

**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 Open 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 form 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: [dnr.wi.gov/topic/Brownfields/Pubs.html](http://dnr.wi.gov/topic/Brownfields/Pubs.html).

## 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: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>

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

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## 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 Carroll	First Joe	MI	Organization/ Business Name City of Platteville
Mailing Address 75 N. Bonson Street			City Platteville
			State WI
			ZIP Code 53818
Phone # (include area code) (608) 348-9741	Fax # (include area code)	Email carrollj@plattevill.org	

The requester listed above: (select all that apply)

- Is currently the owner  Is considering selling the Property
- Is renting or leasing the Property  Is 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 about this request)

Select if same as requester

Contact Last Name Carroll	First Joe	MI	Organization/ Business Name City of Platteville
Mailing Address 75 N. Bonson Street			City Platteville
			State WI
			ZIP Code 53818
Phone # (include area code) (608) 348-9741	Fax # (include area code)	Email carrollj@plattevill.org	

### Environmental Consultant (if applicable)

Contact Last Name Peotter	First Ben	MI	Organization/ Business Name Ayres Associates
Mailing Address 5201 E. Terrace Dr, Suite 200			City Madison
			State WI
			ZIP Code 53718
Phone # (include area code) (608) 443-1206	Fax # (include area code)	Email PeotterB@AyresAssociates.com	

## Section 2. Property Information

Property Name Former Pioneer Ford	FID No. (if known)
BRRTS No. (if known) 02-22-576632	Parcel Identification Number Multiple
Street Address 50 & 70 Water Street	City Platteville
	State WI
	ZIP Code 53818
County Grant	Municipality where the Property is located <input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village of
	Property is composed of: <input type="radio"/> Single tax parcel <input checked="" type="radio"/> Multiple tax parcels
	Property Size Acres 2

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1. Is a response needed by a specific date? (e.g., Property closing date) Note: Most requests are completed within 60 days. Please plan accordingly.

No  Yes

Date requested by: 03/15/2018

Reason: Property Transaction from City to new owner

2. Is the "Requester" enrolled as a Voluntary Party in the Voluntary Party Liability Exemption (VPLE) program?

No. **Include the fee that is required for your request in Section 3, 4 or 5.**

Yes. **Do not include a separate fee.** This request will be billed separately through the VPLE Program.

**Fill out the information in Section 3, 4 or 5 which corresponds with the type of request:**

**Section 3. Technical Assistance or Post-Closure Modifications;**

**Section 4. Liability Clarification; or Section 5. Specialized Agreement.**

## Section 3. Request for Technical Assistance or Post-Closure Modification

Select the type of technical assistance requested: [Numbers in brackets are for WI DNR Use]

- No Further Action Letter (NFA) (Immediate Actions) - NR 708.09, [183] - **Include a fee of \$350.** Use for a written response to an immediate action after a discharge of a hazardous substance occurs. Generally, these are for a one-time spill event.
- 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.**
- Approval of a Site-Specific Soil Cleanup Standard - NR 720.10 or 12, [67] - **Include a fee of \$1050.**
- Review of a Remedial Action Options Report - NR 722.13, [143] - **Include a fee of \$1050.**
- Review of a Remedial Action Design Report - NR 724.09, [148] - **Include a fee of \$1050.**
- Review of a Remedial Action Documentation Report - NR 724.15, [152] - **Include a fee of \$350**
- Review of a Long-term Monitoring Plan - NR 724.17, [25] - **Include a fee of \$425.**
- Review of an Operation and Maintenance Plan - NR 724.13, [192] - **Include a fee of \$425.**

Other Technical Assistance - s. 292.55, Wis. Stats. [97] (For request to build on an abandoned landfill use Form 4400-226)

- Schedule a Technical Assistance Meeting - **Include a fee of \$700.**
- Hazardous Waste Determination - **Include a fee of \$700.**
- Other Technical Assistance - **Include a fee of \$700.** Explain your request in an attachment.

Post-Closure Modifications - NR 727, [181]

- Post-Closure Modifications: Modification to Property boundaries and/or continuing obligations of a closed site or Property; sites may be on the GIS Registry. This also includes removal of a site or Property from the GIS Registry. **Include a fee of \$1050, and:**
  - Include a fee of \$300 for sites with residual soil contamination; and
  - Include a fee of \$350 for sites with residual groundwater contamination, monitoring wells or for vapor intrusion continuing obligations.

Attach a description of the changes you are proposing, and documentation as to why the changes are needed (if the change to a Property, site or continuing obligation will result in revised maps, maintenance plans or photographs, those documents may be submitted later in the approval process, on a case-by-case basis).

**Skip Sections 4 and 5 if the technical assistance you are requesting is listed above and complete Sections 6 and 7 of this form.**

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

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## Section 4. Request for Liability Clarification

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]**

"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 ¼, ¼ 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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Clarification or Post-Closure Modification Request**

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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 caused a discharge of a hazardous substance on the Property;
- (4) map(s) showing the Property location and any suspected or known sources of contamination detected on the Property;
- (5) a description of the intended use of the Property by the lease holder, with reference to the maps to indicate which areas will be used. Explain how the use will not interfere with any future investigation or cleanup at the Property; and
- (6) all reports or investigations (e.g. Phase I and Phase II Environmental Assessments and/or Site Investigation Reports conducted under s. NR 716, Wis. Adm. Code) that identify areas of the Property where a discharge has occurred.

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 that no further assessment or clean-up work is required. Usually this is requested after a Phase I and Phase II environmental assessment has 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.

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Use this space or attach additional sheets to provide necessary information, explanations or specific questions to be answered by the DNR.

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

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## 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: [dnr.wi.gov/topic/Brownfields/Igu.html#tabx4](http://dnr.wi.gov/topic/Brownfields/Igu.html#tabx4).

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,
- (2) a copy of the Property deed with the correct legal description; and,
- (3) a draft 75.105 agreement based on the DNR's model ([dnr.wi.gov/topic/brownfields/documents/mod75-105agrmt.pdf](http://dnr.wi.gov/topic/brownfields/documents/mod75-105agrmt.pdf)).

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,
- (2) a copy of the Property deed with the correct legal description; and,
- (3) a draft 75.105 agreement based on the DNR's model ([dnr.wi.gov/topic/brownfields/documents/mod75-106agrmt.pdf](http://dnr.wi.gov/topic/brownfields/documents/mod75-106agrmt.pdf)).

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.

**Include one copy of any document from any state agency files that you want the Department to review as part of this request. The person submitting this request is responsible for contacting other state agencies to obtain appropriate 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 specialized agreements)

Map of the Property (required for all liability requests and specialized agreements)

Analytical results of the following sampled media: Select all that apply and include date of collection.

Groundwater     Soil     Sediment     Other medium - 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: Remedial Design Report, Materials Management Plan, Attached Memo

For Property with newly identified discharges of hazardous substances only: Has a notification of a discharge of a hazardous substance been sent to the DNR as required by s. NR 706.05(1)(b), Wis. Adm. Code?

Yes - Date (if known): \_\_\_\_\_

No

Note: The Notification for Hazardous Substance Discharge (non-emergency) form is available at:  
[dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf](http://dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf).

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**Section 7. Certification by the Person who completed this form**

I am the person submitting this request (requester)

I prepared this request for: \_\_\_\_\_  
Requester Name

I certify that I am familiar with the information submitted on this request, and that the information on and included with this request is true, accurate and complete to the best of my knowledge. I also certify I have the legal authority and the applicant's permission to make this request.

  
\_\_\_\_\_  
Signature

2/19/2018  
\_\_\_\_\_  
Date Signed

MANAGER - Ayles Assoc.  
\_\_\_\_\_  
Title

608.577.9593  
\_\_\_\_\_  
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 [DNR regional brownfields specialist](#) with any questions about this form or a specific situation involving a contaminated property. For electronic document submittal requirements see: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>.

### 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

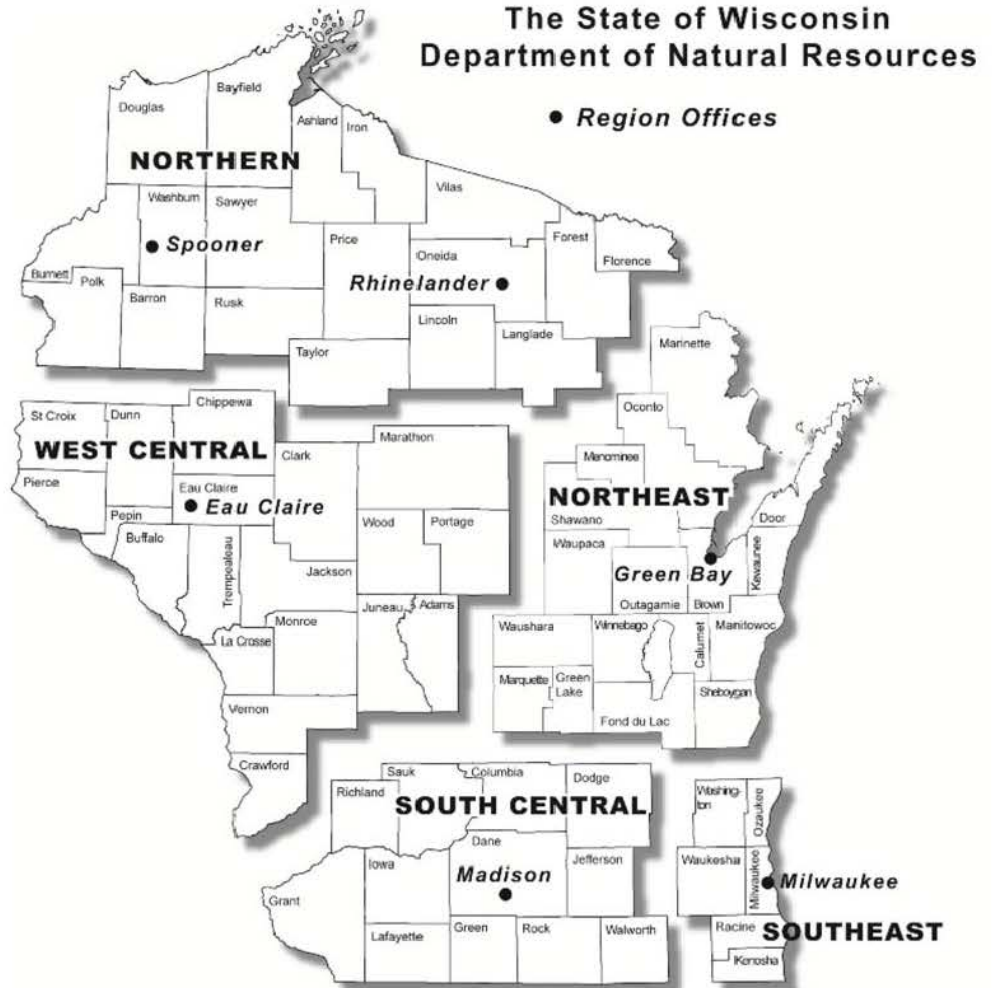
Attn: RR Program Assistant  
Department of Natural Resources  
3911 Fish Hatchery Road  
Fitchburg WI 53711

### DNR SOUTHEAST REGION

Attn: RR Program Assistant  
Department of Natural Resources  
2300 North Martin Luther King Drive  
Milwaukee WI 53212

### 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		Comments	
Fee Enclosed? <input type="radio"/> Yes <input type="radio"/> No	Fee Amount \$	Date Additional Information Requested	Date Requested for DNR Response Letter
Date Approved	Final Determination		



Attachment to Form 4400-237 for Technical Assistance, Pioneer Ford, Platteville  
BRRTS: 02-22-576632

Attached under separate cover related to this technical assistance form is Remedial Design Report and Materials Management Plan. The purpose of these reports is to provide information on proposed project development and how this will impact the existing site features.

The project sequencing for site demolition is described in Section 3 of the Materials Management Plan. The site demolition activities are the initial steps of site development. The Agreement between the City and the future owner requires the City to remove remaining floor slabs and foundations prior to the property transaction, described as Phase 2 in the Materials Management Plan Section 3. The slabs and other site hard-surface features are serving as a cap and require approval by the DNR as cap modification under the closed former Speedy Loan property (02-22-553286) that is part of site development.

The timing of slab removal of the Speedy Loan and other slabs on the site is expected to be completed prior to the property transaction in March. Depending on the timing of this Cap Modification approval, the construction of the full site development is expected to start 4 to 6 weeks following the removal of these features. Though this duration is typical for construction projects for changes to cap types, the following efforts will mitigate the direct contact risks at during this interim period:

- Removal of the slabs will leave the gravel concrete subbase in place, limiting the potential for contact with the underlying contaminated soils that may remain
- Daylight hours are still short, which limits the potential for the public to interact with the site. In addition, the site contact Community Development Director for the City of Platteville (Joe Carroll) will check on the site once a day to make sure no trespassers are entering the property.
- Once the property changes hands, it is expected that the new owner and their contractor will control site access and prevent unauthorized entry

Further information is provided in the documents noted above.

# **Materials Management Plan**

**Former Pioneer Ford Properties  
50 & 70 S. Water Street, 45 & 75 S. Oak Street, and  
85 S. 2nd Street  
Platteville, Wisconsin**

**Prepared for:**

**Mr. Joe Carroll  
City of Platteville  
75 N. Bonson Street  
Platteville, Wisconsin 53818**

**February 2018**

## NR 718 Soils Management Plan

Former Pioneer Ford Properties  
50 & 70 S. Water Street, 45 & 75 S. Oak Street, and 85 S. 2nd Street  
Platteville, Wisconsin

This report prepared by:



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Erin Gross  
Environmental Scientist

This report reviewed by:



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Ben Peotter, PE  
Environmental Engineer / Project Manager



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## 1.0 Introduction

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The City of Platteville intends to construct a new multi-story, mixed use building on the site with a property transfer from the City to the developer that is expected to occur in early 2018. The former Pioneer Ford site consists of six parcels totaling 1.91 acres located northwest of the intersection of S. Water Street and Pine Street. The project site is located in the Southwest  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$  of Section 15, Township 03 North, Range 01 West in the City of Platteville, Grant County, Wisconsin (Figure 1).

Prior to the above-grade building demolition that occurred from September to November 2017, four structures existed on the site including a building located at 50 South Water Street that was occupied by a dry cleaner beginning in the 1950s or 1960s. The Pioneer Ford automotive show room and automotive service buildings were located at 75 South Oak Street. Pioneer Ford occupied the property from the 1970s until 2013. Prior to Pioneer Ford, this parcel and the parcel across South Oak Street (referred to as 85 2nd Street, or historically as 70 South Oak Street – currently a parking lot) had been occupied by a lumberyard, feed company, auto repair shops, carpenter, junk yard, grocery, and retail store. An apartment building, originally constructed as a hotel circa 1900, is located at 45 South Oak Street and is expected to be demolished or removed by the first quarter of 2018. The subject parcels are currently covered with hard parking lot surfaces, building slabs, or buildings that remain. The entire site footprint will be part of the future redevelopment of the site.

In advance of proposed demolition and construction activities, the City of Platteville retained Ayres Associates to conduct environmental due diligence efforts including Phase I and Phase II Environmental Site Assessments (ESA) of the facility using a Wisconsin Economic Development Corporation (WEDC) Site Assessment Grant (SAG).

The Phase I ESA was completed in September 2015 and a Phase II ESA work was conducted in August 2015, September 2017, and December 2017. The Phase II ESA findings indicate that historical use of the property for dry cleaning, junk yard operations, and auto repair activities has resulted in the presence of tetrachloroethene in soil and groundwater. Additional concerns include three USTs registered for the Pioneer Ford portion of the site. Surface soil contamination includes various polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), and metals (arsenic, chromium, barium, cadmium, and lead). Groundwater collected in August 2015, September 2017, and December 2017 indicate VOC contamination (tetrachloroethene, trichloroethene, and vinyl chloride) above the NR 140 Wisconsin Administrative Code Groundwater Enforcement Standards (ES) in the most recent sampling round. Other VOC NR 140 Wisconsin Administrative Code Groundwater Preventative Action Limits (PALs) were exceeded in other wells during this time period as well. Sub-slab and sub-surface vapor sampling was conducted in September 2017 and December 2017, respectively. Exceedances above Residential Vapor Risk Screening Levels were not found in any sampling location.

Redevelopment plans for the underutilized parcels (referred to as the Former Pioneer Ford site) include construction of a mixed-use redevelopment. Upon completion, the \$13.8 million mixed use brownfield redevelopment will include 2,500 SF of commercial space and 71 units encompassing approximately 89,500 SF of living and support space. The building consists of four stories, with commercial on the western existing building to be renovated, and 1- to 3-bedroom

apartments in the new construction. In addition, the site will include landscape features, driveways, and parking. The existing parking lot located across Oak Street will be repaved, with existing grades generally to remain.

The redevelopment will require a net fill soil balance of approximately 1,100 cubic yards, with approximately 3,100 cubic yards of cut material, and approximately 4,200 cubic yards of fill material to be imported to the site.

This report is the proposed Materials Management Plan for the construction project. The goal of the Materials Management Plan is to provide the WDNR with a general plan describing management of potentially impacted soils identified in the general grading activities during demolition activities at the site. Furthermore, the Soil Management Plan will be referenced in the specifications to serve as a guide for the site grading contractor during performance of work.

## 1.1 Site Location

The subject property is located in the Southwest ¼ of the Northeast ¼ of Section 15, Township 03 North, Range 01 West in Grant County, Wisconsin, and measures approximately 1.91 acres. Figures 1 and 2 show the regional location of the property and aerial photographs depicting the current layout of the Pioneer Ford property. The site contains six parcels identified in the following table:

**Table A**  
Parcel and Site Addresses that Comprise Pioneer Ford Redevelopment Site

Parcel #	Parcel Address	Acres	Legal Description
271-00297-0000	85 S. 2 <sup>nd</sup> St.	Not listed	ORIGINAL PLAT S 80' OF LOT 4 BLOCK 43
271-00298-0000	45 S. Oak St.	0.238	ORIGINAL PLAT N74' M/L LOT A EXC E25' BLK 44
271-00299-0000	75 S. Oak St. (Building to Remain, Renovate)	0.460	ORIGINAL PLAT S 140.8' M/L OF W 143.8' OF BLK 44
271-00300-0000	70 S. Water St.	0.606	ORIGINAL PLAT E 25' OF LOTS A & B; LOT C BLOCK 44 (INCLUDES 271-611 (SEE ASSESSMENT PLAT)
271-00306-0000	50 S. Water St. (Speedy Loan drycleaner site)	0.108	ORIGINAL PLAT PRT BLK 45 DESC; COM CEN SEC 15; N61D42M W62.95'; N17D50M E41.70'; S61D16M E113.03'; S15D35M W41.80'; N61D W51.70' TO POB BLOCK 45 (ASSESSMENT INCLS 271-612)
271-00611-0000	Not Listed	0.024	ASSESSMENT PLAT PRT LOT 1 W SD OF LYDIA ST EXC AS DESC IN 378/372 BLK 31 (ASSESSED W/271-300)

The site is the location of the former Pioneer Ford sales and service facility, a former dry cleaner, and an existing occupied multi-family apartment building. The site is located near the crest of a hill that slopes to the south-southeast toward the Rountree Branch. Pavement or buildings provide ground cover for the site.

## 1.2 Project Contacts

The project contacts for this site are as follows:

Client/Property Owner: City of Platteville  
75 N. Bonson Street  
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## 2.0 Site Description and Background

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### 2.1 Site Description

The former Pioneer Ford site consists of six parcels totaling 1.91 acres located northwest of the intersection of S. Water Street and Pine Street. The project site is located in the Southwest  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$  of Section 15, Township 03 North, Range 01 West in the City of Platteville, Grant County, Wisconsin. Prior to the above-grade building demolition that occurred from September to November 2017, four structures existed on the site including a building located at 50 South Water Street that was occupied by a dry cleaner beginning in the 1950s or 1960s. The Pioneer Ford automotive show room and automotive service buildings were located at 75 South Oak Street. Pioneer Ford occupied the property from the 1970s until 2013. Prior to Pioneer Ford, this parcel and the parcel across South Oak Street (referred to as 85 2nd Street, or historically as 70 South Oak Street – currently a parking lot) had been occupied by a lumberyard, feed company, auto repair shops, carpenter, junk yard, grocery and retail store. An apartment building, originally constructed as a hotel circa 1900, is located at 45 South Oak Street and is expected to be demolished or removed by the first quarter of 2018.

Activities outlined in this document represent the soils management and demolition phase of the Brownfield development process for the Pioneer Ford site (BRRTS #02-22-576632) located in Platteville, Wisconsin. The initial phases included performing Phase I and Phase II Environmental Site Assessments (ESAs), which were predominantly fact-finding investigations. The Phase I ESA and Phase II investigation were designed to provide the City of Platteville, WDNR, and Ayres Associates the data necessary to assess the threat from potential contaminants, estimate costs for site redevelopment, and evaluate remedial options. Details of investigation activities are noted above in the Project Background, and addressed in further detail the Phase II ESA Summary. Additional data is contained in the Speedy Loan (BRRTS #02-22-553286) closure registry packet.

The site elevations vary considerably across the site (over 30 feet of drop from the northwest corner to the southeast corner) and use a variety of concrete retaining walls to transition between the various site grades. On the northwest corner, elevations are at 967 feet above mean sea level (msl) and at the southeast corner at the sidewalk the grade is at 930 feet above msl.

Subsurface conditions were evaluated based on information collected from 19 soil probes and 3 soil borings advanced at the site during the Phase II Assessment performed by Ayres Associates in August 2015. Soil probes and borings were advanced to a maximum depth of 23 feet below ground surface (bgs). Subsurface information collected during the Phase II assessments indicate that the unconsolidated sediments at the site consist of general fill material overlying fine grained loess deposits and weathered clay. Competent dolomitic bedrock, based upon probe refusal, was encountered between 1 and 18 feet below ground surface.

## 2.2 Historical Use

The history of the site was obtained from a Phase I Environmental Assessment Report (September 2015), prepared by Ayres Associates under contract to the City of Platteville. Platteville, and this general region, has a long history as a mining district for lead and zinc ore, due to many historically rich mineral deposits.

The earliest known developed use of the subject property dates back at least as far as the 1890s. The previous site owner reported finding an 8-foot deep “badger hole” near the 75 S. Oak Street building that was likely used for lead mine prospecting in the 1800s. Sanborn fire insurance maps indicate that the property was developed with several residential dwellings and a hotel, which is believed to currently exist as an apartment building. By 1908, a lumber company had redeveloped the east portion of the subject property. The western portion was primarily occupied by a feed company. Two auto repair shops and carpenter shop occupied the west portion of the subject property by 1929, while the feed mill continued to operate. A junk yard occupied the far eastern portion of the subject property and what is currently S. Water St. right-of-way. By 1947, the lumber company had constructed a new building, which is believed to stand today as the west Pioneer Ford building. Pioneer Ford, an automotive sales and repair business, occupied the subject property by the 1970s and vacated the property for a new location in 2013.

Other major and known occupants of the subject property since the 1950s or 1960s include Farm & Fleet, a grocery store, and One Hour Cleaners dry cleaning (50 S. Water Street, later known as Speedy Loan BRRTS #02-22-553286). Other businesses, including a sign store, antique shop, Speedy Loan and psychic reader, occupied the building at 50 S. Water St. for brief periods. The former feed mill and auto shop buildings on the west portion of the subject property were razed between 1995 and 2005 with that portion of the site being currently used as a parking lot. The majority of the site is currently vacant with the commercial buildings unoccupied.

On the northwest corner of the contiguous properties (45 South Oak Street) was a former hotel that was converted to apartment buildings. Associated with this property was parking located behind (east) of the building.

The 50 S. Water Street parcel, which was formerly occupied by a dry cleaner, is listed by the WDNR as a closed ERP site with residual tetrachloroethene contamination in soil and groundwater. Three underground storage tanks (UST) are registered as closed on the former Pioneer Ford parcel.

## 2.3 Future Development Plans

General Capital Group will be acquiring the site from the City of Platteville and will construct a new multi-story, mixed use building on the site (Appendix A). The building will include 71 apartments, which will be a combination of 1-bedroom (BR), 2-BR and 3-BR unit types. In addition, there will be some common areas for the apartment building and approximately 5,300 square feet of commercial space on the ground floor. The U-

shaped building will surround a private courtyard for use by the building tenants. Sidewalks will be provided along all sides of the building and within the courtyard area.

A 38-space surface parking lot will be located on the north side of the building, with an entrance driveway from Water Street, and a driveway onto Oak Street. An additional 49-space parking lot will be provided via the existing parking lot along Pine Street between Oak Street and Second Street. Ten of the parking spaces located along Pine Street will be covered via a proposed carport structure. The total amount of off-site vehicle parking available for this project will be 87 spaces, which is an increase from the 72 spaces shown in the GDP. The site plan also proposes adding 8 additional parking spaces in Oak Street, which will be accomplished by removing driveways.

Korb + Associates (architects), The Sigma Group (civil), New Edgen (landscape architecture), and Muermann Engineering (lighting) are currently designing the project. Preliminary drawings that show the existing property and conceptual site plan for proposed as-built site features, are included in Appendix A for reference. Actual start and completion dates and milestones are contingent on regulatory review schedules, construction plan negotiations, permitting, adverse weather conditions, and the actual scope of work performed. Significant changes in review times or the scope of work outlined in this schedule or adverse weather conditions will necessarily affect the project schedule.

## **2.4 Phase II Environmental Site Assessment**

Ayres Associates completed a Phase II ESA of the subject property in August 2015, under a grant by the WEDC, and presented findings in a report. Supplementary investigation and monitoring occurred in September and December 2017. In September 2017, three sub-slab vapor samples were collected from the building slab of 75 S. Oak Street, immediately adjacent to the former dry cleaner site, in an area that overlapped with the proposed building footprint to be constructed as part of the redevelopment activities. In December 2018, three additional subsurface vapor probes were installed on the site based on the September 2017 groundwater data that showed VOC exceedances on the site above groundwater enforcement standards (in monitoring wells MW-2 and MW-3) and to evaluate the vapor pathway in the future building footprint. Excerpts from all of the investigations including an executive summary, site maps showing soil boring locations and regulatory exceedances are included in Appendix B. A brief summary of the report conclusions is presented below.

- Soil Results
  - Subsurface conditions were evaluated based on information collected from 19 soil probes and 3 soil borings advanced at the site during the Phase II Assessment performed by Ayres Associates in August 2015. Soil probes and borings were advanced to a maximum depth of 23 feet below ground surface (bgs). Subsurface information collected during the Phase II assessments indicate that the unconsolidated sediments at the site consist of general fill material

overlying fine grained loess deposits and weathered clay. Competent dolomitic bedrock, based upon probe refusal, was encountered between 1 and 18 feet below ground surface.

- Low levels of arsenic were detected in each of the 22 soil samples submitted for metals analysis at concentrations exceeding NR 720 Wisconsin Administrative Code direct contact residual contaminant levels (RCL). Arsenic concentrations in these samples ranged from 5.2 mg/Kg to 21 mg/Kg. Eighteen of the samples contained arsenic concentrations above the Wisconsin background threshold value of 8 mg/kg for arsenic. Concentrations of total chromium, 44.6 mg/kg, slightly exceeded the background threshold value of 44 mg/kg in GP-14.
- Lead was detected above the non-industrial direct contact RCL in 4 of the 22 soil samples submitted for analysis. Nine other samples contained lead at concentrations exceeding the groundwater pathway RCL. Lead concentrations ranged between 9.3 mg/kg and 768 mg/kg. Nine of the samples contained lead concentrations above the Wisconsin background threshold value of 52 mg/kg for lead.
- The groundwater pathway RCL was exceeded for barium, cadmium and mercury in at least one soil sample submitted for laboratory analysis. Only cadmium and lead were detected above NR 140 Wisconsin Administrative concentrations, so these other contaminants are unlikely to have impacted the groundwater. Selenium and silver were the only metals which were not detected at a concentration exceeding either the direct contact or protection of groundwater RCL established in Wisconsin Administrative Code NR 720.
- Laboratory results for soil samples collected at the site detected tetrachloroethene in GP-18 at a concentration of 0.113 mg/kg, which is above the groundwater pathway RCL. Naphthalene was detected in soil sampled from MW-2 at a concentration of 0.13 mg/kg which does not exceed either the direct contact or groundwater pathway RCL. None of the other soil samples submitted for laboratory analysis contained detectable concentrations of VOCs.
- Concentrations of PAH were detected in 10 of the 22 soil samples submitted for laboratory analysis. PAH concentrations exceeded the industrial direct contact RCL in 2 of these soil samples. Six soil samples contained PAH concentrations above the non-industrial direct contact RCL. Two other samples, collected from GP-10 and GP-15, contained trace PAH concentrations below Wisconsin Administrative Code NR 720 RCLs.
- Groundwater Results
  - Ayres Associates obtained groundwater level measurements and collected three rounds of groundwater samples from the water table observation wells (MW-1 through MW-3) on August 17, 2015, September 28, 2017, and December 29, 2017.

- Concentrations of naturally occurring dissolved metals were detected in each of the three groundwater samples analyzed. Cadmium and lead are the only contaminants that have exceeded NR 140 Wisconsin Administrative Code preventative action limits (PALs) and enforcement standards (ESs) in the three sampling events. Other dissolved metal concentrations do not exceed NR 140 Wisconsin Administrative concentrations. Dissolved cadmium and lead concentrations detected in groundwater sampled from MW-2 and MW-1, respectively, exceed the NR 140 Wisconsin Administrative Code enforcement standard (ES) in the December 2017 sampling event. Over the three sampling events, dissolved cadmium collected from MW-2 has consistently been above ESs. Dissolved lead from MW-1 only exceeds the ES in the December 2017 event and exceeded the PAL in the August 2015 sampling event.

The dissolved cadmium PAL was exceeded for groundwater collected from MW-1 in 2017 sampling events and the dissolved lead PAL was exceeded for groundwater collected from MW-3 in 2015 and December 2017 sampling events.

- Laboratory results indicate trace concentrations of VOCs in groundwater sampled from each of the three wells. Benzene was detected above the preventative action limit in MW-1 and MW-3 in the 2015 sampling event. Groundwater sampled from MW-3 also contained trichloroethene (TCE) and cis-1,2-Dichloroethene above the PAL. In the 2017 sampling rounds, the ES for tetrachloroethene (PCE), TCE, and vinyl chloride was exceeded in MW-3. In MW-2, the ES for PCE was exceeded during the September 2017 sampling event, but the PAL was exceeded in the other two sampling rounds. In MW-2, the TCE PAL was exceeded in MW-2 in the two 2017 sampling rounds. Other trace VOC contaminants were measured in the three groundwater wells sampled between 2015 and 2017.
- Trace concentrations of PAH were detected in groundwater sampled from MW-1 and MW-3 in the August 2015 and September 2017 sampling events. Benzo(a)pyrene, benzo(b)fluoroanthene, and chrysene were detected above the PAL in MW-1. Concentrations of PAH did not exceed the PAL in groundwater sampled from MW-3. Monitoring well MW-2 did not have detects of PAHs in the analytical sample.
- Vapor Results
  - Laboratory analysis of the three (3) sub-slab and three (3) sub-subsurface vapor samples detected up to thirty-three (33) compounds in all the vapor samples submitted for analysis. None of the VOC vapor concentrations were detected above residential sub-slab soil gas screening levels, the threshold for developing a mitigation plan. The sub-slab soil vapor screening levels were calculated by multiplying the Residential Air Screening levels obtained from the US EPA Regional Screening Level Table (November 2017) by an indoor air attenuation factor of 0.1.

## **2.5 Contaminated Media**

Based on the results noted above, contaminated media within the Material Management Plan (MMP) Zone includes subsurface soil and groundwater. Based on prior investigations, contaminants of concern (COC) for the overall MMP for soil are primarily metals and PAHs, with a few VOC constituents in the former Speedy Loan site area. The concentrations of COCs are not homogenous throughout the MMP Zone, but in general, appear pervasive throughout the future redevelopment site in addition to the separate parking lot to be repaved.

## **2.6 Materials Management Zone**

The approximate boundaries of the materials management zone are the project boundaries and have been established based on the findings from the previous investigations at project site and the construction currently proposed for the site. The MMP Zone will also include any temporary subsurface work outside of the MMP zone boundaries shown on Figure 2, including utility trenching and other subsurface work. The MMP Zone extends vertically to the bottom of planned excavation depths and includes both soil and groundwater. All construction activity within the MMP zone shall be conducted in accordance with the guidelines provided in this plan.

## **2.7 Existing Engineering Controls**

The specific engineered barriers that have are currently in place at the site are hard surface asphalt parking from the past site use, and remaining concrete building slabs from demolished buildings.

## 3.0 Materials Management Plan

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### 3.1 General Demolition Plan

The project architect will prepare plans and specifications for demolition activities on site. Specifications for all demolition work will follow the DOA Master Specification format and be modified for project specific conditions.

Key demolition activities include the following:

- Phase 1 of the project is already completed and consisted of removal of above grade building components. Existing concrete slabs and asphalt pavement were left in place to extent practicable and necessary measures shall be taken to minimize the effects of demolition on the existing cap integrity. Final elevations of the project site matched existing grades;
- Phase 2 of the project will consist of removal of retaining walls, below grade foundations, and building slabs that were left in place at the end of Phase 1. This work is anticipated to be performed in the second quarter of 2018. Actual schedule will be coordinated by the site developer and City;
- Removing miscellaneous buried utilities which may include stormwater inlets, storm sewers, sanitary sewers, watermains, hydrants, concrete pads, light poles, signs and other site improvements as designated on Sheet No. 1 in Appendix C will be ancillary to the project.

The approximate square footage of the building and surrounding area to be demolished and disturbed includes most of the Pioneer Ford's 1.91-acres. General environmental and site security features that will be maintained during the course of demolition activities are the following:

- A construction site storm water permit in accordance with Wisconsin Administrative Code NR 216 will be in place to manage stormwater and control erosion on the construction site.
- All parking lots and driveways will be left in-place to serve as interim cover during the period between completion of demolition activities and beginning construction of the new multi-story, mixed use building. The exception to this is at locations where utilities, retaining walls, and other site features that may be removed in advance of other activities.
- Silt fencing will be installed around the perimeter of the property as erosion control.
- Following demolition activities, site development and grading will occur to bring the site to design grades.

Anticipated erosion control and site restoration features are identified on Sheet No. 1 and Sheet No. 3 in Appendix C.

## 3.2 Materials Management Plan

Due to the presence of soil and groundwater contamination, along with historical fill materials at the site, development processes will include environmental management activities associated with the removal, and on-site and potential off-site, management of contaminated soils and unsuitable fill materials deemed to be incompatible with the site's future residential usage. Environmental management activities will include assessing the efficacy of in-situ remedial technologies to demonstrate that reliance on natural attenuation is sufficient as a remedial alternative following the removal/relocation of contaminated soils and historic fill materials. Additionally, evaluation of groundwater conditions based on the future use of the site and surrounding areas, the design and construction of passive vapor mitigation systems, and the capping of the residual contaminated soils/historical fill materials; will all be addressed in an effort to prevent direct-contact risks to occupants and the public, and to mitigate the potential for residual contaminants to migrate to groundwater, and/or surface-water. These efforts are noted in the Remedial Action Design Report (January 2018, Ayres Associates) and Vapor Mitigation Plan (January 2018, Ayres Associates) under separate covers.

This MMP is necessary for long-term environmental management of potentially contaminated soil, debris, soil vapors, and surface water at the site. Materials handling and management will be performed to achieve a technically sound and environmentally acceptable approach to site development and long-term use. Environmental management functions principally consist of proper handling and characterization of contaminated materials encountered during site redevelopment. This can also include providing independent review and guidance on environmental issues during site redevelopment, monitoring environmental conditions during construction activities, and performing environmental sampling and analysis for waste characterization and disposal, as needed.

### 3.2.1 Material Management Objectives

Materials management at this site has protection of human health and the environment as its primary objective. This is being accomplished by the use of a cap (engineered barrier) that includes the existing engineered barriers, as well as the proposed new building construction, asphalt, soil, and concrete areas. Human health is protected by eliminating direct contact with potentially contaminated soil. The soil remediation standards applied to this site were formerly industrial and future land use will be residential.

The rationale for the environmental management tasks to be performed during redevelopment is as follows:

- Provide a decision structure for the identification and management of environmental media during construction activities
- Monitor environmental conditions during construction activities



- Perform environmental sampling and analysis for waste characterization and disposal
- Incorporate environmental management decisions into design and construction for long-term care of the property

The following environmental management activities or practices will be applied to surface water (run-off), natural soil materials, construction debris, residual waste materials known to exist at the site, and vapor migration during the construction. These guidance or management procedures are based on information obtained from previous investigations and are subject to change as additional information becomes available, and information obtained from observations made in the field during site construction.

### 3.2.2 Capping

Final site remediation over the portions of the site containing residual soil contamination will include placement of engineered barriers consisting of a combination of foundations, curbs and roads, parking lots, driveways, sidewalks, and limited areas of landscaping. These engineered barriers will be installed in conjunction with future development and will be maintained in accordance with a WDNR approved maintenance plan by the property owners. Areas of residual soil contamination not otherwise covered by buildings, asphalt, or concrete will be finished with a cover consisting of a minimum 1-foot thickness of fine grained soil. A 6-inch minimum thickness of topsoil is to be placed over the fine-grained soil to provide a plant rooting zone, which is to be seeded to provide a vegetative cover. The placement of low permeability surfaces effectively encapsulates potential contaminants. The objectives of capping these areas of the site include:

- Capping will eliminate the direct contact exposure pathway
- Capping will minimize the flushing of contaminants to groundwater
- Capping helps redirect stormwater runoff to controlled, contaminant reduction pathways
- Capping allows for the creation of viable, economic end uses for sites, allows for the continuation of natural attenuation processes and protects the surrounding environs.

Maintenance of the cap is required to continue to meet these objectives. A Cap Maintenance Plan, requiring annual inspections of the cap, will be implemented after construction is completed. Disturbance of the existing or future cap, such as removing asphalt or buildings, will require repair or re-capping and may necessitate implementation of the soil management plan described below.

### 3.2.3 Site Grading

Based on the findings of the Phase II ESA, it can generally be assumed that soil contamination with VOCs, PAHs and metals will be encountered during construction at any location within the project limits, particularly in the 0- to 6-foot depth range.

Construction and capping this site will require modifications to existing site grades (elevations). In short, the grading plan requires cuts of 0 to 3 feet on the southwestern area of the site, and 0 to 7 feet on the northwest corner of the site. Cuts are anticipated to be approximately 3,100 cubic yards. This material, if acceptable as general fill, would be placed in fill areas. Fills are required on the eastern half of the main site. The southeast and east portion of the site have typical fills of 2 to 6 feet in thickness. The north central portion of the site require fills of up to 13 feet. The total fill volume is estimated at approximately 4,200 cubic yards, with a net fill (after incorporating cut material) of approximately 1,100 cubic yards. It is anticipated that most impacted soils can remain on site and at lower elevation grades, with clean soil being imported, placed, and compacted as engineered fill above those grades, or alternatively, with hard surfaces placed above them. This results in soil under a cap on the site, or by appropriate off-site disposal in accordance with this soil management plan.

The site grading plan, has been established to minimize the amount of contaminated soil requiring excavation and to maintain as much contaminated material on-site as is feasible. Where waste material has been exposed or relocated, it will be capped with final or interim engineered barriers as promptly as possible in conjunction with the construction schedule. Where waste material is temporarily stockpiled on site, a silt fence or a berm will be properly installed and maintained around the perimeter of the stockpiles. Tarps shall cover any contaminated or solid waste stockpiles for protection against wind and precipitation, and to limit human contact with the materials. Contaminated soil that is excavated and cannot be maintained on-site beneath engineered barriers will be properly disposed, including sampling, as required, to determine the suitability for disposal at a local landfill.

Imported fill will be confirmed appropriately that it is protective of health and the environment and is suitably "clean." This would include evaluating the source material past-history of the property where it is generated through a Phase I ESA, sampling, or other appropriate means. Aggregate, sand, or general fill material taken directly from a quarry source will not be tested unless visual or olfactory observations during placement indicate a concern.

### 3.2.4 Soil Management

Figure 2 shows the approximate limits of construction, as well as the area of residual contaminated soil and the extent of groundwater contamination. Contaminated soil and will be encountered during the planned construction

activities that include work below grade or with materials derived from the subsurface in the MMP Zone. The degree of contamination in the soil/groundwater will likely be variable. Procedures to be followed for soil when working in the MMP zone are provided below.

### Field Screening for Contaminants

Excavated soils will be screened by sensory and instrument based methods for evidence of potential contamination.

### Sensory Methods

The excavation and surrounding area will be screened by continuous visual and olfactory observations. If discoloration, staining, or the presence of potential non-native fill, debris, or waste is observed within the excavation, soils from the affected area will be segregated and managed as contaminated soils as described below. If unusual odors are observed in or around the excavation, soils from the affected area will be segregated and managed as contaminated soils as described below.

### PID

The presence of volatile contaminants shall be monitored using a portable photoionization detector (PID). Field instruments shall be calibrated daily according to the manufacturer's specifications. Each screening sample will be collected by placing a sample of excavated material into a plastic zip-lock bag, letting it stand for approximately 10 minutes and then analyzed using a PID to measure the concentration of organic vapors in the headspace. Results of the field screening shall be recorded in the field notes (see Section 10.0). Soils yielding a PID reading of 10 parts per million (ppm) or greater should be considered contaminated soil for the purposes of this MMP and be segregated and managed as described below.

## **3.2.5 Handling Contaminated Soil**

Identify appropriate locations (preferably paved areas) where the contaminated soils can be stockpiled. The stockpile areas should be free of sharp objects, and monitoring wells, utility manholes or any other access routes to the subsurface. Place the affected soils on 20-mil, or thicker, plastic sheeting and cover the piles with 20-mil plastic sheeting during times when access to the piles isn't needed. The covers should be adequately held in place and the stockpiles properly bermed to prevent migration of contaminated soil and to prevent storm water runoff. Stockpile locations will be cross-referenced to field observations.

The demolition contractor should adhere to the requirements of the construction site stormwater management plan and maintain silt fencing and security fencing surrounding the perimeter of the project. Inspections should take place to verify that that mixing of on-site soils with any demolition debris

that are hauled off site is minimized. The Contractor should minimize the area of open excavations to the extent possible and promptly backfill excavations when utility or foundation removal activities are completed.

If areas of unanticipated soil contamination including staining, unusual odors, buried drums or free liquids are encountered in the excavations, the contractor should notify the City of Platteville Representative immediately to determine how to proceed. Any suspected contaminated soils should be stockpiled on an impervious surface and covered with plastic until removed from the site for proper disposal.

Airborne dust issues associated with management of contaminated soils are possible, and the Contractor should be vigilant with respect to dust control associated with these soils. If dust appears to be an issue, the soils should be misted accordingly to suppress dust.

### **3.2.6 Contaminated Soil Reuse**

This MMP is not intended to characterize contaminated soils from the site for use as fill in residential, commercial, or industrial settings. However, slightly impacted soil, as determined by A/E using olfactory and field screening methods, may be re-used on-site under engineered caps such as parking lots, building foundations, and driveways. Significantly contaminated soil or that with unsuitable debris, if encountered, may not be reused as fill under this MMP.

Where waste material is temporarily stockpiled on site, a silt fence should be properly installed and maintained around the perimeter of the stockpiles. As with soil grading activities, tarps shall cover any contaminated or solid waste stockpiles for protection against wind and precipitation and to limit human contact with the materials. Highly-impacted soil that is excavated and cannot be maintained beneath engineered barriers on site will be properly disposed, including sampling, as required, to determine the suitability for disposal at a local landfill. When working with the known hazardous waste, workers should wear gloves and masks if materials will become airborne as dust. Dust suppression should be utilized where necessary.

### **3.2.7 Contaminated Soil Characterization**

Any stockpiled soil that cannot be reused on site will be sampled prior to disposal according to all applicable state and federal regulations, and the specific requirements of the disposal facility accepting the waste.

### **3.2.8 Disposal of Contaminated Soil**

Based on prior investigations and the results of field screening, the soils will be characterized as hazardous waste or special/non-hazardous waste. Appropriate landfill(s) will be contacted based on the soil waste characterization(s), and arrangements will be made at each landfill for disposal of the estimated volumes of contaminated soils. Waste profiles will be completed and submitted

to the associated landfill for each type of waste. Upon the landfill's written approval of the waste profile, waste manifests will be obtained from the landfill and arrangements will be made for hauling the soils to the designated landfill.

Each load of contaminated soil shall be accompanied by a copy of the approved waste profile and a waste manifest signed by the waste generator of record or their designated representative. The transporter shall follow all applicable regulations set by WDNR and USDOT for the transport of each waste. Upon completion of hauling and disposal of each load, the transporter shall return a fully executed copy of the waste manifest to the field environmental manager. The field environmental manager shall observe the loading of each truck and maintain a log of truck numbers, manifest numbers, load size, and fully executed manifests.

### **3.2.9 Demolition Debris Management**

The removal of building foundations, subsurface footings and appurtenances on site will result in the production of demolition debris. Slabs, sub-grade materials, and soil beneath these former structures should be assessed and managed prior to off-site disposal.

### **3.2.10 Water Management**

While not anticipated, water that is encountered in the excavations that requires removal to facilitate construction will be disposed in accordance with the necessary approvals from the WDNR, the City of Platteville Wastewater Treatment Facility, and the City of Platteville. Water samples will be analyzed for constituents specific to the permit to the extent that further analysis or field data is required for disposal. Water that is pumped from excavations and is not acceptable for disposal by the City of Platteville Wastewater Plant or the City of Platteville (as applicable) will be taken to an alternate permitted facility for proper disposal.

Depending on anticipated volumes, temporary containment on site for subsequent testing and disposal may be a cost-effective way to manage potentially contaminated groundwater/storm water. Groundwater or storm water entering the excavation that requires removal to facilitate construction shall be pumped via pumps and hoses by the General Contractor to portable holding tank(s) staged conveniently to the work area. The contents of the tank(s) can either be disposed of via vacuum truck at an appropriately licensed facility, or sampled and tested as described below to see if it meets acceptable effluent criteria and can be discharged at the site.

## **3.3 Vapor Migration**

The presence of volatile compounds in residual contaminated groundwater that remain at the site necessitates the installation of vapor mitigation measures. As is typically provided for at most brownfield redevelopment sites, the installation of a passive

venting system under the residential structures is anticipated to be conducted concurrently with the new construction activities and is considered an integral part of the redevelopment of the site. This is described under the Soil Vapor Management Plan (Appendix to the Remedial Design Report).

### **3.4 Equipment Decontamination**

Heavy equipment will be entering and exiting the property during the rebuild process. This equipment including dump trucks, backhoes, excavators or other heavy equipment should be decontaminated to ensure potentially impacted soil and debris (i.e., residual coal) is not transported off-site. Decontamination activities will include the removal of contaminated soil, debris and other miscellaneous materials from the heavy construction equipment and tools using a combination of high-pressure water sprays, low pressure hoses and detergent washing. In addition, physical or mechanical agitation of soil with hand tools can be utilized to minimize wastewater generation. It is anticipated that gross decontamination of the heavy construction equipment will be performed inside a temporary enclosure where contaminated soil and debris will be removed with a hand tool and coarse brushes. Heavy construction equipment would likely proceed to an on-site decontamination pad where the equipment would be decontaminated using high pressure water or steam washing. Decontamination materials should be managed and disposed off-site in accordance with applicable state and federal regulations.

### **3.5 Reporting and Communication**

To keep the Wisconsin Department of Natural Resources updated on ongoing operations at the worksite, the owner shall provide to the Department designated representative updates on the status of the site operations in such frequency as the Department Representative deems appropriate. This update can be in written form, electronic form via email, or both as determined by the Department representative. Such updates may include, at the discretion of the Department representative, the identification, removal, characterization, reuse, and disposal of waste materials encountered at the site and where appropriate, field observations, field screening results, results of any required laboratory analyses, site sketches, photos, and a summary of any recommendations for additional environmental investigation or remediation.

### **3.6 Roles/Qualifications for Environmental Management Activities**

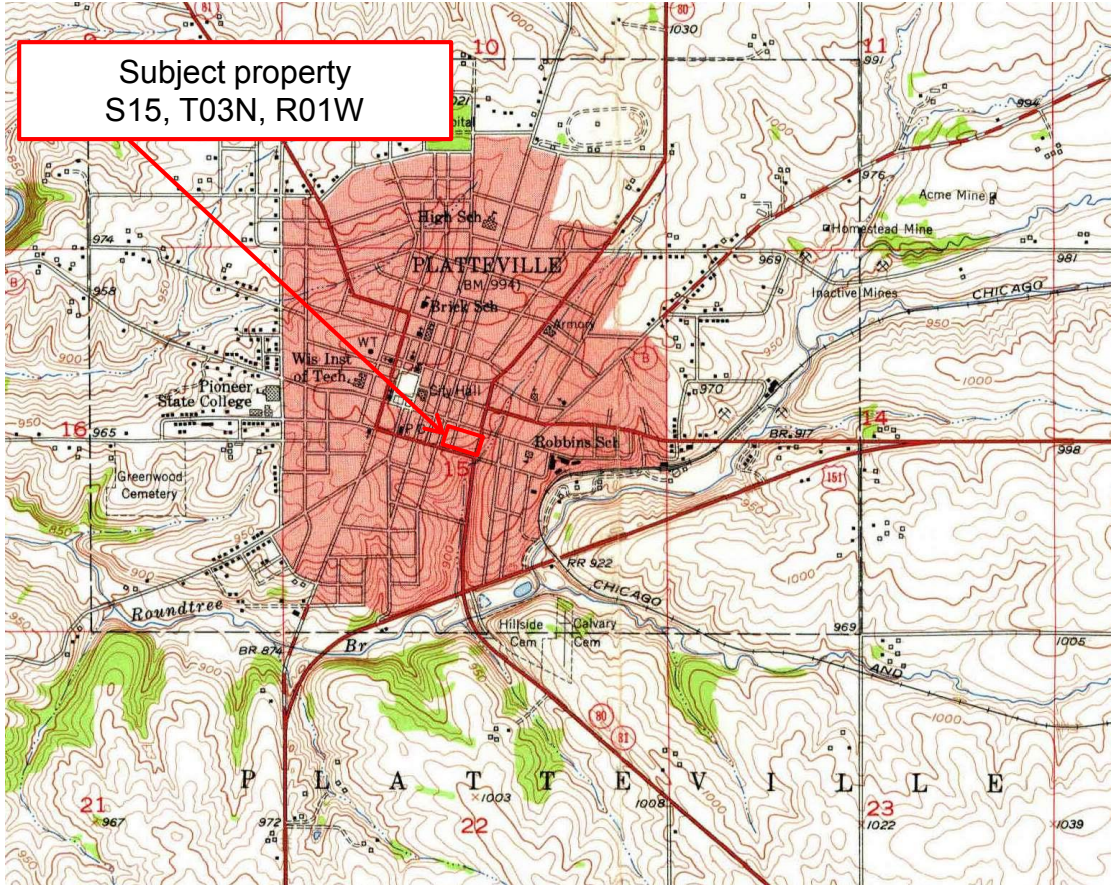
The general contractor shall be responsible for implementing the remaining environmental management activities outline in this MMP. Personnel responsible for implementing the MMP shall possess training, experience and equipment commensurate with the requirements of each part of the MMP. Documentation of training and experience shall be provided to the Project Owners and General Contractor prior to the commencement of construction and shall be verifiable and sufficiently detailed to demonstrate to the project management team and to the WDNR, if requested, that the designated personnel possess the qualifications to safely and thoroughly implement this MMP.

### **3.7 Project Schedule**

Demolition of above ground structures has already occurred at the Pioneer Ford site between September 2017 and January 2018. Demolition of the hard surface and remaining subsurface site features is estimated to begin in spring 2018 and site grading and filling activities will begin following completion of this work. Construction of new multi-story, mixed use building is currently targeted to begin in the April 2018 and be completed in the April 2019.

## Figures





Source: Platteville  
USGS 7.5 Minute Quadrangle Map, 1952

Figure 1 –Location Map  
Soils Management Plan  
50 & 70 S. Water St., 45 & 75 S. Oak St., and 85 2<sup>nd</sup> St.  
Former Pioneer Ford Properties  
Platteville, Wisconsin  
January 2018



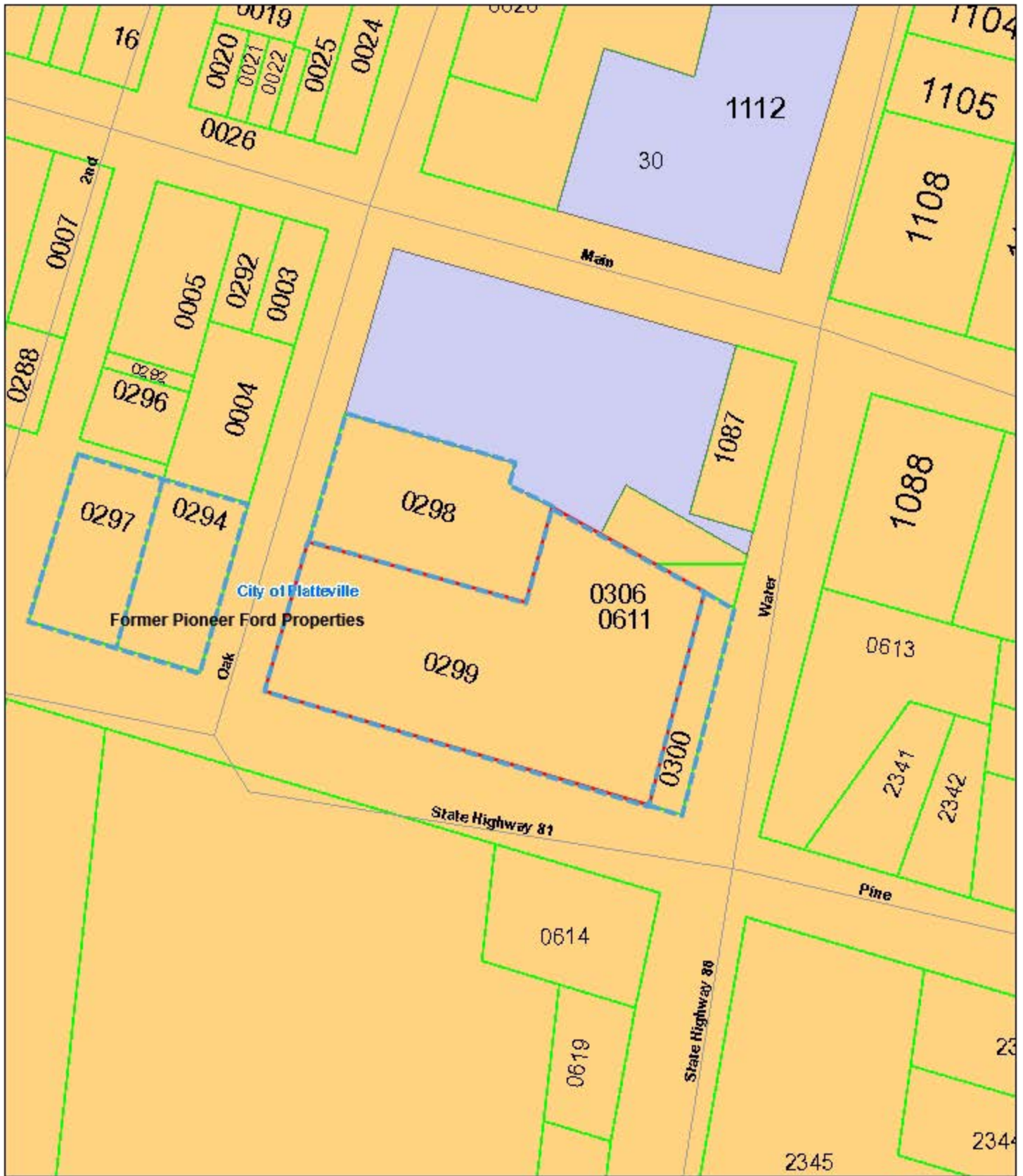


Figure 2 - Parcel Map  
Former Pioneer Ford Properties

DISCLAIMER: No guarantee in the accuracy of the material contained here in and is not responsible for any misuse or misrepresentation of this information or its derivatives.



SCALE: 1" = 100'

Print Date: 10/14/2015

**Appendix A**  
**Concept Drawings**

Pioneer Ford Redevelopment  
Planned Unit Development  
SIP Plan Set

Water Street at Pine Street  
Platteville, WI 53818

Specific Implementation Plan



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OWNER



**Sig Strautmanis**  
6938 N. Santa Monica Boulevard  
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Email: sig@generalcapitalgroup.com

ARCHITECT



**Jason Korb AIA LEED AP**  
President  
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p: 414.988.7430  
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CIVIL



**Terry Meyer, P.E.**  
Project Engineer  
1300 W. Canal Street,  
Milwaukee, WI 53233  
p:414.643.4200  
tmeyer@thesigmagroup.com

LANDSCAPE



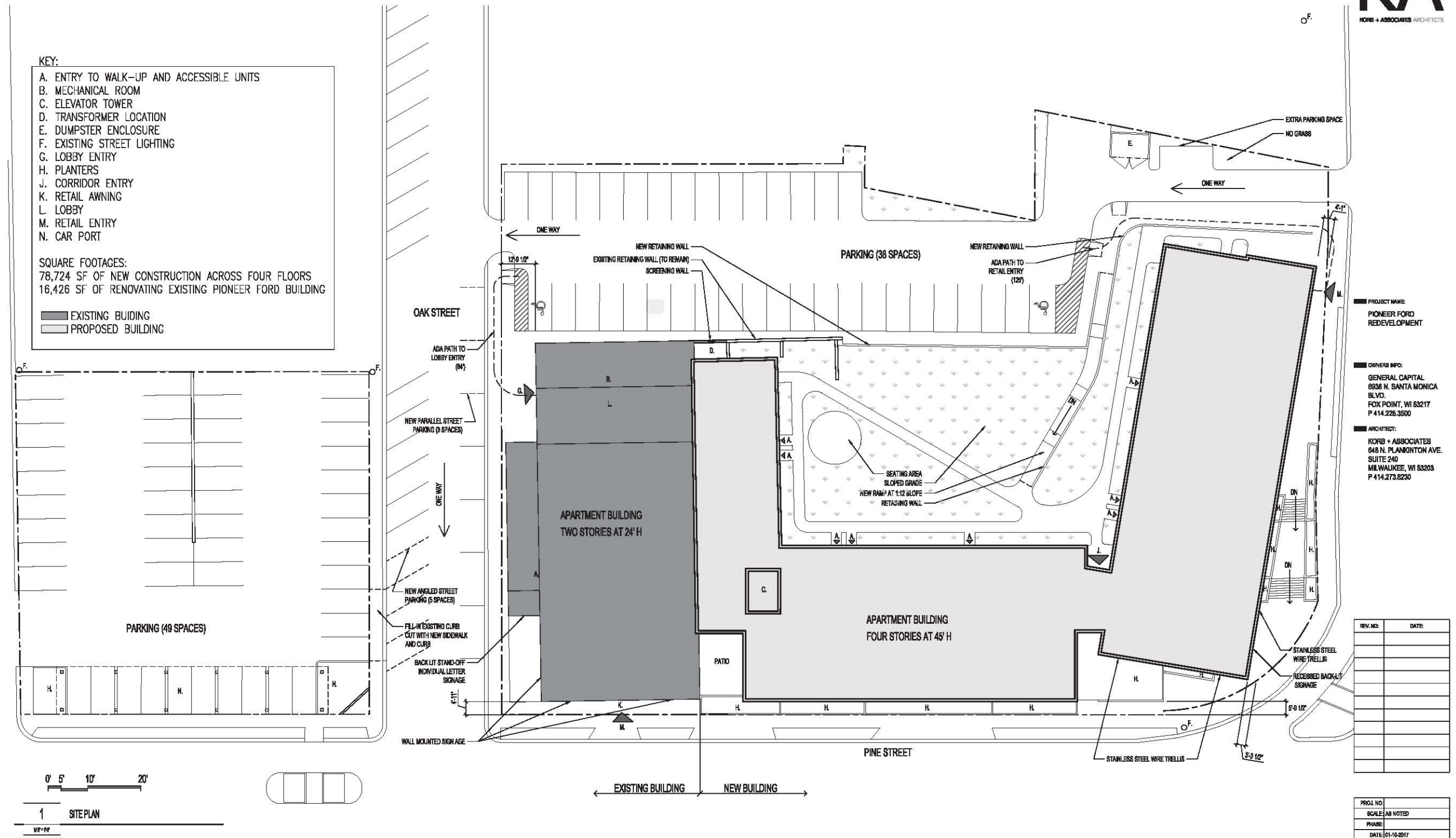
**Rosheen Styczinski**  
1409 N. 54th Street  
Milwaukee, WI 53208  
p: 414.530.1080  
Email: newedenlandscape.com

LIGHTING



**Dan Cedeno**  
116 Fremont Street P.O. Box 235  
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p: 920.585.5547  
Email: DanC@me-pe.com





**PROJECT NAME:**  
 PIONEER FORD REDEVELOPMENT

**OWNER'S INFO:**  
 GENERAL CAPITAL  
 8936 N. SANTA MONICA BLVD.  
 FOX POINT, WI 53217  
 P 414.226.3500

**ARCHITECT:**  
 KORB + ASSOCIATES  
 648 N. PLANKINTON AVE.  
 SUITE 240  
 MILWAUKEE, WI 53208  
 P 414.273.8230

**SITE PLAN**  
**AS100**  
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Legal description per Tri-County Title Services Commitment No. TC-4600, with an effective date of June 19, 2015.

Parcel I Part of Block 44 of the Original Plat of the Village (now City) of Platteville, Grant County, Wisconsin, according to the recorded map or plat thereof, described as follows: to-wit: Commence at the Quarter Section corner in the center of Section 15, T 3 N, R 1 W of the 4th P.M.; thence North 60° 30' West 3.03 chains; thence North 73° 00' West 1 chain; thence South 17° 00' West 3.21 chains to the place of beginning; thence North 17° 00' East 81 feet 3 inches; thence South 72° 30' East 167 feet 10 inches to the East line of lands heretofore conveyed by M.A. Bishop and wife to T.C. Hawley; thence South 17° 00' West along line of Hawley lot 81 feet 3 inches and to North line of Pine Street in said City of Platteville; thence North 72° 30' East 167 feet 10 inches to the place of beginning.

Also the following described part of said Block 44: Beginning at the Northeast corner of the Al Frederick lot; thence Northerly 93 1/2 feet along the Hawley lot; thence North 04° 00' West 13 1/2 feet; thence Westerly 29 1/2 feet; thence Northerly 16 1/2 feet; thence Westerly 137 1/2 feet to Oak Street; thence Southerly 152 1/2 feet along the East boundary line of Oak Street; thence Easterly 167 1/2 feet along the North boundary of the Frederick lot to the Hawley lot and the place of beginning.

EXCEPT Commencing at the Northeast corner of the S.W. 1/4 of said Section 15; thence North 60° 30' West 119.06 feet; thence South 17° 00' West 53.21 feet to the point of beginning; thence South 17° 00' West 140.80 feet to the North line of Pine Street; thence North 72° 30' West 143.80 feet along said North line to the East line of Oak Street; thence North 17° 00' East 138.69 feet along said East line; thence South 73° 21' East 143.80 feet to the point of beginning, being part of Block 44 of the Original Plat of the Village (now City) of Platteville.

ALSO EXCEPT part of Block 44 of the Original Plat of said City of Platteville, described as follows: to-wit: Begin at a point which is North 60° 30' West 93.50 feet from the center of said Section 15; thence South 17° 00' West 189.00 feet to the North boundary of Pine Street; thence North 72° 30' West 25.00 feet along said North boundary; thence North 17° 00' East 194.31 feet; thence South 60° 30' East 25.56 feet to the place of beginning.

Also Commences at a point South 60° 30' East 19 1/2 feet from the center of Section 18, T 3 N, R 1 W in Grant County, Wisconsin; thence North 60° 30' West 113 1/2 feet; thence South 17° 00' West 189 feet along Pine Street; thence South 72° 30' East 99 1/2 feet along Pine Street to a point in the center of a cement wall; thence Northeasterly 39 feet to the place of beginning.

A part of Block 44 of the Original Plat of said City of Platteville, described as follows: to-wit: Begin at a point which is North 60° 30' West 93.50 feet from the center of said Section 15; thence South 17° 00' West 189.00 feet to the North boundary of Pine Street; thence North 72° 30' West 25.00 feet along said North boundary; thence North 17° 00' East 194.31 feet; thence South 60° 30' East 25.56 feet to the place of beginning, all being part of Block Forty-four (44) of the Original Plat of the Village (now City) of Platteville, Grant County, Wisconsin.

Also Commencing at the Northeast corner of the Southwest Quarter (S.W. 1/4) of Section Fifteen (15), Town Three (3) North, Range One (1) West of the 4th P.M., Grant County, Wisconsin; thence North 60° 30' West 119.06 feet; thence South 17° 00' West 53.51 feet to the point of beginning; thence South 17° 00' West, 140.80 feet to the North line of Park Street; thence North 72° 30' West, 149.80 feet along said North line to the East line of Oak Street; thence North 17° 00' East, 138.69 feet along said East line; thence South 73° 21' East, 143.80 feet to the point of beginning, all being part of Block Forty-four (44) of the Original Plat of the Village (now City) of Platteville, Grant County, Wisconsin.

Exclusive of a parcel within State Highway 80 as described in an award of damages recorded in "477-438". ALSO EXCEPT real estate conveyed to the City of Platteville for highway purposes in Volume 1308 of Records on Page 726 as Document No. 742747.

Parcel II Lots 3 and 4 in Block 43 of the Original Plat of the Village (now City) of Platteville, Grant County, Wisconsin, according to the recorded map or plat thereof.

Parcel III Commencing at the center of Section Fifteen (15), Town Three (3) North, Range One (1) West of the 4th P.M., Grant County, Wisconsin; thence North 61° 42' West 62.95 feet; thence North 17° 50' East 41.70 feet; thence South 61° 18' East 113.03 feet to the west side of Lydia Street; thence North 61° 00' West 51.70 feet to the point of beginning, being part of Block 45 of the Original Plat, part of Block 31 of the Assessment Plat, and part of Lot 1 of Carl's Addition, to the City of Platteville, Grant County, Wisconsin.

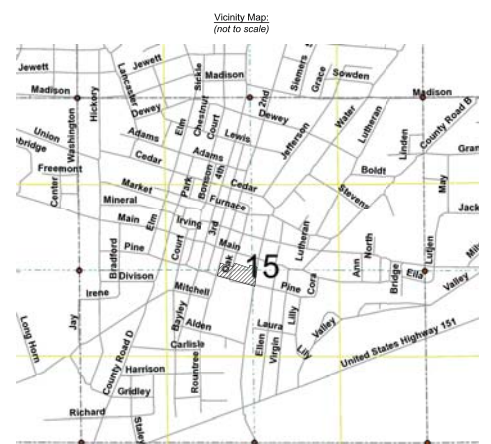
This conveyance also includes Easement and common Right of Way set forth in the Warranty Deed dated May 2, 1962, and recorded July 5, 1962, in the Grant County Register of Deeds Office in Volume 378 of Deeds at Page 372.

Table with 2 columns: Parcel Number and Tax Parcel Number. Lists parcels I, II, and III with their respective tax IDs.

Table with 2 columns: Property Address and Parcel Number. Lists addresses for parcels I, II, and III.

Per Tri-County Title Services Commitment No. TC-4600, with an effective date of June 19, 2015, the following items appear in Schedule B II as exceptions:

- 10. Public or private rights, if any, in such portion of the subject premises as may be presently used, laid out or dedicated in any manner whatsoever, for street, highway and/or alley purposes.
11. Terms, conditions, limitations and restrictions upon any right in shared walls or party walls, including but not limited to any obligation relating to the repair, maintenance, replacement or servicing of the walls.
12. Terms, conditions, limitations and restrictions upon any right in the easement described in Schedule A, including but not limited to any obligation relating to the repair, maintenance, replacement or servicing of the easement.
13. AGREEMENT from Benjamin Richards and Emma Richards, his wife, to Richard W. Brodbeck and Helen Brodbeck, co-partners doing business under the name of Dick's Super Valu by instrument dated August 13, 1955 and recorded in the Grant County Register of Deeds Office September 29, 1955 in Volume 326 of Deeds on Page 407 as Document No. 271162, (Parcel I and III) AFFECTS PARCEL AS SHOWN ON MAP.
14. Easement and common Right of Way set forth in the Warranty Deed dated May 2, 1962, and recorded July 5, 1962, in the Grant County Register of Deeds Office in Volume 378 of Deeds at Page 372, (Parcel III) AFFECTS PARCEL AS SHOWN ON MAP, DEPICTION IS APPROXIMATE.
15. AWARD OF DAMAGES from City of Platteville in the name of State of Wisconsin, to Brodbeck Realty Corporation by instrument dated July 30, 1971 and recorded in the Grant County Register of Deeds Office April 26, 1972 in Volume 477 of Records on Page 438 as Document No. 430621 (Parcel I) SHOWN ON MAP FOR REFERENCE ONLY, LIMITED EASEMENT APPEARS TO HAVE EXPIRED.
16. EASEMENT between Charles L. and Steidinger and Velma J. Steidinger, his wife, both individually and as such wife, and Roger Oates and Annabel Oates, his wife, both individually and as such wife, and Mark V. Brickl by instrument dated August 1, 1962 and recorded in the Grant County Register of Deeds Office January 11, 1960 in Volume 559 of Records on Page 230 as Document No. 477125, RELATES TO PRIVATE SEWER TO CONNECT WITH SEWER ON MAIN STREET, UNABLE TO RETRACE FROM DESCRIPTION PROVIDED.
17. EASEMENT to Wisconsin Power and Light Company by instrument dated June 11, 1980 and recorded in the Grant County Register of Deeds Office June 19, 1980 in Volume 562 of Records on Page 230 as Document No. 479346, AFFECTS PARCEL AS SHOWN ON MAP, DEPICTION IS APPROXIMATE.
18. Terms and conditions of EASEMENT between the Grand Lodge of Wisconsin, Independent Order of Odd Fellows, and Wilson J. Bokit and Ronald J. Bokit, Co-Partners d/b/a Bokit Apartments No. 2, by instrument dated March 9, 1988 and recorded in the Grant County Register of Deeds Office March 22, 1988 in Volume 644 of Records on Page 565 as Document No. 523941 (Parcel I) AFFECTS PARCEL AS SHOWN ON MAP.
19. Temporary Limited Easement as shown on TRANSPORTATION PROJECT PLAT No. 5035-02-21-4.01 recorded in the Grant County Register of Deeds Office July 28, 2011 in Cabinet C of Plats on Page 25 as Document No. 737338, (Parcel I and III) DOCUMENT PROVIDED IS ILLEGIBLE, TEMPORARY LIMITED EASEMENT MAY HAVE EXPIRED.



DRAFT



As-Surveyed Legal Description here

Surveyor's Certification: To: Tri-County Title Services, LLC Fidelity National Title Insurance Company

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTANSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 1, 2, 3, 4, 7(a & b), 8 and 11 of Table A thereof. The field work was completed on December 20, 2016 under snowy conditions. Date of Map December 23, 2016.

Baiba M. Rozite, PLS - 2351

THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS MAP IS BASED ON FIELD MARKINGS AND INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED.

GENERAL NOTES:

- 1. THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS DRAWING IS BASED ON FIELD LOCATIONS AND/OR RECORDS FURNISHED BY MUNICIPALITIES AND UTILITY COMPANIES. THE LOCATION AND ACCURACY OF WHICH CANNOT BE GUARANTEED. THERE MAY BE ADDITIONAL UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
2. THE SITE WAS SURVEYED ON 12-20-2016 AND WAS SNOW AND ICE COVERED AT THE TIME. THERE MAY BE PHYSICAL FEATURES ON THE SITE THAT WERE SNOW-COVERED AND NOT LOCATED.
3. HORIZONTAL DATUM FOR THE PROJECT SURVEY IS WISCONSIN COUNTY COORDINATE SYSTEM - GRANT COUNTY. VERTICAL DATUM FOR THE PROJECT SURVEY IS NAVD83. BENCHMARK IS THE BRASS CAP IN SIDEWALK AT THE SOUTHWEST CORNER OF THE SITE WITH AN ELEVATION OF 957.79.
4. CURRENT ZONING IS CENTRAL BUSINESS.
5. PARCEL AREAS: PARCEL I & III 63,635 SQ. FT. +/- PARCEL II 17,119 SQ. FT.
6. FEMA: PARCEL FALLS WITHIN ZONE X, AREAS OF MINIMAL FLOOD HAZARD, PER FEMA FIRM PANEL 55043C0676F, DATED 2/03/2016.

THE SIGMA Single Source Survey Solutions GROUP www.thissigmagroup.com 1300 West Canal Street Milwaukee, WI 53233 Phone: 414-643-4200 Fax: 414-643-4210

LEGEND SECTION VIA SECTION LINE, EASEMENT, CHAIN-LINK FENCE, QUARRY WALL, METAL FENCE, WOOD FENCE, TREE LINE, OVERHEAD UTILITY LINE, TELEPHONE, FIBER OPTIC, CABLE TV, SANITARY SEWER, FLOOR SIGN, STORM SEWER, SANITARY MAN, GAS, EXISTING MAJOR CONTOUR, EXISTING MINOR CONTOUR, MANHOLE, RICH PIPE FOUNDSET, REBAR FOUNDSET, CHISELED CROSS FOUNDSET, PK NAIL FOUNDSET, BRICKWALL, MOUNDWALL, BRICKWALL, SIGN, GAS VALVE, DECIDUOUS TREE (Dashed), CONIFEROUS TREE (Dashed), ALLEY, POST, SOIL BORING, MONITORING WELL, CULVERT END, LIGHT POLE, WATER VALVE, UTILITY POLE, GUY WIRE, GUY POLE, GAS METER, ELECTRIC METER, UTILITY PEDESTAL, WINDSHIELD, TRAFFIC SIGNAL.

45, 70, 75 S. OAK STREET, 50 & 70 S. WATER STREET, 85 S SECOND STREET, PLATTEVILLE, WISCONSIN. ALTANSPS LAND TITLE SURVEY

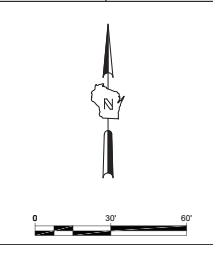
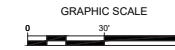


Table with 2 columns: NO. REVISION and DATE BY. Lists revisions 1 through 4.

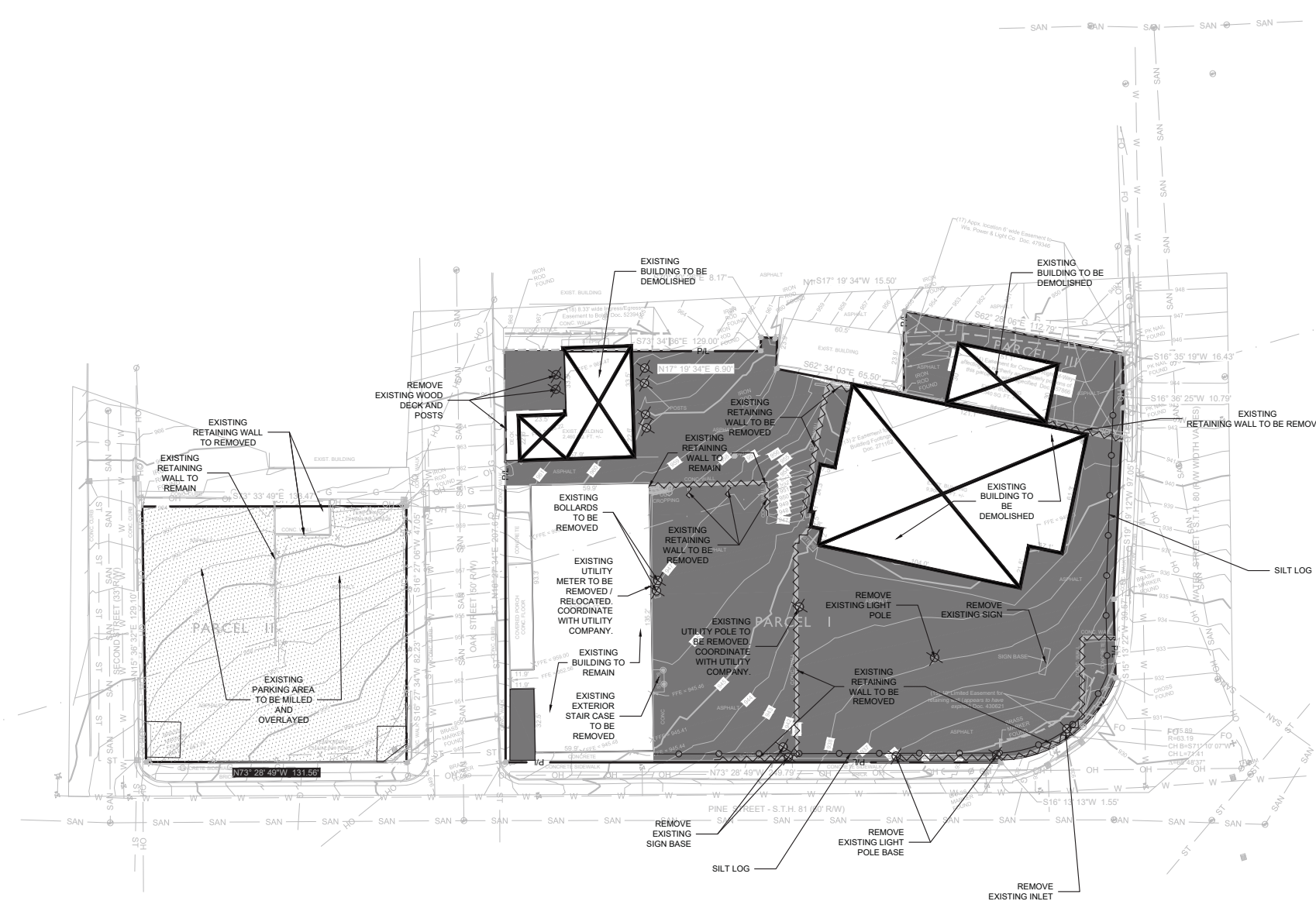
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**LEGEND:**

- PROPOSED SILT LOG
- PROPOSED INLET PROTECTION
- PROPOSED TRACKING PAD
- EXISTING CONTOUR
- PROPOSED CONTOUR
- UTILITY REMOVAL
- STRUCTURE REMOVAL
- PAVEMENT REMOVAL



**GENERAL NOTES:**

1. THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS DRAWING IS BASED ON FIELD LOCATIONS AND/OR RECORDS FURNISHED BY MUNICIPALITIES AND UTILITY COMPANIES. THE LOCATION AND ACCURACY OF WHICH CANNOT BE GUARANTEED. THERE MAY BE ADDITIONAL UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
2. VERIFY ACTUAL LOCATIONS AND INVERTS IN THE FIELD. ANY POTENTIAL ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
3. WORK TO BE COMPLETED IS INDICATED IN BOLD TYPE LINES AND EXISTING CONDITIONS ARE INDICATED BY LIGHT TYPE LINES.
4. ELECTRONIC CIVIL FILES ARE AVAILABLE UPON WRITTEN REQUEST. DO NOT USE ELECTRONIC CIVIL FILES TO LAYOUT FOUNDATIONS, COLUMN LINES, LIGHT POLES, OR OTHER NON CIVIL SITE WORK. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF BUILDING AND ARCHITECTURAL FEATURES.
5. SEE SHEET C400 FOR A COMPLETE LIST OF EROSION CONTROL NOTES AND DETAILS. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO START OF LAND DISTURBING ACTIVITIES.
6. DO NOT BEGIN LAND DISTURBING ACTIVITIES UNTIL AN EROSION CONTROL PERMIT IS OBTAINED FROM LOCAL JURISDICTION.

File: I:\General\Captain\16571\_Platteville\060\_CAD\C - Civil\500 Production - Civil Plans\501\_Site Preparation & Erosion Control\16571 - SITE PREP & EROS.dwg  
 TO OBTAIN LOCATIONS OF PROPOSED SILT LOGS AND TRACKING PADS SEE SHEET C400

  
 CALL DIGGERS HOTLINE  
 1-800-242-8511  
 TOLL FREE  
 WE STRIKE! NO DITCHING  
 REQUIRED AND A WORK DATE  
 NOTICE BEFORE YOU EXCAVATE  
 MILW. AREA 259-1181

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PIONEER FORD PROPERTY REDEVELOPMENT  
 PLATTEVILLE, WISCONSIN

**EROSION CONTROL AND SITE  
 PREPARATION PLAN**

NO. REVISION    DATE BY

DRAWING NO. 16571 - SITE PREP & EROS.dwg

DRAWN BY: TPM/TSP

DATE: 1/5/17

PROJECT NO: 16571

CHECKED BY: ---

APPROVED BY: ---

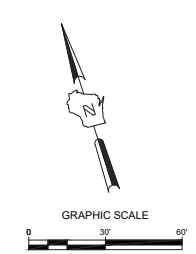
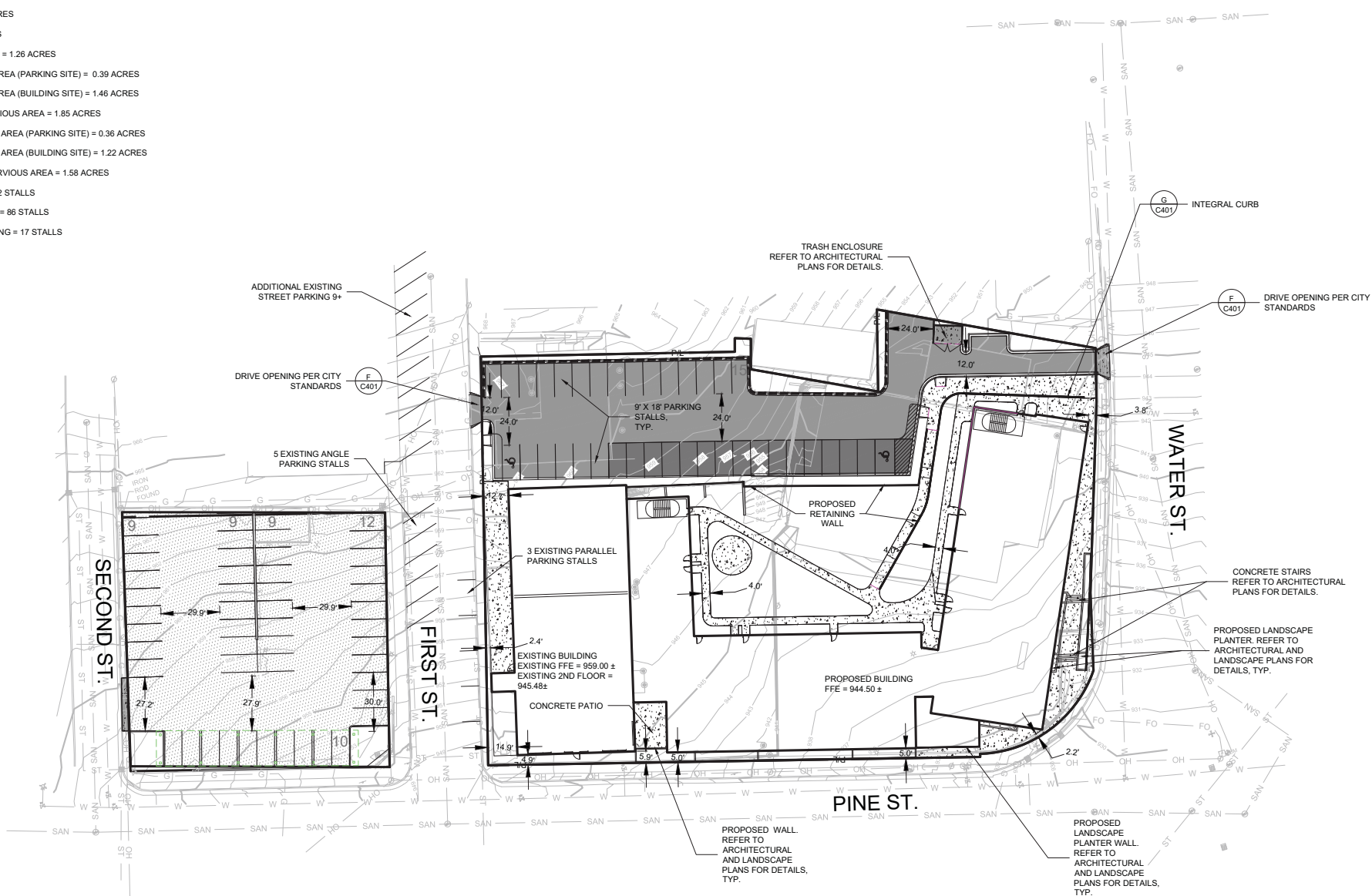
SHEET NO.:

**C 002**

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 Single Source. Sound Solutions.  
 www.thesigmagroup.com  
 1300 West Canal Street  
 Milwaukee, WI 53233  
 Phone: 414-643-4200  
 Fax: 414-643-4210

**SITE INFORMATION:**

PARKING LOT SITE = 0.39 ACRES  
 BUILDING SITE = 1.46 ACRES  
 TOTAL SITE = 1.85 ACRES  
 TOTAL DISTURBED AREA = 1.26 ACRES  
 EXISTING IMPERVIOUS AREA (PARKING SITE) = 0.39 ACRES  
 EXISTING IMPERVIOUS AREA (BUILDING SITE) = 1.46 ACRES  
 TOTAL EXISTING IMPERVIOUS AREA = 1.85 ACRES  
 PROPOSED IMPERVIOUS AREA (PARKING SITE) = 0.36 ACRES  
 PROPOSED IMPERVIOUS AREA (BUILDING SITE) = 1.22 ACRES  
 TOTAL PROPOSED IMPERVIOUS AREA = 1.58 ACRES  
 ADA PARKING STALLS = 2 STALLS  
 TOTAL PARKING STALLS = 86 STALLS  
 EXISTING STREET PARKING = 17 STALLS



**LEGEND:**

- 5' THICK CONCRETE WALK (B C401)
- CONCRETE PAVEMENT (C C401)
- ASPHALT SURFACE (D C401)
- POROUS ASPHALT (E C401)
- CURB & GUTTER (ACCEPT) (A C401)
- CURB & GUTTER (REJECT) (A C401)

- GENERAL NOTES:**
- THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS DRAWING IS BASED ON FIELD LOCATIONS AND/OR RECORDS FURNISHED BY MUNICIPALITIES AND UTILITY COMPANIES. THE LOCATION AND ACCURACY OF WHICH CANNOT BE GUARANTEED. THERE MAY BE ADDITIONAL UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
  - VERIFY ACTUAL LOCATIONS AND INVERTS IN THE FIELD. ANY POTENTIAL ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
  - WORK TO BE COMPLETED IS INDICATED IN BOLD TYPE LINES AND EXISTING CONDITIONS ARE INDICATED BY LIGHT TYPE LINES.
  - ELECTRONIC CIVIL FILES ARE AVAILABLE UPON WRITTEN REQUEST. DO NOT USE ELECTRONIC CIVIL FILES TO LAYOUT FOUNDATIONS, COLUMN LINES, LIGHT POLES, OR OTHER NON CIVIL SITE WORK. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF BUILDING AND ARCHITECTURAL FEATURES.
  - DIMENSIONS ARE FROM FACE OF CURB OR EDGE OF PAVEMENT.
  - WORK WITHIN THE PUBLIC RIGHT OF WAY, INCLUDING BUT NOT LIMITED TO DRIVEWAY OPENINGS, SIDEWALK AND RAMPS, PAVING, AND CURB AND GUTTER SHALL BE COMPLETED PER MUNICIPAL AND/OR COUNTY REQUIREMENTS AND STANDARDS.

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 NOTICE BEFORE YOU DIGGATE  
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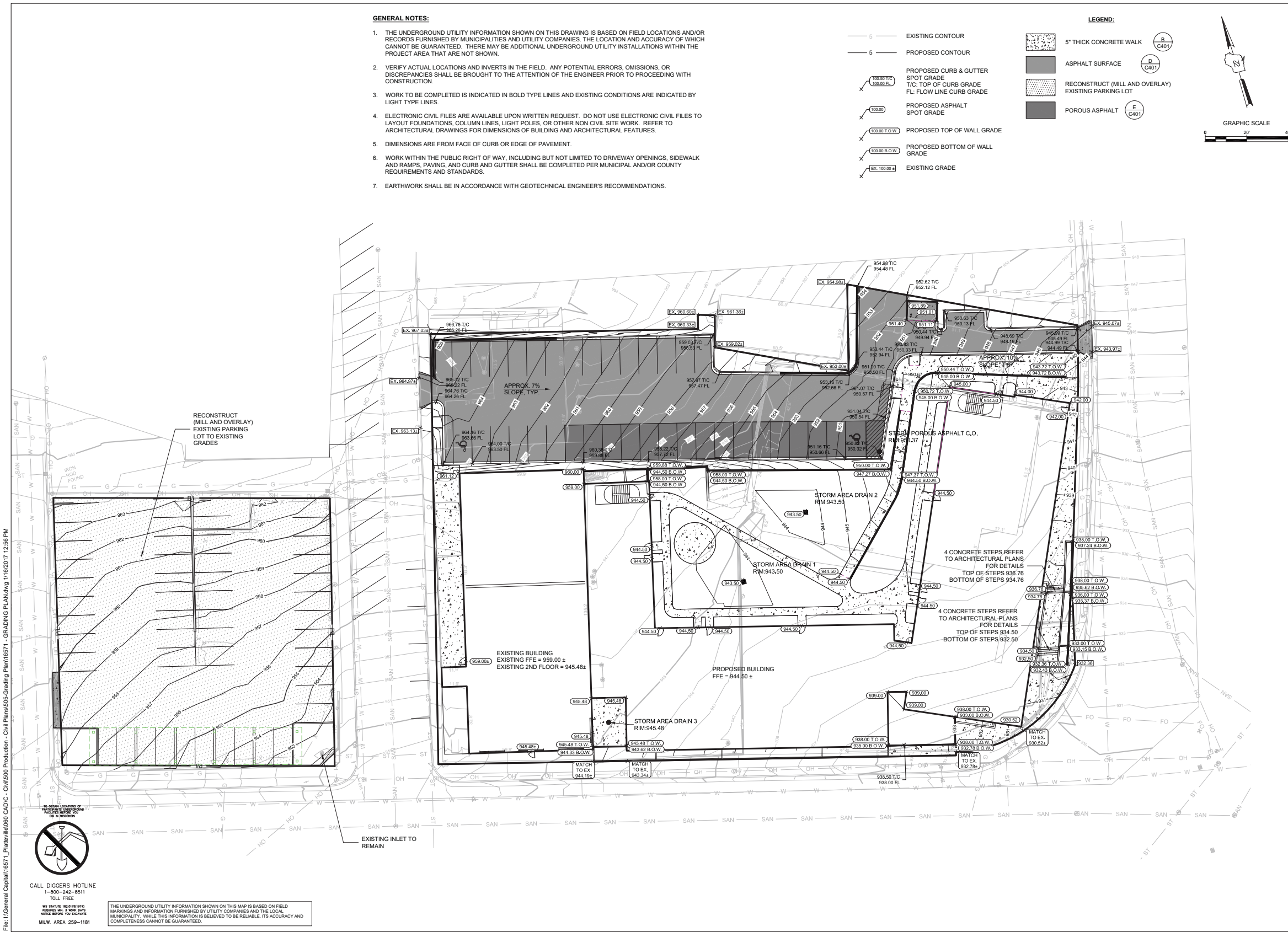
PIONEER FORD REDEVELOPMENT  
 PLATTEVILLE, WISCONSIN

SITE PLAN

NO. REVISION	DATE BY

DRAWING NO.	16571 - SITE PLAN.dwg
DRAWN BY:	TPM
DATE:	1/5/2017
PROJECT NO:	16571
CHECKED BY:	CTC
APPROVED BY:	
SHEET NO.:	

**C 100**



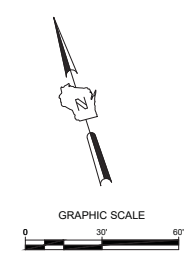
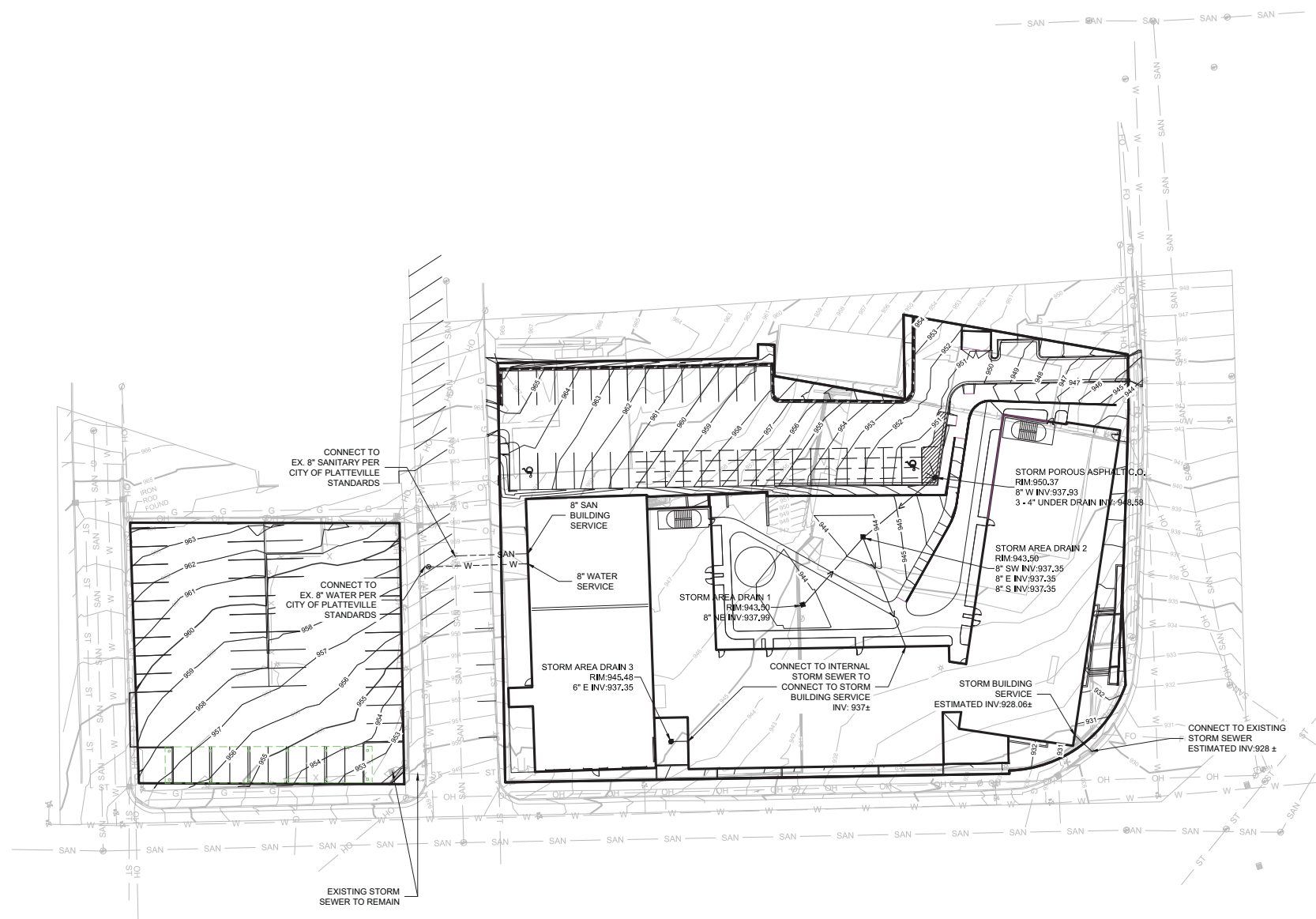
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 1300 West Canal Street  
 Milwaukee, WI 53233  
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 Fax: 414-643-4210

**PIONEER FORD REDEVELOPMENT  
 PLATTVILLE, WISCONSIN**

**GRADING PLAN**

NO. REVISION	DATE BY
DRAWING NO. 16571 - GRADING PLAN.dwg	
DRAWN BY: TPM	
DATE: 1/5/2017	
PROJECT NO: 16571	
CHECKED BY: CTC	
APPROVED BY:	
SHEET NO:	
C 200	

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 1300 West Canal Street  
 Milwaukee, WI 53233  
 Phone: 414-643-4200  
 Fax: 414-643-4210



- LEGEND:**
- W --- PROPOSED WATER SERVICE
  - SAN --- PROPOSED SANITARY SERVICE
  - S --- PROPOSED STORM SEWER
  - PROPOSED STORM INLET
  - PROPOSED STORM MANHOLE

- GENERAL NOTES:**
1. THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS DRAWING IS BASED ON FIELD LOCATIONS AND/OR RECORDS FURNISHED BY MUNICIPALITIES AND UTILITY COMPANIES. THE LOCATION AND ACCURACY OF WHICH CANNOT BE GUARANTEED. THERE MAY BE ADDITIONAL UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
  2. VERIFY ACTUAL LOCATIONS AND INVERTS IN THE FIELD. ANY POTENTIAL ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
  3. WORK TO BE COMPLETED IS INDICATED IN BOLD TYPE LINES AND EXISTING CONDITIONS ARE INDICATED BY LIGHT TYPE LINES.
  4. ELECTRONIC CIVIL FILES ARE AVAILABLE UPON WRITTEN REQUEST. DO NOT USE ELECTRONIC CIVIL FILES TO LAYOUT FOUNDATIONS, COLUMN LINES, LIGHT POLES, OR OTHER NON CIVIL SITE WORK. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF BUILDING AND ARCHITECTURAL FEATURES.
  5. ALL UTILITIES WITHIN 5 FEET OF PAVED AREAS SHALL REQUIRE GRANULAR BACKFILL. SLURRY BACKFILL IS REQUIRED FOR ALL WORK IN PUBLIC RIGHT OF WAY.
  6. PRIVATE STORM INLETS IN PAVEMENT SHALL REQUIRE DRAIN TILE STUBS OF 10 FEET IN TWO DIRECTIONS FOR SUBDRAINAGE. RIM GRADE FOR STORM INLETS IN CURB AND GUTTER ARE FLOW LINE GRADES.
  7. WORK IN PUBLIC RIGHT OF WAY SHALL FOLLOW MATERIAL AND INSTALLATION REQUIREMENTS PER MUNICIPAL AND/OR COUNTY.
  8. PRIVATE STORM SEWER 12-INCH DIAMETER OR LARGER SHALL BE HDPE. BELOW 12-INCH DIAMETER SHALL BE PVC SDR-35 ASTM D3034. PRIVATE WATER MAIN SHALL BE CLASS 150 DR 18 PVC CONFORMING TO AWWA C-900. PRIVATE SANITARY SEWER SHALL BE PVC SDR-35 ASTM D3034.
  9. COORDINATE FINAL LOCATION AND DESIGN OF PRIVATE UTILITY SERVICES (ELECTRIC, GAS, PHONE, CABLE) WITH UTILITY COMPANIES.
  10. IF PROJECT IS DESIGN BUILD MEP, THE GENERAL CONTRACTOR IS REQUIRED TO PROVIDE FINAL SEWER AND WATER DESIGN SHOWING LOCATION, INVERTS AND SIZES TO THE ENGINEER FOR FINAL REVIEW AND VERIFICATION PRIOR TO STARTING UNDERGROUND UTILITY CONSTRUCTION.

**PIONEER FORD REDEVELOPMENT  
 PLATTEVILLE, WISCONSIN  
 UTILITY PLAN**

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DATE:	1/5/2017
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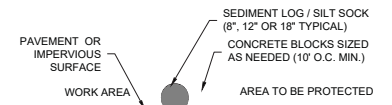
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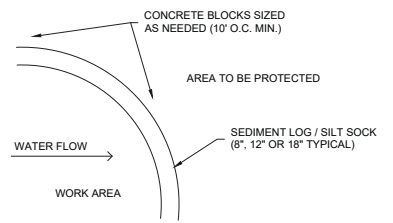
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THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS MAP IS BASED ON FIELD MARKINGS AND INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED.



**SECTION NTS**

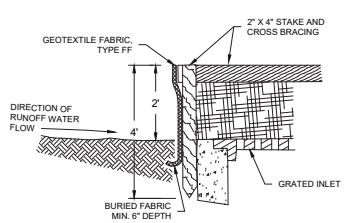


**PLAN NTS**

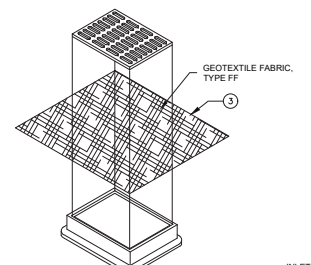
**A SEDIMENT LOG**  
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**EROSION CONTROL NOTES:**

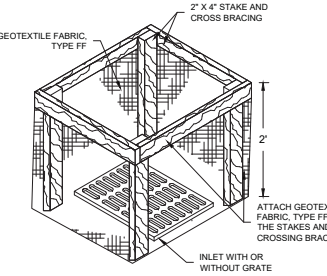
- CONSTRUCTION SITE EROSION CONTROL AND SEDIMENTATION CONTROL SHALL COMPLY WITH THE REQUIREMENTS OF THE LOCAL MUNICIPALITY AND SHALL EMPLOY EROSION CONTROL METHODS AS SHOWN AND SPECIFIED IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS.
- ALL EROSION CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON THE SITE.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED FOR STABILITY AND OPERATION AFTER A RAINFALL OF 0.5 INCHES OR MORE, BUT NO LESS THAN ONCE EVERY WEEK. MAINTENANCE OF ALL EROSION CONTROL STRUCTURES SHALL BE PROVIDED TO INSURE INTENDED PURPOSE IS ACCOMPLISHED. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP AND REMOVAL OF ALL SEDIMENT WHEN LEAVING PROPERTY. EROSION CONTROL MEASURES MUST BE IN WORKING CONDITION AT END OF EACH WORK DAY. DOCUMENT AND MAINTAIN RECORDS OF INSPECTIONS IN ACCORDANCE WITH WDNR NR216 REQUIREMENTS.
- SILT FENCE SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE CONSTRUCTION PLANS. SEDIMENT DEPOSITS SHALL BE REMOVED FROM BEHIND THE SILT FENCE WHEN DEPOSITS REACH A DEPTH OF 6 INCHES. THE SILT FENCE SHALL BE REPAIRED OR REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
- FILTER FABRIC SHALL BE INSTALLED BENEATH INLET COVERS TO TRAP SEDIMENT PER INLET PROTECTION DETAIL IN THE LOCATIONS SHOWN ON THE CONSTRUCTION PLANS.
- EROSION CONTROL MEASURES SHALL BE MAINTAINED ON A CONTINUING BASIS UNTIL SITE IS FULLY STABILIZED.
- PERIODIC STREET SWEEPING SHALL BE COMPLETED TO MAINTAIN ADJACENT STREETS FREE OF DUST AND DIRT.
- SILT FENCE SHALL BE INSTALLED IN HORSESHOE FASHION AROUND ANY TOPSOIL AND FILL STOCKPILES.
- SITE DEWATERING. WATER PUMPED FROM THE SITE SHALL BE TREATED BY SEDIMENT BASINS OR OTHER APPROPRIATE MEASURES SPECIFIED IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS. WATER MAY NOT BE DISCHARGED IN A MANNER THAT CAUSES EROSION OF THE SITE, ADJACENT SITES, OR RECEIVING CHANNELS.
- WASTE AND MATERIAL DISPOSAL. ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, WASTEWATER, TOXIC MATERIALS, OR HAZARDOUS MATERIALS) SHALL BE PROPERLY DISPOSED AND NOT ALLOWED TO BE CARRIED OFF-SITE BY RUNOFF OR WIND.
- TRACKING. EACH SITE SHALL HAVE GRAVELED ROADS, ACCESS DRIVES AND PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH TO PREVENT SEDIMENT FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD SHALL BE REMOVED BY STREET CLEANINGS. TO THE SATISFACTION OF THE MUNICIPALITY, BEFORE THE END OF EACH WORKDAY. FLUSHING MAY NOT BE USED UNLESS SEDIMENT WILL BE CONTROLLED BY A SEDIMENT BASIN OR PRACTICE SPECIFIED IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS. NOTIFY MUNICIPALITY OF ANY CHANGES IN STABILIZED CONSTRUCTION ENTRANCE LOCATION.
- SEDIMENT CLEANUP. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF A STORM EVENT SHALL BE CLEANED UP BY THE END OF THE NEXT WORKDAY. ALL OTHER OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE CLEANED UP BY THE END OF THE WORKDAY.
- ALL DISTURBED GROUND LEFT INACTIVE FOR SEVEN OR MORE DAYS SHALL BE STABILIZED BY TEMPORARY OR PERMANENT SEEDING, MULCHING, SODDING, COVERING WITH TARPS, OR EQUIVALENT PRACTICE FOUND IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARD. IF TEMPORARY SEEDING IS USED, A PERMANENT COVER SHALL ALSO BE REQUIRED AS PART OF THE FINAL SITE STABILIZATION. SEEDING OR SODDING SHALL BE REQUIRED AS PART OF THE FINAL SITE STABILIZATION.
- SOIL OR DIRT STORAGE PILES SHALL BE LOCATED A MINIMUM OF TWENTY-FIVE FEET FROM ANY DOWNSLOPE ROAD, LAKE, STREAM, WETLAND, OR DRAINAGE CHANNEL. STRAW BALE OR FILTER FABRIC FENCES SHALL BE PLACED ON THE DOWN SLOPE SIDE OF THE PILES. IF REMAINING FOR MORE THAN THIRTY DAYS, PILES SHALL BE STABILIZED BY MULCHING, VEGETATIVE COVER, TARPS OR OTHER MEANS.
- WHEN THE DISTURBED AREA HAS BEEN STABILIZED BY PERMANENT VEGETATION OR OTHER MEANS, TEMPORARY PRACTICES, SUCH AS FILTER FABRIC FENCES, STRAW BALES, SEDIMENT AND SEDIMENT TRAPS, FOUND IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS SHALL BE REMOVED.
- NOTIFY THE LOCAL MUNICIPALITY HAVING JURISDICTION WITHIN TWO WORKING DAYS OF COMMENCING ANY LAND DEVELOPMENT OR LAND DISTURBING ACTIVITY.
- OBTAIN PERMISSION FROM THE LOCAL MUNICIPALITY HAVING JURISDICTION PRIOR TO MODIFYING THE EROSION CONTROL PLAN.
- REPAIR ANY SILTATION OR EROSION DAMAGE TO ADJOINING SURFACES AND DRAINAGE WAYS RESULTING FROM LAND DEVELOPMENT OR LAND DISTURBING ACTIVITIES.
- KEEP A COPY OF THE EROSION CONTROL PLAN ON SITE.
- CONTRACTOR SHALL, TO THE EXTENT POSSIBLE, MINIMIZE DISTURBANCE OF EXISTING VEGETATION DURING CONSTRUCTION.
- CONTRACTOR SHALL, TO THE EXTENT POSSIBLE, MINIMIZE COMPACTION OF TOPSOIL AND PRESERVE TOPSOIL IN GREENSPACE AREAS.
- WASH WATER FROM VEHICLES AND WHEEL WASHING SHALL BE CONTAINED AND TREATED PRIOR TO DISCHARGE.
- CONTRACTOR SHALL MAINTAIN SPILL KITS ON-SITE.
- PERMANENT TURF SEEDING OF DISTURBED AREA MUST OCCUR PRIOR TO SEPTEMBER 15TH. IF ADEQUATE TIME IS NOT AVAILABLE TO APPLY PERMANENT SEEDING PRIOR TO SEPTEMBER 15, THEN DISTURBED AREAS SHALL BE TEMPORARILY SEEDED WITH AN ANNUAL RYE GRASS PER WDNR TECHNICAL STANDARD 1059, WHERE THE TEMPORARY SEEDING MUST OCCUR PRIOR TO OCTOBER 15TH.
- IF TEMPORARY SEEDING IS NOT COMPLETED BY OCTOBER 15TH, APPLY SOIL STABILIZERS AND DORMANT SEED TO DISTURBED AREA PER WDNR TECHNICAL STANDARD 1050. INSPECT ANIONIC PAM APPLICATION AT A MINIMUM FREQUENCY OF EVERY TWO MONTHS AND REAPPLY AS NECESSARY.



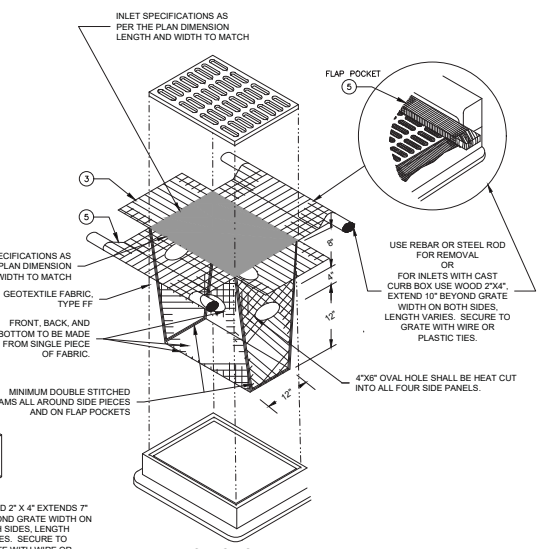
**INLET PROTECTION, TYPE A**



**INLET PROTECTION, TYPE B (WITHOUT CURB BOX)**  
 (CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



**INLET PROTECTION, TYPE C (WITH CURB BOX)**



**INLET PROTECTION, TYPE D (CAN BE INSTALLED IN ANY INLET WITH OR WITHOUT A CURB BOX AS PER NOTE)**

- GENERAL NOTES**
- MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.
  - WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.
  - FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10' AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
  - FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
  - FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

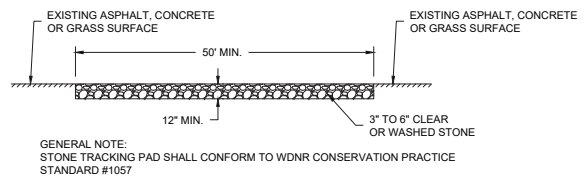
**INSTALLATION NOTES**

- TYPE B & C**  
 TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE. THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.
- TYPE D**  
 DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE. THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4' FROM THE BOTTOM OF THE BAG.

GENERAL NOTE:  
 INLET PROTECTION SHALL CONFORM TO WDNR CONSERVATION PRACTICE STANDARD #1060

THIS DRAWING IS BASED ON WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD DETAIL DRAWING 8 E 10-2

**B INLET PROTECTION TYPE A, B, C, AND D: WDNR TS-1060**  
 NOT TO SCALE



**C CONSTRUCTION ENTRANCE/EXIT DETAIL: WDNR TS-1057**  
 NOT TO SCALE

**CONSTRUCTION SEQUENCE FOR EROSION CONTROL INCLUDES:**

- INSTALL STABILIZED CONSTRUCTION ENTRANCE.
- INSTALL SILT FENCING AND INLET PROTECTION.
- INITIATE STOCKPILING OF IMPORTED MATERIAL. PLACE SILT FENCE AROUND STOCKPILE(S).
- STRIP TOPSOIL FROM STORM WATER BASIN LOCATION AND STOCKPILE.
- CONSTRUCT STORM WATER BASIN AND INSTALL TEMPORARY OUTLET AND EMERGENCY OVERFLOW. BASIN IS TO BE USED AS A SEDIMENTATION BASIN DURING THE COURSE OF CONSTRUCTION.
- CONSTRUCT DIVERSION SWALES, DIRECT RUNOFF TO STORM BASIN. INSTALL ASSOCIATED DITCH CHECKS.
- INSTALL RIP-RAP AT STORM WATER BASIN AS SHOWN ON THE PLANS.
- STRIP TOPSOIL FROM REMAINDER OF SITE IN A PROGRESSIVE MANNER, AND STOCKPILE. PLACE SILT FENCE AROUND STOCKPILE(S).
- PERFORM ROUGH SITE GRADING. STABILIZE FINISHED AREAS AS THE WORK PROGRESSES. USE EROSION MATTING WHERE CALLED FOR ON THE PLANS. PER WDNR TECHNICAL STANDARD 1059, AREAS THAT RECEIVE TEMPORARY SEEDING SHALL HAVE A MINIMUM TOPSOIL DEPTH OF 2 INCHES. AREAS THAT RECEIVE PERMANENT SEEDING SHALL HAVE A MINIMAL TOPSOIL DEPTH OF 4 INCHES.
- PREPARE BUILDING PAD AND BEGIN FOUNDATIONS WORK FOR BUILDING.
- INSTALL UTILITIES. INSTALL ANY ADDITIONAL INLET PROTECTION ON NEW STORM SEWER AND INSTALL RIP-RAP AT NEW STORM SEWER OUTFALLS.
- PERFORM FINE SITE GRADING AND INSTALL STONE BASE(S).
- REMOVE TEMPORARY OUTLET CONTROL STRUCTURE ON BASIN AND INSTALL PAVEMENTS.
- LANDSCAPE AND STABILIZE REMAINING AREAS WITHIN 7 DAYS OF COMPLETION OF FINAL GRADING AND TOPSOILING.
- REMOVE EXCESS SEDIMENT FROM STORMWATER BASINS AND RETURN BASINS TO THEIR DESIGN DIMENSIONS AND VOLUMES.
- REMOVE EROSION CONTROL MEASURES ONLY WHEN SITE IS FULLY STABILIZED.

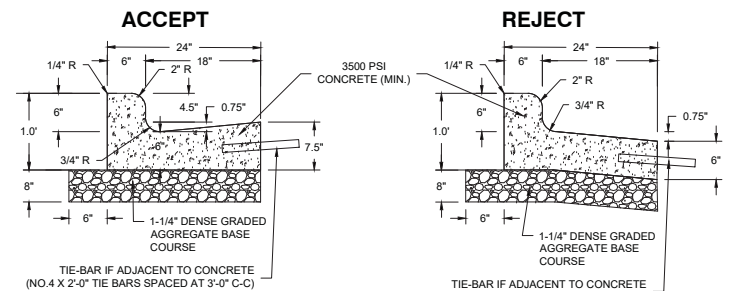
PIONEER FORD REDEVELOPMENT  
 PLATTEVILLE, WISCONSIN

**DETAILS**

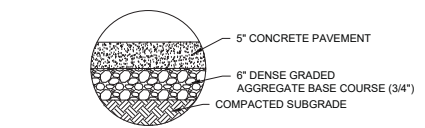
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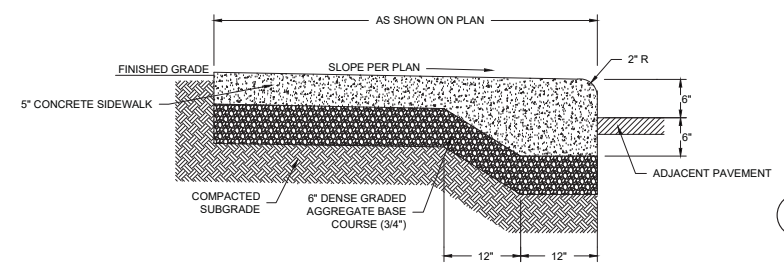
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**A 24" CONCRETE CURB & GUTTER SECTION**  
 NOT TO SCALE

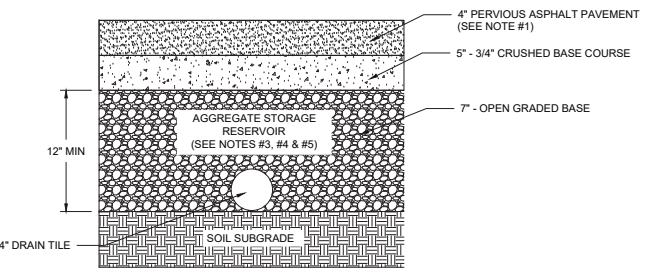


**B CONCRETE SIDEWALK SECTION**  
 NOT TO SCALE



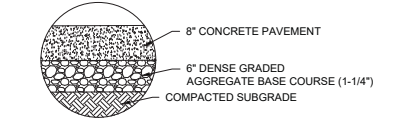
**C CONCRETE PAVEMENT SECTION**  
 NOT TO SCALE

**G CONCRETE PAVEMENT WITH INTEGRAL CURB**  
 NOT TO SCALE

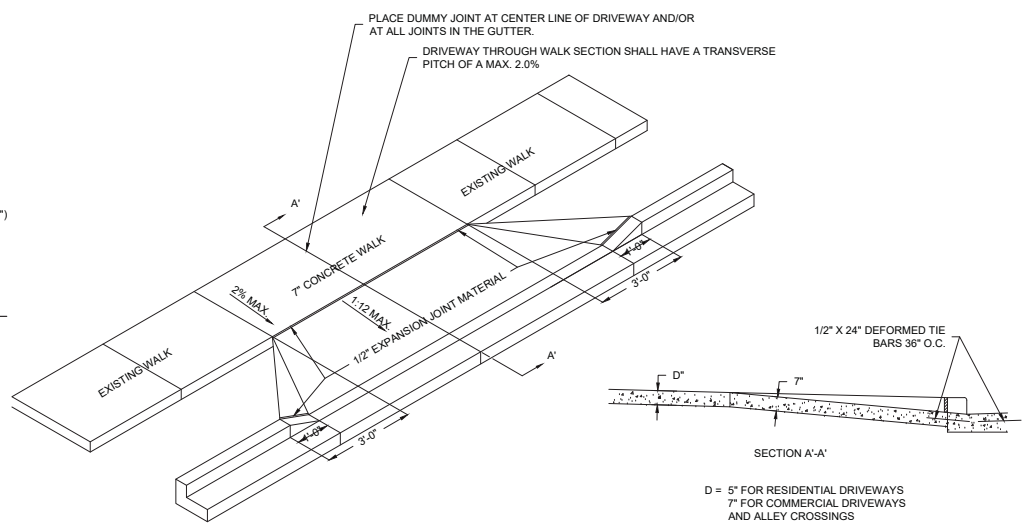


- NOTES:**
- PAVEMENT SURFACE PERCENT VOIDS SHOULD BE LESS THAN 25%.
  - JOINT STONE AND BEDDING COURSE SHALL CONSIST OF ASTM C-33, 8, 9, 89, OR 57 AGGREGATE.
  - AGGREGATE STORAGE RESERVOIR DEPTH SHALL BE A MINIMUM OF 12 INCHES. AGGREGATE STORAGE RESERVOIR SHALL USE AN OPEN GRADED BASE CONSISTING OF CRUSHED STONE OR CRUSHED GRAVEL WITH NO GRATER THAN 5% PASSING THE NO. 200 SIEVE.
  - BASE AND/OR SUBBASE COURSES WITH MINIMUM POROSITY OF 30% CAN BE CONSIDERED AGGREGATE STORAGE RESERVOIR. BASE COURSE FOR PERVIOUS PAVEMENT SHALL BE 5.0" DEPTH OF ASTM C-33, 57 AGGREGATE AND CAN BE CONSIDERED PART OF THE AGGREGATE STORAGE DEPTH.
  - UNDERDRAINS CAN BE LOCATED WITHIN OR BELOW THE AGGREGATE STORAGE RESERVOIR. UNDERDRAINS (OR EQUIVALENT) ARE REQUIRED IF THE AGGREGATE STORAGE RESERVOIR DRAIN DOWN TIME WILL EXCEED 72 HOURS.
  - THE SLOPE OF THE SUBGRADE SHALL BE AS FLAT AS POSSIBLE BUT NO GREATER THAN 2%.
  - POROUS PAVEMENT SHALL CONFORM TO THE WDNR TECHNICAL STANDARD #1008

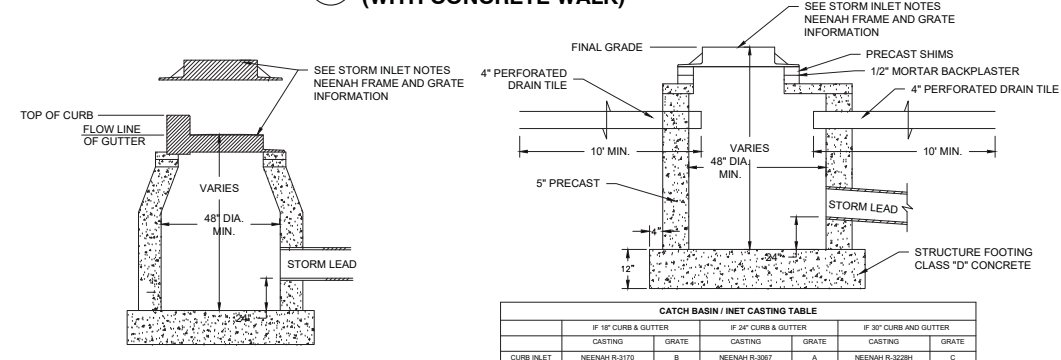
**E PERVIOUS ASPHALT PAVEMENT**  
 NOT TO SCALE



**D ASPHALT PAVEMENT SECTION**  
 NOT TO SCALE



**F CONCRETE DRIVEWAY (WITH CONCRETE WALK)**  
 NOT TO SCALE

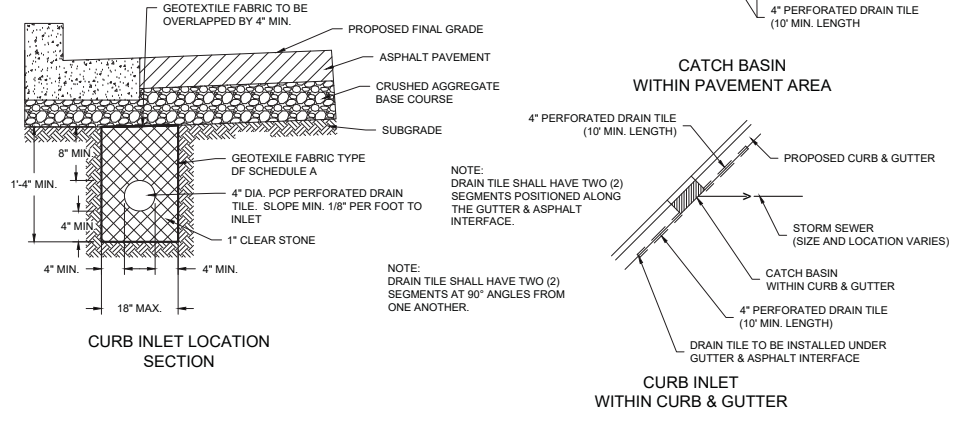


**H CATCH BASIN**  
 NOT TO SCALE

- NOTES:**
- ADJUST FRAME TO GRADE WITH CONCRETE RINGS OF VARIABLE THICKNESS. MAXIMUM RING HEIGHT = 6". MINIMUM RING HEIGHT = 2". CONCRETE RINGS SHALL BE REINFORCED WITH ONE LINE OF STEEL CENTERED WITHIN THE RING. WHERE NECESSARY RINGS SHALL BE GROOVED TO RECEIVE STEP.
  - CONCRETE AND REINFORCEMENT STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION C-478.
  - SPACE BETWEEN PIPE AND PRECAST MANHOLE WALL TO BE FILLED WITH BRICK MORTARED IN PLACE EXCEPT THAT AN APPROVED FLEXIBLE WATERTIGHT PIPE TO MANHOLE SEAL IS REQUIRED FOR ALL FLEXIBLE SANITARY SEWER CONNECTIONS. THE ANNULAR SPACE BETWEEN THE PIPE AND MANHOLE WALL SHALL BE FILLED WITH FLEXIBLE BUTYL RUBBER GASKET MATERIAL BELOW SURFACE OF BENCH OR SPRINGLINE.
  - AREA OF CIRCUMFERENTIAL STEEL = 0.12 SQ INCH PER LINEAR FOOT MIN.
  - 3" BEDDING OF STONE UNDER BASE REQUIRED ON WET SUB-GRADE.

**CATCH BASIN / INLET CASTING TABLE**

6" 18" CURB & GUTTER		6" 30" CURB & GUTTER		6" 30" CURB AND GUTTER	
CASTING	GRATE	CASTING	GRATE	CASTING	GRATE
CURB INLET	NEENAH R-3170	B	NEENAH R-3067	A	NEENAH R-32284
AREA INLET	NEENAH R-1550	C			



**PIONEER FORD REDEVELOPMENT  
 PLATTEVILLE, WISCONSIN**

**DETAILS**

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**GENERAL:**

1. EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY, AND NO RESPONSIBILITY IS ASSUMED BY THE OWNER OR ENGINEER FOR THEIR ACCURACY OR COMPLETENESS.
2. CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR SHALL HAVE SITE MARKED BY DIGGER'S HOTLINE AND SHALL HAVE PRIVATE UTILITIES MARKED BY A PRIVATE UTILITY LOCATOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL VERIFY ALL ELEVATIONS, LOCATIONS, AND SIZES OF EXISTING UTILITIES AND SHALL CHECK ALL UTILITY CROSSINGS AND PROPOSED CONNECTIONS FOR CONFLICTS/DISCREPANCIES PRIOR TO INITIATING CONSTRUCTION. REPORT ANY CONFLICTS OR DISCREPANCIES TO THE ENGINEER SO REDSIGN MAY OCCUR IF NEEDED.
3. LENGTHS OF ALL UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLANS. LENGTHS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR.

**SITE CLEARING:**

1. EXCEPT FOR STRIPPED TOPSOIL OR OTHER MATERIALS INDICATED TO REMAIN ON OWNER'S PROPERTY, CLEARED MATERIALS SHALL BECOME CONTRACTOR'S PROPERTY AND SHALL BE REMOVED FROM PROJECT SITE.
2. MINIMIZE INTERFERENCE WITH ADJOINING ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES DURING SITE-CLEARING OPERATIONS.
3. SALVABLE IMPROVEMENTS: CAREFULLY REMOVE ITEMS INDICATED TO BE SALVAGED AND STORE ON OWNER'S PREMISES WHERE INDICATED.
4. UTILITY LOCATOR SERVICE: NOTIFY UTILITY LOCATOR SERVICE FOR AREA WHERE PROJECT IS LOCATED BEFORE SITE CLEARING.
5. DO NOT COMMENCE SITE CLEARING OPERATIONS UNTIL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ARE IN PLACE.
6. PROTECT AND MAINTAIN BENCHMARKS AND SURVEY CONTROL POINTS FROM DISTURBANCE DURING CONSTRUCTION.
7. LOCATE AND CLEARLY FLAG TREES AND VEGETATION TO REMAIN OR TO BE RELOCATED.
8. PROTECT EXISTING SITE IMPROVEMENTS TO REMAIN FROM DAMAGE DURING CONSTRUCTION; RESTORE DAMAGED IMPROVEMENTS TO THEIR ORIGINAL CONDITION, AS ACCEPTABLE TO OWNER.
9. LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP OFF UTILITIES INDICATED TO BE REMOVED; ARRANGE WITH UTILITY COMPANIES TO SHUT OFF INDICATED UTILITIES.
10. EXISTING UTILITIES: DO NOT INTERRUPT UTILITIES SERVING FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED BY THE OWNER AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY UTILITY SERVICES.
11. FILL DEPRESSIONS CAUSED BY CLEARING AND GRUBBING OPERATIONS WITH SATISFACTORY SOIL MATERIAL UNLESS FURTHER EXCAVATION OR EARTHWORK IS INDICATED. PLACE FILL MATERIAL IN HORIZONTAL LAYERS NOT EXCEEDING A LOOSE DEPTH OF 8 INCHES, AND COMPACT EACH LAYER TO A DENSITY EQUAL TO ADJACENT ORIGINAL GROUND.
12. REMOVE SOD AND GRASS BEFORE STRIPPING TOPSOIL.
13. STRIP TOPSOIL TO WHATEVER DEPTHS ARE ENCOUNTERED IN A MANNER TO PREVENT INTERMINGLING WITH UNDERLYING SUBSOIL OR OTHER WASTE MATERIALS.
14. STOCKPILE TOPSOIL MATERIALS AWAY FROM EDGE OF EXCAVATIONS WITHOUT INTERMIXING WITH SUBSOIL. GRADE AND SHAPE STOCKPILES TO DRAIN SURFACE WATER. COVER TO PREVENT WINDBLOWN DUST.
15. REMOVE EXISTING ABOVE- AND BELOW-GRADE IMPROVEMENTS AS INDICATED AND AS NECESSARY TO FACILITATE NEW CONSTRUCTION.
16. SAWCUT ALL PAVEMENTS FULL DEPTH PRIOR TO REMOVAL. SAWCUTS SHALL BE IN STRAIGHT LINES PERPENDICULAR AND/OR PARALLEL TO EXISTING PAVEMENT JOINTS AND PAVEMENT EDGES.
17. REMOVE SURPLUS SOIL MATERIAL, UNSUITABLE TOPSOIL, OBSTRUCTIONS, DEMOLISHED MATERIALS, AND WASTE MATERIALS INCLUDING TRASH AND DEBRIS, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
18. SEPARATE RECYCLABLE MATERIALS PRODUCED DURING SITE CLEARING FROM OTHER NONRECYCLABLE MATERIALS. STORE OR STOCKPILE WITHOUT INTERMIXING WITH OTHER MATERIALS AND TRANSPORT THEM TO RECYCLING FACILITIES.

**SITE WATER SERVICE:**

1. COMPLY WITH STANDARDS OF STATE PLUMBING CODE (SPS CH. 382, 384), LOCAL WATER UTILITY REQUIREMENTS AND STANDARDS OF AUTHORITIES HAVING JURISDICTION FOR FIRE-SUPPRESSION AND WATER SERVICE PIPING INCLUDING MATERIALS, FITTINGS, APPURTENANCES, INSTALLATION, TESTING, SERVICE TAPS, ETC. IN CASE OF CONFLICT BETWEEN THESE SPECIFICATIONS AND STATE PLUMBING CODE OR LOCAL JURISDICTIONAL AUTHORITY, STATE PLUMBING CODE AND LOCAL JURISDICTIONAL AUTHORITY REQUIREMENTS GOVERN.
2. DO NOT INTERRUPT SERVICE TO FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED BY OWNERS OF SUCH FACILITIES AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY WATER-DISTRIBUTION SERVICE.
3. WATER SERVICE PIPING MAY BE EITHER DUCTILE IRON WATER PIPE OR PVC WATER PIPE AS ALLOWED BY THE LOCAL WATER UTILITY.
4. DUCTILE IRON WATER PIPE CONFORMING TO THE REQUIREMENTS OF THE AMERICAN NATIONAL STANDARD FOR DUCTILE IRON PIPE, CENTRIFUGALLY CAST, AWWA C151/A21.51 - LATEST REVISION AND REQUIREMENTS OF CHAPTER 8.1.8.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
  - a. CLASS 52
  - b. CEMENT MORTAR LINING AND INTERNAL AND EXTERNAL BITUMINOUS COATS IN ACCORDANCE WITH SECTION 51.8 OF AWWA C151.
  - c. PUSH-ON GASKET PIPE
  - d. PLAIN RUBBER GASKETS
  - e. BONDING STRAPS TO PROVIDE ELECTRICAL CONDUCTIVITY WITHOUT FIELD TESTING
5. JOINTS FOR DUCTILE IRON PIPE: JOINTS SHALL BE RUBBER GASKET JOINTS; CONFORM TO THE REQUIREMENTS OF AMERICAN NATIONAL STANDARD FOR RUBBER GASKET JOINTS FOR DUCTILE IRON PRESSURE PIPE AND FITTINGS (ANSI/AWWA C111/A21.11, LATEST EDITION)
6. FITTINGS FOR DUCTILE IRON PIPE: CONFORM TO THE REQUIREMENTS OF AMERICAN NATIONAL STANDARD FOR DUCTILE IRON AND GRAY IRON FITTINGS, 3" THROUGH 48" FOR WATER ANSI/AWWA C110/A21.10, LATEST EDITION); CLASS 250 MECHANICAL JOINT PIPE FITTINGS; CEMENT LINED; ALL BELLS; ENTIRE FITTING TARED; CONDUCTIVE MECHANICAL JOINT (NO LEAD) RUBBER GASKETS, FLANGES, AND BOLTS.
7. PVC AWWA PIPE: AWWA C900, CLASS 200 WITH BELL END WITH GASKET AND WITH SPIGOT END AND MEETING REQUIREMENTS OF CHAPTER 8.20.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN; FITTINGS SHALL BE IN ACCORDANCE WITH CHAPTER 8.22.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN. PUSH-ON-JOINT, DUCTILE IRON FITTINGS : AWWA C110 AND C111, MECHANICAL JOINT, DUCTILE IRON FITTINGS: AWWA C153, DUCTILE-IRON COMPACT PATTERN, GLANDS, GASKETS AND BOLTS; AWWA C111, DUCTILE IRON GLANDS, RUBBER GASKETS AND STEEL BOLTS.
8. GATE VALVES: CONFORM TO AWWA C-600 AND STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN SUITABLE FOR DIRECT BURY.
9. VALVE BOXES: CAST IRON CONFORMING TO ASTM DESIGNATION A-48, CLASS 20 AND STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
10. FIRE HYDRANTS: N/A
11. WATER MAIN CONNECTION: TAP WATER MAIN WITH SIZE AND LOCATION INDICATED ON PLAN IN ACCORDANCE WITH LOCAL WATER UTILITY REQUIREMENTS. COORDINATE CONNECTION WITH LOCAL WATER UTILITY.
12. GENERAL WATER PIPE INSTALLATION: IN ACCORDANCE WITH CHAPTER 4.3.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
13. INSTALL DUCTILE-IRON, WATER-SERVICE PIPING ACCORDING TO AWWA C600 AND CHAPTER 4.4.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
14. ALL DUCTILE IRON PIPE SHALL BE ENCASED IN POLYETHYLENE PER AWWA C105, LATEST EDITION AND IN ACCORDANCE WITH CHAPTER 4.4.4 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN. ALL JOINTS AND FITTINGS SHALL HAVE POLYETHYLENE ENCASEMENT INSTALLED PER MANUFACTURER'S REQUIREMENTS AND PROCEDURES.
15. INSTALL PVC AWWA PIPE ACCORDING TO ASTM F645 AND AWWA M23 AND CHAPTER 4.6.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
16. INSTALL THRUST RESTRAINT AT ALL OFFSET FITTINGS USING MECHANICAL JOINT RESTRAINTS. CONCRETE THRUST BLOCKS MAY ONLY BE USED IF ALLOWED BY LOCAL WATER UTILITY.
17. INSTALL WATER SERVICE PIPING SUCH THAT THERE IS A MINIMUM OF 6' OF COVER OVER THE TOP OF THE WATER SERVICE PIPING.
18. BEDDING AND COVER FOR WATER SERVICE PIPING SHALL BE IN ACCORDANCE WITH SECTION 4.3.3 AND FILE NO. 36 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. TRENCH BACKFILL SHALL BE GRANULAR BACKFILL IN ACCORDANCE WITH SECTION 8.4.3.4 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION ON-SITE.

**SITE WATER SERVICE CONT.:**

19. INSTALL TRACER WIRE FOR NON-METALLIC WATER SERVICES IN ACCORDANCE WITH SPS SECTION 382.40(i)(k). TRACER WIRE INSULATION COLOR SHALL BE BLUE FOR POTABLE WATER SERVICE PIPING.
20. DUCTILE-IRON PIPING, RUBBER GASKETED JOINTS IN ACCORDANCE WITH SECTION 4.4.2 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
21. PVC PIPING GASKETED JOINTS: USING JOINING MATERIALS ACCORDING TO AWWA C900. CONSTRUCT JOINTS WITH ELASTOMERIC SEALS AND LUBRICANTS ACCORDING TO ASTM D2774 OR ASTM D3139 AND PIPE MANUFACTURER'S WRITTEN INSTRUCTIONS.
22. CONDUCT HYDROSTATIC TESTS IN ACCORDANCE WITH CHAPTER 4.15.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
23. CLEAN AND DISINFECT WATER SERVICE PIPING IN ACCORDANCE WITH SPS CHAPTER 82.40(i)(j) AND AWWA C651.

**SANITARY SEWERAGE:**

1. ALL PRIVATE SANITARY SEWER WORK SHALL BE IN ACCORDANCE WITH THE DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES (DPS) PLUMBING CODE - CHAPTERS SPS 382 AND SPS 384 AND LOCAL MUNICIPAL REQUIREMENTS.
2. ALL PUBLIC SANITARY SEWER WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION (STANDARD SPECIFICATIONS) AND LOCAL MUNICIPAL REQUIREMENTS.
3. PVC SEWER PIPE AND FITTINGS: ASTM D 3034, SDR 35, WITH BELL-AND-SPIGOT ENDS WITH RUBBER GASKETED JOINTS IN ACCORDANCE WITH CHAPTER 8.10.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. JOINTS SHALL CONFORM TO ASTM D-3212.
4. MANHOLES: STANDARD PRECAST REINFORCED CONCRETE MANHOLES CONFORMING TO ASTM C478, SECTION 8.39.0 OF THE STANDARD SPECIFICATIONS AND CONFORMING TO FILE NOS. 12, 13 AND 15 OF THE STANDARD SPECIFICATIONS. DIAMETER AND DEPTH AS INDICATED ON PLANS. MANHOLE SIZES TO BE VERIFIED BY CONTRACTOR AND SHOP DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW PRIOR TO ORDERING STRUCTURES.
5. MANHOLES DEEPER THAN FOUR FEET SHALL BE PROVIDED WITH MANHOLE STEPS CONFORMING TO SECTION 8.40.0 OF THE STANDARD SPECIFICATIONS.
6. SEWERS SHALL BE INSTALLED IN CONFORMANCE WITH SECTION 3.2.0 OF THE STANDARD SPECIFICATIONS. INSTALL PROPER SIZE INCREASERS, REDUCERS AND COUPLINGS WHERE DIFFERENT SIZES OR MATERIALS OF PIPES AND FITTINGS ARE CONNECTED. INSTALL TRACER PIPE OVER NON-METALLIC PIPING IN ACCORDANCE WITH SPS SECTION 382.30(11)(H) AND 382.36(7)(D).
7. PIPE JOINT CONSTRUCTION: FOLLOW PIPING MANUFACTURER'S RECOMMENDATIONS. JOIN PVC SEWER PIPE ACCORDING TO ASTM D2321 AND ASTM D 3212 FOR ELASTOMERIC GASKET JOINTS. JOIN DISSIMILAR PIPE MATERIALS WITH NONPRESSURE-TYPE, FLEXIBLE COUPLINGS
7. PROVIDE AND INSTALL CLEANOUTS IN ACCORDANCE WITH SPS CHAPTER 382.35. INSTALL CLEANOUTS AND RISER EXTENSIONS FORM SEWER PIPES TO PROPOSED GRADE. INSTALL PIPING SO CLEANOUTS OPEN IN DIRECTION OF FLOW IN SEWER PIPE. USE LIGHT DUTY, TOP LOADING CLASSIFICATION CLEANOUTS IN EARTH OR UNPAVED FOOT TRAFFIC AREAS; USE MEDIUM DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN PAVED FOOT TRAFFIC AREAS; USE HEAVY DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN VEHICULAR TRAFFIC AREAS. SET CLEANOUT FRAMES AND COVERS IN PAVEMENT AREAS FLUSH WITH PAVEMENT SURFACE.
8. CLASS B COMPACTED TRENCH SECTION (FILE NO. 4 OF STANDARD SPECIFICATIONS) SHALL BE UTILIZED. BEDDING AND COVER MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 8.43.0 OF THE STANDARD SPECIFICATIONS.
9. TRENCH BACKFILL MATERIAL SHALL BE GRANULAR BACKFILL IN ACCORDANCE WITH SECTION 8.43.4 OF THE STANDARD SPECIFICATIONS BENEATH AND WITHIN FIVE FEET OF PAVEMENT AREAS; COMPACTED SPOIL BACKFILL IN ACCORDANCE WITH SECTION 8.43.5 OF THE STANDARD SPECIFICATIONS MAY BE USED BENEATH LANDSCAPE AREAS.
10. MANHOLE INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 3.5.0 OF THE STANDARD SPECIFICATIONS. SET MANHOLE RIMS TO ELEVATIONS INDICATED ON PLANS.
11. AFTER INSTALLATION OF SEWER PIPE CLEAN ALL DEBRIS FROM SEWER AND INSPECT INTERIOR OF PIPING TO DETERMINE WHETHER LINE DISPLACEMENT OR OTHER DAMAGE HAS OCCURRED. CONDUCT DEFLECTION TESTING OF INSTALLED PIPE IN ACCORDANCE WITH SECTION 3.2.6(14) OF THE STANDARD SPECIFICATIONS. REPLACE ANY PIPE SECTION NOT PASSING THE DEFLECTION TESTING USING NEW PIPE MATERIALS. TEST NEW BUILDING SEWER IN ACCORDANCE WITH SECTION 5.4.0 OF THE STANDARD SPECIFICATIONS. REPLACE LEAKING PIPE USING NEW PIPE MATERIALS AAND REPEAT TESTING UNTIL LEAKAGE IS WITHIN ALLOWANCES SPECIFIED.

**STORM DRAINAGE:**

1. ALL PRIVATE STORM SEWER WORK SHALL BE IN ACCORDANCE WITH THE DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES (DPS) PLUMBING CODE - CHAPTERS SPS 382 AND SPS 384 AND LOCAL MUNICIPAL REQUIREMENTS.
2. ALL PUBLIC STORM SEWER WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION (STANDARD SPECIFICATIONS) AND LOCAL MUNICIPAL REQUIREMENTS.
3. PVC SEWER PIPE AND FITTINGS: ASTM D 3034, SDR 35, WITH BELL-AND-SPIGOT ENDS WITH RUBBER GASKETED JOINTS IN ACCORDANCE WITH CHAPTER 8.10.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. JOINTS SHALL CONFORM TO ASTM D-3212.
4. REINFORCED CONCRETE PIPE: ASTM C76 WITH BELL AND SPIGOT ENDS AND GASKETED JOINTS WITH ASTM C443 RUBBER GASKETS IN ACCORDANCE WITH CHAPTER 8.6.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
5. HDPE PIPE: ADS N12 PIPE AS APPROVED ON THE DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES PLUMBING PRODUCT REGISTER.
6. CATCH BASINS: STANDARD PRECAST CONCRETE CATCH BASINS CONFORMING TO CHAPTER 3.6.0 OF THE STANDARD SPECIFICATIONS AND IN GENERAL CONFORMANCE WITH FILE NO. 28 OF THE STANDARD SPECIFICATIONS. DEPTH AND DIAMETER AS INDICATED ON PLANS. CATCH BASIN SIZES TO BE VERIFIED BY CONTRACTOR AND SHOP DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW PRIOR TO ORDERING STRUCTURES.
7. FRAMES AND GRATES: AS INDICATED ON PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING SPECIFIED FRAME/GRATE IS COMPATIBLE WITH STRUCTURE; IF NOT, NOTIFY ENGINEER.
8. MANHOLES: STANDARD PRECAST REINFORCED CONCRETE MANHOLES CONFORMING TO ASTM C478, SECTION 8.39.0 OF THE STANDARD SPECIFICATIONS AND CONFORMING TO FILE NOS. 12, 13 AND 15 OF THE STANDARD SPECIFICATIONS. DIAMETER AND DEPTH AS INDICATED ON PLANS. MANHOLE SIZES TO BE VERIFIED BY CONTRACTOR AND SHOP DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW PRIOR TO ORDERING STRUCTURES.
9. MANHOLES AND CATCH BASINS DEEPER THAN FOUR FEET SHALL BE PROVIDED WITH MANHOLE STEPS CONFORMING TO SECTION 8.40.0 OF THE STANDARD SPECIFICATIONS.
10. SEWERS SHALL BE INSTALLED IN CONFORMANCE WITH SECTION 3.2.0 OF THE STANDARD SPECIFICATIONS. INSTALL PROPER SIZE INCREASERS, REDUCERS AND COUPLINGS WHERE DIFFERENT SIZES OR MATERIALS OF PIPES AND FITTINGS ARE CONNECTED. INSTALL TRACER PIPE OVER NON-METALLIC PIPING IN ACCORDANCE WITH SPS SECTION 382.30(11)(H) AND 382.36(7)(D).
11. PROVIDE AND INSTALL CLEANOUTS IN ACCORDANCE WITH SPS CHAPTER 382.35. INSTALL CLEANOUTS AND RISER EXTENSIONS FORM SEWER PIPES TO PROPOSED GRADE. INSTALL PIPING SO CLEANOUTS OPEN IN DIRECTION OF FLOW IN SEWER PIPE. USE LIGHT DUTY, TOP LOADING CLASSIFICATION CLEANOUTS IN EARTH OR UNPAVED FOOT TRAFFIC AREAS; USE MEDIUM DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN PAVED FOOT TRAFFIC AREAS; USE HEAVY DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN VEHICULAR TRAFFIC AREAS. SET CLEANOUT FRAMES AND COVERS IN PAVEMENT AREAS FLUSH WITH PAVEMENT SURFACE.
12. CLASS B COMPACTED TRENCH SECTION (FILE NO. 4 OF STANDARD SPECIFICATIONS) SHALL BE UTILIZED. BEDDING AND COVER MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 8.43.0 OF THE STANDARD SPECIFICATIONS.
13. TRENCH BACKFILL MATERIAL SHALL BE GRANULAR BACKFILL IN ACCORDANCE WITH SECTION 8.43.4 OF THE STANDARD SPECIFICATIONS BENEATH AND WITHIN FIVE FEET OF PAVEMENT AREAS; COMPACTED SPOIL BACKFILL IN ACCORDANCE WITH SECTION 8.43.5 OF THE STANDARD SPECIFICATIONS MAY BE USED BENEATH LANDSCAPE AREAS.
14. MANHOLE INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 3.5.0 OF THE STANDARD SPECIFICATIONS. SET MANHOLE RIMS TO ELEVATIONS INDICATED ON PLANS.
15. CATCH BASIN INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 3.6 OF THE STANDARD SPECIFICATIONS. CATCH BASIN EXCAVATION AND PRECAST CONCRETE MANHOLE INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 3.5.4(A) AND (B) OF THE STANDARD SPECIFICATIONS. FRAMES AND GRATES SHALL BE SET TO THE ELEVATIONS SHOWN ON THE PLANS.
16. AFTER INSTALLATION OF SEWER PIPE CLEAN ALL DEBRIS FROM SEWER AND INSPECT INTERIOR OF PIPING TO DETERMINE WHETHER LINE DISPLACEMENT OR OTHER DAMAGE HAS OCCURRED. CONDUCT DEFLECTION TESTING OF INSTALLED PIPE IN ACCORDANCE WITH SECTION 3.2.6(14) OF THE STANDARD SPECIFICATIONS; REPLACE ANY PIPE SECTION NOT PASSING THE DEFLECTION TESTING USING NEW PIPE MATERIALS.

**EARTH MOVING:**

1. ALL EARTH WORK SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER AND PROVIDED REPORTS. IN THE FIELD AND THESE SPECIFICATIONS. IN CASE OF CONFLICT BETWEEN THESE SPECIFICATIONS AND THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER, THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER SHALL GOVERN.
2. CONTRACTOR SHALL PROVIDE MATERIAL TEST REPORTS FROM A QUALIFIED TESTING AGENCY INDICATING TEST RESULTS FOR CLASSIFICATION ACCORDING TO ASTM D2487 AND LABORATORY COMPACTION CURVES ACCORDING TO ASTM D 1557 FOR EACH ON-SITE AND OFF-SITE SOIL MATERIAL PROPOSED FOR FILL AND BACKFILL.
3. CONTRACTOR SHALL PROVIDE PREEXCAVATION PHOTOS OR VIDEOS SHOWING EXISTING CONDITIONS OF ADJOINING STRUCTURES AND SITE IMPROVEMENTS THAT MIGHT BE MISONSTRUED AS DAMAGE CAUSED BY EARTHWORK OPERATIONS.
4. OLD BUILDING FOUNDATIONS, BUILDING REMNANTS OR UNSUITABLE BACKFILL MATERIAL SHALL BE COMPLETELY REMOVED FROM WITHIN AND A MINIMUM OF 10 FEET BEYOND THE NEW BUILDING PAD AREAS. THE RESULTING EXCAVATION SHALL BE BACKFILLED WITH COMPACTED ENGINEERED FILL.
5. FOUNDATIONS, FOUNDATION WALLS OR CONCRETE FLOOR SLABS SHALL BE REMOVED TO A MINIMUM OF TWO FEET BELOW PROPOSED SUBGRADE WITHIN PROPOSED PARKING AND GREENSPACE AREAS. BASEMENT SLABS LOCATED BELOW 2 FEET FROM PLANNED SUBGRADE ELEVATION MAY BE LEFT IN PLACE BUT SHALL BE BROKEN INTO MAXIMUM 6 INCH PIECES TO FACILITATE DRAINAGE.
6. SATISFACTORY SOILS FOR FILL: ASTM D 2487 SOIL CLASSIFICATION GROUPS GW, GP, GM, SW, SP, SM AND SO OR A COMBINATION OF THESE GROUPS; FREE OF ROCK OR GRAVEL LARGER THAN 3 INCHES IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION, AND OTHER DELETERIOUS MATTER OR ANY SOIL GROUP OR COMBINATION OF GROUPS APPROVED OF BY THE PROJECT GEOTECHNICAL ENGINEER.
7. UNSATISFACTORY SOILS FOR FILL: SOIL CLASSIFICATION GROUPS GC, SC, CL, ML, CH, MH, OH, AND PT ACCORDING TO ASTM D 2487 OR A COMBINATION OF THESE GROUPS UNLESS DEEMED SATISFACTORY BY THE PROJECT GEOTECHNICAL ENGINEER. UNSATISFACTORY SOILS ALSO INCLUDE SOILS NOT MAINTAINED WITHIN 3 PERCENT OF OPTIMUM SOIL MOISTURE CONTENT AT THE TIME OF COMPACTION.
8. AGGREGATE BASE COURSE BENEATH PAVEMENTS: SHALL BE 1-1/4" DENSE GRADED BASE COURSE CONFORMING TO SECTION 305 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION.
9. ENGINEERED FILL: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE, AND NATURAL OR CRUSHED SAND; ASTM D 2940, WITH AT LEAST 90 PERCENT PASSING 1-1/2-INCH (37.5-MM) SIEVE AND NOT MORE THAN 12 PERCENT PASSING A NO. 200 SIEVE OR ANY SOIL DEEMED ACCEPTABLE FOR ENGINEERED FILL BY THE PROJECT GEOTECHNICAL ENGINEER. ENGINEERED FILL SHALL BE FREE OF ORGANIC, FROZEN, OR OTHER DELETERIOUS MATERIAL AND HAVE A MAXIMUM PARTICLE SIZE LESS THAN 3 INCHES. CLAY FILLS SHALL HAVE A LIQUID LIMIT OF LESS THAN 49 AND PLASTICITY INDEX BETWEEN 11 AND 25.
10. BEDDING COURSE FOR SEWERS AND WATER SERVICE: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE, AND NATURAL OR CRUSHED SAND CONFORMING TO THE REQUIREMENTS OF SECTION 8.43.2 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
11. DRAINAGE COURSE BENEATH BUILDING SLABS: NARROWLY GRADED MIXTURE OF WASHED, CRUSHED STONE, OR CRUSHED OR UNCRUSHED GRAVEL; ASTM D 449; COARSE-AGGREGATE GRADING SIZE 57, WITH 100 PERCENT PASSING A 1-1/2-INCH (37.5-MM) SIEVE AND 0 TO 5 PERCENT PASSING A NO. 8 SIEVE.
12. TRENCH BACKFILL MATERIAL SHALL BE GRANULAR BACKFILL IN ACCORDANCE WITH SECTION 8.43.4 OF THE STANDARD SPECIFICATIONS BENEATH AND WITHIN FIVE FEET OF PAVEMENT AREAS; COMPACTED SPOIL BACKFILL IN ACCORDANCE WITH SECTION 8.43.5 OF THE STANDARD SPECIFICATIONS MAY BE USED BENEATH LANDSCAPE AREAS.
13. PIPE COVER MATERIAL: CONFORM TO SECTION 8.43.3 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
14. PREVENT SURFACE WATER AND GROUND WATER FROM ENTERING EXCAVATIONS, FROM PONDING ON PREPARED SUBGRADES, AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA.
15. SHORING, SHEETING AND BRACING: SHOR, BRACE OR SLOPE BANKS OF EXCAVATION TO PROTECT WORKMEN, BANKS, ADJACENT PAVING, STRUCTURES, AND UTILITIES TO MEET SHOA REQUIREMENTS. DESIGN OF TEMPORARY SUPPORT OF EXCAVATION IS THE RESPONSIBILITY OF THE CONTRACTOR.
16. EXCAVATE TO SUBGRADE ELEVATIONS REGARDLESS OF THE CHARACTER OF SURFACE AND SUBSURFACE CONDITIONS ENCOUNTERED. UNCLASSIFIED EXCAVATED MATERIALS MAY INCLUDE ROCK, SOIL MATERIALS, AND OBSTRUCTIONS. NO CHANGES IN THE CONTRACT SUM OR THE CONTRACT TIME WILL BE AUTHORIZED FOR ROCK EXCAVATION OR REMOVAL OF OBSTRUCTIONS.
17. PROOF-ROLL SUBGRADE BELOW THE BUILDING SLABS AND PAVEMENTS WITH FULLY LOADED TANDEM AXLE DUMP TRUCK OR RUBBER TIED VEHICLE OF SIMILAR SIZE AND WEIGHT, TYPICALLY 9 TONS/AXLE. WHERE COHESIVE SOILS ARE ENCOUNTERED OR WITH A SMOOTH DRUMMED VIBRATORY ROLLER WHERE GRANULAR SOILS ARE PRESENT. DO NOT PROOF-ROLL WET OR SATURATED SUBGRADES AND PROOFROLL IN DRY WEATHER. PROOF ROLL IN PRESENCE OF PROJECT GEOTECHNICAL ENGINEER OR TECHNICIAN. SOILS THAT ARE OBSERVED TO RUT OR DEFLECT EXCESSIVELY UNDER THE MOVING LOAD (TYPICALLY >1") SHALL BE UNDERCUT AND REPLACED WITH PROPERLY COMPACTED ENGINEERED FILL IN PAVEMENT AREAS WHERE UNDERCUTS ARE PERFORMED, THE EDGES OF THE OVEREXCAVATIONS SHALL BE FEATHERED INOT THE SURROUNDING SUITABLE SOIL SO THAT EDGE FAILURE OF THE OVEREXCAVATED AREA DOES NOT OCCUR.
18. DUE TO CLAYEY SOILS, IF UNDERCUTS OCCUR WITHIN PAVEMENT AREAS AND THEY ARE BACKFILLED WITH GRANULAR SOILS, THE BOTTOM OF THE OVEREXCAVATION SHALL BE SLOPED TO A DRAINITLE THAT IS IN KIND SLOPED TOWARD THE NEAREST STORM SEWER. MINIMUM SLOPES OF SUCH DRAINILES SHALL BE 0.5%.
19. CONVENTIONAL DSKING AND AERATION TECHNIQUES SHALL BE USED TO DRY SOILS BEFORE PROOF ROLLING. ALLOT FOR PROPER DRYING TIME IN PROJECT SCHEDULE.
20. ENGINEERED FILL SHALL BE PLACED IN MAXIMUM LIFTS OF EIGHT INCHES OF LOOSE MATERIAL AND COMPACTED WITHIN 3% OF OPTIMUM SOIL MOISTURE CONTENT VALUE AND A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST ASTM D1557. EACH LIFT OF COMPACTED ENGINEERED FILL SHALL BE OBSERVED AND TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER OR TECHNICIAN.
21. EXISTING OLD FILL MATERIAL SHALL BE REMOVED BELOW FOOTINGS OR FOUNDATION SUPPORTING FILL. ENGINEERED FILL BELOW FOOTINGS SHOULD HAVE AN IN-PLACE DENSITY OF 95% OF THE MAXIMUM DRY DENSITY AND A MOISTURE CONTENT WITHIN 3% OF OPTIMUM AS DETERMINED BY ASTM D1557. ENGINEERED FILL BELOW FOOTINGS SHALL BE EVALUATED BY IN-FIELD DENSITY TESTS DURING CONSTRUCTION.
22. WHERE UNSUITABLE BEARING SOILS ARE ENCOUNTERED IN A FOOTING EXCAVATION, THE EXCAVATION SHALL BE DEEPENED TO COMPETENT BEARING SOIL AND THE FOOTING DEEPENED TO THE SAME DEPTH. AS OF THE STANDARD SPECIFICATIONS AND BACKFILL PROCEDURE PERFORMED. OVEREXCAVATION AND BACKFILL TREATMENT REQUIRES WEARING THE DEEPENED EXCAVATION IN ALL DIRECTIONS AT LEAST 6 INCHES BEYOND THE EDGE OF THE FOOTING FOR EACH 12 INCHES OF OVEREXCAVATION DEPTH. THE OVEREXCAVATION SHALL BE BACKFILLED UP TO FOOTING BASE ELEVATION IN MAXIMUM 8 INCH LOOSE LIFTS WITH SUITABLE GRANULAR FILL MATERIAL AND COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AND A MOISTURE CONTENT WITHIN 3% OF OPTIMUM AS DETERMINED BY ASTM D1557. SOILS AT FOUNDATION BEARING ELEVATION IN THE FOOTING EXCAVATIONS SHALL BE OBSERVED AND TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER OR TECHNICIAN.
23. A MINIMUM OF FOUR INCHES OF DRAINAGE COURSE MAT SHALL BE PLACED BELOW BUILDING FLOOR SLABS. DRAINAGE COURSE SHALL BE COMPACTED TO A MINIMUM OF 95% COMPACTION WITH RESPECT TO THE MODIFIED PROCTOR (ASTM D1557)
24. UTILITY TRENCHES FOR SEWER AND WATER SHALL CONFORM TO CLASS B COMPACTED TRENCH SECTION IN ACCORDANCE WITH FILE NO. 4 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
25. BACKFILL UTILITY TRENCHES IN 4 TO 6 INCH LOOSE LIFTS COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557. BACKFILL SHALL BE MOISTURE CONDITIONED TO BE WITH 3% OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D1557.
26. UTILITY BEDDING MATERIAL: CONFORM TO SECTION 3.2.6 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. BEDDING MATEERIAL SHALL BE COMPACTED TO A MINIMUM OF 90% COMPACTION WITH RESPECT TO THE MODIFIED PROCTOR (ASTM D1557).
27. COMPACTION TESTING OF UTILITY TRENCHES SHALL BE PERFORMED FOR EVERY 200 CUBIC YARDS OF BACKFILL PLACED OR EACH LIFT WITHIN 200 LINEAR FEET OF TRENCH, WHICHEVER IS LESS.
28. AGGREGATE BASE COURSE BENEATH PAVEMENTS SHALL BE PLACED AND COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT WITHIN 3% OF OPTIMUM AS DETERMINED BY ASTM D1557. AGGREGATE BASE SHALL BE OBSERVED AND TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER OR TECHNICIAN.
29. GRADING GENERAL: UNIFORMLY GRADE AREAS TO A SMOOTH SURFACE, FREE OF IRREGULAR SURFACE CHANGES. COMPLY WITH COMPACTION REQUIREMENTS AND GRADE TO CROSS SECTIONS, LINES, AND ELEVATIONS INDICATED. SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING.
30. TESTING AGENCY: CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT GEOTECHNICAL ENGINEERING TESTING AGENCY TO PERFORM FIELD QUALITY-CONTROL TESTING.
31. FOOTING SUBGRADE TESTING: EACH ISOLATED FOOTING SHALL INCLUDE AT LEAST ONE TEST PROBE. TEST PROBES SHALL BE PERFORMED EVERY 20 LINEAR FEET IN CONTINUOUS FOOTINGS.
32. BUILDING SLAB AREA TESTING: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST 1 TEST PER LIFT FOR EVERY 2500 SQ. FT. OR LESS OF BUILDING SLAB, BUT IN NO CASE FEWER THAN 3 TESTS.
33. PAVEMENT AREA TESTING: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY LIFT FOR EVERY 2,500 SQUARE FEET OF PAVEMENT AREA, BUT IN NO CASES FEWER THAN 3 TESTS.
34. UTILITY TRENCH BACKFILL TESTING: ONE TEST FOR EACH 200 CUBIC YARDS OF FILL BACKFILL PLACED OR ONE TEST PER 200 LINEAR FEET OF TRENCH FOR EACH LIFT; WHICHEVER IS LESS.
35. FOUNDATION WALL BACKFILL: AT EACH COMPACTED BACKFILL LAYER, AT LEAST 1 TEST PER LIFT FOR EACH 50 FEET OR LESS OF WALL LENGTH, BUT NO FEWER THAN 2 TESTS.
36. WHEN TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.
37. DISPOSAL: REMOVE SURPLUS SOIL AND WASTE MATERIAL, INCLUDING UNSATISFACTORY SOIL, TRASH, AND DEBRIS, AND LEGALLY DISPOSE OF IT OFF OWNER'S PROPERTY.

PIONEER FORD REDEVELOPMENT PLATTEVILLE, WISCONSIN

SPECIFICATIONS

NO. REVISION	DATE BY

DRAWING NO.	16571 - DETAILS.dwg
DRAWN BY:	TPM
DATE:	1/5/2017
PROJECT NO.	16571
CHECKED BY:	CTC
APPROVED BY:	
SHEET NO.:	

**C 500**



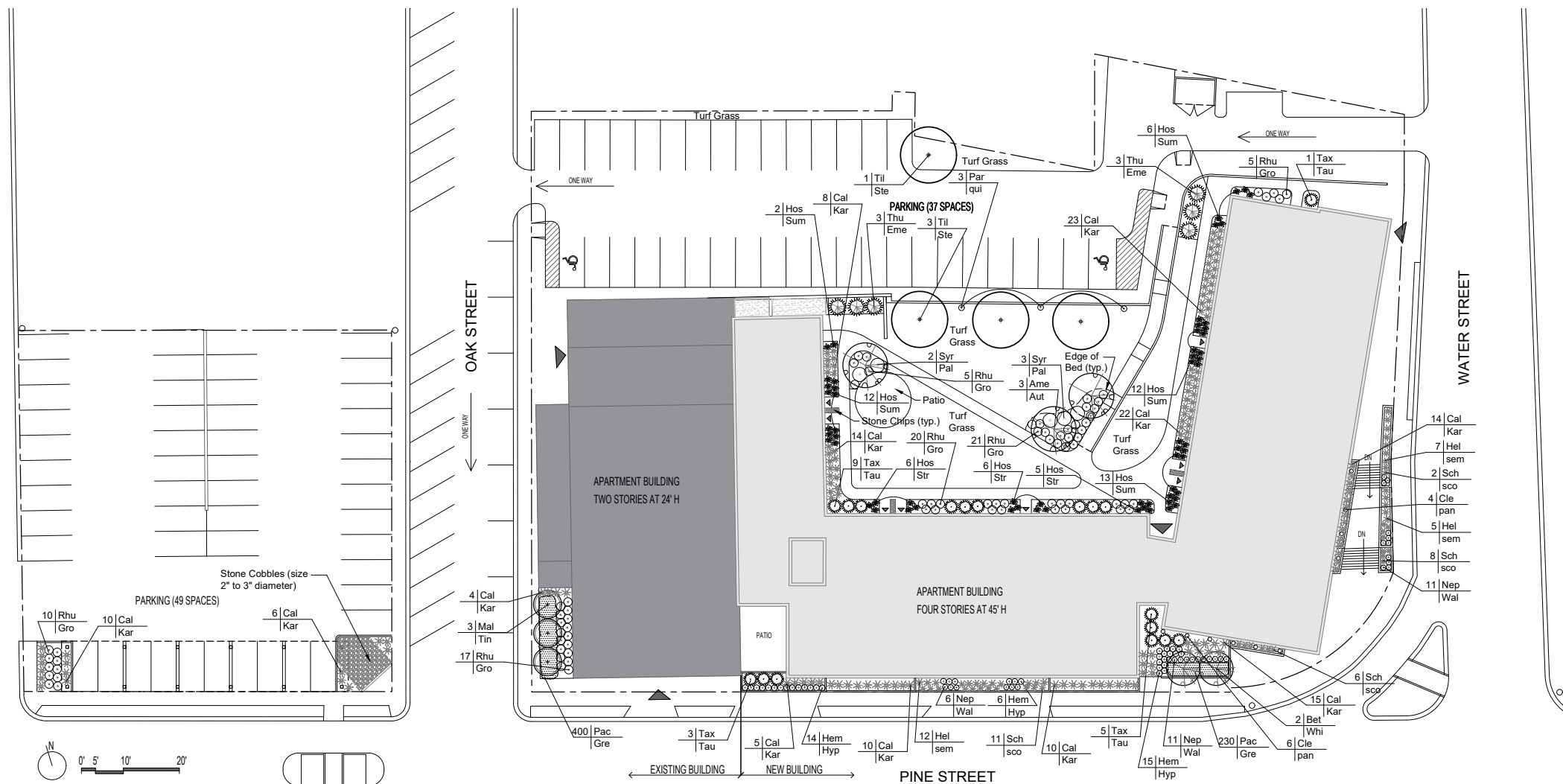




Pioneer Ford Redevelopment  
Water Street at Pine Street  
Platteville, WI 53818

General Capital Group

Landscape Plan



1 LANDSCAPE PLAN  
SCALE: 1" = 20'

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	NOTES	AVERAGE MATURE SIZE	PTS. (ea)	PTS. (total)
<b>Dec. Trees</b>									
Ame / Aut	3	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	1 1/2"-2"	BB		25' ht. x 25' spread	30	90
Bet / Whi	2	Betula populifolia 'Whitespire'	Whitespire Birch	2 1/2"-3"	BB		35' ht. x 25' spread	50	100
Mal / Tin	3	Malus sargentii 'Tina'	Tina Sargent Crabapple	1 1/2"-2"	BB		5' ht. x 8' spread	20	60
Til / Ste	4	Tilia tomentosa 'Sterling' PP 6511	Sterling Linden	2 1/2"-3"	BB		45' ht. x 25' spread	50	200
<b>Ev. Shrubs</b>									
Tax / Tau	18	Taxus x media 'Tauntonii'	Taunton Yew	24" - 30"	Cont.		4' ht. x 8' spread	10	180
Thu / Eme	6	Thuja occidentalis 'Smaragd'	Emerald Arborvitae	4' - 5' ht.	BB		18' ht. x 4' spread	30	180
<b>Dec. Shrub</b>									
Rhu / Gro	78	Rhus aromatica 'Gro-low'	Gro-low Sumac	2 gallon	Cont.		3' ht. x 7' spread	5	390
Syr / Pal	5	Syringa meyeri 'Palibin'	Dwarf Korean Lilac	24" - 30"	Cont.		5' ht. x 6' spread	10	50
<b>Perennials, Ornamental Grasses, Vines &amp; Groundcovers</b>									
Cal / Kar	141	Calamagrostis acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	1 gallon	Cont.		2' ht. x 2+ spread	0	0
Cle / pan	10	Clematis paniculata	Sweet Autumn Clematis	1 gallon	Cont.		vine	0	0
Hel / sem	24	Helictotichon sempervirens	Blue Oat Grass	1 gallon	Cont.		2' ht. x 2.5' spread	0	0
Hem / Hyp	35	Hemerocallis x Hyponon	Hyponon Daylily	1 gallon	Cont.		1.5' ht. x 2' spread	0	0
Hos / Str	17	Hosta 'Striptease'	Striptease Hosta	1 gallon	Cont.		1.5' ht. x 2.5' spread	0	0
Hos / Sum	45	Hosta 'Sum and Substance'	Sum and Substance Hosta	1 gallon	Cont.		2.5' ht. x 6' spread	0	0
Nep / Wal	28	Nepeta faassenii 'Walker's Low'	Walker's Low Catmint	1 gallon	Cont.		1' ht. x 2.5' spread	0	0
Pac / Gre	630	Pachysandra terminalis 'Green Carpet'	Green Carpet Pachysandra	4"	Cont.	8" o.c. spacing	0.5' ht. x 2+ spread	0	0
Par / qua	3	Parthenocissus quinquefolia 'Engelmanni'	Engelman Ivy	1 gallon	Cont.		vine	0	0
Sch / sco	27	Schizachyrum scorparium	Little Bluestem	1 gallon	Cont.		1.5' ht. x 1.5' spread	0	0
								<b>TOTAL:</b>	<b>1250</b>

REVISIONS:

SCALE: 1" = 20'  
DATE: 01/17/2017  
DRWN BY: CHKD BY:

SHEET:  
**L.0**





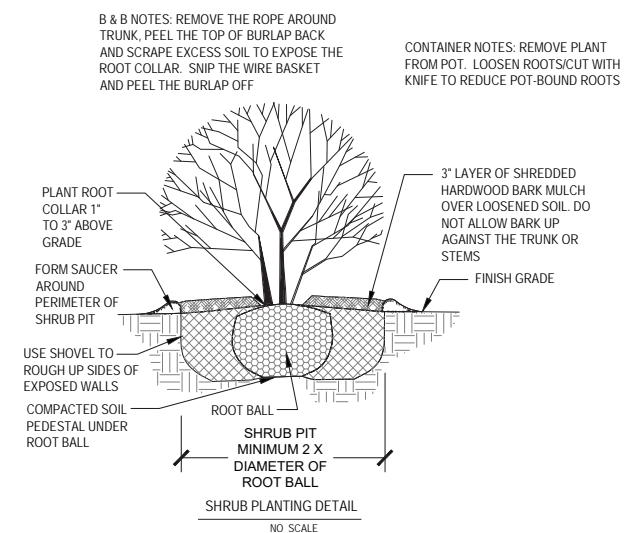
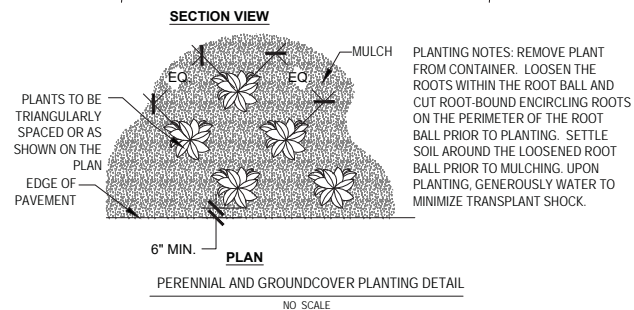
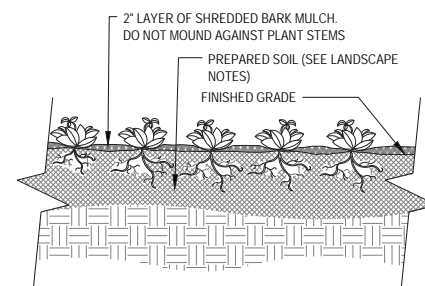
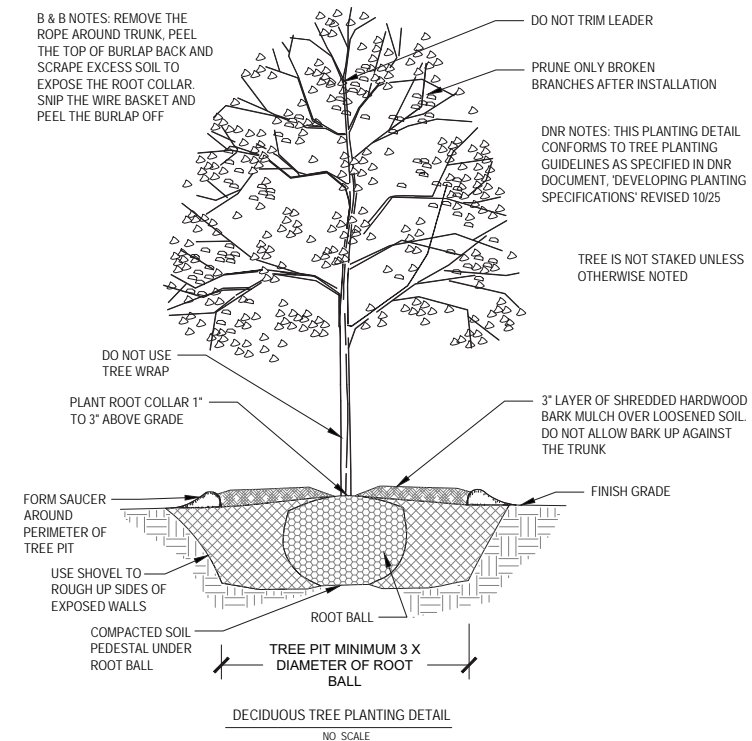
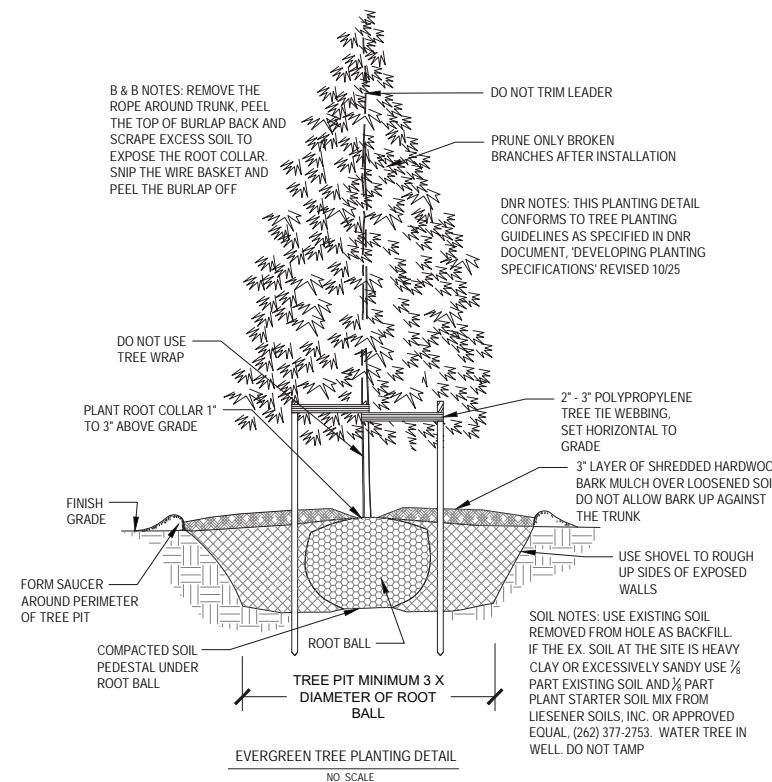
Pioneer Ford Redevelopment  
Water Street at Pine Street  
Platteville, WI 53818

General Capital Group

Landscape Details

**LANDSCAPE INSTALLATION:**

- All written dimensions supersede scaled dimensions.
  - The Contractor shall verify location of all underground utilities and additional information prior to commencement of site construction.
  - Rough grading and drainage construction is to be completed prior to Landscape Contractor's work. Verify all existing site and grading conditions prior to construction.
  - All work shall be in conformance with all applicable local codes and ordinances.
  - All areas disturbed by grading or site construction shall be fine graded, planted, or seeded. See Plan for seed locations. See notes for specified seed mixes and installation procedures.
  - Contractor shall verify plant quantities shown on the Plan and provide a list to the Client identifying the species and sizes to be used throughout the project. The Landscape Architect or Owner's Representative reserves the right to reject any substandard planting material. Rejected material shall be removed from the project site immediately.
  - All planting beds and turf grass areas shall receive a blended topsoil mix to a depth of six (6) inches. Contractor shall provide positive drainage away from all buildings for a minimum of ten (10) feet. Roto-til blended topsoil into existing soil.
  - Soil preparation for perennial and groundcover planting beds shall be as follows:
    - Remove all roots, lumps, stones, sod and other extraneous materials harmful or toxic to plant growth.
    - Perennial and groundcover planting beds shall receive a twelve (12) inch mixture consisting of 8" blended topsoil, four (4) inch Purple Cow Classic compost (Purple Cow Organics, LLC (608) 831-0349) or approved equal. Add 1/2 lb. of 5-10-5 garden fertilizer per 100 square feet and roto-til amendments into the planting bed. Avoid damage to existing tree roots where applicable by lightly working amendments into soil with pitch fork.
    - Mix amended planting soil either prior to planting or apply on surface of planting bed and mix thoroughly before planting.
    - Grade, rake, and roll planting bed with roller weighing not less than 25 lbs. or more than 100 lbs. per linear foot so as to leave in condition to plant.
    - Grade planting bed to a twelve (12) inch crown at center.
  - All perennial or groundcover areas shall receive a two (2) inch layer of shredded bark mulch. All shrub and tree planting beds shall receive a three (3) inch layer of shredded bark mulch. Do not allow mulch to touch stems or trunks of perennials, shrubs, or trees. Unless otherwise noted, no landscape fabric or weed barrier is to be installed.
  - Unless otherwise shown, all perennials and shrubs to be planted in a triangular arrangement. For plants not shown individually, refer to spacing shown in the plant schedule.
  - Plant Bed Edging - Install a shovel-cut bed edge to six (6) inch depth at perimeter of bed.
  - Unless otherwise noted, do not stake deciduous trees less than or equal to 3.0-inches caliper diameter at breast height (D.B.H) and evergreen trees less than or equal to 6-feet in height.
  - See the Tree Staking Detail on this Plan if tree staking is required.
  - Stone Chips - Install narrow strip of decorative stone chips at the courtyard building entrances where shown on the Plan. Strip to consist of 2.5-inch layer of small Mississippi stone over landscape fabric.
  - Stone Cobbles - Install layer of 2-inch to 3-inch sized stone cobbles over landscape fabric where shown on the Plan.
- SEED MIXES:**
- SEEDING TURF for LAWN AREAS:**  
Sow at 5 lbs. / 1,000 sq. ft.  
"Supreme Lawn Seed Mix"  
Available from Reinders, Inc. (800) 785-3301, or approved equal.  
To be installed and maintained per supplier's specifications.
- |                                   |                                |
|-----------------------------------|--------------------------------|
| 17% Mercury Kentucky Bluegrass    | 16% America Kentucky Bluegrass |
| 17% SR 2100 Kentucky Bluegrass    | 25% Garnet Creeping Red Fescue |
| 15% Replicator Perennial Ryegrass | 10% TXR Annual Ryegrass        |
- SEED INSTALLATION:**
- SEEDING TURF for LAWN AREAS:**
- The seedbed shall be prepared for optimal seed germination after placement of the landscape trees.
  - This work shall consist of preparing the seedbeds and furnishing, sowing and mulching the required seed on the various seeded turf grass areas as shown on Plan or other areas as designated by the Landscape Architect or Owner's Representative, all in accordance with the requirements of this specification.
  - Grading and the placement of the topsoil shall be completed prior to sowing the seed mix. The area to be seeded shall be worked with discs, harrows, or other appropriate equipment until a reasonably even and loose seedbed is obtained immediately in advance of the seeding.
  - The seed mixture shall be sown by means of equipment adapted to the purpose, or it may be scattered uniformly over the areas to be seeded. Scattering the seeds by hand shall be done only with satisfactory hand seeders and only at such times when the air is sufficiently calm to prevent seeds from blowing away. If the area is hand sown, the soil surface must be raked following seeding.



**REVISIONS:**


**SCALE:** NOT TO SCALE  
**DATE:** 01/17/2017  
**DRWN BY:** CHKD BY:  
**SHEET:**



**L.1**



Project  
**PIONEER FORD REDEVELOPMENT**

**PLATTVILLE, WI**

Project Number

Owner

Seal/Signature

Issued for  
**SIP REVIEW**

Item	Date

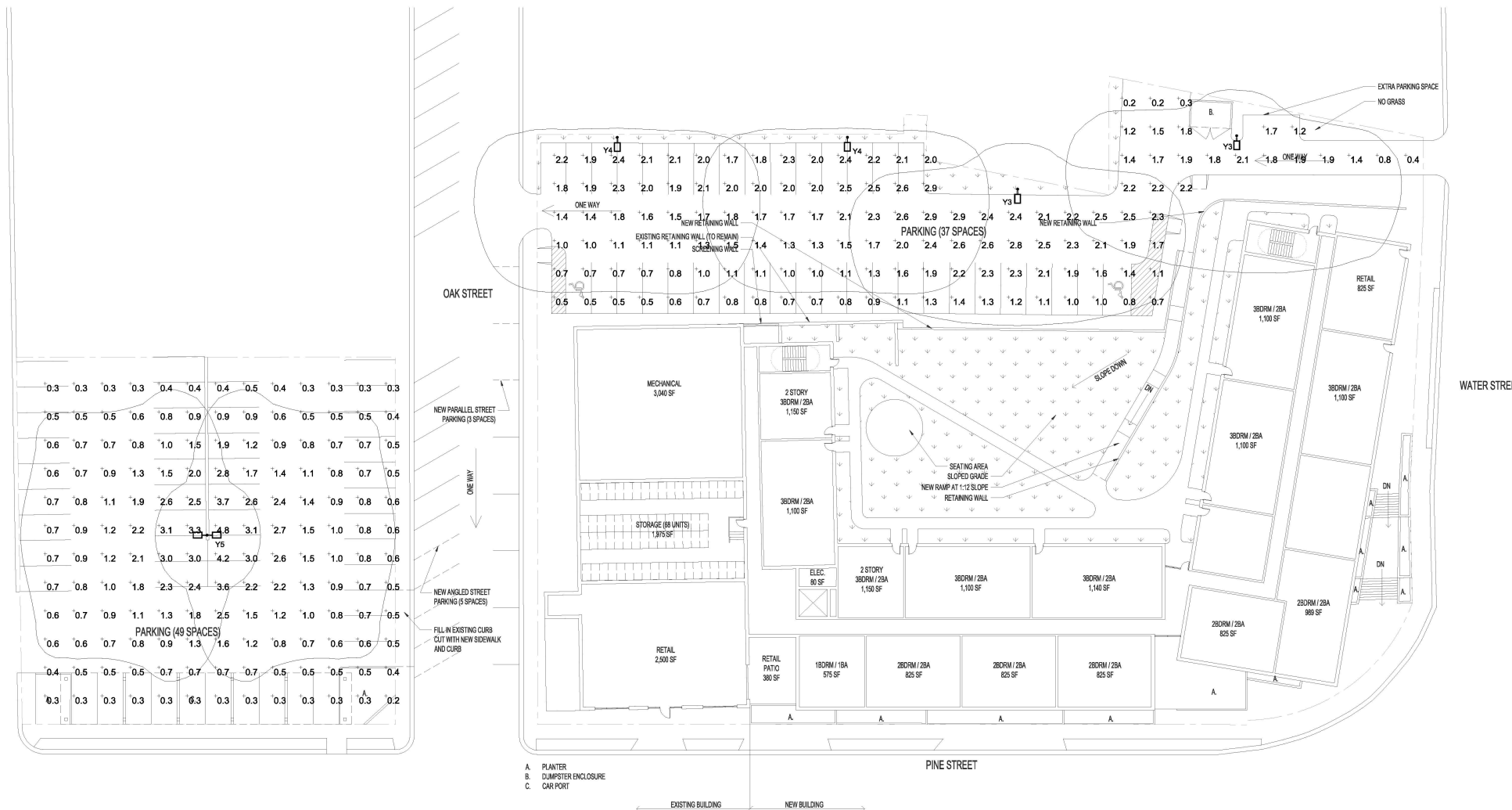
Drawn by: DC

Checked by: CK

Sheet Title  
**SITE PLAN - PHOTOMETRIC**

Sheet Number

**E1**



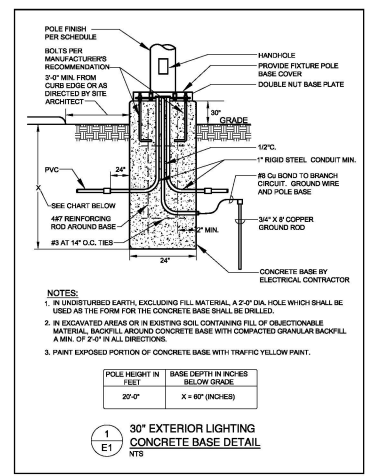
**1/E1 SITE PLAN - PHOTOMETRIC**  
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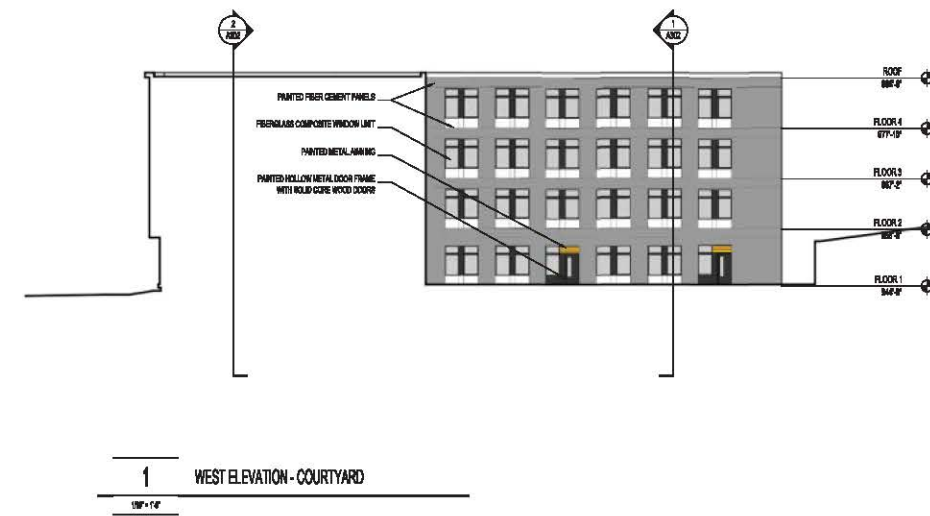
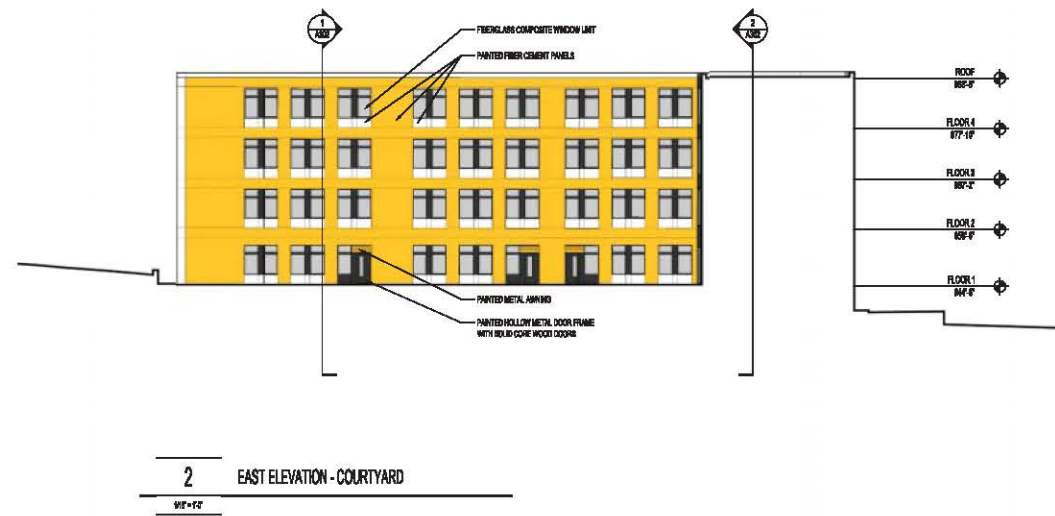
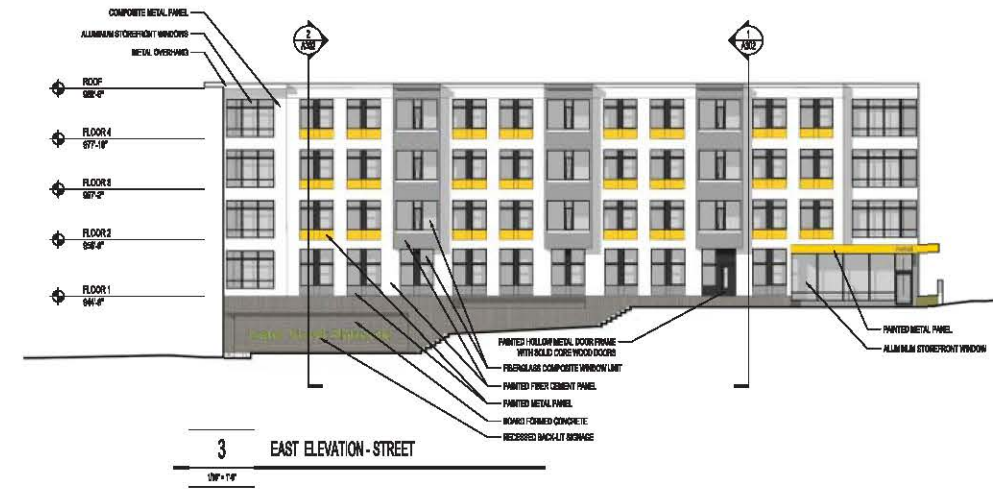
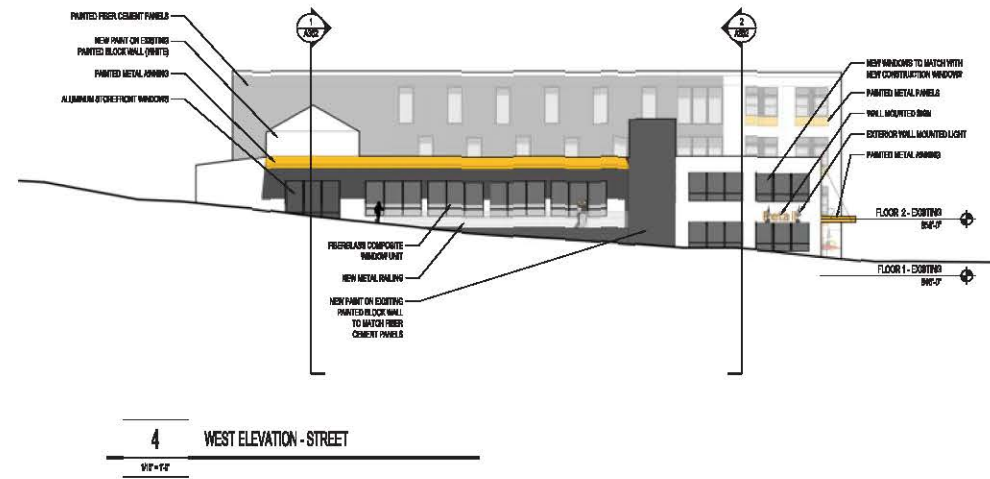
- GENERAL NOTES:**
- PROVIDE 24" CONCRETE BASE PER DETAIL 1/E1 FOR ALL LIGHT POLES SHOWN.
  - PROVIDE ALL EXCAVATION AND TRENCHING FOR INSTALLATION OF POLE BASES AND CONDUIT. BRING SITE EXCAVATION AND TOPPING BACK TO ORIGINAL CONDITION IF EXCAVATION OR TRENCHING IS DONE ON COMPACTED SURFACES. BACK FILL AS REQUIRED.

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
PARKING LOT	-	1.6%	2.9%	0.2%	14.5:1	8.0:1	0.6:1
SIDE PARKING LOT	+	1.6%	4.5%	0.5%	9.0:1	3.2:1	0.4:1

PLATEVILLE SITE FIXTURE SCHEDULE						
TYPE	DESCRIPTION	LAMP TYPE	LAMP QTY.	MANUFACTURER	CATALOG NUMBER	NOTE
Y3	LED AREA FIXTURE W/ 20' 4" SQUARE STEEL POLE - TYPE 3	113W LED/4000K	W/ UNIT	COOPER OR EQUAL	GLEON-AF-02-LED-E1-T3-XX/SSS-4-A-20'-S-XN-1	1
Y4	LED AREA FIXTURE W/ 20' 4" SQUARE STEEL POLE - TYPE 4	113W LED/4000K	W/ UNIT	COOPER OR EQUAL	GLEON-AF-02-LED-E1-SL4-XX/HSS/SSS-4-A-20'-S-XN-1	1
Y5	DOUBLE LED AREA FIXTURES W/ 20' 4" SQUARE STEEL POLE - TYPE 4	228W LED/4000K	W/ UNIT	COOPER OR EQUAL	(2) GLEON-AF-02-LED-E1-SL4-XX/HSS/SSS-4-A-20'-S-XN-2	1

**GENERAL NOTES:**  
1. ALL POLE MOUNTED FIXTURES SHALL BE SAME FINISH.  
PLAN NOTES:  
1. FINISH SHALL BE SELECTED BY ARCHITECT FROM ALL AVAILABLE AND RAL COLOR CHART.





PROJECT NAME:  
PIONEER FORD  
REDEVELOPMENT

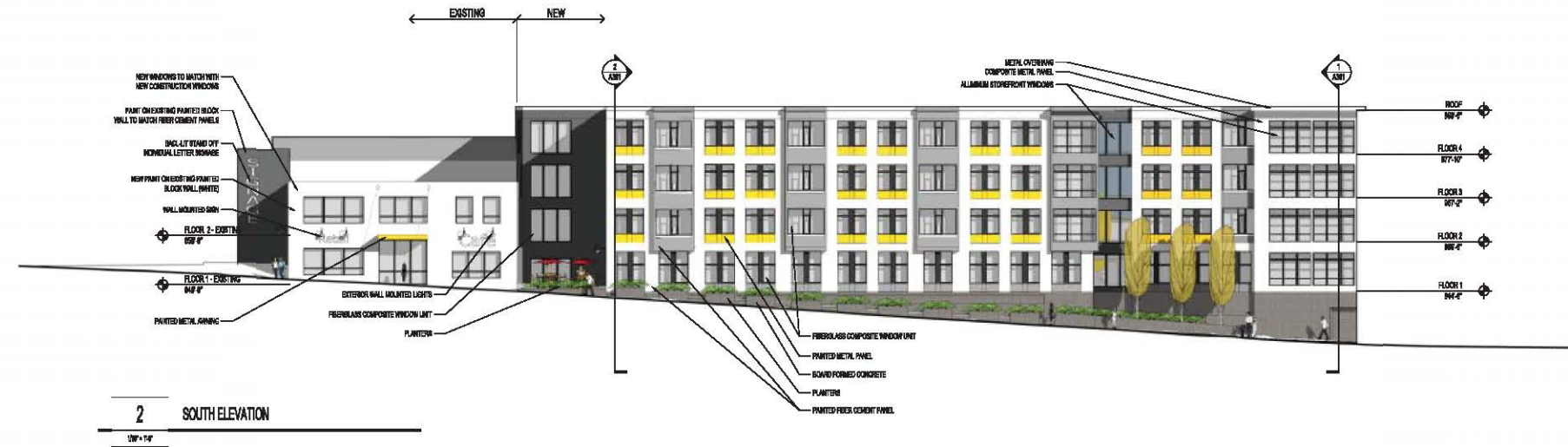
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GENERAL CAPITAL  
6838 N. SANTA MONICA  
BLVD.  
FOX POINT, WI 53217  
P 414.228.3500

ARCHITECT:  
KORB + ASSOCIATES  
648 N. PLANKINTON AVE.  
SUITE 240  
MILWAUKEE, WI 53203  
P 414.273.8230

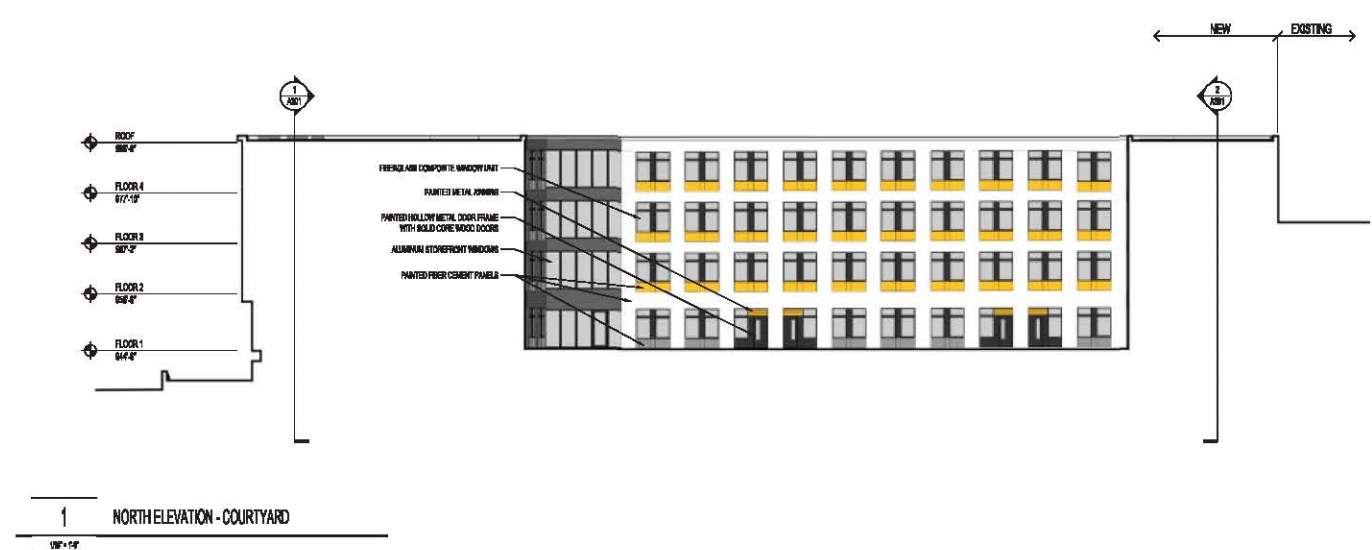
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PROJ. NO.:	
SCALE:	AS NOTED
PHASE:	
DATE:	01-16-2017

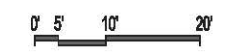
ELEVATIONS  
**A200**  
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2 SOUTH ELEVATION  
1/8" = 1'-0"



1 NORTH ELEVATION - COURTYARD  
1/8" = 1'-0"



**PROJECT NAME:**  
PIONEER FORD REDEVELOPMENT

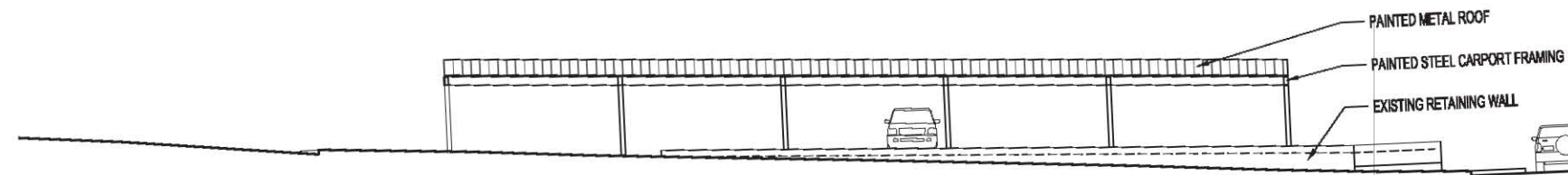
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FOX POINT, WI 53217  
P 414.228.3500

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648 N. PLANKINTON AVE.  
SUITE 240  
MILWAUKEE, WI 53203  
P 414.273.8230

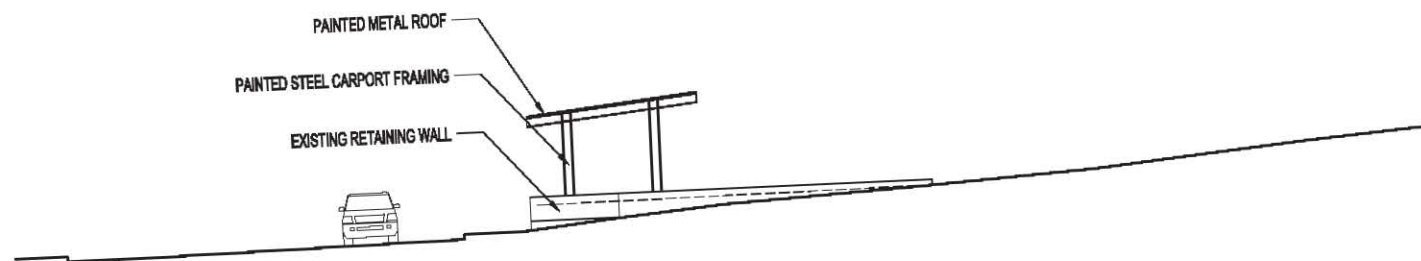
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PROJ. NO.:	
SCALE: AS NOTED	
PHASE:	
DATE: 01-16-2017	

ELEVATIONS  
**A201**  
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2 PINE STREET ELEVATION  
W-12



1 OAK STREET ELEVATION  
W-12



PROJECT NAME:  
PIONEER FORD  
REDEVELOPMENT

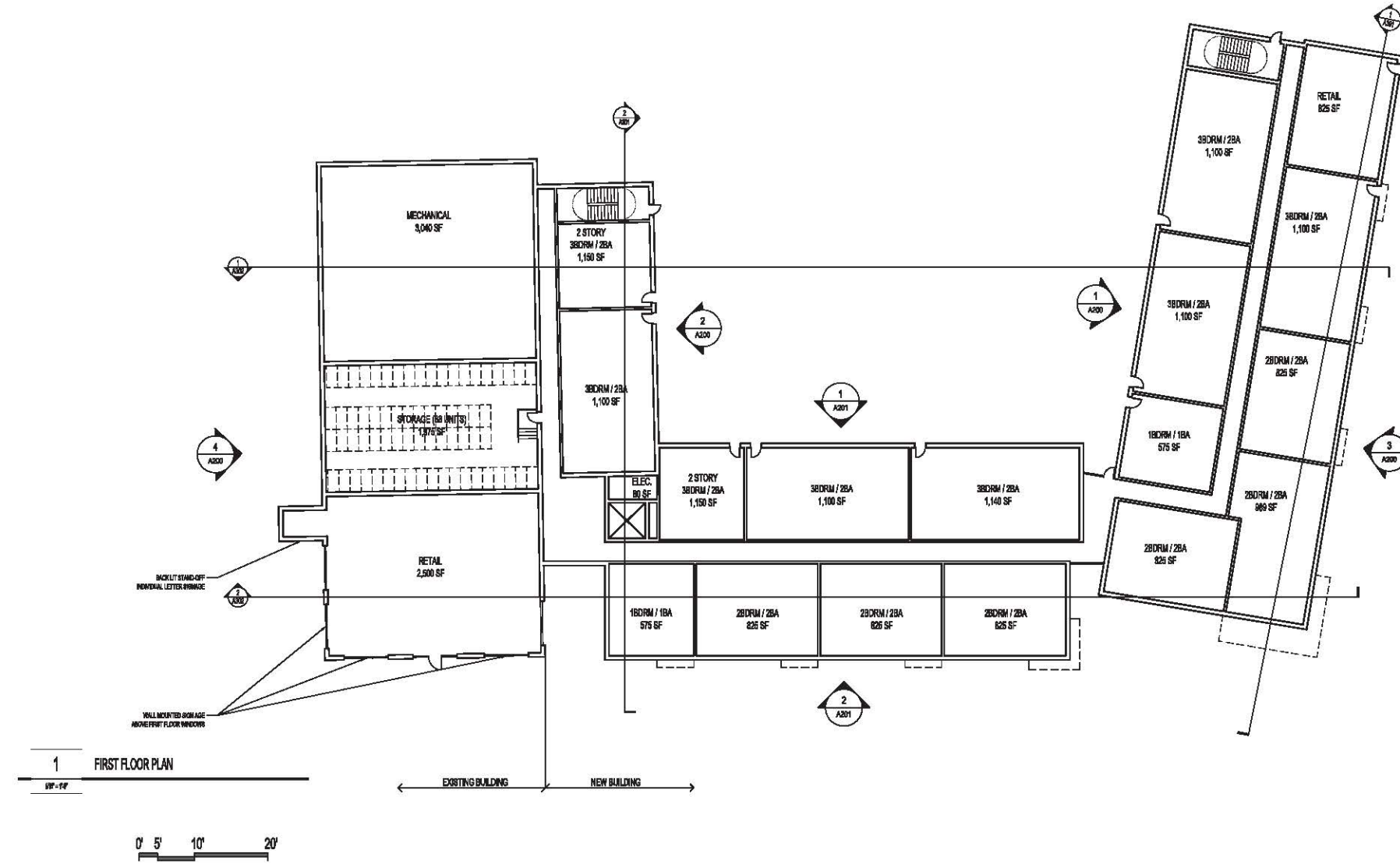
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BLVD.  
FOX POINT, WI 53217  
P 414.228.3500

ARCHITECT:  
KORB + ASSOCIATES  
648 N. PLANKINTON AVE.  
SUITE 240  
MILWAUKEE, WI 53203  
P 414.273.8230

REV. NO.	DATE

PROJ. NO.	
SCALE: AS NOTED	
PHASE:	
DATE: 01-16-2017	

ELEVATIONS  
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PROJECT NAME:  
PIONEER FORD  
REDEVELOPMENT

OWNER'S INFO:  
GENERAL CAPITAL  
6536 N. SANTA MONICA  
BLVD.  
FOX POINT, WI 53217  
P 414.228.3500

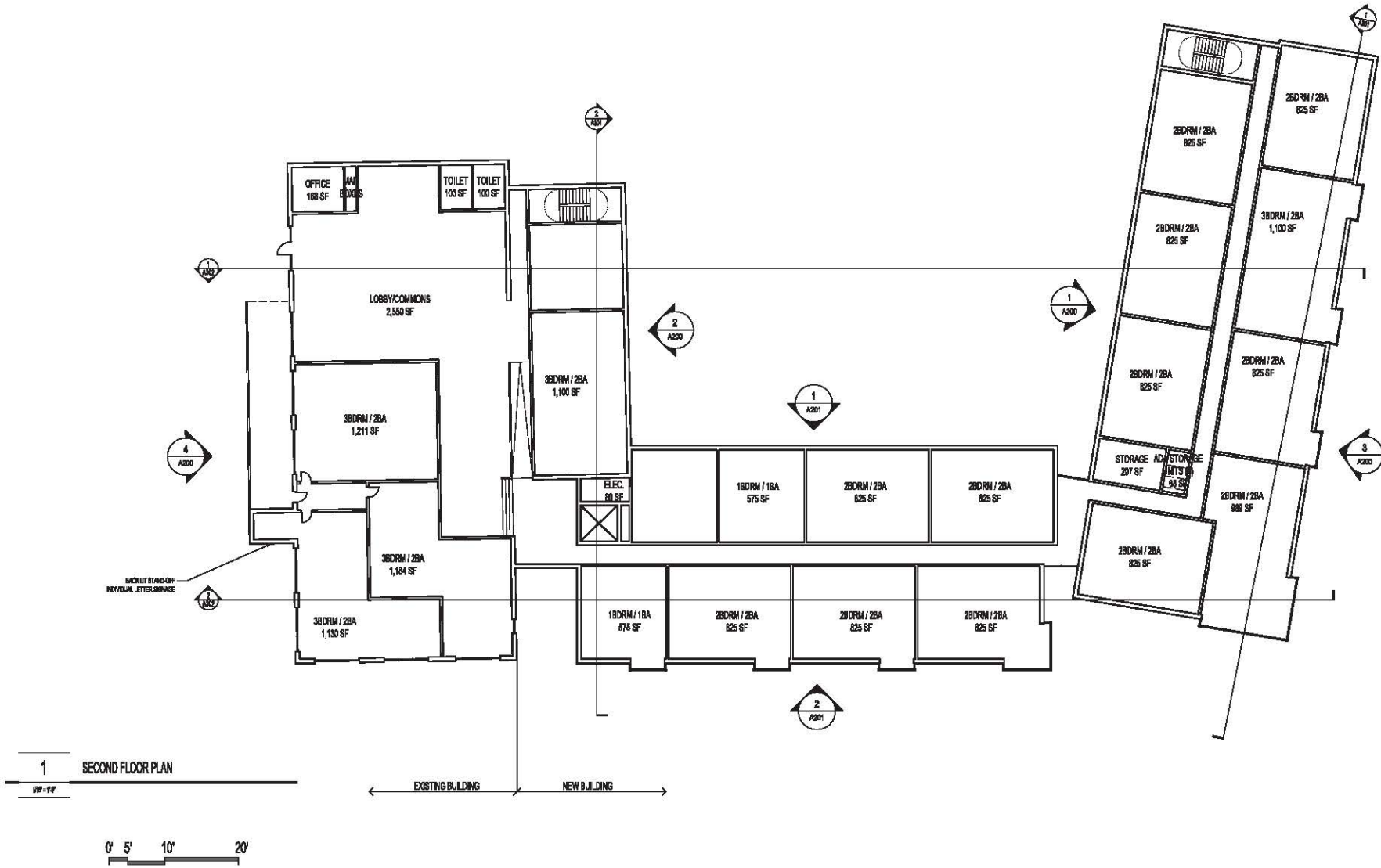
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KORB + ASSOCIATES  
648 N. PLANKINTON AVE.  
SUITE 240  
MILWAUKEE, WI 53203  
P 414.273.8230

REV. NO.	DATE:

PROJ. NO.:	
SCALE: AS NOTED	
PHASE:	
DATE: 01-10-2017	

FIRST FLOOR PLAN  
**A100**  
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**PROJECT NAME:**  
PIONEER FORD REDEVELOPMENT

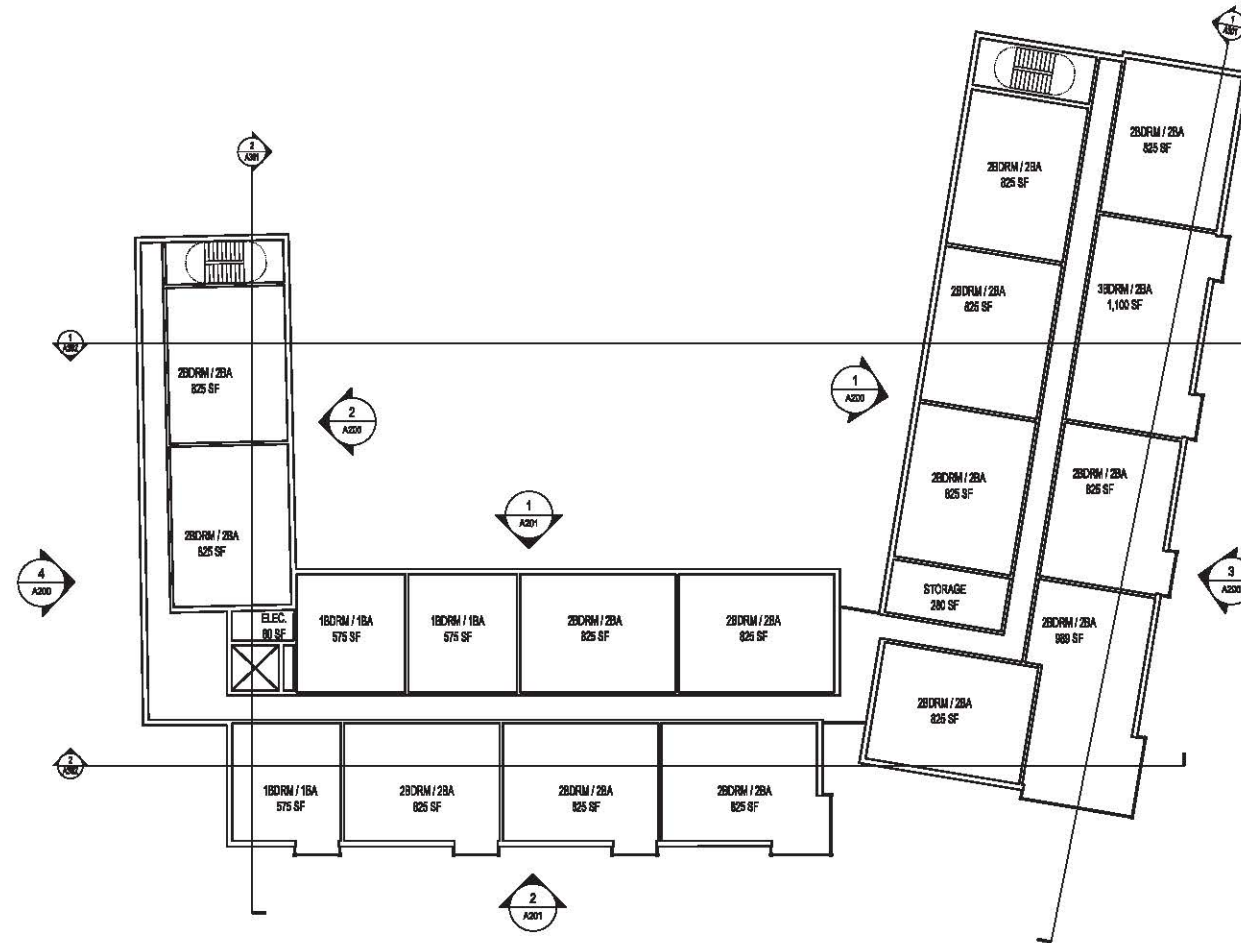
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FOX POINT, WI 53217  
P 414.228.3500

**ARCHITECT:**  
KORB + ASSOCIATES  
648 N. PLANKINTON AVE.  
SUITE 240  
MILWAUKEE, WI 53203  
P 414.273.8230

REV. NO.	DATE:

PROJ. NO.:	
SCALE: AS NOTED	
PHASE:	
DATE: 01-10-2017	

SECOND FLOOR PLAN  
**A101**  
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1 THIRD + FOURTH FLOOR PLAN  
VP-FF  
0' 5' 10' 20'

PROJECT NAME:  
PIONEER FORD  
REDEVELOPMENT

OWNER'S INFO:  
GENERAL CAPITAL  
6538 N. SANTA MONICA  
BLVD.  
FOX POINT, WI 53217  
P 414.228.3500

ARCHITECT:  
KORB + ASSOCIATES  
648 N. PLANKINTON AVE.  
SUITE 240  
MILWAUKEE, WI 53203  
P 414.273.8230

REV. NO.	DATE:

PROJ. NO.:	
SCALE:	AS NOTED
PHASE:	
DATE:	01-10-2017

THIRD + FOURTH FLOOR PLAN  
**A102**  
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**Appendix B**  
**Phase II ESA Summary**

# MEMORANDUM

To: Joe Carroll, Community Development Director, City of Platteville

From: Erin Gross, Environmental Scientist, Ayres Associates

Date: January 12, 2018

Project No.: 19-0538.00

Re: Pioneer Ford Subsurface Sampling in 2017, an update

## Sampling Summary and Objectives

The City of Platteville retained Ayres Associates to collect soil, groundwater, and vapor samples to provide a complete environmental assessment for the Pioneer Ford site. The primary objectives of the assessment were to characterize the hydrogeologic and environmental conditions at the site, characterize the nature of potential environmental impacts, and evaluate the need to implement remedial action at the site. The scope of work included the collection of twenty-two (22) soil samples from probes and soil borings advanced in August 2015; groundwater samples collected from three (3) groundwater monitoring wells in August 2015, September 2017, and December 2017; and vapor samples collected from three (3) sub-slab vapor pins in September 2017 and three (3) vapor probes in December 2017. The samples selected for analysis, and type of analysis performed, was based on field screening results, visual and olfactory observations during drilling, proposed future building plans, and the type of activity formerly performed in the area where the probe or boring was advanced. The sampling conducted by Ayres Associates on August 17, 2015, September 28, 2017, and December 29, 2017 addresses the characterization of environmental conditions on site to prepare remedial action plans for the site.

## Site Location and Description

The properties are located in the Southwest  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$  of Section 15, Township 03 North, Range 01 West in Grant County, Wisconsin (Figure 1). The project site contains six parcels identified in the following table and shown in the aerial map (Figure 2).

271-00297-0000	85 S. 2 <sup>nd</sup> St.	Not listed	ORIGINAL PLAT S 80' OF LOT 4 BLOCK 43
271-00298-0000	45 S. Oak St.	0.238	ORIGINAL PLAT N74' M/L LOT A EXC E25' BLK 44
271-00299-0000	75 S. Oak St.	0.460	ORIGINAL PLAT S 140.8' M/L OF W 143.8' OF BLK 44
271-00300-0000	70 S. Water St.	0.606	ORIGINAL PLAT E 25' OF LOTS A & B; LOT C BLOCK 44 ( INCLUDES 271-611 ( SEE ASSESSMENT PLAT)
271-00306-0000	50 S. Water St.	0.108	ORIGINAL PLAT PRT BLK 45 DESC; COM CEN SEC 15; N61D42M W62.95'; N17D50M E41.70'; S61D16M E113.03'; S15D35M W41.80'; N61D W51.70' TO POB BLOCK 45 ( ASSESSMENT INCLS 271-612)

Page 1 of 4

271-00611-0000	Not Listed	0.024	ASSESSMENT PLAT PRT LOT 1 W SD OF LYDIA ST EXC AS DESC IN 378/372 BLK 31 (ASSESSED W/271-300)
----------------	------------	-------	---

The site is the location of the former Pioneer Ford sales and service facility, a former dry cleaner, and an existing occupied multi-family apartment building. The site is located near the crest of a hill that slopes to the south-southeast toward the Rountree Branch. Pavement or buildings provide ground cover for the site.

**Groundwater, Soil, and Vapor Quality Assessment**

Groundwater samples were collected from three NR 141 Wisconsin Administrative Code monitoring wells installed at the project site during the August 2015 Phase II Assessment. The analytical data were used in conjunction with site-specific geologic and hydrogeologic data and information on other environmental conditions to determine the potential for contaminant migration. Ayres Associates obtained groundwater level measurements and collected three rounds of groundwater samples from the water table observation wells (MW-1 through MW-3) on August 17, 2015, September 28, 2017, and December 29, 2017. Groundwater elevations and sampling analytical data are summarized in Table 1 and 2, respectively. Laboratory data sheets are included in Appendix A.

Soil samples collected from the probes and borings advanced during the Phase II Assessment in August 2015 were submitted to Pace Laboratories in Green Bay, Wisconsin, for analysis. One sample from each probe and boring were analyzed for volatile organic compounds (VOC), polycyclic aromatic hydrocarbons (PAH), and RCRA metals. Two soil samples were also submitted for PCB analysis. Soil sampling analytical data is summarized in Table 3. Laboratory data sheets are included in Appendix B.

Ayres Associates installed a total of three (3) sub-slab Vapor Pins™ on September 28, 2017 and sub-slab vapor implants were subsequently sampled on the same day. Ayres Associates installed a total of three (3) vapor probes on December 29, 2017 and sub-surface vapors were subsequently sampled on the same day. Each vapor sample was collected by attaching a sampling train consisting of fittings and Teflon tubing from the Vapor Pin™ or vapor implant to a 6L Summa canister. The Summa canister was fitted with a controller to limit vapor flow to no more than 200mL/min which resulted in a sampling period of 30 minutes to fill the canister. Each of the sub-slab vapor samples was submitted for VOC analysis in accordance with EPA method TO-15. Sub-slab and sub-surface vapor sampling analytical data is summarized in Table 4. Laboratory data sheets are included in Appendix C. Following completion of sampling activities, vapor pin holes were patched by filling with concrete to restore to original site conditions. Vapor probe locations were fitted with man-holes to allow potential future sampling.

**Groundwater, Soil, and Vapor Results**

*Groundwater Results*

Groundwater samples were collected from the three (3) monitoring wells on August 17, 2015, September 28, 2017, and December 29, 2017, and submitted to Pace Laboratories in Green Bay, Wisconsin, for analysis. Each of the groundwater samples were analyzed for VOCs, PAH, and dissolved RCRA metals in August 2015 and September 2017. Groundwater samples in December 2017 were analyzed for dissolved RCRA metals and VOCs due to past PAH results. VOCs and PAHs were analyzed using EPA SW-846 Method 8260B and Method 8310, respectively. Dissolved metals were analyzed using Methods 6010B, 7060A, and 7470A. A summary of analyte detections in groundwater samples is



presented in Table 2. Laboratory data sheets for the sampling event are presented in Appendix B.

Concentrations of naturally occurring dissolved metals were detected in each of the three groundwater samples analyzed. Cadmium and lead are the only contaminants that have exceeded NR 140 Wisconsin Administrative Code preventative action limits (PALs) and enforcement standards (ESs) in the three sampling events. Other dissolved metal concentrations do not exceed NR 140 Wisconsin Administrative Code concentrations. Dissolved cadmium and lead concentrations detected in groundwater sampled from MW-2 and MW-1, respectively, exceed the NR 140 Wisconsin Administrative Code enforcement standard (ES) in the December 2017 sampling event. Over the three sampling events, dissolved cadmium collected from MW-2 has consistently been above ESs. Dissolved lead from MW-1 only exceeds the ES in the December 2017 event and exceeded the PAL in the August 2015 sampling event. The dissolved cadmium PAL was exceeded for groundwater collected from MW-1 in 2017 sampling events and the dissolved lead PAL was exceeded for groundwater collected from MW-3 in 2015 and December 2017 sampling events.

Laboratory results indicate trace concentrations of VOCs in groundwater sampled from each of the three wells. Benzene was detected above the preventative action limit in MW-1 and MW-3 in the 2015 sampling event. Groundwater sampled from MW-3 also contained trichloroethene (TCE) and cis-1,2-Dichloroethene above the PAL. In the 2017 sampling rounds, the ES for tetrachloroethene (PCE), TCE, and vinyl chloride was exceeded in MW-3. In MW-2, the ES for PCE was exceeded during the September 2017 sampling event, but the PAL was exceeded in the other two sampling rounds. In MW-2, the TCE PAL was exceeded in MW-2 in the two 2017 sampling rounds. Other trace VOC contaminants were measured in the three groundwater wells sampled between 2015 and 2017.

Trace concentrations of PAH were detected in groundwater sampled from MW-1 and MW-3 in the August 2015 and September 2017 sampling events. Benzo(a)pyrene, benzo(b)fluoranthene, and chrysene were detected above the PAL in MW-1. Concentrations of PAH did not exceed the PAL in groundwater sampled from MW-3. Monitoring well MW-2 did not have detects of PAHs in the analytical sample.

#### *Soil Results*

Twenty-two (22) soil samples collected from the probes and soil borings advanced during the Phase II Assessment in August 2015 were submitted for analysis. Samples collected were analyzed for VOCs, PAHs and RCRA metals. Two soil samples were also submitted for PCB analysis. VOCs and PAHs were analyzed using EPA SW-846 Method 8260C and Method 8310, respectively. Metals were analyzed using Methods 6010C and 7471B. PCBs were analyzed using EPA Method 8082A. A summary of analyte detections in soil is presented in Table 2. Laboratory data reports for soil samples are presented in Appendix B. A summary of analyte exceedances in soil is presented in Figure 7.

Low levels of arsenic were detected in each of the 22 soil samples submitted for metals analysis at concentrations exceeding NR 720 Wisconsin Administrative Code direct contact residual contaminant levels (RCL). Arsenic concentrations in these samples ranged from 5.2 mg/Kg to 21 mg/Kg. Eighteen of the samples contained arsenic concentrations above the Wisconsin background threshold value of 8 mg/kg for arsenic.

Concentrations of total chromium, 44.6 mg/kg, slightly exceeded the background threshold value of 44 mg/kg in GP-14.

Lead was detected above the non-industrial direct contact RCL in 4 of the 22 soil samples submitted for analysis. Nine other samples contained lead at concentrations exceeding the groundwater pathway RCL. Lead concentrations ranged between 9.3 mg/kg and 768 mg/kg. Nine of the samples contained lead concentrations above the Wisconsin background threshold value of 52 mg/kg for lead.

The groundwater pathway RCL was exceeded for barium, cadmium and mercury in at least one soil sample submitted for laboratory analysis. Only cadmium and lead were detected above NR 140 Wisconsin Administrative concentrations, so these other contaminants are unlikely to have impacted the groundwater. Selenium and silver were the only metals which were not detected at a concentration exceeding either the direct contact or protection of groundwater RCL established in Wisconsin Administrative Code NR 720.

Laboratory results for soil samples collected at the site detected tetrachloroethene in GP-18 at a concentration of 0.113 mg/kg, which is above the groundwater pathway RCL. Naphthalene was detected in soil sampled from MW-2 at a concentration of 0.13 mg/kg which does not exceed either the direct contact or groundwater pathway RCL. None of the other soil samples submitted for laboratory analysis contained detectable concentrations of VOCs.

Concentrations of PAH were detected in 10 of the 22 soil samples submitted for laboratory analysis. PAH concentrations exceeded the industrial direct contact RCL in 2 of these soil samples. Six soil samples contained PAH concentrations above the non-industrial direct contact RCL. Two other samples, collected from GP-10 and GP-15, contained trace PAH concentrations below Wisconsin Administrative Code NR 720 RCLs.

#### *Vapor Results*

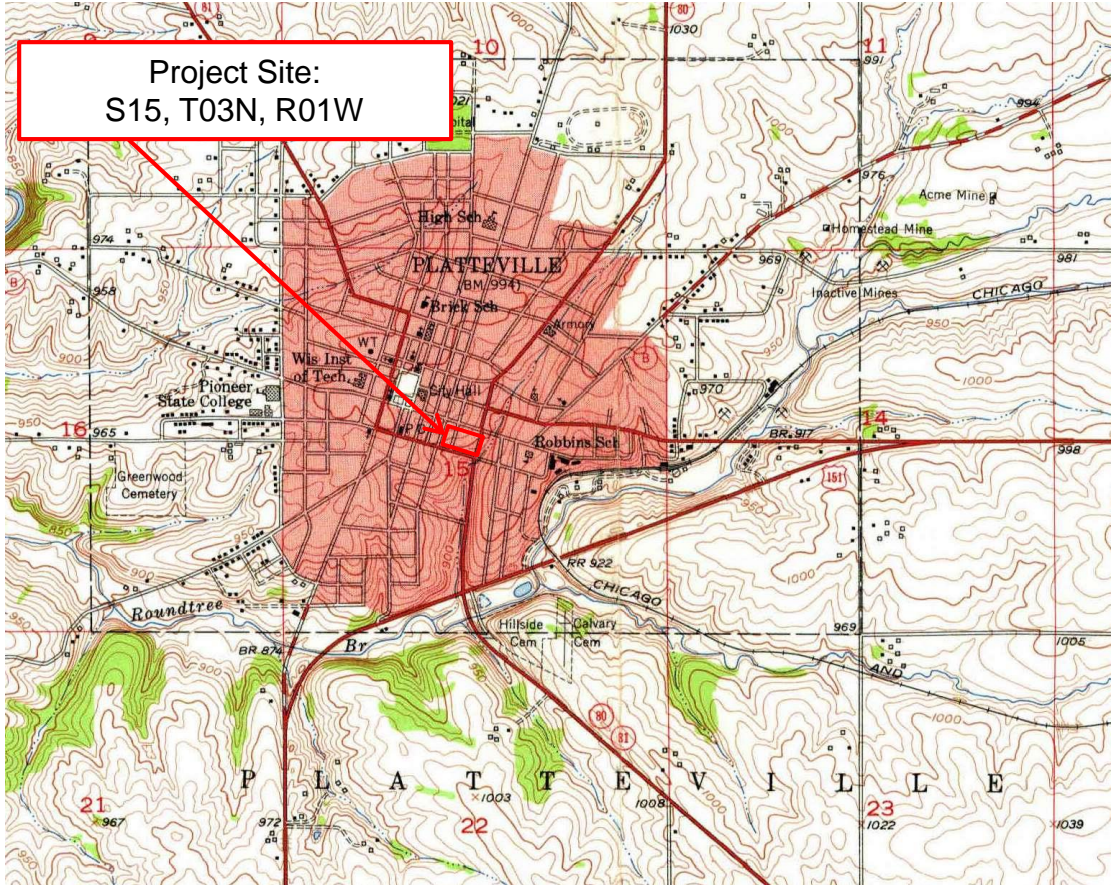
Laboratory analysis of the three (3) sub-slab and three (3) sub-subsurface vapor samples detected up to thirty-three (33) compounds in all the vapor samples submitted for analysis. None of the VOC vapor concentrations were detected above residential sub-slab soil gas screening levels, the threshold for developing a mitigation plan. The sub-slab soil vapor screening levels were calculated by multiplying the Residential Air Screening levels obtained from the US EPA Regional Screening Level Table (November 2017) by an indoor air attenuation factor of 0.1.

#### **Conclusions and Recommendations**

Based on the limited degree of impacts to soil, vapor, and groundwater, Ayres Associates believes that no additional subsurface investigation is warranted at this site. The low levels of contamination in soil at the site are currently capped beneath asphalt, concrete, or buildings and do not pose a direct contact risk. Vapor results below vapor risk screening levels indicate that migration of sub-surface vapors into the proposed building's indoor air is unlikely. Soil remediation may be required if future redevelopment of the site would alter or remove the current cap over contaminated soil. Also, if groundwater is encountered during future site development, proper management practices should be utilized.

A Remedial Action Options Report (RAOR) and Materials Management Plan (MMP) should be prepared to address soil and groundwater impacts in the subsurface that are consistent with site redevelopment plans. The remediation options selected will be contingent on the plans for redevelopment.

## Figures



Source: Platteville  
USGS 7.5 Minute Quadrangle Map, 1952

Figure 1 – Location Map  
Additional Subsurface Investigation  
50 & 70 S. Water St., 45 & 75 S. Oak St., and 85 2<sup>nd</sup> St.  
Former Pioneer Ford Properties  
Platteville, Wisconsin  
January 2018

19-0538.00

**AYRES**  
ASSOCIATES



Source: Google Earth Plus

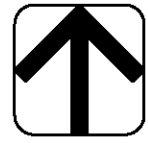
Image Date: 2015



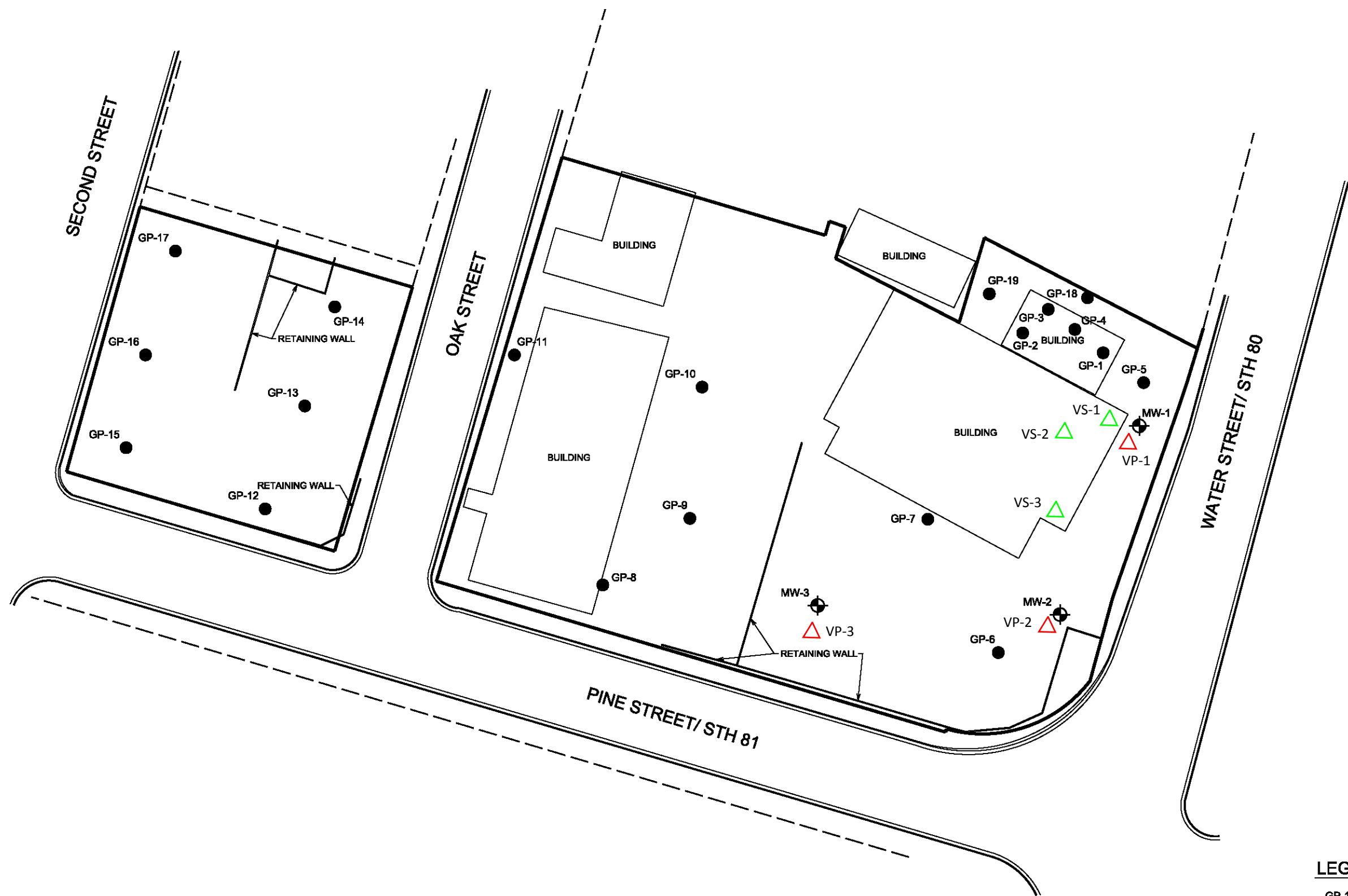
Figure 2 – Site Map  
Additional Subsurface Investigation  
50 & 70 S. Water St., 45 & 75 S. Oak St., and 85 2<sup>nd</sup> St.  
Former Pioneer Ford Properties  
Platteville, Wisconsin  
January 2018

19-0538.00

**AYRES**  
ASSOCIATES



NORTH



**LEGEND**

- GP-11 Sub-Slab Vapor Pin Sample Location
- SOIL PROBE
- MW-2 WATER TABLE OBSERVATION WELL
- Sub-Surface Vapor Probe Sampling Location

NOTE: SITE INFORMATION FOR MAP TAKEN FROM SURVEY BY DELTA 3 ENGINEERING DATED SEPTEMBER 4, 2015

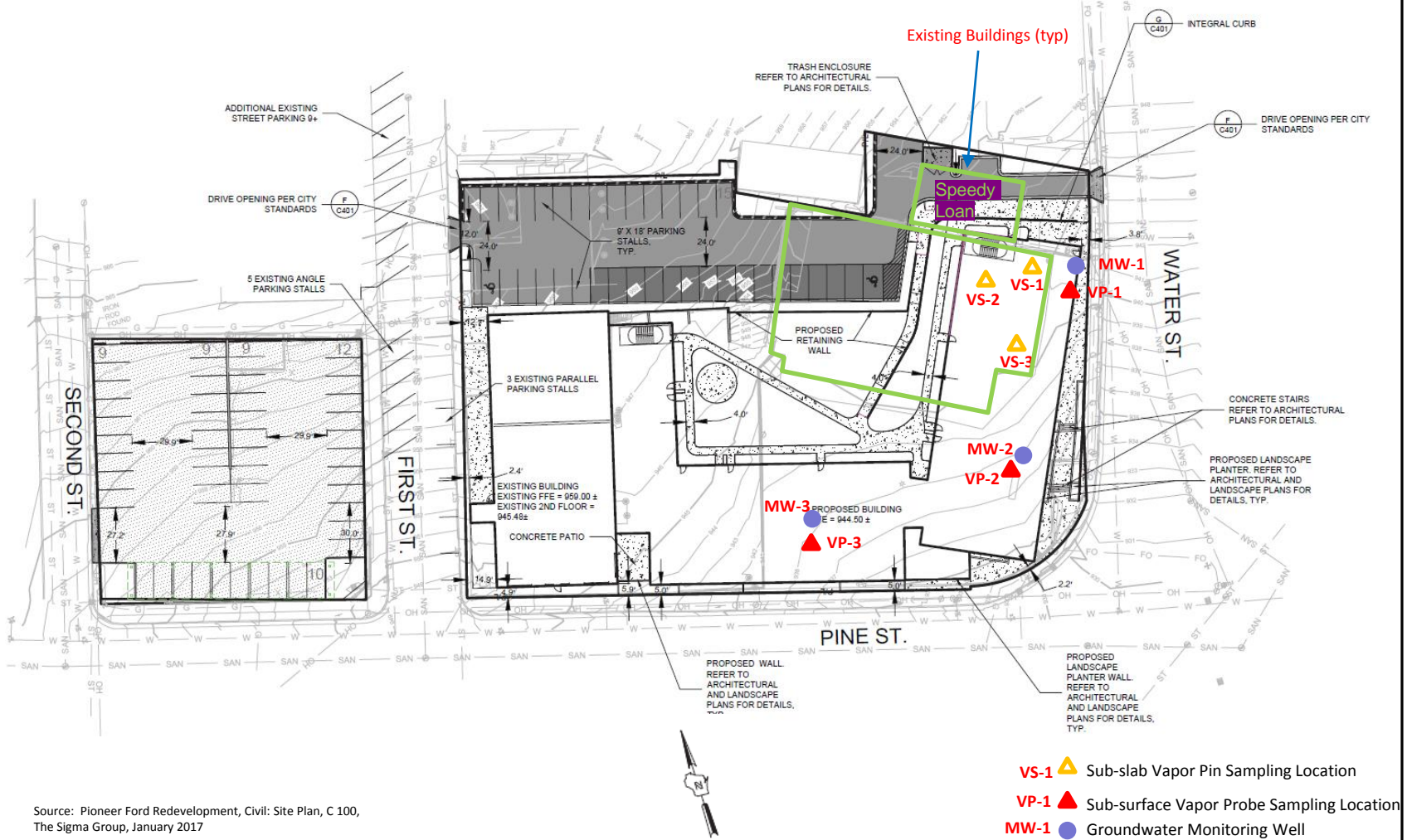
10/7/2015  
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DES BY	T. GAIECK	BOOK NO	
DR BY	T. SHUPERT	JOB NO	19-0886.10
CHK BY	T. GAIECK	DATE	January 2018
	NO	DATE	REVISION
	NO	DATE	REVISION

FORMER PIONEER FORD PROPERTIES  
50 & 70 S. WATER ST., 45 & 75 S. OAK ST., AND 85 2ND ST.  
PLATTEVILLE, WISCONSIN



Soil Probe, Well, and Vapor Probe Locations

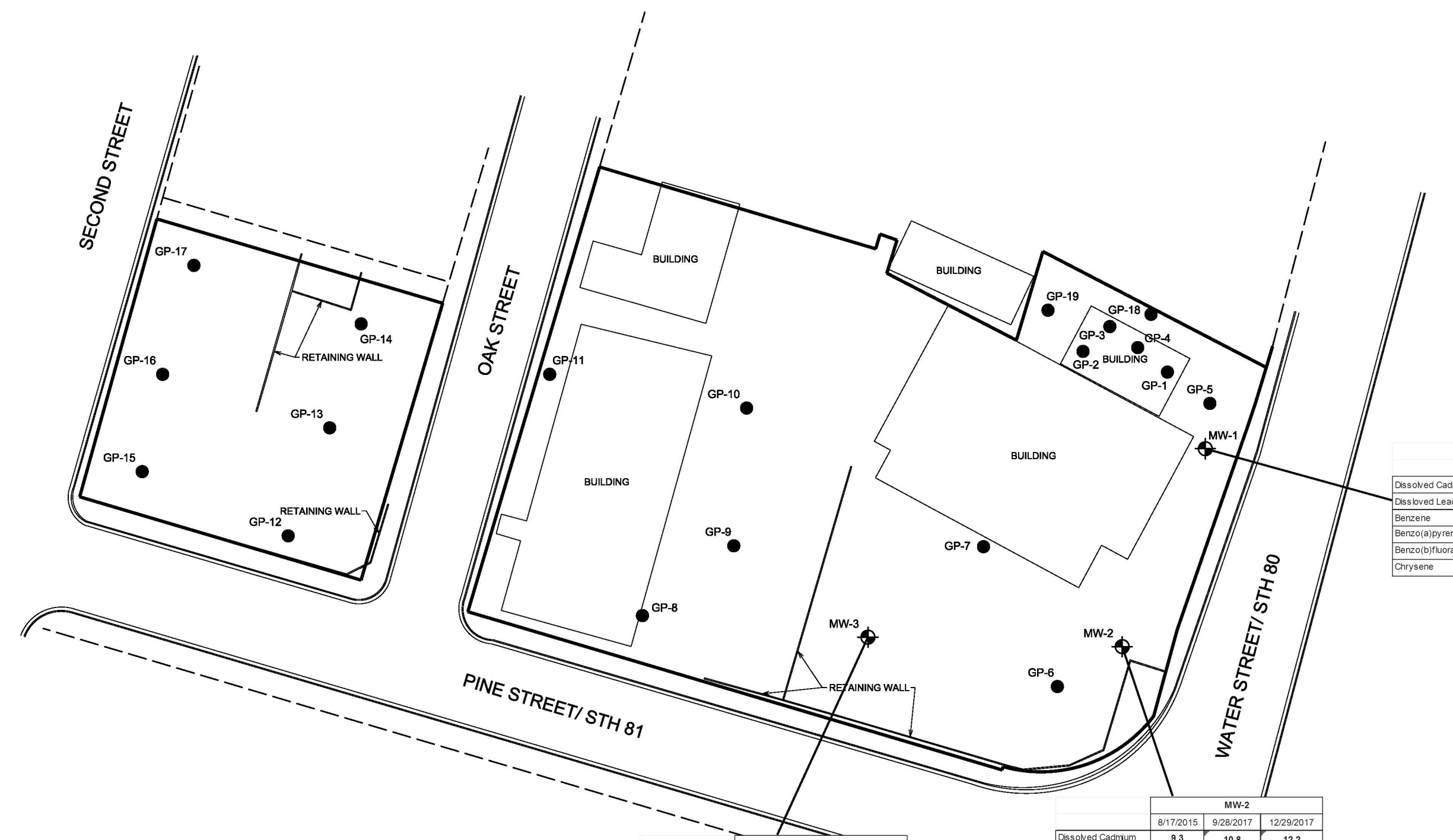
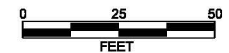


**Figure 4 – Proposed Development and Sampling Map**  
 September and December 2017 Vapor and Groundwater Sampling Events  
 50 & 70 S. Water St., 45, 55 & 75 S. Water St., and 85 2nd St.  
 Platteville, Wisconsin 53818  
 January 2018





NORTH



	MW-1		
	8/17/2015	9/28/2017	12/29/2017
Dissolved Cadmium	ND	<u>1.6</u>	<u>&lt;1.3</u>
Dissolved Lead	<u>3.7</u>	ND	<b>16.0</b>
Benzene	<u>1.2</u>	ND	ND
Benzo(a)pyrene	<u>0.05</u>	ND	---
Benzo(b)fluoranthene	<u>0.063</u>	ND	---
Chrysene	<u>0.063</u>	ND	---

	MW-2		
	8/17/2015	9/28/2017	12/29/2017
Dissolved Cadmium	<b>9.3</b>	<b>10.8</b>	<b>12.2</b>
Tetrachloroethene	<u>0.89</u>	<u>7.2</u>	<u>2.2</u>
Trichloroethene	0.42	<u>2.3</u>	<u>1.1</u>

	MW-3		
	8/17/2015	9/28/2017	12/29/2017
Dissolved Lead	<u>7.2</u>	ND	<u>4.8 J</u>
Benzene	<u>3.4</u>	ND	ND
Tetrachloroethene	ND	15.7	23.4
Trichloroethene	<u>0.97</u>	7.5	6.3
cis-1,2-Dichloroethene	1.8	<u>14.4</u>	<u>8.3</u>
vinyl chloride	ND	3.7	3.1

**LEGEND**

ug/L	Concentration reported as micrograms per liter, equivalent to parts per billion (ppb).
<b>BOLD</b>	Exceeds NR 140 Wisconsin Administrative Code Ground Water Enforcement Standard (ES)
<i>Italics</i>	Exceeds NR 140 Wisconsin Administrative Code Ground Water Preventive Action Limit (PAL)

**LEGEND**

- GP-11 ● SOIL PROBE
- MW-2 ◉ WATER TABLE OBSERVATION WELL

NOTE: SITE INFORMATION FOR MAP TAKEN FROM SURVEY BY DELTA 3 ENGINEERING DATED SEPTEMBER 4, 2015

1/24/2018  
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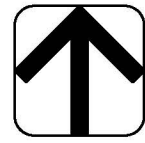
DES BY	T. GAJECK	BOOK NO.	
DR BY	T. SHUPERT	JOB NO.	19-0538.10
CHK BY	T. GAJECK	DATE	OCTOBER 2018
	NO.	DATE	REVISION

FORMER PIONEER FORD PROPERTIES  
 50 & 70 S. WATER., 45 & 75 S. OAK ST., AND 85 2ND ST.  
 PLATTEVILLE, WISCONSIN

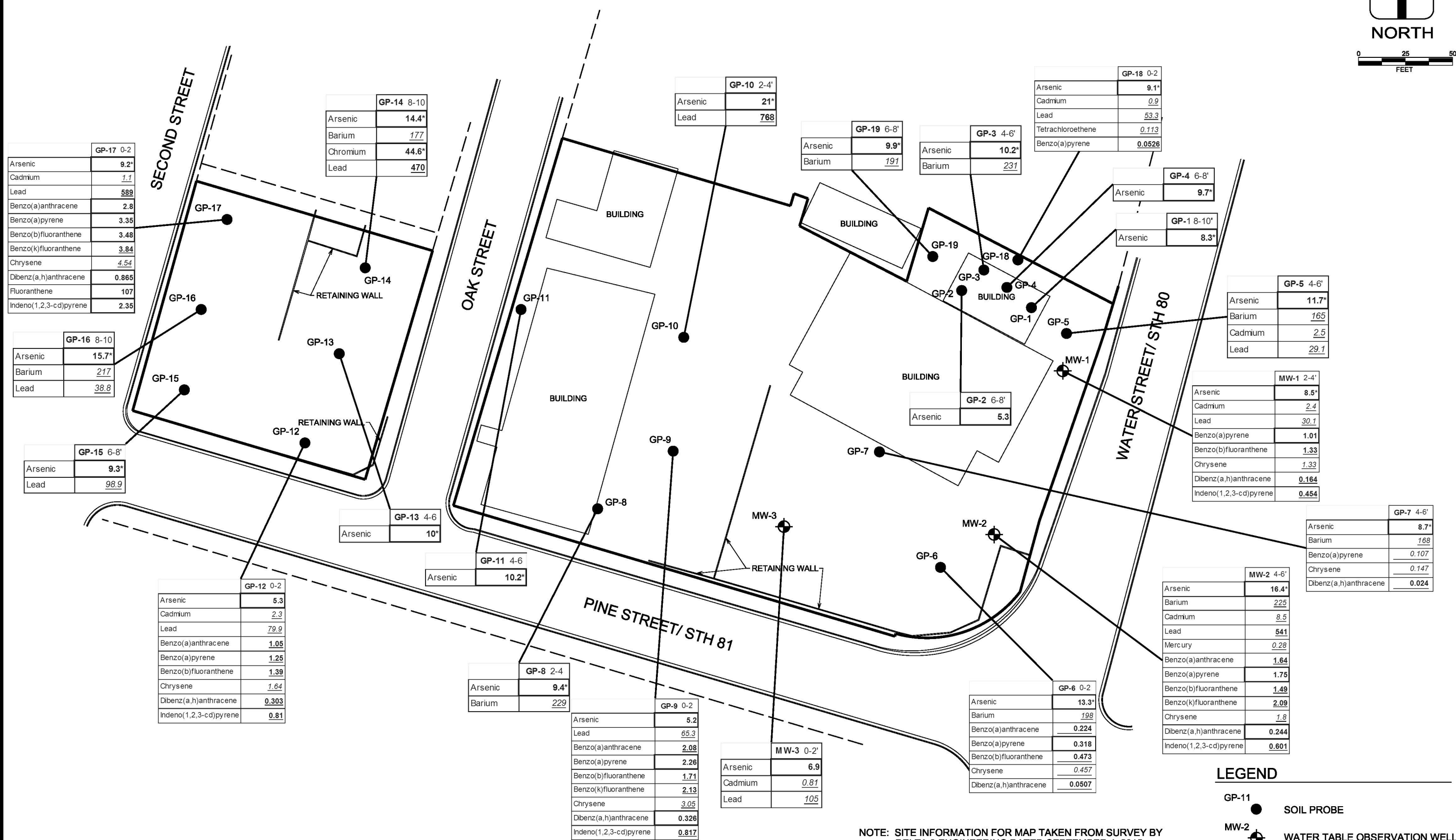


SUMMARY OF ANALYTE EXCEEDANCES IN GROUND WATER





NORTH



GP-17 0-2'	
Arsenic	9.2*
Cadmium	1.1
Lead	589
Benzo(a)anthracene	2.8
Benzo(a)pyrene	3.35
Benzo(b)fluoranthene	3.48
Benzo(k)fluoranthene	3.84
Chrysene	4.54
Dibenz(a,h)anthracene	0.865
Fluoranthene	107
Indeno(1,2,3-cd)pyrene	2.35

GP-14 8-10'	
Arsenic	14.4*
Barium	177
Chromium	44.6*
Lead	470

GP-10 2-4'	
Arsenic	21*
Lead	768

GP-19 6-8'	
Arsenic	9.9*
Barium	191

GP-3 4-6'	
Arsenic	10.2*
Barium	231

GP-18 0-2'	
Arsenic	9.1*
Cadmium	0.9
Lead	53.3
Tetrachloroethene	0.113
Benzo(a)pyrene	0.0526

GP-4 6-8'	
Arsenic	9.7*

GP-1 8-10'	
Arsenic	8.3*

GP-5 4-6'	
Arsenic	11.7*
Barium	165
Cadmium	2.5
Lead	29.1

GP-16 8-10'	
Arsenic	15.7*
Barium	217
Lead	38.8

GP-15 6-8'	
Arsenic	9.3*
Lead	98.9

GP-12 0-2'	
Arsenic	5.3
Cadmium	2.3
Lead	79.9
Benzo(a)anthracene	1.05
Benzo(a)pyrene	1.25
Benzo(b)fluoranthene	1.39
Chrysene	1.64
Dibenz(a,h)anthracene	0.303
Indeno(1,2,3-cd)pyrene	0.81

GP-13 4-6'	
Arsenic	10*

GP-11 4-6'	
Arsenic	10.2*

GP-8 2-4'	
Arsenic	9.4*
Barium	229

GP-9 0-2'	
Arsenic	5.2
Lead	65.3
Benzo(a)anthracene	2.08
Benzo(a)pyrene	2.26
Benzo(b)fluoranthene	1.71
Benzo(k)fluoranthene	2.13
Chrysene	3.05
Dibenz(a,h)anthracene	0.326
Indeno(1,2,3-cd)pyrene	0.817

MW-3 0-2'	
Arsenic	6.9
Cadmium	0.81
Lead	105

GP-6 0-2'	
Arsenic	13.3*
Barium	198
Benzo(a)anthracene	0.224
Benzo(a)pyrene	0.318
Benzo(b)fluoranthene	0.473
Chrysene	0.457
Dibenz(a,h)anthracene	0.0507

MW-1 2-4'	
Arsenic	8.5*
Cadmium	2.4
Lead	30.1
Benzo(a)pyrene	1.01
Benzo(b)fluoranthene	1.33
Chrysene	1.33
Dibenz(a,h)anthracene	0.164
Indeno(1,2,3-cd)pyrene	0.454

GP-7 4-6'	
Arsenic	8.7*
Barium	168
Benzo(a)pyrene	0.107
Chrysene	0.147
Dibenz(a,h)anthracene	0.024

MW-2 4-6'	
Arsenic	16.4*
Barium	225
Cadmium	8.5
Lead	541
Mercury	0.28
Benzo(a)anthracene	1.64
Benzo(a)pyrene	1.75
Benzo(b)fluoranthene	1.49
Benzo(k)fluoranthene	2.09
Chrysene	1.8
Dibenz(a,h)anthracene	0.244
Indeno(1,2,3-cd)pyrene	0.601

LEGEND

- GP-11 ● SOIL PROBE
- MW-2 ◉ WATER TABLE OBSERVATION WELL

NOTE: SITE INFORMATION FOR MAP TAKEN FROM SURVEY BY DELTA 3 ENGINEERING DATED SEPTEMBER 4, 2015

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DES BY	BOOK NO	DR BY	JOB NO	CHK BY	DATE	NO	DATE	REVISION	NO	DATE	REVISION
T. GAJECK		T. SHUPERT	19-0538.10	T. GAJECK	OCTOBER 2015						

FORMER PIONEER FORD PROPERTIES  
50 & 70 S. WATER ST., 45 & 75 S. OAK ST., AND 85 2ND ST.  
PLATTEVILLE, WISCONSIN



SUMMARY OF ANALYTE EXCEEDANCES IN SOIL

## **Tables**

Table 1  
Pioneer Ford  
50 & 70 S. Water St., 45 & 75 S. Oak St., and 85 2nd St., Platteville, WI  
Groundwater Elevation Data  
August 2015, September 2017, and December 2017

WELL ID	TOP OF CASING ELEVATION <sup>1</sup>	8/17/2015		9/28/2017		12/29/2017	
		DEPTH TO WATER (ft)	GW ELEVATION	DEPTH TO WATER (ft)	GW ELEVATION	DEPTH TO WATER (ft)	GW ELEVATION
MW-1	940.89	10.28	930.61	8.66	932.23	9.70	931.19
MW-2	936.73	10.81	925.92	9.18	927.55	9.85	926.88
MW-3	937.99	8.31	929.68	5.72	932.27	7.17	930.82

Note:

<sup>1</sup> All wells surveyed to USGS datum on 8/17/15. Wells surveyed to top of PVC casing.  
Bench mark is top nut of hydrant located at the corner of Main and Oak Streets (977.38 ft msl)  
MW-3 flush mount observed to have been heaved down on 9/28/17 sampling.

**Table 2**  
**Pioneer Ford**  
**50 & 70 S. Water St., 45 & 75 S. Oak St., and 85 2nd St., Platteville, WI**  
**Groundwater Laboratory Analytical Table**  
**August 2015, September 2017, and December 2017**

Well Number	MW-1			MW-2			MW-3			Trip Blank			NR 140	
	8/17/2015	9/28/2017	12/29/2017	8/17/2015	9/28/2017	12/29/2017	8/17/2015	9/28/2017	12/29/2017	8/17/2015	9/28/2017	12/29/2017	Groundwater Standards	
Date													ES	PAL
<b>RCRA Metals (dissolved)</b>														
	<b>Analytical Result (µg/L)</b>													
Dissolved Arsenic	<7.2	<17.2	<8.3	<7.2	<17.2	<8.3	<7.2	<17.2	<8.3	---	---	---	10	1
Dissolved Barium	46.4	30.5	42.8	49.5	47.7	52.9	213	130	107	---	---	---	2,000	400
Dissolved Cadmium	<0.6	<b>1.6</b>	<b>&lt;1.3</b>	<b>9.3</b>	<b>10.8</b>	<b>12.2</b>	<0.6	<1.5	<1.3	---	---	---	5	0.5
Dissolved Chromium	<2.1	<1.7	<2.5	<2.1	<1.7	<2.5	<2.1	<1.7	<2.5	---	---	---	100	10
Dissolved Lead	<b>3.7</b>	<10.0	<b>16.0</b>	<3	<10.0	<4.3	<b>7.2</b>	<10.0	<b>4.8 J</b>	---	---	---	15	1.5
Dissolved Mercury	<0.1	<0.21	<0.13	<0.1	<0.21	<0.13	<0.1	<0.21	<0.13	---	---	---	2	0.2
Dissolved Selenium	<6.7	<21.4	<16.6	<6.7	<21.4	<16.6	<6.7	<21.4	<16.6	---	---	---	50	10
Dissolved Silver	<2.7	<0.89	<3.3	<2.7	<0.89	<3.3	<2.7	<0.89	<3.3	---	---	---	50	10
<b>Volatile Organic Compounds</b>														
	<b>Analytical Result (µg/L)</b>													
2-butanone (MEK)	---	<5.0	---	---	<5.0	---	---	41.4	---	---	<5.0	---	4,000	800
Benzene	<b>1.2</b>	<1.0	<0.50	<0.5	<1.0	<0.50	<b>3.4</b>	<1.0	<0.50	<0.5	<1.0	<0.50	5	0.5
Ethylbenzene	0.66	<1.0	<0.50	<0.5	<1.0	<0.50	5	5.3	2.1	<0.5	<1.0	<0.50	700	140
Isopropylbenzene	<0.14	<1.0	<0.14	<0.14	<1.0	<0.14	3	4.2	1.5	<0.14	<1.0	<0.14	ns	ns
Methyl tert-butyl ether (MtBE)	0.51	<1.0	0.22 J	1.8	2.3	2.9	<0.17	<1.0	<0.17	<0.17	<1.0	<0.17	60	12
n-Propylbenzene	<0.5	<1.0	<0.50	<0.5	<1.0	<0.50	2.5	5.3	2.7	<0.5	<1.0	<0.50	ns	ns
p-Isopropyltoluene	1.2	<1.0	<0.50	<0.5	<1.0	<0.50	<0.5	<1.0	<0.50	<0.5	<1.0	<0.50	ns	ns
sec-Butylbenzene	<2.2	<1.0	<0.50	<2.2	<1.0	<2.2	2.9	5.0	<2.2	<2.2	<1.0	<2.2	ns	ns
Toluene	2.5	<1.0	<0.50	<0.5	<1.0	<0.50	<0.5	<1.0	<0.50	<0.5	<1.0	<0.50	800	160
1,2-Dichloroethane	<0.17	<1.0	<0.17	0.3	<1.0	<0.17	<0.17	<1.0	<0.17	<0.17	<1.0	<0.17	5	0.5
Tetrachloroethene (PCE)	<0.5	<1.0	<0.50	<b>0.89</b>	<b>7.2</b>	<b>2.2</b>	<0.5	<b>15.7</b>	<b>23.4</b>	<0.5	<1.0	<0.50	5	0.5
Trichloroethene (TCE)	0.33	<0.40	<0.33	0.42	<b>2.3</b>	<b>1.1</b>	<b>0.97</b>	<b>7.5</b>	<b>6.3</b>	<0.33	<0.40	<0.33	5	0.5
cis-1,2-Dichloroethene	<0.26	<1.0	<0.26	1.3	2.3	1.1	1.8	<b>14.4</b>	<b>8.3</b>	<0.26	<1.0	<0.26	70	7
vinyl chloride	<0.18	<0.20	<0.18	<0.18	<0.20	<0.18	<0.18	<b>3.7</b>	<b>3.1</b>	<0.18	<0.20	<0.18	0.2	0.02
n-butylbenzene	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	1.9	1.8	<0.50	<1.0	<0.50	ns	ns
<b>Polycyclic Aromatic Hydrocarbons</b>														
	<b>Analytical Result (µg/L)</b>													
1-Methylnaphthalene	0.024	---	---	<0.0028	---	---	0.087	---	---	---	---	---	ns	ns
2-Methylnaphthalene	0.02	---	---	<0.0025	---	---	0.0085	---	---	---	---	---	ns	ns
Acenaphthene	0.076	<0.023	---	<0.0045	<0.020	---	0.039	0.091	---	---	---	---	ns	ns
Acenaphthylene	0.056	<0.027	---	<0.0045	<0.023	---	0.012	<0.024	---	---	---	---	ns	ns
Anthracene	0.025	<0.032	---	<0.0036	<0.028	---	<0.0039	<0.028	---	---	---	---	3,000	600
Benzo(a)anthracene	0.048	<0.032	---	<0.0046	<0.027	---	<0.005	<0.028	---	---	---	---	ns	ns
Benzo(a)pyrene	<b>0.05</b>	<0.017	---	<0.004	<0.015	---	<0.0043	<0.015	---	---	---	---	0.2	0.02
Benzo(b)fluoranthene	<b>0.063</b>	<0.019	---	<0.0048	<0.017	---	<0.0052	<0.017	---	---	---	---	0.2	0.02
Benzo(g,h,i)perylene	0.038	<0.030	---	<0.0032	<0.027	---	<0.0034	<0.027	---	---	---	---	ns	ns
Benzo(k)fluoranthene	0.03	<0.020	---	<0.0051	<0.017	---	<0.0055	<0.017	---	---	---	---	ns	ns
Chrysene	<b>0.063</b>	<0.023	---	<0.0038	<0.020	---	<0.0041	<0.021	---	---	---	---	0.2	0.02
Dibenz(a,h)anthracene	0.0063	<0.043	---	<0.005	<0.038	---	<0.0054	<0.038	---	---	---	---	ns	ns
Fluoranthene	0.2	<0.029	---	<0.0085	<0.025	---	<0.0091	<0.026	---	---	---	---	400	80
Fluorene	0.1	<0.042	---	<0.0036	<0.036	---	0.024	0.075	---	---	---	---	400	80
Indeno(1,2,3-cd)pyrene	0.03	<0.015	---	<0.0032	<0.013	---	<0.0035	<0.013	---	---	---	---	ns	ns
Naphthalene	0.13	<0.030	---	0.0056	<0.026	---	0.16	0.21	---	---	---	---	100	10
Phenanthrene	0.27	<0.049	---	<0.0069	<0.031	---	0.017	<0.032	---	---	---	---	ns	ns
Pyrene	0.14	<0.034	---	<0.0069	<0.030	---	<0.0075	<0.030	---	---	---	---	250	50

Groundwater standards obtained from NR 140 Groundwater Quality, Table 1: Public Health Groundwater Quality Standards, February 2017

<b>BOLD</b>	Exceeds NR 140 Wisconsin Administrative Code Ground Water Enforcement Standard (ES)
<i>Italics</i>	Exceeds NR 140 Wisconsin Administrative Code Ground Water Preventive Action Limit (PAL)
ns	No NR 140 Wisconsin Administrative Code Ground Water Enforcement Standard (ES) established
---	Not Analyzed
ug/L	Concentration reported as micrograms per liter, equivalent to parts per billion (ppb).
	Table includes summary of VOC detections, see lab data sheets for complete list of analytes.

Prepared by: EG  
Checked by: BJP  
Approved by: BJP

**Table 3**  
**Pioneer Ford**  
**50 & 70 S. Water St., 45 & 75 S. Oak St., and 85 2nd St., Platteville, WI**  
**Summary of Soil Sample Laboratory Analytical Results**  
**August 2015**

Boring Number/Depth	CAS Number	Analytical Result (mg/kg)										Soil Standards (3/2017)		
		GP-1 8-10'	GP-2 6-8'	GP-3 4-6'	GP-4 6-8'	GP-5 4-6'	GP-6 0-2	GP-7 4-6'	GP-8 2-4	GP-9 0-2	GP-10 2-4'	Non-Industrial	Industrial	GW RCL <sup>2</sup>
Soil Type		CL	CL	CL	CL	CL	Fill	CL	Bedrock	SP	Bedrock			
<b>Metals</b>	<b>CAS Number</b>	<b>Analytical Result (mg/kg)</b>										<b>NR 720 DC RCL<sup>1</sup></b>		<b>GW RCL<sup>2</sup></b>
Arsenic	7440-38-2	<b>8.3*</b>	<b>5.3</b>	<b>10.2*</b>	<b>9.7*</b>	<b>11.7*</b>	<b>13.3*</b>	<b>8.7*</b>	<b>9.4*</b>	<b>5.2</b>	<b>21*</b>	0.677 (8)	3 (8)	0.584
Barium	7440-39-3	<b>194</b>	92.8	<b>231</b>	135	<b>165</b>	<b>198</b>	<b>168</b>	<b>229</b>	28.3	13.4	15300 (364)	100000 (364)	164.8
Cadmium	7440-43-9	0.16	0.085	0.15	0.1	<b>2.5</b>	<0.074	0.1	0.41	0.57	<b>3.3</b>	71.1 (1)	985 (1)	0.752
Chromium	7440-47-3	22.4	21.7	26.1	25.5	25.7	31.5	26.2	27.4	8.9	5.5	(44)	(44)	360,000, if no Cr-VI
Lead	7439-92-1	9.3	20.7	11.4	10.8	<b>29.1</b>	14.1	10.6	12.5	<b>65.3*</b>	<b>768*</b>	400 (52)	800 (52)	27
Mercury	7439-97-6	0.015	0.015	0.02	0.017	0.041	0.017	0.02	0.026	0.057	0.066	3.13	3.13	0.208
Selenium	7782-49-2	<0.93	<0.9	<0.87	<0.85	<0.95	<0.87	<0.86	<0.85	<0.79	<0.8	391	5,840	0.52
Silver	7440-22-4	<0.34	<0.33	<0.31	<0.31	<0.34	<0.31	<0.31	<0.31	<0.28	0.34	391	5,840	0.8491
<b>Volatile Organics</b>	<b>CAS Number</b>	<b>Analytical Result (mg/kg)</b>										<b>NR 720 DC RCL<sup>1</sup></b>		<b>GW RCL<sup>2</sup></b>
Naphthalene	91-20-3	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	5.52	24.1	0.6582
Tetrachloroethene	127-18-4	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	33	145	0.0045
<b>PAH</b>	<b>CAS Number</b>	<b>Analytical Result (mg/kg)</b>										<b>NR 720 DC RCL<sup>1</sup></b>		<b>GW RCL<sup>2</sup></b>
1-Methylnaphthalene	90-12-0	<0.0101	<0.0102	<0.0107	<0.0106	<0.0104	<0.0208	<0.0102	<0.0104	<0.18	<0.009	17.6	72.7	ns
2-Methylnaphthalene	91-57-6	<0.0101	<0.0102	<0.0107	<0.0106	<0.0104	<0.0208	<0.0102	<0.0104	<0.18	<0.009	239	3,010	ns
Acenaphthene	83-32-9	<0.0101	<0.0102	<0.0107	<0.0106	<0.0104	0.0262	0.0144	<0.0104	<0.18	<0.009	3,590	45,200	ns
Acenaphthylene	208-96-8	<0.0091	<0.0091	<0.0096	<0.0095	<0.0093	<0.0186	<0.0091	<0.0093	0.488	<0.0081	ns	ns	ns
Anthracene	120-12-7	<0.0105	<0.0106	<0.0111	<0.0111	<0.0108	0.0452	0.0209	<0.0108	1.02	<0.0094	17,900	100,000	196.9492
Benzo(a)anthracene	56-55-3	<0.007	<0.0071	<0.0074	<0.0073	<0.0072	0.224	0.0844	<0.0072	<b>2.08</b>	0.0067	1.14	20.8	ns
Benzo(a)pyrene	50-32-8	<0.0072	<0.0073	<0.0077	<0.0076	<0.0074	<b>0.318</b>	0.107	<0.0075	<b>2.26</b>	0.0085	0.115	2.11	0.47
Benzo(b)fluoranthene	205-99-2	<0.0101	<0.0102	<0.0107	<0.0106	<0.0104	0.473	0.112	<0.0104	<b>1.71</b>	0.0108	1.15	21.1	0.4793
Benzo(g,h,i)perylene	191-24-2	<0.0077	<0.0078	<0.0082	<0.008	<0.0079	0.147	0.0828	<0.008	0.947	<0.0069	ns	ns	ns
Benzo(k)fluoranthene	207-08-9	<0.0112	<0.0113	<0.0119	<0.0117	<0.0115	0.407	0.127	<0.0116	2.13	<0.01	11.5	211	ns
Chrysene	218-01-9	<0.0094	<0.0094	<0.0099	<0.0098	<0.0096	<b>0.457</b>	<b>0.147</b>	<0.0097	<b>3.05</b>	0.0116	115	2110	0.1446
Dibenz(a,h)anthracene	53-70-3	<0.0074	<0.0075	<0.0079	<0.0078	<0.0076	0.0507	0.024	<0.0077	<b>0.326</b>	<0.0066	0.115	2.11	ns
Fluoranthene	206-44-0	<0.0101	<0.0102	<0.0107	<0.0106	<0.0104	1.06	0.385	<0.0104	5.59	0.0241	2,390	30,100	88.8778
Fluorene	86-73-7	<0.0101	<0.0102	<0.0107	<0.0106	<0.0104	0.0295	0.0152	<0.0104	0.363	<0.009	2,390	30,100	14.8299
Indeno(1,2,3-cd)pyrene	193-39-5	<0.0077	<0.0077	<0.0081	<0.008	<0.0079	0.147	0.0738	<0.0079	0.817	<0.0069	1.15	21.1	ns
Naphthalene	91-20-3	<0.0101	<0.0102	<0.0107	<0.0106	<0.0104	<0.0208	<0.0102	<0.0104	<0.18	<0.009	5.52	24.1	0.6582
Phenanthrene	85-01-8	<0.0101	<0.0102	<0.0107	<0.0106	<0.0104	0.701	0.3	<0.0104	5.99	0.0168	ns	ns	ns
Pyrene	129-00-0	<0.0101	<0.0102	<0.0107	<0.0106	<0.0104	0.843	0.276	<0.0104	7.04	0.0192	1,790	22,600	54.5455
<b>Polychlorinated biphenyls (PCB)</b>		<b>Analytical Result (mg/Kg)</b>												
Aroclor-1016	--	--	--	--	--	--	--	--	--	--	--	4.11	28	0.0094
Aroclor-1221	--	--	--	--	--	--	--	--	--	--	--	0.213	0.883	0.0094
Aroclor-1232	--	--	--	--	--	--	--	--	--	--	--	0.19	0.792	0.0094
Aroclor-1242	--	--	--	--	--	--	--	--	--	--	--	0.235	0.972	0.0094
Aroclor-1248	--	--	--	--	--	--	--	--	--	--	--	0.236	0.975	0.0094
Aroclor-1254	--	--	--	--	--	--	--	--	--	--	--	0.239	0.988	0.0094
Aroclor-1260	--	--	--	--	--	--	--	--	--	--	--	0.243	1	0.0094
Total PCB	--	--	--	--	--	--	--	--	--	--	--	0.234	0.967	0.0094
<b>Cumulative (non-industrial)</b>														
No. of Individual Exceedances (DC)	0	0	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>2</b>	1.0	N/A	N/A	
Cumulative Hazard Index (DC)	0.0051	0.005	0.2975	0.2829	0.3772	0.405	0.2604	0.2749	0.3044	<b>2.5763</b>	1.0	N/A	N/A	
Cumulative Cancer Risk (DC)	1.6E-07	1.6E-07	<b>1.5E-05</b>	<b>1.4E-05</b>	<b>1.7E-05</b>	<b>2.4E-05</b>	<b>1.4E-05</b>	<b>1.4E-05</b>	<b>2.7E-05</b>	<b>3.1E-05</b>	1.0E-05	N/A	N/A	

**BOLD** Concentration exceeds NR 720 Wisconsin Administrative Code Residual Contaminant Level (RCL) for industrial direct contact.

**Italic** Concentration exceeds NR 720 Wisconsin Administrative Code Residual Contaminant Level (RCL) for non-industrial direct contact.

*Italics* Concentration exceeds NR 720 Wisconsin Administrative Code Protection of Groundwater Residual Contaminant Level (RCL).

• Concentration exceeds background threshold value

( ) Background threshold values are trace element maximum levels in Wisconsin surface soils from the USGS Report at: <http://pubs.usgs.gov/sir/2011/5202>.

ns No NR 720 Wisconsin Administrative Code Residual Contaminant Level (RCL) established.

-- Not Analyzed

< Concentration less than laboratory method detection limit.

mg/Kg Concentration reported as milligrams per kilogram, equivalent to parts per million (ppm).

<sup>1</sup>NR 720 Wisconsin Administrative Code Residual Contaminant Level (RCL)

<sup>2</sup>NR 720 Wisconsin Administrative Code Residual Contaminant Level (RCL) for protection of groundwater.

<sup>3</sup>Table includes summary of VOC analysis, see lab data sheets for complete list of analytes.

Prepared by: EG  
Checked by: BJP  
Approved by: BJP



**Table 4**  
**Pioneer Ford**  
**50 & 70 S. Water St., 45 & 75 S. Oak St., and 85 2nd St., Platteville, WI**  
**Sub-Slab Vapor Analytical Table**  
**September 2017 and December 2017**

Sample ID	VS-1	VS-2	VS-3	VP-1	VP-2	VP-3	Sub-Slab Soil VRSL (ug/m3)
Sample Date	9/28/2017	9/28/2017	9/28/2017	12/29/2017	12/29/2017	12/29/2017	
Chemical							
1,1,2-Trichlorotrifluoroethane	0.69 J	0.68 J	0.70 J	<0.51	<0.51	<0.51	1,733,333
1,2,4-Trimethylbenzene	2.4 J	1.8 J	1.7 J	35.0	9.5	11.7	243
1,3,5-Trimethylbenzene	1.4	1.3 J	1.2 J	9.7	2.8	3.3	NE
1,4-Dichlorobenzene	3.4	3.3	3.8	<0.30	<0.30	<0.30	87
2-Hexanone	27.6	5.2 J	0.92 J	4.9 J	<0.85	0.94 J	1,033
2-Butanone (MEK)	9.0	8.7	8.0	20.1	<0.28	8.4	173,333
2-Propanol	4.3	3.2 J	21.6	<1.7	<1.7	<1.7	7,000
4-Ethyltoluene	1.4	1.2 J	1.1 J	9.7	3.5	4.1	NE
4-Methyl-2-pentanone (MIBK)	<0.48	<0.49	<0.51	2.5 J	1.1 J	<0.49	100,000
Acetone	26.1	25.5	69.0	123	44	26	1,066,667
Benzene	1.9	2.6	1.4	6.0	9.8	5.8	120 *
Carbon disulfide	2.2	2.7	0.60 J	146	35.0	4.1	24,333
Chloroform	0.36 J	<0.32	<0.33	0.45 J	0.59 J	<0.32	40 *
Chloromethane	<0.18	<0.19	<0.19	<0.19	0.36 J	0.90	3,100
cis-1,2-Dichloroethene	<0.46	<0.47	<0.49	<0.47	5.9	<0.47	NE
Cyclohexane	1.3	9.6	<0.33	22.1	<0.32	13.8	210,000
Dichlorodifluoromethane	<0.56	<0.58	<0.60	2.0	1.8	1.7	3,300
Ethanol	22.3	20.1	21.9	46.3	<0.65	5.8	NE
Ethyl acetate	<0.26	<0.27	<0.28	0.77 J	<0.27	<0.27	2,400
Ethylbenzene	2.3	2.5	2.4	14.3	7.8	8.4	367 *
Methylene Chloride	<2.0	<2.1	<2.2	23.5	<2.1	2.8 J	
Naphthalene	1.9 J	<0.83	<0.86	3.9	<0.83	3.1 J	28 *
Propylene	<0.21	<0.22	<0.23	<0.22	<0.22	39.3	100,000
Styrene	1.7	1.6	1.9	0.92 J	<0.23	<0.23	33,333
Tetrachloroethene	145	218	16.1	0.81 J	238	5.3	1,400 *
Toluene	21.1	23.5	18.6	29.0	23.9	20.9	173,333
Trichloroethene	1.3	0.77	<0.39	<0.37	116.0	<0.37	160
Trichlorofluoromethane	1.5	1.5 J	1.4 J	0.81 J	<0.58	1.1 J	NE
Vinyl acetate	0.60 J	<0.22	1.2	<0.23	<0.23	<0.23	70,000 *
m&p-Xylene	9.9	10.7	9.3	44.0	21.1	27.7	3,333
n-Heptane	0.80 J	2.7	0.91 J	26.5	247.0	15.0	NE
n-Hexane	<0.45	6.9	2.0	42.3	436.0	21.4	24,333
o-Xylene	3.0	3.2	2.8	19.5	8.5	9.6	3,333

Residential Air Screening Levels obtained from US EPA Regional Screening Level Table, November 2011;

Sub-slab WI Soil VRSLs were calculated using a sub-slab to indoor air attenuation factor of 0.03,

THQ of 1.0, and a 1x10<sup>-6</sup> excess lifetime cancer risk for carcinogens.

Refer to the "WI Quick Look-up Table for VALs and VRSL" document by the WDNR for method of VRSL calculation

- BOLD** exceeds sub-slab soil gas screening levels
- NE screening level not established
- < Concentration less than laboratory method detection limit.
- J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- VAL Vapor Action Level
- VRSL Vapor Risk Screening Level
- \* Indicating a carcinogen according to the US EPA Regional Screening Level Table, May 2016

Prepared by: EG  
Checked by: BJP  
Approved by: BJP