each plant. Specifically, GM’s Global Manufacturing Strategies & Planning Group maintained statistics concerning GM management’s expectations for production demands at GM manufacturing facilities. Apfel Direct ¶¶ 4-6; DX156 at 1.

112. GM calculated available capacity using the Harbour methodology, a well-accepted methodology for determining the reasonable expected utilization of a plant. DX156 at 1; Apfel Direct ¶ 6. The Harbour methodology sets benchmark expectations for utilization of a facility, including downtime for maintenance and change-overs. Tr. [1448:19-1449:15 (Furey). GM maintained and updated this capacity-related information in the regular course of business and used the information “as the basis for decisions, relating to future product development, facility use and growth, and in labor relations matters.” Apfel Direct ¶¶ 6-7.

113. When KPMG requested utilization data in connection with the Fresh Start Accounting, GM provided the data as it was maintained in the ordinary course rather than creating new data. Apfel Direct ¶¶ 8-9. The GM capacity projections that were provided to KPMG were the same projections used in VP4, which, as noted, was the result of an extensive review process between GM and the U.S. Treasury. Tr. 1450:23-1451:17 (Furey); JX19.

114. Although GM provided KPMG with utilization projections through 2014, KPMG only used data from 2008 to 2010. Tr. 1453:6-13, 1454:20-25, 1456:25-1457:13 (Furey); JX19. This was a highly conservative approach in light of the market conditions that existed and were expected to exist during that period. *See* Section IV.C.5(d) below. By contrast, in valuing the machinery and equipment at a Romanian plant acquired by Ford in 2008, Mr. Goesling testified that he did not apply *any* utilization penalty because, although the assets were underutilized at the time of the sale, Ford was planning to invest €600 million in the future and the assets would then be utilized at 100%. Tr. 2912:8-16, 3537:7-3538:7.

115. Had KPMG used the full set of utilization projections provided by GM through 2014, the capacity-based economic obsolescence penalty would have been substantially reduced. Tr. 1456:19-24 (Furey). Specifically, as the Term Lenders' accounting expert, Abdul Lakhani, explained, KPMG's conservative approach reduced the value of just the Representative Assets standing alone by \$22.4 million; had KPMG used all 2008-2014 data, the utilization penalty on the Representative Assets would have been only \$9.6 million. Lakhani Direct ¶ 66 & Exs. 3A & 4.

116. As with the Replacement Cost New benchmarking data, GM generally provided KPMG with utilization data on a line level. Tr. 1446:19-25; DX156 at 1. For facilities with multiple lines, KPMG calculated a facility-wide utilization figure by weighting the utilization percentages of each line based on its respective replacement cost. Tr. 1447:13-1448:18 (Furey). To derive the inutility penalty for each facility, KPMG applied a formula to determine what a market participant would spend to build a new facility to meet the lower demand reflected in the 2008 to 2010 time period. Tr. 1449:16-1450:22 (Furey); DX156 at 3. Mr. Lakhani testified

credibly that this deduction fully captures economic obsolescence, *i.e.*, it fully reflects the necessary decrease in PP&E value as a result of external factors, because rational managers adjust a plant's production in response to changing economic forces. Lakhani Direct ¶¶ 60, 123.

117. Mr. Klein testified that he did not know "that [he] even opened Mr. Apfel[s]" written testimony regarding the data maintained by GM's Global Manufacturing Strategies & Planning Group, and yet he still criticized KPMG for calculating capacity utilization on a facility-wide basis on the ground that it "creates imprecision." Tr. 2784:11-16, 2823:19-2824:19. Mr. Klein, however, failed to identify any errors in the data, and in fact was prepared to stipulate that GM's utilization data likely was accurate. Tr. 2785:22-2786:6. Moreover, Mr. Klein's suggestion that KPMG used a facility-wide approach based on "considerations of undue cost and effort" (Tr. 2823:19-2824:7) is contradicted by Mr. Furey's testimony that KPMG viewed line-by-line and facility-level capacity utilization as the correct approach from a valuation perspective, "given that most of these assets represent an assemblage of assets" that work together to produce products. Tr. 1466:7-1467:8.

5. RCNLD conclusion

118. KPMG's determination of each asset's replacement cost — with deductions for physical deterioration, functional obsolescence and capacity-based economic obsolescence — was recorded in KPMG's asset valuation spreadsheet as "Final RCNLD Pre EO." DX151A at 2, 3; DX365. As reflected in the column entitled "Basis for Concluded Value," which reads "Inutility" for each Representative Asset, KPMG used the RCNLD with utility penalty approach for each of the Representative Assets. DX151A at 2-3, Tr. 1373:10-19 (Furey).

119. KPMG intended the Final RCNLD Pre EO figure to be a reasonable estimate of value in the absence of any TIC Adjustment. Tr. 1460:4-13 (Furey). If there had been no TIC Adjustment, the Final RCNLD Pre EO would have been the final concluded value for each asset. Tr. 1460:14-18 (Furey).

E. KPMG's valuation of GM's buildings and improvements

120. As noted, KPMG valued GM's buildings and improvements primarily using the cost approach, because there were not sufficient comparable transactions for GM's "unique" buildings. Tr. 1486:5-14 (Furey). KPMG's application of the cost approach to buildings and improvements was substantially similar to the approach used for machinery and equipment. Tr. 1486:15-21 (Furey). Mr. Furey testified that this method was "generally the preferred way of valuing [GM's] buildings" given the lack of comparables. Tr. 1497:2-20. GM's auditor Deloitte reviewed KPMG's cost approach and found it acceptable. DX162 at 11-12.

121. KPMG's machinery and equipment and real property teams communicated extensively throughout the valuation process and, as Mr. Furey explained, there was "a lot of interplay in terms of coming up with an overall fair value conclusion for each facility." Tr. 1469:12-1470:10 (Furey). Mr. Furey, accordingly, was knowledgeable about KPMG's valuation of GM's real property. Tr. 1470:6-10; 1483:10-20 (Furey).

122. KPMG's opinions of the fair values of individual building and improvement assets were provided to GM in the form of a spreadsheet containing the valuation steps and value conclusions for each real property fixed asset listing. DX364; Tr. 1487:24-1488:21 (Furey).

123. DX150A is a summary exhibit showing the three Representative Assets that appear in DX364, as well as the key steps needed to build up the RCNLD for each asset. DX150A; Tr. 1489:14-1490:7 (Furey).

1. Replacement cost new

124. *Indirect Method.* In determining the indirect replacement cost of buildings and improvements, KPMG looked to GM's fixed asset listings and, as in the case of machinery and equipment, used various trend factors to "bring that original cost to a more representative reproduction cost." Tr. 1496:7-25, 1486:15-21 (Furey); DX141 at 108.

125. *Direct Method.* For buildings and improvements, instead of relying primarily on management-provided estimates for the direct replacement cost approach, KPMG used data from third-party source Marshall Valuation Service, which provides benchmark dollar-per-square-foot

estimates for various categories of buildings, along with input from management. Tr. 1486:15-1487:11; 1498:25-1499:25 (Furey). In doing so, KPMG carefully analyzed each GM facility: for example, if a building had two different roof heights in different sections, KPMG would divide the building into two sections and apply different dollar-per-square-foot metrics to each. Tr. 1503:9-1504:13 (Furey). KPMG built up a facility-wide replacement cost using this data, and then allocated the direct replacement costs back to identified components based on their reproduction cost. Tr. 1501:6-18 (Furey); DX141 at 111-12.

126. The process for valuing site improvements involved an additional step. The Marshall Valuation Service data accounted for site improvements internal to buildings, but did not value external improvements at GM's facilities, such as sidewalks, exterior lighting, security systems, and parking lot paving. Tr. 1504:20-1505:21 (Furey). Accordingly, based on KPMG's review of the costs that GM had capitalized in its fixed asset ledger, "information provided by the Worldwide Facilities Group (the "WFG") regarding the typical 'new facility' build-out budgets," and multiple meetings between KPMG's real property team and the WFG, KPMG applied a 10% adjustment to the total building RCN to account for improvements. DX146 at 193; Tr. 1505:22-1510:10 (Furey).

127. Mr. Klein asserted that this valuation of site improvements was "arbitrary." Klein Direct ¶ 95; Tr. 2777:2-2778:25. It was not. As noted, it was based on a review of the fixed asset ledger, information from management and meetings with management. DX146 at 193; Tr. 1505:22-1510:10 (Furey).

128. *Choice of method.* KPMG determined a "Final RCN" value by selecting the value based on either the direct or indirect method. As with machinery and equipment, KPMG generally preferred to use the direct method so long as it accurately reflected the core components of the GM facility in question. Tr. 1501:19-1503:8 (Furey). In certain circumstances, where a facility had unique assets or building components not reflected in the direct method, KPMG would use the indirect method. Tr. 1501:19-1502:11 (Furey)

2. Physical deterioration

129. Generally, KPMG accounted for physical deterioration of buildings and improvements through the straight-line depreciation method. Specifically, KPMG depreciated the assets starting as of the original in-service dates using a 35-year life with a 5% residual at the end of the asset's useful life. Tr. 1510:15-1512:13 (Furey). It determined a "Final % Good" using the 35-year straight line depreciation method based on the asset category and age of the particular asset. Tr. 1510:25-1511:8 (Furey). The result of this analysis was "RCN Less Physical Depreciation," which was the product of the concluded replacement cost and percent good. Tr. 1511:19-22 (Furey); DX150A at 2.

130. In addition, for assets valued based on the direct replacement cost approach, KPMG accounted for the condition of the buildings based on site visits and information provided by management, which was reflected in KPMG's spreadsheet in a column called "Direct RCNLPD." Tr. 1512:15-1514:10 (Furey); DX150A at 2.

131. KPMG recorded the conclusion of these depreciation analyses as "Final RCNLPD." Tr. 1514:13-20 (Furey); DX150A at 2.

3. Functional obsolescence

132. As in the machinery and equipment valuation, KPMG accounted for functional obsolescence affecting GM's buildings and improvements assets in various ways. The most common form of functional obsolescence affecting GM's buildings and improvements was excess square footage. KPMG reduced the value of GM's buildings based on unused space through the direct replacement cost method by only counting the square footage actually in use. Tr. 1515:6-25 (Furey). Similarly, if a facility was built with a 50-foot roof, but a market participant would only need a 20-foot roof to serve the same purpose, KPMG calculated the direct replacement cost using a 20-foot roof height assumption. Tr. 1516:2-13, 1517:6-1518:8 (Furey).

4. Capacity-based economic obsolescence

133. KPMG's real estate valuation team applied a capacity-based economic obsolescence penalty similar to the one applied by the machinery and equipment team. Tr. 1519:6-1520:11 (Furey).

5. Concluded fair values

134. As with machinery and equipment, the replacement cost of each asset — with deductions for physical deterioration, functional obsolescence and capacity-based economic obsolescence — was recorded in KPMG's asset valuation spreadsheet as "Concluded Fair Value." DX150A at 2; *see also* DX364.

135. KPMG intended this Concluded Fair Value figure to be a reasonable estimate of value for buildings and improvements in the absence of the TIC Adjustment. Tr. 1523:12-17 (Furey). If there had been no need for a TIC Adjustment, the Concluded Fair Value would have been the final concluded value for each asset. *See id.*

F. The valuation date

136. KPMG conducted the Fresh Start Accounting valuation as of July 10, 2009, ten days after the valuation date in this case of June 30, 2009. There was no evidence at trial showing that the values of the Representative Assets as of July 10, 2009 were different than the values as of June 30, 2009. Mr. Furey testified that, putting aside immaterial asset additions and disposals within that period, KPMG was not "aware of any significant changes in the market that would have impacted our value." Tr. 1523:21-1524:5. Mr. Furey had no reason to believe the asset values changed during that 10-day period. Tr. 1524:19-1525:18.

137. Likewise, there is no evidentiary support for Professor Fischel's opinion that uncertainty regarding approval of the sale is a possible reason to distinguish June 30, 2009 from July 10, 2009. Professor Fischel acknowledged that he did not conduct an event study to determine whether the market in fact perceived that there was any such uncertainty. Tr. 2632:14-2633:15. Notably, the bond prices presented in Professor Fischel's written testimony show that bond prices were stable between June 30 and July 10, 2009, indicating that there was

no perceivable uncertainty regarding the outcome of the pending sale. Fischel Direct Ex. A. Mr. Klein likewise referred to potential “uncertainty” as of June 30, 2009, but could not quantify the uncertainty or opine that it was material. Tr. 2787:2-13 (Klein); *see also* Tr. 2486:20-2487:12 (Hubbard), 2109:22-2110:8 (Keller).

G. Reliability of KPMG’s RCNLD calculations

138. KPMG’s work in determining the RCNLD values represented a thorough application of a well-accepted appraisal approach. That approach has support in both the appraisal literature and KPMG’s internal manuals and guidelines. Tr. 1498:2-22 (Furey); DX354 at 39-90.

139. The testimony of the Avoidance Trust’s experts supports the conclusion that KPMG applied standard and broadly accepted valuation methodologies in valuing GM’s PP&E. Mr. Klein testified that, although he believed there were issues with the “execution” of KPMG’s methodology for determining RCNLD values, the “methodology was perfect.” Tr. 2758:22-2759:7 (Klein). In addition, the Avoidance Trust did not solicit testimony concerning KPMG’s valuation from Mr. Goesling, even though he is the only expert on the plaintiff’s side with experience appraising assets. Mr. Goesling agreed that he used the same basic RCNLD methodology to value a Ford plant in Romania. Tr. 3509:19-3511:17 (Goesling).

140. Because of the scale of its valuation project, KPMG necessarily applied certain categorical assumptions in valuing particular assets. However, the criticisms to those assumptions advanced by Mr. Klein, who has no personal experience in conducting fresh start accounting, appraisals or valuing assets of this kind (Tr. 2697:7-2698:20, 2701:10-2703:19, 3705:3-25), are not persuasive. Mr. Klein failed to identify any systematic bias resulting from any of KPMG’s categorical assumptions and did not identify any errors in KPMG’s methodology. Tr. 2733:14-18 (acknowledging that he had not quantified any imprecisions).

141. As noted, at the outset of his trial testimony, which followed the testimony of Mr. Furey, Mr. Klein revised his prior testimony and accepted that KPMG had made it a principal

task to “perform an analysis of individual asset-by-asset values.” Tr. 2715:8-20 (Klein).

Contrary to what Mr. Klein testified, the evidence at trial confirmed that KPMG took extensive steps to ensure the reasonableness of its assumptions and conclusions. KPMG’s work was far more detailed than a “mass appraisal” (Tr. 1466:7-1467:24) and provides a reliable basis for the Court to ascribe values to particular assets.

142. For the foregoing reasons, and for the reasons discussed below, KPMG’s RCNLD calculations of 33 of the Representative Assets provide reliable evidence of the value of those assets as of June 30, 2009.

IV. The TIC Adjustment

143. Separate and apart from its asset-by-asset, ground-up work in determining the values of each of the assets acquired by New GM, KPMG sought to estimate the enterprise value of New GM based on the earnings that New GM was projected to realize from the assets purchased in the 363 sale. DX141 at 58-59. KPMG called that amount Total Invested Capital (“TIC”) though it was *not* the total amount of capital actually invested by New GM.

144. As discussed below, KPMG treated TIC for accounting purposes as New GM’s “reorganization value.” DX148 at 2-3; Lakhani Direct ¶ 81. Under ASC 852-10-05-10, reorganization value for accounting purposes “approximates the amount a willing buyer would pay for the assets of the entity immediately after restructuring.” JX20 at 317.¹¹ TIC was thus KPMG’s calculation of a *hypothetical* purchase price for New GM, and the fresh start accounting exercise was an allocation of New GM’s reorganization value and hypothetical purchase price. Klein ¶ 50; Tr. 2795:4-2796:12 (Klein) (describing TIC as a “hypothetical purchase price” for New GM); DX148 at 2-3.

145. KPMG did not quantify or allocate the *actual* purchase price received by Old GM. After calculating an RCNLD value for each asset, KPMG applied a top-down adjustment — the

¹¹ Effective for periods ending after September 15, 2009, the ASC became the source of authoritative GAAP. Lakhani Direct ¶ 127 n.159.

“TIC Adjustment” — to the value of PP&E and some other tangible assets so as to eliminate the gap between the asset values and the lower TIC amount. Lakhani Direct ¶¶ 37, 80; Hubbard Direct ¶¶ 64-68.¹² The evidence at trial established that the TIC Adjustment should not be taken into account in determining the values of the assets sold by Old GM to New GM.

A. KPMG’s decision to apply the TIC Adjustment

146. The TIC Adjustment was described by KPMG as an “economic overlay” that compared a GM business unit’s TIC “to the aggregated value of the business unit’s net working capital, tangible and identifiable intangible assets.” DX141 at 142; Lakhani Direct ¶ 80. In other words, it was a comparison of the business unit’s total net assets, on the one hand, and its long-term liabilities and equity, on the other, where net assets refers to assets net of operating liabilities, such as accounts payable. Lakhani Direct ¶¶ 80, 83 n.108. KPMG referred to the difference between these two numbers as a “factor for economic obsolescence.” DX141 at 142.

147. KPMG applied the TIC Adjustment to reduce the values of each business unit’s Property, Plant and Equipment (“PP&E”) assets “[t]o the extent that the TIC [was] less than the value of all of a business unit’s assets.” DX141 at 142. In short, if the values ascribed to the unit’s assets exceeded the unit’s TIC as determined by KPMG, KPMG reduced the values of the unit’s PP&E until the unit’s aggregate asset values were equal to the TIC.

148. A critical component in calculating the TIC Adjustment is the value of the TIC. KPMG estimated the TIC for each New GM business unit, including GMNA, and then aggregated the resulting TICs into the TIC for New GM as a whole. Hubbard Direct ¶ 57; Lakhani Direct ¶ 80.

149. To estimate the fair value of GMNA’s TIC, which is shown on Schedule 2.2 to the KPMG Report, KPMG applied the DCF method. Lakhani Direct ¶ 81; Hubbard Direct ¶ 57; DX141 at 266. KPMG’s DCF analysis discounted GMNA’s projected cash flows using a 23%

¹² KPMG applied the TIC Adjustment to the following asset categories: Buildings and Improvements, Leasehold Improvements, Personal Property, Tooling, Spare Parts and Entities Carried at Net Book Value (“NBV”). DX141 at 142.

WACC. DX141 at 278. KPMG calculated a different WACC for each business unit it valued by calculating the unit's cost of equity and cost of debt, applying each based on an assumed capital structure. Hubbard Direct ¶¶ 106-14; DX206.

150. For GMNA's cost of equity, KPMG used a traditional capital asset pricing model ("CAPM") formula and then added both a Company-Specific Risk Premium (27.42%) and a size premium (0.94%) to the cost of equity, resulting in an overall cost of equity of 38.3%. DX141 at 69-71, 278; Hubbard Direct ¶¶ 108-11; DX206. KPMG based its cost of debt for GMNA on the cost of debt for a CCC-rated company. DX141 at 236; Hubbard Direct ¶ 112.

151. After arriving at a present value for GMNA's cash flows, KPMG made a number of adjustments to arrive at the final TIC value. DX141 at 266. These adjustments included a downward "Reallocation Adjustment" of over \$11 billion, which included a \$7 billion reallocation of value from GMNA to GM's Technology, Services and Tooling Operations business unit (DX141 at 266, 273) and an over \$4 billion reallocation of value from GMNA to GM's Corporate Division (DX141 at 266, 275). KPMG also made a downward adjustment called the "Other Total Invested Capital Adjustment," which reallocated an additional \$2 billion from GMNA, primarily to the Corporate Division. DX141 at 266, 275.

152. Using a 23% WACC to discount GMNA's cash flows, and giving effect to these reallocations, KPMG estimated the value of GMNA's TIC to be \$21.7 billion. DX141 at 266; Lakhani Direct ¶ 81; Hubbard Direct ¶ 63. KPMG then calculated the value of GMNA's common equity as a residual: After the value of all other claims against the TIC were established and subtracted from the TIC value, such as debt and OPEB, what remained was treated by KPMG as the value of GMNA's common equity. DX141 at 266; Hubbard Direct ¶ 59. Notwithstanding that the purpose of the 363 sale was to preserve the going concern value of New GM, and that GMNA was by far the largest unit of New GM, KPMG estimated the value of GMNA's common equity to be *negative* \$4.3 billion. DX141 at 266; Lakhani Direct ¶ 81; Hubbard Direct ¶ 63.

153. As discussed in the prior section, KPMG separately determined the values of GMNA's assets. Lakhani Direct ¶ 82; Hubbard Direct ¶ 64. KPMG determined individual RCNLD values for GMNA's PP&E and determined fair values for GMNA's other assets. Lakhani Direct ¶ 82. The total value of GMNA's net assets was \$28.1 billion. DX249; DX250.

154. To calculate the amount of the TIC Adjustment for GMNA, KPMG determined the amount by which the value of GMNA's net assets (with PP&E at RCNLD) exceeded KPMG's estimated value of GMNA's TIC. Lakhani Direct ¶ 83. The result was that GMNA's net asset value exceeded its TIC value by \$6.4 billion. Lakhani Direct ¶ 83; DX249, DX250.

155. Confronted with the fact that GMNA's net asset value exceeded its TIC by \$6.4 billion, KPMG should have gone back to re-examine its assumptions. Lakhani Direct ¶¶ 124-30.¹³ As both Mr. Lakhani and Mr. Klein testified, it is extremely rare for the net asset values in a sale to exceed the consideration, a phenomenon referred to as "negative goodwill" or a "bargain purchase." Lakhani Direct ¶¶ 125, 127; DX170 at 8 (EY guidance that bargain purchases are not expected in reorganization); Tr. 2844:21-2845:9 (Klein) ("getting negative goodwill is an oxymoron. It's a unicorn, at best."). Further review would have been particularly appropriate in this case because KPMG's valuations of TIC and intangible assets included significant judgments, such as a WACC that was significantly higher than the WACC for GM's peers, and over \$11 billion of intracompany allocations. Lakhani Direct ¶¶ 129-30.¹⁴

¹³ As Mr. Lakhani testified, at EY, when there was a possibility that an accounting would result in negative goodwill/a bargain purchase, EY professionals were required to raise that potentiality to their respective National Office professional practice group. Lakhani Direct ¶ 128. At the West Coast National Office, either Mr. Lakhani or his colleagues would then work with that EY team to thoroughly examine all of the team's assumptions and valuations. Lakhani Direct ¶ 128.

¹⁴ Prior GAAP guidance explained that "in most cases, the [negative goodwill] is due to measurement errors in the purchase price allocation." Lakhani Direct ¶ 126; DX173 at 81 (¶ B188). The FASB believed that the required review could "mitigate, if not eliminate, undetected errors that might have existed in the initial measurements." Lakhani Direct ¶ 127; DX171 at 211 (¶ B375).

156. But there is no indication that KPMG reexamined its valuation. Lakhani Direct ¶ 126. Instead, to address the disparity between its TIC and the asset values, KPMG reduced the value of certain GMNA PP&E by the \$6.4 billion excess. Lakhani Direct ¶ 85; DX141 at 366. In the KPMG Report, the amount of the TIC Adjustment appears in Schedule 6.1 as the \$6.4 billion difference between the column labeled “RCNLD” and the column labeled “Fair Value.” DX141 at 366; Lakhani Direct ¶ 85. KPMG did not adjust the value of other assets, such as intangible assets. Lakhani Direct ¶ 85.

157. KPMG arrived at the final \$6.4 billion TIC Adjustment in two steps. *See* Lakhani Direct ¶ 86. First, based on its initial calculation of GMNA’s TIC and asset values, KPMG determined that a TIC Adjustment of approximately \$7.9 billion was necessary. DX141 at 366 (difference between “RCNLD” and “Individual Asset Fair Value” columns); Lakhani Direct ¶ 86. KPMG’s asset-by-asset valuation spreadsheets for Personal Property and Buildings and Improvements show that KPMG applied this initial TIC Adjustment as a pro rata reduction to the value of each asset that had remaining useful life — with the same reduction applied to each asset. DX151A at 2 (column “EO” shows a uniform 55% reduction) and DX150A at 2 (column “Negative Goodwill Adjustment” shows a uniform 59% reduction); Lakhani Direct ¶ 86; Tr. 1417:13-1417:24 (Furey) (describing the “uniform” reduction in the asset values).

158. Second, after KPMG made its initial estimate of the TIC Adjustment, KPMG and New GM discovered that the TIC Adjustment needed to be modified because the initial TIC value used to calculate the adjustment did not include the correct amount of interest expense contained in the most current GM cash flow forecast. DX148 at 14; Lakhani Direct ¶ 87; *see also* Tr. 2799:23-2800:10 (Klein) (balance sheet adjustment was a “corrective adjustment”). This new information increased the value of GMNA’s TIC by \$1.5 billion and, thus, reduced the TIC Adjustment by the same amount. DX148 at 14; DX145 at 170-72; Lakhani Direct ¶ 87.

159. KPMG referred to this \$1.5 billion correction to the TIC Adjustment as the “Balance Sheet Adjustment.” DX141 at 366; Lakhani Direct ¶ 87. As Mr. Furey testified, the

Balance Sheet Adjustment did not affect the RCNLD values determined by KPMG. Tr.

1356:22-1357:24. Mr. Klein testified to the same effect. Tr. 2732:8-18.

160. KPMG allocated the \$1.5 billion Balance Sheet Adjustment to increase the aggregate value of three PP&E categories implicated by the initial TIC Adjustment — Building and Improvements, Personal Property and Tooling — *pro rata* based on aggregate RCNLD. Lakhani Direct ¶ 87. The effect of this adjustment can be seen on Schedule 6.1 of the KPMG Report, in the column labeled the “Balance Sheet Adjustment.” DX141 at 366; Lakhani Direct ¶ 87. This adjustment was not reflected in the asset-by-asset analysis in KPMG’s spreadsheets, DX150A and DX151A. However, it was incorporated by GM in the individual values on GM’s fixed asset ledger. Lakhani Direct ¶ 87 n.116; DX33 at 1-2; Niszcza Dep. 37:1-10, 37:19-22, 40:7-17 (testifying that KPMG provided New GM with individual “asset values” that were “uploaded into the EFAST system”).

161. For the Representative Assets, the final TIC-adjusted values (which include the Balance Sheet Adjustment) can be found in the “Gross Book Value” column of DX33, which is an excerpt from GM’s May 2010 eFAST. DX33 at 1 (noting that “Gross Book Value” is the “Fresh Start Value provided by KPMG,” and that the “Value [was] used as depreciable basis of an asset”). The TIC-adjusted values for all assets that KPMG valued are located in the native version of DX33, which is DX347.¹⁵

162. The final TIC Adjustment for GMNA reduced the value of the Representative Assets in particular by \$42.6 million (DX174). Lakhani Direct ¶ 88. The final individual values of the Representative Assets, accounting for the full final TIC Adjustment calculated by KPMG, are reflected in GM’s fixed asset ledger. DX33; *see also* Joint Valuation Chart (New GM eFast Ledger Value).

¹⁵ Throughout these Findings, the “TIC Adjustment” means the final TIC Adjustment, including as modified by the Balance Sheet Adjustment.

163. The TIC Adjustment for New GM as a whole was \$12.3 billion. Hubbard Direct ¶¶ 65-67; DX141 at 365 (difference between the column labeled “RCNLD” and the column labeled “Fair Value”); DX247 and DX248. As detailed on Schedule 2.1 of the KPMG Report, KPMG estimated that New GM’s TIC was approximately \$60 billion and that its common equity value was approximately \$19.9 billion. DX141 at 265. New GM’s common equity value, like GMNA’s, was estimated as a residual after KPMG deducted the value of debt, OPEB and other items from KPMG’s estimated TIC. DX141 at 265. The total value of New GM’s net assets was approximately \$72.2 billion, leading to a TIC Adjustment of approximately \$12.3 billion. DX247; DX248.

164. The TIC Adjustment was a “top side” adjustment. Lakhani Direct ¶¶ 37, 78; Tr. 1730:19-1731:5 (Lakhani); Tr. 1737:4-13. Unlike the RCNLD asset values, which were calculated from the “ground up” for each asset (Tr. 1361:6-1362:23 (Furey)), KPMG determined the aggregate amount of the TIC Adjustment and then pushed down that amount to categories of PP&E assets. Mr. Furey and Mr. Klein agreed on this. Tr. 1460:24-1461:7 (Furey); Tr. 2798:20-24 (Klein). Accordingly, the RCNLD valuation and the TIC Adjustment were separate endeavors; questions about the reliability of the TIC Adjustment do not bear on the reliability of KPMG’s RCNLD values. *E.g.*, Lakhani Direct ¶¶ 78, 93.

B. The TIC Adjustment cannot be reconciled with the purchase price paid by New GM for Old GM’s assets or by the U.S. Treasury for New GM equity.

165. The evidence at trial established that KPMG’s TIC value for New GM is not consistent with the actual purchase price that New GM paid to Old GM for its assets or the price paid by the U.S. Treasury for a majority of New GM’s equity.

166. At trial, the Term Lenders presented various ways to relate the purchase prices paid by New GM and the U.S. Treasury to the TIC value calculated by KPMG, using contemporaneous analysis from Evercore, GM’s financial advisor in the section 363 sale, and analyses of Professor Hubbard. Both Evercore’s and Professor Hubbard’s analyses are reliable. Evercore conducted its analysis in connection with the section 363 sale and its work was relied

upon by the parties and the Court. Professor Hubbard's conclusions are broadly consistent with Evercore's. In contrast, the Avoidance Trust's only evidence on the section 363 sale price was provided by Professor Fischel, and only in response to the Court's questioning at trial. As discussed below, Professor Fischel's analysis is not reliable.

167. As explained in Section II.A above, Evercore estimated that the actual consideration received by Old GM in the section 363 sale was in the range of \$91.2 billion to \$93.6 billion. JX3 at 107; Tr. 1840:2-5 (Worth). In contrast, the \$60 billion TIC value estimated by KPMG for New GM did not reflect actual consideration received by Old GM: It was a "hypothetical" purchase price. Tr. 2795:4-2796:12 (Klein); Klein Direct ¶ 50; DX141 at 59.

168. Evercore's estimate of the actual consideration received by Old GM (\$91.2 billion to \$93.6 billion) significantly exceeds New GM's net asset value (\$72.2 billion, DX247; DX248). If that actual consideration were used as the reference point, there would have been no arguable need to reduce New GM's asset values, as KPMG did based on its calculation of New GM's TIC. Supplemental Valuation Chart (Evercore Valuation of New GM Purchase Price)..¹⁶

169. Professor Hubbard likewise concluded that KPMG's valuation is not consistent with the purchase price paid in connection with the section 363 sale. Hubbard Direct ¶ 9; *see also* Tr. 2493:11-2497:8; 2500:23-2502:19. Professor Hubbard testified that the purchase price paid by the U.S. Treasury for 60.8% of New GM's equity implies that 100% of New GM's equity — on its own, separate from liabilities — had a value of \$65 *billion*, as compared to KPMG's \$19.9 billion estimate. Hubbard Direct ¶¶ 9, 73, 87; Tr. 2338:14-24; Tr. 2500:23-2502:19.

¹⁶ The result is the same even if the Evercore purchase price were adjusted to include cash and to exclude operating liabilities, as in KPMG's TIC calculation. Adding Evercore's estimate of excess cash of \$13.4 billion (JX3 at 107) and subtracting Evercore's estimate of operating liabilities of \$27.8 billion (JX3 at 117) results in a range of \$76.7 - \$79.1 billion, still higher than the \$72.2 billion net asset value before application of the TIC Adjustment (DX247). Using the estimate of New GM cash that KPMG itself used for the TIC calculation — \$33.8 billion in total (DX141 at 265) — would lead to an even bigger difference.

170. At trial, Professor Hubbard testified that the “transaction price, of course speaks for itself” in determining value. Tr. 2327:10-16; *accord* Hubbard Direct ¶ 74. Professor Fischel essentially agreed. He testified that the value of a bond during the financial crisis was its trading price, even if the government was the purchaser and regardless of the fact that, absent the government pumping liquidity into the market, the bond would have sold at fire sale prices. Tr. 2589:25-2591:6. Professor Fischel also agreed that, when the Government pays more for an asset than a private party would pay in order “to advance a political or social purpose,” the “price at which the asset was sold” represents the “value of the asset.” Tr. 2591:23-2592:9.

171. Professor Hubbard, however, also calculated an alternative purchase price that accounts for the Government’s public policy objectives. Professor Hubbard testified that the purchase price paid by the U.S. Treasury for its equity, after deducting the public policy based “subsidy,” implies that New GM’s common equity was worth between \$33.4 billion and \$40.1 billion, again much greater than the \$19.9 billion equity value estimated by KPMG. Hubbard Direct ¶¶ 9, 85-86; Tr. 2338:14-24; Tr. 2500:23-2502:19.

172. Professor Hubbard relied primarily on two sources to estimate the value of the subsidy: The first source was Ron Bloom’s testimony before the Congressional Oversight Panel, in which Mr. Bloom described the Government’s expected recoveries on its loans to GM. Mr. Bloom stated that, while the Government had a reasonable probability of repayment on the DIP loans made after thorough due diligence, the likelihood of recovery on the \$19.4 billion pre-DIP TARP financing was lower. Hubbard Direct ¶ 79; Tr. 2365:3-8 ; Tr. 2369:18-2370:12; 2497:9-22 (Hubbard). The second source was a Congressional Budget Office report estimating that the Government would likely not be able to recoup up to 73% of the initial TARP loans made through June 17, 2009. Hubbard Direct ¶ 80; Tr. 2365:13-17; Tr. 2372:6-2375:6 (Hubbard). Professor Hubbard concluded that public policy motivations accounted for at most \$15.3 billion to \$19.4 billion of the U.S. Treasury’s investment. Tr. 2364:2-18; Hubbard Direct ¶ 78.

173. Professor Hubbard’s subsidy estimates are based on a reasonable distinction between loans made by the Government before its determination of GM’s viability and loans

made after that determination. Hubbard Direct ¶¶ 79, 82; *see also* Tr. 2499:7-2500:4 (Hubbard). They also take into account the U.S. Treasury's repeated instructions to its Auto Task Force to act in a "commercial manner" and to ensure that GM would be viable after its bankruptcy. Hubbard Direct ¶¶ 79, 81-83; *see also* Tr. 2371:12-2372:3 (Hubbard); Tr. 2375:13-2376:7; Tr. 2380:4-23 (Hubbard).

174. Other evidence in the record regarding the subsidy was offered by Matthew Feldman, a member of the Auto Task Force, who indicated that the U.S. Government had an expectation that *all* money lent to GM would be repaid. Feldman Dep. 141:20-142:22, 144:6-8; Tr. 2498:11-2499:2 (Hubbard); Hubbard Direct ¶ 80. By contrast, Mr. Feldman testified that the U.S. Government did not expect to be repaid in full on the loans extended to Chrysler. Feldman Dep. 140:16-141:19. The testimony of Mr. Feldman shows that Professor Hubbard's estimate of the subsidy is conservative. Tr. 2498:11-2499:2 (Hubbard).

175. The Avoidance Trust did not offer its own estimate of the purchase price paid in the section 363 sale in any of its written direct testimony. The Avoidance Trust likewise did not offer any expert testimony attempting to quantify the amount of the Government subsidy. Professor Fischel confirmed on cross-examination that he had not performed any independent calculation to determine the extent of any government overpayment. Tr. 2593:22-2594:5, 2594:12-17.

176. In response to questioning by the Court, Professor Fischel did offer a "proxy for an estimate of the subsidy" of \$28 billion. Tr. 2646:22-2647:4. This proxy was calculated as the difference between what Professor Fischel claims the U.S. Treasury paid in the section 363 sale and what the U.S. Treasury received, as reflected on Exhibit E to Professor Fischel's written testimony. Tr. 2641:14-2642:14; Fischel Direct Ex. E.

177. Professor Fischel's subsidy calculation is not reliable. First, Professor Fischel only offered a tentative estimate of the subsidy in response to questioning by the Court; it was not an explicit part of his expert opinion. Tr. 2641:14-2642:14 (Fischel). He noted that his

estimate was not a “precise calculation,” Tr. 2641:18-21, and that he “didn’t say it was the right way” to estimate the Government subsidy. Tr. 2668:18-25; 2669:2-8.

178. Second, Professor Fischel’s estimate is nothing more than a repackaging of KPMG’s calculation of New GM’s equity value. In his Exhibit E, the basis for his “proxy” calculation, Professor Fischel shows that the “U.S. Treasury Received” \$12.1 billion in common equity value. Fischel Direct Ex. E. This value was not independently derived: It is simply 60.8% of \$19.9 billion, *i.e.*, the Government’s ownership stake in New GM valued using KPMG’s New GM equity value. PX126 at 47; DX141 at 265.¹⁷ Because Professor Fischel’s subsidy calculation is derivative of KPMG’s TIC estimate, it does not provide an independent estimate of the equity value implied from the purchase price paid by the U.S. Government.

179. By simply adopting KPMG’s numbers, Professor Fischel underestimated what the Government received in connection with the section 363 sale. He did not value the preferred equity at face value, and he did not value the common equity using the amount paid by the Government for its equity (accounting for public policy motivations). Hubbard Direct ¶ 229. Professor Hubbard’s calculation of what the Government received establishes that the Government received \$30.5 billion to \$34.6 billion in exchange for its investment in New GM, far higher than Professor Fischel’s estimate of \$21.9 billion. DX246. Additionally, the *actual* U.S. Treasury proceeds resulting from its investment in New GM totaled \$38.4 billion. DX203. This includes \$29.2 billion for the Treasury’s 60.8% stake in New GM’s common equity, more than double the \$12.1 billion that KPMG estimated for the value of that interest. *Compare* Fischel Direct Ex. E to DX203.

180. Had KPMG used the equity value implied by the purchase price paid by the Government for its equity in New GM — even accounting for public policy objectives as calculated by Professor Hubbard — New GM’s TIC would have been significantly higher and

¹⁷ Similarly, the \$1.74 billion value of the U.S. Treasury’s preferred equity stake in Exhibit E comes directly from KPMG’s valuation. Fischel Direct Ex. E; DX141 at 237.

there would have been no need for a TIC Adjustment. Hubbard Direct ¶¶ 9, 87; Tr. 2338:14-2340:2; Tr. 2341:16-22; Tr. 2505:17-24 (Hubbard); Supplemental Valuation Chart (Equity Value Implied by New GM Purchase Price and Equity Value Implied by New GM Purchase Price Minus Hubbard Subsidy).. With or without the subsidy, the increase in the equity value of New GM would exceed the amount of the \$12.3 billion TIC Adjustment at New GM. Hubbard Direct ¶ 87; Lakhani Direct ¶¶ 99, 114. In that case, all else being equal, New GM's PP&E would have been valued at the RCNLD values. Lakhani Direct ¶¶ 99, 114; Tr. 1460:14-18 (Furey).

C. The TIC Adjustment was based on a WACC that was too high.

181. KPMG calculated a WACC of 23% for GMNA and an implied WACC of nearly 23% for New GM as a whole. Hubbard Direct ¶¶ 10, 114; DX206; DX141 at 66 and 278. KPMG's 23% WACC was a direct result of the high cost of equity used in its WACC calculation, estimated by KPMG to be 38.3% (DX144 at 13 (B.1-1)). Hubbard Direct ¶ 126. This extremely high cost of equity was based, in part, on an approximately 27% Company-Specific Risk Premium for GMNA and a similarly large Company-Specific Risk Premium for other business units of New GM. Hubbard Direct ¶¶ 10, 111; DX206; DX141 at 278. KPMG also included a "size risk premium" of 0.94% for GMNA. DX206; DX141 at 278. Finally, KPMG used a pre-tax cost of debt of 15.37%. DX206; DX141 at 278.

182. As explained further below, the evidence at trial established that KPMG's WACC was not reasonable and that an appropriate WACC for GMNA, as determined by Professor Hubbard, ranged from 8.3% to 11.5%. Hubbard Direct ¶¶ 12, 166-72; Hubbard Direct Ex. 56; DX244; Tr. 2407:4-7. In calculating his WACC range, Professor Hubbard did not include a Company-Specific Risk Premium or size premium in his estimation of the cost of equity. Hubbard Direct ¶ 169-71. He also determined that an appropriate cost of debt was between 10.16% and 12.66%, based on an assumed credit rating for New GM as of July 10, 2009 ranging from B- to B+. Hubbard Direct ¶ 168.¹⁸

¹⁸ As Professor Hubbard testified, the WACC ranges for New GM and GMNA are and should be virtually identical, since GMNA is easily GM's largest business unit in terms of both

183. KPMG's estimate of GMNA's TIC was based on a DCF valuation; therefore, the higher the WACC used in discounting the projected cash flows, the lower the present value of GMNA's discounted cash flows and, thus, the lower the value of GMNA's TIC. If KPMG had used a reasonable WACC, there would have been no need for the TIC Adjustment.

1. The 23% WACC is inconsistent with all of the contemporaneous WACC estimates.

184. An appropriate starting point in assessing the reasonableness of KPMG's WACC is the contemporaneous estimates made by other market participants with respect to GM and its peers.

185. As discussed above in Section II, at the time of the section 363 sale, Evercore estimated GM's WACC at 9.5% to 11.5%. JX3 at 105; DX207. Evercore's estimate is a reliable data point because it is a contemporaneous estimate of GM's cost of capital, it was performed by GM's own financial advisor, and it was used in the valuation analysis presented to GM's Board of Directors and the Bankruptcy Court. JX3 at 92; Tr. 1809:17-22 (Worth).

186. GM also used WACCs for itself that were far below KPMG's WACC. It used a 10.5% WACC in its April 27, 2009 Form S-4 filing with the Securities and Exchange Commission to discount its VP4 projections in the context of a bond tender offer, and it used a 15% WACC in a May 2009 presentation to the United States Treasury. DX14 at 120; DX278 at 13, n.3; DX207; Hubbard Direct ¶ 121.

187. KPMG's WACC is likewise significantly higher than the WACCs of GM's peer companies throughout 2009 (DX208), the WACCs for GM calculated by analysts both before and after the bankruptcy (DX209), and the WACCs of companies emerging from bankruptcy (DX210) and that adopted fresh start accounting (DX211). Hubbard Direct ¶¶ 11, 122-24; Tr. 2444:15-2449:2 (Hubbard).

revenue and cash flow. Tr. 2400:24-2401:5, 2404:12-2406:24, Tr. 2475:5-2477:7; Hubbard Direct ¶ 170.

188. The cost of equity used by KPMG, which led to its WACC, was likewise an outlier. Publicly reported analyst estimates of the cost of equity for a set of other automobile manufacturing companies in the time period from January 2009 to December 2009 ranged from 7.8% to 13.7%. DX212. Evercore estimated a 13.5% cost of equity (as compared to KPMG’s 38.3%). DX191 at 38.

189. KPMG sought to justify its estimate of GM’s WACC by benchmarking it against other companies. But its justifications do not withstand analysis. The KPMG Report stated that “[a]n automotive industry WACC for a company similar to GM would likely be in the *upper teens* prior to the addition of a premium for these specific company risk factors.” DX141 at 71 (emphasis added); Hubbard Direct ¶ 125. However, Professor Hubbard was not able to locate any data justifying that statement and the Avoidance Trust offered none. Hubbard Direct ¶ 125.

190. KPMG also benchmarked its 23% WACC by comparing it with WACCs for companies in the bridge or IPO stage of development. DX141 at 67. But GM was not comparable to a bridge/IPO stage company. Hubbard Direct ¶¶ 11, 148-49 (“Perhaps the most obvious red flag in KPMG’s justification of a high WACC is its comparison of New GM to companies in the ‘Bridge/IPO’ stage of development. . . .”). Among other things, while GM may have been temporarily unprofitable and was being reorganized, it was a 100-year-old company with more than just an “established customer base,” as KPMG put it (DX141 at 67): GM’s shares have been publicly traded since as early as 1916; GM had over \$100 billion in annual sales around the globe in 2009 on sales of approximately 7.5 million vehicles, representing an estimated market share of 11.6% worldwide; GM had approximately 150 manufacturing facilities and over 20,000 dealerships worldwide in the same year; GM invested approximately \$38 billion in capital expenditures between 2004 and 2008; and GM had approximately 77,000 U.S. employees in 2009 and 217,000 worldwide. Hubbard Direct ¶ 149.

None of these characteristics are consistent with GM being a company in the bridge/IPO stage of development. Hubbard Direct ¶ 149.¹⁹

2. The outsized WACC stemmed from an unfounded 27% Company-Specific Risk Premium.

191. As noted, KPMG's high cost of equity and WACC estimates are driven largely by its Company-Specific Risk Premium. Hubbard Direct ¶ 127. The evidence established that KPMG's justifications for its use of a Company-Specific Risk Premium were flawed and inconsistent with established finance theory and practice. Hubbard Direct ¶¶ 11; 127-33. Removing KPMG's 27.4% Company-Specific Risk Premium would reduce KPMG's WACC estimate to 10.3%, well within the range calculated by Professor Hubbard and Evercore. Hubbard Direct ¶ 127; DX144 at 13 (B.1-1); Tr. 2451:8-13 (Hubbard).

192. KPMG's application of a Company-Specific Risk Premium was inconsistent with financial theory. Hubbard Direct ¶¶ 11, 127-33; Tr. 2450:9-2464:25 (Hubbard); Tr. 2469:21-2471:24 (Hubbard). A key concept in the widely-accepted Capital Asset Pricing Model, or CAPM, is that investors receive compensation *only* for systematic risk, which is risk that cannot be diversified away. Hubbard Direct ¶ 128.²⁰ This systematic risk is captured by inclusion of beta in the calculation of the cost of equity. Hubbard Direct ¶ 128. There is no additional

¹⁹ Financial theory warns against comparing distressed companies with start-ups funded by venture capital. Hubbard Direct ¶ 150 (*citing* Pratt and Grabowski (DX313 at 51) ("Some authors suggest looking at venture capital rates of return as a proxy for distressed company rates of return. These are at best a poor proxy because most of the rates observed are for newer ventures without a proven history in the market. Distressed firms often own proven technologies, products, and/or services. Often their problem is simply too much debt or poor execution by management. These risks differ from those of most venture capital or buyout fund investments.")).

²⁰ Although the Avoidance Trust showed Professor Hubbard some isolated statements in a practitioner handbook regarding criticisms of CAPM, Professor Hubbard testified that those criticisms related to different issues than Company-Specific Risk Premiums, for example they related to the "very different point, about factor modeling in economics and finance." Tr. 2395:16-2396:3; Tr. 2396:7-23; Tr. 2453:10-25. It has not been seriously disputed that the CAPM is a standard economic model, and Professor Hubbard's testimony in this regard is credible in light of his background. Tr. 2388:24-2389:9; Hubbard Direct ¶ 95.

compensation for the portion of a stock's volatility that is diversifiable (that is, company-specific or idiosyncratic risk). Hubbard Direct ¶ 128, n. 174.

193. Indeed, although KPMG included a Company-Specific Risk Premium in its cost of equity, it acknowledged that “[u]nder the efficient market hypothesis assumption, it is assumed that an investor can diversify away company-specific risk factors (unsystematic risk) by owning a portfolio of securities.” DX141 at 70.

194. As noted, Evercore did not use a Company-Specific Risk Premium in calculating the WACC for GMNA. Rather, Evercore concluded that beta was sufficient to capture company-specific risks.²¹ Tr. 1831:24-1832:7 (Worth); DX191 at 67. In addition, none of the analyst reports compiled by Professor Hubbard and listed in DX209 disclosed the use of any Company-Specific Risk Premium. Hubbard Direct ¶ 130.

195. The evidence at trial established that KPMG's Company-Specific Risk Premium was trying to capture idiosyncratic risk — for example, KPMG stated that the risk of a “company emerging from bankruptcy” and “risk associated with the forecasted earnings” “mandate that company specific risk factors be included in determining GM's WACC.” DX141 at 71; *see also* DX141 at 69-77; Hubbard Direct ¶¶ 115-18, 128.

196. But, as Professor Hubbard testified, markets do not compensate investors for idiosyncratic risk, regardless of whether they are able to diversify their portfolios. Hubbard Direct ¶¶ 128, 128 n.174.²² If KPMG had concerns about GM's projections, the appropriate

²¹ The difference between KPMG's beta and Evercore's beta would not justify the Company-Specific Risk Premium applied by KPMG. KPMG's beta for GM was 0.95, calculated using comparable-company data. Evercore's beta for GM was 1.21, also calculated using comparable-company data. Assuming an equity risk premium of 6.0% to 7.0 %, and a 50-50 capital structure, increasing the beta from 0.95 to 1.21 increases the WACC *by less than 1%*. Hubbard Direct ¶ 128 n.177; DX141 at 278; DX191 at 67.

²² Moreover, KPMG's suggestion that concentrated government ownership justified a higher WACC is not persuasive. Where the company's business fundamentals and earning power do not change, the identity of a company's owner or the change in company ownership should have no effect on the discount rate applicable to the cash flow of that company. Hubbard Direct ¶ 128. That is particularly true in New GM's case, where the government planned to transfer its ownership to the public and did so. Hubbard Direct ¶ 128.

approach was not to apply a Company-Specific Risk Premium but, rather, to adjust the forecasts or to add weights to forecast scenarios (*e.g.*, an optimistic scenario with a 40% chance of occurring, and a pessimistic scenario with 60% chance of occurring). Hubbard Direct ¶ 144; Tr. 2391:10-2392:6; Tr. 2417:5-2418:7; Tr. 2451:25-2453:5 ; Tr. 2459:5-2461:4 (Hubbard). As explained by Brealey, Myers, and Allen in a standard finance textbook, *Principles of Corporate Finance*: “Avoid fudge factors. Don’t give in to the temptation to add fudge factors to the discount rate to offset things that could go wrong with the proposed investment. Adjust cash-flow forecasts first.” DX312 at 5. Hubbard Direct ¶¶ 128 n.176, 144 n.216; *see also* Tr. 1700:25-1701:8 (Lakhani) (“If the valuation professionals disagree[] with management’s projections, it is incumbent upon him or her to get management to change the projections or somehow get management to satisfy him or her” that “the projections are reasonable”).

197. Unlike KPMG, Evercore followed this guidance. In its contemporaneous valuation of New GM, Evercore addressed the risk presented by management’s “base case” projections by using an alternative scenario: It considered both the “base case” and the “downside case,” and attached equal weight to each case in its DCF analysis. *See* JX3 at 110; DX191 at 6; Tr. 1817:13-1818:11 (Worth). Evercore thus conducted the kind of “scenario analysis” that Professor Hubbard described in response to questions from the Court: rather than engaging in the “absolute no-no” of applying a “very high discount rate,” which results in “overreject[ing] project[ions]” and discounting “too heavily,” (Tr. 2417:5-2418:7), Evercore took into account the risk of under-performance by attaching significant weight to a downside case.

198. Although some practitioners have expressed tolerance for Company-Specific Risk Premiums, valuation practitioners generally do not rely upon Company-Specific Risk Premiums, let alone premiums at the level of KPMG’s. Hubbard Direct ¶¶ 11, 129-33; Tr. 2426:22-2427:14 (Hubbard); 2453:6-2456:21 (Hubbard). For example, Pratt and Grabowski cite to a decision warning against “incorporat[ing] heavy dollops of what is called ‘company-specific risk,’ the very sort of unsystematic risk that the CAPM believes is not rewarded by the capital markets and

should not be considered in calculating a cost of capital.” DX313 at 61; Hubbard Direct ¶ 131. When one cannot resist adding a Company-Specific Risk Premium, Pratt and Grabowski warn practitioners to avoid double-counting risks (DX313 at 48) or adding large Company-Specific Risk Premiums (DX313 at 72-73). Hubbard Direct ¶ 131.

199. Pratt & Grabowski state:

The company-specific risk premium added to the cost of capital should be *as small as possible* — sometimes we see **10 percentage points** in the company-specific risk premium, which, depending on the company and the industry, is **normally too much**. Ten percentage points would push the discount rate **close to a venture capital or start-up company rate**. DX131 at 72-73 (emphasis added); Hubbard Direct ¶ 131.

200. Here, KPMG’s Company-Specific Risk Premium of 27% was more than twice the amount this practitioner handbook warned was “normally too much.” Hubbard Direct ¶ 131; Tr. 2426:22-2427:14; 2453:6-2456:21.²³

201. KPMG’s justification for its 27% Company-Specific Risk Premium based on New GM being a “distressed” company is also not supported by the evidence. Risk premiums for distressed companies are much lower than KPMG’s Company-Specific Risk Premium. Hubbard Direct ¶¶ 11, 134. For example, Pratt and Grabowski observed a distressed-company risk premium of 1.5% in high-risk companies, and Gilson, *et al.*, estimated a distressed-company premium of 4.0% over “an industry average cost of capital.” Hubbard Direct ¶ 134; DX213.²⁴

²³ Another source used by the Avoidance Trust on cross-examination was concerned with the fundamentally different problem of forecast adjustment for venture-type deals and, incidentally, stated that Company-Specific Risk Premiums “make auditors cringe” because they are inherently subjective. PX822 at 3; Tr. 2469:21-2471:24 (Hubbard).

²⁴ In his written testimony, Professor Hubbard rebutted the remaining justifications KPMG stated for its WACC. Hubbard Direct Section V.D. Professor Hubbard explained why a higher Company-Specific Risk Premium for GMNA compared to GM was not appropriate (Hubbard Direct ¶¶ 11, 145-47) and that the pending transaction for GM Polska did not support KPMG’s 23% WACC estimate (Hubbard Direct ¶¶ 11, 161-65).

3. The WACC was further overstated by inclusion of a size premium.

202. The evidence also established that KPMG's use of a size premium in estimating GM's WACC was not justified. Size premiums are only appropriate for the smallest of firms. Tr. 2464:6-25 (Hubbard). There was absolutely no reason to assign a size premium to New GM, a company with \$100 billion in annual sales. Hubbard Direct ¶¶ 11, 151-53; Tr. 2464:6-25.

203. While the size premium was a small adjustment (*i.e.*, under one percent for GMNA), it was, nevertheless, a misapplication of the CAPM. Hubbard Direct ¶ 151. As Professor Hubbard testified, a positive size premium can only be appropriate for companies in the *bottom decile* of the size distribution. Hubbard Direct ¶ 152; DX314 34-36. GM was not in the bottom decile. Indeed, KPMG's own estimated equity value of \$19.9 billion would put GM in the top decile. Hubbard Direct ¶ 152. Even a standalone GMNA would be in the top decile. Hubbard Direct ¶ 152; DX141 at 266. The Avoidance Trust offered no evidence on this issue.

4. The cost of debt incorporated in the WACC was too high.

204. KPMG used a cost of debt of 15.37% for GMNA based on the premise, provided to KPMG by New GM management, that New GM's post-bankruptcy credit rating would be CCC. Hubbard Direct ¶¶ 112-13, 154; DX141 at 69, 278; DX144 at 49. This high cost of debt contributed to the high WACC used by KPMG. Hubbard Direct ¶¶ 112-13, 154; DX206.

205. Professor Hubbard showed that New GM's post-bankruptcy credit rating would be higher and its cost of debt would be lower. Hubbard Direct ¶¶ 11, 154-60.²⁵ Among other things, it is not plausible for any company's cost of equity to be lower than that company's cost of debt. Hubbard Direct ¶ 155. The reasonable cost of equity for GMNA as of July 10, 2009 ranged between 10.4% and 15.2% (Hubbard Direct Ex. 56), and thus it is unlikely that GMNA's cost of debt was as high as 15.37%. Hubbard Direct ¶ 155.

²⁵ KPMG's cost of debt also directly contributed to an inflated cost of GM's preferred equity, which was determined by adding a spread of 5% to the estimated cost of debt. DX141 at 237; Hubbard Direct ¶ 154 n.239.

206. Professor Hubbard pointed to additional evidence showing that GM's cost of debt did not exceed 15% and that CCC was not an appropriate New GM credit rating. The evidence included: the fact that coupon rates that had just been negotiated between GM and the U.S. Treasury ranged from 5.66% to 9% (Hubbard Direct ¶ 156; DX217); the fact that auto manufacturers with a capital structure similar to New GM were rated between BBB and A+ and the only auto manufacturer with a rating below BB was Ford, which had not gone through a restructuring (Hubbard Direct ¶ 157; DX218); and the fact that a CCC rating would imply that New GM had virtually no chance of achieving an investment grade rating within one to five years, despite the U.S. Treasury deeming New GM's plan viable and investing in New GM. (Hubbard Direct ¶ 158).

207. Notably, GM's actual credit ratings following bankruptcy belie a CCC rating. Hubbard Direct ¶ 159. Two credit rating agencies rated New GM secured debt investment grade approximately one year after its exit from bankruptcy. Hubbard Direct ¶ 159. Within approximately five years, New GM was rated investment grade by virtually *all* the credit rating agencies. Hubbard Direct ¶ 159; DX219. This is another indication that New GM's credit rating for valuation purposes should be higher than CCC and its cost of debt should be lower than 15.37 percent. Hubbard Direct ¶ 159.

208. All of this evidence shows that KPMG's cost of debt was too high and Professor Hubbard's estimated cost of debt for GM was appropriate. The Avoidance Trust offered no contrary evidence.

5. The evidence at trial established that skepticism about GM's projections was unfounded.

209. One of KPMG's main justifications for its high Company-Specific Risk Premium, and its correspondingly high WACC, was its skepticism over the achievability of GM management forecasts. DX141 at 71-73; Hubbard Direct ¶ 135. The evidence at trial established that KPMG's concerns ran counter to economic principles and New GM's circumstances at the time. Hubbard Direct ¶¶ 11, 135-44; Keller Direct ¶¶ 85-137. On this

issue, the Term Lenders offered credible testimony from Professor Hubbard and Maryann Keller, an expert on the automotive industry, who was tasked with evaluating GM's projections and KPMG's stated justifications for questioning them. Keller Direct ¶¶ 1-8. In contrast, the Avoidance Trust offered no evidence supporting KPMG's stated concerns regarding the achievability of GM's projections.

(a) New GM's projections were thoroughly vetted.

210. The evidence at trial established that KPMG's skepticism regarding GM's projections was unfounded, especially given that New GM's projections had been thoroughly vetted. Hubbard Direct ¶ 136; Keller Direct ¶¶ 29-41. As shown at trial:

a) The Auto Task Force deemed GM's plan viable and advanced DIP financing only after performing comprehensive due diligence. Hubbard Direct ¶ 136; Keller Direct ¶¶ 29-41; Section II.A above. The U.S. Treasury stated, in a press release, that "the President deemed GM's plan viable and on June 1, 2009 committed approximately \$30.1 billion of additional federal assistance." DX277 at 2.

b) By contrast, when it rejected GM's earlier viability plan, the U.S. Treasury stated that "GM's plan is based on a number of assumptions that will be very challenging to meet without a more dramatic restructuring" and "even under the Company's optimistic assumptions, the Company continues to experience negative free cash flow (before financing but after legacy obligations) through the projection period, failing a fundamental test of viability." DX281 at 2; Hubbard Direct ¶ 136.

c) Ultimately, to obtain a determination of viability and the U.S. Treasury's approval for the DIP financing, GM revised the projections of several key financial metrics downward in VP4 from earlier plans. Hubbard Direct ¶ 137; Keller Direct ¶¶ 29-41. For example, DX223-DX226 show that VP4 assumed lower revenue for both GM and GMNA, lower U.S. market share for GMNA, and lower unit sales for GMNA than did the earlier Viability

Plans. Hubbard Direct ¶ 137. In addition, the revenue and unit sales projections used by KPMG were even further reduced relative to VP4 projections. Hubbard Direct ¶ 137.

d) After its investigation of the U.S. Treasury's due diligence process, the Congressional Oversight Panel concluded in September 2009 that: "[t]he auto team seems to have had a reasonable basis to believe in the long-term viability of [GM]." JX22 at 111; Hubbard Direct ¶ 136.

e) Mr. Feldman of the Auto Task Force testified that the U.S. Treasury paid special attention to the projected cash flow of New GM when determining "whether it made sense to save GM" and "what was an appropriate amount to invest in GM." Feldman Dep. 129:7-130:14; Hubbard Direct ¶ 136.

211. Despite all of this, by using a high WACC, KPMG effectively applied a large downward adjustment to the forecasts. Hubbard Direct ¶ 137. This adjustment was unnecessary given that the projections at issue had been reduced substantially from previous iterations and thoroughly vetted by the U.S. Treasury, which invested over \$30 billion via DIP financing based on GM's financial prospects. Hubbard Direct ¶ 137.

(b) GM's estimate of the size of the US auto market was reasonable.

212. The evidence at trial established that GM's projections regarding the overall size of the U.S. automotive market — the basis from which the rest of GM's projections flowed — were reasonable.

213. As GM's Chief Economist Dr. G. Mustafa Mohatarem testified, GM's industry projections were put together by an experienced group of professionals in GM's Economic Group. They were a regular part of GM's business, took into account many economic variables (such as employment growth, gas prices and credit conditions) from reliable sources, were calculated according to a sophisticated econometric model, were conservative and consistent with outside forecasts and were ultimately accepted by the U.S Treasury as reasonable. Mohatarem Dep. 10:22-11:4, 12:20-13:25, 14:4-22, 16:9-15, 16:24-17:8, 18:20-20:24, 21:2-11,

21:18-22:25, 24:14-24, 29:2-32:11, 32:13-33:7, 44:19-47:14, 47:16-18, 50:11-51:8, 52:12-53:19, 54:9-13; DX307; DX13.

214. The projections of U.S. auto sales in VP4 comported with historical recoveries (DX220) and with projections of others in the industry (DX221). Hubbard Direct ¶ 138; Keller Direct ¶¶ 45-51. Although the economic situation at that time was difficult, the recovery of the U.S. automobile industry was viewed at the time as inevitable. Hubbard Direct ¶ 140; Keller Direct ¶¶ 43-44. In an article on the U.S. auto market, two auto industry economists wrote that the recovery of the U.S. auto market was a certainty, albeit not immediately to pre-crisis levels:

The recovery of the U.S. auto market seems inevitable given the rapid accumulation of pent-up demand, and the strong rebound of the auto sector will be among the most important drivers for the medium-term recovery of the U.S. economy. However, a quick return to precrisis level of vehicle sales is unlikely given the prospect of slow employment and credit growth and the possibilities of significant gasoline price increases in the years ahead.

DX307 at 2; Hubbard Direct ¶ 140.

215. In addition, actual U.S. auto sales largely tracked VP4 projections. DX222; Hubbard Direct ¶ 138. Although comparing projections as of July 2009 to actual sales in future years benefits from the use of hindsight, the fact that GM's projections in hindsight appear reasonable is another indication the KPMG's concerns were not well-founded. Hubbard Direct ¶ 138; Keller Direct ¶ 134.

(c) GM's pre-bankruptcy performance did not provide a sound basis to discount its post-bankruptcy projections.

216. KPMG stated that because GMNA had experienced negative operating profit for four years prior to the bankruptcy restructuring, it would be aggressive to assume that it could achieve operating profit within the first 18 months of the forecast period. DX141 at 73; Hubbard Direct ¶ 139; Keller Direct ¶¶ 99-101. Similarly, KPMG expressed concern that "forecasted EBIT margins . . . are higher than the historical profit margins." DX141 at 71; Hubbard Direct ¶ 139.

217. As explained by Professor Hubbard and Ms. Keller, this reasoning is flawed. Hubbard Direct ¶¶ 139-43; Keller Direct ¶¶ 55-65, 85-87, 99-101. As an initial matter, recent historical profit margins should not be used as a benchmark for projected future profit margins of a company in a cyclical industry. Hubbard Direct ¶ 140. They are a particularly poor benchmark for a newly restructured firm, which, by definition, has shed structural costs and other obstacles to improved profit margins. Hubbard Direct ¶ 140; Keller Direct ¶ 101; Tr. 2130:19-2132:7 (Keller). Given the cyclicity of the automobile industry and the fact that it had hit its trough by mid-2009 (DX214-DX216), a freshly restructured company (after shedding poorly performing assets, reducing burdensome legacy and labor costs, and significantly shrinking the size of its debt load) was facing less risk than it had pre-bankruptcy and *should* project future profit margins to be higher than recent historical margins. Hubbard Direct ¶ 140; Keller Direct ¶ 101.

218. In addition, economic studies have established that a substantial number of companies entering into bankruptcy with negative EBIT have positive EBIT by the end of the first year after emerging from Chapter 11. Hubbard Direct ¶ 141. Academic research also shows that bankrupt firms' operating and financial performance improves after exiting Chapter 11. Hubbard Direct ¶ 140 n.202; *see, e.g.*, DX316, DX311.²⁶

219. In the case of GM, KPMG did not adequately account for the positive impact that the short and carefully structured bankruptcy and section 363 sale would have on GM going forward. Keller Direct ¶¶ 55-65, 87, 101. As detailed in Professor Hubbard and Ms. Keller's testimony, by July 2009, New GM had already accomplished numerous restructuring initiatives, including brand eliminations, agreements with the UAW, a deal with Delphi lenders, and dealer closings. Hubbard Direct ¶ 141; Keller Direct ¶¶ 55-72; 85-87. As Mr. Feldman of the Auto Task Force correctly observed, these initiatives resulted in New GM emerging from bankruptcy

²⁶ The latter article finds that bankrupt firms' performance improves if they replace the CEO, which GM did. DX311; Hubbard Direct ¶ 140 n.202.

with “operations [that] had largely been fixed.” Feldman Dep. 140:16-142:22; Hubbard Direct ¶ 142; Keller Direct ¶ 103. New GM, accordingly, was positioned to become profitable very quickly following the bankruptcy sale. Hubbard Direct ¶ 141.

(d) The claimed risks to New GM’s forecasted revenue and profits were overstated.

220. At trial, Ms. Keller addressed each of the specific “risks” that KPMG identified relating to GM’s projected future sales and profitability. Ms. Keller testified credibly that those risks were far more limited than suggested by KPMG. Keller Direct ¶¶ 85-137.

221. KPMG identified two “quantitative” company-specific risks — namely, forecasted revenue growth and profitability — and graded them as “moderately aggressive” and “aggressive,” respectively. DX141 at 72-73. KPMG’s assessment of those risks was not consistent with objective economic indicators. Tr. 2069:20-23 (Keller).

222. GM’s revenue projections were reasonable rather than “aggressive.” Passenger demand is highly cyclical and, during the credit crisis, the demand for and value of cars decreased. Keller Direct ¶ 89. By mid-2009, however, the situation was improving. Used car values were rising, and it was apparent that government action to stabilize the financial markets was restoring consumer confidence. Chrappa Direct ¶¶ 109-10; Levy Dep. 41:5-10, 12-14, 16-19; 42:2-3, 5-9; Keller Direct ¶¶ 90-92. Moreover, KPMG’s concern about GM’s ability to achieve its projected market share due to the discontinuation of certain brands (DX141 at 72-73) was not well-founded: Those brands were unprofitable and accounted for only 15% of GM’s sales as of June 2009. And the VP4 projections already accounted for a reduction in market share. Keller Direct ¶¶ 78, 96-98, 100.

223. GM’s profitability forecasts were also reasonable rather than “aggressive.” Through the pre-bankruptcy negotiations and the bankruptcy, GM “eliminated excess capacity, unprofitable brands and underperforming dealers” and had successfully restructured its labor agreements. Keller Direct ¶ 100. As a result of these changes to GM’s cost structure, the

company could “operate at breakeven in a 10.5 million unit U.S. market size,” a level set by the Auto Taskforce, a market size that was readily achievable. Keller Direct ¶¶ 100-01.

224. KPMG also graded five purported “qualitative” company-specific risks for GMNA and characterized all as “High” or “Very High.” DX141 at 73-77. These risks as well were less substantial than stated by KPMG. Tr. 2090:8-17.

225. *Restructuring Risk.* KPMG made several unsupported assumptions in assessing New GM’s “restructuring risk.”

a) First, KPMG assumed that “unnatural equity holders,” such as the government and unions, were likely to interfere in the post-bankruptcy management of GM. Keller Direct ¶ 104; DX141 at 74. The UAW, however, did not hold any GM equity; the equity was held by an independent Voluntary Employee Beneficiary Association (“VEBA”). Keller Direct ¶ 104; Tr. 2092:23-2093:22 (Keller). Further, the government had explicitly stated that it would take a “hands-off” approach vis-à-vis New GM and would sell its shares in short order. Keller Direct ¶ 105; DX291 at 4-5.

b) Second, KPMG’s concern that the government was GM’s “[s]ole source” of financing (DX141 at 74) was not reasonable because New GM was structured to be cash flow positive; it did not require additional funding. Keller Direct ¶ 107; Tr. 2137:2-2138:4 (Keller).

c) Third, as discussed above, the “[p]lanned divestitures” of certain brands (DX141 at 74) created no real risk because those assets had very little value. Keller Direct ¶ 108; Tr. 2127:11-2129:9 (Keller).

d) Fourth, KPMG’s concerns over the “Delphi impact” (DX141 at 74) were likewise misplaced because as of May 2009, GM was no longer solely dependent on Delphi as a supplier. Keller Direct ¶ 109; Tr. 2138:5-2141:7 (Keller).

226. *Strategic Risk.* KPMG’s stated grounds for concern about “strategic risk” were also misplaced. DX141 at 74-75. KPMG characterized strategic risk as “Very High” based on its assessment that GM’s “[n]ew brand strategy of only four brands is unprecedented for GM.” DX141 at 74; Keller Direct ¶ 110. But, as Ms. Keller testified, the reduction to four brands

would *benefit* GM, because those brands were not profitable. Keller Direct ¶¶ 71-72, 110. Similarly, GM's ability to eliminate underperforming dealers allowed GM to improve the quality of its dealer body and eliminate low-volume dealerships and dealers in "over-dealered" locations. Keller Direct ¶¶ 111-14; Tr. 2116:11-2121:2 (Keller). Finally, KPMG's concern that GM would have to "shift to [a] smaller more fuel efficient vehicle market" (DX141 at 75) did not take into account the fact that, by 2009, GM already had competitive small cars in development or in the market. Keller Direct ¶¶ 115-16.

227. *General Regulatory Risk.* KPMG's assessment that GM faced additional scrutiny because of a "[c]hallenging regulatory environment due to government ownership" (DX141 at 75) was not a company-specific risk faced by GM. Keller Direct ¶117. The regulatory environment was the same for all automakers, and short-term government ownership had no effect on the regulatory landscape. Keller Direct ¶ 118.

228. *Operational Risk.* KPMG's estimation of "operational risk" was also not well-supported. DX141 at 75-76. First, there was little reason for concern over "[c]hallenging employee relations due to labor unions and VEBA ownership in GM." The VEBA's ownership stake in GM was temporary and, if anything, gave union members a stake in the success of GM. Keller Direct ¶¶ 119-20. Second, KPMG's statement that GM was "lagging [behind the] technology curve" was not accurate as of 2009. DX141 at 76. GM's products were competitive and GM had already introduced hybrids at the time of the bankruptcy. Tr. 2141:18-2144:9; Keller Direct ¶ 121. Third, KPMG's hypothesis that GM would not be able to "attract/retain highly qualified Management" overlooked GM's post-bankruptcy profile, the limited options available for auto professionals in 2009, and the fact that GM had the ability to incentivize employees with long-term stock grants. Keller Direct ¶ 122; Tr. 2146:3-2147:21 (Keller).

229. *Competitive Landscape Risk.* KPMG's assessment of competitive landscape risk was also unsubstantiated. DX141 at 76-77. "Bargaining power of suppliers" was not a company-specific risk faced by GM, but was a risk faced by all auto manufacturers. DX141 at 76. KPMG's claim that "[o]ffering extended warranties" created risk (DX141 at 76) was belied

by the fact that such incentives would have a well-defined cost for GM coming out of bankruptcy. Keller Direct ¶ 127. As noted above, KPMG's statement that GM's "[e]lectric and hydrogen car technology lags its competitors" was not accurate. DX141 at 76; Keller Direct ¶¶ 129-31. And KPMG's stated concern that GM's product line "possessing the specifications (e.g., mpg, emissions, safety) sought by consumers may reduce ability to maintain market share" (DX141 at 77) also was unfounded. In 2009, GM vehicles met all standards and emissions requirements, and GM's fuel economy for its vehicles was equivalent to its competitors. Keller Direct ¶ 132.

(e) New GM's actual results confirm that concerns about its projections were baseless.

230. KPMG's concern about GM's ability to realize its projections also is not supported in hindsight by GM's actual performance after the bankruptcy restructuring. Hubbard Direct ¶ 143; Keller Direct ¶¶ 79, 96, 133-37. DX227 compares GMNA's actual revenue from 2008 through 2014 to the projected revenue KPMG used. Hubbard Direct ¶ 143. It shows that actual revenue largely tracked and in most years outperformed the management projections from 2009. Hubbard Direct ¶ 143. Similarly, DX228 and DX229 show that GMNA's actual EBIT and EBIT margins generally tracked and, in most years, outperformed the projections KPMG used. Hubbard Direct ¶ 143; Keller Direct ¶¶ 133-37.

6. The Avoidance Trust's experts failed to provide support for KPMG's 23% WACC or to refute Professor Hubbard's alternate WACC.

231. The evidence at trial regarding the appropriate WACC for GMNA and New GM was one-sided. As discussed, Professor Hubbard undertook a comprehensive and detailed analysis of the WACC used by KPMG for New GM and GMNA and provided a reasonable alternative WACC. The Avoidance Trust, in contrast, did not put forward any expert regarding the WACC. Professor Fischel, despite his expertise in the area, did not provide an independent analysis of the appropriate WACC for either New GM or GMNA. Tr. 2594:18-2595:13 (Fischel). Neither did Mr. Klein. Tr. 2794:19-24 (Klein).

232. The Avoidance Trust's chief response to Professor Hubbard (and Evercore) was to observe that GM used the 23% WACC in its financial statements. Tr. 2644:20-2646:19 (Fischel); Tr. 2669:9-2670:8 (Fischel); JX9 at 108 (GM 2009 10-K). But GM hired KPMG to estimate a WACC as part of GM's fresh start accounting. The fact that GM used the 23% WACC that KPMG had calculated does not justify adopting that WACC in this proceeding.

233. Rather than defending KPMG's WACC on the merits, Professor Fischel focused primarily on Professor Hubbard's alternate WACC range of 8.3% to 11.5. Professor Fischel criticized that WACC on the basis that it results in an equity value for New GM of \$62.5 billion, which is different from the \$33.4 billion to \$40.1 billion equity value that Professor Hubbard separately calculated based on the purchase price. Fischel Direct ¶¶ 116, 121-22 & Ex. F.

234. This criticism has no merit. Hubbard Direct ¶¶ 175-176. As an initial matter, the evidence established that Professor Fischel made several errors in his calculation, overstating the effect of using Professor Hubbard's WACC range. Tr. 2502:7-12 (Hubbard); Tr. 2502:23-2504:16 (Hubbard). Had it been calculated correctly, the New GM equity value resulting from an 11.5% WACC would have been closer to \$50 billion. Tr. 2502:23-2504:16 (Hubbard).

235. In any event, as Professor Hubbard explained, there is no reason to expect that a DCF-based valuation (conducted by Professor Fischel) and a purchase price-based valuation (conducted by Professor Hubbard) would result in identical equity values. Hubbard Direct ¶ 176. The critical point is that, under either analysis, the TIC Adjustment would be eliminated. Hubbard Direct ¶ 176.²⁷ Moreover, since the equity value that results from Professor Fischel's DCF valuation is higher than the \$33.4 billion to \$40.1 billion equity value Professor Hubbard's estimates for New GM implied by the *actual* purchase price after deducting for public policy motivations, at best it simply shows that Professor Hubbard's estimate of the subsidy was too

²⁷ Professor Hubbard also demonstrated that the equity values resulting from his purchase price analysis, Professor Fischel's DCF analysis (actual or revised) and Evercore's equity valuation are all generally consistent. DX251; *see also* Section IV.B above; Tr. 2500:23-2502:19 (Hubbard).

large and the resulting equity value accounting for the subsidy is too conservative. Hubbard Direct ¶ 176

236. Professor Fischel's remaining criticisms of Professor Hubbard's analysis are at odds with the record evidence. Professor Fischel argues that the value of New GM (as calculated by Professor Hubbard) could not have been higher than KPMG's calculated value because, if it were, GM would not have needed DIP financing. Fischel Direct ¶¶ 116, 122; Tr. 2650:24-2651:10 (Fischel). But the amount of GM's DIP financing was set in order to enable GM to have the liquidity needed to deal with all contingencies. Hubbard Direct ¶ 177. GM did not need to draw the entirety of the DIP loan to be solvent and viable. Hubbard Direct ¶ 177; *see also* Feldman Dep. 95:18-24 (DIP loan was a "one-time event" aimed at "ensuring" that GM could "operate . . . indefinitely").

237. Professor Fischel also suggested that Professor Hubbard's WACC range implies that New GM could have repaid its DIP financing after restructuring, and apparently assumes that New GM did not do so or did not do so quickly enough. Fischel Direct ¶¶ 116, 122; Hubbard Direct ¶ 178. In fact, once GM's fresh start accounting was complete (April 2010) and its financial statements were in order, GM *did* repay its debt obligations to the U.S. Treasury (April 2010). Hubbard Direct ¶ 178; DX203. It then accessed the financial markets with an IPO that implied a market capitalization for GM equity of \$49.5 billion (November 2010), and repurchased the preferred equity held by the U.S. Treasury (December 2010). Hubbard Direct ¶ 178. The U.S. Treasury ultimately sold its common equity stake for \$29.3 billion, which is more than double KPMG's estimate of its value. Hubbard Direct ¶ 178; DX203; DX141 at 265.

7. The results of using the 23% WACC further demonstrate that it was unreasonable.

238. The unreliability of KPMG's WACC estimate is further supported by the fact that it leads to untenable results.

239. First, KPMG's high WACC implies that New GM was not a financially viable entity as of July 10, 2009. Hubbard Direct ¶¶ 13, 184-94; JX8 at 21-22, 46-47. To show this,

Professor Hubbard adjusted New GM's free cash flow projections using the fixed-percentage method and the fixed-dollar method such that the total value of New GM's free cash flow using an 11% WACC, a WACC within his reasonable range, is the same as the total value estimated by KPMG using a 23% WACC. Hubbard Direct ¶ 184. Professor Hubbard demonstrated that using a WACC of 23% — instead of 11% — is equivalent to a substantial downward adjustment to New GM's free cash flow projections, typically representing several billions of dollars of reduction every year. Hubbard Direct ¶ 185.

240. Professor Hubbard further demonstrated that, with such a significant downward adjustment, New GM would have not have had sufficient cash to cover its projected debt service and pension and OPEB payments, running out of cash by no later than 2015. DX230-DX234; Hubbard Direct ¶¶ 186-188, 192-194. KPMG's low equity valuation thus implies that New GM was not a financially viable entity at its inception — which contradicts the stated purpose of the Government's DIP loan and support for the section 363 sale. Hubbard Direct ¶¶ 190-91, 193-94; Tr. 2465:6-2466:23 (Hubbard).

241. Second, KPMG's TIC for New GM and for GMNA — which is the foundation of the TIC Adjustment — resulted in unreasonable equity values for those entities. KPMG's estimated \$21.7 billion TIC for GMNA resulted in a *negative* \$4.3 billion equity value for GMNA. DX141 at 266 (Schedule 2.2); Lakhani Direct ¶ 81; Hubbard Direct ¶ 63. Because the Government had spent months leading up to the bankruptcy vetting GM's projections, it is again not reasonable that the company's most significant business unit would emerge from bankruptcy having a negative equity value.

242. Third, KPMG's \$60 billion TIC for New GM resulted in a common equity value of \$19.9 billion for New GM, which is an extreme outlier compared to the values determined by Evercore, implied by the purchase price (with or without subsidy) and implied by the use of an appropriate WACC. DX251. As noted, Evercore estimated the equity value of New GM at \$38 billion to \$48 billion. JX3 at 105; Tr. 1821:19-23 (Worth). If Evercore's equity value were used instead of KPMG's, and other inputs remained the same, there would be no need for the TIC

Adjustment: New GM's TIC value would have been \$78.1 billion to \$88.1 billion, which would exceed New GM's \$72.2 billion net asset value. DX248; Supplemental Valuation Chart (Evercore Calculation of New GM Equity Value).²⁸

243. Fourth, KPMG's \$19.9 billion estimate of the value of GM's common equity value is implausible in view of the \$49.5 billion valuation for New GM's equity set by the market in GM's November 2010 IPO. Hubbard Direct ¶ 86. Although this comparison benefits from hindsight, it again confirms that Professor Hubbard's estimates of common equity value are more reasonable than KPMG's.

8. The evidence established that an appropriate WACC would result in no TIC Adjustment for GMNA.

244. For all the reasons discussed above, a careful review of KPMG's valuation shows that KPMG used an unreasonable WACC in its DCF calculation and that an appropriate WACC for GMNA ranged from 8.3% to 11.5%. Hubbard Direct ¶¶ 12, 166-72.

245. Professor Hubbard examined whether a TIC Adjustment would be necessary, under KPMG's methodology, if reasonable alternatives to the WACC were used instead of KPMG's 23% WACC. Hubbard Direct ¶¶ 10, 173-74. To do so, Professor Hubbard recalculated GMNA's TIC using alternative WACCs and then compared the resulting TICs to the value of GMNA's assets and non-TIC liabilities. Hubbard Direct ¶ 173. In doing this analysis, Professor Hubbard adjusted all inputs in KPMG's calculation that relied on a discount rate. Tr. 2412:19-25; Tr. 2474:23-2475:4.

²⁸ While Evercore's common equity value can be compared to KPMG's common equity value on an apples-to-apples basis, Evercore's enterprise value estimate cannot be similarly compared to KPMG's TIC value because KPMG included excess and restricted cash in its TIC estimate (DX141 at 265), while Evercore appears to have removed \$12.3 billion in excess cash from its enterprise value estimate and did not account for the \$21 billion in restricted cash at New GM. JX3 at 108. Had Evercore included this excess and restricted cash, as KPMG did in its TIC estimate, Evercore's enterprise value estimate would have been approximately \$34 billion higher.

246. A WACC of 11.5% (the upper bound of Professor Hubbard's range) results in a GMNA TIC of \$44.6 billion, which would result in no TIC Adjustment. Hubbard Direct ¶ 174 (GMNA's net asset value of \$35.5 billion would be lower than the value of GMNA's TIC by \$9.1 billion); Lakhani Direct ¶¶ 99, 114; DX141 at 254, 366; Supplemental Valuation Chart (Hubbard WACC Range). Indeed, no TIC Adjustment would be needed for GMNA using any WACC below 15.9%. Hubbard Direct ¶ 174; Lakhani Direct ¶¶ 99, 114; DX252.

D. The TIC Adjustment inappropriately turned GMNA's PP&E into a residual value.

247. In addition to using an unreasonably high WACC, KPMG's methodology in implementing its TIC-based adjustment turned the RCNLD values, developed by KPMG through a rigorous valuation process, into a residual number. Lakhani Direct ¶¶ 89-97. Mr. Lakhani correctly concluded that KPMG's application of the TIC Adjustment in this manner did not result in economically meaningful values for the PP&E, because it linked the value of those assets to components and assumptions in KPMG's valuation that have "nothing to do with the value of PP&E," such as intangible asset valuation, the magnitude of GM's operating liabilities, and discount rate estimation. Lakhani Direct ¶¶ 89, 90; Tr. 1732:20-1738:7.

248. Mr. Lakhani illustrated this fact, with reference to two examples set forth in DX189. Tr. 1732:20-1738:7. As Mr. Lakhani showed, given the way the TIC Adjustment was calculated, to the extent the value of a GMNA asset increased, including assets unrelated to the PP&E, the TIC-Adjustment mechanism would lead to a decrease in GMNA's PP&E by the same amount. Tr. 1735:24-1736:5; DX189; Lakhani Direct ¶¶ 90, 95.

249. Mr. Lakhani also showed that the TIC Adjustment produces the counter-intuitive result that GMNA's PP&E is more valuable if GMNA has more operating liabilities: If the value of a GMNA operating liability was higher, then GMNA's overall net asset value would decrease, shrinking the TIC Adjustment by the same amount. Lakhani Direct ¶¶ 91, 96; Tr. 1736:6-1738:7; DX189. As Mr. Lakhani testified, there is no good reason to change the value of

particular PP&E assets just because other GMNA assets or operating liabilities are more or less valuable. Lakhani Direct ¶¶ 89-90.

250. Several examples in KPMG's workpapers further illustrate how KPMG treated the value of PP&E as a residual. Lakhani Direct ¶ 93. For example, in implementing the Balance Sheet Adjustment, KPMG changed the value of PP&E in an amount precisely sufficient to compensate for an unrelated change in GM management's revised interest payment forecasts. DX148 at 14; DX145 at 170-72 (Reference Number D.420-10-D.420-12); Lakhani Direct ¶ 93. Similarly, in response to a suggestion that certain assets be classified as Land (not subject to the TIC Adjustment), instead of Buildings and Improvements (subject to the TIC Adjustment), KPMG explained that the aggregate value of PP&E would not change: "Essentially, this is a shuffle of fair value among the subject assets of GMNA and our total concluded fair value would not change." DX145 at 49; Lakhani Direct ¶ 93.²⁹

251. Notably, Professor Fischel agreed on cross-examination that treating PP&E as a residual value — which would rise or fall based on equity value or other unrelated inputs — was not appropriate from an economic perspective.³⁰ Shown an illustrative example of how the value of PP&E would increase if GM operating liabilities increased, Professor Fischel confirmed that it would be incorrect from an economist's perspective for a change in liabilities to have a

²⁹ Mr. Klein attempted to use these examples to "provide[] further confirmation that KPMG was not tasked with determining accurate individual asset values," and as evidence of a "tolerance for inexactitude." Klein Direct ¶¶ 59, 96. This criticism has no application to the RCNLD values. The fact that KPMG treated the RCNLD values as a residual number in response to unrelated changes in the estimate of Total Invested Capital shows that it was KPMG's implementation of the TIC Adjustment, and not the calculation of RCNLD values, that was unreliable. Lakhani Direct ¶ 93.

³⁰ Professor Fischel originally made this point in rebuttal to Professor Hubbard, claiming that Professor Hubbard improperly linked GM's equity value and the value of fixed assets because "the value of equity can go up or down for many reasons, having nothing to do with any change in the value of fixed assets." Tr. 2598:7-12. But unbeknownst to Professor Fischel, who had not read the KPMG Report at the time he drafted either his initial or rebuttal expert reports (Tr. 2601:22-2602:8 (Fischel)), it was not Professor Hubbard who created this erroneous linkage, but KPMG through its application of the TIC Adjustment.

“necessary linear effect” on the value of the PP&E assets. Tr. 2602:19-2604:9; Tr. 2599:4-13. But that is precisely the effect of KPMG’s TIC Adjustment. All that Professor Fischel could offer to defend the Avoidance Trust’s position at the end of the day’s testimony was that “I don’t believe that’s what KPMG did, by the way.” Tr. 2604:8-9. But the next morning, Professor Fischel acknowledged that KPMG had turned PP&E into a residual number and then continued to testify that he was not familiar with Mr. Lakhani’s testimony or KPMG’s workpapers. Tr. 2620:5-2623:22.

252. Mr. Klein likewise acknowledged that the TIC Adjustment “effectively overrode” KPMG’s RCNLD values and confirmed that the TIC-adjusted values of GM’s PP&E assets were calculated as a “residual.” Tr. 2802:15-19; Tr. 2856:25-2857:8. Mr. Klein further agreed that the value of GM’s PP&E would change based on the profitability of the firm or the value of unrelated assets or liabilities, so that the value of the net assets would equal the value of TIC. *See* Tr. 2805:6-9 (Klein); Klein Direct ¶ 47 (illustrating that KPMG’s “core methodology” was to value asset categories and to “assign the residual” to GM’s PP&E).

253. Although Mr. Klein agreed that KPMG’s use of the TIC Adjustment transformed the PP&E into a residual, he contended that this was acceptable under GAAP. Tr. 2816:19-2818:20, Tr. 2802:15-19, Tr. 2822:13-2823:18; Klein Direct ¶¶ 47, 50. As detailed in Section IV.F.3 below, Mr. Klein’s claim that the accounting standards permit the valuation of a company’s PP&E by transforming it into a residual value in order to avoid the “undue cost and effort” of calculating PP&E directly is wrong as a matter of accounting and is entirely inconsistent with the extensive effort that KPMG actually brought to bear on the valuation of GM’s machinery and equipment. But, regardless, Mr. Klein never established that this approach makes *economic* sense in determining the value of the PP&E assets. As to that question, the Avoidance Trust offered no expert testimony at all.

E. The TIC Adjustment results in objectively unreasonable values for the PP&E.

254. The evidence at trial further established that the TIC Adjustment led to objectively unreasonable values for GM's PP&E.

255. Application of the TIC Adjustment resulted in PP&E values for GM that were far out of line with the PP&E values of other automotive manufacturers. DX235-DX238. As explained by Mr. Lakhani and Professor Hubbard, GM's reported PP&E fell to unreasonably low values following its fresh start accounting compared to its peers, whether measured as a percentage of revenue or assets.³¹ In contrast, prior to its fresh start accounting, GM's PP&E values were near the middle of the range of automotive manufacturers' PP&E values. *Compare* DX235 and DX236; DX237 and DX238; *see also* Lakhani Direct ¶¶ 97, 139; Hubbard Direct ¶¶ 195-97. Significantly, when GM's PP&E is valued using RCNLD, *i.e.*, without application of the TIC Adjustment, the resulting GM PP&E values remain near the middle of the range reported by peer companies. DX236; DX238; Lakhani ¶ 139; Hubbard Direct ¶¶ 195-97.³²

256. The differences between the relative values of GM's and Chrysler's PP&E values are particularly informative, because in 2009, Chrysler itself estimated the fair value of its PP&E, using the cost approach, in connection with its section 363 transaction. Lakhani Direct ¶¶ 97, 141-44; Hubbard Direct ¶¶ 199-201. Chrysler's PP&E as a percentage of total assets and of revenue remained near the top of the peers' range both before and after applying fresh start accounting. DX235-DX238; Hubbard Direct ¶ 200; Lakhani Direct ¶ 143. However, New GM's and GMNA's PP&E as a percentage of total assets and revenue dropped from the middle of the

³¹ On cross examination, plaintiff attempted to highlight the fact that this benchmarking analysis includes foreign companies, which apply different accounting standards. But, Mr. Lakhani testified that the international accounting standards for PP&E are not different from U.S. GAAP. Tr. 1778:9-24 (Lakhani).

³² As Professor Hubbard testified, the effect of the TIC Adjustment on PP&E cannot be explained by supposed efficiency differences between GM and its peers: Firms that are less efficient at manufacturing automobiles would have a higher PP&E as a percentage of revenue, not lower. Hubbard Direct ¶ 198.

peers' range to the bottom after applying fresh start accounting. DX235-DX238; Hubbard Direct ¶ 200; Lakhani Direct ¶ 143.

257. New GM's PP&E as an absolute amount should have been far greater than Chrysler's given the size difference between the companies — but the TIC Adjustment led to a different and skewed result. Hubbard Direct ¶ 201; Lakhani Direct ¶ 144. In 2010, New GM operated four times as many manufacturing facilities as Chrysler, generated more than three times as much revenue, and produced more than five times as many vehicles. Hubbard Direct ¶ 201; Lakhani Direct ¶ 144; *compare* DX21 at 43, 75 and 150 to DX22 at 2 and 4; DX303; DX239. Over the 2010 to 2014 period, New GM profits as measured by EBIT were more than twice as high as Chrysler's; New GM's EBIT was over three times Chrysler's in 2010 alone. Hubbard Direct ¶ 201.

258. Despite GM's size as compared to Chrysler, at their respective dates of exit from bankruptcy, GM's Machinery and Equipment as estimated by KPMG, \$6.7 billion, is comparable to Chrysler's \$6.3 billion. Hubbard Direct ¶ 202; DX240. It makes no sense to conclude that New GM, which produced five times as many vehicles as Chrysler, did so with Machinery & Equipment having a value less than 10% higher. Hubbard Direct ¶ 202.³³

259. The same conclusion holds if one compares PP&E as a whole for the two companies: New GM's PP&E was only marginally greater than Chrysler's (\$18.5 billion vs. \$14.2 billion). To show why this result does not make sense: PP&E represented only 13% of New GM's total assets, compared to 45% for Chrysler. DX239; Hubbard Direct ¶ 201; Lakhani Direct ¶ 143.

260. These benchmarking exercises confirm the unreasonableness, from an economic perspective, of KPMG's estimate of New GM's PP&E after applying the TIC Adjustment.

³³ Differences in efficiency cannot explain why the much smaller Chrysler has similar machinery and equipment values compared to the much larger GM. Lakhani Direct ¶ 144. For example, the 2008 Harbour Report shows that GM's and Chrysler's average hours per vehicle were both close to the industry average and separated by less than one hour per vehicle. Lakhani Direct ¶ 144.

Hubbard Direct ¶ 203. Mr. Klein testified that he was aware of this benchmarking analysis and had offered no opinion on the issue. Tr. 2815:16-23 (Klein). Similarly, Professor Fischel offered no opinion on the issue.

261. Another objective indication of the unreasonableness of GM's post-TIC PP&E values is the fact that application of the adjustment resulted in values for *all* of GM's PP&E that were far lower than the amount of GM's recent capital expenditures. Between 2004 and 2008, the years leading up to its bankruptcy, GM incurred \$37.7 billion in capital expenditures for property. DX16 at 78 and DX17 at 111; Lakhani Direct ¶ 145. Yet KPMG estimated the TIC-adjusted value of *all* of GM's PP&E (*i.e.*, including all assets acquired prior to 2004) to be \$18.6 billion, less than half of this post-2004 capital investment. Lakhani Direct ¶ 145; DX141 at 3, 365. The Avoidance Trust made no attempt at trial to explain this illogical result.

F. The TIC Adjustment also was not consistent with accounting standards.

262. Still one more basis for rejecting KPMG's TIC Adjustment is provided by the accounting standards. Fresh start accounting typically results in a balance sheet in which the sum of the liabilities and equity exceeds the value of the assets. Lakhani Direct ¶ 84. In that scenario, the difference is accounted for as goodwill. Fresh start accounting is typically expected to result in goodwill because one condition necessary for applying fresh start accounting is that "the reorganization value of the assets of the emerging entity immediately before the date of confirmation is less than the total of all post-petition liabilities and allowed claims." JX20 at 329 (ASC 852-10-45-19); Lakhani Direct ¶ 84.

263. However, in KPMG's valuation, at an interim stage in the fresh start accounting process, the aggregate value of all assets exceeded the value of the liabilities and KPMG's calculation of equity (*i.e.*, the net asset value exceeded the TIC value), thus reflecting *negative* goodwill. Lakhani Direct ¶ 85. KPMG addressed this perceived imbalance by applying the TIC Adjustment, which reduced GMNA's PP&E by \$6.4 billion and GM's PP&E by \$12.3 billion. Lakhani Direct ¶ 65; Hubbard Direct ¶¶ 66-67. However, GM's ultimate balance sheet,

published in its financial statements, showed \$30 billion of *positive* goodwill for GM as of July 10, 2009, with over \$26 billion residing in GMNA. Lakhani Direct ¶ 85, n.110, ¶ 117; JX9 at 141, 177. It is not reasonable that GM and GMNA would ultimately report such a massive amount of *positive* goodwill, while at the same time writing down the value of their PP&E by \$12.3 billion and \$6.4 billion, respectively. Lakhani Direct ¶ 117.

264. The evidence presented at trial as to the application of accounting standards to the TIC Adjustment was complex. However, as discussed below, from an accounting perspective, there were three independent reasons why the TIC Adjustment should not have been recorded in whole or in part. First, it resulted from unreasonable assumptions regarding intra-corporate allocations (Section IV.F.1) Second, it was effectively a measurement of goodwill that occurred at the wrong step in the process (Section IV.F.2). Third, it was not an appropriate measurement of economic obsolescence (Section IV.F.3).

265. At the outset, one general point bears emphasis: Mr. Lakhani has much more experience reviewing valuations, including indications of negative goodwill, outside of the context of litigation than Mr. Klein. Mr. Lakhani served as a lead audit partner at EY for over 27 years and, for 10 years, ran EY's West Coast National Office, where he and his colleagues were required to review all preliminary indications of negative goodwill that arose in West Coast engagements. Tr. 1633:14-18 (Lakhani); Lakhani Direct ¶¶ 1, 128. He served as the lead audit partner for significant companies, such as AmGen and Allergan, and had personal experience reviewing preliminary indications of negative goodwill in the context of valuations. Tr. 1635:2-15 (Lakhani); Tr. 1720:18-1723:7 (Lakhani).

266. In contrast, Mr. Klein has never audited anything.³⁴ As he has done 125 times before, he testified here as a professional witness. Tr. 2696:15-24. It merits repeating that much of his written direct was devoted to asserting that KPMG's RCNLD values were unreliable

³⁴ Tr. 2697:22-2698:9 (Klein). Mr. Klein also has never offered accounting advice on the application of GAAP concerning a client's financial statements. Tr. 2700:13-16. Nor has he advised a company on conducting a purchase price accounting. Tr. 2703:9-13.

because, among other things, KPMG was “limited to determining high-level fair values for various asset groupings,” not individual assets. *E.g.*, Klein Direct ¶ 85. But when confronted with the courtroom testimony from Mr. Furey — the substance of which Mr. Klein should have been fully familiar with based on Mr. Furey’s deposition — Mr. Klein changed his testimony. He recanted his sworn written direct, admitting that KPMG *did* set out to determine individual asset values and that KPMG’s individual asset opinions *were* in fact expressed in its workpapers. Tr. 2714:19-2722:18. Mr. Klein’s shifting testimony on this core issue undermines the credibility and reliability of everything he had to say. Mr. Lakhani was a more qualified and credible witness than Mr. Klein.

1. The intra-corporate reallocations should be disregarded.

267. KPMG made a number of intra-corporate reallocations in calculating GMNA’s TIC. These intra-corporate adjustments resulted in a TIC value for GMNA that was lower than it would have been had KPMG used reasonable assumptions. Lakhani Direct ¶ 114.

268. The first intra-corporate reallocation, which Mr. Lakhani found to be erroneous, was the technology reallocation. Tr. 1745:5-1756:6; Lakhani Direct ¶¶ 100-08. KPMG made a \$7 billion intra-corporate reallocation to reduce the value of GMNA TIC and increase the TIC value of GM’s Technology, Service and Tooling (“TST”) entity. Lakhani Direct ¶ 100. This reallocation can be seen by comparing the rows labeled “Plus/Less: Reallocation Adjustment” in Schedule 2.2 (GMNA) and Schedule 2.6 (TST) of the KPMG Report. DX141 at 266, 273. Lakhani Direct ¶ 101.

269. The explanation in the KPMG Report for this \$7 billion intra-corporate technology reallocation was limited: “TST is where Global Technology Operations Inc. (‘GTO’) resides, yet the cash flow for the technology resided in the GMNA forecast.” DX141 at 65. Lakhani Direct ¶ 103. But the GMNA cash flow projections do not include cash flows for technology residing only (or at all) in the GMNA forecast. Lakhani Direct ¶ 103; Tr. 1753:9-15.

270. The projections that KPMG utilized break out GMNA revenue into non-vehicle and vehicle revenue: Any cash flow for technology can reside in only one of those two places. Lakhani Direct ¶ 104. The documents establish unequivocally that GMNA's non-vehicle revenue streams do not include any revenue related to GTO technology.³⁵ Therefore, the value of technology is subsumed in the revenues that GM generates from selling vehicles. Lakhani Direct ¶ 105. However, the evidence also established that the projections that KPMG utilized reflected royalty payments from GMNA (and every other GM operating unit) to GTO, the GM technology entity. Lakhani Direct ¶ 106; DX164 at 7 (describing the royalty charges that appeared in each business units' forecast, including GMNA's); DX142 at 44- 47 (Reference Numbers D.101 through D.104, showing an expense labeled "GMGTO Royalty (Income)/Expense" in GMNA's Forecast).

271. Accordingly, because GMNA's cash flow forecast was reduced to reflect those royalty payments, GMNA's DCF *already* reflected a reduction in value attributable to the technology. KPMG's reallocation was not appropriate. Lakhani Direct ¶ 106.

272. Mr. Klein offered no independent analysis rebutting these indisputable facts. Instead, Mr. Klein simply asserted that Mr. Lakhani's conclusions were made "without support." Klein Direct ¶ 134. But Mr. Lakhani's expert report identifies the documents that he relied upon in his written testimony. Mr. Klein testified that he had *not* reviewed those documents at the time he drafted his expert report or when he was deposed, and that he had done no work to verify whether the technology reallocation accurately reflected the cash flows for technology at GM. Tr. 2808:25-2809:5; Tr. 2810:25-2811:5. Mr. Klein also claimed that GM management told KPMG to make this reallocation, and the fact that GM "gave this instruction" makes it more likely than not that the downward adjustment was correct. Tr. 2810:16-24. But when asked if it

³⁵ Lakhani Direct ¶ 104; DX164 at 4 (describing non-vehicle revenue as comprising "service parts sales, OnStar revenues, 'outside' powertrain sales, and other revenue"); DX167 at 2 (listing the components of non-vehicle revenue). Mr. Starzecki, a representative of Deloitte, testified by deposition that the value of technology was reflected in the vehicle revenue and was not reflected in non-vehicle revenue. Starzecki Dep. 123:6-124:24.

was his opinion that the technology reallocation accurately reflected the cash flows for technology at GM, Mr. Klein could not confirm that, stating that he had “not independently verified that.” Tr. 2810:25-2811:5. In short, Mr. Klein conducted no analysis before asserting that Mr. Lakhani’s opinion lacked support.

273. As Mr. Lakhani showed, if the \$7 billion TST reallocation from GMNA to TST is eliminated, there would be no need for the TIC Adjustment to GMNA’s RCNLD values. Lakhani Direct ¶¶ 108, 114; DX186 and DX187 (“Without Technology based TIC Adjustment” scenario); Supplemental Valuation Chart (No Technology Reallocation).

274. Mr. Lakhani also identified two reallocations that he contested as a matter of professional judgment. Lakhani Direct ¶¶ 109-14; Tr. 1678:20-1686:12. The first of these was the corporate reallocation. Tr. 1678:20-1680:3. KPMG allocated the present value of all leftover “Corporate” expenses to GMNA, which resulted in a TIC value for GMNA that was lower than it would have been had KPMG used reasonable allocation assumptions. Lakhani Direct ¶ 109. This can be seen by comparing the rows labeled “Plus/(Less): Reallocation Adjustment” in Schedule 2.2 (GMNA) and Schedule 2.8 (Corporate Division) of the KPMG Report. Lakhani Direct ¶ 109; DX141 at 266, 275.

275. Although KPMG made this reallocation “based on conversations with Management” indicating that “GMNA is the economic owner of those expenses” (DX141 at 65), the GMNA cash flows that were discounted by KPMG to calculate TIC *already contained* an allocation of corporate central office staff expenses. Lakhani Direct ¶ 110; DX142 at 49 (Reference Number D.106); DX142 at 146 (Reference Number D.804-1). Thus, GMNA already bore its share of corporate expenses. Lakhani Direct ¶ 110. The costs remaining in the corporate entity were the amounts that GM had not allocated to the regional entities. Lakhani Direct ¶ 110. The KPMG Report offers no explanation for allocating these additional expenses entirely to GMNA. Lakhani Direct ¶ 110. As Mr. Lakhani testified, allocating the entirety of the remaining corporate expenses to GMNA was inconsistent with the practice of global companies allocating corporate expenses. Lakhani Direct ¶ 110; Tr. 1679:15-21.

276. The second reallocation that Mr. Lakhani contested as a matter of professional judgment was the \$2.061 billion “Other TIC Adjustment,” which reduced the value of GMNA’s TIC by that same amount. Lakhani Direct ¶¶ 112-13; Tr. 1680:4-1686:7.³⁶ The largest portion of this reallocation was an upward adjustment to the corporate entity of \$1.998 billion and a corresponding downward adjustment to GMNA of \$1.998 billion. Lakhani Direct ¶¶ 112; DX141 at 266, 275. In light of KPMG’s explanation that this adjustment “[r]epresents goodwill reallocated to represent book value entities for TST, AUTOELIMS, CORP, CORPELIMS, and UNALLOC,” it appears that this reallocation was made so that the GM corporate entity would not show negative goodwill. Lakhani Direct ¶¶ 112; DX141 at 266, n.7. The Other Total Invested Capital Adjustment, therefore, had the effect of allocating corporate negative goodwill to GMNA, which, in turn, reduced the value of GMNA’s PP&E. Lakhani Direct ¶¶ 112. The reasons for the reallocation, however, had nothing to do with the value of GMNA’s PP&E assets.

277. Mr. Lakhani testified that a reasonable way to perform these reallocations would be to allocate the adjustments to each regional entity on a pro-rata basis based on revenues. He also showed the effects of doing so for the Representative Assets that KPMG valued. Lakhani Direct ¶¶ 111, 113, 115; DX187 and DX188 (scenarios: “Apply Corp. Realloc. to All Entities” and “Apply Other TIC Adj. to All Entities”). In particular, Mr. Lakhani’s analysis showed that the combined effect of a pro rata allocation of these adjustments, along with allocating the technology adjustment and the TIC Adjustment pro rata (as discussed in Section IV.F.3 below), would be to eliminate 98% of the TIC Adjustment and increase the values of the Representative Assets valued by KPMG by \$41.9 million. Lakhani Direct ¶¶ 115; DX186 (“All Four” scenario); Supplemental Valuation Chart (Pro Rata Application of TIC Adjustment, Corporate, Technology and Other TIC Reallocation).

³⁶ The implementation of the majority of this adjustment can be seen by comparing Schedule 2.2 (GMNA) and Schedule 2.8 (Corporate Division) of the KPMG Report. Lakhani Direct ¶¶ 112; DX141 at 266, 275.

278. The Avoidance Trust has again presented no rebuttal to Mr. Lakhani's testimony. As to the Corporate Reallocation, Mr. Klein "accept[ed] [Mr. Lakhani's] representation" that GMNA was already allocated a share of corporate expenses prior to this reallocation and he did no other analysis on the subject. Tr. 2814:17-23. He simply reiterated GM management's indication that GMNA was the economic owner of these corporate expenses. Tr. 2812:25-2813:6; 2814:24-1815:15. As to the Other TIC Adjustment, Mr. Klein offered no testimony addressing Mr. Lakhani's analysis. Tr. 2811:17-2812:12.

2. The TIC Adjustment was a goodwill measurement performed at the wrong stage in the process.

279. As Mr. Lakhani testified, KPMG inappropriately applied the TIC Adjustment at an interim step in the fresh start accounting process, instead of measuring goodwill only after all assets and liabilities had been measured at their GAAP-required values. Lakhani Direct ¶¶ 9; 116-23. This was not just a matter of professional disagreement, it was an error. Tr. 1692:17-1693:15. KPMG's application of the TIC Adjustment was equivalent to assigning negative goodwill to GM's PP&E. Lakhani Direct ¶ 116.³⁷

280. This assignment of negative goodwill resulted from KPMG's application of the TIC Adjustment to certain PP&E *before* measuring all of GM's assets, liabilities and equity interests at their GAAP-required values. Lakhani Direct ¶ 116. The evidence at trial established that the timing of the TIC Adjustment was critical: Had KPMG not taken this interim step and instead adjusted GM's balance sheet only after all assets, liabilities, and equity were measured at their GAAP-required values, the need for the TIC Adjustment would have been eliminated and GM would have recognized a higher PP&E value, and a lower goodwill value in GM's financial statements. Lakhani Direct ¶ 116. DX185 illustrates the difference between, on the one hand,

³⁷ It is notable that, for whatever reason, KPMG's spreadsheet that reflects KPMG's estimates for the value of the buildings and improvements refers to the TIC Adjustment as a "Negative Goodwill Adjustment" and "Required Negative Goodwill." DX150A at 1-2 (columns labeled "Required Negative Goodwill" and "Negative Goodwill Adjustment").

KPMG's procedures and, on the other hand, a reasonable application of accounting standards. Lakhani Direct ¶¶ 121-22. Tr. 1758:21-1761:6.

281. As Mr. Lakhani testified, goodwill should be measured as a residual only *after* every other asset, liability and equity interest has been measured at their GAAP-required values. Lakhani Direct ¶ 119. In a business combination, which is virtually identical to fresh start accounting, ASC Topic 805 specifies that goodwill shall be measured as the excess of the purchase price over "[t]he net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed *measured in accordance with this Topic.*" Lakhani Direct ¶ 119; JX20 at 124-25 (emphasis added). Moreover, KPMG's own guide to measuring goodwill emphasizes that "because goodwill is measured as a residual amount, it is important that all components of goodwill measurement (or the measurement of a gain from a bargain purchase) be recognized and measured based on the recognition and measurement principles (*including the exceptions to such principles*) of ASC Subtopic 805-30." Lakhani Direct ¶ 119; DX157 at 3 (emphasis added).

282. Although the ASC requires most assets in a business combination to be valued pursuant to ASC 820's Fair Value guidelines (ASC-805-20-30-1), GAAP requires certain items listed in ASC Section 805-20-30-12 to be measured at values other than Fair Value in a business combination. Lakhani Direct ¶ 120; JX20 at 84, 88. Mr. Klein agreed. Tr. 2841:3-12. These items include deferred income taxes and employee benefit obligations, among other things. Lakhani Direct ¶ 120. In Mr. Lakhani's experience examining hundreds of business combinations, nearly every one contained at least one item that was an exception to the GAAP requirement to measure assets and liabilities at Fair Value. Lakhani Direct ¶ 120.

283. The interim balance sheet prepared by KPMG did not reflect the completion of fresh start accounting: It had all the assets and liabilities measured at fair value, whereas fresh start accounting requires some of these assets and liabilities to be measured at values other than fair value. Lakhani Direct ¶ 118; JX20 at 88. Thus, when KPMG applied the TIC Adjustment to write down the value of PP&E, it was balancing an interim balance sheet created before GM had

completed all of the required steps for fresh start accounting. Lakhani Direct ¶ 118. As made clear by GM's 10-K, when GM ultimately adjusted the value of employee benefits and deferred taxes to their GAAP-compliant measurement, and thus completed the fresh start accounting process, it ended up with \$26 billion of goodwill to balance the final GMNA balance sheet, and \$30 billion for New GM overall. Lakhani Direct ¶¶ 117, 118, 122; JX9 at 141, 177; DX185.

284. Specifically, as detailed in the left panel in DX185, KPMG adjusted the value of GMNA PP&E downward by \$6.4 billion, *i.e.*, it applied the TIC Adjustment before completing the fresh start accounting procedures (see Step 3). Lakhani Direct ¶ 122. This led GM to recognize over \$26 billion of positive goodwill in GMNA. Lakhani Direct ¶ 122.

285. However, the value of GM's goodwill should have been evaluated only *after* measuring all of GM's assets, liabilities and equity interests at their GAAP-required values. Lakhani Direct ¶ 121. This would have meant leaving the interim balance sheet unbalanced, which Mr. Lakhani testified would have been completely reasonable:

In my estimation, KPMG should not have tried to balance the balance sheet because it wasn't their assignment to come up with a complete set of balance sheet [sic]. They were given a task to value different discrete items on the balance sheet. They should have just stopped there because the balance sheet . . . at that point was not a complete balance sheet. So it didn't need to balance.

Tr. 1729:8-18.

286. As illustrated in the right panel in DX185, if goodwill was evaluated after all elements of the balance sheet were measured at their GAAP-required values (see Step 4), there would have been no downward adjustment to PP&E, and GMNA would have recognized \$20 billion in goodwill, instead of \$26.4 billion. Lakhani Direct ¶ 122. The difference in goodwill is equal to the \$6.4 billion downward TIC Adjustment to PP&E that KPMG improperly applied as a result of its interim step. Lakhani Direct ¶ 122. Thus, because of KPMG's alternative approach, GM reported excess goodwill equal to the amount of the TIC Adjustment: applying the TIC Adjustment at an interim step in effect *transferred* the reported value from PP&E to goodwill. Lakhani Direct ¶¶ 121, 122.

287. At trial, Mr. Klein repeatedly claimed that Mr. Lakhani's GAAP analysis was wrong on the ground that KPMG's engagement was limited to valuing GMNA's assets and liabilities under ASC 820, the fair value standards, and KPMG was not tasked with applying ASC 805, the business combination standards. *See, e.g.*, Tr. 2819:15-2820:24.

288. Mr. Klein was wrong. The documents establish that KPMG was acting pursuant to ASC 805 *and* ASC 820. In the KPMG Report itself, KPMG notes that it identified intangible assets in accordance with ASC 805. DX141 at 13, 194. And a KPMG memorandum notes that the TIC Adjustment was applied pursuant to ASC 805. DX148 at 2-3 ("the reorganization value of New GM was allocated to New GM's assets and liabilities in conformity with the procedures specified by FASB Statement No. 141(R); Business Combinations (FASB ASC Topic 805, Business Combinations)...").

289. Likewise, a Deloitte memorandum memorializing the valuation procedures for PP&E states that "[t]he fair value estimates have been prepared *in accordance with FASB ASC 805, Business Combinations*. All tangible fixed assets, excluding CAMI (valued by PwC), were valued by KPMG." DX163 at 1 (emphasis added)). Another Deloitte memorandum reviewing the "fair value estimate. . . performed. . . by KPMG" states that "[i]t is our understanding that the fair value estimate has been prepared in accordance with FASB Statement 141(R) (ASC 805, Business Combinations)." DX162 at 1, 3. To be clear, acting pursuant to ASC 820 is not mutually exclusive with acting pursuant to ASC 805: ASC 805 itself directs the use of fair value of most assets in a business combination, which is governed by ASC 820. JX20 at 84 (ASC 805-20-30-1), 196 (ASC 820-10-00).

290. Moreover, this is another instance in which Mr. Klein changed his testimony. Mr. Klein's justification for why KPMG should have been able to treat PP&E as a "residual" was because KPMG was allocating a purchase price. Klein Direct Section VI. The section of GAAP that deals with allocating a purchase price is ASC 805. JX20 at 11-12 (805-10-05-3). And Mr. Klein himself specifically cited "ASC 805" in his expert report in support of his theory that KPMG was valuing categories of assets, not individual assets. Lakhani Direct ¶ 75; Tr. 2722:19-

2723:8 (Klein). In his expert report, Mr. Klein also claimed that KPMG allocated the TIC Adjustment “consistent with ASC 805.” Tr. 2842:13-2843:21 (Klein) (“Consistent with ASC 805, KPMG allocated TIC to new GM’s balance sheet categories;” “Consistent with the ASC 805 procedures described above, KPMG performed this purchase price allocation for new GM in two steps”).

291. When confronted with his expert report, Mr. Klein strained to distinguish between an allocation that was “consistent with” ASC 805 and one that “was not done” under ASC 805. Tr. 2843:25-2844:6. This was not credible. Indeed, during an earlier portion of Mr. Klein’s trial testimony, Mr. Klein conceded that KPMG “*used ASC 805* only for purposes of valuing asset categories in arriving at PP&E or more broadly, TIC, which led to PP&E. That was then pushed down on a basis, but *they utilized it on an overall basis.*” Tr. 2722:24-2723:8 (emphasis added).

3. Mr. Klein’s other arguments regarding GAAP are not persuasive.

292. Mr. Klein also testified that KPMG’s use of the TIC Adjustment to transform the PP&E into a residual value was acceptable under GAAP as a “practical expedient,” where the “costs and benefits don’t justify the effort” of directly valuing certain difficult to value asset categories. Tr. 2817:9-2818:20; *see also* Klein Direct ¶ 47. But Mr. Klein’s written testimony includes no citation to any accounting guidance that would permit transforming GM’s PP&E values into a residual. On cross-examination, Mr. Klein could identify no such provision, stating that he wasn’t sure it was “stated with specificity” in the ASC. Tr. 2817:9-12. Instead, Mr. Klein generally invoked GAAP’s fair value provision, ASC 820, and claimed that under this provision, one can avoid “undue cost and effort” by relying on “practical expedients.” Tr. 2822:21-2823:18; Tr. 2817:9-2818:20. Although Mr. Klein testified that he believed “undue cost and effort” would be the “*exact phrase*” employed in ASC 820 permitting use of the residual method, that phrase appears *nowhere* in ASC 820. Tr. 2822:21-2823:5 (emphasis added); JX20 at 195-311.

293. As an initial matter, Mr. Klein's claim that KPMG treated PP&E as a residual to avoid "undue cost and effort" is incredible. KPMG devoted 10 months and 16 valuation specialists to valuing the machinery and equipment alone, and calculated individual RCNLD values for hundreds of thousands of assets. KPMG did not treat PP&E as a residual in order to spare expense.³⁸

294. Moreover, Mr. Klein's "practical expedient" theory lacks any basis in the accounting guidance.³⁹ Mr. Klein asserted that KPMG could treat PP&E as a "residual" because it was allocating a "'basket purchase' price." Klein Direct Section VI, ¶¶ 47-50, 55. The *only* section of GAAP that could be applicable in these circumstances is ASC 805, because purchase price allocation can only be done pursuant to that section — by allocating the price to all assets and liabilities that either constitute an entire business (ASC 805-10-05-3, JX20 at 11) or less than an entire business (ASC 805-50-30, JX20 at 165).⁴⁰ Indeed, Mr. Klein himself testified that "ASC 805, named 'Business Combinations,' states how a buyer should allocate the purchase price paid for an entire business among the various assets and liabilities acquired." Klein Direct

³⁸ Mr. Klein also sought to justify his theory by claiming that GM's intangible assets, such as brands, were easier to value than GM's PP&E assets, and that it was therefore permissible to value intangible assets directly and PP&E as a residual. Klein Direct ¶¶ 48, 53-55; Tr. 2817:5-25 (Klein); Tr. 2822:21-2823:18 (Klein). But the evidence established that KPMG's valuation of intangible assets here was more subjective and prone to error than KPMG's valuation of PP&E, making intangibles a more appropriate candidate for adjustment than PP&E as KPMG had to derive royalty rates for GM's technology and brands where none existed. Lakhani Direct ¶¶ 82, 130.

³⁹ While ASC 820 does recognize practicability exceptions to fair value measurements, the exceptions apply only "in specified circumstances" that are stated in other ASC provisions. No such specified circumstance relates to valuing PP&E in a business combination or fresh start accounting context. JX20 at 208-09 (list includes financial instruments; nonmonetary transactions; asset retirement obligations; restructuring obligations; accounting for retirement benefit obligations; and not-for-profit accounting).

⁴⁰ When allocating a purchase price to a group of assets less than a business, the ASC makes clear that any amount by which the value of the assets, measured at fair value, exceeds the purchase price must lead to a pro-rata reduction in *all* assets acquired. JX20 at 165 (ASC 805-50-30-3); JX20 at 170-171 (ASC 805-50-55-1).

¶ 41. But under ASC 805, the only balance sheet item that can be treated as a residual is goodwill, something that Mr. Klein conceded on cross-examination. Tr. 2833: 20-22 (“Q: And you understand that under ASC 805, goodwill is the only residual? A: That would be correct.”).

295. Mr. Klein offered his opinion that it was appropriate for KPMG to treat PP&E as a residual in order to account for “economic obsolescence.” Klein Direct ¶¶ 97-100, 106-109, 120; *see also* Tr. 2742:7-15 (Klein); 2849:24-2950:17 (Klein). Accepting that KPMG viewed the TIC Adjustment as reflecting a form of economic obsolescence, the disparity seen in the TIC comparison could not account for economic obsolescence in PP&E alone. Lakhani Direct ¶ 123.⁴¹ Indeed, the negative goodwill was likely associated with factors that are unrelated to the PP&E. Lakhani Direct ¶¶ 134-37. By applying the TIC Adjustment to PP&E alone, KPMG failed to appropriately recognize that the value of an enterprise, and its earning potential, is not tied to any single asset or liability, but rather reflects the value of all assets — such as technology, brands, dealer network, workforce, advertising, and supplier relationships — working together, including intangible assets. Lakhani Direct ¶ 132.

296. Because of this, even assuming that everything else regarding KPMG’s measurement of the TIC Adjustment was appropriate, KPMG should have applied the TIC Adjustment pro rata to all of GMNA’s non-financial assets, not just to PP&E. Lakhani Direct ¶¶ 9, 124-33. Although Mr. Klein criticized Mr. Lakhani for relying on a prior version of GAAP to support this pro-rata treatment (Klein Direct ¶¶ 121-22), it was appropriate to look to the prior version of GAAP because the current ASC provides no guidance on the treatment of negative goodwill in this situation. Lakhani Direct ¶ 132; *see also* Lakhani Direct ¶ 126 n.158.

297. Mr. Klein’s attempt to justify the TIC Adjustment by reference to a hypothetical example presented in the ASC, discussing valuation of a customized machine purchased in a business combination, does not support the application of the TIC Adjustment to value the PP&E

⁴¹ As discussed above, from an appraisal standpoint, KPMG had already fully accounted for the PP&E’s economic obsolescence by virtue of its plant-by-plant capacity-utilization deductions. Lakhani Direct ¶¶ 60, 123; *see* Section III.D.4 above.

in this case. Klein Direct ¶¶ 106-08. The provision Mr. Klein relies on had not been enacted in 2010, and therefore could not have served as the basis for KPMG's methodology. JX20 at 278 (showing provision relied upon), 204 (showing 5/12/2011 as the date of enactment). Moreover, the ASC hypothetical discusses the value of a machine not exceeding either the "cost that a market participant buyer would incur to acquire or construct a substitute machine of comparable utility" or the "economic benefit that a market participant buyer would derive from the use of *the machine*." JX20 at 279 (emphasis added). Thus, while the GAAP illustration assumes that there is economic benefit attributable to a specific machine, which can be calculated with precision, KPMG here concluded that "it was not feasible to attribute income to the individual assets." DX141 at 127.

298. For all these reasons, KPMG's RCNLD values without the TIC Adjustment provide reliable evidence of the value of those assets as of June 30, 2009.

V. Carl Chrappa's Asset Valuations

299. In addition to the asset values determined by KPMG for 33 of the Representative Assets, the Term Lenders presented a second set of asset values at trial through the testimony of Carl Chrappa. Carl Chrappa has over 40 years of experience in the appraisal field. Chrappa Direct ¶ 8. He is certified by the American Society of Appraisers, the Royal Institution of Chartered Surveyors, and the National Association of Independent Fee Appraisers, among others. *Id.* He has conducted over 1,000 appraisals in the course of his career, including between four or five dozen appraisals of automotive machinery and equipment. *Id.* ¶ 10; Tr. 1879:21-1880:5.

300. Mr. Chrappa conducted a retrospective appraisal, with an effective date of June 30, 2009, of all 40 Representative Assets. Chrappa Direct ¶ 16. Mr. Chrappa followed his standard practices and procedures in valuing the Representative Assets, applied methodologies accepted by his clients, and his appraisal was guided by the professional literature governing appraisals. Chrappa Direct ¶¶ 12, 37, 62; Tr. 1881:5-7, 2010:9-11, 2026:25-2027:3, 2030:13-18.

301. As set forth below, Mr. Chrappa's approach to valuing the Representative Assets was also broadly consistent with KPMG's approach to determining RCNLD values, and Mr. Chrappa's values confirm the reasonableness of the RCNLD values determined by KPMG for 33 of the Representative Assets. Mr. Chrappa's appraisal values are reliable and are the best available values for those assets that KPMG did not value, specifically Representative Assets 10, 29, 30, 31, 32, and 33.

A. The Fair Market Value in Continued Use premise

302. Mr. Chrappa valued the Representative Assets sold to New GM in light of their intended use, which, for the vast majority of assets, was as part of a going concern. As of June 30, 2009, as discussed above, the proposed disposition of 38 of the Representative Assets was to be sold in place as part of a going concern. Chrappa Direct ¶¶ 20-21; Tr. 1887:5-8, 1924:6-15, 2019:14-22 (Chrappa); *see* Section II above. In addition, as of June 30, 2009, the "highest and best use" of the 38 Representative Assets sold from Old GM to New GM was their continued use in place, manufacturing automobiles so as to generate earnings for New GM. Chrappa Direct ¶ 22; Tr. 1552:25-1553:14 (Furey); Tr. 1653:20-1654:7 (Lakhani).

303. Under the appraisal literature, four criteria are generally used to determine the "highest and best use" of an asset. DX354 (ASA Manual) at 210. All four criteria support Mr. Chrappa's conclusion regarding the highest and best use of the assets sold to New GM:

a) The sale from Old GM to New GM for continued use in place was *legally permissible*. Chrappa Direct ¶ 22; *see also* Goesling Direct Ex. B at 15 ("There appear to be no legal issues that would prevent the subject assets from being used in automobile manufacturing operations"). Indeed, as of June 30, 2009, the sale to New GM was required by the executed purchase agreement between Old GM and New GM. Chrappa Direct ¶ 21.

b) Continued use of the assets in place, following the sale, was *physically possible*. Chrappa Direct ¶ 22; *see also* Goesling Direct Ex. B at 15 ("[T]he past use of the

assets by Old GM demonstrates that it was physically possible to use all of the 40 Representative Assets in automobile manufacturing operations as of June 30, 2009”).

c) Continued use in place, following the sale, was *financially feasible*.

Chrappa Direct ¶ 22. As discussed above, the sale to New GM was arranged and structured by Old GM and the U.S. Government precisely to ensure that New GM would succeed as a going concern. *See* Section II.B above. Although Mr. Goesling concluded that the continued use of the assets in place was not financially feasible, he did so only by assuming away the existence of the sale transaction and government financing. If the financing that was *actually* provided is assumed to have been provided, his conclusion changes. Tr. 3404:19-22 (“So assuming that extraordinary financing is in place, then from the perspective of new GM, the value would likely be some continued use premise.”).

d) Continued use in place, following the sale, was *maximally profitable*.

Chrappa Direct ¶ 22. Although Mr. Goesling concluded that this factor of the highest and best use test was not met, again he did so only by assuming away the existence of the sale and Government support. Tr. 3404:19-22 (acknowledging that if government financing was “in place, then from the perspective of new GM, the value would likely be some continued use premise”).

304. Given both the proposed disposition and the highest and best use of the assets, Mr. Chrappa correctly determined that the appropriate premise of value for valuing the 38 Representative Assets sold to New GM is Fair Market Value in Continued Use (“FMVICU”). Chrappa Direct ¶¶ 20, 23; DX354 at 10.

305. A Fair Market Value in Continued Use appraisal can be conducted “with Earnings Analysis,” meaning that the appraiser has verified that the earnings of the business are sufficient to support the valuations assigned to the assets, or “with Assumed Earnings,” meaning that the appraiser has not provided independent verification that the earnings of the business support the valuations assigned to the assets. DX354 at 10-11. Both options are recognized as valid by the ASA. *Id.* at 108; *accord* Chrappa Direct ¶ 29. For appraisals that involve a limited number of

discrete assets, it is common for an appraiser to assume earnings and expressly disclose in the appraisal that he or she is doing so, given the difficulty of determining the incomes associated with individual assets. Chrappa Direct ¶ 30; DX354 at 135 (“the income approach . . . is not usually applied to individual items of machinery”).

306. On the facts of the instant case, Mr. Chrappa’s decision to assume earnings was a sound exercise of professional judgment. The sale to New GM occurred only after the governments of the United States and Canada had verified that New GM would continue to operate as a viable going concern. Chrappa Direct ¶ 31. Indeed, the government considered and rejected viability plans from GM until GM produced a plan the government deemed credible. Tr. 1924:16-1925:3 (Chrappa); Tr. 1853:9-15, 1862:4-7 (Worth). Moreover, application of a reasonable WACC in valuing New GM’s business as of the sale — such as the one used by Professor Hubbard — shows that the earnings of New GM would support asset values in the range calculated by Mr. Chrappa. *See* Section IV.C above; Lakhani Direct ¶¶ 146-47; Chrappa Direct ¶ 33.

307. With respect to the remaining two Representative Assets, specifically Assets 29 and 30, the proposed disposition of those assets was to remain with the Motors Liquidation Company estate — as part of the closed or closing Mansfield and Grand Rapids stamping facilities — and be sold in piecemeal fashion in the year or two following Old GM’s bankruptcy petition. Chrappa Direct ¶ 34. Accordingly, the appropriate premise of value for those two assets is Orderly Liquidation Value (“OLV”). Chrappa Direct ¶ 34; DX354 at 11.

B. Mr. Chrappa’s choice of the cost approach

308. Mr. Chrappa considered three potential approaches to valuing the Representative Assets: the cost approach, the income approach, and the market (or sales comparison) approach, which are summarized above in section III.A.3(c). Chrappa Direct ¶ 35; DX354 at 12-13. As discussed in section III.C.3, Mr. Chrappa’s selection of the cost approach in these circumstances is consistent with KPMG’s RCNLD approach, and both are supported by the appraisal literature.

309. Like KPMG, Mr. Chrappa concluded that, given the nature of the assets here, the income approach cannot be used to value the Representative Assets because income streams cannot reliably be assigned to the individual assets. Tr. 1934:17-22; Chrappa Direct ¶ 42; Goesling Direct ¶ 396; Tr. 3498:10-22 (Goesling testimony that income approach would not work because “it’s often impossible to determine a cash flow directly attributable to the particular asset and since you can’t determine the cash flow, there’s nothing to discount and no value to be derived there”).

310. Mr. Chrappa also concluded that the market approach is not appropriate. Tr. 1987:22-24. Proper application of the market approach depends on having sufficient high quality data in the form of good “Comps.” Tr. 2025:3-2027:3. One sale does not define a market price. Chrappa Direct ¶¶ 45-46. In addition, to arrive at a FMVICU appraised value using comparable sales, market data must be adjusted heavily to account for installation and integration costs, which can be difficult to estimate. *See id.* ¶ 52 (“to get to FMVICU . . . it would have been necessary to add in de-install costs . . . and then also add in installation and integration costs as if the asset were being reinstalled and integrated”).

311. For the Representative Assets, there is not sufficient high quality data from around the effective date of the appraisal, June 30, 2009, to permit reliable application of the market approach. Chrappa Direct ¶ 52. Assets like the Representative Assets are lightly traded or not traded at all on the secondary market. Chrappa Direct ¶¶ 48-50.

312. As discussed below, Mr. Goesling was unable to find any comparables for 14 of the Representative Assets. For the remaining 26 Representative Assets, despite looking for sales from an 11-year period (2005-2016) and using liquidation sales of assets that were often significantly different from the Representative Assets, Mr. Goesling was still only able to find a small number of supposedly “comparable” sales for most of the Representative Assets. *See* Section VI.B below; Chrappa Direct ¶¶ 125-26 & Ex. B. Mr. Goesling himself confirmed that such comparables were difficult or impossible to find. *See* Tr. 3432:6-18 (Goesling) (“The

biggest problem was actually finding comparable sales information.” Question: “They just weren’t there, right?” Goesling: “Correct.”).

C. Mr. Chrappa’s application of the cost approach

313. Mr. Chrappa applied the cost approach in a manner consistent with the guidelines applicable to professional appraisers. Chrappa Direct ¶ 55; Tr. 2030:13-18. Under the cost approach, an appraiser determines the Replacement Cost New installed of each asset, then takes appropriate deductions for physical deterioration, functional or technological obsolescence, and economic obsolescence. Chrappa Direct ¶ 56; *accord* Tr. 1367:18-1368:3 (Furey).

314. The Replacement Cost New installed is the cost of entirely replacing an installed asset with a new installed asset. Chrappa Direct ¶ 59. It incorporates the cost of purchasing the equivalent substitute and the assemblage costs necessary to assemble and install the assets in a plant, including sales taxes, the costs of dismantling, moving, and setting in place, freight costs required to get the replacement asset to the plant site, installation costs, and other related costs. *Id.*; DX354 at 39, 44.

315. Mr. Chrappa generally calculated the Replacement Cost New installed of the assets by applying a standard “trending method.” Chrappa Direct ¶ 60. Under this method — similar to the “Indirect” method used by KPMG for some assets, *see* Section III.D.1 above — the historical installed cost of an asset is trended upward using established indices to arrive at a “Reproduction Cost New,” or the cost of creating a new replica of the subject asset. *Id.* ¶ 61. Mr. Chrappa was able to obtain the installed cost data from GM’s electronic fixed asset ledgers. *Id.* ¶ 63; DX33. To trend the initial installed cost data, Mr. Chrappa used widely-accepted cost indices. *Id.* ¶ 62; JX37, DX324, DX323. This approach is reasonable and consistent with KPMG’s methodology. *See* Tr. 1362:5-12 (Mr. Furey describing similar process). It is also consistent with the professional literature. DX354 at 50.

316. For each of the Representative Assets, Mr. Chrappa considered whether the trended historical cost resulted in an accurate replacement cost new. Chrappa Direct ¶ 67. For

the lion's share of the assets — many of which were installed between 2003 and 2008 — Mr. Chrappa determined that the trended historical cost accurately valued the Replacement Cost New of the asset. Chrappa Direct ¶ 61. For three assets, the Danly Press (Asset 31), the Overhead Welding Robot (Asset 12), and the TP-14 Press (Asset 30), Mr. Chrappa adjusted his trended historical cost downward to reflect that the cost to purchase an equivalent asset today (or as of the Valuation Date of 2009) would be lower than the trended historical cost. Chrappa Direct Ex. A at 13, 34, 36. This deduction captured Excess Capital Obsolescence, a form of Functional Obsolescence, for those particular assets. Chrappa Direct ¶ 61; DX354 at 71.

317. Mr. Chrappa then applied deductions to capture the physical deterioration of all assets by applying the standard “age/life” method, which deducts a fraction of the value of the asset equal to its effective age divided by its life. Chrappa Direct ¶¶ 70-71; DX354 at 62. Mr. Chrappa used the “chronological age” for the assets based on the “Installed Date” provided in GM's fixed asset ledger. Chrappa Direct ¶ 72. Mr. Chrappa then divided the “chronological age” for each asset by its economic useful life (“EUL”). *Id.* ¶ 77. Mr. Chrappa determined the assets' EULs based on his extensive experience appraising these and similar assets in the automotive industry. *Id.* ¶ 75. He elected not to use the EULs provided by GM's fixed asset ledger, as those EULs were for accounting purposes and were much lower than the actual life span of the assets. *Id.* ¶ 76.

318. For 10 assets, Mr. Chrappa applied an additional conservative deduction equal to the present value of anticipated major maintenance using the direct dollar method. Chrappa Direct ¶ 78; DX354 at 67.

319. Mr. Chrappa then applied Functional Obsolescence deductions. The professional literature recognizes two forms of Functional Obsolescence, namely Excess Capital Obsolescence and Excess Operating Expense Obsolescence. DX354 at 71. Mr. Chrappa — like KPMG in the case of powertrain assets, *see* Section III.D.3 above — made Excess Capital Obsolescence deductions as part of his Replacement Cost New calculations, which captured the decreased capital investment required to purchase the most economical replacement for the

subject asset. Chrappa Direct ¶ 85. These adjustments were made for assets where changes in design, materials, layout, product flow, construction methods, and equipment size and mix resulted in a change in value. *Id.* Mr. Chrappa also applied Excess Operating Expense deductions to every asset to capture the fact that technological advances make newer assets cheaper or more efficient to operate. *Id.* ¶ 86. To capture this form of Functional Obsolescence, Mr. Chrappa relied on the Bureau of Labor Statistics, as well as his own experience, and applied a deduction of 1% to 5% each year, depending on the nature of the asset. *Id.* ¶¶ 89-90.

320. Finally, Mr. Chrappa applied Economic Obsolescence deductions. Economic Obsolescence deductions capture the loss in value caused by external factors, such as increased costs of raw materials, labor, or utilities, a reduced demand for a product, increased competition, or environmental or other regulations. Chrappa Direct ¶ 92; DX354 at 76.

321. To calculate Economic Obsolescence for the assets valued at FMVICU, Mr. Chrappa used capacity utilization projections for 2009 through 2014 that were prepared by GM management, included in GM's viability plans which were reviewed by the U.S. Treasury, and collected by KPMG. Chrappa Direct ¶ 96, JX19, DX154 (spreadsheet computing utilization rates), DX156 (KPMG memorandum on capacity utilization analysis); Apfel Direct ¶¶ 4-7, 9; Tr. 1450:23-1451:17 (Furey); DX156 at 2. In addition to being prepared by knowledgeable individuals, they were generated using an industry standard methodology developed by the Harbour Group. Chrappa Direct ¶ 100; Apfel Direct ¶ 6; DX156 at 1; Section III.D.4 above.⁴²

322. Mr. Chrappa reasonably determined that these projected utilization rates captured all significant economic obsolescence. As Mr. Chrappa testified, GM's decisions over a multi-year period regarding how much to utilize the machines at each plant would be informed by all outside economic factors, the demand for GM automobiles, and the cost of materials. Chrappa

⁴² As noted above in Section III.D.4, when valuing a Romanian plant acquired by Ford in 2008, Mr. Goesling looked to planned future investments to determine that no utilization penalty should be applied, further underscoring the reasonableness of Mr. Chrappa's including the 2011-2014 data reflecting higher anticipated utilization.

Direct ¶¶ 92-96. Mr. Chrappa's testimony on this issue was consistent with Mr. Lakhani's. Tr. 1757:4-11 (Lakhani) ("[I]n my judgment, the utilization penalty, which is based on management's forecast, management's response to external conditions which is embedded in their assumptions as to how many cars you are going to make and so on and so forth, that captures the economic obsolescence.").

323. Mr. Chrappa aggregated the utilization projections to show utilization at the facility level. Chrappa Direct ¶ 97. This approach recognized the reality that the assets, if being valued in place and in continued use, were part of operating facilities that worked as economic units. Chrappa Direct ¶ 97. After calculating a projected utilization rate for Warren, Lansing Delta Township, and Defiance, Mr. Chrappa applied a standard formula from the appraisal literature to compute an economic obsolescence deduction. Chrappa Direct ¶¶ 101-03.

324. For the two assets that Mr. Chrappa appraised at OLV instead of FMVICU, he applied a 30% Economic Obsolescence deduction to reflect conditions in the general automotive market in 2009, which were expected to improve in the latter half of the year as a result of the GM and Chrysler reorganizations and the "Cash for Clunkers" program. Chrappa Direct ¶¶ 109-111. He then applied a further 55% "market tier" adjustment based on calls to four brokers — as well as his own experience with liquidation markets (in which market tier adjustments for OLV generally fall between 40 and 60%) — to account for the fact that the assets would be sold in an orderly liquidation instead of at fair market prices. *Id.* ¶ 112; Tr. 2033:18-2034:2. This was a reasonable approach.

D. Mr. Chrappa's appraised values

325. Mr. Chrappa's appraised values for each of the 40 Representative Assets are included in the Joint Valuation Chart.

326. For the 33 Representative Assets that KPMG also valued, Mr. Chrappa's concluded values are generally consistent with and confirm the reasonableness of KPMG's RCNLD values. KPMG's RCNLD values are the most appropriate values for valuing the assets

sold to New GM where they exist. For the assets that KPMG did not value, specifically Representative Assets 10, 11, 29, 30, 31, 32 and 33, Mr. Chrappa's appraised values are the most reliable valuations as of June 30, 2009.

VI. David Goesling's Liquidation Valuations

327. The Avoidance Trust's expert, David Goesling, conducted two retrospective appraisals of the 40 Representative Assets, with an effective date of June 30, 2009. His appraisals relied on counterfactual or otherwise flawed assumptions and were based on non-comparable "comparable" transactions. Thus, they are unreliable valuations for the Representative Assets.

A. Mr. Goesling's inappropriate use of a liquidation premise of value

328. Mr. Goesling did not value the assets in light of their proposed disposition or their highest and best use as of June 30, 2009. Instead, Mr. Goesling was directed by counsel to assume — contrary to fact — that no sale from Old GM to New GM would take place and that the assets had no going concern value. As Mr. Goesling explained: "I was asked by counsel to assume that there had been no government subsidy. In that case, I would also assume that there would be no transaction and that there would be no agreement. So there would be no requirement for me to consider a purchase contract." Tr. 3401:3-9; *see also* Tr. 3399:3-6 (Mr. Fisher: "Mr. Goesling was asked to assume that there was no going concern value to old GM and then proceeded to appraise the assets from that assumption.").

329. The appraisal literature does not support the counterfactual approach used by Mr. Goesling. The appraisal literature discusses valuations involving "non-market financing or financing with unusual conditions or incentives." PX351 at 62 (USPAP Standard 7-2(c)(iv)). Rather than instructing appraisers to disregard the financing, it provides that "if the opinion of value is to be based on non-market financing or financing with unusual conditions or incentives, the terms of such financing must be clearly identified and the appraiser's opinion of their contributions to or negative influence on value must be developed by analysis of relevant market

data.” *Id.* Therefore, if Mr. Goesling had followed standard appraisal practice, he would not have ignored the U.S. Treasury loans; he would have analyzed their effect on his appraisal.

330. Mr. Goesling, however, did not analyze the impact of the U.S. Government financing in this case. Tr. 3417:25-3418:8. As a machinery and equipment appraiser, he lacked the expertise to do so. Tr. 3426:21-3427:3 (Goesling). While Mr. Goesling acknowledged that there are individuals at his firm who would be qualified to analyze the financing, instead of asking one of those individuals to conduct such an analysis, he assumed the government financing away. Tr. 3425:21-23, Tr. 3427:4-15.

331. Based on his counterfactual assumptions, Mr. Goesling concluded that “Orderly Liquidation Value” (“OLV”) was the correct appraisal premise of value. Goesling Direct ¶ 393. Under this premise, the assets would be valued on the assumption that they would be sold at “a liquidation sale, given a reasonable period of time to find a purchaser (or purchasers), with the seller being compelled to sell on an as-is, where-is basis, as of a specified date.” DX354 (ASA Manual) at 11. “Orderly liquidation value and forced liquidation value assumes the property would be sold piecemeal” *Id.* This premise of value, however, does not align with Old GM’s proposed disposition of its assets, which was a sale to New GM for continued use in a going concern. *See* Tr. 1812:9-14 (Worth) (Question: “Between the time that GM filed for bankruptcy and the closing of the transaction, as far as you know, did GM ever propose to liquidate the company’s assets rather than selling them as a going concern?” Worth: “No.”).

332. Notably, Mr. Goesling’s approach does not even align with Professor Fischel’s testimony regarding what a counterfactual “liquidation” would have looked like. Unlike Mr. Goesling, Professor Fischel made clear that he did not believe that Old GM’s assets would all be removed from their factories and sold separately. Tr. 2566:13-17 (Question: “So you’re not saying liquidation, tear it up and sell it in an auction, you’re not saying something else; you’re not saying either?” Fischel: “Correct.”); Tr. 2647:13-21 (Fischel: “As I tried to describe yesterday, an orderly sale to maximize the value of the collateral, whether that’s done by selling

the assets individually or in groups or some individually and some in groups, whatever the most efficient way to sell the assets is”).

333. Mr. Goesling has also claimed that OLV was the appropriate premise of value for an appraisal because the assets being valued were only a subset of the assets required to operate a going concern. Tr. 3409:17-21 (Goesling: “Given that the collateral cannot comprise a business enterprise by itself and I am only valuing the collateral prior to the bankruptcy transaction, then I have to look at the value of those assets by themselves.”). But the appraisal literature — like the case law discussed below, *see* Section XIV.D — confirms that the assets that are only part of a business enterprise may be valued on a continued-use basis. *See* DX354 at 11 (“The continued use concepts consider the property *as a part of* a business enterprise . . .” (emphasis added)). In prior engagements, Mr. Goesling himself has applied a Fair Market Value in Continued Use premise to assets that formed only part of a business enterprise. Tr. 3507:24-3509:18 (continued use premise applied to value machinery and equipment at a Ford plant in Romania, even though new machines were to be installed and the existing machinery and equipment was only a portion of the facility).

334. Mr. Goesling also performed a hypothetical appraisal of the Representative Assets using a “Liquidation Value in Place” (“LVIP”) premise of value, at the Avoidance Trust’s request. Tr. 3484:5-8. However, no witness has presented evidence supporting use of an LVIP premise. In sworn statements, Mr. Goesling has expressly confirmed that he does *not* believe that an LVIP premise would be appropriate. Goesling Direct ¶ 430, Goesling Direct Ex. B at 39; *accord* Tr. 3449:14-24. The LVIP premise is also factually inapposite, as it assumes sales of “failed, non-operating” facilities, whereas the section 363 Sale involved the sale of operating, productive automotive plants that continue to operate with the same machinery and equipment to this day. DX354 at 11 (defining LVIP as “an opinion of the gross amount, expressed in terms of money, that typically could be realized from a properly advertised transaction, with the seller

being compelled to sell, as of a specific date, for a failed, non-operating facility, assuming that the entire facility is sold intact.”).⁴³

335. Finally, both OLV and LVIP premises of value require that a sale be “compelled.” DX354 at 11. The sale of assets from Old GM to New GM was not compelled. Although the ASA does not formally define compulsion, the examples of compulsion it provides, such as “a bankruptcy court ruling” requiring a sale, show that compulsion was not present in the sale of assets from Old GM to New GM. DX354 at 111. Here, as described more fully above (Section II above), the Old GM Board decided to enter into the sale transaction and to file for chapter 11; the Court, in turn, authorized the sale, concluding that it was “fair to GM, from a financial point of view” and “the product of intense arms’-length negotiations” among the parties, *In re Gen. Motors Corp.*, at 407 B.R. at 481, 494; *see also* Chrappa Direct ¶ 28. There was certainly no Court order *requiring* Old GM to file for bankruptcy or to sell its assets. Professor Fischel testified that Old GM got a “good deal.” Tr. 2583:7-11 (Fischel). Mr. Goesling likewise agreed that the section 363 sale was “extremely favorable” to Old GM. Tr. 3532:14-25 (Goesling).

B. Mr. Goesling’s flawed market approach

336. Even if Mr. Goesling’s liquidation premise had any relevance, Mr. Goesling applied an unreliable methodology to calculate the liquidation values of the assets by applying a market approach despite lacking adequate data on sales of comparable machines.

337. For fourteen Representative Assets, Mr. Goesling was not able to find any market comparables. Chrappa Direct ¶ 123, DX104. As the appraisal literature makes clear, the market or sales comparison approach is not reliable if there is no active market for the property being appraised. DX354 at 94 (“The sales comparison approach is not feasible when the subject

⁴³ Mr. Goesling also testified at trial that in his opinion, a LVIP value of the Representative Assets would produce lower values than OLV. Tr. 3483:20-3484:4. Yet his LVIP appraised values are universally higher than his OLV values, often significantly so. *Compare, e.g.*, Goesling Direct ¶ 412 (\$14,000 value for Aluminum Machining System under OLV) *with id.* ¶ 453 (\$246,000 value for Aluminum Machining System under LVIP).

property is unique, and it generally will not be feasible if an active market for the property does not exist.”). Yet instead of considering the absence of market transactions as an indication that the market approach was not the appropriate methodology for valuing those assets, Mr. Goesling valued the 14 assets at scrap. Chrappa Direct ¶ 123, DX104.

338. For 18 additional Representative Assets, after searching for comparable transactions between 2005 and 2016, Mr. Goesling was nonetheless only able to find one or two transactions he deemed comparable. Chrappa Direct ¶ 125, Chrappa Direct Ex. B. These purportedly comparable transactions often involved machines that differed significantly from the Representative Assets, which forced Mr. Goesling to heavily adjust their terms. Chrappa Direct ¶¶ 126-28, Chrappa Direct Ex. B.⁴⁴

339. For other assets, Mr. Goesling relied on “comparables” with no age information, even though the amount of time an asset has been used is an important element of comparability. For these “comparable” assets without age information, Mr. Goesling made no age-related adjustments to his valuations, risking significant error. Chrappa Direct ¶¶ 127-28.

340. Mr. Goesling also appears to have been selective in his use of market comparables for his orderly liquidation values. Mr. Chrappa identified additional transactions for Representative Assets meeting Mr. Goesling’s broad search criteria that would have supported

⁴⁴ For example, Mr. Goesling identified only two purportedly comparable transactions for the AA Schuler Transfer Press. Goesling Direct Ex. A at 391. For the first “comparable,” he applied three adjustments to the “comparable” sale price, ranging from negative 15% to positive 200%. In particular, he applied a 50% upward adjustment because the “comparable” was 15 years older than the Representative Asset; a 200% upward adjustment because the Representative Asset “is comprised of four more pressing stations that share a single drive,” whereas the “comparable” only had a single ram; and a -15% downward adjustment because the sale took place two years after the valuation date. *Id.* The second “comparable” for the AA Schuler Transfer Press was actually the combined price for four much smaller, non-transfer presses that Mr. Goesling grouped into one “comparable.” *Id.* Mr. Goesling then applied adjustments ranging from negative 20% to positive 50% to the sales value of that combined “comparable” — including a 50% adjustment because the combined “comparable” was almost 20 years older than the subject asset; a 10% adjustment because the sale was a forced liquidation; and a 20% negative adjustment because the sale was almost three years after the valuation date. *Id.*; see also Chrappa Direct Ex. B at 3.

significantly higher market-based OLVs for those assets. *See* Chrappa Direct Ex. C. And Mr. Goesling assumed significantly shorter useful lives than those suggested by the appraisal literature, driving down his values further. Chrappa Direct ¶¶ 130-31.

341. In sum, Mr. Goesling’s market approach is unreliable for appraising the value of the Representative Assets even at OLV in exchange, and it certainly has no relevance to appraising the assets in place, at FMVICU.

342. Although Mr. Goesling also applies an analysis he describes as a “cost approach,” that approach was also rendered unreliable by the methodological problems with his market approach. In particular, when Mr. Goesling arrived at a value using the cost approach that exceeded the prices of supposed market “comparables,” he adjusted his cost-approach values downward. Goesling Direct ¶ 420, Chrappa ¶¶ 132-33. In other words, although presented as a separate analysis using a different approach, his cost approach was in fact dependent on a flawed market approach. Tr 3506:7-18.

343. Finally, as Mr. Goesling acknowledged, his market approach cannot be scaled up from the 40 Representative Assets at issue here to the hundreds of thousands of assets at issue in the broader litigation. His analysis for just 40 assets took a tremendous amount of time because he struggled in “actually finding comparable sales information” — the comparables “just weren’t there.” Mr. Goesling has “no idea how long it would take” to try to use his market approach for the additional assets at issue in this case. Tr. 3432:6-18. When Mr. Goesling was lightheartedly asked whether he would sign up to perform the analysis for all relevant assets, he “reserve[d] judgment.” Tr. 3433:16-24.

PROPOSED FINDINGS OF FACT: FIXTURES

344. Each of the Representative Assets meets the attachment prong of the three-part fixture test, which merely requires an asset to be minimally physically attached or constructively attached. Each Representative Asset is also necessary to GM's use of the realty, and hence also meets the adaptation prong. Sections IX, XII-XIII.

345. The core disputed issue at trial was the third prong of the fixture test: GM's intent at the time the Representative Assets were installed. The evidence at trial clearly established that it was GM's intent at the time of installation of each of the 40 Representative Assets that it would be installed "until worn out, until the purpose to which the realty [was] devoted [was] accomplished, or until the item [was] superseded by another item more suitable for the purpose." Sections XII.A.3, XII.B.3, XIII below.

346. The Term Lenders presented testimony from seven former long-term employees of GM whose experience spanned a wide range of GM's manufacturing, engineering and planning areas: (a) Eric Stevens; (b) Dan Deeds; (c) John Thomas; (d) Steve Topping; (e) Max Miller; (f) John Buttermore; and (g) Ron Pniewski. All of these witnesses presented credible evidence that GM's consistent practices for designing, purchasing, installing and operating fixed manufacturing assets objectively show GM's intent to install assets like the 40 Representative Assets permanently. *See* Section VII below. Messrs. Stevens, Deeds, Thomas, Topping, and Miller, the former GM experts who testified as to each of the individual Representative Assets, likewise presented credible evidence asset by asset regarding how each of the 40 Representative Assets was installed and integrated into complex, automated systems critical to GM's facilities' manufacturing of vehicles, which likewise strongly indicates GM's intent to permanently install each asset. Section IX below.

347. The Avoidance Trust, on the other hand, presented no credible evidence indicating that GM did not intend to install the Representative Assets permanently. The Avoidance Trust certainly has not presented evidence sufficient to rebut the presumption in

Michigan that where, as here, the owner of real estate attaches assets to the realty, it intends the attachment to be permanent. Section XII.A.3 below.⁴⁵

348. The Avoidance Trust's only witness on the fixture-related issues was its expert, David Goesling. While Mr. Goesling is an experienced appraiser, he does not have an engineering or manufacturing background. He has no expertise in the design or installation of automotive production assets like the Representative Assets or the manufacturing practices implemented by General Motors. He was not familiar with GM's lean manufacturing practices, and incorrectly asserted that GM's platform approach was not in wide use by June 2009. He admitted that he has no expertise in assessing the logistics or costs associated with moving assets like the Representative Assets. Tr. 3168:21-24, 3169:8-9, 3170:4-16, 3186:16, 3168:25-3169:9, 3170:4-9 (Goesling); Sections VIII.A, XIII.B.1 below.

349. Given his lack of relevant expertise, Mr. Goesling's testimony as to the design of assets, the impact and difficulty of removing assets, and his opinions as to what those "facts" indicate about GM's intent, were shown at trial to be unsupported. Section VIII.A below. Similarly, Mr. Goesling's movement, retirement and sales analyses were shown at trial to be unreliable and his data, when understood in context, actually supports the former GM experts' testimony that when GM installed assets like the 40 Representative Assets, it intended them to be permanent. Section VIII.B below. Finally, contrary to Mr. Goesling's testimony, GM's personal property tax classifications and its financing of two stamping presses through sale/leasebacks are not probative of GM's intent to move its fixed manufacturing assets. Sections VIII.C-E below.

⁴⁵ During trial, the Avoidance Trust stipulated that "all buildings and all lands where each of the 40 Representative Assets were located were owned by General Motors Corporation at all relevant dates for this proceeding." Tr. 2156:21-2157:3. Colleen Charles — the former executive director of GM's global financial shared serviced organization, with responsibility for GM's electronic fixed asset ledger, eFAST — credibly testified that GM's eFAST ledger establishes that General Motors Corporation likewise owned the 40 Representative Assets or, for leased assets, that General Motors Corporation owned whatever rights or interests General Motors has in those assets. Tr. 1568:14-24, 1599:15-1605:6; Charles Direct ¶ 18 & Ex. 7.

VII. GM's Design and Manufacturing Practices

350. In assessing whether the Representative Assets were intended to be permanently installed, an overarching consideration is the business and engineering objectives that drove the design and installation of the machinery and equipment in GM's manufacturing plants. The principal witness on this subject was Eric Stevens, a manufacturing engineer and executive who spent 35 years working for GM in North America and in various parts of the world. From the mid-1990s until his retirement in 2013, Mr. Stevens had responsibility for approving the design and specifications of manufacturing equipment, as well as supervising the installation, pre-production, tryout and startup of equipment in assembly and body shops, paint shops, stamping plants, and powertrain casting, engine, and transmission plants. Stevens Direct ¶ 16. Mr. Stevens also had extensive involvement in the planning and design stages of new plants, including planning for each step of the production process, selecting the equipment to best achieve GM's production targets for the plant, and overseeing the design or modifications of the building to house those assets as efficiently as possible. *Id.* ¶ 19. Mr. Stevens was personally in charge of planning, designing, budgeting for, and constructing several overseas GM assembly plants in China, Poland, Thailand, Brazil, and Argentina that were the direct precursors to GM's Lansing Delta Township ("LDT") facility. He was also involved in the initial planning for LDT, and based on that experience, testified that GM followed the same lean manufacturing/Global Manufacturing System ("GMS") (described below) process and design parameters and concepts for LDT. *Id.* ¶ 35; Tr. 10:25-11:17; 12:25-13:7.

351. Mr. Stevens' extensive and intimate familiarity with GM's design and installation of manufacturing equipment, as well as the design and construction of GM plants, provided the Court with an understanding of the business, manufacturing and engineering principles that underlay GM's decisions to purchase and install the Representative Assets. Mr. Stevens also provided the Court with an understanding of the practices GM followed in constructing new and renovating old plants, as well as installing systems of fixed production assets in those plants.

352. As set forth below, this evidence of GM's practices — which was echoed by the other former GM experts — strongly supports a finding that GM's intent at the time it installed fixed manufacturing assets like the Representative Assets was that they would remain in place for their useful lives.

A. GM specifically designs and constructs its manufacturing facilities around the integrated production equipment to be installed therein.

353. When GM builds an entirely new facility, as it did in the case of LDT, GM does not erect a generic, off-the-shelf manufacturing facility and place equipment in that building. To the contrary, GM's practice is to design its new plants specifically to accommodate the particular manufacturing processes and major pieces of equipment that will be used in those plants for the long term. Only once GM decision-makers have determined the manufacturing processes that will be conducted at the plant, and identified the specific assets that will be used in those processes, are the foundations, shell, and support structures of the building or buildings to house those assets designed, constructed, and/or modified. Stevens Direct ¶ 36; Buttermore Direct ¶ 23. As discussed in detail in Section IX.A, the four major components of the LDT complex (stamping/body, paint, general assembly, and CUC) were all specifically designed for the processes and equipment installed in them. Tr. 19:14-24:9 (Stevens) (testifying as to how the LDT complex was adapted for the machinery installed to mass produce automobiles); DDX1.

354. The same is true for renovations of existing facilities. For example, the renovation of Warren Transmission for the installation of the new 6-speed transmission line was described by Daniel Deeds, who was the Manufacturing Engineering Director at Warren Transmission between 1996 and 1998 and from 2009 to 2014. Even before Warren had been selected to manufacture the new 6-speed transmission, GM had designed and specified the processes that would be used in the 6-speed production line and identified the specific equipment that would be part of that production line. Deeds Direct ¶ 42; Stevens Direct ¶ 37; Buttermore Direct ¶ 25. Then, to accommodate the new processes and equipment, which had a price tag between \$350 and \$450 million, GM invested approximately \$50 million to renovate 750,000

square feet of the Warren Transmission building for the installation. The renovation included such things as tearing up the entire existing floor to the bare dirt, pouring 12-inch reinforced concrete floors required for the stability requirements of the assets, removing thousands of feet of old utility equipment and piping, conduit and wiring, installing an upgraded utilities network required by the 6-speed line, and installing new HVAC, climate control, fire-suppression and lighting systems. Deeds Direct ¶ 43. As Mr. Deeds described it, “it looked like a new building inside of an existing structure, where the roof and the support columns stayed the same, but everything else was renovated.” Tr. 475:17-20.⁴⁶

355. These practices demonstrate that, for GM, the very purpose of the realty is to support the manufacturing assets and the specific production processes to be contained in the building. The resulting uniqueness of GM’s realty was confirmed by Patrick Furey, Managing Director in KPMG’s economic and valuation services practice, who testified that KPMG valued the GM buildings “under the cost approach because they are very unique buildings. They are not buildings that have a lot of comparable transactions in the marketplace where we could reasonably imply a sales comparison or market approach.” Tr. 1486:8-14 (Furey); *see also* Tr. 1425:7-1426:3 (Furey) (testifying that an assembly plant’s “core assets” will not typically change even if the products produced by the plant change).

356. Mr. Goesling testified that he “disagreed” with the testimony of Messrs. Stevens, Deeds, Thomas, Topping, Miller and Buttermore that, as a matter of engineering design, GM designs its plants to accommodate the specific manufacturing processes that are intended to go into the buildings. Tr. 3268:7-14. Mr. Goesling’s view is that the primary purpose of the buildings is to “provide shelter for the assets.” Tr. 3268:15-19. The Avoidance Trust similarly asserted in its pretrial brief that the “Lansing Delta Township plant consists of standard

⁴⁶ Mr. Deeds further testified that when GM separately removed the 4-speed build line and remediated the over-300-foot long, 10-foot deep pit it left, GM only poured a 4” cap because it did not yet know what future purpose the realty would be put to. Tr. 468:11-18. Because “GM design[s] its renovations around the processes being installed,” “until you know what process it is, it’s hard to do a renovation.” *Id.* at 472:18-23.

manufacturing buildings.” Pls. Pretrial Br. 54. The un rebutted evidence from the former GM employees contradicts these claims.

B. GM’s practice of constructing and renovating buildings to hold specific integrated manufacturing assets is strong evidence of GM’s intent to install such assets in those buildings permanently.

357. In order to manufacture vehicles profitably, GM installs highly integrated production systems in its custom-built plants and operates them in place for extended periods of time. As the Court saw during its visits to LDT and Warren, it is difficult for someone who has not been inside a modern U.S. manufacturing facility to conceive of the sheer immensity, level of integration, and customization of such a facility.

358. The site visit showed, and the trial evidence confirmed, that GM specifically designed its plants and selected and installed the machinery that went into its plants to work efficiently as part of extensive automated, integrated systems so that it could manufacture a large product (automobiles) at high volumes (1,110 vehicles per day at LDT, 7,500 transmissions per week at Warren) at the lowest cost possible. Stevens Direct ¶ 63; Tr. 146:2-9 (Stevens); Deeds Direct ¶ 41; Tr. 481:10-17 (Deeds). As part of this integrated process, each asset in a production line (like the Representative Assets) is attached to the realty and designed to work with and depend upon every other asset in the line. The software that runs these production lines, in turn, links together the conveyors, robots, and milling machines to ensure that the system of machines operates in a coordinated, highly integrated, and extremely precise fashion. Stevens Direct ¶ 65; Tr. 932:15-934:23, 936:9-24 (Topping) (testifying as to how Asset 7, the Paint Software, integrates conveyors, paint applicators and environmental systems and is critical to the efficient operation of LDT’s paint shop).

359. Given this high level of integration, the removal of any one production asset will typically render the rest highly inefficient or inoperable. If GM were ever forced to remove one of its production assets, some or all of production in that plant would cease until it could replace the removed asset with an identical one. Stevens Direct ¶¶ 66-67; Tr. 146:10-17 (Stevens). As

just one example, without the Wheel & Tire Conveyor (Asset 20) to carry completed wheel and tire assemblies from the wheel and tire system at LDT (which includes the Soap, Mount & Inflate System (Asset 15)), to the Final Line Skillet Conveyor assembly line (Asset 21) for installation on vehicles, the entire assembly line at LDT would be slowed significantly, impairing GM's hundreds of millions of dollars of investment in the line. Stevens Direct ¶ 66.

360. As another example, GM's decision to install large, centralized coolant cleaning systems that were integrated through hard steel piping with a large number of CNC machining assets was strong evidence of GM's intent to install all of the manufacturing assets in the 6-speed transmission line at Warren permanently. Tr. 487:18-491:18 (Deeds). Mr. Deeds explained that this highly integrated system was more expensive to install than smaller, individual coolant cleaning equipment for each machine, but that this smaller equipment would cost more to operate over the long-term. *Id.* GM chose the more expensive, harder-to-move integrated system, knowing that the investment would only make sense if it used the assets in the system in place for their useful life. *Id.*; *see also* Section IX.B below. Mr. Goesling effectively acknowledged at trial that GM's continued use of integrated, centralized coolant systems at Warren is significant evidence of GM's intent to install the assets on the 6-speed line permanently. Tr. 3338:15-3340:25.

361. Much of each plant's integrated equipment also had to be specifically adapted to fit the real estate. For example, Mr. Stevens repeatedly oversaw the work of teams who had to specially design equipment layout and conveyors to fit within a particular space or column configuration (or had to specially design a particular space to fit the equipment and conveyors). Stevens Direct ¶ 39. Many conveyors must run for thousands of feet to allow multiple repeated operations to be performed in a complex, highly choreographed assembly process. *Id.* And the layout of the conveyors for the 6-speed transmission line at Warren Transmission was customized specifically for the tight layout of the renovated Warren building. Tr. 732:23-733:7 (Deeds); Deeds Direct ¶¶ 45, 60, 178.

362. Given the extensive integration of its manufacturing assets, all of the former GM experts testified that it was extremely rare, if not unheard of, for GM to remove or reuse equipment from existing plants under normal operating circumstances. *E.g.*, Stevens Direct ¶ 67; Deeds Direct ¶¶ 27-28; Miller Direct ¶¶ 34, 57. It simply would not have made sense for GM to do so, inasmuch as the removal of any one of those assets would essentially bring the manufacturing process to a halt. Stevens Direct ¶¶ 66-67; Tr. 146:10-17 (Stevens).

363. Further evidencing GM's intent to install its manufacturing assets for their useful lives, the vast majority of the capital equipment that GM installed when it built or renovated a plant was purchased new. And even when plants were closed or idled, it was unusual for GM to move its capital equipment for reuse in a different location because the costs of uninstalling it, rigging it for transport, reinstalling it, and reintegrating it in another facility were so high. In addition, given GM's use of highly integrated systems, reusing older equipment would result in a portion of a system wearing out sooner than the rest of the system, which GM always worked to avoid due to the disruptions to production caused by stopping the system to remove and replace individual components. By purchasing entire systems of new, long-lived equipment, GM would only have to deal with replacing the integrated system at the end of the useful life of all the assets. Stevens Direct ¶ 46; Tr. 51:14-20 (Stevens).

364. GM's practice of utilizing heavily integrated manufacturing processes and equipment, as well as its practice of purchasing and installing such equipment new to maximize the length of time an entire integrated system can remain in place, is strong evidence that GM intends the assets that are part of such integrated processes to be permanent. Stevens Direct ¶ 39.

C. GM's fixed manufacturing assets are often so massive and integrated with the building that it is simply impractical to move them.

365. Many of the core manufacturing assets involved in this dispute — including many of the Representative Assets — are extraordinarily large. For example, huge paint and oven systems often span three stories, lengthy conveyors cut through floors and ceilings to carry auto bodies through the paint line, and heavily integrated paint booths (larger than good-sized houses)

are integrated with huge waste processing systems. Stamping lines — which require extensive foundations dug down to the bedrock to accommodate the presses and months to install, integrate, and test — are likewise monumental in scope and design. Conveyors in turn run throughout hundreds of thousands of square feet of facilities, carrying vehicle bodies and engines, transmissions, and other components to other precisely laid-out production assets. Stevens Direct ¶ 64. Complex, enormous centralized coolant systems are efficiently integrated with scores of milling machines, connecting them together and holding them in place with large-scale steel piping. Tr. 490:8-491:18, 505:5-506:4 (Deeds); DDX104, DDX109, DDX112 (schematics showing the steel piping in the machining areas at Warren Transmission). And a multistory gas cleaning system is installed in a custom-built enclosure to allow massive foundry melting operations to remain fully compliant with federal regulations. Thomas Direct ¶¶ 46, 48, 80.

366. To accommodate this massive equipment, it is common for the machinery to be installed as the building is constructed around it. Stevens Direct ¶ 38. For instance, the paint shop at a GM assembly plant would be designed from the ground up well in advance of any building construction or asset installation. Stevens Direct ¶ 64; Topping Direct ¶ 38. Similarly, GM stamping facilities are purpose-built to house stamping operations and machinery, with the walls of the building left unfinished until the presses are moved into the building. Miller Direct ¶ 33. And mezzanines and overhead conveyors like those at LDT — which can run for hundreds or thousands of feet overhead through the plants and traverse different levels of the plant — are often installed over a year in advance of plant operations commencing. Tr. 111:13-112:11 (Stevens). This early installation of conveyors is particularly necessary given that the process of installing an overhead asset would severely limit the activities that could safely be undertaken below. *E.g.*, Stevens Direct Ex. B. ¶ 21.

367. Given their size and level of integration, movement of these huge assets is challenging and exceedingly expensive. Stevens Direct ¶ 66. Removal of many of the assets would simply be impractical (*e.g.*, the Wheel & Tire Conveyor would take months to remove)

and/or would result in substantial damage to the building where they are installed (*e.g.*, for certain presses, holes would have to be cut into walls to remove even broken-down press components). *Id.*

368. The cost of installing and integrating these assets is additional evidence that GM's intent is to install them and leave them in place for their useful lives. Stevens Direct ¶¶ 124-25; Chrappa Direct ¶ 63; Miller ¶¶ 18, 42. All of those costs would be lost if the assets were ever removed or moved; and the costs would have to be duplicated if the equipment were removed for reuse elsewhere. Similarly, many components of these large assets — mezzanines, safety fencing, catwalks, foundations, pits, structural steel and utility connections — would have to be scrapped. *E.g.*, Stevens Direct ¶ 191 (if the Weld Bus Ducts were removed, the structural steel would likely need to be scrapped, representing a loss of \$250,000); Miller Direct ¶ 48 (if a press were removed, many of the press system's components would have to be scrapped).

369. Indeed, it was common at GM to refer to many aspects of GM's capital asset installations — paint shops, conveyors, stamping lines, major assembly equipment — as “monuments,” given how large and unchanging they were once installed. Stevens Direct ¶ 64.

370. For all these reasons, the sheer magnitude of GM's manufacturing equipment is strong evidence that GM intended such assets to remain in place for their useful lives.

D. GM's fixed manufacturing assets must be firmly attached to the realty to function properly and safely.

371. GM's manufacturing standards require its plants to be able to produce parts that meet exacting tolerances — in the case of its engines and transmissions, sometimes thinner than the width of a human hair. Tr. 540:4-7 (Deeds). Given this need for precision (particularly in modern engine and transmission manufacturing), GM often needed to pour a special, thick foundation under machining assets, and precisely level the foundations so that the assets could perform to these fine tolerances. Stevens Direct ¶ 65. Some assets likewise required custom support, or plant modifications, so that the parts they produced would not be disturbed by vibrations caused by the manufacturing process, or disturb other precision equipment. *Id.*; Deeds Direct ¶ 108 & Ex. B ¶ 121; Tr. 629:4-7, 638:8-17 (Deeds); Tr. 1045:23-1046:7 (Miller).

372. Similarly, conveyors need to transport components from machine to machine seamlessly. To do so, they must be firmly attached to the realty so that they remain in place and, in certain cases, such as at Warren Transmission, can operate 24 hours per day, 6 days per week. Deeds Direct ¶¶ 99, 110 & Ex. B ¶ 128. Conveyors also must be firmly affixed for safety reasons, as must many of the other Representative Assets. *See, e.g.*, Deeds Direct Ex. B ¶ 45 n.34 (discussing OSHA regulation requiring secure anchoring for control panels). For example, and needless to say, overhead cranes and transporters carrying vats of molten iron, heavy stamping press dies, or thousand pound vehicle bodies must stay firmly fixed in place at all times.

373. The extensive firm attachment that GM's fixed manufacturing assets require to fulfill their purpose of producing a high volume of vehicles and vehicle components is likewise strong evidence that they were intended to be installed permanently.

E. In response to changing market conditions, GM adopted lean and flexible manufacturing practices to avoid having to replace its fixed manufacturing assets.

374. The evidence at trial established that the manufacturing systems used in the automotive industry, and at GM in particular, evolved in important ways over the course of approximately the two decades preceding GM's bankruptcy in response to changing market forces. GM responded by developing a set of "lean" and "flexible" manufacturing principles that resulted in GM designing and installing machinery that is adaptable to model changes that, in the past, might have required the replacement of fixed machinery and equipment before the end of its useful life. Stevens Direct ¶ 49; Deeds Direct ¶ 28; Buttermore Direct ¶ 35; Pniewski Direct ¶ 18; Tr. 26:18-28:6, 54:16-55:19, 56:12-25, 75:12-76:12 (Stevens); Tr. 1286:21-1289:8 (Buttermore); Miller Direct ¶ 27 (trend toward larger presses that have greater flexibility).

375. During earlier years of automobile manufacturing, vehicles, engines and transmissions had a relatively long product cycle, meaning that production assets could be designed to make one specific product, but still be expected to operate in place for a long period

of time until the production assets reached the end of their useful lives. By the 1990s, however, industry forces, including consumer expectations and increasing government regulation, had sped up the product cycle and changes to vehicles. Given the sheer size and level of integration of its manufacturing assets discussed above, GM incurred significant costs in purchasing, installing and integrating its manufacturing assets — value that would be lost if the assets had to be removed, moved or replaced in shorter cycles. Stevens Direct ¶ 49; Deeds Direct ¶ 28.

376. *Vehicle Assembly and GMS*: In the 1990s, GM began designing its vehicle assembly plants, machinery and equipment to be flexible to avoid having to move or replace fixed assets as its needs changed. Tr. 25:10-18, 56:12-25, 60:14-65:8, 75:12-76:12 (Stevens); DX94 at 12; Stevens Direct ¶ 49. These flexible “lean” manufacturing processes dictated that plants be configured to produce a variety of products — both what the plants would initially make, but also products that GM anticipated would need to be made in the future. This allowed plants, and the fixed manufacturing assets installed in them, to handle multiple product cycles without costly and disruptive renovation efforts. *Id.*

377. Mr. Stevens was one of several GM executives with principal responsibility for the development of “lean” manufacturing at GM and preparation of the Global Manufacturing System (or “GMS”) manual that documented those principles. *Id.* ¶ 50; Tr. 11:18-12:24 (Stevens). The GMS manual describes principles of manufacturing intended to eliminate waste through effective flexible work practices, including increasing equipment flexibility, so that the same manufacturing assets can accommodate product changes and market changes that might occur, while avoiding the waste inherent in using capital assets for less than their useful lives. Stevens Direct ¶ 51.

378. Under GMS, when GM designed and approved a manufacturing system in accordance with GMS, its policies and practices required it to reach a conclusion that the assets would be used for years, through several product cycles, and remain in place for their useful lives. Stevens Direct ¶ 33; Tr. 29:17-30:6 (the “transformation to lean thinking and lean process equipment . . . [has] allowed the major systems all to remain in place unchanged” through model

changes and “extended their ability to produce vehicles for GM on that set of processes and assets.”), 54:16-56:11 (same).

379. As noted, LDT was designed to fully implement GMS principles, including flexible manufacturing equipment and processes capable of producing the range of potential vehicles that would initially and might in the future be produced there.

380. *Powertrain and Lean Agile Flex:* John Buttermore, who served in various executive roles in GM’s powertrain division over his 36-year career, testified that GM’s powertrain division was on a similar track in the development and implementation of lean and flexible manufacturing. Mr. Buttermore testified that prior to the 1990s, GM installed efficient but inflexible custom-built machines (transfer lines) that were specifically designed to manufacture a particular powertrain engine or transmission component. At that time, engine and transmission product life cycles were long — approximately 30 years — and changes in the market were infrequent. For example, the inflexible 4-speed line at Warren operated for 27 years before being idled, and was subsequently replaced by the electric drive unit for the Chevy Volt. Deeds Direct ¶ 48. The vast majority of these inflexible lines reached the end of their anticipated useful lives, and often exceeded them, and were only then removed, scrapped, and replaced with equipment to make the next generation of engines or transmissions. Buttermore Direct ¶ 31; Tr. 1287:22-1288:11 (Buttermore); Tr. 721:14-727:19 (Deeds) (testifying to examples of inflexible powertrain lines used in place for their useful lives before being scrapped).

381. As with vehicle assembly, this all changed in the early 1990s, when the rate of change in powertrain products started to increase, primarily due to regulatory changes affecting fuel economy and emissions standards. Mr. Buttermore had significant responsibility for developing and implementing new flexible technology for use in GM’s powertrain manufacturing processes that would enable GM to manufacture future generations of engines and transmissions on the same machinery and avoid the need to tear out equipment before the end of its useful life. Buttermore Direct ¶¶ 32-33; Tr. 1286:21-1291:16. Specifically, Mr. Buttermore, along with others at GM, worked with equipment manufacturers to develop high-

volume Computer Numerical Control or “CNC”-based production processes that required only computer programming and tooling modifications to produce multiple generations of powertrain products on the same machines. Buttermore Direct ¶¶ 33-34. While such equipment cost more up front, because it allowed GM to use the equipment for its full useful life in place, it was more cost effective in the long term. Deeds Direct ¶ 42. In GM’s powertrain division, this was referred to as Lean Agile Flex technology. Buttermore Direct ¶ 35; Tr. 1288:13-1289:3.

382. By June 2009, GM had implemented Lean Agile Flex technology in a number of powertrain facilities, including Warren Transmission. Tr. 1291:13-1292:5 (Buttermore). Using Lean Agile Flex technology, once GM installed fixed asset in a powertrain manufacturing plant, they could typically be operated in place until the end of their useful lives, even though those useful lives might extend through multiple product cycles — allowing GM to capture the value of its capital expenditures in full. Buttermore Direct ¶ 39; Tr. 1287:22-1290:17 (Buttermore); Deeds Direct ¶ 28.

383. GM’s adoption of lean and flexible manufacturing policies and practices is strong evidence of GM’s intent to install fixed manufacturing assets like the Representative Assets permanently in its facilities. Tr. 25:10-18; 56:12-25 (Stevens). Mr. Goesling acknowledged that he reached his opinions about GM’s intent in this case without any expert knowledge of GM’s lean and flexible manufacturing practices. Tr. 3229:23-3230:6 (“Q. And you’re familiar with the idea of lean-flexible manufacturing at GM?” Goesling: “To a certain extent, yes.” “Q. Before this case it really wasn’t something you had expert knowledge about, right?” Goesling: “I still don’t have expert knowledge about it.”), 3248:3-12 (“THE COURT: . . . You’re familiar with GM referring to their manufacturing process as lean-agile-flex, correct?” Goesling: “Actually, Your Honor, the trial here is the first time that I’ve heard the three words used in combination.”), 3170:20-24 (same). This failure to consider GM’s lean manufacturing practices renders Mr. Goesling’s conclusions about GM’s intent unreliable.

F. GM uses a platform approach to minimize the need to remove or replace fixed manufacturing assets.

384. Consistent with its lean manufacturing practices, GM designed its vehicle assembly facilities to produce platforms, not individual vehicle models. Tr. 57:2-59:8 (Stevens); Stevens Direct ¶ 58. An automotive platform is a common internal design that underpins many outwardly different models. Stevens Direct ¶ 55. By employing this platform approach, GM ensured that many different makes and models could be produced on the same production line without modification to the manufacturing assets in the production line. *Id.* ¶¶ 54-55; Tr. 57:2-59:8 (Stevens); Stevens Direct ¶ 57 (chart showing different models that share a platform and are produced by the same equipment). GM's platform approach practices have supplied the guiding principles of the manufacturing engineering department of GM since the late 1990s. Stevens Direct ¶ 54; Tr. 59:12-60:13 (discussing DX 94, a February 2009 GM presentation that includes slides on the fundamentals of platform engineering).

385. The platform approach, along with lean manufacturing practices, made it possible for GM to limit its major asset changes for the production of new vehicle models to the replacement of the dies and tooling that, for example, produce the distinctive appearance of a hood or door panel. Stevens Direct ¶ 58. GM's budgeting processes for model changes likewise reflected the use of the platform approach — while budgets would contain significant expenditures associated with new tools and dies for a new model, GM rarely budgeted for any new paint shop equipment, milling machines, stamping presses, or assembly conveyors to accommodate model changes. Stevens Direct ¶ 59.

386. Even changes in vehicle platforms, which are less common, typically do not require significant changes to fixed manufacturing assets, as a mid-sized car is a mid-sized car regardless of changes to specifications or GM's platform designation. Stevens Direct ¶ 61; Tr. 61:19-62:18, 305:23-306:7 (Stevens). For truly new types of automobiles, like the crossover SUV now being built at LDT, GM would often construct entirely new facilities (like LDT), but the introduction of such new types of automobiles is relatively infrequent. Stevens Direct ¶ 61.

387. In powertrain, GM also adopted a “product family approach” that is consistent with its vehicle platform approach. As Mr. Buttermore explained, the product family approach in powertrain allows GM to use the same production facilities to manufacture a range of powertrain products that can be deployed in multiple vehicle platforms, rather than having to replace those production facilities whenever an upgrade to a particular product is necessary. Buttermore Direct ¶¶ 37-38.

388. LDT, in particular, was designed and constructed in accordance with the platform approach, and designed to produce vehicles based on GM’s new crossover SUV platform, including the Chevy Traverse, the GMC Acadia, and the Buick Enclave. Stevens Direct Ex. A at 10; Stevens Direct ¶ 58; Tr. 69:20-25. The 6-speed line at Warren Transmission was likewise designed to handle a product family of transmissions that could in the future include 7-speed and other upgraded versions of the same transmission, and the 6-speed line has already handled upgrades to the 6-speed transmission without fixed manufacturing asset changes. Deeds Direct ¶¶ 28, 42; Tr. 731:21-732:10 (Deeds).

389. Due in significant part to the platform strategy, once GM installed a manufacturing asset in a plant, GM could operate that asset in place until the end of its useful life. Stevens Direct ¶ 60; Buttermore Direct ¶ 38. While Mr. Goesling claims that as a result of changing consumer demand and regulatory action, “GM plants required relatively frequent machinery and equipment changes in 2009” (Goesling Direct ¶ 26), Mr. Stevens’ response was clear and convincing: “That’s false.” Tr. 72:16-23. Instead, “[t]he truth was that the equipment and machinery [due to] the platform strategy in the plants . . . were able to remain in place longer than they ever had been in the past independent of model changes or other changes to the product that might or might not come.” Tr. 72:24-73:8.

390. In his testimony, Mr. Goesling agreed that “GM and the other OEMs have attempted to create global vehicle platforms to decrease the need to make wholesale equipment changes for every model change.” Goesling Direct ¶ 25. Having acknowledged GM’s intent in moving to a platform approach, however, Mr. Goesling asserted that “GM’s global platform

approach was only in limited in use in 2009.” Goesling Direct ¶ 25. The evidence at trial showed that Mr. Goesling was flatly wrong. By 2009, GM’s platform approach was in place at a large number of GM’s assembly and powertrain plants, facilitating the continued use of installed assets in place. Tr. 66:13-72:14 (Stevens) (nearly all of the plants on which fixture filings were made that were sold to New GM had adopted platform strategies). By 2007, even GM’s Form 10-K referenced GM’s eight different global architectures. DX353 at 10; Tr. 67:10-68:20 (Stevens).

391. Thus, GM’s platform strategy is again strong evidence of GM’s intent to make assets like the Representative Assets a permanent part of the plant for their useful lives. *Id.*; Tr. 3250:7-19 (Goesling) (agreeing that lean, flexible manufacturing and the platform strategy were “in place at Lansing Delta Township, and if I was the Court I would probably consider that”).

G. GM engages in extensive planning efforts to ensure it can use its fixed manufacturing assets in place.

392. In addition to lean and flexible manufacturing and the platform approach, GM took other steps in the 1990s to anticipate and plan for changes in the marketplace. Ron Pniewski, a 34-year GM executive, testified that GM invested a significant amount of money and manpower in an effort to anticipate changes in the industry and to plan for changes up to 10 years in advance. Tr. 1268:9-1270:25 (Pniewski); Pniewski Direct ¶ 10.

393. Between 1999 and 2007, Mr. Pniewski served as head of GM’s “Planning Group,” which would gather a broad array of information about the future, such as forecasted industry and individual product lines, changes in manufacturing engineering, fuel prices, interest rates, competitors’ product plans, as well as GM’s cash and workload. Tr. 1268:9-1270:25 (Pniewski); Pniewski Direct ¶ 10. The Planning Group’s job was to develop a product and capacity plan for a 10-year planning horizon to ensure that before GM invested hundreds of millions of dollars in new capital assets, it had adequately anticipated and planned for the changes that would come over the useful life of the assets. In addition to this extensive planning process, the Planning Group also relied on the flexibility inherent in GM’s manufacturing and design

process to accommodate unexpected changes in the marketplace that the planning process might not be able to fully anticipate. Pniewski Direct ¶ 10.

394. When GM decided to invest hundreds of millions of dollars in new fixed manufacturing assets, it did so in reliance on the efforts it had expended in planning for changes over the useful lives of the assets. Pniewski Direct ¶ 11.

395. At trial, Mr. Goesling asserted that while GM “hope[d]” to keep its assets in place, GM knew when it installed assets that it would close plants before the end of their useful lives, and therefore was prepared for the possibility of significant changes to manufacturing assets. Goesling Direct ¶ 26; Tr. 3095:13-19 (same). This testimony is unsupported and not credible. As Mr. Stevens explained: “We didn’t hope. We intended. We planned and our design processes were set up with the intent to keep assets in place. . . . [W]e didn’t sit around hoping very often.” Tr. 74:22-75:7. And while Mr. Pniewski acknowledged that the future is uncertain and unanticipated changes will happen, he explained that from the perspective of GM’s business practices, “the only realistic assumption when you are making a plan [is] planning for success. And it is our intent that . . . when we put something in place, it’s our intent that it stays there until it can’t be used anymore.” Tr. 1280:10-22 (Pniewski).

396. The evidence also contradicts Mr. Goesling’s assertion that when GM built plants, it knew they would close before the end of their useful lives. Mr. Goesling focused on the 2006 to 2010 time period, but as the evidence shows, this was a highly unusual time period for GM. Stevens Direct ¶ 47 (chart showing annual GM plant closures underscoring how unusual it was for GM to close plants over the past 30 years). The combination of foreign competition, legacy costs, higher gas prices, and the financial crisis resulted in a large amount of excess capacity in the 2000s, leading to an unusual number of plant closures between 2006 and 2010 and, of course, to GM’s bankruptcy. *Id.* ¶¶ 47-48.

397. As Mr. Pniewski testified, GM nonetheless put forth “significant resources . . . to mitigate that uncertainty and lower the risk of the future as much as possible.” Tr. 1279:16-1279:22. And it was largely successful. Even during the highly unusual 2006-2010 time period,

newer plants were not targeted for closure; it was the older, outdated plants that were closed after having operated for multiple decades. Tr. 78:17-79:15 (Stevens). A November 2011 report from the Center for Automotive Research (“CAR”), titled “Repurposing Former Automotive Manufacturing Sites” (PX508), which is cited by the Avoidance Trust and relied upon by Mr. Goesling, bears this out. Figure 4 on page 19 of the CAR Report shows that the “average age” of an automotive plant that was closed in the 1990s was 53 years, in the 2000s was 58 years, and in the 2010s was 57 years. PX508 at 19; Tr. 432:5-433:7 (Stevens).

398. Thus, the evidence shows that plants would be closed from time to time when they approached the end of their useful lives, but not that GM was in the business of building plants and installing large, integrated and expensive capital equipment in them with the expectation that the plant might have to be closed and the machinery and equipment removed before the end of its useful life. Stevens Direct. ¶ 48.

H. GM’s plants would be designed very differently if GM intended to facilitate movement and removal of its fixed manufacturing assets.

399. Mr. Stevens and Mr. Deeds testified that if GM had designed its plants to facilitate removal and movement of its fixed assets, it would have designed them very differently. The Avoidance Trust had no rebuttal to this testimony.

400. For example, instead of the numerous overhead conveyors that GM installed at LDT to minimize floor space usage, lower heating and cooling requirements, and minimize the distances people would have to walk (Tr. 34:19-35:17 (Stevens)), GM would have configured the plant on a single floor that would allow better access to the conveyor if it needed to be removed. Tr. 35:24-37:9 (Stevens). Similarly, instead of multistory paint shops like LDT’s, GM likely would have installed the paint shop on one level. *Id.* While this would increase labor requirements because of the greater floor space that workers would have to traverse, it would ultimately save money on the removal of the assets. *Id.*

401. As another example, for the 6-speed transmission line at Warren, GM would have used “far fewer” centralized systems if it had designed the 6-speed line with the goal of being

able to redeploy the assets on the line. Tr. 487:18-488:6 (Deeds). In the rare circumstances when GM intends to operate a line for a limited period of time, it avoids centralized systems and installs coolant and mist collection systems with each asset instead of expending millions of dollars on centralized systems. Tr. 487:6-491:18 (Deeds). While it would be more expensive to operate such a plant in the short term, it would also avoid significant upfront costs and facilitate the movement of the assets later on. *Id.* Mr. Goesling agreed that one reason GM would move from a central coolant plant toward a decentralized system of coolant delivery would be to make the equipment more portable, and also agreed that GM has not made that switch at Warren or any other facility in which the Representative Assets are located. Tr. 3338:15-3340:25.

402. GM did not generally design its plants to facilitate movement and removal for a good reason: it would have made no economic sense to design plants that way, because they would not have been economically efficient. Tr. 37:10-38:2 (Stevens). As discussed above, GM's plants need to be highly integrated, highly automated facilities in order to produce vehicles at high volumes day-in-and-day-out, with minimal human involvement and minimal cost. *Id.* That requires long-term investment in integrated, fixed manufacturing assets, which is why GM followed lean manufacturing principles and the platform strategy to ensure that its assets could operate in place for their useful lives.

I. Given that GM built and renovated facilities specifically to operate its integrated production systems, when GM shut down plants they were typically demolished.

403. As a result of GM's design and construction of its plants for very specific manufacturing processes, the plants' extraordinarily large size, as well as the fact that GM's manufacturing assets are significantly embedded in the buildings and integrated with one another, it is typically the case that closed GM manufacturing plants have not been repurposed for another productive use. Stevens Direct ¶ 40; Buttermore ¶ 28. It is generally economically infeasible to remove all the assets, repair the severe damage that occurs when these assets are removed, and bring the facility up to the standards required by a new use — even assuming

anyone else would have a use for GM's "unique" buildings. *Id.*; see also Sections VII.A-B above. Typically, it is easier to simply demolish the existing building and build new facilities on the land. Stevens Direct ¶ 40. The practical reality is that a plant the size of a modern automotive production facility, which is designed to build a very large product (automobiles) in very large volumes, requiring a large amount of space, is extremely expensive to light, heat, cool and use cost-effectively for any other purpose. Stevens Direct ¶ 44.

404. A fairly recent example of this is the Lansing Grand River Assembly plant in Lansing, Michigan. In the early 2000s, at Lansing Grand River, GM first demolished its older existing manufacturing facility, and then built new manufacturing facilities on the site of the prior, now-demolished facility. GM determined that, given the extensive changes that would be required to be made to the old facility and its assets, which had generally reached the end of their useful lives, it made more sense to tear down the existing buildings and build entirely new buildings designed around the new production equipment. Stevens Direct ¶ 41.

405. As noted above, Mr. Goesling relied on the CAR Report (PX508) in forming his opinion that automotive plants can be and generally are repurposed for non-automotive uses. Goesling Direct Ex. A at 15. But the prevailing theme of the CAR Report is the *difficulty* of converting automotive plants for different uses, and the CAR Report therefore broadly defines "repurpose" to mean: "There is a new use on the site of the former facility, regardless of whether the original building was demolished." PX508 at 84. If an automotive facility has to be *demolished* before the land could be put to a different use, that is entirely consistent with the experience of the former GM experts that demolition of closed GM automotive manufacturing facilities is the overwhelming norm. Stevens Direct ¶ 43.

406. To consider the import of the CAR Report, the former GM experts reviewed the report and identified all 12 GM plants in Michigan and Ohio that GM closed between 2006 and 2010. Mr. Miller initially personally visited 11 of the plants — Flint Engine Factory (Factory 31), Flint North (Building 36), Lansing Car Assembly (Body Plant), Lansing Craft Center, Saginaw Malleable Iron, Pontiac East Assembly, Willow Run Transmission, Livonia Engine,

Grand Rapids Stamping, Lansing Metal Center and Mansfield Stamping. Miller Direct ¶ 56. As reflected in DDX601, Mr. Miller confirmed that 10 of the plants had been fully demolished. Stevens Direct ¶ 44; Miller Direct ¶ 56; Tr. 1059:7-1061:4 (Miller).⁴⁷ Satellite imagery from the sites likewise corroborates that these plants have been fully demolished. DX83-DX 93. Only one of the plants, Livonia Engine, has been repurposed. Tr. 1060:22-24. Satellite imagery shows, and Mr. Miller later confirmed, that the twelfth plant, Moraine Assembly, which Mr. Miller was unable to visit until after his written testimony was submitted, has been partially demolished and partially repurposed. Stevens Direct ¶ 44; Miller Direct ¶ 56; DX90; Tr. 1059:21-1060:24 (Miller).

407. Thus, consistent with the former GM experts' experience, the evidence shows that closed GM manufacturing plants are not typically repurposed for non-automotive use. This fact strongly supports a finding that the plants were built specifically for the manufacture of automobiles and would be of no value without the equipment installed therein.

VIII. David Goesling's Unsupported Inferences and Analyses

A. GM's methods of attaching its fixed manufacturing assets do not reflect intent by GM that such assets be removable.

408. Based on his observations during the plant inspections, Mr. Goesling repeatedly asserts that a number of the Representative Assets would be "easy" or "simple" to remove. *E.g.*, Goesling Direct ¶¶ 36, 38, 40, 90, 105, 106, 126, 134, 145, 148, 152, 181, 185, 190, 193, 251, 256, 257, 270, 275, 280, 296, 298, 302, 303, 306, 314, 315. He provided no detail, however, as to what he considers "easy" or "simple." *Id.* He never explained what an "easy" removal would require in terms of labor hours, cost, equipment needs, or what its effect would be on the plants' integrated manufacturing processes. *Id.*; Stevens Direct ¶ 128. Indeed, he acknowledged at trial that he has no expertise in "assessing the logistics and costs associated with moving the wide range of assets that [he'd] seen at the GM plants." Tr. 3192:8-15.

⁴⁷ Additional detail on the demolition of closed stamping plants can be found in Section IX.A.1, below, where the stamping Representative Assets are addressed.

409. As the former GM experts testified, removing assets like the Representative Assets is an arduous, time-consuming, expensive task that would have an undeniable and significant impact on the production processes in the plants, as well as GM's revenue stream. Stevens Direct ¶¶ 125, 128; Section IX below. In the Exhibit Bs to their written testimonies, based on their experience and engineering backgrounds, each of the former GM experts provided detailed estimates of the time it would take, and the cost GM would incur, to remove each of the Representative Assets. This testimony was unrebutted by the Avoidance Trust.⁴⁸

410. One of Mr. Goesling's principal bases for his testimony that GM intended that assets would not be permanently installed is his contention that GM selected easily reversible methods of attachment to facilitate removal. Goesling Direct ¶¶ 29-43. Unsurprisingly, given Mr. Goesling's own statement that he does not "pretend to be an expert in manufacturing engineering" (Tr. 3168:25-3169:9), Mr. Goesling's inferences did not stand up to scrutiny at trial, and were shown to lack any basis as a matter of engineering.

1. Use of bolts instead of welds or concrete.

411. In response to this question from the Court: "Do I understand that any time you see something bolted as opposed to welded, cemented, then your conclusion is that it's removable and that supports concluding that it's personal property and not a fixture?," Mr. Goesling confirmed: "That's correct." Tr. 3127:10-16.

412. Mr. Goesling's conclusion that the use of bolts rather than welding or concrete dictates that an asset is not a fixture is not credible. Mr. Goesling has no expertise on that subject. Tr. 3180:23-3181:5 (Goesling) (I am "not offering an engineering opinion on

⁴⁸ As just one example, in analyzing Asset 6, the ELPO Oven Conveyor, Mr. Goesling asserted without any details that "[a]ll of the components of the ELPO IMC System are modular, so disassembly, replacement, or reconfiguration are relatively easy to accomplish." Goesling Direct Ex. A at 43. In fact, Mr. Topping testified that disassembly of the \$1.1 million, three-story, 2,000 foot long ELPO Conveyor would require a 15-person crew several months to perform. Topping Direct Ex. B ¶ 49. Mr. Goesling's inexpert and extraordinarily broad definition of "easy" is entitled to no weight.

anything”). As Mr. Stevens testified, the use of bolts as opposed to welds is done to protect the integrity of structural steel during asset installation and ongoing operations, *i.e.*, to facilitate assets remaining in place, not to facilitate removal. Tr. 81:11-82:9. This engineering requirement is, in fact, embodied in a GM regulation that was put in place to avoid compromising structural integrity of the building during the welding process, as welding to the roof truss can weaken the truss member. *Id.*; PX161 (GM’s Worldwide Facilities Group Electrical Installation Standards) at Section 9.1.4. Instead of welding, GM typically uses the most permanent available method of installation that would not compromise the structural integrity of the building — bolts. *Id.*⁴⁹

413. Moreover, using welding or concrete connections for assets whose operation involves motion actually is likely to be a less permanent method of attachment as an engineering matter. As assets move during operation, the motion has a strong potential to crack concrete or break welds. Tr. 84:8-16 (Stevens). Bolts, on the other hand, “have significant advantages over welding connections in most circumstances,” because “[b]olts provide a permanent but somewhat more flexible connection in that the torsional strength of bolts, in other words, the ability of bolted connections to flex with relative movement of the pieces that are connected to handle, like vibration.” Tr. 81:11-82:9 (Stevens). As Mr. Stevens explained, bolts provide “a good capability to handle the relative motion” of assets as they perform their assigned tasks and allow GM “to maintain [the attachment] and tighten to extend and continue the use of the assets for a longer period of time.” Tr. 95:23-96:10; *see* Tr. 84:8-84:21 (bolts can be retightened and

⁴⁹ For similar reasons, when GM attaches assets to the building’s super-structure, it uses various types of “white steel.” White steel is a generic term referring to any metal that is attached to the structural steel of the building to enable the attachment of an asset. Stevens Direct ¶ 148. GM used white steel for a number of reasons: (i) GM regulations and practices generally prohibit welding to structural steel, (ii) white steel is customizable to match the particular asset and building at initial install, (iii) white steel typically provides superior torsional strength in comparison to welding, and (iv) white steel allows for loads to be carried properly by the building trusses. Contrary to Mr. Goesling testimony (Direct ¶ 50), none of the reasons for using white steel as opposed to welding indicates that GM lacked intent for the assets which are attached with white steel to be permanently installed. Stevens Direct ¶¶ 148-153.

avoid the “risk of cracking or breaking welds.”); Tr. 85:6-16 (welds compromise structural integrity and can break unexpectedly).

414. The same is true for bolted utilities connections. Contrary to Mr. Goesling’s assertion (Direct ¶¶ 32-36), as an engineering matter, bolts “actually improve the seal between . . . two flanges by [providing] consistent and equal forces attached around the perimeter” of the connection. Tr. 89:16-22 (Stevens). Moreover, bolts “provide superior ability to handle relative motion” including “vibrations” of large pieces of equipment. Tr. 89:22-90:3 (Stevens).

415. Therefore, as an engineering matter, bolts are an “indication of permanence,” not impermanence, as Mr. Goesling infers. Tr. 85:18-23 (Stevens).

2. Use of quick connects.

416. Mr. Goesling concluded that GM’s use of what he calls “quick disconnects” and GM calls “quick connects” for electrical connections indicates that GM intended to facilitate removal of the asset. Tr. 3017:22-3018:9. Mr. Goesling asserted that GM goes to great trouble and expense to use quick connects rather than hardwiring connections so that it can quickly disconnect and remove an asset. Goesling Direct ¶ 35.

417. Mr. Goesling’s conclusion is not credible. Again, the decision to use “quick connect” electrical connections is driven by engineering considerations, an area outside of Mr. Goesling’s expertise. Mr. Stevens, who is an expert on the subject, testified that quick connects are cheaper, not more expensive to use (as Mr. Goesling claimed) and that they are selected to facilitate installation and maintenance, as well as for safety reasons, not to facilitate removal. Tr. 91:11-23, 92:14-23; Stevens Direct ¶ 142. Mr. Stevens further pointed out that even when quick-connect fittings are used to connect to the plant utilities, the utilities themselves are almost always routed specifically through the plant to service a given asset in a specific place. Stevens Direct ¶ 145.

418. In short, GM does not use quick connects to facilitate removal of assets. Tr. 92: 11-13 (Stevens).

3. “Modularity” and “Reversible Assemblage of Components.”

419. Mr. Goesling observed on his visits to the GM plants that most of the Representative Assets are made up of sections or components and, from this, concluded that “GM planned for the possibility of removal and did not intend to install the asset permanently.” Goesling Direct ¶ 40. Mr. Goesling went on to testify that this is the “sort of thing” he meant by “reversible assemblage of components.” Tr. 3077:20-24. Mr. Goesling apparently deemed virtually all of the 40 Representative Assets to be non-fixtures effectively on this basis. *E.g.*, Goesling Direct ¶¶ 29, 34, 37, 39, 45, 47, 50, 53, 56, 59, 61, 63, 66, 70, 74, 76, 80, 102, 105, 108, 110, 112, 115, 119, 121, 124, 128, 131, 142, 146, 149, 152 (describing Representative Asset as “Reversible assemblage of components”).

420. Again, however, GM’s rationale for installing “modular” assets is an issue of manufacturing engineering. The evidence from the manufacturing engineering experts confirms what common sense indicates: because of the size and weight of the assets that Mr. Goesling characterized as “modular,” their modular design was required to facilitate their installation, not chosen to facilitate their removal once installed. As the GM experts repeatedly testified, modularity is required for many of the Representative Assets because they are so large, weighty, or unwieldy that they must be transported in pieces from the supplier to be installed in a GM plant. Tr. 176:20-177:2 (Stevens); Tr. 607:6-12 (Deeds); Tr. 809:18-810:3 (Thomas); Tr. 900:14-901:5 (Topping); Stevens Direct ¶¶ 130-34; *cf.* Tr. 529:14-24 (Deeds) (disputing whether helical broach really is “modular,” but highlighting size and weight of asset). Mr. Goesling acknowledged on cross-examination that this was the case for many of the Representative Assets. *See* Tr. 3125:6-10 (“THE COURT: You couldn’t bring [conveyors] into the plant other than manufactured in sections, could you, to install it?” Mr. Goesling: “That’s correct.”); Tr. 3187:10-12 (Goesling) (“I believe that the way that they purchased the conveyor components was in part to facilitate the installation.”).

421. This is likewise the reason a number of the Representative Assets have eyehooks and other lifting aids; for example, a large electrical panel can literally weigh a ton, which is

precisely why it is so essential for it to have eyehooks and other aids that permit its transport into the plant and facilitate its installation. Due to the size, weight, and vast dimensions of so many of these assets, it would be impossible to assemble them entirely prior to delivery in GM's plant; they are simply too large to be transported by road or rail to GM's facilities. Stevens Direct ¶ 132. Mr. Goesling acknowledged this on cross-examination. *See* Tr. 3077:16-19 (Goesling) ("A large transfer press can weigh 5 to 6 million pounds, and simply to be able to transport them requires that they not be moved as a single, monolithic unit.").

422. Mr. Goesling's inferences about GM's intent — again — ignore engineering principles, are not credible, and are unfounded in the evidence. Significantly, under Mr. Goesling's theory, virtually no large asset could ever be a fixture because its size will require it to be shipped in parts. That position is illogical, not supported by the evidence, and as discussed below, contrary to the law.

4. Damage to the building or the asset upon removal.

423. In analyzing whether an asset is a fixture, Mr. Goesling also considered whether removal of the asset would damage the asset or the realty, and if it would not, he concluded the asset was not a fixture. Tr. 3239:16-3240:13, 3062:15-3063:2. In Mr. Goesling's view, removal of an asset that was installed in a pit or foundation would not cause damage, notwithstanding that the floor would require extensive remediation, "because these features were treated and capitalized as separate assets by GM." Goesling Direct ¶ 42; Tr. 3242:13-24. The conclusions that Mr. Goesling drew about what constitutes damage for purposes of his theory of fixture analysis are not credible.

424. To give one example, Mr. Goesling states that it was "significant to [his] conclusion" that there was a "lack of damage to the facility from removal" of the Body Shop Coordinate Measuring Machine ("CMM") (Asset 19). Goesling Direct ¶ 168. This was Mr. Goesling's testimony — even though the removal of the machine left a gaping pit, which subsequently had to be filled and capped, and can still be easily identified by the discolored

concrete floor. Stevens Direct ¶ 154. To give another example, Mr. Goesling testified that cutting a hole in the LDT Central Utility Complex to remove a large boiler that could not be removed any other way would still not be “damage” because the wall of the building could be fixed. Tr. 3352:22-3353:11.

425. But the fact that damage can be repaired does not mean that no damage occurred. Indeed, given sufficient time and resources, virtually any damage to a facility can be repaired. The fact that GM may find it appropriate, in some circumstances, to repair the damage that was caused by the removal of an asset from a facility, thereby making that portion of the facility useable for another purpose, does not change the fact that the asset had been annexed so extensively that the facility had to be damaged to remove it. Stevens Direct ¶ 155.

426. Moreover, Mr. Goesling’s testimony that in his view, no “damage” occurs unless the damage to the building is irreparable (Tr. 3241:4-3242:20, 3352:22-3353:11), gives short shrift to the substantial time, expense, and interference with production that accompany the removal of assets when that is necessary. For example, Mr. Goesling asserts that the stamping presses, which weigh anywhere from one to six million pounds and are installed in enormous pits down to the bedrock, are not fixtures because they can be removed from their pits and foundations “without damage” to the facility. *Id.* As discussed further in Section IX.A.1 below, Mr. Miller, who worked as a plant manager of four different GM stamping plants for 17 of his 32 years at GM, testified that if any of the large presses at LDT were removed, it would take a team of engineers and skilled tradesmen at least three to five months to make the area where the press sat useable again. Miller Direct ¶ 46.

427. Mr. Goesling’s opinions on whether removal of assets causes “damage” are therefore not credible, given that they all apparently incorporate his unsupported, idiosyncratic conclusions about what represents damage.

B. Mr. Goesling's movement, retirement, and sales analyses ignore context, are unreliable, and actually support a finding that GM intended to install assets like the Representative Assets permanently.

428. Mr. Goesling testified that "GM's practice of relocating or selling manufacturing assets comports with my understanding that GM was prepared to redeploy its manufacturing assets in order to comply with the constantly evolving regulatory environment and constantly shifting consumer preferences and demands." Goesling Direct ¶ 24. The overwhelming evidence is to the contrary. As discussed above, GM never had a "practice" of redeploying its assets. To the contrary, GM's actual response "to comply with the constantly evolving regulatory environment and constantly shifting consumer preferences and demands" was implementing lean and flexible manufacturing practices, standardizing its platform approach, and engaging in extensive planning, all of which were specifically intended to permit GM to update its products without having to make alterations to its fixed manufacturing assets. *See* Section VII above.

429. In reaching his conclusion that virtually none of the Representative Assets (or GM's fixed manufacturing assets more generally) are fixtures, Mr. Goesling relied on his analysis of data produced by GM, which he concluded shows the following: (a) GM moved many fixed assets between its plants from 2009 to 2015, including many assets that he claims are similar to the Representative Assets; (b) GM retired and removed many fixed assets from its plants between 2004 and 2009, including many assets that he claims are similar to the Representative Assets; and (c) GM sold assets that he claims are similar to many of the Representative Assets. Mr. Goesling concludes from his analyses that GM therefore could not have intended to install such assets permanently. As discussed below, Mr. Goesling's analyses of the GM data were flawed and unreliable for multiple reasons.

1. Mr. Goesling's movement analysis.

430. Mr. Goesling's movement analysis is set forth in PX22, and relies on his review of eFAST ledgers produced by GM showing the location of installed assets in June 2009, May 2010, and May 2015. PX218, PX219, PX366. Mr. Goesling lists any asset that had a different

location in 2010 or 2015 than it did in 2009 as having moved. Tr. 2943:7-13; Goesling Direct ¶ 46.

431. There are a number of flaws in Mr. Goesling's analysis that render his movement analysis unreliable and, indeed, inadmissible under Federal Rule of Evidence 702(c) because it is not "the product of reliable principles and methods."

432. *First*, Mr. Goesling himself acknowledged at trial that while he often speaks in terms of his movement analysis showing how many "assets" have moved at GM between 2009 and 2015, in fact, his analysis focuses on "line items" in GM's eFAST ledger. Tr. 3293:9-15, 2960:23-2961:20. He admitted that whenever he testifies that a certain number of "assets" moved, he is actually referring to "line items" that may aggregate into far fewer actual "assets." Tr. 3293:9-15. As just one example, Max Miller explained that the 88 stamping "assets" that Mr. Goesling identified as having moved actually correspond to just 14 stamping presses. Miller Direct ¶ 60; DX100. This results from GM dividing the costs associated with installing an asset into two or three different sequence numbers and asset/suffix combinations on eFAST — yet each of those line items still refers to the same single asset. When those overlapping line items are taken into account, the total number of moved assets is far smaller. Stevens Direct ¶ 83. Because of this issue, there is simply no way for the Court to tell how many actual "assets" moved from reviewing Mr. Goesling's movement analysis.

433. *Second*, Mr. Goesling's movement analysis ignores the context of asset moves; when context is taken into account, the data actually show that GM very rarely moved the assets that the Term Lenders contend are fixtures outside of extraordinary circumstances.

434. As Mr. Stevens testified, the vast majority of the movements of assets that Mr. Goesling identifies resulted from GM's bankruptcy and the dramatic decline in automotive sales and GM market share in the period immediately preceding the bankruptcy. Stevens Direct ¶ 77. Those events resulted in GM shedding well over 30% of its manufacturing capacity (based on vehicle units) between 2005 and 2009. *Id.* Mr. Goesling conceded that the GM bankruptcy and related plant closures were "extraordinary." Tr. 3287:3-10. The Avoidance Trust offered no

evidence that when GM originally built the plants that were ultimately idled, shuttered or left behind with Old GM, it intended or even anticipated that they would have to be closed because GM would have to shed 30% of its manufacturing capacity. The credible evidence on this came from the Term Lenders' witnesses, who testified that GM was not planning for plant closures when it built plants and installed its large, integrated, and expensive capital equipment. *E.g.*, Tr. 1249:2-17 (Miller) (GM's bankruptcy was a one-in-a-century event). Therefore, asset movements out of closed plants do not provide any evidence of GM's intent at the time it installed the moved assets, let alone similar assets that were never moved. Stevens Direct. ¶ 77.

435. Instead, given that almost all movements of assets occurred only in these extraordinary circumstances, Mr. Goesling's movement data confirms that when GM designed, constructed, and installed its fixed manufacturing assets, its business model, purchasing decisions, and engineering plans assumed that those assets would remain in place for their useful lives. Stevens Direct ¶¶ 87-89. GM did not purchase and install those assets with a view or plan that they might someday be detached, removed from the plant, and moved, at great expense, to another plant. Stevens Direct ¶ 78.

436. Mr. Goesling's movement analysis and the conclusions he draws from it are completely refuted by an analysis that Mr. Stevens performed. Mr. Stevens calculated that, excluding movements of assets out of closed plants and four plants that were partly shuttered and experienced extraordinary, bankruptcy-related circumstances,⁵⁰ less than one-half of one percent (0.5%) of assets that the Term Lenders classified as fixtures were moved between 2009 and 2015

⁵⁰ Mr. Stevens explained that for Orion, Pontiac and Tonawanda, as part of "the bankruptcy process [there] was some additional restructuring that was mandated . . . [due to] labor negotiations as part of the settlement that required the establishment of additional jobs in southeast Michigan." Tr. 129:16-130:22. Notably, even in the context of the extraordinary reduction in GM's manufacturing footprint resulting from its restructuring in bankruptcy, GM still moved only a relatively small percentage of fixed assets from these four partly shuttered plants: 93.7% of the total assets defendants characterize as fixtures remained in place at these four partly shuttered facilities between 2009 and 2015; only 6.3% of the fixtures from even these four plants were moved. Stevens Direct ¶ 91.

— or just 489 of the over 138,000 fixtures. *Id.*; Stevens Direct ¶¶ 92-93.⁵¹ With this context, Mr. Goesling’s movement data demonstrates that GM did not have any regular practice of moving its fixed assets, and only did so in extraordinary circumstances — consistent with the former GM experts’ testimony.

437. *Third*, Mr. Goesling’s movement analysis relies on his opinions of which moved “line items” are “similar” to each of the Representative Assets. Tr. 2953:15-2954:15 (Goesling). As an initial matter, a review of PX22 shows that for eight (20%) of the 40 Representative Assets, no “similar” line items that were moved were identified by Mr. Goesling at all. But the more fundamental problem with Mr. Goesling’s analysis is that his conception of what assets are “similar” is unreliable, sweeping in line items that are nothing like the supposedly “similar” Representative Assets in scope, size, weight, means of installation or function. *E.g.*, Tr. 498:11-15 (Deeds) (“[W]hat I tended to see consistently is that comparable assets were overstated by Mr. Goesling.”).

438. As just one example, Mr. Goesling acknowledged that he had only identified one asset similar to Asset 6, the \$2 million ELPO Oven Conveyor, that had moved. Tr. 3294:20-3296:11 (referencing DDX2515). However, this “similar” asset was in fact only an \$8,000 conveyor component that, “[o]ffhand,” Mr. Goesling could not say what it does. *Id.* Mr. Goesling then simply agreed that “when the Court looks at [his] similar movement analysis, the Court needs to understand that a movement of an \$8,000 asset in [his] view is indicative of intent or the ability to move a \$2 million asset.” Tr. 3294:20-3296:8.

⁵¹ Mr. Goesling testified that “more than 10,000 asset entries with an installed cost of more than \$790 million had been transferred between 2009 and 2015.” Goesling Direct ¶ 47. However, as noted above, Mr. Goesling counted every individual line item in eFAST as an “asset,” greatly inflating his numbers. Moreover, Mr. Goesling did not limit his analysis of movements to the assets that the Term Lenders have asserted are fixtures. Mr. Goesling thus includes assets such as a refrigerator, digital cameras, and forklifts in his analysis of moved assets to support his conclusion that “more than 10,000 asset entries” moved. Without filtering for fixtures or even fixed assets generally, Mr. Goesling’s “more than 10,000” number is meaningless. Stevens Direct ¶¶ 84-85.

439. In response to the Court’s questions, Mr. Goesling acknowledged that there is no “chart or table that would allow someone else to attempt to replicate the exercise of [his] judgment” and he did not “have a list of criteria that [he] applied in making a determination whether something was similar or not.” Tr. 2967:12-2968:4. Given how idiosyncratically Mr. Goesling applied the concept of “similarity,” there is simply no way for the Court to determine how many of the “similar” assets Mr. Goesling identifies are actually meaningfully similar, again rendering Mr. Goesling’s movement analysis unreliable and inadmissible as evidence under Federal Rule of Evidence 702(c).

440. In any event, when the asset movements that Mr. Goesling identifies are broken down by the accounting category to which GM assigned each asset, it is apparent that assets in the same GM categories as the 40 Representative Assets virtually never move. Stevens Direct ¶ 95, Table 4.⁵² And when the assets from the four plants that were partially shuttered are excluded, the rarity of movements of such assets becomes even more apparent. Stevens Direct ¶ 96, Table 5 (*e.g.*, showing 0.2% of “Foundry Equipment” fixtures moving, 0.4% of “Machine Tools” fixtures moving, 0% of “Power Plant Equipment” fixtures moving, 0.4% of “Press Metal Equipment” fixtures moving).

441. Even for robots, the only category of assets where any appreciable number of moves are identified, the relative number of movements is very small. Considering that GM used over 23,000 robots at its operating plants, the fact that a few of them were moved over the course of several years is unsurprising. Even including the movements of robots out of the four closed/partially shuttered plants (MFD Pontiac, Assembly Lordstown, Assembly Orion, and Powertrain Tonawanda), only 5% of GM’s robots moved during 2009 to 2015. If movements

⁵² While these GM categories are often over-inclusive and do not contain similar assets (for example, “Other Production Equipment” includes a wide variety of assets of different sizes, functions, and installation methods), they provide a convenient way to categorize the moved assets at least generally. Stevens Direct ¶ 94 & n.2.

out of those four plants that experienced extraordinary, bankruptcy-related circumstances are excluded, that percentage drops to 1%. Stevens Direct ¶ 98.

442. In sum, Mr. Goesling's movement data simply confirms the experience and testimony of the former GM experts — it was extremely rare for GM to move assets similar to the 40 Representative Assets for reuse in other plants. Stevens Direct ¶ 100.

2. Mr. Goesling's retirement analysis.

443. Mr. Goesling further testified that “based on information contained in GM's fixed asset retirement history from January 2004 through May 2009 . . . [he] determined, among other things, that during the five-and-one-half-year period covered by the data, GM recorded more than 215,000 retirements of assets with a combined installed cost of \$12.3 billion.” Goesling Direct ¶ 47 (citing PX213). Mr. Goesling further testified that the “retired assets included assets that were similar to, and in some cases nearly identical with, one or more of the 40 Representative Assets.” *Id.* (citing PX20).

444. As with his movement analysis, Mr. Goesling provides no context for these retirements, and therefore his retirement analysis also provides no reliable evidence for the Court's evaluation of GM's intent. Instead, Mr. Goesling admitted on cross-examination that he had looked into the context of the retirements — he looked at the assets in the file of retired assets and their ages — but he chose not to present that data even though it could “be useful to the Court.” Tr. 3298:19-3299:18. The fact that Mr. Goesling failed to present this information to the Court in and of itself renders his opinions unreliable. Moreover:

a) From even a cursory review of the file, it is clear that a large portion are not fixed assets, such as over 7,250 “company cars leased,” 20 “airplanes and equipment,” and 114 instances of “hotel room equipment.” Stevens Direct ¶ 102. Thus, Mr. Goesling's blanket reference to 215,000 retirements with installed cost of \$12.3 billion is misleading and meaningless and provides no insight into what GM's intent was when it installed fixed assets like the 40 Representative Assets.

b) Mr. Goesling's retirement analysis fails to take into account the context of the retirements (whether they were a result of plants shutting down) or the fact that the 2004-2009 period covered by the file Mr. Goesling analyzed was a highly unusual period in GM's history, as discussed above. Stevens Direct ¶ 103.

c) While the number of retired assets might appear large without any context, the number actually supports the former GM experts' opinion that GM intended its fixed manufacturing assets to remain in place for their useful lives (or longer). Focusing on the 35 GM plants at which the Term Lenders conducted a fixture analysis, the file Mr. Goesling used shows approximately 57,000 asset retirements (fixtures and non-fixtures) between 2004 and June 2009, or approximately 10,400 retirements per year over that 5 1/2-year period. The Term Lenders identified 192,700 fixtures in these 35 plants, to which GM assigned an average depreciable life of approximately 14 years. This is striking, because 1/14th of the 192,700 fixtures the Term Lenders identified would imply a retirement rate of nearly 14,000 fixtures alone out of those plants in an average year if the fixtures were being retired at the end of their depreciable lives. In other words, the number of actual asset retirements (approximately 10,000 across all types of assets per year) was far less than what, on average, one would expect (nearly 14,000 assets, even excluding non-fixtures). Indeed, if the non-fixtures in the plants were also included (as they are in the file Mr. Goesling analyzed), the expected number of asset retirements would be even higher. Thus, Mr. Goesling's retirement analysis dramatically undermines his assertion that the number of asset retirements proves that GM did not intend for assets to be permanently installed, and instead suggests that GM's assets remained in the plants well beyond their accounting depreciable lives. Stevens Direct ¶¶ 107-08.

3. Mr. Goesling's secondary market analysis.

445. Mr. Goesling asserts that GM "treated [assets like the Representative Assets] as saleable goods" and then for many of the 40 Representative Assets just checks a box with a "yes" as to whether in his view "similar" assets were traded on the secondary market. *E.g.*,

Goesling Direct ¶¶ 49, 104, 117, 184, 244. Mr. Goesling concludes that the existence of a secondary market for a particular type of asset means that GM must not have intended to install any asset of that type permanently. Goesling Direct ¶¶ 48-49. The evidence does not support Mr. Goesling's conclusion.

446. *First*, Mr. Stevens testified that “[f]rom my many years at General Motors, I can state unequivocally that GM did not buy and install fixed assets in its plants with any plan to resell them.” Stevens Direct ¶ 67. At trial, Mr. Stevens reiterated that when GM installed assets, the secondary market was not on GM's “to-do list” and was “not part of the planning process at all.” Tr. 137:24-138:7 (Stevens). To the contrary, GM bought fixed assets new, and it was not buying those assets with an eye to resale on the secondary market. Stevens Direct ¶ 111; Sofikitis Dep. 252:11-253:12 (acknowledging that GM spent a significant amount to install pits and trenches at LDT even knowing that it could not resell them, noting that GM is “in the business of making vehicles, not reselling assets”).⁵³

447. *Second*, the majority of the “sales” data that Mr. Goesling relies on is from documents produced by Maynards and Hilco, firms that were jointly retained by Motors Liquidation Company, and later the RACER Trust, to liquidate the assets in the Old GM plants that were not sold to New GM, on an everything-must-go-and-go-quickly basis. This sales data therefore arises from a very unusual period in GM's history — the 2006-2010 time period, with its many plant closures. Indeed, on cross-examination, Mr. Goesling acknowledged that when the more than 24,000 sold assets he identifies are filtered to include only the assets he deems “similar” to one or more of the Representative Assets, and to exclude assets sold out of closed plants, there are close to zero — only 16 — sold assets remaining. Tr. 3310:13-3314:10; DDX-PX0350b-3.

⁵³ At trial, the Avoidance Trust asked a number of questions about GM's “Asset Recovery Governance Board,” but as Mr. Miller testified, it was known at GM as the “Asset Disposal Board” — it was effectively the process GM plants followed to dispose of “obsolete” equipment. Tr. 1101:20-1103:5. In Mr. Miller's experience, it was used to find assets that a plant might be able to cannibalize for spare parts before disposing of the balance of the asset. Tr. 1105:8-1105:25.

448. The fact that assets located in shuttered plants were sold in this unusual time period, often after many years of operating in place, provides no meaningful evidence that when it installed those assets GM did not intend them to remain in place. Stevens Direct ¶ 67 (existence of a secondary market is irrelevant because “when GM installed an integrated manufacturing process at a cost upwards of a quarter of a billion dollars, those fixed assets were necessary to produce automobiles, were selected to be capable of adapting to changes in the market, and were intended to remain part of the realty which had been constructed or modified for it until it could not be used any longer”).

449. *Third*, Mr. Goesling’s sales analysis suffers from the same flaw as his movement analysis — his opinion as to what assets are “similar” is unreliable and overbroad. As one example, Mr. Goesling identified only one asset as “similar” to the Button Up Conveyor (Asset 35) that was sold out of a GM plant. Yet, at trial, Mr. Goesling admitted that the “similar” asset was actually a testing station with an installed cost of \$84,000 — nothing like the \$2.7 million Button Up Conveyor. Tr. 3307:12-3310:5 (Goesling); DDX-PX0350a. Yet even after acknowledging this stark difference, Mr. Goesling continued to insist that the multi-million dollar conveyor was “similar” to an \$80,000 testing station. Tr. 3310:6-3310:12 (Goesling) (“Q. So when the Court looks back at your secondary market analysis it needs to understand that a 2 or 3 or \$4 million asset, you could deem an 8, 9, 10, \$90,000 asset to be similar, for purposes of your analysis? A. I believe that there is some similarity, yes.”). As another example, Mr. Goesling testified at trial that, as he uses the word “similar,” Representative Asset 36, the 75-ton helical broach with an installed cost of \$1.5 million, was “similar” to a “broaching table with broaches” that sold for \$2,000. Tr. 3314:11-3315:9. Additional examples are identified throughout Section IX below.

450. In light of his overbroad conception of similarity, like his movement analysis, Mr. Goesling’s sales analysis is unreliable, irrelevant and inadmissible under FRE 702(c). Whatever similarity a small component and a huge machine may have, the fact that a small component was sold has no bearing on whether the huge machine was intended to be permanent.

C. Mr. Goesling’s opinion that GM’s fixed manufacturing assets are not “typically sold with land and building” is unsupported by any evidence.

451. Mr. Goesling asserted for the first time in his written testimony that the most important fact in his determination of whether an asset is a fixture is “whether GM expected that a particular asset would or would not be conveyed along with a building.” Goesling Direct ¶ 23. Given the importance of this criterion, it is surprising that Mr. Goesling and the Avoidance Trust provide no actual evidence of GM’s practices beyond checking the box with a conclusory “Yes” or “No” in each of Mr. Goesling’s asset-by-asset analyses — concluding in nearly every instance that the answer is “No.” *E.g.*, Goesling Direct ¶¶ 67, 76.

452. The lack of data is unsurprising given that neither GM nor any other automotive manufacturer is regularly in the business of selling its manufacturing facilities. Tr. 38:3-24 (Stevens) (“sale of plants or sale of assets was not a consideration or not even a factor in our day-to-day work”). What GM does in the highly unusual circumstances where it sells a plant again indicates nothing about GM’s intent when it built those buildings and installed the assets — the circumstances are simply too unusual to draw any meaningful conclusions. Stevens Direct ¶ 114.

453. That being said, in the extraordinary circumstances in which GM did try to sell a plant, its preference was to sell the plant intact with the assets that are enclosed within the facility. Tr. 41:9-14 (Stevens). A sale of the complete plant would remove the need to strip out and sell individual assets, which destroys the economic value related to installation and integration. Tr. 41:15-24 (Stevens). Similarly, from a buyer’s perspective, an OEM that wants to expand its capacity can save the multi-year timeframe of building a new plant by buying an existing plant with assets in place. Tr. 45:20-46:14 (Stevens).

454. Consistent with this preference, as Mr. Goesling himself acknowledges, when GM plants were sold to other vehicle manufacturers, those sales often did include the fixed production assets as well. For example, a key aspect of Motors Liquidation Company’s sale of the Wilmington Saturn plant to Fisker Automotive in June 2010 was that Fisker would acquire all of the machinery and equipment at the plant in connection with the sale. In fact, a Fisker

spokesperson said at the time the deal was announced that Fisker chose the Wilmington plant because of its “size, production capacity, [and] world-class paint facilities,” among other reasons. Stevens Direct ¶ 115; *see also* Goesling Direct Ex. B. at 45, 46 (listing fixed assets acquired by purchasers of the GM Wilmington and Shreveport plants).

455. In addition, in his written testimony, Mr. Stevens identified GM’s proposed sale of the Halol plant in India to SAIC (formerly known as Shanghai Automotive Industry Corporation), GM’s sale of operations in Africa to Isuzu, Ford Motor’s purchase of Daewoo operations in Romania, and Volkswagen’s purchase of Skoda plants in the Czech Republic as sales where the buyer purchased the plants with the fixed manufacturing assets in place. At trial, Mr. Stevens also identified a number of additional OEM plants that have been sold to other OEMs with equipment in place. Tr. 42:14-45:19 (Stevens) (referencing DDX2). Mr. Goesling himself was involved in one of these purchases — Ford’s purchase of a Daewoo Romania plant, where Ford intended to utilize much of the machinery and equipment in place and ramp it up to full capacity. Tr. 3507:24-3508:22 (Goesling).

456. The Avoidance Trust’s promise in its pretrial brief that “the evidence w[ould] show” that auto manufacturers typically market their facilities as “empty buildings,” having first sold the machinery and equipment separately (Docket No. 889 at 62), was never fulfilled. The Avoidance Trust offered no such evidence, nor did Mr. Goesling provide any basis to conclude that such evidence would have any relevance in determining GM’s intent at the time it installed the Representative Assets.

457. In any event, given that, as discussed above, GM plants are typically demolished before the real estate is repurposed, it is unsurprising that if GM is unable to sell a facility with the equipment, GM instead would strip out the equipment and sell what it could before the purchaser demolished the plant. Stevens Direct ¶ 122; Tr. 49:8-52:7 (Stevens). Again, this indicates nothing about GM’s intent at the time it installed the equipment.

D. GM's classification of assets for tax purposes provides no relevant evidence of GM's intent in installing its fixed manufacturing assets.

458. Mr. Goesling has had an evolving position about the significance of GM's own classification of assets for tax purposes. In his rebuttal expert report, Mr. Goesling described GM's classification of assets as real or personal property as "extremely indicative of GM's intent." Tr. 3270:6-12; Goesling Direct Ex. C at 10-11. In his written direct testimony, Mr. Goesling described the data as "helpful but not determinative." Goesling Direct ¶ 44. And at trial, Mr. Goesling conceded that GM was merely "following a form" and not applying the three-part fixture test under Michigan law when it made its property tax classifications. *Id.* at 3273:19-22; JX16; DX107; DX108. Mr. Goesling expressed "regret" for his prior conclusion that GM's tax classifications were "extremely indicative" of intent because, "[t]o a certain extent," that was "wrong." Tr. 3270:6-3272:5.

459. Mr. Goesling's about-face is the product of his lack of expertise and failure to investigate the facts before he staked out his original position. GM's property tax and accounting classifications are simply not a meaningful indicator of GM's intent.

460. Mr. Stevens prepared an analysis that compares GM's classification of all assets on its eFAST ledger with the Avoidance Trust's preliminary fixture versus non-fixture determinations for those assets. Of the 5,370 assets at Michigan plants that the Avoidance Trust characterized as fixtures, almost half (2,242) were reported as personal property for tax purposes by GM. Stevens Direct ¶ 165; Tr. 115:16-117:21 (Stevens). Items deemed to be personal property included sump pumps, piping, phosphate machines, ELPO ovens, repair booths, concrete footings, air conditioners, drain trenches, and landings that the Avoidance Trust and Mr. Goesling preliminarily agreed would meet the three-part fixture test. Stevens Direct ¶ 165. Yet GM reported them as personal property.

461. This is unsurprising, given the testimony of Raymond Fulcher, a member of GM's tax staff, and Jeff Niszcza, a member of GM's accounting staff. Both testified that GM does not apply the three-part fixture factor test to categorize assets for accounting and property tax

purposes as real or personal property, but instead follows its accounting manual or the state personal property tax forms. Niszcza Dep. 101:1-102:17 (GM did not “consider the law governing what is and what is not a fixture” but simply looked at GM’s “accounting policy manual”); Fulcher Dep. 99:10-100:1 (he was unaware of the state law definition of “fixture”; GM’s focus “is always on personal property tax compliance and the impact there, so unless it’s dealt with in the form questions or form positions, that’s not something we even look up”).

462. This testimony from GM’s accounting and tax witnesses is consistent with the evidence presented at trial. Michigan’s prescribed tax form — the “Personal Property Statement” — requires manufacturers, in all cases and without discretion, to “report . . . all machinery and equipment” as “personal property” for tax purposes. DX107 at 7. This requirement expressly covers “manufacturing and fabricating,” “crane and hoist,” “painting,” “computerized and mechanical handling,” and “CNC controlled manufacturing” machinery and equipment. *Id.* at 8. The form also requires “foundations” for machines to be treated as personal property (*id.* at 7), though even Mr. Goesling views them as fixtures (Tr. 3452:17-3453:15). The form’s instructions also refer taxpayers to a 1999 bulletin from Michigan’s State Tax Commission (with which Mr. Goesling was not familiar, *see* Tr. 3453:22-3454:11), which lists additional examples of machinery that must be reported as personal property: “Conveyor Systems,” “Gear hobbers, shapers and Testers,” “Mills,” “Presses,” “Manufacturing Equipment (Computerized) such as Machining centers . . . [and] Profilers,” “Painting Equipment such as Paint booths [and] Spray equipment,” and “Robotics.” DX108 at 21-41.⁵⁴

463. Ohio tax law likewise requires assets like the Representative Assets to be reported as personal property for tax purposes, without reliance on the three-part fixture test. Ohio actually defines all “tangible personal property that has become permanently attached or affixed to the land or to a building, structure, or improvement, and that primarily benefits the business

⁵⁴ As discussed in the Legal Argument section below, many of the listed categories of “personal property” for tax purposes have been held to be fixtures under the three-part fixture test. Section XIII.B.5(f).

conducted by the occupant on the premises and not the realty” as “business fixtures,” recognizing that the assets are “fixtures” but nonetheless specifying that they must be reported as something else — personal property — for tax purposes. Ohio Rev. Code Ann. § 5701.03(B).

464. In short, as Mr. Goesling conceded at trial (Tr. 3273:19-3275:22, 3282:12-3283:22), the very types of machinery and equipment at issue in this case were required to be reported as personal property without regard to the three-factor test. In its tax reporting, GM was simply following a form and, in Ohio, a statute. Therefore, GM’s classification of assets as personal property for tax purposes indicates nothing about GM’s intent at the time it installed those assets or any other element of the fixture test.

E. The terms of two GM sale/leaseback agreements provide no relevant evidence as to GM’s intent in installing its fixed manufacturing assets.

465. At trial, Mr. Goesling testified that stamping presses, certain conveyors and certain robots cannot be fixtures because GM entered into two stamping press leases in which GM contractually agreed with the lessors that the equipment subject to the leases would retain personal property characteristics and not become real property. *E.g.*, Goesling Direct ¶¶ 45, 70, 77, 95, 128, 156; PX220; PX283.

466. As discussed below, legally these lease provisions indicate nothing about whether these assets are fixtures. Section XIII.B.5(g).

467. GM’s decisions to lease equipment were based on an evaluation of the best source of financing, given varying tax considerations, at various times. Stevens Direct ¶ 158. As both Mr. Stevens and Mr. Miller testified, there was never any difference in how GM installed a large fixed manufacturing asset based upon whether it was leased or not. Stevens Direct ¶ 159; Miller Direct ¶¶ 66-69; Tr. 1115:7-15 (Miller). There was also never an instance in which major production equipment subject to a lease was removed at the end of a lease term; instead GM would purchase the equipment or renew the lease. *Id.*; Tr. 1116:24-1117:20 (Miller).

468. Finally, both of the leases that Mr. Goesling relies upon were actually entered into after the equipment at issue was installed and in service, and long after the installation process

began. Miller Direct ¶ 68; Tr. 1036:5-21 (Miller). The construction of LDT and preparation for the installation of both presses began “around 2000.” Tr. 1115:21-1116:6 (Miller); Miller Direct ¶ 68. A guide produced by GM for the AA Transfer Press shows that the assembly of the press (the final stage of the installation process) began in February 2002, 19 months before the press went into service in September 2003, and 22 months before the execution of the lease. DX75 at 10; Tr. 1036:5-12 (Miller). The B3-5 Transfer Press required a similarly extended installation timeline, before going into service on December 2, 2003. Miller Direct ¶ 68. The leases for the two stamping presses are dated December 23, 2003 (PX283) and December 10, 2003 (PX220).

469. This history contradicts the Avoidance Trust’s theory that, because two stamping presses and their associated components were subject to sale/leasebacks, GM did not intend these or any similar assets to be permanently installed.

F. Mr. Goesling’s argument that the former GM experts have adopted a categorical approach and found that everything in GM’s plants meets the three fixture factors is incorrect.

470. Finally, Mr. Goesling asserted that the former GM experts have adopted a categorical approach and found that everything in GM’s plants meets the three-factor test. That criticism is unfounded. The automotive industry is probably like no other in terms of the complexity and scale of its operations, resulting in an array of manufacturing equipment that meets the three-part fixture test. Automobiles are large and complex, and major manufacturers have to produce them on a mass scale to be competitive. To accomplish this, automotive manufacturers like GM have to use large, complex machines laid out in precise locations to work with one another in specially designed facilities that are capable of operating for extended periods. Given GM’s unique needs, it is unsurprising that many of the fixed assets GM uses in its manufacturing plants must be affixed and adapted, and are intended to remain in place for their useful lives. Stevens Direct ¶ 69.⁵⁵

⁵⁵ Likewise, given that the parties generally selected assets with disputed fixture status to maximize the usefulness of the Court’s resolution of the Representative Assets trial, it is not surprising that the Term Lenders only selected assets that they had already identified as fixtures.

471. However, as Mr. Stevens and Mr. Miller testified at trial, it is far from the case that the former GM experts found all of the assets in GM's plants to meet the three factors of the fixture test. Stevens Direct ¶ 70; Tr. 1260:11-1261:7 (Miller). There are many assets, like storage racks and tool room equipment, that are both attached to the plant floor and adapted to GM's use of the plant, but are not fixtures because the objective evidence indicates that GM did not intend to install them permanently. Non-production assets such as these are often not integrated into customized systems, are not laid out in a specific place as part of a specific system pursuant to GMS, and are generally less attached and less integrated than assets like the Representative Assets. Stevens Direct ¶ 70; Tr. 1260:11-1261:7 (Miller) (assets listed for sale on a Hilco brochure for a closed stamping plant (PX68 at 8) were examples of tool room assets that were attached and adapted, but "because it was not uncommon at all for these to be moved around the plant . . . they were never intended to be installed at one place at the time of installation"); Tr. 146:18-150:12 (Stevens) (the majority of the floor space in the stamping area at LDT is devoted to assets like "the dies themselves, the die storage systems . . . the [storage racks] . . . some of which are affixed to the building substantially, [but] would not, in my opinion, pass the three-factor test"); DDX6 at 2. There are also many production assets in the plants, like stamping dies and other special tools, that are large and critical to production operations, but that GM regularly moves in and out of machines and so are not intended to be permanently installed in place. *Id.* (providing additional examples).

IX. The 40 Representative Assets

A. The Representative Assets at GM Lansing Delta Township (and other stamping assets)

472. As discussed above, the LDT plant was designed specifically to implement GM's lean, flexible manufacturing principles. In accordance with these principles and GM's manufacturing processes generally, each of the 21 Representative Assets at LDT has functioned as part of an integrated manufacturing system that was designed with the buildings themselves to be capable of adapting to change over time. This has allowed virtually all the fixed

manufacturing assets at LDT, including the Representative Assets, to remain in place manufacturing vehicles for over 10 years at this point, despite model additions and changes. For this reason and others set out below, the evidence presented at trial showed that GM intended to install each of the Representative Assets at LDT permanently. Stevens Direct ¶ 27.

1. LDT Stamping Assets (and Other Stamping Assets)

473. Max Miller testified about the six stamping assets. Mr. Miller was a credible expert with 32 years of experience at GM, including 17 as a plant manager at five stamping facilities. Miller Direct ¶¶ 1, 13; Tr. 1006:9-1007:8 (Miller). Mr. Miller had extensive direct contact with all types of GM manufacturing equipment used in stamping operations, was involved in the installation of stamping presses, and was consulted by corporate headquarters about the design of equipment for future asset purchases, including stamping presses. Miller Direct ¶ 13; Tr. 1007:9-1008:23 (Miller). Mr. Miller also participated in the groundbreaking for the LDT stamping facility and visited it several times during construction. Miller Direct ¶ 39; Tr. 1010:12-1011:7 (Miller). Mr. Miller also served as plant manager at the Indianapolis and Grand Rapids plants when Assets 31 and 29 were in service there. Tr. 1010:5-11, 1123:25-1124:3, 1134:9-21 (Miller).

474. Eric Stevens also testified about stamping plants and assets. As discussed, Mr. Stevens was a credible expert with broad experience at GM, including his time heading GM's manufacturing engineering division for all production areas including stamping, which gave him extensive direct contact with stamping plants and operations. Stevens Direct ¶¶ 14-19.

(a) Basics of stamping operations

475. "Stamping operations" consist of fabricating finished metal body panels out of metal blanks or coils. These shaped metal body panels are then assembled together in a body shop to form the vehicle's frame. Miller Direct ¶ 24; *see also* Miller Direct Ex. A at 14 (stamping operations overview); Tr. 1011:15-1013:22 (Miller).

476. Of the 6 Representative Assets involved in stamping operations, four are “transfer” stamping presses of various sizes used by GM in the manufacture of automobiles. The other two are the Danly Press, a stand-alone “tryout” press used to verify dies before they are placed into the production presses, and the Opticell Robotic System, a robotic verification system used to validate stamped parts for quality control purposes. Miller Direct ¶ 25.

477. Transfer presses consist of (i) one or more “rams” (*i.e.*, moving parts within a press that lift the upper half of the die and “ram” it into the metal sitting on the lower half); and (ii) an integrated “transfer” mechanism that moves the metal blank from one die operation to the next within the housing of the machine. Miller Direct ¶ 26; Tr. 1015:13-18 (Miller).

478. In the past, stamping operations were generally conducted on a series of stand-alone presses integrated with an external conveyor. Over the last 30 years, however, larger and larger transfer presses have become standard at auto manufacturers such as GM, Ford, Chrysler, and others. This is because transfer presses can produce panels at faster rates, and provide greater flexibility in the types of panels they can produce (for example, smaller panels can be produced in larger presses, but large panels cannot be produced in smaller presses). Because they can stamp larger body panels, larger presses allow OEMs to reduce the number of parts that have to be welded together. Miller Direct ¶ 27; Tr. 1015:19-1017:24 (Miller).

479. Stamping operations involve some of the largest production assets used by GM. The largest transfer press systems, for example — AA-sized presses like the AA Transfer Press — weigh 2,800 tons, stand four stories tall, and occupy an area 200 feet long and 125 feet wide (including the rails for the rolling bolsters). In fact, even the “smallest” stamping press among the Representative Assets, the Danly “tryout” press, weighs 775 tons, stands three stories tall, and measures 30 feet long by 20 feet wide. Miller Direct ¶ 28.

480. The size of GM’s modern stamping presses, the interchangeability of dies, and the ability of presses to stamp different types of metal (*i.e.*, steel and aluminum) as long as their supporting components can handle it, mean that a stamping press has the flexibility to produce many different types of products. Miller Direct ¶¶ 27, 72; Tr. 1121:6-1122:7 (Miller).

(b) Installation of stamping presses is difficult, time consuming, and expensive

481. Installing a stamping press requires:

a) Excavation of a 12- to 20-foot deep pit or basement wide and long enough to hold the base of the press. Miller Direct ¶ 29; DX1015 (picture of press pit similar to the TP-14 Transfer Press); Tr. 1033:18-1034:3.

b) Installation of several approximately 4-foot wide, 5-foot long, and 12-foot tall steel reinforced foundation pillars that are capable of supporting the massive weight and force exerted by the press and are anchored by steel pylons to the bedrock under the building. Miller Direct ¶ 29; JX1472 (picture of foundation pillars for AA Transfer Press); Miller Direct Ex. A at 18, 25, 31 (same); Tr. 1022:3-1023:2, 1034:16-1035:4 (Miller).

c) Routing of utility piping and hard conduit for electrical utilities, compressed air, lubrication, and the fire suppression system into the press pit to support the press and its components. *E.g.*, Tr. 1023:19-1025:5, 1033:18-1034:22 (Miller); JX1472 (picture of press basement showing piping and utility connections); JX1503 (picture of pit area for B3-5, showing utility connections); Miller Direct ¶ 46 & Ex. A at 18-20 & Ex. B at 19 n.36.

d) Installation of supporting components in the press pit, including a scrap conveyor and fire suppression system. Miller Direct ¶¶ 31, 46; JX1472 (picture of scrap conveyor, fire suppression system, and other supporting assets for AA Transfer Press); JX1503 (picture of pit area for B3-5, showing utility connections); Tr. 1034:16-25 (Miller).

e) Construction or “stacking” of the press in place on top of the foundation pillars. Miller Direct ¶ 30; Tr. 1034:16-1035:21 (Miller).

f) Installation of supporting components around the press to create a press “system” that typically includes the press’s rolling bolsters that move large dies into and out of the press itself, a front-of-line component that loads the blank or coil into the transfer press, an end-of-line component that removes the stamped part from the press, and an overhead crane that enables loading and unloading of dies. Miller Direct ¶ 31.

482. Installation of a stamping press takes years from initial planning to the beginning of production on the press. For example, the stamping presses at LDT took over three years to install. Tr. 1036:5-21 (Miller). Mr. Miller testified that the initial planning would have been completed before the groundbreaking and the press pits would have been dug as one of the first steps in construction of the LDT plant. Miller Direct ¶ 39. In fact, the record shows that the stacking of the press alone was scheduled to take 15 months (DX75 at 10), though in reality it likely took 18 to 20 months. Tr. 1036:5-12 (Miller). The installation timeline also included a lengthy tryout period to ensure each major component was put together and working correctly. Tr. 1039:6-24 (Miller).

483. Stamping presses are so large they must be delivered in pieces to be constructed in place. These pieces can be very large. For example, the AA Transfer Press arrived in over 150 pieces, ten of which weighed more than 100 tons and 27 of which weighed more than 37 tons. Tr. 1037:10-18 (Miller); DX77 at 5-18. In fact, because the pieces of the AA Transfer Press were too large to fit through any of the doors planned for LDT, the walls at LDT were left unfinished until the pieces for the press systems were inside the facility. Tr. 1034:4-14, 1038:6-13 (Miller).

484. Press foundation pillars are customized to the anchor points on the press bed, and, as a result, a press can only be installed on a foundation specifically prepared for it, and only an identical press can be installed on an existing foundation. Miller Direct ¶ 40. Indeed, Mr. Goesling acknowledged on cross that the pit and foundation for stamping presses are fixtures and were designed to accommodate the press. Tr. 3209:18-22, 3242:13-20.

485. Although — before a press system is installed — some of its components might be temporarily set up at a manufacturer in a “buy off” process, those components are not assembled into a complete press system, permanently connected to utilities or integrated into broader systems, until they arrive at their destination facility. During the “buy-off” process the manufacturer tests for defects, uses temporary modes of assembly and connections, and does not integrate the asset into other assets or plant-wide systems. Miller Direct ¶ 64; Stevens Direct ¶¶ 52-54; Miller Direct Ex. B at 10-11, 23-25; Tr. 1107:19-1108:4 (Miller). Certain major

components would be tested individually, such as press rams, bolsters, and front-of-line or end-of-line components. Stevens Direct ¶¶ 135-41; *see also* PX249-PX255 (photographs of typical bought off components); Tr. 1107:19-1113:14 (Miller). However, the press would never be totally assembled at the manufacturer, as it would not be feasible or economical to fully install a press at a manufacturer before delivery and installation at the stamping facility. Tr. 1106:14-1107:18, 1108:8-20 (Miller). Mr. Goesling's contrary claim — that “presses, similar to the Schuler Transfer Press, are assembled and tested before delivery” — is contradicted by the photos he cites and is not credible. Goesling Direct ¶¶ 68, 78; Tr. 1108:8-1113:14 (Miller).

(c) Stamping facilities are typically purpose built for stamping operations

486. The installation and operation of a press system requires specific building parameters. For example, a press building must have sufficient ceiling height and clearance to allow the overhead cranes to move above the four-story presses. In addition, stamping operations require sufficient clearance to allow the transport and storage of large dies, metal blanks, and coils, and the operation of the rolling bolsters. Miller Direct ¶ 32.

487. Because of these operational requirements and the level of adaptation to the building necessary to install stamping presses, GM typically purpose-builds stamping facilities around the stamping machinery. The height of the building, location of pits, strength and type of foundations, and layout of the facility are all designed, before construction, to support the stamping processes and stamping equipment specified for the building. In this way, the stamping building is not just adapted to stamping assets generally, it is typically designed to accommodate the specific equipment and the integrated processes they support. Miller Direct ¶ 33, 41.

488. The Avoidance Trust's assertion to the contrary that the stamping building at LDT is merely “a regular high-bay manufacturing building” not designed for stamping assets (Pls. Pretrial Br. 53) is not supported by any evidence. As Mr. Miller testified, the ceiling of the stamping area at LDT is 62 feet high to allow the network of overhead cranes to pass above the tallest presses. Tr. 1050:5-1051:16. The open floor space in the stamping facility is necessary to

allow sufficient room for the storage and movement of dies, blanks, and finished parts. Miller Direct ¶ 52; Tr. 1051:4-16, 1052:20-1053:12, 1055:17-1056:2 (Miller); *see also* Tr. 147:11-149:16 (Stevens) (discussing die and parts storage areas). As Mr. Miller and Mr. Stevens both made clear, stamping facilities are not standard industrial buildings, but have been specifically and heavily adapted to accommodate stamping presses and operations. Tr. 19:10-20:7 (Stevens); Tr. 1050:5-23 (Miller) (same).

(d) Removing a stamping press is difficult, dangerous, and expensive

489. Removing a stamping press is a difficult process that requires extensive planning and leaves the area where the press sat unusable without expensive remediation. Mr. Goesling acknowledged that removal of a stamping press would require significant work by experienced millwrights to destack the press piece-by-piece. Goesling Direct ¶ 68. In fact, Mr. Miller testified that even the smallest representative press (the Danly Press) took 3 to 6 months of “very delicate and careful” work by a team of 5 to 8 people to remove. Tr. 1128:23-1129:13; Miller Direct ¶ 44. That 3-6 months did not even include planning the move, healing the damage at the Indiana facility, or installing the press at LDT. Tr. 1128:23-1129:13 (Miller); Miller Direct ¶ 44.

490. Moreover, the de-stacking of a large press system is a dangerous and difficult process that can result in damage to the asset in many ways, including, but not limited to, rigging damage, lifting damage, and damaged utility connection points, which would need to be repaired before reinstallation. Miller Direct ¶ 44; Tr. 1045:16-22 (Miller).

491. Mr. Goesling’s opinion that GM chooses to install stamping presses on foundations, in part to make them easier to remove, is not supported by any evidence. Goesling Direct ¶ 42. To the contrary, as Mr. Miller testified, stamping presses are installed on special foundations because the manufacturer requires it and because it is necessary for the structural integrity of the building and the operation of the machinery around the press to isolate the vibrations caused by the 6,280 tons of force with every hit. Tr. 1045:23-1046:7 (Miller). Moreover, as Mr. Miller testified based on his 32 years of experience in engineering and

operations at GM, from a business and engineering perspective, GM's goal when it installs a stamping press is to get the maximum use possible out of the press. Tr. 1049:8-22 (Miller). Given the way stamping presses are planned for and installed, there would be no conception at the time a press is installed that it might someday be moved. Tr. 1049:23-1050:4.

492. Mr. Goesling's similar claim (Direct ¶ 71), that because stamping presses are installed on a foundation they can be removed without damage to the facility, is also not credible. Rather, removing a stamping press would cause significant damage to the facility. Tr. 1045:10-1048:5 (Miller). For example, the pieces of a disassembled press system are so large that it will often be necessary to cut holes in walls to remove them from the facility. Miller Direct ¶ 45. Mr. Miller testified that this would be necessary at LDT, given that the wall that was left open to allow the presses to be installed has since been closed. Tr. 1046:8-16. The evidence also shows that when several smaller presses were removed from another GM plant, Willow Run, a detailed plan was established that included cutting holes in internal walls to get the cut-up portions of the presses out of the press room. Miller Direct Ex. A at 44; DX82 (Willow Run press removal schematic); DX96 at 1 (RACER Trust bid announcement for Willow Run press removal project).

493. In addition, removing a stamping press would leave a large, press-sized hole in the plant working-level floor. This 20-foot deep hole would render that portion of the plant unusable for other operations until healed. And healing the floor would be a long and expensive process that would require the removal of all supporting assets in the press pit; disconnection of utilities; construction of a reinforced structural steel frame floor under the opening; and capping the area with reinforced concrete. Miller Direct ¶ 46; Tr. 1047:10-1048:5 (Miller).

494. Because of the time and expense required to remediate the press pits, GM has in the past sometimes elected not to heal the area but rather to cordon it off and leave the press pits open. Miller Direct ¶ 47; Miller Direct Ex. A at 45; DX1014, DX1051, DX1058, and DX1071 through DX1077) (photographs of press pits after presses were removed and scrapped at Warren Transmission). Even Mr. Goesling acknowledged on cross that — despite his repeated assertions that such a gaping pit is not “damage” as he interprets it — GM would have to

remediate the hole left by removal of the press if it wanted to use the area again. Tr. 3242:2-12 (Goesling).

495. Removing a stamping press would also lead to the scrapping of many of the press system's components, including the foundations (which could not be used again without GM placing an asset with an identical footprint on that location), utility lines, and potentially the front-of-line, end-of-line, and scrap conveyor. Miller Direct ¶ 48; Tr. 1044:10-1045:2 (Miller).

496. Finally, without the full complement of presses on which the assembly areas of LDT and other regional plants depend, GM's vehicle production capacity would be substantially reduced until it could develop a workaround or replace the removed press. Miller Direct ¶ 48.

497. These costs, time, and challenges are a major reason press systems are moved only under extraordinary circumstances such as the closing of a plant. Miller Direct ¶ 44.

(e) None of GM's closed stamping plants have been repurposed

498. Because stamping plants are built for stamping, are extensively adapted for the presses, and have pits and foundations that would be expensive to remediate, they are typically demolished when closed. Miller Direct ¶ 41; Tr. 1057:9-1060:24 (Miller).

499. Satellite images show that the stamping facilities closed by GM between 2006 and 2010 have all been demolished (including those where Assets 29 and 30 were installed): Indianapolis (DX93), Grand Rapids (DX85, DX93) (location of Asset 29), Lansing Metal Center (DX88), Doraville (DX93), and Mansfield (DX89, DX93) (location of Asset 30). *See also* Miller Direct ¶ 53; DDX601. Mr. Miller visited four of these former stamping facilities and confirmed that none had been repurposed. Miller Direct ¶ 53; DDX601 (showing stamping facilities visited prior to written testimony); Tr. 1059:4-1060:24, 1088:19-1089:3 (Miller) (Indianapolis visited after written testimony). Rather, at each site, there is little more than abandoned rubble where a stamping plant once stood. In fact, in the satellite image of Mansfield, the open press pits are clearly visible (after the building was torn down around them) and have filled in with rainwater. DX89 at 2; DX93 at 7-8; Tr. 1060:25-1062:4 (Miller).

500. As Mr. Miller testified, it makes sense that stamping facilities are typically demolished once closed, because the cost required to remediate the pits and foundations would be high, and, even if a new purchaser were interested in remediating the press pits, the energy-inefficient high ceilings would make the building unattractive to other potential users. Similarly, the unnecessary overhead cranes would be cost prohibitive to remove. Once a plant has been built for stamping operations, there is little that can be done with the building unless very similar, new stamping operations were installed or the realty were healed at major effort and expense. These facilities as constructed have no other use in light of the equipment installed in the facility and the adaptation of the facility to that equipment. Miller Direct ¶ 55; Tr. 1089:4-16 (Miller).

501. The Avoidance Trust's contrary claim (Pls. Pretrial Br. 53-54) that several GM stamping plants have been converted to non-automotive uses is not supported by any evidence.⁵⁶ Mr. Goesling relied on the CAR Report (PX508 at 84) for his claim. The CAR report, however, defines "repurpose" to mean: "There is a new use on the site of the former facility, *regardless of whether the original building was demolished.*" *Id.* (emphasis added). Mr. Goesling's purported basis for his opinion therefore confirms, rather than contradicts, the evidence presented by Mr. Miller. *See* Stevens Direct ¶¶ 42-44 (discussing CAR Report); Tr. 48:6-49:18, 285:10-298:23 (Stevens).

⁵⁶ Mr. Miller investigated the only two former GM stamping plants that Mr. Goesling claimed were repurposed — Willow Springs and Kalamazoo. As Mr. Miller testified, satellite images of the Willow Springs facility clearly show that the buildings currently being used as a UPS facility are not the original stamping buildings, as they are laid out with truck bays in a spider-like fashion that would not be employed in a stamping facility. Miller Direct ¶ 54. Moreover, Mr. Miller testified that he visited the former Kalamazoo stamping facility, and discovered that while the new owner did repurpose part of the building, it did not repurpose the area where most of the stamping presses had been located. Instead, the owner tore down the middle part of the building where the stamping presses had been, filled in the pits, and laid blacktop over the area to make a road between the now-divided halves of the building. In other words, even in the one example of a stamping facility being partially repurposed, the new owners demolished the most adapted part of the building rather than heal it for reuse. Miller Direct ¶ 54.

(f) GM moved press systems only in extraordinary circumstances

502. As Mr. Miller testified, due to the difficulty, time, and expense involved in removing a press system, movement of press systems between operating plants is extraordinarily rare. Miller Direct ¶ 57; Tr. 1090:6-20. Mr. Miller could not recall a single instance in his 32 years at GM where an operating press system was moved from one facility to another. Miller Direct ¶ 57. Rather, the only movements of press systems to other facilities that Mr. Miller recalled occurred in extraordinary circumstances such as the closure of stamping facilities in connection with bankruptcy or, in one instance, the idling of a 23-year-old Danly production press at Indianapolis that had operated beyond its depreciable life, had become obsolete, and was repurposed as a tryout press at LDT (Asset 31). Miller Direct ¶ 57; Tr. 1090:6-20 (Miller).

503. Mr. Miller also testified that GM would not move press systems between facilities to accommodate a new production requirement. Miller Direct ¶ 34. Generally, when planning a new facility, the type of product that GM desires to produce at the new facility drives decisions about the stamping machinery that will be installed. However, once the machinery is in place, the existing machinery drives GM's decisions about where to allocate new products based on the capabilities of the machinery already in the plants. Miller Direct ¶ 34. Given those practices, Mr. Miller testified that if a particular stamping facility could not produce a new product, GM — rather than moving a stamping press — would produce the part at a different stamping facility and ship it to the necessary assembly facility. Given the difficulty and expense of moving the press, the more economical solution, and the one GM always pursued, was to move the work to the press, rather than the press to the work. Miller Direct ¶ 34; *see also* Tr. 1049:8-1050:4 (Miller).

504. Mr. Goesling's movement analysis is not to the contrary. According to Mr. Goesling, 14 press systems similar to the representative presses were moved between 2006 and 2010. Goesling Direct ¶ 68. But of those fourteen, twelve were from closed facilities, and the other two were from facilities partially shuttered as a result of the 2009 bankruptcy. Miller Direct ¶ 61; Tr. 1091:13-1094:14; DDX602 (chart of press system moves). Additional testimony from Mr. Stevens confirmed that movement of press systems at GM is extremely rare: only

0.4% of fixtures (as identified by the Term Lenders) in the category defined by GM as “PRESS METAL EQUIPMENT” (which also included many assets much smaller than stamping presses) moved in the ordinary course of business between 2009 and 2015. Stevens Direct ¶ 96 (Table 5).

505. This is not surprising, given the amount of time, expense, and difficulty involved in moving a press system. In fact, a consultant for GM issued a press release describing a press relocation project he performed, noting that the movement of the presses required “over 1000 trucks” for a “Just-In-Time delivery process for receiving components at the destination facilities.” PX82 at 1. And Taso Sofikitis of Maynards repeatedly emphasized the difficulty of removing presses and the fact that there are few buyers for reusable presses because of the time, expense, and difficulty of moving them. Sofikitis Dep. 199:8-18 (it would take 3-4 months to remove a press, and more time to move and install it elsewhere), 23:21-24:1 (“[E]ven the scrap people don’t want to buy [presses] because they don’t want to put in the labor to . . . get it down, cut it up, and get it out.”), 25:19-26:8 (same), 45:22-46:4 (some of the presses at Willow Run were not saleable because they were too small to make removal profitable).

506. Similarly, contrary to Mr. Goesling’s claim (Direct ¶ 69), the fact that a secondary market for stamping presses may exist is not probative of GM’s intent. As Mr. Stevens testified, GM purchases all of its manufacturing assets, including stamping presses, new and the existence of the secondary market was not a factor in its decision-making. Stevens Direct ¶ 111; Tr. 137:24-138:7, 139:10-17 (Stevens). Thus, there was no conception, let alone expectation, when GM purchased its assets that they might be sold in the secondary market at a later date. *See* Stevens Direct ¶ 111. As discussed, the unrebutted evidence shows that from a business and engineering perspective, when GM installed assets, whether it could resell them on a secondary market was not a consideration and was “not part of the planning process at all.” Tr. 137:24-138:7 (Stevens). In addition, while Mr. Goesling identified 150 stamping press-related line items that were sold by Maynards and Hilco for GM, he did not address the context of those sales. Goesling Direct ¶ 69. The unrebutted evidence is that all those sales occurred from closed or partially shuttered facilities. Tr. 1101:17-18 (Miller); Section VIII.B.3 above; DDX-PX350b at 3

(showing no assets similar to any stamping press sold out of any operating facility); Tr. 3310:13-3317:19 (Goesling) (cross-examination on secondary market analysis in PX350). In fact, except for six press-related assets sold from Pontiac Stamping while it was idled due to the bankruptcy, all of the facilities from which there were sales of stamping presses were subsequently demolished. Tr. 1101:17-18 (Miller).

507. These findings are consistent with Mr. Miller's testimony that press systems are moved or sold by GM only in extraordinary circumstances like the plant closings resulting from GM's bankruptcy, itself a once-in-a-century event. *See* Tr. 1090:6-20.

508. Finally, there is no conceivable way in which a stamping press could ever move *within* a facility. The degree of adaptation of the realty required to accommodate a stamping press means that once a press has been installed in a particular place, it is as a practical matter impossible to move it anywhere else in the facility. This reality was confirmed by Mr. Miller, who testified that in his 32 years at GM, he does not recall a stamping press the size of the Representative Assets ever having been moved within a plant. Miller Direct ¶ 40.

Asset 32: AA Transfer Press⁵⁷

509. The AA Transfer Press is a 2,800 ton, 200-foot long, 125-foot wide, and 40-foot tall transfer press. It is the largest press system employed by GM, and is used to fabricate large, paint-ready body panels from stacks of sheet metal as part of the stamping operations at GM's LDT plant. It uses five rams, ten rolling bolsters, and interchangeable tooling (called "dies") to shape the sheet metal. Miller Direct ¶ 72. It was installed with the construction of the stamping facility at LDT, and went into service on September 1, 2003. *Id.* Ex. A at 17. It had an installed cost of \$33,767,895. *Id.* Months after it was installed and went into service, it became subject to a sale/leaseback transaction on December 23, 2003. *See* PX283 at 1.

510. The press pit for the AA Transfer Press is approximately 100 feet long, 50 feet wide, and 12-20 feet deep. The press is mounted on 12 reinforced concrete foundation pillars

⁵⁷ Asset Handbook at 5-7; Miller Direct ¶¶ 72-84 & Ex. A at 16-20.

that are each anchored into the bedrock under the building. Miller Direct ¶ 73. The AA Transfer Press system includes an overhead crane, front-of-line component, end-of-line component, scrap conveyor, and other supporting assets such as fire suppression systems and electrical distribution cabinets, which were all installed to support the press. Miller Direct ¶ 73.

511. The AA Transfer Press was undergoing a refurbishment during the Court's visit. Mr. Miller testified that it is typical for GM to do a refurbishment of the press at approximately this stage of its life. Miller Direct ¶ 74. This is done, Mr. Miller explained, to upgrade the press to the latest controls and avoid a "catastrophic failure," which "is the worst thing that can happen in a stamping plant." Tr. 1032:14-1033:4. That the AA Transfer Press would need refurbishing after almost 14 years in production is not surprising, because, as Mr. Miller testified, it is capable of producing 6,280 tons of force with every hit, and, at this point in its life, the press has already had about 20 million hits. Tr. 1030:7-1031:8. As the Court saw, such refurbishments are done in place without moving any of the significant components of the press system.

512. Apart from when it was shut down for upgrades, the AA Transfer Press has been continuously operated, in place, since stamping operations began at LDT in 2003. Miller Direct ¶ 72.

513. **Attachment.** The parties agree that the AA Transfer Press is attached to the realty. Goesling Direct ¶ 60. In addition to its great size and weight, it is attached by 3-inch diameter rods and nuts that connect the bed of the press to foundation pillars in the press pit. Miller Direct ¶ 77.

514. **Adaptation.** The AA Transfer Press is clearly adapted to GM's use of the LDT facility, as it is used by GM to fabricate body parts for vehicles, a necessary first step in the vehicle assembly process. Miller Direct ¶ 78. Mr. Goesling acknowledged on cross-examination that this asset is an integral part of LDT and that GM's operations at LDT depend on its presence. Tr. 3205:10-20. The facility is also clearly adapted to the AA Transfer Press, for example, by the excavation of a customized pit that was specifically designed to accommodate the press system, by the routing of piping and hard utility connections to serve the system, and by the addition of supporting assets like overhead cranes and underground scrap conveyors.

515. **Intent.** The following facts all strongly support a finding that GM intended to install the AA Transfer Press permanently at LDT:

a) The press is extremely large and heavy. As a result, it had to be delivered to LDT in pieces and constructed in place while the facility was being built. Miller Direct ¶ 79.

b) As noted, the building was heavily adapted to hold the press in the particular location where it was installed. This included the excavation of the press pits, the installation of a customized foundation for the press, the digging of trenches for the rolling bolsters, and the routing of utility piping. Miller Direct ¶ 79. Mr. Goesling acknowledged on cross-examination that the pit and foundation for stamping presses are fixtures, Tr. 3242:13-20, and that the pit was designed to accommodate the press, Tr. 3209:18-22.

c) Removing (or moving) a 2,800 ton press would take months, if not years, and cause significant damage to the realty. Removal would likely require that holes be cut in walls and would leave a large hole in the ground that would need to be remediated before the area could be reused. Miller Direct ¶¶ 45, 79; Tr. 1046:8-16 (Miller).

d) The AA Transfer Press is critical to the stamping operations at LDT. Thus, removing it while the plant is still operating would greatly disrupt operations and make it difficult for LDT Stamping to meet its production targets. Miller Direct Ex. B ¶¶ 17-18.

516. Plaintiff's claims as to GM's lack of intent to install the AA Transfer Press permanently are not supported by the evidence:

a) Contrary to Mr. Goesling's testimony, the fact that it would be possible for experienced millwrights at great time and expense to remove the AA Transfer Press does not indicate that GM did not intend to install the press permanently. Miller Direct ¶ 81; Section IX.A.1(d).

b) That 14 similar presses moved out of closed or partially shuttered plants, in extraordinary circumstances, does not indicate that GM intended to install the AA Transfer Press at LDT temporarily. Miller Direct ¶¶ 61, 100; Tr. 1091:13-1094:14; DDX602 (press moves chart); *see* Section VIII.B above.

c) As discussed, the lease for the AA Transfer Press, which was entered into long after the press was purchased, the plan for its installation was developed, and the press was actually installed, does not evidence that GM did not intend the Press to be permanently installed. Miller Direct ¶¶ 65-70, 83; Section VIII.E above.

d) Contrary to Mr. Goesling's assertion, the AA Transfer Press was not installed at the manufacturer before being installed at LDT. Miller Direct ¶ 64; Stevens Direct ¶¶ 52-54; Tr. 1107:19-1113:14 (Miller). Temporarily setting up components to test them individually is not comparable to full installation at a plant. *See* Section IX.A.1(b) above.

Asset 33: B3-5 Transfer Press⁵⁸

517. The B3-5 Transfer Press is a 3-ram transfer press system used by GM to make stamped metal body parts that can be assembled in the LDT body shop and other assembly plants supported by LDT's stamping operations. It is the third-largest press system used by GM: 1,800 tons, standing 3 stories tall, and extending 260 feet long and 75 feet wide. Miller Direct ¶ 85.

518. The press pit for the B3-5 Transfer Press is approximately 100 feet long, 50 feet wide, and 12-20 feet deep. The press is mounted on 8 reinforced concrete foundation pillars that are each anchored into the bedrock under the building. Miller Direct ¶ 85.

519. The B3-5 Transfer Press system includes an overhead crane, front-of-line component, end-of-line component, scrap conveyor, and other assets installed to support the press such as fire suppression systems and electrical distribution cabinets. Miller Direct ¶ 86.

520. The B3-5 Transfer Press was installed during the construction of the stamping facility at LDT, and went into service on December 2, 2003. Miller Direct Ex. A at 23. It had an installed cost of \$27,682,072. *Id.*

521. Within the last year, the B3-5 Transfer Press system was upgraded, including the replacement of the press's original destacker for a newer destacker capable of de-stacking both steel and aluminum, upgrading the controls for the press and the transfer mechanism, and

⁵⁸ Asset Handbook at 8-9; Miller Direct ¶¶ 85-102 & Ex. A at 22-26.

modification of the scrap conveyor to allow it to handle aluminum. Miller Direct ¶ 87; Tr. 1118:12-1123:7 (Miller). Although the press itself was capable of stamping aluminum because, as Mr. Miller testified, “[t]he press has no conscience,” the original steel-only destacker had become obsolete as more body panels began to be produced out of aluminum to decrease vehicle weight in response to changing regulations. Tr. 1121:6-1122:7. Thus, the original destacker was replaced with a new destacker more suitable to serve the same purpose. Because the original destacker was designed to operate with the B3-5 Transfer Press, and had no use apart from the press, it was scrapped. Tr. 1118:12-1123:7. GM’s decision to spend millions to replace a component of the overall press system after 14 years of use shows that GM intends to use the B3-5 Transfer Press, in place, for the many years remaining on its useful life. Miller Direct ¶ 87.

522. The B3-5 Transfer Press became subject to a sale/leaseback transaction on December 10, 2003, after the press was installed and went into service at LDT. *See* PX220 at 1.

523. Apart from the time it was shut down for upgrades, it has been continuously operated, in place at LDT, since stamping operations began at LDT. Miller Direct ¶ 88.

524. **Attachment.** The parties agree that this asset is attached to the realty. Miller Direct ¶ 91; Goesling Direct ¶ 60. In addition to its great size and weight, it is attached by rods that are connected by bolts to the bed of the press and to the press’s 8 foundation pillars.

525. **Adaptation.** Also like the AA Transfer Press, the B3-5 Transfer Press is clearly adapted to GM’s use of the LDT facility, as it is used by GM to fabricate body parts for vehicles, a necessary first step in vehicle assembly. Mr. Goesling acknowledged on cross that this asset is an integral part of LDT and that GM’s operations at LDT depend on its presence. Tr. 3205:10-20. The facility is also clearly adapted to the B3-5 Transfer Press, for example, by the excavation of a customized pit that was specifically designed to accommodate the press system, by the routing of piping and hard utility connections to serve the system, and by the addition of supporting assets like overhead cranes and underground scrap conveyors. Miller Direct ¶ 92.

526. **Intent.** The following facts all strongly support a finding that GM intended to install the B3-5 Transfer Press permanently at LDT:

a) The press is extremely large and heavy. As a result, it had to be delivered to LDT in pieces and constructed in place while the facility was being built. Miller Direct ¶ 93.

b) As noted, the building was heavily adapted to hold the press in the particular location where it was installed. This included the excavation of the press pits, the installation of a customized foundation for the press, the digging of trenches for the rolling bolsters, and the routing of utility piping. Miller Direct ¶ 93. Mr. Goesling acknowledged on cross-examination that the pit and foundation for stamping presses are fixtures (Tr. 3242:13-20), and that the pit was designed to accommodate the press (Tr. 3209:18-22).

c) Removing (or moving) a 1,800 ton press would take months, if not years, and cause significant damage to the realty. Removal would likely require that holes be cut in walls to remove the press and would leave a large hole in the ground that would need to be remediated before the area could be reused. Miller Direct ¶¶ 45, 93; Tr. 1046:8-16.

d) The B3-5 Transfer Press is critical to the stamping operations at LDT. Thus, removing it while the plant is still operating would greatly disrupt operations and make it difficult for LDT Stamping to meet its production targets. Miller Direct Ex. B ¶¶ 42-43.

527. Plaintiff's claims as to GM's lack of intent to install the B3-5 Transfer Press permanently are not supported by the evidence:

a) Contrary to Mr. Goesling's testimony, the fact that it would be possible for experienced millwrights at great time and expense to remove the B3-5 Transfer Press does not indicate that GM did not intend to install it permanently. Miller Direct ¶ 95; Section IX.A.1(d).

b) That 14 similar presses moved out of closed or partially shuttered plants, in extraordinary circumstances, does not indicate that GM intended to install the B3-5 Transfer Press at LDT temporarily. Miller Direct ¶¶ 61, 100; Tr. 1091:13-1094:14; DDX602 (press moves chart).

c) That a secondary market for stamping presses may exist (Goesling Direct ¶ 69) is not probative of GM's intent. *See* Section VIII.B.3 above.

d) As discussed, the lease for the B3-5 Transfer Press, which was entered into long after the press was purchased, the plans for its installation were established, and the press was actually installed, does not indicate that GM did not intend the Press to be permanently installed. Miller Direct ¶¶ 65-70, 101; Section VIII.E above.

e) Contrary to Mr. Goesling's assertion, the B3-5 Transfer Press was not installed at the manufacturer before being installed at LDT. Miller Direct ¶¶ 64, 96-99; Stevens Direct ¶¶ 135-41; Tr. 1106:18-1113:14 (Miller). Temporarily setting up individual components for testing is not comparable to full installation at a plant. *See* Section IX.A.1(b) above.

f) That the B3-5 Transfer Press system was recently upgraded to allow the system to stamp aluminum is further indication of GM's intent to keep the press in service permanently, not of an intent that it be temporary. Miller Direct ¶ 87; Tr. 1118:12-1123:7.

Asset 31: Danly Press⁵⁹

528. The Danly Press is a single ram, standalone stamping press used at LDT to test or validate dies before they are used in the production presses. *See* JX1447 (picture of Danly Press). The "smallest" representative press, it is still immense — weighing 775 *tons*, standing 3 stories tall, and extending 30 feet long and 20 feet wide. Like the AA and B3-5 Transfer Presses, installation of the Danly Press required excavation of a custom pit in which 4 large, steel-reinforced concrete foundation pillars were anchored to the bedrock. Miller Direct ¶ 103.

529. Unlike the AA and B3-5 Transfer Presses, the Danly Press is not currently used as a production press, but instead to test or "tryout" new and repaired stamping dies without having to take a production press temporarily out of operation. Because dies wear over time, auto manufacturers regularly remove them from production presses for reconditioning. Once reconditioned, the dies must be "tried out," which involves stamping a limited number of hits to verify the reconditioned die. To perform its "tryout" function, the Danly Press is linked with the other presses at LDT through a network of mobile die carriers and overhead cranes that are

⁵⁹ Asset Handbook at 10-12; Miller Direct ¶¶ 103-118 & Ex. A at 28-32.

installed in specific locations to allow the large dies to be removed from the production presses, moved to a rework area, and installed on the Danly Press for testing. Miller Direct ¶ 104.

530. Before being installed at LDT, the Danly Press was installed and operated at Indianapolis Stamping as part of a system of production presses. It served in that function over 20 years, manufacturing large truck components. However, in approximately 2000, the press systems at Indianapolis Stamping (including the Danly Press) became obsolete when GM changed the design of its truck bodies due to shifts in consumer demand; the existing press systems at Indianapolis could not produce the new components. The Danly Press then sat idle for several years, until the construction of LDT in 2003 created the need for a permanent tryout press. To meet that need, GM moved the Danly Press to LDT and repurposed it from a production press to a tryout press, all at a cost of over \$1 million and several months of effort. The Danly Press has now operated at LDT in its new role as a tryout press for 14 years. Miller Direct ¶ 105; Tr. 1123:19-1124:23, 1127:6-1134:6 (Miller). The Indianapolis stamping facility has subsequently been razed to the ground. DX93 at 6; DDX601.

531. **Attachment.** The parties agree that this asset is attached to the realty. In addition to its great size and weight, it is attached by rods that are bolted to the bed of the press and the press's 4 foundation pillars. Miller Direct ¶ 108.

532. **Adaptation.** The Danly Press is also clearly adapted to GM's use of the LDT facility, as it is used to validate dies before they are put into the production presses. This is important because the offline testing of repaired or new dies allows the production presses to continue operating and meet their capacity requirements without stopping to test dies. Mr. Goesling acknowledged that this asset is an integral part of LDT and that GM's operations at LDT depend on its presence. Tr. 3205:10-20. The facility is also clearly adapted to the asset, for example, by the excavation of a customized pit specifically designed to accommodate the press system, the routing of piping and hard utility connections to serve the system, and the addition of supporting assets like the overhead crane system. Miller Direct ¶ 109.

533. **Intent.** The following facts all strongly support a finding that GM intended to install the Danly Press permanently at LDT:

a) While smallest of the representative presses, the Danly Press is extremely large and heavy. Like the others, it had to be delivered to LDT in pieces. Miller Direct ¶ 110.

b) The building was heavily adapted to hold the press in a particular location. To install the Danly Press, GM had to excavate a 20-foot deep pit into the floor of the building and install 4 reinforced concrete foundation pillars that are anchored directly into the bedrock. In addition, GM dug trenches into the concrete floor adjacent to the press to install steel tracks on which the press's rolling bolsters can slide. GM also installed a new wood floor over the pit and an overhead crane to assist with die movement. Miller Direct ¶ 110. Mr. Goesling acknowledged on cross that the pit and foundation for stamping presses are fixtures, Tr. 3242:13-20, and that the pit was designed to accommodate the press, Tr. 3209:18-22.

c) Removing (or moving) the Danly Press would take several months to execute (not including the several months of planning for the removal and the time required to reinstall the press at another location). It would also leave a large hole in the ground that would need to be remediated before the area could be reused. Miller Direct ¶ 110.

d) The Danly Press is critical to the stamping operations at LDT, as it is the only press at LDT used to validate large dies for the production presses. Its removal would prevent GM from validating dies before they are returned to production presses, significantly impacting LDT's ability to produce automobiles. Miller Direct ¶ 116.

534. Plaintiff's claims as to GM's lack of intent to install the Danly Press permanently are not supported by the evidence:

a) That the Danly Press was moved to LDT from Indiana does not indicate that GM did not intend to install the press permanently at LDT. The Danly Press was repurposed only after the production process for which it had originally been installed became obsolete 23 years after initial installation, and past its depreciable life. Due to the expense, difficulty, and

time required to remove the press and repair the damage left behind, an asset like the Danly Press would only be moved in extraordinary circumstances, like this one. Miller Direct ¶¶ 111-14.

b) Mr. Goesling's claim that 88 assets similar to the Danly Press were moved is incorrect. Goesling Direct ¶ 84; Miller Direct ¶ 60. Mr. Miller explained in his testimony that those 88 press-related line items in fact represent only 18 press system moves (*i.e.*, the 14 press systems that are similar to all the Representative Asset presses, plus four additional presses that are similar only to the Danly Press). Miller Direct ¶ 60; Tr. 1095:3-1099:9; DX100; DDX603 at 1. All 18 of those moves occurred in extraordinary circumstances such as full or partial plant closings; none occurred in the ordinary course of business. Miller Direct ¶ 61. This data is consistent with Mr. Miller's testimony that GM only moves press systems in extraordinary circumstances such as a plant closing or, as with this asset, an unexpected product design change that occurred after 20 years of operation. Miller Direct ¶ 117. Mr. Goesling did not dispute Mr. Miller's correction of his analysis on cross-examination. Tr. 3289:11-3290:9.

c) That a secondary market for stamping presses may exist (Goesling Direct ¶ 69) is not probative of GM's intent. *See* Section VIII.B.3 above.

Asset 30: TP-14 Transfer Press⁶⁰

535. The TP-14 Transfer Press was a single ram, C-size stamping press used in production at GM's Mansfield, Ohio stamping plant. *See* DX1016 (picture of press similar to the TP-14 Transfer Press). The press weighed 700 tons, stood 3 stories tall, and was 70 feet long and 55 feet wide. Miller Direct Ex. A at 47. It had double rolling bolsters that sat on rails installed in the concrete floor to allow for quick die changes. Miller Direct ¶ 119.

536. Like the other representative presses, the TP-14 was installed in a large pit and was mounted on four reinforced concrete pillars that were secured to the bedrock. Miller Direct ¶ 119; DX1015 (picture of press pit being excavated for press similar to the TP-14 Transfer Press); Tr. 1140:3-1141:21 (Miller) (testimony regarding DX1015 and excavation of press pit).

⁶⁰ Asset Handbook at 17-18; Miller Direct ¶¶ 119-32 & Ex. A at 46-51.

537. The TP-14 went into operation on September 1, 1987, had an installed cost of \$4,636,106, and operated, in place, at Mansfield Stamping until that facility was closed 22 years later in connection with GM's bankruptcy. Miller Direct ¶ 119; Miller Direct Ex. A at 47.

538. The Mansfield Stamping facility opened in 1955 and performed stamping and metal fabrication operations until it was closed in 2009. Mansfield Stamping focused on stamping metal parts for trucks and SUVs, with a particular emphasis on supplying parts for the truck and SUV production at GM's Moraine Assembly plant. However, as the demand for mid-size SUVs collapsed in 2009, GM shut down the operation at Moraine. Because of this, and Mansfield's geographical isolation from other GM locations, it became economically unreasonable to continue the stamping operations at Mansfield Stamping. Miller Direct ¶ 120; Miller Direct Ex. A at 52-55.

539. The Mansfield Stamping facility was transferred to the RACER Trust in connection with GM's bankruptcy, and the RACER Trust sold it to Brownfield Communities Development in August 2012. Because stamping facilities are custom-designed for the equipment and processes installed there, once the TP-14 and the other presses were removed, the building had no purpose. Tr. 1149:15-23 (Miller); Miller Direct ¶ 121. As a result, the new owner decided to demolish the buildings, which began in June 2013 and continued through the end of the year. Miller Direct ¶¶ 121, 131; Miller Direct Ex. A at 52-55; DX89; DX93 at 8.

540. The TP-14 Transfer Press was sold to a private buyer for \$1.3 million before the Mansfield Stamping facility was demolished. Miller Direct Ex. A at 47. The sales price of the press indicates that the buyer intended to reuse the press. Tr. 1146:4-9 (Miller). As the auctioneer for the press testified, the buyer was responsible for paying to remove, transport, and reinstall the press, and for paying a 15% buyer's premium — all of which significantly decreased the price a buyer was willing to pay. Sofikitis Dep. 20:18-21:10 (presses are sold "as is, where is"), 23:21-24:1 ("[E]ven the scrap people don't want to buy [presses] because they don't want to put in the labor to . . . get it down, cut it up, and get it out."), 25:19-26:8 (same), 45:22-46:4

(some of the presses at Willow Run were not saleable because they were too small to make removal profitable), 77:22-78:3 (describing the buyer's premium).

541. **Attachment.** The parties agree that this asset is attached to the realty. In addition to its great size and weight, it is attached by rods that were bolted to the bed of the press and to each of the press's 4 foundation pillars. Miller Direct ¶ 124; Goesling Direct ¶ 60.

542. **Adaptation.** The TP-14 Transfer Press was also clearly adapted to GM's use of the Mansfield Stamping facility, as it was used by GM to produce stamped automotive body parts, a necessary first step in the production process. Mr. Goesling acknowledged on cross that this asset was an integral part of the plant where it was installed. Tr. 3205:10-20. The facility was also clearly adapted to the TP-14 Transfer Press, for example, by the excavation of a customized pit that was specifically designed to accommodate the press system, by the routing of piping and hard utility connections to serve the system, and by the addition of supporting assets like overhead cranes and underground scrap conveyors. Miller Direct ¶ 125.

543. **Intent.** The following facts all strongly support a finding that GM intended to install the TP-14 Transfer Press permanently at Mansfield at the time of installation:

a) Like the other representative presses, the TP-14 was massive, weighing over 700 tons, standing 3 stories tall, and was 70 feet long and 55 feet wide. Miller Direct ¶ 126.

b) The building was heavily adapted to hold the press in a particular location. This included the excavation of the press pits, the installation of a customized foundation, the digging of trenches for the rolling bolsters, and the routing of utility piping. Miller Direct ¶ 126. Mr. Goesling acknowledged that the pit and foundation for stamping presses are fixtures, Tr. 3242:13-20, and that the pit was designed to accommodate the press, Tr. 3209:18-22.

c) Removing the TP-14 was difficult, as it could not be removed without disassembling it. Although the removal project was scheduled to take 3 months, it would have taken longer if the Mansfield Stamping plant had been in operation at the time. Miller Direct ¶ 126. In addition, had the press been removed while Mansfield Stamping was operating, GM would have had to bear the expense of remediating the open press pit. Miller Direct ¶ 129.

d) The TP-14 was a critical piece of the stamping operations at Mansfield Stamping. Thus, removing it while the plant was still operating would have greatly disrupted operations and would have made it difficult for Mansfield Stamping to meet its production targets. The evidence indicates that GM would not have removed the TP-14 Transfer Press from Mansfield Stamping if the plant had continued to operate. Miller Direct ¶ 128-29.

544. Plaintiff's claims as to GM's lack of intent to install the TP-14 Transfer Press permanently are not supported by the evidence:

a) That the press was sold to a private buyer in connection with the closing of Mansfield Stamping as part of Old GM's bankruptcy is not indicative of GM's intent when it installed the press. Old GM's bankruptcy was an extraordinary event that could not have been foreseen when the TP-14 was installed 22 years earlier. That some value was sought to be recouped by the RACER Trust for the press, rather than leaving it in the rubble when the Mansfield Stamping facility was demolished, says nothing about GM's intent when it installed the press. Miller Direct ¶ 127-28; Tr. 1249:18-23 (Miller) (observing that it would be "very difficult" to demolish a building with a stamping press still inside).

b) That the RACER Trust got a higher price for the TP-14 Transfer Press than it expected at a private auction does not, as Mr. Goesling suggests, "underscore[] the value in the [TP-14] as a piece of equipment apart from the realty." Goesling Direct ¶ 363. Rather, the TP-14's ability to command a premium even after 22 years of use is indicative of its long useful life and ability to hold its value and operate productively in place. Had Mansfield Stamping remained open, GM never would have removed an operational press worth far more than \$1.3 million (when installation, integration, transport and removal costs are taken into account), only to have to replace that press with a new press that would cost significantly more to purchase and install. Miller Direct ¶ 128.

c) That 14 similar presses moved out of closed or partially shuttered plants, in extraordinary circumstances, does not indicate that GM intended to install the TP-14 temporarily. Miller Direct ¶¶ 61, 130; Tr. 1091:14-1094:14; DDX602 (press moves chart).

d) Again, that a secondary market for stamping presses may exist (Goesling Direct ¶ 69) is not probative of GM's intent. *See* Section VIII.B.3 above.

Asset 29: GG-1 Transfer Press⁶¹

545. The GG-1 Transfer Press was a B-sized double ram transfer press that was installed and operated in GM's Grand Rapids Stamping facility until shortly before that plant was demolished. Miller Direct ¶ 133; *see also* JX31 (picture of GG-1 Transfer Press).

546. The GG-1 Transfer Press weighed 1,100 tons, stood 3 stories tall, and extended 150 feet long and 75 feet wide. Like the other representative presses, the GG-1 was installed in a 16- to 20-foot deep pit on steel-reinforced concrete pillars anchored with pylons into the bedrock. Support components were also installed to complete the press system, including a scrap conveyor, overhead crane, front-of-line component, and end-of-line component, and trenches were cut into the concrete floor to lay rails for the press's double rolling bolsters. Miller Direct ¶ 133.

547. The GG-1 was first installed in Grand Rapids Stamping in 1989. It was used there for the next 19 years — including when Mr. Miller was plant manager — until that plant was idled in connection with GM's bankruptcy. The GG-1 was ultimately sold by the Motors Liquidation Company estate for scrap and removed before Grand Rapids Stamping was demolished. Miller Direct ¶ 134; Tr. 1136:21-1138:5. Removal of the press system for scrap took over 3 months and left a 60-foot by 40-foot hole in the plant floor.

548. **Attachment.** The parties agree that this asset was attached to the realty. In addition to its great size and weight, it was attached by rods that were bolted to the bed of the press and to each of the press's 6 foundation pillars. Miller Direct ¶ 137; Goesling Direct ¶ 60.

549. **Adaptation.** The GG-1 was also clearly adapted to GM's use of the Grand Rapids Stamping facility, as it was used by GM to produce stamped automotive body parts, a necessary first step in the auto production process. Mr. Goesling acknowledged that this asset was an integral part of the Grand Rapids stamping plant and that GM's operations at Grand

⁶¹ Asset Handbook at 15-16; Miller Direct ¶¶ 133-45 & Ex. A at 40-45.

Rapids depended on its presence. Tr. 3205:10-20. The facility was also clearly adapted to the GG-1, for example, by the excavation of a customized pit designed to accommodate the press system, the routing of piping and hard utility connections to serve the system, and the addition of supporting assets like overhead cranes and underground scrap conveyors. Miller Direct ¶ 138.

550. **Intent.** The following facts all strongly support a finding that GM intended to install the GG-1 Transfer Press permanently at Grand Rapids at the time it was installed:

- a) Like the other presses, the GG-1 was massive, weighing over 1,100 tons, standing 3 stories tall, and was 150 feet long and 75 feet wide. Miller Direct ¶ 139.
- b) The Grand Rapids building was heavily adapted to hold the press in a particular location. This included excavation of the press pits, installation of a customized foundation, digging of trenches for the rolling bolsters, and routing of utility piping. Miller Direct ¶ 139. Mr. Goesling acknowledged that the pit and foundation for presses are fixtures, Tr. 3242:13-20, and that the pit was designed to accommodate the press, Tr. 3209:18-22.
- c) Removing the GG-1 Transfer Press was difficult, as it could not be removed without disassembling it. Even though the press was being removed for scrap, the removal still took over 3 months. In addition, because Grand Rapids Stamping was being demolished, there was no need to heal the damage caused by the press's removal, which would have added additional time and expense in the context of an operating plant. Miller Direct ¶ 139.
- d) The GG-1 was critical to the stamping operations at Grand Rapids Stamping. Removing it while the plant was still operating would have greatly disrupted operations and made it difficult for the plant to meet its production targets. Had Grand Rapids remained open, GM would not have removed the GG-1. Miller Direct ¶ 142 & Ex. B ¶ 108.

551. Plaintiff's claims as to GM's lack of intent to install the GG-1 Transfer Press permanently are not supported by the evidence.

- a) That the press was sold in connection with the closing of Grand Rapids Stamping as part of Old GM's bankruptcy is not indicative of GM's intent when the press was installed. Old GM's bankruptcy was an extraordinary event that could not have been foreseen

when the GG-1 was installed 19 years earlier. That the estate sought to recoup some value for the press, rather than leaving it in the rubble when the facility was demolished, says nothing about GM's intent when it installed the press. Miller Direct ¶ 144.

b) That 14 similar presses moved out of closed or partially shuttered facilities, in extraordinary circumstances, does not indicate that GM intended to install the GG-1 temporarily. Miller Direct ¶¶ 61, 143; Tr. 1091:14-1094:14; DDX602 (press moves chart).

c) And again, that a secondary market for stamping presses may exist (Goesling Direct ¶ 69) is not probative of GM's intent. *See* Section VIII.B.3 above.

Asset 10: Opticell Robotic System⁶²

552. The Opticell Robotic System serves a critical quality control function in the LDT stamping area by testing body components stamped by the AA and B3-5 Transfer Presses, and other production presses, to ensure that the finished product meets GM's engineering design requirements before moving on to the body shop at LDT and other regional assembly plants. Miller Direct ¶ 146; *see also* JX1109 (picture of Opticell). It does this by moving an "Optigo" — a white light scanning device attached to the end of the robot — around body parts to validate their dimensions and surface quality. This testing also helps to evaluate whether the dies have degraded and will need to be repaired or refurbished. Miller Direct ¶ 146; Tr. 1150:6-1151:11.

553. The Opticell Robotic System is a "cell" that consists of several interconnected components that all work together to accomplish the system's purpose. These components include a FANUC robot, a slide that allows the robot to move to multiple measurement and testing locations within the cell (the "Robotic Transportation Unit" or "RTU"), as well as extensive, sophisticated safety equipment around the cell to permit safe operation. This equipment — estimated to consist of about 25 pieces — is highly sophisticated, customized to the needs of the facility, and includes fencing, electrical interlocks, light screens, and pressure sensitive mats. Miller Direct ¶ 152; Miller Direct Ex. B ¶¶ 121-22. Each of these components is

⁶² Asset Handbook at 13-14; Miller Direct ¶¶ 146-61 & Ex. A at 34-38.

bolted to the floor of LDT in numerous places. In total, the Opticell Robotic System takes up a 25-foot by 40-foot area of the LDT plant. Miller Direct ¶ 147.

554. **Attachment.** The parties agree this asset is attached to the realty. Goesling Direct ¶ 60. All components of the Opticell Robotic System are attached to the building's floor by bolts, either directly or indirectly. For example, the robot is attached to the RTU, which is in turn attached to the plant floor by lag bolts and nuts. Moreover, the safety fencing component of the system is attached to the plant floor by 90-120 lag bolts and nuts. Miller Direct ¶ 150.

555. **Adaptation.** The Opticell Robotic System is also clearly adapted to GM's use of LDT, as it is used to test a sampling of stamped body parts for quality control purposes — a necessary step in the production process at LDT. Mr. Goesling acknowledged on cross-examination that this asset is an integral part of LDT and that GM's operations at LDT depend on its presence. Tr. 3205:10-20. Moreover, the Opticell Robotic System is adapted to the facility at LDT by the inclusion of various safety mechanisms customized to the needs of the Opticell system itself and the LDT facility. Miller Direct ¶ 151.

556. **Intent.** The following facts all strongly support a finding that GM intended to install the Opticell Robotic System permanently at LDT:

a) The Opticell Robotic System plays a critical part in the stamping process, conducting the testing and validation of parts produced by the stamping presses before they can be confirmed for use in the body shop. Without this asset, the entire product could be compromised. If the Opticell were rendered inoperable or were removed, it would need to be replaced, or another suitable quality system would need to be installed, before production operations could continue at LDT. Miller Direct ¶ 152.

b) The Opticell Robotic System was installed with significant safety devices that are bolted into the floor around the robot and RTU, such as fencing, electrical interlocks, light screens, and pressure sensitive mats. If GM had intended to install the Opticell Robotic System only temporarily, it could have installed it with less sophisticated or permanent safety equipment, such as extended perimeter fencing. Miller Direct ¶ 152.

c) The Opticell Robotic System is flexible, in that it is large and precise enough to measure every type of part produced by a stamping press at LDT. Moreover, because the FANUC robot and the Optigo can be reprogrammed, the Opticell Robotic System should be able to inspect any products produced at LDT for the foreseeable future. Miller Direct ¶ 152.

557. Plaintiff's claims as to GM's lack of intent to install the Opticell Robotic System permanently are not supported by the evidence:

a) Contrary to Mr. Goesling's claims, removal of the Opticell would not be "simple." De-installation would pose a risk of damaging the asset and would result in the scrapping of lag fasteners, conduit, wiring, and holdings tools. Miller Direct ¶ 154. In addition, cut-off lag fasteners, painted surfaces, electrical utilities, and data connections would all need to be remediated. Miller Direct ¶ 155.

b) It would make no sense for GM to have expended the large amount of money required to design and build the stamping facility at LDT only to have production hindered or shut down by removal of the Opticell Robotic System. This is a strong indication that GM intended the Opticell Robotic System to be permanently installed at LDT. Miller Direct ¶ 156.

c) Mr. Goesling's claim that GM treated the Opticell Robotic System like a piece of moveable equipment is not supported by the record. *See* Goesling Direct ¶ 91; Tr. 1152:5-1154:9. Mr. Miller testified that he had never seen an Opticell Robotic System moved within any plant that he managed. Tr. 1157:5-12.

d) That an unexpected expansion of the LDT body shop required a one-time relocation of the Opticell Robotic System over its 10-plus years of otherwise operating in place does not mean GM intended to install it temporarily or move it regularly when it was installed. Rather, that GM originally installed the Opticell Robotic System in a specially prepared space (with perimeter fences bolted into the floor and other safety equipment) demonstrated its intent that the Opticell Robotic System remain in that location for its useful life. Miller Direct ¶ 158.

e) Mr. Goesling's claim that there were 20 "similar" assets that moved from GM plants is not probative of GM's intent with respect to the Opticell Robotic System. First, 17 of these 20 assets came from plants that were either closed or idled as part of the bankruptcy process. Miller Direct ¶ 159; DDX604 at 1. Two of the three remaining assets share an asset identification number and are likely only one asset. Miller Direct ¶ 159. Of the remaining two assets, one was moved from GM MFD Fairfax as part of the consolidation of die manufacturing activities at GM MFD Flint Tool and Die as part of a labor compromise entered into in connection with the GM bankruptcy, and the other asset was an Optigo, a portable white light scanning device that is not similar to the Opticell Robotic System in terms of difficulty of movement. Miller Direct ¶ 160-61; Tr. 1159:6-1160:15.

f) Mr. Goesling has identified no assets similar to the Opticell Robotic System that were sold out of operating plants. DDX-PX350b at 3 (showing no assets similar to an Opticell Robotic System sold out of any operating facility); Tr. 3310:13-3317:19 (Goesling).

g) Mr. Goesling's assertion that GM had a practice of moving measuring systems like the Opticell Robotic System from third party die manufacturers to vehicle assembly plants is not supported by the evidence. It is highly unlikely that a third party die manufacturer would install a full Opticell Robotic System (safety equipment and all) at its die manufacturing operation simply to test dies. Miller Direct Ex. B ¶ 125. If anything, a die manufacturer might use a portable white light scanning device like the Optigo (which is manufactured by the same manufacturer as the Opticell Robotic System). Miller Direct Ex. B ¶ 125. An Optigo is the end-of-arm tool for the Opticell Robotic System, but it can be detached and used to test dies in a portable manner. Tr. 1160:4-15, 1233:7-1234:3 (Miller). However, a full Opticell Robotic System is a network of fixed components that are not readily moveable and could not be used for die construction verification as configured at LDT. Miller Direct Ex. B ¶ 125.

2. LDT Body Shop Assets

558. Eric Stevens testified about the five Representative Assets in LDT's body shop. As noted, Mr. Stevens was a credible expert with 35 years of experience in manufacturing engineering at GM, during which he served in a variety of executive positions overseeing the design, installation, and major upgrades of all of GM's manufacturing assets around the world. Stevens Direct ¶ 1. In those roles, Mr. Stevens was responsible for approving the design and specifications of manufacturing equipment, supervising the installation of equipment, and supervising the pre-production, tryout, and startup of equipment in body shops (among other operations) in plants in North America and around the world. Stevens Direct ¶ 16. For example, Mr. Stevens was heavily involved in the development of the body shop for Shanghai GM. Stevens Direct ¶ 17. As noted, Mr. Stevens was also personally involved in the planning and equipment specifications for LDT. Stevens Direct ¶¶ 6-7; Tr. 101:19-102:3 (Stevens).

559. LDT's body shop takes panels stamped in LDT's stamping area (a separate area of the same building), as well as panels stamped by third-party suppliers, and welds them into ready-to-paint vehicle bodies or "Bodies in White." This process starts with the creation of a number of vehicle frame subassemblies, such as the left- and right-side vehicle body inner and outer frames, the vehicle floor pan, the main motor compartment, and the rear compartment. These subassemblies are created in robot weld cells, then delivered by custom conveyance systems (many overhead) automatically to the framing mainlines, where the subassemblies are welded into a complete vehicle frame. At that point, another conveyor takes the complete vehicle frame to the Body in White Final line where doors, hoods, fenders, and similar components are installed, and the complete vehicle body is then delivered by another conveyor automatically to the LDT paint shop. Stevens Direct Ex. A at 6, 11, 13, 14. As with the rest of LDT, the machines in LDT's body shop are capable of handling not only the GM vehicles currently assembled there, but many anticipated future models as well. Stevens Direct ¶¶ 59-61.

560. The body shop at LDT was specifically designed and adapted to hold the manufacturing processes and assets GM intended to put in operation in the building. Among

other things, the structure was built to accommodate the “kinds of loads that would have been applied from the various mezzanine level conveyors that were part of that process requirement for the building,” mezzanines were added to the building to allow for robots to perform overhead welds and conveyors to travel overhead, and a special clean room was built separately from the rest of the body shop to allow for precision quality assurance testing. Tr. 20:8-13 (Stevens); Stevens Direct ¶¶ 173, 202, 214, 224. The custom design of the body shop building around the specific manufacturing assets installed therein, including the five Representative Assets, is strong evidence of GM’s intent to permanently install those assets at LDT.

Asset 12: Overhead Body Shop Welding Robot⁶³

561. The Overhead Body Shop Welding Robot is a critical part of the outer framing station at LDT. The outer framing station integrates 10 robots, other welding equipment, and a conveyor into a single system. The outer framing station welds body components, delivered into the framing station by a conveyor, into a complete outer vehicle body or “frame” that is ready for assembly with the inner “frame,” for quality control, and for painting. Stevens Direct ¶ 168. A video played at trial demonstrated an integrated framing station like the one in which the Overhead Body Shop Welding Robot is installed. Tr. 177:15-178:9 (Stevens); DX1084.

562. Two of the 10 robots in the outer framing station, one of which is this asset, were lifted and bolted to the top of a mezzanine structure that was designed and installed specifically to support the overhead robots in a location where they could place structural welds on the upper section of each vehicle body. Stevens Direct ¶ 169; JX1164; JX1166. The mezzanine structure was bolted extensively to the reinforced concrete floor. The Overhead Body Shop Welding Robot is integrated with a conveyor that carries the outer frame of the vehicle body through the mezzanine structure and under the Robot to allow it to make approximately 10 welds on the upper section of each vehicle body. Stevens Direct ¶¶ 168, 169, 171, 172; JX1174.

⁶³ Asset Handbook at 20-21; Stevens Direct ¶¶ 168-81 & Ex. A at 16-19.

563. The outer framing station (of which the Overhead Body Shop Welding Robot is a part) is in turn a part of an extended, integrated, fully-automated framing line at LDT that includes approximately 30 welding stations. The outer framing station is positioned along a series of conveyors that run 10,000 feet and take all of the stamped and welded portions of each vehicle body and welds them together into a complete vehicle body ready for painting in LDT's paint shop. Stevens Direct Ex. A at 17.

564. **Attachment.** The parties agree this asset is attached to the realty. Goesling Direct ¶ 60. The Overhead Body Shop Welding Robot weighs approximately 2,000 pounds. Stevens Direct Ex. A at 17. It is attached to the building through bolts to a large steel mezzanine, which is in turn extensively bolted to the floor. Stevens Direct ¶¶ 169, 171, Tr. 180:8-18 (Stevens). The Robot is also attached through connections to plant utilities. Stevens Direct ¶ 171.

565. **Adaptation.** The facility is clearly adapted to the Robot, which is mounted to a large steel mezzanine that was purpose-built to hold the Robot above the mainline conveyor. Stevens Direct ¶ 172. The Robot is also adapted to GM's use of the LDT facility, as it is a necessary part of LDT's outer framing station, a critical step in the vehicle production process. *Id.* Mr. Goesling conceded that this asset, like the other Representative Assets at LDT, is an integral part of LDT and that GM's operations at LDT depend on its presence. Tr. 3205:10-20.

566. **Intent.** The following facts all strongly support a finding that GM intended to install the Overhead Body Shop Welding Robot permanently at LDT:

a) The Overhead Body Shop Welding Robot performs a critical function in LTD's integrated body shop. Stevens Direct ¶ 168, 173. In its absence, the entire framing station would either need to shut down or have significantly reduced capacity until the Robot could be replaced, costing GM a significant loss in revenue and reducing the value of its \$1.5 billion investment in the LDT facility. Stevens Direct ¶ 176 & Ex. B ¶ 6. The Overhead Body Shop Welding Robot is thus a part of the highly-integrated production systems that GM designed for the LDT facility. *See* Section VII above.

b) The Robot is a flexible asset that can be reprogrammed in place to perform welds on many different models. Stevens Direct ¶ 173. The design, installation and use of the Robot is consistent with the lean and flexible manufacturing strategies adopted by GM to maximize its ability to use fixed assets in place for their useful lives. *Id.*; *see also* Tr. 75:24-76:12 (Stevens); Section VII above.

c) The degree of adaptation of the Robot is strong evidence of intent. GM built an entire welded-together mezzanine support structure to hold this and the other overhead robot on the outer framing line at LDT, and GM incorporated the framing station that included the Robot into an integrated line that produces completed vehicle bodies. Stevens Direct ¶ 173; Tr. 93:20-95:15. The installation of the Robot in this manner was no simple task, and removing it would be difficult. Stevens Direct ¶ 173. GM's adaptation of the LDT building in this way indicates that GM intended the Robot to operate in the particular place in which it was installed for its useful life. *Id.*

d) Since its installation in 2006, the Robot has not been moved from its original location. *Id.* ¶ 180. Maintenance and repairs of such robots are performed in place. Tr. 96:20-24 ("The Court: And at any time since it was initially installed, has it been removed, repaired, replaced?" Stevens: "No, it hasn't."); Tr. 99:10-17 (Stevens) ("The repairs were always done in place. . . . And it would have been done, you know, on an emergency basis if necessary maybe over a weekend or something like that.").

567. Plaintiff's claims as to GM's lack of intent to install the Robot permanently are not supported by the evidence:

a) Contrary to Mr. Goesling's view, the Robot could not be "easily" removed. Removal would be difficult given its overhead position; a crane would have to lift the Robot out of the compact space on top of the mezzanine. Stevens Direct Ex. B ¶ 9.

b) Mr. Goesling's testimony that robots are "substitutable" also does not support a finding that the Robot is personal property. Tr. 3060:12-23. To the extent Mr. Goesling meant that robots are flexible and adaptable, Tr. 3060:24-3061:11, these attributes

support the conclusion that GM intended for the Robot to remain in place permanently. Once installed, the Robot can perform a variety of tasks, and would not have to be replaced with a new robot whenever the precise contours of the work shifted. To the extent that Mr. Goesling meant that individual robots could easily be swapped in or out, Mr. Goesling is mistaken. The Robot is part of an integrated cell, and it would not be practical to replace an individual asset like the Robot on its own. Stevens Direct ¶ 46. GM also did not keep substitutes on hand to “swap in and out.” Tr. 99:3-6 (Stevens).

c) The engineering design and method of attachment of the Overhead Body Shop Welding Robot do not support plaintiff’s claim that GM did not intend for the Robot to remain in place for its useful life. The Robot was affixed in its position with bolts as opposed to welds because bolts are a more effective permanent method of attachment, better able to handle the vibration and movement of the Robot, not to facilitate removal. Tr. 180:8-181:11 (Stevens) (motion of Robot would make welds unwise method of attachment; the number of large bolts are a significant means of attachment); Tr. 95:23-96:10 (Stevens) (same); Section VIII.A.1 above. The use of quick connect electrical connections was likewise to facilitate installation and maintenance, not to facilitate removal. Section VIII.A.2 above.

d) Mr. Goesling’s claim that 1,506 assets similar to the Overhead Body Shop Welding Robot were moved by GM is not supported by the evidence. *See* PX22. As set forth in Section VIII.B, Mr. Goesling never explains how he selected similar assets and improperly counts line items instead of assets, rendering his movement analysis unreliable. Mr. Stevens analyzed each of the 1,506 line items identified by Mr. Goesling as “similar” and found that only 799 might be similar in form, fit, and function to the Overhead Body Shop Welding Robot. Of those 799 potentially “similar” robots, 655 were moved out of closed or idled plants, leaving only 144 moves out of non-idled plants. Stevens Direct ¶ 178. Mr. Goesling’s analysis does not take into account GM’s large installed base of robots, and nowhere tries to determine the frequency of movement of robots like this compared to that installed base of robots. Stevens Direct ¶ 178; PX 22. In fact, at most 1% of over 20,000 robots installed at GM ever moved

outside of extraordinary circumstances. Stevens Direct ¶ 179. When viewed in context, the movement of only such a small fraction of GM's robots supports the conclusion that it was GM's intent that the Overhead Body Shop Welding Robot would remain in place for its useful life.

e) Mr. Goesling asserts that there is an "active" secondary market for robots. Goesling Direct ¶ 155. The fact that a secondary market exists for robots generally is not probative of GM's intent when it installed the Overhead Body Shop Welding Robot, given that GM buys manufacturing assets new and does not consider future sales when installing manufacturing assets. Section VIII.B.3 above. In any event, Mr. Goesling identifies no sales by GM itself of similar assets in the secondary market apart from sales out of closed plants. Tr. 137:12-139:9; DDX-PX-350b at 3.

f) Mr. Goesling provides no evidence that the retirements of robots were unusual or indicative of GM's intent not to install the Robot permanently. Section VIII.B.2 above.

Asset 17: Overhead Power and Free Conveyor⁶⁴

568. The Overhead Power and Free Conveyor (the "P&F Conveyor") is an overhead conveyor system that weighs over 400,000 pounds and is attached to a steel I-beam structure with some 1,200 bolts. Stevens Direct ¶ 209, JX1268, JX 1260, Tr. 174:4-175:11. The asset includes white steel hangers and a mezzanine structure. Stevens Direct Ex. A at 22-23.

569. The P&F Conveyor plays a critical role in body assembly, traveling over 2,000 feet overhead to transport the left side subassembly of the vehicle frame from the subassembly cell area of the body shop, to a framing station on the main framing line, where the left side of the vehicle is welded to other body components to make a complete frame. Without this asset, the body shop, and therefore all of LDT, could not function. Stevens Direct ¶ 210, Tr. 173:3-14 (Stevens). GM installed the asset at a cost of \$1.6 million. Stevens Direct Ex. A at 21.

570. **Attachment.** The parties agree this asset is attached to the realty. Goesling Direct ¶ 60. As noted, the P&F Conveyor is attached by some 1,200 bolts connecting it to the

⁶⁴ Asset Handbook at 22-24; Stevens Direct ¶¶ 209-18 & Ex. A at 20-24.

steel I-beam structure. In addition, the Conveyor is attached at over 100 connection points to the electrical system and to safety systems, including kill switches and safety screens. Stevens Direct ¶ 212, Tr. 174:9-175:6 (Stevens).

571. **Adaptation.** The P&F Conveyor is adapted to GM's use of the LDT facility, as it is a necessary part of LDT's body assembly operation, a critical step in vehicle production. Mr. Goesling acknowledged that this asset, like the other Representative Assets at LDT, is an integral part of LDT and that GM's operations at LDT depend on its presence. Tr. 3186:22-3187:8. The facility is also adapted to the P&F Conveyor — GM specified that the building's structural components would need to be strong enough to withstand the loads exerted on the columns and trusses by the Conveyor and its associated drives, mezzanine, and white steel. Stevens Direct ¶ 210; Tr. 175:7-11 (Stevens) (structural engineer had to determine how to safely install the overhead P&F Conveyor). The unique shape and route of the Conveyor was also dictated by building constraints and the footprint of the body shop processes it supports. Stevens Ex. A. at 22, JX1267.

572. **Intent.** The following facts all strongly support a finding that GM intended to install the P&F Conveyor permanently at LDT:

a) The P&F Conveyor is attached to the building, and the Conveyor and the building are adapted to one another, to an extraordinary degree that evidences that it was GM's intent that the P&F Conveyor be permanently installed. Specifically, GM built a specialized overhead mezzanine platform suspended from the building structure to support the P&F Conveyor and attached the Conveyor and mezzanine to steel trusses at over 1,000 points. Stevens Direct ¶ 214; JX1260. Given the extraordinary weight and unusual path of the asset, a structural engineer would have been needed to determine how to safely secure the asset. Tr. 175:7-11 (Stevens). If GM were ever to remove the P&F Conveyor, the white steel and mezzanine would have to be scrapped. Stevens Direct Ex. A at 22.

b) When GM designed the LDT facility, it recognized the need for a permanent conveyance system to transport welded auto body parts thousands of feet so that body

assembly could be completed. The P&F Conveyor plays that role; without it, production in the body shop and LDT as a whole would slow to a crawl or stop entirely. Stevens Direct ¶ 214.

c) The P&F Conveyor was designed to be flexible and to support various vehicle platforms and models, such that reconfiguration or removal is unnecessary in the event of a model change or update. Stevens Direct ¶ 214.

573. Plaintiff's claims as to GM's lack of intent to install the P&F Conveyor permanently are not supported by the evidence:

a) Mr. Goesling again points to the fact that the P&F Conveyor arrived in "sections" as a basis for concluding that it can be easily moved and therefore that GM must have intended to do so. Goesling Direct ¶ 141. To the contrary, modular design was chosen to facilitate installation, not removal. Section VIII.A.3 above. It is difficult to imagine how a conveyor system that travels more than 2,000 feet through multiple elevations and weaves through the body shop could have been dropped into the plant in one piece. As a matter of engineering principles, this practical need for the Conveyor to come in sections is not evidence that GM intended to then pull apart the P&F Conveyor or move it around. Stevens Direct ¶ 215; *see also* Tr. 108:18-22 (Stevens).

b) Mr. Goesling also asserts without any detail that this asset has "relatively minimal points of attachment." Goesling Report ¶ 141. This assertion is not true. Tr. 174:4-175:6 (Stevens) (thousands of connections to the realty, not "minimal attachment").

c) Mr. Goesling's opinion that "GM did not intend to permanently annex" this asset (Direct ¶ 141) is also inconsistent with his valuation of the asset. Mr. Goesling values the P&F Conveyor at \$24,000 if it were to be removed (after deducting 50% for the cost of removal), a tiny fraction of the more than \$1.6 million that GM spent to install the asset in 2006. Goesling Direct ¶ 412 & Ex. A at 385. Relatedly, while Mr. Goesling asserts that at least "components" of "similar" assets were traded on the secondary market (Direct ¶ 140), as noted Mr. Goesling himself values the entire P&F Conveyor at scrap — including its components. Goesling Direct Ex. A at 385; *see also* Levy Depo. 32:21-33:2 ("large overhead conveyors" sold

for scrap “[d]ue to the cost of removal”). Moreover, Mr. Goesling was not able to identify any assets similar to the P&F Conveyor sold out of GM plants, even closed plants. PX-347; DDX-PX350b at 3. Mr. Goesling’s valuation, which recognizes that the P&F Conveyor would have minimal value upon removal and would be scrapped, as well as the lack of any evidence of a secondary market for this asset, is irreconcilable with his theory that GM went to the trouble of building an elaborate system to install this expensive and critical asset intending for it to be removed and reused before the end of its useful life. Stevens Direct ¶ 217.

d) Although Mr. Goesling also fleetingly refers to GM’s “movement of similar assets” (Direct ¶ 141), he offers no examples, and indeed explicitly states that it is “Unknown” whether GM ever relocated similar assets, *id.* ¶ 140. There is no data or analysis supporting Mr. Goesling’s position on this point. *See also* Stevens Direct Ex. B ¶¶ 29-30.

e) Relatedly, the existence of a secondary market is not relevant because GM purchased assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3 above.

Asset 13: Weld Bus Ducts⁶⁵

574. The Weld Bus Ducts play a critical role in the LDT body shop, carrying electrical power from the Central Utilities Complex to the welding equipment installed throughout the body shop. The ducts run over 10,000 feet in length. Stevens Direct ¶ 182; JX 1186 (video played at trial); Tr. 182:10-183:7, 185:5-23 (Stevens).

575. Given the importance of the Weld Bus Ducts, their layout was determined at the time LDT was built to align with the layout of the framing line and subassembly cell configuration, so that the Weld Bus Ducts would be capable of supporting all of the welding equipment that GM had specified for installation in the LDT body shop. The layout of the Weld Bus Ducts was also designed for flexibility to allow for the attachment of additional body shop welding equipment in the future. Given the broad expanse of the Weld Bus Ducts throughout the

⁶⁵ Asset Handbook at 25-26; Stevens Direct ¶¶ 182-95 & Ex. A at 26-29.

LDT body shop, removal would take weeks and would cause the LDT body shop, and by extension all of LDT, to be idled until an identical asset was put in place. Tr. 182:18-185:4 (Stevens); Stevens Direct ¶ 183.

576. **Attachment.** The parties agree this asset is attached to the realty. Goesling Direct ¶ 60. The Weld Bus Ducts are attached using a series of unistrut supports and hangers, nuts, bolts, threaded rod hangers and clips in an arrangement typically repeated every ten feet. The Weld Bus Ducts are connected to the custom engineered plant electrical power grid in the CUC, and to bus duct plugs, weld cables, and weld controllers. Stevens Direct ¶ 185; Tr. 185:5-185:23.

577. **Adaptation.** The Weld Bus Ducts are adapted to GM's use of the LDT facility. They were engineered by GM to specifically fit the constraints of the LDT body shop layout and provide for the current and anticipated stable electrical and balanced load needs of LDT's welding operations. As such, the Weld Bus Ducts are clearly necessary to GM's operations at LDT and adapted to the facility. Stevens Direct ¶ 186; Tr. 182:18-185:4. Mr. Goesling acknowledged on cross that this asset, like the other Representative Assets at LDT, is an integral part of LDT and that GM's operations at LDT depend on its presence. Tr. 3205:10-20.

578. **Intent.** The following facts all strongly support a finding that GM intended to install the Weld Bus Ducts permanently at LDT:

a) When GM designed and planned the LDT body shop, it was critical to install an electrical system that would ensure stability and reliable delivery of proper amperage, while also being sufficiently distributed to anticipate future needs. LDT will require this extensive electrical system as long as it is in operation. GM intended for the Weld Bus Ducts to operate in place for their useful life. Stevens Direct ¶ 187.

b) The degree of attachment and adaptation is also strong evidence of intent. There are almost two miles of Weld Bus Ducts, attached at more than 1,000 points throughout the LDT body shop in a layout specifically designed to handle the process equipment and meet the current and anticipated future electrical load requirements of the body shop welding

operations. This shows that GM installed this critical equipment with the intent that it would remain in place for its useful life. Stevens Direct ¶ 187, Tr. 182:20-25.

c) The Ducts are routed across the body shop and have been engineered to accommodate easy addition or removal of bus plugs to the busway. Because of this flexible design, the Weld Bus Ducts can be used with different body styles, models and welding equipment, and thus need not be removed or reconfigured before the end of their useful life. Stevens Direct ¶ 187.

579. Plaintiff's claims as to GM's lack of intent to install the Ducts permanently are not supported by the evidence:

a) Mr. Goesling claims that the "modular" design of the Weld Bus Ducts makes them easy to remove and reconfigure and that GM intended to do so. Goesling Direct ¶ 161. However, the "modular" design of the Weld Bus Ducts was selected because modular assets are easier and cheaper to install, not because they are easily removed once installed. Stevens Direct ¶ 189; *see* Section VIII.A.3 above. To the contrary, even though the Weld Bus Ducts came in sections, removal of nearly two miles of Weld Bus Ducts would be arduous, difficult and costly. It would take a week of planning by an engineer, followed by a month of labor by a team of ten people to execute the removal, at a labor cost of approximately \$150,000, with complex and specific safety protocols in place concerning fall protection, rigging, overhead work, and mobile equipment traffic, complicating any removal effort. At least some sections would likely be damaged during the process of removal. The extensive system of hangers (including threaded rods, UniStrut brackets, and clips) and unique connection elbows and tees would likely need to be scrapped, representing a loss of approximately \$250,000. Removal would also destroy the value of the expensive installation costs for this extensive asset. Removal of the Weld Bus Ducts would also immediately result in the shutdown of all welding operations in the body shop, eventually necessitating shutdown of the entire LDT plant. Stevens Direct ¶ 190-92. In sum, removal would be anything but "easy."

b) Mr. Goesling cites GM's "documented re-use of busways" as evidence that GM did not intend for the Weld Bus Ducts to remain in place. Goesling Direct ¶ 162. To the contrary, the relative scarcity of instances when GM moved weld bus duct sections confirms GM's intention to leave these systems in place for their useful lives. The only examples of movements of similar assets occurred when GM closed the GM Assembly Pontiac East and GM MFD Grand Rapids plants. GM's attempt to reuse bus duct assets out of those closed facilities rather than scrap them does not indicate that at the time GM installed the Weld Bus Ducts at LDT (or the similar assets at Pontiac East or Grand Rapids) it did so with the intent that they would be moved before the end of their useful lives. Stevens Direct ¶ 194.

c) Similarly, although Mr. Goesling states that "similar" assets were traded on the secondary market (Direct ¶ 159), Mr. Goesling identifies no bus ducts that were sold from GM out of operating facilities — only closed facilities. DDX-PX350b at 3 (showing no assets similar to the Weld Bus Ducts sold out of any operating facility); Tr. 3301:24-3302:6 (Goesling). And as discussed, even if there were a secondary market, given that GM buys its assets new and does not consider the secondary market at the time of installation, such a secondary market provides no evidence of GM's intent. *See* Section VIII.B.3 above.

d) Mr. Goesling also suggests that the Weld Bus Ducts are not fixtures because bus duct systems were introduced in 1932 to provide a flexible power distribution system, in place of the "more permanent" systems that preceded them. Goesling Direct ¶ 160. Mr. Goesling lacks the engineering and manufacturing background to draw inferences about GM's intent from this industrywide shift. In fact, from an engineering perspective, bus ducts' flexibility is valuable, not because it allows bus ducts to move around, but because it allows custom configurations to be installed upfront and maximizes the opportunity for the bus duct power supply network to *remain in place*; it also permits easier maintenance than earlier hard-wired systems. Tr. 183:23-185:4 (Stevens). As Mr. Stevens testified, the transition to bus ducts was not intended to facilitate removal or movement; indeed, the Weld Bus Ducts are attached in over a thousand places and would be challenging to remove. Tr. 184:20-22, 185:18-23.

e) Unlike most of the assets, for the Weld Bus Ducts, Mr. Goesling asserts that GM's property tax classification as "real property" — contradicting his own conclusion that it is personal property — is not relevant. Goesling Direct ¶ 163. This is inconsistent with Mr. Goesling's assertions with respect to other assets, and underscores that GM's personal property tax classifications are irrelevant in determining GM's intent. *See* Section VIII.D above.

Asset 19: Full Body Coordinate Measurement Machine ("CMM")⁶⁶

580. The Full Body Coordinate Measure Machine ("CMM") played a significant role in quality control at LDT, measuring a sample of welded car bodies from the body shop to determine whether the equipment and tooling that produced those car bodies met the precise tolerances required by GM's manufacturing process. Stevens Direct ¶ 219; JX30 at 2; DX1007; Tr. 151:15-152:19, 331:9-19 (Stevens).

581. Because obtaining accurate readings from the CMM was critical to the manufacturing processes at LDT, the CMM had to be housed in a highly specialized environment. GM installed the CMM in a pit that was specially engineered for the CMM's custom isolation foundation and then constructed a climate-controlled room with a separate air-conditioning system to house the asset to prevent metal expansion and contraction during testing. Stevens Direct ¶ 220; DX1006.

582. The CMM operated in place for nine years (2006 to 2015). Stevens Direct ¶ 226. By 2015, different and better technology allowing all car bodies to be tested during production emerged. As a result of this new technology, instead of removing a small sample of products for testing by the CMM, GM could deploy testing machines on the production line itself that would measure 100% of the products coming down the line in real time. Tr. 332:20-333:20 (Stevens); Tr. 334:8-14 (The Court: "Do you agree that this asset became obsolete because of different technology?" Stevens: "Correct. There are better and simpler ways to measure 100 percent of your production in realtime rather than after the fact.")). As a result, GM idled and then removed

⁶⁶ Asset Handbook at 27-30; Stevens Direct ¶¶ 219-30 & Ex. A at 30-33.

the CMM, leaving the second full-body CMM in place to audit the results of the quality control systems on the assembly line. Stevens Direct ¶ 227, Tr. 333:25-334:7 (Stevens).

583. **Attachment.** The CMM was attached to the building by being installed in a specially designed pit and then affixed to the customized pit and foundation with bolts and screws. It was also constructively attached by its approximately 100,000 pound weight alone. Stevens Direct ¶ 222 & Ex. A at 31. Mr. Goesling asserts that this 50 ton asset installed in a custom pit was not attached, Goesling Direct ¶ 60, but in his discussion of the asset acknowledges that the “BS CMM was mounted in a concrete lined pit . . . with the surface plate flush with the building floor” and never otherwise addresses attachment. *Id.* at 164-65; *see also* Goesling Direct Ex. A at 152-55 (also not addressing attachment). Moreover, as discussed below (*see* Section XIII.B.3), Mr. Goesling acknowledges that he did not consider constructive attachment. In any event, there is no credible evidence that the CMM was not attached to the LDT realty.

584. **Adaptation.** The CMM was clearly adapted to GM’s use of the LDT facility, as it allowed GM to conduct precise quality measurements on a sample of welded auto bodies before sending them to the paint shop. Mr. Goesling acknowledged on cross-examination that this asset, like the other Representative Assets at LDT, is an integral part of LDT and that GM’s operations at LDT depend on its presence. Tr. 3205:10-20. The facility was also clearly adapted to the CMM. The CMM required a unique narrow band controlled air conditioned environment to prevent metal expansion and contraction during testing, and it required a customized pit and foundation to isolate it from ground vibrations. Stevens Direct ¶ 223 & Ex. A at 32.

585. **Intent.** The following facts all strongly support a finding that GM intended to install the CMM permanently at LDT:

a) The degree of attachment and adaptation is strong evidence of intent. The CMM was not just bolted to the floor, but was housed in a specialized environment, starting with excavation of a customized pit to house a foundation for the CMM to avoid floor and ground vibration. This process rendered the space unusable for any other purpose without significant rehabilitation, indicating that GM intended the CMM to remain in place. The CMM was also

housed in a specialized operating environment built to house the CMM and the other coordinate measurement machine, with narrow band air conditioning to maintain a specific temperature and avoid distortion of the metal components being analyzed. Stevens Direct ¶ 224.

b) The CMM was flexible and programmable to quickly accommodate model changes, further evidencing GM's intent to keep it in place for its useful life. *Id.*

c) The CMM was an integrated part of the manufacturing process. Parts, assemblies, or full bodies in white were moved into the CMM room, inspected, then returned to the production. The data from each CMM inspection was shared throughout the factory to allow for necessary maintenance or corrections. Stevens Direct Ex. A at 31.

d) The CMM was operated in place until replaced by new machines more suitable for performing the same task. At that point, the CMM was removed at significant expense and scrapped. Tr. 333:10-334:14 (Stevens).

586. Plaintiff's claims as to GM's lack of intent to install the CMM permanently are not supported by the evidence:

a) As noted, the CMM was installed in a pit specially dug to hold it. Mr. Goesling appears to assert this is not relevant because GM capitalized the CMM and its pit under separate asset IDs. Goesling Direct ¶ 165. This elevates form over substance. The pit was dug, at great expense, specifically to hold the CMM. GM could have capitalized that installation cost in the same line item as the CMM, as it did with the Vertical Channel Holding Furnace (Asset 28). Goesling Direct Ex. A at 214 ("It is my understanding that the asset was comprised primarily of a vertical channel holding furnace, a pit with foundation . . ."). That GM capitalized the two components of a single system in separate line items here does not alter the substance — the pit was an installation cost for the CMM that was of no use after the CMM was removed, and required extensive and expensive remediation before this area of LDT could even theoretically be reused. Stevens Direct ¶ 225. Because of the pit, removal of the CMM would have left an open hole in the floor that would need to be filled with concrete and then left to cure for 20-30 days. Stevens Direct Ex. A at 32. In fact, although the hole has been filled, evidence of the past

damage can still be seen. *Id.* That damage can be repaired does not mean an asset is not a fixture. Anything is potentially capable of remediation — walls and roofs can be repaired and enormous holes can be filled. Stevens Direct ¶¶ 226-28. *See* Section VIII.A.4 above.

b) Mr. Goesling contends that because the CMM was in fact removed from LDT in 2015, it could not have been intended to be permanently attached when GM installed it in 2006. Goesling Direct ¶ 168. As discussed above, by 2015, technological advancements allowed GM to move more body quality control checks to the production line in real time, and GM thus removed this CMM from the facility. As a result, GM was able to achieve the same or better level of quality control by installing new equipment on the main framing line more suitable for the purpose that the CMM machine served. Stevens Direct ¶ 227.

c) Mr. Goesling asserts that assets like the CMM have been “moved” among GM facilities. Goesling Direct ¶ 169. However, all but one of the supposedly “similar” assets that Mr. Goesling identified are smaller machines designed to measure components, not full car bodies. Notably, these smaller units have internal air bearings and isolation, rather than isolation foundation pits as for this Full Body CMM. Stevens Direct ¶ 229. And the one “similar” asset Mr. Goesling actually identified was removed from a closed plant (Moraine). *Id.* & Ex. B ¶ 58. This is consistent with Mr. Stevens’ experience that such assets are not moved except upon the permanent closing of a facility or, as in this situation, technological obsolescence. *Id.*

d) Similarly, despite Mr. Goesling’s claim that a secondary market for assets “similar” to the CMM exists (Direct ¶ 167), only five of the 60 sales he identified were out of active facilities. DDX-PX350b at 3; *see also* Tr. 3301:24-3302:6. From their descriptions alone, however, it is clear that a number of these assets are not “similar” to the CMM: the devices were generally described as either “Manual” or “Portable” (DDX-PX350b at 3) — unlike the CMM here, which was firmly installed in a pit dug for it and had an installed cost of \$354,000. Stevens Direct Ex. A at 31. In any event, even if there were a secondary market for similar machines, it would not be relevant because GM purchased assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3 above.

Asset 16: Skid Conveyor⁶⁷

587. The Skid Conveyor, also known as the “LAZA Conveyor,” is an overhead conveyor system in the body shop that carries fully welded bodies, each weighing 1,000 pounds, overhead from the outer framing or “LAZA” zone to the Body in White final line, where the doors, hood, lift gate and fenders are attached to create a full Body in White. From there, the Body in White is conveyed to the paint shop. Stevens Direct ¶ 196; JX1259 (video).

588. In addition to the 1,000 foot-long conveyor, this asset includes a custom built mezzanine for structural support. The conveyor portion is attached to the mezzanine by hundreds of bolts and screws; the mezzanine is connected to the white steel and building trusses with hundreds of bolts. The conveyor system weighs at least 400,000 pounds. Stevens Direct ¶ 197.

589. Production at LDT would significantly slow or even halt entirely without the Skid Conveyor, as any workaround, such as human-operated manual vehicles or “tuggers,” would be a far less efficient way to transport 1,000-pound vehicle bodies 1,000 feet. Stevens Direct ¶ 198.

590. **Attachment.** The parties agree this asset is attached to the realty. Goesling Direct ¶ 60. The conveyor portion is attached to the mezzanine by approximately six hundred bolts and screws. The mezzanine is in turn connected to approximately forty white steel and building trusses with over 400 bolts. Turntables of the conveyor are bolted to the mezzanine. Staircases are attached to the white steel and to the building. Finally, the conveyor is connected to the building’s electrical system through a covered cable tray; each power roller bed is wired to electrical drive motors. Stevens Direct ¶ 72 & Ex. A at 37.

591. **Adaptation.** The Skid Conveyor is adapted to GM’s use of the LDT facility, as the body shop and the entire facility rely on it to transport welded bodies from the framing zone to the final line for delivery to the paint shop, a critical step in the vehicle production process at LDT. The Skid Conveyor is also extensively adapted to the facility. It follows a custom route, utilizing turntables and elevators as needed to address the specific layout of the LDT body shop.

⁶⁷ Asset Handbook at 31-32; Stevens Direct ¶¶ 196-208 & Ex. A at 34-38.

A customized overhead platform, with cutout areas for the elevator system, was also built to hold it. Stevens Direct ¶ 201. The design considered the extraordinary weight (50 to 100 tons) that had to be supported at each location. Stevens Direct Ex. A at 91. Mr. Goesling acknowledged on cross that this asset, like the other Representative Assets at LDT, is an integral part of LDT and that GM's operations at LDT depend on its presence. Tr. 3205:10-20.

592. **Intent.** The following facts all strongly support a finding that GM intended to install the Skid Conveyor permanently at LDT:

a) The degree of attachment and adaptation of the Skid Conveyor is particularly strong evidence of intent. GM extensively adapted the building to accommodate the Skid Conveyor, including by building a mezzanine support structure designed to hold extraordinary loads, supported by 40 white steel beams, to which the Conveyor is attached with hundreds of bolts and screws, two elevators to raise and lower car bodies, and a stair access for plant personnel. Stevens Direct ¶ 202 & Ex. A at 91; Tr. 36:19-23, 111:7-111:12 (Stevens) (testifying that the mezzanine level installation of this asset would not have been used if GM had been planning for the possibility of removal).

b) When GM planned the auto body production process at LDT, it recognized the need for a permanent system to transport 1,000-pound welded body structures through the body shop so that body assembly could be completed. The Skid Conveyor plays that role; without it, production would slow to a crawl or stop entirely. Stevens Direct ¶ 202. Production did not begin at LDT until this asset (and the other manufacturing assets at LDT) were installed and fully functional. Tr. 110:23-112:12 (Stevens).

c) Because the carriers on the Skid Conveyor (which the Term Lenders agree are not fixtures) can easily be modified, the Skid Conveyor is a flexible asset that can remain in place and be adapted to support different vehicle platforms. Stevens Direct ¶ 202.

d) Dismantling the Skid Conveyor would destroy its value; Mr. Goesling assigns it an orderly liquidation value of only \$15,000 versus an original installation cost of \$2.5 million. Goesling Direct ¶ 412. GM would not have expended \$2.5 million and extensive effort

to install this asset intending to remove and scrap it before the end of its useful life. Stevens Direct ¶ 207.

593. Plaintiff's claims as to GM's lack of intent to install the Skid Conveyor permanently are not supported by the evidence:

a) Mr. Goesling asserts that the Skid Conveyor's modular nature is evidence that GM did not intend to install it permanently. Goesling Direct ¶ 145. This is incorrect. The purpose of the modular design was to facilitate its delivery and installation, not its removal once installed. *See* Section VIII.A.3 above. Indeed, given the LDT plant layout, along with the layout of the framing lines which were designed even before the LDT facility was built, it would be impossible to install the Conveyor in any other way. Stevens Direct ¶ 204; *see also* Tr. 109:8-111:12.

b) Removal of this 200-ton, multilevel conveyor system would not be "relatively" easy as Mr. Goesling asserts. Goesling Direct ¶ 145 & Ex. D. By any standard, reconfiguration or removal of the Skid Conveyor would be extraordinarily difficult and complex. Removal would take two weeks of planning by engineers, and three to four months of disconnecting, disassembly, and removal by 12-15 people. Further, removal would result in damage to the building requiring remediation, possible damage to surrounding assets, and the creation of significant scrap and refuse: holes would need to be filled and the many power and communications lines would need to be detached and removed. Moreover, GM would have to choose between potentially hazardous conditions (for workers and assets) or a costly plant shutdown during removal due to the extensive overhead work required. Stevens Direct ¶¶ 204-05.

c) Mr. Goesling also ignores the impact that removal of the Skid Conveyor would have on the LDT facility and its operations. Removal would require GM to immediately shut down both the Outer Body Framing Line and the Final Line, leading quickly to a shortage of painted bodies for assembly. That the Skid Conveyor could theoretically be removed or reconfigured through substantial and costly efforts does not indicate that GM actually intended to move or remove the asset before the end of its useful life. Stevens Direct ¶ 206.

d) Although Mr. Goesling makes a fleeting reference to GM's "movement of similar assets," Goesling Direct ¶ 144, he offers no examples, and indeed explicitly states that it is "Unknown" whether GM ever relocated similar assets, *id.* There is no data or analysis supporting Mr. Goesling's position on this point, and certainly no credible evidence for the Court to rely upon. Stevens Direct Ex. B ¶ 69.

e) Similarly, while Mr. Goesling also asserts that at least "components" of "similar" assets were traded on the secondary market (Direct ¶ 144), he values the entire Skid Conveyor at \$15,000 in scrap value (after deducting 50% for the costs of removal). Goesling Direct Ex. A at 384; Tr. 3446:6-11; Tr. 3444:10-19. Moreover, Mr. Goesling was not able to identify any similar assets sold out of GM plants, even closed plants. PX-347; DDX-PX350b at 3; *see also* Levy Depo. 30:4-12 (conveyors typically not salable). Mr. Goesling's valuation, which recognizes that the Skid Conveyor would have minimal value upon removal and would be scrapped, as well as the lack of any evidence of a secondary market, renders implausible Mr. Goesling's conclusion that GM went to the trouble of building an elaborate system to install this expensive and critical asset with the intention that it would be removed and reused before the end of its useful life. Stevens Direct ¶ 217. In any event, GM purchased assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3 above.

3. LDT Paint Shop (and the GA Paint Mix Room)

594. Steven Topping testified about the five Representative Assets in the LDT paint shop and the one paint-related asset in LDT's general assembly area. Mr. Topping was a credible expert who has worked in dozens of auto manufacturing facilities for more than 30 years. Topping Direct ¶ 1; Tr. 881:14-20. During his 16 years at GM, Mr. Topping was heavily involved in paint-shop processes, including installation, maintenance, and operation of paint-shop assets like the ones at GM's LDT plant. Topping Direct ¶ 1; Tr. 881:21-882:18. Throughout his career, Mr. Topping has held managerial, supervisory, planning, operational, and

hands-on production roles related to the painting of vehicles; he has also been responsible for paint-shop construction, engineering, and design for a number of auto manufacturing companies, including Tesla, Chrysler, and Fisker. Topping Direct ¶ 1; Tr. 881:21-882:8, 883:9-884:6.

595. A paint shop is a complex, enormous, highly integrated operation that requires hundreds of specialized machines to work together with great precision. Topping Direct ¶¶ 31, 37; Tr. 888:17-891:20. At LDT, the paint shop is a \$450 million facility made up of over a mile of conveyance systems that traverse three floors of the building. Topping Direct ¶ 31. At trial, Mr. Topping testified that upon seeing the paint shop during his visit to LDT, it was love at first sight: “she was beautiful.” Tr. 886:24-887:2. Mr. Topping beamed: “I thought she was the purest expression of engineering and the policies and procedures, best practices.” Tr. 887:7-9.

596. It was common at GM to refer to paint-shop assets as “monuments.” Topping Direct ¶ 37; Tr. 886:10-13. Huge paint and oven systems often span three stories, lengthy conveyors cut through floors and ceilings to carry vehicle bodies through paint lines, and heavily integrated paint booths (larger than good-sized houses) are dependent upon embedded waste processing systems. Topping Direct ¶ 37. To ensure this elaborate, synchronized process works correctly, auto manufacturers design and determine how paint-shop assets will be arranged long before they are installed — and, typically, before the paint shop is even built. *Id.* ¶ 38; Tr. 885:6-21. Thus, “installation of some of [the] larger equipment begin[s] before the walls are even complete in the paint shop building.” Tr. 886:6-9. At LDT, for example, the paint shop was constructed around the massive conveyors, paint booths, and paint ovens that operate there. Topping Direct ¶ 39.

597. Given the size, complex configuration, and extensive integration of paint-shop assets, removing any single fixed asset would, in most instances, render the entire process highly inefficient or even inoperable. *Id.* ¶ 41. For that reason, GM designs its paint shops and performs rigorous, continuous preventative maintenance efforts to ensure that each new paint shop functions for at least 30 years. *Id.* ¶ 11; Tr. 884:13-885:5, 887:11-13. The vast majority of fixed paint-shop assets do function, in place, for at least that long. Topping Direct ¶ 11.

Asset 6: ELPO Oven Conveyor⁶⁸

598. The ELPO Oven Conveyor is a 2,000-foot conveyor that weighs over 40,000 pounds, traverses three operating levels of LDT's paint shop, and is bolted at thousands of points to the floor and structural steel. Topping Direct ¶ 43; Tr. 892:11-894:9. The ELPO Oven Conveyor carries vehicle bodies through the curing process for the ELPO operation, and, along the way, serves as a timing mechanism ensuring that each car body spends the appropriate amount of time at the proper temperatures in the ELPO Ovens. These ovens bake a special coating of primer on the vehicle body to prevent rust and provide a uniform surface for the application of subsequent paint coatings. Topping Direct ¶¶ 32, 43; Tr. 896:20-897:8. In short, the ELPO Oven Conveyor is a highly integrated component of the ELPO process (*see, e.g.*, Tr. 899:23-900:2) that moves vehicle bodies through the curing process and signals to other assets when to perform their functions. Topping Direct ¶ 43; Tr. 896:20-897:8.

599. The ELPO Oven Conveyor was engineered for the particular paint ovens it services, and the paint-shop building was designed and constructed to accommodate it. Topping Direct ¶ 44; Tr. 894:10-895:5. For example, GM created vehicle-sized holes in the building's floors and installed structural steel at specific locations along the Conveyor's path to allow it to pass through from level to level. Topping Direct ¶ 44; Tr. 895:24-896:18. The Conveyor's path was custom-designed for GM's process, and some of the segments that provide for elevation changes or a certain turn radius were customized for this installation. Topping Direct ¶ 44. GM spent approximately \$1.1 million to purchase and install the ELPO Oven Conveyor. *Id.*

600. **Attachment.** The parties agree that this asset is attached to the realty. Goesling Direct ¶ 60. In addition to its huge weight (Topping Direct ¶ 43), the asset is attached by thousands of bolts to the concrete floor, to structural steel beams and columns, and to the ELPO ovens (themselves attached to the building). *Id.* ¶ 46; Tr. 897:13-22. It is also connected to electrical cable trays and wiring via specially tracked hard conduit. Topping Direct Ex. A at 18.

⁶⁸ Asset Handbook at 36-38; Topping Direct ¶¶ 43-56 & Ex. A at 16-20.

601. **Adaptation.** The ELPO Oven Conveyor is adapted to GM's use of the LDT facility, as it is a necessary part of the ELPO Process, which is a critical stage in the paint-shop process. Topping Direct ¶ 47. In addition, the facility is adapted to support the Conveyor, which inclines and declines carrying vehicle bodies through holes in the concrete floors and structural steel of the building — from the flash tunnel enclosure on level two, through the ELPO oven on level three, and then back to an empty carrier loop on level one. Topping Direct ¶¶ 44, 47; Tr. 892:11-893:12. As noted, GM also routed utilities via hard conduit to serve this asset. Topping Direct Ex. A at 18.

602. **Intent.** The following facts all strongly support a finding that GM intended to install the ELPO Oven Conveyor permanently at LDT:

a) The ELPO Oven Conveyor is critical to LDT's integrated, \$450 million paint shop, and removing it would render the entire ELPO paint system inoperable — including the ELPO oven, a conceded fixture. Topping Direct ¶¶ 43, 46, 48, 52, 53; Tr. 897:9-12, 897:23-898:7, Tr. 990:14-19. In the absence of the Conveyor, all paint operations at LDT would stop, reducing the value of GM's \$1.5 billion investment in the LDT facility. Topping Direct ¶¶ 48, 52, 53; Tr. 898:3-7.

b) GM built the three-story paint shop at LDT to accommodate the ELPO system, of which the three-story ELPO Oven Conveyor is a component. Topping Direct ¶ 48; Tr. 894:10-895:5. The complexity and size of this installation is evidence of GM's intent for this asset to remain in place for its useful life. Topping Direct ¶ 48.

c) Paint conveyors and the ovens they travel through are almost never removed until the plant building is demolished. *Id.* ¶ 46. In fact, there is no evidence that GM ever removed a large paint-shop conveyor like this one from an operational paint facility for reuse elsewhere. *Id.*; Tr. 900:10-13. On very rare occasions, GM removed large paint-shop conveyors at great cost and with great difficulty when plants were idled or shut down. Topping Direct ¶ 46; Stevens Direct ¶ 126; Tr. 993:8-994:19. For example, Mr. Topping testified that GM removed a paint-shop conveyor system from a plant in Oklahoma City after that plant was

hit by a tornado and shut down. Tr. 993:8-994:6. GM reinstalled the conveyor system in a new building in Spring Hill, Tennessee that was “exactly like” the Oklahoma facility. Tr. 994:7-994:16. Notably, it cost GM “every bit as much money to repurpose the Oklahoma shop” as it would have cost to start from scratch (Tr. 994:7-16); indeed, it may even have cost GM “more to move [the paint-shop conveyor] and reuse it than to buy a new one.” Tr. 995:2-5.

d) The ELPO Oven Conveyor is a flexible asset that can carry any vehicle style or platform type that would be produced at LDT. Thus, regardless of any future platform or model changes at LDT, the ELPO Oven Conveyor could be used in place for its useful life. Topping Direct ¶ 48. *See* Section VII above.

603. The Avoidance Trust’s claims as to GM’s lack of intent to install the ELPO Oven Conveyor permanently are not supported by the evidence:

a) Contrary to Mr. Goesling’s testimony (Direct ¶ 185), GM did not use a “relatively impermanent method of attachment” to install the ELPO Oven Conveyor. As a matter of engineering, and as a matter of common sense, thousands of bolts do not signal impermanence.⁶⁹ Similarly, the use of quick-connect electrical connections was to facilitate installation and maintenance, not to facilitate removal. Stevens Direct ¶¶ 142-45.

b) In fact, removal of the ELPO Oven Conveyor would be very difficult (Tr. 900:3-8) and would require GM to (i) remove portions of the flash-tunnel walls, oven platforms, and oven enclosures; (ii) remove the ELPO oven floor (and potentially the ELPO oven itself); and (iii) uninstall much of the other surrounding equipment that was installed after the ELPO Oven Conveyor and “blocked it in.” Topping Direct ¶¶ 51, 54. This process would require use of heavy, specialized equipment and would also likely cause damage to surrounding assets and to the custom-designed components of the ELPO Oven Conveyor itself. *Id.* ¶ 54.

⁶⁹ The Conveyor was affixed in its position with bolts as opposed to welds because bolts are a more permanent method of attachment, not to facilitate removal. Topping Direct ¶ 43; *see* Stevens Direct ¶¶ 146-47.

c) The modular design of the ELPO Oven Conveyor is not indicative of GM's intent at the time of installation. The asset was shipped in sections to facilitate its installation, not to enable GM to remove or reconfigure the asset before the end of its useful life. Topping Direct ¶¶ 49-50; Tr. 900:14-901:3; *see* Section VIII.A.3 above. Again, as a matter of common sense, the ELPO Oven Conveyor is longer and taller than many buildings and thus could not have been transported to the plant already assembled. Topping Direct ¶ 49; Tr. 900:14-21. Moreover, because the asset snakes through multiple levels of the LDT paint shop and passes through customized openings in the floor, the ELPO Oven Conveyor could not have been installed in the paint shop as-is. It had to be assembled on-site, module by module, in a way that dovetailed with the installation schedule for other equipment that was also being installed before the launch of the LDT plant. Topping Direct ¶¶ 49-50; Tr. 898:8-24; Stevens Direct ¶¶ 130-34.

d) There is no evidence that assets similar to the ELPO Oven Conveyor were moved by GM. PX 22. Mr. Goesling classified only one asset as similar to the ELPO Oven Conveyor, and that asset has an installed cost of \$8,008. Topping Direct ¶ 55; Tr. 901:14-902:4. By contrast, as noted, the installed cost for the ELPO Oven Conveyor was greater than \$1 million. Topping Direct ¶ 55; Tr. 902:5-9. At trial, Mr. Goesling admitted that it “would be inappropriate to suggest that the \$8,000 asset represents the entire ELPO conveyor oven,” and he could not recall what the \$8,000 asset actually does. Tr. 3295:16-25.⁷⁰ His testimony that movement of an \$8,000 asset “is indicative of intent or the ability to move a \$2 million asset” is not credible. Tr. 3296:2-8.

e) The existence of a secondary market for the ELPO Oven Conveyor is not relevant to GM's intent because GM purchased assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3 above. In any event, notwithstanding Mr. Goesling's assertion that “Similar Assets [are] Traded on the Secondary

⁷⁰ Based on its description in eFAST, the \$8,000 item in fact is a piece of a parent conveyor that was shipped to a facility in Grand Rapids — potentially as a spare part. Tr. 901:17-25 (Topping).

Market” (Direct ¶ 184), the Avoidance Trust presented no evidence of any secondary market sales by GM of assets similar to the ELPO Oven Conveyor. PX348; PX350.

f) The Avoidance Trust provided no evidence that the retirements of assets similar to the ELPO Oven Conveyor were unusual or indicative of GM’s intent not to install the Conveyor permanently. *See* Section VIII.B.2 above.

Asset 4: ELPO Waste System⁷¹

604. The Avoidance Trust concedes that this asset is a fixture. The ELPO Waste System asset includes a trench, more than 1,000 feet of piping, and pumps. As the name suggests, the ELPO Waste System captures waste material that drains from tanks used for the ELPO process. The process waste from the ELPO paint system is then gravity-fed into the ELPO Waste System through manually operated valves and piping. The waste flows from the trench to a series of pumps, which then move the ELPO waste from the sump station through the walls and overhead pipes of the paint building to the filtration system at the building’s Central Utility Complex. Topping Direct ¶ 57.

605. The ELPO Waste System is just one component of the larger ELPO system, which along with pre-treatment systems represents roughly 25 percent of the paint shop. *Id.* ¶ 58. Without the ELPO Waste System, the entire ELPO process could not function; and without the rest of the ELPO process, the ELPO Waste System — which the Avoidance Trust concedes is a fixture — would likewise have no value. *Id.*

606. **Attachment.** The parties agree that this asset is attached to the realty. Goesling Direct ¶ 60. The trenches and sump pit are integrated into the building floor and foundation systems, and the pumps and electrical conduit are bolted to the floor. Topping Direct ¶ 60.

607. **Adaptation.** The parties agree that this asset is adapted to the realty. Goesling Direct ¶ 60. If GM were not able to process waste from the ELPO system, all paint operations at LDT would grind to a halt. In addition, the paint-shop building at LDT was designed to

⁷¹ Asset Handbook at 34-35; Topping Direct ¶¶ 57-62 & Ex. A at 22-26.

accommodate the pre-treatment and ELPO system at LDT. In particular, a 450-foot trench was dug into and below the building's ground floor to transport ELPO process waste to the sump, and at the end of the trench, an area was appropriated for the sump and pumps. Topping Direct ¶ 61.

608. **Intent.** The parties agree that this asset was intended to be permanently installed. The following facts all strongly support that finding:

- a) The paint-shop building at LDT was specifically designed to accommodate the ELPO system, of which the ELPO Waste System is a component. The complexity of this installation is evidence of GM's intent for permanence. *Id.* ¶ 62.
- b) Removing the ELPO Waste System would halt the ELPO process and would involve, among other steps, disconnecting multiple utilities and plumbing connections, disconnecting other ELPO assets and the CUC, and disassembling over 1,000 feet of piping and pumps. GM would also have to refill the 450-foot trench with concrete. *Id.*

Asset 5: Paint Circulation Electrical System⁷²

609. The Paint Circulation Electrical System is a more than 2,000-pound set of electrical distribution cabinets that was specifically configured to distribute power to the paint mixing and circulation assets in the paint mix room in LDT's paint shop. Topping Direct ¶ 63; Tr. 907:11-18; Tr. 3256:17-25 (admission by Mr. Goesling that GM "specified to the manufacturer exactly what they needed to do the job").⁷³ As the Avoidance Trust concedes, removal of the asset would, as a functional matter, stop all paint application operations at LDT. Topping Direct ¶ 68; Tr. 3255:23-3256:3 (Goesling). The asset is bolted to a custom 4-inch raised concrete foundation that allows the Paint Circulation Electrical System to sit above the floor, protected from any spill or flood. Topping Direct ¶ 63; Tr. 913:5-18.

⁷² Asset Handbook at 39-40; Topping Direct ¶¶ 63-74 & Ex. A at 28-32.

⁷³ The paint mix room in the paint shop is distinct from Asset 8 (the GA Paint Mix Room), which is located in the general assembly area, not the paint shop.

610. The asset is served by electrical power lines that were embedded in up to 20 inches of concrete under the floor. Topping Direct ¶ 64; Tr. 909:25-910:14. Similarly, the Paint Circulation Electrical System was separated from the paint mix room by an explosion-proof cinder block wall. Topping Direct ¶ 64; Tr. 912:6-21. Moreover, the paint mix room was designed to direct any explosions away from the Paint Circulation Electrical System and toward an explosion-relief wall that, if necessary, would explode outward away from the plant and into an empty field. Topping Direct ¶ 64.

611. **Attachment.** The parties agree that this asset is attached to the realty. Goesling Direct ¶ 60. In addition to its significant weight, the Paint Circulation Electrical System is bolted with anchor bolts to a concrete base. Topping Direct ¶ 66. It is also connected to thousands of feet of electrical conduit that GM embedded in the concrete floor. Moreover, the Paint Circulation Electrical System is connected to hard conduit that carries power from the Paint Circulation Electrical System to the paint mix room. *Id.* ¶ 64 & Ex. A at 30; Tr. 909:25-910:22.

612. **Adaptation.** The Paint Circulation Electrical System is clearly adapted to GM's use of the LDT facility, as it provides power to the paint shop's mix room. Topping Direct ¶ 67. As a result, this asset causes mixed paint to be delivered to spray booths throughout the paint shop. *Id.*; Tr. 910:15-22. In addition, the paint-shop building is adapted to support the Paint Circulation Electrical System. GM constructed concrete pads to protect the asset from potential floods or spills, routed electrical conduit through the concrete to serve the asset, built a cinder block wall between the Paint Circulation Electrical System and the paint mix room, and constructed a blast-relief wall to prevent any explosion in the paint mix room from destroying the asset. Topping Direct ¶¶ 64, 67.

613. **Intent.** The following facts all strongly support a finding that GM intended to install the Paint Circulation Electrical System permanently at LDT:

a) The entire paint-shop facility at LDT, including assets that the Avoidance Trust concedes are fixtures, is dedicated to painting vehicles. Topping Direct ¶¶ 31, 37-39; Tr. 3256:4-7 (concession by Mr. Goesling that he "classified some portions of the paint shop as a

whole as fixtures”). As the Avoidance Trust admits, the “entire paint shop” at LDT “would not operate without” the Paint Circulation Electrical System. Tr. 3255:23-3256:3 (Goesling); Topping Direct ¶ 68. In particular, as noted, the asset provides power to the paint mix and circulation equipment in the paint mix room (Topping Direct ¶ 68) — a conceded fixture (Pls. Pretrial Br. 74, Goesling Direct ¶ 106).⁷⁴ The assets in the paint mix room, in turn, supply paint to the spray booths — another conceded fixture. Tr. 924:13-16 (Topping); Topping Direct ¶ 78.

b) The building’s layout was specially designed to accommodate this asset. Topping Direct ¶ 68. Thus, as noted, the Paint Circulation Electrical System is separated from the paint mix room by an explosion-proof cinder block wall, and the paint-mix room itself has an exterior blow-out wall to direct explosions away from production assets like this one. *Id.*; Tr. 912:8-21. In other words, the bricks and mortar of LDT were engineered to serve this asset in this particular place (Topping Direct ¶ 68) — so much so, in fact, that the Paint Circulation Electrical System was installed before construction of the rest of the plant was complete. Tr. 913:19-914:5.

c) GM went to great lengths to custom-install the Paint Circulation Electrical System in a way that was safe and permanent. Topping Direct ¶ 68. For example, while all electrical systems must be protected from floods and spills, GM’s strategy for protecting *this* Electrical System (*i.e.*, installing a raised concrete platform) is even more permanent than other possible alternatives (*e.g.*, installing the asset on a portable platform). *Id.* Likewise, while all electrical systems must be connected to electrical power lines, GM’s strategy for connecting *this* Electrical System (*i.e.*, burying the power lines in up to 20 inches of concrete beneath the floor) is even more permanent than other possible alternatives. *Id.* ¶ 68; Tr. 909:25-910:14.

d) The motor control centers within the Paint Circulation Electrical System were specifically configured to control the circulation equipment in the LDT paint shop.

⁷⁴ Indeed, from Mr. Topping’s perspective as a “long time paint guy who has installed things,” the “paint mix electrical system” and the “paint mix circulation system” were “one and the same.” Tr. 965:5-10.

Topping Direct ¶ 68; Tr. 920:4-13. Indeed, the Avoidance Trust concedes that the arrangement of electrical cabinets within this asset was not random (Tr. 3257:8-11), and that the assemblage could not be purchased from a catalog as a whole. Tr. 3257:19-3258:4.

e) Mr. Goesling conceded that GM “had a requirement for a motor control center to operate the paint system” and admitted that the Paint Circulation Electrical System would “wear out before the paint circulation system itself would wear out,” which would make it even more likely that GM would use this asset in place for its useful life. Tr. 3256:8-25.

614. The Avoidance Trust’s claims as to GM’s lack of intent to install the Paint Circulation Electrical System permanently are not supported by the evidence:

a) The Avoidance Trust’s assertion that “[a]nother user of the building who had no use for a paint shop would not need this asset” (Goesling Direct ¶ 179) is not probative of GM’s intent. The facility was constructed to be a paint shop and devoted to that purpose.

Topping Direct ¶¶ 38-39. There is no evidence that a subsequent purchaser would use the LDT paint-shop building for anything else. To the contrary, Mr. Topping testified from his more than 30 years of experience that, due to the extensive remediation that would be required to repurpose a GM paint shop, he had never seen an OEM paint shop building converted to any other use. Tr. 914:17-915:20.

b) There is also no merit to Mr. Goesling’s claims about the asset’s “impermanent method of attachment” or the “relatively easy” process that would be required to remove it. For example, there is no evidence that GM ever removed an asset like the Paint Circulation Electrical System from an existing and operational paint shop. Topping Direct ¶ 69; Tr. 914:6-9. Indeed, because of the Paint Circulation Electrical System’s size, weight, and extensive integration into the paint process, removal from an operating plant would require significant planning and heavy equipment. Topping Direct ¶¶ 70-71; Tr. 916:14-24.⁷⁵ In any

⁷⁵ The Avoidance Trust highlights movement of assets from closed facilities. Goesling Direct ¶ 181 & n.16; *see* PX 159 at 2 (“Reuse is a major theme at the development center, where all substations and non-fluorescent lighting are reused from other *closed* GM facilities”)

event, the moved assets that Mr. Goesling identified as “similar” to the Paint Circulation Electrical System (PX22) are markedly different from this asset in size and function. Topping Direct ¶ 73; Tr. 916:25-917:7. From the information provided by GM, most of Mr. Goesling’s “similar” assets appear to be low-cost small components or spare parts for electrical systems — five cost less than \$100, and over three-quarters cost less than \$20,000. Topping Direct ¶ 73; Tr. 918:10-14, 917:8-918:2.⁷⁶ By contrast, the installed cost of the assembled Paint Circulation Electrical System was approximately \$1.9 million. Topping Direct Ex. A at 29. The movement of spare parts or electrical system components is not indicative of GM’s intent when it installed the Paint Shop Electrical System.

c) The existence of a secondary market for the Paint Circulation Electrical System is not relevant to GM’s intent because GM purchased assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3 above. In any event, Mr. Goesling identified no sales by GM of similar assets in the secondary market apart from sales out of closed or partially shuttered plants. *See* PX347, PX350.⁷⁷

d) The Avoidance Trust provided no evidence that the retirements of assets similar to the Paint Circulation Electrical System were unusual or indicative of GM’s intent not to install the asset permanently. *See* Section VIII.B.2 above.

(emphasis added). Those movements say nothing about GM’s intent to remove assets from operating plants. *See* Section VIII.B above.

⁷⁶ The remaining assets appear to be transformers or controllers for laboratory equipment, and none appear to have been used for paint operations. Topping Direct ¶ 73.

⁷⁷ The 64 auction lots identified by Mr. Goesling represent auction sales out of closed or idled plants at prices between \$50 and \$16,800. PX350. By contrast, as noted, the Paint Circulation Electrical System had an installed cost of \$1.9 million. Topping Direct Ex. A at 29.

Asset 9: Top-Coat Bells⁷⁸

615. The top-coat spray booth is a structure that includes an integrated series of assets for painting vehicles. The Avoidance Trust agrees that the top-coat spray booth itself is a fixture. Tr. 924:13-16 (Topping); Topping Direct ¶ 78. The Top-Coat Bells are a set of 12 paint applicators (or “Bells”) that form a “bell zone” within the top-coat spray booth. Topping Direct ¶ 75. There are eight vertical Bells and four horizontal overhead Bells, all of which are part of the walls of the top-coat spray booth. *Id.* Each Bell cabinet has a rigid steel frame that is bolted to the floor and engineered into the booth structure in a way that creates a hermetic seal. *Id.*; Tr. 923:22-924:4. This air-tight seal is critical to the painting process. Topping Direct ¶ 75; Tr. 924:5-12. Controls on the back of the Top-Coat Bells can be accessed without entering the booth. Topping Direct ¶ 75; Tr. 923:6-21.

616. A conveyor delivers vehicle bodies to the top-coat spray booth, where a clear coat of paint is applied by the Top-Coat Bells. Topping Direct ¶ 76. The process is monitored and coordinated by the Top-Coat Software (discussed below). *Id.* After this process is complete, the vehicle bodies travel on a conveyor from the top-coat spray booth to a paint oven, where the paint applied by the Top-Coat Bells is dried and cured. *Id.* The Bells cost \$2.8 million to install. *Id.*

617. **Attachment.** The parties agree that this asset is attached to the realty. Goesling Direct ¶ 60. The Top-Coat Bells are part of the wall of the top-coat spray booth, an agreed-upon fixture. Tr. 924:13-16 (Topping); Topping Direct ¶ 78. The Bells are attached to the spray booth in a way that creates a hermetic seal, and the applicator cabinets are rigidly anchored to the concrete floor. Topping Direct ¶ 78. In addition, GM routed utilities via hard conduit and then hard-wired those utilities to each Bell controller. *Id.* Ex. A at 36-37.

618. **Adaptation.** The Top-Coat Bells are adapted to GM’s use of the LDT facility. The top-coat spray booth, an agreed-upon fixture, was designed for the installation of the Top-Coat Bells in a manner that creates a hermetic seal, without which the painting process could not

⁷⁸ Asset Handbook at 41-43; Topping Direct ¶¶ 75-85 & Ex. A at 34-38.

operate in that booth. Topping Direct ¶ 79; Tr. 925:2-7. Power was hard-wired to the controllers for the Top-Coat Bells through hard conduit connections. Topping Direct Ex. A at 36-37. GM could not apply the necessary “top coat” of clear paint without the Top-Coat Bells; two coats of clear coat are required for every GM vehicle. Topping Direct ¶ 79.

619. **Intent.** The following facts all strongly support a finding that GM intended to install the Top-Coat Bells permanently at LDT:

a) As noted, the entire paint-shop facility at LDT, including assets that the Avoidance Trust concedes are fixtures, is dedicated to the painting of vehicles. Topping Direct ¶¶ 31, 37-39; Tr. 3256:4-7 (concession by Mr. Goesling that he “classified some portions of the paint shop as a whole as fixtures”). There are two top-coat, clear-coat spray booths at LDT (Tr. 925:8-18; Topping Direct Ex. B ¶ 91) — conceded fixtures (Tr. 924:13-16 (Topping); Topping Direct ¶ 78). Removing the Top-Coat Bells would render one spray booth inoperable, forcing GM to rely entirely on the other spray booth, which would cut LDT’s production volume by 50 percent. Tr. 925:2-18.

b) GM constructed the top-coat spray booth for the Top-Coat Bells and their supporting assets. Topping Direct ¶ 80. As noted, the Top-Coat Bells form part of the wall of that specially constructed booth. *Id.* In addition, the layout and location of the Top-Coat Bells were designed to ensure a consistent paint application process within the LDT paint shop. *Id.*

c) If the Top-Coat Bells were removed, there would be holes in the walls of the top-coat spray booth, and that agreed-upon fixture would be rendered inoperable. Topping Direct ¶ 80. A spray booth is a controlled environment that cannot function with holes in the walls. Tr. 924:5-12. Even when GM services the Top-Coat Bells (typically once per year), it does so without removing the assets. Tr. 940:3-16.⁷⁹

⁷⁹ In response to questions from the Court (Tr. 937:24-939:23), Mr. Topping explained that the end-of-arm applicators for the Top-Coat Bells — the “very end” of the asset (Tr. 940:3-10) — are removed for servicing, and that GM keeps a few spares or replacements for that part of the asset. Tr. 937:24-939:25. Mr. Topping further testified that the machine itself — including the arm — remains in place (including for maintenance) for its 15-year useful life. Tr. 940:3-16.

620. The Avoidance Trust's claims as to GM's lack of intent to install the Top-Coat Bells permanently are not supported by the evidence.

a) There is no basis for the Avoidance Trust's assertion (Goesling Direct ¶ 193) that the method of installation for the Top-Coat Bells "does not indicate permanence but rather part of the operation design." That an asset must be installed for an operation to run properly is evidence that the asset was intended to remain in place for its useful life. Here, the Top-Coat Bells are so thoroughly connected to the top-coat spray booth that the Bells actually form part of its walls — the Bells themselves are indistinguishable from the spray booth and extend from the inside to the outside of the booth. Topping Direct ¶ 81; Tr. 923:6-924:4.

b) There is likewise no basis for the Avoidance Trust's claim that the Top-Coat Bells could be easily upgraded and replaced. As noted, removal of the Top-Coat Bells would leave holes in the walls of the top-coat spray booth. Topping Direct ¶ 80. Thus, if the Bells were upgraded and replaced, new booth walls would need to be engineered, fabricated, and installed. Topping Direct ¶ 82; Tr. 924:5-12. In addition, the top-coat spray booth is contained within a larger "clean room." Topping Direct ¶ 82. To remove the Top-Coat Bells, GM would also have to remove portions of the clean room walls. *Id.* Because the clean room is elevated above the rest of the plant floor, GM would need to lower the Bells to the floor below, which would require the use of heavy equipment, including overhead rigging or a crane. *Id.* The evidence does not indicate that there would be anything easy about removal of the Top-Coat Bells.

c) There is no evidence to support the Avoidance Trust's claim that assets similar to the Top-Coat Bells were moved by GM. *See* PX22; Tr. 926:2-24 (Topping); Topping Direct ¶¶ 83-85. From his more than 30 years of experience in paint shops, Mr. Topping could not recall any instance in which assets like the Top-Coat Bells were removed from an operating paint shop and placed in another GM facility (Topping Direct ¶ 83; Tr. 925:19-22), and, indeed, more than 93 percent of the "similar" line items identified by Mr. Goesling relate to assets moved from closed plants. PX 22. Moreover, the Avoidance Trust has not shown that any of the

moved assets were *actually* similar to the Top-Coat Bells. Tr. 926:2-24; Topping Direct ¶¶ 83-85.⁸⁰

d) The existence of a secondary market for the Top-Coat Bells is not relevant to GM's intent because GM purchased assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3. In any event, notwithstanding Mr. Goesling's assertion that "Similar Assets [are] Traded on the Secondary Market" (Direct ¶ 192), the Avoidance Trust presented no evidence of any secondary market sales by GM of assets similar to the Top-Coat Bells. PX350.

e) The Avoidance Trust provided no evidence that the retirements of assets similar to the Paint Circulation Electrical System were unusual or indicative of GM's intent not to install the asset permanently. *See* Section VIII.B.2.⁸¹

Asset 7: Top-Coat Software⁸²

621. The Top-Coat Software coordinates the operation of a large number of fixed assets in the top-coat process at LDT. Topping Direct ¶ 86. Users access the Top-Coat Software on nine separate monitors located on terminals in the control room adjacent to the top-coat spray

⁸⁰ Each Top-Coat Bell is a large, integrated machine that includes a paint applicator and a controller cabinet: the 8 vertical Bells measure approximately 10 feet high by 4 feet wide by 6 feet deep, and the horizontal overhead Bell machine measures approximately 10 feet high by 4 feet wide by 17 feet deep. Topping Direct ¶ 83. By contrast, 160 of the 179 line items identified by Mr. Goesling relate to Aqua Bell applicators, which are end-of-arm attachments used on FANUC-type equipment that measure approximately 8 inches by 36 inches. *Id.*; Tr. 927:2-928:3. As Mr. Goesling conceded at trial, those 160 irrelevant line items correspond to only 64 unique assets. Tr. 3290:18-3294:7 (Goesling); DDX-PX0022.

⁸¹ For example, while Mr. Goesling noted (Direct ¶ 194) that GM is currently replacing Durr paint robots (*i.e.*, not bells; other paint applicators), he omitted to mention that those robots were at the end of their useful lives, were not very functional, and were difficult to use. In other words, the paint robots were being replaced by new equipment more suitable to serving the same purpose. Tr. 929:11-930:5. In addition, more than half of the purportedly similar retired assets had installed costs below \$100,000; only three had installed costs greater than \$1.5 million. PX20. By contrast, the installed cost of the Top-Coat Bells was \$2.8 million. Topping Direct Ex. A at 35.

⁸² Asset Handbook at 44-46; Topping Direct ¶¶ 86-96 & Ex. A at 40-43.

booth (a conceded fixture). *Id.*; *see* Tr. 924:13-16 (Topping); Topping Direct ¶ 78. The software enables monitoring and control of the Top-Coat Bells and other paint application equipment in nine different painting zones. Topping Direct ¶ 86; *see* Tr. 956:24-957:16 (Top-Coat Software can “effect changes” with respect to “bell equipment,” including “increas[ing] the amount of film” and “smooth[ing] out the finish of a particular area”); DX51 at 4 (Top-Coat Software “allows system personnel to monitor and control the painting process”); *id.* at 8 (Top-Coat Software “can monitor, setup, and control . . . functions such as the adjustments to the bell speed, manual operation, motion equipment, high voltage, and fluid control functions”).

622. In addition, the Top-Coat Software provides a graphic representation of the spray booth, the paint application equipment, the spray booth air supply systems, and conveyors in real time. Topping Direct ¶ 86. Without the coordination made possible by this asset, the paint-application process would be uncontrolled and chaotic. *Id.*; *see* Tr. 951:20-952:5 (Top-Coat Software enables user to “look at the actual operation as it takes place in real time and be able to isolate potential phenomen[a] or defect creation, improvement, process improvement”). In short, as Mr. Topping testified, “[l]ife would be miserable without it.” Tr. 976:8-9.

623. The Top-Coat Software was installed at the same time as the equipment it controls and monitors and is intended to operate in place for the useful life of that equipment. Topping Direct ¶ 88. It is specialized software that has no value apart from the equipment it was customized to monitor and run, and that equipment in turn could not paint cars efficiently without it. Topping Direct ¶ 88; *see* Tr. 935:7-9 (software “was designed for operations at LDT”); Tr. 3343:21-25 (admission by Mr. Goesling that Top-Coat Software “has no value independent of the hard assets that the software is controlling”). Thus, the \$200,000 installed cost reflects money spent, in connection with the construction of LDT, to ensure the efficient operation of other “assets that are certainly anchored to the realty.” Tr. 965:24-966:3, 933:3-5.

624. The Top-Coat Software is listed as a separate asset on GM’s eFAST ledger instead of being folded into the accounting for physical machines — likely because it coordinates

the activity of *multiple* capitalized assets. Topping Direct ¶ 88.⁸³ Functionally, however, the Top-Coat Software is like the software that resides in the user interface station adjacent to and part of the AA Schuler Press that Mr. Miller testified to — software that controls and enables an operator to monitor that machine — which, in that instance, is capitalized *with* the asset it controls. Tr. 1038:14-1039:22. The Top-Coat Software is also similar to the software that is capitalized with the Opticell: as Mr. Miller testified, the installed cost for that asset captured the cost of “a lot of software that goes with” it. Tr. 1151:17-1152:4. It also serves the same function as the graphic user interface that is an integral part of Asset 25, the Liebherr Hobb machine. *See* Asset Handbook at 81-82.

625. Accordingly, from the evidence, it is clear that software serves as an integral part of the machines that it controls. That is so regardless of the fact that GM used a separate eFAST ledger line item for the Top-Coat Software — *i.e.*, the software necessary for efficient operation of the physical spray assets (fixtures) in the top-coat spray booth (a conceded fixture). Thus, contrary to Mr. Goesling’s view (Tr. 3347:11-15; 3349:3-8), in determining what software does and how it relates to the machinery that it interfaces with, whether the software was capitalized as a separate eFAST line item is not relevant.⁸⁴

⁸³ On cross-examination, the Avoidance Trust attempted to undercut Mr. Topping’s expertise with respect to the eFAST system in light of his testimony that he did not work with eFAST on a “day-to-day basis.” Tr. 983:3-11. As Mr. Topping testified, however, he was “familiar with [eFAST] as a General Motors employee” and was required to “make sure that [his] particular assets were listed on the eFAST list.” *Id.* In addition, Mr. Topping reviewed the eFAST data that GM made available whenever plants closed to determine whether any of his paint facilities could use the assets that GM sought to repurpose from closed facilities. Tr. 984:5-11.

⁸⁴ Furthermore, Mr. Goesling’s transfer analysis (PX22) undermines the Avoidance Trust’s attempt to distinguish between software and the assets it monitors or controls. For example, among the moved assets that Mr. Goesling identified as “similar” to the AA Transfer Press (Asset 32), the B3-5 Transfer Press (Asset 33), the Danly Press (Asset 31), the GG-1 Transfer Press (Asset 29), and the TP-14 Transfer Press (Asset 30) is a line item *associated with a software asset*: “Upgrade 2500 DVC Press for True North Capabilities.” PX22 at Row 7102; DX100 at 4. As Mr. Miller testified, the “software or the controls for [the True North product] are in the press system” and “part of” the press system. Tr. 1098:10-18.

626. **Attachment.** The Top-Coat Software is not, itself, physically connected to the reality. The software is, however, constructively attached. It is installed in a computer located inside a console monitor (DX1079) and incorporated into several other critical, fixed production assets (*e.g.*, the Top-Coat Bells), causing them to perform necessary, coordinated operations. Topping Direct ¶ 90; Tr. 934:11-13. As Mr. Topping testified, the Top-Coat Software is “actually a component of the bell system.” Tr. 937:9-13. If removed, those assets into which the Top-Coat Software is incorporated would lose their value. Topping Direct ¶ 90; *see also* Tr. 936:9-24 (“It was, if nothing else, constructively attached just by the very fact that it’s so important to the very operation of the zone in which it interacts with.”). Moreover, without the Top-Coat Software, GM “would have no control of the system.” Tr. 935:10-14. And for all practical purposes, if the Top-Coat Software were removed, GM “would have to create a new one.” Tr. 935:15-16.

627. **Adaptation.** The Top-Coat Software is adapted to GM’s use of the LDT facility. It is essential to the complex, synchronized process that applies the necessary top coat of clear paint to vehicle bodies. Without the Top-Coat Software, any number of other critical, fixed production assets would be much less functional, and GM would likely fail to meet its production goals. Topping Direct ¶ 91.

628. **Intent.** The following facts all strongly support a finding that GM intended to install the Top-Coat Software permanently at LDT:

a) As noted, the entire paint-shop facility at LDT, including assets that the Avoidance Trust concedes are fixtures, is dedicated to the painting of vehicles. Topping Direct ¶¶ 31, 37-39; Tr. 3256:4-7 (concession by Mr. Goesling that he “classified some portions of the paint shop as a whole as fixtures”). The Top-Coat Software coordinates the operation of assets that operate within the top-coat spray booth — a conceded fixture. Tr. 924:13-16 (Topping); Topping Direct ¶ 78.

b) The Top-Coat Software was developed to coordinate the various top-coat assets in the top-coat process at LDT. Topping Direct ¶ 92. It was installed in 2006 and has remained in continuous operation since then. *Id.* Given the level of interdependence among the

assets in the top-coat process (including multiple assets that plaintiff classifies as fixtures), and the fact that these interrelated assets cannot operate in concert without the Top-Coat Software, the evidence shows that GM intended the Top-Coat Software to be permanently installed. *Id.*

c) The Top-Coat Software was specifically designed and programmed to support LDT paint operations and to integrate processes, such as the powder primer booth, conveyors, and both top-coat booths. Topping Direct ¶ 92. The installed cost in GM's eFAST records (\$200,000) reflects the cost of that special adaptation. *Id.* Due to this high degree of customization, the Top-Coat Software would be of no use to any other user (other than a purchaser of the LDT plant). *Id.* Mr. Goesling concedes this point, concluding that the software would have no value independent of the hard assets that it controls. Tr. 3343:21-25.

629. The Avoidance Trust's claims as to GM's lack of intent to install the Top-Coat Software permanently are not supported by the evidence. The Avoidance Trust's assertion (Goesling Direct ¶ 189) that the Top-Coat Software "could be transferred to any other compatible computer device without damage to the realty or software" is not indicative of GM's intent to install the Top-Coat Software permanently. From his 30 years of experience with paint systems, Mr. Topping was unaware of any instance in which this type of unique, customized software was removed and transferred for any other purpose. Topping Direct ¶ 95.⁸⁵ Mr. Goesling did not include the Top-Coat Software in his transfer analysis (PX22), and neither his secondary market analysis (PX348, PX350) nor his retirement analysis (PX20) purports to identify any similar assets that were sold or retired.⁸⁶

⁸⁵ In fact, in Mr. Topping's professional opinion, the Top-Coat Software had never even been upgraded. Tr. 978:14-979:12; Topping Direct Ex. A at 42.

⁸⁶ In response to a question from the Court, Mr. Topping explained that the Top-Coat Software could be installed on a large capacity laptop to "do the same thing" — *i.e.*, coordinate the operation of the fixed assets in the top-coat spray booth. Tr. 977:14-21. In this case, of course, GM installed the software on a PC located inside a fixed console adjacent to the spray booth, not on a laptop. Tr. 930:21-931:9; DX1079. The method of installation thus indicates that GM intended the asset to remain in place for its useful life. But regardless of whether the Top-Coat Software is installed on a PC or a laptop, the software cannot interface with the paint-shop assets unless it is connected to them. Tr. 934:11-13 ("It's actually connected and allows

Asset 8: General Assembly Paint Mix Room⁸⁷

630. The General Assembly Paint Mix Room is an approximately 2,000-pound, self-contained, OSHA-required enclosure for mixing small amounts of paint for touch-ups and repairs in LDT's general assembly area. Topping Direct ¶ 97; Tr. 944:11-946:4. Under OSHA regulations, paint is required to be mixed in this kind of enclosure because isolating the paint-mixing process minimizes the risk of igniting paint fumes. Topping Direct ¶ 97; Tr. 945:14-25.

631. The GA Paint Mix Room is approximately 9 feet long, 8 feet wide, and 12 feet tall, and is bolted to the floor. Topping Direct ¶ 97; Tr. 998:19-21. It is constructed of honeycombed steel panels (Tr. 998:22-24) and is connected by hard conduit to electrical power, fire-suppression systems, and a specialized exhaust and ventilation system. Topping Direct ¶ 97.

632. GM installed the GA Paint Mix Room in a dedicated, isolated part of LDT's general assembly area to minimize the risk of exposure to ignition hazards. Topping Direct ¶ 97. GM also left wall space open and installed a special ceiling structure for this asset. Topping Direct ¶ 98; Tr. 946:5-19 (GM "designate[d] an area that has absolutely nothing outside of the walls and above the ceiling so that in case of a catastrophic event involving paints or solvents, . . . they would not lose any life or endanger anyone"). The GA Paint Mix Room was designed so that if an explosion were to occur, it would expand up and out without causing significant damage to the rest of the general assembly area. Topping Direct ¶ 98. In the event of an explosion, the walls adjacent to this asset would blow out into an empty area. *Id.*; Tr. 946:20-947:3. The GA Paint Mix Room has operated where it was installed since it was put in service in 2006. Topping Direct ¶ 98.

633. **Attachment.** The parties agree that this asset is attached to the realty. Goesling Direct ¶ 60. In addition to its significant weight, the GA Paint Mix Room is anchored to the

you to exchange data with each one of the pieces of spray application equipment."); Topping Direct Ex. A at 43 ("The [software] is connected by communication cables to spray equipment in the paint shop."). So if the Top-Coat Software were installed on a laptop, the laptop would need to be permanently connected to the spray assets in order to serve its function.

⁸⁷ Asset Handbook at 47-48; Topping Direct ¶¶ 97-109 & Ex. A at 34-38.

concrete floor with bolts and connected to the plant's electrical system with hard conduits.

Topping Direct ¶ 100. The GA Paint Mix Room is also connected to the plant's compressed air system via steel strut and hard piping (Topping Direct Ex. A at 46) and to the facility's exhaust and ventilation systems via hard ducting. *Id.*; *see* Tr. 947:4-9.

634. **Adaptation.** The GA Paint Mix Room is adapted to GM's use of the LDT facility. Indeed, OSHA requires that paint be mixed in this kind of enclosure because isolating the paint-mixing process (or the process of filling reservoirs and cleaning paint equipment) minimizes the risk of explosion. Topping Direct ¶ 101; Tr. 945:7-946:19. Moreover, as noted, GM routed electricity to this asset via hard conduits and engineered connections to the plant's compressed air system via steel strut and hard piping and to the facility's exhaust and ventilation systems via hard ducting. Topping Direct Ex. A at 46.

635. **Intent.** The following facts all strongly support a finding that GM intended to install the GA Paint Mix Room permanently at LDT:

a) To meet its production goals, GM needs to mix paint for touch-ups and vehicle repairs in the general assembly area. Tr. 947:10-16 (Topping) (it would be "much less efficient" to mix paint elsewhere). Under OSHA regulations, GM can only mix paint in this area if it does so in an enclosure like the GA Paint Mix Room. Topping Direct ¶ 102. Thus, this asset is critical to GM's paint processes at LDT and would not be removed before the end of its useful life. *Id.*

b) From the layout and structure of the facility, it is clear that GM carefully planned the precise location where the GA Paint Mix Room would be installed. *Id.* The general assembly area of LDT has many extraneous ignition sources, such as engine ignition systems, assembly tooling, and extensive human traffic. As a result, the GA Paint Mix Room is specifically located near enough to the other assets that it serves (*e.g.*, repair stalls, paint spray booths, spot repair paint lamps) but is far enough away from potential hazards in the plant. *Id.*

636. The Avoidance Trust's claims as to GM's lack of intent to install the GA Paint Mix Room permanently are not supported by the evidence:

a) The method of attachment (Goesling Direct ¶ 105) does not indicate that GM intended to move the GA Paint Mix Room before the end of its useful life. While there is, for example, no specialized concrete foundation for this asset, the GA Paint Mix Room is thoroughly attached to the building. Topping Direct ¶ 104. And while the asset was assembled in pieces, modularity, as noted, does not bear on GM's intent for permanence. *See* Section VIII.A.3 above.

b) There is also no basis for the Avoidance Trust's assertion (Goesling Direct ¶ 106) that the size of the GA Paint Mix Room indicates that GM intended the asset to "remain movable." LDT's general assembly area was constructed with the understanding that a paint mix room like this one — that is, a paint mix room *of this size* — would be located exactly where it is installed. Topping Direct ¶ 104. Mr. Topping testified, based on his more than 30 years of experience, that once installed in a carefully planned location, a critical asset like the GA Paint Mix Room would not be removed before the end of its useful life. *Id.* ¶ 105. As noted, removing the GA Paint Mix Room from an operating general assembly area would violate OSHA regulations and jeopardize the safety of GM's employees in the repair area. *Id.*

c) There is no evidence to support the Avoidance Trust's claim that assets similar to the GA Paint Mix Room were moved by GM. *See* PX22; Tr. 948:15-23 (examining Mr. Goesling's analysis, Mr. Topping "found no evidence of GM moving anything like this"). From his more than 30 years of experience in paint shops, Mr. Topping could not recall any instance where an asset like the GA Paint Mix Room was removed from an operating manufacturing facility. Topping Direct ¶ 107; Tr. 949:14-19; Tr. 999:13-16 (Mr. Topping has never "been involved in the removal of a paint mix room like" the GA Paint Mix Room). Consistent with Mr. Topping's experience, the one "moved" line item that Mr. Goesling considers to be similar to the GA Paint Mix Room corresponds to assets that moved from Pontiac Assembly East — a facility that closed in 2009. Topping Direct ¶ 108; PX22 at Row 61,

Column K. Moreover, from Mr. Topping's experience, that single line item likely refers to paint mix tanks that were not similar to the GA Paint Mix Room. Topping Direct ¶ 108. Instead, the \$1.7 million entry for "what they called the paint mix room" actually referred to stainless steel tanks and other assets used in the paint mix process. Tr. 948:24-949:11.

d) The existence of a secondary market for the GA Paint Mix Room is not relevant to GM's intent because GM purchased assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3 above. In any event, notwithstanding Mr. Goesling's assertion that "Similar Assets [are] Traded on the Secondary Market" (Direct ¶ 104), the Avoidance Trust presented no evidence of any secondary market sales by GM of assets similar to the GA Paint Mix Room. PX347, PX350.

e) The Avoidance Trust provided no evidence that the retirements of assets similar to the GA Paint Mix Room were unusual or indicative of GM's intent not to install the asset permanently. PX20; *see* Section VIII.B.2. Furthermore, Mr. Goesling's spreadsheet identifies as "similar" a number of assets with descriptions that do not resemble the GA Paint Mix Room.⁸⁸

4. **LDT General Assembly**

637. Eric Stevens testified about the five Representative Assets in the LDT general assembly area. As set out above, Mr. Stevens was a credible expert. In addition to his experience with manufacturing engineering at GM generally, during his career Mr. Stevens was responsible for the design, construction, and installation of new GM assembly plants in China, Thailand, Poland, Brazil, and Argentina. These were some of the first GM plants to adopt and integrate

⁸⁸ *See* PX20, tab "GM Retired Assets 2004-2009," at Row 1809 ("Sprinkler System Paint Mix"), Row 2176 ("Heater Space Paint Mix"), Row 4333 ("Explosion Proof Lighting Paint Mix"), Row 5215 ("H.V.A.C. for Paint Mix Room"); Row 29174 ("Replace Condensor Unit – Paint Mix Room"), Row 105985 ("Fire Detection & Suppression System Paint Mix Room"), Row 168199 ("Lighting for Paint Mix Room"), Row 168203 ("Filters for Paint Mix Room"), Row 169193 ("HVAC System – Paint Mix Room"). Mr. Goesling's determination that these assets are similar to the GA Paint Mix Room is not credible.

GM's best thinking on flexible manufacturing processes. Mr. Stevens then served as a plant manager for a large assembly complex in Oshawa, Ontario, Canada. He later became GM's Executive Director in Charge of North American Assembly Manufacturing Engineering. The initial design, planning, layouts, and equipment specifications for LDT were done by teams that reported to Mr. Stevens during that period. Tr. 10:25-11:17. In later roles he was responsible for manufacturing engineering at all GM assembly facilities worldwide. Stevens Direct ¶¶ 12-15.

638. At a high level, the general assembly area is where the thousands of components required to create a consumer-ready vehicle are actually put together. General assembly processes include wheel and tire assembly, electrical assembly, glass assembly, door assembly, interior assembly, and installation of the engine and transmission. Stevens Direct Ex. A at 6, 11.

639. The LDT general assembly building was built by GM in a distinctive "T" shape, which was developed "as part of [the] transition within General Motors to . . . lean manufacturing processes." Tr. 23:2-5 (Stevens) (discussing DDX1). It was purpose-built to support a lean assembly process by moving low-value conveyance activities to mezzanine areas, which allowed GM to compress high-value operations closely together, reduce floor space as much as possible, and facilitate the delivery of materials through specific points of use on the three main assembly lines. Tr. 23:10-22 (Stevens).

640. Moreover, as part of the building design, LDT's general assembly area was adapted to accept and support heavy loads at the mezzanine level. In particular, the truss loads in those areas were specified to accommodate the weight of the Vertical Adjusting Carrier System (discussed below), which weighs roughly two million pounds — significantly more than a normal roof would support. In addition, GM dug pits (discussed below) to support the assets that would eventually be installed in the general assembly area. Tr. 20:22-21:16 (Stevens). These adaptations allowed the building and machines to work as an integrated unit, manufacturing automobiles on a mass production basis.

641. The custom design of the general assembly building around the specific manufacturing processes installed in the GA portion of LDT, including the five Representative Assets, is strong evidence of GM's intent to permanently install those assets.

Asset 18: Vertical Adjusting Carriers⁸⁹

642. The 87 Vertical Adjusting Carriers (the "Carriers") are self-propelled vehicle carrying units that are part of the Vertical Adjusting Carrier System (the "VAC System") that moves vehicles through the chassis assembly line at LDT. While the Carriers and the VAC System are capitalized as separate eFAST line items, they are one integrated system. The VAC System consists of overhead conveyor load rails, stretching 2,000 feet in length, attached to large I-beams. Stevens Direct ¶ 278, JX1278 (view from underneath a Carrier, showing beams and bolting). The Carriers, which are attached to the rails by seven load wheels, convey vehicles through subassembly processes. They can be raised and lowered so that workers can perform tasks in ergonomic positions. Stevens Direct ¶ 278, JX1279 (view of the top of a Carrier, showing wheels and rail). The Carriers have an installed cost of \$4.1 million. Stevens Direct Ex. A at 45.

643. Each Carrier weighs approximately 8,000 pounds, measures 25 feet by 8 feet by 20 feet, and possesses its own drive motor. Stevens Direct ¶ 279.

644. **Attachment.** The Carriers are actually and constructively attached to the VAC System, which itself is extensively attached to the building. Each Carrier is supported by, and rides upon, a load rail that serves as a track for a Carrier's seven load wheels. The load rail is bolted to I-beams that are in turn bolted to the overhead structural "white steel" (itself bolted to the rest of the building). The Carriers could not be removed without cutting into the load rail or the Carrier. The Carriers are also constructively attached in that they are worthless without the rails, and the rails are worthless without the Carriers. The 87 Carriers are also constructively attached by their weight (8,000 pounds each, and almost 700,000 together), and for that reason could not be removed without special equipment. Stevens Direct ¶ 281 & Ex. A 45-47; Tr.

⁸⁹ Asset Handbook at 50-51; Stevens Direct ¶¶ 278-87 & Ex. A at 44-47.

165:19-167:23; Tr. 169:18-170:4; Tr. 170:5-14. The Carriers have never been removed in over 10 years of operation. Stevens Direct ¶ 281.

645. **Adaptation.** The Carriers, and the VAC System of which they are a part, are adapted to the use of LDT. The VAC System and Carriers are critical to the purpose of the general assembly building: they convey vehicles to subassembly processes and allow automated systems and workers to assemble the chassis efficiently and ergonomically. Stevens Direct ¶ 282 & Ex. A at 46-47. In addition, as noted, the building was specifically engineered to support the two-million-pound load of the VAC System, and its support columns were positioned to avoid interfering with the Carriers' path. Tr. 21:3-11 (specifically engineered); Tr. 169:10-17 (structural engineer required); Stevens Direct ¶ 283 (placement of support columns).

646. **Intent.** The following facts all strongly support a finding that GM intended to install the Carriers permanently at LDT:

a) As noted, the LDT facility was designed to support the load of the VAC System (including the Carriers), and GM engineered the building's support beams to avoid interfering with the Carriers' path. In addition, power and control cables were routed throughout the building to support operation of the Carriers. Stevens Direct ¶ 283; Tr. 21:3-11.

b) The degree of adaptation of the asset is strong evidence of intent. The VAC System's path and capabilities were designed to serve several subassembly processes at LDT. The highly specialized nature of the VAC System, of which the Carriers are an integral part, and the critical role the VAC System and Carriers play in the assembly process, indicates that GM intended the Carriers to remain in place for their useful life. Stevens Direct ¶ 283.

c) The Carriers are highly flexible: they can carry any vehicle that is currently produced at LDT, and they are designed to carry any vehicles that may be produced there in the future. The VAC System's speed and height settings are almost infinitely adjustable, and the arm pickup points are easily modified. Accordingly, GM can continue using the Carriers as assembly operations change. Stevens Direct ¶ 283; Tr. 356:6-12, 434:13-435:15, 75:24-76:12.

647. Plaintiff's claims as to GM's lack of intent to install the Carriers permanently are not supported by the evidence:

a) Mr. Goesling concludes (Direct ¶ 118) that the Carriers are not attached to the realty because they are capitalized separately from the load rails and the white steel that attaches the load rails to the structure. But GM's accounting practices do not change that the Carriers and the rails are one system — neither has any value without the other. Similarly, regardless of GM's accounting, the Carriers are physically and constructively attached to the load rails, which are extensively attached to the building. Stevens Direct ¶ 284.

b) Mr. Goesling asserts with no detail (Direct ¶ 119) that the Carriers could “relatively easily” be removed. This is incorrect. A crane would be required to lift the Carriers clear of a cut-open section of rail, and this removal process could only take place in a barricaded section of the plant. Removal would also leave behind a worthless 2,000 foot overhead conveyor system. For this reason, Vertical Adjusting Carriers are rarely, if ever, removed from the rail infrastructure. Stevens Direct Ex. B ¶ 79.

c) Mr. Goesling claims (Direct ¶ 120) that “GM has previously relocated four asset line items similar to the Vertical Adjusting Carrier.” But, as shown by the Asset IDs, Mr. Goesling only identified two such assets (PX22) — trim skillet conveyors.⁹⁰ A trim skillet conveyor is not comparable to the VAC System: it is typically floor-mounted rather than suspended overhead. And while the VAC System uses 8,000-pound swing-arm carriers hanging from overhead rails, a trim skillet system operates at ground level and transports flat plates. In any event, the two trim skillet conveyors identified by Mr. Goesling were moved out of Spring Hill when the facility was unexpectedly idled in connection with the bankruptcy. Stevens Direct ¶ 285.

⁹⁰ Notably, by identifying these conveyors as comparable to the Carriers, Mr. Goesling effectively concedes that the Carriers should be considered as part of the entire VAC System.

d) Mr. Goesling asserts (Direct ¶ 120) that the Carriers are “product-specific, so if GM were to significantly change the body size of the vehicles it produced at Lansing, it would have to remove the Vertical Adjusting Carriers and install other carriers with a larger body size.” Mr. Goesling cites no support for this incorrect claim. Because the Carriers are designed to accommodate a wide range of vehicle sizes, GM would not anticipate any need to replace them if the size of the vehicle produced at LDT were to change. Stevens Direct ¶ 286; Tr. 359:5-11 (“not correct” that the carriers would “have to be replaced” if LDT produced “a different family of vehicles”); *see also* Tr. 356:8-12.

e) Similarly, while Mr. Goesling claims a secondary market exists for the VAC Carriers (Direct ¶ 117), he identifies no sales of similar assets in his sales analysis (PX347) and values the Carriers — an asset that GM spent over \$4 million to purchase and install (DX31) — at \$59,000, reflecting solely the scrap price for 765,600 pounds of steel, less a 15% deduction for the cost of removing these assets (even though Mr. Goesling asserts they are not attached). Goesling Direct Ex. A at 386. *See also* Levy Dep. Tr. 32:21-33:2, 132:1-11 (large overhead conveyors typically not salable due to cost of removal). And even if there was a secondary market for VAC Carriers, it would not be relevant because GM purchased assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3 above.

Asset 15: Soap, Mount & Inflate System⁹¹

648. The Soap, Mount & Inflate System is a critical component of the wheel and tire assembly and delivery system at LDT. This asset joins wheels and tires into assemblies, inflates them, and transfers them to balance machines, prior to delivering the assemblies for installation on automobiles. Of the \$12 million that GM spent to purchase and install the wheel and tire delivery system, \$1.9 million was for this asset alone. Stevens Direct ¶ 231. It was installed in the general assembly area as LDT was being constructed and has been operated in place since 2006. *Id.* ¶ 232.

⁹¹ Asset Handbook at 52-53; Stevens Direct ¶¶ 231-42 & Ex. A at 64-69.

649. **Attachment.** The parties agree that this asset is attached to the realty. Goesling Direct ¶ 60. The Soap, Mount & Inflate System, which weighs approximately 40,000 pounds, is 90 feet long, takes up over 1,000 square feet of floor space, and is bolted to LDT's concrete foundation and to white steel in thousands of places. Stevens Direct ¶ 232; *see also* JX1224, JX1215. The System requires continuous connections to high voltage electricity, compressed air, clean water, and waste water extraction. Stevens Direct Ex. A at 66. These utilities are routed throughout the plant specifically to meet the needs of this asset. *See, e.g.*, Tr. 3319:20-23 (concession by Mr. Goesling that compressed air came from CUC, "a quarter mile away").

650. **Adaptation.** The Soap, Mount & Inflate System is adapted to GM's use of the LDT facility. During construction of LDT, GM made the decision to produce wheel and tire assemblies on-site instead of procuring them from a third party, and designed and constructed an expansion of LDT's general assembly building specifically to house the Soap, Mount & Inflate System and the rest of the wheel and tire assembly and delivery system. Stevens Direct ¶ 236; Tr. 157:14-19 (Stevens). The System fits within a broader process in which tires and wheels are delivered by conveyors to the Soap, Mount & Inflate System; the wheel/tire assembly then moves seamlessly by conveyor to an adjoining machine that tests for leaks, to another adjoining machine that balances the assembly, and applies wheel weights as necessary, before the completed assembly is transported by a 350-foot overhead conveyor system (Asset 20) to the Final Skillet Conveyor on the main assembly line (Asset 21). Stevens Direct ¶ 235.

651. **Intent.** The following facts all strongly support a finding that GM intended to install the Soap, Mount & Inflate System permanently at LDT:

a) The degree of adaptation of the building is strong evidence of intent. As noted, GM expanded LDT's general assembly building specifically for this asset and the rest of the wheel and tire system. The building's layout, superstructure, foundation, and utility network were all designed to support the assets in the wheel and tire process (including this asset). GM would not have altered its plans and designed and constructed an entire wing of a building to

install this specific asset and system if it intended to remove that asset or system before the end of their useful lives. Stevens Direct ¶ 236; Tr. 157:14-19 (Stevens).

b) The Soap, Mount & Inflate System is a component of the highly integrated, automated wheel and tire assembly and delivery system at LDT. The asset is connected to a series of conveyors that install valve stems, bring wheels and tires to the Soap, Mount & Inflate System, and then convey the wheel-and-tire assemblies for balancing. The balanced, completed assemblies are then delivered to the final assembly line for installation on the vehicle at a point on the final assembly line approximately 400 feet away. Reconfiguring this asset in the midst of the integrated wheel and tire assembly and delivery system would require extensive changes to the entire system (*e.g.*, conveyors, the final assembly line). And the rest of the wheel and tire assembly and delivery system — amounting to more than \$10 million in installed cost — would be useless if this asset were removed. Stevens Direct ¶¶ 236, 239.

c) The flexibility of the asset is further strong evidence of intent. The Soap, Mount & Inflate System was custom-designed to support a wide range of makes, wheel sizes, and models that may be produced at LDT. Thus, the asset has been used continuously, in place, since 2006, even though the models produced at LDT have evolved since then. *Id.* ¶ 236.

d) The Soap, Mount & Inflate System would be exceedingly difficult and time-consuming to remove given its size, the difficulty of disassembling it, the large number of lag bolt fasteners to the plant floor, and its extensive connections to utilities. *Id.* ¶ 238.

652. Plaintiff's claims as to GM's lack of intent to install the Soap, Mount & Inflate permanently are not supported by the evidence:

a) Mr. Goesling claims (Direct ¶ 112) that GM did not intend this asset to be installed permanently because it is “modular” and “portable.” In particular, he references a patent application that states, with respect to a similar system, that the new design is more readily reconfigurable. Goesling Direct ¶ 112. As noted, however, Mr. Goesling is not a manufacturing engineer and lacks the expertise to draw engineering conclusions from the language of a patent. By contrast, Mr. Stevens explained, with respect to this asset, that “modularity allows you to

install the number of machines that would be required to meet your volume requirements.” Tr. 159:8-11. Modularity is otherwise not probative of GM’s intent for permanence (*see* Section VIII.A.3) — particularly not for a 40,000-pound, 90-foot-long system that, as a matter of common sense, would need to be transported and installed in sections. Stevens Direct ¶ 237, Tr. 158:14-18 (Stevens). Indeed, Mr. Goesling recognized that due to the heavy integration of the wheel and tire assembly and delivery system, any attempt to reconfigure the Soap, Mount & Inflate System would interfere with several other massive machines. *See* Tr. 3317:20-3319:9.

b) Mr. Goesling also asserts (Direct ¶ 113) that GM relocated three assets that are supposedly similar to this one. One of those assets, however, is a “match mounter” — a much smaller asset that fulfills a more limited purpose (balancing individual wheel and tire assemblies). The other two assets identified by Mr. Goesling were moved under extraordinary circumstances when their respective plants, Pontiac East and Spring Hill, were idled or closed. Stevens Direct ¶ 240. Those unanticipated moves are not probative of GM’s intent at the time the Soap, Mount & Inflate System was installed at LDT. *See* Section VIII.B above. To the contrary, given that about half of GM’s assembly plants contain similar systems (Tr. 339:24-340:2), the absence of other moves, under *any* circumstances, confirms that assets like the Soap, Mount & Inflate System virtually always remain in place for their useful lives.

c) Finally, contrary to Mr. Goesling’s assertions (Direct ¶¶ 110, 113), the existence of a secondary market for the Soap, Mount & Inflate System is not relevant to GM’s intent because, as the unrebutted evidence shows, GM purchased assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3; Tr. 137:24-138:7. In addition, six of the nine “similar lot items” identified by Mr. Goesling (*id.* ¶ 113) correspond to a single asset. PX348B at 42 (lots 1363-1369 were “sold with 1362”). The other three appear to be standalone tire-related assets, not systems like this one. *Id.* In any event, all of the sales identified by Mr. Goesling occurred from Pontiac Assembly and RACER Indianapolis MFD, two closed plants that stayed with Old GM. *Id.*; *see also* DDX-PX350b at 3; Tr. 3301:24-3302:6.

Asset 20: Wheel & Tire Conveyor⁹²

653. The Wheel & Tire Conveyor is the link between the wheel and tire assembly process and the final assembly line process. This Conveyor takes completed, balanced wheel and tire assemblies from the Soap, Mount & Inflate System (Asset 15) and subsequent balancer, and delivers them across more than 350 feet to the Final Skillet Conveyor (Asset 21), for installation on vehicles. Of the \$12 million that GM spent to purchase and install the wheel and tire assembly and delivery system, more than \$1 million was for the Wheel & Tire Conveyor. Stevens Direct ¶ 243; Tr. 156:23-157:19, 339:16-340:3.

654. **Attachment.** The parties agree that this asset is attached to the realty. Goesling Direct ¶ 60. The Wheel & Tire Conveyor, which weighs over 400,000 pounds and is over 380 feet long, *see* JX1290, JX1291, is bolted to the concrete floor of the building in hundreds of locations. The conveyor includes an overhead mezzanine, which itself is welded and bolted in thousands of locations to white steel that was specifically constructed for this asset and is attached to the building's structural steel. Stevens Direct ¶¶ 243-44. The asset is also connected to the building's electrical supply. Stevens Ex. A at 50.

655. **Adaptation.** The Wheel & Tire Conveyor is adapted to GM's use of the LDT facility, as it is a necessary part of LDT's wheel and tire assembly and delivery system, without which there would be no vehicles produced at LDT. An overhead mezzanine, which is capitalized as part of the asset, was installed specifically to accommodate the Conveyor, allowing it to travel from the shop floor level overhead and back down to shop level to the portion of the general assembly area where the completed wheels are delivered for installation onto vehicles. The building's vertical supporting steel was modified to accommodate its specific path. Stevens Direct ¶ 248. As discussed above, GM expanded the LDT general assembly building specifically for this asset and the rest of the wheel and tire assembly and delivery system. *See* Tr. 161:4-13.

⁹² Asset Handbook at 54-56; Stevens Direct ¶¶ 243-58 & Ex. A at 48-51.

656. **Intent.** The following facts all strongly support a finding that GM intended to install the Wheel & Tire Conveyor permanently at LDT:

a) The extensive degree of attachment and adaptation of the Wheel & Tire Conveyor is strong evidence of intent. The Conveyor is bolted to the floor and superstructure in thousands of places, which alone strongly indicates that GM's intent was to install this asset permanently. In addition, as noted, an overhead mezzanine was installed to support the Conveyor and the building's supporting steel was modified to accommodate its path. Stevens Direct ¶ 249.

b) When GM decided to produce its own wheel and tire assemblies at LDT and located the full wheel and tire assembly system hundreds of feet from the final assembly line, it had an obvious need for a permanent conveyance system to transport the wheel and tire assemblies. GM installed this Conveyor to serve that critical function, and the Conveyor was specifically adapted to the configuration of the plant. *Id.* ¶ 249.

c) Removal of the Wheel & Tire Conveyor would be expensive, would take months, and would require GM to scrap significant portions of the asset, including all of the white steel used to attach the Conveyor to LDT's superstructure and much of the mezzanine on which the Conveyor sits. Stevens Direct ¶¶ 245, 252. Any short-term "workaround" would reduce overall plant capacity by 25 percent. *Id.* ¶ 245. Any long-term "workaround" would amount to installing this exact asset to replace itself. *Id.*

d) This Conveyor is flexible enough to handle any wheel and tire assemblies that the vehicles produced at LDT are expected to use. Accordingly, the asset has performed its function in place since it was installed in 2006, despite changes in models at LDT. *Id.* ¶ 249.

657. Plaintiff's claims as to GM's lack of intent to install the Wheel & Tire Conveyor permanently are not supported by the evidence:

a) Mr. Goesling claims (Direct ¶ 126) that this Conveyor, like other conveyance systems, is "comprised of shorter sections" and therefore would be relatively easy to remove. As noted, however, modularity is not probative of GM's intent for permanence (*see*

Section VIII.A.3) — particularly not for a 40,000-pound, nearly 400-foot conveyor that is integrated with the building’s superstructure. Stevens Direct ¶ 250; *cf.* Tr. 3125:6-10 (regarding Skillet Conveyor, Asset 21) (The Court: “You couldn’t bring them into the plant other than manufactured in sections, could you, to install it?” Goesling: “That’s correct. . . .”). In any event, removal of the Wheel & Tire Conveyor would take months, and, as noted, would require GM to scrap white steel and much of the mezzanine. Stevens Direct ¶ 245.

b) The Avoidance Trust dramatically downplays the ways in which the Conveyor and mezzanine are attached to the building, describing various portions of the asset as attached with “a few lag bolts,” “small tack welds, which are . . . relatively easy to remove,” and “removable clips.” Goesling Direct ¶ 126. There are actually thousands of connection points — including welds, expansion bolts, concrete lag bolts, and white steel connections — which in the aggregate amount to very significant attachment to the realty. Stevens Direct ¶ 251.

c) There is no evidence that GM moved similar assets. Mr. Goesling’s disclaimer of knowledge (Direct ¶ 125 (“Similar Assets Relocated within GM for Reuse: Unknown”)) does not change this fact.

d) Notwithstanding Mr. Goesling’s assertion (Direct ¶¶ 125, 128) that there is a “secondary market for similar assets” (or at least for “components of similar assets”), he was unable to identify any “similar” assets in his sales analysis, even from closed GM plants. PX347; *see also* Levy Dep. 30:4-12 (a conveyor is generally not salable due to cost of removal). The existence of a secondary market also would be inconsistent with Mr. Goesling’s assignment of a \$5,000 scrap value to this asset (applying a 50% deduction for removal costs). Goesling Direct ¶ 412 & Ex. A at 388. In any event, even if there were a secondary market for comparable conveyors, it would not be probative of intent, given the unrebutted evidence that GM purchased assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3 above.

e) Mr. Goesling also concludes (Direct ¶ 128) that the Wheel and Tire Delivery Conveyor was not intended to be permanently attached because it is “similar” to a

component of two stamping presses that are subject to sale/leasebacks. But there is no evidence that the Wheel and Tire Delivery Conveyor is “similar” to a component of the two presses. And a sale/leaseback with respect to a stamping press sheds no light on GM’s intent at the time it installed the Wheel and Tire Delivery Conveyor at LDT. *See* Section VIII.E above. Finally, as discussed below (Section XIII.B.5(g)), the leases do not even affect the fixture status of those stamping presses; they certainly have no bearing on this very different Conveyor that was not subject to any lease.

Asset 21: Final Line Skillet Conveyor⁹³

658. The Final Line Skillet Conveyor moves “skillets” — platforms that carry near-finished vehicles, with room for workers to perform work on the vehicle — through various “final” assembly stations, where seats, wheels and tires, and doors are added, resulting in a vehicle that can be driven off the line. Stevens Direct ¶ 259, JX1304.

659. LDT’s assembly building was designed around the final assembly process and line, and includes a custom concrete pit — part of the Pits and Trenches (Asset 2), a conceded fixture — that was excavated and poured specifically for the Final Skillet Conveyor at a cost of hundreds of thousands of dollars. Because the asset was installed in a pit, it allows the skillets to be presented at floor level so workers can address vehicles ergonomically, which improves productivity and minimizes injury. The Conveyor was purchased and installed at a cost of almost \$1.5 million and has been operated in place for over 10 years. Stevens Direct ¶ 260.

660. **Attachment.** The parties agree that this asset is attached to the realty. Goesling Direct ¶ 60. The Final Line Skillet Conveyor is a 500 foot-long, 12 foot-wide, 80,000-pound asset that is secured by over 2,500 bolts to a steel-reinforced concrete pit designed specifically to hold it. Stevens Direct ¶¶ 259-62. The Conveyor is also connected to the plant’s electrical supply, provided by the CUC, often through cables running through specially installed trays in the concrete floor. Stevens Direct Ex. A at 54.

⁹³ Asset Handbook at 57-59; Stevens Direct ¶¶ 259-69 & Ex. A at 52-56.

661. **Adaptation.** The Final Line Skillet Conveyor is adapted to GM's use of the LDT facility. The overall dimensions of the asset, as well as its performance specifications (*i.e.*, speed, power, load rating), were dictated by the requirements of the general assembly process at LDT specifically. GM designed the facility to accommodate this asset, including by installing steel-reinforced concrete pits below the floor grade. Stevens Direct ¶ 263.

662. **Intent.** The following facts all strongly support a finding that GM intended to install the Final Line Skillet Conveyor permanently at LDT:

a) The extensive degree of attachment and adaptation of the Final Line Skillet Conveyor is evidence of GM's intent for permanence. The path of the Final Line Skillet Conveyor and the number and sequence of its components (*e.g.*, turntables, take-offs, aisle crossings) were designed to integrate with and enable hundreds of sub-processes in LDT's general assembly area. Furthermore, GM designed the facility itself to accommodate this asset by installing steel-reinforced concrete pits below the floor grade as well as safety fencing and access stairs — in short, the dimensions and path of the Final Line Skillet Conveyor were engineered in accordance with the building's unique T-shaped footprint. Stevens Direct ¶ 264.

b) The Final Line Skillet Conveyor is a flexible asset that can carry not only the current line of GM vehicles manufactured at LDT, but also any foreseeable vehicle that might be produced there. Because the asset's control system is integrated with assembly stations (*e.g.*, tire assembly installation), it can be reprogrammed in place (*e.g.*, its height and speed can be adjusted) if the process for a future vehicle requires a different setting. *Id.*

c) This asset is critical to general assembly processes because it links each of the final assembly operations (*i.e.*, seat installation, doors-on, wheel install, initial start, etc.) and reduces the number of workers required to complete the final assembly process, decreasing costs and enabling LDT to meet its target of 1,100 vehicles per day. *Id.* The Final Line Skillet Conveyor was, for example, designed, constructed, and installed to be integrated with dozens of other assets, including five trim conveyors, three chassis conveyors, as well as many other smaller conveyor and sub-systems (including engine dress, AGVs, seat delivery, front-end

module, and door assembly). The wheel-and-tire sub-assembly process (composed, in part, of the Wheel & Tire Conveyor (Asset 20, discussed above), as well as the Soap, Mount & Inflate System (Asset 15, discussed above)), are also linked with and dependent upon the Final Line Skillet Conveyor. *Id.* ¶ 264.

663. Plaintiff's claims as to GM's lack of intent to install the Final Line Skillet Conveyor permanently are not supported by the evidence:

a) Mr. Goesling claims (Direct ¶ 134 & Ex. D) that the Final Line Skillet Conveyor is "the most lightly attached and easiest to remove of the" conveyor systems, and suggests that "removal would be relatively easy." The evidence is very strongly to the contrary. Removal would take months and would require, at a minimum, the following: (i) locking out and disconnecting all energy sources; (ii) removing all control panels and field wiring; (iii) disassembling and removing the mechanical portion of the load rails and cable tray; (iv) disassembling and removing all drive units; and then (v) repairing all damage to the Final Line Skillet Conveyor's pit floors and walls. Stevens Direct ¶ 267.

b) Mr. Goesling also suggests (Direct ¶ 134) that GM did not intend for permanent installation because the Final Line Skillet Conveyor is made up of "sections." But as the Court observed and Mr. Goesling conceded, that was the only way to install the asset. Tr. 3125:6-10 ("THE COURT; You couldn't bring them into the plant other than manufactured in sections, could you, to install it?" Goesling: "That's correct. . . ."). *See* Section VIII.A.3 (modularity not probative of GM's intent for permanence).

c) In addition, Mr. Goesling asserts (Direct ¶ 134) that removing the Final Line Skillet Conveyor "would not cause damage to . . . the realty," even though it would leave behind an open concrete pit measuring three feet deep and 500 feet long running through the heart of LDT's vehicle assembly area. Stevens Direct ¶ 267. He testified that the pit is not damage because it is capitalized as a separate asset. Goesling Direct ¶ 135. But Mr. Goesling's view elevates form over substance. GM could have capitalized the pit in the same line item as the Conveyor, as it actually did with the Vertical Channel Holding Furnace (Asset 28). *See*

Goesling Direct Ex. A at 214 (“It is my understanding that the asset was comprised primarily of a vertical channel holding furnace, a pit with foundation . . .”). Here, the pit was dug, at great expense, specifically to hold the Skillet Conveyor and to enable workers to address cars efficiently and ergonomically. Tr. 171:15-172:19 (Stevens). It does not matter that GM capitalized the Conveyor and the pit in two separate line items. The pit was an installation cost for the Conveyor: it would be of no use without the Conveyor and would need to be remediated before the plant could even theoretically be used for something else. Stevens Direct ¶ 267; Tr. 172:13-19 (Stevens).

d) Mr. Goesling identifies only two similar assets that were moved. Goesling Direct ¶ 135. Both were removed from Saturn Spring Hill when that facility was idled. Stevens Direct ¶ 269. The assets were moved to Orion because, as part of its restructuring, GM renovated Orion to produce a different type of car. *Id.* Such extraordinary circumstances are irrelevant in determining GM’s intent when the Conveyor was installed. *See* Section VIII.B.1.

e) Notwithstanding Mr. Goesling’s assertion (Direct ¶ 133) that there is a secondary market for similar assets (or at least for “components” of similar assets), he was unable to identify any “similar” assets in his sales analysis, even from closed GM plants. PX347. The existence of a secondary market also would be inconsistent with Mr. Goesling’s assignment of a \$1,000 scrap value to the Skillet Conveyor — a far cry from the \$1.5 million GM spent to install it. DX31. In any event, as noted (Section VIII.B.3), the existence of a secondary market for the Final Line Skillet Conveyor would not be relevant because GM purchased assets new and did not buy or install assets with an eye to reselling them on the secondary market.

Asset 2: Pits & Trenches⁹⁴

664. The Pits & Trenches are a network of concrete trenches that GM specifically designed and installed in order to support the general assembly conveyors and related equipment.

⁹⁴ Asset Handbook at 60-61; Stevens Direct ¶¶ 270-77 & Ex. A at 58-62.

The asset houses the Final Line Skillet Conveyor (Representative Asset 21), among other conveyors and equipment. Stevens Direct ¶¶ 270-71. The Pits & Trenches have an installed cost of \$2.3 million. *Id.* Ex. A at 59.

665. The parties agree that the Pits & Trenches are fixtures. Stevens Direct ¶¶ 270-77; Goesling Direct ¶ 98. They are attached, since they are integrated into the floor; adapted, since they are customized to house important systems critical to LDT's manufacture of automobiles; and installed with the intent that they remain in place permanently, as the plant would not function without the Pits & Trenches or the machines they house. Stevens Direct ¶¶ 273-75.

5. **LDT Central Utilities Complex.**

Asset 11: Central Utilities Complex⁹⁵

666. The Central Utilities Complex (the "CUC") is a 65,000 square foot facility that was constructed between 2004 and 2006 at a cost of \$74 million to provide utilities to all of LDT. Stevens Direct ¶¶ 288, 290. The CUC was financed through a 16-year arrangement styled as a capital lease. *See id.* ¶ 290; JX11; JX12; JX13; Pretrial Order ¶ 67.⁹⁶

667. The CUC is critical to the operation of the stamping, body, paint, and general assembly areas at LDT, providing necessary electrical power; hot, chilled, treated, and domestic water; steam; compressed air; and wastewater treatment. GM designed the CUC from the ground up to LDT's specific requirements, specifying the equipment within the CUC and constructing a purpose-built enclosure for them. If any of the components of the major systems of the CUC were removed (all of which are large and would require extensive effort to remove), LDT operations would stop until the component was replaced with an identical one. Stevens Direct ¶ 288; Tr. 121:21-23 ("Q. And without the CUC can the plant operate?" Stevens: "No. It could not.").

⁹⁵ Asset Handbook at 63-66; Stevens Direct ¶¶ 288-311 & Ex. A at 70-77.

⁹⁶ The legal implications of this arrangement are discussed at Section XIII.C.6 below.

668. Certain components of the CUC — *e.g.*, the walls, floor, ceiling — are ordinary building materials that have no independent identity apart from the building itself. The parties agree that these components of the CUC are real estate and not fixtures.⁹⁷

669. However, as discussed below, the parties and their experts agree that the bulk of the major components of the CUC have an independent identity apart from the building and should be evaluated according to the three-part fixture test. This category includes systems such as the CUC's utility piping, pumps, electrical power distribution systems, air handling units, compressed air systems, chilled water, hot water boilers, waste treatment system, and wastewater treatment systems (the "CUC Systems"). The great majority of the CUC's \$74 million installed cost was attributable to the CUC Systems. Stevens Direct ¶ 290.

670. **Attachment.** Each of the individual components of the CUC Systems is attached to the realty. Most are lag bolted, including the pumps, electrical power distribution systems, air handling units, the compressed air system, the chilled water system, hot water boilers, the water treatment system, and the wastewater treatment system. Other components that cannot be lag bolted, such as piping, are hung by supporting members that are clipped to the realty and generally firmly attached to the systems they service, which are firmly attached to the realty in turn. Finally, certain components, such as the large storage tanks, are attached by their great weight and size. JX1135 is a photograph of these large storage tanks. Stevens Direct ¶ 292.

⁹⁷ In his written testimony (Direct ¶ 199), Mr. Goesling seeks to expand this category to cover a set of "Common Utilities" for the CUC building, such as heating and ventilation systems. *Id.* Mr. Goesling concedes that such items are not personal property. *Id.* ¶¶ 200-01, Tr. 3282:21-23 (Goesling). However, he argues that such items are also not fixtures, because they are "basic elements" that would be "found in virtually any standard industrial building," and thus he classifies them simply as "real property." Goesling Direct ¶ 201. It is unclear what scope of components Mr. Goesling views as "basic elements," Tr. 19:10-13 (Stevens) (unclear what constitutes a "standard heavy industrial building"), particularly here where the evidence indicates that GM's buildings are anything but standard. Tr. 1486:5-14 (Furey) (GM's manufacturing facilities were "unique"). In any event, whether or not such items are standard, a number of them have an identity independent from the building. Stevens Direct ¶ 301 & Ex. A at 73-74, 77. Mr. Goesling does not dispute this. As set out in the conclusions of law for this asset, these components must therefore be analyzed under the three-part fixture test.

671. **Adaptation.** Each of the CUC Systems is also clearly adapted to GM's use of the LDT facility, as the utilities and services provided by the CUC Systems are necessary for all operations at LDT. Stevens Direct ¶ 293. Mr. Goesling acknowledged that, at the time it was installed, the CUC was an integral part of LDT. Tr. 3205:10-14. The CUC building was also adapted for the assets within it, for example, by the construction of concrete foundations for certain components and the routing of hard conduit and plumbing to particular locations.

672. **Intent.** When evaluating whether GM intended to permanently install the CUC Systems, it is more appropriate to evaluate the CUC as a whole than to evaluate each CUC System individually. Stevens Direct ¶ 294. The CUC is an integrated system that was designed from the ground up, with the CUC Systems installed at the same time LDT was constructed, to work as a unit to provide the utilities necessary to meet the design specifications of all of LDT. Without the CUC as a whole, production of vehicles at LDT would cease. Stevens Direct ¶ 297.

673. The following facts all strongly support a finding that GM intended to install the integrated CUC Systems permanently at LDT:

a) The CUC is integrated with many LDT assets and is critical to nearly every plant process and operation. Removal of any component of a CUC System would impair GM's ability to produce automobiles at LDT until a functional replacement was installed in the particular spot where the removed component sat. Given the size of the components of the CUC Systems, this would take an extended period of time, resulting in a shutdown of operations at LDT in the meantime that would render all of the assets throughout the plant, including many assets Mr. Goesling concedes are fixtures, useless. Stevens Direct ¶ 295.

b) The components of the CUC Systems are generally very large and extensively attached to the CUC building, including multistory tanks, wastewater treatment systems involving specially installed mezzanines, and extensive hard piping that integrates the systems to each other and to the production areas at LDT. Stevens Direct ¶ 295.

c) GM designed the CUC, specified the equipment inside it, and purpose-built a building for the equipment to support GM's vehicle manufacturing process at LDT.

Assembly and stamping complexes do not operate without a powerhouse facility containing essentially all the same components as the CUC at LDT. Stevens Direct ¶¶ 295, 298-99.

d) Powerhouses like the CUC do not move, even in situations where plants are shut down. Individual components of powerhouses are also not removed piecemeal from a CUC for reuse elsewhere unless the entire plant is shut down, idled or overhauled; and even in those situations significant movement is rare. Mr. Goesling's claim otherwise is based on movements of "components" that never appear to have been installed in powerhouses at all, but rather in non-powerhouse portions of other GM plants. Goesling Direct ¶ 196, Stevens Direct ¶ 299. Moves out of non-powerhouses indicate nothing about GM's intent when it installed such components as part of an integrated CUC. In any event, even the "similar" line items Mr. Goesling identified almost exclusively moved out of closed or idled plants. Stevens Direct ¶¶ 297-99; *see* Section VIII.B above.

674. Plaintiff's claims as to GM's lack of intent to install the CUC Systems permanently are not supported by the evidence. Rather than assessing GM's intent when installing the CUC as a whole, Mr. Goesling artificially analyzes each component of the CUC on its own, primarily focusing on whether GM had previously moved similar assets and whether each component could be moved without "damaging" it or the CUC. As discussed, this is not the appropriate way to analyze GM's intent when installing the CUC, including the CUC Systems. Stevens Direct ¶ 296. However, even if the evidence of GM's intent to install the CUC as a whole integrated system permanently is ignored and each of the CUC Systems is analyzed separately, the result would be the same.

675. Utility Piping: Mr. Goesling concedes that the utility piping in the CUC is a fixture. Goesling Direct ¶ 203. Notably, as discussed below, the CUC utility piping is extensively attached to and integrated with the CUC's other component systems and would be scrapped if those systems were removed, underscoring the integration of the CUC as a whole, and GM's intent to install the entire CUC permanently. Stevens Direct ¶ 302.

676. Pumps: Mr. Goesling testified that the “numerous pumps of differing sizes and capacities that serve to propel liquid through the CUC piping” are not fixtures. Goesling Direct ¶ 205. Mr. Goesling provided no explanation for why GM would intend to permanently install the CUC piping (which Mr. Goesling concedes is a fixture) but not the pumps that make the piping functional. This inconsistency highlights the fundamental illogic of evaluating GM’s intent with respect to each component of the CUC individually, when GM installed them to work together as an integrated system. In any event, the following facts strongly support a finding that GM intended to install the pumps permanently: (i) GM mounted the pumps on concrete foundations poured specifically for the pumps; (ii) many of the pumps are extremely heavy and would require significant time, effort, and powered equipment to remove; and (iii) the pumps are critical to the functioning of the CUC piping, a conceded fixture. Moreover, the only “similar” assets identified by Mr. Goesling as having moved were all moved out of closed plants. Stevens Direct ¶ 303.

677. Electrical Power Distribution: Mr. Goesling concludes that some unspecified portion of the CUC Electrical Power Distribution is a “fixture” and some portion is “personal property.” Goesling Direct ¶ 209. In fact, if any of these subcomponents of the Electrical Power Distribution system were removed, the CUC would not operate, which means LDT would not operate. There is no plausible reason to conclude that GM would install some portion of this critical equipment with the intent that it would be permanently attached, and other portions of the same system with a different intent, and Mr. Goesling provides none. Finally, the only “similar” electrical components Mr. Goesling identified as having moved were all transferred out of closed plants (and do not appear to be powerhouse electrical systems in any event). These moves are not probative of GM’s intent in installing such components in the CUC at LDT. Stevens Direct ¶ 304, JX1141; Section VIII.B above.

678. Air Handling Units: The 43 air handling units on the roof of the general assembly and body shop areas provided critical air conditioning for the LDT facility and were intended to

be permanent. Stevens Direct ¶ 305. Indeed, Mr. Goesling concedes that these units, which are accounted for as part of the CUC, are “fixtures.” Goesling Direct ¶ 213.

679. Compressed Air System: The compressed air system within the CUC generates compressed air for use in the operations throughout LDT. The system includes four air compressors and four air dryers. Stevens Direct ¶ 306. The following facts strongly support a finding that GM intended to install the pumps permanently: (i) LDT could not function without the compressed air provided by these compressors and dryers; (ii) GM installed the compressors and dryers on four-inch concrete risers specially poured for them, JX1117; and (iii) the size of the compressors and dryers (30,000 pounds in weight and 10 feet by 15 feet in dimension) would make removal and transportation difficult. Stevens Direct ¶ 306. Mr. Goesling asserts that certain compressors in the CUC were in fact moved from the old Lansing Grand River plant. Goesling Direct ¶ 217. Even if true, they would have been moved when the plant was being demolished and the entirely new LDT facility, with a new powerhouse, was being built. Stevens Direct ¶ 306, Tr. 367:10-12 (Stevens). Although Mr. Goesling asserts that three other “similar” assets moved (Direct ¶ 216), they were all moved out of closed plants (Fredricksburg and Wixom). Stevens Direct ¶ 306.

680. Chilled Water: The chilled water system within the CUC includes five electric centrifugal chillers with a capacity of approximately 2,000 tons each, a cooling tower, and a 3.3-million gallon welded steel tank. Stevens Direct ¶ 307; JX1146. Mr. Goesling concedes that the cooling tower(s) and the chilled water tank are fixtures, but contends that the “centrifugal chillers” are not fixtures. Goesling Direct ¶¶ 221-22; Tr. 88:8-11, 105:17-25 (Stevens). As the Court saw at trial (JX1146), these centrifugal chillers are massive assets with a capacity of approximately 2,000 tons each that are heavily integrated into the CUC. Stevens Direct ¶ 307. The Court itself asked the Avoidance Trust if it asserts that these chillers are not fixtures, Tr. 88:8-11 — while the Avoidance Trust’s counsel was uncertain in the moment, Mr. Goesling’s position is clear that these are non-fixtures because of what he describes as their “relatively temporary method of attachment.” Goesling Direct ¶ 221. This assertion by Mr. Goesling is not credible. The chillers are not attached through a “relatively temporary” method, but rather

placed on a custom-poured concrete foundation, bolted to hard CUC Piping, and heavily integrated in the CUC and LDT as a whole. Stevens Direct ¶ 307, Tr. 87:18-88:7 (Stevens).

681. The following facts strongly support a finding that GM intended to install the chillers permanently: (i) the large size and significant attachment of the chillers; (ii) chilled water is critical for operations as well as building climate control; (ii) each of the chillers is installed on a specially poured concrete foundation; and (iii) each of the chillers is bolted to hard CUC piping, which Mr. Goesling concedes is a fixture. Mr. Goesling asserts that GM did not intend these chillers to be permanently installed because GM previously moved chillers. Goesling Direct ¶ 220. But the only two that Mr. Goesling identifies were from GM Assembly Doraville, after that plant was closed. These moves are not probative of GM's intent when it installed the massive chillers at LDT. Stevens Direct ¶ 307; *see* Section VIII.B above.

682. Hot Water Boilers: The CUC includes three natural gas boilers that produce hot water. This hot water is used for manufacturing operations and building heating. Stevens Direct ¶ 308, JX1156. The following facts strongly support a finding that GM intended to install the pumps permanently: (i) without the boilers, the manufacturing operations in the paint shop could not proceed; (ii) the entire plant would need to be shuttered in the winter months; (iii) each of the boilers is installed on a specially poured four-inch concrete foundation; and (iv) the boilers weigh 50,000 to 60,000 pounds each and are 15 feet tall and 20 feet long — given their size, the building was essentially constructed around the boilers. Stevens Direct ¶ 308; Tr. 189:9-11 (“[T]he walls of the building in that area were left unbuilt or unconstructed until the boilers were put in place”). Removing the boilers would require removing part of the walls. Tr. 190:3-14 (Stevens); Tr. 3352:22-3353:21 (Goesling) (conceding walls of the building would have to be removed).

683. Mr. Goesling could not identify any similar assets relocated within GM for reuse, but nonetheless concludes that these boilers are not fixtures, because he asserts that lift points and skids on the boilers suggest that these 50,000 pound boilers were “designed for portability.” Goesling Direct ¶ 225. A review of JX1156 shows that it is nearly impossible to even perceive these lift points and skids given the sheer size of the boilers and piping. In any event, the

evidence at trial showed that the lift points and skids were engineered to aid in moving the boilers into the CUC (when the walls were still open), not to aid removal (after the boilers were installed on concrete pads and integrated with the CUC Piping). Stevens Direct ¶ 308.

684. Mr. Goesling also asserted that industrial boilers can be rented “due to their ease of movability,” and therefore the boilers installed in the LDT CUC are not fixtures. Goesling Direct ¶ 225, Tr. 3355:7-3357:2 (Goesling). Mr. Goesling acknowledged that the rented boilers he was referring to are mounted on trailers, and brought to sites on a temporary basis. Tr. 3355:19-25. Yet he was not swayed by the fact that the boilers at issue in this case — the 50,000 pound boilers installed in the CUC on specially poured concrete foundations — were installed so permanently that they could only be removed by cutting holes in the walls of the building itself. Tr. 3352:22-3353:21.

685. Water Treatment System: The water treatment system in the LDT CUC includes two reverse osmosis purification units, a zeolite resin water softening system, a HMI control panel, and two 80,000 gallon fiberglass tanks. The water treatment system provides the paint shop with filtered and softened water for use in its operations. Stevens Direct ¶ 309. The following facts strongly support a finding that GM intended to install the water treatment system permanently: (i) if the system were ever removed, the paint shop could not function and operations at the rest of LDT would grind to a halt until a replacement was installed at the same location (due to the hard piping connections that mandate the location of the current systems); (ii) GM installed all components of this system (other than the HMI) on a specially poured 4-inch concrete foundations (JX1120, JX1122); (iii) some components of this system are extremely large, including the tanks, which are 12 feet in diameter, 30 feet tall, and each hold 80,000 gallons of water (JX1135); and (iv) GM installed catwalks to connect the water tanks with the ELPO waste tanks. *Id.* Mr. Goesling admits that he did not identify any examples of GM actually moving any components of a water cleaning system like this one for reuse. Goesling Direct ¶ 227; Stevens Direct ¶ 309.

686. Wastewater Treatment System: The wastewater treatment system in the LDT CUC includes two filter presses, two flocculation tanks, a mezzanine structure, two parallel plate

clarifiers, three batch wastewater holding tanks, two vertical ELPO waste tanks, a sludge conditioning tank, and a sludge holding tank. Stevens Direct ¶ 310, JX1132 (mezzanine), JX1151 (ELPO waste tanks). Mr. Goesling concludes that all components of the wastewater treatment system are non-fixtures except for the batch wastewater tanks and sludge holding tank. Goesling Direct ¶¶ 232-39. Again, Mr. Goesling does not address the fact that without the complete wastewater treatment system, the components that he does concede are fixtures would lose all value. Moreover, there would be no remediation option for the liquid industrial waste generated at LDT, and GM would have to go to extraordinary efforts to transport and treat all liquid waste offsite at tremendous, cost-prohibitive expense. Realistically, operations at LDT would cease until a new wastewater treatment system could be installed. Given this, there is no reason GM would remove any components of this system from LDT. Stevens Direct ¶ 310.

687. Even looking at the subcomponents of the wastewater treatment system individually, the size, location, and attachment of those assets indicate that GM intended those subcomponents to remain in place for their useful lives at the LDT CUC. For most of the subcomponents, Mr. Goesling was unable to identify any similar assets that GM moved. While he identified two “similar” wastewater tanks that moved, those tanks were moved out of closed/idled plants (Wixom and Janesville), and therefore are not probative of GM’s intent when it installed the wastewater treatment system in the CUC at LDT. Stevens Direct ¶ 311.

a) Filter Presses: The filter presses of the treatment system are installed with custom-designed safety screening, on specially poured concrete pads, and are attached to the CUC Piping that Mr. Goesling agrees is a fixture. Moreover, Mr. Goesling does not identify any examples of such filter presses installed in CUCs being moved by GM. Stevens Direct ¶ 311.

b) Flocculation Tanks: These large tanks measure eight feet in diameter and eight feet in height, each weighing between six and eight thousand pounds. The tanks are installed on specially poured six-inch-thick concrete footings, and are also slotted through a mezzanine that was constructed to accommodate these specific tanks. Given the size of the tanks, they could not be removed without damaging either the tanks or the mezzanine, and

removal would likely require openings to be made in the CUC's walls unless the tanks were being cut up and removed for scrap. Stevens Direct ¶ 311.

c) Parallel Plate Clarifiers: The parallel plate clarifiers are large assets that measure 10 feet by 10 feet by 15 feet and weigh approximately 20,000 pounds. The clarifiers are installed on specially poured concrete footings, and, like the flocculation tanks, are slotted through a mezzanine that was custom-constructed to accommodate these specific clarifiers. Given the size of the clarifiers, they could not be removed without damaging either the clarifiers themselves or the mezzanine, and removal would also likely require openings to be made in the CUC's walls unless the clarifiers were being cut up for scrap. Stevens Direct ¶ 311.

d) Mezzanine Structure: The mezzanine was custom-designed and installed to allow access to the flocculation tanks and the parallel plate clarifiers. It is approximately 15 to 18 feet high, and 20 feet by 30 feet wide. It is bolted extensively to the other assets in the wastewater treatment system, the CUC Piping (that Mr. Goesling concedes is a fixture), and the floor and the structural beams of the building. Cf. Goesling Direct Ex. A at 99. The CUC Piping, which Mr. Goesling concedes is a fixture, is also attached to the mezzanine and would need to be demolished if the mezzanine were removed, also indicating GM intended the mezzanine to be permanently installed. Stevens Direct ¶ 311.

e) Sludge Conditioning Tank: The sludge conditioning tank is an eight foot by ten foot steel tank that is mounted on specially poured eight-inch footings with concrete lag bolts. The sludge conditioning tank is so embedded behind other assets that removing the tank would either result in damage to the tank itself, or the assets surrounding the tank would have to be removed to secure access to the sludge conditioning tank. Stevens Direct ¶ 311.

f) Batch Wastewater Holding Tanks: Mr. Goesling concedes that these tanks are fixtures. Goesling Direct ¶ 236.

g) ELPO Vertical Waste Tanks: Mr. Goesling claims that these 12 feet in diameter, 30 feet tall tanks are not fixtures because he believes they "were shop fabricated and then delivered and installed with a crane." Goesling Direct ¶ 237. However, the size of these

tanks alone is strong evidence that, despite their potential to be transported and installed, once installed, they were intended to remain in place for their useful lives. Stevens Direct ¶ 311.

688. Finally, for many of the components of the CUC, Mr. Goesling claims that a secondary market exists. Goesling Direct ¶¶ 200, 203, 206, 209, 213, 216, 220, 224, 227. However, the fact that a secondary market may exist for some CUC components is not probative of GM's intent at the time of installation. *See* Section VIII.B.3 above; Tr. 137:24-138:7 (Stevens). In any event, the evidence shows that any "similar" sold assets that Mr. Goesling identified were from closed facilities. *See* DDX-PX350b at 3; Tr. 3301:24-3302:6.

B. The Representative Assets at GM Warren Transmission

689. Daniel Deeds, a licensed professional engineer with 39 years of experience in manufacturing engineering at GM, testified about the 11 Representative Assets that were installed at Warren Transmission. Deeds Direct ¶¶ 1, 3, 11. Additional testimony was provided by John Buttermore, GM's former head of Powertrain Global Manufacturing Operations, with 36 years of manufacturing engineering experience at GM and extensive involvement in the development of GM's "Lean Agile Flex" policies. Buttermore Direct ¶¶ 1, 2.

690. Mr. Deeds was a credible expert whose testimony was based on his many years of extensive direct contact with assets similar or identical to the Representative Assets at Warren Transmission. Deeds Direct ¶¶ 13, 16. Mr. Deeds served as manufacturing engineering director at Warren Transmission between 1996 and 1998, and between 2009 and 2014. Tr. 454:23-455:3, 456:22-457:7 (Deeds); Deeds Direct Ex. A at 118. Mr. Deeds also served as manufacturing engineering director or plant manager in a number of other GM powertrain facilities. Tr. 455:4-17. In those roles, Mr. Deeds had day-to-day responsibility for the manufacturing equipment and systems GM uses to produce engines and transmissions, including maintenance, improvement and troubleshooting of technical problems. Deeds Direct ¶¶ 12-14.

691. Mr. Deeds had extensive involvement in renovations at Warren and other powertrain facilities, which entailed decommissioning old, obsolete machinery and upgrading the

facilities to prepare for the installation of new production lines. Deeds Direct ¶ 14; Tr. 460:7-22. Mr. Deeds was also involved in implementing the “lean” manufacturing concepts that GM began to adopt in the 1990s, including “Lean Agile Flex” in powertrain. Deeds Direct ¶ 13.

692. Mr. Buttermore, who served as vice president of GM Powertrain Global Manufacturing Operations between 2006 and 2009, was also a credible expert. Buttermore Direct ¶ 10; Tr. 1285:22-1286:5. In that position, he oversaw the design, installation and major upgrades of manufacturing assets and technology at all worldwide operating powertrain plants. Buttermore Direct ¶ 10. In earlier roles, he served as manufacturing manager for eight GM engine plants and was the group director of manufacturing engineering for GM’s powertrain business units. Buttermore Direct ¶ 11; Tr. 1285:14-19. In his career, Mr. Buttermore gained extensive experience in lean manufacturing systems, manufacturing and production engineering, and major product line purchases, and was responsible for developing and implementing flexible manufacturing technology, known as “Lean Agile Flex,” into GM’s powertrain manufacturing processes. Buttermore Direct ¶¶ 14, 23; Tr. 1286:21-1289:8.

(a) The extended life of powertrain production lines

693. GM typically used the assets in its powertrain production systems for decades, rarely, if ever, removing assets from an operating production line. Deeds Direct ¶ 27-28; Tr. 476:7-23 (Deeds). Mr. Deeds testified that in his nearly 40 years of experience, it was never GM’s practice to relocate its manufacturing assets. Tr. 487:9-14. Mr. Buttermore similarly testified that even when GM chose to install a new production line, it would continue to operate the older production line until it would “run out.” Tr. 1292:18-1293:8, 1293:21-1294:6.

694. When powertrain production lines were removed and replaced by new production assets, the plant renovations required amounted to something similar to new plant construction. Deeds Direct ¶ 29; Tr. 465:13-466:10. It was far from an easy process. Deeds Direct ¶ 29.

695. Warren Transmission provides a good illustration of how GM utilized its powertrain manufacturing assets. The Warren facility was acquired by GM from Ford in 1960.

Deeds Direct ¶ 36. Over the ensuing six decades, GM has produced only five products at Warren Transmission — in two separate areas of the plant. *Id.* Each of those five products was produced with equipment that GM operated for no fewer than 20 and for as many as 44 years before being removed from the plant as obsolete. Deeds Direct ¶¶ 36-39. In the process of renovating the facility as each new product was introduced, the facility has changed dramatically, from 16 separate buildings with one million square feet of floor space to one large building with about 2.1 million square feet of floor space. Tr. 458:22-459:16 (Deeds).

696. GM installed a new line capable of producing 6-speed transmissions at Warren in 2006 at a cost of \$350 to 450 million. Deeds Direct Ex. A at 10. The 6-speed line was installed in a portion of the plant that had previously manufactured suspension parts and wheels. The manufacturing equipment used to make those parts became obsolete (after 44 years) and was removed. To accommodate the new 6-speed line, GM spent approximately \$50 million to renovate that area of the Warren Transmission plant, including removing the floor down to the bare dirt and pouring a new floor, removing old utility piping and replacing it with new piping, upgrading all of the utilities, installing a new fire suppression system, installing a new lighting system and installing a new HVAC system. Deeds Direct ¶ 43 & Ex. A at 10. These renovations resulted in what was in effect a new building within the Warren Transmission facility. Tr. 475:13-20 (Deeds).

697. Prior to any renovations occurring, GM designed and specified the processes that the 6-speed transmission line would include, and the equipment that would be part of those processes. Deeds Direct ¶ 42. The 6-speed equipment that GM selected, and the layout of the equipment, was thereafter specifically adapted to the Warren Transmission facility. *Id.* ¶ 45. Only then were the renovations to the plant carried out in order to adapt the building to accommodate the new 6-speed line. *Id.* ¶¶ 42-43.

698. The 6-speed line that resulted from this elaborate planning and renovation process is a complex assemblage of assets that takes steel and aluminum castings and produces completed transmissions that can be shipped to GM assembly plants, such as LDT, for inclusion

in GM vehicles. Deeds Direct Ex. A at 11. The line consists of four highly integrated but distinct areas: the transfer gear machining area, the planetary gear machining area, the transmission housing machining area and the transmission assembly area. DDX103. The two gear machining areas machine steel gear blanks to fine tolerances, producing 23 ready-to-install gears for each 6-speed transmission. Deeds Direct Ex. A at 11-12 (process overview); Tr. 480:11-481:3; DDX109 (schematic of planetary gear machining area, including Asset 36); DDX112 (schematic of transfer gear machining area, including Assets 22, 24 and 25). The transmission housing machining area machines cast aluminum housings into the four finished transmission housings that each 6-speed transmission requires and then tests them. Deeds Direct Ex. A at 11-12 (process overview); Tr. 480:11-481:3; DDX104 (schematic of transmission housing machining area, including Assets 3, 14 and 23). The assets in the transmission assembly area then combine the housings, gears and other components and extensively test each transmission; completed transmissions are then packed and shipped to assembly plants. Deeds Direct Ex. A at 11; Tr. 480:11-481:9; DDX110 (schematic of transmission assembly area, including assets 1 and 35).

699. Warren Transmission also produces an electric-drive unit used in the Chevy Volt and Chevy Malibu Hybrid. Deeds Direct Ex. A at 10. The electric-drive production area was formerly occupied by the 4-speed line, and the facility was renovated specifically to accommodate the electric-drive unit. *Id.*; Tr. 464:19:465:9. Consistent with its practice of renovating facilities around the specific process and equipment to be installed, GM has renovated only those areas of the former 4-speed transmission area that the electric-drive unit occupies — in all, about one third of the space the 4-speed formerly used. Tr. 464:19-465:9 (Deeds) (discussing DDX101).

700. Given the high level of customization for GM's production processes, GM's powertrain facilities, like its manufacturing facilities more generally, have typically been demolished upon a plant closure or sale, rather than repurposed for some non-automotive manufacturing use. Deeds Direct ¶¶ 29-30. As discussed above, among the GM plants in Michigan and Ohio that closed

between 2006 and 2010, three engine and transmission plants (Flint Engine Factory 36, Flint North, and Willow Run Transmission) were entirely demolished. Deeds Direct ¶ 30.

701. GM's typical decades-long use of its powertrain manufacturing assets in place, and the extensive renovations required to any existing buildings before new assets are installed, is powerful evidence of GM's intent to install powertrain manufacturing assets for their useful lives.

(b) GM's use of Lean Agile Flex systems at Warren

702. As discussed above, in powertrain, as in other areas of GM's manufacturing, fuel economy regulations and customer preferences started to shorten product cycles in the early 1990s. Tr. 1287:22-1288:11 (Buttermore); Buttermore Direct ¶ 31. This led GM to move away from its earlier mass production paradigm with fixed dedicated equipment that could be used for its entire useful life to serve a 30- to 40-year product cycle. Tr. 1287:22-1288:11 (Buttermore). To this end, starting in 1994, GM began developing a Lean Agile Flex strategy for powertrain. Tr. 1291:11-13 (Buttermore). The strategy utilized computer numerically controlled technology in machines that cut or otherwise process metal castings (known as CNC machines). CNC machines perform one or more types of cutting and processing operations on a raw or semi-finished part to turn it into a finished component. The Liebherr Hobb (Asset 25) and Base Shaping Machine (Asset 24) are examples of CNC machines. They can each be programmed to machine any part that fits within their work envelope (the space within the machine where the transmission castings are placed to perform the shaping operations) in a variety of ways as specified by their programming. CNCs are flexible as their programming can be updated as new machining operations are required, without any mechanical alterations to or movement of the CNC machine itself. Deeds Direct Ex. A at 106, 16, 44, 50; Buttermore Direct ¶ 34; Tr. 1288:13-1289:3 (Buttermore). By June 2009, GM was well on its way to implementing Lean Agile Flex technology in its powertrain plants. *Id.* 1291:17-1292:5 (Buttermore).

703. The 6-speed transmission line installed at Warren Transmission between 2004 and 2007 embodied these Lean Agile Flex principles, and was specifically designed with sufficient

flexibility to allow its major production assets — including nine of the Representative Assets — to operate in place for their useful lives. Deeds Direct ¶ 42. This equipment was more expensive but highly flexible, consistent with GM’s focus on building a Lean Agile Flex powertrain system. The selection of this equipment strongly evidences GM’s intent to use the equipment well beyond the typical production lifecycle of any individual transmission system. *Id.* The flexibility of the assets in the 6-speed line was intended to allow GM to produce not just the 6-speed transmission, but also a 7-speed (or even higher) on the same production line with the same assets in place. *Id.*; Tr. 731:16-732:6 (Deeds).

(c) GM’s use of centralized utilities systems and piping at Warren

704. Many of the assets on Warren Transmission’s 6-speed line rely on centralized systems to provide the utilities they need to function. Tr. 490:8-491:17 (Deeds) (discussing some of the utility connections to the 87 CNC machines in the transmission housing machining area). These central utility systems include coolant, mist collection, chilled water and wash/deburr system piping. *See* DDX104 at 2 (transmission housing machining area); DDX109 at 2 (planetary gear machining area); DDX112 at 2 (transfer gear machining area). The assets are generally attached to the utility systems via large-diameter steel piping. Tr. 505:5-506:4 (Deeds). This hard piping was routed to the precise location of each asset and fixes each asset to its exact location. Tr. 506:5-9 (Deeds); Deeds Direct ¶ 46.

705. Mr. Deeds testified that GM would have used “far fewer” central systems if it planned to redeploy the Representative Assets on the 6-speed line. Tr. 487:18-488:6. As he explained, “we’re not going to install million-dollar central systems and all the plumbing and piping when we’re going to remove it.” Tr. 491:10-18. When GM expects that it will not keep a line in place for its useful life (a rare occurrence), it installs the assets differently. Tr. 487:6-14 (Deeds).

706. For instance, when GM knew in advance that it would need extra manufacturing capacity for a particular transmission for only 6 to 8 years, it leased a building in Romulus, Michigan and installed CNCs that each had their “own little mini-coolant system, it’s [sic] own

little mini-mist collection system, and you dealt with collecting chips at 60 different points instead of one point. And you had to go refill coolant at 60 different points instead of one point.” Tr. 488:7-491:18 (Deeds). In other words, GM would save on upfront costs at the expense of higher ongoing labor costs. As discussed, installing assets in this manner would not be cost effective if done regularly, so GM typically relied on heavily integrated systems that would be very difficult to move but lowered costs over the long term. *See* Sections VII.B-C above.

707. Mr. Goesling testified that one reason GM would move from a central coolant plant toward a decentralized system of coolant delivery would be to facilitate portability of the asset being cooled. But he conceded that GM has *not* made that switch at Warren or at any other facility in which the Representative Assets are located. Tr. 3338:15-3340:25.

(d) 6-Speed Machining Assets

Asset 3: Power Zone Roller Conveyor⁹⁸

708. The Power Zone Roller Conveyor is a critical component of the transmission housing line at Warren. It moves transmission housings along a custom path through eight 30,000-pound CNC machines, with each CNC machining the housing to fine tolerances. Deeds Direct ¶ 55 & Ex. A at 15; DDX104 at 1. To automatically deliver transmission housings from CNC to CNC at the proper rate, the Power Zone Roller Conveyor extends over 200 linear feet, occupying floor space 80 feet long by 50 feet wide. At the end of the machining process conducted by these 8 CNC machines, a 6-speed transmission housing emerges complete and ready for inspection by automated testing equipment. Deeds Direct ¶ 55.

709. The Power Zone Roller Conveyor is made up of smaller sections that have been integrated into a single conveyor with a custom layout specific to the CNCs it serves. Deeds Direct ¶ 56; JX1030. The motors on all of the sections are integrated with one another electronically to allow the Conveyor to operate as a seamless unit controlled from one central point. Deeds Direct ¶ 56; DX1081; JX1032. The sectional construction of the 200-foot-long Conveyor was required to

⁹⁸ Asset Handbook at 69-72; Deeds Direct ¶¶ 55-69 & Ex. A at 14-18, 77-80.

allow GM to install it; once installed and integrated, however, it would be difficult to remove or reconfigure, requiring several labor months and significant expense. Deeds Direct ¶¶ 56, 63.

710. This asset was also specifically designed to house coolant supply and return lines, which connect Asset 23, the Aluminum Machining System, to the CNC machines along the Conveyor. Tr. 492:9-493:25, 501:20-503:12 (Deeds); DDX104 at 1; JX1032; DX1081.

711. This asset was purchased and installed at a cost of over \$1 million and has remained in place, serving the same function, since it was installed in 2007. Deeds Direct ¶ 57; DX31.

712. **Attachment.** The parties agree that this asset is attached to the realty. Goesling Direct ¶ 60. It weighs some 10,000 pounds. It is attached by over 100 bolts to the floor of Warren Transmission and ten other assets, including the eight CNC machines it serves. Deeds Direct ¶¶ 55, 59 & Ex. A at 15; Tr. 501:13-16 (Deeds); DDX104 at 2. It has extensive connections to the plant utility systems through hard conduit and steel piping. Deeds Direct ¶ 55 & Ex. A at 17. Coolant return lines that collect chips generated by the eight CNC machines and return the coolant to the Aluminum Machining System (Asset 23) for recycling are housed in the Conveyor's frame, which also carries a drip pan to catch leaks from the machined transmission housings. Tr. 501:20-503:12 (Deeds); DDX104 at 1; JX1032; DX1081.

713. **Adaptation.** The Power Zone Roller Conveyor is adapted to GM's use of the Warren facility, as it is a necessary part of the transmission housing machining process in the facility's \$350 to \$450 million 6-speed line. Deeds Direct ¶ 60. Mr. Goesling acknowledged that at the time of its installation, this asset was an integral part of the plant. Tr. 3205:10-14. It is installed as part of the torque convertor housing machining line, a highly integrated system, that is itself served by the centralized Aluminum Machining System (Asset 23). Deeds Direct ¶ 60 & Ex. A at 15 & Ex. B ¶ 19; DDX104 (schematic of transmission housing machining area).

714. The layout of the Power Zone Roller Conveyor was custom designed to accommodate the specific dimensions of the transmission housing machining area at Warren Transmission. The building was adapted for the transmission housing machining line, including the Conveyor, through the installation of a special 12-inch floor, and large steel girders secure

sections of the Conveyor to the reinforced concrete floor, allowing vehicles, parts and operators to move freely through the area. Deeds Direct Ex. A at 18. Power and other utilities were routed through the building to the precise location of this Conveyor through electrical conduits and hard piping. *Id.* As described above, Warren's centralized coolant systems were also adapted specifically to integrate with this Conveyor, and the Conveyor is a critical part of Warren's centralized coolant system. Tr. 501:20-503:23 (Deeds); DX1081; JX1032; DDX104 at 1.

715. **Intent.** The following facts all strongly support a finding that GM intended to install the Power Zone Roller Conveyor permanently at Warren Transmission:

a) The Power Zone Conveyor is attached to the concrete floor of the building, to the eight 30,000-plus pound CNC machining centers themselves, and to the plant utilities through conduit and steel plumbing, with hundreds of bolts collectively. The installation of the Conveyor was time-consuming to accomplish and would be very costly and time-consuming to reverse. Deeds Direct ¶ 61.

b) The Power Zone Conveyor was designed to function in place, and interact with the specific machines it is attached to. For example, the elevation of the Power Zone Conveyor matches the load and unload elevation of each of the CNC machining centers, the width of the Power Zone Conveyor is designed to accommodate the 6-speed housing size, the shape of the Power Zone Conveyor is designed to match the layout of the machining cell, and the number and placement of overhead bridge carriers was selected to meet the needs of the Power Zone Conveyor as installed in this particular area of Warren Transmission. Deeds Direct ¶ 61.

c) The entire Warren transmission housing area is integrated by virtue of containing machines of the same brand and same model, all of which are piped to a central coolant supply and cleaning filter system (Asset 23). Tr. 489:21-490:23 (Deeds); *cf.* Tr. 3338:24-3339:20 (Goesling) (conceding that neither Warren Transmission nor any of the other plants where Representative Assets are located has moved away from central coolant systems). As noted, the frame of the Power Zone Roller Conveyor actually houses coolant return lines that connect to the Aluminum Machining System as well as the eight CNCs connected to the

Conveyor. Tr. 501:20-503:12 (Deeds); DDX104 at 1; JX1032; DX1081. The existence of this level of integration as part of GM's use of large, centralized coolant systems at Warren is strong evidence of GM's intent to install the integrated production assets, including the Conveyor, in the transmission housing area permanently. Tr. 489:21-491:18 (Deeds); Tr. 3338:24-3339:20 (Goesling). *See* Section VII.E above.

d) The Power Zone Conveyor is a flexible asset implementing GM's Lean Agile Flex practices. It was designed to be able to move any transmission housing that fits into a CNC's work envelope. Deeds Direct Ex. A at 16. GM could therefore continue to use the Conveyor even if Warren were assigned to make an upgraded transmission in the same product family. Tr. 731:21-732:10 (Deeds); Tr. 1291:17-24 (Buttermore).

716. Plaintiff's claims as to GM's lack of intent to install the Power Zone Conveyor permanently are not supported by the evidence:

a) Contrary to Mr. Goesling's testimony, as discussed above, removal of the Power Zone Conveyor would be time and labor intensive and have a significant negative impact on operations in the highly integrated 6-speed production line. Deeds Direct ¶ 61.

b) The "modularity" of this asset does not indicate that GM intended to move or reconfigure the Conveyor; it facilitated installation. Deeds Direct ¶ 65; Stevens Direct ¶¶ 130-34. While originally delivered in sections, once those sections were installed and integrated, with the various drives in the Conveyor connected and specifically configured to work together, and extensively attached to the plant floor and to all of the integrated CNCs and other assets, removal of the Power Zone Roller Conveyor would be anything but "easy." Deeds Direct ¶ 65.

c) The 2006 article from *Assembly Magazine* cited by Mr. Goesling in support of his assertion that the Power Zone Roller Conveyor is reconfigurable (Goesling Direct ¶ 250 & Ex. A at 249; PX160) actually states that the auto industry "tend[s] to stick with their initial configurations" of conveyors, and (unlike other industries) does not frequently reconfigure or move conveyors. Deeds Direct ¶ 64; PX160 at 5. This supports a finding of intent here.

d) Mr. Goesling asserts that GM relocated six assets that are supposedly similar to the Power Zone Roller Conveyor. Goesling Direct ¶ 252. Of these, two are not conveyors at all but just costs associated with other conveyors. Of the four actual conveyors that Mr. Goesling identifies, none is similar to this asset in size or function. Moreover, all four are from facilities GM closed as part of the GM bankruptcy (Willow Run and Pontiac East). Deeds Direct ¶ 67.

e) Mr. Goesling claims that a secondary market exists for “assembly conveyor lot items.” Goesling Direct ¶ 252. The existence of a secondary market is not relevant because GM purchased its assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3. And in any event, Mr. Goesling’s sales analysis identifies virtually no sales of similar assets other than out of closed or closing plants. DDX-PX350b; PX350. Indeed, having found no adequate market comparables, Mr. Goesling himself valued the asset at scrap value. Tr. 3442:15-3446:3 (Goesling); Goesling Direct Ex. A at 401.

f) The lack of any evidence of movements or sales of similar assets from operating plants confirms Mr. Deeds’ testimony that he has never seen an integrated asset like the Power Zone Conveyor moved or sold in the ordinary course of business during his almost 40 years in GM powertrain manufacturing. Deeds Direct ¶¶ 66-67.

Asset 14: Leak Test Machine⁹⁹

717. The Leak Test Machine is a critical, integrated component of the transmission housing area of the 6-speed line at Warren Transmission. Deeds Direct ¶ 70; DDX104 at 1. The machine is part of an automated system that includes a conveyor, 12 CNC machines, a deburring (cleaning) machine, and the Aluminum Machining System (Asset 23). Deeds Direct ¶ 70 & Ex. A at 81 (schematic diagram); DDX104 at 2.

⁹⁹ Asset Handbook at 73-74; Deeds Direct ¶¶ 70-81 & Ex. A at 20-24, 81-83.

718. The Leak Test Machine ensures that no imperfections exist in the aluminum transmission housings created by the line before the housings are sent to transmission assembly. If transmission housings were not checked for quality in this way and an imperfection got through, oil would leak from the transmission, and the part would fail. Deeds Direct ¶ 71.

719. The Leak Test Machine is 30 feet by 25 feet by 12 feet. It contains three stations, each ten feet long. Deeds Direct ¶ 72; JX1198. The Leak Test Machine was customized to its place in the specific layout at Warren so that the conveyors on the Leak Test Machine would be aligned precisely with the height, width, and location of the conveyors feeding into and leading out of it. Deeds Direct ¶ 72.

720. **Attachment.** The parties agree that this asset is attached to the realty. Goesling Direct ¶ 60. It is attached to the building through dozens of bolts (which attach the machine to the floor and to safety screens that are themselves bolted to the floor) and through the machine's enormous, 30,000-pound weight. Deeds Direct ¶¶ 70, 72, 74 & Ex. A at 22. It is also attached to a high-pressure, steel-pipe plumbing connection to the plant's compressed air distribution system, to the plant's high-voltage (440-volt) power supply and to the deburring machine and pack out conveyor, which connects the Leak Test Machine to an unload robot. Deeds Direct Ex. A at 22.

721. **Adaptation.** The Leak Test Machine is adapted to GM's use of the Warren facility, as it is a necessary part of the \$350-\$450 million 6-speed transmission manufacturing process at Warren Transmission. Deeds Direct ¶ 75. Mr. Goesling acknowledged that at the time of installation, this asset was an integral part of the plant. Tr. 3205:10-20. It is installed as part of the transmission housing line, a highly integrated system of 18 assets. Deeds Direct ¶ 75 & Ex. A at 21. The Leak Test Machine was custom-designed to test leaks on a 6-speed housing at Warren Transmission. Deeds Direct ¶ 75. Moreover, the facility was adapted to accommodate the Leak Test Machine: high-voltage power, compressed air, task lighting, and communication lines were routed through the building to serve this asset, and numerous other utilities were routed to the specific locations of other assets that make up the integrated

transmission housing line of which the Leak Test Machine is a critical part. Deeds Direct ¶ 75 & Ex. A at 22. Safety fencing was bolted to the concrete floor, blocking off plant space beyond the asset's footprint to facilitate the safe operation of the asset. Deeds Direct Ex. A at 22.

722. **Intent.** The following facts all strongly support a finding that GM intended to install the Leak Test Machine permanently at Warren Transmission:

a) The Leak Test Machine was delivered to Warren in 8 to 10 truckloads, and installation of this massive asset required approximately two months of work by many people. Removing it would be similarly difficult, and would involve locking out utilities, removing fencing, disconnecting connections between stations and attached assets, breaking bolted connections, and removing one station at a time, before rehabilitating the area where the Leak Test Machine had been located. Deeds Direct ¶¶ 76, 78. Moreover, to remove the Machine from its embedded integrated module, it would be necessary to move at least four other assets within this module and the adjacent module. Deeds Direct ¶ 78.

b) The Leak Test Machine is highly integrated with plant processes. It is surrounded by the other machines in its module: a load robot, 12 CNC machines, a power zone conveyor, a deburring machine, and an unload robot. Deeds Direct ¶ 76; Deeds Direct Ex. A at 81. These machines are interconnected and work together to produce quality-tested transmission housings; removal would render the rest of the module inoperable. Deeds Direct ¶ 76. The extensive utility and central coolant system connections to all of the assets in the Leak Test Machine's module are strong evidence that GM intended to permanently install the entire module. *See* Section IX.B(c) above; DDX104 at 2. Similarly, the Leak Test Machine itself has connections to numerous plant utilities, including a high-pressure, steel-pipe plumbing connection to the plant's compressed air distribution system. Deeds Direct Ex. A at 22.

c) The Leak Test Machine was custom-designed to test leaks on the family of transmission housings produced at Warren Transmission. The Machine's work envelope (the space holding the part while it is tested) was specifically designed for the size of the family of transmission housings that GM's 6-speed requires. The software and hardware of the Leak Test

Machine were also designed specifically for their role in testing 6-speed transmission housings. Deeds Direct ¶ 76. Mr. Goesling agreed that the Machine was uniquely configured for GM's needs and valued the Leak Test Machine at scrap, as such a uniquely configured asset would be of no use to a third-party purchaser. Tr. 3442:15-3446:3; Goesling Direct Ex. A at 402.

723. Plaintiff's claims as to GM's lack of intent to install the Leak Test Machine permanently are not supported by the evidence:

a) Contrary to Mr. Goesling's assertion, as discussed, removal of the Leak Test Machine would be exceedingly difficult. Mr. Goesling provides no reliable evidence for his view that the asset can be "removed or relocated with minimal effort" because of its "modular design and construction." Goesling Direct ¶ 276. In fact, the Leak Test Machine is a custom-configured \$1,254,458 (installed cost) machine that was assembled in place because its enormous size would have made it impracticable to transport in one piece. Deeds Direct ¶ 77; DX31.

b) Mr. Goesling claims that "similar" assets have been sold on the secondary market. Goesling Direct ¶ 276. The existence of a secondary market is not relevant because GM purchased its assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3 above. In any event, Mr. Goesling does not identify any such assets that were sold out of operating plants and, as noted, values the Leak Test Machine at scrap, having found no sufficiently comparable assets. Goesling Direct Ex. A at 402. The "similar" assets that he does identify in his sales analysis were all from closed plants. DDX-PX0350b; PX350.

c) Mr. Goesling also claims that 22 "similar" assets were moved by GM (Direct ¶ 276; PX22). This dramatically overstates the number and similarity of moved assets, and does not take into account the context of the moves. All but four of the "similar" assets are either costs associated with other pieces of equipment or have an installed cost of \$50,000 or less — a far cry from the \$1.2 million installed cost of the Leak Test Machine. Of the four ledger items with an installed cost of more than \$100,000, three moved out of closed plants (GM

Wixom and Willow Run) and one was not a manufacturing asset, and thus not comparable. Consistent with this, Mr. Deeds has never in his 40 years of powertrain experience seen a single case where this type of customized machine was removed from an operating transmission housing line for reuse or resale. Deeds Direct ¶¶ 79-80.

Asset 23: Aluminum Machining System¹⁰⁰

724. The Aluminum Machining System is an 800,000-pound, 75-foot-long, 60-foot-wide, 25-foot-tall machine that is critical to the 6-speed line. Deeds Direct ¶ 82; JX1330; JX1331; JX1345. One must walk around it to get a sense of its magnitude. Tr. 3162:2-14 (Goesling).

725. The Aluminum Machining System supplies clean, temperature-controlled coolant to each of 60 CNC machining centers in six modules in the aluminum housing area of Warren Transmission, and then recycles the used coolant. Deeds Direct ¶ 82. Hard piping connects the Aluminum Machining System to the 60 CNCs it supports in the transmission housing area of the 6-speed transmission line at Warren. Tr. 493:13-25 (Deeds); DDX104. Without the Aluminum Machining System, the heat from the cutting friction of the CNC machines would deform parts and jam the 60 CNC machines with chips. The CNC machines, the conveyors and the connecting equipment would soon become useless. Deeds Direct ¶ 82.

726. The Aluminum Machining System is surrounded by custom trenches built into the floor, which are designed to pump any spills to the Warren Transmission waste treatment plant and which are part of the asset. Deeds Direct ¶¶ 83, 88; JX1330.

727. **Attachment.** The parties agree that this asset is attached to the realty. Goesling Direct ¶ 60. The Aluminum Machining System is attached to the building through numerous bolts as well as through its size and 800,000 pound weight. Deeds Direct ¶ 85; Goesling Direct ¶ 60. It is also bolted to 24-inch insulated steel piping that runs hundreds of feet and connects the Aluminum Machining System to the 60 CNC machines. Deeds Direct ¶ 83; Tr. 3162:15-20 (Goesling). The steel piping is bolted to the reinforced concrete foundation of the building and

¹⁰⁰ Asset Handbook at 75-76; Deeds Direct ¶¶ 82-92 & Ex. A at 26-30, 84-86.

attached to the building's structural steel. Deeds Direct Ex. A at 27. The main portion of the Aluminum Machining System is surrounded by trenches that are integrated into the floor slab and would be destroyed upon removal — as would the long runs of large-diameter hard steel piping that are also part of the asset. Goesling Direct ¶ 291; Deeds Direct ¶ 83. Removal of the trenches would leave “an opening in the floor slab with exposed earth underneath.” Tr. 3167:9-3168:3 (Goesling).

728. **Adaptation.** The Aluminum Machining System is adapted to GM's use of the Warren facility, as it is critical for the CNC machining process in the \$350 to \$450 million 6-speed line at Warren. Deeds Direct ¶ 86. Mr. Goesling acknowledged that at the time of installation, this asset was an integral part of the plant. Tr. 3205:10-20. It operates in conjunction with 61 other assets, including 60 CNCs. Deeds Direct Ex. A at 27-28. As Mr. Goesling further acknowledged at trial, the Aluminum Machining System was uniquely configured for GM's needs to provide centralized support for the CNC machining assets in the transmission housing area at Warren Transmission. DX104; Tr. 3442:15-3446:3. The Warren realty is also adapted to the Aluminum Machining System, with a specially reinforced 12-inch floor and 16-inch-wide by 12-inch-deep trenches built into the floor to capture any spills. Deeds Direct ¶ 86 & Ex. A at 27-28.

729. **Intent.** The following facts all strongly support a finding that GM intended to install the Aluminum Machining System permanently at Warren Transmission:

a) The floor of the plant is reinforced beneath the Aluminum Machining System to support its 800,000-pound weight. The floor also has custom-dug trenches surrounding the machine to capture any leaks or spills. These trenches are intended to minimize any impacts on employee health and safety. Deeds Direct ¶ 87.

b) The Aluminum Machining System includes large diameter insulated steel piping that delivers and returns coolant to the 60 CNC machines it serves. Deeds Direct ¶ 87. These piping connections show the extensive integration of the Aluminum Machining System, the CNC machines, and all of the other production assets in the transmission housing area at Warren Transmission. GM's decision to use a centralized coolant system like the Aluminum Machining

System is powerful evidence of GM's intent to install these assets, including the Aluminum Machining System, in place permanently. Tr. 497:15-20 (Deeds); *see* Section IX.B(c) above.

c) The 800,000-pound Aluminum Machining System was difficult to install and would be extremely difficult to remove. Installation required months of planning and months of execution by a large number of people. To deal with the size of the asset, 15 to 20 truckloads were required to transport components to the site. A portable crane, portable man lifts, and fork trucks were required to complete the task. Removing the asset would likely require at least a month of work by a 20-person team. Deeds Direct ¶ 87. Removal would be complicated by the fact that the Aluminum Machining System is surrounded on three sides by other assets. Further, the Aluminum Machining System is a large asset that has little clearance below the roof trusses. Tr. 495:12-496:4 (Deeds). The resulting removal would render the supply piping and the trenches around the Aluminum Machining System useless. Deeds Direct ¶ 87.

d) The Aluminum Machining System is critical to the transmission housing area at Warren Transmission. Without the Aluminum Machining System, the 60 CNC machining centers that make up the aluminum housing area would overheat, deforming parts, and soon jam with metal chips, literally grinding the CNC machining process to a halt. Deeds Direct ¶ 87. The transmission housing area is in turn an essential portion of the \$350-\$450 million 6-speed line at Warren Transmission, which also could not operate without the Aluminum Machining System. *Id.*

e) The Aluminum Machining System is a flexible asset implementing GM's Lean Agile Flex practices. It was designed to be able to adjust the supply of clean coolant to match the required volume of transmission-housing production at Warren. Deeds Direct Ex. A at 28. GM can therefore continue to use the Aluminum Machining System through any changes in Warren's production of transmissions.

730. Plaintiff's claims as to GM's lack of intent to install the Aluminum Machining System permanently are not supported by the evidence:

a) Mr. Goesling provides no evidence that supports his assertion that the Aluminum Machining System was designed to permit “orderly” removal that could be accomplished “relatively easily.” Goesling Direct ¶ 290 & Ex. A at 273. To the contrary, as discussed, removing the Aluminum Machining System would immediately stop transmission production and assembly, because each of the 60 CNC machines relies on the System. Deeds Direct ¶ 89. The physical removal itself would also be difficult — the Aluminum Machining System is surrounded on three sides, sits close to the building’s roof trusses, and is enormous in size and scale. Tr. 495:12-496:4 (Deeds); Deeds Direct ¶ 89; JX1330; JX1331. Removal would require draining the tanks of 100,000 gallons of coolant (which would be scrapped and require waste treatment), locking out utilities, and disassembling and disconnecting components — a process that would require weeks of effort. Deeds Direct ¶ 89.

b) Mr. Goesling concedes the trenches are fixtures but not the Aluminum Machining System itself. Tr. 3164:24-3166:7; Goesling Direct ¶¶ 290-291. Yet it would take much less time to remove the trenches that surround the Aluminum Machining System than it would to remove the Aluminum Machining System. As Mr. Deeds explained at trial, “there’s no comparison. The trenches could be . . . removed and healed over in a week or two, and it would take much, much longer to remove this massive asset.” Tr. 496:14-21.

c) Mr. Goesling asserts that GM relocated 15 assets supposedly similar to this one. Goesling Direct ¶ 289. Yet most of the line items he identifies as “similar” are actually costs associated with other assets and have an installed cost of less than \$100,000 — a far cry from the almost \$2 million GM spent on the Aluminum Machining System. Deeds Direct ¶ 91; DX31; PX22. Of the four moved assets that are arguably similar to the Aluminum Machining System, all moved out of closed plants (Willow Run, Livonia, and Flint Engine North). *Id.* These moves are not probative of GM’s intent when it installed the huge, highly integrated Aluminum Machining System at Warren. *See* Section VIII.B above.

d) Mr. Goesling claims that a secondary market exists for the Aluminum Machining System. The existence of a secondary market is not relevant because GM purchased

its assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3 above. In any event, most of the sales of “similar” assets that Mr. Goesling identified are of small, standalone assets, not large systems such as this. Tr. 497:21-500:10 (Deeds). Consistent with this, Mr. Goesling was not able to identify a single comparable sale for an asset like this one, so he valued the asset at scrap value. Deeds Direct ¶ 90; Goesling Direct Ex. A at 404. The lack of movements or sales of similar assets is consistent with Mr. Deeds’ testimony that in his nearly 40 years at GM, he has never seen an instance where this type of asset was removed from an operating housing machining area. Deeds Direct ¶ 90.

Asset 22: Fanuc Gantry Robot¹⁰¹

731. The Fanuc Gantry Robot is the beginning and end of the transmission gear finishing cell at Warren Transmission. It consists of a Fanuc Robot and the 30’ x 20’ x 10’ gantry system into which the Robot is installed. The system weighs approximately 8,000 pounds. Deeds Direct ¶ 93; JX1312; JX1315. The gantry enables the Robot to: (a) pick up transmission gears from a specifically located unfinished heat-treated gear delivery area; (b) transport each gear to the start of the powered conveyor that will take the gear through Warren Transmission’s automated finish gear grinding process; and (c) transport each finished gear back into a separate pallet storage area, where it will be stored before being delivered to the final assembly line. Deeds Direct ¶ 93; Tr. 522:10-524:10 (Deeds); DX1009 (video of nearly identical gantry robot); Tr. 519:5-23 (Deeds) (testimony about DX1009). The transmission gear finishing cell includes one gear press, three CNC grinders, one washer, and one hardness check quality control station. Deeds Direct ¶ 93. A schematic showing the entirety of this integrated module can be found in DX66 at 1 and in Deeds Direct Exhibit A at 40. DDX112 is a schematic of the larger Transfer Gear Machining Area, which shows the extensive utility and coolant connections to the assets in the area, including the Fanuc Gantry Robot and many of the other critical components of the transmission gear finishing cell of which the Fanuc Gantry Robot is a part.

¹⁰¹ Asset Handbook at 77-78; Deeds Direct ¶¶ 93-107 & Ex. A at 36-40.

732. The Fanuc Gantry Robot helps maintain the quality of the gears by avoiding any damage during transit, as any flaw in the gears — which have been machined to tolerances smaller than a human hair — will result in noise in the transmission. Loading the gears in and out of this process by hand — as was done in the 4-speed line — would cost more, increase quality control problems by exposing gears to damage from manual handling, and slow throughput. Deeds Direct ¶ 94; Tr. 524:25-525:13 (Deeds).

733. The Fanuc Gantry Robot's columns and rail were selected by GM specifically for its operation in this particular spot. Deeds Direct ¶ 95. Since installed in 2007, the Fanuc Gantry Robot has operated in place. Deeds Direct ¶ 95; DX31; Tr. 524:22-24.

734. **Attachment.** The parties agree that this asset is attached to the realty. Goesling Direct ¶ 60. The Robot is attached to a carrier with four threaded bolts through the steel mounting plate and the Robot's body. The carrier is then attached to the gantry rail, and the rail is bolted to three ten-foot vertical support columns. The support columns are in turn bolted to the concrete with four lag bolts each. Deeds Direct ¶ 97; Tr. 3069:8-24 (Goesling). Each of these lag bolts is large in diameter, approximately 10 inches long and lodged in a cored hole with epoxy such that a chemical reaction more powerful than concrete holds the bolt to the concrete floor around it. Tr. 520:17-522:8 (Deeds).

735. **Adaptation.** The Fanuc Gantry Robot is adapted to GM's use of the Warren facility, as it is a necessary part of the transmission assembly process in the \$350-\$450 million 6-speed line at Warren. Deeds Direct ¶ 98. Mr. Goesling acknowledged that at the time of its installation, this asset was an integral part of the plant. Tr. 3205:10-20. It is installed as part of a highly integrated system of 11 assets that provide heat-treated gears with a final precision finish. Deeds Direct Ex. A at 37. This asset has been specifically adapted and laid out for this particular spot in the 6-speed layout at Warren. Deeds Direct ¶ 98. A safety fence was designed and installed to accommodate all of the Robot's operations, and utilities to support the cell's operation — including electrical, monitoring and other utilities — were specifically routed through the facility. Deeds Direct Ex. A at 38. To handle the large cantilevered weight of the

gantry rail and robot, the asset's vertical columns are attached to a special 12-inch-thick floor with large grade bolts that are set into the concrete with epoxy. Tr. 520:17-522:8 (Deeds).

736. **Intent.** The following facts all strongly support a finding that GM intended to install the Fanuc Gantry Robot permanently at Warren Transmission:

a) The Fanuc Gantry Robot was specifically designed to meet the need for a permanent system to transport transmission gears for precision finishing in an efficient, cost-effective manner that avoids damage during transit, with this gantry custom-selected for a particular spot in the 6-speed line at the renovated Warren Transmission facility. That the Fanuc Gantry Robot system was designed for this particular role and this particular spot in the 6-speed line is strong evidence that this asset was intended to be permanent. Deeds Direct ¶ 99.

b) Without the Fanuc Gantry Robot, the gear finishing line could not meet the volume specifications it was designed to meet. Costs and quality control issues would also increase. The importance of this asset to the 6-speed line at Warren is another indicator of GM's intent to install this asset permanently. And, in fact, this asset has been operating in place 24 hours a day, 6 days per week since 2007. Deeds Direct ¶ 99.

c) The Fanuc Gantry Robot is a flexible asset implementing GM's Lean Agile Flex practices. Although it is currently programmed to meet the engineering designs of the 6-Speed FWD transmission gears, it can be reprogrammed and used in place to accommodate different transmissions in the future. Deeds Direct ¶ 99 & Ex. A at 38; Tr. 731:16-732:6 (Deeds).

737. Plaintiff's claims as to GM's lack of intent to install the Fanuc Gantry Robot permanently are not supported by the evidence:

a) Mr. Goesling's opinion that the Fanuc Gantry Robot's "modular" design allows its removal with "minimal effort" is incorrect. Goesling Direct Ex. A at 264. The process of removing the asset for scrap would take several days and several people, at a cost of approximately \$18,000; removing the asset for reuse would take three times as much time and cost more than three times as much. Deeds Direct ¶ 100. Removal would require disconnecting

all utilities and cutting or burning off the lag bolts. Deeds Direct ¶ 101. Removal would also impact surrounding assets, and stop all transfer gear sub-assembling and grinding. Deeds Direct ¶¶ 102-103.

b) Mr. Goesling asserts that GM relocated 54 supposedly similar assets. Goesling Direct ¶ 282. Of the 54 examples of “similar” “line items” that Mr. Goesling identifies (PX22), 48 came from two plants that experienced extraordinary circumstances (Saturn Spring Hill and GM Assembly Orion). As discussed, GM’s decision to move assets out of a closed or partly shuttered plant is not evidence of GM’s intent when it installed those assets. *See* Section VIII.B above; Deeds Direct ¶ 105. The six remaining robots that Mr. Goesling identifies as having moved are not comparable: none of those six assets had an installed cost of more than \$20,000 — less than one-tenth of the Fanuc Gantry Robot’s installed cost of \$270,000. PX22; DX31. This is consistent with Mr. Deeds’ testimony that in his 40 years of experience he has never seen a single case where this type of gantry robot was removed from an operating gear cell. Deeds Direct ¶ 105. Even looking at all robots generally, only 1.1% of all robots of any type were moved by GM when closed plants and plants experiencing extraordinary circumstances are excluded. Stevens Direct ¶¶ 96, 98; Tr. 136:16-25.

c) Mr. Goesling claims that a secondary market exists for the Fanuc Gantry Robot. Goesling Direct ¶ 282. The existence of a secondary market is not relevant because GM purchased its assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3 above. In any event, all of the sales of “similar” assets Mr. Goesling considered were from plants that were closed or going to be closed. DDX-PX350b; PX350.

Asset 24: Base Shaping Machine¹⁰²

738. The Base Shaping Machine is a critical part of the 6-speed transmission production line at Warren that turns steel blanks into gears for the 6-speed transmission —

¹⁰² Asset Handbook at 79-80; Deeds Direct ¶¶ 108-122 & Ex. A at 42-46, 87-89.

cutting teeth into the gears that will mate with other gears to send power to a vehicle's wheels. The Base Shaping Machine weighs 30,000 pounds and is 15 feet long, 12 feet wide and 10 feet tall. Deeds Direct ¶ 108; JX1352. The Base Shaping Machine is mounted on 12 isolation dampers that allow it to operate with limited vibration and produce high-precision 6-speed transmission gears. Deeds Direct ¶ 108; Tr. 629:4-630:16.

739. The Base Shaping Machine is attached to the inlet and outlet conveyors that feed it, as well as to an electrical supply transformer and electrical control cabinets. It is also integrated through a powered loop conveyor with gear hobbing machines, a gear washing machine, and a gantry robot that loads and unloads gear blanks and finished gears. Finally, it is connected to the plant utilities through insulated hard steel piping, which delivers coolant and chilled water to the precise location of the Base Shaping Machine and collects the used coolant and chilled water for recycling. Deeds Direct ¶ 109; DDX112 at 2; Tr. 510:2-511:16 (Deeds). A schematic showing the entirety of the integrated green (pre-heat-treated) drive gear module of which the Base Shaping Machine is a part can be found in DX68 and in Deeds Direct Exhibit A at 87. DDX112 shows the extensive utilities connections in the larger Transfer Gear Machining Area, including hookups to the Base Shaping Machine. DDX112 at 2.

740. GM spent over \$1 million to purchase and install the Base Shaping Machine, and significantly more to purchase and install the module it is a part of, and it has been operated in place 24 hours a day, 6 days a week, for almost 10 years. Deeds Direct ¶ 110; DX31.

741. **Attachment.** The Base Shaping Machine is attached to the building through its great weight (30,000 pounds) and 12 isolation dampers that mount the asset to the 12-inch concrete floor that was poured to accommodate the machine, as well as a number of bolts. Deeds Direct ¶¶ 108, 112; Tr. 626:8-628:2, 629:4-630:16 (Deeds). Although the main machine column is not bolted to the floor due to the need to isolate the machine's vibrations, other parts of the machine are bolted to the floor. Tr. 512:16-513:6 (Deeds). The Base Shaping Machine is also bolted to the inlet and outlet conveyors that feed it, as well as to an electrical supply transformer and electrical control cabinets, all of which are bolted to the floor. Deeds Direct ¶ 109. The Base Shaping

Machine is attached to plant utilities through hard piping that delivers coolant, chilled water and compressed air to the precise location of the machine, through a hard-piped connection to the mineral oil system, through attachment to a specialized mist collection system, and through a connection to 440 volt electrical systems via hard conduit and bolts. Deeds Direct ¶ 111 & Ex. A at 45; DDX112 at 2. The Base Shaping Machine is also bolted to conveyors that are themselves attached (bolted to the floor), adapted, and intended to be permanent. Deeds Direct ¶ 112.

742. **Adaptation.** The Base Shaping Machine is adapted to GM's use of the Warren facility, as it is a necessary part of the approximately \$350-450-million 6-speed transmission line. Deeds Direct ¶ 113. Mr. Goesling acknowledged that at the time of its installation, this asset was an integral part of the plant. Tr. 3205:10-20. It is installed as part of a highly integrated system of 11 assets, including the centralized Steel Machining System (which serves a number of different transfer-gear machining assets at Warren Transmission), that turns steel blanks into gears. Deeds Direct Ex. A at 43; DDX112 at 2. And it was custom-engineered to connect mechanically and electrically with other assets in the line (*e.g.*, the power loop conveyor). Deeds Direct ¶ 113. The realty was also adapted to the Base Shaping Machine: GM poured a 12-inch concrete floor to hold this asset, Tr. 3031:4-19 (Goesling) (12-inch floor required for shapers), and GM used an abrasive saw to cut lines in the concrete floor surrounding the asset to isolate the asset's vibrations. Tr. 3108:22-3113:13, 3325:25-3327:22 (Goesling); JX1351. GM also routed plant utilities through hard piping that delivers coolant, chilled water, and compressed air to the precise location of the machine, through a hard-piped connection to the mineral oil system, through attachment to a specialized mist collection system, and through connections to 440-volt electrical systems via hard conduit and bolts. Deeds Direct ¶ 114; DDX112 at 2.

743. **Intent.** The following facts all strongly support a finding that GM intended to install the Base Shaping Machine permanently at Warren Transmission:

a) The Base Shaping Machine is a flexible asset implementing GM's Lean Agile Flex practices. While it is programmed to the specific engineering designs of the 6-speed

transmission gears that are currently being produced at Warren, it can be reprogrammed to shape different transmission gears without moving the asset or process-connected assets. Deeds Direct ¶ 114 & Ex. A at 44. GM spent more to purchase this flexible machine rather than an inflexible machine that could perform the same function, consistent with GM's Lean Agile Flex policies. Deeds Direct ¶ 114; *see also* Tr. 3088:9-3089:5 (Goesling) (the three machining Representative Assets can manufacture gears for different uses). This investment is objective evidence that GM intended to use this asset in place even if its product line changed or was upgraded in the future. Deeds Direct ¶ 114.

b) The Base Shaping Machine is an essential component of the \$350-450 million 6-speed line. The Base Shaping Machine is connected to other large fixed assets in a gear module on the 6-speed line, all of which are required to produce gears for the 6-speed transmissions. This asset is critical to the functioning of the integrated gear manufacturing line; without it, the assets with which it is connected would lose value and GM would not be able to meet its production targets. Deeds Direct ¶ 114.

c) GM extensively customized the building to accommodate the Base Shaping Machine. As noted, GM poured a 12-inch concrete floor to support the weight of the Base Shaping Machine and enable it to operate at its desired tolerance, then made saw cuts in the floor to isolate the machine's vibrations. In addition, GM specifically routed utilities through the building's infrastructure with hard conduit and piping to support the Base Shaping Machine in this precise location, including the plant's main 440-volt electrical supply, its chilled water and waste water supplies, and a specialized coolant delivery and return system. Deeds Direct ¶ 114. GM used centralized coolant systems to cool the machining assets in the transfer gear area of Warren, which as discussed (*see* Section IX.B(c)), is strong evidence of GM's intent to install the assets including the Base Shaping Machine permanently at Warren.

744. Plaintiff's claims as to GM's lack of intent to install the Base Shaping Machine permanently are not supported by the evidence:

a) Mr. Goesling asserts that the Base Shaping Machine was not intended to be permanent because a different machine, the “Liebherr Hobb” (Asset 25) discussed below, moved to Warren Transmission from a GM plant in St. Catharines, Ontario. As discussed in the Findings of Fact for that asset (Asset 25), that movement is not evidence that the Liebherr Hobb was not intended to be permanent. In any event, the movement of that machine has no relevance to GM’s intent when it installed the Base Shaping Machine. Deeds Direct ¶ 115.

b) Mr. Goesling asserts that GM relocated 14 supposedly similar assets. Goesling Direct ¶ 298. But those assets were moved from two facilities that were closed or idled in 2009 (Wixom and Willow Run). Deeds Direct ¶ 116; Tr. 628:3-19 (Deeds); Tr. 3105:22-3106:16 (Goesling); Goesling Direct ¶ 298. Thus, these moves do not bear on GM’s intent at the time of installation. *See* Section VIII.B.1 above.

c) Mr. Goesling claims that a secondary market exists for the Base Shaping Machine and purports to have identified over 100 “similar” assets that were sold by Maynards and Hilco. Goesling Direct ¶ 298; PX348. The existence of a secondary market is not relevant because GM purchased its assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3 above. And in any event, all of these sales were from plants that were closed or were going to be closed. DDX-PX0350b; PX350.

d) Mr. Goesling provides no evidence that removal of the Base Shaping Machine would be “simple.” Goesling Direct ¶ 298. To the contrary, the evidence shows that removal would be time-consuming and create the potential for damage to the asset, other assets and the plant. Deeds Direct ¶ 118. And removal would have a significant impact on the production of transmissions at Warren. Deeds Direct ¶ 117.

e) Despite asserting in its Pretrial Brief (at 101) that the fact that GM poured a 12-inch concrete floor in an area larger than this asset indicated that “GM was already planning for equipment and machinery to move,” the Avoidance Trust presented no evidence at trial to support this argument. To the contrary, Mr. Deeds’ testimony made clear that GM did not pour the 12-inch-thick concrete floor throughout this area of Warren because it planned to reconfigure

assets in the future (indeed, no reconfiguration has happened in almost 10 years). Rather, GM did so because many of the large, precision machining assets required a 12-inch thick concrete floor and it was cheaper to pour a consistent floor than to go to the expense of pouring special foundations on an asset-by-asset basis. Tr. 626:8-628:2 (Deeds); Deeds Direct ¶ 121.

Asset 36: Helical Broach¹⁰³

745. The Helical Broach is huge — it weighs 90,000 pounds and is 18 feet long, 15 feet wide, and 20 feet tall. Deeds Direct ¶ 123; Tr. 633:10-16. Like the Base Shaping Machine (asset 24) and the Liebherr Hobb (Asset 25), the Helical Broach is part of the gear-making processes in the 6-speed line. It is located in the one area of the Warren facility that provides sufficient roof clearance for its 20-foot height. Deeds Direct ¶ 123; Tr. 631:11-632:16.

746. The Helical Broach is integrated with the conveyor that feeds it and with an electrical power transformer and electrical panels. Tr. 630:21-631:7 (Deeds); Deeds Direct ¶ 124. The Helical Broach is also integrated with the plant's centralized chilled water supply system and mist collection systems via hard steel piping that runs to the precise location of the Helical Broach. A schematic showing the entirety of the integrated module that the Helical Broach is installed in can be found in DX79 and in Deeds Direct Exhibit A at 94, and a schematic showing the larger Planetary Gear Machining Area, including the extensive utility connections therein, can be found in DDX109 at 2. GM spent approximately \$1.5 million to purchase and install the Helical Broach and has operated it in place as part of the Warren 6-speed transmission line since 2006. Deeds Direct ¶ 124; DX31.

747. **Attachment.** The Helical Broach is mounted on spring dampers and is attached by its great weight (90,000 pounds). Tr. 630:21-631:10 (Deeds); Deeds Direct ¶¶ 123, 126. This enormous asset is also bolted to operator platforms, to roller conveyors that are themselves bolted to the plant floor, and to an electrical power transformer and electrical panels that are bolted to the plant floor. It is also connected to numerous utilities, including chilled water and

¹⁰³ Asset Handbook at 83-84; Deeds Direct ¶¶ 123-142 & Ex. A at 54-58, 94-96.

mist collection, by large-diameter steel piping, to the plant's waste water utility and to the plant's 440-volt electrical supply via hard conduit and bolts. Deeds Direct ¶¶ 124, 126 & Ex. A at 56-57; DDX109 at 2 (showing utility connections); Tr. 525:15-529:6, 630:21-631:10 (Deeds); Tr. 3103:4-17 (Goesling) ("components . . . have been lag bolted to the floor," including the hydraulic system and "a couple of platforms that may be lag bolted to the floor").

748. **Adaptation.** The Helical Broach is adapted to GM's use of the Warren facility, as it is a necessary part of the planetary gear-making process in the 6-speed line. Deeds Direct ¶ 127; DDX109. Mr. Goesling acknowledged that at the time it was installed, this asset was an integral part of the plant. Tr. 3205:10-14. It is installed as part of a highly integrated system of seven assets that generate gear teeth on a steel gear blank. Deeds Direct Ex. A at 55. GM poured a 12-inch concrete floor to hold the enormous asset, installed a centralized mist collection system for the asset, and routed hard electrical conduit, chilled water piping, and waste water utility piping through the building to the specific location of this asset. Deeds Direct ¶ 127; Tr. 3031:4-19 (Goesling) (12-inch floor required for broach equipment).

749. **Intent.** The following facts all strongly support a finding that GM intended to install the Helical Broach permanently at Warren Transmission:

a) GM's efforts to install this asset in this particular spot at Warren Transmission, as well as the asset's large size and weight standing alone, are strong evidence of GM's intent to operate it in this spot for its useful life. Given its sheer size and weight, the installation of the Helical Broach at Warren was a time-consuming and expensive process, involving multiple truckloads of components and many labor weeks of effort by a large team to install and integrate the asset into its broader gear manufacturing cell. Deeds Direct ¶ 128. As discussed, GM poured a 12-inch concrete floor and routed utilities specifically for this asset. *Id.* ¶¶ 124, 126, 128 & Ex. A at 56-57.

b) The Helical Broach is a flexible asset implementing GM's Lean Agile Flex practices. The broach itself — the tool that cuts the gear blank — is composed of many rows of teeth, which can be adapted to the shape of a different transmission gear engineering

design if required. Deeds Direct Ex. A at 56. Thus, the Helical Broach can continue to be used in place to manufacture gears for different transmissions that may be made in the future at Warren. Deeds Direct ¶ 128; Tr. 3088:9-3089:5 (Goesling) (the three machining Representative Assets can manufacture gears for different uses). GM’s decision to spend more to purchase this flexible machine (consistent with GM’s Lean Agile Flex policies) instead of an inflexible machine that could perform the same function for only the current 6-speed transmissions is objective evidence that GM intended to permanently install this asset. Deeds Direct ¶ 128; *see* Sections VII.E, IX.B(b) above.

c) The Helical Broach is physically attached to the gravity roller conveyor and is part of a process that also involves a robot, a deburring machine, a milling machine, and a wash/dry operation — all of which are required to produce 6-speed gears. These assets were all installed in specific locations to complement each other and could not perform their intended functions in isolation, or if any one of the assets were removed. Deeds Direct ¶ 128.

750. The Avoidance Trust’s claims as to GM’s lack of intent to install the Helical Broach permanently are not supported by the evidence:

a) Contrary to Mr. Goesling’s unspecific and unsupported testimony that the “modular” design of the Helical Broach would make it “simple” to remove (Direct ¶ 306), the Helical Broach would be difficult, time-consuming and expensive to remove. Deeds Direct ¶¶ 129-130, 133. Moreover, removal would result in a significant decrease in the output of the 6-speed line. *Id.* ¶ 130.

b) Mr. Goesling provides no reliable evidence that the “modular” nature of the Helical Broach indicates that it was not intended to be installed permanently. As discussed above, “modularity” does not suggest an intent that an asset will be removed before the end of its useful life. *See* Section VIII.A.3 above. Given the sheer size and the 90,000-pound weight of this asset, which could not have been shipped over roadways in one piece, it necessarily was designed so that it could be shipped in sections from its manufacturer. Deeds Direct ¶¶ 123, 131. That an asset was shipped in pieces to allow for ease of transportation and installation has no

bearing on GM's intent to permanently install the asset. Deeds Direct ¶ 131; Stevens Direct ¶¶ 130-34. Indeed, this asset is so large and heavy that specialized equipment and special skills would be necessary to move it (Tr. 529:7-24 (Deeds)), which supports a conclusion that after GM undertook the cost and effort to install the machine, it intended the Helical Broach to be permanently installed.

c) Mr. Goesling testified, based on conversations with GM employees during his plant visit, that GM installed similar helical broaches in pits in the 1990s, and asserts without any support that the decision to install this Helical Broach at ground-level is an indication of GM's intent to facilitate its movement. Goesling Direct ¶ 307. Mr. Goesling's conclusion is unsupported and incorrect. As Mr. Deeds testified, GM's practices prefer assets installed at floor-level to permit for less expensive installation and ongoing maintenance and to improve employee safety. Deeds Direct ¶ 134; Tr. 529:25-531:19, 635:10-636:11. On cross-examination, Mr. Goesling conceded that improving plant safety and facilitating installation were the reasons GM stopped installing some assets in pits. Tr. 3337:2-3338:14 (Goesling).

d) Mr. Goesling's analysis (Direct ¶ 308) of "similar" assets that have been sold does not provide any evidence of GM's lack of intent to install the Helical Broach permanently. The existence of a secondary market is not relevant because GM purchased its assets new and did not buy or install assets with an eye to reselling them on the secondary market. In any event, Mr. Goesling's reference to the sale of broaches during an auction of assets from the Willow Run facility, which was closed as part of the GM bankruptcy, says nothing about GM's intent at the time it installed the Helical Broach at Warren. Deeds Direct ¶ 139; Tr. 687:20-688:8; *see* Section VIII.B.3 above.

e) Mr. Goesling's analysis of "similar" moved assets is equally irrelevant. Mr. Goesling identifies ten "moved" line items that he claims are "similar" to the Helical Broach (PX22), but all of those were moved due to plant closures — extraordinary circumstances that do not indicate anything about GM's intent when it installed those assets. Deeds Direct ¶¶ 137-38; Tr. 636:23-637:12 (Deeds); Stevens Direct ¶¶ 48, 72-100; *see* Section VIII.B.1 above.

f) The Avoidance Trust's argument regarding the 12-inch concrete floor is addressed in the discussion of the Base Shaping Machine (Asset 24) above.

Asset 25: Liebherr Hobb¹⁰⁴

751. The Liebherr Hobb, like the Base Shaping Machine, is used to manufacture gears in the transfer gear area of the 6-speed line at Warren Transmission. It is part of an integrated production line of assets that creates transfer ring gears. This integrated line includes a load/unload robot, three other Hobbs, and a gear washer, as well as the conveyor that carries the gears from one operation to the next. Deeds Direct ¶ 143. A schematic showing the entirety of this integrated module can be found in DX69 and in Deeds Direct Exhibit A at 90. A schematic showing the larger Transfer Gear Machining Area can be found in DDX112 at 1.

752. The Liebherr Hobb weighs 33,000 pounds and is 12 feet long, 15 feet wide and 10 feet tall. Deeds Direct ¶ 144; JX1380; JX1385. To keep the machine from moving when the horizontal forces of the cutting tools inside the Liebherr Hobb are applied to cut the gear blanks, the Liebherr Hobb is bolted to the floor. Deeds Direct ¶ 144; Tr. 692:7-9.

753. The Liebherr Hobb was moved to its current location when GM unexpectedly closed its St. Catharines plant in Ontario, and thereafter expanded capacity on the Warren 6-speed line. Deeds Direct ¶ 154; Tr. 513:19-515:23, 516:15-519:4. Since its installation at Warren, the Liebherr Hobb has been operated in place for over eight years. The machine was purchased and installed at a cost of almost \$1.2 million. DX31; Deeds Direct ¶ 146.

754. **Attachment.** The Liebherr Hobb is attached to the floor of the building by six large mounting bolts attached to the floor through leveling jacks. Additional smaller bolts are also used to attach the Liebherr Hobb to the building and to other integrated assets. Deeds Direct ¶ 151 & Ex. A at 50. The asset is also attached by its significant weight (33,000 pounds) and size, and is connected via hard piping to the building's electrical power system, compressed air

¹⁰⁴ Asset Handbook at 81-82; Deeds Direct ¶¶ 143-158 & Ex. A at 48-52, 90-93.

system, communications network, chilled water system, mineral oil system, and mist collection system. Deeds Direct ¶¶ 144, 148 & Ex. A at 51; DDX112 at 2; Tr. 507:12-508:12, 513:11-18.

755. **Adaptation.** The Liebherr Hobb is adapted to GM's use of the Warren facility, as it is a necessary part of the gear-making process in the \$350 to 450 million 6-speed line. Deeds Direct ¶ 149. Mr. Goesling acknowledged that at the time of its installation, this asset was an integral part of the plant. Tr. 3205:10-20. It is installed as part of a highly integrated system of seven assets, including a centralized steel machining system (which serves a number of different transfer-gear machining assets at Warren Transmission), that turns steel blanks into gears. Deeds Direct Ex. A. 49; DDX112 at 2. Moreover, GM adapted the realty to the Liebherr Hobb as well: GM poured a 12-inch concrete floor to hold the significant weight of the asset and allow it to produce gears to the required tolerances and routed electrical power, compressed air, communications network, chilled water, mineral oil, and mist collection systems through the building to the Liebherr Hobb. GM also installed ladders and stairs (which are bolted to the floor) to access key areas of the machine, as well as customized input and output conveyors in the gear manufacturing line to work with the asset. Deeds Direct ¶¶ 145, 149; DX112 at 2; Tr. 3031:4-19 (Goesling) (12-inch floor required for hobbers); JX1392; JX1397.

756. **Intent.** The following facts all strongly support a finding that GM intended to install the Liebherr Hobb permanently at Warren Transmission:

a) The Liebherr Hobb is a flexible asset implementing GM's Lean Agile Flex practices. While it is programmed for the specific engineering designs of the 6-speed transmission gears at the time of installation, GM spent more money to purchase a flexible machine like this one that can be reprogrammed to hob different transmission gears without moving the asset or any of the other assets in the production line in the process. Deeds Direct ¶ 150 & Ex. A at 50. This decision to spend more money upfront in order to have a machine that can deal with unexpected changes in the future, consistent with GM's Lean Agile Flex policy, is evidence of GM's intent to use this asset in place for its useful life. Deeds Direct ¶ 150; *see also* Tr. 3088:9-3089:5 (Goesling) (the three machining Representative Assets can manufacture gears

for different uses); Sections VII.E, IX.B(b) above. The evidence shows that, in fact, between 2009 and 2014, GM needed to introduce the production of additional gears to this exact machine, and it was able to do so because of the machine's flexibility. Deeds Direct ¶ 150.

b) Removal of the \$1.2 million Liebherr Hobb would significantly impact production at Warren. The Hobb is physically attached to the power loop conveyor and the mineral oil pump-back asset and is part of a process that also involves a robot, a gear washer machine, and three other hobbs. These assets were all installed in their specific locations to complement each other and could not perform their intended functions in isolation. Deeds Direct ¶ 150.

c) GM's extensive adaptation of the facility to accommodate the Hobb likewise indicates GM's intent to use the Hobb in place for its useful life. GM poured a 12-inch concrete floor to support the weight of the asset and enable it to operate at the necessary tolerances. In addition, GM installed ladders, stairs, and safety fences around the machine. Finally, GM specifically routed utilities to the exact location of this asset, including large-gauge coolant supply and return piping from centralized systems. DDX112 at 2; Tr. 504:6-506:9, 507:12-508:6 (Deeds). As discussed the use of such centralized coolant systems is strong evidence of GM's intent to install all the transfer gear area production assets at Warren permanently for their useful lives.

d) Installing and removing the Liebherr Hobb would be extremely costly. Due to its size and weight, installing it required 3 weeks of planning and a month of work by 10 to 12 people. Installation required, among other things, setting up the main machine; attaching conveyors, panels, and hydraulic power units; aligning and attaching other assets; attaching the asset to the floor; and installing a ladder to cross over the exit conveyor. Deeds Direct ¶ 150. Removal would be similarly difficult and time-consuming, and would significantly decrease Warren's production of 6-speed transmissions until the Hobb was replaced. Deeds Direct ¶¶ 152-53.

757. Plaintiff's claims as to GM's lack of intent to install the Liebherr Hobb permanently are not supported by the evidence:

a) Mr. Goesling provides no evidence for his assertion that the Liebherr Hobb is attached only to a drip pan that lies on the building floor but is otherwise "not affixed to the building floor in any way." Goesling Direct ¶ 314. To the contrary, the Liebherr Hobb is bolted to the 12-inch concrete floor of the building via six large mounting bolts attached to the floor through levelling jacks. Additional smaller bolts are also used to attach the Liebherr Hobb to the building and other integrated assets. Deeds Direct ¶ 151. Further, the Liebherr Hobb is constructively attached by its sheer weight alone. Deeds Direct ¶ 148.

b) That the Liebherr Hobb was moved from the St. Catharines plant is not evidence that the Liebherr Hobb was not intended to be permanently installed at Warren. First, whatever the context of any prior location, the objective evidence shows clearly that once installed at Warren, the Liebherr Hobb was intended to remain there permanently. Tr. 513:19-514:23, 517:21-519:4 (Deeds). Second, the evidence indicates that the movement of the Hobb out of St. Catharines was a result of an extraordinary circumstance, where that plant was unexpectedly closing due to labor issues. Tr. 513:19-514:23, 517:21-519:4 (Deeds). That GM would move the Hobb in that unusual situation is not evidence that GM did not intend to install the Hobb permanently at Warren (or at St. Catharines for that matter). Indeed, Mr. Deeds testified that in his almost 40 years of powertrain experience, he has never seen this type of asset removed from an operating gear machining cell. Deeds Direct ¶ 154.

c) Mr. Goesling asserts that GM relocated 14 "similar" assets. Goesling Direct ¶ 312. But all were moved from plants that had been unexpectedly closed. Deeds Direct ¶ 155. These movements do not bear on GM's intent at the time of installation. *See* Section VIII.B.1 above.

d) Mr. Goesling claims that a secondary market exists for the Liebherr Hobb. Goesling Direct ¶¶ 311, 313. The existence of a secondary market is not relevant because GM purchased its assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3 above. And in any event, virtually all sales of "similar"

assets Mr. Goesling identified were from plants that were closed or closing. DDX-PX0350b; PX350.

(e) **6-Speed Assembly Assets**

Asset 1: OP-150 Shims Station¹⁰⁵

758. After the 6-speed transmission housings and gears have been milled, heat-treated and initially checked, all components are delivered to the 6-speed assembly line at Warren Transmission. The assembly line performs additional checks and assembles the components into a completed transmission that is ready to be paired with an engine and installed in a completed vehicle. Deeds Direct ¶ 159; Tr. 534:8-15 (Deeds).

759. The OP-150 Shims Station, also known as the “Check Place Shims Auto Station,” is one of 75 integrated stations that, combined with multiple conveyors, constitute the automated transmission assembly line at Warren. Deeds Direct ¶ 160; JX1007. A schematic showing the entirety of the assembly area for the 6-speed line can be found in DDX110. Tr. 531:20-532:14 (Deeds). DX41 and Exhibit A to the Direct Testimony of Daniel Deeds at 97 contain more detailed schematics of the area of the assembly line in which the OP-150 is installed.

760. The OP-150 vacuums each transmission housing, selects one or two shims (small pieces of metal) to adjust for any variance detected in the housing, and places the shim or shims in the correct locations. The OP-150 plays a critical role in ensuring that all transmissions assembled at Warren have the same dimensions and meet quality-control standards. Deeds Direct ¶ 161.

761. The OP-150 weighs 9,000 pounds, is 10 feet tall and occupies some 200 square feet of floor space. It is designed specifically to work with the family of transmissions being made at Warren, and would have little use to any third-party purchaser. Deeds Direct ¶ 162. It was installed in 2006 and remains in place and operating today. Tr. 535:10-17; Deeds Direct Ex. A at 61.

762. **Attachment.** The parties agree that this asset is attached to the realty. Goesling Direct ¶ 60. The OP-150 is attached primarily through twelve bolts that attach the asset to the

¹⁰⁵ Asset Handbook at 85-86; Deeds Direct ¶¶ 159-173 & Ex. A at 60-64, 97-98.

Warren building's concrete floor. The bolts are drilled into the concrete and attached through leveling plates. In addition, the OP-150 is attached to the Warren plant's supply of high voltage power through the bus duct distribution system and to the plant's compressed air supply through high-pressure threaded steel pipe connections. Deeds Direct ¶ 164 & Ex. A at 62. It is also attached by bolts and electrical attachments to the Power Roller Conveyor. *Id.* ¶ 164.

763. **Adaptation.** The OP-150 is adapted to GM's use of the Warren facility, as it is a necessary part of the \$350-\$450 million 6-speed assembly line and fills a critical role in the overall transmission assembly process at Warren. Deeds Direct ¶ 165. Mr. Goesling acknowledged that at the time of its installation, this asset was an integral part of the plant. Tr. 3205:10-20. It is installed as part of the transmission assembly line process, a highly integrated system of 76 assets. Deeds Direct Ex. A at 61. In addition, GM adapted its realty for this asset: it ran a high-voltage power bus distribution system through the facility to accommodate the requirements of this asset and other assets in the assembly line process. The OP-150's function was designed and adapted specifically for the 6-speed family of transmission produced at Warren Transmission. Deeds Direct ¶ 165.

764. **Intent.** The following facts all strongly support a finding that GM intended to install the OP-150 permanently at Warren Transmission:

a) The two-and-a-half ton OP-150 is attached to the Warren plant via:
(a) bolts and leveling plates attaching it to the concrete floor, (b) connection to key plant utilities, including hard-piping connections to the plant's compressed air supply, and (c) integration with and connection to the entire assembly line through the power roller conveyor, strongly indicating that GM intended that it be installed for its useful life. Deeds Direct ¶ 166 & Ex. A at 62.

b) The OP-150 plays a critical role in ensuring the quality of 6-speed transmissions produced at Warren. Deeds Direct ¶ 166

c) The OP-150 is a flexible asset implementing GM's Lean Agile Flex practices. The operations performed by the OP-150 were specifically programmed to compensate for variation in the dimensions of GM's 6-speed FWD transmission. However,

multiple shims can be stored in the shim storage (which is part of the asset) and the measuring system can be reprogrammed for different GM transmission designs. Deeds Direct Ex. A at 62.

765. Plaintiff's claims as to GM's lack of intent to install the OP-150 permanently are not supported by the evidence:

a) Mr. Goesling's vague assertion that removal and relocation of the OP-150 would be "straightforward" and "simple" is unsupported by the evidence. To the contrary, the OP-150 is part of an integrated assembly line, and removing one station out of sequence is difficult and would risk damage to surrounding assets. Deeds Direct ¶ 167. The OP-150 is surrounded by other assets on all sides and is integrated into the assembly conveyor. Tr. 534:16-535:9 (Deeds). Two adjacent assets would have to be moved to allow access, and a crane would be needed to lift the asset off the conveyor that it straddles. Head room in the assembly area at Warren is limited, making this operation even more difficult. Deeds Direct ¶ 167. Any removal would be expensive and require post-removal remediation of the plant and utilities. Deeds Direct ¶¶ 168-169.

b) Mr. Goesling asserts that GM relocated 42 supposedly similar assets. Goesling Direct ¶ 271. Yet all but one was moved out of a closed plant (Willow Run or MFD Flint) or a plant partially shuttered due to the bankruptcy (Tonawanda). Deeds Direct ¶ 172. Such movements do not bear on GM's intent at the time of installation. *See* Section VIII.B.1 above. Further, the vast majority of "similar" assets Mr. Goesling identifies have an installed cost below \$100,000, in contrast to the almost \$500,000 cost of the OP-150. PX22; Deeds Direct ¶ 171.

c) Mr. Goesling claims that a secondary market exists for the OP-150. The existence of a secondary market is not relevant because GM purchased its assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3 above. In any event, Mr. Goesling himself valued the OP-150 at scrap (\$3,000) given the lack of any comparable sales. Deeds Direct ¶ 171.

d) This lack of sales or movements outside of extraordinary circumstances is consistent with Mr. Deeds' experience. As he testified at trial, he installed an automated testing

station like the OP-150 in 1996 at GM's Romulus Engine facility, and that testing station remains in place to this day over 20 years later. Tr. 716:24-720:21.

Asset 35: Button Up Conveyor System¹⁰⁶

766. The Button Up and Test Conveyor System (the "BU Conveyor") is a critical part of the 6-speed transmission assembly and testing process at Warren. Deeds Direct ¶ 174; Tr. 538:11-539:14; JX1536. It is the final conveyor in the 6-speed assembly line. It is 350 feet long and specifically designed to loop around 3,000 square feet of Warren, feeding six final assembly and testing operations, resulting in a complete transmission ready for shipping and combination with an engine. Deeds Direct ¶ 174; Tr. 537:14-538:6. The BU Conveyor weighs 6,000 pounds, was installed at a cost of \$2.7 million and is installed to run through a custom-designed glass wall that was built around it. Deeds Direct ¶ 174; Tr. 539:16-540:13; DX31. It has been operated in place since 2006. Deeds Direct ¶ 174 & Ex. A at 67; DX31.

767. A schematic showing the entirety of this integrated line can be found in DX78 and in Exhibit A at 99. DDX110 is a schematic showing the BU Conveyor in the context of the larger transmission assembly area. Tr. 531:20-532:14 (Deeds).

768. **Attachment.** The parties agree that this asset is attached to the realty. Goesling Direct ¶ 60. The BU Conveyor is attached to the building through over 400 lag bolts that affix it to the concrete floor, as well as attachments to overhead white steel. Deeds Direct ¶¶ 174, 177; Tr. 537:14-538:6. It is also attached to the robot load area of the 6-speed assembly line, the final test conveyor, and the unload point. In addition, the BU Conveyor is attached to the plant's compressed air distribution network via hard piping and electrical power via metal conduit, and is connected to transmission fluid returns for the test stands. Deeds Direct ¶ 177 & Ex. A at 68.

769. **Adaptation.** The BU Conveyor is adapted to GM's use of the Warren facility, as it is a necessary, customized component of the final assembly line for completed transmissions, a critical step in the \$350-\$450 million 6-speed line. Deeds Direct ¶ 178. Mr. Goesling acknowledged

¹⁰⁶ Asset Handbook at 87-88; Deeds Direct ¶¶ 174-186 & Ex. A at 66-70, 99-101.

that at the time of its installation, this asset was an integral part of the plant. Tr. 3205:10-20. It is installed as part of the final leg of the transmission assembly and testing process, a highly integrated system of over a dozen assets. Deeds Direct Ex. A at 67. The BU Conveyor was specifically designed for the layout of Warren Transmission's assembly area, and the building in turn was customized with a glass wall built around the BU Conveyor to separate the assembly build process from gear machining and the shipping dock. Deeds Direct ¶ 178; Tr. 539:16-540:13.

770. **Intent.** The following facts all strongly support a finding that GM intended to install the BU Conveyor permanently at Warren Transmission:

a) The BU Conveyor and the realty were extensively adapted to accommodate one another. The BU Conveyor is a critical component of the final assembly process for transmissions at Warren, and was custom-designed to fit within the available space in the assembly area. Deeds Direct ¶ 179. In addition, just as the BU Conveyor was designed to weave around and work with the transmission assembly assets in the assembly area at Warren, the building's assembly area was also adapted to the conveyor: the glass wall that separates the assembly build process from the shipping dock was adapted to fit the BU Conveyor, which crosses both areas. Deeds Direct ¶ 179; Tr. 539:16-540:13.

b) Hundreds of bolts and extensive hard piping attach the BU Conveyor to both the Warren Transmission building and utilities, as well as other operations on the assembly line. GM would not have undertaken the extensive process — which Mr. Deeds estimates took approximately 50 labor-weeks — to install a conveyor customized for this particular area of the Warren plant if it did not intend that it be attached for its useful life. Deeds Direct ¶ 179.

c) The BU Conveyor is a flexible asset implementing GM's Lean Agile Flex practices. It was designed to accommodate transmissions within the range of size and weight that Warren produces or could foreseeably produce — the transmissions are placed into pallets that are moved by the conveyor — so it would not need to be replaced in the event of technological changes. Deeds Direct ¶ 179 & Ex. A at 68. This flexibility to operate in place,

consistent with GM's Lean Agile Flex practices, is strong evidence of GM's intent to install the BU Conveyor permanently. *See* Sections VII.E, IX.B(b) above.

771. Plaintiff's claims as to GM's lack of intent to install the BU Conveyor permanently are not supported by the evidence:

a) Mr. Goesling's assertion that the "modular" design of the BU Conveyor would make removal a "relatively easy" task is unsupported. Goesling Direct ¶ 257. The sectional design of the BU Conveyor is what allowed GM to ship this 300 linear foot conveyor to Warren and install and integrate it efficiently; it does not indicate an intent on GM's part to relocate this asset. Deeds Direct ¶¶ 181-183. As discussed above, installation and integration was a time-consuming, expensive process, and once GM had undertaken those efforts the BU Conveyor was not at all "modular." Deeds Direct ¶ 179. Moreover, removing the conveyor would be far from easy given that it is surrounded by, and in some cases straddled by, multiple other assembly assets. Removal would also create the need for substantial remediation. Deeds Direct ¶¶ 181-182.

b) Although Mr. Goesling identifies two "similar" assets that moved in his movement analysis (PX22), both of these moved out of Willow Run, a plant that was closed as part of GM's bankruptcy. Deeds Direct ¶ 184. These movements therefore do not bear on GM's intent at the time of installation. *See* Section VIII.B.1 above.

c) Mr. Goesling claims that a secondary market exists for the BU Conveyor. Goesling Direct ¶ 259. The existence of a secondary market is not relevant because GM purchased its assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3 above. In any event, at trial, Mr. Goesling admitted that the one sold asset he claimed was "similar" was not even a conveyor, but an assembly line testing station, which had an installed cost less than *one twenty-fifth* of the BU Conveyor. Tr. 3307:12-3310:5; DDX-PX350a. Consistent with his inability to find comparable sales, Mr. Goesling values the BU Conveyor at \$2,000 (scrap) — in stark contrast to its installed cost of \$2.7 million. Goesling Direct ¶ 412 & Ex. A at 407.

d) This lack of movement and sales is consistent with Mr. Deeds' testimony that he has never seen an operating conveyor like the BU Conveyor removed from production, and has seen only minor changes to installed conveyor systems in unexpected circumstances. Deeds Direct ¶ 183; Tr. 716:24-721:12. In fact, while the Avoidance Trust cross-examined Mr. Deeds about "reconfiguring" a similar conveyor at Romulus (Tr. 561:19-564:8, 565:12-567:20), Mr. Deeds clearly explained that there was no "reconfiguring," just a temporary shift of a very small portion (less than 5%) of a conveyor that has otherwise remained installed and operating in place almost 30 years. *Id.*; Tr. 719:14-721:12. As Mr. Deeds testified, this experience is consistent with his conclusion that the BU Conveyor was installed with the intent that it would remain in place for its useful life. Tr. 721:5-12.

(f) 4-Speed Assets

772. The last two Warren assets were part of the former 4-speed transmission line at Warren Transmission. Deeds Direct ¶ 187. The nearly 30-year history of the 4-speed transmission line at Warren is described above in Section IX.B(a) and in Deeds Direct ¶¶ 48-53.

Asset 34: Build Line With Foundation¹⁰⁷

773. The Build Line With Foundation was a critical part of the 4-speed line. It was a 300-foot, in-ground assembly line chain conveyor with an embedded structural steel foundation to support its significant weight. It was used for assembling 4-speed transmissions for cars. Unlike the other conveyors at issue in this case, the build line was a manual operation. The conveyor included build pedestals that were built on top of the conveyor chain. The manual assembly process started with an operator loading a transmission housing onto a pedestal while the conveyor continually moved. Subsequent operators would install their parts as the housing moved by their operations, over and over, as dozens of operations were performed manually by human operators, until at the end the final operator would lift the assembled transmission off the

¹⁰⁷ Asset Handbook at 89-90; Deeds Direct ¶¶ 187-200 & Ex. A at 72-75, 102.

build line. Components for the transmission would be delivered to operators at several locations along the length of the conveyor. Deeds Direct ¶ 188; JX1521; DDX102.

774. The Build Line was installed in a pit, which is a separate ledger entry on GM's books. Based on the name of this asset in GM's asset ledger, "Build Line w/ Foundation," as well as the \$3.5 million installed cost as of 1983, the evidence indicates that both the conveyor and its components (drive motors, gear boxes, controls), plus the 325 feet long by 15 feet wide by 10 feet deep steel-reinforced concrete foundation that was installed to support the conveyor, were all part of this asset's ledger entry and thus part of the asset for purposes of this case. Deeds Direct ¶ 189.

775. Regardless, all of the elements of the Build Line, from the 300 foot conveyor, to its foundation, to the pit in which it was installed, worked together as an integrated whole to serve a critical function on the 4-speed line. They worked together for over 27 years, beyond GM's accounting useful life, before being idled in 2010 and removed in 2014. Deeds Direct ¶ 190; Tr. 3253:6-18 (Goesling).

776. **Attachment.** The parties agree that this asset meets the attachment requirement. Goesling Direct ¶ 60. The Build Line With Foundation was installed in a pit and attached to the building through bolts to embedded structural steel, bolts to the concrete floor and connections to plant utilities, including compressed air, high voltage electricity and waste lines for waste water and oil. These utility connections were routed through the concrete floor of the building. Deeds Direct ¶¶ 192, 194 & Ex. A at 73-75. The concrete walls of the foundation were fused with the concrete of the surrounding floor to make a solid interconnection. Deeds Direct ¶ 192.

777. **Adaptation.** The Build Line With Foundation was adapted to GM's use of the Warren facility, as it was a necessary part of the 4-speed line. Deeds Direct ¶ 193. Mr. Goesling acknowledged that at the time of its installation, this asset was an integral part of the plant. Tr. 3205:10-20. The building was extensively altered to permit installation of the Build Line With Foundation. Deeds Direct ¶ 193. To install the asset, a pit had to be excavated and concrete walls and floor formed within the pit with structural support beams embedded for additional

support. Numerous utilities had to be routed through the concrete floor of the building to meet the requirements of the asset. Deeds Direct ¶ 194 & Ex. A at 74-75.

778. **Intent.** The following facts all strongly support a finding that GM intended to install the Build Line With Foundation permanently at Warren Transmission:

a) As detailed above, the Warren facility was heavily adapted to the Build Line With Foundation — a pit was excavated, concrete walls and floor were formed within the pit with structural support beams embedded for additional support, and numerous utilities had to be routed through the building’s concrete floor. Deeds Direct ¶ 194 & Ex. A at 75.

b) The Build Line With Foundation operated in place for 27 years, far longer than the 15-year useful life that GM had assigned to this asset. Deeds Direct ¶ 194 & Ex. A at 73; DX31. It was shut down on December 22, 2010. Deeds Direct Ex. B ¶ 169; Tr. 462:11-17. By that time, it and the rest of the 4-speed line was obsolete, Deeds Direct ¶¶ 38, 51, as GM had already been migrating to newer powertrain technologies, such as the 6-speed front-wheel-drive transmission, in response to increasingly stringent fuel-economy regulations. Tr. 462:18-25 (Deeds). And the old 4-speed line could not be used to manufacture the 6-speed transmission. Tr. 463:2-12. Approximately one-third of the area where the 4-speed line had been located (although not including the area in which the Build Line was installed) was renovated between 2011-2013 to allow for the installation of equipment more suitable to the purpose of assembling a modern transmission — the electric drivetrain unit for the Chevy Volt. Tr. 586:8-22 (Deeds); Deeds Direct ¶ 38, 48-53 & Ex. A at 10.

779. Plaintiff’s claims as to GM’s lack of intent to install the Build Line With Foundation permanently are not supported by the evidence:

a) Mr. Goesling asserts that the Build Line was removed with “minimal evidence of [its] previous installation” and that GM subsequently reappropriated the space, and that these “facts” are evidence of a lack of permanent intent by GM. Goesling Direct ¶¶ 264-265. Mr. Goesling does not correctly state the facts, and the conclusions he draws about GM’s intent are unfounded and incorrect. In fact, the 4-speed line, of which the Build Line With

Foundation was an essential part, had operated for nearly 30 years before it was completely shut down in December 2010. For approximately one year thereafter, that approximately one million square foot area of the Warren plant sat idle. Deeds Direct Ex. A at 10. In late 2011, GM decided to install the electric drive train unit for the Chevy Volt in approximately one-third of the former 4-speed line's floor space. *Id.*; Deeds Direct ¶ 51. Demolition and removal of that portion of the 4-speed line commenced and took approximately nine months. Deeds Direct ¶ 51. GM then spent \$30 million to renovate that one-third area of the former 4-speed line over the next several months, in preparation for installation of the electric drive unit systems. Deeds Direct ¶¶ 51-53; Tr. 465:13-466:10. That renovated area, however, did not encompass the Build Line with Foundation. The Build Line remained in place until 2013, when GM decided to remove the remainder of the 4-speed line, and the Build Line was cut up, torn out and scrapped over a period of two months. Deeds Direct ¶¶ 194, 198 (had the Build Line been removed for reuse, the process would have taken far longer); Tr. 469:23-470:8 (Deeds). Even after remediation of the area, scars from the removal process are visible on the floor. JX1516. And the area has by no means been reappropriated for other use by GM as needed: given the limited remediation, the area of Warren where the Build Line is installed is currently capable of only very limited use, such as storage of spare parts or warehousing; significantly more renovations would be required before productive manufacturing reuse would be possible. Tr. 470:9-23 (Deeds).

b) Mr. Goesling asserts that "components" of assets "similar" to this nearly 30-year-old manual assembly line were traded on the secondary market. Goesling Direct ¶ 263. The existence of a secondary market is not relevant because GM purchased its assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3 above. In any event, Mr. Goesling provides no evidence to support his somewhat surprising assertion. Deeds Direct ¶ 199. And, indeed, Mr. Goesling himself values this asset at scrap, apparently not having found any comparable asset sales. Goesling Direct Ex. A at 360, 406. This is consistent with Mr. Deeds' almost 40 years of experience that assets like the Build Line With Foundation were not moved by GM after installation. Deeds Direct ¶ 199.

Asset 37: Courtyard Enclosure¹⁰⁸

780. As of June 2009, the Courtyard Enclosure was a 180'W x 550'L x 30'H building enclosure that provided space for operations, including receiving and storing aluminum housing castings, robot loading of those castings into conveyors, and machining of those castings into housings. It also included a metrology lab, a reliability lab, various conference rooms and offices. Deeds Direct ¶ 201. It was originally installed in 1982 at a cost of approximately \$8.4 million. DX31; Deeds Direct ¶ 202. Around 2012-2013, the Courtyard Enclosure was extensively renovated in preparation for the installation of GM's new electric drive unit for the Chevy Volt. Deeds Direct ¶¶ 201 & Ex. A at 10; DX1082; Tr. 585:24-586:14 (Deeds).

781. While much of the Courtyard Enclosure is ordinary building materials that are not fixtures, including the roof, walls and floor, Mr. Deeds' extensive personal knowledge of this asset from his time at Warren Transmission provides the best evidence of the components of the Courtyard Enclosure that had identities independent of the building itself. These components include: dock levelers, dock doors, heat system, fire safety, sprinklers, toilets, sinks, hot water tanks, and lighting transformers. Deeds Direct ¶ 203. While many of those components are no longer present at Warren — as they were removed during the renovation — some, such as certain hot water tanks, remain in place. Deeds Direct ¶¶ 202-03; DX1083; Tr. 460:23- 461:14.

782. As explained below, these components of the Courtyard Enclosure, as of June 2009, were all attached and adapted to use at Warren Transmission. They had all been installed in 1982 as part of the construction of the Courtyard Enclosure, which itself was part of the extensive renovation of the Warren facility for the installation of the 4-speed line, with the intent that they would be permanent. And, in fact, these components were used in place for more than 30 years. In particular:

a) Three dock levelers were embedded in the concrete floor of the unloading area to create a smooth surface to unload trucks. They were firmly attached, necessary for

¹⁰⁸ Asset Handbook at 91-92; Deeds Direct ¶¶ 201-210 & Ex. A at 32-34.

receiving operations, intended to be permanent based on their extensive attachment, and were critical to the exact function for which the Courtyard Enclosure was built. Deeds Direct ¶ 205.

b) Three large dock doors were installed in the Courtyard Enclosure to facilitate the material handling and storage operations. These were attached, adapted and intended to be permanent for the same reasons as the dock levelers. Deeds Direct ¶ 205.

c) The plant heating system used steam, which was distributed to the Courtyard Enclosure through the heat exchangers. The heat exchangers were attached by bolts to the floor of the air supply houses that distributed heat throughout the Courtyard Enclosure. These were adapted to the purpose of the Courtyard Enclosure. They were necessary to production operations in the Courtyard Enclosure, integrated with a number of building systems, and were therefore intended to be permanent. Deeds Direct ¶ 205.

d) Fire sprinklers were installed in the Courtyard Enclosure. They meet the annexation, adaptation and intent factors for similar reasons as the heating system. *Id.* ¶ 205.

e) The Courtyard Enclosure had two 75-gallon hot water tanks and four restrooms. They meet the annexation, adaptation and intent factors for similar reasons as the heat and fire safety systems. Deeds Direct ¶ 205.

f) Lighting transformers were installed to support overhead lighting. They meet the annexation, adaptation and intent factors for similar reasons as the heating and fire safety systems. Deeds Direct ¶ 205.

783. The only “evidence” that the Avoidance Trust presented at trial was Mr. Goesling’s assertion that Mr. Deeds was simply wrong about the components of the Courtyard Enclosure as of June 2009. Goesling Direct ¶ 245. Mr. Goesling, however, has no basis for that assertion and Mr. Deeds’ personal knowledge is reliable evidence as to this asset in June 2009.

C. The Representative Assets at GM Defiance Foundry

784. John Thomas testified about the six Representative Assets at the Defiance Foundry. Tr. 736:17-872:21. Mr. Thomas was a credible expert with over 28 years of experience in

manufacturing engineering at GM. Tr. 737:10-13 (Thomas); Thomas Direct Ex. A at 68-69. Approximately 18 of those years were devoted to the operation of foundries, including six years as plant manager of the Defiance Foundry. Tr. 737:18-738:13; Thomas Direct Ex. A at 68-69. As plant manager, he was responsible for the performance of the entire Defiance Foundry site, including production, maintenance, manufacturing engineering, production material control, logistics, and budget forecasting for plant operation. Mr. Thomas also had responsibility for installations of significant capital equipment, and gained extensive experience with the types of foundry equipment used at the Defiance Foundry. Thomas Direct ¶¶ 8-10.

(a) Overview of operations at Defiance Foundry

785. The Defiance Foundry sits on a 428 acre plot in Defiance, Ohio. GM built the Defiance Foundry in 1948 and has operated it continuously as a foundry for almost 70 years. Thomas Direct ¶ 22; Tr. 744:2-11 (Thomas). It operates as a foundry to this day. Thomas Direct ¶ 22; Tr. 744:2-11 (Thomas); *see also* Tr. 867:15-19 (Thomas).

786. Plants 1 and 2 are the two primary manufacturing plants at Defiance Foundry, and a number of smaller buildings support the foundry operation. Plant 1 opened in 1948 and has approximately 1.6 million square feet of floor space. GM opened Plant 2 in 1964 and then expanded it in 1972. It consists of approximately 1.1 million square feet. Thomas Direct ¶¶ 28-29 & Ex. A at 49.

787. The Defiance Foundry turns scrap metal and metal ingots into cast metal parts — such as engine components (iron and aluminum blocks and cylinder heads; iron crank shafts) and transmission parts. These parts are then shipped to GM engine and transmission plants (like Warren Transmission), where they are further machined and assembled into finished engines and transmissions. Thomas Direct ¶ 23. Manufacturing these parts at the Defiance Foundry is a multi-step, integrated process.

- Scrap metal or metal ingots are offloaded in a charge yard from rail cars by a charger crane or fork truck and placed onto a feeder system, which then takes this raw material to the melting department. Tr. 758:23-759:8 (Thomas); DX1019.
- The melting department uses melting furnaces to turn this raw material into molten metal. The cupola in Plant 1, for instance, reaches temperatures in excess of 2,500 degrees Fahrenheit to melt scrap metal at a rate of 70 tons per hour. Tr. 764:3-768:25, 770:21-771:4 (Thomas); DX1060; DX1021.
- An emissions system captures and cleans exhaust gases from the melting operation to comply with EPA requirements. JX1433.
- The molten metal is transferred from a melting furnace to holding furnaces that maintain the metal at a constant high temperature before delivery to the pouring stations at the mold line. Tr. 756:23-25, 770:22-771:4 (Thomas).
- At the core room operations, a network of 50-60 core machines (at Plant 1) separately produce and assemble core mold packages that are then transported to mold/cast lines. Sand is pneumatically piped from a large sand silo (that can hold 900 tons of sand (DX1025)), mixed with resins and then blown with air / gas into the core machine to form a “core” — a shape for the internal dimensions of a casting. Tr. 793:5-800:2 (Thomas); DX1023. The core room operation uses approximately 300 to 400 tons of sand per day. Tr. 796:14-18 (Thomas).
- At the mold line operation, mold machines form the top and bottom portions of the exterior dimensions of a casting; core packages are placed inside a flask, and then molten iron is transferred from holding furnaces to a pouring furnace that fills the molds with the molten metal, which then cools to form a casting. Tr. 810:16-812:11 (Thomas); DX1036; DX1035.
- At the finishing department, solidified castings are removed from the mold, cleaned, finished and processed for shipment to a GM engine or transmission plant. Tr. 757:3-7 (Thomas).

Thomas Direct ¶ 23 & Ex. A at 9-10; DDX202; Tr. 755:19–757:7 (Thomas).

(b) The foundry-specific areas of the realty

788. Much of the two plants and the surrounding land at Defiance is heavily adapted to foundry operations. The foundry-specific features include: (i) environmental features of the land, such as landfills to hold toxic foundry sands, as well as water basins to store contaminants and provide cooling for the melting operations; (ii) infrastructure features such as a significant railroad system that brings raw materials in and takes finished products out; and (iii) design features of the

buildings such as high bay ceilings, a railcar unload / distribution system and an EPA-mandated emission system. Thomas Direct ¶ 24 & Ex. A at 48-51.

789. Due to these features, the realty on which Defiance Foundry is located realistically would not be used for any type of business or manufacturing process other than a foundry because it would be prohibitively costly to repurpose the realty to make it useable for another business purpose. Thomas Direct ¶ 25; Tr. 815:19-817:19 (Thomas).

790. Plant 1: Foundry-specific areas of Plant 1, totaling approximately 500,000 to 1.1 million square feet, collectively constitute a significant percentage of the total square footage of this facility (Thomas Direct ¶ 28), and include:

- *Charge Yard*: this high bay area includes railroad tracks that are part of the foundry's material distribution center, significant structural steel and foundations to support the loads carried by a charger crane (that itself weighs 70 tons), a trim deck with feeders with significant structural steel to take scrap metal to the melting department, and elevators. Thomas Direct ¶ 28 (at Figure 1, Area 2) & Ex. A at 50; Tr. 758:23-759:8 (Thomas); DX1019.
- *Melting Department*: this area, which Mr. Goesling concedes would be "very difficult" to repurpose, Tr. 3215:17-3218:14, is four to five stories high, with irregular flooring, and has a cupola, three holding furnaces, a molten iron distribution system, a cupola charging system and an EPA required emissions system to contain contaminants. Thomas Direct ¶ 28 (at Figure 1, Area 3) & Ex. A at 51; Tr. 764:3-768:25, 770:21-771:4; DX1060; DX1021. The cupola and holding furnaces in this area were installed in approximately 1976, and have operated continuously since that time. Tr. 769:4-13 (Thomas).
- *Core Room*: a two-story area with irregular flooring that includes 50-60 core machines requiring foundations, a complex sand delivery / preparation system, a conveyor system, core set systems (gas / chemicals), core dip systems, core drying ovens, core assembly systems and a structural steel mezzanine. Thomas Direct ¶ 28 (at Figure 1, Area 1); Tr. 797:20-800:2 (Thomas); DX1023.
- *Mold Lines 1, 2 & 3*: the mold lines reside in a multi-story, high bay area that has significant changes in elevation and includes flask handling, a mold sand system, mold machines, rotary mechanical iron pour units and a flask cart track as well as a significant basement area. Thomas Direct ¶ 28 (at Figure 1, Area 5); DX1035; Tr. 813:9-814:6 (Thomas).
- *Knockout / Shakeout / Sand Reclaim System*: an area that removes excess metal and sand from a solidified casting and returns the sand to a mulling system for

preparation and reuse. Thomas Direct ¶ 28 (at Figure 1, Area 4); DX1033; DX1028; DX1054; Tr. 814:20-815:11.

- *Finishing Department:* a multi-level area with significant equipment foundations where iron blocks are cleaned with a shot blast unit, ground and processed to remove excess metal prior to being inspected, palletized, and shipped. Thomas Direct ¶ 28 (at Figure 1, Area 7); DX1046; DX1047.
- *Slurry Building:* an area with irregular flooring that houses blenders that mix water, sea coal, cobs and other ingredients to form a slurry mix, which is pumped to the foundry mullers and used in the preparation of sand for the mold machines. Thomas Direct ¶ 28 (at Figure 1, Area 6).

791. Plant 2: Foundry-specific areas of Plant 2, totaling approximately 600,000 to 700,000 square feet, collectively, constitute a significant percent of the square footage of this facility (Thomas Direct ¶ 29), and include:

- *Charge Yard:* this area includes trim deck, rail lines, charge crane and elevators and is foundry-specific for similar reasons as those for the charge yard in Plant 1. Thomas Direct ¶ 29 (at Figure 2, Area 1) & Ex. A at 13-18; Tr. 759:17-22 (Thomas); JX1602; JX1609; JX1725; DX1043.
- *Mold Line 6 Melting Department:* a high bay area, with irregular flooring that includes a cupola, two holding furnaces, a molten iron distribution system and cupola charging system, and is foundry specific for similar reasons as the melting department at Plant 1. Thomas Direct ¶ 29 (at Figure 2, Area 2). Again, Mr. Goesling concedes that the melting department areas of the Defiance Foundry could not be repurposed. Tr. 3215:17-3218:14 (Goesling).
- *Mold Line 6:* this multi-level high bay area includes flask handling, a mold sand system, mold machines, a rotary iron pour and a flask cart track, and is foundry specific for similar reasons as the mold lines at Plant 1. Thomas Direct ¶ 29 (at Figure 2, Area 3); DX1039; DX1040; DX1041.
- *Shakeout:* similar to the Plant 1 shakeout area, this area has irregular flooring, produces contaminants from operations, and includes a series of vibratory shakers that are used to remove the hot molding sand from a solidified casting. Thomas Direct ¶ 29 (at Figure 2, Area 4).
- *Mold Line 7 Melting Department:* as of 2009, this area had irregular flooring and included two induction melters, a holding furnace, hot metal carriers and furnace charging systems and was foundry-specific for similar reasons as the mold line in Plant 1. Thomas Direct ¶ 29 (at Figure 2, Area 7).
- *Mold Line 7:* as of 2009, this area had irregular flooring and included flask handling, a mold sand system, mold machines, a rotary iron pour and a flask cart

track and was foundry-specific for similar reasons as the mold line in Plant 1. Thomas Direct ¶ 29 (at Figure 2, Area 8).

- *Smoke Emissions Building*: this area includes 1,000 hp emissions fans, scrubbers, flooded elbows, and separators to contain contaminants from foundry operations. Thomas Direct ¶ 29 (at Figure 2, Area 9).
- *Crankshaft Grinding / Rack-out*: an area with irregular flooring where crankshafts are ground to remove excess stock and racked out into shipping baskets. Thomas Direct ¶ 29 (at Figure 2, Area 5).
- *Crankshaft Finishing*: another area with irregular flooring where crankshafts are cleaned in a shot blast unit and processed to remove excess material. Thomas Direct ¶ 29 (at Figure 2, Area 6).

792. External Areas: Foundry-specific processes of the external areas at Defiance, totaling approximately 7.0 million square feet, constitute a significant percentage of the land at the Defiance Foundry (Thomas Direct ¶ 30), and include:

- *Primary Basins, East and West*: these ponds collect water laden with contaminated foundry sand and other waste. Waste settles to the bottom, is periodically dredged and added to a landfill on-site. Thomas Direct ¶ 30 (at Figure 3, Area 1) & Ex. A at 49 (Area A); Tr. 749:15-23 (Thomas).
- *Secondary Basin*: this pond contains water used to cool the cupola shell, cool induction units, provide evaporative cooling for employees and for the air treatment system. Thomas Direct ¶ 29 (at Figure 3, Area 2) & Ex. A at 49 (Area B); Tr. 749:24-750:11 (Thomas).
- *Reservoir*: this reservoir stores water from the secondary basin before it is pumped back to the plants for cooling. Thomas Direct ¶ 30 (at Figure 3, Area 1) & Ex. A at 49 (Area C).
- *Berm*: a man-made elevation built to protect the Maumee River from possible runoff of contamination from the property. Thomas Direct Ex. A at 49 (Area D); Tr. 750:12-19 (Thomas).
- *Landfill for Toxic Foundry Sand*: an EPA-mandated, terraced landfill covers more than 25 percent of the 428-acre site and stores contaminated core and foundry sand so that harmful waste does not escape to nearby water sources. Thomas Direct ¶ 30 (at Figure 3, Area 4) & Ex. A at 49 (Area E); Tr. 748:13–749:3. A subsequent purchaser would be required to maintain compliance with foundry-specific EPA regulations for this area. Thomas Direct Ex. A at 49. This landfill receives approximately 250-300 tons of toxic foundry sand each day. Tr. 752:13-19.

- *Landfill for Solidified Discharge from Scrubbers*: another landfill that stores solidified discharge and waste from foundry scrubbers. Thomas Direct ¶ 30 (at Figure 3, Area 5) & Ex. A at 49 (Area F); Tr. 749:4-14 (Thomas). Water used to clean the scrubbers and resulting particulates is piped to the east primary basin, and then, after the solidified waste settles to the bottom of the basin, is dredged and the toxic sediment stored in this area. Thomas Direct Ex. A at 49.
- *Rail Line Network*: a roughly five-mile railroad network that is unique to the requirements of the foundry, includes 4 railroad spurs that end in the plant's charge yards for material unloading. Thomas Direct ¶ 30 (at Figure 3, Area 6) & Ex. A at 50; Tr. 751:3-752:4, 752:8-12, 758:11-22; DX1019.
- *Water treatment plant*: this plant neutralizes waterborne contaminants generated by the foundry process. Thomas Direct ¶ 30 (at Figure 3, Area 7) & Ex. A at 50.
- *Generation plant for gases*: this plant stores significant volumes of nitrogen and oxygen used in the foundry melting operation. Thomas Direct ¶ 30 (at Figure 3, Area 8) & Ex. A at 50.

793. Given the very high percentage of Plant 1, Plant 2, and the external areas that are foundry specific, the Defiance realty would not be used for any other type of business or manufacturing process other than a foundry. Once a plant and the surrounding property have been built and used for foundry operations and purposed to foundry use for an extensive period, as at Defiance, there is little that can be done with the existing building unless similar foundry operations were to be installed or the realty remediated at major effort and cost-prohibitive expense. Thomas Direct ¶ 31; *see also* Tr. 815:12-17 (Thomas). Thus, the six Representative Assets at the Defiance Foundry are essential to the only conceivable function of the realty. *Id.*

794. Mr. Goesling's testimony that the melt shop is the only portion of the Defiance Foundry that is adapted to exclusive use as a foundry, that it makes up only 5% of the total facility, and that the "majority of the facility could be used for any heavy-duty manufacturing purpose" is contrary to the evidence. Goesling Direct ¶ 316. Mr. Goesling failed to consider the external areas of the Defiance site in reaching his opinion, and (unlike Mr. Thomas) had no opinion whether this portion of the realty could be repurposed. Tr. 3219:11-23 (Goesling). Mr. Goesling conceded that his estimate that only 5% of the Defiance site is specifically designed for use as part of a foundry "doesn't hold up" when considering the site as a whole. Tr. 3220:9-12.

Indeed, Mr. Goesling also conceded that the Defiance Foundry site “as a whole” is dedicated to use as a foundry. Tr. 3220:13-16.

Asset 26: Core Delivery Conveyor System¹⁰⁹

795. The Core Delivery Conveyor System is made up of six integrated conveyors installed on a custom-built steel catwalk system that transfers cores from a core box robot cell (CB 116) to a “dipping process” (where a liquid refractory coating is applied to the cores by the CB 122 dip robot). Thomas Direct ¶¶ 35-36; JX1407; JX1414; DX70; Tr. 805:24–806:5 (Thomas). The Core Delivery Conveyor System weighs more than 8,000 pounds and measures approximately 140 feet in length with a 7 foot wide support platform. Thomas Direct ¶ 35; Thomas Direct Ex. A at 33; JX1418 (video of asset taken during plant inspection).

796. The asset was installed in 2007 and has remained in place since. Thomas Direct ¶ 36.

797. **Attachment.** The parties agree this asset is attached to the realty. Goesling Direct ¶ 60. It is bolted and welded to a custom-designed platform suspended approximately 13 feet above the ground, which is itself bolted to the building’s vertical support columns, bolted to the existing mezzanine, and also connected to the building’s overhead trusses with structural-angle iron hangers. Thomas Direct ¶ 38 & Ex. A. at 34; DX70; JX1408; JX1409. The System’s drive units are attached to the plant’s electrical supply with steel conduit and bolted compression collars as well as threaded connection points. Thomas Direct Ex. A at 34; JX1410.

798. **Adaptation.** The Core Delivery Conveyor System was adapted to GM’s use of the Defiance Foundry because the asset was designed to link two core robot machine cells in a tight corner of Plant 1 that was already being used for the maintenance and fork-truck traffic. Not wanting to interfere with these uses, GM designed the Core Delivery Conveyor System and its mezzanine support to be suspended from the overhead structural steel and existing mezzanine, and the conveyor to be angled to conform to the building’s structure. Thomas Direct ¶¶ 36, 39 & Ex. A at 33; JX1411; JX1413; Tr. 806:20-807:13 (Thomas). In addition, the Core Delivery

¹⁰⁹ Asset Handbook at 104-105; Thomas Direct ¶¶ 35-45 & Ex. A at 32-36.

Conveyor System is the only automated conveyance system that links the CB-116 and CB-122 robot cells, two processes critical to producing cores for engine blocks. Thomas Direct ¶ 40. In addition, this asset primarily benefits the realty, as a foundry is the only viable use. *Id.* ¶¶ 24-31, 39.

799. **Intent.** The following facts strongly support a finding that, at the time of installation, GM intended for the Core Delivery Conveyor System to be permanently installed at the Defiance Foundry:

a) The Core Delivery Conveyor System was designed to be able to handle many foreseeable changes to the design of the cores that Core Machine 116 is capable of producing. Thomas Direct ¶ 40. As a result, the system is expected to support the future production of GM cores at the foundry for the full duration of its useful life. Thomas Direct ¶ 40; Tr. 857:9-19 (Thomas).

b) In order to connect two critical processes of the foundry operation, GM designed and installed this unique overhead Conveyor on a custom-built catwalk that was installed specifically for this asset, and built and installed specifically for this particular corner of the Defiance Foundry. Thomas Direct ¶ 40 & Ex. A at 34.

c) The Core Delivery Conveyor System was installed in 2007 and has remained in continuous operation in the same location. Thomas Direct Ex. A at 34.

d) The degree of the attachment and adaption of the Core Delivery Conveyor System to the realty strongly indicate that GM intended for this asset to remain in place until at least the end of its useful life. Thomas Direct Ex. A at 34.

800. The Avoidance Trust's claims as to GM's lack of intent to permanently install the Core Delivery Conveyor System are not supported by the evidence:

a) Contrary to Mr. Goesling's testimony (Direct ¶¶ 322-23), the Core Delivery Conveyor System was not designed in a "modular" fashion for ease of removal. Instead, the Core Delivery Conveyor System's "modularity" was necessary in order to transport the large components of the asset to the Defiance Foundry and to allow for on-site assembly that

was necessary to fit the asset in a very confined and congested area of the Plant 1 core department. Tr. 809:18-810:3 (Thomas); Thomas Direct ¶ 42 & Ex. B ¶¶ 91-95.

b) Mr. Goesling's conclusion that removal of this asset would require "simply" detaching conveyance sections from the "mezzanine" (Direct ¶ 323) also is not supported by the evidence. Rather, the platform and support steel would also need to be extricated. Thomas Direct ¶ 43. Moreover, removal of the Core Delivery Conveyor System as a whole would include: closing off critical production operations near the conveyor system (resulting in lost production); unbolting hundreds of bolts; cutting / removal of welding; removal of electrical power feed; repair of the handrails; cutting of the checkered floor plate; removal of four guard posts, each embedded in concrete; and repairing holes in the floor. Thomas Direct ¶ 43. Thus, removal would require multiple personnel, over many days, at significant cost. Thomas Direct ¶ 43 & Ex. B ¶¶ 96, 100-103.

c) The Avoidance Trust also fails to acknowledge the significant impact that removal of the Core Delivery Conveyor System would have on GM's broader production process at the Defiance Foundry. This asset links two critical robot cells to facilitate the production goal of 1,200 Duramax V-8 engine blocks each day. Thomas Direct ¶ 44. Because the Defiance Foundry has been GM's only source of iron-blocks for its Duramax engine since 2007, the effects of this reduction on GM's production of vehicles that use this engine would be substantial. Thomas Direct ¶ 44 & Ex. B ¶¶ 97-99.

d) Finally, Mr. Goesling claims that similar assets have been removed from GM facilities and/or traded on the secondary market (Direct ¶ 319). As an initial matter, the existence of a secondary market is not relevant because GM purchased assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3. In any event, Mr. Goesling's claim that similar assets have been removed and/or sold is not supported by the evidence. The data relied upon by Mr. Goesling does not identify any such similar assets. And, as Mr. Thomas testified, assets like the Core Delivery Conveyor System have not been relocated. Thomas Direct ¶ 45 & Ex. B ¶¶ 104-105.

Asset 27: Emissions System¹¹⁰

801. The Emissions System is a “truly massive,” complex, integrated, multi-story system that captures, cleans, and recycles emissions from the No. 4 Cupola at the Defiance Foundry. Thomas Direct ¶ 46; Tr. 787:8-788:4 (Thomas). It has five significant components that collectively weigh over 400,000 pounds: a thermal oxidizer, a heat exchanger, a scrubber, a hot blast turbine and hundreds of feet of ductwork. Thomas Direct ¶ 46 & Ex. A at 39; JX1431; JX1432; JX1433; JX1434; JX1435. GM designed and constructed two multi-story enclosures totaling 6,000 square feet to support these components. Thomas Direct ¶ 46; Tr. 789:18-791:16 (Thomas); DX1019. Several of the components, such as the thermal oxidizer, heat exchanger and scrubber, span multiple levels; thus, GM engineered openings in the floor of the enclosures to accommodate them. Thomas Direct ¶ 46 & Ex. A at 39.

802. GM installed the Emissions System in 2007 to meet EPA emissions standards, and it has operated in place since installation. Thomas Direct ¶¶ 48, 56, 59; Tr. 788:5-10, 867:3-17 (Thomas). It had an installed cost of \$9,811,712. Thomas Direct Ex. A at 39. The Emissions System replaced the System Gas Cleaning No. 4 Cupola (Representative Asset 38), which had been in place for over 30 years and had become technologically obsolete. Thomas Direct ¶ 48; Pretrial Order ¶ 100.

803. **Attachment.** The parties agree this asset is attached to the realty. Goesling Direct ¶ 60. Its major components are attached to the building with thousands of bolts and welds to multiple levels of the enclosure and ductwork; its components are also attached to each other. Thomas Direct ¶ 50 & Ex. A at 40-41. Further, the Emission System is connected by fixed conduit to the plant’s electrical supply (*id.* ¶ 46), and constructively attached by its size and weight. *Id.* Ex. A at 39.

804. **Adaptation.** The Defiance Foundry was clearly adapted to the Emissions System because this asset’s size and weight required construction of unique, multi-story enclosures —

¹¹⁰ Asset Handbook at 106-108; Thomas Direct ¶¶ 46-60 & Ex. A at 38-42.

supported by structural steel from existing buildings. Thomas Direct ¶ 51 & Ex. A at 40, 42; Tr. 789:10-17, 791:23-792:19 (Thomas). The Emissions System is also adapted to the Defiance Foundry because it is essential to GM's use of the foundry. Thomas Direct ¶ 56 & Ex. B ¶¶ 118, 122. The Defiance Foundry cannot operate most of its melting operations without a cupola, which is necessary to support GM's production requirements, and the EPA (along with state and local governments) would not permit the operation of a cupola without the Emissions System. *Id.* ¶ 56 & Ex. A at 39-40. In addition, without the Emissions System, the environment inside the plant would become toxic. *Id.* Ex. B ¶ 116. Finally, this asset primarily benefits the realty, as a foundry is the realty's only viable use. *Id.* ¶¶ 24-31, 51 & Ex. B ¶ 115; *see* Section IX.C(b) above.

805. **Intent.** The following facts strongly support a finding that GM intended, at the time of installation, for the Emissions System to be permanently installed at the Defiance Foundry:

a) The Emissions System was specifically designed, constructed and installed in 2007 to comply with EPA requirements regarding the release of particulates from foundry operations, and the No. 4 Cupola at Defiance cannot legally be operated without it. Thomas Direct ¶¶ 52, 56 & Ex. A at 40; Tr. 788:5-10 (Thomas).

b) GM custom designed and constructed two unique multi-story enclosures specifically to house this extremely large and heavy asset. Thomas Direct ¶ 52 & Ex. A at 40; Tr. 789:18-791:16, 791:23-792:19 (Thomas); DX1019; JX1435.

c) The degree of attachment and adaptation of the Emissions System to the realty strongly indicates that GM intended for this asset to remain in place until at least the end of its useful life. Thomas Direct ¶ 52 & Ex. A at 40-42; Tr. 788:18-789:17 (Thomas).

d) The Emissions System has been operated in place since it was installed in 2007. Thomas Direct ¶ 48 & Ex. A at 40; Tr. 867:3-19 (Thomas).

806. Plaintiff's claims as to GM's lack of intent to permanently install the Emissions System are not supported by the evidence:

a) Mr. Goesling's claim (Direct ¶ 330) that certain components of the Emissions System are designed and installed in a way that would allow for removal without damage is not supported by the evidence. The components he cites — the oxidizer, the heat exchanger and the scrubber — are contained within enclosures that were built specifically to house and support them. Thomas Direct ¶ 54. The enclosures are, themselves, attached to the ground with steel beams embedded in concrete. *Id.* ¶¶ 54-55 & Ex. A at 40-41. Removing the components of the Emissions System from these enclosures would be arduous and expensive and would require (*id.* ¶ 58):

- Removal of the oxidizer by a 300 ton crane, requiring disposal of refractory brick and resulting in damage to the roof of the enclosure;
- Removal of the heat exchanger and scrubber by a large crane, requiring partial removal of the roof and steel beams of the enclosure;
- Disconnection of the hot blast turbine and motor from the foundation;
- Disconnection of electrical feeds resulting in damage to floors/walls; and
- Disconnection and removal of piping for natural gas, compressed air and water, as well as interconnecting ductwork, resulting in damage to walls.

b) Further, since the No. 4 Cupola cannot operate without the Emissions System, in the event of removal, the cupola would shut down, and production of iron engine blocks at the Defiance Foundry would cease. Thomas Direct ¶ 59 & Ex. B ¶¶ 122-123.

c) There is also no basis for Mr. Goesling's claim (Direct ¶ 328) that GM has removed similar assets. The only example he identifies is the System Gas Cleaning No. 4 Cupola (Representative Asset 38), which the Emissions System replaced. That asset has mostly remained in place due to its size, the cost of removal, and the potential for damage to the realty. Thomas Direct ¶ 60 & Ex. B ¶ 125; Tr. 784:6-22, 786:15-787:7 (Thomas); JX1574.

Asset 28: Holding Furnace¹¹¹

807. The Defiance Foundry relies on a number of “holding furnaces” that store molten metal at an optimal temperature for pouring. Thomas Direct ¶ 61. The molten metal is transferred from these holding furnaces via carriers to pouring furnaces that fill individual molds. *Id.*; Tr. 756:16-757:3 (Thomas). These holding furnaces have long useful lives; two of them, for instance, were installed in 1976 and one in 1978 and remain in use today. Tr. 769:9-13 (Thomas).

808. The 100 Ton Vertical Holding Furnace (“Holding Furnace”) was approximately 12 feet in diameter and 16 feet high and held up to 100 tons of molten iron at a stable, molten temperature (2,500 degrees Fahrenheit for iron) until the subsequent assets in Mold Line No. 7 in Plant 2 were ready to use it. Thomas Direct ¶¶ 61-62 & Ex. A at 21; Tr. 770:16-771:4 (Thomas).

809. GM installed the Holding Furnace in Plant 2 in 2007 as part of an initiative to move the malleable iron operation that supplied parts for 4-speed transmissions from GM’s Saginaw Malleable Iron Foundry in Saginaw, Michigan (which was closing) to the Defiance Foundry. Tr. 773:3-17 (Thomas). As part of this initiative, GM repurposed Mold Line 7 at Plant 2, which had been installed at Defiance in 1964 but idled in place for some time. Thomas Direct ¶ 63; Tr. 776:25-777:9 (Thomas). Although GM was able to reuse much of the equipment on that idled mold line, it installed two new induction melting furnaces and a new charging system, along with the Holding Furnace. Thomas Direct ¶ 63. The entire project cost GM approximately \$35 million. *Id.*; Tr. 774:9-775:12 (Thomas). The Holding Furnace itself had an installed cost of \$4,174,228. Thomas Direct Ex. A at 21.

810. At the time the Holding Furnace was installed, GM knew that the malleable iron product would only be needed for approximately 3-4 years. Thomas Direct ¶ 64. GM installed the Holding Furnace, however, with the intent that the repurposed Mold Line 7 — including the Holding Furnace and other new assets, all of which could be used not only for malleable but for

¹¹¹ Asset Handbook at 97-100; Thomas Direct ¶¶ 61-78 & Ex. A at 20-24.

nodular and other types of iron production — would be repurposed after malleable iron production ceased. *Id.*; Tr. 776:14-777:16, 868:17-869:10, 871:2-21 (Thomas). In 2006, before the Holding Furnace was installed, the Defiance plant team had begun to study the feasibility of producing compacted graphite iron engine blocks for a 4.5L diesel V-6 engine on Mold Line 7. Thomas Direct ¶ 64; Tr. 871:4-21, 872:2-3. That project was cancelled, however, in the period leading up to the bankruptcy, to save the \$200 million that had been allocated for it. Thomas Direct ¶ 64; Tr. 872:13-17; PX89 at 18.

811. After the malleable iron line ceased production in 2010, the Holding Furnace sat idle for approximately one year. Thomas Direct ¶ 65. GM removed the Holding Furnace in 2011 as part of an expansion of its aluminum casting operations, which must be clearly separated from iron operations. *Id.*; Tr. 772:19-773:2 (Thomas). After GM failed to find an interested buyer, the Holding Furnace was scrapped upon removal. Tr. 829:7-18.

812. Several factors contributed to GM's decision to remove the Holding Furnace and re-purpose (at significant expense) the floor space where it had been installed, including: (i) infrastructure at Defiance that could support the precision sand module for aluminum casting; (ii) three precision sand modules that were already installed in adjacent floor space at Plant 2, because it is more efficient to operate multiple modules at one location; and (iii) the expertise of Defiance personnel with respect to the precision sand process. Thomas Direct ¶ 65; Tr. 772:16-773:2, 779:23-780:6.

813. **Attachment.** The parties agree this asset was attached to the realty. Goesling Direct ¶ 60. To install the Holding Furnace, GM excavated a pit (approximately 20 feet long and 20 feet wide by 15 feet deep), poured a concrete foundation into that pit, embedded hundreds of feet of structural steel, and installed specialized refractory brick to protect the floor. Thomas Direct ¶ 62 & Ex. A at 21; Tr. 771:12-21 (Thomas). The Holding Furnace was bolted to steel pillars that were encased in the concrete foundation, bolted to a support structure, and connected to high voltage and to water lines for cooling. Thomas Direct ¶ 67 & Ex. A at 22-23.

814. **Adaptation.** The Defiance Foundry was adapted to the Holding Furnace. As noted, GM excavated a custom-designed foundation pit at Plant 2 to hold the furnace and installed refractory brick, concrete, structural steel, hard conduit and plumbing, and a mounting pad to support the Furnace. *Id.* ¶ 68 & Ex. A at 22, 24. In addition, the Holding Furnace was adapted to the realty because it was an essential and integral part of GM's use of the Defiance Foundry to produce the malleable iron products for the 4 speed transmission, and the production of such malleable iron products was central to the operation of the foundry. Tr. 773:3-17, 825:9-17 (Thomas). In addition, this asset primarily benefits the realty, as a foundry is the realty's only viable use. Thomas Direct ¶¶ 24-31.

815. **Intent.** The following facts strongly support a finding that GM intended, at the time of installation, for the Holding Furnace to be permanently installed at the Defiance Foundry:

a) As noted, GM heavily modified the Plant 2 building at Defiance Foundry to accommodate this asset, including by installing a foundation pit, pouring a concrete foundation, embedding structural steel, installing specialized refractory brick, and routing utilities to the asset through hard conduit (including high-voltage electricity routed from transformers placed in a specially designed room for proper grounding). Thomas Direct ¶¶ 62, 69 & Ex. A at 21-22, & Ex. B ¶ 37; Tr. 771:12-21.

b) GM spent \$35 million and 14 months of effort to repurpose Mold Line 7, and install the new assets, including the Holding Furnace. Thomas Direct ¶ 69, Ex. A at 22. GM's intent at the time it installed those assets, at considerable expense, would have been to find a continuing use for the assets, consistent with its practices. *See* Stevens Direct at Section VI. As Mr. Thomas testified, "My understanding when [the Holding Furnace] was installed [was] that it would be a part of a permanent manufacturing process at the Defiance site." Tr. 776:20-777:9.

c) Before installing the Holding Furnace for malleable iron production, GM studied other ways that it (and the rest of Mold Line 7) could be used after the planned malleable iron production ceased. Thomas Direct ¶ 64; Tr. at 870:13-872:10. The Holding Furnace could

hold any type of molten metal or steel for pouring operations. Thomas Direct Ex. A at 22; Tr. 868:20-869:4.

816. The Avoidance Trust's claims as to GM's lack of intent to permanently install the Holding Furnace are not supported by the evidence.

a) Mr. Goesling's assertion (Direct ¶ 335) that GM intended only "short-term use" of the Holding Furnace ignores critical facts from the time of installation and before. While GM expected to produce malleable iron for only 3-5 years at Defiance Foundry, the cost of installing the Holding Furnace and repurposing Mold Line 7 (\$35 million and 14 months of effort) show that GM had longer-term plans for these assets. Thomas Direct ¶¶ 63-64; *see* Stevens Direct at Section VI. As noted, even before the Furnace was installed, GM was studying potential ways to reuse the asset following the shutdown of malleable iron production. Thomas Direct ¶ 64; Tr. 871:4-21, 872:2-3. Then, after GM stopped producing the malleable iron line product, the entire production system (the Holding Furnace, two melters, Mold Line 7 and core machines) remained in place for over a year while GM explored using these assets for alternative products. Thomas Direct ¶ 72 & Ex. B ¶ 40; Tr. 776:20-777:16, 871:2-21.

b) The Avoidance Trust does not dispute that removal of the Holding Furnace caused substantial damage to the realty and the asset. Mr. Goesling acknowledges that the "pit, foundation and concrete piers would have been destroyed upon removal," leaving the building "significantly damaged, with a large hole in the floor and [a] deep, unlined pit below." Goesling Direct Ex. A at 217; *see* Thomas Direct ¶ 74. This damage required remediation at significant cost before the area could be used for any other purpose. *Id.* Ex. B ¶¶ 45, 48.

c) Mr. Goesling claims (Direct ¶ 334) that similar assets were removed from GM facilities or traded on the secondary market. As an initial matter, the existence of a secondary market is not relevant because GM purchased assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3 above. In any event, Mr. Goesling's assertions with respect to the Holding Furnace are not supported by the evidence: he identifies only one asset, a "Ladling Furnace," that was apparently moved from

GM's Saginaw Metal Castings Facility to the Defiance Foundry between 2010 and 2015. PX22 at Row 192. The Ladling Furnace is not similar to the Holding Furnace. The Holding Furnace was three to four times larger than the Ladling Furnace, and held 100 tons of iron, while the Ladling Furnace can only hold 10 tons of aluminum. Thomas Direct ¶ 76 & Ex. B ¶ 55. Given its much greater size and weight, the Holding Furnace required a deep foundation, support network, and embedded steel; the Ladling Furnace did not. *Id.*

d) Finally, contrary to Mr. Goesling's assertions (Direct ¶ 336), the depreciable life assigned to this asset in GM's 2009 books and records does not affect its fixture status. As Mr. Thomas testified, the expected useful life of the Holding Furnace at the time it was installed was 25 years — similar to the other Ajax furnaces that have now been at the Defiance Foundry for 40 years, well past their useful lives. Thomas Direct ¶¶ 76, 132; Tr. 870:6-12 (Thomas); *see also* Tr. 3137:6-9 (Mr. Goesling: "the life of a furnace like this would be substantially longer than three or four years"), 3138:19-21 (Goesling). While GM's eFAST ledger as of June 30, 2009 reflects a depreciable life of three years for this asset, the ledger also shows that the three-year life had been "accelerated." DX31, DX348.¹¹² In other words, the Holding Furnace was likely assigned a longer depreciable life when it was installed in 2007, but then "accelerated" to a shorter three-year life sometime thereafter. Tr. 827:3-20 (Thomas).¹¹³ Although GM did not produce eFAST data from 2007 (Tr. 827:3-7), when the Holding Furnace was initially installed, this notation in GM's books and records from 2009 indicates that the recorded depreciable life of the Holding Furnace at the time it was installed was likely much

¹¹² Under Columns AC ("Accel Ind") of the June 30, 2009 eFAST ledger, for the Holding Furnace (unlike any of the other 40 Representative Assets) there is a "Y." DX31, DX348 at Row 62581, Column AC.

¹¹³ Mr. Thomas testified that while he was not an expert in eFAST, he had consulted with his colleagues, who told him that "their opinion was that it was probably set up initially in 2007 as a different depreciation and later moved to accelerated." Tr. at 827:3-19. One of Mr. Thomas's colleagues on this project was Colleen Charles, GM's former executive director of global financial shared services, with responsibility for eFAST. Tr. 1568:14-24 (Charles).

longer than three years. *See, e.g.*, DX348 at Rows 230554, 230556, 230705 and Columns AC and AH (Ajax furnaces with book depreciable lives of 16 years).

Asset 38: Gas Cleaning System¹¹⁴

817. The Gas Cleaning System is the emissions cleaning system that preceded the Emissions System (Asset 27) at Defiance. Thomas Direct ¶ 79. It weighs 50 tons, and is a 40 foot tall, 25 foot wide, 10 foot deep, multi-story steel unit designed to clean high temperature exhaust gases from the No. 4 Cupola at Plant 1. *Id.* Those gases range in temperature from 500 to 1000 degrees Fahrenheit. *Id.* & Ex. A at 45; Tr. 782:17-24, 786:8-14 (Thomas); JX1574.

818. GM installed the Gas Cleaning System in 1976 at the Defiance Foundry along with the No. 4 Cupola in order to comply with EPA regulations at the time. Joint Pretrial Order ¶ 111; Thomas Direct ¶¶ 80, 87; Tr. 782:25–783:4, 783:23–784:2 (Thomas). It had an installed cost of \$1,173,272. Thomas Direct Ex. A at 45. After operating in place for over 30 years — well beyond its useful life — it was decommissioned in approximately 2007 and replaced by the Emissions System (Asset 27) to meet new, more restrictive EPA regulations. Thomas Direct ¶¶ 80, 87; Tr. 784:3-5, 785:24-786:7. Although it has not been in use for ten years, the asset is so large, heavy and intricately installed that GM has left the majority of it in place because its removal would be expensive and extraordinarily difficult. Thomas Direct ¶¶ 80, 87, 90 & Ex. A at 46; Tr. 784:6-15, 786:19-787:7.

819. **Attachment.** The parties agree this asset is attached to the realty. Goesling Direct ¶ 60. The Gas Cleaning System is bolted to the floor of the building and welded to its structural support framework of I-beams. Thomas Direct ¶ 82. The asset also was connected to the plant's electrical supply system by steel electrical conduits and to the plant's utility network (compressed air and waste water) by steel pipe and flexible hose lines. *Id.* Ex. A at 46-47.

820. **Adaptation.** The Gas Cleaning System was adapted to GM's use of the Defiance Foundry because it was custom-designed and built to remove particulate from gases produced by

¹¹⁴ Asset Handbook at 109-110; Thomas Direct ¶¶ 79-91 & Ex. A at 44-47.

the No. 4 Cupola. In addition, plant utilities were routed to this asset by hard conduit, steel pipe, and flexible hose. Thomas Direct ¶ 83 & Ex. A at 46-47. Due to the size of the asset, significant adaptations had to be made to the building to install it. *Id.* ¶ 89 & Ex. B ¶ 138. This asset primarily benefits the realty, because a foundry is the realty's only viable use. *Id.* ¶¶ 24-31.¹¹⁵

821. **Intent.** The following facts all strongly support a finding that GM intended to install the Gas Cleaning System permanently at Defiance:

a) Mr. Goesling concedes that GM intended the “majority of this system” to remain permanently in place. Tr. 3143:5-19 (Thomas); Goesling Direct ¶ 60.

b) GM installed the Gas Cleaning System in 1976 in order to comply with EPA regulations pertaining to the discharge of particulates from foundry operations. Thomas Direct Ex. A at 45-46. Without this asset, GM would not have been able to legally operate the No. 4 Cupola. Thomas Direct ¶¶ 84, 90.

c) The Gas Cleaning System was continuously used in place for over 30 years (beyond its useful life) until EPA regulations regarding the discharge of particulates from foundry operations changed, thereby rendering this asset obsolete and requiring the construction and installation of the Emissions System (Asset 27) — *i.e.*, a new asset more suitable to the same purpose. Thomas Direct ¶¶ 84, 87 & Ex. A at 45-46; Tr. 784:3-5, 785:24–786:7.

d) Nearly a decade after it was decommissioned, and over 40 years after its installation, the majority of the asset remains where it was installed because it would be too difficult to remove. Thomas Direct ¶¶ 80, 87, 90 & Ex. A at 46; Tr. 784:6-15, 786:19-787:7. Of

¹¹⁵ At trial, Mr. Goesling testified that “[m]uch of the [Gas Cleaning System] is essentially trapped within the building, and it would require partial demolition of the building plus partial dismantlement of the equipment in a way that would leave it unusable if you were to remove it.” Tr. 3143:5-19. Nevertheless, Mr. Goesling claims that the Gas Cleaning System does not meet the adaptation factor of the Ohio fixture test advanced by the Avoidance Trust because this asset is “not essential” to the realty. Tr. 3143:20–3144:5. Even if the Avoidance Trust were correct about Ohio law regarding adaptation, foundry specific assets at Defiance were plainly essential to the realty and that factor would be met. *See* Section IX.C(b) above.

the asset's components, GM has only removed two supporting quenchers to make room for take-off ducts that serve the new Emissions System. Thomas Direct ¶ 88; Tr. 784:6-15, 785:11-23.

e) The size of this asset (multiple stories and 50 *tons*), along with its degree of attachment and adaptation to the building, indicate that GM installed it intending that it remain in place for its useful life. Thomas Direct ¶¶ 79, 82-84, 89 & Ex. A at 45-47; Tr. 782:17-24.

Asset 39: Core Box Robot¹¹⁶

822. The Core Box Robot is in the center of a cell of integrated assets that, working together, process and transfer cores from a “core machine” to a core dip conveyor at the Defiance Foundry. Thomas Direct ¶ 92; JX1589; JX1590; JX1592 (video of Core Box Robot). The Robot first removes the core from the core machine, which uses chemicals to harden sand into the shape (the “core”) that defines the interior dimensions of an engine or a transmission, and then transports it to a “definning stand” in the cell that removes residual sand from the core. Thomas Direct ¶ 92 & Ex. A at 27; JX1588; JX1592. The Robot then moves the core to a specialized “turntable” where operators assemble two cores. Thomas Direct ¶ 92; JX1585; JX1587. Once assembly is complete, the Robot picks up the assembled cores and transports them to an unload dip conveyor that takes the cores to a dip tank for coating in advance of casting. Thomas Direct ¶ 92 & Ex. A at 27; *see also* Tr. 801:3-23. The components of the Core Box Cell are bolted in precise places to allow the Core Box Robot to integrate their operations. Thomas Direct ¶ 92; JX1724; Tr. 801:6-23 (Thomas).

823. The Core Box Robot was installed in 2005 at the Defiance Foundry and has operated continuously in place since that time. Thomas Direct ¶ 93; Tr. 868:2-15. It includes a gripping tool and a controller, weighs approximately 1 ton and measures 6 feet high by 4 feet wide with a 10-foot reach. Thomas Direct ¶ 93 & Ex. A at 27.

824. **Attachment.** The parties agree this asset is attached to the realty. Goesling Direct ¶ 60. To install the Core Box Robot, GM core drilled large holes in the plant floor, filled

¹¹⁶ Asset Handbook at 101-103; Thomas Direct ¶¶ 92-110 & Ex. A at 26-30. The parties have agreed that they would not present evidence at trial as to the value of this asset.

those holes with specialized epoxy, and used anchor bolts to attach the Robot's base plate to the floor through the epoxied holes; the resulting foundation is stronger than concrete. Thomas Direct ¶ 96 & Ex. A at 28-29; Tr. 834:19-835:14; JX1582; JX1586. The Robot also is attached to cables that supply it with high pressure air, electrical power, and communication systems. Thomas Direct Ex. A at 28-29. Electrical power is fed to the Robot's controller via rigid conduit from the main electrical power panel. Thomas Direct ¶ 102 & Ex. B ¶ 69.

825. **Adaptation.** The Core Box Robot is adapted to GM's use of the Defiance Foundry. It is heavily integrated with the other assets in this robot cell (such as the defining stand and turntable), as well as the other assets necessary for the foundry's production of cores (such as the core machine and conveyance systems). The unique location of the Core Box Robot and its proximity to the core machine allows it to reach the cores inside the machine, the defining stand, the turntable, and the unload conveyor. Thomas Direct ¶ 103 & Ex. B ¶¶ 71-72; JX1590. In addition, the gripper on the Robot is specifically designed to reach and place not only two individual jacket and slab cores, but also the two complete sub-assemblies. Thomas Direct ¶ 103 & Ex. B ¶¶ 71-72. Moreover, other integrated assets, like the core machine, turntable, and unload conveyor were adapted to interface with this asset. Thomas Direct ¶ 102 & Ex. A at 30 & Ex. B ¶ 73; JX1592. As noted, GM routed utilities to the asset via rigid conduit. Finally, this asset primarily benefits the realty, as a foundry is the realty's only viable use. Thomas Direct ¶¶ 24-31.

826. **Intent.** The following facts all strongly support a finding that, at the time of installation, GM intended to install the Core Box Robot permanently at Defiance:

a) GM designed the process layout of the foundry to accommodate the installation of operations associated with the 50-60 core machines. Thomas Direct ¶ 98 & Ex. A at 28. The installation of this asset, and the other components of the cell (defining machine, turntable) required customization of the cell and the conveyor to which it is attached. Thomas Direct ¶ 98, 104 & Ex. A at 28. In addition, the Robot was part of a much larger, costly, and carefully planned manufacturing strategy with respect to GM's use of the realty. *Id.* ¶ 105 & Ex. B. ¶¶ 74-78. GM installed the Robot as part of an approximately \$40 million investment made to

support the production of cores for engine blocks for a new Gen III V-8 Engine. *Id.* ¶ 105 & Ex. B. ¶¶ 74-78. This system, including the Robot and its cell, was specified, assembled and installed to achieve a production goal of 2,700 Gen III V-8 engine blocks each day, and thus, the Core Box Robot was critical to the operation of the foundry. *Id.* ¶ 105 & Ex. B. ¶¶ 74-78.

b) The Core Box Robot, and the cell of which it is a part, are essential to the block casting operation at Defiance. *Id.* ¶ 98 & Ex. A at 28. The Robot is part of a continuous manufacturing process that transfers cores from a “core machine” to an unload dip conveyor, which takes those cores to a dip tank. *Id.* ¶ 98 & Ex. A at 28. Core Machine 91 cannot process more cores than the Core Box Robot (and cell) can remove and process, and without the Robot, production of cores at the Defiance Foundry would not operate at required levels. *Id.* ¶ 98.

c) The Core Box Robot has operated continuously since installation in 2005 and it has never been moved. *Id.* ¶ 98; Tr. 867:20-868:15 (Thomas). The Robot and cell can handle any core that GM’s core machines produce, as well as cores for aluminum blocks. Thomas Direct ¶ 98; Tr. 803:18-25.

d) The Robot’s degree of attachment and adaptation to the realty strongly indicate that GM intended this asset to remain permanently in place. Thomas Direct Ex. A at 28.

827. Plaintiff’s claims as to GM’s lack of intent to install the Core Box Robot permanently are not supported by the evidence:

a) Contrary to Mr. Goesling’s testimony (Direct ¶ 346), GM did not use a “relative[ly] non-permanent method of attachment” for the Core Box Robot. Standard bolts could not withstand the extreme pressure exerted on the foundation during the Robot’s torsional movements in transporting jacket and slab cores from the core machine to the dip robot conveyor. GM therefore core-drilled the floor and flooded the resulting hole with a stronger-than-concrete two-part epoxy to secure the Robot’s anchor bolts. Thomas Direct ¶ 100 & Ex. B ¶ 67.

b) Mr. Goesling is likewise off-base in stating that the Robot is an interchangeable component that can be easily removed and relocated. Goesling Direct ¶ 347. As

noted, GM did not install the Robot for “easy removal,” nor is there any reason why it would have done so, because the asset is a critical part of a larger process. Thomas Direct ¶ 106 & Ex. B ¶ 79.

c) Mr. Goesling’s assertion (Direct ¶ 346) that the Robot is connected to the plant’s utility network power by loose, flexible cabling also is not supported by the evidence. Thomas Direct ¶ 102 & Ex. B ¶ 69. The Robot’s electrical power is fed to the controller via rigid conduit from the main electrical power panel approximately 50 feet away, while a minor, three-foot-long flexible connection is then used at the controller itself so the operator may access the back of the controller panel, if necessary, without removing wires. *Id.*

d) Similarly, GM used quick connect fittings and accompanying cable to consolidate a network that would otherwise require 16 individual wires from the controller to the Robot. These connectors are standard arrangements used by robot manufacturers throughout the world to facilitate installation and maintenance and, contrary to Mr. Goesling’s testimony (Direct ¶ 346), do not indicate that GM intended to remove the Core Box Robot before the end of its useful life. Thomas Direct ¶ 102 & Ex. B ¶ 70; *see* Section VIII.A.2.

e) Mr. Goesling asserts (Direct ¶ 348) that assets similar to this Robot have been moved for reuse or sold on the secondary market. As noted (Section VIII.B.3), as a threshold matter, the existence of a secondary market is not relevant because GM purchased assets new and did not buy or install assets with an eye to reselling them on the secondary market. In any event, the purportedly “similar” assets that Mr. Goesling identifies as having been moved are not from an integrated foundry robot cell, which includes (in this instance) a core defining unit, a rotary turntable, safety fencing, a control unit, tooling, and the robotic unit itself. Thomas Direct ¶ 109 & Ex. B ¶ 85. In fact, Mr. Goesling appears to have identified only robots from assembly plants, rather than a customized foundry robot like this one. *Id.* And in any event, all of these sales were from plants that were closed, going to be closed, or experiencing extraordinary circumstances. DDX-PX0350b; PX350.

Asset 40: Charger Crane¹¹⁷

828. The Charger Crane weighs 70 tons, spans approximately 100 feet, and is 20 feet wide and 10 feet high. It is suspended 55 feet above the ground by two runway rails, hovering over incoming railcars in a “charge yard.” Thomas Direct ¶ 112 & Ex. A at 13; JX1602. The Charger Crane travels along the runway rails and lowers a 4-foot-diameter magnet to lift up to 15,000 pounds of scrap metal (the foundry’s “raw materials”) from those railcars. Thomas Direct ¶ 111; JX1609 (video of asset); JX1725. The Charger Crane then moves across the yard and delivers the scrap metal to a feeder / conveyor system that transports the metal to one of the foundry’s large melting furnaces (known as a “cupola”). Thomas Direct ¶ 111; JX1609.

829. The Charger Crane was installed in 1997 at a cost of \$639,653. Thomas Direct Ex. A at 13. It replaced a substantially identical 30-year-old crane that was well beyond its useful life. Thomas Direct ¶ 113.

830. To install the Charger Crane, GM had to obtain special trailers and permits to transport its two 100-foot trolley beams, which weigh 50,000 pounds each. Thomas Direct ¶ 113 & Ex. A at 18. The Crane was custom-built to GM’s specifications and was ordered to fit the existing infrastructure that GM had installed when Plant 2 opened in 1964. Thomas Direct ¶ 114. In particular, GM specified the length of the span, the cab design, the crane’s travel speeds, its lift capabilities, and its power system. *Id.*

831. The Charger Crane is critical to the normal business operations of the Defiance Foundry: it is the primary scrap metal delivery mechanism for one of the cupolas and has operated in place since it was installed. Thomas Direct ¶ 114 & Ex. A at 13.

832. **Attachment.** Mr. Goesling’s testimony (Direct ¶ 355) that the Charger Crane is not attached to the realty is not credible. The Charger Crane is not simply floating “up in space.” Tr. 762:25-763:16 (Thomas). It is attached via rails to a beam that is supported by building columns. *Id.*; Thomas Direct ¶ 112 & Ex. A at 14; JX1604; JX1605. The whole structure —

¹¹⁷ Asset Handbook at 95-96; Thomas Direct ¶¶ 111-128 & Ex. A at 12-18.

columns, concrete foundations, steel beams, and runway rails — was installed for crane operations when Plant 2 was built. Thomas Direct ¶ 112 & Ex. A at 14. The Charger Crane is also attached to the building's 480-volt power supply via electrified hot rails that are mounted on structural support beams. Thomas Direct Ex. A at 14-15. In any event, the Charger Crane is constructively attached and held in place by virtue of its enormous weight (70 *tons*). Thomas Direct ¶ 116 & Ex. A at 14-15; Tr. 763:9-16 (Thomas).

833. **Adaptation.** The Defiance Foundry was adapted to GM's use of the Charger Crane, as GM designed and constructed Plant 2 in 1964 to support this type of crane. GM then ordered this replacement crane to conform to the building's existing infrastructure, adapting it to the real estate. Thomas Direct ¶ 117; Tr. 761:15-16 (Thomas) ("the whole facility really was designed just for this feature."). Moreover, the Charger Crane is integral and necessary to GM's use of the Defiance Foundry; without the Charger Crane, the foundry would not be able to operate as designed. Thomas Direct ¶ 117 & Ex. A at 13. Because the foundry requires raw materials to feed the melting lines, GM specified and installed this Charger Crane (capable of carrying up to 15,000 pounds of scrap metal at a time) to unload raw material from rail cars and deliver it to the melting operation. Thomas Direct ¶ 118 & Ex. A at 14. Finally, this asset primarily benefits the realty, because a foundry is the only viable use of the realty. *Id.* ¶¶ 24-31, 117.

834. **Intent.** The following facts all strongly support a finding that, at the time of installation, GM intended to install the Charger Crane permanently at Defiance:

a) The Charger Crane is critical to the Defiance Foundry because it delivers raw materials from rail cars to the foundry's melting operation. Without the Charger Crane, the foundry could not process enough raw materials to produce parts at targeted output levels. The Charger Crane performs an essential function and it (or its predecessor crane) has been in place since Plant 2 was built in 1964. Thomas Direct ¶ 118 & Ex. A at 13-14.

b) The Charger Crane is flexible enough to support the movement and delivery of any ferrous raw material for the iron melting operations at the Defiance Foundry.

Thomas Direct ¶ 118 & Ex. A at 14. The Charger Crane is even flexible enough to lift non-ferrous materials to support the production of aluminum products. Tr. 863:20-864:14 (Thomas).

c) The degree of attachment and adaptation of the Charger Crane to the realty indicate that GM intended this asset to remain permanently in place. Thomas Direct Ex. A at 14.

835. Plaintiff's claims as to GM's lack of intent to install the Charger Crane permanently are not supported by the evidence:

a) The Avoidance Trust ignores the key indicia of GM's intent to install this asset for its useful life. When Plant 2 was built, GM designed and installed a complex material movement and handling system to supply raw materials to the foundry on a massive scale, enabling efficient, high-volume production. Thomas Direct ¶ 120. The Charger Crane is a critical part of this material movement and handling system; its performance specifications (including lift capabilities) and physical dimensions were dictated by GM's expectation that the supported cupola would melt 70 tons of iron per hour. Tr. 761:23-762:2 (Thomas). The Crane also allows GM to make use of the unique rail network that it built to deliver materials to the melting lines at Plant 2. The rail network would be useless if the Charger Crane could not lift raw materials from the rail cars and deliver them to the feeder conveyor for processing in the foundry. Thomas Direct ¶ 121 & Ex. A at 13-18 & Ex. B ¶¶ 5-10.

b) Contrary to Mr. Goesling's assertion (Direct ¶ 356), the fact that the Charger Crane "replaced a similar crane" does not mean the asset is "removable and moveable as production needs change." The prior crane operated in place continuously for 33 years — past its useful life. The fact that GM replaced that crane with an identical one shows that the need for such a specific crane has not changed in over 50 years and is evidence that GM installed the cranes with the intent that they stay in place. Thomas Direct Ex. A at 14. And, as noted, the Charger Crane — which rides on the same rails that were installed in 1964 — has operated in place since it was installed 20 years ago. *Id.* at 13-14.

c) There is likewise no basis for Mr. Goesling's claim that the Charger Crane was assembled using "nut and bolt fasteners" for "ease" of disassembly. Goesling Direct Ex. A

at 236. The use of nuts and bolts permitted connections to be “torqued” to a precise number of foot-pounds, allowed for stronger connections, created multiple redundant points (*i.e.*, failure of one would not result in loss of crane), allowed GM to regularly maintain the crane by re-torquing bolts, and allowed for adjustments during assembly. Thomas Direct ¶ 123 & Ex. A at 14. By contrast, the use of welds could have resulted in a catastrophic event because over time, welds under this much stress can develop cracks. *Id.* ¶ 123 & Ex. A at 14 & Ex. B ¶¶ 11-26.

d) Contrary to Mr. Goesling’s testimony (Direct ¶ 353, 356), GM did not move 22 assets similar to the Charger Crane. PX22. Sixteen of the 22 purportedly similar assets cited by Mr. Goesling were not cranes at all. Rather, based on the descriptions and installed costs, they were merely upgrades to existing cranes. Thomas Direct ¶ 128 & Ex. B ¶ 30. Each of the 16 line items has an installed cost of between \$1,782 and \$51,256, whereas crane systems like the Charger Crane typically have installed costs that exceed \$400,000. Thomas Direct ¶ 128 & Ex. B ¶ 30. The remaining six assets were moved from facilities due to unanticipated plant closures. That Mr. Goesling could only identify moves out of closed facilities shows that crane movement is very rare and supports the conclusion that GM intended at the time of installation for the Charger Crane to remain in place for its useful life. Thomas Direct ¶ 128 & Ex. B ¶¶ 31-32.

e) Finally, contrary to Mr. Goesling’s claim (Direct ¶¶ 353, 356), the existence of a secondary market for the Charger Crane is not relevant because GM purchased assets new and did not buy or install assets with an eye to reselling them on the secondary market. *See* Section VIII.B.3 above. This general point has particular force with respect to cranes, which move only in exceedingly rare circumstances because their physical dimensions and mechanical movement specifications are predicated on site-specific infrastructure and sub-systems. Thomas Direct ¶ 127 & Ex. A at 14, 17 & Ex. B ¶¶ 27-32.

PROPOSED FINDINGS OF FACT: LDT/PONTIAC

X. The Term Lenders' Security Interest in Lansing Delta Township

836. The Collateral Agreement granted the Term Lenders a security interest in fixtures at the entirety of the LDT complex, including both the stamping and assembly portions of this facility. Specifically, the Collateral Agreement grants the Term Lenders a lien on all equipment and fixtures at 42 plants, including “GM ASSEMBLY LANSING DELTA TOWNSHIP” and “GM MFD LANSING REGIONAL STAMPING,” which comprise LDT. *See* JX2 at 6-8 (Collateral Agreement, art. II); JX2 at 22 (Collateral Agreement, sch. I); Pretrial Order ¶ 47.

837. As contemplated by the Term Loan Credit Agreement, the liens on fixtures at certain facilities where collateral with a net book value of at least \$100 million was located — including LDT — were perfected by, among other things, fixture filings. *See* JX1 at 35 (Credit Agreement § 3.12); JX1 at 107 (Credit Agreement, Schedule 3.12); Pretrial Order ¶¶ 50-52.

838. For LDT, a UCC-1 financing statement was recorded with the Register of Deeds for Eaton County, Michigan (where LDT is located) at Liber 2113, Page 660 on April 26, 2007 (the “LDT Fixture Filing,” also referred to as the “Eaton County Fixture Filing”). DX125. It lists “General Motors Corporation” as the debtor, “JPMorgan Chase Bank, N.A., as administrative agent” as the secured party, and it states it is a “FIXTURE FILING AND SHOULD BE INDEXED IN THE REAL ESTATE RECORDS,” which it was. DX125 at 1; Tr. 2287:11-15 (Marquardt); Pretrial Order ¶¶ 59-60.

839. As is “typical” of fixture filings, the LDT Fixture Filing states that it “covers the following collateral: ALL FIXTURES LOCATED ON THE REAL ESTATE DESCRIBED IN EXHIBIT A,” which it attached and incorporated into the filing. DX125 at 1; Tr. 2186:1-2187:5 (Marquardt). Exhibit A to the LDT Fixture Filing identifies, in bold-faced text the “GM Assembly Lansing Delta” facility, and includes an address and a metes-and-bounds description for a portion of the LDT property. DX125 at 3; Tr. 2266:10-25 (Marquardt); Pretrial Order ¶ 62.

A. The belated challenge to the LDT Fixture Filing

840. In its DIP Order, the Court authorized the Creditors Committee to “investigate” and bring an action contesting “the perfection of [the] first priority liens” of the Term Lenders, but only if brought “not later than July 31, 2009.” DX10 at 25-26 (Final DIP Order ¶ 19(d)).

841. In its original and amended complaints, the Avoidance Trust took affirmative steps to challenge liens granted under the Collateral Agreement to the extent perfected solely by the “Main UCC-1” filed with the Secretary of State of Delaware, but neither complaint raised any issue with respect to perfection of any lien on fixtures by any fixture filing, including any defect in the LDT fixture filing. The original complaint (i) discussed the Term Loan Credit Agreement and the Collateral Agreement, (ii) focused only on the purported termination of the Main UCC-1, (iii) alleged that the termination made some liens granted under the Collateral Agreement unperfected as of the Petition Date, and (iv) asserted a claim under section 544(a) to avoid those liens based on the termination. *See* Docket No. 1 ¶¶ 7-8, 426, 433-37, 439-41. The Amended Complaint also does not even mention the LDT lien or any potential issue with the LDT Fixture Filing. *See* Docket No. 91. In fact, the only time the Amended Complaint references any county-level fixture filings (in Count II), it implicitly acknowledges that the fixture liens were perfected and instead alleges that the “Surviving Collateral is of inconsequential value.” *Id.* ¶ 601. And at no point in this litigation has the Avoidance Trust contested that the liens on fixtures were validly granted by GM prior to the Petition Date.

842. It was not until May 2016 — one year after the Amended Complaint was filed and almost seven years after the July 31, 2009 deadline to challenge the perfection of liens under the DIP Order passed — that the Avoidance Trust first raised any issue with the perfection of the liens on fixtures located at LDT. Even then, it did so only informally, in a letter. *See* Docket No. 613 (May 19, 2016 letter from Avoidance Trust to Court).

843. The Avoidance Trust now argues that the bolded text in the LDT Fixture Filing that identified “GM Assembly Lansing Delta” by name “should be disregarded,” that “[t]here is no ambiguity in the Eaton County Fixture Filing,” and that the fixture filing would not have been

sufficient to put a purchaser or lender on “constructive notice” of the lien. Pls. Pretrial Br. 35-37. Further, the Avoidance Trust promised in its pretrial briefing that it would “show that an independent title insurance company examining the chain of title and conducting a title search of mortgages and liens encumbering the [LDT] facilities would not have discovered the Eaton County Fixture Filing.” *Id.* at 40. No such evidence was adduced at trial. *See* Docket No. 947 at 5-8 (excluding the Avoidance Trust’s purported expert); Tr. 2619:3-12 (excluding the Avoidance Trust’s title search report).

844. To the contrary, the evidence at trial, presented through the Term Lenders’ expert James Marquardt, was that (i) the LDT Fixture Filing would be discovered in a search of the official records at the Eaton County Register of Deeds; (ii) the LDT Fixture Filing would be listed as a potential lien against the LDT property in a title search report or title insurance commitment; and (iii) relevant details of the lien would have then been disclosed in communications between the prospective buyer or lender and the property owner. Marquardt Direct ¶¶ 7, 27-52, 86-87; Tr. 2165:10-21, 2166:22-2167:13, 2240:18-2241:17.

B. The LDT Fixture Filing would be discovered in a title search

845. On April 7, 2017, the Court ruled that Mr. Marquardt was “qualified as an expert to offer testimony about whether the Eaton County Fixture Filing would have been identified for inclusion by a real-property searcher searching for liens or encumbrances against the Lansing Plants.” Docket No. 946 at 4. At trial, the Court accepted Mr. Marquardt’s testimony and found him to be a credible expert witness. Tr. 2161:11-13.

846. Mr. Marquardt has decades of experience in real estate and title searching. He started in the title search business in 1967 and “grew up in the business.” Marquardt Direct ¶ 1; Tr. 2162:5-6. During his career, Mr. Marquardt served as President of Title Bond & Mortgage Co. from 1986 to 1993, as the head of the real estate department of a Fortune 400 company, and as a real estate attorney advising potential purchasers and lenders in real estate transactions and with respect to title matters. Marquardt Direct ¶¶ 1-2, 9-13 and App’x A; Tr. 2161:24-2162:22.

He is also a member and past Chair of both the Michigan Land Title Standards Committee and of its Subcommittee on Legal Descriptions, in which he redrafted Michigan land title standards concerning ambiguous legal descriptions used in recorded documents. Marquardt Direct ¶ 12; Tr. 2267:15-21.

847. Mr. Marquardt credibly testified as to the process of conducting a title search; the specifics of the title search he conducted, which identified the LDT Fixture Filing; his examination of that fixture filing and identification of multiple ambiguities; and how and why a title searcher would address those ambiguities by listing the fixture filing as reflecting a potential lien against LDT. Mr. Marquardt further “offer[ed] relevant testimony,” as permitted by the Court’s motion in limine ruling, that “a secured lender or purchaser would be on notice that the fixtures in the Lansing Plants were encumbered by a lien.” *See* Docket No. 946 at 4-5.

848. As Mr. Marquardt explained, before performing a title search, a title searcher typically first gathers information from the local assessor’s or treasurer’s office. These records can help a searcher confirm the owner’s name and criteria for the title search as well as identify a property’s location by “tax parcel” or “Section” of the assessor’s tax map, which can be helpful in interpreting the search results. Marquardt Direct ¶¶ 18-20; Tr. 2248:4-25, 2255:17-25, 2257:5-7, 2258:17-21.

849. With this information, the searcher would proceed to conduct his or her search. As Mr. Marquardt explained, the official repository of land records for Eaton County, Michigan is maintained by the Eaton County Register of Deeds. Tr. 2268:12-15. Those records are searchable using a “grantor-grantee” index, which by statute, includes: (i) the names of all parties named in the recorded instrument; (ii) the type of instrument recorded; (iii) the date the instrument was processed for recording; (iv) the general location of the land; and (v) a unique identifying number (the “liber and page” or “document number”). Marquardt Direct ¶¶ 15-17; Tr. 2175:22-24.

850. To search this index, a title searcher must input the name of the grantor (often the owner of the relevant property or another party in interest) into the county’s record system. That

search yields a list of all documents encumbering the grantor's property interests in the relevant county, and each document on the list has a unique identifying number in the system so that the document can be pulled and examined. Marquardt Direct ¶ 17.

851. After the Register of Deeds' system generates the results of the search, the title searcher will examine each potentially relevant recorded document that the search identified. In this process, the searcher will review the property descriptions on the recorded documents to determine if any of them describe all or part of the subject property and thus may encumber that property. Any potential encumbrances — including any ambiguous documents — would be added to the search report or title insurance commitment pertaining to the subject property. Marquardt Direct ¶¶ 21-24; Tr. 2235:5-14. From a title searcher's perspective, deciding not to list a potential encumbrance because of an ambiguity "would be an enormous business risk," so "for business reasons," Mr. Marquardt explained, "even though I know that the document may or may not apply, I'm absolutely going to show it, because I cannot . . . put my title company in a position of taking that risk on." Tr. 2264:4-23; *see also* Tr. 2244:14-2245:4 ("if the examiner does not decide to show an ambiguous document, the examiner puts his title company at risk for defending the title free and clear of that" so "the examiner is not going to take the risk that [the ambiguous document] does apply").

852. Once a lien is listed on a title search report or title commitment, the potential purchaser or lender on whose behalf that title work was done is put on notice. "After that," as Mr. Marquardt described at trial, "the parties themselves would engage in the very typical back and forth" as to each of the listed items, including for each, "what they mean" and "what the parties intend to do with it." Tr. 2241:13-17. This process — which Mr. Marquardt testified "is typical for virtually every transaction that [he has] ever done" (Tr. 2237:9-13) — would include inquiries into the details of any liens created by the instrument identified and requests to remove or discharge such liens. Marquardt Direct ¶ 25; Tr. 2237:2-8.

853. In this case, Mr. Marquardt began his search by gathering records and maps from the Delta Township Assessor. Tr. 2248:4-25, 2255:17-25 (Marquardt); *see also* DX121, DX122,

DX126. Using the addresses that were provided to him, which undisputedly are associated with the Lansing Delta Township Assembly and Lansing Regional Stamping plants — 8175 Millett Highway and 8001 Davis Highway — Mr. Marquardt confirmed the name of the owner as “General Motors Corporation” and found legal descriptions identifying land in Sections 28, 32 and 33 of the township’s tax map that were associated with these LDT addresses. Marquardt Direct ¶¶ 28-30, 45-47; Tr. 2259:2-9, 2260:22-2261:15; DX121 at 1; DX126 at 1-2; Pretrial Order ¶ 65.

854. Mr. Marquardt also confirmed that LDT encompassed a contiguous parcel of land covering portions of Sections 28, 32 and 33 using the “2009 Tax Base Maps” that he obtained from the Delta Township Assessor. Indeed, one of the maps specifically labeled the entire area as the “General Motors LDT Plant.” Marquardt Direct ¶¶ 32, 48; Tr. 2249:6-2254:20; DX122 at 2, 6.

855. When Mr. Marquardt went to the Eaton County Register of Deeds, he thus knew (as any reasonably diligent title searcher would know) that the LDT facility related to land in Sections 28, 32 and 33 of Delta Township and that the owner was General Motors Corporation. Tr. 2299:12-18. With this information, Mr. Marquardt conducted a computerized search of the grantor-grantee index, using “General Motors” as the name, “Delta Township” as the municipality, January 1, 1987 (the earliest computerized date) to June 1, 2009 as the date range, and requesting all document types except plats (*i.e.*, deeds, fixture filings, liens, miscellaneous, and mortgages). Marquardt Direct ¶¶ 34-35, 49; Tr. 2180:9-24 (Marquardt).

856. The title search at the Eaton County Register of Deeds yielded 104 results, 87 of which were non-duplicative, which Mr. Marquardt documented in a series of screenshots. DX123; Marquardt Direct ¶ 37 & n.13; Tr. 2203:5-22 (Marquardt). This initial results list includes some summary information for each entry that the Register of Deeds staff inputs, including the names of the parties, type of document, liber and page, recorded date and a brief description of the property, often with a section or lot number. DX123; Tr. 2179:14-2182:11.

857. The LDT Fixture Filing was the 11th item in the list of results that Mr. Marquardt obtained in his search at the Eaton County Register of Deeds. Marquardt Direct ¶¶ 36-37, 49; DX123 at 1. In light of these search results and the absence of any contrary evidence in the trial record, the LDT Fixture Filing would have been discovered in a real property search for liens or encumbrances against the LDT facility.

C. The LDT Fixture Filing would be identified as reflecting a potential lien

858. After discovering the LDT Fixture Filing in the title search results, Mr. Marquardt credibly testified as to what a real-property searcher would consider in examining that filing and determining whether to list it on a title search report or title insurance commitment.

859. Mr. Marquardt explained that a title searcher would examine each potentially relevant document that the search identified, and that in this case he or she would pull and review each of the documents identified in the title search results. Marquardt Direct ¶ 21; Tr. 2245:5-2246:9. The entry for the LDT Fixture Filing would be particularly notable, as the short description for that filing in the results list notes that it pertains to land in Section 28 of Delta Township, which as Mr. Marquardt testified, “was one of the sections [he was] looking for” as potentially affecting title to LDT, as it is associated with the street addresses for LDT in the assessor’s records and part of the area labeled “General Motors LDT Plant” on the township map. Marquardt Direct ¶¶ 37, 50; Tr. 2299:19-23; DX121 at 1; DX122 at 2, 6; DX126 at 1-2.

860. In examining the LDT Fixture Filing, as recorded in the county’s official land records, a real-property searcher would note that it covers “all fixtures located on the real estate described in Exhibit A” to the filing. The title searcher would thus be “put on notice of everything that’s on Exhibit A,” including: (i) the bolded text on that official filing identifying “GM Assembly Lansing Delta”; (ii) the metes-and-bounds describing land in Section 28 of Delta Township; and (iii) a street address of 8400 Millett Highway, with two different townships associated with it. Marquardt Direct ¶ 39; Tr. 2217:14-18 (Marquardt); DX125 at 1, 3.

861. Thus, Exhibit A to the LDT Fixture Filing refers to “GM Assembly Lansing Delta” in bold and by name, and because the fixture filing pertains to “all fixtures located on the real estate described in Exhibit A,” a real-property searcher would identify the LDT Fixture Filing as an instrument that potentially encumbers the title to LDT as of June 1, 2009. This in and of itself would have been sufficient to lead a title searcher to include the LDT Fixture Filing on a title search report. Marquardt Direct ¶ 40; *see also id.* ¶ 50. Indeed, as Mr. Marquardt testified: “[T]he most significant thing that jumps off the page at me is the reference in the top line of the bolded text to the ‘GM Assembly Lansing Delta.’ I am going to see that, I’m on notice of that, and I am going to decide that the document may pertain to the other parcels that comprise the GM Assembly Lansing Delta plant, not just that small portion mentioned above in section 28.” Tr. 2266:10-18; *see also* Tr. 2268:4-5 (“I’m put on notice of the land referred to by that line.”).

862. The real property searcher would also have considered the LDT Fixture Filing to reflect a potential encumbrance on GM Lansing Delta Township Assembly based on the metes-and-bounds description’s reference to Section 28. Marquardt Direct ¶¶ 41, 50. As noted, the real property searcher would have been looking for filings pertaining to Section 28 because Section 28 was one of the three sections associated with the LDT plant’s street address and was part of the area labeled “General Motors LDT Plant” on the township map. Marquardt Direct ¶ 37; DX121 at 1; DX122 at 2, 6; DX126 at 1-2.

863. Finally, the real property searcher would have noted several ambiguities on the face of the document, including the fact that the metes-and-bounds description covers only a part of the area shaded as “General Motors LDT Plant” on the township map. Finding no explanation on the face of the document for why a party would have taken a security interest in only part of the property, the real property searcher would have considered this to be an ambiguity requiring further inquiry to resolve. This and several other ambiguities on the face of the LDT Fixture Filing would have led a real-property searcher to include the document as showing a potential

encumbrance, which if not listed on a search report or commitment would put the title company at risk. Marquardt Direct ¶¶ 42, 51; Tr. 2263:16-2266:18 (Marquardt).¹¹⁸

864. Mr. Marquardt's testimony, which is credible and uncontradicted, establishes that the LDT Fixture Filing would be identified in a title search report or title commitment listing liens or encumbrances against the LDT facility. The inclusion of the LDT Fixture Filing on a title search report or title commitment would put the potential purchaser or lender who commissioned the title work on notice that "JPMorgan Chase Bank, N.A., as Administrative Agent" may have a lien against the fixtures at LDT. Marquardt Direct ¶ 43; *see* Tr. 2232:25-2233:21 (Marquardt).

865. The Court further finds that Mr. Marquardt credibly testified based on experience advising potential purchasers, lenders and other clients in real estate transactions that, upon receipt of a title search report or title insurance commitment listing the LDT Fixture Filing, the potential purchaser or lender would contact the representative of GM with whom the potential purchaser or lender had been dealing on the proposed purchase or loan to seek to have the potential lien discharged and would thereby learn additional relevant details about the lien. As Mr. Marquardt explained, any representative of GM with authority to sell or encumber LDT would have information about the liens affecting that facility (such as the LDT Fixture Filing) and would have disclosed relevant details about such liens to the potential purchaser or lender. Marquardt Direct ¶¶ 44, 52; Tr. 2236:14-2237:13, 2238:22-2239:12, 2240:18-2241:17.

¹¹⁸ These additional ambiguities include: (a) the metes-and-bounds description describes land in Delta Township, even though the street address above the metes-and-bounds description references "Lansing Township" and there is no Lansing Township in Eaton County; (b) the metes-and-bounds description describes only a portion of the area shaded as the "General Motors LDT Plant" in the assessor's tax map and only one of the three sections associated with that facility in the assessor's records; and (c) the street address in the LDT Fixture Filing (8400 Millett Highway) is inconsistent with the common street addresses of 8175 Millett Highway and 8001 Davis Highway provided for the facility identified by name on that filing ("GM Assembly Lansing Delta"). Marquardt Direct ¶¶ 42, 51; Tr. 2263:16-2266:18 (Marquardt).

866. Accordingly, as a factual matter, a purchaser of or secured lender to LDT would be put on notice that the LDT facility was encumbered by a lien because the LDT Fixture Filing was recorded in the official land records, would have been discovered in a search of those records, and would provide notice of the underlying lien.

XI. The Term Lenders' Security Interest in Powertrain Engineering Pontiac¹¹⁹

867. Article II(A) of the Collateral Agreement grants the Term Lenders a security interest in “all Equipment and all Fixtures, other than Excluded Equipment and Fixtures.” JX2 at 7. “Fixtures” is defined by reference to Section 9-102 of the UCC, which, in turn, simply defines “Fixtures” to mean “goods that have become so related to particular real property that an interest in them arises under real property law.” JX2 at 5 (Collateral Agreement § 1.01). The carveout for “Excluded Equipment and Fixtures” excludes from the collateral “all Equipment and Fixtures, now owned or at any time hereafter acquired by [GM], which are *not located at U.S. Manufacturing Facilities.*” *Id.* (emphasis added). Thus, rephrased affirmatively, GM granted the Term Lenders a security interest in all fixtures that were located at “U.S. Manufacturing Facilities.” *Id.* A “U.S. Manufacturing Facility” is, in relevant part, “any plant or facility of [GM] listed on Schedule 1 [of the Collateral Agreement], *including all related or appurtenant land, buildings, Equipment and Fixtures.*” *Id.* at 6 (emphasis added); *see also* Pretrial Order ¶ 69.

868. The GM Metal Fabricating Division (Stamping) Pontiac facility (“MFD Pontiac”) is listed on Schedule 1 of the Term Loan Collateral Agreement. JX2 at 22; Pretrial Order ¶ 70. The Avoidance Trust thus concedes that, in light of a fixture filing recorded in Oakland County, Michigan (the “Pontiac Fixture Filing”), the Term Lenders had a perfected security interest in fixtures at MFD Pontiac. Pretrial Order ¶¶ 70-71; DX137 at 9-17.

¹¹⁹ None of the Representative Assets are located in the facilities discussed in this Section. However, per the Court’s December 2, 2016 Schedule Order, the parties agreed that the Court should decide whether the fixtures at Powertrain Engineering Pontiac are collateral for the Term Loan.

869. The parties disagree, however, as to whether the Term Lenders also had a security interest in the fixtures at Powertrain Engineering Pontiac, a facility that is located next to MFD Pontiac on land that, as stipulated by the parties, was covered by the metes-and-bounds description in the Pontiac Fixture Filing. Buttermore Direct Ex. A at 3 (labeling MFD Pontiac and Powertrain Engineering Pontiac on aerial map); DX137 at 3 (¶¶ 2-3), 8-16 (Pontiac Fixture Filing), 19-20 (stipulated land covered by Pontiac Fixture Filing). Accordingly, unlike the dispute concerning LDT, the only issue with respect to Powertrain Engineering Pontiac is whether the Collateral Agreement in fact granted a security interest in fixtures at that facility. The evidence at trial showed that it did.¹²⁰

870. At trial, Mr. Marquardt gave un rebutted testimony that based on his examination of the land records for Oakland County, MFD Pontiac and Powertrain Engineering Pontiac were mapped on the same tax parcel (14-21-101-004) until July 20, 2011.¹²¹ Marquardt Direct ¶ 69; Tr. 2168:18-2169:3; *see* DX135 at 1-2 (outline of shared tax parcel from Oakland County database).¹²²

871. Mr. Marquardt also testified, again without rebuttal, that on each of three separate occasions between July 26, 2000 and March 23, 2007, title to the entire parcel — covering both facilities — was transferred from one Old GM affiliate to another. Marquardt Direct ¶ 70. Each time, a single deed of conveyance transferred title to all of the land where both MFD Pontiac and Powertrain Engineering are located. *Id.*; Tr. 2169:4-14.

¹²⁰ The Avoidance Trust also disputes whether the Term Lenders held a perfected security interest in fixtures at several other “related or appurtenant” facilities. With the benefit of the Court’s ruling on Powertrain Engineering Pontiac, the parties may be able to resolve the remaining disputes.

¹²¹ On December 19, 2008 (recorded June 1, 2009), General Motors Corporation deeded the City of Pontiac a “part” of the shared parcel so that the City could develop a road between MFD Pontiac and Powertrain Engineering Pontiac, but there was no split to the shared parcel for another two years. DX134 at 13-18.

¹²² Any additional square footage for *both* MFD Pontiac and Powertrain Engineering Pontiac is located on a second shared historical parcel. Marquardt Direct ¶ 69 n.17; *see* DX135 at 3-4 (outline of shared tax parcel from Oakland County database).

872. The Avoidance Trust never cross-examined Mr. Marquardt on his opinions regarding the relationship between MFD Pontiac and Powertrain Engineering Pontiac, and never presented any contrary evidence on these issues.

873. The shared tax parcel number (14-21-101-004) was also used in connection with the Term Loan itself. The recorded version of the Pontiac Fixture Filing contains, in addition to a typed metes-and-bounds description, a precise, handwritten reference to the shared tax parcel (14-21-101-004) where both Powertrain Engineering Pontiac and MFD Pontiac are located. DX137 at 14.

874. In addition, Mr. Buttermore, the former Vice President of GM's Powertrain Global Manufacturing Operations, demonstrated that Powertrain Engineering Pontiac and MFD Pontiac were related as they were actually used by Old GM. The area of land on which both facilities are located has been described for decades as the "Pontiac Campus" or "Pontiac North Campus" by GM personnel and other members of the local community. Buttermore Direct ¶ 43 & Ex. A at 2; Tr. 1296:2-21; DX140 (GM correspondence with EPA regarding Pontiac North Campus).

875. Moreover, the two facilities were, themselves, physically and operationally connected both as of November 29, 2006, when the Term Loan was extended, and as of June 1, 2009, when Old GM filed for bankruptcy. Buttermore Direct ¶¶ 44-48. As Mr. Buttermore testified, prior to the Old GM bankruptcy, a single central utility complex provided utilities to both Powertrain Engineering Pontiac and MFD Pontiac. Buttermore Direct ¶ 44; Tr. 1300:8-14. In particular, the two facilities are linked by a 1,000-yard utility trestle that is elevated above the roadway and carries high-voltage electrical cables, steam pipes, and other utilities from the GM Pontiac North Campus's CUC to both facilities. Buttermore Direct ¶ 45 & Ex. A at 2-3.¹²³ The two facilities also share the same security company and security system. Buttermore Direct ¶ 46.

¹²³ See DX1061 (photo: looking toward Powertrain Engineering Pontiac along utility trestle from point of view of MFD Pontiac); DX1063 (aerial view of utility trestle); DX136 (satellite photos as of May and June 2009 showing trestle).

876. Mr. Buttermore also testified that in his role as Vice President of Labor Relations for North America, he treated Powertrain Engineering Pontiac and MFD Pontiac as a single unit for purposes of union negotiations on topics such as wages, benefits, and seniority. Buttermore Direct ¶ 48; Tr. 1305:6-1306:5.

POINTS OF LAW: FIXTURES

XII. The legal standards that determine whether an asset is a fixture

Section 7.10 of the Term Loan Collateral Agreement provides that all “rights and obligations of the parties” are governed by New York law. Under New York law, the determination of whether an asset is a fixture is governed by the law of the state where the asset is located.¹²⁴ Thus, it is undisputed that Michigan law (discussed in Point I.A) governs the lion’s share (83%) of the 40 Representative Assets. As discussed below in Point I.B, Ohio law (which governs the rest of the Representative Assets) leads to the same conclusions.

A. The applicable legal standard under Michigan law

The Michigan Supreme Court has held: “Property is a fixture if (1) it is annexed to the realty, whether the annexation is actual or constructive; (2) its adaptation or application to the realty being used is appropriate; and (3) there is an intention to make the property a permanent accession to the realty.” *Wayne Cty. v. Britton Trust*, 563 N.W.2d 674, 676 (Mich. 1997). As the Court of Appeals of Michigan had occasion to reiterate two weeks ago, this “test for determining whether something is a fixture on real property is old and well established.” *Grand Traverse Cty. Land Bank Auth. v. Verizon Wireless*, 2017 WL 1908535, at *2 (Mich. Ct. App. May 9, 2017).¹²⁵

The “installation” of an asset “by the owner of the land raises a presumption under Michigan law that the accession was intended to be permanent.” *In re Johns-Manville Sales Corp.*, 88 F.2d 520, 521 (6th Cir. 1937); *In re Cliff’s Ridge Skiing Corp.*, 123 B.R. 753, 759 (Bankr. W.D.

¹²⁴ See, e.g., *In re Del Drago’s Estate*, 38 N.E.2d 131, 137 (N.Y. 1941); *In re Haldeman*, 208 Misc. 419, 422 (N.Y. Sur. 1955); Restatement (First) of Conflict of Laws § 208 (2016) (“Whether an interest in a tangible thing is classified as real or personal property is determined by the law of the state where the thing is.”).

¹²⁵ Unpublished opinions are not considered “precedentially binding” in Michigan. Mich. Ct. Rule 7.215(c)(1) (2016). Nevertheless, as the Avoidance Trust stated in its pretrial brief (at p. 42 n.17), “it is useful to consider unpublished opinions.”

Mich. 1991); *In re Mahon Indus. Corp.*, 20 B.R. 836, 839 (Bankr. E.D. Mich. 1982). Contrary to the Avoidance Trust's repeated suggestion that this presumption has only been found in "trial court decision[s]" (Tr. 1068:8-20 (Fisher); *see also* 4/7/17 Pretrial Conf. Tr. 32:3-6), the Michigan Supreme Court has squarely recognized this presumption. *See, e.g., Tyler v. Hayward*, 209 N.W. 801, 802 (Mich. 1926) (holding that gasoline pump and scales annexed by owner of realty used as store and dwelling were fixtures; "[w]here the owner annexes them the presumption follows that he intended they should become realty"). *See also* p. 340 below.

Michigan cases provide ample guidance on how to establish each of the criteria of this three-part test:

1. Annexation

An asset is "annexed to the realty" if it is "attached or affixed" to real property in *any* manner — "actual or constructive." *Wayne Cty. v. Britton Trust*, 563 N.W.2d at 678. Even "slight" physical attachment can suffice. *E.g., id.* at 678-79; *see also, e.g., In re Joseph*, 450 B.R. 679, 692 (Bankr. E.D. Mich. 2011) (mailbox hanging on two screws was attached to house); *Grand Traverse*, 2017 WL 1908535, at *2 (cell tower attached to anchors in ground only by three wires was a fixture; annexation satisfied "even where the attachment is 'slight'").

"Actual" annexation occurs when an item is affixed to real property physically. *See, e.g., Cincinnati Ins. Co. v. Fed. Ins. Co.*, 166 F. Supp. 2d 1172, 1180 (E.D. Mich. 2001) (milling machine was "anchored and bolted"); *Tuinier v. Charter Twp. of Bedford*, 599 N.W.2d 116, 120 (Mich. Ct. App. 1999) (greenhouses were "annexed" to the real estate "by both bolts and gravity").

While physical attachment is sufficient, it is not required. Rather, "it is without dispute that Michigan, like other jurisdictions, recognizes the law of *constructive* annexation." *Wayne Cty. v. Britton Trust*, 563 N.W.2d at 680 (emphasis added). Assets that are not physically attached to real property may be constructively annexed in many different ways.

For example, the Michigan Supreme Court has held that assets may be "constructively attached by [their] weight" alone. *Velmer v. Baraga Area Sch.*, 424 N.W.2d 770, 775 (Mich.

1988). In *Velmer*, the court considered whether a 1,000-pound milling machine used in a shop classroom was “part of the [school] building.” *Id.* at 771. The lower court had held that it was not, because the milling machine was “not bolted or permanently affixed to the floor.” *Id.* at 772. The Michigan Supreme Court reversed, rejecting the distinction between assets that were “actually” or “constructively” annexed. *Id.* at 775. *Accord Dehring v. Beck*, 110 N.W. 56, 56, 57 (Mich. 1906) (50-barrel tanks of beer annexed to brewery only “by their own great weight” were “part of the mortgaged premises”).

Constructive annexation also occurs when “articles which are not themselves actually or directly annexed to the realty” become “part of, or accessory to, articles which are so annexed.” *Wayne Cty. v. Britton Trust*, 563 N.W.2d at 680 (citation omitted). Put another way, assets are deemed “constructively annexed” if “their removal from the realty would impair both their value and the value of the realty.” *Id.* at 679 (citing *Colton v. Mich. Lafayette Bldg. Co.*, 255 N.W. 433 (Mich. 1934)). This is because “where the principal part of the machinery is [a] fixture due to actual annexation to the realty, the parts of it, although not actually annexed to the freehold, are fixture[s] where they would, if removed, leave the principal part unfit for use, and where of themselves they are not capable of general use elsewhere.” *Id.* at 680 (citation omitted).

Applying this principle, the court in *In re Mahon Industrial* held that 23 overhead bridge cranes — essentially identical to the Charger Crane (Asset 40) here — were fixtures constructively annexed to an industrial building, even though they were “not actually attached to the real estate but instead r[ode] upon or [were] attached to rails.” 20 B.R. at 839. In so holding, the court pointed to the fact that the “value of the rails [would be] considerably lessened without the cranes.” *Id.*

Similarly, in *Sondreal v. Bishop International Airport Authority*, the court held that an airport concourse jetway and its service stairs were fixtures. 2005 WL 599752, at *3 (Mich. Ct. App. Mar. 15, 2005). The jetway was “bolted to the terminal building,” but the service stairs were merely “bolted to the jetway.” *Id.* Nonetheless, “[w]ithout the service stairs, there [would be] no ready access to the tarmac in the event of a jetway malfunction, and no direct access to the jetway by ground crew employees.” *Id.* The stairs were therefore “part of or accessory to machines or

equipment that [were] attached to the realty[,] such that one [could not] readily be used without the other,” and, accordingly, were fixtures “constructively attached to the realty.” *Id.*

Likewise, in *Colton*, the Michigan Supreme Court addressed whether assets that were not affixed to the real estate at all — including elevator rugs, entrance mats, window shades, mirrors, and clocks — were constructively annexed to an office building. 255 N.W. at 434; *see Wayne Cty. v. Britton Trust*, 563 N.W.2d at 679 (noting *Colton*’s “focus” was whether assets “were constructively annexed”). The *Colton* court emphasized that the office building had been “erected for the purpose of renting stores and offices to the public, and, in order to be rentable, must have various articles or accessories such as those listed above.” 255 N.W. at 434. Because these assets could not be “removed from the building or transported from place to place without impairing their value as well as the value of the building,” the articles were constructively annexed and deemed fixtures. *Id.*

2. Adaptation

The second element of the fixture test, adaptation, involves “the relationship between the chattel and the *use* which is made of the realty to which the chattel is annexed.” *Wayne Cty. v. Britton Trust*, 563 N.W.2d at 680 (emphasis added and citation omitted). The adaptation element is met where an asset is “a necessary or at least a useful adjunct to the realty, considering the purposes to which the latter is devoted.” *Id.* (quoting 35 Am. Jur. 2d Fixtures § 12). The Michigan Supreme Court in *Britton Trust* looked to a Wisconsin Supreme Court decision as “a useful guide” in this area of the law (*id.*); there, coolers that stored perishables in a supermarket were held to be fixtures, because “[t]he test here is not the adaptability to the *building*, but the adaptability to the *use* to which the building is put.” *Premonstratensian Fathers v. Badger Mut. Ins. Co.*, 175 N.W.2d 237, 241 (Wis. 1970) (emphases added). *See also Pal-O-Mar Bar, IV, Inc. v. Badger Mut. Ins. Co.*, 2013 WL 6182640, at *2 (Mich. Ct. App. Nov. 26, 2013) (adaptation present where asset is “a necessary or useful supplement to the realty in light of the realty’s purpose”).

So here, adaptation is met so long as an asset is necessary or useful to the *use* to which Old GM's facilities were put: auto manufacturing. The case law confirms this conclusion.

For example, in *Cincinnati Insurance*, the Eastern District of Michigan held that the adaptation test was met for a large, computer controlled milling machine purchased secondhand — an asset similar in function to, though somewhat larger than, the three Warren Transmission milling machines included among the Representative Assets — because it was used by a manufacturer of automobile and aerospace parts “in the regular course of its business.” 166 F. Supp. 2d at 1180. The Avoidance Trust and its proffered expert have been relegated to arguing that this case and others were decided in “error.” *E.g.*, Pls. Pretrial Br. 52; Tr. 3238:19-3239:10 (Goesling). But there is no cogent basis for deeming *Cincinnati Insurance* to be error — to the contrary, “considerable weight” should be given to “state law rulings by district court judges, within the circuit, who possess familiarity with the law of the state in which their district is located.” *First Fid. Bank, N.A. v. Eleven Hundred Metroplex Assocs.*, 190 B.R. 510, 511 (S.D.N.Y. 1995) (Sotomayor, J.). *See also* p. 364, below.

Similarly, in *Smith v. Blake*, the Michigan Supreme Court itself held that a metal lathe and a “cupola furnace” used in a foundry and manufacturing business — again, assets similar to three of the Representative Assets — were “adapted” to the realty because the building at issue had been “erected many years [before] for a foundry and machine shop,” and the assets were “adapted to the business for which the building was erected.” 55 N.W. 978, 979 (Mich. 1893).

And in *Cliff's Ridge*, the court held that a ski chairlift met the adaptation element because it “was adapted to the ski hill real property for its use and purposes.” 123 B.R. at 759. *See also, e.g., Colton*, 255 N.W. at 434 (“This building was erected for the purpose of renting stores and offices to the public, and, in order to be rentable, must have various articles or accessories such as” “elevator rugs,” “entrance mats,” “window shades,” “mirror[s]” and “clock[s]”); *Peninsular Stove Co. v. Young*, 226 N.W. 225, 226 (Mich. 1929) (gas ranges in building “erected for use as an apartment house” were fixtures adapted to the “use” to which the realty “was to be put when completed,” because “desirable tenants could not likely be secured without them”); *Ottaco, Inc. v. Gauze*, 574

N.W.2d 393, 396 (Mich. Ct. App. 1997) (mobile home was “adapted to the use” of land that “was zoned for single-family residential use”).

The Avoidance Trust’s *ipse dixit* (citing nothing) that there is a trend in Michigan toward a different adaptation test that looks to whether the asset would be useful to the property in all of its hypothetical uses (Pls. Pretrial Br. 45-46) is belied by the Michigan Court of Appeals decision just two weeks ago in *Grand Traverse*, 2017 WL 1908535, at *2-3. The decision: (1) reiterated that “[t]he test for determining whether something is a fixture on real property is old and well established,” and (2) as to “adaptation” relied upon *Wayne County v. Britton Trust* and the supermarket coolers case (*Premonstratensian Fathers*) discussed above to hold that since the property’s purpose was “broadcasting signals,” the cell tower was ““a useful adjunct to the realty,’ considering the realty’s purpose of broadcasting signals.” *Id.* at *2-3 (quoting *Wayne Cty*). Nowhere does the opinion contain any suggestion that the relevant test for adaptation involves whether the property could only be used to broadcast signals or might have potential use for some other purpose (which it undoubtedly did).¹²⁶

¹²⁶ The Avoidance Trust’s attempt (Pls. Pretrial Br. 44-45, 51, 53) to rely upon *Controls Group, Inc. v. Hometown Communications Network, Inc.*, 2006 WL 1691346 (Mich. Ct. App. June 20, 2006), in support of its strained views on annexation and adaptation is baffling, inasmuch as both sides there agreed that annexation and adaptation *were* satisfied — only intent for permanence was disputed. *Id.* (“the parties agree that the first two prongs are met”). As for intent, *Controls Group* is clearly irrelevant, inasmuch as the printing press at issue was installed by a *tenant* that, obviously, did not intend to leave its single most important operating asset behind at the end of its lease. In fact, there was “*no evidence*” that the tenant intended the printing units to be installed permanently, and because the tenant did not own the real estate, no such intent could be presumed. *Id.* (emphasis added). In any event, *Controls Group* (cited 17 times in the Avoidance Trust’s pretrial brief) has never been cited by any court anywhere for any purpose; the fixture discussion it contains was purely dicta: the court held, as a “threshold matter,” that a subcontractor played an auxiliary role and, therefore, had no construction lien — whether the printing press was a fixture or not. *Id.* See *Gurganus v. CVS Caremark Corp.*, 852 N.W.2d 103, 114 & n.48 (Mich. 2014) (when case is resolved at the “threshold,” any “*statements concerning a principle of law not essential to [that] determination . . . are obiter dictum*”) (emphasis in original and citation omitted).

3. Intent

The final element of the three-part fixture test is “intention to make the property a permanent accession to the realty.” *Wayne Cty. v. Britton Trust*, 563 N.W.2d at 676. Intent is determined by “objective visible facts” from the “surrounding circumstances,” not any “secret subjective intent” of the annexor. *Id.* at 680. This objective “[i]ntent may be inferred from the nature of the article affixed, the purpose for which it was affixed, and the manner of annexation.” *Id.*

Indeed, as noted, “installation” of an asset “by the owner of the land raises a presumption under Michigan law that the accession was intended to be permanent.” *Johns-Manville*, 88 F.2d at 521; *see, e.g., Cliff’s Ridge*, 123 B.R. at 759 (ski-chairlifts installed by landowner were “presumed to be permanent”); *Mahon*, 20 B.R. at 839 (“attachment by the owner raises a presumption under Michigan law that the accession is to be permanent”); *Tyler v. Hayward*, 209 N.W. 801, 802 (Mich. 1926) (where owner annexes items to the realty “the presumption follows that he intended they should become realty”); *Coleman v. Stearns Mfg. Co.*, 38 Mich. 30, 32, 38 (Mich. 1878) (“engine, boiler, saw-mill and incident machinery” installed by landowners were fixtures based on “the whole proof, actual and presumptive”).

The presumption arises because “[t]he act of an owner of a building in annexing a fixture manifests his intention of whether it is to remain a chattel or become an accession to the realty.” *Kent Storage Co. v. Grand Rapids Lumber Co.*, 214 N.W. 111, 112-13 (Mich. 1927). Thus, it is presumed that “whatever is affixed to a building by an owner in complement, to facilitate its use and occupation in general, becomes a part of the realty, though capable of removal without injury to the building.” *Id.*

It is the intention of the owner at the time of installation that matters. *See, e.g., Colton*, 255 N.W. at 434 (“it was the intention of the [owner] when they purchased such articles” that controls); *Lord v. Detroit Sav. Bank*, 93 N.W. 1063, 1064 (Mich. 1903) (“If this property is part of the realty, it became so at the time it was annexed thereto.”); *Grand Traverse*, 2017 WL 1908535, at *3 (“The relevant time is when the object was attached to the real property.”); *In re Joseph*, 450 B.R. 679,

694 (Bankr. E.D. Mich. 2011) (“evidence about what Debtors may have believed and intended” subsequently when articles were removed “has no probative value in trying to show what Debtors believed and intended *several years earlier, when they affixed the disputed items* to the [real estate]”) (emphasis added); *Morris v. Alexander*, 175 N.W. 264, 264 (Mich. 1919) (classification depends on “intent of the defendant when the articles were installed”); *accord* Docket No. 947 (Order Granting in Part Defendants’ Motion in Limine), at 9 (“Evidence regarding Old GM’s intent to permanently affix assets is relevant only at the time of each asset’s installation[.]”).

Moreover, “[t]he permanence required is not equated with perpetuity.” *Tuinier*, 599 N.W.2d at 119. Rather, “[i]t is sufficient if the item is intended to remain where affixed until worn out, until the purpose to which the realty is devoted is accomplished or until the item is superseded by another item more suitable for the purpose.” *Id.*; *see also, e.g., Grand Traverse*, 2017 WL 1908535, at *3; *In re Joseph*, 450 B.R. at 690.¹²⁷

Courts have looked to a number of indicia of intent to determine whether this final element of the fixture test is satisfied:

First, intent may be inferred from the “purpose” for which the asset was affixed, *Wayne Cty. v. Britton Trust*, 563 N.W.2d at 680, whether the asset is “necessary to the purpose to which the realty [is] adapted,” *Atl. Die Casting Co. v. Whiting Tubular Prods., Inc.*, 60 N.W.2d 174, 179 (Mich. 1953), and the features of the asset designed to “facilitate” that purpose. *In re Mahon*, 20 B.R. at 840. For example, in *Mahon*, 20 B.R. at 840, the court looked to the business reasons why a set of overhead cranes was installed in determining whether there had been intent to permanently affix those cranes to an industrial property. Explaining that “the value of the building as a manufacturing and industrial piece of property” would be “considerably lessened”

¹²⁷ *Accord Brunt Assocs. Inc. v. Dep’t of Treasury*, --- N.W.2d ---, 2017 WL 30049 (Mich. Ct. App. Jan. 3, 2017); *W. Shore Servs., Inc. v. Dep’t of Treasury*, 2015 WL 4469666, at *2 (Mich. Ct. App. July 21, 2015); *Dick & Don’s Greenhouses, Inc. v. Comstock Twp.*, 315 N.W.2d 573, 574 (Mich. Ct. App. 1982); *United States v. Five Parcels*, 765 F. Supp. 1283, 1285 (E.D. Mich. 1991); *United States v. 0.88 Acres of Land*, 670 F. Supp. 210, 211 n.2 (W.D. Mich. 1987).

without the cranes because they were necessary to “carry on manufacturing processes,” the court concluded that the intent was for the cranes to be made permanently affixed. *Id.*

In *Dehring v. Beck*, the Michigan Supreme Court held that intent to permanently affix machinery and equipment in a brewery could be inferred from the fact that, without the machinery, “[the brewery] could not be operated.” 110 N.W. 56, 57 (Mich. 1906). Thus, the business purpose behind the installation of the asset — to operate a brewery — was deemed to be evidence of intent. Likewise, in *Peninsular Stove Co. v. Young*, the court found that the intent to permanently affix gas ranges could be inferred from evidence that they were “uniform[ly] design[ed]” to facilitate the business purpose of the building “as an apartment house.” 226 N.W. 225, 226 (Mich. 1929).

Similarly, in *Michigan National Bank v. City of Lansing*, the court held that bank equipment was intended to be permanently installed because “the present use of the[] buildings [was] dependent on the presence of” the equipment, and similarly, the equipment could not “be used unless [it was] affixed to a building or land” with which the equipment was physically “integrated.” 293 N.W.2d 626, 627-28 (Mich. Ct. App. 1980), *aff’d by equally divided vote*, 322 N.W.2d 173 (Mich. 1982). Specifically, the court noted that the drive-up teller equipment and bank vault doors were cemented into place and integrated into the wall in which they were mounted and that the pneumatic tubing system ran from the remote transaction units through the ground to the main bank building. That these assets were engineered to facilitate the business purpose of the underlying building — *i.e.*, to be a bank — suggested that these specially designed assets were intended to be permanently attached. *Id.*

Tuinier v. Bedford Charter Twp., 599 N.W.2d 116 (Mich. Ct. App. 1999), is to the same effect. There, the court reversed a ruling that polyethylene greenhouses on the property of an ornamental horticulture business were personal property. Holding that the greenhouses were fixtures, the court relied on evidence demonstrating that these greenhouses had been designed to support the plant life essential to the business. Specifically, the *Tuinier* court highlighted that the greenhouses had been supplied with natural gas through pipes, warmed through heaters installed into support bars, and cooled through large wall fans. Based on, *inter alia*, the addition of

cement sidewalks within the greenhouses that were designed to make the use of the greenhouses more “efficient,” the Court of Appeals found that there was intent to permanently affix the greenhouses. *Id.* at 121.

Likewise, in *Lord*, the Michigan Supreme Court found the requisite intent to permanently affix a “cupola and crane” — assets of the very type involved here — where “without them the building in which they were would not be in condition for immediate use.” 93 N.W. at 1064. And in *Sondreal* (discussed previously at pp. 336-37 above), the court held that the jetway was a fixture because, even though it “can be unbolted and removed,” a “jetway is the only safe and direct means of egress and ingress between an aircraft and the terminal for both passengers and employees.” 2005 WL 599752, at *3.¹²⁸

Second, courts infer intent where an asset has been integrated with other on-site machinery or utilities. In *Johns-Manville*, for instance, the Sixth Circuit held that a contractor intended to permanently affix a lathe to the realty where the lathe was “an integral part of the plant” and “derive[d] its power from belts attached to overhead pulleys.” 88 F.2d at 522; *see id.* (forge was a fixture in part because it was “connected with a flu pipe extending through the roof”). Similarly, in *Michigan National Bank*, the court held that the bank “inten[ded] to permanently affix” drive-up teller equipment because it had been “physically integrated” with a “pneumatic tube system,” “roof-type canopy,” and “specially constructed concrete island.” 293 N.W.2d at 628; *accord Tuinier*, 599 N.W.2d at 121 (greenhouses were “permanent enough to hold large fans and gas heaters” and were therefore “intended to be permanent accessions”); *Ottaco*, 574 N.W.2d at 396 (inferring intent to permanently affix mobile home from

¹²⁸ The *Voight* and *Woodliff* cases cited by the Avoidance Trust (Pls. Pretrial Br. 56-57) are not on point. Both involved assets sold under a conditional sale contract under which the seller retained title until the asset was fully paid for; inasmuch as the installer of the asset did not own it at the time it was installed, the courts found the assets were intended to remain personalty as between the seller and the buyer. *See In re Voight-Pros’t Brewing Co.*, 115 F.2d 733, 735-36 (6th Cir. 1940) (“an intention that [an asset] shall remain personalty is clearly indicated by delivery under a conditional sale agreement”); *Woodliff v. Citizens’ Bldg. & Realty Co.*, 215 N.W. 343, 344 (Mich. 1927) (landowner could not “appropriate” elevator owned by manufacturer).

“connections to gas, electric, sewer, and water lines”); *Cincinnati Ins.*, 166 F. Supp. 2d at 1179, 1180 (“difficult[y] [of] determin[ing] where the machine begins and the [plant] begins” was “pertinent characteristic” of milling machine held to be a fixture).

Third, courts infer intent where either the asset has been customized to fit within the particular realty or the realty has been customized to accommodate the asset. For example, in *In re Joseph*, the court held that “custom-sized” window blinds were intended to be permanent, as was a refrigerator that was “designed to blend with, and appear to be part of, the kitchen cabinetry.” 450 B.R. at 696, 697; *see also Cliff’s Ridge*, 123 B.R. at 759 (chairlift was a fixture in part because it was “engineered to be erected on the realty” and had been “specially modified to be attached to the realty”).

Fourth, when considering the “nature of the article affixed” as “objective[,] visible” evidence of intent to create a fixture, courts often view the size and weight of an asset as the simplest evidence of its intended “permanence.” *Wayne Cty. v. Britton Trust*, 563 N.W.2d at 680. In *Dehring*, for example, the Michigan Supreme Court held that in view of the “great size” of a brewery’s storage tanks, fermenting tubs, and chip casks, it was “impossible to believe” that the assets, as well as other similar “heavy machinery,” were anything other than fixtures. 110 N.W. at 57; *accord Cincinnati Ins.*, 166 F. Supp. 2d at 1180 (inferring “intent to make permanent” from “the fact that the machine weighs approximately 200 tons”).

Finally, courts infer intent from “the manner of annexation.” *Wayne Cty. v. Britton Trust*, 563 N.W.2d at 680. For example, the use of concrete is strong evidence that an asset was intended to be permanently attached. *See, e.g., Tuinier*, 599 N.W.2d at 120 (“placement of numerous stubs in cement-filled holes is objective evidence” that greenhouses were permanent); *Mich. Nat’l Bank*, 293 N.W.2d at 628 (“specially constructed concrete island” was evidence that bank’s deposit equipment was permanent); *Ottaco*, 574 N.W.2d at 396 (“concrete slab foundation” was evidence that mobile home was permanent); *Cincinnati Ins.*, 166 F. Supp. 2d at 1180 (finding “intent to make permanent” because milling machine was “affixed to [plant] with concrete”).

Bolts and screws are likewise indicative of intended permanence. *See, e.g., Mich. Nat'l Bank*, 293 N.W.2d at 628 (“steel bolts” were evidence of intent); *Pierce v. City of Lansing*, 694 N.W.2d 65, 69 (Mich. Ct. App. 2005) (elevator “not intended to be removed” from parking garage because “bolted to the structure”); *Johns-Manville*, 88 F.2d at 522 (lathe intended to be “part of the realty” because “bolted to the floor”); *Cincinnati Ins.*, 166 F. Supp. 2d at 1180 (inferring intent from, *inter alia*, “38 different bolts and anchors” used “to secure the machine into the cement foundation”).

B. The applicable legal standard under Ohio law

Ohio, like Michigan, has a three-part test: (1) “annexation to the realty, or something appurtenant thereto”; (2) “[a]ppropriation to the use or purpose of the part of the realty with which it is connected”; and (3) the “intention of the party making the annexation, to make the article a permanent accession to the freehold.” *E.g., In re Szerwinski*, 467 B.R. 893, 902 (B.A.P. 6th Cir. 2012); *Holland Furnace Co. v. Trumbull Sav. & Loan Co.*, 19 N.E.2d 273, 275 (Ohio 1939).

1. Annexation

As in Michigan, on the first element, “[s]light or constructive attachment is all that is required as long as the other two elements are established.” *Szerwinski*, 467 B.R. at 902. Fixtures, accordingly, may be annexed to the realty in many different ways. For example, the Ohio Supreme Court has held that a furnace attached to “warm-air registers or pipes” only “with metallic sleeves or sections of pipe” was a fixture. *Holland*, 19 N.E.2d at 275. *See also, e.g., Whitaker-Glessner Co. v. Ohio Sav. Bank & Tr. Co.*, 22 F.2d 773, 773 (6th Cir. 1927) (machines in vegetable-canning plant annexed “by bolts or screws and connected together” held to be fixtures); *In re Kerr*, 383 B.R. 337, 342 (Bankr. N.D. Ohio 2008) (cabinets and appliances “attached to . . . something attached to the real property” held to be fixtures).

2. Adaptation

The Ohio Supreme Court has explained that an asset satisfies the second element of the fixture test — “appropriate application to the use or purpose” of the realty — if it is an “integral

and necessary part of the whole premises.” *Holland*, 19 N.E.2d at 275. To determine whether an asset is “integral and necessary” to the realty, Ohio courts have considered the “lack of utility of the premises if [the asset] were severed” and “the necessity of replacing [the asset] with another or similar kind if it were removed.” *Id.*

Ohio courts apply this test to conclude that manufacturing assets like those at issue here are fixtures. In *Mid-Ohio Mechanical, Inc. v. Carden Metal Fabricators, Inc.*, for example, a recent lien case, the court concluded that a paint line used to coat auto bumpers — far less extensive than the paint line at LDT — met the adaptation prong of the fixture test. 862 N.E.2d 543, 547 (Ohio Ct. App. 2006), *appeal denied*, 862 N.E.2d 118 (Ohio 2007). The paint line included a “cure oven,” its “platform,” “paint-sludge removal equipment,” “paint-booth scrubbers,” “pollution control equipment,” “robotic paint sprayers,” and a “conveyor.” *Id.* at 545. The court explained that all of this machinery was “essential to the use or purpose of the realty” because the entire line had been “integrated into the factory.” *Id.* at 547; *see also id.* at 547-48 (“clamshell dredge” used in gravel pit “may well have met the definition of a fixture” because it was “fully integrated into” the “gravel-pit operations”).

Mid-Ohio reaffirmed a longstanding principle of Ohio law: in lien disputes, industrial machinery is deemed a fixture when “integral and necessary” to the premises — particularly where the realty was originally designed for the industrial use to which the property is dedicated. *Holland*, 19 N.E.2d at 275. As early as 1864, in *Brennan v. Whitaker*, the Ohio Supreme Court held in a mortgage case that a “mill shafting,” “drum,” “balance wheel,” “muley saw,” and “gearing” were fixtures in a building that “was erected for a saw-mill, and, in the form and nature of its structure, was adapted to the business of a mill of that description.” 15 Ohio St. 446, 466, 452 (1864). The assets in *Brennan* “could not be removed without leaving the saw-mill incomplete,” and “[t]he building, itself, for any other purpose, would, without material alterations and additions, be comparatively of little value.” *Id.* at 452.

Similarly, in *Whitaker-Glessner*, the Sixth Circuit, applying Ohio law, held in another mortgage case that vegetable-canning machines were “devoted to the use to which the real estate

was appropriated” because the building-owner “had acquired these properties for the sole purpose of establishing canning plants; and the buildings were thereafter constructed, or reconstructed, so that the machinery could be placed in them and used for the purpose for which they were acquired.” 22 F.2d at 774; *accord Willis v. Beeler*, 90 F.2d 538, 541 (6th Cir. 1937) (machines were fixtures in Ohio mortgage dispute because property-owner “assembled the plant” for “the business in which the machinery was to be employed,” and equipment was a “necessary factor” for its “operations”).¹²⁹

Also instructive is a decision of the Sixth Circuit applying Ohio law to machinery in an iron mill. *Pflueger v. Lewis Foundry & Machine Co.*, 134 F. 28 (6th Cir. 1904). Applying the fixture test in lien cases and the Ohio Supreme Court’s teaching in *Brennan*, the Court held that the machines were fixtures, where the roof of the mill was designed to accommodate the machinery; “[t]he mill was devoted to the business in which this machinery was to be employed”; and the machinery was “a necessary, or at least a useful, factor in performing that part of the work to which it was to be devoted.” *Id.* at 31.

The Avoidance Trust has cited cases decided in the context of the Ohio *Tax Code*.¹³⁰ In the *tax* context, the “decisive test of appropriation is whether the chattel under consideration in any

¹²⁹ In *Teaff v. Hewitt*, which pre-dated *Brennan*, the Ohio Supreme Court had held in a mortgage case that machines were personal property in a wool factory. 1 Ohio St. 511 (1853). Citing English law, the court noted that authorities had sometimes characterized “manufacturing” as “a pursuit personal in its character.” *Id.* at 535. The court ruled, however, that the “use to which the property in controversy in [that] case . . . was applied” was *not* “decisive of its legal character.” *Id.* Instead, the court held that the machinery was not a fixture because, *inter alia*, it was “customar[ily] remov[ed] . . . from place to place.” *Id.* at 536.

¹³⁰ In its pretrial brief, the Avoidance Trust purported to explain Ohio’s “adaptation” test by citing various tax cases and three unpublished decisions applying tax authorities. *See Funtime, Inc. v. Wilkins*, 822 N.E.2d 781 (Ohio 2004) (tax); *Litton Sys., Inc. v. Tracy*, 728 N.E.2d 389 (Ohio 2000) (tax); *Roseville Pottery v. Bd. of Revision of Muskingum Cnty.*, 77 N.E.2d 608 (Ohio 1948) (tax); *Zangerle v. Standard Oil Co. of Ohio*, 60 N.E.2d 52 (Ohio 1945) (tax); *Perez Bar & Grill v. Schneider*, 2012 WL 6105324, at *5 (Ohio Ct. App. Dec. 10, 2012) (applying *Zangerle v. Republic Steel Corp.*, 60 N.E.2d 170 (Ohio 1945) (tax)); *Gen. Elec. Co., Lighting Div. v. Am. Mech. Contractors, Corp.*, 2001 WL 1647158, *3 (Ohio Ct. App. Dec. 21, 2001) (never cited by any court; applying *Zangerle v. Standard Oil*); *Pine Creek Farms v. Hershey Equip. Co., Inc.*, 1997 WL 392767, at *3 (Ohio Ct. App. July 7, 1997) (applying *Zangerle v. Standard Oil*). The

case is devoted primarily to the *business* conducted on the premises, or whether it is devoted primarily to the use of the *land* upon which the business is conducted.” *Zangerle v. Standard Oil Co. of Ohio*, 60 N.E.2d 52, 57 (Ohio 1945) (emphases added). The Ohio tax test, however, is inapplicable to this lien dispute governed by the U.C.C. — a model uniform code that, by definition, strives to implement common principles across the 50 states.

This peculiar adaptation test in Ohio tax cases is driven by express provisions of the Ohio Tax Code. As the Ohio Supreme Court has explained, a 1931 amendment to the Ohio Tax Code required “[m]achinery installed on land *for the benefit of an industry located thereon*” to be classified as personal property for tax purposes (and thus taxed at the lower rate). *Id.* at 58 (emphasis added). More recently, and consistent with this authority, the Ohio Tax Code was amended to add the concept of “business fixture” to the statute’s definition of “personal property.” Ohio Rev. Code Ann. § 5701.03(A); *see Funtime, Inc. v. Wilkins*, 822 N.E.2d 781, 784 (Ohio 2004) (summarizing statutory history). A “business fixture” is defined as “tangible personal property that has become permanently attached or affixed to the land or to a building, structure, or improvement, and that primarily benefits the *business* conducted by the occupant on the premises and not the *realty*.” Ohio Rev. Code Ann. § 5701.03(B) (emphases added). Accordingly, for tax purposes, process-specific machinery and equipment in Ohio is, by statute, labeled a “business fixture” but nonetheless defined as “personal property” that is taxed at a favorable rate. *See also Zangerle v. Standard Oil*, 60 N.E.2d at 58 (tax consideration “counterbalances, if not outweighs, any presumption of annexation” that would otherwise apply).

As the Ohio Supreme Court has recognized, application of the adaptation factor in tax cases “is not complicated by the conflicting interests of lienholders.” *Id.* Indeed, in a leading tax decision, which the Avoidance Trust had cited in its June 2016 preliminary brief but then dropped

Avoidance Trust also cited *In re Jarvis*, 310 B.R. 330 (Bankr. N.D. Ohio 2004), where there was a lease specifying that, as between the parties, hog farming equipment was personal property and the court applied the tax test from *Zangerle v. Standard Oil*. To the extent lower courts have applied the Ohio tax test to lien disputes, those decisions are inconsistent with controlling authority from the Ohio Supreme Court.

from its pretrial brief, the Ohio Supreme Court specifically held that the reasoning applied in *Brennan* (a mortgage dispute) should *not* be applied in tax cases. *Zangerle v. Republic Steel Corp.*, 60 N.E.2d 170, 178 (Ohio 1945). As the court explained, where “rights of lienholders or innocent third parties who have parted with value, are concerned,” the analysis of whether “a manufacturing business becomes accessory to the land” differs from the analysis in tax cases. *Id.* Put another way, to “determin[e] what the security [is] that [is] to be covered” in a lien dispute, a court must consider “equities” that are not present in tax cases. *Id.*; *see also* Ohio Rev. Code Ann. § 1309.102(A)(41) (no concept of “business fixture” in Ohio U.C.C.).¹³¹

Thus, as discussed, Ohio courts have repeatedly held process-specific machinery to be fixtures in lien disputes. *See, e.g., Brennan*, 15 Ohio St. at 446 (“mill shafting,” “drum,” “balance wheel,” “muley saw,” and “gearing”); *Whitaker-Glessner*, 22 F.2d at 774 (vegetable-canning machines); *Willis*, 90 F.2d at 541 (machines used for business “operations”); *Pflueger*, 134 F. at 29 (machines used to compact product received from furnace). And in *Mid-Ohio*, a lien case, the court squarely rejected the argument that the paint line was “personal property because it is related to the owner’s current business and is not essential to the use or purpose of the realty,” reasoning that on that logic, the “entire [factory]” would not qualify as real property “because the factory is devoted to a particular business and could be demolished and the real estate used for some other purpose.” 862 N.E.2d at 547.

Nevertheless, even if the Ohio *tax* concept of “adaptation” did apply to a lien dispute, even that test would be satisfied by the Representative Assets in Ohio. Six of the Ohio assets are located in a foundry (Defiance) and one was located in a now-demolished stamping plant (Mansfield). Foundries and stamping plants are extensively customized and purpose built exclusively for foundry and stamping operations. *See* Sections IX.A.1(c), IX.C(b) above.

¹³¹ The Ohio Supreme Court has also used a different formulation to determine which assets represent personal property for eminent domain — where the public fisc is at stake — but once again recognized that the test “applies differently in appropriation cases than in other situations.” *Masheter v. Boehm*, 307 N.E.2d 533, 538-39 (Ohio 1974) (citing *Zangerle v. Republic Steel*, 60 N.E.2d at 171).

Indeed, as the Term Lenders' expert on the stamping assets Max Miller testified, when stamping operations were discontinued at Mansfield, the entire facility was demolished (and the site remains vacant to this day). Miller Direct ¶¶ 19, 53, 56, 120-21. And similarly, John Thomas testified that because of the many foundry-specific environmental, infrastructure, and building design features at the Defiance Foundry, the realty on which the foundry is located would not be used for any type of business other than a foundry. Thomas Direct ¶¶ 24-25. Because it would be prohibitively expensive to repurpose these facilities for any other business, there is no meaningful distinction, with respect to those facilities, between assets that are "devoted primarily to the business conducted on the premises" and assets that are "devoted primarily to the use of the land." *Zangerle v. Standard Oil*, 60 N.E.2d at 57. Put simply, there is no other viable use of the "land" where these manufacturing plants are located.¹³²

3. Intent

As for the third factor, intent, the owner's "apparent or legal intention to make [the asset] a fixture is sufficient." *Holland*, 19 N.E.2d at 275. As in Michigan, "it is the intent at the time the chattel is affixed" that controls; "if the owner changes his or her mind later, the fixtures are not transformed back into chattel." *Fifth Third Mortg. Corp. v. Johnson*, 2011 WL 6929621, at *4 (Ohio Ct. App. Dec. 27, 2011) (citing *Holland*); accord Docket No. 947 (Order Granting in Part Defendants' Motion in Limine), at 9 ("Evidence regarding Old GM's intent to permanently affix assets is relevant only at the time of each asset's installation[.]").

¹³² Indeed, the Avoidance Trust's authorities recognize that under the Ohio tax test, if the realty would not reasonably be used by a subsequent purchaser for a different purpose, the adaptation element would be satisfied. See *Jarvis*, 310 B.R. 330 (if property would generally be used by any purchaser as agricultural business, farrowing and gestation equipment could be fixtures); cf. *Pine Creek Farms*, 1997 WL 392767, at *2-3 (chicken-caging system was not adapted to use of real property where farm-owner presented no evidence that "[w]ithout the caging system, the buildings on Pine Creek's property have no purpose"); *Perez Bar & Grill*, 2012 WL 6105324, at *7 (bar, ventilation hood, and sinks were not adapted, where "over the years, the building has been occupied by various types of business, including a retail store and a photography studio that would have had no use for the bar, the ventilation hood, or the kitchen and bar sinks").

This intent “may be inferred from,” among other things, “the nature of the article affixed, the relation and situation of the party making the annexation, the structure and mode of annexation, the purpose and use for which the annexation is made, [and] the utility in use or the indispensability of the [asset] . . . in the use of the whole.” *Holland*, 19 N.E.2d at 275.¹³³

For example, the Ohio Court of Appeals held in *Mid-Ohio* that the paint line used to coat auto bumpers was intended to be permanent because it was installed by “welding and bolting items, including structural steel, to the building, so that the owner [could] produce the parts it need[ed] to conduct its business.” 862 N.E.2d at 547. The *Mid-Ohio* court so concluded notwithstanding that the paint line “could be detached from the factory.” *Id.* at 547.

Mid-Ohio is consistent with a long line of Ohio precedent making clear that “permanent accession” encompasses assets that are moveable and, indeed, have occasionally been moved. *See, e.g., Willis*, 90 F.2d at 541 (machinery in plant was fixture though “some of the machinery was detachably connected”); *Whitaker-Glessner*, 22 F.2d at 774 (machines that “could be and occasionally [were] removed to meet the exigencies of the business” were fixtures).

Pflueger is again instructive. The court observed that while the iron mill machinery was “not easily moved from place to place,” it was not “irremovabl[e]” — and “the exigencies of the

¹³³ As noted (at p. 340), Michigan law is clear that there is a presumption of intent for permanence for assets affixed to the realty by its owner. Whether any such presumption exists in Ohio law, however, is unsettled. The Sixth Circuit in *Pflueger* noted the “general rule” in Ohio of “presumed intention” where a party “acquires [a] chattel and brings it into fixed association with his own real property.” 134 F. at 31. In *Holland*, the Ohio Supreme Court found the furnace to be a fixture, without mention of any presumption. 19 N.E.2d at 275. On the other hand, plaintiff has cited unpublished opinions, including *Pine Creek Farms*, suggesting that “doubt” as to intention should be resolved against a finding of intent for permanence. Pls. Pretrial Br. 43. Even the unpublished Ohio cases plaintiff cites, however, say that ultimately the court has to look to the attending circumstances of the assets, and where those circumstances indicate an intent for permanence, that prong of the fixture test is satisfied. *See, e.g., Pine Creek Farms*, 1997 WL 392767, at *2 (where there was “no testimonial or documentary evidence that the chicken cage system [was] actually annexed, even slightly to the realty, or anything appurtenant to it,” finding no intent of permanence).

business might require a demolition or reconstruction of the mill.” 134 F. at 31. Nevertheless, the court held that the machines were fixtures. *Id.*

XIII. Applying the governing legal standards, the evidence at trial overwhelmingly showed that the Representative Assets are fixtures

Under both Michigan and Ohio law, whether an asset is a fixture is a “mixed question of law and fact.” *See, e.g., Nadolski v. Peters*, 50 N.W.3d 744, 747 (Mich. 1952); *Sturtz Mach., Inc. v. Dove’s Indus. Inc.*, 2014 WL 1383403, at *1 n.9 (N.D. Ohio Apr. 8, 2014). The evidence at trial overwhelmingly showed that the Representative Assets meet each of the three elements of the fixture test.

A. GM designed and built its plants to ensure that its fixed manufacturing assets would remain in place for their useful lives.

As discussed above, under the case law, even “minimal” physical attachment suffices, and an asset that is not physically attached can be “constructively attached by its weight alone” or if its “removal from the realty would impair both [its] value and the value of the realty.” That standard is easily met for all 40 Representative Assets. The adaptation test is easily met as well, inasmuch as even the Avoidance Trust’s expert was compelled to concede at trial that every one of the 40 assets was “at least a useful adjunct to the realty, GM’s realty, considering the purposes for which GM’s realty is devoted” when it was installed. Tr. 3201:5-3205:14.

The sole remaining prong of the fixture test, intent for permanence at the time of installation, is likewise clearly satisfied. Michigan law, at least, requires that the Court start with the presumption that all of the Representative Assets were intended to remain in place, because all of them were installed by Old GM on Old GM-owned property. Tr. 2156:13-2157:3 (stipulation that “all buildings and all lands where each of the 40 Representative Assets were located were owned by General Motors Corporation at all relevant dates for this proceeding”); *see* p. 107 n.44 above. Thus, for the Michigan assets, the burden was on the Avoidance Trust to overcome that presumption of intent. It manifestly failed to do so. To the contrary, the objective facts showing GM’s intent for permanence were plain and overwhelming based upon the

unrebutted evidence presented clearly, credibly, and cogently by the people who know best: the GM experts who, collectively, have over 200 years of experience in designing, purchasing, installing, operating, and maintaining precisely the kind of manufacturing equipment that makes up the Representative Assets.

While there are additional facts as to particular assets that further support finding the requisite intent, core overarching facts shown at trial inherent in modern automobile manufacturing of the nature and scale conducted by GM powerfully support the inference of intent.

First, Old GM's U.S. manufacturing plants, like New GM's, accommodate highly integrated production equipment. The unrebutted evidence at trial showed that Old GM designed its plants and selected and installed the machinery and equipment that went into the plants to work efficiently as part of an integrated system. That was the purpose for which the assets were affixed. That is why the assets are integral parts of the plants. Stevens Direct ¶¶ 34-67; Section VII.A-C above. So just as the brewery equipment in *Dehring* is what made the brewery building a brewery, the manufacturing equipment at LDT is what makes that customized building an auto manufacturing plant.

This level of integration allows GM, for example, to produce 1,100 SUVs per day at Lansing Delta Township. Tr. 146:2-9 (Stevens). As part of this integrated process, each asset in a production line is designed to work with and depends upon every other asset in the line. The removal of any one production asset would typically render the rest useless. If Old GM were ever forced to remove one of its production assets, its only recourse would be to replace the removed asset with an identical one. *E.g.*, Tr. 146:10-17 (Stevens).

Thus, the Avoidance Trust has never had any cogent answer to this simple question: After investing hundreds of millions of dollars into each plant to mass-produce automobiles, why would Old GM remove an asset that was essential to the plant's operation and render the remaining assets useless? Plainly, Old GM's intent when it built a factory was to utilize the

factory for its useful life. These objective facts plainly point to the conclusion that the massive machinery and equipment was installed in these factories with this intention.

Second, Old GM designed its plants precisely to avoid having to move or replace its fixed assets. The unrebutted evidence at trial also showed that Old GM designed its plants to be flexible precisely to avoid having to move or replace fixed assets as its needs change. Tr. 25:10-18, 56:12-25, 60:14-65:8 & DX94, 75:12-76:12 (Stevens); Tr. 1286:21-1291:3; 1291:11-1294:6 (Buttermore). *See also* Sections VII.A-H above. Indeed, Old GM's flexibility went a step further — modern plants that were designed and built to make mid-sized cars, for example, have the flexibility to make both compact and full-sized cars on largely the same production equipment. Tr. 61:19-62:18 (Stevens).

The evidence showed that Old GM actively planned its manufacturing capacity as a whole so that it would have plants in place capable of responding to shifts in consumer demand. Old GM had a group specifically devoted to planning Old GM's production capacity to anticipate and deal with evolving needs. Tr. 1268:9-1270:25 (Pniewski).

The intended purpose of Old GM's flexible, and highly planned, manufacturing processes was to enable Old GM to use the kinds of assets that have been selected as the Representative Assets in place for their useful lives. Tr. 25:10-18, 56:12-25 (Stevens); *see also* Sections VII.A-H above. As Mr. Stevens further testified without rebuttal, if plants were designed instead to facilitate removal of the fixed assets, the design would be very different. Tr. 35:24-37:9. And even more to the point, it would have made no economic sense for Old GM to have designed plants that way because they would not have been economically viable. Tr. 35:24-38:1 (Stevens).

All of these unrebutted objective facts also lead to the inexorable conclusion of intent for permanence.

Third, automobile manufacturing machinery and equipment is so massive that it is impractical to move it. Also strongly supporting intent for permanence as to many of the assets is their sheer size. While small objects can likewise be intended to remain in place and meet the

fixture test (the mailbox in *Joseph*, the elevator rugs in *Colton*), the case law has repeatedly recognized that intent for permanence can be easily inferred where the size and weight of the asset warrant. *See* p. 344 above.

Most of the Representative Assets are so large that it is downright nonsensical to believe that Old GM installed them with the intent that they would be removed before the end of their useful lives. For instance, a AA-class transfer stamping press is approximately four stories high, requires a concrete foundation up to 100 feet deep, and weighs up to 5.6 million pounds. *See* Section IX.A.1 above. Huge paint and oven systems often span three stories with lengthy conveyors that pass through pre-designed openings in floors and ceilings to carry auto-bodies through the paint line, with heavily-integrated paint booths (larger than good-sized houses) that are integrated with waste processing systems designed to exceed environmental standards. *See* Section IX.A.3 above. General assembly conveyors must run for hundreds or even thousands of feet to allow multiple operations to be performed in a complex, highly-choreographed assembly process. *See* Section IX.A.4 above.

To accommodate this massive equipment, it is common for the machinery to be installed as the building is constructed around it. Thus, one of the very reasons why Old GM planned its factories to be flexible is because the removal of its fixed production assets would simply be impractical, prohibitively expensive and monumentally disruptive. *See* Section VII.C above. Thus, for many of the assets, intent for permanence is also easily inferred from their size and weight.

Fourth, Old GM's manufacturing assets were required to be firmly attached to the realty in order to function properly and safely. Old GM's manufacturing requirements demanded that the plants produce parts that met exacting tolerances — sometimes thinner than the width of a human hair. Given the need for precision (particularly in modern engine and transmission manufacturing), Old GM often needed to pour a special, thick foundation under machining assets, and precisely level the foundations so that the assets could perform to these fine tolerances. *See* Section VII.D. While the tolerances are not quite as exacting for conveyor systems, the basic concept is the same: Conveyors need to transport components from machine

to machine seamlessly; to meet this end, conveyor systems are firmly attached to the realty so that they remain in place and can, in the case of Warren Transmission, operate 24 hours per day, 6 days per week. *Id.* Safety too requires that assets be firmly affixed. Overhead cranes and transporters carrying vats of molten iron, large stamping press dies, and 1,000-pound vehicle bodies are meant to stay fixed in place. Thus, the “degree of customization” in the selection, configuration, and integration of the assets, is further compelling evidence of Old GM’s intent. See pp. 343-44 above.

B. Mr. Goesling lacked the expertise to offer opinions that this Court should accept and applied fixture tests that are totally inconsistent with the applicable legal standards.

The Avoidance Trust’s expert on the fixture issue was an industrial equipment appraiser, David Goesling. Mr. Goesling’s fixture opinions should not be accepted by the Court.

1. Mr. Goesling’s background as an appraiser does not provide him with any relevant expertise to opine on whether any asset is a fixture and, most especially, on GM’s intent.

Mr. Goesling is not an engineer (Tr. 3186:16); does not “pretend to be an expert in manufacturing engineering” (Tr. 3168:25-3169:9); is “not offering an engineering opinion on anything” (Tr. 3180:23-3181:5); has never had any experience designing, engineering, purchasing, installing, operating, or managing an auto manufacturing plant (Tr. 3170:4-9); and has no expertise in “assessing the logistics and costs associated with moving the wide range of assets that [he’d] seen at the GM plants.” Tr. 3192:8-15.

The principal context in which Mr. Goesling has had to classify manufacturing assets as personal or real property is in appraising factories where he is typically accompanied by one of his real estate appraisal colleagues. Tr. 3175:19-3176:20. In that circumstance, the classification is done only so as to divide responsibility as between the two appraisers. Tr. 3176:21-3177:2. On cross-examination, Mr. Goesling was shown an article published by one of his real estate appraisal colleagues, Jason Krentler, on his firm’s website. Tr. 3177:3-3178:9 (discussing DDX2501). The article, citing the leading Michigan case, concluded that a large stamping press

like those at issue here is a fixture. Tr. 3178:13-22 (discussing DDX2501). All that Mr. Goesling could do to explain away the inconsistency was claim that his colleague, Mr. Krentler, was not qualified to render an opinion on whether the stamping press was a fixture. Tr. 3180:3-7. But Mr. Krentler is exactly the kind of person who works with Mr. Goesling in appraising factories and is involved in deciding who is going to appraise the fixtures and who is going to appraise the personal property. Tr. 3178:23-3179:6. And Mr. Krentler's profession is to appraise real property and a fixture by definition is part of real property. Tr. 3179:7-11.

With due respect to Mr. Goesling, his assertion that Mr. Krentler did not have the expertise to conclude the obvious — that a stamping press meets the Michigan three-part test — is among the best evidence of the unreliability of Mr. Goesling's opinions. Mr. Goesling lacks any expertise on the business and engineering reasons why GM designed, purchased, installed, operated, and maintained the assets that are the subject of this litigation the way that it did. As a result, he has no relevant insight in particular into ascertaining GM's intent when those assets were installed.

It was only armed with his lack of expertise in auto manufacturing processes, the design of the plants used to make them, and the engineering reasons why and how fixed assets are installed together to work seamlessly that Mr. Goesling was able to explain away much of the compelling evidence of GM's intent. Thus, Mr. Goesling's lack of expertise enabled him to disagree that "the level of integration" of an asset "integral to GM's manufacturing process" was "evidence of GM's intention for the asset to remain in place." Tr. 3262:3-8. Mr. Goesling's lack of expertise enabled him to "largely" agree that the "fact that GM specified a very specific configuration of an asset so that it would operate . . . in a very specific way [was] totally irrelevant" in "ascertaining GM's intent," so that when "GM designs [a] building to house a stamping press that's 5,000 tons, as big as three houses," that was "not evidence to [him] that GM intends the asset to remain in place for its useful life." Tr. 3258:25-3259:15. And lack of expertise underlies Mr. Goesling's testimony that "when GM goes to the lengths of specifying exactly what kind of machinery it needs in a plant to manufacture cars, how the machinery

should be configured, how it should operate, how many parts per hour it needs to process, how many feet per second the part needs to move on the conveyors or through a paint shop or through an oven, none of that is evidence of GM's intent." Tr. 3264:13-23.

Mr. Goesling's opinions are entitled to no weight.

2. The overarching "damage" requirement in the fixture test applied by Mr. Goesling is refuted by the case law.

Mr. Goesling's testimony not only was untethered from his expertise as an appraiser, it was untethered from the controlling law in numerous ways. Perhaps most striking was his unfounded, overarching proviso that "unless there is something in the nature of the installation that prevents its removal or would lead to its destruction upon its removal," GM "simply can't intend for [the asset] to be permanently installed." Tr. 2987:21-2988:9. Mr. Goesling recited his destruction-is-required construct repeatedly — both on direct and cross. *See, e.g.*, Tr. 3228:16-23, 3328:20-3329:9 (same).

But there is no such requirement. To the precise contrary, "[g]enerally, fixtures may be removed without material injury to the premises." *Pal-O-Mar Bar, IV, Inc. v. Badger Mutual Ins. Co.*, 2013 WL 6182640, at *2 (Mich. Ct. App. Nov. 26, 2013). This has been recognized repeatedly for nearly 100 years: "whether [assets] could be severed without injury to the real estate" is simply not "important" — at least where, as here, those assets "were put in by . . . the owner of the land." *Tyler*, 209 N.W. at 802; *accord Kent*, 214 N.W. at 112-13 (steam pipes that were "capable of removal without injury to the building" were fixtures in lumber mill); *Nadolski*, 50 N.W.3d at 746 (heating units that could be removed "without doing serious damage to the portion of the system remaining, or to the building itself," were fixtures in factory); *Whitaker-Glessner*, 22 F.2d at 773 (vegetable-canning machines that could be "removed without injury to themselves, the building, or any other part" were fixtures); *Jackson Lodge No. 133, B.P.O.E. v. Camp*, 6 N.W.2d 549, 550 (Mich. 1942) (bowling alleys were fixtures in a building "although they could be removed without serious damage ensuing"); *First Mort. Bond Co. v. London*, 244 N.W. 203, 203 (Mich. 1932) (gas stoves, Murphy wall beds, radiator shields, and refrigerators were fixtures, even though all of those articles could "be easily removed without damage"); *Brunt Assocs.*, 2017 WL 30049, at 2 (reception desks

and nurses stations were fixtures but “could be removed without damaging the realty”); *Velmer*, 424 N.W.2d at 774 n.5 (emphasizing that machines have been frequently held to be fixtures and rejecting the argument that only articles of a “structural nature” can meet the fixture test).

One can only wonder what “damage” would have been caused by removal of the elevator rugs held by the Michigan Supreme Court to be fixtures in *Colton*, 255 N.W. at 434, or the mailbox hanging on two screws in *Joseph*, 450 B.R. at 692. And most recently, two weeks ago in *Grand Traverse*, the Michigan Court of Appeals squarely rejected the argument that a cell tower was not a fixture because it could be “remove[d]” just by “unlatching [three] wires.” 2017 WL 1908535, at *2 (citing the Michigan Supreme Court’s decision in *Colton*).

Mr. Goesling’s asserted “damage-is-required” theory appears to be a perversion of the principle that where removal of an asset *would* cause physical damage — as would be the case with respect to many of the assets here — that further *confirms* a finding that the owner intended it to remain in place. *See, e.g., Sondreal*, 2005 WL 599752, at *3 (asset was “clearly intended to remain in place” where if “removed, an opening would remain on the side of the building that would need to be barricaded”). But, as all the cases cited above demonstrate, the *absence* of physical damage does not mean that the owner did *not* so intend.¹³⁴

It further bears noting, to the extent damage is relevant, that in determining what constitutes damage, Mr. Goesling draws lines where none exist. For example, Mr. Goesling was relegated to disagreeing with the court’s decision in *Sondreal*. Tr. 3239:16-3240:18. In Mr. Goesling’s view, if the airport building was designed with an opening to accommodate the

¹³⁴ As the Ohio Supreme Court put it in 1939 in *Holland*, some courts previously had held, “in some instances, that to constitute a fixture the attachment of a chattel must be so substantial that it could not be severed or removed without injury to the realty or to the chattel itself.” *Holland*, 19 N.E.2d at 275. However, as recognized by *Holland* itself (furnace was fixture; no damage required), and illustrated by the numerous cases cited above in text, any such damage requirement perished long ago. The Avoidance Trust’s attempt to exhume it here in 2017 fails. Indeed, even the cases cited by the Avoidance Trust recognize that “[a] party is no longer required to show that removal of the article would cause substantial damage to the realty” to be a fixture. *See, e.g., G&L Invs. v. Designer’s Workshop, Inc.*, 1998 WL 553213, at *4 (Ohio Ct. App. June 26, 1998) (Pls. Pretrial Br. 47, 48, 91).

jetway door, and, upon removal of the jetway, the door would have to be sealed, the jetway would not be a fixture. Tr. 3240:3-18. But, in Mr. Goesling's construct, if the airport contractor had to cut a hole in the building to accommodate the jetway when it was installed, and, later, if the jetway were removed and the contractor had to barricade the hole, there would be damage to the building and the jetway could be a fixture. Tr. 3240:19-3241:3. In a similar vein, although conceding that removal of a stamping press would leave a massive hole in the factory floor, Mr. Goesling did not consider that hole to be damage. Tr. 3241:4-3242:20. Rather, filling in the hole would be damage. Tr. 3353:12-25. *See also* Tr. 3352:22-3353:11 (opining that cutting apart building to remove boiler is not "damage" because siding can then be repaired). Nothing in law or logic supports this reasoning.

3. The Avoidance Trust and its designated expert apply an erroneous annexation test.

Also flawed was Mr. Goesling's analysis of annexation. Although Mr. Goesling acknowledged, as he must, that most of the Representative Assets are physically attached in multiple ways, he admitted that he focused only on physical attachment and "did not apply the concept of constructive annexation in reaching [his] conclusions" as to whether the Representative Assets met the annexation test. Tr. 3199:6-11, 3104:22-3105:3. He did not do so because the Avoidance Trust's counsel did not instruct him to do so. Tr. 3199:16-22.

But as noted (pp. 335-37, 345), under settled law, the annexation requirement is equally met through physical *or* constructive annexation. And numerous cases have found constructive annexation in circumstances far less compelling than those here. Thus, for example, the beer tanks in *Dehring*, the service stairs for the jetway in *Sondreal*, and even the elevator rugs in *Colton* were held to be constructively annexed to the realty and fixtures under the governing law. But for the Avoidance Trust's expert, unless there was *actual* annexation, the attachment prong was not satisfied. Tr. 3104:22-3105:3 ("[I]f I did not observe physical attachment, I would have checked no.").

4. The Avoidance Trust and its designated expert apply an erroneous adaptation test.

As noted, the “adaptation” element looks to whether the asset is “a necessary or at least a useful adjunct to the realty, considering the purposes to which the latter is devoted.” *Wayne Cty. v. Britton Trust*, 563 N.W.2d at 680. *See also* pp. 337-39, 345-47 above. Mr. Goesling conceded at trial that all 40 of the Representative Assets were at least “a useful adjunct to the realty, considering the *purposes* to which GM devoted the realty,” at the time they were installed. Tr. 3201:5-3205:14 (emphasis added). So concededly all 40 meet the *actual* adaptation test.

But as Mr. Goesling admitted, that was not the adaptation test that he used. Tr. 3201:10-12. Rather, the Avoidance Trust’s test required that for an asset to meet this element, it would have to be “a necessary or useful adjunct to the *realty itself*.” Tr. 3206:11-3208:5 (emphasis added). And applying that incorrect test, Mr. Goesling concluded that only 8 of the 40 assets met the test, because “the purpose to which the realty has been devoted is the sheltering of the equipment,” and “[n]ot all of the assets are needed” for shelter. Tr. 3200:9-12, 3201:23-3202:4.

Nonsense. The purpose to which the realty is devoted is the manufacture of automobiles. GM manufactures cars in plants that are built and adapted for that purpose. The Avoidance Trust’s spurious “shelter” theory flies in the face of all of the case law discussed above that has held that manufacturing assets in plants, factories, and mills are fixtures: (1) the milling machine in *Cincinnati Insurance*; (2) the bridge cranes in *Mahon*; (3) the cupola furnace in *Smith*; (4) the cupola and crane in *Lord*; (5) the tanks and other equipment in *Dehring*; (6) the canning machines in *Whitaker-Glessner*; (7) the paint line in *Mid-Ohio*; (8) the sawmill equipment in *Brennan*; (9) the machinery in *Willis*; and (10) the squeezing machine and steam pump in *Pflueger* — all fixtures. The equipment and machines in each and every one of those cases were deemed to be adapted to the realty because they served the *purpose* to which the realty was devoted where they were installed: manufacturing. So too the auto manufacturing assets here.

As noted, the Ohio adaptation test applicable in this *lien* context is similar to Michigan's — indeed, of the ten cases cited in the immediately preceding paragraph, five are from Michigan and five are from Ohio.¹³⁵

5. The Avoidance Trust and its designated expert apply an erroneous intent test.

On the third element of the fixture test, intent for permanence, the Avoidance Trust and its proffered expert again pit themselves in a losing battle against the governing case law. In addition to his flawed overarching precondition that there could be no intent for permanence without physical damage to the asset or the realty if the asset were removed (*see* pp. 358-60 above), Mr. Goesling's intent analysis deviated from settled law in many other ways:

(a) Failure to apply the presumption of permanence

As noted, for the Michigan assets at the very least, attachment by the owner creates a presumption of permanence. *See* p. 340 above. But the Avoidance Trust denies the existence of the presumption, so its expert did not apply it. *See* Tr. 1068:8-20. So the Avoidance Trust's purported "intent" analysis was flawed from the outset.

(b) Failure to apply the correct definition of intent for permanence

As also noted, under the governing case law: "The permanence required is not equated with perpetuity. It is sufficient if the item is intended to remain where affixed until worn out, until the purpose to which the realty is devoted is accomplished or until the item is superseded by

¹³⁵ Also off-base is the Avoidance Trust's claim that foundry assets at Defiance are not adapted because they represent "one particular foundry technology," rather than some undefined, general foundry technology that any foundry operator would use. Pls. Pretrial Br. 49. Under Ohio law, in lien disputes, an asset can be a fixture even if it could be replaced by a somewhat different asset that performs a similar function. For example, in *Holland*, the Ohio Supreme Court held that the furnace was adapted to the building because of "the necessity of replacing it with another *or similar kind* if it were removed." 19 N.E.2d at 275 (emphasis added). Similarly, there was no suggestion in *Whitaker-Glessner* that the vegetable-canning machines at issue were the only technology available for canning produce; the Sixth Circuit nonetheless held that those machines were fixtures in a vegetable-canning plant. 22 F.2d 773. Defiance is a foundry and GM installed foundry assets to perform foundry operations there. Whether GM could have used other foundry technology is beside the point.

another item more suitable for the purpose.” *Tuinier*, 599 N.W.2d at 119; *Grand Traverse*, 2017 WL 1908535, at *3; *see also* p. 341 & n.126 above.

But for the Avoidance Trust and its expert, that is not sufficient. Mr. Goesling conceded that that was not the test he applied. Tr. 3220:17-3224:6. So if an item was intended to remain affixed until worn out, it would satisfy the legal test for permanence — but not for Mr. Goesling. *Id.* So too for items replaced by something more suitable to the purpose — actual legal test satisfied; Avoidance Trust’s test not satisfied. Tr. 3226:23-3228:13. The same was even true for an asset that in fact remained in place for its useful life — Mr. Goesling would draw the contrary inference that GM “did not intend for it to remain [for] its useful life even though it did.” Tr. 3261:9-3262:2.

Instead, although nowhere so much as mentioned in his 450 pages of expert reports, the Avoidance Trust’s expert offered at trial the quixotic viewpoint that “I don’t think that a manufacturer can reasonably intend for its equipment to remain in place for its useful life. I think that there is simply too much change for a manufacturer to have a realistic expectation that assets are going to remain in place for their useful life.” Tr. 3095:13-19.

In essence, the Avoidance Trust takes the position that no installer of an asset can satisfy the intent prong because it must know at the time of installation that unknowable events will occur in the future that might possibly require removal of the asset. This “known-unknowns” theory is not supported by any case law and fails to square with the many court decisions cited above in which courts — including the highest state courts of both Michigan and Ohio — have found manufacturing assets to be fixtures. The Avoidance Trust’s attempt to circumvent all of the law on the subject is premised upon what its expert conceded at trial was an attempt to “distinguish[] between GM’s intent and GM’s hope, desire, ideas, plans and goals.” Tr. 3229:12-22. But “intend” means “to have in mind as a purpose or goal: Plan.” *Merriam-Webster’s Collegiate Dictionary*, at 608 (10th ed.). It is no answer that, as Mr. Goesling put it at trial, “[l]ife is full of extraordinary events.” Tr. 3297:3-4. While that may be an interesting

commentary on fate,¹³⁶ it does not mean that people do not or should not make plans and intend things. See p. 341 above; see also Tr. 74:22-75:7 (Mr. Stevens: “We didn’t hope. We intended. We planned and our design processes were set up with the intent to keep assets in place. [W]e didn’t sit around hoping very often.”).

The Avoidance Trust’s “known-unknowns” theory is demonstrably at odds with fixture law. The company in *Cincinnati Insurance* “hoped,” “planned,” and “desired” to use its milling machine to manufacture automobile and aerospace components. When the market changed and it decided to focus on aerospace only, the machine was no longer needed and it was sold. Weigel Dep. 19:16-25. But that does not mean that the milling machine was not intended to remain in place at the time it was installed. See also *Wis. Dep’t of Rev. v. A. O. Smith Harvestore Prods., Inc.*, 240 N.W.2d 357, 362 (Wis. 1976) (for silos that were “repossessed” or that “had to be taken down because of urban expansion,” “the general inference [of intent] still prevails, because both of these situations are extraordinary events which would not be anticipated by the farmer at the time of annexation”); *Fifth Third*, 2011 WL 6929621, at *4 (“intent at the time the chattel is affixed” controls; “if the owner changes his or her mind later, the fixtures are not transformed back into chattel”).¹³⁷

Similarly, when the Josephs moved into their home in 1997 and proceeded to hang their mailbox, put up their custom window blinds, and install a refrigerator to match the kitchen cabinets, they did not anticipate having to declare bankruptcy 12 years later amid the Great

¹³⁶ Cf. *Holmes v. SIPC*, 503 U.S. 258, 287 (1992) (Scalia, J., concurring in the judgment) (“‘[F]or want of a nail, a kingdom was lost’ is a commentary on fate, not the statement of a major cause of action against a blacksmith.”).

¹³⁷ The Avoidance Trust argues (Pls. Pretrial Br. 52) that *Cincinnati Insurance* was wrongly decided, because, years after the case was decided, when the company switched its focus to aerospace, the milling machine was deemed no longer suited and was sold. But the error is not the decision in *Cincinnati Insurance*, it is the Avoidance Trust’s. When it was installed, the milling machine was *intended* to be permanent. That (along with annexation and adaptation) made it a fixture. That later events resulted in the machine being sold does not mean that it was not intended to be permanent at the time it was installed. See, e.g., *Joseph*, 450 B.R. at 694.

Recession and move out of their home after it was sold in a foreclosure sale. Still, the court held that any “evidence about what Debtors may have believed and intended” when they removed the articles “has no probative value” on “what Debtors believed and intended *several years earlier, when they affixed the disputed items to the [real estate].*” *In re Joseph*, 450 B.R. at 694 (emphasis added). *See also Winstrom v. C&M Conveyor*, 2014 WL 5321068, at *9 (permanence in the real-improvement-to-property context means “without regard to unforeseeable conditions”).

The Avoidance Trust’s “known-unknowns” theory is further belied by *Pal-O-Mar Bar*. There, the issue whether bar equipment constituted fixtures arose because the wife of the bar owner wanted to sell the bar after her husband died. *Pal-O-Mar Bar, IV, Inc. v. Badger Mutual Ins. Co.*, 2013 WL 6182640 (Mich. Ct. App. Nov. 26, 2013). Even death — a known-known — did not stop the bar equipment from having become fixtures, because it did not prevent the bar owner from having intended to install them permanently at the time he did. And in fact, by the time of the trial in this action, less than four years later, the bar assets that had been held to be fixtures in *Pal-O-Mar Bar* were nowhere to be seen and the bar had been transformed into a bakery. Deeds Direct ¶¶ 31-33; DX 1018.¹³⁸ This undermines the Avoidance Trust’s risible assertion (Pls. Pretrial Br. 52) that a billion-plus dollar GM manufacturing plant that took more than five years to plan and build could be more readily repurposed than a bar. Tr. 10:25-11:17, 21:23-22:13 (Stevens).

The unrebutted evidence at trial (discussed at Section VII.G) showed that Old GM actively took steps to predict “known-unknowns,” and designed its plants and equipment precisely to anticipate future issues. Old GM engaged in this advance planning specifically to avoid having to move its highly-integrated, fixed manufacturing equipment — assets that Old GM spent a fortune to purchase and install and that need to operate continuously to make cars on a mass-produced basis.

¹³⁸ Similarly, in *Grand Traverse* decided by the Michigan Court of Appeals two weeks ago, the court affirmed a summary judgment that a cell tower was a fixture, even though the lease provided that (unless agreed otherwise) the tower would be removed some 12 years after it was installed. 2017 WL 1908535, at *3. There, permanence was satisfied because the “tower would remain in place” until the “purpose to which the realty was devoted was accomplished.” *Id.*

(c) Misconstruing the significance of movement in the fixture analysis

Under the case law, what matters in fixture analysis is that an item “is not disassembled and moved *on a regular basis*.” *Cincinnati Ins.*, 166 F. Supp. 2d at 1181 (emphasis added); *see, e.g., W. Shore Servs.*, 2015 WL 4469666, at *2 (same); *Williams*, 2015 WL 3980517, at *4 (“the trial court erred when it determined that the choir risers were not fixtures”; moves were “infrequent” and “only accomplished through significant effort”); *Whitaker-Glessner*, 22 F.2d at 774 (that “some of the [canning] machinery could be and occasionally was removed to meet the exigencies of the business” did not mean they were not fixtures). At trial, the Avoidance Trust’s expert conceded that he was not aware of any items at issue in any of the three plants where the Representative Assets are located having moved on a regular basis. Tr. 3284:8-3285:14. This stood in stark contrast to the *Yoplait* case, where Mr. Goesling testified that the tanks used to make yogurt would regularly move inside the same plant as the plant’s needs changed. Tr. 3284:8-21.

The Avoidance Trust attempts to warp the concept that if an asset moves regularly it is not a fixture into a theory that if an asset can be moved, it is not a fixture. But as the courts have flatly held, “that it is possible to remove an item is not dispositive.” *W. Shore Servs., Inc.*, 2015 WL 4469666, at *2. Fixtures by definition start their lives as personalty that is then moved into location. The fact that a fixture may be moved at some later date as needs change does not mean that the asset was not a fixture when installed. *Cincinnati Insurance* proves the point.

So do many other decisions. The elevator rugs and entrance mats in *Colton* could of course be moved (quite easily) but were held to be fixtures. *Colton*, 255 N.W. at 434. The chairlifts in *Cliff’s Ridge* were bought second hand and could be “severed . . . and sold” but were held to be fixtures. 123 B.R. at 756, 759. It was also “possible . . . to disassemble and move the greenhouses” in *Tuinier*, but they too were held to be fixtures. 599 N.W.2d at 120. The same was true for the jetway in *Sondreal*: It could be “detached and removed” — indeed it had “wheels” — but was held to be a fixture. 2005 WL 599752, at *1, 3. The cell tower in *Grand*

Traverse could be removed by “unlatching [three] wires” — it was held to be a fixture. 2017 WL 1908535, at *2. And in *Laraway & Sons v. B&B Enters. & Envtl., LLC*, the Michigan Court of Appeals held that “three *houses*” that had been “mov[ed] . . . from one location to another location” were “fixtures” at the new location. 2008 WL 2813343, at *5 (Mich. Ct. App. July 22, 2008) (emphasis added). *See also Whitaker-Glessner*, 22 F.2d at 774 (fixtures “could be and occasionally [were] removed”); *Willis*, 90 F.2d at 541 (that “machinery was detachably connected” and “the parts were detachable from each other” is “not determinative”). The Avoidance Trust’s view flies in the face of all of this settled law.

Further, while Mr. Goesling’s “transfer” analysis is flawed *factually* in numerous respects (as discussed above at Section VIII.B), it is also fundamentally flawed as a *legal* matter because, as Mr. Goesling conceded, in his analysis “the underlying reason for the move is irrelevant.” Tr. 3286:16-3287:2; Tr. 3287:11-3288:3. Thus, albeit conceding that the GM bankruptcy and related plant closures were “extraordinary” (Tr. 3287:7-10), Mr. Goesling “treated the movement out of a closed plant the same as the movement out of an operating plant” in “reaching [his] assessment of GM’s intent.” Tr. 3288:22-3289:2. This view is illogical and refuted by the case law. *See Pflueger*, 134 F. at 31 (machines in iron mill were fixtures even though “the exigencies of the business might require a demolition or reconstruction of the mill”).

In addition to failing to take into account the underlying reason for a move and treating movement out a closed plant the same as if the plant had been operational, Mr. Goesling’s analysis failed to take into account how many times a type of asset was moved. Mr. Goesling stated his conclusion was “that if GM moved an asset out of one plant it means that GM intended at the time of installation that *all* similar assets were not being installed permanently.” Tr. 3287:22-3288:3 (emphasis added). *See also* Tr. 2973:14-18, 2985:24-2986:24, 3288:16-21. For this further reason as well, the Avoidance Trust’s views simply cannot be squared with governing law. *Compare, e.g., Williams*, 2015 WL 3980517, at *4 (because moves were “infrequent,” “the trial court erred when it determined that the choir risers were not fixtures”).

(d) Misapprehending the reason for, and significance of, modularity

The Avoidance Trust and its expert also attempted to seize on the fact that some of the Representative Assets are modular. But as the evidence at trial showed, modularity is necessary for *installation* — because an asset is so large or weighty, it must be transported in pieces from the supplier to be installed in a plant. *See* Section VIII.A.3 above; *see also* Tr. 3125:6-10 (Mr. Goesling’s concession in response to question from Court that conveyors could not be brought into the plants other than in manufactured sections); Tr. 3187:6-12 (Mr. Goesling: “I believe that the way they purchased the conveyor components was in part to facilitate the installation.”).

The Avoidance Trust’s idiosyncratic views as to the significance of modularity cannot be squared with the governing case law. Thus, for example, the greenhouses in *Tuinier* could be disassembled and moved — yet they were fixtures. 599 N.W.2d at 120. So too the milling machine in *Cincinnati Insurance*. 166 F. Supp. 2d at 1180-81. Likewise the jetway in *Sondreal*. 2005 WL 599752, at *1. In *State Employees Credit Union v. City of Lansing*, the tribunal specifically held, with respect to “heavy” partition walls that rested on “tracks,” that “modular design is not in itself determinative, since such design may only be for the purpose of simplifying the installation of a permanent fixture.” 1979 WL 2941, at *1, *4 (Mich. Tax Tribunal Mar. 16, 1979). And earlier this year, the Michigan Court of Appeals held that reception desks “transported in sections” and “reassembled at the job site,” that were “held in place by their size and weight,” were fixtures, though they could “be removed without causing damage.” *Brunt Assocs. Inc. v. Dep’t of Treasury*, --- N.W.2d ---, 2017 WL 30049 (Mich. Ct. App. Jan. 3, 2017).

(e) Illogical view as to secondary market that is contrary to law

The Avoidance Trust also has argued that there is a secondary market for certain of the assets, and that this supports its view that those assets are not fixtures. Again, these views do not square with governing law. As noted, the milling machine in *Cincinnati Insurance* was bought secondhand — *i.e.*, not only did a secondary market exist, but it was used to purchase the actual asset in question — yet it was held to be a fixture. 166 F. Supp. 2d at 1181-82. The chairlift in

Cliff's Ridge was secondhand too — it was held to be a fixture. 123 B.R. at 756. And no doubt there was a secondary market for the gas ranges in *Peninsular Stove* — and they were held to be fixtures. 226 N.W. at 226. Likewise the refrigerator that matched the cabinetry in *In re Joseph* — it was held to be a fixture. 450 B.R. at 697; *see* Levy Dep. 163:17-21 (Hilco auctioneer: whether “assets have been classified as fixtures under state real estate property law is not relevant to whether you can sell them”); Sofikitis Dep. 243:8-20 (regardless whether “a court has found that [an asset is] a fixture under a legal premise,” the CEO of Maynards would sell the asset “if [his] client told [him] to sell [it] and [he] wasn’t going to get in trouble for it”).

As a matter of common sense, even if the existence of a secondary market were ever relevant to intent, it would have no relevance here. The un rebutted evidence at trial was that, with a very few exceptions from closed plants, “[a]ll equipment installed in GM plants are conceived and purchased as new.” Tr. 139:10-17 (Stevens). Thus, from an engineering perspective, when GM installed assets, the secondary market was not on GM’s “to do list” and was “not part of the planning process at all.” Tr. 137:24-138:7 (Stevens). Because GM installed the fixed assets new as part of an integrated manufacturing process at enormous cost intending them to function for their useful lives, whatever limited secondary market there may have been for some of the assets was just not on the radar when GM decided to purchase and install its manufacturing machinery and equipment. Stevens Direct ¶ 67.

The case law is consistent with this view. If there is a large market for new goods, but a small secondary market, the existence of that secondary market would not be probative of intent. *See Wis. Dep’t of Revenue v. A. O. Smith Harvestore Prods., Inc.*, 240 N.W.2d 357, 362 (Wisc. 1976) (grain silos were fixtures despite secondary market in part because “the sale of used [silos] only amount[ed] to 3.6 percent of total [silo] sales”). By his own admission, however, Mr. Goesling did not perform any analysis comparing the size of the secondary markets for any asset to the overall installed asset base or to the size of the market for new such assets. Tr. 3303:11-3304:23.

Further, the assets in the secondary market that Mr. Goesling deemed to be similar to the Representative Assets were repeatedly shown at trial to be very dissimilar. *E.g.*, Tr. 3305:3-3310:12

(\$94,000 vision station deemed similar to \$2.76 million button-up and test conveyor); Tr. 3314:11-3315:18 (small broaching table that sold for \$2,000 deemed similar to \$1.5 million, 75-ton helical broaching machine).

And while the courts have found relevant the reasons that assets ended up on the secondary market,¹³⁹ the Avoidance Trust's expert did not find it relevant that the equipment was sold because the plant in which it was located was sold:

Q: And in response to a question from the Court you said that if an asset is sold from a closed factory it certainly indicates that the same asset, when installed in another factory, is not a fixture, right?

A: Yes.

Tr. 3301:13-18. For this reason too, the Avoidance Trust's secondary-market argument makes no sense.

Also misplaced is the Avoidance Trust's related argument (Pls. Pretrial Br. 62) that assets are non-fixtures because GM sold equipment out of two closed plants with separate bills of sale. As Michigan and Ohio courts have consistently held (*see* pp. 340-41, 350 above), and as this Court has confirmed (*see* pp. 341, 350 above), the fixture status of an asset is determined by Old GM's intent at the time of installation. Thus, as a legal (and equitable) matter, Old GM could not "unfixture" assets subject to the Term Lenders' prior fixture lien by selling them later to a third party as personalty. *See, e.g., Lord*, 93 N.W. at 1064 (transfer of cupola and crane by bill of sale was not evidence of annexor's intent at time of installation); *Joseph*, 450 B.R. at 694 (evidence about what debtors may have intended at later date "has no probative value in trying to show what Debtors believed and intended *several years earlier*, when they affixed the disputed items" (emphasis in original)); *Fifth Third*, 2011 WL 6929621, at *4 ("if the owner changes his or her mind later, the fixtures are not transformed back into chattel").

¹³⁹ *See A.O. Smith Harvestore Prods*, 240 N.W.2d at 362 (for silos that were "repossessed" or "which have had to be taken down because of urban expansion or the like, the general inference [of intent] still prevails, because both of these situations are extraordinary events which would not be anticipated by the farmer *at the time of annexation*.")) (emphasis added).

This settled rule also makes sense as a practical matter. A later third-party sale, particularly in the extraordinary context of a plant closure during bankruptcy, sheds no light on GM's intent at the time of installation. By analogy, in *Pflueger*, 134 F. at 31, iron mill machines were found to be fixtures though removable, irrespective that "the exigencies of the business might require a demolition or reconstruction of the mill." And there are several reasons — wholly unrelated to Old GM's historical intent — that favor transferring fixed assets by separate bill of sale.

For example, although fixtures are typically conveyed in the same instrument as the land, a prudent purchaser will require that all purchased equipment be covered by a bill of sale to make sure it has acquired ownership of the equipment and does not face a dispute later whether the equipment was a fixture (the precise question presented in this proceeding).¹⁴⁰ *Cf. Studley v. Ann Arbor Sav. Bank*, 70 N.W. 426, 428 (Mich. 1897) ("the giving of a chattel mortgage concurrently with a real-estate mortgage, as in this case, for the purpose of insuring against a possible contingency, does not conclusively fix its character as personal property"). Moreover, from the seller's perspective, characterizing machinery and equipment as personal property as opposed to a fixture can be motivated by tax considerations.¹⁴¹ In light of these incentives, any

¹⁴⁰ Indeed, Bankruptcy Code § 544(a)(3) recognizes that fixtures are customarily conveyed by personal property documentation by expressly excluding fixtures from avoidance by a trustee having the status of a bona fide purchaser of real property.

¹⁴¹ The sale of the closed manufacturing facility in Wilmington, Delaware pointed to by the Avoidance Trust illustrates the point. Pls. Pretrial Br. 54-55; Goesling Direct ¶ 348; PX333. Delaware imposes various taxes on the transfer of real property that the seller can avoid by transferring assets as personalty. *See, e.g.*, 30 Del. C. § 5402 (state real property transfer tax of up to 2 percent); 9 Del. C. § 8102 (transfer tax of up to 1.5 percent on real property transactions in unincorporated areas); 22 Del. C. § 1601 (municipal tax of up to 1.5 percent on real property transactions). It also bears noting that the Avoidance Trust itself categorized some 100 assets that appear on the Shreveport bill of sale as "fixtures" — including a significant amount of equipment in the Shreveport paint shop — thus further undermining the probity of latter-day bills of sale in discerning fixture status. Stevens Direct ¶¶ 117-18.

choice to sell assets as personalty in connection with a plant closure says absolutely nothing about the annexor's intent at the time those assets were installed.¹⁴²

(f) The Avoidance Trust's reliance upon property tax classifications is demonstrably wrong and contrary even to the Avoidance Trust's own position.

In his rebuttal report, Mr. Goesling stated his view was that the property tax classification of the assets made by GM was "extremely indicative of [its] intent" under the three-factor fixture test. Tr. 3270:6-12. At trial, however, Mr. Goesling expressed "regret" for having said so, because, "[t]o a certain extent," it is "wrong." Tr. 3270:6-3272:5. Wrong it is.

As an initial matter, Mr. Goesling's *own* fixture classifications do not jibe with his avowed reliance on Old GM's property tax classifications. For example, Mr. Goesling classified several of the Representative Assets as fixtures even though Old GM reported them as personal property for tax purposes. Goesling Report at 72, 78. Likewise, Mr. Goesling classified one Representative Asset as a non-fixture even though Old GM classified it as real property on its tax forms. *Id.* at 117. These are not isolated incidents: as Mr. Stevens showed in his rebuttal report and then testified at trial (Stevens Direct ¶ 165; Tr. 115:16-117:21), the Avoidance Trust's provisional list of 5,370 conceded fixtures — which Mr. Goesling created — includes over 2,200 assets classified by Old GM for tax purposes as *personal* property. At trial, Mr. Goesling did not and could not dispute the accuracy of Mr. Stevens' analysis. Tr. 3271:8-3272:16 (Goesling); *cf.*

¹⁴² The cases cited by the Avoidance Trust (Pls. Pretrial Br. 62) are not to the contrary. In fact, in *In re Szerwinski*, the court "[f]ound] the fact that the property was transferred by Bill of Sale is *immaterial* to its determination of whether the [property] is a chattel or a fixture." 467 B.R. 893, 904 (B.A.P. 6th Cir. 2012) (emphasis added). And in *Wireman v. Kenneco Distribs. Inc.*, although the court relied in part on the fact that a machine was sold by a bill of sale in determining that it was not a fixture, the court also noted that the physical attributes of the machine's installation (on top of four above-ground tanks whose removal was expressly contemplated due to legal requirements) did not indicate that it was a permanent installation. 661 N.E.2d 744 (Ohio 1996). In any event, whatever may be the case with respect to particular assets *after* a bill of sale, that does nothing to affect the fixture status of assets, like the Term Loan collateral, that were subject to a security interest granted *prior* thereto. The annexor's intent at the time of installation is immutable and controlling. *Lord*, 93 N.W. at 1064; *Joseph*, 450 B.R. at 694; *Fifth Third*, 2011 WL 6929621, at *4.

Johns-Manville, 88 F.2d at 522 (disregarding company's internal classifications where "the books also list as equipment items which admittedly are real estate").

Moreover, in lien disputes and elsewhere, courts have recognized that a company's property tax and accounting classifications are of limited, if any, use with respect to the three-part fixture test. In *Johns-Manville*, for example, the Sixth Circuit gave "little weight" under Michigan fixture law to a company's classification of assets for depreciation purposes. 88 F.2d at 522. Likewise, under Ohio fixture law, the Sixth Circuit again inferred no "great consequence" where a "company's books and its tax returns [had] listed [machinery] as personalty." *Willis*, 90 F.2d at 541; *see also Roberts v. Smithers*, 468 N.W.2d 32, *1 (Wis. Ct. App. 1990) (unpublished table decision) (whether assets "would have been included on income tax depreciation schedules" was "not the test"); *Vivid, Inc. v. Fiedler*, 497 N.W.2d 153, 158-59 (Wis. Ct. App. 1993), *aff'd as modified and remanded*, 512 N.W.2d 771 (Wis. 1994) (signs that "have never been taxed as real property" were nonetheless fixtures, because the "assessment and taxing officials' intent is not the intent of the owner of the property").¹⁴³

This general admonition applies with particular force here. As the evidence at trial showed (JX16 (2010 Personal Property Statement); DX107 (2009 Personal Property Statement); Tr. 3273:23-3276:3 (Goesling)), Michigan's prescribed tax form — the "Personal Property Statement" — requires manufacturers, in all cases and without discretion, to "report . . . all machinery and equipment" as "personal property" for tax purposes. This requirement expressly covers "manufacturing and fabricating," "crane and hoist," "painting," "computerized and

¹⁴³ The Avoidance Trust cited no published Michigan or Ohio decision to the contrary in its Pretrial Brief, and the unpublished authorities it did cite are distinguishable. *Controls Group* is not on point for the reasons stated above, *see* p. 339 n.125. The case that the Avoidance Trust had cited in its June 2016 preliminary brief, but dropped in its pretrial brief, *Tennine Corp. v. City of Grand Rapids*, is also not on point. In that tax case, a city merely sought to hold a taxpayer accountable for its prior tax classifications; the court even noted that "alternative findings could . . . have been supported." 2012 WL 1231937, at *2 (Mich. Ct. App. Apr. 12, 2012). *See also Pine Creek Farms*, 1997 WL 392767 (improperly applying Ohio tax test in negligence case); *Gen. Elec. Co.*, 2001 WL 1647158 (same).

mechanical handling,” and “CNC controlled manufacturing” machinery and equipment. JX16 at 8; DX107 at 8. The form also requires “machine foundations” to be treated as personal property, though even Mr. Goesling views them as fixtures. JX16 at 7; DX107 at 7; Tr. 3452:17-3453:15. The form’s instructions also refer taxpayers to a bulletin from Michigan’s State Tax Commission (with which Mr. Goesling was not familiar, *see* Tr. 3453:22-3454:11), which lists additional examples of machinery that must be reported as personal property: “Conveyor Systems,” “Gear hobbers, shapers and Testers,” “Mills,” “Presses,” “Manufacturing Equipment (Computerized) such as Machining centers . . . [and] Profilers,” “Painting Equipment such as Paint booths [and] Spray equipment,” “Bridge Cranes and Hoists,” and “Robotics.” JX16 at 8; DX107 at 8; DX108 at 23, 25, 27, 32, 33, 37. In short, as Mr. Goesling was compelled to concede at trial (Tr. 3273:19-3275:22; 3282:12-3283:25), the very types of machinery and equipment at issue here were *required* to be reported as personal property without regard to the three-factor test.¹⁴⁴

Ohio law is likewise clear on this point. As explained above, it defines all “tangible personal property that has become *permanently attached or affixed* to the land or to a building, structure, or improvement, and that primarily benefits the business conducted by the occupant on the premises and not the realty” as “business fixtures,” recognizing that the assets are “fixtures” but

¹⁴⁴ As noted in the text, the Avoidance Trust’s expert conceded that “[u]ltimately” in making their tax classifications the GM accountants were “following a form,” not engaging in a “rigorous application of Michigan’s three-part test.” Tr. 3273:12-22. And Mr. Goesling conceded that GM had a financial incentive to report its assets as personal property in Michigan and Ohio. Tr. 3457:13-3458:21. Nevertheless, the Avoidance Trust at trial played a snippet of deposition testimony of old GM accountant Raymond Fulcher, in a misleading attempt to suggest otherwise. The salient portion of Mr. Fulcher’s deposition was then played on cross-examination, where he acknowledged that: “[o]ur focus is always on personal property tax compliance and the impact there,” and on following the “form questions or form positions,” whereas the actual “legal definition of fixture” is “not something we even look up.” Tr. 3196:2-16; Fulcher Dep. 99:5-100:2; *see also* Niszczyk Dep. 101:1-102:17 (GM personnel did not apply the three-part fixture test when classifying assets for accounting purposes); Sofikitis Dep. 143:1-9 (Maynards witness was not familiar “with state real estate law as to what constitutes a fixture” and “never analyzed specifically whether particular assets were fixtures under Michigan real estate law”); Levy Dep. Tr. 163:17-21 (whether assets are “classified as fixtures under state real estate property law is not relevant to whether you can sell them”).

nonetheless will be treated as something else for tax purposes. Ohio Rev. Code Ann. § 5701.03(B) (emphasis added). At trial, the Avoidance Trust's expert conceded that he was not aware that there was a definition in Ohio of something called a business fixture. Tr. 3284:3-6. Old GM's tax classifications are neither surprising nor informative of its intent in light of these requirements.¹⁴⁵

**(g) The Avoidance Trust wrongly posits that lease provisions
between GM and third parties would affect fixture status.**

The Avoidance Trust argues that two of the stamping presses (the AA Transfer Press (Asset 32) and the B3-5 Transfer Press (Asset 33)) are not fixtures because they became the subject of "sale/leaseback" transactions *after* they were installed. Pls. Pretrial Br. 60-62; *see* Tr. 1115:21-1116:6 (construction for press began "around 2000"; leases executed in 2003); Miller Direct ¶ 68 (LDT presses "would have already been specified by" the June 30, 2000 groundbreaking at LDT, three years before the leases were entered into).

That claim is untenable. Old GM's manufacturing engineers installed presses unaware of and without consideration of after-the-fact lease terms. Tr. 1115:7-15 (Miller); Miller Direct ¶ 66. In fact, the Term Lenders' expert on the stamping assets, Max Miller, a former plant manager of several stamping facilities, "didn't even know which [presses] were leased" at his plants. Tr. 1116:24-1117:5. GM's stamping presses were operated in place for their useful lives whether they were leased, financed, or owned outright. Miller Direct ¶ 67. No lessor ever came back to repossess a leased stamping press, nor would GM permit it. Tr. 1116:24-1117:20

¹⁴⁵ Indeed, the tax forms and accompanying bulletin require entire categories of assets to be reported as personal property, even where Michigan courts have deemed assets within those categories to be fixtures. For example, as noted, milling machines controlled by computerized controls must be reported as personal property for tax purposes (DX108 at 32) — notwithstanding *Cincinnati Insurance*, where "a milling machine" which had "electronic controls" was held to be a fixture. 166 F. Supp. 2d at 1174. Likewise, the tax forms require taxpayers to report "ski lifts" as personal property (JX16 at 8; DX107 at 8) — notwithstanding *Cliff's Ridge*, which held a ski lift was a fixture under the three-part fixture test. 123 B.R. at 759-60. And even in tax cases, when the question of "intent" is actually *litigated*, the leading authorities apply the three-factor test without regard to the tax forms. *See, e.g., Mich. Nat'l Bank*, 293 N.W.2d at 627; *Tuinier*, 599 N.W.2d at 119.

(Miller); Miller Direct ¶¶ 69.¹⁴⁶ And indeed, there is no indication that Old GM ever failed to exercise its right at the end of the lease term to repurchase a leased press at then-current fair market value and allow an asset so integral to its operations to be removed.¹⁴⁷

Nothing in the language of the leases, entered into as a means of raising capital, can change these facts. The case law recognizes that, generally, private contracts do not control whether an asset is a fixture as to third parties. *See, e.g., Wood Hydraulic Hoist & Body Co. v. Norton*, 257 N.W. 836, 838 (Mich. 1934) (“An article annexed to a freehold may remain personal property as to some parties, and become a fixture as to others.”). The rule applies with particular force where, as here, the asset “was so attached to the building that it could not be removed without material injury thereto.” *Woodliff v. Citizens’ Bldg. & Realty Co.*, 215 N.W. 343, 344 (Mich. 1927); *see Harris v. Hackley*, 86 N.W. 389, 390 (Mich. 1901) (private agreements do not control where “the attachment to the real estate is of such a nature that [the asset] could not be removed without material injury to the remaining property” or “the claims of a bona fide purchaser are involved”).¹⁴⁸ A stamping press cannot be removed from a stamping

¹⁴⁶ This case is thus different from *Jarvis* (Pls. Pretrial Br. 43, 60), where, among other things, a lease agreement provided that hog farrowing and gestation buildings could be removed in the event of default, and “the testimony presented at the Trial revealed that it is the regular practice of [the lender] to exercise its right of repossession in situations involving similar structures.” 310 B.R. at 337. *Cf. Andover Twp. Bd. of Trustees v. O’Brien*, 823 N.E.2d 524, 526, 528 (Ohio Ct. App. 2004) (“deed restrictions” barring installation of “decks, room enclosures, and roof-overs” at campground “have no bearing on whether personal property has become a fixture” because “the restrictions are not enforced”).

¹⁴⁷ Indeed, a significant portion of the normal work of plaintiff’s and defendants’ appraisal experts is performing appraisals in connection with leases to determine such repurchase prices. *See* Chrappa Direct ¶¶ 9, 14; Goesling Direct ¶¶ 5, 6.

¹⁴⁸ Even the cases cited by the Avoidance Trust (Pls. Pretrial Br. 60) recognize that an “agreement between the parties” is not “dispositive” as to the issue of annexor’s intent *vis-à-vis* third parties, which depends on “objective considerations.” *Jarvis*, 310 B.R. at 336 (contract between debtor and lessor not dispositive of debtor’s intent *vis-à-vis* prior lender); *see also Voight*, 115 F.2d at 735 (granting arguendo that private contract “does not control if the manner of attachment is such that removal will entail substantial injury to the freehold”). And *Booth v. Oliver*, 35 N.W. 793 (Mich. 1888), also cited by the Avoidance Trust, is totally inapposite. There, a lease provided that the lessor would have a lien on all “improvements” in a planing-mill,

facility without cutting a hole in the building, creating a huge hole in the floor, and dedicating four to six months of engineering, planning, and construction to remediate the area. Tr. 1043:9-1046:4; Miller Direct ¶¶ 45, 46, 81, 93, 95, 115, 129, 134, 142.¹⁴⁹

More illogical is the Avoidance Trust's claim (Pls. Pretrial Br. 61) that because two presses were subject to sale/leaseback transactions, all other presses *not* financed in this manner are personal property as well. As noted, private contracts such as leases do not control — even as to the particular leased asset — whether the asset is a fixture vis-à-vis third parties without notice. A *fortiori*, they do not control with respect to assets that are not even subject to the lease. A *fortissimo*, any attempt to parlay the leases for two stamping presses into some negative inference on intent for various other types of non-leased assets like conveyors and robots fails.

Separately, however, the lease agreements for the two presses barred Old GM from granting any lien on those assets — fixtures or not. *See* PX220 at 12 (§ 6); PX283 at 12 (§ 6). As a result, the Term Lenders have conceded that they do not have a lien on these two particular assets under the Term Loan Collateral Agreement even though they are plainly fixtures installed at LDT. Nevertheless, per the Court's December 2, 2016 Scheduling Order, the parties agreed that the Court should decide whether these assets are fixtures so the principles established with respect to these two presses can be extended to others that are not subject to lease.

whereas the lessee would be permitted to remove all “machinery” from the premises. *Id.* at 793. The parties to the lease further agreed that all the “machinery” would be “considered and treated by both [lessor] and [lessee] as chattel property” (*i.e.*, not “improvements”). When the lessee (and its assignee) later failed to pay rent, the lessor seized the machinery, and argued that “the manner of the affixing of the machinery to the building . . . gave the said machinery the appearance of realty.” *Id.* at 795. The Michigan Supreme Court rejected the lessor's claim, noting that the “parties to the lease,” including the lessor, had “expressly stipulated in the instrument that all machinery put in by the lessee should be treated as ‘chattel’ or personal property.” *Id.* Thus, *Booth* merely held that the contractual “rights of [the lessor] under [the] lease cannot be enlarged by the method of affixing the property in question.” *Id.*

¹⁴⁹ The parties to the lease contracts expressly acknowledged the possibility that a court would disregard their private agreement to treat the stamping presses as personalty. In connection with the leases, the lessor caused fixture filings to be filed with respect to the leased presses. *See* PX 122.

C. The Representative Assets at GM Lansing Delta Township (and other stamping assets) are fixtures.

1. LDT Stamping Assets (and Other Stamping Assets)

Applying the law to the evidence at trial as set forth in the Proposed Findings of Fact (Sections VII and IX.A.1), the stamping assets are fixtures:

Assets 32 & 33: AA & B3-5 Transfer Presses

Attachment. The parties agree attachment is satisfied. These assets are physically attached to the realty. Large steel rods and nuts connect the bed of each press to the foundation pillars, which are anchored to bedrock.

Adaptation. Each press is adapted to the LDT plant. It is used by GM to make auto body parts, a necessary first step in auto production. Mr. Goesling conceded that each Representative Asset was “at least a useful adjunct to the realty, GM’s realty, considering the purposes for which GM’s realty is devoted” when it was installed. Tr. 3201:5-3205:14. Further, the LDT building was heavily adapted to accommodate the presses by excavation of custom pits, installation of custom foundations, routing of utility piping, and purpose-design of the building height and floor spacing.

Intent. Because these assets were owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. *See* p. 340 above. GM’s intent for permanence at the time of installation is also shown by the objective facts such as the degree of attachment and adaptation of the realty to the presses; that GM designed the building specifically to accommodate each press in a particular location; the presses’ size and weight; that they are too large to be removed without cutting holes in the walls; that removal would take months (if not years), significantly disrupt GM’s operations, and require expensive remediation to the area where the press sat before it would be useable again; and that the pits and foundations — which Mr. Goesling agrees are fixtures, Tr. 3242:13-20 — would otherwise have no purpose.

Asset 31: Danly Press

Attachment. The parties agree attachment is satisfied. The Danly Press is physically attached to the realty. Large steel rods and nuts connect the bed of the press to the foundation pillars, which are anchored to bedrock.

Adaptation. The Danly Press is adapted to the LDT plant. It is used to validate dies before they are put into production presses, thus allowing those presses to meet their capacity requirements without stopping to test dies. Mr. Goesling conceded that each Representative Asset was “at least a useful adjunct to the realty, GM’s realty, considering the purposes for which GM’s realty is devoted” when it was installed. Tr. 3201:5-3205:14. And the LDT building was heavily adapted to accommodate the press by the excavation of a custom pit, installation of a custom foundation, routing of utility piping, and purpose-design of the building height and floor spacing.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. GM’s intent for permanence at the time of installation is also shown by the objective facts such as the degree of attachment and adaptation of the realty to the press; that GM adapted the building specifically to accommodate this press in a particular location; the size and weight of the press and that it is too large to be removed without cutting holes in the walls; that removal would take months, significantly disrupt GM’s operations, and require expensive remediation to the area where the press sat before it would be useable again; and that the pit and foundation — which Mr. Goesling agrees are fixtures, Tr. 3242:13-20 — would otherwise have no purpose.

GM’s single prior movement of the press out of Indiana because it had become obsolete for use as a production press at that plant and was replaced with a press more suitable for the same purpose at that location does not alter this conclusion. See *Cincinnati Insurance*, 166 F. Supp. 2d at 1180-81 (milling machine was fixture even though moved after it became obsolete); Weigel Dep.19:16-20:9 (milling machine from *Cincinnati Insurance* was replaced because it “wasn’t in our profile of what we used it anymore for” because the company “mainly became aerospace” and they “were looking for new machines that were more suited for what we did”).

Asset 30: TP-14 Transfer Press

Attachment. The parties agree attachment is satisfied. The TP-14 Transfer Press was physically attached to the realty. Large steel rods and nuts connected the bed of the press to the foundation pillars, which were anchored to bedrock.

Adaptation. The TP-14 Transfer Press was adapted to the Mansfield Stamping plant. It was used by GM to make auto body parts, a necessary first step in auto manufacturing. Mr. Goesling conceded that each Representative Asset was “at least a useful adjunct to the realty, GM’s realty, considering the purposes for which GM’s realty is devoted” when it was installed. Tr. 3201:5-3205:14. And the Mansfield Stamping building was heavily adapted to accommodate the press by the excavation of a custom pit, installation of a custom foundation, routing of utility piping, and purpose-design of the building height and floor spacing.

While, as discussed, in this lien context Ohio and Michigan law are to the same effect, even if (as the Avoidance Trust argues) the Ohio *tax* test were applicable, it would be met here. The Mansfield Stamping facility had no other use in light of the equipment installed in the facility and the adaptation of the facility to that equipment — as confirmed by the new owner’s decision to demolish the buildings.

Intent. GM’s intent to permanently install the asset was shown at trial based on the objective facts such as the degree of attachment and adaptation of the realty to the press; that GM designed and adapted a building specifically to accommodate this press in a particular location; the size and weight of the press; that removing the press took months and would have taken longer if Mansfield Stamping had been operational; that if Mansfield Stamping had been operational, the press could not have been removed without impairing Mansfield Stamping’s production capacity and requiring expensive remediation to the area where the press sat before it would be useable again; and the fact that the pit and foundation — which Mr. Goesling agrees are fixtures, Tr. 3242:13-20 — would otherwise have no purpose.

Asset 29: GG-1 Transfer Press

Attachment. The parties agree attachment is satisfied. The GG-1 Transfer Press was physically attached to the realty. Large steel rods and nuts connected the bed of the press to the foundation pillars, which were anchored to bedrock.

Adaptation. The GG-1 Transfer Press was adapted to the Grand Rapids Stamping plant. It was used by GM to make body parts for vehicles, a necessary first step in auto manufacturing. Mr. Goesling conceded that each Representative Asset was “at least a useful adjunct to the realty, GM’s realty, considering the purposes for which GM’s realty is devoted” when it was installed. Tr. 3201:5-3205:14. And the building at Grand Rapids Stamping was heavily adapted to accommodate the press by the excavation of a custom pit, installation of a custom foundation, routing of utility piping, and purpose-design of the building height and floor spacing.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. GM’s intent for permanence at the time of installation is also shown by the objective facts such as the degree of attachment and adaptation of the realty to the press; that GM designed and adapted a building specifically to accommodate this press in a particular location; the size and weight of the press; that removal took months and would have taken longer if Grand Rapids Stamping had been operational; that if Grand Rapids Stamping had been operational, the press could not have been removed without impairing Grand Rapids Stamping’s production capacity and requiring expensive remediation to the area where the press sat before it would be useable again; and that the pit and foundation — which Mr. Goesling agrees are fixtures, Tr. 3242:13-20 — would otherwise have no purpose.

Asset 10: Opticell Robotic System

Attachment. The parties agree attachment is satisfied. The Opticell Robotic System was physically attached to the realty. All components of the Opticell Robotic System are attached to the building’s floor by bolts, either directly or indirectly through the RTU.

Adaptation. The Opticell Robotic System is adapted to GM's use of LDT. It is used to test a sampling of stamped body parts for quality control purposes — a necessary step in the production process at LDT. Moreover, the Opticell Robotic System is adapted to the facility at LDT by the inclusion of various safety mechanisms customized to the needs of the Opticell system itself and the LDT facility and by the routing of utility connections to the location of the asset. Mr. Goesling conceded that each Representative Asset was “at least a useful adjunct to the realty, GM's realty, considering the purposes for which GM's realty is devoted” when it was installed. Tr. 3201:5-3205:14.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. GM's intent for permanence at the time of installation is also shown by the objective facts such as the degree of attachment and adaptation of the asset to the realty; that the Opticell Robotic System plays a critical quality control role in the stamping process that would need to be immediately replaced if the asset were removed; that the Opticell Robotic System was installed with significant safety devices rather than temporary ones; and that the system is flexible enough to be able to measure every type of part produced by any of the stamping presses at LDT.

GM's single movement of this asset during its 10 years of service, in response to an unexpected expansion of LDT's body shop, means nothing as to fixture status. *See* Section VIII.B above.

2. LDT Body Shop Assets

Applying the law to the evidence at trial as set forth in the Proposed Findings of Fact (Sections VII and IX.A.2), the body shop assets are fixtures:

Asset 12: Overhead Body Shop Welding Robot

Attachment. The parties agree attachment is satisfied. The Robot is physically attached to the realty. It is bolted to a mezzanine which is extensively bolted to the plant floor.

Adaptation. The Robot is adapted to the LDT plant. It is used in the production of vehicles for which the plant was specifically designed and constructed. The plant is also adapted to the Robot through the construction of a special purpose mezzanine to hold the Robot in the position required for it to perform its function. Mr. Goesling conceded that each Representative Asset was “at least a useful adjunct to the realty, GM’s realty, considering the purposes for which GM’s realty is devoted” when it was installed. Tr. 3201:5-3205:14.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. *See* p. 340 above. GM’s intent for permanence at the time of installation is also shown by the objective facts such as that the Robot is a critical component of an over 10,000 foot framing line that is an integral part of the manufacturing process at this \$1.5 billion facility and was installed on a purpose-built mezzanine to permit it to perform this critical function. This degree of adaptation is strong evidence of intent. In addition, the asset was designed and installed in accordance with GM’s lean manufacturing principles, has never been moved, and has operated in place for over a decade.

Asset 17: Overhead Power & Free Conveyor

Attachment. The parties agree attachment is satisfied. The P&F Conveyor is physically attached to the realty. It is connected by over 1,200 bolts to the steel I-beam structure, and at over 100 connection points to the electrical system and to safety systems.

Adaptation. The Conveyor is adapted to the LDT plant, and the LDT plant is adapted to it. Structural components of the building were designed to withstand the stress placed on them by the P&F Conveyor, its drives, mezzanine, and white steel. And the P&F Conveyor is a necessary part of the body assembly operations at LDT. Mr. Goesling conceded that each Representative Asset was “at least a useful adjunct to the realty, GM’s realty, considering the purposes for which GM’s realty is devoted” when it was installed. Tr. 3201:5-3205:14.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. GM’s intent for

permanence at the time of installation can also be inferred by its extraordinary degree of attachment and adaptation: it is enormous (2,000 feet long and weighs 400,000 pounds), it is extensively connected to the realty, and it plays an essential role in the functioning of LDT. Intent for permanence is also readily inferable from Mr. Goesling's assessment that its scrap value upon removal is a few thousand dollars — a tiny fraction of the \$1.6 *million* GM spent to install it. It would make no sense to build an elaborate system to install this expensive and critical asset intending for it to be removed before the end of its useful life.

Asset 13: Weld Bus Ducts

Attachment. The parties agree attachment is satisfied. The Weld Bus Ducts are physically attached to the roof trusses in over 1,000 places, using hangers, nuts, bolts, and clips.

Adaptation. The Weld Bus Ducts are adapted to the LDT plant. The layout of the Ducts was designed to align with the layout of the framing line and subassembly cell configuration in the body shop and provide the electrical power necessary for those operations. Mr. Goesling conceded that each Representative Asset was “at least a useful adjunct to the realty, GM’s realty, considering the purposes for which GM’s realty is devoted” when it was installed. Tr. 3201:5-3205:14.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. GM’s intent for permanence at the time of installation can also be inferred from its degree of attachment and adaptation. The Bus Ducts stretch almost two miles in a specially engineered layout; are connected to the roof at over 1,000 points; are designed to be used in place with different body styles, models, and welding equipment in the future; and are essential to the functioning of the LDT body shop.

Asset 19: Full Body Coordinate Measurement Machine (“CMM”)

Attachment. The CMM was physically attached to the realty. It was installed in a specially designed and customized pit, and affixed to its foundation with bolts and screws.

Adaptation. The CMM was adapted to the LDT plant. It was necessary to conduct precise quality measurements before welded auto bodies were sent to the paint shop. Mr. Goesling conceded that each Representative Asset was “at least a useful adjunct to the realty, GM’s realty, considering the purposes for which GM’s realty is devoted” when it was installed. Tr. 3201:5-3205:14. The plant was also adapted to the CMM as shown by the construction of a customized temperature controlled room for the CMM.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. Moreover, GM’s intent to install the CMM for its useful life can be inferred from its degree of attachment and adaptation — the CMM was installed in a specially-built pit and in a specially-built temperature-controlled room, and at the time of installation the CMM was necessary for quality control that is key to manufacturing at LDT. Intent for permanence is also evident from the other objective facts, such as that the CMM was flexible and programmable to quickly accommodate model changes and that it was an integrated part of the manufacturing process.

The CMM’s status as a fixture is not affected by the fact that the CMM was removed after technological advances made it obsolete. *See* pp. 340-41 above.

Asset 16: Skid Conveyor

Attachment. The parties agree attachment is satisfied. The Skid Conveyor is attached to a mezzanine by approximately 600 bolts and screws. The mezzanine is connected to approximately 40 white steel and building trusses with over 400 bolts.

Adaptation. The Skid Conveyor is adapted to the LDT plant, and the plant is adapted to it. The Conveyor follows a custom route, utilizing turntables and elevators, to fit the processes in place at LDT. The building also has a customized overhead platform, with cutout areas for the elevator system, to hold the Conveyor. Mr. Goesling conceded that each Representative Asset was “at least a useful adjunct to the realty, GM’s realty, considering the purposes for which GM’s realty is devoted” when it was installed. Tr. 3201:5-3205:14.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. Moreover, GM's intent to install the Conveyor for its useful life can be inferred from its degree of attachment, with hundreds of bolts connecting it to a customized mezzanine structure, and its degree of adaptation, serving as an essential link in the manufacturing process by carrying 1,000-pound vehicle bodies over a distance of 1,000 feet in LDT. And again, intent for permanence is also readily inferable from Mr. Goesling's assessment that its scrap value upon removal is a few thousand dollars — compared to the \$2.5 *million* GM spent to install it. This too shows it was intended to remain in place for its useful life.

3. LDT Paint Shop

Applying the law to the evidence at trial as set forth in the Proposed Findings of Fact (Sections VII and IX.A.3), the paint assets are fixtures:

Asset 6: ELPO Oven Conveyor

Attachment. The parties agree attachment is satisfied. The ELPO Oven Conveyor is bolted with thousands of bolts to the concrete floor, to structural steel beams and columns, and to the ELPO oven (which is attached to the building and conceded to be a fixture). The asset is also connected to electrical cable trays and wiring via hard conduit that was routed to serve the asset.

Adaptation. The ELPO Oven Conveyor is adapted to the LDT plant. It is used in the production of vehicles for which the plant was specifically designed and constructed. Mr. Goesling conceded that each Representative Asset was “at least a useful adjunct to the realty, GM's realty, considering the purposes for which GM's realty is devoted” when it was installed. Tr. 3201:5-3205:14. The plant is also adapted to the Conveyor, in that the three-story paint shop was constructed to support this three-story asset and to accommodate its inclines, declines, twists, and turns. In addition, as noted, GM routed utilities for this asset via hard conduit.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. *See* p. 340

above. Moreover, GM's intent to install the Conveyor for its useful life can be inferred from the degree of attachment and adaptation, including the objective evidence that this enormous 40,000-pound Conveyor was installed with thousands of bolts in a paint shop that was purpose-built for it, and that the asset was connected to utilities by hard conduit. In addition, the objective facts show that the ELPO Oven Conveyor was critical to the function of the ELPO Process (an integral part of the paint-shop process at this \$1.5 billion facility), has never been moved, could not be removed without disrupting the paint process at LDT (and, by extension, the entire manufacturing process at LDT), and has operated in place for over 10 years.

Asset 4: ELPO Waste System

The Avoidance Trust concedes that the ELPO Waste System is a fixture. In addition, the evidence set forth in the Findings of Fact, including pages 205-06, supports the finding that the ELPO Waste System is a fixture, because it meets the three-part fixture test.

Asset 5: Paint Circulation Electrical System

Attachment. The parties agree attachment is satisfied. The asset is bolted with anchor bolts to a specially poured concrete base; it is also connected to thousands of feet of conduit that was embedded in the concrete floor, routed through the asset's concrete base, and routed from the asset to the paint mix room.

Adaptation. The Paint Circulation Electrical System is adapted to the LDT plant. It is used in the production of vehicles for which the plant was specifically designed and constructed; indeed, each component of the system was specially selected to provide power to a particular asset in the paint mix room. Mr. Goesling conceded that each Representative Asset was "at least a useful adjunct to the realty, GM's realty, considering the purposes for which GM's realty is devoted" when it was installed. Tr. 3201:5-3205:14. The plant is also adapted to the Paint Circulation Electrical System, in that GM constructed concrete pads to protect the asset from potential floods or spills, routed power to the asset through the concrete floor, routed power from the asset via hard conduit, built an interior cinder block wall between the Paint Circulation Electrical System and the paint mix room, and

constructed a blast-relief exterior wall in the paint mix room to prevent any explosion from blowing inward and destroying the Paint Circulation Electrical System.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. Moreover, GM's intent to install the Paint Circulation Electrical System for its useful life can be inferred from the degree of attachment and adaptation, including the objective evidence that this customized asset was installed with anchor bolts on a concrete base that was purpose-built for it behind a blast-proof cinder block wall. In addition, the objective facts show that this asset was critical to the function of the paint mix room (a conceded fixture that is integral to the paint-shop process at this \$1.5 billion facility), was connected to utilities by hard conduit, could not be removed without disrupting the paint process at LDT (and, by extension, the entire manufacturing process at LDT), will be used it wears out (which will occur before the assets it serves wear out), and has operated in place for over 10 years.

Asset 9: Top-Coat Bells

Attachment. The parties agree attachment is satisfied. Each Top-Coat Bell forms a part of the wall of the top-coat spray booth, an agreed-upon fixture, and each applicator cabinet is rigidly anchored to the concrete floor by numerous anchor bolts. GM also routed hard conduit power connections to supply electricity to the Top-Coat Bells.

Adaptation. The Top-Coat Bells are adapted to the LDT plant. They are used in the production of vehicles for which the plant was specifically designed and constructed. Mr. Goesling conceded that each Representative Asset was "at least a useful adjunct to the realty, GM's realty, considering the purposes for which GM's realty is devoted" when it was installed. Tr. 3201:5-3205:14. The plant is also adapted to the Top-Coat Bells, in that GM designed the top-coat spray booth, an agreed-upon fixture, for the installation of the Top-Coat Bells. GM also routed hard conduit power connections to supply electricity to the Top-Coat Bells.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. Moreover, GM's intent to install the Top-Coat Bells for their useful life can be inferred from the degree of attachment and adaptation, including the objective evidence that the Bells were installed to form part of the wall of the top-coat spray booth (an agreed-upon fixture). In addition, the objective facts show that the Top-Coat Bells were critical to the function of the spray application process (an integral part of the paint-shop process at this \$1.5 billion facility); were connected to utilities by hard conduit, have never been moved; could not be removed without leaving substantial holes in the walls of the top-coat spray booth and disrupting the paint process, and, by extension, the entire manufacturing process at LDT; and have operated in place for over 10 years.¹⁵⁰

Asset 7: Top-Coat Software

At trial, the Court asked whether there were “any cases that have held that software is a fixture.” Tr. 3342:16-18. Research has not uncovered any. Mostly, this is a function of the fixture test being old, and software — particularly the kind of industrial software that controls machines of the type here — being (relatively) new.

But while there is no fixture case addressing software either way, the UCC does so provide. The Top-Coat Software is “a computer program embedded in goods.” M.C.L.A. § 440.9102(1)(qq). It was installed contemporaneously with the many fixed assets that it monitors and controls, is functionally a component of those assets, sends and receives signals from those assets, and has never been removed. The UCC expressly acknowledges that a “computer program

¹⁵⁰ As noted (p. 212, n.78), GM keeps spare end-of-arm applicators for the Top-Coat Bells. That does not affect the fixture status of the Top-Coat Bells. Indeed, under Michigan law, even those spare parts could be fixtures — to say nothing of the complex, integrated Top-Coat Bells themselves. *See Detroit Tr. Co. v. Detroit City Serv. Co.*, 247 N.W. 76, 81 (Mich. 1933) (“The ammonia compressors, aerating equipment, boilers, motors and refrigerating units, freezing tanks, air compressors, condensers, engines, oil tanks and pumps, platform scales, scorching machines, and other machinery for manufacturing ice are fixtures. *We believe that this should also include spare motors, parts, machinery, equipment, etc., which constitute replacements specially adapted to the full enjoyment of the realty.*”) (emphasis added and internal citations omitted).

embedded in goods” is itself a “good” that can be subject to a security interest. *Id.* And where, as here, that “good[] . . . ha[s] become so related to particular real property that an interest in [it] arises under real property law,” it is a fixture subject to a security interest in fixtures. *Id.* § 440.9102(1)(oo).

The closely analogous decision of the Michigan federal court three years ago in *Winstrom*, 2014 WL 5321068, is to the same effect. *Winstrom* held that an entire conveyor system — including its “computer programs” — was an improvement to real property under Michigan law. Reasoning that the “computer system interfaces with [a] scheduling system to direct the [transfer] cars across the facility, so as to control machinery input and output,” the court held that the “conveyor system [was] connected to the land and [was] integral to the daily functioning of the facility.” *Winstrom*, 2014 WL 5321068, at *8. Like the computer programs in *Winstrom*, the Top-Coat Software makes fixed assets function as they were intended to; it is, for all intents and purposes, the key to the system. *See also Detroit Trust Co. v. Detroit City Serv. Co.*, 247 N.W. 76, 81 (Mich. 1933) (“a key to the house carried in one’s vest pocket is a fixture”).

The same conclusion applies here. The Top-Coat Software at LDT, like the software in *Winstrom*, “interfaces” with the fixtures that comprise the Top-Coat Paint room and system to make them function. It is an integral part of those assets, just as the software that controls the AA-Schuler press is an integral part of that asset. And like the AA-Schuler press, an output of the Top-Coat Software is presented on a fixed control panel adjacent to the machines that it controls. That it is capitalized separately as a line item on eFAST is an artifact of GM’s accounting; indeed, if the software had been capitalized as part of the machines that it controls and monitors, there would be no debate over whether the software was part of those physical assets.

Attachment. As noted (pp. 336-37), the Michigan Supreme Court has held that attachment is satisfied for “articles which are not themselves actually or directly annexed to the realty” but have become “part of, or accessory to, articles which are so annexed.” *Wayne Ct. v. Britton Trust*, 563 N.W.2d at 680. Here, because the Top-Coat Software (1) is “part of, or accessory to,” multiple assets that are fixtures; (2) is necessary to ensure the efficient operation

of those fixtures as part of an integrated system; and (3) if removed would impair the value of the software and the machines it monitors and controls (machines that are themselves fixtures), the Top-Coat Software meets the standard of constructive annexation under Michigan law.

Adaptation. The Top-Coat Software is adapted to the LDT plant. It was custom designed to monitor and control machinery used in the production of vehicles for which the plant was specifically designed and constructed.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. In addition, GM's intent to install the Top-Coat Software for its useful life can be inferred from the objective evidence: the Software is critical to the function of the spray application process (an integral part of the paint-shop process at this \$1.5 billion facility), is highly customized to operate with the fixed paint assets at LDT, is essentially part of the installed cost of other assets that satisfy the three-part fixture test, has never been moved, could not be removed without disrupting the paint process at LDT (and, by extension, the entire manufacturing process at LDT), and has operated in place for over 10 years.

Asset 8: General Assembly Paint Mix Room

Attachment. The parties agree attachment is satisfied. The GA Paint Mix Room is anchored to the concrete floor with bolts and connected to the plant's electrical system with hard conduits. The GA Paint Mix Room is also connected to the plant's compressed air system by steel strut and hard piping and to the facility's exhaust and ventilation systems by hard ducting.

Adaptation. The GA Paint Mix Room is adapted to the LDT plant. It is used in the production of vehicles for which the plant was specifically designed and constructed; indeed, GM could not legally produce vehicles without installing an asset like this. Mr. Goesling conceded that each Representative Asset was "at least a useful adjunct to the realty, GM's realty, considering the purposes for which GM's realty is devoted" when it was installed. Tr. 3201:5-3205:14. GM also

routed electrical connections to this asset via hard conduit, compressed air connections via steel strut and hard piping, and exhaust and ventilation connections via hard ducting.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. Moreover, GM's intent to install the GA Paint Mix Room for its useful life can be inferred from the degree of attachment and adaptation, including objective evidence that the asset was installed with bolts and connected to utilities that were specially routed for the asset (via hard conduit, steel strut, hard piping, and hard ducting). In addition, the objective facts show that the GA Paint Mix Room was legally required for any paint to be mixed in the general assembly area, was installed in a carefully planned location near the assets it serves but isolated from potential ignition hazards, has never been moved, could not be removed without disrupting the paint process at LDT (and, by extension, the entire manufacturing process at LDT), and has operated in place for over 10 years.

4. LDT General Assembly

Applying the law to the evidence at trial as set forth in the Proposed Findings of Fact (Sections VII and IX.A.4), the LDT general assembly assets are fixtures:

Asset 18: Vertical Adjusting Carriers

Attachment. The Carriers are physically attached to the realty. They are attached to a load rail, which is bolted to I-beams that are in turn bolted to overhead structural steel that is itself attached to the LDT building. In addition, apart from physical attachment, the enormous weight of the Carriers (each weighs four *tons*) — and the fact that the rail would have no value without them — confirm that they are constructively attached in any event.

Plaintiff has argued that physical attachment is not satisfied where an asset is attached to another asset that itself is attached to the building. This is an artificial distinction. Putting aside that constructive attachment is satisfied in any event, many items are installed in intricate ways that result in one object or component being attached to something that itself is attached to the realty. Plaintiff's test would render virtually nothing fixtures. This is not the law.

Adaptation. The Carriers are adapted to the LDT plant, and the plant is adapted to them. The building was designed to hold the weight of the Vertical Adjusting Carrier System, and structural supports are positioned to provide a clear path for the system. The Carriers are also designed to facilitate the purposes of the building, including by raising and lowering vehicles to permit workers to address them efficiently and ergonomically. Mr. Goesling conceded that each Representative Asset was “at least a useful adjunct to the realty, GM’s realty, considering the purposes for which GM’s realty is devoted” when it was installed. Tr. 3201:5-3205:14.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. *See* p. 340 above. Intent is also evidenced by the degree of adaptation — the asset’s critical role in the purpose of the building, and building modifications to support it — and the degree of attachment — the Carriers’ enormous weight and connection to fixed rails. Moreover, GM’s intent to install the Carriers for their useful life can be inferred from the objective evidence that the Carriers are essential to a 2,000 foot long Vertical Adjusting Carrier System that conveys vehicles through several subassembly processes, and were designed and installed in accordance with flexible engineering principles to avoid the need for later removal.

Winstrom v. C&M Conveyor, 2014 WL 5321068 (W.D. Mich. Oct. 17, 2014), again is consistent with this conclusion. Rejecting the plaintiff’s “artificial” attempt to look to the “individual components of the conveyor system” — including transfer cars that moved along the conveyor to transport materials — the Court reasoned that the “transfer cars are an integral component of the conveyor system, which itself is an improvement to real property.” *Id.* at *6. The same reasoning and conclusion applies to the VAC Carriers.

Asset 15: Soap, Mount & Inflate System

Attachment. The parties agree attachment is satisfied. The System is bolted to the floor and to white steel in thousands of places and is held in position by its enormous weight (20 *tons*).

Adaptation. The System is adapted to the LDT plant, and the plant is adapted to it. A building expansion was specifically constructed to accommodate the Soap, Mount & Inflate System and related assets. The System is also designed to facilitate the purposes of the building by creating wheel and tire assemblies for a range of automobiles. Mr. Goesling conceded that each Representative Asset was “at least a useful adjunct to the realty, GM’s realty, considering the purposes for which GM’s realty is devoted” when it was installed. Tr. 3201:5-3205:14.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. Moreover, GM’s intent to install the Soap, Mount & Inflate System for its useful life can be inferred from its degree of attachment and adaptation. The objective evidence shows that the asset is attached to the building by its enormous weight and thousands of bolts, is essential to the functioning of the broader wheel and tire assembly and delivery system at LDT, is in a building expansion that was built for it and related assets, and was designed to be flexible and accommodate future changes in vehicles being manufactured at LDT.

Asset 20: Wheel & Tire Conveyor

Attachment. The parties agree attachment is satisfied. The Conveyor is bolted to the floor in hundreds of places, and is attached with welding and bolts to a mezzanine and white steel.

Adaptation. The Wheel & Tire Conveyor is adapted to the LDT plant, and the plant is adapted to it. An overhead mezzanine was installed specifically to accommodate the asset, and the building’s vertical supporting steel was modified to make room for the specific path of the asset. The asset also plays a key role in the building’s purpose of manufacturing automobiles, since it is necessary to LDT’s wheel and tire delivery system. Mr. Goesling conceded that each Representative Asset was “at least a useful adjunct to the realty, GM’s realty, considering the purposes for which GM’s realty is devoted” when it was installed. Tr. 3201:5-3205:14

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. Moreover,

GM's intent to install the Conveyor for its useful life can be inferred from the objective evidence of its extraordinary degree of adaptation and attachment. The building was modified to make way for the Conveyor, the Conveyor is attached to the building by its enormous weight and thousands of bolts, and the Conveyor is essential to the functioning of the broader wheel and tire delivery system at LDT.

Asset 21: Final Line Skillet Conveyor

Attachment. The parties agree attachment is satisfied. The Final Line Skillet Conveyor is bolted in thousands of places to a reinforced concrete pit (itself a fixture), and is held in place by its enormous weight.

Adaptation. The Final Line Skillet Conveyor is adapted to the LDT plant, and the plant is adapted to it. The specifications and path of the Conveyor were dictated by the requirements of the manufacturing process at LDT. GM also modified the building to accommodate the asset, including by installing concrete reinforced pits to hold it. Mr. Goesling conceded that each Representative Asset was "at least a useful adjunct to the realty, GM's realty, considering the purposes for which GM's realty is devoted" when it was installed. Tr. 3201:5-3205:14

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. Moreover, GM's intent to install the Conveyor for its useful life can be inferred from the objective evidence of its extraordinary degree of adaptation and attachment. The building was modified to make way for the Conveyor, the Conveyor is attached to the building by its enormous weight and thousands of bolts, and the Conveyor is essential to the functioning of the manufacturing process at LDT.

Asset 2: Pits & Trenches

The Pits & Trenches are conceded fixtures. Goesling Direct ¶ 60.

5. LDT Central Utilities Complex: Fixture Issues

Asset 11: Central Utilities Complex

Applying the law to the evidence as set forth in the Proposed Findings of Fact (Sections VII and IX.A.5), the CUC Systems (as defined in Section IX.A.5) are fixtures.¹⁵¹

Attachment. All of the CUC Systems are attached to the realty. They are affixed with bolts or are held in place by their enormous size and weight — for example, the tanks of the water treatment system are 12 feet in diameter, 30 feet tall, and hold 80,000 gallons of water. Many are also attached to other fixtures. Mr. Goesling agrees that the CUC Piping is a fixture, and many of the CUC Systems are bolted to that hard piping.

Adaptation. The CUC Systems are adapted to the LDT plant, and the plant is adapted to them. Mr. Goesling conceded that each Representative Asset was “at least a useful adjunct to the realty, GM’s realty, considering the purposes for which GM’s realty is devoted” when it was installed. Tr. 3201:5-3205:14. Each of the CUC Systems is, in fact, necessary for the functioning of LDT — without them, LDT would be deprived of the basic utilities required for manufacturing. The CUC building was also adapted in numerous ways to accommodate the CUC Systems, including special concrete foundations poured to support a number of the CUC Systems and mezzanines installed to support other CUC Systems.

¹⁵¹ With respect to the CUC Common Utilities (*see* p. 239 & n.96 above), there is no dispute that they are attached and adapted to the CUC, and intended to be installed permanently. The only dispute is whether the Common Utilities are simply part of the realty or are fixtures. Under Michigan law, a “fixture” is “something having a possible existence apart from realty, but which may, by annexation, be assimilated into realty,” as distinguished from the ordinary building materials that make up the structure of the building. *Wayne Cty. v. William G. Britton & Virginia M. Britton Trust*, 563 N.W.2d 674, 678 (1997); *see also Pal-O-Mar Bar IV, Inc. v. Badger Mut. Ins. Co.*, 2013 WL 6182640, at *2 (Mich. Ct. App. Nov. 26, 2013). Each of the Common Utilities that Mr. Goesling identifies was installed permanently, but, if necessary, could be removed from the building and have a separate existence again. Therefore, the Common Utilities are not ordinary building materials, but are instead fixtures. *E.g., Kent Storage Co. v. Grand Rapids Lumber Co.*, 214 N.W. 111, 112 (1927) (“heating system was installed as a permanent fixture”).

Intent. Because the CUC Systems were owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. In any event, GM's intent in installing the CUC Systems is properly understood by examining the CUC as a whole, given that the CUC was designed and intended to function as an integrated unit and that each of its elements was necessary to the functioning of the manufacturing processes at LDT. Considering the CUC as a whole, it is clear that GM intended for the CUC and the CUC Systems to remain in place and supply critical utilities to the LDT facility for their useful lives.

Even if the individual CUC Systems are analyzed separately, GM's intent to install each of the CUC Systems for their useful lives can be inferred from the degree of attachment and adaptation of each of the components to the CUC building and from the objective evidence that each of the CUC Systems is typically massive, highly integrated, and would be difficult to remove and relocate; each of the CUC Systems is essential to the functioning of, and specifically designed to support, the LDT facility; and none of the CUC Systems have been moved since they were installed at LDT.

6. LDT Central Utilities Complex: Collateral Issue

The Collateral Agreement granted the Term Lenders a security interest in equipment and fixtures "now owned or at any time hereafter acquired by [GM] or in which [GM] now has or at any time in the future may acquire any right, title or interest." JX2 at 6-7 (Collateral Agreement, art. II). As of June 1, 2009, GM owned the CUC, including the non-building components of the CUC that meet the "fixture" test (the "CUC Systems" as discussed above), subject to the rights of "Delta II," the operator of the CUC. Thus, GM could and did grant a security interest to the Term Lenders to the extent of its residual interest in the CUC Systems.¹⁵²

¹⁵² The CUC is subject to three agreements relating to its construction, financing, maintenance, and use: (a) the Utility Services Agreement between Delta Township Utilities II, LLC ("Delta II") and Old GM – Worldwide Facilities Group, dated April 14, 2004 (the "USA"), JX13; (b) the Tri-Party Agreement by and among Delta II, as debtor, GMAC Commercial Holding Capital Corp. (together with its successors in interest, "GMAC"), as lender, and old

In its pretrial brief, the Avoidance Trust asserted two arguments to support its contention that the CUC Systems were not collateral for the Term Loan. First, the Avoidance Trust argued that GM could not have granted the Term Lenders a security interest in the CUC Systems because Delta II, rather than GM, owned the CUC as of June 1, 2009. Pls. Pretrial Br. 22, 26-27. And second, the Avoidance Trust argued that even if GM could grant a security interest in the CUC Systems, it would have been excluded from the grant of collateral to the Term Lenders by clause (ii) or (iii) of Article II of the Collateral Agreement. Pls. Pretrial Br. 22, 27-29. The Avoidance Trust is wrong on both arguments.

(a) GM was able under applicable law to grant a security interest in the CUC Systems and, in any event, was the true owner of the CUC

According to the Avoidance Trust, “[p]ursuant to the terms of the governing agreements, Old GM did not own the CUC and, for that reason alone, could not have granted a security interest in the CUC to the Term Lenders” because “Old GM could not have granted a security interest in property it did not own.” Pls. Pretrial Br. 22, 26. This argument is simply wrong. It misunderstands the law of secured transactions, key aspects of the Collateral Agreement, and the true substance of the CUC Agreements.

GM could, and did, grant a security interest in its interest in the CUC: It is black letter law that the U.C.C. permits a party to grant a security interest in any property in which it has rights, even if those rights do not constitute full ownership. *See* N.Y.U.C.C. § 9-203; M.C.L. § 440.9203.¹⁵³ The Official Comments to U.C.C. § 9-203 make this clear, noting that “[a]

GM, dated as of April 14, 2004, JX12; and (c) the Loan and Security Agreement by and between GMAC, as lender, and Delta II, as debtor, dated as of April 14, 2004 (the “LSA” and collectively with the USA and the Tri-Party Agreement, the “CUC Agreements”), JX14. Pretrial Order ¶ 67 (stipulated facts).

¹⁵³ The USA is governed by Michigan law. JX13 at 87-88 (USA § 42.01). However, the Collateral Agreement is governed by New York law, *see* JX2 at 16 (§ 7.10), and the Tri-Party Agreement is governed by Colorado law, *see* JX12 at 34-35 (Tri-Party Agreement § 6.19). All three jurisdictions, however, have adopted substantively identical versions of the relevant U.C.C. provisions. *Compare, e.g.,* N.Y. U.C.C. § 1-203, *with* M.C.L. § 440.1203, *with* Colo. Rev. Stat.

debtor's limited rights in collateral, short of full ownership, are sufficient for a security interest to attach." N.Y.U.C.C. § 9-203 (Official Comment 6); M.C.L. § 440.9203 (same); *see also Litwiler Mach. & Mfg., Inc. v. NBD Alpena Bank*, 457 N.W.2d 163, 165 (Mich. Ct. App. 1990) (explaining that "[t]he UCC . . . does not require that a debtor have full ownership rights" in property to grant a security interest in that property).¹⁵⁴ The Avoidance Trust's claim that "Old GM could not have granted a security interest in property it did not own" is thus simply wrong. Pls. Pretrial Br. 26. Under the U.C.C., as long as a party has "rights in the collateral," it may grant a security interest in the collateral to the extent of those rights. N.Y.U.C.C. § 9-203 & Official Comment 6; M.C.L. § 440.9203; *Litwiler*, 457 N.W.2d at 164.

Moreover, in the Collateral Agreement, GM did grant the Term Lenders a security interest to the extent of its rights in the CUC Systems as permitted by the U.C.C. *See* JX2 at 7 (Collateral Agreement art. II). The Collateral Agreement provides that the Term Lenders would have a security interest in any equipment or fixtures "in which [GM] now has or at any time in the future may acquire any right, title or interest." JX2 at 7. GM's rights in the CUC Systems were delineated in the Utility Services Agreement ("USA"), and, among other things, included the valuable residual right to full ownership of the CUC Systems after the expiration or termination of the financing arrangement. JX13 at 84 (USA § 32.01(c)) (providing that "[i]n the event of the expiration or any termination of this Agreement . . . Seller shall transfer its interest in the [CUC] System to Buyer . . . for the applicable Buyer's Termination Payment"); JX13 at 125 (USA

Ann. § 4-1-203. Moreover, because the U.C.C. is intended to be a uniform law across the 50 states, courts have recognized that decisions on like provisions from other states are helpful in interpreting the U.C.C. *In re WorldCom, Inc.*, 339 B.R. 56, 63-64 (Bankr. S.D.N.Y. 2006). Thus, regardless of which law applies, the analysis is the same.

¹⁵⁴ This is true, moreover, whether the rights of the party granting the security interest derive from title to the property, a leasehold interest, or some other sort of contractual arrangement. *See* N.Y.U.C.C. § 9-202; M.C.L. § 440.9202 ("[T]he provisions of [U.C.C. Article 9] with regard to rights and obligations apply whether title to collateral is in the secured party or the debtor."); N.Y.U.C.C. § 9-407; M.C.L. § 440.9407 (prohibiting restrictions on ability to grant security interest in leasehold estate).

termination payment matrix) (providing that GM will obtain ownership of the CUC System under all circumstances). Thus, GM had “rights in the [CUC Systems]” (N.Y.U.C.C. § 9-203; M.C.L. § 440.9203) when it entered into the Collateral Agreement, and it granted the Term Lenders a security interest in the CUC Systems to the extent of those rights.

The fact that the USA assigned certain other rights to Delta II, including current title to the CUC Systems, is immaterial. *See* N.Y.U.C.C. § 9-202 (title to collateral does not affect rights under Article 9 of the U.C.C.); M.C.L. § 440.9202 (same). GM could grant a security interest in the CUC Systems to the extent of its own rights in that property; the Collateral Agreement did just that. *See* N.Y.U.C.C. § 9-203 (Official Comment 6); M.C.L. § 440.9203; JX2 at 7; *Greenbush State Bank v. Stephens*, 463 N.W.2d 303, 306 (Minn. Ct. App. 1990) (“Of course ‘ownership’ under the UCC can be shared, with each party possessing its own bundle of interests.”). Also immaterial is the fact that Delta II contemporaneously granted GMAC a security interest in Delta II’s interest in the CUC Systems pursuant to the LSA (to which GM was not a party). GM’s rights in the CUC Systems are distinct from Delta II’s rights in the CUC Systems, and thus Delta II’s decision to encumber its own interest in the CUC Systems has no bearing on GM’s decision to grant a security interest to the Term Lenders on its separate interest in the CUC Systems.¹⁵⁵

In short, under the CUC Agreements, GM retained residual ownership of the CUC Systems, subject to Delta II’s rights under the USA, which were themselves subject to a security interest in favor of GMAC granted by Delta II. Pursuant to the U.C.C., GM was permitted to grant

¹⁵⁵ For this reason, the Avoidance Trust is wrong in asserting that “even if Defendants have an interest in the CUC, their interest is subordinate to the perfected, first priority interest of GMAC.” Pls. Pretrial Br. 22, 29-30. Under the CUC Agreements, GM had a residual ownership interest in the CUC, subject to a lien in favor of Delta II, not GMAC. The fact that Delta II granted a contemporaneous security interest to GMAC in Delta II’s rights in the CUC does not affect the rights of GM, which was not a party to the agreement between Delta II and GMAC and which had rights in the CUC that were distinct from the rights of Delta II. In other words, although GM’s residual interest in the CUC was “subject to the lien created by the CUC Agreements,” Pretrial Order ¶ 68, that lien was held by Delta II, not GMAC. Delta II could not grant to GMAC any greater rights than it had.

a security interest in the CUC Systems to the extent of this residual right, and, pursuant to the Collateral Agreement, it did grant such a security interest. That security interest in GM's residual right in the CUC Systems was perfected by the LDT Fixture Filing pursuant to N.Y.U.C.C. § 9-310(a), which provides that a security interest in fixtures is perfected by the filing of a financing statement, with the priority afforded by § 9-334(e) (M.C.L. §§ 440.9310 and 440.9334).

The CUC Agreements create a secured financing arrangement in which GM was the true owner of the CUC: In any event, even if ownership of the CUC were relevant to the Term Lenders' rights under the Collateral Agreement, GM, not Delta II, was the true owner of the CUC under the CUC Agreements. This is because the CUC Agreements created a secured financing under which Old GM was the true or beneficial owner of the CUC and held a valuable residual interest in it.

“Although the Bankruptcy Code contemplates the differences between true leases and secured transactions and the respective rights of the parties that flow from each, state law controls the classification of a contractual agreement as between the two.” *In re Ajax Integrated, LLC*, 554 B.R. 568, 577 (Bankr. N.D.N.Y. 2016). The respective rights of GM and Delta II in the CUC are set forth in the USA, which is governed by Michigan law. *See* JX13 at 87-88 (USA art. 42.01).

Section 1-203 of the U.C.C. (M.C.L. § 440.1203) governs whether a transaction creates a “true lease” or a security interest. *See* M.C.L. § 440.1201(ii).¹⁵⁶ In a “true lease,” the party providing the subject property retains beneficial ownership of the property, and permits the party using the property to do so temporarily for a term of years, with the expectation that the property will be returned at the end of the term. *See In re WorldCom, Inc.*, 339 B.R. 56, 64 (Bankr. S.D.N.Y.

¹⁵⁶ In 2013, Michigan adopted a revised version of the U.C.C. that created a new § 1-203, moved the portions of former U.C.C. § 1-201(37) that distinguished a “true lease” from a security interest to the new U.C.C. § 1-203, and also caused former U.C.C. § 1-201(37) to be renumbered as U.C.C. § 1-201(35). The Official Comments to the Michigan U.C.C. have made clear that the change made no substantive difference. M.C.L. § 440.1203 Official Comment (“This section is substantively identical to those portions of former Section 1-201(37) that distinguished ‘true’ leases from security interests . . .”). It is therefore irrelevant that the CUC Agreements were entered into in 2004, before the effective date of the new U.C.C. in Michigan.

2006) (quoting James J. White & Robert S. Summers, Uniform Commercial Code vol. 4, § 30–3, 14 n.18 (5th ed. West 2002)). Conversely, if a transaction creates a security interest, beneficial ownership rests in the buyer, and the seller of the property retains “only an inchoate interest contingent on default and limited to the remaining secured debt.” *Id.* (quoting White & Summers, § 30–3 at 14 n.18).

Section 1-203 provides a two-prong “Bright Line Test” to determine whether a transaction creates a “true lease” or a security interest. *GEO Fin., LLC v. Univ. Square 2751, LLC*, 105 F. Supp. 3d 753, 762 (E.D. Mich. 2015). “The Bright Line Test looks to the substance of the transaction and not the parties’ intent” or the labels they assign to the transaction. *In re Ajax Integrated*, 554 B.R. at 578; *see also WorldCom*, 339 B.R. at 69 (same).

“Under the [first prong of the] Bright–Line Test, a nominal lease is in reality a security interest ‘if the consideration that the lessee is to pay the lessor for the right to possession and use of the goods is an obligation for the term of the lease and is not subject to termination by the lessee’” *GEO Fin.*, 105 F. Supp. at 762 (quoting M.C.L. § 440.1203). Like a borrower who does not have an option to cease paying off the loan, the “lessee” under this prong does not have the option to return the property and cease making payments that, though characterized as rent, are the equivalent of repayment of principal and interest.¹⁵⁷

Under the second prong, any one of four additional criteria must be met. *GEO Fin.*, 105 F. Supp. at 762. Among these additional criteria is that “[t]he lessee has an option to become the owner of the goods for no additional consideration or for nominal additional consideration upon compliance with the lease agreement.” M.C.L. § 440.1203(2)(d). “If both parts of the statutory

¹⁵⁷ See, e.g., *In re Hoskins*, 266 B.R. 154, 160 (Bankr. W.D. Mo. 2001) (true lessee can “return the [property] and then walk away from the transaction with no further future financial responsibility”); *Auto. Leasing Specialists, L.L.C. v. Little*, 392 B.R. 222, 234 (W.D. La. 2008) (provision requiring payment in full of remaining balance upon early termination satisfied first prong); *In re Taylor*, 209 B.R. 482, 485–86 (Bankr. S.D. Ill. 1997) (first prong of Bright Line Test satisfied where debtor could only terminate according to a buyout schedule).

test are met, then, as a matter of law, the transaction is really a sale which created a security interest.” *In re PSINet, Inc.*, 271 B.R. 1, 44 (Bankr. S.D.N.Y. 2001).

Here, the CUC Agreements easily satisfy the Bright Line Test. First, GM had no ability to terminate the arrangement, except upon payment of all amounts due under the CUC Agreements and certain termination payments, which were “solely for [Delta II’s] interest in the [CUC]” and included all amounts necessary to repay the loan from GMAC to Delta II under the LSA. *See* JX13 at 84, 125 (USA termination payment matrix); JX13 at 14 (defining “Lender Termination Payment”); JX12 at 34 (Tri-Party Agreement § 6.13). GM’s payment obligations, moreover, were “absolute and unconditional” and were to be used solely to make loan payments to GMAC until the loan was paid in full. JX12 at 4 (Recital C); JX12 at 16-17 (§ 3.05). And finally, the CUC Agreements provided that in all circumstances the equipment would stay with GM after termination. *See* JX13 at 125.

Second, the USA allows GM to purchase the CUC at the end of the lease term for a nominal payment of \$10. *See* JX13 at 84 (USA § 32.01(c) (“In the event of the expiration or any termination of this Agreement, . . . Seller shall transfer its interest in the System to Buyer with any warranty or other rights Seller may have in the System for the applicable Buyer’s Termination Payment”); JX13 at 125 (USA termination payment matrix providing for a \$10 payment at end of lease term). This is clearly “nominal consideration” satisfying the second prong of the Bright Line Test. *See, e.g., In re Anton’s Lounge & Rest., Inc.*, 40 B.R. 134, 135 (Bankr. E.D. Mich. 1984) (determining that a termination payment of \$350 to acquire leased equipment that was critical to the lessee’s business and was valued at \$1,000 was “nominal consideration”); *In re Ajax Integrated*, 554 B.R. at 580 (option to purchase for \$16,900 at end of lease term was nominal consideration).

Thus, because GM was not permitted to terminate its obligations under the CUC Agreements and had the right under the CUC Agreements to purchase the CUC for the nominal amount of \$10 at the end of the USA’s term, the CUC Agreements satisfy the Bright Line Test and the transaction was a financing and not a true lease as a matter of law. *PSINet, Inc.*, 271

B.R. at 43-44. Consequently, even if true ownership of the CUC were relevant to GM's ability to grant the Term Lenders a security interest in the CUC Systems, GM was the true owner of the CUC Systems as of the Petition Date. The CUC Systems were therefore property of GM's estate, *see* 11 U.S.C. § 541(a), and GM could, and did, grant the Term Lenders a security interest in the CUC Systems under the Collateral Agreement. *See* U.C.C. § 9-203 (M.C.L. § 440.9203); *Litwiller*, 457 N.W.2d at 165 ("The cases generally hold . . . that where a debtor gains possession of collateral pursuant to an agreement endowing him with any interest other than naked possession, the debtor has acquired such rights as would allow the security interest to attach.").

(b) The Collateral Agreement does not exclude the CUC from the grant of collateral

The Avoidance Trust argues further that even if GM was able to grant a security interest in the CUC Systems, the CUC Systems were nonetheless excluded from the grant of collateral pursuant to clause (ii) or (iii) of Article II of the Collateral Agreement. Pls. Pretrial Br. 22, 27-29. Those clauses generally exclude from the grant of collateral certain property that is subject to prior liens (clause (ii)) or that consist of rights under a contract (clause (iii)), *but only* where the prior lien or contract prohibits GM from granting additional liens. Again, the Avoidance Trust is wrong. By their plain terms, neither clause (ii) nor (iii) applies to the CUC Systems because the CUC Agreements did not prohibit GM from granting additional liens. Moreover, if clause (ii) or (iii) did apply by their terms, they would be unenforceable under the U.C.C., and therefore they would not operate to exclude the CUC Systems from the grant of collateral because the Collateral Agreement disregards limitations that are unenforceable under the U.C.C.

Clause (ii) of the Collateral Agreement does not apply to the CUC: GM's residual interest and rights in the CUC Systems are not excluded from the scope of the Term Lenders' security interest by Article II, clause (ii) of the Collateral Agreement. Article II, clause (ii) of the Collateral Agreement excludes from the scope of the Term Lenders' security interest any assets that are "subject to a Lien permitted under clause (vii) of Section 6.0[2](b) of the [Term Loan]

Credit Agreement” where the agreement creating the lien prohibits GM from creating of additional liens on the asset.¹⁵⁸ JX2 at 7.

Although GM’s interest in the CUC Systems was subject to a “Lien” in favor of Delta II permitted by Section 6.02(b)(vii) of the Term Loan Credit Agreement (JX1 at 16, 43), the CUC Agreements do not prohibit GM from granting a security interest in its interest in the CUC Systems. The Avoidance Trust points to § 5.01(f) of the Tri-Party Agreement (JX12 at 25) and § 7.01(g)(vi) of the LSA (JX14 at 26-27), but neither of these provisions prohibits the creation of additional liens on the CUC Systems. For one thing, GM was not a party to the LSA and thus is not affected by any limits LSA § 7.01(g)(vi) may have placed on Delta II’s ability to further encumber Delta II’s interest in the CUC. Moreover, § 5.01(f) of the Tri-Party Agreement only prohibits the grant of an additional security interest in *Delta II*’s interest in the CUC Systems; it does not place any restrictions on *GM*’s ability to further encumber its own interest in the CUC Systems.

Under Section 5.01(f)(i) of the Tri-Party Agreement, a “GM Default” occurs where “GM shall . . . create a lien on or security interest in this Agreement, the USA Documents, the USA Monthly Payments, any applicable Lender Termination Payment, any GM Independent Obligation or any of the Collateral, or any right or interest therein or any rights of Lender, or its successors or agents hereunder.” JX12 at 25. Thus, in relevant part, GM would be in default under the Tri-Party Agreement if it granted a security interest in (i) the “Collateral” (or any right or interest in the “Collateral”) or (ii) “any rights of Lender” under the Tri-Party Agreement.

Because “Lender” is defined by the Tri-Party Agreement to be GMAC, not GM, *see* JX12 at 4, whether § 5.01(f)(i) prohibits the creation of liens by GM depends on whether GM’s interest in the CUC is “Collateral” under the Tri-Party Agreement.

¹⁵⁸ Due to a scrivener’s error, Article II, Clause (ii) of the Term Loan Collateral Agreement refers to liens permitted under “clause (vii) of Section 6.01(b) of the Credit Agreement.” However, Section 6.01(b) of the Term Loan Credit Agreement does not contain a clause (vii).

The Tri-Party Agreement defines “Collateral” according to the definition in the LSA. *See* JX12 at 5. Section 2.02(a)(i) of the LSA defines “Collateral” to include “[a]ll of *Debtor’s* right, title and interest in and to the USA . . . and all the estate, right, title, interest, property, possession, claim and demand whatsoever at law, as well as in equity, of *Debtor* of, in and to the foregoing,” LSA § 2.02(a)(i) (emphasis added), as well as “all of *Debtor’s* right, title and interest in and to Tangible Personal Property,” LSA § 2.02(a)(iv) (emphasis added). JX14 at 13-14. “Tangible Personal Property” is defined to mean “any and all equipment, furniture, fixtures, furnishings and other tangible personal property now or hereafter acquired by Debtor in connection with the use, operation or maintenance of the [CUC].” JX14 at 12. Critically, “Debtor” in the LSA (and the other CUC Agreements) is Delta II, not GM. *See* JX14 at 5. Thus, under the LSA, “Collateral” includes Delta II’s interest in the CUC, not GM’s interest.

The effect of the above is that, although the Tri-Party Agreement prohibits GM from granting liens on Delta II’s interest in the CUC, it does not prohibit GM from granting additional liens on GM’s interest. And this is consistent with the USA: while the USA prohibits *Delta II* from transferring its interest in the CUC without the consent of GM, it actually contemplates that *GM* may grant additional liens on its interest in the CUC. *See* JX13 at 23 (USA § 2.02(e) (Delta II will keep its interest free of encumbrances); JX13 at 25 (USA § 2.04(b)) (GM will ensure that any interests in the CUC it grants third parties will not interfere with Delta II’s possession or use of the CUC). Accordingly, pursuant to Article II of the Collateral Agreement, GM was free to grant, and did grant, the Term Lenders a security interest in the CUC, to the extent of its interest and rights in the CUC, subject to Delta II’s lien.

Clause (iii) of the Collateral Agreement does not apply to the CUC: GM’s residual interest and rights in the CUC are also not excluded from the scope of the Term Lenders’ security interest by clause (iii) of Article II of the Collateral Agreement. Clause (iii) excludes from the scope of the Term Lenders’ security interest any “asset[] consisting of rights under a contract, agreement, instrument or other document,” but again only where the granting of a lien would constitute a default under such agreement, instrument, or other document. JX2 at 7.

As explained above, however, because the CUC Agreements were a financing transaction rather than a “true lease,” GM’s interest in the CUC was not an “asset[] consisting of rights under a contract, agreement, instrument or other document.” *Id.* Rather, GM was the true owner of the CUC and retained rights in the CUC building and the tangible assets therein.

Moreover, even if GM’s interest in the CUC is an “asset[] consisting of rights under a contract, agreement, instrument or other document,” *id.*, that grant of security interest was not prohibited by the CUC Agreements for the reasons discussed with respect to clause (ii) of Article II. Clause (iii) of Article II of the Collateral Agreement therefore also does not exclude the CUC Systems from the grant of collateral to the Term Lenders under the Collateral Agreement.

Even if clauses (ii) or (iii) of the Collateral Agreement did apply, they would not exclude the CUC from the grant of collateral: Even if Article II, clauses (ii)-(iii) of the Collateral Agreement did apply to the CUC, the CUC would still not be excluded from the scope of the Term Lenders’ security interest. Article II of the Collateral Agreement specifically provides that the exclusions of clauses (ii) and (iii) do not apply where the legal or contractual restriction is “ineffective under applicable law.” JX2 at 7 (Collateral Agreement, art. II). Sections 9-407 and 9-408 of the U.C.C. make “ineffective” any contractual terms purporting to restrict the ability of a party to grant additional liens or declaring that the grant of additional liens are an event of default. N.Y. U.C.C. §§ 9-407, 9-408; M.C.L. §§ 440.9407, 440.9408. As a result, even if the CUC Agreements did restrict GM’s ability to further encumber its interest in the CUC Systems, these restrictions would be “ineffective” under New York and Michigan law and thus disregarded by the Collateral Agreement. Therefore, even if clauses (ii) and (iii) of Article II of the Collateral Agreement did apply to the CUC Systems, the CUC Systems would still not be excluded from the scope of the Term Lenders’ security interest under Article II of the Collateral Agreement.

D. The Representative Assets at GM Warren Transmission are fixtures.

Applying the law to the evidence at trial as set forth in the Proposed Findings of Fact (Sections VII and IX.B), the assets at Warren Transmission are fixtures:

Asset 3: Power Zone Roller Conveyor

Attachment. The parties agree attachment is satisfied. The Conveyor is physically attached to the realty. It is attached to the building through almost a hundred bolts, is bolted to the CNC machines it serves and has extensive connections to the plant utility systems.

Adaptation. The Conveyor is adapted to the Warren facility. It is a necessary part of the transmission housing machining process at Warren, an essential part of the facility's \$350-\$450 million 6-speed line. Mr. Goesling conceded that each Representative Asset was "at least a useful adjunct to the realty, GM's realty, considering the purposes for which GM's realty is devoted" when it was installed. Tr. 3201:5-3205:14. The Power Zone Conveyor's custom layout was driven by the specific dimensions of the machining area at the Warren Transmission facility. And the building was adapted to accommodate the Conveyor: Utilities were routed through the building to the precise location of the Conveyor and the CNC machining centers it was customized to support; a special 12-inch floor was installed to accommodate the transmission housing machining line, including the Conveyor; and large steel girders secure sections of the Conveyor to the reinforced concrete floor to allow vehicles, parts and operators to move freely.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. *See* p. 340 above. Moreover, GM's intent to install the Conveyor for its useful life can be inferred based upon the degree of the Conveyor's attachment and adaptation, and from the objective evidence that it is critical to the operation of the transmission housing machining process at Warren, which is an integral part of the \$350-\$450 million 6-speed line; it is a flexible asset implementing GM's Lean Agile Flex practices; it would be very costly and time consuming to remove; and it was designed to function in place and interact with the specific machines it is attached to.

Asset 14: Leak Test Machine

Attachment. The parties agree attachment is satisfied. The Leak Test Machine is bolted to the floor. Bolts also attach the Leak Test Machine to safety screens (which are bolted to the floor) and the adjacent machines, and the Leak Test Machine is attached to a high-pressure, steel-pipe plumbing connection to the plant's compressed air distribution system as well as to the plant's high-voltage power supply.

Adaptation. The Leak Test Machine is adapted to GM's use of the Warren facility. It is a necessary part of the transmission housing line, a highly integrated system of 18 assets and a critical step in the \$350-\$450 million 6-speed transmission manufacturing line at Warren. The Leak Test Machine was custom-designed to test leaks on the family of transmission housings made on the 6-speed line at Warren. Mr. Goesling conceded that each Representative Asset was "at least a useful adjunct to the realty, GM's realty, considering the purposes for which GM's realty is devoted" when it was installed. Tr. 3201:5-3205:14. Moreover, the facility was adapted to accommodate the Leak Test Machine: utilities were routed through the building in hard piping to serve this asset, as well as to the specific locations of other assets that make up the integrated transmission housing line of which the Leak Test Machine is a critical part. Safety fencing was bolted to the concrete floor, blocking off plant space beyond the asset's footprint to facilitate the safe operation of the asset.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. Moreover, GM's intent to install the Leak Test Machine for its useful life can be inferred from the degree of the Machine's attachment and adaptation and from the objective evidence that removal would be extremely resource and time intensive, the Leak Test Machine and the machines around it are interconnected and work together to produce quality-tested transmission housings, the Leak Test Machine has extensive connections to numerous plant utilities, and the Leak Test Machine was custom-designed to test leaks on GM's 6-speed FWD transmission housings — a function that is essential to the operation of the \$350-\$450 million 6-speed transmission line at Warren.

Asset 23: Aluminum Machining System

Attachment. The parties agree attachment is satisfied. The Aluminum Machining System is attached by numerous bolts as well as through its size and 800,000 pound weight. It is also bolted to 24-inch insulated steel piping that is bolted to the building's foundation and structural steel, and it is attached to very significant electrical connections. The Aluminum Machining System's trenches are integrated into the floor slab.

Adaptation. The Aluminum Machining System is adapted to GM's use of the Warren facility, as it is necessary for the CNC machining process at Warren's \$350-\$450 million 6-speed manufacturing line and was uniquely configured for GM's needs. It operates in conjunction with 61 other assets, including 60 CNCs. Mr. Goesling conceded that each Representative Asset was "at least a useful adjunct to the realty, GM's realty, considering the purposes for which GM's realty is devoted" when it was installed. Tr. 3201:5-3205:14. The Warren Transmission realty is also adapted to the System, with a reinforced 12-inch floor and 16-inch-wide by 12-inch-deep trenches built into the floor to capture any spills.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. Moreover, GM's intent to install the Aluminum Machining System for its useful life can be inferred from the degree of the Aluminum Machining System's attachment (to the facility and to the CNCs that the Aluminum Machining System serves) and adaptation (it sits atop a specially reinforced floor and within custom-dug trenches and has extensive large-diameter steel piping connections that run through the building to 60 CNCs), and from the objective evidence that it was difficult to install and would be extremely difficult to remove; is critical to housing production, which is an integral part of the \$350-\$450 million 6-speed line; is a flexible asset implementing GM's Lean Agile Flex practices; was designed to function in place and interact with the specific machines it is attached to; and was chosen by GM as a centralized system that was initially more expensive and difficult to move but also more efficient if used in place for its useful life.

Asset 22: Fanuc Gantry Robot

Attachment. The parties agree attachment is satisfied. The robot is attached to a carrier with four threaded bolts through the steel mounting plate and the robot's body. The carrier is then attached to the gantry rail, which is bolted to three 10-foot vertical support columns. The support columns are in turn bolted to the concrete with four large-diameter, 10-inch long, epoxied lag bolts.

Adaptation. The Fanuc Gantry Robot is adapted to GM's use of the Warren Transmission facility, as it is a necessary part of the finishing cell for transmission gears, a critical step in the transmission assembly process at Warren's \$350-\$450 million 6-speed manufacturing line. The Fanuc Gantry Robot was customized specifically for this particular spot in the 6-speed layout at Warren Transmission. Mr. Goesling conceded that each Representative Asset was "at least a useful adjunct to the realty, GM's realty, considering the purposes for which GM's realty is devoted" when it was installed. Tr. 3201:5-3205:14. The facility was also adapted to accommodate the asset: A safety fence was designed and installed to accommodate all of the robot's operations, utilities to support the cell's operation were routed through the facility, and a special 12-inch-thick floor was installed to accommodate the asset's large cantilevered weight.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. Moreover, GM's intent to install the Fanuc Gantry Robot for its useful life can be inferred from the degree of the Fanuc Gantry Robot's attachment and adaptation, and from the objective evidence that it is critical to Warren's gear-finishing cell, which is an integral part of the \$350-\$450 million 6-speed transmission line; was custom-selected for a particular role and spot in the 6-speed line; and is a flexible asset implementing GM's Lean Agile Flex practices.

Asset 24: Base Shaping Machine

Attachment. The Base Shaping Machine is attached to the building, at the very least constructively, by its great weight (30,000 pounds). Twelve isolation dampers mount the asset to a 12-inch concrete floor poured to accommodate the machine and, although the main machine column is not bolted to the floor, other parts of the machine are. The Base Shaping Machine is

also bolted to the inlet and outlet conveyors that feed it, as well as to an electrical supply transformer and electrical control cabinets, all of which are bolted to the floor in turn. The Base Shaping Machine is attached to plant utilities through hard piping and hard conduit and bolts.

Adaptation. The Base Shaping Machine is adapted to GM's use of the Warren facility, as it is a necessary part of the approximately \$350-450-million 6-speed transmission line and is part of a highly integrated system of 11 assets that turns steel blanks into gears. *See Cincinnati Ins.*, 166 F. Supp. 2d at 1180 (milling machine was adapted because it was used by a manufacturer of automobile and aerospace parts "in the regular course of its business"). Mr. Goesling conceded that each Representative Asset was "at least a useful adjunct to the realty, GM's realty, considering the purposes for which GM's realty is devoted" when it was installed. Tr. 3201:5-3205:14. The Base Shaping Machine was custom-engineered to connect with other assets in the line. The facility was adapted to accommodate the Base Shaping Machine as well: GM poured a 12-inch concrete floor to hold this asset and used an abrasive saw to cut lines in the concrete surrounding the asset to isolate the asset's vibrations.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. Moreover, GM's intent to install the Base Shaping Machine for its useful life can be inferred from the degree of its attachment and adaptation, and from the objective evidence that the asset is essential to the functioning of the entire integrated transmission gear manufacturing line, which is an integral part of the \$350-\$450 million 6-speed line; is a flexible asset implementing GM's Lean Agile Flex practices; is mounted on a 12-inch concrete floor with saw cuts to reduce vibration; has extensive connections to centralized plant utility systems that are themselves evidence of GM's intent to install all assets in the transfer gear area permanently; and has operated in place for almost 10 years.

Asset 36: Helical Broach

Attachment. The Helical Broach rests on spring-damper mounts and is constructively attached to the building by its immense weight (90,000 pounds). This enormous asset is bolted

to operator platforms, to roller conveyors that are themselves bolted to the plant floor and to an electrical power transformer and electrical panels that are bolted to the plant floor, and is connected to numerous utilities by large diameter steel piping and hard conduit.

Adaptation. The Helical Broach is adapted to GM's use of the Warren facility, as it is a necessary part of the planetary gear-making process in the \$350-\$450 million 6-speed production line and is part of a highly integrated system of 7 assets that generate gear teeth on a steel gear blank. *See Cincinnati Ins.*, 166 F. Supp. 2d at 1180. Mr. Goesling conceded that each Representative Asset was "at least a useful adjunct to the realty, GM's realty, considering the purposes for which GM's realty is devoted" when it was installed. Tr. 3201:5-3205:14. To adapt the realty to the asset, GM poured a 12-inch concrete floor to hold this enormous asset, installed a centralized mist collection system for the asset, and routed hard electrical conduit, chilled water piping and waste water utility piping through the building to the specific location of this asset.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. Moreover, GM's intent to install the Helical Broach for its useful life can be inferred from the degree of the Helical Broach's attachment and adaptation and from the objective evidence that the asset is massive and was difficult to install, and would be difficult to remove and relocate; the \$1.5 million asset is essential to the functioning of the \$350-\$450 million 6-speed line; the Broach is a flexible asset implementing GM's Lean Agile Flex practices; the Broach has never been moved; and the Broach is mounted on a special 12-inch concrete floor and has extensive connections to plant utility systems.

Asset 25: Liebherr Hobb

Attachment. The Liebherr Hobb is attached to the floor of the building by a number of bolts. The asset is also attached by its great weight (33,000 pounds) and size, and is connected via hard piping to the building's utility systems.

Adaptation. The Liebherr Hobb is adapted to GM's use of the Warren facility, as it is a necessary part of the gear-making process in the 6-speed production line and is part of a highly integrated system of 7 assets that turns steel blanks into gears. *See Cincinnati Ins.*, 166 F. Supp. 2d at 1180. Mr. Goesling conceded that each Representative Asset was "at least a useful adjunct to the realty, GM's realty, considering the purposes for which GM's realty is devoted" when it was installed. Tr. 3201:5-3205:14. The facility is also adapted to accommodate the Liebherr Hobb: GM poured a 12-inch concrete floor for the asset; installed ladders and stairs to provide access to key areas of the machine; and routed utilities through the building to it.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. Moreover, GM's intent to install the Liebherr Hobb for its useful life can be inferred from the degree of its attachment, *see Cincinnati Ins.*, 166 F. Supp. 2d at 1180 (inferring intent from, *inter alia*, "38 different bolts and anchors" used "to secure the machine into the cement foundation"), and adaptation, and from the objective evidence that this \$1.2 million asset is essential to the functioning of the \$350-\$450 million 6-speed line; is a flexible asset implementing GM's Lean Agile Flex practices; is mounted on a special 12-inch concrete floor; has extensive connections to plant utility systems including centralized coolant systems that strongly indicate an intent for permanence; and would have been extremely expensive to install and remove.

That the asset was moved from St. Catharines is not legally relevant, given the objective evidence that once the Hobb was installed at Warren, it was intended to remain permanently. *Id.* at 1180-81 (holding that milling machine that was bought used and moved to the manufacturer's facility was nonetheless a fixture); Weigel Dep. at 12:22-16:20, 19:16-20:9 (testifying that the same milling machine held to be a fixture was subsequently sold again, after the owner shifted its manufacturing focus and the asset was no longer suitable for the new focus). In any event, as discussed above, the Hobb was moved out of St. Catharines under extraordinary and unexpected circumstances that indicate nothing about GM's intent when the Hobb was located at St. Catharines, let alone when it was installed at Warren Transmission.

Asset 1: OP-150 Shims Station

Attachment. The parties agree attachment is satisfied. The OP-150 is attached to the floor by twelve bolts. The bolts are drilled into the concrete and attached through leveling plates. In addition, the OP-150 is attached to the Warren plant's utilities through threaded steel pipe connections and to the integrated assembly conveyor by bolts and electrical attachments.

Adaptation. The OP-150 is adapted to GM's use of the Warren facility, as it is a necessary part of the 6-speed assembly line, which is an integral part of Warren's \$350-\$450 million 6-speed transmission line. It is installed as part of a highly integrated system of 75 assets. In addition, GM ran a high-voltage power bus distribution system through the facility to accommodate the requirements of this asset and other assets in the assembly line process, and the OP-150 was designed specifically for the 6-speed line. Mr. Goesling conceded that each Representative Asset was "at least a useful adjunct to the realty, GM's realty, considering the purposes for which GM's realty is devoted" when it was installed. Tr. 3201:5-3205:14.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. Moreover, GM's intent to install the OP-150 for its useful life can be inferred from the degree of the OP-150's attachment and adaptation, including from the objective evidence that the two-and-a-half ton asset is extensively attached to the facility, to plant utilities and to the other assets in the assembly line; that it plays a critical role in ensuring the quality of the transmissions produced on Warren's \$350-\$450 million 6-speed transmission line; that it is so highly specialized for GM's use that it would likely have no value if removed; and that it is a flexible asset implementing GM's Lean Agile Flex practices.

Asset 35: Button Up Conveyor System

Attachment. The parties agree attachment is satisfied. The BU Conveyor is attached to the building through over 400 lag bolts that affix it to the concrete floor, as well as attachments to overhead steel and other assets in the final assembly line. In addition, the BU Conveyor is

attached to the plant's compressed air distribution network via hard piping and electrical power via metal conduits, and is connected to transmission fluid returns for other assets on the line.

Adaptation. The BU Conveyor is adapted to GM's use of the Warren facility, as it is a necessary, customized component of the final assembly line for completed transmissions, a critical step in the transmission assembly process in Warren's \$350-\$450 million 6-speed line. Mr. Goesling conceded that each Representative Asset was "at least a useful adjunct to the realty, GM's realty, considering the purposes for which GM's realty is devoted" when it was installed. Tr. 3201:5-3205:14. The BU Conveyor was specifically designed for the layout of Warren Transmission's assembly area, and the building in turn was customized with a glass wall built around the Conveyor to separate the assembly process from gear machining and shipping.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. Moreover, GM's intent to install the BU Conveyor for its useful life can be inferred from the degree of the BU Conveyor's attachment and adaptation, and from the objective evidence that the 6,000-pound asset is attached to the real estate via hundreds of bolts and a number of hard piping connections; is a critical component of the final assembly process for transmissions in Warren's \$350-\$450 million 6-speed line; was custom-designed to fit within the available space in the assembly area at Warren and is a flexible asset implementing GM's Lean Agile Flex practices.

Asset 34: Build Line With Foundation

Attachment. The parties agree attachment is satisfied. The Build Line With Foundation was installed in a pit and attached to the building through bolts to embedded structural steel, bolts to the concrete floor, and connections to plant utilities that were routed through the building's concrete floor. The concrete walls of the foundation were fused with the concrete of the surrounding floor to make a solid interconnection.

Adaptation. The Build Line With Foundation was adapted to GM's use of the Warren facility, as it was a necessary part of 4-speed transmission line. Mr. Goesling conceded that each

Representative Asset was “at least a useful adjunct to the realty, GM’s realty, considering the purposes for which GM’s realty is devoted” when it was installed. Tr. 3201:5-3205:14. The building was also modified to permit installation of the Build Line With Foundation: a pit was dug and numerous utilities were routed through the concrete floor of the building.

Intent. Because this asset was owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. Moreover, GM’s intent to install the Build Line With Foundation for its useful life can be inferred from the degree of the Build Line With Foundation’s attachment and from the extensive degree of the adaptations made to the Warren Facility to accommodate the asset; the excavation of a pit and installation of utilities that accompanied the installation of the asset; that the asset remained in place for 27 years; and that removal of the asset took approximately two months and required extensive work to heal the realty following removal.

Asset 37: Courtyard Enclosure

A number of components of the Courtyard Enclosure — the dock levelers, dock doors, heat system, fire safety, sprinklers, toilets, sinks, hot water tanks and lighting transformers — are fixtures:

Attachment. Three dock levelers were embedded in the concrete floor of the unloading area to create a smooth surface to unload trucks. They were firmly attached. The three large dock doors are attached for the same reasons as the dock levelers. The plant heating system’s heat exchangers were attached by bolts to the floor of the air supply houses that distributed heat throughout the Courtyard Enclosure. The fire-suppression sprinklers; the two 75-gallon hot water tanks; four restrooms; and the lighting transformers were all attached by similar means.

Adaptation. The three dock levelers and large dock doors were necessary for receiving operations, and, along with the heat exchangers, sprinklers, hot water tanks, restroom components and lighting transformers, were critical to the exact function for which the Courtyard Enclosure was built and necessary for 4-speed transmission line operations. Mr. Goesling conceded that each

Representative Asset was “at least a useful adjunct to the realty, GM’s realty, considering the purposes for which GM’s realty is devoted” when it was installed. Tr. 3201:5-3205:14.

Intent. Because these components were owned by GM and installed by GM in a building owned by GM on land owned by GM, there is a presumption of intent for permanence. Moreover, GM’s intent to install the Courtyard Enclosure components for their useful life can be inferred from the degree of the components’ attachment and adaptation, from the objective evidence that they were necessary to production operations in the Courtyard Enclosure, and from the fact that they remained in place for thirty years.

E. The Representative Assets at GM Defiance Foundry are fixtures.

Applying the law to the evidence at trial as set forth in the Proposed Findings of Fact (Sections VII and IX.C), the assets at Defiance Foundry are fixtures.

Asset 26: Core Delivery Conveyor System

Attachment. The parties agree attachment is satisfied. The Core Delivery Conveyor System is bolted and welded to a custom-designed platform suspended approximately 13 feet above the ground, which is itself bolted to the building’s vertical support columns, bolted to the existing mezzanine and also connected to the building’s overhead trusses.

Adaptation. The Core Delivery Conveyor System was adapted to GM’s use of the Defiance Foundry because the asset was designed to connect two core robot machine cells in a specific area of Plant 1, and the conveyor was angled and elevated to conform to the building’s structure. In addition, the Core Delivery Conveyor System is the only automated conveyance system that links the CB-116 and CB-122 robot cells, two processes that are critical and necessary to produce cores for engine blocks in GM vehicles, which in turn is critical to the operation of the foundry. Thus, the Core Delivery Conveyor System is a necessary and integral part of GM’s use of the Defiance Foundry. Mr. Goesling conceded that each Representative Asset was “at least a useful adjunct to the realty, GM’s realty, considering the purposes for which GM’s realty is devoted” when it was installed. Tr. 3201:5-3205:14.

In addition, the Core Delivery Conveyor System primarily benefits the realty, as operation of a foundry is the only viable use of this facility because it would be prohibitively expensive to repurpose the site for a different business purpose. It is inconsequential whether the asset is used for iron, or aluminum, or some combination — each of the Representative Assets at Defiance is plainly adapted to foundry-specific processes on realty that cannot realistically be used for any purpose other than as a foundry. *See* Section IX.C(b) above.

Intent. GM's intent to install the Core Delivery Conveyor System permanently was shown at trial based upon the following objective facts: the Core Delivery Conveyor System is the only automated conveyance system that links the CB-116 and CB-122 robot cells, two critical processes in the Defiance Foundry's casting operations that are necessary to produce engine blocks for GM vehicles; this asset was flexible enough to handle any foreseeable changes to the design of the cores; it has operated in place since its installation in 2007; and by virtue of the extent of its attachment and adaptation to the realty.

Asset 27: Emissions System

Attachment. The parties agree attachment is satisfied. This asset's major components are attached to the building with thousands of bolts and welds; further, the Emission System is connected by fixed conduit to the plant's electrical supply and has great size and weight.

Adaptation. The Defiance Foundry was adapted to the Emissions System because this asset's size and weight required construction of unique, multi-story enclosures to house its components. The Emissions System is adapted to the Defiance Foundry because it is an essential and integral part of GM's use of the foundry to produce automotive components for its vehicles. The EPA (along with state and local governments) would not permit the operation of a cupola without the Emissions System; the Defiance Foundry cannot operate most of its melting operations without a cupola; and the operation of the cupola was critical and central to the operation of the foundry to support GM's production requirements. Mr. Goesling conceded that each

Representative Asset was “at least a useful adjunct to the realty, GM’s realty, considering the purposes for which GM’s realty is devoted” when it was installed. Tr. 3201:5-3205:14.

In addition, the Emissions System primarily benefits the realty, since (as noted) operation of a foundry is the only viable use of this facility because it would be prohibitively expensive to repurpose the site for a different business purpose. It is inconsequential whether the asset is used for iron, or aluminum, or some combination — each of the Representative Assets at Defiance is plainly adapted to foundry-specific processes on realty that cannot realistically be used for any purpose other than as a foundry.

Intent. GM’s intent to install the Emissions System permanently was shown at trial based upon the following objective facts: GM specifically designed and installed this asset in 2007 to comply with EPA requirements regarding the release of particulates from the No. 4 Cupola, and thus it is integral to the operation of the foundry; GM custom designed and built two multi-story enclosures to house this asset; the Emissions System has been operated in place since it was installed in 2007; and by virtue of the extent of its attachment and adaptation to the realty and of the realty to the Emissions System.

Asset 28: Holding Furnace

Attachment. The parties agree attachment is satisfied. To install the Holding Furnace, GM excavated a large pit, poured a concrete foundation into that pit, embedded hundreds of feet of structural steel, and installed specialized refractory brick to protect the floor. The Holding Furnace was bolted to steel pillars encased in the concrete foundation, bolted to a support structure, and connected to a high voltage electrical supply and to water lines for cooling.

Adaptation. The Defiance Foundry was adapted to the Holding Furnace by virtue of the excavation of the custom-designed foundation pit at Plant 2 to hold the furnace and by the routing of plumbing and hard conduit for utilities. The Holding Furnace was adapted to the realty because it was an essential and integral part of GM’s use of the Defiance Foundry to produce the malleable iron products for the 4 speed transmission, and the production of such

malleable iron products was central to the operation of the foundry. Mr. Goesling conceded that each Representative Asset was “at least a useful adjunct to the realty, GM’s realty, considering the purposes for which GM’s realty is devoted” when it was installed. Tr. 3201:5-3205:14.

In addition, the Holding Furnace primarily benefited the realty, as operation of a foundry is the only viable use of this facility because it would be prohibitively expensive to repurpose the site for a different business purpose. It is inconsequential whether the asset was used for iron, or aluminum, or some combination — each of the Representative Assets at Defiance was plainly adapted to foundry-specific processes on realty that cannot realistically be used for any purpose other than as a foundry.

Intent. GM’s intent to install the Holding Furnace permanently at the time it was installed was shown at trial based upon the following objective facts: the Holding Furnace was installed to fit into a unique piece of real estate in the melting area (which required a significant change to the building structure including installation of the foundation pit); it was installed to produce malleable iron parts for the 4 speed transmission to facilitate the closing of the Saginaw Malleable Foundry in 2007; GM spent \$35 million and 14 months to repurpose part of Plant 2, of which installation of this asset was a critical part; prior to its installation, GM investigated other potential uses for the Holding Furnace after malleable iron production ceased, allocating \$200 million to the project; and by virtue of the extent of its attachment and adaptation to the realty and of the realty to the Holding Furnace. Moreover, based on the notation in eFAST that the depreciable life of the asset was “accelerated,” it is likely that the original depreciable life of this asset at the time it was installed was far longer than 3 years.

Asset 38: Gas Cleaning System

Attachment. The parties agree attachment is satisfied. The Gas Cleaning System is bolted to the floor and welded to its structural support framework of I-beams. It also was connected to the plant’s electrical supply system by steel electrical conduits and to the plant’s utility network (compressed air and waste water) by steel pipe and flexible hose lines.

Adaptation. The Gas Cleaning System was adapted to GM's use of the Defiance Foundry because it was custom-designed and built to remove particulate from gases produced by the No. 4 Cupola. Because of its size, significant adaptations were also made to the building to install the Gas Cleaning System. Extensive plumbing was also installed specifically for the Gas Cleaning System. The Gas Cleaning System was essential and integral to the use of the realty because the Defiance Foundry could not legally operate the No. 4 Cupola without the Gas Cleaning System and without the cupola, the Defiance Foundry could not operate most of its melting operation, which is necessary to support GM's production requirements. Mr. Goesling conceded that each Representative Asset was "at least a useful adjunct to the realty, GM's realty, considering the purposes for which GM's realty is devoted" when it was installed. Tr. 3201:5-3205:14. Further, the Gas Cleaning System operated in place for over 30 years — beyond its useful life — until it was replaced by a new system to meet more restrictive EPA requirements.

In addition, the Gas Cleaning System primarily benefits the realty, because (as noted) operation of a foundry is the only viable use of this facility. It is inconsequential whether the asset is used for iron, or aluminum, or some combination — each of the Representative Assets at Defiance is plainly adapted to foundry-specific processes on realty that cannot realistically be used for any purpose other than as a foundry.

Intent. GM's intent to install the Gas Cleaning system permanently was plainly shown at trial based upon the following objective facts: GM could not legally operate the No. 4 Cupola without the Gas Cleaning System, and thus it was integral to the operation of the foundry; this asset was used continuously in place from the time of installation for over 30 years when new EPA regulations rendered it technologically obsolete; a majority of the asset remains in place; the size of the asset (50 tons); and the extent of degree of its attachment and adaptation to the realty and of the realty to the Gas Cleaning System. The Avoidance Trust concedes that GM intended the majority of the installed Gas Cleaning System to remain in place for its useful life. *See* p. 312 above.

Asset 39: Core Box Robot

Attachment. The parties agree attachment is satisfied. To install the Robot, GM core-drilled large holes in the floor, filled them with specialized epoxy, and used anchor bolts to attach the Robot's base plate to the floor through the epoxied holes; the resulting foundation is stronger than concrete. The Robot is also attached to cables that supply it with high pressure air, electrical power, and communication systems. Electrical power is fed to the Robot's controller by rigid conduit from the main electrical power panel.

Adaptation. The Core Box Robot was adapted to GM's use of the Defiance Foundry by virtue of its heavy integration with the other assets in this robot cell as well as the other assets necessary for the foundry's production of cores. Moreover, other integrated assets were adapted to interface with this asset, and the realty was also adapted to the Core Box Robot, as demonstrated by the specially drilled epoxy-filled holes, which were necessary to stabilize this fixture. In addition, the Robot was part of a much larger, expensive, and carefully planned manufacturing strategy integral to GM's use of the realty. Specifically, it was installed as part of a \$40 million investment that GM made to support the production of cores for engine blocks at the Defiance Foundry (a critical and central foundry operation) for GM's new Gen III V-8 Engine, and thus, the Robot was critical to the operation of the foundry. Mr. Goesling conceded that each Representative Asset was "at least a useful adjunct to the realty, GM's realty, considering the purposes for which GM's realty is devoted" when it was installed. Tr. 3201:5-3205:14.

Moreover, again, the Robot primarily benefits the realty, because (as noted) operation of a foundry is the only viable use of this facility. It is inconsequential whether the asset is used for iron, or aluminum, or some combination — each of the Representative Assets at Defiance is plainly adapted to foundry-specific processes on realty that cannot realistically be used for any purpose other than as a foundry.

Intent. GM's intent to install the asset permanently was plainly shown at trial based upon the following objective facts: installation of this asset required customization of the cell and the conveyor to which it is attached; the Robot is essential to the iron block casting operation at the

Defiance Foundry; the Robot was installed in 2005 and has operated continuously since that time; the Robot and cell are capable of handling any core that the GM core machines produce; and by virtue of the extent of its attachment and adaptation to the realty and of the realty to the Core Box Robot.

Asset 40: Charger Crane

Attachment. The Charger Crane likewise is physically attached to the realty. It is attached to the building through four load wheels that ride along Charge Crane rails, which in turn are bolted to structural support posts of the building. The Crane is in any event at least constructively attached by virtue of its enormous weight of 70 *tons*, as well as its connection to the building's 480 volt power supply. These forms of attachment satisfy the first prong of the fixture test. *See Mahon*, 20 B.R. at 839 (overhead bridge cranes were constructively attached to the building by riding on rails that were affixed to the building and because the rails would have no value without the cranes).

Adaptation. The Defiance Foundry was adapted to GM's use of the Charger Crane, as GM designed and constructed Plant 2 at the Defiance Foundry in 1964 to support this type of crane, and ordered this particular crane to conform to the building's existing infrastructure, tailoring its dimensions to fit on the rails that were installed in the Defiance Foundry decades ago. Moreover, the Charger Crane is integral to GM's use of the Defiance Foundry. GM specified and installed this Charger Crane (capable of carrying up to 15,000 pounds of scrap metal at a time) to unload the significant amounts of raw materials that were necessary for the facility's melting operation at the Defiance Foundry. Mr. Goesling conceded that each Representative Asset was "at least a useful adjunct to the realty, GM's realty, considering the purposes for which GM's realty is devoted" when it was installed. Tr. 3201:5-3205:14.

Further, once again, the Charger Crane primarily benefits the realty, because operation of a foundry is the only viable use of this facility. It is inconsequential whether the asset is used for iron, or aluminum, or some combination — each of the Representative Assets at Defiance

Foundry is plainly adapted to foundry-specific processes on realty that cannot realistically be used for any purpose other than as a foundry.

Intent. GM's intent to install the asset permanently was plainly shown at trial based upon the following objective facts: the Charger Crane is critical to the materials-handling system at the Defiance Foundry that requires delivery of a significant amount of raw materials to feed the melting lines; it is flexible enough to support the movement and delivery of any foreseeable type of raw material; the Charger Crane (and its predecessor crane) have been in place since Plant 2 was built in 1964; and by virtue of the extent of its attachment and adaptation to the realty and of the realty to the Charger Crane.

POINTS OF LAW: VALUATION

XIV. The Representative Assets sold to New GM must be valued on a going-concern basis and not a liquidation basis

The second principal issue addressed at trial is how the Representative Assets are to be valued. The valuation of the assets is governed by section 506(a)(1) of the Bankruptcy Code. That provision requires the Term Lenders' collateral to be valued in light of its "proposed disposition." For all but two of the Representative Assets, the proposed disposition as of June 30, 2009 was a sale to New GM, as part of an ongoing business, for continued use in manufacturing automobiles. The assets, therefore, must be valued on a going-concern basis, not a liquidation basis.

At trial, the experts retained by the Avoidance Trust urged the Court to disregard the proposed disposition of the Representative Assets and to imagine a different world in which there was *no* Government support for GM, *no* going-concern sale, and *no* alternative to a piecemeal liquidation. The statute, however, does not invite or permit valuations based on hypothetical transactions that were neither proposed nor effectuated. There is no legal basis to ignore Old GM's proposed disposition of its assets and to pretend that the assets would be sold for less value to buyers other than New GM.

A. Section 506(a)(1) of the Bankruptcy Code requires collateral to be valued based on the actual disposition or use proposed by the debtor.

Section 506(a)(1) of the Bankruptcy Code governs the allowance of secured claims. After stating, in relevant part, that a claim secured by a lien on property is a secured claim "to the extent of the value of such creditor's interest in the estate's interest in such property," section 506(a)(1) provides that "[s]uch value shall be determined in light of the purpose of the valuation and of the *proposed disposition or use* of such property[.]" 11 U.S.C. § 506(a)(1) (emphasis added).

"Statutory construction must begin with the language employed by Congress and the assumption that the ordinary meaning of that language accurately expresses the legislative purpose." *United States v. Kozeny*, 541 F.3d 166, 171 (2d Cir. 2008) (citation omitted). Where

the language of the Bankruptcy Code is “plain, the sole function of the courts is to enforce it according to its terms.” *United States v. Ron Pair Enters., Inc.*, 489 U.S. 235, 241 (1989) (construing section 506(b); citation omitted).

Section 506(a)(1) has a plain meaning. As the Supreme Court has explained, the statute “expressly addresses how ‘value shall be determined’” when a bankruptcy court is required to value a lender’s collateral. *Assocs. Commercial Corp. v. Rash*, 520 U.S. 953, 962 (1997) (quoting 11 U.S.C. § 506(a)(1)). Under the statute, “[t]he ‘proposed disposition or use’ of the collateral is of paramount importance to the valuation question.” *Id.* Per the Supreme Court, “[t]hat *actual* use, rather than a foreclosure sale” or some other event “that *will not take place*, is the proper guide” in valuing collateral. *Id.* at 963 (emphasis added). The statute’s “governing instruction” to focus on what the debtor actually proposes to do with its assets, and to ignore alternatives that are not proposed or effectuated, supplies a “simple rule of valuation” that fosters “predictability and uniformity.” *Id.* at 964-65.

In *Rash*, the Supreme Court — applying its holding that collateral must be valued based on the “actual” disposition or use proposed by the debtor — concluded that a truck pledged as collateral by a chapter 13 debtor should be afforded its fair-market or “replacement value,” as opposed to its liquidation or “foreclosure value,” where the truck would continue to be used by the debtor to conduct business. *Id.* at 963-64. The debtor in *Rash* sought to cram down a plan that allowed him to continue using his truck “to generate an income stream.” *Id.* at 962-63. The secured creditor, therefore, was entitled under section 1325(a)(5) — the chapter 13 equivalent of section 1129(b)(2)(A) — to receive payments under the plan equal to the present value of its collateral. *Id.* at 957.

Based on section 506(a)(1), the Supreme Court rejected the debtor’s assertion that the truck’s present value should be limited to the amount the lender would receive in a hypothetical liquidation sale. The Court held instead that, in light of the statutory command that collateral be valued based on its “proposed disposition or use,” the debtor’s retention of his truck to generate income required that the truck be valued based on its “replacement value,” namely the amount

the debtor would have to pay for a similar income-generating truck. *Id.* at 963. According to the Court, this “replacement-value standard,” in contrast to a liquidation-value standard, would “accurately gauge[] the debtor’s ‘use’ of the property” and the “‘economic benefit’” received by the debtor from “us[ing] the collateral to generate an income stream.” *Id.* (quoting *In re Winthrop Old Farm Nurseries, Inc.*, 50 F.3d 72, 75 (1st Cir. 1995)); *see also Till v. SCS Credit Corp.*, 541 U.S. 465, 476 n.13 (2004) (under *Rash*, a “creditor’s secured interest should be valued from the debtor’s . . . perspective” based on debtor’s “actual use” of the collateral).

Although *Rash* did not involve a sale of collateral, the approach dictated by *Rash* — in particular, the requirement that the court value collateral in light of its “actual” disposition and the “economic benefit” received by the debtor — applies equally in the context of a section 363 sale of a going concern. Courts have consistently held that, under section 506(a)(1) and *Rash*, “going-concern” value, as opposed to liquidation value, must be ascribed to assets that are sold in bankruptcy “as part of the business as a going concern.” *In re SK Foods, L.P.*, 487 B.R. 257, 263 (E.D. Cal. 2013); *accord, e.g., In re Wendy’s Food Sys., Inc.*, 82 B.R. 898 (Bankr. S.D. Ohio 1988) (rejecting liquidation value for fixtures and equipment sold as part of going concern); *In re United Puerto Rican Food Corp.*, 41 B.R. 565, 571 (Bankr. E.D.N.Y. 1984) (rejecting liquidation value for collateral sold as going concern). As discussed further below, courts have also repeatedly concluded that, when collateral is actually sold as part of a going concern during the bankruptcy case, the purchase price is the best indicator of the assets’ going-concern value under section 506(a)(1). *See* Section XV.A below.

This approach makes complete sense. When a debtor in bankruptcy sells collateral as part of a going concern, the debtor derives an “economic benefit” — in the form of the purchase price — from the buyer’s continued use of the collateral to generate earnings; under *Rash*, secured creditors are entitled to share in that benefit. *Rash*, 520 U.S. at 963. Consistent with this logic, it is well-established that when a secured lender’s collateral increases in value “during bankruptcy,” including in the context of a sale, that increase in value “rightly accrues to the benefit of the [secured] creditor.” *Dewsnup v. Timm*, 502 U.S. 410, 417 (1992); *see also Urban*

Communicators PCS Ltd. P'ship v. Gabriel Capital, L.P., 394 B.R. 325, 336 (S.D.N.Y. 2008) (valuing collateral based on the amount paid to the debtor in a post-petition sale, even when that value has increased, is “consonant” with “the direction of *Dewsnup*”).

This Court’s decision in *Residential Capital* (“*ResCap*”) is instructive. At issue in *ResCap* was whether second-lien creditors were entitled to adequate protection payments at the end of the case. To determine whether the collateral diminished in value during the case, the Court had to compare the value of the lenders’ collateral as of the petition date with the value of that collateral on the effective date of the plan. The debtors argued that the value of the collateral as of the petition date should be tied to the lenders’ limited power as of that time — namely, the ability to foreclose on the property and conduct a fire sale. But the Court rejected that position. The Court concluded instead that, because the debtor did not contemplate a “foreclosure sale” as of the petition date, but rather intended “to market and sell” the collateral “as a going concern,” the valuation of the collateral had to be “based on the proposed disposition of the collateral” — namely, its “fair market value” as part of a going concern. *In re Residential Capital, LLC*, 501 B.R. 549, 593-95 (Bankr. S.D.N.Y. 2013) (citing *In re Winthrop Old Farm Nurseries*, 50 F.3d at 75-76).

In *ResCap*, the Court went on to conclude that adjustments were necessary to the secured lenders’ proposed valuation of their collateral because the lenders assumed that the collateral “could have been sold on the Petition Date by the Debtors,” when in fact the Debtors expended “hundreds of millions of dollars” after the petition date to acquire consents and “settle billions of dollars” of claims before selling the assets approximately six months into the case. *Id.* at 595-96. Thus, in *ResCap*, the assets for sale “could not simply be turned over to a buyer” prior to the significant “work conducted during the bankruptcy necessary to make them saleable.” *Id.* at 596. Here, in comparison, Old GM filed for bankruptcy on June 1, 2009 with a fully baked, pre-negotiated deal to sell its assemblage of assets to New GM for an agreed price. Tr. 1809:8-22 (Worth); DX4. And as discussed below (Point XIV.C), the sale was on the verge of being completed as of June 30, 2009, the valuation date.

B. In this case, the Bankruptcy Court has already recognized that collateral sold to New GM should be valued on a going-concern basis.

In analyzing how to value collateral transferred to New GM, this Court has the benefit of a prior decision that addressed the same threshold issue presented here. In that decision, Judge Gerber agreed that, as of Old GM's bankruptcy filing on June 1, 2009, the assets that Old GM proposed to sell to New GM should not be valued on a liquidation basis but, instead, must be valued on a going-concern basis. *See In re Motors Liquidation Co.*, 482 B.R. 485 (Bankr. S.D.N.Y. 2012) ("*Motors Liquidation I*").

As here, *Motors Liquidation I* addressed claims by secured creditors, known as the "TPC Lenders," that held liens on some (but not all) assets sold to New GM — a transmission manufacturing plant in Maryland and a parts distribution center in Tennessee. *Id.* at 487. The TPC Lenders sought a valuation of their collateral to determine the extent to which they were entitled to payment in cash as opposed to New GM securities. *Id.* at 488.

Applying section 506(a)(1), Judge Gerber noted that the "purpose of the valuation" was "to determine the value of the TPC Properties" so that the secured creditors could be paid the appropriate amount in cash. *Id.* at 490. The Court agreed with the TPC Lenders that the "proposed disposition or use of" the collateral — as of the June 1 petition date (30 days before the valuation date here) — was that it would be sold, "*on an arm's length basis and for fair consideration*," as "part of a *going-concern sale* of the overwhelming majority of Old GM's business and assets." *Id.* at 491 (emphasis added). In light of this "proposed disposition or use" of the collateral, the Court further agreed that the collateral should be valued on a going-concern and *not* a liquidation basis: "each side, understandably, recognizes that the fair market value" of the assets "would *not* be the value on liquidation." *Id.* at 493 (emphasis added).

In *Motors Liquidation I*, while all agreed that the collateral should be valued as a going concern, the parties disagreed on the specific valuation approach. The Debtors proposed a "fair market value" standard that included deductions for obsolescence. The TPC Lenders, in contrast, argued for a standard that would not include deductions for obsolescence. *See id.* at

494. Judge Gerber concluded that the obsolescence adjustments were appropriate in determining the fair market value. *See id.* at 495. Here, both KPMG’s RCNLD values and Mr. Chrappa’s appraisal values include extensive deductions for physical deterioration, functional obsolescence and economic obsolescence (based on utilization rates), and thus are consistent with the approach adopted by Judge Gerber.

C. As of June 30, 2009, Old GM proposed to sell the vast majority of the Representative Assets to New GM as part of a going concern.

Application of section 506(a)(1) to the facts of this case is straightforward. As of June 30, 2009 — even more so than as of June 1, 2009, the valuation date in *Motors Liquidation I* — the proposed disposition of the Old GM’s assets was patently clear. Pursuant to the Sale Motion filed with the Court, and the accompanying sale agreement executed prior to the bankruptcy filing, substantially all of Old GM’s assets would be sold as an assemblage to New GM and continue to operate in place to manufacture cars. *See* Section II.B above; DX4; DX1. As Mr. Worth of Evercore testified, the preservation of those assets’ going-concern value was “unquestionably” Old GM’s goal in proposing the section 363 sale. Tr. 1812:5-8 (Worth).

Old GM was not alone in recognizing that the section 363 sale was intended to preserve the going-concern value of the assets being sold. The Official Committee of Unsecured Creditors — to which the Avoidance Trust is the successor in this litigation — supported the sale on the explicit basis that it would “preserve the going-concern value of the Debtors’ businesses.” DX9 at 7. The U.S. Treasury (the source of funding for this litigation), in its submission supporting the sale, likewise stated that the section 363 sale represented GM’s “path to long-term viability.” Bk. Docket No. 37.

By June 30, moreover, the going-concern sale was not just “proposed” to occur on some future date, as in *ResCap*, but the obstacles to the sale had been cleared away. By that date, the “intense arms’-length negotiations” over the sale terms had been completed, the deadline for competing bids had passed, the Court had authorized the DIP financing from the U.S. Government that would be used for New GM’s credit bid, and the DIP loans had been funded.

In re Gen. Motors Corp., 407 B.R. at 485, 494. The conditions to closing, accordingly, were on the verge of being satisfied. All that was left was for the Court to approve a sale that had overwhelming support, which it did days later on July 5, 2009. *Id.* at 475.

Another point regarding the “proposed disposition” of the collateral deserves emphasis: The simple fact is that, in connection with the sale, Old GM’s *unsecured* creditors — the beneficiaries of the Avoidance Trust — themselves obtained very significant recoveries based on a going-concern premise of value. As explained above, the sale agreement contemplated that Old GM would receive, for the benefit of its unsecured creditors, fully 10% of New GM’s equity *plus* warrants to purchase an additional 15% of the equity. *See* Sections II.B-II.C, above; Pretrial Order ¶ 36; Tr. 1837:4-18 (Worth) (unsecured creditors received a portion of New GM’s “upside” and “going-concern value”). GM’s financial advisor, Evercore, valued this consideration at between \$7.4 billion and \$9.8 billion. JX3 at 106-107; Tr. 1839:11-16 (Worth). Absent the going-concern sale supported by the Government, the same unsecured creditors would likely have received “nothing.” Feldman Dep. 123:17-24.

In this litigation, therefore, the Avoidance Trust has taken the extraordinary position that, although unsecured creditors were able to share in the going-concern value resulting from the section 363 sale, secured lenders should now be deprived of that same going-concern value and instead be left with an estimate of whatever could be realized in a liquidation that was never proposed. The plain language of section 506(a)(1), and the case law applying that language, preclude this result: Secured lenders are entitled to share in the “economic benefit” obtained by the debtor through the “actual use” of the lenders’ collateral, and are thus entitled to have their collateral valued as part of a going concern. *Rash*, 520 U.S. at 963.

D. The valuation opinions of Professor Fischel and Mr. Goesling are in conflict with section 506(a)(1).

The trial confirmed that the positions taken by the Avoidance Trust — in particular, by its valuation experts — cannot be reconciled with section 506(a)(1) of the Bankruptcy Code. One of the experts, Professor Fischel, opined that the “proposed disposition” of the Term Lenders’

collateral should be ignored because it included Government support. The other expert, Mr. Goesling, was told to assume that the “proposed disposition” should be ignored in light of that support. Neither expert provided any valid basis to ascribe liquidation values to the 38 Representative Assets sold to New GM.

1. Professor Fischel’s valuation opinion

In his direct testimony, Professor Fischel claimed that because the U.S. Government financed the section 363 sale — and because, in his opinion, Old GM would likely have been liquidated absent Government intervention — all of the Representative Assets should be given “the value that would be obtained in a liquidation, *i.e.*, the estimated price one would have expected to receive as of June 30, 2009 as part of a sale” in which the collateral “was disposed on a piecemeal basis through the appropriate secondary markets.” Fischel Direct ¶ 18.

Professor Fischel acknowledged that this opinion is based on counterfactual assumptions. He agreed that, as of June 30, 2009, Old GM proposed to sell its assets to New GM (Tr. 2557:5-2557:21); he agreed that New GM would continue to use those assets to manufacture cars (Tr. 2558:8-14); and he agreed there was “no doubt” that Old GM preferred the section 363 sale to a liquidation alternative (Tr. 2558:15-2562:14). While insisting that the assets sold to New GM should nonetheless be valued on a “piecemeal liquidation” basis, Professor Fischel offered a peculiar definition of that term unrelated to its common meaning and at odds with the meaning articulated by Mr. Goesling. *Compare* Tr. 2573:4-7 (Fischel) (defining a “piecemeal disposition” as a sale of “any combination of assets, individually or in combination, that’s short of a sale of the entire firm”), *with* Tr. 3366:2-8; 3367:4-6 (Goesling) (defining “piecemeal” liquidation as “as it’s commonly used” to mean that individual assets or systems would be “removed” from the plant and sold).

To Professor Fischel, accordingly, a piecemeal liquidation includes *any* sale of “assets . . . short of a sale of the entire firm.” Tr. 2561:10-11; Tr. 2573:4-7. As Professor Fischel acknowledged, the section 363 sale itself would “qualify” as a piecemeal sale, offering as an

afterthought that this was not the “meaning [he] intended.” Tr. 2560:17-2562:7. Even then, Professor Fischel agreed that the sale of a “collection of assets,” used together to “generate positive cash flows,” would generate more value than a sale of individual assets. Tr. 2562:25-2276:24. And in a portion of his deposition played at trial, Professor Fischel testified that “it might be correct” that the “highest and best use for the assets acquired by new GM from Old GM were for their existing use” in manufacturing automobiles. Tr. 2579:23-2580:8.

The crux of Professor Fischel’s opinion appears to be that, for valuation purposes, the Court should simply pretend that the section 363 sale did not occur, and should value the collateral at “liquidation” because — absent Government support — he thinks that “liquidation” would have been the likely result. Fischel Direct ¶¶ 18, 90, 94; Tr. 2584:11-2585:4; 2586:3-2587:3. Professor Fischel, however, offered no more specific guidance on how to value assets on a “piecemeal liquidation” basis. In particular, he refused to endorse the “liquidation value in exchange” premise of value put forward by Mr. Goesling, explaining that he did not know Mr. Goesling’s opinion on the subject, he did now know “what Mr. Goesling did,” and he had not testified before on this “appraisal concept.” Tr. 2565:7-13, 2572:13-18, 2576:25-2577:3, 2681:8-10.

Professor Fischel’s opinion, limited as it is, runs afoul of section 506(a)(1) of the Bankruptcy Code. In advocating for a “liquidation” standard that disregards the Government-supported sale, Professor Fischel ignores not just the “proposed disposition” of the assets but the reality that Old GM, by virtue of the Government-backed sale, *actually received* value for its assets far in excess of “liquidation value” as it is normally understood. *See* JX3 at 107 (Evercore comparison of purchase price to liquidation value). In exchange for its assemblage of assets, Old GM received a credit bid that Evercore valued at \$48.7 billion (JX3 at 104); New GM, in turn, assumed some \$48.4 billion in liabilities (JX3 at 107) and provided Old GM with equity and warrants valued at \$7.4 billion to \$9.8 billion (*id.*). As Professor Fischel testified, this was quite a “good deal” for the Old GM estate. Tr. 2583:8-11.

The fact that Government action can affect asset values, for better or for worse, is nothing new. As Judge Friendly put it in *Regional Rail*, all businesses “take their chances on what government may do in the way of regulating them or helping their competitors.” *Matter of Valuation Proceedings Under Sections 303(c) and 306 of Regional Rail Reorganization Act of 1973*, 445 F. Supp. 994, 1022 (Sp. Ct. R.R.R.A. 1977) (“*Regional Rail*”). That fact, however, offers no support for ignoring the Government in the context of a valuation under section 506(a)(1), which requires — without exception — that collateral be valued based on the “actual” disposition proposed by the debtor and the “economic benefit” received by the debtor. *Rash*, 520 U.S. at 963; *Till*, 541 U.S. at 476 n.13.

Examples abound of situations in which Government action or inaction can affect the value of collateral under section 506(a)(1), but courts do not deliberately disregard the Government in the way suggested by Professor Fischel. In *Urban Communicators PCS*, the value of spectrum licenses pledged as collateral fluctuated significantly as the FCC canceled and then restored the debtor’s licenses. 394 B.R. at 328-31. The court had no difficulty concluding that, when the licenses were restored during the bankruptcy case, secured creditors would be entitled to the full value of their collateral, in the context of a sale, to prevent a “windfall” to “junior creditors.” *Id.* at 337.

Likewise, in the *Chrysler* case — which was closely analogous to *General Motors* in terms of Government financing and support for the purchaser — first-lien lenders received “an immediate and indefeasible distribution of all of the \$2 billion” in cash paid to Chrysler by the purchaser, an amount that greatly “exceed[ed] the value in liquidation of \$800 million.” *In re Chrysler LLC*, 405 B.R. 84, 98 (Bankr. S.D.N.Y. 2009). Far from suggesting that the first-lien lenders could have been relegated to the \$800 million liquidation value due to the Government’s intervention, Judge Gonzalez pointed to the fact that “the full value of the collateral will be distributed to the First-Lien Lenders” as a basis to overrule objections to the sale from a small minority of those lenders. *Id.*

Notably, Professor Fischel acknowledged that, as an economic matter, there is “no question” that the price of a bond is the price at which it is sold, *even if* the price is affected by Government action to support the financial markets or if the Government itself buys the bond for public policy reasons. Tr. 2590:22-2591:6. In deposition testimony shown at trial, Professor Fischel likewise agreed that, when the Government pays more for an asset than a private party would pay in order “to advance a political or social purpose,” the “price at which the asset was sold” still determines the “value of the asset.” Tr. 2591:23-2592:9.

This logic applies with full force to the section 363 sale. The Government entered the market and supported the sale. That there was no army of putative buyers lining up to bid is of no moment, because there was one motivated buyer — willing to pay the price it did — and one buyer was all that Old GM and its stakeholders needed.¹⁵⁹

2. Mr. Goesling’s original valuation opinion

Mr. Goesling’s valuation testimony simply assumed away the “proposed disposition” of the Representative Assets. Goesling Direct ¶ 387. As counsel for the Avoidance Trust stated at trial, “Mr. Goesling was asked to assume that there was no going-concern value to Old GM,” despite the pending sale to New GM, and “proceeded to appraise the assets from that assumption.” Tr. 3399:3-6. Mr. Goesling thus “assumed away the existence of a contract requiring the disposition of the assets to New GM.” Tr. 3401:12-16.

¹⁵⁹ In its pretrial brief, the Avoidance Trust cited *De La Rama Steamship Co. v. United States*, 92 F. Supp. 243 (S.D.N.Y. 1950), for the proposition that government-subsidized transactions do not “reflect true market value.” Pls. Pretrial Br. 128. *De La Rama* has no bearing here. *De La Rama* involved the wartime requisition of a ship, and the resulting need for “just compensation,” in a context where there was no “market.” *De La Rama*, 92 F. Supp. at 251. During World War II, the Government was selling the vessels at a fraction of their normal price, with extraordinary restrictions on resale and use. *Id.* at 250. In that context, the Court valued the ship based on factors including “reconstruction cost less depreciation.” *Id.* at 251. Here, in comparison, the Government acted as a market participant, *without* exercising its eminent domain power. Section 506(a)(1) requires the collateral to be valued based on its proposed (and actual) disposition.

Based on that assumption, and the counterfactual premise that there was no “government subsidy,” Mr. Goesling testified that “value in exchange,” rather than “value in continued use,” is the appropriate valuation metric for assets sold to New GM, and that the assets should be afforded their Orderly Liquidation Value, *i.e.*, the value that could be obtained in a liquidation sale over a 9-18 month period. Goesling Direct ¶¶ 386-87, 390. Using this approach, Mr. Goesling valued each asset as if it had been removed from GM’s property and sold on its own. *See* Section VI.A above; Tr. 3367:2-15. The result of this approach, Mr. Goesling agreed, was that the “vast majority” of the “value of the assets that comes from them being assembled in an integrated, sophisticated, modern manufacturing facility is lost.” Tr. 3368:14-3369:3. Indeed, under Mr. Goesling’s approach, all the value associated with the engineering, planning and installation that make the individual machines into an integrated, mass production factory is forfeited, while the cost that the purchaser incurs to remove the machine and thereby destroy that value effectively reduces the purchase price.

As set forth in the proposed Findings of Fact above, *see* Sections V.A and VI.A above, Mr. Goesling’s appraisal of the Representative Assets sold to New GM is flawed from an appraisal standpoint because, among other things, Mr. Goesling failed to consider critical facts in determining what is “legally permissible, physically possible, financially feasible, and maximally productive.” Goesling Direct ¶ 383. But as a legal matter, Mr. Goesling’s appraisal is flawed for the simple reason that Mr. Goesling — by assuming that there was no Government action and no sale to New GM — disregarded the “proposed disposition” of the Term Lenders’ collateral.

Mr. Goesling also tried to defend his liquidation approach by arguing that the section 363 sale, despite being favorable to Old GM and its stakeholders, was the result of “compulsion.” *See* Section VI.A above; Goesling Direct ¶ 389. As discussed above, this contention is not supported by the appraisal literature, which does not define “compulsion” to include a favorable, voluntary transaction of the kind at issue here, but instead requires that the sale be compelled by external action such as an un-stayed court order. *See* Section VI.A above.

In any event, the notion that the section 363 sale was “compelled” is at odds with both the trial record and the Bankruptcy Code. As shown at trial, Old GM’s board made the decision to pursue the section 363 sale because it was hugely advantageous to the company. JX3 at 107 (Evercore board presentation valuing the consideration of the 363 sale at over \$90 billion as compared to an estimated \$6 to \$10 billion liquidation value); *see also* Tr. 1806:24-1807:4 (Worth) (“The premise for the filing was that the board had approved entering into a 363 sale to a consortium led by the U.S. Treasury and given that alternative, the board opted to file for bankruptcy.”). Old GM’s chapter 11 filing was voluntary, Old GM obtained the benefit of an automatic stay, and it was the movant in connection with the section 363 sale. *See* DX4. In approving the section 363 sale, the Bankruptcy Court found that, far from selling its assets under duress, Old GM received a purchase price for its assets that was “fair to GM.” *In re Gen. Motors Corp.*, 407 B.R. at 481. The Court also concluded that “the 363 Transaction was the product of intense arms’-length negotiations.” *Id.* at 494.

As Mr. Goesling made clear at trial, the import of his “compulsion” theory is that *every* section 363 sale involving a liquidity-constrained debtor is “compelled.” Tr. 3379:23-3380:4. Evincing a limited understanding of the protections offered to debtors by the Bankruptcy Code, when asked whether “every 363 sale in a bankruptcy case where the debtor doesn’t have funds to continue a sale [is] under compulsion,” Mr. Goesling answered: “Offhand, I would say so, yes.” *Id.* The next day, with more time to consider the question, he gave the same answer: In response to the Court’s question whether “any debtor in a bankruptcy case that is running out of money to operate within the next 30, 60, 90 days is under compulsion to sell,” Mr. Goesling testified that “generally, it would be the case” and he “can’t think of” any “exceptions.” Tr. 3487:18-3488:6. Mr. Goesling was also asked whether he would ever “value the assets as a going concern where they’re going to be sold in a section 363 sale, since they’re under compulsion.” He responded that he would value the assets as a going concern “from the perspective of the buyer” but *not* from the perspective of the seller, even though the seller receives the purchase price for the assets. Tr. 3380:5-18.

This position flies in the face of the case law applying section 506(a)(1). Under the case law, when collateral is sold under section 363, secured lenders are entitled to share in the “economic benefit” to the debtor resulting from the use or sale of collateral. *Rash*, 520 U.S. at 963; *accord Till*, 541 U.S. at 476 n.13 (collateral should be valued from the “debtor’s . . . perspective”). Mr. Goesling’s “compulsion” theory is likewise in tension with the case law governing section 363, under which — as noted in *Chrysler* — a debtor has the prerogative to “preserve [its] going concern value,” for the benefit of creditors, even when it has no “viable sources for financing.” 405 B.R. at 96 (citing cases). The case law, in sum, thoroughly refutes Mr. Goesling’s opinion that secured lenders should receive liquidation value whenever a liquidity-constrained debtor sells its assets under section 363 of the Bankruptcy Code.

3. Mr. Goesling’s additional valuation opinion

At his deposition in this case, Mr. Goesling expressed the opinion, for the first time, that because the assets subject to the Term Lenders’ collateral comprised only a “fraction of [GM’s] business enterprise,” and did not comprise all “the property that’s needed” to manufacture cars, the collateral should be valued on a liquidation basis rather than a going-concern basis. Docket No. 875 (Decl. of S. Christopher Szczerban), Ex. 2 (Goesling Dep. at 740:7-22). At trial, Mr. Goesling again stated that, in reaching his conclusion that liquidation value was the appropriate premise of value, he “considered that from the lenders’ perspective they have a small subgroup of assets that are not enough to make up a business.” Tr. 3376:17-3377:3.

Mr. Goesling, however, has acknowledged that this opinion was *not* in either his initial report or his rebuttal report. Tr. 3375:21-3376:7. As a result, the opinion should be disregarded.¹⁶⁰

¹⁶⁰ See, e.g., Fed. R. Civ. P. 37(c)(1) (“If a party fails to provide information . . . as required by Rule 26(a) or (e), the party is not allowed to use that information or witness to supply evidence on a motion, at a hearing, or at a trial, unless the failure was substantially justified or is harmless.”); *Franconero v. UMG Recordings, Inc.*, 542 F. App’x 14, 16 (2d Cir. 2013) (affirming exclusion of expert affidavit that was “not included in [the expert’s] earlier report”).

Mr. Goesling's opinion is also wrong as a matter of law. Section 506(a)(1) requires collateral to be valued in light of its "proposed disposition or use," regardless of whether the secured party has a lien on *all* the property that is necessary to that disposition or use. A decision to the contrary would have enormous consequences, and would be tantamount to a judicial proclamation that secured lenders must take comprehensive blanket liens to obtain going-concern valuations. That is not the law. In *Motors Liquidation I*, Judge Gerber agreed that a transmission plant and distribution center sold to New GM should be valued on a going-concern basis, even though a host of other assets would be needed to have a complete car company. 482 B.R. at 493; *see also ResCap*, 501 B.R. at 595 (valuing particular assets owned by the debtor on a going-concern basis).¹⁶¹

Other courts have likewise concluded that, where a lender's security interest extends to some but not all assets that are part of a going concern, the collateral is valued on a going-concern basis. For example, in *In re Chateaugay Corp.*, 154 B.R. 29 (Bankr. S.D.N.Y. 1993), lenders had a security interest in physical assets at a plant that the debtor proposed to continue operating following emergence from bankruptcy. The debtor argued that "because the [mortgage] only granted . . . an interest in certain hard assets, such as buildings and machinery, the going-concern value of [the plant] should not be considered in valuing the [creditors'] security interest," because the lien did not cover *all* the assets necessary to operate a going concern. *Id.* at 33. Judge Lifland rejected this argument and held instead that, under section 506(a)(1), the assets should be given their proportionate share of the going-concern value in light of the "proposed disposition." *Id.* at 33-34.¹⁶²

¹⁶¹ As discussed in the proposed Findings, the appraisal literature leads to the same result. *See* DX354 at 11 ("The continued use concepts consider the property *as a part of* a business enterprise" (emphasis added)); Section VI.A above.

¹⁶² *See also, e.g., In re Hawaiian Telcom Commc'ns, Inc.*, 430 B.R. 564, 602-04 (Bankr. D. Haw. 2009) ("In apportioning going concern value of a company between encumbered and unencumbered assets, going concern value should be attributed to an asset in proportion to that asset's value in relation to the total value of all of the assets."); *In re Fiberglass Indus., Inc.*, 74 B.R. 738, 740-42 (Bankr. N.D.N.Y. 1987) (ascribing "going concern" rather than "liquidation"

The same approach has been applied when the debtor sells a business that includes both encumbered and unencumbered assets. For example, in *In re Wendy's Food Sys., Inc.*, 82 B.R. 898, 899 (Bankr. S.D. Ohio 1988), the debtor sold nine restaurants; the secured lenders had a lien on the fixtures and equipment in six of the nine. *Id.* at 899. The debtor urged the court to value the collateral on a liquidation basis. *Id.* at 899. The lenders argued for going-concern value. *Id.* at 899. Agreeing with the lenders, the court held that the fixtures and equipment should be valued on a “going concern” or “in-place” basis because the restaurants were being sold based “upon the ability of the entire mix to turn a profit.” *Id.* at 899-900; *see also, e.g., In re LTV Steel Co., Inc.*, 285 B.R. 259, 268-69 (Bankr. N.D. Ohio 2002) (valuing real and personal property at steel plants on a going-concern basis where the “[p]ersonal property, fixtures, real estate, and intangibles were sold together to be operated as a going concern” and their “positive and negative values were inextricably intertwined”); *In re United Puerto Rican Food Corp.*, 41 B.R. 565, 571 (Bankr. E.D.N.Y. 1984) (valuing equipment and fixture collateral in supermarket on an “in-place” basis where the store was being sold as a “functioning enterprise”).

In this case, the assets sold to New GM were sold together as a going concern. As Mr. Goesling testified, the specific assets pledged to the Term Lenders were absolutely essential to the going concern: “New GM could not successfully operate without these assets.” Tr. 3377:9-13. Mr. Goesling also conceded that because of this fact, Old GM had the “leverage” to require the purchaser to “buy everything so that the assets” could “operate in a going concern.” Tr. 3378:6-12. Mr. Goesling, accordingly, has no basis to opine that the Term Lenders’ collateral should be valued on a liquidation basis merely because New GM also acquired assets that were not subject to the Term Lenders’ lien.

values to “personal property and fixtures” within a glass production facility that the debtor proposed to retain and use post-confirmation).

XV. Applying the proper going-concern measure, the Court should adopt KPMG’s RCNLD values for 33 of the Representative Assets and, for the other assets, the appraisal values of Mr. Chrappa.

Once it is determined that the Representative Assets sold to New GM should be valued on a going-concern and not a liquidation basis, the remaining question is how to determine going-concern value. At trial, the Court heard extensive testimony regarding the approaches used by KPMG to determine the RCNLD values of 33 of the Representative Assets and by Carl C. Chrappa to appraise all 40 Representative Assets. As regards KPMG, the testimony of Patrick Furey established beyond any doubt that, contrary to what the Avoidance Trust had asserted before trial, KPMG *did* value each of the individual assets sold to New GM, including 33 of the Representative Assets. KPMG devoted massive resources to that project and used a standard and reliable methodology. *See* Section III above. As regards Mr. Chrappa, the evidence likewise showed that he employed a standard and reliable methodology in appraising all of the Representative Assets. *See* Section V above.

The Court also heard extensive testimony at trial about KPMG’s valuation of New GM’s “TIC” — what Mr. Klein called the “hypothetical” purchase price derived by KPMG. Klein Direct ¶ 50. As described above, KPMG concluded that the hypothetical purchase price was not sufficient to support KPMG’s individual RCNLD values, and thus applied the “TIC Adjustment.” *See* Section II.B above.

Two main issues are now presented: (1) should the asset-by-asset valuations of KPMG and Mr. Chrappa be credited; and (2) should the Court reduce KPMG’s RCNLD values, or Mr. Chrappa’s appraisal values, based on KPMG’s TIC Adjustment.

As to the first issue, the evidence at trial, analyzed against the backdrop of section 506(a)(1), overwhelmingly supports reliance on KPMG’s RCNLD values and, for assets not valued by KPMG, Mr. Chrappa’s appraisal values. Those values were derived based on valuation approaches that are consistent not only with the appraisal literature, as shown above, but also with the case law governing section 506(a)(1), as shown below.

As to the second issue, the evidence at trial, again analyzed against the backdrop of section 506(a)(1), does not support applying the TIC Adjustment to the RCNLD/Chrappa values for purposes of valuing collateral under the Bankruptcy Code. As discussed below, in applying section 506(a)(1) to the facts of this case, the proper guidepost is the purchase price in the section 363 sale (or, at the very least, the purchase price minus the Government subsidy calculated by Professor Hubbard). Section 506(a)(1) and related case law provide a strong basis to reject any deduction to the RCNLD values predicated on KPMG's TIC — a DCF-based valuation used to compute a “hypothetical” purchase price — when the *actual* purchase price does not support any such deduction. Other evidence at trial provides further grounds to adopt the RCNLD values without the TIC Adjustment.

A. The consideration paid to the estate in a section 363 sale generally determines the value of purchased collateral under section 506(a)(1).

Where assets pledged as collateral are sold by the debtor as part a going concern, it is well-established that the sale price determines the value of the collateral. As explained by Collier, under section 506(a)(1), the value of collateral that the debtor proposes to sell should be “based on the consideration to be received by the estate in connection with the sale, provided that the terms of the sale are fair and were arrived at on an arm's length basis.” 4 COLLIER ON BANKRUPTCY § 506.03[6][b] (16th ed.) (citing cases).

Courts, accordingly, have “routinely held that so long as the sale price is fair and is the result of an arm's-length transaction,” it is appropriate to “use the sale price, not some earlier hypothetical valuation, to determine” collateral value. *SW Boston Hotel Venture, LLC v. City of Boston*, 748 F.3d 393, 411 (1st Cir. 2014) (citation omitted); *accord, e.g., Urban Communicators PCS Ltd.*, 394 B.R. at 336 (“actual sale price” paid by buyer in section 363 sale was proper measure of value under section 506(a)); *In re Residential Capital*, 501 B.R. at 603 (“Where, as here, an asset is sold in an arm's-length transaction, the fair market value of such asset is

conclusively determined by the price paid.”).¹⁶³ This principle is fully applicable in the context of a credit bid: Section 363(k) of the Bankruptcy Code permits secured lenders to bid “the full face value of their secured claims,” and allows the court to “*avoid* the complexities and inefficiencies of valuing collateral” by using the amount of the credit bid to set the “assets’ worth.” *In re SubMicron Sys. Corp.*, 432 F.3d 448, 459-61 (3d Cir. 2006); *accord, e.g., In re Spillman Dev. Grp., Ltd.*, 710 F.3d 299, 307-08 (5th Cir. 2013) (credit bid is “equivalent” to its value in cash).

In this case, there can be no dispute that New GM paid a fair price from Old GM’s perspective as part of an arms’-length transaction. As noted, Judge Gerber already found — and no one has contested — that the sale “was the product of intense arms’-length negotiations” and that the “purchase price” was “fair.” *In re Gen. Motors Corp.*, 407 B.R. at 494; *accord* Bk. Docket No. 2968 (Order Authorizing Sale) ¶¶ Q, 50.

The evidence at trial was entirely consistent with this finding. It showed that Evercore, as financial advisor for Old GM, determined that the net consideration received by Old GM for its assets was in the range of \$91.2 billion to \$93.6 billion, and that this price was “fair.” *See* JX3 at 107, 15-23. The evidence also showed that the purchase price paid by the U.S. Treasury for its equity implied that all of New GM’s equity had a value of \$65 billion or, if public policy goals are considered, a value in the range of \$33.4 billion to \$40.1 billion. Hubbard Direct ¶¶ 9, 85-87. The trial also confirmed that these transaction terms were heavily negotiated among Old GM, the U.S. Treasury and bondholders.¹⁶⁴

¹⁶³ *See also, e.g., Ford Motor Credit Co. v. Dobbins*, 35 F.3d 860, 870 (4th Cir. 1994) (“the sale price . . . is conclusive evidence of the property’s value” for purposes of section 506(a)(1)) (citation omitted); *In re Alpine Grp, Inc.*, 151 B.R. 931, 935 (B.A.P. 9th Cir. 1993) (“offered price . . . is conclusive evidence of the property’s value”); *In re Toy King Distribs*, 256 B.R. 1, 191 (Bankr. M.D. Fla. 2000) (price received in bankruptcy sale was dispositive).

¹⁶⁴ *See, e.g.,* DX4 at 4 (“the United States Government has dedicated substantial time and effort negotiating with the Company to preserve the going concern value of the GM enterprise”); Tr. 1847:8-13 (Worth) (unsecured creditors negotiated their equity recovery).

Section 506(a)(1) provides no license to ignore the purchase price simply because the buyer had motivations beyond profit. What matters under section 506(a)(1) is the actual “consideration to be received by the estate.” 4 COLLIER ON BANKRUPTCY § 506.03[6][b] (16th ed.); *see Rash*, 520 U.S. at 963 (collateral is to be valued based on the “economic benefit” received by the debtor from “actual use” of the collateral). Looking behind the purchase price would defy this mandate. If an internet billionaire buys a money-losing newspaper to communicate his or her opinions — understanding that the paper will never turn a profit — are secured creditors not entitled to benefit from the “overpayment”? Could unsecured creditors challenge the price paid for a sports team because the buyer was pursuing a childhood dream rather than a good business opportunity? These sorts of inquiries have no support in the statute, and would lead to needless litigation by unsecured creditors seeking to second-guess the prices received in market transactions.

Judge Easterbrook’s opinion in *United Air Lines, Inc. v. Reg’l Airports Imp. Corp.*, 564 F.3d 873, 875-76 (7th Cir. 2009), provides useful guidance on this issue. In that case, United had leased terminal space at Los Angeles International Airport from the City of Los Angeles, and the leases served as collateral for a secured loan. *Id.*; *see also UMB Bank, N.A. v. United Air Lines, Inc.*, 2008 WL 4866188, at *1 (N.D. Ill. June 13, 2008), *rev’d sub nom. United Air Lines*, 564 F.3d 873. Claiming that the bankruptcy court had undervalued the leases, the lenders argued, among other things, that the rental rate paid by United reflected a subsidy from the City and that the unsubsidized market rate of the terminal space — and thus the value of the leases — was higher than what United actually paid. *United Air Lines*, 564 F.3d at 876. Although the Seventh Circuit concluded that the bankruptcy court had erred for other reasons,¹⁶⁵ Judge Easterbrook observed that the bankruptcy court did not err in “preferring the evidence of actual transaction prices over an argument based on beliefs about what prices *could have been*.” *Id.*

¹⁶⁵ The court found that the leases were undervalued because the lenders’ collateral included improvements made to the leased property, not just the property itself. *Id.* at 876.

(emphasis supplied). As the court explained, “[r]eal transactions are a vital anchor in litigation” and a court is “entitled to reject an effort to show that willing buyers and sellers are ‘wrong’ in valuing a particular asset.” *Id.*

B. The individual assets here should be valued based on their replacement-cost values as determined by KPMG and Mr. Chrappa.

Although the purchase price is the correct reference point for valuing the Representative Assets, it does not directly answer the question before the Court: What is the value of *each asset* at issue in this case? The purchase price does not directly answer this question, because the consideration paid by New GM was not allocated to individual assets. Thus, while the purchase price establishes an aggregate value of the assets sold by Old GM, a ground-up method of valuing the individual assets is necessary.

The applicable case law, much like the appraisal literature discussed above (*see* Sections III.C.3 and V.C above), provides strong support for adoption of the replacement cost approaches used by KPMG and by Mr. Chrappa in valuing individual assets sold to New GM. In *Rash*, the Supreme Court held that a truck pledged as collateral by a chapter 13 debtor should be afforded its “replacement value,” as opposed to its “foreclosure value,” where the truck was not subject to foreclosure and liquidation. *Rash*, 520 U.S. at 963-64. The Court reasoned that the relevant property (*i.e.*, the truck) would continue to be used by the debtor to generate income, and “the replacement-value standard accurately gauge[d] the debtor’s ‘use’ of [that] property.” *Rash*, 520 U.S. at 963-64. The value of the property from the standpoint of the debtor was the “cost the debtor would incur to obtain a like asset for the same ‘proposed . . . use.’” *Id.* at 965.

Subsequent cases have likewise held that where, as here, collateral is proposed to be used as part of a going concern, replacement value is an appropriate valuation standard. *See, e.g., In re Castleton Plaza, LP*, 2011 WL 4621123, at *3 (Bankr. S.D. Ind. Sept. 30, 2011) (noting that “*Rash* expressly forbids use of a foreclosure or distressed-sale standard for purposes of § 506(a)” and applying replacement value standard to shopping center assets); *In re Nuts & Boltzs, LLC*, 2010 WL 5128961, at *3-4 (Bankr. D.S.C. July 2, 2010) (valuing inventory collateral on replacement

cost basis); *In re TennOhio Transp. Co.*, 247 B.R. 715, 720 (Bankr. S.D. Ohio 2000) (replacement value appropriate valuation standard under section 506(a)).

Bankruptcy courts — like appraisers such as Mr. Furey and Mr. Chrappa (*see* Sections III.C.3 and V.B above) — have also found that the *cost approach* for determining replacement value, as compared to a market or income approach, is appropriate when the assets are not commonly exchanged in the marketplace and it is not feasible to attribute a projected cash flow to individual assets. For example, in *In re Grind Coffee & Nosh, LLC*, 2011 WL 1301357 (Bankr. S.D. Miss. Apr. 4, 2011), the court observed that, in the context of an operating business, “traditional methods” to value assets “have included cost, income, and comparable sales approaches.” *Id.* at *6. After reviewing the testimony of several appraisers on each of the three approaches, the court held that the “the most reasonable estimate of market value” in the case, “given the lack of reliable comparable sales, [was] an estimate that utilizes a value established by a cost approach analysis.” *Id.* at *8; *see also In re Hand*, 2009 WL 1306919, at *15 (Bankr. D. Mont. May 5, 2009) (accepting appraisal affording greatest weight to cost approach because of, *inter alia*, lack of comparable sales data).

Courts and administrative bodies outside of the bankruptcy context have likewise found the cost approach to be a reliable valuation methodology, particularly when market prices were not available. *See, e.g., Missouri Pac. R.R. v. I.C.C.*, 23 F.3d 531, 534 (D.C. Cir. 1994) (upholding the Interstate Commerce Commission’s decision to use RCNLD to value railroad assets); *Jeanes Hosp. v. Sec’y of Health & Human Servs.*, 448 F. App’x 202, 208 (3d Cir. 2011) (affirming decision that Administrator of the Centers for Medicare and Medicaid Services appropriately used the cost approach: “the cost approach is preferred” for “price allocation among discrete assets” and “is the most reliable method where . . . there is a lack of market activity”); *Waranch v. Comm’r*, 58 T.C.M. (CCH) 584 (T.C. 1989) (RCNLD was appropriate valuation methodology: the “cost approach is . . . used to estimate the market value of special-purpose properties, and other properties that are not frequently exchanged in the market”).

Judge Friendly's decision in *United States v. Certain Property Located in Borough of Manhattan*, which involved a Government taking so that the federal buildings in Foley Square could be constructed, provides further support for the cost approach. 306 F.2d 439 (2d Cir. 1962). Although eminent domain valuations present different considerations from valuations under section 506(a)(1), *see* Point XV.D below, *Certain Property* is nonetheless instructive. As here, the Second Circuit in *Certain Property* had to decide whether specialized equipment at a newspaper printing plant were fixtures under state law and how to value those assets. *Id.* at 445. The machinery at issue consisted of, among other things, a "sidewalk elevator to carry heavy rolls of newsprint, monorails to move the paper to the press, an electrically driven dumbwaiter to carry papers from the press to the mailing and delivery room, special duct work and electrical systems, and the like." *Id.*

After determining that the relevant assets were indeed fixtures, the Second Circuit turned to valuation. *Id.* at 448. Judge Friendly explained that, while the building might be valued through market pricing, the fixtures should be valued in "use in the premises being condemned." *Id.* "Since sales of such machinery and fixtures in situ are rare," the court explained, the case was one where "it was appropriate for the claimant to introduce evidence of the depreciated reproduction cost of the machinery as some indication of what a hypothetical purchaser would pay." *Id.*

In agreeing to consider evidence of depreciated reproduction cost, Judge Friendly emphasized that the values of individual assets on their own, separate from the installed assemblage of assets, would include a "large discount for the heavy removal and installation costs a buyer would have to incur." *Id.*¹⁶⁶ In a subsequent decision, Judge Friendly again

¹⁶⁶ The lower court ultimately concluded that the claimants' expert had likely overstated the value of the machinery because, in calculating depreciated replacement cost, he applied only limited depreciation to machinery that was up "40 years old." *Certain Property*, 306 F.2d at 448-49. The court instead credited a valuation conducted by the Government's expert, which likewise sought to estimate the replacement cost of the assets, but did so based on "second-hand prices" of machinery that was fully "installed" and "operating." *Id.*

recognized that in cases involving the valuation of fixtures, evidence of depreciated replacement cost “is competent, indeed, in most cases, sufficient.” *United States v. Certain Prop. Located in Borough of Manhattan*, 388 F.2d 596, 600-01 (2d Cir. 1967), *on reh’g in banc* (Jan. 24, 1968).

In light of these precedents, this Court has ample basis to accept the RCNLD valuations determined by KPMG and, for assets not addressed by KPMG, the appraisals of Carl Chrappa. As set forth in detail in the proposed Findings of Fact, both KPMG and Mr. Chrappa used standard appraisal techniques to reach reliable (and similar) results in ascribing values to particular assets, values supported and reinforced by the net book value of the assets at Old GM. *See* Point XV.D below. Both KPMG’s RCNLD values and Mr. Chrappa’s appraisal values include significant deductions to replacement cost for physical deterioration, functional obsolescence and capacity-based economic obsolescence, and both Mr. Furey and Mr. Chrappa provided compelling reasons to use the cost approach to value assets sold to New GM rather than a market or income approach. *See* Sections III.C-E and V.B-C above. In particular, both KPMG and Mr. Chrappa concluded that they lacked adequate comparable transactions for the assets sold to New GM because, among other things, “most of the comparables . . . were liquidation sales of much older assets.” Tr. 1369:3-12 (Furey); *see also* Chrappa Direct ¶¶ 49, 52.

The RCNLD values, moreover, reflect conservative assumptions used by KPMG to ensure that those values took into account the economic and functional limitations of the individual assets. Among other examples:

- a. KPMG used significantly shorter Remaining Useful Lives (“RULs”) than the Term Lenders’ fixture experts believed were accurate, and applied a mere 3% hold factor to assets that exceeded their estimated RULs. This hold factor was based on the sale price achieved for GM Wilmington, a failed facility that New GM chose to leave behind and that is in no meaningful way comparable to the successful plants that New GM elected to purchase. *See* Section III.D.2 above.
- b. KPMG generally opted to use the “direct” rather than the “indirect” replacement cost method so as to minimize the “excess capital costs” embedded in its valuation, and it

also imposed a 35% reduction to the replacement cost of powertrain assets to account for additional functionality limitations. *See* Sections III.D.1 above.

- c. In reducing asset values to reflect capacity-based economic obsolescence, KPMG used GM's capacity utilization figures from the 2008 to 2010 time period, but it chose *not* to use figures from 2011 to 2014, when the utility rates were expected to recover. This was a more conservative method than the one Mr. Goesling used in valuing assets at Ford Romania. Tr. 3508:11-3509:18 (Goesling) (no "inutility penalty" applied to Ford assets because Ford was "planning to install new equipment" that it projected would be used at "full capacity").

KPMG's conservative assumptions had significant downward effects on the going-concern values of the 33 Representative Assets valued by KPMG, and they should provide further comfort to the Court that KPMG — putting aside the TIC Adjustment — made appropriate adjustments to reflect the physical condition of the assets, changes in technology and functionality, and the economic situation in 2009 that led to decreased utilization of GM's plants.

C. The Court should not use the TIC Adjustment in valuing the Representative Assets.

The remaining question is whether the Court should apply the TIC Adjustment to reduce the RCNLD values or Mr. Chrappa's values. The record at trial, viewed against the backdrop of section 506(a)(1), does *not* support reducing the RCNLD/Chrappa values.

As a threshold matter, the law does not require the Court to accept KPMG's "top-down" TIC Adjustment simply because it chooses to credit KPMG's "ground-up" RCNLD values. Under section 506(a)(1), bankruptcy courts are tasked with identifying the "best way of ascertaining replacement value on the basis of the evidence presented." *Rash*, 520 U.S. at 965 n.6. In performing this task, the "court is not bound by values determined by" any particular appraisal "but rather may form its own opinion as to the value of the subject property after consideration of the appraisers' testimony and their appraisals." *In re Patterson*, 375 B.R. 135, 144 (Bankr. E.D. Pa. 2007) (quoting *In re Karakas*, 2007 WL 1307906, at *6–7 (Bankr.

N.D.N.Y. May 3, 2007)). The court, moreover, “may accept an appraisal in its entirety or may choose to give weight only to those portions of an appraisal” that the court considers reliable. *In re Grind Coffee*, 2011 WL 1301357 at *6.

The Third Circuit’s decision in *In re SemCrude L.P.*, 648 F. App’x 205 (3d Cir. 2016) is instructive here. In *SemCrude*, the bankruptcy court rejected a fraudulent transfer claim aimed at avoiding a 2008 equity distribution by SemGroup. *Id.* In doing so, the court credited the testimony of the defendant’s expert that the debtor was solvent; the expert, in turn, relied on a contemporaneous Goldman Sachs valuation of the debtor, but adjusted that valuation to account for “speculative derivative trading” that had not been considered by Goldman. *Id.* at 212-14. In affirming, the Third Circuit concluded that the Goldman Sachs valuation was reliable because, among other things, Goldman “undertook significant due diligence in connection with its valuation efforts.” *Id.* at 214. At the same time, the court concluded that the defendants’ expert had properly “adjusted the Goldman Sachs valuation based on his own analysis and judgment while giving cogent reasons to support his conclusions.” *Id.*

In this case, there are multiple good reasons to credit KPMG’s ground-up, asset-by-asset RCNLD valuations without applying the top-down TIC Adjustment. Section 506(a)(1) and related case law require that the Representative Assets be valued in light of the economic benefits received by Old GM in connection with the assets’ “proposed disposition.” The TIC, however, was not intended to measure the actual value received by the Old GM estate through the section 363 sale. Rather, as discussed in Section II.C of the Proposed Findings of Fact: (a) the TIC was a “hypothetical” valuation of the benefits to be realized by New GM as the buyer of Old GM’s assets; (b) the TIC does not square with the actual purchase price paid to Old GM; and (c) therefore, the TIC is not a reliable measure of the benefit received by the Old GM estate through the sale. In addition, the TIC Adjustment (i) was calculated using a WACC-based discount rate that does not survive scrutiny; (ii) resulted from unsupported intra-corporate allocations; and (iii) leads to other problems and incongruous results.

1. The TIC Adjustment cannot be reconciled with the purchase price paid for Old GM's assets and New GM's equity.

As noted, the purchase price paid by New GM for Old GM's assets does not translate into specific values for individual assets. But the purchase price *does* provide the Court with the appropriate measure of the value received by Old GM for *all* the assets that were transferred. Under the case law applying section 506(a)(1), the “consideration to be received by the estate” in a sale represents the best evidence of the value of the collateral being sold. 4 COLLIER ON BANKRUPTCY § 506.03[6][b] (16th ed.) (citing cases); *see* Section XV.A above. That purchase price, as opposed to a hypothetical valuation, captures the “economic benefit” obtained by the debtor through the “actual use” of the lenders’ collateral. *Rash*, 520 U.S. at 963.

The facts in the record regarding the purchase price of Old GM's assets, as well as New GM's equity, do not support the Court application of the TIC Adjustment. The TIC was calculated from the perspective of New GM based on the present value of future earnings. By contrast, the Term Lenders’ collateral is to be valued based on the “economic benefits” received by Old GM. *Rash*, 520 U.S. at 963; *Till*, 541 U.S. at 476 n.13 (2004). Old GM's benefit is best measured by the consideration received by the estate — which Evercore estimated was, on a net basis, in the range of \$91.2 billion to \$93.6 billion. JX3 at 107; Tr. 1840:2-5 (Worth).

KPMG valued New GM's TIC at approximately \$60 billion, in comparison to total net asset values of \$72.2 billion (of which \$30.8 billion were RCNLD values for PP&E). DX248 at 1. KPMG thus concluded that New GM's net assets exceeded its TIC by some \$12.3 billion. *Id.* But as shown in the proposed Findings of Fact, if the *actual* consideration paid to Old GM is substituted for the “hypothetical” purchase price for New GM derived by KPMG (Klein Direct ¶ 50; Tr. 2794:25-2796:12 (Klein)), that consideration would exceed the net asset values, eliminating the need for any arguable adjustment. *See* Section IV.B above; Supplemental Valuation Chart (Evercore Calculation of New GM Purchase Price).

With respect to the equity value of New GM, Professor Hubbard demonstrated that, based on the purchase price paid by the U.S. Treasury for 60.8% of New GM's equity, New

GM's equity as a whole had a value of \$65 billion, as compared to the \$19.9 billion value calculated by KPMG. *See* Section IV.B above; Hubbard Direct ¶¶ 9, 73. Professor Hubbard also explained that, if the actual purchase price paid by the U.S. Treasury were reduced to account for the Government's public policy goals, the Government "subsidy" accounted for, at most, approximately \$15.3 billion to \$19.4 billion of the \$39.7 billion that New GM paid for 60.8% of New GM's common equity. Tr. 2362:11-2364:7; Hubbard Direct ¶ 78. Even if the purchase price paid by New GM is reduced by that "subsidy," the reduced purchase price implies a value for New GM's common equity of between \$33.4 billion and \$40.1 billion. Had KPMG used this equity value for New GM, as opposed to an equity value of \$19.9 billion, there again would have been no need for the TIC Adjustment. *See* Section IV.B above; Hubbard Direct ¶¶ 9, 87; Supplemental Valuation Chart (Equity Value Implied by New GM Purchase Price Minus Hubbard Subsidy).

2. The TIC Adjustment was based on an unreasonably high WACC.

KPMG's valuation of GMNA's TIC was based on a DCF analysis. As courts have recognized, DCF analyses can be "problematic" because "the inputs used in the chosen DCF model can be highly subjective." *VFB LLC v. Campbell Soup Co.*, 2005 WL 2234606, at *22 (D. Del. Sept. 13, 2005), *aff'd*, 482 F.3d 624 (3d Cir. 2007). The problems with the DCF model used by KPMG are discussed in detail in Section IV of the proposed Findings of Fact.

As discussed in the proposed Findings, Professor Hubbard demonstrated at trial that one component of KPMG's DCF analysis — the WACC used as the discount rate — was especially problematic. In particular, KPMG used a 23% WACC for GMNA, which was predicated on its decision to apply a 27% company-specific risk premium to the cost of equity of GMNA. *See* Section IV.C.2 above. Professor Hubbard provided his own opinion of the appropriate WACC for New GM and GMNA based on standard and accepted valuation principles; he concluded that an appropriate WACC range for GMNA and New GM would be 8.3% to 11.5%. Tr. 2441:5-8; Hubbard Direct ¶¶ 12, 166-171. This WACC, or indeed any WACC below 15.9% — including

the WACC applied by Evercore in its fairness opinion analysis, *see* Section II.C above — would eliminate the need for any TIC Adjustment. *See* Supplemental Valuation Chart (Hubbard WACC Range and Evercore WACC Range). Notably, Professor Fischel, who testifies routinely on appropriate discount rates and DCF calculations,¹⁶⁷ offered no independent WACC analysis in response to Professor Hubbard.

As Professor Hubbard testified, and Professor Fischel did not dispute, company-specific risk premiums have no basis in economic theory and, in practice, they “make ‘auditors cringe.’” PX822 at 3 (citation omitted); Tr. 2450:16-2451:7; Tr. 2471:17-24. For this reason and others, company specific risk premiums have been met with skepticism by courts. *See, e.g., In re Sunbelt Beverage Corp. S’holder Litig.*, 2010 WL 26539, at *12 (Del. Ch. Jan. 5, 2010) (“[P]roponents of a company-specific risk premium . . . not only bear a burden of proof but also must overcome some level of baseline skepticism founded upon judges’ observations over time.”); *In re Appraisal of The Orchard Enters., Inc.*, 2012 WL 2923305, at *20 (Del. Ch. July 18, 2012) (rejecting 1% company-specific risk premium suggested by an expert and stating that “the calculation of a . . . discount rate should not include company-specific risk for the obvious reason that it is inconsistent with the very theory on which the model is based”). This Court should not depart from these authorities and include in its valuation a 27% company-specific risk premium.

Moreover, even when company-specific risk premiums *are* applied, valuation practitioners are directed to avoid “double-counting” risks and to make such premiums as small as possible. Hubbard Direct ¶ 131 (citing DX313). According to Pratt and Grabowski, a company-specific risk premium of 10% is “normally too much.” *Id.* Notably, Evercore did not apply *any* company-specific risk premium in its WACC for New GM. Tr. 1831:24-1832:3 (Worth). Evercore concluded instead that “the beta” included in its WACC calculation “was

¹⁶⁷ *See, e.g., Merion Capital L.P. v. Lender Processing Servs., Inc.*, 2016 WL 7324170 (Del. Ch. Dec. 16, 2016); *In re Tronox Inc.*, 503 B.R. 239 (Bankr. S.D.N.Y. 2013); *Air Prod. & Chems., Inc. v. Airgas, Inc.*, 16 A.3d 48 (Del. Ch. 2011).

sufficient to capture company-specific risks.” Tr. 1832:4-7 (Worth). Evercore further concluded that 9.5% to 11.5% was a reasonable WACC (Tr. 1826:10-13 (Worth)), as compared to the 23% WACC used by KPMG.

As set forth in the proposed Findings of Fact, KPMG’s stated justification for applying a company-specific risk premium — namely, that New GM’s projections and future outlook were too optimistic — was not warranted. The projections that KPMG deemed too optimistic were the very projections that formed the basis of the VP4 Viability Plan, which had been scrutinized and approved by the U.S. Treasury following an extensive review process. Tr. 1853:5-15 (Worth); Tr. 1450:23-1451:17 (Furey); Keller Direct ¶¶ 36-41. Those projections appropriately accounted for the size of the U.S. auto market and the pent-up demand for automobiles during the economic downturn. Keller Direct ¶¶ 43-51; Section IV.C.5 above.

Notably, GM itself had prepared a downside case that was used for presentation to the Board in connection with the section 363 sale. Evercore, in advising the Board, conducted a valuation that drew on that downside case to address the risk that New GM would fail to achieve its base-case projections. Tr. 1817:13-1822:19 (Worth); JX3 at 105. To the extent KPMG had concerns about the reliability of the projections provided by GM management, KPMG could and should have relied on the downside case or gone back to GM management and developed one. *See* Tr. 2416:16-2418:7 (Hubbard) (testifying that a “scenario analysis” should be used rather than a company-specific risk premium); Tr. 1700:10-1701:9 (Lakhani) (“If the valuation professionals disagree with management’s projections, it is incumbent on him or her to get management to change the projections or somehow get management to satisfy him or her” that “the projections are reasonable”). Instead, KPMG applied a large company-specific risk premium that severely depressed its valuation result.

As Professor Hubbard showed, the WACC used by KPMG was so high that it implies that New GM was not viable — a totally unreasonable result. In particular, the 23% WACC is equivalent to such a significant downward adjustment to New GM’s cash flows that New GM could not have met its continuing obligations. *See* Hubbard Direct ¶¶ 13, 184-194; Tr. 2465:6-

25, 2469:11-20; Section IV.C.7 above. The TIC valuation, accordingly, is in conflict with the determination at the time that New GM *was* viable, the key premise and stated rationale for the U.S. Government to invest tens of billions of dollars in New GM. Tr. 2469:11-20; Sections IV.C.5(a) and IV.C.7 above.

3. The TIC Adjustment resulted from unsupported intra-corporate adjustments.

As set forth in the proposed Findings of Fact, in calculating the TIC of GMNA, KPMG made a series of intra-corporate reallocations that Mr. Lakhani testified were erroneous or, in other cases, unpersuasive as a matter of professional judgment. *See* Section IV.F.1 above. Mr. Lakhani pointed to one adjustment in particular that, in his opinion, was erroneous: the \$7 billion reduction of the value of GMNA's TIC and corresponding increase to the TIC value of GM's TST entity. *See* Lakhani Direct ¶¶ 100-106; Tr. 1745:5-1753:15; Section IV.F.1 above.

As Mr. Lakhani explained, GMNA's projections did not include a technology-specific revenue stream, and its cash flow forecast reflected hypothetical royalty payments to GTO for the technology GTO owned. Lakhani Direct ¶¶ 100-106. Because GMNA's cash flow forecast reflected those royalty payments, GMNA's DCF already included a reduction in value attributable to the technology. Mr. Lakhani thus demonstrated that the technology adjustment was not justified. Mr. Klein, in contrast, offered no specific explanation for the adjustment. *See* Section IV.F.1 above; Supplemental Valuation Chart (No Technology Reallocation) (showing effect of undoing technology adjustment).

4. Other consequences of the TIC Adjustment

The evidence at trial revealed that the TIC Adjustment had other effects that are facially problematic. For example, whereas Old GM's PP&E as a percentage of revenue was 26.8%, right in line with its peers, the TIC Adjustment drove down that percentage to 16.1%, far outside the normal range for New GM's peers (including post-bankruptcy Chrysler). DX237; DX238; Hubbard Direct ¶¶ 195-200; Lakhani Direct ¶¶ 139-143; Section IV.E above. Likewise, application of the TIC Adjustment resulted in values for *all* of GM's PP&E that were far lower

than GM's recent capital expenditures. Between 2004 and 2008, the years leading up to its bankruptcy, GM incurred \$37.7 billion in capital expenditures. Lakhani Direct ¶ 145; DX16 at 78; DX17 at 111. KPMG estimated the TIC-adjusted value of *all* of GM's PP&E to be \$18.6 billion, less than half of this capital investment. Lakhani Direct ¶ 145; DX141 at 3, 365; Section IV.E above.

In addition, as Mr. Lakhani testified, the approach used in calculating the TIC Adjustment had the effect of turning the value of GMNA's PP&E into a "residual." *See* Section IV.D above. Because the TIC Adjustment was calculated to eliminate the amount by which GMNA's net assets in the aggregate exceeded GMNA's TIC, and the entire amount of the adjustment was applied to reduce the value of GMNA's PP&E, the values of particular PP&E assets were affected by unrelated inputs, including increases or decreases in unrelated operating liabilities. *See* Lakhani Direct ¶¶ 90-91; Tr. 1735:2-1738:7; Section IV.D above. As discussed above, Professor Fischel agreed that this made no sense as a matter of economics. *See* Section IV.D above.

These issues relating to the TIC Adjustment, individually and in the aggregate, provide ample grounds for this Court to conclude that the RCNLD values of the Representative Assets, as well as the values determined by Mr. Chrappa, should not be reduced, let alone by the amount of the TIC Adjustment.

D. Use of Net Book Value as a check confirms the reliability of KPMG's RCNLD and Mr. Chrappa's appraisal values.

This Court previously requested supplemental briefing regarding *Regional Rail*. The Term Lenders' supplemental brief was filed on April 24, 2017 (Docket No. 969).

This Court's April 17 Order quoted the *Regional Rail* decision "plac[ing] the parties on notice that [it] may feel obliged to resort to some kind of analysis related to original cost and that they should present evidence accordingly." Docket No. 958 at 1-2 (quoting *Regional Rail*, 445 F. Supp. at 1031). In the portion of the opinion quoted by this Court, the Special Court explained: "It should be clear that we are not suggesting that a figure related to original cost is

the best indication of [Constitutional Minimum Value]. Instead, we propose it only as a possible check on shortcomings we fear may develop in the usual valuation method focusing on market values.” *Regional Rail*, 445 F. Supp. at 1031.

It bears repeating that in *Regional Rail*, the Special Court was required to *ignore* the Government’s role for purposes of its eminent-domain valuation. *Id.* at 1015. The Special Court stated that, for purposes of its valuation, “inclusion of the taker in the market, in the sense of here attempting to reconstruct a bargaining process between the transferors and the United States, is inconsistent with the basic principle of eminent domain.” *Id.* In contrast, section 506(a)(1) of the Bankruptcy Code requires property to be valued based on its “proposed disposition” — here, the sale of assets to Government-supported New GM — and does not permit the Court to value the collateral based on an alternate disposition “that will not take place,” *Rash*, 520 U.S. at 963.

The *Regional Rail* Court’s stated concerns about the “uncertainties” and “difficulties” in calculating RCNLD values, *see* 445 F. Supp. at 1032-33, also are not present here. Whereas the Special Court was faced with the prospect of determining the appropriate replacement cost of land and rights of way underlying decades-old rail lines that had since benefited from major “public improvements” and which no party proposed to replace, *id.* at 1032-34, this case does not present the same challenges. Here, the Court can look to KPMG’s contemporaneous work in determining the depreciated replacement-cost values of the assets sold to New GM. *See* Term Lenders’ Supp. Br. 7-8. Those assets, moreover, were in very good or excellent condition at the time of the sale. *See, e.g.*, Tr. 80:5-19 (Stevens); Tr. 886:24-887:2 (Topping); Tr. 481:22-482:7, 469:4-5 (Deeds); Tr. 763:19-24, 772:9-13, 804:18-24 (Thomas).

Despite the differences between this case and *Regional Rail*, in light of the suggestion that historical book value can potentially serve as a “check” on more complex valuation methods, the Term Lenders submitted testimony from Mr. Lakhani, as well as a supplemental exhibit drawn from GM’s books and records, showing the net book values of each of the Representative Assets on Old GM’s books. *See* Lakhani Supp. Direct; DX360; Term Lenders’ Supp. Br. Ex. 1. The testimony and the exhibit show that, unlike in *Regional Rail*, where the

claimed RCNLD values were many multiples of the relevant net book values (*see* 445 F. Supp. at 1032), both the RCNLD values determined by KPMG and the appraisal values determined by Mr. Chrappa are similar to (and in many cases lower than) the net book values of the assets. In contrast, the liquidation values proffered by the Avoidance Trust's experts, as well as the TIC-adjusted KPMG values, deviate substantially from the *Regional Rail* checkpoint. *See* Joint Valuation Chart.

POINTS OF LAW: LDT/PONTIAC

XVI. The Term Lenders had a perfected security interest in the fixtures located at Lansing Delta Township

Twenty-one of the forty Representative Assets, including stamping, paint, body shop, and general assembly assets, are located in GM's Lansing Delta Township ("LDT") facility. The Avoidance Trust does not dispute that the Term Lenders were granted a security interest in fixtures at the entirety of the LDT complex, including both the stamping and assembly portions of this 3.4 million square foot facility. It contends, however, that the Term Lenders' security interest in the fixtures at LDT was not perfected as of June 1, 2009, when Old GM commenced its bankruptcy case. *See* Pls. Pretrial Br. 33-41.

As a matter of law, the Avoidance Trust's challenge to the perfection of the Term Lenders' lien on fixtures at LDT is time barred. *See* Point XVI.A below. Even if that challenge were timely, the Avoidance Trust bears the burden of proving that the LDT lien was not perfected but cannot carry that burden, as the uncontroverted, credible evidence at trial shows that the security interest was perfected by a fixture filing recorded in, and identifiable by searching, the official property records related to the LDT facility. *See* Point XVI.B below.

A. The Avoidance Trust is time-barred from challenging the perfection of the Term Lenders' security interest in fixtures at LDT.

As an initial matter, because the Avoidance Trust never raised any formal challenge to the perfection of the lien on fixtures at LDT and did not contest perfection, even informally, until long after the expiration of the two-year statute of limitations, its belated attempt to challenge the perfection of the lien on fixtures at LDT is time barred.

1. Any attempt to use the trustee's avoidance powers under § 544(a) must be brought as a claim in an adversary proceeding.

Proceedings to determine the "validity, priority, or extent of a lien" are "adversary proceedings" governed by Part VII of the Bankruptcy Rules. Fed. R. Bankr. P. 7001(2). Rule 7001(2) "expressly requires initiation of an *adversary proceeding* 'to determine the validity, priority, or extent of a lien.'" *Cen-Pen Corp. v. Hanson*, 58 F.3d 89, 93 (4th Cir. 1995)

(emphasis in original); *see, e.g., In re Layo*, 460 F.3d 289, 294 (2d Cir. 2006) (“[C]hallenges to the validity of a lien must be brought through an adversary proceeding.”); *Matter of Haber Oil Co.*, 12 F.3d 426, 437-38 (5th Cir. 1994) (explaining that an adversary proceeding is necessary to determine the validity, priority, or extent of a lien); *In re Commercial W. Fin. Corp.*, 761 F.2d 1329, 1337-38 (9th Cir. 1985) (adversary proceeding is necessary to avoid a lien under section 544(a)); *In re McKay*, 732 F.2d 44, 45-48 (3d Cir. 1984) (avoiding liens under section 522(f) requires initiation of an adversary proceeding).

Courts so read Rule 7001(2) because the “general rule that liens pass through bankruptcy unaffected” means that, “to extinguish or modify a lien during the bankruptcy process, some affirmative step must be taken.” *Cen-Pen Corp.*, 58 F.3d at 92 (citing *Dewsnup v. Timm*, 502 U.S. 410, 418 (1992)). In addition, because a lien is an interest in property, courts have explained that “[g]enerally, in order to void a lien, an adversary proceeding is required so that an owner is not deprived of his property without due process of law.” *Keene v. Charles*, 222 B.R. 511, 513 (E.D. Va. 1998), *aff’d sub nom. In re Keene*, 178 F.3d 1284 (4th Cir. 1999); *see also McKay*, 732 F.2d at 48 (“[T]he drafter’s intent was to require use of the adversary proceedings rules whenever certain forms of property . . . were affected in certain ways . . .”). Thus, courts have made clear that “[w]here such a proceeding is required to resolve the disputed rights of third parties, the potential defendant has the right to expect that the proper procedures will be followed.” *Cen-Pen*, 58 F.3d at 93 (internal quotation marks omitted).

The Bankruptcy Rules incorporate many of the Federal Rules of Civil Procedure, including the requirement that an adversary proceeding commence with the filing of a complaint according to the standards in those rules. *See* Fed. R. Bankr. P. 7008, 7012(b). This means that the priority of a lien must be challenged in a complaint — with a claim distinctly alleging sufficient facts that, if proven, “show[] that the pleader is entitled to relief.” Fed. R. Civ. P. 8(a)(2). Under Fed. R. Civ. P. 8(a)(2), “a pleading that offers ‘labels and conclusions’ or ‘a formulaic recitation of the elements of a cause of action will not do.’ Nor does a complaint suffice if it tenders ‘naked assertion[s]’ devoid of ‘further factual enhancement.’” *Ashcroft v.*

Iqbal, 556 U.S. 662, 678 (2009) (quoting *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 557 (2007)) (citation omitted). Rather, “a complaint must contain *sufficient factual matter*, accepted as true, to ‘state a claim to relief that is plausible on its face.’” *Id.* (quoting *Twombly*, 550 U.S. at 570) (emphasis added).

Given Rule 7001(2), courts have rejected efforts of a trustee to use the avoidance powers under section 544(a) when the challenge was not brought as a formal claim in an adversary proceeding. In *In re Davis*, for instance, the court rejected an effort to avoid an unperfected lien where the “Trustee’s complaint [did] not allege an avoidance claim under § 544,” because section 544 is “not self-executing.” 2014 WL 5306088, at *3 (Bankr. N.D. Ohio Oct. 15, 2014). So too in *In re Burks*, the court determined that whether the trustee could avoid a lien was “irrelevant” because section 544(a)’s avoidance powers “require[d] affirmative actions taken by the Trustee as prescribed under the Bankruptcy Rules,” and the Trustee had not taken those required actions. 181 B.R. 303, 307 (Bankr. N.D. Ohio 1995); *see also* 4 William L. Norton, Jr., *Norton Bankruptcy Law & Practice* § 63:4 (3d ed. 2016) (“[T]o exercise the avoidance powers under . . . § 544, [absent consent], the trustee must file a complaint under Bankruptcy Rule Part VII’s adversary proceedings.”).

2. The Avoidance Trust never asserted a claim for avoidance of the lien on fixtures at LDT based on alleged defects in the LDT fixture filing.

Here, the Avoidance Trust has taken affirmative steps in its original and amended complaints to challenge the perfection of some of the liens granted under the Collateral Agreement — those perfected solely by the “Main UCC-1” — but it has never taken any such steps to challenge the perfection of liens on fixtures by fixture filings, including fixtures located at LDT. Under settled law, the Avoidance Trust is barred by the applicable two-year statute of limitations from challenging the perfection of the LDT fixture lien.

In the DIP Order, Judge Gerber authorized Old GM to repay the Term Loan out of the proceeds of the DIP loan. *See* DX10 at 22-23 (Final DIP Order ¶ 19(a)); Docket No. 91 ¶ 575 (Amended Complaint). At the same time, the Court authorized the Creditors Committee to

“investigate” and bring an action contesting “the perfection of [the] first priority liens” of the Term Lenders, but only if brought “not later than July 31, 2009.” DX10 at 25-26 (Final DIP Order ¶ 19(d)). That day, the Avoidance Trust filed its original complaint, which challenged only the perfection of some liens by the purported termination of the Main UCC-1, without any mention of the fixture filings. *See* Docket No. 1 ¶¶ 7-8, 426, 433-37, 439-41.

Importantly, however, the Term Loan Credit Agreement made clear that liens granted under the Collateral Agreement were perfected by filings other than the Main UCC-1, in particular, a UCC-1 filing for the assets of Saturn Corporation and the 26 fixture filings specified in Schedule 3.12. *See* JX1 at 35 (Term Loan Credit Agreement § 3.12); JX1 at 107 (Term Loan Credit Agreement, Schedule 3.12); Docket No. 837 at 2 (Feb. 3, 2017 letter from Avoidance Trust to Court). And LDT was among the facilities for which a fixture filing was required. JX1 at 107. Nonetheless, the Avoidance Trust’s original complaint did not challenge the perfection of the Term Lenders’ lien on fixtures at LDT or contain any allegations regarding fixture filings.

For years thereafter, the Avoidance Trust continued to take no action to challenge the lien on fixtures at LDT, even though it was repeatedly put on notice of the existence of those liens and was itself investigating the liens on fixtures. JPMorgan’s answer and motion for summary judgment, for example, both specifically referenced the 26 fixture filings. And although the Avoidance Trust sought discovery from GM regarding the classification of assets as fixtures, it did not request any additional information about the perfection of the fixture filings themselves. *See* Section X.A above.

Even five years later, in May 2015, when the Avoidance Trust filed its Amended Complaint, it did not challenge the perfection of the LDT fixture lien. Rather, like the original complaint, the Amended Complaint does not mention the LDT lien, much less any potential issue with the property description in the LDT fixture filing. In fact, the only time the Amended Complaint even references the fixture filings, it implicitly concedes perfection and alleges only that the “Surviving Collateral is of inconsequential value.” Docket No. 91 ¶ 601.

It was not until May 2016 — a year after the Amended Complaint was filed, almost five years after the statute of limitations under 11 U.S.C. § 546(a) expired, and almost seven years after the July 31, 2009 deadline to challenge the perfection of liens under the DIP Order passed — that the Avoidance Trust first raised any issue with the perfection of the LDT fixture lien. Even then, the Avoidance Trust only did so in a letter and never further amended its complaint. *See* Docket No. 613 (May 19, 2016 letter from Avoidance Trust to Court). That attack is both procedurally improper and woefully late. Like the trustee in *In re Davis*, the Avoidance Trust cannot now seek to challenge a lien when it has never raised its challenge in a formal claim under section 544(a). 2014 WL 5306088, at *3.

3. The Avoidance Trust’s contrary arguments are not persuasive.

On the eve of trial, the Avoidance Trust offered two excuses as to why it was “not precluded from showing that Term Lenders did not have a perfected security interest in the fixtures located at the two Lansing facilities.” Pls. Pretrial Br. 41. Both fail.

First, the Avoidance Trust argues that its challenge to the LDT fixture filing “falls squarely within the[] borders” of its allegation “that due to the termination of the [Main UCC-1], Term Lenders did not perfect their first priority lien, and that they were entitled to be paid only to the extent of the value of any surviving collateral as to which they can demonstrate a perfected first priority security interest.” *Id.* (citing ¶¶ 590-603 of the Amended Complaint). Yet the only specific factual allegations in the Avoidance Trust’s Amended Complaint concern the termination of the Main UCC-1, not the lien on fixtures at LDT. Plus, the Avoidance Trust’s general allegation that the liens granted by the Collateral Agreement were unperfected without the Main UCC-1 is insufficient to state a claim for avoidance of the lien on fixtures at LDT. That bare allegation is “devoid of [the] further factual enhancement” necessary to satisfy the requirements of Fed. R. Civ. P. 8(a)(2). *See Iqbal*, 556 U.S. at 678 (quoting *Twombly*, 550 U.S. at 570).

Second, the Avoidance Trust argues that it “does not challenge the Eaton County Fixture Filing as invalid and does not challenge the perfection of the lien on the property described on that filing,” casting its current challenge instead as merely an argument that there is no collateral on the parcel described in the LDT fixture filing. Pls. Pretrial Br. 41 & n.14. The Avoidance Trust, however, has it precisely backwards. It is blackletter law that “[t]he scope of a security interest is determined by the security agreement and not by the financing statement.” 8A *Lawrence’s Anderson on the Uniform Commercial Code*, § 9-203:42 (3d. ed. Supp. 2016).

Here, there is no doubt that the Collateral Agreement granted the Term Lenders a lien on the fixtures at LDT. *See* JX2 at 6-8 (Collateral Agreement, art. II); JX2 at 22 (Collateral Agreement, sch. I). As such, the only question to which the fixture filing is relevant is whether that lien was perfected as of the Petition Date. Moreover, the Final DIP Order only reserved the right to challenge perfection in any event. DX10 (Final DIP Order) ¶ 19(d). Accordingly, because the Avoidance Trust’s challenge is to the perfection of the lien on fixtures at LDT, it falls squarely within Bankruptcy Rule 7001(2) and is procedurally barred. The liens on fixtures located at LDT are, therefore, enforceable, whether or not they were properly perfected.

B. The LDT fixture filing put third parties on actual, constructive, and inquiry notice of the Term Lenders’ security interest.

Even if the Avoidance Trust’s challenge was timely, the Avoidance Trust has failed to carry its burden to establish that the Term Lenders’ security interest in fixtures at LDT was not perfected by the LDT fixture filing and thus is subject to avoidance under Bankruptcy Code section 544(a). Indeed, the record evidence is entirely to the contrary and easily sufficient to comply with the applicable Michigan law.¹⁶⁸

¹⁶⁸ Under the Collateral Agreement, the perfection of the Term Lenders’ security interest is, in the first instance, a question of New York law. *See* JX2 at § 7.10. The N.Y.U.C.C., however, looks to the law of the jurisdiction where the collateral is located to determine the perfection of a security interest in fixtures. N.Y.U.C.C. § 9-301(c)(1). Accordingly, Michigan law governs this inquiry.

1. The Avoidance Trust bears the burden of proving that the lien on fixtures at LDT was not perfected as of the Petition Date.

In its Amended Complaint, the Avoidance Trust asserts two principal claims. In Claim I, the Avoidance Trust asserts a claim under section 544(a) of the Bankruptcy Code, which allows a trustee to avoid a prepetition transfer (such as the liens granted by the Collateral Agreement) to the extent that it is unenforceable under state law. *See* 11 U.S.C. § 544(a); Docket No. 91 ¶¶ 586-89. Then in Claim II, assuming that the liens have been avoided under section 544(a), the Avoidance Trust asserts a claim under sections 549 and 550 for the avoidance and recovery of the postpetition payment to the Term Lenders. 11 U.S.C. §§ 549, 550; Docket No. 91 ¶¶ 590-603.

Thus, as the Avoidance Trust's complaint recognizes, avoiding the liens under section 544(a) is a necessary predicate to avoiding the postpetition transfer under section 549 and recovering the payment under section 550. This is because the post-petition payment to the Term Lenders would only be recoverable to the extent that it exceeded the value of the Term Lenders' enforceable liens, and prepetition liens are presumptively enforceable until avoided. *See, e.g., Dewsnap*, 502 U.S. at 418-20; *Cen-Pen Corp.*, 58 F.3d at 92.¹⁶⁹

Here, while Bankruptcy Rule 6001 places the burden of proof on the Term Lenders with respect to Claim II (the avoidance and recovery of *post-petition transfers* under sections 549 and 550), the Avoidance Trust retains the burden of establishing the predicate Claim I (the avoidance of the *prepetition liens* securing the Term Loan under section 544(a)). This follows the "general rule that a trustee in bankruptcy seeking to avoid a purported security interest bears the burden of proving the imperfection or invalidity of that interest." *In re Davison*, 738 F.2d 931, 936 (8th

¹⁶⁹ Significantly, it is well established that "the burden of proof is an essential element of the claim itself; one who asserts a claim is entitled to the burden of proof that normally comes with it." *Raleigh v. Illinois Dep't of Revenue*, 530 U.S. 15, 21 (2000); *Director, Office of Workers' Compensation Programs v. Greenwich Collieries*, 512 U.S. 267, 271 (1994) ("[T]he assignment of the burden of proof is a rule of substantive law . . ."); *Garrett v. Moore-McCormack Co.*, 317 U.S. 239, 249 (1942) ("[T]he burden of proof . . . [is] part of the very substance of [the plaintiff's] claim and cannot be considered a mere incident of a form of procedure."). This means that the burden of proof must be analyzed for each claim, and allocated accordingly.

Cir. 1984) (citing *Matthews v. James Talcott, Inc.*, 345 F.2d 374, 380 (7th Cir. 1965)); *see also*, *e.g.*, *In re Commercial Money Ctr., Inc.*, 350 B.R. 465, 486 (B.A.P. 9th Cir. 2006) (holding that the trustee has the burden of proving a lack of perfection in a lien avoidance claim under section 544(a)); *In re Organic Conversion Corp.*, 259 B.R. 350, 356 (Bankr. D. Minn. 2001) (“As the proponent of the notion that the Defendant’s security interest is unperfected, the Plaintiff has the burden of proof.”); *Matter of Bergsieker*, 30 B.R. 757, 759 (Bankr. W.D. Mo. 1983) (“Generally, when the trustee brings an action seeking to exercise his powers under the strongarm clause [of section 544(a)] to avoid a purported security interest, he bears the burden of demonstrating the invalidity or imperfection of that security interest.”).

Accordingly, to the extent the Court determines that the Avoidance Trust is not time-barred from seeking to avoid the lien on fixtures under the Collateral Agreement based on a purported defect in the fixture filing, the Avoidance Trust bears the burden of proving that the purported defect makes the lien unperfected as of the Petition Date and therefore avoidable. Only then will the burden shift to the Term Lenders to prove that the value of the remaining collateral was sufficiently large to entitle them to the payment they received in GM’s bankruptcy.

2. The LDT fixture filing need only provide constructive notice of the Term Lenders’ lien on fixtures at LDT to perfect that security interest.

Under Michigan law, an effective fixture filing must “[p]rovide a description of the real property to which the collateral is related sufficient to give constructive notice of a mortgage under the law of [Michigan] if the description were contained in a record of the mortgage of the real property.” M.C.L.A. § 440.9502(2)(c). The issue for the Court is thus whether the real-property description set forth on the LDT fixture filing was sufficient to put a potential purchaser or lender on “constructive notice” of the lien recorded against the fixtures at LDT and thus perfect the Term Lenders’ underlying security interest in those fixtures.

Under Michigan law, a purchaser or lender is deemed to be on constructive notice of mortgages and liens identified by its title agent. *See, e.g., Royce v. Duthler*, 531 N.W.2d 817, 821 (Mich. Ct. App. 1995) (constructive notice of easements on “title insurance policy”); *Wash. Mut. Bank v. JPMorgan Chase Bank*, 2009 WL 3365865, at *2 (Mich. Ct. App. Oct. 20, 2009) (constructive notice of contents of “title commitment”). The key issue is thus whether a “diligent title searcher” would “discover[]” the recorded document and “recogniz[e] its applicability.” *Am. Fed. Sav. & Loan Ass’n v. Orenstein*, 265 N.W.2d 111, 112 (Mich. Ct. App. 1978).

As the Michigan Supreme Court has explained, a person with knowledge of “any” recorded facts that “would lead any honest man, using ordinary caution, to make further inquiries concerning the possible rights of another in real estate, and fails to make them,” is “chargeable with notice of what such inquiries and the exercise of ordinary caution would have disclosed.” *Kastle v. Clemons*, 46 N.W.2d 450, 451 (Mich. 1951); *see In re Mich. Lithographing Co.*, 140 B.R. 161, 166, 167 (Bankr. W.D. Mich. 1992) (applying *Kastle* to “facts of record”), *aff’d*, 997 F.2d 1158 (6th Cir. 1993). In other words, Michigan law does not require mortgages to contain “a precise legal description” of the subject property to be effective. *In re Brandt*, 434 B.R. 493, 498 (W.D. Mich. 2010) (citing M.C.L.A. § 565.151 *et seq.*). Rather, the required notice is “simply whatever is sufficient to direct the attention of a purchaser to the prior rights or equities of third persons, and to enable him to ascertain their nature by inquiry.” *Prime Fin., Inc. v. Comerica Bank*, 2015 WL 998493, at *4 (E.D. Mich. Mar. 5, 2015) (internal quotation and alteration marks omitted).

The seminal case in the area is *Schweiss v. Woodruff*, 73 Mich. 473, 475, 479 (1889). *Schweiss* is cited routinely, as recently as 2012, and in a 2017 treatise.¹⁷⁰ In *Schweiss*, the Michigan Supreme Court held that an “imperfect or indefinite description” of real property in a

¹⁷⁰ *See, e.g., St. Paul Comm. Christian Church v. GMAC Mortg., L.L.C.*, No. 301749, 2012 WL 247784, at *3 (Mich. Ct. App. Jan. 26, 2012) (citing *Schweiss* to determine whether purchaser had “actual or constructive” notice of title “defect”); 21 Mich. Civ. Jur. Recording of Instruments and Notice of Rights § 33 (2017) (citing *Schweiss*: “sufficient notice” exists where “errors or mistakes may be reasonably construed from the language or state of the record”).

recorded document can be sufficient to create the requisite notice. Applying this principle, the Michigan Supreme Court there considered a recorded deed that described the land as “Block Number Six” even though the original recorded description did not use block numbers. The court held that “[f]rom mere inspection” of the official record, a subsequent purchaser “could not locate block 6,” but because of that reference, a subsequent purchaser was obligated to “inquir[e] as to the extent of [the] prior right” to determine “where [the prior holder] claimed [her] particular parcel . . . was located.” *Id.* at 477-78.

Similarly, in *Novastar Home Mortgage, Inc. v. DC Acceptance, LLC*, the Michigan Court of Appeals found an ambiguity in a recorded document sufficient to establish the requisite notice. 2009 WL 249394, at *1 (Mich. Ct. App. Feb. 3, 2009), *leave to appeal denied*, 483 Mich. 1113 (2009). The *Novastar* court held that “the ambiguity in the description,” in a mortgage that expressly mentioned only one of two lot numbers associated with a common street address created “at least, inquiry notice that the [] mortgage might encumber the property in its entirety.” *Id.* at *3; *see also First Nat’l Bank of Chicago v. Dep’t of Treasury*, 760 N.W.2d 775, 782 (Mich. Ct. App. 2008), *rev’d on other grounds*, 485 Mich. 980 (2009) (other documents recorded by register of deeds created “constructive notice” of prior mortgage, notwithstanding that prior mortgage “described the property as lot 88 instead of lot 66”).

Following these precedents, a “title searcher” is “chargeable with inquiry notice when an ambiguity is encountered.” *Orenstein*, 265 N.W.2d at 112; *see also In re Mich. Lithographing Co.*, 140 B.R. at 167 (“any facts must be investigated if they reasonably suggest that some third party has an interest in the property at issue”). And the title searcher’s client is “chargeable with notice of what [further] inquiries and the exercise of ordinary caution would have disclosed.” *Kastle*, 46 N.W.2d at 451-52.¹⁷¹

¹⁷¹ A title company’s “failure . . . to discover [a] recorded prior mortgage does not serve to nullify the constructive notice provided by the recordation.” *Richards v. Bank of N.Y. Mellon*, 2013 WL 4054586, at *2 (E.D. Mich. Aug. 12, 2013) (quoting *Ameriquist Mortg. Co. v. Alton*, 731 N.W.2d 99, 105 (Mich. Ct. App. 2006)).

3. The LDT fixture filing provided the requisite notice of the Term Lenders' security interest.

Here, the evidence at trial established that the LDT fixture filing, on its face, states that it covers "all fixtures located on the real estate described in Exhibit A," which in turn refers to "GM Assembly Lansing Delta" in large, bold-faced text (Pretrial Order ¶¶ 61-62):

EXHIBIT A

8400 MILLETT HWY, LANSING TOWNSHIP, LANSING MI 48917-9549

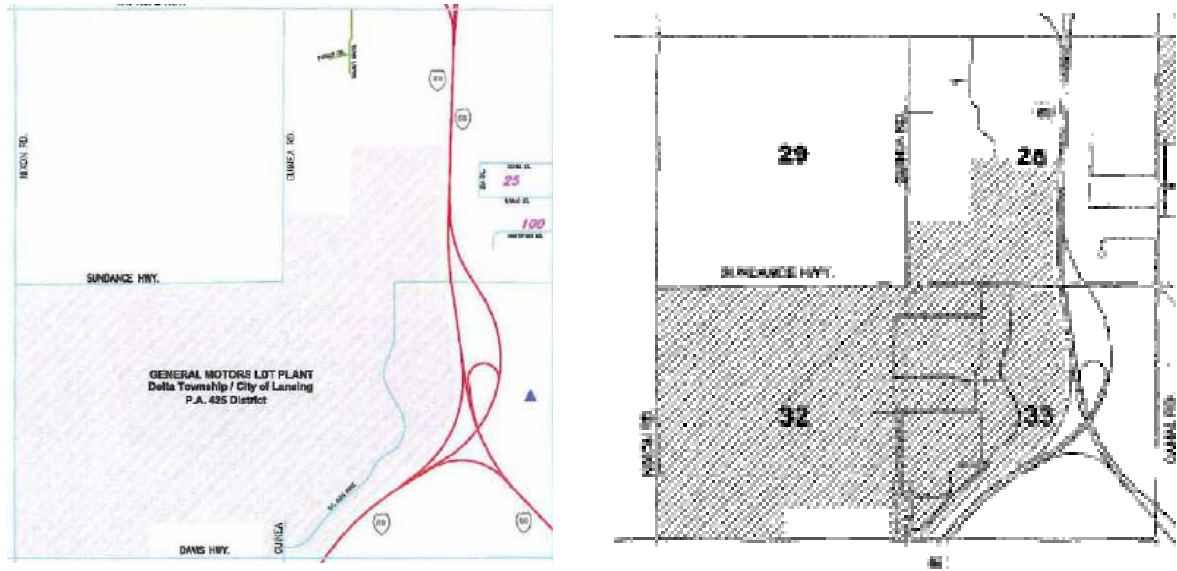
S 1/2 SEC 28 LYING W OF W LINE HWY I-96/69, EXC NW 1/4 OF SW 1/4, AND EXC PARTS S & E OF LINE COM 100 FT W OF S 1/4 COR SAID SEC, TH N 50 FT, E 400 FT, N 25 FT, E 188.65 FT TO W LINE SAID HWY R/W & POE, EXC LANDS USED FOR GUNIEA RD & MILLETT HWY; 144 ACRES +/-; SEC 28 T4N R3W

**GM Assembly Lansing Delta
8400 Millett Hwy
Lansing, Easton County, MI
LandAmerica File No. 100729**

At trial, the Term Lenders presented expert testimony from James Marquardt — an experienced real-property searcher who has performed hundreds of title searches and examined countless recorded documents. Marquardt Direct ¶¶ 1-2, 9-13, App'x A; Tr. 2162:3-2163:25. Mr. Marquardt testified persuasively that the LDT Fixture Filing (or "Eaton County Fixture Filing") was recorded in the official land records for Eaton County, Michigan, where the LDT facility is located, would have been discovered in a search of those records at the Eaton County Register of Deeds, and would have been identified in a title search report or title insurance commitment and provided notice of the underlying lien to a potential purchaser of or secured lender against the LDT facility. The Avoidance Trust presented no contrary evidence.

Mr. Marquardt explained that a diligent title searcher would have learned the name of the property owner (here, General Motors Corporation) and the relevant street addresses (here, 8175 Millett Highway and 8001 Davis Highway), and would have investigated in what "Sections" of the township's tax maps the property was located before commencing a title search. *See* Section

X.B above. As such, the title searcher would know to search for “General Motors” in the Register of Deeds’ grantor-grantee index and would be looking for references to property in Sections 28, 32 and 33 in the results of that search — as, among other things, a contiguous parcel of land in those sections was labeled “General Motors LDT Plant” on the township’s maps. *See* Section X.B above. Specifically, as shown on DX122 at pages 2 and 6:



When he conducted his search, Mr. Marquardt easily identified the LDT fixture filing on the very first page of the search results. DX123 at 1; Tr. 2179:14-2182:11. That filing was associated with Section 28 in the search results, which Mr. Marquardt testified was one of the sections he was “looking for” and which he understood to be associated with the LDT facility. Tr. 2261:6-15, 2299:12-23 (Marquardt).

He then examined the document, as he would do with each of the search results in preparing a title search report or title insurance commitment. Tr. 2245:5-2246:9. In that examination, Mr. Marquardt explained that “the most significant thing that jumps off the page . . . is the reference in the top line of the bolded text to the ‘**GM Assembly Lansing Delta.**’” Tr. 2266:10-17. He testified that this in and of itself would be sufficient to include that filing on a title search report and that there were multiple ambiguities that would also have lead a title searcher to identify the LDT fixture filing as a potential lien against the LDT facility. Marquardt

Direct ¶¶ 39-43, 50-51; Tr. 2263:16-2266:18. Thus, a diligent title searcher — and its potential purchaser or lender client — would have been on constructive and inquiry, if not actual, notice that a lien had been placed on the LDT plant. *See* Marquardt Direct ¶¶ 7, 39-44, 50-51; Tr. 2233:17-21, 2235:5-14.

Moreover, Mr. Marquardt testified that in his experience such a listing on the search report or title commitment would then lead to further discussion between the prospective purchaser or lender and the owner of the property that would have revealed relevant details of the underlying lien. Marquardt Direct ¶¶ 25, 44, 52; Tr. 2236:22-2237:13, 2241:13-17. *See also* Section X.C above.

Without any contrary testimony or evidence, the Avoidance Trust points to the fact that the LDT fixture filing refers to “metes-and-bounds” and a street address corresponding to portion of the LDT property that is a vacant lot. Pls. Pretrial Br. 35-36. But that is of no moment here. As Mr. Marquardt explained, “the key to this whole thing” is that the fixture filing expressly refers to the relevant facility by name, Tr. 2214:22-25, and that name would put a reasonable title searcher — tasked with determining whether a purchaser of or lender secured by the LDT plant would be subject to a prior lien — on notice. Marquardt Direct ¶¶ 39-40, 50.

In fact, a title searcher would not even discover the metes-and-bounds description and street address on the LDT fixture filing (on which the Avoidance Trust relies) until after the searcher had already examined the assessor’s records and maps, which included that vacant lot as part of the LDT property. *See* Section X.B above. Moreover, the searcher would discover those descriptions at the same time as observing, on the face of the filing, its bolded reference to “**GM Assembly Lansing Delta.**” DX125 at 3. Thus, even if the searcher did not list it based on that bolded text alone, the searcher at least would determine that the filing was ambiguous and, as Mr. Marquardt testified, would still list it in the title search report or title commitment. Tr. 2263:16-2266:25.¹⁷²

¹⁷² The Avoidance Trust’s attempts to cast the metes-and-bounds description in the fixture filing as “more specific” than the bolded reference to the facility by name is equally unavailing.

The Avoidance Trust further argues that the bolded text identifying the facility by name “should be disregarded,” Pls. Pretrial Br. 37, as apparently should the external sources that Mr. Marquardt (and any typical title searcher) would consult, *see* Tr. 2218:15-2219:19. But there is no authority for that. The Avoidance Trust’s hypotheticals “contemplate[] facts that would not occur” and so — like other hypotheticals from the Avoidance Trust — are irrelevant to the actual facts at issue. Tr. 2219:10-24 (Marquardt) (cross-examination hypothetical asking Mr. Marquardt to construe document in complete isolation from other sources of information); *see, e.g.*, Tr. 2216:12-21 (cross-examination questions asking Mr. Marquardt “to assume” and to “imagine” that the words “‘GM Assembly Lansing Delta’ were deleted”). Nor does that hypothetical match the actual practice of title searchers, who consider the whole document in context, not in isolation. *See* Tr. 2217:14-18 (“I am put on notice of everything that’s on Exhibit A and I can’t help but notice the top line of what you’ve bolded . . .”).

Lastly, none of the cases relied upon by the Avoidance Trust in its pretrial brief requires a different result. In particular, the Avoidance Trust misses the mark in its attempt to draw a parallel to *In re Vandebosch*, 405 B.R. 253 (Bankr. W.D. Mich. 2009), in which a mortgage that described a vacant lot next to the property at issue was found not to provide constructive notice. In that case, it was “undisputed” that a mortgage described a vacant lot “rather than” a residence and “no amount of inquiry into the Property’s chain of title would have revealed . . . the mortgage,” *id.* at 264-65, whereas here, Mr. Marquardt’s title search did reveal the LDT fixture filing and the version of that filing recorded in the official records referenced the “GM Assembly Lansing Delta” facility by name, in bolded text, as part of the legal description of the property at issue. DX125 at 3; Tr. 2165:10-21, 2166:22-2167:13, 2267:22-2268:15 (Marquardt). Similarly inapplicable is the Avoidance Trust’s citation to *In re Hudson*, 455 B.R. 648 (Bankr. W.D. Mich.

Both references exist on the recorded document and, at most, they create an ambiguity that would lead to listing the filing. Likewise, as Mr. Marquardt explained, just because a street address may be associated with a parcel that is a vacant lot does not mean that “it’s not associated with other parcels that are part of the General Motors LDT facility.” Tr. 2208:23-2209:9.

2011). The premise of that court’s ruling was that the mortgage at issue would not have been in the subject property’s chain of title because it listed the wrong “lot” number and that the effort to uncover the error would be “far beyond any reasonable concept of ‘obvious inquiries’ or ‘ordinary diligence.’” *Id.* at 656. Here, the LDT fixture filing was found in the chain of title, and Mr. Marquardt’s un rebutted testimony established that his search was “typical” and “industry standard,” and that the further inquiries that its results would prompt of the property owner were “typical for virtually every transaction.” Marquardt Direct ¶¶ 86-87; Tr. 2237:9-13, 2241:13-17, 2248:4-25, 2258:17-21, 2285:14-2286:9 (Marquardt).¹⁷³

For these reasons, the LDT fixture filing would have perfected the Term Lenders’ security interest in the LDT plant and is not subject to avoidance under Bankruptcy Code section 544(a).

XVII. The Term Lenders had a perfected security interest in the fixtures located at Powertrain Engineering Pontiac

As noted (*see* Section XI above), the parties agree that the Term Lenders had a perfected security interest in fixtures at MFD Pontiac but disagree as to whether the Term Lenders also held a perfected security interest in fixtures at Powertrain Engineering Pontiac, a facility that was located on the same tax parcel as MFD Pontiac at all relevant times and that is covered by the metes-and-bounds description on the Pontiac Fixture Filing. As also noted, Article II(a) of the Collateral Agreement grants a security interest in all fixtures located at “U.S. Manufacturing Facilities” — *i.e.*, “any plant or facility of [GM] listed on Schedule 1, *including all related or appurtenant land, buildings, Equipment and Fixtures.*” JX2 at 6-7 (Collateral Agreement Art. II(a) & § 1.01) (emphasis added), Pretrial Order ¶ 69. Thus, under the Collateral Agreement, the

¹⁷³ *In re Hudson* is also distinguishable as it involved “platted property,” which by statute “must contain the caption of the plat and the lot number” in its legal description. *See* 455 B.R. at 653 (citing M.C.L.A. § 560.255 (“Description of lots”)); *see Brandt*, 434 B.R. at 499 (“an *additional* requirement” applies to platted property”) (emphasis in original). LDT, however, is not located on platted property and there is no reference to plats or lot numbers in the LDT fixture filing. Marquardt Direct ¶ 20 n.5.

Term Lenders have a security interest in the fixtures located at GM Powertrain Engineering Pontiac if either the plant itself, or the land on which it sits, is “related or appurtenant” to GM MFD Pontiac.

The interpretation of the Collateral Agreement is a question of New York law. *See* JX2 at 16 (Collateral Agreement § 7.10). Under Section 9-108(a) of the New York U.C.C., a “description” of collateral in a security agreement “is sufficient, whether or not it is specific, if it reasonably identifies what is described.” This provision expressly “rejects any requirement that a description is insufficient unless it is exact and detailed.” N.Y.U.C.C. § 9-108 cmt. 2. Instead, the relevant collateral is reasonably identified if the applicable agreement describes the assets by “any . . . method, if the identity of the collateral is objectively determinable.” *Id.* § 9-108(b)(6).

“In various contexts, courts have recognized that the term ‘relate to’ has a ‘broad’ meaning, including merely having ‘a connection with’ the designated item.” *Allied Irish Banks, P.L.C. v. Bank of Am., N.A.*, 875 F. Supp. 2d 352, 356 (S.D.N.Y. 2012); *accord Morales v. Trans World Airlines*, 504 U.S. 374, 383 (1992) (“relating to” means “to stand in some relation”); *Black’s Law Dictionary* (10th ed. 2014) (defining “related” to mean “[c]onnected in some way”). And where, as here, a contract does not specifically define a term, “that contractual term logically acquires its widely used meaning.” *Ragins v. Hosps. Ins. Co.*, 4 N.E.3d 941, 942 (N.Y. 2013).¹⁷⁴

¹⁷⁴ “Appurtenant,” by contrast, is a more limited concept. New York courts have defined “appurtenant” to mean “a thing used with *and* related to or dependent upon another thing more worthy.” *In re Phillips*, 101 A.D.3d 1706, 1708 (4th Dep’t 2012) (emphases added and omitted) (quoting *Woodhull v. Rosenthal*, 61 N.Y. 382, 390 (1875)). Thus, by specifying in the *disjunctive* that the Term Lenders had a security interest in fixtures located anywhere “related *or* appurtenant” to a facility listed on Schedule 1, Old GM expressly granted the Term Lenders a security interest in fixtures located on land, or in buildings, that were “related to” but, in the words of *Woodhull* and its progeny, *not* necessarily “used with” *or* “dependent upon,” a scheduled plant. *See Perlbinde v. Bd. of Managers of 411 E. 53rd St. Condo.*, 65 A.D.3d 985, 986-87 (1st Dep’t 2009) (“An interpretation that gives effect to all the terms of an agreement is preferable to one that ignores terms or accords them an unreasonable interpretation.”).

The un rebutted evidence at trial established, at a minimum, that the fixtures at Powertrain Engineering Pontiac are located on land that is “related” to MFD Pontiac. As Mr. Marquardt testified (*see* Section XI above), the two facilities are located next to one another and were mapped on the same tax parcel at all relevant times. Courts routinely acknowledge that tax parcel numbers are used to identify plots of land for non-tax purposes. *See, e.g., Shiel v. Deuel*, 40 Misc.3d 1021, 1022 (N.Y. Sup. Ct. Warren Cty. 2013) (“identif[ying]” two plots by their tax parcel numbers in easement dispute). Thus, it follows that all land covered by a single tax parcel number is “related” by virtue of that fact alone.¹⁷⁵

Moreover, in each of three separate deeds executed between July 26, 2000 and March 23, 2007, title to the entire parcel — covering *all* of the land for *both* facilities — was transferred from one Old GM affiliate to another. Marquardt Direct ¶ 70; *see also* Section XI above. The shared tax parcel number (14-21-101-004) was even used in connection with the Term Loan itself; using the shared parcel number, the Pontiac Fixture Filing recorded in connection with the Term Loan referred to the land where *both* facilities are located as a *single* unit. DX137 at 14; *see also* Section XI above.

The legal relationship as reflected in the real estate records does not stand alone. As Mr. Buttermore testified, again without rebuttal, MFD Pontiac and Powertrain Engineering Pontiac are both part of an industrial “campus” that GM has operated for several decades. Buttermore Direct ¶ 43. Throughout its history, the 595-acre Pontiac North Campus has included an assembly plant, a stamping plant, engineering facilities, and buildings for marketing and administrative functions. Tr. 1296: 2-9 (Buttermore). Mr. Buttermore, who spent nine years at

¹⁷⁵ Mr. Marquardt also established that on December 19, 2008, GM deeded the City of Pontiac a “part” of that shared parcel so the City could develop a road between Powertrain Engineering Pontiac and MFD Pontiac. Marquardt Direct ¶ 71. The deed was recorded on June 1, 2009, but the shared parcel was not officially split until July 20, 2011. *Id.* In other words, even after a new road was set to be constructed between Powertrain Engineering Pontiac and MFD Pontiac, the two facilities remained on a shared tax parcel for two more years. This is further evidence of a relationship between the facilities (or the land on which they sit).

the Pontiac North Campus, testified about the sprawling operation: “everything on that campus is GM,” “[e]verybody there is a GM employee,” and the entire site is “managed as a GM operation.” Tr. 1296:25-1297:10. *See also* Section XI above. Unsurprisingly, the well-established Pontiac North Campus is commonly described as a single unit by GM personnel and by other community stakeholders. Buttermore Direct ¶ 43.

The operational connection between these two facilities is not just reputational. Mr. Buttermore’s un rebutted testimony established that a single central utility complex provides electrical power and steam to MFD Pontiac and Powertrain Engineering Pontiac, and the buildings are physically connected by a utility trestle that extends across the road. Buttermore Direct ¶ 45; *see also* Section XI above. The two facilities also share security services (Buttermore Direct ¶ 46; *see also* Section XI above) and are treated as a single unit during negotiations with the UAW concerning wages, benefits, and seniority. Buttermore Direct ¶ 48; *see also* Section XI above.

The Term Loan Collateral Agreement does not require that MFD Pontiac and Powertrain Engineering Pontiac be related in any particular way. The un rebutted evidence is overwhelming that these adjacent, physically connected facilities were treated as a unit in many significant ways — property conveyances, identification for tax purposes, community relations, provision of utilities, provision of security services, and labor negotiations. Accordingly, Powertrain Engineering Pontiac is “related” to MFD Pontiac, and, as of June 2009, the fixtures in both facilities were collateral for the Term Loan.

CONCLUSION

The record is large, these proposed findings of fact and points of law lengthy. But the trial confirmed every point advanced by the Term Lenders in their pretrial brief: (a) by virtue of the very nature of the assets themselves and the very nature of modern mass production automotive manufacturing, the Representative Assets are all annexed, adapted and intended to remain in place for their useful lives; (b) under section 506(a)(1), going-concern value is the

proper measure of value for the Representative Assets sold to New GM because that was their proposed disposition; (c) the best evidence of the value for the assets sold to New GM is KPMG's RCNLD values or, for assets not valued by KPMG, the appraisal values of Carl Chrappa; (d) a prospective purchaser of, or lender against, LDT would be immediately put on notice of the Term Lenders' fixture lien by virtue of the legend "**GM Lansing Delta Assembly**" on the filing; and (e) GM Powertrain Engineering Pontiac is located on land that is related to GM MFD Pontiac, and is itself related to GM MFD Pontiac.

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Respectfully submitted,

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Exhibit A

Joint Valuation Chart

			Old GM Historical		KPMG			New GM eFAST	Chrappa	Plaintiff/Goesling	
Rep. Asset #	Asset ID	Description	Installed Cost [1]	Net Book Value [1]	Valuation Approach [2]	Final RCNLD Value [2]	Individual Asset Fair Value ^(d) [2]	New GM eFAST Ledger Value [3]	Appraised Fair Market Value in Continued Use or OLV [4]	Appraised Orderly Liquidation Value in Exchange [5]	Appraised Liquidation Value in Place [6]
1	100006527	OP-150 Shims Station	467,741	359,801	Direct RCN	207,000	93,100	117,942	345,000	3,000	37,000
2	100017544	Pits & Trenches	2,307,597	2,139,335	Indirect CRN	2,440,890	1,003,905	1,219,221	2,285,000	0	231,000
3	100033438	Power Zone Conveyor	1,053,051	864,042	Direct RCN	553,000	249,000	315,441	825,000	3,000	186,000
4	100037892	Electro-Coat Paint Operations (“ELPO”) Waste System	935,780	861,899	Indirect CRN	989,600	407,009	493,319	890,000	0	79,000
5	100037940	Paint Circulation Electrical System	1,899,672	1,522,210	Direct RCN	1,482,270	666,020	843,463	1,745,000	152,000	352,500
6	100037954	ELPO Oven Conveyor	1,107,185	887,189	Direct RCN	964,420	433,640	549,178	930,000	7,000	198,300
7	100038004	Top-Coat Software	200,000	27,778	Indirect CRN	61,400	27,600	34,965	145,000	0	10,000
8	100038035	Paint Mix Room	815,150	653,165	Direct RCN	636,000	286,000	362,314	750,000	82,500	170,000
9	100038119	Top-Coat Bells	2,805,703	1,900,442	Direct RCN	2,188,200	983,700	1,246,182	2,270,000	263,400	550,000
10	100041920	Opticell Robotic System	630,726	474,545	N/A	N/A	N/A	0	420,000	73,000	113,000
11	100045909	Central Utilities Complex	73,997,467	61,253,459	Indirect CRN	55,770,000	25,070,000	25,070,000	N/A	2,367,000	10,212,000
11A	100045909	Central Utilities Complex ^(e)	67,938,893	56,238,306	Indirect CRN	51,210,000	23,017,383	23,017,383	64,770,000	N/A	N/A
12	100048169	Overhead Body Shop Welding Robot	27,526	18,644	Direct RCN	19,210	8,630	8,630	18,100	25,000	29,000
13	100050513	Weld Bus Ducts	3,993,837	3,562,404	Indirect CRN	3,220,000	1,450,000	1,836,906	3,750,000	681,000	873,000
14	100053677	Leak Test Machine	1,254,458	1,077,998	Direct RCN	629,000	282,400	357,753	810,000	9,000	165,000
15	100060623	Soap, Mount and Inflate System	1,897,124	1,520,347	Direct RCN	1,402,500	630,620	797,390	1,715,000	59,000	127,000
16	100061079	Skid Conveyor	2,495,283	2,000,071	Direct RCN	2,172,600	977,200	1,237,948	2,290,000	15,000	446,000
17	100061614	Power and Free Conveyor	1,649,074	1,321,517	Direct RCN	1,439,520	647,280	818,853	1,445,000	24,000	295,000
18	100062269	Vertical Adjusting Carriers	4,141,896	3,340,931	Direct RCN	3,579,400	1,607,200	2,036,052	3,600,000	59,000	551,000
19	100064667	Full Body Coordinate Measurement Machine (“CMM”)	354,000	283,654	Direct RCN	274,000	123,000	155,820	285,000	39,000	58,000
20	100065640	Wheel & Tire Conveyor	1,150,919	923,350	Direct RCN	1,000,100	449,800	569,821	970,000	5,000	205,000
21	100066809	Final Line Skillet Conveyor	1,484,980	1,191,961	Direct RCN	1,287,000	578,600	732,989	1,235,000	1,000	264,000
22	100069322	Fanuc Gantry Robot	270,101	205,389	Direct RCN	126,000	56,700	71,829	190,000	32,000	55,000
23	100070012	Aluminum Machining System	1,946,878	1,497,599	Direct RCN	862,000	388,000	491,531	1,475,000	14,000	246,000
24	100071009	Base Shaping Machine	1,050,540	930,169	Direct RCN	533,300	239,400	303,279	810,000	224,000	274,000

Joint Valuation Chart

			Old GM Historical		KPMG			New GM eFAST	Chrappa	Plaintiff/Goesling	
Rep. Asset #	Asset ID	Description	Installed Cost [1]	Net Book Value [1]	Valuation Approach [2]	Final RCNLD Value [2]	Individual Asset Fair Value ^(d) [2]	New GM eFAST Ledger Value [3]	Appraised Fair Market Value in Continued Use or OLV [4]	Appraised Orderly Liquidation Value in Exchange [5]	Appraised Liquidation Value in Place [6]
25	100071022	Liebherr Hobb Machine	1,192,377	1,079,764	Direct RCN	591,000	266,000	336,977	965,000	244,000	298,000
26	100095344	Core Delivery Conveyor System	280,816	246,614	Indirect CRN	90,400	40,600	51,433	100,000	1,000	53,000
27	100098085	Emissions System	9,811,712	8,923,872	Indirect CRN	2,820,300	1,270,600	1,609,636	3,130,000	131,000	1,434,000
28	100099125	Holding Furnace	4,174,288	2,189,215	Indirect CRN	1,211,100	544,500	689,790	1,515,000	8,000	580,000
29	BF2016822 01	GG-1 Transfer Press (Grand Rapids)	11,340,238	0	N/A	N/A	N/A	N/A	930,000 ^(a)	261,000	261,000 [OLV]
30	BGI20163301	TP-14 Transfer Press (Mansfield)	4,636,106	0	N/A	N/A	N/A	N/A	500,000 ^(a)	800,000	800,000 [OLV]
31	BUY11820901	Danly Press	2,729,407	0	N/A	N/A	N/A	0	880,000	276,000	356,000
32	BUYR503469FA	AA Transfer Press	33,767,895	22,346,401	N/A	N/A	N/A	33,767,895	27,860,000	3,675,000	5,016,000
33	BUYR503481FA	B3-5 Transfer Press	27,682,072	18,726,108	N/A	N/A	N/A	27,682,072	22,455,000	2,400,000	3,285,000
34	NIT219381	Build Line w/ Foundation	3,580,522	0	Direct RCN	142,000	142,000	179,890 ^(b)	100,000	45,000	70,000
35	NITC03340	Button Up Conveyor System	2,689,706	2,065,615	Direct RCN	1,370,800	616,400	785,571	2,005,000	2,000	228,000
36	NITC03507	Helical Broach	1,472,023	1,135,009	Direct RCN	653,430	293,870	372,185	1,080,000	150,000	200,000
37	NITW0S11026A	Courtyard Enclosure	8,384,325	1,332,390	Direct RCN	2,667,590	1,097,144	1,332,458	N/A	0	612,100
37A	NITW0S11026A	Courtyard Enclosure ^(e)	665,448	105,749	Direct RCN	211,720	87,078	105,755	410,000	N/A	N/A
38	NJL2924414P	Gas Cleaning System	1,173,272	0	Indirect CRN	69,000	69,000	87,411 ^(b)	0	24,000	24,000
39	NJL2983009	Core Box Robot ^(c)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
40	NJL6084400	Charger Crane	639,653	26,652	Indirect CRN	114,000	51,300	64,988	160,000	10,000	40,000
			Old GM Historical		KPMG			New GM eFAST	Chrappa	Plaintiff/Goesling	
			Installed Cost	Net Book Value	Final RCNLD ValueIndividual Asset Fair Value			New GM eFAST Ledger Value	Appraised Fair Market Value in Continued Use or OLV	Appraised Orderly Liquidation Value in Exchange	Appraised Liquidation Value in Place
Total for 33 Assets Valued by KPMG			140,704,653	105,342,484	91,567,03041,050,218			45,181,166	N/A	4,679,900	19,152,900
Total for 33 Assets Valued by KPMG (reflecting partial Fixtures, as identified by Term Lenders)			126,927,202	99,100,690	84,551,16037,987,535			41,901,846	103,013,100	N/A	N/A
Total for Representative Assets			221,491,098	146,889,539	N/AN/A			106,631,133	N/A	12,164,900	28,983,900
Total for Representative Assets (reflecting partial Fixtures, as identified by Term Lenders)			207,713,647	140,647,745	N/AN/A			103,351,813	156,058,100	N/A	N/A

Notes

- (a) Mr. Chrappa appraised these assets based on Orderly Liquidation Value because they were not included in the bankruptcy sale.
- (b) For Assets 34 and 38, KPMG calculated the Final RCNLD Values using a “hold factor” because the assets were operating past their estimated remaining useful lives. The Final RCNLD Values for these assets, accordingly, were not affected by the initial TIC Adjustment, but they increased as a result of the application of the Balance Sheet Adjustment to all asset values within the PP&E category.
- (c) The parties agreed that they would not present evidence of the value of Representative Asset 39, Core Box Robot, at trial.
- (d) The Individual Asset Fair Values reflect the TIC Adjustment without the Balance Sheet Adjustment; the New GM eFAST values reflect both adjustments.
- (e) Defendants contend that Representative Assets 11 and 37 are partially fixtures. Mr. Chrappa’s appraised value for these assets is the value that he assigned to just the portion of each asset that Defendants contend is a fixture. For both assets, to estimate the value of the portion that Defendants contend is a fixture using the other approaches in the chart, Asset 11’s and Asset 37’s values (except the Chrappa Appraised Fair Market Value in Continued Use or OLV, Goesling Appraised Orderly Liquidation Value in Place, and Goesling Appraised Liquidation Value in Exchange) have been adjusted by the percentage of each asset’s total Replacement Cost that Mr. Chrappa has identified as the Replacement Cost of just the portion of the asset that Defendants contend is a fixture. These “fixture-only” values are shown in Assets 11A and 37A. Plaintiff contests Defendants’ classification and approach to valuing the fixture components of these two assets.

Sources

- [1] DX31 (NEWGM000005131, eFAST (June 2009)).
- [2] DX150A (KPMG-GM0003703, KPMG Asset Valuation Worksheet for Real Property and Leaseholds); DX151A (NEWGM000000949, KPMG Asset Valuation Worksheet for Personal Property).
- [3] DX33 (NEWGM000000747, eFAST (May 2010)); PX218 (NEWGM000005130, eFAST (May 2010)).
- [4] Written Testimony of Carl C. Chrappa, submitted April 7, 2017, at 41-42.
- [5] Second Amended Written Testimony of David K. Goesling, submitted May 3, 2017, ¶ 412.
- [6] Second Amended Written Testimony of David K. Goesling, submitted May 3, 2017, ¶ 453.

Exhibit B

Term Lenders' Supplement to Joint Valuation Chart																
Rep. Asset #	Asset ID	Description	Term Lenders' Fair Values	Term Lenders' TIC-Adjusted Values Using Alternatives to KPMG's TIC Estimate						Professor Fischel	Term Lenders' TIC-Adjusted Values Using Alternative Allocations ^(h)					
			KPMG Final RCNLD Value (Where Available) or Chrappa Appraised Value [1][2]	Evercore Calculation of New GM Purchase Price ^(a) [1][3]	Evercore Calculation of New GM Equity Value ^(b) [1][4]	Evercore WACC Range ^(c) [1][5]	Hubbard WACC Range ^(d) [1][6]	Equity Value Implied by New GM Purchase Price ^(e) [1][7]	Equity Value Implied by New GM Purchase Price Minus Hubbard Subsidy ^(f) [1][7]	Equity Value Implied by New GM Purchase Price Minus Fischel Subsidy ^(g) [1][8]	No Technology Reallocation [1][9]	Pro Rata Application of Corporate Reallocation [1][9]	Pro Rata Application of Other TIC Reallocation [1][9]	Pro Rata Application of TIC Adjustment [1][9]	No Technology Reallocation, Pro Rata Application of Corporate and Other TIC Reallocation [1][9]	Pro Rata Application of TIC Adjustment, Corporate, Technology and Other TIC Reallocation [1][9]
1	100006527	OP-150 Shims Station	207,000	207,000	207,000	207,000	207,000	207,000	207,000	117,942	207,000	147,287	129,888	153,739	207,000	204,940
2	100017544	Pits & Trenches	2,440,890	2,440,890	2,440,890	2,440,890	2,440,890	2,440,890	2,440,890	1,219,221	2,440,890	1,736,772	1,531,610	1,812,847	2,440,890	2,416,594
3	100033438	Power Zone Conveyor	553,000	553,000	553,000	553,000	553,000	553,000	553,000	315,441	553,000	393,477	346,996	410,713	553,000	547,496
4	100037892	Electro-Coat Paint Operations ("ELPO") Waste System	989,600	989,600	989,600	989,600	989,600	989,600	989,600	493,319	989,600	704,133	620,954	734,975	989,600	979,750
5	100037940	Paint Circulation Electrical System	1,482,270	1,482,270	1,482,270	1,482,270	1,482,270	1,482,270	1,482,270	843,463	1,482,270	1,054,683	930,095	1,100,881	1,482,270	1,467,516
6	100037954	ELPO Oven Conveyor	964,420	964,420	964,420	964,420	964,420	964,420	964,420	549,178	964,420	686,216	605,154	716,274	964,420	954,820
7	100038004	Top-Coat Software	61,400	61,400	61,400	61,400	61,400	61,400	61,400	34,965	61,400	43,688	38,527	45,602	61,400	60,789
8	100038035	Paint Mix Room	636,000	636,000	636,000	636,000	636,000	636,000	636,000	362,314	636,000	452,535	399,077	472,357	636,000	629,669
9	100038119	Top-Coat Bells	2,188,200	2,188,200	2,188,200	2,188,200	2,188,200	2,188,200	2,188,200	1,246,182	2,188,200	1,556,975	1,373,052	1,625,174	2,188,200	2,166,419
10	100041920	Opticell Robotic System	420,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11	100045909	Central Utilities Complex	55,770,000	55,770,000	55,770,000	55,770,000	55,770,000	55,770,000	55,770,000	25,070,000	55,770,000	39,682,312	34,994,697	41,420,477	55,770,000	55,214,746
11A	100045909	Central Utilities Complex ⁽ⁱ⁾	51,210,000	51,210,000	51,210,000	51,210,000	51,210,000	51,210,000	51,210,000	23,017,383	51,210,000	36,437,576	32,133,251	38,033,621	51,210,000	50,700,266
12	100048169	Overhead Body Shop Welding Robot	19,210	19,210	19,210	19,210	19,210	19,210	19,210	8,630	19,210	13,669	12,054	14,267	19,210	19,019
13	100050513	Weld Bus Ducts	3,220,000	3,220,000	3,220,000	3,220,000	3,220,000	3,220,000	3,220,000	1,836,906	3,220,000	2,291,134	2,020,486	2,391,491	3,220,000	3,187,949
14	100053677	Leak Test Machine	629,000	629,000	629,000	629,000	629,000	629,000	629,000	357,753	629,000	447,554	394,685	467,158	629,000	622,739
15	100060623	Soap, Mount and Inflate System	1,402,500	1,402,500	1,402,500	1,402,500	1,402,500	1,402,500	1,402,500	797,390	1,402,500	997,924	880,041	1,041,635	1,402,500	1,388,540
16	100061079	Skid Conveyor	2,172,600	2,172,600	2,172,600	2,172,600	2,172,600	2,172,600	2,172,600	1,237,948	2,172,600	1,545,875	1,363,263	1,613,588	2,172,600	2,150,974
17	100061614	Power and Free Conveyor	1,439,520	1,439,520	1,439,520	1,439,520	1,439,520	1,439,520	1,439,520	818,853	1,439,520	1,024,265	903,270	1,069,130	1,439,520	1,425,191
18	100062269	Vertical Adjusting Carriers	3,579,400	3,579,400	3,579,400	3,579,400	3,579,400	3,579,400	3,579,400	2,036,052	3,579,400	2,546,859	2,246,002	2,658,417	3,579,400	3,543,771
19	100064667	Full Body Coordinate Measurement Machine ("CMM")	274,000	274,000	274,000	274,000	274,000	274,000	274,000	155,820	274,000	194,960	171,930	203,500	274,000	271,273
20	100065640	Wheel & Tire Conveyor	1,000,100	1,000,100	1,000,100	1,000,100	1,000,100	1,000,100	1,000,100	569,821	1,000,100	711,604	627,543	742,773	1,000,100	990,145
21	100066809	Final Line Skillet Conveyor	1,287,000	1,287,000	1,287,000	1,287,000	1,287,000	1,287,000	1,287,000	732,989	1,287,000	915,742	807,567	955,854	1,287,000	1,274,189
22	100069322	Fanuc Gantry Robot	126,000	126,000	126,000	126,000	126,000	126,000	126,000	71,829	126,000	89,653	79,062	93,580	126,000	124,746
23	100070012	Aluminum Machining System	862,000	862,000	862,000	862,000	862,000	862,000	862,000	491,531	862,000	613,341	540,888	640,207	862,000	853,420
24	100071009	Base Shaping Machine	533,300	533,300	533,300	533,300	533,300	533,300	533,300	303,279	533,300	379,460	334,635	396,081	533,300	527,992

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Term Lenders' Supplement to Joint Valuation Chart

			Term Lenders' Fair Values	Term Lenders' TIC-Adjusted Values Using Alternatives to KPMG's TIC Estimate						Professor Fischel	Term Lenders' TIC-Adjusted Values Using Alternative Allocations ^(h)					
Rep. Asset #	Asset ID	Description	KPMG Final RCNLD Value (Where Available) or Chrappa Appraised Value [1][2]	Evercore Calculation of New GM Purchase Price ^(a) [1][3]	Evercore Calculation of New GM Equity Value ^(b) [1][4]	Evercore WACC Range ^(c) [1][5]	Hubbard WACC Range ^(d) [1][6]	Equity Value Implied by New GM Purchase Price ^(e) [1][7]	Equity Value Implied by New GM Purchase Price Minus Hubbard Subsidy ^(f) [1][7]	Equity Value Implied by New GM Purchase Price Minus Fischel Subsidy ^(g) [1][8]	No Technology Reallocation [1][9]	Pro Rata Application of Corporate Reallocation [1][9]	Pro Rata Application of Other TIC Reallocation [1][9]	Pro Rata Application of TIC Adjustment [1][9]	No Technology Reallocation, Pro Rata Application of Corporate and Other TIC Reallocation [1][9]	Pro Rata Application of TIC Adjustment, Corporate, Technology and Other TIC Reallocation [1][9]
25	100071022	Liebherr Hobb Machine	591,000	591,000	591,000	591,000	591,000	591,000	591,000	336,977	591,000	420,516	370,841	438,935	591,000	585,117
26	100095344	Core Delivery Conveyor System	90,400	90,400	90,400	90,400	90,400	90,400	90,400	51,433	90,400	64,323	56,724	67,140	90,400	89,500
27	100098085	Emissions System	2,820,300	2,820,300	2,820,300	2,820,300	2,820,300	2,820,300	2,820,300	1,609,636	2,820,300	2,006,735	1,769,682	2,094,634	2,820,300	2,792,227
28	100099125	Holding Furnace	1,211,100	1,211,100	1,211,100	1,211,100	1,211,100	1,211,100	1,211,100	689,790	1,211,100	861,737	759,941	899,483	1,211,100	1,199,045
29	BF2016822 01	GG-1 Transfer Press (Grand Rapids)	930,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30	BGI20163301	TP-14 Transfer Press (Mansfield)	500,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
31	BUY11820901	Danly Press	880,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
32	BUYR503469FA	AA Transfer Press	27,860,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
33	BUYR503481FA	B3-5 Transfer Press	22,455,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
34	NIT219381	Build Line w/ Foundation	142,000	142,000	142,000	142,000	142,000	142,000	142,000	179,890	142,000	101,038	89,102	105,463	142,000	140,587
35	NITC03340	Button Up Conveyor System	1,370,800	1,370,800	1,370,800	1,370,800	1,370,800	1,370,800	1,370,800	785,571	1,370,800	975,369	860,150	1,018,092	1,370,800	1,357,155
36	NITC03507	Helical Broach	653,430	653,430	653,430	653,430	653,430	653,430	653,430	372,185	653,430	464,937	410,014	485,302	653,430	646,926
37	NITW0S11026A	Courtyard Enclosure	2,667,590	2,667,590	2,667,590	2,667,590	2,667,590	2,667,590	2,667,590	1,332,458	2,667,590	1,898,084	1,673,866	1,981,224	2,667,590	2,641,031
37A	NITW0S11026A	Courtyard Enclosure ⁽ⁱ⁾	211,720	211,720	211,720	211,720	211,720	211,720	211,720	105,755	211,720	150,646	132,850	157,244	211,720	209,613
38	NJL2924414P	Gas Cleaning System	69,000	69,000	69,000	69,000	69,000	69,000	69,000	87,411	69,000	49,096	43,296	51,246	69,000	68,313
39	NJL2983009	Core Box Robot ⁽ⁱ⁾	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
40	NJL6084400	Charger Crane	114,000	114,000	114,000	114,000	114,000	114,000	114,000	64,988	114,000	81,115	71,533	84,668	114,000	112,865

			Term Lenders' Fair Values	TIC-Adjusted Values Using Alternatives to KPMG's TIC Estimate						Professor Fischel	TIC-Adjusted Values Using Alternative Allocations					
			KPMG Final RCNLD Value (Where Available) or Chrappa Appraised Value	Evercore Calculation of New GM Purchase Price (KPMG + 6 Chrappa Values)	Evercore Calculation of New GM Equity Value (KPMG + 6 Chrappa Values)	Evercore WACC Range (KPMG + 6 Chrappa Values)	Hubbard WACC Range (KPMG + 6 Chrappa Values)	Equity Value Implied by New GM Purchase Price (KPMG + 6 Chrappa Values)	Equity Value Implied by New GM Purchase Price Minus Hubbard Subsidy (KPMG + 6 Chrappa Values)	Equity Value Implied by New GM Purchase Price Minus Fischel Subsidy (KPMG + 6 Goesling Liquidation Values in Exchange)	No Technology Reallocation (KPMG + 6 Chrappa Values)	Pro Rata Application of Corporate Reallocation (KPMG)	Pro Rata Application of Other TIC Reallocation (KPMG)	Pro Rata Application of TIC Adjustment (KPMG)	No Technology Reallocation, Pro Rata Application of Corporate and Other TIC Reallocation (KPMG + 6 Chrappa Values)	Pro Rata Application of TIC Adjustment, Corporate, Technology and Other TIC Reallocation (KPMG)
Total for 33 Assets Valued by KPMG			91,567,030	91,567,030	91,567,030	91,567,030	91,567,030	91,567,030	91,567,030	45,181,166	91,567,030	65,153,067	57,456,624	68,006,906	91,567,030	90,655,453
Total for 33 Assets Valued by KPMG (reflecting partial Fixtures, as identified by Term Lenders)			84,551,160	84,551,160	84,551,160	84,551,160	84,551,160	84,551,160	84,551,160	41,901,846	84,551,160	60,160,893	53,054,162	62,796,071	84,551,160	83,709,554
Total for Representative Assets			144,612,030	144,612,030	144,612,030	144,612,030	144,612,030	144,612,030	144,612,030	52,666,166	144,612,030	N/A	N/A	N/A	144,612,030	N/A
Total for Representative Assets (reflecting partial Fixtures, as identified by Term Lenders)			137,596,160	137,596,160	137,596,160	137,596,160	137,596,160	137,596,160	137,596,160	49,386,846	137,596,160	N/A	N/A	N/A	137,596,160	N/A

Notes

- (a) Evercore calculated a net purchase price in the range of \$91.2 - \$93.6 billion. Holding all else constant, had KPMG computed a total invested capital of \$91.2 - \$93.6 billion, no TIC Adjustment would have been necessary and KPMG's final concluded values would have been the RCNLD values.
- (b) Separate from its purchase price calculation, Evercore estimated an equity value for New GM in the range of \$38 - \$48 billion. Holding all else constant, had KPMG computed an equity value for New GM of \$38 - \$48 billion, no TIC Adjustment would have been necessary and KPMG's final concluded values would have been the RCNLD values.
- (c) Evercore estimated a range for New GM's WACC of 9.5% to 11.5%. Holding all else constant, had KPMG applied a WACC in the range of 9.5% to 11.5%, no TIC Adjustment would have been necessary and KPMG's final concluded values would have been the RCNLD values.
- (d) Professor Hubbard estimated a range for GMNA's WACC of 8.3% to 11.5%. Holding all else constant, had KPMG applied a WACC in the range of 8.3% to 11.5%, no TIC Adjustment would have been necessary and KPMG's final concluded values would have been the RCNLD values. In fact, had KPMG applied a WACC of 15.9% or lower, no TIC Adjustment would have been necessary.
- (e) The purchase price estimated by Professor Hubbard implies that New GM's common equity was worth \$65 billion. Holding all else constant, had KPMG computed a common equity value for New GM of \$65 billion, no TIC Adjustment would have been necessary and KPMG's final concluded values would have been the RCNLD values.
- (f) The purchase price less the subsidy estimated by Professor Hubbard implies that New GM's common equity was worth between \$33.4 and \$40.1 billion. Holding all else constant, had KPMG computed a common equity value for New GM of \$33.4 to \$40.1 billion, no TIC Adjustment would have been necessary and KPMG's final concluded values would have been the RCNLD values.
- (g) Professor Fischel testified that a proxy for the government subsidy was approximately \$28 billion based on KPMG-calculated values of equity, preferred equity, and debt as shown in GM's 2009 10-K. Since KPMG's TIC-Adjusted Values of PP&E are dependent on the estimate of TIC, using Professor Fischel's estimate of the subsidy results in the same TIC-Adjusted Values of representative assets that KPMG estimated.
- (h) These columns provide the individual asset values that KPMG would have arrived at had it allocated certain values differently when estimating GMNA's TIC. For a more detailed explanation of the rationale for each alternative allocation, see Written Testimony of Abdul Lakhani, submitted April 7, 2017, ¶¶ 98-115, 124-133, Ex. 7A (DX186).
- (i) Defendants contend that Representative Assets 11 and 37 are partially fixtures. Mr. Chrappa's appraised value for these assets is the value that he assigned to just the portion of each asset that Defendants contend is a fixture. For both assets, to estimate the value of the portion that Defendants contend is a fixture using the other approaches in the chart, Asset 11's and Asset 37's values have been adjusted by the percentage of each asset's total Replacement Cost that Mr. Chrappa has identified as the Replacement Cost of just the portion of the asset that Defendants contend is a fixture. These "fixture-only" values are shown in Assets 11A and 37A.
- (j) The parties agreed that they would not present evidence of the value of Representative Asset 39, Core Box Robot, at trial.

Sources

[1] DX150A (KPMG-GM0003703, KPMG Asset Valuation Worksheet for Real Property and Leaseholds); DX151A (NEWGM000000949, KPMG Asset Valuation Worksheet for Personal Property).

[2] Written Testimony of Carl C. Chrappa, submitted April 7, 2017, at 41-42.

[3] JX3 (Declaration of J. Stephen Worth, dated May 31, 2009 (Case No. 09-50026, Docket No. 425)) at 107.

[4] JX3 (Declaration of J. Stephen Worth, dated May 31, 2009 (Case No. 09-50026, Docket No. 425)) at 108.

[5] JX3 (Declaration of J. Stephen Worth, dated May 31, 2009 (Case No. 09-50026, Docket No. 425)) at 105.

[6] Written Testimony of Glenn Hubbard, submitted April 7, 2017, ¶¶ 171-174.

[7] Written Testimony of Glenn Hubbard, submitted April 7, 2017, ¶¶ 71-87.

[8] Trial Transcript at 2631:7-2633:22 (Fischel).

[9] DX141 (KPMG Valuation of Total Invested Capital and Certain Assets, Liabilities and Equity Interests of General Motors Company) at 265-277; DX186; Written Testimony of Abdul Lakhani, submitted April 7, 2017, ¶¶ 98-115.