SCS ENGINEERS

July 7, 2023 File No. 25222081.00

Ms. Cindy Koepke Wisconsin Department of Natural Resources 3911 Fish Hatchery Road Fitchburg, WI 53711

Subject: Materials Management Plan Hartmeyer Property Development 2007 Roth Street, Madison, WI BRRTS #s 03-13-000053 and 02-13-580328

Dear Ms. Koepke:

This Materials Management Plan (MMP) was prepared by SCS Engineers (SCS) for the proposed development of the eastern portion of the Hartmeyer Property located at 2007 Roth Street in Madison, Wisconsin (hereafter the "Property") (**Figure 1**). Lincoln Avenue Capital is planning to develop two 4-story buildings on the property, with construction expected to start in spring 2023.

Since sometime after 1955, Oscar Mayer and/or Kraft Heinz used the eastern portion of the property for employee parking and two aboveground storage tanks (ASTs) for fuel oil. The last of the fuel oil storage tanks was removed in 2016. Coal storage activities reportedly occurred in one area in the 1960s for some time period. Petroleum-impacted soils and groundwater were identified, investigated, and remediated following a fuel oil spill from piping associated with the fuel oil ASTs in 1989 (closed BRRTS Case #03-13-000053). A second BRRTS case (02-13-580328) was opened following the discovery of additional fuel oil contamination during the removal of the last AST in 2016. Although the second BRRTS case was deemed ready for closure following investigation and remediation in 2019, the case remains open with respect to polycyclic aromatic hydrocarbon and arsenic contamination in shallow soil identified during a Phase 2 Environmental Site Assessment in 2019.

The MMP presents proposed strategies for handling contaminated soil and, if necessary, groundwater while developing the Property. We believe the management options in this MMP will prepare the Property for reuse and also provide adequate protection to human health and the environment. A check for the required review fee of \$700 will be provided under separate cover.

Please contact us at 608-224-2830 if you have any questions or comments regarding the materials management at the Property.

Sincerely,

Ray Tierney, PG Vice President SCS Engineers

Eric Oelkers, PG Senior Project Manager/Hydrogeologist SCS Engineers



Ms. Cindy Koepke July 7, 2023 Page 2

EO/jsn_REO/RT

- cc: Kevin McDonell and Kyle Brasser, Lincoln Avenue Capital Management Brynn Bemis, City of Madison
- Encl. Technical Assistance Request Form 4400-237 Materials Management Plan

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Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 10/21)

Page 1 of 7

Notice: Use this form to request **a written response (on agency letterhead)** from the Department of Natural Resources (DNR) regarding technical assistance, a post-closure change to a site, a specialized agreement or liability clarification for Property with known or suspected environmental contamination. A fee will be required as is authorized by s. 292.55, Wis. Stats., and NR 749, Wis. Adm. Code., unless noted in the instructions below. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Public Records law [ss. 19.31 - 19.39, Wis. Stats.].

Definitions

"Property" refers to the subject Property that is perceived to have been or has been impacted by the discharge of hazardous substances.

"Liability Clarification" refers to a written determination by the Department provided in response to a request made on this form. The response clarifies whether a person is or may become liable for the environmental contamination of a Property, as provided in s. 292.55, Wis. Stats.

"Technical Assistance" refers to the Department's assistance or comments on the planning and implementation of an environmental investigation or environmental cleanup on a Property in response to a request made on this form as provided in s. 292.55, Wis. Stats.

"Post-closure modification" refers to changes to Property boundaries and/or continuing obligations for Properties or sites that received closure letters for which continuing obligations have been applied or where contamination remains. Many, but not all, of these sites are included on the GIS Registry layer of RR Sites Map to provide public notice of residual contamination and continuing obligations.

Select the Correct Form

This from should be used to request the following from the DNR:

- Technical Assistance
- Liability Clarification
- Post-Closure Modifications
- Specialized Agreements (tax cancellation, negotiated agreements, etc.)

Do not use this form if one of the following applies:

- Request for an off-site liability exemption or clarification for Property that has been or is perceived to be contaminated by one or more hazardous substances that originated on another Property containing the source of the contamination. Use DNR's Off-Site Liability Exemption and Liability Clarification Application Form 4400-201.
- Submittal of an Environmental Assessment for the Lender Liability Exemption, s 292.21, Wis. Stats., if no response or review by DNR is requested. Use the Lender Liability Exemption Environmental Assessment Tracking Form 4400-196.
- Request for an exemption to develop on a historic fill site or licensed landfill. Use DNR's Form 4400-226 or 4400-226A.
- Request for closure for Property where the investigation and cleanup actions are completed. Use DNR's Case Closure GIS Registry Form 4400-202.

All forms, publications and additional information are available on the internet at: <u>dnr.wi.gov/topic/Brownfields/Pubs.html</u>.

Instructions

- 1. Complete sections 1, 2, 6 and 7 for all requests. Be sure to provide adequate and complete information.
- 2. Select the type of assistance requested: Section 3 for technical assistance or post-closure modifications, Section 4 for a written determination or clarification of environmental liabilities; or Section 5 for a specialized agreement.
- 3. Include the fee payment that is listed in Section 3, 4, or 5, unless you are a "Voluntary Party" enrolled in the Voluntary Party Liability Exemption Program **and** the questions in Section 2 direct otherwise. Information on to whom and where to send the fee is found in Section 8 of this form.
- 4. Send the completed request, supporting materials and the fee to the appropriate DNR regional office where the Property is located. See the map on the last page of this form. A paper copy of the signed form and all reports and supporting materials shall be sent with an electronic copy of the form and supporting materials on a compact disk. For electronic document submittal requirements see: <u>http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf</u>"

The time required for DNR's determination varies depending on the complexity of the site, and the clarity and completeness of the request and supporting documentation.

Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request Form 4400-237 (R 10/21) Page 2 of 7

Section 1. Contact and Recipient Information					
Requester Information					
This is the person requesting technical assistance or a post-closure modification review, that his or her liability be clarified or a specialized agreement and is identified as the requester in Section 7. DNR will address its response letter to this person.					
Last Name	First	MI	Organization/ Business Name		
McDonell	Kevin		Lincoln Avenue Capital Management, I	LLC	
Mailing Address	•		City	State	ZIP Code
401 Wilshire Boulevard, Suite	e 1070		Santa Monica	CA	90401
Phone # (include area code)	Fax # (include area code)		Email		
(262) 496-9796		kevin@lincolnavecap.com			
The requester listed above: (selec	ct all that apply)				
Is currently the owner Is considering selling the Property					
Is renting or leasing the Property		S considering acquiring the Property			
Is a lender with a mortgagee interest in the Property					
Other. Explain the status of the Property with respect to the applicant:					

Contact Information (to be	contacted with questions a	about	this request)	🗙 Select if sar	ne as requester	
Contact Last Name	First	MI	Organization/ Business Name			
McDonell	Kevin		Lincoln Avenue Capital Mana	agement, LLC		
Mailing Address			City	State	ZIP Code	
401 Wilshire Boulevard, Sui	ite 1070		Santa Monica	CA	90401	
Phone # (include area code)	Fax # (include area code)		Email			
(262) 496-9796			kevin@lincolnavecap.com			
Environmental Consultar	nt (if applicable)					
Contact Last Name	First	MI	Organization/ Business Name			
Oelkers	Eric	Κ	SCS Engineers			
Mailing Address			City	State	ZIP Code	
2830 Dairy Drive			Madison	WI	53718	
Phone # (include area code)	Fax # (include area code)		Email			
(608) 216-7341	(608) 224-2839		eoelkers@scsengineers.com			
X Property Owner (if differe	ent from requester)					
Contact Last Name	First	MI	Organization/ Business Name			
Pucci	Mike		Kraft Heinz			
Mailing Address			City	State	ZIP Code	
Phone # (include area code)	Fax # (include area code)		Email	•		
(847) 646-3846			mpucci@kraftheinz.com			
Section 2. Property Informat	ion					
Property Name				FID No. (if know	ו)	
Hartmeyer Property				113004650		
BRRTS No. (if known)			Parcel Identification Number	-		
02-13-580328			08103130099			

Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

		F	⁻ orm 4400-237 (R 10/2	1)		Page 3 of 7
Street Addre	ss		City		State 2	ZIP Code
2007 Roth	Street		Madison		WI	53704
County		Municipality where the Property is	located	Property is composed of:		erty Size Acres
Dane		\odot City \bigcirc Town \bigcirc Village of M	ladison	Single tax parcel parcel parcels	^{ax} 29.2	
plan accor		a specific date? (e.g., Property clos	ing date) Note: Most	requests are completed with	nin 60 da	ys. Please
	0	tod by:				
	Date reques Reason:	led by				
	ricuson.					
No. Inc. Yes. D Fill out th Section	clude the fee th o not include a e information i i 3. Technical A	as a Voluntary Party in the Volunt at is required for your request in separate fee. This request will be n Section 3, 4 or 5 which corresp assistance or Post-Closure Modif arification; or Section 5. Specializ	a Section 3, 4 or 5. billed separately thr bonds with the type fications;	ough the VPLE Program.		
Section 3	Request for Te	chnical Assistance or Post-Clos	sure Modification			
		assistance requested: [Numbers in		/I DNR Use1		
□ N	o Further Action	Letter (NFA) (Immediate Actions) action after a discharge of a hazard	- NR 708.09, [183]	- Include a fee of \$350. Use		
		C C		•		•
	 Review of Site Investigation Work Plan - NR 716.09, [135] - Include a fee of \$700. Review of Site Investigation Report - NR 716.15, [137] - Include a fee of \$1050. 					
		e-Specific Soil Cleanup Standard - I	-			
		edial Action Options Report - NR 7	-	-		
		edial Action Design Report - NR 72				
		edial Action Documentation Report				
		-term Monitoring Plan - NR 724.17				
	e e	eration and Maintenance Plan - NR				
		ce - s. 292.55, Wis. Stats. [97] (For	-	an abandoned landfill use Fo	orm 4400)-226)
		nical Assistance Meeting - Include				
		Determination - Include a fee of				
⊠ 0	ther Technical A	Assistance - Include a fee of \$700	. Explain your reque	st in an attachment.		
Post-Clos	ure Modificatior	ns - NR 727, [181]				
P si	ost-Closure Mod	difications: Modification to Property he GIS Registry. This also includes				
	Include a fee	of \$300 for sites with residual soil of	contamination; and			
Ľ	Include a fee continuing ob	of \$350 for sites with residual grou ligations.	ndwater contamination	on, monitoring wells or for va	apor intru	ision
c d	hange to a Prop ocuments may l	ion of the changes you are proposi erty, site or continuing obligation w be submitted later in the approval p Liability Clarification	/ill result in revised m	aps, maintenance plans or p		

Select the type of liability clarification requested. Use the available space given or attach information, explanations, or specific questions that you need answered in DNR's reply. Complete Sections 6 and 7 of this form. [Numbers in brackets are for DNR Use]

Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 10/21)

Lender" liability exemption clarification - s. 292.21, Wis. Stats. [686]

✤ Include a fee of \$700.

Provide the following documentation:

- (1) ownership status of the real Property, and/or the personal Property and fixtures;
- (2) an environmental assessment, in accordance with s. 292.21, Wis. Stats.;
- (3) the date the environmental assessment was conducted by the lender;
- (4) the date of the Property acquisition; for foreclosure actions, include a copy of the signed and dated court order confirming the sheriff's sale.
- (5) documentation showing how the Property was acquired and the steps followed under the appropriate state statutes.
- (6) a copy of the Property deed with the correct legal description; and,
- (7) the Lender Liability Exemption Environmental Assessment Tracking Form (Form 4400-196).
- (8) If no sampling was done, please provide reasoning as to why it was **not** conducted. Include this either in the accompanying environmental assessment or as an attachment to this form, and cite language in s. 292. 21(1)(c)2.,h.-i., Wis. Stats.:
 - h. The collection and analysis of representative samples of soil or other materials in the ground that are suspected of being contaminated based on observations made during a visual inspection of the real Property or based on aerial photographs, or other information available to the lender, including stained or discolored soil or other materials in the ground and including soil or materials in the ground in areas with dead or distressed vegetation. The collection and analysis shall identify contaminants in the soil or other materials in the ground and shall quantify concentrations.
 - i. The collection and analysis of representative samples of unknown wastes or potentially hazardous substances found on the real Property and the determination of concentrations of hazardous waste and hazardous substances found in tanks, drums or other containers or in piles or lagoons on the real Property.

"Representative" liability exemption clarification (e.g. trustees, receivers, etc.) - s. 292.21, Wis. Stats. [686]

Include a fee of \$700.

Provide the following documentation:

- (1) ownership status of the Property;
- (2) the date of Property acquisition by the representative;
- (3) the means by which the Property was acquired;
- (4) documentation that the representative has no beneficial interest in any entity that owns, possesses, or controls the Property;
- (5) documentation that the representative has not caused any discharge of a hazardous substance on the Property; and
- (6) a copy of the Property deed with the correct legal description.

Clarification of local governmental unit (LGU) liability exemption at sites with: (select all that apply)

- hazardous substances spills s. 292.11(9)(e), Wis. Stats. [649];
- Perceived environmental contamination [649];
- hazardous waste s. 292.24 (2), Wis. Stats. [649]; and/or
- solid waste s. 292.23 (2), Wis. Stats. [649].

Include a fee of \$700, a summary of the environmental liability clarification being requested, and the following:

- (1) clear supporting documentation showing the acquisition method used, and the steps followed under the appropriate state statute(s).
- (2) current and proposed ownership status of the Property;
- (3) date and means by which the Property was acquired by the LGU, where applicable;
- (4) a map and the 1/4, 1/4 section location of the Property;
- (5) summary of current uses of the Property;
- (6) intended or potential use(s) of the Property;
- (7) descriptions of other investigations that have taken place on the Property; and
- (8) (for solid waste clarifications) a summary of the license history of the facility.

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Section 4. Request for Liability Clarification (cont.)	
Lease liability clarification - s. 292.55, Wis. Stats. [646]	
Include a fee of \$700 for a single Property, or \$1400 for multiple Properties and the information	listed below:
(1) a copy of the proposed lease;	
(2) the name of the current owner of the Property and the person who will lease the Property;	
 (3) a description of the lease holder's association with any persons who have possession, control, or caus hazardous substance on the Property; 	ed a discharge of a
(4) map(s) showing the Property location and any suspected or known sources of contamination detected	I on the Property;
(5) a description of the intended use of the Property by the lease holder, with reference to the maps to ind be used. Explain how the use will not interfere with any future investigation or cleanup at the Property;	
(6) all reports or investigations (e.g. Phase I and Phase II Environmental Assessments and/or Site Investig conducted under s. NR 716, Wis. Adm. Code) that identify areas of the Property where a discharge has	
General or other environmental liability clarification - s. 292.55, Wis. Stats. [682] - Explain your request below. Include a fee of \$700 and an adequate summary of relevant environmental work to date.	
No Action Required (NAR) - NR 716.05, [682]	
✤ Include a fee of \$700.	
Use where an environmental discharge has or has not occurred, and applicant wants a DNR determination assessment or clean-up work is required. Usually this is requested after a Phase I and Phase II environment been conducted; the assessment reports should be submitted with this form. This is not a closure letter.	
Clarify the liability associated with a "closed" Property - s. 292.55, Wis. Stats. [682]	
☆ Include a fee of \$700.	
- Include a copy of any closure documents if a state agency other than DNR approved the closure.	
Use this space or attach additional sheets to provide necessary information, explanations or specific questions to be	answered by the DNR.

Section 5. Request for a Specialized Agreement

Select the type of agreement needed. Include the appropriate draft agreements and supporting materials. Complete Sections 6 and 7 of this form. More information and model draft agreements are available at: <u>dnr.wi.gov/topic/Brownfields/lgu.html#tabx4</u>.

- Tax cancellation agreement s. 75.105(2)(d), Wis. Stats. [654]
 - Include a fee of \$700, and the information listed below:
 - (1) Phase I and II Environmental Site Assessment Reports,
 - $\left(2\right)$ a copy of the Property deed with the correct legal description.

Agreement for assignment of tax foreclosure judgement - s.75.106, Wis. Stats. [666]

Include a fee of \$700, and the information listed below:

(1) Phase I and II Environmental Site Assessment Reports,

 $\left(2\right)$ a copy of the Property deed with the correct legal description.

Negotiated agreement - Enforceable contract for non-emergency remediation - s. 292.11(7)(d) and (e), Wis. Stats. [630]

✤ Include a fee of \$1400, and the information listed below:

- (1) a draft schedule for remediation; and,
- (2) the name, mailing address, phone and email for each party to the agreement.

Section 6. Other Information Submitted	
Identify all materials that are included with this request.	
Send both a paper copy of the signed form and all reports and support and all reports, including Environmental Site Assessment Reports, a	
Include one copy of any document from any state agency files that y request. The person submitting this request is responsible for contac reports or information.	
Phase I Environmental Site Assessment Report - Date:	
Phase II Environmental Site Assessment Report - Date:	
Legal Description of Property (required for all liability requests and spe	cialized agreements)
Map of the Property (required for all liability requests and specialized a	agreements)
Analytical results of the following sampled media: Select all that apply	and include date of collection.
Groundwater Soil Sediment Other medi	um - Describe:
Date of Collection:	
A copy of the closure letter and submittal materials	
Draft tax cancellation agreement	
Draft agreement for assignment of tax foreclosure judgment	
Other report(s) or information - Describe: Material Management Pla	n
For Property with newly identified discharges of hazardous substances only: I been sent to the DNR as required by s. NR 706.05(1)(b), Wis. Adm. Code?	Has a notification of a discharge of a hazardous substance
○ Yes - Date (if known):	
○ No	
Note: The Notification for Hazardous Substance Discharge Form - Non-Eme RR Program Submittal Portal application. Directions for using the form <u>Submittal Portal web page</u> .	
Section 7. Certification by the Person who completed this form	
I am the person submitting this request (requester)	
│ I prepared this request for: Kevin McDonell	
Requester Name	-
l certify that I am familiar with the information submitted on this request, and th	hat the information on and included with this request is
true, accurate and complete to the best of my knowledge. I also certify I have	
Crio Tillin	July 7, 2023
	Date Signed
Signature	Date Signed
Senior Project Manager/Hydrogeologist	(608) 216-7341
Title	Telephone Number (include area code)

Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

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Section 8. DNR Contacts and Addresses for Request Submittals

Send or deliver one paper copy and one electronic copy on a compact disk of the completed request, supporting materials, and fee to the region where the property is located to the address below. Contact a <u>DNR regional brownfields specialist</u> with any questions about this form or a specific situation involving a contaminated property. For electronic document submittal requirements see: <u>http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf</u>.

DNR NORTHERN REGION

Attn: RR Program Assistant Department of Natural Resources 223 E Steinfest Rd Antigo, WI 54409

DNR NORTHEAST REGION

Attn: RR Program Assistant Department of Natural Resources 2984 Shawano Avenue Green Bay WI 54313

DNR SOUTH CENTRAL REGION

Attn: RR Program Assistant Department of Natural Resources 3911 Fish Hatchery Road Fitchburg WI 53711

DNR SOUTHEAST REGION

Attn: RR Program Assistant Milwaukee DNR Office 1027 West St. Paul Ave Milwaukee WI 53233

DNR WEST CENTRAL REGION

Attn: RR Program Assistant Department of Natural Resources 1300 Clairemont Ave. Eau Claire WI 54702



Note: These are the Remediation and Redevelopment Program's designated regions. Other DNR program regional boundaries may be different.

	DNR Use Only				
Date Received	Date Assigned	BRRTS Activity Code	BRRTS No. (if used)		
DNR Reviewer		pmments			
Fee Enclosed?	Fee Amount	Date Additional Information Requested	Date Requested for DNR Response Letter		
🔿 Yes 🔿 No	\$				
Date Approved	Final Determination				

Materials Management Plan

Hartmeyer Property Development 2007 Roth Street Madison, Wisconsin BRRTS #s 03-13-000053 and 02-13-580328

Prepared for:

Lincoln Avenue Capital Management, LLC 401 Wilshire Boulevard, Suite 1070 Santa Monica, CA 90401

SCS ENGINEERS

25222081.00 | July 7, 2023

2830 Dairy Drive Madison, WI 53718-6751 608-224-2830

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- Appendix B Oscar Mayer AST Area Tables and Figures
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- Appendix E SCS Groundwater Investigation Tables and Figure
- Appendix F Redevelopment Plans
- Appendix G Vapor Mitigation Details

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1.0 INTRODUCTION

SCS Engineers (SCS) has developed this Material Management Plan (MMP) for the proposed development of the eastern portion of the Property at 2007 Roth Street, in Madison, Wisconsin. The purposes of this plan are to 1) describe how contaminated materials will be managed during property redevelopment and 2) indicate the intended pathway to closure of the open Wisconsin Department of Natural Resources (WDNR) Bureau for Remediation and Redevelopment Tracking System (BRRTS) case.

2.0 SITE BACKGROUND

The proposed development is located at 2007 Roth Street in Madison, Wisconsin (**Figure 1**). The property to be redeveloped consists of the eastern portion of parcel number 08103130099. The entire property consists of 29.2 acres. A preliminary certified survey map (CSM) showing the planned subdivision of the property is provided in **Appendix A**. The proposed development includes CSM Lot 1 (3.12 acres) and Lot 2 (8.47 acres), along with the construction of Huxley and Coolidge Streets within the existing parcel boundaries. Lot 3 (15.04 acres) will not be developed as part of the project.

The Property is located in a mixed residential, commercial, and industrial area on the east side of the City of Madison. Historically the property has been zoned as M1/M2 (light/heavy manufacturing). The Property is bounded by Roth Street to the north, commercial lots and Sherman Avenue to the northwest, commercial lots and the Wisconsin Southern Railroad right-of-way to the southwest, Commercial Avenue to the south, and the Canadian Pacific/Soo Line Railroad right-of-way to the east. The former Oscar Mayer (OM) plant (currently owned by 910 Mayer, LLC and OM Land, LLC and under development) is located east of the CP/Soo railroad. The Property is currently undeveloped except for a paved parking lot at the northeast corner and a gas regulator house for the adjacent 910 Mayer property near the CP/Soo railroad tracks.

2.1 **PROPERTY HISTORY**

The Property is located to the west of the former OM plant that primarily produced processed meats, until the plant closed in 2017. The Property is separated from the former OM plant by a railroad right-of-way. OM and successive owners/operators of the plant leased a portion of the Property from the Hartmeyer Estate starting in 1954 and subsequently leased the entirety of the Property since 1966. Kraft Heinz subsequently purchased the Property following the termination of the lease agreement in 2020.

The earliest available aerial photograph of the Property, from 1937, shows that most of the Property was undeveloped, with the exception of the following:

- Structures that have been identified in various reports as a feed warehouse and tavern at the northeast corner of the Property, southwest of the intersection of Roth Street with the railroad tracks.
- Structures identified as a small slaughterhouse and storage shed on the east side of the Property along the railroad tracks, approximately 600 feet south of Roth Street.
- Structures that appear to be a farmhouse and barn near the WSOR railroad tracks on the west side of the Property, approximately 600 feet south of Roth Street.

Since sometime after 1955, OM and/or Kraft Heinz used the eastern portion of the property for employee parking and in the early 1970's two aboveground storage tanks (ASTs) were installed for fuel oil storage for the OM property to the east. The last of the fuel oil storage tanks was removed in 2016. Coal storage activities reportedly occurred in one area in the 1960s for some time period.

2.2 ENVIRONMENTAL IMPACTS

A Phase 1 Environmental Site Assessment (ESA) completed by ECS Midwest, LLC in 2021 did not identify other land uses on the Property other than those described above. The known or potential sources of contamination on the Property include:

- Fill that may have been imported to reclaim wetlands prior to 1937.
- Petroleum contamination from the former fuel oil ASTs on the Property and an historical gasoline storage tank identified on fire insurance maps in the Roth Street right-of-way, adjacent to the Property, on the north side of the feed warehouse.
- Apparent coal storage on the eastern portion of the Property near the railroad tracks.

Environmental conditions on the property have been evaluated through a series of environmental investigation activities since 1989. The findings of these investigations and associated WDNR case files are summarized below. Locations of environmental samples and geotechnical soil borings are shown on **Figure 2**. Based on the investigation activities described below, WDNR has indicated that additional investigation is not required, but direct contact concerns related to the soil must be addressed prior to case closure.

2.2.1 Oscar Mayer – BRRTS #03-13-000053

Case 03-13-000053 is a closed file related to a fuel spill from underground piping associated with the fuel oil ASTs in 1989. The WDNR closed the case in 2008 with petroleum constituents remaining in soil and groundwater after a series of investigation and oil recovery activities. The investigation included portions of the OM plant property to the east, the CP/Soo Railroad right-of-way, and the Hartmeyer Property. The investigation work on the Hartmeyer Property included sampling from 19 soil borings and six groundwater monitoring wells. Selected tables and figures from the 2006 case closure request and related documents are included in **Appendix B**.

Soil contamination greater than current NR 720 residual contaminant levels (RCLs) remaining at the time of case closure included benzene, benzo(a)anthracene, benzo(a) pyrene, chrysene, and naphthalene. None of the monitoring wells on the Property showed concentrations of petroleum volatile organic compounds (PVOCs) or polycyclic aromatic hydrocarbons (PAHs) greater than preventive action limits (PALs) at the time of case closure. Lab analysis of the initial round of groundwater samples collected from monitoring wells MW-13 and MW-14 for the full list of VOCs found only petroleum-related contaminants. Temporary monitoring wells installed at the request of WDNR on the Property in 2007, to evaluate the extent of separate phase petroleum product observed in monitoring well MW-5 in the railroad right-of-way, showed a small area of residual oil contamination extending onto the Property (see **Appendix B**). The continuing obligations (requirements) set forth in the WDNR case closure letter include proper management of impacted soil, if excavated, and specific approval to construct a water supply well.

2.2.2 Hartmeyer Property – BRRTS #02-13-580328

Case 03-13-580328 was opened in response to the discovery of additional petroleum impacts below the second AST when the tank was removed in 2016. Investigation and remediation to address the identified petroleum impacts were completed in 2019. The AST investigation included soil sampling at 19 locations and groundwater sampling from four monitoring wells. Selected tables and figures from the 2019 AST area case closure request are included in **Appendix C**.

Residual petroleum impacts remain in soil, primarily below the water table, following the excavation of approximately 464 tons of petroleum-contaminated soil in 2016. None of the groundwater samples collected from the four monitoring wells installed during this investigation (including two wells installed in areas of residual soil impacts) showed petroleum constituent concentrations greater than groundwater enforcement standards (ESs). This case file remains open following the discovery of shallow soil impacts during a recent environmental assessment performed by Kraft Heinz (see below).

2.2.3 Ramboll Phase 2

Ramboll collected soil samples on the Property on behalf of Kraft Heinz as required by the Property lease agreement with the Hartmeyer Estate. The Ramboll investigation included laboratory analysis of soil samples from eight soil borings for PVOCs, PAHs, and eight Resource Conservation and Recovery Act (RCRA) metals (four borings only); 18 hand auger borings for arsenic, either benzo(a)pyrene alone or 18 PAHs, and/or eight RCRA metals; and 17 hand auger borings for arsenic only. Selected tables and figures from the Ramboll investigation request are included in **Appendix D**.

PVOCs were detected at concentrations exceeding the groundwater pathway RCL in soil samples collected from three soil borings (B-2, B-3, and B-5). Concentrations of one or more PAHs exceeded non-industrial direct contact RCLs in soil samples collected within 4 feet of the ground surface at six locations (B-3, B-5, B-7, HA-4, HA-9 ALT, and HA-11). Concentrations of one or more PAHs exceeded groundwater pathway RCLs in soil samples collected at nine locations (B-1, B-2, B-3, B-4, B-5, B-7, HA-4, HA-9 ALT, and HA-11).

Arsenic concentrations in soil exceeded the background threshold value of 8 milligrams per kilogram (mg/kg) at 18 locations. The elevated arsenic concentrations are located primarily within the proposed development footprint on the eastern portion of the site.

WDNR has indicated that additional investigation is not required, but direct contact concerns related to the PAHs and arsenic in soil must be addressed prior to case closure.

2.2.4 2022 Groundwater Sampling (SCS)

SCS supervised the installation of seven temporary monitoring wells and collected groundwater samples from the wells in August 2022 to evaluate potential groundwater impacts from on and off-site sources. Based on the initial groundwater analytical results, SCS analyzed VOCs in two soil samples collected from two of the well borings and collected a second groundwater sample from boring GB-107 in September 2022. Tables summarizing the groundwater VOC results and water levels and a drawing showing the temporary well locations are provided in **Appendix E**.

Low concentrations of petroleum contaminants were detected in groundwater at the location of GB-105; however, none of the detected contaminants exceeded a NR 140 groundwater standard.

Analysis of a shallow soil sample collected at this location for VOCs detected only naphthalene at a concentration well below the corresponding RCL for soil.

No VOCs other than traces of toluene were detected in any of the groundwater samples collected around the perimeter of the property. Trace concentrations of cis-1,2-dichloroethylene (DCE) and vinyl chloride (VC) were detected in the initial groundwater sample from boring GB-107. Only cis-1,2-DCE was detected in the second sample collected from GB-107. The detected analytes did not exceed applicable NR 140 ESs. Analysis of a shallow soil sample collected at a depth of 0 to 2.5 feet below ground surface (bgs) from boring GB-107 for VOCs did not detect any contaminants.

3.0 REDEVELOPMENT PLAN

The current project includes the development of affordable housing on Lots 1 and 2 and the sale of the 15.3 acre natural area (Lot 3), zoned Conservation, to the City of Madison Department of Parks. Zoning for the residential lots will be TR-U2 (Traditional Residential – Urban District 2). A future phase may be developed in the area zoned RMX at the south end of Lot 2 adjacent to Commercial Avenue. The new streets, including a bike path along Roth Street, will be constructed as part of the current project. Huxley Street will dead end at the railroad tracks until the new railroad crossing is secured.

The current development includes two 6-story residential buildings as described below. The buildings will be constructed as slab on grade with both residential occupancy and parking on the ground floors. The remainder of the Property not covered by the buildings and new roadways will include limited surface parking, walks, stormwater ponds, and surrounding areas of landscaping, Site redevelopment plans are included in **Appendix F**. Excavation will be required for the foundations, pavement profiles underground utilities, stormwater detention ponds, and general site grading.

3.1 SENIOR BUILDING – LOT 1

The 6-story senior building will include 250 units of affordable housing with a mix of one and two bedrooms. The building footprint covers 80,794 square feet and the ground floor elevation is 857 feet above mean sea level (amsl). The building will wrap around the parking structure with 266 parking spaces for residents and 19 parking spaces for visitors/users of the community spaces.

Landscaping around the building will reference the natural area across the new Roth Street through the use of native plants. Walking paths and areas for resting and reflection are located along Huxley Street. A finger of the environmental corridor lies at the southeast corner of the building and will be landscaped to reflect a more natural condition.

3.2 FAMILY BUILDING – LOT 2

The 6-story family building will include 303 units of affordable housing with a mix of one, two, three, and four bedrooms. The building footprint covers 102,743 square feet and the ground floor elevation is also 857 feet amsl. The building will face towards the natural area across Roth Street and will wrap around the parking structure with 429 parking spaces for residents and 17 parking spaces for visitors. Landscaping around the building will reference the natural area across the new Roth Street through the use of native plants.

4.0 SITE ENVIRONMENTAL CONDITIONS

4.1 SOIL AND FILL MATERIALS

As noted above in **Section 2.0**, the soil contaminants on the property in the proposed development area that exceed one or more WDNR standards for non-industrial (commercial and residential) direct contact and/or groundwater protection are PVOCs, PAHs, and metals (primarily arsenic).

In addition, impacts identified by laboratory analyses, non-native materials such as coal particles, and potential cinders and/or foundry sand mixed with soils have been identified in the shallow soil in a portion of the proposed development area.

CGC, Inc., provided the following description of the soils at the site in their "Geotechnical Exploration Report, Proposed Hartmeyer Redevelopment" dated September 13, 2022. The locations of geotechnical borings are shown on **Figure 2**.

- About 3 to 5 in. of *asphalt pavement* on top of about 2 to 4 in. of *base course* within the northern parking lot; or
- About 2 to 12 in. of *topsoil/topsoil fill*, partially intermixed with possible foundry sand, elsewhere; underlain by
- Roughly 2 to 8 ft of *variable/mixed fill* at the majority of the boring locations, comprised of clay, silt, sand, and organic soils which were also found to contain or be intermixed with possible foundry sand and/or possible cinders in some areas; over
- Approximately 2 to 5 ft of *organic soils* and *peat* at Borings 1, 14, and 15; and/or
- About 1 to 10 ft of very soft to very stiff *lean to silty clay* and/or very loose to medium dense *silt* and *clayey sand*, containing minor amounts of organics and/or interbedded with fairly thin sand layers in some areas; followed by
- Very loose to very dense *sand* strata with variable silt and gravel contents, as well as scattered cobbles/boulders and silt seams/layers, to the maximum depths explored.

4.2 GROUNDWATER

None of the recent groundwater samples exceeded NR 140 enforcement standards for VOCs or PVOCs. Weathered petroleum constituents and some separate phase petroleum product may remain at or below the water table in areas affected by the fuel oil releases from the AST system and related piping.

4.3 SOIL VAPOR

No vapor testing has been performed to date because there are no occupied buildings on the Property. WDNR's January 2018 guidance document RR800 "Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin" indicates that vapor intrusion for petroleum contaminants can be ruled out if aerated soil conditions can be confirmed in the zone within 5 feet horizontally and vertically beneath a building. The proposed building's first floor elevations are 857 feet amsl, and the water table has recently been measured at 848.4 to 850.6 feet amsl. The degree

of aeration of the existing soil has not been evaluated. The engineered fill required to establish base grades below the building floors will be aerated but will typically not exceed 5 feet in thickness.

RR800 lists the following screening criteria, where vapor investigation is recommended – for petroleum vapor intrusion if 5 feet of aerated soil is not confirmed:

- Building has less than 15-feet vertical separation or 30-feet horizontal separation from NAPL [non-aqueous phase liquid].
- Building has less than 5-feet of vertical separation from groundwater with benzene > 1 mg/L.
- Groundwater with concentrations above Wis. Admin. Code § NR 140 PAL has entered the building or is in contact with the building's foundation.
- Building has less than 5-foot (vertical (a) and horizontal) separation distance from petroleum contaminated soil with the potential for off-gassing. (Heavier end petroleum products (e.g. diesel or fuel oil) or heavily weathered light end distillates that no longer contain compounds that are detectable by TO-15 analysis are not likely to be a source of vapors.)
- Petroleum vapors are present in utilities that transect a petroleum source area.
- Petroleum odors are present in building near petroleum source area.

The absence of PVOCs greater than NR140 ESs in groundwater suggests that there is little potential for off gassing of volatile vapors; however, the following site conditions may fall into the screening criteria listed above:

- The initial AST investigation documented some fuel oil non-aqueous phase liquid (NAPL) on the Property's adjacent area of the 1989 fuel oil spill.
- The building foundation footing is intended to be placed above the water table; however, portions of the foundation system may extend below the water table, and petroleum contamination greater than NR 140 PALs may remain below the building footprints.

As a precautionary measure, vapor mitigation features will be incorporated into the building design as described below.

5.0 MATERIALS MANAGEMENT

Material management activities related to contaminated soil are summarized below.

5.1 PROPOSED SOIL MANAGEMENT PLAN

The development plan requires soil excavation related to construction of the building foundations, pavement profiles for public streets and private drives, installation of underground utilities, and general site grading. The excavated soils may include petroleum-impacted soils, non-native shallow fill soil with coal and cinders, and clean fill/native soils.

SCS will assist the excavation contractor in segregating contaminated soil from non-contaminated soil. Non-contaminated soil will be reused on-site for backfill if needed or taken off-site as clean fill.

Petroleum-contaminated soils will be identified based on analytical data from previous investigations, visual and olfactory observations, and screening of soil in the field with a photo-ionization detector (PID). Soil producing field headspace readings greater than 5.0 parts per million on the PID, or with a noticeable odor or staining, will be considered contaminated for the purpose of landfill disposal.

Shallow fill soil shown (based on prior sampling) to be contaminated with metals (primarily arsenic) greater than background threshold values (BTVs) and/or PAH concentrations greater than lab reporting limits and soil containing appreciable quantities of materials such as coal, ash, or waste materials will be segregated for landfill disposal. The current development plan calls for relatively little excavation within the building footprints other than for perimeter footings. The final grades will allow for placement of 1 foot of clean soil in areas not covered by buildings or pavement.

Separate soil waste characterization profiles will be developed for petroleum-contaminated soil and contaminated fill soil that is planned for disposal at a landfill. Contaminated soil will be used as daily cover, or directly landfilled, depending on the acceptance criteria of the receiving solid waste landfill. Soil will be transported under manifest to the landfill.

SCS identified three types of soil material for management during construction at the site based on previous site work. Descriptions of the soil material types and the planned management approach for each are provided below.

Type 1 – Petroleum-Contaminated Soils

Generally, these soils:

- Have PVOCs and/or PAHs detected with some concentrations greater than NR 720 residual contaminant levels.
- May have petroleum odors and dark staining.
- Are primarily located within the area of the former fuel oil ASTs, pump house, and associated piping.
- May extend beyond the immediate area of the AST system below the water table.
- Will likely be transported to Waste Management of Wisconsin Deer Track Park Landfill in Watertown for biotreatment and disposal.
- May be disposed at Madison Prairie Landfill in Sun Prairie if the VOC content and odors are minimal subject to landfill acceptance criteria.

Type 2 – Contaminated Fill Soils

Generally, these soils:

• Have detectable concentrations of PAHs greater than lab reporting limits that may or may not exceed direct contact RCLs for PAHs.

- May include concentrations of arsenic or other metals greater than their corresponding BTVs.
- May include limited amounts of non-soil materials such as coal, cinders, ash, and other non-soil waste.
- Are primarily located within 2 to 4 feet of the ground surface.
- May be replaced on-site, above the water table, and capped.
- Will be landfilled at Madison-Prairie or Deer Track Park Landfill if they cannot be reused on-site.

Type 3 – "Clean" Fill and Native Soils

These soils:

- Include recently placed backfill or clean base course material in recent utility excavations or parking lots.
- Are assumed to have no PAH detections, and have metal concentrations less than BTVs.
- Do not include waste materials such as cinders, ash, glass, and metals.
- May include clean concrete if acceptable to the intended receiving site.
- Will be field screened if contamination is suspected, and if contamination is indicated, will be managed as appropriate for the known or suspected contaminant.
- May be reused on-site, or off-site as fill soil (at Mandt, Homburg, or similar facility) if existing lab data and/or field screening does not indicate contamination.

Paving Materials and Concrete Demolition Debris

- Asphalt and concrete pavement and other concrete from existing building foundations and footings may be crushed and recycled on-site if determined to be clean per applicable WDNR regulations and guidance.
- Recycled asphalt and concrete materials may be used as base course below the new building and pavement areas.

5.2 GROUNDWATER MANAGEMENT

Limited dewatering may be required for foundation construction and utility installation. The water table elevation at the site measured during recent investigation work in 2017 and 2022 ranged from approximately 848.5 to 852 feet amsl. The new building finish floor elevations are designed at 857 feet amsl.

Based on the relatively low PVOC concentrations detected in groundwater, it should be possible to obtain a permit to discharge contaminated groundwater removed during dewatering of the site to the sanitary sewer. SCS will apply for approval from the City of Madison and Madison Metropolitan

Sewerage District to discharge contaminated groundwater from construction dewatering to the sanitary sewer. In the event that larger volumes of water require disposal or longer duration dewatering is needed, it may be necessary to apply for a Wisconsin Pollutant Discharge Elimination System (WPDES) permit to allow discharge to the storm sewer system.

5.3 VAPOR MANAGEMENT

Based on the soil analytical and groundwater analytical data described above, and the absence of groundwater contamination greater than the ES, there appears to be a low risk for vapor intrusion into the building.

If noticeable vapor issues arise during construction, vapors will be managed by limiting the amount of contaminated soil exposed at one time and, if necessary, by using temporary covers (plastic sheeting, tarps, etc.) to limit the amount of volatilization.

Based on the discussion in **Section 4.3** above, new building design will include a vapor barrier and venting system (**Appendix G**). A Stego® (or comparable) vapor barrier (with a minimum thickness of 15-mil) will be installed below the ground floor of the building to prevent the migration of vapors through the concrete floor slabs. Adjoining vapor barrier sheets will be overlapped and the joints will be taped to ensure a good seal between sheets. The vapor barrier will be placed on a layer of sand or a geotextile cushion if a gravel venting layer is installed below the vapor barrier. Penetrations through the vapor barrier will be booted and sealed as shown on Figure 1 in **Appendix G**.

Piping for a venting system will also be installed below the vapor barrier. The venting system will create a preferential pathway for potential petroleum vapors below the building and will exhaust outside of the buildings above the roof level. The venting system will include:

- A minimum 6-inch layer of granular material.
- Four-inch-diameter horizontal perforated polyethylene vapor collection pipe.
- Four-inch-diameter vertical PVC exhaust riser.

The vertical riser will be located in an area that is easily accessible. The horizontal piping will be installed under the building perimeters and at approximately 20-foot spacing under the building floor slabs. Actual locations of the horizontal piping and the vertical exhaust risers will be selected as building mechanical details are finalized.

5.4 **PROTECTIVE CAP**

The redeveloped site will be largely capped by the new building, pavement, or landscaped areas with at least 1 foot of clean soil cover, which will prevent direct contact with residual soil contamination. All storm water ponds will be lined to prevent both direct contact with underlying soil impacts that may remain and also to prevent infiltration to groundwater. A cap maintenance plan, with a map showing the cap area, photos of the cap, and required maintenance activities will be submitted to the WDNR for approval following completion of the site development.

6.0 ADDITIONAL SAMPLING AND CASE CLOSURE

The 1989 fuel oil spill contamination case has been closed. WDNR has indicated investigation and remediation of residual impacts identified during removal of the remaining AST in 2016 is sufficient to permit closure of this area. WDNR has also indicated that the extent of PAH and arsenic soil impacts to shallow soil in the development area has been sufficiently investigated. Based on this

completed work and the fact that excavation during development is expected only to occur to the extent required for construction and grading, no post-excavation sampling is planned.

If conditions are encountered that are not consistent with the existing understanding of the site, then additional samples may be collected to characterize the potential contaminants. Furthermore, if potential sources of contamination such as underground storage tanks are encountered, the tanks will be removed and soil samples collected to evaluate impacts from such tanks.

Based on conversations with and feedback from WDNR to date, SCS understands that the remaining requirements for closure of the open BRRTS case 02-13-580328 are documentation of completed cap to address direct contact concerns related to shallow PAH and arsenic contamination and vapor testing to confirm that the potential for vapor intrusion onto the completed buildings has been addressed.

7.0 UNUSUAL CONDITIONS

If any underground tanks, unusual odors, staining, fluids, or piping are found, work will stop in that area, and the contractor will notify the owner and SCS of the conditions. SCS will inspect the site to assess the situation.

If potentially contaminated or hazardous material is encountered that is significantly different than what has been previously identified, it will be evaluated by SCS, or another environmental professional, as appropriate for the material encountered.

8.0 ROLES AND RESPONSIBILITIES DURING CONSTRUCTION

The following roles and responsibilities have been identified for the project:

Owner (Lincoln Avenue Capital) or Owner's Representative

- Performs overall project scheduling and retains civil engineer/architect, environmental consultants, and contractor.
- Develops plans and specifications for project earthwork, incorporating the requirements of the soil and groundwater management plan.

Civil Engineer (JSD Professional Services, Inc.) Architect (JLA Architects)

- Develops development plans.
- Develops utility and storm water management plans compatible with site conditions.

Environmental Consultant (SCS Engineers)

- Provides on-site observation and documentation of soil management.
- Obtains soil profile approvals for landfill disposal at an approved landfill.
- Evaluates special or unanticipated environmental conditions encountered during construction.

• Documents extent of remaining soil contamination at the completion of the excavation activities.

Earthwork Contractor (To Be Determined)

- Performs earthwork in accordance with the project construction plans and specifications.
- Informs environmental engineer of schedule and any unusual conditions encountered during development.

9.0 **REPORTING**

Upon completion of all activities, SCS will provide to the WDNR a written report describing how contaminated materials encountered during the project were handled. The report will include a summary of field observations, map of sample locations, analytical laboratory reports and data (if any), landfill disposal documentation, and a photo log showing the excavation work and completed project.

10.0 **REFERENCES**

BT², Inc. 2006, Closure Request, Hartmeyer - Aboveground Storage Tank Area, 2007 Roth Street, Madison, Wisconsin, October 24, 2006.

BT², Inc. 2007, Case Closure Addendum, Hartmeyer Aboveground Storage Tank Area, 2007 Roth Street, Madison, Wisconsin, BT² Project 1624, WDNR File Ref: #03-13-000053, July 13, 2007.

CGC, 2022, Geotechnical Exploration Report, Proposed Hartmeyer Redevelopment, 2007 Roth Street, Madison, WI, September 13, 2022.

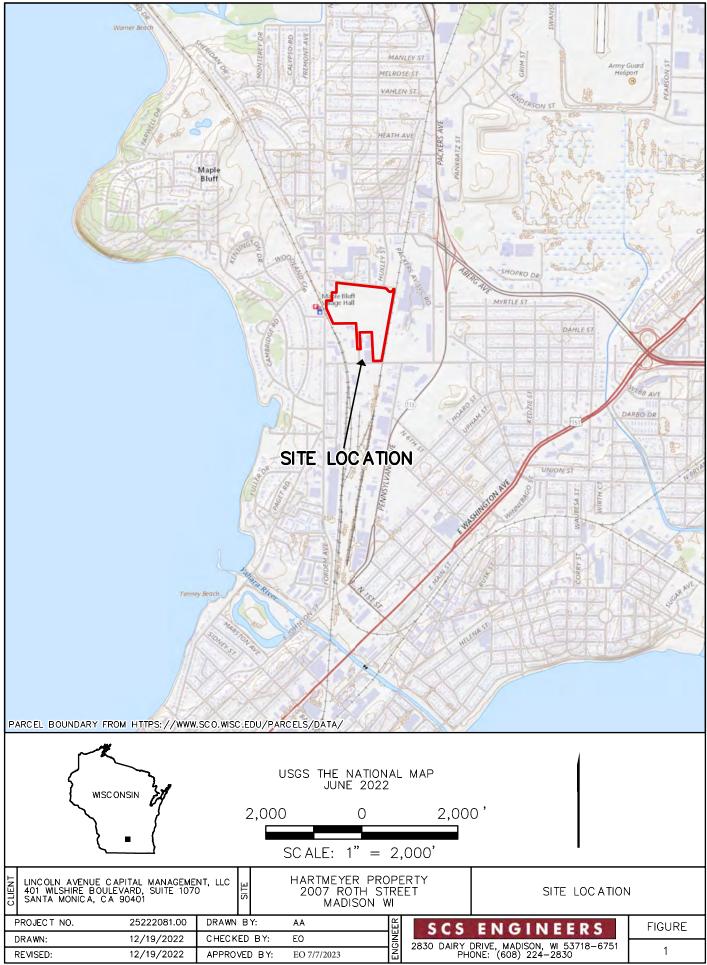
General Engineering Corporation, 2019, Closure Request, Hartmeyer Property, 2007 Roth Street, Madison, Wisconsin, May 15, 2019.

Ramboll, 2019, Technical Assistance Request for the Hartmeyer Property, 2007 Roth Street, Madison, Wisconsin, BRRTS No. (02-13-580328), November 25, 2019.

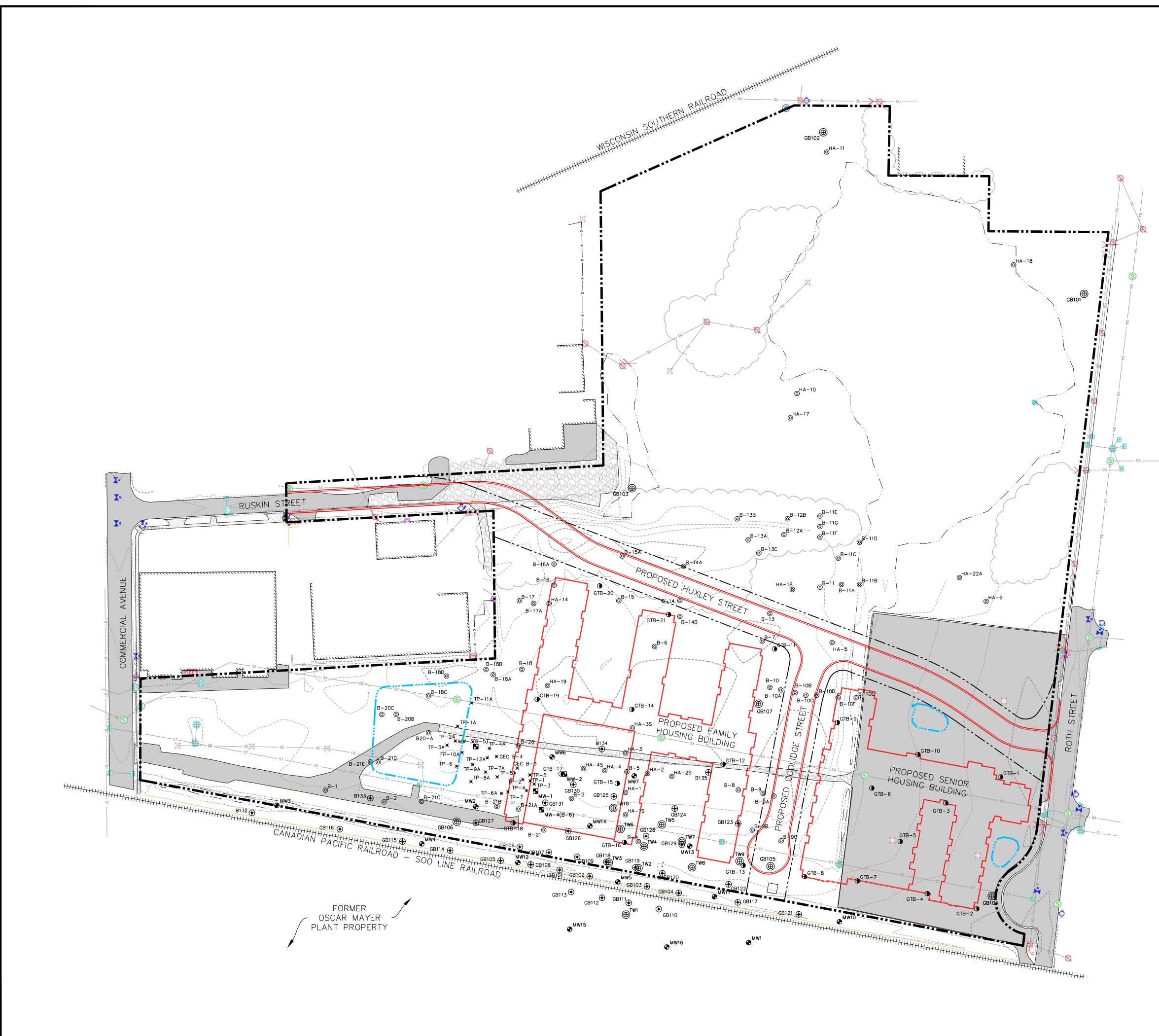
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Figures

- 1 Site Location Map
- 2 Site Plan



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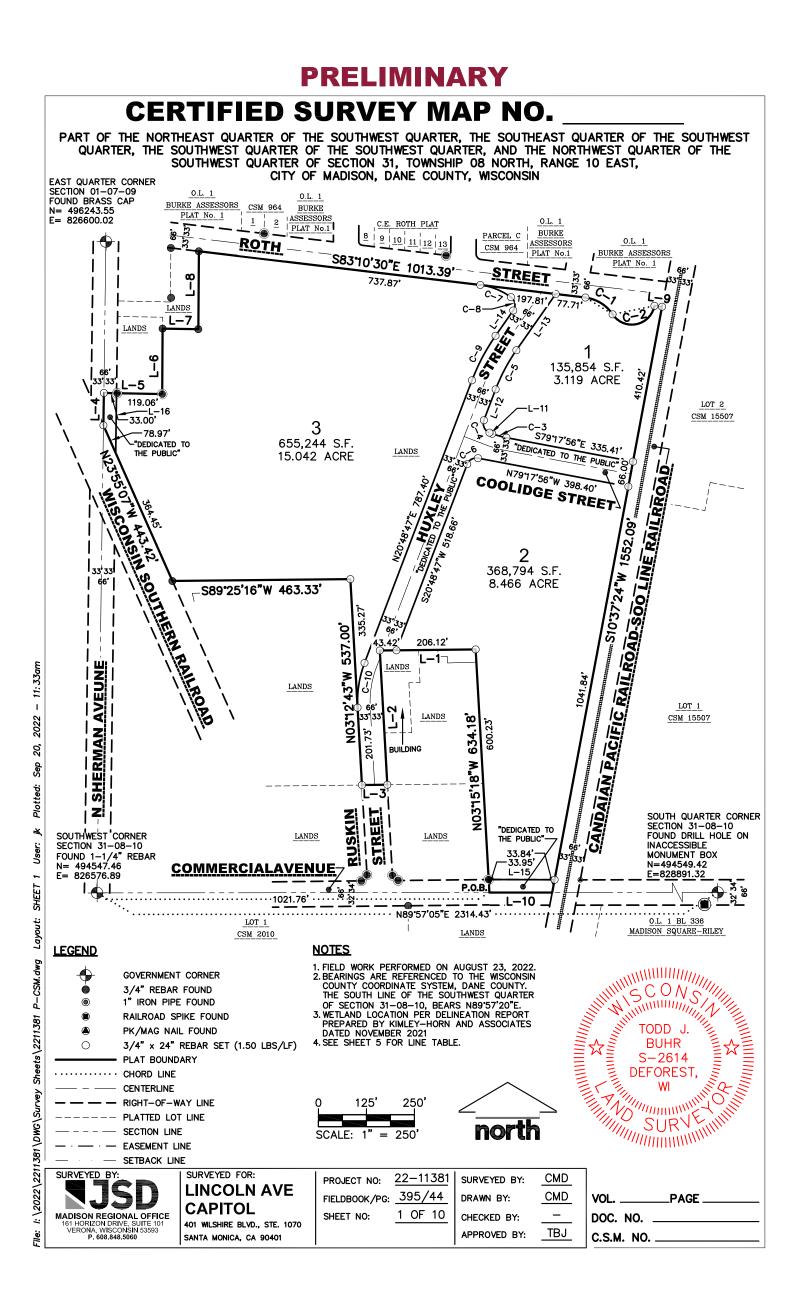


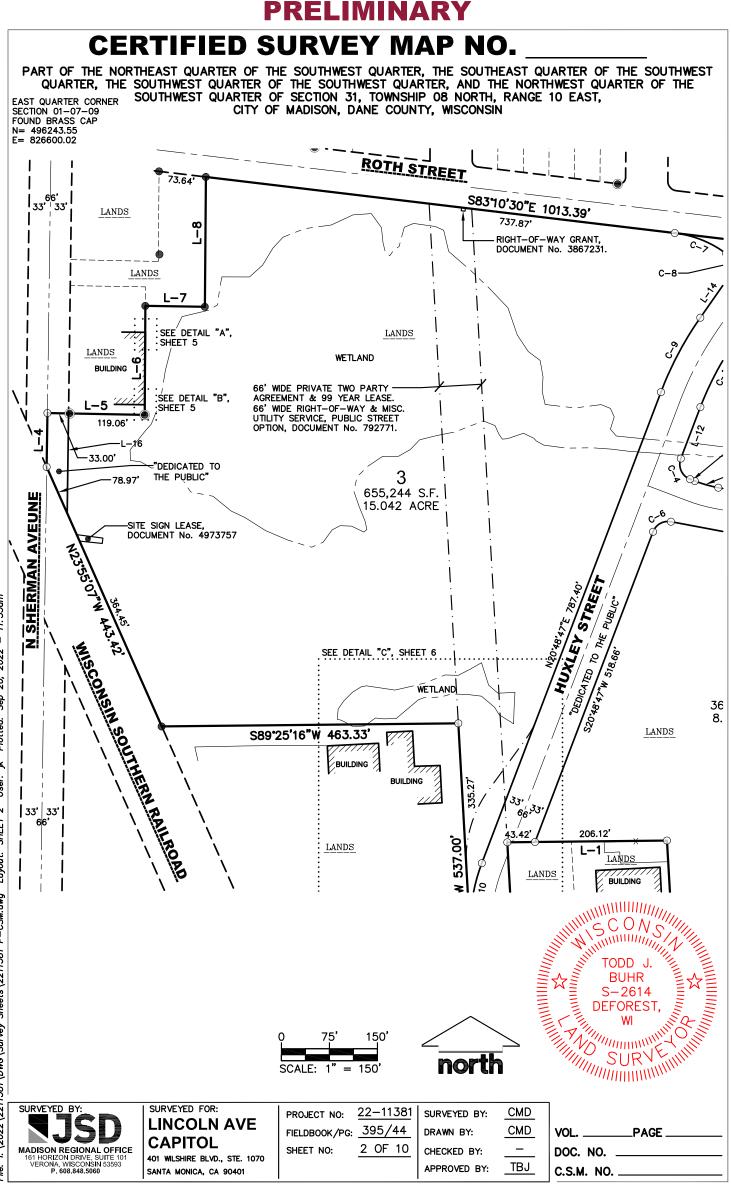
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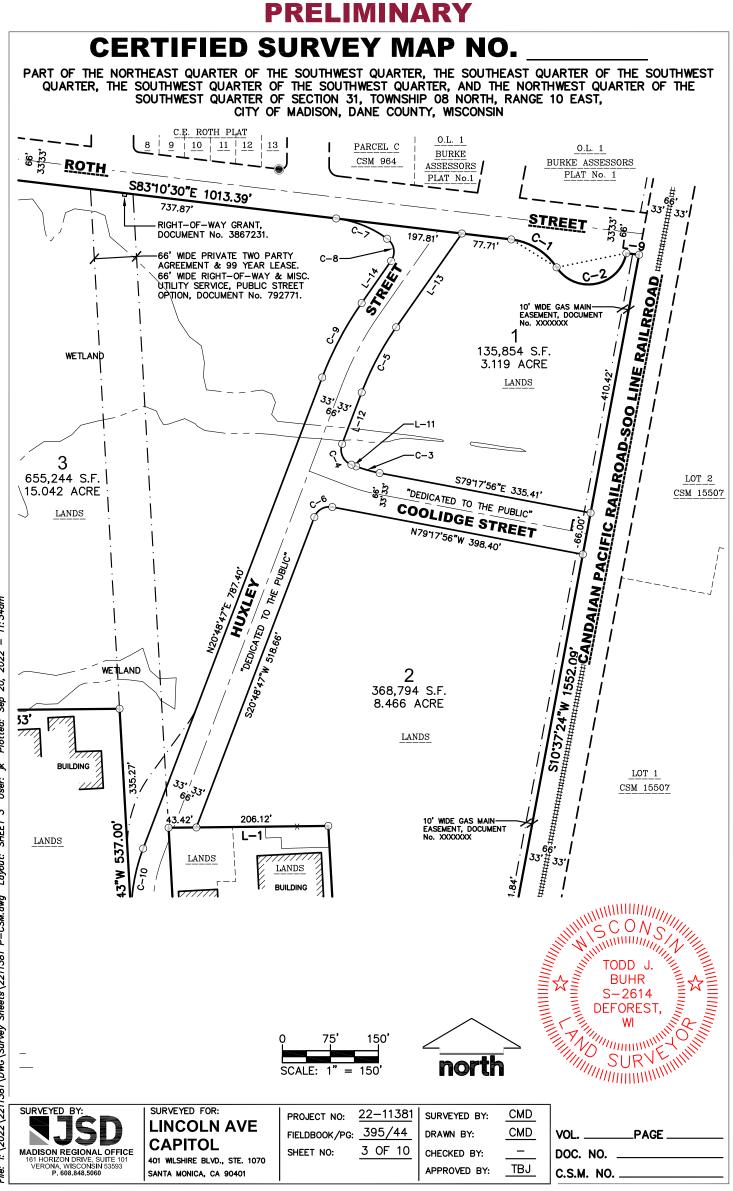
Appendix A

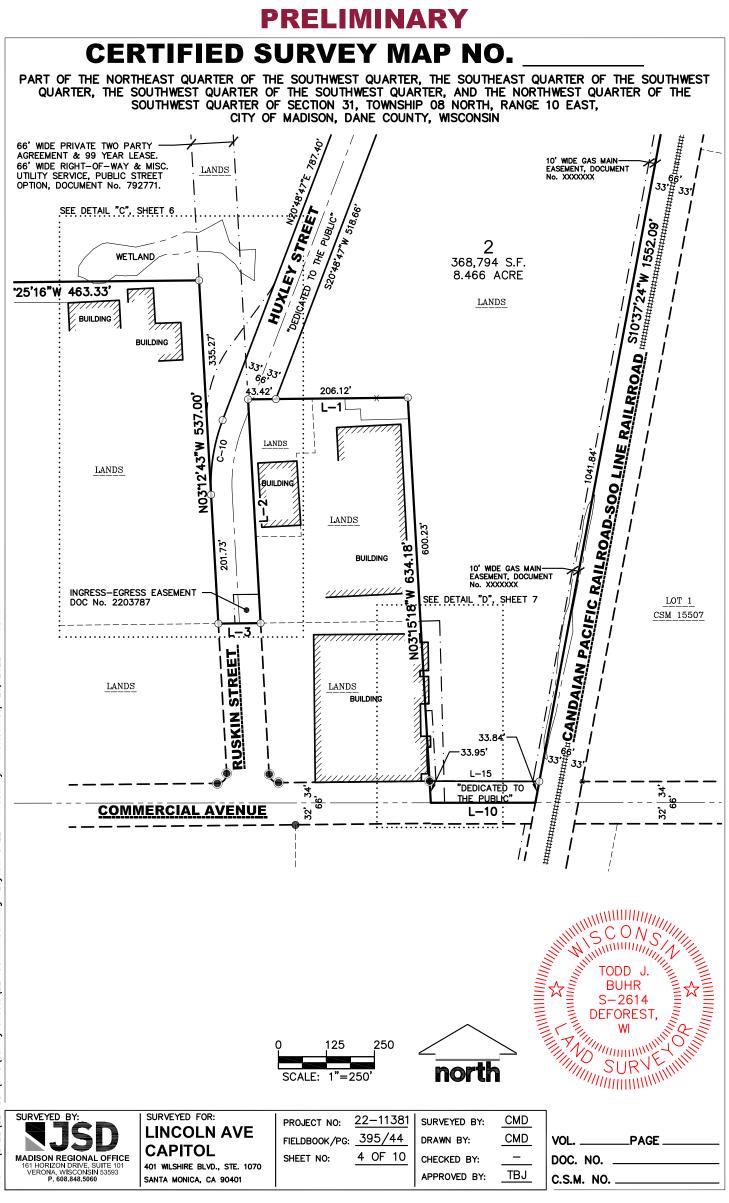
Proposed Survey Map





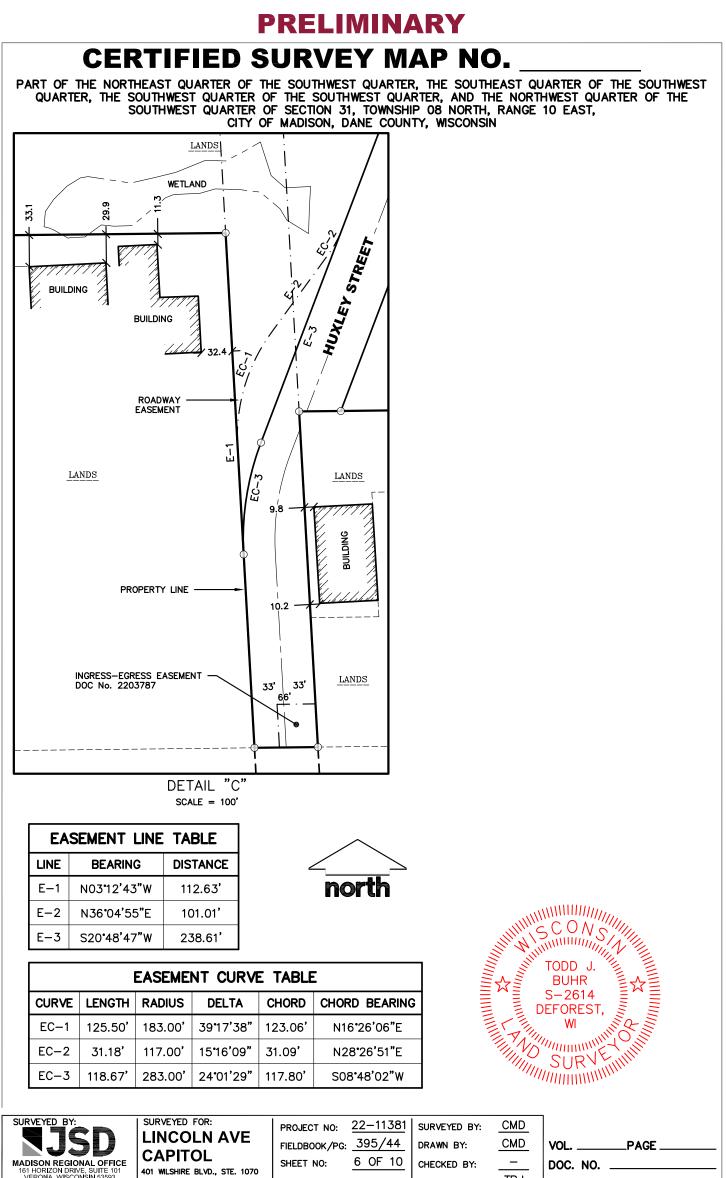
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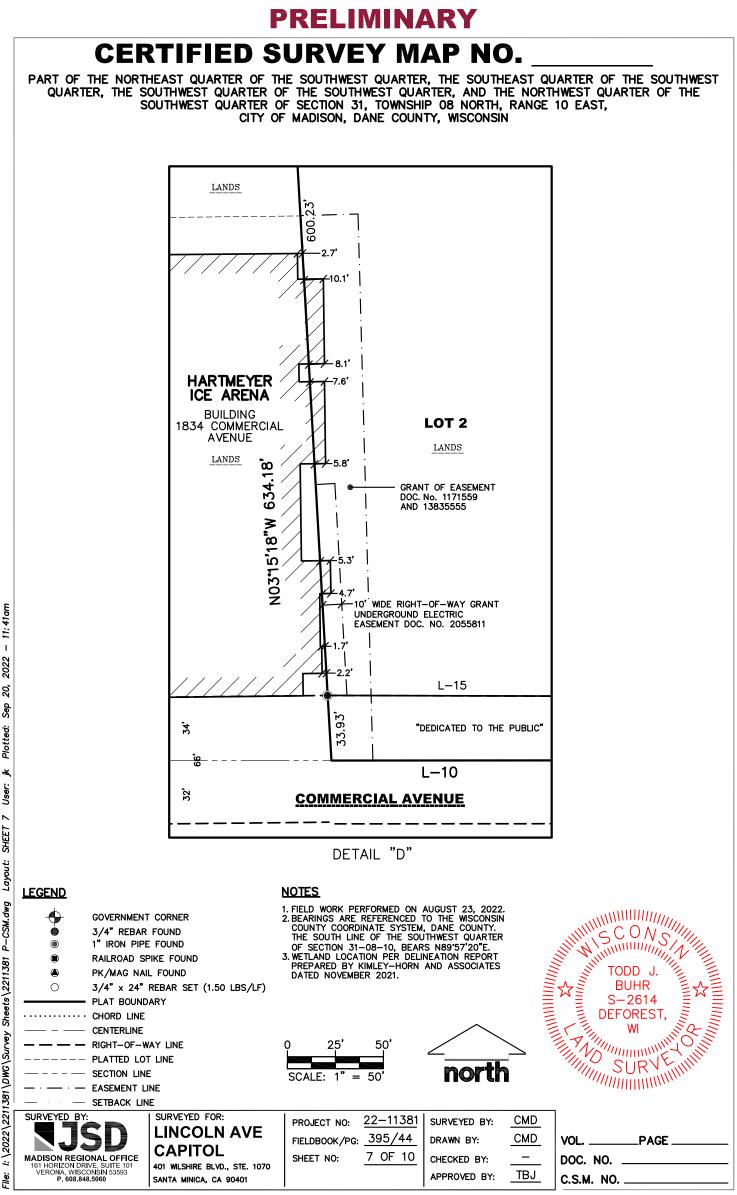
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LEGAL DESCRIPTION

PART OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER, SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER, SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER AND THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 31, TOWNSHIP 08 NORTH, RANGE 10 EAST, CITY OF MADISON, DANE COUNTY, WISCONSIN, DESCRIBED MORE PARTICULARLY AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SECTION 31, AFORESAID; THENCE NORTH 89 DEGREES 57 MINUTES 05 SECONDS EAST, ALONG THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SECTION 31, AFORESAID, 1021.76 FEET TO THE POINT OF BEGINNING; THENCE NORTH 03 DEGREES 11 MINUTES 18 SECONDS WEST, 634.18 FEET; HENCE SOUTH 89 DEGREES 21 MINUTES 32 SECONDS WEST, 249.54 FEET; THENCE SOUTH 03 DEGREES 12 MINUTES 43 SECONDS EAST, 350.12 FEET; THENCE SOUTH 89 DEGREES 21 MINUTES 43 SECONDS WEST, 643.33 FEET TO THE EASTERLY RIGHT-OF-WAY LINE OF THE WISCONSIN AND SOUTHERN RAILROAD; THENCE NORTH 23 DEGREES 55 MINUTES 07 SECONDS WEST ALONG SAID LINE, 443.42 FEET TO THE WEST LINE OF THE SOUTH WEST QUARTER OF SECTION 31, AFORESAID; THENCE NORTH 00 DEGREES 46 MINUTES 53 SECONDS EAST, ALONG SAID LINE, 84.26 FEET; THENCE SOUTH 88 DEGREES 54 MINUTES 02 SECONDS EAST, 152.06 FEET; THENCE NORTH 00 DEGREES 20 MINUTES 20 SECONDS EAST, 152.06 FEET; THENCE NORTH 00 DEGREES 20 MINUTES 20 SECONDS EAST, 152.06 FEET; THENCE NORTH 00 DEGREES 20 MINUTES 20 SECONDS EAST, 152.06 FEET; THENCE NORTH 00 DEGREES 20 MINUTES 20 SECONDS EAST, 10.284 FEET TO THE SOUTHERLY RIGHT-OF-WAY LINE OF ROTH STREET; THENCE SOUTH 83 DEGREES 07 MINUTES 42 SECONDS EAST, 93.01 FEET; THENCE NORTH 00 DEGREES 26 MINUTES 20 SECONDS EAST, 202.84 FEET TO THE SOUTHERLY RIGHT-OF-WAY LINE OF ROTH STREET; THENCE SOUTH 83 DEGREES 10 MINUTES 30 SECONDS EAST ALONG SAID LINE, 1,013.39 FEET TO A POINT OF CURVE; THENCE CONTINUING ALONG SAID RIGHT OF WAY 85.81 FEET ALONG AN ARC OF CURVE TO THE RIGHT, HAVING A RADIUS OF 60.00 FEET, THE CHORD BEARS NORTH 78 DEGREES 32 MINUTES 30 SECONDS EAST, 33.00 FEET TO THE WESTERLY RIGHT-OF-WAY LINE OF THE CANADIAN PACIFIC RALROAD; THENCE CONTINUING ALONG SAID RIGHT OF THE SOUTH 83 DEGREES 10 MINUTES 30 SECONDS EAST, 20.00 FEET TO THE WESTERLY RIGHT-OF-WAY LINE OF THE CANADIAN PACIFIC RALROAD; THENCE SOUTH 10 DEGREES 37 MINUTES 24 SECONDS WEST ALONG SAID LINE, 1,552.09 FEET TO THE SOUTH WEST QUARTER OF SECTION 31, AFORESAID; THENCE SOUTH 89 DEGREES 57 MINUTES 05 SECOND

SAID PARCEL CONTAINS 1,287,671 SQUARE FEET OR 29.561 ACRES.

SURVEYOR'S CERTIFICATE

I, TODD J. BUHR, PROFESSIONAL LAND SURVEYOR S-2614, DO HEREBY CERTIFY THAT BY DIRECTION OF LINCOLN AVE CAPITOL, I HAVE SURVEYED, DIVIDED AND MAPPED THE LANDS DESCRIBED HEREON AND THAT THE MAP IS A CORRECT REPRESENTATION IN ACCORDANCE WITH THE INFORMATION PROVIDED. I FURTHER CERTIFY THAT THIS CERTIFIED SURVEY MAP IS IN FULL COMPLIANCE WITH CHAPTER 236.34 OF THE WISCONSIN STATUTES AND THE SUBDIVISION REGULATIONS OF THE CITY OF MADISON, DANE COUNTY, WISCONSIN.

TODD J. BUHR, S-2614 PROFESSIONAL LAND SURVEYOR DATE



SURVEYED FOR: LINCOLN AVE CAPITOL 401 WILSHIRE BLVD., STE. 1070 SANTA MONICA, CA 90401

PROJECT NO:	22	-1
FIELDBOOK/PG:	3	95/
SHEET NO:		OF
	_	

 1381
 SURVEYED BY:

 /44
 DRAWN BY:

 10
 CHECKED BY:

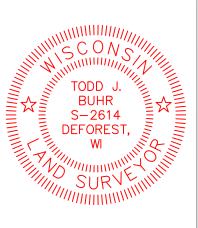
 APPROVED BY:

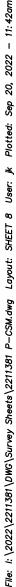
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DOC. NO.	
C.S.M. NO.	





PRELIMINARY	
CERTIFIED SURVEY MAP NO.	
PART OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER, THE SOUTHEAST QUARTER OF THE SOUTHWE QUARTER, THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, AND THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 31, TOWNSHIP 08 NORTH, RANGE 10 EAST, CITY OF MADISON, DANE COUNTY, WISCONSIN	EST
CORPORATE OWNER'S CERTIFICATE	
LINCOLN AVE CAPITOL, A LIMITED LIABILITY CORPORATION DULY ORGANIZED AND EXISTING UNDER AND BY VIRT OF THE LAWS OF THE STATE OF CALIFORNIA, AS OWNER, DOES HEREBY CERTIFY THAT SAID CORPORATION HAS CAUSED THE LAND DESCRIBED ON THIS CERTIFIED SURVEY MAP TO BE SURVEYED, DIVIDED AND MAPPED AS REPRESENTED HEREON. SAID CORPORATION FURTHER CERTIFIES THAT THIS CERTIFIED SURVEY MAP IS REQUIRED BY S.236.34, WISCONSIN STATUTES TO BE SUBMITTED TO THE CITY OF MADISON FOR APPROVAL.	5
IN WITNESS WHEREOF, THE SAID LINCOLN AVE CAPITOL HAS CAUSED THESE PRESENTS TO BE SIGNED BY ITS REPRESENTATIVES THISDAY OF, 2022.	
LINCOLN AVE CAPITOL	
BY:	
[], MANAGING MEMBER	
STATE OF CALIFORNIA) SS COUNTY) SS	
PERSONALLY CAME BEFORE ME THISDAY OF, 2022, THE ABOVE NAMED REPRESENTATIVES OF THE ABOVE NAMED LINCOLN AVE CAPITOL TO ME KNOWN TO BE THE PERSONS WHO EXECUTED THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED THE SAME.	
NOTARY PUBLIC, COUNTY, CALIFORNIA MY COMMISSION EXPIRES	
CONSENT OF CORPORATE MORTGAGEE	
[], A CORPORATION DULY ORGANIZED AND EXISTING UNDER AND BY VIRTUE OF THE LAWS OF THE STATE OF WISCONSIN, AS MORTGAGEE OF THE LANDS DESCRIBED HEREON, HEREBY CONSENTS TO THE SURVEYIDIVIDING, MAPPING AND RESTRICTING OF THE LANDS DESCRIBED IN THE AFFIDAVIT OF [], WISCONSIN PROFESSIONAL LAND SURVEYOR, S- $\{\}$, AND DO HEREBY CONSENT TO THE ABOVE CERTIFICATE OF [OWNER.	
WITNESS THE HAND AND SEAL OF [BANK NAME], MORTGAGEE, THISDAY OF, 2022.	
[], VICE PRESIDENT	
STATE OF WISCONSIN) SS	
DANE COUNTY) SS PERSONALLY CAME BEFORE ME THISDAY OF, 2022, THE	
ABOVE NAMED REPRESENTATIVES OF THE ABOVE NAMED [], TO ME KNOWN TO BE THE PERSONS WHO EXECUTED THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED THE SAME.	
NOTARY PUBLIC, DANE COUNTY, WISCONSIN MY COMMISSION EXPIRES	
BUHR S-2614 DEFOREST, WI SURVE	
SURVEYED BY: SURVEYED BY: LINCOLN AVE FIELDBOOK/PG: <u>395/44</u> BROJECT NO: <u>22-11381</u> DRAWN BY: <u>CMD</u> VOL. <u>PAGE</u>	
MADISON REGIONAL OFFICE 161 HORIZON DRIVE, SUITE 101 VERONA, WISCONSIN 53593 P. 608.848.5060 CAPITOL 401 WISHIRE BLVD., STE. 1070 SANTA MONICA, CA 90401 SHEET NO: 9 OF 10 CHECKED BY: DOC. NO. MADISON REGIONAL OFFICE 161 HORIZON DRIVE, SUITE 101 VERONA, WISCONSIN 53593 P. 608.848.5060 SHEET NO: 9 OF 10 CHECKED BY: DOC. NO.	

AL OFFICE SUITE 101 SIN 53593 060	CAPITOL 401 WILSHIRE BLVD., STE. 1070 SANTA MONICA, CA 90401	FIELDBOOK/PG: SHEET NO:	<u>395/44</u> 9 OF 10	DRAWN BY: CHECKED BY: APPROVED BY:	CMD TJB	VOLPAGE DOC. NO C.S.M. NO
5D		PROJECT NO:	/ / /			

PRELIMINARY

CERTIFIED SURVEY MAP NO.

PART OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER, THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER, THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, AND THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 31, TOWNSHIP 08 NORTH, RANGE 10 EAST, CITY OF MADISON, DANE COUNTY, WISCONSIN

CITY OF MADISON COMMON COUNCIL APPROVAL CERTIFICATE

RESOLVED THAT THIS CERTIFIED SURVEY MAP LOCATED IN THE CITY OF MADISON WAS HEREBY APPROVED BY ENACTMENT NUMBER , FILE NUMBER , ENACTED ON THE DAY OF , 20. AND THAT SAID ENACTMENT FURTHER PROVIDED FOR THE ACCEPTANCE OF THOSE LANDS DEDICATED AND/OR RIGHTS CONVEYED BY SAID CERTIFIED SURVEY MAP TO THE CITY OF MADISON FOR PUBLIC USE. , 2022,

DAY OF DATED THIS . 2022.

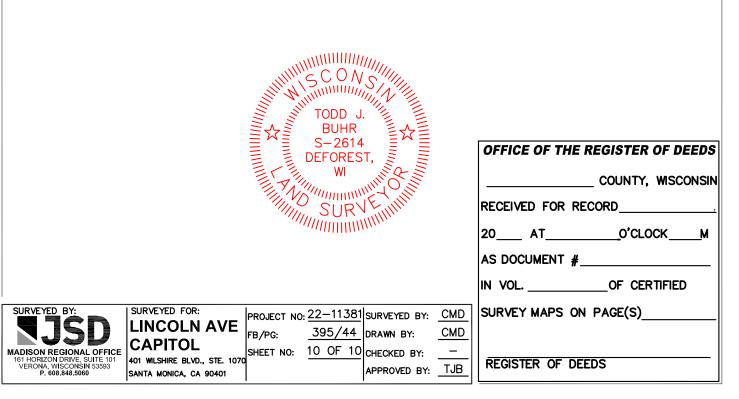
MARIBETH WITZEL-BEHL, CITY CLERK CITY OF MADISON, DANE COUNTY, WISCONSIN

CITY OF MADISON PLAN COMMISSION APPROVAL

APPROVED FOR RECORDING PER CITY OF MADISON PLAN COMMISSION ACTION OF___ .2022.

MATT WACHTER, CITY OF MADISON PLAN COMMISSION

DATE



Appendix B

Oscar Mayer AST Area Tables and Figures

Samples not collected on the Hartmeyer Property are crossed out. Concentrations greater than the corresponding RCL are highlighted.

Table C-1DRO, GRO, and PVOC Concentrations in SoilHartmeyer AST Area / Project #1624

(Results are in $\mu g/kg$, except where noted otherwise)

Sample	Date	Depth (feet)	PID	Lab Notes	DRO (mg/kg)	GRO (mg/kg)	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-TMB	1,3,5-TMB	MTBE
GB101 S1	6/12/01	2	1.9	(1)	612	NA	<36	42	42	<110	36	<36	<36-
GB101 S5	6/12/01	9	0.3		28	NA	NA	NA	NA	NA	NA	NA	NA
GB102 S1	6/12/01	2	10.6	(2)	5,170	NA	270	1,250	886	1,220	443	210	<92
GB102 S4	6/12/01	8	1.9		9.6	NA	NA	NA	NA	NA	NA	NA	NA
GB103 S1	6/12/01	-1	0.3		163	NA	45	80	39	<100	51	<34	<34
GB103 S6	6/12/01	12	18.5		78	NA	NA	NA	NA	NA	NA	NA	NA-
G B104 S1	6/12/01	1			966		79	152	67	178	99	57	< <u>32</u>
GD104 S5	6/12/01	9	4.3	**	<7.7	NA	NA	NA	NA	NA	NA	NA	NA
GB105 S1	6/12/01	1	1.9	(2)	713	NA		178		329	274	110	<34
G B105-S3	6/12/01		5.1		68	NA	NA	NA	NA	NA	NA	NA	NA
GB106 S2	6/12/01	4	1,1	(2)	1,850	NA	33	79	65	198	120	48	<33
GB106 S4	6/12/01	8	9.0	-	11	NA	NA	NA	NA	NA	NA	NA	NA
GB107 S2	6/12/01	4	0.3		1,050	NA	<30	<30	<30	<89	<30	<30	<30
GB107 S4	6/12/01	8	82	**	1,320	NA	NA	NA	NA	NA	NA	NA	NA
GB108 S1	6/12/01		<u>-1.1</u>		1,410	NA	32		54	128		<32	<32
GB108 S4	6/12/01	8	-1.1		12	NA	NA	NA	NA	NA	NA	NA	NA
GB109 S1	6/12/01	2	72	(2)	1,610	NA	47	323	186	720	546	136	<31
GB109 S4	6/12/01	8	81	(3)	20	NA	NA	NA	NA	NA	NA	NA	NA
GB110 S2	6/13/01	4	0		9.1	NA	<40	<40	<40	<120	<40	<40	<u> </u>
GB110 S4	6/13/01	- 7	0.8		<6.2	NA	NA	NA	NA	NA	NA	NA	NA
GB111 S2	6/13/01	4	0	(1)	65	NA	65	140	234	315	110	<29	<29
GB111 S4	6/13/01	8	0		<6.4	NA	NA	NA	NA	NA	NA	NA	NA

Sample	Date	Depth (feet)	PID	Lab Notes	DRO (mg/kg)	GRO (mg/kg)	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-TMB	1,3,5-TMB	MTBE
GB112-S2	6/13/01	4	0		83	NA	<30	<30	<30	<89	<30	<30	<30
GB112 S4	6/13/01	8	0		<6.3	NA	NA	NA	NA	NA	NA	NA	NA
GB113 S2	6/13/01	4	0	(1)	58	NA	<29	46	<29	99	62	<29	<29
GB113 S4	6/13/01	8	0		<6.3	NA	NA	NA	NA	NA	NA	NA	NA
GB114 S2	6/13/01	4	152	(2)	168	NA	<65	323	<65	258	748	348	<65
GB114 S4	6/13/01	8	ó		11	NA	NA	NA	NA	NA	NA	NA	NA
GB115 S2	6/13/01	4	47	(4)	4,060	NA	<148	1,720	172	530	2,590	<148	<148
GB116 S1	6/13/01	1	1.6	(1)	9,580	NA	72	126	120	189	110	48	<32
GB116 S4	6/13/01	8	2.4		≪6.3	NA	NA	NA	NA	NA	NA	NA	NA
GB117 S2	6/13/01	4	1.6	(2)	5,010	NA	<626	3,250	<626	~1,880	12,300	5,010	<626
GBH7 S4	6/13/01	8	152		10,200	NA	NA	NA	NA	NA	NA	NA	NA
GB118 S1	6/13/01	1	1.6	(2)	2,410	NA	265	361	710	1,010	409	84	<30
GB118 S4	6/13/01	8	37		46	NA	NA	NA	NA	NA	NA	NA	NA
GB119 S1	6/13/01	1	0.8		39	NA	<35	<35	<35	<110	<35	<35	<35
GB119 S4	6/13/01	8	0.8		<6.6	NA	NA	NA	NA	NA	NA	NA	NA
GB120 S2	6/14/01	4	0.8		25	NA	<36	<36	<36	<110	<36	<36	<36
GB120 S4	6/14/01	8	55	-	1,910	NA	NA	NA	NA	NA	NA	NA	NA
GB121 S2	6/14/01	4	60	(2)	1,020	NA	<63	514	<63	<188	3,630	977	<63
GB121 S4	6/14/01	8	115		821	NA	NA	NA	NA	NA	NA	NA	NA
GB122 S2	6/14/01	4	0.8		<5.0	NA	<25	<25	<25	<75	<25	<25	<25
GB122 S4	6/14/01	8	0.8		<5.7	NA	NA	NA	NA	NA	NA	NA	NA
GB123 S2	6/14/01	4	0.8		<6.5	NA	<33	<33	<33	<98	<33	<33	<33
GB123 S4	6/14/01	8	0.8		<6.2	NA	NA	NA	NA	NA	NA	NA	NA

Table C-1 (Continued) DRO, GRO, and PVOC Concentrations in Soil

Sample	Date	Depth (feet)	PID	Lab Notes	DRO (mg/kg)	GRO (mg/kg)	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-TMB	1,3,5-TMB	MTBE
GB124 S2	6/14/01	4	10	(1)	130	NA	292	358	45	186	212	33	<33
GB124 S4	6/14/01	8	0.8		<5.9	NA	NA	NA	NA	NA	NA	NA	NA
GB125 S2	6/14/01	4	0.8		110	NA	65	285	298	570	130	<32	<32
GB125 S4	6/14/01	8	0		86	NA	NA	NA	NA	NA	NA	NA	NA
GB126 S2	6/14/04	4	120	(2)	13,100	NA	<594	1,190	<594	<1,780	903	<594	<594
GB126 S4	6/14/01	8	78	-	12,900	NA	NA	NA	NA	NA	NA	NA	NA
GB127 S1	6/14/01	2	0	(1)	68	NA	<32	<32	<32	<96	<32	<32	<32
GB127 S4	6/14/01	7.5	0		79	NA	NA	NA	NA	NA	NA	NA	NA
GB128 S1	6/15/01	1	1.3	(5)	516	NA	70	251	212	357	265	66	<33
GB128 S4	6/15/01	8	1.3	(6)	<5.9	NA	NA	NA	NA	NA	NA	NA	NA
GB129 S2	6/15/01	4	2.2	(6)	<8.9	NA	<45	<45	<45	<130	<45	<45	<45
GB129 S4	6/15/01	8	2.2	(6)	<6.1	NA	NA	NA	NA	NA	NA	NA	NA
GB130 S2	6/15/01	4	2.2	(7)	4,540	NA	58	71	57	100	45	<32	<32
GB130 S4	6/15/01	8	1.3	(6)	12	NA	NA	NA	NA	NA	NA	NA	NA
GB131 S2	6/15/01	4	0.8	7	160	NA	<29	110	33	94	50	<29	<29
GB131 S4	6/15/01	8	2.2	(6)	58	NA	NA	NA	NA	NA	NA	NA	NA
B132 S1	8/13/01	2	0.6		388	6.7	52	110	<32	155	100	41	44
B133 S1	8/13/01	3	8	(4)	2,640	7.4	<29	39	32	161	97	<29	<29
B134 S1	8/13/01	3	14	(8)	609	67	60	<31	35	634	<31	186	<31
B135 S1	8/13/01	3	327	(1)	255	267	<mark>911</mark>	729	960	1,460	583	<304	<304
MW10-S1	8/13/01	3	0.6		<6.4	<6.4	<32	<32	<32	<96	<32	<32	<32
MW12 S1	8/13/01	3	15	-	649	169	<32	43	<32	<97	480	<52	<32-
MW15 S3	8/14/01	8	0.6		<7.9	<7.9	<39	<39	<39	<120	<39	<39	<39

Table C-1 (Continued) DRO, GRO, and PVOC Concentrations in Soil

Table C-1 (Continued) DRO, GRO, and PVOC Concentrations in Soil

Sample	Date	Depth (feet)	PID	Lab Notes	DRO (mg/kg)	GRO (mg/kg)	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-TMB	1,3,5-TMB	MTBE
MW16 S3	8/14/01	8	0.6		<6.8	<6.8	<34	<34	<34	<100	<34	<34	<34
МеОН	6/12/01			-	NA	NA	<25	<25	<25	<75	<25	<25	<25
Blank	6/14/01			-	NA	NA	<25	<25	<25	<75	<25	<25	<25
	6/15/01				NA	NA	<25	<25	<25	<75	<25	<25	<25
	8/13/01				NA	<5.0	<25	<25	<25	<75	<25	<25	<25
	8/14/01) V	NA	<5.0	<25	<25	<25	<75	<25	<25	<25
NR 720 Gene	eric Soil Clear	nup Standard	ls		100	100	5.5	2,900	1,500	4,100	NE	NE	NE
NR 746 Table in soil pores	e 1 - Indicator	rs of residual	petroleun	n product	NE	NE	8,500	4,600	38,000	42,000	83,000	11,000	NE
	e 2 - Protectio contaminated		health from	n direct	NE	NE	1,100	NE	NE	NE	NE	NE	NE

ABBREVIATIONS:

AST = Aboveground Storage Tank TMB = Trimethylbenzene

PID = Photo-ionization Detector MTBE = Methyl-tert-butyl ether

DRO = Diesel Range Organics NA = Not Analyzed

GRO = Gasoline Range Organics NE = No Standard Established

NOTE:

Bold values exceed NR 720 generic soil cleanup standards.

LABORATORY NOTES:

- DRO analysis Late eluting hydrocarbons present. (1)
- PVOCs analysis Late eluting hydrocarbons present. (2)
- (3) DRO analysis - Improperly handled sample.
- (4) PVOCs and DRO analyses - Late eluting hydrocarbons present.
- DRO and GRO analyses Late eluting hydrocarbons present. DRO analysis Received past hold time; this sample was extracted more than three days after sample collection. WDNR has (5) extended the hold time for extraction to 10 days, but this has not yet been Codified.
- DRO analysis Received past hold time; this sample was extracted more than three days after sample collection. WDNR has extended the hold time for extraction to 10 days, but this has (6) not yet been Codified.
- PVOCs analysis Late eluting hydrocarbons present. DRO analysis Received past hold time; this sample was extracted more than three days after sample collection. WDNR has (7) extended the hold time for extraction to 10 days, but this has not yet been Codified.
- (8) PVOCs analysis - Late eluting hydrocarbons present and does not match typical pattern.

By: LH Date: 7/12/01 Rev. By: LH Date: 8/31/01 Checked: JM Date: 7/16/01 I:\1624\Tables-General\Tables.wpd

Table C-2PAH Concentrations in SoilHartmeyer AST Area / Project #1624(results in µg/kg)

			n sa			11 - Alian - Alian Alian - Alian - Alian - Alian - Ali		Sai	mple Name, E	Pepth (feet), a	and Date			C. Weights					NR 720 RCLs	
Compound	G <mark>B102 S1</mark> 2' 6/12/01	GB104 31 1' 6/12/01	GB106 S2 4' 6/12/01	GB108 S1 1' 6/12/01	GB 113 S2 4' 6/13/01	GB117 S2 4' 6/13/01	GB121-S2- 4' 6/14/01	GB124 S2 4' 6/14/01	GB126 S2 4' 6/14/01	GB127 S1 2' 6/14/01	B132 S1 2' 8/13/01	B133 S1 3' 8/13/01	B134 S1 3' 8/13/01	B135 S1 3' 8/13/01	MW10 S1 3' 8/13/01	MW12 S1 3' 8/13/01	MW15 S3 8' 8/14/01	MW16-83 8' 8/14/01	Groundwater Pathway	Non-Industrial Direct Contact
	Note (1)		-			Note (1)	Note (2)	Note (1)	Note (1)			Note (1)	Note (1)	Note (1)				'		
Acenaphthene	<1,800	<64	<1,300	<64	<58	1,880	125	1,030	<4,400	<64	<65	<570	<620	<610	<64	<650	<79	<68	NE	3,590,000
Acenaphthylene	<3,100	<110	<2,200	<110	<98	=2,200	<110	<1,100	<7,500	<110	<110	<980	<1,100	<1,000	<110	<1,100	<130	<120	NE	NE
Anthracene	775	<6.4	503	17	8.7	2,000	138	1,590	3,560	<6.4	13	448	68	<61	<6.4	130	<7.9	<6.8	196,949	17,900,000
Benzo(a)anthracene	,480	<6.4	,040	120	18	2,250	238	1,990	6,290	19	93	966	348	134	19	350	<7.9	<6.8	NE	1,140
Benzo(a)pyrene	1,220	27	966	40	23	<130	<6.3	1,300	<440	12	142	621	398	170	19	467	<7.9	<6.8	470	115
Benzo(b)fluoranthene	849	24	675	31	5	< 30	<6.3	928	<440	9.7	7.2	471	373	85	14	37	<7.9	<5.8	478	1,150
Benzo(g,h,i)perylene	1,510	43	1,300	14	15	<130	< 6.3	570	<440	7.7	168	379	422	170	18	480	<7.9	<0.8	NE	NE
Benzo(k)fluoranthene	443	8.5	331	13	7.8	<130	<63	451	<440	11	26	207	110	<61	<6.4	91	<7.9	<6 8	NE	11,500
Chrysene	1,140	17	728	28	14	<130	6.8	1,150	2,490	7.3	54	517	360	72	19	169	<79	<6.8	144	115,000
Dibenzo(a,h)anthracene	<280	<9.5	<200	<9.6	<8.7	<190	<9.4	133	<670	<9.6	38	<86	<93	<91	<9.6	<97	<12	<10	NE	115
Fluoranthene	4,430	20	2,650	166	60	10,600	714	6,100	13,100	50	87	2,870	932	389	52	895	<16	<14	88,878	2,390,000
Fluorene	<370	<13	<260	<13	<12	6,510	388	2,120	14,300	<13	<13	<110	<120	<120	<13	<130	<16	<14	14,830	2,390,000
Indeno(1,2,3-cd)pyrene	923	37	873	24	16	<125	<6.3	862	<451	13	72	402	323	120	14	350	<7.9	<6.8	NE	1,150
1-Methylnaphthalene	<1,100	<38	<800	205	<35	36,300	1,880	5,700	<2,700	<38	181	<340	<370	<360	<38	<390	<47	<41	NE	17,600
2-Methylnaphthalene	3,280	<32	<660	473	<29	75,100	1,050	2,390	<2,200	<32	440	885	<310	<300	<32	<320	<39	<34	NE	239,000
Naphthalene	<1,100	<38	<800	97	<35	<u>18,800</u>	201	1,260	<2,700	<38	207	<340	<370	<360	<38	<390	<47	<41	658	5,520
Phenanthrene	<u>2,400</u>	13	<u>1,980</u>	141	29	13,800	815	<u>7,030</u>	23,800	22	168	1,260	360	243	27	298	<7.9	<6.8	NE	NE
Pyrene	2,920	<6.4	2,380	68	48	6,880	263	1,990	21,400	13	110	2,070	957	219	55	947	<7.9	<6.8	54.546	1.790.000

ABBREVIATIONS:

AST = Aboveground Storage Tank

PAH = Polynuclear aromatic hydrocarbons

 $\mathbf{\Lambda}$ Cummulative cancer risk < 5E-06

NOTE:

(a) PAH Soil Generic Residual Contaminant Levels (RCLs) (Interim Guidance - April 1997)
 Bold values exceed generic RCLs for the direct contact pathway for industrial sites.
 <u>Underlined</u> values exceed generic RCLs for the groundwater pathway.

LABORATORY NOTES:

(1) PNA analysis - Matrix interference.

(2) Anthracene, benzo(a)anthracene, chrysene, fluoranthene, fluorene, 1-methylnaphthalene, 2-methylnaphthalene, naphthalene, phenanthrene, and pyrene analyses - Matrix interference.

By: LH Date: 8/11/01 Rev. By: LH Date: 8/31/01 Checked: JM Date: 7/16/01

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Samples not collected on the Hartmeyer Property are crossed out. Concentrations greater than the corresponding ES are highlighted.

 Table E-1

 PVOC Concentrations in Groundwater at Geoprobe Locations

 Hartmeyer AST Area / Project #1624

 (Results are in µg/l unless otherwise noted)

Lab Notes TMBs MTBE Sample Date Benzene Ethylbenzene Toluene Xylenes <0.32 GBIUI 6/12/01 0.36 0.54 <0.40 0.78 4.9 **GB102** 6/12/01 (1) 0.26 <0.44 0.40 0.92 8.7 <0.32 **GB103** 6/12/01 (2) 11 180 22 390 291 3.2 **GB104** 6/12/01 (2) <1.3 90 2.0 <1.6 44 137 GB105 (2) 28.0 6/12/01 <0.65 3.3 <1.0 4.8 <0.80 **GB106** 6/12/01 (2) 0.28 < 0.44 < 0.40 1.4 5.9 < 0.32 GB107 (1) 6/12/01 < 0.26 1.3 < 0.40 0.84 3.5 < 0.32 **GB108** 6/12/01 0.65 1.1 <1.0 3.7 18.5 2.0 GB109 6/12/01 (2) 15 190 5.4 260 342 <3.2 GBIIU 6/13/01 0.13 0.22 0.43 <0.16 0.32 <0.51 --GBIII 6/13/01 (0.13 <0.22 0.21 <0.23 <0.51 <0.16 GB112 6/13/01 <0.13 <0.22 0.21 <0.23 <0.51 <0.16 **GB113** 6/13/01 0.13 <0.22 0.37 0.43 0.25 <0.16 GB114 6/13/01 2.6 18 <4.0 32 85 3.2 GB116 6/13/01 (1) 0.18 0.39 0.21 0.61 0.61 <0.16 GB117 6/13/01 (1) 0.70 11 2.4 13 88 <0.80 **GB118** 6/13/01 ---5.6 63 <4.0 29 42 <3.2 GB119 6/13/01 130,000 (1)<1,300 <2,000 55,000 930,000 <1.600 GB120 6/14/01 (2) 10 150 21 280 1,040 <8.0 GB121 6/14/01 (2) 3.4 13 <4.0 154 3.2 14 **GB122** (3) 6/14/01 < 0.13 < 0.22 0.24 < 0.23 < 0.51 <0.16 GB123 6/14/01 < 0.13 < 0.22 < 0.20 < 0.23 0.22 ---< 0.16

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Sample	Date	Lab Notes	Benzene	Ethylbenzene	Toluene	Xylenes	TMBs	MTBE
GB124	6/14/01	-	<0.13	<0.22	<0.20	<0.23	<0.51	<0.16
GB125	6/14/01		<0.13	<0.22	<0.20	<0.23	<0.51	<0.16
GB126	6/14/01	(2)	<6.5	130	<10	68	218	<8.0
GB127	6/14/01		0.17	3.0	0.60	6.6	5.8	<0.16
GB128	6/15/01		<0.13	<0.22	0.21	0.25	<0.51	<0.16
GB129	6/15/01	(1)	2.8	1.5	<0.20	<0.23	<0.51	<0.16
GB130	6/15/01		0.23	0.30	0.27	0.40	0.33	<0.16
GB131	6/15/01	(1)	<2.6	50	<4.0	25	167	<3.2
Trip Blank	6/13/01		<0.13	<0.22	<0.20	<0.23	<0.51	<0.16
	6/14/01		<0.13	<0.22	<0.20	<0.23	<0.51	<0.16
	6/15/01	-	<0.13	<0.22	<0.20	<0.23	<0.51	<0.16
NR 140 Enforcen	nent Standards		5	700	1,000	10,000	480	60
NR 140 Preventiv	e Action Limits		0.5	140	200	1,000	96	12

Table E-1 (Continued)PVOC Concentrations in Groundwater at Geoprobe Locations

ABREVIATIONS:

TMBs = 1,2,4- and 1,3,5-Trimethylbenzene

MTBE = Methyl-tert-butyl ether AS'

AST = Aboveground Storage Tank

PVOC = Petroleum Volatile Organic Compounds

NOTE:

Bold values exceed NR 140 enforcement standards.

LABORATORY NOTES:

(1) PVOCs analysis - Late eluting hydrocarbons present.

(2) PVOCs analysis - Late eluting hydrocarbons present and improperly preserved sample.

(3) PVOCs analysis - Improperly preserved sample.

By: LH Date: Rev. 7/10/01 Checked: JM Date: 7/16/01

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Table E-2
DRO, VOC, and PVOC Concentrations in Groundwater at Monitoring Well Locations
Hartmeyer AST Area / Project #1624
(Results are in $\mu g/l$ unless otherwise noted)

Table E-2	
DRO, VOC, and PVOC Concentrations in Groundwater at Monitoring Well Locati	ons
Hartmeyer AST Area / Project #1624	
(Regults are in ug/l uplace otherwise noted)	

Lab DRO Sample Date Notes Ethylbenzene (mg/l) Benzene Toluene **Xylenes TMBs** MTBE **Other VOCs** MW 9/6/01 ---NA < 0.13 < 0.22 < 0.20 < 0.23 < 0.51 < 0.16 NA 12/21/01 NA < 0.13 < 0.22 < 0.20 --< 0.23 < 0.51 < 0.16 NA 4/23/02 -NA < 0.13 < 0.22 < 0.20 < 0.23 < 0.51 50.10 NA 7/22/02 NA < 0.5 --< 0.31 < 0.3 < 0.92 50.71 < 0.3 NA 9/23/02 < 0.31 ---NA <0.5 < 0.3 50.92 < 0.71 < 0.3 NA 12/18/02 < 0.31 < 0.5 ----NA \$8.5 < 0.92 < 0.71 < 0.3 NA 3/24/03 NA 50.5 --< 0.31 < 0.3 <0.92 < 0.71 < 0.3 NA 6/9/03 --NA 50.31 < 0.5 < 0.3 < 0.92 <0.71 < 0.3 NA 3/8/04 NA < 0.31 < 0.5 --< 0.3 < 0.92 <0.71 < 0.3 NA (15) 3/8/05 NA < 0.500 < 5.00 <5.00 < 5.00 <10.00 < 0.276 NA 03/20/06 NA < 0.25 < 0.22 --< 0.11 < 0.39 < 0.44 < 0.23 NA MW2 8/31/99 0.35 < 0.13 < 0.22 --< 0.20 < 0.23 < 0.51 < 0.16 NA 9/6/01 NA < 0.13 ---< 0.22 < 0.20 < 0.23 < 0.51 < 0.16 NA 12/20/01 NA < 0.13 < 0.22 ---< 0.20 < 0.23 < 0.51 < 0.16 NA 4/24/02 ---NA < 0.13 < 0.22 < 0.20 < 0.23 < 0.51 < 0.16 NA 7/23/02 NA < 0.31 < 0.5 --1.97 < 0.92 < 0.71 < 0.3 NA 9/24/02 NA < 0.31 < 0.5 < 0.3 < 0.92 --< 0.71 < 0.3 NA 12/19/02 NA < 0.31 < 0.5 ---< 0.3 < 0.92 < 0.71 < 0.3 NA

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	Dete	Lab Notes	DRO (mg/l)	Benzene	Ethylbenzene	Toluene	Xylenes	TMBs	МТВЕ	Other VOCs
Sample MW2	Date 3/25/03	Notes	NA	<0.31	<0.5	<0.3	<0.92	<0.41	<0.3	NA
(cont.)	6/10/03		NA	< 0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	3/9/04	-	NA	< 0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	A		NA	<0.500	<5.00	<5.00	<5.00	<10.00	<0.276	NA
	3/9/05	-				<0.11	<0.39	<0.44	<0.23	NA
	3/21/2006	-	NA	<0.25	<0.22				<0.16	NA
MW3	8/31/99		0.46	<0.13	<0.22	<0.20	<0.23	<0.51	1-	
	9/6/01		NA	<0.13	<0.22	<0.20	<0.23	<0.51	<0.16	NA
	12/20/01		NA	<0.13	<0.22	<0.20	<0.23	<0.51	<0.16	NA
4/24/02		NA	<0.13	<0.22	<0.20	<0.23	0.22	<0.16	NA	
	4/24/02 7/23/02		NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	9/23/02		NA	< 0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	12/19/02		NA	< 0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	3/24/03		NA	< 0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	6/9/03		NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	3/9/04		NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
			NA	<0.500	<5.00	<5.00	<5.00	<10.00	<0.276	NA
	3/8/05	(15)					<1.6	<1.76	<0.92	NA
	3/21/2006	1	NA	<1.0	<0.88	<0.44				NA
MW4	8/31/99		2.4	<0.13	<0.22	<0.20	<0.23	<0.51	<0.16	
	9/6/01	(2)	NA	<0.13	-0.22	<0.20	-0.23	<0.51	<0.16	NA

 Table E-2 (Continued)

 DRO, VOC, and PVOC Concentrations in Groundwater at Monitoring Well Locations

Sample	Date	Lab Notes	DRO (mg/l)	Benzene	Ethylbenzene	Toluene	Xylenes	TMBs	МТВЕ	Other VOCs
cont.)	12/20/01	**	NA	<0.13	<0.22	<0.20	0.54	<0.51	<0.16	NA
	4/24/02	(2)	NA	<0.13	<0.22	<0.20	<0.23	<0.51	<0.16	NA
	7/24/02	/	NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	9/25/02	(3)	NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	12/20/02		NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	3/26/03	•	NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	6/10/03		NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	9/16/03	-	NA	< 0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	3/10/04		NA	0.31	<0.5	<0.3	<0.92	20.71	<0.3	NA
	9/30/04	-	NA	<0.500	<5.00	<5.00	<5.00	<10.00	×0.511	NA
	3/9/05		NA	<0.500	<5.00	<5.00	<5.00	<10.00	<0.276	NA
/	3/21/06	(1)	NA	<1.0	<0.88	<0.44	<1.6	<1.76	<0.92	NA
AW5	8/31/99	(2)	94	3.6	44	<0.20	85	201	<0.16	NA
	9/7/01	(4)	NA	210	5,200	<200	14,000	63,000	<160	NA
	9/7/01 Dup	(4)	NA	<130	12,000	250	22,000	76,000	<160	NA
	12/21/01	(2)	NA	13	77	7.6	170	169	<3.2	NA
	4/25/02	(2)	NA	18	92	7.5	230	217	<0.80	NA
	4/25/02 Dup	(2)	NA	17	91	7.4	230	218	<0.80	NA

 Table E-2 (Continued)

 DRO, VOC, and PVOC Concentrations in Groundwater at Monitoring Well Locations

Sample	Date	Lab Notes	DRO (mg/l)	Benzene	Ethylbenzene	Toluene	Xylenes	TMBs	МТВЕ	Other VOCs
MW5	03/21/2006		NA	18	110	4.2	210	218	<0.46	NA
(Cont.)								1.7	-0.16	NA
MW6	8/31/99	-	0.79	3.4	5.7	<0.20	7.8	1.7	<0.16	NA
	9/6/01	(5)	NA	2.5	0.65	<0.20	1.4	<0.51	<0.16	NA
	12/21/01	(5)	NA	<0.13	<0.22	<0.20	<0.23	<0.51	<0.16	NA
	4/25/02		NA	<0.13	<0.22	<0.20	<0.23	<0.51	<0.16	NA
	7/23/02		NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	9/24/02		NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	12/20/02		NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	3/25/03		NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	6/10/03		NA	2.73	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	9/15/03		NA	< 0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	3/9/04	-2	NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	9/29/04	-	NA	<0.500	<5.00	<5.00	<5.00	<10.00	<0.511	NA
	3/9/05	-	NA	<0.500	<5.00	<5.00	<5.00	<10.00	<0.276	NA
	3/21/06		NA	<0.25	<0.22	<0.11	<0.39	<0.44	<0.23	NA
MW7	8/31/99	(6)	<0.10	<0.13	<0.22	<0.20	<0.23	<0.51	<4.7	NA
	9/6/01		NA	0.22	<0.22	<0.20	<0.23	<0.51	<0.16	NA
	12/20/01		NA	0.21	<0.22	<0.20	<0.23	<0.51	2.4	NA
	4/25/02	(5)	NA	0.20	<0.22	<0.20	<0.23	<0.51	<0.16	NA

 Table E-2 (Continued)

 DRO, VOC, and PVOC Concentrations in Groundwater at Monitoring Well Locations

Sample	Date	Lab Notes	DRO (mg/l)	Benzene	Ethylbenzene	Toluene	Xylenes	TMBs	МТВЕ	Other VOCs
MW7 (cont.)	7/23/02	**	NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	9/24/02		NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	12/20/02	**	NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	3/25/03	-	NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	6/10/03	2	NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	3/9/04	-	NA	< 0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	3/9/05		NA	<0.500	<5.00	<5.00	<5.00	<10.0	1.50	NA
	3/21/06	(1)	NA	<1.0	<0.88	<0.44	<1.6	<1.76	<0.92	NA .
AW10	9/6/01	(7)	NA	<0.10	<0.25	<0.10	<0.25	<0.20	<0.25	Methylene chloride
	12/20/01	-	NA	<0.13	<0.22	<0.20	<0.23	<0.51	<0.16	NA
	4/23/02		NA	<0.13	<0.22	<0.20	<0.23	<0.51	<0.16	NA
	7/22/02	-	NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	9/23/02		NA	<0.31	<0.5	50.3	<0.92	<0.71	<0.3	NA
	12/19/02		NA	<0.31	≪0.5	<0.3	<0.92	<0.71	<0.3	NA
1.1	3/24/03		NA	<0.31	<0.5	<0.3	<0.92	-0.71	<0.3	NA
	6/9/03	-	NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.9	NA
	3/9/04	-	NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA

 Table E-2 (Continued)

 DRO, VOC, and PVOC Concentrations in Groundwater at Monitoring Well Locations

Sample	Date	Lab Notes	DRO (mg/l)	Benzene	Ethylbenzene	Toluene	Xylenes	TMBs	MTBE	Other VOCs
MW12	4/25/02	(5)	NA	0.20	<0.22	0.25	0.57	0.88	<0.16	NA
(Cont.)	7/24/02		NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	9/24/02	(10)	NA	0.505	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	12/20/02	(8)	NA	<0.31	<0.5	<0.3	<0.92	0.453	<0.3	NA
	3/25/03		NA	20.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	6/10/03	-	NA	<0.31	\$0.5	<0.3	-0.92	<0.71	<0.3	NA
	9/16/03	(9)	NA	<0.31	<0.5	50.3	0.328	0.482	<0.3	NA
	3/10/04		NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	9/30/04		NA	<0.500	<5.00	<5.00	<5.00	<10.00	<0.511	NA
	3/9/05		NA	<0.500	<5.00	<5.00	<5.00	<10.00	<0.276	NA
	9/9/05	-	NA	<0.20	<0.50	<0.20	<0.50	0.37	<0.50	NA
	03/21/2006	(1)	NA	<1.0	<0.88	<0.44	<1.6	<1.76	<0.92	NA
/	3/21/2006	(1)	NA	<1.0	<0.88	<0.44	<1.6	<1.76	<0.92	NA
MW13	Dup 9/6/01	(6)	NA	1.9	<0.25	<0.10	<0.25	11	<0.25	sec-Butylbenzene9.5Isopropylbenzene4.4Methylene chloride0.85Naphthalene0.29n-Propylbenzene0.73
	12/21/01	(10)	NA	2.1	<0.22	0.27	0.24	0.37	<0.16	NA
	4/25/02	(2)	NA	1.4	<0.22	0.21	<0.23	0.29	<0.16	NA
	7/23/02	(11)	NA	0.503	<0.5	<0.3	<0.92	<0.71	<0.3	NA

 Table E-2 (Continued)

 DRO, VOC, and PVOC Concentrations in Groundwater at Monitoring Well Locations

Sample	Date	Lab Notes	DRO (mg/l)	Benzene	Ethylbenzene	Toluene	Xylenes	TMBs	МТВЕ	Other VOCs
MW13 (Cont.)	9/24/02	-	NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	12/20/02	(11)	NA	0.706	<0.5	<0.3	<0.92	<0.71	< 0.3	NA
	3/25/03	(11)	NA	0.456	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	6/10/03	(11)	NA	0.865	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	9/16/03	(11)	NA	0.421	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	3/10/04	-	NA	1.49	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	9/29/04	-	NA	< 0.500	<5.00	<5.00	<5.00	<10.00	<0.511	NA
	3/9/05	-	NA	<0.500	<5.00	<5.00	<5.00	<10.00	<0.276	NA
	3/21/2006	-	NA	<0.25	<0.22	<0.11	<0.39	<0.44	<0.23	NA
MW14	9/7/01	(6)	NA	<0.40	33	<0.40	6.6	54	<1.0	sec-Butylbenzene 3 Isopropylbenzene 2. p-Isopropyltoluene 1 Methylene chloride 1. Naphthalene 8 n-Propylbenzene 33
1.1.1	12/21/01	(2)	NA	0.78	7.6	<0.40	0.60	2.6	< 0.32	NA
	12/21/01 Dup	(2)	NA	0.76	7.4	<0.40	0.56	2.3	< 0.32	NA
	4/25/02	(2)	NA	0.44	0.84	<0.40	<0.46	<1.02	< 0.32	NA
	7/24/02	(12)	NA	0.459	5.20	<0.3	<0.92	1.67	<0.3	NA
	9/24/02	(13)	NA	1.06	13.9	<0.3	0.363	0.642	<0.3	NA
	12/21/02	-	NA	1.11	3.66	<0.3	<0.92	<0.71	<0.3	NA
	3/25/03	-	NA	1.15	10.8	< 0.3	<0.92	<0.71	<0.3	NA

 Table E-2 (Continued)

 DRO, VOC, and PVOC Concentrations in Groundwater at Monitoring Well Locations

Sample	Date	Lab Notes	DRO (mg/l)	Benzene	Ethylbenzene	Toluene	Xylenes	TMBs	МТВЕ	Other VOCs
WW14 (Cont.)	6/10/03	(11)	NA	0.345	<0.5	<0.3	<0.92	<0.71	<0.3	NA
(com)	9/16/03		NA	< 0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	3/10/04		NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	9/30/04		NA	<0.500	<5.00	<5.00	<5.00	<10.00	<0.511	NA
	3/9/05		NA	<0.500	<5.00	<5.00	<5.00	<10.00	< 0.276	NA
	3/21/2006	-	NA	<0.25	<0.22	<0.11	<0.39	<0.44	<0.23	NA
TWIS	9/6/01	(6)	NA	<0.10	<0.25	<0.10	<0.25	<0.20	<0.25	Methylene chloride
	12/21/01	-	NA	<0.13	<0.22	<0.20	<0.23	<0.51	<0.16	NA
	4/23/02	~	NA	<0.13	<0.22	<0.20	<0.23	<0.51	<0.16	NA
	7/22/02	-	NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	9/23/02		NA	<0.31	<0.5	<0.3	<0.92	0.71	<0.3	NA
	12/18/02	-	NA	<0.31	-05	<0.3	50.92	<0.71	<0.3	NA
	3/24/03	-	NA	<0.31	<0.5	502	<0.92	<0.71	<0.3	NA
	6/9/03		NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	9/15/03		NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	3/8/04		NA	<0.31	<0.5	<0.3	<0.92	<0.71	<0.3	NA
	9/29/04		NA	<0.500	<5.00	<5.00	<5.00	<10.00	<0.511	NA
	3/8/05	(15)	NA	<0.500	<5.00	<5.00	<5.00	<10.00	<0.276	NA
/	03/20/2006		NA	<0.25	<0.22	<0.11	<0.39	<0.44	<0.23	NA

 Table E-2 (Continued)

 DRO, VOC, and PVOC Concentrations in Groundwater at Monitoring Well Locations

Table E-2 (Continued) DRO, VOC, and PVOC Concentrations in Groundwater at Monitoring Well Locations

Sample	Date	Lab Notes	DRO (mg/l)	Benzene	Ethylbenzene	Toluene	Xylenes	TMBs	МТВЕ	Other VOCs	
NR 140 Enfor			NE	5	700	1,000	10,000	480	60	1,1-Dichloroethane cis-1,2 Dichloroethane Methylene chloride Naphthalene Trichloroethene	850 70 5 40 5
NR 140 Preve	ntive Action 1	Limits	NE	0.5	140	200	1,000	96	12	1,1-Dichloroethane cis-1,2 Dichloroethane Methylene chloride Naphthalene Trichloroethene	85 7 0.5 8 0.5

ABBREVIATIONS:

DRO = Diesel Range Organics VOCs = Volatile Organic Compounds PVOC = Petroleum Volatile Organic Compounds

NOTES: Bold values exceed NR 140 enforcement standards.

LABORATORY NOTES:

- (1) PVOCs analyses SOAPY
- (2) PVOCs analysis Late eluting hydrocarbons present.
- (3) 1,2,4- and 1,3,5 TMB analyses Result of duplicate analysis exceeds the limits for precision.
- (4) PVOCs analysis Late eluting hydrocarbons present. Methylene chloride Common lab solvent and contaminant.
- (5) PVOCs analysis Unidentified compound(s) present.
- (6) MTBE analysis Matrix interference.
- (7) Methylene chloride Common lab solvent and contaminant.
- (8) 1,2,4 TMB analysis Estimated concentration below laboratory quantitation level.
- (9) 1,2,4-TMB & o-Xylene Estimated concentration below laboratory quantitation level.
- (10) PVOCs analysis Late eluting hydrocarbons present and unidentified compound(s) present.
- (11) Benzene analysis Estimated concentration below laboratory quantitation level.
- (12) Benzene, 1,2,4 TMB, and 1,3,5 TMB analyses Estimated concentration below laboratory quantitation level.
- (13) 1,2,4-TMB and o-Xylene analyses Estimated concentration below laboratory quantitation level.
- (14) Toluene analyses Estimated concentration below laboratory quantitation level.
- (15) PVOCs analyses The result for one or more quality measurements associated with the sample did not meet the laboratory and/or source method acceptance criteria.

TMB = 1,2,4- and 1,3,5-Trimethylbenzene

AST = Aboveground Storage Tank

NE = No Standard Established

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Rev. by: JSP 8/28/02; TLR 11/25/02, 01/24/03, 02/04/03; LMH 04/24/03, 04/29/03; SMS 7/22/03, 10/23/03; LMH 4/5/04, 10/24/04; JSN 4/13/05; LMH 9/30/05; TLR 04/10/06

MTBE = Methyl-tert-butyl ether NA = Not Analyzed

Table E-2 (Continued) DRO, VOC, and PVOC Concentrations in Groundwater at Monitoring Well Locations

COMMENTS ON SAMPLING METHODS:

Samples collected on August 31, 1999 (MW2 – MW7) were collected using a bailer, following well purging at low flow with a peristaltic pump. Samples collected on September 6 and December 21, 2001 (MW1 – MW7 and MW10 – MW16) were collected using a bailer, following well purging with a bailer. Samples collected in April, July, and September 2002 (MW1 – MW7 and MW10 – MW16) were collected using a peristaltic pump at low flow, following purging with a peristaltic pump at low flow.

By: LH; JSP

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Checked: JM Date: 03/13/02; 8/27/02; 11/27/02; 1/10/03; 4/24/03; 7/25/03; 10/24/03; 4/24/04; 5/4/04; 10/24/05; 4/13/05; 9/30/05; 4/11/06

Table E-3
PAH Concentrations in Groundwater
Hartmeyer AST Area / Project #1624
(Results in µg/l)

	м	w1 /				NR 140 enforcement	NR 140 preventive				
Compound	2/6/2001	3/20/2006	8/31/1999	9/6/2001	9/24/2002	12/19/2002	3/25/2003	6/10/2003	3/9/2004	standard (ES)	action limit (PAL)
Acenaphthene	K0.40	<0.34	<0.22	<0.40	<0.06	<0.06	<0.06	<0.06	<5.00	-	
Acenaphthylene	<0.64	<0.70	<0.56	<0.64	< 0.06	<0.06	<0.06	<0.06	<5.00		
Anthracene	<0.030	<0,039	0.023	< 0.030	<0.05	< 0.05	<0.05	< 0.05	<5.00	3,000	600
Benzo(a)anthracene	< 0.033	<0.045	<0.017	< 0.033	<0.04	<0.04	< 0.04	< 0.04	<0.100		
Benzo(b)fluoranthene	< 0.056	×0.10	< 0.043	< 0.056	<0.04	<0.04	<0.04	<0.04	0.0239	0.2	0.02
Benzo(k)fluoranthene	<0.050	/<0.050	<0.029	< 0.050	<0.04	< 0.04	<0.04	< 0.04	<0.100		
Benzo(a)pyrene	<0.023	< 0.033	<0.027	< 0.023	<0.017	<0.017	< 0.017	<0.017	0.0225	0.2	0.02
Benzo(g,h,i)perylene	<0.11	<0.12	<0.10	<0.11	< 0.05	< 0.05	<0.05	<0.05	<5.00	-	
Chrysene	<0.029	<0.042	<0.013	<0.029	<0.05	<0.05	< 0.05	<0.05	0.024	0.2	0.02
Dibenzo(a,h)anthracene	<0.050	<0.13	<0.16	<0.050	<0.06	<0.06	<0.06	<0.06	< 0.100		4
Fluoranthene	<0.077	<0.083	0.68	<0.077	<0.06	<0.06	<0.06	<0.06	<5.00	400	80
Fluorene	<0.07	\$0.063	0.21	<0.078	<0.12	<0.12	<0.12	<0.12	<5.00	400	80
Indeno(1,2,3-cd)pyrene	<0.019	<0.063	<0.084	<0.039	<0.05	<0.05	< 0.05	<0.05	<0.200	-	
I-Methylnaphthalene	<0/51	<0\33	<0.40	<0.51	<0.08	<0.08	<0.08	0.16	<5.00		
2-Methylnaphthalene	<\$.96	<0.12	<0.61	<0.96	<0.11	<0.11	<0.11	0.18	<5.00		
Naphthalene	\$0.38	<0.4	6.8	<0.38	<0.1	<0.1	<0.1	<0.1	<5.00	40	8
Phenanthrene	×0.078	<0.031	0.85	<0.078	<0.08	<0.08	<0.08	0.28	<5.00		
Pyrene	/<0.061	<0.045	0.16	<0.061	<0.09	<0.09	<0.09	<0.09	<5.00	250	50
Lab Note Number	/	\	1		(1)	(13)			(29)		-

Table E-3
PAH Concentrations in Groundwater
Hartmeyer AST Area / Project #1624
(Results in µg/l)

	MW2	(Cont.)		MW3			М	NR 140 enforcement	NR 140 preventive		
Compound	3/9/2005	3/21/2006	8/31/1999	9/6/2001	3/21/2006	8/31/1999	9/6/2001	4/25/2002	7/24/2002	standard (ES)	action limit (PAL)
Acenaphthene	<5.00	<0.34	<0.22	<0.40	< 0.34	<0.22	<0.40	<0.57	0.32		
Acenaphthylene	<5.00	<0.71	<0.56	<0.64	<0.71	<0.56	<0.65	< 0.26	< 0.16		
Anthracene	<5.00	<0.039	<0.018	<0.030	< 0.039	0.12	0.05	0.12	<0.024	3,000	600
Benzo(a)anthracene	<0.100	<0.045	<0.017	<0.033	<0.045	<0.017	0.19	<0.17	< 0.03		
Benzo(b)fluoranthene	0.0239	<0.10	< 0.043	<0.056	<0.10	< 0.043	2.057	<0.072	< 0.036	0.2	0.02
Benzo(k)fluoranthene	<0.100	<0.051	<0.029	<0.050	< 0.051	<0.029	<0.050	<0.052	< 0.067		-
Benzo(a)pyrene	0.0225	< 0.033	<0.027	<0.023	<0.033	0.069	<0.023	0.017	< 0.022	0.2	0.02
Benzo(g,h,i)perylene	<5.00	<0.12	<0.10	<0.11	<0.12	<0.10	<0.11	<0.2)	<0.087		-
Chrysene	0.0240	< 0.042	<0.013	<0.029	<0.042	< 0.013	< 0.029	<0.041	<0.022	0.2	0.02
Dibenzo(a,h)anthracene	<0.100	<0.13	<0.16	<0.050	<0.13	<0.16	< 0.050	0.097	<0.036		
Fluoranthene	<5.00	<0.084	<0.10	<0.077	<0.084	< 0.10	0.15	0,46	<0.053	400	80
Fluorene	<5.00	<0.064	<0.029	<0.078	<0.064	0.69	0.36	0.42	<0.025	400	80
Indeno(1,2,3-cd)pyrene	<0.200	<0.064	<0.084	<0.039	<0.064	<0.084	< 0.039	< 0.039	< 0.03		
1-Methylnaphthalene	<5.00	<0.33	<0.40	<0.51	< 0.33	<0.40	<0.52	<0.66	0.36		
2-Methylnaphthalene	<5.00	< 0.32	<0.61	<0.96	< 0.32	< 0.61	<0.97	<0.63	0.5		
Naphthalene	<5.00	<0.41	<0.22	< 0.38	<0.41	<0.2/2	< 0.38	<0.74	0.62	40	8
Phenanthrene	<5.00	<0.031	< 0.014	<0.078	<0.031	9.2	0.18	0.078	<0.036	-	
Pyrene	<5.00	<0.045	<0.047	<0.061	<0.045	0.047	0.11	0.2	<0.13	250	50
Lab Note Number	(29)	-				(2)			\		_

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Table E-3
PAH Concentrations in Groundwater
Hartmeyer AST Area / Project #1624
(Results in µg/l)

	\sum		MW5	(Cont.)		/		MW6		NR 140 enforcement	NR 140 preventive action limit (PAL)
Compound	9/30/2004	9/30/2004 Dup	3/9/2005	3/9/2005 Dup	9/9/2005	3/21/2006	8/31/1999	9/6/2001	4/25/2002	standard (ES)	
Acenaphthene	23.6	28.0	5.78	10.3	5.6	9.0	0.57	2.5	<0.46		
Acenaphthylene	5.79	<5.00	<50.0	<5.00	< 0.69	<3.6	<0.55	<0.64	<0.21		
Anthracene	<5.00	300	<5.00	6.43	1,9	4.8	0.025	< 0.030	< 0.083	3,000	600
Benzo(a)anthracene	0.136	0.193	0.719	0.996	0.10	17	0.029	< 0.033	<0.14		
Benzo(b)fluoranthene	<0.0200	<0.0200	0.312	0.413	<0.098	< 0.51	< 0.043	< 0.056	< 0.042	0.2	0.02
Benzo(k)fluoranthene	<0.100	<0.100	0.100	<0.100	<0.049	<0.26	<0.029	<0.050	< 0.026		
Benzo(a)pyrene	<0.0200	<0.0200	<0.0200	<0.0200	< 0.032	<0.17	<0.027	<0.023	< 0.014	0.2	0.02
Benzo(g,h,i)perylene	<5.00	<5.00	<5.00	<5.00	<0.12	<0.62	<0.10	<0.11	<0.16		
Chrysene	0.0962	0.119	1.38	1.92	0.23	3.2	0.024	<0.029	< 0.033	0.2	0.02
Dibenzo(a,h)anthracene	<0.100	<0.100	<0.100	₹0.100	< 0.13	<0.68	<0.16	<0.050	<0.079		
Fluoranthene	<5.00	<5.00	50.7	69.2	16	17	0.26	<0.077	<0.12	400	80
Fluorene	7.81	9.86	22.9	28.4	13	24	0.12	0.34	<0.15	400	80
ndeno(1,2,3-cd)pyrene	<0.200	<0.200	<0.200	<0.200	<0.062	< 0.32	< 0.083	< 0.039	<0.032		
-Methylnaphthalene	115	169	509	559	160	240	0.44	< 0.51	<0.54		
-Methylnaphthalene	106	148	236	306	180	330	<0.60	<0.96	< 0.51		
Vaphthalene	76.9	107	98.3	130	310	280	3.6	< 0.38	<0.60	100	10
henanthrene	5.49	7.74	33.2	49	16	44	0.21	<0.078	<0.021		110
yrene	5.00	<5.00	<5.00	<5.00	2.4	33	0.084	< 0.061	< 0.013	250	50
ab Note Number	(25)	(25)	(30)	(30)							

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					MW6 (Cont.))				NR 140 enforcement	NR 140 preventive action
Compound	7/23/2002	9/24/2002	12/20/2002	3/25/2003	6/10/2003	9/15/2003	3/9/2004	9/29/2004	3/9/2005	standard (ES)	limit (PAL)
Acenaphthene	1.7	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<5.00	<5.00		
Acenaphthylene	<0.16	<0.06	<0.06	<0.06	<0.06	<0.06	< 0.06	<5.00	<5.00		
Anthracene	< 0.024	<0.05	<0.05	<0.05	<0.05	<0.05	< 0.05	<5.00	<5.00	3,000	600
Benzo(a)anthracene	<0.03	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.100	<0.100		
Benzo(b)fluoranthene	< 0.036	<0.04	<0.04	<0.04	<0.04	<0.04	< 0.04	<0.0200	<0.0200	0.2	0.02
Benzo(k)fluoranthene	<0.067	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.100	<0.100		
Benzo(a)pyrene	<0.022	0.067	<0.017	<0.017	<0.017	<0.017	<0.017	<0.0200	0.0217	0.2	0.02
Benzo(g,h,i)perylene	<0.087	<0.05	< 0.05	<0.05	<0.05	< 0.05	<0.05	<5.00	<5.00		
Chrysene	<0.022	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.0200	<0.0200	0.2	0.02
Dibenzo(a,h)anthracene	< 0.036	0.14	<0.06	<0.06	<0.06	<0.06	<0.06	<0.100	<0.100		
Fluoranthene	<0.053	< 0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<5.00	<5.00	400	80
Fluorene	< 0.025	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<5.00	<5.00	400	80
Indeno(1,2,3-cd)pyrene	< 0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.200	<0.200		-
1-Methylnaphthalene	<0.095	<0.08	<0.08	<0.08	<0.08	0.084	<0.08	<5.00	<5.00	-	
2-Methylnaphthalene	<0.096	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<5.00	<5.00		
Naphthalene	0.2	<0.1	0.26	<0.1	<0.1	0.497	<0.1	<5.00	<5.00	100	10
Phenanthrene	<0.036	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<5.00	<5.00		-
Pyrene	<0.13	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<5.00	<5.00	250	50
Lab Note Number	(8)	(9)	(10)			(21)		(26)			

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Table E-3					
PAH Concentrations in Groundwater					
Hartmeyer AST Area / Project #1624					
(Results in µg/l)					

	MW6 (Cont.)				M	W7				NR 140 enforcement	NR 140 preventive
Compound	3/21/2006	8/31/1999	9/6/2001	4/25/2002	7/23/2002	9/24/2002	12/20/2002	3/25/2003	6/10/2003	standard (ES)	action limit (PAL)
Acenaphthene	< 0.34	<0.22	<0.40	<0.48	<0.053	<0.06	<0.06	< 0.06	<0.06		
Acenaphthylene	<0.70	<0.55	<0.64	<0.22	<0.16	<0.06	<0.06	< 0.06	<0.06		
Anthracene	<0.039	<0.018	< 0.030	<0.087	<0.024	0.08	< 0.05	< 0.05	<0.05	3,000	600
Benzo(a)anthracene	<0.045	<0.017	<0.033	<0.15	<0.03	<0.04	< 0.04	< 0.04	< 0.04		-
Benzo(b)fluoranthene	<0.10	< 0.043	< 0.056	<0.044	<0.036	< 0.04	< 0.04	<0.04	< 0.04	0.2	0.02
Benzo(k)fluoranthene	<0.050	<0.029	<0.050	<0.027	<0.067	<0.04	<0.04	< 0.04	< 0.04	-	
Benzo(a)pyrene	< 0.033	<0.027	<0.023	<0.015	<0.022	< 0.017	<0.017	< 0.017	< 0.017	0.2	0.02
Benzo(g,h,i)perylene	<0.12	<0.10	<0.11	<0.17	<0.087	< 0.05	< 0.05	<0.05	< 0.05	_	
Chrysene	<0.042	<0.013	<0.029	<0.035	<0.022	< 0.05	< 0.05	<0.05	< 0.05	0.2	0.02
Dibenzo(a,h)anthracene	<0.13	<0.16	<0.050	<0.083	< 0.036	< 0.06	< 0.06	<0.06	< 0.06		
Fluoranthene	<0.083	<0.10	<0.077	<0.13	<0.053	<0.06	< 0.06	<0.06	<0.06	400	80
Fluorene	< 0.063	<0.029	<0.078	<0.16	<0.025	<0.12	<0.12	<0.12	<0.12	400	80
Indeno(1,2,3-cd)pyrene	<0.063	<0.083	<0.039	< 0.034	< 0.03	< 0.05	< 0.05	<0.05	< 0.05		
-Methylnaphthalene	< 0.33	<0.40	< 0.51	<0.57	< 0.095	< 0.08	<0.08	<0.08	< 0.08		
2-Methylnaphthalene	<0.32	<0.60	<0.96	<0.54	< 0.096	< 0.11	<0.11	<0.11	<0.08		
Naphthalene	<0.41	<0.22	< 0.38	<0.63	<0.067	<0.1	<0.1	<0.1	<0.11		
Phenanthrene	<0.031	< 0.014	<0.078	<0.022	<0.036	<0.08	<0.08	<0.1	<0.1	100	10
yrene	< 0.045	<0.047	<0.061	<0.014	<0.13	<0.08	<0.08	<0.08			
ab Note Number								~0.09	<0.09	250	50
						(11)	(13)	~			

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		MW12	(Cont.)					NR 140 enforcement	NR 140 preventive		
Compound	3/9/2005	9/9/2005	3/21/2006	3/21/2006 DVP	9/6/2001	12/21/2001	4/25/2002	7/23/2002	9/24/2002	standard (ES)	action limit (PAL)
Acenaphthene	<5.00	4.5	2.2	2.1	3.2	2.1	<0.46	3.5	<0.06		
Acenaphthylene	<5.00	<0.69	<0.72	<0.72	<0.64	<0.64	<0.21	<0.16	<0.06		
Anthracene	<5.00	0.17	0.49	0.48	0.044	<0.030	< 0.083	<0.024	0.6	3,000	600
Benzo(a)anthracene	<0.100	0.65	0.52	0.65	<0.033	<0.033	<0.14	<0.03	<0.04		
Benzo(b)fluoranthene	0.0203	\$0.098	<0.10	<0.10	<0.056	<0.056	<0.042	<0.036	<0.04	0.2	0.02
Benzo(k)fluoranthene	< 0.100	0.063	<0/051	<0.051	<0.050	<0.050	<0.026	<0.067	<0.04		
Benzo(a)pyrene	<0.0200	0.098	0.033	0.046	<0.023	<0.023	<0.014	<0.022	<0.017	0.2	0.02
Benzo(g,h,i)perylene	<5.00	<0.12	<0.12	<0.12	<0.11	<0.11	<0.16	<0.087	<0.05		
Chrysene	0.0570	0.38	0.089	0.11	< 0.029	<0.029	< 0.033	<0.022	<0.05	0.2	0.02
Dibenzo(a,h)anthracene	< 0.100	< 0.13	<0.14	<0.14	<0.050	< 0.050	<0.079	<0.036	<0.06	-	
Fluoranthene	<5.00	0.50	4.1	1.4	0.12	<0.077	<0.12	<0.053	<0.06	400	80
Fluorene	<5.00	6.7	4	3.8	5.2	3.9	3.4	3.7	1.3	400	80
indeno(1,2,3-cd)pyrene	<0.200	< 0.062	<0.065	<0.065	<0.039	<0.039	<0.032	<0.03	<0.05		
-Methylnaphthalene	<5.00	<0.32	<0.33	< 0.33	5.1	<0.51	2.7	<0.095	<0.08	-	
2-Methylnaphthalene	<5.00	<0.31	<0.32	<0.32	19	<0.96	10	<0.056	<0.11	-	
Naphthalene	<5.00	0.64	<0.42	0.42	73	<0.38	35	<0.067	2.59	100	10
Phenanthrene	<3.00	0.68	0.59	0.56	1.1	0.96	0.8	< 0.036	1.13		
утепе	<5.00	0.89	<0.046	<0.046	0.16	<0.061	<0.013	<0.13	<0.09	250	50
ab Note Number	(29)	(31)	(33)	(33)			(6)		(1)		

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			MW13 (Cont.)											
Compound	12/20/2002	3/25/2003	6/10/2003	9/16/2003	3/10/2004	9/29/2004	3/9/2005	3/21/2006	enforcement standard (ES)	action limit (PAL)				
Acenaphthene	1.51	2.06	1.70	0.84	1.49	10.9	<5.00	0.97						
Acenaphthylene	<0.06	<0.06	<0.06	<0.06	< 0.06	<5.00	<5.00	<0.75						
Anthracene	<0.05	0.26	<0.05	<0.05	< 0.05	<5.00	<5.00	< 0.041	3,000	600				
Benzo(a)anthracene	<0.04	<0.04	<0.04	<0.04	< 0.04	<0.100	< 0.100	<0.048	-					
Benzo(b)fluoranthene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.0200	< 0.0200	< 0.11	0.2	0.02				
Benzo(k)fluoranthene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.100	< 0.100	< 0.053						
Benzo(a)pyrene	<0.017	<0.017	<0.017	<0.017	< 0.017	<0.0200	< 0.0200	< 0.035	0.2	0.02				
Benzo(g,h,i)perylene	<0.05	<0.05	<0.05	< 0.05	<0.05	<5.00	<5.00	<0.13						
Chrysene	<0.05	<0.05	<0.05	< 0.05	<0.05	<0.0200	<0.0200	< 0.045	0.2	0.02				
Dibenzo(a,h)anthracene	<0.06	<0.06	<0.06	<0.06	<0.06	<0.100	<0.100	<0.14						
Fluoranthene	<0.06	<0.06	<0.06	<0.06	<0.06	<5.00	<5.00	<0.088	400	80				
Fluorene	2.54	3.15	2.8	1.82	<0.12	<5.00	<5.00	1.5	400	80				
Indeno(1,2,3-cd)pyrene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.200	< 0.200	<0.067						
-Methylnaphthalene	< 0.08	<0.08	<0.08	<0.08	<0.08	19.8	<5.00	0.96						
2-Methylnaphthalene	0.84	1.13	1.06	0.7	<0.11	<5.00	<5.00	5.6						
Naphthalene	<0.1	2.51	2.34	1.85	<0.1	<5.00	<5.00	<0.43	100	10				
Phenanthrene	<0.08	0.58	0.61	0.38	< 0.08	<5.00	<5.00	< 0.033						
yrene	<0.09	<0.09	<0.09	<0.09	<0.09	<5.00	<5.00	< 0.048	250	50				
ab Note Number	1	-		-		(28)		(34)		-				

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					MW14 (Cont.)				NR 140 enforcement	NR 140 preventive
Compound	9/7/2001	4/25/2002	7/24/2002	9/24/2002	12/21/2002	3/25/2003	6/10/2003	9/16/2003	3/10/2004	standard (ES)	action limit (PAL)
Acenaphthene	36	3.9	<0.053	12.6	9.96	13.0	6.4	6.0	<0.06		**
Acenaphthylene	<48	<0.21	<0.16	12.9	9.59	<0.06	<0.06	<0.06	<0.06		
Anthracene	28	0.93	<0.024	3.98	⊲0.25	5.87	1.69	1.14	<0.05	3,000	600
Benzo(a)anthracene	340	0.59	<0.03	10.2	<0.2	4.77	<0.04	<0.04	<0.04	-	
Benzo(b)fluoranthene	<4.2	< 0.042	< 0.036	<0.4	<0.2	<0.04	<0.04	<0.04	<0.04	0.2	0.02
Benzo(k)fluoranthene	<3.8	< 0.026	<0.067	<0.4	<0.2	<0.04	<0.04	<0.04	<0.04		
Benzo(a)pyrene	<1.7	< 0.014	< 0.022	<0.17	<0.085	< 0.017	<0.017	<0.017	<0.017	0.2	0.02
Benzo(g,h,i)perylene	<8.2	<0.16	<0.087	<0.5	⊲0.25	<0.05	<0.05	<0.05	<0.05		
Chrysene	59	0.098	<0.022	9.35	⊲0.25	<0.05	<0.05	<0.05	<0.05	0.2	0.02
Dibenzo(a,h)anthracene	<3.8	<0.079	< 0.036	<0.6	<0.3	<0.06	<0.06	<0.06	<0.06		
Fluoranthene	340	1.8	< 0.053	23	<0.3	20.9	<0.06	<0.06	<0.06	400	80
Fluorene	200	6.9	9.9	17.5	12.8	13.9	6.92	7.61	<0.12	400	80
Indeno(1,2,3-cd)pyrene	<2.9	< 0.032	< 0.03	<0.5	<0.25	< 0.05	<0.05	<0.05	<0.05		
1-Methylnaphthalene	1,100	7.4	2	18.6	8.52	11.3	<0.08	<0.08	<0.08	*	
2-Methylnaphthalene	1,200	19	<0.096	4.64	3.36	3.37	1.41	0.982	<0.11		֥
Naphthalene	330	39	1.7	4.08	5.29	4.63	2.9	2.08	<0.1	100	10
Phenanthrene	410	1.3	2.6	4.65	<0.4	2.78	1.46	1.05	<0.08		-
Pyrene	560	1.7	<0.13	38.6	<0.45	29.0	<0.09	<0.09	<0.09	250	50
Lab Note Number	(4)	(6)		(14)		(15)					

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Table E-3					
PAH Concentrations in Groundwater					
Hartmeyer AST Area / Project #1624					
(Results in $\mu g/l$)					

		MW14 (Cont.	.)			NR 140	NR 140 preventive				
Compound	9/30/2004	3/9/2005	3/21/2006	9/6/2001	4/23/2002	7/22/2002	9/23/2002	12/18/2002	3/24/2003	enforcement standard (ES)	action limit (PAL)
Acenaphthene	<5.00	<5.00	2.7	<0.40	<0.48	<0.106	<0.06	<0.06	<0.06		
Acenaphthylene	<5.00	<5.00	<0.71	<0.64	<0.22	< 0.32	< 0.06	<0.06	<0.06		
Anthracene	<5.00	<5.00	< 0.039	<0.030	<0.086	<0.048	<0.05	<0.05	<0.05	3,000	600
Benzo(a)anthracene	<0.100	<0.100	<0.045	<0.033	<0.15	<0.06	<0.04	0.04	<0.04		
Benzo(b)fluoranthene	<0.0200	<0.0200	<0.10	< 0.056	<0.044	<0.072	< 0.04	< 0.04	<0.04	0.2	0.02
Benzo(k)fluoranthene	<0.100	<0.100	<0.051	< 0.050	<0.027	0.134	< 0.04	<0.04	<0.04		
Вепzo(а)ругепе	<0.0200	<0.0200	< 0.033	<0.023	< 0.015	<0.044	0.017	<0.017	<0.017	0.2	0.02
Benzo(g,h,i)perylene	<5.00	<5.00	<0.12	<0.11	<0.17	<0.174	<0.05	<0.05	<0.05		.+
Chrysene	0.122	< 0.0200	< 0.042	< 0.029	< 0.034	< 0.044	< 0.05	<0.05	<0.05	0.2	0.02
Dibenzo(a,h)anthracene	<0.100	<0.100	<0.13	< 0.050	<0.082	<0.072	20.06	<0.06	<0.06		-
Fluoranthene	<5.00	<5.00	< 0.084	<0.077	<0.12	<9.106	<0.06	<0.06	<0.06	400	80
Fluorene	<5.00	<5.00	5.9	<0.078	<0.16	<0.05	<0.12	<0.12	<0.12	400	80
Indeno(1,2,3-cd)pyrene	<0.200	<0.200	< 0.064	< 0.039	< 0.033	<0.06	< 0.05	<0.05	<0.05		
1-Methylnaphthalene	<5.00	23.3	3.1	<0.51	<0.86	<0.19	<0.08	<0.08	<0.08		
2-Methylnaphthalene	<5.00	<5.00	11	<0.96	0.53	<0.192	<0.11	<0.11	<0.11		-
Naphthalene	<5.00	<5.00	<0.41	<0.38	<0.62	<0.134	<0.1	<0.1	<0.1	100	10
Phenanthrene	<5.00	<5.00	< 0.031	< 0.078	< 0.022	<0.072	<0.08	<0.08	€0.08		-
Ругепе	<5.00	<5.00	< 0.045	<0.061	< 0.014	<0.26	<0.09	<0.09	<0.89	250	50
Lab Note Number	(26)	(29)		1			(11)	(13)	\		

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Table E-3 PAH Concentrations in Groundwater Hartmeyer AST Area / Project #1624

ABBREVIATIONS:

AST = Aboveground Storage Tank

PAH = Polynuclear Aromatic Hydrocarbon

NOTES:

Bold value indicates ES exceedance.
 -- indicates groundwater standard is not established.

COMMENTS ON PAH SAMPLING METHODS:

Samples collected on August 31, 1999 (MW2 – MW7) were collected using a bailer, following well purging at low flow with a peristaltic pump. Samples collected on September 6, 2001 (MW1 – MW7 and MW10 – MW16) were collected using a bailer, following well purging with a bailer. Samples collected on December 21, 2001 (MW12 and MW13) were collected using a peristaltic pump at low flow, following purging with a peristaltic pump at low flow. Samples collected in April, July, and September 2002 (MW1 – MW7 and MW10 – MW16) were collected using a peristaltic pump at low flow, following purging with a peristaltic pump at low flow.

LABORATORY NOTES

- Acenaphthene, 1-Methyl Naphthalene Exhibited a low bias; Acenaphthene, Anthracene, Benzo(a)Pyrene, Benzo(g,h,i)Perylene, 1-Methyl Naphthalene, Pyrene Exhibited high bias; Benzo(a)Pyrene, Pyrene - Exceeds limits for precision; 1-Methyl Naphthalene - Exhibited low bias; Pyrene - Exhibited high bias.
- (2) PAH extraction Sediment present.
- (3) Acenaphthene Standard exhibited low bias, laboratory sample exhibited high bias; Benzo(a)Pyrene, Benzo(g,h,i)Perylene, 2-Methyl Naphthalene exhibited high bias; Dibenzo(a,h)Anthracene – laboratory sample exhibited low bias.
- (4) PAHs Matrix interference.
- (5) PAHs Matrix interference. Phenanthrene Estimated Concentration.
- (6) PAHs Matrix interference. Sur: 2-Fluorobiphenyl analysis Matrix interference and standard outside of control limits.
- (7) Benzo(a)Pyrene Exhibited high bias; Dibenzo(a,h)Anthracene exhibited low bias.
- (8) Naphthalene analysis Analyte detected between LOD and LOQ.
- (9) Acenaphthene, I-Methyl Naphthalene Exhibited low bias; Acenaphthene, Pyrene laboratory sample exhibited high bias; Anthracene, Benzo(a)Pyrene, Benzo(g,h,i)Perylene, I-Methyl Naphthalene, Pyrene – exhibited high bias; Benzo(a)Pyrene, Pyrene – exceeds the limits for precision; Dibenzo(a,h)Anthracene – estimated concentration below laboratory quantitation level; I-MethylNaphthalene – laboratory sample exhibited low bias.
- (10) Benzo(g,h,i)Perylene, Dibenzo(a,h)Anthracene analysis Laboratory control sample for this analyte exhibited a high bias. Naphthalene analysis -Estimated concentration below laboratory quantitation level.
- (11) Acenaphthene, 1-Methyl Naphthalene Exhibited low bias; Acenaphthene, Pyrene laboratory sample exhibited high bias; Anthracene estimated concentration below laboratory quantitation; Anthracene, Benzo(a)Pyrene, Benzo(g,h,i)Perylene, 1-Methyl Naphthalene, Pyrene – exhibited high bias; Benzo(a)Pyrene, Pyrene – exceeds the limits for precision; 1-Methyl Naphthalene – exhibited low bias.
- (12) PAHs Exceeds limits for precision; Acenaphthene, Pyrene Exhibited high bias.
- (13) Benzo(g,h,i)Perylene, Dibenzo(a,h)Anthracene analysis Laboratory control sample for this analyte exhibited a high bias
- (14) Benzo(a)pyrene Exhibited high bias; Dibenzo(a,h)Anthracene exhibited low bias.
- (15) 9,10-Diphenylanthracene (s) Surrogate recovery was high. Result for sample may be biased high.
- (16) Indeno(1,2,3-cd)Pyrene Estimated concentration below laboratory quantitation.

(17) Benzo(b)Fluoranthene, Benzo(k)Fluoranthene, Chrysene, Fluorene, Indeno(1,2,3-cd)Pyrene, 1-Methyl Naphthalene, 2-Methyl Naphthalene, and Phenanthrene -Estimated concentration below laboratory quantitation.

Rev. JSP 8/28/02; TLR 11/25/02; JSP 1/2/27/02; JSP 1/10/03; TLR 01/24/03; JSF 4/24/03; LMH 4/24/03; SMS 7/22/03; LMH 4/5/04; LMH 10/25/04 TLR 04/10/06

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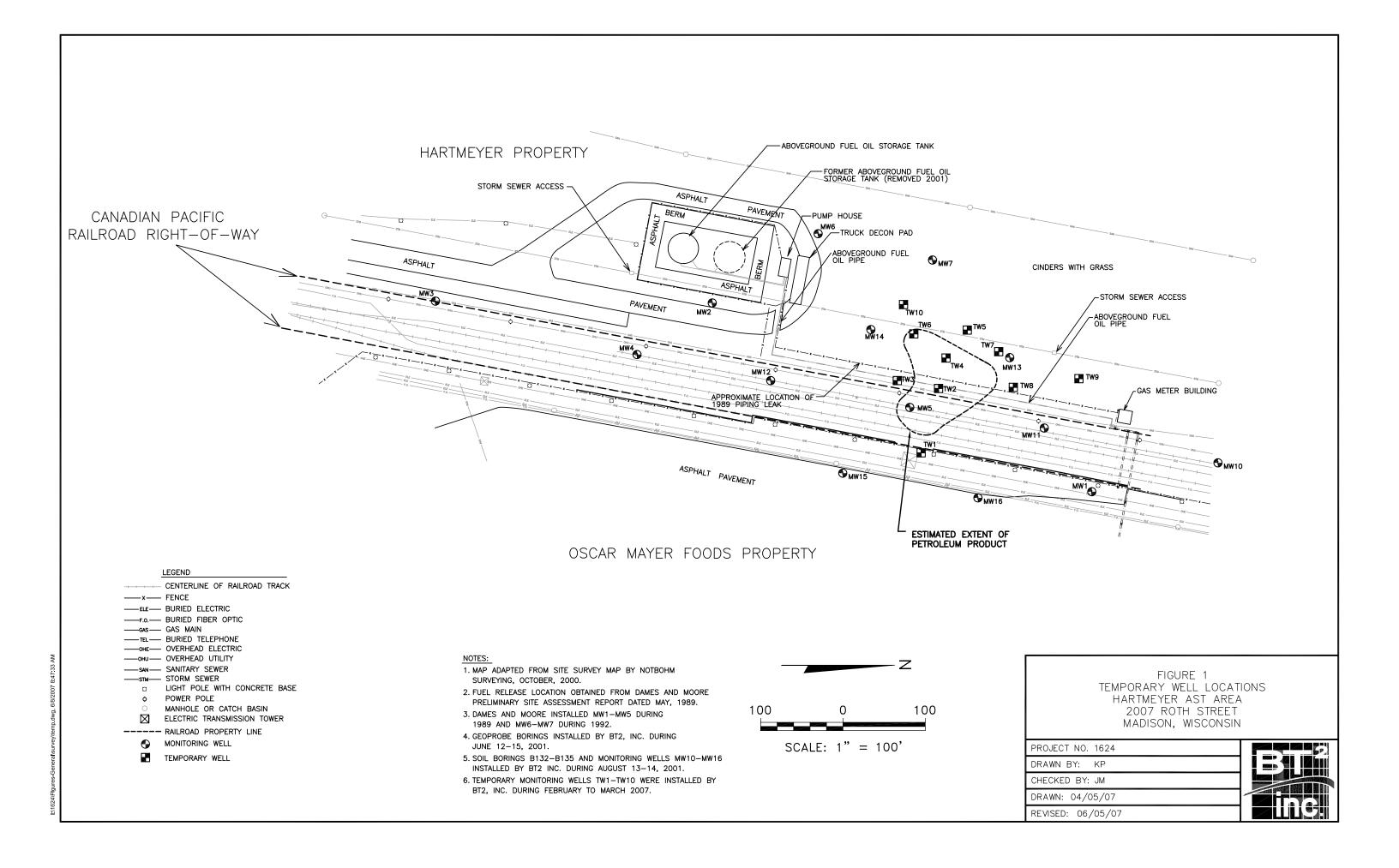
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Table E-3 PAH Concentrations in Groundwater Hartmeyer AST Area / Project #1624

- (18) 1-2Methyl Naphthalene, 2-Methyl Naphthalene Estimated concentration below laboratory quantitation level
- (19) Anthracene Estimated concentration below laboratory quantitation level,
- (20) Acenaphthene, Anthracene, Fluorene, Phenanthrene Estimated concentration below laboratory quantitation level,
- (21) 1-Methyl Naphthalene Estimated concentration below laboratory quantitation level.
- (22) Indeno(1,2,3-cd)Pyrene & 2-Methyl Naphthalene Estimated concentration below laboratory quantitation level,
- (23) Anthracene & Phenanthrene Estimated concentration below laboratory quantitation level.
- (24) 2-Methyl Naphthalene & Naphthalene Estimated concentration below laboratory quantitation level.
- (25) 2-Methylnaphthalene analysis The check standard that corresponds to this sample met the SW846 method requirements. However, it should be noted that the recovery for this individual compound in the check standard was above 115%. Surrogate: Carbazole analysis - This quality control measurement is above the laboratory established limit.
- (26) Surrogate: Carbazole analysis This quality control measurement is above the laboratory established limit.
- (27) Benzo(a)pyrene analysis The check standard that corresponds to this sample met the SW846 method requirements. However, it should be noted that the recovery for this individual compound in the check standard was above 115%.
- (28) 1- and 2-Methylnaphthalene analyses The check standard that corresponds to this sample met the SW846 method requirements. However, it should be noted that the recovery for this individual compound in the check standard was above 115%. Surrogate: Carbazole analysis This quality control measurement is above the laboratory established limit.
- (29) Benzo(a)pyrene analysis The check standard that corresponds to this sample met the SW846 method requirements. However, it should be noted that the recovery for this individual compound in the check standard was below 85%.
- (30) Benzo(a)pyrene and Pyrene analyses The check standard that corresponds to this sample met the SW846 method requirements. However, it should be noted that the recovery for this individual compound in the check standard was below 85%.
- (31) Benzo(k)fluoranthene, benzo(a)pyrene, and naphthalene analyses Results reported between the Method Detection Limnit (MDL) and Limit of Quantitation (LOQ) are less certain than results at or above the LOQ.
- (32) Benzo(a)anthracene analysis Results reported between the Method Detection Limit (MDL) and Limit of Quantitation (LOQ) are less certain than results at or above the LOQ.

By: LH; JN 4/13/05

Checked: JM Date: 11/27/02, 1/10/03, 4/24/03, 7/25/03, 10/24/03, 4/23/04, 10/27/04, 4/15/05, 10/10/05, 4/11/06



Well	Date	Depth to Product (feet)	Depth to Water (feet)	Apparent Product Thickness (feet)	Remarks
MW5 ⁽¹⁾	3/7/07	2.73	7.95	5.22	Product has yellowish color/tint.
	3/13/07	2.43	7.62	5.19	
	4/11/07	2.42	7.58	5.16	
	4/18/07	1.44	6.53	5.09	
	5/4/07	2.35	7.70	5.35	
	5/10/07	2.27	7.70	5.43	
	5/17/07	2.03	7.36	5.33	
	5/24/07	2.34	7.67	5.33	
MW13 ⁽³⁾	3/13/07	None	2.63	0.00	
	4/11/07	None	2.21	0.00	
	4/18/07	None	2.60	0.00	
	5/4/07	None	2.68	0.00	
	5/10/07	None	3.10	0.00	
	5/17/07	None	3.20	0.00	
	5/24/07	None	3.50	0.00	
MW14 ⁽³⁾	3/13/07	None	1.67	0.00	
	4/11/07	None	1.89	0.00	
	4/18/07	None	1.83	0.00	
	5/4/07	None	2.00	0.00	
	5/10/07	None	2.42	0.00	
	5/17/07	None	2.47	0.00	
	5/24/07	None	2.79	0.00	
TW1	3/7/07	None	6.79	0.00	
	3/13/07	None	5.42	0.00	
	4/11/07	None	5.07	0.00	
	4/18/07	None	5.25	0.00	
	5/10/07	None	5.56	0.00	
	5/17/07	None	5.72	0.00	
	5/24/07	None	6.00	0.00	

Well	Date	Depth to Product (feet)	Depth to Water (feet)	Apparent Product Thickness (feet)	Remarks
TW2	3/7/07	4.64	4.97	0.33	Product has yellowish color/tint.
	3/13/07	2.85	3.67	0.82	
	4/11/07	2.56	3.40	0.84	
	4/18/07	2.90	3.60	0.70	
	5/4/07	3.00	6.60	3.60	
	5/10/07	3.30	3.98	0.68	
	5/17/07	3.55	3.99	0.44	
	5/24/07	3.87	4.49	0.62	
TW3	3/7/07	None	4.70	0.00	
	3/13/07	None	2.30	0.00	
	4/11/07	None	2.58	0.00	
	4/18/07	None	2.84	0.00	
	5/4/07	None	2.97	0.00	
	5/10/07	None	3.37	0.00	
	5/17/07	None	3.38	0.00	
	5/24/07	None	3.75	0.00	
	2/7/07	1.2.1	5.60	1.26	
TW4	3/7/07	4.24	5.60	1.36	Product is dark brown.
	3/13/07	2.27	3.79	1.52	
	4/11/07	1.66	2.21	0.55	
	4/18/07	2.14	2.75	0.61	
	5/4/07	2.29	2.77	0.48	
	5/10/07	2.78	3.49	0.71	
	5/17/07	2.52	3.02	0.50	
	5/24/07	2.97	3.70	0.73	
TW5	4/11/07	None	2.58	0.00	
	4/18/07	None	2.81	0.00	
	5/4/07	None	2.71	0.00	
	5/10/07	None	3.16	0.00	
	5/17/07	None	3.09	0.00	
	5/24/07	None	3.60	0.00	

Well	Date	Depth to Product (feet)	Depth to Water (feet)	Apparent Product Thickness (feet)	Remarks
					Kemarks
TW6	4/11/07	1.21	1.23	0.02	
	4/18/07	1.61	1.63	0.02	
	5/4/07	1.75	1.77	0.02	
	5/10/07	2.25	2.26	0.01	
	5/17/07	2.05	2.06	0.01	
	5/24/07	2.62	2.63	0.01	
TW7	4/11/07	None	2.28	0.00	
	4/18/07	None	2.52	0.00	
	5/4/07	None	2.62	0.00	
	5/10/07	None	3.03	0.00	
	5/17/07	None	3.13	0.00	
	5/24/07	None	3.43	0.00	
TW8	4/11/07	None	2.35	0.00	
	4/18/07	None	2.60	0.00	
	5/4/07	None	2.69	0.00	
	5/10/07	None	3.10	0.00	
	5/17/07	None	3.21	0.00	
	5/24/07	None	3.49	0.00	
TW9	4/11/07	None	2.11	0.00	
>	4/18/07	None	2.35	0.00	
	5/4/07	None	2.46	0.00	
	5/10/07	None	2.88	0.00	
	5/17/07	None	2.99	0.00	
	5/24/07	None	3.28	0.00	
TW10	4/11/07	None	2.47	0.00	
	4/18/07	None	2.65	0.00	
	5/4/07	None	2.95	0.00	
	5/10/07	None	3.34	0.00	
	5/17/07	None	3.16	0.00	
	5/24/07	None	3.76	0.00	

NOTES:

- ⁽¹⁾ At MW5, 135.85 liters of product were removed between August 31, 1999 and June 21, 2006. The product was placed in drum to be removed by oil recycling company, as coordinated by Oscar Mayer. Note: One foot of product in 2" well = 0.163 gal = 0.616 L
- (2) The apparent product thickness measured in a monitoring well is typically much greater than the actual free product thickness in the surrounding soil. Based on baildown tests conducted at MW5 in 2001, the estimated actual product thickness is 13 times thinner than the apparent product thickness.
- ⁽³⁾ Depending on water table elevations, the well screens at MW13 and MW14 may be submerged, minimizing the amount of oil detected.

Created by:	LH
Revised by:	JMM, LMH 4/11/07, JMM 4/19/07,
	TLR 5/7/07, 5/11/07, 5/18/07, JSN 5/25/07
Checked by:	JBT, JMM 4/11/07, TLR 4/19/07, JMM 5/9/07, 5/11/07
	JMM 5/18/07, 6/1/07

I:\1624\Tables-General\[Product_Thickness_Evaluation.xls]Notes

Appendix C

Hartmeyer Property AST Closer Tables and Figures

TABLE A.2.1 SOIL ANALYTICAL RESULTS TABLE HARTMEYER PROPERTY, MADISON, WISCONSIN TEST PITS (TP-1 to TP-8)

Sample No.		1	Not-To-	Soll to	Pump House (TP-1/Landfill)	S Pump House (TP-2)	N Pump House (TP-3)	E Pump House (TP-4)	W Pump House (TP-5)	AST (TP-6)	Berm (TP-7)	Off Load Pad (TP-8)
Sampling Date	NC RCL (ug/kg)	C RCL (ug/kg)	Exceed D-C	Groundwater	09/14/16	09/14/16	09/14/16	09/14/16	09/14/16	09/14/16	09/14/16	09/14/16
Sample Depth (feet)	(#8/48/	(agrid)	RCL (ug/kg)	RCL (ug/kg)	3 (U)	4-5 (S)	4-5 (S)	4-5 (5)	4-5 (S)	4-5 (S)	4-5 (S)	4-5 (S)
PETROLEUM VOLATI	LE ORGANIC	COMPOU	NDS (PVOC) (ug/kg)								
Benzene	106,000	1,600	1,600	5.1	222.J	<25	26.3.J	<25	27.2J	<25	56	38J
Ethylbenzene	4.080.000	8,020	8,020	1.570	<125	<25	460	<25	<25	<25	98	117
Methyl tert-butyl ether	22,100,000	63,800	63,800	27	<125	<25	<25	<25	<25	<25	<25	<25
Naphthalene	178,000	5,520	5,520	658	1,910	<25	3.150	<25	<25	<25	970	570
Toluene	5,240,000	NE	818,000	1,107	170J	<25	<25	<25	42J	<25	124	97
1.2.4-Trimethylbenzene	373,000	NE	219,000	1,382	1,010	<25	560	<25	<25	<25	111	96
1,3,5-Trimethylbanzene	339,000	NE	182,000	1,382	1,090	<25	34J	<25	<25	<25	57	57
Xylenes, -m, -p Xylenes, -o	818,000	NE	260,000	3,960	464J	<75	37J	<75	<75	<75	237	177

mg/kg = milligrams per kilogram

RCL = Residual Contaminant Level

NC = Non Cancer

C = Cancer

DC = Direct Contact

S=SATURATED U=UNSATURATED

NE = NR 720 RCL not established

J = Analyte detected above laboratory limit of detection but below limit of quantitation. Bold indicates analytical results exceed NR 720 NC RCL

Italic indicated analytical results exceed NR 720 Not- To- Exceed D-C RCL

TABLE A.2.2 SUMMARY OF SOIL ANALYTICAL RESULTS HARTMEYER PROPERTY, MADISON, WISCONSIN REMEDIAL EXCAVATION

Sample No.				17	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-10
Description	NC RCL (ug/kg)	C RCL (ug/kg)	Not-To- Exceed D- C RCL	Soil to Groundwater	SW Wall	SW Bottom	W Wall	NW Wall	W Bottom	N Center WA	NE Wall	NE Bottom	E Wall	Bottom PU
Sampling Date	(ug/ng)	(uging)	(ug/kg)	RCL (ug/kg)	10/13/16	10/13/16	10/13/16	10/13/16	10/13/16	10/13/16	10/13/16	10/13/16	10/13/16	10/13/16
Sample Depth (feet)	P)			5 (S)	8 (S)	5 (S)	6 (S)	8 (S)	6 (S)	7 (S)	10 (S)	6 (S)	10 (S)
PETROLEUM VOLATILE	ORGANIC CO	MPOUNDS	(PVOC) (ug/l	kg)						1.5				
Benzene	111,000	1,620	1,620	5.1	<25	<25	<25	41J	<25	76.0	<25	<125	<25	<25
Ethylbenzene	4,200,000	8,020	8,020	1,570	<25	<25	<25	340	73	380	<25	<125	53	109
Methyl tert-butyl ether	23,800,000	63,800	63,800	27	<25	<25	<25	<25	<25	<25	<25	<125	<25	<25
Naphthalene	188,000	5,520	5,520	658	<25	<25	207	2,970	3,200	1,730	19,700	6,400	1,880	390
Toluene	5,300,000	NE	818,000	1,107	<25	<25	<25	125	<25	72	<25	<125	<25	<25
1,2,4-Trimethylbenzene	89,800	NE	219,000	1,382	<25	<25	74	350	1,300	1,820	1,690	1,630	223	740
1,3,5-Trimethylbenzene	782,000	NE	182,000	1,382	<25	<25	<25	162	86	290	920	244	239	183
Xylenes, -m, -p Xylenes, -o	890,000	NE	258,000	3,940	<75	<75	<75	401	200	729	1,350	419J	183	408

mg/kg = milligrams per kilogram

RCL = Residual Contaminant Level

NC = Non Cancer

C = Cancer

DC = Direct Contact

S=SATURATED U=UNSATURATED

NE = NR 720 RCL not established

J = Analyte detected above laboratory limit of detection but below limit of quantitatio

Bold indicates analytical results exceed NR 720 RCL.

Italic indicated analytical results exceed NR 720 Not- To- Exceed D-C RCL.

TABLE A.2.3 SUMMARY OF SOIL ANALYTICAL RESULTS KRAFT FOODS, MADISON, WISCONSIN SOIL BORINGS

Sample No.			Not-To-	Soil to	B-2	B-3	B-4	B-5	B-6
Sampling Date	NC RCL (ug/kg)	C RCL (ug/kg)	Exceed D-C RCL	Groundwater	04/28/17	04/28/17	04/28/17	04/28/17	04/28/17
Sample Depth (feet)	(29/19)	(49/19)	(ug/kg)	RCL (ug/kg)	4-5 (S)				
PETROLEUM VOLATIL	EORGANIC	COMPOU	NDS (PVOC)	(ug/kg)					
Benzene	106,000	1,600	1,600	5.1	<25	203	1,260	242	<25
Ethylbenzene	4,080,000	8,020	8,020	1,570	<25	308	4,100	590	<25
Methyl tert-butyl ether	22,100,000	63,800	63,800	27	<25	<25	<25	<25	<25
Naphthalene	178,000	5,520	5,520	658	<25	2,060	17,600	6,400	254
Toluene	5,240,000	NE	818,000	1,107	<25	208	930	148	42J
1,2,4-Trimethylbenzene	373,000	NE	219,000	1,382	<25	222	7,200	1,250	320
1,3,5-Trimethylbenzene	339,000	NE	182,000	1,382	<25	96	1,800	330	67
Xylenes, -m, -p Xylenes, -o	818,000	NE	260,000	3,960	<75	390	3,580	750	64

mg/kg = milligrams per kilogram

RCL = Residual Contaminant Level

NC = Non Cancer

C = Cancer

DC = Direct Contact

S=SATURATED U=UNSATURATED

NE = NR 720 RCL not established

J = Analyte detected above laboratory limit of detection but below limit of quantitation.

Bold indicates analytical results exceed NR 720 NC RCL.

Italic indicated analytical results exceed NR 720 Not- To- Exceed D-C RCL.

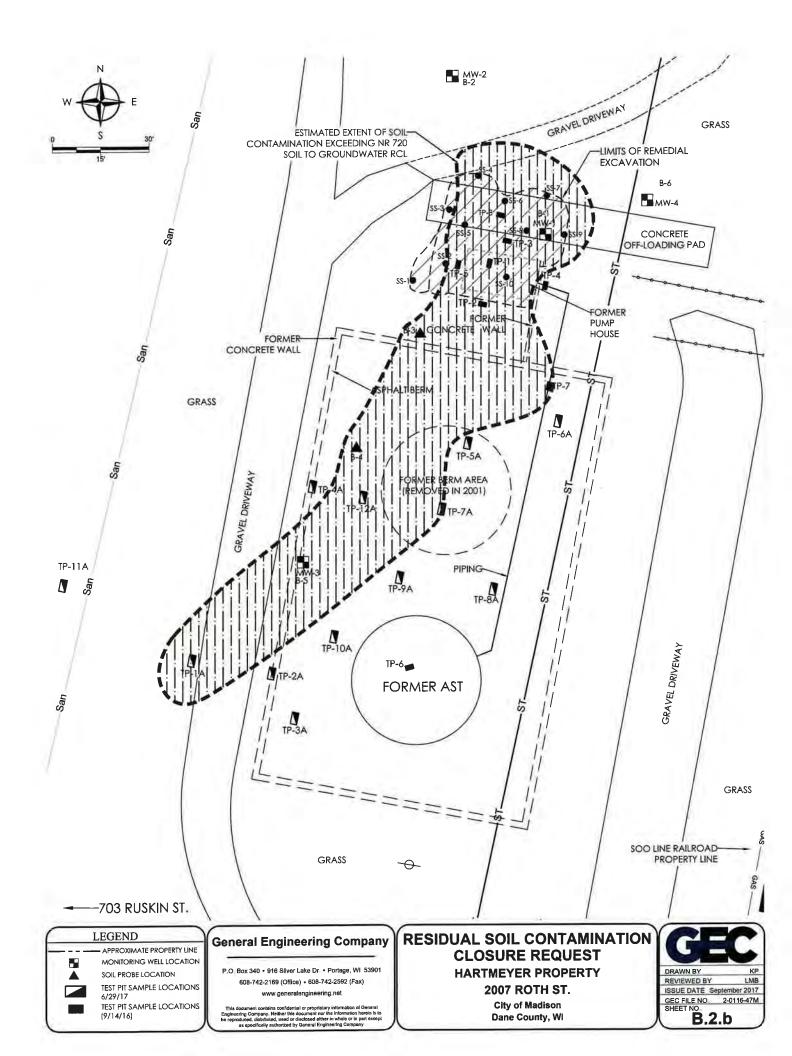
TABLE A.2.4 SOIL ANALYTICAL RESULTS TABLE HARTMEYER PROPERTY, MADISON, WISCONSIN TEST PITS (TP-1A TO TP-12A)

Sampling Date Cancer RCL Sample Depth (feet) Non- Industrial	WDNR Non- Industrial	WDNR Soil to	6/29			TP-3A	TP-4A	TP-SA	TP-6A	TP-7A	TP-8A	TP-9A	TP-	10A	TP-11A	IP	-12A
Sample Debui (leel)				/2017	6/29/2017	6/29/2017	6/29/2017	6/29/2017	6/29/2017	6/29/2017	6/29/2017	6/29/2017	6/29/	2017	6/29/2017	6/29	/2017
Industrial		Groundwater	2.3"	5-6'	3-4	2-3	4-5	4-5	4-5	4-5	4-5	4-5	2-3	4.5	2-3'	2-3	4-5
Saturated (S) /Unsaturated (U) (ug/kg)	Direct Contact RCL (ug/kg)	RCL (ug/kg)	US	s	US	US	S	s	s	S	s	S	US	s	US	US	S
PETROLEUM VOLATILE ORGANIC COMPO	OUNDS (PVOCs)	(µg/kg)										-					
Benzene 1.600	1,600	5	<25	380	<25	<25	<25	<25	<25	57J	<25	<25	<25	<25	<25	<25	185
Ethylbenzene 8,020	8,020	1,570	<25	550	38	<25	<25	<25	<25	300	<25	<25	<25	<25	<25	<25	204
Methyl tert-butyl ether 63,800	63,800	27	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Naphthalene 5,520	5,520	658	<25	3,140	64	<25	<25	<25	<25	550	<25	<25	<25	<25	65.)	<25	4,000
Toluene NE	818,000	1,107	<25	480	38	42.1	<25	<25	<25	103	<25	<25	<25	<25	41J	34J	296
1.2.4-Trimethylbenzene NE	219,000	1.382	<25	370	80	<25	<25	<25	<25	110	<25	<25	<25	<25	<25	<25	241
1,3,5-Trimethylbenzene NE	182,000	1,302	<25	145	37	<25	<25	<25	<25	38	<25	<25	<25	<25	<25	<25	98
Xylenes, -m, -p	260,000	3,960	<75	632	158	<75	<75	<75	<75	258	<75	<75	<75	<75	<750	<75	381

TABLE A.3 RESIDUAL SOIL CONTAMINATION TABLE HARTMEYER PROPERTY, MADISON, WISCONSIN TEST PITS, BORINGS, REMEDIAL EXCAVATION

-

Sample Depth (feet) Non- Industrial ug/kg) Industrial Direct Contact RCL (ug/kg) WD/K solute FRL 4-5 6 6 6 7 10 6 4-5 4-5 5-6 5-6	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Sample No.	1			TP-7	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	B-3	B-4	B-5	TP-1A	TP-7A	TP-12A
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		Sampling Date	Cancer RCL	WDNR Non-		9/14/2016	10/13/2016	10/13/2016	10/13/2016	10/13/2016	10/13/2016	10/13/2016	4/28/2017	4/28/2017	4/28/2017	6/29/2017	6/29/2017	6/29/2017
Industrial (ug/kg) Direct Contact RCL (ug/kg) RCL (ug/kg) RCL (ug/kg) S <th>Industrial (ug/kg) Direct Contact RCL (ug/kg) RCL (ug/kg) RCL (ug/kg) S<th>Sample Depth (feet)</th><th></th><th></th><th></th><th>4-5</th><th>6</th><th>8</th><th>6</th><th>- 1</th><th>10</th><th>6</th><th>4-5</th><th>4-5</th><th>4-5</th><th>5-6</th><th>4-5</th><th>4-5</th></th>	Industrial (ug/kg) Direct Contact RCL (ug/kg) RCL (ug/kg) RCL (ug/kg) S <th>Sample Depth (feet)</th> <th></th> <th></th> <th></th> <th>4-5</th> <th>6</th> <th>8</th> <th>6</th> <th>- 1</th> <th>10</th> <th>6</th> <th>4-5</th> <th>4-5</th> <th>4-5</th> <th>5-6</th> <th>4-5</th> <th>4-5</th>	Sample Depth (feet)				4-5	6	8	6	- 1	10	6	4-5	4-5	4-5	5-6	4-5	4-5
Benzene 1,600 1,600 5 56 41J <25	Benzene 1.600 1.600 5.60 41.1 <25 76.0 <25 <125 <26 20.3 1.260 242 380 57.1 180 Ethylbenzene 8,020 8.020 1,570 98 340 73 380 <25 <125 53 308 4,100 590 550 300 20 Methyl tert-butyl ether 63,800 63,800 27 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25 <26	Saturated (S) /Unsaturated (S	s	S	s	S	S	s	s	S	S	s	S	s
Hoto Hoto <th< td=""><td>$\begin{array}{c c c c c c c c c c c c c c c c c c c$</td><td>PETROLEUM VOLATILE</td><td>ORGANIC CO</td><td>POUNDS (PVC</td><td>DCs) (µg/kg)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	PETROLEUM VOLATILE	ORGANIC CO	POUNDS (PVC	DCs) (µg/kg)													
And matrix And mat	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Benzene	1,600	1,600	5	56	41J	<25	76.0	<25	<125	<25	203	1,260	242	380	57.J	185
Naphthalene 5,520 5,520 658 970 2,970 3,200 1,730 19,700 6,400 1,880 2,060 17,600 6,400 3,440 550 4,000 Toluene NE 818,000 1,107 124 125 <25	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Ethylbenzene	8,020	8,020	1,570	98	340	73	380	<25	<125	53	308	4,100	590	550	300	204
Totalene NE 818,000 1,107 124 125 <25 72 <25 <125 <26 208 930 148 480 100 240 12,4-Trimethylbenzene NE 219,000 1,382 111 350 1,300 1,820 1,630 223 222 7,200 1,250 370 110 241 1,3,5-Trimethylbenzene NE 182,000 1,382 166 290 920 244 239 96 1,800 330 145 38 98 Xylenes, -m, -p NE 260,000 3,960 237 401 200 728 1,350 4491 183 390 3,580 750 632 256 284	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Methyl tert-butyl ether	63,800	63,800	27	<25	<25	<25	<25	<25	<125	<25	<25	<25	<25	<25	<25	<25
12.4-Trimethylbenzene NE 219,000 1,382 111 350 1,300 1.820 1.630 223 222 7,200 1,250 370 110 241 1,3,5-Trimethylbenzene NE 182,000 1,382 162 86 290 920 244 239 96 1,800 330 145 38 98 Xylenes, -m, -p NE 260,000 3,960 237 401 200 729 1,350 4491 183 390 3,580 750 632 256 284	12.4-Trimethylbenzene NE 219,000 1.382 111 350 1.300 1.820 1.630 223 222 7.200 1.250 310 100 24 1.3.5-Trimethylbenzene NE 182,000 1.382 111 350 1.300 1.820 1.630 223 222 7.200 1.250 310 100 24 1.3.5-Trimethylbenzene NE 182,000 3.960 237 162 86 290 920 244 239 96 1.800 330 145 389 9 Xylenes, -0 NE 260,000 3,960 237 401 200 729 1.350 419J 183 390 3,580 750 632 258 360	Naphthalene	5,520	5,520	658	970	2,970	3,200	1,730	19,700	6,400	1,880	2,060	17,600	6,400	3,140	550	4,000
13,5-Trimethylbenzene NE 182,000 3,960 237 401 200 728 1450 4191 183 390 3,580 750 632 256 286 Xylenes, -m, -p NE 260,000 3,960 237 401 200 728 1,350 4191 183 390 3,580 750 632 256 286	1,382 57 162 86 290 920 244 239 96 1,800 330 145 38 9	Toluene	NE	818,000	1,107	124	125	<25	72	<25	<125	<25	208	930	148	480	103	296
1,3,5-Trimethylbenzene NE 182,000 57 162 86 290 920 244 239 96 1,800 330 145 38 98 Xylenes, -m, -p NE 260,000 3,960 237 401 200 728 1,350 4491 183 390 3,580 750 632 259 281	1,3,5-Trimethylbenzene NE 182,000 57 162 86 290 920 244 239 96 1,80 330 145 38 99 Xylenes,-m,-p NE 260,000 3,960 237 401 200 729 1,350 419J 183 390 3,580 750 632 258 360	1.2.4-Trimethylbenzene	NE	219,000	1 382	111	350	1,300	1,820	1,690	1,630	223	222	7,200	1,250	370	110	241
	Xylenes, -0 NE 200,000 3,900 237 401 200 728 1,350 4193 163 390 3,580 750 632 258 38	1.3.5-Trimethylbenzene	NE	182,000	1,502	57	162	86	290	920	244	239	96	1,800	330	145	38	98
Ayienes, -u	J = Antikie detected above laboratory limit of detection hull below limit of outantitation		NE	260,000	3,960	237	401	200	729	1,350	419J	183	390	3,580	750	632	258	381
Bold Indicates analytical results exceed NR 720 RCL RCL = Residual Contaminant Leve) DCL = Direct/Contact Levels		NA = Parameter not analyzed NE = NR 720 RCL not established																



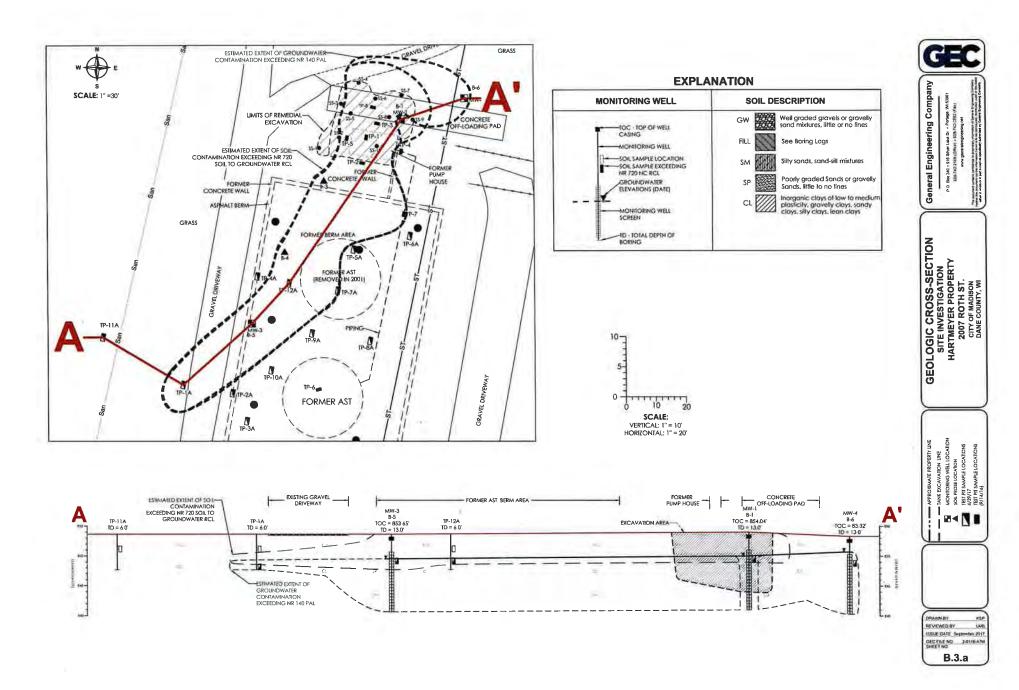


TABLE A.1 SUMMARY OF GROUNDWATER ANALYTICAL RESULTS HARTMEYER PROPERTY MADISON, WISCONSIN

Monitoring Well	NR 1 ES	140	Berm Surface Water	Pump House Surface Water	MW-1	MW-2	MW-3	MW-4
Sampling Date	ES	PAL	9/9/2016	9/9/2016	5/4/2017	5/4/2017	5/4/2017	5/4/2017
PETROLEUM VOLATI	LE OR	GANIC	COMPOUNDS (PVOC)	AND DETECTED VOCS (µg/L)			
Benzene	5	0.5	<0.46	<0.46	<0.27	<0.27	1.29	<0.27
Ethylbenzene	700	140	<0.73	<0.73	<0.56	<0.56	0.78J	10.2
Methyl tert-butyl ether	60	12	<0.49	<0.49	<0.43	<0.43	<0.43	<0.43
Naphthalene	100	10	<2.6	<2.6	<1.7	<1.7	<0.33	84
Toluene	1000	200	<0.39	<0.39	< 0.33	<0.33	0.84J	<0.33
1,2,4 -Trimethylbenzene	480	96	<0.68	<0.68	<0.56	<0.56	<0.58	58
1,3,5 -Trimethylbenzene	400	50	<0.83	<0.83	<0.58	<0.58	<1.1	8.5
Xylenes, -m, -p Xylenes, -o	10000	1000	<2.06	<2.06	<1.71	<1.71	<0.61	10.6

ES = Enforcement Standard

PAL = Preventive Action Limit

µg/L = micrograms per liter

NA = Parameter not analyzed

NE = NR 140 ES not established

J or Q = Analyte detected above laboratory limit of detection but below limit of quantitation.

Bold indicates analytical results above NR 140 ES

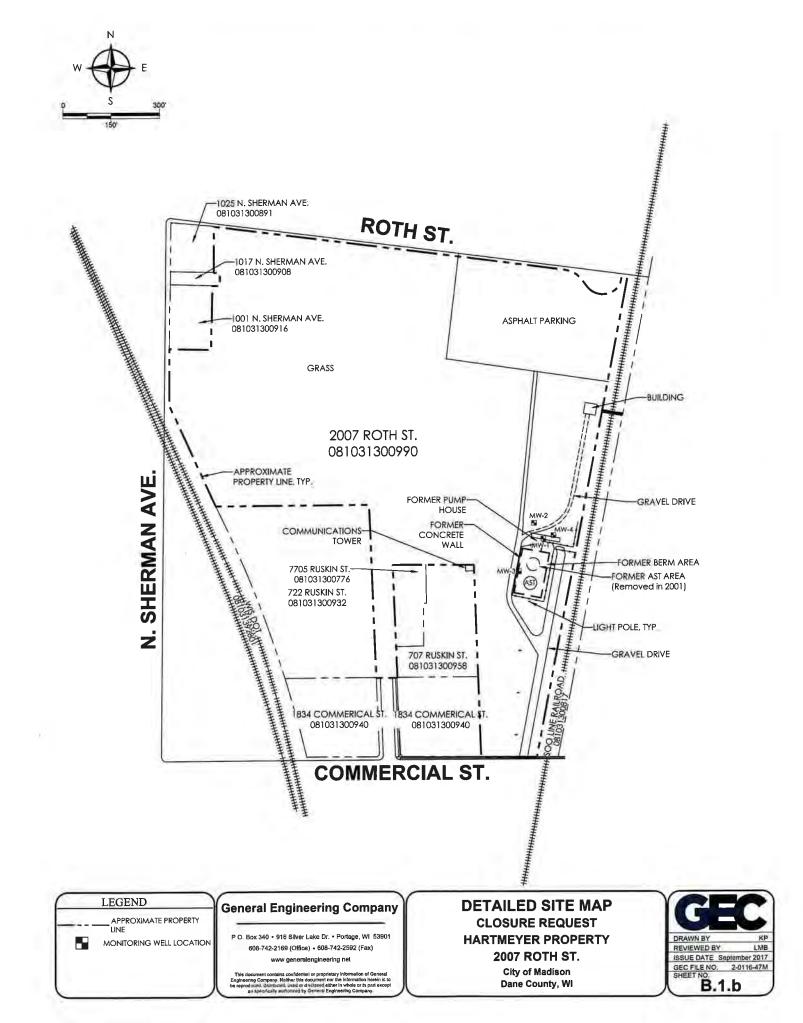
TABLE A.6 WATER LEVEL ELEVATIONS HARTMEYER PROPERTY

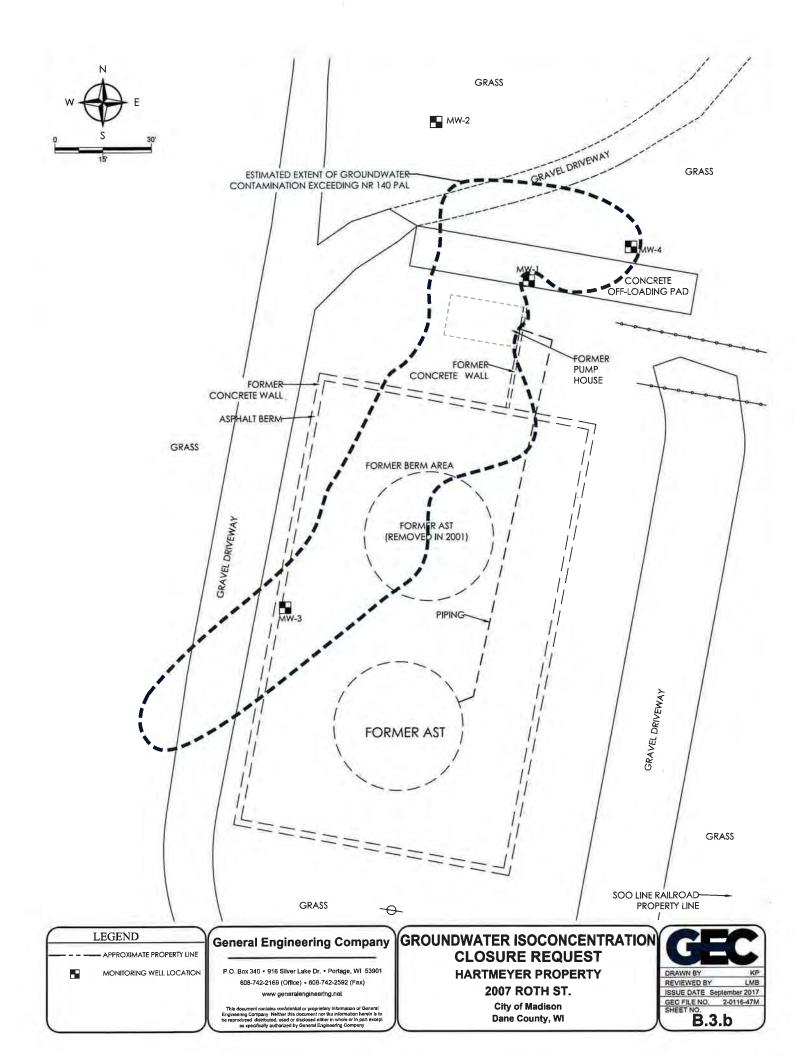
MADISON,	WISCONSIN
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Monitoring Well Number	Top of Well Casing Elevation	Date Measured	Depth to Water (Ft.)	Groundwater Elevation (Ft.)
MW-1	854.04	5/4/2017	4.01	850.03
MW-2	854.88	5/4/2017	2.98	851.90
MW-3	853.65	5/4/2017	4.12	849.53
MW-4	853.32	5/4/2017	2.45	850.87

ft = feet

NR=Not recorded





Appendix D

Ramboll Investigation Table and Figures

Table 1: Soil Analytical Results Hartmeyer Property 2007 Roth Street, Madison, Wisconsin Project 1690012791

	Soil F	RCLs		B-1 (1-2')	B-1 (4-5')	B-2 (1-2')	B-2 (4-5')	8-3 (1-2')	B-3 (4-5')	B-4 (1-2')	B-4 (4-5')	B-5 (1-2.5')	B-5 (4-5')	B-6 (1-2')	B-7 (1-2.5')	B-8 (1-2.5')	HA-1 (1-2')
arameters	Industrial Direct Contact	Groundwater Pathway	BTV	4/16/2019	4/16/2019	4/16/2019	4/16/2019	4/16/2019	4/16/2019	4/16/2019	4/16/2019	4/16/2019	4/16/2019	4/16/2019	4/16/2019	4/16/2019	9/16/2019
/OCs (µg/kg)			-	† – –			-	-	1		1		1		1	-	1
Benzene	7,070	5.1				1.			71.8 J C				37.0 J C				
Ethylbenzene	35,400	1,570					7,400 C		129				49.2 J	1.5	90.3		
Naphthalene	24,100	658.2	**			81,5 J	3,440 C		416	1			283 J	112 J	260 J		
Toluene	818,000	1,107.2		-	51.4 J		1		49.2 J	1.00	72.3 J		48.2 J	61.3 J	223		
1,2,4-Trimethylbenzene ¹	219,000	1,378.7		44.6 J	1000	60.7 J	30,500 C	the second second	59.3 J	35.7 J		11-201	45.5 J	200	205		1
1,3,5-Trimethylbenzene ¹	182,000	1,378.7					7,900 C	1.0	1					83.5 J	60.1 J	- 0.5	
o-Xylene	434,000				1000		7,850			34.9 J	-	-		136	242		
m-&p-Xylene ²	388.000	-					30,600						75.0 J	122 J	318		
Xylenes, total	260.000	3.960	**				38,500 C				-		105 J	258 J	560		
Aylenes, lotal	200,000	3,500											100 0	200 0	000		
PAHs (µg/kg) Acenaphthene	45,200,000			48.4	Exceeds Non- industrial direct contact RCL			Exceeds Non- industrial direct	Exceeds Non- industrial direct contact RCL	23.2	40.9	Exceeds Non-industrial direct contact RCL	Exceeds Non- industrial direct contact RCL 145	35.8	Exceeds Non- industrial direct contact RCL	77 J	
Acenaphthylene	+5,200,000			31.0	313.0 J				2,420	10,1 J	8.9 J		486	4.9 J	327	5.4 J	-
Anthracene	100,000,000	196,949.2		119	650	8.8 J	67.7 J	478	6,820	43.9	90.3	579	330	29.6	383	22.4 J	-
Benzo(a)anthracene	20,800	150,545.2	**	139	3,110	13.0 J	59.6 J	1.330	5.610	52.3	242	2,300	502	32.2	924	33.6	
	2,110	470		106	3,110 C	11.9 J	87.1	1,430 C	4,280 C	37.8	242	2,540 B,C	702 C	23.4		and the second se	55.3
Benzo(a)pyrene	21,100	470		81.1	5,100 C	11.5 J	81.0 J	1,310 C	3,650 C	23.6	333	2,670 C	758 C	18.3	1,040 C	24 1 25.7	55,3
Benzo(b)fluoranthene			**	65.3	2,020	9.3 J	64.9	1,110	1,870	23.0	166				1,080 C		
Benzo(ghi)perylene		-	**		2,020	9.5 J		1,270				2,040	460	9.5 J	782	11.9	-
Benzo(k)fluoranthene	211,000	-	**	91.0			83.5		1,400	29.1 59.2	140	2,050	240	6,2 J	837	7,8 J	-
Chrysene	2,110,000	144.2	**	160 C	4,480 C	14,6 J	94,8 J	1,470 C	5,360 C		260 C		552 C	31,0	1,120 C	30.6	
Dibenzo(a,h,)anthracene	2,110	-		23.2	430		144	348	487.0	7.9 J	45.2	698.0	126		258	3,3 J	
Fluoranthene	30,100,000	88,877.8		272	9,030	23.4 J	100 J	3,340	11,300	69.7	644	4,970	712	49.2	1,960	39.4	- E-1
Fluorene	30,100,000	14,829.9	**	52.5	1.000			159 J	2,680	24,5	39,2		201	43,3	163	1	
Indeno(1,2,3-cd)pyrene	21,100		**	46,5	1,580	7,0 J		942	1,370	13.1	128	1,760	346	3.6 J	690	6,3 J	122
1-Methylnaphthalene	72,700		**	759	-	50.3	462		2,260	214	31.7	- MAR	217	47.2	918	100	
2-Methylnaphthalene	3,010,000		**	863		74.0	1,120		594	206	44.8		324	50.2	825	85.5	Contraction of the second
Naphthalene	24,100	658.2	**	410		28.5 J	4,040 C		2,290 C	90.2	82,1		757 C	40.3 J	2,960 C	29.7 J	
Phenanthrene	22,600,000	54,545.5		755 243	2,650	50.4 J 21.3 J	175 J 84,7 J	2,060	21,400 15,200	291 72.1	395 438	2,020	468 890	234	1,920	122	
Pyrene	22,800,000	54,545.5	**	243	0,100	21.0 J	04,7 J	2,570	15,200	12.1	436	3,610	690	44.4	1,670	37.0	
Metals (mg/kg) Arsenic ³	3.00	0.58	8.3						5-2			24.2 B,C,D	4,9 ⁴ J C	10.5 B,C,D		8.8 B.C.D	25,9 B,C,D
Barium ³	100,000	164.8	364					-	1. the			26.9	107	50.9	40.9	18.1	_,_,_
Cadmium ³	985	0.75	1.07	1.4	1.0.0		1.1	100		1.0		2.3 C,D	0.45 J	0.19 J	1		
Chromium		360,000	43.5	12010	2		1000	The Party of the P		1. et		13.6	17.4	9.3	16.3	7.9	New Y
Lead ³	800	27	51.6				1.4		- A.C.	-		24.4	81.5 C,D	11.3	8.2	3.6	-
Mercury	3.13	0.21		1					-			0.014 J	0.29 C	0.023 J	0.015 J		
Selenium	5,840	0.52		1.8	-			16		- P					3.010 0	2.8 J C	1
Silver	5,840	0.85			1		1.0.1				-	0.78 J	0.54 J	0.55 J	0.54 J		
	5,040	0.05											0,04 0	0.00 3	0.04 0		

Notes:

VOCs = Volatile Organic Compounds

PAHs = Polynuclear Aromatic Hydrocarbons

RCL = Residual Contaminant Level

BTV = Background Threshold Value

µg/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

¹ Groundwater Pathway RCL listed is for 1,2,4- and 1,3,5-Trimethylbenzenes combined.
 ² Direct Contact RCL listed is for the more stringent m-Xylene.

³ Parameter BTV is larger than one or more of the RCLs or is the only standard available.

⁴ Concentration above NR 720 RCL for Groundwater Pathway, but below BTV.

⁵ Received "D3" flag by laboratory - Sample was diluted due to the presence of high levels of

non-target analytes or other matrix interference

⁶ Received "B" flag by laboratory - Analyte was detected in the associated method blank,

⁷ Received "M1" flag by laboratory - Matrix spike recovery exceeded QC limits. Batch accepted

based on laboratory control sample (LCS) recovery Bolded value indicates an NR 720 Residual Contaminant Level (RCL) exceedance.

B Parameter exceeds NR 720 RCL for Industrial Direct Contact

C Parameter exceeds NR 720 RCL for Groundwater Pathway

D Parameter exceeds Surficial BTV for metals.

J Estimated concentration at or above the LOD and below the LOQ.
 No RCL or Surficial BTV established.

#N/A = Not analyzed

D-4' used for direct contact determination

Soil RCLs and surficial BTVs established by the WDNR RR program using the EPA's RSL web-calculator with WAC NR 720 default parameters (WDNR PUB-RR-890, June 2014 - updated RCL spreadsheet, June 2018)

Table 1: Soil Analytical Results Hartmeyer Property 2007 Roth Street, Madison, Wisconsin Project 1690012791

	Soil R	CLs		HA-1S (1-2')	HA-2 (1-2')	HA-2S (1-2')	HA-3 (1-2')	HA-3S (1-2')	HA-4 (1-2')	HA-4S (1-1.5')	HA-5 (1-2)	HA-6 (1-2)	HA-9 ALT (.5-1)	HA-10 (1.5-2.5)	HA-11 (1-2)	HA-14 (1-2)	HA-17 (.5-1.5)
Parameters	Industrial Direct Contact	Groundwater Pathway	BTV	9/16/2019	9/16/2019	9/16/2019	9/16/2019	9/16/2019	9/16/2019	9/16/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019	9/17/2019
OCs (µg/kg)			-					1			1	1	1	1			
Benzene	7,070	5.1					And a second										
Ethylbenzene	35,400	1,570	**			-	-										
Naphthalene	24,100	658.2	**														
Toluene	818,000	1,107.2															
1,2,4-Trimethylbenzene ¹	219,000	1,378.7															
1,3,5-Trimethylbenzene ¹	182,000	1,378.7						1							1		
o-Xylene	434,000		1 ····												1		
m-&p-Xylene ²	388,000	-															
Xylenes, total	260,000	3.960			-	1											
Agronos, total	200,000	5,500															
PAHs (µg/kg)									Exceeds Non-industria direct contact RCL		8.6 J	3.7 J	Exceeds Non- industrial direct contagt RCL		Exceeds Non-industrial direct contact RCL 9.2 J	76 J	
Acenaphthene	45,200,000								-				13,8 J		55.5	18.6 J	
Acenaphthylene	**										5.4 J	34.5	50.4				
Anthracene	100,000,000	196,949.2	+						-		8,3 J	20 J	52.1		68.7	19,2 J	
Benzo(a)anthracene	20,800	++									19.7 J	71	375 7	3.6 J	374	44,1	11.8 J
Benzo(a)pyrene	2,110	470	*		154 5		80.3		750 C		12.4 J	86	467 7		455	49,8	12.6 J
Benzo(b)fluoranthene	21,100	478.1		1	-						11.3 J	107.0	685 7 C		670 C	57.3	19.9 J
Benzo(ghi)perylene					1						5.5 J	65,1	392		301	38.5	9,1 J
Benzo(k)fluoranthene	211,000										3.3 J	41.2	273 7	1	225	23.8	7.7 J
Chrysene	2,110,000	144.2	**			100	All and a second se				21.8	79	457 ⁷ C	-	405 C	51.7	12,8 J
Dibenzo(a,h,)anthracene	2,110		-			-			1			15.9 J	88.3		88.6	7.3 J	
Fluoranthene	30,100,000	88,877.8		-							20.9	116	892 7	3.0 J	690	92.9	24.3
Fluorene	30,100,000	14,829.9	-								4.4 J	5,3 J	15.8 J		12,6 J	5.9 J	
Indeno(1,2,3-cd)pyrene	21,100		-					1.0				49.6	320		268	28,9	7.4 J
1-Methylnaphthalene	72,700		44				I German				193	12 J			28.2	47.2	
2-Methylnaphthalene	3,010,000	1.64		2			1.	_			220	18 J			39.0	53.7	3.6 J
Naphthalene	24,100	658.2	**				1.20	1. The second			87.6	19 J	6,3 J		42.3	92.6	4.4 J
Phenanthrene	*	144					1.00	1.000			119	51	338 7	10.1	205	87.3	11.0 J
Pyrene	22,600,000	54,545.5									22.9	111	704 7		555	84.9	19.6 J
Metals (mg/kg) Arsenic ³	3.00	0.58	8.3	26.4 B.C.D	25.5 B.C.D	42,7 B,C,D	39.2 B,C,D	12.2 B,C,D	10.0 ⁶ B,C,D	11.5 B,C,D	1.5 ⁴ J C	3.7 ⁴ J C	4.9 ^{4,5} J B,C	2.9 ⁴ J C	8.2 ⁴ B,C	13.1 B,C,D	3.9 ⁴ J B,C
Barium ³		164.8	364	20.4 0,0,0	20.0 0,0,0	44.1 0,0,0	33.2 0,0,0	12.2 0,0,0	10.0 0,0,0	11.0 0,0,0	23.5	106	25.2	107	110	240 ⁴ C	64.6
Cadmium ³	100,000	0.75	1.07					-			5.0 C,D		0.31 J	0.18 J	0.86 ⁴ C	0.60 J	0.25 J
									-	-	4.9	14.3	2.0	20.2	14_4	6,3	11.0
Chromium Lead ³		360,000	43.5	-		-	1		-		6.6	23.2	4.1	15.0	113 C,D	40.3 ⁴ C	12.8
		27			-						0.0	0.055	4.1	0.044	0.077	40.3 C	0.018 J
Mercury	3.13	0.21		-		-				-		0.000	-	0.044	0.017	0.022 J	0.010 J
Selenium	5,840	0.52						-		-	1	-	1	-	0.50 J		
Silver	5,840	0.85	**	-		-									U 00 J		

Notes:

VOCs = Volatile Organic Compounds

PAHs = Polynuclear Aromatic Hydrocarbons RCL = Residual Contaminant Level

BTV = Background Threshold Value

µg/kg = micrograms per kilogram

mg/kg = milligrams per kliogram

¹ Groundwater Pathway RCL listed is for 1,2,4- and 1,3,5-Trimethylbenzenes combined.

² Direct Contact RCL listed is for the more stringent m-Xylene.

³ Parameter BTV is larger than one or more of the RCLs or is the only standard available.

⁴ Concentration above NR 720 RCL for Groundwater Pathway, but below BTV

⁵ Received "D3" flag by laboratory - Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

⁵ Received "B" flag by laboratory - Analyte was detected in the associated method blank,

⁷ Received "M1" flag by laboratory - Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery Bolded value indicates an NR 720 Residual Contaminant Level (RCL) exceedance.

B Parameter exceeds NR 720 RCL for Industrial Direct Contact, C Parameter exceeds NR 720 RCL for Groundwater Pathway.

D Parameter exceeds Surficial BTV for metals.

J Estimated concentration at or above the LOD and below the LOQ. No RCL or Surficial BTV established. #N/A = Not analyzed D-4 used for direct contact determination

Soil RCLs and surficial BTVs established by the WDNR RR program using the EPA's RSL web-calculator with WAC NR 720 default parameters (WDNR PUB-RR-890, June 2014 - updated RCL spreadsheet, June 2018)

Table 1: Soil Analytical Results Hartmeyer Property 2007 Roth Street, Madison, Wisconsin Project 1690012791

	Soll R	CLs		HA-18 (1-2)	HA-19 (1-2)	HA-22 ALT (.5-1.5)
Parameters	Industrial Direct Contact	Groundwater Pathway	BTV	9/19/2019	9/19/2019	9/19/2019
/OCs (µg/kg)			-			
Benzene	7,070	5.1		10 10 1		
Ethylbenzene	35,400	1,570	-		- #ED	
Naphthalene	24,100	658.2			No.	
Toluene	818,000	1,107.2	**		The second s	
1,2,4-Trimethylbenzene ^T	219,000	1,378.7	-			
1,3,5-Trimethylbenzene ^T	182,000	1,378.7	**		1	
o-Xylene	434,000		**		1.00	-
m-&p-Xylene ²	388,000	**				
Xylenes, total	260,000	3,960	÷			
PAHs (µg/kg) Acenaphthene	45,200,000	-		4.2 J	282	18.7 J
Acenaphthylene	43,200,000			4.2 J	58.5 J	16.3 J
Anthracene	100,000,000	196,949.2		8.0 J	490	40.3
Benzo(a)anthracene	20,800	190,949.2		20.0 J	459	117
Benzo(a)pyrene	2,110	470	**	17.1 J	259	113
Benzo(b)fluoranthene	21,100	478.1		21.9 J	273	150
Benzo(ghi)perylene	21,100	478.1		10.4 J	97.7 J	68.7
Benzo(k)fluoranthene	211,000			6.8 J	87.8 J	59.1
Chrysene	2,110,000	144.2		23.3	395 C	124
Dibenzo(a,h,)anthracene	2,110,000	144,2		20,0	27.0 J	18.7 J
Fluoranthene	30,100,000	88,877.8		34.8	689	248
Fluorene	30,100,000	14,829.9		2.7 J	264	19.2 J
Indeno(1,2,3-cd)pyrene	21,100	14,023.5		7.1 J	59.1 J	59.0
1-Methylnaphthalene	72,700		**	55.4	1,360	68.9
2-Methylnaphthalene	3,010,000			67.4	1,330	76.3
Naphthalene	24,100	658.2		27.3	647	41.4
Phenanthrene	24,100	038.2		57.2	2,730	163
Pyrene	22,600,000	54,545.5	vē.	29.9	594	189
letals (mg/kg)						
Arsenic ³	3.00	0.58	8.3	27.4 B,C,D	137 B,C,D	
Barium ³	100,000	164.8	364	47,8	48,5	170 ⁴ C
Cadmium ³	985	0.75	1.07	1.2 C,D	0.91 ⁴ C	0.27 J
Chromium	+	360,000	43.5	16.3	9.4	22.0
Lead ^a	800	27	51,6	62.2 C,D	36.1 ⁴ C	14.6
Mercury	3,13	0.21			0.085	0.040 J
Selenium	5,840	0.52	**			
Silver	5,840	0.85		0.48 J	and the second se	

Notes:

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VOCs = Volatile Organic Compounds

PAHs = Polynuclear Aromatic Hydrocarbons

RCL = Residual Contaminant Level

BTV = Background Threshold Value

µg/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

¹ Groundwater Pathway RCL listed is for 1,2,4- and 1,3,5-Trimethylbenzenes combined.

² Direct Contact RCL listed is for the more stringent m-Xylene.

³ Parameter BTV is larger than one or more of the RCLs or is the only standard available.

⁴ Concentration above NR 720 RCL for Groundwater Pathway, but below BTV.

 $^{\rm 5}$ Received "D3" flag by laboratory - Sample was diluted due to the presence of high levels of

non-target analytes or other matrix interference

⁶ Received "B" flag by laboratory - Analyte was detected in the associated method blank.

⁷ Received "M1" flag by laboratory - Matrix spike recovery exceeded QC limits. Batch accepted

based on laboratory control sample (LCS) recovery

Bolded value indicates an NR 720 Residual Contaminant Level (RCL) exceedance

B Parameter exceeds NR 720 RCL for Industrial Direct Contact

C Parameter exceeds NR 720 RCL for Groundwater Pathway.

J Parameter exceeds Surficial BTV for metals.
 J Estimated concentration at or above the LOD and below the LOQ,
 No RCL or Surficial BTV established.

#N/A = Not analyzed

0-4' used for direct contact determination

Soil RCLs and surficial BTVs established by the WDNR RR program using the EPA's RSL web-calculator with WAC NR 720 default parameters (WDNR PUB-RR-890, June 2014 - updated RCL spreadsheet, June 2018)

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Table 1: Soil Analytical Results, January 2020 Hartmeyer Property 2007 Roth Street, Madison, Wisconsin Ramboll Project No. 1690012791

Parameters		Soil RCLs			B-9D (1-2)	B-10E (1-2)	B-11A (1-2)	B-11B (1-2)	B-11C (1-2)	B-11D (1-2)	B-11E (1-2)	B-12A (1-2)	B-13A (1-2)
	Non-Industrial Direct Contact	Industrial Direct Contact	Groundwater Pathway	BTV	1/16/2020	1/15/2020	1/15/2020	1/15/2020	1/15/2020	1/15/2020	1/15/2020	1/15/2020	1/15/2020
Metals (mg/kg	1)												
Arsenic	0.677	3	0.584	8.3	4.1 J A,B,C	12.2 A,B,C,D	11.2 A,B,C,D	2.0 J A,C	9.6 A,B,C,D	6.4 J A,B, C	3.9 J A,B,C	<1.9	7.5 A,B,C

Parameters		Soil RCLs			B-14A (1-2)	B-15A (1-2)	B-16 (1-2)	B-17 (1-2)	B-18B (1-2)	B-18D (1-2)	B-20 (1-2)	B-21 (1-2)
	Non-Industrial Direct Contact	Industrial Direct Contact	Groundwater Pathway	BTV	1/15/2020	1/15/2020	1/15/2020	1/16/2020	1/16/2020	1/16/2020	1/16/2020	1/16/2020
Metals (mg/kg	ı)											
Arsenic	0.677	3	0.584	8.3	6.7 A,B,C	7.1 A,B,C	4 J A,B,C	6.6 A,B,C	16.7 A,B,C,D	3.3 J A,B,C	3.7 J A,B,C	2.4 J A,C

Notes:

RCL = Residual Contaminant Level

BTV = Background Threshold Value

mg/kg = milligrams per kilogram

A Parameter exceeds NR 720 Residual Contaminant Level (RCL) for Non-Industrial Direct Contact.

B Parameter exceeds NR 720 RCL for Industrial Direct Contact.

C Parameter exceeds NR 720 RCL for Groundwater Pathway.

D Parameter exceeds Surficial BTV for metals.

J = Estimated concentration at or above the LOD and below the LOQ.

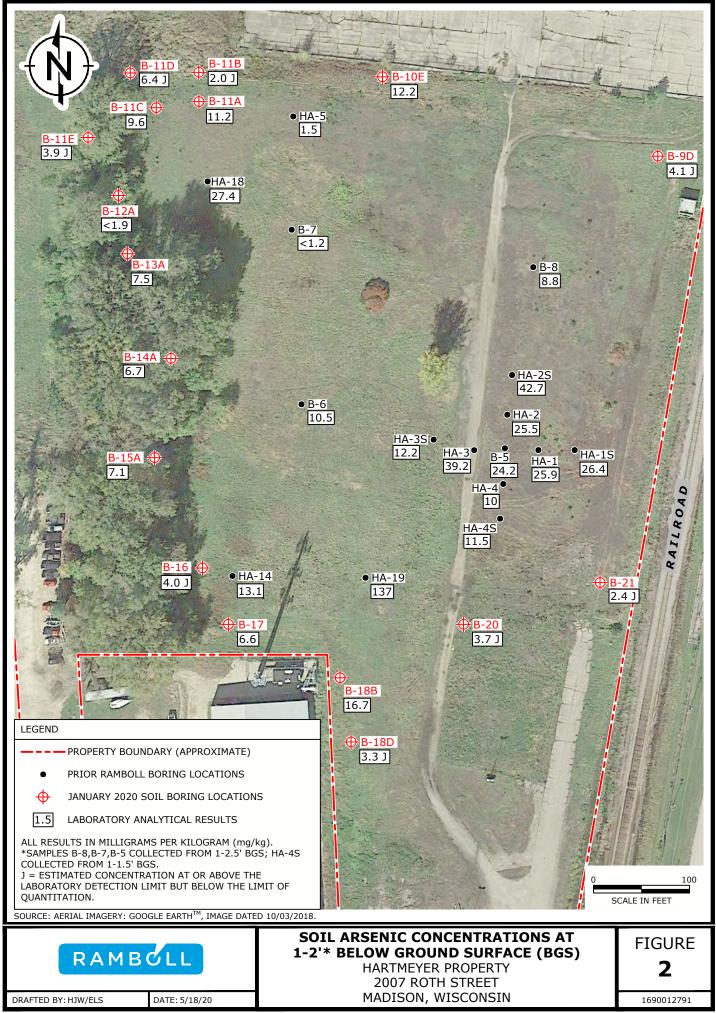
LOD = Limit of Detection

LOQ = Limit of Quantitation

Soil RCLs and surficial BTVs established by the WDNR RR program using the EPA's RSL web-calculator with WAC NR 720 default parameters (WDNR PUB-RR-890, June 2014 - updated RCL spreadsheet, December 2018).



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Appendix E

SCS Groundwater Investigation Tables and Figure

Table 1. Groundwater Analytical Results Summary - VOCs Hartmeyer Property - Madison / SCS Engineers Project #25222081.00

(Results are in µg/L)

Sample	Date	Lab Notes	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3- Chloropropane (DBCP)
GB-101	8/1/2022		<0.30	<0.36	<0.36	<0.42	<3.8	<1.2	<0.86	<0.42	<0.59	<0.37	<0.86	<1.4	<1.2	<1.6	<0.89	<0.89	<2.4
GB-102	8/1/2022		<0.30	<0.36	<0.36	<0.42	<3.8	<1.2	<0.86	<0.42	<0.59	<0.37	<0.86	<1.4	<1.2	<1.6	<0.89	<0.89	<2.4
GB-103	8/1/2022		<0.30	<0.36	<0.36	<0.42	<3.8	<1.2	<0.86	<0.42	<0.59	<0.37	<0.86	<1.4	<1.2	<1.6	<0.89	<0.89	<2.4
GB-104	8/1/2022		<0.30	<0.36	<0.36	<0.42	<3.8	<1.2	<0.86	<0.42	<0.59	<0.37	<0.86	<1.4	<1.2	<1.6	<0.89	<0.89	<2.4
GB-105	8/1/2022		<0.30	<0.36	<0.36	<0.42	<3.8	<1.2	13.6	3.4	<0.59	<0.37	<0.86	<1.4	<1.2	<1.6	<0.89	<0.89	<2.4
GB-106	8/1/2022		<0.30	<0.36	<0.36	<0.42	<3.8	<1.2	<0.86	<0.42	<0.59	<0.37	<0.86	<1.4	<1.2	<1.6	<0.89	<0.89	<2.4
GB-107	8/1/2022		<0.30	<0.36	<0.36	<0.42	<3.8	<1.2	<0.86	<0.42	<0.59	<0.37	<0.86	<1.4	<1.2	<1.6	<0.89	<0.89	<2.4
	9/6/2022		<0.30	<0.36	<0.36	<0.42	<3.8	<1.2	<0.86	<0.42	<0.59	<0.37	<0.86	<1.4	<1.2	<1.6	<0.89	<0.89	<2.4
Trip Blank	8/1/2022		<0.30	<0.36	<0.36	<0.42	<3.8	<1.2	<0.86	<0.42	<0.59	<0.37	<0.86	<1.4	<1.2	<1.6	<0.89	<0.89	<2.4
	9/6/2022		<0.30	<0.36	<0.36	<0.42	<3.8	<1.2	<0.86	<0.42	<0.59	<0.37	<0.86	<1.4	<1.2	<1.6	<0.89	<0.89	<2.4
NR 140 Enforce	ement Standard	S	5	NE	NE	0.6	4.4	10	NE	NE	NE	5	100	400	6	30	NE	NE	0.2
NR 140 Prevent	tive Action Limit	S	0.5	NE	NE	0.06	0.44	1	NE	NE	NE	0.5	20	80	0.6	3	NE	NE	0.02
CAS No.			71-43-2	108-86-1	74-97-5	75-27-4	75-25-2	74-83-9	104-51-8	135-98-8	98-06-6	56-23-5	108-90-7	75-00-3	67-66-3	74-87-3	95-49-8	106-43-4	96-12-8

Table 1. Groundwater Analytical Results Summary - VOCs Hartmeyer Property - Madison / SCS Engineers Project #25222081.00

(Results are in µg/L)

Sample	Date	Lab Notes	Dibromochloromethane	1,2-Dibromoethane (EDB)	Dibromomethane	1,2-Dichlorobenzene	1, 3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethylene	cis-1,2-Dichloroethylene	trans - 1,2- Dichloroethylene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3- Dichloropropene	Diisopropyl ether	Ethylbenzene	Hexachloro-1,3- butadiene
GB-101	8/1/2022		<2.6	<0.31	<0.99	<0.33	<0.35	<0.89	<0.46	<0.30	<0.29	<0.58	<0.47	<0.53	<0.45	<0.30	<4.2	<0.41	<0.36	<3.5	<1.1	<0.33	<2.7
GB-102	8/1/2022		<2.6	<0.31	<0.99	<0.33	<0.35	<0.89	<0.46	<0.30	<0.29	<0.58	<0.47	<0.53	<0.45	<0.30	<4.2	<0.41	<0.36	<3.5	<1.1	<0.33	<2.7
GB-103	8/1/2022		<2.6	<0.31	<0.99	<0.33	<0.35	<0.89	<0.46	<0.30	<0.29	<0.58	<0.47	<0.53	<0.45	<0.30	<4.2	<0.41	<0.36	<3.5	<1.1	<0.33	<2.7
GB-104	8/1/2022		<2.6	<0.31	<0.99	<0.33	<0.35	<0.89	<0.46	<0.30	<0.29	<0.58	<0.47	<0.53	<0.45	<0.30	<4.2	<0.41	<0.36	<3.5	<1.1	<0.33	<2.7
GB-105	8/1/2022		<2.6	<0.31	<0.99	<0.33	<0.35	<0.89	<0.46	<0.30	<0.29	<0.58	<0.47	<0.53	<0.45	<0.30	<4.2	<0.41	<0.36	<3.5	<1.1	11.4	<2.7
GB-106	8/1/2022		<2.6	<0.31	<0.99	<0.33	<0.35	<0.89	<0.46	<0.30	<0.29	<0.58	<0.47	<0.53	<0.45	<0.30	<4.2	<0.41	<0.36	<3.5	<1.1	<0.33	<2.7
GB-107	8/1/2022		<2.6	<0.31	<0.99	<0.33	<0.35	<0.89	<0.46	<0.30	<0.29	<0.58	1.0	<0.53	<0.45	<0.30	<4.2	<0.41	<0.36	<3.5	<1.1	<0.33	<2.7
	9/6/2022		<2.6	<0.31	<0.99	<0.33	<0.35	<0.89	<0.46	<0.30	<0.29	<0.58	1.0	<0.53	<0.45	<0.30	<4.2	<0.41	<0.36	<3.5	NA	<0.33	<2.7
Trip Blank	8/1/2022		<2.6	<0.31	<0.99	<0.33	<0.35	<0.89	<0.46	<0.30	<0.29	<0.58	<0.47	<0.53	<0.45	<0.30	<4.2	<0.41	<0.36	<3.5	<1.1	<0.33	<2.7
	9/6/2022		<2.6	<0.31	<0.99	<0.33	<0.35	<0.89	<0.46	<0.30	<0.29	<0.58	<0.47	<0.53	<0.45	<0.30	<4.2	<0.41	<0.36	<3.5	NA	<0.33	<2.7
NR 140 Enforc	ement Stand	lards	60	0.05	NE	600	600	75	1,000	850	5	7	70	100	5	NE	NE	NE	0.4	0.4	NE	700	NE
NR 140 Prever	tive Action L	imits	6	0.005	NE	60	120	15	200	85	0.5	0.7	7	20	0.5	NE	NE	NE	0.04	0.04	NE	140	NE
CAS No.			124-48-1	106-93-4	74-95-3	95-50-1	541-73-1	106-46-7	75-71-8	75-34-3	107-06-2	75-35-4	156-59-2	156-60-5	78-87-5	142-28-9	594-20-7	563-58-6	10061-01-5	10061-02-6	108-20-3	100-41-4	87-68-3

Table 1. Groundwater Analytical Results Summary - VOCs Hartmeyer Property - Madison / SCS Engineers Project #25222081.00

(Results are in µg/L)

Sample		Lab otes	lsopropylbenzene (Cumene)	p-Isopropyltoluene	Methylene Chloride	Methyl-tert-butyl ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	Tetrachloroethylene	1,1,2,2-Tetrachloroethane	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethylene (TCE)	Trichlorofivoromethane	1,2,3-Trichloropropane	Trimethylbenzenes (TMBs)	Vinyl Chloride	Xylenes
GB-101	8/1/2022		<1.0	<1.0	<0.32	<1.1	<1.1	<0.35	<0.36	<0.36	<0.41	<0.38	0.39 J	<1.0	<0.95	<0.30	<0.34	<0.32	<0.42	<0.56	<0.81	<0.17	<1.0
GB-102	8/1/2022		<1.0	<1.0	<0.32	<1.1	<1.1	<0.35	<0.36	<0.36	<0.41	<0.38	0.49 J	<1.0	<0.95	<0.30	<0.34	<0.32	<0.42	<0.56	<0.81	<0.17	<1.0
GB-103	8/1/2022		<1.0	<1.0	<0.32	<1.1	<1.1	<0.35	<0.36	<0.36	<0.41	<0.38	0.46 J	<1.0	<0.95	<0.30	<0.34	<0.32	<0.42	<0.56	<0.81	<0.17	<1.0
GB-104	8/1/2022		<1.0	<1.0	<0.32	<1.1	<1.1	<0.35	<0.36	<0.36	<0.41	<0.38	0.50 J	<1.0	<0.95	<0.30	<0.34	<0.32	<0.42	<0.56	<0.81	<0.17	<1.0
GB-105	8/1/2022		3.5 J	2.5 J	<0.32	<1.1	3.7 J	12.1	<0.36	<0.36	<0.41	<0.38	0.44 J	<1.0	<0.95	<0.30	<0.34	<0.32	<0.42	<0.56	30.6	<0.17	3.3
GB-106	8/1/2022		<1.0	<1.0	<0.32	<1.1	<1.1	<0.35	<0.36	<0.36	<0.41	<0.38	<0.29	<1.0	<0.95	<0.30	<0.34	<0.32	<0.42	<0.56	<0.81	<0.17	<1.0
GB-107	8/1/2022		<1.0	<1.0	<0.32	<1.1	<1.1	<0.35	<0.36	<0.36	<0.41	<0.38	0.50 J	<1.0	<0.95	<0.30	<0.34	<0.32	<0.42	<0.56	<0.81	0.33 J	<1.0
	9/6/2022		<1.0	<1.0	<0.32	<1.1	<1.1	<0.35	<0.36	<0.36	<0.41	<0.38	<0.29	<1.0	<0.95	<0.30	<0.34	<0.32	<0.42	<0.56	<0.81	<0.17	<1.0
Trip Blank	8/1/2022		<1.0	<1.0	<0.32	<1.1	<1.1	<0.35	<0.36	<0.36	<0.41	<0.38	<0.29	<1.0	<0.95	<0.30	<0.34	<0.32	<0.42	<0.56	<0.81	<0.17	<1.0
	9/6/2022		<1.0	<1.0	<0.32	<1.1	<1.1	<0.35	<0.36	<0.36	<0.41	<0.38	<0.29	<1.0	<0.95	<0.30	<0.34	<0.32	<0.42	<0.56	<0.81	<0.17	<1.0
NR 140 Enforce	ment Standard	ds	NE	NE	5	60	100	NE	100	70	5	0.2	800	NE	70	200	5	5	3,490	60	480	0.2	2,000
NR 140 Prevent	tive Action Limit	its	NE	NE	0.5	12	10	NE	10	7	0.5	0.02	160	NE	14	40	0.5	0.5	698	12	96	0.02	400
CAS No.			98-82-8	99-87-6	75-09-2	1634-04-4	91-20-3	103-65-1	100-42-5	630-20-6	127-18-4	79-34-5	108-88-3	87-61-6	120-82-1	71-55-6	79-00-5	79-01-6	75-69-4	96-18-4	See Notes	75-01-4	1330-20-7 (See Notes)

Abbreviations:

 μ g/L = micrograms per liter or parts per billion (ppb) TMBs = 1,2,4- and 1,3,5-trimethylbenzenes NA = Not Analyzed (Dup) = Duplicate Sample

DRO = Diesel Range Organics MTBE = Methyl-tert-butyl ether ND = Not Detected -- = Not Applicable

GRO = Gasoline Range Organics VOCs = Volatile Organic Compounds NE = No Standard Established

Created by Last revision by Checked by Proj Mgr QA/QC

Notes:

NR 140 Enforcement Standards - Wisconsin Administrative Code (WAC), Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards. NR 140 Preventive Action Limits - WAC, Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards. Xylene (CAS RN 1330-20-7) refers to a mixture of three isomers, meta-xylene (CAS RN 108-38-3), ortho-xylene (CAS RN 95-47-6), and para-xylene (CAS RN106-42-3).

<u>Bold+underlined</u> values meet or exceed NR 140 enforcement standards. <u>Italic+underlined</u> values meet or exceed NR 140 preventive action limits.

Laboratory Notes/Qualifiers:

by: EO	Date:	9/1/2022
by: AJR	Date:	9/15/2022
by: REO	Date:	9/15/2022
C: EO	Date:	9/2/2022

Temporary Monitoring Well Locations - Hartmeyer Property, Roth Street, Madison, WI



May 9, 2022

Dane County Mask

Dane County Mask

Parcels

X = Temporary Well Location

0 190 380 760 Feet

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SCS Engineers, Project 25222081 Revised 9/1/2022

Table 2. Water Level SummaryHartmeyer Property - Madison, WI / SCS Engineers Project #25222081.00

		Depth to Water in feet below top of well casing										
Raw Data	GB-101	GB-102	GB-103	GB-104	GB-105	GB-106	GB-107	Average	Max	Min		
Measurement Date												
August 19, 2022	7.46	5.79	3.51	6.61	4.25	4.12	6.46	5.46	7.46	3.51		
September 6, 2022	7.26	5.60	2.89	6.53	4.01	3.79	6.22	5.19	7.26	2.89		
December 17, 2022	6.80	5.11	0.73	5.64	3.02	3.13	5.15	4.23	6.80	0.73		

Note: the well casings from which the water depths are measured stick up approximately 0.63 feet above the ground surface.

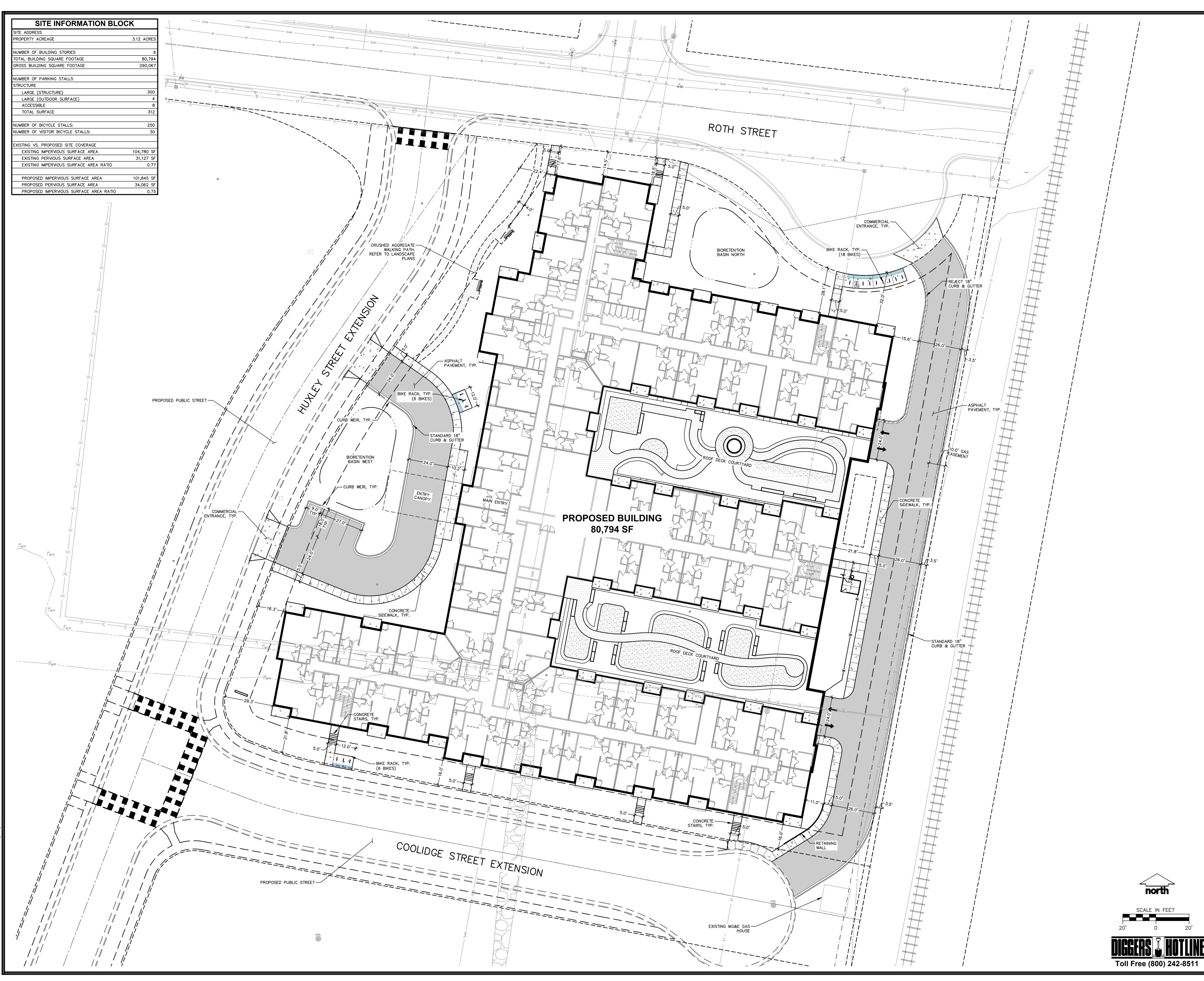
			Ground	Water Eleva	tion in feet a	ıbove mean	sea level (a	msl)		
Well Number	GB-101	GB-102	GB-103	GB-104	GB-105	GB-106	GB-107	Average	Max	Min
Top of Casing Elevation 8/19/22 (feet amsl)	856.05	854.54	851.98	855.61	852.66	853.76	854.96			
Approximate Ground surface (feet amsl)	855.42	853.91	851.36	854.99	852.04	853.13	854.33			
Screen Length (ft)	5.00	5.00	5.00	5.00	5.00	5.00	5.00			
Total Depth (ft from top of casing)	10.60	9.60	9.60	10.60	9.60	8.60	10.60			
Top of Well Screen Elevation (ft)	850.45	849.94	847.38	850.01	848.06	850.16	849.36			
Measurement Date										
August 19, 2022	848.59	848.75	848.47	849.00	848.41	849.64	848.50	848.76	849.64	848.41
September 6, 2022	848.79	848.94	849.09	849.08	848.65	849.97	848.74	849.04	849.97	848.65
December 17, 2022	849.25	849.43	851.25	849.97	849.64	850.63	849.81	850.00	851.25	849.25
Bottom of Well Elevation (ft)	845.4	844.9	842.4	845.0	843.1	845.2	844.4			

Notes: NM = not measured Created by: EO Last revision by: EO Checked by: JR Proj Mgr QA/QC: EO Date: 10/3/2022 Date: 12/17/2022 Date: 12/21/2022 Date: 12/21/2022

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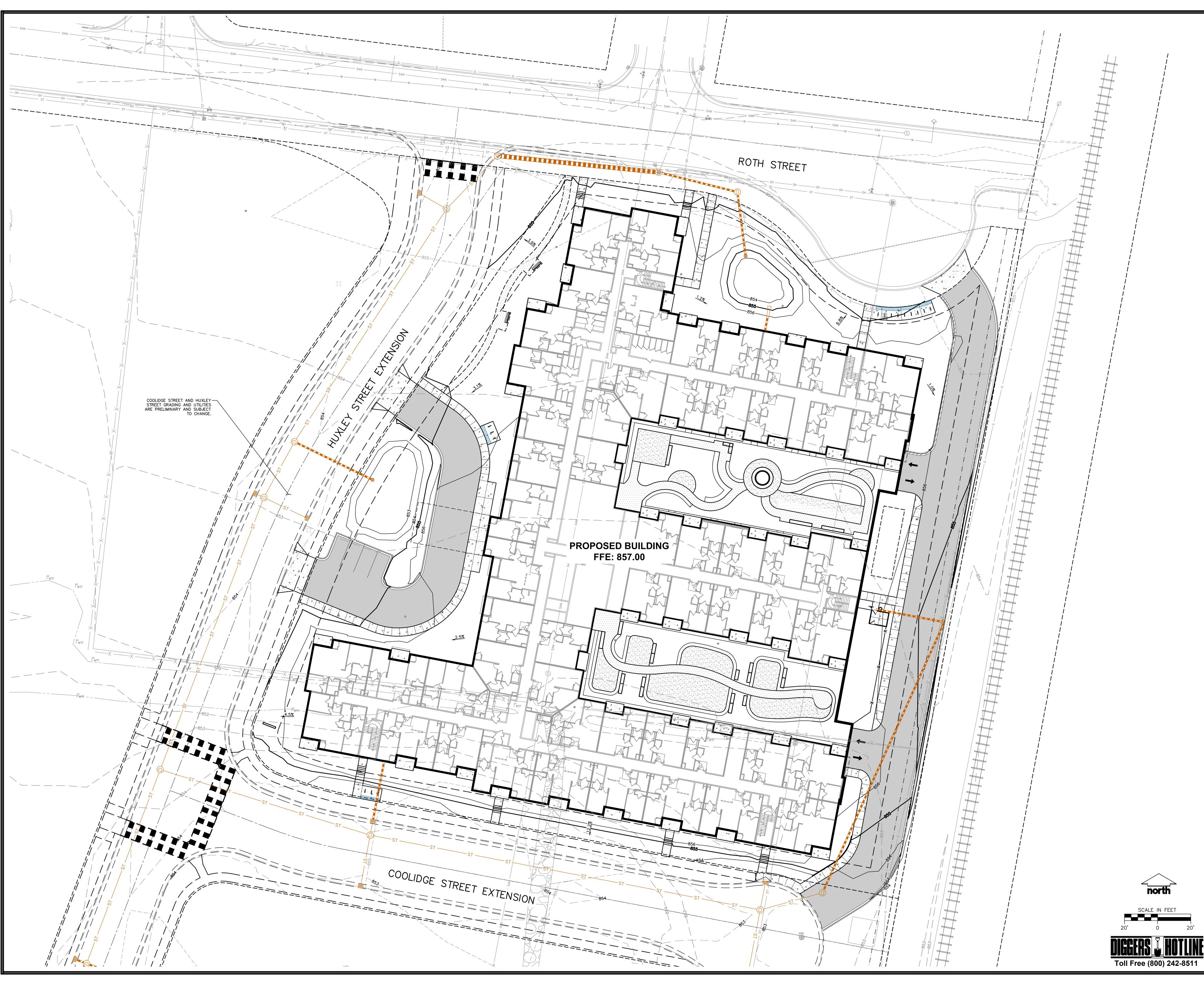
Appendix F

Redevelopment Plans



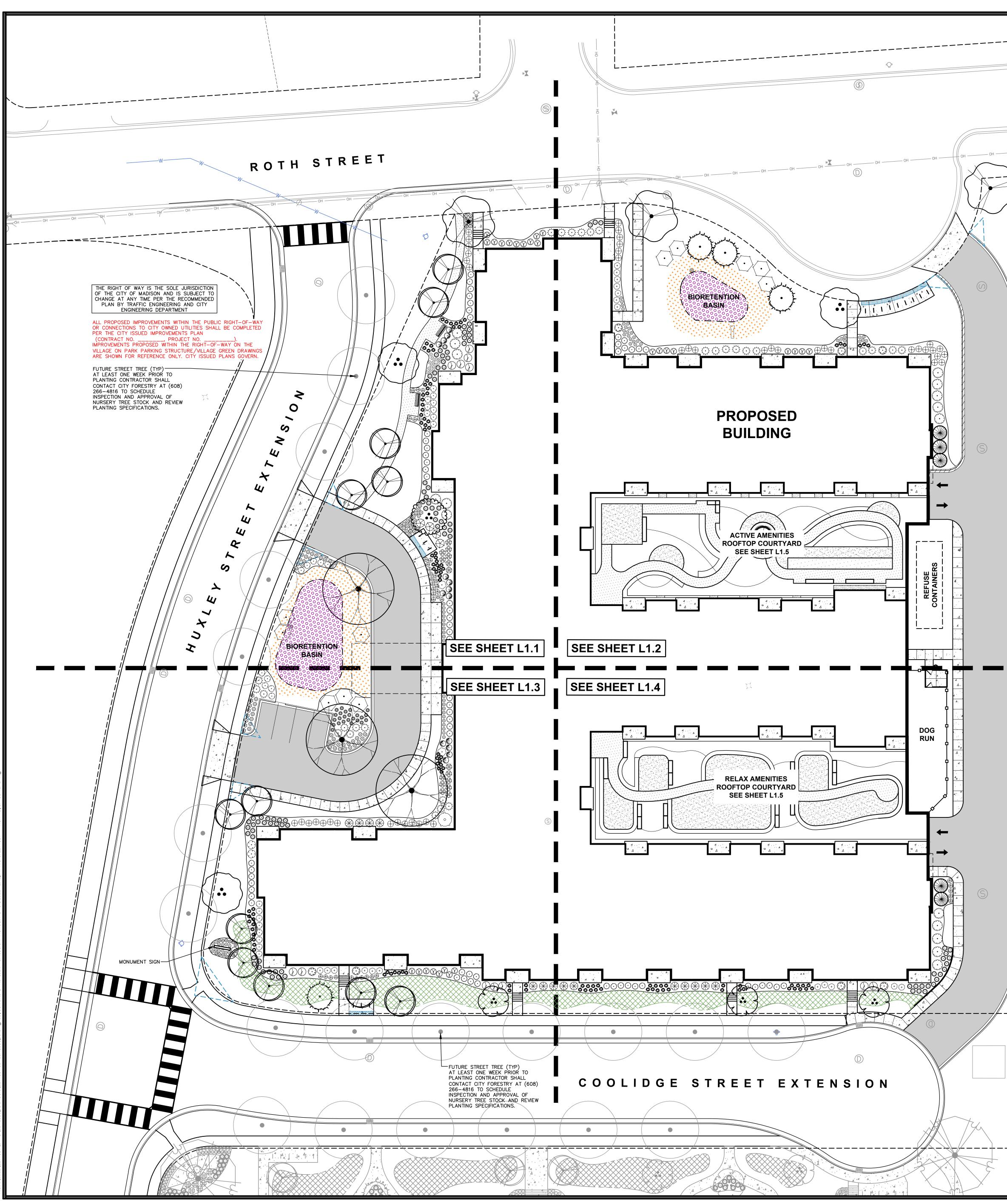
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 PROPERTY LINE

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BUILDING OUTLINE BUILDING OVERHANG EDGE OF PAVEMENT STANDARD CURB AND GUTTER REJECT CURB AND GUTTER ASPHALT PAVEMENT HEAVY DUTY ASPHALT PAVEMENT CONCRETE PAVEMENT HEAVY DUTY CONCRETE PAVEMENT PROPOSED 1 FOOT CONTOUR PROPOSED 5 FOOT CONTOUR EXISTING 1 FOOT CONTOUR EXISTING 5 FOOT CONTOUR STORMWATER MANAGEMENT AREA SANITARY SEWER WATERMAIN STORM SEWER EXISTING SANITARY SEWER EXISTING WATERMAIN EXISTING STORM SEWER RAILING FENCE LIGHT POLE (REFER TO PHOTOMETRIC PLAN) ADA PARKING SIGN BIKE RACK ALUMINUM EDGING SEED - NO-MOW FESCUE SEED - LOW-GROWING PRAIRIE SEED - BIORETENTION MIX

NATIVE VEGETATIVE MAT OR PLUG PLANTINGS

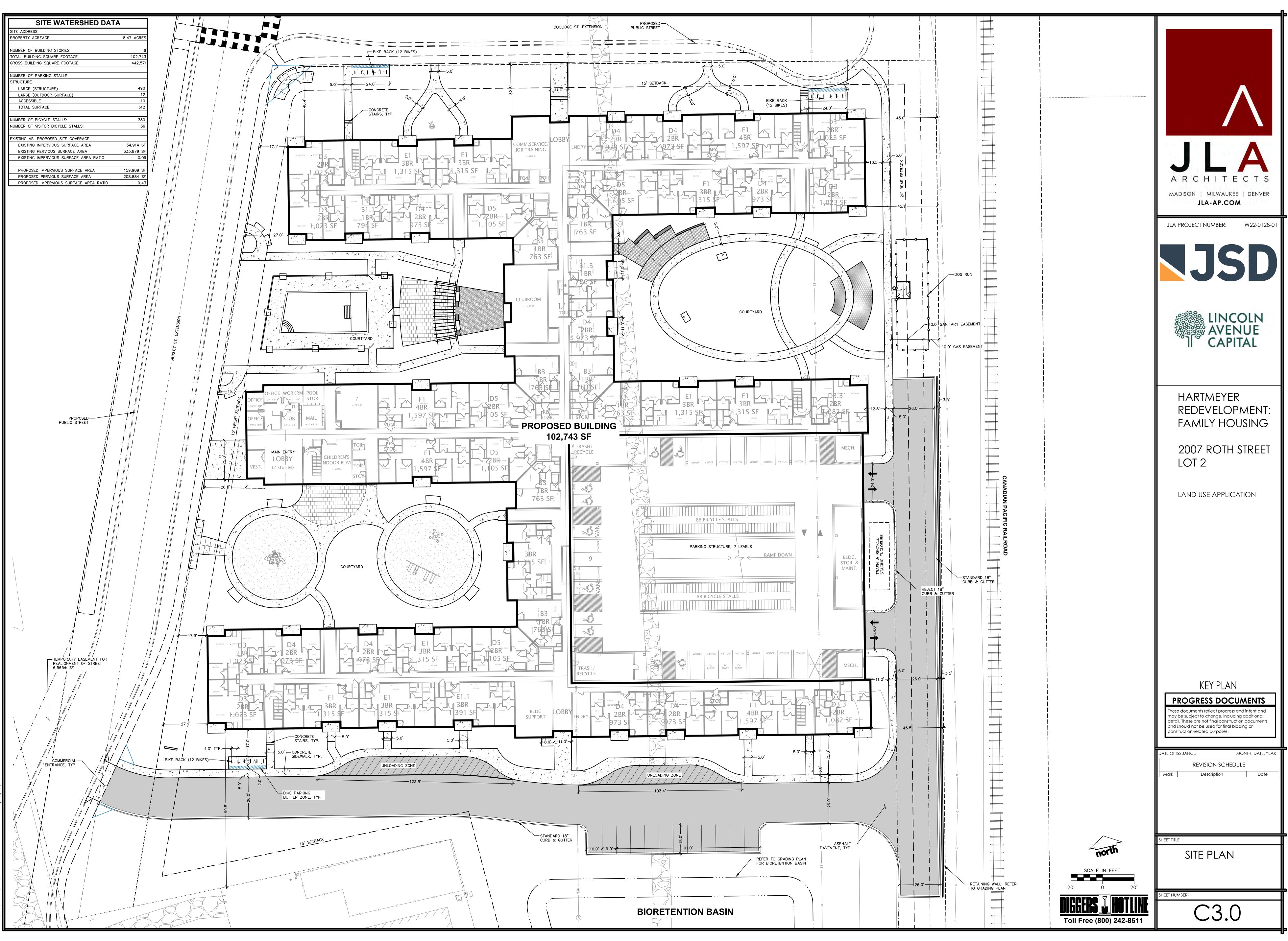
GENERAL NOTES

- REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGEND.
 ALL WORK IN THE ROW SHALL BE IN ACCORDANCE WITH THE MUNICIPAL STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- 3. JSD SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES.
- 4. DRAWING FOR REVIEW NOT FOR CONSTRUCTION UNLESS OTHERWISE NOTED IN THE TITLE BLOCK.
- 5. THE LANDSCAPE CONTRACTOR SHALL COORDINATE ALL FINE GRADING AND TOPSOILING WITH GENERAL CONTRACTOR
- REFER TO "LANDSCAPE DETAILS AND NOTES" SHEET FOR ADDITIONAL DETAILS, NOTES AND SPECIFICATION INFORMATION INCLUDING MATERIALS, GUARANTEE AND EXECUTION RELATED TO LANDSCAPE PLAN
- 7. CONTRACTOR SHALL REVIEW SITE CONDITIONS FOR UTILITY CONFLICTS, DRAINAGE ISSUES, SUBSURFACE ROCK, AND PLANT PLACEMENT CONFLICTS PRIOR TO PLANT INSTALLATION. REPORT ANY CONDITIONS THAT MAY HAVE ADVERSE IMPACT ON PLANTING OPERATIONS TO LANDSCAPE ARCHITECT
- 8. DO NOT COMMENCE PLANTING OPERATIONS UNTIL ALL ADJACENT SITE IMPROVEMENTS, IRRIGATION INSTALLATION (IF APPLICABLE), AND FINISH GRADING ARE COMPLETE

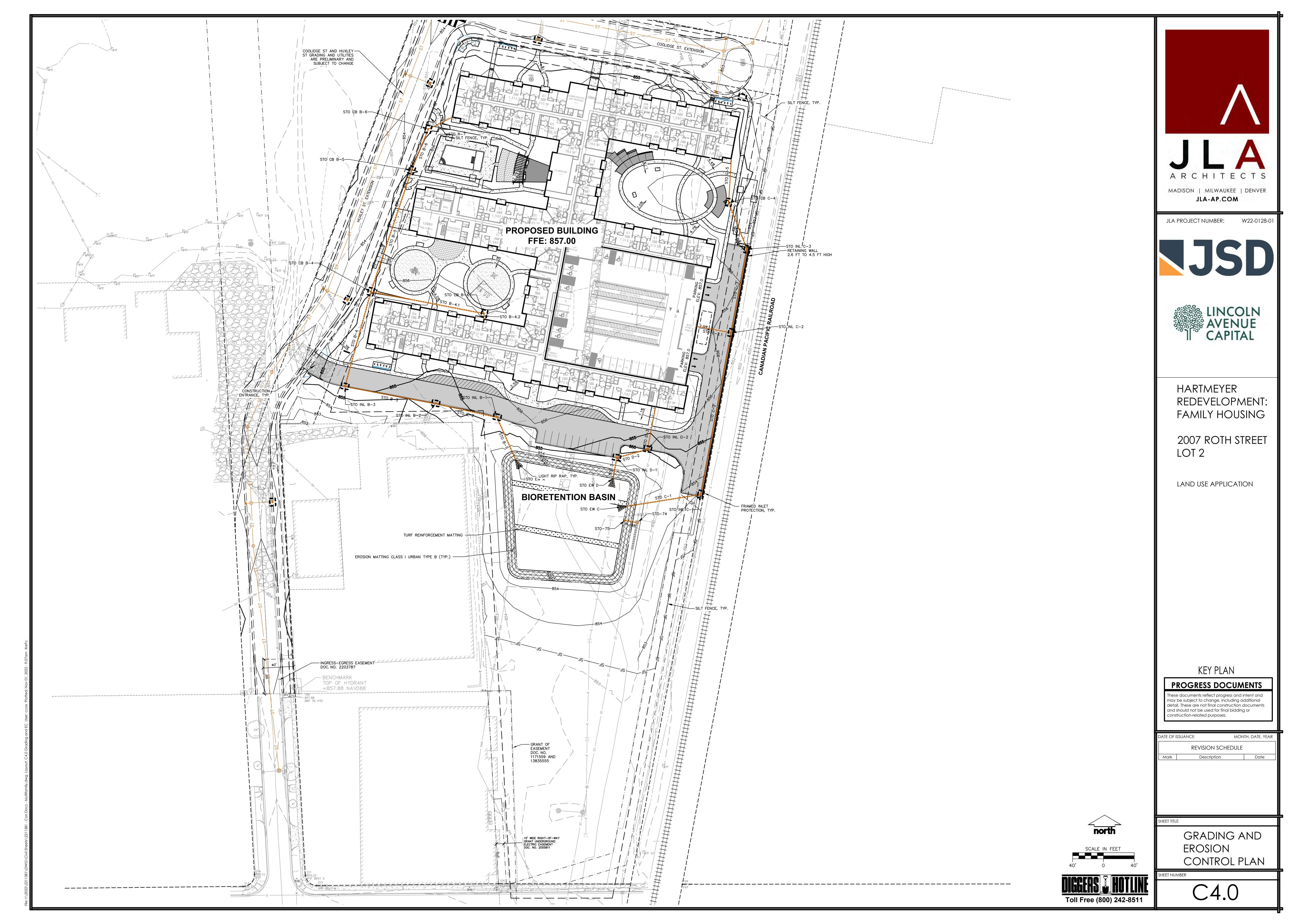


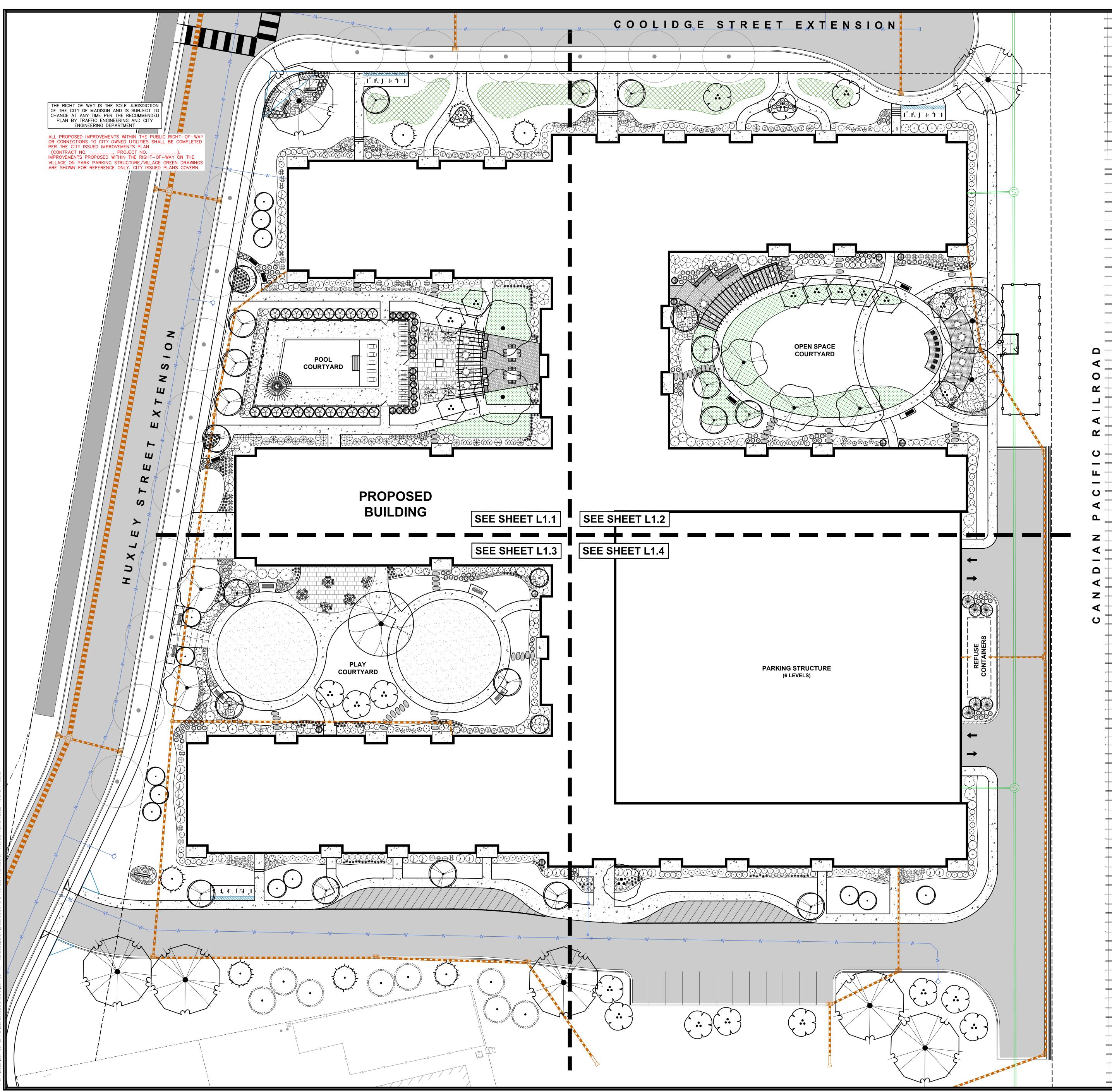






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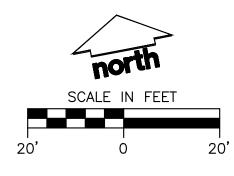
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RIGHT-OF-WAY BUILDING OUTLINE BUILDING OVERHANG EDGE OF PAVEMENT STANDARD CURB AND GUTTER REJECT CURB AND GUTTER ASPHALT PAVEMENT CONCRETE PAVEMENT HEAVY DUTY CONCRETE PAVEMENT STORMWATER MANAGEMENT AREA SANITARY SEWER WATERMAIN D STORM SEWER EXISTING SANITARY SEWER EXISTING WATERMAIN EXISTING STORM SEWER RAILING FENCE LIGHT POLE (REFER TO PHOTOMETRIC PLAN) ADA PARKING SIGN BIKE RACK - POLYETHYLENE EDGING SEED - NO-MOW FESCUE

SEED – LOW–GROWING PRAIRIE

GENERAL NOTES

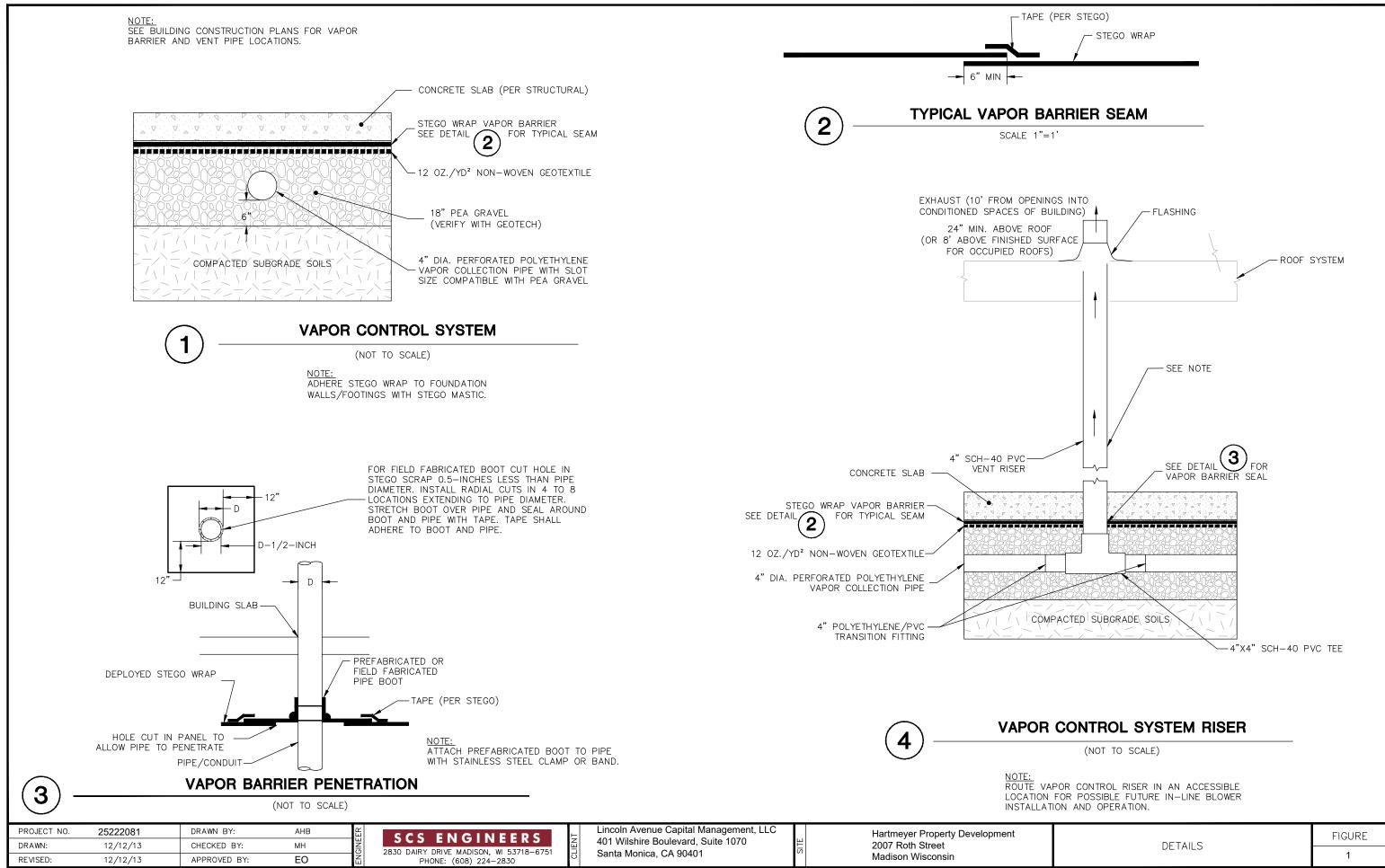
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- 7. CONTRACTOR SHALL REVIEW SITE CONDITIONS FOR UTILITY CONFLICTS, DRAINAGE ISSUES, SUBSURFACE ROCK, AND PLANT PLACEMENT CONFLICTS PRIOR TO PLANT INSTALLATION. REPORT ANY CONDITIONS THAT MAY HAVE ADVERSE IMPACT ON PLANTING OPERATIONS TO LANDSCAPE ARCHITECT
- 8. DO NOT COMMENCE PLANTING OPERATIONS UNTIL ALL ADJACENT SITE IMPROVEMENTS, IRRIGATION INSTALLATION (IF APPLICABLE), AND FINISH GRADING ARE COMPLETE







Appendix G Vapor Mitigation Details



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