CITY OF MENDOTA HEIGHTS

PLANNING COMMISSION REGULAR MEETING AGENDA

September 24, 2024 at 7:00 PM
Mendota Heights City Hall, 1101 Victoria Curve, Mendota Heights

1. **Call to Order**
2. **Roll Call**
3. **Approval of Minutes**
   a. Approve Minutes from the August 27, 2024 Planning Commission Meeting
4. **Public Hearings**
   a. **CASE No. 2024-17 MRCCA Permit and Amended CUP** Application of Xcel Energy for a Mississippi River Corridor Critical Area (MRCCA) Permit and amended Conditional Use Permit (CUP) at the property located at 800 Sibley Memorial Highway.
5. **New and Unfinished Business**
6. **Updates/Staff Comments**
7. **Adjourn**

Auxiliary aids for persons with disabilities are available upon request at least 120 hours in advance. If a notice of less than 120 hours is received, the City of Mendota Heights will make every attempt to provide the aid. However, this may not be possible on short notice. Please contact City Hall at 651.452.1850 with requests.

CITY OF MENDOTA HEIGHTS
DAKOTA COUNTY, MINNESOTA

DRAFT PLANNING COMMISSION MINUTES
AUGUST 27, 2024

The regular meeting of the Mendota Heights Planning Commission was held on Tuesday, August 27, 2024 in the Council Chambers at City Hall, 1101 Victoria Curve at 7:00 P.M.

The following Commissioners were present: Acting Chair Patrick Corbett, Commissioners Patrick Corbett, Cindy Johnson, Brian Petschel, Jason Stone, and Andrew Katz. Those absent: Chair Litton Field and Commissioner Brian Udell.

Approval of Agenda

The agenda was approved as submitted.

Approval of July 23, 2024 Minutes

COMMISSIONER PETSCHEL MOVED, SECONDED BY COMMISSIONER KATZ TO APPROVE THE MINUTES OF JULY 23, 2024.

AYES: 5
NAYS: 0

Hearings

A) PLANNING CASE 2024-18
SOUTHVIEW DESIGN, 643 POND VIEW DRIVE – WETLANDS PERMIT

Community Development Manager Sarah Madden explained that the applicant is seeking a Wetlands Permit to authorize construction of a new deck structure and landscaping/hardscaping improvements on the property located at 643 Pond View Drive. A portion of the property is located within the Wetlands District, which encompasses wetlands and water resource related areas and the adjacent land within 100 feet of the normal high water markers of these water resources. The proposed improvements are located at the edge of the Wetlands District boundary, approximately 95.5 feet from the edge of the adjacent Copperfield Pond.

Hearing notices were published and mailed to all properties within 350-ft. of the site; no comments or objections to this request were received.

Community Development Manager Sarah Madden provided a planning staff report and a presentation on this planning item to the Commission (which is available for viewing through the City's website).

Staff recommended approval of this application based on the findings and with conditions.

Acting Chair Corbett referenced the suggested tree protection and asked for more details on what prompted that addition.

Community Development Manager Sarah Madden commented that she opted to include that based on current policy discussions, but noted that is not a current requirement of City Code and therefore would be optional for the Commission to include.

Alison Landmark, Southview Design, commented that their goal is to be surgical in the planning and construction for this project because of the adjacent wetland and natural area that takes up a large portion of the backyard. She noted that a portion of the property is totally excluded from the scope of work and the deck footprint would not go further than the current deck footprint.

Rory Dubin, property owner, commented that they worked with this team on their front yard project last year and are excited to continue. He stated that they do not have any issues with protection of the tree as suggested as they are keeping the tree.

Acting Chair Corbett opened the public hearing.

Seeing no one coming forward wishing to speak, Acting Chair Corbett asked for a motion to close the public hearing.

COMMISSIONER STONE MOVED, SECONDED BY COMMISSIONER KATZ, TO CLOSE THE PUBLIC HEARING.

AYES: 5
NAYS: 0

COMMISSIONER PETSCHEL MOVED, SECONDED BY COMMISSIONER STONE TO RECOMMEND APPROVAL OF THE WETLANDS PERMIT TO SOUTHVIEW DESIGN AND FOR THE PROPERTY LOCATED AT 643 POND VIEW DRIVE, WHICH WOULD AUTHORIZE THE PERMITTING AND CONSTRUCTION OF THE NEW DECK AND ASSOCIATED LANDSCAPING AND HARDSCAPING IMPROVEMENTS, BASED ON THE FINDINGS-OF-FACT AND SUBJECT TO THE FOLLOWING CONDITIONS:

1. ALL WORK AND IMPROVEMENTS NOTED ON THE PLANS APPENDED TO THIS PLANNING REPORT FOR CASE NO. 2024-18 SHALL BE THE ONLY APPROVED WORK ALLOWED UNDER THIS WETLANDS PERMIT. IF ADDITIONAL CONSTRUCTION WORK IN REAS UP TO 100-FEET FROM THE POND EDGE IS NEEDED, EXCLUDING THE PLANTING OF TREES AND VEGETATION, THE OWNER MUST CONTACT CITY STAFF PRIOR TO COMMENCING ANY WORK, AND REPAIR AND REPLANT ANY DISTURBED AREAS WITH SUITABLE PLANTINGS AND MATERIALS, PER DIRECTION OF THE CITY'S NATURAL RESOURCES COORDINATOR.

2. THE NEW STRUCTURE AND SITE IMPROVEMENTS SHALL COMPLY WITH ALL APPLICABLE STANDARDS AND CONDITIONS NOTED UNDER TITLE 12, CHAPTER 2, WETLANDS SYSTEMS OF CITY CODE.
3. THE OWNERS SHALL CONTINUE TO MAINTAIN A 25' WIDE VEGETATIVE BUFFER (NO DISTURBANCE) FROM THE ADJACENT POND EDGE, AS OUTLINED ON THE DRAINAGE EASEMENT DEDICATED ON THE PLAT OF THE PROPERTY.
4. NO ADDITIONAL GRADING OR OTHER LAND DISTURBANCE SHALL OCCUR WITHIN 25 FEET FROM THE EDGE OF THE ADJACENT POND, EXCEPT FOR THE REMOVAL OF DISEASED TREES, INSTALLATION OF EROSION CONTROL MEASURES (IF NEEDED) OR FOR THE PLANTINGS OF ANY NEW SEED MIXTURES OR LANDSCAPING MATERIALS, AND ONLY WITH CITY APPROVALS.
5. FULL EROSION/SEDIMENTATION MEASURES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF WORK AND MAINTAINED THROUGHOUT THE DURATION OF THE CONSTRUCTION PROJECT. A DOUBLE ROW OF SILT FENCE/PERIMETER CONTROL IS REQUIRED, WITH J-HOOK ON BOTH SIDES OF THE PROPERTY. TREE PROTECTION AND EROSION BARRIERS SHALL BE PLACED AND MAINTAINED ALONG THE OUTER EDGES OF THE PROJECT WORK AREA AND REMAIN IN PLACE UNTIL ALL DISTURBED AREAS HAVE BEEN RESTORED.
6. ANY GRADING AND/OR CONSTRUCTION ACTIVITY RELATED TO THE DEVELOPMENT OF THIS LOT SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS AND CODES, AS WELL AS IN COMPLINACE WITH THE CITY'S LAND DISTURBANCE GUIDEANCE DOCUMENT.
7. BEST EFFORTS WILL BE MADE BY THE CONTRACTOR(S) TO "COME CLEAN, LEAVE CLEAN" DURING THE COURSE OF CONSTRUCTION ON THE SUBJECT PROPERTY, AND ENSURE NEW GROUND MULCH OR PLANT MATERIALS ARE FREE OF ANY INVASIVE SPECIES.
8. PRIOR TO THE RELEASE OF ANY ESCROW PAYMENT, ALL DISTURBED AREAS IN AND AROUND THE PROJECT SITE SHALL BE RESTORED AND HAVE AN ESTABLISHED, PROTECTED AND PERMANENT GROUND COVER IMMEIDATELY AFTER THE PROJECT IS COMPLETED.
9. A BUILDING PERMIT MUST BE APPROVED PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION WORK ON THE PROPOSAL. CONSTRUCTION WORK SHALL OCCUR ONLY BETWEEN THE HOURS OF 7:00 A.M. AND 8:00 P.M. WEEKDAYS; AND 9:00 A.M. TO 5:00 P.M. WEEKENDS.

Further discussion: Commissioner Katz commented that he is pleased to see the language about tree protection and that the applicant agreed. He stated that he would support similar language when applicable going forward.

Commissioner Johnson commented that it is a common construction practice to protect the drip line of the tree and therefore also agrees that protection is helpful when someone wants to save a tree.

Acting Chair Corbett stated that while he agrees, he was just unsure if that should be a condition or whether it is better as a typical construction process.

AYES: 5
NAYS: 0

Acting Chair Corbett advised the City Council would consider this application at its September 3, 2024 meeting.

<u>New and Unfinished Business</u>

A) ZONING CODE UPDATE

Planning Consultant Jennifer Haskamp presented the Final Draft of the Zoning Code Update. The City has prepared proposed amendments to Title 12: Zoning to adopt a revised zoning title and corresponding Zoning Map. This item was tabled from the July 23, 2024, regular Commission meeting, where the public hearing was opened, held, and closed. The Planning Commission met at a Worksession on July 30, 2024, to continue to discuss the comments received at the July 23rd meeting.

Hearing notices were published and mailed to all properties within 350-ft. of the site; no comments or objections to this request were received. The Commission is asked to reopen the public hearing and continue its discussion of this item.

Planning Consultant Jennifer Haskamp provided a planning staff report and a presentation on this planning item to the Commission (which is available for viewing through the City's website).

Staff recommended adoption of Zoning Code updates as presented.

Commissioner Katz thanked staff for continuing to go through the drafts and answer questions, acknowledging that this has been a long process.

Acting Chair Corbett reopened the public hearing.

Tim Lawrence, Alltech Engineering, referenced the proposed rezoning which would rezone a lot of industrial property to general business. He commented that it would seem that a number of current uses would not be included in the allowed table of uses for general business, using the example of metal fabrication.

Commissioner Petschel commented that he specifically mentioned that use as something they wanted to allow and therefore if it is not listed, it should be. He believed that would fall under the definition of manufacturing.

Mr. Lawrence asked the purpose of rezoning the parcels.

Commissioner Petschel commented that those properties are not currently be rezoned. He stated that there is only one parcel in the industrial district being reguided as general business, and identified that parcel.

Planning Consultant Jennifer Haskamp identified the stretch of property proposed to be rezoned. She explained that this is a follow up from the Comprehensive Plan guiding which had an intent to better match the existing uses of the property.

Mr. Lawrence stated that he is seeking to understand the purpose of the change as his business is similar to many in that area. He stated that while their business is not engaging in manufacturing, they support industrial businesses and does not want the other businesses to be impacted by the change in zoning.

Commissioner Stone asked how they could ensure that this would not impact the current businesses that are there.

Community Development Manager Sarah Madden stated that the map itself has looked like this for some time because of the Comprehensive Plan guiding and cannot be separated from the Zoning Code update at this point. She stated that the table of uses could be updated.

Planning Consultant Jennifer Haskamp stated that the existing businesses are protected as they would predate the changes to the Code and would be legal nonconforming uses. She stated that there was discussion that the existing businesses better match B-1 and if that is not the case, that whole section could be recommended to revert back to industrial. She stated that uses could also be added to the allowed uses if desired.

Commissioner Stone asked the number of uses of that nature in that area.

Public Works Director Ryan Ruzek commented that there may be one, noting that block may be better served as industrial and east of Pilot Knob Road he is not familiar with industrial-type properties. He stated that the map could therefore be modified, or if the intent is to have more general business in the future, the map could be left as proposed.

Acting Chair Corbett commented that they would not want to adversely impact businesses or properties.

Commissioner Petschel stated that perhaps manufacturing is added as a conditional use within general business.

Planning Consultant Jennifer Haskamp reviewed the changes that could be made to allow those uses conditionally within general business.

Commissioner Johnson suggested they look at the other B-1 zoning areas because that change would then open it up in those areas.

Commissioner Petschel commented that manufacturing is already allowed, noting that there is just a specification on certain methods that are not allowed.

Planning Consultant Jennifer Haskamp reviewed some of the allowed industrial activities that would not be allowed within general business. She stated that if those uses seem appropriate for this strip of property, then she would suggest changing that area back to industrial rather than adjusting the table.

Community Development Manager Sarah Madden commented that as suggested by Public Works Director Ryan Ruzek, they could adjust the portion of the block west of Pilot Knob back to industrial.

Commissioner Stone asked the opinion of the planning consultant.

Planning Consultant Jennifer Haskamp commented that if those uses, she reviewed feel consistent with what is going on, and what they would like in the future, she would recommend the map change. She noted that it has been two years since the last review and discussion related to the map change.

Commissioner Petschel stated that he would be comfortable going that route, as in reviewing the current uses, that seems to be more appropriate as industrial.

Planning Consultant Jennifer Haskamp commented that would still be consistent with the Comprehensive Plan.

The Commission thanked Mr. Lawrence for his input.

Seeing no one further coming forward wishing to speak, Acting Chair Corbett asked for a motion to close the public hearing.

COMMISSIONER STONE MOVED, SECONDED BY COMMISSIONER KATZ, TO CLOSE THE PUBLIC HEARING.

AYES: 5
NAYS: 0

COMMISSIONER STONE MOVED, SECONDED BY COMMISSIONER PETSCHEL, TO RECOMMEND APPROVAL OF THE PROPOSED AMENDMENTS TO TITLE 12: ZONING TO ADOPT THE REVISED ZONING TITLE DRAFTED WITHIN THE CITY OF MENDOTA HEIGHTS ZONING CODE UPDATE PROJECT AND CORRESPONDING AMENDMENTS TO THE ZONING MAP TO MODIFY DISTRICT BOUNDARIES AND ZONING DISTRICT TITLES, WITH THE ADDITIONAL RECOMMENDATION FOR THE MAP CHANGE TO REZONE WEST OF PILOT KNOB, SOUTH OF MENDOTA HEIGHTS ROAD, FROM B-1 TO INDUSTRIAL.

AYES: 5

NAYS: 0

Community Development Manager Sarah Madden advised the City Council would consider this application at its September 17, 2024 meeting.

Staff Announcements / Updates

Community Development Manager Sarah Madden stated that along with the Zoning Code updates, the City Council will also be considering short-term rentals, as that may be something of interest to the Commission.

Adjournment

COMMISSIONER KATZ MOVED, SECONDED BY COMMISSIONER STONE, TO ADJOURN THE MEETING AT 8:01 P.M.

AYES: 5
NAYS: 0

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CITY OF MENDOTA HEIGHTS

PLANNING STAFF REPORT

DATE:	September 24, 2024
TO:	Planning Commission
FROM:	Sarah Madden, Community Development Manager
SUBJECT:	Planning Case No. 2024-17 - **MRCCA PERMIT/AMENDED CUP**
APPLICANT:	Xcel Energy
PROPERTY ADDRESS:	800 Sibley Memorial Highway
ZONING/GUIDED:	B-1A Business Park / LB- Limited Business
ACTION DEADLINE:	November 11, 2024

INTRODUCTION

Xcel Energy (Northern States Power Company) is seeking approval of a Miss. River Corridor Critical Area (MRCCA) Permit and Conditional Use Permit, in order to implement a number of improvements to the Sibley Propane Plant facility, located at 800 Sibley Memorial Highway.

This item is being presented under a duly noticed public hearing process. A notice of hearing was published in the Pioneer Press; and notice letters were mailed to all owners within 350-feet of the subject property, including the cities of St. Paul and Lilydale. The city has not received any objection or comments related to this application as of the submission of this report.

BACKGROUND

The subject property is generally known or identified as the Sibley Propane Gas Plant facility, which is located south and east of State Trunk Highway 13, and abuts Valley Park to the south, commercial/office developments to the north, and Park Place and Summit residential neighborhoods to the east (*refer to GIS image – right*). The plant property contains two parcels comprising of approximately 25 total acres, which are all owned and operated by Xcel Energy (formerly Northern States Power Company). According to Xcel representatives, the plant use has existed in its current location since the mid-1950's.

Xcel - Gas Plant - 800 Sibley Mem. Hwy.

The site is fairly open with security style fencing around its perimeter, and contains a number of support structures and buildings that house

office/work spaces, maintenance areas, valve/mixing rooms, and includes 37 horizontal laying propane tanks on the back side of the plant site (referred to as the "Tank Farm")

The plant is used primarily to feed propane into the local natural gas line systems during periodic "spikes" or peak demand events, typically experienced in winter heating season months and only as needed.

In 2016, the City approved a Conditional Use Permit and Critical Area Permit related to improvements to a structure on the Sibley Plant property. 'Essential Services' is a listed Conditional Use in the B-1A zoning district, and prior to that application the site did not have a record of Conditional Use Permit approval for the use, due to the age and historical use of the property.

In August 2021, Xcel received an Administrative Critical Area Permit, in order to complete some immediate and mandatory infrastructure improvements to this plant. These upgrades included replacing some outdated and worn out valves, pipes and equipment with new modern materials, equipment, pipes, valves and miscellaneous safety measures. Due to the importance of providing continued natural gas service to the community and region, and ensuring that gas is available to local customers when the cold/winter season comes, these equipment upgrades and the work proposed by Xcel were deemed essential to the general public, and the council elected to expedite this work under an Administrative Critical Area Permit approval.

In May 2022, the City reviewed a full MRCCA Permit application for additional improvements to the tank facility, including replacing the propane loading facilities, improvements to the stormwater management on site, and a new fire suppression system. The fire suppression system included a new 12-inch watermain extension coming from the water main line underneath Farmdale Road to the east. At that time, drainage issues on site were also proposed to be addressed through a re-grading of the site, a new detention basin, and a network of concrete stormwater trenches within the tank field.

Xcel is now completing other elements and improvements needed for this tank facility, and are requesting official consideration of this work under a new MRCCA Permit, and which work includes the following:

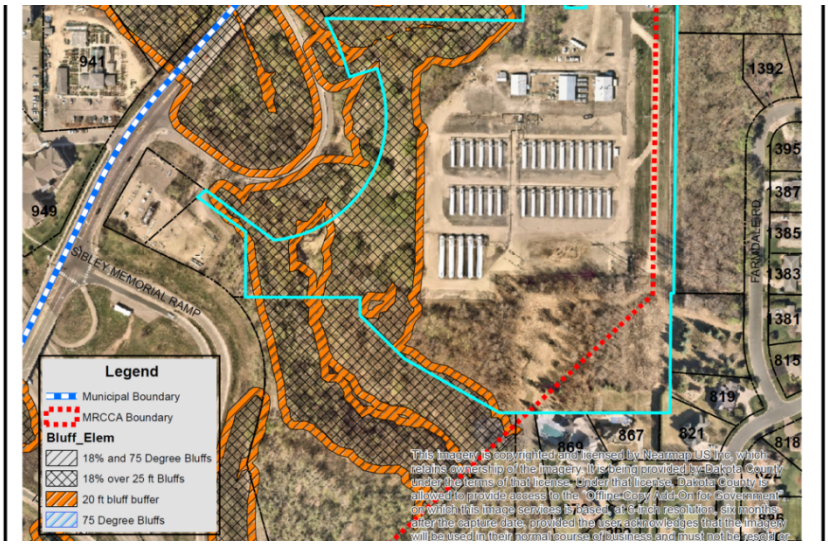
1. Mound soil around the existing propane tanks, as part of the fire suppression system for the facility;
2. Install a six-ft tall retaining wall at the south side of the existing pump manifold station;
3. Install a storm shelter on a 12-ft x 24-ft concrete pad foundation within the fenced compound; and
4. Expand the compound on the east side to allow for fire truck access along the east perimeter of the fenced compound, by adding additional fencing.

According to the Xcel's narrative, the proposed work will bring the site into compliance with National Fire Prevention Association (NFPA) codes and design standards.- The maintenance and refurbishment of the facility is ongoing, with work taking place in 2024 that was reviewed as part of the prior MRCCA Permit, such as the installation of the water-main and ongoing permitting for the pipe bridge and pump house.

The review and approval also includes an update to their existing Conditional Use Permit (CUP), approved in 2016, which noted that future site alterations would need to be processed as an amendment to the CUP as well as any critical area permits needed.

ANALYSIS – MRCCA PERMIT

A majority of the plant site is situated in the MRCCA Overlay boundary, and is located within the **SR-Separated by River District**.



Along the westerly boundary of the site is where the mapped bluffs are located, identified as the cross-hatched areas – and the related 20-foot buffer or bluff impact zone (BIZ), as noted by orange-hatched areas (*see MRCCA map image- above*).

Properties located in the **SR District** are characterized or governed by the following principles:

> Description. The SR district is characterized by its physical and visual distance from the Mississippi River. The district includes land separated from the river by distance, topography, development, or a transportation corridor. The land in this district is not readily visible from the Mississippi River.
> Management Purpose. The SR district provides flexibility in managing development without negatively affecting the key resources and features of the river corridor. Minimizing negative impacts to primary conservation areas and minimizing erosion and the flow of untreated storm water into the river are priorities in the district. In addition, providing public access to and public views of the river, and restoring natural vegetation in riparian areas and tree canopy are also priorities in the district.

Per **Section 12-3-8. E., Public utilities** must comply with the following standards:

1. High-voltage transmission lines, wind energy conversion systems greater than five (5) megawatts, and pipelines are regulated according to Minnesota Statutes, chapter 216E, 216F, and 216G respectively; and
2. If overhead placement is necessary, utility facility crossings must minimize the visibility of the facility from the river and follow other existing right of ways as much as practicable.

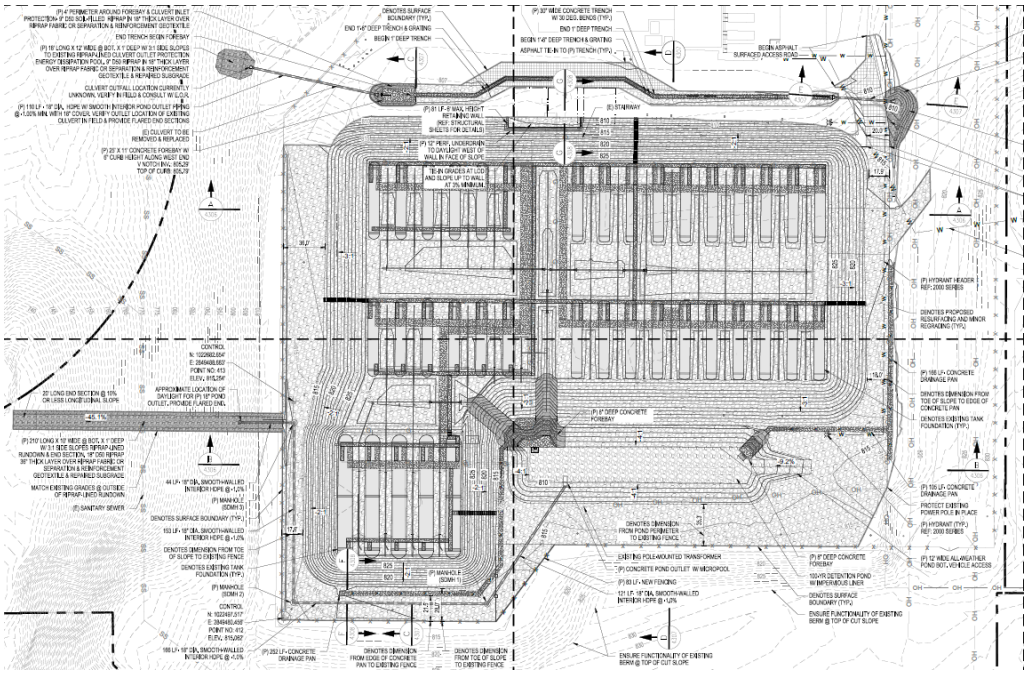
3. The appearance of structures must be as compatible as practicable with the surrounding area in a natural state with regard to height and width, materials used, and color.
4. Wireless communication facilities must comply with Section 12-3-5.B.6.

There are no new high-voltage line, wind energy systems, pipelines or wireless communication systems proposed under this project.

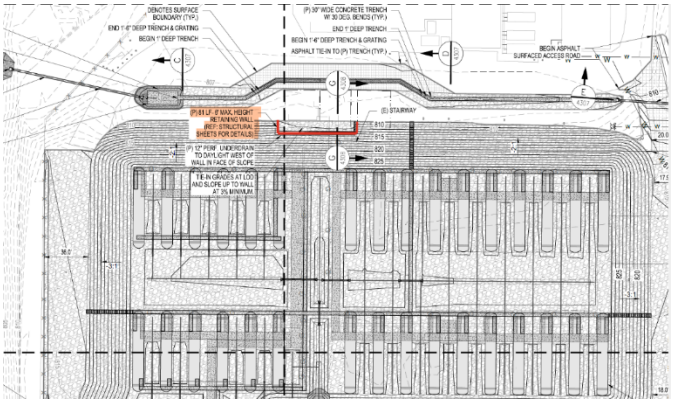
Pursuant to new **City Code Section 12-3-12**, no building permit, zoning approval, or subdivision approval shall be issued for any action or development located in an area covered by this chapter until a site plan has been prepared and approved in accordance with the provisions of this chapter. The new ordinance also provides for new rules and standards for new developments, which may include Land Alteration activities and Vegetation Management (removals and replanting).

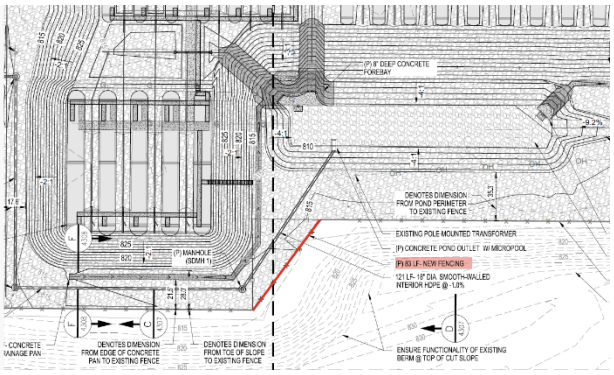
The entirety of the work will take place within the fenced compound of the Sibley Plant which has been maintained as an asphalt and gravel surface, and contains no vegetated areas. No work is proposed in any Primary Conservation Areas (PCA's) on the property and all existing vegetation outside the site compound will remain. The only expansion of the site compound is the additional fencing which is proposed on the east side of the compound to widen the area and provide fire truck access. Site work will consist of bringing in the soil to bury the above-ground storage tanks within the mounding system. There are no major building improvements proposed under this project, except for a small- storm shelter, which will be a prefabricated building placed on a 12-ft x 24-ft foundation. The building will be a shell for the purposes of providing employees and contractors working on the site with an Emergency Preparedness shelter for severe weather events. This is proposed to be located north of the tank farm and existing structures on the site, and west of the pipe bridge.

The primary focus of the project is dedicated to mounding soil around the propane tanks as part of the fire suppression system for the Sibley Plant (*see grading plan image below*). This mounding of soil will be used instead of an overhead sprinkler system. The 6-ft tall retaining wall is proposed to limit the amount of grading on the site and maintain the footprint of the existing plant, keeping area of disturbance contained.



The proposed 6-ft retaining wall is just located just north of the tank farm and centered roughly between the two tank zones, as highlighted in the image below (bottom left). The change in fencing is located south east of the southernmost tank area, and adds 83-ft of new fencing at a diagonal angle, allowing an approximately 25-ft in width to facilitate fire truck access. The new line of fencing is illustrated in the image below (bottom right)





Land Alteration Standards and Stormwater Management

MRCCA Ordinance **Section 12-3-10** provides for specific allowances and standards related to Land Alteration and Stormwater Management. The purpose of this section is to establish standards that protect water quality from pollutant loadings of sediment, nutrients, bacteria, and other contaminants, and maintain the stability of bluffs, shorelines, and other areas prone to erosion.

Land Alteration:

Within the bluff impact zone (BIZ), land alteration is prohibited, except for the following, which are allowed only by permit.

a) Erosion control consistent with a plan approved by the City and consistent with Section 12-3-10.F.

b) The minimum necessary for development that is allowed as an exception under Section 12-3-15; and

c) Repair and maintenance of existing buildings and facilities.

Grading around the tank farm will be significant, due to the mounding proposed as fire suppression within the tank farm. The 2022 MRCCA approval evaluated changes in containment of stormwater runoff, and the applicant prepared a Storm Water Pollution Prevention (SWPP) plan, which is included as an attachment to this report. Due to the level of land disturbance, a SWPP review is necessary, and the applicants will likely need a National Pollutant Discharge Elimination System (NPDES) permit from the Minnesota Pollution Control Agency as well.

Stormwater Management:

In the bluff impact zone, stormwater management facilities are prohibited, except by permit if:

a. There are no alternatives for storm water treatment outside the bluff impact zone on the subject site;

b. The site generating runoff is designed so that the amount of runoff reaching the bluff impact zone is reduced to the greatest extent practicable;

c. The construction and operation of the facility does not affect slope stability on the subject property or adjacent properties; and

d. Mitigation based on the best available engineering and geological practices is required and applied to eliminate or minimize the risk of slope failure.

In all other areas, storm water runoff must be directed away from the bluff impact zones or unstable areas.

As part of the previous 2022 MRCCA Permit approval, Xcel intended to construct a new stormwater detention basin to provide treatment of runoff coming off the tank farm area. The basin was to be placed in the southeast corner of the tank farm and not be within any BIZ or bluff setback. The grading and mounding of the tank farm modifies this plan. A detention pond is still located southeast of the tank farm, however the exact location has shifted closer to the boundary of the tanks, and the drainage path now circulates south around the tanks to connect to the culvert system and riprap located west of the tank farm. The basin is meant to pre-treat stormwater runoff, but also help reduce runoff from reaching the bluff and BIZ on the west; which will help with slope stability that has been needed in the westerly slope area. There are no changes to the riprap drainage channel within the Bluff Impact Zone that was illustrated and included in the 2022 approval.

Conditions of Land Alteration Permit Approval

No permit for land alteration shall be approved unless:

1. *Temporary and permanent erosion and sediment control measures to retain sediment onsite are consistent with the best management practices in the Minnesota Stormwater Manual, as it may be amended or revised from time to time;*
2. *Natural site topography, and soil and vegetation conditions are used to control runoff and reduce erosion and sedimentation;*
3. *Construction activity is phased when possible;*
4. *All erosion and sediment controls are installed before starting any land disturbance activity;*
5. *Erosion and sediment controls are maintained to ensure effective operation;*
6. *The proposed work is consistent with the vegetation standards in Section 12-3-9; and*
7. *Best management practices are used for protecting and enhancing ecological and water resources as identified in Best Practices for Meeting DNR General Public Waters Work Permit GP 2004-0001, as it may be amended or revised from time to time.*

ANALYSIS – CUP

The 2016 Conditional Use Permit approval established the 'Essential Services' use as the zoning use existing on the property, encompassing the service and delivery of the propane at the facility. This current proposal does not modify the primary structures or essential services of the site, but does encompass the addition of a small structure for a storm shelter for employees, and does modify the grading and fire suppression associated with the essential service utility. The existing approval included a condition that 'future improvements on the subject property that expand, alter, or otherwise change the existing use or site conditions in any manner shall require an amendment to the conditional use permit, including a critical area permit if applicable.' The proposed improvements do constitute a change in the site conditions through the grading improvements and mounding of the tank farm. No additional performance standards are noted

with the essential services use in City Code, apart from the applicable provisions for all Conditional Use Permits within the City.

The City may grant a conditional use provided the proposed use demonstrates the following:

a) Use will not be detrimental to the health, safety or general welfare of the community,
b) Use will not cause serious traffic congestion nor hazards,
c) Use will not seriously depreciate surrounding property value, and
d) Use is in harmony with the general purpose and intent of this chapter and the comprehensive plan.

The site is enclosed by a 10-foot-high, barbed-wire-topped, chain link security fence. As part of Planning Case 1980-08, Northern States Power (NSP) was granted a conditional use permit to relocate and extend portions of the fence. The existing use was also established on the subject property prior to development of both abutting residential subdivisions to the site. Staff finds the existing 'essential services' use to demonstrate the above requirements for Conditional Use Permits. In addition, the existing use is compliant with the conditions required for approval of a conditional use permit within the MRCCA.

As part of the review of a Conditional Use Permit within the MRCCA, the City must note in the Findings of Fact that the use is consistent with the purpose of the MRCCA ordinance as outlined below:
a. The extent, location, and intensity of the conditional or interim use will be in substantial compliance with the MRCCA plan;
b. The conditional or interim use is consistent with the character and management purpose of the MRCCA district in which it is located;
c. The conditional or interim use will not be detrimental to PCAs and PRCVs nor will it contribute to negative incremental impacts to PCAs and PRCVs when considered in the context of past, present, and reasonable future actions; and
d. The conditional or interim use will not negatively affect other resources identified in the City's MRCCA plan, such as wetlands, river overlooks, and parks and open space.

The proposal does not impact any PCA's on the property, and the proposed improvements are consistent with the purpose of the MRCCA district in which it is located, and the provisions related to public facilities and utilities as outlined in 12-3-8-E. The site is not visible from the river, and the river is not visible from the site, and the tank area maintains its security and separation from neighboring uses through the utilization of fencing and buffered by natural vegetation.

INTERAGENCY REVIEW

The city is required to give Minnesota Dept. of Natural Resources and National Park Service at least 20-day notice of any new MRCCA Permit application request. These notices were emailed directly to the appropriate staff; and a response from DNR was received indicating no comment or issues with the proposed improvement work and project by Xcel; and received no response or comment from NPS.

ALTERNATIVES

1. Approve the MRCCA Permit and amended Conditional Use Permit request to Xcel Energy and for 800 Sibley Memorial Highway, which would allow site improvements including grading, mounding of the tank farm for fire suppression, a new retaining wall, a realignment of the perimeter fencing, a storm shelter foundation and structure, and updated stormwater detention basin and stormwater routing; all based on the findings-of-fact that the proposed project is compliant with the policies and standards of the MRCCA Ordinance and City Code, and subject to certain conditions; or

2. Deny the MRCCA Permit request to Xcel Energy and for 800 Sibley Memorial Highway, based on the recommendation the application and project does not meet certain policies and standards of the MRCCA Ordinance and City Code, based on revised findings-of-facts determined by the Planning Commission; or

3. Table the request; direct staff to work with the Applicants and allow more time to revise or refine the plans submitted for review, and/or provide additional information for the Planning Commission to further consider; staff will extend the application review period an additional 60 days, in compliance with MN STAT. 15.99.

STAFF RECOMMENDATION

Staff recommends approval of the proposed MRCCA Permit and amended Conditional Use Permit request from Xcel Energy and for the property located at 800 Sibley Memorial Highway, with the following conditions:

1. The new improvements and work described, illustrated and detailed on the "Sibley Propane Plant" plans, dated 05/24/2024, and any other plans related to this project, shall be the only work or improvements allowed and approved under this new MRCCA Permit.

2. The entire water/fire suppression system, both above and below ground must be submitted to the State Fire Marshall for a Fire Suppression Permit, and copies provided to the Mendota Heights Fire Department for review and record keeping.

3. Full erosion and sedimentation measures will be put in place prior to and during grading and construction work activities.

4. All grading and construction activity will be in compliance with applicable federal, state, and local regulations and codes, as well as in compliance with the City's Land Disturbance Guidance Document. The Applicants must submit and receive a SWPPP Permit and NPDES Permit (if necessary) prior to start of any new construction work.

5. All work on site will only be performed between the hours of 7:00 AM and 8:00 PM Monday through Friday; 9:00 AM to 5:00 PM weekends.

Attachments

1. Applicant Narrative Letter
2. Location Map – 800 Sibley Memorial Hwy
3. MRCCA Map
4. City Base Map w/ Utilities Shown
5. ESP Safety Shelter details
6. Sibley Propane Plant – Foundation Key Plan, dated 8/22/24
7. Sibley Propane Plant – Retaining Wall and Structural Details, dated 5/31/24
8. Sibley Propane Plant – Civil Grading Plan Set, dated 5/24/24
9. Sibley Phase II Fire Suppression, Stormwater Pollution Prevention Plan (SWPPP), dated 3/13/23

FINDINGS-OF-FACT FOR APPROVAL

Miss. River Corridor Critical Area Permit and amended Conditional Use Permit
for the
Xcel Energy Sibley Gas Plant Facility
800 Sibley Memorial Highway

The following Findings-of-Fact are made in support of approval of the proposed MRCCA Permit request:

1. The proposed soil mounding around the existing propane tanks, drainage modifications and improvements, retaining wall, fence realignment, storm shelter, and site sfire suppression and safety improvements planned for by Xcel Energy on the subject property, meets the general purpose and intent of the Mississippi River Corridor Critical Area (MRCCA) District ordinances and standards.

2. The proposed work to construct these new drainage and grading alterations and fire suppression safety improvements on the subject site are deemed minimally invasive; necessary to help correct further damage or impacts to the adjacent natural environment; provide better water quality with any stormwater runoff; provides for increased measures to ensuring the health and safety of the general public, and are all reasonable and within the spirit and intent established under the MRCCA Overlay District regulations.

3. The proposed work will not be detrimental to the health, safety or general welfare of the community; should not cause any serious traffic congestion nor hazards; will not seriously depreciate surrounding property value; and also is in harmony with the general purpose and intent of the City Code and the Comprehensive Plan.

4. The overall construction of these site improvements will comply with all standards and regulations of the MRCCA Ordinance and any related Zoning Ordinance, State Building and Fire Codes, and other applicable ordinances; and represents a considerable investment by the Applicants (Xcel Energy) to an important utility service feature in the community.

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August 26, 2024

Sarah Madden
Community Development Director
City of Mendota Heights
1101 Victoria Circle
Mendota Heights, MN 55118
Email:

RE: Sibley Plant Safety Improvements
Conditional Use Permit Amendment & MRCCA Permit

Dear Sarah Madden,

Please find this letter of intent and application materials for the MRCCA Permits and the Conditional Use Permit Amendment for the NSP (Xcel Energy) Sibley Gas Plant located at 800 Sibley Memorial Hwy with Parcel ID numbers of 270140075011, 270230002013, 270230002012, 271715102091, and 275660002081. The plant stores propane which can be inserted into the natural gas system during periods of peak demand in the winter. The plant has been in service since the 1950's prior to the incorporation of the City of Mendota Heights. NSP is investing to enhance safety upgrades and improve plant operations. The primary improvements that we seek are:

- Amend the existing CUP to mound soil around the existing propane tanks. The mounded soil will be part of the fire suppression system for the facility. The remaining components of the site plan will not change. Steps, walkways and retaining walls will be installed to allow for access to the tanks.
- Install a six feet tall retaining wall at the south side of the existing pump manifold station within the facility in order to hold the mounded soil from the manifold station.
- Install a storm shelter on a 12' x 24' concrete pad foundation within the fenced compound.
- Expand the compound on the east side to allow for fire truck access along the east perimeter of the fenced compound by adding approximately 25 linear feet of fencing.

The proposed work will bring the site into compliance with the National Fire Prevention Association (NFPA) codes and design standards. The entirety of the work will take place within the fenced compound of the Sibley Plant which has been maintained as an asphalt and gravel surface. Work will consist of hauling in soil to bury the above-ground storage tanks. This in combination with other devises and practices is part of the fire suppression system for the facility.

The property is in the southeast quadrant of and adjacent to I-35E and US Hwy 13. The site is irregularly shaped and additionally abuts Lilydale Road and Farmdale Road. The property is in the Critical Area Overlay Zone and includes steep slopes to the south and west and forested land surrounding the facility. NSP purchased additional buffer land to the east to help screen the facility from adjacent development to the east. City parkland to the south and east provide additional screening and buffering. The site cannot be seen from the river, nor can the river be seen from the site.

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Mounding System:

The mounding of soil around the propane tanks will be used as part of the fire suppression system for the Sibley Plant. The mounding of soil will be used instead of an overhead sprinkler system, which due to its complexity requires more rigorous maintenance program. No work will be done in the Primary Conservation Areas (PCA's) located on the property. With the exception of increasing the fenced compound slightly on the east side, all work will be done within the fenced portion of the facility, all of which exists outside of any PCA.

Retaining Wall:

The proposed retaining wall will be constructed to limit the amount of grading on site. Without the retaining wall existing structures would require relocation and the area of disturbance would be increased, significantly increasing the footprint of the plant. The wall is six feet tall, one foot over the city's five feet limit for retaining walls. Without a 6' tall wall, the mounding system would not provide the fire suppression needed to meet the NFPA code.

Storm Shelter Foundation:

The storm shelter will consist of a prefabricated building that will be placed on a foundation. The storm shelter will consist of a shell building within which will be an Emergency Security Preparedness (ESP) Safety Shelter. This storm shelter will be essential in protecting Xcel Energy employees and contractors working on the site from severe weather events.

MRCCA Permit:

The mounding of soil over the above ground storage tanks, mitigates the fire risk on the site, keeping employees and contractors safe. Xcel Energy's team of designers and engineers worked hard to limit the footprint of the proposed improvements to lessen any impacts on the risk of impacts to the river and its ecosystems will be minimal in completing these projects, as all vegetation will remain, no work will be performed in any PCA's, and the site is staying fundamentally the same.

Construction Timing: The maintenance and refurbishment of the facility is ongoing. Soil mounding will occur in spring of 2025.

The proposed improvements are an essential component for the safe operation of the Sibley Plant and are a part of our commitment to provide safe and reliable natural gas to our customers and help ensure the safety of Xcel Energy employees, contractors, and the neighboring communities. Thank you for your consideration of our request to bring the Sibley Plant into compliance with the latest NFPA safety standards. The proposed improvements will minimally impact the natural environment and enhance the reliability and safety of the natural gas system in Mendota Heights and surrounding communities.

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Regards,

Brian Sullivan
Siting and Land Rights
P: 612.330.5925 I C:612.366.0234 I F: 612.329.3096
Email: brian.e.sullivan@xcelenergy.com

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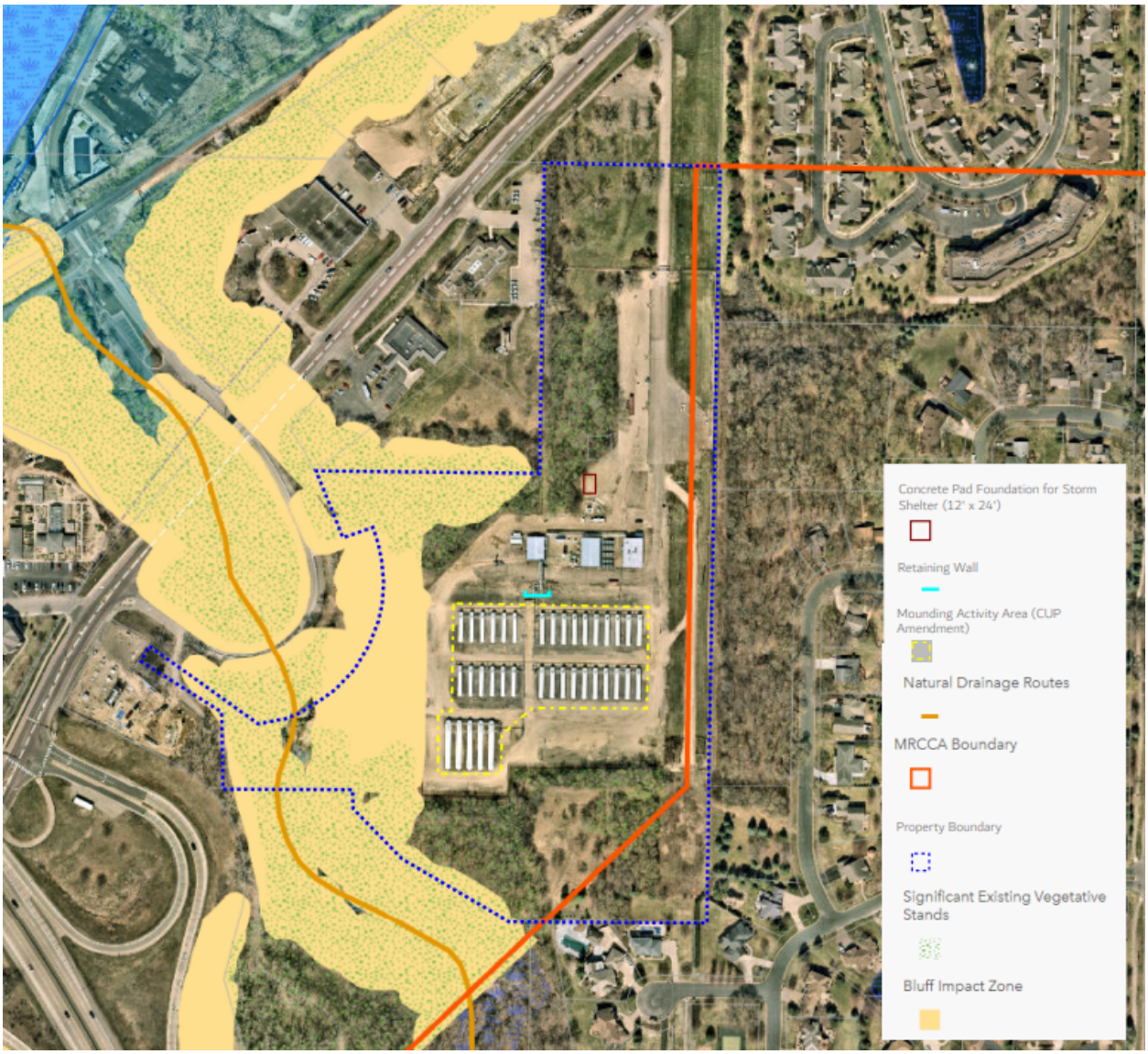

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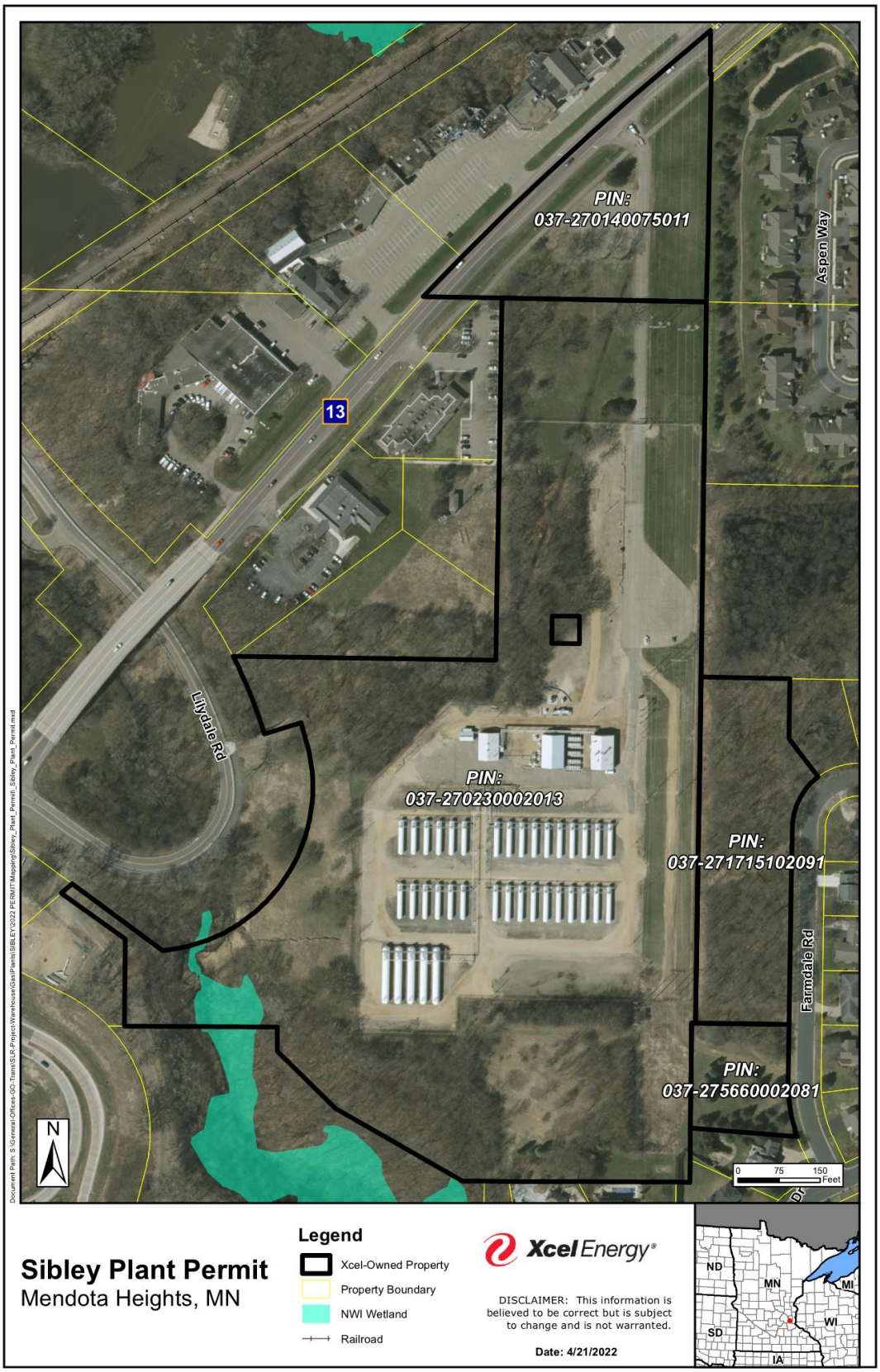

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SIBLEY PLANT

LEGAL DESCRIPTION

1. Name of Insured:

   Northern States Power Company, a Minnesota corporation

2. The estate or interest in the Land that is insured by this policy is:

   Fee Simple

3. Title is vested in:

   Northern States Power Company, a Minnesota corporation

   Note: Vesting Instruments into Original NSP Entity: Warranty Deed County Recorder Document No. 226074, in Book 245 of Deeds, Page 510, dated June 29, 1953, recorded August 14, 1953; Warranty Deed County Recorder Document No. 220874 in Book 245 of Deeds, Page 146, dated June 30, 1952, recorded September 5, 1952; Warranty Deed County Recorder Document No. 510789, dated April 13, 1978, recorded April 21, 1978; Quit Claim Deed County Recorder Document No. 356587, dated June 4, 1968, recorded December 30, 1968; Warranty Deed County Recorder Document No. 220875 in Book 245 of Deeds, Page 147, dated July 15, 1952, recorded September 5, 1952; Warranty Deed County Recorder Document No. 285810 in Book 276 of Deeds, Page 635, dated January 12, 1961, recorded November 1, 1961; Warranty Deed County Recorder Document No. 220873 in Book 245 of Deeds, Page 145, dated June 30, 1952, recorded September 5, 1952; and Certificate of Title No. 119905.

4. The Land referred to in this policy is described as follows:

   Real property in the County of Dakota, State of Minnesota, described as follows:

   ABSTRACT PARCELS:

   1. LOTS FIVE (5) THROUGH NINE (9), BLOCK TWO (2), CHERRY HILL SECOND ADDITION, ACCORDING TO THE PLAT THEREOF ON FILE AND OF RECORD IN THE OFFICE OF THE COUNTY RECORDER IN AND FOR DAKOTA COUNTY, MINNESOTA.

   2. THE EAST FORTY (40) RODS OF THE SOUTH FORTY (40) RODS OF GOVERNMENT LOT TWO (2) IN THE NORTHWEST QUARTER (NW¼) OF THE NORTHEAST QUARTER (NE¼) OF SECTION TWENTY-THREE (23), TOWNSHIP TWENTY-EIGHT (28), RANGE TWENTY-THREE (23), ACCORDING TO THE GOVERNMENT SURVEY THEREOF.

   EXCEPT,

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THAT PART OF THE EAST FORTY (40) RODS OF THE SOUTH (40) RODS OF GOVERNMENT LOT TWO (2) IN THE NORTHWEST QUARTER (NW¼) OF THE NORTHEAST QUARTER (NE¼) OF SECTION TWENTY-THREE (23), TOWNSHIP TWENTY-EIGHT (28), RANGE TWENTY-THREE (23), ACCORDING TO THE GOVERNMENT SURVEY THEREOF, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF THE EAST FORTY (40) RODS OF THE SOUTH FORTY (40) RODS OF SAID GOVERNMENT LOT TWO (2); THENCE SOUTH ALONG THE WEST LINE THEREOF FOR 409.87 FEET TO AN INTERSECTION WITH LINE "A" WHICH LIES SOUTHEASTERLY AND NORTHWESTERLY AT AN ANGLE OF 54°30' TO SAID WEST LINE; THENCE SOUTH ALONG SAID WEST LINE TO AN INTERSECTION WITH A LINE WHICH IS PARALLEL WITH AND DISTANT 75 FEET SOUTHWESTERLY OF SAID LINE "A"; THENCE SOUTHEASTERLY ALONG SAID PARALLEL LINE TO AN INTERSECTION WITH A CURVED LINE WHICH IS PARALLEL WITH AND DISTANT 150 FEET SOUTHEASTERLY, EASTERLY AND NORTHEASTERLY OF LINE "B" DESCRIBED AS FOLLOWS:

FROM A POINT ON THE WEST LINE OF THE EAST FORTY (40) RODS OF THE SOUTH FORTY (40) RODS OF SAID GOVERNMENT LOT TWO (2), DISTANT 409.87 FEET SOUTH OF THE NORTHWEST CORNER THEREOF; THENCE NORTHWESTERLY FROM SAID POINT AT AN ANGLE OF 54°30' TO SAID WEST LINE FOR 173.25 FEET TO THE POINT OF BEGINNING OF LINE "B" TO BE DESCRIBED; THENCE SOUTHEASTERLY ALONG THE LAST DESCRIBED COURSE FOR 100 FEET; THENCE DEFLECT TO THE LEFT ON A CURVE HAVING A RADIUS OF 150 FEET, (DELTA ANGLE 140°13'44") FOR 367.12 FEET; THENCE DEFLECT TO THE LEFT ON A 7°30' CURVE (DELTA ANGLE 34°00') FOR 453.33 FEET AND THERE TERMINATING;

THENCE ALONG SAID CURVED PARALLEL LINE CURVING TO THE LEFT TO ITS INTERSECTION WITH A LINE WHICH LIES NORTHEASTERLY AT RIGHT ANGLES TO THE TANGENT OF THE 7°30' CURVE DESCRIBED ABOVE TO A POINT ON SAID TANGENT DISTANT 413.57 FEET SOUTHEASTERLY OF THE POINT OF TERMINATION OF SAID LINE "B"; THENCE SOUTHWESTERLY ALONG SAID RIGHT ANGLED LINE FOR 70 FEET; THENCE NORTHWESTERLY ALONG A LINE WHICH IS PARALLEL WITH AND DISTANT 80 FEET NORTHEASTERLY OF SAID LINE "B" TO THE INTERSECTION OF SAID PARALLEL LINE WITH THE NORTH LINE OF THE EAST FORTY (40) RODS OF THE SOUTH FORTY (40) RODS OF SAID GOVERNMENT LOT TWO (2); THENCE WEST ALONG SAID NORTH LINE TO THE POINT OF BEGINNING.

3. THE WEST 375 FEET OF THE SOUTH 30 ACRES OF THE NE¼ OF THE NE¼ OF SECTION 23, TOWNSHIP 28 NORTH, RANGE 23 WEST, ACCORDING TO THE GOVERNMENT SURVEY THEREOF.

4. THE NORTH TWO HUNDRED EIGHTY AND SIX-TENTHS (280.6) FEET OF THE WEST THREE HUNDRED SEVENTY FIVE (375) FEET OF THE SOUTHEAST QUARTER (SE¼) OF THE NORTHEAST QUARTER (NE¼) OF SECTION TWENTY THREE (23), TOWNSHIP TWENTY EIGHT (28) NORTH, RANGE TWENTY THREE (23) WEST.

5. A PARCEL OF LAND IN THE SOUTHWEST QUARTER (SW¼) OF NORTHEAST QUARTER (NE¼), SECTION TWENTY-THREE (23), TOWNSHIP TWENTY-EIGHT (28) NORTH, RANGE TWENTY-THREE (23) WEST, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF THE SOUTHWEST QUARTER (SW¼) OF THE NORTHEAST QUARTER (NE¼) OF SAID SECTION TWENTY-THREE (23),THENCE SOUTH ALONG THE EAST QUARTER-QUARTER (¼¼) LINE OF SAID SECTION TWENTY-THREE (23), A DISTANCE OF TWO HUNDRED EIGHTY AND SIX TENTHS (280.6) FEET; THENCE WESTERLY AT A DEFLECTION ANGLE OF NINETY-THREE DEGREES, THIRTY-FIVE MINUTES (93°35') TO THE RIGHT A DISTANCE OF THIRTY-NINE AND SEVEN-TENTHS (39.7) FEET; THENCE NORTHWESTERLY AT A DEFLECTION ANGLE OF TWENTY-SIX DEGREES, TEN MINUTES (26°10') TO THE RIGHT A DISTANCE OF TWO HUNDRED SIXTY-SIX AND FIVE-TENTHS (266.5) FEET; THENCE NORTHWESTERLY AT A DEFLECTION ANGLE OF THIRTEEN DEGREES, TWENTY-NINE MINUTES (13°29') TO THE RIGHT A DISTANCE OF ONE HUNDRED FORTY-NINE AND SEVEN-TENTHS (149.7) FEET; THENCE NORTHERLY AT A DEFLECTION ANGLE OF FORTY-SIX DEGREES, TWELVE MINUTES (46°12') TO THE RIGHT A DISTANCE OF FORTY-FOUR AND

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SEVEN-TENTHS (44.7) FEET TO THE NORTH QUARTER-QUARTER (¼-¼) LINE OF SAID SECTION TWENTY-THREE (23); THENCE EAST ALONG SAID NORTH QUARTER-QUARTER (¼-¼) LINE A DISTANCE OF THREE HUNDRED EIGHTY AND EIGHT-TENTHS (380.8) FEET TO POINT OF BEGINNING.

6. ALL THAT PART OF GOVERNMENT LOT SIX (6), SECTION FOURTEEN (14), TOWNSHIP TWENTY-EIGHT (28), RANGE TWENTY-THREE (23), WHICH LIES SOUTHERLY OF THE CENTER LINE OF SIBLEY MEMORIAL HIGHWAY (SUBJECT TO SAID HIGHWAY) AND ALSO THE NORTH QUARTER (N¼) OF THE NORTHEAST QUARTER (NE¼) OF THE NORTHEAST QUARTER (NE¼) OF SECTION TWENTY-THREE (23), TOWNSHIP TWENTY-EIGHT (28), RANGE TWENTY-THREE (23), SUBJECT TO EASEMENT FOR PUBLIC UTILITY.

EXCEPT,

THE EASTERLY NINE HUNDRED FORTY FIVE (945) FEET OF ALL THAT PART OF GOVERNMENT LOT SIX (6), SECTION FOURTEEN (14), TOWNSHIP TWENTY EIGHT (28), RANGE TWENTY THREE (23), WHICH LIES SOUTHERLY OF THE CENTER LINE OF SIBLEY MEMORIAL HIGHWAY (SUBJECT TO SAID HIGHWAY); AND ALSO THE EASTERLY NINE HUNDRED FORTY FIVE (945) FEET OF THE NORTH QUARTER (N¼) OF THE NORTHEAST QUARTER (NE¼) OF THE NORTHEAST QUARTER (NE¼) OF SECTION TWENTY THREE (23), TOWNSHIP TWENTY EIGHT (28), RANGE TWENTY THREE (23), SUBJECT TO EASEMENTS OF RECORD.

ALSO EXCEPT,

THAT PART OF TRACT A DESCRIBED BELOW:

TRACT A. THAT PART OF GOVERNMENT LOT 6 OF SECTION 14, TOWNSHIP 28 NORTH, RANGE 23 WEST, DAKOTA COUNTY, MINNESOTA, LYING SOUTHERLY OF THE SOUTHERLY RIGHT OF WAY LINE OF TRUNK HIGHWAY NO. 13 AS NOW LOCATED AND ESTABLISHED, EXCEPT THE EAST 945 FEET THEREOF;

WHICH LIES NORTHWESTERLY OF A LINE PARALLEL WITH AND DISTANT 60 FEET SOUTHEASTERLY OF LINE 1 DESCRIBED BELOW:

LINE 1. BEGINNING AT A POINT ON THE EAST LINE OF SAID SECTION 14, DISTANT 1323.6 FEET NORTH OF THE SOUTHEAST CORNER THEREOF; THENCE RUN SOUTHWESTERLY AT AN ANGLE OF 48 DEGREES 53 MINUTES 50 SECONDS FROM SAID EAST SECTION LINE (MEASURED FROM SOUTH TO WEST) FOR 1174.61 FEET; THENCE DEFLECT TO THE LEFT ON A TANGENTIAL CURVE HAVING A RADIUS OF 5729.58 FEET AND A DELTA ANGLE OF 8 DEGREES 30 MINUTES 22 SECONDS FOR 850.61 FEET AND THERE TERMINATING.

EXCEPT

THAT PART OF GOVERNMENT LOT SIX, SECTION FOURTEEN, TOWNSHIP TWENTY EIGHT NORTH, RANGE TWENTY THREE WEST LYING ADJACENT TO AND WITHIN SIXTY FEET SOUTHEASTERLY OF THE CENTERLINE AS MEASURED AT RIGHT ANGLES OF SIBLEY MEMORIAL HIGHWAY, ALSO KNOWN AS TRUNK HIGHWAY 13, AS TRAVELED ON JULY 17, 1960.

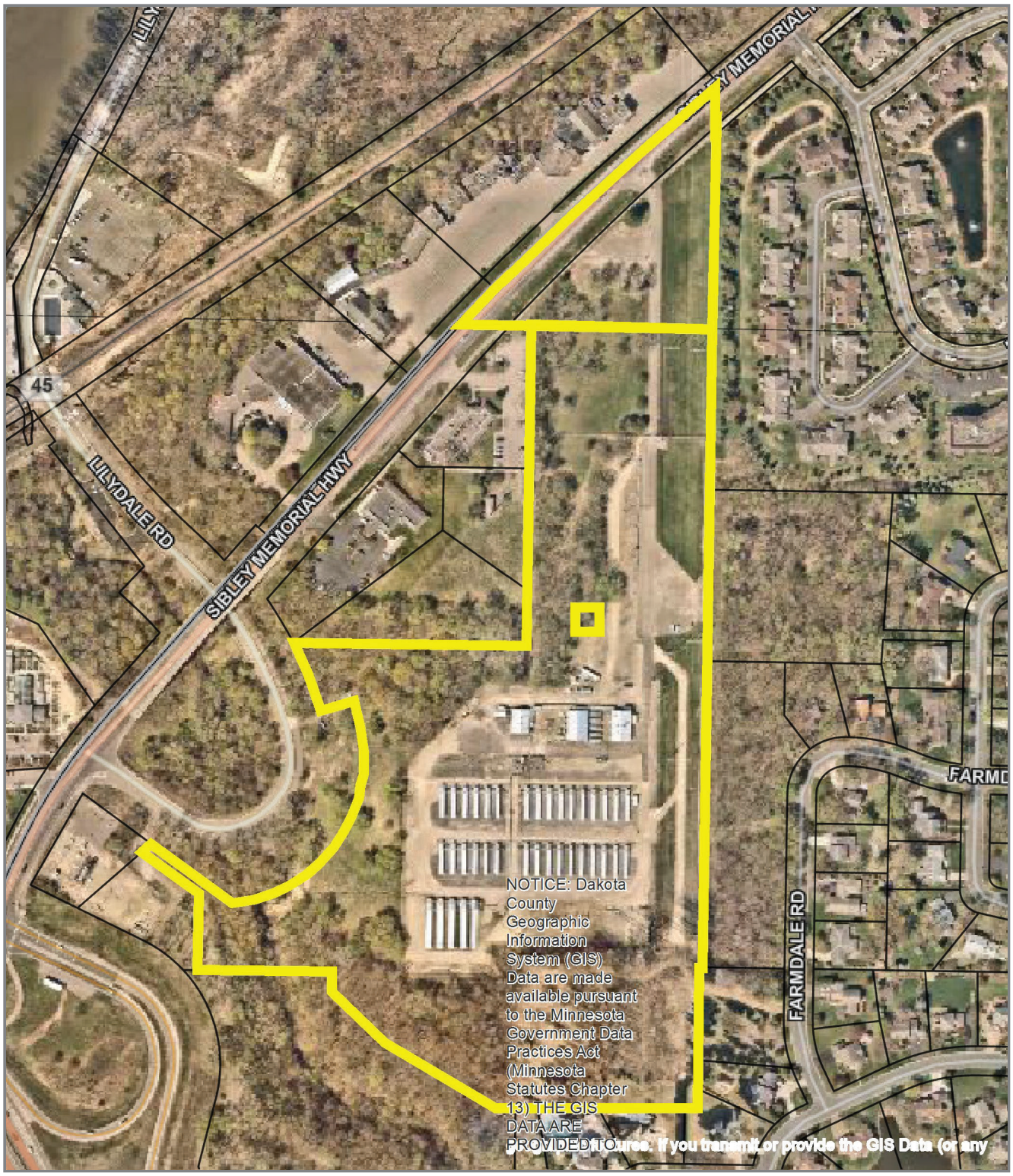
TORRENS PARCEL

1. LOTS 7 AND 8, BLOCK 2, PARK PLACE, DAKOTA COUNTY, MN, ACCORDING TO THE PLAT THEREOF.

CERTIFICATE OF TITLE NO. 119905

Attachment 2

Xcel - Gas Plant - 800 Sibley Mem. Hwy.



Disclaimer: Map and parcel data are believed to be accurate, but accuracy is not guaranteed. This is not a legal document and should not be substituted for a title search,appraisal, survey, or for zoning verification.

Map Scale
1 inch = 300 feet
4/26/2022

800 SIBLEY MEMORIAL HWY.
NSP / Xcel Energy Gas Plant
MRCCA MAP

Date: 4/26/2022

0 250
SCALE IN FEET

City of Mendota Heights

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City Base Map

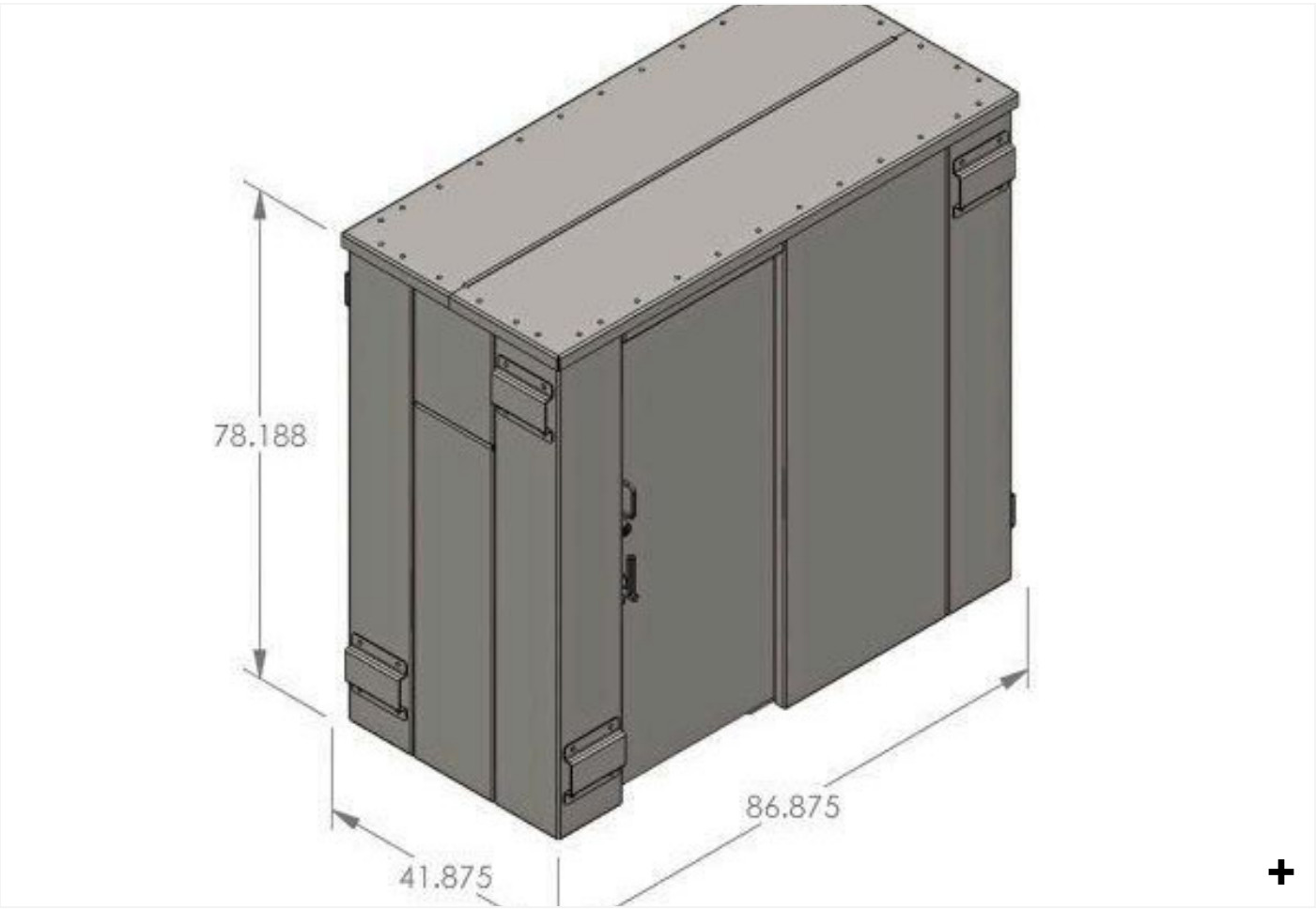
Date: 4/26/2022

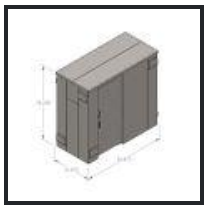
0 200
SCALE IN FEET

City of Mendota Heights

GIS Map Disclaimer:
This data is for informational purposes only and should not be substituted for a true title search, property appraisal, plat, survey, or for zoning verification. The City of Mendota Heights assumes no legal responsibility for the information contained in this data. The City of Mendota Heights, or any other entity from which data was obtained, assumes no liability for any errors or omissions herein. If discrepancies are found, please contact the City of Mendota Heights.

Contact "Gopher State One Call" at 651-454-0002 for utility locations, 48 hours prior to any excavation.





ESP Safety Shelter - SR84X039G - FREE SHIPPING

~~$8,809.95~~ **$7,499.95**

Use coupon code ESPSAVE for an additional 10% off

View Current Manual | **FAQs** | **Anchoring Requirements**

- Internal 80"L x 35"W x 76"H
  External 87"L x 42"W x 78"H
  Up to 6 Person Capacity
- Provides near absolute protection from EF5 tornado strikes.
- Provides a high level of protection for you and your family against intruders.
- Acts as vault that provides protection for your valuables and other personal belongings. (Not fire rated due to the design requirements to withstand severe storms.)
- The entire shelter is made from 3/16" (0.188") thick carbon steel, all hardware is Grade 5, and the majority of all surfaces are powder coated for ultimate protection and appearance.
- The door design and the materials used are critical aspects of any storm shelter. The Swisher ESP Safety Shelter has a unique sliding reinforced steel door that eliminates problems commonly associated with inward and outward swinging doors.
- When opened, the sliding door takes up no additional space inside or outside the shelter. Also, because the door does not open outward, the likelihood of being trapped by debris after an event is greatly reduced or eliminated.
- A Security Grade Deadbolt holds the latch bar into the locked position and keeps the door from being opened from the outside.
- Three steel pins securely lock the door closed within a 3" deep steel jamb pocket. The ESP Safety Shelter's design does not rely solely on deadbolts as the primary locking mechanism.
- The door on the Swisher ESP Safety Shelter has a 4th locking pin that can only be installed and removed from the inside. Even if the security deadbolt is damaged from the outside, with this pin properly installed, the door will never open (unless the inhabitants remove this pin).
- A single handle operation locks all three pins into place in a single motion. There is never any need to waste precious time trying to lock three or four deadbolts to secure your door.
- The ESP Safety Shelter does not rely solely on hinges to support and secure the door to the hinge jamb. When our door is in the closed position, the entire hinge side (top to bottom) is locked into the adjacent front wall. No screws to pull out or pins that may break.

- Shielded air vents allow uninterrupted air flow.
- Quick release sliding door design allows opening when blocked by debris and reduces space required for operation.
- Quick manipulating locking mechanism works in conjunction with a security grade latch/key lock.
- Emergency panels for rapid shelter exit with an emergency wrench included.
- Bolt together modular design for ease of construction and relocation.
- Benches, shelving, and built-in gun racks are also available.
- 5 year limited warranty

SKU: **SR84X039G**

– 1 +

ADD TO CART

As low as $234.99/mo*

DETAILS

ESP Safety Shelter - SR84X039G

ESP (Emergency – Security – Preparedness) Safety Shelters (above-ground only) offer the ultimate in multi-purpose protection and security for you and loved ones against violent acts of nature and multiple threats posed by man. Made in the USA, ESP Safety Shelters will withstand the most extreme tornado activity and offer a safe zone against home invasion.

It is preferable for the shelter to be installed within the interior of a residence. If you choose to install it outdoors, it must be within 150 feet of the residence it is intended to serve and must be protected from all external weather conditions. THIS SHELTER IS NOT WATERPROOF.

This Swisher ESP Safety Shelter has undergone and passed testing at the National Wind Institute at Texas Tech University. It has also been tested and withstood a total of nine impacts from 15-pound 2x4s traveling at 100 mph. These impacts are equivalent to the force produced by an EF5 tornado with 250-mph winds.

This ESP Safety Shelter model has been verified by the National Storm Shelter Association (NSSA) to be in compliance with FEMA 320, FEMA 361 and the ICC-500-2014 Code requirements when installed per the manufacturer's guidelines and inspected by a qualified inspector. Step-by-step Installation checklists and Inspection checklists are provided with each unit.

This Shelter has been designed by Registered Structural Engineers and has undergone a rigorous third-party review process. Statement from FEMA P-320: "Having a safe room built for your home or small business can help provide 'near-absolute protection' for you and your family or employees from injury or death caused by the dangerous forces of extreme winds." Near Absolute Protection definition from FEMA P-361: Level of protection afforded to the occupants of a safe room built according to the guidance in the most current edition of FEMA P-361. Our current knowledge of tornadoes and hurricanes indicates that safe room occupants will have a very high probability of being protected from injury or death.

These shelters are designed to be a DIY project, but once the shelter installation is completed, it must be inspected by a qualified inspector. Contact your local building inspector or find an engineer or architect in your area. Visit www.nssa.cc to find a pre-approved list of installation companies. The NSSA type 4 seal will provide a warranty after the installation check list and final inspection checklist are complete and sent to the manufacturer. The NSSA type 4 seal and a Certificate of Installation will be sent to customers after the manufacturer has received the installation checklist and final inspection checklist. The Limited Lifetime Storm Damage Replacement Benefit does require that all installation procedures be followed and documented proof must be submitted to the manufacturer.

5 year limited warranty

[1]*Taking Shelter from the Storm: Building a Safe Room for Your Home or Small Business*, FEMA P-320-2014 Fourth Edition

[2]*ICC/NSSA Standard for the Design and Construction of Storm Shelters*, ICC 500-2014

[3]*Safe Rooms for Tornadoes and Hurricanes: Guidance for Community and Residential Safe Rooms*, FEMA P-361-2015 Third Edition

CONTACT INFO

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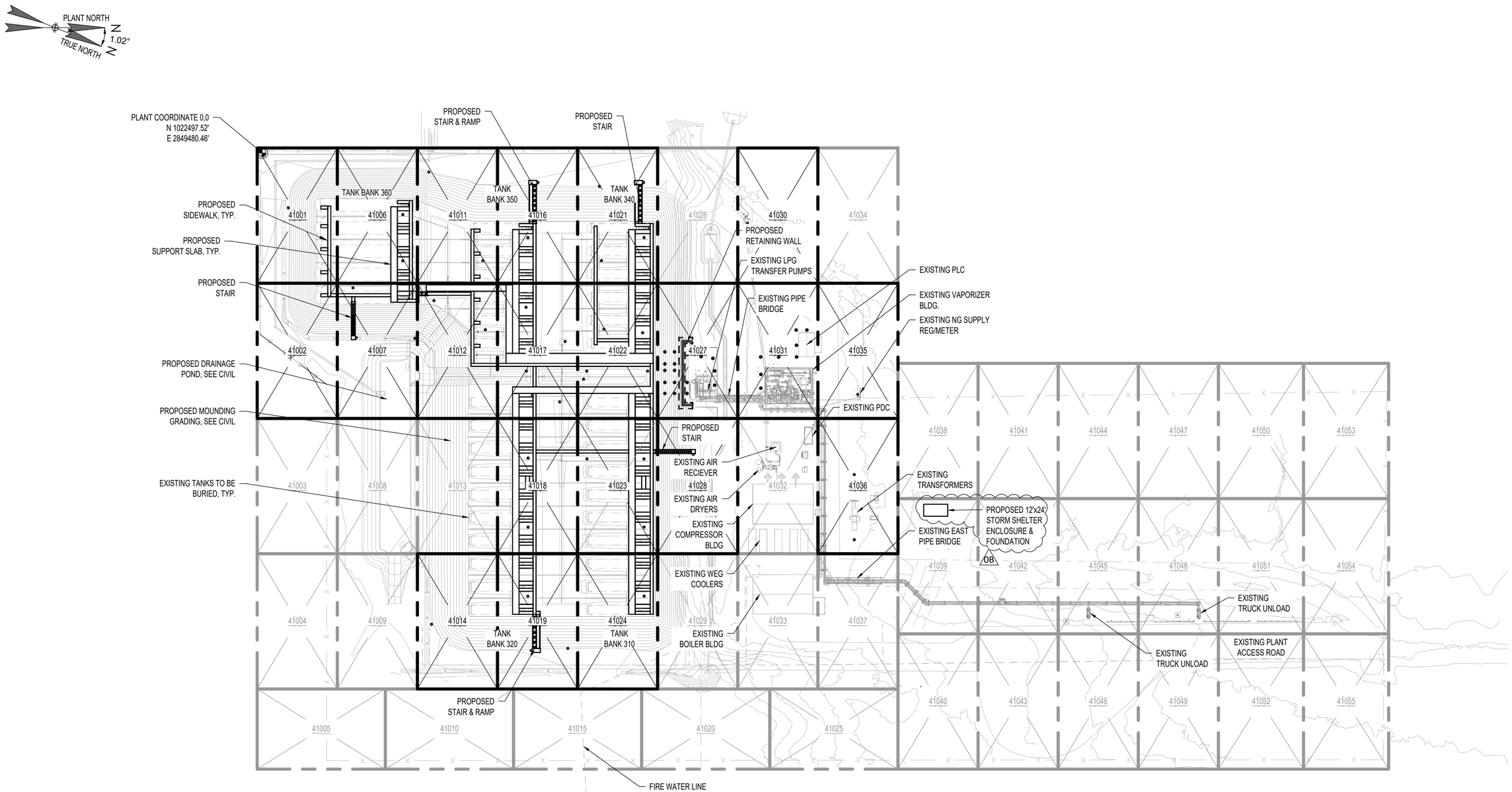


FOUNDATION KEY PLAN

SCALE 1" = 50'

NOTES:

1. ALL COORDINATES BASED ON NAD83 MINNESOTA STATE PLANS, SOUTH ZONE.
2. SEE THE FOLLOWING FOR OTHER DISCIPLINE KEY PLANS: 4300 FOR CIVIL, 6100 FOR MECHANICAL & PIPING, 7200 FOR CONDUIT, 7300 FOR ELECTRICAL, & 8000 FOR CONTROLS.

CAD FILE NAME: *D1_41000_Sibley Mounding.dwg*

LEGEND:

- PROPOSED CONCRETE
- EXISTING FENCE
- EXISTING STEEL/CONCRETE
- EXISTING ABOVE GROUND PIPING & EQUIPMENT
- EXISTING UNDER GROUND PIPING & EQUIPMENT

Xcel Energy®

FLOC: *GU-SPG*

CAMPOS EPC

HISTORY	DATE
DRAWN BY: *JMC*	*04/04/24*
DESIGNED BY: *RSP*	*04/04/24*
CHECKED BY: *JG*	*05/24/24*
APPROVED BY: *RSP*	*05/31/24*
IN SERVICE DATE:	

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION - RET. WALL	JMC	05/31/24
0A	ISSUED FOR BID	JMC	07/22/24
0B	ISSUED FOR PERMIT - STORM SHELTER	MO	08/22/24

SIBLEY PROPANE PLANT
FOUNDATION KEY PLAN

DRAWING
41000

SERVICE CENTER: *NORTHERN STATES POWER COMPANY*
LOCATION: *UNIT 00*
DIVISION: *NORTHERN*
CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA*
TYPE: *FACILITY*

OB

STRUCTURAL COVER SHEET

DRAWING NUMBER	REV	TITLE	DRAWING NUMBER	REV	TITLE
40000	0	STRUCTURAL COVER / INDEX	4700	0	STEEL DETAIL DIAGRAMS - PIPE BRIDGE ELEVATION
40010	0	STRUCTURAL NOTES	4701	0	STEEL DETAIL DIAGRAMS - PIPE BRIDGE TRUSS PLANS
40011	0	STRUCTURAL NOTES	4702	0	STEEL DETAIL DIAGRAMS - PIPE BRIDGE SECTIONS & DETAILS
41000	0	FOUNDATION KEY PLAN	4703	0	STEEL DETAIL DIAGRAMS - PIPE BRIDGE SECTIONS & DETAILS
41027	0	FOUNDATION PLAN	4704	1	STEEL DETAIL DIAGRAMS
4121	1	FOUNDATION PLAN - PIPE BRIDGE	4705	1	STEEL DETAIL DIAGRAMS
4122	1	FOUNDATION PLAN - VAPORIZER BUILDING	4706	1	STEEL DETAIL DIAGRAMS
4123	2	FOUNDATION PLAN - CABLE TRAY AND PIPE RACK	4707	1	STEEL DETAIL DIAGRAMS
4124	1	FOUNDATION PLAN - COMPRESSOR BUILDING AND PIPE RACK	4708	1	STEEL DETAIL DIAGRAMS - CABLE TRAY SUPPORT SECTIONS & DETAILS
4125	1	FOUNDATION PLAN - BOILER BUILDING AND PIPE RACK	4709	0	STEEL DETAIL DIAGRAMS - CABLE TRAY SUPPORT SECTIONS & DETAILS
4126	1	FOUNDATION PLAN - EAST PIPE BRIDGE	4710	0	STEEL DETAIL DIAGRAMS - CABLE TRAY SUPPORT SECTIONS & DETAILS
4127	1	FOUNDATION PLAN - SLEEPER RACK	4711	1	STEEL DETAIL DIAGRAMS - PIPE SUPPORT SECTIONS & DETAILS
4128	1	FOUNDATION PLAN - SLEEPER RACK AND TRUCK UNLOADING	4712	1	STEEL DETAIL DIAGRAMS - PIPE SUPPORT SECTIONS & DETAILS
4129	1	FOUNDATION PLAN - TRANSFER PUMP AREA	4713	1	STEEL DETAIL DIAGRAMS - EAST PIPE BRIDGE ELEVATION
42000	0	STRUCTURAL KEY PLAN	4714	1	STEEL DETAIL DIAGRAMS - EAST PIPE BRIDGE TRUSS PLANS
4101	0	STRUCTURAL PLAN - PIPE BRIDGE	4715	1	STEEL DETAIL DIAGRAMS - SECTIONS & DETAILS
4102	2	STRUCTURAL PLAN - VAPORIZER BUILDING	4716	1	STEEL DETAIL DIAGRAMS - SECTIONS & DETAILS
4103	2	STRUCTURAL PLAN - CABLE TRAY AND PIPE RACK	4717	1	STEEL DETAIL DIAGRAMS - SECTIONS & DETAILS
4104	1	STRUCTURAL PLAN - COMPRESSOR BUILDING AND PIPE RACK	4718	1	STEEL DETAIL DIAGRAMS - TRUCK UNLOADING SKID SECTIONS & DETAILS
4104	1	STRUCTURAL PLAN - COMPRESSOR BUILDING AND PIPE RACK	4719	1	STEEL DETAIL DIAGRAMS - PIPE SUPPORT SECTIONS & DETAILS
4105	1	STRUCTURAL PLAN - BOILER BUILDING AND PIPE RACK	4720	3	FOUNDATION DETAIL DIAGRAMS - PIPE BRIDGE SECTIONS & DETAILS
4106	1	STRUCTURAL PLAN - EAST PIPE BRIDGE	4721	0	FOUNDATION DETAIL DIAGRAMS - CONCRETE SECTIONS & DETAILS
4107	1	STRUCTURAL PLAN - SLEEPER RACK	4722	3	FOUNDATION DETAIL DIAGRAMS - CONCRETE SECTIONS & DETAILS
4108	1	STRUCTURAL PLAN - SLEEPER RACK AND TRUCK UNLOADING	4723	0	FOUNDATION DETAIL DIAGRAMS - CABLE TRAY SECTIONS & DETAILS
4109	1	STRUCTURAL PLAN - TRANSFER PUMP AREA	4724	0	FOUNDATION DETAIL DIAGRAMS - CONCRETE SECTIONS & DETAILS
44001	0	FOUNDATION DETAILS - SLAB & SIDEWALK DETAILS	4725	0	FOUNDATION DETAIL DIAGRAMS - CONCRETE SECTIONS & DETAILS
44003	0	TYPICAL THRUST BLOCK DETAILL	4726	1	FOUNDATION DETAIL DIAGRAMS - CONCRETE SECTIONS & DETAILS
			4727	0	PIPE SUPPORT SECTIONS & DETAILS
			4728	0	PIPE SUPPORT SECTIONS & DETAILS
			4729	0	PAD GAS COMPRESSOR PAD & PIPE SUPPORTS
			48000	0	RETAINING WALL PLAN & ELEVATION
			48001	0	RETAINING WALL SECTION
			48002	0	RETAINING WALL SECTIONS & DETAILS

DRAWING REVISION FOR STRUCTURAL RETAINING WALL & WATER LINE SUPPORTS ONLY. REMAINING STRUCTURAL MOUNDING SCOPE TO BE ISSUED AT A LATER DATE.

CAD FILE NAME: *D1_40000_Sibley Mounding.dwg*

Xcel Energy®

FLOC: *GU-SPG*

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the Laws of the state of Minnesota.
Signature: Randy Paul
Typed or Printed Name: Randy S. Paul
Date: 05/28/2024 License Number: 56637

CAMPOS EPC

HISTORY	DATE
DRAWN BY: *JMC*	*04/04/24*
DESIGNED BY: *RSP*	*04/04/24*
CHECKED BY: *JG*	*05/24/24*
APPROVED BY: *RSP*	*05/31/24*
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION - RET. WALL*	*JMC*	*05/31/24*

SIBLEY PROPANE PLANT
STRUCTURAL COVER / INDEX

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*

DIVISION: *NORTHERN* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

DRAWING
40000
0

STRUCTURAL NOTES

A. DESIGN AND CONSTRUCTION

1. GENERAL SITE INFORMATION: DAKOTA COUNTY, MN (44.90244167, -93.1311555)
2. DESIGN IN ACCORDANCE WITH THE FOLLOWING CODES:
   a. MINNESOTA BUILDING CODE 2020, INCORPORATING 2018 IBC
   b. ASCE 7-16
   c. A.C.I. 318-14
   d. A.I.S.C. 360-16
3. RISK CATEGORY = IV
4. DESIGN LOADS:
   a. LIVE LOADS:
      I. PIPE RACK: PIPING LOADS PER PIPE STRESS
      II. CABLE TRAY: 75 PLF
   b. WIND LOADS:
      I. BASIC WIND SPEED (3-SECOND GUST) = 121 MPH
      II. EXPOSURE = C
   c. SEISMIC DESIGN CRITERIA
      I. SEISMIC IMPORTANCE FACTOR, $I_E = 1.5$
      II. SITE CLASS = D
      III. MAPPED SPECTRAL RESPONSE ACCELERATIONS, S_S=0.05, S_1=0.03
      IV. MAPPED SPECTRAL RESPONSE COEFFICIENTS, S_{DS}=0.05, S_{D1}=0.05
      V. SEISMIC DESIGN CATEGORY (SDC) = A
   d. LATERAL SOIL LOAD = 35 PCF EQUIV. FLUID PRESSURE

A. EARTHWORK AND FOUNDATION CONSTRUCTION

1. FOUNDATIONS SHALL BEAR ON UNDISTURBED, UNFROZEN SUBGRADE, AND ON COMPACTED ENGINEERED-FILL WHERE SPECIFIED ON PLANS.
2. SOIL ENGINEERING DESIGN PARAMETERS: PER SITE SPECIFIC SOIL REPORT NO. 00044.0011.0030 CONDUCTED BY CAMPOS EPC DATED SEPTEMBER 9, 2021
   a. FROST DEPTH: 42 IN.
   b. ALLOWABLE BEARING CAPACITY: 3,000 PSF (SHALLOW SPREAD FOOTINGS)
   c. FOUNDATION SYSTEM: SHALLOW SPREAD FOOTINGS, DEEP FOUNDATIONS.
3. EXCAVATION AND BACKFILL:
   a. ALL EXCAVATION AND GRADING WORK FOR FOUNDATIONS SHALL CONFORM TO THE SPECIFICATIONS HEREIN AND ALL LOCAL, COUNTY, STATE, AND FEDERAL LAWS AND REGULATIONS. ENTIRE AREA AROUND EACH FOUNDATION MUST BE THOROUGHLY PROBED FOR UNDERGROUND PIPE, CONDUIT, HIGH PRESSURE LINES, ETC. BEFORE ANY EXCAVATION BEGINS.
   b. WHENEVER POSSIBLE, EXCAVATION FOR CONCRETE FOUNDATION SHALL BE NEATLY CUT TO THE EXACT SIZE SPECIFIED.
   c. IF THE GROUND WATER LEVEL IS FOUND TO BE ABOVE THE BOTTOM OF THE FOUNDATION EXCAVATION, THE FOLLOWING PROCEDURE SHALL BE FOLLOWED:
      I. EXCAVATE THE FOUNDATION 1' BELOW THE BOTTOM OF THE CONCRETE FOUNDATION AND 1' BEYOND THE FOUNDATION BASE ON EACH SIDE.
      II. THE WATER SHALL BE REMOVED FROM THE EXCAVATED FOUNDATION. CONTRACTOR SHALL KEEP EXCAVATED FOUNDATION FREE OF WATER AT ALL TIMES UNTIL THE BASE HAS BEEN PREPARED TO THE FINISHED ELEVATION OF THE FOUNDATION BASE.
      III. PLACE WOVEN GEOTEXTILE FABRIC MIRAFI 600X OR EQUAL 1' BEYOND THE FOUNDATION BASE ON EACH SIDE.
      IV. PLACE 12" OF CLASS II AGGREGATE BASE IN TWO SEPARATE 6" LIFTS, COMPACT TO 95% OF THE MAX DRY DENSITY PER ASTM D1557.
      V. BEFORE PLACING THE FORMS, REBAR AND CONCRETE POUR, THE CONTRACTOR SHALL KEEP THE EXCAVATED FOUNDATION FREE OF WATER.
   d. DURING AND UPON COMPLETION OF THE INSTALLATION OF ANY FOUNDATION, THE WORK SHALL BE INSPECTED AND APPROVED BY THE OWNER OR THEIR REPRESENTATIVE BEFORE THE EXCAVATION IS BACKFILLED. AFTER SUCH APPROVAL, THE EXCAVATION, UNLESS REQUIRED TO BE LEFT OPEN FOR GOOD CAUSE, SHALL BE PROMPTLY BACKFILLED IN A SATISFACTORY MANNER PROVIDED THE FOUNDATION HAS ATTAINED SUFFICIENT STRENGTH.
   e. FORMS SHALL NOT BE STRIPPED UNTIL 3 DAYS AFTER THE POUR OR CONCRETE STRENGTH REACHES 75% F'C, WHICHEVER OCCURS LATER.
   f. STRUCTURAL BACKFILL SHALL CONSIST OF GRANULAR NON-EXPANSIVE SAND, GRAVEL AND SAND-GRAVEL MIXTURES, WITH PLASTICITY INDEX BELOW 15, WITH 100% LESS THAN 3/4" SIZE ROCK AND MAX. 10% PASSING NO. 200 SIEVE PER MN DOT CLASS 5 BASE MATERIAL REQUIREMENTS. IT SHALL BE PLACED IN 8" MAX. LIFTS. BACKFILL SHALL BE COMPACTED TO 95% M.D.D. PER ASTM D1557.
   g. EXCAVATED SUBGRADE SHALL BE COMPACTED TO MINIMUM 95% OF MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D1557, PRIOR TO STRUCTURAL OR COMMON BACKFILL. MINIMUM 1 (ONE) IN-SITU DENSITY TEST SHALL BE CONDUCTED PER CONCRETE STRUCTURE, UNLESS DEEMED OTHERWISE BY THE FIELD GEOTECHNICAL PROFESSIONAL.
   h. SUBGRADE CONDITIONS SHALL BE INSPECTED BY A GEOTECHNICAL ENGINEER PROR TO PLACEMENT OF ANY CONCRETE. STRUCTURAL FILL SHALL BE INSPECTED AND TESTED.

B. DEMOLITION

1. CONTRACTOR SHALL FIELD-VERIFY ALL CONDITIONS AND DIMENSIONS (INCLUDING UTILITIES AND POSSIBLE PRESENCE OF HAZARDOUS MATERIALS) PRIOR TO STARTING WORK AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR ADDITIONAL WORK THAT MAY BE REQUIRED.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING, SHIELDING, TEMPORARY WALLS, WATER SPRAY, ETC., AS NECESSARY TO PROTECT EXISTING WORK TO REMAIN, AND TO PREVENT THE SPREAD OF DUST AND DEBRIS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE TO SURROUNDING STRUCTURES AND EQUIPMENT DUE TO DEMOLITION WORK. THIS INCLUDES REQUIRED CLEANUP DUE TO SPREAD OF DUST AND DEBRIS. CONTRACTOR MAY WISH TO DOCUMENT CONDITION OF NEARBY STRUCTURES PRIOR TO BEGINNING DEMOLITION AS A DEFENSE AGAINST DAMAGE CLAIMS.
4. MATERIAL NOTED TO BE SALVAGED SHALL BE REMOVED AND HANDLED SO AS TO PREVENT DAMAGE. ALL MATERIALS FROM DEMOLITION NOT NOTED TO BE SALVAGED SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER BY THE CONTRACTOR.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL WORKERS, TENANTS, AND THE PUBLIC DURING HIS WORK. BARRICADES, WARNING SIGNS, TRAFFIC CONTROL, ETC. SHALL BE PROVIDED AND MAINTAINED AS REQUIRED.

D. CONCRETE AND GROUT (CAST-IN-PLACE)

1. CONCRETE MIX DESIGNS SHALL MEET THE FOLLOWING REQUIREMETS:
   a. CONCRETE F'C = 3,000 PSI AFTER 7 DAYS, 4,500 PSI MIN. AFTER 28 DAYS. CEMENT TYPE II.
   b. MAXIMUM SLUMP SHALL BE 4" (PLUS OR MINUS 1 INCH) BEFORE ADDITION OF SUPERPLASTICIZERS, OR ALL CONCRETE EXCEPT 6" TO 9" FOR DRILLED PIERS.
   c. ALL CONCRETE EXCEPT USED FOR INTERIOR SLABS, SHALL BE AIR ENTRAINED TO 6% PLUS OR MINUS 1.5%. INTERIOR FLOOR CONCRETE SHALL NOT BE AIR ENTRAINED.
   d. WATER/CEMENT RATIO SHALL NOT EXCEED 0.45
   e. WATER USED IN MIXING CONCRETE SHALL CONFORM TO ASTM C1602
   f. ADMIXTURES SHALL NOT BE USED WITHOUT PRE-APPROVAL BY ENGINEER. ADMIXTURES CONTAINING CHLORIDES SHALL NOT BE USED.
   g. MAXIMUM RATIO OF FLY-ASH TO TOTAL CEMENTITIOUS MATERIALS SHALL BE 0.15
   h. AGGREGATES SHALL BE CRUSHED STONE CONFORMING TO ASTM C33
   i. CONCRETE MIX DESIGNS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. CONTRACTOR SHALL NOT BEGIN CONCRETE INSTALLATION UNTIL CONCRETE MIX DESIGNS HAVE BEEN APPROVED BY THE ENGINEER.
2. CONCRETE PROTECTION FOR REINFORCEMENT: CLEAR DISTANCE FROM FACE OF CONCRETE TO BAR SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE.
   a. CONCRETE DEPOSITED AGAINST GROUND OR VOID FORM: 3"
   b. CONCRETE SURFACES EXPOSED TO WEATHER OR IN CONTACT WITH GROUND AFTER REMOVAL OF FORMS: 1 1/2" FOR #5 BARS AND SMALLER, 2" FOR #6 THROUGH #18.
3. REINFORCING SHALL BE DEFORMED, INTERMEDIATE GRADE NEW BILLET STEEL CONFORMING TO ASTM A615, GRADE 60 FY = 60,000 PSI (EXCEPT REINFORCEMENT TO BE WELDED SHALL BE ASTM A706). ALL WELDING OF REINFORCEMENT SHALL CONFORM TO THE STRUCTURAL WELDING CODES, REINFORCING STEEL AWS D1.4, CURRENT EDITION.
4. REINFORCEMENT DETAILING REQUIREMENTS
   a. ALL REINFORCING STEEL IN CONCRETE SHALL BE LAPPED IN ACCORDANCE WITH ACI STANDARD 318. WHERE BARS OF DIFFERENT SIZES ARE LAPPED, THE LAP LENGTH SHALL BE BASED ON THE SMALLER BAR. WHERE BARS ARE SHOWN SPLICED, THEY MAY RUN CONTINUOUS AT CONTRACTOR'S OPTION.
   b. REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS UNLESS NOTED OTHERWISE.
   c. PROVIDE BENT CORNER REBAR TO MATCH AND LAP WITH HORIZONTAL REBAR AT CORNERS AND INTERSECTIONS OF WALLS AND GRADE BEAMS.
   d. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. REBAR FABRICATION SHALL NOT BEGIN UNTIL SHOP DRAWINGS HAVE BEEN APPROVED BY THE ENGINEER. ALL SPLICE LOCATIONS ARE SUBJECT TO ENGINEER'S APPROVAL. PLACE REBAR PER CRSI STANDARDS
   e. ALL BARS AND DOWELS SHALL BE SUPPORTED AND WIRED IN PLACE. DOWELS SHALL BE WIRED IN PLACE, NOT PUSHED INTO FRESH CONCRETE. WELDED WIRE REINFORCEMENT SHALL BE POSITIVELY SUPPORTED, NOT PULLED UP AFTER CONCRETE PLACEMENT. BAR SUPPORTS IN CONTACT WITH EXPOSED SURFACES SHALL HAVE PLASTIC TIPS.
   f. IF REINFORCING OR MESH IS FIELD CUT FOR SMALL OPENINGS, CONDUIT, ELECTRICAL BOXES, ETC. CUT REINFORCING SHALL BE REPLACED WITH AN EQUIVALENT AREA OF STEEL. ALL SUCH BARS SHALL EXTEND 24" MINIMUM (OR MESH LAP 2") BEYOND CORNER OR EDGE OF OPENING IF NECESSARY. REINFORCING SHALL BE BENT TO PROVIDE THIS MINIMUM EMBEDMENT. MAKE ALL BARS CONTINUOUS AROUND CORNERS.
5. REBAR NOTED TO BE DRILLED INTO CONCRETE AND SET WITH ADHESIVE TO USE HILTI ADHESIVE HIT-HY 200 V3 ADHESIVE "SAFE SET SYSTEM" AS DOCUMENTED BY CURRENT ICC-ES REPORT ESR-4868. CONTRACTOR MAY SUBMIT ALTERNATE FOR APPROVAL WITH ALLOWABLE LOAD VALUES EQUAL TO OR EXCEEDING THOSE FOR HILTI.
6. CONCRETE PLACEMENT REQUIREMENTS:
   a. CONCRETE SHALL NOT BE PLACED ON FROZEN GROUND.
   b. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED.
   c. ALL EXPOSED EDGES SHALL BE CHAMFERED 3/4" UNLESS NOTED OTHERWISE.
7. EXPANSION JOINT MATERIAL FOR EXPANSION OR ISOLATION JOINTS SHALL BE PREMOLDED, BITUMINOUS IMPREGNATED FIBERBOARD.CONFORMING TO ASTM D994. JOINT THICKNESS SHALL BE 1/2" UNLESS NOTED OTHERWISE ON DESIGN DRAWINGS.
8. JOINT SEALANT FOR ALL CONCRETE CONTROL, CONSTRUCTION AND ISOLATION JOINTS SHALL BE SIKAFLEX-1A BY SIKA CORP., OR APPROVED EQUAL.
9. WATERSTOPS SHALL BE TPER MATERIAL. WATER STOPS SHALL BE WIRED TO REINFORCEMENT TO PREVENT FOLDOVER DURING CONCRETE PLACEMENT. ALL JOINTS, EXCEPT STRAIGHT BUTT JOINTS, SHALL BE SHOP MADE BY THE MANUFACTURER. FIELD SPLICES SHALL BE HEAT-WELDED.
10. PER MANUFACTURER'S RECOMMENDATION.GROUT USED FOR VARIOUS APPLICATIONS SHALL BE AS FOLLOWS:
    a. GROUT USED FOR STRUCTURAL STEEL COLUMN BASE PLATES SHALL BE PREPACKED, HIGH-FLUIDITY NON-SHRINK, NATURAL AGGREGATE GROUT SUCH AS "MASTERFLOW 713 PLUS" BY BASF (FORMERLY MASTER BUILDERS) OR APPROVED EQUAL. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION. SPACE BETWEEN THE ANCHOR RODS AND OVERSIZED HOLES IN THE BASE PLATE SHALL BE FULLY GROUTED WITH NON-SHRINK GROUT TO ASSURE PROPER SHEAR TRANSFER. GROUTING SHALL BE PERFORMED ONE BOLT AT A TIME, WHILE OTHER BASE PLATE RODS ARE FULLY TIGHTENED.
    b. GROUT USED FOR GROUTING COMPRESSORS, TURBINES, LARGE PUMPS, AND OTHER RECIPROCATING OR ROTATING EQUIPMENT THAT REQUIRES EPOXY GROUTING AS SHOWN ON DESIGN DRAWINGS SHALL BE "FIVE STAR HP" EPOXY GROUT BY FIVE STAR PRODUCTS, INC. OR APPROVED EQUAL, FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
11. VOID FORM SHALL BE "SURE VOID" OR APPROVED EQUAL. KEEP VOID FORM MATERIAL DRY DURING PLACEMENT AND INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.VOID FORM SHALL BE BIODEGRADABLE AND CAPABLE OF SUPPORTING THE FLUID WEIGHT OF THE CONCRETE.
12. SIZES AND LOCATIONS OF EQUIPMENT BASES, SUMPS, AND EQUIPMENT ANCHOR BOLTS SHOWN ON DRAWINGS ARE APPROXIMATE; THE GENERAL CONTRACTOR SHALL VERIFY ALL SIZES AND LOCATIONS WITH MECHANICAL AND ELECTRICAL DIVISIONS.

E. HELICAL PILES

1. HELICAL PILES SHALL BE INSTALLED WITHIN 1" OF COORDINATE (PLAN) LOCATIONS, AND WITHIN -1/2", +1/8" IN ELEVATION. SHIM AS REQUIRED.
2. IF HELICAL PILES ARE NOT ZINC COATED, DESIGN WALL THICKNESS AND OUTSIDE DIAMETER SHALL ACCOUNT FOR CORROSION LOSS OF 0.018" OF OUTSIDE WALL THICKNESS, AS INDICATED IN SECTION 3.9 OF AC358 "ACCEPTANCE CRITERIA FOR HELICAL PILE SYSTEMS AND DEVICES". ZINC COATINGS, IF USED, SHALL COMPLY WITH ASTM A123, A153, B633, OR B695, AS APPLICABLE.
3. PILES SHALL BE DESIGNED TO LIMIT DEFLECTION UNDER SERVICE LOAD TO 1/2", AND PILE CAPACITY SHALL BE DESIGNED FOR 2X SERVICE LOAD.
4. PILE DESIGN CONTRACTOR SHALL PROVIDE CUT SHEETS ON MATERIALS USED, CONFIGURATION OF SCREW PILES, AND INSTALLATION CRITERIA (TORQUE, DEPTH, ETC.) FOR APPROVAL PRIOR TO FABRICATION.
5. ANY LOAD TESTING SHALL BE PERFORMED PER ASTM 1143 (COMPRESSION), ASTM 3689 (TENSION) AND ASTM 3966 (LATERAL), AS APPLICABLE.
6. CONTINUOUS INSPECTION BY QUALIFIED PERSONNEL IS REQUIRED FOR ALL PILE INSTALLATIONS.

F. STRUCTURAL STEEL

1. MATERIAL SPECIFICATIONS, UNLESS NOTED OTHERWISE ON PLAN:
   a. WIDE FLANGE ASTM A992 (FY = 50KSI)
   b. CHANNELS, ANGLES, PLATES, AND BARS ASTM A36 (FY = 36 KSI)
   c. SQUARE AND RECTANGULAR HSS SHAPES ASTM A500 (FY = 46 KSI)
   d. PIPES ASTM A53 (FY=35 KSI)
2. CONNECTIONS:
   a. ANCHOR RODS SHALL MEET THE REQUIREMENTS OF ASTM F1554, 36 KSI YIELD STRENGTH. COMMON ROD STOCK BARS SHALL NOT BE USED.
   b. BOLTED CONNECTIONS SHALL BE FASTENED WITH HIGH STRENGTH A-325 BOLTS DESIGNED FOR THREADS INCLUDED IN SHEAR PLANES (CONNECTION TYPE N) EXCEPT AS NOTED ON THE PLANS.
   c. WELDING SHALL CONFORM TO THE CURRENT AMERICAN WELDING SOCIETY CODE. WELDING ELECTRODES SHALL BE E70XX, UNLESS NOTED OTHERWISE. ALL WELDING SHALL BE BY AWS CERTIFIED WELDERS. WELDS WHICH ARE FOUND TO BE FAULTY SHALL BE REWORKED BY THE CONTRACTOR AT NO COST.
   d. ADHESIVE ANCHORS FOR CONCRETE SHALL BE HAS-V-36 RODS (ASTM F1554 36 KSI) WITH HILTI HIT-HY 200 V3 ADHESIVE "SAFE SET SYSTEM" AS DOCUMENTED BY CURRENT ICC-ES REPORT ESR-4868. CONTRACTOR MAY SUBMIT ALTERNATE FOR APPROVAL WITH ALLOWABLE LOAD VALUES EQUAL TO OR EXCEEDING THOSE FOR HILTI. ANCHORS SHALL BE GALVANIZED.
3. FABRICATION:
   a. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. STEEL FABRICATION SHALL NOT BEGIN UNTIL SHOP DRAWINGS HAVE BEEN APPROVED BY THE ENGINEER.
   b. STEEL SHALL BE FABRICATED IN AN A.I.S.C.-CERTIFIED STEEL FABRICATION SHOP UNLESS APPROVED BY THE ENGINEER.
   c. MILL REPORTS SHALL BE PROVIDED FOR ALL STEEL.
4. COATINGS:
   a. STRUCTURAL STEEL SHALL BE SHOT BLASTED, PRIMED, AND GALVANIZED.
   b. ALL STEEL SHALL BE HOT DIP GALVANIZED PER ASTM A123 (3-MIL MIN.)
   c. IF FIELD MODIFICATIONS REQUIRE REMOVAL OF HDG, THEN UTILIZE ZRC COLD GALVANIZATION PRODUCT TO PERFORM GALVANIZATION TOUCH-UPS.
5. ERECTION
   a. FIELD CUTTING OF STEEL OR OTHER FIELD MODIFICATIONS ARE PROHIBITED WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.
   b. FABRICATOR SHALL FURNISH ALL FIELD BOLTS, BOLT SCHEDULE, CLIP ANGLES, AND TEMPORARY FASTENINGS REQUIRED FOR ERECTION.
   c. THE CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT AND SAFE LIFTING SCHEMES FOR STEEL MEMBERS AS REQUIRED DURING ALL PHASES OF CONSTRUCTION.
   d. ALL DAMAGED MATERIAL SHALL BE REPAIRED OR REPLACED AT NO EXTRA COST TO THE OWNER AND SUBJECT TO THE APPROVAL OF THE OWNER OR AUTHORIZED REPRESENTATIVE.

G. GENERAL CONSTRUCTION

1. THE STRUCTURAL ENGINEER SHALL NOT HAVE CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR: CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES; FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK; FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
2. ANY TEMPORARY FACILITIES PLACED BY THE CONTRACTOR FOR CONSTRUCTION OPERATIONS, SUCH AS CRANE BASES, TRAILERS, SHEET PILING, ETC., SHALL BE LOCATED SO AS NOT TO INTERFERE WITH PERMANENT BUILDING CONSTRUCTION. IF INTERFERENCE OCCURS, THE CONTRACTOR SHALL REMOVE OR RELOCATE HIS TEMPORARY FACILITIES AT HIS OWN EXPENSE.
3. DO NOT BACKFILL AGAINST BUILDING, TANK, OR TUNNEL WALLS BELOW GRADE UNTIL FLOOR (OR ROOF) SLAB HAS BEEN PLACED AND CURED FOR AT LEAST SEVEN DAYS AND WALLS HAVE ATTAINED A STRENGTH OF 3,000 PSI. PLACE BACKFILL EVENLY ON EACH SIDE OF WALLS TO PREVENT ECCENTRIC LOADING ON WALLS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STABILITY BRACING AND SHORING OF THE STRUCTURE DURING CONSTRUCTION, INCLUDING ALL CONSTRUCTION LOADS. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL FOUNDATION WORK WITH THE LOCATION OF ALL SUBGRADE MECHANICAL AND ELECTRICAL WORK. THE CONTRACTOR SHALL PROVIDE ADDITIONAL REINFORCEMENT AROUND ALL PENETRATIONS IN FOUNDATION WALLS. UNLESS SPECIFICALLY NOTED ON THE DRAWINGS, MECHANICAL AND ELECTRICAL WORK IS NOT PERMITTED TO BE EMBEDDED IN FOUNDATIONS OR PLACED BENEATH FOUNDATION BEARING.
5. THE CONTRACTOR SHALL BE AWARE OF OVERHEAD POWER LINES, SUBFLOOR ELECTRICAL CONDUIT, AND SUBGRADE UTILITIES OR TUNNELS AT THE SITE. VERIFY UTILITY LOCATIONS WITH OWNER, GOPHER STATE ONE-CALL (651-454-0002), AND UTILITY COMPANIES.
6. ANY ENGINEERING DESIGN PROVIDED BY OTHERS SHALL BE SUBMITTED FOR REVIEW AND SHALL BEAR THE SIGNATURE AND VALID REGISTRATION NUMBER OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MINNESOTA.
7. CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE BUILDING AND/OR SITE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL WORK PERFORMED BY SUBCONTRACTORS.
9. THE CONTRACTOR SHALL DOCUMENT AS-BUILT INFORMATION AND PROVIDE AS-BUILT DRAWINGS TO THE ENGINEER FOR ALL WORK PERFORMED.
10. SCALES NOTED ON DRAWINGS ARE ACCURATE FOR FULL-SIZE (22x34) DRAWINGS ONLY.

H. SCHEDULE OF GENERAL AND SPECIAL INSPECTIONS (AS APPLICABLE)

1. SPECIAL INSPECTION: THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTION (PER SECTION 1704 OF THE IBC, PROVIDE MINIMUM 24-HOUR NOTICE TO INSPECTOR:
   a. EARTHWORK
   b. FOUNDATION CAPACITY
   c. CONCRETE CYLINDER (7 AND 28 DAY AND SPARE) AND SLUMP
   d. CONCRETE REINFORCING
   e. STRUCTURAL STEEL WELDING AND HIGH STRENGTH BOLTING
   f. EXPANSION AND ADHESIVE ANCHORS
2. INSPECTION AND TESTING REPORTS SHALL BE COMPLETED AND DISTRIBUTED AT THE COMPLETION OF EACH TASK. IF A TASK IS TO TAKE LONGER THAN THREE (3) DAYS, PROVIDE REPORTS FOR EACH DAY. PROVIDE COPIES OF REPORTS TO: CONTRACTOR, OWNER, AND THE ENGINEER OF RECORD. INSPECTOR TO KEEP A NON-COMPLIANCE LIST DOCUMENTING ITEMS INSPECTED NOT MEETING APPROVED CONSTRUCTION DOCUMENTS AND WHEN/HOW RESOLVED.

DRAWING REVISION FOR STRUCTURAL RETAINING WALL & WATER LINE SUPPORTS ONLY. REMAINING STRUCTURAL MOUNDING SCOPE TO BE ISSUED AT A LATER DATE.

CAD FILE NAME: *D1_40010_Sibley Mounding.dwg*

Xcel Energy®

FLOC: *GU-SPG*

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the Laws of the state of Minnesota.
Signature: Randy Paul
Typed or Printed Name: Randy S. Paul
Date: 05/28/2024 License Number: 56637

CAMPOS EPC

HISTORY	DATE
DRAWN BY: *JMC*	*02/27/24*
DESIGNED BY: *RSP*	*02/27/24*
CHECKED BY: *JG*	*05/24/24*
APPROVED BY: *RSP*	*05/31/24*
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION - RET. WALL*	*JMC*	*05/31/24*

SIBLEY PROPANE PLANT
STRUCTURAL NOTES

DRAWING *40010*

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* | LOCATION: *UNIT 00*

DIVISION: *NORTHERN* | CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* | TYPE: *FACILITY*

0

INSPECTION AND VERIFICATION OF CONCRETE CONSTRUCTION

INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION TASK	FREQUENCY OF INSPECTION		REFERENCED STANDARD
		CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED	
Y	1. INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS AND PLACEMENT.	---	X	ACI 318: 3.5, 26.6
N	2. INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1705.2.2, ITEM 2b.	---	X	AWS D1.4 ACI 318: 26.6.4
Y	3. INSPECTION OF ANCHORS CAST IN CONCRETE .	---	X	ACI 318: 26.7
Y	4. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.	---	X	ACI 318: 26.7
Y	5. VERIFICATION OF ANCHOR MATERIAL CERTIFICATIONS.	---	X	AISC 360
Y	6. VERIFYING USE OF REQUIRED DESIGN MIX.	---	X	ACI 318: 26.4
Y	7. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	---	ASTM C 172 ASTM C 31 ACI 318: 26.12,26.13
Y	8. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	---	ACI 318: 26.5
Y	9. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	---	X	ACI 318: 26.5.3
Y	10. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORING AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	---	X	ACI 318: 26.11
Y	11. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	---	X	ACI 318: 26.11

INSPECTION AND VERIFICATION OF SOILS

INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION TASK	FREQUENCY OF INSPECTION	
		CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
Y	1. VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE DESIRED BEARING CAPACITY.	---	X
Y	2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	---	X
Y	3. PERFORM CLASSIFICATION AND TESTING OFCOMPACTED FILL MATERIALS.	---	X
Y	4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	---
Y	5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	---	X

INSPECTION AND VERIFICATION OF HELICAL PILE FOUNDATONS

INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION TASK	FREQUENCY OF INSPECTION		REFERENCED STANDARDS
		CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED	
Y	1. CONTINOUS INSPECTION SHALL BE PERFORMED DURING INSTALLATION OF HELICAL PILE FOUNDATIONS. INFORMATION SHALL BE RECORDED INCLUDING INSTALLATION EQUIPMENT USED, PILE DIMENSIONS, TIP ELEVATIONS, FINAL DEPTH, FINAL INSTALLATION TORQUE, AND OTHER PERTINENT INSTALLATION AS REQUIRED BY THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE IN CHARGE. THE APPROVED GEOTECHNICAL REPORT AND CONSTRUCTION DOCUMENTS PREPARED BY THE REGISTERED DESIGN PROFESSIONAL SHALL BE USED TO DETERMINE COMPLIANCE.	X		IBC SECTION 1705.9

INSPECTION AND VERIFICATION OF STEEL CONSTRUCTION

INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION TASK	FREQUENCY OF INSPECTION		REFERENCED STANDARD
		CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED	
	1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS, AND WASHERS:			
Y	A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	-	X	AISC 360 SECTION A3.3 AND APPLICABLE ASTM MATERIAL STANDARDS
Y	B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	-	X	-
	2. INSPECTION OF HIGH-STRENGTH BOLTING:			
Y	A. SNUG TIGHT JOINTS.	-	X	AISC 360 SECTION M2.5
N	B. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITH MATCHMARKING, TWIST-OFF BOLT, OR DIRECT TENSION INDICATOR METHOD OF INSTALLATION.	-	X	
N	C. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMARKING, OR CALIBRATED WRENCH METHODS OF INSTALLATION.	X	-	
	3. MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD-FORMED STEEL DECK:			
Y	A. FOR STRUCTURAL STEEL, IDENTIFICATION MARINGS TO CONFORM TO AISC 360.	-	X	-
Y	B. FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	-	X	APPLICABLE ASTM MATERIAL STANDARDS
Y	C. MANUFACTURER'S CERTIFIED MILL TEST REPORTS.	-	X	-
	4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:			
Y	A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.	-	X	AISC 360 SECTION A3.5 AND APPLICABLE AWS A5 DOCUMENTS
Y	B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	-	X	-
	5. INSPECTION OF WELDING:			
	A. STRUCTURAL STEEL AND COLD FORMED STEEL DECK:			
N	1) COMPLETE AND PARTIAL PENETRATION GROOVE WELDS.	X	-	AWS D1.1
N	2) MULTIPASS FILLET WELDS.	X	-	
N	3) SINGLE-PASS FILLET WELDS > 5/16".	X	-	
N	4) PLUG AND SLOT WELDS.	X	-	
Y	5) SINGLE-PASS FILLET WELDS ≤ 5/16".	-	X	
N	6) FLOOR AND ROOF DECK WELDS.	-	X	AWS D1.3
	B. REINFORCING STEEL:			
Y	1) VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A706.	-	X	AWS D1.4 ACI 318 SECTION 3.5.2
N	2) REINFORCING STEEL: RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR REINFORCEMENT.	X	-	
Y	3) SHEAR REINFORCEMENT.	X	-	
Y	4) OTHER REINFORCING STEEL.	-	X	
	6. INSPECTION OF STEEL FRAME JOINT DETAIL FOR COMPLIANCE:			
Y	A. DETAILS SUCH AS BRACING AND STIFFENING.	-	X	-
Y	B. MEMBER LOCATIONS.	-	X	
Y	C. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	-	X	
N	7. SFRS (SEISMIC FORCE RESISTING SYSTEM)	X	-	-

SUBMITTALS:

1. ALL SUBMITTALS SHALL BE SENT TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PROCUREMENT, FABRICATION, OR CONSTRUCTION.
2. REQUIRED SUBMITTALS ARE PROVIDED.
   a. STRUCTURAL FILL (A.3.f)
   b. CONCRETE MIX DESIGN (4010 D.1.i)
   c. REBAR SHOP DRAWINGS (4010 D.4.d)
   d. HELICAL PILE DESIGN & SUBMITTAL (4010 E)
   e. STRUCTURAL STEEL SHOP DRAWINGS (4010 F.3.a)
   f. ENGINEERING COMPLETED BY OTHERS (4010 G. 6)
   g. ANY MATERIAL THAT DIFFERS FROM WHAT IS SPECIFIED ON 4010, 4011, OR THE FOLLOWING STRUCTURAL DRAWINGS.

ABBREVIATIONS:

A.B. = ANCHOR BOLT
B.O.C. = BOTTOM OF CONCRETE
C.J. = CONSTRUCTION JOINT
C.L. = CENTERLINE
C.T. = CONTROL JOINT
C.V. = COMPACTED VOLUME
CLR. = CLEAR
CONC. = CONCRETE
CONT. = CONTINUOUS
DET. = DETAIL
DWGS. = DRAWINGS
E.F.= EACH FACE
E.J.= EXPANSION JOINT
E.W.= EACH WAY
ELEV. = ELEVATION
EQUIP. = EQUIPMENT
FDN. = FOUNDATION
GALV. = GALVANIZE
GRTG. = GRATING
HORIZ. = HORIZONTAL
I.F. = INSIDE FACE
MAX. = MAXIMUM
MFR. = MANUFACTURER
MIN. = MINIMUM
N.F.S. = NON-FROST-SUSCEPTIBLE
O.C. = ON CENTER
O.D. = OUTSIDE DIAMETER
O.F. = OUTSIDE FACE
REINF. = REINFORCEMENT
REQ'D. = REQUIRED
S.J. = SEALED JOINT
S.S. = STAINLESS STEEL
SPS. = SPACES
T & B = TOP AND BOTTOM
T.O.A. = TOP OF CONCRETE
T.O.S. = TOP OF STEEL
T.O.W. = TOP OF WALL
TYP. = TYPICAL
U.N.O. = UNLESS NOTED OTHERWISE
VERT. = VERTICAL

DRAWING REVISION FOR STRUCTURAL RETAINING WALL & WATER LINE SUPPORTS ONLY. REMAINING STRUCTURAL MOUNDING SCOPE TO BE ISSUED AT A LATER DATE.

CAD FILE NAME: *D1_40011_Sibley Mounding.dwg*

Xcel Energy®

FLOC: *GU-SPG*

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the Laws of the state of Minnesota.
Signature: Randy Paul
Typed or Printed Name: Randy S. Paul
Date: 05/28/2024 License Number: 56637

CAMPOS EPC

HISTORY	DATE
DRAWN BY: *JMC*	*02/27/24*
DESIGNED BY: *RSP*	*02/27/24*
CHECKED BY: *JG*	*05/24/24*
APPROVED BY: *RSP*	*05/31/24*
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION - RET. WALL*	*JMC*	*05/31/24*

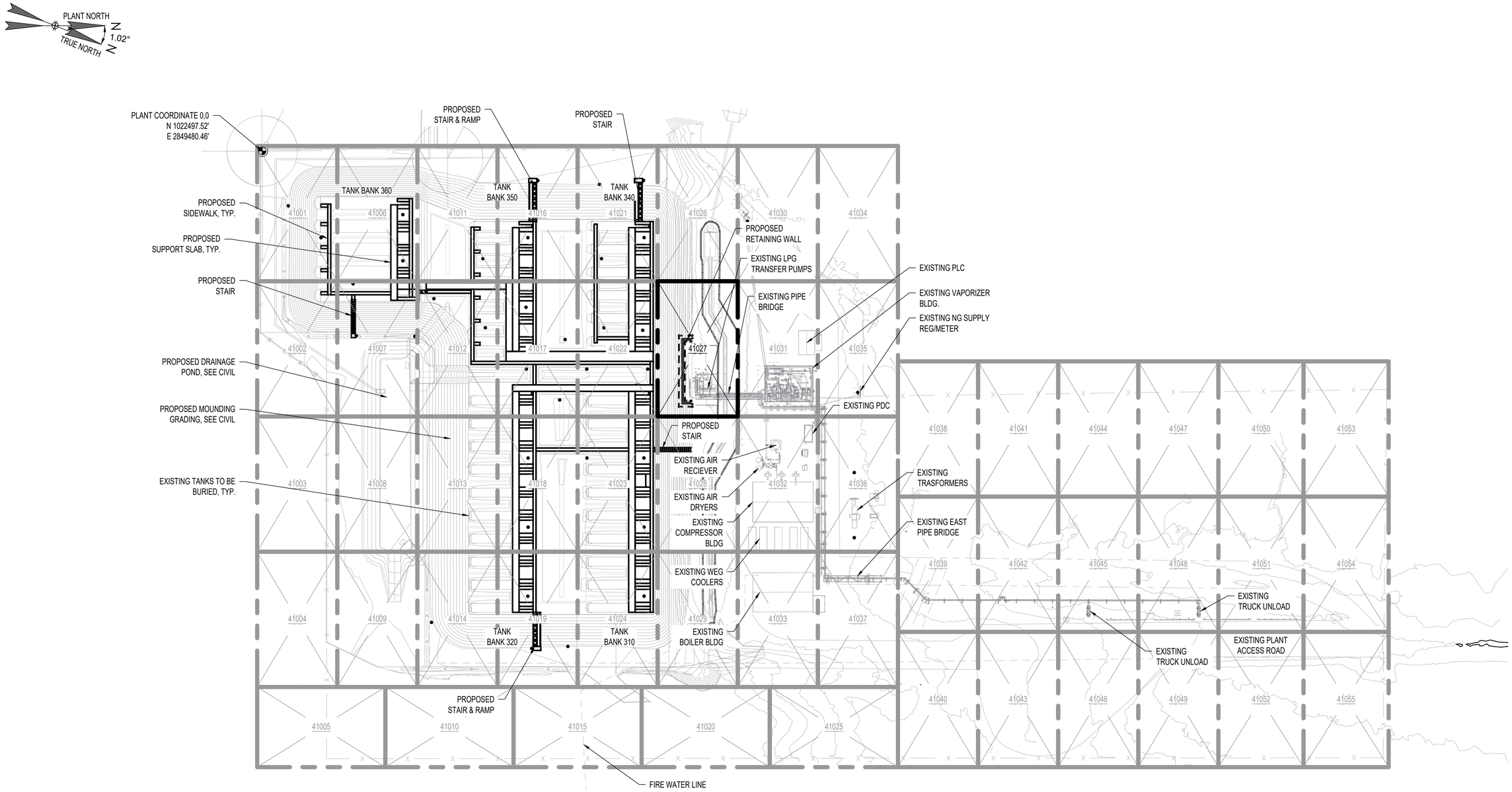
SIBLEY PROPANE PLANT
STRUCTURAL NOTES

DRAWING *40011*

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*

DIVISION: *NORTHERN* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

0



FOUNDATION KEY PLAN

SCALE 1" = 50'

DRAWING REVISION FOR STRUCTURAL RETAINING WALL & WATER LINE SUPPORTS ONLY. REMAINING STRUCTURAL MOUNDING SCOPE TO BE ISSUED AT A LATER DATE.

NOTES:

1. ALL COORDINATES BASED ON NAD83 MINNESOTA STATE PLANS, SOUTH ZONE.
2. SEE THE FOLLOWING FOR OTHER DISCIPLINE KEY PLANS: 4300 FOR CIVIL, 6100 FOR MECHANICAL & PIPING, 7200 FOR CONDUIT, 7300 FOR ELECTRICAL, & 8000 FOR CONTROLS.

LEGEND:

- PROPOSED CONCRETE
- EXISTING FENCE
- EXISTING STEEL/CONCRETE
- EXISTING ABOVE GROUND PIPING & EQUIPMENT
- EXISTING UNDER GROUND PIPING & EQUIPMENT

CAD FILE NAME: *D1_41000_Sibley Mounding.dwg*

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PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the Laws of the state of Minnesota.

Signature: Randy Paul
Typed or Printed Name: Randy S. Paul
Date: 05/28/2024 License Number: 56637

CAMPOS EPC

HISTORY	DATE
DRAWN BY: *JMC*	*04/04/24*
DESIGNED BY: *RSP*	*04/04/24*
CHECKED BY: *JG*	*05/24/24*
APPROVED BY: *RSP*	*05/31/24*
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION - RET. WALL	JMC	05/31/24

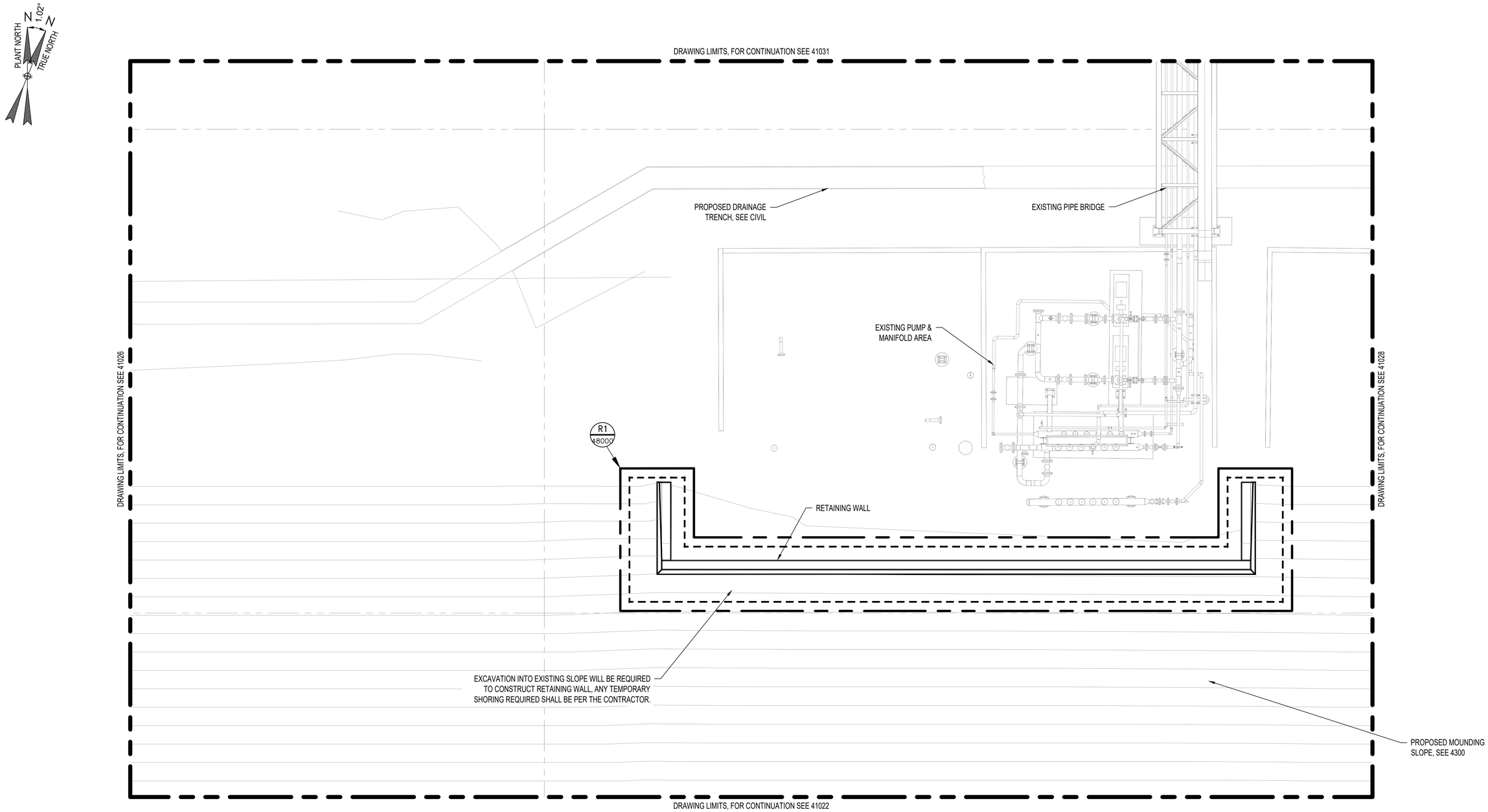
SIBLEY PROPANE PLANT
FOUNDATION KEY PLAN

DRAWING *41000*

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*

DIVISION: *NORTHERN* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

0



NOTES:

1. REFERENCE DRAWING 41000 FOR FOUNDATION KEY PLAN
2. REFERENCE DRAWINGS 40010 & 40011 FOR STRUCTURAL NOTES.
3. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED WITH EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
4. EXCAVATION FOR RETAINING WALL SHALL NOT DISTURB EXISTING FOUNDATIONS OR PIPE.

CAD FILE NAME: *D1_41027_Sibley Mounding.dwg*

FOUNDATION PLAN
SCALE 3/16" = 1'-0"

DRAWING REVISION FOR STRUCTURAL RETAINING WALL & WATER LINE SUPPORTS ONLY. REMAINING STRUCTURAL MOUNDING SCOPE TO BE ISSUED AT A LATER DATE.

LEGEND:

- PROPOSED CONCRETE
- EXISTING STEEL/CONCRETE
- EXISTING ABOVE GROUND PIPING & EQUIPMENT
- EXISTING UNDER GROUND PIPING & EQUIPMENT

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PROFESSIONAL ENGINEER
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Randy Paul
Signature:
Typed or Printed Name: Randy S. Paul
Date: 05/28/2024 License Number: 56637

CAMPOS EPC

HISTORY	DATE
DRAWN BY: *JMC*	*04/04/24*
DESIGNED BY: *RSP*	*04/04/24*
CHECKED BY: *JG*	*05/24/24*
APPROVED BY: *RSP*	*05/31/24*
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION - RET. WALL	JMC	05/31/24

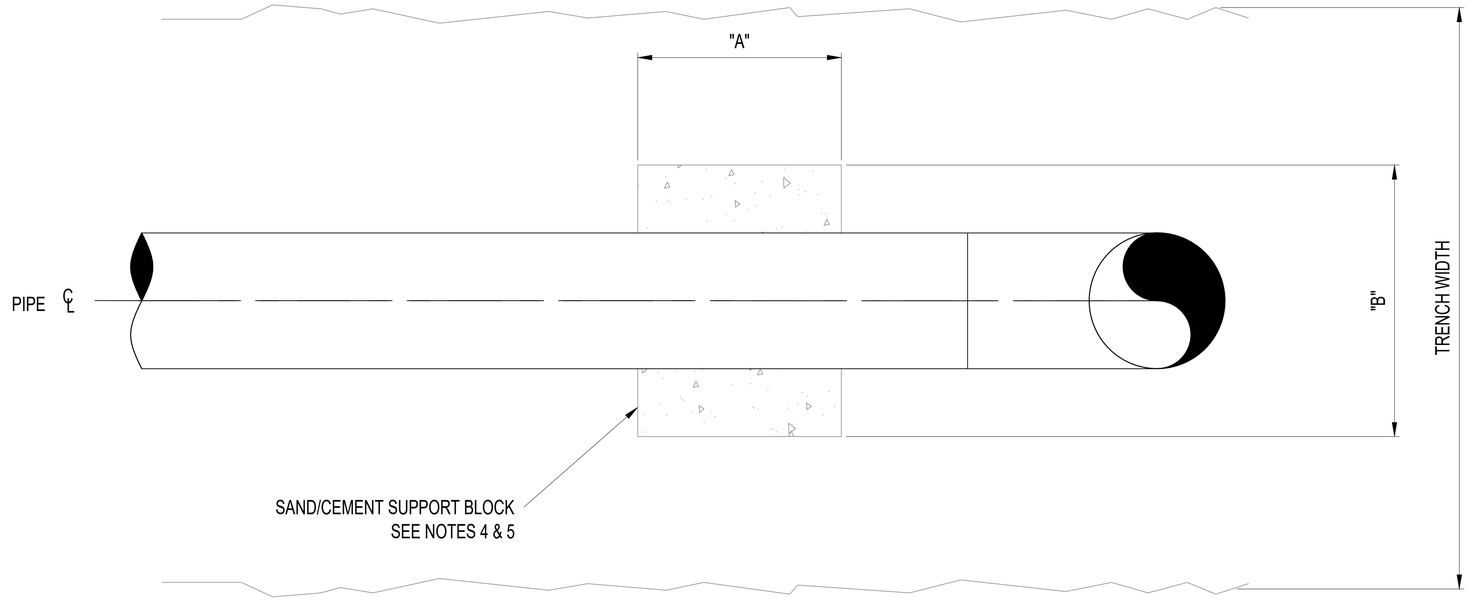
SIBLEY PROPANE PLANT
FOUNDATION PLAN

DRAWING *41027*

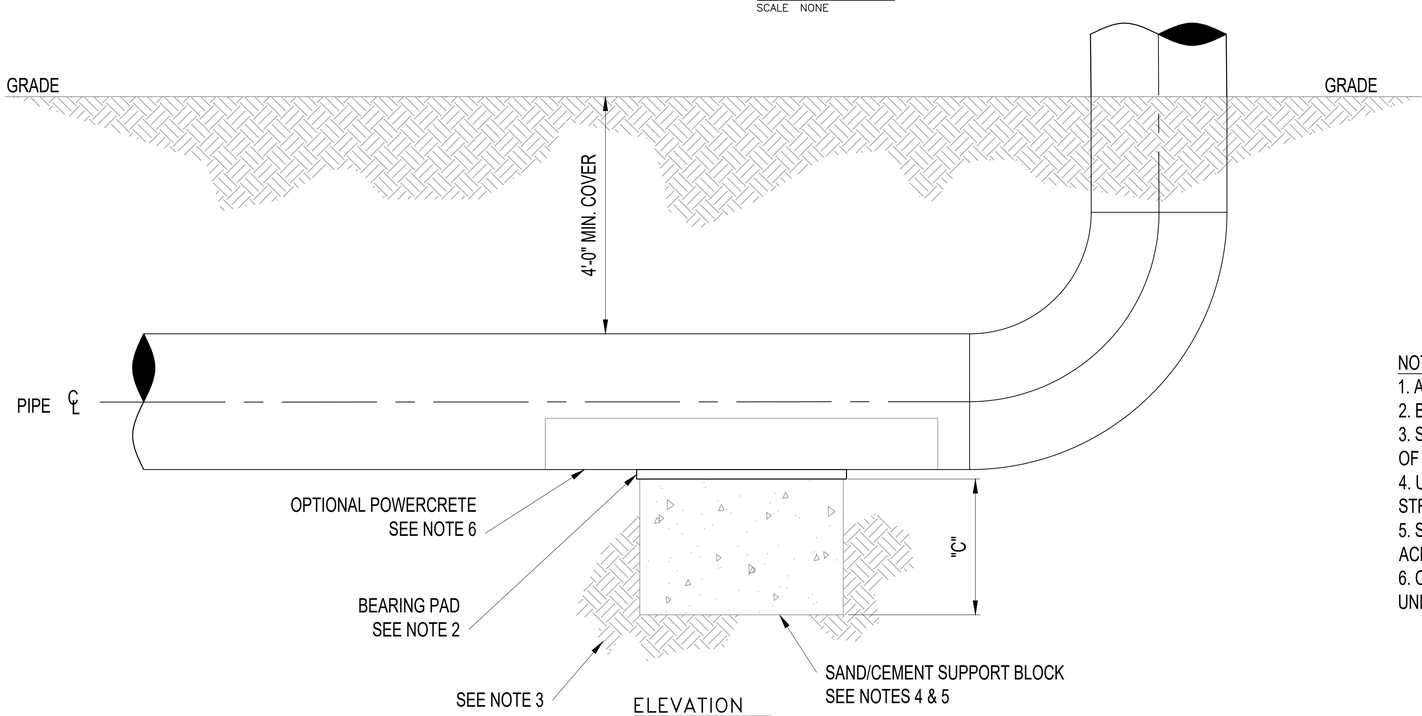
SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 10*

DIVISION: *NORTHERN* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

0



PLAN
SCALE NONE



ELEVATION
SCALE NONE

TYPE 1 BELOW GRADE				
LINE PIPE	SUPPORT DIMENSIONS			BEARING PAD
NPS (in)	A	B	C	
2	12	12	8	A x 3
4	16	16	12	A x 3
6	20	20	12	A x 4
8	20	20	12	A x 5
10	26	26	12	A x 6
12	26	26	12	A x 6
14	26	26	12	A x 7
16	32	32	14	A x 7
18	32	32	14	A x 8
20	32	32	18	A x 8
22	42	42	18	A x 9
24	42	42	18	A x 9
26	42	42	18	A x 10
30	42	42	18	A x 11
34	48	48	18	A x 12
36	48	48	18	A x 12
42	54	54	18	A x 14

TYPE 2 BELOW GRADE FOR USE ON MNLN BLOWDOWN				
LINE PIPE	SUPPORT DIMENSIONS			BEARING PAD
NPS (in)	A	B	C	
2	18	12	12	A x 3
4	31	16	12	A x 3
6	39	20	12	A x 4
8	49	20	18	A x 5
10	48	26	18	A x 6
12	55	26	18	A x 6
14	61	26	18	A x 7
16	67	32	18	A x 7
18	74	32	18	A x 8
20	80	32	24	A x 8
22	88	42	24	A x 9
24	93	42	24	A x 9
26	88	42	24	A x 10
30	99	42	24	A x 11
34	111	48	30	A x 12
36	117	48	30	A x 12
42	127	54	30	A x 14

NOTES:
1. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
2. BEARING PAD TO BE TEFLON (PTFE), FABREEKA OR "XCEL" APPROVED EQUAL. WITH THE PTFE TO FACE THE PIPE.
3. SUPPORT BLOCKS SHALL BEAR ON NATIVE, UNDISTURBED SOIL OR STRUCTURAL FILL COMPACTED TO A MINIMUM OF 95% OF THE RELATIVE DRY DENSITY PER ASTM D698 TO PROVIDE A MINIMUM ALLOWABLE SOIL BEARING VALUE OF 1500 PSF.
4. USE GROUT (SAND/CEMENT MIX) NO COARSE AGGREGATE. WITH A SLUMP OF 6" MAX. A MIN. 28 DAY COMPRESSIVE STRENGTH: OF 3000 PSI.
5. SUPPORTS MAY BE POURED "NEAT" AGAINST TRENCH BOTTOM AND SIDES PROVIDED AT LEAST SPECIFIED DIMENSIONS ARE ACHIEVED.
6. COAT ENTIRE PIPE WITH FBE AND OVER COAT WITH POWERCRETE-J OR AN APPROVED EQUAL (40 MILS MIN.) THE UNDERSIDE OF THE PIPE IN THE AREA OF THE SUPPORT.

CAD FILE NAME: *D1_44003_Sibley Mounding.dwg*

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FLOC: *GU-SPG*

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the Laws of the state of Minnesota.
Signature: Randy Paul
Typed or Printed Name: Randy S. Paul
Date: 05/28/2024 License Number: 56637

CAMPOS EPC

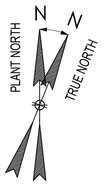
HISTORY	DATE
DRAWN BY: *JMC*	*04/04/24*
DESIGNED BY: *RSP*	*04/04/24*
CHECKED BY: *JG*	*05/24/24*
APPROVED BY: *RSP*	*05/31/24*
IN SERVICE DATE:	

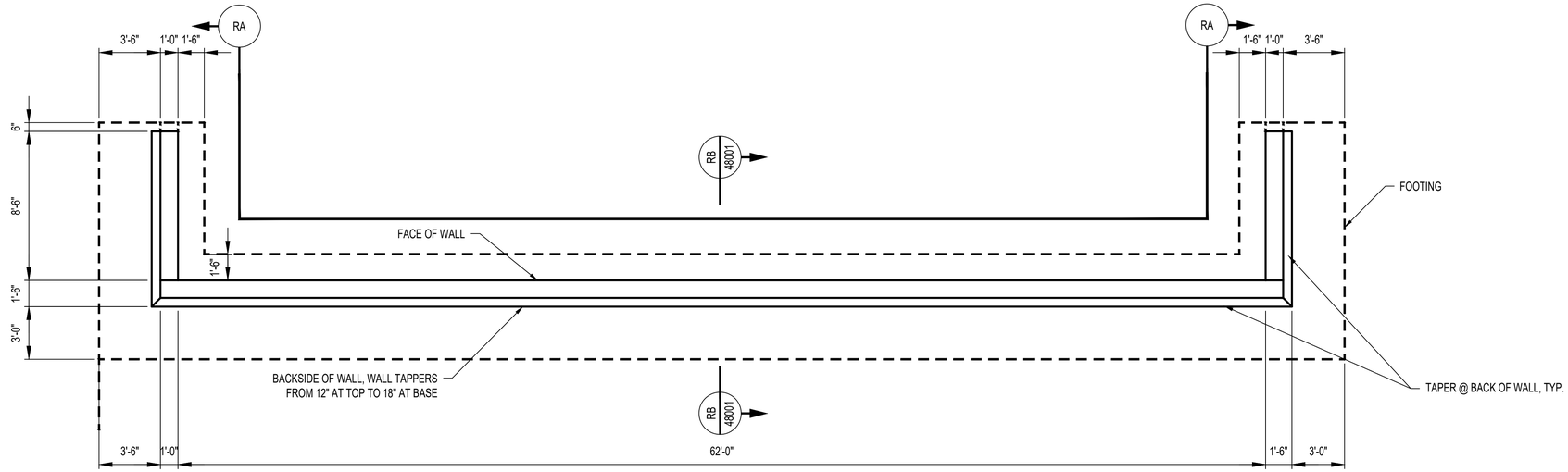
REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION - RET. WALL	JMC	05/31/24

SIBLEY PROPANE PLANT
TYPICAL THRUST BLOCK DETAIL

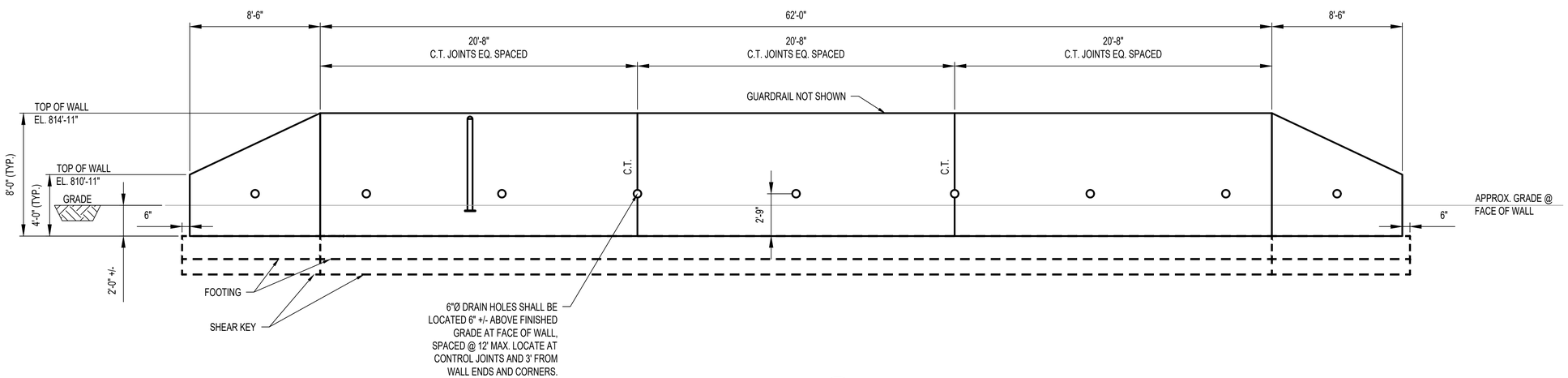
SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*
DIVISION: *NORTHERN* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

DRAWING
44003
0





DETAIL R1 RETAINING WALL
SCALE : 1/4"=1'-0" 4102



ELEVATION RA
SCALE : 1/4"=1'-0"

NOTES:

1. SEE 40010 & 40011 FOR GENERAL STRUCTURAL NOTES.
2. SEE 48001 FOR RETAINING WALL REINFORCEMENT.
3. SEE 48002 FOR RETAINING WALL DETAILS.

CAD FILE NAME: *D1_48000_Sibley Mounding.dwg*

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FLOC: *GU-SPG*

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the Laws of the state of Minnesota.
Signature: Randy Paul
Typed or Printed Name: Randy S. Paul
Date: 05/28/2024 License Number: 56637

CAMPOS EPC

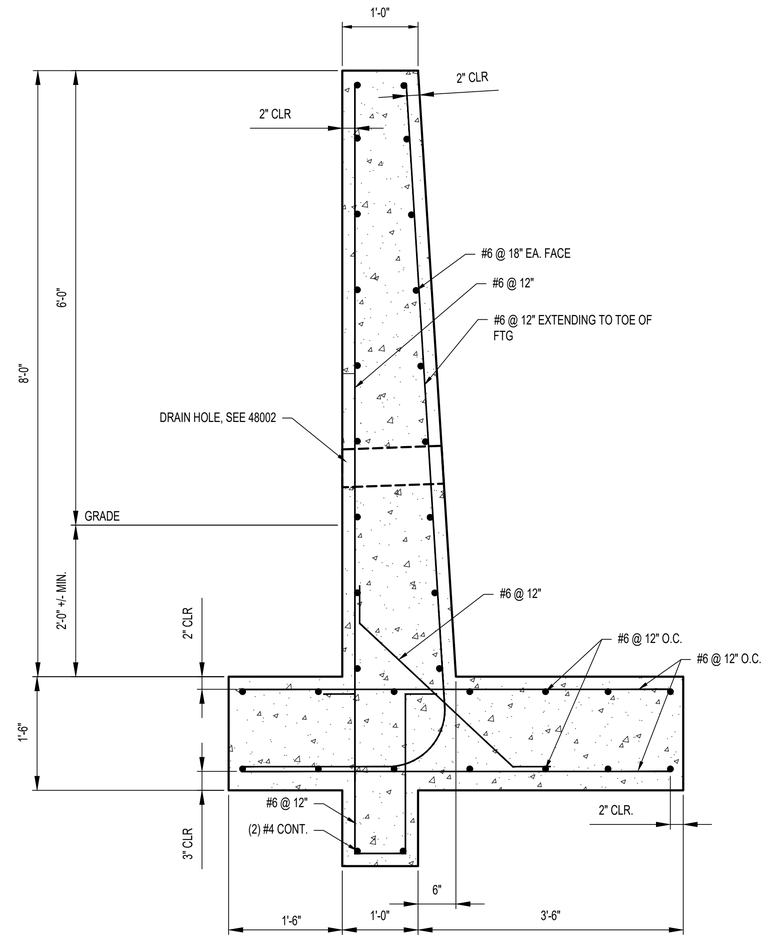
HISTORY	DATE
DRAWN BY: *JMC*	*03/01/24*
DESIGNED BY: *RSP*	*03/01/24*
CHECKED BY: *JG*	*05/24/24*
APPROVED BY: *RSP*	*05/31/24*
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION - RET. WALL*	*JMC*	*05/31/24*

SIBLEY PROPANE PLANT
RETAINING WALL PLANS & ELEVATIONS

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*
DIVISION: *NORTH* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

DRAWING
48000
0



SECTION
SCALE 1"=1'-0"
RB 48000

NOTES:

1. SEE 40010 & 40011 FOR GENERAL STRUCTURAL NOTES.
2. SEE 48000 FOR RETAINING WALL PLAN & ELEVATIONS.
3. SEE 48002 FOR RETAINING WALL DETAILS.

CAD FILE NAME: *D1_48001_Sibley Mounding.dwg*

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Signature: Randy Paul
Typed or Printed Name: Randy S. Paul
Date: 05/28/2024 License Number: 56637

CAMPOS EPC

HISTORY	DATE
DRAWN BY: *JMC*	*03/01/2024*
DESIGNED BY: *RSP*	*03/01/2024*
CHECKED BY: *JG*	*05/24/24*
APPROVED BY: *RSP*	*05/31/24*
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION - RET. WALL*	*JMC*	*05/31/24*

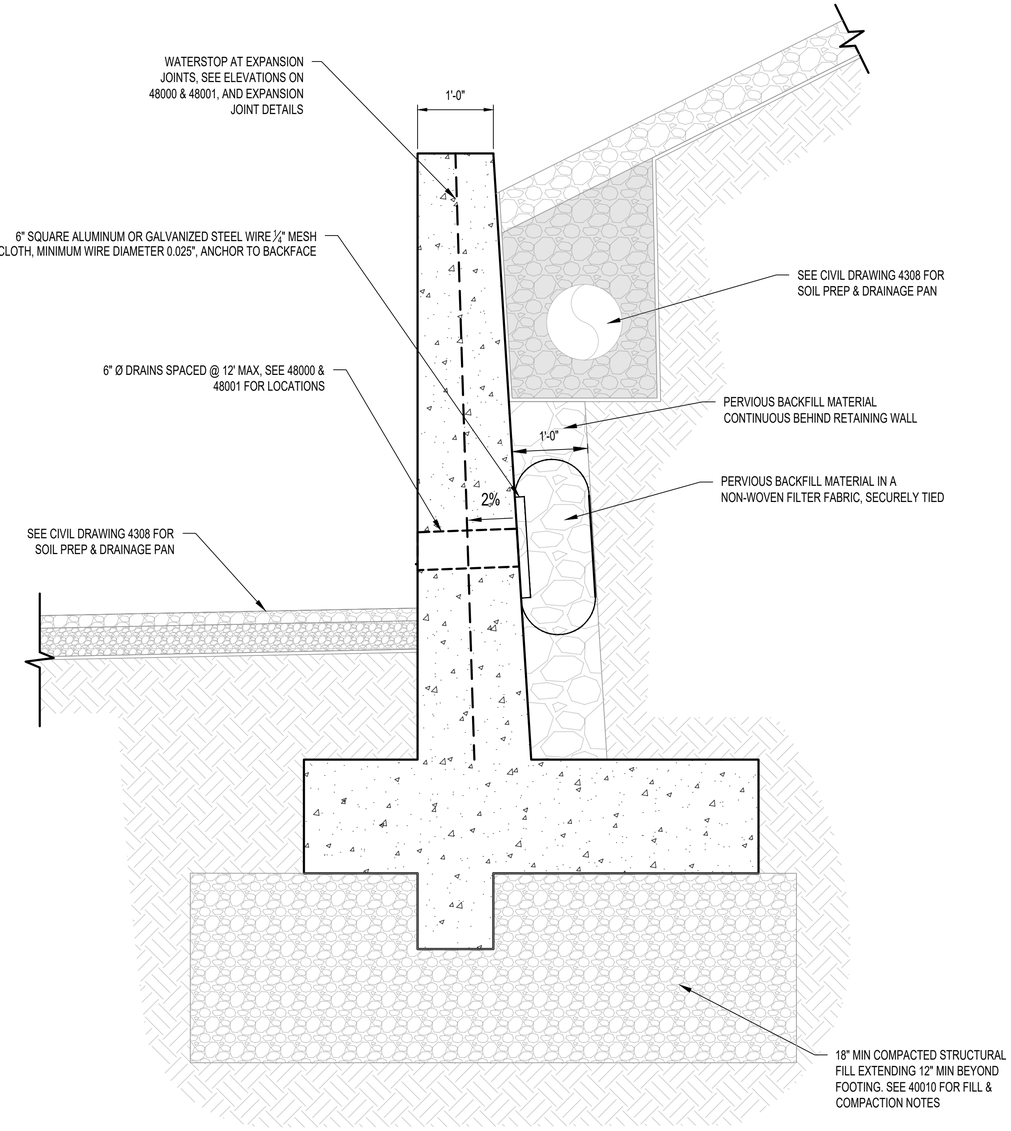
SIBLEY PROPANE PLANT
RETAINING WALL SECTION

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*

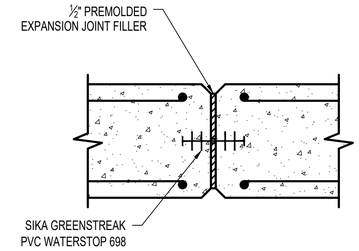
DIVISION: *NORTH* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

DRAWING
48001

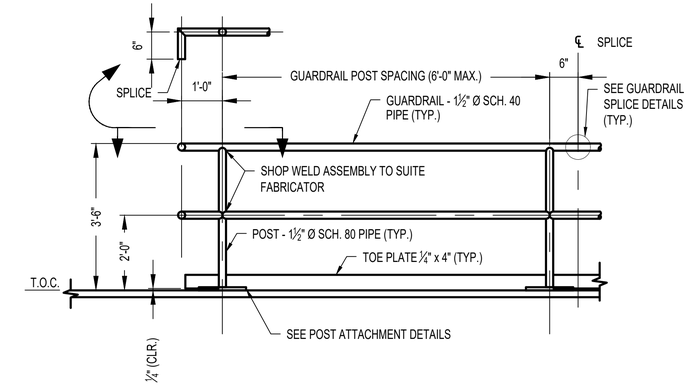
0



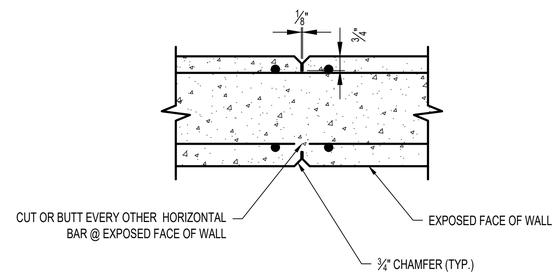
RETAINING WALL DRAINAGE DETAIL
SCALE 1" = 1'-0"



EXPANSION JOINT DETAIL
SCALE NOT TO SCALE



GUARDRAIL ELEVATION
SCALE NOT TO SCALE



CONTROL JOINT DETAIL
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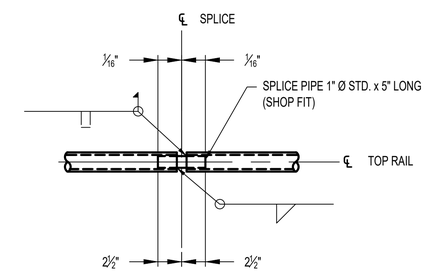
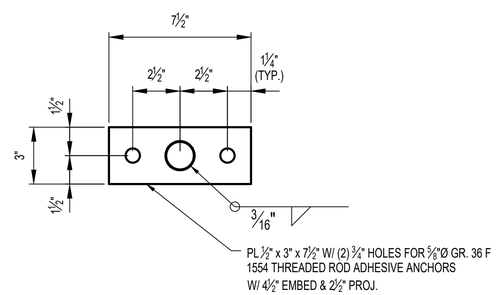


GUARDRAIL SPLICE
SCALE NOT TO SCALE



GUARDRAIL POST ATTATCHMENT DETAIL
SCALE : 3"=1'-0"

NOTES:

1. SEE 40010 & 40011 FOR GENERAL STRUCTURAL NOTES.
2. SEE 48000 FOR RETAINING WALL PLAN & ELEVATION.
3. SEE 48001 FOR RETAINING WALL DETAILS SECTIONS AND REINFORCEMENT.

CAD FILE NAME: *D1_48002_Sibley Mounding.dwg*

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PROFESSIONAL ENGINEER
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Signature: Randy Paul
Typed or Printed Name: Randy S. Paul
Date: 05/28/2024 License Number: 56637

CAMPOS EPC

HISTORY	DATE
DRAWN BY: *JMC*	*03/01/24*
DESIGNED BY: *RSP*	*03/01/24*
CHECKED BY: *JG*	*05/24/24*
APPROVED BY: *RSP*	*05/31/24*
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION - RET. WALL*	*JMC*	*05/31/24*

SIBLEY PROPANE PLANT
RETAINING WALL SECTIONS & DETAILS

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*
DIVISION: *NORTH* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

DRAWING
48002
0

CIVIL GRADING COVER SHEET

DRAWING NUMBER	REV	DRAWING TITLE
4000	2	CIVIL GRADING COVER SHEET
4003	0	GENERAL CIVIL NOTES
4300	2	GRADING & DRAINAGE SITE PLAN
4301	2	GRADING & DRAINAGE KEY PLAN
4302	2	GRADING & DRAINAGE PLAN - NORTHWEST
4303	2	GRADING & DRAINAGE PLAN - NORTHEAST
4304	2	GRADING & DRAINAGE PLAN - SOUTHWEST
4305	2	GRADING & DRAINAGE PLAN - SOUTHEAST
4306	0	GRADING PROFILES
4307	0	GRADING PROFILES
4308	0	GRADING AND DRAINAGE DETAILS
4309	0	GRADING AND DRAINAGE DETAILS
4310	0	GRADING AND DRAINAGE DETAILS
4311	0	GRADING AND DRAINAGE DETAILS
4312	0	GRADING AND DRAINAGE DETAILS
4313	0	GRADING AND DRAINAGE DETAILS
4400	0	POND OUTLET PLAN & PROFILE
4401	0	MANHOLE DETAILS
4600	0	FENCING DETAILS
4601	0	FENCING DETAILS

CAD FILE NAME: *D1_4000_Sibley Mounding.dwg*

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FLOC: *GU-SPG*

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the Laws of the state of Minnesota.

Signature:
Typed or Printed Name: Isaac Francis Cohrs
Date: 05/24/2024 License Number: 59106

CAMPOS EPC

HISTORY	DATE
DRAWN BY: *MR*	*05/24/2024*
DESIGNED BY: *IFC*	*05/24/2024*
CHECKED BY: *IFC*	*05/24/2024*
APPROVED BY:	
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION*	*IFC*	*06/30/2022*
1	*ISSUED FOR CONSTRUCTION*	*AJL*	*05/12/2023*
2	*ISSUED FOR CONSTRUCTION*	*MR*	*05/24/2024*

SIBLEY PROPANE PLANT
CIVIL GRADING COVER SHEET

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*

DIVISION: *NORTHERN* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

DRAWING
4000

2

CIVIL / GRADING NOTES

SUBSURFACE INVESTIGATION

1. CAMPOS EPC ISSUES THESE DRAWINGS FOR CONSTRUCTION UNDER THE ASSUMPTION THAT ALL REQUIRED FEDERAL, STATE, AND LOCAL PERMITS HAVE BEEN ACQUIRED BY THE OWNER/CONTRACTOR PRIOR ANY CONSTRUCTION ACTIVITIES UNLESS EXPLICITLY APPROVED OTHERWISE.
2. CONTRACTOR SHALL REFER TO THE SITE SPECIFIC GEOTECHNICAL REPORT GENERATED BY CAMPOS EPC - XCEL GAS PLANT SIBLEY FOUNDATION DESIGN TECHNICAL MEMORANDUM, DATED SEPTEMBER 9, 2021. IN THE EVENT THAT AN ADDITIONAL GEOTECHNICAL REPORT IS OBTAINED, THE OWNER WILL PROVIDE THE CONTRACTOR WITH A COPY OF THE GEOTECHNICAL ENGINEERING REPORT WHICH INCLUDES BORING AND SOILS DATA. THE OWNER DOES NOT REPRESENT THAT THE BORING LOGS AND OTHER TEST DATA INDICATE THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED THROUGHOUT THE SITES. THE BORING LOGS AND TEST DATA ONLY INDICATE THE CONDITIONS AT THE PARTICULAR LOCATIONS OF THE BORINGS OR TESTING LOCATIONS. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY INTERPRETATION AND CONCLUSIONS, WHICH MAY BE MADE AS TO THE NATURE OF THE MATERIALS TO BE ENCOUNTERED AND THE DIFFICULTY OF PERFORMING THE WORK.
3. FIELD VERIFY DIMENSIONS PRIOR TO STARTING CONSTRUCTION. BRING ANY DISCREPANCIES TO THE OWNER'S THIRD PARTY INSPECTOR'S ATTENTION AND RECONCILE WITH THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

WEATHER

4. UNLESS APPROVED COMPENSATORY MEASURES ARE IN PLACE, NO EXCAVATION, GRADING OR OTHER WORK SHALL BE PERFORMED IN INCLEMENT WEATHER CONDITIONS WHICH PREVENT ATTAINING SATISFACTORY CONSTRUCTION AS SPECIFIED HEREIN.

ENVIRONMENTAL PROTECTION:

5. EROSION AND SEDIMENT CONTROL DRAWINGS ARE TO BE DESIGNED, INSTALLED, AND MAINTAINED BY OTHERS UNTIL PROJECT ACCEPTANCE AND FINAL COMPLETION OCCURS.
6. THE CONTROL OF ENVIRONMENTAL POLLUTION WHICH COULD RESULT FROM CONSTRUCTION OPERATIONS UNDER THIS CONTRACT REQUIRES CONSIDERATION OF LAND, WATER AND AIR QUALITY AT THE SITE.
7. THE CONTRACTOR AND SUBCONTRACTORS SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS CONCERNING ENVIRONMENTAL POLLUTION CONTROL OR ABATEMENT. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND COMPLY WITH SUCH PERMITS CONCERNING ENVIRONMENTAL PROTECTION.
8. THE OWNER AND THE CONTRACTOR SHALL ESTABLISH THE CRITERIA FOR COMPLIANCE AND ADMINISTRATION OF THE ENVIRONMENTAL POLLUTION CONTROL PROGRAM PRIOR TO COMMENCEMENT OF WORK.
9. THE OWNER WILL NOTIFY THE CONTRACTOR IN WRITING OF ANY NONCOMPLIANCE WITH THIS SPECIFICATION AND THE ACTION TO BE TAKEN. THE CONTRACTOR SHALL IMMEDIATELY TAKE CORRECTIVE ACTION.

PROTECTION OF LAND RESOURCES

10. LAND RESOURCES ADJACENT TO THE PROJECT BOUNDARIES SHALL BE PRESERVED IN THEIR PRESENT CONDITION OR RESTORED TO A NATURAL APPEARANCE PRIOR TO FINAL ACCEPTANCE OF PROJECT.
11. THE CONTRACTOR SHALL NOT INJURE OR DESTROY TREES OR SHRUBS ADJACENT TO THE PROJECT SITE. CONSTRUCTION ACTIVITIES SHALL BE CONFINED TO THE AREA SHOWN ON THE PLANS.
12. TEMPORARY ROADS, EMBANKMENTS OR EXCAVATIONS SHALL BE RESTORED TO NATURAL GRADE AND SEEDED PRIOR TO COMPLETION OF CONSTRUCTION. VEGETATION MUST BE ESTABLISHED ON ALL EXPOSED SOILS PRIOR TO FINAL ACCEPTANCE OF PROJECT.

PROTECTION OF WATER RESOURCES

13. THE CONTRACTOR SHALL NOT ADVERSELY AFFECT THE EXISTING WATER QUALITY WITHIN OR ADJACENT TO THE PROJECT SITE. NO CONSTRUCTION WASTES OR OTHER HARMFUL MATERIALS WILL BE PERMITTED TO ENTER THESE WATER RESOURCES.
14. SURFACE DRAINAGE FROM CUTS AND FILLS SHALL BE PROTECTED BY AN EFFECTIVE EROSION AND SEDIMENT CONTROL PLAN OR SHALL BE GRADED TO CONTROL EROSION WITHIN ACCEPTABLE LIMITS. THESE MEASURES SHALL BE DESIGNED AND MAINTAINED BY OTHERS AND SHALL BE MAINTAINED UNTIL PERMANENT DRAINAGE AND EROSION CONTROL FACILITIES ARE COMPLETED.

CONTROL OF AIR POLLUTANTS

15. NO FIRES SHALL BE ALLOWED TO DISPOSE OF DEBRIS.
16. THE CONTRACTOR SHALL MAINTAIN THE PROJECT SITE AND ACCESS ROADS FREE FROM DUST WHICH WOULD CAUSE A HAZARD OR NUISANCE TO OTHERS. REFER TO JURISDICTIONAL REQUIREMENTS FOR DUST CONTROL MEASURES.
17. THE CONTRACTOR SHALL OBTAIN DUST PERMIT FROM AUTHORITY HAVING JURISDICTION AND PAY ALL ASSOCIATED FEES PRIOR TO STARTING WORK.

RESTORATION

18. ALL SURFACES NOT SCHEDULED FOR PERMANENT IMPROVEMENTS SUCH AS GRAVEL, PAVEMENT, RIPRAP LININGS, ETC. SHALL BE PERMANENTLY STABILIZED PER THE EROSION AND SEDIMENT CONTROL DRAWINGS BY OTHERS, PROJECT COMPLETION SHALL NOT BE ACHIEVED UNTIL ADEQUATE STABILIZATION HAS BEEN ESTABLISHED AND APPROVED BY THE ENGINEER OF RECORD AND EROSION AND SEDIMENT CONTROL ENGINEER.

PRODUCTS:

FILL

19. ALL PRODUCTS/MATERIALS USED DURING THE CONSTRUCTION OF THESE PLANS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO PURCHASING, DELIVERY, AND INSTALLATION.
20. ENGINEERED FILL FOR ALL LOCATIONS OUTSIDE OF THE MOUND IMPROVEMENTS SHALL CONFORM TO FILL REQUIREMENTS FOUND IN PROJECT GEOTECH REPORT OR GENERAL GUIDELINES SHOWN ON TABLE-1
21. ALL CRUSHED ROCK SPECIFIED (RIPRAP, SURFACING COURSE, ETC.) TO HAVE A MINIMUM SPECIFIC GRAVITY OF 2.6.
22. ENGINEERED FILL FOR ALL LOCATIONS WITHIN THE MOUND IMPROVEMENTS BENEATH THE SEPARATION GEOTEXTILE SHALL BE CLASSIFIED AS, OR A COMBINATION OF, SC, SM, SW, OR SP (AS DEFINED BY ASTM D2487) WITH A MAXIMUM PARTICLE SIZE OF ONE QUARTER INCH AND LESS THAN 10% PASSING A NO. 200 SIEVE.

TABLE-1

GRADATION OF FILL	
SIEVE	% PASSING
3 INCH	100
3/4 INCH	70-100
NO. 200	10
PLASTICITY	
LIQUID LIMIT (LL)	PLASTICITY INDEX (PI)
<35	<12
OTHER REQUIREMENTS	
ORGANIC CONTENT	NO ORGANICS
EXPANSIVE POTENTIAL (EI)	<20
SOLUBLE SULFATES	<2,000 PPM
SOLUBLE CHLORIDE	<300 PPM
RESISTIVITY	>2,000 *CM

GEOTEXTILE

23. STABILIZATION (SEPARATION/REINFORCEMENT) GEOSYNTHETIC SHALL BE TENCATE MIRAFI RS380i OR APPROVED EQUAL, UNLESS NOTED OTHERWISE. EQUIVALENT GEOSYNTHETICS SHALL MEET STRENGTH AND FILTRATION CHARACTERISTICS OF SPECIFIED PRODUCTS. PROVIDE GEOSYNTHETIC ROLLS WITH SUITABLE WRAPPING FOR PROTECTION AGAINST MOISTURE, AND EXTENDED ULTRAVIOLET EXPOSURE PRIOR TO PLACEMENT. EACH ROLL SHALL BE LABELED TO PROVIDE PRODUCT IDENTIFICATION SUFFICIENT FOR INVENTORY AND QUALITY CONTROL PURPOSES. STORE ROLLS IN A MANNER, WHICH PROTECTS THEM FROM THE ELEMENTS IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. ELEVATE GEOSYNTHETICS STORED OUTDOORS AND PROTECT WITH WATERPROOF COVER.
24. GEOSYNTHETICS SHALL BE INSTALLED AS INDICATED ON THE PLANS AND OUTLINED HEREIN. THE MATERIALS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS INCLUDING, BUT NOT LIMITED TO, SPLICE LENGTHS/LAP WIDTHS, TENSIONING, AND ORIENTATION. THE GEOSYNTHETICS SHALL BE INSTALLED TO MINIMIZE CUTTING AND WASTAGE. CARE SHALL BE TAKEN TO NOT RIP THE GEOSYNTHETIC MATERIALS. TEARS SHALL BE COVERED WITH PIECES OF GEOSYNTHETIC MATERIAL WITH AT LEAST 12 INCHES OF OVERLAP OR PER MANUFACTURER'S SPECIFIED INSTRUCTIONS. THE GEOSYNTHETIC MATERIALS SHALL NOT REMAIN EXPOSED LONGER THAN 24 HOURS, OR AS OTHERWISE SPECIFIED IN THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
25. NOTES PRESENTED ABOVE ARE NOT ALL INCLUSIVE AND DO NOT ABSOLVE THE CONTRACTOR FROM INSTALLING GEOTEXTILE FABRIC PER MANUFACTURERS GUIDELINES.

STORMWATER PIPING

26. MOUND UNDERDRAIN PIPING SHALL BE 6-INCH OR 12-INCH DIA. AS INDICATED ON PLANS AND SHALL CONSIST OF PERFORATED SMOOTH WALL SCH. 40 PVC PIPE INSTALLED AT A MINIMUM LATERAL SLOPE OF 1.0% TO DAYLIGHT LOCATIONS AS SHOWN ON PLANS. PERFORATIONS 3/8"-DIA. SHALL BE IN THE BOTTOM HALF OF THE PIPE ORIENTED AT 4- AND 8-O'CLOCK.
27. UNDERDRAINS SHALL HAVE CLEANOUTS TO GRADE INSTALLED AT ALL UPSLOPE ENDS OF UNDERDRAIN RUNS AND WHERE BENDS OCCUR.CLEANOUTS SHALL NOT BE LOCATED WITHIN DRIVEPATHS, WALKWAYS, AREAS OF HEAVY FOOT-TRAFFIC, OR AREAS WHERE THEY MAY POSE AS A TRIP-HAZARD. ALL CLEANOUTS SHALL BE FURNISHED WITH REMOVABLE CAPS OR SIMILAR MATERIAL.
28. CULVERTS SHALL BE DUAL-WALLED HDPE WITH SMOOTH INTERIOR. CULVERTS LESS THAN 10-INCHES IN DIAMETER SHALL COMPLY WITH AASHTO M252, TYPE S OR SP. CULVERTS GREATER THAN 10-INCHES IN DIAMETER SHALL COMPLY WITH AASHTO M294, TYPE S OR SP. CULVERT END SECTIONS, IF SPECIFIED, SHALL BE FLARED AND MATCH THE PIPE MATERIAL AND STRENGTH.

PROOF-ROLLING

29. PROOF-ROLLING SHALL BE PERFORMED AT AREAS OF PROPOSED FILL PLACEMENT, PROPOSED CUT, PROPOSED STRUCTURE FOOTPRINTS, PROPOSED ACCESS OR SERVICE ROADS SUBJECT TO VEHICLE LOADING, AND SLAB SUBGRADES FOR THE PROJECT. PROOF-ROLLING SHALL NOT BE PERFORMED WHERE NOT PRACTICAL OR PERMITTED (I.E. AREAS ABOVE OR WITHIN 10' OF EXISTING TANKS).
30. PRIOR TO PLACEMENT OF FILL, SUBGRADE SURFACES SHALL BE CLEANED OF DEBRIS, ORGANIC MATTER, MUD, LOOSE SOIL AND OTHER UNSUITABLE MATERIAL. AFTER THE AREAS OF THE SITE HAVE BEEN STRIPPED AND UNSUITABLE MATERIALS HAVE BEEN REMOVED, AT-GRADE AREAS, AND AREAS THAT ARE TO RECEIVE FILL SHALL BE PROOF-ROLLED WITH A LOADED TRI-AXLE DUMP TRUCK, LOADED WATER TRUCK, OR WITH A 10-TON VIBRATORY ROLLER. PROOF-ROLLING CONSISTS OF APPLYING REPEATED PASSES TO THE SUBGRADE WITH THIS EQUIPMENT. SUBGRADES IN AREAS OF CUT SHOULD BE SIMILARLY PROOF-ROLLED SUBSEQUENT TO EXCAVATION. THE PROOF-ROLLING OPERATION SHALL BE PERFORMED UNDER THE OBSERVATION OF THE OWNER'S DESIGNATED REPRESENTATIVE. ANY AREAS WHICH DEFLECT, RUT, OR PUMP UNDER THE PROOF-ROLLING, AND FAIL TO BE REMEDIED WITH SUCCESSIVE PASSES AS DETERMINED BY THE OWNER, SHALL BE STABILIZED OR UNDERCUT TO MORE STABLE SOILS DEPENDING ON THE SITE CONDITIONS AT THE TIME OF CONSTRUCTION. ALL MATERIAL UNDERCUT SHALL BE REPLACED AND COMPACTED WITH AN APPROVED FILL.

SUBGRADE STABILIZATION

31. WET AND UNSTABLE EXPOSED SUBGRADE SOILS, IF ENCOUNTERED, SHALL BE STABILIZED IN LIEU OF UNDERCUTTING AND SOIL REPLACEMENT WHEN DIRECTED BY THE ENGINEER OF RECORD. STABILIZE THE WET AND UNSTABLE SUBGRADE WITH A STONE STABILIZATION BLANKET CONSISTING OF STRUCTURAL FILL AS SPECIFIED BY THE GEOTECHNICAL REPORT PLACED OVER A STABILIZATION GEOSYNTHETIC AS SPECIFIED. THE NECESSARY THICKNESS OF THE STONE STABILIZATION BLANKET MUST BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE ENGINEER OF RECORD, BUT TYPICAL THICKNESSES RANGE FROM 12 TO 24 INCHES. THE STONE SHALL BE DUMPED IN A STABLE AREA AND THEN PUSHED OUT OVER THE GEOGRID WITH A LIGHT BULLDOZER. ALTERNATIVELY, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD FOR LIME OR CEMENT TREATMENT REQUIREMENTS OF SUBGRADES FOR STABILIZATION.

PREPARATION

32. AFTER PROOF-ROLLING AND BEFORE PLACING FILL MATERIAL, THE SUBGRADE SOIL SURFACE SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 8 INCHES, WETTED OR DRIED TO PRODUCE 1-3% HIGHER MOISTURE CONTENT THAN OPTIMUM MOISTURE CONTENT, AND RECOMPACTED TO AT LEAST 95% OF M.D.D. PER ASTM D-1557 FOR GRANULAR SOILS OR PER ASTM D-698 FOR COHESIVE, FINE-GRAINED SOILS.

CRACK CONTROL JOINTS

33. SAW CUT CONTROL JOINTS 1/8" TO 1/4" WIDE AS SOON AS PRACTICAL TO AVOID RAVELING EDGE.
34. CONTROL JOINTS TO BE CUT TO A QUARTER OF THE PLACED CONCRETE THICKNESS IN DEPTH.
35. SPACING OF JOINTS SHALL BE BETWEEN 24 TO 30 TIMES THE PLACED CONCRETE THICKNESS. THE ASPECT RATIO FOR UNREINFORCED PANELS OR UNLESS NOTED OTHERWISE SHALL BE A MAXIMUM OF 1.5 TO 1. IRREGULAR SHAPES SUCH AS "L'S" OR "T'S" SHALL BE AVOIDED.

SLOPED SURFACES

36. PLACEMENT OF FILL AGAINST SLOPED SURFACES STEEPER THAN 3 HORIZONTAL-TO-1 VERTICAL SHALL BE STEPPED OR BENCHED, INTO COMPETENT SUBGRADE MATERIAL AS DETERMINED BY THE ONSITE GEOTECHNICAL ENGINEER SCARIFIED AND COMPACTED AS DESCRIBED ON THIS SHEET.
37. REFER TO PLAN FOR INSTALLATION OF RIPRAP RUNDOWNS ON SLOPES.

PLACEMENT

38. FILL SHALL NOT BE PLACED UNTIL THE EXCAVATION AND SUBGRADE PREPARATION (OR PORTIONS THEREOF) HAVE BEEN COMPLETED, INSPECTED, AND APPROVED BY THE ENGINEER. FILL SHALL BE PLACED ON A SCARIFIED AND RECOMPACTED SURFACE IN HORIZONTAL LIFTS NOT EXCEEDING THE LIFT THICKNESS AS INDICATED IN THE TABLE BELOW AND THEN COMPACTED TO RELATIVE COMPACTION AS NOTED IN THE TABLE TO BRING THE AREA UP TO GRADE ELEVATION. MATERIALS PLACED BY DUMPING IN PILES OR WINDROWS SHALL BE SPREAD UNIFORMLY BEFORE BEING COMPACTED. NO MATERIAL SHALL BE PLACED ON SURFACES THAT ARE MUDDY, FROZEN OR CONTAIN FROST.
39. MAINTAIN POSITIVE DRAINAGE ACROSS THE SITE THROUGHOUT THE PROJECT.

COMPACTION

40. COMPACTION OUTSIDE OF MOUNDING LIMITS, DEFINED AS 10' MINIMUM AWAY FROM EXISTING TANKS SHALL BE PERFORMED BY ROLLING WITH APPROVED TAMPING ROLLERS, PNEUMATIC-TIRED ROLLERS, THREE-WHEEL POWER ROLLERS OR OTHER APPROVED EQUIPMENT SUITABLE FOR THE SOIL AND COMPACTION SPECIFIED. MATERIAL SHALL BE MOISTENED OR AERATED AS NECESSARY TO PROVIDE THE MOISTURE CONTENT THAT WILL READILY FACILITATE OBTAINING THE SPECIFIED COMPACTION WITH THE EQUIPMENT USED. EACH LAYER SHALL BE COMPACTED TO NOT LESS THAN THE PERCENTAGE OF MAXIMUM DENSITY AND SHOULD BE MOISTURE CONDITIONED AS NOTED BELOW.

COMPACTION CRITERIA TABLE	
MAXIMUM LIFT THICKNESS	8 INCHES
COMPACTION	95% OF M.D.D. PER ASTM D1557 (GRANULAR) 95% OF M.D.D. PER ASTM D698 (COHESIVE)*
MOISTURE CONTENT	±3% FROM OPTIMUM MOISTURE CONTENT

*INCREASE RELATIVE COMPACTION TO 98%(COHESIVE) RESPECTIVELY IN AREAS SCHEDULED FOR REPETITIVE WHEEL LOADING OR FOUNDATIONS.

41. LARGE EQUIPMENT IS PROHIBITED WITHIN 10' OF THE EXISTING TANKS AND COMPACTION ON THE MOUND SURFACE OR ANY LOCATION WITHIN 10' OF THE EXISTING TANKS THAT IS ALSO AT OR ABOVE THE INVERT OF THE TANKS SHALL BE PERFORMED WITH OWNER- AND ENGINEER-EXPLICITLY APPROVED SMALL EQUIPMENT OR BY HAND. CONTRACTOR SHALL SUBMIT WORK PLAN TO THE OWNER AND ENGINEER FOR EXPLICIT APPROVAL PRIOR TO COMMENCING BACKFILLING AND COMPACTION ACTIVITIES.
42. ALL ANGULAR ROCK SPECIFIED ON PLANS (RIPRAP, CRUSHED SURFACING ROCK) SHALL BE PLACED AND COMPACTED IN A MANNER TO PROMOTE INTERLOCKING AND STABILITY OF MATERIAL THROUGH VIBRATORY COMPACTION, HAND PLACEMENT, OR A COMBINATION OF THE TWO. ANY OTHER METHOD SHALL BE SUBMITTED WITHIN THE WORK PLAN FOR OWNER- AND ENGINEER-APPROVAL.
43. ELEVATIONS AND CONTOUR LINES SHOWN ON THE GRADING PLANS ARE THE FINAL GRADE ELEVATIONS INCLUDING GRAVEL SURFACING, WHERE APPLICABLE.
44. THE CONTRACTOR SHALL NOT CHANGE OR DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE OWNER AND ENGINEER OF RECORD.
45. THE CONTRACTOR SHALL BE RESPONSIBLE FOR JOB SITE SAFETY OF HIS OWN PERSONNEL, ALL VISITORS TO THE SITE AND THE GENERAL PUBLIC.
46. THE CONTRACTOR SHALL REPAIR ALL EXISTING DISTURBED AREAS, FENCES, WALLS, SHEDS OR OTHER STRUCTURES DAMAGED DURING CONSTRUCTION ACTIVITIES TO EQUAL OR BETTER CONDITIONS.
47. CONTRACTOR SHALL MAINTAIN A SET OF AS-BUILT DRAWINGS WITH ALL CHANGES IDENTIFIED.
48. EROSION CONTROL PLANS ARE BY OTHERS. ALL PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY OTHER EARTH DISTURBING ACTIVITY. ALL OTHER STRUCTURAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AS SOON AS THE CONSTRUCTION ACTIVITIES, AROUND WHICH THEY ARE BASED, COMMENCE.
49. THERE SHALL BE NO EARTH DISTURBING ACTIVITY OUTSIDE THE LIMITS DESIGNATED ON THESE PLANS.
50. CONTRACTOR MUST CONTACT THE APPLICABLE BELOW-GROUND UTILITY LOCATOR AT LEAST 3 BUSINESS DAYS PRIOR TO EXCAVATION AS REQUIRED BY LAW.
51. ALL AREAS REQUIRING NEW CUT AND FILL OPERATIONS SHALL BE GRUBBED TO REMOVE ANY GRASS, ROOTS, ORGANIC MATERIAL, EXISTING FILL, OR OTHER DEBRIS. STRIPPED MATERIAL SHALL BE DISPOSED OF OUTSIDE THE SITE AT AN APPROPRIATE DISPOSAL FACILITY.
52. THE FINISHED GRADE SURFACE AND DRAINAGE PATTERN SHALL ROUGHLY MAINTAIN THE EXISTING NATURAL GRADE EXCEPT WHERE INDICATED ON THE GRADING PLAN.
53. CONTRACTOR SHALL REPORT ANY TANK COATING DAMAGE TO OWNER AND ENGINEER WITHIN 30 MINUTES OF THE INCIDENT.

COMPACTION TESTING REQUIREMENTS:

54. THE ON-SITE FIELD GEOTECHNICAL ENGINEER SHALL HAVE AUTHORITY TO MODIFY THE TESTING FREQUENCIES BELOW AS FIELD CONDITIONS WARRANT. VALUES LISTED BELOW ARE MINIMUM CRITERIA RECOMMENDED BY CAMPOS EPC.
55. COMPACTION TESTING FREQUENCIES FOR ALL ROADS TO BE ONE (1) TEST PER 12 FT OF WIDTH PER 500 FT OF LENGTH, OR FRACTION THEREOF PER 8" LIFT.
56. COMPACTION TESTING FREQUENCIES FOR ALL AREAS SCHEDULED FOR FOUNDATIONS OR ANY OTHER ITEM SENSITIVE TO LOCALIZED SETTLEMENT TO BE ONE (1) TEST PER 500 SF OR FRACTION THEREOF PER 8" LIFT.
57. COMPACTION TESTING FREQUENCIES FOR ALL FILL EMBANKMENTS TO BE ONE (1) TEST PER 1,000 SF OR FRACTION THEREOF PER 8" LIFT.
58. COMPACTION TESTING FREQUENCIES FOR ALL REMAINING AREAS (NOT INCLUDING ITEMS 38 THRU 40) TO BE ONE (1) TEST PER 2,000 SF, OR FRACTION THEREOF PER 8" LIFT.

INSPECTION

59. ALL REQUIRED INSPECTIONS SHALL BE PERFORMED, RECORDED, AND APPROVED PRIOR TO PROCEEDING TO SUBSEQUENT TASK. INSPECTIONS SHALL BE PERFORMED AT A MINIMUM FOR SUBGRADE PREPARATION, COMPACTION, BACKFILL, FINISHED GRADES OF ALL FEATURES AND TEMPORARY AND PERMANENT DRAINAGE BMP'S. INSPECTIONS ARE PERMITTED TO BE PERFORMED BY A THIRD PARTY PROVIDED INSPECTION REPORTS ARE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO ACCEPTANCE.

CAD FILE NAME: *D1_4003_Sibley Mounding.dwg*

Xcel Energy®

FLOC: *GU-MPG*

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the Laws of the state of Minnesota.
Signature:
Typed or Printed Name: Isaac Francis Cohrs
Date: 05/24/2024 License Number: 59106

CAMPOS EPC

HISTORY	DATE
DRAWN BY: *MR*	*05/24/2024*
DESIGNED BY: *IFC*	*05/24/2024*
CHECKED BY: *IFC*	*05/24/2024*
APPROVED BY:	
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION*	*MR*	*05/24/2024*

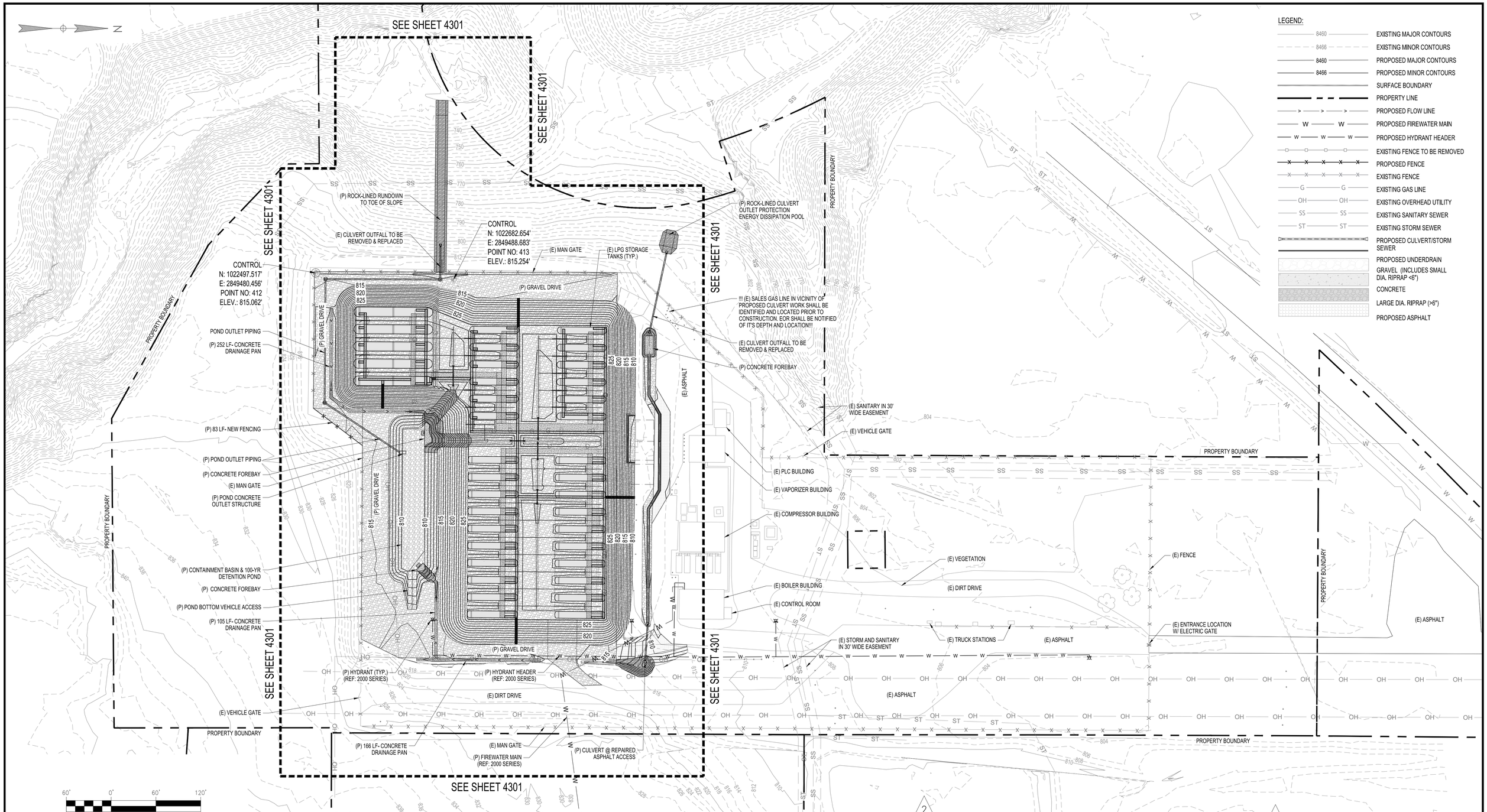
SIBLEY PROPANE PLANT
GENERAL CIVIL NOTES

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*

DIVISION: *NORTHERN* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

DRAWING *4003*

0



GRADING & DRAINAGE SITE PLAN 2
SCALE 1" = 60'-0"

NOTE:
1. DRAWING REVISED TO REFLECT TANK MOUNDING SCOPE.

CAD FILE NAME: *D1_4300_Sibley Mounding.dwg*

Xcel Energy®

FLOC: *GU-SPG*

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the Laws of the state of Minnesota.
Signature:
Typed or Printed Name: Isaac Francis Colvis
Date: 05/24/2024 License Number: 59106

CAMPOS EPC

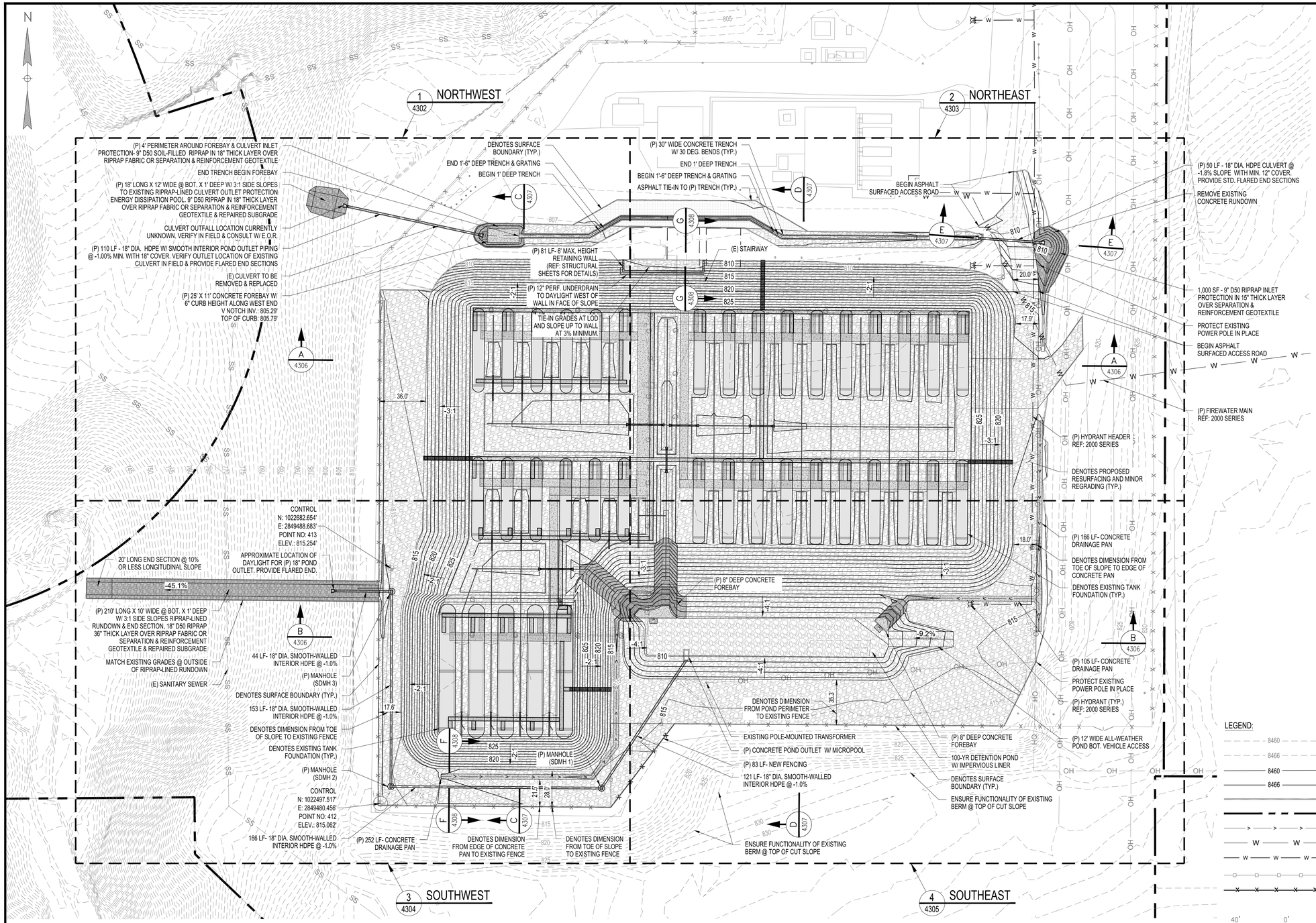
HISTORY	DATE
DRAWN BY: *MR*	*05/24/2024*
DESIGNED BY: *IFC*	*05/24/2024*
CHECKED BY: *IFC*	*05/24/2024*
APPROVED BY:	
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION*	*IFC*	*06/30/2022*
1	*ISSUED FOR CONSTRUCTION*	*AJL*	*05/12/2023*
2	*ISSUED FOR CONSTRUCTION*	*MR*	*05/24/2024*

SIBLEY PROPANE PLANT
GRADING & DRAINAGE SITE PLAN 2

SERVICE CENTER: *NORTHERN STATES POWER COMPANY*
LOCATION: *UNIT 00*
DIVISION: *NORTHERN*
CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA*
TYPE: *FACILITY*

DRAWING
4300
2



GRADING AND DRAINAGE KEY PLAN
SCALE 1" = 40'-0"

NOTES:

1. ALL COORDINATES BASED ON NAD83 MINNESOTA STATE PLANES, SOUTH ZONE.
2. TOPOGRAPHY SHOWN INSIDE FENCE IS FROM LIDAR SURVEY PERFORMED BY CEPC IN 2021. TOPOGRAPHY OUTSIDE FENCE LIMITS IS FROM MN GIS ELEVATION DATA.
3. AREAS OF DISTURBANCE: TOTAL AREA OF DISTURBANCE IS 4.97 ACRES
4. ALL PROPOSED SURFACING DEPICTED AS GRAVEL OUTSIDE OF PROPOSED POND LIMITS AND MOUND SURFACE OR SLOPES TO HAVE A 2" LAYER OF VIBRATORY COMPACTED CLEAN 3/4" CRUSHED STONE/GRAVEL OVER A 4" MIN. LAYER OF AGGREGATE BASE COURSE MECHANICALLY COMPACTED TO 95% OF M.D.D. PER ASTM D698 OVER TENCATE MIRAFI RS380i OR E.O.R. APPROVED EQUAL.
5. ALL PROPOSED SURFACING DEPICTED AS GRAVEL ON THE MOUND SURFACE, SLOPES, OR POND (SEE NOTE 6) SHALL BE 3" D50 RIPRAP IN 6" THICK LAYER OVER TENCATE MIRAFI RS380I OR E.O.R. APPROVED EQUAL.
6. PROVIDE IMPERVIOUS LINING BENEATH 3" D50 RIPRAP & SEPARATION/REINFORCEMENT GEOTEXTILE WITHIN POND LIMITS. LINING TO BE HDPE (60 MIL MIN. THICKNESS, SMOOTH, BLACK, 108 LB MIN. PUNCTURE RESISTANCE PER ASTM D4833). INSTALL PER USDA CONSTRUCTION SPECIFICATION 202.
7. FOLLOWING ROUGH GRADING OPERATIONS AND PRIOR TO GEOTEXTILE INSTALLATION, CUT PERFORATED UNDERDRAIN SYSTEM TRENCHES, 18" WIDE INTO MOUND SURFACE AND ALONG WESTERN FENCE IN LOCATIONS DEPICTED. INSTALL GEOTEXTILE SEPARATION LINER ON MOUND SURFACE AND WITHIN TRENCHES IN CONTINUOUS LAYER. INSTALL CRUSHED ROCK TRENCH BACKFILL TO MATCH SURFACING ROCK WITH 6" MIN. COVER AT HIGHEST LOCATIONS. PROVIDE -1% MIN. SLOPE TO DAYLIGHT.
8. ALL CONCRETE ON-SITE TO BE 4,500 PSI MIN. UNLESS NOTED OTHERWISE.
9. TOP OF MOUND ELEVATIONS DEPICTED ARE BASED ON 12 INCH MINIMUM SOIL COVER OVER EXISTING TANKS. VERIFY IN FIELD, NOTIFY ENGINEER OF RECORD OF DISCREPANCIES.
10. EARTHWORK CALCULATIONS:

a. ASSUMPTIONS:
- EXISTING SURFACING ONSITE IS ASSUMED TO BE WEATHERED, MIXED WITH NATIVE FINES, AND IS NOT APPROVED FOR RE-USE AS SURFACING MATERIAL. BUT MAY BE RE-USED AS ENGINEERED FILL AS APPROVED BY THE ONSITE GEOTECHNICAL ENGINEER.
- VOLUMES NOT MODIFIED FOR SHRINKAGE, SWELLING, NOR COMPACTION OF SOIL.

b. SOIL QUANTITIES:
- AGGREGATE BASE COURSE ..... 500 C.Y.
- 3/4" CRUSHED STONE ..... 400 C.Y.
- 3" D50 RIPRAP ..... 2,900 C.Y.
- 9" D50 RIPRAP ..... 365 C.Y.
- 18" D50 RIPRAP ..... 400 C.Y.
- ENGINEERED FILL ..... 37,560 C.Y.

c. OTHER MATERIAL QUANTITIES:
- CONCRETE (FOREBAYS / OUTLET STRUCTURE / DRAINAGE PAN) ..... AS REQ'D
- 3/8" STEEL ORIFICE PLATE ..... 1 EA.
- NEOPRENE GASKET ..... AS REQ'D
- STAINLESS STEEL WATER QUALITY SCREEN ..... 1 EA.
- CULVERT STANDARD FLARED END SECTIONS ..... 15 EA.
- SEPARATION & REINFORCEMENT GEOTEXTILE ..... 16,500 S.Y.
- IMPERVIOUS POND LINING ..... 1,760 S.Y.
- STATION FENCING ..... 83 L.F.
- 6" DIA. SCH. 40 SMOOTH WALL PVC PIPING WITH 3/8" PERFORATIONS ..... 2,895 L.F.
- 6" DIA. PVC CLEANOUTS ..... AS REQ'D
- 12" DIA. SCH. 40 SMOOTH WALL PVC PIPING WITH 3/8" PERFORATIONS ..... 1,178 L.F.
- 12" DIA. PVC CLEANOUTS ..... AS REQ'D
- 8" DIA. HDPE W/ SMOOTH INTERIOR PIPING ..... 242 L.F.
- 12" DIA. HDPE W/ SMOOTH INTERIOR PIPING ..... 91 L.F.
- 18" DIA. HDPE W/ SMOOTH INTERIOR PIPING ..... 644 L.F.
- NYLOPLAST 36" DIAMETER MANHOLE W/ SOLID COVER ..... 3 EA.

d. MODEL VOLUMES
- MODEL CUT VOLUME ..... 2,700 C.Y.
- MODEL FILL VOLUME ..... 44,825 C.Y.
- MODEL NET (FILL) ..... 42,125 C.Y.

e. SUMMARY
- TOTAL EXPORT ..... 0 C.Y.
- TOTAL IMPORT ..... 42,125 C.Y.
  - AGGREGATE BASE COURSE ..... 500 C.Y.
  - 3/4" CRUSHED STONE ..... 400 C.Y.
  - 3" D50 RIPRAP ..... 2,900 C.Y.
  - 9" D50 RIPRAP ..... 365 C.Y.
  - 18" D50 RIPRAP ..... 400 C.Y.
  - ENGINEERED FILL ..... 37,560 C.Y.

EXAMPLE: MODEL CUT - MODEL FILL + TOTAL IMPORT = ADDITIONAL IMPORT (NEG) OR LEFTOVER USABLE CUT (POS)

11. DRAWING REVISED TO REFLECT TANK MOUNDING SCOPE.

LEGEND:

8460	EXISTING MAJOR CONTOURS	X X X X X	EXISTING FENCE
8466	EXISTING MINOR CONTOURS	G G	EXISTING GAS LINE
8460	PROPOSED MAJOR CONTOURS	OH OH	EXISTING OVERHEAD UTILITY
8466	PROPOSED MINOR CONTOURS	SS SS	EXISTING SANITARY SEWER
	SURFACE BOUNDARY	ST ST	EXISTING STORM SEWER
	PROPERTY LINE		PROPOSED CULVERT/STORM SEWER
> > >	PROPOSED FLOW LINE		PROPOSED UNDERDRAIN
W W	PROPOSED FIREWATER MAIN		GRAVEL (INCLUDES SMALL DIA. RIPRAP <6")
w w w	PROPOSED HYDRANT HEADER		CONCRETE
	EXISTING FENCE TO BE REMOVED		LARGE DIA. RIPRAP (>6")
X X X X X	PROPOSED FENCE		PROPOSED ASPHALT

40' 0' 40' 80'
1"=40'

CAD FILE NAME: *D1_4301_Sibley Mounding.dwg*

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PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the Laws of the state of Minnesota.
Signature:
Typed or Printed Name: Isaac Francis Cohrs
Date: 05/24/2024 License Number: 59106

CAMPOS EPC

HISTORY	DATE
DRAWN BY: *MR*	*05/24/2024*
DESIGNED BY: *IFC*	*05/24/2024*
CHECKED BY: *IFC*	*05/24/2024*
APPROVED BY:	
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION*	*IFC*	*06/30/2022*
1	*ISSUED FOR CONSTRUCTION*	*AJL*	*05/12/2023*
2	*ISSUED FOR CONSTRUCTION- NOTE11*	*MR*	*05/24/2024*

SIBLEY PROPANE PLANT
GRADING & DRAINAGE KEY PLAN
2

SERVICE CENTER: *NORTHERN STATES POWER COMPANY*
LOCATION: *UNIT 00*
DIVISION: *NORTHERN*
CITY/COUNTY: *MENDOTA HEIGHTS / DAKOTA*
TYPE: *FACILITY*

DRAWING
4301
2

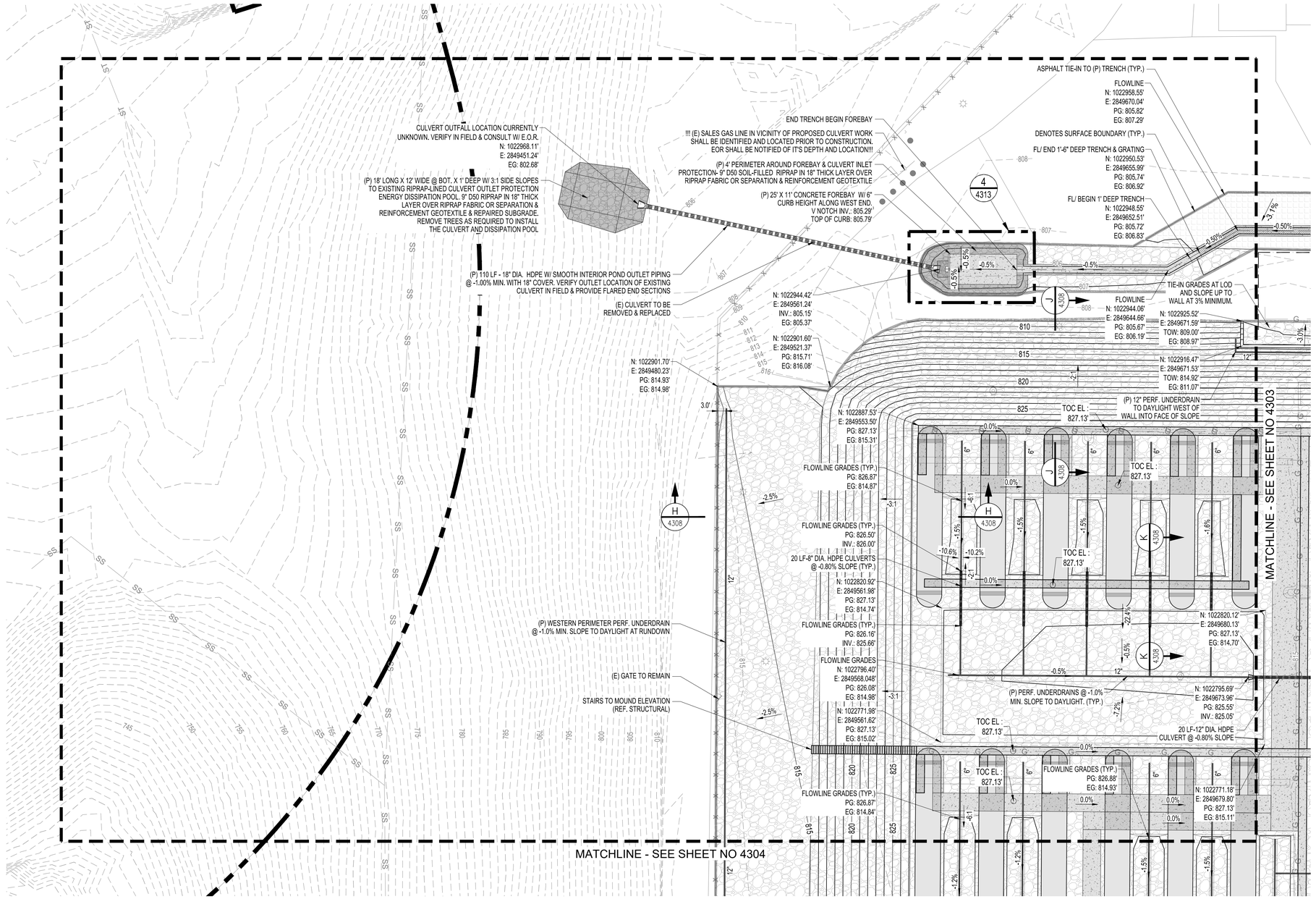
N

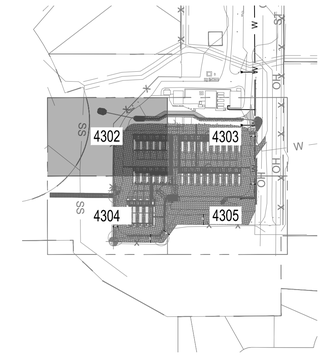
NOTES:

1. BURIED TANKS SHOWN ON PLANS FOR REFERENCE. GRADING PLAN INTENDED FOR SURFACE GRADING ABOVE THESE REFERENCED TANKS.
2. REFER TO STRUCTURAL DRAWING PACKAGE FOR EXACT LOCATIONS OF TOP OF MOUND CONCRETE SIDEWALKS/SUPPORTS.
3. SLOPE LABELS SHOWN FOR SURFACE GRADING AND ARE NOT INTENDED TO DEPICT SLOPES OF PROPOSED UNDERDRAIN PIPES.
4. DAYLIGHT FLOWLINES BENEATH WALKWAYS VIA A SINGLE 8" DIA. HDPE PIPE AT EACH LOCATION. REFER TO DETAIL K ON SHEET 4308.
5. ALL CULVERTS AT MOUND SURFACE TO BE PLACED WITH INVERTS TO MATCH THE BASE OF THE 3" D50 RIPRAP SURFACE. (I.E. 6" BELOW PG)
6. ALL CULVERTS 12"-DIA. AND UP SHALL HAVE FLARED END SECTIONS PROVIDED EXCEPT AT MOUNDING RIPRAP RUNDOWN DAYLIGHT LOCATIONS.
7. DRAWING SUPERSEDES ALL PREVIOUS REVISIONS DUE TO SCOPE CHANGE FROM FIRE WATER TO MOUNDING.

LEGEND:

- 8460 — EXISTING MAJOR CONTOURS
- 8466 — EXISTING MINOR CONTOURS
- 8460 — PROPOSED MAJOR CONTOURS
- 8466 — PROPOSED MINOR CONTOURS
- SURFACE BOUNDARY
- PROPERTY LINE
- PROPOSED FLOW LINE
- W — PROPOSED FIREWATER MAIN
- W — W — PROPOSED HYDRANT HEADER
- EXISTING FENCE TO BE REMOVED
- PROPOSED FENCE
- EXISTING FENCE
- G — EXISTING GAS LINE
- OH — EXISTING OVERHEAD UTILITY
- SS — EXISTING SANITARY SEWER
- ST — EXISTING STORM SEWER
- PROPOSED CULVERT/ STORM SEWER
- PROPOSED UNDERDRAIN
- GRAVEL (INCLUDES SMALL DIA. RIPRAP <6")
- CONCRETE
- LARGE DIA. RIPRAP (>6")
- PROPOSED ASPHALT
- PROPOSED TRENCH GRATE
- -X.X% -X.X PROPOSED SURFACE SLOPES





KEY MAP

20' 0' 20' 40'
1"=20'

NORTHWEST (1/4301)
SCALE 1" = 20'-0"

CAD FILE NAME: *D1_4302_Sibley Mounding.dwg*

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FLOC: *GU-SPG*

PROFESSIONAL ENGINEER
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Signature:
Typed or Printed Name: Isaac Francis Cohrs
Date: 05/24/2024 License Number: 59106

CAMPOS EPC

HISTORY	DATE
DRAWN BY: *MR*	*05/24/2024*
DESIGNED BY: *IFC*	*05/24/2024*
CHECKED BY: *IFC*	*05/24/2024*
APPROVED BY:	
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION*	*IFC*	*06/30/2022*
1	*ISSUED FOR CONSTRUCTION*	*AJL*	*05/12/2023*
2	*ISSUED FOR CONSTRCUTION- NOTE 7*	*MR*	*05/24/2024*

SIBLEY PROPANE PLANT
GRADING & DRAINAGE PLAN - NORTHWEST

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*

DIVISION: *NORTHERN* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

DRAWING *4302*

2

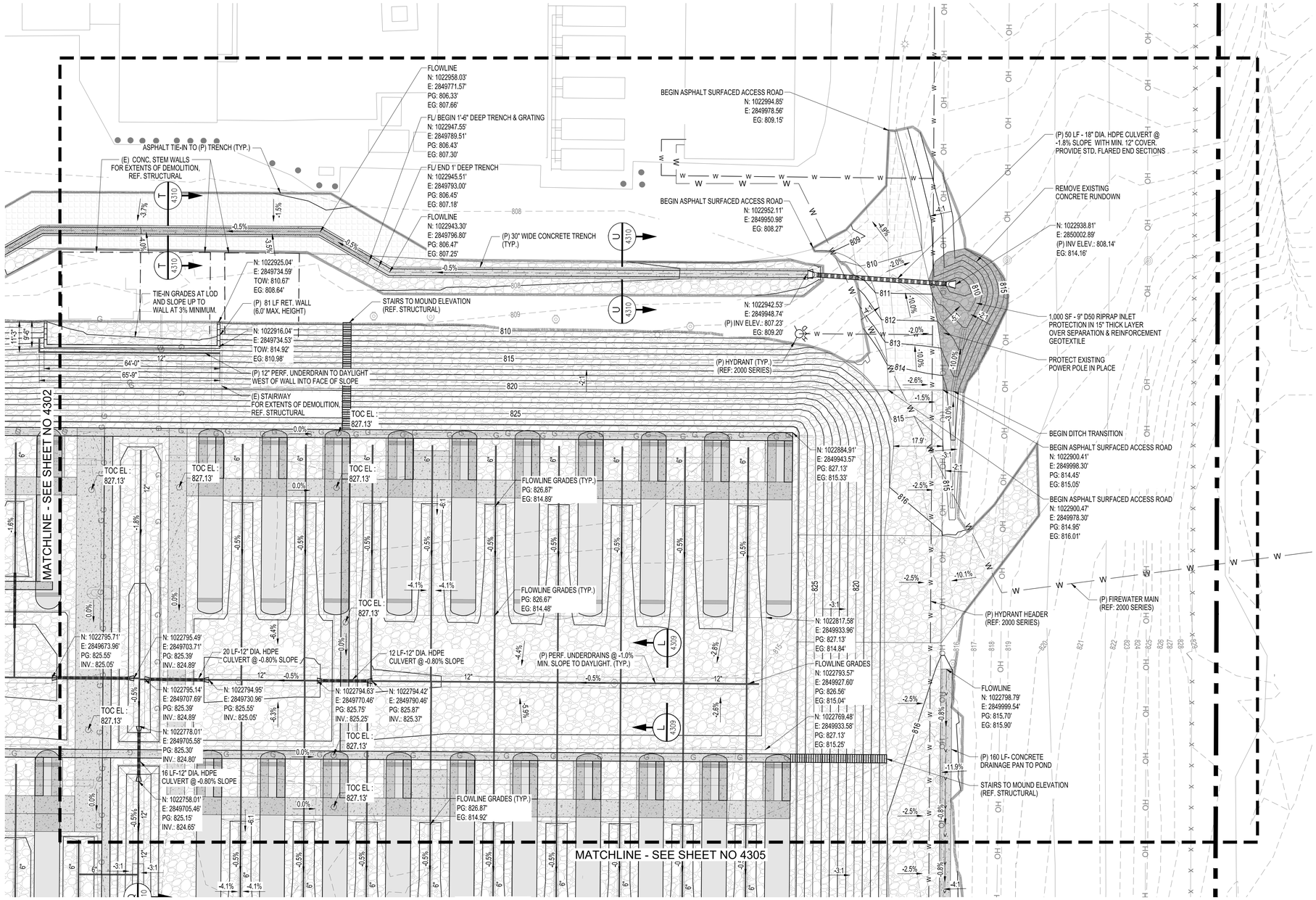
N

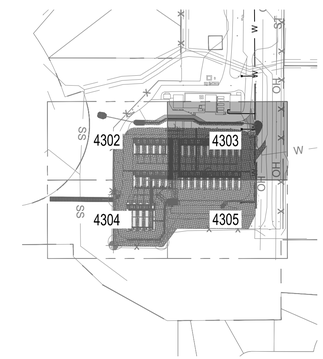
NOTES:

1. BURIED TANKS SHOWN ON PLANS FOR REFERENCE. GRADING PLAN INTENDED FOR SURFACE GRADING ABOVE THESE REFERENCED TANKS.
2. REFER TO STRUCTURAL DRAWING PACKAGE FOR EXACT LOCATIONS OF TOP OF MOUND CONCRETE SIDEWALKS/SUPPORTS.
3. SLOPE LABELS SHOWN FOR SURFACE GRADING AND ARE NOT INTENDED TO DEPICT SLOPES OF PROPOSED UNDERDRAIN PIPES.
4. DAYLIGHT FLOWLINES BENEATH WALKWAYS VIA A SINGLE 8" DIA. HDPE PIPE AT EACH LOCATION. REFER TO DETAIL K ON SHEET 4308.
5. ALL CULVERTS AT MOUND SURFACE TO BE PLACED WITH INVERTS TO MATCH THE BASE OF THE 3" D50 RIPRAP SURFACE. (I.E. 6" BELOW PG)
6. ALL CULVERTS 12"-DIA. AND UP SHALL HAVE FLARED END SECTIONS PROVIDED EXCEPT AT MOUNDING RIPRAP RUNDOWN DAYLIGHT LOCATIONS.
7. DRAWING SUPERSEDES ALL PREVIOUS REVISIONS DUE TO SCOPE CHANGE FROM FIRE WATER TO MOUNDING.

LEGEND:

- 8460 — EXISTING MAJOR CONTOURS
- 8466 — EXISTING MINOR CONTOURS
- 8460 — PROPOSED MAJOR CONTOURS
- 8466 — PROPOSED MINOR CONTOURS
- SURFACE BOUNDARY
- PROPERTY LINE
- PROPOSED FLOW LINE
- W — PROPOSED FIREWATER MAIN
- w — w — PROPOSED HYDRANT HEADER
- EXISTING FENCE TO BE REMOVED
- x — x — x — PROPOSED FENCE
- x — x — x — EXISTING FENCE
- G — EXISTING GAS LINE
- OH — EXISTING OVERHEAD UTILITY
- SS — EXISTING SANITARY SEWER
- ST — EXISTING STORM SEWER
- PROPOSED CULVERT/ STORM SEWER
- PROPOSED UNDERDRAIN
- GRAVEL (INCLUDES SMALL DIA. RIPRAP <6")
- CONCRETE
- LARGE DIA. RIPRAP (>6")
- PROPOSED ASPHALT
- PROPOSED TRENCH GRATE
- -X.X% — -X:X — PROPOSED SURFACE SLOPES





KEY MAP

20' 0' 20' 40'
1"=20'

NORTHEAST (2 / 4301)
SCALE 1" = 20'-0"

CAD FILE NAME: *D1_4302_Sibley Mounding.dwg*

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FLOC: *GU-SPG*

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CAMPOS EPC

HISTORY	DATE
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DESIGNED BY: *IFC*	*05/24/2024*
CHECKED BY: *IFC*	*05/24/2024*
APPROVED BY:	
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION*	*IFC*	*06/30/2022*
1	*ISSUED FOR CONSTRUCTION*	*AJL*	*05/12/2023*
2	*ISSUED FOR CONSTRUCTION- NOTE 7*	*MR*	*05/24/2024*

SIBLEY PROPANE PLANT
GRADING & DRAINAGE PLAN - NORTHEAST

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* | LOCATION: *UNIT 00*

DIVISION: *NORTHERN* | CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* | TYPE: *FACILITY*

DRAWING *4303* (2)

N

NOTES:

1. BURIED TANKS SHOWN ON PLANS FOR REFERENCE. GRADING PLAN INTENDED FOR SURFACE GRADING ABOVE THESE REFERENCED TANKS.
2. REFER TO STRUCTURAL DRAWING PACKAGE FOR EXACT LOCATIONS OF TOP OF MOUND CONCRETE SIDEWALKS/SUPPORTS.
3. SLOPE LABELS SHOWN FOR SURFACE GRADING AND ARE NOT INTENDED TO DEPICT SLOPES OF PROPOSED UNDERDRAIN PIPES.
4. DAYLIGHT FLOWLINES BENEATH WALKWAYS VIA A SINGLE 8" DIA. HDPE PIPE AT EACH LOCATION. REFER TO DETAIL K ON SHEET 4308.
5. ALL CULVERTS AT MOUND SURFACE TO BE PLACED WITH INVERTS TO MATCH THE BASE OF THE 3" D50 RIPRAP SURFACE. (I.E. 6" BELOW PG)
6. ALL CULVERTS 12"-DIA. AND UP SHALL HAVE FLARED END SECTIONS PROVIDED EXCEPT AT RUNDOWN DAYLIGHT LOCATIONS.
7. REFER TO SHEETS 4600/4601 FOR FENCING DETAILS.
8. DRAWING SUPERSEDES ALL PREVIOUS REVISIONS DUE TO SCOPE CHANGE FROM FIRE WATER TO MOUNDING.

LEGEND:

- 8460 — EXISTING MAJOR CONTOURS
- 8466 — EXISTING MINOR CONTOURS
- 8460 — PROPOSED MAJOR CONTOURS
- 8466 — PROPOSED MINOR CONTOURS
- SURFACE BOUNDARY
- PROPERTY LINE
- PROPOSED FLOW LINE
- W — PROPOSED FIREWATER MAIN
- w — PROPOSED HYDRANT HEADER
- EXISTING FENCE TO BE REMOVED
- PROPOSED FENCE
- EXISTING FENCE
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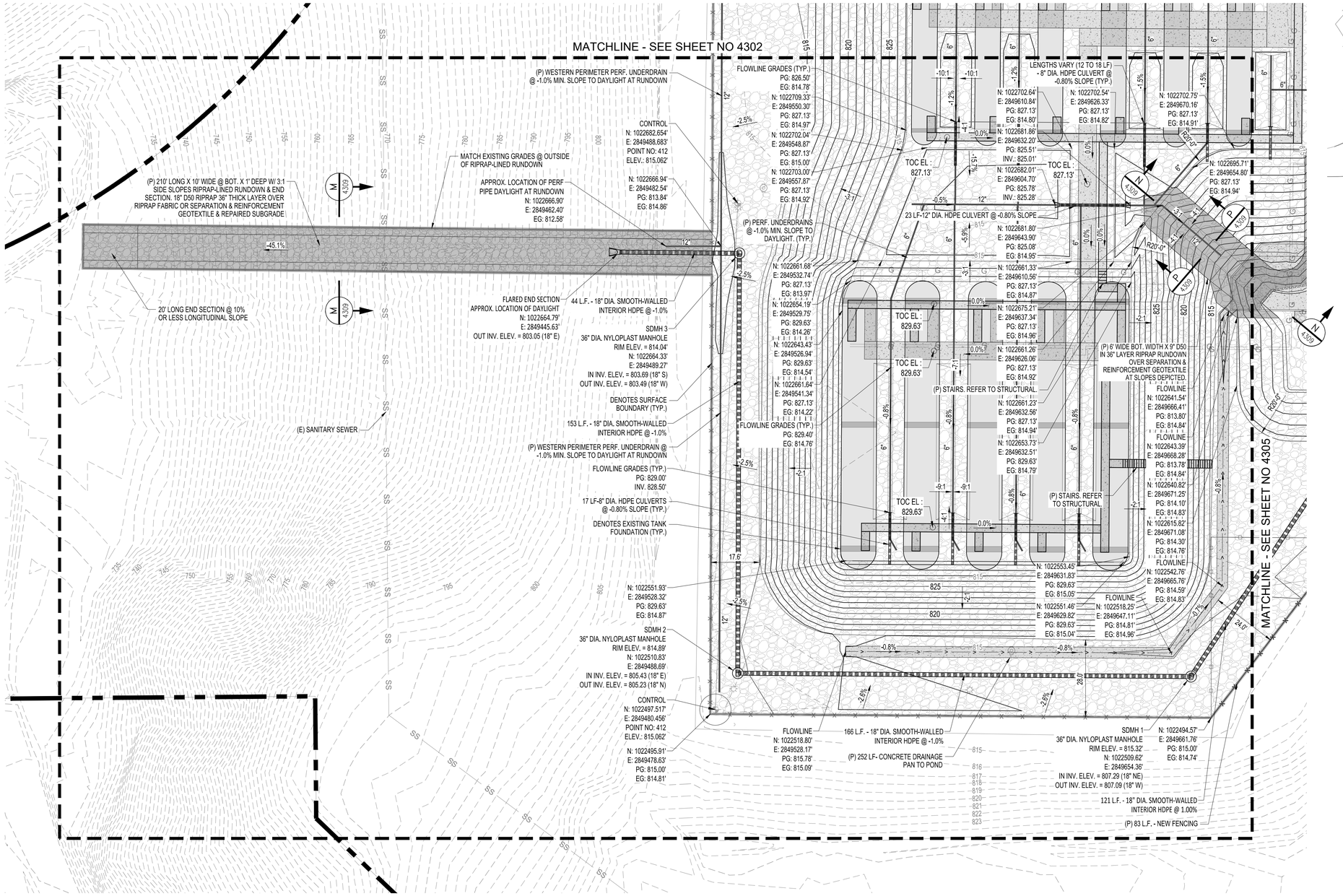
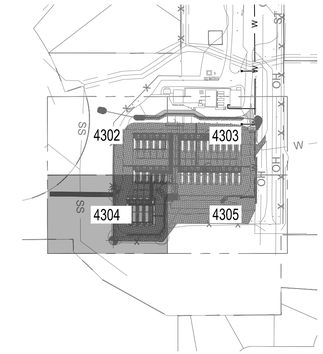
- SS — EXISTING SANITARY SEWER
- ST — EXISTING STORM SEWER
- PROPOSED CULVERT/ STORM SEWER
- PROPOSED UNDERDRAIN
- GRAVEL (INCLUDES SMALL DIA. RIPRAP <6")
- CONCRETE
- LARGE DIA. RIPRAP (>6")
- PROPOSED ASPHALT
- PROPOSED TRENCH GRATE
- -X.X% -X.X — PROPOSED SURFACE SLOPES





KEY MAP

SOUTHWEST 3 / 4301
SCALE 1" = 20'-0"

20' 0' 20' 40'
1"=20'

CAD FILE NAME: *D1_4302_Sibley Mounding.dwg*

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Signature:
Typed or Printed Name: Isaac Francis Cohrs
Date: 05/24/2024 License Number: 59106

CAMPOS EPC

HISTORY	DATE
DRAWN BY: *MR*	*05/24/2024*
DESIGNED BY: *IFC*	*05/24/2024*
CHECKED BY: *IFC*	*05/24/2024*
APPROVED BY:	
IN SERVICE DATE:	

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION*	*IFC*	*06/30/2022*
1	*ISSUED FOR CONSTRUCTION*	*AJL*	*05/12/2023*
2	*ISSUED FOR CONSTRCUTION- NOTE 8*	*MR*	*05/24/2024*

SIBLEY PROPANE PLANT
GRADING & DRAINAGE PLAN - SOUTHWEST

DRAWING *4304*

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*

DIVISION: *NORTHERN* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

FLOC: *GU-SPG*

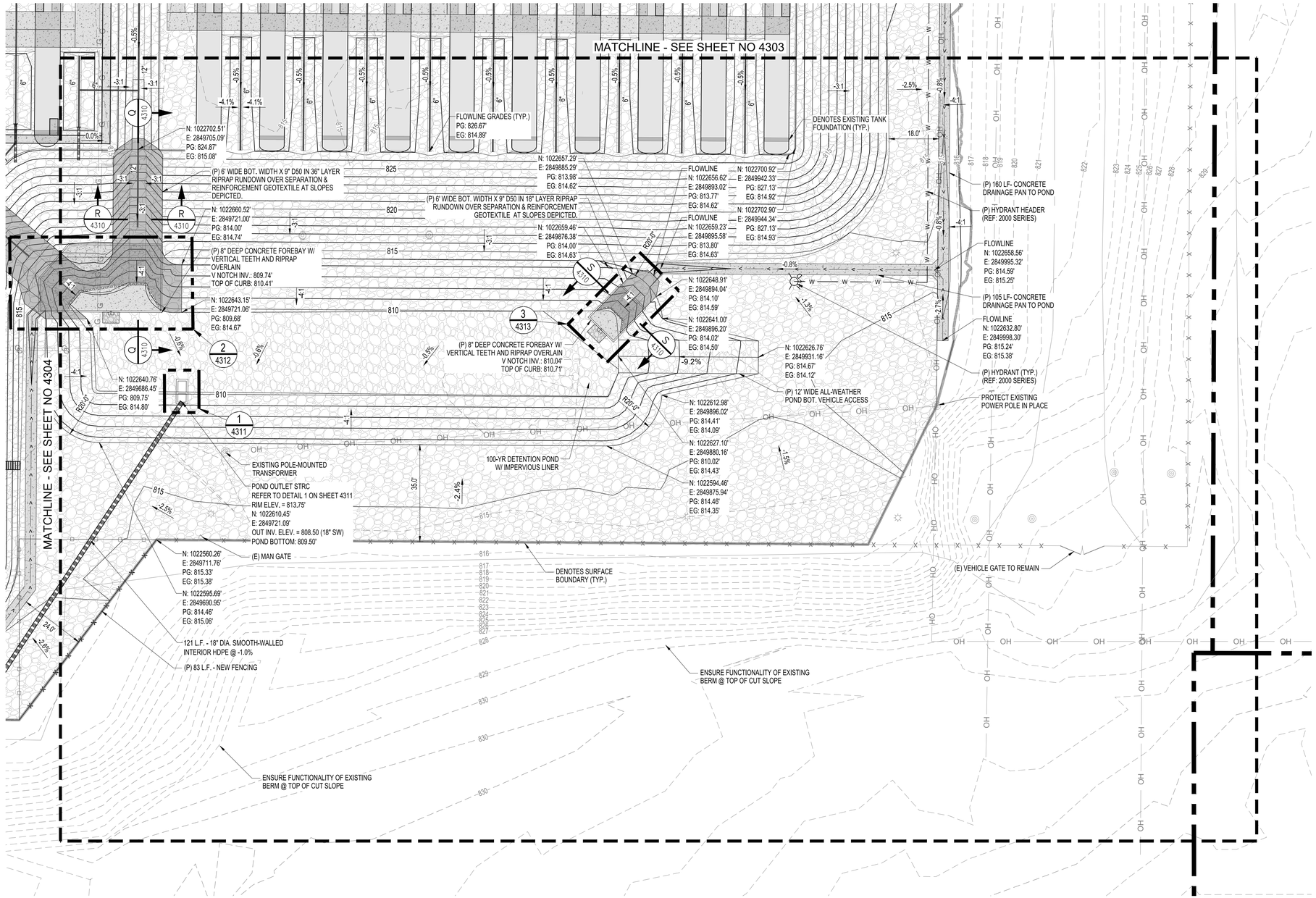
2

NOTES:

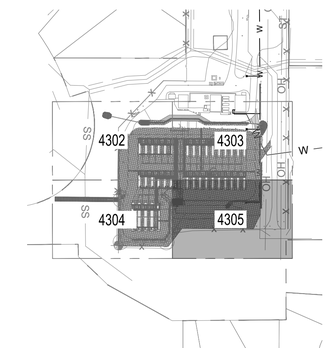
1. BURIED TANKS SHOWN ON PLANS FOR REFERENCE. GRADING PLAN INTENDED FOR SURFACE GRADING ABOVE THESE REFERENCED TANKS.
2. REFER TO STRUCTURAL DRAWING PACKAGE FOR EXACT LOCATIONS OF TOP OF MOUND CONCRETE SIDEWALKS/SUPPORTS.
3. SLOPE LABELS SHOWN FOR SURFACE GRADING AND ARE NOT INTENDED TO DEPICT SLOPES OF PROPOSED UNDERDRAIN PIPES.
4. DAYLIGHT FLOWLINES BENEATH WALKWAYS VIA A SINGLE 8" DIA. HDPE PIPE AT EACH LOCATION. REFER TO DETAIL K ON SHEET 4308.
5. ALL CULVERTS AT MOUND SURFACE TO BE PLACED WITH INVERTS TO MATCH THE BASE OF THE 3" D50 RIPRAP SURFACE. (I.E. 6" BELOW PG)
6. ALL CULVERTS 12"-DIA. AND UP SHALL HAVE FLARED END SECTIONS PROVIDED EXCEPT AT RUNDOWN DAYLIGHT LOCATIONS.
7. REFER TO SHEETS 4600/4601 FOR FENCING DETAILS.
8. DRAWING SUPERSEDES ALL PREVIOUS REVISIONS DUE TO SCOPE CHANGE FROM FIRE WATER TO MOUNDING.

LEGEND:

- 8460 — EXISTING MAJOR CONTOURS
- 8466 — EXISTING MINOR CONTOURS
- 8460 — PROPOSED MAJOR CONTOURS
- 8466 — PROPOSED MINOR CONTOURS
- SURFACE BOUNDARY
- PROPERTY LINE
- PROPOSED FLOW LINE
- W — PROPOSED FIREWATER MAIN
- W — PROPOSED HYDRANT HEADER
- EXISTING FENCE TO BE REMOVED
- PROPOSED FENCE
- EXISTING FENCE
- G — EXISTING GAS LINE
- OH — EXISTING OVERHEAD UTILITY
- SS — EXISTING SANITARY SEWER
- ST — EXISTING STORM SEWER
- PROPOSED CULVERT/ STORM SEWER
- PROPOSED UNDERDRAIN
- GRAVEL (INCLUDES SMALL DIA. RIPRAP <6")
- CONCRETE
- LARGE DIA. RIPRAP (>6")
- PROPOSED ASPHALT
- PROPOSED TRENCH GRATE
- -X.X% -X:X — PROPOSED SURFACE SLOPES



SOUTHEAST 4 / 4301
SCALE 1" = 20'-0"



KEY MAP

20' 0' 20' 40'
1"=20'

CAD FILE NAME: *D1_4302_Sibley Mounding.dwg*

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FLOC: *GU-SPG*

PROFESSIONAL ENGINEER
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Signature:
Typed or Printed Name: Isaac Francis Cohrs
Date: 05/24/2024 License Number: 59106

CAMPOS EPC

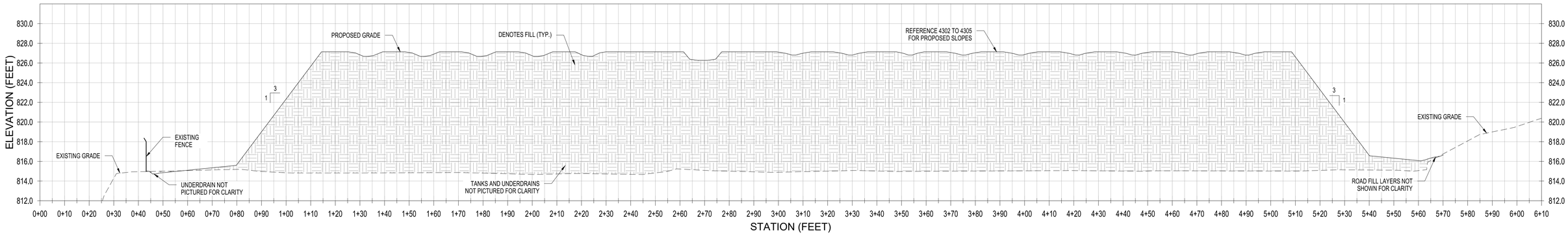
HISTORY	DATE
DRAWN BY: *MR*	*05/24/2024*
DESIGNED BY: *IFC*	*05/24/2024*
CHECKED BY: *IFC*	*05/24/2024*
APPROVED BY:	
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION*	*IFC*	*06/30/2022*
1	*ISSUED FOR CONSTRUCTION*	*AJL*	*05/12/2023*
2	*ISSUED FOR CONSTRCUTION- NOTE 8*	*MR*	*05/24/2024*

SIBLEY PROPANE PLANT
GRADING & DRAINAGE PLAN - SOUTHEAST

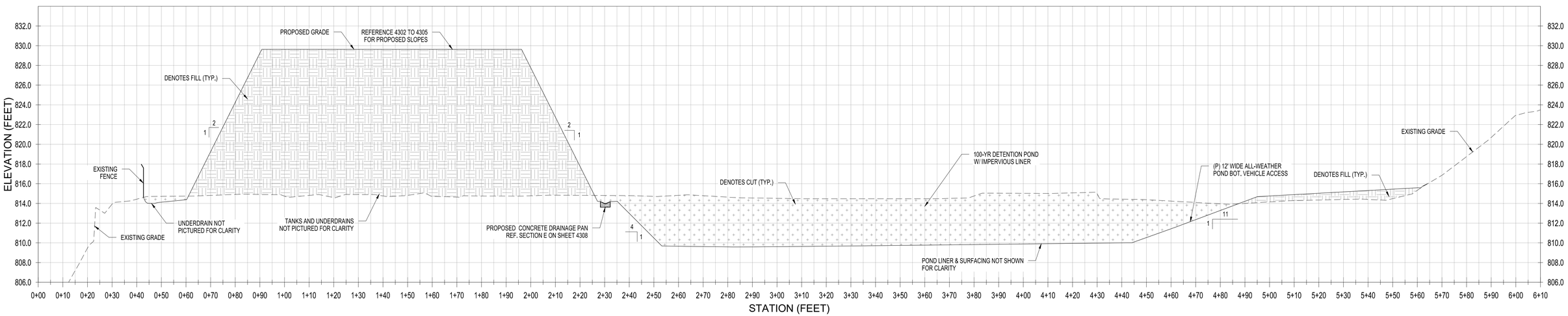
SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*
DIVISION: *NORTHERN* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

DRAWING
4305
2



SECTION A 4301

SCALE HORIZ:1"=20'-0"
VERT:1"=5'-0"



SECTION B 4301

SCALE HORIZ:1"=20'-0"
VERT:1"=5'-0"

CAD FILE NAME: *D1_4306_Sibley Mounding.dwg*

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Signature:
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Date: 05/24/2024 License Number: 59106

CAMPOS EPC

HISTORY	DATE
DRAWN BY: *MR*	*05/24/2024*
DESIGNED BY: *IFC*	*05/24/2024*
CHECKED BY: *IFC*	*05/24/2024*
APPROVED BY:	
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION*	*MR*	*05/24/2024*

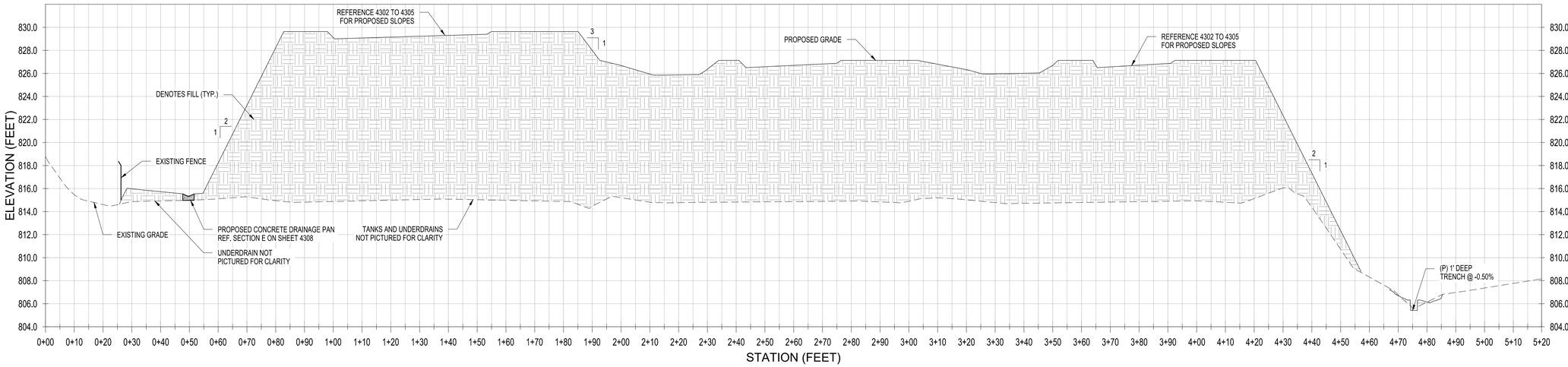
SIBLEY PROPANE PLANT
GRADING PROFILES

DRAWING *4306*

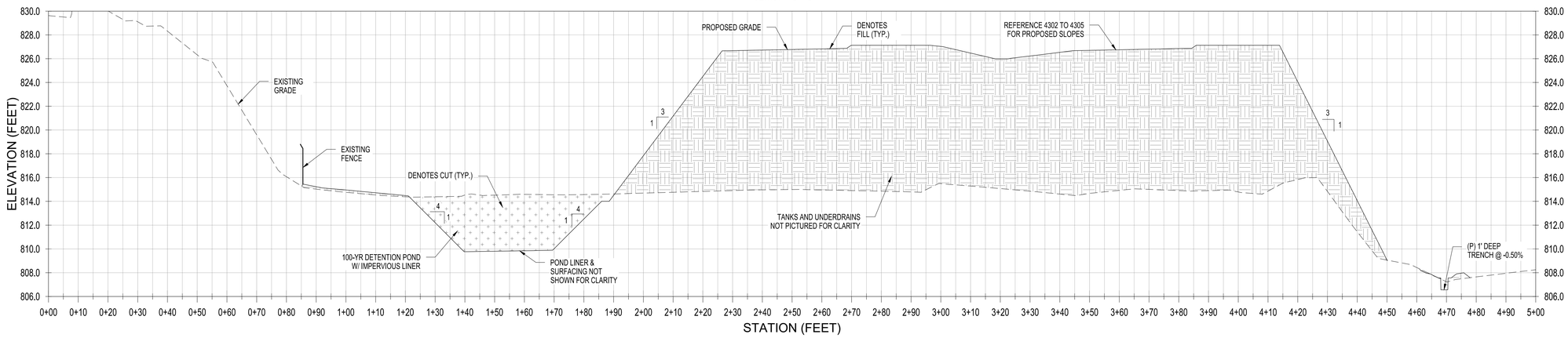
SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*

DIVISION: *NORTHERN* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

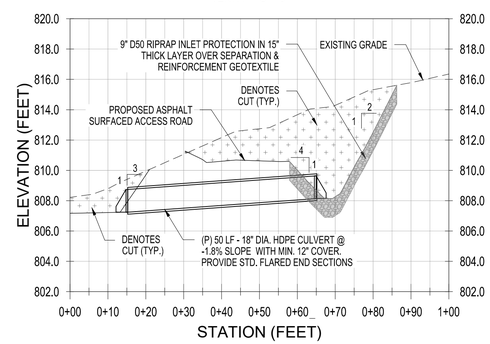
0



SECTION C 4301
SCALE: HORIZ:1"=20'-0"
VERT:1"=5'-0"



SECTION D 4301
SCALE: HORIZ:1"=20'-0"
VERT:1"=5'-0"



SECTION E 4301
SCALE: HORIZ:1"=20'-0"
VERT:1"=5'-0"

CAD FILE NAME: *D1_4306_Sibley Mounding.dwg*

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FLOC: *GU-SPG*

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Date: 05/24/2024 License Number: 59106

CAMPOS EPC

HISTORY	DATE
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APPROVED BY:	
IN SERVICE DATE:	

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION*	*MR*	*05/24/2024*

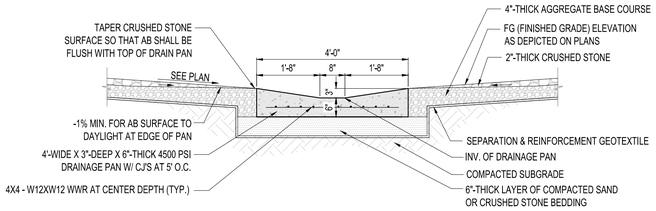
SIBLEY PROPANE PLANT
GRADING PROFILES AND DETAILS

DRAWING *4307*

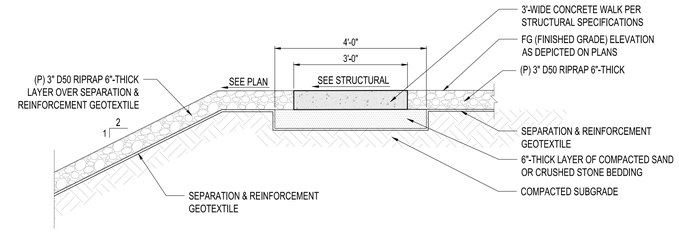
SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*

DIVISION: *NORTHERN* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

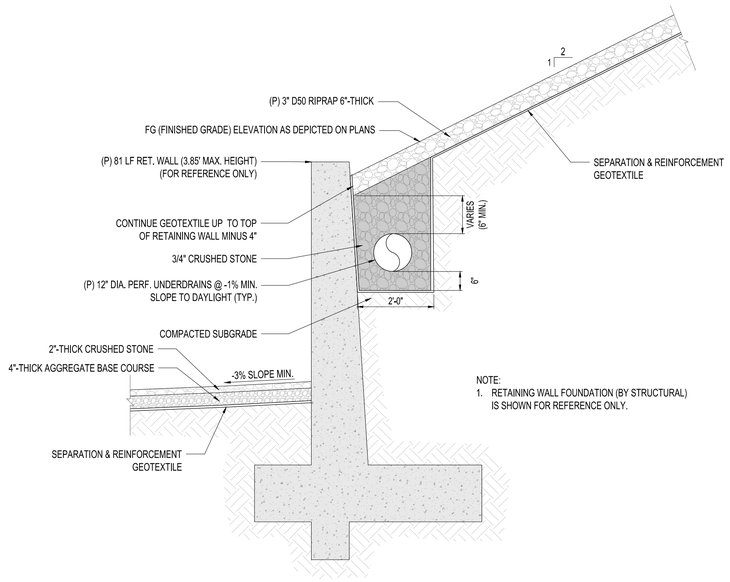
0



CONCRETE DRAINAGE PAN (F / 4301)
SCALE 1"=2'-0"

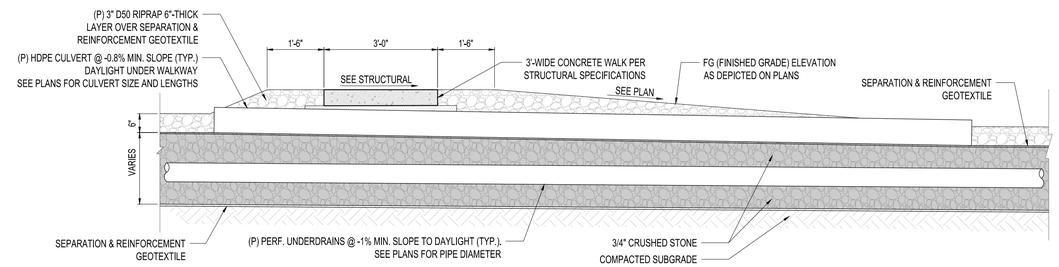


CONCRETE SIDEWALK SECTION (J / 4302)
SCALE 1"=2'-0"



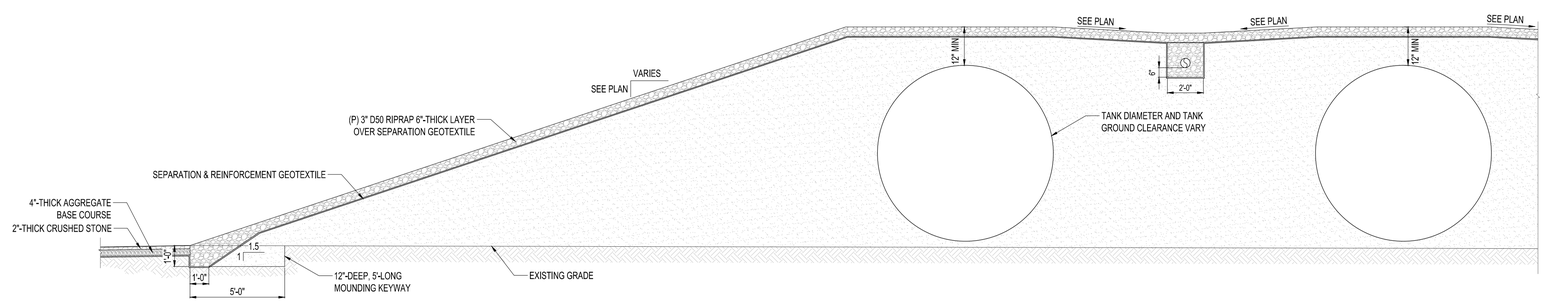
NOTE:
1. RETAINING WALL FOUNDATION (BY STRUCTURAL) IS SHOWN FOR REFERENCE ONLY.

RETAINING WALL SECTION (NORTH) (G / 4301)
SCALE 1"=2'-0"



NOTE:
1. ALL 12" DIA. CULVERTS SHALL HAVE FLARED END SECTIONS PROVIDED (NOT DEPICTED) EXCEPT AT RUNDOWN DAYLIGHT LOCATIONS.

UNDER SIDEWALK CULVERT SECTION (K / 4302)
SCALE 1"=2'-0"



TYPICAL MOUND SECTION (H / 4302)
SCALE 1"=4'-0"

NOTE:
1. REFER TO SHEET 4003 FOR FILL MATERIAL AND SOIL COMPACTION CRITERIA.

CAD FILE NAME: *D1_4308_Sibley Mounding.dwg*

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FLOC: *GU-MPG*

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Signature:
Typed or Printed Name: Isaac Francis Cohrs
Date: 05/24/2024 License Number: 59106

CAMPOS EPC

HISTORY	DATE
DRAWN BY: *MR*	*05/24/2024*
DESIGNED BY: *IFC*	*05/24/2024*
CHECKED BY: *IFC*	*05/24/2024*
APPROVED BY:	
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION*	*MR*	*05/24/2024*

SIBLEY PROPANE PLANT
GRADING AND DRAINAGE DETAILS

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* | LOCATION: *UNIT 00*
DIVISION: *NORTHERN* | CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* | TYPE: *FACILITY*

DRAWING
4308
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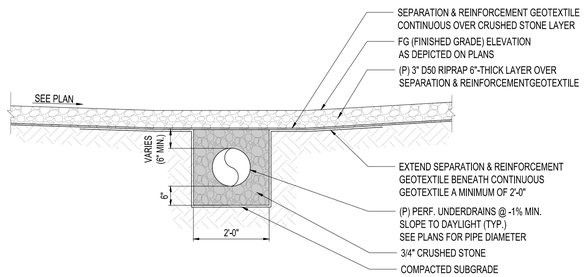
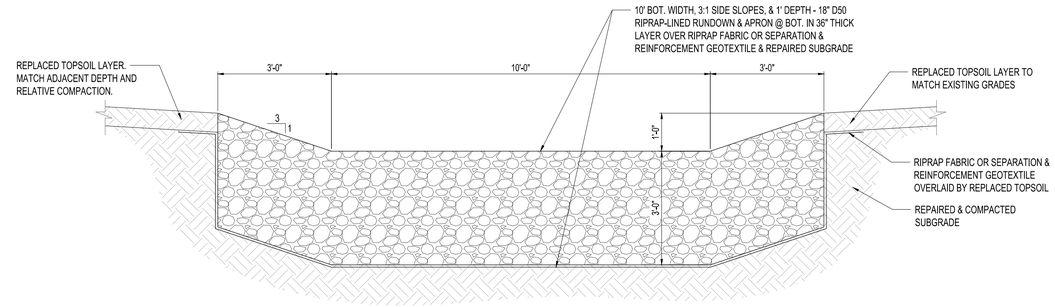
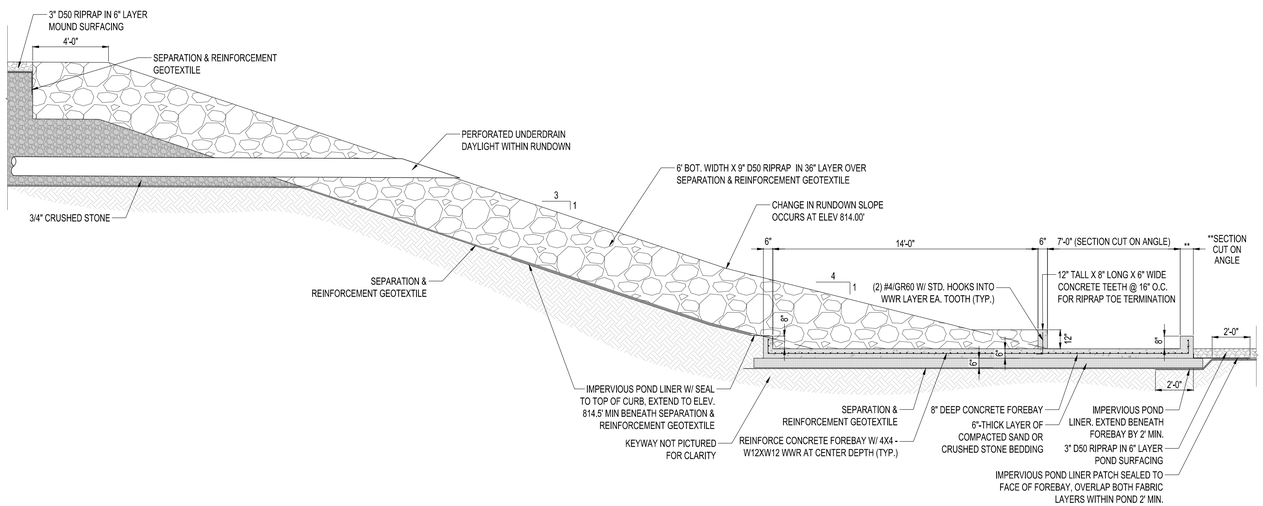


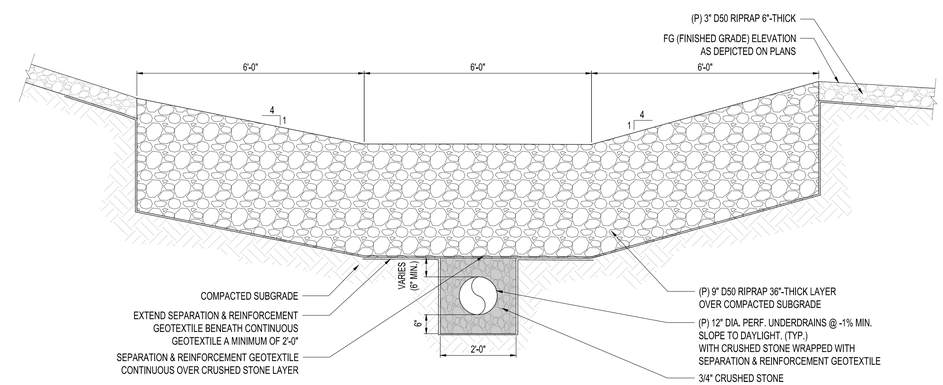
UNDERDRAIN SECTION (L / 4303)
SCALE 1"=2'-0"



SITE OUTLET RIPRAP RUNDOWN SECTION (M / 4304)
SCALE 1"=2'-0"



RIPRAP RUNDOWN SECTION (N / 4304)
SCALE 1"=4'-0"



RIPRAP RUNDOWN SECTION (P / 4304)
SCALE 1"=2'-0"

NOTE:
1. REFER TO SHEET 4003 FOR FILL MATERIAL AND SOIL COMPACTION CRITERIA.

CAD FILE NAME: *D1_4308_Sibley Mounding.dwg*

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FLOC: *GU-MPG*

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Date: 05/24/2024 License Number: 59106

CAMPOS EPC

HISTORY	DATE
DRAWN BY: *MR*	*05/24/2024*
DESIGNED BY: *IFC*	*05/24/2024*
CHECKED BY: *IFC*	*05/24/2024*
APPROVED BY:	
IN SERVICE DATE:	

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION*	*MR*	*05/24/2024*

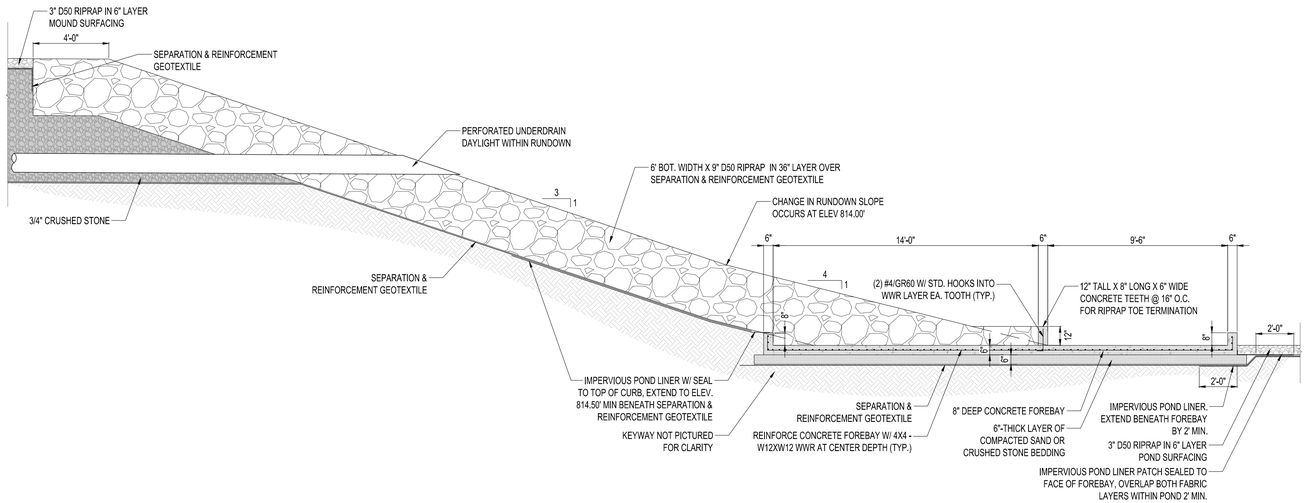
SIBLEY PROPANE PLANT
GRADING AND DRAINAGE DETAILS

DRAWING *4309*

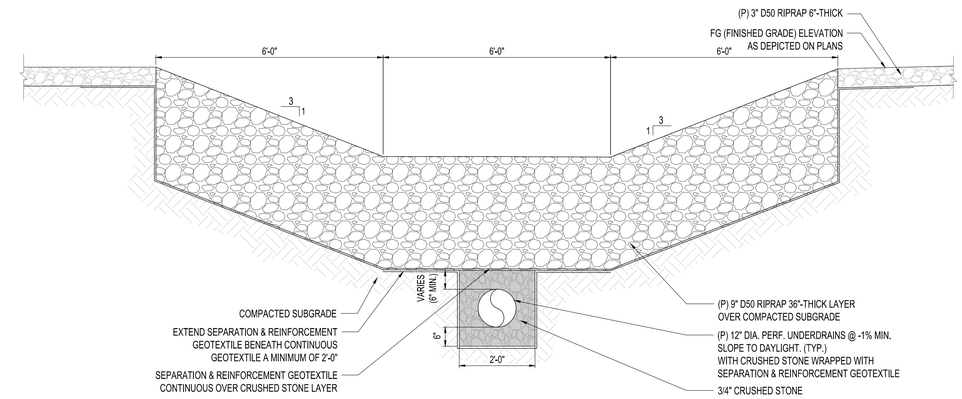
SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*

DIVISION: *NORTHERN* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

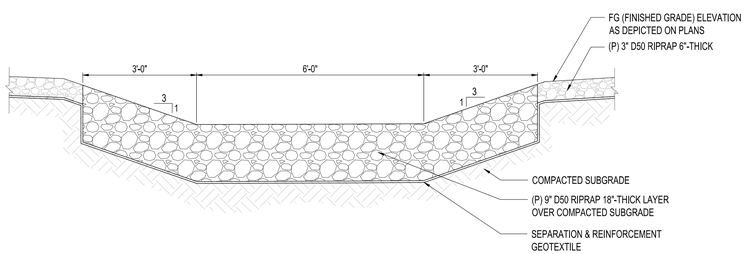
0



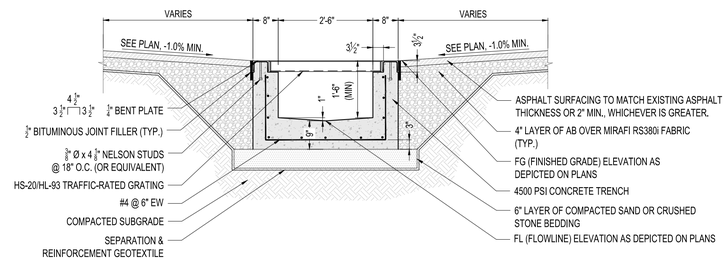
RIPRAP RUNDOWN SECTION Q 4305
SCALE 1"=4'-0"



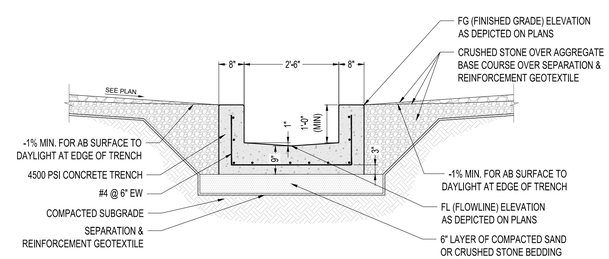
RIPRAP RUNDOWN SECTION R 4305
SCALE 1"=2'-0"



RIPRAP RUNDOWN SECTION S 4305
SCALE 1"=2'-0"



TYPICAL 1'-6" DEEP TRENCH SECTION T 4303
SCALE 1"=2'-0"



TYPICAL 1'-0" DEEP TRENCH SECTION U 4303
SCALE 1"=2'-0"

NOTES:

1. TRENCH DESIGN:
   a. 4,500 PSI CONCRETE.
   b. ALL REINFORCEMENT SHALL BE MINIMUM 3" FROM OUTER FACE.
   c. IMPACT CHANNEL SHALL BE A BENT STEEL PLATE, ASTM A36 MATERIAL. SEE SECTION FOR DIMENSIONS.
   d. VEHICLE-RATED GRATING SHALL SUPPORT HS-20/HL-93 LOADS. 19W4 SPACING, 3-½" DEEP BY ¼" THICK BEARING BARS AT 1-3/16" SPACING RECOMMENDED. BAR GRATING MATERIAL SHALL BE HDG.
2. TRENCH CONSTRUCTION:
   a. CONTRACTOR TO INSTALL A KEYED JOINT AT EVERY 20'-0" OF SPACING. PAINT WITH A CURING COMPOUND BEFORE ADJACENT SLAB OR WALL IS PLACED.

NOTE:

1. REFER TO SHEET 4003 FOR FILL MATERIAL AND SOIL COMPACTION CRITERIA.

CAD FILE NAME: *D1_4308_Sibley Mounding.dwg*

Xcel Energy®

FLOC: *GU-MPG*

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Date: 05/24/2024 License Number: 59106

CAMPOS EPC

HISTORY	DATE
DRAWN BY: *MR*	*05/24/2024*
DESIGNED BY: *IFC*	*05/24/2024*
CHECKED BY: *IFC*	*05/24/2024*
APPROVED BY:	
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION*	*MR*	*05/24/2024*

SIBLEY PROPANE PLANT
GRADING AND DRAINAGE DETAILS

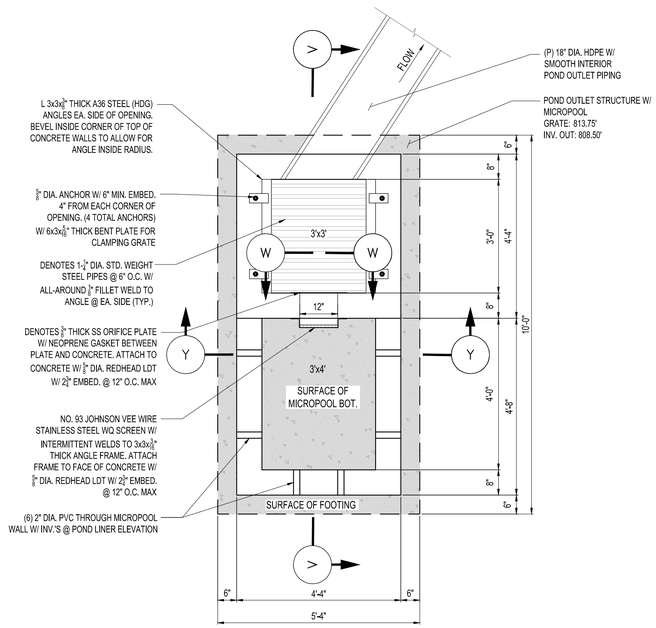
DRAWING *4310*

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*

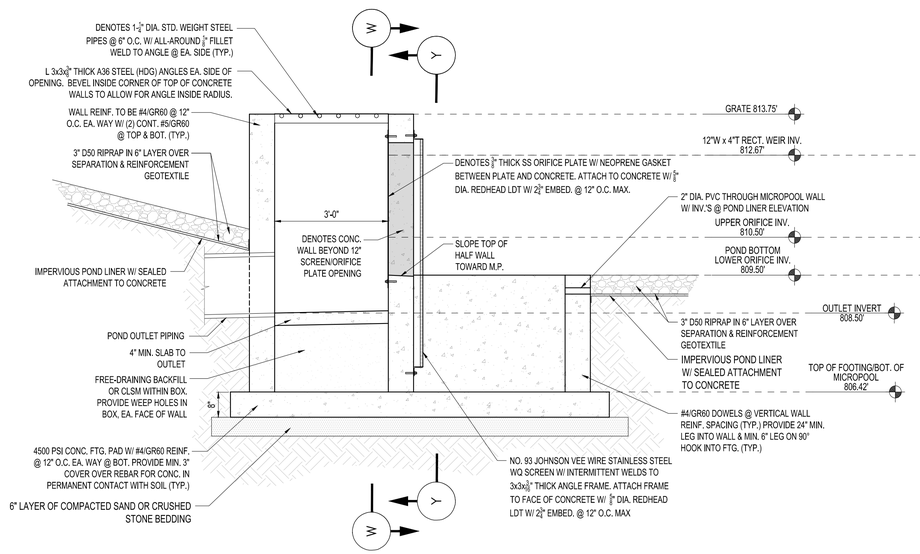
DIVISION: *NORTHERN* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

0

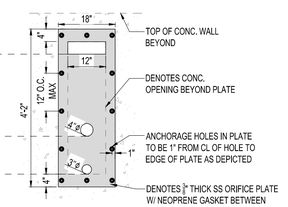
N



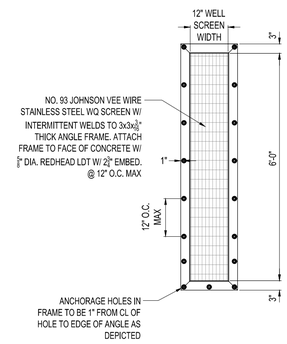
OUTLET STRUCTURE – DETAIL 1 4305
SCALE 1"=2'-0"



OUTLET STRUCTURE – SECTION V
SCALE 1"=2'-0"



SECTION W
SCALE 1"=2'-0"



SECTION Y
SCALE 1"=2'-0"

CAD FILE NAME: *D1_4308_Sibley Mounding.dwg*

Xcel Energy®

FLOC: *GU-MPG*

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Signature:
Typed or Printed Name: Isaac Francis Cohrs
Date: 05/24/2024 License Number: 59106

CAMPOS EPC

HISTORY	DATE
DRAWN BY: *MR*	*05/24/2024*
DESIGNED BY: *IFC*	*05/24/2024*
CHECKED BY: *IFC*	*05/24/2024*
APPROVED BY:	
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION*	*MR*	*05/24/2024*

SIBLEY PROPANE PLANT
GRADING AND DRAINAGE DETAILS

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*
DIVISION: *NORTHERN* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

DRAWING
4311
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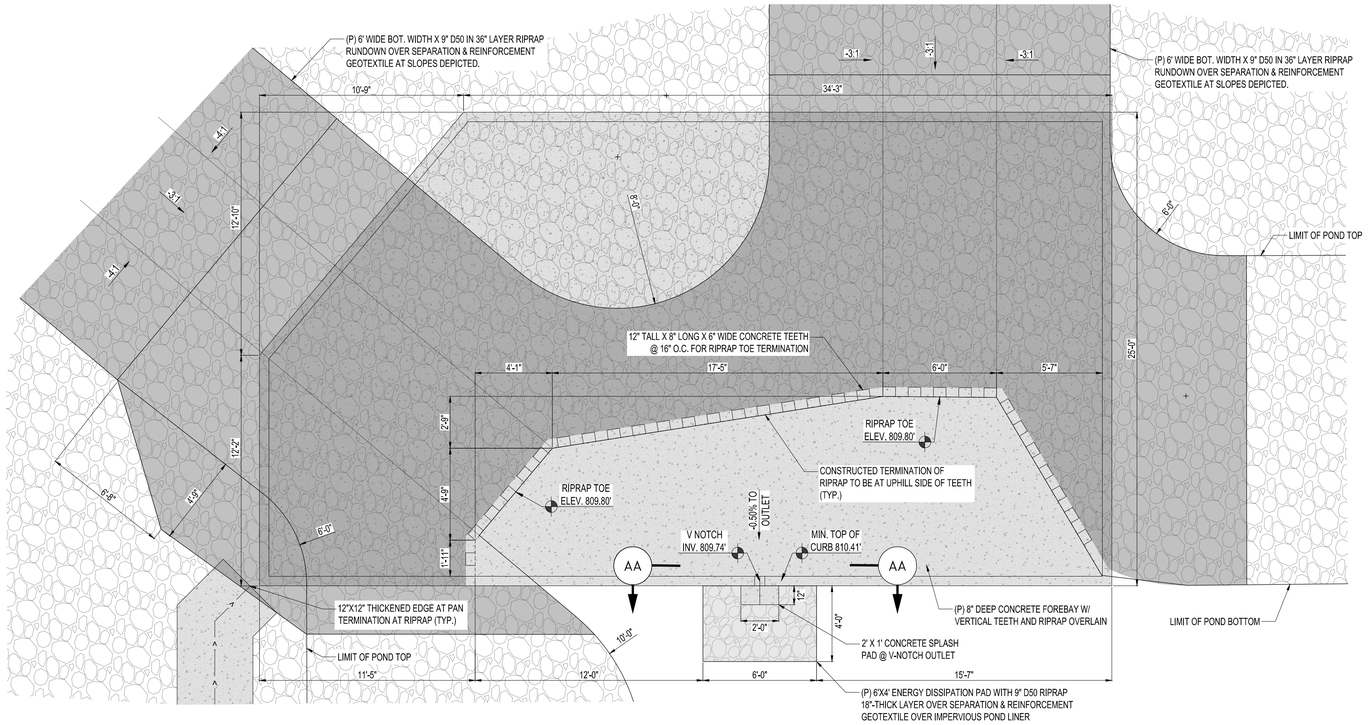
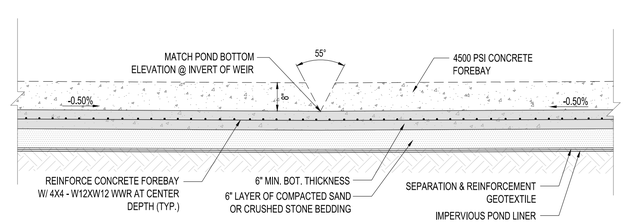


WEST FOREBAY DETAIL (2 / 4305)
SCALE 1"=4'-0"



SECTION (AA)
SCALE 1"=2'-0"

NOTE:
1. REFER TO SHEET 4003 FOR SOIL COMPACTION CRITERIA.

CAD FILE NAME: *D1_4308_Sibley Mounding.dwg*

Xcel Energy®

FLOC: *GU-MPG*

PROFESSIONAL ENGINEER
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Signature:
Typed or Printed Name: Isaac Francis Cohrs
Date: 05/24/2024 License Number: 59106

CAMPOS EPC

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DESIGNED BY: *IFC*	*05/24/2024*
CHECKED BY: *IFC*	*05/24/2024*
APPROVED BY:	
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION*	*MR*	*05/24/2024*

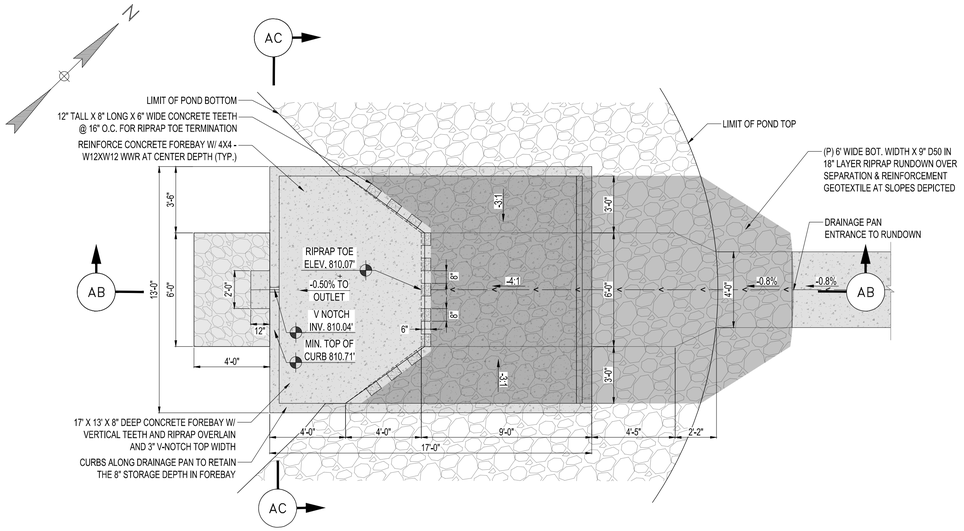
SIBLEY PROPANE PLANT
GRADING AND DRAINAGE DETAILS

DRAWING *4312*

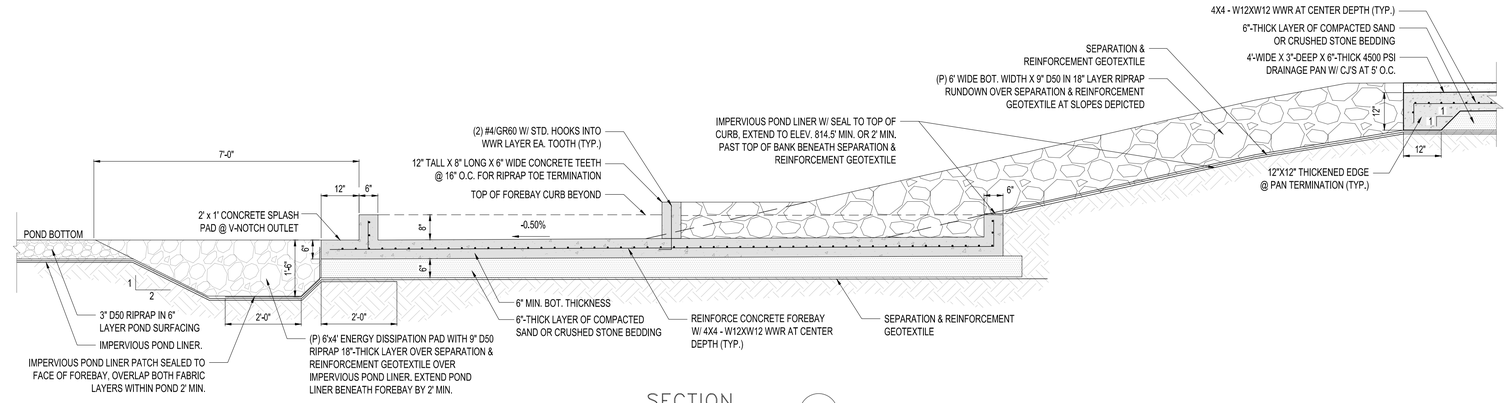
SERVICE CENTER: *NORTHERN STATES POWER COMPANY* | LOCATION: *UNIT 00*

DIVISION: *NORTHERN* | CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* | TYPE: *FACILITY*

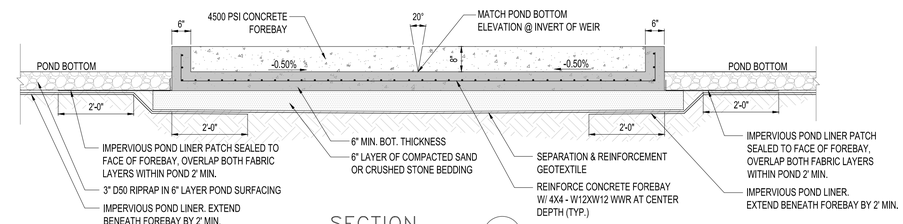
0



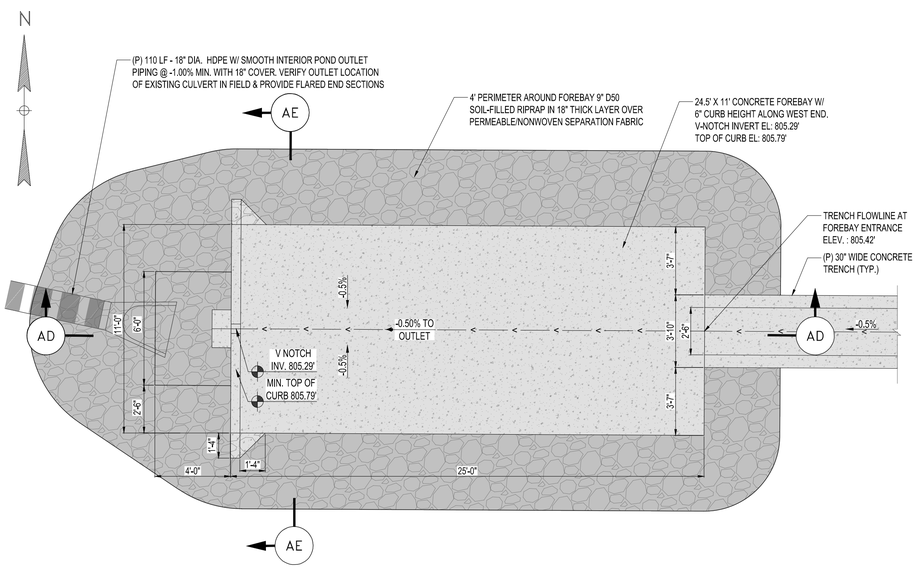
EAST FOREBAY DETAIL 3 / 4305
SCALE 1"=4'-0"



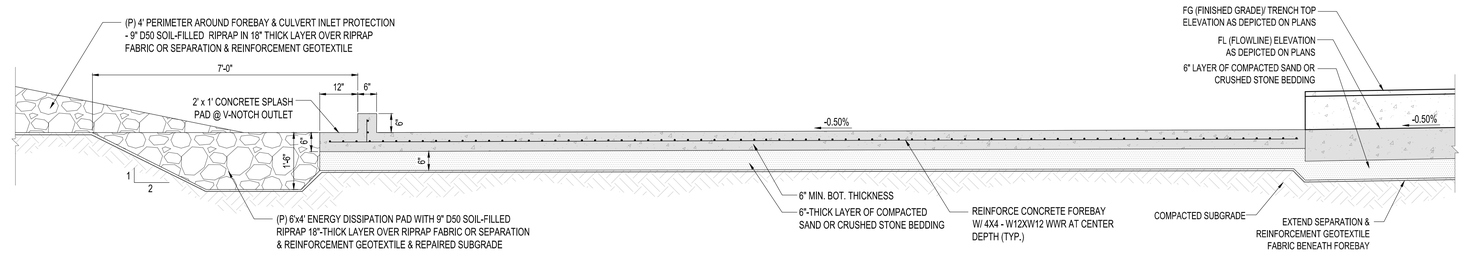
SECTION AB
SCALE 1"=2'-0"



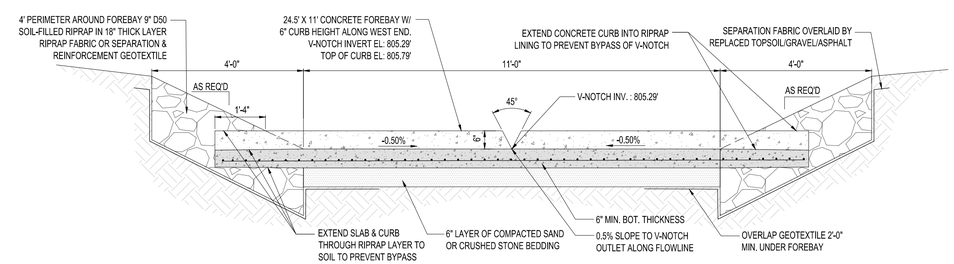
SECTION AC
SCALE 1"=2'-0"



NORTH FOREBAY DETAIL 4 / 4302
SCALE 1"=4'-0"



SECTION AD
SCALE 1"=2'-0"



SECTION AE
SCALE 1"=2'-0"

NOTE:
1. REFER TO SHEET 4003 FOR SOIL COMPACTION CRITERIA.

CAD FILE NAME: *D1_4308_Sibley Mounding.dwg*

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PROFESSIONAL ENGINEER
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Date: 05/24/2024 License Number: 59106

CAMPOS EPC

HISTORY	DATE
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APPROVED BY:	
IN SERVICE DATE:	

REVISIONS			
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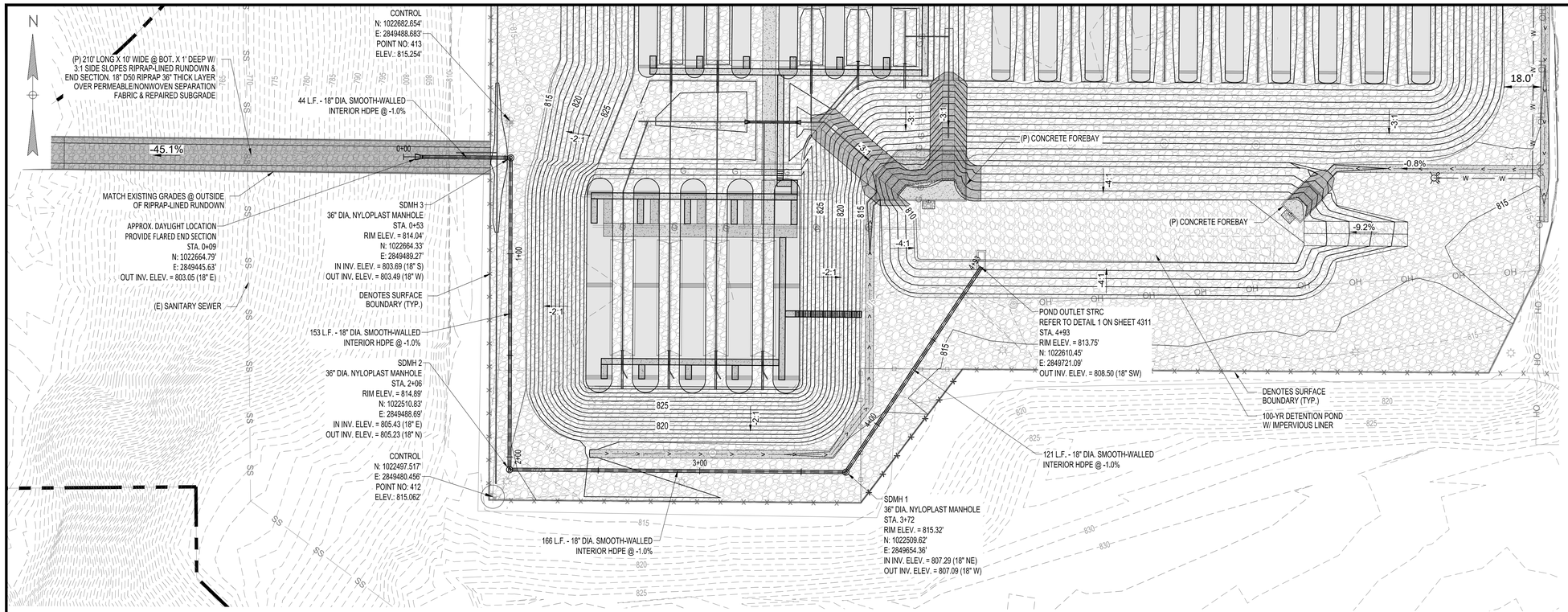
0	*ISSUED FOR CONSTRUCTION*	*MR*	*05/24/2024*

SIBLEY PROPANE PLANT
GRADING AND DRAINAGE DETAILS

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*
DIVISION: *NORTHERN* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

DRAWING
4313
0



POND OUTLET PLAN

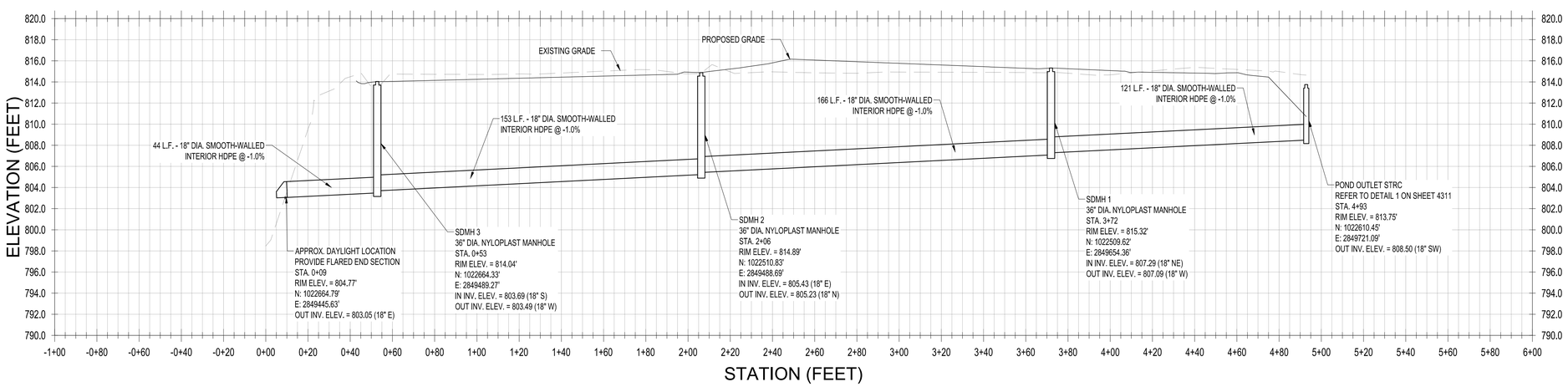
SCALE 1" = 30'-0"

NOTES:

1. STORM DRAIN MANHOLES SHALL BE NYLOPLAST 36" DIA. DRAIN BASINS WITH 30" DIA. SOLID COVERS AND 36"X30" DUCTILE IRON REDUCING TOPS.
2. ALL MANHOLES SHALL BE FURNISHED WITH LADDERS.
3. SDMH COVERS SHALL SUPPORT HS-20/HL-93 LOADS.

LEGEND:

- 8460 — EXISTING MAJOR CONTOURS
- 8466 — EXISTING MINOR CONTOURS
- 8460 — PROPOSED MAJOR CONTOURS
- 8466 — PROPOSED MINOR CONTOURS
- SURFACE BOUNDARY
- PROPERTY LINE
- PROPOSED FLOW LINE
- W — PROPOSED FIREWATER MAIN
- EXISTING FENCE TO BE REMOVED
- PROPOSED FENCE
- EXISTING FENCE
- G — EXISTING GAS LINE
- OH — EXISTING OVERHEAD UTILITY
- SS — EXISTING SANITARY SEWER
- ST — EXISTING STORM SEWER
- PROPOSED CULVERT/STORM SEWER
- PROPOSED UNDERDRAIN
- GRAVEL (INCLUDES SMALL DIA. RIPRAP <6")
- CONCRETE
- LARGE DIA. RIPRAP (>6")
- PROPOSED ASPHALT



POND OUTLET PROFILE

SCALE HORIZ: 1"=30'-0"
VERT: 1"=6'-0"

30' 0' 30' 60'
1"=30'

CAD FILE NAME: *D1_4400_Sibley Mounding.dwg*

Xcel Energy®

FLOC: *GU-SPG*

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APPROVED BY:	
IN SERVICE DATE:	

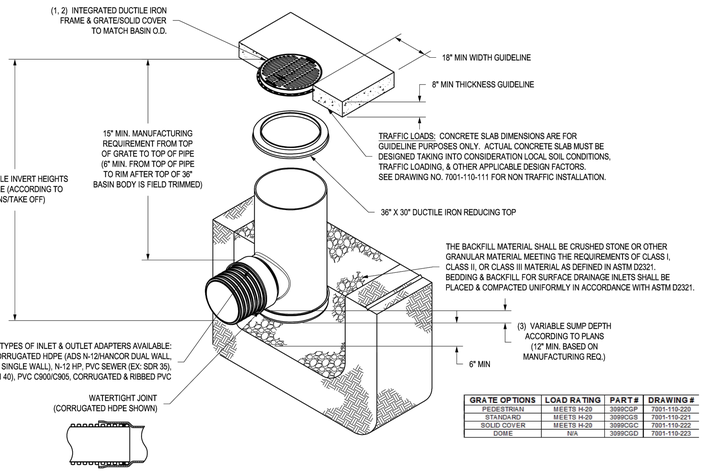
REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION*	*MR*	*05/24/2024*

SIBLEY PROPANE PLANT
POND OUTLET PLAN & PROFILE

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*
DIVISION: *NORTHERN* CITY/COUNTY: *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

DRAWING
4400
0

NYLOPLAST 36" DRAIN BASIN: 2836AG _ _X



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-20	3099CGP	7001-110-220
STANDARD	MEETS H-20	3099CGS	7001-110-221
SOLID COVER	MEETS H-20	3099CGC	7001-110-222
DOME	N/A	3099CGD	7001-110-223

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - FRAMES & REDUCING TOP SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASIN BODIES OVER 84" DUE TO SHIPPING RESTRICTIONS.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

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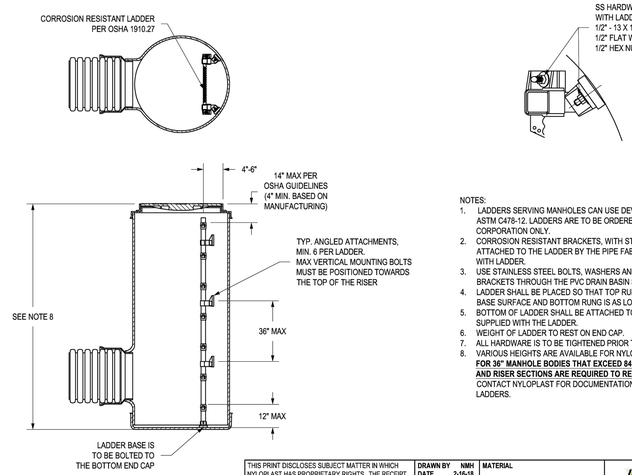
DRAWN BY NMH DATE 9-21-18
APPD BY NMH DATE 9-21-18
REVSD BY NMH DATE 10-04-21
APPD BY NMH DATE 10-04-21
DWG SIZE A
MATERIAL
PROJECT NO.NAME
SCALE 1:40 SHEET 1 OF 1

ADS Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

TITLE
36" DRAIN BASIN QUICK SPEC INSTALLATION DETAIL
DWG NO. 7001-110-526 REV B

NYLOPLAST 36" STRUCTURE WITH LADDER DETAIL



NOTES:
1. LADDERS SERVING MANHOLES CAN USE DEVIATIONS OF OSHA 1910.27 FOUND IN ASTM C478-12. LADDERS ARE TO BE ORDERED FROM LANE INTERNATIONAL CORPORATION ONLY.
2. CORROSION RESISTANT BRACKETS, WITH STAINLESS STEEL HARDWARE, SHALL BE ATTACHED TO THE LADDER BY THE PIPE FABRICATOR. THE HARDWARE IS INCLUDED WITH LADDER.
3. USE STAINLESS STEEL BOLTS, WASHERS AND NUTS TO ATTACH THE LADDER BRACKETS THROUGH THE PVC DRAIN BASIN SIDE WALL.
4. LADDER SHALL BE PLACED SO THAT TOP RUNG IS LESS THAN 14-INCHES FROM BASE SURFACE AND BOTTOM RUNG IS AS LOW AS POSSIBLE.
5. BOTTOM OF LADDER SHALL BE ATTACHED TO BOTTOM END CAP WITH SS HARDWARE SUPPLIED WITH THE LADDER.
6. WEIGHT OF LADDER TO REST ON END CAP.
7. ALL HARDWARE IS TO BE TIGHTENED PRIOR TO SHIPMENT.
8. VARIOUS HEIGHTS ARE AVAILABLE FOR NYLOPLAST 36" MANHOLES WITH LADDERS. **FOR 36" MANHOLE BODIES THAT EXCEED 84", LADDERS ARE TO BE FIELD INSTALLED AND RISER SECTIONS ARE REQUIRED TO REACH THE DESIRED STRUCTURE HEIGHT.** CONTACT NYLOPLAST FOR DOCUMENTATION SUPPORTING FIELD INSTALLATION OF LADDERS.

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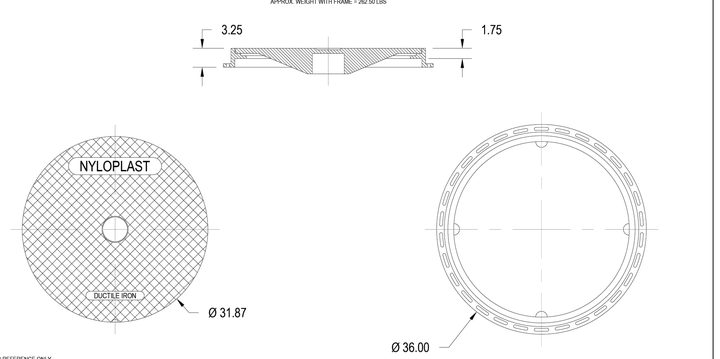
DRAWN BY NMH DATE 2-16-18
APPD BY NMH DATE 2-16-18
REVSD BY NMH DATE 10-04-21
APPD BY NMH DATE 10-04-21
DWG SIZE A
MATERIAL
PROJECT NO.NAME
SCALE 1:30 SHEET 1 OF 1

ADS Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

TITLE
NYLOPLAST 36" STRUCTURE WITH LADDER DETAIL
DWG NO. 7001-110-528 REV B

3099CGC

APPROX. WEIGHT WITH FRAME = 262.50 LBS



DIMENSIONS ARE FOR REFERENCE ONLY
ACTUAL DIMENSIONS MAY VARY
DIMENSIONS ARE IN INCHES
COVER MEETS H-20 LOAD RATING
QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05
PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT
LOCKING DEVICE AVAILABLE UPON REQUEST SEE DRAWING NO. 7001-110-026

ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND MAY NOT ADEQUATELY ADDRESS YOUR SITE SPECIFIC REQUIREMENTS. ADS RECOMMENDS THAT YOU CONTACT A LOCAL CONSTRUCTION ENGINEER. RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

STANDARD DETAIL
NYLOPLAST 30 IN SOLID COVER ASSEMBLY - TYPE B
DRAWING NUMBER 7001-110-222

ADS 4640 TRUEMAN BLVD HILLIARD, OH 43026

DRAWN BY NMH
DATE 08/06/23
SCALE NTS
SHEET 1 OF 1

CAD FILE NAME: *D1_4400_Sibley Mounding.dwg*

Xcel Energy®

FLOC: *GU-SPG*

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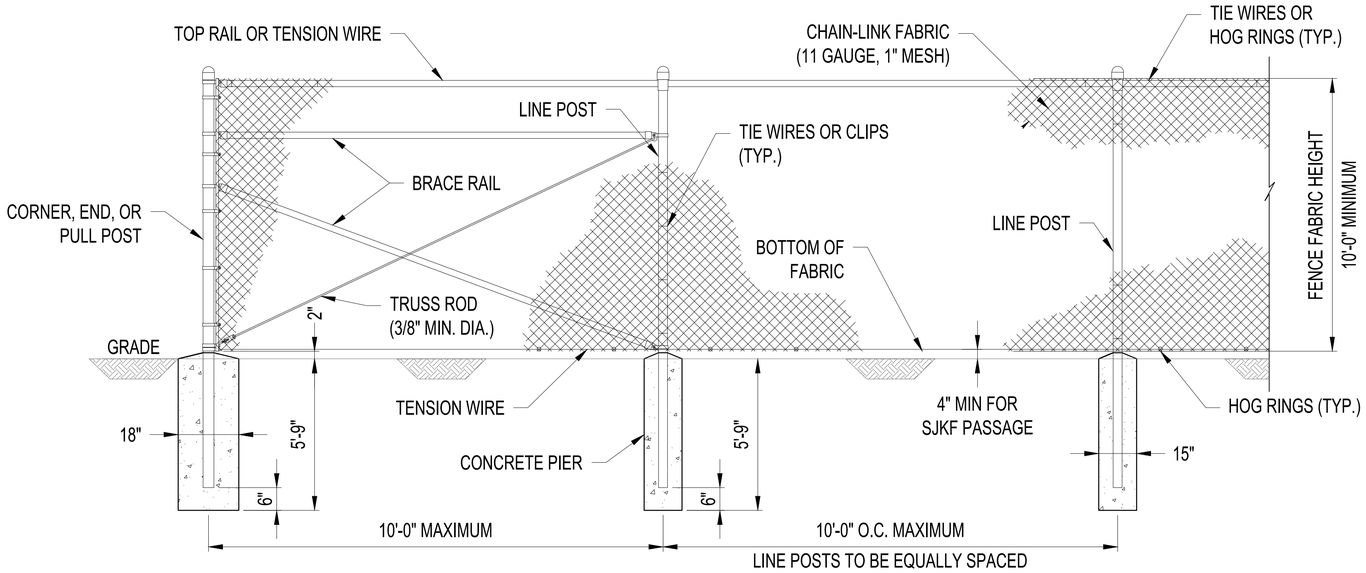
APPROVED BY:	
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION*	*MR*	*05/24/2024*

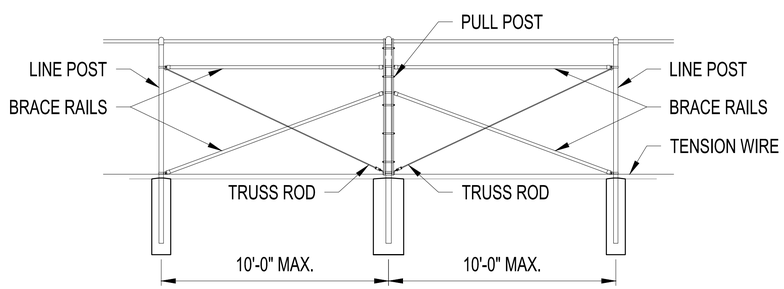
SIBLEY PROPANE PLANT
MANHOLE DETAILS

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*
DIVISION: *NORTHERN* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

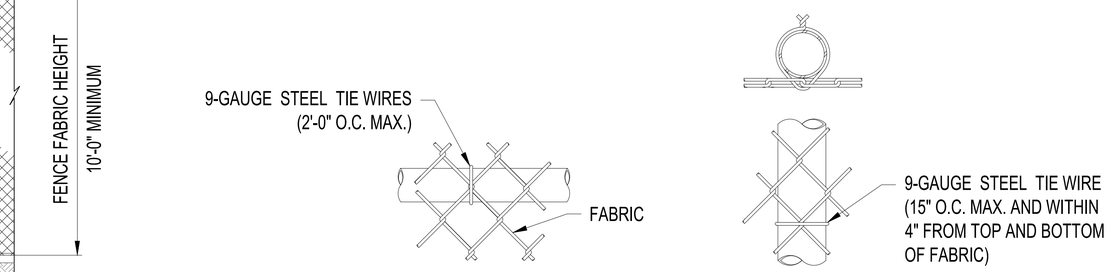
DRAWING
4401
0



CHAIN–LINK PERIMETER FENCE DETAIL
SCALE: NTS



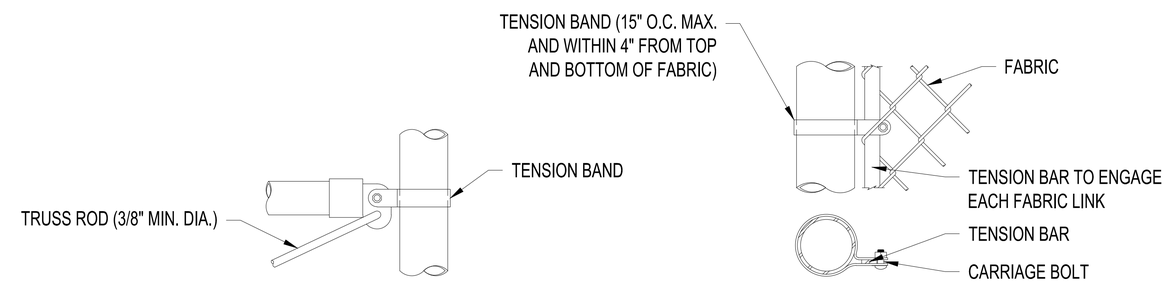
BRACE PANEL DETAIL
SCALE: NTS



TOP OR BRACE RAIL ATTACHMENT

ROUND POST

LINE POST ATTACHMENTS
SCALE: NTS



ROUND POST

END OR GATE POST DETAIL

H–BEAM

BRACE RAIL CLAMP DETAIL

TENSION BAND DETAIL

FASTENING DETAILS
SCALE: NTS

CONSTRUCTION NOTES:

1. PROVIDE BRACE PANEL WHENEVER STRAIGHT RUNS EXCEED 500 FEET.
2. PROVIDE BRACE PANEL WHENEVER FENCE ALIGNMENT CHANGE IN DIRECTION EXCEEDS 15 DEGREES.

NOTES:

1. INSTALLATION:
FENCE ADDITION SHALL BE PLUMB AND TRUE TO LINE, CHAIN LINK FABRIC SHALL BE TAUT AND PROPERLY SECURED, CORNER BRACES AND DIAGONAL BRACES SHALL BE PROPERLY PLACED TO PREVENT SAGGING. THE COMPLETE INSTALLATION SHALL BE INSTALLED BY SKILLED AND EXPERIENCED FENCE ERECTORS, IN A WORKMANLIKE MANNER, IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND IN ACCORDANCE WITH ALL LOCAL APPLICABLE CODES.
2. MATERIAL:
LINE POST SHALL BE 3.5" O.D. OR LARGER. PIPE TERMINAL POSTS (CORNER/END/PULL POSTS) SHALL BE 4.5" O.D. OR LARGER. HORIZONTAL FRAMEWORK MEMBERS INCLUDING TOP RAIL, BRACE RAIL & TRUSS ROD SHALL COMPLY WITH ASTM F1043. SPECIFICATION FOR HOT-DIP GALVANIZED FENCE CHAIN LINK FABRIC - THE CHAIN LINK FABRIC SHALL BE IN ACCORDANCE WITH ASTM A-392 SPECIFICATIONS AND SHALL BE HOT DIPPED GALVANIZED AFTER WEAVING, HAVING A COATING WEIGHT OF 2 OUNCES OF ZINC PER SQUARE FOOT, MINIMUM, OF UNCOATED WIRE SURFACE (CLASS II). FABRIC SHALL BE NO. 9 GAUGE WIRE WOVEN IN A 1-INCH CHAIN LINK DIAMOND MESH. THE FABRIC SHALL BE FASTENED TO THE LINE POST BY MEANS OF NO. 6 GAUGE ALUMINUM WIRE CLIPS SPACED 12 INCHES ON CENTER. IT SHALL BE ATTACHED TO TOP RAIL WITH NO. 9 GAUGE ALUMINUM TIE WIRES SPACED 24 INCHES ON CENTER. FABRIC SHALL BE ATTACHED TO TERMINAL POST BY MEANS OF A 1/4" X 3/4" TENSION BAR WITH HEAVY GAUGE PRESSED STEEL BAND OR CLIPS SPACED APPROXIMATELY 14 INCHES ON CENTER.
3. FOR ADDITIONAL FENCE INFORMATION, SEE SPECIFICATIONS UNDER "PHYSICAL SECURITY FENCE AND GATE GUIDELINES" BY XCEL ENERGY, VERSION 2.

CAD FILE NAME: *D1_4600_Sibley Mounding.dwg*

Xcel Energy®

FLOC: *GU-SPG*

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CAMPOS EPC

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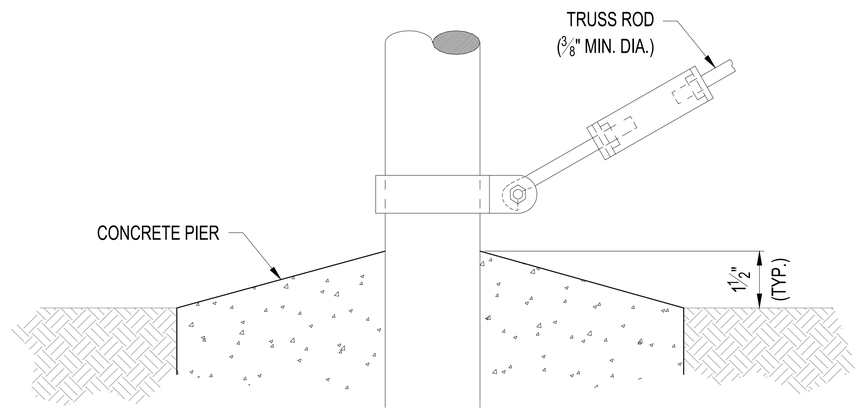
APPROVED BY:	
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION*	*MR*	*05/24/2024*

SIBLEY PROPANE PLANT
FENCING DETAILS

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*
DIVISION: *NORTHERN* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

DRAWING
4600
0



TRUSS ROD AND BAND
SCALE: NTS

STEEL POST SCHEDULE	
USE AND SECTION	MINIMUM OUTSIDE DIMENSIONS (NOMINAL)
	FABRIC WIDTH 120"
CORNER, END, & PULL POSTS TUBULAR - ROUND	4.5" O.D.
LINE POSTS TUBULAR - ROUND	3.5" O.D.
TOP, BOTTOM, & BRACE RAILS TUBULAR - ROUND	1.66" O.D.

NOTES:

1. DETAILS SHOWN ARE TO CLARIFY REQUIREMENTS AND ARE NOT INTENDED TO LIMIT OTHER TYPES OF FENCE SECTIONS AND METHODS OF INSTALLATION THAT COMPLY WITH THE SPECIFICATIONS.
2. WIRE TIES, RAILS, POSTS, AND BRACES SHALL BE CONSTRUCTED ON THE SECURE SIDE OF THE FENCE ALIGNMENT. CHAIN-LINK FABRIC SHALL BE PLACED ON THE SIDE OPPOSITE THE SECURE AREA.
3. UNLESS SPECIFICALLY SHOWN OR SPECIFIED, ALL FENCE SHALL HAVE AN APRON EXTENDED OUTWARD FROM THE AREA BEING PROTECTED.

CAD FILE NAME: *D1_4600_Sibley Mounding.dwg*

Xcel Energy®

FLOC: *GU-SPG*

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CAMPOS EPC

HISTORY	DATE
DRAWN BY: *MR*	*05/24/2024*
DESIGNED BY: *IFC*	*05/24/2024*
CHECKED BY: *IFC*	*05/24/2024*
APPROVED BY:	
IN SERVICE DATE:	

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	*ISSUED FOR CONSTRUCTION*	*MR*	*05/24/2024*

SIBLEY PROPANE PLANT
FENCING DETAILS

SERVICE CENTER: *NORTHERN STATES POWER COMPANY* LOCATION: *UNIT 00*
DIVISION: *NORTHERN* CITY/COUNTY : *MENDOTA HEIGHTS / DAKOTA* TYPE: *FACILITY*

DRAWING
4601
0

1.0 GENERAL CONSTRUCTION ACTIVITY INFORMATION:

THIS STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN PREPARED IN COMPLIANCE WITH THE MINNESOTA GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY NO. MNR100001 (GENERAL PERMIT), AS REQUIRED BY THE MINNESOTA POLLUTION CONTROL AGENCY (MPCA) UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM/STATE DISPOSAL SYSTEM (NPDES/SDS) PROGRAM.

THE PROJECT IS LOCATED AT 800 SIBLEY MEMORIAL HIGHWAY IN THE CITY OF MENDOTA HEIGHTS, DAKOTA COUNTY, MINNESOTA. PROPOSED CONSTRUCTION ACTIVITIES WILL TAKE PLACE WITHIN SECTION 23 TOWNSHIP 28 NORTH RANGE 23 WEST. THE APPROXIMATE CENTROID OF THE PROJECT HAS A LATITUDE OF 44.906177 AND A LONGITUDE OF -93.130502.

THIS PROJECT INVOLVES THE IMPROVEMENT OF EXISTING STORMWATER ROUTING, STORAGE AND DISCHARGE SYSTEMS ON SITE. CONSTRUCTION WILL CONSIST OF SITE GRADING, DRAINAGE SYSTEM IMPROVEMENTS, SURFACING EXPANSION AND REPAIR, AND CONSTRUCTION OF OUTLET AND PRETREATMENT STRUCTURES. THE PROJECT IS NOT A PART OF A LARGER COMMON PLAN OF DEVELOPMENT. THE PROJECT AS PROPOSED HAS A TOTAL DISTURBANCE AREA OF 5.38 ACRES. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ARE REQUIRED TO MINIMIZE SEDIMENT FROM BEING TRANSPORTED INTO THE MISSISSIPPI RIVER, REFER TO PROJECT DRAWINGS FOR FURTHER DETAILS. (CSW PERMIT PART III.A.1)

1.1 PROJECT SIZE AND CUMULATIVE IMPERVIOUS SURFACE:
- THE ANTICIPATED AREA OF DISTURBANCE IS APPROXIMATELY 5.38 ACRES.
- THE TOTAL AREA OF PRE-CONSTRUCTION IMPERVIOUS AREA IS APPROXIMATELY 3.93 ACRES.
- THE TOTAL AREA OF POST-CONSTRUCTION IMPERVIOUS AREA IS APPROXIMATELY 4.53 ACRES.
- THE TOTAL NEW IMPERVIOUS AREA IS APPROXIMATELY 0.60 ACRES.

1.2 DATES OF CONSTRUCTION:
- ANTICIPATED START DATE: JUNE 2022

ANTICIPATED END DATE: NOVEMBER 2023 C

1.3 CONTACT INFORMATION:
OWNER: XCEL ENERGY
MAILING ADDRESS: 10326 S. ROBERT TRAIL, INVER GROVE HEIGHTS, MN 55076
CONTACT PERSON: RICHARD HYDE — TITLE: SENIOR OPERATIONS MANAGER
PHONE NUMBER: 651-265-7055 — EMAIL ADDRESS: RICHARD.R.HYDE@XCELENERGY.COM

OPERATOR / GENERAL CONTRACTOR (WILL OVERSEE IMPLEMENTATION OF THE SWPPP): _____
MAILING ADDRESS: _____
CONTACT PERSON: _____ TITLE: _____
PHONE NUMBER: _____ EMAIL ADDRESS: _____

PARTY RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PERMANENT STORMWATER MANAGEMENT SYSTEM:
XCEL ENERGY
MAILING ADDRESS: 10326 S. ROBERT TRAIL, INVER GROVE HEIGHTS, MN 55076
CONTACT PERSON: RICHARD HYDE
TITLE: SENIOR OPERATIONS MANAGER
PHONE NUMBER: 651-265-7055
EMAIL ADDRESS: RICHARD.R.HYDE@XCELENERGY.COM

2.0 RECEIVING WATERS:

WATERS WITHIN ONE MILE (NEAREST STRAIGHT LINE DISTANCE) THAT ARE LIKELY TO RECEIVE STORMWATER RUNOFF FROM THE PROJECT SITE (CSW PERMIT ITEM 5.10) INCLUDE:

NAME OF WATER BODY	TYPE (1)	WATER BODY ID (2)	SPECIAL WATER? (3)	IMPAIRED WATER? (3)	PUBLIC WATER WITH WORK IN WATER RESTRICTIONS?
UNNAMED CREEK	CREEK	07010206-542	NO	NO	NO
MISSISSIPPI RIVER	RIVER	07010206-505	NO	YES	NO

(1) TYPE EXAMPLES: DITCH, POND, WETLAND, CALCAREOUS FEN, LAKE, STREAM, RIVER
(2) WATER BODY IDENTIFICATION (ID) MIGHT NOT BE AVAILABLE FOR ALL WATER BODIES. USE THE SPECIAL AND IMPAIRED WATERS SEARCH TOOL AT: HTTPS://WWW.PCA.STATE.MN.US/WATER/STORMWATER-SPECIAL-AND-IMPAIRED-WATERS-SEARCH
(3) REFER TO CSW PERMIT SECTION 23. IMPAIRED WATER FOR THE FOLLOWING POLLUTANT(S) OR STRESSOR(S): PHOSPHORUS (NUTRIENT EUTROPHICATION BIOLOGICAL INDICATORS), TURBIDITY, TOTAL SUSPENDED SOLIDS (TSS), DISSOLVED OXYGEN, OR AQUATIC BIOTA (FISH BIOASSESSMENT, AQUATIC PLANT BIOASSESSMENT, AND AQUATIC MACROINVERTEBRATE BIOASSESSMENT)

2.1 SPECIAL AND IMPAIRED WATERS:
THE MPCA'S SPECIAL AND IMPAIRED WATERS SEARCH TOOL WAS USED TO LOCATE SPECIAL AND IMPAIRED WATERS WITHIN ONE MILE (AERIAL RADIUS MEASUREMENT) OF THE PROJECT SITE. THIS SEGMENT OF THE MISSISSIPPI RIVER HAS EPA-APPROVED IMPAIRMENTS FOR FECAL COLIFORM, MERCURY IN FISH TISSUE, MERCURY IN WATER COLUMN, NUTRIENTS, PCB IN FISH TISSUE, TOTAL SUSPENDED SOLIDS, AND PERFLUOROOCTANE SULFUNATE (PFOs) IN FISH TISSUE. THESE IMPAIRMENTS ARE CONSIDERED CONSTRUCTION RELATED AND DO REQUIRE ADDITIONAL BEST MANAGEMENT PRACTICES (BMPS) OR PLAN REVIEW FOR COMPLIANCE WITH THE GENERAL PERMIT. (CSW PERMIT ITEM 2.7 AND SECTION 23)

ADDITIONAL BMPS OR OTHER SPECIFIC CONSTRUCTION RELATED IMPLEMENTATION ACTIVITIES IDENTIFIED IN AN APPROVED TOTAL MAXIMUM DAILY LOAD (TMDL) INCLUDE NEED TO UPDATE BASED ON TMDL - MIGHT INCLUDE THINGS LIKE IMMEDIATE STABILIZATION OF EXPOSED SOIL AREAS. (CSW PERMIT ITEM 5.19)

2.2 PUBLIC WATERS WITH WORK IN WATER RESTRICTIONS:
THIS PROJECT DOES NOT INCLUDE WORK IN PUBLIC WATERS. (CSW PERMIT ITEM 5.11)

2.3 WETLAND IMPACTS:
THIS PROJECT DOES NOT INCLUDE WETLAND IMPACTS. (CSW PERMIT ITEMS 2.4 AND 2.10, AND SECTION 22)

2.4 ENVIRONMENTAL REVIEW AND OTHER REQUIRED REVIEWS:
STORMWATER MITIGATION MEASURES ARE NOT REQUIRED AS A RESULT OF AN ENVIRONMENTAL REVIEW (E.G., EAW OR EIS), ENDANGERED OR THREATENED SPECIES REVIEW, ARCHEOLOGICAL SITE REVIEW, OR OTHER LOCAL, STATE, OR FEDERAL REVIEW CONDUCTED FOR THE PROJECT. (CSW PERMIT ITEMS 2.8, 2.9, AND 5.16)

2.5 KARST AREAS OR DRINKING WATER SUPPLY MANAGEMENT AREAS:
THE PRESENCE OF KARST IN THE VICINITY OF THE SITE RESULTS IN THE PROHIBITION OF INFILTRATION FEATURES FOR STORMWATER MANAGEMENT IN ORDER TO PROTECT GROUNDWATER STANDARDS. (CSW PERMIT ITEMS 16.19, 16.20, AND 18.10)

3.0 PROJECT PLANS AND SPECIFICATIONS:

REQUIRED FEATURE	SHEET NUMBER
• PROJECT LOCATION AND CONSTRUCTION LIMITS	4152
• EXISTING AND FINAL GRADES, INCLUDING DRAINAGE AREA BOUNDARIES, DIRECTIONS OF FLOW AND ALL DISCHARGE POINTS WHERE STORMWATER IS LEAVING THE SITE OR ENTERING A SURFACE WATER	
• SOIL TYPES AT THE SITE	4151
• LOCATIONS OF IMPERVIOUS SURFACES	4152
• LOCATIONS OF AREAS NOT BE BE DISTURBED (E.G., BUFFER ZONES, WETLANDS, ETC.)	4152
• LOCATIONS OF AREAS OF STEEP SLOPES	4152
• LOCATIONS OF AREAS WHERE CONSTRUCTION WILL BE PHASED TO MINIMIZE DURATION OF EXPOSED SOILS	N/A
• PORTIONS OF THE SITE THAT DRAIN TO A PUBLIC WATER WITH DNR WORK IN WATER RESTRICTIONS FOR FISH SPAWNING TIMEFRAMES	4152
• LOCATIONS OF ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL BMPS AS REQUIRED IN PERMIT SECTIONS 8 THROUGH 10 AND 14 THROUGH 19	4152
• BUFFER ZONES AS REQUIRED IN PERMIT ITEMS 9.17 AND 23.11	N/A
• LOCATIONS OF POTENTIAL POLLUTION-GENERATING ACTIVITIES IDENTIFIED IN PERMIT SECTION 12	4152
• STANDARD DETAILS FOR EROSION AND SEDIMENT CONTROL BMPS TO BE INSTALLED AT THE SITE	4153

4.0 BEST MANAGEMENT PRACTICES (BMPS):

4.1 EROSION PREVENTION PRACTICES:
1. BEFORE LAND DISTURBING ACTIVITIES BEGIN, THE LIMITS OF THE AREAS TO BE DISTURBED DURING CONSTRUCTION WILL BE DELINEATED WITH FLAGS, STAKES, SIGNS, SILT FENCE, ETC.
2. TEMPORARY STABILIZATION OF SOILS AND SOIL STOCKPILES: (CSW PERMIT ITEMS 8.4, 8.5, AND 23.9)
   a. AREAS OF EXPOSED SOIL WILL BE STABILIZED WITH EROSION CONTROL BLANKET OR EQUIVALENT MEASURES.
   b. IF PRESENT, SOIL STOCKPILES WILL BE STABILIZED WITH FAST GROWING COVER CORP, MULCH SUCH AS STRAW MULCH OR EQUIVALENT MEASURES.
   c. TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY, OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) AND THE CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS, AND SIMILAR SURFACES ARE EXEMPT FROM THESE STABILIZATION REQUIREMENTS.
2. STABILIZATION OF DITCH AND SWALE WETTED PERIMETERS: (CSW PERMIT ITEMS 8.6 THROUGH 8.8)
   a. IF SOILS WITHIN EXISTING STORMWATER DITCHES OR SWALES ARE DISTURBED, THEY WILL BE STABILIZED WITH CHANNEL EROSION CONTROL BLANKET, RIPRAP, TURF REINFORCEMENT MAT OR EQUIVALENT MEASURES.
   b. MULCH, HYDROMULCH, TACKIFIER, POLYACRYLAMIDE, OR SIMILAR EROSION PREVENTION PRACTICES WILL NOT BE USED TO STABILIZE ANY PART OF AN EXISTING STORMWATER DITCH OR SWALE WITH A CONTINUOUS SLOPE OF GREATER THAN 2 PERCENT.
   c. THE LAST 200 LINEAL FEET OF LENGTH OF THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DITCH OR SWALE THAT DRAINS WATER FROM ANY PORTION OF THE CONSTRUCTION SITE, OR DIVERTS WATER AROUND THE SITE, WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE INTO ANY SURFACE WATER WILL BE STABILIZED WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE.
   d. STABILIZATION OF THE REMAINING PORTIONS OF ANY TEMPORARY OR PERMANENT DITCHES OR SWALES WILL BE COMPLETED WITHIN 14 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE AND CONSTRUCTION IN THAT PORTION OF THE DITCH HAS TEMPORARILY OR PERMANENTLY CEASED.
3. ENERGY DISSIPATION AT PIPE OUTLETS: ENERGY DISSIPATION AT PIPE OUTLETS WILL BE PROVIDED WITH ONE OR MORE OF THE FOLLOW METHODS: RIP RAP, SPLASH PADS, GABIONS, OR EQUIVALENT MEASURES. (CSW PERMIT ITEM 8.9)
4. EROSION PREVENTION IMPLEMENTATION TIMELINES: (CSW PERMIT ITEMS 5.4, 8.4 THROUGH 8.6, AND 23.9)
   a. SINCE THE SITE DRAINS TO A DISCHARGE POINT THAT IS WITHIN ONE MILE (AERIAL RADIUS MEASUREMENT) OF A SPECIAL OR IMPAIRED WATER (SEE SECTION 2.0), STABILIZATION OF EXPOSED SOIL AREAS (INCLUDING STOCKPILES) WILL BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION WHENEVER ANY CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 7 CALENDAR DAYS.
   b. THE FOLLOWING ACTIVITIES CAN BE TAKEN TO INITIATE STABILIZATION: PREPPING THE SOIL FOR VEGETATIVE OR NON-VEGETATIVE STABILIZATION, APPLYING MULCH OR OTHER NON-VEGETATIVE PRODUCT TO THE EXPOSED SOIL AREA, OR SEEDING OR PLANTING THE EXPOSED AREA.
5. ADDITIONAL EROSION PREVENTION MEASURES: THE FOLLOWING ADDITIONAL EROSION PREVENTION METHODS WILL BE IMPLEMENTED AT THE SITE DURING CONSTRUCTION: (CSW PERMIT ITEMS 8.2, 8.3, AND 8.10)
   a. CONSTRUCTION PHASING WILL BE UTILIZED TO MINIMIZE THE AREA OF SOIL EXPOSED AT ANY ONE TIME.
   b. SOIL DISTURBANCE WILL BE MINIMIZED WHEREVER POSSIBLE TO AID IN EROSION PREVENTION.
   c. EXISTING VEGETATION WILL BE PRESERVED WHEREVER POSSIBLE TO LIMIT EXPOSED SOIL AND THUS WILL SERVE AS NATURAL VEGETATIVE BUFFERS.
   d. EXPOSED SOIL ON STEEP SLOPES (≤3H:1V) WILL BE STABILIZED USING EROSION CONTROL BLANKETS AND SEEDING.
   e. HORIZONTAL SLOPE GRADING WILL BE UTILIZED TO MINIMIZE EROSION POTENTIAL.
   f. TERRACING WILL BE USED TO MINIMIZED EROSION POTENTIAL.

4.2 SEDIMENT CONTROL PRACTICES:
1. DOWNGRADIENT PERIMETER CONTROLS: (CSW PERMIT ITEMS 9.2 THROUGH 9.6)
   a. SEDIMENT CONTROL PRACTICES WILL BE ESTABLISHED ON ALL DOWNGRADIENT PERIMETERS AND LOCATED UPGRADIENT OF ANY BUFFER ZONES. PERIMETER SEDIMENT CONTROLS WILL INCLUDE: SILT FENCE, SEDIMENT CONTROL LOGS / BIOROLLS (FILLED WITH COMPOST, WOOD CHIPS, ROCK, ETC.), VEGETATIVE BUFFERS (RETAIN EXISTING VEGETATION WHERE POSSIBLE) OR EQUIVALENT MEASURES.
   b. PERIMETER SEDIMENT CONTROL PRACTICES MUST BE INSTALLED BEFORE ANY UPGRADIENT LAND-DISTURBING ACTIVITIES BEGIN AND REMAIN IN PLACE UNTIL PERMANENT COVER HAS BEEN ESTABLISHED.
   c. IF SEDIMENT CONTROL PRACTICES HAVE BEEN ADJUSTED OR REMOVED TO ACCOMMODATE SHORT-TERM ACTIVITIES (SUCH AS CLEARING, GRUBBING, OR PASSAGE OF VEHICLES), THE CONTROLS MUST BE RE-INSTALLED IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY HAS BEEN COMPLETED. SEDIMENT CONTROL PRACTICES MUST BE RE-INSTALLED BEFORE THE NEXT PRECIPITATION EVENT, EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE.
   d. IF THE DOWNGRADIENT SEDIMENT CONTROLS ARE OVERLOADED (BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENT), INSTALL ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPS TO ELIMINATE THE OVERLOADING AND AMEND THE SWPPP TO IDENTIFY THESE ADDITIONAL PRACTICES.
2. SOIL STOCKPILE PERIMETER CONTROLS: TEMPORARY SOIL STOCKPILES WILL BE SURROUNDED BY: SEDIMENT CONTROL LOGS / BIOROLLS (FILLED WITH COMPOST, WOOD CHIPS, ROCK, ETC.) OR EQUIVALENT MEASURES, AND SHALL NOT BE PLACED IN ANY NATURAL BUFFERS OR SURFACE WATERS.(CSW PERMIT ITEMS 9.9 AND 9.10)
3. STORM DRAIN INLET PROTECTION: (CSW PERMIT ITEMS 9.7 AND 9.8)
   a. INLET PROTECTION BMPS WILL BE INSTALLED AROUND ALL STORM DRAIN INLETS DOWNGRADIENT OF CONSTRUCTION ACTIVITIES.
   b. STORM DRAIN INLETS WILL BE PROTECTED UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED.
   c. INLET PROTECTION BMPS WILL BE: SEDIMENT CONTROL LOG, FILTER SACK, ROCK WITH FILTER FABRIC, FILTER FENCE BOX OR EQUIVALENT MEASURES.
4. VEHICLE TRACKING BMPS: (CSW PERMIT ITEMS 9.11 AND 9.12)
   a. VEHICLE TRACKING BMPS WILL BE INSTALLED TO MINIMIZE THE TRACKING OUT OF SEDIMENT FROM THE CONSTRUCTION AREA AND WILL INCLUDE: ROCK PADS OR AN EQUIVALENT SYSTEM.
   b. IF SUCH VEHICLE TRACKING BMPS ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE PAVED ROAD, STREET SWEEPING WILL ALSO BE EMPLOYED. SEDIMENT WILL BE REMOVED BY SWEEPING WITHIN 24 HOURS.
5. PROTECTION OF INFILTRATION AREAS: IF NECESSARY, ADDITIONAL SEDIMENT CONTROLS (E.G., DIVERSION BERMS) WILL BE INSTALLED TO KEEP RUNOFF AWAY FROM PLANNED INFILTRATION AREAS WHEN EXCAVATED PRIOR TO ESTABLISHING PERMANENT COVER WITHIN THE CONTRIBUTING DRAINAGE AREA. (CSW PERMIT ITEMS 16.4 AND 16.5)
6. MINIMIZATION OF SOIL COMPACTION AND PRESERVATION OF TOPSOIL: SOIL COMPACTION WILL BE MINIMIZED AND TOPSOIL WILL BE PRESERVED WHERE POSSIBLE. (CSW PERMIT ITEMS 5.24, 9.14, AND 9.15)
7. PRIORITIZATION OF ONSITE INFILTRATION AND SEDIMENT REMOVAL: (CSW PERMIT ITEM 9.16)
   a. PRIOR TO OFFSITE DISCHARGE, INFILTRATION AND SEDIMENT REMOVAL WILL BE IMPLEMENTED ONSITE WHERE POSSIBLE.
   b. DISCHARGES FROM BMPS WILL BE DIRECTED TO VEGETATED AREAS OF THE SITE (INCLUDING ANY NATURAL BUFFERS) IN ORDER TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORMWATER INFILTRATION. IF EROSION IS NOTED TO OCCUR AS THE RESULT OF SUCH A DISCHARGE, VELOCITY DISSIPATION BMPS WILL BE CONSIDERED AND INSTALLED AS NECESSARY TO PREVENT EROSION.
8. BUFFER ZONE OR REDUNDANT SEDIMENT CONTROLS TO PROTECT SURFACE WATERS: (CSW PERMIT ITEM 9.17)
   a. A 50-FOOT NATURAL BUFFER WILL BE PRESERVED IN CONSTRUCTION AREAS DISCHARGING TO A NON-SPECIAL/NON-IMPAIRED SURFACE WATER OR WETLAND. IF A NON-SPECIAL/NON-IMPAIRED SURFACE WATER OR WETLAND IS LOCATED WITHIN 50 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER, OR WHEN A BUFFER IS INFEASIBLE, REDUNDANT SEDIMENT CONTROLS WILL BE PROVIDED.
   b. A 100-FOOT NATURAL BUFFER WILL BE PRESERVED IN CONSTRUCTION AREAS DISCHARGING TO A SPECIAL OR IMPAIRED SURFACE WATER. IF A SPECIAL OR IMPAIRED SURFACE WATER IS LOCATED WITHIN 100 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER, OR WHEN A BUFFER IS INFEASIBLE, REDUNDANT SEDIMENT CONTROLS WILL BE PROVIDED.
   c. REDUNDANT PERIMETER CONTROLS WILL BE INSTALLED AT LEAST 5 FEET APART UNLESS LIMITED BY LACK OF AVAILABLE SPACE.
9. SEDIMENTATION TREATMENT CHEMICALS: NOT APPLICABLE; USE OF SEDIMENTATION TREATMENT CHEMICALS (E.G., POLYMERS, FLOCCULANTS, ETC.) IS NOT ANTICIPATED AS PART OF THE PROJECT. (CSW PERMIT ITEMS 5.22 AND 9.18)
10. TEMPORARY SEDIMENT BASIN(S): THE PROJECT WILL NOT INCLUDE 10 OR MORE ACRES OF DISTURBED SOIL DRAINING TO A COMMON LOCATION OR 5 OR MORE ACRES DRAINING TO A COMMONLOCATION WITHIN 1 MILE OR A SPECIAL OR IMPAIRED WATER THEREFORE TEMPORARY SEDIMENT BASINS ARE NOT REQUIRED. (CSW PERMIT ITEMS 5.6, 9.13, AND 23.10 AND SECTION 14)

4.3 DEWATERING AND BASIN DRAINING:
NO DEWATERING OR BASIN DRAINING ARE ANTICIPATED AS PART OF THIS PROJECT. (CSW PERMIT SECTION 10 AND ITEM 10.5)

4.4 BMP DESIGN FACTORS:
THE FOLLOWING BMP DESIGN FACTORS HAVE BEEN CONSIDERED IN DESIGNING THE TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL BMPS:
1. EXPECTED AMOUNT, FREQUENCY, INTENSITY, AND DURATION OF PRECIPITATION:
2. NATURE OF STORMWATER RUNOFF AND RUN-ON AT THE SITE, INCLUDING FACTORS SUCH AS EXPECTED FLOW FROM IMPERVIOUS SURFACES, SLOPES, AND SITE DRAINAGE FEATURES:
3. STORMWATER VOLUME, VELOCITY, AND PEAK FLOW RATES TO MINIMIZE DISCHARGE OF POLLUTANTS IN STORMWATER AND TO MINIMIZE CHANNEL AND STREAMBANK EROSION AND SCOUR IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS:
4. RANGE OF SOIL PARTICLE SIZES EXPECTED TO BE PRESENT:

4.5 BMP QUANTITIES:

ROCK CONSTRUCTION ENTRANCE: 1 EA.
SINGLE ROW SILT FENCE: 750 LF C
DOUBLE ROW SILT FENCE: 1,850 LF
EROSION CONTROL BLANKET: 1,320 SY
SEDIMENT CONTROL LOG (SLOPE BREAKS): 200 LF

(SEE PAGE 2 OF 2)

ISSUED FOR CONSTRUCTION

Xcel Energy®

BARR
4300 MARKETPOINTE DRIVE
Suite 200
MINNEAPOLIS, MN 55435
Ph: 1-800-632-2277
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HISTORY		DATE
DRAWN BY:	EPF	05/18/2022
DESIGNED BY:	BARR	05/18/2022
CHECKED BY:	JPP	05/18/2022
APPROVED BY:	JPP	05/18/2022
IN SERVICE DATE:		

REVISIONS			
NO.	DESCRIPTION	BY	DATE
A	ISSUED FOR REVIEW	EPF	04/21/2022
B	ISSUED FOR CONSTRUCTION	EPF	05/18/2023
C	ISSUED FOR CONSTRUCTION	EPF	03/13/2023

SIBLEY PHASE II FIRE SUPPRESSION
STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

SERVICE CENTER: NORTHERN STATES POWER COMPANY | PROJECT: 4501038238
DIVISION: NORTH | CITY/COUNTY : MENDOTA HEIGHTS / DAKOTA | TYPE:

DRAWING 4150 C

CADD USER: ERIC P. FITZGERALD FILE: M:\DESIGN\23191480.00\SIBLEY\23191480_G-01_SWPPP.DWG PLOT SCALE: 1:2 PLOT DATE: 3/13/2023 5:34 PM

5.0 PERMANENT STORMWATER MANAGEMENT SYSTEM:

A PERMANENT STORMWATER MANAGEMENT SYSTEM IS REQUIRED IF THE PROJECT RESULTS IN ONE ACRE OR MORE OF NEW IMPERVIOUS SURFACES OR RESULTS IN A NET INCREASE OF ONE OR MORE ACRES OF CUMMULATIVE NEW IMPERVIOUS SURFACES IN TOTAL OR IF THE PROJECT IS PART OF A LARGER PLAN OF DEVELOPMENT. (CSW PERMIT ITEM 15.3)

5.1 A PERMANENT STORMWATER TREATMENT SYSTEM IS NOT REQUIRED. (CSW PERMIT ITEMS 5.15, 15.4-15.9, AND 23.14)

5.2 THIS IS NOT A LINEAR PROJECT WITH LACK OF RIGHT OR WAY. (CSW PERMIT ITEM 15.9)

5.3 THIS PROJECT DOES NOT DISCHARGE TO A TROUT STREAM (OR A TRIBUTARY TO A TROUT STREAM). (CSW PERMIT ITEM 23.12)

6.0 INSPECTION AND MAINTENANCE ACTIVITIES:

6.1 PERSONS WITH REQUIRED TRAINING: TRAINED INDIVIDUALS INCLUDE THOSE PARTIES RESPONSIBLE FOR INSTALLING, SUPERVISING, REPAIRING, INSPECTING, AND MAINTAINING EROSION PREVENTION AND SEDIMENT CONTROL BMPS AT THE SITE. TRAINED INDIVIDUALS ARE ALSO RESPONSIBLE FOR IMPLEMENTATION OF THE SWPPP AND COMPLIANCE WITH THE GENERAL PERMIT UNTIL THE CONSTRUCTION ACTIVITIES ARE COMPLETE, PERMANENT COVER HAS BEEN ESTABLISHED, AND A NOTICE OF TERMINATION (NOT) HAS BEEN SUBMITTED. (CSW PERMIT ITEMS 5.20, 5.21, AND 11.9 AND SECTION 21)

THESE INDIVIDUALS WILL BE TRAINED IN ACCORDANCE WITH THE REQUIREMENTS OF THE GENERAL PERMIT, INCLUDING THE REQUIREMENT THAT THE CONTENT AND EXTENT OF TRAINING WILL BE COMMENSURATE WITH THE INDIVIDUAL'S JOB DUTIES AND RESPONSIBILITIES.

BELOW IS A LIST OF PEOPLE RESPONSIBLE FOR THIS PROJECT WHO ARE KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMPS.

TRAINED INDIVIDUAL	RESPONSIBILITY	TRAINING ENTITY*	TRAINING DATE
ERIC FITZGERALD	PREPARATION OF THE SWPPP	UNIVERSITY OF MINNESOTA	MARCH 2021
_____	OVERSIGHT OF SWPPP IMPLEMENTATION, REVISION, AND AMMENDMENT	_____	_____
_____	PERFORMANCE OF SWPPP INSPECTIONS	_____	_____
_____	PERFORMANCE OR SUPERVISION OF INSTALLATION, MAINTENANCE, AND REPAIR OF BMPS	_____	_____

*TRAINING DOCUMENTATION AVAILABLE UPON REQUEST.

6.2 FREQUENCY OF INSPECTIONS: A TRAINED PERSON WILL ROUTINELY INSPECT THE ENTIRE CONSTRUCTION SITE. (CSW PERMIT ITEMS 11.2, 11.10, AND 23.13)

- AT LEAST ONCE EVERY 7 DAYS DURING ACTIVE CONSTRUCTION
- WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS

INSPECTION FREQUENCY MAY BE ADJUSTED UNDER THE FOLLOWING CIRCUMSTANCES:

- WHERE PARTS OF THE CONSTRUCTION AREAS HAVE PERMANENT COVER, BUT WORK REMAINS ON OTHER PARTS OF THE SITE, INSPECTIONS OF THE AREAS WITH PERMANENT COVER MAY BE REDUCED TO ONCE PER MONTH.
- WHERE CONSTRUCTION AREAS HAVE PERMANENT COVER AND NO CONSTRUCTION ACTIVITY IS OCCURRING ON THE SITE, INSPECTIONS CAN BE REDUCED TO ONCE PER MONTH AND, AFTER 12 MONTHS, MAY BE SUSPENDED COMPLETELY UNTIL CONSTRUCTION ACTIVITY RESUMES.
- WHERE CONSTRUCTION ACTIVITY HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, THE INSPECTIONS MAY BE SUSPENDED. THE REQUIRED INSPECTIONS AND MAINTENANCE SCHEDULE MUST BEGIN WITHIN 24 HOURS AFTER RUNOFF OCCURS AT THE SITE OR UPON RESUMING CONSTRUCTION, WHICHEVER COMES FIRST.

6.3 INSPECTION REQUIREMENTS: EACH CONSTRUCTION STORMWATER SITE INSPECTION WILL INCLUDE INSPECTION OF THE FOLLOWING AREAS: (CSW PERMIT ITEMS 11.3 THROUGH 11.8)

- ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS AND POLLUTION PREVENTION MANAGEMENT MEASURES
- SURFACE WATERS FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION
- CONSTRUCTION SITE VEHICLE EXIT LOCATIONS FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING
- STREETS AND OTHER AREAS ADJACENT TO THE PROJECT FOR EVIDENCE OF OFF SITE ACCUMULATIONS OF SEDIMENT

6.4 MAINTENANCE REQUIREMENTS: MAINTENANCE OF THE FOLLOWING AREAS AND BMPS WILL BE PERFORMED AS FOLLOWS: (CSW PERMIT ITEMS 11.3 THROUGH 11.8)

- NONFUNCTIONAL BMPS WILL BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL BMPS BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.
- PERIMETER CONTROL DEVICES WILL BE REPAIRED, REPLACED, OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE DEVICE.
- TEMPORARY AND PERMANENT SEDIMENTATION BASINS WILL BE DRAINED AND THE SEDIMENT REMOVED WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME.
- DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS WILL BE REMOVED, AND THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL WILL BE RE-STABILIZED. THE REMOVAL AND STABILIZATION WILL BE COMPLETED WITHIN 7 CALENDAR DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. IF PRECLUDED DUE TO ACCESS CONSTRAINTS, REASONABLE EFFORTS TO OBTAIN ACCESS WILL BE USED. REMOVAL AND STABILIZATION WILL TAKE PLACE WITHIN 7 CALENDAR DAYS OF OBTAINING ACCESS.
- TRACKED SEDIMENT ON PAVED SURFACES WILL BE REMOVED WITHIN 1 CALENDAR DAY OF DISCOVERY.
- AREAS UNDERGOING STABILIZATION WILL BE RESTABILIZED AS NECESSARY TO ACHIEVE REQUIRED COVER.

6.5 RECORDKEEPING REQUIREMENTS: (CSW PERMIT ITEMS 11.11 AND 24.5 AND SECTIONS 6 AND 20)

1. ALL INSPECTIONS AND MAINTENANCE ACTIVITIES WILL BE RECORDED IN WRITING WITHIN 24 HOURS OF BEING CONDUCTED AND THESE RECORDS WILL BE RETAINED WITH THE SWPPP. RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY WILL INCLUDE THE DATE AND TIME; NAME OF INSPECTOR(S); FINDINGS OF INSPECTIONS; CORRECTIVE ACTIONS (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES); AND DATE OF ALL RAINFALL EVENTS GREATER THAN 0.5 INCHES IN 24 HOURS AND THE AMOUNT OF RAINFALL FOR EACH EVENT.
   a. IF ANY DISCHARGE IS OBSERVED DURING THE INSPECTION, THE LOCATION AND APPEARANCE OF THE DISCHARGE (I.E., COLOR, ODOR, SETTLED OR SUSPENDED SOLIDS, OIL SHEEN, AND OTHER OBVIOUS INDICATORS OF POLLUTANTS) WILL BE DOCUMENTED AND A PHOTOGRAPH WILL BE TAKEN.
2. THE SWPPP WILL BE AMENDED TO INCLUDE ADDITIONAL OR MODIFIED BMPS TO CORRECT PROBLEMS OR ADDRESS SITUATIONS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER, OR SEASONAL CONDITIONS THAT HAS A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER.
   a. THE SWPPP WILL BE AMENDED WHEN INSPECTIONS OR INVESTIGATIONS BY THE SITE OWNER, OPERATOR, OR CONTRACTORS OR BY USEPA/MPCA OFFICIALS INDICATE THAT THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR MINIMIZING THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER; THE DISCHARGES ARE CAUSING WATER QUALITY STANDARD EXCEEDANCES; OR THE SWPPP IS NOT CONSISTENT WITH A USEPA APPROVED TMDL.
   b. ANY AMENDMENTS TO THE SWPPP PROPOSED AS A RESULT OF THE INSPECTION WILL BE DOCUMENTED AS REQUIRED WITHIN 7 CALENDAR DAYS.
   c. AMENDMENTS WILL BE COMPLETED BY AN APPROPRIATELY TRAINED INDIVIDUAL. CHANGES INVOLVING THE USE OF A LESS STRINGENT BMP WILL INCLUDE A JUSTIFICATION DESCRIBING HOW THE REPLACEMENT BMP IS EFFECTIVE FOR THE SITE CHARACTERISTICS.
3. RECORDS RETENTION: THE SWPPP, INCLUDING ALL CHANGES TO IT, AND INSPECTION AND MAINTENANCE RECORDS WILL BE KEPT AT THE SITE DURING CONSTRUCTION BY THE PERMITTEE WHO HAS OPERATIONAL CONTROL OF THE SITE. THE SWPPP CAN BE KEPT IN EITHER A FIELD OFFICE OR IN AN ON SITE VEHICLE DURING NORMAL WORKING HOURS.
4. RECORD AVAILABILITY: THE PERMITTEES WILL MAKE THE SWPPP, INCLUDING INSPECTION REPORTS, MAINTENANCE RECORDS, AND TRAINING RECORDS, AVAILABLE TO FEDERAL, STATE, AND LOCAL OFFICIALS WITHIN THREE DAYS UPON REQUEST FOR THE DURATION OF THE PERMIT COVERAGE AND FOR THREE YEARS FOLLOWING THE NOTICE OF TERMINATION.

7.0 POLLUTION PREVENTION MEASURES:

1. ANY CONSTRUCTION PRODUCTS AND LANDSCAPE MATERIALS THAT HAVE THE POTENTIAL TO LEACH POLLUTANTS WILL BE STORED UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) TO PREVENT DISCHARGE OF POLLUTANTS THROUGH MINIMIZATION OF CONTACT WITH STORMWATER. STORAGE OF SUCH MATERIALS WITHIN THE PROJECT AREA WILL BE MINIMIZED TO THE EXTENT POSSIBLE. (CSW PERMIT ITEM 12.2)
2. PESTICIDES, FERTILIZERS, AND TREATMENT CHEMICALS WILL BE STORED UNDER COVER (E.G., PLASTIC SHEETING, TEMPORARY ROOFS, WITHIN A BUILDING, OR IN WEATHER-PROOF CONTAINERS) TO PREVENT DISCHARGE OF POLLUTANTS THROUGH MINIMIZATION OF CONTACT WITH STORMWATER. STORAGE OF SUCH MATERIALS WITHIN THE PROJECT AREA WILL BE MINIMIZED TO THE EXTENT POSSIBLE. (CSW PERMIT ITEM 12.3)
3. HAZARDOUS MATERIALS AND TOXIC WASTE (E.G., OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT SOLVENTS, PETROLEUM-BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) WILL BE STORED AND DISPOSED OF IN COMPLIANCE WITH MINNESOTA RULES CHAPTER 7045, INCLUDING SECONDARY CONTAINMENT (AS APPLICABLE). HAZARDOUS MATERIALS WILL BE PROPERLY STORED IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS, OR OTHER DISCHARGES AND PREVENT PRECIPITATION FROM FALLING ONTO THE CONTAINERS OR STORED HAZARDOUS MATERIALS. (CSW PERMIT ITEMS 2.3 AND 12.4)
4. SOLID WASTE WILL BE COLLECTED, STORED, AND DISPOSED OF PROPERLY IN COMPLIANCE WITH MINNESOTA RULES CHAPTER 7035. THIS INCLUDES STORAGE WITHIN COVERED TRASH CONTAINERS AND DAILY REMOVAL OF LITTER AND DEBRIS. STORAGE OF SOLID WASTE WITHIN THE PROJECT AREA WILL BE MINIMIZED TO THE EXTENT POSSIBLE. (CSW PERMIT ITEM 12.5)
5. PORTABLE TOILETS WILL BE LOCATED AWAY FROM SURFACE WATERS AND POSITIONED AND SECURED TO THE GROUND SO THEY WILL NOT BE TIPPED OR KNOCKED OVER. SANITARY WASTE WILL BE DISPOSED OF IN ACCORDANCE WITH MINNESOTA RULES, CHAPTER 7041. PORTABLE TOILETS WILL BE PERIODICALLY EMPTIED AND THE WASTE HAULED OFF-SITE BY A LICENSED HAULER. (CSW PERMIT ITEM 12.6)
6. VEHICLE FUELING WILL ONLY OCCUR IN DESIGNATED AREAS. SPILL KITS SIZED APPROPRIATELY FOR THE AMOUNT OF REFUELING TAKING PLACE WILL BE LOCATED. SPILL KITS WILL BE CLEARLY LABELED AND CONTAIN MATERIALS TO ASSIST IN SPILL CLEANUP INCLUDING ABSORBENT PADS, BOOMS FOR CONTAINING SPILLS, AND HEAVY-DUTY PROTECTIVE GLOVES. SPILLS WILL BE REPORTED TO THE MINNESOTA DUTY OFFICER AS REQUIRED BY MINNESOTA STATUTES, SECTION 115.061. (CSW PERMIT ITEMS 2.3 AND 12.7)
   a. ANY FUEL TANKS BROUGHT ON-SITE WILL HAVE PROPERLY SIZED CONTAINMENT AND WILL NOT BE TOPPED OFF TO AVOID SPILLS FROM OVERFILLING. FUEL TANKS WILL MEET INDUSTRY STANDARDS (DESIGNED TO HOLD FUEL TYPE, PROPERLY MAINTAINED, NOT ILLEGALLY MODIFIED, NOT MISSING LEAK INDICATOR FLOATS FOR DOUBLE WALLED TANKS, SIGHT GAUGES NOT USED, ETC.) OR BE REMOVED FROM THE WORK AREA.
   b. GUIDELINES FOR SPILL PREVENTION AND RESPONSE INCLUDE:
      - TAKE REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL, FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED, INCLUDING THE USE OF DRIP PANS OR ABSORBENTS UNLESS INFEASIBLE;
      - PERFORM REGULAR PREVENTATIVE MAINTENANCE ON TANKS AND FUEL LINES;
      - INSPECT PUMPS, CYLINDERS, HOSES, VALVES, AND OTHER MECHANICAL EQUIPMENT ON-SITE FOR DAMAGE OR DETERIORATION;
      - DO NOT WASH OR RINSE FUELING AREAS WITH WATER;
      - MAINTAIN ADEQUATE SUPPLIES TO CLEAN UP DISCHARGED MATERIALS AND PROVIDE AN APPROPRIATE DISPOSAL METHOD FOR RECOVERED SPILLED MATERIALS;
      - REPORT AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINNESOTA STATUTES, SECTION 115.061, USING DRY CLEAN UP MEASURES WHERE POSSIBLE; AND
      - MAINTAIN COPIES OF SAFETY DATA SHEETS (SDSS) FOR HAZARDOUS MATERIALS ON-SITE IN LOCATIONS READILY AVAILABLE TO EMERGENCY RESPONDERS.
7. IF VEHICLE AND EQUIPMENT WASHING IS NECESSARY, A VEHICLE WASH STATION WILL BE LOCATED IN A DESIGNATED AREA. RUNOFF FROM THE WASHING AREA WILL BE CONTAINED IN A SEDIMENT BASIN AND WASTE FROM THE WASHING ACTIVITY WILL BE PROPERLY DISPOSED OF. ANY SOAPS, DETERGENTS, OR SOLVENTS WILL BE PROPERLY USED AND STORED. ANY DETERGENTS AND OTHER CLEANERS NOT PERMITTED FOR DISCHARGE WILL NOT BE USED. (CSW PERMIT ITEMS 2.3 AND 12.8)
8. THE PROJECT WILL NOT RESULT IN CONCRETE OR OTHER WASHOUT ACTIVITIES. IF NECESSARY, A DESCRIPTION OF THE STORAGE AND DISPOSAL OF CONCRETE AND OTHER WASHOUT WASTES SO THAT WASTES DO NOT CONTACT THE GROUND WILL BE ADDED. (CSW PERMIT ITEMS 2.3 AND 12.9)

8.0 PERMANENT COVER AND PERMIT TERMINATION CONDITIONS:

1. THE AREAS DISTURBED DURING CONSTRUCTION WILL BE STABILIZED WITH PERMANENT COVER UPON COMPLETION OF WORK. PERMANENT COVER MAY BE VEGETATIVE OR NON-VEGETATIVE, AS APPROPRIATE. ESTABLISHMENT OF PERMANENT COVER MAY INCLUDE THE FOLLOWING ACTIVITIES: SEEDING, MULCHING, EROSION CONTROL BLANKETS. (CSW PERMIT ITEM 5.17)
2. FOR A CONSTRUCTION-SITE TO ACHIEVE "PERMANENT COVER", THE FOLLOWING REQUIREMENTS MUST BE COMPLETED PRIOR TO TERMINATION OF PERMIT COVERAGE: (CSW PERMIT SECTIONS 4 AND 13)
   a. ALL SOIL DISTURBING CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED AND PERMANENT COVER HAS BEEN INSTALLED OVER ALL AREAS. VEGETATIVE COVER CONSISTS OF A UNIFORM PERENNIAL VEGETATION WITH A DENSITY OF 70% OF ITS EXPECTED FINAL GROWTH. VEGETATION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA DICTATES NO VEGETATION (SUCH AS IMPERVIOUS SURFACES OR THE BASE OF A SAND FILTER).
   b. ALL SEDIMENT HAS BEEN REMOVED FROM CONVEYANCE SYSTEMS, INCLUDING CULVERTS.
   c. ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMPS HAVE BEEN REMOVED. BMPS DESIGNED TO DECOMPOSE ON-SITE MAY BE LEFT IN PLACE.

WITHIN 30 DAYS AFTER THE TERMINATION CONDITIONS ARE COMPLETE, A NOTICE OF TERMINATION (NOT) FORM WILL BE SUBMITTED TO THE MPCA.

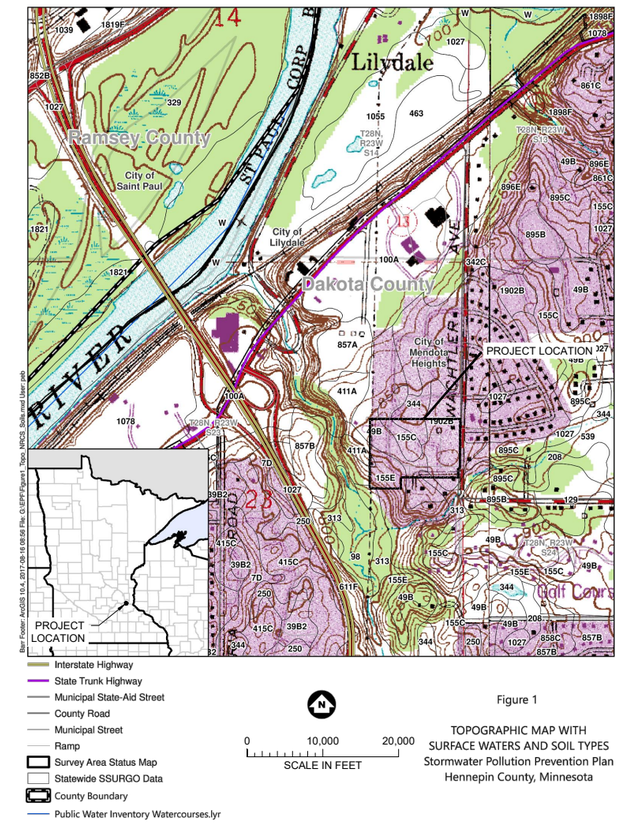

Figure 1

TOPOGRAPHIC MAP WITH SURFACE WATERS AND SOIL TYPES
Stormwater Pollution Prevention Plan
Hennepin County, Minnesota

ISSUED FOR CONSTRUCTION

Xcel Energy®

BARR
4300 MARKETPOINTE DRIVE
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HISTORY		DATE
DRAWN BY:	EPF	05/18/2022
DESIGNED BY:	BARR	05/18/2022
CHECKED BY:	JPP	05/18/2022
APPROVED BY:	JPP	05/18/2022
IN SERVICE DATE:		

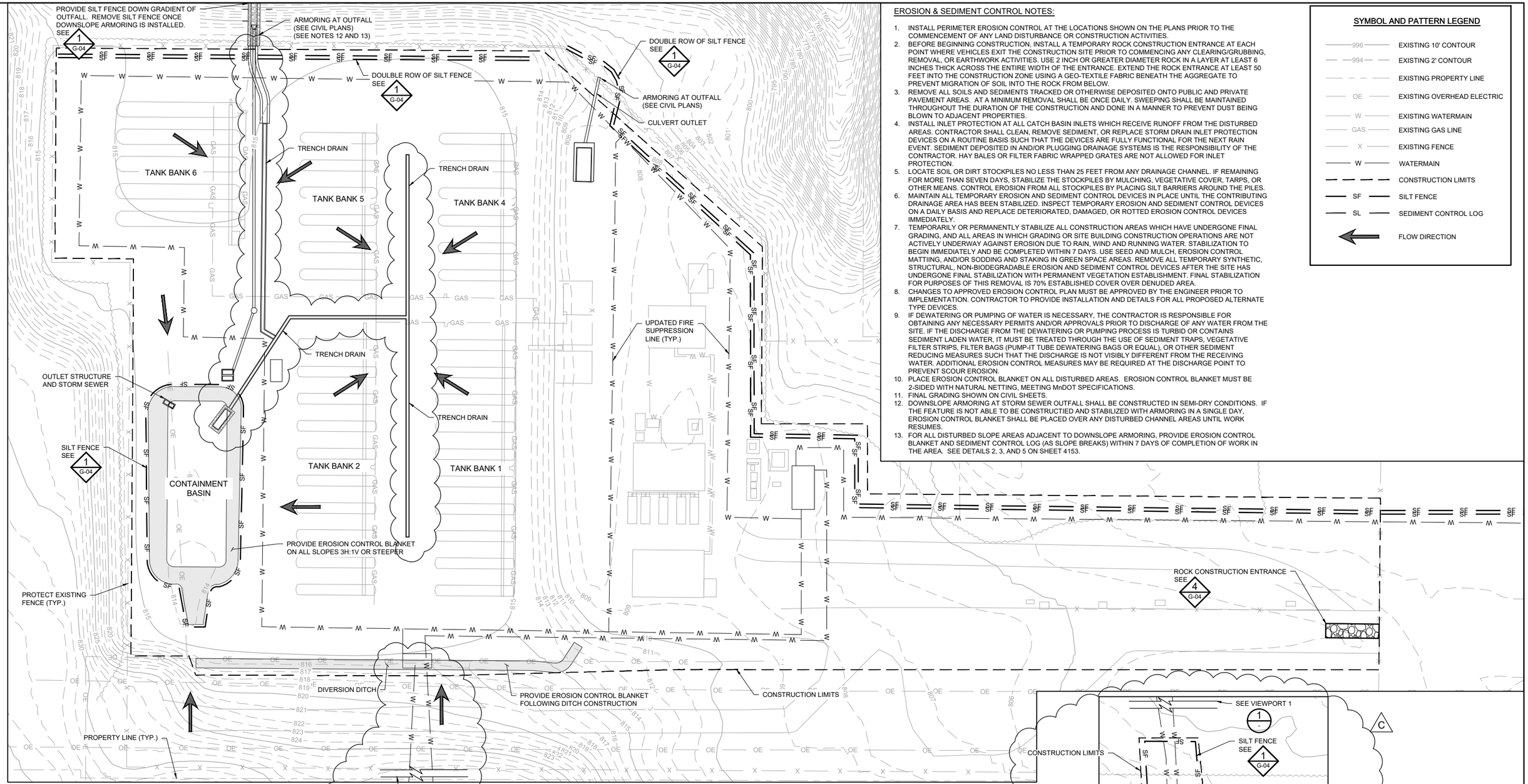
REVISIONS			
NO.	DESCRIPTION	BY	DATE
A	ISSUED FOR REVIEW	EPF	04/21/2022
B	ISSUED FOR CONSTRUCTION	EPF	05/18/2022

SIBLEY PHASE II FIRE SUPPRESSION
STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

SERVICE CENTER: NORTHERN STATES POWER COMPANY | PROJECT: 4501038238
DIVISION: NORTH | CITY/COUNTY : MENDOTA HEIGHTS / DAKOTA | TYPE:

DRAWING
4151
B

CADD USER: ERIC P. FITZGERALD FILE: M:\DESIGN\23191490.00\SIBLEY\23191490_G-01_SWPPP.DWG PLOT SCALE: 1:2 PLOT DATE: 3/13/2023 5:27 PM



EROSION & SEDIMENT CONTROL NOTES:

1. INSTALL PERIMETER EROSION CONTROL AT THE LOCATIONS SHOWN ON THE PLANS PRIOR TO THE COMMENCEMENT OF ANY LAND DISTURBANCE OR CONSTRUCTION ACTIVITIES.
2. BEFORE BEGINNING CONSTRUCTION, INSTALL A TEMPORARY ROCK CONSTRUCTION ENTRANCE AT EACH POINT WHERE VEHICLES EXIT THE CONSTRUCTION SITE PRIOR TO COMMENCING ANY CLEARING/GRUBBING, REMOVAL, OR EARTHWORK ACTIVITIES. USE 2 INCH OR GREATER DIAMETER ROCK IN A LAYER AT LEAST 6 INCHES THICK ACROSS THE ENTIRE WIDTH OF THE ENTRANCE. EXTEND THE ROCK ENTRANCE AT LEAST 50 FEET INTO THE CONSTRUCTION ZONE USING A GEO-TEXTILE FABRIC BENEATH THE AGGREGATE TO PREVENT MIGRATION OF SOIL INTO THE ROCK FROM BELOW.
3. REMOVE ALL SOILS AND SEDIMENTS TRACKED OR OTHERWISE DEPOSITED ONTO PUBLIC AND PRIVATE PAVEMENT AREAS. AT A MINIMUM REMOVAL SHALL BE ONCE DAILY. SWEEPING SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE CONSTRUCTION AND DONE IN A MANNER TO PREVENT DUST BEING BLOWN TO ADJACENT PROPERTIES.
4. INSTALL INLET PROTECTION AT ALL CATCH BASIN INLETS WHICH RECEIVE RUNOFF FROM THE DISTURBED AREAS. CONTRACTOR SHALL CLEAN, REMOVE SEDIMENT, OR REPLACE STORM DRAIN INLET PROTECTION DEVICES ON A ROUTINE BASIS SUCH THAT THE DEVICES ARE FULLY FUNCTIONAL FOR THE NEXT RAIN EVENT. SEDIMENT DEPOSITED IN AND/OR PLUGGING DRAINAGE SYSTEMS IS THE RESPONSIBILITY OF THE CONTRACTOR. HAY BALES OR FILTER FABRIC WRAPPED GRATES ARE NOT ALLOWED FOR INLET PROTECTION.
5. LOCATE SOIL OR DIRT STOCKPILES NO LESS THAN 25 FEET FROM ANY DRAINAGE CHANNEL. IF REMAINING FOR MORE THAN SEVEN DAYS, STABILIZE THE STOCKPILES BY MULCHING, VEGETATIVE COVER, TARPS, OR OTHER MEANS. CONTROL EROSION FROM ALL STOCKPILES BY PLACING SILT BARRIERS AROUND THE PILES.
6. MAINTAIN ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES IN PLACE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED. INSPECT TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES ON A DAILY BASIS AND REPLACE DETERIORATED, DAMAGED, OR ROTTED EROSION CONTROL DEVICES IMMEDIATELY.
7. TEMPORARILY OR PERMANENTLY STABILIZE ALL CONSTRUCTION AREAS WHICH HAVE UNDERGONE FINAL GRADING, AND ALL AREAS IN WHICH GRADING OR SITE BUILDING CONSTRUCTION OPERATIONS ARE NOT ACTIVELY UNDERWAY AGAINST EROSION DUE TO RAIN, WIND AND RUNNING WATER. STABILIZATION TO BEGIN IMMEDIATELY AND BE COMPLETED WITHIN 7 DAYS. USE SEED AND MULCH, EROSION CONTROL MATTIING, AND/OR SODDING AND STAKING IN GREEN SPACE AREAS. REMOVE ALL TEMPORARY SYNTHETIC, STRUCTURAL, NON-BIODEGRADABLE EROSION AND SEDIMENT CONTROL DEVICES AFTER THE SITE HAS UNDERGONE FINAL STABILIZATION WITH PERMANENT VEGETATION ESTABLISHMENT. FINAL STABILIZATION FOR PURPOSES OF THIS REMOVAL IS 70% ESTABLISHED COVER OVER DENUDED AREA.
8. CHANGES TO APPROVED EROSION CONTROL PLAN MUST BE APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION. CONTRACTOR TO PROVIDE INSTALLATION AND DETAILS FOR ALL PROPOSED ALTERNATE TYPE DEVICES.
9. IF DEWATERING OR PUMPING OF WATER IS NECESSARY, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND/OR APPROVALS PRIOR TO DISCHARGE OF ANY WATER FROM THE SITE. IF THE DISCHARGE FROM THE DEWATERING OR PUMPING PROCESS IS TURBID OR CONTAINS SEDIMENT LADEN WATER, IT MUST BE TREATED THROUGH THE USE OF SEDIMENT TRAPS, VEGETATIVE FILTER STRIPS, FILTER BAGS (PUMP-IT TUBE DEWATERING BAGS OR EQUAL), OR OTHER SEDIMENT REDUCING MEASURES SUCH THAT THE DISCHARGE IS NOT VISIBLY DIFFERENT FROM THE RECEIVING WATER. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AT THE DISCHARGE POINT TO PREVENT SCOUR EROSION.
10. PLACE EROSION CONTROL BLANKET ON ALL DISTURBED AREAS. EROSION CONTROL BLANKET MUST BE 2-SIDED WITH NATURAL NETTING, MEETING MnDOT SPECIFICATIONS.
11. FINAL GRADING SHOWN ON CIVIL SHEETS.
12. DOWNSLOPE ARMORING AT STORM SEWER OUTFALL SHALL BE CONSTRUCTED IN SEMI-DRY CONDITIONS. IF THE FEATURE IS NOT ABLE TO BE CONSTRUCTIED AND STABILIZED WITH ARMORING IN A SINGLE DAY, EROSION CONTROL BLANKET SHALL BE PLACED OVER ANY DISTURBED CHANNEL AREAS UNTIL WORK RESUMES.
13. FOR ALL DISTURBED SLOPE AREAS ADJACENT TO DOWNSLOPE ARMORING, PROVIDE EROSION CONTROL BLANKET AND SEDIMENT CONTROL LOG (AS SLOPE BREAKS) WITHIN 7 DAYS OF COMPLETION OF WORK IN THE AREA. SEE DETAILS 2, 3, AND 5 ON SHEET 4153.

SYMBOL AND PATTERN LEGEND

996	EXISTING 10' CONTOUR
994	EXISTING 2' CONTOUR
	EXISTING PROPERTY LINE
OE	EXISTING OVERHEAD ELECTRIC
W	EXISTING WATERMAIN
GAS	EXISTING GAS LINE
X	EXISTING FENCE
W	WATERMAIN
	CONSTRUCTION LIMITS
SF	SILT FENCE
SL	SEDIMENT CONTROL LOG
	FLOW DIRECTION

ISSUED FOR CONSTRUCTION

Xcel Energy®

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HISTORY		DATE
DRAWN BY:	EPF	03/16/2023
DESIGNED BY:	BARR	03/16/2023
CHECKED BY:	JPP	03/16/2023
APPROVED BY:	JPP	03/16/2023
IN SERVICE DATE:		

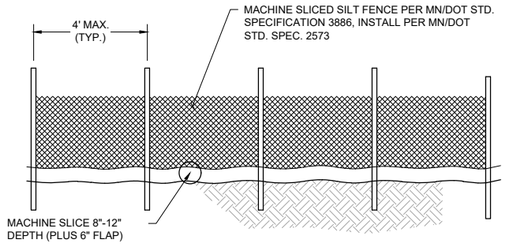
REVISIONS			
NO.	DESCRIPTION	BY	DATE
A	ISSUED FOR REVIEW	EPF	04/21/2022
B	ISSUED FOR CONSTRUCTION	EPF	05/28/2022
C	ADD WATER LINE, SHIFT CIVIL FEATURES	EPF	03/16/2023

SIBLEY PHASE II FIRE SUPPRESSION
EROSION CONTROL PLAN

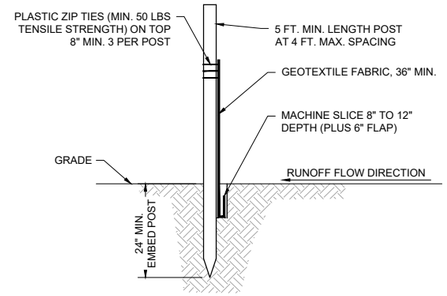
SERVICE CENTER: NORTHERN STATES POWER COMPANY | PROJECT: 4501038238
DIVISION: NORTH | CITY/COUNTY : MENDOTA HEIGHTS / DAKOTA | TYPE:

DRAWING
4152
C

CADD USER: Eric P. Fitzgerald FILE: M:\DESIGN\23191480.00\SIBLEY\23191480_G-03_EROSION CONTROL PLAN.DWG PLOT SCALE: 1:2 PLOT DATE: 3/16/2023 2:46 PM



DOWNSTREAM VIEW

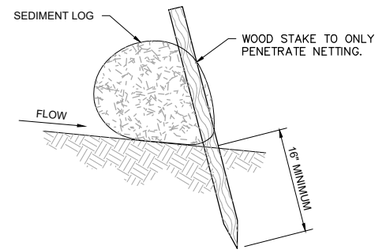


SECTION VIEW

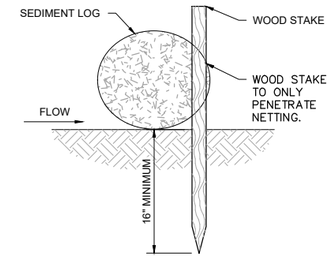
NOTES:

1. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. SILT FENCE AND ANY ACCUMULATED SEDIMENT SHALL BE REMOVED IN CONJUNCTION WITH THE FINAL GRADING AND SITE STABILIZATION.
2. SILT FENCE INSTALLATION AND MATERIALS SHALL MEET THE REQUIREMENTS OF MN/DOT SPECIFICATIONS 2573 AND 3886.
3. NO HOLES OR GAPS SHALL BE PRESENT IN/UNDER SILT FENCE. PREPARE AREA AS NEEDED TO SMOOTH SURFACE OR REMOVE DEBRIS.
4. WHEN SEDIMENT BUILD UP REACHES 1/2 OF FENCE HEIGHT, THE SILT FENCE SHOULD BE REMOVED OR A SECOND SILT FENCE INSTALLED UPSTREAM OF THE EXISTING FENCE AT A SUITABLE DISTANCE.
5. WHEN SPLICES ARE NECESSARY MAKE SPLICE AT POST ACCORDING TO SPLICE DETAIL. PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POST OF THE FIRST FENCE. ROTATE BOTH POSTS TOGETHER AT LEAST 180 DEGREES TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL. CUT THE FABRIC NEAR THE BOTTOM OF THE POSTS TO ACCOMMODATE THE 6 INCH FLAP. THEN DRIVE BOTH POSTS AND BURY THE FLAP. COMPACT BACKFILL.

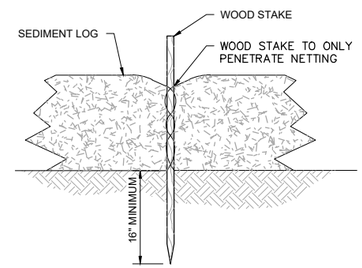
1 - DETAIL: SILT FENCE - MACHINE SLICED
NOT TO SCALE



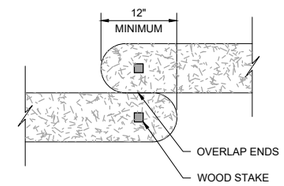
SIDE VIEW ON SLOPE



SIDE VIEW FLAT



FRONT VIEW

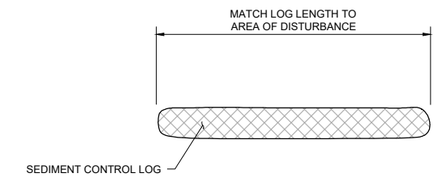


TOP VIEW

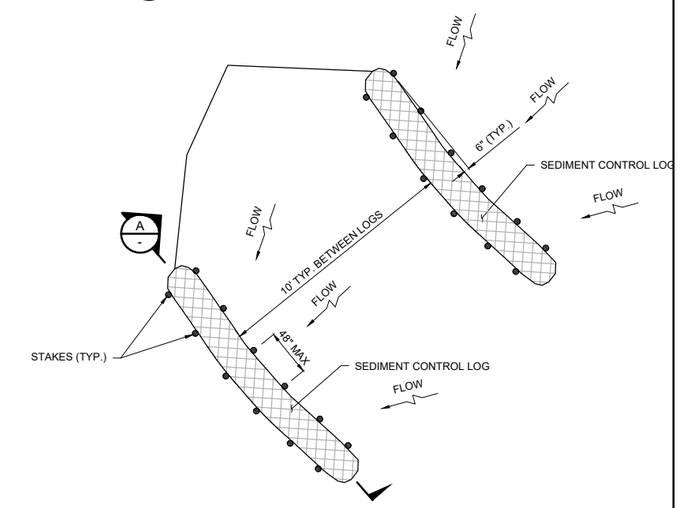
NOTES:

1. INSTALL SEDIMENT LOG ALONG CONTOURS (CONSTANT ELEVATION).
2. NO GAPS SHALL BE PRESENT UNDER SEDIMENT LOG. PREPARE AREA AS NEEDED TO SMOOTH SURFACE OR REMOVE DEBRIS.
3. REMOVE ACCUMULATED SEDIMENT WHEN REACHING 1/2 OF LOG HEIGHT.
4. MAINTAIN SEDIMENT LOG THROUGHOUT THE CONSTRUCTION PERIOD AND REPAIR OR REPLACED AS REQUIRED.

3 - DETAIL: EROSION LOG - STAKING
NOT TO SCALE



A - SECTION: SEDIMENT CONTROL LOG (ALONG SLOPE)
NOT TO SCALE

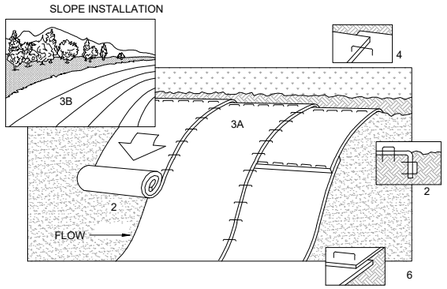


PLAN VIEW

NOTES:

1. SEDIMENT CONTROL LOG SHALL BE INSTALLED SO THAT MIDDLE OF LOG IS APPROXIMATELY 6" LOWER (DOWGRADIENT) TO CREATE A NATURAL FUNNELING AND KEEP SEDIMENT OUT OF DOWNSLOPE ARMORING.
2. CORE MATERIAL SHALL BE BIODEGRADABLE OR RECYCLABLE, SUCH AS COCONUT FIBERS. CORE MATERIAL SHALL BE COMPRESSED AND STUFFED INTO A NETTING.
3. CONTAINMENT MESH (NETTING) SHALL BE 100% BIODEGRADABLE MATERIAL SUCH AS BURLAP, TWINE, ETC.
4. SEDIMENT CONTROL LOG SHALL BE PLACED AS INDICATED ON THE PLANS AND WITHIN 24 HOURS OF VEGETATATION REMOVAL.
5. SECURE SEDIMENT CONTROL LOG IN A METHOD ADEQUATE TO PREVENT DISPLACEMENT AS A RESULT OF NORMAL RAIN EVENTS, SUCH THAT FLOW IS NOT ALLOWED UNDER THE SEDIMENT CONTROL LOG. ALL MATERIALS USED TO SECURE SEDIMENT CONTROL LOG SHALL BE 100% BIODEGRADABLE.
6. SEDIMENT CONTROL LOG SHALL BE NO LESS THAN 9" IN DIAMETER.
7. FOR SEDIMENT CONTROL LOG STAKING SEE 3 / 4153

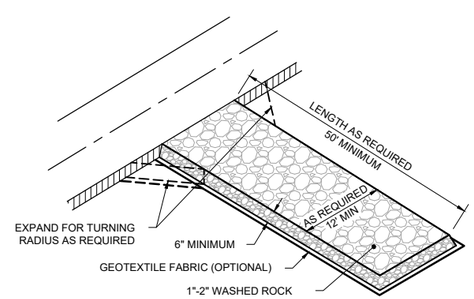
5 - DETAIL: SEDIMENT CONTROL LOG (ALONG SLOPE)
NOT TO SCALE



NOTES:

1. REFER TO MANUFACTURER RECOMMENDATIONS FOR STAPLE PATTERNS FOR SLOPE INSTALLATIONS.
2. PREPARE SOIL BY LOOSENING TOP 1-2 INCHES AND APPLY SEED (AND FERTILIZER WHERE REQUIRED) PRIOR TO INSTALLING BLANKETS. GROUND SHOULD BE SMOOTH AND FREE OF DEBRIS.
3. BEGIN (A) AT THE TOP OF THE SLOPE AND ROLL THE BLANKETS DOWN OR (B) AT ONE END OF THE SLOPE AND ROLL THE BLANKETS HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 6" OVERLAP, WITH THE UPHILL BLANKET ON TOP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.
6. BLANKET MATERIALS SHALL BE AS SPECIFIED OR AS APPROVED BY ENGINEER.

2 - DETAIL: EROSION CONTROL BLANKET - INSTALLATION
NOT TO SCALE



NOTES:

1. MAINTAIN ENTRANCE THROUGHOUT THE CONSTRUCTION PERIOD AND REPAIR OR REPLACE AS REQUIRED TO PREVENT TRACKING OFFSITE.
2. REMOVE ENTRANCE IN CONJUNCTION WITH FINAL GRADING AND SITE STABILIZATION.

4 - DETAIL: CONSTRUCTION ENTRANCE - ROCK
NOT TO SCALE

ISSUED FOR CONSTRUCTION

Xcel Energy®

BARR
4300 MARKETPOINTE DRIVE
Suite 200
MINNEAPOLIS, MN 55435
Ph: 1-800-632-2277
Fax: (952) 832-2601
www.barr.com

HISTORY		DATE
DRAWN BY:	EPF	05/18/2022
DESIGNED BY:	BARR	05/18/2022
CHECKED BY:	JPP	05/18/2022
APPROVED BY:	JPP	05/18/2022
IN SERVICE DATE:		

REVISIONS			
NO.	DESCRIPTION	BY	DATE
A	ISSUED FOR REVIEW	EPF	04/21/2022
B	ISSUED FOR CONSTRUCTION	EPF	05/18/2022

SIBLEY PHASE II FIRE SUPPRESSION
EROSION CONTROL DETAILS

SERVICE CENTER: NORTHERN STATES POWER COMPANY | PROJECT: 4501038238
DIVISION: NORTH | CITY/COUNTY : MENDOTA HEIGHTS / DAKOTA | TYPE:

DRAWING
4153
B

CADD USER: Eric P. Fitzgerald FILE: M:\DESIGN\23191480.005\BLEY\23191480_G-04_EROSION CONTROL DETAILS.DWG PLOT SCALE: 1:2 PLOT DATE: 3/13/2023 5:38 PM