

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF LOUISIANA**

**IN RE: CHINESE-MANUFACTURED  
DRYWALL PRODUCTS LIABILITY  
LITIGATION**

**MDL NO. 2047**

**SECTION: L**

**JUDGE FALLON**

**MAG. JUDGE WILKINSON**

**THIS DOCUMENT RELATES TO:  
ALL CASES**

**FINDINGS OF FACT & CONCLUSIONS OF LAW  
RELATED TO THE JUNE 9, 2015 DAMAGES HEARING**

**I. PROCEDURAL HISTORY**

The following procedural history has been recited in several of the Court's previous opinions, but in order to place the current issues in context it is restated here. From 2004 through 2006, the housing boom in Florida and rebuilding efforts necessitated by Hurricanes Rita and Katrina led to a shortage of construction materials, including drywall. As a result, drywall manufactured in China was brought into the United States and used in the construction and refurbishing of homes in coastal areas of the country, notably the Gulf Coast and East Coast. Sometime after the installation of the Chinese drywall, homeowners began to complain of emissions of smelly gasses, the corrosion and blackening of metal wiring, surfaces, and objects, and the breaking down of appliances and electrical devices in their homes. *In re Chinese-Manufactured Drywall Prod. Liab. Litig.*, 894 F. Supp. 2d 819, 829 (E.D. La. 2012), *aff'd*, 742 F. 3d 576 (5th Cir. 2014). Many of these homeowners also began to complain of various physical afflictions believed to be caused by the Chinese drywall. Accordingly, these

homeowners began to file suit in various state and federal courts against homebuilders, developers, installers, realtors, brokers, suppliers, importers, exporters, distributors, and manufacturers who were involved with the Chinese drywall. Because of the commonality of facts in the various cases, this litigation was designated as multidistrict litigation. Pursuant to a Transfer Order from the United States Judicial Panel on Multidistrict Litigation on June 15, 2009, all federal cases involving Chinese drywall were consolidated for pretrial proceedings in MDL 2047 in the U.S. District Court, Eastern District of Louisiana.

The Chinese drywall at issue was largely manufactured by two groups of defendants: (1) the Knauf Entities, and (2) the Taishan Entities. The litigation has focused upon these two entities and their downstream associates, and has proceeded on strikingly different tracks for the claims against each group as described below:

**A. Knauf Entities**

The Knauf Entities are German-based, international manufacturers of building products, including drywall, whose Chinese subsidiary, Knauf Plasterboard (Tianjin) Co., Ltd. (“KPT”), advertised and sold its Chinese drywall in the United States. The Knauf Entities are named defendants in numerous cases consolidated with the MDL litigation and litigation in state courts. The Knauf Entities first entered their appearance in the MDL litigation on July 2, 2009. *See* (R. Doc. 18). On November 2, 2009, in Pretrial Order No. 17, KPT agreed to a limited waiver of service. *See* (R. Doc. 401). On March 15-19, 2010, the Court presided over a bellwether trial in *Hernandez v. Knauf Gips KG*, Case No. 09-6050, involving a homeowner’s claims against KPT for defective drywall. *See* (R. Doc. 2713). For purposes of the trial, KPT stipulated that its Chinese drywall “emits certain reduced sulfur gases and the drywall emits an odor.” *Id.* The Court found in favor of the plaintiff family in *Hernandez*, issued a detailed Findings of Fact and Conclusions of Law (“*Hernandez* FOFCOL”), *see id.*, and entered a Judgment in the amount of

\$164,049.64, including remediation damages in the amount of \$136,940.46, which represented a cost of \$81.13 per square foot based on the footprint square footage of the house. *See* (R. Doc. 3012).

Thereafter, on October 14, 2010, the Knauf Entities entered into a pilot remediation program with the Plaintiffs' Steering Committee ("PSC") in the MDL. This program was largely based upon the remediation protocol formulated by the Court in *Hernandez*. The Knauf pilot remediation program is ongoing and has, at present, remediated over 2,200 homes containing KPT Chinese drywall using the same protocol. At the Court's urging, the parties began working together to monetize this program and make it available to a broader class of plaintiffs.

On December 20, 2011, the Knauf Entities and the PSC entered into a global, class Settlement Agreement ("Knauf Settlement Agreement"), which is designed to resolve all Knauf-related, Chinese drywall claims. *See* (R. Doc. 12061-5). In addition to the Knauf Settlement Agreement, numerous defendants in the chain-of-commerce with the Knauf Entities have entered into class settlement agreements, the effect of which settles almost all of the Knauf Entities' chain-of-commerce litigation. These additional class action settlement agreements involve the following defendants and in most cases, their insurers: Interior Exterior Building Supply, LP ("Interior Exterior"); the Banner Entities; L&W Supply Corp. and USG Corp.; and a group of numerous homebuilders, installers, suppliers. *See* (R. Docs. 10033-3, 12258-3, 13375-2, 14404-2). The Court first granted preliminary approval to all of the foregoing settlement agreements, and after the fairness hearing, certified and granted approval for the class settlements. Although the Court occasionally must deal with common benefit fees, settlement administration and enforcement issues, the Knauf portion of this litigation is largely resolved.

## **B. Chinese Defendants**

In contrast to the straightforwardness with which the MDL litigation proceeded against the Knauf Defendants, the litigation against the Chinese entities has taken a different course. The Chinese Defendants in the litigation include the principal Chinese-based Defendant Taishan, namely, Taishan Gypsum Co. Ltd. (“TG”) and its wholly-owned subsidiary, Taian Taishan Plasterboard Co., Ltd. (“TTP”) (collectively “Taishan” or “Taishan Entities”). Other Chinese-based Defendants include the CNBM Defendants (“CNBM”), comprised of the China National Building Materials Group Corporation, China National Building Materials Company Limited, China National Building Materials & Equipment Import & Export Corporation, and CNBM Forest Products (Canada) Ltd; and the BNBM Defendants (“BNBM”), comprised of Beijing New Building Materials Public Limited Company, and Beijing New Building Material (Group) Co. Ltd. As discussed below, the course of the litigation involving the Taishan Entities and other Chinese-based defendants has not followed the same trajectory or enjoyed the same measure of resolution as that involving the Knauf Entities.

As an alleged manufacturer of Chinese drywall which has been installed in plaintiffs’ properties, Taishan is a named defendant in numerous cases in both the MDL litigation and litigation filed in state courts. The Court’s initial inquiry regarding Taishan involved four cases in the MDL in which Taishan was served, entered an appearance, and in two of these cases, subjected to default judgment proceedings. These four cases are: *Germano v. Taishan Gypsum Co., Ltd.*, Case No. 09-6687; *The Mitchell Co., Inc. v. Knauf Gips KG*, Case No. 09-4115; *Gross v. Knauf Gips KG*, Case No. 09-6690; and *Wiltz v. Beijing New Building Materials Public Ltd., Co.*, Case No. 10-361. The Court will briefly discuss each of these cases as they pertain to Taishan before detailing the overall course of the MDL litigation involving the claims against Taishan.

*Germano* has served as the main vehicle for the MDL litigation involving Taishan, particularly TG. *Germano* was filed originally in the U.S. District Court for the Eastern District of Virginia as a putative class action against TG by the owners of homes located in Virginia which allegedly contain TG-manufactured Chinese drywall. *See* (R. Docs. 1-1, 1-2) (Case No. 09-6678). On August 3, 2009, TG was validly served. *See* (R. Doc. 1-7) (Case No. 09-6687). Thereafter, on October 13, 2009, *Germano* was transferred to the U.S. District Court for the Eastern District of Louisiana and consolidated with the MDL litigation on October 13, 2009. (R. Doc. 1) (Case No. 09-6678). Subsequent to transfer, Plaintiffs filed a Second Amended Complaint (“SAC”), which was granted, expanding the class to a nationwide class. *See* (R. Doc. 470) (Case No. 09-md-2047). The Court then permitted the intervention of 14 individual plaintiffs (the “Intervening-Plaintiffs”). (R. Doc. 641).

*Mitchell* was originally filed in the U.S. District Court for the Northern District of Florida as a class action on behalf of homebuilders in the states of Louisiana, Georgia, Texas and Florida who used drywall manufactured by TG for the construction, repair, or remodeling of properties, and who, as a result, incurred expenses associated with repair or replacement of this drywall and/or other property damaged by the drywall, and/or incurred liability for property damages. *See* (R. Doc. 1-1) (Case No. 09-4115). On May 8, 2009, service was executed on TG. *See* (R. Doc. 52) (Case No. 09-md-2047). Shortly thereafter, *Mitchell* was transferred to the Eastern District of Louisiana and consolidated with the MDL litigation. *See* (R. Doc. 1) (Case No. 09-4115).

*Gross* and *Wiltz* were both filed in the Eastern District of Louisiana and consolidated with the MDL litigation as nationwide class actions by property owners whose homes contain Taishan-manufactured Chinese drywall. *See* (R. Doc. 1) (Case No. 09-6690); (R. Docs. 1, 1-1)

(Case No. 10-361). Taishan was served or entered an appearance in both cases. *See* (R. Docs. 2140, 2141, 2553); (R. Docs. 7408, 7409). *Gross* involves claims against “indeterminate defendants” who have allegedly concealed their identity and are allegedly responsible for the Chinese drywall in plaintiff class members’ properties. *See* (R. Doc. 1) (Case No. 09-6690). *Wiltz*, on the other hand, is a more typical class action filed on behalf of property owners against Taishan as a result of the damage caused by the presence of Taishan’s drywall in their properties. *See* (R. Docs. 1, 1-1) (Case No. 10-361).

The first issues in the MDL litigation involving Taishan arose when TG failed to timely answer or otherwise enter an appearance in *Mitchell* and *Germano*, despite the fact that TG had been properly served in each case. *See* (R. Doc. 52); (R. Doc. 1-7) (Case No. 09-6687). After affording TG more than a reasonable amount of time to answer or enter an appearance, the Court entered a preliminary default against TG in both cases (R. Docs. 277, 487) and moved forward with an evidentiary hearing in furtherance of the Preliminary Default in *Germano* on the Intervening-Plaintiffs’ claimed damages. *See* (R. Doc. 502, 1223, 1258, 2380). At this hearing, the Intervening-Plaintiffs presented evidence specific to seven individual properties, which served as bellwether cases. Following this hearing, which occurred on February 19 and 20, 2010, the Court issued detailed Findings of Fact & Conclusions of Law. *See* (R. Doc. 2380, hereinafter “*Germano* FOFCOL”). The *Germano* FOFCOL noted that the average cost per square foot to repair the *Germano* properties was \$86 and that the average cost was based on “the average of independent quotes from two local reputable Virginia contractors.” *Id.* at 57. Further, the *Germano* FOFCOL found that the “homes of the seven Plaintiff-intervenors are representative of a cross-section of contaminated homes.” *Id.* at 62. On May 11, 2010, the Court issued a Final Default Judgment against TG in *Germano*, in favor of the Intervening-Plaintiffs, in

the amount of \$2,609,129.99. (R. Doc. 3031). On the last day to timely do so, June 10, 2010, TG filed a Notice of Appeal of the Default Judgment in *Germano*. (R. Doc. 3670). On this same day, TG also entered its appearance in *Germano* and *Mitchell*. *See* (R. Doc. 3668).

After TG entered its appearance in the MDL, it quickly sought to have the Final Default Judgment in *Germano* and the Preliminary Default in *Mitchell* vacated for lack of personal jurisdiction, as well as on procedural grounds. *See* (R. Docs. 5436, 5583). However, because of the pending appeal, this Court was without jurisdiction to address any motions filed by TG. *See* (R. Doc. 5504). Accordingly, TG sought and was granted by the Fifth Circuit, a stay of its appeal to allow this Court to provide an indicative ruling on TG's motions to vacate the preliminary default and default judgments. *See* (R. Doc. 5649). In response, this Court issued an order pursuant to Federal Rule of Civil Procedure 62.1 to allow it to consider TG's motions. *See* (R. Doc. 6101). In the fall of 2010, the Court directed the parties to commence the personal jurisdiction discovery necessary to resolve TG's motions to vacate. Sometime after the initial discovery, the parties agreed to expand the discovery beyond the *Germano* and *Mitchell* cases to other cases in which Taishan been served, including *Gross* and *Wiltz*.

Formal personal jurisdiction discovery of Taishan began in October 2010, *see, e.g.*, (R. Docs. 5839, 5840), and continued over the year-and-a-half leading up to the filing of Taishan's motions. Discovery has included the production of both written and electronic documents, as well as depositions of Taishan's corporate representatives, with each type of discovery proceeding in a parallel fashion. This discovery has often been contentious, requiring close supervision by the Court. The Court has presided over regularly-scheduled status conferences to keep the parties on track, and conducted hearings and issued rulings to resolve numerous discovery-related disputes. *See, e.g.*, (R. Docs. 7136, 7511).

In April 2012, TG and TTP re-filed various motions: a motion to dismiss for lack of personal jurisdiction, a motion to vacate the entry of default and to dismiss the action in *Mitchell*, a motion to dismiss the complaint in *Gross*, and a motion to dismiss the complaint in *Wiltz*. Responses in opposition were filed by the PSC, Interior Exterior, the Banner Entities, and Certain Florida Homebuilders, (R. Docs. 14202, 14204, 14209, 14216, 14356, 14372, 14390, 14392, 14391-4), with other parties joining in these motions, including the State of Louisiana (collectively the “Respondents”). Prior to the hearing, evidentiary objections were raised by Taishan, which the Respondents addressed. On June 29, 2012, over three years since the creation of MDL 2047, and after a year-and-a-half of personal jurisdiction discovery on Taishan, the Court presided over a hearing on Taishan’s motions. The Court coordinated its hearing with Judge Joseph Farina of the 11th Judicial Circuit Court of Florida, who had a similar motion involving Taishan’s challenge to personal jurisdiction.

On September 4, 2012, this Court issued a 142-page order regarding Taishan’s motions in *Germano, Mitchell, Gross, and Wiltz*, in which the Court denied the motions to vacate, denied the motions to dismiss, and held that it maintained personal jurisdiction over Taishan. *In re: Chinese-Manufactured Drywall Products Liability Litigation*, 894 F. Supp. 2d 819 (E.D. La. 2012). The Court also ruled that TTP was operating as the alter ego of TG. The Court certified an interlocutory appeal and the Fifth Circuit granted permission to appeal. In January and May of 2014, two different panels of the Fifth Circuit affirmed this Court’s ruling and held that this Court maintained personal jurisdiction over Taishan and TTP. *In re: Chinese-Manufactured Drywall Products Liability Litigation*, 753 F.3d 521 (5th Cir. 2014); *In re: Chinese-Manufactured Drywall Products Liability Litigation*, 742 F.3d 576 (5th Cir. 2014). The time for

writs of certiorari passed and the issue of personal jurisdiction over Taishan became firmly settled.

This Court set a judgment debtor examination for July 17, 2014 and ordered Taishan to appear. Instead of appearing, however, Taishan fired its Hogan Lovells attorneys and indicated that it was again “withdrawing” from the litigation. The Court held Taishan in contempt of court. (R. Doc. 17869). Pursuant to this contempt order, Taishan was ordered to pay \$15,000 in attorneys’ fees to Plaintiffs’ counsel and \$40,000 as a penalty for contempt. The contempt order also enjoined Taishan and its affiliates and subsidiaries from conducting business in the United States until or unless it participated in the judicial process. In addition, the contempt order provided that if Taishan or its affiliates or alter egos did business in violation of the contempt order, they would forfeit 25% of the earnings. The Court did not immediately permit Taishan’s terminated attorneys to withdraw from the litigation, in order to ensure that Taishan was on notice of the progress of the proceedings, Taishan’s contempt and “withdrawal” notwithstanding.

On July 23, 2014, Plaintiffs filed their Omnibus Motion for Class Certification pursuant to Rule 23(b)(3). (R. Doc. 17883). Taishan did not appear and, on September 26, 2014, this Court certified a class of “[a]ll owners of real properties in the United States, who are named Plaintiffs [in the various MDL complaints] asserting claims for remediated damages arising from, or otherwise related to [Taishan] drywall. *See* (R. Doc. 18028 at 34-35, hereinafter “Class Certification FOFCOL”). The Court so ruled following a motion from the PSC. (R. Doc. 18086). The motion was unopposed by any party.

The Court set a class damages hearing for February 12, 2015. At that hearing, BNBM entered an appearance for the first time in this litigation and asked for a continuance to prepare for a class damages hearing. (R. Doc. 18331). The Court granted the request for a continuance.

Taishan subsequently entered an appearance with its new counsel, Alston & Bird, LLP. (R. Doc. 18352). CNBM also entered an appearance for the first time in this litigation. On March 17, 2015, the Court ordered Taishan to purge itself of contempt and again continued the damages hearing to April 28, 2015. (R. Doc. 18831). Thereafter, the Court granted yet another request for a continuance and set the class damages hearing for June 9, 2015.

The hearing on damages proceeded on June 9, 2015. The PSC presented two witnesses. First, the PSC called Jacob Woody to testify. Mr. Woody is an attorney employed by BrownGreer. BrownGreer serves as Settlement Administrator for the Knauf Settlement and Claims Administrator for the Global, Banner, and InEx Settlements (collectively referred to as the “GBI settlements”). The PSC then called George J. Inglis, a Professional Engineer and Senior Project Consultant with Berman & Wright Architecture, Engineering and Planning, as its designated expert to testify about remediation damage estimates. Defendants called David Pogorolich as their first damages rebuttal expert. Pogorolich is a Director at Navigant Consulting and a licensed Certified General Contractor in the State of Florida. Defendants called Dr. M. Laurentis Marais as their second expert. Dr. Marais is Vice President and Principal Consultant at William E. Wecker Associates, Inc. The Court earlier held that Dr. Marais was an expert in statistical science and sampling but was not qualified to testify about building damage or remediation estimation methodology.

The Court has carefully considered the testimony of all of the witnesses and the exhibits entered into evidence during the hearing, as well as the record. Pursuant to Rule 52(a) of the Federal Rules of Civil Procedure, the Court issues the following Findings of Fact and Conclusions of Law. To the extent that any finding of fact may be construed as a conclusion of law, the Court hereby adopts it as such and to the extent that any conclusion of law constitutes a

finding of fact, the Court adopts it as such. Notwithstanding the foregoing, the Court would like to make clear at the outset that the instant Findings of Fact and Conclusions of Laws relate to the property damages caused by Chinese Drywall. The June 9, 2015, Hearing was held for the sole purpose of hearing testimony regarding the property damages aspect of this MDL litigation. Accordingly, the findings and conclusions herein do not address issues of alter ego, jurisdiction or contempt.

## **II. BACKGROUND – GYPSUM & DRYWALL**

Drywall is a widely used construction material that is also known as gypsum board, wallboard, plasterboard, and sheetrock. P2.0006-0003 (Cozen O'Connor, *Chinese Drywall Litigation: Subrogation Whitepaper* (2009)). A drywall panel is composed of a layer of hardened gypsum plaster sandwiched between two layers of paper liner. *Id.* Gypsum is a hydrated calcium sulfate, composed of two molecules of water (H<sub>2</sub>O) and one of calcium sulfate (CaSO<sub>4</sub>). *Id.* The gypsum used to make drywall can be created both naturally and synthetically. *Id.* Naturally occurring gypsum is a deposit largely the result of the evaporation of water in ancient inland seas which contains large amounts of dissolved gypsum. P2.0051-001 (*Treatment and Disposal of Gypsum Board Waste*, Construction Dimension, February 1992 at 5). Synthetic gypsum is chemically identical to mineral gypsum, but the amount and types of trace materials and unreacted sorbents found in the source material can vary among power plants and among mines from which it originates. P2.0006-0003 (Cozen O'Connor, *Chinese Drywall Litigation: Subrogation Whitepaper* (2009)). Synthetic gypsum is generally obtained in the final stage of industrial processes, where sulfuric acid is neutralized by a calcium salt; for example it is produced as a byproduct of coal combustion power plants. *Id.*; P2.0240.0014 (ASTM International report). To make drywall from gypsum, first gypsum is crushed or ground up and heated to about 350 degrees Fahrenheit to remove approximately seventy-five percent (75%) of

its water content in a process called calcining, thereafter becoming a fine white powder. P2.0006-0003 (Cozen O'Connor, *Chinese Drywall Litigation: Subrogation Whitepaper* (2009)); P2.0051-0001 (*Treatment and Disposal of Gypsum Board Waste*, Construction Dimensions, February 1992 at 5). Second, the calcined gypsum is mixed with water, foam, and other additives to form a slurry which is fed between continuous sheets of paper on a continuous belt line. *Id.* Third, as the board moves down the belt line, the calcined gypsum recrystallizes or rehydrates, reverting to its original gypsum state, and the paper sheets become firmly bonded to the rehydrated core. *Id.* Finally, the board is cut to length and conveyed through dryers to remove free moisture. *Id.*

Historically, gypsum was used as far back as 3700 B.C. by the Egyptians as a base to preserve the wall murals in the pyramids. P2.0051-0001 (*Treatment and Disposal of Gypsum Board Waste*, Construction Dimension, February 1992 at 6); P2.0240-0022 to -0023 (ASTM International, Oct. 2009 at 9-10). The Roman Empire used gypsum for interior purposes, such as the interior walls of Pompeii. *Id.* There is little information of the use of gypsum plaster during the Middle Ages. *Id.* The modern science of gypsum began with the discoveries by Antoine Lavoisier outlined in his two papers on gypsum presented to the French Academy of Sciences in 1765 and 1766. P2.0240-0022 to -0023 (ASTM International, Oct. 2009 at 11). In the United States, the use of gypsum board started in the early 1950s and was driven by the following issues, (1) avoiding the drying time of plaster which allowed earlier occupancy of buildings, and (2) the lack of skilled plasterers in many locations. P2.0240-0026 (ASTM International, Oct. 2009, pg. 13). Gypsum is fire resistant, thus making it a preferable material for drywall. P2.0051-0001 (*Treatment and Disposal of Gypsum Board Waste*, Construction Dimensions, February 1992 at 6). Since the 1950's, drywall has become a primary source material for

buildings in the United States. As mentioned above, due to a shortage of U.S.-manufactured drywall, Chinese-manufactured drywall was brought into the United States.

### **III. GENERAL FINDINGS ON CHINESE DRYWALL**

#### **A. Chinese Drywall is Defective**

1. As established by the U.S. Consumer Product Safety Commission (“CPSC”), the Florida Dept. of Health, other scientific entities, and this Court in the *Germano* FOFCOL, the defective nature of this Chinese drywall is undisputed.

2. The Chinese drywall in question has a significantly higher average concentration of strontium and significantly more detectable levels of elemental sulfur. It releases three main gases: (i) hydrogen sulfide (H<sub>2</sub>S), (ii) carbonyl sulfide (COS), and (iii) carbon disulfide (CS<sub>2</sub>). *Germano* FOFCOL at 12. The Plaintiffs’ experts detected sulfur gas emissions by conducting laboratory tests on samples of this Chinese drywall. The CPSC, Florida Dept. of Health and other investigatory agencies and firms also reported that Chinese drywall emits sulfur gases. *Id.* at 12-13.

3. The sulfur gases released by Chinese drywall are irritating to the human body during exposure. Exposed individuals reported irritation of the eyes, respiratory system, and skin, among other things. *Id.* at 13.

4. The sulfur gases released by this Chinese drywall cause offending odors in homes, making them hard if not impossible to live in, and are corrosive to metals, particularly copper and silver, which are uniquely vulnerable to corrosion from sulfur gases. *Id.* The sulfur gases emitted from Chinese drywall create an environment classified among the most severe industrial corrosive environments in the Battelle Classification scheme and the standards established by the International Standards Association. *Id.* at 19-20.

5. Forensic examination by scientific and technical experts, including testing of building materials in the damaged homes of the *Germano* Plaintiffs, further confirmed the wide-spread impact of the corrosive environment, which included corrosion of copper wiring, copper pipes and silver-based components in electronics, including HVAC circuitry and brazing on pipes, causing premature failure of electrical and mechanical devices. *Id.* at 14, 23.

**B. Property Damage Arising From Chinese Drywall Requires Total Remediation**

6. The Court adopts and incorporates herein the *Germano* FOFCOL, which accurately explains the scope of remediation required for class plaintiffs' properties. *Germano* FOFCOL at 29-31; *In re Chinese Manufactured Drywall Prod. Liab. Litig.*, 706 F. Supp. 2d 655 (E.D. La. 2010).

7. After considered analysis of the impracticality and risks of the selective remediation approach, the Court found in *Germano* and re-affirms herein that remediating a Chinese drywall property requires complete remediation and cleaning; thus, the Court again rejects any remediation approach that favors selective remediation such as the one originally proposed by the Knauf experts in *Germano*. *Id.* The remediation protocol fashioned in *Germano* is evidence based and has been confirmed via its application in the actual remediation of several thousand homes.

8. The scientific and practical constructability evidence presented before this Court, which relies on long-term observation, sampling and testing of properties with Chinese drywall, scientific investigation of Chinese drywall and the science of corrosion, practical construction experience (particularly the experience of the national builders), and electric and building codes, demonstrates that proper remediation of the danger posed by Chinese drywall must include the removal of *all* drywall, all electrical wiring, the entire HVAC system, and many other items such

as appliances, carpet, cabinetry, trim work and flooring. *Germano* FOFCOL at 27-55; *Hernandez* FOFCOL at 20-34; Transcript at pp. 106:8-110:3.

**9.** This scope of remediation is necessary even in homes with “mixed” drywall, where Chinese and non-reactive drywall may be found, because the sulfur gases disburse and circulate creating a generally corrosive environment and, moreover, there is no reliable or practicable method for selective identification and removal of Chinese drywall in mixed homes. *Germano* FOFCOL at 27-40. Large Florida homebuilders with extensive experience in Chinese drywall remediation have determined that removal of all drywall in affected homes is efficient and cost-effective, and that attempted selective identification and removal of CDW is neither efficient nor cost-effective. *Id.* at 31.

**10.** It is both economical and practical to remove all the wiring while the drywall is removed, rather than removing only some of the wiring at the time of remediation and then risk later having to tear down the drywall again in the event that additional wiring exposed to the sulfur gases is harmed or fails. Additionally, the low-voltage wiring supporting life and safety devices such as fire alarms and smoke detectors should be removed and replaced because of the low cost of replacement when compared with the high risk of injury or death if these devices are not functioning properly. *Id.* at 39.

**11.** Copper pipes and HVAC units must be replaced. It is more cost-effective and less time consuming to remove and replace all copper pipes and the HVAC units in Chinese drywall properties as opposed to attempting to “clean” the corrosion off copper components and HVAC ductwork. *Id.* at 39-46.

**12.** The evidence shows that carpeting must be replaced because attempting to remove and store the carpet during the remediation is not cost-effective. Similarly, hardwood or vinyl

flooring must be replaced because dust generated during the remediation process will intrude into the cracks and crevices of the flooring. However, tile flooring may be properly protected during the remediation process, and if this can be done, the Court finds that it does not need to be removed and replaced. *Id.* at 49-50.

**13.** Similarly, it is more cost-effective to replace cabinets, countertops, trim, crown molding, baseboards, bathroom fixtures, and insulation than attempt exacting removal, storage and subsequent re-installation. *Id.* at 51-53.

**14.** In order to eliminate the tremendous amount of dust produced from removal of the drywall, and to eliminate the offensive odor of the Chinese drywall, properties need to be cleaned and aired-out after remediation is complete. A HEPA vacuum should be used to remove the fine drywall dust and other particles. Additionally, properties should be wet-wiped or power washed to eradicate any remaining particles. *Id.* at 53.

**15.** Following the deconstructing phase of the remediation process, the properties will need to be inspected by an independent and qualified engineering company. This is important for insurance, resale potential, and peace of mind for the present occupants. The independent and qualified engineering company should provide a letter or report indicating that the remediation has been correctly performed. *Id.* at 53-54.

**16.** The necessary remediation proposed by the PSC is essentially the same in all material respects as the scope of remediation being utilized by national builders Beazer Homes and Lennar Homes. National builders Beazer and Lennar have also independently assessed the need for complete remediation through scientific evidence, practical cost considerations, and hands-on experience with the problem. Although in theory, a thorough cleaning or selective replacement of contaminated drywall may be an option, in practice, the evidence does not support the

feasibility of such an option. The alternative remedies to a complete remediation that have been tried or suggested, such as selective identification and removal of Chinese drywall, “cleaning” corroded wires, switches, and contact points, leaving corroded wires and switches in place, clipping the exposed ends of the corroded wires and splicing wires, or making new junction boxes, will not make the plaintiff whole, will not be adequate from a scientific or practical standpoint, and will not provide safety and marketability to the property owner. *Id.* at 54.

**17.** Thus, in sum, the appropriate scope of remediation includes: removal and disposal of all damaged and affected building components in the properties, replacement of all drywall, replacement of entire HVAC assembly, replacement of entire electrical system (including receptacles and switches), replacement of all copper and silver plumbing and electrical switches, replacement of all items that are likely to be damaged during demolition (i.e., cabinets, trim and baseboards), replacement of items that are ultimately more efficient to replace than restore, such as carpet and flooring, a complete cleaning of the premises, and confirmation from an independent and qualified engineering company to confirm the quality and completeness of the cleanup and provide the necessary assurances for insurance, resale potential and peace of mind for the affected property owners. As mentioned, the scope of remediation is supported by the testimony of the experts and confirmed by the remediation of over 2,200 homes carried out in the Knauf Settlement Program.

#### **IV. LIABILITY FOR EXPOSURE IN CLASS PLAINTIFFS’ PROPERTY**

**18.** The *Germano* FOFCOL resolved a multitude of factual and legal issues including the scope of remediation and the right to recover remediation damages. The Class Certification FOFCOL essentially adopted the *Germano* ruling regarding liability and causation. The Court adopts and incorporates herein the *Germano* and Class Certification Tools and emphasizes its prior holding that Taishan and its affiliates are liable to the Class Plaintiffs.

**19.** The Court already has found the Taishan Defendants in default. The *Germano* Plaintiffs obtained a default judgment against Taishan on November 20, 2009. *See In re Chinese-Manufactured Drywall Prod. Liab. Litig.*, 742 F.3d 576 (5th Cir. 2014). Additionally, the Taishan affiliates have also been held in default with respect to the proceedings in *Wiltz*, *Gross*, and *Amorin*. On February 1, 2011, BNBM, BNBM Group, CNBM, and CNBM Group were held in default in the *Gross* proceedings. (R. Doc. 7302). These same entities were again held in default in *Gross* on August 7, 2012 (*i.e.*, as to the omnibus interventions complaint that was filed in *Gross*). (R. Doc. 15687). On February 24, 2011, BNBM was held in default in the *Wiltz* proceedings. (R. Doc. 7735). On July 1, 2014, Taishan, TTP, and CNBM were held in default with respect to the *Amorin* case originally filed in this Court (Case No. 2:11-cv-1395) (R. Doc. 17814). Pursuant to this same Order, Taishan and TTP were held in default with respect to the *Amorin* complaint originally filed in the Southern District of Florida prior to its transfer to this Court (Case No. 2:11-cv-1672). *Id.* Also on July 1, 2014, Taishan, TTP, BNBM, CNBM, and CNBM Group were held in default with respect to the *Amorin* complaint originally filed in the Eastern District of Virginia prior to its transfer to this Court (Case No. 2:11-cv-1673) (R. Doc. 17815). (R. Docs. 7735, 17814, 17815). Moreover, the Court already determined that the Defendants' liability was conceded by their default. Class Certification FOFCOL at 31.

**20.** Given that the defectiveness and corrosive effect of Chinese drywall is well-established, defendants are in default, there is no contributory negligence, and this Court already entered a liability judgment, the only issue currently pending before the Court is the amount of damages which should be awarded to the Plaintiffs in order to accomplish the necessary remediation.

## **V. EVIDENCE AT THE JUNE 9, 2015 DAMAGES HEARING**

**21.** As discussed *supra*, in September of 2014, the Court conducted a certification and liability phase of this MDL, finding the Defendants liable and certifying a class of real property

owners asserting claims for remediated damages arising from or related to the Chinese drywall manufactured, sold, distributed, supplied, marketed, inspected, imported, or delivered by the Defendants and their affiliates. On June 9, 2015, this Court held an evidentiary hearing to deal with the second phase of the Chinese drywall litigation: damages. The purpose of the hearing was, simply, to determine how much the Defendants and their affiliates owe the class to remediate their homes due to the damages caused by toxic, corrosive Chinese drywall. The Plaintiffs called two witnesses—Jacob Woody and George Inglis—to present their formulaic class-wide damages approach. In response, the Defendants called two witnesses—David Pogorlich and Dr. M. Laurentis Marais—to demonstrate that the Plaintiffs’ formulaic approach fails to provide a reasonable estimate of remediation costs.

**22.** First, Plaintiffs called Jacob Woody to testify. Mr. Woody is an attorney employed by BrownGreer. BrownGreer has served, and continues to serve, as a settlement administrator for various settlements that have been entered into in these consolidated proceedings, including the Knauf remediation class settlement and the Global, Banner, and INEX (“GBI”) Class Settlements. Tr. at 26:1-17. In connection with the settlements, BrownGreer has amassed a database containing square footage and other information regarding properties that have been the subject of claims in this litigation, including many of the properties that the PSC sought to include in the class. Tr. at 39:12-22.

**23.** BrownGreer utilizes a quality assurance protocol in the work it does as a claims administrator. 18:21-22. The QA protocol includes processes to review both the eligibility of claims as well as the allocation of payment to eligible claims. 19:1-9. In the course of its claims administration activity, BrownGreer allows audits by any party on request, and would have

allowed Taishan to request such an audit had it chosen to be, and remain, an active litigant in the MDL as claims were being submitted and verified. Tr. at 19:10-20.

**24.** Mr. Woody testified that, at all pertinent times, BrownGreer has endeavored to provide the best available claims information to all parties, has remained mindful of its Court-appointed position in this case, and has taken no interest in which party prevails in the class damages hearing. Tr. at 102:08-17.

**25.** In October 2014, at the request of the PSC, Mr. Woody oversaw a project to provide information regarding square footage of class properties as well as, to a lesser extent, to provide information regarding product identification. Tr. 39-41; 47-50.

**26.** BrownGreer used three sources of information to verify the square footage of class members' properties: (1) BrownGreer's prior GBI review process; (2) public sources such as tax appraisals, property ownership records and official government websites; and, if those two sources were unavailable, (3) square foot data from the Court-approved Plaintiff Profile Forms (PTO 11, R. Doc. 168-1). Tr. 44-47. The form specifies that it is to be completed under oath and signed under penalty of perjury, requires identification of the manufacturer of the Chinese drywall found on the property, and requests the amount of square footage for the property. It further allows for claimants to supplement information on an ongoing basis, permitting attachments such as photographs, inspection reports, etc. Tr. at 22:7-23:23. According to Mr. Woody, BrownGreer would not have relied solely on the square footage data from the Plaintiff Profile Forms in connection with the Knauf or GBI settlements. Tr. at 44:25-47:11; 71:24-72:9.

**27.** With regards to product identification, BrownGreer utilized both a Court-approved photograph catalog (PTO 10, R. Doc. 171) and a Court-approved "Drywall Indicia Guide" (PTO

27, R. Doc. 17060) in order to identify the types of drywall and the manufacturers of drywall associated with the properties on the class list. Tr. at 23:23-25:4; 34:15-19; 47:12-49:19.

**28.** Relying on photographic evidence and inspection reports, Mr. Woody was able to verify that 1,285 properties on the original class list of approximately 3,700 class members had Taishan drywall. As to the remaining 2,449 properties on the original class list, the only proof that Taishan or Chinese drywall was used in the claimants' properties was the claimants' statements on the Plaintiff Profile Forms. Tr. 55:23-56:10; 100:14-101:1. Mr. Woody did not undertake, and has not yet been asked to undertake, a review of attachments to the Plaintiff Profile Forms. Tr. 49:24-51:16. If and when BrownGreer determined that a property contained 100% Knauf drywall, not Taishan drywall, those properties were removed from the class list. Tr. 76-79.

**29.** Mr. Woody acknowledged that information on Plaintiff Profile Forms was not always reliable and, absent verifiable supporting evidence, such as photographs or inspection reports, he did not regard a statement on a profile form as sufficient evidence of product identification. Tr. 75.

**30.** In any allocation process to follow the Court's aggregation or assessment of class-wide remediation damages, Mr. Woody confirmed that BrownGreer would be able to use its existing systems and protocols to verify Plaintiff Profile Form statements identifying the presence and amount of Taishan drywall for a given property. Tr. 51:23-52:3. None of the changes to the list of properties for this first phase of damages proofs—the calculation of class-wide remediation damages—changed the class definition, but rather only refined it, by decreasing the number of properties, the list of properties that is the subject of remediation damages proof during this initial phase. Tr. 64:11-65:2.

**31.** At Defendants' request following their re-appearance in the litigation, Mr. Woody provided Knauf remediation data which, initially, included both remediation and move-in/move-out payments. Tr. 29:19-30:4. Following a second request from Defendants, Mr. Woody modified the Knauf remediation payment data to include only remediation data and not move-in/move-out payments. The Knauf Settlement remediation payments recorded by BrownGreer and provided to Defendants exclude the following cost items:

Any delay payments made due to problems with Knauf remediation;

(1) Still-open remediation properties (a total of 655 as of the time the information was provided by BrownGreer);

(2) Insurance premiums for subcontractor or drywall disposal activities;

(3) Both pre- and post-remediation inspection (including Xactimite and bid proposals) costs;

(4) Certified Industrial Hygienist/Environmental charges for inspection and testing (clearance) remediation of a property, which is required in every case if remediation by Knauf;

(5) "Economies of scale" associated with the Knauf use of Moss as a single, general contractor for the remediation settlement; and

(6) Remediation administration/oversight fees and costs for Moss' services as general contractor. Tr. at 59:4-61:23; 62:17-19.

Thus, the average cost of \$65.16 per square foot for the Knauf remediation under this calculation method does not reflect remediation-related costs for general contractor oversight, certified industrial hygienist (CIH) charges, inspection costs, or insurance premiums. Tr. at 98:4-11.

**32.** Second, Plaintiffs called George J. Inglis. Mr. Inglis is a Professional Engineer and Senior Project Consultant with Berman and Wright Architecture, Engineering, and Planning ("Berman & Wright"). He has 40 years of experience in project and construction management, building diagnostics, building forensics and remediation of building defect damages. 103:25-104:6.

**33.** After joining Berman & Wright's predecessor (Buric) in 2010, Mr. Inglis performed forensic engineering services to identify construction deficiencies and compliance with building codes, design documents, and manufacturers' specifications. He determined cause and effect relationships that resulted in damage to residential, multifamily, industrial, and commercial buildings, including damages such as water intrusion, mold, structural repairs, roofing repairs and replacement, and costs to remediate homes constructed with reactive Chinese drywall. Additionally, he has identified possible sources of defects that lead to water intrusion and/or mold problems and has worked with buildings in post-Hurricane Katrina and post-Hurricane Wilma settings to determine specific causes of damages and related cost estimations. 103:25-106:16.

**34.** Mr. Inglis' professional engineering engagements also include multi-state building defect cases, including the assessment and remediation of damages caused by synthetic stucco on buildings across several states. 105:17-106:7.

**35.** Mr. Inglis and his firm have widespread general experience estimating cost of repair damages and utilizing RS Means, which is a generally accepted method of calculating building costs. Specifically, they have been assessing construction estimates for remediating Chinese drywall properties since 2009. 106:8-107:5. In fact, they were instrumental in determining the appropriate scope and costs of remediating the Chinese drywall properties in *Germano*. 107:17-110:3. They continued their work on a variety of Chinese drywall properties across several states into 2015, establishing the scope of remediation for these properties and estimating the costs of remediation. 112:6-19; 157:8-18.

**36.** Mr. Inglis determined the remediation damages for each of the properties with verified under air square footage based on the following factors:

- A uniform and well-defined scope of work necessary to eliminate the harm and remediate the damage that is caused by Chinese drywall to the interior of each property;
- An established cost on a per-square-foot basis converted to present value;
- A measure of the under air space to remediated;
- Consideration of local factors related to building labor and materials

**37.** As this Court earlier determined and Mr. Inglis confirms, there is a well-established and defined scope of work necessary to fully remediate a Chinese drywall property. *Germano* FOFCOL at 27-55; *Hernandez* FOFCOL at 20-34; Tr. at 157:8-158:5; 159:21-160:1. This well-established evidence-based and field-tested scope of work for remediating a Chinese drywall property requires that the interior of the home be stripped to the studs (with all wiring, plumbing, fixtures, cabinets, HVAC systems and insulation removed), cleaned by wet-wipe and HEPA vacuum, and examined and tested by an independent entity before the property is brought back to its originally intended condition. *Germano* FOFCOL at 27-55; *Hernandez* FOFCOL at 20-34. This scope of work was established based on long-term observation of properties with Chinese drywall (including sampling and testing), scientific investigation of Chinese drywall and the science of corrosion, practical construction experience (particularly the experience of national builders, and electric and building codes). *Germano* FOFCOL at 27-55; *Hernandez* FOFCOL at 20-34; Tr. at 106:8-110:3. The scope of work is the same regardless of the type of building or the location of the property. The only difference is the square footage of the contaminated area of the building.

**38.** Mr. Inglis' determination regarding remediation damages for each property begins with a benchmark figure of \$86 per square foot to remediate a property. This \$86 figure was developed in 2010 using data from the *Germano* properties. In 2010 in the *Germano* litigation, Berman & Wright established that the cost of remediating the seven *Germano* homes was \$86 per square foot. This figure was based on two competitive bids for the appropriate scope of work i.e., total

remediation, with a pricing cross-check developed through R.S. Means, which has been recognized by this Court to be a standard textbook and reference tool for building construction estimation. *Germano* FOFCOL at 57-86; 110:14-23. 111:7-24. Over the following years of experience with many Chinese drywall properties in several states, Mr. Inglis and his firm Berman & Wright have found that \$86 per square foot is a reliable measure of the costs on a square foot basis for a full scope remediation of Chinese drywall properties, when adjusted for location and time. 111:23-112:3, 113:23-114:19, 116:21-117:3, 163:22-:24, 165:22-166:1, 166:16-117:17.

**39.** Using the widely-recognized R.S. Means, Mr. Inglis adjusted the \$86 per square foot cost to reflect the then-current-day building materials and labor costs. 119:8-11. Thereafter, he generated a national square foot unit price by adjusting for the local building labor and material costs for Norfolk, Virginia where all of the *Germano* properties were located. *Id.* In making both of these adjustments, Mr. Inglis used data from R.S. Means to adjust for local material and labor costs listed by zip code. *Id.*

**40.** Initially, Mr. Inglis computed his estimations incorrectly because of a local cost factor error in the online R.S. Means tool he used. However, Mr. Inglis discovered this error and corrected it prior to the hearing. 120:14-123:10.

**41.** Defendants raised concerns that Mr. Inglis did not consider whether each property was in an urban, suburban or rural setting. However, the Court is satisfied that the use of R.S. Means data, a standard cost reference used by professionals in the field, keyed to the zip code of each property sufficiently and reliably accounts for location factors in the individual and aggregate damages estimate. 159:19-24, 170:20-171:2.

42. Finally, Mr. Inglis added 6% of the remediation costs to the national square foot unit price to pay for the pre- and post-remediation inspection, sampling, testing and certification of the homes. 110:21-23.

43. The final, national square foot unit price with CIH costs included is \$105.91. However, this is reduced by the local building costs factors in nearly every state in which class properties exist. (R. Doc. 19197 at 37).

44. This method is in accordance with the Court's *Class Certification* FOFCOL which provided that remediation damages should be calculated based on existing data regarding scope of work and square footage of class members homes: "*i.e.*, price per square foot remediate X number of square feet in class members' homes = damages." (R. Doc. 18028 at 32, 33).

45. Mr. Inglis' estimate applies to each of the Taishan properties, regardless of whether they have been remediated by the Taishan Property Owners in the past or are yet to be remediated. Each Taishan Property Owner is entitled to a sum that would pay for a proper, full remediation.

46. Following the testimony by the Plaintiffs' experts, Defendants called two experts. The Defendants' experts do not have building damage and cost of repair experience comparable to that of Mr. Inglis. First, Defendants called David Pogorolich as their first damages rebuttal expert at the hearing. Mr. Pogorilich is a Director in the Construction Practice at Navigant Consulting. He was qualified and accepted by the Court as an expert in the field of construction cost estimating and project management for construction sites.

47. However, Mr. Pogorolich's experience with Chinese drywall is limited to only five homes in Florida for which he assisted an insurance adjustor. He has no experience with establishing or implementing the remediation protocol for Chinese drywall homes, which were already being remediated when he was retained. 207:4-19; 210:11-213:24. While Mr.

Pogorolich agrees with the Plaintiffs that the drywall must come out of the home, he supports a remediation approach where each home is inspected and a project specific location estimate is developed for each home. 189:8-20. According to Mr. Pogorolich, “the only way to prepare a reasonable estimate for a particular house is to visit the house, look at the layout, look at the qualitative and quantitative issues, [and] look at the fit and finish.” 189:14-18. However, this approach is impractical and ill-advised given the number of homes needing remediation and the more than six-year wait already endured by the homeowners. To deal with tragedy on a case-by-case or home-by-home basis where liability has already been established would result in decades of delay and would vary with the passing of time.

**48.** Additionally, the task of stripping a property to the studs and rebuilding does not present the same variability in costs as does an entirely new construction (*i.e.*, building a new house). 161:125-162:9. With Chinese drywall remediation, the bulk of the costs is in nearly uniform demolition of the drywall and replacement of standard building materials – differences in finish from home to home add little variability to the total damages estimate. *Id.*

**49.** Thus, the hypothetical problem posed by Mr. Pogorolich at the damages hearing when he compared two equally sized properties with very different lay-outs is not a problem; it is a routine aspect of damage estimation. Such variations, to the extent they exist in some outlier homes, present minimal cost variation in the final total remediation damages estimate. Defendants’ Exhibit 34; 195:22-196:19. Most of the Taishan properties are typical single family homes—like the *Germano* homes—where variations in trim and standard appliances will ultimately make no significant difference in the cost of repair. 125:3-22. Furthermore, the potential risk of any minimal cost variation is greatly outweighed by the fact that the alternative—individually inspecting each home to determine a project specific estimate—is both

inefficient and unjust given the number of Plaintiffs who are still awaiting resolution of their claims where liability has already been established.

**50.** Second, Defendants called Dr. M. Laurentius Marais as their second damages rebuttal expert at the hearing. Dr. Marais is Vice President and Principal Consultant at William E. Wecker Associates, Inc., specializing in applied mathematical and statistical analysis, including statistical extrapolations based on sampling and calculation of damages.

**51.** This Court held earlier that Dr. Marais is not qualified to address the Court regarding building damage or remediation estimation methodology, but may only offer, to the extent relevant, testimony about raw statistics. (R. Doc. 19092 at 4) (“There is no basis for him to provide expert testimony regarding methods or scope of remediation or accuracy of square footage cost data.”).

**52.** Dr. Marais is an expert in statistical science and statistical sampling. 231:14-20. Dr. Marias testified that Mr. Inglis’ damages methodology is an extrapolation in that it attempts to determine, based on information obtained from a sample of properties, conclusions about the large group of properties that comprise the class. 234:4-23. According to Dr. Marais, Mr. Inglis’ methodology does not comport with well-established principles for obtaining statistically and scientifically valid extrapolations from samples, and, therefore, cannot be relied upon to estimate class-wide damages or damages for individual class members. 233:4-238:1.

**53.** The Plaintiffs’ expert, Mr. Inglis, however, testified that he did not rely on statistical sampling in reaching his opinions. 156:14-25. While he did calculate averages in forming his opinion, his opinion was grounded in his extensive professional experience evaluating the cost of repair for Chinese drywall buildings and extensive historical scope of work and cost of repair

data. 116-116; 156-157. Like any engineer, he made use of basic statistics but his estimates relied on professional experience, not statistical science. 156:17-158:11.

**54.** The statistical opinion of Dr. Marais does not alter this Court’s conclusion regarding the adequacy of Plaintiffs’ formulaic damages calculation. In forming his opinion, Dr. Marais neither relied on (nor was he qualified as an expert to opine on) the Court’s Finding of Facts and Conclusions of Law in *Germano* and *Hernandez* regarding the scope of work or costs or repair to remediate Chinese drywall homes. 278:17-25; 280:6-10. Dr. Marais offered no statistical sampling alternative utilizing historical data of remediation activities.

**55.** Given the unique circumstances surrounding Chinese drywall and the absence of efficient and appropriate alternatives, a formulaic method used to calculate remediation damages is fair and reasonable. Mr. Inglis’ estimation of remediation costs—rather than a series of individual inspections and individual mini-trial estimates—saves the Taishan Property Owners from the costs and further delay of individual inspections, which may cost thousands of dollars per person, take several months or years to complete and, most likely, will not lead to a more precise estimate than the ones provided by Mr. Inglis.<sup>1</sup>

**56.** That said, there will have to be a claims process, similar to that utilized in the Knauf settlement, to ensure that properties contained Taishan-manufactured Chinese drywall and to verify the under-air square footage. BrownGreer will be tasked with establishing and implementing this process. Such a process will ensure that damages are accurately allocated to each individual class member.

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<sup>1</sup> Estimations, even when they are competitive bids performed by a builder personally inspecting the property, are still merely estimations. As the American Association of Profession Estimators notes in a leading treatise, variations even among several competitive bids can reach up to 30% with an average of a 17% difference. “If general contractors, bidding with the same documents, can’t get closer than a 15-20% spread, it is unrealistic to guarantee an estimate to be within a specific, small percentage.” Defendants’ Exhibit 7 at p. 77.

## **VI. CONCLUSIONS OF LAW**

### **A. Nature of the Proceedings Under Rule 55**

**57.** This Court has (1) already found the Taishan Defendants in default pursuant to Fed. R. Civ. P. 55(a) and (2) already determined in its *Class Certification* FOFCOL that the Defendants' liability has been conceded by their default. *See Class Certification* FOFCOL at 31. As a result of Defendants' default, the defectiveness and the corrosive effect of Chinese drywall were resolved in favor of Class Members. Even the Defendants' experts agree that the drywall is defective and needs to be removed. Thus, the only issue before the Court is the amount of damages which should be awarded to the Class for property remediation.

**58.** Since Defendants are in default and this Court already entered a liability judgment, Rule 55(b)(2) governs the procedure for determining the amount of damages. Pursuant to Rule 55(b)(2), the Court may conduct hearings to determine the amount of damages. Although the Rule does not mandate such a hearing, this Court determined that a damages hearing was appropriate under the circumstances to determine a damages calculation. *James v. Frame*, 6 F.3d 307, 311 (5th Cir. 1993).

**59.** The June 9, 2015, Damages Hearing was the first hearing of what will be multiple hearings that the Court will hold in order to assess the full amount of damages owed to class members. On June 9, 2015, the Court considered only remediation damages for current owners. Other damages, such as alternative living expenses, bodily injury, foreclosure, and/or lost rent, may be considered at other proceedings in this Court or other Courts where appropriate. The Court divided the hearings into phases because it is the most fair and efficient way to assess damages in this complex litigation. As discussed further below, remediation damages in this unique Chinese Drywall MDL can be calculated on an aggregated formulaic basis and, thus, it is in the best interest of all parties to consider remediation damages together in the first stage of the

damages proceedings. This approach will also allow the prompt remediation of homes so they can be re-inhabited comfortably and safely.

**60.** It is well-established in this Circuit that this Court may divide hearings regarding damages into phases, particularly in complex cases where, as here, such a division would serve judicial efficiency by separating common issues from individual ones. *See, e.g., In re Deepwater Horizon*, 739 F.3d 790, 816 (5th Cir.) *cert. denied sub nom. BP Expl. & Prod. Inc. v. Lake Eugenie Land & Dev., Inc.*, 135 S. Ct. 754, 190 L. Ed. 2d 641 (2014) (“[P]redominance may be ensured in a mass accident case when a district court performs a sufficiently ‘rigorous analysis’ of the means by which common and individual issues will be divided and tried. In many circuits, this has been accomplished by means of multi-phase trials under Rule 23(c)(4), which permits district courts to limit class treatment to ‘particular issues’ and reserve other issues for individual determination.”); *Watson v. Shell Oil Co.*, 979 F.2d 1014, 1023 (5th Cir. 1992) *on reh’g*, 53 F.3d 663 (5th Cir. 1994) (affirming and “express[ing] [its] admiration” for the district court’s trial plan, which included three damages phases and allowed the district court to adjudicate common class issues in the first phase and later adjudicate individualized issues in later phases, despite due process challenge).

**61.** Further, this Court finds that the Class Notice and Supplemental Class Notice issued on September 26, 2014, and December 30, 2014, (*see* R. Doc. 18231-1 at 4) were sufficient under Rules 23(c)(2) and 23(d)(2) to inform class members about the nature of the litigation, the class claims, and their legal rights. *See* (R. Doc. 18998). Although Plaintiffs made certain changes to their damages model leading up to the June 9, 2015, hearing, these changes did not alter the sufficiency of the class notices. *Id.* at 4-5. The Class definition has remained the same and there

is no precedent to suggest that changes to a damages model require supplemental class notice. *Id.* at 5.

**62.** While the default judgment conclusively establishes liability, it is not conclusive of the class damages for remediation costs which Plaintiffs seek. Liability and damages require separate and equally “rigorous analysis.” *Comcast Corp. v. Behrend*, 133 S. Ct. 1426, 1433 (2013). The June 9, 2015, damages hearing provided the opportunity for the Court to engage in such rigorous analysis and determine that, given the uniqueness of the instant action, the Plaintiffs have presented a reasonable and reliable method of calculating remediation damages on a class-wide basis and have accommodated individual class damage issues by shifting the individual damage components to subsequent adjudicative phases.

**B. Chinese Drywall – A Unique Class Action**

**63.** Chinese drywall presents a truly unique dilemma, and the damages from Chinese drywall are not easily analogized to those of typical class actions. *See Pella Corp. v. Saltzman*, 606 F.3d 391, 396 (7th Cir. 2014) (quoting *Carnegie v. Household Int’l, Inc.*, 376 F.3d 656, 661 (7th Cir. 2004) (“Under Rule 23, district courts are permitted to ‘devise imaginative solutions to problems created by the presence in a class action litigation of individual damage issues.’”). In most class actions, even if liability is established, the issue of causation is often inextricably intertwined with damages and remains to be litigated. In other words, even if a court finds that a defendant was negligent and that a plaintiff suffered damages, the court must still determine whether those damages were *caused* by that negligence.

**64.** With regards to the Taishan drywall in this case, in contrast to these typical class actions, there is no issue of either liability or causation. The fact that each Taishan property owner suffered the same harm to their property and the same type of damages puts this case in contrast to cases where each plaintiff suffers a distinctly different *kind* of individualized wrong.

Here, Taishan has been held liable for defective Chinese drywall, and any properties containing Chinese drywall are defective, requiring the removal of the Chinese drywall. As mentioned above, even the Defendants agree that the drywall is defective and must be removed and the property remediated. Thus, the only variation is the *extent* of the damages suffered based on the square footage of the involved property. *See In re Deepwater Horizon*, 739 F.3d 790, 815 (5th Cir. 2014) (“Even wide disparity among class members as to the amount of damages’ does not preclude class certification ‘and courts, therefore, have certified classes even in light of the need for individualized calculations of damages.’”) (quoting *Bell Atlantic Corp. v. AT&T Corp.*, 339 F.3d 294, 306 (5th Cir. 2003)). This variation can be uniformly recognized by a square footage analysis established using a representative statistical sample. Indeed, recently, the Supreme Court held that, under certain circumstances, statistical evidence may be used to make class-wide determinations depending on the purpose for which the evidence is being introduced and on the elements of the underlying cause of action. *Tyson Foods, Inc. v. Bouaphekeo*, 136 S. Ct. 1036, 1046 (2016) (citing *Erica P. John Fund, Inc. v. Haliburton Co.*, 563 U.S. 804, 809 (2011)). A comparison of this class action to other more typical types of class actions is useful to demonstrate why a formulaic statistical method for calculating damages is appropriate in this case, even though it may not be appropriate under other circumstances.

### **1. Asbestos**

**65.** Asbestos class actions generally involve vast disparities among not only the degree of injury, but also the type of injury. In contrast to asbestos, the level of exposure to Chinese drywall in this case is immaterial because the class is not asserting personal injury claims, but rather property damage claims. No matter how long the Chinese drywall has been inside the walls, a property owner has no choice but to remove it and replace it, which inevitably involves time and expense. As a result, Chinese drywall damages cannot be easily analogized to asbestos

damages.

**66.** In asbestos cases, plaintiffs share the common fact that they have all been exposed to asbestos at some point; however, the resultant health effects often vary dramatically and warrant individual adjudication to determine damages. Asbestos exposure does not guarantee illness, and even if sickness does occur, the degree of injury among plaintiffs varies according to the diversity of class members' characteristics, including their preexisting physical conditions, their health habits, the type and duration of the exposure, the severity and nature of the resulting diseases, the type of treatments received, etc. The variations among plaintiffs' injuries resulting from asbestos also preclude calculation of damages by formula because some individuals become more seriously ill than others. Additionally, the stakes for the defendants are relatively high in asbestos cases, rendering individual adjudication more appropriate than class action.<sup>2</sup>

**67.** In *Amchem Products, Inc. v. Windsor*, the Supreme Court considered certification of a class for settlement that included some individuals who had been exposed to asbestos and had become ill, and others that had been exposed but had yet to manifest any injuries. 521 U.S. 591 (1997). The Court held that the class failed to satisfy Rule 23's predominance and adequacy-of-

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<sup>2</sup> Plaintiffs seeking compensation for property damage do not stand to recover nearly as much as plaintiffs would in actions for wrongful death, and accordingly have less incentive to litigate individually. *See Bevrothe v. Caesars Entm't Corp.*, No. 11-543, 2011 WL 4634174 at \*5 (E.D. La. Oct. 4, 2011). Defendant BNBM's reliance on *McLaughlin v. Am. Tobacco Co.* for the proposition that a court should not estimate gross damages for the class and then adjust the total amount later on when processing individual claims is misplaced: whereas the plaintiffs bringing civil fraud claims against tobacco companies in *McLaughlin* proposed "an aggregate determination [that was] likely to result in an astronomical damages figure that does not accurately reflect the number of plaintiffs actually injured by defendants and that bears little or no relationship to the amount of economic harm actually caused by defendants," in this case, Plaintiffs' class damages proposal does not appear to compensate potential claimants who had not actually been affected by the presence of Chinese drywall. 522 F.3d 215, 231 (2d Cir. 2008), *abrogated on other grounds by Bridge v. Phx. Bond & Indem. Co.*, 553 U.S. 639 (2008). The Second Circuit in *McLaughlin* was concerned that claimants who had perhaps never relied upon the defendants' misrepresentations about cigarettes or whose reliance was not the proximate cause of each individual's loss might still be allowed to recover despite not having a viable fraud claim, a circumstance distinguishable from the instant case where no proof of individual reliance on any representation is required. *Id.* at 231. Moreover, the *McLaughlin* plaintiffs had proposed disposing of the residue through a cy pres distribution rather than returning any overpayment to the defendants, which further increased the risk of overpayment in the aggregate. *Id.* at 232. However, the Second Circuit even acknowledged that "the fact that damages may have to be ascertained on an individual basis is not, standing alone, sufficient to defeat class certification." *Id.* at 231.

representation requirements because the class members' shared experience of asbestos exposure was outweighed by the variety of questions that pertained to the various subclasses and individual members. For example, some of the plaintiffs had been exposed but had experienced no symptoms at all and, even among those experiencing health problems, the degree of health issues were diverse.<sup>3</sup> *Id.* at 626–28.

**68.** Defendants cite to other asbestos cases such as *In re Fibreboard Corp.*, 893 F.2d 706 (5th Cir. 1990) and *Cimino v. Raymark Indus., Inc.*, 151 F.3d 297 (5th Cir. 1998) for the claim that Fifth Circuit law does not permit the assessment of tort damages derived from extrapolation formulas using averaged results from prior cases. However, both asbestos-related cases are distinguishable from the present case, which only involves property damage.

**69.** In *In re Fibreboard Corp.*, the Fifth Circuit reluctantly vacated a trial plan in mass tort litigation involving the claims of 3,031 plaintiffs asserting asbestos-related injuries. 893 F.2d 706 (5th Cir. 1990). The phase of the trial plan at issue called for a jury to ascertain damages for the entire class on the basis of a trial of the specific claims of eleven class representatives, together with evidence the parties presented about the claims of thirty illustrative plaintiffs, and the testimony of experts about damages to the entire class. The Fifth Circuit blocked the proposed plan because it failed to require each claimant to prove both causation and damages, as required by Texas law, and because it asked the jury to ascertain damages for a group of

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<sup>3</sup> The Supreme Court was also concerned that the notice might be insufficient to justify the preclusion of almost every class member from pursuing future litigation: “Even if they fully appreciate the significance of [the] notice, those without current afflictions may not have the information or foresight needed to decide, intelligently, whether” to participate in the class settlement. *Id.* at 628. Here, the *Amchem* Court’s concern about sufficiency of notice to potential asbestos claimants is less relevant because the damages arising from Chinese drywall are not dependent on slowly-developing symptoms of illness that perhaps may be undiscoverable during a long latency period. Another factor distinguishing the Chinese drywall class from *Amchem* is that the class representatives in the matter currently before this Court possess the same interest and had suffered the same injuries as the other class members.

claimants who suffered widely divergent injuries on the basis of a statistical profile. *Id.* at 710-711.

70. In *Cimino*, which involved the same asbestos cases from *Fibreboard*, the same plaintiffs proposed a new plan that contemplated trying 160 sample cases and then awarding the remaining 2,128 plaintiffs “an amount of actual damages equal to the average of the awards made in the sample cases.” 151 F.3d at 319. The Court held that the damages plan “plainly contravenes *Fibreboard*’s holding” and “permit[ing] recoverable tort damages to be determined in a lump sum for the entire class” is simply contrary to *Fibreboard*. *Id.* at 319. As described *supra*, the focus in *Fibreboard* was not the number of sample cases; rather, it was the fact that “[i]n Texas, it is a fundamental principle of traditional products liability law that the plaintiffs must prove that the defendant supplied the product which caused the injury” and the fact that there were such great disparities among the class members. 893 F.2d at 710-711.

71. Specifically, the so-called “class” of plaintiffs in *In re Fibreboard* and *Cimino* consists of persons with different occupations, different exposure periods, who were claiming different diseases. *Id.* at 710. Additionally, the plaintiffs’ admissions of fact in those cases show the following additional disparities among class members: (a) the class includes persons who do not have legal claims against one defendant; (b) one or more members of the class may be barred from prosecuting claims against one defendant by virtue of their prior employment with that defendant; (c) the severity and type of physical and mental injuries varies among class members; (d) the nature and type of damages varies among class members; (e) not all of the plaintiffs were injured by the acts or omissions, conduct, or fault of all of the defendants; (f) the dates of exposure to asbestos-containing products varies among class members; (g) the types of products to which class members were exposed varies among class members; and (h) the dates that class

members knew or should have known of their exposure to asbestos-containing products is not identical among class members. *Id.*

72. The instant drywall action is highly distinguishable from *In re Fibreboard* because the Plaintiffs' characteristics in MDL 2047 cannot be described as particularly diverse and there is no issue relating to causation of injury. All of the Plaintiffs in MDL 2047 have the same complaint; they own properties requiring remediation as a result of defective drywall. There is no variation with regard to the severity and type of injury or the nature and type of the damages. All Plaintiffs<sup>4</sup> are entitled to total remediation of their homes. The duration of exposure or quantity of drywall installed does not change the nature of damages, and the solution to their problems (remediation) is identical in every instance. Here, unlike most asbestos cases, including *In re Fibreboard*, (and unlike other similar circumstances, such as exposure to second-hand smoke), plaintiffs' property damages in the Chinese drywall class do not vary according to duration or intensity of exposure or resulting health effects that would require individual mini-trials to ascertain the origins of the damages.<sup>5</sup>

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<sup>4</sup> When this Court refers to the Plaintiffs, it is not referring to the Plaintiffs listed on the Class Spreadsheet presented at the June 9, 2015, hearing, which the Court is aware has been subsequently modified. Rather, the Court is referring to those claimants who are able to adequately prove that the property they own contains Taishan/TTP drywall.

<sup>5</sup> Notably, both *Fibreboard* and *Cimino* rely on due process and Article III concerns relating to the fact that the assessment of tort damages is ultimately grounded in state tort law. However, these concerns stemmed primarily and specifically from the fact that there was no trial determination regarding causation. *Cimino*, 151 F.3d at 319. Under Texas law, the Seventh Amendment gives the right to a jury trial to make a causation determination. In *Cimino*, there was no such trial determination made, and no jury determined, that exposure to [Defendant's] products was a cause of the asbestos disease of any of the 160 sample plaintiffs. Since there was no causation determination regarding the sample plaintiffs, there could be no causation determination extrapolated to the remaining 2,128 plaintiffs. For these remaining cases, there was also no trial and no jury determination that any individual plaintiff suffered an asbestos-related disease. Predictably, the lack of causation determination renders any damages determination "likewise fatally defective." *Id.* at 319-320. With regard to the instant MDL, which related to drywall, not asbestos, there has been a conclusive determination regarding causation. Chinese drywall causes offending odors in homes and is corrosive to metals, requiring total property remediation. The Article III and due process concerns present in the aforementioned cases are not present in MDL 2047. Accordingly, this Court rejects Defendants' suggestion that it is ignoring its *Erie* obligation under Article III to "remain faithful" to the applicable law of each state in these diversity cases by accepting Plaintiffs' proposed formulaic damages plan. *See Fibreboard*, 893 F.2d at 711. Given that liability and the scope of remediation have been conclusively determined, awarding

## 2. Mass Accidents

73. The Advisory Committee commentary discussing the predominance requirement in FRCP 23(b)(3) specifically mentions mass accident victims as the type of class that would typically not meet the requirement, because the individual interests of each injured plaintiff would be too disparate and therefore better managed in individual adjudications. *See* Fed. R. Civ. P. 23 advisory committee’s note to the 1966 amendments. However, as the Supreme Court noted in *Amchem*, “the text of the Rule does not categorically exclude mass tort cases from class certification, and District Courts, since the late 1970’s, have been certifying such cases in increasing number.” 521 U.S. 591, 625 (1997); *accord. Steering Comm. v. Exxon Mobil Corp.*, 461 F.3d 598, 603 (5th Cir. 2006) (noting that “it is theoretically possible to satisfy the predominance and superiority requirements of Rule 23(b)(3) in a mass tort or mass accident class action, a proposition this court has already accepted.”).

74. Unlike asbestos cases where the exposure occurs over long periods of time, mass tort cases frequently arise following a single incident. Despite resulting from a single occurrence, most mass tort class actions are complicated, even if liability is established, because the issue of causation is inextricably intertwined with damages and remains to be litigated. For example, in *Robertson v. Monsanto Co.*, the Fifth Circuit found that class certification was inappropriate when the defendant was liable for an ammonia gas release at its plant, but the plaintiffs had highly individualized determinations regarding both causation and damages for mental distress, physical injuries, property damage, economic injuries, medical expenses, etc. 287 Fed. Appx. 354, 361-62 (5th Cir. 2008). In particular, the *Monsanto* plaintiffs were seeking damages for emotional distress and other intangible injuries, which are impossible to calculate using a

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solely remediation damages to claimants whose homes require remediation due to the presence of Taishan drywall does not present a conflict with the *Erie* doctrine.

formula because they “implicate[] the subjective differences of each plaintiff’s circumstances [and] cannot be calculated by objective standards.”<sup>6</sup> *Id.* at 362 (quoting *Steering Comm.*, 461 F.3d at 602); *but see Turner v. Murphy Oil USA, Inc.*, 234 F.R.D. 597, 607 n.6 (E.D. La. 2006) (finding presence of claims for personal injury and mental anguish damages did not undermine a finding of predominance when they did not form a significant portion of the plaintiffs’ claims).

75. As with asbestos cases, damages resulting from mass accidents can be highly individualized because they involve such factors as “location, exposure, dose, susceptibility to illness, nature of symptoms, type and cost of medical treatment, and subsequent impact of illnesses on individuals.” *Steering Comm.*, 461 F.3d at 602. The damages resulting from the oil spill at issue in *In re Deepwater Horizon*, for example, varied drastically depending on multiple “individual questions.” 739 F.3d 790, 815 (5th Cir. 2014). In *Deepwater Horizon*, these questions presumably included disparities such as proximity to the oil spill, the type of claimant (whether a business or a property owner), and the amount of oil taken in, etc. *See also Madison v. Chalmette Refining, L.L.C.*, 637 F.3d 551, 553 (5th Cir. 2011) (remanding class certification to the district court for further consideration of whether the predominance requirement was met when plaintiffs exposed to petroleum coke dust from a nearby refinery “sought a variety of damages, including personal injury, fear, anguish, discomfort, inconvenience, pain and suffering, emotional distress, psychiatric and psychological damages, evacuation, economic damages, and property damages”).

76. In contrast to mass tort plaintiffs complaining of personal injuries, the Chinese drywall plaintiffs’ property damage claims vary only according to the cost of remediation based

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<sup>6</sup> Another important distinguishing factor was that the *Monsanto* class consisted entirely of named plaintiffs, eliminating some of the usual benefits of class actions such as identification and notification of potential unnamed class members as well as issuance of a single binding judgment in order to foreclose indefinite, repetitive litigation. 287 Fed. Appx. at 363.

on the under-air square footage of the contaminated property and are therefore subject to formulaic calculation by objective standards. In the instant case, the class experienced class-wide damages directly tied to liability: the need to replace the defective drywall. This injury is common to every class member, with the only difference being how much drywall each class member had to replace and how much the contractor charged in order to perform the work. This case is thus more analogous to *Turner v. Murphy Oil USA, Inc.*, in which a class action was brought against an oil company when plaintiffs suffered property damage as a result of an oil storage tank spill. 234 F.R.D. at 601. This court found that the class negligence claims would not require extensive individualized proof that would preclude class treatment:

Defendant has argued that Plaintiffs' claims for personal injury and mental anguish do not meet the predominance requirement because certain factual elements of their claims will require individualized inquiry—when the plaintiff first learned of the oil spill, what preventative measures were taken to avoid personal injury, and what pre-existing health and mental conditions existed for each plaintiff. While some individualized inquiry will be required, the Court does not believe that this inquiry will be extensive.

*Id.* at 607 n.6. This court reasoned that “[t]he presence or degree of injury or damage is an issue of quantum that may be dealt with individually in a bifurcated proceeding, if necessary.” *Id.* at 607. Similarly, in this case, individualized trials are not necessary to determine either liability or the existence or nature of damages. The defective drywall was found in the walls of each property, and there is no real variation as to the type of claimant since all of the Claimants are property owners. The only variation among Claimants is the cost of remediation as determined by the under-square footage of the contaminated property. For those few property owners who feel that their properties are unique and not similar other class members may opt out and have their properties individually inspected and then evaluated by a jury.

### 3. Antitrust

77. Antitrust class actions are also distinct from the instant action alleging property damage. Antitrust injuries are often speculative: but for the defendant's conduct, the market might have been more competitive, entry for new producers may have been easier, or prices hypothetically would have been lower. *See Bell Atl. Corp. v. AT&T Corp.*, 339 F.3d 294, 297 (5th Cir. 2003) (recognizing that because "the nature of an antitrust claim means that 'some plaintiffs can only hypothesize about what the state of their affairs would have been absent the wrong,'" antitrust plaintiffs are not held "to the same burden of proof of damages as demanded of plaintiffs in other civil cases") (internal citation omitted) (quoting *H&B Equip. Co. v. Int'l Harvester Co.*, 577 F.2d 239, 246 (5th Cir. 1978)). Antitrust injuries can be difficult to measure when they arise from multiple theories of liability or when the variegated nature of the plaintiffs affected makes an individualized damages determination more appropriate. In the instant matter, these types of problems observed with calculating damages resulting from antitrust injuries are not present: the injury is not speculative, and but for the production and installation of defective drywall, the plaintiffs would not have been required to remediate their properties.

78. For example, a divided Supreme Court in *Comcast Corp. v. Behrend* reversed a class certification in an action against a cable television company allegedly engaging in anticompetitive conduct because the plaintiffs could not demonstrate that "damages [were] capable of measurement on a classwide basis." 133 S. Ct. 1426, 1433 (2013). The plaintiffs in *Comcast* included some who "may have been overcharged because of petitioners' alleged elimination of satellite competition," others who "may have paid elevated prices because of petitioners' increased bargaining power vis-à-vis content providers," and others who "may have paid rates produced by the combined effects of multiple forms of alleged antitrust harm." *Id.* at 1434 (emphasis added). Unlike the supra-competitive prices imposed upon consumers in

*Comcast*, which were potentially attributable to multiple other causes besides the defendant's specific anticompetitive conduct at issue, the property damages in this matter related to defective drywall are susceptible of estimation without raising similar questions of liability.<sup>7</sup> *Id.* at 1434.

79. Even when causation is clear, antitrust violations can cause drastically different levels of injury depending on the specific circumstances of various class members, such that determining injuries such as lost profits or lost labor productivity can be significantly more fact-intensive than the straightforward and uniform property damages at issue in this case. For example, in *Bell Atl. Corp. v. AT&T Corp.*, a class of businesses sued a telecommunications company under the Clayton Act, alleging that the defendant attempted to monopolize the “caller ID” market and, as a result, the service was unavailable to some users during the class period. 339 F.3d at 297. The plaintiffs’ proposed formula used a nationwide average for labor costs and a national average for the amount of time that class members would have saved per telephone call had the caller ID service been available on long-distance calls during the class period. *Id.* at 304. However, the Fifth Circuit affirmed the district court’s denial of class certification on the grounds that the individualized nature of the damages precluded certification when “[t]he record indicate[d] that rather than merely examining lost time and average labor costs, any adequate estimation of actual damages suffered would require consideration of the variegated nature of the businesses included in both the proposed classes, together with the range of uses, depending on the size and technological sophistication of any given business, to which caller ID could be applied.” *Id.* Moreover, the plaintiffs in *Bell Atlantic* failed to demonstrate that the absence of

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<sup>7</sup> In *In re Deepwater Horizon*, the Fifth Circuit observed that *Comcast*’s holding that “a district court errs by premising its Rule 23(b)(3) decision on a formula for classwide measurement of damages whenever the damages measured by that formula are incompatible with the class action’s theory of liability” is “simply inapplicable” in cases that do not involve numerous common issues of liability. 739 F.3d at 815. *Comcast* is distinguishable from this case because there is only one theory of liability: that the defendants manufactured and distributed defective drywall.

caller ID would have had any noticeable effect at all on some of the businesses in the proposed class.<sup>8</sup> *Id.* The circumstances in *Bell Atlantic* in which class members could have been compensated who had not even incurred *any* damages whatsoever are therefore distinguishable from the present case where the proposed class does not contain any individual who did not possess Chinese drywall.

**C. Aggregate Damages are Superior to an Individualized Alternative**

**1. Plaintiffs Use an Appropriate Formula to Calculate Remediation Damages**

**80.** \$86 per square foot, which is evidence based, is a reliable benchmark estimate for the costs of remediation. The remediation costs take into account the uniform scope of the repair for each class member, the *limited* nature of repair (interiors only), and the use of well-established mid-points as the baseline for each damages estimate before considering individualized square footage and local building cost factors. Given these considerations, the degree of variability of square footage costs for remediation of these homes is typical of what is expected in the discipline of damages estimation, and is not significant when viewed in relation to the total costs of repair. Even the Defendants' suggestion—house by house inspection by a contractor—is not likely to lead to a more precise estimate, given the acknowledged variation of at least 17% in that method of estimation recognized by the estimation textbook authorities. Defendants Exhibit 7 at pg. 77. Considering this, pursuing the alternative is not only unreasonable and inefficient, it is also unjust in light of the continued suffering of the Plaintiffs.

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<sup>8</sup> For example, some of the businesses potentially for inclusion in the proposed classes utilized telephone systems that were incompatible with the defendant's caller ID service, such that it would have been impossible for those businesses to have ever used the service even if the defendant had not engaged in the alleged conduct. *Id.* at 305-06.

**81.** Plaintiffs' expert relied on multi-disciplinary corrosion science (as discussed at length in the Court's earlier FOFCOLs in *Germano* and *Hernandez*, particularly when defining the scope of work for remediation), in conjunction with bid-pricing, unit pricing, square footage pricing, and localized construction cost factors, to establish the damages formula. While his formula stemmed from average calculations of the *Germano* properties, it was grounded in the relevant science and historical cost data. Mr. Inglis used well-established estimation methods in arriving at the base \$86 per square foot measure, and then used RS Means to adjust this sum to current building material and labor costs and then to reflect the local building and material costs for each Taishan property. RS Means provides reliable data for such a calculation. *Germano* FOFCOL at p. 58 ("RS Means is a well-recognized and accepted publication which compiles national data on a national basis for cost to repair and replace building components.").

## **2. Fifth Circuit Law Does Not Bar Plaintiffs' Damages Proposal**

**82.** The Fifth Circuit has explained that a formula-based calculation of class damages is appropriate in circumstances where individual trials are not required, particularly when the damages portion of the suit can be severed from the liability inquiry:

Even wide disparity among class members as to the amount of damages suffered does not necessarily mean that class certification is inappropriate, and courts, therefore, have certified classes even in light of the need for individualized calculations of damages. Class treatment, however, may not be suitable where the calculation of damages is not susceptible to a mathematical or formulaic calculation, or where the formula by which the parties propose to calculate individual damages is clearly inadequate.

*Bell Atlantic*, 339 F.3d at 306 (internal citation omitted). *See also Steering Comm. v. Exxon Mobil Corp.*, 461 F.3d 598, 602 (5th Cir. 2006) (aggregating class damages by a formulaic calculation is acceptable in circumstances where individualized damage calculations are not required); *Corley v. Orangefield Indep. Sch. Dist.*, 152 F. App'x 350, 354-55 (5th Cir. 2005) (recognizing that damages which are "capable by means of objective standards" are permissible

so long as there exists a “suitable formula for calculation of damages”). This standard is met by Mr. Inglis’ damages methodology, which is a formulaic calculation of class wide damages based on objective standards and verifiable data for each property.

Nonetheless, the Fifth Circuit has also held:

[B]efore a trial court may utilize results from a bellwether trial for a purpose that extends beyond the individual cases tried, it must, prior to any extrapolation, find that the cases tried are representative of the larger group of cases or claims from which they are selected. Typically, such a finding must be based on competent, scientific, statistical evidence that identifies the variables involved and that provides a sample of sufficient size so as to permit a finding that there is a sufficient level of confidence that the results obtained reflect results that would be obtained from trials of the whole.

*In re Chevron U.S.A., Inc.*, 109 F.3d 1016, 1020 (5th Cir. 1997). Defendants argue that the Court, bound by the holding in *Chevron*, must reject the Plaintiffs’ request for an award of aggregate damages based on the Inglis method because his damages calculation stems from the \$86 per square foot estimate from the seven *Germano* properties. In the abstract, this is a compelling argument. However, given the *sui generis* nature of this Chinese Drywall litigation, *Chevron*, like most of the cases cited by Defendants is distinguishable.

**83.** In *Chevron*, plaintiffs asserted tort claims for industrial pollution of a residential subdivision, claiming that hazardous substances that were improperly stored by defendants’ in defendants’ waste pits migrated into the environment causing personal injury and property damage. *Id.* at 1017. The trial plan invalidated by the Fifth Circuit “provided for a unitary trial on the issues of ‘general liability or causation’ on behalf of the remaining plaintiffs, as well as the individual causation and damage issues of the selected plaintiffs, and ordered the selection of a bellwether group of thirty (30) claimants, fifteen (15) to be chosen by the plaintiffs and fifteen (15) to be chosen by Chevron.” *Id.* at 1017. The goal of the trial in *Chevron* “was to determine

its liability, or lack thereof, in a single trial and to establish bellwether verdicts to which the remaining claims could be matched for settlement purposes.” *Id.*

**84.** In rejecting the plan, the Fifth Circuit was particularly concerned that the district court’s trial plan was “devoid of safeguards designed to ensure that the claims against Chevron of the non-represented plaintiffs as they relate to liability or causation are determined in a proceeding that is reasonably calculated to reflect the results that would be obtained if those claims were actually tried.” *Id.* at 1020. Instead, the court found the procedure created potential liability to 3,000 plaintiffs “by a procedure that is completely lacking in the minimal level of reliability necessary for the imposition of such liability.” *Id.* The court focused its concern on the fact that a nonrepresentative bellwether sample group would be tasked with “answer[ing] troubling causation or liability issues” for the entire universe of plaintiffs and “the lack of fundamental fairness contained in a system that permits the extinguishment of claims or the imposition of liability in nearly 3,000 cases based upon results of a trial of a non-representative sample of plaintiffs.” *Id.* at 1019, 1021.

**85.** In the instant case, claims will not be extinguished nor will liability be imposed on the basis of Mr. Inglis’ methodology. Mr. Inglis’ calculations are not an answer to causation or liability issues. Causation and liability have been conclusively established. Additionally, these concerns regarding the potential unrepresentativeness of plaintiffs are understandably alarming in a case like *Chevron* where there are so many variables. In *Chevron* (as in the asbestos-related cases), liability, causation, and damages may vary significantly according to the diversity of the class members’ characteristics, including their preexisting physical conditions, their health habits, the type and duration of the exposure to the hazardous substance, the severity and nature of the resulting diseases, the type of treatments received, etc. In contrast to *Chevron*, duration of

exposure to Chinese drywall is immaterial. No matter how long the Chinese drywall has been inside the walls, a property owner has no choice but to remove it and replace it. The use of data from the *Germano* homes does not present the same problems as the use of bellwethers in *Chevron* would have presented. The limited diversity among properties in the instant matter is not comparable to that of the personal injury and property damage claims in *Chevron*. Moreover, there is no dispute as to liability or causation in the present case. The Defendants are liable and the Chinese drywall caused the damage to the properties and it has to be removed.

**3. Aggregate Damages are Favorable Given the Limited Variation Present in Chinese Drywall Litigation**

**86.** District courts are encouraged to “devise imaginative solutions to problems created by the presence in a class action of individual damages issues.” *Pella Corp. v. Saltzman*, 606 F.3d 391, 391 (7th Cir. 2014). Plaintiffs have devised a reasonable and reliable solution to calculate remediation damages on a class-wide basis and accommodate individual class damage issues by shifting the individual damage components to subsequent adjudicative phases.

**87.** Under the circumstances of this case and given the *sui generis* nature of Chinese Drywall, the Plaintiffs’ proposal to calculate remediation damages is not “clearly inadequate,” and a formulaic approach is superior to the thousands of individual proceedings that would result if Defendants’ proposal for property by property inspection and estimation were accepted. The costly and wasteful individualized mini-trials that would result from Defendants’ proposal would further burden the Taishan property owners and further delay the benefits they can hope to receive from this litigation. This Court has already ruled that damages may be calculated in a formulaic manner. *Class Certification* FOFCOL at 11-12 (“[T]he average cost of repairing class members’ homes is subject to calculation on a formulaic, square footage basis.”).

**88.** The Court does not deny that there is some variation, but concludes that the time,

expense, and inefficiency of inspecting every affected property would result in an inequitable solution, given the delay these property owners have already experienced in obtaining relief. As evidenced by Mr. Pogorolich's testimony, many properties will have varying remediation costs based on factors such as ceiling height, number of partitions, and quality of interior finishes. However, the variations among damages in this case are so relatively minor that the damages are susceptible to being calculated by a formula.<sup>9</sup>

89. As discussed *supra*, the class remediation damages here do not present significant individualized issues, in contrast to physical ailments and loss of business profits. Rather, the only variance is in the amount required to pay for each remediation, which can be determined using a formulaic methodology. Unlike asbestos and mass accident cases, the damage issues presented in Chinese Drywall litigation are so distinct from questions of liability and causation (questions which have already been answered in favor of the Plaintiffs), it is proper and just to award aggregate damages. Mr. Inglis' formula, which calculates remediation damages based on square footage for each of the Taishan properties with verified under air square footage, is superior to the thousands of individual proceedings which would result if Defendants' proposal for property by property inspection and estimation were accepted. Defendants' alternative amounts to cruel and unusual treatment of innocent homeowners. To now require individuals who have been displaced for more than six years to pursue individual claims and incur individual

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<sup>9</sup> Defendants assert that Plaintiffs' formula for calculating damages is inadequate because it relies on "averages." (Rec. Doc. 18879 at 12). In support of their argument, they cite to *Corley v. Orangefield Indep. Sch. Dist.*, in which the court reversed a class certification on the grounds that "the injur[ies] to the landowners varie[d] in substantial ways, depending on the value, character and location of the property." 152 F. App'x 350, 355 (5th Cir. 2005). However, *Corley* did not involve property damage, but rather involved unauthorized transmissions of voice, data and video communications across private land by telecommunications companies. The reason that the damages were so varied in *Corley* was because some parcels "might be situated in a geographic 'choke point' such that a telecom company would be forced go many miles out of its way if that parcel proved unavailable." *Id.* at 354. Defective drywall does not involve such drastic variations in damages.

costs in a case where liability and fault have been established is not only an imposition on the courts, but also and more importantly, a serious injustice to those who have been harmed by the Defendants' actions.

**90.** Each class member suffered the same kind of damage, and the only individualized determination required—the amount it will cost to remediate the properties—can be calculated using a formula to estimate the amount of each class member's damages. It is therefore unnecessary and unjust to hold individual mini-trials to determine remediation damages in this case. The damages calculation need not be exact. *See, e.g., Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555, 563 (1931) (ruling that damages estimates are appropriate even where “they cannot be measured . . . with exactness and precision . . .”).

**91.** The fact that each Taishan property owner suffered the same harm and the same nature of damages puts this case in contrast to cases where each plaintiff suffers a distinctly different *kind* of individualized wrong. *See supra* Section VI (B). The class remediation damages here do not present significant individualized issues, like physical ailments and loss of business profits. *Id.* Rather, the only variance is in the amount required to pay for each remediation, which can be readily determined using the formulaic methodology presented by Mr. Inglis in accordance with the following protocol.

## **VII. CONCLUSION**

**92.** Plaintiffs have offered a reasonable and reliable measure (superior to any alternative) of the remediation damages for the Taishan Properties with verified under air living square footage. The Court adopts Mr. Inglis' damages *methodology* to quantify the aggregate damages.

**93.** To implement this remediation process:

**IT IS ORDERED** that the Plaintiffs Steering Committee, under the supervision of BrownGreer, submit an updated Class Plaintiffs' Spreadsheet endeavoring to include only

Taishan properties with verified under air living square footage. Any costs associated with Brown Greer's assistance in revising the Class Plaintiffs' Spreadsheet are to be borne by the Defendants.

**IT IS FURTHER ORDERED** that the revised Class Plaintiffs' Spreadsheet, on which the Court will rely to determine the aggregate total of these remediation damages, be submitted to the Court within two months of this Order. Taishan will then be permitted to review and contest or seek set-offs.

The damages awarded will be calculated by multiplying the under air square footage of the affected properties listed in the revised Class Plaintiffs' Spreadsheet by \$105.91<sup>10</sup> *as adjusted* by the RS Means location factor. Ultimately, all such claims will be based on verifications, not only of the under air living space square footage of the contaminated property, but also the presence of Taishan Drywall in those properties.

The relevant case law supports the appropriateness and reliability of the Inglis remediation damages methodology presented at the June 9, 2015 hearing. Therefore, the Court finds the Inglis remediation damages methodology to be a reliable, fair and reasonable estimate of aggregate remediation damages. The final determination of these damages shall be made pursuant to the subsequent set-offs and claims proceedings.

This method is in accordance with the Court's *Class Certification* FOFCOL which provided that remediation damages should be calculated based on existing data regarding scope of work and square footage of class members homes: "*i.e.*, price per square foot remediate X number of square feet in class members' homes = damages." (R. Doc. 18028 at 32, 33).

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<sup>10</sup> This figure is the national square foot unit price with certified industrial hygienist (CIH) costs included and was calculated by Mr. Inglis using R.S. Means to adjust the \$86 per square foot cost to reflect current-day building materials and labor.

The alternative to estimating property damages on a class-wide basis would be a series of costly (and wasteful), individualized mini-trials, inspections, and estimates that would not provide a meaningfully more reliable estimate for class remediation damages. The Taishan Property Owners will still have an opportunity at later phases to seek damages for alternative living expenses and loss of use and enjoyment of their properties.

New Orleans, Louisiana this 21st day of April, 2017.

  
UNITED STATES DISTRICT JUDGE