



Board of Adjustment Staff Report

Meeting Date: June 1, 2023

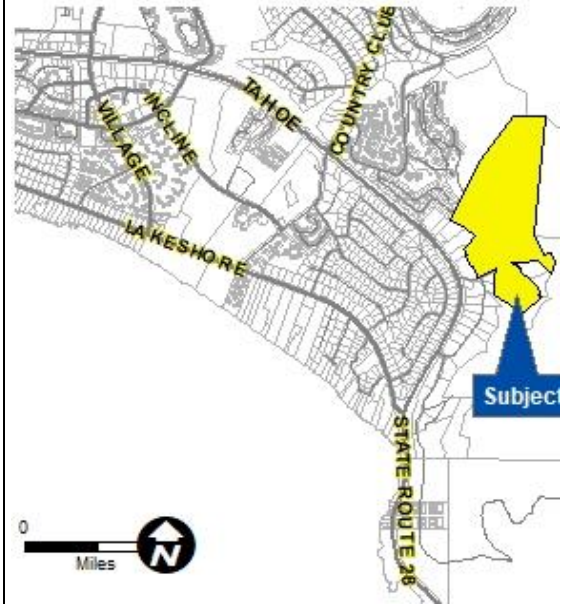
Agenda Item: 8G

| | |
|---------------------------------|---|
| SPECIAL USE PERMIT CASE NUMBER: | WSUP23-0002 (IVGID Tank) |
| BRIEF SUMMARY OF REQUEST: | Grading for an effluent water storage tank |
| STAFF PLANNER: | Julee Olander, Planner Phone Number: 775.328.3627 E-mail: jolander@washoecounty.gov |

CASE DESCRIPTION

For hearing, discussion, and possible action to approve a special use permit for the use type public utility center per Washoe County Code (WCC) 110.220.165 and major grading per WCC 110.438 for ±8,900 cubic yards (CY) of cut, ±9,000 CY of fill, and disturbing ±100,000 SF of the site for the construction of a road and pad for a 2-million-gallon effluent water storage tank. The request includes modifying standards to allow slopes greater than 3:1 (110.438.45(a)), revegetation to preserve erosion control (110.438.70), preservation of significant trees (110.412.25(c)) and reduction of landscape standards for a civil use (110.412.40(a)).

Applicant/Owner: Incline Village General Improvement District (IVGID)
 Location: 1250 Sweetwater Road
 APN: 130-010-08
 Parcel Size: 87.3 acres
 Master Plan: Tunnel Creek & Ponderosa Ranch
 Regulatory Zone: 67% TA_TC & 33% PR
 Area Plan: Tahoe
 Development Code: Authorized in Article 438, Grading; and Article 810, Special Use Permits
 Commission District: 1 – Commissioner Hill



Vicinity Map

STAFF RECOMMENDATION

APPROVE

APPROVE WITH CONDITIONS

DENY

POSSIBLE MOTION

I move that, after giving reasoned consideration to the information contained in the staff report and information received during the public hearing, the Washoe County Board of Adjustment approve with conditions Special Use Permit Case Number WSUP23-0002 for Incline Village General Improvement District (IVGID), with the conditions included as Exhibit A to this matter, having made all five findings in accordance with Washoe County Code Section 110.810.30

(Motion with Findings on Page 10)

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Special Use Permit

The purpose of a special use permit is to allow a method of review to identify any potential harmful impacts on adjacent properties or surrounding areas for uses that may be appropriate within a regulatory zone; and to provide for a procedure whereby such uses might be permitted by further restricting or conditioning them so as to mitigate or eliminate possible adverse impacts. If the Board of Adjustment grants an approval of the special use permit, that approval is subject to conditions of approval. Conditions of approval are requirements that need to be completed during different stages of the proposed project. Those stages are typically:

- Prior to permit issuance (i.e. a grading permit, a building permit, etc.)
- Prior to obtaining a final inspection and/or a certificate of occupancy on a structure
- Prior to the issuance of a business license or other permits/licenses
- Some conditions of approval are referred to as “operational conditions.” These conditions must be continually complied with for the life of the business or project.

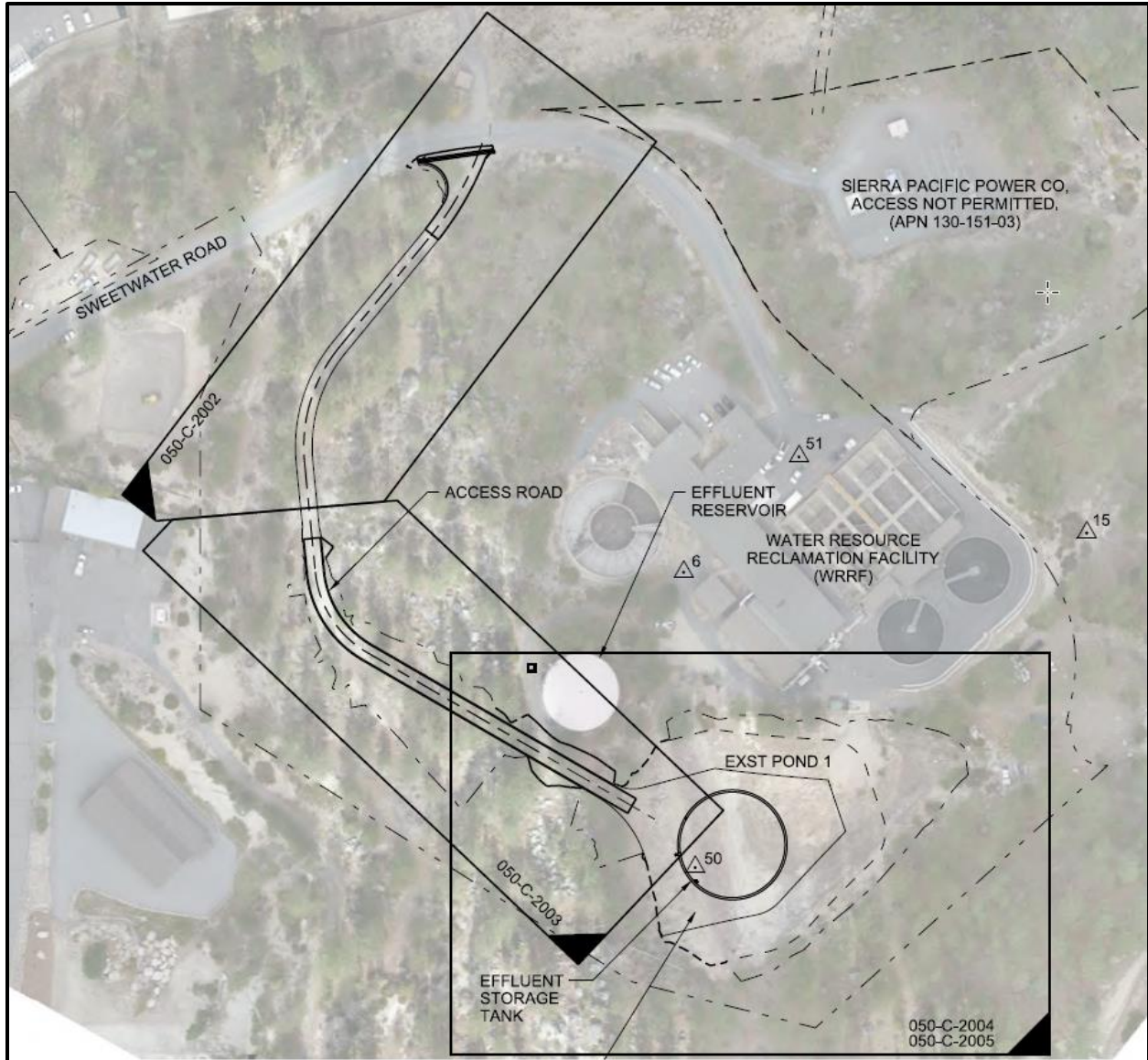
The conditions of approval for Special Use Permit Case Number WSUP23-0002 are attached to this staff report and will be included with the action order.

The subject property is designated as 67% TA_TC & 33% PR. The proposed tank is located in the section of the parcel with the regulatory zoning of PR (Ponderosa Ranch). The proposed use of public utility center, which is classified as a public service use is permitted in PR with a special use permit per WCC 110.220.165. The proposed grading is permitted with a special use permit per WCC 110.438.35. Therefore, the applicant is seeking approval of this SUP from the Board of Adjustment.

Additionally, Article 810, Special Use Permits, allows the Board of Adjustment to vary development code standards in conjunction with the approval process per WCC 110.810.20(e).

The Board of Adjustment will be ruling on the request to vary standards below:

| Variance(s) Requested | Relevant Code |
|--|----------------|
| Grading shall not result in slopes in excess of, or steeper than, three horizontal to one vertical (3:1) | 110.438.45(a) |
| Erosion Control, revegetation to preserve erosion control | 110.438.70 |
| Existing Vegetation, preserved existing vegetation | 110.412.25.(c) |
| Landscape Coverage, require 20% of disturbed area | 110.412.40(a) |



Site Plan

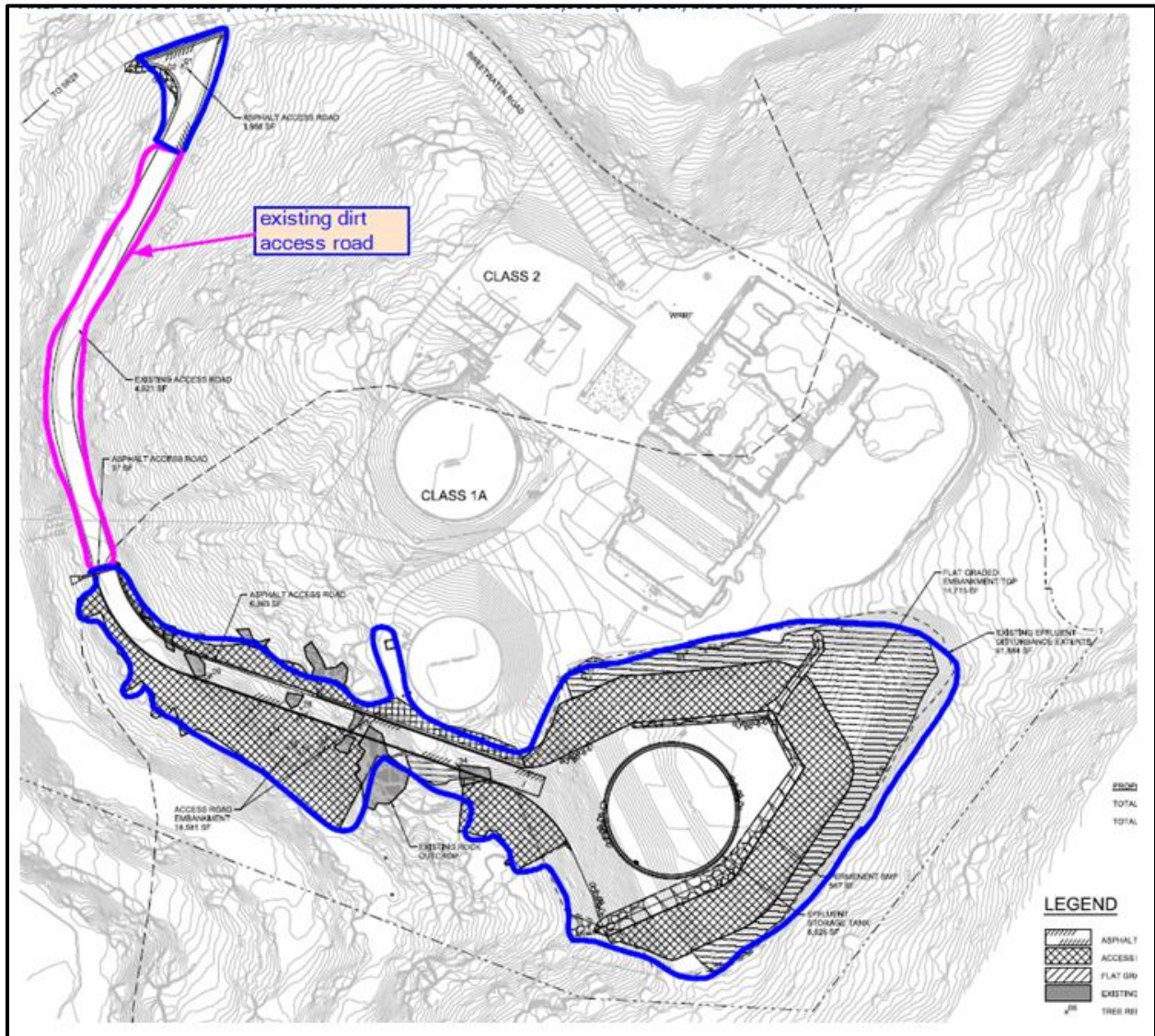
Project Evaluation

The applicant is requesting a special use permit for the use type of public utility center per Washoe County Code (WCC) 110.220.165 and major grading per WCC 110.438. The proposal is for the IVGID Water Resource Recovery Facility (WRRF). The applicant is proposing to expand the use type of public utility center with the construction of 40 feet high and 99-foot diameter 2-million gallon reinforced concrete effluent water storage tank. The major grading request is for disturbing 100,000 SF of the site with 8,900 CY of cut material and 9,000 CY of fill material. The applicant is proposing to balance the cut and fill material, which will to help lessen truck travel on the local roads.

The regulatory zoning of the parcel is 67% Tahoe Tunnel Creek (TA_TC) & 33% Ponderosa Ranch (PR). The parcels to the north, south and west have a regulatory zoning of TA_TC and the parcels to the west are PR and Tahoe Mt. Shadow (TA_MS). The WRRF is located in the southern portion of the parcel, while the northern portion is undeveloped forest.

An existing 500,000-gallon tank on the site will remain, with the new tank proving additional water storage. The proposed tank will be located where the existing IVGID effluent storage pond is located, adjacent to the Mill Creek dam. The effluent storage pond was used for emergency overflow and storage; however, it is no longer in use. Locating the tank in the old pond area will minimize the visibility of the tank. The tank will be partially visible from SR 28 and the applicant is proposing to paint the tank with a color consistent with TRPA Scenic Protection Program requirements. There are no residential properties adjacent to the site and visibility impacts should be minimal.

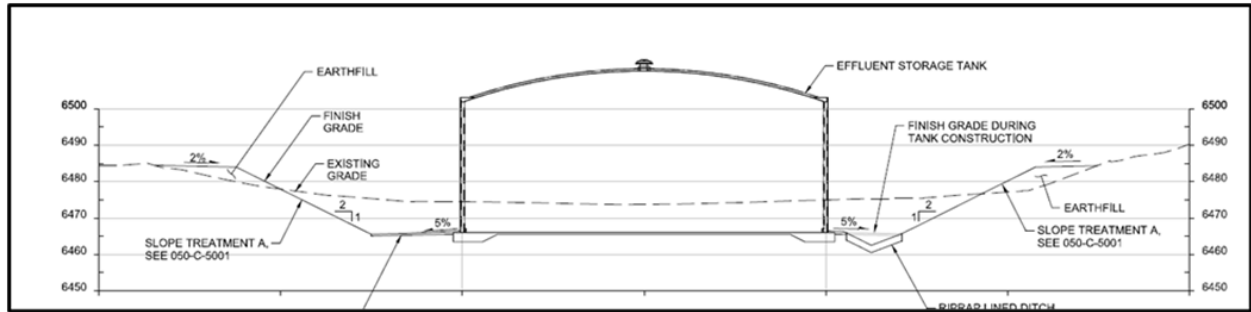
There is an existing dirt roadway that the applicant will incorporate into the proposed roadway. A portion of the road will be paved where slopes are 12% or more and at the entrance off Sweetwater Road and the rest of the road will be dirt (See the map below).



Grading

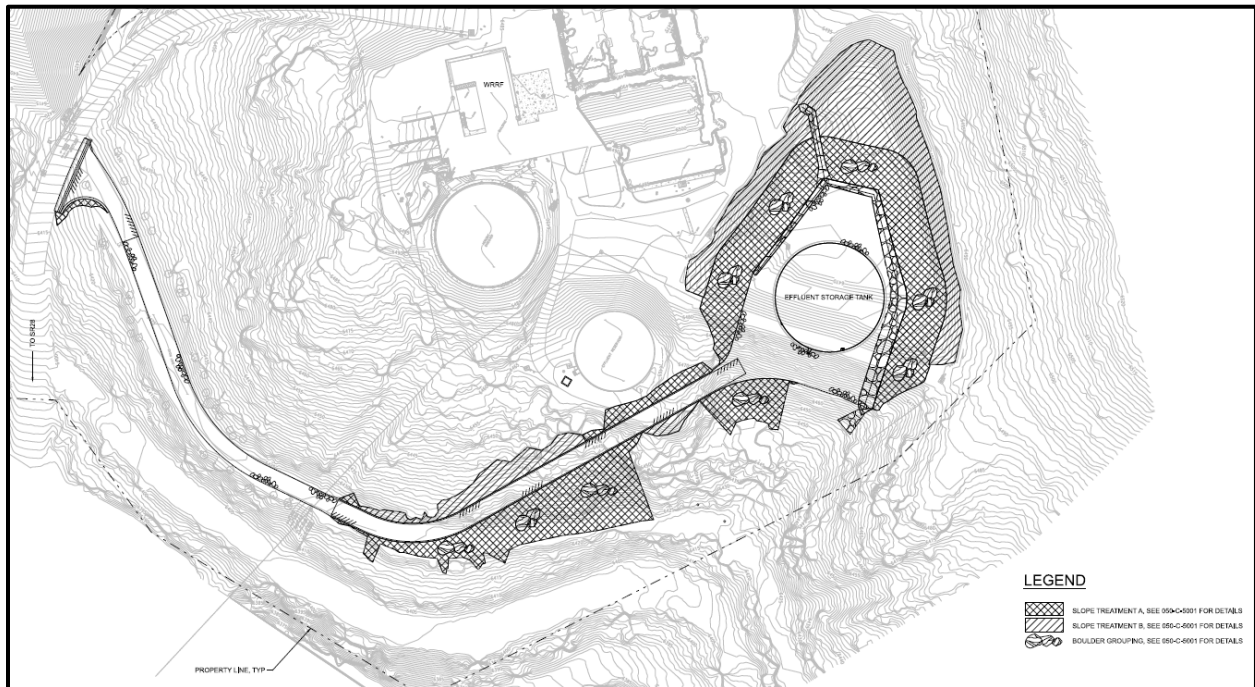
The proposed request is to disturb 100,000 SF of the site with 8,900 CY of cut material and 9,000 CY of fill material for the roadway and tank pad. The area around the older IVGID effluent storage pond will need further grading to accommodate the new tank pad (See Effluent Water Storage

Tank Diagram, on page 6). The project is planned to commence in July 2023 and be completed in October 2024.

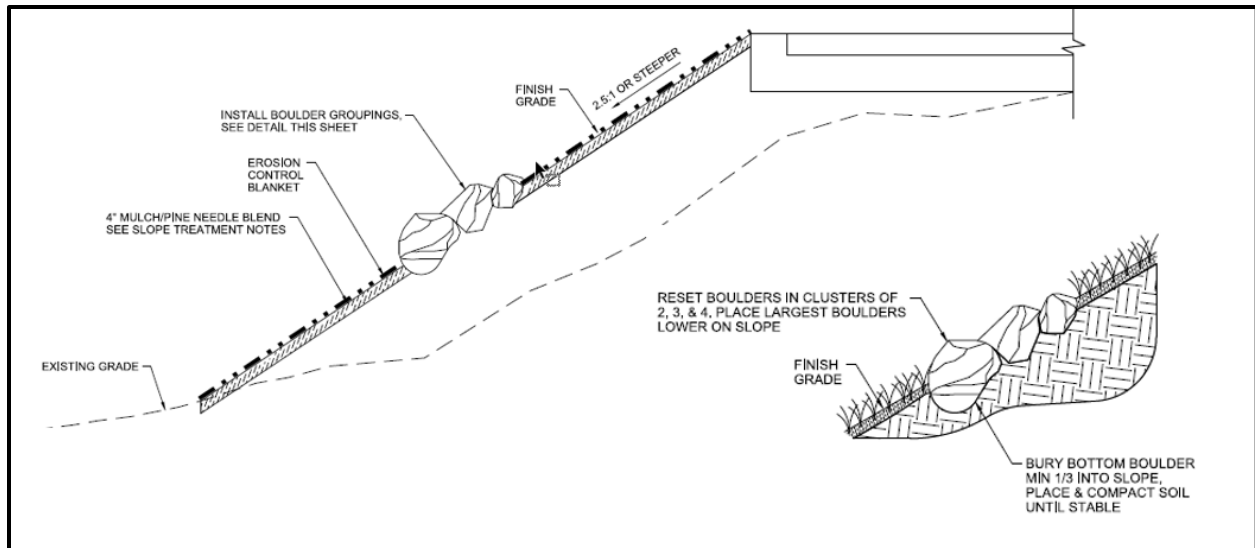


Effluent Water Storage Tank Diagram

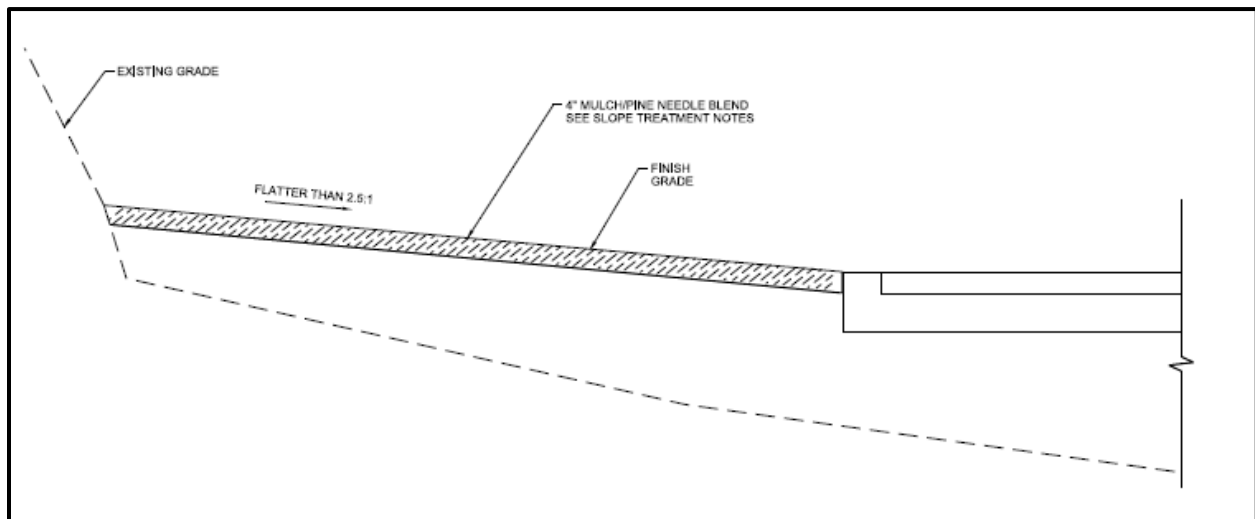
The applicant has identified several areas where slopes will exceed the 3:1 (See 2:1 Slope Map below, on page 6). The applicant indicates that the slopes in excess of 3:1 are needed “to facilitate the construction of the proposed project and to minimize the impact/grading footprint, where possible.” Additionally, “the permanent slopes will be finish graded with surface undulations to promote a natural surface topography and to avoid a uniform/engineered appearance.” According to the applicant the proposed grading will also help eliminate further tree and vegetation removal. The applicant is proposing to treat these areas with either Treatment A or B (See treatments, on page 7).



2:1 Slope Map



Slope Treatment A



Slope Treatment B

Modifications

The applicant is requesting to modify the following requirements:

1. 110.438.45(a): Grading shall not result in slopes in excess of, or steeper than, three horizontal to one vertical (3:1)

Staff Comment: The applicant is requesting to waive the 3:1 maximum slope requirement because of the topography of the location of the proposed roadway and tank. Allowing 2:1 slopes will minimize the disturbance and footprint which will lessen impact to the site. Also, 2:1 slopes will required less fill material than 3:1, reducing the overall grading and scarring of the site and result in further loss of any existing vegetation and tree removal. Staff supports the wavier because of the slope of the site and 2:1 slopes will minimize the disturbance and footprint which will lessen impact to the site.

2. 110.438.70: To revegetate to preserve erosion control

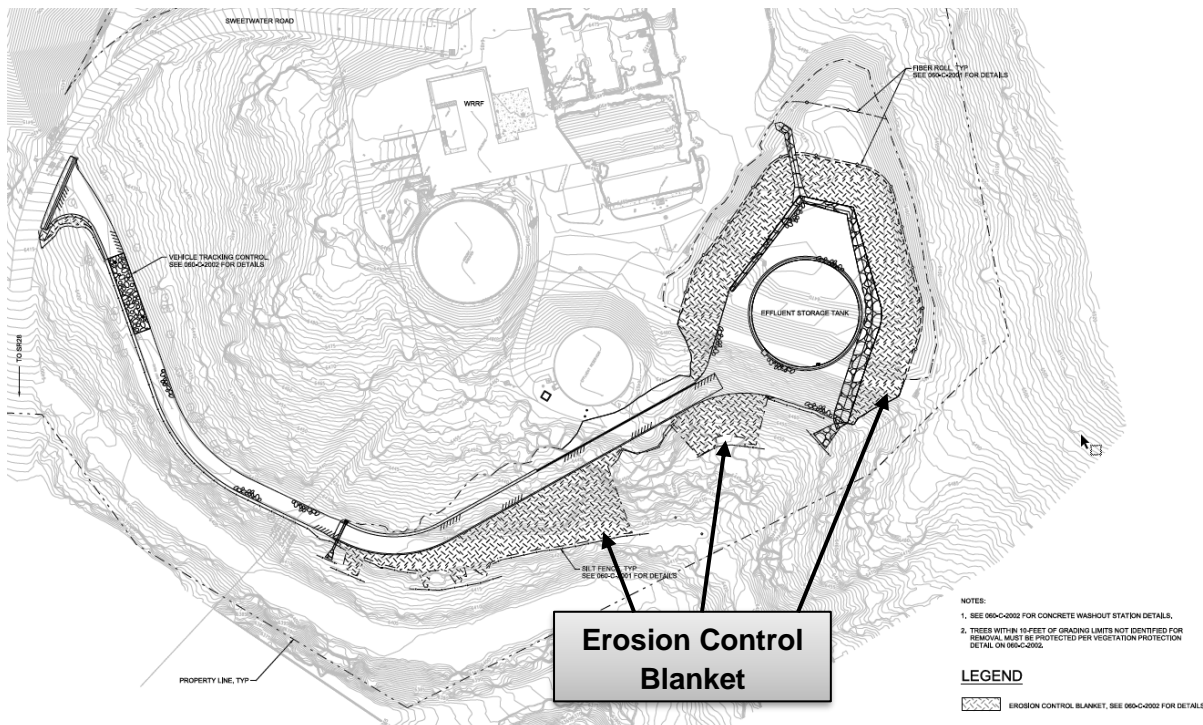
Staff Comment: This requirement is to revegetate the disturbed areas in order to support erosion control. The applicant is proposing to “use a mulch and pine needle blend on the slopes with an erosion control blanket for slope stabilization.” According to the applicant the vegetation of the site is “sparse vegetation made up of manzanita and coniferous trees.” The soil on the site is decomposed granite and establishing vegetation in this type of soil is difficult. The proposal to allow 2:1 slopes has the potential to create erosion and the applicant’s proposal to use of the mulch and pine needles will provide the needed stabilization from erosion (See the Erosion Map, below on page 8). Staff supports the wavier because of the soil on the site and establishing vegetation in this type of soil is difficult

3. 110.412.25(c) Preservation of Significant Trees

Staff Comment: This requirement is for preserving significant trees “with a caliper greater than six (6) inches” and the applicant is requesting to waive this requirement. The applicant is proposing to remove 65 trees. Some of the trees will be removed by the North Lake Tahoe Fire Protection District (NLTFPD) as part of a defensible space program. The applicant indicates replanting of trees is not reasonable with the soil type of the area and also because of the defensible space program. The applicant states, “The forest health and defensible space considerations preclude replacement of these trees.” Staff supports the wavier because there are numerous trees on the site and to support the NLTFPD defensible space program.

4. 110.412.40(a) A minimum twenty (20) percent of the total developed land area shall be landscaped

Staff Comment: This requirement is for “20% of the disturbed area shall be landscape”. The applicant is asking to waive this requirements because the of the forested area where the road and tank are located. There is currently significant vegetation and with the defensible space program in the area reduces the need for more vegetation in the area. Staff supports the wavier because of the significant vegetation on the site and to support the NLTFPD defensible space program.



Erosion Map

Tahoe Area Plan Evaluation

The subject parcel is located within the Tahoe Area Plan. There are no other relevant policies related to grading.

Reviewing Agencies

The following agencies/individuals received a copy of the project application for review and evaluation.

| Agencies | Sent to Review | Responded | Provided Conditions | Contact |
|---|----------------|-----------|---------------------|---|
| Environmental Protection | X | | | |
| NDF - Endangered Species | X | | | |
| NDOW (Wildlife) | X | | | |
| NV State Parks | X | | | |
| Washoe County Engineering & Capital Projects | X | X | X | Robert Wimer, rwimer@washoecounty.gov |
| Washoe County Sewer | X | | | |
| Washoe County Traffic | X | X | | Mitchell Fink, mfink@washoecounty.gov |
| Washoe County Water Rights Manager (All Apps) | X | X | | Timber Weiss, tweiss@washoecounty.gov |
| WCHD Environmental Health | X | X | X | Jim English, jenglish@washoecounty.gov; Wes Rubio, wrubio@washoecounty.gov; David Kelly, dakelly@washoecounty.gov |
| IVGID | X | X | | Tim Buxton, tlb@ivgid.org |
| Nevada Division of State Lands | X | | | |
| North Lake Tahoe FPD | X | X | X | John James, james@nltpd.net |

All conditions required by the contacted agencies can be found in Exhibit A, Conditions of Approval.

Neighborhood Meeting

The applicant held a neighborhood meeting at IVGID Administrative Office at 893 Southwood Blvd. in Incline Village on August 16, 2022. There were four attendees and there were questions about:

- Layout of the site
- Road steepness and pavement
- The need for the existing 500,000-gallon tank
- Locating the fill material
- Removal of dam

Staff Comment on Required Findings

WCC Section 110.810.30, Article 810, *Special Use Permits*, requires that all of the following findings be made to the satisfaction of the Washoe County Board of Adjustment before granting

approval of the request. Staff has completed an analysis of the special use permit application and has determined that the proposal is in compliance with the required findings as follows.

- (a) Consistency. That the proposed use is consistent with the action programs, policies, standards and maps of the Master Plan and the Tahoe Area Plan.

Staff Comment: The public utility center use and associated grading is consistent with the Master Plan and Tahoe Area Plan, as proposed.

- (b) Improvements. That adequate utilities, roadway improvements, sanitation, water supply, drainage, and other necessary facilities have been provided, the proposed improvements are properly related to existing and proposed roadways, and an adequate public facilities determination has been made in accordance with Division Seven.

Staff Comment: The project will establish a road and pad for a 2-million gallon, effluent water storage tank. The IVGID Water Resource Recovery Facility (WRRF) is currently located on the site and there are adequate utilities for the existing uses and buildings. The proposed road will provide the necessary access to the proposed tank. The proposal along with the proposed conditions of approval, will continue to provide the needed utilities, roadway improvements, sanitation, water supply, drainage, and other necessary facilities.

- (c) Site Suitability. That the site is physically suitable for public utility center and major grading and for the intensity of such a development.

Staff Comment: The proposed grading will make the site suitable for the proposed road and pad for a 2-million gallon effluent water storage tank. The applicant has requested modifications to reduce the overall grading and scarring of the site, which will further maintain loss of trees and vegetation from the site.

- (d) Issuance Not Detrimental. That issuance of the permit will not be significantly detrimental to the public health, safety or welfare; injurious to the property or improvements of adjacent properties; or detrimental to the character of the surrounding area.

Staff Comment: The proposed project shall have a minimal overall impact to the surrounding area and conditions of approval have been included to mitigate any negative potential impacts. The location of the proposed road and tank will be only partially visible and there are no residences adjacent to the site. According to the applicant, "The expansion of a 2-million gallon effluent water storage tank will provide more storage to handle the volume of water needed to be held during times of shut down of the pipeline and/or emergency operations affecting effluent disposal." The tank will be beneficial to the local community by providing more effluent water storage.

- (e) Effect on a Military Installation. Issuance of the permit will not have a detrimental effect on the location, purpose or mission of the military installation.

Staff Comment: There is no military installation within the area of required notice for this special use permit; therefore, the project will have no effect on a military installation.

Recommendation

After a thorough analysis and review, Special Use Permit Case Number WSUP23-0002 is being recommended for approval with conditions. Staff offers the following motion for the Board's consideration.

Motion

I move that, after giving reasoned consideration to the information contained in the staff report and information received during the public hearing, the Washoe County Board of Adjustment

approve with conditions Special Use Permit Case Number WSUP23-0002 for Incline Village General Improvement District (IVGID), with the conditions included as Exhibit A to this matter, having made all five findings in accordance with Washoe County Code Section 110.810.30:

- (a) Consistency. That the proposed use is consistent with the action programs, policies, standards and maps of the Master Plan and the Tahoe Area Plan;
- (b) Improvements. That adequate utilities, roadway improvements, sanitation, water supply, drainage, and other necessary facilities have been provided, the proposed improvements are properly related to existing and proposed roadways, and an adequate public facilities determination has been made in accordance with Division Seven;
- (c) Site Suitability. That the site is physically suitable for public utility center and major grading and for the intensity of such a development;
- (d) Issuance Not Detrimental. That issuance of the permit will not be significantly detrimental to the public health, safety or welfare; injurious to the property or improvements of adjacent properties; or detrimental to the character of the surrounding area;
- (e) Effect on a Military Installation. Issuance of the permit will not have a detrimental effect on the location, purpose or mission of the military installation.

Appeal Process

Board of Adjustment action will be effective 10 calendar days after the written decision is filed with the Secretary to the Board of Adjustment and mailed to the applicant, unless the action is appealed to the Washoe County Board of County Commissioners, in which case the outcome of the appeal shall be determined by the Washoe County Board of County Commissioners. Any appeal must be filed in writing with the Planning and Building Division within 10 calendar days from the date the written decision is filed with the Secretary to the Board of Adjustment and mailed to the applicant.

Applicant/Owner: Incline Village General Improvement District (IVGID).,
pw@ivgid.org & hwk@ivgid.org



Conditions of Approval

Special Use Permit Case Number WSUP23-0002

The project approved under Special Use Permit Case Number WSUP23-0002 shall be carried out in accordance with the conditions of approval granted by the Board of Adjustment on June 1, 2023. Conditions of approval are requirements placed on a permit or development by each reviewing agency. These conditions of approval may require submittal of documents, applications, fees, inspections, amendments to plans, and more. These conditions do not relieve the applicant of the obligation to obtain any other approvals and licenses from relevant authorities required under any other act.

Unless otherwise specified, all conditions related to the approval of this special use permit shall be met or financial assurance must be provided to satisfy the conditions of approval prior to issuance of a grading or building permit. The agency responsible for determining compliance with a specific condition shall determine whether the condition must be fully completed or whether the applicant shall be offered the option of providing financial assurance. All agreements, easements, or other documentation required by these conditions shall have a copy filed with the County Engineer and the Planning and Building Division.

Compliance with the conditions of approval related to this special use permit is the responsibility of the applicant, his/her successor in interest, and all owners, assignees, and occupants of the property and their successors in interest. Failure to comply with any of the conditions imposed in the approval of the special use permit may result in the institution of revocation procedures.

Washoe County reserves the right to review and revise the conditions of approval related to this Special Use Permit should it be determined that a subsequent license or permit issued by Washoe County violates the intent of this approval.

For the purpose of conditions imposed by Washoe County, “may” is permissive and “shall” or “must” is mandatory.

Conditions of approval are usually complied with at different stages of the proposed project. Those stages are typically:

- Prior to permit issuance (i.e., grading permits, building permits, etc.).
- Prior to obtaining a final inspection and/or a certificate of occupancy.
- Prior to the issuance of a business license or other permits/licenses.
- Some “conditions of approval” are referred to as “operational conditions.” These conditions must be continually complied with for the life of the project or business.

The Washoe County Commission oversees many of the reviewing agencies/departments with the exception of the following agencies.

- **The DISTRICT BOARD OF HEALTH, through the Washoe County Health District, has jurisdiction over all public health matters in the Health District. Any conditions set by the Health District must be appealed to the District Board of Health.**

FOLLOWING ARE CONDITIONS OF APPROVAL REQUIRED BY THE REVIEWING AGENCIES. EACH CONDITION MUST BE MET TO THE SATISFACTION OF THE ISSUING AGENCY.

Washoe County Planning and Building Division

1. The following conditions are requirements of Planning and Building, which shall be responsible for determining compliance with these conditions.

Contact Name – Julee Olander, Planner, 775.328.3627, jolander@washoecounty.gov

- a. **The applicant shall attach a copy of the action order approving this project to all permits and applications (including building permits) applied for as part of this special use permit.**
- b. The applicant shall demonstrate substantial conformance to the plans approved as part of this special use permit.
- c. The applicant shall submit construction plans, with all information necessary for comprehensive review by Washoe County, and initial building permits shall be issued within two years from the date of approval by Washoe County. The applicant shall complete construction within the time specified by the building permits.
- d. A note shall be placed on all construction drawings and grading plans stating:

NOTE

Should any cairn or grave of a Native American be discovered during site development, work shall temporarily be halted at the specific site and the Sheriff's Office as well as the State Historic Preservation Office of the Department of Conservation and Natural Resources shall be immediately notified per NRS 383.170.

- e. Construction activities shall be limited to the hours between 7am to 7pm, Monday through Saturday only. Any construction machinery activity or any noise associated with the construction activity are also limited to these hours.

Washoe County Engineering and Capital Projects

2. The following conditions are requirements of the Engineering Division, which shall be responsible for determining compliance with these conditions.

Contact Name – Robert Wimer, P.E. 775.328.2059, rwimer@washoecounty.gov

- a. A complete set of construction improvement drawings, including an on-site grading plan, shall be submitted when applying for a building/grading permit. Grading shall comply with best management practices (BMP's) and shall include detailed plans for grading, site drainage, erosion control (including BMP locations and installation details), slope stabilization, and mosquito abatement. Placement or removal of any excavated materials shall be indicated on the grading plan. Silts shall be controlled on-site and not allowed onto adjacent property.
- b. For construction areas larger than 1 acre, the developer shall obtain from the Nevada Division of Environmental Protection a Stormwater Discharge Permit or Waiver for construction and submit a copy to the Engineering Division prior to issuance of a grading permit.
- c. The developer shall complete and submit the Construction Permit Submittal Checklist and pay the Construction Stormwater Inspection Fee prior to obtaining a grading permit. The County Engineer shall determine compliance with this condition.
- d. A grading bond of \$2,000/acre of disturbed area shall be provided to the Engineering Division prior to any grading.

- e. Cross-sections indicating cuts and fills shall be submitted when applying for a grading permit. Estimated total volumes shall be indicated.
- f. All disturbed areas left undeveloped for more than 30 days shall be treated with a dust palliative. Disturbed areas left undeveloped for more than 45 days shall be revegetated. Methods and seed mix must be approved by the County Engineer with technical assistance from the Washoe-Storey Conservation District. The applicant shall submit a revegetation plan to the Washoe-Storey Conservation District for review.
- g. Slopes steeper than 3H:1V shall be justified through a geotechnical report prepared by a Licensed Engineer in the State of Nevada.

North Lake Fire Protection District

- 3. The following condition is a requirement of the Truckee Meadows Fire Protection District, which shall be responsible for determining compliance with this condition.

Contact Name – John James, Fire Mashall, 775.831.0351 x 8131, james@nlfpd.net

- a. Emergency vehicle access shall be provided in accordance with Chapter 5 of the adopted 2018 International Fire Code. Access shall be provided and maintained at all times.
- b. All new fire hydrants shall also be included for review on the “water project,” utility permits, and in accordance with Appendix C of the adopted 2018 International Fire Code.
- c. An approved water supply capable of supplying the required fire flow for fire protection shall be provided and maintained in accordance with the Chapter 5 and Appendices B and C of the 2018 International Fire Code with amendments as adopted by the North Lake Tahoe Fire Protection District.

4. Washoe County Health District- Environmental

The following conditions are requirements of the Health District, which shall be responsible for determining compliance with these conditions.

Contact Name – James English, EHS Supervisor, 775.328.2434 jenglish@washoecounty.gov

- a. If potable water infrastructure is proposed as part of the installation of the effluent tank, a Water Project will be required pursuant to NAC 445A.
- d. If the special use permit is approved all construction plans for the parcel must be routed to WCHD for review and approval.

*** End of Conditions ***



Date: April 25, 2023

To: Julee Olander, Planner

From: Robert Wimer, P.E., Licensed Engineer

Re: Special Use Permit for **IVGID Tank WSUP23-0002**
APN 130-010-08

GENERAL PROJECT DISCUSSION

Washoe County Engineering staff has reviewed the above referenced application. The Special Use Permit is for the construction of a two million gallon, reinforced concrete effluent water storage tank and is located on approximately 87.3 acres at the south edge of the IVGID Wastewater Recovery Facility. The Engineering and Capital Projects Division recommends approval with the following comments and conditions of approval which supplement applicable County Code and are based upon our review of the site and the application prepared by Incline Village General Improvement District. The County Engineer shall determine compliance with the following conditions of approval.

For questions related to sections below, please see the contact name provided.

GENERAL CONDITIONS

Contact Information: Robert Wimer, P.E. (775) 328-2059

1. A complete set of construction improvement drawings, including an on-site grading plan, shall be submitted when applying for a building/grading permit. Grading shall comply with best management practices (BMP's) and shall include detailed plans for grading, site drainage, erosion control (including BMP locations and installation details), slope stabilization, and mosquito abatement. Placement or removal of any excavated materials shall be indicated on the grading plan. Silts shall be controlled on-site and not allowed onto adjacent property.
2. For construction areas larger than 1 acre, the developer shall obtain from the Nevada Division of Environmental Protection a Stormwater Discharge Permit or Waiver for construction and submit a copy to the Engineering Division prior to issuance of a grading permit.
3. The developer shall complete and submit the Construction Permit Submittal Checklist and pay the Construction Stormwater Inspection Fee prior to obtaining a grading permit. The County Engineer shall determine compliance with this condition.
4. A grading bond of \$2,000/acre of disturbed area shall be provided to the Engineering Division prior to any grading.

5. Cross-sections indicating cuts and fills shall be submitted when applying for a grading permit. Estimated total volumes shall be indicated.
6. All disturbed areas left undeveloped for more than 30 days shall be treated with a dust palliative. Disturbed areas left undeveloped for more than 45 days shall be revegetated. Methods and seed mix must be approved by the County Engineer with technical assistance from the Washoe-Storey Conservation District. The applicant shall submit a revegetation plan to the Washoe-Storey Conservation District for review.
7. Slopes steeper than 3H:1V shall be justified through a geotechnical report prepared by a Licensed Engineer in the State of Nevada.

DRAINAGE (COUNTY CODE 110.416, 110.420, and 110.421)

Contact Information: Robert Wimer, P.E. (775) 328-2059

1. No comments or conditions.

TRAFFIC AND ROADWAY (COUNTY CODE 110.436)

Contact Information: Mitchell Fink, P.E. (775) 328-2050

1. No comments or conditions

UTILITIES (County Code 422 & Sewer Ordinance)

Contact Information: Alex Mayorga P.E. (775) 328-2313

1. No comments or conditions

From: [John James](#)
To: [Olander, Julie](#)
Subject: FW: April Agency Review Memo II 7. UPDATED Special Use Permit Case Number WSUP23-0002 (IVGID Tank)
Date: Friday, April 14, 2023 4:21:24 Pm
Attachments: [Outlook-qqtsv1uo.png](#)

[NOTICE: This message originated outside of Washoe County -- **DO NOT CLICK** on **links** or open **attachments** unless you are sure the content is safe.]

Hello Julie,

Item # 7. UPDATED Special Use Permit Case Number WSUP23-0002 (IVGID Tank)

NLTFPD Comments:

NLTFPD will review this project for code compliance at the time of formal submittal.

Have a great weekend,



John James
Fire Marshal
Office: [775.831.0351](tel:775.831.0351) x8131 | Cell: [775.413.9344](tel:775.413.9344)
Email: jjames@nltfpd.net
[866 Oriole Way | Incline Village | NV 89451](#)



WASHOE COUNTY
HEALTH DISTRICT
ENHANCING QUALITY OF LIFE

January 26, 2023

Washoe County Community Services
Planning and Development Division

RE: IVGID Tank; 079-332-28
Special Use Permit; WSUP23-0002

Dear Washoe County Staff:

The following conditions are requirements of the Washoe County Health District, Environmental Health Division, which shall be responsible for determining compliance with these conditions.

Contact Name – James English - jenglish@washoecounty.us

- a) Condition #1: The WCHD has reviewed the application, the project is proposed on a property that is served by community water and sewerage systems.
- b) Condition #2: WCHD does not have a concern with proposed special use permit for the future construction of a new effluent water storage tank. WCHD is supportive of the proposed new tank as it will benefit the community and the environment with enhanced sewage effluent management withing the Lake Tahoe Basin.
- c) Condition #3: If potable water infrastructure is proposed as part of the installation of the effluent tank, a Water Project will be required pursuant to NAC 445A.
- d) Condition #4: If the special use permit is approved all construction plans for the parcel must be routed to WCHD for review and approval based on Condition #2 and #3.

If you have any questions or would like clarification regarding the foregoing, please contact James English, EHS Supervisor at jenglish@washoecounty.us regarding all Health District comments.

Sincerely,



James English, REHS, CP-FS
EHS Supervisor
Environmental Health Services
Washoe County Health District

| | |
|-----------------|--|
| Date | 4-17-23 |
| Attention | Julee Olander |
| Re | Special User Permit Case Number WSUP23-0002 IVGID TANK |
| APN | 130-010-08 |
| Service Address | 1250 Sweetwater Road |
| Owner | IVGID |

UPDATED Special Use Permit Case Number WSUP23-0002 (IVGID Tank) – For hearing, discussion, and possible action to approve a special use permit for major grading of 8,900 cubic yards (CY) of cut material and 9,000 CY of fill material that will be balanced on site and to allow slopes greater than 3:1. Approximately 100,000 SF of the site will be disturbed for construction of a road and pad for a 2-million gallon, reinforced concrete effluent water storage tank.

- Applicant / Owner: Incline Village General Improvement District (IVGID)
- Location: 1250 Sweetwater Road
- Assessor's Parcel Number(s): 130-010-08
- Parcel Size: 87.3 acres
- Master Plan Category: Tahoe
- Regulatory Zone: 67% TA_TC & 33% PR
- Area Plan: Tahoe
- Development Code: Authorized in Article 438, Grading; and Article 810, Special Use Permits
- Commission District: 1 – Commissioner Hill
- Staff: Julee Olander, Planner
Washoe County Community Services Department
Planning and Building Division
- Phone: 775-328-3627
- E-mail: jolander@washoecounty.gov

IVGID Comments: Project approved by the IVGID Public Works Division and finalized by the IVGID Engineering Division.

From: [Weiss, Timber A.](#)
To: [Olander, Julee](#)
Subject: No water right comments for Special Use Permit Case Number WSUP23-0002 (IVGID Tank)
Date: Monday, April 24, 2023 2:05:06 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)

No water right comments for Special Use Permit Case Number WSUP23-0002 (IVGID Tank)

Thank you,



Timber Weiss, PE | Professional Engineer

Engineering & Capital Projects Division | Community Services Department

1001 E. 9th Street, Bldg A Reno, NV 89512

tweiss@washoecounty.gov | Office Voice Mail: 775.954.4626 or 775.433.0769

Visit us first online: www.washoecounty.us/csd

For additional information, email engineering@washoecounty.us or call 775.328.2040



Project Name: IVGID WRRF Effluent Storage Tank Facility

Neighborhood Meeting

Meeting Location: IVGID Admin Office 893 Southwood Blvd, Incline Village, 89451

SUMMARY

Meeting Date: 6:00pm - August 16, 2022

Virtual Meeting Option Provided: YES NO

Hosted By (Name): Hudson Klein (Company): IVGID

Contact (Email): h w k @vgid.org (Phone): 775.832.1203

Public Concerns:

1. Funding Framework - obtain grants from Federal, State, or County sources
2. Review 2011 Recommendations from Army Corps of Engineers for reference to storage tank option.
3. _____
4. _____
5. _____

Changes Made to Proposal (if applicable):

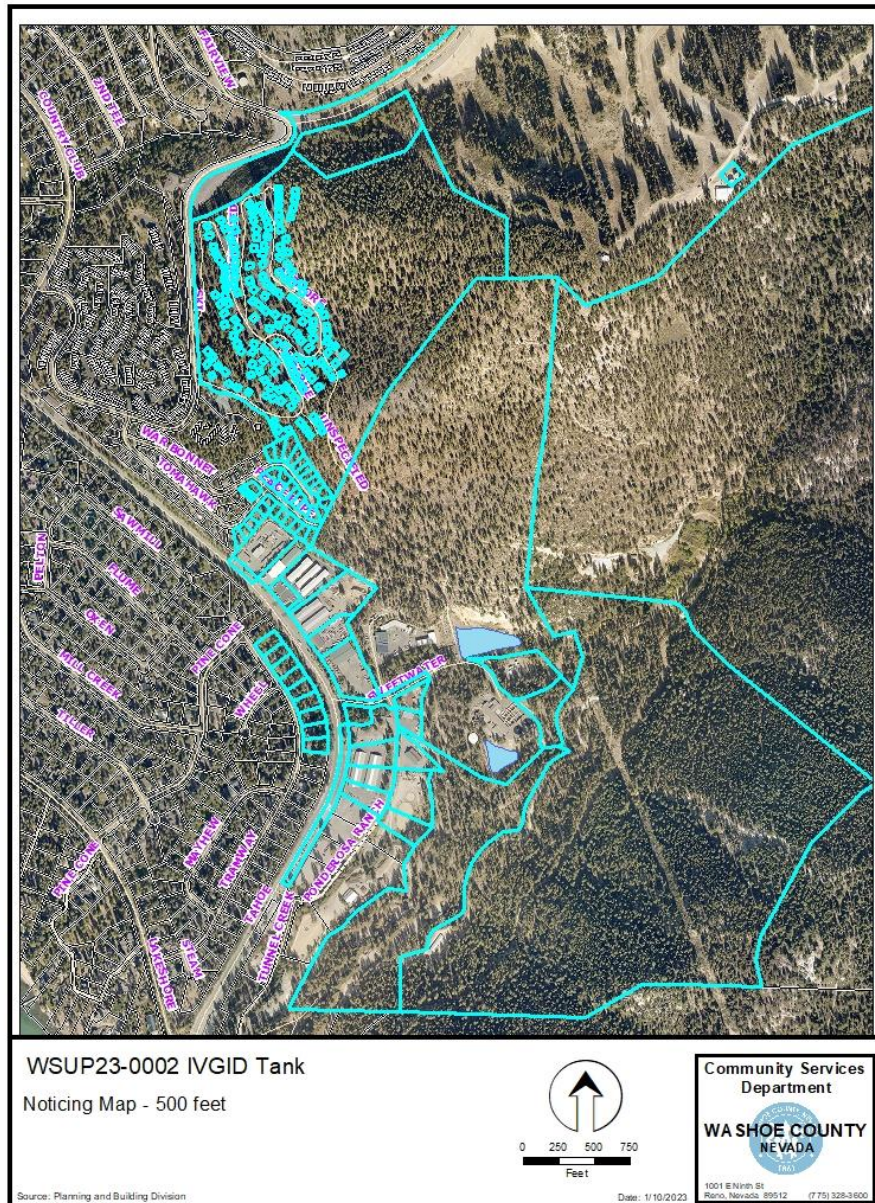
1. N/A - funding sources not applicable to Washoe County Permit application submittal
2. N/A - previous ACOE recommendations not applicable to Washoe County Permit application submittal
3. _____
4. _____
5. _____

Any Additional Comments:

General support was voiced at the meeting and via the Washoe County online feedback submissions.

Public Notice

Washoe County Code requires that public notification for a special use permit must be mailed to a minimum of 30 separate property owners within a minimum 500-foot radius of the subject property a minimum of 10 days prior to the public hearing date. A notice setting forth the time, place, purpose of hearing, a description of the request and the land involved was sent within a 500-foot radius of the subject property. A total of 46 separate property owners were noticed a minimum of 10 days prior to the public hearing date.



Public Notice Map
Special Use Permit Case Number WSUP23-0002



April 6, 2023

Letter #001

Julee Olander
Project Planner
Washoe County – Community Services Department
1001 East Ninth Street
Reno, NV 89512

Project: IVGID Effluent Storage Tank
Re: SUP Application WSUP23-0002 – Effluent Storage Tank

This letter is written with regard to the Incline Village General Improvement District (District) Special Use Permit application submitted on October 8, 2022. The information included herein is presented in support of application WCSUP23-0002 to provide further clarification on the proposed design elements and Washoe County code exemptions requested. Included with this submittal is an updated set of 90% design drawings (dated February 2023). The scope of the project remains unchanged, however these drawings supersede the drawings submitted with the original application and should be used as reference for application review process moving forward. Additional reference materials are included and specifically referenced, where applicable.

In Exhibit A, the proposed grading is presented as shown in the 90% design drawings referenced above. Washoe County code Sections WDCD110.438.45 & .55(a) require cut/fill slopes to stand at a maximum 3:1 slope. The project has four areas (A1 – A4) where proposed slopes exceed 3:1. The permanent slopes will be finish graded with surface undulations to promote a natural surface topography and to avoid a uniform/engineered appearance. In general, the proposed slopes steeper than 3:1 are necessary to facilitate the construction of the proposed project and to minimize the impact/grading footprint, where possible.

One fundamental aspect of the overall project grading approach is to balance the cut and fill volumes on site. This serves to eliminate large export volumes and related heavy truck traffic on the local roads; it is anticipated that export material will be removed from the Tahoe Basin (i.e. Carson Valley) and disposed at a suitable receiving facility. An additional key component of the grading plan is to create an access road that can accommodate the heavy construction vehicles necessary to erect the concrete tank. This will include concrete trucks, concrete pump trucks, dump trucks, heavy earthwork equipment, crane trucks, and general support vehicles. Existing roads and driveways throughout the Waster Water Recovery Facility (WRRF) are not suitable for the construction traffic/vehicles required for construction of the new storage tank.

Please refer to the attached, updated 90% design drawings and specific excerpts in Attachment A and the corresponding summary of proposed design elements below:

Grading Extents and Proposed Slopes

- **Area A1:** The embankment below the proposed construction access road (Sta 14+50 to 17+40) is comprised of on-site fill material (Labelled **A1, pink border**). This slope is proposed as a 2.5:1 fill slope and is comparable to existing slopes in this area that also average a 2.5:1 slope. The toe of the current slope is founded on an existing access roadway. Reducing the proposed slope to 3:1 would increase the fill slope footprint substantially due to the natural slope below the existing road. The extension of fill slope would result in additional tree removal, further loss of any existing vegetation, and an increase in visual impact as viewed from the scenic highway corridor (SR28). A retaining wall was reviewed as an alternative to the earthen embankments, however, the visual impact was deemed more significant for the scenic corridor so the graded embankment is proposed.
- **Area A2:** The area above the proposed access road (Sta 17+00 to 18+30) and below the existing storage tank is a proposed 2:1 cut slope (Labelled **A2, blue border**). The cut bank was designed at this slope to prevent undermining of the 0.5 million gallon (MG) existing tank foundation. If the cut slope were reduced to a 3:1 slope it would extend into the zone of influence of the structure and compromise the structural integrity of the storage tank.

893 Southwood Boulevard, Incline Village, NV 89451
PHONE: (775) 832-1100 • FAX (775) 832-1122

- **Area A3:** This area is below the access road (Sta 18+00 to 18+75) at the uphill end near the proposed tank pad and is fill material placed over the face of the existing earthen dam (Labelled **A3, orange border**). This slope is proposed as a 2.5:1 fill slope. This area is filled to balance the cut required for this portion of the access road and matches the existing average slope of the existing dam face and adjacent slope. A slope decrease to 3:1 will increase the area impacted by project fill and result in an inconsistent slope face relative to existing conditions.
- **Area A4:** This embankment surrounds the proposed tank (Labelled **A4, green border**) and is fill material cut from beneath the tank area used to fill the existing pond and tie into the top of the pond bank; the existing pond embankment slopes are 2:1 unvegetated slopes. Area A4 is completely within the extents of the existing pond footprint. The project requires an area surrounding the tank perimeter wide enough for cast-in-place concrete operations to pour the tank wall and roof panels. This area will also have to accommodate the heavy equipment required to facilitate the concrete panel lifts and placement. The flat area around the tank will also be used for ongoing future maintenance and inspections. This proposed grading also increases the area available for potential future improvements to the Waste Water Recovery Facility (WRRF) by creating additional area at minimal slope (2%). A decrease in proposed slope to 3:1 will encroach on the area surrounding the tank necessary for construction of the tank and future maintenance.

Slope stabilization and Tree Removal

IVGID is requesting a variance to the re-vegetation requirements in WCD110.438.70 to more closely match existing conditions seen in the photo exhibits attached to the application. The existing slopes are generally composed of sparse vegetation made up of manzanita and coniferous trees. As noted in the project Geotechnical Design Report, topsoil was not observed in the proposed grading area (Section 8.1.1 Site Clearing) and the soil profile in the project area is derived from granitic bedrock materials and generally consists of decomposed granite. IVGID proposes to use a mulch and pine needle blend on the slopes with an erosion control blanket for slope stabilization. This proposal has been submitted to TRPA and is currently in review. The intent is to mimic existing conditions.

IVGID is also requesting a variance to WCD110.412.25.c requiring replacement of significant trees (>6") removed at a 1:1 caliper ratio. For the project parcel (APN 130-010-08) a significant portion (>50%) of existing trees will be preserved in their existing locations. In Exhibit B, the display shows the tree removal required for the project. This currently includes 65 trees. However, some of these trees are likely to be removed by the North Lake Tahoe Fire Protection District (NLTFPD) as part of a defensible space program; the defensible space tree removal scope is not yet confirmed due to the current snow pack but estimated to commence in May 2023.

The estimated 65 tree count is inclusive of trees likely to be removed as part of the defensible space program, therefore, the total number of project trees removed is anticipated to decrease. Of the 65 trees, thirty (30) are less than 14" diameter (TRPA reporting threshold) and 35 are greater than 14" diameter (54" from ground height). The trees greater than 14" diameter are shown in Exhibit B; the trees smaller than 14" diameter are not shown but are scattered throughout the project areas and fill slopes A1 thru A4 shown in Exhibit A. The existing site is densely forested where not developed for the WRRF or IVGID Public Works facilities. Planting additional trees to satisfy the replacement requirement of 110.412.25.c is not practical in this location based on an estimated 1,000" caliper ratio (250 4-inch trees). The forest health and defensible space considerations preclude replacement of these trees. As stated above, the project has been submitted to TRPA for review and IVGID will update Washoe County staff of progress or response from TRPA and/or NLTFPD project staff.

Site drainage

The existing pond currently receives water from an approximate 45-acre watershed area upstream of the pond. The 100-year, 24-hour design storm peak flow rate is 5.5-cfs. As shown on the design drawings, the proposed drainage improvements include a rip-rap lined swale intended to collect the stormwater flows and discharge it at a location adjacent to the existing pond spillway outlet where 5-cfs is currently discharged with no energy dissipation facility. Therefore, the drainage conditions are comparable to existing conditions with improved outlet conditions. A Dam Decommissioning Design Report (Exhibit D) was completed for the decommissioning of the existing dam, as required by the Nevada Division of Water Resources – Dam Safety. The design report is attached and summarizes the existing and proposed drainage conditions around the tank as outlined in this section.



The 12%-grade portion of the new access road way (Sta. 14+50 to 18+75, Sheet 12 design drawings) is paved to minimize erosion potential and is superelevated to drain the inside of the road as indicated on the design drawings (refer to Sheet 12). A 200LF infiltration trench has been sized per TRPA BMP calculation requirements (Exhibit E) and is proposed to collect/infiltrate runoff from this portion of the access road. There is also an inlet with overflow piping and energy dissipater at the outlet to convey water safely in the case of extreme storm events. The remaining portion of the access roadway (STA 10+00 to 14+50, Sheet 11) is unchanged and existing drainage patterns and flow rates will be maintained.

Thank you for your time and consideration of this application and requested variances. Please do not hesitate to contact me for any further clarifications necessary.

Sincerely,

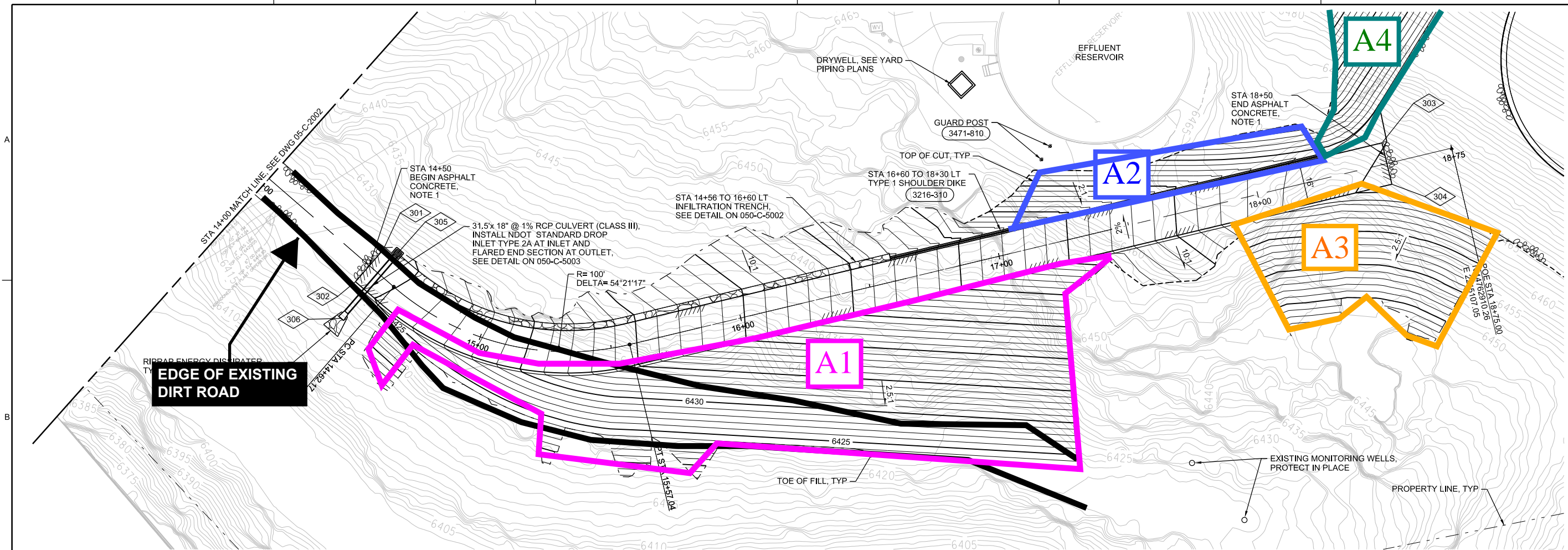
Hudson Klein
Principal Engineer

Enclosures



Exhibit A

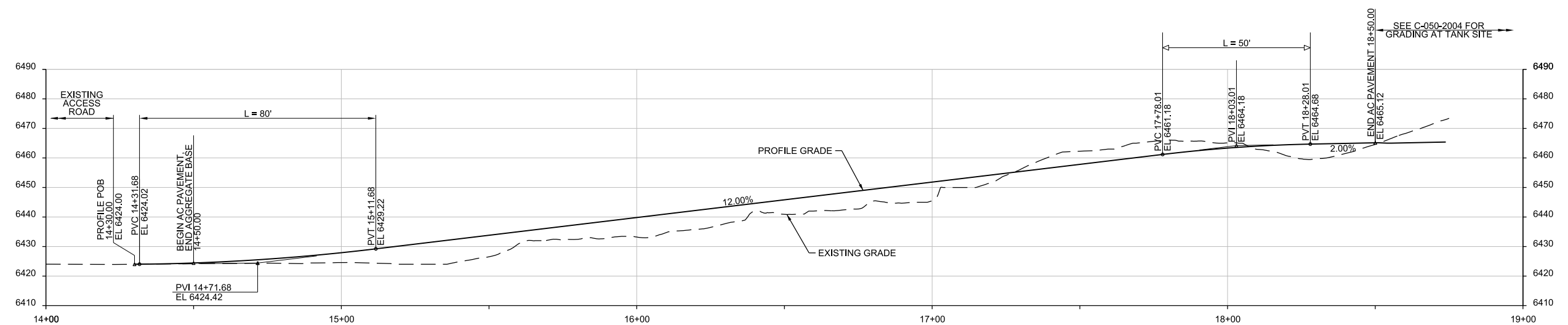
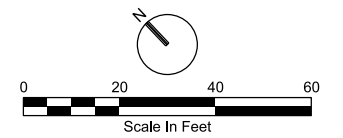
Grading Plan



PLAN
1"=20"

- NOTES:**
- SEE 050-C-3001 FOR ROADWAY TYPICAL SECTION.
 - ALL DISTURBED AREAS NOT RECEIVING A HARD SURFACE SHALL BE STABILIZED. SEE 050-C-2006 FOR SLOPE STABILIZATION PLAN.

| POINT NO. | DESCRIPTION | ELEVATION | NORTHING | EASTING |
|-----------|----------------------------|-----------------|-------------|------------|
| 301 | EOP, MATCH EXISTING | 6424.28 | 14763158.86 | 2244788.90 |
| 302 | EOP, MATCH EXISTING | 6424.60 | 14763157.29 | 2244772.98 |
| 303 | EOP | 6464.96 | 14762929.69 | 2245089.40 |
| 304 | EOP | 6465.28 | 14762915.83 | 2245081.40 |
| 305 | CENTER OF INLET RIM/INV EL | 6424.40/6420.32 | 14763154.15 | 2244791.88 |
| 306 | CULVERT OUTLET | 6420.00 | 14763150.96 | 2244759.58 |



PROFILE
1"=20"

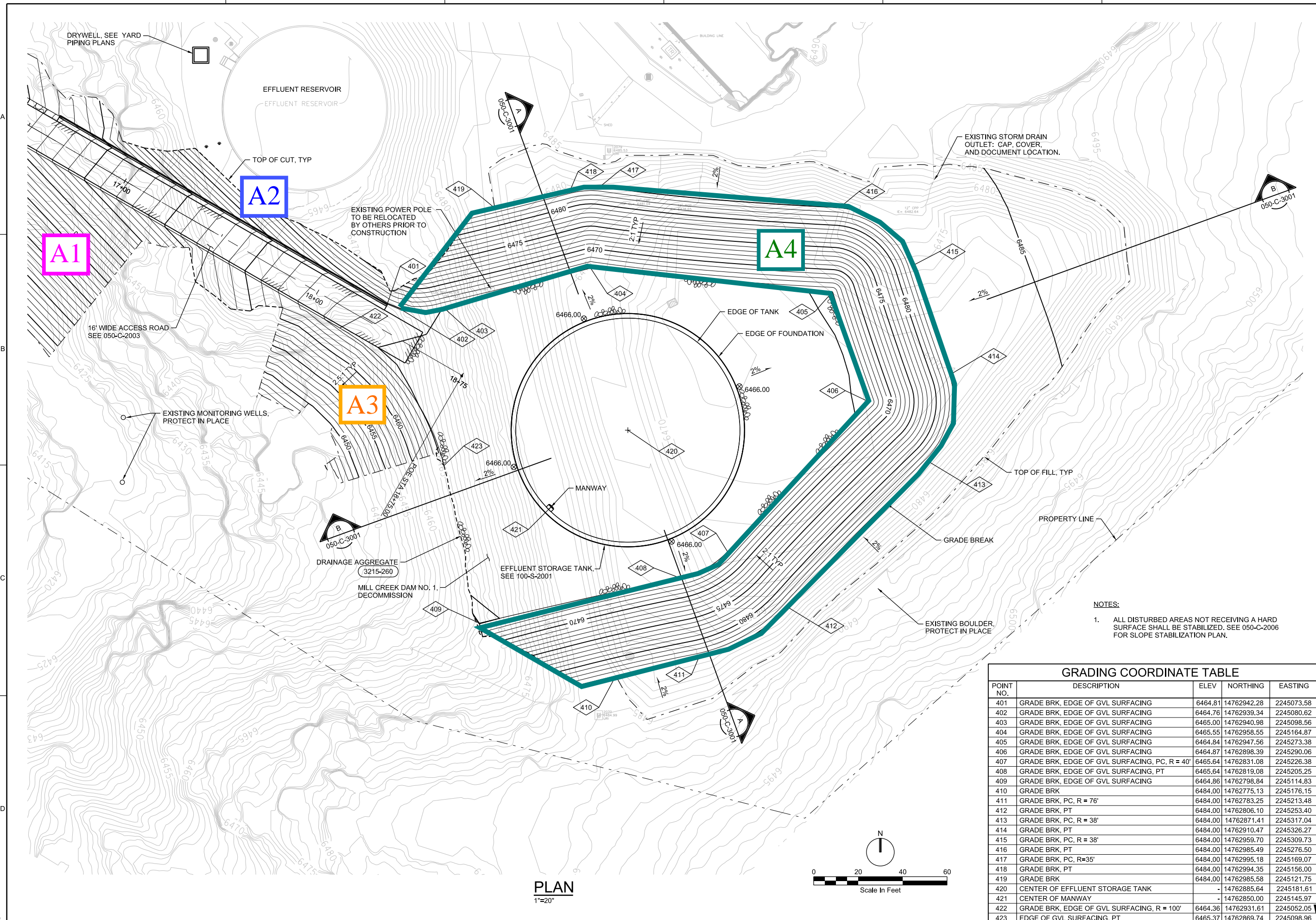


REGISTERED PROFESSIONAL ENGINEER
 TRAVIS J. HOWARD
 CIVIL
 LICENSE NO. 021924
 STATE OF NEVADA
 NOT FOR CONSTRUCTION

| NO. | DATE | DR | CHK | REVISION | BY | APVD |
|-----|------|----|-----|----------|----|------|
| | | | | | | |

Jacobs
 CIVIL
 ACCESS ROAD
 PLAN AND PROFILE

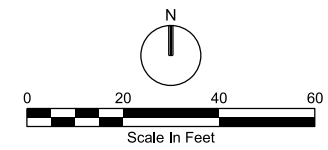
VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING.
 DATE: FEBRUARY 2023
 PROJ: W8Y12900
WSUP23-0002
 SHEET: 04 of 43
EXHIBIT E



NOTES:
 1. ALL DISTURBED AREAS NOT RECEIVING A HARD SURFACE SHALL BE STABILIZED. SEE 050-C-2006 FOR SLOPE STABILIZATION PLAN.

| GRADING COORDINATE TABLE | | | | |
|--------------------------|---|---------|-------------|------------|
| POINT NO. | DESCRIPTION | ELEV | NORTHING | EASTING |
| 401 | GRADE BRK, EDGE OF GVL SURFACING | 6464.81 | 14762942.28 | 2245073.58 |
| 402 | GRADE BRK, EDGE OF GVL SURFACING | 6464.76 | 14762939.34 | 2245080.62 |
| 403 | GRADE BRK, EDGE OF GVL SURFACING | 6465.00 | 14762940.98 | 2245098.56 |
| 404 | GRADE BRK, EDGE OF GVL SURFACING | 6465.55 | 14762958.55 | 2245164.87 |
| 405 | GRADE BRK, EDGE OF GVL SURFACING | 6464.84 | 14762947.56 | 2245273.38 |
| 406 | GRADE BRK, EDGE OF GVL SURFACING | 6464.87 | 14762898.39 | 2245290.06 |
| 407 | GRADE BRK, EDGE OF GVL SURFACING, PC, R = 40' | 6465.64 | 14762831.08 | 2245226.38 |
| 408 | GRADE BRK, EDGE OF GVL SURFACING, PT | 6465.64 | 14762819.08 | 2245205.25 |
| 409 | GRADE BRK, EDGE OF GVL SURFACING | 6464.86 | 14762798.84 | 2245114.83 |
| 410 | GRADE BRK | 6484.00 | 14762775.13 | 2245176.15 |
| 411 | GRADE BRK, PC, R = 76' | 6484.00 | 14762783.25 | 2245213.48 |
| 412 | GRADE BRK, PT | 6484.00 | 14762806.10 | 2245253.40 |
| 413 | GRADE BRK, PC, R = 38' | 6484.00 | 14762871.41 | 2245317.04 |
| 414 | GRADE BRK, PT | 6484.00 | 14762910.47 | 2245326.27 |
| 415 | GRADE BRK, PC, R = 38' | 6484.00 | 14762959.70 | 2245309.73 |
| 416 | GRADE BRK, PT | 6484.00 | 14762985.49 | 2245276.50 |
| 417 | GRADE BRK, PC, R=35' | 6484.00 | 14762995.18 | 2245169.07 |
| 418 | GRADE BRK, PT | 6484.00 | 14762994.35 | 2245156.00 |
| 419 | GRADE BRK | 6484.00 | 14762985.58 | 2245121.75 |
| 420 | CENTER OF EFFLUENT STORAGE TANK | - | 14762885.64 | 2245181.61 |
| 421 | CENTER OF MANWAY | - | 14762850.00 | 2245145.97 |
| 422 | GRADE BRK, EDGE OF GVL SURFACING, R = 100' | 6464.36 | 14762931.61 | 2245052.05 |
| 423 | EDGE OF GVL SURFACING, PT | 6465.37 | 14762869.74 | 2245098.96 |

PLAN
1"=20'



REGISTERED PROFESSIONAL ENGINEER
 TRAVIS J. HOWARD
 CIVIL
 LICENSE NO. 021924
 STATE OF NEVADA
 NOT FOR CONSTRUCTION

| NO. | DATE | DR | CHK | REVISION | BY | APVD |
|-----|------|----------|----------|----------|------------|-----------|
| | | T HOWARD | K BISHOP | | B CHELONIS | A KELLOGG |

Jacobs CIVIL

EFFLUENT STORAGE TANK CONSTRUCTION GRADING PLAN

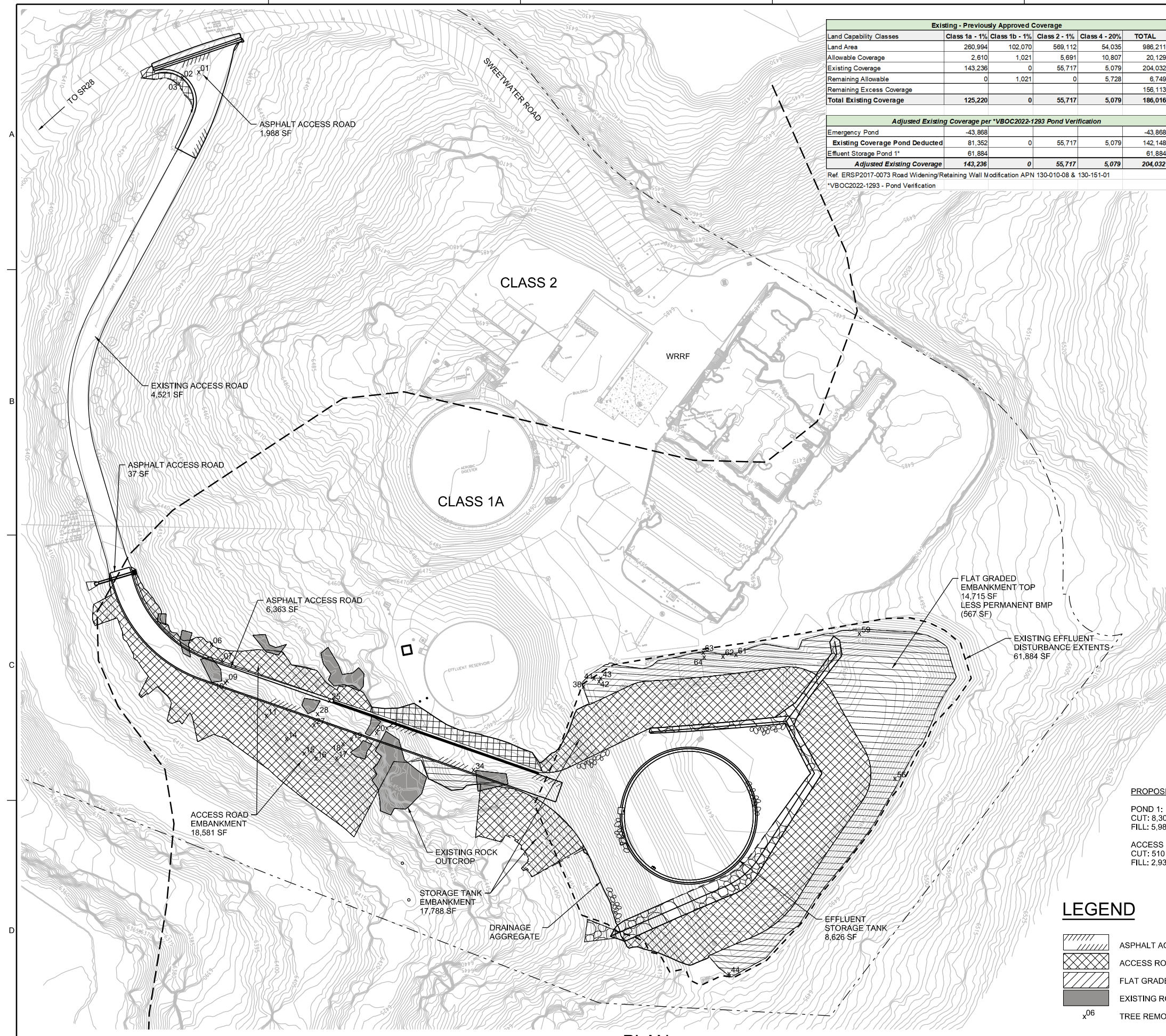
VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING.

DATE: FEBRUARY 2023
 PROJ: W8Y12900
 SHEET: SUP23-0002-004 of 043
 EXHIBIT E

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Exhibit B

Tree Removal & Coverage Plan



| Existing - Previously Approved Coverage | | | | | |
|---|----------------|---------------|---------------|---------------|----------------|
| Land Capability Classes | Class 1a - 1% | Class 1b - 1% | Class 2 - 1% | Class 4 - 20% | TOTAL |
| Land Area | 260,994 | 102,070 | 569,112 | 54,035 | 986,211 |
| Allowable Coverage | 2,610 | 1,021 | 5,691 | 10,807 | 20,129 |
| Existing Coverage | 143,236 | 0 | 55,717 | 5,079 | 204,032 |
| Remaining Allowable | 0 | 1,021 | 0 | 5,728 | 6,749 |
| Remaining Excess Coverage | | | | | 156,113 |
| Total Existing Coverage | 125,220 | 0 | 55,717 | 5,079 | 186,016 |

| Adjusted Existing Coverage per VBCC2022-1293 Pond Verification | | | | | |
|--|----------------|----------|---------------|--------------|----------------|
| Emergency Pond | -43,868 | | | | -43,868 |
| Existing Coverage Pond Deducted | 81,352 | 0 | 55,717 | 5,079 | 142,148 |
| Effluent Storage Pond 1* | 61,884 | | | | 61,884 |
| Adjusted Existing Coverage | 143,236 | 0 | 55,717 | 5,079 | 204,032 |

Ref. ERS2017-0073 Road Widening/Retaining Wall Modification APN 130-010-08 & 130-151-01
 *VBCC2022-1293 - Pond Verification

| Proposed Coverage - Effluent Storage Tank & Access Road | | | | | |
|---|----------------|---------------|---------------|---------------|----------------|
| Land Capability Classes | Class 1a - 1% | Class 1b - 1% | Class 2 - 1% | Class 4 - 20% | TOTAL |
| Land Area | 260,994 | 102,070 | 569,112 | 54,035 | 986,211 |
| Allowable Coverage | 2,610 | 1,021 | 5,691 | 10,807 | 20,129 |
| Adjusted Existing Coverage | 143,236 | 0 | 55,717 | 5,079 | 204,032 |
| Proposed Coverage | 146,858 | 0 | 57,742 | 5,079 | 209,679 |

| Land Capability Classes | Class 1a - 1% | Class 1b - 1% | Class 2 - 1% | Class 4 - 20% | TOTAL |
|---------------------------------------|----------------|---------------|---------------|---------------|----------------|
| Admin Building | | | 14,362 | | 14,362 |
| Main Equipment | | | 928 | | 928 |
| Storage Garage | | | 976 | | 976 |
| Pump Building | | | 139 | | 139 |
| Storage Sheds | | | 552 | | 552 |
| Gate Building | | | 179 | | 179 |
| Blower Building | | | 2,079 | | 2,079 |
| Sweetwater Road | | | 10,075 | | 10,075 |
| WWTP Entrance | 4,607 | | | | 4,607 |
| Road to Eff Entrance | 3,968 | | | | 3,968 |
| WWTP Pavement | 24,834 | | | | 24,834 |
| Access Road | 3,575 | | 4,521 | | 8,096 |
| Retaining Wall | 850 | | | | 850 |
| Asphalt Access Road | 6,363 | | 2,025 | | 8,388 |
| Access Road embankment | 18,581 | | | | 18,581 |
| Walks | 903 | | | | 903 |
| Aeration Basins | 15,037 | | | | 15,037 |
| Clarifiers | 6,104 | | | | 6,104 |
| Effluent Reservoir | 4,347 | | | | 4,347 |
| Aerobic Digest | | | 8,342 | | 8,342 |
| Transformer Pad | | | 213 | | 213 |
| Digester Pump | | | 85 | | 85 |
| Headworks | | | 1,542 | | 1,542 |
| Effluent Storage Pond 1* | 0 | | | | 0 |
| Gravel-Headworks | | | 3,158 | | 3,158 |
| Gravel-Pump | 5,152 | | | 5,079 | 10,231 |
| Mill Creek Road | | | 3,291 | | 3,291 |
| Mill Creek Diversion | | | 450 | | 450 |
| Dike Road | | | 2,978 | | 2,978 |
| Stockpile | 11,975 | | | | 11,975 |
| Dam Spillway | | | 1,847 | | 1,847 |
| New Flat graded Embankment top | 14,148 | | | | 14,148 |
| Storage Tank embankment | 17,788 | | | | 17,788 |
| Effluent Storage Tank | 8,625 | | | | 8,625 |
| Total Proposed Coverage | 146,858 | 0 | 57,742 | 5,079 | 209,679 |
| | | | | | -5,647 |

| Project Area A - Coverage Summary | | | | | |
|--|----------------|----------|---------------|--------------|----------------|
| Previously Approved Coverage | 125,220 | 0 | 55,717 | 5,079 | 186,016 |
| Adjusted Existing Coverage | 143,236 | 0 | 55,717 | 5,079 | 204,032 |
| Proposed Project Coverage | 65,508 | 0 | 2,025 | 0 | 67,531 |
| Effluent Storage Pond #1 Disturbance A | -61,884 | 0 | 0 | 0 | -61,884 |
| Proposed Coverage | 146,858 | 0 | 57,742 | 5,079 | 209,679 |
| Coverage Change/Increase | 3,622 | 0 | 2,025 | 0 | 5,647 |

| Effluent Tank Tree Inventory > 14" Diameter | | | | |
|---|---------------|----------------|---------------|----|
| Tag # | Size (Inches) | Type | To Be Removed | |
| 01 | 29 | Ponderosa Pine | Yes | |
| 02 | 26 | Ponderosa Pine | Yes | |
| 03 | 23 | Ponderosa Pine | Yes | |
| 06 | 18 | Jeffrey Pine | Yes | |
| 07 | 16 | Douglas Fir | Yes | |
| 09 | 18 | Ponderosa Pine | Yes | |
| 10 | 21 | Ponderosa Pine | Yes | |
| 11 | 19 | Ponderosa Pine | Yes | |
| 14 | 19 | Ponderosa Pine | Yes | |
| 15 | 14 | Ponderosa Pine | Yes | |
| 16 | 18 | Ponderosa Pine | Yes | |
| 17 | 14 | Ponderosa Pine | Yes | |
| 18 | 14 | Ponderosa Pine | Yes | |
| 19 | 19 | Ponderosa Pine | Yes | |
| 20 | 18 | Ponderosa Pine | Yes | |
| 21 | 20 | Sugar Pine | Yes | |
| 25 | 19/13 | Ponderosa Pine | Yes | |
| 27 | 14 | Ponderosa Pine | Yes | |
| 28 | 14 | Ponderosa Pine | Yes | |
| 31 | 14 | Ponderosa Pine | Yes | |
| 34 | 35 | Jeffrey Pine | Yes | |
| 38 | 16 | Ponderosa Pine | Yes | |
| 41 | 15 | Ponderosa Pine | Yes | |
| 42 | 18 | Ponderosa Pine | Yes | |
| 43 | 15 | Ponderosa Pine | Yes | |
| 44 | 15 | Ponderosa Pine | Yes | |
| 59 | 16 | Ponderosa Pine | Yes | |
| 61 | 19 | Ponderosa Pine | Yes | |
| 62 | 17 | Ponderosa Pine | Yes | |
| 63 | 21 | Ponderosa Pine | Yes | |
| 64 | 25 | Ponderosa Pine | Yes | |
| PONDEROSA PINES TO BE REMOVED | | | | 28 |
| JEFFREY PINES TO BE REMOVED | | | | 2 |
| SUGAR PINES TO BE REMOVED | | | | 1 |
| DOUGLAS FIR TO BE REMOVED | | | | 1 |

PROPOSED EARTHWORK:

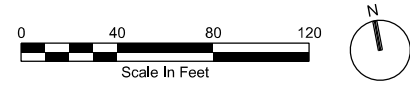
POND 1:
 CUT: 8,305 CY
 FILL: 5,985 CY

ACCESS ROAD:
 CUT: 510 CY
 FILL: 2,930 CY

OVERALL PROJECT:
 CUT: 8,815 CY
 FILL: 8,915 CY

LEGEND

- ASPHALT ACCESS ROAD
- ACCESS ROAD AND STORAGE TANK EMBANKMENT
- FLAT GRADE EMBANKMENT
- EXISTING ROCK OUTCROP
- TREE REMOVAL TAG



PLAN
1"=40"



Jacobs

EXHIBIT

EFFLUENT STORAGE TANK AND ACCESS ROAD PROPOSED COVERAGE

VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING.
 DATE: FEBRUARY 2023
 PROJ: W8Y12900
 SHEET: EXHIBIT E

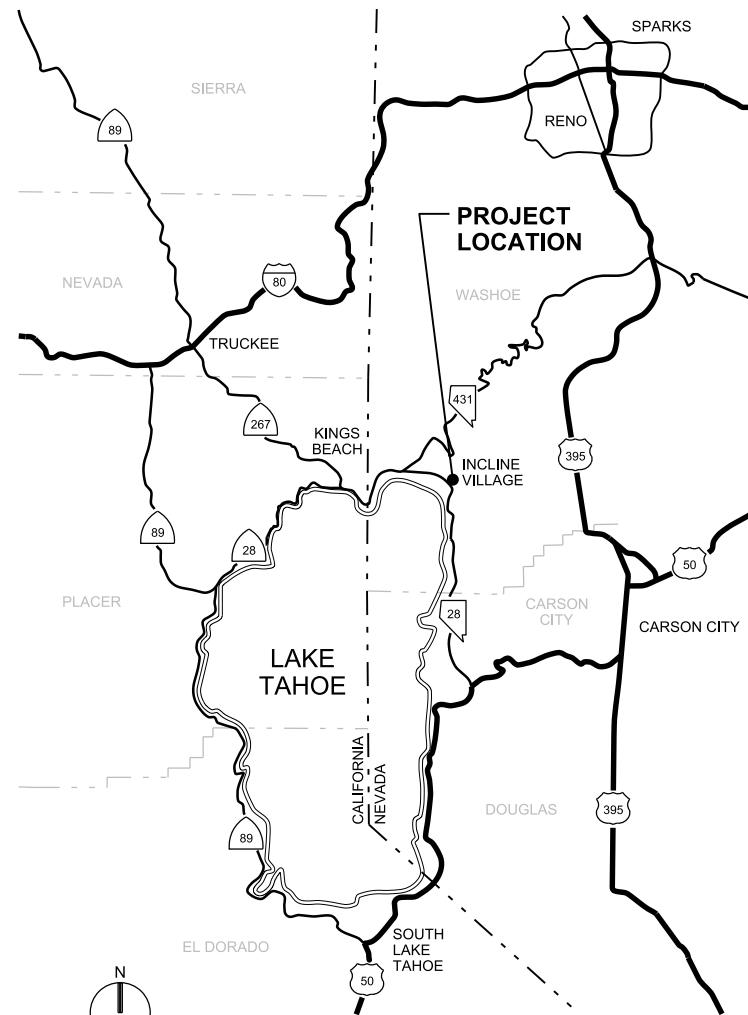
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INCLINE VILLAGE GENERAL IMPROVEMENT DISTRICT POND 1 PRESTRESSED CONCRETE EFFLUENT STORAGE TANK

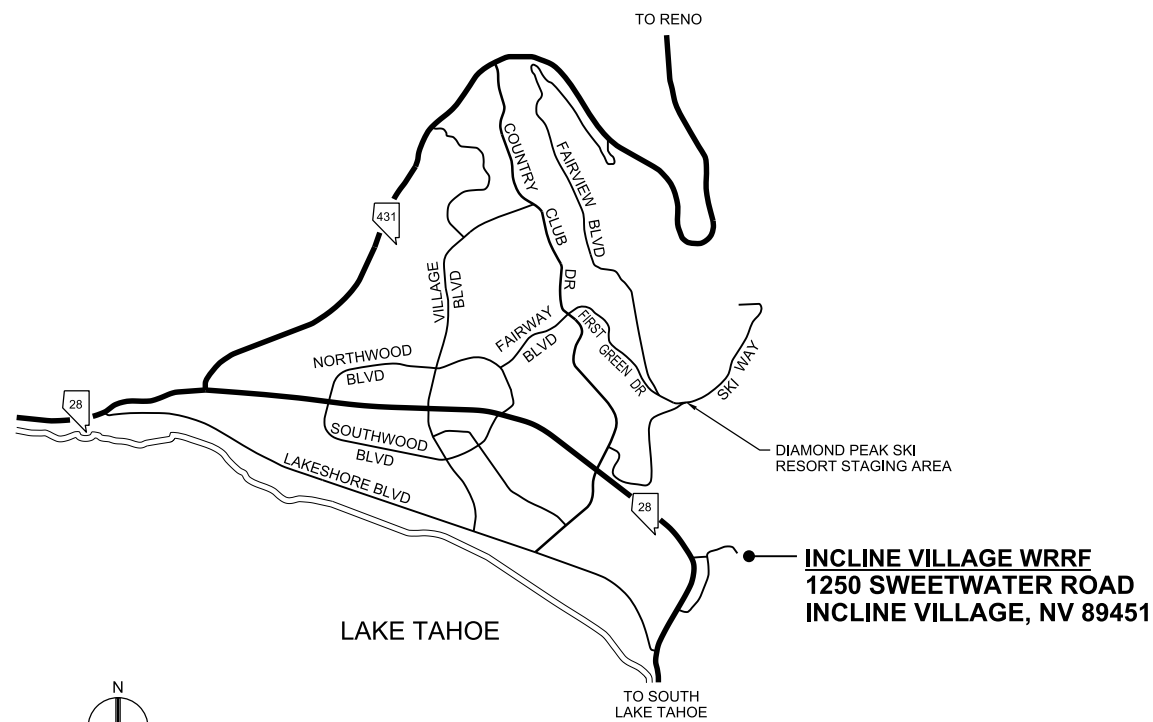
INCLINE VILLAGE WASHOE COUNTY NEVADA

IVGID PROJECT NO.: 2599SS2010
PWP: WA-2021-016

90% DESIGN DRAWINGS
FEBRUARY 2023



LOCATION MAP
0 5 10 MILES



VICINITY MAP
0 1/2 1 MILES

**INCLINE VILLAGE GENERAL IMPROVEMENT DISTRICT
BOARD OF TRUSTEES:**

- | | |
|-------------------------|----------------------|
| MATTHEW DENT | CHAIRMAN |
| SARA SCHMITZ | VICE CHAIRMAN |
| RAY TULLOCH | TREASURER |
| DAVE NOBLE | SECRETARY |
| MICHAELA TONKING | TRUSTEE |



Know what's below.
Call before you dig.



| | |
|--|--|
| AREA OFFICE: 50 WEST LIBERTY ST STE. 205 RENO, NEVADA 89501 (775) 329-7300 | DESIGN OFFICE: 2525 AIRPARK DRIVE REDDING, CA 96001 (530) 243-5831 |
|--|--|

REGISTERED PROFESSIONAL ENGINEER
ASHLEY E. KELLOGG
CIVIL
LICENSE NO. 028969
STATE OF NEVADA
NOT FOR CONSTRUCTION

| NO. | DATE | DR | CHK | REVISION | BY |
|-----|------|----|-----|----------|----|
| | | | | | |



JACOBS
GENERAL
COVER, LOCATION, AND
VICINITY MAP

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|--------------------------------------|
| VERIFY SCALE |
| BAR IS ONE INCH ON ORIGINAL DRAWING. |
| DATE FEBRUARY 2023 |
| PROJ W8Y12900 |
| WSUP23-0002 |
| SHEET 43 of 43 |
| EXHIBIT E |

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A

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D

| SHT NO. | DWG NO | DRAWING TITLE |
|----------------------|------------|--|
| 001 - GENERAL | | |
| 1 | 001-G-0001 | COVER, LOCATION, AND VICINITY MAP |
| 2 | 001-G-0002 | DRAWING INDEX |
| 3 | 001-G-0003 | ABBREVIATIONS AND SYMBOLS LEGEND |
| 4 | 001-G-0004 | CIVIL LEGEND AND NOTES |
| 5 | 001-G-0005 | STRUCTURAL NOTES |
| 6 | 001-G-0006 | MECHANICAL LEGEND, NOTES AND PIPE SCHEDULE |
| 7 | 001-G-0007 | INSTRUMENTATION AND CONTROL LEGEND |
| 8 | 001-G-0008 | ELECTRICAL LEGEND |

030 - INSTRUMENTATION AND CONTROL

| | | |
|---|------------|-----------------------|
| 9 | 030-N-0001 | EFFLUENT STORAGE P&ID |
|---|------------|-----------------------|

050 - CIVIL

| | | |
|----|------------|---|
| 10 | 050-C-2001 | OVERALL SITE PLAN AND SURVEY CONTROL |
| 11 | 050-C-2002 | ACCESS ROAD PLAN AND PROFILE |
| 12 | 050-C-2003 | ACCESS ROAD PLAN AND PROFILE |
| 13 | 050-C-2004 | EFFLUENT STORAGE TANK CONSTRUCTION GRADING PLAN |
| 14 | 050-C-2005 | EFFLUENT STORAGE TANK FINAL GRADING PLAN |
| 15 | 050-C-2006 | SLOPE STABILIZATION PLAN |
| 16 | 050-C-3001 | EFFLUENT STORAGE TANK GRADING SECTION & DETAILS |
| 17 | 050-C-5001 | SLOPE STABILIZATION DETAILS |
| 18 | 050-C-5002 | DRAINAGE DETAILS |
| 19 | 050-C-5003 | DRAINAGE DETAILS |

060 - TEMPORARY EROSION CONTROL

| | | |
|----|------------|-----------------------------------|
| 20 | 060-C-2001 | TEMPORARY EROSION CONTROL PLAN |
| 21 | 060-C-2002 | TEMPORARY EROSION CONTROL DETAILS |

080 - MECHANICAL / YARD PIPING

| | | |
|----|-------------|---|
| 22 | 080-SM-2001 | EXISTING EFFLUENT RESERVOIR VAULT DEMOLITION PLAN AND SECTION |
| 23 | 080-SM-2002 | EXISTING EFFLUENT RESERVOIR VAULT PLAN AND SECTIONS |
| 24 | 080-YP-2001 | YARD PIPING PLAN |
| 25 | 080-YP-2002 | YARD PIPING PROFILE 16" EFFLUENT |
| 26 | 080-YP-2003 | YARD PIPING PROFILES 8" EFFLUENT |

100 - EFFLUENT STORAGE TANK

| | | |
|----|-------------|---------------------------------------|
| 27 | 100-SM-2001 | EFFLUENT STORAGE TANK FOUNDATION PLAN |
| 28 | 100-SM-2002 | EFFLUENT STORAGE TANK ROOF PLAN |
| 29 | 100-SM-3001 | EFFLUENT STORAGE TANK SECTION |
| 30 | 100-SM-3002 | EFFLUENT STORAGE TANK SECTIONS |

800 - ELECTRICAL

| | | |
|----|------------|-----------------------|
| 31 | 800-E-0001 | ONE LINE DIAGRAM |
| 32 | 800-E-1001 | OVERALL SITE PLAN |
| 33 | 800-E-3001 | MOTOR CONTROL DIAGRAM |

900 - STANDARD DETAILS

| | | |
|----|-------------|--|
| 34 | 900-SD-0001 | CIVIL - STANDARD DETAILS |
| 35 | 900-SD-0002 | CIVIL - STANDARD DETAILS |
| 36 | 900-SD-0003 | STRUCTURAL - STANDARD DETAILS |
| 37 | 900-SD-0004 | STRUCTURAL - STANDARD DETAILS |
| 38 | 900-SD-0005 | STRUCTURAL - STANDARD DETAILS |
| 39 | 900-SD-0006 | PROCESS MECHANICAL - STANDARD DETAILS |
| 40 | 900-SD-0007 | INSTRUMENTATION AND CONTROL - STANDARD DETAILS |
| 41 | 900-SD-0008 | INSTRUMENTATION AND CONTROL - STANDARD DETAILS |
| 42 | 900-SD-0009 | ELECTRICAL - STANDARD DETAILS |
| 43 | 900-SD-0010 | ELECTRICAL - STANDARD DETAILS |

REGISTERED PROFESSIONAL ENGINEER
 ASHLEY E. KELLOGG
 CIVIL
 LICENSE NO. 028969
 STATE OF NEVADA
 NOT FOR CONSTRUCTION

| NO. | DATE | DSGN | A KELLOGG | | BY | APVD |
|-----|------|------|-----------|---------|----|------|
| | | | DR | J MINOR | | |
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Jacobs
 GENERAL
 DRAWING INDEX

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING.

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|------|---------------|
| DATE | FEBRUARY 2023 |
| PROJ | W8Y12900 |

WSUP23-0002
 SHEET 32 of 43
 EXHIBIT E

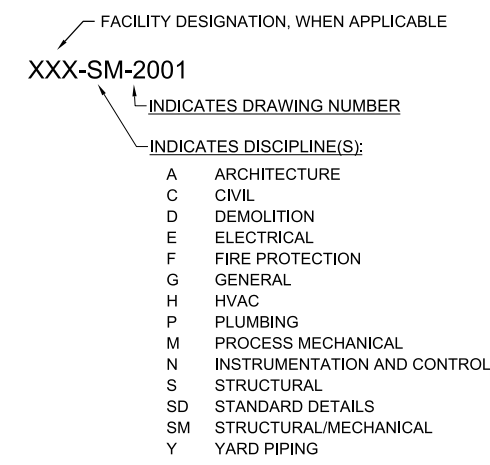
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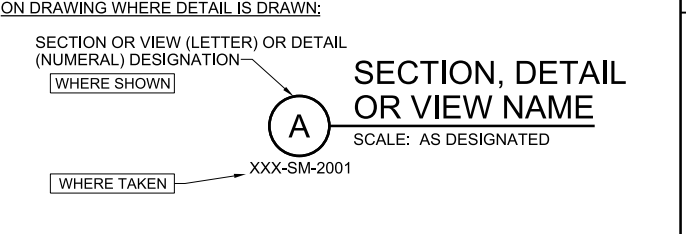
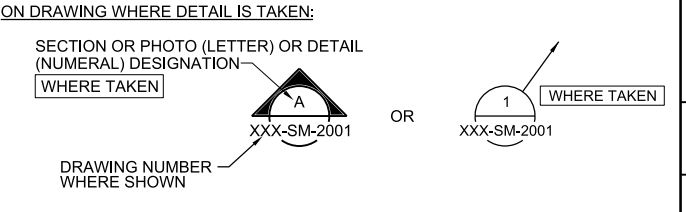
ABBREVIATIONS

Table listing abbreviations and their full names across multiple columns. Includes terms like @, ABS, AC, ACCU, ACI, ACT, ACU, ADD, ADH AB, ADJ, AFF, AFG, AGG, AHP, AHR, AHU, AISC, AL, ALP, ALTN, ANSI, APPROX, APVD, ARCH, ARV, AS, AUTO, AUX, AWG, AWT, BC, BD, BF, BFV, BLDG, BM, BO, BOD, BOP, BOT, BRK, BTU, BV, BYP, C, CAB, CARV, CB, CBBD, CCP, CCS, CDG, CDL, CDS, CFM, CFS, CHEM, CI, CIGC, CIMJ, CIP, CIRJ, CISP, CJ, CL2, CLCS, CLDIP, CLG, CLSM, CLR, CLST, Q or CL, CMP, CMU, CNG, CO2, COL, CONC, CONN, CONT, COORD, COP, CPLG, CPVC, CRS, CS, CT, CTRD, CTR, C TO C, CU, CU FT, CU IN, CU YD, CULV, CV, CW, °C, DBA, DR, DRR, AT, ANCHOR BOLT, AGGREGATE BASE, ACRYLONITRILE-BUTADIENE-STYRENE, ASBESTOS CEMENT, ASPHALTIC CONCRETE, AIR COOLED CONDENSING UNIT, AMERICAN CONCRETE INSTITUTE, ACOUSTIC TILE, AIR CONDITIONING UNIT, ADDITIONAL, ADHESIVE ANCHOR BOLT, ADJACENT, ADJUSTABLE, ABOVE FINISH FLOOR, ABOVE FINISH GRADE, AGGREGATE, AIR: HIGH PRESSURE, ANCHOR, AIR HANDLING UNIT, AMERICAN INSTITUTE OF STEEL CONSTRUCTION, ALUM, ALUMINUM, AIR LOW PRESSURE, ALTERNATE, AMERICAN NATIONAL STANDARDS INSTITUTE, APPROXIMATE, APPROXIMATELY, APPROVED, ARCHITECTURAL, AIR RELEASE VALVE, AIR SCOUR, AUTOMATIC, AUXILIARY, AMERICAN WIRE GAGE, ADVANCED WASTE TREATMENT, BEGIN CURVE, BOARD, BUTTERFLY DAMPER, BLIND FLANGE, BUTTERFLY VALVE, BUILDING, BENCH MARK, BEAM, BLOW OFF, BOTTOM OF DUCT, BOTTOM OF PIPE, BOTTOM, BREAK, BRITISH THERMAL UNIT, BALL VALVE, BYPASS, CHANNEL (BEAM), CABINET, COMBINATION AIR RELEASE VALVE, CATCH BASIN, COUNTER BALANCED BACKDRAFT DAMPER, CONCRETE CYLINDER PIPE, CENTRAL CONTROL SYSTEM, CARBON DIOXIDE GAS, CARBON DIOXIDE LIQUID, CARBON DIOXIDE SOLUTION, CUBIC FEET PER MINUTE, CUBIC FEET PER SECOND, CHEMICAL, CAST IRON, CAST IRON GROOVED COUPLING, CAST IRON MECHANICAL JOINT, CAST IRON PIPE, CAST IRON RESTRAINED JOINT, CAST IRON SOIL PIPE, CONSTRUCTION JOINT, CHLORINE-LIQUID, CEMENT-LINED AND COATED STEEL PIPE, CEMENT-LINED DUCTILE IRON PIPE, CEILING, CONTROLLED LOW STRENGTH MATERIAL, CLEAR, CEMENT-LINED STEEL PIPE, CENTERLINE, CORRUGATED METAL PIPE, CONCRETE MASONRY UNIT, COMPRESSED NATURAL GAS, CARBON DIOXIDE, COLUMN, CONCRETE, CONNECTION, CONTINUOUS, CONTINUATION, COORDINATE, COPPER, COUPLING, CHLORINATED POLYVINYL CHLORIDE, COLD ROLLED STEEL, HYPOCHLORITE SOLUTION, CUP SINK, CERAMIC TILE, CENTERED, CENTER, CENTER TO CENTER, CUBIC, CUBIC FOOT, CUBIC INCH, CUBIC YARD, CULVERT, CHECK VALVE, COLD WATER, DEGREE CELSIUS, DEFORMED BAR ANCHOR, DRAIN, PUMP DRAIN RETURN, PENNY (NAIL SIZE), DISTRIBUTION BOX, DOUBLE, DUCT DETECTOR, DETAIL, DROP INLET, DUCTILE IRON, DIAMETER, DIAGONAL, DILUTE, DUCTILE IRON MECHANICAL JOINT, DUCTILE IRON PIPE, DIRECTION, DISMANTLING JOINT, DOWN, DRAWING, EAST, EACH, END CURVE, ECCENTRIC, EACH FACE, EFFLUENT, ELEVATION, ELBOW, ELECTRICAL LOAD CENTER, ELECTRIC, ELECTRICAL, ENGINEER, EMERGENCY OVERFLOW, EDGE OF PAVEMENT, EQUALLY SPACED, EQUIPMENT, EXHAUST REGISTER, ELECTRICAL UNIT HEATER, END OF VERTICAL CURVE, EACH WAY, EXCAVATE, EXHAUST FAN, EXHAUST, EXPOSED, EXPANSION, EXPANSION JOINT, EXISTING, FABRICATION, FACTORY, FLAT BAR, FLEXIBLE COUPLING, FLANGED COUPLING ADAPTER, FLOOR CLEAN OUT, FLOW CONTROL VALVE, FLOOR DRAIN, FLOOR DRAIN W/INTEGRAL TRAP, FOUNDATION, FILTERED EFFLUENT, FLARED END SECTION, FIRE EXTINGUISHER, FINISH FLOOR, FINISH GRADE, FINISH HEAD, FIRE HYDRANT, FILTER INFLUENT, FIGURE, FILTRATE, FLOOR, FLANGE, FLAT HEAD, FLOW LINE, FILTER, FINISH, FACE OF CONCRETE, FIBERGLASS REINFORCED PIPE, FOOT OR FEET, FOOTING, FILTER TO WASTE, FINISHED WATER, FORWARD, DEGREE FAHRENHEIT, GAGE, GALLON, GALVANIZED, GROOVED COUPLING, GRADE CLEAN OUT, GROOVED COUPLING FITTING, GROOVED END, GLASS, GLU-LAM BEAM, GALLONS PER DAY, GALLONS PER HOUR, GALLONS PER MINUTE, GRATING, GALVANIZED STEEL PIPE, GAS UNIT HEATER, GATE VALVE, GRAVEL, GROUND WATER, GYPSUM WALLBOARD, GYPSUM, HEADED ANCHOR STUD, HUB DRAIN, HEADER, HARDWARE, HYDRAULIC GRADELINE, HEIGHT, HOLLOW METAL, HORIZONTAL, HORSEPOWER, HOSE RACK, HANDRAIL, HEIGHT, HOSE VALVE, INSTRUMENTATION & CONTROL, INTERNATIONAL BUILDING CODE, INSIDE DIAMETER, INSIDE FACE, INCH, INFLUENT, INSTRUMENTATION, INSULATE, INVERT, JEFFREY PINE, JOINT, THOUSAND POUNDS, KILOWATT, LEFT, ANGLE, LENGTH, LATERAL, LIQUID NATURAL GAS, POUNDS, POUNDS PER CUBIC FOOT, LINEAR FEET, LEFT HAND, LINTEL, LONGITUDINAL, LIQUIFIED PETROLEUM GAS, LONG RADIUS, MATERIAL, MAXIMUM, MACHINE BOLT, MODIFIED BITUMEN ROOFING, MOTOR CONTROL CENTER, MEDIUM DENSITY FIBERBOARD, MEDIUM DENSITY OVERLAY MECHANICAL, MANUFACTURER, MILLION GALLONS PER DAY, MILLIGRAMS PER LITER, MANHOLE, MINIMUM, MINUTE, MISCELLANEOUS, MECHANICAL JOINT, MASONRY, MASONRY OPENING, MOTORIZED RELIEF LOUVER, MANUFACTURER SUPPLIED CABLE, MAXIMUM WATER SURFACE, NORTH, NEVADA ADMINISTRATIVE CODE, NEVADA DEPARTMENT OF TRANSPORTATION, NOT IN CONTRACT, NUMBER, NUMBERING, NATIONAL PIPE THREAD, NOT TO SCALE, ON CENTER, OZONE CONTACTOR, OUTSIDE DIAMETER, OVERFLOW DRAIN, OUTSIDE FACE, OVERFLOW, OVERFLOW RETURN, ORIGINAL GROUND, OVERHEAD, OPEN SITE DRAIN, OUT TO OUT, OPENING, OUNCE, PILASTER, POLYALUMINUM CHLORIDE, POINT OF CURVE, POINT OF COMPOUND CURVE, PRETENSIONED CONCRETE CYLINDER PIPE, PRESS DRAIN, POWDER DRIVEN FASTENER, PUMPED DRAIN, PLAIN END, PENETRATION, POINT OF INTERSECTION, PROCESS & INSTRUMENTATION DIAGRAM, PREMOLDED JOINT FILLER, PLATE (STEEL), PROPERTY LINE, PLYWOOD, POLYMER SOLUTION, ANIONIC POLYMER, CATIONIC POLYMER, NONIONIC POLYMER, POTASSIUM PERMANGANATE SOLUTION, PARTS PER MILLION, POINT OF REVERSE CURVE, PRECAST, PREFABRICATED, PRESSURE, PRIMARY, PROPRIETARY RESTRAINED JOINT, PROPERTY, POUNDS PER SQUARE FOOT, PUMP STATION, POUNDS PER SQUARE INCH, POUNDS PER SQUARE INCH, GAUGE, PRESSURE TREATED, PACKAGED TERMINAL AIR CONDITIONER, PLUG VALVE, POLYVINYL CHLORIDE PLASTIC, PAVEMENT, POTABLE WATER, R, RAD, RC, REINFORCED CONCRETE, RCP, REINFORCED CONCRETE PIPE, RD, ROAD, ROOF DRAIN, REDUCER, ROTARY DRUM THICKENER, REDWOOD, RECIRCULATION, REFER OR REFERENCE, REFRIGERATOR, RESTRAINED FLANGE ADAPTER, RESTRAINED FLEXIBLE COUPLING ADAPTER, RETURN GRILLE, REINFORCED, REINFORCING, REINFORCE, REQUIRED, RODHOLE, RESTRAINED JOINT, RAIN LEADER, RUBBER LINED STEEL, ROOM, REDUCED PRESSURE BACKFLOW ASSEMBLY, ROUGH OPENING, RETURN REGISTER, REINFORCING STEEL, RETURN, ROOF VENT, RECLAIMED WATER, RIGHT-OF-WAY, I-BEAM, SOUTH, SAMPLE, SUSPENDED ACOUSTIC TILE, SEQUENCING BATCH REACTOR, SEDIMENTATION BASIN SOLIDS, SOLID CORE, SCHEDULE, STANDARD CUBIC FEET PER HOUR, STANDARD CUBIC FEET PER MINUTE, SCHEDULE, STORM DRAIN, SOAP DISPENSER, SECONDARY, SECTION, SEDIMENTATION, SEWAGE, SUPPLY GRILLE, SHEET, SODIUM HYPOCHLORITE, SIMILAR, STEEL JOIST INSTITUTE, SLOPE, SOLUTION, SPACE OR SPACES, SUMP PUMP DRAIN, SPECIFICATIONS, SUPPLY, SQUARE, SQUARE FOOT, SQUARE INCH, SUPPLY REGISTER, SANITARY SEWER, STAINLESS STEEL, STATION, STANDARD, STIFFENER, STEEL, STEEL PIPE, STRAIGHT, STRUCTURAL, STRUCTURE, SUBFLOOR, SUBFLOOR, SUPPLY FAN, SUSPEND, SURFACE WATER, SYMMETRICAL, THICKNESS, THERMOSTAT, TANGENT, TUBING, TO BE REMOVED, TOP AND BOTTOM, TOP OF CURB, TOTAL DYNAMIC HEAD, TECHNICAL, TELEPHONE, TEMPERATURE, TOP FACE, TONGUE AND GROOVE, THREAD, THICK, TOP OF CONCRETE, TURNING POINT, TRANSVERSE, TOP OF STEEL, THRUST TIE, TOP OF WALL, TYPICAL, UNDERDRAIN, UNIT HEATER, UTILITY WATER, VENT, VOLT, VALVE, VACUUM, VENT ACID RESISTANT, VINYL COMPOSITION TILE, VERTICAL CURVE, VERTICAL, VINYL, VENEER PLASTER SYSTEM, VENT THRU ROOF, WITH, WIDE FLANGE (BEAM), WEST, WOOD, WATER METER, WATER RESISTANT, WATER SURFACE ELEVATION, WELDED STEEL PIPE, WEIGHT, WASHWATER, WELDED WIRE FABRIC, TRANSFORMER, YARD

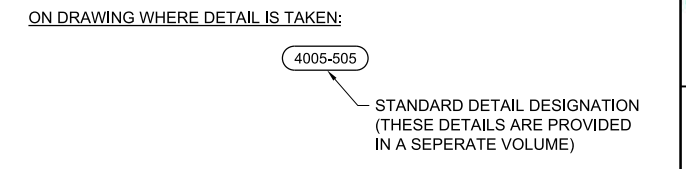
DRAWING NUMBER DESIGNATION



SECTION, DETAIL AND VIEW DESIGNATION



STANDARD DETAIL DESIGNATION



GENERAL NOTES

- 1. THIS IS A STANDARD LEGEND. THEREFORE, SOME SYMBOLS OR ABBREVIATIONS MAY APPEAR ON THIS SHEET AND MAY NOT BE USED ON THIS PROJECT.
2. FOR ADDITIONAL DISCIPLINE SPECIFIC ABBREVIATIONS, SEE OTHER LEGENDS.
3. CONTACT THE ENGINEER FOR ABBREVIATIONS NOT LISTED.

Vertical sidebar containing: REGISTERED PROFESSIONAL ENGINEER ASHLEY E. KELLOGG CIVIL LICENSE NO. 028969 STATE OF NEVADA NOT FOR CONSTRUCTION; PROJECT INFORMATION (DATE, PROJ, SHEET); COMPANY LOGO (INCLINE VILLAGE GENERAL IMPROVEMENT DISTRICT ONE DISTRICT - ONE TEAM); and PROJECT TITLE (EFFLUENT EXPORT POND LINING PROJECT).

GENERAL SITE NOTES:

- EXISTING CONDITIONS MAY VARY FROM THOSE SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND ADJUST WORK PLAN ACCORDINGLY PRIOR TO BEGINNING CONSTRUCTION.
- EXISTING TOPOGRAPHY, STRUCTURES, AND SITE FEATURES ARE SHOWN SCREENED AND/OR LIGHT-LINED. NEW FINISH GRADE, STRUCTURES, AND SITE FEATURES ARE SHOWN HEAVY-LINED.
- SEE OVERALL SITE PLAN AND SURVEY CONTROL SHEET FOR SURVEY CONTROL AND DATUM INFORMATION.
- MAINTAIN, RELOCATE, OR REPLACE EXISTING SURVEY MONUMENTS, CONTROL POINTS, AND STAKES WHICH ARE DISTURBED OR DESTROYED. PERFORM THE WORK TO PRODUCE THE SAME LEVEL OF ACCURACY AS THE ORIGINAL MONUMENT(S) IN A TIMELY MANNER, AND AT THE CONTRACTOR'S EXPENSE.
- FOR LOCATION OF CONTROL POINT ON STRUCTURES, SEE STRUCTURAL DRAWINGS.
- COORDINATES AND DIMENSIONS SHOWN FOR ROADWAY IMPROVEMENTS ARE TO FACE OF CURB OR EDGE OF PAVEMENT.
- STAGING AREA SHALL BE FOR CONTRACTOR'S EMPLOYEE PARKING, CONTRACTOR'S TRAILERS AND ON-SITE STORAGE OF MATERIALS.
- PROVIDE TEMPORARY FENCING AS NECESSARY TO MAINTAIN SECURITY AT ALL TIMES.
- ELEVATIONS GIVEN ARE TO FINISH GRADE UNLESS OTHERWISE SHOWN.
- SLOPE UNIFORMLY BETWEEN CONTOURS AND SPOT ELEVATIONS SHOWN.
- CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING EROSION CONTROL DEVICES DURING CONSTRUCTION. CONTRACTOR SHALL TAKE ALL OTHER MEASURES TO POSITIVELY PRECLUDE EROSION MATERIALS FROM LEAVING THE SITE.
- ESTABLISH AND MAINTAIN DEFENSIBLE SPACE SURROUNDING STRUCTURES IN ACCORDANCE WITH THE 2018 INTERNATIONAL WILDLAND URBAN INTERFACE CODE (IWUIC) WITH AMENDMENTS IN NLTFPD RESOLUTIONS 18-1 AND 18-2. A DEFENSIBLE SPACE INSPECTION IS REQUIRED TO PROVIDE FOR SAFE SEPARATION BETWEEN STRUCTURES AND WILDLAND VEGETATION. ALL ITEMS NOTED DURING THE INSPECTION MUST BE CORRECTED PRIOR TO PERMIT CLOSEOUT. CONTACT AN NLTFPD INSPECTOR AT (775) 833-8107 TO SCHEDULE AN APPOINTMENT.

GENERAL YARD PIPING AND UTILITIES NOTES:

- EXISTING UNDERGROUND UTILITIES OBTAINED FROM AS-BUILTS AND FROM FIELD SURVEY. CONTRACTOR SHALL FIELD VERIFY DEPTH AND LOCATION PRIOR TO EXCAVATION. PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION.
- FOR PIPING FLOW STREAM IDENTIFICATION, SEE DRAWING 001-G-0007.
- EXISTING PIPING AND EQUIPMENT ARE SHOWN SCREENED AND/OR LIGHT-LINED. NEW PIPING AND EQUIPMENT ARE SHOWN HEAVY-LINED.
- UNLESS OTHERWISE SHOWN ALL PIPING SHALL HAVE A MINIMUM OF 3' COVER.
- ALL PIPES SHALL HAVE A CONSTANT SLOPE BETWEEN INVERT ELEVATIONS UNLESS A FITTING IS SHOWN.
- ALL NEW WATER PIPES MUST BE PROPERLY FLUSHED AND PRESSURE TESTED
- FOR TRENCHING AND BACKFILL, SEE (3123-110).
- FOR SURFACE RESTORATION SEE (3123-115).
- MINIMUM ALLOWABLE CLEARANCE BETWEEN PIPES AT CROSSINGS SHALL BE 3" UNLESS OTHERWISE SHOWN ON DRAWINGS. CLSM FILL SUPPORT IS REQUIRED AS SHOWN ON (3123-120).

GENERAL NOTE:

- THIS IS A STANDARD LEGEND SHEET. THEREFORE, NOT ALL OF THE INFORMATION SHOWN MAY BE USED ON THIS PROJECT.

CIVIL LEGEND

| EXISTING | THIS CONTRACT | |
|----------|---------------|--|
| | | SPOT ELEVATION |
| | | CONTOUR LINE |
| | | EMBANKMENT AND SLOPE |
| | | DRAINAGEWAY OR DITCH |
| | | CATCH BASIN OR INLET |
| | | TRENCH DRAIN |
| | | SIGN |
| | | MANHOLE |
| | | ELECTRICAL MANHOLE |
| | | ELECTRIC HANDHOLE |
| | | POST OR GUARD POST |
| | | GUY ANCHOR |
| | | FIRE HYDRANT |
| | | UTILITY POLE |
| | | LIGHT POLE |
| | | BENCH MARK |
| | | SURVEY CONTROL POINT OR POINT OF INTERSECTION |
| | | BRUSH/TREE LINE |
| | | TREE |
| | | PROPERTY LINE |
| | | CENTER LINE, BUILDING, ROAD, ETC. |
| | | STAGING OR WORK AREA LIMITS |
| | | STRUCTURE, BUILDING OR FACILITY LOCATION POINT - COORDINATES |
| | | BORING LOCATION AND NUMBER |
| | | TEST PIT LOCATION AND NUMBER |
| | | PIEZOMETER LOCATION AND NUMBER |
| | | DEMOLITION |
| | | STRUCTURE, BUILDING OR FACILITY |
| | | ASPHALT CONCRETE PAVEMENT |
| | | AGGREGATE BASE |
| | | CONCRETE PAVEMENT |
| | | CURB |
| | | CURB AND GUTTER |
| | | SINGLE SWING GATE |
| | | DOUBLE SWING GATE |
| | | SLIDING GATE |
| | | GUARD RAIL |
| | | CHAIN LINK FENCE |
| | | ARCHITECTURAL FENCE |
| | | WIRE FENCE |
| | | CULVERT |

YARD PIPING LEGEND

| EXISTING | THIS CONTRACT | |
|----------|---------------|--|
| | | NOMINAL PIPE DIAMETER |
| | | PIPE USE IDENTIFICATION |
| | | PIPING < 30" DIAMETER |
| | | PIPING ≥ 30" DIAMETER |
| | | EXISTING PIPE TO BE ABANDONED |
| | | EXISTING PIPE TO BE REMOVED |
| | | NON-FREEZE HOSE VALVE (V-X) X = NO. IN SPECIFICATIONS |
| | | INDICATOR POST VALVE |
| | | GATE VALVE AND VALVE BOX |
| | | BUTTERFLY VALVE AND VALVE BOX |
| | | PLUG VALVE AND VALVE BOX |
| | | FLEXIBLE COUPLING |
| | | 90° ELBOW UP |
| | | 90° ELBOW DOWN |
| | | BEND < 90° UP |
| | | BEND < 90° DOWN |
| | | CONCENTRIC REDUCER |
| | | CAP OR PLUG |
| | | CLEANOUT |
| | | FIRE HYDRANT |

REGISTERED PROFESSIONAL ENGINEER
 TRAVIS J. HOWARD
 CIVIL
 LICENSE NO. 021924
 STATE OF NEVADA
 NOT FOR CONSTRUCTION

| | | | | |
|-----|------|----|-----|------|
| NO. | DATE | DR | CHK | APVD |
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|---|--------------------------------------|
| Jacobs <small>GENERAL</small> | CIVIL LEGEND AND NOTES |
| | VERIFY SCALE |
| | BAR IS ONE INCH ON ORIGINAL DRAWING. |
| | DATE FEBRUARY 2023 PROJ W8Y12900 |

WSUP23-0002
 SHEET 43
EXHIBIT E

© JACOBS 2020. ALL RIGHTS RESERVED.
 B. CHELONIS
 K. BISHOP
 T. HOWARD
 A. KELLOGG
 RE/USE OF DOCUMENTS: THE DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF JACOBS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS.

90% DESIGN - NOT FOR CONSTRUCTION

DESIGN CRITERIA

- 1. APPLICABLE CODE: 2018 INTERNATIONAL BUILDING CODE (IBC), AS AMENDED BY THE 2018 NORTHERN NEVADA CODE AMENDMENTS AND ASCE 7-16, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.
2. REFER TO THE DRAWINGS FOR ADDITIONAL AND SPECIFIC STRUCTURE LOADINGS AND REQUIREMENTS.
3. ALL LOADS SHOWN ARE SERVICE LEVEL (UNFACTORED) UNLESS SPECIFICALLY NOTED OTHERWISE.
4. RISK CATEGORY (IBC TABLE 1604.5): III
5. DEAD LOADS: SELF WEIGHT
6. ROOF LIVE LOAD: 20 PSF
7. GROUND SNOW LOAD (Pg): 235 PSF (LAKE TAHOE BASIN, WASHOE COUNTRY TABLE 1608.2.1)
SNOW IMPORTANCE FACTOR, Is 1.10
8. WIND LOAD: WIND SPEED EXPOSURE 130 MPH (2018 NORTHERN NEVADA CODE AMENDMENTS) C
9. SEISMIC LOAD: MAPPED SPECTRAL RESPONSE ACCELERATIONS Ss 1.87g, S1 0.65g, DESIGN SPECTRAL RESPONSE ACCELERATIONS SDS 1.50g, SD1 0.60g, SITE CLASS C, SEISMIC DESIGN CATEGORY D, SEISMIC IMPORTANCE FACTOR, Ie 1.25, LATERAL FORCE-RESISTING SYSTEMS SEE PLANS FOR STRUCTURE SPECIFIC LOADS
10. SOIL DESIGN PARAMETERS: NET ALLOWABLE SOIL BEARING PRESSURES: 3,500 PSF, EQUIVALENT DRAINED FLUID PRESSURES: ACTIVE: 35 PCF, AT REST: 60 PCF, PASSIVE: 400 PCF, EQUIVALENT UNDRAINED FLUID PRESSURES: ACTIVE: 85 PCF, AT REST: 95 PCF, PASSIVE: 300 PCF, DYNAMIC FLUID PRESSURES: DYNAMIC PRESSURE EQUAL TO 32H^2 POUNDS PER LINEAR FOOT OF WALL APPLIED AT A HEIGHT OF 0.6H, WHERE H IS HEIGHT OF RETAINED SOIL, COEFFICIENT OF FRICTION: 0.4, NATIVE SOIL UNIT WEIGHT 130 PCF, MINIMUM FOUNDATION EMBEDMENT (FROST DEPTH) 24 INCHES

GENERAL INFORMATION

- 1. FOR ABBREVIATIONS NOT LISTED, SEE ASME Y14.38 "ABBREVIATIONS AND ACRONYMS: PUBLICATION AS DISTRIBUTED BY THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME).
2. DESIGN DETAILS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS OCCURRING THROUGHOUT THE PROJECT, WHETHER OR NOT THEY ARE INDIVIDUALLY CALLED OUT.
3. VERIFY FINAL OPENING DIMENSIONS IN WALLS, SLABS, AND DECKS WITH OTHER DISCIPLINE DRAWINGS PRIOR TO CONSTRUCTION OF THESE ELEMENTS.
4. FOR NUMBER, TYPE, SIZE, ARRANGEMENT, AND/OR LOCATION OF EQUIPMENT PADS, SEE OTHER DISCIPLINE DRAWINGS. COORDINATE WITH EQUIPMENT SUPPLIER PRIOR TO PLACING SLABS, WALLS AND FOUNDATIONS. COORDINATE PIPING OPENINGS WITH OTHER DISCIPLINE DRAWINGS.
5. DO NOT CUT OR MODIFY STRUCTURAL MEMBERS FOR PIPES, DUCTS, ETC., UNLESS SPECIFICALLY DETAILED OR APPROVED IN WRITING BY THE ENGINEER.
6. VISITS TO THE JOB SITE BY THE ENGINEER TO OBSERVE THE CONSTRUCTION DO NOT IN ANY WAY MEAN THAT ENGINEER IS GUARANTOR OF CONSTRUCTOR'S WORK, NOR RESPONSIBLE FOR THE COMPREHENSIVE OR SPECIAL INSPECTIONS, COORDINATION, SUPERVISION, OR SAFETY AT THE JOB SITE.

INSPECTION AND TESTING

- 1. SPECIAL INSPECTION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR INSPECTIONS REQUIRED BY THE BUILDING OFFICIAL. THE CONTRACTOR SHALL SCHEDULE BOTH INSPECTIONS.
2. SPECIFIED CONCRETE AND OTHER MATERIAL TESTING RELATED TO SPECIAL INSPECTION DURING CONSTRUCTION WILL BE OWNER FURNISHED.
3. SPECIFIED LABORATORY TEST MIXES AND SIMILAR TEST RESULTS TO VERIFY MATERIAL QUALITY AND CONFORMANCE TO SPECIFICATIONS, AND SUBMITTED FOR REVIEW PRIOR TO ACCEPTANCE FOR USE ON THE PROJECT, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. SPECIAL INSPECTION, TESTING AND OBSERVATION (OWNER FURNISHED) IS REQUIRED IN ACCORDANCE WITH IBC SECTIONS 110 AND 1704 AS INDICATED IN THE STATEMENT OF SPECIAL INSPECTIONS IN SPECIFICATIONS.

FOUNDATIONS

- 1. FOR SOIL CONDITIONS, REFER TO GEOTECHNICAL DESIGN REPORT BY JACOBS DATED SEPTEMBER 2022.
2. EXCAVATIONS SHALL BE SHORED TO PREVENT SUBSIDENCE AND DAMAGE TO ADJACENT EXISTING STRUCTURES, ROADS, UTILITIES, ETC.
3. FOUNDATION BEARING SURFACES SHALL BE OBSERVED BY THE GEOTECHNICAL ENGINEER OR QUALIFIED DESIGNEE PRIOR TO PLACEMENT OF FORMWORK OR REINFORCING STEEL. THE OBSERVATION SHALL VERIFY IF THE ACTUAL EXPOSED SUBGRADE IS AS ANTICIPATED BY THE SITE SPECIFIC TEST PITS.
4. USE OF EXPLOSIVES IS NOT ALLOWED.

FORMWORK, SHORING, AND BRACING

- 1. STRUCTURES SHOWN ON THE DRAWINGS HAVE BEEN DESIGNED FOR STABILITY UNDER FINAL CONDITIONS ONLY. DESIGN SHOWN DOES NOT INCLUDE NECESSARY COMPONENTS OR EQUIPMENT FOR STABILITY OF THE STRUCTURES DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR WORK RELATING TO CONSTRUCTION ERECTION METHODS, BRACING, SHORING, RIGGING, GUYS, SCAFFOLDING, FORMWORK, AND OTHER WORK AIDS REQUIRED TO SAFELY PERFORM THE WORK SHOWN.
2. TEMPORARY SHORING SHALL REMAIN IN PLACE UNTIL ELEVATED CONCRETE FLOOR OR SLABS HAVE REACHED 80 PERCENT OF THE 28 DAY COMPRESSIVE STRENGTH AS DETERMINED BY FIELD CYLINDER BREAKS.
3. "BURY" BARS OR "CARRIER" BARS ARE NOT ALLOWED FOR THE BOTTOM MATS OF REINFORCING IN ALL ELEVATED SLABS AND ARE NOT ALLOWED FOR THE TOP MATS OF REINFORCING IN ELEVATED SLABS LESS THAN 12 INCHES THICK.

CONCRETE REINFORCING

- 1. REINFORCING STEEL: TYPICAL: ASTM A615, GRADE 60
2. FABRICATION AND PLACEMENT OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH CRSI MSP-1 "MANUAL OF STANDARD PRACTICE" AND ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE".
3. CONCRETE COVER FOR REINFORCING, UNLESS SHOWN OTHERWISE, SHALL BE: WHEN CAST AGAINST EARTH: 3", ALL OTHER SURFACES: 2"
4. REFER TO WALL CORNER AND WALL INTERSECTION REINFORCING DETAIL 0330-003. WALL CORNER REINFORCING SIZES AND SPACINGS SHALL BE AS SHOWN ON THE DRAWINGS AND REFERENCED TO THIS DETAIL. TYPICAL HORIZONTAL WALL REINFORCING SHALL LAP WITH THE CORNER HORIZONTAL REINFORCING.
5. 90 DEGREE BENDS, UNLESS OTHERWISE SHOWN, SHALL BE ACI 318 STANDARD HOOKS.
6. WALL FOOTING CORNER AND INTERSECTION REINFORCEMENT BARS SHALL BE EXTENDED INTO CONNECTING FOOTINGS AND LAPPED ON THE OPPOSITE FACE OF THE CONNECTING FOOTING. OUTSIDE FACE WALL FOOTING REINFORCEMENT SHALL BE LAPPED WITH CORNER BARS.
7. REINFORCING STEEL FOR FOOTINGS AND SLABS ON GRADE SHALL BE ADEQUATELY SUPPORTED ON BAR SUPPORTS WITH SPACERS TO KEEP REINFORCING ABOVE THE PREPARED GRADE. LIFTING REINFORCING OFF GRADE DURING CONCRETE PLACEMENT IS NOT PERMITTED.
8. REINFORCEMENT BENDS AND LAPS, UNLESS OTHERWISE NOTED, SHALL SATISFY THE FOLLOWING MINIMUM REQUIREMENTS:

Table with 2 columns: BAR SIZE, LAP SPLICE LENGTH. Rows include spacing and embedment lengths for #3 through #11 bars.

- 1. LAP LENGTHS ARE BASED ON MINIMUM CONCRETE COVER OF 2". LONGER LENGTHS ARE REQUIRED FOR CONCRETE COVER LESS THAN 2".
2. TOP BARS SHALL BE DEFINED AS ANY HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR IN ANY SINGLE POUR. HORIZONTAL WALL BARS ARE CONSIDERED TOP BARS.
3. WHERE 3000 PSI CONCRETE IS USED, INCREASE ABOVE LENGTHS BY 16 PERCENT. WHERE 3500 PSI CONCRETE IS USED INCREASE ABOVE LENGTHS BY 7 PERCENT.

CAST IN PLACE CONCRETE

- 1. 28-DAY COMPRESSIVE STRENGTHS: STRUCTURAL CONCRETE: 4,500 PSI, CONCRETE FILL, DUCT BANKS, AND ENCASEMENTS: 3,500 PSI
2. CONTINUOUS WATERSTOP AS SPECIFIED SHALL BE INSTALLED IN CONSTRUCTION JOINTS OF HYDRAULIC STRUCTURES, CHANNELS, AND BELOW GRADE STRUCTURES, EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE.
3. CONSTRUCTION JOINTS INDICATED ARE SUGGESTED LOCATIONS. CONTRACTOR MAY REVISE LOCATION OF JOINTS, SUBJECT TO SPECIFIED REQUIREMENTS. LAYOUT SHOWING ALL CONSTRUCTION JOINT LOCATIONS SHALL BE SUBMITTED FOR REVIEW BY ENGINEER.
4. ROUGHEN AND CLEAN CONSTRUCTION JOINTS IN WALLS AND SLABS AS SPECIFIED PRIOR TO PLACING ADJACENT CONCRETE.
5. COORDINATE PLACEMENT OF OPENINGS, PIPE PENETRATIONS, CURBS, DOWELS, SLEEVES, CONDUITS, BOLTS AND INSERTS PRIOR TO PLACEMENT OF CONCRETE.
6. NO ALUMINUM CONDUIT OR PRODUCTS CONTAINING ALUMINUM OR ANY OTHER MATERIAL INJURIOUS TO THE CONCRETE SHALL BE EMBEDDED IN THE CONCRETE.
7. PATCH FORM TIE HOLES IN ACCORDANCE WITH DETAILS 0310-051 AND/OR 0310-052.

WELDING

- 1. WELDS SHALL CONFORM TO AMERICAN WELDING SOCIETY (AWS): D1.1. STRUCTURAL WELDING CODE STEEL, D1.2. STRUCTURAL WELDING CODE ALUMINUM, D1.3. STRUCTURAL WELDING CODE SHEET STEEL, D1.6. STRUCTURAL WELDING CODE STAINLESS STEEL
2. REPAIR WELDS FOUND DEFECTIVE IN ACCORDANCE WITH AWS D1.1 SECTION 5.26.
3. USE INTERMITTENT WELDS AT FIELD WELDS OF EMBED PLATES AND ANGLES TO AVOID SPALLING OR CRACKING OF THE EXISTING CONCRETE.
4. BUTT JOINT WELDS SHALL BE COMPLETE JOINT PENETRATION (CJP) UNLESS INDICATED OTHERWISE.

STRUCTURAL STEEL AND METAL FABRICATIONS

- 1. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS: W-SHAPES A992, ANGLES, CHANNELS, PLATES, ETC. A36, HOLLOW STRUCTURAL SECTIONS (HSS) A500, GRADE C, STEEL PIPE A53, GRADE B, STAINLESS STEEL SHAPES A276
2. ALUMINUM SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS: STRUCTURAL SHAPES B308, PLATES B209
3. STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN CONFORMANCE WITH THE AISC MANUAL OF STEEL CONSTRUCTION, CURRENT EDITION, AND CURRENT OSHA STANDARDS.
4. FASTENERS SHALL BE HIGH STRENGTH BOLTS CONFORMING TO THE FOLLOWING ASTM STANDARDS EXCEPT WHERE SPECIFICALLY INDICATED OTHERWISE: UNLESS SHOWN OTHERWISE A325-N, ANCHOR BOLTS (AB) STAINLESS STEEL F593, AISI TYPE 316, CONDITION CW, STEEL OR GALVANIZED STEEL F1554, GR 36 / A153
5. ITEMS TO BE EMBEDDED IN CONCRETE SHALL BE CLEAN AND FREE OF OIL, DIRT AND PAINT.
6. NO HOLES OTHER THAN THOSE SPECIFICALLY DETAILED SHALL BE ALLOWED THROUGH STRUCTURAL STEEL MEMBERS. NO CUTTING OR BURNING OF STRUCTURAL STEEL IS PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.

DEFERRED SUBMITTALS

- 1. DEFERRED SUBMITTALS ARE THOSE PORTIONS OF THE DESIGN WHICH ARE NOT SUBMITTED AT THE TIME OF PERMIT APPLICATION AND WHICH ARE TO BE SUBMITTED TO THE PERMITTING AGENCY FOR ACCEPTANCE PRIOR TO INSTALLATION OF THAT PORTION OF THE WORK OR ARE REQUIRED TO BE SUBMITTED FOR REVIEW ONLY BY THE ENGINEER.
2. WHERE DEFERRED SUBMITTALS INCLUDE ADDITIONAL MATERIALS, INSTALLATION, ANCHORAGE, OR CERTIFICATION OF COMPONENTS THAT REQUIRE SPECIAL INSPECTION AND/OR STRUCTURAL OBSERVATION TO MEET CODE REQUIREMENTS, THE DEFERRED SUBMITTAL SHALL INCLUDE SPECIFIC LINE ITEMS TO BE ADDED TO THE APPROPRIATE TABLES IN THE PROJECT'S STATEMENT OF SPECIAL INSPECTIONS PLAN IF THEY ARE NOT ALREADY IDENTIFIED.
3. THE FOLLOWING IS A LIST OF DEFERRED SUBMITTALS PER IBC SECTION 107.3.4.1 OF 2018 IBC THAT ARE EXPECTED TO CONTAIN STRUCTURAL CALCULATIONS OR SAFETY RELATED SYSTEM INFORMATION FOR REVIEW TO MEET BUILDING PERMITTING REQUIREMENTS FOR DESIGNED SYSTEMS. PRIOR TO INSTALLATION OF THE INDICATED STRUCTURAL ELEMENT, EQUIPMENT, DISTRIBUTION SYSTEM, OR COMPONENT OR ITS ANCHORAGE, THE CONTRACTOR SHALL SUBMIT THE REQUIRED CALCULATIONS AND SUPPORTING DATA AND DRAWINGS FOR REVIEW AND ACCEPTANCE BY THE ENGINEER. ADDITIONALLY, ACCEPTANCE INDICATED ON THE ENGINEER'S COMMENT FORM, ALONG WITH THE COMPLETED, FINAL SUBMITTAL SHALL THEN BE SUBMITTED BY THE CONTRACTOR TO THE PERMITTING AGENCY AND APPROVED PRIOR TO INSTALLATION OF THESE ITEMS.

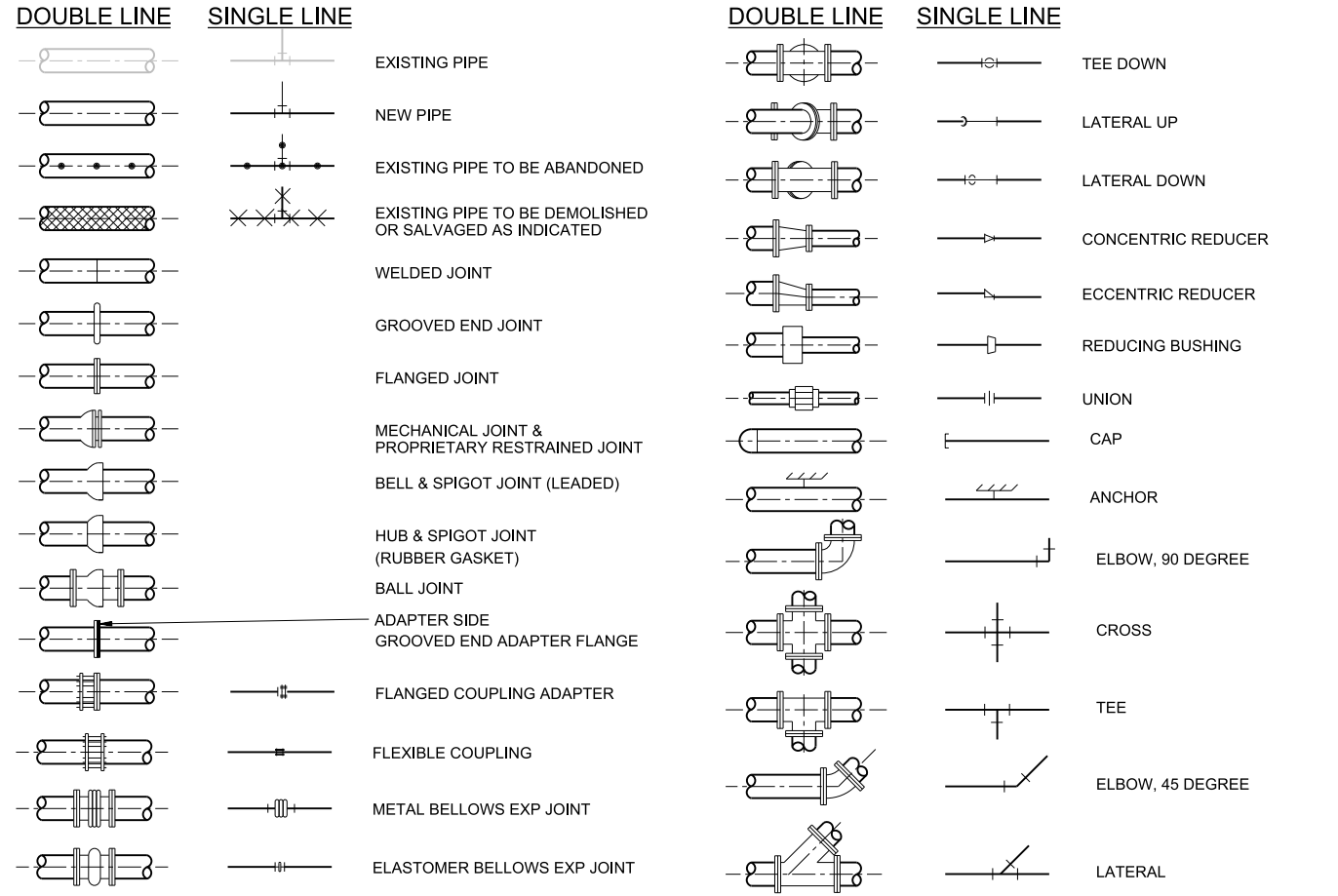
Table with 2 columns: SPECIFICATION SECTION, CODE REQUIRED DEFERRED SUBMITTALS FOR REVIEW BY PERMITTING AGENCY. Rows include 01 88 15 ANCHORAGE AND BRACING, 05 52 16 ALUMINUM RAILINGS, 33 16 13.15 PRESTRESSED CONCRETE TANK WITH STEEL DIAPHRAGM, 40 05 15 PIPING SUPPORT SYSTEMS, and OTHER ANY EQUIPMENT OR COMPONENT IN WHICH A TECHNICAL SPECIFICATION REQUIRES SUBMITTAL OF EQUIPMENT OR ANCHORAGE SYSTEM CALCULATIONS.



Table with columns: NO., DATE, DSGN, DR, REVISION, CHK, APVD, BY, APVD. Includes names like S. TROVAN, J. MINOR, J. KELLOGG, A. KELLOGG.

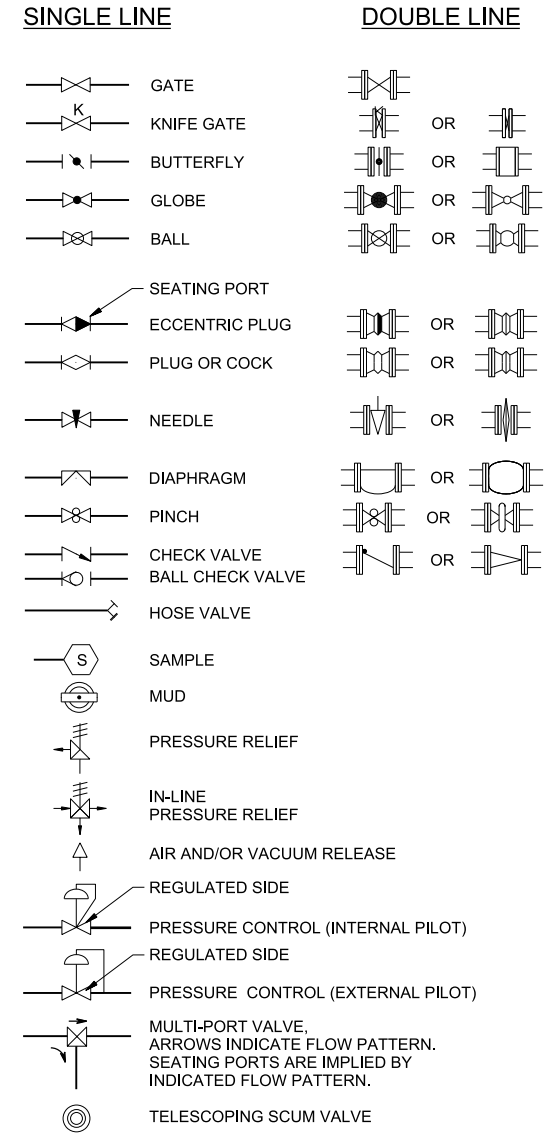
JACOBS GENERAL STRUCTURAL NOTES 90% DESIGN - NOT FOR CONSTRUCTION. Includes project name INCLINE VILLAGE, GENERAL IMPROVEMENT DISTRICT ONE DISTRICT - ONE TEAM, EFFLUENT EXPORT POND LINING PROJECT, and dates DATE FEBRUARY 2023, PROJ W8Y12900.

PIPE AND FITTING SYMBOLS



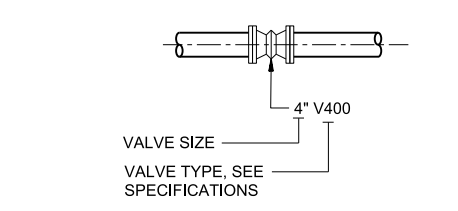
- NOTES:**
- ONLY FLANGED END CONNECTIONS ARE SHOWN HERE FOR DOUBLE LINE FITTINGS. FITTINGS WITH OTHER END PATTERNS ARE SHOWN SIMILARLY ON THE CONSTRUCTION DRAWINGS. ALSO SEE PIPING SPECIFICATIONS.
 - SYMBOLS SHOWN HERE FOR SINGLE LINE FITTINGS ARE GENERIC ONLY. REFER TO PIPING SPECIFICATIONS FOR SPECIFIC END CONNECTIONS FOR SINGLE LINE PIPE AND FITTINGS.
 - EXISTING PIPE AND EQUIPMENT IS SHOWN LIGHT-LINED AND/OR SCREENED AND IS NOTED AS EXISTING. NEW PIPING AND EQUIPMENT IS SHOWN HEAVY-LINED.

VALVE SYMBOLS

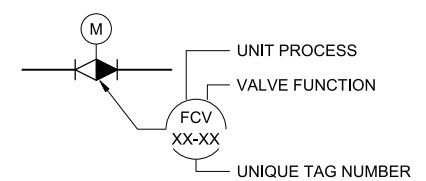


VALVE DESIGNATIONS

MANUAL VALVES AND CHECK VALVES

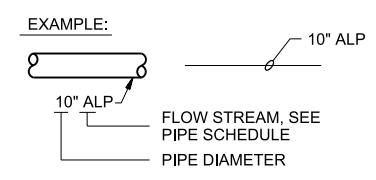


CONTROL VALVES



NOTE:
SEE I&C LEGEND FOR FURTHER DEFINITIONS AND ACTUATOR TYPES.

PIPING DESIGNATION



FLOW STREAM IDENTIFICATION

SEE PIPE SCHEDULE FOR FLOW STREAM AND SERVICE

MECHANICAL AND NOTES

GENERAL PIPING NOTES

- LAY PIPE TO UNIFORM GRADE BETWEEN INDICATED ELEVATION POINTS.
- SIZE OF FITTINGS SHOWN ON DRAWINGS SHALL CORRESPOND TO ADJACENT STRAIGHT RUN OF PIPE, UNLESS OTHERWISE INDICATED. TYPE OF JOINT AND FITTING MATERIAL SHALL BE THE SAME AS SHOWN FOR ADJACENT STRAIGHT RUN OF PIPE.
- CONTRACTOR SHALL DESIGN PIPE SUPPORTS AS SPECIFIED.
- ALL JOINTS SHALL BE WATERTIGHT. WALL PIPES SHALL BE USED WHEREVER PIPING PASSES FROM A STRUCTURE TO BACKFILL.
- ALL FLEXIBLE CONNECTORS AND COUPLING ADAPTERS SHALL BE PROVIDED WITH THRUST PROTECTION AS SPECIFIED. THRUST PROTECTION SHALL BE ADEQUATE FOR TEST PRESSURES SPECIFIED.
- SYMBOLS, LEGENDS, AND PIPE USE IDENTIFICATIONS SHOWN SHALL BE FOLLOWED THROUGHOUT THE DRAWINGS, WHEREVER APPLICABLE. NOT ALL OF THE VARIOUS PIPING COMPONENTS ARE NECESSARILY USED IN THE PROJECT.
- NUMBER AND LOCATION OF UNIONS SHOWN ON DRAWINGS IS ONLY APPROXIMATE. PROVIDE ALL UNIONS NECESSARY TO FACILITATE CONVENIENT REMOVAL OF VALVES AND MECHANICAL EQUIPMENT.
- WHERE A GROOVED END COUPLING IS SHOWN, IT SHALL BE THE RIGID JOINT TYPE, UNLESS OTHERWISE SPECIFIED. WHERE A FLANGED COUPLING ADAPTER IS SHOWN, A STANDARD FLANGE SHALL BE JOINED TO THE COUPLING ADAPTER.
- ALL BURIED PIPING SPECIFIED TO BE PRESSURE TESTED, EXCEPT FLANGED, WELDED, OR SCREWED PIPING, SHALL BE PROVIDED WITH THRUST PROTECTION AS SPECIFIED.

PIPE SCHEDULE

| FLOW STREAM | SERVICE | SIZE (INCH) (NOTE 1) | SPEC SECTION | MATERIAL (NOTE 2) | INSTALLATION | JOINT TYPE (NOTE 3) | TEST PRESSURE/TYPE (PSIG) | LINING | COATINGS (NOTE 4) | REMARKS |
|-------------|----------|-------------------------|--------------|----------------------|--------------|------------------------|------------------------------|--------|----------------------|---------------------------------|
| EFF | EFFLUENT | >=6 | 33 05 01.02 | CLDI | EXPOSED | FL | SEE SPEC | CEMENT | SYSTEM NO. 5 | GROOVED END JOINTS WHERE SHOWN. |
| | | | | | SUBMERGED | FL | | | SYSTEM NO. 3 | |
| | | | | | BURIED | FL, MJ, PRJ | | | POLY | |
| OF | OVERFLOW | >=10 | 33 05 01.02 | CLDI | EXPOSED | FL | SEE SPEC | CEMENT | SYSTEM NO. 5 | |
| | | | | | SUBMERGED | FL | | CEMENT | SYSTEM NO. 3 | |

- NOTES:**
- SYMBOLS:
 < LESS THAN > GREATER THAN
 <= LESS THAN OR EQUAL TO >= GREATER THAN OR EQUAL TO
 - PIPE MATERIALS: ANY DEVIATIONS FROM THE DESIGNATED MATERIALS IN THIS SCHEDULE SHALL BE AS NOTED ON THE DRAWINGS.
CLDI = CEMENT-LINED DUCTILE IRON
 - JOINTS: FL = FLANGED
MJ = MECHANICAL JOINT
PRJ = PROPRIETARY JOINT
 - COATINGS:
SYSTEM NO.: IN ACCORDANCE WITH SPECIFICATION SECTION 09 90 00
POLY: POLYETHYLENE ENCASEMENT

REGISTERED PROFESSIONAL ENGINEER
JOHN SIMONDS
MECHANICAL
LICENSE NO. 027655
STATE OF NEVADA
NOT FOR CONSTRUCTION

| NO. | DATE | DR | REVISION | CHK | APVD | BY | APVD |
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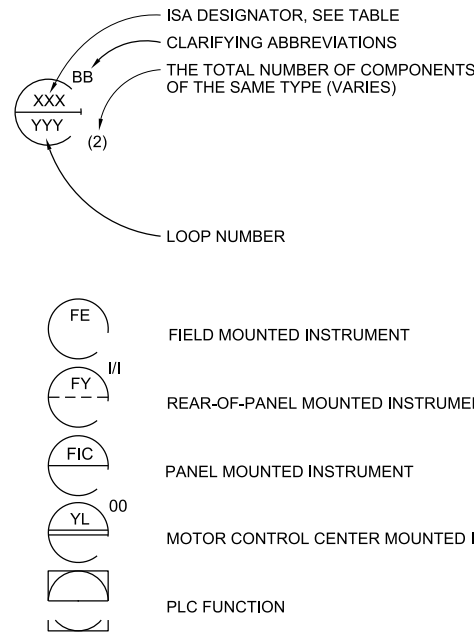
INCLINE VILLAGE
GENERAL IMPROVEMENT DISTRICT
ONE DISTRICT - ONE TEAM
EFFLUENT EXPORT POND LINING PROJECT

Jacobs
GENERAL
MECHANICAL LEGEND, NOTES AND PIPE SCHEDULE
DESIGN - NOT FOR CONSTRUCTION

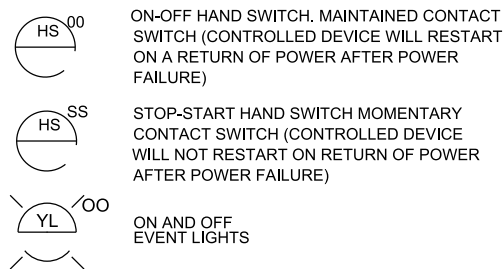
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
DATE: FEBRUARY 2023
PROJ: W8Y12900
WSUP23-0002
SHEET 6 OF 43
EXHIBIT E

INSTRUMENTATION IDENTIFICATION

EXAMPLE SYMBOLS



SPECIAL CASES



SELF CONTAINED VALVE & EQUIPMENT TAG NUMBERS

W: UNIT PROCESS OR FACILITY
 D: ACP = AIR COMPRESSOR PANEL OR PACKAGE
 ARV = AIR RELEASE VALVE
 BLR = BLOWER
 CV = CHECK VALVE
 HV = HAND OPERATED VALVE
 FAN = FAN, SUPPLY OR EXHAUST
 FV = FLOW VALVE
 FCV = FLOW CONTROL VALVE
 M = MECHANICAL EQUIPMENT
 MXR = MIXER
 MXS = MIXER, STATIC
 PMP = PUMP
 PSV = PRESSURE RELIEF VALVE
 SOV = SOLENOID VALVE
 TR = TRASH RACK
 T = TANK

Y: LOOP NUMBER

FLOW STREAM IDENTIFICATION

SEE PIPE SCHEDULE

INSTRUMENT IDENTIFICATION LETTERS TABLE

| LETTER | FIRST LETTER (S) | | SUCCEEDING LETTERS | | |
|--------|--------------------------------|--------------|-----------------------------|--|-------------------|
| | PROCESS OR INITIATING VARIABLE | MODIFIER | READOUT OR PASSIVE FUNCTION | OUTPUT FUNCTION | MODIFIER |
| A | ANALYSIS (+) / ANALOG | | ALARM | | |
| B | BURNER FLAME | | USERS CHOICE (+) | USERS CHOICE (+) | USERS CHOICE (+) |
| C | CONDUCTIVITY | | | CONTROL | |
| D | DENSITY (S,G) | DIFFERENTIAL | | | |
| E | VOLTAGE | | PRIMARY ELEMENT | | |
| F | FLOW RATE | RATIO | | | |
| G | GAUGE | | GLASS | GATE | |
| H | HAND (MANUAL) | | | | HIGH |
| I | CURRENT | | INDICATE | | |
| J | POWER | SCAN | | | |
| K | TIME OR SCHEDULE | | | CONTROL STATION | |
| L | LEVEL | | LIGHT (PILOT) | | LOW |
| M | MOTION | | | | MIDDLE |
| N | TORQUE | | USERS CHOICE (+) | USERS CHOICE (+) | USERS CHOICE (+) |
| O | USERS CHOICE (+) | | ORIFICE | | |
| P | PRESSURE (OR VACUUM) | | POINT (TEST CONNECTION) | | |
| Q | QUANTITY | INTEGRATE | INTEGRATE | | |
| R | SPEED OR FREQUENCY | SAFETY | RECORD OR PRINT | | |
| S | SPEED OR FREQUENCY | SAFETY | | SWITCH | |
| T | TEMPERATURE | | | TRANSMIT | |
| U | MULTIVARIABLE (+) | | MULTIFUNCTION | MULTIFUNCTION (+) | MULTIFUNCTION (+) |
| V | VIBRATION | | | VALVE OR DAMPER | |
| W | WEIGHT OR FORCE | | WELL | | |
| X | UNCLASSIFIED (+) | | UNCLASSIFIED (+) | UNCLASSIFIED (+) | UNCLASSIFIED (+) |
| Y | EVENT | | | RELAY OR COMPUTE (+) | |
| Z | POSITION | | | DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT | |

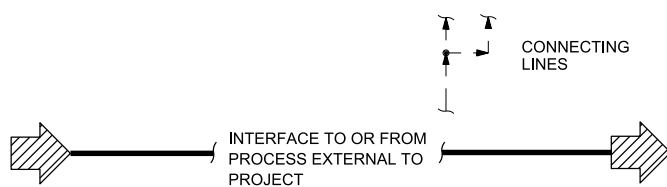
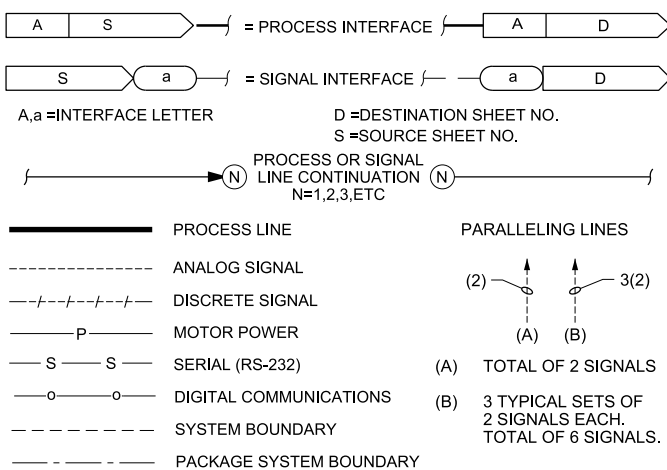
TABLE BASED ON THE INTERNATIONAL SOCIETY OF AUTOMATION (ISA) STANDARD.

(+) WHEN USED, EXPLANATION IS SHOWN ADJACENT TO INSTRUMENT SYMBOL. SEE ABBREVIATIONS.

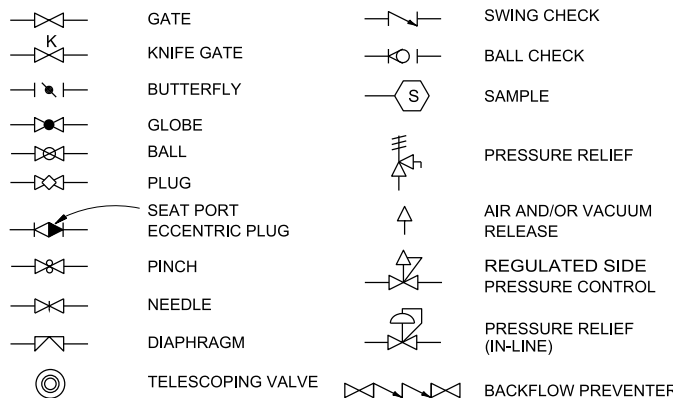
PLC INTERFACES

- ▲ ANALOG INPUT (4-20mA DC)
- ▼ ANALOG OUTPUT (4-20mA DC)
- △ DISCRETE INPUT (120VAC)
- ▽ DISCRETE OUTPUT (DRY CONTACT, 120VAC)
- ◇ ETHERNET CONNECTION

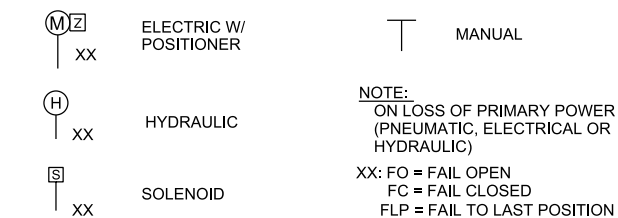
INTERFACE SYMBOLS & LINE LEGEND



VALVE SYMBOLS



ACTUATOR SYMBOLS

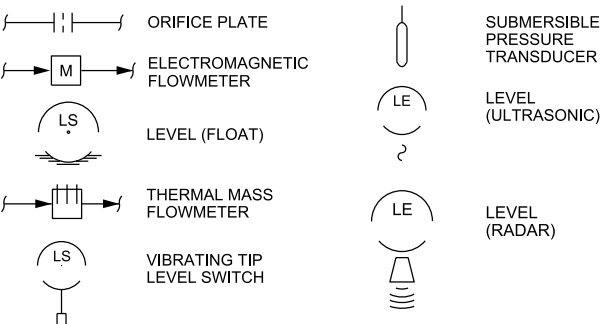


NOTE:
 ON LOSS OF PRIMARY POWER (PNEUMATIC, ELECTRICAL OR HYDRAULIC)
 XX: FO = FAIL OPEN
 FC = FAIL CLOSED
 FLP = FAIL TO LAST POSITION

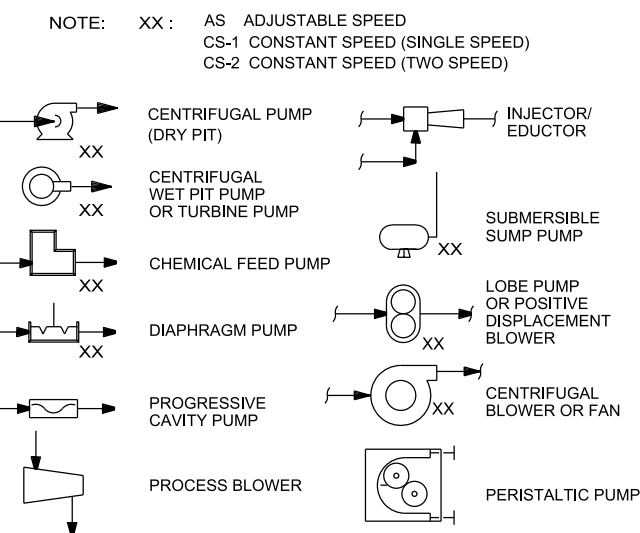
GATE SYMBOLS



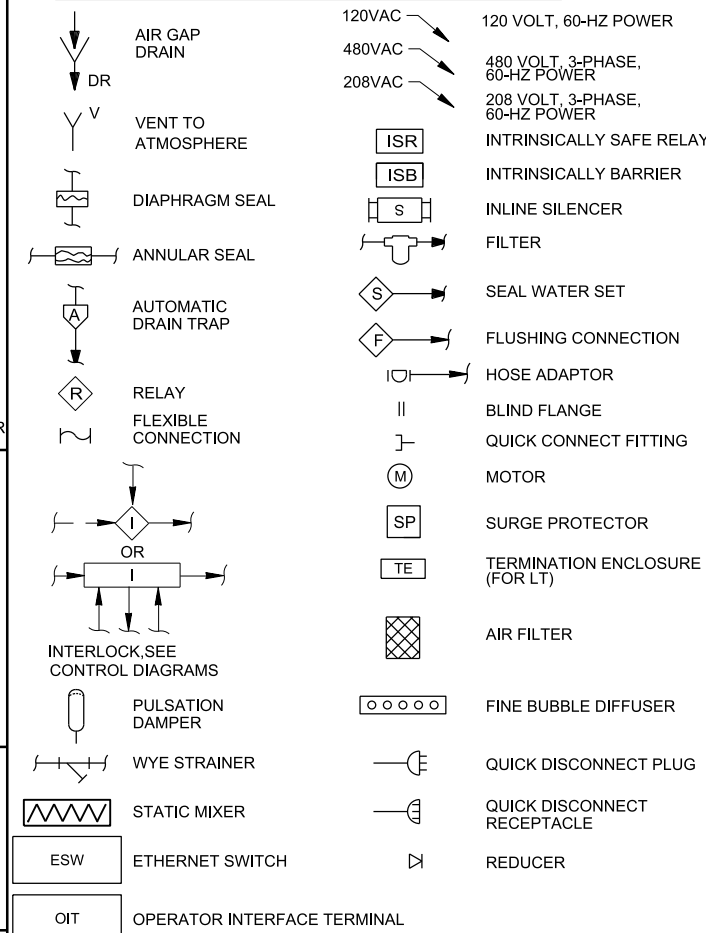
PRIMARY ELEMENT SYMBOLS



PUMP AND FAN SYMBOLS



MISCELLANEOUS SYMBOLS



ABBREVIATIONS

| | | | |
|-------|-------------------------------|------|----------------------------------|
| AUTO | AUTOMATIC | SP | SET POINT |
| CMD | COMMAND | SPD | SPEED |
| CP | CONTROL PANEL | SS | START - STOP OR SUSPENDED SOLIDS |
| CS | CONTROL STATION | TE | TERMINAL ENCLOSURE |
| DO | DISSOLVED OXYGEN | TEMP | TEMPERATURE |
| ESTOP | EMERGENCY STOP | TJB | TERMINAL JUNCTION BOX |
| ESW | ETHERNET SWITCH | TYP | TYPICAL |
| FDBK | FEEDBACK | UPS | UNINTERRUPTIBLE POWER SUPPLY |
| HMI | HUMAN MACHINE INTERFACE | VFD | VARIABLE FREQUENCY DRIVE |
| HOA | HAND-OFF-AUTO | | |
| IO | INPUT/OUTPUT | | |
| LCP | LOCAL CONTROL PANEL | | |
| MCC | MOTOR CONTROL CENTER | | |
| MCP | MASTER CONTROL PANEL | | |
| MSC | MANUFACTURER SUPPLIED CABLE | | |
| N.C. | NORMALLY CLOSED | | |
| N.O. | NORMALLY OPEN | | |
| OOR | ON-OFF-REMOTE | | |
| OC | OPEN-CLOSE (D) | | |
| OCR | OPEN-CLOSE-REMOTE | | |
| OIT | OPERATOR INTERFACE TERMINAL | | |
| OL | OVERLOAD | | |
| OOA | ON-OFF-AUTO | | |
| OSC | OPEN-STOP-CLOSE | | |
| PLC | PROGRAMMABLE LOGIC CONTROLLER | | |
| REM | REMOTE | | |

GENERAL NOTES

- THIS A STANDARD LEGEND, THEREFORE NOT ALL OF THIS INFORMATION MAY BE USED ON THIS PROJECT.
- COMPONENTS AND PANELS SHOWN WITH A DOUBLE ASTERISK (***) ARE TO BE PROVIDED UNDER DIVISION 26, ELECTRICAL.
- COMPONENTS AND PANELS SHOWN WITH A (♦) ARE SPECIFIED UNDER SECTION 40 91 00.



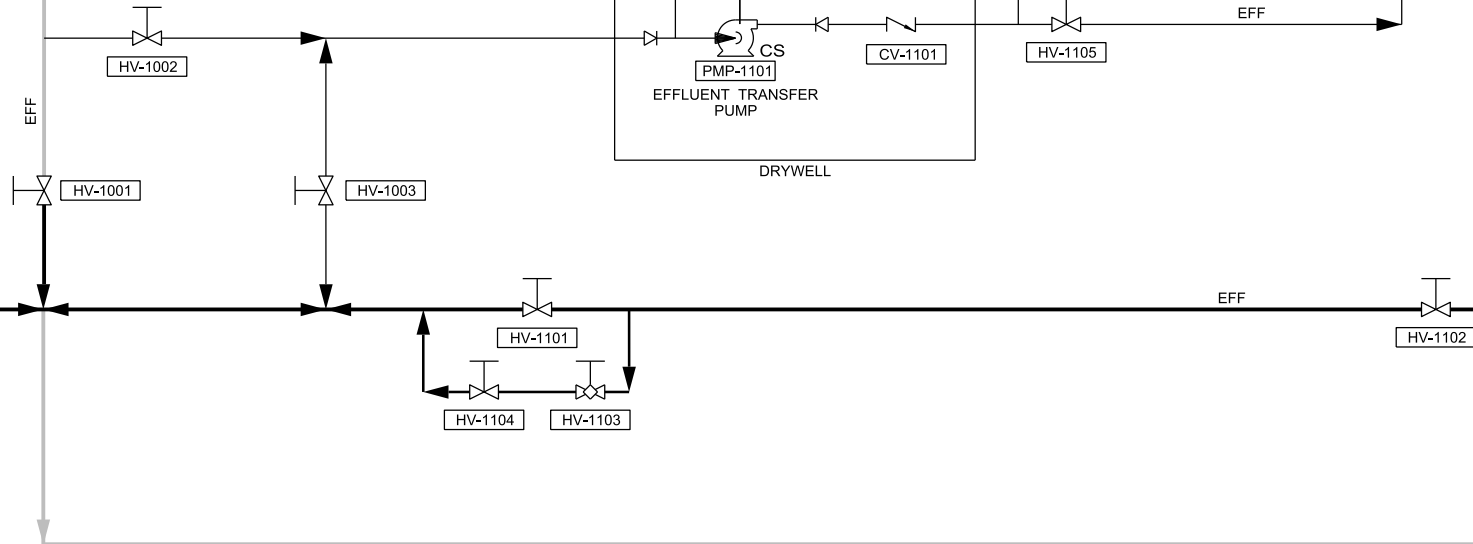
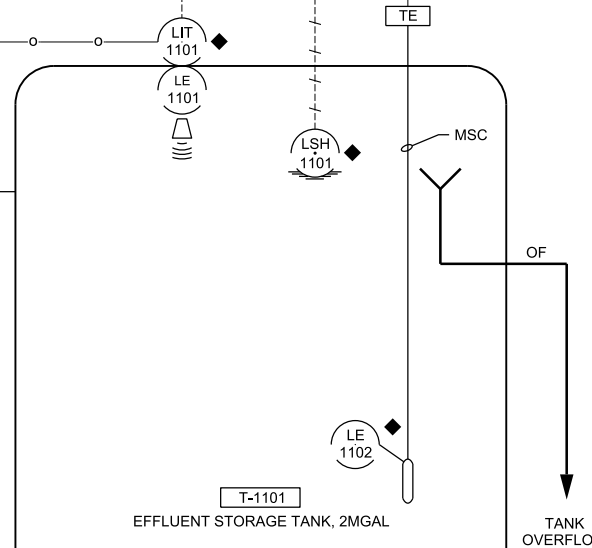
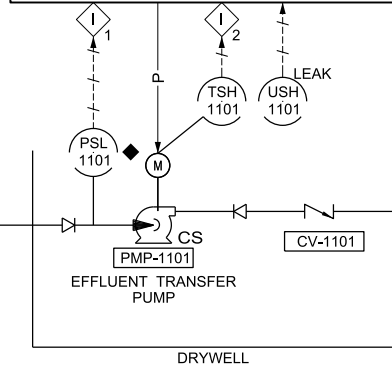
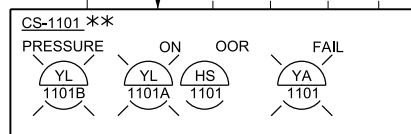
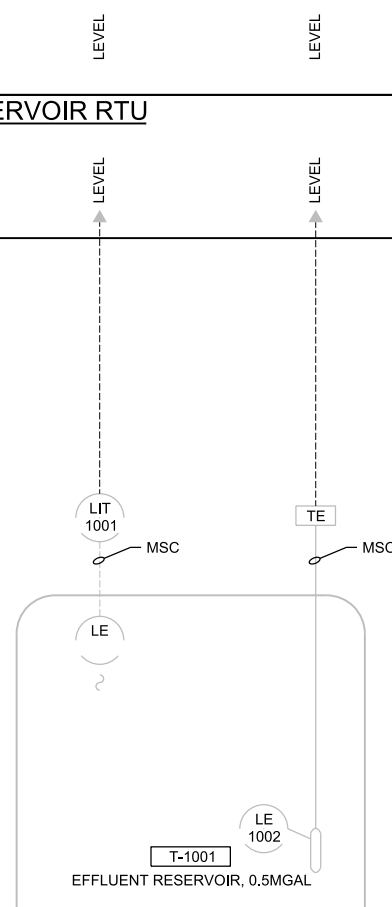
Jacobs

GENERAL INSTRUMENTATION AND CONTROL LEGEND

| | |
|--------------------------------------|---------------|
| VERIFY SCALE | |
| BAR IS ONE INCH ON ORIGINAL DRAWING. | |
| DATE | FEBRUARY 2023 |
| PROJ | W8Y12900 |
| SHEETS 007 of 43 | |
| EXHIBIT E | |

HMI

LCP-1000, RESERVOIR RTU



INTERLOCK DESCRIPTION:

- STOP PUMP(S) ON LOW SUCTION PRESSURE CONDITION AFTER ADJUSTABLE TIME DELAY (0-30 SEC) AND ALARM TO SCADA.
- STOP PUMP ON HIGH MOTOR TEMPERATURE ALARM AFTER ADJUSTABLE TIME DELAY (0-30 SEC) AND LOCKOUT WITH MANUAL RESET.



Jacobs

INSTRUMENTATION AND CONTROL
EFFLUENT STORAGE
P&ID

REGISTERED PROFESSIONAL ENGINEER
CRAIG M. CUSWORTH
ELECTRICAL
LICENSE NO. 022425
STATE OF NEVADA
NOT FOR CONSTRUCTION

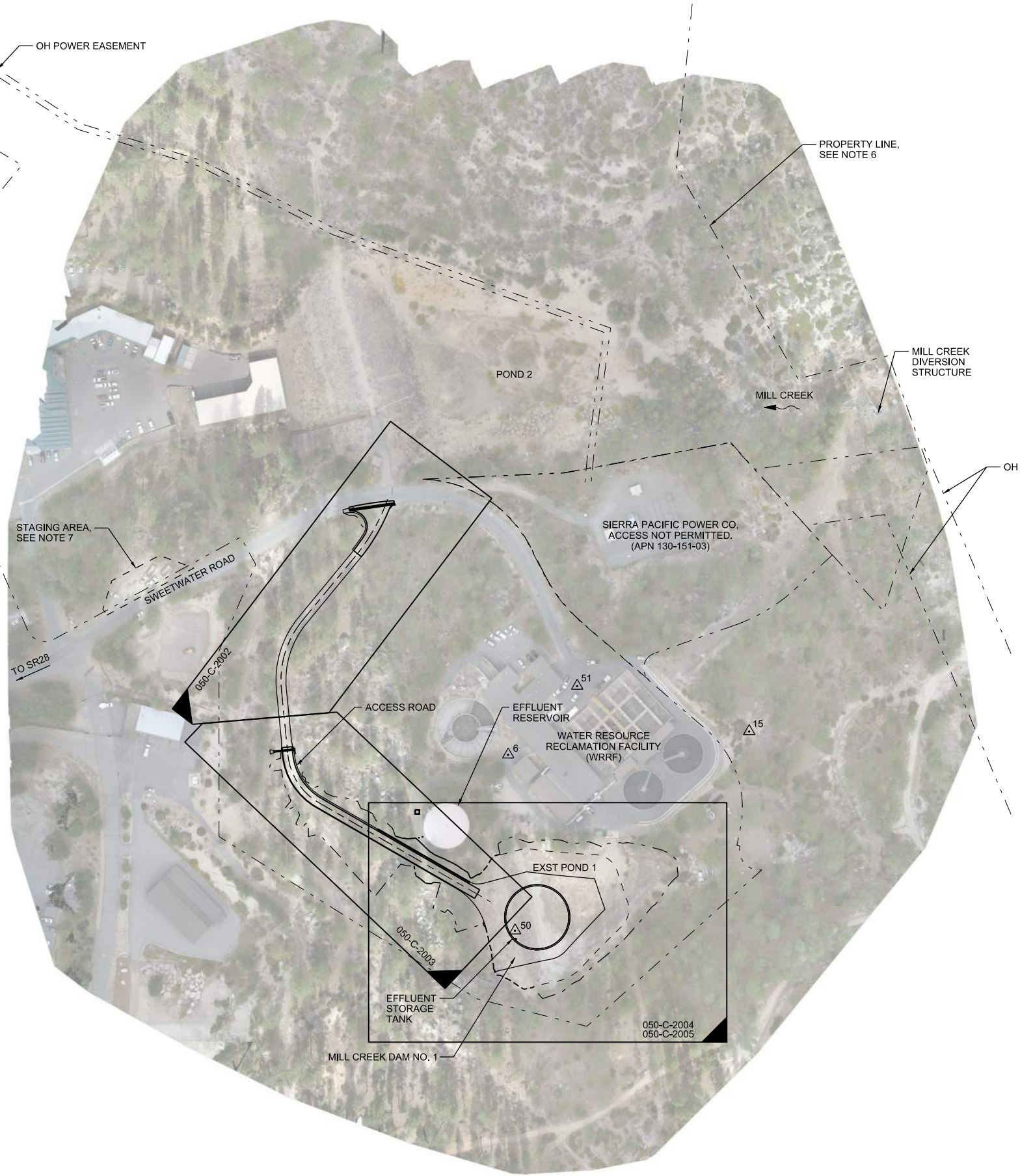
| NO. | DATE | DR | CHK | REVISION | BY | APVD |
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| | | S SUNDAHL | R STEED | D JOHNSON | A KELLOGG | |

VERIFY SCALE
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DATE FEBRUARY 2023
PROJ W8Y12900

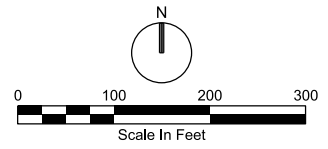
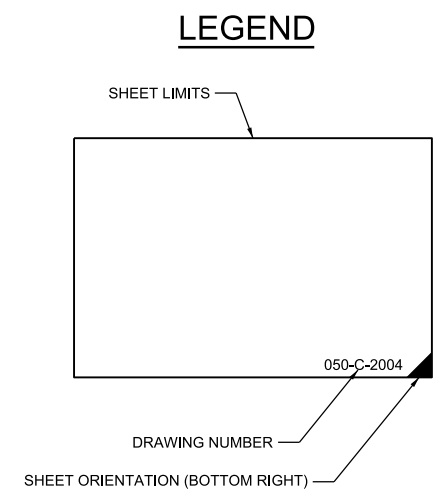
WSUP23-0002
SHEET 2 of 43

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- NOTES:**
- MAPPING COMPILED BY JACOBS BASED ON DATA COLLECTED IN OCTOBER 2021 USING A COMBINATION OF TERRESTRIAL AND AERIAL SURVEY METHODS. CONTOUR INTERVAL EQUALS 1-FOOT.
 - HORIZONTAL DATUM: NEVADA STATE PLANE COORDINATE SYSTEM ZONE WEST(NAD 83/94) MODIFIED GROUND.
 - MEAN COMBINATION FACTOR (CF): 0.999802100. DISTANCES SHOWN HEREON ARE GROUND DISTANCES. TO CONVERT GROUND DISTANCE TO GRID DISTANCE, MULTIPLY BY THE CF.
 - VERTICAL DATUM: NGVD29 BASED ON AERIAL PHOTO CONTROL POINT 15, AS SHOWN ON SHEET C-2 OF IMPROVEMENT PLANS TITLED "FACILITY IMPROVEMENTS-HEADWORKS, AERATION, DIGESTION, AND ADMINISTRATION BUILDING FOR INCLINE VILLAGE GENERAL IMPROVEMENT DISTRICT WASTEWATER TREATMENT PLANT (CORRECTED ACCORDING TO CONSTRUCTION RECORDS 8/93)"; DATED OCTOBER, 1991, AND PREPARED BY HDR ENGINEERING, INC. ELEVATIONS OF SAID CONTROL POINT PUBLISHED THEREON IS AS FOLLOWS: CONTROL POINT 15: 6516.90
 - DATE OF AERIAL PHOTO: OCTOBER 6, 2021
 - IVGID PROPERTY INFORMATION:
OWNER: INCLINE VILLAGE GENERAL IMPROVEMENT DISTRICT
ADDRESS: 1250 SWEETWATER ROAD
APN: 130-010-08
LAND USE: 400
LAND ZONING: TA TC 67% / PR 33%
PARCEL SIZE: 3,802,788 SQUARE FEET (87.3 ACRES)
 - A PORTION OF THE DIAMOND PEAK SKI RESORT PARKING LOT IS AVAILABLE FOR STAGING. COORDINATE ACCESS AND LIMITS OF STAGING AT DIAMOND PEAK WITH IVGID. SEE VICINITY MAP ON COVER SHEET FOR APPROXIMATE LOCATION.

| SURVEY CONTROL POINTS | | | | |
|-----------------------|-------------|------------|-----------|-----------------------------|
| POINT NO. | NORTHING | EASTING | ELEVATION | DESCRIPTION |
| 15 | 14763183.09 | 2245521.04 | 6516.90 | CP Spike |
| 50 | 14762864.04 | 2245146.00 | 6484.75 | 5/8 RBR & Cap |
| 6 | 14763145.68 | 2245134.93 | 6485.87 | PK Nail |
| 51 | 14763255.76 | 2245245.43 | 6485.23 | Mag Nail in Cut Triangle AC |



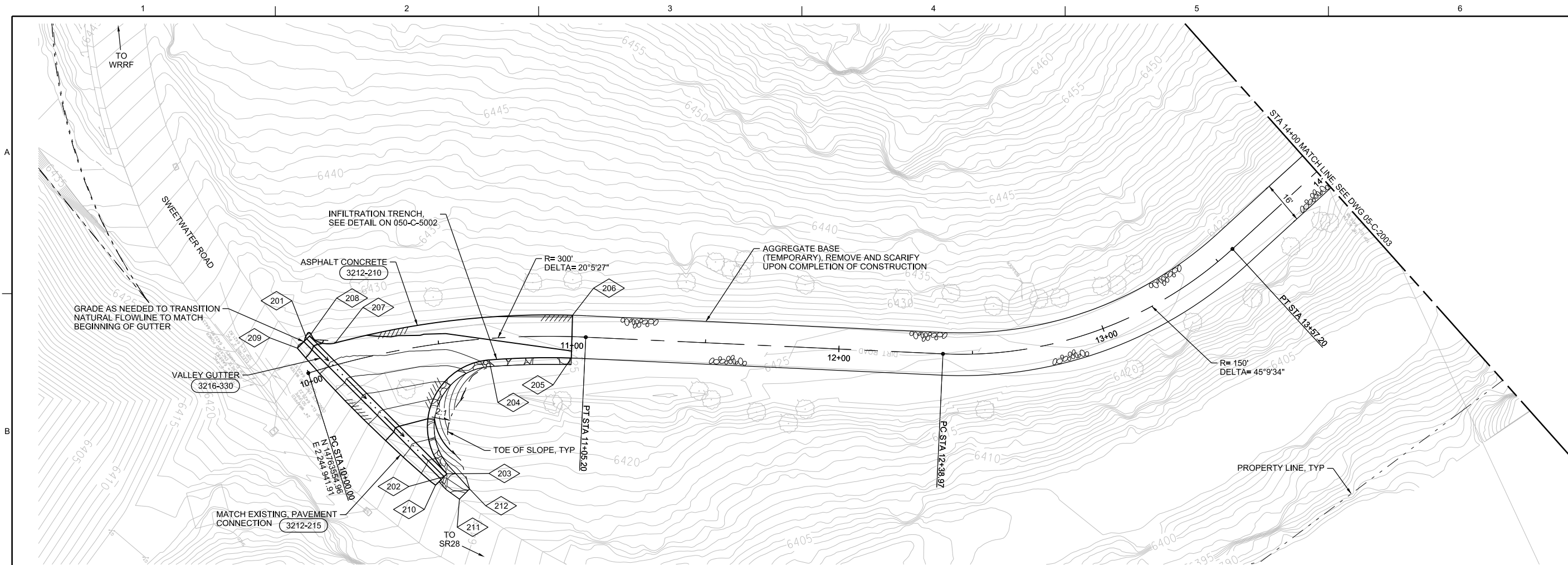
REGISTERED PROFESSIONAL ENGINEER
TRAVIS J. HOWARD
CIVIL
LICENSE NO. 021924
STATE OF NEVADA
NOT FOR CONSTRUCTION

| NO. | DATE | DR | CHK | REVISION | BY | APVD |
|-----|------|----------|----------|----------|----|------------|
| | | T HOWARD | K BISHOP | | | A KELLOGG |
| | | | | | | B CHELONIS |

JACOBS
CIVIL
OVERALL SITE PLAN AND SURVEY CONTROL

| | |
|--------------------|--------------------------------------|
| VERIFY SCALE | BAR IS ONE INCH ON ORIGINAL DRAWING. |
| DATE | FEBRUARY 2023 |
| PROJ | W8Y12900 |
| WSUP23-0002 | 001 |
| SHEET | 43 |

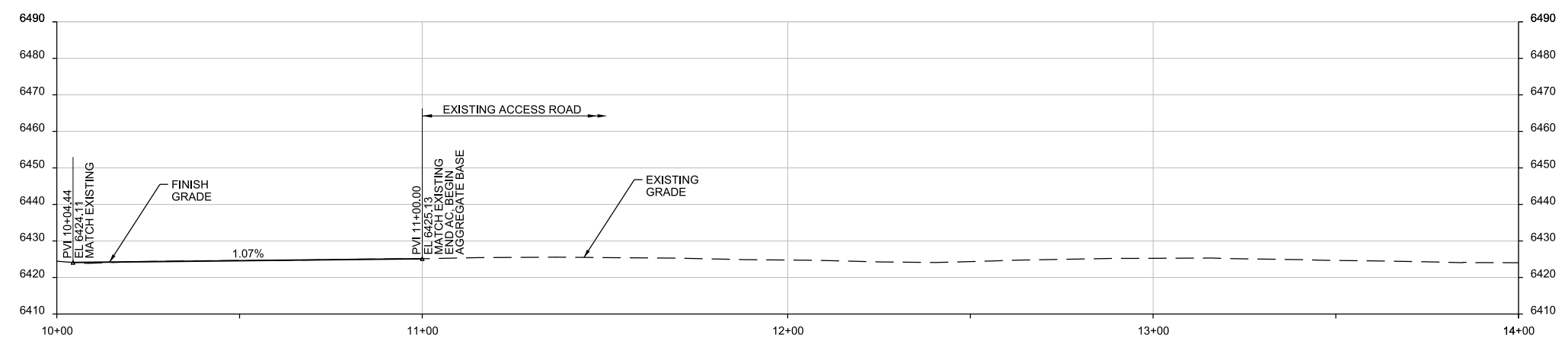
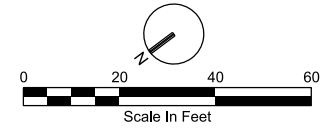
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PLAN
1"=20"

- NOTE:**
- ALL DISTURBED AREAS NOT RECEIVING A HARD SURFACE SHALL BE STABILIZED. SEE 050-C-2006 FOR SLOPE STABILIZATION PLAN.

| GRADING COORDINATE TABLE | | | | |
|--------------------------|----------------------------|---------|-------------|------------|
| POINT NO. | DESCRIPTION | ELEV | NORTHING | EASTING |
| 201 | BEGIN VALLEY GUTTER FL | 6425.43 | 14763547.78 | 2244952.54 |
| 202 | END VALLEY GUTTER FL | 6417.03 | 14763537.55 | 2244880.53 |
| 203 | EOP, PC, R = 25' | 6417.10 | 14763536.06 | 2244880.69 |
| 204 | EOP, PCC, R = 292' | 6424.43 | 14763497.88 | 2244905.30 |
| 205 | EOP, MATCH EXISTING | 6424.92 | 14763472.86 | 2244887.45 |
| 206 | EOP, MATCH EXISTING | 6426.23 | 14763462.90 | 2244899.97 |
| 207 | EOP, PCC, R = 308' | 6424.55 | 14763540.12 | 2244944.87 |
| 208 | EOP, PRC, R = 10' | 6425.50 | 14763546.30 | 2244952.75 |
| 209 | EOP, MATCH EXISTING | 6425.60 | 14763552.68 | 2244951.85 |
| 210 | EOP, MATCH EXISTING | 6417.23 | 14763542.01 | 2244879.85 |
| 211 | EDGE OF INFILTRATION DITCH | 6416.07 | 14763538.00 | 2244870.32 |
| 212 | EDGE OF INFILTRATION DITCH | 6417.10 | 14763532.67 | 2244871.07 |



PROFILE
1"=20"



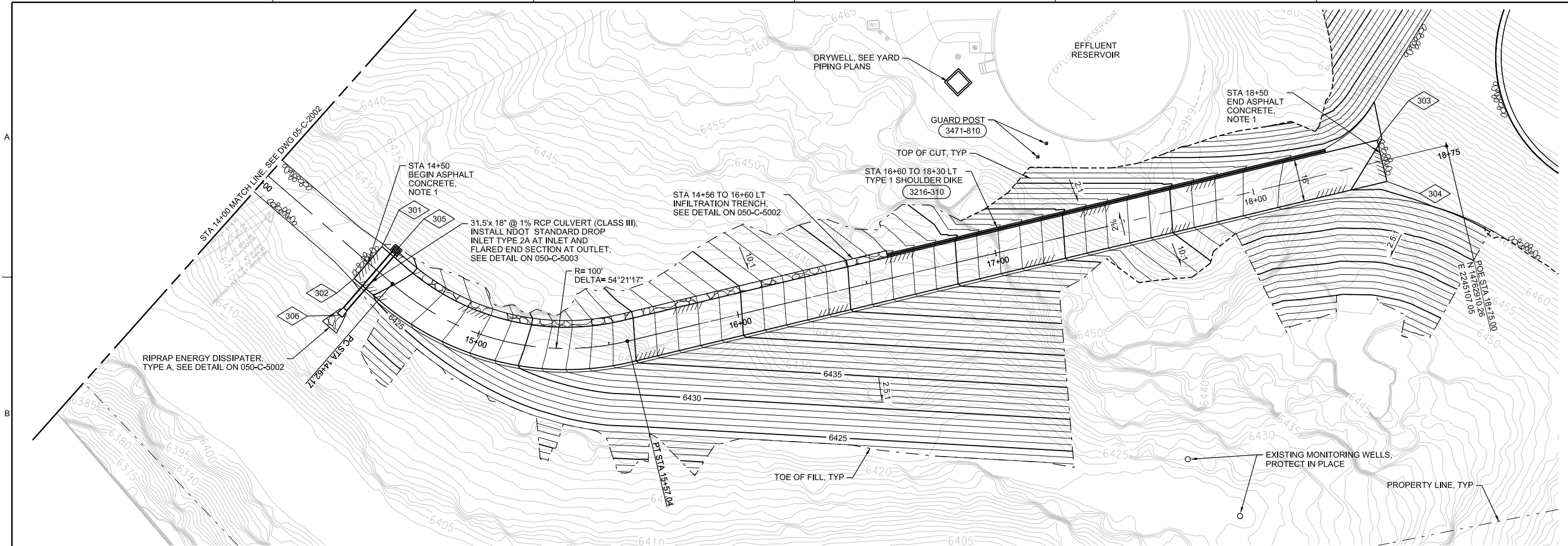
Jacobs
CIVIL
ACCESS ROAD
PLAN AND PROFILE

VERIFY SCALE
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DATE: FEBRUARY 2023
PROJ: W8Y12900
WSUP23-0002
SHEET 43 OF 43
EXHIBIT E

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TRAVIS J. HOWARD
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| NO. | DATE | DR | CHK | REVISION | APVD | BY | APVD |
|-----|------|----------|----------|----------|------|----|------------|
| | | T HOWARD | K BISHOP | | | | A KELLOGG |
| | | | | | | | B CHELONIS |

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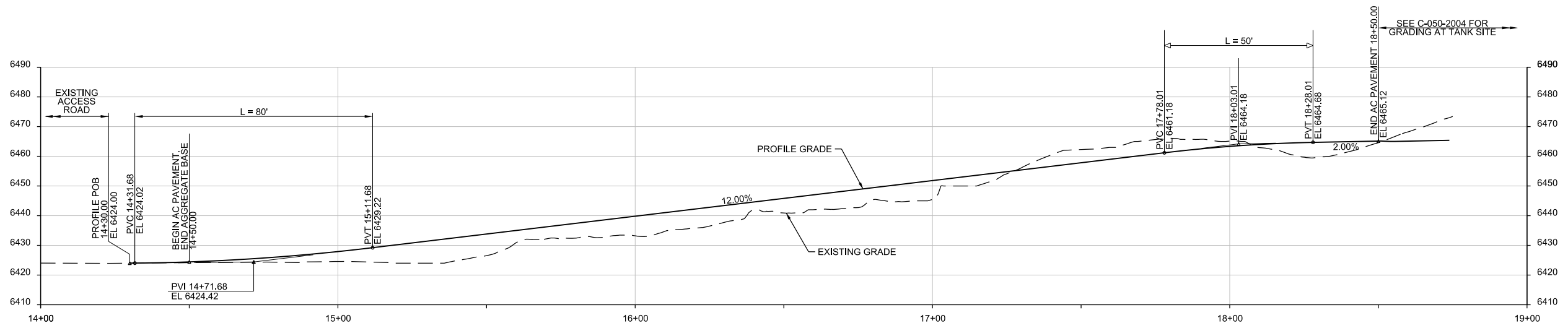
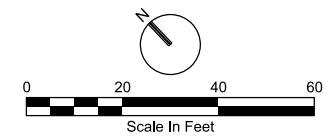
PLAN
1"=20"

NOTES:

- SEE 050-C-3001 FOR ROADWAY TYPICAL SECTION.
- ALL DISTURBED AREAS NOT RECEIVING A HARD SURFACE SHALL BE STABILIZED, SEE 050-C-2006 FOR SLOPE STABILIZATION PLAN.

GRADING COORDINATE TABLE

| POINT NO. | DESCRIPTION | ELEVATION | NORTHING | EASTING |
|-----------|----------------------------|-----------------|-------------|------------|
| 301 | EOP, MATCH EXISTING | 6424.28 | 14763158.86 | 2244788.90 |
| 302 | EOP, MATCH EXISTING | 6424.60 | 14763157.29 | 2244772.98 |
| 303 | EOP | 6464.96 | 14762929.69 | 2245089.40 |
| 304 | EOP | 6465.28 | 14762915.83 | 2245081.40 |
| 305 | CENTER OF INLET RIM/INV EL | 6424.40/6420.32 | 14763154.15 | 2244791.88 |
| 306 | CULVERT OUTLET | 6420.00 | 14763150.96 | 2244759.58 |



PROFILE
1"=20"



Jacobs
CIVIL
ACCESS ROAD
PLAN AND PROFILE

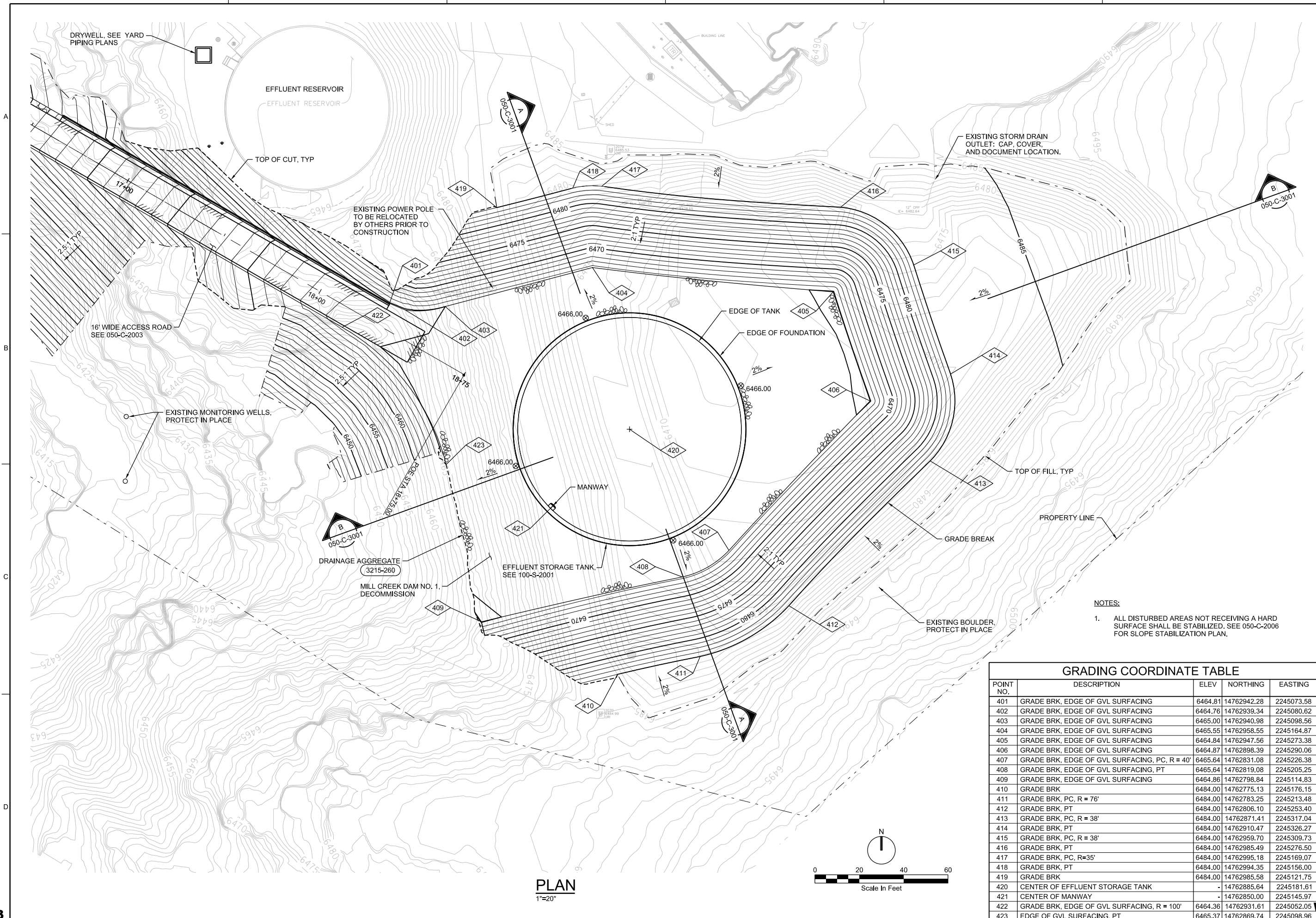
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.

DATE: FEBRUARY 2023
PROJ: W8Y12900
SHE: 03 of 43
EXHIBIT E

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| NO. | DATE | DR | CHK | REVISION | APVD | BY | APVD |
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| | | T HOWARD | K BISHOP | B CHELONIS | A KELLOGG | | |

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43

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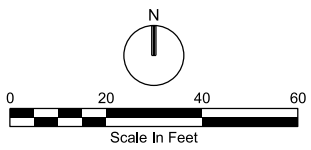
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| | | T HOWARD | K BISHOP | | B CHELONIS | A KELLOGG |

Jacobs
 CIVIL
 EFFLUENT STORAGE TANK
 CONSTRUCTION GRADING PLAN

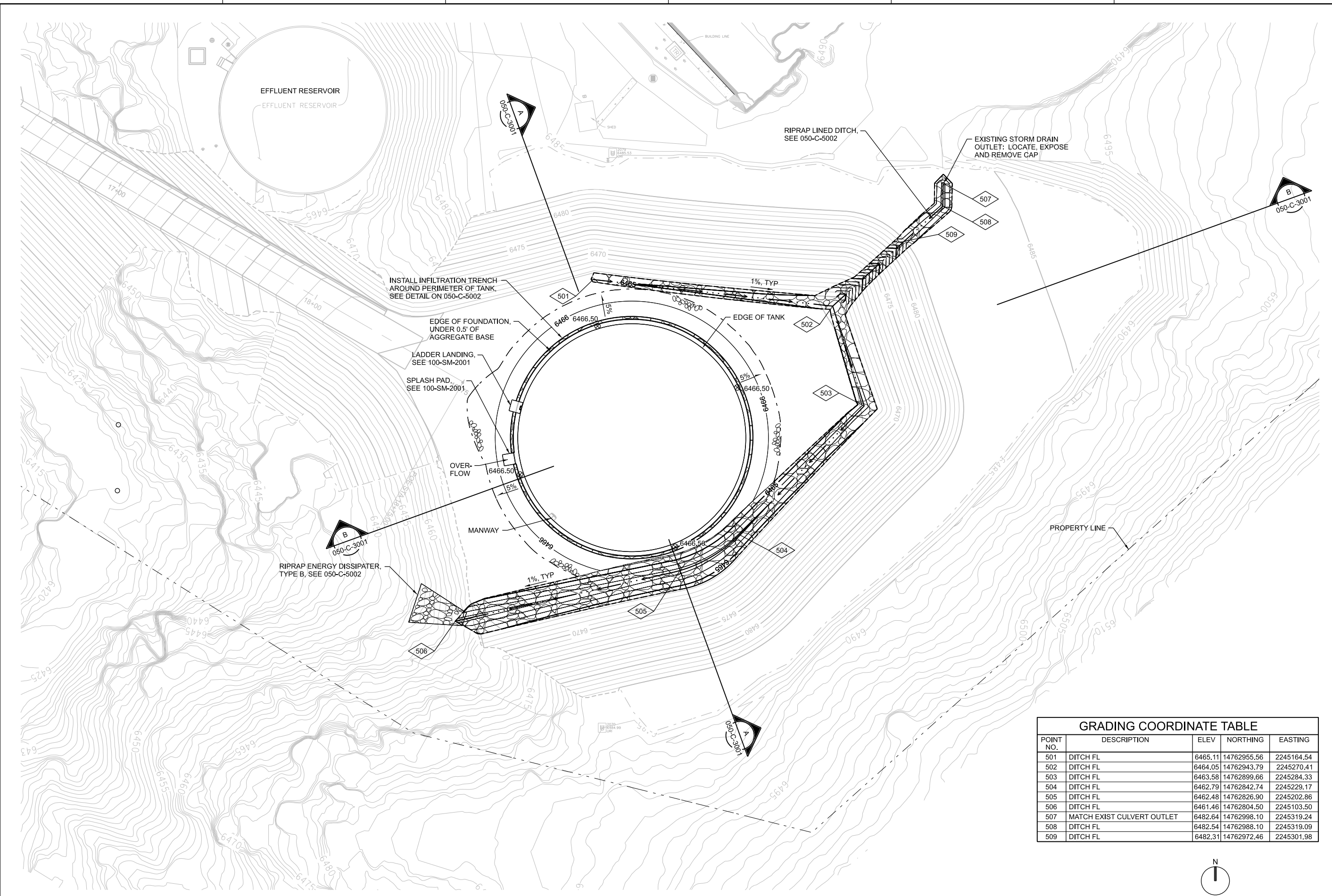
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 DATE FEBRUARY 2023
 PROJ W8Y12900
 SHEET SUP23-0002 004 of 043
 EXHIBIT E
 90% DESIGN - NOT FOR CONSTRUCTION

NOTES:
 1. ALL DISTURBED AREAS NOT RECEIVING A HARD SURFACE SHALL BE STABILIZED. SEE 050-C-2006 FOR SLOPE STABILIZATION PLAN.

| POINT NO. | DESCRIPTION | ELEV | NORTHING | EASTING |
|-----------|---|---------|-------------|------------|
| 401 | GRADE BRK, EDGE OF GVL SURFACING | 6464.81 | 14762942.28 | 2245073.58 |
| 402 | GRADE BRK, EDGE OF GVL SURFACING | 6464.76 | 14762939.34 | 2245080.62 |
| 403 | GRADE BRK, EDGE OF GVL SURFACING | 6465.00 | 14762940.98 | 2245098.56 |
| 404 | GRADE BRK, EDGE OF GVL SURFACING | 6465.55 | 14762958.55 | 2245164.87 |
| 405 | GRADE BRK, EDGE OF GVL SURFACING | 6464.84 | 14762947.56 | 2245273.38 |
| 406 | GRADE BRK, EDGE OF GVL SURFACING | 6464.87 | 14762898.39 | 2245290.06 |
| 407 | GRADE BRK, EDGE OF GVL SURFACING, PC, R = 40' | 6465.64 | 14762831.08 | 2245226.38 |
| 408 | GRADE BRK, EDGE OF GVL SURFACING, PT | 6465.64 | 14762819.08 | 2245205.25 |
| 409 | GRADE BRK, EDGE OF GVL SURFACING | 6464.86 | 14762798.84 | 2245114.83 |
| 410 | GRADE BRK | 6484.00 | 14762775.13 | 2245176.15 |
| 411 | GRADE BRK, PC, R = 76' | 6484.00 | 14762783.25 | 2245213.48 |
| 412 | GRADE BRK, PT | 6484.00 | 14762806.10 | 2245253.40 |
| 413 | GRADE BRK, PC, R = 38' | 6484.00 | 14762871.41 | 2245317.04 |
| 414 | GRADE BRK, PT | 6484.00 | 14762910.47 | 2245326.27 |
| 415 | GRADE BRK, PC, R = 38' | 6484.00 | 14762959.70 | 2245309.73 |
| 416 | GRADE BRK, PT | 6484.00 | 14762985.49 | 2245276.50 |
| 417 | GRADE BRK, PC, R=35' | 6484.00 | 14762995.18 | 2245169.07 |
| 418 | GRADE BRK, PT | 6484.00 | 14762994.35 | 2245156.00 |
| 419 | GRADE BRK | 6484.00 | 14762985.58 | 2245121.75 |
| 420 | CENTER OF EFFLUENT STORAGE TANK | - | 14762885.64 | 2245181.61 |
| 421 | CENTER OF MANWAY | - | 14762850.00 | 2245145.97 |
| 422 | GRADE BRK, EDGE OF GVL SURFACING, R = 100' | 6464.36 | 14762931.61 | 2245052.05 |
| 423 | EDGE OF GVL SURFACING, PT | 6465.37 | 14762869.74 | 2245098.96 |

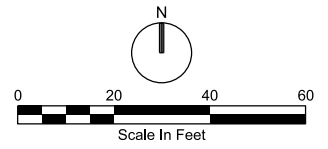


PLAN
 1"=20'



PLAN
1"=20"

| GRADING COORDINATE TABLE | | | | |
|--------------------------|----------------------------|---------|-------------|------------|
| POINT NO. | DESCRIPTION | ELEV | NORTHING | EASTING |
| 501 | DITCH FL | 6465.11 | 14762955.56 | 2245164.54 |
| 502 | DITCH FL | 6464.05 | 14762943.79 | 2245270.41 |
| 503 | DITCH FL | 6463.58 | 14762899.66 | 2245284.33 |
| 504 | DITCH FL | 6462.79 | 14762842.74 | 2245229.17 |
| 505 | DITCH FL | 6462.48 | 14762826.90 | 2245202.86 |
| 506 | DITCH FL | 6461.46 | 14762804.50 | 2245103.50 |
| 507 | MATCH EXIST CULVERT OUTLET | 6482.64 | 14762998.10 | 2245319.24 |
| 508 | DITCH FL | 6482.54 | 14762988.10 | 2245319.09 |
| 509 | DITCH FL | 6482.31 | 14762972.46 | 2245301.98 |



REGISTERED PROFESSIONAL ENGINEER
 TRAVIS J. HOWARD
 CIVIL
 LICENSE NO. 021924
 STATE OF NEVADA
 NOT FOR CONSTRUCTION

| NO. | DATE | DR | CHK | REVISION | BY | APVD |
|-----|------|----|-----|----------|----|------|
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INCLINE VILLAGE
 GENERAL IMPROVEMENT DISTRICT
 ONE DISTRICT - ONE TEAM

EFFLUENT EXPORT POND LINING PROJECT

Jacobs
 CIVIL

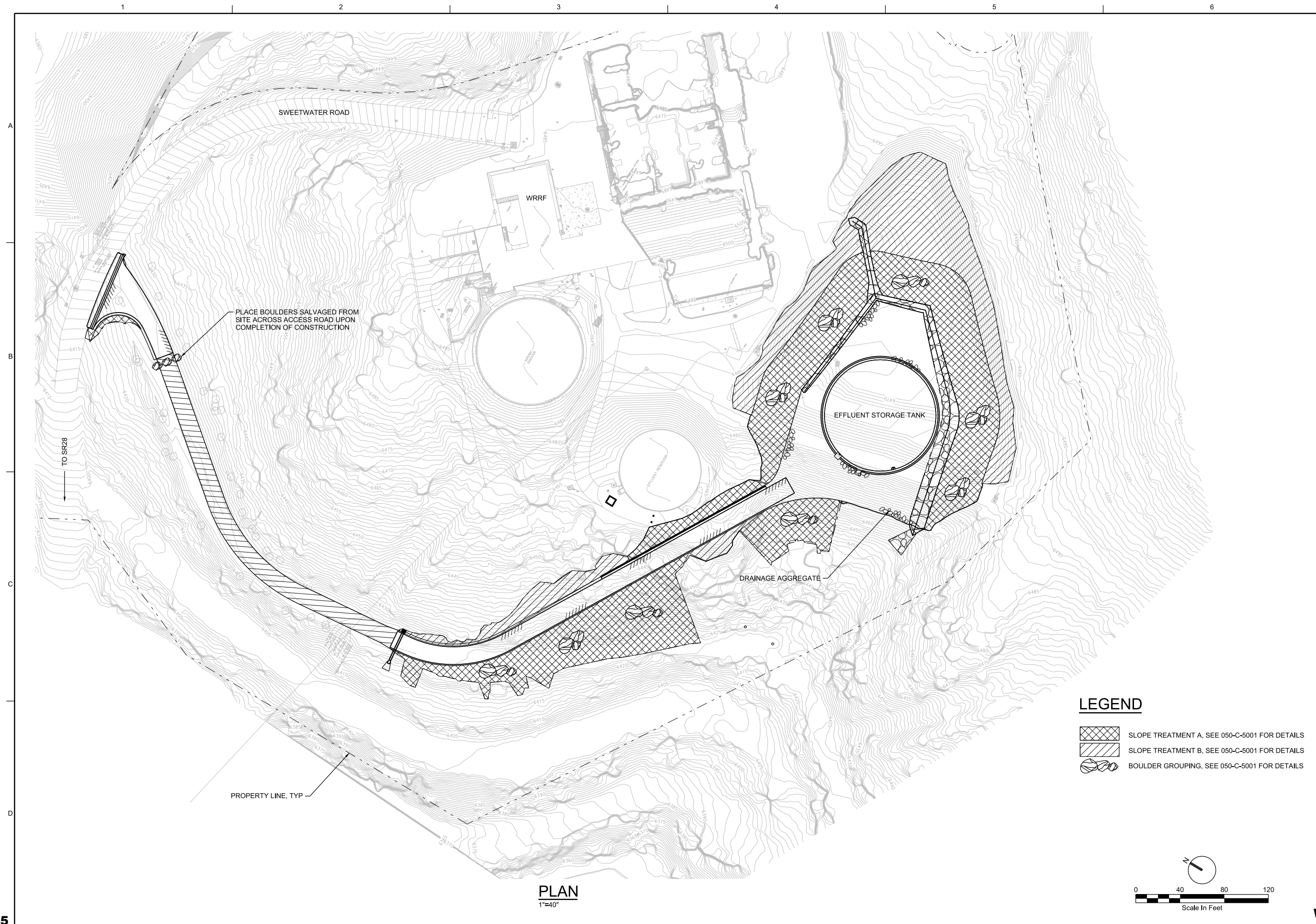
EFFLUENT STORAGE TANK
 FINAL GRADING PLAN

VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING.

DATE: FEBRUARY 2023
 PROJ: W8Y12900
WSUP23-0002
 SHEET 43 of 43
EXHIBIT E

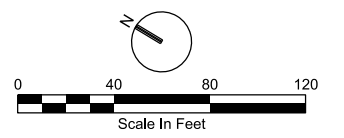
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LEGEND

- SLOPE TREATMENT A, SEE 050-C-5001 FOR DETAILS
- SLOPE TREATMENT B, SEE 050-C-5001 FOR DETAILS
- BOULDER GROUPING, SEE 050-C-5001 FOR DETAILS



PLAN
1"=40'

REGISTERED PROFESSIONAL ENGINEER
 TRAVIS J. HOWARD
 CIVIL
 LICENSE NO. 021924
 STATE OF NEVADA
 NOT FOR CONSTRUCTION

| NO. | DATE | DR | CHK | REVISION | APVD | BY | APVD |
|-----|------|----|-----|----------|------|----|------|
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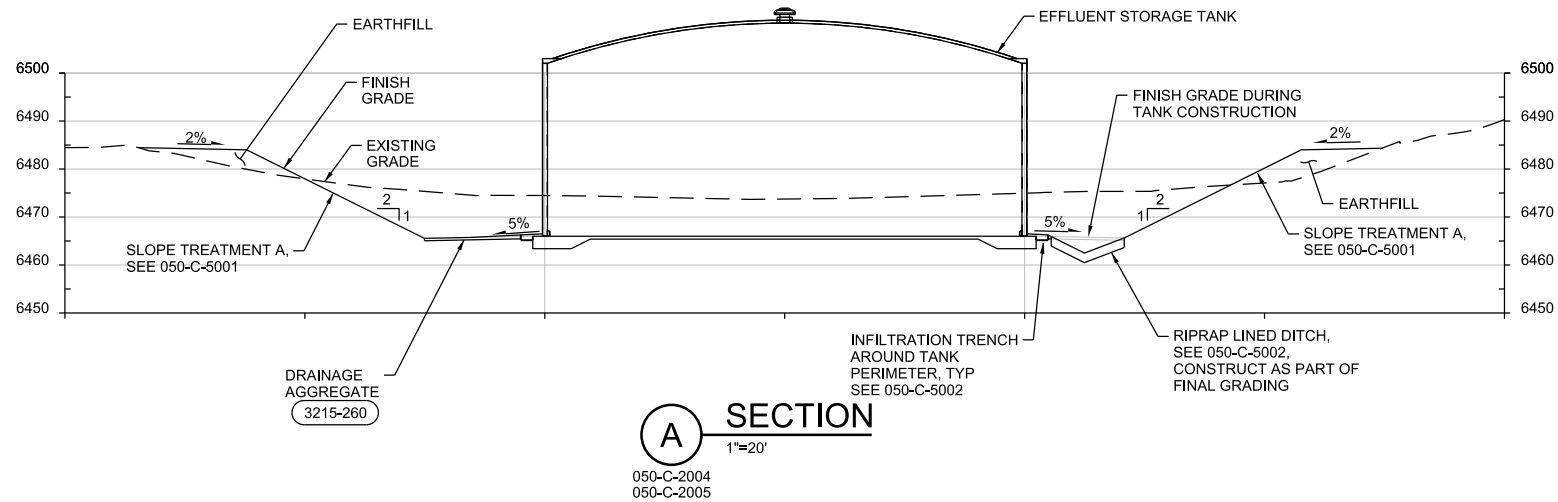
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 EFFLUENT EXPORT POND LINING PROJECT

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SLOPE STABILIZATION PLAN

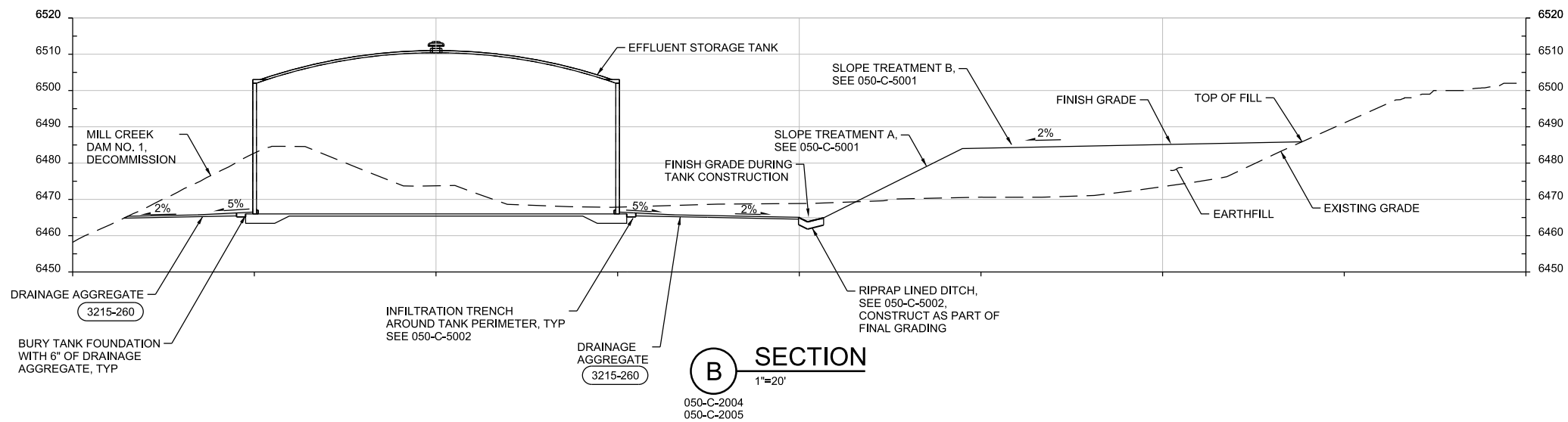
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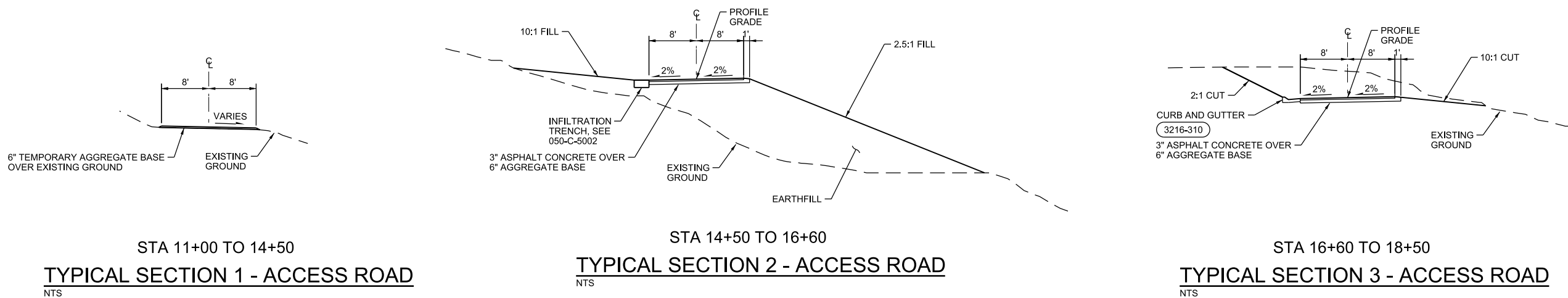
A



B



C



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 TRAVIS J. HOWARD
 CIVIL
 LICENSE NO. 021924
 STATE OF NEVADA
 NOT FOR CONSTRUCTION

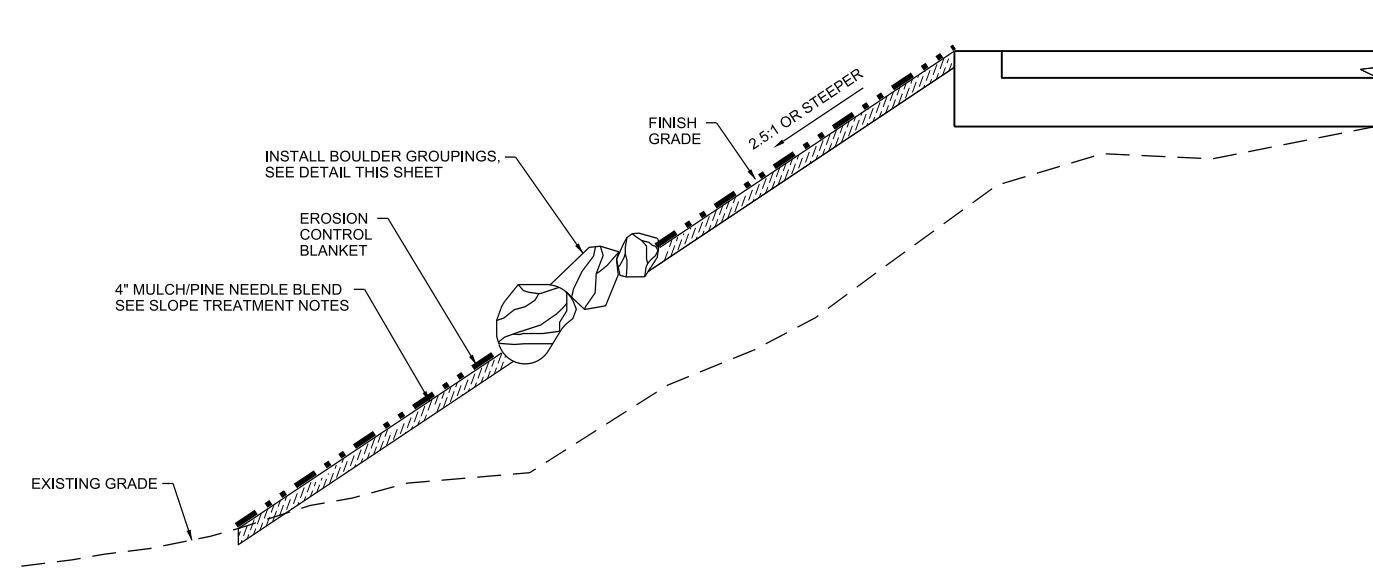
| NO. | DATE | DR | CHK | REVISION | BY | APVD |
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INCLINE VILLAGE
 GENERAL IMPROVEMENT DISTRICT
 ONE DISTRICT - ONE TEAM
 EFFLUENT EXPORT POND LINING PROJECT

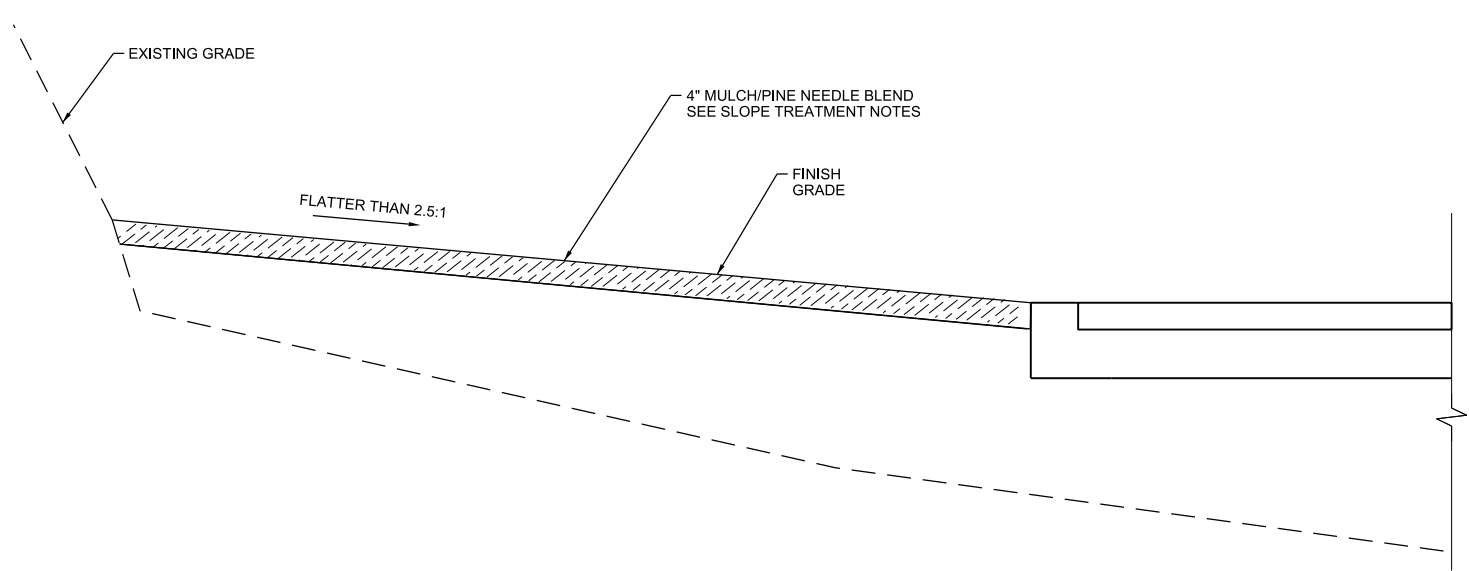
Jacobs
 CIVIL
EFFLUENT STORAGE TANK GRADING SECTIONS

VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING.

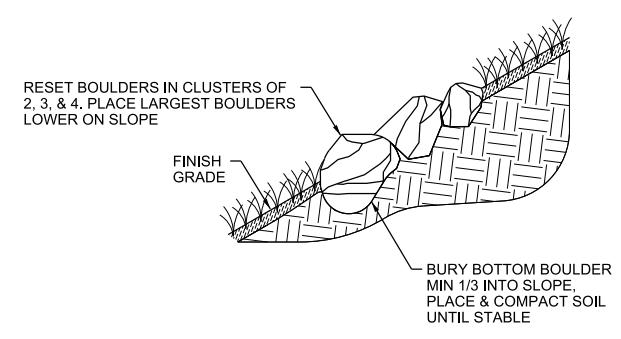
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|--------------------|---------------|
| DATE | FEBRUARY 2023 |
| PROJ | W8Y12900 |
| WSUP23-0002 | |
| SHEET | 43 of 43 |



SLOPE TREATMENT A
NTS



SLOPE TREATMENT B
NTS



NOTES:

1. LOCATION AND QUANTITY OF BOULDERS SHOWN ON PLANS IS APPROXIMATE. ACTUAL QUANTITY WILL VARY. WORK WITH ENGINEER IN FIELD TO DETERMINE FINAL LOCATION.
2. USE BOULDERS SALVAGED ONSITE.
3. TRIM EROSION CONTROL BLANKET WHERE IN CONFLICT WITH BOULDERS.

BOULDER GROUPING
NTS

SLOPE TREATMENT NOTES:

1. WHERE SLOPES ARE 2.5:1 OR STEEPER, PLACE EROSION CONTROL BLANKET OVER MULCH/PINE NEEDLE BLEND.
2. MULCH/PINE NEEDLE BLEND SHALL CONSIST OF WOOD CHIPS, PINE NEEDLES, PINE CONES AND TUB GRINDINGS.
3. PROCESS WOOD CHIPS FROM CONIFERS LOCATED WITHIN THE PROJECT. ADDITIONAL WOOD CHIPS SHALL CONSIST OF MATERIAL CHIPPED FROM NON-DISEASED TREES GROWN IN THE TAHOE BASIN AND SHALL BE TRPA APPROVED.
4. PINE NEEDLES AND ASSOCIATED DUFF MATERIAL BROUGHT TO THE SITE SHALL ORIGINATE FROM WITHIN THE TAHOE BASIN AND SHALL CONTAIN LESS THAN 20 PERCENT IMPURITIES BY VOLUME.

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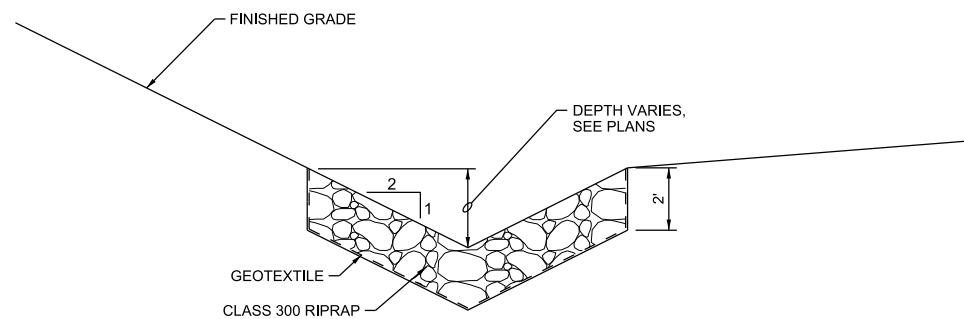
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|-----|------|----------|---------|----------|----|------------|
| NO. | DATE | DR | CHK | REVISION | BY | APVD |
| | | T HOWARD | A STEED | | | A KELLOGG |
| | | | | | | B CHELONIS |

INCLINE VILLAGE
GENERAL IMPROVEMENT DISTRICT
ONE DISTRICT - ONE TEAM
EFFLUENT EXPORT POND LINING PROJECT

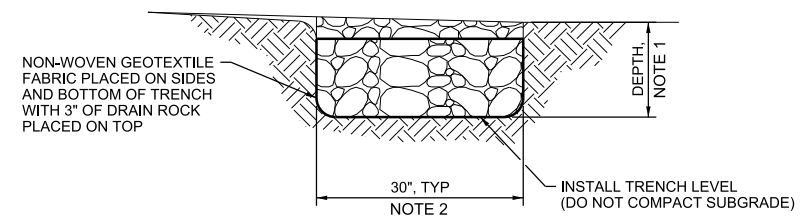
Jacobs
CIVIL
SLOPE STABILIZATION
DETAILS

| | |
|--------------------------------------|---------------|
| VERIFY SCALE | |
| BAR IS ONE INCH ON ORIGINAL DRAWING. | |
| DATE | FEBRUARY 2023 |
| PROJ | W8Y12900 |
| 90% DESIGN - NOT FOR CONSTRUCTION | |

A
B
C
D

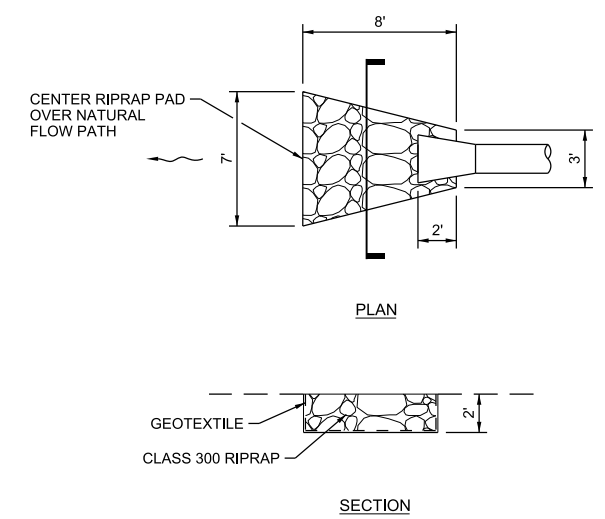


RIPRAP LINED DITCH
NTS

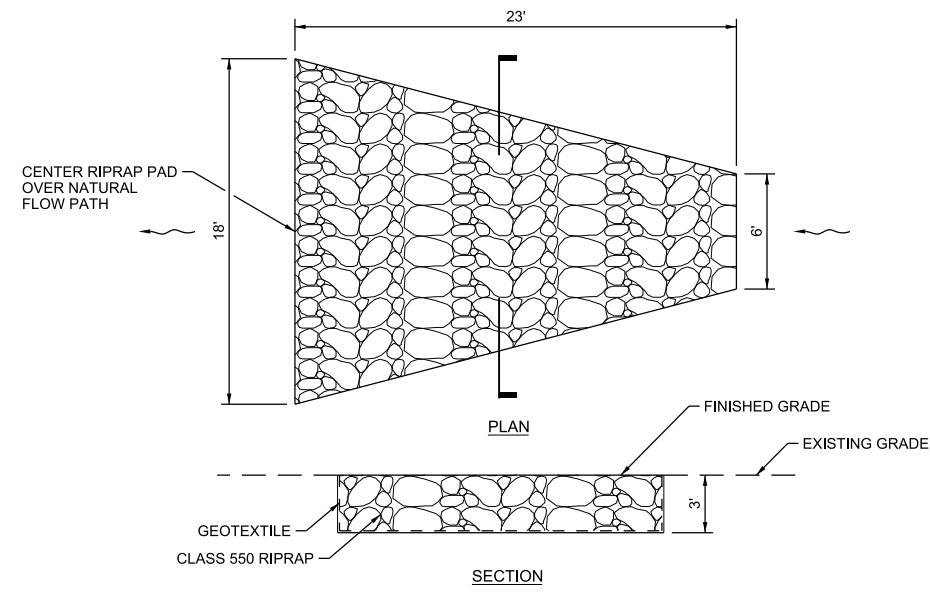


- NOTES:**
1. DEPTH = 10-INCHES AROUND TANK. MINIMUM DEPTH ALONG ROADS = 15-INCHES. DEPTH WILL VARY BASED ON LENGTH OF STEPS USED TO ACHIEVE A LEVEL BOTTOM.
 2. WIDTH IS 30-INCHES UNLESS SHOWN OTHERWISE ON PLANS.

INFILTRATION TRENCH
NTS



RIPRAP ENERGY DISSIPATER TYPE A
NTS



RIPRAP ENERGY DISSIPATER TYPE B
NTS

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| | | | | | | |
|-----|------|-----------|----------|-------------|----|------------|
| NO. | DATE | DR | CHK | APVD | BY | APVD |
| | | T. HOWARD | A. STEED | B. CHELONIS | | A. KELLOGG |

INCLINE VILLAGE
GENERAL IMPROVEMENT DISTRICT ONE DISTRICT - ONE TEAM
EFFLUENT EXPORT POND LINING PROJECT

Jacobs
CIVIL
DRAINAGE DETAILS

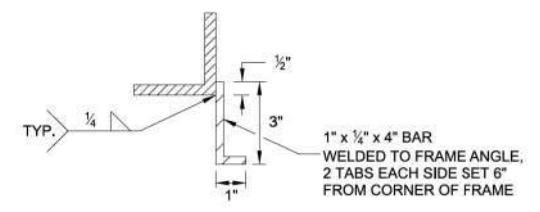
VERIFY SCALE
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DATE: FEBRUARY 2023
PROJ: W8Y12900
SHEET: 43 of 43

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EXHIBIT E

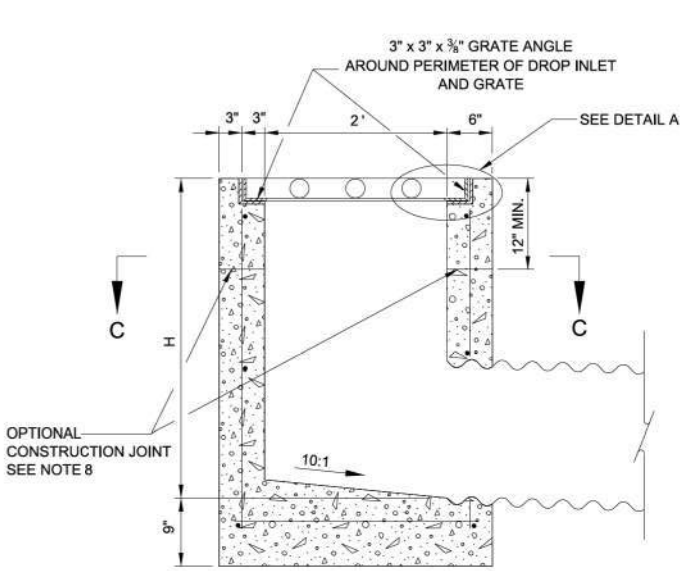
| R C P | PIPE SIZE INCH | A | H MIN. FT. | CONCRETE CU. YD. | | REINFORCING LB. | | STRUCTURAL STEEL LB. |
|------------------|-------------------|---------|---------------|----------------------|-------------------------|----------------------|---------------------|-------------------------|
| | | | | BASE QUAN. H MIN. | ADD RATE CU. YD./FT. | BASE QUAN. H MIN. | ADD RATE LB./FT. | |
| H D P E | 15" | 2' | 2.50 | 0.71 | 0.19 | 36 | 10 | 214 |
| | 18" | 2' - 6" | 3.00 | 0.89 | 0.20 | 40 | 10 | 235 |
| | 24" | 3' | 3.50 | 1.08 | 0.22 | 58 | 12 | 256 |
| | 30" | 3' - 6" | 4.00 | 1.28 | 0.24 | 63 | 12 | 278 |
| C M P | 36" | 4' | 4.50 | 1.50 | 0.26 | 67 | 13 | 299 |
| | 42" | 4' - 6" | 5.00 | 1.71 | 0.28 | 90 | 15 | 320 |
| | 48" | 5' | 5.50 | 1.94 | 0.30 | 95 | 15 | 341 |

THE CONCRETE AND REINFORCING QUANTITIES ARE BASED ON THE H MIN. SHOWN, INCREASE THE CONCRETE AND REINFORCING BASE QUANTITY BY THE CORRESPONDING ADD RATE PER FOOT OF INCREASED H IF THE H SPECIFIED IS LARGER THAN H MIN

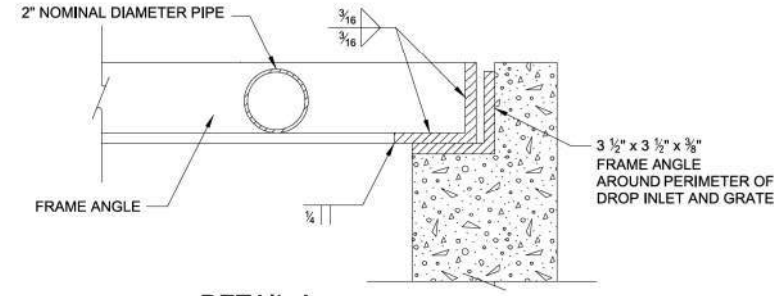


TAB DETAIL

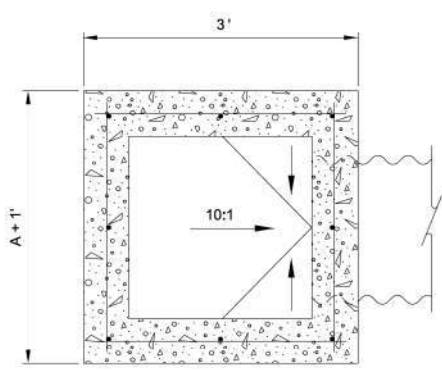
- NOTES:
- All concrete shall be class A or AA.
 - Reinforcing steel shall be No. 4 bars with maximum spacing at 18-inches on center, wired tightly at all intersections and embedded 2-inches clear of all concrete surfaces.
 - Exposed edges of concrete shall be chamfered 1-inch.
 - Structural steel weight includes the 2-inch nominal diameter pipe standard weight and frame angles, 3" x 3" x 3/8", and, 3 1/2" x 3 1/2" x 3/8".
 - For 2-inch nominal diameter pipes, see ASTM A53.
 - See detail DS-27 for details if connecting HDPE pipe.
 - Slope catch basin floors 10:1 from all directions toward outlet pipe. If basin is used as a junction, shape flow line(s) to outlet pipe and provide a 10:1 slope to flow line(s).
 - Run rebar continuous thru construction joint. Joint must be a minimum 3-inches from horizontal bars.
 - Additional pipe penetrations may be placed in any wall.
 - Contractor to verify "H" values as approved by the Engineer.
 - Grates are not rated for traffic and should not be located in areas where they will see traffic loads.



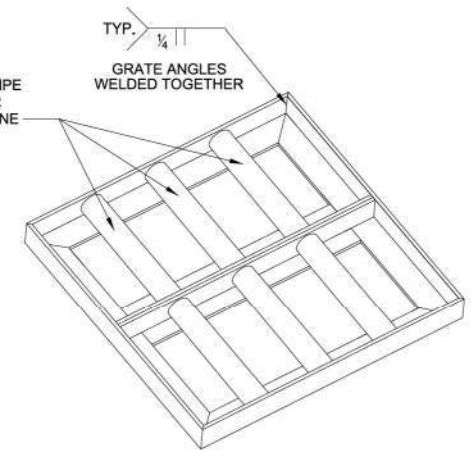
SECTION A-A



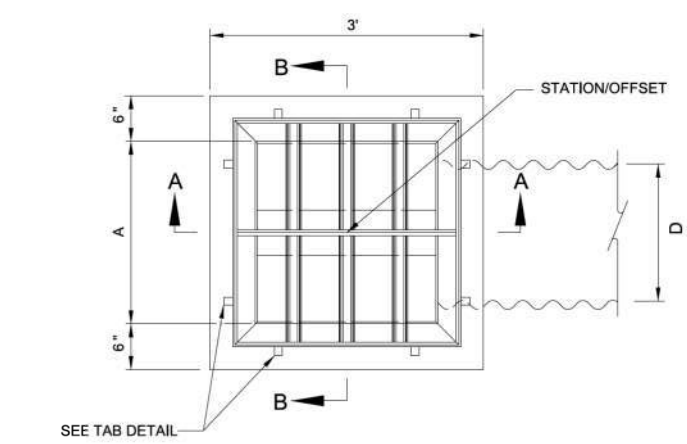
DETAIL A



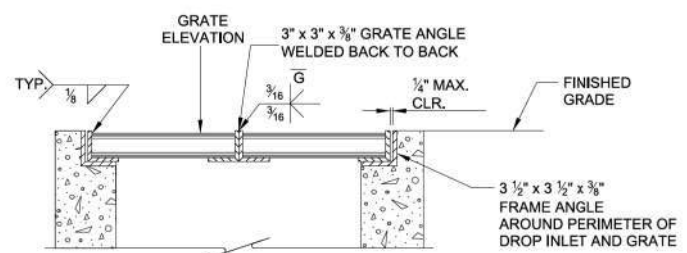
SECTION C-C



GRATE DETAIL



PLAN



SECTION B-B

NEVADA DEPARTMENT OF TRANSPORTATION
 CHIEF HYDRAULICS ENGR.
 SIGNED ORIGINAL ON FILE
 ADOPTED 11/1970
 REVISED 10/2015
 DROP INLET TYPE 2A
 SPEC. # 609
 DETAIL NUMBER DS-33



Jacobs
 CIVIL
 DRAINAGE DETAILS

VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING.
 DATE FEBRUARY 2023
 PROJ W8Y12900
 SHEET 003 of 43
 EXHIBIT E

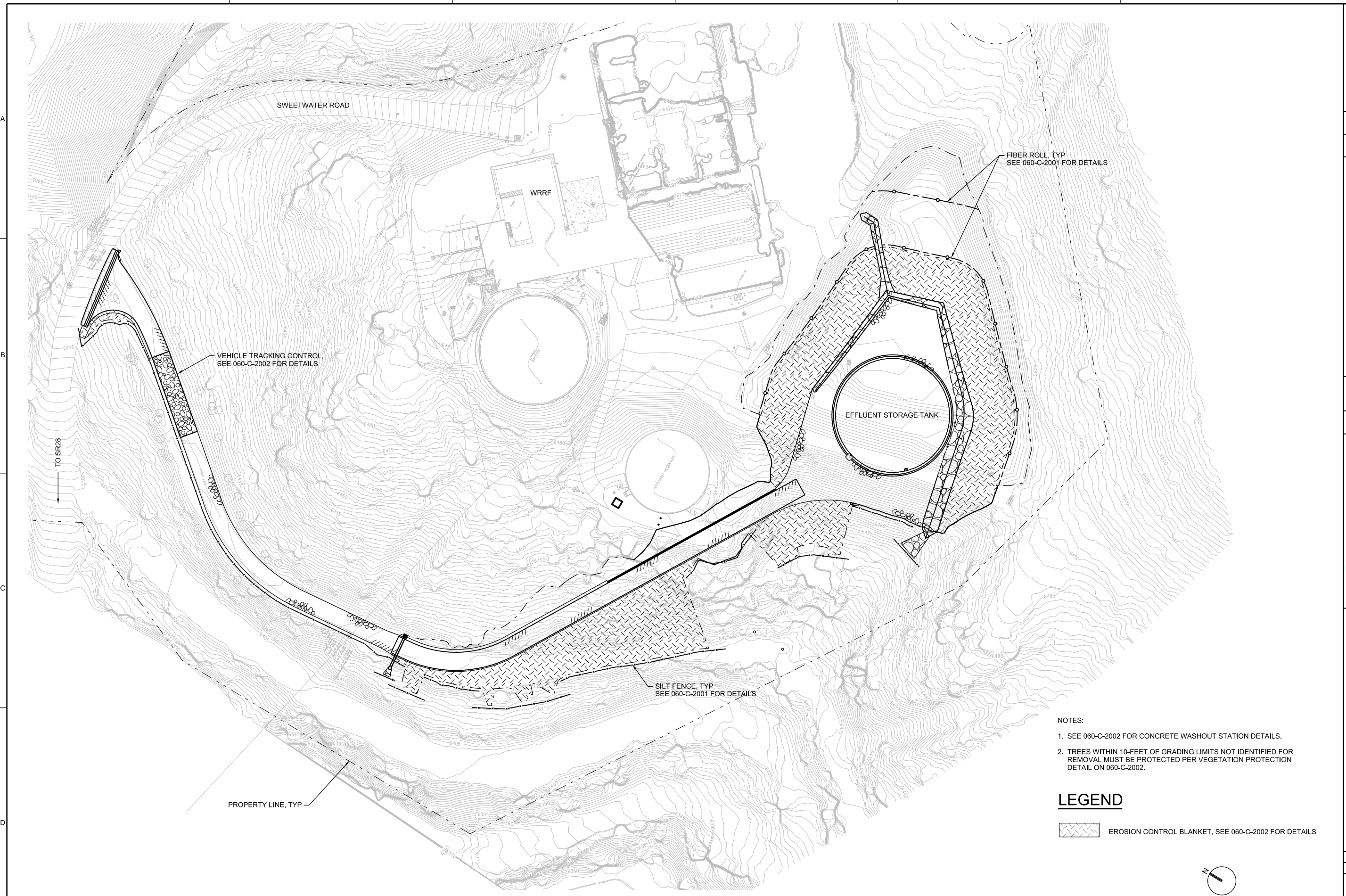
REGISTERED PROFESSIONAL ENGINEER
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|-----|------|----|-----|----------|------|----|-------------|
| | | | | | | | A. KELLOGG |
| | | | | | | | B. CHELONIS |
| | | | | | | | K. BISHOP |
| | | | | | | | T. HOWARD |

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1 2 3 4 5 6

A
B
C
D



PLAN
1"=40'

- NOTES:
- SEE 060-C-2002 FOR CONCRETE WASHOUT STATION DETAILS.
 - TREES WITHIN 10-FEET OF GRADING LIMITS NOT IDENTIFIED FOR REMOVAL MUST BE PROTECTED PER VEGETATION PROTECTION DETAIL ON 060-C-2002.

LEGEND

 EROSION CONTROL BLANKET, SEE 060-C-2002 FOR DETAILS

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APVD: A. KELLOGG
APVD: B. CHELONIS
APVD: K. BISHOP
APVD: T. HOWARD

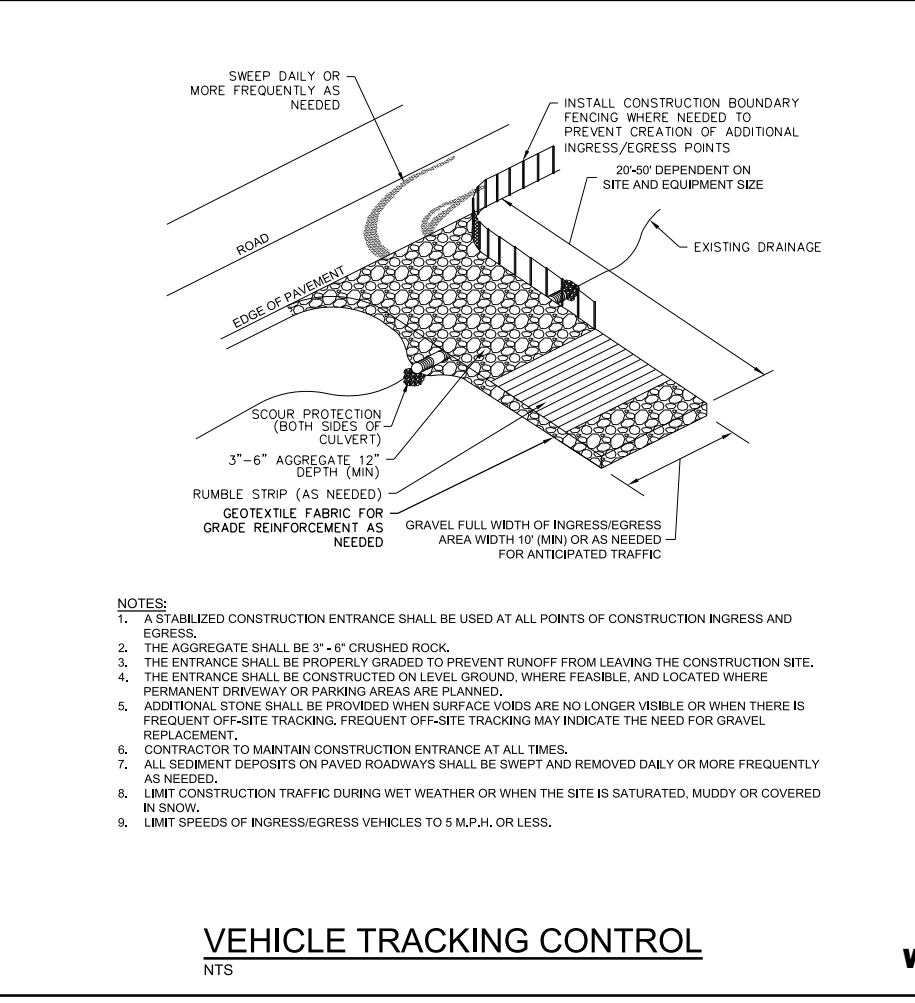
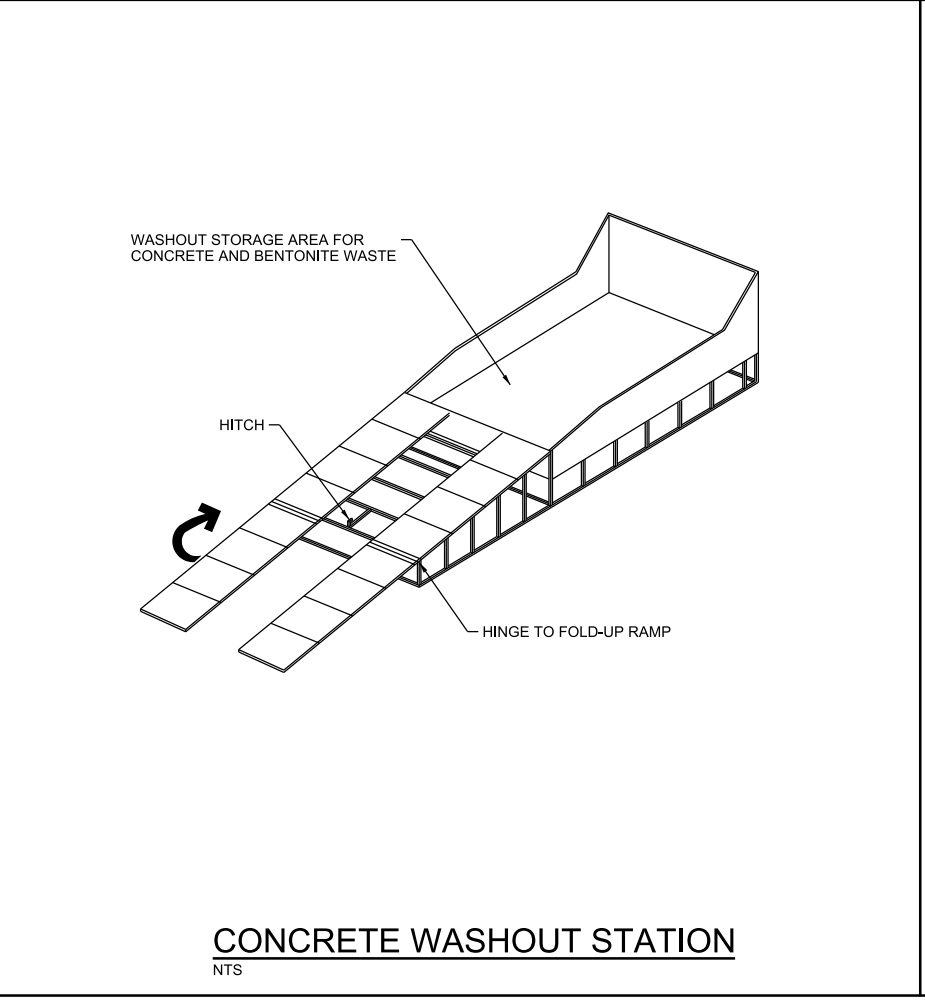
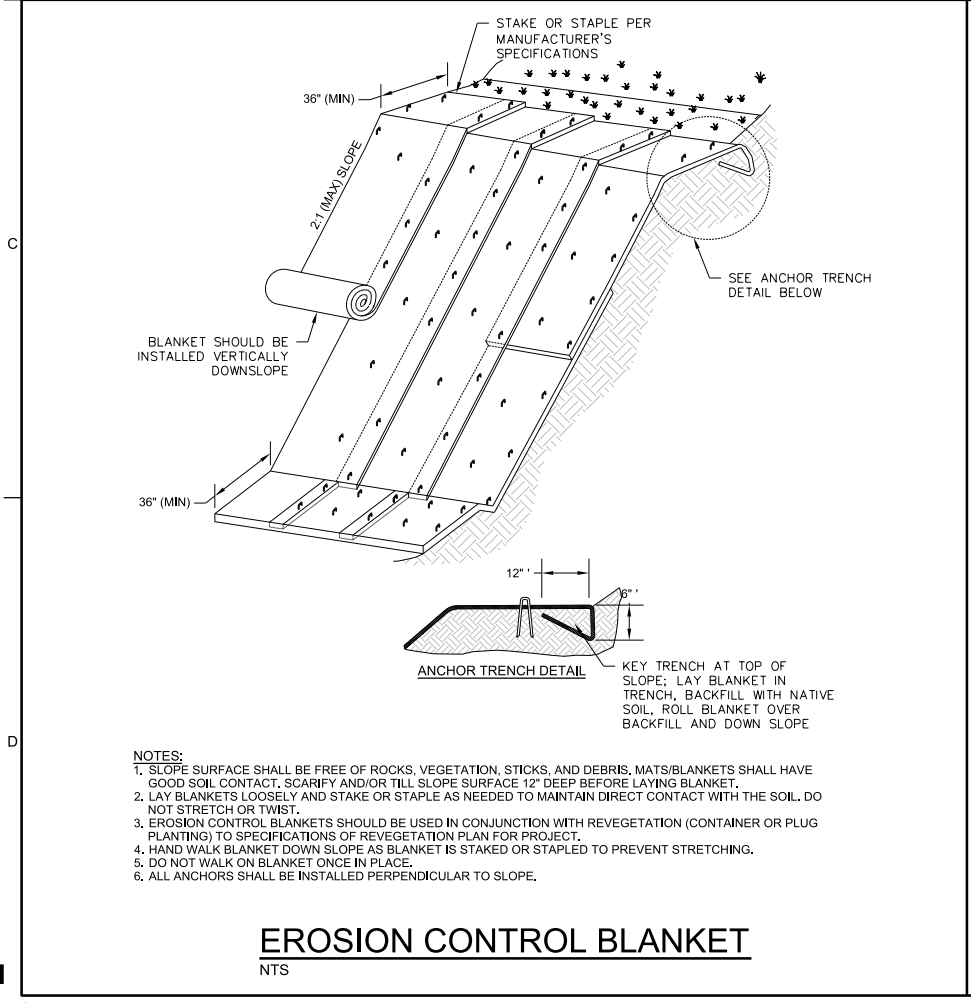
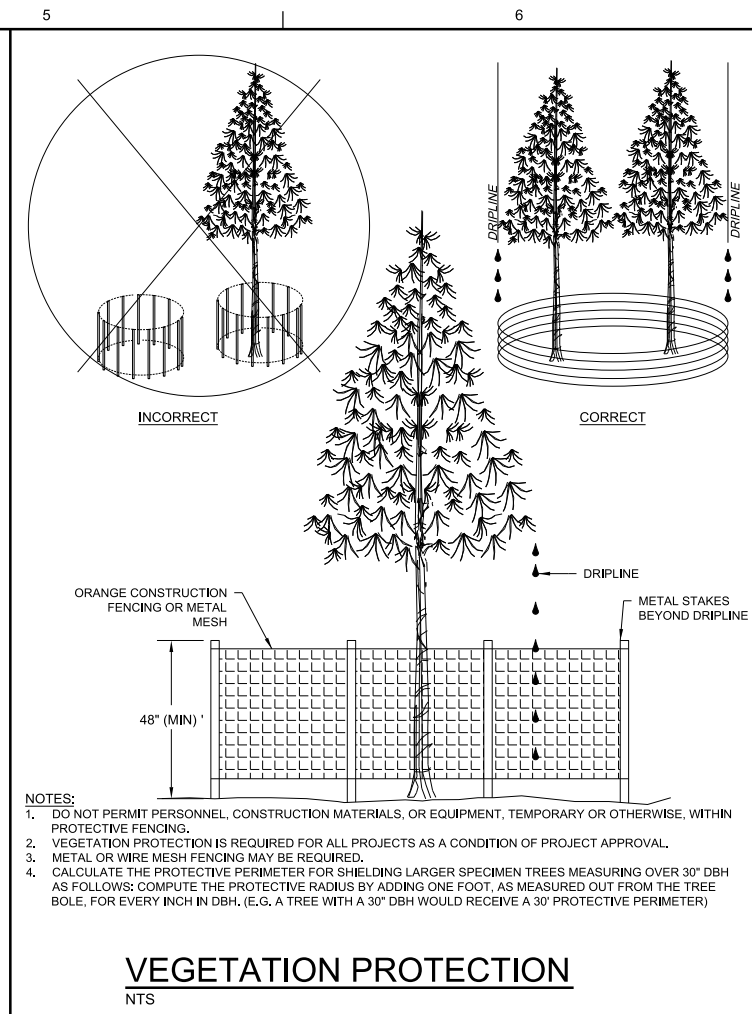
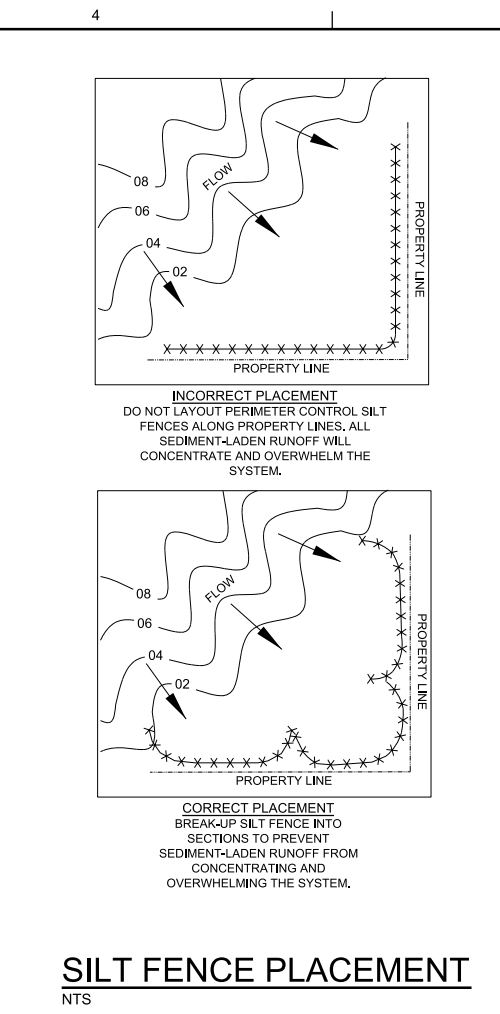
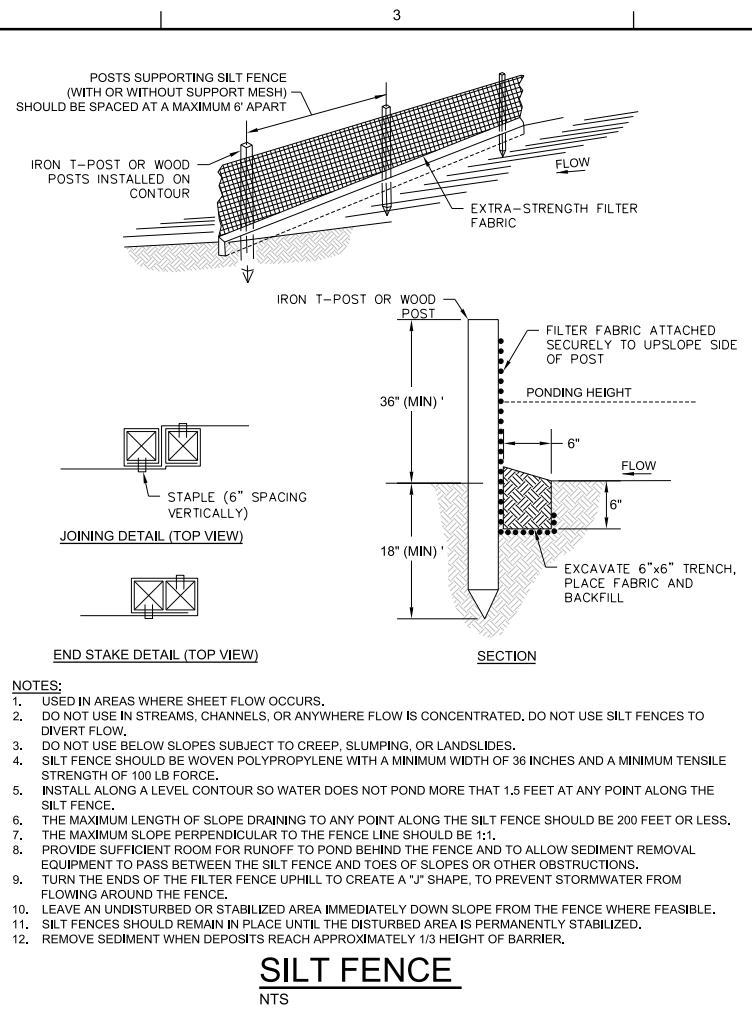
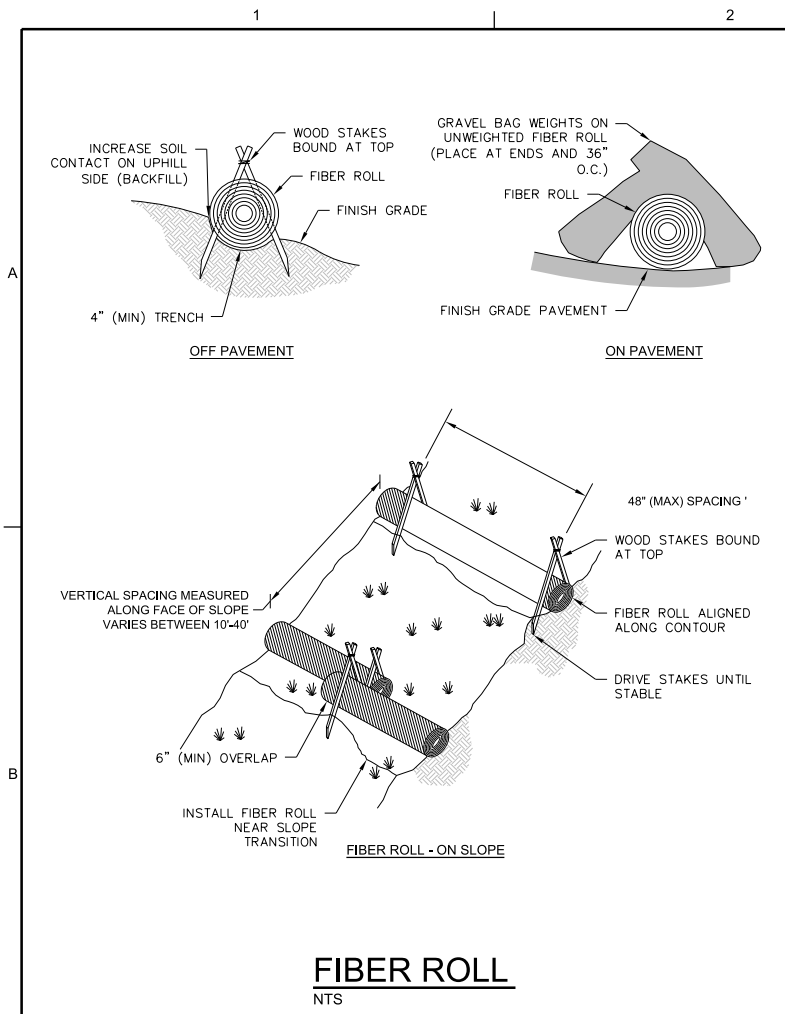
INCLINE VILLAGE
GENERAL IMPROVEMENT DISTRICT
ONE DISTRICT - ONE TEAM
EFFLUENT EXPORT POND LINING PROJECT

Jacobs
CIVIL
TEMPORARY EROSION CONTROL PLAN

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.

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PROJ: W8Y12900
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| | | | A STEED | | | A KELLOGG |
| | | | B CHELONIS | | | |

INCLINE VILLAGE
GENERAL IMPROVEMENT DISTRICT
ONE DISTRICT - ONE TEAM
EFFLUENT EXPORT POND LINING PROJECT

Jacobs
CIVIL
TEMPORARY
EROSION CONTROL DETAILS

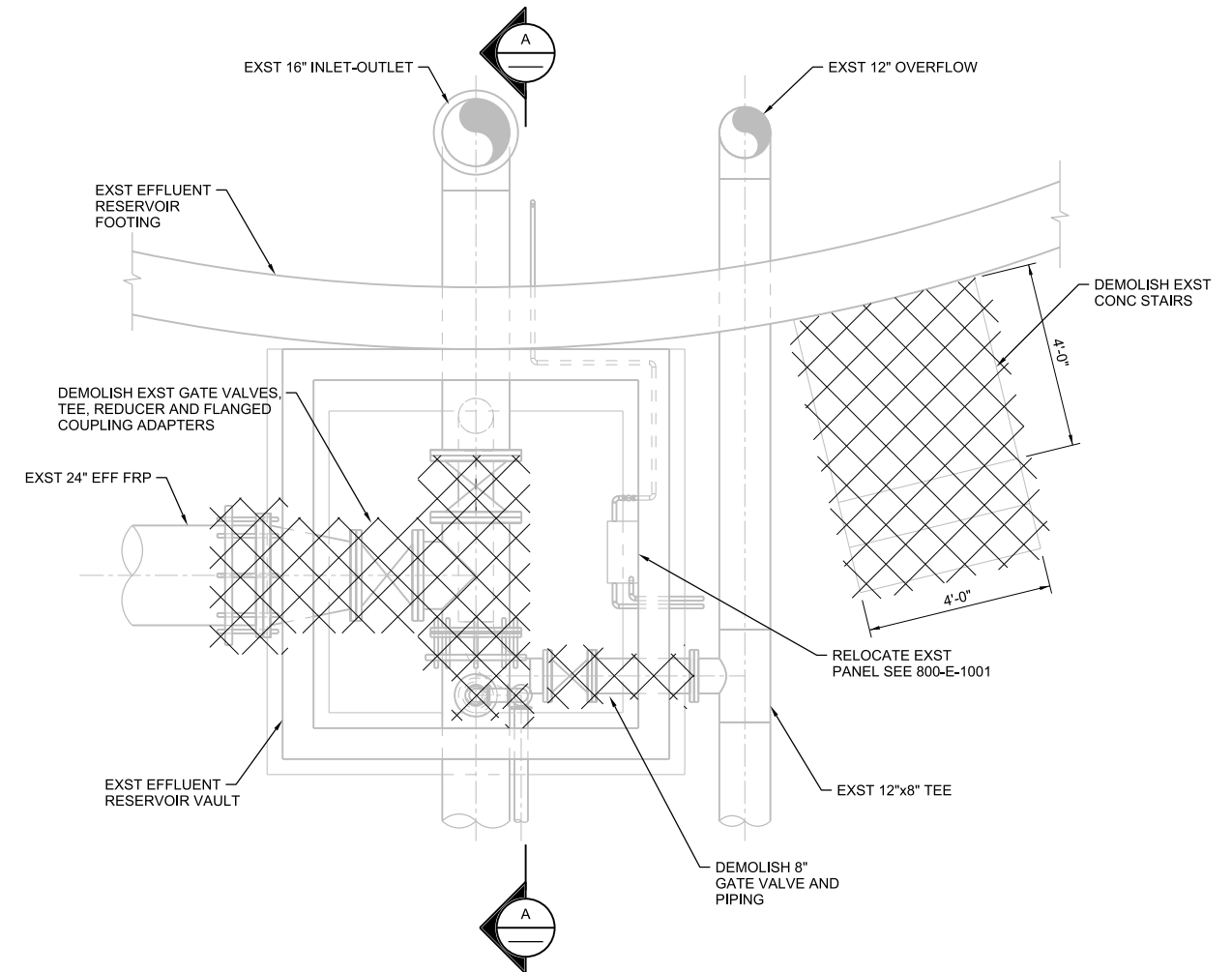
VERIFY SCALE
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DATE: FEBRUARY 2023
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SHE: 002 of 43
EXHIBIT E

GENERAL SHEET NOTES

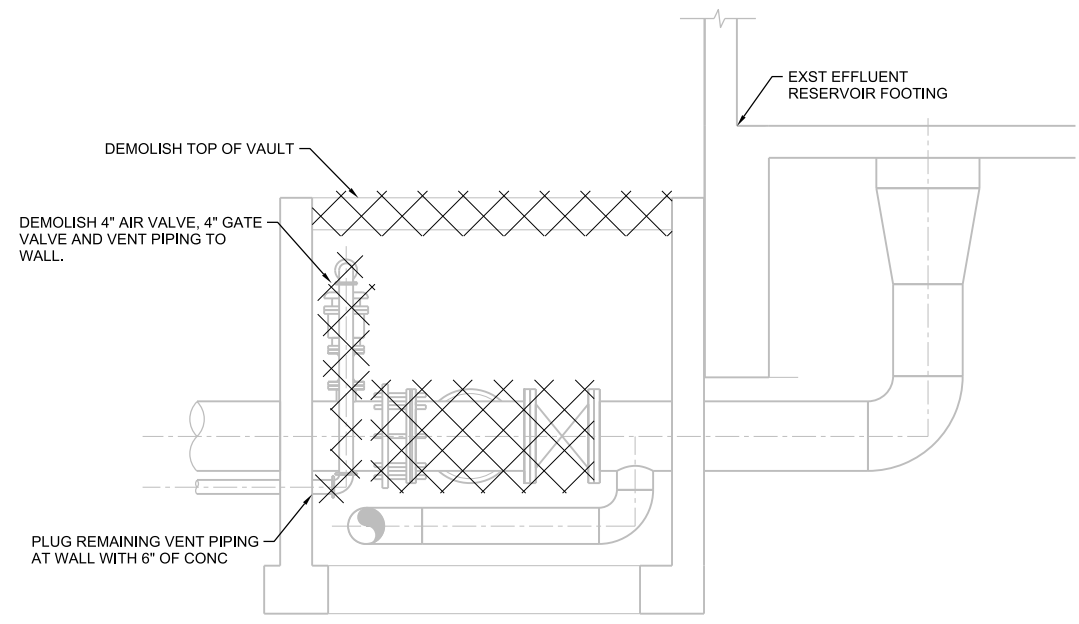
1. REFER TO SPEC SECTION 02 41 00 DEMOLITION FOR ADDITIONAL REQUIREMENTS.

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 LICENSE NO. 029431
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A
B
C
D



VAULT DEMOLITION PLAN
 1/2"=1'-0"



SECTION A
 1/2"=1'-0"

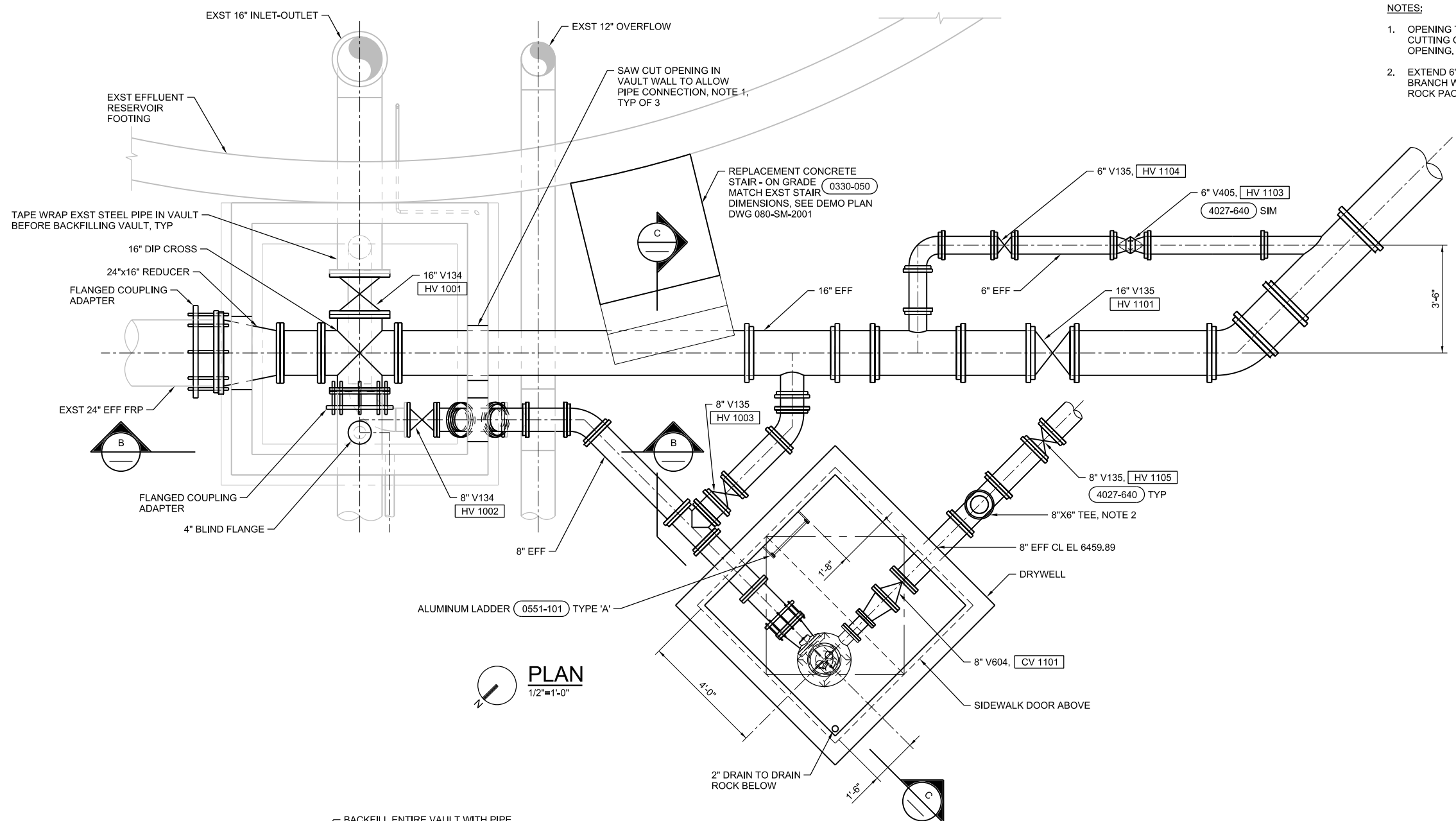
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| | | J. VAZQUEZ | J. MINOR | | | A. KELLOGG |
| | | | | | | |

INCLINE VILLAGE
 GENERAL IMPROVEMENT DISTRICT ONE DISTRICT - ONE TEAM
 EFFLUENT EXPORT POND LINING PROJECT

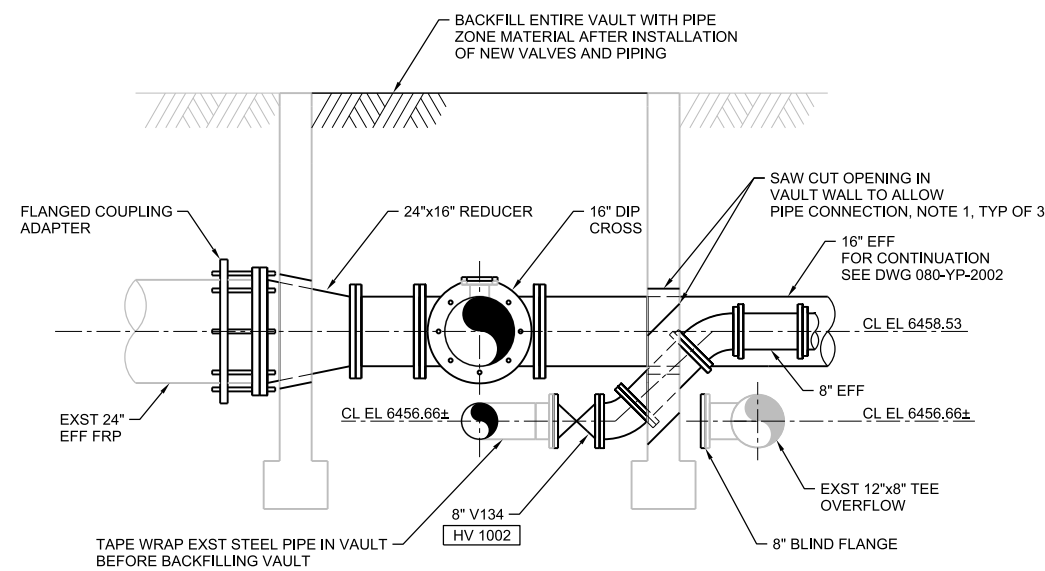
Jacobs
 MECHANICAL / YARD PIPING
 EXISTING EFFLUENT RESERVOIR VAULT DEMOLITION PLAN AND SECTION

| | |
|--------------------------------------|---------------|
| VERIFY SCALE | |
| BAR IS ONE INCH ON ORIGINAL DRAWING. | |
| DATE | FEBRUARY 2023 |
| PROJ | W8Y12900 |
| WSUP23-0002 | |
| SHEET | 43 |

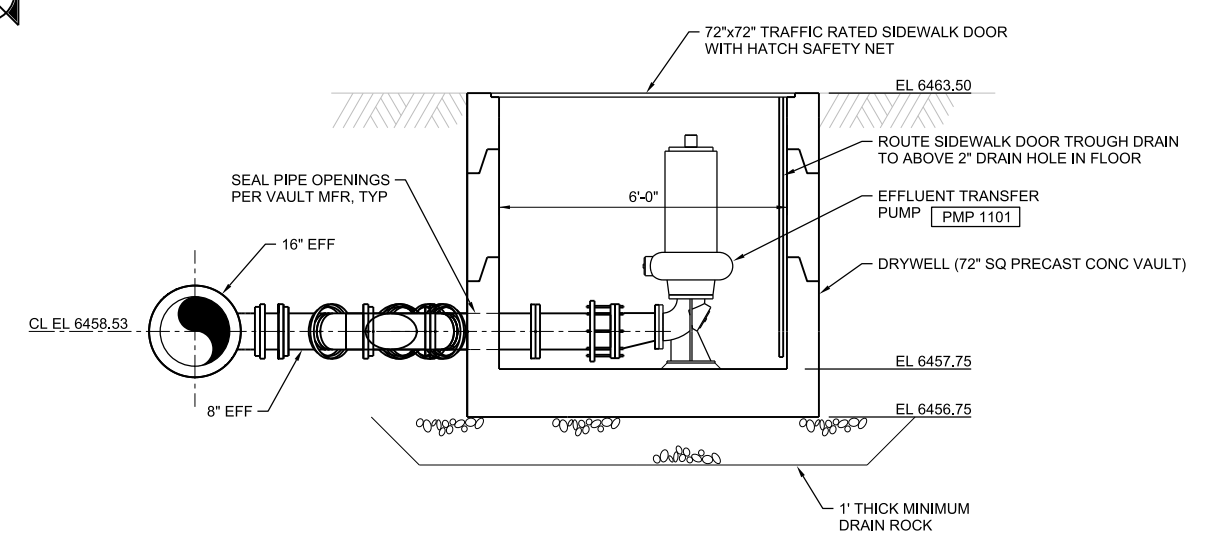
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- NOTES:**
1. OPENING TO BE ADEQUATE FOR PIPE INSTALLATION. MINIMIZE CUTTING OF EXISTING REINFORCING. DO NOT SEAL PIPE OPENING.
 2. EXTEND 6" BRANCH PIPING UP TO 4" BELOW GRADE, CAP BRANCH WITH 6" BF, PROVIDE 18" DIA VALVE BOX WITH DRAIN ROCK PACKED FROM BOTTOM OF VALVE BOX DOWN 2'.



B SECTION
1/2"=1'-0"



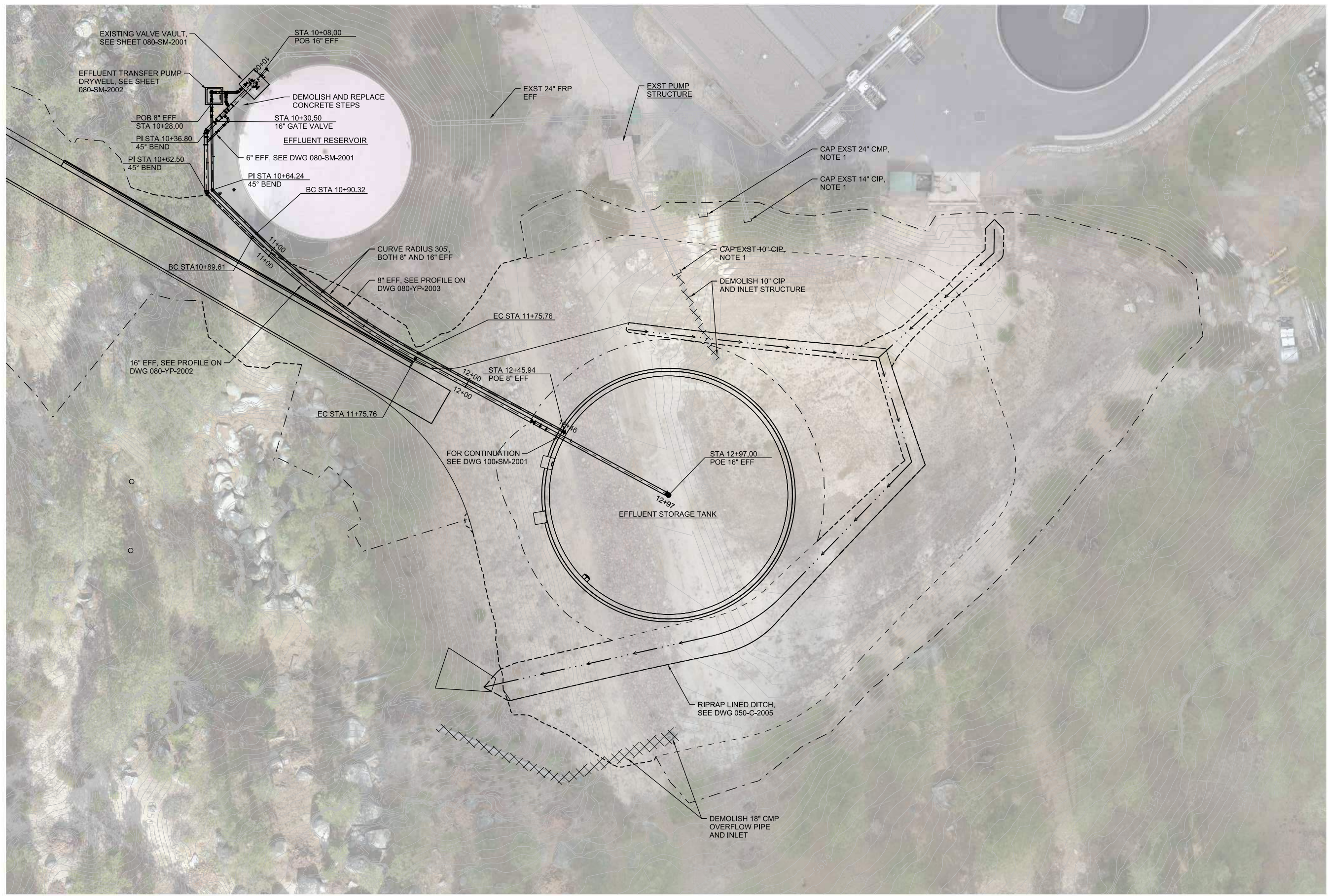
C SECTION
1/2"=1'-0"



Jacobs
MECHANICAL / YARD PIPING
EXISTING EFFLUENT RESERVOIR VAULT PLAN AND SECTIONS

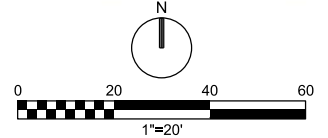
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|--------------------------------------|---------------|
| VERIFY SCALE | |
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| SHE | 43 |

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 J. VAZQUEZ DSGN
 J. MINOR DR
 J. SIMONDS REVISION
 A. KELLOGG BY APVD



PLAN
1"=20'

NOTE:
1. SEAL PIPE WITH CONCRETE PLUG A MINIMUM OF 3 FEET FROM OUTLET.



Jacobs
MECHANICAL / YARD PIPING
YARD PIPING PLAN

| | |
|--------------------------------------|---------------|
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| EXHIBIT E | |

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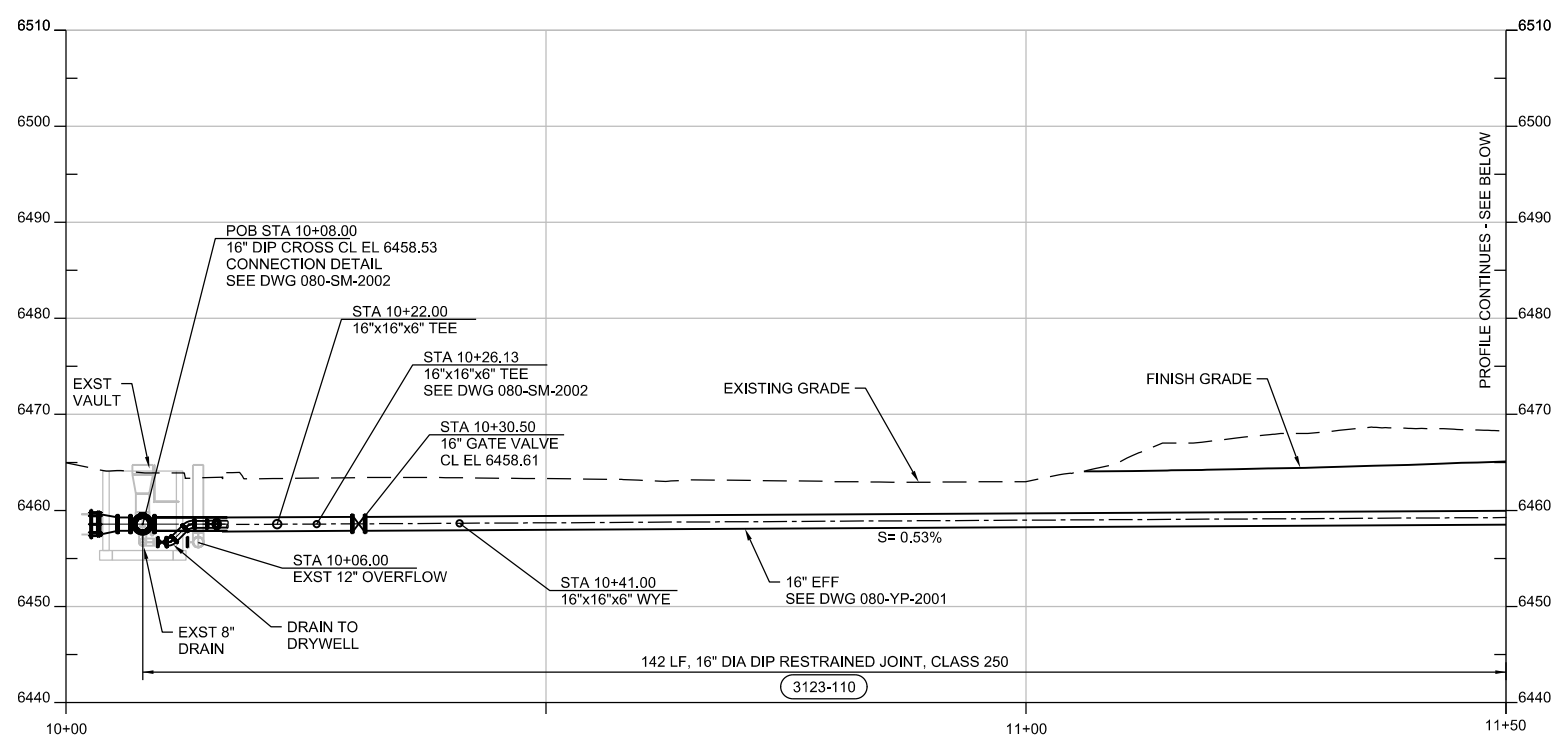
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J. VAZQUEZ
J. MINOR
J. SIMMONS
A. KELLOGG

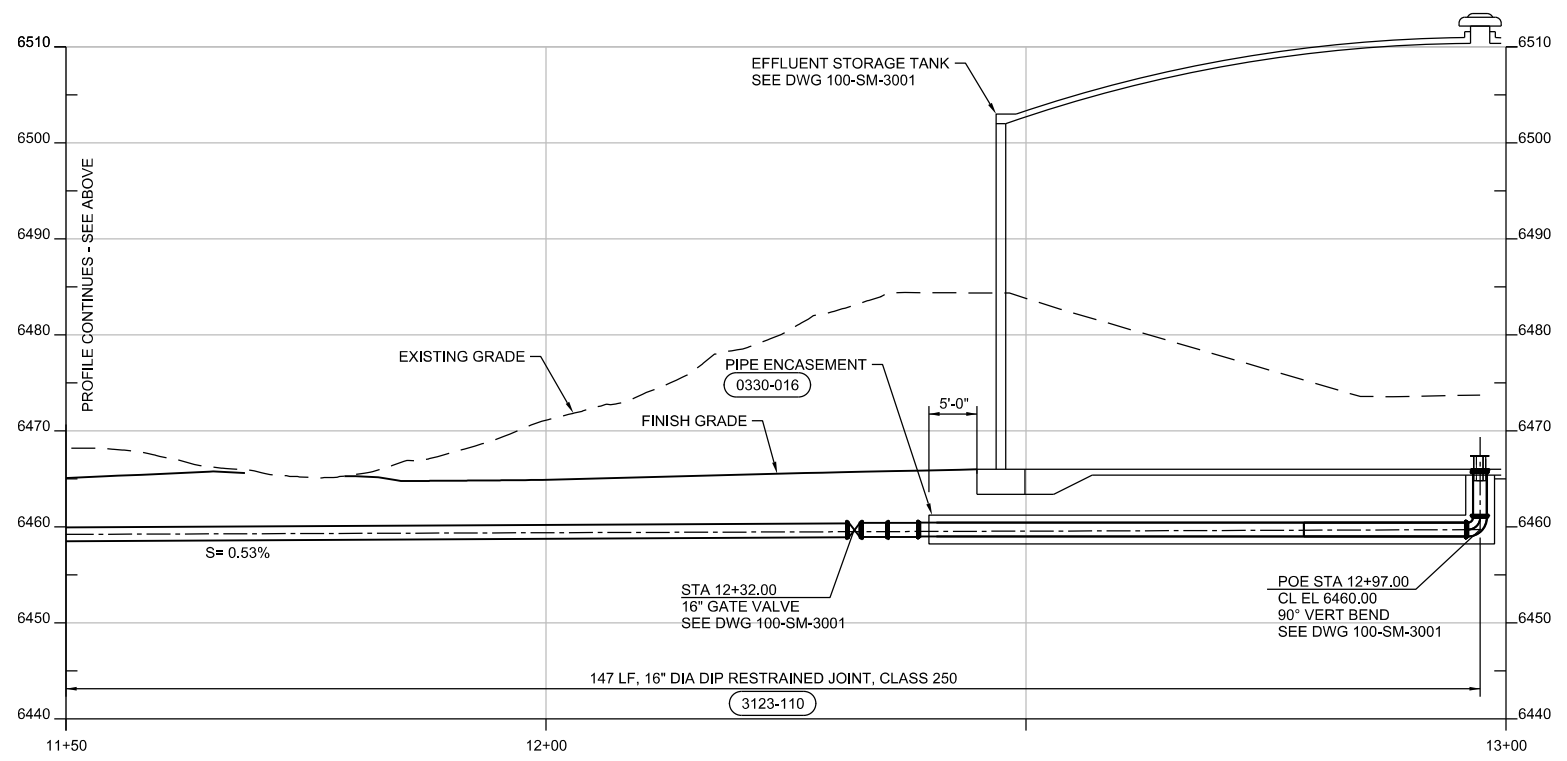
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90% DESIGN - NOT FOR CONSTRUCTION

A
B
C
D



PROFILE - 16" EFF
1"=10"



PROFILE - 16" EFF
1"=10"

REGISTERED PROFESSIONAL ENGINEER
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LICENSE NO. 029431
STATE OF NEVADA
NOT FOR CONSTRUCTION

| NO. | DATE | DSGN | DR | CHK | REVISION | BY | APVD |
|-----|------|------|----|-----------|----------|----|-----------|
| | | | | J MINOR | | | A KELLOGG |
| | | | | J VAZQUEZ | | | J SIMONDS |



Jacobs
MECHANICAL / YARD PIPING
YARD PIPING PROFILE
16" EFFLUENT

| | |
|--------------------------------------|---------------|
| VERIFY SCALE | |
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| DATE | FEBRUARY 2023 |
| PROJ | W8Y12900 |
| WSUP23-002 | |
| SHEET | 25 of 43 |

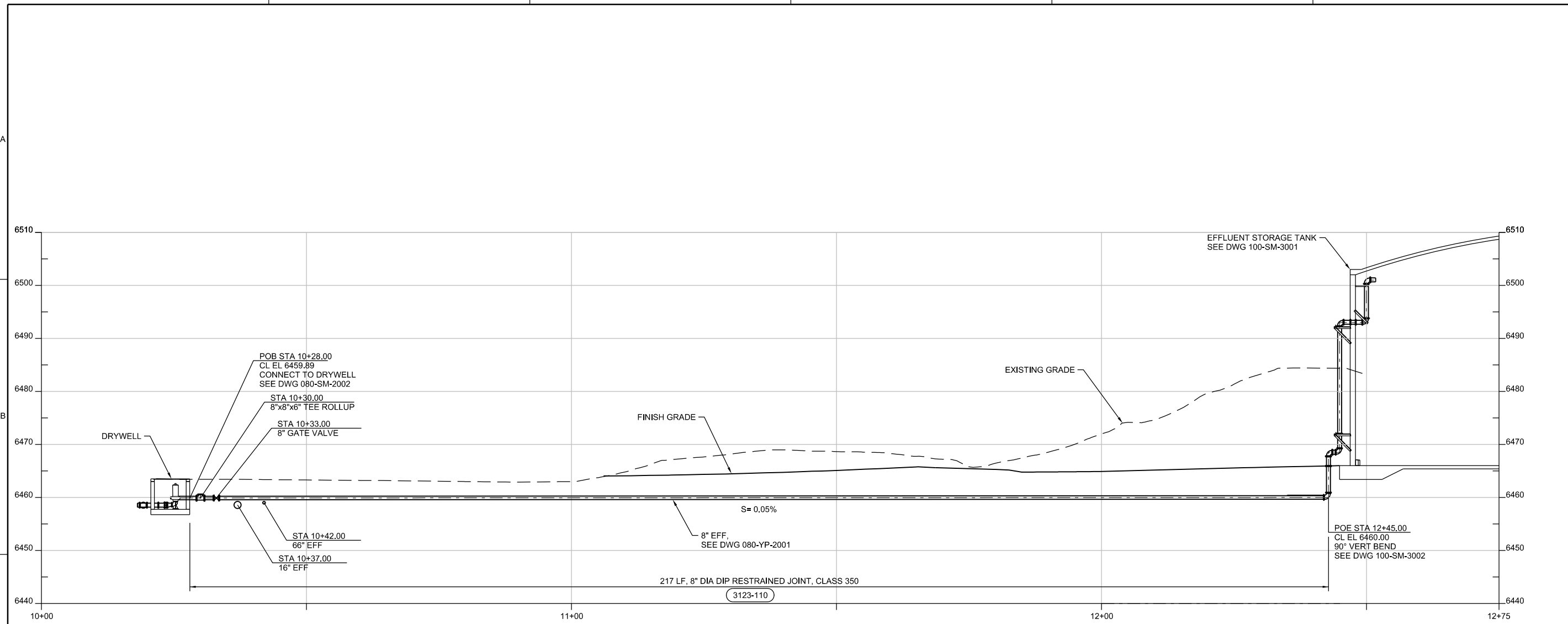
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A

B

C

D



PROFILE - 8" EFF
1"=10"

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| NO. | DATE | DSGN | J VAZQUEZ | DR | J MINOR | REVISION | CHK | APVD | A KELLOGG |
|-----|------|------|-----------|----|---------|----------|-----|------|-----------|
| | | | | | | | | | |

INCLINE VILLAGE
GENERAL IMPROVEMENT DISTRICT
ONE DISTRICT - ONE TEAM
EFFLUENT EXPORT POND LINING PROJECT

Jacobs
MECHANICAL / YARD PIPING
YARD PIPING PROFILES
8" EFFLUENT

| | |
|------------------|--------------------------------------|
| VERIFY SCALE | BAR IS ONE INCH ON ORIGINAL DRAWING. |
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| SHEET | 2003 |
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GENERAL SHEET NOTES

- 1. SEE DRAWING 001-G-0005 FOR GENERAL STRUCTURAL NOTES.
- 2. SEISMIC FORCE RESISTING SYSTEM: PRESTRESSED CONCRETE ANCHORED FLEXIBLE BASE.

REGISTERED PROFESSIONAL ENGINEER
 JEREMY KELLOGG
 STRUCTURAL
 LICENSE NO. 027491
 STATE OF NEVADA
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REGISTERED PROFESSIONAL ENGINEER
 JOHN SIMONDS
 MECHANICAL
 LICENSE NO. 027655
 STATE OF NEVADA
 NOT FOR CONSTRUCTION

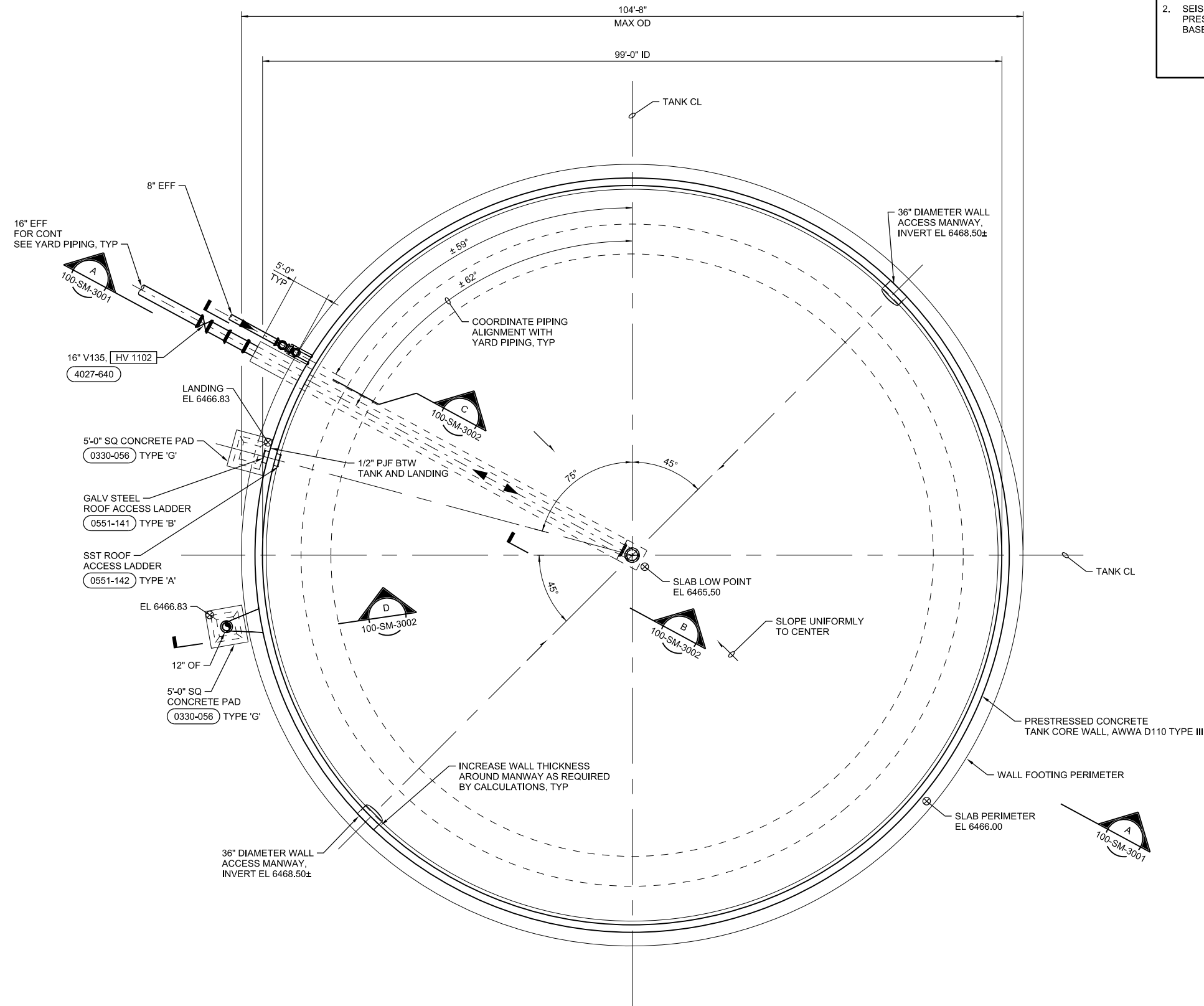
| NO. | DATE | DR | CHK | REVISION | BY | APVD |
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INCLINE VILLAGE
 GENERAL IMPROVEMENT DISTRICT
 ONE DISTRICT - ONE TEAM
 EFFLUENT EXPORT POND LINING PROJECT

Jacobs
 STRUCTURAL / MECHANICAL
**EFFLUENT STORAGE TANK
 FOUNDATION PLAN**

| |
|--------------------------------------|
| AS NOTED |
| VERIFY SCALE |
| BAR IS ONE INCH ON ORIGINAL DRAWING. |
| DATE FEBRUARY 2023 |
| PROJ W8Y12900 |
| WSUP23-0002 |
| SHEET 27 of 43 |

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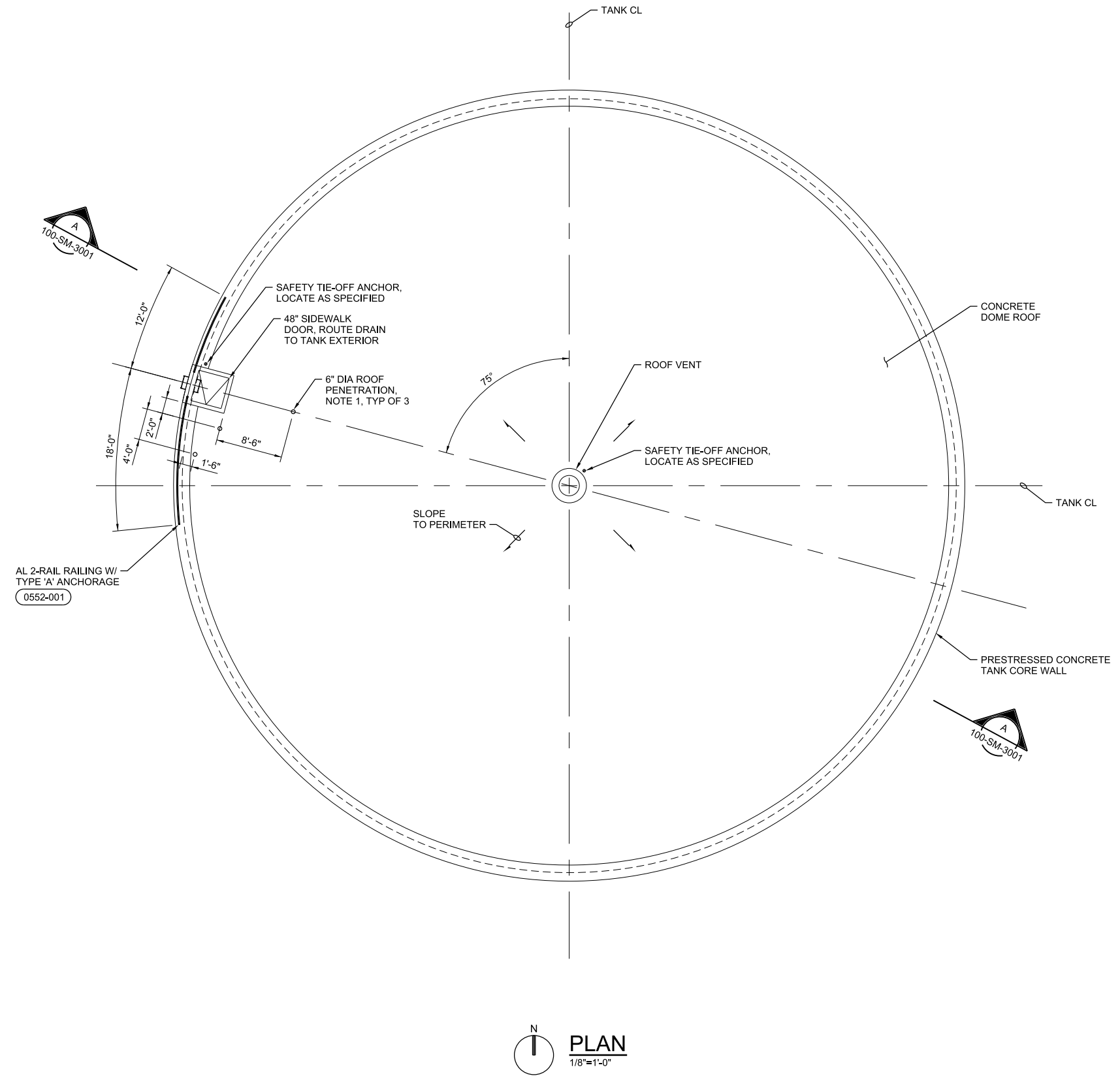


GENERAL SHEET NOTES

1. SEE INSTRUMENT LIST FOR STANDARD DETAIL FOR ROOF PENETRATIONS. REFER TO 800-E-1001 FOR INSTRUMENT TAG NUMBERS.

REGISTERED PROFESSIONAL ENGINEER
JEREMY KELLOGG
STRUCTURAL
LICENSE NO. 027491
STATE OF NEVADA
NOT FOR CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER
JOHN SIMONDS
MECHANICAL
LICENSE NO. 027655
STATE OF NEVADA
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JACOBS
STRUCTURAL / MECHANICAL

INCLINE VILLAGE
GENERAL IMPROVEMENT DISTRICT
ONE DISTRICT - ONE TEAM

EFFLUENT EXPORT POND LINING PROJECT

JACOBS
STRUCTURAL / MECHANICAL

EFFLUENT STORAGE TANK
ROOF PLAN

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PROJ W8Y12900

DATE FEBRUARY 2023
PROJ W8Y12900
SHE 2023-002
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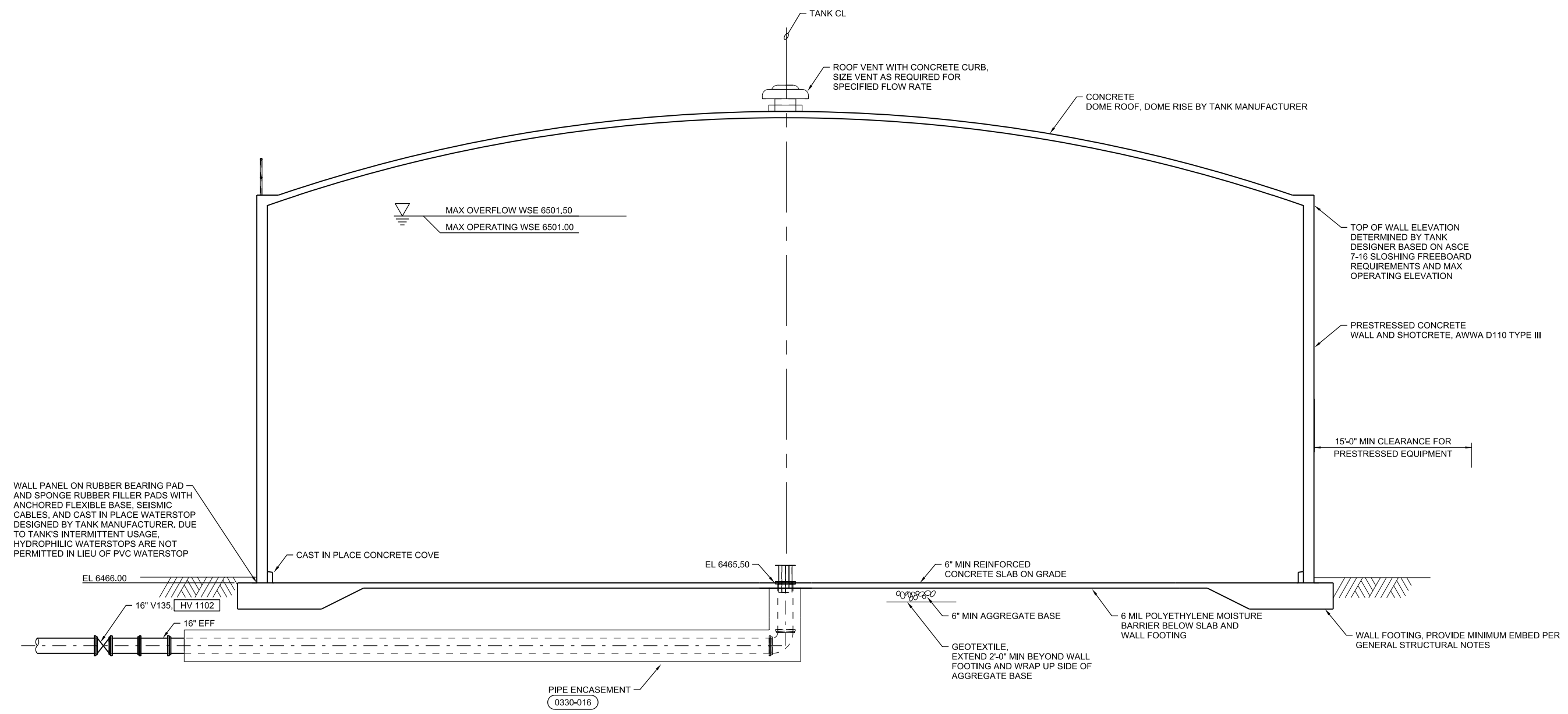
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 STRUCTURAL
 LICENSE NO. 027491
 STATE OF NEVADA
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REGISTERED PROFESSIONAL ENGINEER
 JOHN SIMONDS
 MECHANICAL
 LICENSE NO. 027655
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A SECTION
 3/16"=1'-0"
 100-SM-2001
 100-SM-2002

INCLINE VILLAGE
 GENERAL IMPROVEMENT DISTRICT
 ONE DISTRICT - ONE TEAM
 EFFLUENT EXPORT POND LINING PROJECT

JACOBS
 STRUCTURAL / MECHANICAL
EFFLUENT STORAGE TANK SECTION

| |
|--------------------------------------|
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| DATE FEBRUARY 2023 |
| PROJ W8Y12900 |
| WSUP23-0002 |
| SHEET 23 of 43 |
| EXHIBIT E |

GENERAL SHEET NOTES

1. PIPE SUPPORTS SHOWN MUST BE DESIGNED BY THE TANK MANUFACTURER. IN LIEU OF INTERIOR PIPE SUPPORTS, THE INTERIOR PIPING MAY BE MOVED CLOSER TO THE WALL AND CAST INTO THE WALL PANEL AT THE DISCRETION OF THE TANK MANUFACTURER.

REGISTERED PROFESSIONAL ENGINEER
 JEREMY KELLOGG
 STRUCTURAL
 LICENSE NO. 027491
 STATE OF NEVADA
 NOT FOR CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER
 JOHN SIMONDS
 MECHANICAL
 LICENSE NO. 027655
 STATE OF NEVADA
 NOT FOR CONSTRUCTION

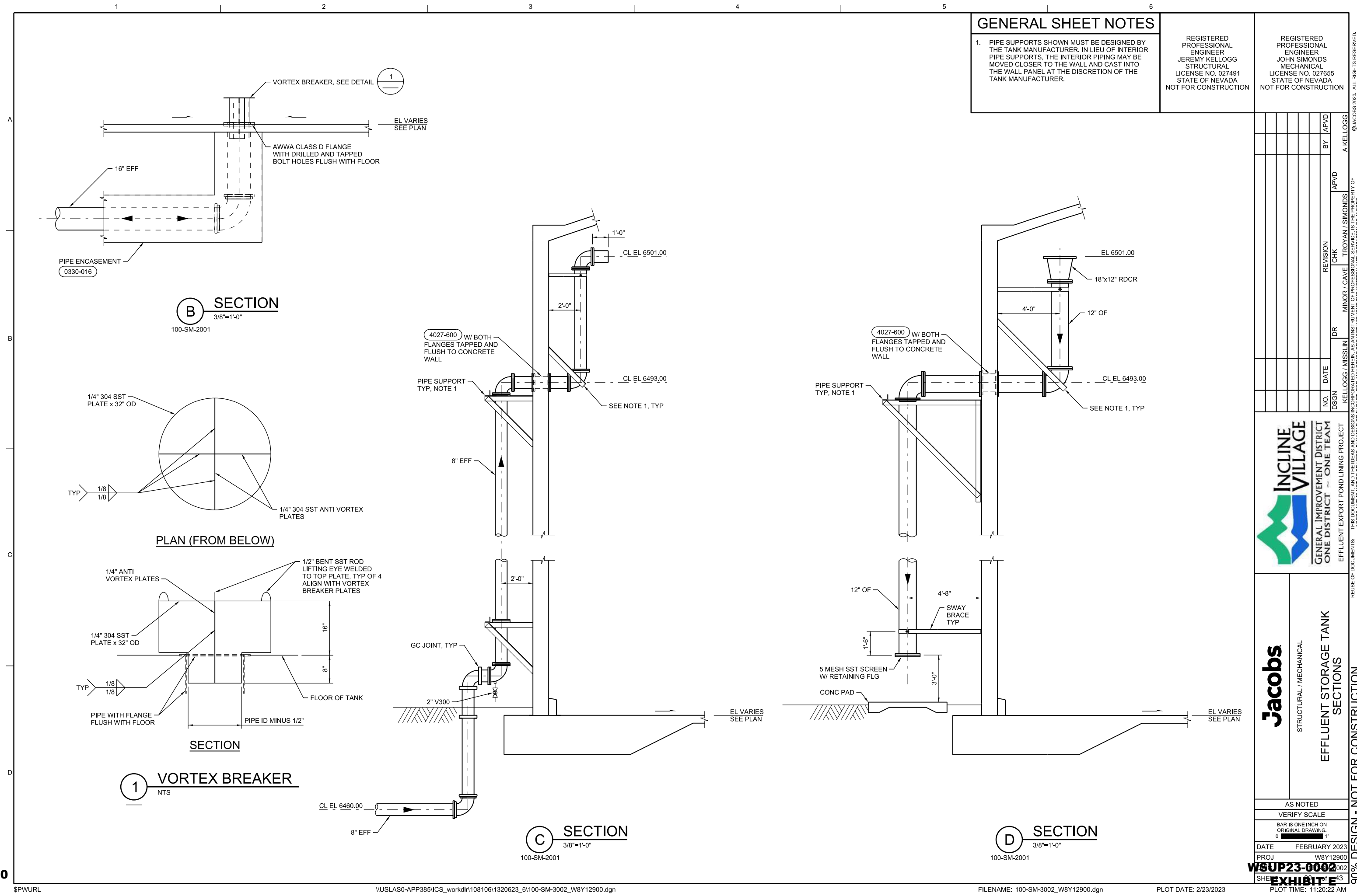
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JACOBS
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EFFLUENT STORAGE TANK SECTIONS

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WSUP23-0002
 SHEET 23 OF 43
EXHIBIT E

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B SECTION
 3/8"=1'-0"
 100-SM-2001

PLAN (FROM BELOW)

SECTION

1 VORTEX BREAKER
 NTS

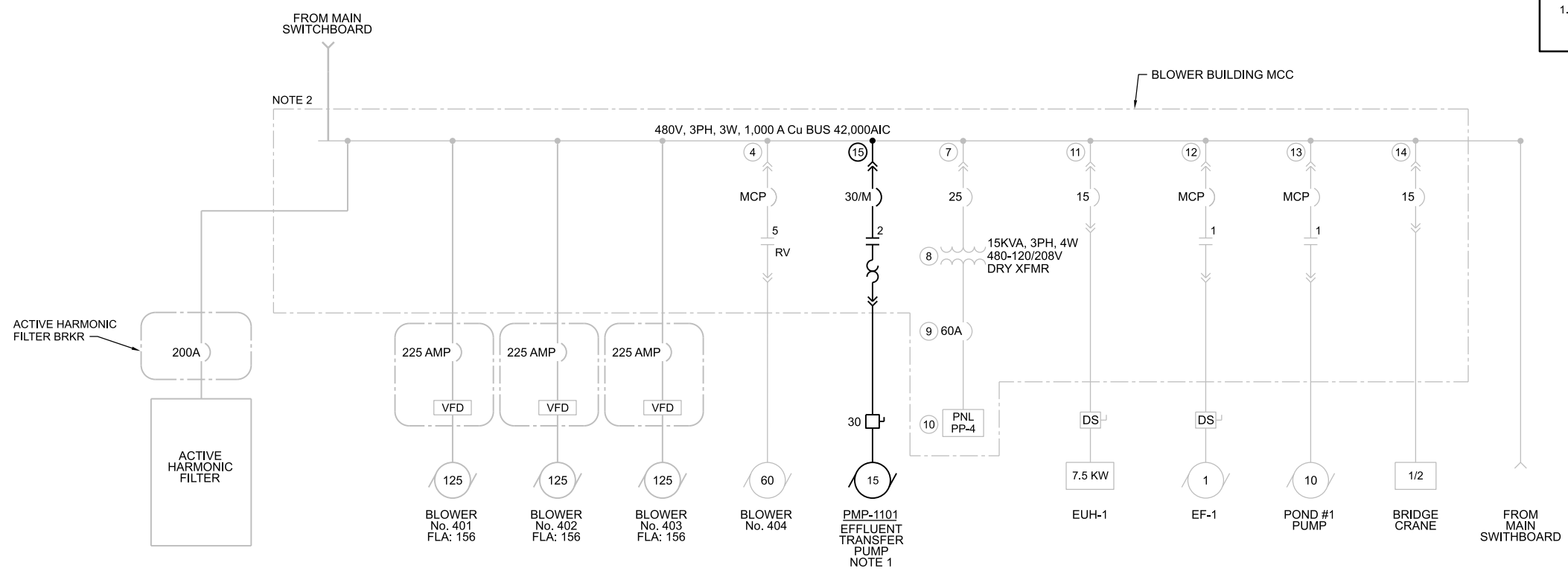
C SECTION
 3/8"=1'-0"
 100-SM-2001

D SECTION
 3/8"=1'-0"
 100-SM-2001

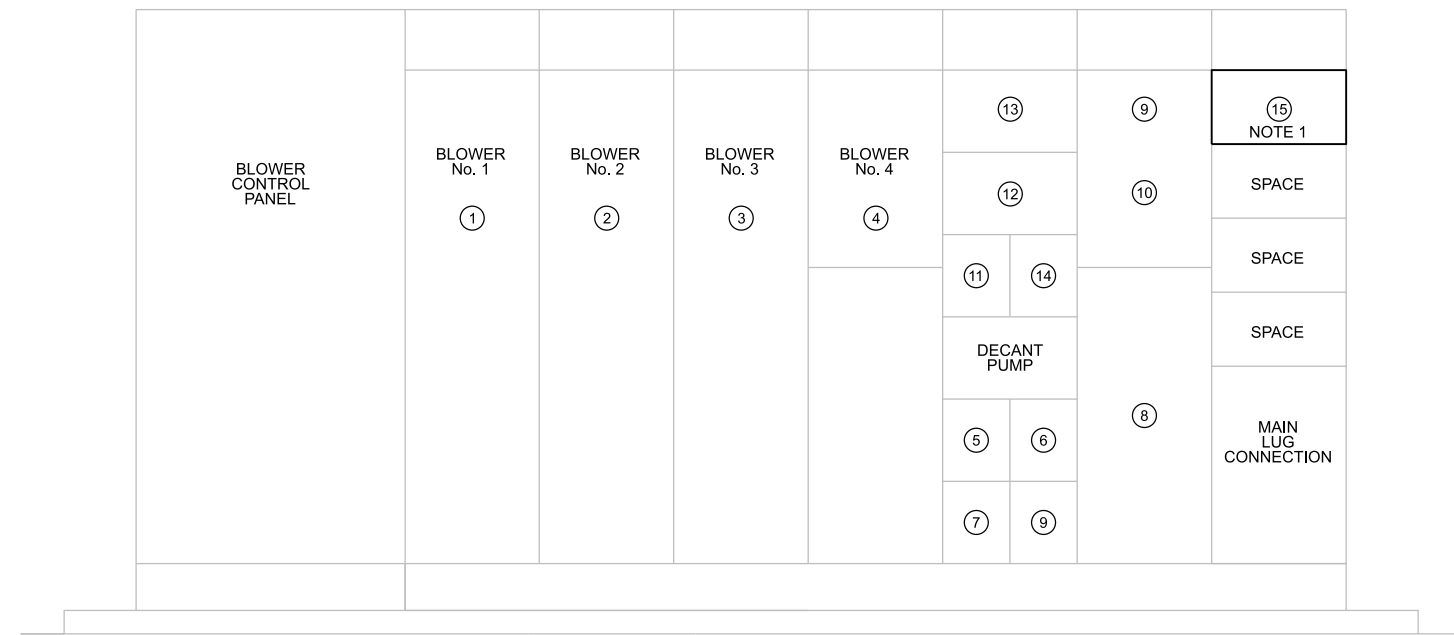
SHEET NOTES

- INSTALL NEW MOTOR STARTER IN EMPTY CUBICLE.

REGISTERED PROFESSIONAL ENGINEER
 CRAIG M. CUSWORTH
 ELECTRICAL
 LICENSE NO. 022425
 STATE OF NEVADA
 NOT FOR CONSTRUCTION



BLOWER BUILDING MCC ONE LINE DIAGRAM
 NTS



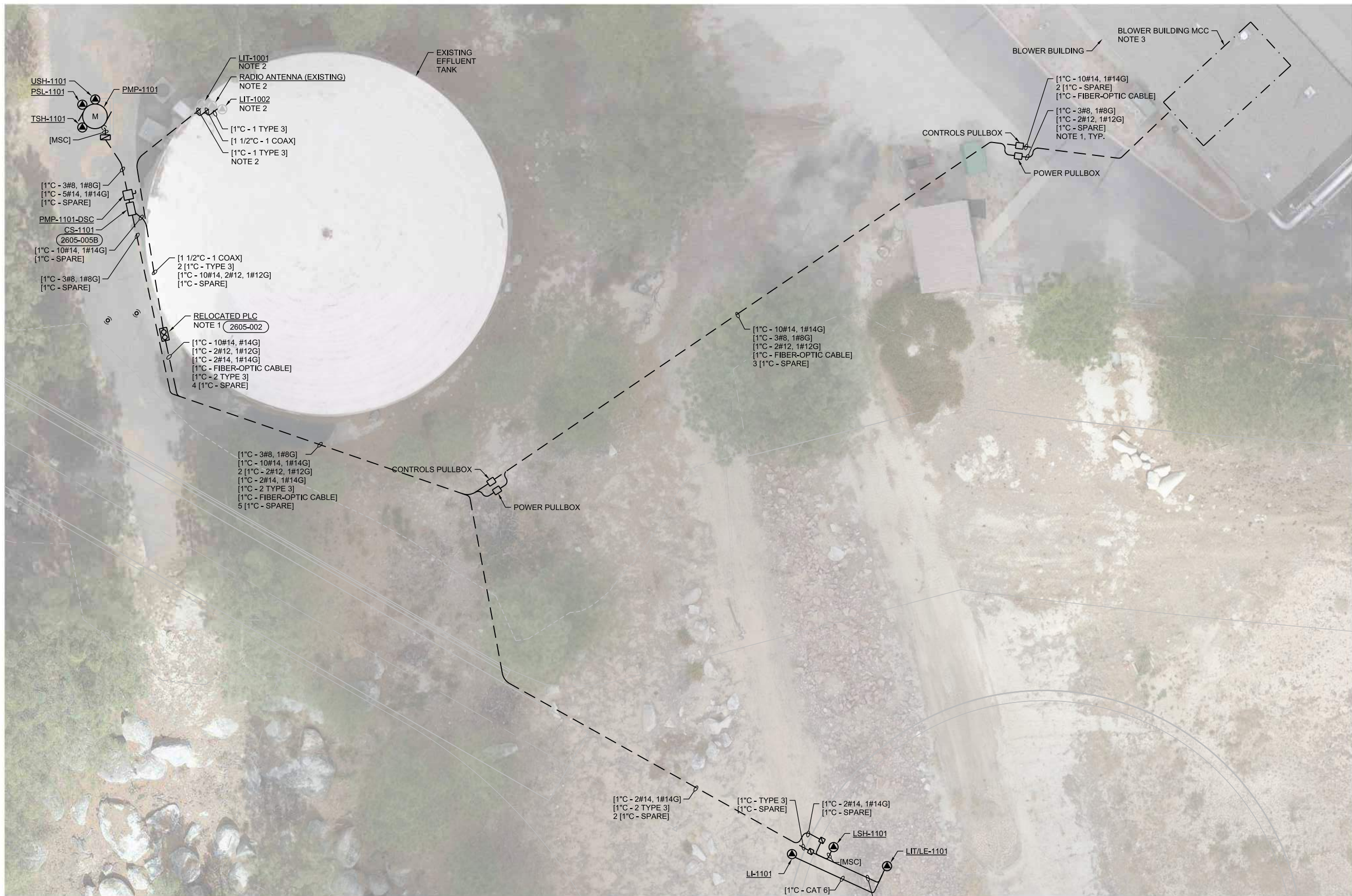
BLOWER BUILDING MCC ELEVATION
 NTS



Jacobs
 ELECTRICAL
 ONE LINE DIAGRAM

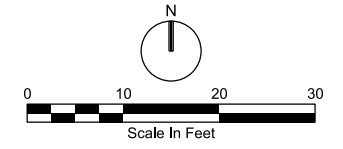
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|--------------------------------------|---------------|
| VERIFY SCALE | |
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| DATE | FEBRUARY 2023 |
| PROJ | W8Y12900 |
| 90% DESIGN - NOT FOR CONSTRUCTION | |
| SHEET 43 of 43 | |

EXHIBIT E



- NOTES:
1. STUB UP AND CAP SPARE CONDUITS AT BOTH ENDS.
 2. RELOCATE PLC PANEL AS SHOWN. RE-CONNECT EXISTING INSTRUMENTS TO PLC PANEL AT NEW LOCATION.
 3. ELECTRICAL ROOM AND MCC LOCATION IS APPROXIMATE. COORDINATE FINAL ROUTING OF CONDUIT INTO BUILDING AND MCC WITH OWNER.

PLAN
1"=10'-0"



REGISTERED PROFESSIONAL ENGINEER
CRAIG M. CUSWORTH
ELECTRICAL
LICENSE NO. 022425
STATE OF NEVADA
NOT FOR CONSTRUCTION

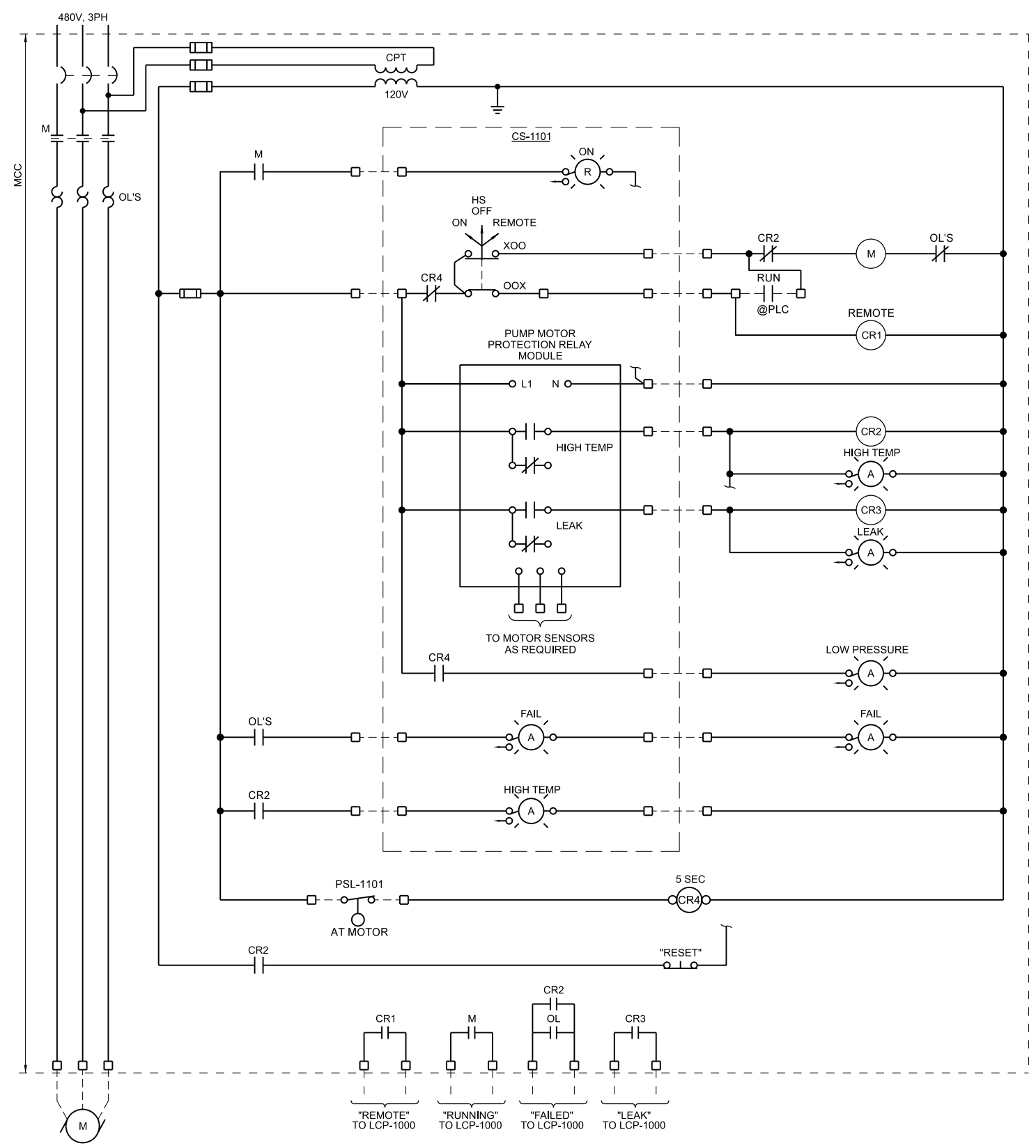
| NO. | DATE | DR | CHK | REVISION | BY | APVD |
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| | | J. ABSHIER | | | | A. KELLOGG |
| | | J. ABSHIER | | | | C. CUSWORTH |

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JACOBS
ELECTRICAL
OVERALL SITE PLAN

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DATE FEBRUARY 2023
PROJ W8Y12900
WSUP23-0002
SHEET 001 OF 43
EXHIBIT E

A
B
C
D



PMP-1101 PUMP CONTROL DIAGRAM
NTS

REGISTERED PROFESSIONAL ENGINEER
CRAIG M. CUSWORTH
ELECTRICAL
LICENSE NO. 022425
STATE OF NEVADA
NOT FOR CONSTRUCTION

| | | | | | | |
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| NO. | DATE | DR | CHK | REVISION | BY | APVD |
| | | J. JABSHIER | J. JABSHIER | | C. CUSWORTH | A. KELLOGG |

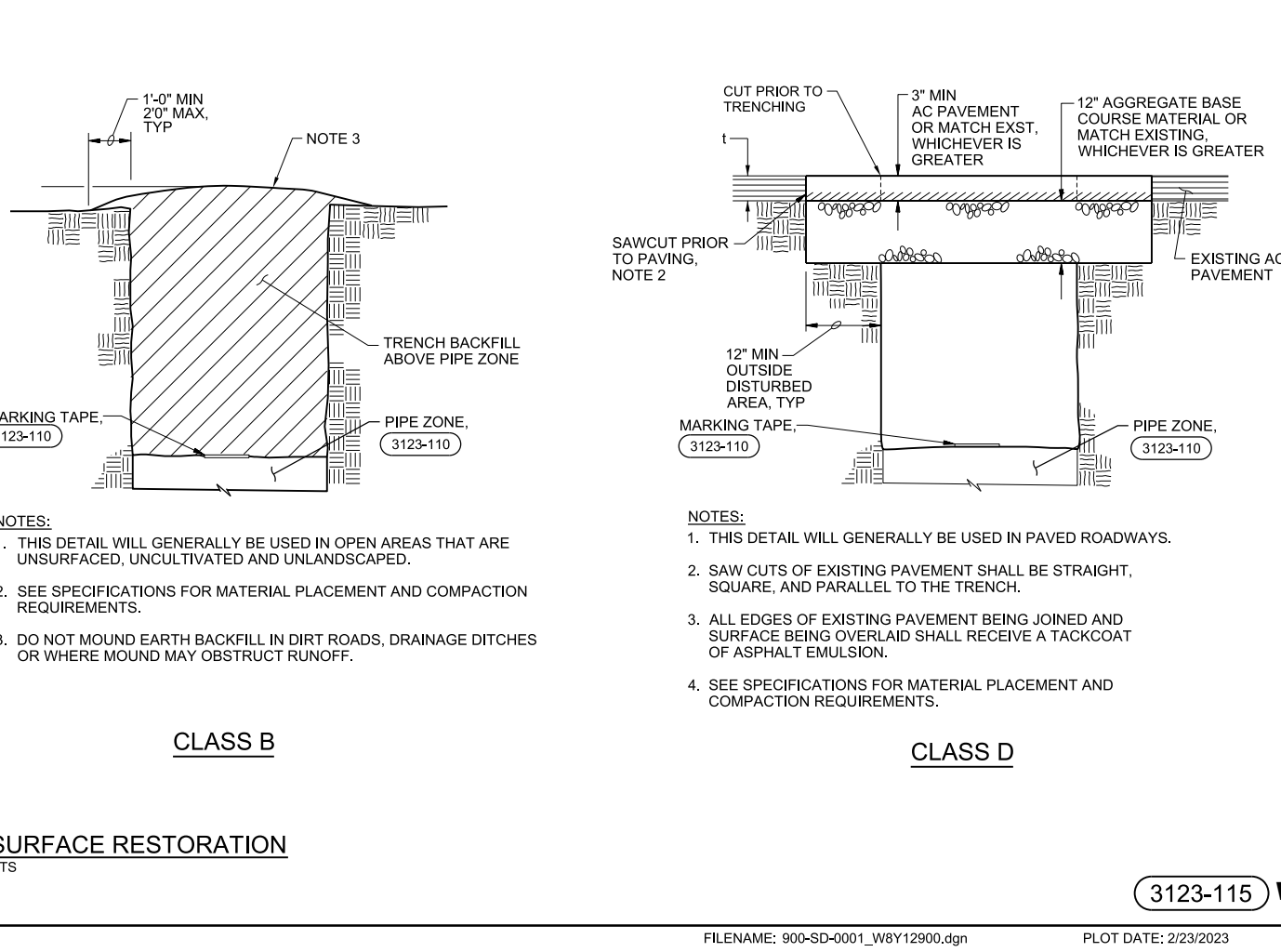
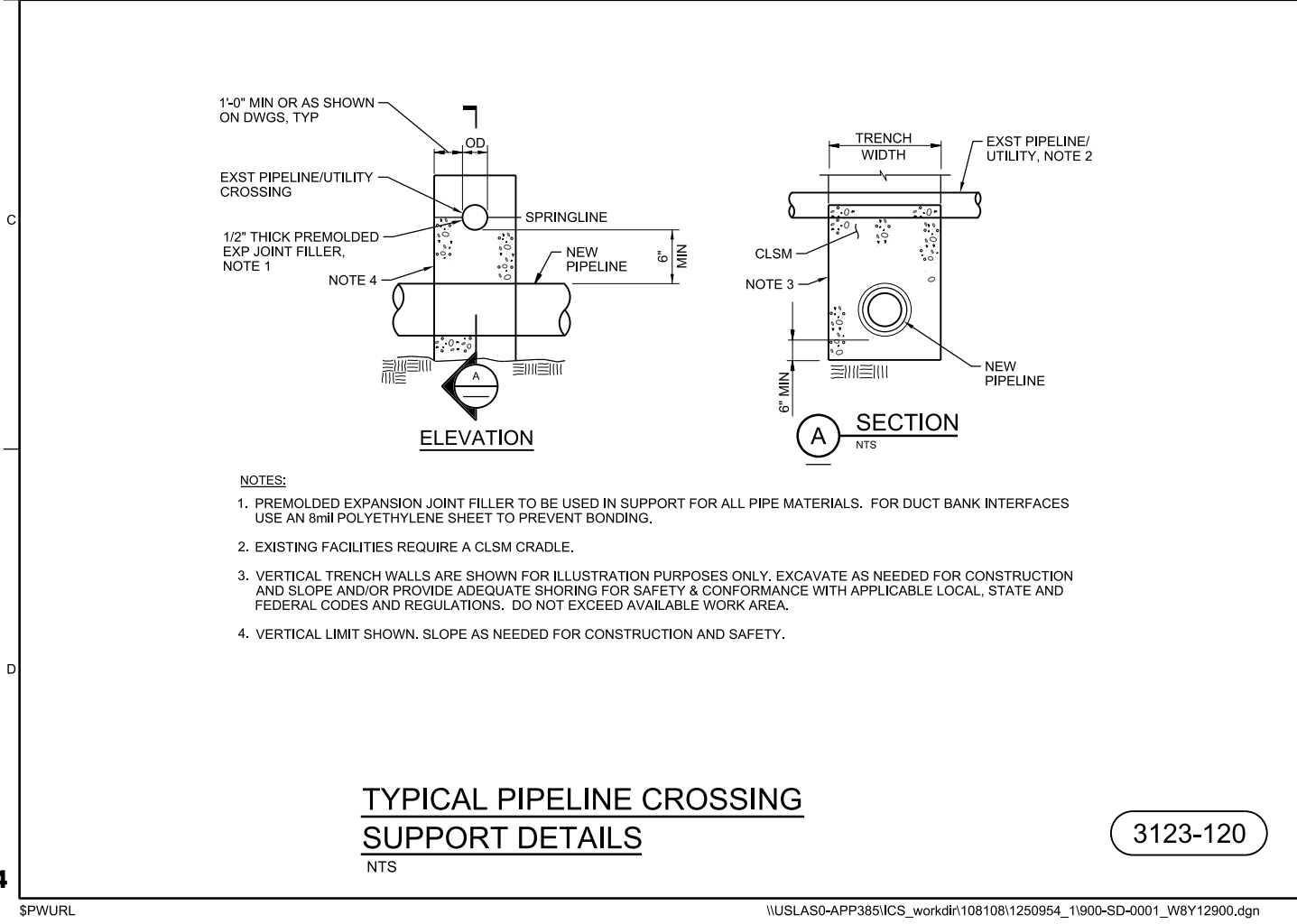
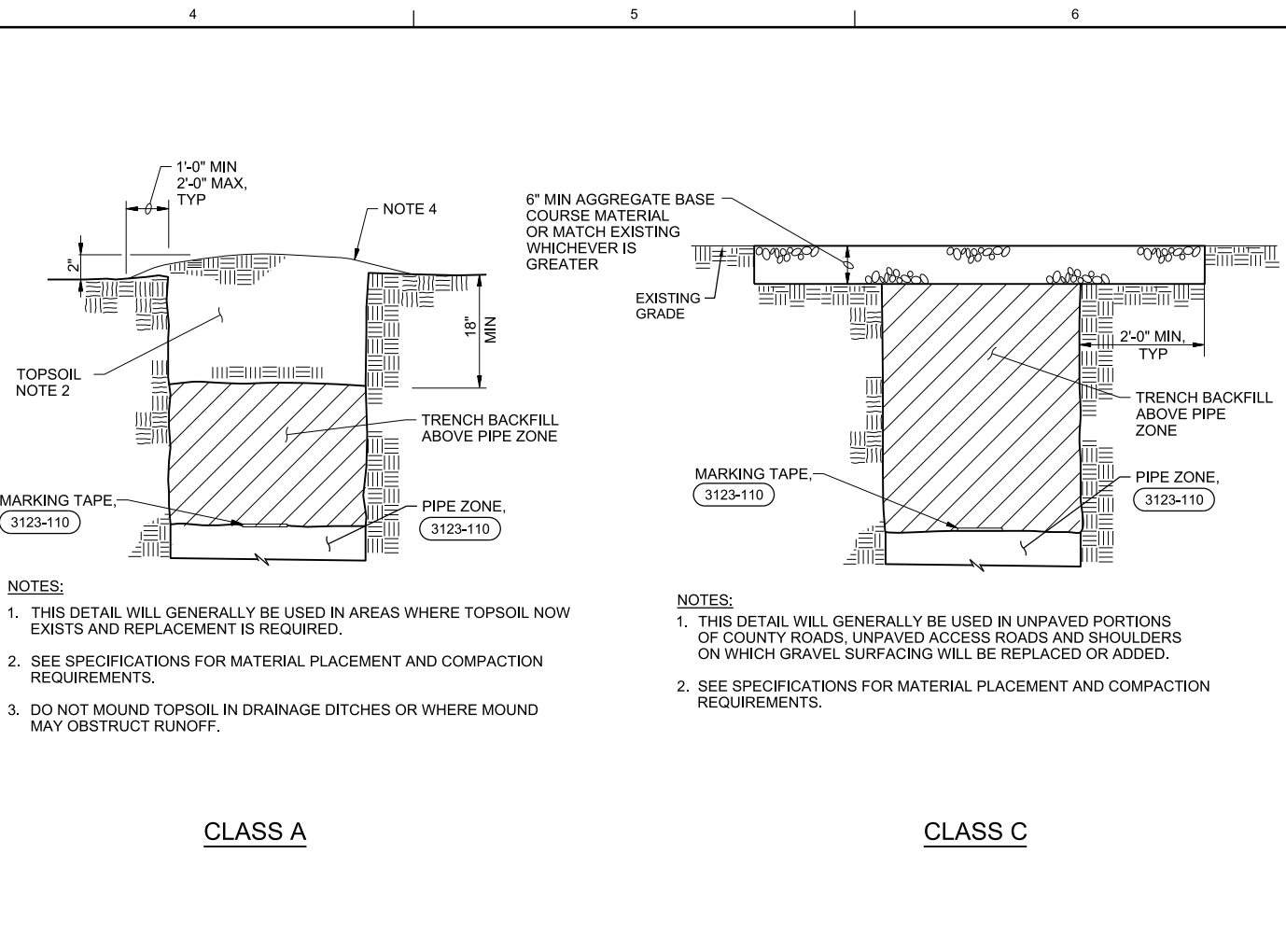
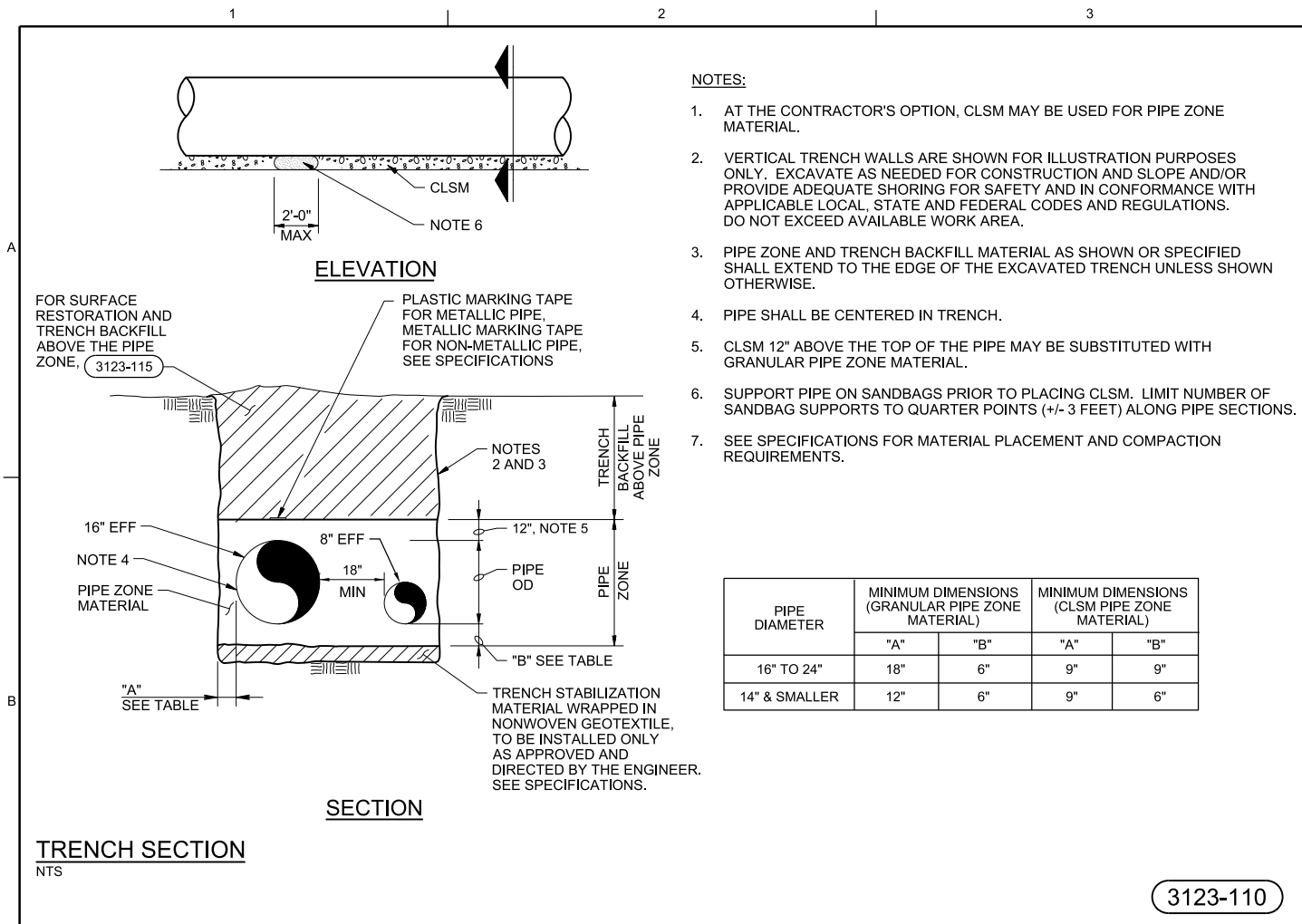


Jacobs
ELECTRICAL
MOTOR CONTROL DIAGRAM

VERIFY SCALE
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| | |
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| SHEET | 001 of 43 |

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REGISTERED PROFESSIONAL ENGINEER
TRAVIS J. HOWARD
CIVIL
LICENSE NO. 021924
STATE OF NEVADA
NOT FOR CONSTRUCTION

| NO. | DATE | DR | REVISION | BY | APVD |
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| | | | | | |

J. CHELONIS
B. CHELONIS
A. KELLOGG

INCLINE VILLAGE
GENERAL IMPROVEMENT DISTRICT
ONE DISTRICT - ONE TEAM
EFFLUENT EXPORT POND LINING PROJECT

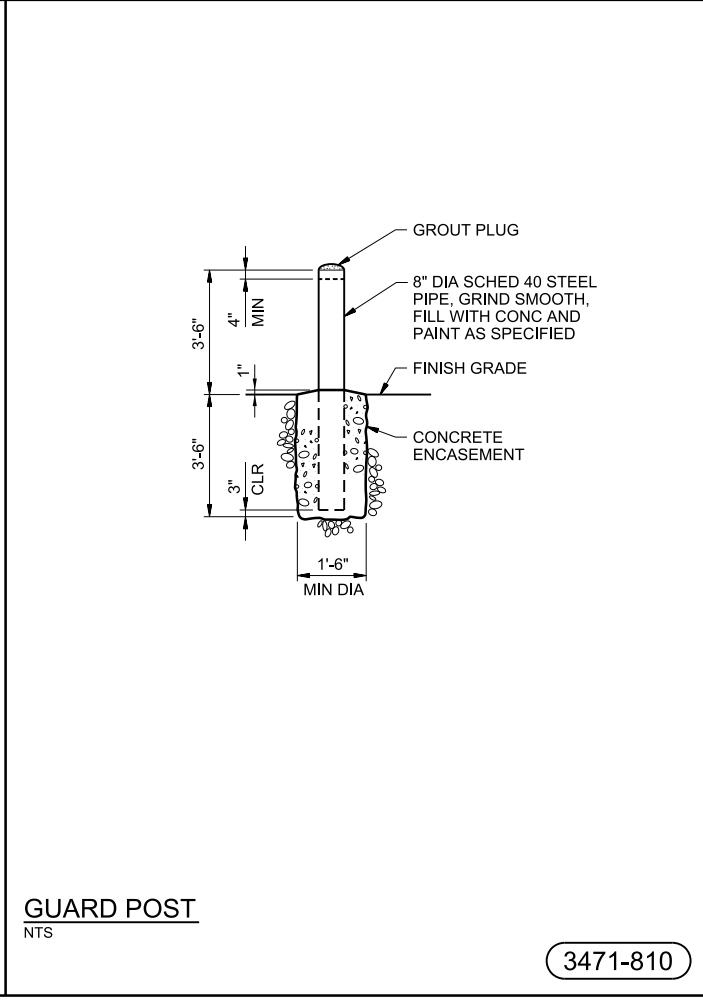
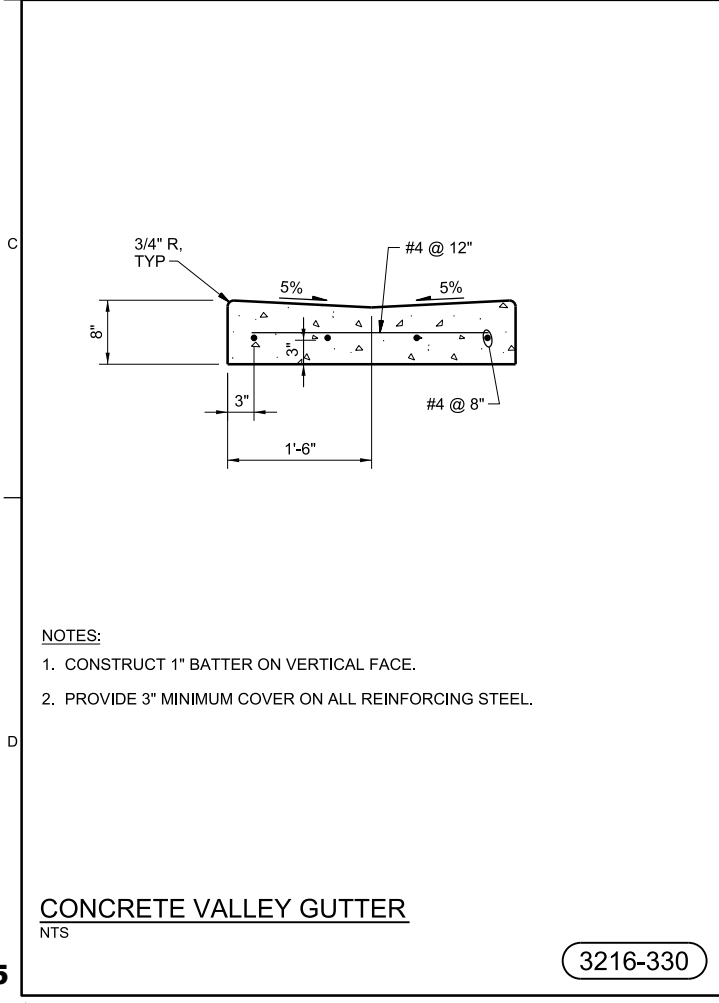
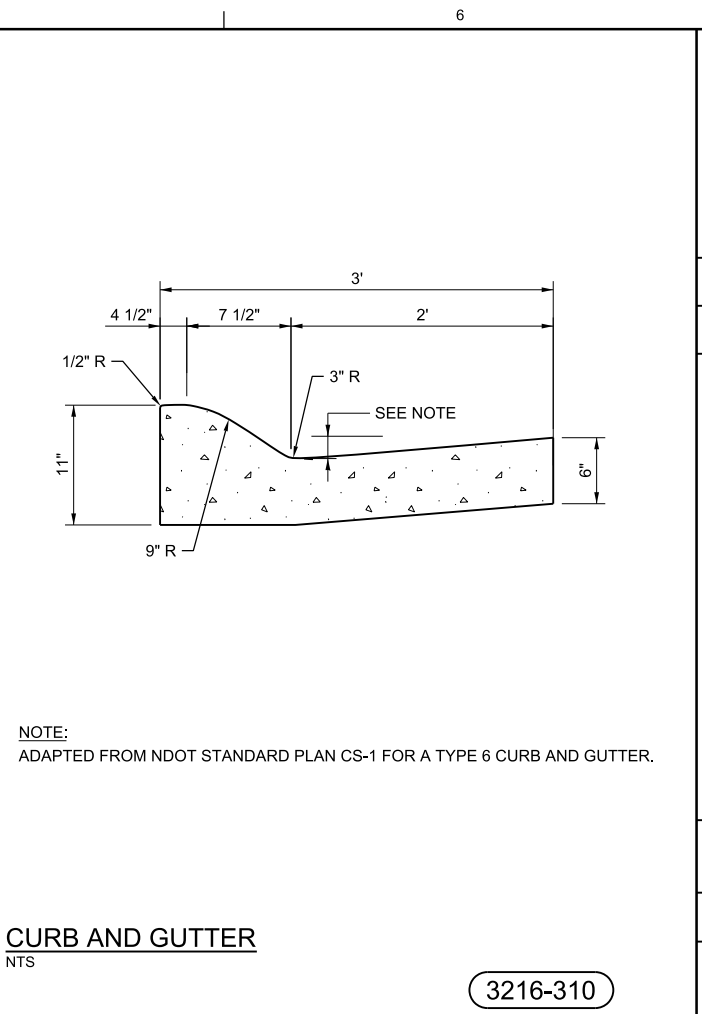
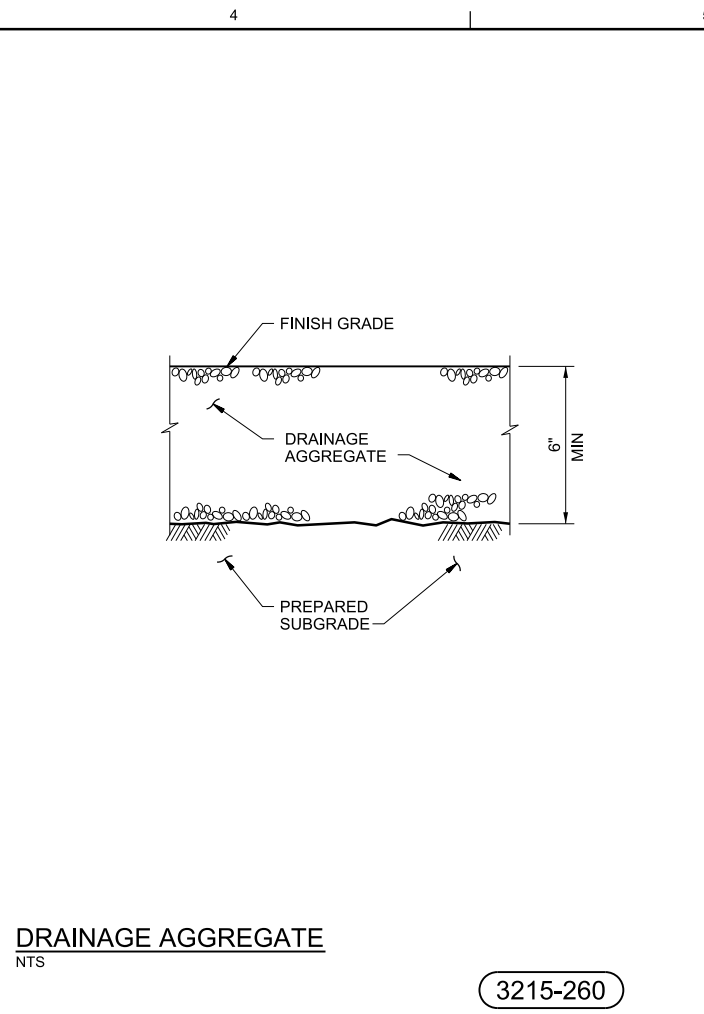
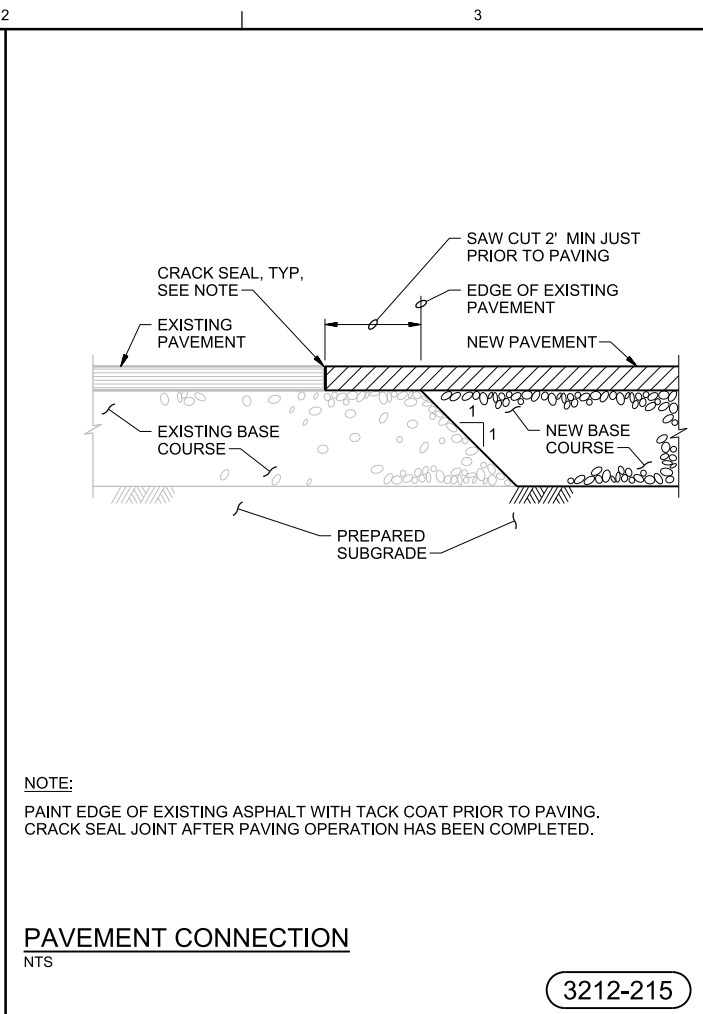
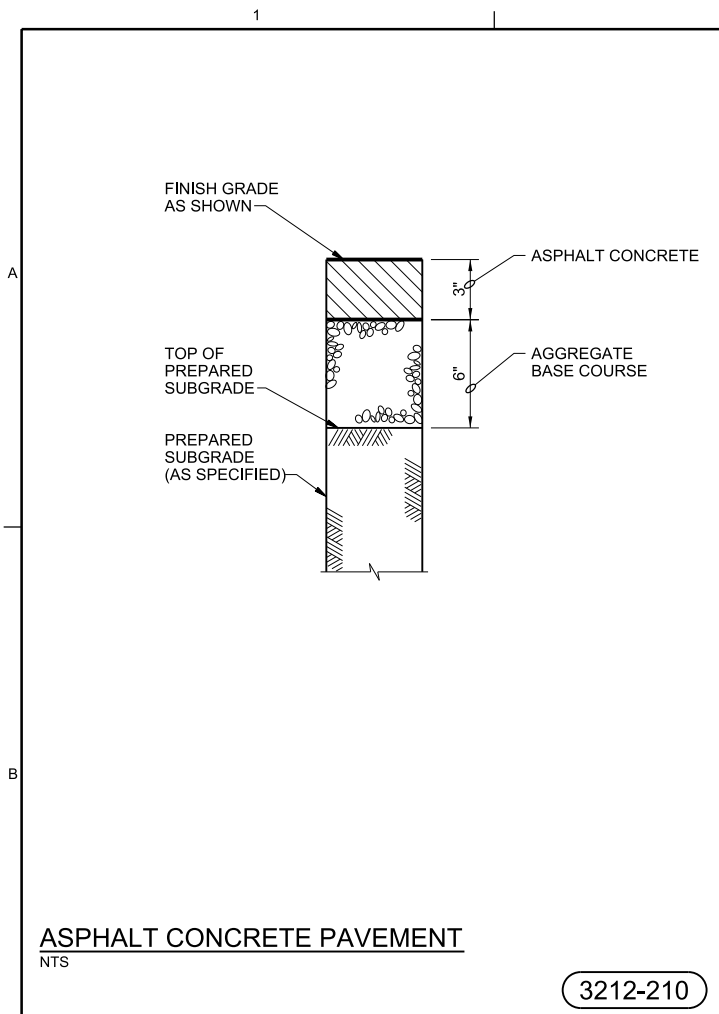
Jacobs
CIVIL
STANDARD DETAILS

VERIFY SCALE
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DATE FEBRUARY 2023
PROJ W8Y12900
SHE 001 of 43

3123-115 WSUP23-0002 EXHIBIT E

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FILENAME: 900-SD-0001_W8Y12900.dgn PLOT DATE: 2/23/2023 PLOT TIME: 11:19:40 AM



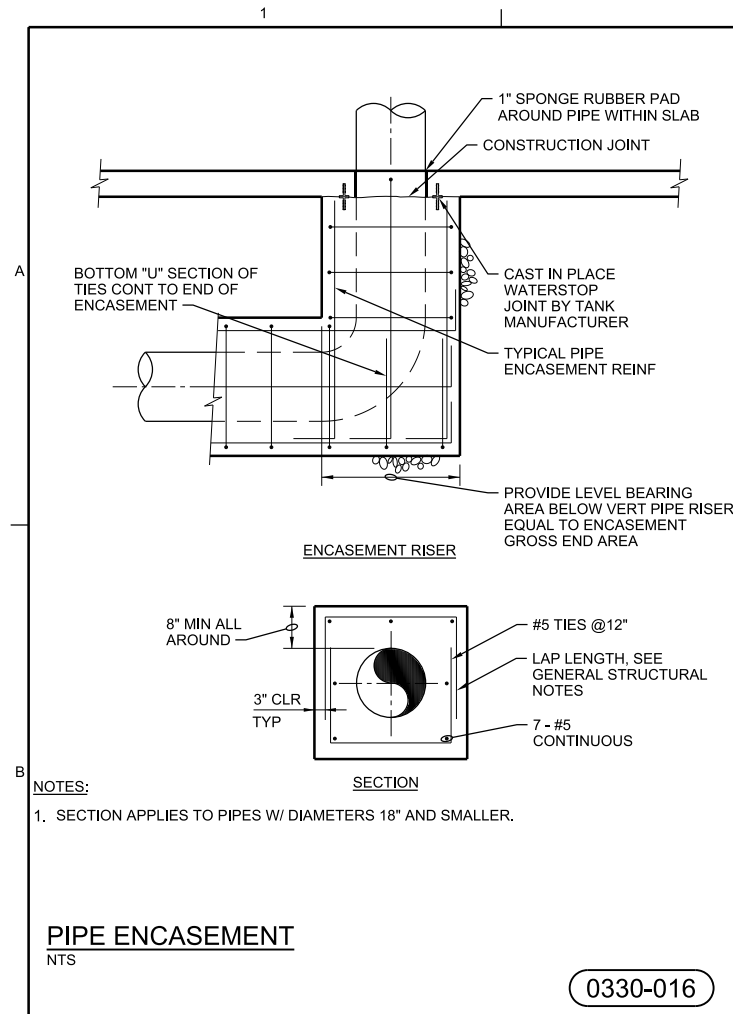
REGISTERED PROFESSIONAL ENGINEER
TRAVIS J. HOWARD
CIVIL
LICENSE NO. 021924
STATE OF NEVADA
NOT FOR CONSTRUCTION

| | | | | | | | |
|-----|------|----|-------------|-------------|------|----|------------|
| NO. | DATE | DR | J. CHELONIS | B. CHELONIS | APVD | BY | APVD |
| | | | | | | | A. KELLOGG |
| | | | | | | | |

INCLINE VILLAGE
GENERAL IMPROVEMENT DISTRICT ONE DISTRICT - ONE TEAM
EFFLUENT EXPORT POND LINING PROJECT

Jacobs
CIVIL
STANDARD DETAILS

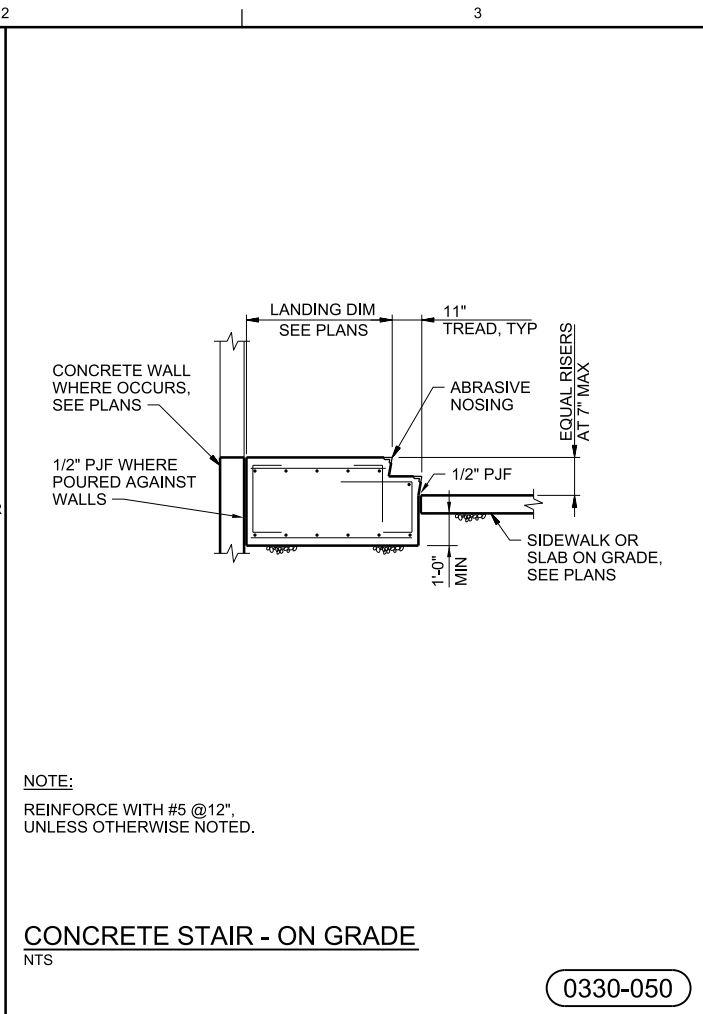
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
DATE: FEBRUARY 2023
PROJ: W8Y12900
SHE: 002 of 43



NOTES:
1. SECTION APPLIES TO PIPES W/ DIAMETERS 18" AND SMALLER.

PIPE ENCASEMENT
NTS

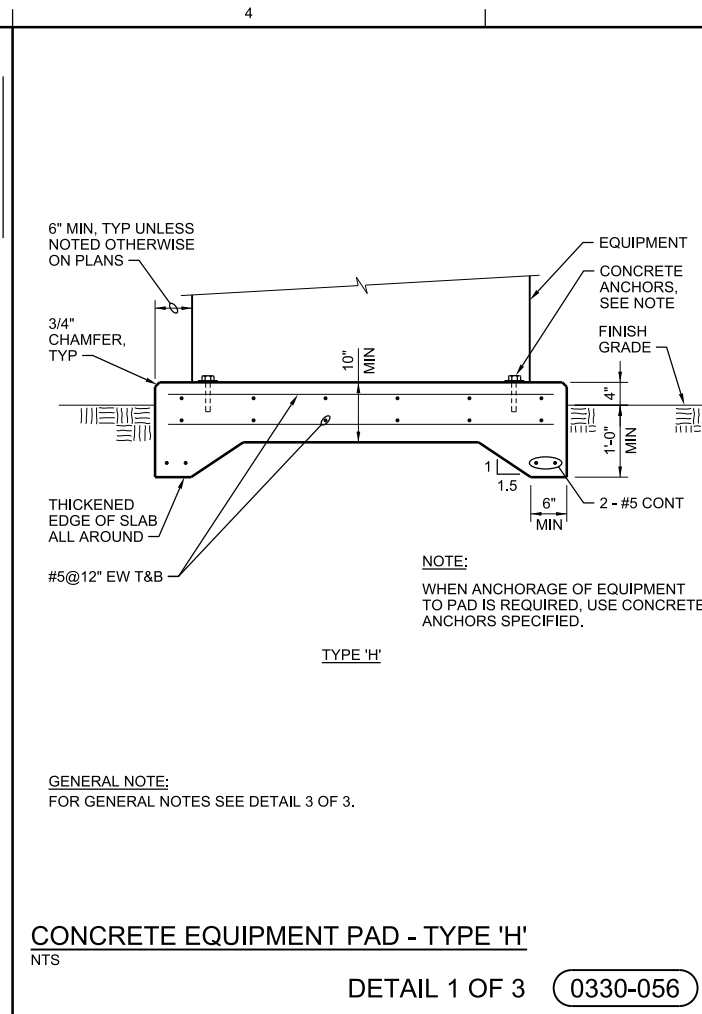
0330-016



NOTE:
REINFORCE WITH #5 @12", UNLESS OTHERWISE NOTED.

CONCRETE STAIR - ON GRADE
NTS

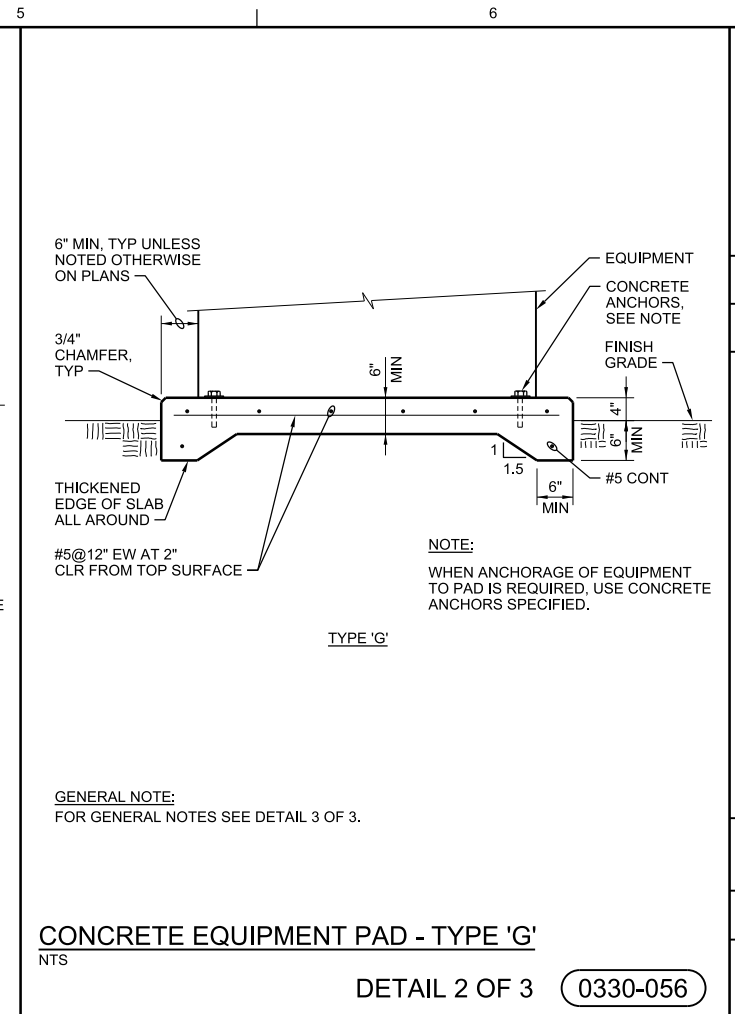
0330-050



GENERAL NOTE:
FOR GENERAL NOTES SEE DETAIL 3 OF 3.

CONCRETE EQUIPMENT PAD - TYPE 'H'
NTS

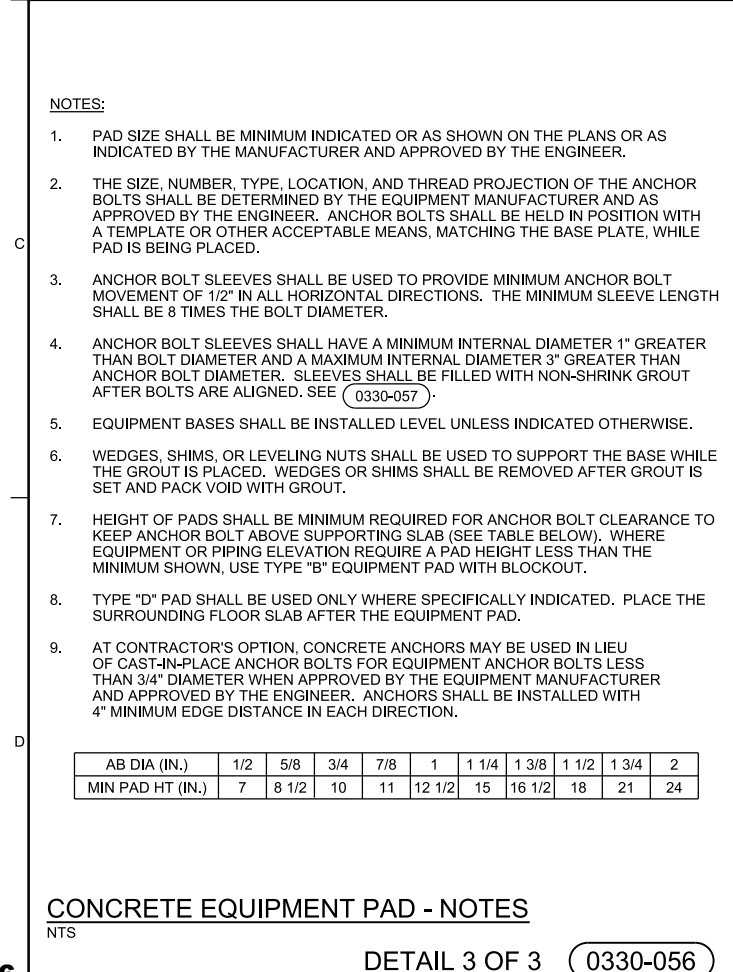
DETAIL 1 OF 3 0330-056



GENERAL NOTE:
FOR GENERAL NOTES SEE DETAIL 3 OF 3.

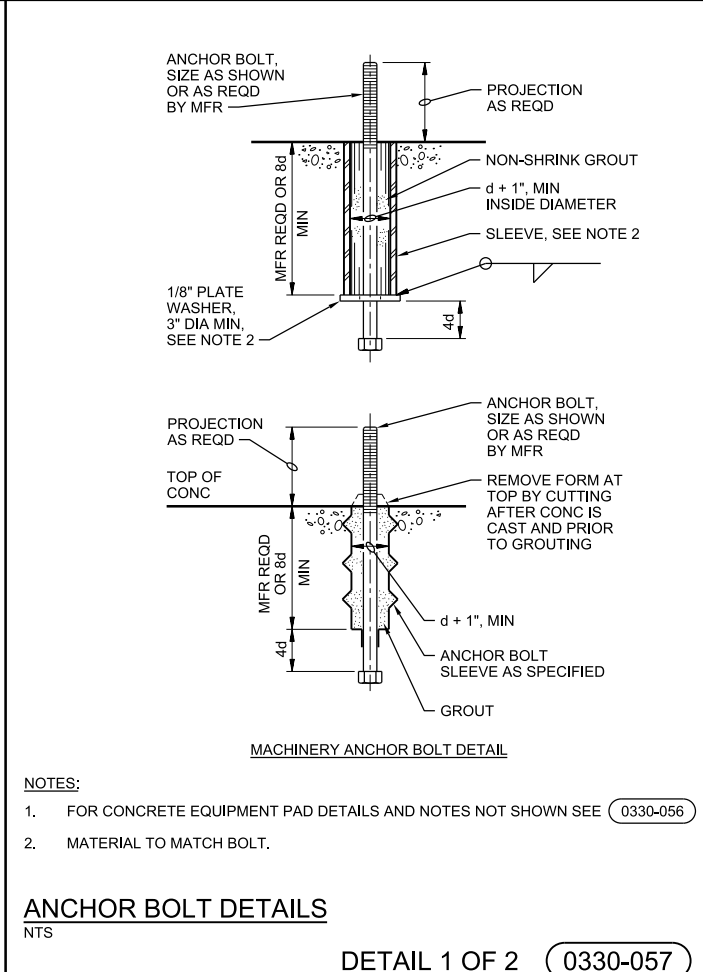
CONCRETE EQUIPMENT PAD - TYPE 'G'
NTS

DETAIL 2 OF 3 0330-056



CONCRETE EQUIPMENT PAD - NOTES
NTS

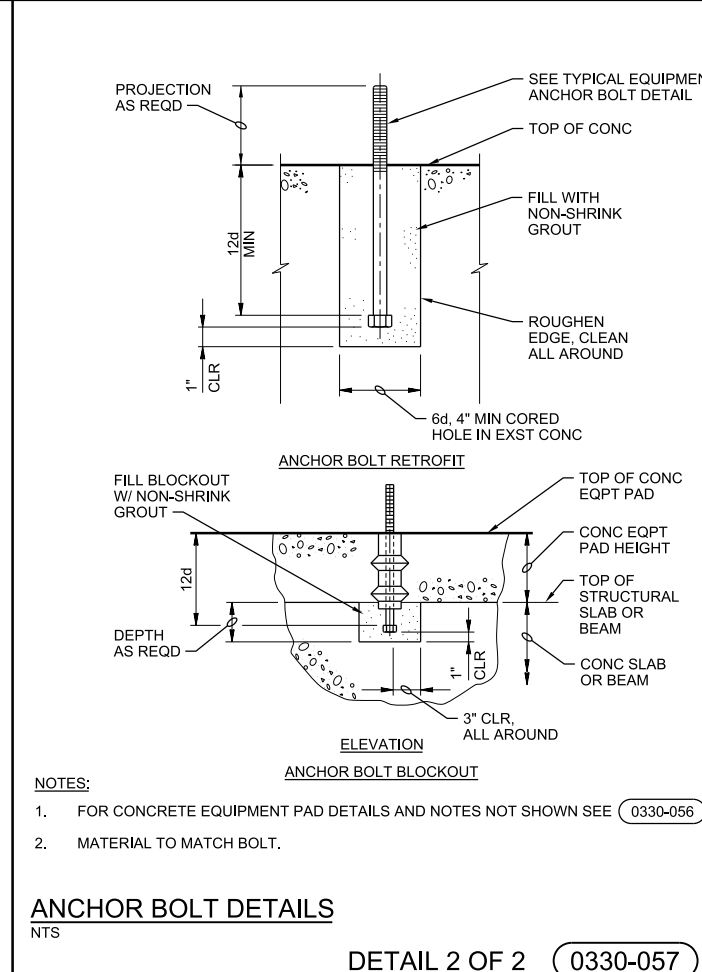
DETAIL 3 OF 3 0330-056



NOTES:
1. FOR CONCRETE EQUIPMENT PAD DETAILS AND NOTES NOT SHOWN SEE 0330-056
2. MATERIAL TO MATCH BOLT.

ANCHOR BOLT DETAILS
NTS

DETAIL 1 OF 2 0330-057



NOTES:
1. FOR CONCRETE EQUIPMENT PAD DETAILS AND NOTES NOT SHOWN SEE 0330-056
2. MATERIAL TO MATCH BOLT.

ANCHOR BOLT DETAILS
NTS

DETAIL 2 OF 2 0330-057

REGISTERED PROFESSIONAL ENGINEER
JEREMY KELLOGG
STRUCTURAL
LICENSE NO. 027491
STATE OF NEVADA
NOT FOR CONSTRUCTION

| | | | | |
|-----|------|-----------|------------|------------|
| NO. | DATE | DR | REVISION | BY |
| | | S. TROYAN | J. KELLOGG | A. KELLOGG |
| | | | J. MINOR | |
| | | | CHK | |

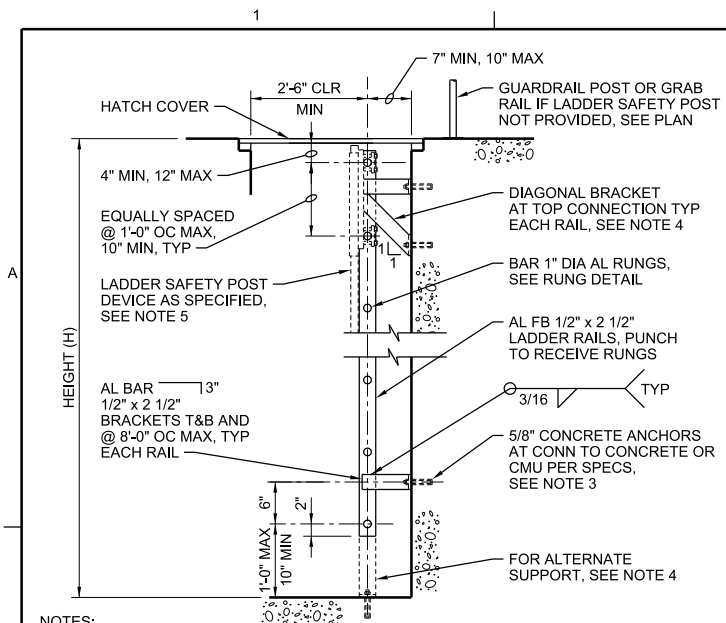


Jacobs
STRUCTURAL
STANDARD DETAILS

VERIFY SCALE
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| DATE | FEBRUARY 2023 |
| PROJ | W8Y12900 |
| SHEET | 003 |
| | 43 |

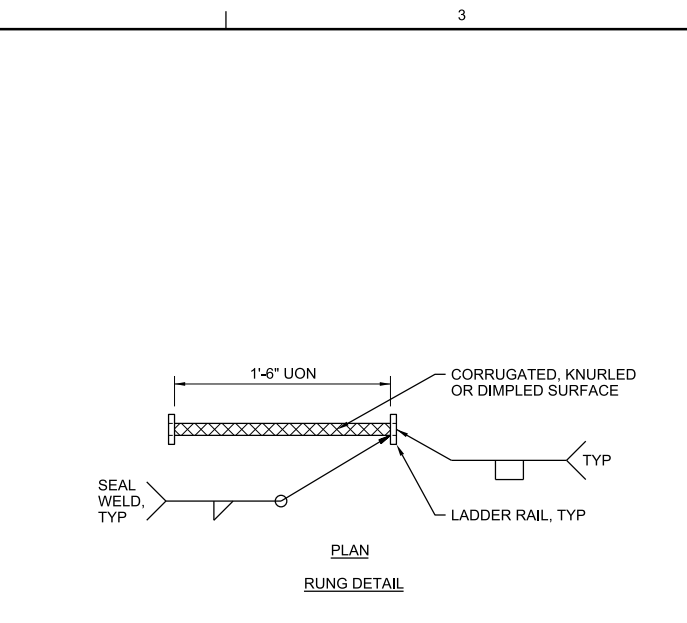
90% DESIGN - NOT FOR CONSTRUCTION



- NOTES:**
1. PROVIDE PROTECTION FOR ALUMINUM IN CONTACT WITH CONCRETE PER SPECIFICATIONS.
 2. AT CONTRACTOR'S OPTION, PRE-ENGINEERED PIPE LADDER AS SPECIFIED MAY BE USED IN LIEU OF FLAT BAR LADDERS.
 3. PROVIDE SST CONCRETE ANCHORS.
 4. FOR INTERIOR DRY AREAS, EXTEND RAILS AND BEND 3" AT FLOOR. SECURE WITH 5/8" CONCRETE ANCHORS. DIAGONAL BRACKET NOT REQUIRED IF ALTERNATE SUPPORT PROVIDED.
 5. PROVIDE LADDER SAFETY POST.

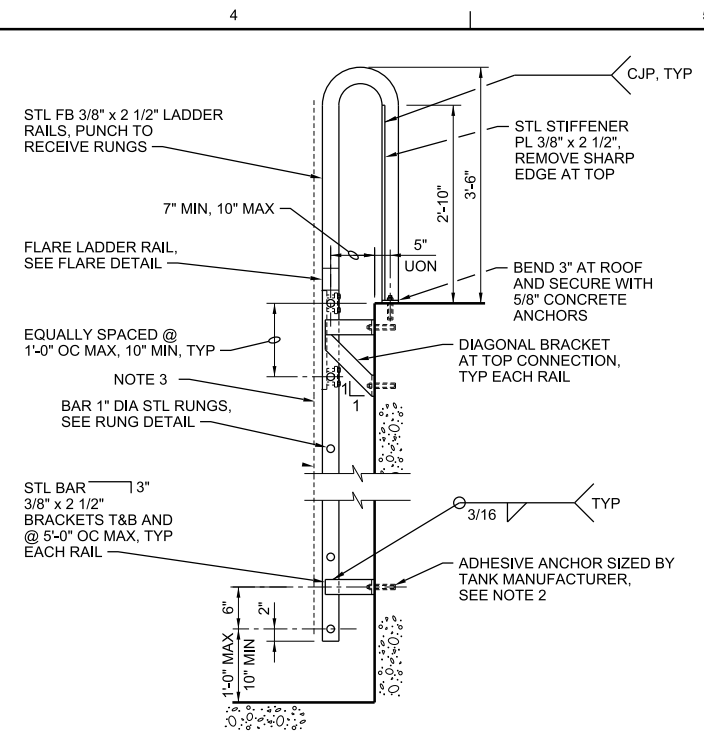
FLAT BAR LADDER UNDER COVER TYPE 'A' - ALUMINUM
NTS (20 FT MAX LADDER HEIGHT)

DETAIL 1 OF 2 0551-101



FLAT BAR LADDER DETAILS - ALUMINUM
NTS

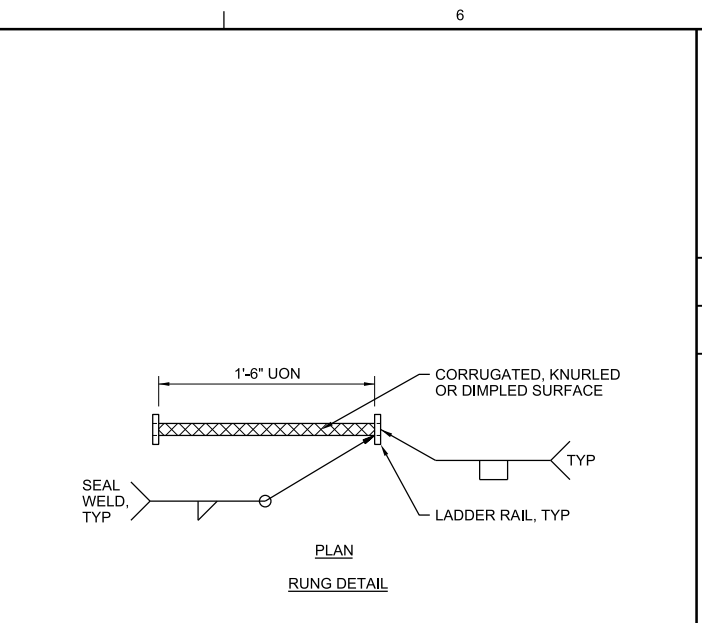
DETAIL 2 OF 2 0551-101



- NOTES:**
1. HOT DIP GALVANIZE STEEL AFTER FABRICATION, UNLESS NOTED OTHERWISE.
 2. PROVIDE SST CONCRETE ANCHORS. COORDINATE ANCHOR INSTALLATION WITH TANK MANUFACTURER.
 3. PROVIDE SAFETY CLIMB DEVICE

FLAT BAR LADDER WITH EXTENSION TYPE 'B' - STEEL
NTS

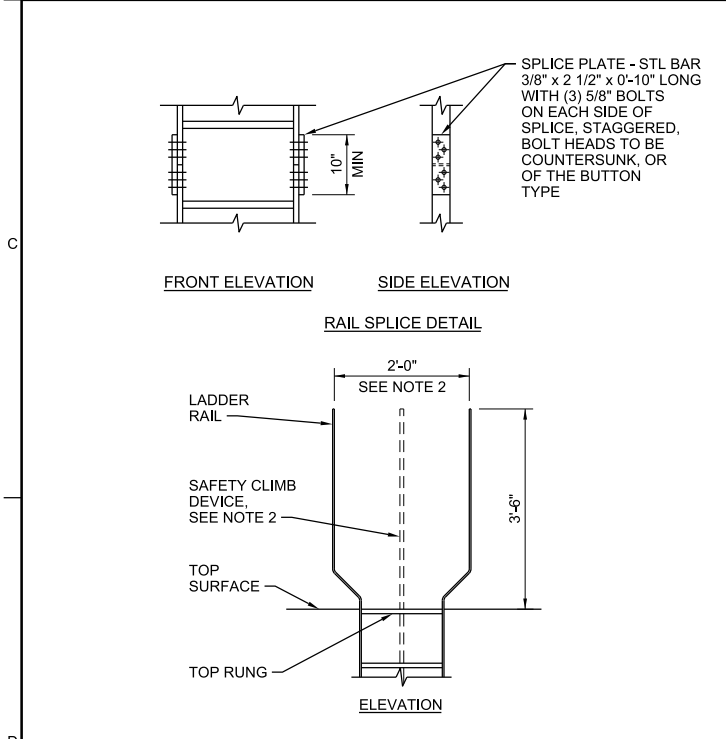
DETAIL 1 OF 3 0551-141



- NOTE:**
HOT DIP GALVANIZE STEEL AFTER FABRICATION, UNLESS OTHERWISE NOTED.

FLAT BAR LADDER DETAILS - STEEL
NTS

DETAIL 2 OF 3 0551-141



- NOTES:**
1. HOT DIP GALVANIZE STEEL AFTER FABRICATION, UNLESS OTHERWISE NOTED.
 2. INCREASE WIDTH OF FLARE TO 2'-6" WHEN LADDER SAFETY CLIMB DEVICE IS USED.

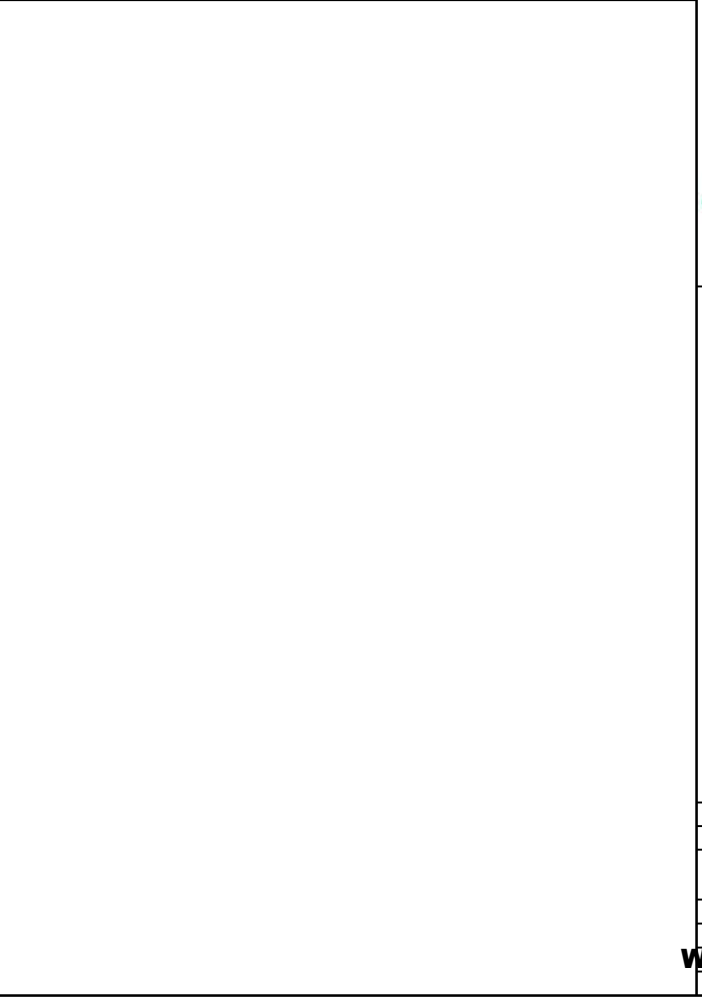
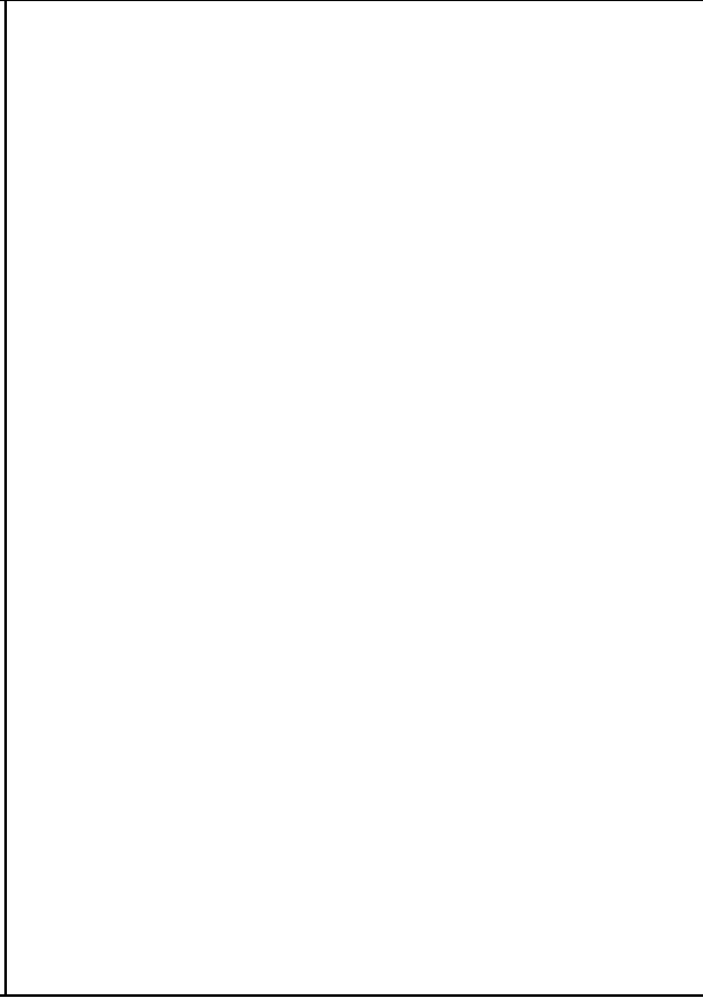
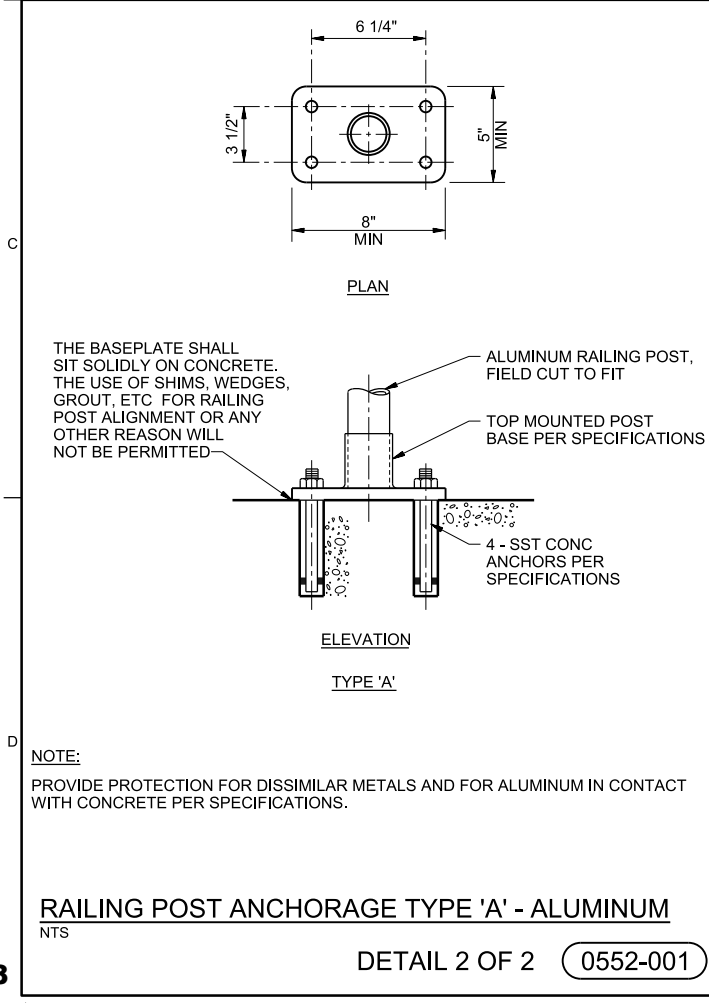
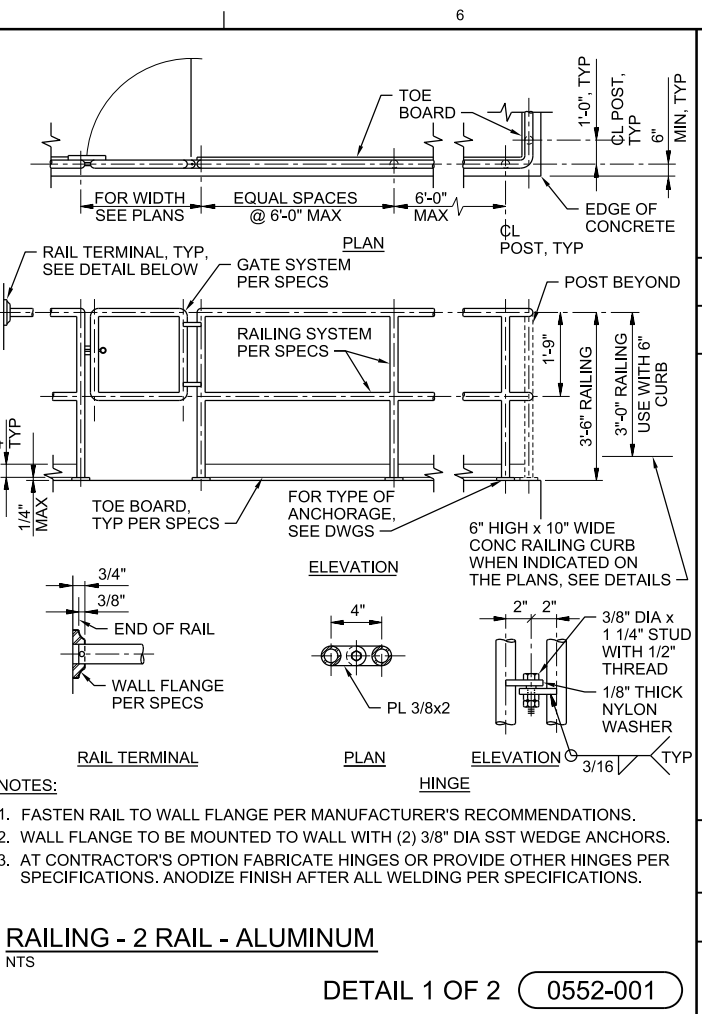
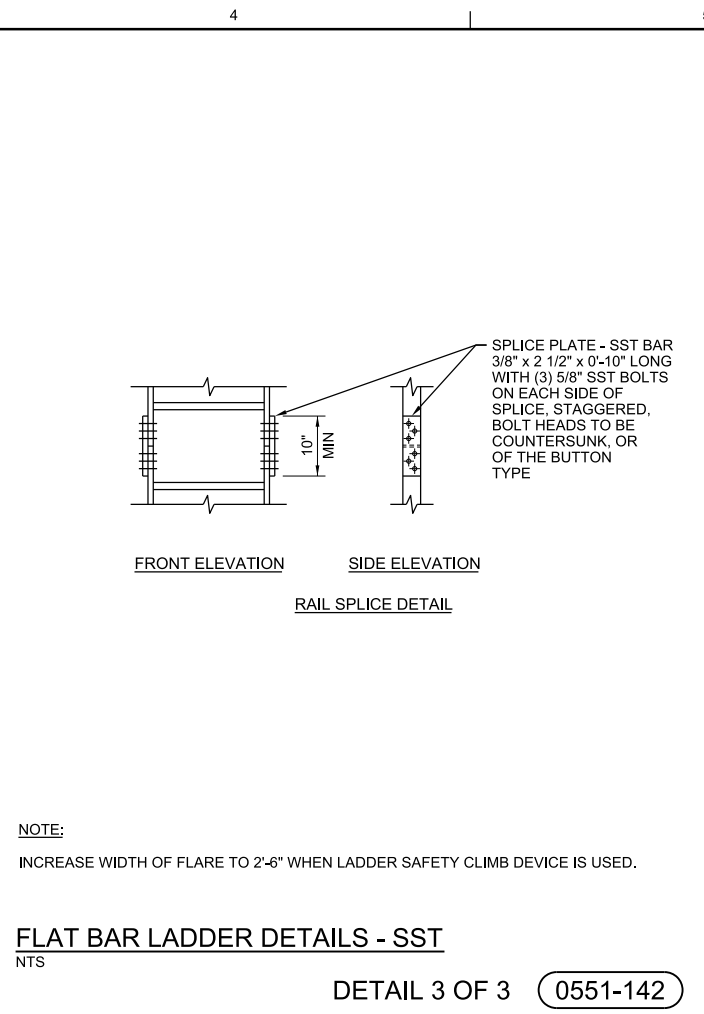
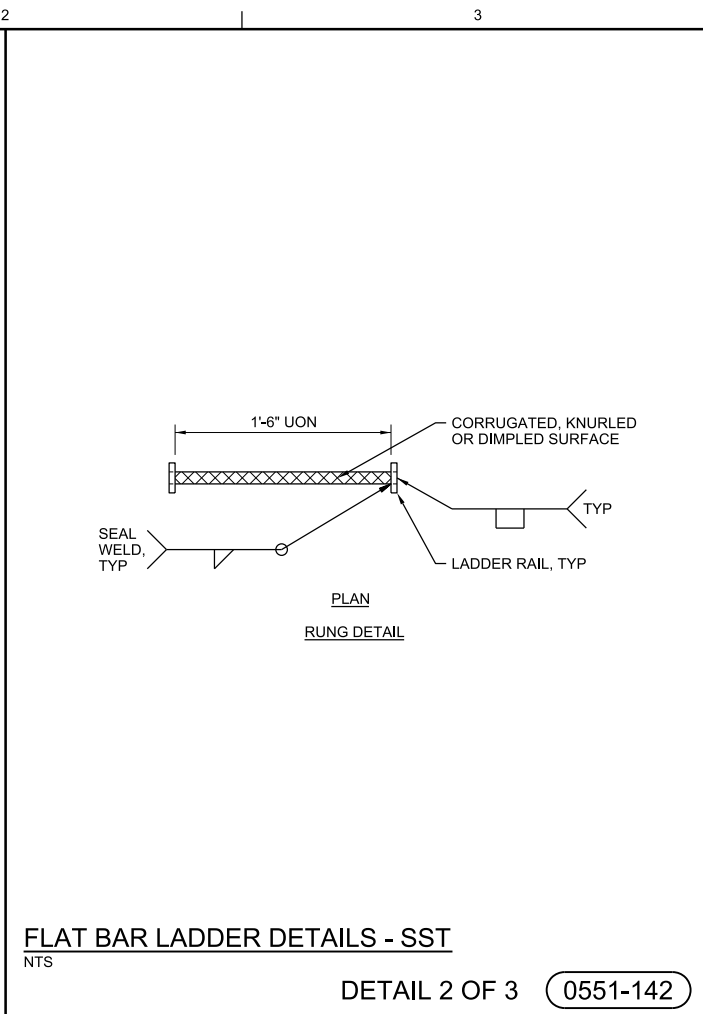
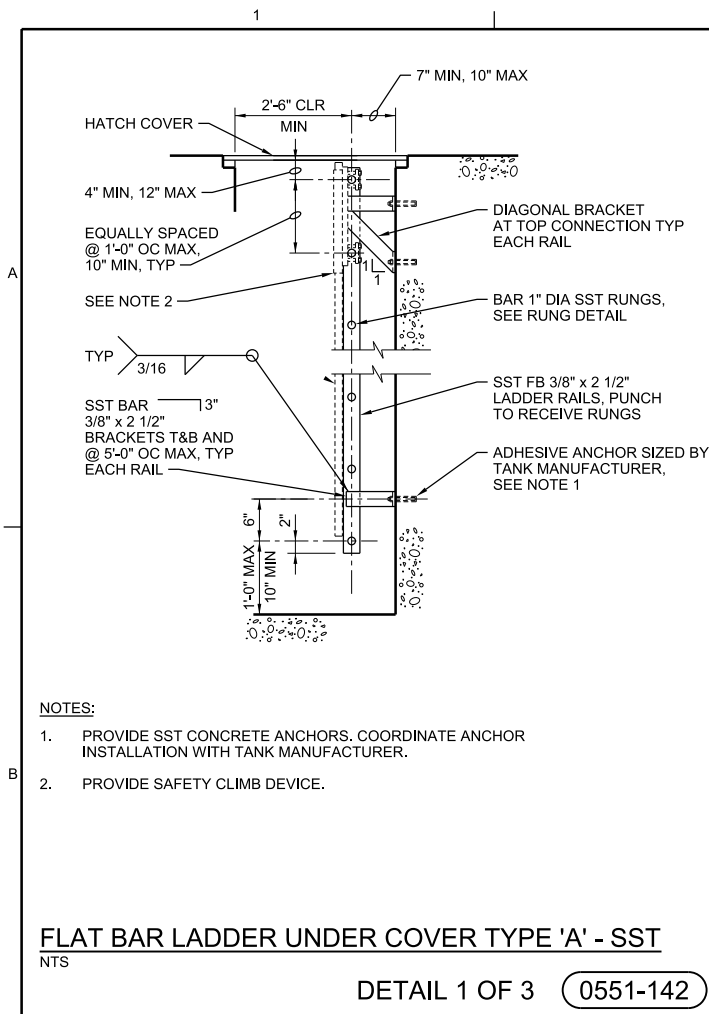
FLAT BAR LADDER DETAILS - STEEL
NTS

DETAIL 3 OF 3 0551-141

| | |
|---|------------|
| REGISTERED PROFESSIONAL ENGINEER JEREMY KELLOGG STRUCTURAL LICENSE NO. 027491 STATE OF NEVADA NOT FOR CONSTRUCTION | |
| NO. | DATE |
| DR | S. TROVIAN |
| CHK | J. MINOR |
| REVISION | J. KELLOGG |
| BY | A. KELLOGG |

Jacobs
STRUCTURAL
STANDARD DETAILS

| | |
|--------------------------------------|---------------|
| VERIFY SCALE | |
| BAR IS ONE INCH ON ORIGINAL DRAWING. | |
| DATE | FEBRUARY 2023 |
| PROJ | W8Y12900 |
| WSUP23-0002 | |
| SHEET | 43 |



REGISTERED PROFESSIONAL ENGINEER
JEREMY KELLOGG
STRUCTURAL
LICENSE NO. 027491
STATE OF NEVADA
NOT FOR CONSTRUCTION

| | | | | | |
|-----|------|----------|----------|-----------|-----------|
| NO. | DATE | DR | REVISION | BY | APVD |
| | | S TROYAN | J MINOR | J KELLOGG | A KELLOGG |

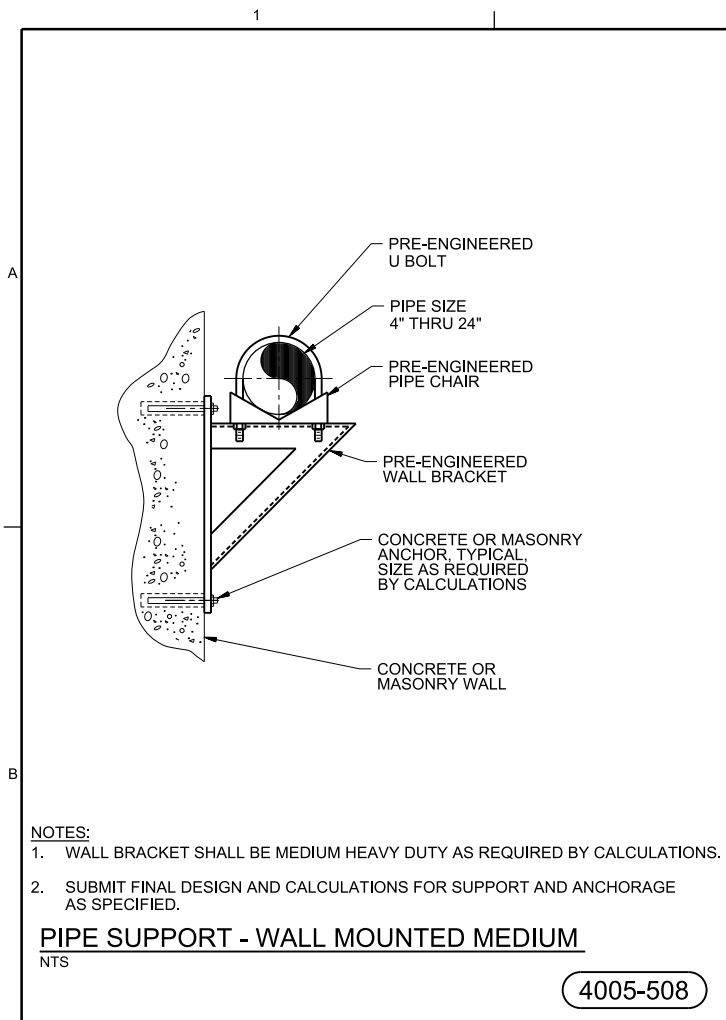
INCLINE VILLAGE
GENERAL IMPROVEMENT DISTRICT
ONE DISTRICT - ONE TEAM
EFFLUENT EXPORT POND LINING PROJECT

Jacobs
STRUCTURAL
STANDARD DETAILS

VERIFY SCALE
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PROJ W8Y12900
SHEET 005 of 005
EXHIBIT E

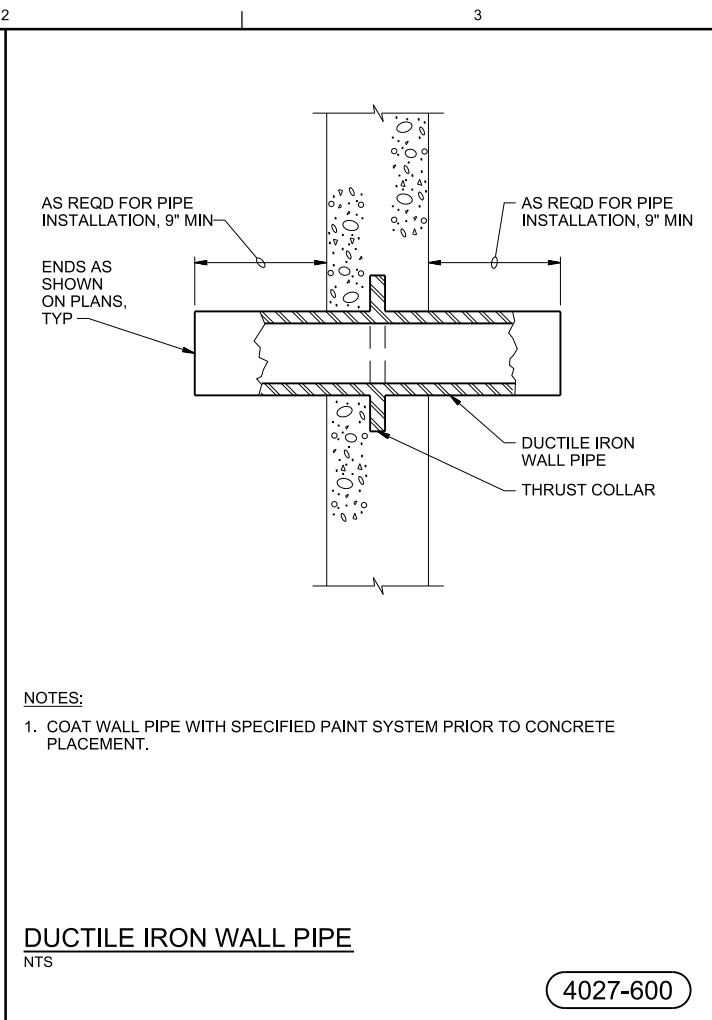
90% DESIGN - NOT FOR CONSTRUCTION



- NOTES:
- WALL BRACKET SHALL BE MEDIUM HEAVY DUTY AS REQUIRED BY CALCULATIONS.
 - SUBMIT FINAL DESIGN AND CALCULATIONS FOR SUPPORT AND ANCHORAGE AS SPECIFIED.

PIPE SUPPORT - WALL MOUNTED MEDIUM
NTS

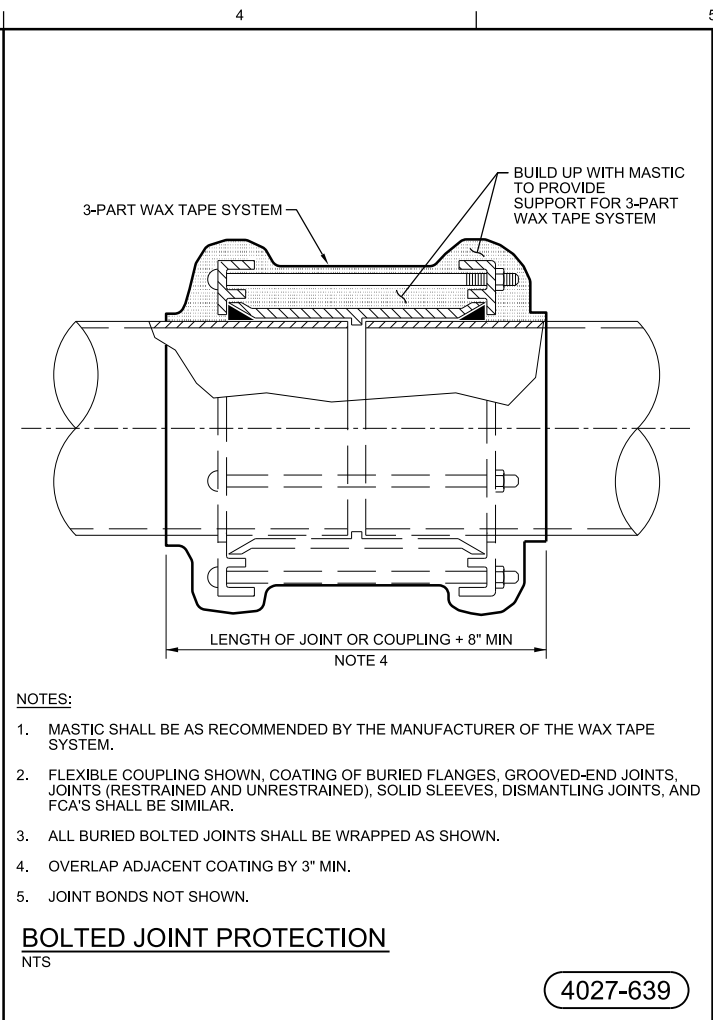
4005-508



- NOTES:
- COAT WALL PIPE WITH SPECIFIED PAINT SYSTEM PRIOR TO CONCRETE PLACEMENT.

DUCTILE IRON WALL PIPE
NTS

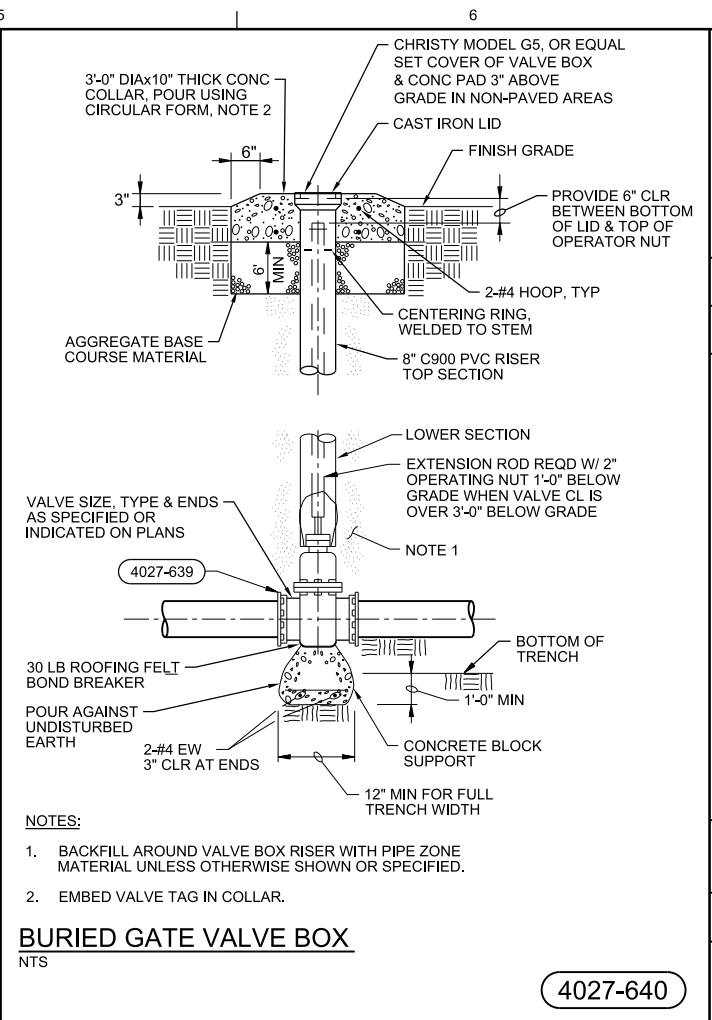
4027-600



- NOTES:
- MASTIC SHALL BE AS RECOMMENDED BY THE MANUFACTURER OF THE WAX TAPE SYSTEM.
 - FLEXIBLE COUPLING SHOWN. COATING OF BURIED FLANGES, GROOVED-END JOINTS, JOINTS (RESTRAINED AND UNRESTRAINED), SOLID SLEEVES, DISMANTLING JOINTS, AND FCA'S SHALL BE SIMILAR.
 - ALL BURIED BOLTED JOINTS SHALL BE WRAPPED AS SHOWN.
 - OVERLAP ADJACENT COATING BY 3" MIN.
 - JOINT BONDS NOT SHOWN.

BOLTED JOINT PROTECTION
NTS

4027-639



- NOTES:
- BACKFILL AROUND VALVE BOX RISER WITH PIPE ZONE MATERIAL UNLESS OTHERWISE SHOWN OR SPECIFIED.
 - EMBED VALVE TAG IN COLLAR.

BURIED GATE VALVE BOX
NTS

4027-640



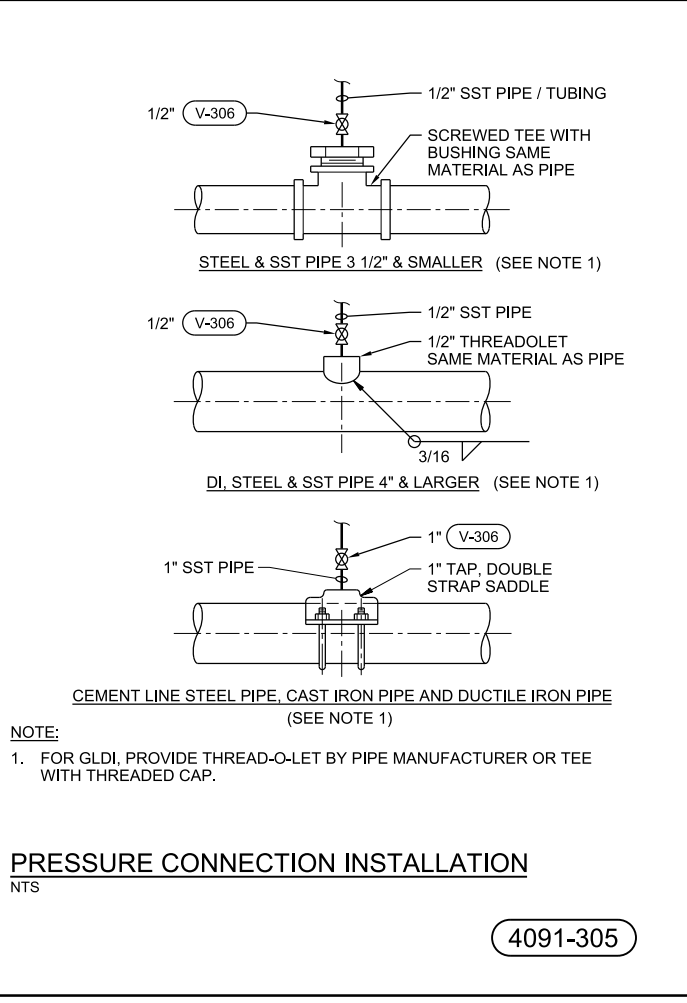
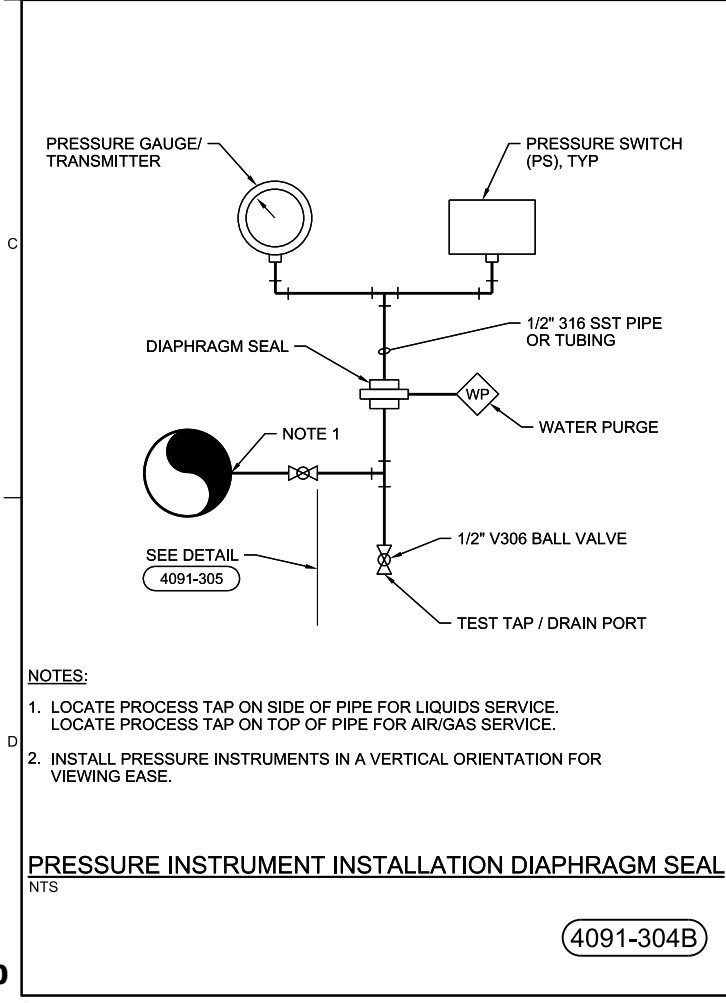
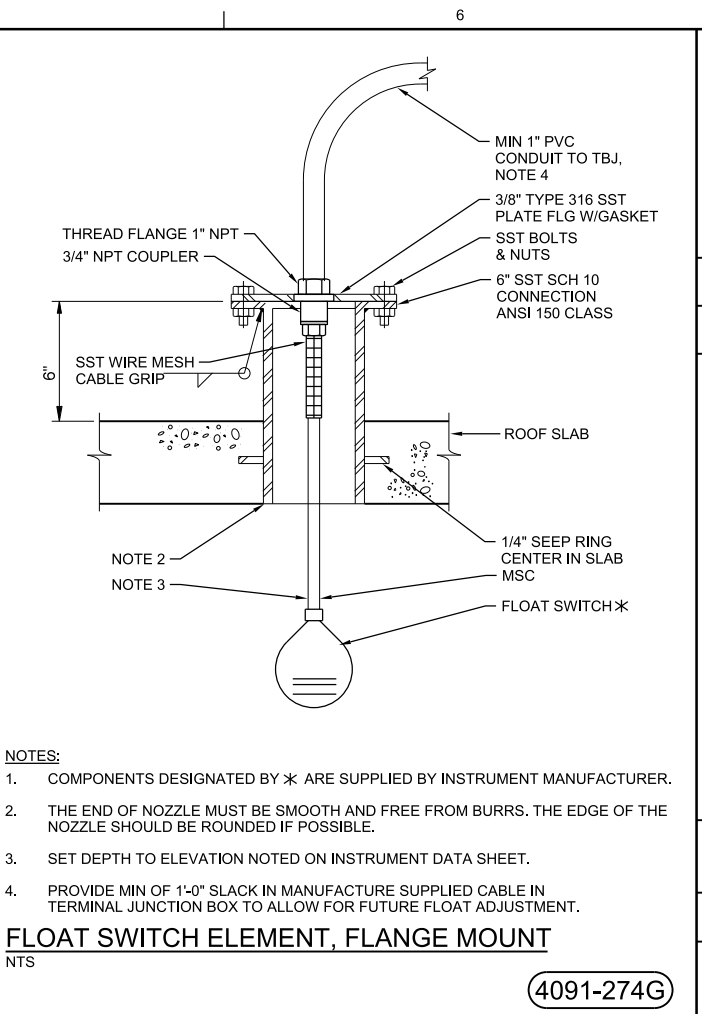
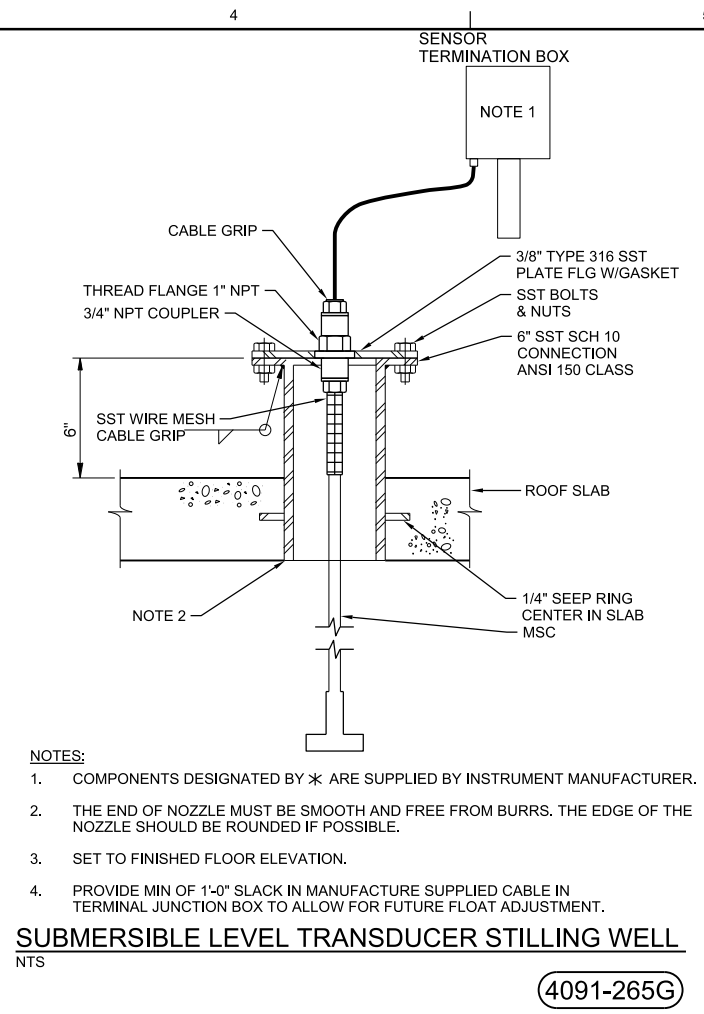
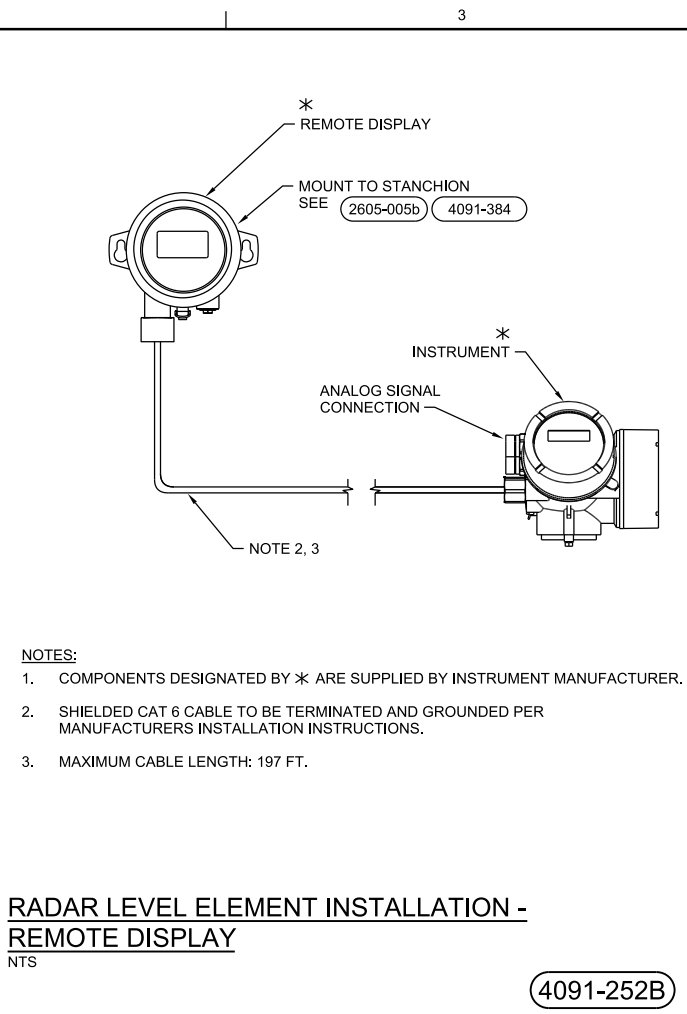
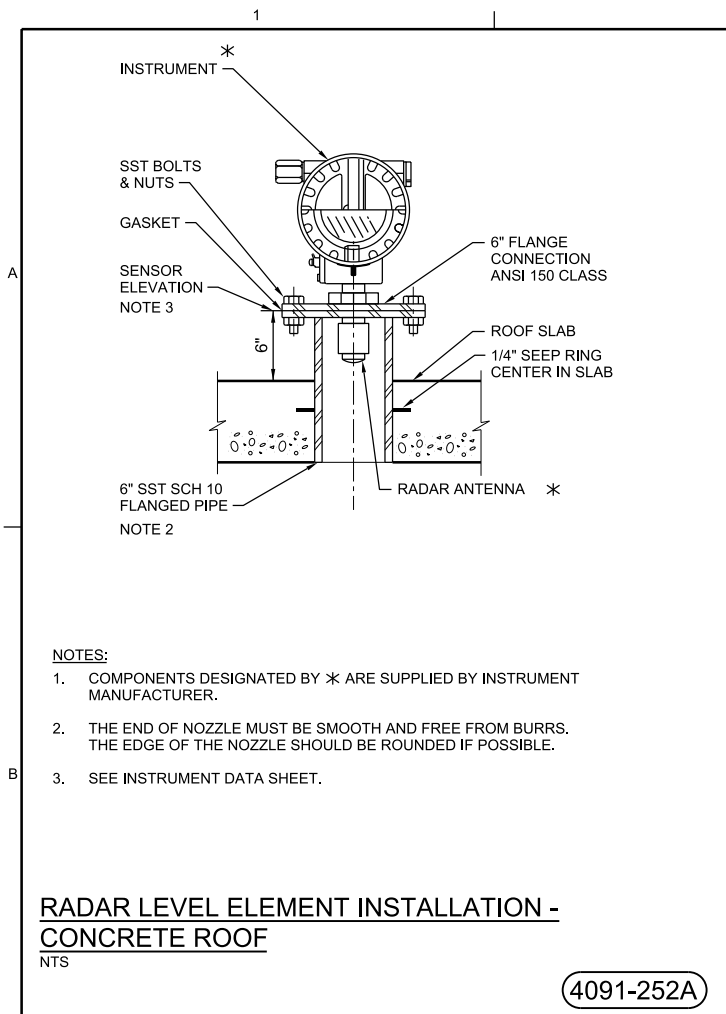
Jacobs
PROCESS MECHANICAL
STANDARD DETAILS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.

DATE FEBRUARY 2023
PROJ W8Y12900
SHEETS 43 of 43

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| | | | |
|---|------------|----------|------|
| REGISTERED PROFESSIONAL ENGINEER JOHN SIMONDS MECHANICAL LICENSE NO. 027655 STATE OF NEVADA NOT FOR CONSTRUCTION | APVD | BY | APVD |
| | APVD | | |
| | CHK | REVISION | |
| | J. MINOR | | |
| | DR | | |
| | NO. | DATE | |
| | DSGN | | |
| | J. HORNBAY | | |
| | W. MISSLIN | | |
| | A. KELLOGG | | |



| | |
|--|------|
| REGISTERED PROFESSIONAL ENGINEER CRAIG M. CUSWORTH ELECTRICAL LICENSE NO. 022425 STATE OF NEVADA NOT FOR CONSTRUCTION | |
| NO. | DATE |
| DR | APVD |
| CHK | APVD |
| REVISION | BY |
| A KELLOGG | |
| D JOHNSON | |
| J MINOR | |
| S SUNDAHL | |

INCLINE VILLAGE
GENERAL IMPROVEMENT DISTRICT
ONE DISTRICT - ONE TEAM
EFFLUENT EXPORT POND LINING PROJECT

Jacobs
INSTRUMENTATION AND CONTROL
STANDARD DETAILS

VERIFY SCALE
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PROJ W8Y12900
WSUP23-0002
SHEET 14 of 43
EXHIBIT E

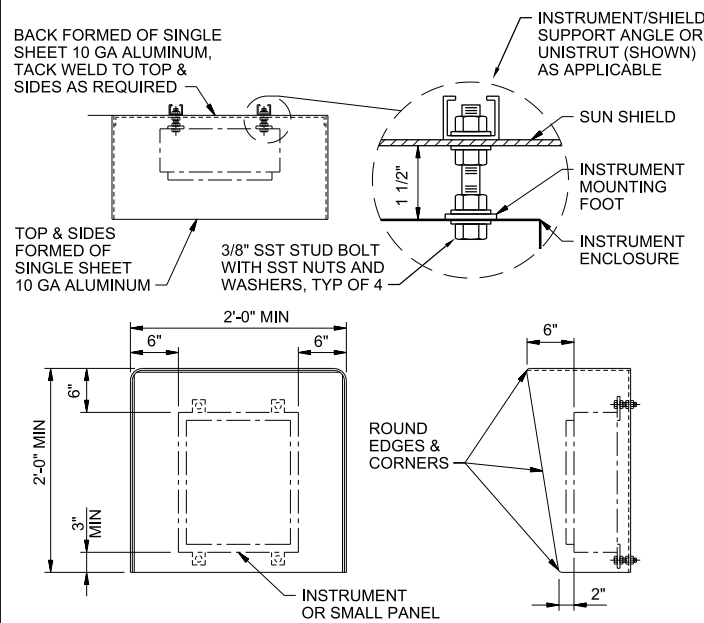
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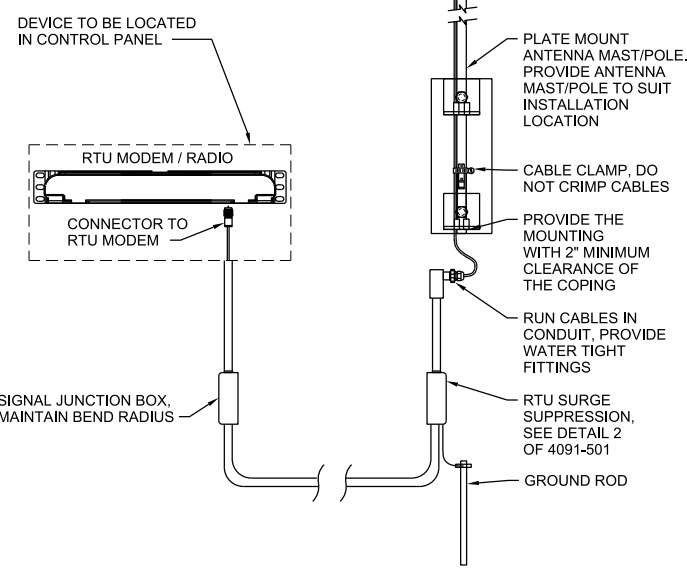
D



NOTES:
 1. ALL EXPOSED EDGES TO BE GRIND SMOOTH AND BURR FREE.
 2. MOUNT SUN SHIELD BETWEEN INSTRUMENT AND MOUNTING BRACKET. DRILL HOLES IN SUN SHIELD AS PER MOUNTING HOLES FOR INSTRUMENT, SEE 4091-383 4091-388

SUN SHIELD INSTALLATION
NTS

4091-384

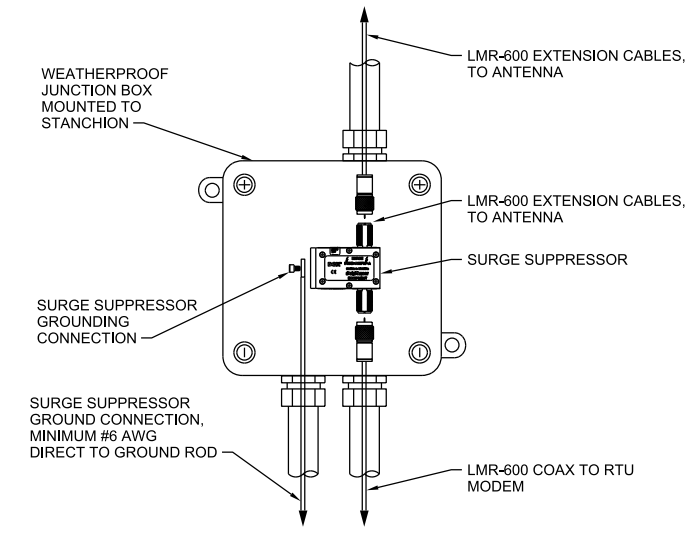


NOTES:
 1. SEE DETAIL 4091-501 2 OF 2 FOR SURGE SUPPRESSOR INSTALLATION AND GROUNDING/BONDING REQUIREMENTS.

ANTENNA INSTALLATION
NTS

DETAIL 1 OF 2

4091-501



NOTES:
 1. ADD ALL REQUIRED CABLE CONNECTORS THAT ARE COMPATIBLE WITH THE ANTENNA LMR-600 CABLE, SURGE SUPPRESSOR, AND RTU MODEM.

RTU/RADIO SURGE SUPPRESSION
NTS

DETAIL 2 OF 2

4091-501

REGISTERED PROFESSIONAL ENGINEER
 CRAIG M. CUSWORTH
 ELECTRICAL
 LICENSE NO. 022425
 STATE OF NEVADA
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|-----|------|-----------|----------|-----------|
| | | S SUNDAHL | R STEED | D JOHNSON |
| | | DSGN | CHK | APVD |
| | | | REVISION | APVD |

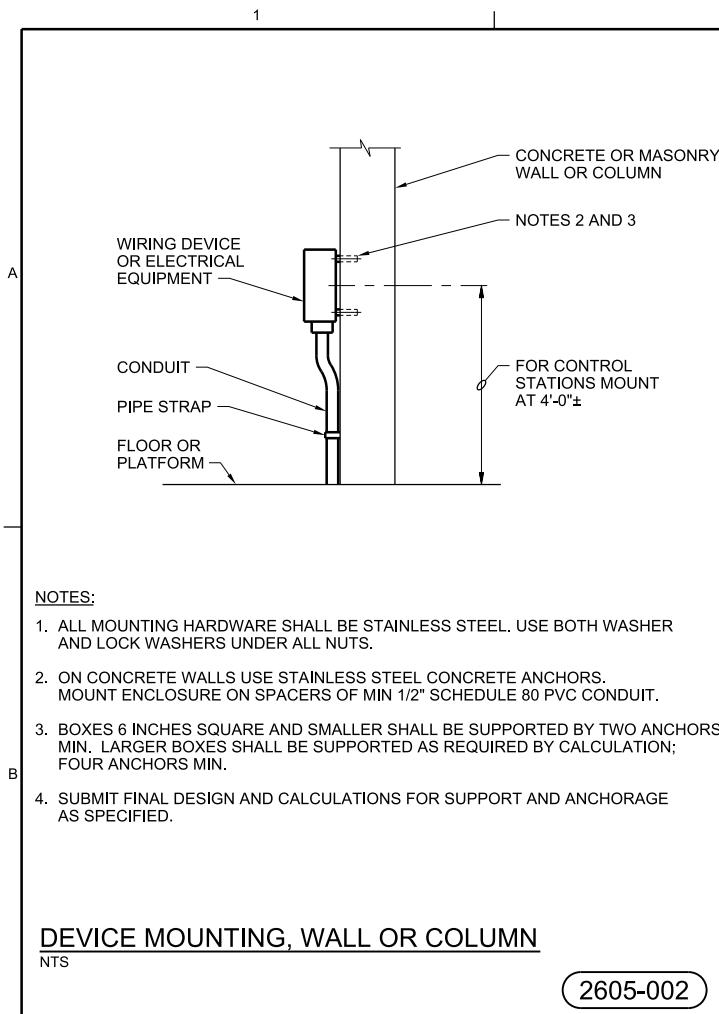
INCLINE VILLAGE
 GENERAL IMPROVEMENT DISTRICT ONE DISTRICT - ONE TEAM
 EFFLUENT EXPORT POND LINING PROJECT

Jacobs
 INSTRUMENTATION AND CONTROL
 STANDARD DETAILS

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 PROJ W8Y12900
WSUP23-0002
 SHEET 43 of 43
EXHIBIT E

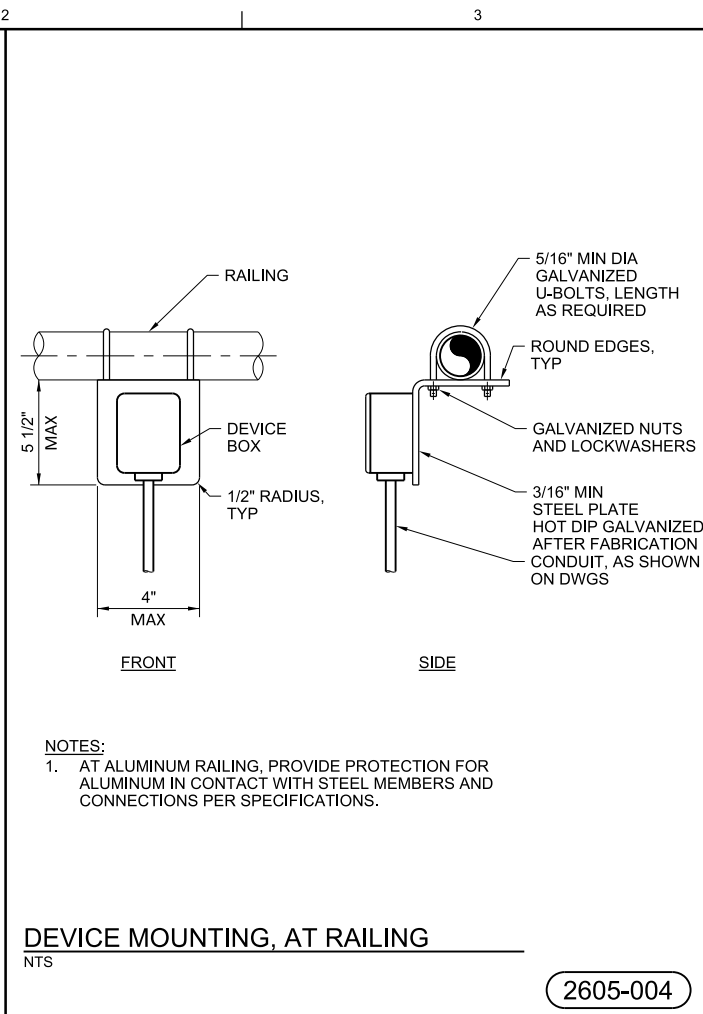
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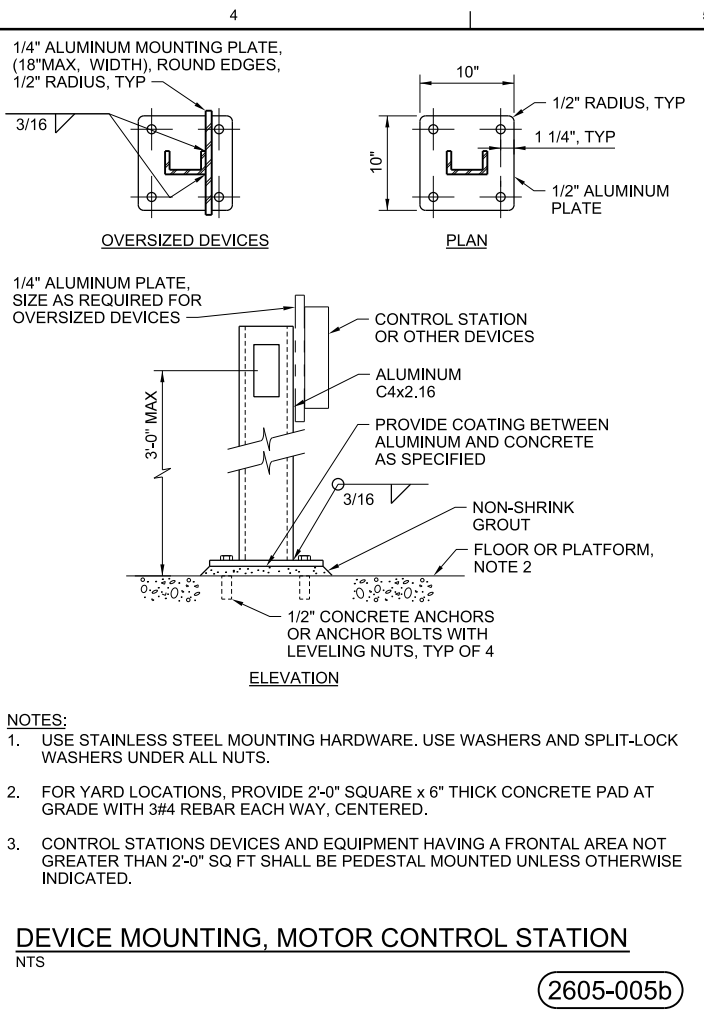
DEVICE MOUNTING, WALL OR COLUMN
NTS

2605-002



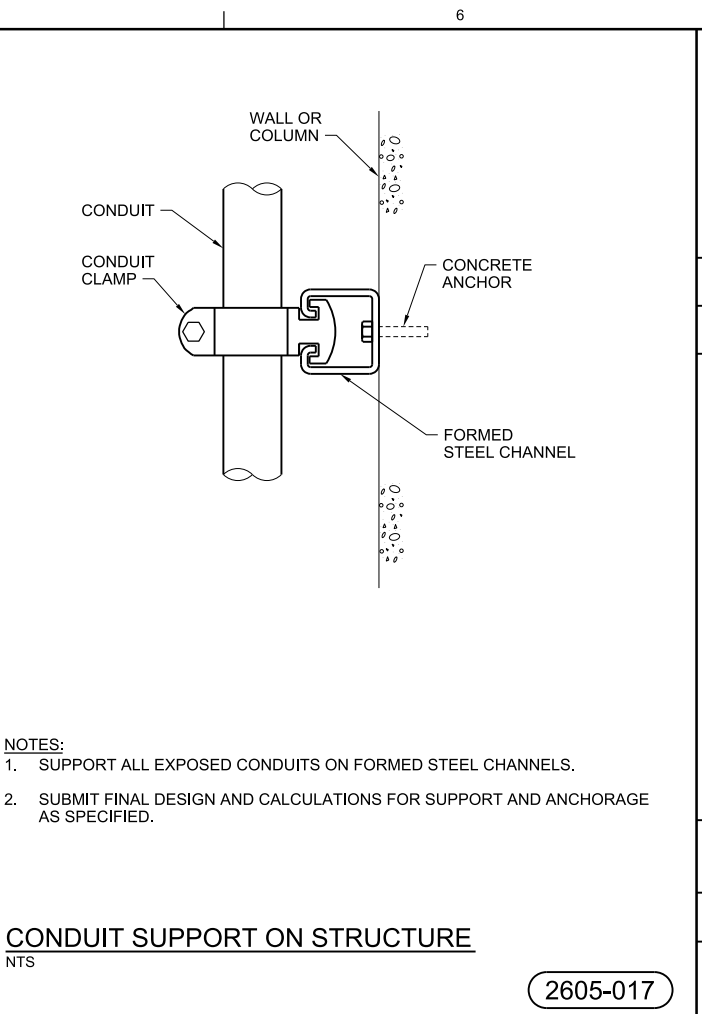
DEVICE MOUNTING, AT RAILING
NTS

2605-004



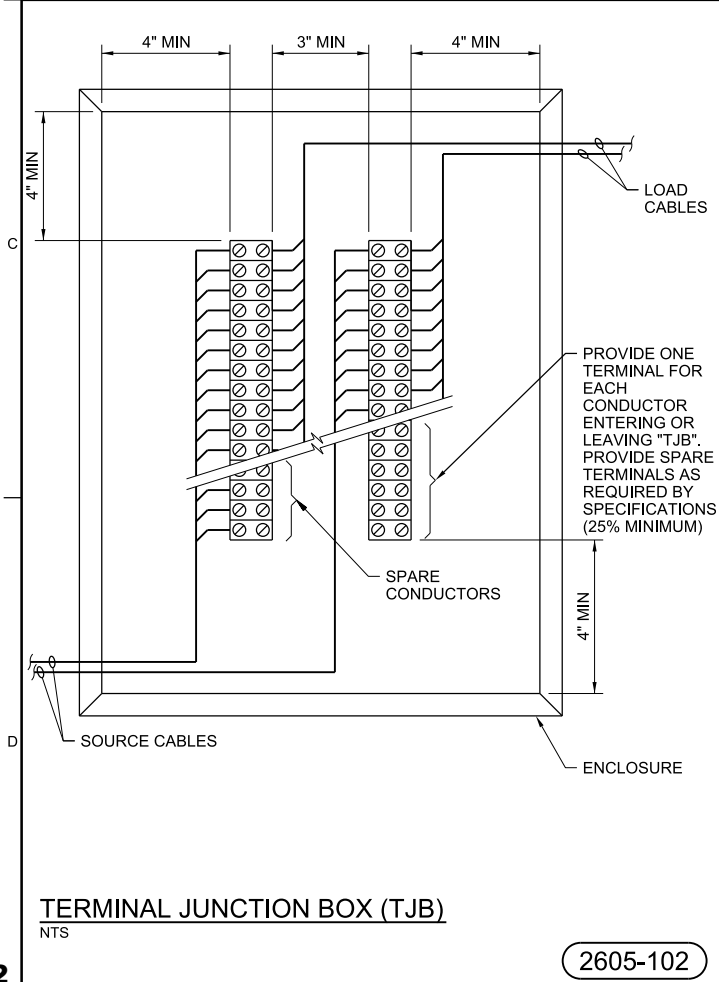
DEVICE MOUNTING, MOTOR CONTROL STATION
NTS

2605-005b



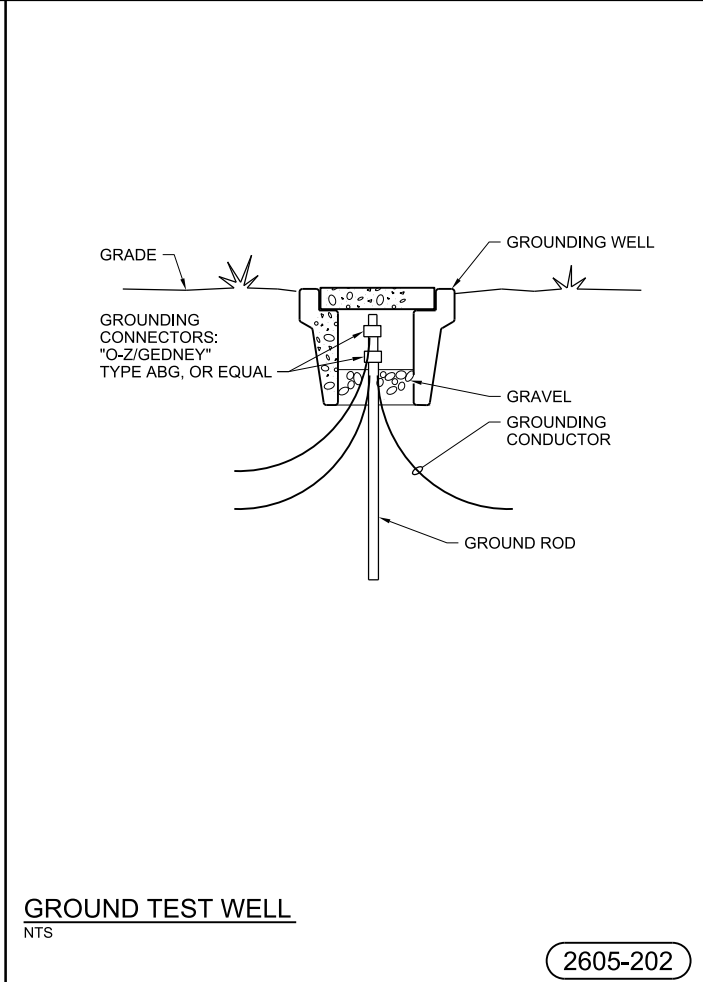
CONDUIT SUPPORT ON STRUCTURE
NTS

2605-017



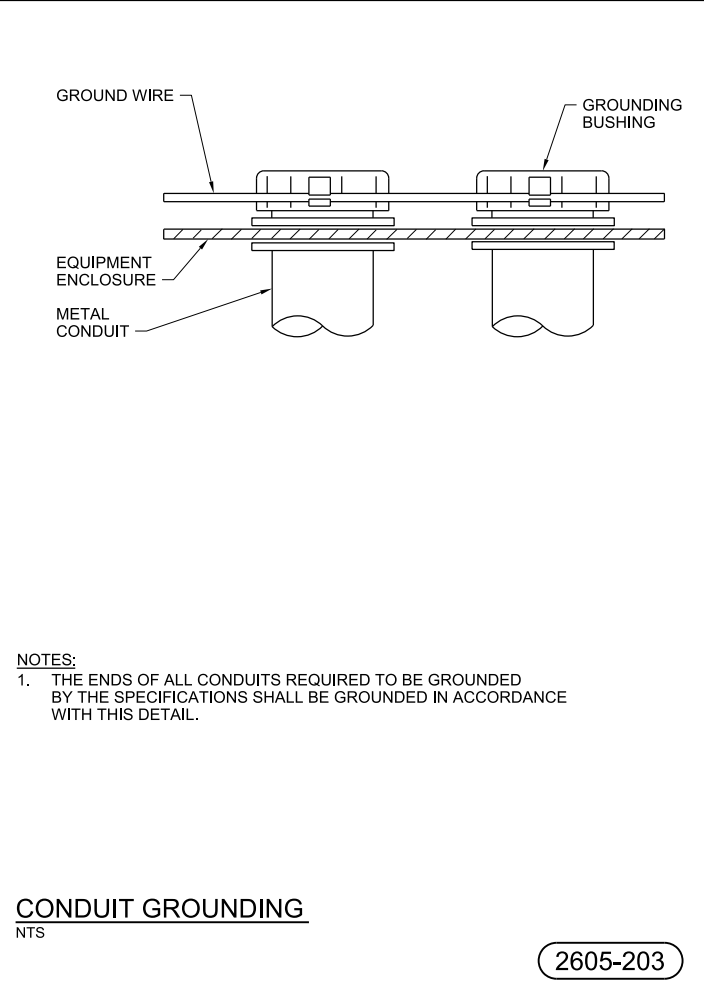
TERMINAL JUNCTION BOX (TJB)
NTS

2605-102



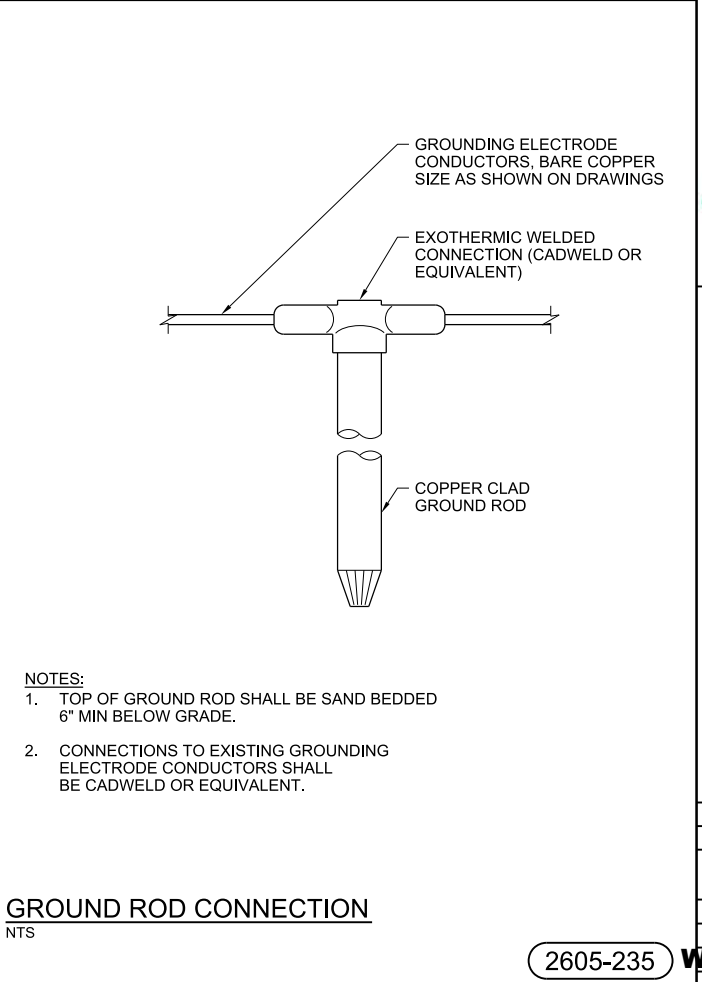
GROUND TEST WELL
NTS

2605-202



CONDUIT GROUNDED
NTS

2605-203



GROUND ROD CONNECTION
NTS

2605-235

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ELECTRICAL
LICENSE NO. 022425
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| NO. | DATE | DR | CHK | APVD | BY | APVD |
| | | J. JABSHIER | J. MINOR | C. CUSWORTH | A. KELLOGG | |

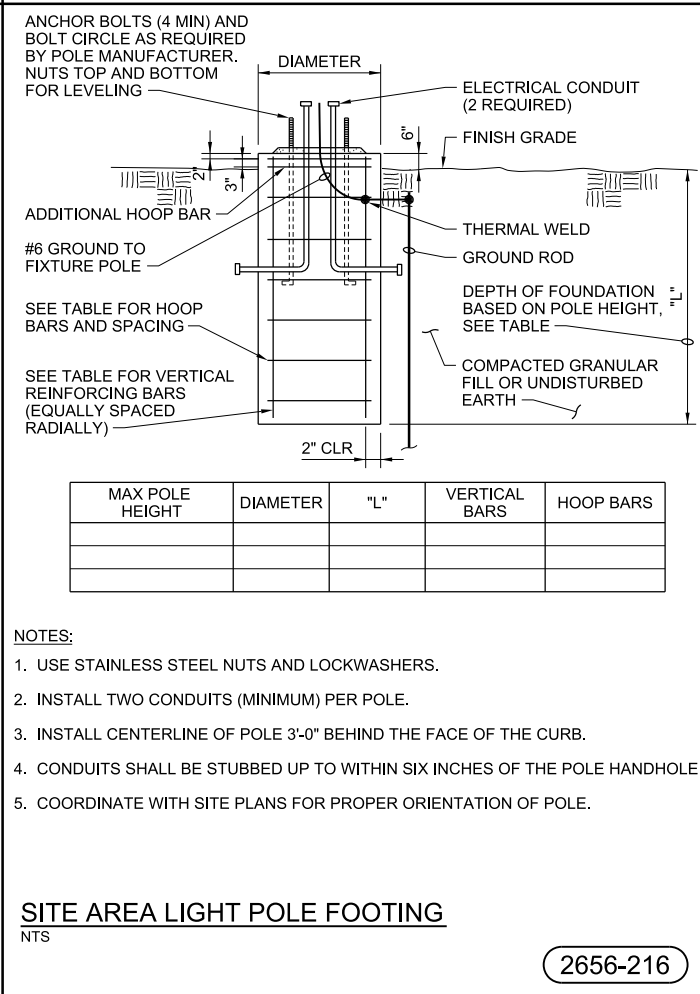
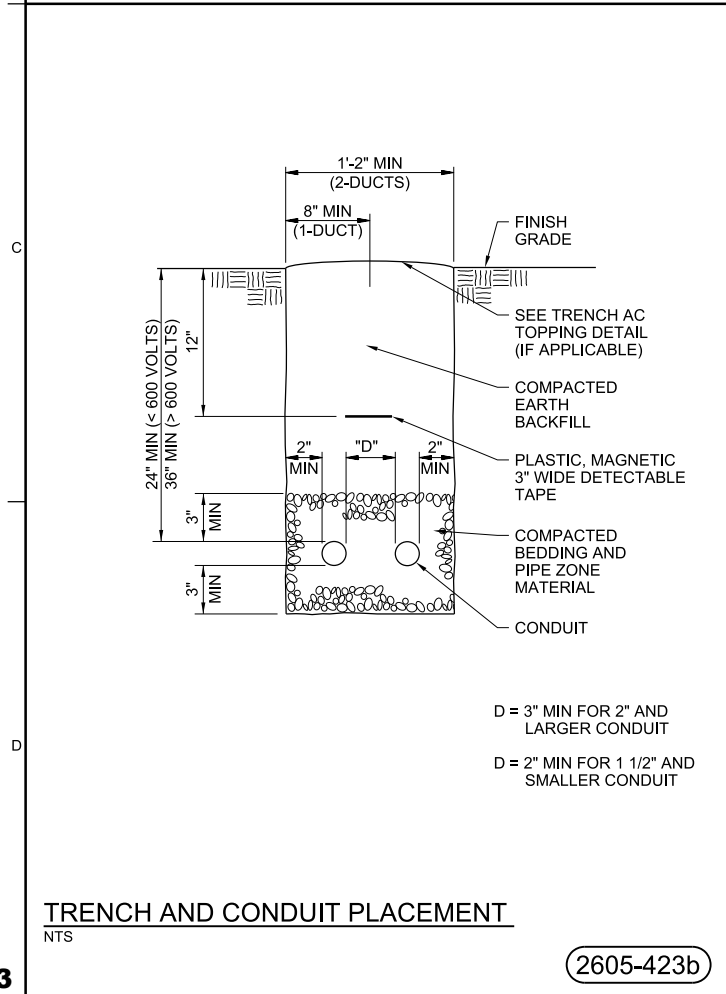
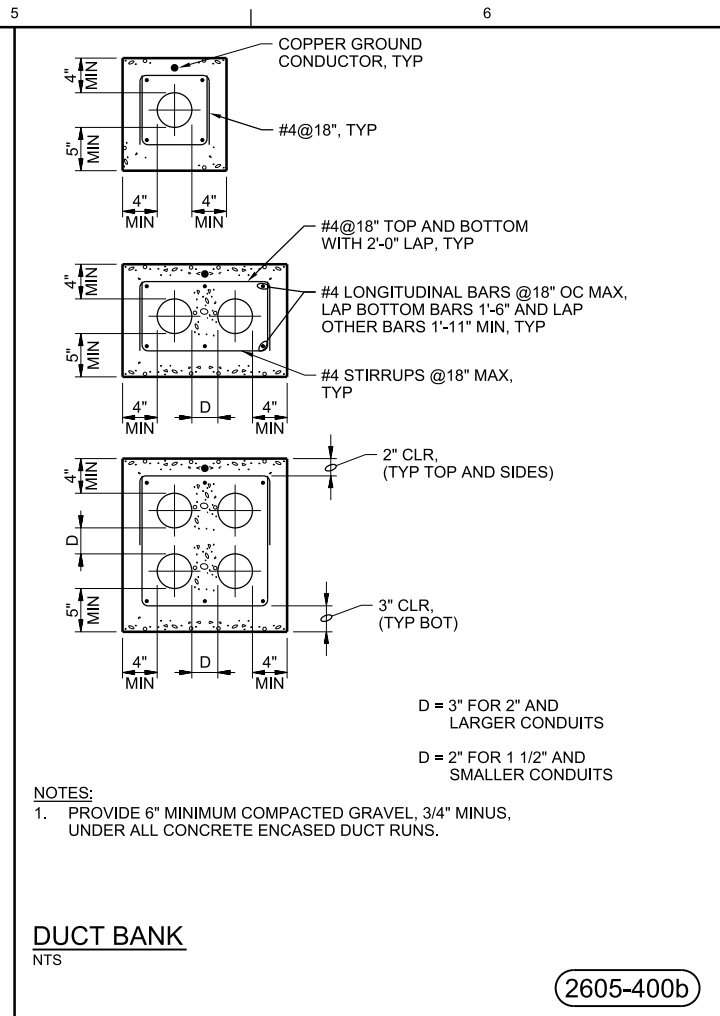
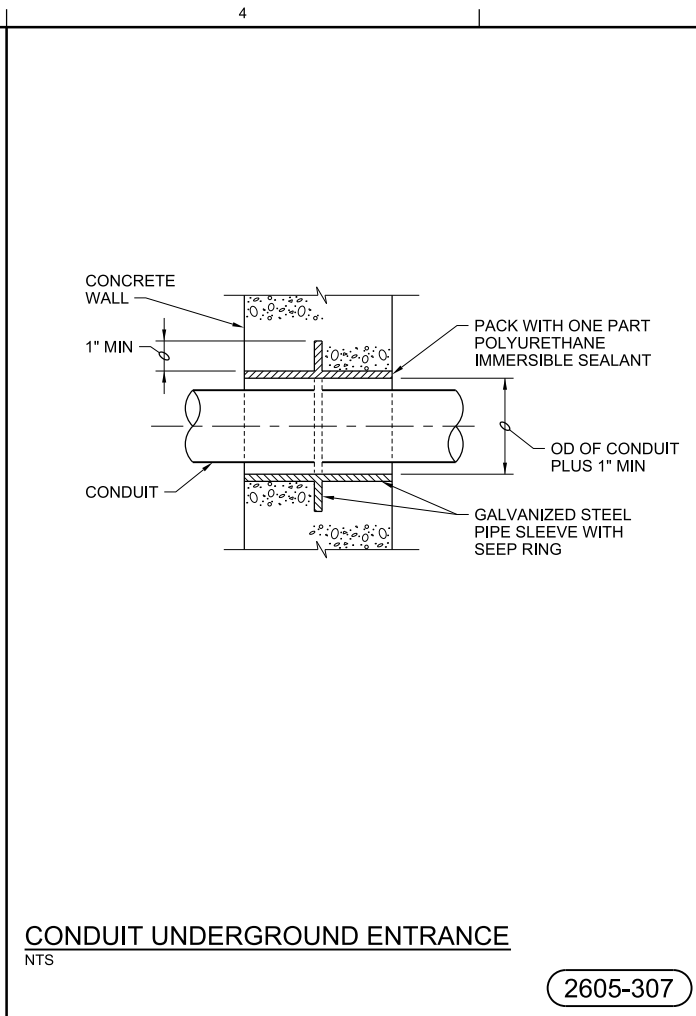
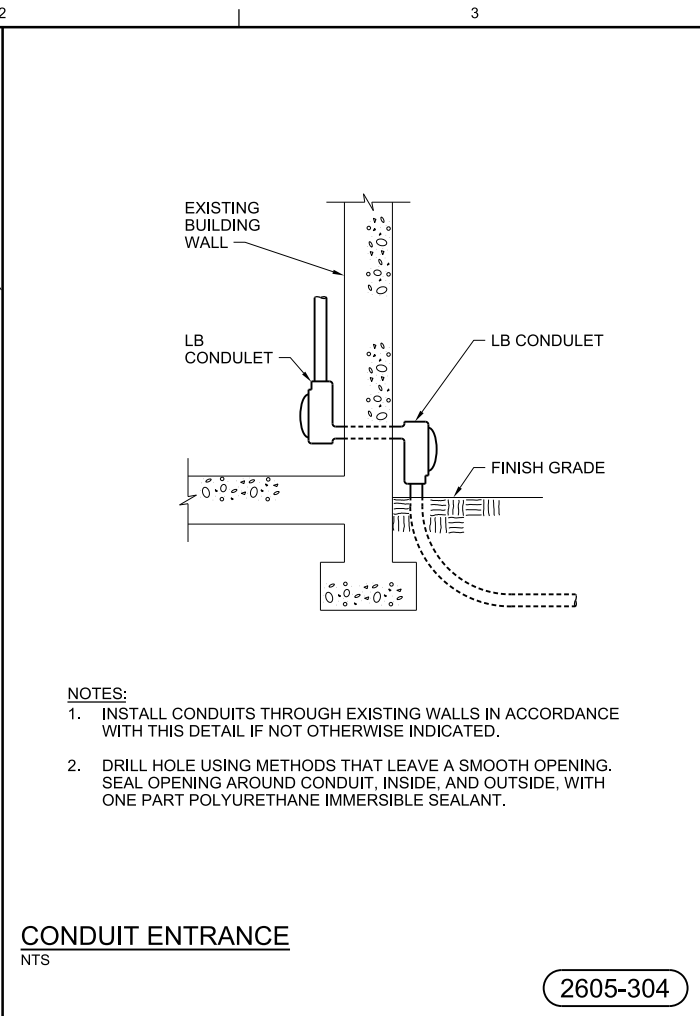
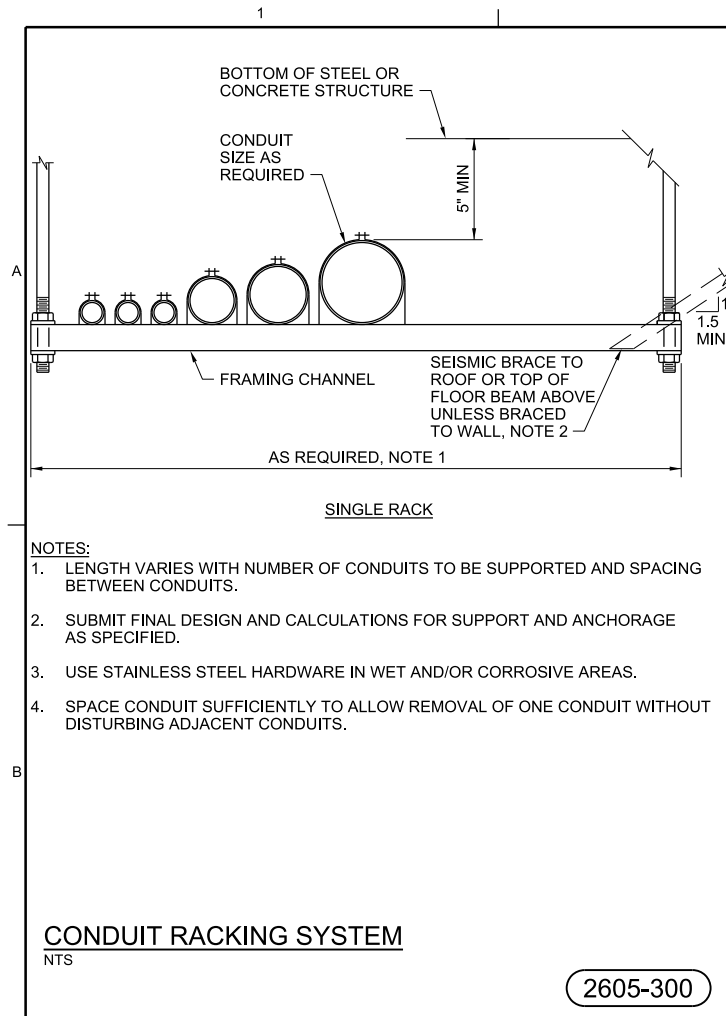
REVISION

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GENERAL IMPROVEMENT DISTRICT
ONE DISTRICT - ONE TEAM
EFFLUENT EXPORT POND LINING PROJECT

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ELECTRICAL
STANDARD DETAILS

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REVISION CHK J. MINOR C. CUSWORTH
BY APVD A. KELLOGG

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EXHIBIT E