Materials Management Plan and Chapter NR 718 Exemption, C. Reiss Coal Dock Property

Superior, Wisconsin

WDNR BRRTS # 02-16-589248
Facility ID # 816130810

July 6, 2022

Prepared for:

C. Reiss Company, LLC
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Stantec

MATERIALS MANAGEMENT PLAN AND CHAPTER NR 718 EXEMPTION, C. REISS COAL DOCK PROPERTY, SUPERIOR, WISCONSIN

July 6, 2022

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1.0 OVERVIEW

This document was prepared by Stantec Consulting Services Inc. (Stantec) on behalf of C. Reiss Company, LLC ("C. Reiss" also referenced as the Developer) and presents a Materials Management Plan (MMP) and a Chapter NR 718 Wisconsin Administrative Code (WAC) Exemption request (Section 3.0) for future soil and sediment management activities to be completed as part of redevelopment activities on the C. Reiss Coal Dock property in Superior, Wisconsin (herein referred to as the "Site" or "Property"). This document was prepared to outline proposed redevelopment of the Property for industrial reuse. The general Property location is illustrated on **Figure 1**. Site layout and investigative features are illustrated on **Figure 2**.

The Property, currently owned by C. Reiss, consists of a vacant, former industrial dock parcel (Parcel Identification Number 048040101400). No buildings currently exist on the Property. The northern portion of the Property serves as access to the west-adjoining dock slip and is primarily surfaced with concrete panels that are approximately four inches thick, eight feet long and eight feet wide. The metal remnants of a former aboveground oil-water separator tank enclosed within a chain link fence along with two, eight-inch buried/inactive petroleum pipelines are present east of the south end of the dock slip. The pipelines travel from this area to the east-adjoining property. The southern portion of the Property generally consists of wooded areas and wetlands, with a deteriorating access road along the western Property boundary. Former dock operations included petroleum product and open-air coal storage and transloading, and coal briquet manufacturing from the late 19th Century through the late 20th Century. Surrounding properties are mainly industrial in use.

Soil contamination resulting from past petroleum release(s) and the presence of industrial fill in surficial soils is documented at an existing, open Bureau for Remediation and Redevelopment Tracking System (BRRTS) case on the Property (03-16-000320 MURPHY MARINE TERMINAL), with multiple BRRTS cases present at the east-adjoining property that have been documented as impacting soil and/or groundwater at the Property. These include:

- 02-16-297977 AMOCO OIL BARGE DOCK - FMR BARGE DOCK (closed),
- 02-16-297979 AMOCO BARGE DOCK - OW SEPARATOR & LOAD RACK (open), and
- 02-16-117873 AMOCO BARGE DOCK - MANIFOLD & AST AREA (open).

Stantec conducted sediment characterization and limited soil investigation activities at the Property in December 2021 to evaluate soil quality in a small area of future Property development. Soil investigation results were documented in a letter titled "*Summary of Limited Soil Investigation, C. Reiss Coal dock Property, Superior, Wisconsin*" dated February 15, 2022 (Stantec, 2022a) and submitted to the Wisconsin Department of Natural Resources (WDNR). Following receipt of the soil investigation results, the WDNR assigned the current BRRTS case to the Property (02-16-589248 C REISS COAL DOCK PROPERTY). Stantec conducted additional soil investigation and waste characterization activities at the Property in May 2022. The results of the May 2022 investigation are summarized in Section 3.0 and detailed further in the "*May 2022 Site Investigation"* report (Stantec, 2022b). Historical environmental investigation data for the Property along with the data generated during the December 2021 and May 2022 investigation activities will be used to guide the management, redeposition, disposal of, and/or capping of excavated soil and other materials during redevelopment activities at the Property. A map illustrating the sample locations and main features of the Property is provided as **Figure 2**. Tabulated December 2021 and May 2022 data are provided in **Table 1** through **Table 7**.

The Developer plans to reestablish industrial bulk material handling operations at the Property by installing infrastructure for shipments by truck and rail as well as dock wall rehabilitation and sediment dredging. The redevelopment will consist of constructing an office building, storage and maintenance building, parking lot, truck scale, railroad, rail yard, rail scale, access roads, soil berms, drainage swale, temporary diversion berm, stormwater retention pond, and a perimeter fence. The project is anticipated to start in September 2022 and be completed in July 2023. Site redevelopment plans are included as **Attachment A**.

In order to facilitate overall redevelopment of the Site, onsite management of contaminated dredged sediment

containing polynuclear aromatic hydrocarbons (PAHs) and soils containing PAHs, Resource Conservation and Recovery Act (RCRA) metals, and/or low levels of petroleum volatile organic compounds (PVOCs) is proposed in compliance with Chapter NR 718 WAC (NR 718) requirements. Although not anticipated, any excavated soil not re-used onsite will be disposed of at a licensed solid waste disposal facility. To address a potential direct contact concern, a cap will be placed over those portions of the Property that contain contaminated soil and/or sediment to protect public health and the environment using WDNR RR-709 “Guidance for Cover Systems as Soil Performance Standard Remedies”. Further information regarding the contaminants identified at the Site and the proposed MMP is provided in Section 2.0.

2.0 MATERIAL MANAGEMENT PLAN

This MMP has been developed to manage soil and sediment within the Property boundaries in a manner that does not expand the current limits of contamination, exacerbate existing groundwater contamination risks, or create new risks such as a direct contact risk. Proposed material handling and placement procedures will meet environmental closure requirements of Chapter NR 726.13(b) WAC and shall not pose an unacceptable threat to public health, safety, welfare or the environment.

2.1 SOIL AND SEDIMENT QUALITY

Black granular fill material was encountered across the entire Property and was identified to contain RCRA metals and/or PAHs at concentrations exceeding their respective Chapter NR720 WAC (NR720) industrial direct contact (IDC) residual contaminant levels (RCLs). The depth of the identified black granular fill varies across the Property but extends from the ground surface to approximately three feet below grade (fbg) on average with a maximum depth exceeding 12 fbg in the area of soil boring STN5 (refer to **Figure 2**). Fill consisting of red sandy soils was identified to underlie the black granular fill on the northern portion of the Property in the footprint of the dock. Native clay soils underlie the black granular fill on the southern portion of the Property. Native fine sand soils underlie the red sandy fill on the northern portion of the Property. Based on the results of samples collected during the December 2021 and May 2022 investigation activities, native clay soils were not identified as being impacted with contaminant concentrations exceeding NR720 RCLs (Stantec, 2022a,b).

No VOC constituents were detected in fill or native soils as part of the December 2021 sampling event. PVOC constituents were detected at concentrations greater than their respective NR720 groundwater protection (GW) RCLs in two samples at the Property (STN2 and STN16; **Figure 2**) collected in May 2022. No other fill or native soils screened/sampled elsewhere on the Property were detected to have VOC impacts exceeding a RCL in May 2022. PVOC impacts to soil are limited in extent and are attributed to documented petroleum releases associated with the east-adjoining property.

Historical groundwater investigation activities associated with the Amoco BRRTS cases listed in Section 1.0 identified PVOC-impacted groundwater exceeding the ch. NR140 WAC (NR140) Enforcement Standard (ES) and petroleum light non-aqueous phase liquid (LNAPL) extending in what has been termed a “finger plume” onto the southern and central portions of the Property. The most recent groundwater and LNAPL monitoring events performed in 2021 in association with the Amoco BRRTS cases and illustrations of impact extents can be found in the Antea® Group (Antea) “*2021 Progress Report”* (Antea, 2022).

Sediment samples were collected from the southern and eastern portions of the slip during previous site investigation activities performed by others between 2015 and 2020. The sediment was identified to be impacted with PAHs exceeding the threshold effect concentration (TEC), midpoint effects concentration (MEC) and/or probable effects concentration (PEC) as defined in the Recommended Sediment Quality Guidelines provided in Table 2 and Table 4 of the “*Consensus-Based Sediment Quality Guidelines, Recommendations for Use and Application*” Publication RR-088 (WDNR, 2003). In addition, the sediment was identified to be toxic for benthic organisms and contributing to beneficial use impairments (BUIs) for the slip. Stantec collected nine sediment samples in December 2021 which were consistent with historical sediment sample results and were reported to have low to moderate levels of PAHs exceeding the TEC, MEC, and/or PEC. Sediment collected from sediment core SED3 (**Figure 2**) identified select PAHs at concentrations exceeding their respective NR720 GW and/or non-industrial direct contact (NIDC) RCLs. A summary of sediment sampling performed to date on the east and southern portions of the slip are documented in the WDNR “*Beneficial Use Impairments Related to Sediment Contamination in the Hallet Dock No. 8 / C. Reiss Coal Slip, St Louis River Area of Concern (AOC), Superior, Wisconsin”* memorandum dated February 23, 2022 (WDNR, 2022).

2.2 MATERIAL MOVEMENT AND MANAGEMENT

All excavated material will either remain onsite and be covered with an engineered surface barrier or transported offsite for proper disposal at a licensed landfill if needed. Planned excavation and/or dredging activities are

anticipated to be ongoing during the redevelopment between September 2022 and July 2023. MMU1 and the three smaller soil berms are planned to be capped concurrently as the soil/sediment is added and the grading plan specifications are met to prevent leaching of contaminations to the underlying groundwater. The current grading plan is included in **Attachment A**. A map illustrating the proposed extent of the post-construction Site cover system is provided as **Figure 4**.

Excavation activities associated with redevelopment will include, but are not limited to, sitewide grading, building foundations, utility trenches, railroad corridors, a stormwater retention pond, and a drainage swale. A total of approximately 99,000 cubic yards (CY) of soil/fill is anticipated to be excavated. Based on the identified extent of contamination, approximately 44,000 CY of PAH and/or RCRA metal impacted fill/soil is anticipated to be excavated and managed on the Property. The depth of excavation will generally range between one an eight fbg across the Property. The excavated depth will be deeper in specific locations to facilitate the construction and/or the installation of the utility trenches, proposed railroad, and stormwater retention pond. The maximum excavation depth is anticipated to be 20.9 fbg on the Property associated with the stormwater retention pond. A map illustrating the anticipated depth and extent of excavation is provided as **Figures 3a through 3c**.

A total of approximately 42,500 CY of sediment is anticipated to be dredged form the adjoining dock slip. Based on the depth of contamination provided by the WDNR and identified by the sediment sampling activities (0 to 6 feet), the total amount of contaminated sediment contributing to BUIs proposed to be dredged from the dock slip is approximately 21,250 CY (WDNR, 2022). The remaining 21,250 CY of sediment planned to be dredged is located deeper than the identified contaminated interval and is not considered to be contributing to the BUIs. Dredging the additional 17,500 CY of sediment is necessary to facilitate the development of the dock slip for industrial bulk material handling operations. Dredging activities will primarily take place along the entire length of the eastern portion of the dock slip. The depth of dredging will generally range between 0 and 12 feet beneath the current sediment surface, to achieve a navigational depth of 27 feet throughout the dock slip. A map illustrating the anticipated depth and extent of dredging is provided in **Attachment A**.

RCRA metal and PAH-impacted fill above direct contact standards is anticipated to be excavated during construction activities across the entire Property. The LNAPL “finger plume” present on the southern portion of the Property was generally encountered 12 fbg or deeper and was measured to range in thickness from 0.02 and 7.27 feet in 2021. The depth of excavation in the area of the LNAPL plume is not anticipated to extend to the measured depth of the LNAPL plume. Therefore, LNAPL is not anticipated to be encountered during excavation activities. The remnants of the former aboveground oil-water separator tank, chain link fence, and the two, eight-inch buried/inactive petroleum pipelines will be properly abandoned and transported offsite for proper disposal during development activities.

Dredged sediments and excavated contaminated soils associated with the stormwater pond, building foundations, and utility trenches will generally be placed within the large soil berm in the center of the Property (herein referred to as Material Management Unit 1 “MMU 1”). Excavated soils associated with the railroad cut are planned to be reused within the proposed railroad line and placed no deeper than the depth they were excavated from. Excess impacted soils associated with the redevelopment unable to be reused within the proposed railroad line or MMU1 are planned to be placed within the three smaller soil berms proposed on the southern portion of the Property (refer to **Figure 4**).

Significant dewatering is not anticipated at this time. Excess water associated with the dredged sediment and the formation of MMU1 is planned to be dewatered via gravity and routed to the stormwater pond onsite through the construction of a temporary diversion berm and pumping if needed. Appropriate erosion control measures will be put in place and appropriate permits obtained prior to site activities. The current erosion control plan is included in **Attachment A** (Sheets C1.00 through C1.06**)**. As practicable, the weather forecast shall be used to schedule activities to minimize the potential for significant stormwater accumulation. However, potentially impacted groundwater and/or stormwater may accumulate in areas requiring removal. Removal and disposal requirements will be determined in the future but may include discharge to the sanitary sewer after approval from the City of Superior or removal via vacuum truck and offsite disposal at an approved treatment facility.

Construction contractors will be responsible to implement and use best management practices for minimizing tracking of soil offsite in compliance with the erosion control plan developed as part of the design specifications. Dust suppression methods will also be utilized as required by the erosion control plan. Site-specific health and

safety plans will be developed by each contractor and consulting firm working at the Site, as applicable to protect Site workers.

Though not anticipated, material excavated from the Site that cannot be reused onsite will be transported offsite for appropriate disposal upon acceptance by a landfill. Excavated materials will be monitored for the presence of:

- Strong or unusual odors;
- Unusual soil discoloration not previously noted;
- Change in soil conditions not previously noted; and
- Other solid waste (e.g. debris, tires, etc.).

If any of the above or other suspect materials are unexpectedly identified during excavation operations, excavation in this area will be suspended until the materials encountered are evaluated for proper management methods. The Site representative or designee of the developer will evaluate unusual situations on a case-by-case basis to determine the appropriate alternative response required. In each situation, the Site representative or designee of the Developer will direct the contractor on proper disposal or relocation of the regulated material. The protocol when such unusual or changed conditions arise is as follows:

1. If the material encountered is unplanned or unexpected, stop work immediately within the general area of the discovery until directed otherwise by the Site representative or designee. The contractors may continue working in a different area if one is available.
2. Notify Stu Gross, Senior Project Manager - Stantec, immediately at (262) 643-9159, or stu.gross@stantec.com.
3. The Site representative or designee will document the location where the discovery was made, the waste material type, volume, and characteristics.
4. As directed by the Site representative or designee, the contractor shall temporarily stockpile the waste material. Depending on the materials encountered, special precautions such as encapsulation of stockpiled materials in plastic may be required.
5. Stantec will develop a plan for more permanent remediation or management of the newly discovered waste material including materials handling alternatives, staging requirements, additional sampling and analyses, and additional waste characterization profiling for disposal and/or reuse. The contractors shall have, and understand, the plan prior to continuing work in the affected area.
6. Stantec or its designee will complete the required additional notifications to WDNR, if warranted, and direct contractors in the loading, manifesting, and transport if offsite disposal is required.

These records will be accumulated throughout the duration of the construction project and will be incorporated into the post-construction documentation.

2.3 GRADING PLAN

Dredged sediment and soil originating from excavation activities associated with installation of utilities, construction of the building foundation system, proposed railroad, stormwater pond, drainage swale, and overall Site cuts will be excavated and beneficially reused onsite. The grading plan present in **Attachment A** illustrates the redistribution of soil and sediment onsite.

Dredged sediment following the initial gravity dewatering process and fill material with identified RCRA metal and/or PAH contamination will be preferentially placed underneath the site cover system to be installed and maintained as part of redevelopment activities. Specifically, the contaminated sediment and soil/fill will preferentially be placed beneath MMU1 and the contaminated fill associated with the railroad cut be placed within the proposed railroad line. Excavated material associated with the railroad cut may be reused within the proposed rail alignment but will not be placed deeper than the depth it was excavated from. Once MMU1 is at capacity, excess soil/fill will be placed within the three smaller soil berms on the southern portion of the Property (**Figure 4**).

Although not anticipated, excess contaminated soil/fill unable to be placed within MMU1, the railroad, or the three smaller soil berms may be placed beneath areas of the proposed buildings, parking lots, and other landscaped portions of the Site to ultimately be managed beneath the engineered barrier. A map illustrating the anticipated depth and extent of excavation and the planned placement of excavated soils is provided as **Figures 3a through 3f**. Residual contaminated soil and dredged sediment on the Property will be capped by pavement/impermeable surfaces or a minimum 18-inch soil cap. Engineered barrier features are discussed in Section 2.9 and illustrated on **Figure 4**. Positive drainage and storm water controls will minimize surface water infiltration and erosion, maintaining the integrity of the engineered barrier.

2.4 SEDIMENT DEWATERING & CONTROLS

Dredged sediment from the west-adjoining dock slip will be offloaded onto the Property and staged in an area north of the planned stormwater pond and allowed to gravity dewater prior to being placed within MMU1 (refer to **Attachment A**). A temporary diversion berm will be constructed in accordance with WDNR technical standard 1066 around MMU1 to prevent the migration of contaminated runoff water to the existing wetlands onsite. The runoff water originating from MMU1 and the water generated from the gravity dewatering of the dredged sediment will be routed to the stormwater pond onsite via gravity and/or pumping. The grading plan, erosion control plan, and other pertinent redevelopment plans for the Site are provided in **Attachment A**.

2.5 OFFSITE DISPOSAL OF CONTAMINATED MATERIALS

Although not anticipated, excess impacted soil not suitable for reuse will be disposed of offsite at a licensed landfill. Two composited waste characterization samples were collected in May 2022 to profile the material for potential offsite disposal (Stantec, 2022b). Tabulated waste characterization results are included on **Table 7**. Laboratory analytical results indicate that the waste characterization samples did not have constituents at concentrations exceeding EPA toxicity characteristic leaching procedure (TCLP) regulatory limits. No excavated soil will be transported on or across any roadways unless being transported under manifest to a licensed landfill or other WDNR-approved disposal facility. Although not anticipated to be encountered, LNAPL and/or PVOC impacted groundwater exceeding the NR140 ES will be pumped via vacuum truck and transported offsite for proper treatment.

2.6 EXCAVATION BACKFILL

Excavations will generally be filled with soil currently on the Property. Soil beneficially reused as backfill will not be placed deeper than the depth of which it was excavated from. Gravel soils will be transported from an offsite source to meet the proposed road design specifications. Utility trenches underneath the proposed roadway will be filled with washed stone sourced from an offsite source per design specifications. Sub ballast and ballast stone will be transported from an offsite source as part of the proposed railroad construction.

2.7 CONSTRUCTION OBSERVATION

During active excavation, a representative of the Developer will be onsite and monitor site activities. Stantec personnel may be present to monitor grading activities as they occur and would observe these activities to document that contaminated soil and dredged sediment are being handled and moved as proposed in the material management plan. Construction observation and documentation of approved onsite management of contaminated soil and dredged sediment, proper handling and disposal of solid wastes, and engineered surface barrier construction will be conducted. Stantec will prepare a construction documentation report that documents soil management and construction activities associated with this redevelopment (refer to Section 2.10).

2.8 ENVIRONMENTAL MONITORING

Existing groundwater monitoring wells within the footprint of development on the Property will be abandoned by Antea in accordance with Chapter NR 141 WAC prior to construction. Since all existing soil is planned to remain onsite, no additional sampling is planned during redevelopment activities. Excavated soil at the Property will be monitored for strong or unusual odors, unusual soil discoloration not previously noted, change in soil

conditions not previously noted, and other solid waste (e.g. debris, tires, etc.).

2.9 ENGINEERED SURFACE BARRIER

Redevelopment of the Site will require permanent engineering controls in the form of building slabs, paved areas, railroad ballast, gravel access roads, and/or clean soil cap (including native grass seeding) on the southern portion of the Property that will remain in place following redevelopment. The proposed railroad will be capped with at least 12 inches of impermeable compacted sub-ballast stone topped by nine inches of ballast stone. The goal of the Site cover system is to prevent direct contact with contaminated soil and prevent migration of contaminants to groundwater via infiltration. Therefore, the cap will be placed on top of materials with residual contamination exceeding NR720 RCLs and will not extend onto the existing wetlands on the Property.

In landscaped areas on the southern portion of the Property including MMU1 and the three small soil berms, the cap will consist of a minimum of 15 inches of clay topped by at least 3 inches of imported topsoil for planting with a native grass seed mix. The clay will be sourced from the native clay soils on the Property encountered during excavation activities as part of redevelopment, which have been demonstrated to have no VOC, PAH or RCRA metal detections at concentrations exceeding NR720 RCLs (Stantec, 2022a,b). Topsoil will be seeded with a native tall grass prairie mix to reinforce and maintain the soil cap in these areas.

The anticipated use of the northern area is for industrial bulk material handling operations to be conducted by a minimal number of employees. Arsenic and/or benzo(a)pyrene were detected in select soil samples on the northern portion of the Property at concentrations exceeding their respective NR720 IDC RCLs. The extent of these contaminated soils is limited and excavation activities are not currently planned to occur on the northern portion of the Property. The northern portion of the Property is currently covered with concrete panels that are approximately four inches thick, eight feet long and eight feet wide; these panels will remain in place during and after redevelopment. The existing concrete panels along with the proposed gravel access road will prevent direct contact with contaminated soils exceeding the IDC RCL. A gated fence is proposed to be installed spanning the perimeter of the Site to further restrict access to the Property with exception to the proposed railroad spur. Due to the limited extent of contamination exceeding the IDC RCL, minimal occupancy, restricted access, and current surface covering, additional engineered surface barriers are not proposed to be installed on the northern portion of the Property.

The components and extents of the proposed Site cover system are illustrated on **Figure 4**.

2.10 CONSTRUCTION DOCUMENTATION REPORT

A report will be submitted following the completion of construction at the Property. Following construction activities, a Chapter NR 724 WAC construction documentation report that documents soil management and construction activities associated with this redevelopment. Documentation will be submitted to the WDNR after completion of grading activities and may include, but not necessarily limited to:

- Physical description of the waste(s) encountered;
- The general location of the waste within a specific excavation and/or throughout the project area;
- A description of the time and date when the discovery of an unusual or unsuspected waste was made; and
- An estimate of the amount of unusual waste removed and the interim and/or final disposition of the waste.

2.11 CONTINUING OBLIGATIONS

Institutional controls will provide future control of the direct contact pathway and provide a mechanism to maintain the integrity of the engineered barrier. Following construction, Stantec will develop a Cover System Maintenance Plan(s) that outlines the responsibilities associated with inspecting, maintaining, or disturbing the caps for the Site and submit for WDNR approval prior to case closure. Cover maintenance will be conducted as necessary post-construction.

The Site will be placed on the WDNR online GIS Registry for sites with residual soil and groundwater contamination and will have an approved cap maintenance plan which describes requirements for annual cap inspection and timely repair of any damaged/deteriorated areas.

3.0 NR 718 EXEMPTION REQUEST

3.1 PURPOSE OF REQUEST

The purpose of this NR 718 exemption request is to manage contaminated soil and sediment as part of redevelopment activities on the same response action site from which it was generated.

Note: This exemption request follows the format outlined in the WDNR "*Recommended Template for Request to Manage Materials under Wis. Admin. Code NR718.12 or NR718.15"* (WDNR Form 4400-315).

3.2 – APPLICABLE FEES

The review fee for the MMP submittal under NR 718 is $1000 for the Property. A $1000 check accompanies this submittal.

3.3 – PROPERTY AND CONTACT INFORMATION

Site Name:	C REISS COAL DOCK PROPERTY
BRRTS #s	#02-16-589248
FID #	#816130810
Address:	City of Superior, Douglas County, Wisconsin
Location:	East ½ of the Northeast ¼ of Section 16, and the East ½ of the Southeast ¼ of Section 09, Township 49 North, Range 14 West
Parcel ID:	048040101400
WTM Coordinates (center of parcel)	X Coordinate (WTM91): 357936.1 Y Coordinate (WTM91): 697633.7
Latitude/Longitude (center of parcel)	Latitude: 46.7325921 Longitude: -92.1211715
Current Zoning	W1 - Waterfront
Current Land Use	Vacant lot with wetlands and a concrete paneled dock

CONTACT INFORMATION

Contact information for entities associated with the Property are provided below:

RESPONSIBLE PARTY/DEVELOPER:
C. Reiss Company, LLC
111 West Mason Street
Green Bay, Wisconsin 54303
c/o Christian Zuidmulder, General Manager
Phone: (920) 436-7600
Email: Christian.Zuidmulder@Thecreiss.com

CONSULTANT:
Stantec Consulting Services Inc.
12075 Corporate Parkway, Suite 200
Mequon, Wisconsin 53092
Brian Lennie, Project Manager
Phone: (262) 643-9061
Email: Brian.Lennie@stantec.com

WDNR:
Wisconsin Department of Natural Resources
810 West Maple Street
Spooner, Wisconsin 54802-1255
Joseph Graham, Contaminated Sediments Specialist
Phone: (715) 292-4925
Email: Joseph.Graham@wisconsin.gov

3.4 WASTE CHARACTERISTICS

A. Enter the total volume of contaminated soil and/or other solid waste to be managed (cubic yards):

The total volume of approximately 99,000 CY of soil/fill and 42,500 CY of sediment is anticipated to be excavated/dredged and managed within the Property. Approximately 44,000 CY of the soil/fill anticipated to be excavated and managed within the Property is contaminated with RCRA metals and/or PAHs. The remaining 55,000 CY of soil/fill to be managed was not identified to be significantly contaminated during site investigation activities. Approximately 21,250 CY of the sediment anticipated to be dredged and managed on the Property is contaminated with PAHs and contributing to the BUIs in the adjoining dock slip. The remaining 21,250 CY of sediment planned to be dredged is located deeper than the identified contaminated interval and is not considered to be contributing to the BUIs. Dredging the additional 21,250 CY of sediment is necessary to facilitate the development of the dock slip for industrial bulk material handling operations. Materials will be managed in accordance with Section 2.0 of this submittal. The grading plan and other pertinent redevelopment plans are provided in **Attachment A** and **Figure 1 through Figure 4.**

B. Describe the characteristics of the material proposed to be managed, which may include general makeup, physical characteristics, the homogeneity of the material, the proportion of soil to other solid waste, and any other pertinent descriptors.

Fill containing sands, gravels, and/or black granular pieces of anthropogenic materials (i.e. coal pieces) was identified to underlie surface materials (i.e. concrete/topsoil/gravel) across the Property. The thickness of this fill unit ranged from 0.25 to 12 feet thick with an average thickness of 2.5 feet. Beneath this fill unit on the northern portion of the Property was a red-brown, non-native uniform sand, which was presumably used as the base of the imported material to the Property to construct the dock in 1907. Apparent native silts/sands were encountered between eight fbg on the southern end of the dock, to 12 fbg on the northern end of the dock. Native soils generally comprised of red-brown clay (and, to a lesser extent, silt and sand lenses) were identified to underlie the black anthropogenic fill on the southern portion of the Property. The native clay soils were encountered near the surface on the southernmost end of the Property and graded to a depth of eight fbg to the north in the area of the original shoreline prior to 1907. Further information pertaining to soil quality can be found in the Stantec reports summarizing the 2021 and 2022 sampling activities (Stantec, 2022a,b).

Approximately 0 to 4 feet of sandy fill containing coal pieces, wood, and organics was identified overlaying the sediment on the southern and eastern portions of the dock slip. Native sediment consisting of fine to coarse sand, silt, and clayey silt was observed underlying the fill from depths of three to eight feet (the maximum depth explored). Further information related to recent and historical sediment sampling is summarized in the WDNR 2022 memorandum (WDNR, 2022).

C. Describe the historic and current land use of the generating site or facility where the contaminated soil or other solid waste originates, including how this site or facility is zoned.

The Property is located in the east half of the northeast quarter of Section 16, and the east half of the southeast quarter of Section 09; Township 49 North, Range 14 West, Douglas County, Superior, Wisconsin and consists of one parcel (Parcel ID 048040101400), zoned “W1-Waterfront”, comprising approximately 53 acres. It is currently vacant and owned by C Reiss. The northern portion of the Property provides access to the west-adjoining dock slip and is primarily surfaced with concrete panels that previously supported historical dock shipping, handling and storage operations. The southern portion of the Property generally consists of forested land and wetlands, with a deteriorating access road along the western Property boundary. No buildings currently exist on the Property. The Property is bordered by the St Louis Bay to the north, active industrial dock properties to the west and east, and the Burlington Northern Santa Fe (BNSF) Railway right-of-way to the south. Further surrounding land uses are primarily industrial in nature.

The Property historically operated as an industrial dock with operations including petroleum product and open-air coal storage and transloading, and coal briquet manufacturing from the late 19th Century through the late 20th Century. The northern portion of the Property was originally part of the St Louis Bay and was subsequently filled in the early 1900’s to construct the present-day dock. The location of the historic Property shoreline is illustrated on **Figure 2**. The dock was used for open air coal storage and/or dry bulk goods receipt from 1907 through at least 2000. A building was constructed at the southern end of the dock slip in the late 1800’s, and

was used for a variety of industrial uses (charcoal plant, blast furnace, twine manufacturing) through the early 1900's. By 1912, the building was converted to a coal briquet manufacturing plant and operated through the 1960's. The plant was demolished sometime in the early 1970's. The southern portion of the Property was used for rail access/loading and for access to the coal briquet and petroleum/coal dock operations on the north end of the Property.

The Developer plans to reestablish industrial bulk material handling operations at the Property by installing infrastructure for shipments by truck and rail as well as dock wall rehabilitation and dredging. The redevelopment will consist of constructing an office building, storage and maintenance building, parking lot, truck scale, railroad, rail yard, rail scale, access roads, soil berms, and a stormwater retention pond.

D. Describe identified contaminants and the source(s). Indicate whether contaminant concentrations exceed Wis. Admin. Code § NR 720 Residual Contaminant Levels.

Identified contaminants and exposure routes were evaluated for the Property relative to NR 720 RCLs for soil and NR140 Preventive Action Limits (PALs) and ESs for groundwater quality. Soil contaminant concentrations were compared to NR720 GW RCLs, NIDC RCLs, and IDC RCLs. RCRA metal constituents were additionally compared to background threshold values (BTVs) in soil. If measured levels of arsenic or lead were less than their respective BTVs, these levels were attributed to natural occurrence. Sediment samples were compared to Recommended Sediment Quality Guidelines provided in Table 2 and Table 4 of the "*Consensus-Based Sediment Quality Guidelines, Recommendations for Use and Application*" Publication RR-088 (WDNR, 2003) in addition to NR720 RCLs. Laboratory result summary tables are included in **Tables 1 through 7**.

Identified Contaminants in Soil/Fill at the Property

Select RCRA metals and PAHs were detected at concentrations exceeding their respective IDC RCLs and select PVOCs were detected exceeding their respective NR720 GW RCLs at the Property during the Stantec 2021 and 2022 soil sampling events. These results are discussed in greater detail below.

PAHs

As summarized in *Table A* below, seven PAHs were detected at concentrations exceeding their respective NR720 GW RCLs, nine PAHs were detected at concentrations exceeding their respective NIDC RCLs, and six PAHs were detected at concentrations exceeding their respective IDC RCLs in near surface fill materials at the Property. Samples collected from the underlying native soils did not detect PAH constituents exceeding their respective RCLs. Therefore, the elevated PAH concentrations exceeding their RCLs are attributed to the black granular fill unit present across the Property and have not been identified to have leached into the underlying native soils.

***Table A**: PAH constituent detections exceeding exposure pathways in 2021 and/or 2022 sampling events.*

PAH Constituent	Exposure Pathway Exceeded in One or More Soil Samples?		
	Non-Industrial Direct Contact RCL	Industrial Direct Contact RCL	Groundwater Protection RCL
Benzo(a)anthracene	**Yes**	**Yes**	*Not Established*
Benzo(a)pyrene	**Yes**	**Yes**	**Yes**
Benzo(b)fluoranthene	**Yes**	**Yes**	**Yes**
Benzo(k)fluoranthene	**Yes**	No	*Not Established*
Chrysene	**Yes**	No	**Yes**
Dibenzo(a,h)anthracene	**Yes**	**Yes**	*Not Established*
Fluoranthene	No	No	**Yes**
Fluorene	No	No	**Yes**

PAH Constituent	Exposure Pathway Exceeded in One or More Soil Samples?		
	Non-Industrial Direct Contact RCL	Industrial Direct Contact RCL	Groundwater Protection RCL
Indeno(1,2,3-cd)pyrene	**Yes**	**Yes**	*Not Established*
Methylnaphthalene, 1-	**Yes**	No	*Not Established*
Naphthalene	**Yes**	**Yes**	**Yes**
Pyrene	No	No	**Yes**

These results are consistent with the soil information gathered from previous soil sampling events performed at the Property. Areas identified to have select PAH concentrations greater than IDC RCLs include the proposed access road (STN2, STN5, and STN11), railroad spur (STN13 and STN15), stormwater pond (STN9, STN10, and STN12), and southern portion of the existing concrete dock paneling (STN14).

RCRA Metals

As illustrated on *Table B* below, six RCRA metal constituents were detected at concentrations exceeding their BTV and/or NR720 GW RCL. Arsenic and/or lead were the only RCRA metals detected at concentrations greater than their respective IDC RCLs. Each sample identified to have concentrations of arsenic and/or lead at concentrations exceeding their respective direct contact RCLs and BTV was obtained from the near surface black granular fill unit with the exception of STN14 and STN20. Samples obtained from STN14 and STN20 identified arsenic at concentrations exceeding its IDC RCL and BTV in the near surface non-native sand fill associated with the 1907 dock construction. Only one soil sample collected from the native clay soil (STN7 4 to 6 fbg) detected silver at a concentration exceeding the GW RCL. No other sample collected from the native clay soils detected metal constituents exceeding their RCL and/or BTV. Therefore, the elevated RCRA metal concentrations exceeding their RCLs are likely attributed to the black granular fill unit present across the Property and have not been identified to have significantly leached into the underlying native soils.

***Table B**: RCRA metal constituent detections in soil exceeding exposure pathways in 2021 and/or 2022 sampling events.*

Metal Constituent	Exposure Pathway Exceeded in One or More Soil Samples?		
	Non-Industrial Direct Contact RCL + BTV	Industrial Direct Contact RCL + BTV	Groundwater Protection RCL and/or BTV
Arsenic	**Yes**	**Yes**	**Yes**
Lead	**Yes**	**Yes**	**Yes**
Cadmium	No	No	**Yes**
Mercury	No	No	**Yes**
Selenium	No	No	**Yes**
Silver	No	No	**Yes**

These results are consistent with the soil information gathered from previous soil sampling events performed at the Property. Areas identified to have arsenic and/or lead at concentrations exceeding their IDC RCLs include the proposed access road (STN5 and STN8), railroad spur (STN18 and STN20), stormwater pond (STN10), and existing concrete dock paneling (STN14).

VOCs

No chlorinated VOCs were detected in soil samples collected by Stantec during the 2021 and 2022 sampling events. PVOC constituents were detected at concentrations greater than their respective NR720 GW RCLs in

samples collected from STN2 and STN16 at the Property in May 2022. Benzene at concentrations exceeding the GW RCL was detected in the black, granular fill present in surficial soils at STN2 from 0 to 2.5 fbg and STN16 from 0 to 1.5 fbg. In addition, total trimethylbenzenes were detected in STN16 exceeding the GW RCL in a saturated soil sample with the highest PID measurement from 3.5 to 5 fbg. Underlying native soils at both locations were visually and/or olfactorily unimpacted. STN2 is located in an area of known petroleum impacts and LNAPL to groundwater in the southwest portion of the Property. STN16 is located in an area of a former product seep documented at the Property and removed in 2003. No other fill or native soils screened/sampled elsewhere on the Property were detected to have VOC impacts exceeding a RCL in May 2022. No VOC constituents were detected in fill or native soils as part of the December 2021 sampling event. The identified low level of PVOC contamination is attributed to historical petroleum releases associated with the east-adjoining property.

Identified Contaminants in Groundwater at the Property

No groundwater sampling was performed by Stantec during the 2021 and 2022 site investigation activities. However, historic groundwater sampling has been performed by others at the Property between 2002 and as recent as October 2021 in connection with the Amoco and/or Murphy Marine Terminal BRRTS cases (Antea, 2022). These historical groundwater investigation and sampling events have identified the following:

- Groundwater is generally encountered at approximately 15 fbg on the southern end of the Property and becomes shallower towards the dock slip on the northern portion of the Property;
- LNAPL extends onto the southern portion of the Property (as most recently detected in MW-32, RW-8, RW-9, MRW-5, MRW-6, MRW-7, MRW-8, MWM-3, LRMW-4, MRW-10, MWAST-4, MWM-6, and MWOW-1) and ranges in thickness from 0.02 to 7.27 feet;
- PVOCs (namely benzene) are present at concentrations exceeding the NR140 ES extending across the southern portion of the Property (near LNAPL impacts as most recently detected in MW-30D, MW-30S and MWT-2D) and central portions of the Property (near the Murphy Marine Terminal LUST as most recently detected in MWRR-1D and MWBD-1D);
- PVOCs and PAHs in the area of the Murphy Marine Terminal Investigation (temporary wells GP-1 and GP-4) and in the area of the former petroleum 500-gallon UST associated with the east adjoining property (temporary well TWBD-2) were not detected at concentrations exceeding the NR140 PAL and/or ES (Barr, 2022; Delta, 2003) indicating that groundwater was not significantly impacted by the former petroleum releases or presence of black granular fill with elevated levels of PAHs in these areas.

The historic groundwater sampling results indicate that groundwater contamination at the Property exceeding NR140 standards is likely attributed to the former petroleum releases associated with the east adjoining Amoco BRRTS cases (02-16-297979, 02-16-117873 and 02-16-000331). Impacted groundwater is not anticipated to be encountered during redevelopment due to the anticipated depth of the planned excavation and the historical depth of groundwater at the Property.

Identified Contaminants in Sediment to be Managed on the Property

Stantec completed three soil cores (SED1 through SED3) and collected nine sediment samples from the adjoining dock slip during December 2021 in accordance with the requirements detailed in the WDNR correspondence/memorandum titled "*NR 347 Sediment Sampling Requirements for C. Reiss Coal Dock, Superior, WI*" dated February 26, 2021 (WDNR, 2021).

Various PAHs at concentrations exceeding the TEC were detected in each of the three sediment cores between 0 and 6 feet. The concentration of 2-methylnaphthalene exceeded the MEC in SED 2 (0-3 feet). The concentrations of 2-methylnaphthalene and acenaphthene exceeded the PEC in SED3 (0-3 feet) and the concentration of 2-methylnaphthalne exceeded the PEC in SED (3-6 feet). Various other PAHs were detected at concentrations exceeding the TEC and/or MEC in samples collected from SED3 (0-3 feet) and SED3 (3-6 feet). In addition, benzo(a)pyrene was detected at a concentration exceeding the NIDC RCL in SED (3-6 feet). Various PAHs were identified to exceed the NR720 GW RCL for the PAL in SED3 (0-3 feet) and SED (3-6 feet).

The results are consistent with historical sediment sampling activities performed by others between 2015 and

2020. The recent and historical results indicate that sediment in the southern eastern dock slip between 0 and 6 feet is impacted with low to moderate levels of PAHs exceeding the TEC, MEC, and/or PEC and the NR720 GW RCL. Impacted sediment is likely attributed to former adjoining dock filling activities between the late 1800's and early 1900's and historic bulk handling activities of coal and/or petroleum associated with the adjoining dock operations. Further information related to the recent and historical sediment sampling is summarized in the WDNR 2022 memorandum (WDNR, 2022).

E. Describe the sampling activities conducted to characterize the material including where the samples were collected, how sample locations were chosen, the sampling methods used, and when sampling activities were conducted.

Between December 2021 and May 2022, Stantec performed site investigation activities at the Property (Stantec, 2022a,b). Site investigation activities included the collection of soil and sediment samples from the Property and west-adjoining dock slip respectively. Soil borings were primarily chosen to be located within the main areas proposed to be excavated at the Property as part of redevelopment activities in order to adequately characterize the material to be managed. Notably, soil borings were located within the excavation extents of the railroad, stormwater pond, and road/utility trenches. In addition, select soil borings were advanced on the northern portion of the Property to further characterize soil/fill quality in the area where previous investigation activities were limited. Sediment core locations and sample analysis were conducted in accordance with the WNDR required sampling and analysis to facilitate dredging and management activities as detailed in the WDNR 2021 memorandum (WDNR, 2021). Soil boring and sediment core locations completed by Stantec between 2021 and 2022 are illustrated on **Figure 2**.

On December 8, 2021, Soils and Engineering Services, Inc. (SES) advanced three sediment cores (SED1 through SED3) to eight fbg in the dock slip adjoining the Property using barge mounted direct push Geoprobe® drilling methods. The sediment cores were advanced to further define sediment quality along the eastern and southern portions of the dock slip where previous investigation activities were sparse. A total of nine sediment samples were collected from the cores and submitted to an analytical laboratory for 2,4-dimethylphenol, PAH, oil and grease, and grain size analysis. The results of the sediment sampling were consistent with previous sediment sampling activities performed by others and detected low to moderate levels of PAHs exceeding the TEC, MEC, and/or PEC and NR720 RCLs. Further information related to the recent and historical sediment sampling is summarized in the WDNR 2022 memorandum (WDNR, 2022).

On December 9, 2021, SES advanced five soil borings (SB1 through SB5) to a depth of 10 fb at the Property using direct-push dual-tube Geoprobe® drilling methods. These soil borings were advanced to evaluate soil quality in the area formerly proposed for the stormwater retention pond and the currently the proposed railroad. Soil samples were collected from the boreholes and submitted to an analytical laboratory for RCRA metals, PAH, and VOC analysis. The results of the soil sampling were summarized in the Stantec report entitled "*Limited Site Investigation"* and indicated that fill materials present in shallow soils (zero to three feet below grade) contained RCRA metal and PAH constituents at concentrations above NR720 RCLs (Stantec, 2022a).

Ahead of proposed redevelopment activities at the Property, the Stantec prepared a report titled "*Workplan for Additional Soil Investigation"* and submitted it to WDNR on April 27, 2022, to outline a sampling plan to further evaluate the lateral/vertical extents and environmental quality of identified fill and underlying native soils (Stantec, 2022c).

On May 4 and 5, 2022, SES advanced 20 soil borings (STN1 through STN20) from the ground surface to a typical depth of 12 fbg (with a maximum depth of 16 fbg) using direct-push Geoprobe® drilling techniques in accordance with the "*Workplan for Additional Soil Investigation*" (Stantec, 2022c). These soil borings were advanced across the Property to assess surficial/fill and underlying native soil quality across the Property, as well as to determine future options for onsite soil management for excavated/displaced soils in areas of proposed development (ex. access road, rail spur, future stormwater retention pond). Soil samples were collected from the boreholes and submitted to an analytical laboratory for RCRA metals, PAH, and VOC analysis. The results of the soil sampling indicated that anthropogenic fill materials impacted with RCRA metal and PAH concentrations above the NR720 IDC RCL are present in shallow soils across the Property. The results of the May 2022 investigation are detailed further in the "*May 2022 Site Investigation"* report (Stantec, 2022b).

F. Explain how the sampling activities adequately characterized the contaminated soil or other solid waste proposed to be managed. Indicate whether the samples were analyzed for all contaminants previously identified at the generating site or facility and analyzed for all contaminants potentially present at the site or facility considering current and historic land use. Discuss how samples were collected from areas most likely to be contaminated and from material that will be managed under this exemption.

Historical site investigation activities conducted at the Property associated with the Murphy Marine Terminal and Amoco BRRTS cases were focused on defining the degree and extent of contamination associated with petroleum releases and other likely sources of contamination. If contamination was identified, additional sampling occurred in that area to define the extent of that contamination. Historical sediment sampling activities in the dock slip have been conducted since 2015 and have sufficiently identified the source and extent of impacted sediment contributing to the BUIs for the dock slip. Site investigation activities conducted by Stantec in 2021 and 2022 associated with BRRTS case #02-16-589248 were focused on adequately characterizing the materials proposed to be managed during redevelopment in areas not well covered by previous investigations (Stantec, 2022a,b). Sediment sampling was conducted in accordance with requirements outlined in the WDNR 2021 memorandum (WDNR, 2021). Based on this information, site investigation activities adequately characterized contaminated soil/fill and sediment proposed to be managed, analyzed the soil and groundwater for all potentially present contaminants considering current and historic land use, and collected samples from areas most likely to be contaminated from the material to be managed under the exemption. No additional soil or sediment sampling activities are planned during the movement/management of materials associated with redevelopment.

G. Enter the total number of samples collected from this material and analyzed for contaminants of concern.

Stantec collected a total of 45 soil samples during site investigation activities associated with BRRTS case #02-16-589248 and submitted them for analysis of RCRA metals, PAHs, and/or VOCs. In addition, Stantec collected a total of nine sediment samples during recent investigation activities and submitted them for analysis of 2,4-dimethylphenol, PAH, oil and grease, and grain size analysis per the WDNR requirements outlined in their correspondence/memorandum titled "*NR 347 Sediment Sampling Requirements for C. Reiss Coal Dock, Superior, WI*" dated February 26, 2021. A total of 44 sediment sample were collected by others on the eastern and southern portions of the slip between 2015 and 2020 and submitted for analysis of PAHs, metals, and/or biological toxicity.

H. Enter the rate of sample collection per volume.

Stantec collected one sample per 978 CY of contaminated soil/fill. Based on the sitewide extent of RCRA metal and PAH impacted soil/fill and the ubiquitous nature of the black anthropogenic fill material on the Property, no further sampling is needed to characterize or define the extent of the impacted soil/fill.

Stantec collected one sample per 2,361 CY of contaminated sediment contributing to the BUIs of the dock slip. Including the 44 sediment samples collected by others in the project area between 2015 and 2020, the rate of sampling becomes one per 401 CY of contaminated sediment. Based on the homogeneous nature of the sediment, historic sediment sampling events, and the fulfillment of sampling and analysis requirements outlined in the WDNR 2021 memorandum, no further sampling is needed to characterize or define the extent of impacted sediment (WDNR, 2021).

3.5 PROJECT DESCRIPTION/MATERIAL MANAGEMENT PLAN

The following information is necessary for the DNR to review the request for compliance with Wis. Admin. Code §§ NR 718.12 (2) (b) (5), (7) and (8). In this section, describe how the contaminated material will be managed, the proposed schedule for managing the material, and provide sufficient information to justify that the placement of the contaminated materials will meet the requirements of Wis. Admin. Code §§ NR 726.13 (1) (b) 1. to 5. Narrative boxes have a limit of 2500 characters. Please attach additional pages if necessary, clearly labeling the section of the form to which you are responding.

A. Describe the material management activities to take place. Provide details on how and where the material will be generated, transported and placed. Describe the depth of the proposed excavation of contaminated soil or other solid waste, and the depth that it will be placed at the receiving site or facility. Describe any response actions proposed for the receiving site or facility to address the relocated contaminated material (such as the construction of a cap). Discuss how material management activities will fit in with the overall property remediation and/or redevelopment plans.

Please refer to Section 1.0 and 2.0 of this submittal for details related to this request.

B. Summarize the proposed schedule for implementation of the material management plan including anticipated start and end dates.

Site mobilization is anticipated to begin in September 2022. Approximately 10 months are anticipated to be required to complete the redevelopment associated with the reestablishment of the industrial bulk material handling operations at the Property.

C. Confirm the proposed material management will comply with Wis. Admin. Code § NR 726.13 (1) (b) 1. through 5.

The proposed material management will comply with Wis. Admin. Code § NR 726.13 (1) (b) 1. through 5.

D. Describe any procedures that have been established, or methods that will be used, to identify previously undocumented contamination during the completion of this project (such as instrument field screening, visual inspections, etc.). Also describe any contingency procedures that have been established to address unexpected contamination.

Please refer to Section 2.1 of this submittal for details related to this request.

E. Summarize how the proposed management activities will prevent or minimize adverse environmental impacts and potential threats to human health and welfare, including worker safety, by assessing how all potential exposure and migration pathways of concern, including direct contact exposure, vapor intrusion, ground water, surface water, sediment and any other relevant pathway will be addressed by the proposed management.

The proposed redevelopment plan is intended to manage environmental risk and establish a constructible and cost-effective approach to facilitate construction.

Stantec considered the following factors when planning soil management activities in conjunction with development. In general, excavated soil can be moved from one area of a site to another if it does not cause:

- A vapor risk to occupied structures;
- Exceedance of surface water or air quality standards;
- A direct contact risk to inhabitants or users of a site;
- Exceedance of a NR140 groundwater quality ES at any applicable point of standards application; or
- Expansion of a groundwater contamination plume.

The proposed management activities will prevent or minimize adverse environmental impacts and potential threats to human health and welfare, including worker safety. Each potential exposure and migration pathway of concern is addressed below.

Public Health, Safety, or Welfare or The Environment

The proposed soil handling and placement procedures meet environmental closure requirements of Chapter NR 726.13(b) WAC and do not pose an unacceptable threat to public health, safety, welfare, or the environment.

Vapor Intrusion

The term “vapor intrusion pathway” generally refers to subsurface contamination that can move through the air-filled pores of vadose zone soils and enter the breathing space of buildings. WDNR notes that due to their

high volatility and health risk, VOCs, particularly chlorinated VOCs, are the contaminants that most commonly trigger assessment of the vapor intrusion pathway. Current WDNR guidance notes that vapor intrusion of benzene and other PVOCs occurs most often when free phase product is located near building foundations, where petroleum contaminated groundwater has entered a building, or where contaminated groundwater is in contact with the building foundation.

Identified contamination associated with the black granular anthropogenic fill consists of RCRA metals and PAHs. RCRA metals and PAH constituents are not considered to pose a threat to human health or safety from a vapor migration standpoint in underlying soils. LNAPL and PVOC impacted groundwater exceeding the NR140 ES were identified on the southern and/or central portions of the Property associated with the historical releases of petroleum at the east-adjoining property.

There are currently no structures on the Site; therefore, the vapor intrusion pathway is not currently a pathway of concern. However, a future building is planned to be constructed on the south central portion of the Property as part of redevelopment. The vapor intrusion pathway will be assessed following the construction of any building on-site. Due to the nature and degree of identified soil/fill contamination, it is unlikely vapor intrusion would result from the movement of contaminated soil/fill within the confines of the Property.

Sediment/Surface Water

Wetlands are present on the southern portion of the Property and a dock slip connected to the St Louis Bay borders the northern portion of the Property to the west. Sediment samples collected from the eastern and southern portions of the slip during were identified to be impacted with PAHs, toxic for benthic organisms, and contributing to BUIs for the slip. Redevelopment is planned to improve sediment and surface water quality in the dock slip by dredging approximately 42,500 CY of sediment (21,250 CY of which is estimated to be contributing to the dock slip BUIs) and capping it on the Property with an impermeable surface.

Significant dewatering is not anticipated at this time. Dredged sediment will be offloaded onto the Property and staged in an area north of the planned stormwater pond and allowed to gravity dewater prior to being placed within MMU1. A temporary diversion berm will be constructed in accordance with WDNR technical standard 1066 around MMU1 to prevent the migration of contaminated runoff water to the existing wetlands onsite. The runoff water originating from MMU1 and the water generated from the gravity dewatering of the dredged sediment will be routed to the stormwater pond onsite via gravity and/or pumping.

Appropriate stormwater and erosion control measures will be put in place and appropriate permits obtained prior to Site activities to minimize erosion and Site stormwater runoff. The erosion control plans are included in **Attachment A** (Sheets C1.00 through C1.06). As practicable, the weather forecast shall be used to schedule Site activities to minimize the potential for significant stormwater accumulation. However, stormwater may accumulate in areas requiring removal. Stormwater and other fluids that may come in contact with contaminated soil are unlikely to become impacted due to the low solubility of the known compounds. However, if any sheen or odors are noticed on the water, samples should be collected from the water to confirm the presence or absence of contaminants prior to discharging.

Air Quality

Contamination will be capped with building slabs, paved areas, and/or an 18-inch clean soil cap, limiting volatilization of the low level of residual VOCs associated with the offsite contamination. Construction methods will include best management practices to limit particulate emissions. Contractors will be required to adequately wet soil during dry periods to prevent visible emissions.

Direct Contact Exposure

The direct contact pathway on the southern portion of the Property will be protected by engineering controls in the form of building slabs, paved areas, railroad ballast, gravel access roads, and/or a clean soil cap (including landscaping) that will remain in place following redevelopment. The goal of the site cover system is to prevent direct contact with contaminated soil exceeding the IDC RCL and prevent migration of contaminants to groundwater.

In landscaped areas on the southern portion of the Property, MMU1, and the three small soil berms, the cap will consist of a minimum of 15 inches of clay topped by 3 inches of imported topsoil for planting. The clay will be sourced from the native clay soils on the Property encountered during excavation activities as part of

redevelopment, which have been demonstrated to have no VOC, PAH or RCRA metal detections at concentrations exceeding NR720 RCLs (Stantec, 2022a,b). Topsoil will be seeded with a native tall grass prairie mix to reinforce and maintain the soil cap in these areas. The proposed railroad will be capped with at least 12 inches of impermeable compacted sub-ballast stone topped by nine inches of ballast stone to prevent direct contact with the materials underneath. The extent of the Site cover system is illustrated on **Figure 4**.

The anticipated use of the northern area is for industrial bulk material handling operations to be conducted by a minimal number of employees. Arsenic and/or benzo(a)pyrene were detected in select soil samples on the northern portion of the Property at concentrations exceeding the IDC RCL. The extent of these contaminated soils is limited and excavation activities are not currently planned to occur on the northern portion of the Property. The majority of the area is currently covered with concrete panels that are approximately four inches thick, eight feet long and eight feet wide. The existing concrete panels along with the proposed gravel access road will serve to prevent direct contact with contaminated soils exceeding the IDC RCL. A gated fence is proposed to be installed spanning the perimeter of the Site to further restrict access to the Property with exception to the proposed railroad spur. Due to the limited extent of contamination exceeding the IDC RCL, minimal occupancy, restricted access, and current surface covering, additional engineered surface barriers are not proposed to be installed on the northern portion of the Property.

The components and extents of the proposed Site cover system are illustrated on **Figure 4**.

Groundwater Quality/Water Supply

Historical groundwater sampling events identified LNAPL and PVOC impacted groundwater at concentrations exceeding the ES extending onto the southern and/or central portions of the Property associated with the east adjoining Amoco BRRTS cases (02-16-297979, 02-16-117873 and 02-16-000331). Ongoing groundwater monitoring and remedial activities are ongoing to address the identified PVOC contaminated groundwater associated with the Amoco BRRTS cases (Antea, 2022). Groundwater samples collected beneath areas containing the black granular anthropogenic fill impacted with select PAH constituents exceeding their applicable GW and/or direct contact RCLs did not detect the PAH constituents at concentrations exceeding their applicable NR140 PAL and/or ES (Barr, 2022; Delta, 2003). Therefore, it is not likely that the presence of black granular fill with elevated levels of PAH constituents significantly impacts groundwater quality at the Property.

The historic groundwater sampling results indicate that groundwater contamination at the Property exceeding NR140 standards is likely attributed to the former petroleum releases associated with the former Amoco BRRTS cases and not the presence of anthropogenic fill. Significantly impacted groundwater is not anticipated to be encountered during redevelopment due to the anticipated depth of the planned excavation and the historical depth of groundwater at the Property.

Management of the soil/fill onsite is not likely to create any further adverse impacts to groundwater quality. The excavated soil/fill to be managed onsite will be placed at a depth no greater than which it was excavated. The planned stormwater pond will have a clay liner installed on the bottom to prevent leaching of potentially contaminated stormwater/runoff collected in the pond to the underlying groundwater. There are no onsite water supply wells and the Property is not within 300 feet of any known water supply well. Based on the above information, the migration potential of contaminants associated with the Site due to redevelopment activities to groundwater or water supply wells is not likely.

3.6 RECEIVING SITE OR FACILITY INFORMATION

The following information is necessary for the DNR to review the request for compliance with Wis. Admin. Code §§ NR 718.12 (2) (c) 3. In this section, describe the site or facility receiving the material by addressing the following items. Narrative boxes have a limit of 2500 characters. Please attach additional pages if necessary, clearly labeling the section of the form to which you are responding.

Current grading plans and cut/fill estimates indicate that all material is planned to be beneficially reused onsite. All dredged sediment and soil reported to have been impacted with RCRA metals, PAHs, and/or VOCs will be capped as part of the redevelopment. Additional details regarding the movement, management and capping of impacted materials onsite are provided in Sections 2.0 and 3.0 of this submittal.

3.7 LOCATIONAL CRITERIA

Within a floodplain: **No**
Within 100 feet of any wetland or critical habitat area: **Yes**
Within 300 feet of any navigable river, stream, lake, pond, or flowage: **Yes**
Within 100 feet of any onsite water supply well or 300 feet of any offsite water supply well: **No**
Within 3 feet of the high groundwater level: **Yes**
At a depth greater than the depth of the original excavation from which the contaminated soil was removed: **No**

> ***Include an explanation of why granting an exemption to the Wis. Admin. Code § NR 718.12 (1) (c) locational criteria will not cause a threat to public health, safety, or welfare or the environment by assessing how all potential exposure and migration pathways of concern, including direct contact exposure, vapor intrusion, ground water, surface water, sediment and any other relevant pathway will be addressed by the proposed management. Consider the quantity and characteristics of the material being managed, the geologic and hydrogeological characteristics of the receiving site or facility, the unavailability of other environmentally suitable alternatives, and whether the activities will comply with other state and federal regulations including other portions of Wis. Admin. Code chs. NR 700 to NR 754.***

Since all the locational criteria will not be met, Stantec requests an exemption be issued for the proposed material management activities. The following information is provided in support of the exemption.

Waste Characteristics and Quantities

Soil excavation activities are anticipated within areas where RCRA metal, PAH, and/or low-level VOC-impacted soil will be encountered. Impacted material observed at the Site primarily consists of black granular anthropogenic fill containing sands, gravels, and/or black granular pieces (i.e. coal pieces). The thickness of this fill unit ranged in thickness from 0.25 to 12 feet thick with an average thickness of 2.5 feet. Fill consisting of red sandy soils was identified to underlie the black granular fill on the northern portion of the Property. Native clay soils underlie the black granular fill on the southern portion of the Property and native fine sand soils underlie the red sandy fill on the northern portion of the Property. Native clay soils were not identified to be impacted with contaminant concentrations exceeding NR720 RCLs during the December 2021 and May 2022 investigation activities. Excavation activities associated with redevelopment will include, but are not limited to, sitewide grading, building foundations, utility trenches, railroad corridors, and a stormwater retention pond. RCRA metal and PAH-impacted soil above direct contact standards is anticipated to be encountered during excavation and grading activities.

All dredged sediment and impacted soil requiring excavation is planned to be reused on-site. Specifically, the sediment and the soil/fill will preferentially be placed underneath pavement/impermeable surfaces, buildings, or on landscaped portions of the Site. Impacted soils will then be capped in place as part of the redevelopment to address potential direct contact concerns. All excavated soil is anticipated to be reused onsite. Redevelopment plans including anticipated grading plans are provided in **Attachment A**. Although not anticipated, excess impacted soil not suitable for reuse will be transported offsite for proper disposal at a licensed landfill.

Geologic and Hydrogeologic Characteristics

Groundwater, when encountered at the Site, was present between 1.5 fbg (on the northern end) and 15 fbg (on the southern end). LNAPL and PVOC impacted groundwater exceeding the ES were identified extending onto the southern and/or central portions of the Property from the east-adjoining property. Ongoing groundwater monitoring and remedial activities are being conducted to address this identified contamination. The LNAPL plume and PVOC impacted groundwater are not likely to be encountered based on the proposed depth of excavation in those areas. Based on groundwater samples collected during previous site investigation activities (Barr, 2022; Delta, 2003), it does not appear that RCRA metal and PAH impacted fill is having a significant impact on groundwater quality on the Site. Impacted fill material will not be placed deeper than the elevation it was excavated from. Therefore, based on the reasons provided above, management of impacted fill is not likely to create any further adverse impacts to groundwater quality. As discussed in Section 2.9, the Site cover system to be installed as part of redevelopment is designed to prevent migration of contaminants to groundwater via infiltration.

Unavailability of Environmentally Suitable Alternatives

The redevelopment will turn an underutilized area into a beneficial industrial development. In comparing the reuse alternative to other options such as complete offsite landfill disposal, it was determined that the project would not be economically feasible to construct due to the added financial burden. Given that the dredged sediment and excavated soil is of "like" character to in-situ soil in the placement area, onsite management appears to be a practical and environmentally suitable option.

Compliance with Other State and Federal Regulations

Soil and sediment management will follow other state and federal regulations and additional permits and approvals obtained as needed. The entire area will be managed as a construction site with proper erosion control and the soil and sediment will be managed per approved material management and capping plans for the Site designed to be protective of human health and the environment. All remaining contamination, including VOC, RCRA metals, and PAH-impacted soils will be capped with paved/impermeable surfaces or an 18-inch soil cap consisting of a minimum of 15 inches of clay topped by at least three inches of imported topsoil upon final placement. As mentioned previously, erosion control measures will be taken to prevent the potential runoff or surface migration of contaminants during construction per any necessary permits.

3.8 ADDITIONAL INFORMATION FOR NON-METALLIC MINE RECEIVING SITES OR FACILITIES

This section is not applicable. The Property is not currently a non-metallic mine site.

3.9 CONTINUING OBLIGATIONS

The following information is necessary for the DNR to review the request for compliance with Wis. Admin. Code §§ NR 718.12 (2) (d) and (e). Check the applicable boxes to indicate which continuing obligations will be specifically required to address the material being managed on the receiving site or facility. The associated language will appear in the Wis. Admin. Code ch. NR 718 Approval Letter.

☐ No Continuing Obligations

■ Residual Soil Contamination:

If contaminated soil managed under this material management plan is excavated in the future, the property owner at the time of excavation will be responsible for the following:

- determine if contamination is present,
- determine whether the material would be considered solid or hazardous waste,
- ensure that any storage, treatment or disposal follows applicable statutes and rules.

Contaminated soil may be managed in accordance with NR 718, with prior WDNR approval. In addition, all current and future property owners and occupants of the property and right-of-way holders need to be aware that excavation of the contaminated soil may pose a hazard and as a result special precautions may need to be taken during excavation activities to prevent a health threat to humans. A historic fill exemption is required prior to construction of any structures over fill materials.

Depending on site-specific conditions, construction over contaminated soils or groundwater may also result in vapor migration of contaminants into enclosed structures or migration along underground utility lines. The potential for vapor intrusion and means of mitigation should be evaluated when planning any future redevelopment, and measures should be taken to ensure the continued protection of public health, safety, welfare and the environment at the Site.

■ Maintenance of a cover:

A soil cover/engineered cover/other has been placed over remaining contamination and this cover must be maintained. Inspections will be required, and submittal of inspection reports may be required. Certain activities which would disturb the cover or barrier will be prohibited. If the cover is approved for industrial land use, notification of the WDNR is required before changing to a non-industrial use, to determine if the cover will be protective for that use. A maintenance plan is attached, which

describes the maintenance activities to be required. If the WDNR requires changes to the maintenance plan, an updated maintenance plan must be provided at the completion of the soil disposal action. A map is attached which shows the location of the extent of contaminated materials and the extent of the cover.

■ Use of Industrial Land Use Soil Standards:

Industrial soil standards have been applied for the site receiving the contaminated materials. The WDNR must be notified if the property land use will change from industrial use to a non-industrial land use. Additional investigation and remediation may be required prior to the change in land use to ensure the site conditions are protective for the planned land use.

■ Vapor: Future Actions to Address Vapor Intrusion:

While vapor intrusion does not currently exist, if a building is constructed on this property, or reconstructed, or if use of a building is changed to a non-industrial use, vapor intrusion may be a concern. The WDNR must be notified before construction of a building or changing the use of an existing building to non-industrial use. The use of vapor control technologies or an assessment of the potential for vapor intrusion will be required at that time.

☐ Site Specific Condition:

Describe the site-specific condition: N/A

3.10 FIGURES

Providing figures as part of the material management plan will allow DNR staff to more quickly evaluate the compliance of the request with the requirements of Wis. Admin. Code §§ NR 718.12 (1) and (2) and NR 718.15. The following are recommended figures to be submitted with this request.

The DNR recommends that all maps are drawn to scale not larger than 1 inch equal to 100 feet and labeled with the site or facility name and address. The location of the property and the specific disposal area should be provided in enough detail to allow DNR personnel to inspect these areas in the future. Providing a "cut/fill" map that clearly depicts how much material will be removed or added to different areas of the involved property(ies) and depicting how material will be moved across the site is also highly recommended. Providing cross sections that depict site conditions before and after material management activities is also recommended.

Attach appropriate figures to this form. Use the following checklist to ensure recommended items are included in the attached figures.

The boundaries of each property involved in the project as well as named and unnamed roads or access points, buildings and other surface features, underground utilities, land uses on adjacent properties, and known and potential sources of hazardous substances.

Pertinent information related to this request can be found on **Figures 1 and 2**.

The location of wetlands, critical habitat areas, floodplains, surface water bodies, water supply wells, or other possible receptors located near or within the area where material will be managed.

Pertinent information related to this request can be found in **Attachment A** and on **Figure 2**. No floodplains or water supply wells are located near or within the area where material will be managed.

The lateral extent and depth of planned excavation, grading, or otherwise disturbed areas. The lateral extent and thickness of excavated material placement locations.

Pertinent information related to this request can be found in **Attachment A, Figures 3a through 3f**, and **Figure** 4.

Soil sample locations at the response action site and receiving site(s) or facility(ies). Depict applicable soil contaminant concentration data and sample depths. Indicate the extent of contamination exceeding a RCL.

Pertinent information related to this request can be found on **Figure 2** and **Tables 1 through 7**.

Depth to groundwater.

Pertinent information related to this request can be found in the Amoco BRRTS case files.

The extent of any performance standards (such as a barrier or cap) that will be required at the completion of management activities.

Pertinent information related to this request can be found on **Figure 4**.

3.11 ADDITIONAL ATTACHMENTS

The following documents are recommended for inclusion with a Wis. Admin. Code § NR 718.12 or a Wis. Admin. Code § 718.15 request. Indicate which of these documents are included in this request by checking the boxes below.

A table summarizing the analytical results of all soil/waste samples collected at the generating site or facility that meets the requirements of Wis. Admin. Code § 716.15 (4) (e). Clearly indicate which of these samples were collected from material that is proposed to be managed.

Tables summarizing soil and sediment sample analytical results for the Site are provided as **Tables 1 through 7**.

The analytical package for all samples listed on the above table. The package should include the sample results, chain of custody, sampling methods, and QA/QC data.

Complete laboratory analytical results for the Stantec December 2021 and May 2022 events can be found in the "*Summary of Limited Soil Investigation, C. Reiss Coal dock Property, Superior, Wisconsin*" and "*May 2022 Site Investigation"* reports (Stantec, 2022a,b).

A maintenance plan for any performance standard needed to address the material proposed to be managed. The plan should follow the format found in DNR Form 4400-202, Attachment D.

A plan for maintenance of the engineered cap will be submitted to the WDNR at a future date.

A copy of the reclamation plan for the receiving site or facility if it is a nonmetallic mine. Confirm the plan allows for acceptance of contaminated soil by marking relevant plan sections.

Not applicable.

Power of Attorney (if applicable, see Section 12).

Not applicable.

Deed for the property receiving the contaminated material. If a certified survey map or plat map is referenced by this deed then also include those documents.

A deed for the site receiving the contaminated material is not applicable as soil generated during redevelopment is planned to remain onsite.

Provide a copy of a parcel map depicting the property(ies) boundaries.

A parcel map identifying the Property attained from the City of Superior/Douglas County WI interactive online GIS map accessed on June 10, 2022 is included as **Attachment B**.

3.12 CERTIFICATION STATEMENTS

Wis. Admin. Code ch. NR 712, entitled "Personnel Qualifications for Conducting Environmental Response Actions," establishes minimum standards for experience and professional qualifications for persons who perform certain environmental services. All exemption requests submitted to manage contaminated soil or other solid waste as an interim action or remedial action under Wis. Admin. Code chs. NR 708 or NR 722 must be prepared by, or prepared under, the supervision of a professional engineer per Wis. Admin. Code ch. NR 712. The professional engineer who prepared or supervised this exemption request should complete the following section. This law applies to work conducted under Wis. Admin. Code ch. NR 718, unless specifically exempted.

This document has been prepared and certified by the following Wisconsin licensed professionals:

I, Stuart J. Gross, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Stuart J. Gross, P.G. Date: 07/06/2022
Senior Associate
Phone: (262) 643-9159
Email: Stu.Gross@stantec.com

I, Hiedi A. Waller, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Hiedi A. Waller, P.E. Date: 07/06/2022
Senior Associate
Phone: (262) 643-9025
Email: Hiedi.Waller@stantec.com

4.0 REFERENCES

Antea, 2022. 2021 Progress Report, January – December 2021, Former Amoco Terminal, 2904 Winter Street, Superior, WI, February 8, 2022.

Barr, 2022. 2021 Status Report for the Murphy Marine Terminal Site, Superior, Wisconsin, WDNR BRRTS No. 03-16-000320, January 6, 2022.

Delta, 2003. Case Summary and Closeout Form, Barge Dock Area, Barge Dock Property – North of Winter Street/Maryland Avenue Intersection, Superior, Wisconsin, BRRTS No. 02-16-297977 – Barge Dock Area, July 7, 2003.

Stantec, 2022a. Summary of Limited Soil Investigation, C. Reiss Coal Dock Property, Superior, Wisconsin, February 15, 2022.

Stantec, 2022b. Site Investigation, C. Reiss Coal Dock Property, Superior, Wisconsin, WDNR BRRTS Number: 02-16-589248 C Reiss Coal Dock Property, June 2022.

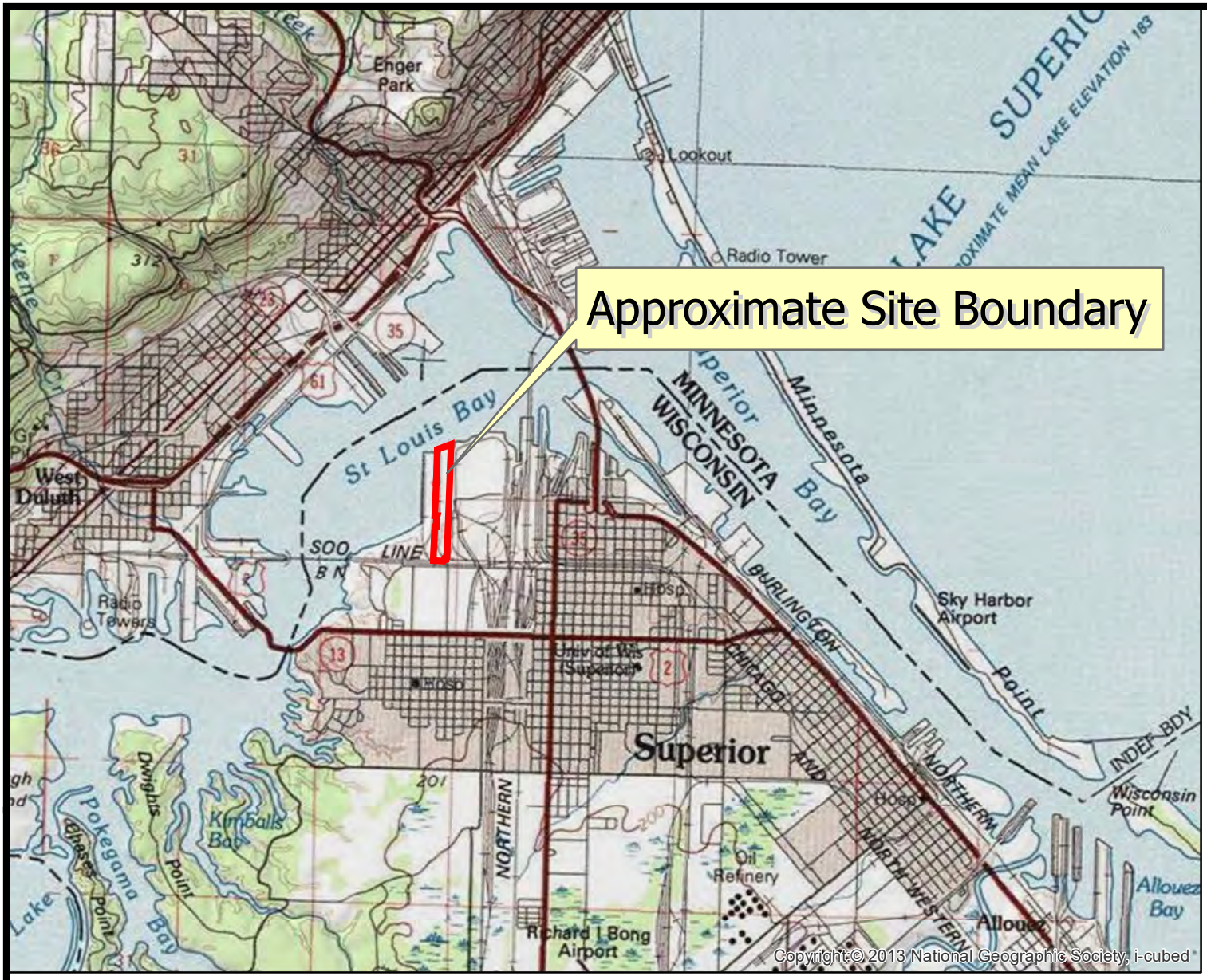
Stantec, 2022c. Workplan for Additional Soil Investigation, C. Reiss Coal Dock Property, Superior, Wisconsin, April 27, 2022.

WDNR, 2003. Consensus-Based Sediment Quality Guidelines, Recommendations for Use & Application, Interim Guidance RR-088, December 2003.

WDNR, 2021. NR 347 Sediment Sampling Requirements for C. Reiss Coal Dock, Superior, WI, February 26, 2021.

WDNR, 2022. Beneficial Use Impairments Related to Sediment Contamination in the Hallet Dock No. 8 / C. Reiss Coal Slip, St Louis River Area of Concern (AOC), Superior, Wisconsin, February 23, 2022.

FIGURES



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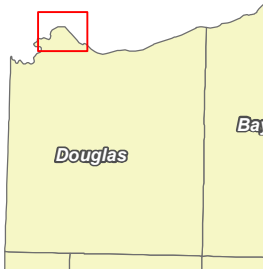
1 inch = 6,000 feet

Feet

0 6,000

The information on this map has been compiled by Stantec staff from a variety of sources and is subject to change without notice. Stantec makes no representations or warranties, express or implied, as to accuracy, completeness,timeliness, or rights to the use of such information.



County Location

State Location

AERIAL IMAGERY AND PARCEL DATA SOURCE:
ESRI Mapping Center World Imagery Layer - USGS TOPO QUAD

Site Location & Local Topography

C. REISS DOCK
ST. LOUIS BAY, SUPERIOR, WI

Stantec

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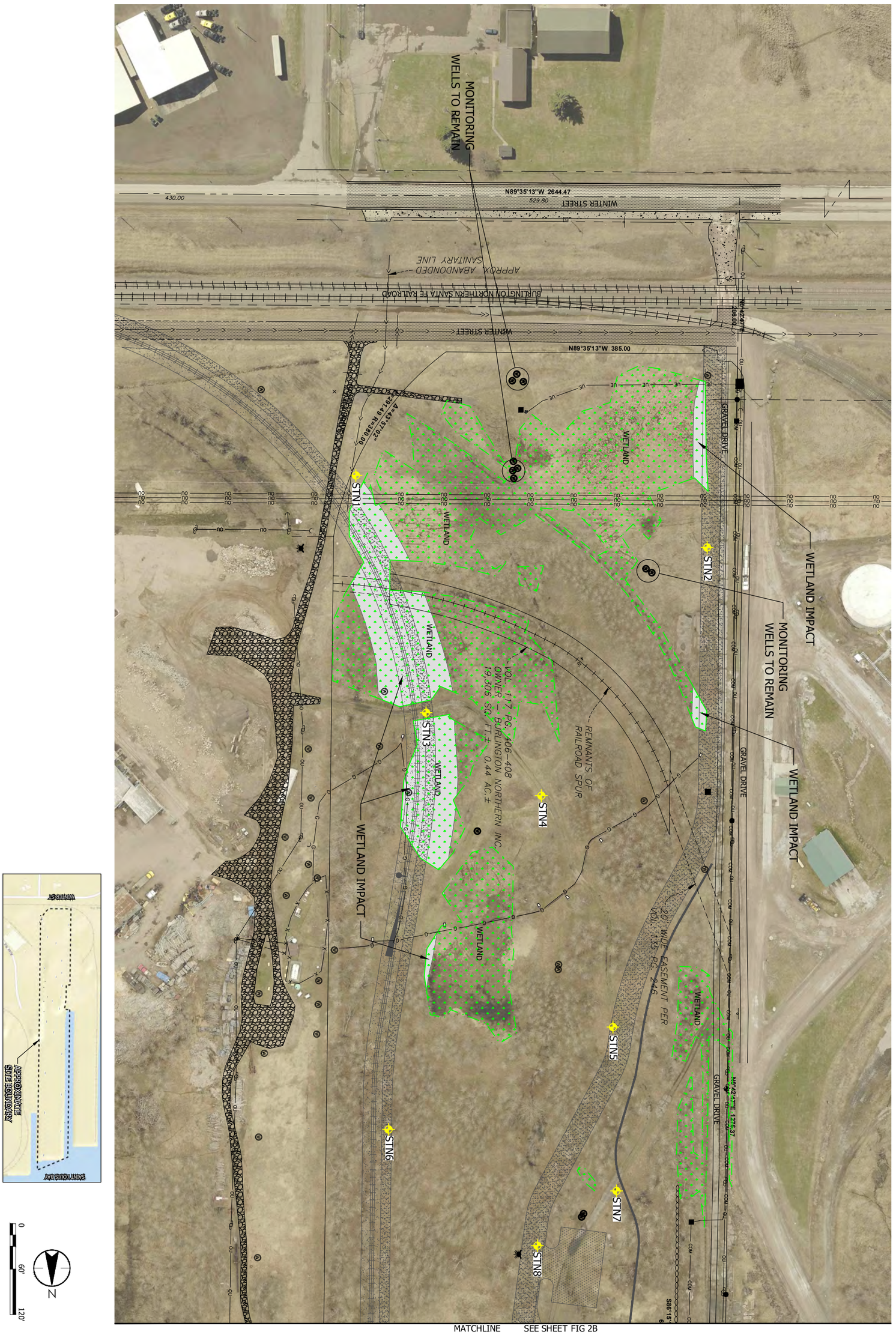

MATCHLINE SEE SHEET FIG 2B

FIG 2A

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DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141
SHEET NUMBER	

NO	REVISION	DATE

DATE OF ISSUANCE
June 29, 2022

SITE LAYOUT AND BORE HOLE LOCATIONS

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

Stantec
12075 N. Corporate Parkway, Suite 200
Mequon, WI 53092
www.stantec.com

Plot Date: 06/29/2022 - 2:22pm
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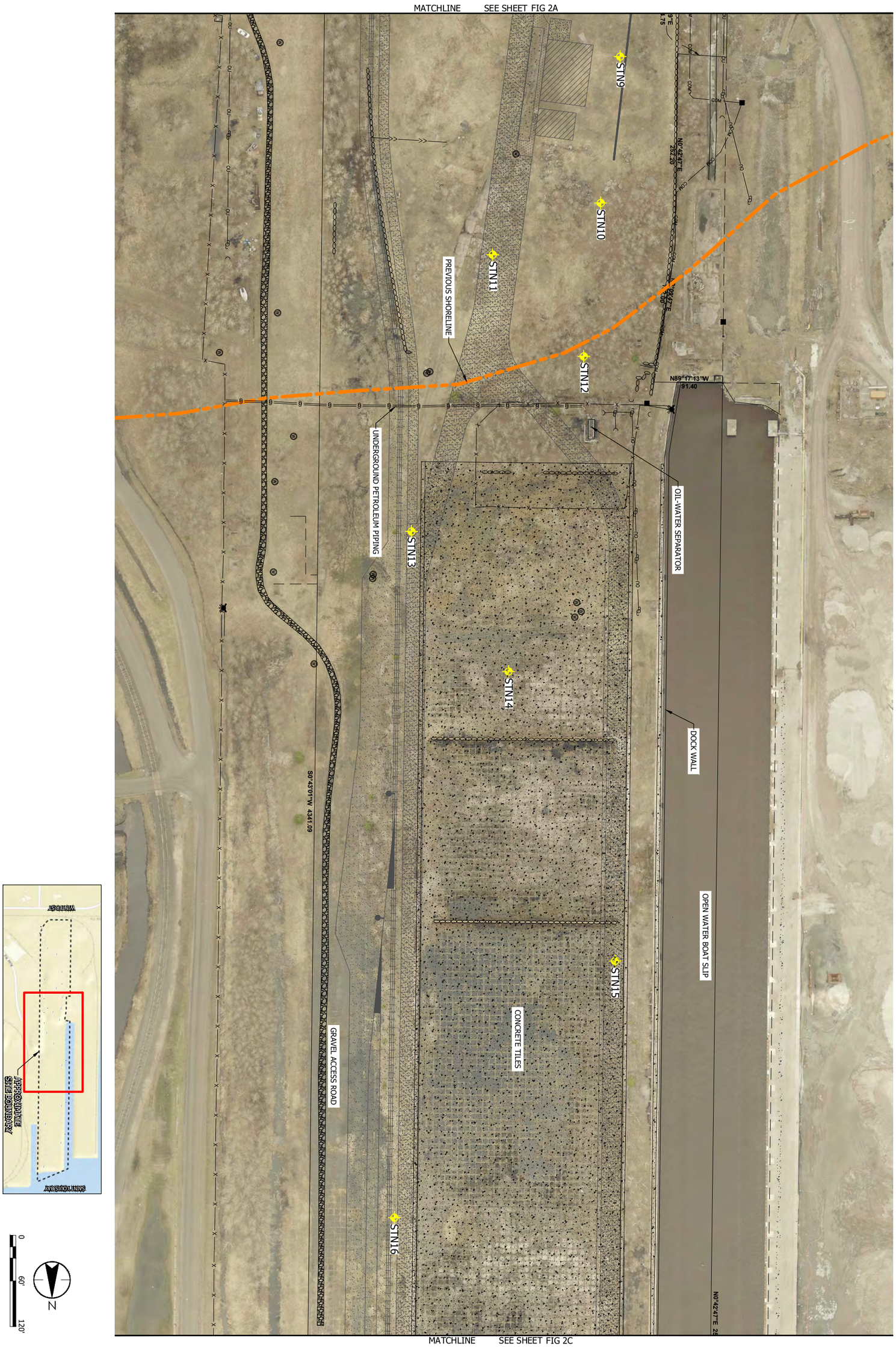

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N

FIG 2B

SITE LAYOUT AND BORE HOLE LOCATIONS

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141
SHEET NUMBER	

NO	REVISION	DATE

DATE OF ISSUANCE
June 29, 2022

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FIG 2C

SITE LAYOUT AND BORE HOLE LOCATIONS

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141
SHEET NUMBER	

NO	REVISION	DATE

DATE OF ISSUANCE
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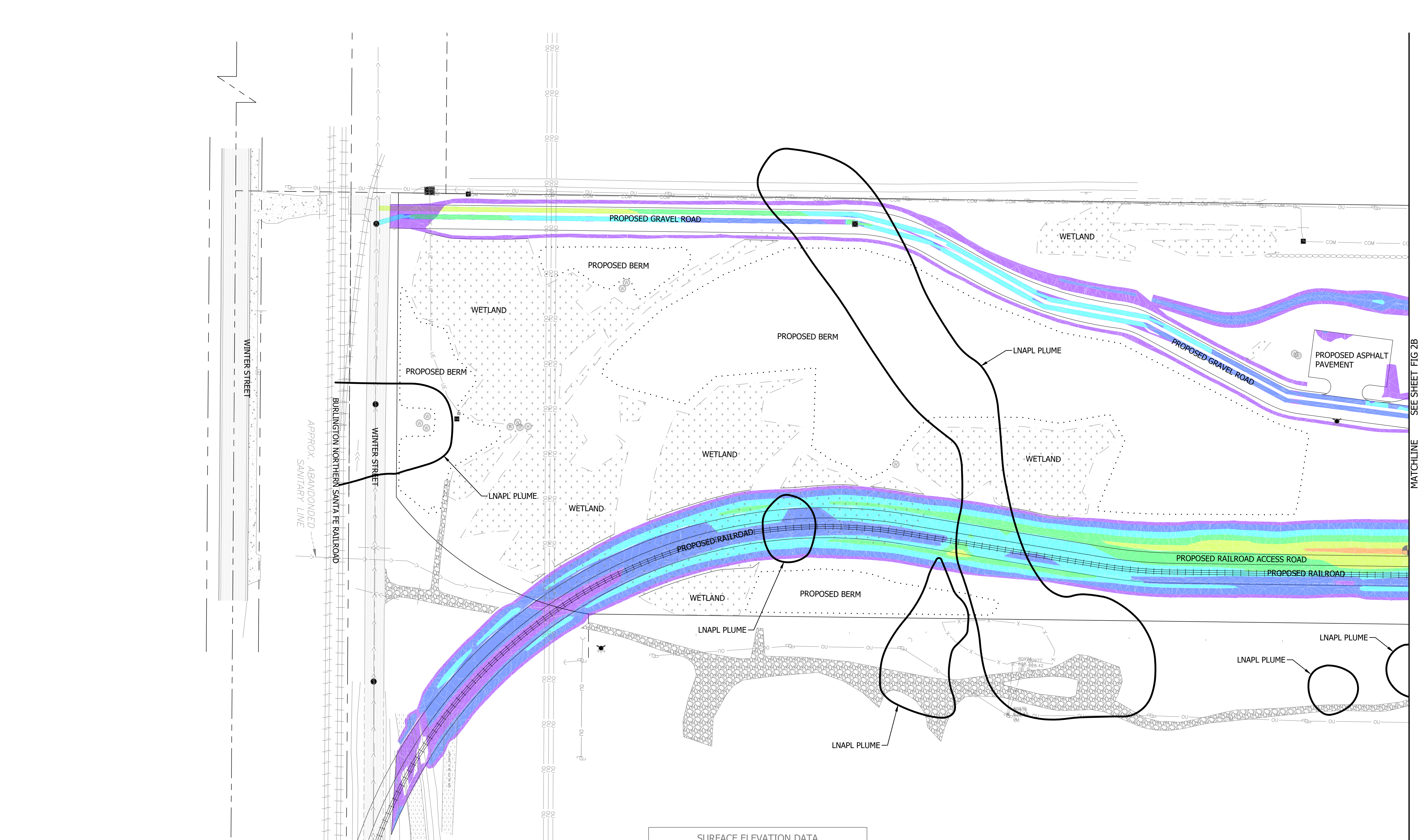

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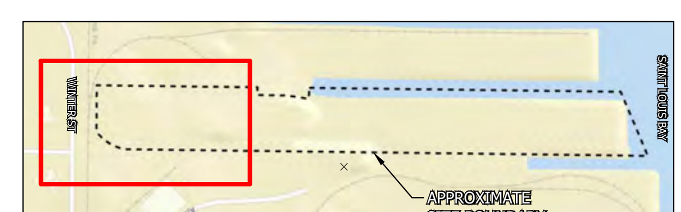

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0 60' 120'

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CUT EXTENT

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE	
June 29, 2022	

NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
FIG 3A

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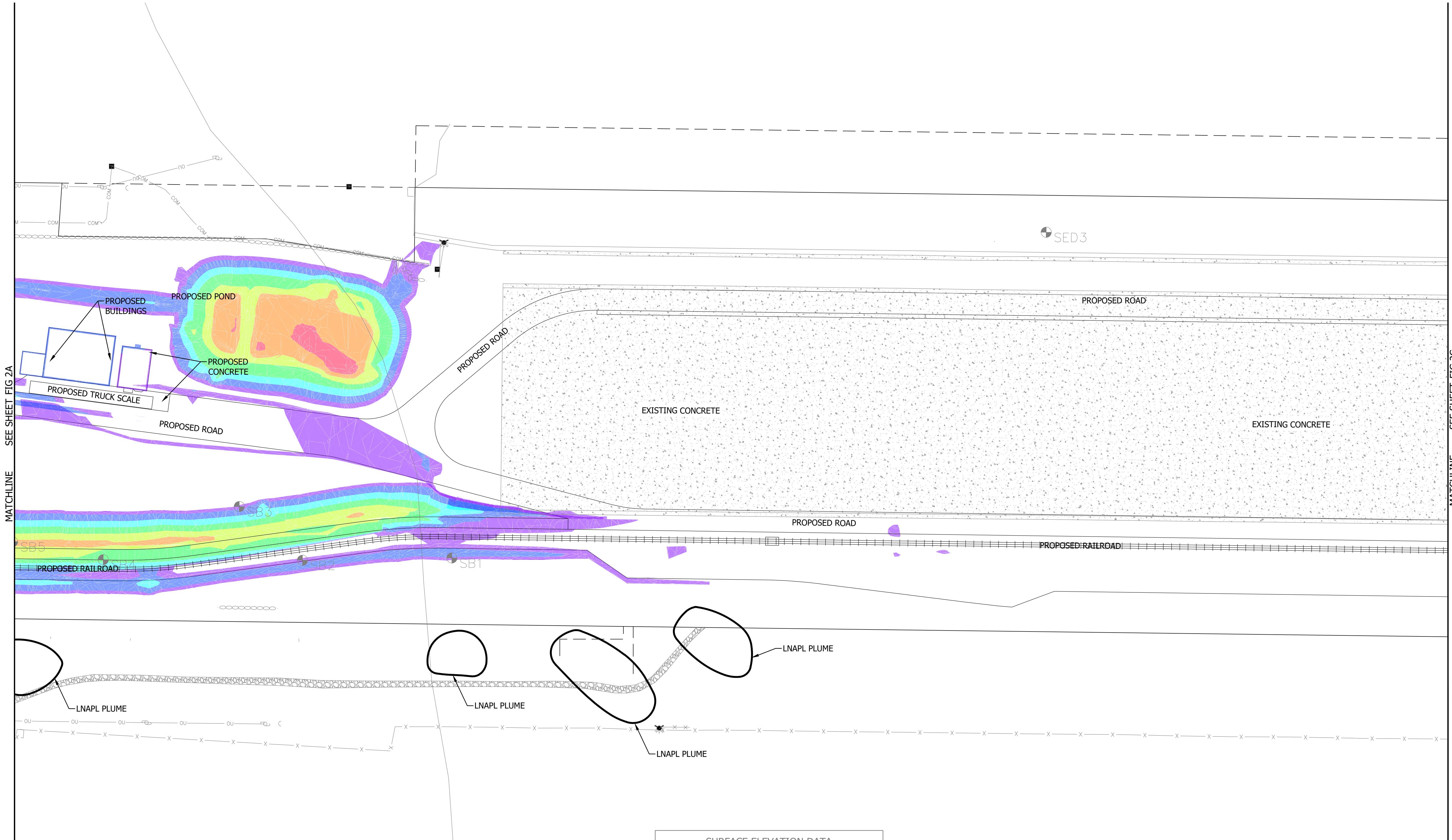

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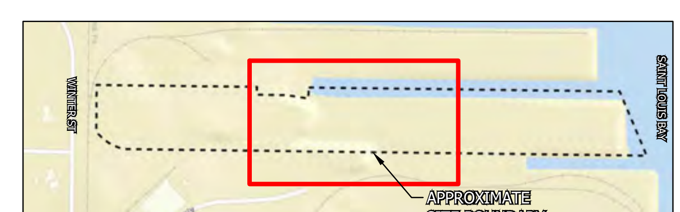

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CUT EXTENT

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE
June 29, 2022

NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
FIG 3B

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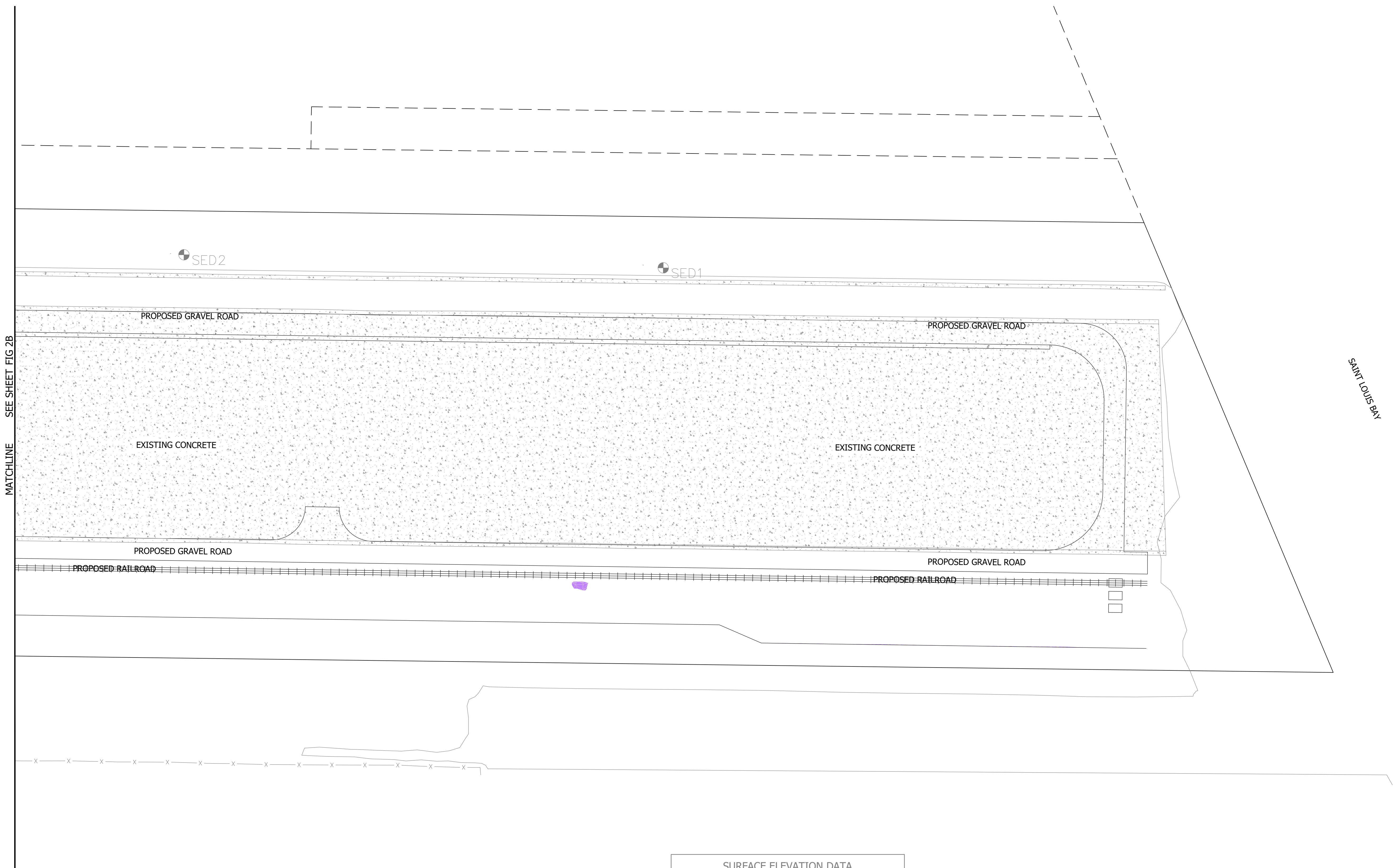

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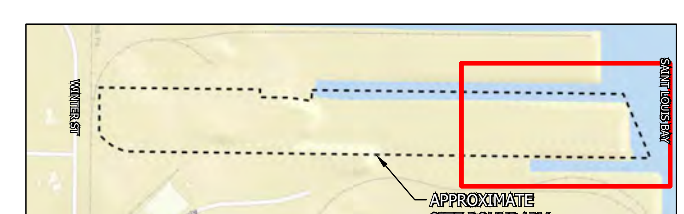

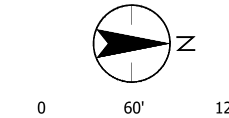

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CUT EXTENT

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE		
June 29, 2022		
NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
FIG 3C

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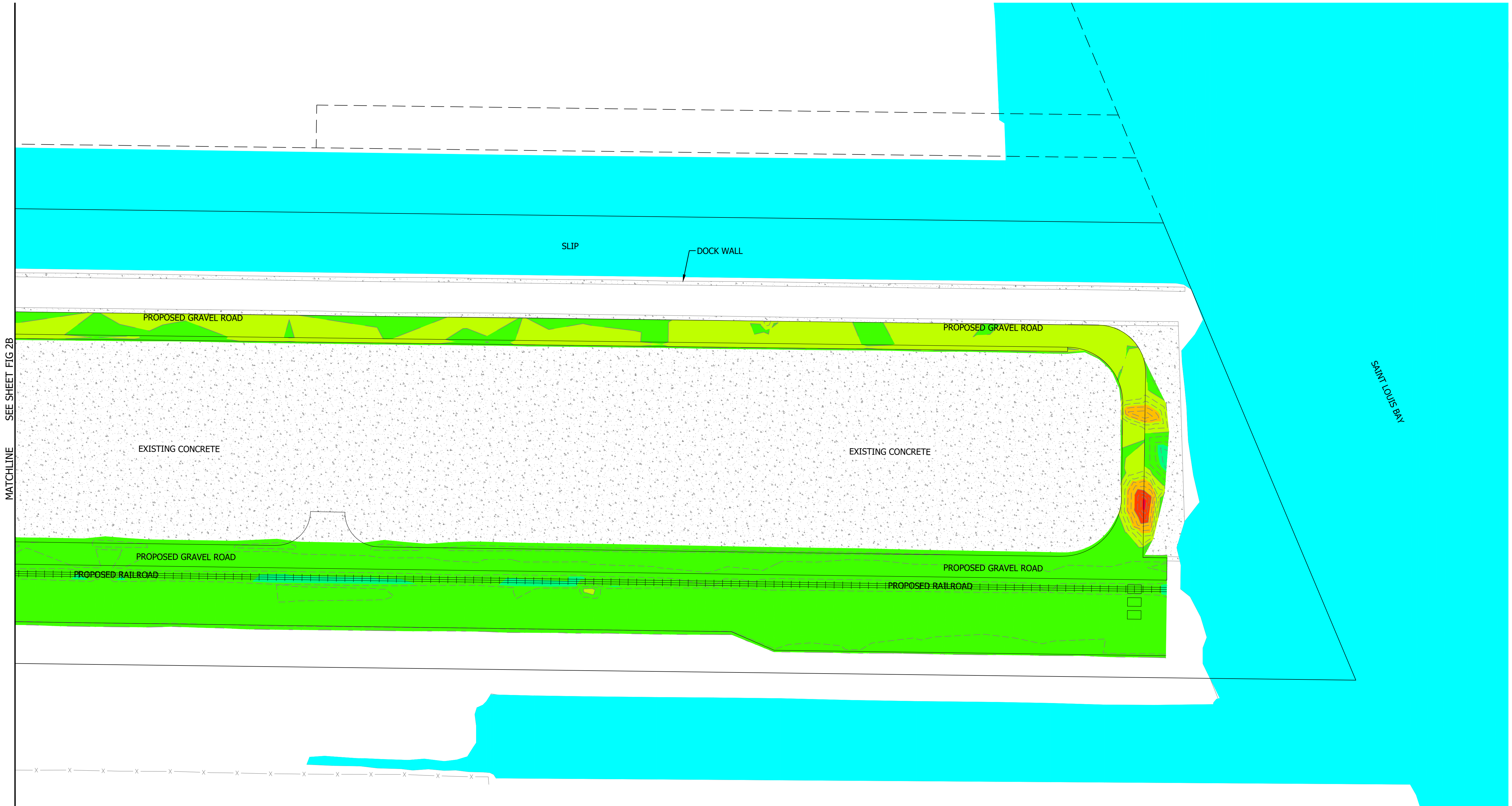

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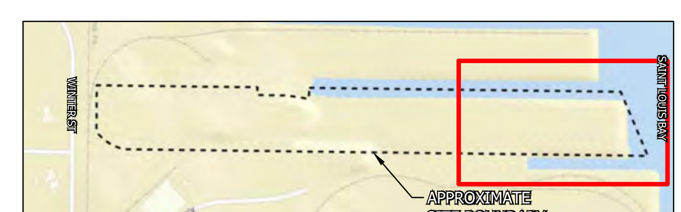

N

0 60' 120'

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FINAL SURFACE CUT FILL EXTENT

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE
June 29, 2022

NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
FIG 3D

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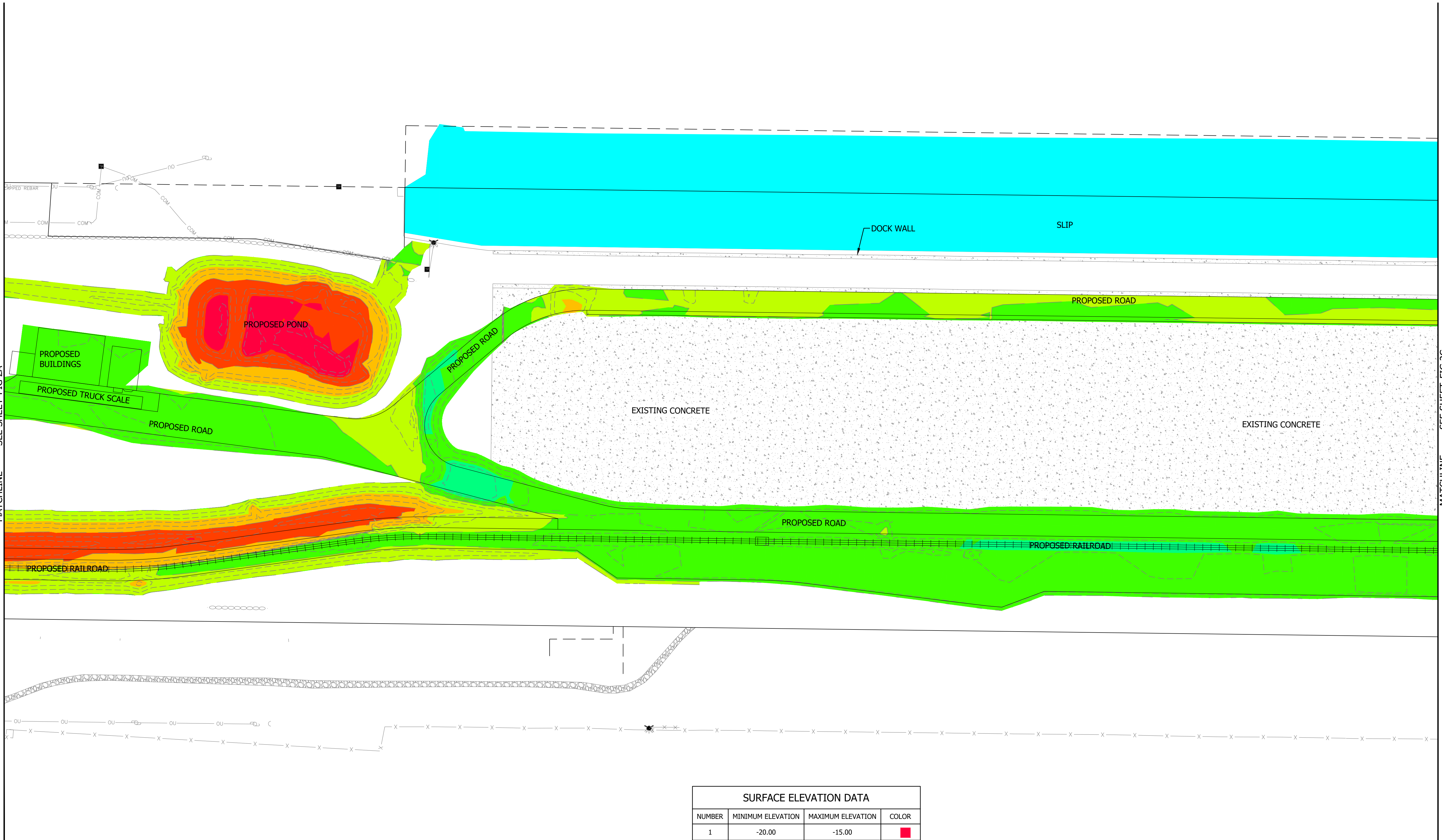

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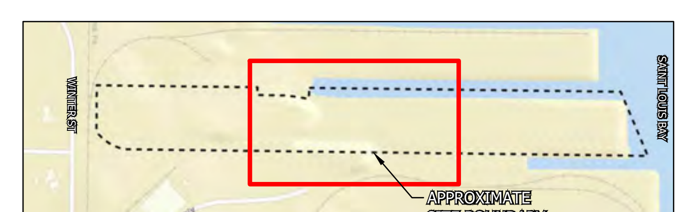

N

0 60' 120'

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Mequon, WI 53092
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FINAL SURFACE CUT FILL EXTENT

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE
June 29, 2022

NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
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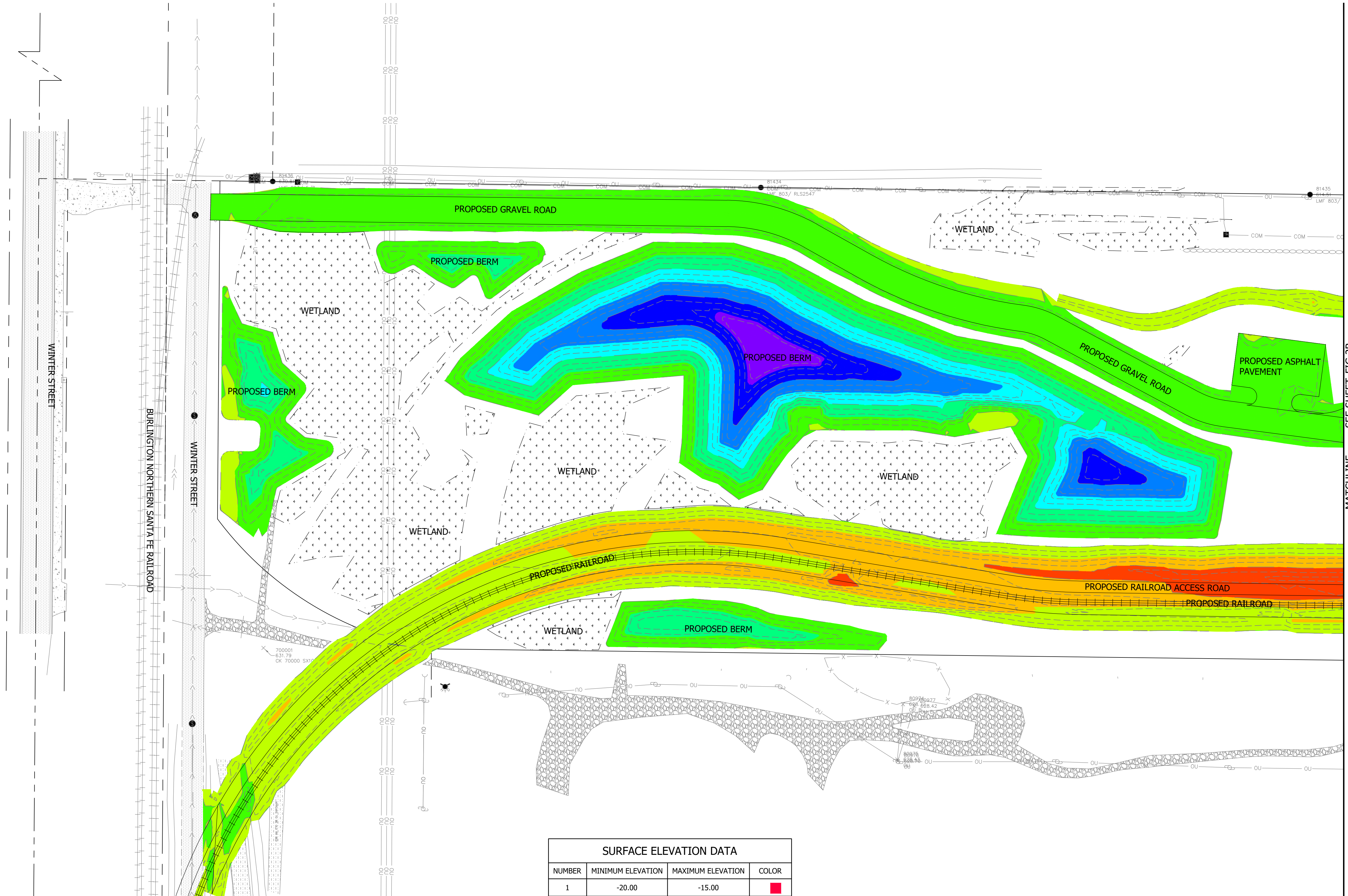

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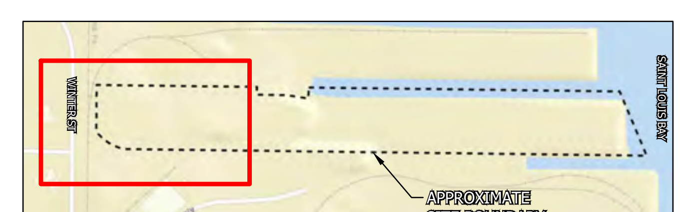
10	25.00	28.00	



N

0 60' 120'

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FINAL SURFACE CUT FILL EXTENT

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

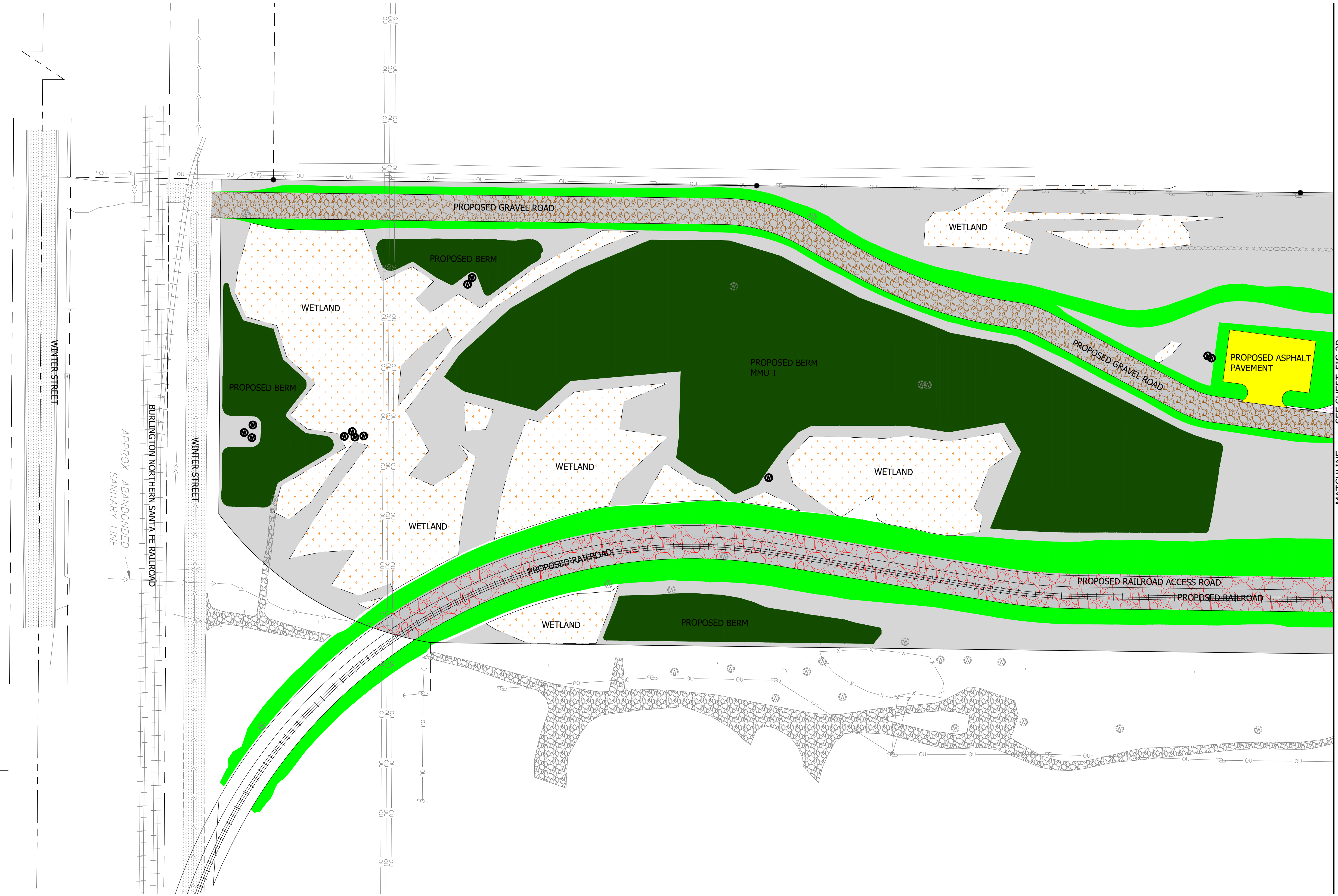
DATE OF ISSUANCE
June 29, 2022

NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

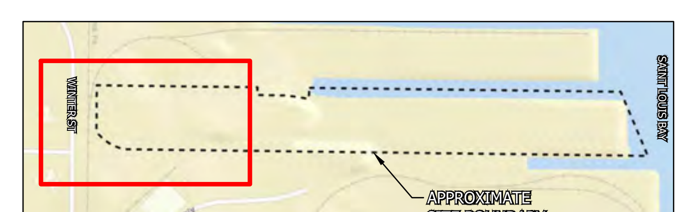
SHEET NUMBER
FIG 3F

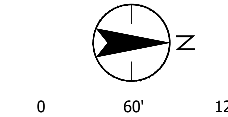
Plot Date: 06/29/2022 - 1:28pm



LEGEND

- PROPOSED GRAVEL ROAD
- PROPOSED RAILROAD BALLIST
- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED BUILDINGS
- PROPOSED BERM W/ 18" CAP
- SEEDED AREA WITH 18" CAP
- POND W/ 12" LINER
- EXISTING CONCRETE DOCK TO REMAIN
- EXISTING WETLAND TO REMAIN
- NO DISTURBANCE





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SITE COVER EXTENT

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE	
June 29, 2022	

NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
FIG 4A

Plot Date: 06/29/2022 - 12:45pm
Drawing name: V:\1937\active\193707141\03_data\gis_cad\cad\dwg\SHEETS\Exhibits\193707141MMP4.dwg
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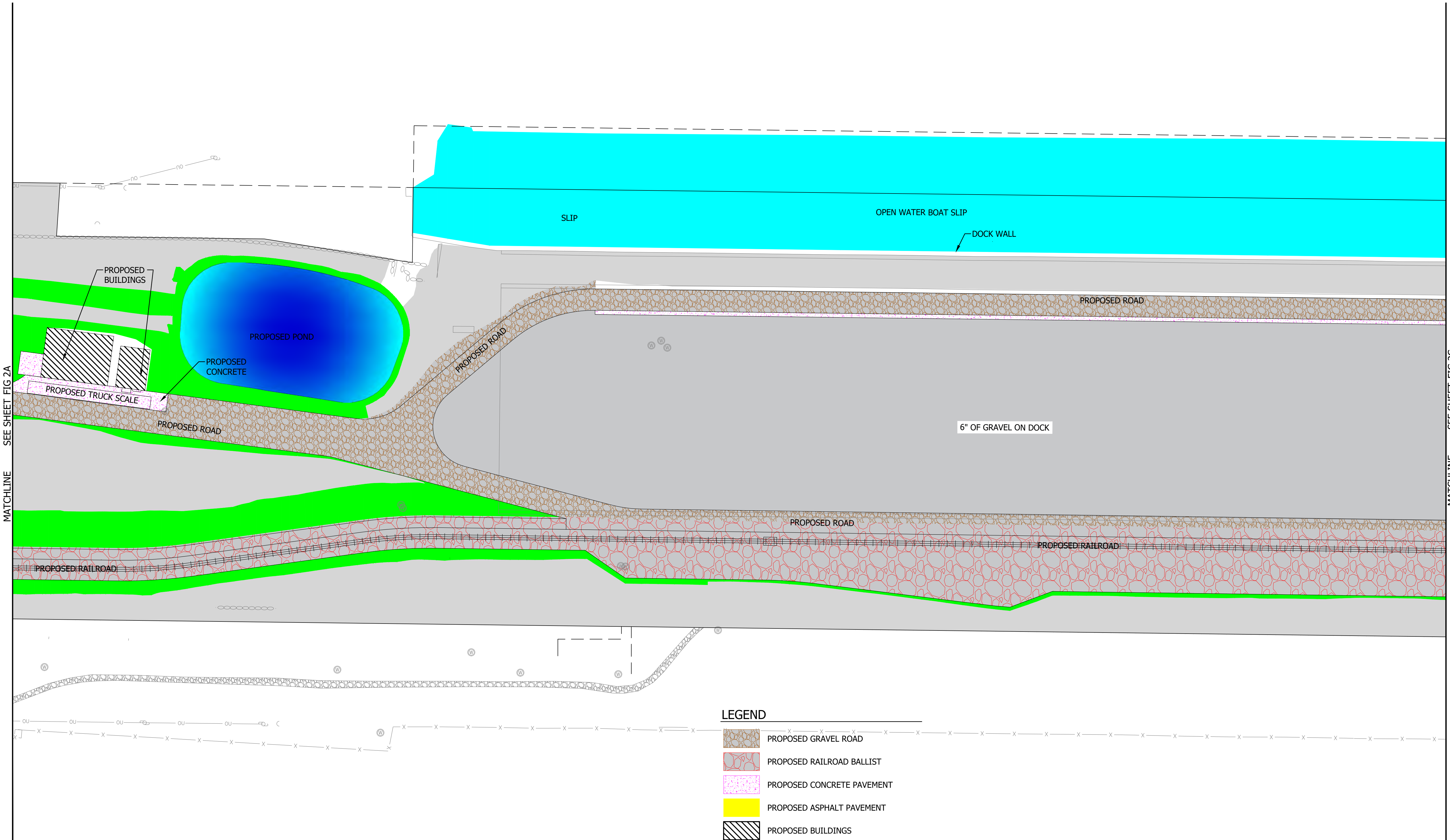
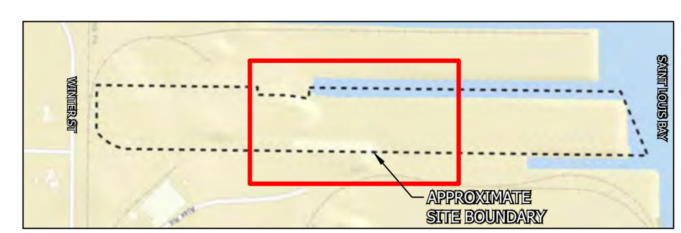
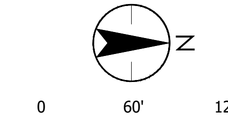


LEGEND

- PROPOSED GRAVEL ROAD
- PROPOSED RAILROAD BALLIST
- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED BUILDINGS
- PROPOSED BERM W/ 18" CAP
- SEEDED AREA WITH 18" CAP
- POND W/ 12" LINER
- EXISTING CONCRETE DOCK TO REMAIN
- EXISTING WETLAND TO REMAIN
- NO DISTURBANCE





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SITE COVER EXTENT

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE		
June 29, 2022		
NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
FIG 4B

Plot Date: 06/29/2022 - 12:45pm
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SITE COVER EXTENT

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE
June 29, 2022

NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
FIG 4C

Plot Date: 04/29/2022 - 12:45pm
Drawing name: V:\1937\active\193707141\03_data\gis_cad\cad\dwg\SHEETS \Exhibits\193707141MXP4.dwg
Xrefs: TB-34422-MEQ_193707141_XSXT, 193707141_XSXO, 193707141_XSXL, 193707141_XSPL, 193707141-XA1NA, 193707141-XA1HA, 193707141-XB1HA, 193707141_XSNN, 201215_Mech Overall Layout

DOCK WALL

TABLES

Table 1: Soil Analytical Results, December 2021
C. Reiss Coal Dock
Superior, Wisconsin

Sample Location						SB1		SB2		SB3			SB4		SB5	
Sample Date						12/9/2021	12/9/2021	12/9/2021	12/9/2021	12/9/2021	12/9/2021	12/9/2021	12/9/2021	12/9/2021	12/9/2021	12/9/2021
Sample ID						SB1 1-3	SB1 5-7	SB2 0-2	SB2 8-10	SB3 0-2	SB3 4-6	DUP3	SB4 2-4	SB4 6-8	SB5 0-2	SB5 4-6
Sample Depth (feet below ground surface)		Wisconsin RCL Direct Contact Industrial	Wisconsin RCL Direct Contact Non-Industrial	Wisconsin RCL Soil to Groundwater	Wisconsin SBTV	1-3 ft	5-7 ft	0-2 ft	8-10 ft	0-2 ft	4-6 ft	4-6 ft	2-4 ft	6-8 ft	0-2 ft	4-6 ft
Laboratory Sample ID						180-131094-17	180-131094-18	180-131094-19	180-131094-20	180-131094-21	180-131094-22	180-131094-23	180-131094-24	180-131094-25	180-131094-26	180-131094-27
Sample Type	Units					Soil	Soil	Soil	Soil	Soil	Soil	Field Duplicate	Soil	Soil	Soil	Soil
Detected Resource Conservation and Recovery Act Metals																
Arsenic	mg/kg	**8.3*** [3]	**8.3*** [0.677]	**8.3*** [0.584]	8.3	8.2 F1	2	6.4	2.4	2.7	1.5	-	2.7	2.4	**9.9**	3.2
Barium	mg/kg	100,000	15,300	**364*** [164.8]	364	124	20	63	44	57.1	12.6	-	120	101	76.6	89.3
Cadmium	mg/kg	985	71.1	**1*** [0.752]	1	0.27	0.074	0.26	0.07 J	0.1	0.035 J	-	0.091	0.06 J	0.35	0.08
Chromium	mg/kg	100,000	100,000	360,000	44	10.9 F1	10.3	13.2	12.8	9.4	6.4	-	29.1	28.7	7.5	17.9
Silver	mg/kg	5,840	391	0.849	n/v	0.049 J F1	<0.018	0.039 J	0.019 J	0.019 J	<0.019	-	<0.022	0.026 J	0.29	0.044 J
Lead	mg/kg	800	400	**51.6*** [27]	51.6	37.7 F1	2.6	36.6	3.4	8.4	1.7	-	6.8	5.8	75.3	11.6
Selenium	mg/kg	5,840	391	0.52	n/v	**0.64 F1**	<0.081	**0.64**	<0.087	0.18 J	<0.087	-	<0.098	<0.10	**0.87**	0.21 J
Mercury	mg/kg	3.13	3.13	0.208	n/v	0.074	<0.023	0.026 J	<0.024	<0.024	<0.019	-	<0.025	<0.022	0.063	<0.022
Detected Volatile Organic Compounds																
Fifty-eight (58) constituents analyzed	µg/kg	Various	Various	Various	n/v	No volatile organic compound constituents were detected in any soil sample submitted to the analytical laboratory.										
Detected Semi-Volatile Organic Compounds																
2-Methylnaphthalene	µg/kg	3,010,000	239,000	n/v	n/v	720	<1.8	540	<2.0	160	<1.6	<1.6	<2.0	<2.0	930	16
Acenaphthene	µg/kg	45,200,000	3,590,000	n/v	n/v	910	<2.2	300 J	<2.4	28 J	<1.9	<2.0	<2.4	<2.4	540	28
Acenaphthylene	µg/kg	n/v	n/v	n/v	n/v	480	<1.6	<81	<1.8	<17	<1.5	<1.5	<1.9	<1.8	<93	9.1
Anthracene	µg/kg	100,000,000	17,900,000	196,949	n/v	2,400	<1.9	930	<2.2	66 J	<1.7	<1.8	<2.2	<2.2	1,500	53
Benzo[a]anthracene	µg/kg	20,800	1,140	n/v	n/v	7,000	<3.4	**2,500**	<3.8	250	<3.0	<3.1	<3.8	<3.7	**4,400**	88
Benzo[b]fluoranthene	µg/kg	21,100	1,150	478	n/v	**7,700**	<1.8	**2,500**	<2.1	310	<1.7	<1.7	<2.1	<2.0	**4,100**	100
Benzo[k]fluoranthene	µg/kg	211,000	11,500	n/v	n/v	2,300	<2.3	1,300	<2.5	64 J	<2.0	<2.0	<2.6	<2.5	1,600	26
Benzo[g,h,i]perylene	µg/kg	n/v	n/v	n/v	n/v	4,200	2.2 J	2,500	<1.8	250	<1.5	<1.5	<1.8	<1.8	3,100	51
Benzo[a]pyrene	µg/kg	2,110	115	470	n/v	**5,700**	<3.3	**2,100**	<3.6	**240**	<2.9	<3.0	<3.7	<3.6	**3,300**	75
Chrysene	µg/kg	2,110,000	115,000	144	n/v	**7,400**	<4.2	**3,000**	<4.6	**320**	<3.7	<3.8	<4.7	<4.6	**4,400**	95
Dibenz(a,h)anthracene	µg/kg	2,110	115	n/v	n/v	**1,200**	<4.8	**510**	<5.4	57 J	<4.3	<4.4	<5.4	<5.3	**820**	9.6
Dibenzofuran	µg/kg	1,040,000	73,000	n/v	n/v	<740	<14	<680	<15	<140	<12	<13	<16	<15	<780	20 J
Fluoranthene	µg/kg	30,100,000	2,390,000	88,878	n/v	13,000	<2.0	4,100	<2.2	380	<1.8	1.8 J	<2.2	<2.2	6,800	210
Fluorene	µg/kg	30,100,000	2,390,000	14,830	n/v	870	<1.5	350 J	<1.6	19 J	<1.3	<1.3	<1.7	<1.6	530	31
Indeno[1,2,3-cd]pyrene	µg/kg	21,100	1,150	n/v	n/v	**3,600**	<3.7	**1,400**	<4.2	160	<3.3	<3.4	<4.2	<4.1	**2,200**	44
Naphthalene	µg/kg	24,100	5,520	658	n/v	**850**	<1.5	470	<1.6	130	<1.3	<1.3	<1.7	<1.6	**820**	18
Phenanthrene	µg/kg	n/v	n/v	n/v	n/v	11,000	4.8 J	4,400	<2.2	390	<1.8	2.1 J	<2.3	<2.2	6,400	270
Pyrene	µg/kg	22,600,000	1,790,000	54,546	n/v	13,000	6.1 J	4,500	<2.0	450	<1.6	2.6 J	<2.0	<2.0	7,100	230
Benzo[e]pyrene	µg/kg	n/v	n/v	n/v	n/v	4,200	<15 F1	2,000	<17	230 J	<14	<14	<17	<17	2,900	49

Notes:

WISCONSIN SBTV	Wisconsin Soil Background Threshold Value
WISCONSIN RCL	Wisconsin Soil Residual Contaminant Levels (Ch. NR 720 WAC, 2018)
	Concentration exceeds Wisconsin Direct Contact Industrial RCL
	Concentration exceeds Wisconsin Direct Contact Non-Industrial RCL
	Concentration exceeds Wisconsin Soil to Groundwater RCL
15.2	Measured concentration did not exceed the indicated standard
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit
n/v	No standard/guideline value
-	Parameter not analyzed
F1	Matrix spike and/or duplicate recovery exceeds control limits
J	The reported result is an estimated value
ft	Feet below grade
mg/kg	Milligrams per kilogram
µg/kg	Micrograms per kilogram
XX* [XXX]	Standard in bold is the SBTV being used for the purpose of evaluation under ch. NR700 WAC. The established WAC RCL is noted in brackets

Table 2: Soil Analytical Results, May 2022
C. Reiss Coal Dock
Superior, Wisconsin

Sample Location						STN1		STN2			STN3		STN4	
Sample Date						5/5/2022	5/5/2022	5/5/2022	5/5/2022	5/5/2022	5/5/2022	5/5/2022	5/5/2022	5/5/2022
Sample ID, Sample Depth (ft bgs)	Units	Wisconsin RCL Direct Contact Industrial	Wisconsin RCL Direct Contact Non-Industrial	Wisconsin RCL Soil to Groundwater	Wisconsin SBTV	STN1 0.25-2.5	STN1 4.5-6.5	STN2 0-2.5	FD1	STN2 4-6	STN3 0.25-2.5	STN3 2.5-4	STN4 0.5-2.5	STN4 4-6
Laboratory Sample ID						500-216192-1	500-216192-2	500-216192-3	500-216192-4	500-216192-5	500-216192-6	500-216192-7	500-216192-8	500-216192-9
Sample Type						Soil	Soil	Soil	Field Duplicate	Soil	Soil	Soil	Soil	Soil
Approx. Depth to Groundwater (ft bgs)						7.5		7			7		7	
General Soil Type						SILTY CLAY	CLAY	BLACK FILL	BLACK FILL	CLAY	SAND	CLAY	BLACK FILL	CLAY
Detected Resource Conservation and Recovery Act Metals														
Arsenic	mg/kg	**8.3*** [3]	**8.3*** [0.677]	**8.3*** [0.584]	8.3	4.4 F1	4.1	5.7	-	3.5	3.2	2.2	5.2	2.9
Barium	mg/kg	100,000	15,300	**364*** [164.8]	364	100	160	89	-	200	55	160	100	180
Cadmium	mg/kg	985	71.1	**1*** [0.752]	1	<0.046	<0.045	0.14 J B	-	<0.039	<0.036	<0.045	<0.043	<0.041
Chromium	mg/kg	100,000	100,000	360,000	44	37 B F1	36 B	100 B	-	32 B	23 B	40 B	15 B	46 B
Lead	mg/kg	800	400	**51.6*** [27]	51.6	28 F1 F2	10	30	-	11	6.8	8.6	47	10
Mercury	mg/kg	3.13	3.13	0.208	n/v	0.029	0.024	0.022	-	0.022	0.018	0.030	**0.40**	0.025
Selenium	mg/kg	5,840	391	0.52	n/v	<0.75 F1	<0.74	**0.79 J**	-	<0.64	<0.60	<0.73	<0.70	<0.67
Silver	mg/kg	5,840	391	0.849	n/v	0.43 J F1	0.60 J	<0.69	-	0.64	0.16 J	0.59 J	<0.15	0.55 J
Detected Volatile Organic Compounds														
Benzene	µg/kg	7,070	1,600	5.1	n/v	-	-	**26**	**50**	-	-	-	-	-
Butylbenzene, n-	µg/kg	108,000	108,000	n/v	n/v	-	-	<27	<27	-	-	-	-	-
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	145,000	145,000	n/v	n/v	-	-	<28	<28	-	-	-	-	-
Ethylbenzene	µg/kg	35,400	8,020	1,570	n/v	-	-	56	42	-	-	-	-	-
Isopropylbenzene	µg/kg	268,000	268,000	n/v	n/v	-	-	35 J	<27	-	-	-	-	-
Isopropyltoluene, p- (Cymene)	µg/kg	162,000	162,000	n/v	n/v	-	-	<25	<25	-	-	-	-	-
Naphthalene	µg/kg	24,100	5,520	658	n/v	-	-	180	150	-	-	-	-	-
Propylbenzene, n-	µg/kg	264,000	264,000	n/v	n/v	-	-	39 J	<29	-	-	-	-	-
Toluene	µg/kg	818,000	818,000	1,107	n/v	-	-	160	150	-	-	-	-	-
Trimethylbenzene, 1,2,4-	µg/kg	219,000	219,000	1,380	n/v	-	-	78	68 J	-	-	-	-	-
Trimethylbenzene, 1,3,5-	µg/kg	182,000	182,000		n/v	-	-	<27	<26	-	-	-	-	-
Xylenes, Total	µg/kg	260,000	260,000	3,960	n/v	-	-	280	230	-	-	-	-	-
Detected Polycyclic Aromatic Hydrocarbons														
Acenaphthene	µg/kg	45,200,000	3,590,000	n/v	n/v	<32	<32	940 J	-	<32	<28	<31	<33	<32
Acenaphthylene	µg/kg	n/v	n/v	n/v	n/v	<28	<28	<130	-	<28	<25	<28	<29	<28
Anthracene	µg/kg	100,000,000	17,900,000	196,949	n/v	<54	<54	2,600	-	<53	<47	<53	<55	<53
Benzo(a)anthracene	µg/kg	20,800	1,140	n/v	n/v	97 J	<22	**2,800**	-	<22	<19	<21	<22	<21
Benzo(a)pyrene	µg/kg	2,110	115	470	n/v	92 J	<32	**2,300**	-	<32	<28	<31	44 J	<32
Benzo(b)fluoranthene	µg/kg	21,100	1,150	478	n/v	85 J	<35	**2,900**	-	<34	<30	<34	80 J	<34
Benzo(g,h,i)perylene	µg/kg	n/v	n/v	n/v	n/v	55 J	<23	1,900	-	<23	<20	<23	46 J	<23
Benzo(k)fluoranthene	µg/kg	211,000	11,500	n/v	n/v	43 J	<28	1,000	-	<28	<25	<28	41 J	<28
Chrysene	µg/kg	2,110,000	115,000	144	n/v	96 J	<49	**3,100**	-	<48	<42	<48	130 J	<48
Dibenzo(a,h)anthracene	µg/kg	2,110	115	n/v	n/v	<38	<38	**460 J**	-	<38	<34	<38	<39	<38
Fluoranthene	µg/kg	30,100,000	2,390,000	88,878	n/v	140 J	<23	6,900	-	<23	<20	<23	96 J	<23
Fluorene	µg/kg	30,100,000	2,390,000	14,830	n/v	<26	<26	1,200	-	<25	<22	<25	<26	<25
Indeno(1,2,3-cd)pyrene	µg/kg	21,100	1,150	n/v	n/v	48 J	<27	**1,300**	-	<27	<23	<26	<28	<26
Methylnaphthalene, 1-	µg/kg	72,700	17,600	n/v	n/v	<73	<73	<350	-	<72	<64	<71	<75	<72
Methylnaphthalene, 2-	µg/kg	3,010,000	239,000	n/v	n/v	<43	<44	380 J	-	<43	<38	<43	<45	<43
Naphthalene	µg/kg	24,100	5,520	658	n/v	<28	<28	<130	-	<28	<25	<28	<29	<28
Phenanthrene	µg/kg	n/v	n/v	n/v	n/v	120 J	<32	9,800	-	<32	<28	<31	74 J	<32
Pyrene	µg/kg	22,600,000	1,790,000	54,546	n/v	130 J	<26	6,500	-	<25	<22	<25	96 J	<25

Notes:

Wisconsin SBTV	Wisconsin Soil Background Threshold Value
Wisconsin RCL	Wisconsin Soil Residual Contaminant Levels (Ch. NR 720 WAC, 2018)
	Concentration exceeds Wisconsin Direct Contact Industrial RCL
	Concentration exceeds Wisconsin Direct Contact Non-Industrial RCL
	Concentration exceeds Wisconsin Soil to Groundwater RCL
15.2	Measured concentration did not exceed the indicated standard
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit
n/v	No standard/guideline value
-	Parameter not analyzed
*	Laboratory control sample and/or duplicate relative percent difference exceeds control limits
B	Coumpound was found in the laboratory blank and sample
F1	Matrix spike and/or duplicate recovery exceeds control limits
F2	Matrix spike/duplicate relative percent difference exceeds control limits
J	The reported result is an estimated value
K	Benzo(b&k)fluoranthene unresolved due to matrix; result reported as Benzo(b)fluoranthene
ft bgs	Feet below ground surface
mg/kg	Milligrams per kilogram
µg/kg	Micrograms per kilogram
XX* [XXX]	Standard in bold is the SBTV being used for the purpose of evaluation under ch. NR700 WAC. The established WAC RCL is noted in brackets

Table 2: Soil Analytical Results, May 2022
C. Reiss Coal Dock
Superior, Wisconsin

Sample Location						STN5	STN6		STN7		STN8		STN9	
Sample Date						5/5/2022	5/4/2022	5/4/2022	5/5/2022	5/5/2022	5/4/2022	5/4/2022	5/4/2022	5/4/2022
Sample ID, Sample Depth (ft bgs)	Units	Wisconsin RCL Direct Contact Industrial	Wisconsin RCL Direct Contact Non-Industrial	Wisconsin RCL Soil to Groundwater	Wisconsin SBTV	STN5 2-4	STN6 0-2	STN6 8-10	STN7 1.5-3	STN7 4-6	STN8 0-2.5	STN8 6-8	STN9 1-2.5	STN9 4.5-6.5
Laboratory Sample ID						500-216192-10	500-216192-11	500-216192-12	500-216192-13	500-216192-14	500-216192-15	500-216192-16	500-216192-17	500-216192-18
Sample Type						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Approx. Depth to Groundwater (ft bgs)						5	11		11		11		9	
General Soil Type						BLACK FILL	BLACK FILL	CLAY	BLACK FILL	CLAY	BLACK FILL	CLAY	BLACK FILL	SILTY SAND
Detected Resource Conservation and Recovery Act Metals														
Arsenic	mg/kg	**8.3*** [3]	**8.3*** [0.677]	**8.3*** [0.584]	8.3	**14**	4.8	2.9	6.1	2.9	**9.5**	2.7	5.3	2.1
Barium	mg/kg	100,000	15,300	**364*** [164.8]	364	220	100	160	130	180	140	160	86	44
Cadmium	mg/kg	985	71.1	**1*** [0.752]	1	**1.5 B**	0.23 J B	<0.042	0.32 B	<0.043	0.23 J B	<0.040	0.14 J B	0.064 J B
Chromium	mg/kg	100,000	100,000	360,000	44	12 B	9.1 B	39 B	18 B	39 B	8.5 B	39 B	17 B	10 B
Lead	mg/kg	800	400	**51.6*** [27]	51.6	**800**	24	9.9	15	10	46	9.3	34	3.3
Mercury	mg/kg	3.13	3.13	0.208	n/v	0.14	0.036	0.025	0.032	0.022	0.047	0.020	0.085	0.0092 J
Selenium	mg/kg	5,840	391	0.52	n/v	**1.6**	<0.82	<0.69	**1.0**	<0.70	**1.6**	<0.66	<0.64	<0.64
Silver	mg/kg	5,840	391	0.849	n/v	0.43 J	0.18 J	0.59	0.36 J	**0.85**	<0.16	0.51 J	0.25 J	0.19 J
Detected Volatile Organic Compounds														
Benzene	µg/kg	7,070	1,600	5.1	n/v	-	-	-	-	-	-	-	-	-
Butylbenzene, n-	µg/kg	108,000	108,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	145,000	145,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Ethylbenzene	µg/kg	35,400	8,020	1,570	n/v	-	-	-	-	-	-	-	-	-
Isopropylbenzene	µg/kg	268,000	268,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Isopropyltoluene, p- (Cymene)	µg/kg	162,000	162,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Naphthalene	µg/kg	24,100	5,520	658	n/v	-	-	-	-	-	-	-	-	-
Propylbenzene, n-	µg/kg	264,000	264,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Toluene	µg/kg	818,000	818,000	1,107	n/v	-	-	-	-	-	-	-	-	-
Trimethylbenzene, 1,2,4-	µg/kg	219,000	219,000	1,380	n/v	-	-	-	-	-	-	-	-	-
Trimethylbenzene, 1,3,5-	µg/kg	182,000	182,000		n/v	-	-	-	-	-	-	-	-	-
Xylenes, Total	µg/kg	260,000	260,000	3,960	n/v	-	-	-	-	-	-	-	-	-
Detected Polycyclic Aromatic Hydrocarbons														
Acenaphthene	µg/kg	45,200,000	3,590,000	n/v	n/v	2,100 J	<370	<33	160 J	<32	<6,300	<32	30,000	<29
Acenaphthylene	µg/kg	n/v	n/v	n/v	n/v	<520	<320	<29	49 J	<28	<5,500	<28	8,500 J	<26
Anthracene	µg/kg	100,000,000	17,900,000	196,949	n/v	5,200	<610	<55	470	<54	<11,000	<53	52,000	<49
Benzo(a)anthracene	µg/kg	20,800	1,140	n/v	n/v	**12,000**	1,000 J	<22	**1,200**	<22	<4,300	<22	**75,000**	<20
Benzo(a)pyrene	µg/kg	2,110	115	470	n/v	**11,000**	**1,200 J**	<33	**1,000**	<32 *	<6,300 *	<32 *	**74,000 ***	<29 *
Benzo(b)fluoranthene	µg/kg	21,100	1,150	478	n/v	**12,000**	**1,600 J**	<35	**1,300**	<35 *	<6,800 *	<34 *	**77,000 ***	<31 *
Benzo(g,h,i)perylene	µg/kg	n/v	n/v	n/v	n/v	6,800	1,300 J	<24	770	<23	8,800 J	<23	56,000	<21
Benzo(k)fluoranthene	µg/kg	211,000	11,500	n/v	n/v	7,700	690 J	<29	690	<28	<5,500	<28	**40,000**	<26
Chrysene	µg/kg	2,110,000	115,000	144	n/v	**14,000**	**1,700 J**	<50	**1,500**	<49	<9,600	<48	**87,000**	<44
Dibenzo(a,h)anthracene	µg/kg	2,110	115	n/v	n/v	**2,200 J**	<440	<39	**240**	<39	<7,600	<38	**16,000**	<35
Fluoranthene	µg/kg	30,100,000	2,390,000	88,878	n/v	25,000	1,700 J	<24	2,300	<23	<4,500	<23	**190,000**	<21
Fluorene	µg/kg	30,100,000	2,390,000	14,830	n/v	2,300 J	<290	<26	170 J	<26	<5,000	<25	**28,000**	<23
Indeno(1,2,3-cd)pyrene	µg/kg	21,100	1,150	n/v	n/v	**5,900**	900 J	<27	690	<27	<5,300	<27	**48,000**	<24
Methylnaphthalene, 1-	µg/kg	72,700	17,600	n/v	n/v	<1,300	<830	<75	110 J	<73	<14,000	<73	11,000 J	<66
Methylnaphthalene, 2-	µg/kg	3,010,000	239,000	n/v	n/v	810 J	530 J	<44	160 J	<44	<8,600	<43	11,000	<40
Naphthalene	µg/kg	24,100	5,520	658	n/v	<520	480 J	<29	110 J	<28	<5,500	<28	**20,000**	<26
Phenanthrene	µg/kg	n/v	n/v	n/v	n/v	23,000	1,600 J	<33	2,000	<32	8,400 J	<32	250,000	<29
Pyrene	µg/kg	22,600,000	1,790,000	54,546	n/v	21,000	1,600 J	<26	2,300	<26	5,900 J	<25	**200,000**	<23

Notes:

Wisconsin SBTV	Wisconsin Soil Background Threshold Value
Wisconsin RCL	Wisconsin Soil Residual Contaminant Levels (Ch. NR 720 WAC, 2018)
	Concentration exceeds Wisconsin Direct Contact Industrial RCL
	Concentration exceeds Wisconsin Direct Contact Non-Industrial RCL
	Concentration exceeds Wisconsin Soil to Groundwater RCL
15.2	Measured concentration did not exceed the indicated standard
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit
n/v	No standard/guideline value
-	Parameter not analyzed
*	Laboratory control sample and/or duplicate relative percent difference exceeds control limits
B	Coumpound was found in the laboratory blank and sample
F1	Matrix spike and/or duplicate recovery exceeds control limits
F2	Matrix spike/duplicate relative percent difference exceeds control limits
J	The reported result is an estimated value
K	Benzo(b&k)fluoranthene unresolved due to matrix; result reported as Benzo(b)fluoranthene
ft bgs	Feet below ground surface
mg/kg	Milligrams per kilogram
µg/kg	Micrograms per kilogram
XX* [XXX]	Standard in bold is the SBTV being used for the purpose of evaluation under ch. NR700 WAC. The established WAC RCL is noted in brackets

Table 2: Soil Analytical Results, May 2022
C. Reiss Coal Dock
Superior, Wisconsin

Sample Location						STN10		STN11		STN12		STN13	STN14	STN15
Sample Date						5/4/2022	5/4/2022	5/4/2022	5/4/2022	5/4/2022	5/4/2022	5/4/2022	5/4/2022	5/4/2022
Sample ID, Sample Depth (ft bgs)	Units	Wisconsin RCL Direct Contact Industrial	Wisconsin RCL Direct Contact Non-Industrial	Wisconsin RCL Soil to Groundwater	Wisconsin SBTV	STN10 0-2.25	STN10 8-9.5	STN11 0-2	STN11 10.5-12	STN12 3.5-4.5	STN12 8-10	STN13 2.5-3.5	STN14 0-2	STN15 0-1
Laboratory Sample ID						500-216192-19	500-216192-20	500-216192-21	500-216192-22	500-216192-23	500-216192-24	500-216192-25	500-216192-26	500-216192-27
Sample Type						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Approx. Depth to Groundwater (ft bgs)						9.5		(Not encountered)		(Not encountered)		3.5	0.1 (Surface)	1
General Soil Type						BLACK FILL	CLAYEY SAND	BLACK FILL	SILTY CLAY	BLACK FILL	CLAY	BLACK FILL	SAND	FILL/CONC.
Detected Resource Conservation and Recovery Act Metals														
Arsenic	mg/kg	**8.3*** [3]	**8.3*** [0.677]	**8.3*** [0.584]	8.3	18	1.8	4.5	3.8 F1	3.9	3.2	6.9	10	2.0
Barium	mg/kg	100,000	15,300	**364*** [164.8]	364	81	42	65	83	140	130	150	130	46
Cadmium	mg/kg	985	71.1	**1*** [0.752]	1	0.26 B	0.050 J B	<0.039	0.11 J B	<0.043	<0.045	0.14 J B	0.095 J B	0.043 J B
Chromium	mg/kg	100,000	100,000	360,000	44	16 B	17 B	17 B	18	34	33	7.9	5.6	12
Lead	mg/kg	800	400	**51.6*** [27]	51.6	33	3.4	15	6.1	11	8.4	29	8.1	4.2
Mercury	mg/kg	3.13	3.13	0.208	n/v	0.23	0.011 J	0.043	0.024	0.038	0.024	0.036	0.021	0.012 J
Selenium	mg/kg	5,840	391	0.52	n/v	<0.71	<0.63	<0.64	<0.66 F1	<0.70	<0.73	<0.64	1.6	<0.65
Silver	mg/kg	5,840	391	0.849	n/v	<0.16	0.21 J	0.25 J	0.38 J F1	0.58 J	0.52 J	0.20 J	0.16 J	0.17 J
Detected Volatile Organic Compounds														
Benzene	µg/kg	7,070	1,600	5.1	n/v	-	-	-	-	-	-	-	-	-
Butylbenzene, n-	µg/kg	108,000	108,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	145,000	145,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Ethylbenzene	µg/kg	35,400	8,020	1,570	n/v	-	-	-	-	-	-	-	-	-
Isopropylbenzene	µg/kg	268,000	268,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Isopropyltoluene, p- (Cymene)	µg/kg	162,000	162,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Naphthalene	µg/kg	24,100	5,520	658	n/v	-	-	-	-	-	-	-	-	-
Propylbenzene, n-	µg/kg	264,000	264,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Toluene	µg/kg	818,000	818,000	1,107	n/v	-	-	-	-	-	-	-	-	-
Trimethylbenzene, 1,2,4-	µg/kg	219,000	219,000	1,380	n/v	-	-	-	-	-	-	-	-	-
Trimethylbenzene, 1,3,5-	µg/kg	182,000	182,000		n/v	-	-	-	-	-	-	-	-	-
Xylenes, Total	µg/kg	260,000	260,000	3,960	n/v	-	-	-	-	-	-	-	-	-
Detected Polycyclic Aromatic Hydrocarbons														
Acenaphthene	µg/kg	45,200,000	3,590,000	n/v	n/v	67,000	<29	<1,400	<30	1,800 J	<33	<1,500	<32	<140
Acenaphthylene	µg/kg	n/v	n/v	n/v	n/v	22,000	<25	<1,300	<26	<280	<29	<1,300	<28	960
Anthracene	µg/kg	100,000,000	17,900,000	196,949	n/v	130,000	<48	<2,400	<50	3,600	<55	<2,500	<54	640 J
Benzo(a)anthracene	µg/kg	20,800	1,140	n/v	n/v	190,000	<20	3,600 J	<20	7,200	<22	7,000 J	<22	2,800
Benzo(a)pyrene	µg/kg	2,110	115	470	n/v	170,000 *	<29 *	4,600 J *	<30 *	7,200 *	<33 *	10,000 *	<32 *	2,200 *
Benzo(b)fluoranthene	µg/kg	21,100	1,150	478	n/v	200,000 *	<31 *	4,900 J *	<32 *	7,600 *	<36 *	7,200 J *	71 J *	2,800 *
Benzo(g,h,i)perylene	µg/kg	n/v	n/v	n/v	n/v	130,000	<21	4,600 J	<21	5,500	<24	9,200 J	<23	1,300
Benzo(k)fluoranthene	µg/kg	211,000	11,500	n/v	n/v	100,000	<25	2,400 J	<26	3,200	<29	3,600 J	<28	1,300
Chrysene	µg/kg	2,110,000	115,000	144	n/v	200,000	<44	5,700 J	<45	8,500	<50	9,700 J	<48	2,800
Dibenzo(a,h)anthracene	µg/kg	2,110	115	n/v	n/v	31,000	<35	<1,700	<35	1,300 J	<39	1,900 J	<38	450 J
Fluoranthene	µg/kg	30,100,000	2,390,000	88,878	n/v	510,000	72 J	6,000 J	<21	17,000	<24	9,000 J	70 J	5,700
Fluorene	µg/kg	30,100,000	2,390,000	14,830	n/v	77,000	<23	<1,100	<24	1,700 J	<26	<1,200	<25	260 J
Indeno(1,2,3-cd)pyrene	µg/kg	21,100	1,150	n/v	n/v	110,000	<24	2,600 J	<25	4,200	<28	4,400 J	34 J	1,400
Methylnaphthalene, 1-	µg/kg	72,700	17,600	n/v	n/v	18,000 J	<66	<3,300	<67	<720	<75	<3,400	<73	<320
Methylnaphthalene, 2-	µg/kg	3,010,000	239,000	n/v	n/v	28,000	<39	<1,900	<40	470 J	<45	<2,000	<43	<190
Naphthalene	µg/kg	24,100	5,520	658	n/v	65,000	<25	<1,300	<26	890 J	<29	<1,300	<28	320 J
Phenanthrene	µg/kg	n/v	n/v	n/v	n/v	540,000	77 J	4,300 J	<30	19,000	<33	7,200 J	58 J	3,800
Pyrene	µg/kg	22,600,000	1,790,000	54,546	n/v	460,000	77 J	6,500 J	<24	18,000	<26	11,000	75 J	5,100

Notes:

Wisconsin SBTV	Wisconsin Soil Background Threshold Value
Wisconsin RCL	Wisconsin Soil Residual Contaminant Levels (Ch. NR 720 WAC, 2018)
	Concentration exceeds Wisconsin Direct Contact Industrial RCL
	Concentration exceeds Wisconsin Direct Contact Non-Industrial RCL
	Concentration exceeds Wisconsin Soil to Groundwater RCL
15.2	Measured concentration did not exceed the indicated standard
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit
n/v	No standard/guideline value
-	Parameter not analyzed
*	Laboratory control sample and/or duplicate relative percent difference exceeds control limits
B	Coumpound was found in the laboratory blank and sample
F1	Matrix spike and/or duplicate recovery exceeds control limits
F2	Matrix spike/duplicate relative percent difference exceeds control limits
J	The reported result is an estimated value
K	Benzo(b&k)fluoranthene unresolved due to matrix; result reported as Benzo(b)fluoranthene
ft bgs	Feet below ground surface
mg/kg	Milligrams per kilogram
µg/kg	Micrograms per kilogram
XX* [XXX]	Standard in bold is the SBTV being used for the purpose of evaluation under ch. NR700 WAC. The established WAC RCL is noted in brackets

Table 2: Soil Analytical Results, May 2022
C. Reiss Coal Dock
Superior, Wisconsin

Sample Location						STN16		STN17	STN18	STN19	STN20		Trip Blank
Sample Date						5/4/2022	5/4/2022	5/4/2022	5/4/2022	5/4/2022	5/4/2022	5/4/2022	-
Sample ID, Sample Depth (ft bgs)	Units	Wisconsin RCL Direct Contact Industrial	Wisconsin RCL Direct Contact Non-Industrial	Wisconsin RCL Soil to Groundwater	Wisconsin SBTV	STN16 0-1.5	STN16 3.5-5	STN17 0-1.25	STN18 0-1.5	STN19 0-1	STN20 0-1	STN20 1-3	Trip Blank
Laboratory Sample ID						500-216192-28	500-216192-29	500-216192-30	500-216192-31	500-216192-32	500-216192-33	500-216192-34	500-216192-35
Sample Type						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Trip Blank
Approx. Depth to Groundwater (ft bgs)						1.5		1.25	1.5	1	3		-
General Soil Type						BLACK FILL	SAND	FILL/GRAVEL	BLACK FILL	FILL/GRAVEL	FILL/TOPSOIL	SAND	-
Detected Resource Conservation and Recovery Act Metals													
Arsenic	mg/kg	**8.3*** [3]	**8.3*** [0.677]	**8.3*** [0.584]	8.3	7.0	1.9	3.2	**9.4**	4.6	**52**	**31**	-
Barium	mg/kg	100,000	15,300	**364*** [164.8]	364	130	46	62	62	47	65	10	-
Cadmium	mg/kg	985	71.1	**1*** [0.752]	1	0.12 J B	0.042 J B	0.070 J B	<0.041	<0.035	0.073 J B	<0.041	-
Chromium	mg/kg	100,000	100,000	360,000	44	3.5	14	13	7.7	11	8.0	4.9	-
Lead	mg/kg	800	400	**51.6*** [27]	51.6	18	3.5	7.2	31	6.0	12	1.5	-
Mercury	mg/kg	3.13	3.13	0.208	n/v	0.060	0.010 J	0.011 J	0.046	0.013 J	0.019	<0.0062	-
Selenium	mg/kg	5,840	391	0.52	n/v	**1.6**	<0.59	<0.66	<0.67	<0.56	**3.8**	**1.7**	-
Silver	mg/kg	5,840	391	0.849	n/v	0.25 J	0.23 J	0.29 J	0.16 J	0.27 J	0.14 J	<0.15	-
Detected Volatile Organic Compounds													
Benzene	µg/kg	7,070	1,600	5.1	n/v	**170**	<20	-	-	-	-	-	<7.3
Butylbenzene, n-	µg/kg	108,000	108,000	n/v	n/v	99	<54	-	-	-	-	-	<19
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	145,000	145,000	n/v	n/v	62 J	210	-	-	-	-	-	<20
Ethylbenzene	µg/kg	35,400	8,020	1,570	n/v	200	<25	-	-	-	-	-	<9.2
Isopropylbenzene	µg/kg	268,000	268,000	n/v	n/v	110	<53	-	-	-	-	-	<19
Isopropyltoluene, p- (Cymene)	µg/kg	162,000	162,000	n/v	n/v	47 J	560	-	-	-	-	-	<18
Naphthalene	µg/kg	24,100	5,520	658	n/v	530	<46	-	-	-	-	-	<17
Propylbenzene, n-	µg/kg	264,000	264,000	n/v	n/v	180	<57	-	-	-	-	-	<21
Toluene	µg/kg	818,000	818,000	1,107	n/v	640	<20	-	-	-	-	-	<7.4
Trimethylbenzene, 1,2,4-	µg/kg	219,000	219,000	1,380	n/v	430	**760**	-	-	-	-	-	<18
Trimethylbenzene, 1,3,5-	µg/kg	182,000	182,000		n/v	120	**1,900**	-	-	-	-	-	<19
Xylenes, Total	µg/kg	260,000	260,000	3,960	n/v	1,100	110	-	-	-	-	-	<11
Detected Polycyclic Aromatic Hydrocarbons													
Acenaphthene	µg/kg	45,200,000	3,590,000	n/v	n/v	230	1,400	<140	<29	<27	<31	<29	-
Acenaphthylene	µg/kg	n/v	n/v	n/v	n/v	<27	<26	370 J	<26	86 J	<27	<26	-
Anthracene	µg/kg	100,000,000	17,900,000	196,949	n/v	420	520	240 J	94 J	95 J	<52	<49	-
Benzo(a)anthracene	µg/kg	20,800	1,140	n/v	n/v	900	<20	1,000	<20	360	<21	<20	-
Benzo(a)pyrene	µg/kg	2,110	115	470	n/v	**760 ***	<29 *	**850 J ***	**210 ***	**330 ***	<31 *	<29	-
Benzo(b)fluoranthene	µg/kg	21,100	1,150	478	n/v	**1,300 ***	<32 *	**1,300 K ***	300 *	390 *	<33 *	<32	-
Benzo(g,h,i)perylene	µg/kg	n/v	n/v	n/v	n/v	580	<21	530 J	200	180 J	<22	<21	-
Benzo(k)fluoranthene	µg/kg	211,000	11,500	n/v	n/v	440	<26	<130	84 J	220	<27	<26	-
Chrysene	µg/kg	2,110,000	115,000	144	n/v	**1,300**	<44	**1,100**	**330**	**420**	<47	<44	-
Dibenzo(a,h)anthracene	µg/kg	2,110	115	n/v	n/v	**200 J**	<35	**200 J**	61 J	65 J	<37	<35	-
Fluoranthene	µg/kg	30,100,000	2,390,000	88,878	n/v	2,200	210	2,200	330	780	32 J	<21	-
Fluorene	µg/kg	30,100,000	2,390,000	14,830	n/v	<25	2,500	<110	<24	<22	<25	<23	-
Indeno(1,2,3-cd)pyrene	µg/kg	21,100	1,150	n/v	n/v	590	<25	520 J	140 J	200	<26	<25	-
Methylnaphthalene, 1-	µg/kg	72,700	17,600	n/v	n/v	740	8,000	<320	890	570	98 J	<67	-
Methylnaphthalene, 2-	µg/kg	3,010,000	239,000	n/v	n/v	1,400	6,200	<190	970	660	120 J	<40	-
Naphthalene	µg/kg	24,100	5,520	658	n/v	**770**	**870**	230 J	**750**	480	88 J	<26	-
Phenanthrene	µg/kg	n/v	n/v	n/v	n/v	2,400	6,100	1,800	880	740	100 J	<29	-
Pyrene	µg/kg	22,600,000	1,790,000	54,546	n/v	1,800	410	1,800	330	610	34 J	<23	-

Notes:

Wisconsin SBTV	Wisconsin Soil Background Threshold Value
Wisconsin RCL	Wisconsin Soil Residual Contaminant Levels (Ch. NR 720 WAC, 2018)
	Concentration exceeds Wisconsin Direct Contact Industrial RCL
	Concentration exceeds Wisconsin Direct Contact Non-Industrial RCL
	Concentration exceeds Wisconsin Soil to Groundwater RCL
15.2	Measured concentration did not exceed the indicated standard
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit
n/v	No standard/guideline value
-	Parameter not analyzed
*	Laboratory control sample and/or duplicate relative percent difference exceeds control limits
B	Coumpound was found in the laboratory blank and sample
F1	Matrix spike and/or duplicate recovery exceeds control limits
F2	Matrix spike/duplicate relative percent difference exceeds control limits
J	The reported result is an estimated value
K	Benzo(b&k)fluoranthene unresolved due to matrix; result reported as Benzo(b)fluoranthene
ft bgs	Feet below ground surface
mg/kg	Milligrams per kilogram
µg/kg	Micrograms per kilogram
XX* [XXX]	Standard in bold is the SBTV being used for the purpose of evaluation under ch. NR700 WAC. The established WAC RCL is noted in brackets

Table 3: Sediment Analytical Results, ch. NR 720 WAC
C. Reiss Coal Dock
Superior, Wisconsin

Sample Location					SED1				SED2			SED3		
Sample Date					12/8/2021	12/8/2021	12/8/2021	12/8/2021	12/8/2021	12/8/2021	12/8/2021	12/8/2021	12/8/2021	12/8/2021
Sample ID					SED1 0-3	SED1 3-6	SED1 6-8	DUP1	SED2 0-3	SED2 3-6	SED2 6-8	SED3 0-3	SED3 3-6	SED3 6-8
Sample Depth (feet below sediment/water interface)		Wisconsin RCL	Wisconsin RCL	Wisconsin RCL	0-3 ft	3-6 ft	6-8 ft	6-8 ft	0-3 ft	3-6 ft	6-8 ft	0-3 ft	3-6 ft	6-8 ft
Laboratory Sample ID		Direct Contact	Direct Contact	Soil to	180-131094-1	180-131094-2	180-131094-3	180-131094-4	180-131094-5	180-131094-6	180-131094-7	180-131094-8	180-131094-9	180-131094-10
Sample Type	Units	Industrial	Non-Industrial	Groundwater	Sediment	Sediment	Sediment	Field Duplicate	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Semi-Volatile Organic Compounds														
2,4-Dimethylphenol	µg/kg	16,400,000	1,260,000	n/v	17 J	<6.9	<7.2	<6.9	7.5 J	52 J	<6.7	<120	<110	<7.1
2-Methylnaphthalene	µg/kg	3,010,000	239,000	n/v	57	<0.99	<1.0	<0.98	35	130	3 J	280	300	1.4 J
Acenaphthene	µg/kg	45,200,000	3,590,000	n/v	24	<1.2	<1.2	<1.2	5.4	22	<1.1	100	70	<1.2
Acenaphthylene	µg/kg	n/v	n/v	n/v	5.2	<0.90	<0.94	<0.90	<0.88	21	2 J	74	<14	<0.93
Anthracene	µg/kg	100,000,000	17,900,000	196,949	65	<1.1	<1.1	<1.1	14	71	2.8 J	280	150	<1.1
Benzo[a]anthracene	µg/kg	20,800	1,140	n/v	87	<1.9	<1.9	<1.8	21	72	6.5	570	270	<1.9
Benzo[a]pyrene	µg/kg	2,110	115	470	58	<1.8	<1.9	<1.8	12	56	6.2	**450**	**210**	<1.8
Benzo[b]fluoranthene	µg/kg	21,100	1,150	478	76	<1.0	<1.1	<1.0	18	79	6.6	**550**	230	<1.0
Benzo[e]pyrene	µg/kg	n/v	n/v	n/v	39	<8.3	<8.6 F1	<8.2	13 J	47 J	<8.0	340	180 J	<8.5
Benzo[g,h,i]perylene	µg/kg	n/v	n/v	n/v	34	<0.89	<0.93	<0.88	11	38	3.5 J	300	180	<0.91
Benzo[k]fluoranthene	µg/kg	211,000	11,500	n/v	28	<1.2	<1.3	<1.2	6	29	2.3 J	200	110	<1.3
Chrysene	µg/kg	2,110,000	115,000	144	89	<2.3	<2.4	<2.3	35	99	7.3	**660**	**330**	<2.3
Dibenz(a,h)anthracene	µg/kg	2,110	115	n/v	10	<2.6	<2.7	<2.6	4.4	<13	<2.6	100	44 J	<2.7
Dibenzofuran	µg/kg	1,040,000	73,000	n/v	24	<7.6	<7.9	<7.5	10 J	42 J	<7.3	<130	<120	<7.8
Fluoranthene	µg/kg	30,100,000	2,390,000	88,878	180	1.2 J	<1.1	<1.1	28	170	6.4	1,100	460	1.9 J
Fluorene	µg/kg	30,100,000	2,390,000	14,830	31	<0.81	<0.84	<0.80	11	48	1.1 J	160	110	<0.83
Indeno[1,2,3-cd]pyrene	µg/kg	21,100	1,150	n/v	29	<2.1	<2.1	<2.0	5.5	29	3.1 J	250	110	<2.1
Naphthalene	µg/kg	24,100	5,520	658	39	<0.80	<0.84	<0.80	26	100	2.6 J	290	210	1.5 J
Phenanthrene	µg/kg	n/v	n/v	n/v	200	1.7 J	1.3 J	<1.1	49	230	4.9	980	520	3.2 J
Pyrene	µg/kg	22,600,000	1,790,000	54,546	150	1.3 J	<1.0	<0.97	30	180	6.3	960	430	2.2 J
Oil & Grease														
Oil and Grease (HEM)	mg/kg	n/v	n/v	n/v	<95.9	<92.0	<96.2	-	113 J	235	<88.8	664	991	<94.0
Grain Size Analysis														
Gravel	%	n/v	n/v	n/v	0	3.9	0	-	0	0.2	3.8	0.3	14.2	0
Sand	%	n/v	n/v	n/v	86	72.8	70.7	-	98.3	97.5	80.3	37.7	70.7	31.9
Coarse Sand	%	n/v	n/v	n/v	0.3	0.6	0	-	0	0.2	0.5	0.1	4.5	0
Medium Sand	%	n/v	n/v	n/v	1.5	1.5	0.2	-	11.7	8.6	7.9	1.7	11	0.4
Fine Sand	%	n/v	n/v	n/v	84.2	70.7	70.5	-	86.6	88.7	71.9	35.9	55.2	31.5
Silt	%	n/v	n/v	n/v	10.8	18.1	23.7	-	1.1	1.6	12.4	49.2	10.3	60.2
Clay	%	n/v	n/v	n/v	3.2	5.2	5.6	-	0.6	0.7	3.5	12.8	4.8	7.9
Sieve Size 3 inch - Percent Finer	% Passing	n/v	n/v	n/v	100	100	100	-	100	100	100	100	100	100
Sieve Size 2 inch - Percent Finer	% Passing	n/v	n/v	n/v	100	100	100	-	100	100	100	100	100	100
Sieve Size 1.5 inch - Percent Finer	% Passing	n/v	n/v	n/v	100	100	100	-	100	100	100	100	100	100
Sieve Size 1 inch - Percent Finer	% Passing	n/v	n/v	n/v	100	100	100	-	100	100	100	100	100	100
Sieve Size 0.75 inch - Percent Finer	% Passing	n/v	n/v	n/v	100	96.5	100	-	100	100	100	100	100	100
Sieve Size 0.375 inch - Percent Finer	% Passing	n/v	n/v	n/v	100	96.5	100	-	100	100	97.3	100	88	100
Sieve Size #4 - Percent Finer	% Passing	n/v	n/v	n/v	100	96.1	100	-	100	99.8	96.2	99.7	85.8	100
Sieve Size #10 - Percent Finer	% Passing	n/v	n/v	n/v	99.7	95.5	100	-	100	99.6	95.7	99.6	81.3	100
Sieve Size #20 - Percent Finer	% Passing	n/v	n/v	n/v	99.3	94.8	99.9	-	99.3	98.8	94.5	99.1	77	99.8
Sieve Size #40 - Percent Finer	% Passing	n/v	n/v	n/v	98.2	94	99.8	-	88.3	91	87.8	97.9	70.3	99.6
Sieve Size #60 - Percent Finer	% Passing	n/v	n/v	n/v	85.5	85.7	96.2	-	51.7	58.8	59.4	93.8	50.6	98.7
Sieve Size #80 - Percent Finer	% Passing	n/v	n/v	n/v	65.1	68	87.9	-	18.9	34.2	35.6	89.7	37.5	97.9
Sieve Size #100 - Percent Finer	% Passing	n/v	n/v	n/v	39.7	53.9	68	-	8.4	12.3	26.3	85.7	32.6	95.6
Sieve Size #200 - Percent Finer	% Passing	n/v	n/v	n/v	14	23.3	29.3	-	1.7	2.3	15.9	62	15.1	68.1
Hydrometer Reading 1 - Percent Finer	% Passing	n/v	n/v	n/v	6.9	10.8	11.1	-	1.2	1.8	9.3	27.6	13.5	25.7
Hydrometer Reading 2 - Percent Finer	% Passing	n/v	n/v	n/v	5.6	8.6	8.7	-	1.2	1.8	7	21.7	10.1	17.9
Hydrometer Reading 3 - Percent Finer	% Passing	n/v	n/v	n/v	5	7.5	8.1	-	1.2	1.2	4.7	16.5	7.5	12.4
Hydrometer Reading 4 - Percent Finer	% Passing	n/v	n/v	n/v	3.2	6.3	6.9	-	1.2	0.7	3.5	14.3	6.1	10.1
Hydrometer Reading 5 - Percent Finer	% Passing	n/v	n/v	n/v	3.2	5.2	5.6	-	0.6	0.7	3.5	12.8	4.8	7.9
Hydrometer Reading 6 - Percent Finer	% Passing	n/v	n/v	n/v	2.6	4.6	4.4	-	0.6	0.7	2.4	9.8	4.1	6.2
Hydrometer Reading 7 - Percent Finer	% Passing	n/v	n/v	n/v	1.9	4.1	4.4	-	0.6	0.7	2.4	7.6	3.5	4.6

Notes:

WISCONSIN RCL	Wisconsin Soil Residual Contaminant Levels (Ch. NR 720 WAC, 2018)
	Concentration exceeds Wisconsin Direct Contact Industrial RCL
	Concentration exceeds Wisconsin Direct Contact Non-Industrial RCL
	Concentration exceeds Wisconsin Soil to Groundwater RCL
15.2	Measured concentration did not exceed the indicated standard
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit
n/v	No standard/guideline value
-	Parameter not analyzed
F1	Matrix Spike and/or Matrix Spike Duplicate recovery exceeds control limits
J	The reported result is an estimated value
ft	Feet below grade
mg/kg	Milligrams per kilogram
µg/kg	Micrograms per kilogram

Table 4: Sediment Analytical Results, RR-088 Consensus-Based Sediment Quality Guidelines
C. Reiss Coal Dock
Superior, Wisconsin

Sample Location					SED1				SED2			SED3		
Sample Date					12/8/2021	12/8/2021	12/8/2021	12/8/2021	12/8/2021	12/8/2021	12/8/2021	12/8/2021	12/8/2021	12/8/2021
Sample ID					SED1 0-3	SED1 3-6	SED1 6-8	DUP1	SED2 0-3	SED2 3-6	SED2 6-8	SED3 0-3	SED3 3-6	SED3 6-8
Sample Depth (feet below sediment/water interface)		TEC[1]	MEC[1]	PEC[1]	0-3 ft	3-6 ft	6-8 ft	6-8 ft	0-3 ft	3-6 ft	6-8 ft	0-3 ft	3-6 ft	6-8 ft
Laboratory Sample ID					180-131094-1	180-131094-2	180-131094-3	180-131094-4	180-131094-5	180-131094-6	180-131094-7	180-131094-8	180-131094-9	180-131094-10
Sample Type	Units	Level 2 Concern	Level 3 Concern	Level 4 Concern	Sediment	Sediment	Sediment	Field Duplicate	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Semi-Volatile Organic Compounds														
2,4-Dimethylphenol	µg/kg	290	-	290	17 J	<6.9	<7.2	<6.9	7.5 J	52 J	<6.7	<120	<110	<7.1
2-Methylnaphthalene	µg/kg	20.2	111	201	**57**	<0.99	<1.0	<0.98	**35**	**130**	3 J	**280**	**300**	1.4 J
Acenaphthene	µg/kg	6.7	48	89	**24**	<1.2	<1.2	<1.2	5.4	**22**	<1.1	**100**	**70**	<1.2
Acenaphthylene	µg/kg	5.9	67	128	5.2	<0.90	<0.94	<0.90	<0.88	**21**	2 J	**74**	<14	<0.93
Anthracene	µg/kg	57.2	451	845	**65**	<1.1	<1.1	<1.1	14	**71**	2.8 J	**280**	**150**	<1.1
Benzo[a]anthracene	µg/kg	108	579	1,050	87	<1.9	<1.9	<1.8	21	72	6.5	**570**	**270**	<1.9
Benzo[a]pyrene	µg/kg	150	800	1,450	58	<1.8	<1.9	<1.8	12	56	6.2	**450**	**210**	<1.8
Benzo[b]fluoranthene	µg/kg	240	6,820	13,400	76	<1.0	<1.1	<1.0	18	79	6.6	**550**	230	<1.0
Benzo[e]pyrene	µg/kg	150	800	1,450	39	<8.3	<8.6 F1	<8.2	13 J	47 J	<8.0	**340**	**180 J**	<8.5
Benzo[g,h,i]perylene	µg/kg	170	1,685	3,200	34	<0.89	<0.93	<0.88	11	38	3.5 J	**300**	**180**	<0.91
Benzo[k]fluoranthene	µg/kg	240	6,820	13,400	28	<1.2	<1.3	<1.2	6	29	2.3 J	200	110	<1.3
Chrysene	µg/kg	166	728	1,290	89	<2.3	<2.4	<2.3	35	99	7.3	**660**	**330**	<2.3
Dibenz(a,h)anthracene	µg/kg	33	84	135	10	<2.6	<2.7	<2.6	4.4	<13	<2.6	**100**	**44 J**	<2.7
Dibenzofuran	µg/kg	150	365	580	24	<7.6	<7.9	<7.5	10 J	42 J	<7.3	<130	<120	<7.8
Fluoranthene	µg/kg	423	1,327	2,230	180	1.2 J	<1.1	<1.1	28	170	6.4	**1,100**	**460**	1.9 J
Fluorene	µg/kg	77.4	307	536	31	<0.81	<0.84	<0.80	11	48	1.1 J	**160**	**110**	<0.83
Indeno[1,2,3-cd]pyrene	µg/kg	200	1,700	3,200	29	<2.1	<2.1	<2.0	5.5	29	3.1 J	**250**	110	<2.1
Naphthalene	µg/kg	176	369	561	39	<0.80	<0.84	<0.80	26	100	2.6 J	**290**	**210**	1.5 J
Phenanthrene	µg/kg	204	687	1,170	200	1.7 J	1.3 J	<1.1	49	**230**	4.9	**980**	**520**	3.2 J
Pyrene	µg/kg	195	858	1,520	150	1.3 J	<1.0	<0.97	30	180	6.3	**960**	**430**	2.2 J
Total Polycyclic Aromatic Hydrocarbons (18 constituents)[2]	µg/kg	1,610	12,205	22,800	1,201	32	32	31	325	1,434	76	**7,644**	**3,928**	37
Oil & Grease														
Oil and Grease (HEM)	mg/kg	n/v	n/v	n/v	<95.9	<92.0	<96.2	-	113 J	235	<88.8	664	991	<94.0

Notes:

[1]	Based on Recommended Sediment Quality Guidelines provided in Table 2 and Table 4 of the *Concensus-Based Sediment Quality Guidelines*, Publication RR-088 (December 2003)
[2]	For the purposes of calculating "total polycyclic aromatic hydrocarbons", the limit of detection (LOD) concentration was used for analytes not detected at a concentration greater than the LOD
	Concentration exceeds the Probable Effect Concentration (PEC), representing Concern Level 4
	Concentration exceeds the Midpoint Effect Concentration (MEC), representing Concern Level 3
	Concentration exceeds the Threshold Effect Concentration (TEC), representing Concern Level 2
15.2	Measured concentration did not exceed the indicated standard
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit
n/v	No standard/guideline value
-	Parameter not analyzed
F1	Matrix Spike and/or Matrix Spike Duplicate recovery exceeds control limits
J	The reported result is an estimated value
ft	Feet below grade
mg/kg	Milligrams per kilogram
µg/kg	Micrograms per kilogram

Table 5: Site Water and Data Quality Sample Summary
C. Reiss Coal Dock
Superior, Wisconsin

Sample Medium		Site Water			Sediment		Soil	
Sample Date		12/8/2021	12/8/2021	12/8/2021	12/8/2021	12/8/2021	12/9/2021	12/9/2021
Sample ID		SITE WATER 1	EB1	TB2	EB2	TB1	EB3	TB3
Sample Depth (feet below water surface)		6 ft	-	-	-	-	-	-
Laboratory Sample ID		180-131094-13	180-131094-12	180-131094-15	180-131094-11	180-131094-14	180-131094-28	180-131094-16
Sample Type	Units	Site Water	Equipment Blank	Trip Blank	Equipment Blank	Trip Blank	Equipment Blank	Trip Blank
Detected Volatile Organic Compounds								
Fourty-eight (48) constituents analyzed	µg/L	-	-	-	-	-	-	None detected
Detected Semi-Volatile Organic Compounds								
Naphthalene	µg/L	<0.059	<0.061	0.12 J	<0.057	<0.059	<0.057	-
Phenanthrene	µg/L	0.18 J	0.17 J	0.19	0.19	0.13 J	0.1 J	-
Oil & Grease								
Oil and Grease (HEM)	mg/L	<4.1	-	-	-	-	-	-

Notes:

15.2	Measured concentration did not exceed the indicated standard
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit
-	Parameter not analyzed
J	The reported result is an estimated value
ft	Feet
mg/L	Milligrams per liter
µg/L	Micrograms per liter

Table 6: Elutriate Sample Summary
C. Reiss Coal Dock
Superior, Wisconsin

Sample Medium		Elutriate		
Sample Date		12/8/2021	12/8/2021	12/17/2021
Sample ID		ELUT-1	ELUT-1	SITE WATER
Laboratory Sample ID		180-131313-1	180-131313-2	180-131313-3
Sample Type	Units	Elutriate	Elutriate	Site Water
Standard Elutriate Test, Dissolved				
Elutriate Generated	%	20	-	-
Detected Semi-Volatile Organic Compounds				
Phenanthrene	µg/L	-	0.14 J	0.14 J
Oil & Grease				
Oil and Grease (HEM)	mg/L	-	<4.3 F1	<4.4

Notes:

<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit
-	Parameter not analyzed
F1	Matrix spike and/or duplicate recovery exceeds control limits
J	The reported result is an estimated value
mg/L	Milligrams per liter
µg/L	Micrograms per liter

Table 7: Waste Characterization Analytical Results C. Reiss Coal Dock Superior, Wisconsin

Sample Location			Railroad Cut, SE	Pond & Road Cut, SE
Sample Date			5-May-22	5-May-22
Sample ID			STN-A	STN-B
Sampling Company		EPA TCLP	STANTEC	STANTEC
Laboratory Sample ID		Regulatory	500-216192-36	500-216192-37
Soil Sample Locations Represented	Units	Limit[1]	STN1, 3, 6, 13	STN2, 5, 8, 9, 10, 11, 12
General Chemistry				
Chlorine, Total	%	n/v	<0.062	<0.064
Cyanide, Total	mg/kg	n/v	0.17 J	0.28 J
Free Liquids	n/v	n/v	Pass	Pass
pH	n/v	n/v	8.0	8.1
Phenolics, Total Recoverable	mg/kg	n/v	<0.52	0.58 J
Sulfide	mg/kg	n/v	<5.9	<5.8
Polycholrinated Biphenyls				
Aroclor-1016	mg/kg	n/v	<0.040	<0.042
Aroclor-1221	mg/kg	n/v	<0.040	<0.042
Aroclor-1232	mg/kg	n/v	<0.028	<0.029
Aroclor-1242	mg/kg	n/v	<0.040	<0.041
Aroclor-1248	mg/kg	n/v	<0.049	<0.051
Aroclor-1254	mg/kg	n/v	<0.035	<0.036
Aroclor-1260	mg/kg	n/v	<0.039	<0.040
Aroclor-1262	mg/kg	n/v	<0.034	<0.035
Aroclor-1268	mg/kg	n/v	<0.059	<0.062
TCLP Metals				
Arsenic	mg/L	5.0	<0.010	<0.010
Barium	mg/L	100.0	0.66	0.60
Cadmium	mg/L	1.0	<0.0020	0.0025 J
Chromium	mg/L	5.0	<0.010	<0.010
Copper	mg/L	n/v	<0.010	<0.010
Lead	mg/L	5.0	<0.0075	<0.0075
Nickel	mg/L	n/v	<0.010	<0.010
Selenium	mg/L	1.0	<0.020	<0.020
Silver	mg/L	5.0	<0.010	<0.010
Zinc	mg/L	n/v	0.028 J	0.37
Mercury	mg/L	0.2	<0.00020	<0.00020
TCLP Volatile Organic Compounds				
1,1-Dichloroethene	mg/L	0.7	<0.010	<0.010
1,2-Dichloroethane	mg/L	0.5	<0.010	<0.010
2-Butanone	mg/L	200.0	<0.050	<0.050
Benzene	mg/L	0.5	<0.010	<0.010
Carbon tetrachloride	mg/L	0.5	<0.010	<0.010
Chlorobenzene	mg/L	100.0	<0.010	<0.010
Chloroform	mg/L	6.0	<0.020	<0.020
Tetrachloroethene	mg/L	0.7	<0.010	<0.010
Trichloroethene	mg/L	0.5	<0.010	<0.010
Vinyl chloride	mg/L	0.2	<0.010	<0.010
TCLP Semi-Volatile Organic Compounds				
1,4-Dichlorobenzene	mg/L	7.5	<0.10	<0.10
2,4,5-Trichlorophenol	mg/L	400.0	<0.50	<0.50
2,4,6-Trichlorophenol	mg/L	2.0	<0.25	<0.25
2,4-Dinitrotoluene	mg/L	0.13	<0.050	<0.050
2-Methylphenol	mg/L	200.0	<0.10	<0.10
3 & 4-Methylphenol	mg/L	200.0	<0.10	<0.10
Hexachlorobenzene	mg/L	0.13	<0.025	<0.025
Hexachlorobutadiene	mg/L	0.5	<0.25	<0.25
Hexachloroethane	mg/L	3.0	<0.25	<0.25
Nitrobenzene	mg/L	2.0	<0.050	<0.050
Pentachlorophenol	mg/L	100.0	<1.0	<1.0
Pyridine	mg/L	5.0	<1.0	<1.0

Notes

8.0	Measured concentration did not exceed the indicated standard.
<0.59	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
J	The reported result is an estimated value.
ft	Feet
EPA	Environmental Protection Agency
TCLP	Toxicity Characteristic Leaching Procedure
mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
%	Percent
[1]	Per EPA *Maximum Concentration of Contaminants for Tocixity Characteristic* values.

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ATTACHMENTS

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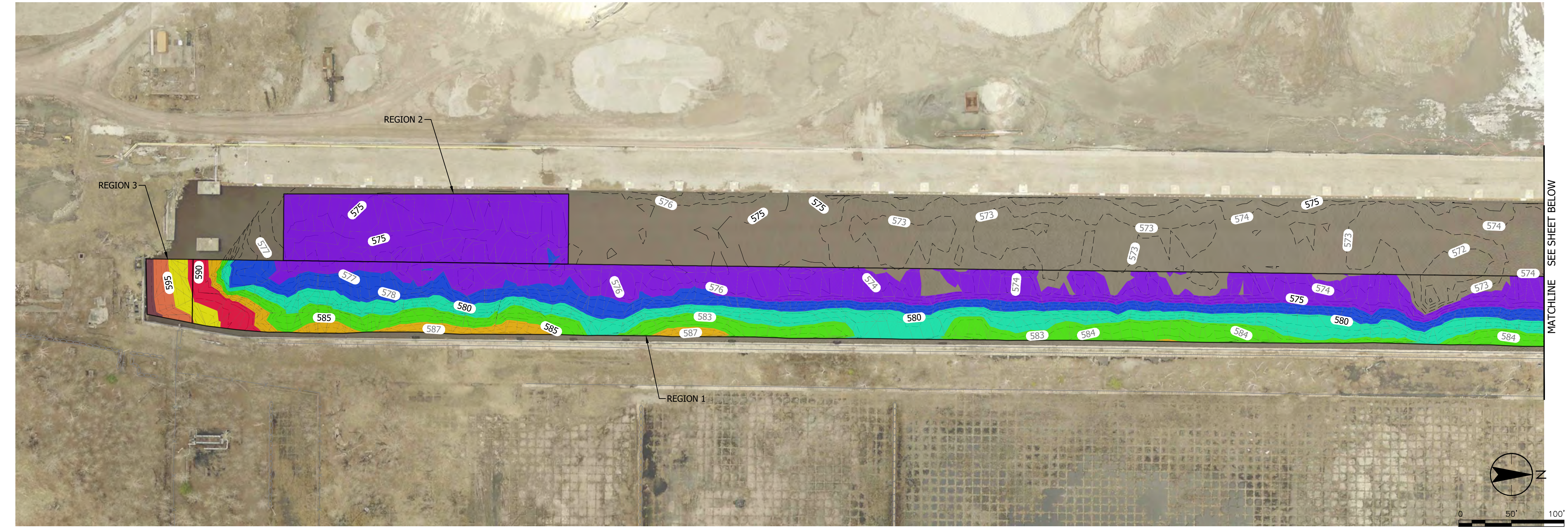
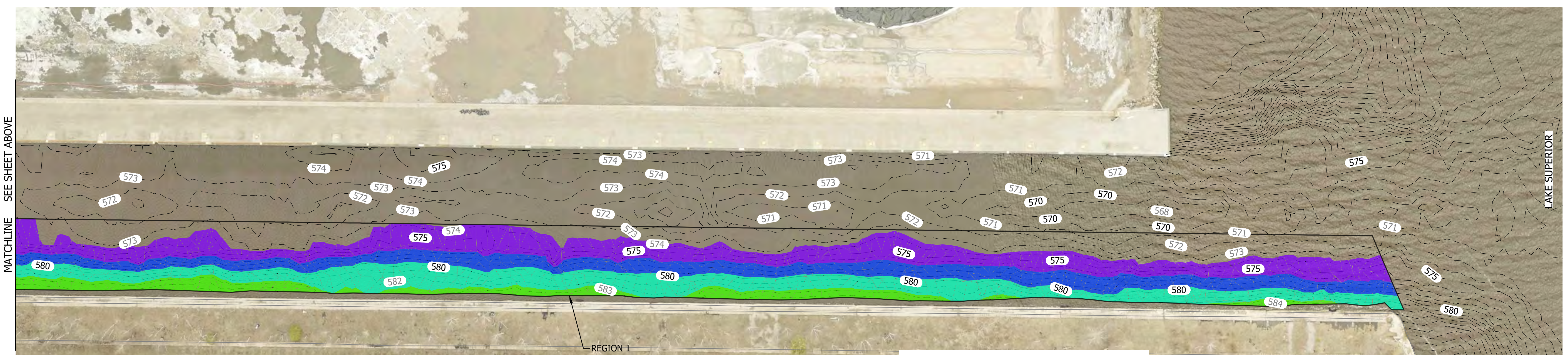
ATTACHMENT A

Site Redevelopment Plans





Elevations Table

Number	Minimum Elevation	Maximum Elevation	Color
1	-26.000	-24.000	
2	-24.000	-21.000	
3	-21.000	-18.000	
4	-18.000	-15.000	
5	-15.000	-12.000	
6	-12.000	-9.000	
7	-9.000	-6.000	
8	-6.000	-3.000	
9	-3.000	0.000	

DREDGE TABLE

	REGION 1	REGION 2	REGION 3
2D AREA	169,790 sf	17,573 sf	2,470 sf
MIN. CUT	0	1.0'	17.9'
MAX. CUT	21.7'	3.6'	25.9'
VOLUME *	39,000 cy	1,410 cy	2017 cy

* 1:1 NEAT RATIO

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DREDGE MAP

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE	
JUNE 13, 2022	

NO	REVISION	DATE

SURVEY	K & O
DRAWN	AJR
DESIGNED	AJR
CHECKED	BSL
APPROVED	BSL
PROJ. NO.	193707141
SHEET NUMBER	1

Plot Date: 06/14/2022 - 9:19am
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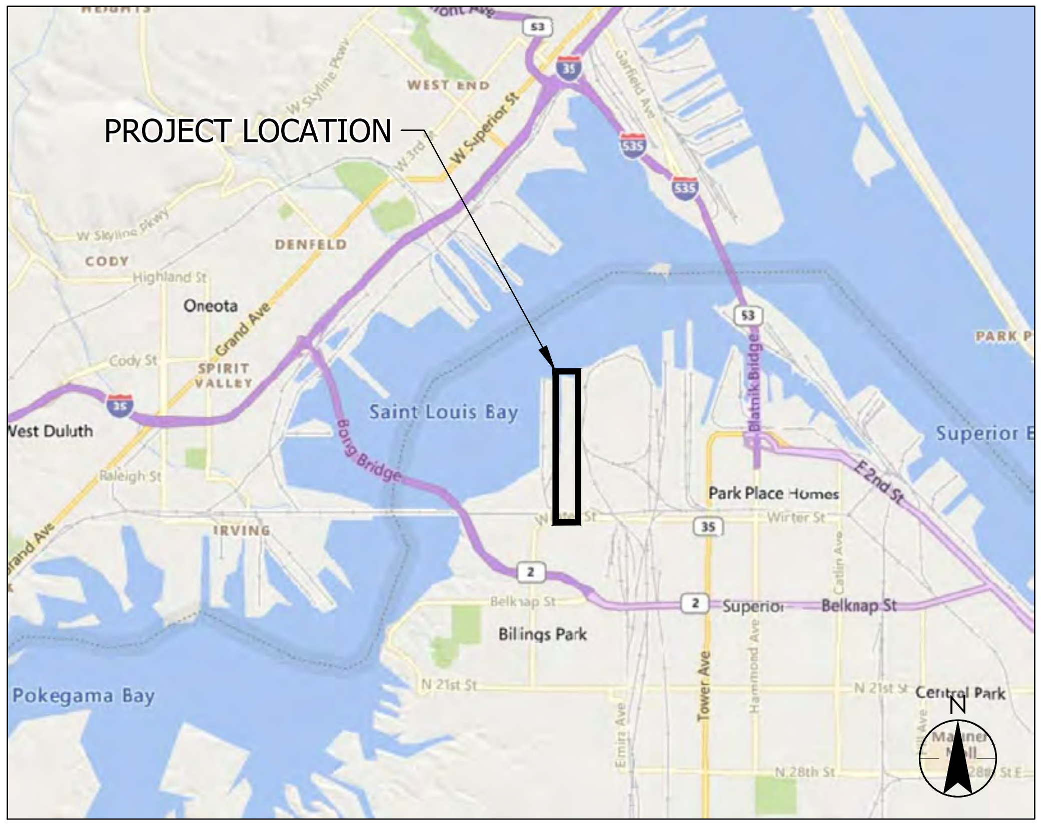
Xrefs:, 193707141_XSNV, 193707141_XSXT, TB-34x22-MEQ, 193707141_XSNO, 193707141_XSXI

C. REISS DOCK

C. REISS COMPANY, LLC

ST. LOUIS BAY, SUPERIOR, WISCONSIN

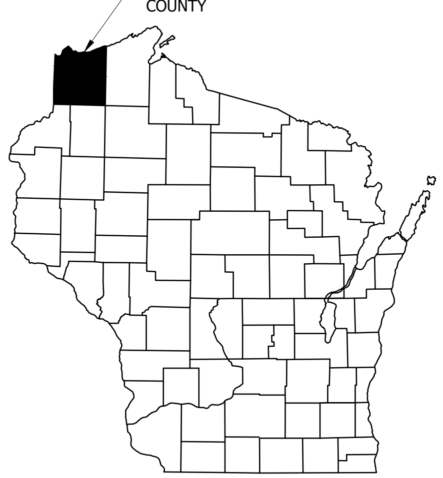


VICINITY MAP

NO SCALE

LOCATION MAP

NO SCALE



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C0.02	EXISTING CONDITIONS AND DEMO
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C8.01	CONSTRUCTION DETAILS
C8.02	TYPICAL ROAD SECTIONS

ENGINEER P.E.
NO. ------

THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

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TITLE SHEET

C. REISS DOCK
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DATE OF ISSUANCE
June 30, 2022

NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	###
APPROVED	###
PROJ. NO.	193707141

SHEET NUMBER
G0.01

Plot Date: 06/30/2022 - 10:14am
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Xrefs:, TB-34x22-MEQ, 193707141_XSXI

LEGEND

- INDICATES FOUND 1" IRON PIPE
- INDICATES SET 1" IRON PIPE
- INDICATES FOUND CHISELED CROSS
- SANITARY MANHOLE
- SANITARY CLEANOUT OR VENT
- M.I.S. MANHOLE
- UNKNOWN MANHOLE
- STORM MANHOLE
- INLET (ROUND)
- INLET (SQUARE)
- CURB INLET
- STORM SEWER END SECTION
- GAS VALVE
- GAS METER
- WATER VALVE
- HYDRANT
- WATER MANHOLE
- WATER SERVICE CURB STOP
- WELL HEAD
- STAND PIPE
- WALL INDICATOR VALVE
- POST INDICATOR VALVE
- LIGHT POLE
- SPOT/YARD LIGHT
- UTILITY POLE
- GUY POLE
- GUY WIRE
- ELECTRIC MANHOLE
- ELECTRIC PEDESTAL
- ELECTRIC METER
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- CABLE PEDESTAL
- CONTROL BOX
- FIBER OPTIC SIGN
- TRAFFIC LIGHT
- COMMUNICATION MANHOLE
- BOLLARD
- SOIL BORING/MONITORING WELL
- WATER SURFACE
- WETLANDS FLAG
- MARSH
- FLAGPOLE
- PARKING METER
- SIGN
- MAILBOX
- RAILROAD CROSSING SIGNAL
- HANDICAP SPACE
- CONIFEROUS TREE
- DECIDUOUS TREE

Line	Description
S	SANITARY SEWER
FM FM FM	FORCE MAIN
STO	STORM SEWER
W	WATERLINE
G	MARKED GAS MAIN
E	MARKED ELECTRIC
OHW	OVERHEAD WIRES
T	MARKED TELEPHONE
TV	MARKED CABLE TV LINE
FO	MARKED FIBER OPTIC
X	FENCE

NEW TOPOGRAPHIC SYMBOLS

- BOLLARD
- SANITARY CLEANOUT
- MANHOLE
- SANITARY OR STORM LIFT STATION
- STORM SEWER BEEHIVE CATCH BASIN
- STORM SEWER CATCH BASIN
- STORM SEWER FLARED END SECTION
- STORM SEWER OUTLET STRUCTURE
- STORM SEWER OVERFLOW STRUCTURE
- CURB BOX
- FIRE HYDRANT
- WATER REDUCER
- VALVE
- RIP RAP
- DRAINAGE FLOW
- PEDESTRIAN RAMP

EXISTING TOPOGRAPHIC LINES

- RETAINING WALL
- FENCE - BARBED WIRE
- FENCE - CHAIN LINK
- FENCE - DECORATIVE
- FENCE - STOCKADE
- FENCE - WOOD
- FENCE - ELECTRIC
- GUARD RAIL
- TREE LINE
- WETLAND

SURVEY LINES

- BOUNDARY
- NEW CENTERLINE
- EXISTING CENTERLINE
- EXISTING EASEMENT LINE
- NEW EASEMENT LINE
- FLOOD PLAIN BOUNDARY
- EXISTING LOT LINE
- NEW LOT LINE
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- SETBACK LINE

NEW UTILITY LINES

- FM — FORCE MAIN
- SANITARY SEWER
- SANITARY SERVICE
- STORM SEWER DRAINTILE
- STORM SEWER
- WATER MAIN
- WATER SERVICE
- PIPE CASING

FUTURE UTILITY LINES

- FM — FORCE MAIN
- SANITARY SEWER
- SANITARY SERVICE
- STORM SEWER DRAINTILE
- STORM SEWER
- WATER MAIN
- WATER SERVICE
- PIPE CASING

CONCRETE CURB AND GUTTER

- EXISTING
- NEW
- FUTURE
- DEMOLITION

GRADING INFORMATION

Example	Description
952	EXISTING CONTOUR MINOR
950	EXISTING CONTOUR MAJOR
952	NEW CONTOUR MINOR
950	NEW CONTOUR MAJOR
	NEW GRADING LIMITS / SLOPE LIMITS
744.40 / 745.47 / STA:5+67.19 980.87	NEW SPOT ELEVATION
743.21 / 743.78	EXISTING SPOT ELEVATION
4:1	RUN:RISE (SLOPE)

ABBREVIATIONS

AD	ALGEBRAIC DIFFERENCE
BV	BUTTERFLY VALVE
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
℄	CENTER LINE
CL.	CLASS
CMP	CORRUGATED METAL PIPE
CO	CLEAN-OUT
DIP	DUCTILE IRON PIPE
EL/ELEV	ELEVATION
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EX	EXISTING
FES	FLARED END SECTION
F/F	FACE TO FACE
FM	FORCE MAIN
F.O.	FIELD ORDER
GV	GATE VALVE
HP	HIGH POINT
HWL	HIGH WATER LEVEL
INV	INVERT
K	CURVE COEFFICIENT
LP	LOW POINT
MH	MANHOLE (SANITARY)
NTS	NOT TO SCALE
NWL	NORMAL WATER LEVEL
PC	POINT OF CURVE
PCC	COMPOUND CURVE
PI	POINT OF INTERSECTION
⅊	PROPERTY LINE
PPVC	PERFORATED POLYVINYL CHLORIDE PIPE
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENT
PVC	POLYVINYL CHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
R/W	RIGHT-OF-WAY
SS	STORM SEWER STRUCTURE
STA	STATION
TCE	TEMPORARY CONSTRUCTION EASEMENT
TNH	TOP NUT HYDRANT
TYP	TYPICAL
VC	VERTICAL CURVE
WM	WATER MAIN

HATCH PATTERNS

EXISTING	NEW	DEMOLITION	SECTION
CONCRETE	CONCRETE	CONCRETE DWY/WALK	EARTH
ASPHALT ROAD/DWY	ASPHALT ROAD/DWY	ASPHALT ROAD/DWY	ROCK
PAVERS	PAVERS	PAVERS	SAND
			GRAVEL

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DATE OF ISSUANCE
June 30, 2022

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CHECKED
APPROVED
PROJ. NO. 193707141
SHEET NUMBER

Plot Date: 06/30/2022 - 10:14am
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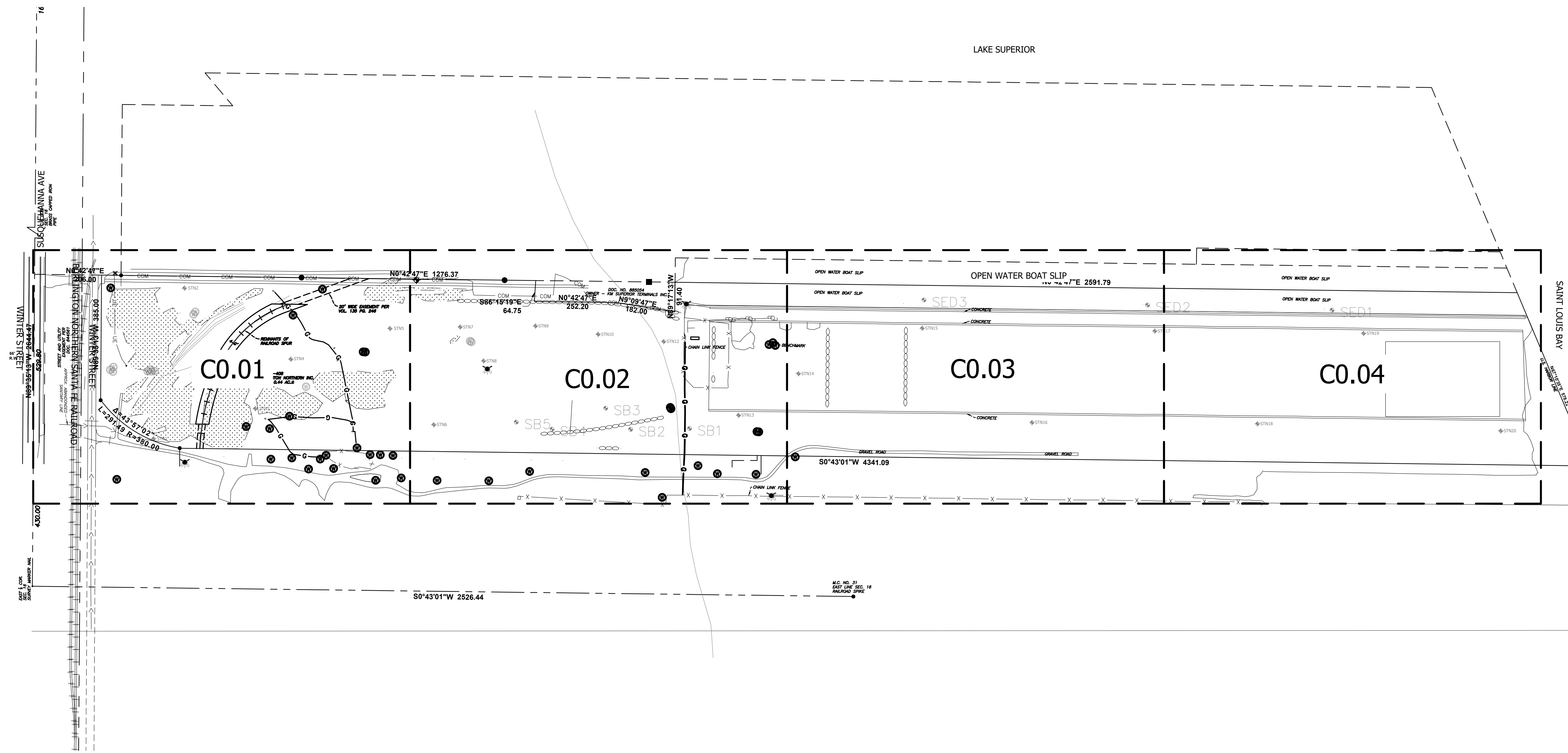

EXISTING CONDITIONS AND DEMO SHEET INDEX

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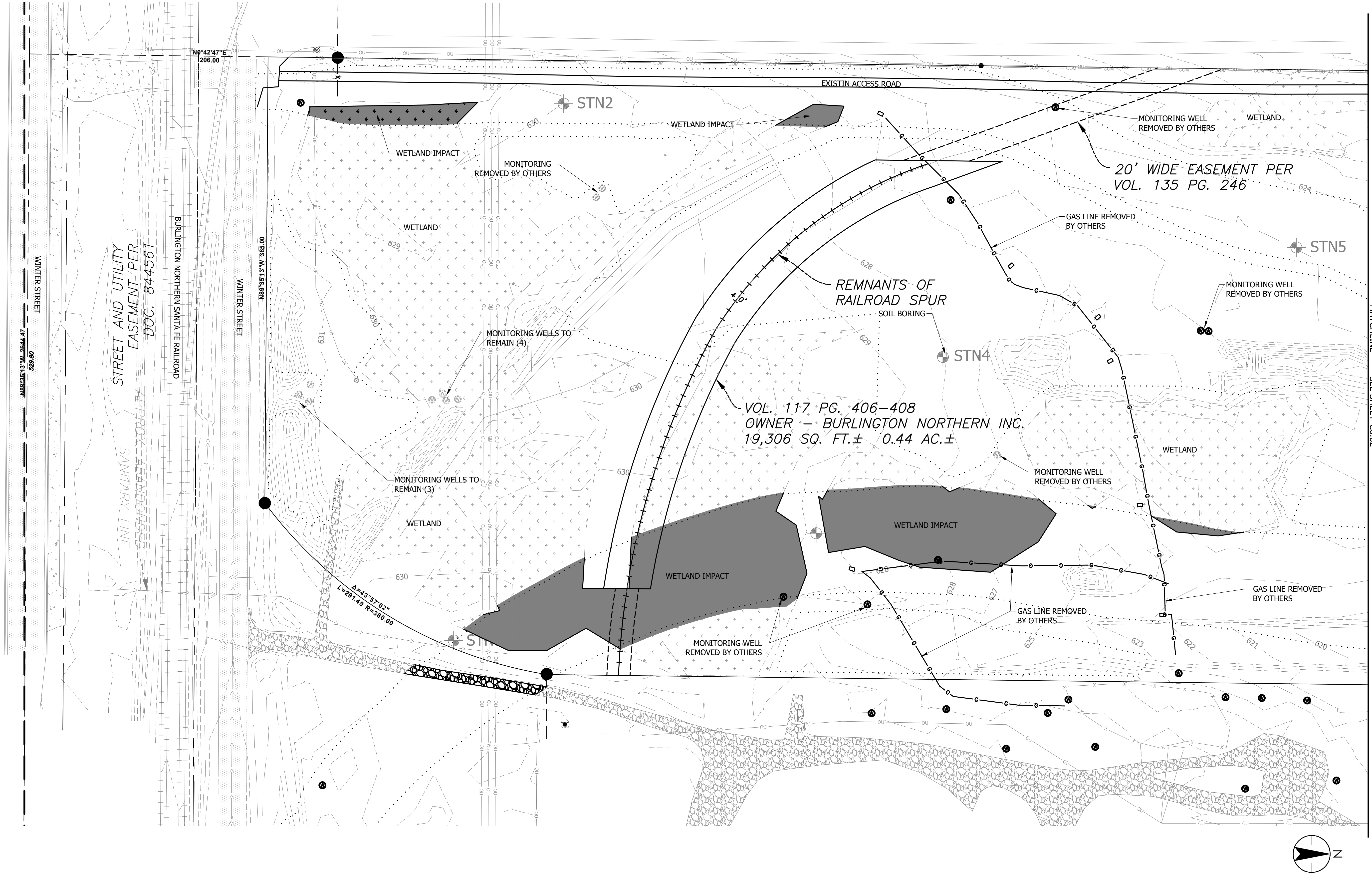
PROPOSED ROAD



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June 30, 2022

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DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
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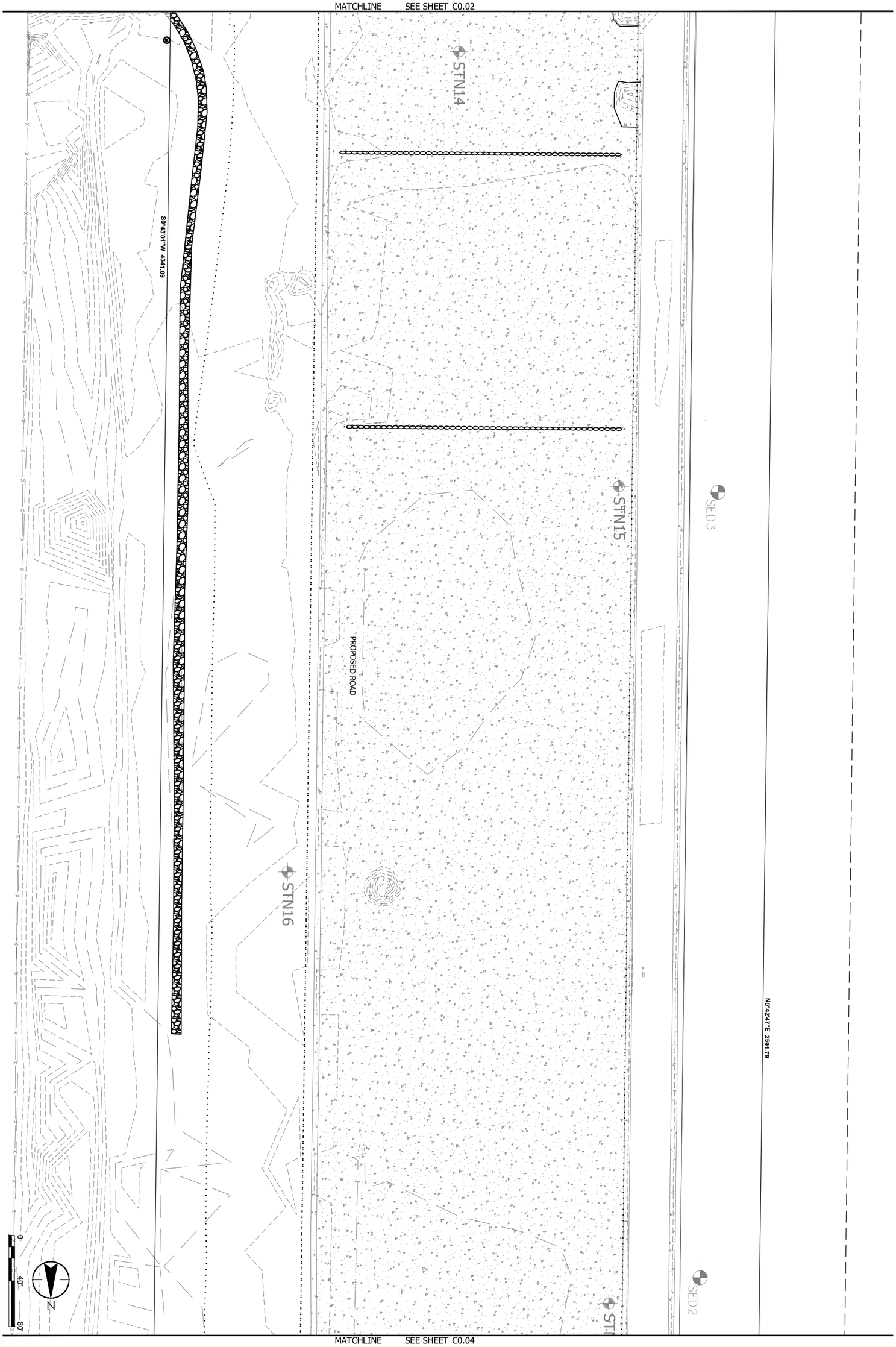
MATCHLINE SEE SHEET C0.02



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C0.03

SURVEY BURSE
DRAWN AJR
DESIGNED AJR
CHECKED AJR
APPROVED AJR
PROJ. NO. 193707141
SHEET NUMBER

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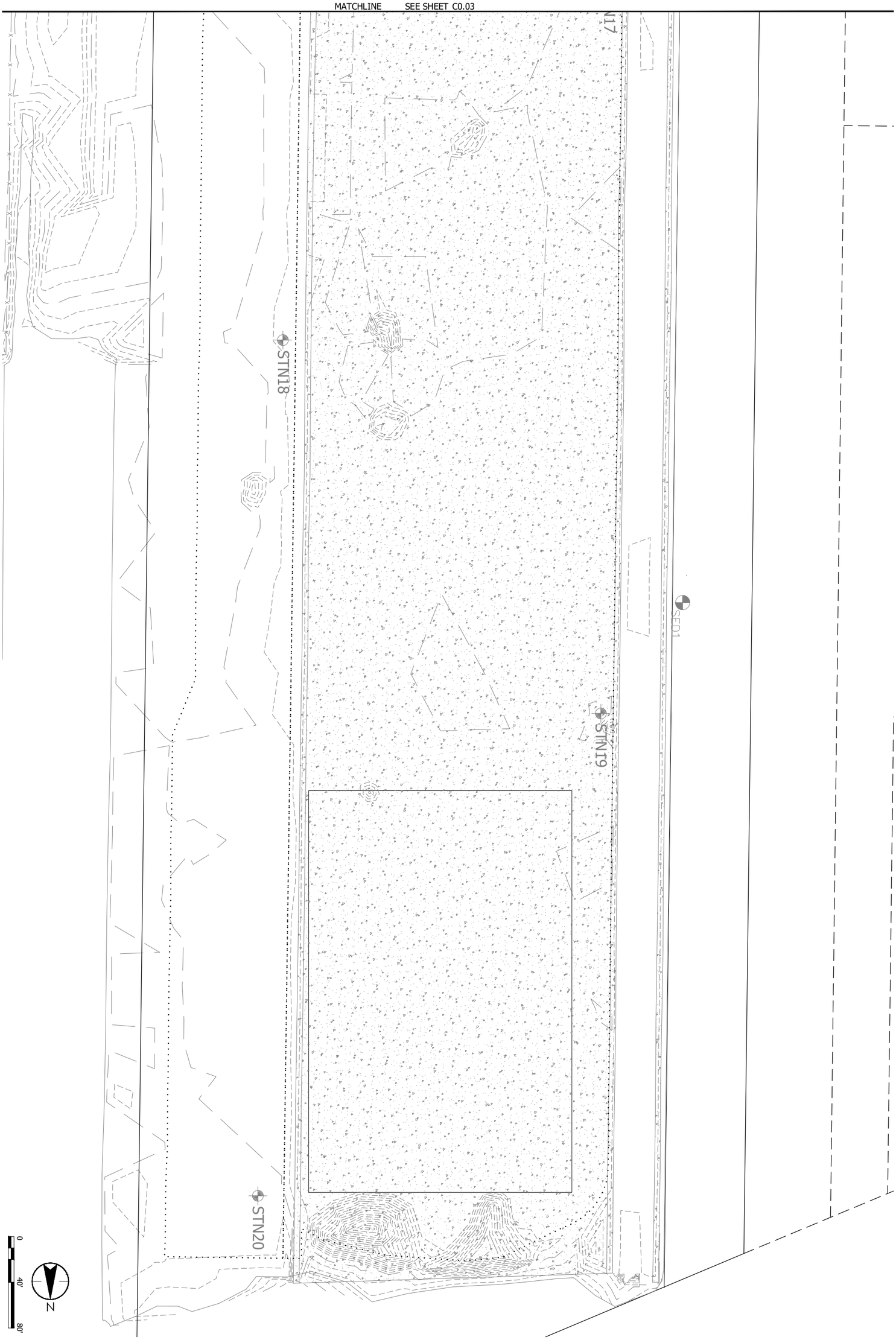

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SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141
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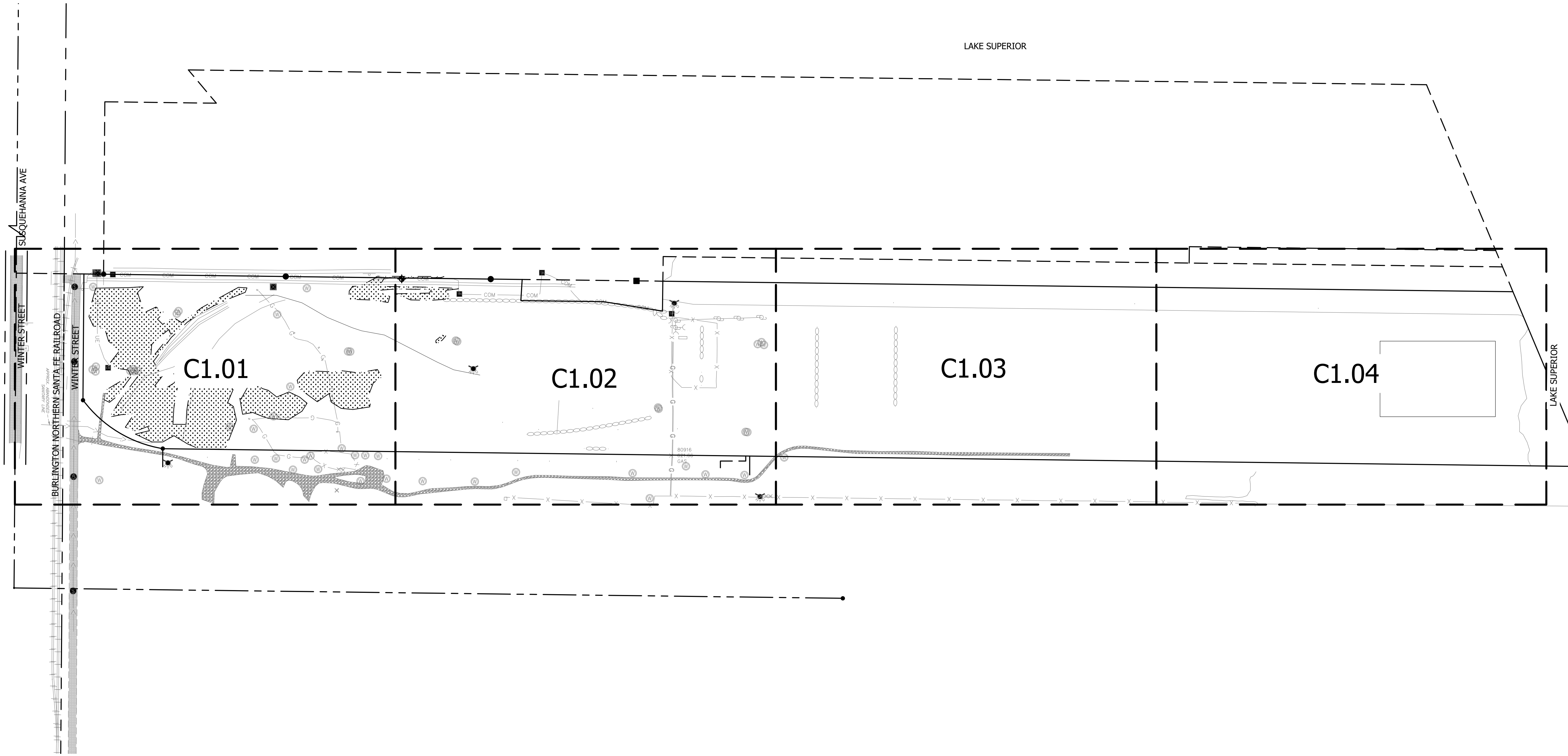

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EROSION CONTROL SHEET INDEX

C. REISS DOCK
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DATE OF ISSUANCE
June 30, 2022

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SURVEY	BURSE
DRAWN	AJR
DESIGNED	BSL
CHECKED	BSL
APPROVED	BSL
PROJ. NO.	193707141

SHEET NUMBER
C1.00

Plot Date: 06/30/2022 - 10:16am
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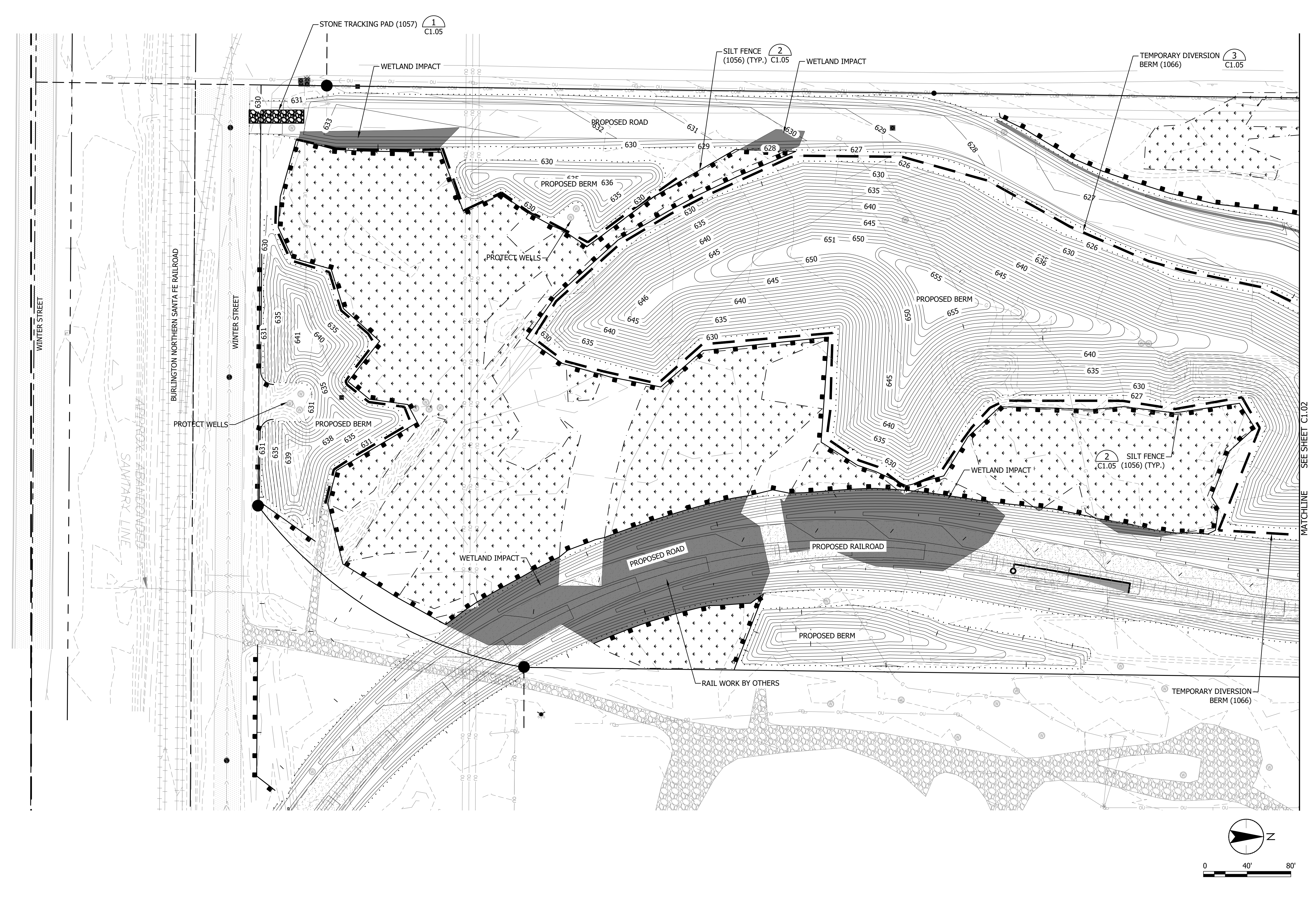

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EROSION CONTROL PLAN

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PROJ. NO.	193707141

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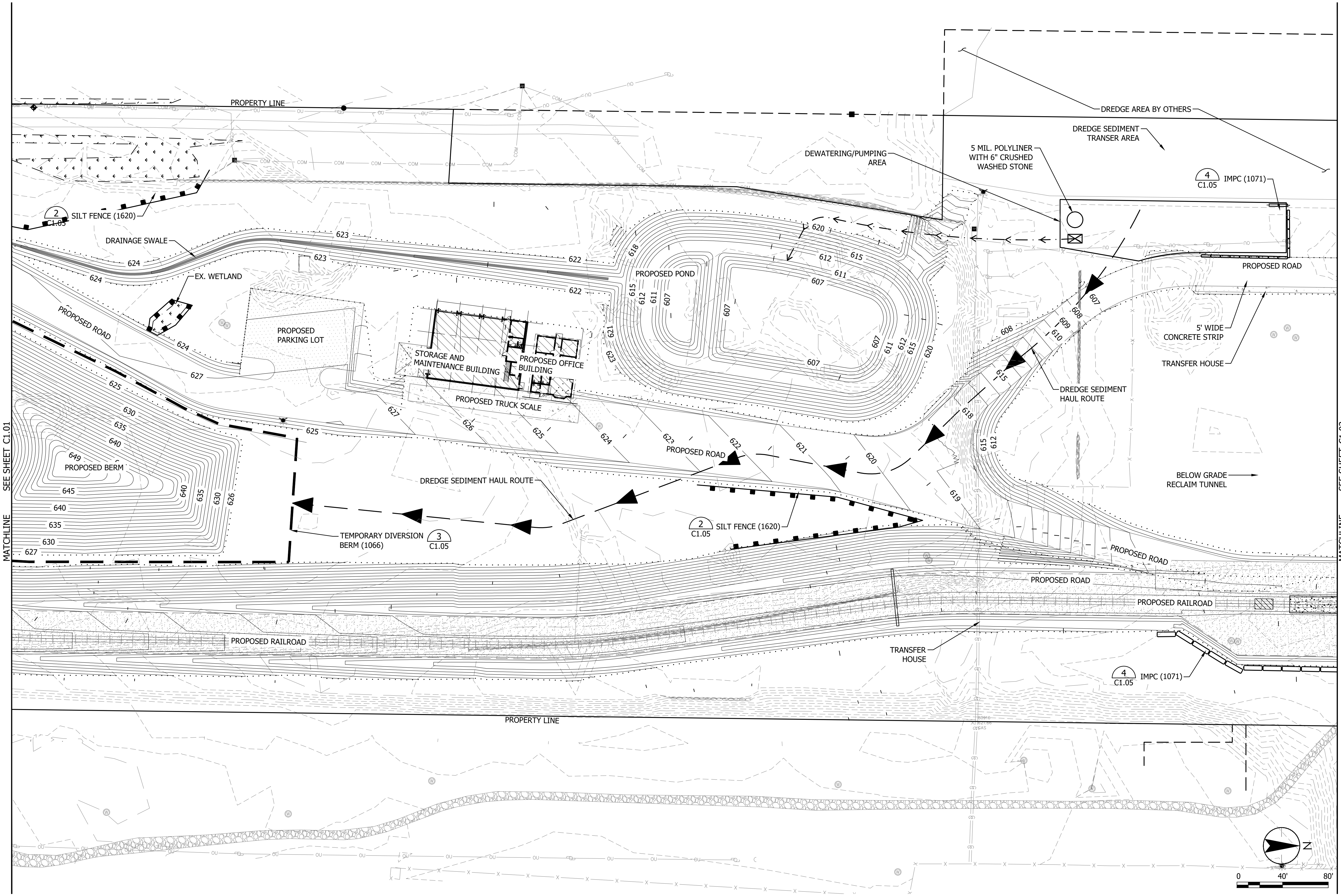

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EROSION CONTROL PLAN

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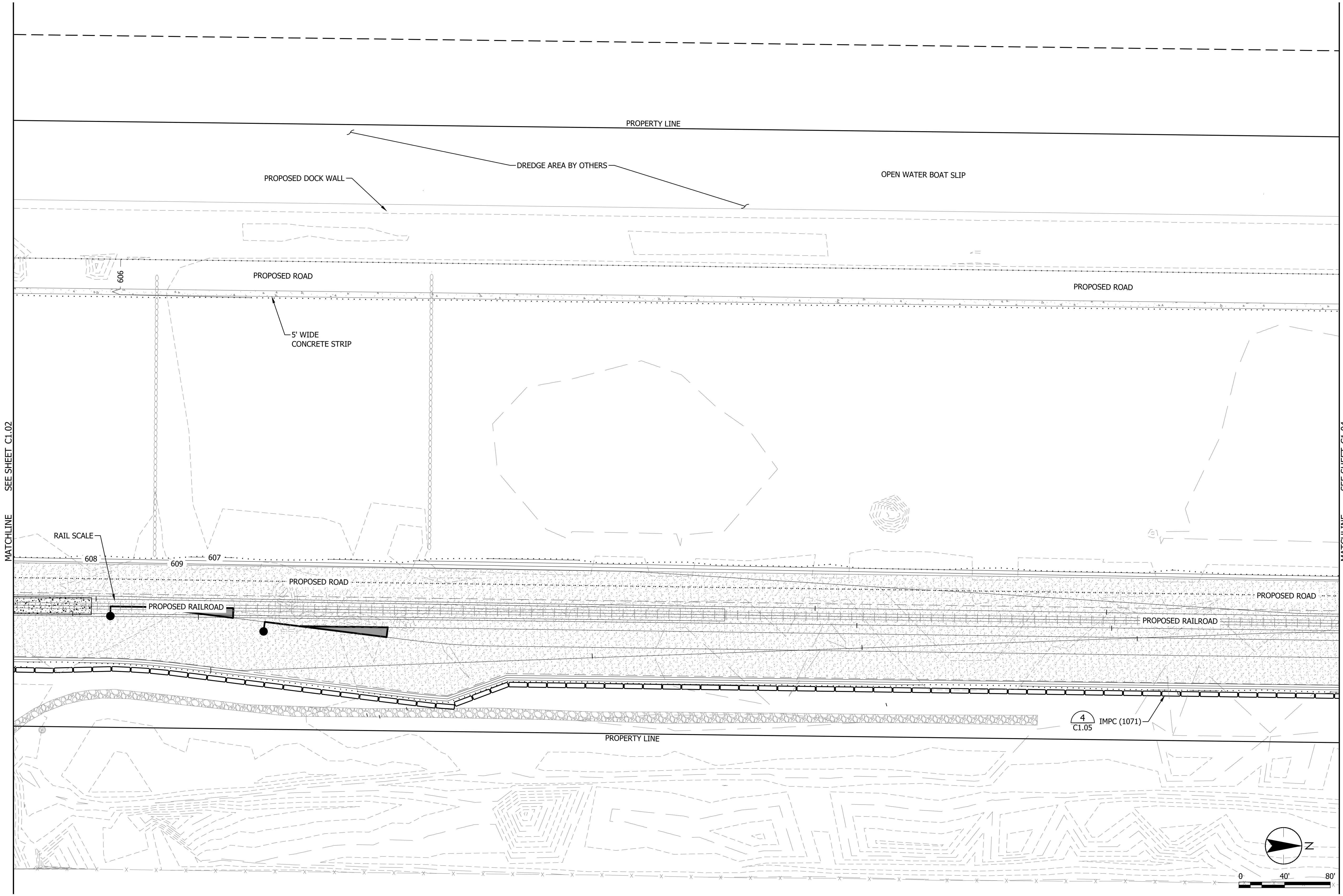

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EROSION CONTROL PLAN

C. REISS DOCK
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DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
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SHEET NUMBER
C1.03

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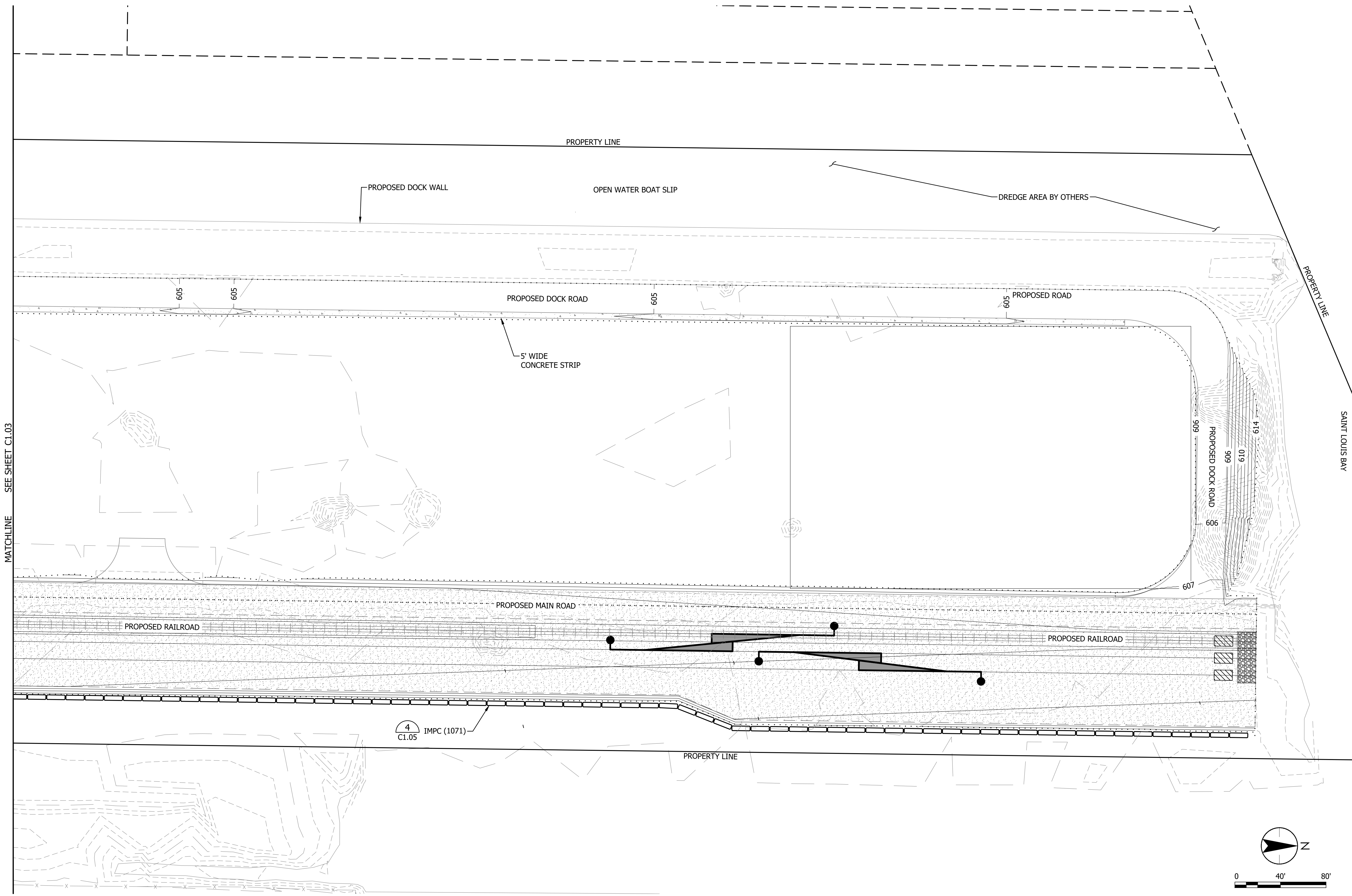

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DRAWN	AJR
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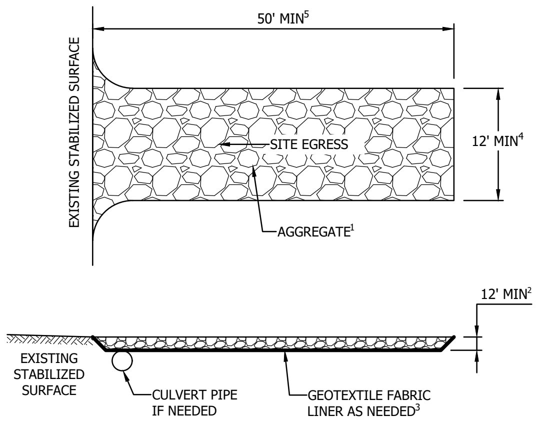
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
C1.04



NOTES

1. USE HARD, DURABLE, ANGULAR STONE OR RECYCLED CONCRETE MEETING THE GRADATION IN TABLE 1. WHERE THIS GRADATION IS NOT AVAILABLE, MEET THE GRADATION IN WISCONSIN DEPARTMENT OF TRANSPORTATION (DOT) 2018 STANDARD SPECIFICATIONS, SECTION 312, SELECT CRUSHED MATERIAL.
2. SLOPE THE STONE TRACKING PAD IN A MANNER TO DIRECT RUNOFF TO AN APPROVED TREATMENT PRACTICE.
3. SELECT FABRIC TYPE BASED ON SOIL CONDITIONS AND VEHICLES LOADING.
4. INSTALL TRACKING PAD ACROSS FULL WIDTH OF THE ACCESS POINT, OR RESTRICT EXISTING TRAFFIC TO A DEDICATED EGRESS LAND A LEAST 12 FEET WIDE ACROSS THE TOP OF THE PAD.
5. IF A 50' PAD LENGTH IS NOT POSSIBLE DUE TO SITE GEOMETRY, INSTALL THE MAXIMUM LENGTH PRACTICABLE AND SUPPLEMENT WITH ADDITIONAL PRACTICES AS NEEDED.

Table 1. Gradation for stone tracking pads

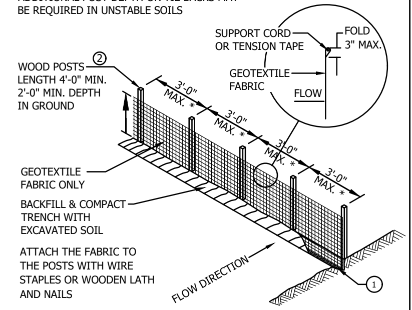
Sieve Size	Percent by weight passing
3"	100
2-1/2"	90-100
1-1/2"	25-60
3/4"	0-20
3/8"	0-5

1 / 1 STONE TRACKING PAD
NTS

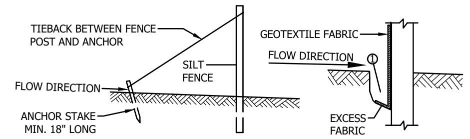
GENERAL NOTES

1. TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL
2. WOOD POSTS SHALL BE MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
3. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS: A) TWIST METHOD -- OVERLAP THE END POSTS AND TWIST, OR ROTATE AT LEAST 180 DEGREES, B) HOOK METHOD -- HOOK THE END OF EACH SILT FENCE LENGTH.

NOTE:
ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

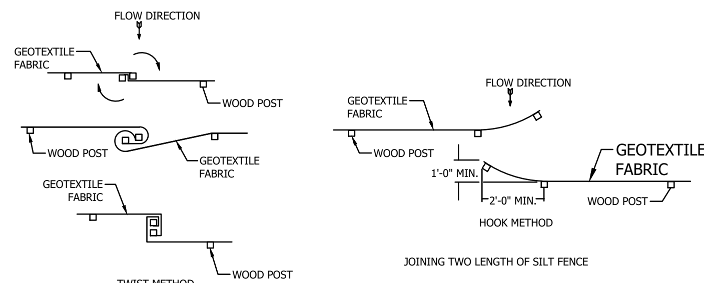


*NOTE:
8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.



SILT FENCE TIE BACK (WHEN ADDITIONAL SUPPORT REQUIRED)

TRENCH DETAIL

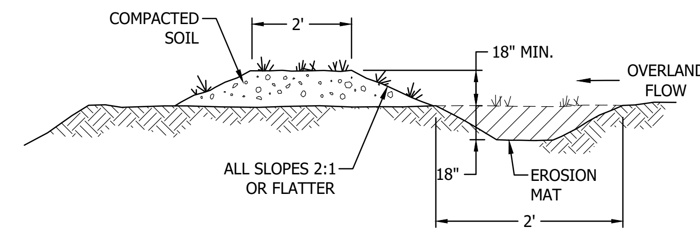


TWIST METHOD

HOOK METHOD

JOINING TWO LENGTH OF SILT FENCE

2 / 1 SILT FENCE
NTS

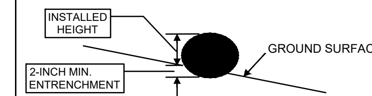


NOTES

1. THE CHANNEL BEHIND THE DIVERSION BERM SHOULD HAVE POSITIVE GRADE TO A STABILIZED OUTLET.
2. THE DIVERSION BERM SHALL BE ADEQUATELY COMPACTED TO PREVENT FAILURE.
3. THE DIVERSION BERM SHOULD BE STABILIZED WITH TEMPORARY SEEDING.

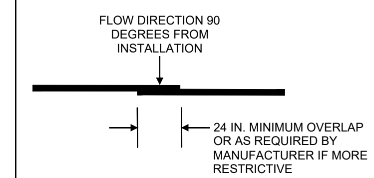
CONSTRUCTION SITE DIVERSION BERM

3 TEMPORARY DIVERSION BERM
NTS

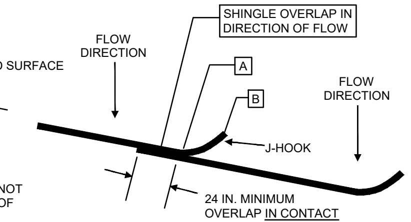


NOTE:
INSTALLED HEIGHT IS MEASURED FROM THE UPSLOPE GROUND SURFACE TO THE TOP OF THE PRODUCT. DUE TO SETTLEMENT AND/OR DEFORMATION, THE INSTALLED HEIGHT MAY NOT BE EQUIVALENT TO THE NOMINAL DIAMETER OF THE PRODUCT.

CROSS SECTION



TYPICAL INSTALLATION
(Plan View)



NOTES:
1. J-HOOKS SHALL BE INSTALLED SO THAT THE GROUND-PRODUCT INTERFACE ELEVATION AT LOCATION B IS HIGHER THAN THE TOP OF PRODUCT ELEVATION AT LOCATION A TO CREATE A WEIR AT POINT A.
2. J-HOOKS SHALL BE INSTALLED EVERY 2 VERTICAL FEET OF DROP ALONG THE LENGTH OF THE INSTALLATION.
3. STAKE OVERLAP AS REQUIRED BY MANUFACTURER.

SLOPING INSTALLATION
(Plan View)

LOG-TYPE PRODUCT INSTALLATION ILLUSTRATION

4 INTERIM MANUFACTURED PERIMETER CONTROL
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EROSION CONTROL DETAILS

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE	
June 30, 2022	

NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
C1.05

Plot Date: 06/30/2022 - 10:17am
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GENERAL NOTES

1. Contractor shall conform to all relevant federal, state, and local regulations; the conditions included in any permit; and to the conditions included in the project engineer's plans unless otherwise approved by the Wisconsin Department of Natural Resources (WDNR) and project engineer.
2. Erosion control devices shall conform to the latest edition of the WDNR technical standards and WI DOT Product Acceptability List (PAL).
3. A copy of the erosion control plan and permits shall be kept onsite and available for inspection throughout the duration of the project. Submit plan revisions or amendments to the WDNR at least 5 days prior to field implementation.
4. At no time may construction equipment or fill be placed in a waterway or wetland, except as approved by WDNR permit. The contractor shall not store any equipment or materials in any wetland (except by approved permit), floodplain, or floodway.
5. Public and private access roads shall be kept free of tracked sediment and at a minimum cleaned at the end of each workday (not by flushing). As well, the contractor shall take minimization measures for dust control to the maximum extent practicable.
6. Bare soil areas, including soil stockpiles, left undisturbed for 7 days, shall be stabilized with: temporary or permanent seed and mulch (properly anchored by crimping, netting, or tackifier); hydromulch; tarp; or other approved method.
7. The use, storage and disposal of chemicals, oil & grease, cement and other compounds and materials used on the construction site shall be managed during the construction period to prevent their transport by runoff into waters of the state; in the event of any spill notification shall be immediately reported to the WDNR and local authorities. All construction debris and litter shall be cleaned daily.
8. If the contractor determines that dewatering will be necessary, a dewatering plan following WDNR technical standard 1061 shall be submitted by the contractor to the WDNR for approval. Notify the WDNR if dewatering is scheduled to occur in areas of soil and/or groundwater contamination, or if dewatering will occur from a high capacity well (70 GPM or greater). Provide anti-scour protection and maintain non-erosive flow during dewatering.
9. Between September 15 and October 15 stabilize with mulch, tackifier and a perennial seed mix with winter wheat, annual rye, oats or annual rye. During the non-growing season (Oct. 15 - April 15), winter stabilization shall include seeding with dormant seed mix and winter wheat and the use of mulch and polymer/tackifier (as an anchoring method) or a Class 1-type B erosion mat on all bare soil areas of the site.
- Mulch shall consist of hay or straw free of diseased plant residue, noxious weeds, harmful chemical residues, heavy metals, hydrocarbons, and other known environmental toxicants.
- Mulch shall cover a minimum of 80% of the soil surface and shall be ½ to 1 ½ inches thick.
- If the conditions are too cold to apply a polymer/tackifier, a mulch crimper or biodegradable netting shall be used as a temporary alternate anchoring method.
10. If snow cover prevents the installation of these items; the condition of the site, including the amount of snow cover, will be noted on every erosion and sediment control inspection report. Once the snow is 2 inches or less on a majority of the site, the above-mentioned winter stabilization methods shall be immediately employed.
11. All finish graded ditches and swales shall be planted, sodded or seeded and mulched or matted immediately after completion.
12. If any item in the erosion control plan requires modification, the contractor shall submit an erosion control plan revision to the project engineer and WDNR Stormwater Specialist to receive approval before proceeding.
13. All land disturbing activities shall be conducted in a logical sequence as to minimize the amount of bare soil exposed at any one time. Maintain existing vegetation as long as possible.
14. Any off-site sediment deposits shall be cleaned up and restored or stabilized with 24 hours, weather permitting, of any off-site sediment deposition. All sediment shall be properly disposed of and stabilized in an upland location on or off-site.
15. Make appropriate provisions for watering, as needed, during the first 8 weeks following seeding or planting areas whenever more than 7 consecutive days of dry weather occur (no rain).

EROSION CONTROL INSTALLATION AND SEQUENCING

1. The construction site is a industrial dock re-development construction project including site grading, stormwater pond, new rail spur, new dock wall, new office and scale building, and utility construction adjacent to Lake Superior.
2. Tracking pad, silt fence, IMPC, and diversion berm shall be installed prior to any land disturbing activities. Followed by demolition, clear & grubbing, pond and berm, dock wall, rail, utilities, and buildings, berm prep for dredge, dredging (by others) in June 2023, final grading, berm capping, and final seeding.
3. Hall routes and construction access shall be established, and submitted to and approved by the Owner, prior to any construction activity.
4. Dredge contractor (by others) to move dredge from barge to berm via the sediment transfer area and hauling route and to dewater to pond as needed.
5. Dredge contractor Flows shall be directed during construction to the silt fencing, pond, diversion berm or the drainage swale. Pond to be used as temporary sediment basin during construction with orifice restrictor.
6. Following construction of the drainage swale interim manufactured perimeter control shall be installed.
7. Turbidity barriers, or other approved best management practice, shall be installed prior to any work along the channel bank or in the channel for wall repair and utility (pipe) installation.
8. Upon completion of grading any disturbed ground shall be temporality seeded and mulch placed within 7 days.
9. Permanent stabilization shall occur after final grading, of any areas that were temporarily seeded.

REMOVAL OF EROSION CONTROL MEASURES

1. Interim Manufactured Perimeter Control shall be removed when all land disturbing construction activities have been completed and the area has reached final stabilization. Any soil disturbance that has occurred because of its removal shall be immediately stabilized.
2. Silt Fence shall be removed when all land disturbing construction activities have been completed and the area has reached final stabilization. Any soil disturbance that has occurred because of its removal shall be immediately stabilized.
3. Tracking Pad shall be removed when all land disturbing construction activities have been completed along its associated access road. Any soil disturbance that has occurred as a result its removal shall be immediately stabilized.
4. Construction site diversion berms shall be removed when all land disturbing construction activities have been completed. Any soil disturbance that has occurred as a result its removal shall be immediately stabilized.

EROSION CONTROL INSPECTION AND MAINTENANCE

1. Inspect all erosion control measures prior to commencing grading activities. Erosion control measures shall be inspected weekly and within 24 hours of every ½ inch or greater rain event. Maintenance shall be in accordance with the WDNR technical standards and the engineer's plans and specifications and as deemed necessary by regulatory agencies. Keep inspection reports on-site and available upon request. All maintenance and/or repairs shall be completed within 24 hours of notification by the erosion control inspector. The contractor shall maintain an erosion control logbook on site noting inspection date and times, repairs necessary, and repairs made.
2. The contractor shall install and maintain the erosion control measures in accordance with WDNR technical standards and as follows:
A. Tracking Pad (1057) - Maintenance shall take place by scraping or top-dressing with additional aggregate. A minimum 50-foot-long and 12-inch thick pad consisting of a minimum of 3-inch clear washed stone shall be maintained. The width of the tracking pad shall extend the full distance of the egress point.
B. Silt Fence (1056) - Sediment /debris/deposits shall be removed when they reach 50% of the height of the silt fence. Removed sediment shall be deposited in a suitable non-wetland or floodplain area and stabilized. Silt fence that is damaged or not performing as designed shall be repaired or replaced immediately.
C. Interim Manufactured Perimeter Control (1071) - Sediment /debris/deposits shall be removed when they reach 50% of the height of the Interim Manufactured Perimeter Control product. Removed sediment shall be deposited in a suitable non-wetland or floodplain area and stabilized. Interim Manufactured Perimeter Control that is damaged or not performing as designed shall be repaired or replaced immediately.
D. Construction Site Diversion Berm (1066) - Diversion Berms shall be inspected weekly and maintained in accordance with the WDNR technical standard 1066. Berms that are damaged or not performing as designed shall be repaired or rebuilt immediately.

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EROSION CONTROL NOTES

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

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June 30, 2022	

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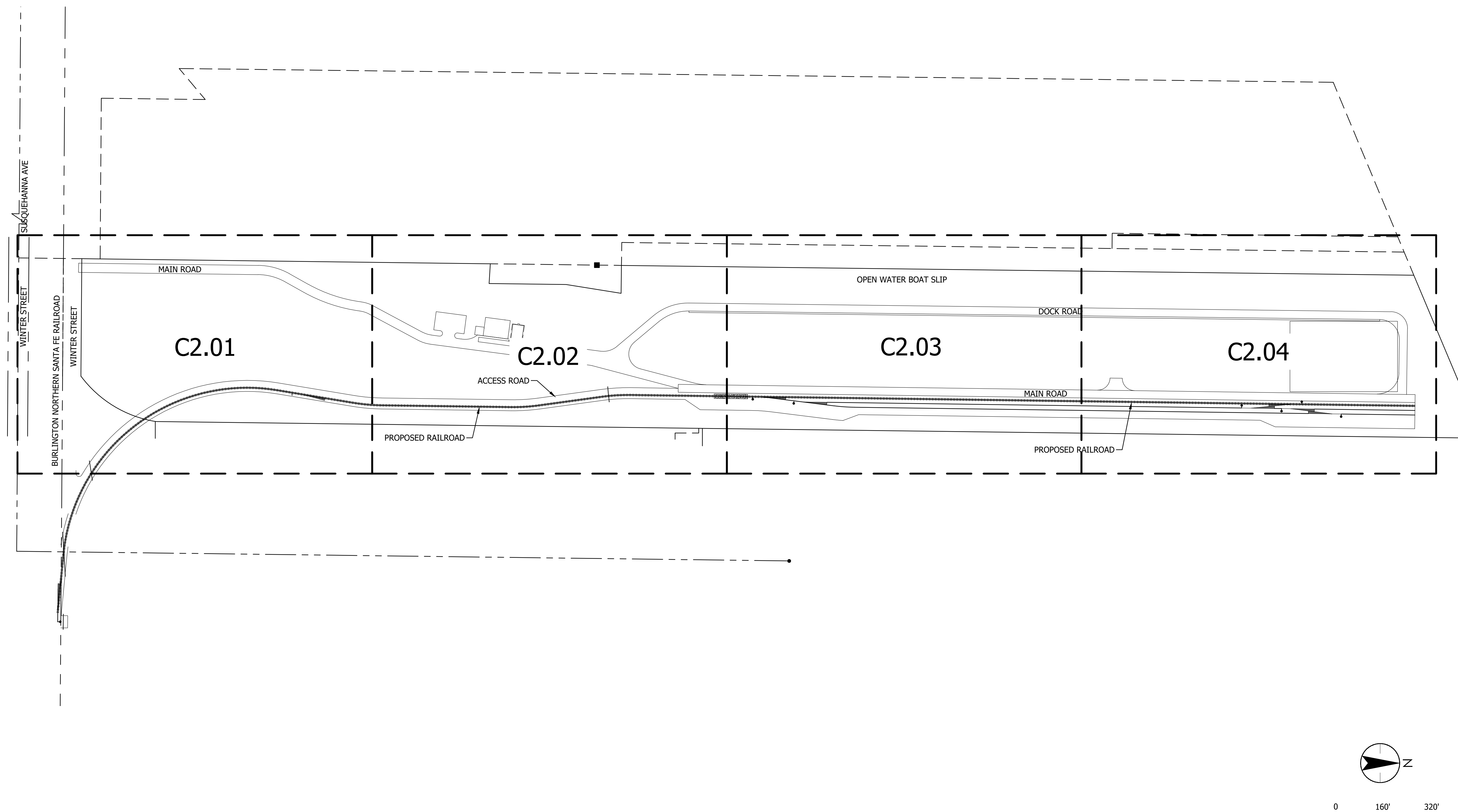

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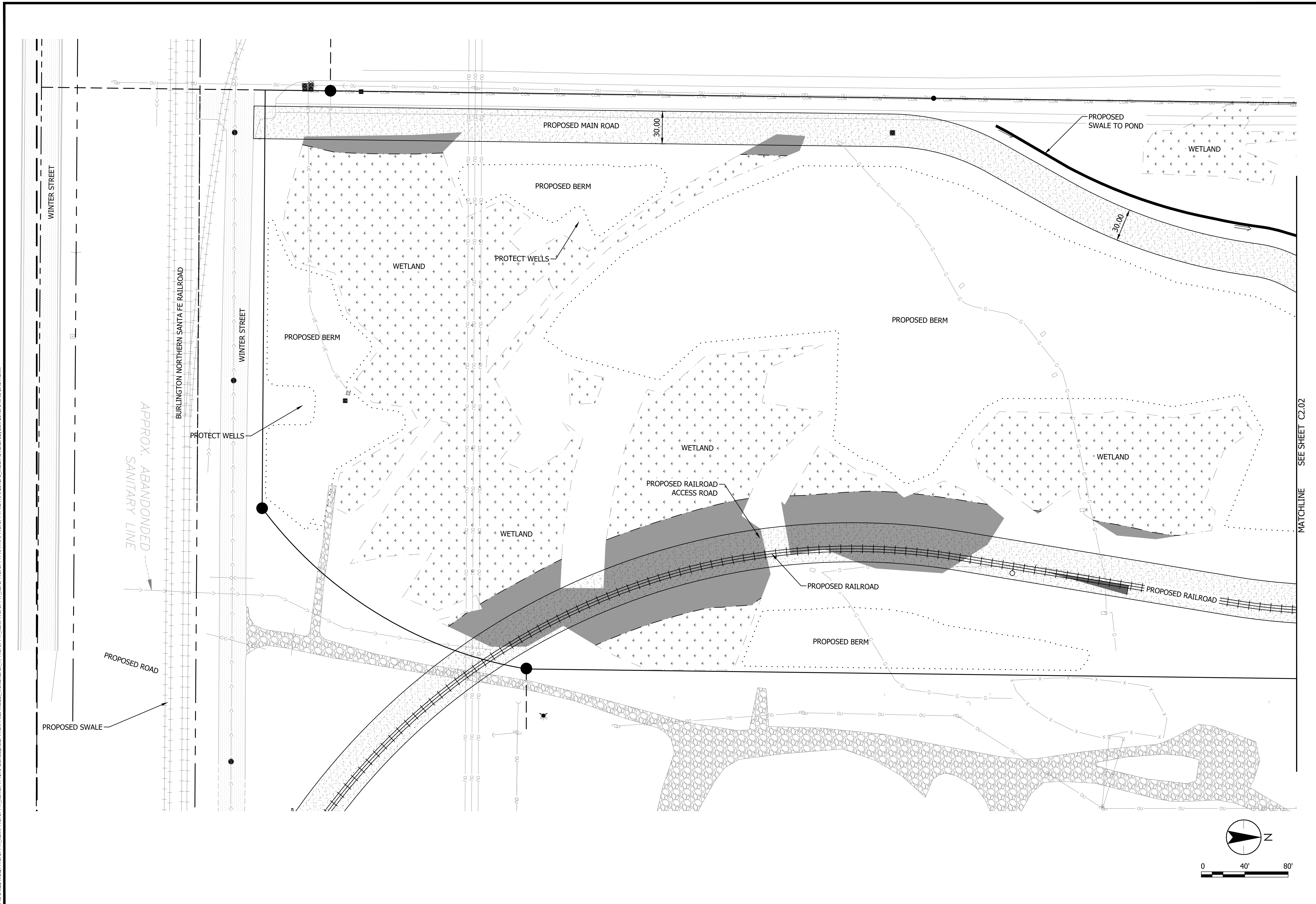

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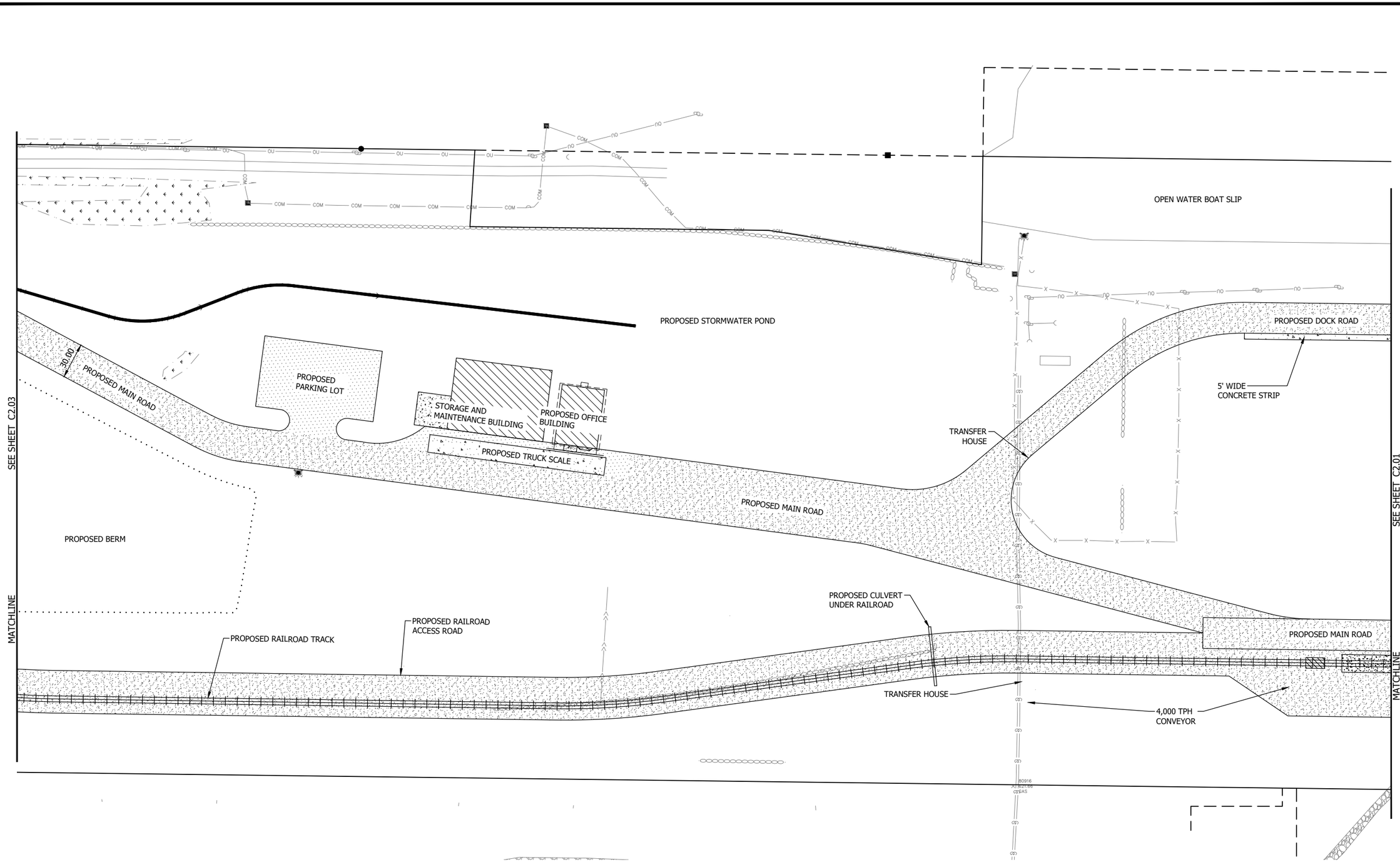

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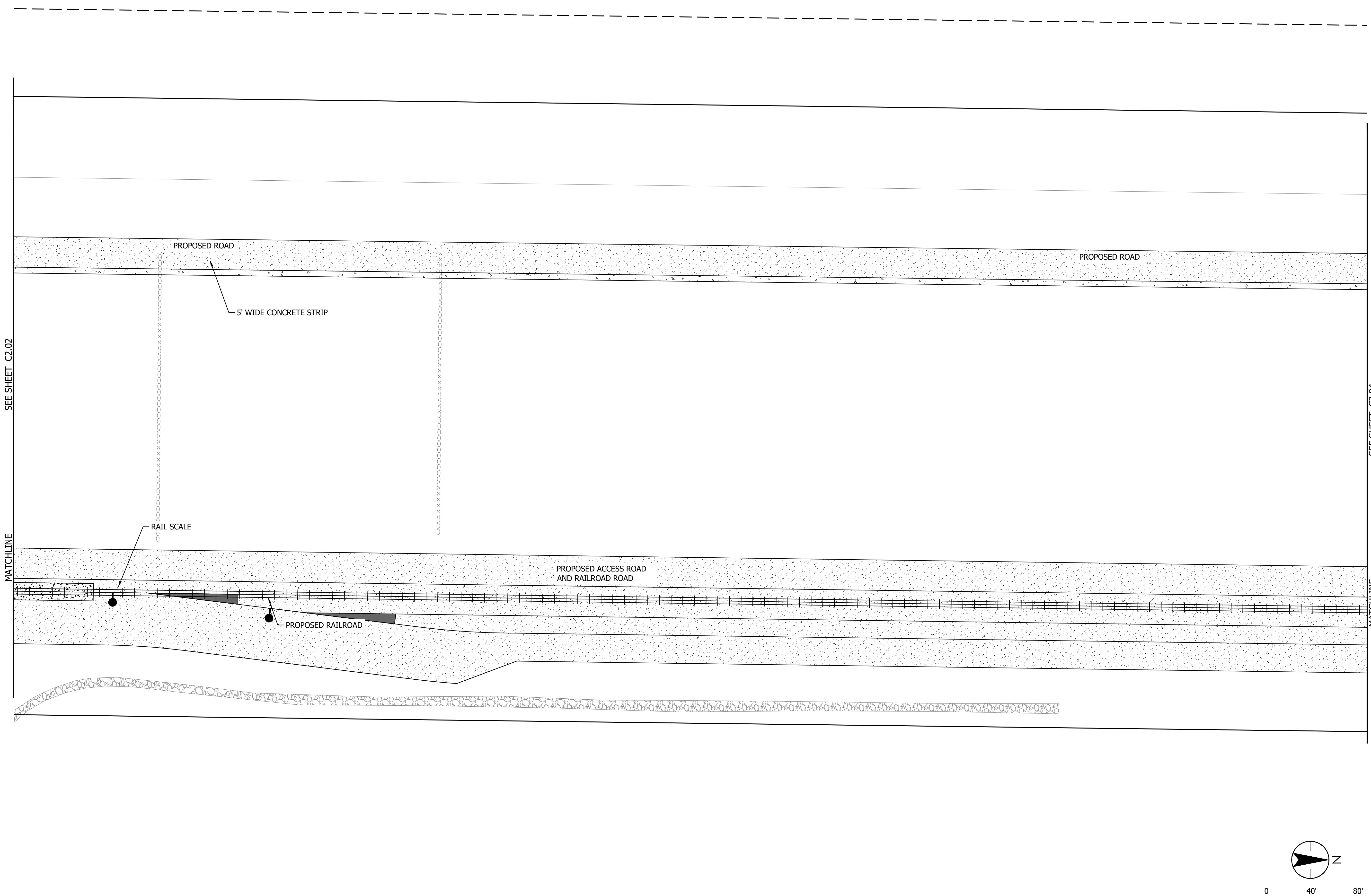

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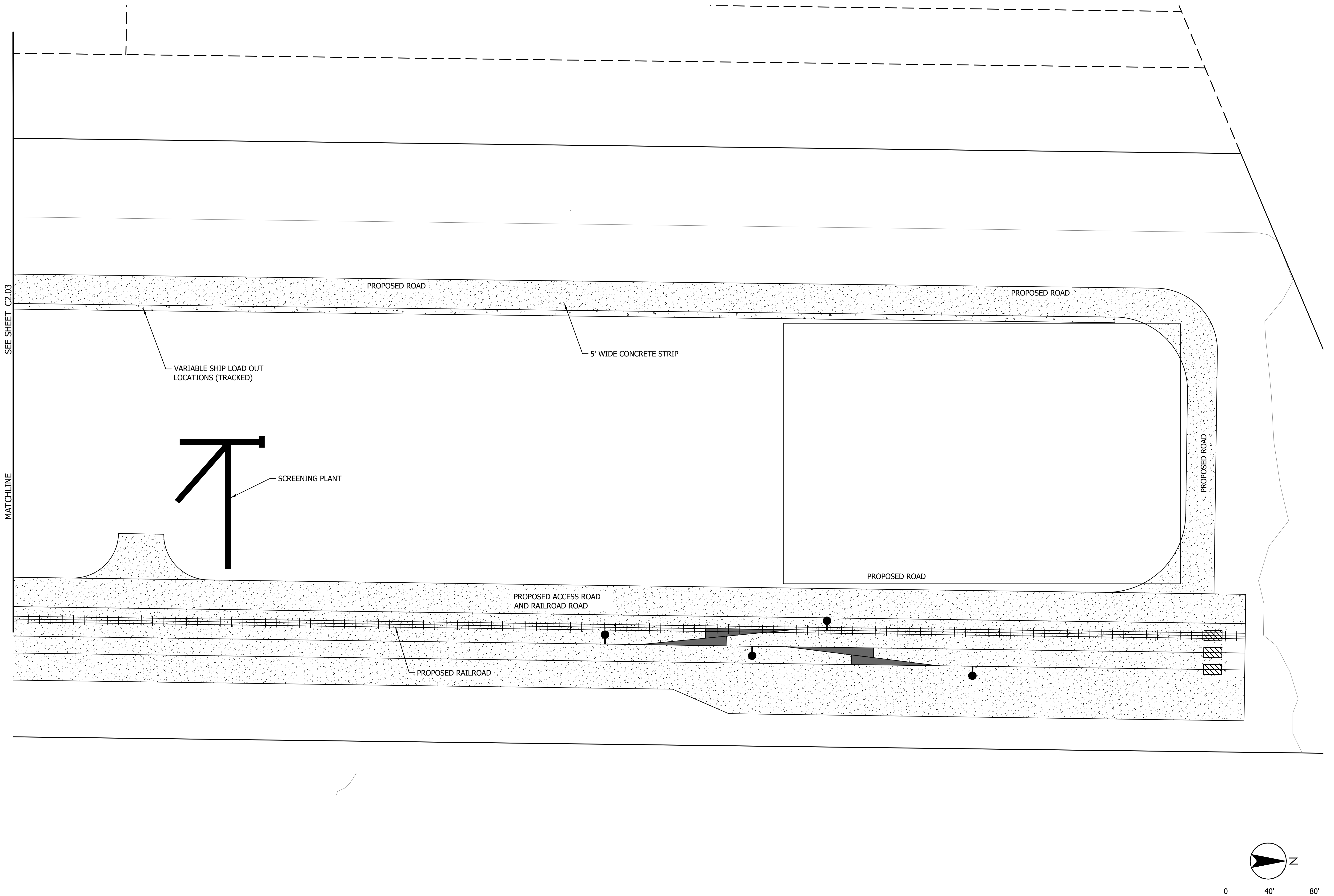

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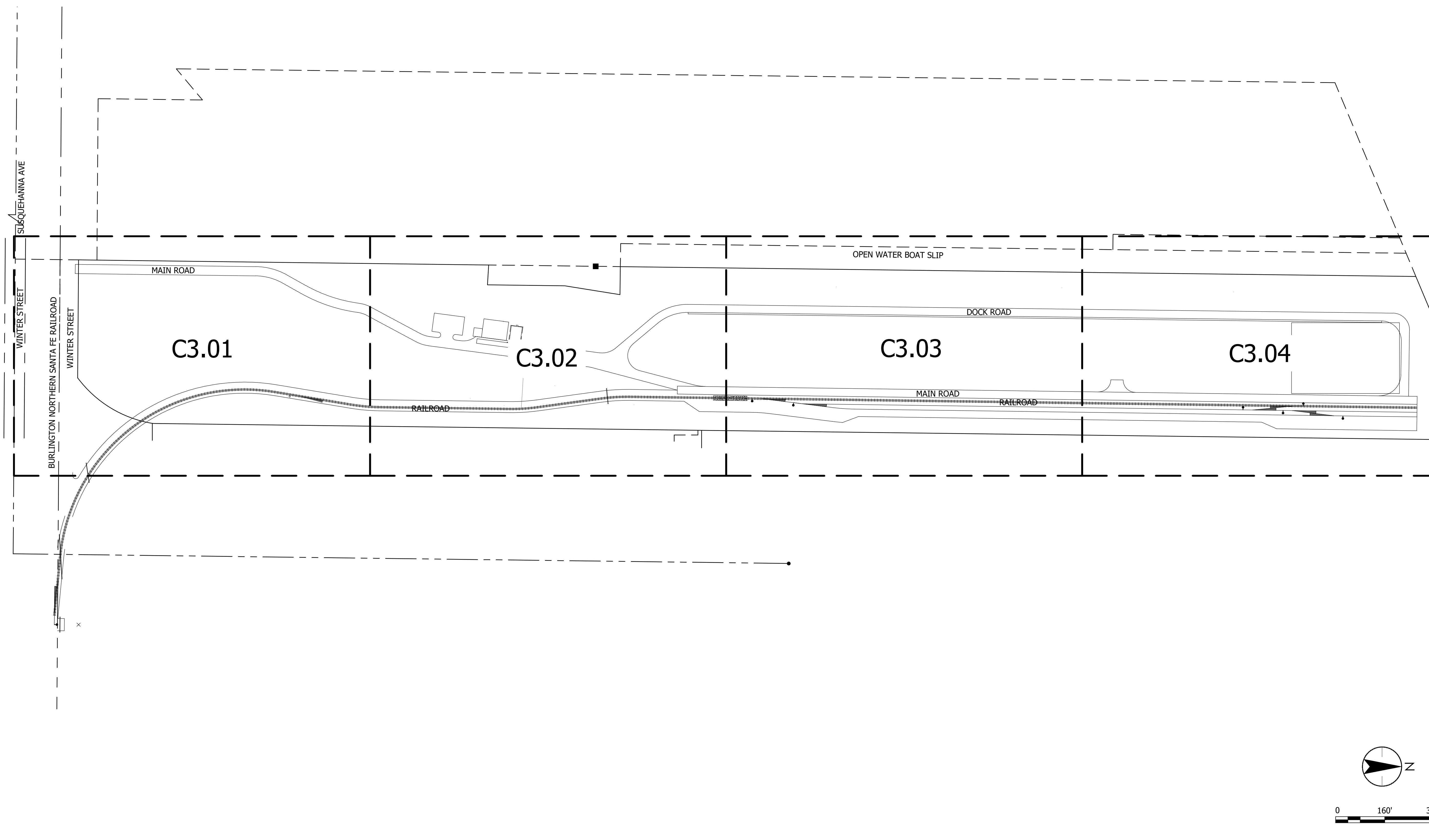

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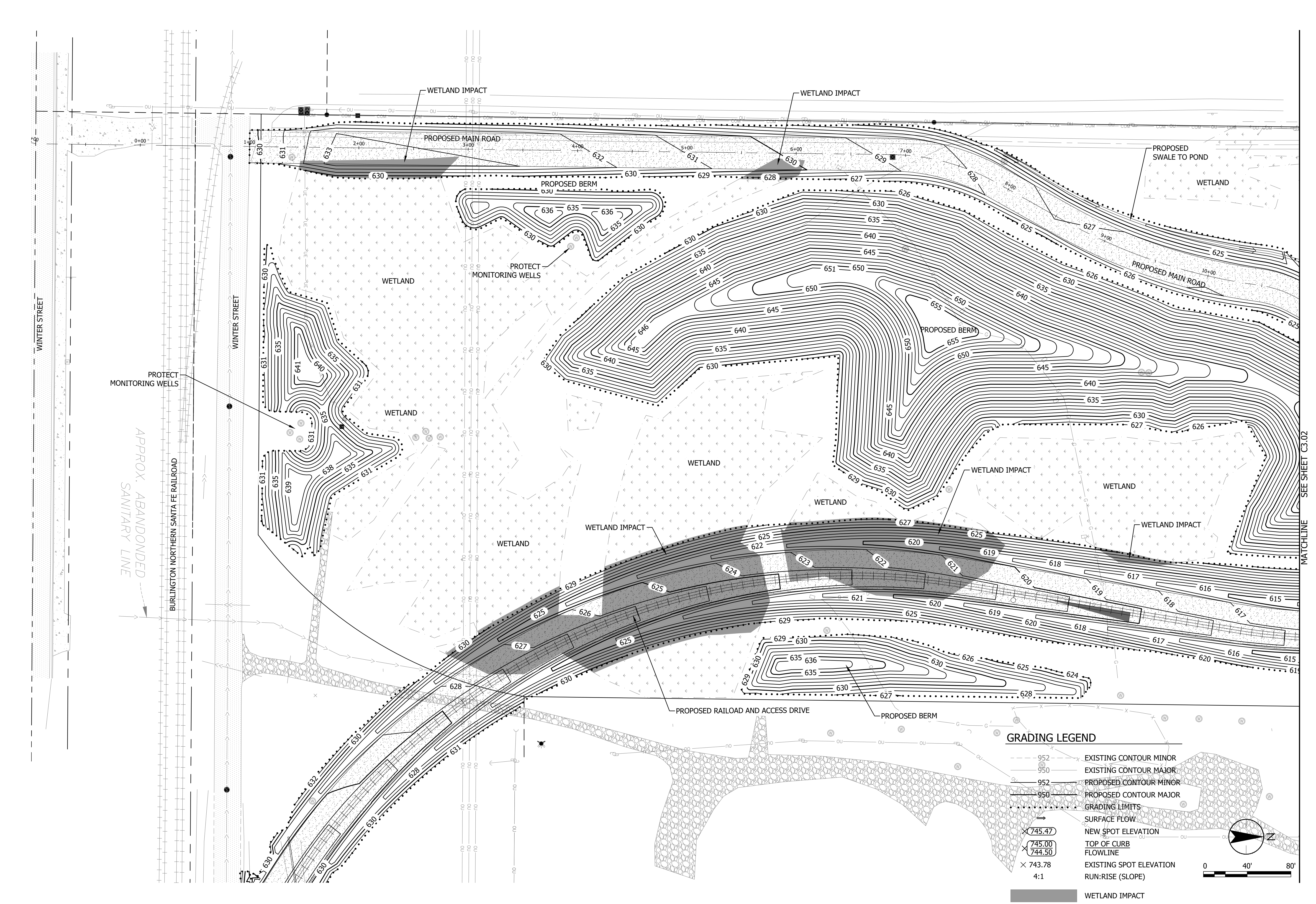
C3.00



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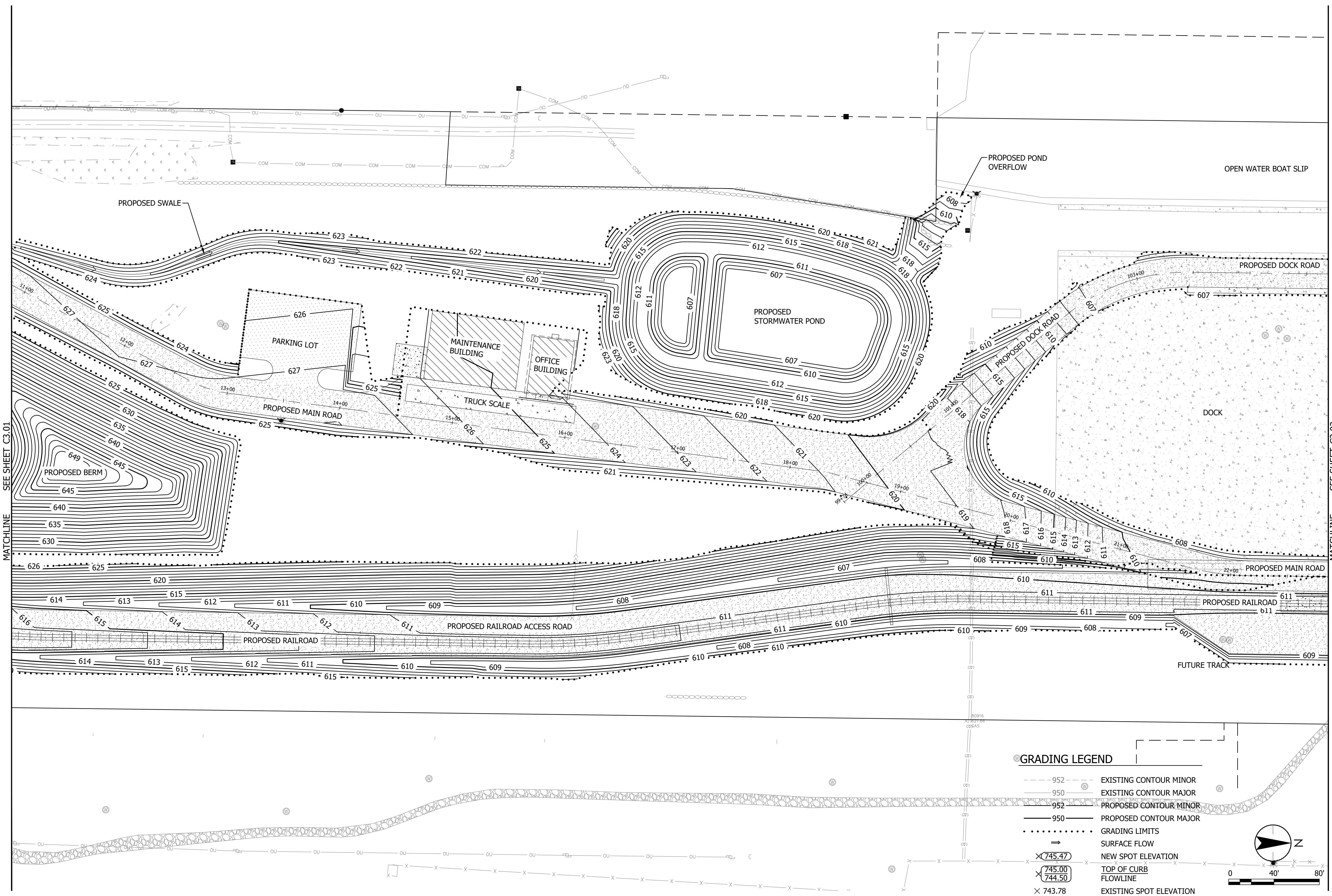

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GRADING PLAN

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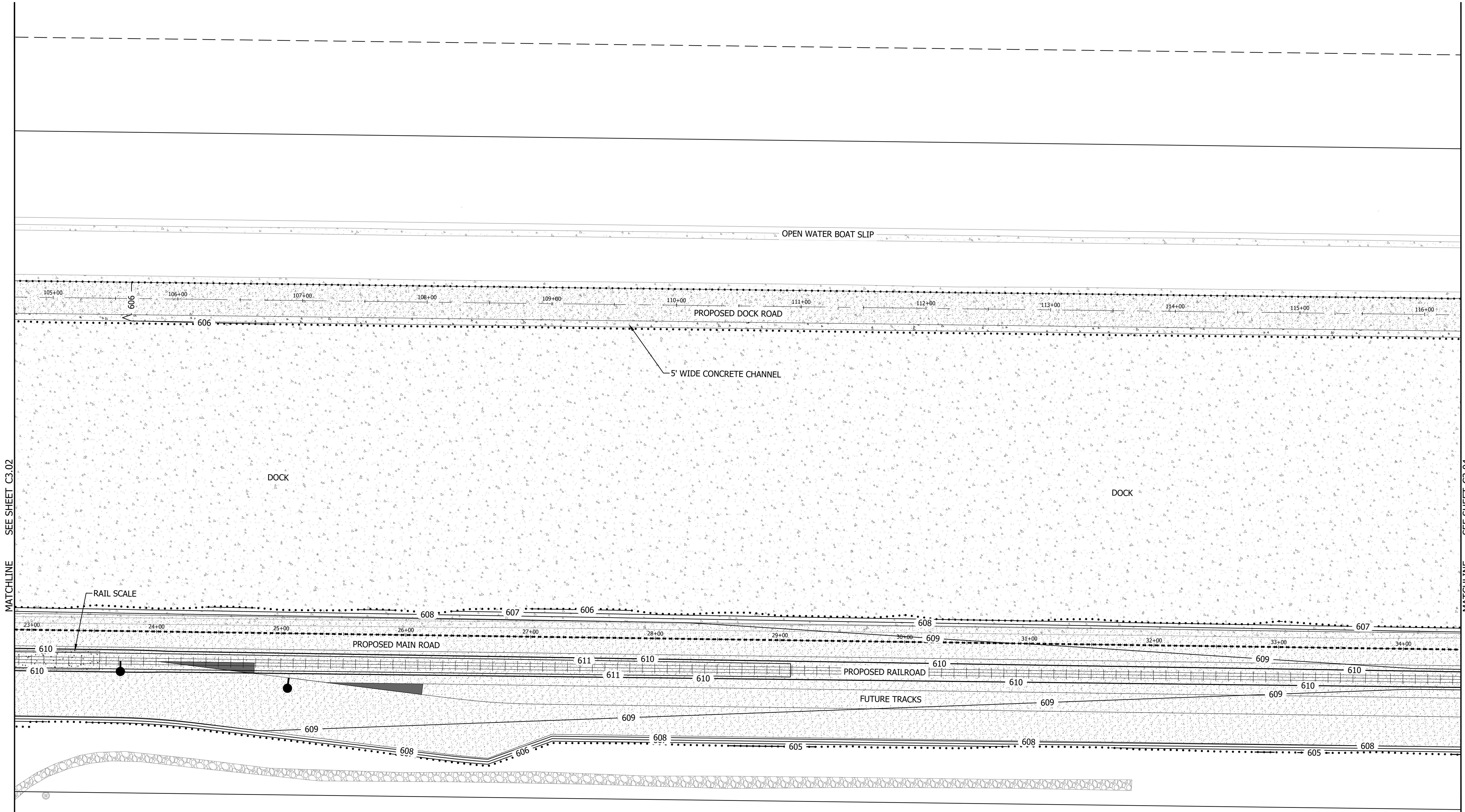
C3.02



GRADING LEGEND

— — 952 — —	EXISTING CONTOUR MINOR
—— 950 ——	EXISTING CONTOUR MAJOR
—— 952 ——	PROPOSED CONTOUR MINOR
—— 950 ——	PROPOSED CONTOUR MAJOR
• • • • • • • • • •	GRADING LIMITS
	SURFACE FLOW
× 745.47	NEW SPOT ELEVATION
× 745.00 / 744.50	TOP OF CURB / FLOWLINE
× 743.78	EXISTING SPOT ELEVATION
4:1	RUN:RISE (SLOPE)

N

0 40' 80'

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GRADING PLAN

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C3.03

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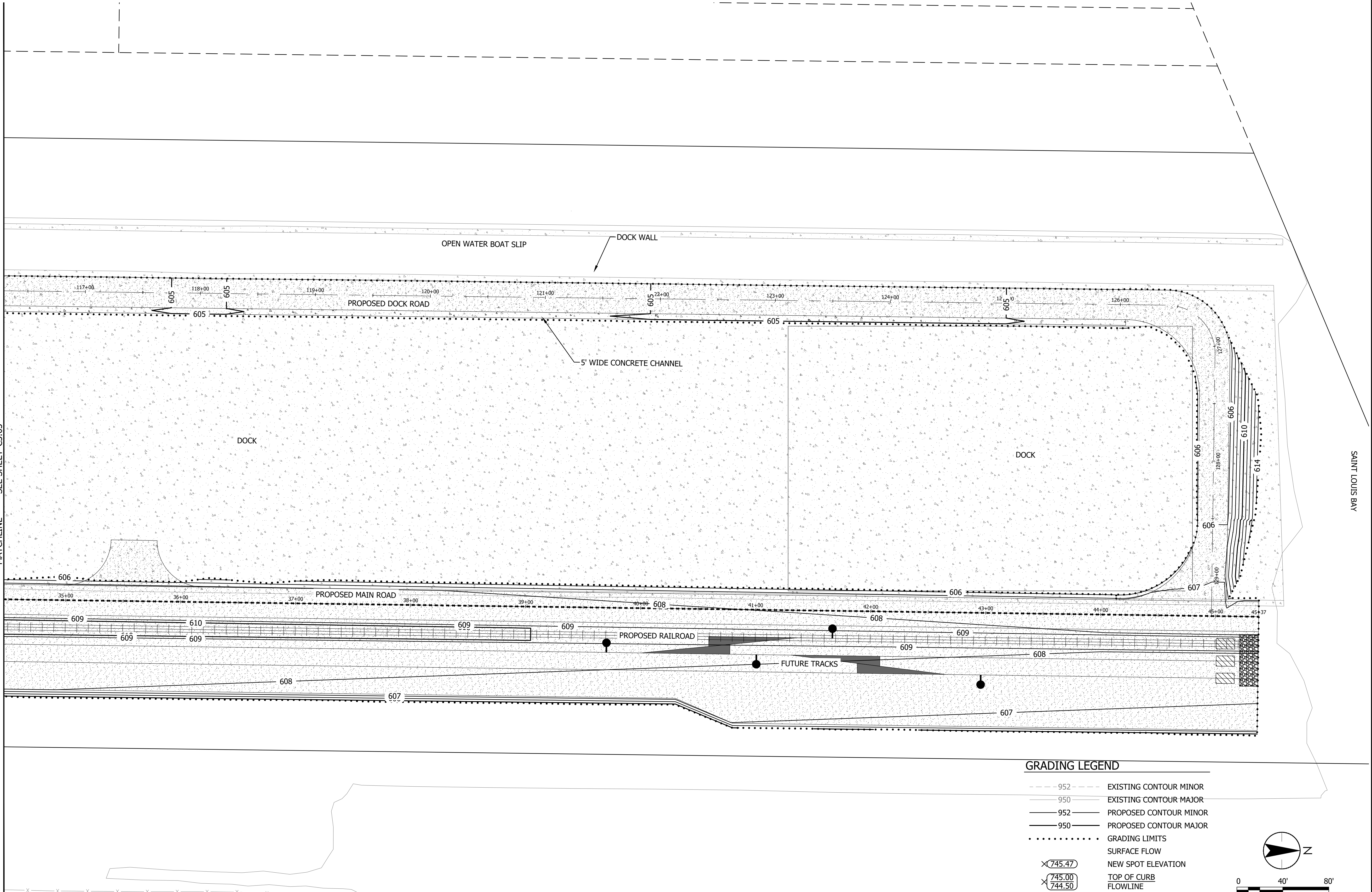

GRADING LEGEND

952	EXISTING CONTOUR MINOR
950	EXISTING CONTOUR MAJOR
952	PROPOSED CONTOUR MINOR
950	PROPOSED CONTOUR MAJOR
	GRADING LIMITS
	SURFACE FLOW
745.47	NEW SPOT ELEVATION
745.00 / 744.50	TOP OF CURB / FLOWLINE
743.78	EXISTING SPOT ELEVATION
4:1	RUN:RISE (SLOPE)

N

0 40' 80'

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GRADING PLAN

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SHEET NUMBER
C3.04

Plot Date: 06/30/2022 - 10:20am
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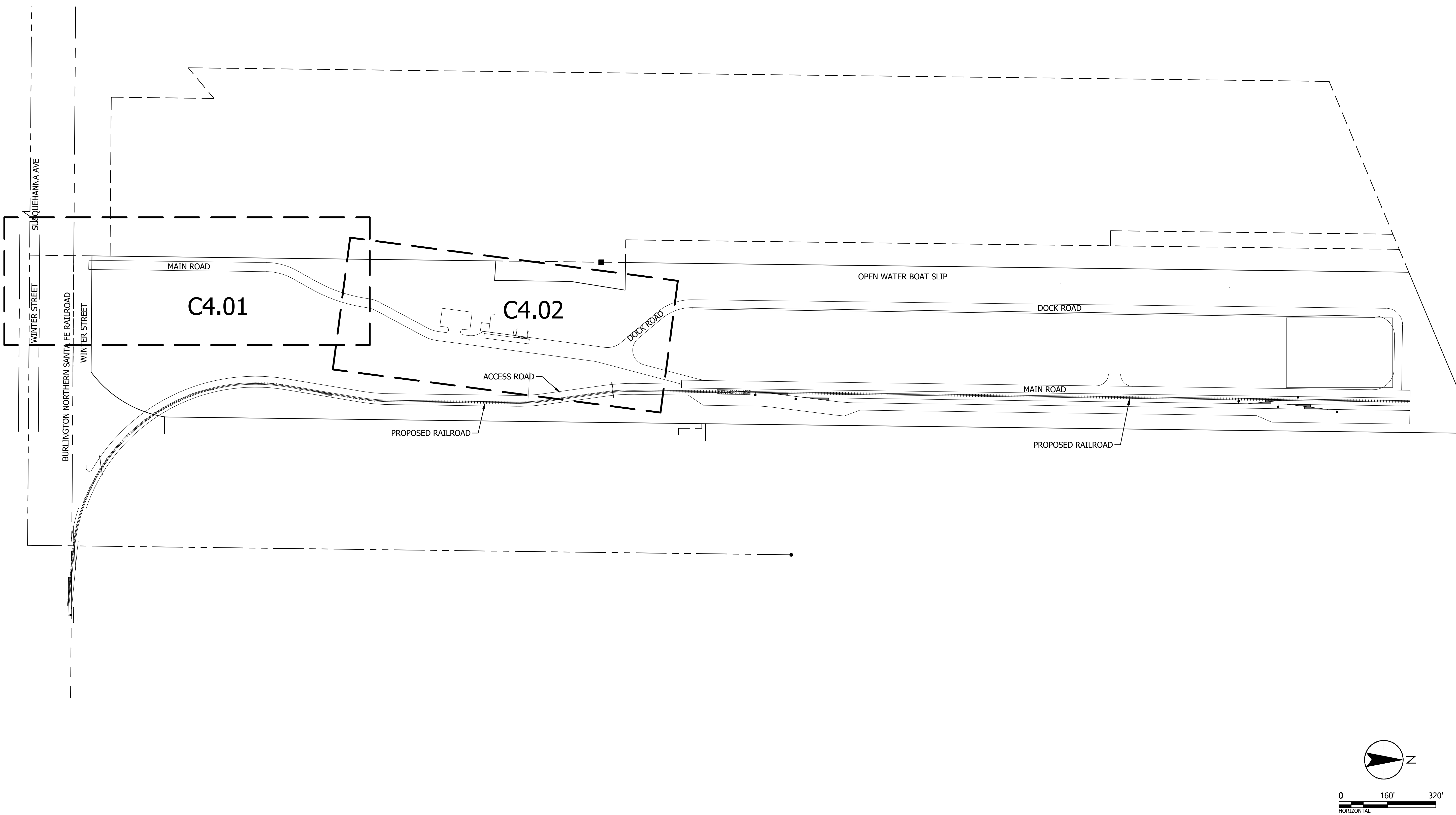

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Mequon, WI 53092
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UTILITY PLAN SHEET INDEX

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE
June 30, 2022

NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
C4.00

Plot Date: 06/30/2022 - 10:21am
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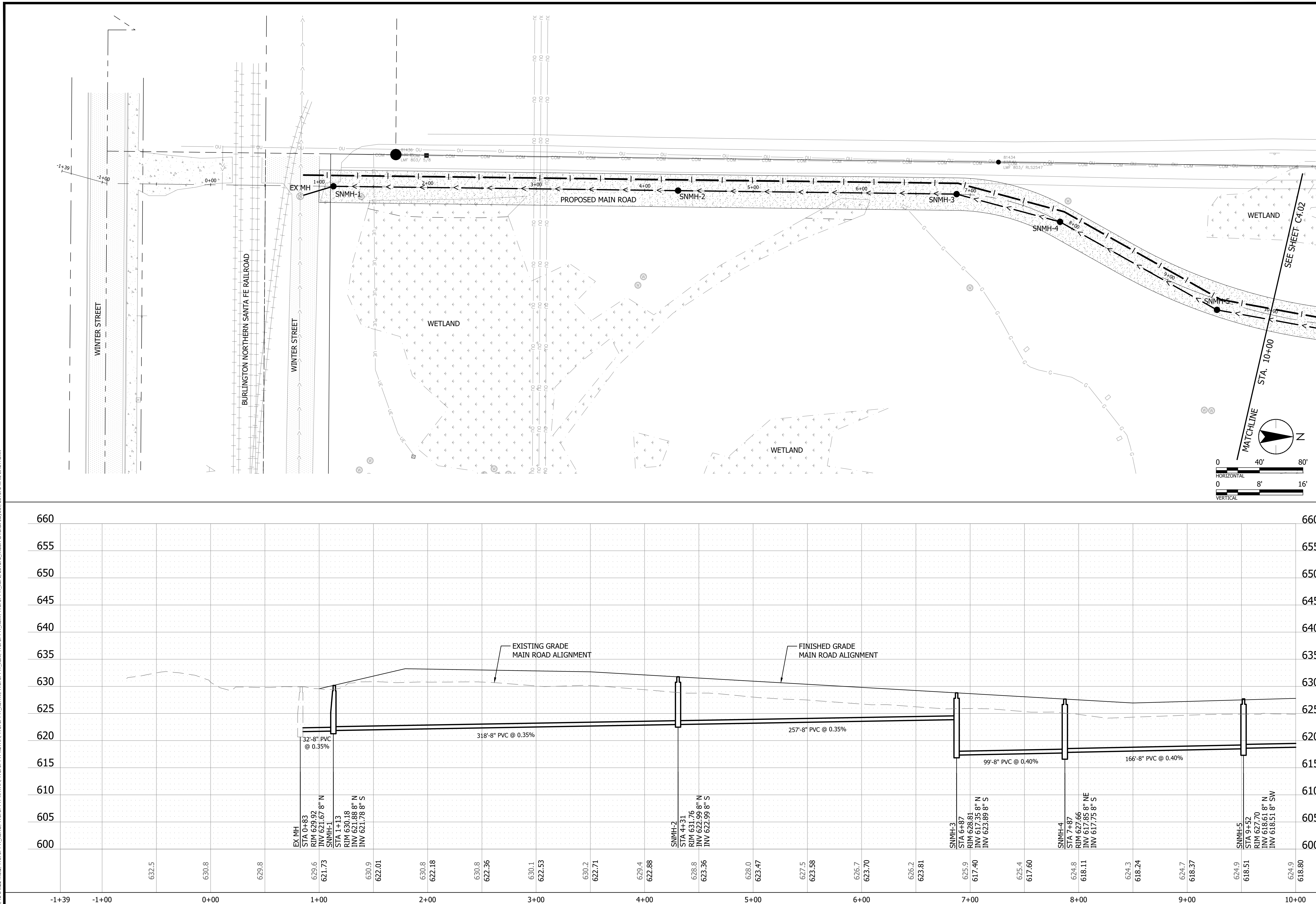

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UTILITY PLAN

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE
June 30, 2022

NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
C4.01

Plot Date: 06/30/2022 - 10:21am
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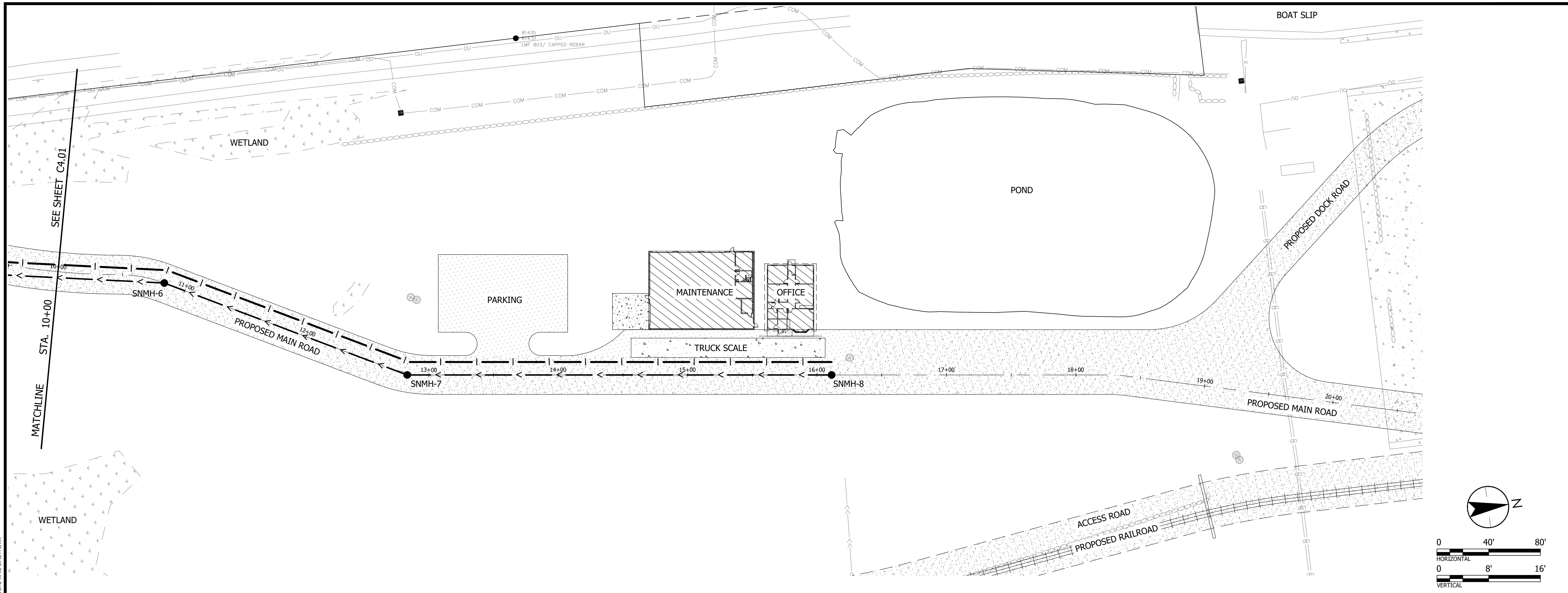

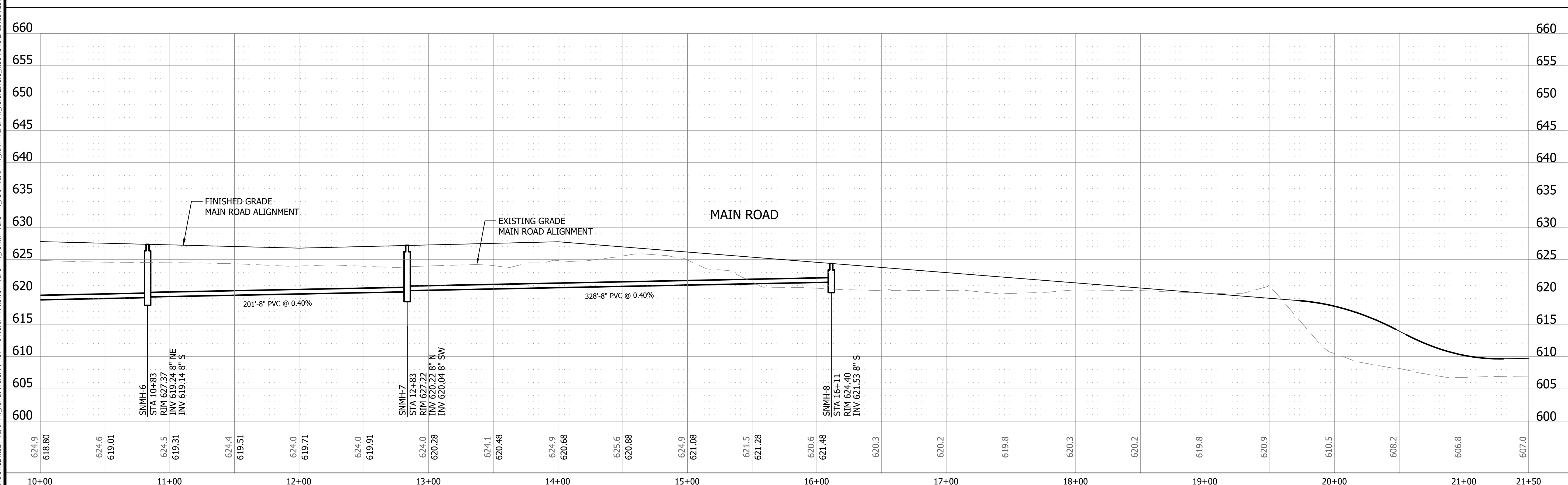

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UTILITY PLAN

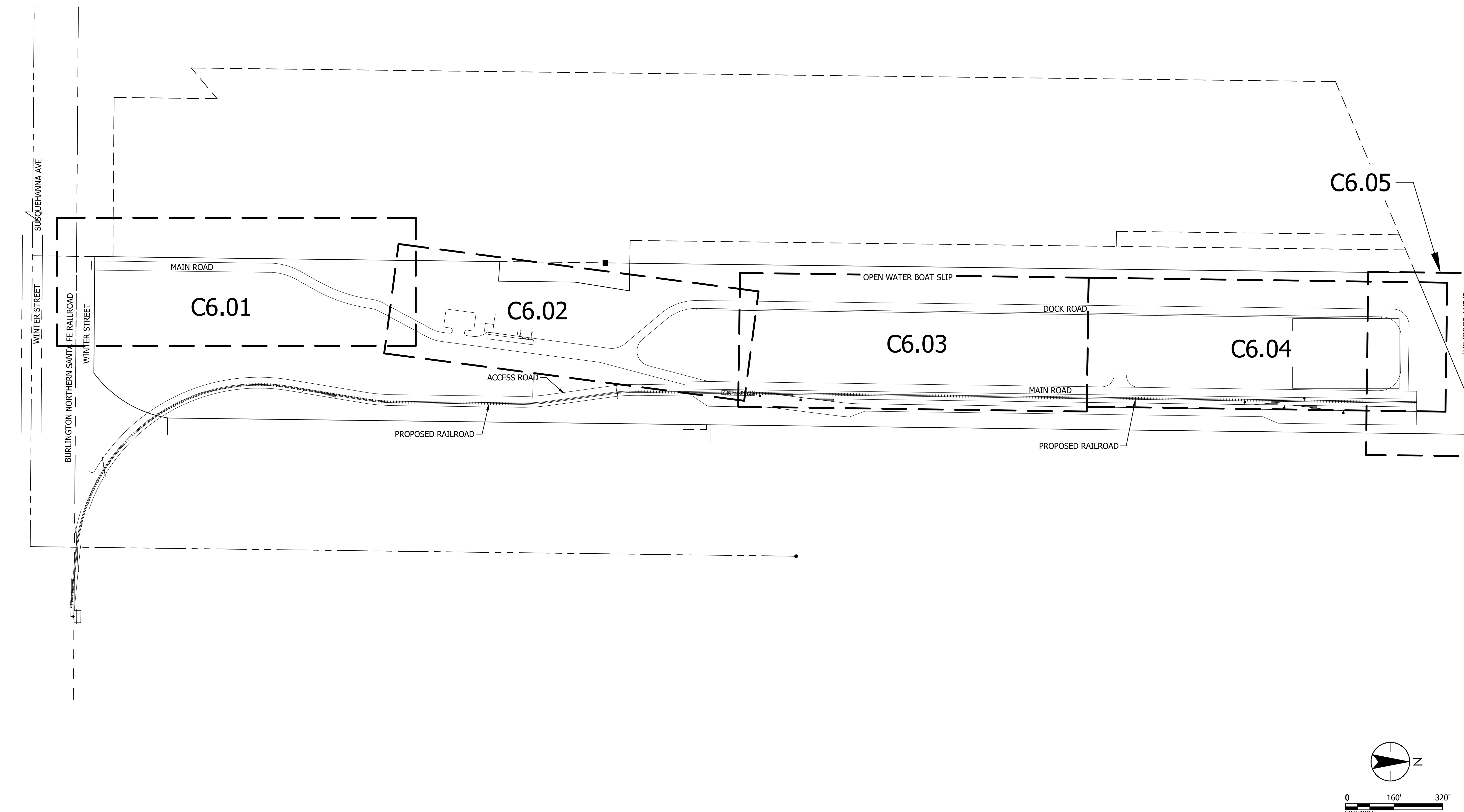
C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE	
June 30, 2022	

NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
C4.02



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ROAD PLAN SHEET INDEX

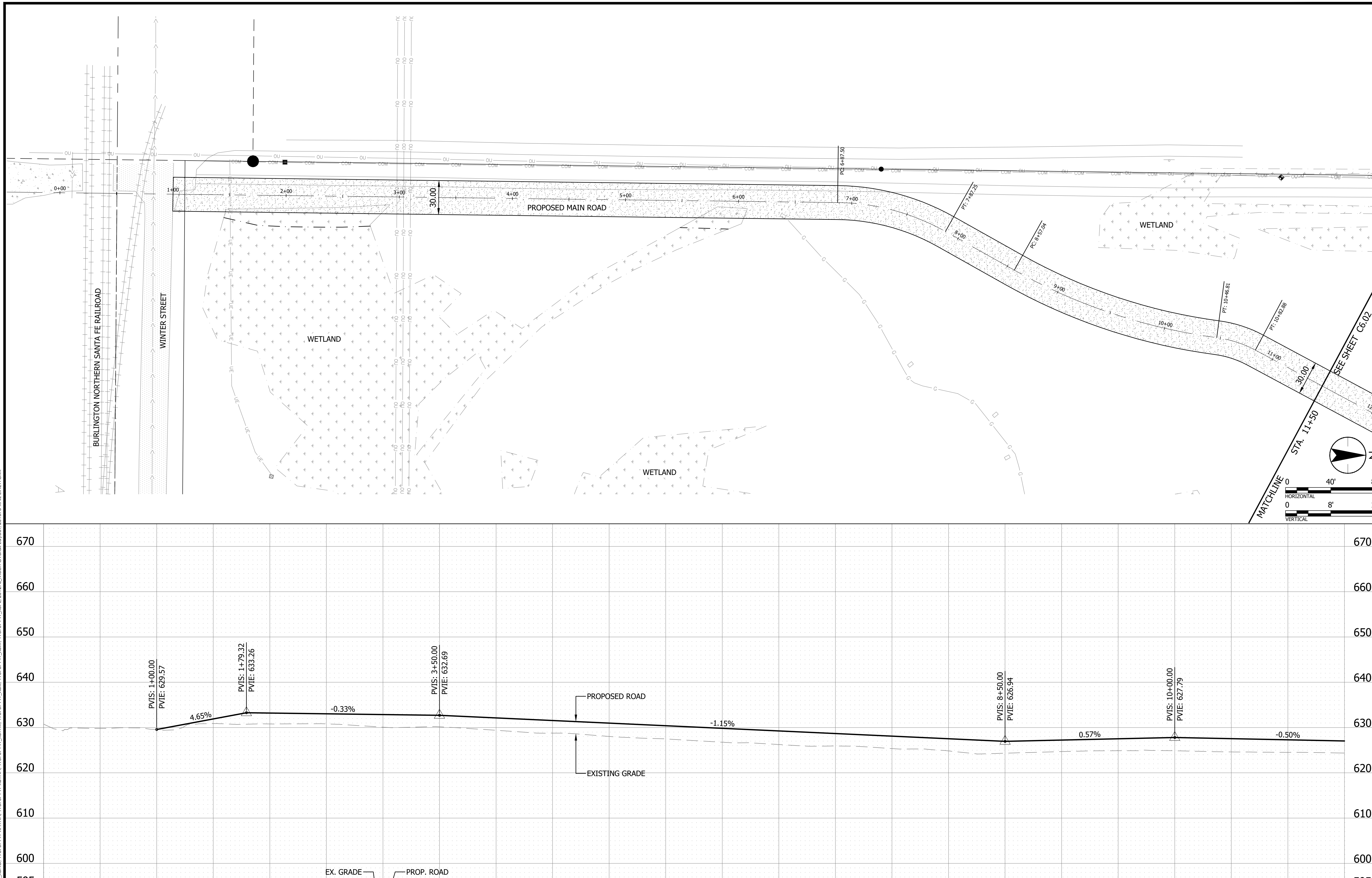
C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE
June 30, 2022

NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
C6.00



	0+00		1+00		2+00		3+00		4+00		5+00		6+00		7+00		8+00		9+00		10+00		11+00	11+50
EX. GRADE	630.8	629.8	629.6	630.9	630.8	630.8	630.1	630.2	629.4	628.8	628.0	627.5	626.7	626.2	625.9	625.4	624.8	624.3	624.7	624.9	624.9	624.6	624.5	624.4
PROP. ROAD			629.57	631.89	633.19	633.02	632.86	632.69	632.12	631.54	630.97	630.39	629.82	629.24	628.67	628.09	627.52	626.94	627.22	627.51	627.79	627.54	627.29	627.03

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MAIN ROAD PLAN AND PROFILE

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE	
June 30, 2022	

NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
C6.01

Plot Date: 06/30/2022 - 10:22am
Drawing name: V:\1937\active\193707141\03_data\gis_cad\cad\dwg\SHEETS\193707141C600.dwg
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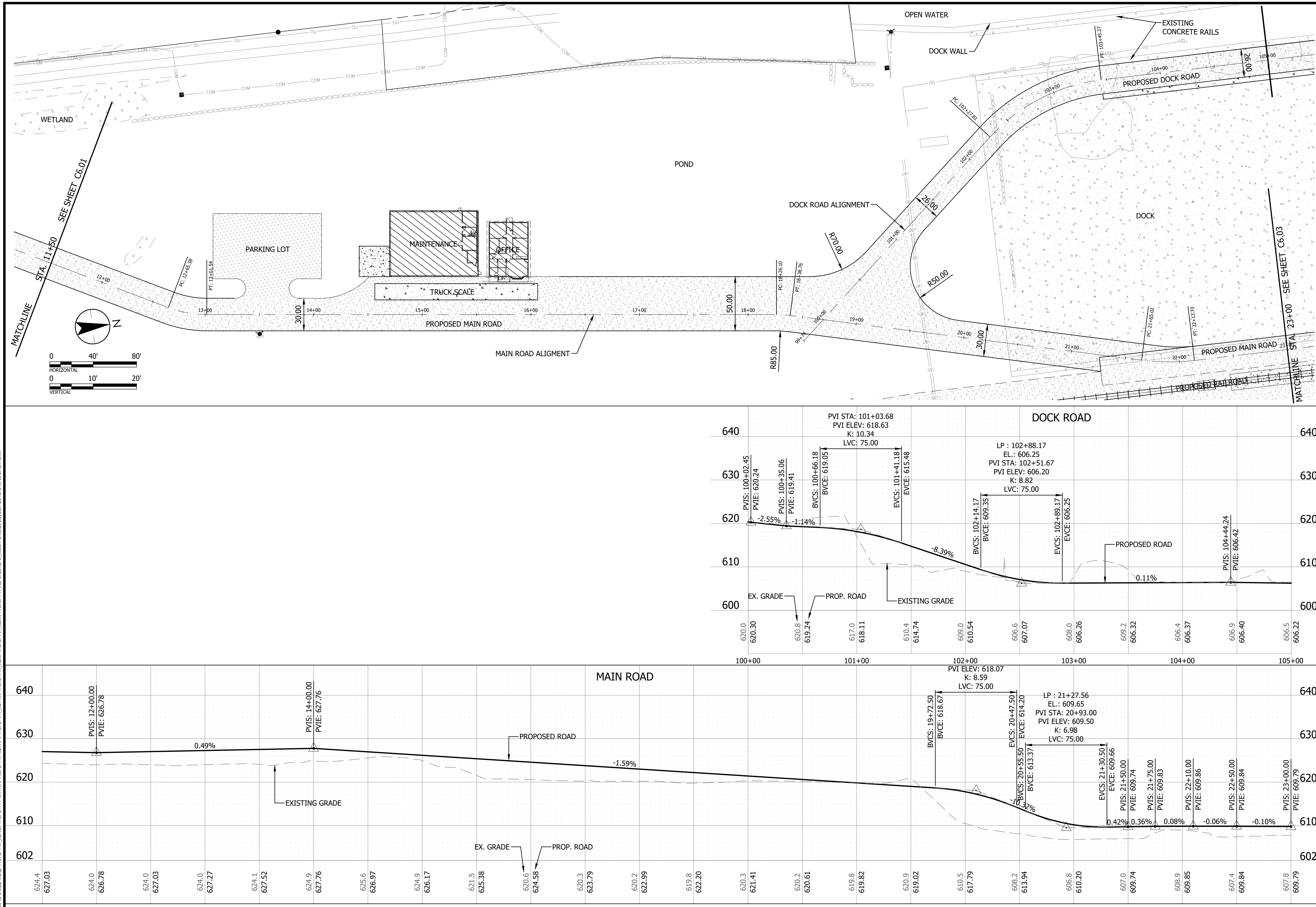

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MAIN ROAD AND DOCK ROAD PLAN AND PROFILE

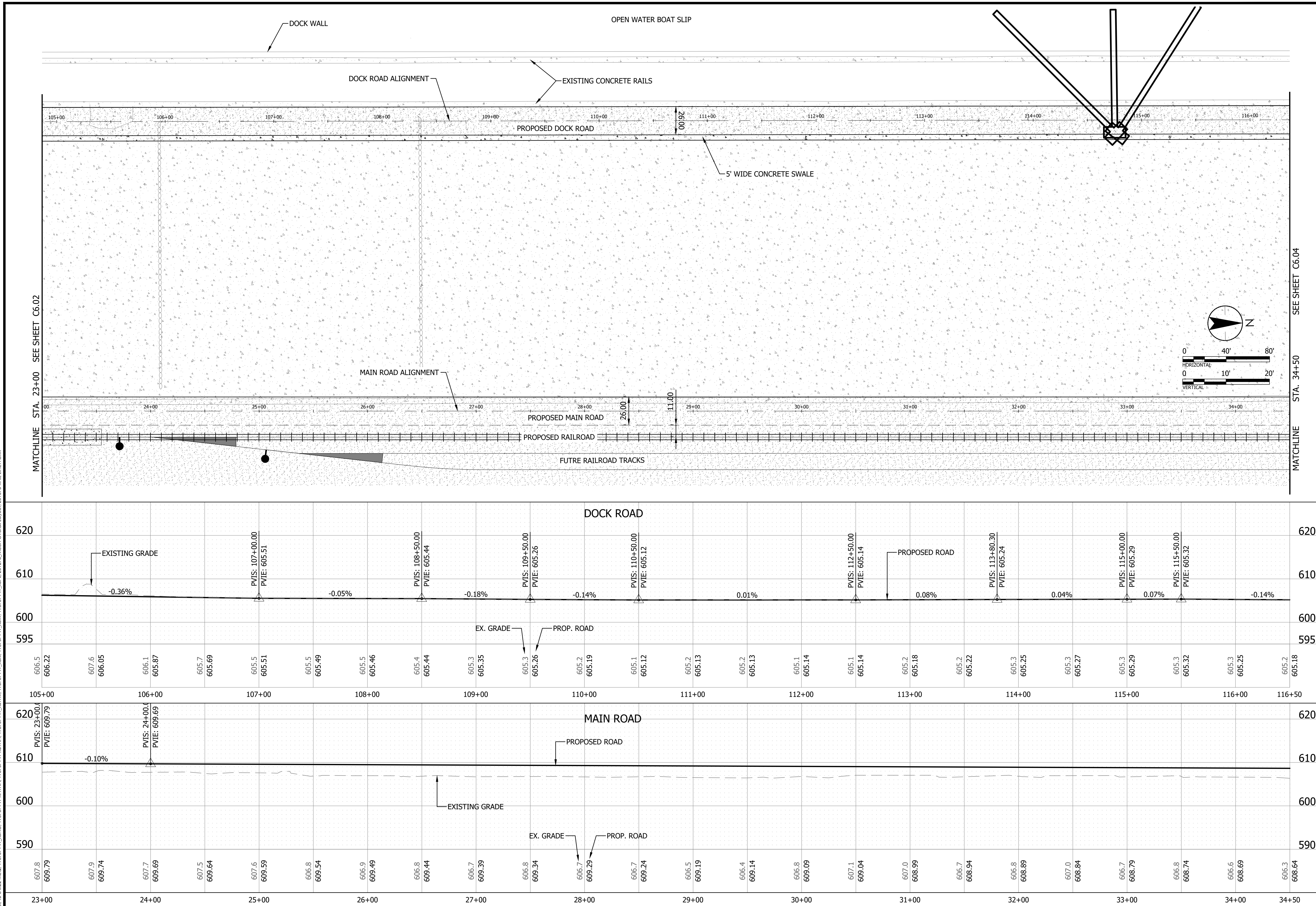
C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE
June 30, 2022

NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
C6.02



MAIN ROAD AND DOCK ROAD PLAN AND PROFILE

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

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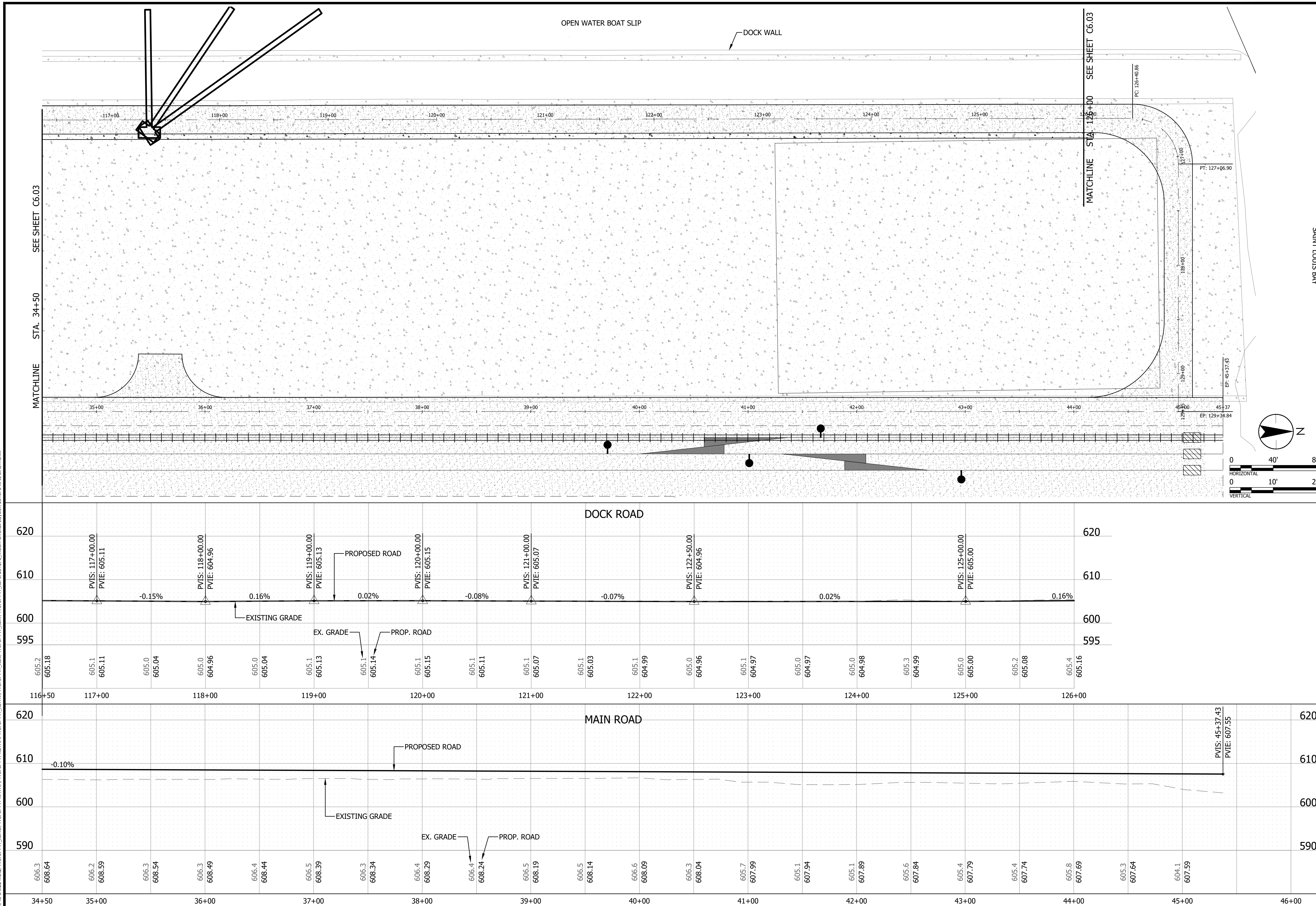
DATE OF ISSUANCE: June 30, 2022

NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER: C6.03



Station	Ex. grade	Prop. road
116+50	605.2	605.18
117+00	605.1	605.11
	605.0	605.04
118+00	605.0	604.96
	605.0	605.04
119+00	605.1	605.13
	605.1	605.14
120+00	605.1	605.15
	605.1	605.11
121+00	605.1	605.07
	605.1	605.03
122+00	605.1	604.99
	605.0	604.96
123+00	605.1	604.97
	605.0	604.97
124+00	605.0	604.98
	605.3	604.99
125+00	605.0	605.00
	605.2	605.08
126+00	605.4	605.16

Station	Ex. grade	Prop. road
34+50	606.3	608.64
35+00	606.2	608.59
	606.3	608.54
36+00	606.3	608.49
	606.4	608.44
37+00	606.5	608.39
	606.3	608.34
38+00	606.4	608.29
	606.4	608.24
39+00	606.5	608.19
	606.5	608.14
40+00	606.6	608.09
	606.3	608.04
41+00	605.7	607.99
	605.1	607.94
42+00	605.1	607.89
	605.6	607.84
43+00	605.4	607.79
	605.4	607.74
44+00	605.8	607.69
	605.3	607.64
45+00	604.1	607.59
46+00		

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MAIN ROAD AND DOCK ROAD PLAN AND PROFILE

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE
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SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
C6.04

Plot Date: 06/30/2022 - 10:22am
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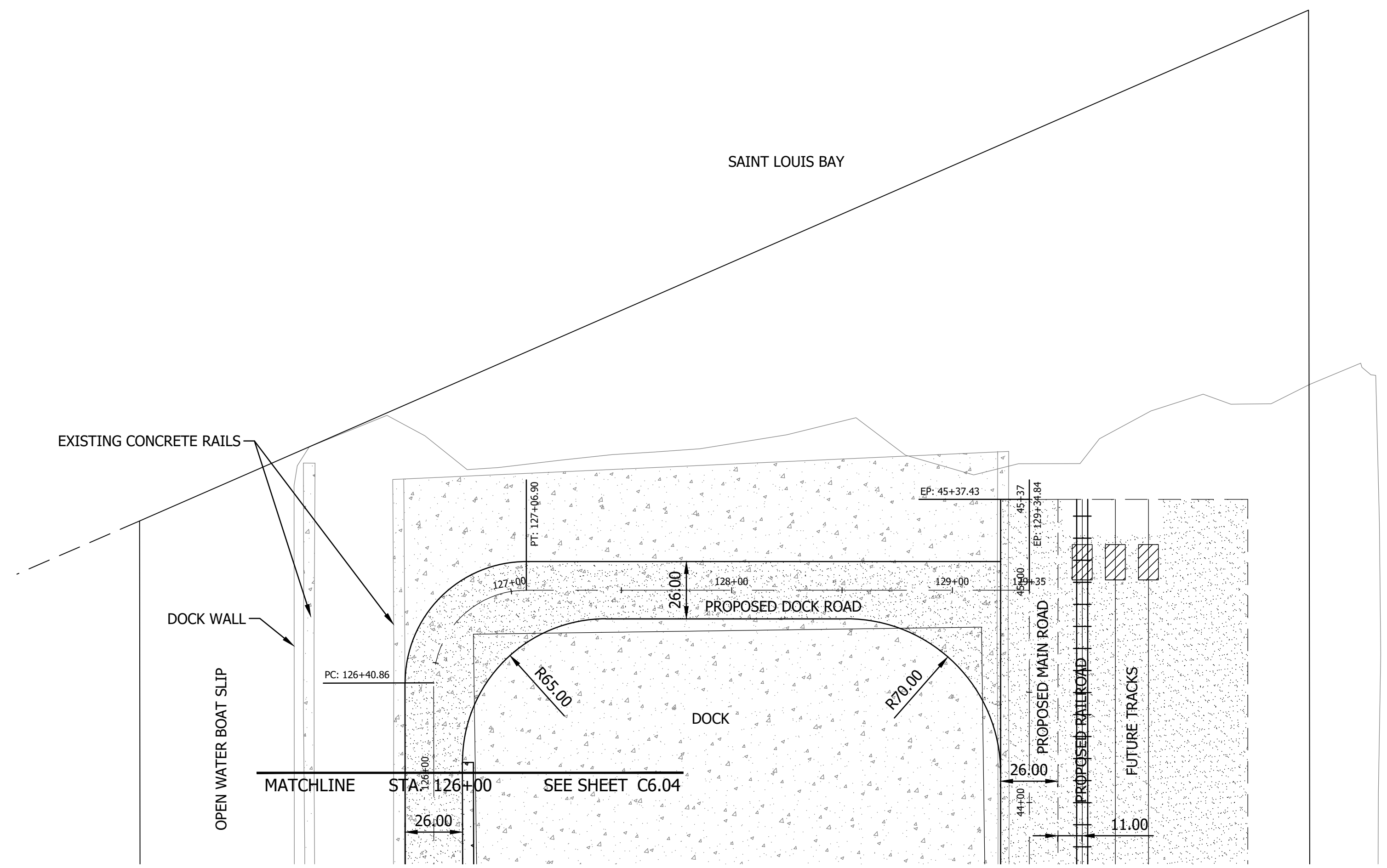
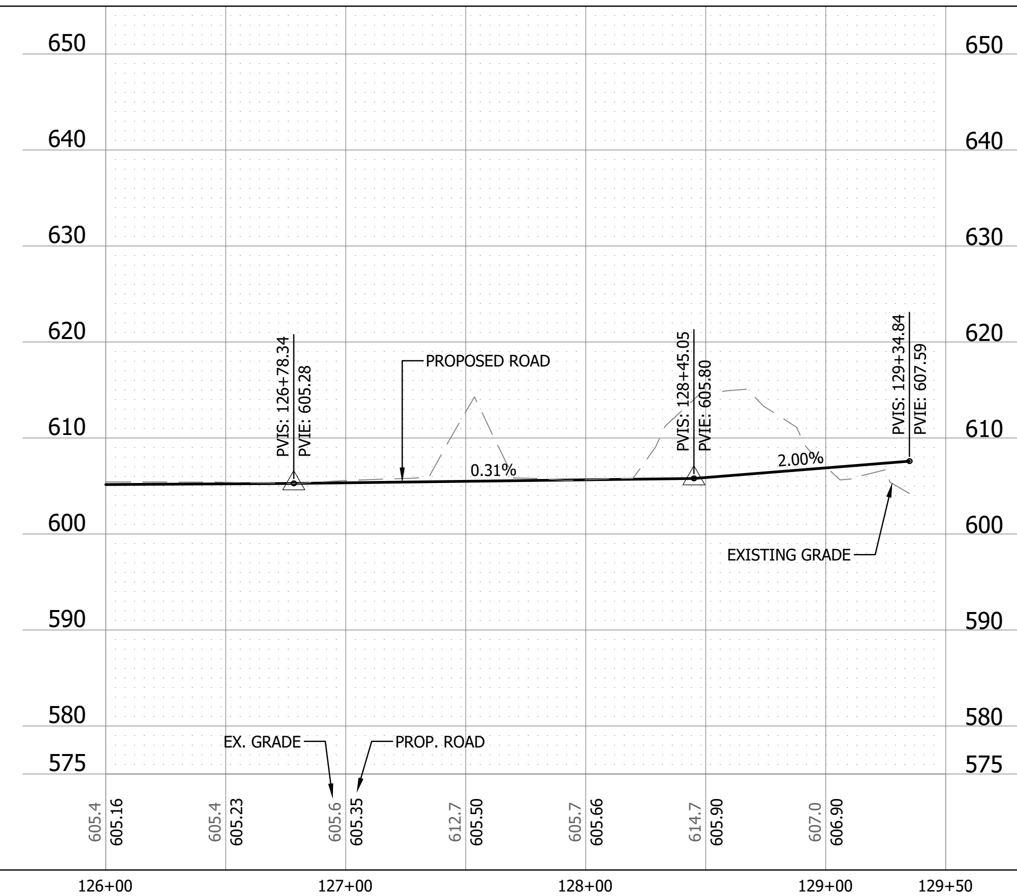


N

0 40' 80'
HORIZONTAL
0 8' 16'
VERTICAL



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DOCK ROAD PLAN AND PROFILE

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE
June 30, 2022

NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
C6.05

Plot Date: 06/30/2022 - 10:22am
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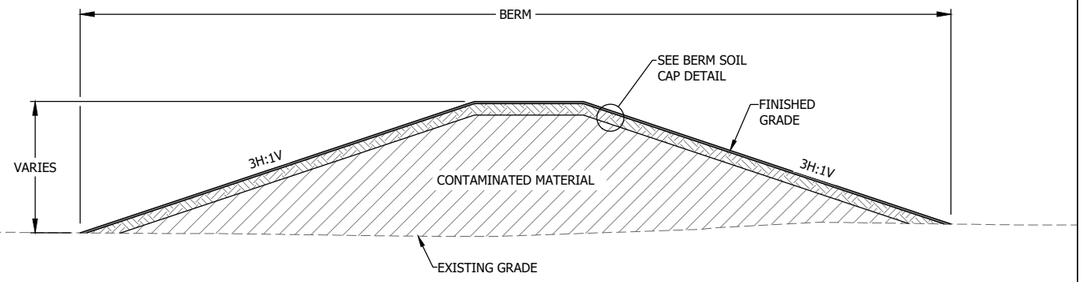
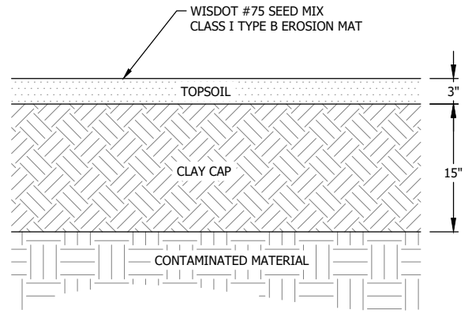
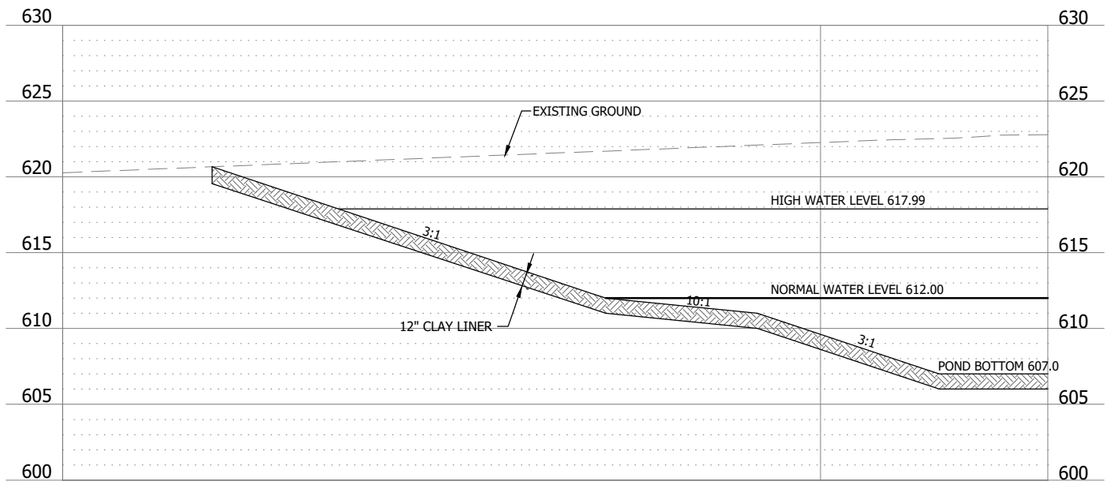


1 BERM TYPICAL SECTION
NTS



2 BERM SOIL CAP
NTS



A POND CROSS SECTION
NTS

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CONSTRUCTION DETAILS

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SUPERIOR, WI

DATE OF ISSUANCE
June 30, 2022

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SURVEY	BURSE
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DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
C8.01

Plot Date: 06/30/2022 - 10:57am
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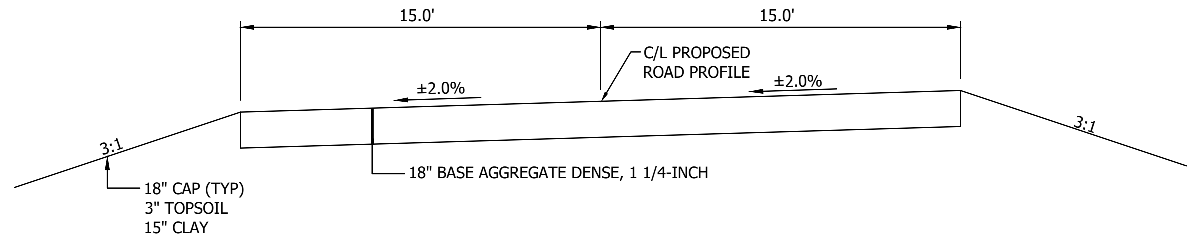
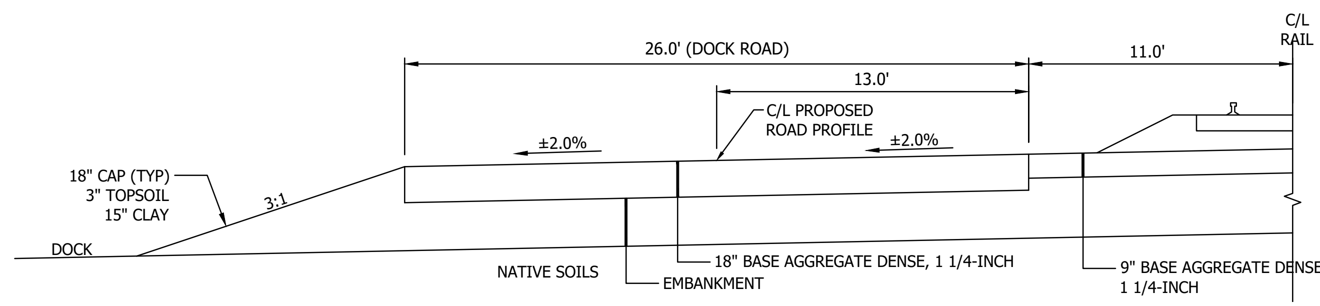


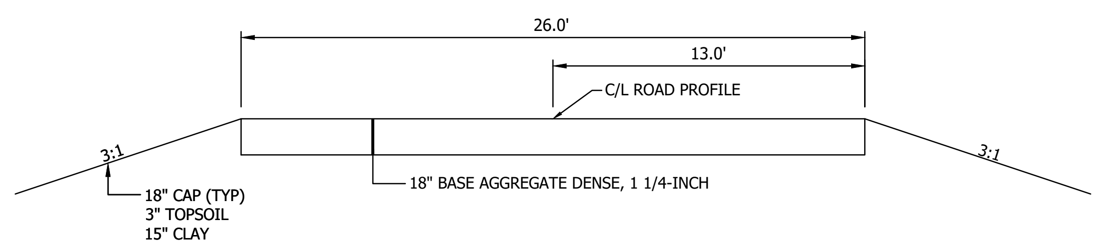
1 PROPOSED TYPICAL MAIN ROAD SECTION
STA. 1+00 - STA. 13+98.13

2 PROPOSED TYPICAL MAIN ROAD SECTION (OFFICE AREA)
STA. 13+98.13 - STA. 18+53.87

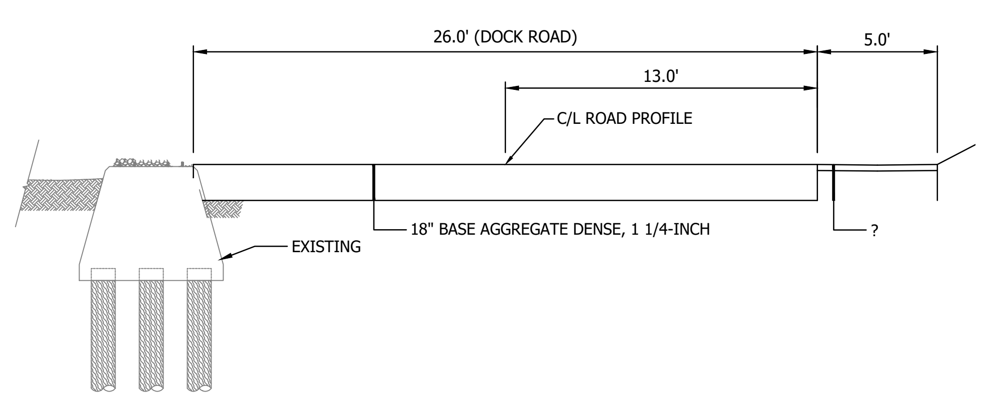
2 PROPOSED TYPICAL MAIN ROAD SECTION (INTERSECTION)
STA. 18+53.87 - STA. 21+29.14



3 PROPOSED DOCK ROAD TYPICAL SECTION
STA. 21+29.14 - STA. 45+37.35



3 PROPOSED DOCK ROAD TYPICAL SECTION
STA. 100+00 - STA. 103+50.43
STA. 126+08.50 - STA. 129+33.65



4 PROPOSED DOCK ROAD TYPICAL SECTION
STA. 103+50.43 - STA. 126+08.50

Plot Date: 06/30/2022 - 10:23am
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Xrefs: TB-34x22-MEQ

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TYPICAL ROAD SECTIONS

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE
June 30, 2022

NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
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CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
C8.02

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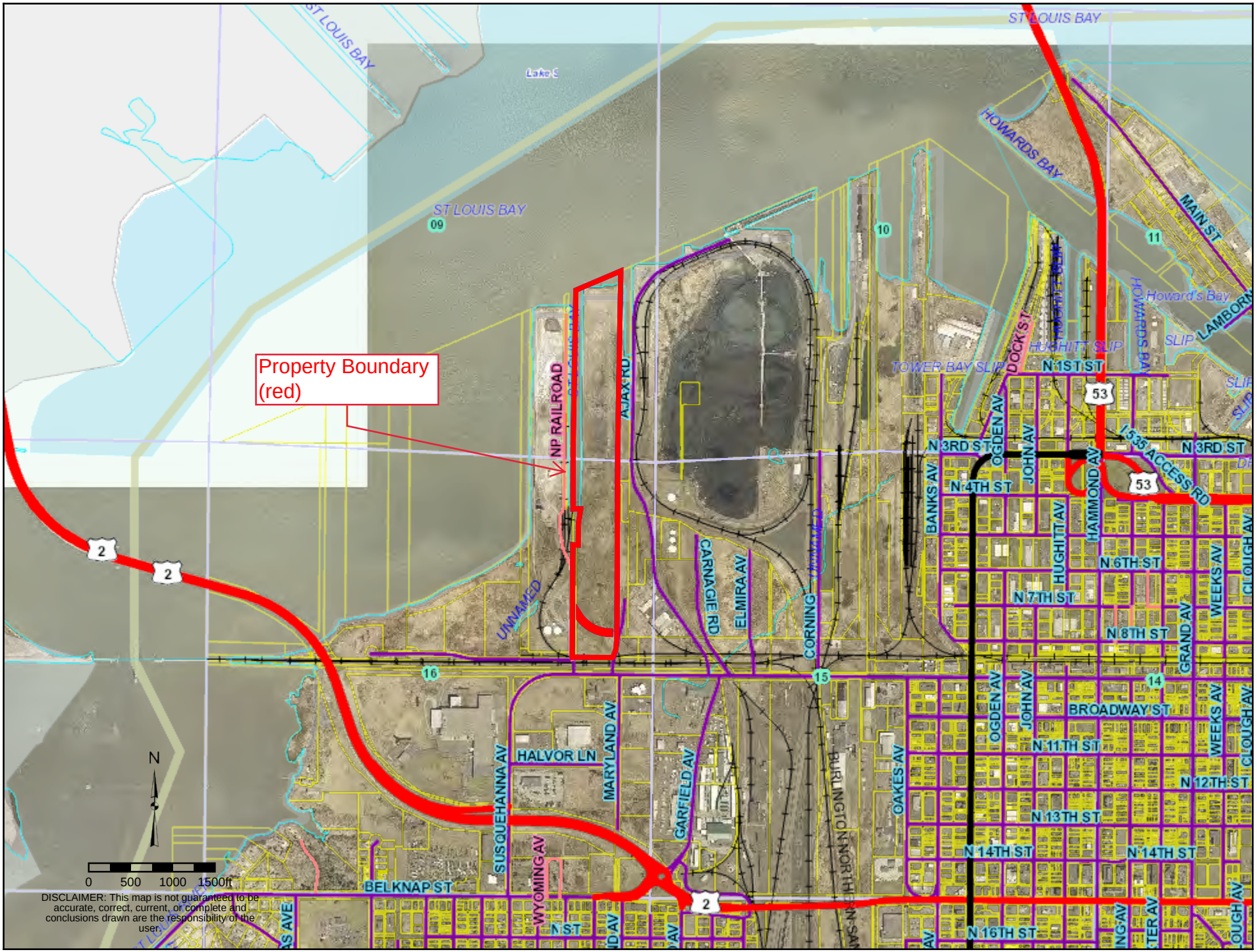
ATTACHMENT B

City of Superior/Douglas County Online Parcel Map


Property Boundary (red)
ST LOUIS BAY
Lake S
HOWARDS BAY
Howard's Bay
TOWER BAY SLIP
HUGHITT SLIP
SLIP
MAIN ST
LAMBORN
DOCK ST
N 1ST ST
N 3RD ST
N 4TH ST
N 6TH ST
N 7TH ST
N 8TH ST
BROADWAY ST
N 11TH ST
N 12TH ST
N 13TH ST
N 14TH ST
N 16TH ST
I-35 ACCESS RD
OGDEN AV
JOHN AV
BANKS AV
HAMMOND AV
HUGHITT AV
GRAND AV
WEEKS AV
CLOUGH AV
NP RAILROAD
AJAX RD
UNNAMED
CARRIAGE RD
ELMIRA AV
CORNING
HALVOR LN
MARYLAND AV
GARFIELD AV
SUSQUEHANNA AV
WYOMING AV
BELKNAP ST
N ST
OAKES AV
BURLINGTON NORTHERN SAN
2
10
11
09
14
15
16
53
N
0 500 1000 1500ft
DISCLAIMER: This map is not guaranteed to be accurate, correct, current, or complete and conclusions drawn are the responsibility of the user.