

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

In the Matter Of:)
)
JOHNS MANVILLE, a Delaware)
corporation,)
)
Complainant,) **PCB No. 14-3**
)
v.)
)
ILLINOIS DEPARTMENT OF)
TRANSPORTATION,)
)
Respondent.)

**COMPLAINANT’S RESPONSE TO RESPONDENT’S MOTION *IN LIMINE* TO BAR
INTRODUCTION OF CERTAIN STATEMENTS MADE BY FORMER IDOT
EMPLOYEE DUANE MAPES**

Complainant JOHNS MANVILLE (“JM”) hereby submits its response to Respondent ILLINOIS DEPARTMENT OF TRANSPORTATION (“IDOT”)’s Motion *in Limine* to Bar Introduction of Certain Statements Made by Former IDOT Employee Duane Mapes (the “Motion”) as follows:

INTRODUCTION

IDOT’s Motion seeks to exclude a statement by former IDOT employee Duane Mapes to IDOT’s former counsel Randle Schick, adopted by IDOT and contained in its response to the USEPA’s Section 104(e) Comprehensive Environmental, Response, Cleanup, and Liability Act (“CERCLA”) dated November 27, 2000 (“104(e) Response”). In that 104(e) Response, IDOT admits that its resident engineer on the Amstutz Project (the “Project”) recalled dealing with asbestos pipe during the project and burying some of it.” (*See* Motion, Ex. B, ¶ 10.) Contrary to IDOT’s argument, this statement is not hearsay under Illinois Rule of Evidence 801. Even if the statement was hearsay, it falls within the exception to the Illinois rule against hearsay under

Illinois Rule of Evidence 803. Still, even if the statement was hearsay *and even if* the statement did not fall within any exceptions to the rule against hearsay, it would still be admissible under the Illinois Administrative Procedures Act. Lastly, because JM's expert witness, Mr. Doug Dorgan, relied upon this statement in forming his opinions, even if otherwise inadmissible, Mr. Dorgan should be permitted to disclose Mr. Mapes's statement as a basis of Mr. Dorgan's opinion under Illinois Rules of Evidence 703 and 705. IDOT's Motion should be denied out of hand.

ARGUMENT

I. Duane Mapes's Statement Is Not Hearsay.

JM should not be barred from referring to or introducing into evidence Mr. Mapes's statement that IDOT buried asbestos pipe during the Project, recorded in IDOT's 104(e) Response, because the statement is not hearsay. In fact, a statement of this nature is explicitly excluded from the definition of "hearsay" under the Illinois Rules of Evidence. Under Illinois Rule of Evidence 801(d)(2)(D), a statement made by a party's agent or servant concerning a matter within the scope of the agent or servant's employment and made during the existence of the relationship is not hearsay. The words in IDOT's 104(e) Response are entirely IDOT's, not Mr. Mapes's. Mr. Mapes did not write the words in IDOT's 104(e) Response, IDOT did. IDOT cannot dispute that its 104(e) Response, written and submitted by IDOT's Secretary at the time, Mr. Kirk Brown, is not a party-opponent admission under Rule 801(d)(2)(D)'s definition.

While IDOT attempts to foreclose an argument that Mr. Mapes's statement "should be admitted as the statement of a party opponent," citing Illinois Rule of Evidence 801(d)(2)(D) (*see* Motion, pp. 2, 3), IDOT ignores the other sub-sections of Illinois Rule of Evidence 801(d)(2) defining a non-hearsay admission by a party-opponent. Illinois Rule of Evidence 801(d)(2) provides, in relevant part:

A statement is not hearsay if . . . [t]he statement is offered against a party and is . . . (B) a statement of which the party has manifested an adoption or belief in its truth, or (C) a statement made by a person authorized by the party to make a statement concerning the subject, or . . . (F) a statement by a person, or a person on behalf of an entity, in privity with the party or jointly interested with the party.

IDOT plainly manifested an adoption or belief in the truth of Mr. Mapes's statement by transmitting it to the USEPA in its 104(e) Response. IDOT made Mr. Mapes's statements its own when IDOT chose to include Mr. Mapes's statements in the 104(e) Response and when IDOT made its own assertions about the work it did during the Project. IDOT repeated Mr. Mapes's statement without qualification and without any indication that IDOT did not believe Mr. Mapes's statement, summarized in IDOT's own words in its 104(e) Response, to be anything other than completely accurate. In fact, the cover letter to IDOT's 104(e) Response (subject to criminal penalties or jail for false, fictitious or fraudulent statements or misrepresentations (Motion, Ex. A)), which was written and signed by Kirk Brown, Secretary for IDOT, provided that "the information submitted is, to the best of my knowledge and belief, true and complete." (Motion, Ex. B (emphasis added).) As such, IDOT cannot not now claim that Mr. Mapes's statement was not adopted by IDOT or that it does not satisfy the evidentiary requirements for admissibility under Illinois Rule of Evidence 801(d)(2)(B).

Further, Mr. Mapes was authorized by IDOT to make the statement that IDOT buried asbestos pipe during IDOT's work on the Project. In its 104(e) Response, IDOT specifically identified Mr. Mapes as a "person[] consulted in the preparation of the answers to these questions," as a person who may be "able to provide a more detailed or more complete response," and as a person "having knowledge or information about the generation, transportation, treatment, placement, disposal, or other handling of hazardous substances, including ACM, at the Area of Concern #3." (*Compare* Motion, Ex. A, Attachment One, Questions 1, 3, 6 *with* Motion, Ex. B., Attachment A, ¶¶ 1.g, 3, 6.) Mr. Mapes was also

identified as a person who may have knowledge of “the existence, quantity, and placement of ACM on Area of Concern #3;” whether IDOT took or “receive[d] hazardous substances, including ACM, from other parties or locations and arrange[d] for the placement or disposal of these hazardous substances at Area of Concern #3;” and regarding the “arrange[ment] for disposal or treatment . . . of waste materials, including hazardous substances and ACM, from the Site.” (*Compare* Motion, Ex. A, Attachment One, Questions 11- 13 *with* Motion, Ex. B., Attachment A, ¶¶ 11-13.) In identifying Mr. Mapes in this fashion, IDOT authorized Mr. Mapes to make statements, including to the USEPA, regarding IDOT’s burial of asbestos containing material on the Site. Had Mr. Mapes not been authorized to make such a statement, or if IDOT did not believe Mr. Mapes’s statement to be true, IDOT should not have, and would not have, included Mr. Mapes’s statement in the 104(e) Response. But IDOT did. Because Mr. Mapes was authorized by IDOT to make a statement on this subject, Mr. Mapes’s statement to IDOT’s counsel, Randle Schick, is not hearsay under Illinois Rule of Evidence 801(d)(2)(C).

As demonstrated above, Mr. Mapes’s statement is not hearsay pursuant to Illinois Rule of Evidence 801(d). IDOT’s Motion should be denied on this basis.

II. Even If Mr. Mapes’s Statement Was Hearsay, It Falls Within Exceptions To The Rule Against Hearsay.

Assuming *arguendo* that Mr. Mapes’s statement is hearsay, which it is not, such a statement falls within the exception to the hearsay rule provided for under Illinois Rule of Evidences 803(8) and 804(b)(3).

A. Illinois Rule of Evidence 803(8)

Rule 803(8) provides that the following are not “excluded by the hearsay rule”:

Records, reports, statements, or data compilations, in any form, of public offices or agencies, setting forth (A) the activities of the office or agency, or (B) matters observed pursuant to duty imposed by law as to which matters there was a duty to

report . . . unless the sources of information or other circumstances indicate lack of trustworthiness.

See also Vill. of Arlington Heights v. Anderson, 2011 IL App (1st) 110748, ¶¶ 16-20 (finding county treasurer reports admissible as public records generated by a governmental entity as part of its regularly-conducted activities).

As an initial matter, nothing in IDOT's 104(e) Response indicates a lack of trustworthiness, particularly where, as discussed above, IDOT submitted its 104(e) Response subject to criminal penalties for misrepresentations and where IDOT's Secretary swore, pursuant to such penalties, that the statements in the 104(e) Response were true and complete. Moreover, IDOT cannot reasonably dispute that the 104(e) Response was a public record setting forth certain activities of IDOT related to its work on the Project or that the 104(e) Response related to matters observed during IDOT's work on the Project and which IDOT had a duty to report to the USEPA under CERCLA. The 104(e) Response, and all statements therein, is both a public record of IDOT and of the USEPA as it is part of the USEPA's Administrative Record concerning Sites 3 and 6. And IDOT's "Compliance with this Information Request [wa]s mandatory" and "[f]ailure to respond fully and truthfully to each question within this Information Request and within the prescribed time frame c[ould] result in an enforcement action by U.S. EPA pursuant to Section 104(e)(5) of CERCLA, as amended. Failure to respond and failure to justify the non-response can result in similar penalties under this Section." (Motion, Ex. A.) Given the trustworthy nature of all statements made in IDOT's 104(e) Response (a public record), Mr. Mapes's statements contained in the 104(e) Response, fall within Rule 803(8)'s hearsay exception, and are admissible. IDOT's Motion should be denied.

B. Illinois Rule of Evidence 804(b)(3)

Rule 804(b)(3) provides that the following are not “excluded by the hearsay rule if the declarant is unavailable as witness”¹:

A statement which was at the time of its making so far contrary to the declarant’s pecuniary or proprietary interest, or so far tended to subject the declarant to civil or criminal liability . . . that a reasonable person in the declarant’s position would not have made the statement unless believing it to be true.

In investigating, preparing, and submitting its response to the CERCLA 104(e) request, IDOT was subjecting both itself, as well as those individuals it set forth as knowledgeable, and those who certified the truth and completeness of the response, to potential civil and criminal liability, in the event any responses to the USEPA’s questions were untruthful.² Thus, in admitting to USEPA that he recalled burying asbestos during the Project, Mr. Mapes was potentially exposing himself to civil or criminal liability such that he would not have made the statement unless he believed it to be true. Mr. Mapes would have no incentive to untruthfully say IDOT did something it did not do, particularly when such a representation would expose Mr. Mapes and IDOT to potential liability for the burying of asbestos. Similarly, IDOT and its Secretary, in certifying the 104(e) response, subjected themselves to potential liability. Yet, IDOT made no qualifications on the veracity of the statement or offer any contingencies on which the accuracy of the information in its response was dependent. Therefore, Mr. Mapes’s statement should be excepted from the rule against hearsay under Illinois Rule of Evidence 804(b)(3).

III. Mr. Mapes’s Statement Is Admissible Under The Illinois Administrative Procedures Act.

¹ IDOT does not dispute that Mr. Mapes is an “unavailable witness” as he is deceased. (See Motion, p. 1.) See also Illinois Rule of Evidence 804(a) (“Unavailability of a witness’ includes situations in which the declarant: . . . (4) is unable to be present or testify at the hearing because of death . . .”).

² See *supra* § I.

The Illinois Administrative Procedures Act (“IAPA”), 5 ILCS 100/10-40, provides an additional basis for the admissibility of Mr. Mapes’s statement in IDOT’s 104(e) Response. Under the IAPA, “[e]vidence not admissible under those rules of evidence [as applied in civil cases in the circuit courts of Illinois] may be admitted, however, (except where precluded by statute) if it is of a type commonly relied upon by reasonably prudent men in the conduct of their affairs.” *See also Metro Util. v. Ill. Commerce Comm’n*, 193 Ill. App. 3d 178, 185-186 (2d Dist. 1990) (“While hearsay evidence has generally been held to be inadmissible in an administrative hearing, [this section] appears to create an exception to the rule when the hearsay is reliable.”) (holding that it was reasonable to rely upon information provided by the Illinois Environmental Protection Agency and that the Illinois Commerce Commission was correct in admitting a letter from a staff member of the Illinois Environmental Protection Agency into evidence).

As discussed above, because of the criminal penalties to which IDOT’s 104(e) Response was subject and given IDOT’s own averment that all statements made in IDOT’s 104(e) Response were accurate, a reasonably prudent man can and would rely upon the statements made in that 104(e) Response. Mr. Mapes’s statement should be permitted to be introduced into evidence under the IAPA.

IV. Mr. Mapes’s Statement Can Be Disclosed Because Mr. Dorgan Relied Upon Mr. Mapes’s Statement In Forming His Opinions.

In any event, Mr. Dorgan, JM’s expert witness, should be permitted to disclose Mr. Mapes’s statement in IDOT’s 104(e) Response as a statement upon which Mr. Dorgan reasonably relied in forming his opinions. Taken together, Illinois Rules of Evidence 703 and 705 allow an expert witness to rely on otherwise inadmissible evidence in formulating an opinion and allow the expert to also disclose the underlying factual basis of that opinion.

Illinois Rule of Evidence 703 provides:

The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to the expert at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence.

Illinois Rule of Evidence 705 provides:

The expert may testify in terms of opinion or inference and give reasons therefor without first testifying to the underlying facts or data, unless the court requires otherwise. The expert may in any event be required to disclose the underlying facts or data on cross-examination.

“It is undisputed that even though reports made by others may be substantively inadmissible, an expert may utilize them in forming his opinion as long as experts in the field reasonably rely on such materials.” *People v. Anderson*, 113 Ill. 2d 1, 7 (Ill. 1986) (citing *People v. Ward*, 61 Ill. 2d 559 (Ill. 1975) and *Wilson v. Clark*, 84 Ill. 2d 186 (Ill. 1981)). Further, Illinois courts have repeatedly interpreted these cases as “deciding that the underlying facts and opinions,” though otherwise inadmissible, “could be disclosed.” *See Anderson*, 113 Ill. 2d at 8 (collecting cases). In the judgment of the Supreme Court of Illinois, “the logic underlying Rule 703 and this court’s decisions in *Ward* and *Wilson* compels the conclusion that an expert should be allowed to reveal the contents of materials upon which he reasonably relies in order to explain the basis of his opinion” even on direct examination. *Anderson*, 113 Ill. 2d at 9. This furthers the purposes of Illinois Rule of Evidence 703 in broadening the basis for expert opinions and expanding the range of information available to the trier of fact. *Id.* at 9-10. In fact, “[i]t would be both illogical and anomalous to deprive the jury of the reasons supporting that opinion.” *Id.*

Here, it would be illogical and anomalous to deprive the Board of hearing evidence of Mr. Mapes’s statement contained in IDOT’s 104(e) Response. Mr. Dorgan relied upon Mr. Mapes’s statements in forming his opinions in this case. (*See e.g.*, Expert Report of Douglas G. Dorgan, Jr. dated March 16, 2015, §§ 1.1, 1.3 (stating that he “reviewed the full document

record, including documents produced by IDOT and JM, available for this matter”) (attached hereto as **Exh. 1**); Expert Rebuttal Report of Douglas G. Dorgan, Jr. dated July 27, 2015, attached hereto as **Exh. 2**, § 2.1.2; Bibliography, ¶ 5 (quoting IDOT’s 104(e) response and citing it); Affidavit of Douglas G. Dorgan, Jr. (“Dorgan Aff.”) at ¶ 12, attached hereto as **Exh. 3**.) It is self-evident that in investigating the cause of known contamination, an environmental expert would reasonably rely upon a CERCLA 104(e) response that asks questions about conduct that might have led to the contamination in question. (*See also* Dorgan Aff. at ¶ 11.) As such, pursuant to Illinois Rules of Evidence 703 and 705, Mr. Dorgan should be permitted to disclose Mr. Mapes’s statement in IDOT’s 104(e) Response as a basis of his opinions. IDOT’s Motion should be denied.

V. **In The Alternative, Mr. Mapes’s Statement Can Be Admitted As Non-Hearsay For Purposes Other Than To Prove The Truth Of The Matter Asserted.**

In the alternative, to the extent the Board will not permit JM to introduce Mr. Mapes’s statement for the truth of the matter asserted — that IDOT did actually bury asbestos pipe during its work on the Project — JM should be able to introduce the statement into evidence to explain the USEPA’s investigatory procedure in arriving at its decision to require certain remedial efforts on Sites 3 and 6 in its November 30, 2012 Action Memorandum, a procedure which necessarily included the issuance of 104(e) Requests under CERCLA and review of the information made available to it by IDOT. *See People v. Banks*, 237 Ill. 2d 154, 181 (Ill. 2010) (“The admission of an out-of-court statement that is not offered to prove the truth of the matter asserted but rather to explain the investigatory procedure followed in a case is proper.”).

Pursuant to Illinois Rule of Evidence 801(c), “[h]earsay is a statement, other than one made by the declarant while testifying at the trial or hearing, offered in evidence to prove the truth of the matter asserted.” (emphasis added); *see also People v. Banks*, 237 Ill. 2d 154, 180

(Ill. 2010). Accordingly, if the Board will not permit IDOT to admit Mr. Mapes's statement into evidence for the truth of the matter asserted, JM will instead admit the statement as evidence of the USEPA's investigative procedures. As such, Mr. Mapes's statement will not be hearsay, and is admissible under Illinois Rule of Evidence 801(c). IDOT's Motion fails.

CONCLUSION

For the reasons set forth above, JM requests that the Board deny Respondent IDOT's Motion *in Limine* to Bar Introduction of Certain Statements Made by Former IDOT Employee Duane Mapes.

Dated: February 16, 2016

Respectfully submitted,

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EXHIBIT 1

March 16, 2015

EXPERT REPORT OF DOUGLAS G. DORGAN JR.

**JOHNS MANVILLE VS
ILLINOIS DEPARTMENT OF TRANSPORTATION**

Former Johns Manville Facility
Site 3 and Site 6
Waukegan, Illinois

PREPARED BY



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1 INTRODUCTION

1.1 Executive Summary and Scope of Work

I have been requested by Bryan Cave, LLP (Client) to provide expert opinions on behalf of Johns Manville concerning Site 3 and Site 6 of the Johns Manville Southwestern Site Area located in Waukegan, Lake County, Illinois (respectively Site 3 and Site 6). The focus of my review has been on impacts to the scope of planned remediation activities resulting from past IDOT construction activities at Site 3, and the western limits of Site 6. I will refer to both Sites herein collectively as the "Site."

Historic investigation and remediation planning at the Site has been completed pursuant to an Administrative Order on Consent No. V-W-07-C-870 (AOC) executed by and between Johns Manville and Commonwealth Edison Company and the United States Environmental Protection Agency (USEPA). Weaver Consultants Group North Central, LLC (WCG) was retained to consider and provide opinions relating to whether the Illinois Department of Transportation (IDOT) is responsible for asbestos containing material ("ACM") found at Sites 3 and portions of Site 6; and, if so: 1) whether, how and when IDOT handled ACM at Sites 3 and 6; 3) whether and the extent to which IDOT's historic handling of the ACM caused or is causing Johns Manville to do additional work associated with its ongoing cleanup; and 3) based upon my experience, whether the IEPA would consider IDOT's handling of the ACM to be a violation of the Illinois Environmental Protection Act ("Act").

To prepare this report, I have reviewed various documents associated with the environmental conditions and remedial action at the Site, including IDOT's standard specifications and engineering drawings relating to its work at the Site in the 1970s, aerial photographs of the Site, environmental investigations at the Site, correspondence with USEPA regarding the Site, evolving plans to remediate the Site, draft cost estimates provided by AECOM, the current contractor, and the documents produced by both JM and IDOT in this case. I also relied upon information gathered from a Site reconnaissance performed on Monday, February 23, 2015. Lastly, I considered my experience with similar sites and projects and public domain documents. Based upon these factors, I have developed the following opinions:

1. The first developed use of the Site 3 occurred in the 1950s when Johns Manville leased Site 3 from ComEd to construct a parking lot for use by employees at the manufacturing facility located north of East Greenwood Drive. The parking lot was removed by IDOT in the late 1960s or early 1970s as part of its work on the Amstutz Expressway Project (the Amstutz Project). Site 3 is now vacant land. Site 6 has historically been used as a road. The road was modified as part of the Amstutz Project by IDOT. The road still exists.

2. IDOT is responsible for the placement and dispersion of ACM waste currently found at the Site. IDOT, at a minimum used, spread, buried, placed and disposed of ACM waste, including Transite® pipe, throughout Site 3 and portions of Site 6 during its work on the Amstutz Project from 1971 to 1976. IDOT's activities associated with the Amstutz Project resulted in crushed Transite® pipe and asbestos material being spread across and buried at Site 3 and the western end of Site 6. IDOT left and never removed the Transite® pipe and asbestos material they spread across and buried at the Site.
3. As a result of IDOT using, spreading, burying, placing, and disposing of ACM waste in and around Site 3 and Site 6 as part of the Amstutz Project, the scope of the expected remedial activities are significantly more extensive than would have otherwise been required by USEPA.

Based on my experience, IEPA would more likely than not consider IDOT's actions in using, spreading, burying, placing, disposing of and leaving ACM waste on Site 3 and Site 6 to be a violation of Section 21 of the Act. Additional and more specific opinions are presented in the text to the following report, together with a discussion of the basis for each major opinion. I reserve the right to modify my opinions should my review of additional information warrant it. In particular, I understand that IDOT is planning to produce certain emails that relate to this case. I also understand that the scope of planned remedial activities, and the cost estimates for implementing the work, continue to evolve. Review of emails to be produced by IDOT, as well as changes to the scope of planned remedial measures and corresponding updates to the associated cost estimates, may influence the opinions presented herein.

1.2 Qualifications

My resume, together with the list of my publications is presented in **Appendix A**.

I have over 25 years of experience working as an environmental consultant. I received my Bachelors of Science in Earth Science, with a Minor in Geology, from Eastern Illinois University in 1986. I received my Masters of Science in Geography with a Concentration in Environmental Science from Northern Illinois University in 1994. I am a Licensed Professional Geologist in the states of Illinois and Indiana.

Since 1986 my practice has focused principally on providing consulting services and performing remedial investigation, planning, design and construction for a wide range of industrial, commercial and institutional properties. I have been qualified as an expert witness and supported litigation associated with projects involving environmental assessment, design, permitting, and construction related issues. I have implemented various projects involving compliance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Additionally, I am familiar with and have completed projects under various Illinois regulatory programs including, but not limited to, the Resource Recovery and Conservation Act (RCRA), Leaking Underground Storage

Tank (LUST) Program, and Site Remediation Program (SRP). I have regularly interfaced with both the USEPA and IEPA in many contexts, including CERCLA and violations of the Act.

Of particular relevance to this case, I have worked on numerous commercial and industrial properties exhibiting legacy environmental impacts. Such properties have included steel mills, foundries, landfills, glass manufacturing facilities, rail yards, and commercial shopping centers. I have experience assessing and remediating soils and fill material impacted by a wide range of materials including, but not necessarily limited to, petroleum, chlorinated solvents, metals, polychlorinated biphenyl's (PCBs), and asbestos. I am experienced in the design, permitting, construction and environmental monitoring of both solid and hazardous waste disposal facilities. I have experience supporting environmental investigation and restoration associated with Brownfield's redevelopment, with specific emphasis on evaluating and mitigating risks to future users associated with site environmental conditions. Furthermore, I have significant experience working on projects throughout the Chicago metropolitan area, having spent most of my professional career based in Chicago. Locally, Weaver Consultants Group has offices in Chicago and Naperville, Illinois.

1.3 Information Considered

WCG was provided access to and has reviewed the full document record, including documents produced by IDOT and JM, available for this matter. WCG also reviewed IDOT standard specifications, aerial photographs and recent changes to the scope of work and associated cost estimates provided by AECOM. A bibliography of documents cited in this Expert Report is presented in **Appendix B**. Citations to these references are shown in superscripts in the following text.

1.4 Report Organization

This Expert Report is organized into the following sections:

- Section 2 presents Site background information, factual and historical information related to the Site;
- Section 3 presents my expert opinions, along with discussion supporting my opinions.

2 SITE BACKGROUND

2.1 Site Location

Site 3 and Site 6 are shown on the attached **Figure 1**. Site 3 is located southwest of the former Johns Manville (JM) facility at 1871 North Pershing Road, Waukegan Illinois, at the southeast corner of the intersection of East Greenwood Avenue and North Pershing Road. The Site lies within Lake County, and is within the northwest portion of Section 15, Township 45 North, Range 12 East of the Third Principal Meridian. Site 3 consists of approximately 3.115 acres with approximately 641 feet of frontage along East Greenwood Avenue. The Site is bounded to the north by East Greenwood Avenue, to the west by North Pershing Road, to the east by a railroad spur accessing the adjacent Midwest Generation facility, and the south is currently an empty lot.¹

Site 6 is a linear feature adjacent to the former JM facility primarily comprising the shoulders of East Greenwood Road, in Waukegan, Illinois. The Site is owned by the City of Waukegan.

The surrounding area is a mix of industrial and residential properties, with industrial properties to the east of North Pershing Road and residential properties to the west. A coal-fueled power plant operated by Midwest Generation is located immediately to the east of Site 3, and to the south of Site 6. Illinois Beach State Park lies to the east of the Site on the shoreline of Lake.

2.2 Site History

2.2.1 Facility Operations

Site 3 is owned by ComEd and is located south of the Greenwood Avenue right-of-way near the southern property line of the former JM manufacturing facility. According to Nicor Gas Company, a 20-inch natural gas line was installed six to eight feet below ground surface (bgs) beneath Site 3 in 1948¹. Pursuant to a lease agreement with ComEd, JM used Site 3 as a parking lot for JM employees and invitees from the late 1950s through approximately the early 1970s¹³. It is our understanding that JM constructed a parking lot on Site 3 circa late 1950s in order to provide additional parking for the administration building at the plant¹¹. Based upon the record, asbestos-containing pipes were split in half lengthwise and used for curb bumpers within the parking lot on Site 3.

The parking lot was taken out of service in approximately 1972 by IDOT during the Amstutz Project, which included the construction of an embankment on the northwestern portion of the Site as well as IDOT Detour Road A as shown on **Figures 2 and 3**.

IDOT engineering drawings for the Amstutz Project show that IDOT needed to excavate and fill areas on the Site because the underlying material was unsuitable. Prior to IDOT's work on Sites 3 and 6, the elevation of Site 3 was approximately 587.5 to 588.5 feet above mean sea level and Site 6 was approximately 588 feet above mean sea level. Part of IDOT's work involved raising the grade of Site 3 slightly in some areas, lowering the grade in other areas, and raising the grade of Greenwood Avenue substantially in some areas. For example, following construction, the elevation near the intersection of Greenwood and Pershing Road was approximately 600 feet above mean sea level. After construction, the record indicates that the contractor hired by IDOT was paid a "special excavation" fee to "remove and obliterate the Detour Roadways".¹⁸

Site 3 is currently vacant with the exception of one transmission tower located on the eastern portion of the Site. Site 6 generally comprises the shoulders of East Greenwood Avenue.

2.2.2 Environmental Aspects of Historical Operations

Documents indicate that asbestos-reinforced cement (Transite®) pipes were placed on the Site 3 parking lot and used for tire stops (i.e., to keep the cars from going too far and off the parking lot¹¹) in approximately the 1950s. Beginning in approximately 1971, IDOT constructed Detour Road A on Site 3 for use during construction of the Amstutz Project. In their response to USEPA's request for information regarding Site 3, IDOT disclosed that their resident engineer on the project "recalled dealing with asbestos pipe during the project and burying some of it¹³". During the construction of the Amstutz Project approximately 262,000 cubic yards of structural borrow material¹⁴ was required for construction of the bridge approach embankments. The source of this borrow material is unknown at this time. This material would have been brought on the Site and compacted by mechanical means. Some quantity of this 262,000 cubic yards was placed within the western limits of Site 6, and on the northwest portions of Site 3.

2.3 Site Environmental Conditions

In 1998, JM discovered asbestos containing materials (ACM) at the surface on Site 3. In accordance with a sampling protocol agreed upon with USEPA, JM catalogued and removed surficial ACM and conducted sampling of the area.

2.3.1 ELM Sampling

ELM Consulting LLC (ELM) conducted sampling for ACM at Site 3 and issued a report dated December 1999. The northwest and northeast portions of Site 3 were not sampled during the ELM grid-sampling event due to the presence of standing water. Results of the ELM sampling have been visually represented on the attached **Figures 2, 3, 4** and **5**. In general, the ELM sampling identified visual ACM (see **Figure 2**) across generally the north central and northeast portions of Site 3, generally aligned with the

location of former Detour Road A. As demonstrated on **Figures 2 and 3**, asbestos was detected in a number of boring locations, again, generally aligned with the location of former Detour Road A, and across the eastern portions of the northern boundary of Site 3.

Between 1999 and 2007, little activity occurred on the Southwestern Sites. On June 11, 2007, JM, Commonwealth Edison and USEPA signed an Administrative Settlement Agreement and Order on Consent for Removal Action (Agreement). The Agreement recognized that the proceedings under the Agreement were subject to various sections of CERCLA. USEPA declined to consider IDOT a Potentially Responsible Party (PRP) under CERCLA.

2.3.2 LFR Sampling

Pursuant to the above referenced Agreement, LFR Inc. (LFR) conducted an investigation that included Site 3 and Site 6. Results of this investigation were documented in an initial Engineering Evaluation/Cost Analysis (EE/CA) report.

2.3.2.1 Site 3

The investigation of Site 3 involved the excavation of 14 test pits (see **Figures 2 and 3** for test pit locations). The locations of the test pits were generally placed near borings completed during the 1999 ELM investigation. Visual ACM was observed in two of the fourteen (14) test pits. Pursuant to USEPA approved plans, no soil samples were collected and analyzed for asbestos as a component of the Site 3 investigation.

2.3.2.2 Site 6

The investigation of Site 6 involved advancing both test pits and soil borings along the length of and within the shoulder of both sides of East Greenwood Avenue. The investigation resulted in 209 soil samples being submitted for PLM analyses, and 21 soils samples submitted for TEM analyses. Various areas of asbestos impacted soil was observed along Site 6. One of these areas includes the shoulder of East Greenwood Avenue immediately adjacent to the northern boundary of Site 3.

2.3.3 LFR Investigation

LFR subsequently advanced an excavation within the southern shoulder of East Greenwood Avenue immediately adjacent to the northern boundary of Site 3 (see **Figure 2** for excavation location) for another entity, Exelon.⁸ This excavation was performed to expose two direct-buried electric lines. In a July 8, 2008 letter report written to Exelon, LFR documented the excavation activities. The letter report documents that “[d]uring the excavation, several pieces of Transite® pipe, which is an asbestos containing material, were encountered within the clay fill material.” The letter

report concludes, “[f]rom this it may be concluded that the Transite® pipe was found within the soil placed as part of the Greenwood Avenue ramp construction.”

2.3.4 AECOM Investigation

In May 2013, AECOM conducted additional ACM sampling on Site 3 to assess the vertical and lateral extents of ACM within a 25-foot wide corridor centered on a 20-inch natural gas line owned and operated by Nicor Gas Company. The Nicor Gas line was installed prior to IDOT’s construction work. Owing to the presence of the Nicor gas line, excavations were advanced by hand digging to a depth of one foot below ground surface, below one foot, hydraulic excavation was used. Excavations were advanced to the top of the gas line. Additionally, eighteen (18) test pits were advanced generally along the gas line corridor. The test pits were generally advanced to a depth of approximately eight to nine feet below ground surface. Finally, seventeen soil borings were advanced generally along the gas line corridor. Locations for each of the hydraulic excavations, test pits, and soil borings completed by AECOM are shown on the attached **Figures 2 and 3**.

Asbestos sample results from the excavations, test pits and soil borings are shown on **Figures 2 and 3**. In summary, asbestos via PLM analysis was detected in one soil sample above the analytical sensitivity. In two hydraulic excavations, and four test pits, asbestos was detected but below the analytical sensitivity. Samples submitted for TEM analysis were below analytical sensitivity. Certain additional samples from soil borings and test pits exhibited structures of asbestos. Sample analytical results were believed to warrant additional investigation, which was undertaken in August of 2013.

During the August 2013 Supplemental Investigation, seventeen (17) soil borings were advanced to a maximum depth of nine feet below ground surface. A total of 126 soil samples were submitted for analysis of asbestos. Asbestos via PLM analysis was detected in one of the soil samples. Samples analyzed via TEM were below analytical sensitivity. However, asbestos structures were noted in five of the samples collected from three boring locations.

2.3.5 Remedy Background

Four revised versions of the EE/CA were submitted in response to comments made on behalf of the USEPA. The final EE/CA was submitted to USEPA on April 4, 2011 (“EE/CA Revision 4”). EE/CA Revision 4 evaluated four potential response action options for Sites 3 and 6, based on discussions with EPA. EE/CA Revision 4 identified “Alternative 2” as the preferred remedy for Site 3. This alternative included limited soil excavation (approximately 660 cubic yards) in the northeast corner of Site 3 to a depth of approximately three feet below the ground surface and installation of a vegetated soil barrier over the entire site, at an estimated cost of between \$595,000 and \$630,000.

EE/CA Revision 4 identified "Alternative 3" as the preferred remedy for Site 6. This alternative was described as a "hybrid remedy" combining excavation and off-site disposal of approximately 2400 cubic yards of ACM-affected soil with a vegetated soil barrier running adjacent to Site 3 to avoid disrupting current stormwater drainage patterns. The total cost to implement Alternative 3 on Site 6 was estimated at between \$417,500 and \$500,000. USEPA disagreed with the remedy selected for both Sites. Eventually, the USEPA issued an Enforcement Action Memorandum for the Southwestern Site Area (which includes Site 3 and 6) dated November 20, 2012. For both Sites 3 and 6, USEPA generally required the removal of all asbestos-impacted soils and the creation of clean corridors for all utilities running through the Sites.

Between December 20, 2012 and September 28, 2013, multiple dispute notices regarding the Enforcement Action Memorandum were filed on behalf of JM. The dispute notices were officially resolved in a letter from the Director of the Superfund Division of the USEPA dated September 28, 2013. In response to the Enforcement Action Memorandum, JM coordinated additional site investigation activities at Site 3 that were conducted between May and August 2013 (summarized in Section 1.4.3 above). Ultimately, USEPA agreed to modify some of the more stringent requirements in its Action Memorandum. Thereafter, AECOM prepared a Removal Action Work Plan (RAWP). The most recent RAWP was submitted to the USEPA and is dated March 31, 2014.

2.3.6 Summary of Remedy Scope

The March 2014 version of the RAWP has been developed to address a non-time critical removal action relating to ACM in soil at Sites 3 and 6. The RAWP used as the basis for design of the plan the following:

1. Utility relocation and abandonment
2. Required soil removal
3. Vegetative cover
4. Institutional controls
5. Subrogation agreements

Additionally, two basis of design for construction support activities include:

1. Construction dewatering systems
2. Water quality basis for discharge for NSSD

The RAWP relating to Site 3 and 6 contains a description of the following primary work items:

1. Sites 3 and 6 utility relocation, abandonment, and replacement plans
2. Site 3 soil removal and vegetative soil cover

3. Site 6 soil removal
4. Sites 3 and 6 long-term operations and maintenance (O&M)

2.3.6.1 Site 3

As noted above, the remedy for Site 3 involves relocation or abandonment of select utilities, excavation of ACM impacted soil, and construction of a vegetative soil cover. The following utilities present on Site 3 will be either abandoned, or a clean soil corridor will be created: 1) AT&T telecommunication lines will be relocated and reinstalled above ground, 2) confirmation will be provided documenting former decommissioning of a Commonwealth Edison electric power line, 3) a clean soil corridor will be constructed for a Nicor Gas line, 4) a North Shore gas line will be decommissioned, and 5) a City of Waukegan water main will be replaced and a clean soil corridor constructed (collectively, approximately 3,250 cubic yards of soil will be removed for utility clean soil corridor). Approximately 900 cubic yards of soil to a depth of approximately four feet will be removed from a 0.14-acre area on the northeast corner of Site 3. Finally, a vegetative soil cover will be constructed across approximately 3.14 acres of Site 3. In addition, an environmental covenant will be executed for Site 3 addressing soils remaining in-place under the vegetative cover and a fence will be constructed.

2.3.6.2 Site 6

As noted above, the remedy for Site 6 involves abandonment or relocation of select utilities, and removal of soil. The following utilities present on Site 6 will be relocated or abandoned: 1) AT&T telecommunication lines present on the south side of Site 6 will be relocated, 2) an existing North Shore Gas line will be permanently abandoned, and 3) a City of Waukegan water main will be relocated. Approximately 6,420 cubic yards of soil will be removed to an estimated depth of 3 feet.

2.4.5 Summary of Remedy Cost

The cost estimates provided for the Site is reflective of the increased scope of work due to the presence of ACM buried by IDOT. AECOM has prepared draft cost projections for the work to be performed on Site 3 and Site 6 as documented in their March 12, 2015 Correspondence addressed to Douglas Dorgan of Weaver Consultants Group¹⁶. Tables entitled DRAFT Sub-Project Cost Detail (with Markups) for both Site 3 and Site 6 have been included as **Appendix C**.

AECOM has estimated the cost for RAWP implementation at the Site based upon the March 31, 2014 RAWP as subsequently modified based on communications with USEPA. The communications have resulted in significant changes to the work required. As of the writing of this report, AECOM continues to refine the remediation scope and corresponding estimate of probable cost. The estimate of probable cost prepared by AECOM is included in Appendix C. For Site 3, this estimate projects costs for

implementation of the currently approved RAWP totaling \$3.3M. For Site 6, this estimate projects costs for implementation of the currently approved RAWP totaling \$4M.

3 OPINIONS

The following provides my expert opinions, followed by information in support of the various opinions:

3.1 Site Usage

The first developed use of the Site 3 occurred in the late 1950s when Johns Manville constructed a parking lot for use by employees at the manufacturing facility located north of East Greenwood Drive. Site 6 was historically used as a road. The road was elevated by IDOT in the 1970s.

The above opinion is supported by the following multiple lines of evidence.

Based upon review of the facility record, and review of certain available historical use sources, prior to the mid 1950s, Site 3 was a vacant, undeveloped property. In the late 1950s, under lease to Commonwealth Edison (ComEd), Johns Manville constructed an approximate 48,000 square foot parking lot that serviced the adjacent main facility complex located across East Greenwood Avenue. Prior to construction of the parking lot, there had been no previous structures present on the Site 3. The property had not been utilized by ComEd as part of its adjacent power generating facility, nor had it been utilized by the adjacent Johns Manville facility. The parking lot operated from its date of construction in the late 1950, through to approximately 1970 when the parking lot was destroyed under contract to the IDOT to accommodate construction of the Amstutz Project¹⁷.

As of 1939, Site 6 was paved with a road, now known as Greenwood Avenue. The road was modified in the 1970s by IDOT as part of the Amstutz Project. Fill was used by IDOT to create the embankment and to raise Greenwood Avenue.

3.2 IDOT Construction Activities Responsible for ACM Waste

It is my opinion that IDOT is responsible for the placement and dispersion of ACM waste currently found at the Site. IDOT used, spread, buried, placed and disposed of ACM waste, including Transite® pipe, throughout Site 3 and portions of Site 6 during construction of the Greenwood Avenue ramp and expressway bypass from 1971 to 1976. These construction activities associated with the Amstutz Project resulted in crushed Transite® pipe and asbestos material being spread across and buried at Site 3 and the western end of Site 6. IDOT never removed the Transite® pipe and asbestos materials it spread across and buried at the Site.

The above opinion is supported by the following multiple lines of evidence.

Within the project record, there are multiple references to the use of Transite® Pipe within the JM parking lot serving as vehicle parking bumpers. Transite® Pipe, also known as Asbestos Cement Pipe, began being used in the 1940s for potable water, sanitary sewer, and storm drain pipelines (Williams, G. Eric and Aspern, Kent Von, date unknown). The Engineering Evaluation/Cost Analysis prepared by LFR references that “Transite® pipe was utilized as parking space “bumpers” on the ground surface”. The USEPA subsequently confirmed this finding indicating in their Enforcement Action Memorandum that “Asbestos-containing pipes were split in half lengthwise and used for curb bumpers on Site 3.” It would appear that there is little argument that Transite® pipe had been present on Site 3 associated with their use for parking bumpers in the Johns Manville parking lot. Transite® pipe was constructed primarily of Portland cement, however, asbestos was used to increase the pipe strength. Various reports suggest the asbestos content of Transite® pipe could range from 15 percent up to 20 percent, although in later years of production the content was lowered to less than 0.2% (2009, Aspern, Kent Von).

Aerial photos show the parking lot and apparent Transite pipe parking bumpers in aerial photographs from 1961 and 1967. In 1972, the parking lot is no longer evident in an available aerial photo.

In approximately 1970, IDOT began work on the Amstutz Project. The project involved portions of Site 3, and the western end of Site 6. Specifically, as indicated in IDOT Construction Drawings for the Project, a bypass road for the East Greenwood interchange (Detour Road A), was constructed across the center portion of Site 3 as shown on the attached **Figure 3**. Additionally, the Amstutz Project included the construction of the Greenwood Road Overpass, which involved raising the elevation of Greenwood Road and building an embankment near where Greenwood intersects with Pershing. The embankment is on portions of Site 6 and 3 (see Figure 2).

IDOT plans prepared by H.W. Lochner, Inc. for Amstutz Project (F.A. Route 437 – Section 8-HB & 8-VB) provide information documenting the importation of fill material (Borrow Excavation). On sheet 5, Schedule of Quantities, the Summary of Quantities lists total “Borrow Excavation” for the project as 262,540 cu yds. The plan cross sections for Greenwood Ave within Site 6 (Sta 7+00 to 9+22) shown on sheets 71 and 72 of the plans indicate excavation was performed in these areas and fill material was needed.

IDOT was responsible for the fill it brought to the Site. On Sheet 4 of the Lochner plans, the first note of the General Notes states “The “Standard Specifications for Road and Bridge Construction” adopted January 2, 1971, shall govern construction.” The IDOT “Standard Specifications for Road and Bridge Construction” Section 204.42 state “Borrow Excavation shall not be placed in the embankment until the site location, excavation plan and material have been approved by the Engineer in writing.” Thus, all

Borrow Excavation material was to be approved by the IDOT Engineer prior to its use on the Site and IDOT was responsible for its contents.

In AECOMs Respondent Response Document to Engineering Evaluation/Cost Analysis², they indicate “[i]n their response to USEPAs request for information regarding Site 3, IDOT disclosed that their resident engineer on the project “recalled dealing with asbestos pipe during the project and burying some of it.””

As noted in the Background Section, several investigations for the presence of asbestos materials on Site 3 and Site 6 have been completed. The first of these investigations was completed in 1998 and included the visual observation and removal of asbestos fragments and fragment clusters from the surface of Site 3. Of the seventy-four (74) locations where ACM fragments or fragment clusters were encountered on Site 3, Transite[®] Pipe was observed at sixty-five (65) locations (Appendix F of referenced report). Additionally, Transite[®] was identified in several of the borings that were completed as part of this investigation (Appendix G).

Thereafter LFR undertook an investigation of Site 3 and Site 6. Results of this investigation were presented in the report “Engineering Evaluation/Cost Analysis, Southwestern Site Area Sites 3, 4/5, and 6, Revision 4” dated April 4, 2011². Visual ACM was observed in test pits advanced as part of the investigation on Site 3.

In 2008, LFR was retained by ComEd to complete a soil excavation along the south side of the Greenwood Avenue shoulder. The work performed was documented in a letter report addressed to Exelon dated July 8, 2008. The excavation was noted to be located “within the southern shoulder of Greenwood Avenue and, based upon the elevation data, was also within the built-up ramp to the Amstutz Expressway. “ The center of the excavation was reported to be at an elevation of approximately 591 to 591.5 feet above mean sea level (AMSL). The letter report documents that “[d]uring the excavation, several pieces of Transite[®] pipe, which is an asbestos containing material, were encountered within the clay fill material.” ACM was observed within the excavation at approximately 588.5 feet AMSL. The nominal surface elevation of the adjacent Site 3 was reported to be at an approximate elevation of 587.5 feet AMSL. The letter report indicates that the excavation “falls clearly within the Greenwood Avenue ramp construction for the Amstutz Expressway.” The letter report concludes by stating “[f]rom this it may be concluded that the Transite[®] pipe was found within the soil placed as part of the Greenwood Avenue ramp construction.”

Finally, additional investigation of Site 3 was undertaken in 2013 and documented in the report entitled “Southwestern Site Area, Site 3, 4/5, and 6 Removal Action Workplan, Revision 2” prepared by AECOM dated March 31, 2014¹. In planning for the removal action, additional characterization of the presence of ACM was undertaken using hydraulic and hand excavations, test pits, and soil borings. Consistent with the results of previous investigations, Transite[®] pipe was specifically noted to be present at three of

the sample locations on Site 3 (HYD-05 0-1', HYD-06 0 – 1', TP-10 0-1'). As with previous findings, the physical presence of identifiable Transite® pipe was generally located within the shallow subsurface at the Site.

The locations of Transite® pipe containing ACM discovered on Site s3 and 6, coupled with the Site history, demonstrate that IDOT used, spread, buried, placed, and disposed of ACM waste, including Transite® pipe, throughout Site 3 and portions of Site 6 during its work on the Amstutz Project from approximately 1971 to 1976. The distribution of visual ACM, mostly comprised of Transite® pipe, generally is consistent with the areas where IDOT performed work; the JM former parking lot, Bypass Road A and the embankment and south side of Greenwood Avenue. The occurrence of visual ACM is represented on **Figure 3**, which shows ACM generally being found within the central and northeastern areas of Site 3. This generally overlays with the location of the former parking lot area, which IDOT removed to build Detour Road A. Furthermore, the detection of asbestos in soil samples collected at Site 3 follows a similar pattern, with asbestos generally being detected within the central and northeastern areas of Site 3. Soil samples collected from across Site 3, and the western limits of Site 6, submitted for laboratory analysis exhibited concentrations of asbestos fibers in soil exceeding 0.1%. Asbestos fibers within the soil are believed to have originated at least in part from crushing of the Transite® pipe parking bumpers during the IDOT construction activities. Transite® pipe by nature is inert and non-friable. It is converted from a solid to a friable form during the crushing process. As evidenced by fragments of Transite® pipe being identified during various previous investigations, it is apparent that the condition of the original Transite® pipe bumpers had been changed by the disturbance associated with the construction activities performed by IDOT. The act of crushing Transite® pipe as a result of being tracked with heavy equipment, and being buried as occurred during the IDOT construction activities would result in asbestos fibers being released into the surrounding soils.

Further, when you compare the engineering drawings used by IDOT for Bypass Road A and Greenwood Avenue with the location of Transite® and ACM, it is clear that the Transite® and ACM is located in areas that were excavated and filled by IDOT as part of the construction. The Transite® pipe is located within three to four feet of the ground surface. This is demonstrated most clearly on **Figures 4 and 5**, which demonstrates the occurrence of asbestos within soil samples collected from fill materials placed by IDOT. The Transite® and ACM were found on Site 3 and Site 6 within fill materials placed by IDOT, above the predominant Site 3 and Site 6 elevation prior to IDOT construction, or in areas where IDOT excavated and removed “unsuitable materials”. The July 8, 2008 LFR states “...it may be concluded that the Transite® pipe was found within the soil placed as part of the Greenwood Avenue ramp construction.”

This evidence shows that when IDOT demolished the former JM parking lot to build Bypass Road A, it crushed and buried portions of the Transite® pipe that had been

located on the parking lot. IDOT also spread the Transite® pipe around portions of Site 3 and 6 close to the former parking lot area as part of its work.

In summary, it is my opinion that the source of the Transite® pipe found at Sites 3 and the western limits of Site 6 immediately adjacent to the northern boundary of Site 3 was the Transite® pipe that had been used as parking bumpers in the former JM parking lot. The Transite® pipe bumpers were not removed but were crushed, buried, and mixed into the subsurface as part of Bypass Road A construction and the construction of the East Greenwood Road overpass embankment for the Amstutz Expressway.

3.3 IDOTs Handling of Transite® Pipe Resulted in a Substantial Increase in Scope of Remedy for Site 3 and Site 6

It is my opinion, that in the absence of the buried and dispersed Transite® pipe on the Site, it is unlikely that any response action would have been necessary at the site other than the surface ACM removal efforts.

As a result of IDOT's use, spreading, burying, placing and disposing of ACM in and around Site 3 and 6 as part of the Amstutz Project, the scope of the expected remedial activities are more extensive than would have otherwise been required by USEPA.

It is apparent that USEPA was concerned with the prospect of ACM moving up to the surface and becoming airborne. In the USEPA Modification to the EECA dated February 1, 2012, they specifically highlight concerns that "in frost susceptible areas, such as Waukegan, stones, and other large particles, such as broken scraps of asbestos, tend to move differentially upward through the soil with each freeze/thaw cycle. Thus, asbestos-containing wastes that are covered with soil can, over time, reach the soil surface and become readily releasable to the air".

USEPA also notes, "the shoulders of Greenwood Avenue in Site 6 are not vegetated and are subject to physical disturbance from the general public as well as potential damage from vehicles, snow plows, salt trucks, etc. Sites 3, 4/5, and 6 also contain utilities and these areas will be disturbed during maintenance and repair activities. Such damages or disturbance may result in the release of asbestos containing materials and asbestos fibers."

These concerns were used as the justification for requiring a more substantial cover design. The Transite® pipe observed on Site 3 and Site 6 is most comparable to "stones, and other large particles, such as broken scraps of asbestos". In the absence of this buried Transite® pipe, it is unlikely if any form of response activity would be needed.

On November 12, 2012, USEPA issued an Enforcement Action Memorandum (EAM). The purpose of the EAM was to communicate USEPA's position with respect to environmental conditions at Site 3 and Site 6. Specifically, the EAM documents USEPA's

determination "...of an imminent and substantial threat to public health, welfare or the environment posed by contaminated soils at the Southwestern Site Area (Site) including Sites 3, 4/5, and 6, in Waukegan, Lake County, Illinois, and to document approval of the proposed non-time critical removal action for the Site."

The EAM marked a significant expansion of the scope of the remedy when compared to AECOM's EECA version 4. USEPA makes a number of statements in this document demonstrating that the new remedy was mandated because asbestos was buried on the Site. The EAM repeats many of the same points raised in the February 1, 2012 EECA Modification it imposed.

However, it even takes it a step further when justifying its decision for all soil removal and clean corridors. The EAM states "of particular concern are digging and soil moving related to road repair, utility repair and any other construction activities on the sites." It also stresses that utilities "such as natural gas, electric, communications, water and sewer in Sites 3, 4/5 and 6 require immediate access and repair to respond to leaks of damaged lines." USEPA indicates that excavation would be necessary to access the utilities in an emergency situation and that the excavation "would be likely to result in the potential release of ACM and asbestos fibers. USEPA continues: "In the event of a breach of other loss of integrity, pressurized underground utilities also have the potential to force overlying soils to the surface resulting in the potential release of ACM and asbestos fibers. Therefore, excavation of clean corridors for all such utilities must be provided as soon as possible to prevent the potential release of ACM and asbestos fibers."

In the EAM, USEPA states that Site 3 potential receptors include: 1) utility workers from either ComEd servicing their buried lines that cross the Site or from other utilities who maintain buried lines or easements for their lines, 2) construction workers installing additional utilities in the future and 3) anyone walking or biking across the field, i.e., trespassers. Potential receptors for Site 6 include: 1) utility workers, 2) road repair and maintenance, and, 3) construction workers installing additional utilities in the future and the general public, as users of the roadway. USEPA's Risk Evaluation concluded that as a result of asbestos being present at Site 3 and Site 6 "[a]dverse health risks are reasonably anticipated in the event that exposure occurs."

It is apparent that the primary concern expressed by USEPA was buried ACM that could either impact workers servicing utilities or could reach the surface as a result of the upward thrust of additional fragments or "broken scraps of asbestos". As stated within the EAM, conditions at the Site were deemed to meet the criteria for a removal action. In the absence of buried ACM and broken scraps of asbestos having the potential to reach the ground surface, it is believed likely that no removal action at Site 3 or within the western limits of Site 6 would have been needed.

The conclusion that the Transite® pipe buried and spread by IDOT is causing an expansive remedy is supported by the well-documented approach being applied to ACM removal at the nearby Illinois Beach State Park. This site is located approximately one mile from Site 3. Past investigations have concluded that surficial ACM that washes onto the beach is not expected to be harmful to human health.¹⁴ The presence of limited quantities of generally non-friable ACM at the surface (assuming the absence of Transite® pipe) of Site 3 would be comparable to the conditions encountered at Illinois Beach State Park (IBSP). Therefore, it is reasonable to conclude that in the absence of Transite® pipe at Site 3 and within the western limits of Site 6, a strategy similar to that being employed at IBSP would be appropriate for managing Site conditions.

Alternatively, for purposes of assessing the broader scope resulting from IDOT's actions at Site 3 and the western limits of Site 6, I have considered a more conservative approach to managing the Site conditions assuming Transite® pipe had not been spread and buried. Under this alternative scenario, I have assumed that Transite® pipe had been left in its original location on the surface of Site 3 in 1970. Under this alternative scenario, I believe that the plan submitted in the EECA would have been more than adequate to manage the Site 3 conditions and that no remedy would have been required for the western portion of Site 6.

As noted above, the EECA Revision 4 had proposed Alternative 2 as the remedy for Site 3. This alternative included installation of a soil barrier over approximately 3.12 acres of Site 3. This alternative was projected to cost as much as \$620,000 to construct, with long term Operations and Maintenance (O&M) costs projected at \$142,000 (over a 30-year period). Based on the cost of construction, and long-term O&M, this alternative remedy would cost \$762,000.

It is my opinion that due to the presence of buried Transite® pipe, the USEPA has demanded a more expansive scope for managing Site 3 conditions.

This added scope is reflected in the cost differentials. The current required remedy on Site 3 is projected to cost \$3.3M. It is my opinion based on review of the estimate prepared by AECOM that this estimate is reasonable for the tasks that have been quantified. However, a number of additional required tasks have not been included in this estimate, and some uncertainty exists regarding the actual costs for removal and/or replacement of select utilities. Consequently, it is my opinion that the actual costs for implementing the USEPA required remedy may potentially expand by a factor of 20% or more, raising the total cost of construction to approximately \$4.0M. Additionally, the AECOM estimate does not include long-term O&M expenses. Long-term O&M expenses are not expected to deviate substantially from the estimate included in the original EECA, and therefore, I have assumed additional O&M expenses of \$140,000. This raises the total cost of remedy implementation being required by USEPA to \$4.14M, resulting in an incremental cost increase for the selected remedy of \$3.4M.

A similar analysis can be conducted for Site 6. However, the Transite pipe bumpers were not placed on Site 6. Thus, if you assume pre-IDOT construction conditions, there should have been no need for any remedy on the western portion of Site 6 and certainly no remedy that involves the creation of clean corridors or the excavation of ACM contaminated soils. It is my opinion that IDOT's activities have caused the remedy on the western portion of Site 6.

USEPA is not requiring any work on the south side of Greenwood Road other than the area that was impacted by IDOT's work on the Amstutz Project.

As discussed in Section 2.4.2.2, the remedy selected for Site 6 involves abandonment or relocation of select utilities, and removal of soil. The following utilities present on Site 6 will be relocated or abandoned: 1) AT&T telecommunication lines present on the south side of Site 6 will be relocated, 2) an existing North Shore Gas line will be permanently abandoned, and 3) a City of Waukegan water main will be relocated. Approximately 6,420 cubic yards of soil will be removed to an estimated depth of 3 feet. For the southern portion of Site 6, the Scope of Work to be implemented pursuant to the approved RAWP includes:

1. Abandonment of a North Shore 12" gas line that transects Site 3, then intersects Site 6 and runs in an east/west orientation to the eastern limits of the Site 6 area located south of Greenwood Road.
2. Removal and relocation of an AT&T Fiber Optic Cable that transects Site 3 then intersects Site 6 and runs in an east/west orientation to the western limits of the Site 6 area located south of Greenwood Road.
3. Removal of asbestos contaminated fill material and replacement with clean fill.

Weaver Consultants has evaluated the Cost Estimate prepared by AECOM for the entire Site 6 (included as Appendix B). We have segregated those costs to be incurred for only the portion of Site 6 located on the south side of Greenwood Road, immediately adjacent to Site 3. Based upon our tabulation of these expenses, we believe that the work to be performed within the subject area will total between \$700,000 and \$1,000,000 (this is approximately 25% of the total estimated cost for the entire Site 6). However, a number of additional required tasks have not been included in this estimate, and some uncertainty exists regarding the actual costs for removal and/or replacement of select utilities. Consequently, it is my opinion that the actual costs for implementing the USEPA required remedy may potentially expand by a factor of 20% or more, raising the total cost of construction for the area of Site 6 immediately north of Site 3 to approximately \$840,000 to \$1.2M. It is my opinion based on review of the estimate prepared by AECOM that this estimate is reasonable for the tasks that have been quantified.

3.4 IDOT'S Conduct was a Violation Section 21 of the Act

Based upon my significant experience with IEPA, the IEPA regulations, the Act, CERCLA, RCRA and USEPA, it is my opinion that IDOT used, spread, buried, placed, disposed of and left pieces of asbestos containing Transite® pipe and ACM contaminated fill at Sites 3 and 6 as part of its work on the Amstutz Project. IDOT never removed the ACM and thus it remains largely in situ.

Based on my experience, the Transite® pipe and ACM contaminated fill attributable to IDOT would be treated by the regulators as “discarded material” under Section 3.535 of the Act and thus a would qualify as a “waste” per the definition. The material resulted from IDOT’s work on the Amstutz Project.

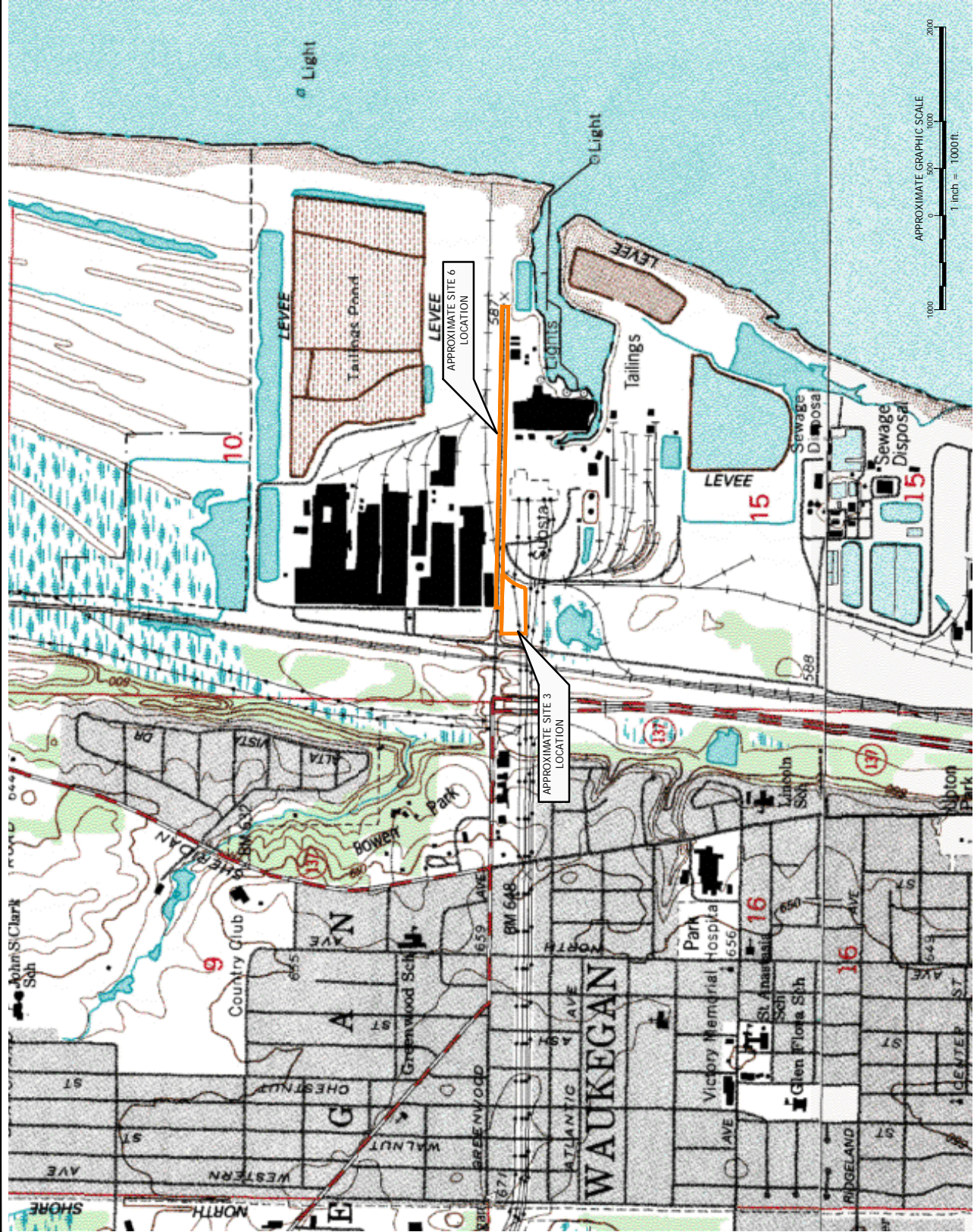
Similarly, IDOT’s actions were the result of the consolidation of refuse (crushed Transite® pipe and/or contaminated fill) at Site 3 and 6, neither of which would be viewed by IEPA as a sanitary landfill under Illinois law. Thus, it is my opinion based on past experiences with similar sites, that IEPA likely would view IDOT’s conduct to be “open dumping” under Section 3.305 of the Act, 415 ILCS 5/3.30.

Both USEPA and IEPA treat crushed and buried ACM as both “solid waste” and “hazardous waste.” Further, these agencies would likely view the dumping and placing of said ACM at Sites 3 and 6 as “disposal” under Section 3.185 of the Act, 415 ILCS 5/3.185.

Neither Site 3 nor Site 6 are permitted waste disposal sites or facilities, which meet the requirements of the Act or its regulations as they relate to the disposal or abandonment of waste.

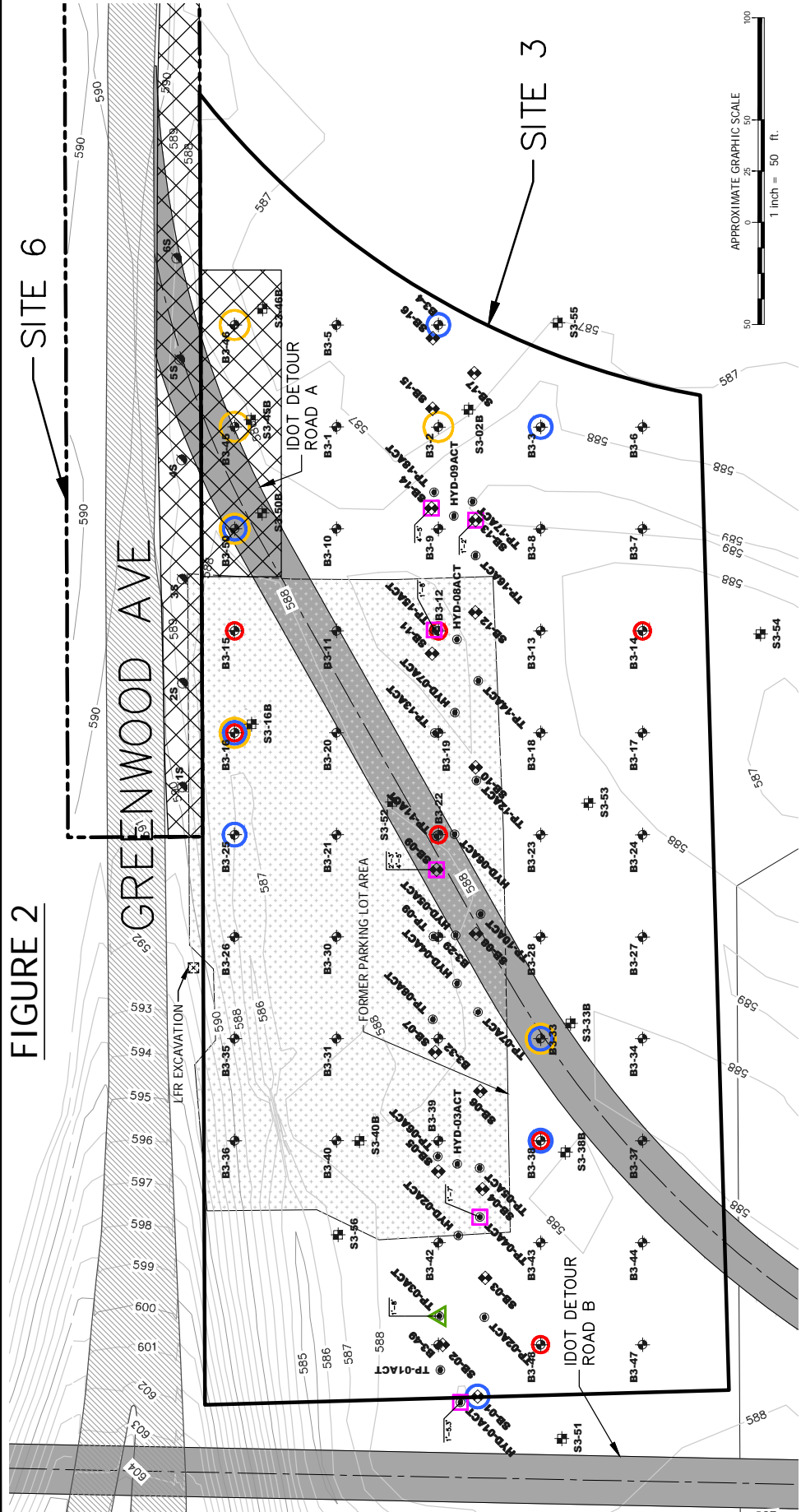
Based upon my experience and the foregoing, it is my opinion that IEPA would more likely than not view IDOT’s conduct during the Amstutz Project involving asbestos as violating Section 21 of the Act. We believe that a client engaged in similar activities would be subject to potential enforcement action.

FIGURES



SOURCE: IMAGE ADAPTED FROM MAP CARD ZION, ILLINOIS DATED 1993.

FIGURE 2



- LEGEND:**
- B3-XX ◈ ELM BORING LOCATION (1999)
 - S3-XX ◈ LFR TEST PIT SAMPLE LOCATION (2008)
 - ◈ LFR EXCAVATION (MAY 2008)
 - ◈ SOIL BORING LOCATION (LFR APRIL 2008)
 - ◈ SOIL BORING LOCATION (AUGUST 2013)
 - ◈ TEST PIT/HYDRO EXCAVATION (MAY 2013)
 - ◈ 0'-1' SAMPLE RESULTS YIELDED > 0.25% ACM VIA PLM CARB A
 - ◈ 1'-2' SAMPLE RESULTS YIELDED > 0.25% ACM VIA PLM CARB A
 - ◈ 2'-3' SAMPLE RESULTS YIELDED > 0.25% ACM VIA PLM CARB A
 - ◈ SAMPLE RESULTS YIELDED ≤ 0.1% ACM, LESS THAN 5 ASBESTOS FIBERS COUNTED VIA TEM CARB B (DEPTH INTERVAL DENOTED ON FIGURE)
 - ◈ SAMPLE RESULTS YIELDED > 0.25% ACM, VIA PLM CARB A (SAMPLE WAS A COMPOSITE OF DEPTH, DENOTED ON FIGURE)
 - ◈ AREA OF SOIL EXCAVATION

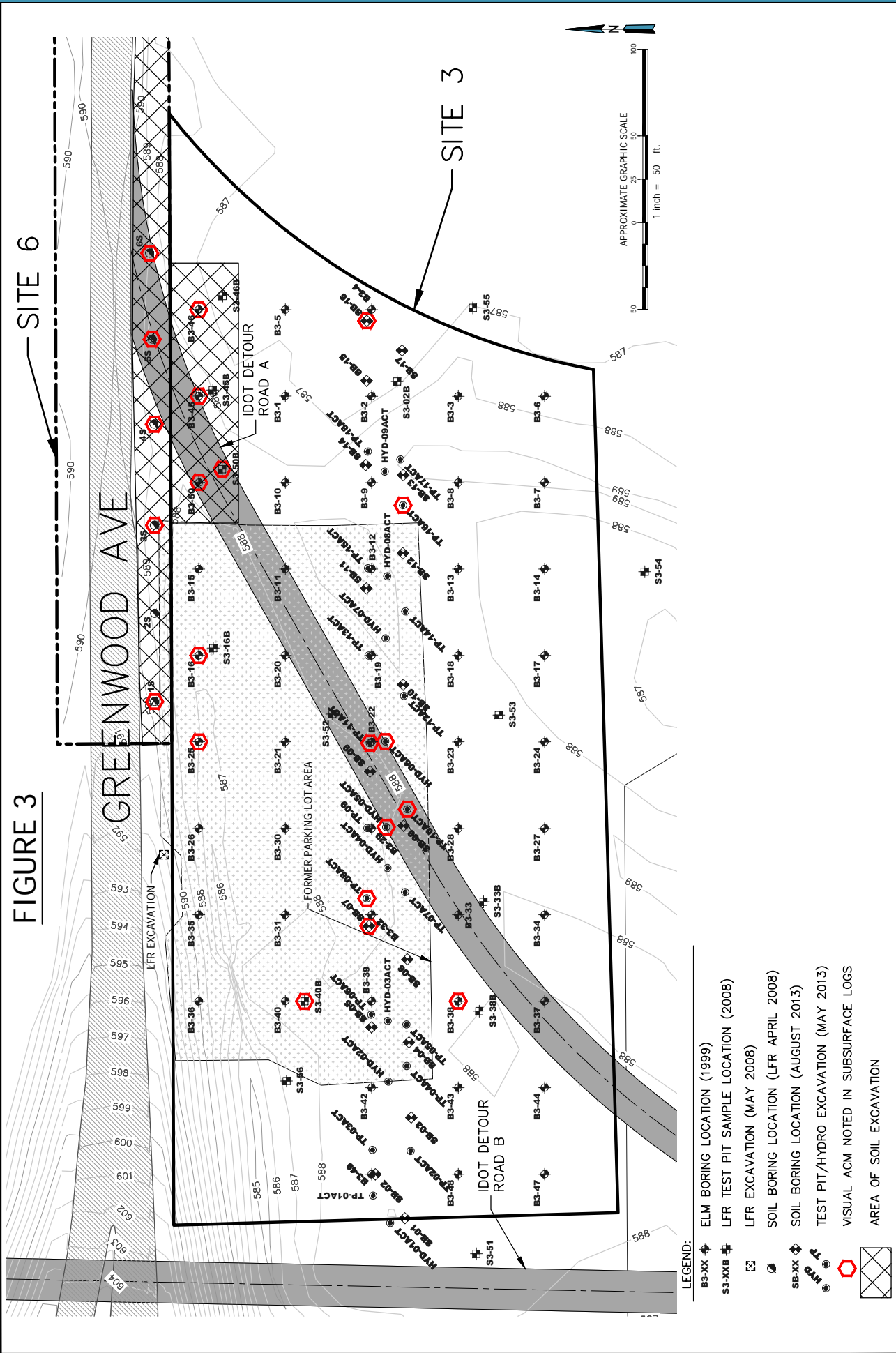
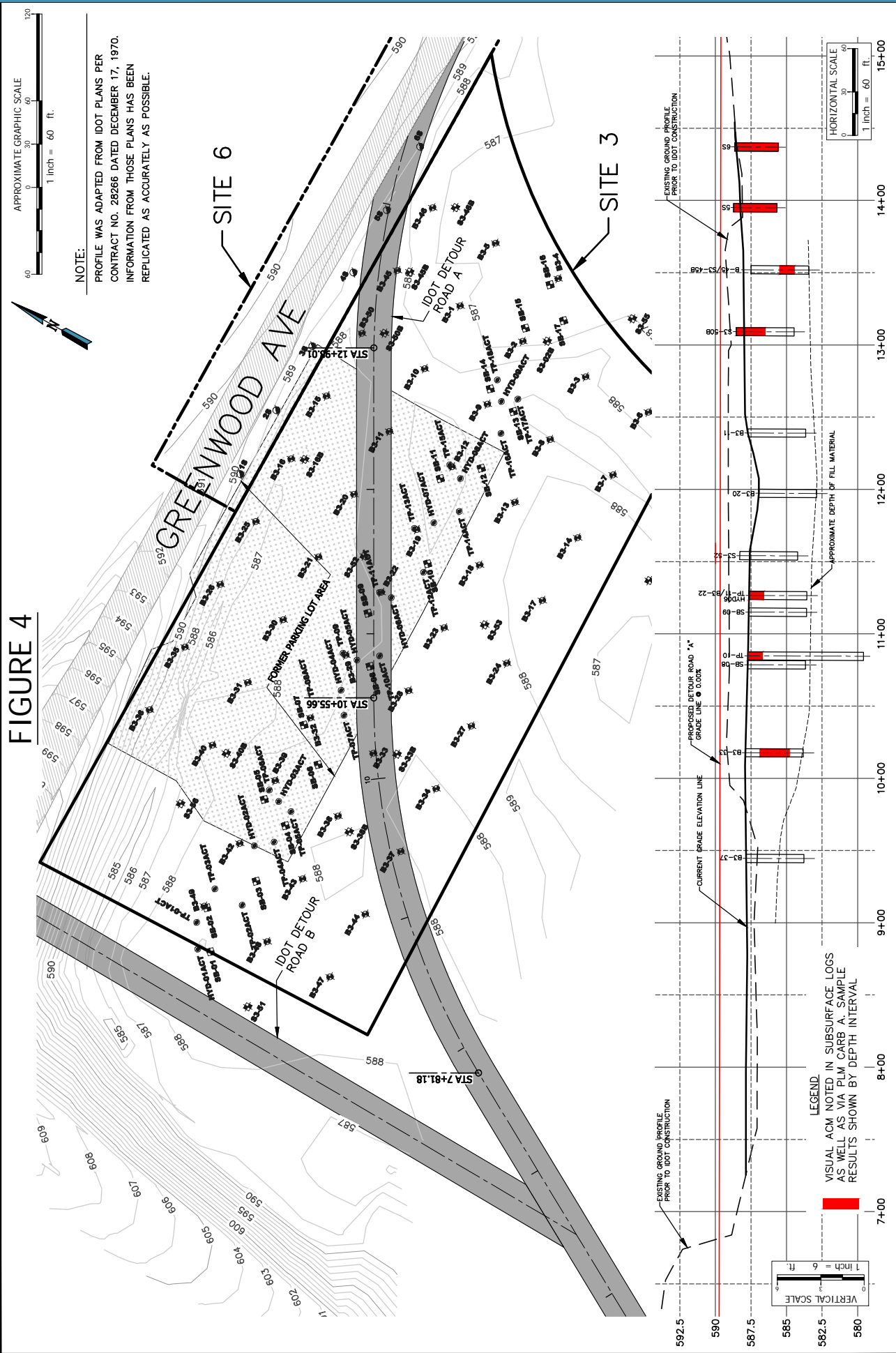
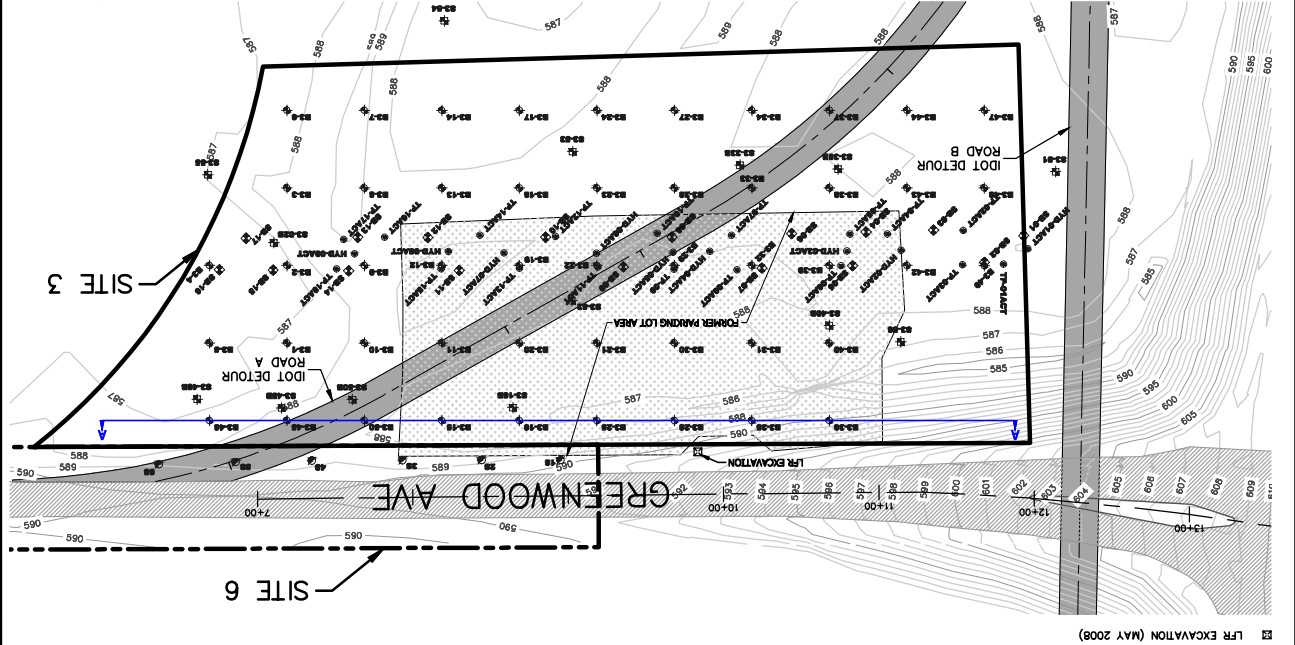
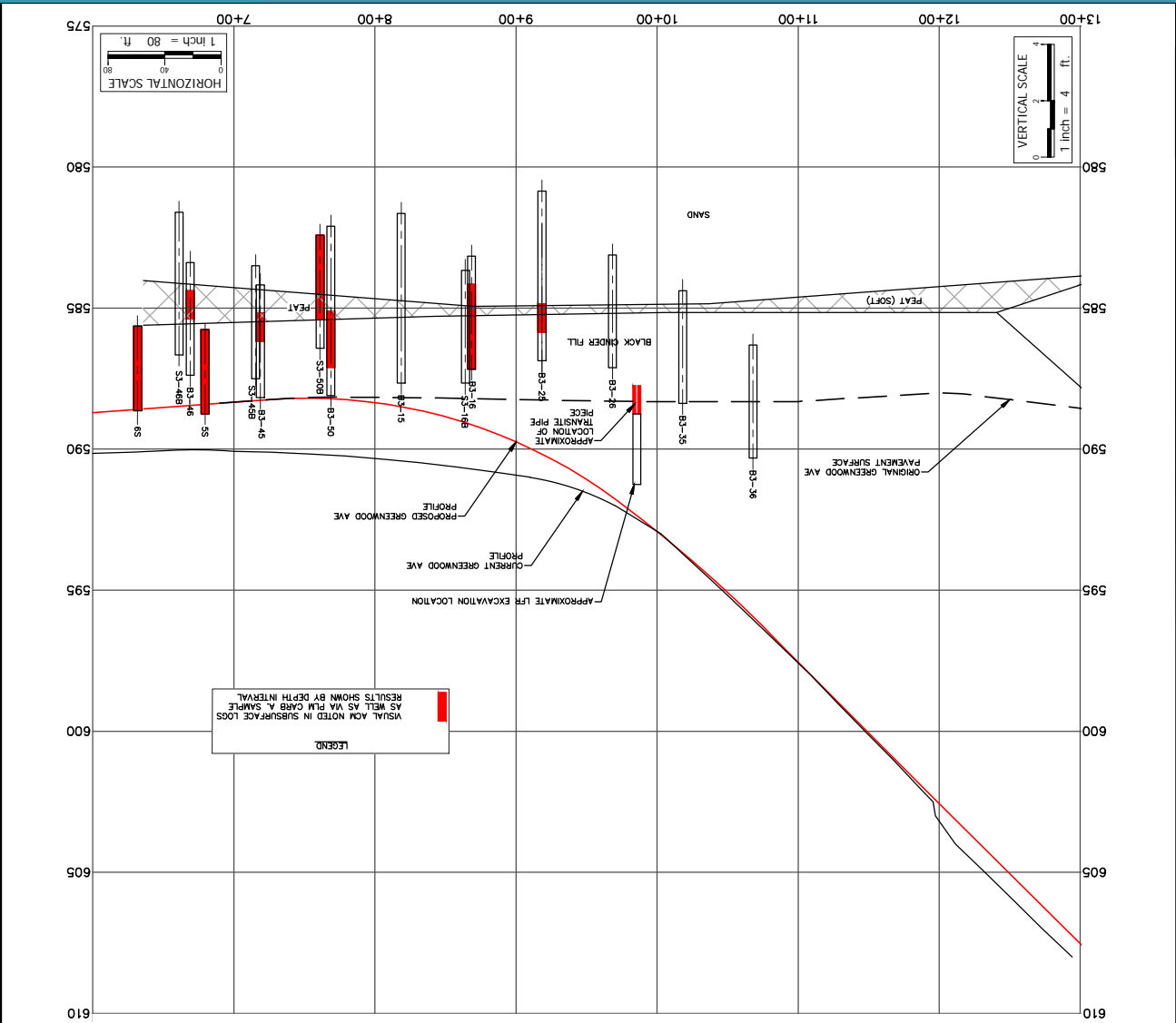


FIGURE 4





NOTE: PROFILE WAS ADAPTED FROM IDOT PLANS PER CONTRACT NO. 28266 DATED DECEMBER 17, 1970. INFORMATION FROM THOSE PLANS HAS BEEN REPLICATED AS ACCURATELY AS POSSIBLE.

LEGEND

1. LFR EXCAVATION (MAY 2008)

APPROXIMATE GRAPHIC SCALE
1 inch = 80 ft.

FIGURE 5

APPENDIX A

DOUGLAS G. DORGAN, JR. RESUME

Principal

Fields of Expertise

Environmental Site Assessments, Environmental Permitting, Brownfield's Redevelopment, Groundwater Impact Assessments, Environmental Remedial Projects, Risk Based Corrective Action

Certification

Licensed Professional Geologist, State of Indiana
Licensed Professional Geologist, State of Illinois
OSHA Supervisor's Health & Safety Training
Chemical-terrorism Vulnerability Information (CVI)
Authorized User

Education

B.S. Earth Science, Eastern Illinois University, 1986
Graduate Course Work in Environmental Studies, Sangamon State University, 1986
M.S. Geography/Environmental Science, Northern Illinois University, 1993

Professional Summary

Mr. Dorgan serves as Principal and Senior Project Manager with Weaver Consultants Group. He has over twenty years of environmental and solid waste control project experience. He currently leads the firm's Environmental Practice professional staff. He has supervised completion of numerous projects including multi-phase environmental site assessments, risk based corrective action, Brownfield's redevelopment, hydrogeological investigations, groundwater impact assessments, remediation planning and implementation, multi media compliance audits, UST closures, and solid waste management facility permitting.

Prior to joining Weaver Consultants Group, Mr. Dorgan was an Office Director for a national environmental consulting firm.

Select Project Experience

He has been involved in over 50 state voluntary remediation program projects at sites located in states throughout the Midwest and Southwest. These projects have utilized a range of closure strategies involving site-specific fate and transport

modeling, risk assessment, remediation, land use controls, and engineered barriers. Many of these projects were completed in support of property acquisition and consequently completed in accordance with aggressive schedule and risk mitigation requirements.

Mr. Dorgan has provided services to both private and public sector clients redeveloping Brownfield's. Plans have included residential, retail, commercial, industrial, and mixed use developments. Work has been performed pursuant to various state and federal grant and revolving loan programs. He also consults on the unique construction related aspects of developing distressed properties.

He manages activities performed in compliance with a RCRA Hazardous Waste Management Permit for a major steel company located in Northwest Indiana. Responsibilities include supervision of preparation of permit renewal and amendment applications, permit negotiations with IDEM and USEPA, and ongoing groundwater sampling and reporting for a hazardous waste landfill network comprised of 64 monitoring points. Mr. Dorgan also manages RCRA Corrective Action activities for the site, including preparation of required plans and deliverables and investigation and corrective measures implementation pursuant to approved workplans.

Mr. Dorgan managed acquisition of a comprehensive "No Further Remediation" letter pursuant to the Illinois Site Remediation Program for a 14-acre parcel located in the northern suburbs of Chicago. A soil and groundwater investigation was performed to assess site impacts. Tier 2 modeling and development of site specific background following the Illinois Tiered Approach to Corrective Action Objectives (TACO) methods were used to support appropriate soil and groundwater remediation objectives. Remediation activities included removal of 45,000 tons of debris and fill material, and excavation and disposal of LUST contaminated soils.

As Principal in Charge, Mr. Dorgan is responsible for overseeing design, permitting and compliance



Principal

activities for a Type II and III Solid Waste Disposal facility in Pines, Indiana. He is also responsible for oversight of ongoing RI/FS activities for the Town of Pines Superfund Site in Pines, Indiana. On behalf of a major PRP, Mr. Dorgan is collaborating with other technical consultants on the implementation of the RI/FS and ongoing remedial measures development and construction.

He managed the site investigation and Indiana Voluntary Remediation Program activities for a large glass manufacturing facility in Central Indiana. Site investigation activities resulted in remediation of select facility areas to control for impacts attributable to semi-volatile organic compounds, polychlorinated biphenyl's (PCB's), and inorganic constituents. Additional site measures included removal of contaminated creek sediments and implementation of a comprehensive groundwater investigation.

Mr. Dorgan is currently managing an Illinois SRP application for a former die casting facility with PCB impacts to facility structures, soils, and shallow groundwater. Extensive site investigation has been undertaken and TACO Tier 2 and 3 modeling performed. A Site Investigation and Remediation Objectives Report has been submitted to support remediation objectives negotiation. He is coordinating planning for remedial activities including the acquisition of a Pollution Legal Liability and Environmental Cost Cap insurance policy.

He was Project Manager for a comprehensive Phase I Environmental Site Assessment of the General Motors Danville, IL gray iron foundry whose operations date to the early 1940s. Project required a detailed records review and site inspection to identify potential areas of concern. Subsequent responsibilities included developing a scope of work for site investigation.

Mr. Dorgan managed implementation of a facility-wide investigation for PCB-related impacts at a die casting facility in Chicago, Illinois. The investigation scope included sampling of soil, concrete, structural

surfaces, and process equipment. Based on investigation results, alternative risk-based opinions were evaluated for site remediation. In support of on-going litigation, an engineering remediation cost estimate was generated.

Mr. Dorgan managed RCRA Corrective Action activities for a specialty steel manufacturing facility in Niles, Michigan. Activities include operation and monitoring of an Interim Measures groundwater remediation system, implementation of preliminary subsurface investigations, development of RCRA RFI Workplans, and negotiations with Michigan Department of Environmental Quality personnel.

Mr. Dorgan managed a Phase I, II, and III Environmental Site Assessment of a 45-acre business park in Indianapolis. Project activities were performed on an accelerated basis to facilitate an aggressive land transfer negotiation. A detailed hydrogeologic assessment and a risk assessment was performed, quantifying required remedial measures.

He conducted comprehensive and media-specific environmental compliance audits of facilities located in four states for a major medical diagnostic imaging equipment manufacturer. Comprehensive audits were performed for select waste and scrap material management facilities. Audits included recommendations for corrective measures in addition to development of a division-wide program for management of recoverable waste streams.

Mr. Dorgan was the Project Manager for a Phase I and II Environmental Site Assessment of a 1.1 million square foot former can manufacturing facility in Chicago. Assessment activities were designed to evaluate long term liabilities and environmental considerations associated with facility reuse and/or demolition planning.

He has secured a focused NFR letter pursuant to Illinois SRP requirements for a fleet maintenance facility in the Chicago area. Project activities were implemented on an expedited basis to accommodate a property transaction. Direct

Principal

negotiations and communications with the IEPA allowed the NFR letter to be issued within 10 weeks of submission of the Site Investigation and Remediation Objectives Report.

Mr. Dorgan was responsible for managing environmental compliance aspects of a comprehensive underground storage tank management program implemented by a major electric utility company in Northern Illinois. The project required UST removal oversight/closure certification, site investigation, regulatory reporting, corrective action design/supervision, and regulatory negotiation. Project activities were concurrently undertaken at over 30 sites.

Publications/Presentations

Contributing author *"Municipal Solid Waste Landfills - Volume I General Issues,"* University of Illinois at Chicago, November, 1989

"Conducting Phase I Environmental Site Assessments," presented to the DeKalb County Economic Development Corporation, Industry Roundtable, DeKalb, IL, November, 1990

"Environmental Audits for Selection of Solid Waste Disposal Sites," presented at Waubensee Community College, Sugar Grove, IL, November, 1992

"Distribution of Cadmium, Copper, Lead and Silver in Surface Soils of the Chicago Metropolitan Area," Northern Illinois University, August, 1993

"Conducting Effective Environmental Site Assessments," presented to the Institute of Business Law Conference 'Environmental Regulation in Illinois', September, 1993

"Minimizing Liability in Real Estate Transactions by Conducting Effective Environmental Site Assessments," New Mexico Conference on the Environment, Journal of Conference Proceedings, April, 1994

"General Geologic/Hydrogeologic and Contaminant Transport Principles," presented to ITT/Hartford Insurance Co., January, 1996

"Environmental Site Assessments and the Due Diligence Process," presented to the AIG

Environmental seminar 'Legal Actions Against Facilities', March, 1998

"Brownfields Development, TACO and the SRP Process," presented to the Calumet Area Industrial Commission Executive Council, May, 1998

"Property Acquisition and the Due Diligence Process," presented to Cushman and Wakefield Corporate Services Department, August, 1998

"Brownfields Development, TACO and the SRP Process," presented to the Calumet Area Industrial Commission, March, 1999

"Risk Management Tools for Contaminated Site Development," presented to a construction industry seminar 'A View From the Top', February, 2000

"Voluntary Remediation of Brownfields/Risk Based Remediation" presented to Illinois Association of Realtors, October, 2002

"Blue Skies for Brownfields", Illinois Association of Realtors Magazine, May 2003

"Environmental Considerations Associated with Site Development", presented to Power Construction Operations Meeting, March 2006

"Weaver Consultants Group Environmental Manager AAI Roundtable", facilitator and presenter, June 2006

"Overview of AAI and ASTM E1527-05: The Changing Due Diligence Landscape", presented to Grand Rapids Chamber of Commerce Environmental Committee, January, 2007

"Weaver Consultants Group Environmental Manager Vapor Intrusion Roundtable", facilitator and presenter, July/November, 2007

"Brownfields Redevelopment: A Catalyst for Change", presented to Indian University Northwest, July, 2011

Professional Affiliations

National Brownfield Association
Air and Waste Management Association



APPENDIX B

BIBLIOGRAPHY OF DOCUMENTS CITED

APPENDIX B

BIBLIOGRAPHY OF DOCUMENTS CITED

1. Removal Action Work Plan, Revision 2; Southwestern Site Area – Sites 3, 4/5, and 6, Johns Manville Site, Waukegan, Illinois dated March 31, 2014, prepared for United States Environmental Protection Agency (USEPA) Region 5 and prepared by AECOM Technical Services, Inc.
2. Engineering Evaluation/Cost Analysis (EE/CA) Southwestern Site Area Sites 3, 4/5, and 6: Revision 4 and Addendum dated April 4, 2011 and October 31, 2011, prepared for Johns Manville and Commonwealth Edison Company and prepared by ARCADIS U.S., Inc.
3. Surface and Subsurface Characterization Site 2 and Site 3 Former Johns Manville Manufacturing Facility: Waukegan, Illinois dated December 10, 1999, prepared for Johns Manville and prepared by ELM Consulting, LLC.
4. Johns Manville Southwestern Site Area, Waukegan, Lake County, Illinois: Administrative Order on Consent, V-W-07-C-870 dated February 1, 2012 (initial version dated June 11, 2007), prepared for Johns Manville and prepared by USEPA Region 5.
5. Fourth Five-Year Review Report for Johns-Manville Site dated April 30, 2013, prepared for USEPA Region 5 and prepared by USEPA Region 5.
6. Enforcement Action Memorandum dated November 30, 2012, prepared for Johns Manville and Commonwealth Edison Company and prepared by USEPA Region 5.
7. Standard Specifications for Road and Bridge Construction dated January 1, 2012, prepared for Illinois Department of Transportation and prepared by Illinois Department of Transportation.
8. Results of Power Line Excavation; Greenwood Avenue Ramp adjacent to Southwestern Site Area; Waukegan Illinois dated July 8, 2008, prepared for Commonwealth Edison Company and Exelon Corporation and prepared by LFR Inc.
9. Brad Bradley (USEPA) to Denny Clinton (Johns Manville) dated July 10, 1998, *Exhibit C*.
10. Second Five-Year Review Report for Johns-Manville Site dated May 2, 2003, prepared for USEPA Region 5 and prepared by USEPA Region 5.
11. Bruce D. Ray (Johns Manville) to Margaret Herring (USEPA Region 5) dated July 1, 1999, *Response to CERCLA Section 104(e) Request*.
12. Barnhardt, M.L, 2010, *Surficial Geology of Waukegan Quadrangle, Lake County, Illinois: Illinois State Geological Society*, USGS-STATEMAP contract report, 2 sheets, 1:24,000.
13. Respondents Response Document to Engineering Evaluation/Cost Analysis (EE/CA), Revision 4, as Modified and Approved by USEPA; Southwestern Site Area, Waukegan,

APPENDIX B

BIBLIOGRAPHY OF DOCUMENTS CITED

Illinois dated March 12, 2012, prepared for USEPA Region 5 and prepared by AECOM Technical Services, Inc.

14. Cali, S., Scheff, P., and Sokas, R., 2006, *Illinois Beach State Park (IBSP): Determination of Asbestos Contamination in Beach Nourishment Sand Final Report of Findings*, Great Lakes Centers for Occupational and Environmental Safety and Health.
15. AECOM Johns Manville Site 3 and Site 6 Draft Cost Estimate_11Mar15 dated March 12, 2015, prepared for Weaver Consultants Group and prepared by AECOM Technical Services, Inc.
16. Williams, E.G.; Von Aspern, K., *Asbestos Cement Pipe: What if it Needs to be Replaced?*, HDR Engineering, Inc.
17. Modifications to the Engineering Evaluation/Cost Analysis dated February 2012, prepared for Johns Manville and prepared by USEPA Region 5.
18. Complainant's Motion for Leave to File it's First Amended Complaint, In the Matter of: Johns Manville, a Delaware Corporation, Complainant, vs. Illinois Department of Transportation, Respondent, PCB No. 14-3 dated March 12, 2014

APPENDIX C

AECOM REMOVAL ACTION WORKPLAN COST ESTIMATE

Sub-Project Cost Detail Report (with Markups)

Estimate Documentation for Site 3 (probable cost):

1. Dewatering and soil removal can be accomplished over Nicor gas line (2640 cy)
2. Decommissioning 8-inch North Shore Gas pipe and AT&T lines
3. Establish Clean utility corridor along City of Waukegan water main (330 LF)
4. Install 2-foot soil cover over entire site and site restoration (3.14 acres)
5. Dewatering and limit soil removal in northeastern corner (900 cy)

Nicor Gas Line excavation + city water main 3250 cy
 Northeastern corner soil excavation area 900 cy
 Clean corridor for North Shore Gas easement 794 cy
 Additional utility excavation pits for NSG and AT&T 500 cy
 Vegetative cover area 3.14 acre

Total Sub-Project Marked-up Cost: \$3,329,171.00

Description	Quantity	UOM	Material	Labor	Equip	Sub Bid	Extended Cost	Estimating Notes
AECOM - regulatory, field sampling, air monitoring	1	LS	\$0.00	\$0.00	\$0.00	\$180,000.00	\$180,000.00	
DMP - RSE	1	LS	\$0.00	\$0.00	\$0.00	\$60,000.00	\$60,000.00	
Utility abandonment - north shore gas	1	LS	\$0.00	\$0.00	\$0.00	\$188,940.00	\$188,940.00	25% of Oct 2013 Cost Estimate
Utility abandonment - AT&T	1	LS	\$0.00	\$0.00	\$0.00	\$111,655.60	\$111,655.60	35% of Oct. 28, 2014 cost estimate
Utility Installation - AT (Phase II)	1400	LF	\$0.00	\$0.00	\$0.00	\$75.00	\$105,000.00	Move utilities underground
Required soil excavation + water main removal	5444	CY	\$0.00	\$0.00	\$0.00	\$40.00	\$217,777.78	Excavation, transportation and landfill disposal
Dewatering operations plus water disposal (NSWRD)	21,600,000	GAL	\$0.00	\$0.00	\$0.00	\$0.10	\$2,160,000.00	30 days dewatering at 500 gpm, incl labor & equipment
Install road crossing - horizontal bore for dewatering pipe	100	LF	\$0.00	\$0.00	\$0.00	\$200.00	\$20,000.00	
Install new 10-inch HDPE water main	330	LF	\$0.00	\$0.00	\$0.00	\$60.00	\$19,800.00	
Geotextile	15,198	SY	\$0.00	\$0.00	\$0.00	\$2.50	\$37,994.00	
Borrow Pit Sand - backfill excavation	5444	CY	\$0.00	\$0.00	\$0.00	\$14.00	\$76,222.22	
Borrow Pit Sand - vegetative cover sand layer	2,633	CY	\$0.00	\$0.00	\$0.00	\$14.00	\$36,461.07	
Clay final cover material - 15-inch thickness	6,332	CY	\$0.00	\$0.00	\$0.00	\$8.00	\$50,658.67	
Imported Compost-Sand mix	1,266	CY	\$0.00	\$0.00	\$0.00	\$25.00	\$31,661.67	
Chain-link fencing	1,700	LF	\$0.00	\$0.00	\$0.00	\$20.00	\$34,000.00	

Sub-Project Cost Detail Report (with Markups)

Estimate Documentation for Site 6 (Probable Cost):

Ongoing remedial action for Site 6 portion of the Southwestern Sites

1. Excavation of ACM impacts
2. Excavation and Replacement of Water Main Clean Utility Corridor on N Side of Greenwood Ave (4417 CY)
3. Decommissioning of North Shore Gas main on N Side of Greenwood Ave
3. Conventional trench box installation of 10-inch water line (3482 LF)
4. Site restoration (1.30 AC)

Excavation for ACM impacts
 Trenching for City of Waukegan water main
 Excavation for additional ACM identified in 2014 sampling
 Excavation for utility pits (North Shore Gas, A&T)
 Length of new 10-inch HDPE water main
 Area of excavation for site restoration

7510 cy
 4901 cy
 2000 cy
 500 cy
 3482 LF
 1.80 AC

plus 30% contingency

Site 6 Sub-Project Total Cost: \$4,074,989.40

Description	Quantity	UOM	Material	Labor	Equip	Sub Bid	Extended Cost	Estimating Notes
AECOM - regulatory, soil sampling, air monitoring	1	LS	\$0.00	\$0.00	\$0.00	\$140,000.00	\$140,000.00	
DMP - RSE	1	LS	\$0.00	\$0.00	\$0.00	\$60,000.00	\$60,000.00	
Utility abandonment - north shore gas (cost estimate)	1	LS	\$0.00	\$0.00	\$0.00	\$377,875.00	\$377,875.00	50% of Oct 2013 quote
Utility abandonment and relocation - (Oct 2014 work order)	1	LS	\$0.00	\$0.00	\$0.00	\$207,360.40	\$207,360.40	65% of Oct. 28, 2014 quote
Utility Installation - ATT Fiber optic underground run (Phase II)	1400	LF	\$0.00	\$0.00	\$0.00	\$75.00	\$105,000.00	Move utilities underground
Required soil excavation + water main removal	14911	CY	\$0.00	\$0.00	\$0.00	\$40.00	\$596,440.00	Excavation, transportation, landfill disposal
Dewatering operations plus water disposal	20,160,000	LS	\$0.00	\$0.00	\$0.10	\$2,016,000.00	\$2,016,000.00	70 days dewatering at 500 gpm, incl labor & equipment
Install new 10-inch HDPE water main	3482	LF	\$0.00	\$0.00	\$60.00	\$208,920.00	\$208,920.00	
Borrow Pit Sand - excavation backfill	14,911	CY	\$0.00	\$0.00	\$0.00	\$208,754.00	\$208,754.00	
Vegetation	1	LS	\$0.00	\$0.00	\$0.00	\$15,000.00	\$15,000.00	
Chain-link fencing	3,482	LF	\$0.00	\$0.00	\$20.00	\$69,640.00	\$69,640.00	
Traffic control	1	LS	\$0.00	\$0.00	\$0.00	\$50,000.00	\$50,000.00	

EXHIBIT 2

July 27, 2015

EXPERT REBUTTAL REPORT OF DOUGLAS G. DORGAN JR.

**JOHNS MANVILLE VS
ILLINOIS DEPARTMENT OF TRANSPORTATION**

Former Johns Manville Facility
Site 3 and Site 6
Waukegan, Illinois

PREPARED BY



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Figure 1 – Construction Features

Figure 2 – Construction Features and Visual Transite Pipe

1 INTRODUCTION

1.1 Summary

The report presents my response to the Expert Rebuttal Report of Steven L. Gobelman, dated May 29, 2015 (herein referred to as Gobelman Report). I have elected to rebut certain “opinions” expressed by Mr. Gobelman in the Gobelman Report. In addition, I have addressed a number of “factual” statements contained in the Gobelman Report. My opinions in my initial report and this rebuttal report are made to a reasonable degree of scientific certainty. I reserve the right to supplement this and my original report if additional, relevant information becomes available.

1.2 Information Considered

For purposes of this report, in addition to reviewing the documents presented within the Gobelman Report, I have reviewed additional documents, including documents produced as a supplement to the original discovery, documents produced in response to a document request sent to Mr. Gobelman and the Deposition of Mr. Gobelman taken on July 10, 2015. Specific documents referenced herein have been cited and a Bibliography has been included at the end of the report.

2 REBUTTAL OPINIONS

The following provides my expert rebuttal opinions, followed by information in support of the various rebuttal opinions:

2.1 IDOT Placed Fill on Site 3 and Site 6 as Part of the Amstutz Expressway Construction Project

2.1.1 Gobelman Opinion on Who is Responsible for ACM Found Buried on Sites 3 and 6

Based upon the Gobelman Report¹ and his deposition², it is unclear to me whether he is expressing an opinion on whether IDOT is responsible for the asbestos containing material (ACM) found buried on Sites 3 and 6. If he is arguing that IDOT is not responsible, I disagree for many reasons. It is my opinion that it is more likely than not that the following occurred:

A) IDOT began work on the Amstutz Project (the Project) in approximately 1968 or 1969 at which time it surveyed Sites 3 and 6 in order to prepare the engineering drawings that were completed in September 1970. During this initial work, IDOT encountered concrete Transite pipe on top of the former JM parking lot. These pipes are evident in various aerial photographs available for Site 3, including an aerial photo dated June 11, 1970³ which was taken during the time the initial work was being done in conjunction with the Amstutz Project.

B) IDOT treated these concrete Transite pipes as typical concrete pipe and set them to the side when it began work on Site 3. Mr. Gobelman generally agrees with this statement² (Page 56).

C) At some point, IDOT crushed some of the concrete Transite pipe and used the crushed pipe as well as other materials that contained pieces of ACM as fill on Sites 3 and 6.

2.1.2 IDOT "Caused or Allowed" ACM on Sites 3 and 6

I disagree with Mr. Gobelman and opine to a reasonable degree of scientific certainty that IDOT "caused or allowed" the use of, the spreading, the disposal, the burying and the placement of ACM on Sites 3 and 6.

First, as noted in my original report and depicted on Figures 1 through 5 of that report, ACM is found in the soils within the areas that were excavated and filled or simply filled at the direction of IDOT and in accordance with the plans drafted by IDOT. Second, in response to a question posed by USEPA⁴ specifically regarding Site 3 (IDOT 000383),

IDOT's resident engineer admitted to dealing with "asbestos pipe during the project and burying some of it."⁵

Third, the Standard Specifications for Road and Bridge Construction⁶ that Mr. Gobelman admits applied to this Project (the Road and Bridge Specifications), encourage the use of materials found on a project site, including concrete pipe, and indicate that such concrete pipe shall not be wasted and can be buried in embankments, within the right of way or outside the rights of way with the permission of the resident engineer (Section 202.03). In fact, the specifications penalize the contractor if it does not use surplus material found onsite, such as concrete pipe, requiring that it be hauled offsite at their own expense (Section 202.03).

Fourth, it is clear that IDOT directed the contractor on what to build, how to build it and where to place cut and fill materials and where to dispose of materials. Contrary to Mr. Gobelman's opinion on page 8 of his Report, IDOT's role was not limited to one of oversight and it was not the contractor's responsibility alone to determine how materials would be managed. This is evident by reviewing the contract (Contract) in place with Bolander⁷. The Contract includes multiple references to ways in which the Engineer controls the work. By way of example, on Page 3 of the Contract it states "...placing porous granular material where required by the plans or as directed by the Engineer." On the same page where discussing removal and disposal of unsuitable material, it states "...removal of unsuitable material to the lines and grades shown on the plans or as directed by the engineer, ...". The Road and Bridge Specifications state under Section 106.05: "The source of supply of each material used shall be approved by the Engineer before delivery is started." Section 202.03 states "...materials that cannot be placed in the embankment shall be disposed of at locations designated by the Engineer within the right of way...". Again, in Section 202.03, it states "The manner of disposal of surplus excavated material, unstable and unsuitable material by the Contractor outside the right of way limits, shall be subject to the approval of the Engineer, ...". Mr. Gobelman further concedes this point in his deposition where he stated IDOT "had control of doing the work associated with" Site 3 and 6 (Page 53). For illustration purposes, the IDOT Construction Limits, IDOT Limits of Easement, and IDOT Right of Way have been shown relative to the Johns Manville Parking Lot on Figure 1.

Fifth, excess materials, including suitable obstructions, found on Site 3 would have been used as fill material on Site 3 as well as in the embankments of Site 6.

Sixth, Mr. Gobelman has provided no reasonable rebuttal to JM's argument that IDOT crushed and used the concrete Transite pipe as fill on Sites 3 and 6 as outlined above.

Seventh, Mr. Gobelman provides no plausible alternative explanation for how the ACM became buried on Sites 3 and 6.

2.2 Unsuitable Material on Site 3 is Contradicted by the Record

It seems that Mr. Gobelman states that IDOT would not have used the concrete Transite pipes as fill because "Excavated unstable and unsuitable materials were excavated from Site 3 would not have been placed back on Site 3; there was no room within the right of way for this material to be placed." First of all, it is unclear what unstable or unsuitable materials would have been excavated from Site 3. While the IDOT Engineering Drawings⁸ detail where unsuitable materials are located on other areas of the Project, they do not reference unstable or unsuitable materials required to be removed for the construction of Detour Road A. On Sheet 24 of the IDOT's Engineering Drawings (the Plan and Profile for Detour Road A), there is no notation for the removal of unsuitable materials associated with construction of Detour Road A. However, there are references to the cut and fill volumes anticipated for Detour Road A. On Sheet 24, a notation indicates that between Station 2+00 (the approximate intersection of Detour Road A and Sand Street) and 15+00 (the approximate intersection of Detour Road A and Greenwood Ave), there would be 5,148 cubic yards of cut, and 1,102 cubic yards of fill. The majority of the cut was necessary to remove a higher topographic feature between Stations 4+00 and 6+75 (located southwest of Site 3). The area of Detour Road A construction that transected Site 3, beginning at approximate Station 8+00, to Station 14+00, required fill to raise the existing site grades to the design elevation. Fill thicknesses ranged up to 2.5 feet in depth. In summary, for construction of Detour Road A across Site 3, no cut was planned, and fill was needed.

2.3 Fill on Site 3 More Likely Than Not Originated From Cut for the Detour Roads and Surplus/Obstructions Found on Site 3

It is more likely than not that the fill needed for Detour Road A came from cut materials from Detour Road A construction or other parts of the Project. Based upon Mr. Gobelman's explanation of the process, it would have made the most sense for materials in close proximity to Site 3 to serve as this fill. Assuming Mr. Gobelman's discussion of the sequencing is accurate, the available cut from the southwestern portion of Detour Road A more likely than not served as the fill for the portion of Detour Road A that cuts across the JM parking lot. Based upon the sampling results as well as other evidence, it is my opinion that pieces of concrete Transite pipe were mixed in with this fill on Site 3. In his deposition, Mr. Gobelman suggested that additional fill might have been needed after obliterating Detour Road A to restore the Site to a condition that existed prior to the construction (Page 148). Given that Transite pipe is found along the roadway, if it was not placed there with the initial fill, it is more likely than not that IDOT used leftover concrete Transite pipe pieces as part of the fill needed to restore the area after the road was obliterated. In fact, the environmental sampling results demonstrate that buried Transite pipe is generally aligned along Detour Road A and the Greenwood Avenue southern right of way. This is demonstrated on Figure 2 which shows the distribution of Visual Transite pipe observed in investigation borings/test pits

as it relates to the Detour Road and Greenwood Embankment construction. A majority of the locations where visual Transite pipe was observed was either within or immediately outside the Construction Limits, Right of Ways or Easements for Detour Road A and the Greenwood Avenue embankment. In a few instances, ACM materials were observed outside of the Construction Limits or Easements. In some instances, this ACM was described as “suspect” Transite pipe (e.g., SB-16). In addition, at select locations, materials were observed to possibly be ACM, but no testing was performed to confirm this suspicion.

Figure 2 shows that the concrete Transite pipe pieces were found predominantly within the Construction Limits, Easements, and Right of Way for Sites 3 and 6. In fact, most of the concrete Transite pipe was found within the Detour Road A and within the Greenwood Road embankment/right of way. While there is one sampling location (SB-07) where visual Transite was discovered outside the limits of the right of way, the Road and Bridge Construction Specifications indicate that the contractor can dispose of materials outside of the right of way with the permission of the engineer, which would explain why concrete Transite pipe is found outside the right of way. In the case of SB-07, the Transite pipe is close to the right of way and within the limits of the former parking lot. There is one sampling location (SB-16) where suspected Transite pipe was noted in the subsurface logs. The logs do not indicate why this sample was treated as suspect instead of identified as Transite pipe.

It is my understanding from Mr. Gobelman’s report that the right of way associated with Site 6, specifically the right of way on the south side of Greenwood Avenue, was originally owned by IDOT or its predecessor. Mr. Gobelman stated that he believes that the right of ways may now be owned by the City of Waukegan. I reserve the right to supplement this Report if additional information is discovered on this topic.

Further, there is no evidence in the record to indicate that concrete Transite pipe was deemed or should have been deemed unsuitable for use as fill. The Road and Bridge Specifications indicate that concrete found at a construction site can and should be used as fill material as discussed further below.

2.4 Mr. Gobelman’s Sequencing Statements do Not Support His Claims, But Rather Support My Opinion that ACM was used as Fill on Sites 3 and 6

Mr. Gobelman describes the sequencing of construction as it relates to cut and fill volumes for construction of the detour roads. While not explicitly stating that Detour Road A was constructed first, he infers this to be the case by indicating that the net cut volume from Detour Road A construction was “...most likely used in the construction of Detour Road B and C.” However, in Mr. Gobelman’s deposition, he acknowledges that Detour Road C or B could have been constructed first (Page 134), or that they could

have been constructed at the same time. In fact, information presented within an IDOT memorandum dated October 13, 1971⁹ (Bates Stamp IDOT 000247), indicates construction of Detour Road C first was being contemplated by the contractor. Mr. Gobelman also indicates in his deposition that only after completion of the Detour Roads would construction of the Greenwood Overpass be undertaken (Page 134).

In his Expert Report, Mr. Gobelman indicates that 4,046 cubic yards of soil would be available from construction of Detour Road A. Based on my review of the Engineering Drawings, it appears that for construction of the detour roads (A, B and C), a net total cut volume of 11,833 cubic yards of material was to be generated. Based upon Mr. Gobelman's description of the construction sequencing, this large volume of material would have been staged somewhere within the construction limits until it could be used on other parts of the Project (since completion of the Detour Road construction would precede construction of the Greenwood Avenue embankment).

From the environmental sampling data and other evidence, it is my opinion that crushed concrete Transite pipe was used in the construction of the Greenwood Avenue embankment. It is more likely than not that some of the excess cut material from the detour roads was also part of the fill. Construction of the Greenwood Avenue embankment required the excavation of unsuitable materials followed by backfilling to replace the excavated materials. In fact, the environmental investigations demonstrate that ACM, including concrete Transite pipe, is buried within the areas excavated and then filled by IDOT on Site 6. It should be noted that the only concrete Transite pipe observed on the south side of Site 6 was within samples collected from the area adjacent to Site 3. Further, the Road and Bridge Specifications expressly discuss the use of concrete in embankments.

2.5 Utilities Are Not Responsible for ACM On Sites 3 and 6

In his deposition, Mr. Gobelman says he has no opinion on how the ACM got buried on Site 3 and 6, but that "the installation of utilities would have potentially moved that [the ACM] into a different horizon from which it originally was in." (Page 66 and 67). Mr. Gobelman says that the location of asbestos lines up with the utilities. This is not supported by the record. Figure 2 shows the location of visual Transite pipe on Site 3 and Site 6. As shown on Figure 2 as well as Figure 3 in my original Report, the occurrence of Transite pipe and ACM in the subsurface generally aligns with the location of Detour Road A and the Greenwood Avenue right of way. From my review of the utilities onsite, the overall occurrence of ACM, including Transite pipe, does not align with any specific utility. Further, even if Mr. Gobelman's statements about utility work possibly moving pre-existing ACM were correct, it does not change the fact that IDOT placed the ACM there and abandoned it.

2.6 JM Did Not Build the Parking Lot out of ACM

On Page 7 of his Report, Mr. Gobelman states that “Based upon the materials found in the test pits and the fact that Johns Manville used Transite pipes to create curb bumpers and they used ACM to build the parking lot, economics would suggest that Johns Manville would have used all types of ACM material including Transite pipes to build the employee parking lot.” In his deposition, Mr. Gobelman says that his only evidence for his “factual” statement that JM built the parking lot out of ACM comes from one line in one 1999 consultant report¹⁰ which states that “according to Johns Manville, the parking lot was constructed with materials containing asbestos containing materials.” (Pages 67-69; 171). It is my understanding Mr. Gobelman had no direct communications with anyone involved in the drafting of the report (either the original source at Johns Manville or with the author of the report). However, I spoke with a representative of Johns Manville, Mr. Denny Clinton, the primary technical contact for ELM at the time their 1999 work was being performed. Mr. Clinton indicated that the sentence in ELM’s 1999 Report regarding the parking lot being “constructed with materials containing asbestos containing materials” was referring only to the concrete Transite pipes used as parking bumpers on the surface of the parking lot. It is his understanding, that the only ACM associated with construction of the parking lot is the aforementioned concrete Transite pipe. He never told ELM that the parking lot was constructed with ACM other than the concrete Transite pipe on the surface of the parking lot. He said that he has no evidence that prior to IDOT’s construction work, ACM existed below the parking lot.

Furthermore, it is more likely than not that between 1939 and 1960 ComEd used cinders and other materials available on its property to fill in the lower lying portions of Site 3. I have reviewed a series of aerial photographs that are available in the record. Observations associated with Site 3 conditions can generally be described as follows:

1. 1939¹¹ – It appears that little disturbance has occurred to the Site 3 area in this aerial photo. Some remnant dune and swale topography appears to be present suggesting that there had not been any filling or levelling of this part of the property. Some lineal low lying features that appear to be wet are located on the Property, including across the north end of the property that comprises Site 3.
2. 1946¹² – In this aerial photo, the property immediately south of Site 3 appears to have been covered with a dark material presumed to be cinders originating from the Commonwealth Edison power plant. Some changes in the topography of the northern portion of the Property, which contains Site 3, appear to have occurred. The vegetation that appears in the 1939 photo appears to have been cleared. The dune and swale features are no longer present suggesting filling of the interdunal areas between 1939 and 1946.

3. 1967¹³ - In this aerial photograph, the Johns Manville parking lot is clearly evident. In this aerial photo, the concrete Transite pipes used as parking bumpers are clearly evident. It appears that to the immediate east of the parking lot, a cinder access road is in operation. It appears that this road allows for the transport of materials, possibly fly ash and cinders, from the adjacent Commonwealth Edison power plant to what appears to be a pile of material on the southern portion of this Property (similar configuration as seen in 1946 photograph).
4. 1970³ – This aerial photo again shows the Johns Manville parking lot, however, in this photo, there are no cars parked in the lot. However, as with the previous photo, the Transite pipe parking bumpers are clearly evident. The Transite pipe being used to demarcate the outer boundary of the parking lot appears to have been reconfigured on the northwest corner of the parking lot. The remainder of the site appears to be generally consistent with the 1967 aerial photo.
5. 1972¹⁴ – Significant changes to the Site 3 conditions are evident in this aerial photo. The Johns Manville parking lot is no longer present, nor are its remnants easily recognizable. In addition, both Detour Roads A and B have been constructed across Site 3. Although difficult to discern with clarity, it appears that some ongoing construction is taking place along Greenwood Road, perhaps associated with construction of the embankment.
6. 1974¹⁵ – It appears in this aerial photo that the Amstutz project is largely complete, at least as it relates to Site 3 and Site 6. Detour Road A and B appear to have been removed, although the remnant of Detour Road A is evident in the photo. The Greenwood Road embankment has been constructed and appears to be complete. The cinder access road referenced earlier appears to still be present in its original location.

From review of these aerial photos, contrary to Mr. Gobelman's opinion, it appears that Site 3 was filled prior to the time when JM placed concrete Transite pipe on Site 3 to outline a parking lot area and to be used as parking bumpers.

Mr. Gobelman has indicated that Detour Road A was built on top an asphalt parking lot. This is contradicted by the absence of an asphalt layer being observed from soil borings advanced throughout the Johns Manville parking lot area. If the parking lot had been constructed out of ACM, the soil borings would have shown ACM throughout the parking lot area as well as at multiple depths. Here, the depths of ACM are consistent with the work performed by IDOT. Also, the ACM is located predominantly on the north side of Site 3 where it borders Site 6 (where the embankment was constructed) and along and close to Detour Road A. The soil borings also indicate the presence of cinders as fill material at depths of as much as five feet, which indicates historic filling of the area with cinders.

2.7 IDOT Did Not Build Detour Road A On Top of an Asphalt Parking Lot

Mr. Gobelman states that “Based upon the record, Johns Manville’s parking lot was never removed in order to construct Detour A road.” Mr. Gobelman appears to be arguing that the JM parking lot contained an asphalt cover and that IDOT just built on top of it, somehow suggesting that IDOT never touched any ACM during its work at Sites 3 and 6.

He supports this opinion by referencing to Contract Changes (Authorization #14)¹⁶, which recognized a deduction in the total square yards of 9” stabilized base course. Authorization #14 states “The deduction of the 9” stabilized base course is for areas where job conditions required the use of a variable thickness base. Some of this occurred at the intersection of the detours with Sand Street and Greenwood Avenue. The majority of the deductions though is where detour B crossed the Johns Manville parking lot. The existing bituminous material on the parking lot was sufficiently thick to serve as a base requiring only a 2” lift to strengthen and true up the surface for detour purpose. The additional binder course was substituted for the deleted 9” base course at a net savings as indicated.” In Mr. Gobelman’s Rebuttal Report, he indicates “Authorization #14 referred to Detour Road B crossing the Johns Manville parking lot, the document appears to contain a typo because Detour Road A crosses Johns Manville parking lot and not Detour B.”

It is my opinion that Mr. Gobelman is interpreting the information incorrectly and that the Contract Change (Authorization #14) is correctly referencing Detour Road B and not Detour Road A. This opinion is supported by two primary pieces of evidence. First, both Detour Road A and Detour Road B were designed to transect parking lots. Detour Road B cut across JM’s main parking lot on the north side of Greenwood Avenue. This parking lot was of asphaltic (bituminous) construction, and Detour Road B was constructed transecting this parking lot as shown on Sheet No. 25 of the IDOT Engineering Drawings.

Mr. Gobelman agrees that a parking lot transects Detour Road B (Page 153). However, in his deposition he maintained that the referenced Contract Change document (Authorization #14) contained the typo. His justification for this opinion was that “...the plans are already stated that there was a deviation going to be needed for the Detour Road B, so that’s already built into the plan. So there wouldn’t be a change order of deduction because of it. It’s already been - - It’s already built into the plans. So this is a deviation.” (Page 155). This statement is inconsistent with the documents and it is unclear what “deviation” Mr. Gobelman is referring to in the plans. Sheet No. 25 are the plans that controlled construction of Detour Road B. A notation on this plan for a “Typical Section” of the Detour Road states: “PARKING LOT – Remove 9 inch exist. and replace with 9 inch stabilized bituminous base.” This indicates that the original plans for construction anticipated the removal of the parking lot, and parking lot subbase to a

depth of at least 9 inches. This 9 inches of removed material would be replaced with 9 inches of stabilized bituminous base. However, based upon the subsequent Change Order¹⁰, a decision was made not to remove the 9 inches, and simply add a 2 inch binder course on top of the existing parking lot. The Change Order specifically says "The majority of the deductions though is where detour B crossed the Johns Manville parking lot. The existing bituminous material on the parking lot was sufficiently thick to serve as a base requiring only a 2" lift to strengthen and true up the surface for detour purposes. The additional binder course was substituted for the deleted 9" base course at a net savings as indicated." By contrast, on Sheet No. 24, which is the corresponding plan for Detour Road A, there are no references to or notations concerning removal of a parking lot. It only refers to the placement of granular subbase material where required as directed by the engineer.

Further, Mr. Gobelman's belief that the Change Order contains a typo is further refuted by references to the "existing bituminous material". There is no evidence in the record suggesting that the former JM parking lot on Site 3 was constructed with asphalt. If Mr. Gobelman's assertion were correct, then the former asphalt parking lot would still be present. However, this is not supported by the numerous soil borings that have been performed within the limits of the former Site 3 parking lot. These borings do not show an asphalt layer being present. Mr. Gobelman maintains that IDOT returned Site 3 to its pre-construction condition after it obliterated Detour Road A. If this were true, IDOT would have had to place an asphalt layer where the parking lot previously existed. Contrary to Mr. Gobelman's suggestions, cinders in soil borings are not evidence of a former asphalt parking lot (Page 160).

2.8 IDOT Specifications Allow for Placement of Materials within the Construction Limits and Right of Way

On Page 6 of the Gobelman Report, Mr. Gobelman provides an opinion that "Any materials on the surface of the parking lot include the Transite pipes used as curb bumpers would have been cleared in accordance with Article 201.01 of the Standard Specifications because this material would have been in the way and removed from the construction project as with any other obstructions." I am in partial agreement with Mr. Gobelman concerning this opinion. At the initiation of the project, the Transite pipes would likely have been treated as an obstruction that would have been removed to clear the project area for construction of Detour Road A and the Greenwood Avenue embankment. Contrary to Mr. Gobelman's opinion expressed in the Gobelman Report, in his deposition (Page 126), he acknowledges "...cleared material could be placed within the right of way with the engineer's approval." Mr. Gobelman's opinion that the pipes would have "...been in the way and removed from the construction project with any other obstructions" is further contradicted by IDOT's Road and Bridge Specifications.

Section 201.08 of the Road and Bridge Specifications says that obstructions shall be disposed of in accordance with 202.03. Section 202.03 requires that “All stones, stumps, boulders, broken concrete and related materials that cannot be placed in the embankment, shall be disposed of at locations designated by the Engineer within the right of way; in borrow sites on or adjacent to the right of way or at other locations outside the right of way.” Section 207.04 deals with what can be placed in an embankment. It says that “Embankments shall be constructed of materials that will compact and develop a stability satisfactory to the Engineer...When embankments are constructed of crushed material, *broken concrete* (emphasis added), stones, or rocks and earth, such materials shall be well distributed and sufficient earth or other fine material shall be incorporated with them when they are deposited to fill the interstices and provide solid embankment. ... Pieces of *concrete* not exceeding 2 square feet for any area of surface ... may be broken up, provided they are well embedded”. Accordingly, the concrete Transite pipe would have been subject to these requirements and would have remained on the site to be used either in the embankment, or would have been buried within or outside of the right of way. Mr. Gobelman in his deposition acknowledges that concrete can be used in embankments (Page 129). Pursuant to Section 202.03 of the Road and Bridge Specifications, the contractor would not have been paid to remove from the site the Transite pipe when it was required to be used or buried as part of the construction project. Suitable surplus material was removed at the contractor’s expense. The contractor had a monetary incentive to bury the concrete pipes. Further, the Road and Bridge Specifications state that “Excavated materials that are suitable shall be used in the construction of the roadway as far as practical, and no such material shall be wasted without the permission of the Engineer.” This is entirely consistent with information included in IDOT’s 104e response⁵. In response to a question concerning Site 3, they disclosed that their resident engineer on the project “recalled dealing with asbestos pipe during the project and burying some of it.”

From a practical perspective, the Site 3 Parking Lot was intersected by, and surrounded by, construction being undertaken/directed by IDOT (see Figure 1). Detour Road A transected the Site 3 Parking Lot, Detour Road B was aligned immediately to the west of the Site 3 Parking Lot, and work on the Greenwood Avenue embankment was occurring immediately north of the Site 3 Parking Lot. This places the Site 3 parking lot generally within a triangle comprised of three major elements of the Amstutz Project. In that the Road and Bridge Specifications required concrete pipe to remain on the site (as material for embankment construction, or disposed of within or outside of the right of way), there is a large area surrounding the Site 3 parking lot, even within the right of way, where the concrete pipe could have been placed.

2.9 EPA Concern with Frost Heave and ACM Exposure was Concern Driving Remedy Selection

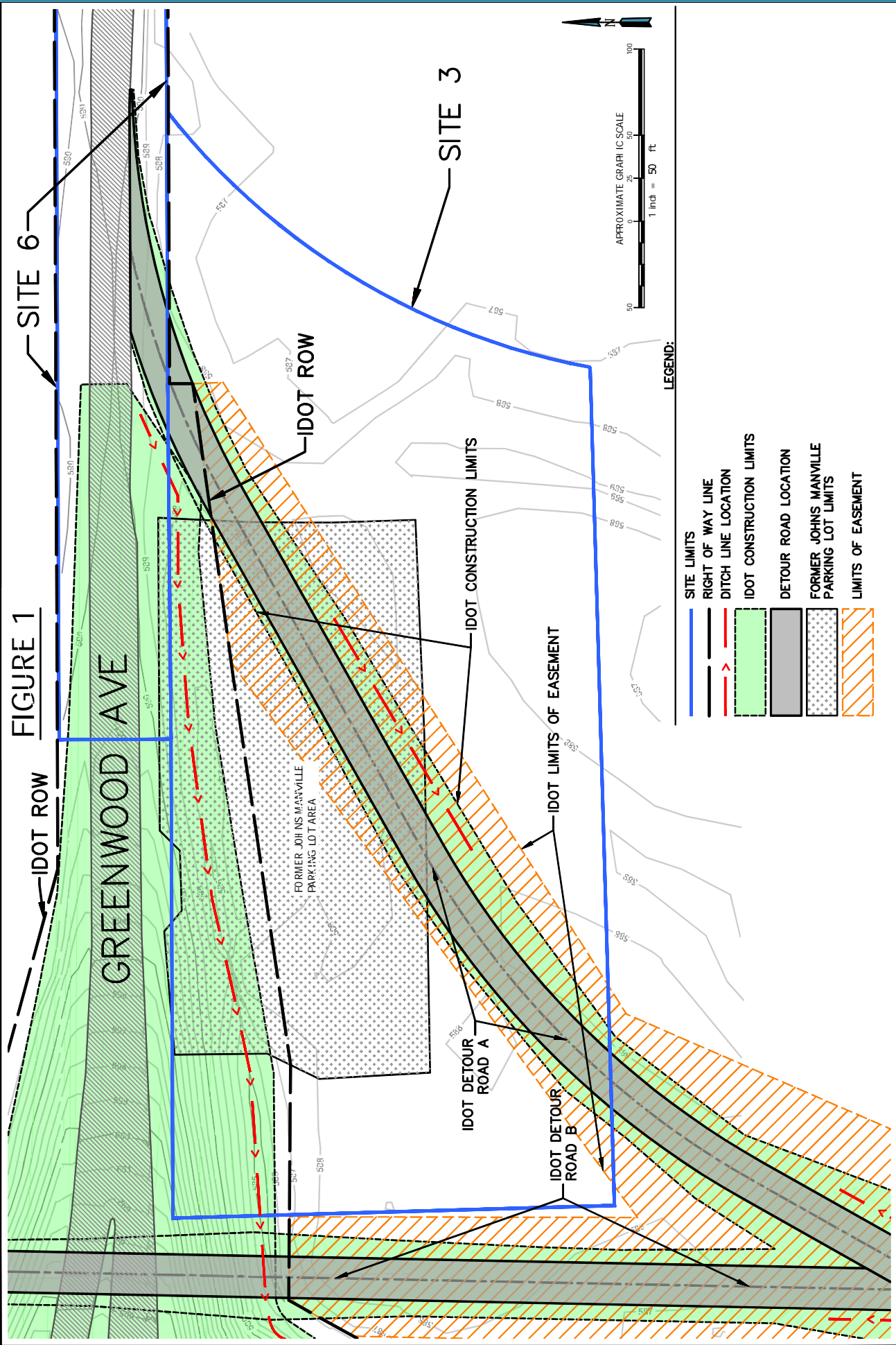
Mr. Gobelman states in his report that “The potential freeze thaw cycles did not play a part in USEPA’s decision making process because the freeze thaw cycles would only come into play if no remedial action was conducted.” However, he contradicts this opinion in his deposition (Pages 214 and 215). He admits that “EPA was concerned with buried asbestos moving up to the surface and then exposing people on the surface.” In my expert report, I opined that buried ACM is driving the remedy, whether it’s above the utility corridor or not.

The opinion offered in my Expert Report related to the scope of the remedial action being more expansive than would have been necessary if the Transite pipe were not present buried in the soils at Site 3 and Site 6. The final selected remedy for Site 3 requires complete removal of soils from a limited area, construction of an engineered barrier over a large area of Site 3, and creation of clean corridors surrounding select onsite utilities. In the absence of IDOT causing or allowing the Transite pipe to be crushed, spread, used, buried, abandoned and disposed of, I continue to believe the more expansive remedial action would not have been required by USEPA. The remedial action would have been limited to the original planned soil barrier over portions of Site 3, which would have been significantly less costly to implement.

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13. 1967 Aerial Photograph, Bates Stamp IDOT 002634
14. 1972 Aerial Photograph, Bates Stamp IDOT 002636

15. 1974 Aerial Photograph, Bates Stamp JM0005835
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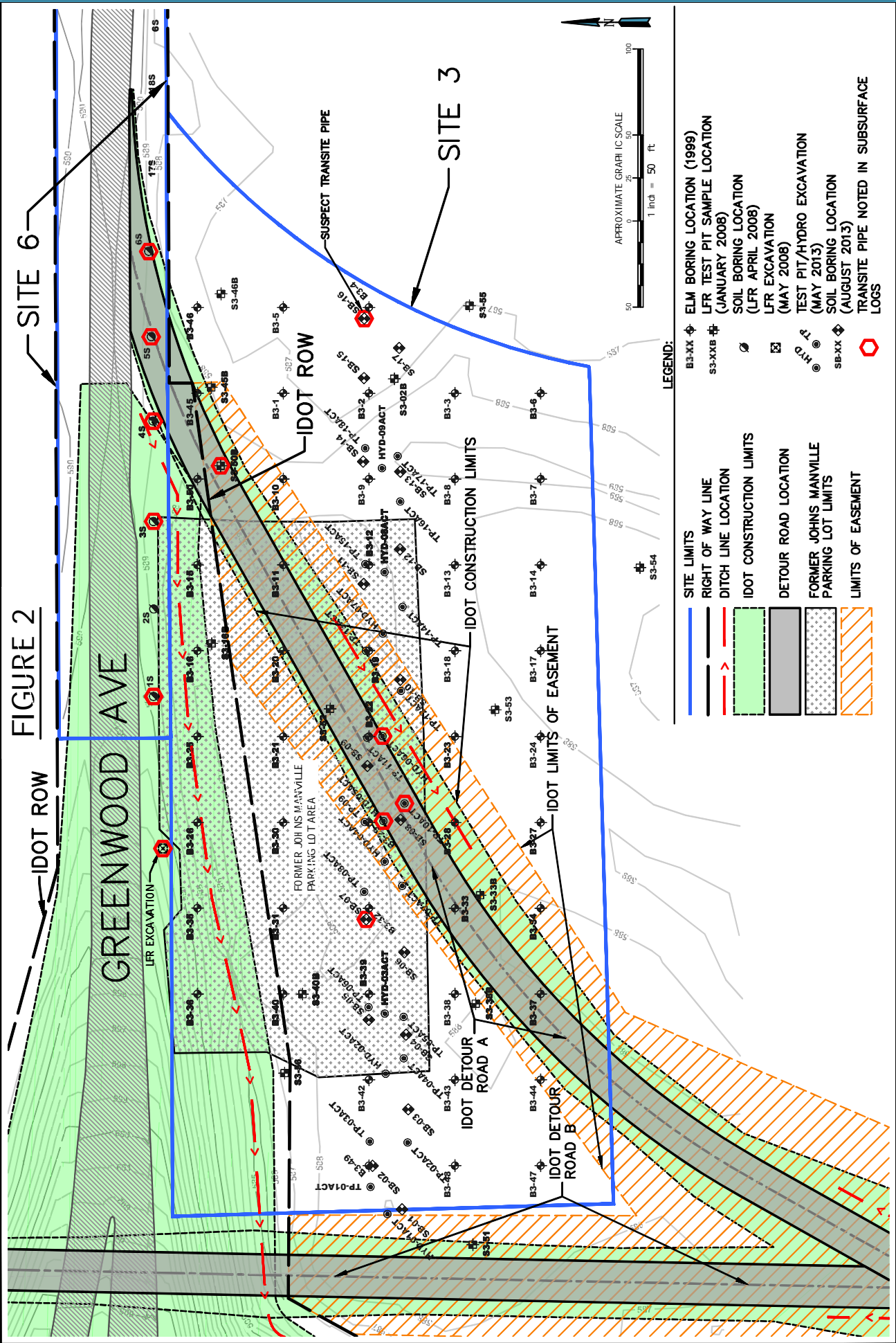


EXHIBIT 3

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

In the Matter Of:)	
)	
JOHNS MANVILLE, a Delaware corporation,)	
)	
Complainant,)	PCB No. 14-3
)	
v.)	
)	
ILLINOIS DEPARTMENT OF TRANSPORTATION,)	
)	
Respondent.)	

AFFIDAVIT OF DOUGLAS G. DORGAN, JR.

I, Douglas G. Dorgan, Jr., hereby declare and state as follows:

1. I am over the age of twenty-one, of sound mind, and am capable of making this declaration.

2. I am currently a Principal with Weaver Consultants Group responsible for managing the Environmental Practice Group, and the Site Building and Infrastructure Consulting Practice Group. In these positions, I have personal knowledge about what types of records environmental consultants and experts typically and reasonably rely upon in assessing the cause of contamination on a particular site or in a particular area. If called as a witness, I can competently testify to the matters stated herein. The statements set forth in this affidavit are true and correct, to the best of my knowledge and belief based upon my experience as an environmental consultant and expert.

3. In working for engineering firms and as an environmental consultant, including for engineering firms since 1986, I have experience and knowledge in the fields of

environmental consulting; engineering; geology; remedial investigations; and the planning, design, and construction of industrial, commercial and institutional properties.

4. After graduating from Eastern Illinois University in 1986 with a Bachelor of Science in Earth Science, I began working for the engineering firm Eldredge Engineering and Associates, Inc., which was later acquired by Wehran Engineering Corporation. My work included engineering design assignments under the supervision of Professional Engineers. My project responsibilities included, but were not limited to, design of grading plans, stormwater conveyance systems (including plans and profiles), roadways, environmental control systems, and end use plans. In addition, I performed a wide variety of field services including construction quality assurance testing, surveying, environmental monitoring, soil borings and soil sample collection, groundwater, sediment and surface water sampling and physical soil testing.

5. Moreover, while working for Eldredge Engineering and Associates, Inc. and Wehran Engineering Corporation, I was responsible for drafting site plans, including land use plans, cross-sections, soil profiles, tables, and figures. I did this by reviewing design drawings, engineering documents, and grading plans, among other documents. I was also responsible for designing the site plans myself. This involved designing grading plans, laying contours and tying contours into existing site features, designing storm water drainage ditches, preparing final cover designs, and reviewing cross sections and soil profiles. I was also responsible for construction quality assurance on many of these projects.

6. In 1995, I began working for Weaver Boos Consultants, which later became Weaver Consultants Group. There, I have supervised the completion of numerous projects involving, by way of example, multi-phase environmental assessments, remediation planning,

design and implementation oversight, and a range of permitting and compliance tasks such as development of stormwater pollution prevention plans (“SWPPP”) and spill control and counter measure plans (“SPCC”).

7. Additionally, for the past five years, I have served as Principal for Weaver Consultants Group’s Site Building and Infrastructure Consulting Practice Group. The Site Building and Infrastructure Consulting Practice Group focuses largely on site development engineering. In my role as Principal, I am responsible for the supervision of projects which involve engineering; surveying; site development; grading; creating utility layouts; site ingress and egress planning; infrastructure design; roadway and highway design; development of general and technical construction specifications; coordinating contractor bidding and bid selection; and coordinating and monitoring construction efforts,. In supervising the design and construction of engineering projects, I often review partial and final engineering and design drawings, draft specifications, evaluate bid documents, and study historical documents (including site plans, cross-sections, soil profiles, land use plans, and aerial photographs). In more current role, for example, I frequently review site design plans for a major development on the east coast that is undergoing environmental cleanup and economic redevelopment. My work requires a careful review of site development planning documents, including site plans, grading plans, utility layout plans, stormwater conveyance plans, and construction specifications and details, particularly with respect to assessing possible concerns with existing site environmental conditions.

8. I also have substantial experience with construction projects involving environmental components. From 1986 to the present, my work has included developing general and technical specifications for construction projects; preparing bid documents for construction

projects; construction contractor selection; construction oversight; and construction monitoring. From 1986 to the early 1990s, I supported projects involving the design and construction of on-site roadways. In this work, I drafted technical specifications, cross sections, bid specifications, and other documents relating to the roadway project at hand. My ongoing project work still includes design and construction of on-site roadways, as well as working with state and local agencies and municipalities related to public roadways and right-of-ways. I supervise a team that designs and builds, among other things, roads and highways. Recently, a team I supervise completed a preliminary access road design that allows a site owner to limit impacts to the local public roadway system, mitigating hazards associated with the historic need to transverse the public roadway. Weaver Consultants provided the preliminary design for this project including layout plans and details; drainage feature plans and details; pavement subgrade preparation details; and pavement width and construction specifications. The next phase of the project will progress to signal design and county approval submittals, and ultimately we will be engaged to provide construction oversight.

9. During my tenure with Eldredge Engineering, and later Wehran Engineering, which was subsequently acquired by EMCON, I completed my Masters Degree in Geography, with a Concentration in Environmental Science. My Masters Degree was earned in 1994 from Northern Illinois University. Additionally, during this time, I became a Licensed Professional Geologist in both the State of Illinois and Indiana. As a Licensed Professional Geologist, I have extensive experience in reviewing, and have reviewed many soil cross sections. Many of the projects that I work on involve generating soil cross sections and evaluating soil materials, including fill material. I am very familiar with and have drafted and/or reviewed numerous documents similar to Sheets 4, 5, 71, 72 in the IDOT Engineering Drawings/Plans for the

Amstutz Highway construction project. At times, I have also compared soil boring tests to engineering drawings. It is very common for geologists to perform this type of work.

10. All of the documents that I reviewed in preparing my Expert Report and Expert Rebuttal Report in this case were the types of documents that I had seen or had experience analyzing previously. In fact, I have drafted and designed many of these types of documents myself, including soil profiles and construction specifications, as well as site and construction plans.

11. In trying to determine the cause of contamination, an environmental expert would reasonably rely upon a response to a Comprehensive Environmental, Response, Compensation, and Liability Act ("CERCLA") Section 104(e) request that asks questions about conduct that might have caused the contamination in question. An environmental expert would also reasonably and typically rely upon historical documents, including aerial photographs, engineering drawings, construction specifications, administrative records (including those of the USEPA), and soil investigation reports and boring logs, to the extent available, in making this determination.

12. I reviewed and relied upon IDOT's November 27, 2000 response to the USEPA's CERCLA Section 104(e) request while preparing my expert report dated March 16, 2015. The information contained therein was consistent with the other evidence reviewed and relied upon in my Expert Report indicating that IDOT caused the contamination. I also relied upon IDOT's 104(e) response in forming the opinions set forth in my Expert Rebuttal Report dated July 27, 2015.

Under penalties as provided by law pursuant to Section 1-109 of the Code of Civil Procedure, the undersigned certifies that the statements set forth in this instrument are true and

correct, except as to matters therein stated to be on information and belief and as to such matters the undersigned certifies as aforesaid that he verily believes the same to be true.

Dated: February 15, 2016



Douglas G. Dorgan, Jr.