

January 9, 2023

To whom it may Concern,

We are pleased to submit an application for a special use permit for Major Grading regarding the IVGID Effluent Storage Tank. IVGID held a neighborhood meeting on August 16, 2022 with the community about the proposed project and uploaded the related information to the Washoe County Neighborhood HUB.

Comments received at the meeting were as follows:

- 1) Recommendation to collect federal, state, and county funding for the project.
- 2) A recommendation to review guidelines from the Army Corp of Engineers on storage tanks.

IVGID propose these comments are generally not applicable to the SUP Major Grading permit application. However, please note that the proposed design parameters in the Army Corp of Engineers handbook is not applicable to the IVGID Effluent Tank project. The additional comments will be addressed independent of the Washoe County permit application as IVGID will continue to manage the different levels of funding for the proposed project.

IVGID will be requesting a variance from standard WCDC110.438.45 & .55 (a) to allow the project site to allow alopes greater than 3:1 due to space constraints for the project. We will also request a variance to standard re-vegetation requirements WCDC110.438.70 to more closely mimic existing conditions. This includes installing a mulch and pine needle blend pinned under an erosion control blanket. The primary existing vegetation on the slope is limited to pine/fir trees and intermittent manzanita bushes. A brief photo exhibit is attached indicating the existing slope conditions.

We appreciate your time and consideration and look forward to working with Washoe County through the application process.

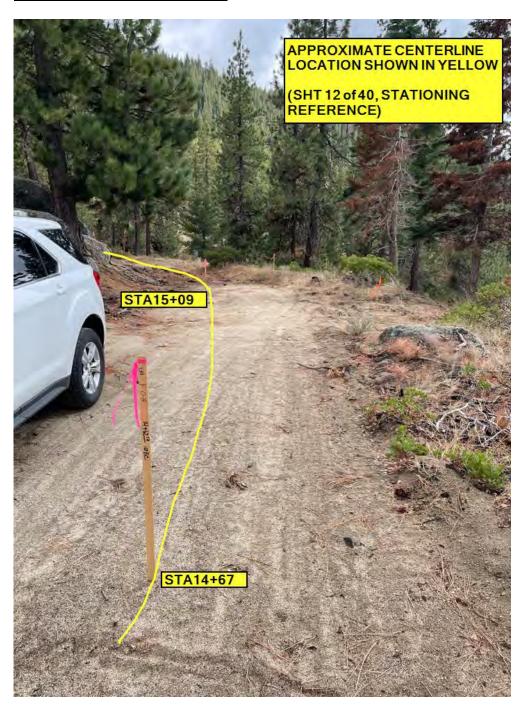
Sincerely,

Hudson Klein

Enclosures



Existing Conditions Exhibit:



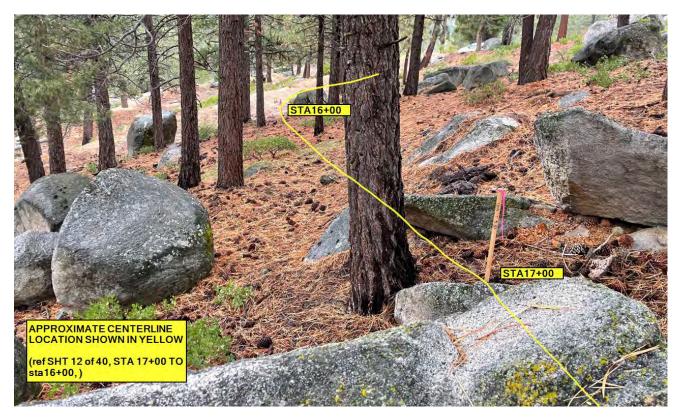




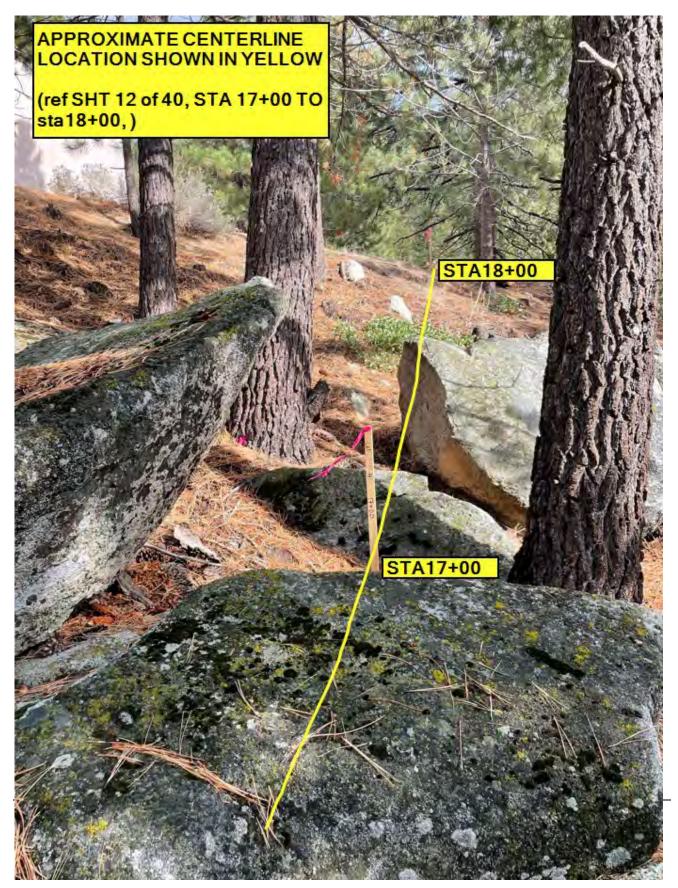




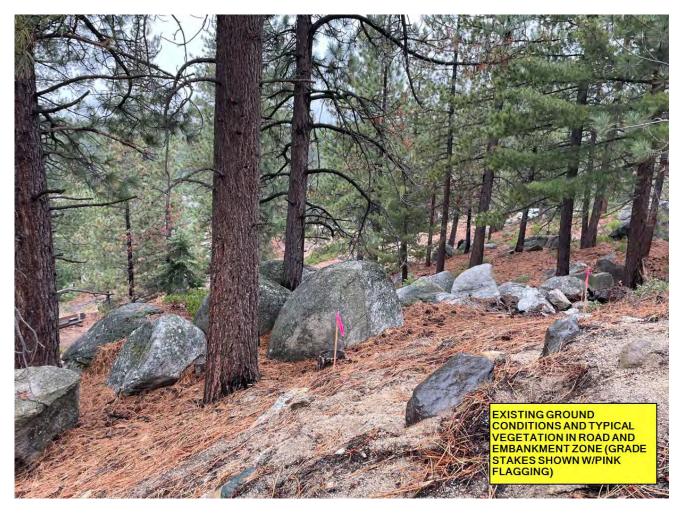




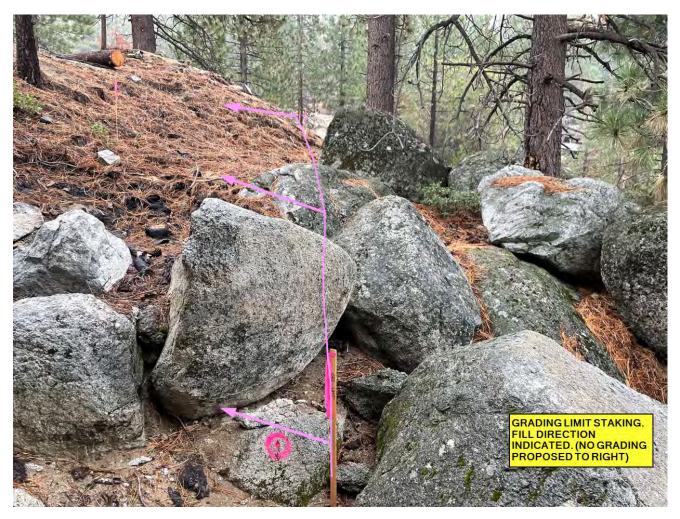












Community Services Department

Planning and Building

SPECIAL USE PERMIT (see page 7)

SPECIAL USE PERMIT FOR GRADING (see page 9)

SPECIAL USE PERMIT FOR STABLES (see page 12)

APPLICATION



Community Services Department Planning and Building 1001 E. Ninth St., Bldg. A Reno, NV 89512-2845

Telephone: 775.328.6100

Washoe County Development Application

Your entire application is a public record. If you have a concern about releasing personal information, please contact Planning and Building staff at 775.328.6100.

Project Information	s	Staff Assigned Case No.:	
Project Name:			
Project Description:			
Project Address:			
Project Area (acres or square fe	et):		
Project Location (with point of re	eference to major cross	streets AND area locator):	
Assessor's Parcel No.(s):	Parcel Acreage:	Assessor's Parcel No.(s):	Parcel Acreage:
Indicate any previous Washo Case No.(s).	e County approval	s associated with this applicat	tion:
Applicant Inf	ormation (attach	additional sheets if necess	sary)
Property Owner:		Professional Consultant:	
Name:		Name:	
Address:		Address:	
	Zip:		Zip:
Phone:	Fax:	Phone:	Fax:
Email:		Email:	
Cell:	Other:	Cell:	Other:
Contact Person:		Contact Person:	
Applicant/Developer:		Other Persons to be Contact	ted:
Name:		Name:	
Address:		Address:	
	Zip:		Zip:
Phone:	Fax:	Phone:	Fax:
Email:		Email:	
Cell:	Other:	Cell:	Other:
Contact Person:		Contact Person:	
	For Office	Use Only	
Date Received:	Initial:	Planning Area:	
County Commission District:		Master Plan Designation(s):	
CAB(s):		Regulatory Zoning(s):	

Special Use Permit Application Supplemental Information

(All required information may be separately attached)

1.	What is the project being requested?
2.	Provide a site plan with all existing and proposed structures (e.g. new structures, roadway improvements, utilities, sanitation, water supply, drainage, parking, signs, etc.)
3.	What is the intended phasing schedule for the construction and completion of the project?
4.	What physical characteristics of your location and/or premises are especially suited to deal with the impacts and the intensity of your proposed use?
5.	What are the anticipated beneficial aspects or affects your project will have on adjacent properties and the community?
6.	What are the anticipated negative impacts or affect your project will have on adjacent properties? How will you mitigate these impacts?
7.	Provide specific information on landscaping, parking, type of signs and lighting, and all other code requirements pertinent to the type of use being purposed. Show and indicate these requirements on submitted drawings with the application.

No parking, signage, or lighting facilities are required or proposed for the subject project. A variance for landscaping is requested to WCDC110.43870. The proposed erosion control and forest mat re-instatement includes a blend of mulch and pine needles applied under pinned erosion control blanket on slopes. This proposal is based on the sparse vegetation existing

in an attempt to match existing condtions. Please refer to sheet 17 of 40 (050-C-5001) for slope treatments.

	Yes				No	
Utilit	ies:					
a. \$	Sewer Service					
b. 1	Electrical Service					
c.	Telephone Service					
d. I	LPG or Natural Gas	Service				
е. 5	Solid Waste Disposa	al Service				
f. (Cable Television Se	rvice				
g. \	Water Service					
	Certificate #				acre-feet per year	
					s to Washoe County. I dedication be require	
h. I	Permit #				acre-feet per year	
i. (Certificate #				acre-feet per year	
	Surface Claim #				acre-feet per year	
k. (Other #	s filed with	the State	Engine	acre-feet per year	Water Resources of
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Com a. I b. I d. I	of those rights (as artment of Conserva nmunity Services (pro- Fire Station Health Care Facility Elementary School	tion and Na	atural Reso	ources).	acre-feet per year eer in the Division of	Water Resources of
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Special Use Permit Application for Grading **Supplemental Information**

(All required information may be separately attached)

1.	What is the purpose of the grading?
2.	How many cubic yards of material are you proposing to excavate on site?
	9,000 cubic yards of cut-fill are proposed to accommodate the tank pad and service road construciton.
3.	How many square feet of surface of the property are you disturbing?
4.	How many cubic yards of material are you exporting or importing? If none, how are you managing to balance the work on-site?
5.	Is it possible to develop your property without surpassing the grading thresholds requiring a Special Use Permit? (Explain fully your answer.)
6.	Has any portion of the grading shown on the plan been done previously? (If yes, explain the circumstances, the year the work was done, and who completed the work.)
7.	Have you shown all areas on your site plan that are proposed to be disturbed by grading? (If no explain your answer.)

8.	Can the croadways		be seen from off-site? If yes, from which directions and which properties or
9.			erties also be served by the proposed access/grading requested (i.e. if you would it be used for access to additional neighboring properties)?
0.			ontal/vertical) of the cut and fill areas proposed to be? What methods will be until the revegetation is established?
1.	Are you p	planning any be	rms?
	Yes	No	If yes, how tall is the berm at its highest?
2.	required?		and you are leveling a pad for a building, are retaining walls going to be igh will the walls be and what is their construction (i.e. rockery, concrete, ock)?
3.	What are	you proposing	for visual mitigation of the work?
1.	Will the g	grading propose	ed require removal of any trees? If so, what species, how many and of what
	>14" DBH (0 <14" DBH: 3	30 various pines spec	64 trees. ight): 29 Ponderosa, 2 Jeffrey, 1 Douglas Fir, and 1 Sugar Pine ies (not regulated by local TRPA authority) oth North Lake Tahoe Fire Protection District and TRPA regarding removal of these trees
5.			on seed mix are you planning to use and how many pounds per acre do you ill you use mulch and, if so, what type?

16.	How are you	providing te	mporary irrigation to the disturbed area?
17.	Have you re	viewed the re	evegetation plan with the Washoe Storey Conservation District? If yes, have
	you incorpor		
18.	Are there as prohibit the r	•	e covenants, recorded conditions, or deed restrictions (CC&Rs) that may ading?
	Yes	No	If yes, please attach a copy.

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

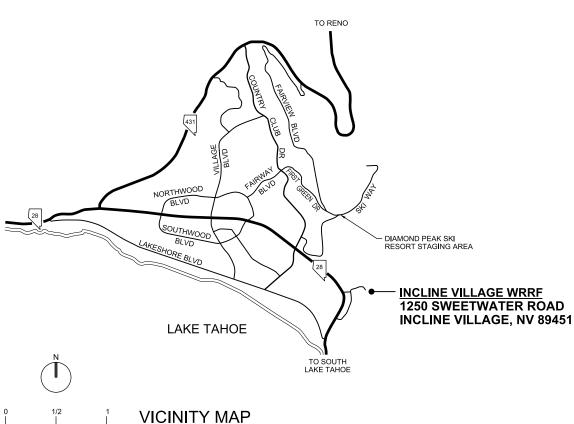
INCLINE VILLAGE WASHOE COUNTY NEVADA

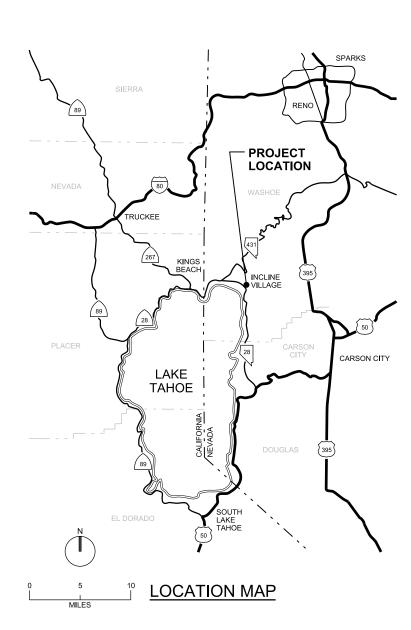
IVGID PROJECT NO.: 2599SS2010 PWP: WA-2021-016

90% DESIGN DRAWINGS

DECEMBER 2022







INCLINE VILLAGE GENERAL IMPROVEMENT DISTRICT BOARD OF TRUSTEES:

TIM CALLICRATE CHAIRMAN

MATTHEW DENT VICE CHAIRMAN

MICHAELA TONKING TREASURER

SARA SCHMITZ SECRETARY

KENDRA WONG TRUSTEE



JACOBS

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

PLOT DATE: 12/5/2022

REGISTERED
PROFESSIONAL
ENGINEER
ASHLEY E. KELLOGG
CIVIL
LICENSE NO. 028969
STATE OF NEVADA
NOT FOR CONSTRUCTION Jacobs VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING. 001-G-0001

1 of 40

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

080 - MECHANICAL / YARD PIPING

18 050-C-5002 DRAINAGE DETAILS

19	080-YP-2001	YARD PIPING PLAN	
20	080-YP-2002	YARD PIPING PROFILE 16" EFFLUENT	
21	080-VP-2003	VARD DIDING PROFILES 8" FEELLIENT	

22 080-SM-2001 EXISTING EFFLUENT RESERVOIR VAULT DEMOLITION PLAN AND SECTION

080-SM-2002 EXISTING EFFLUENT RESERVOIR VAULT PLAN AND SECTIONS

100 - EFFLUENT STORAGE TANK

24	100-SM-2001	EFFLUENT STORAGE TANK FOUNDATION PLAN
25	100-SM-2002	EFFLUENT STORAGE TANK ROOF PLAN
26	100-SM-3001	EFFLUENT STORAGE TANK SECTION
27	100-SM-3002	EFFLUENT STORAGE TANK SECTIONS

SHT NO. DWG NO DRAWING TITLE

800 - ELECTRICAL

8	800-E-0001	ONE LINE DIAGRAM
9	800-E-1001	OVERALL SITE PLAN
0	800-E-3001	MOTOR CONTROL DIAGRAM

900 - STANDARD DETAILS

31	900-SD-0001	CIVIL - STANDARD DETAILS
32	900-SD-0002	CIVIL - STANDARD DETAILS
33	900-SD-0003	STRUCTURAL - STANDARD DETAILS
34	900-SD-0004	STRUCTURAL - STANDARD DETAILS
35	900-SD-0005	STRUCTURAL - STANDARD DETAILS
36	900-SD-0006	PROCESS MECHANICAL - STANDARD DETAILS
37	900-SD-0007	INSTRUMENTATION AND CONTROL - STANDARD DETAILS
38	900-SD-0008	INSTRUMENTATION AND CONTROL - STANDARD DETAILS
39	900-SD-0009	ELECTRICAL - STANDARD DETAILS
40	900-SD-0010	ELECTRICAL - STANDARD DETAILS

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Jacobs DRAWING INDEX

> VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING.

DECEMBER 2022

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.

DECEMBER 2022

W8Y12900

001-G-0002

% PROJ 001-G-0002 2 of 40 DWG SHEET

ABBREVIATIONS PENNY (NAIL SIZE) HORSEPOWER PRESSURE TREATED UD UNDERDRAIN ANCHOR BOLT, AGGREGATE BASE HOSE RACK, HANDRAIL PACKAGED TERMINAL AIR CONDITIONER UNIT HEATER ABS ACRYLONITRII E-BLITADIENE-STYRENE DOUBLE HEIGHT PLUG VALVE UW LITH ITY WATER ASBESTOS CEMENT, ASPHALTIC CONCRETE DD HOSE VALVE POLYVINYL CHLORIDE PLASTIC DUCT DETECTOR AIR COOLED CONDENSING UNIT AMERICAN CONCRETE INSTITUTE ACCU PVMT PAVEMENT VENT, VOLT, VALVE AC I&C INSTRUMENTATION & CONTROL POTABLE WATER VAC DROP INLET, DUCTILE IRON PW VACUUM DIAMETER INTERNATIONAL BUILDING CODE VENT ACID RESISTANT ACOUSTIC TILE R, RAD RADIUS ACU ADD AIR CONDITIONING UNIT DIAG DIAGONAL INSIDE DIAMETER VCT VINYL COMPOSITION TILE REINFORCED CONCRETE ADDITIONAL INSIDE FACE RC RCP VERTICAL CURVE DILUTE ADHESIVE ANCHOR BOLT REINFORCED CONCRETE PIPE ADH AE DUCTILE IRON MECHANICAL JOINT INCH VER1 VERTICAL ADJACENT, ADJUSTABLE INFLUENT ROAD, ROOF DRAIN DIP DUCTILE IRON PIPE VIN VINY ΔFF ABOVE FINISH ELOOR INSTM INSTRUMENTATION RDCR REDUCER VENEER PLASTER SYSTEM ROTARY DRUM THICKENER ABOVE FINISH GRADE RDT DISMANTLING JOINT INSULATE INSUL VTR VENT THRU ROOF AGGREGATE AIR: HIGH PRESSURE AGG AHP RDW REDWOOD RECIRCULATION RECIRC DWG DRAWING W/ AHR JEFFREY PINE REF REFR REFER OR REFERENCE WIDE FLANGE (BEAM), WEST REFRIGERATOR AIR HANDLING UNIT AHU FAST RESTRAINED FLANGE ADAPTER AMERICAN INSTITUTE OF STEEL WATER HEATER EACH WH RESTRAINED FLEXIBLE COUPLING ADAPTER ΚIΡ RFCA CONSTRUCTION END CURVE THOUSAND POUNDS KW ALUM, ALUMINUM WATER RESISTANT FCC **ECCENTRIC** WR REINFORCED, REINFORCING, REINFORCE AI P AIR LOW PRESSURE RFINE WATER SURFACE ELEVATION LEFT. ANGLE, LENGTH REQD ALTERNATE ALTN FFF **FFFI UENT** WSP WELDED STEEL PIPE ANSI AMERICAN NATIONAL STANDARDS I AT'I LATERAL RODHOLF **ELEVATION** LIQUID NATURAL GAS RESTRAINED JOINT INSTITUTE ELB ELBOW ELECTRICAL LOAD CENTER WASHWATER APPRO APPROXIMATE, APPROXIMATELY POUNDS RAIN I FADER WELDED WIRE FABRIC ELC WWF POUNDS PER CUBIC FOOT RUBBER LINED STEEL LB/CU F APVD APPROVED ELEC ELECTRIC, ELECTRICAL RLS ARCHITECTURAL LINEAR FEET XFMR TRANSFORMER **ENGR ENGINEER** EMERGENCY OVERFLOW REDUCED PRESSURE BACKFLOW ASSEMBLY LEFT HAND ARV AIR RELEASE VALVE RPBA RO RR RST ROUGH OPENING AIR SCOUR FOP EDGE OF PAVEMENT YΠ YARD LONGITUDINAL AUTO AUTOMATIC LONG RETURN REGISTER EQL SF EQUALLY SPACED LIQUIFIED PETROLEUM GAS REINFORCING STEEL AUXILIARY AUX FOPT **EQUIPMENT** EXHAUST REGISTER AWG AMERICAN WIRE GAGE LONG RADIUS RETURN ADVANCED WASTE TREATMENT RV ROOF VENT AWT FUH ELECTRICAL UNIT HEATER MTL MAX MATERIAL END OF VERTICAL CURVE EVC BC BD BF BFV BEGIN CURVE MAXIMUM R/W **FACH WAY** RIGHT-OF-WAY BOARD, BUTTERFLY DAMPER MB MACHINE BOLT EXC EXCAVATE BLIND FLANGE MODIFIED BITUMEN ROOFING EXHAUST FAN MBF I-BEAM, SOUTH BUTTERFLY VALVE MOTOR CONTROL CENTER SAMPLE FXH **EXHAUST** BLDG BUILDING BENCH MARK, BEAM MEDIUM DENSITY FIBERBOARD SAT SBR SBS SC EXPOSED, EXPANSION MDF SUSPENDED ACOUSTIC TILE MDO SEQUENCING BATCH REACTOR FXP.I **EXPANSION JOINT** BLOW OFF MECH MECHANICAL SEDIMENTATION BASIN SOLIDS EXS1 BOTTOM OF DUCT BOD MANUFACTURER BOP BOT BRK BTU FABRICATION MGD MILLION GALLONS PER DAY SCHED SCHEDULE BOTTOM MILLIGRAMS PER LITER STANDARD CUBIC FEET PER HOUR SCFH MG/L FACT FACTORY BREAK MANHOLE FLAT BAR MH MIN STANDARD CUBIC FEET PER MINUTE BRITISH THERMAL UNIT FΒ FC FCA ELEXIBLE COUPLING MINIMUM, MINUTE SCH SD SEC SECT SED SEW SG SH SHC SCHEDULE BV BALL VALVE MISC FLANGED COUPLING ADAPTER MISCELLANEOUS STORM DRAIN, SOAP DISPENSER BYP FLOOR CLEAN OUT M.I MECHANICAL JOIN MSNRY MASONRY CHANNEL (BEAM) FCV FLOW CONTROL VALVE SECTION MASONRY OPENING CABINET COMBINATION AIR RELEASE VALVE FLOOR DRAIN W/INTEGRAL TRAP MRL MOTORIZED RELIEF LOUVER CARV FDA SEWAGE MANUFACTURER SUPPLIED CABLE MAXIMUM WATER SURFACE **FOUNDATION** SUPPLY GRILLE CB CATCH BASIN COUNTER BALANCED BACKDRAFT DAMPER CBBD FILTERED EFFI LIENT MWS SODIUM HYPOCHLORITE CONCRETE CYLINDER PIPE FES FLARED END SECTION ccs CENTRAL CONTROL SYSTEM FIRE EXTINGUISHER NORTH SIM SIMIL AR NAC NEVADA ADMINISTRATIVE CODE STEEL JOIST INSTITUTE CDG CARBON DIOXIDE GAS FINISH FLOOR CDL CARBON DIOXIDE LIQUID FINISH GRADE NDOT NEVADA DEPARTMENT OF TRANSPORTATION CARBON DIOXIDE SOLUTION FINISH HEAD NIC NOT IN CONTRACT SOLN SOLUTION CUBIC FEET PER MINUTE NUMBER, NUMBERING SP SPD SPACE OR SPACES NPT CFS CUBIC FEET PER SECOND FI FIG FILTER INFLUENT NATIONAL PIPE THREAD SUMP PUMP DRAIN CHEM NTS NOT TO SCALE SPEC SPECIFICATIONS CHEMICAL FIGURE CAST IRON FILTRATE SPLY SUPPLY SQUARE CI CIGC OC ON CENTER, OZONE CONTACTOR CAST IRON GROOVED COUPLING FLOOR OD OF OFR FLANGE SQ FT SQ IN CIMJ CAST IRON MECHANICAL JOINT SQUARE FOOT OUTSIDE FACE, OVERFLOW CIP SQUARE INCH CAST IRON PIPE FLH FLAT HEAD OVERFLOW RETURN CIRJ CAST IRON RESTRAINED JOINT SR SS SST STA STD SUPPLY REGISTER FLOW LINE OG OH ORIGINAL GROUND CISE CAST IRON SOIL PIPE FLTR FILTER SANITARY SEWER **OVERHEAD** CONSTRUCTION JOINT FNSH STAINLESS STEEL FINISH OPEN SITE DRAIN FACE OF CONCRETE CL₂ CHLORINE-LIQUID STATION CEMENT-LINED AND COATED STEEL PIPE 0.00 OUT TO OUT FRP FIBERGLASS REINFORCED PIPE STANDARD CEMENT-LINED DUCTILE IRON PIPE FOOT OR FEET STIF STIFFENER ΟZ OUNCE FTG STEEL STEEL PIPE CLG CEILING. FOOTING CONTROLLED LOW STRENGTH MATERIAL FILTER TO WASTE STRAIGHT PII ASTER CLR CLEAR FINISHED WATER STRUCTURAL PACL POLYALUMINUM CHLORIDE CEMENT-LINED STEEL PIPE STRUCT CLST STRUCTURE POINT OF CURVE
POINT OF COMPOUND CURVE PC PCC CENTERLINE DEGREE FAHRENHEIT SUBFL SUBFLOOR G or CL SUPPLY FAN CORRUGATED METAL PIPE PRETENSIONED CONCRETE CYLINDER PIPE GAGE SUSP SUSPEND CMU CONCRETE MASONRY UNIT PD PDF PRESS DRAIN COMPRESSED NATURAL GAS GAL GALLON SW SURFACE WATER POWDER DRIVEN FASTENER GALV GALVANIZED SYMMETRICAL CO2 COL CARBON DIOXIDE PDR PUMPED DRAIN GC GCO GROOVED COUPLING COLUMN THICKNESS GRADE CLEAN OUT CONC CONCRETE PENETRATION PENT THERMOSTAT GROOVED COUPLING FITTING CONN CONNECTION POINT OF INTERSECTION TAN TANGENT CONTINUOUS, CONTINUATION GROOVED END PROCESS & INSTRUMENTATION DIAGRAM P&ID TBG TUBING COORE COORDINATE PREMOLDED JOINT FILLER TBR T&B TO BE REMOVED GLU-LAM BEAM GLB PLATE (STEEL), PROPERTY LINE TOP AND BOTTOM GALLONS PER DAY GPD CPLG COUPLING. PI YWD PI YWOOD TC TDH CPVC CHLORINATED POLYVINYL CHLORIDE GPH GPM POLYMER SOLUTION TOTAL DYNAMIC HEAD CRS COLD ROLLED STEEL GALLONS PER MINUTE TECH POA ANIONIC POLYMER HYPOCHLORITE SOLUTION, CUP SINK CS POC CATIONIC POLYMER TEL TEMP TELEPHONE GALVANIZED STEEL PIPE CT CTRD CERAMIC TILE GSP TEMPERATURE PON NONIONIC POLYMER GUH GAS UNIT HEATER CENTERED POTASSIUM PERMANGANATE TOP FACE TF T&G GV GVL GATE VALVE TONGUE AND GROOVE SOLUTION CENTER TO CENTER GRAVEL C TO C PPM PARTS PER MILLION THD THK GROUND WATER GW CUBIC POINT OF REVERSE CURVE GYPSUM WALLBOARD THICK GWB CULFT CUBIC FOOT PRCST TOC TOP OF CONCRETE GYP GYPSUM CU IN CUBIC INCH PRFFAB PREFABRICATED TURNING POINT CUBIC YARD HAS HEADED ANCHOR STUD PRESS PRESSURE CULV CUI VERT PRIMARY TOP OF STEEL HD HUB DRAIN CHECK VALVE CV PROPRIETARY RESTRAINED JOINT THRUST TIE PRJ HDR HEADER COLD WATER HARDWARE PROPERTY TOP OF WALL HDW DEGREE CELSIUS POUNDS PER SQUARE FOOT TYP HGL HYDRAULIC GRADELINE PSF TYPICAL HGT HEIGHT DB/ DEFORMED BAR ANCHOR POUNDS PER SQUARE INCH HOLLOW METAL POUNDS PER SQUARE INCH. GAUGE HORIZ HORIZONTAL PUMP DRAIN RETURN DRR

DRAWING NUMBER DESIGNATION

FACILITY DESIGNATION, WHEN APPLICABLE XXX-SM-2001 LINDICATES DRAWING NUMBER -INDICATES DISCIPLINE(S): ARCHITECTURE CIVIL

DEMOLITION ELECTRICAL FIRE PROTECTION GENERAL

PLUMBING PROCESS MECHANICAL INSTRUMENTATION AND CONTROL

STRUCTURAL STANDARD DETAILS

STRUCTURAL/MECHANICAL YARD PIPING

HVAC

SECTION, DETAIL AND VIEW **DESIGNATION**

ON DRAWING WHERE DETAIL IS TAKEN:

SECTION OR PHOTO (LETTER) OR DETAIL (NUMERAL) DESIGNATION WHERE TAKEN

X-SM-200 XXX-SM-2001

WHERE TAKEN

ON DRAWING WHERE DETAIL IS DRAWN

DRAWING NUMBER WHERE SHOWN

WHERE TAKEN

SECTION OR VIEW (LETTER) OR DETAIL (NUMERAL) DESIGNATION SECTION. DETAIL WHERE SHOWN OR VIEW NAME

SCALE: AS DESIGNATED XXX-SM-2001

STANDARD DETAIL DESIGNATION

ON DRAWING WHERE DETAIL IS TAKEN:

4005-505 STANDARD DETAIL DESIGNATION (THESE DETAILS ARE PROVIDED IN A SEPERATE VOLUME)

GENERAL NOTES

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

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

BBREVIATIONS AND SYMBOLS LEGEND NOT FOR CONSTRUCTION

Jacobs

VERIFY SCALE BAR IS ONE INCH ON

RIFY SCALE
IS ONE INCH ON
SINAL DRAWING.

DECEMBER 2022
W8Y12900 PROJ WG 001-G-0003 HEET 3 of 40

\$PWURL

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
- PROVIDE TEMPORARY FENCING AS NECESSARY TO MAINTAIN SECURITY AT ALL TIMES.
- ELEVATIONS GIVEN ARE TO FINISH GRADE UNLESS OTHERWISE SHOWN.
- 10. SLOPE UNIFORMLY BETWEEN CONTOURS AND SPOT ELEVATIONS SHOWN
- 11. CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING EROSION CONTROL DEVICES DURING
- 12. CONTRACTOR SHALL TAKE ALL OTHER MEASURES TO POSITIVELY PRECLUDE EROSION MATERIALS FROM LEAVING THE SITE. CONTRACTOR TO SUBMIT EROSION CONTROL PLAN.

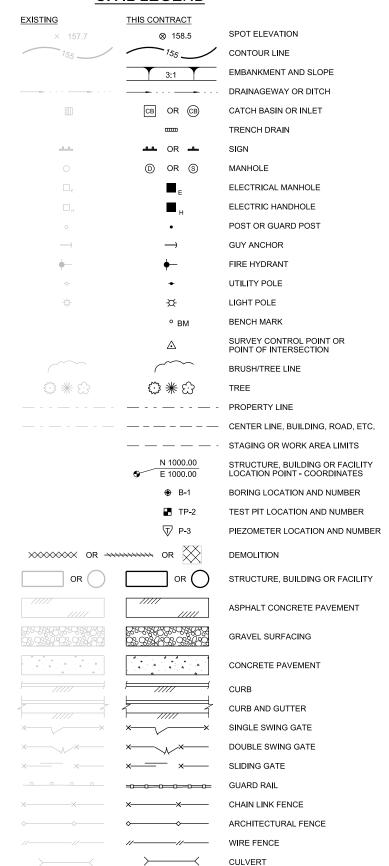
GENERAL YARD PIPING AND UTILITIES NOTES:

- 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
- 7. 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)

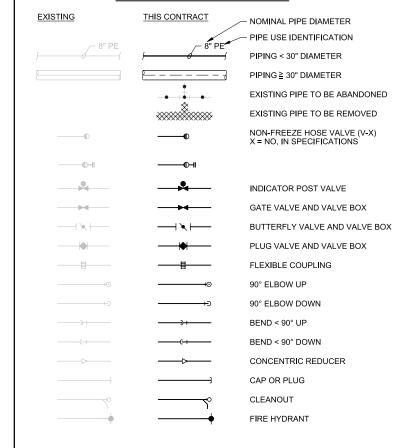
GENERAL NOTE:

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

CIVIL LEGEND



YARD PIPING LEGEND



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

NOTES Jacobs

AND LEGEND, CIVIL

FOR CONSTRUCTION

VERIFY SCALE RIFY SCALE
IS ONE INCH ON
SINAL DRAWING.

DECEMBER 2022
W8Y12900 BAR IS ONE INCH ON

PROJ WG 001-G-0004 HEET 4 of 40

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):

DEAD LOADS: SELF WEIGHT

6. ROOF LIVE LOAD:

7. GROUND SNOW LOAD (Pg): 235 PSE (LAKE TAHOE BASIN WASHOE COUNTRY TABLE 1608.2.1)

SNOW IMPORTANCE FACTOR, Is

8. WIND LOAD 130 MPH (2018 NORTHERN NEVADA CODE AMENDMENTS) **EXPOSURE**

SEISMIC LOAD:

MAPPED SPECTRAL RESPONSE ACCELERATIONS 1.87a 0.65g DESIGN SPECTRAL RESPONSE ACCELERATIONS

1.50g 0.60g S_{D1} SITE CLASS SEISMIC DESIGN CATEGORY SEISMIC IMPORTANCE FACTOR, le

SEE PLANS FOR STRUCTURE SPECIFIC LOADS LATERAL FORCE-RESISTING SYSTEMS

10. SOIL DESIGN PARAMETERS

NET ALLOWABLE SOIL BEARING PRESSURES: EQUIVALENT DRAINED FLUID PRESSURES: 3,500 PSF 35 PCF AT REST EQUIVALENT UNDRAINED FLUID PRESSURES: 85 PCF AT REST

DYNAMIC FLUID PRESSURES

DYNAMIC PRESSURE EQUAL TO 32H² POUNDS PER LINEAR FOOT OF WALL APPLIED AT A HEIGHT OF 0.6H, WHERE H IS HEIGHT OF RETAINED SOIL CORESION OF SPECIAL SOLL

130 PCF NATIVE SOIL UNIT WEIGHT

GENERAL INFORMATION

- FOR ABBREVIATIONS NOT LISTED, SEE ASME Y14.38 "ABBREVIATIONS AND ACRONYMS: PUBLICATION AS
- DESIGN DETAILS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS OCCURRING JT THE PROJECT, WHETHER OR NOT THEY ARE INDIVIDUALLY CALLED OUT
- VERIFY FINAL OPENING DIMENSIONS IN WALLS, SLABS, AND DECKS WITH OTHER DISCIPLINE DRAWINGS PRIOR TO CONSTRUCTION OF THESE ELEMENTS.
- 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
- DO NOT CUT OR MODIFY STRUCTURAL MEMBERS FOR PIPES, DUCTS, ETC, UNLESS SPECIFICALLY DETAILED OR APPROVED IN WRITING BY THE ENGINEER
- 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

- SPECIAL INSPECTION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR INSPECTIONS REQUIRED BY THE BUILDING OFFICIAL. THE CONTRACTOR SHALL SCHEDULE BOTH INSPECTIONS.
- SPECIFIED CONCRETE AND OTHER MATERIAL TESTING RELATED TO SPECIAL INSPECTION DURING CONSTRUCTION WILL BE OWNER FURNISHED.
- 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.
- SPECIAL INSPECTION, TESTING AND OBSERVATION (OWNER FURNISHED) IS REQUIRED IN ACCORDANCE WITH IBO SECTIONS 110 AND 1704 AS INDICATED IN THE STATEMENT OF SPECIAL INSPECTIONS IN SPECIFICATIONS.

FOUNDATIONS

- 1. FOR SOIL CONDITIONS, REFER TO GEOTECHNICAL DATA REPORT BY JACOBS DATED SEPTEMBER 2022.
- 2. EXCAVATIONS SHALL BE SHORED TO PREVENT SUBSIDENCE AND DAMAGE TO ADJACENT EXISTING STRUCTURES.
- 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

- 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.
- 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.
- "BURY"BARS OR "CARRIER"BARS ARE NOT ALLOWED FOR THE BOTTOM MATS OF REINFORCING IN ALL FLEVATED. SLABS AND ARE NOT ALLOWED FOR THE TOP 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

- REINFORCING STEEL:
- ASTM A615, GRADE 60
- 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"
- CONCRETE COVER FOR REINFORCING, UNLESS SHOWN OTHERWISE, SHALL BE: WHEN CAST AGAINST EARTH: ALL OTHER SURFACES:
- 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
- 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.
- 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.
- REINFORCEMENT BENDS AND LAPS, UNLESS OTHERWISE NOTED, SHALL SATISFY THE FOLLOWING MINIMUM

BAR SIZE		#3	#4	#5	#6	#7	#8	#9	#10	#11
LAP SPLICE LEN	NGTH									
SPACING = 3"	TOP BAR 2	1'-4"	1'-8"	2'-1"	3'-0"	5'-2"	6'-8"	8'-6"	10'-10"	`13'-4"
	OTHER BAR	1'-4"	1'-4"	1'-8"	2'-4"	4'-0"	5'-2"	6'-7"	8'-4"	10'-3"
SPACING = 4"	TOP BAR 2	1'-4"	1'-8"	2'-0"	2'-5"	3"-10"	5'-0"	6'-5"	8'-1"	10'-0"
	OTHER BAR	1'-4"	1'-4"	1'-7"	1'-10"	3'-0"	3'-11"	4'-11"	6'-3"	7'-8"
SPACING ≥ 6"	TOP BAR 2	1'-4"	1'-8"	2'-0"	2'-5"	3"-6"	4'-0"	5'-0"	6'-2"	7'-5"
	OTHER BAR	1'-4"	1'-4"	1'-7"	1'-10"	2'-9"	3'-1"	3'-10"	4'-9"	5'-8"
EMBEDMENT LE	NGTH									
SPACING = 3"	TOP BAR 2	1'-0"	1'-3"	1'-8"	2'-4"	4'-0"	5'-2"	6'-7"	8'-4"	10'-3"
	OTHER BAR	1'-0"	1'-0"	1'-3"	1'-10"	3'-1"	4'-0"	5'-1"	6'-5"	7'-11"
SPACING = 4"	TOP BAR 2	1'-0"	1'-3"	1'-7"	1'-10"	3'-0"	3'-11"	4'-11"	6'-3"	7'-8"
	OTHER BAR	1'-0"	1'-0"	1'-3"	1'-5"	2'-4"	3"-0"	3'-10"	4'-10"	5'-11"
SPACING ≥ 6"	TOP BAR 2	1'-0"	1'-3"	1'-7"	1'-10"	2'-9"	3'-1"	3'-10"	4'-9"	5'-8"
	OTHER BAR	1'-0"	1'-0"	1'-3"	1'-5"	2'-1"	2"-5"	3'-0"	3'-8"	4'-5"

- LAP LENGTHS ARE BASED ON MINIMUM CONCRETE COVER OF 2". LONGER LENGTHS ARE REQUIRED FOR CONCRETE
- COVER LESS THAN 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. 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:
 - CONCRETE FILL, DUCT BANKS, AND ENCASEMENTS:
- CONTINUOUS WATERSTOP AS SPECIFIED SHALL BE INSTALLED IN CONSTRUCTION JOINTS OF HYDRAULIC STRUCTURES, CHANNELS, AND BELOW GRADE STRUCTURES, EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE
- 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
- ROUGHEN AND CLEAN CONSTRUCTION JOINTS IN WALLS AND SLABS AS SPECIFIED PRIOR TO PLACING ADJACENT
- COORDINATE PLACEMENT OF OPENINGS, PIPE PENETRATIONS, CURBS, DOWELS, SLEEVES, CONDUITS, BOLTS AND INSERTS PRIOR TO PLACEMENT OF CONCRETE. 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

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

REPAIR WELDS FOUND DEFECTIVE IN ACCORDANCE WITH AWS D1.1 SECTION 5.26.

USE INTERMITTENT WELDS AT FIELD WELDS OF EMBED PLATES AND ANGLES TO AVOID SPALLING OR CRACKING

BUTT JOINT WELDS SHALL BE COMPLETE JOINT PENETRATION (CJP) UNLESS INDICATED OTHERWISE.

STRUCTURAL STEEL AND METAL FABRICATIONS

STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS:

ANGLES, CHANNELS, PLATES, ETC. HOLLOW STRUCTURAL SECTIONS (HSS) A500, GRADE C A53, GRADE B STAINLESS STEEL SHAPES

ALUMINUM SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS:

STRUCTURAL SHAPES

STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN CONFORMANCE WITH THE AISC MANUAL OF STEEL CONSTRUCTION, CURRENT EDITION, AND CURRENT OSHA STANDARDS

FASTENERS SHALL BE HIGH STRENGTH BOLTS CONFORMING TO THE FOLLOWING ASTM STANDARDS EXCEPT WHERE SPECIFICALLY INDICATED OTHERWISE:

UNLESS SHOWN OTHERWISE ANCHOR BOLTS (AB)

F593, AISI TYPE 316, CONDITION CW STAINLESS STÉEL

STEEL OR GALVANIZED STEEL F1554, GR 36 / A153

ITEMS TO BE EMBEDDED IN CONCRETE SHALL BE CLEAN AND FREE OF OIL, DIRT AND PAINT.

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 THIENGINEER.

DEFERRED SUBMITTALS

- 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
- 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.
- 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 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.

SPECIFICATION SECTION	CODE REQUIRED DEFERRED SUBMITTALS FOR REVIEW BY PERMITTING AGENCY
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
OTHER	ANY EQUIPMENT OR COMPONENT IN WHICH A TECHNICAL SPECIFICATION REQUIRES SUBMITTAL OF EQUIPMENT OR ANCHORAGE SYSTEM CALCULATIONS

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

LAGE

NOTE

acobs

WG

HEET

STRUCTURAL

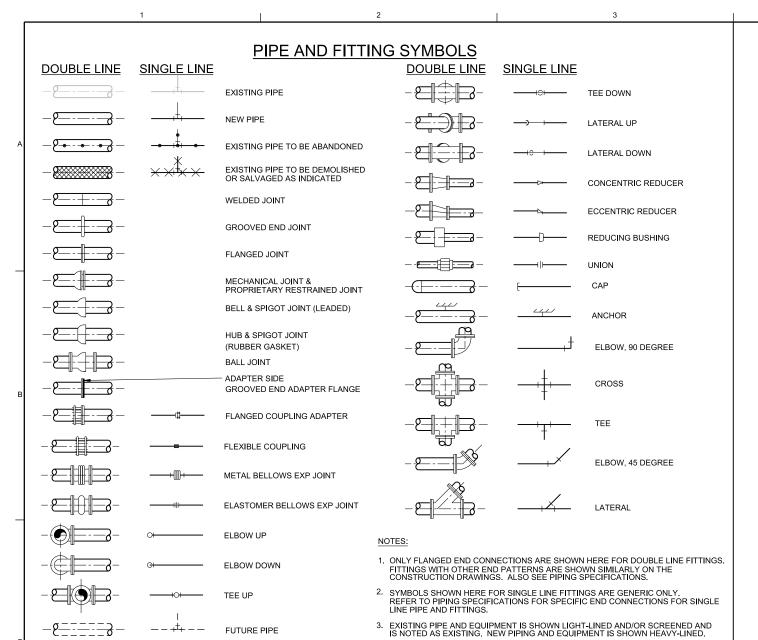
CONSTRUCTION

VERIFY SCALE BAR IS ONE INCH ON DECEMBER 2022 Ш W8Y12900 ☐ DATE PROJ

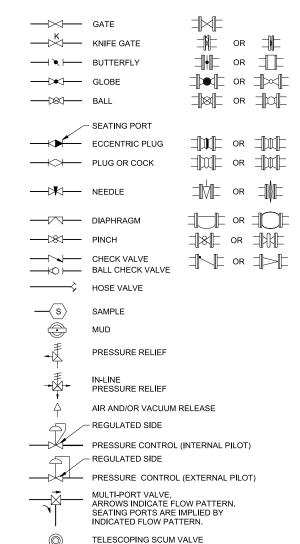
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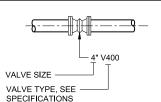


VALVE SYMBOLS SINGLE LINE DOUBLE LINE

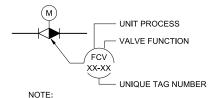


VALVE DESIGNATIONS

MANUAL VALVES AND CHECK VALVES

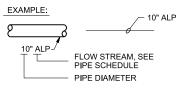


CONTROL VALVES



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

PIPING DESIGNATION



FLOW STREAM IDENTIFICATION

SEE PIPE SCHEDULE FOR FLOW

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
					EXPOSED	FL			SYSTEM NO. 5	GROOVED END JOINTS WHERE
EFF	EFFLUENT	>=6	33 05 01.02	CLDI	SUBMERGED	FL	SEE SPEC	CEMENT	SYSTEM NO. 3	SHOWN.
					BURIED	FL, MJ, PRJ			POLY	
OF	OVERFLOW	>-10	>=10 33 05 01,02	05 01,02 CLDI	EXPOSED	FL	SEE SPEC	CEMENT	SYSTEM NO. 5	
OF OVERFLO	OVERFLOW	>=10	33 03 01.02	CLDI	SUBMERGED	FL	7 355 3550	CEMENT	SYSTEM NO. 3	

NOTES:

1 SYMBOLS

< LESS THAN

> GREATER THAN

<= LESS THAN OR EQUAL TO >= GREATER THAN OR EQUAL TO

2. PIPE MATERIALS: ANY DEVIATIONS FROM THE DESIGNATED MATERIALS IN THIS SCHEDULE SHALL BE AS NOTED ON THE DRAWINGS.

CLDI = CEMENT-LINED DUCTILE IRON

MJ = MECHANICAL JOINT PRJ = PROPRIETARY JOINT

COATINGS:

SYSTEM NO.: IN ACCORDANCE WITH SPECIFICATION SECTION 09 90 00 POLY: POLYETHYLENE ENCASEMENT

MECHANICAL AND NOTES

GENERAL PIPING NOTES

MECHANICAL EQUIPMENT.

- 1. 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.
- 3. CONTRACTOR SHALL DESIGN PIPE SUPPORTS AS SPECIFIED.
- 4. ALL JOINTS SHALL BE WATERTIGHT. WALL PIPES SHALL BE USED WHEREVER PIPING PASSES FROM A STRUCTURE TO BACKFILL.
- 5. ALL FLEXIBLE CONNECTORS AND COUPLING ADAPTERS SHALL BE PROVIDED WITH THRUST PROTECTION AS SPECIFIED. THRUST PROTECTION SHALL BE ADEQUATE FOR TEST PRESSURES SPECIFIED 6. SYMBOLS, LEGENDS, AND PIPE USE IDENTIFICATIONS SHOWN SHALL BE FOLLOWED

ALL UNIONS NECESSARY TO FACILITATE CONVENIENT REMOVAL OF VALVES AND

- THROUGHOUT THE DRAWINGS, WHEREVER APPLICABLE. NOT ALL OF THE VARIOUS PIPING COMPONENTS ARE NECESSARILY USED IN THE PROJECT 7. NUMBER AND LOCATION OF UNIONS SHOWN ON DRAWINGS IS ONLY APPROXIMATE. PROVIDE
- 8. 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
- 9. ALL BURIED PIPING SPECIFIED TO BE PRESSURE TESTED, EXCEPT FLANGED, WELDED, OR REWED PIPING, SHALL BE PROVIDED WITH THRUST PROTECTION AS SPECIFIED.

acop

MECHANICAL LEGEND, NOTES AND PIPE SCHEDULE FOR CONSTRUCTION

VERIFY SCALE BAR IS ONE INCH ON

RIFY SCALE
IS ONE INCH ON
SINAL DRAWING.

DECEMBER 2022
W8Y12900 DATE PROJ WG 001-G-0006 6 of 40 SHEET

REGISTERED

ENGINEER

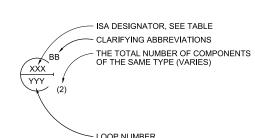
JOHN SIMONDS MECHANICAL LICENSE NO. 027655

STATE OF NEVADA

NOT FOR CONSTRUCTION

INSTRUMENTATION IDENTIFICATION

EXAMPLE SYMBOLS





FIC

YL

FIELD MOUNTED INSTRUMENT

REAR-OF-PANEL MOUNTED INSTRUMENT

PANEL MOUNTED INSTRUMENT

MOTOR CONTROL CENTER MOUNTED INSTRUMENT

PLC FUNCTION

SPECIAL CASES



ON-OFF HAND SWITCH, MAINTAINED CONTACT SWITCH (CONTROLLED DEVICE WILL RESTART ON A RETURN OF POWER AFTER POWER



STOP-START HAND SWITCH MOMENTARY CONTACT SWITCH (CONTROLLED DEVICE WILL NOT RESTART ON RETURN OF POWER AFTER POWER FAILURE)



ON AND OFF EVENT LIGHTS

INSTRUMENT IDENTIFICATION LETTERS TABLE

	FIRST LETTER	(S)	SUCCEEDING LETTERS						
LETTER	PROCESS OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER				
Α	ANALYSIS (+) / ANALOG		ALARM						
В	BURNER FLAME		USERS CHOICE (+)	USERS CHOICE (+)	USERS CHOICE (+				
С	CONDUCTIVITY			CONTROL					
D	DENSITY (S.G)	DIFFERENTIAL							
Е	VOLTAGE		PRIMARY ELEMENT						
F	FLOW RATE	RATIO							
G	GAUGE		GLASS	GATE					
H	HAND (MANUAL)				HIGH				
ı	CURRENT		INDICATE						
J	POWER	SCAN							
K	TIME OR SCHEDULE			CONTROL STATION					
L	LEVEL		LIGHT (PILOT)		LOW				
М	MOTION				MIDDLE				
N	TORQUE		USERS CHOICE (+)	USERS CHOICE (+)	USERS CHOICE (+				
0	USERS CHOICE (+)		ORIFICE						
Р	PRESSURE (OR VACUUM)		POINT (TEST CONNECTION)						
Q	QUANTITY	INTEGRATE	INTEGRATE						
R			RECORD OR PRINT						
S	SPEED OR FREQUENCY	SAFETY		SWITCH					
Т	TEMPERATURE			TRANSMIT					
U	MULTIVARIABLE (+)		MULTIFUNCTION	MULTIFUNCTION (+)	MULTIFUNCTION (-				
٧	VIBRATION			VALVE OR DAMPER					
W	WEIGHT OR FORCE		WELL						
Х	UNCLASSIFIED (+)		UNCLASSIFIED (+)	UNCLASSIFIED (+)	UNCLASSIFIED (+				
Υ	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

- DISCRETE INPUT (120VAC)
- DISCRETE OUTPUT (DRY CONTACT, 120VAC)

- ANALOG INPUT (4-20mA DC)
- ANALOG OUTPUT (4-20mA DC)

- ETHERNET CONNECTION

INTERFACE SYMBOLS & LINE LEGEND

EQUIPMENT TAG NUMBERS W: UNIT PROCESS OR FACILTY

ACP = AIR COMPRESSOR PANEL OR PACKAGE ARV = AIR RELEASE VALVE

BLR = BLOWER HV = HAND OPERATED VALVE

SELF CONTAINED VALVE &

FAN = FAN, SUPPLY OR EXHAUST FV = FLOW VALVE FCV = FLOW CONTROL VALVE

M = MECHANICAL EQUIPMENT MXR = MIXFR MXS = MIXER, STATIC PMP = PUMP PSV = PRESSURE RELIEF VALVE SOV = SOLENOID VALVE TR = TRASH RACK

Y: LOOP NUMBER

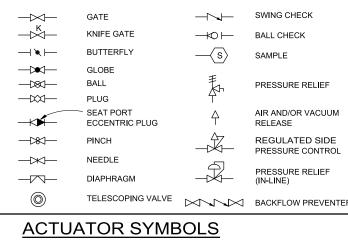
W-D-Y

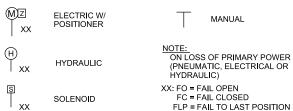
FLOW STREAM IDENTIFICATION

SEE PIPE SCHEDULE

= PROCESS INTERFACE A a = SIGNAL INTERFACE /- a D =DESTINATION SHEET NO A.a =INTERFACE LETTER S =SOURCE SHEET NO PROCESS OR SIGNAL (N) LINE CONTINUATION (N N=1,2,3,ETC PROCESS LINE PARALLELING LINES ANALOG SIGNAL - 3(2) MOTOR POWER (B) SERIAL (RS-232) TOTAL OF 2 SIGNALS —o—— DIGITAL COMMUNICATIONS (B) 3 TYPICAL SETS OF SIGNALS EACH. ---- SYSTEM BOUNDARY TOTAL OF 6 SIGNALS PACKAGE SYSTEM BOUNDARY CONNECTING

VALVE SYMBOLS





GATE SYMBOLS



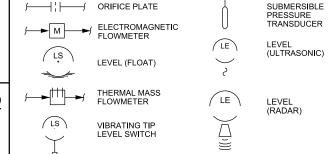
SLIDE GATE WITH OPERATOR

SLIDE GATE



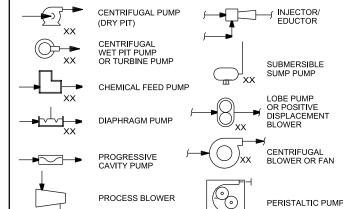
FLAP GATE

PRIMARY ELEMENT SYMBOLS



PUMP AND FAN SYMBOLS

NOTE: XX: AS ADJUSTABLE SPEED CS-1 CONSTANT SPEED (SINGLE SPEED) CS-2 CONSTANT SPEED (TWO SPEED)



ABBREVIATIONS

OPERATOR INTERFACE TERMINAL

AUTO AUTOMATIC SET POINT SPEED COMMAND START - STOP OR SS CONTROL PANEL CONTROL STATION CP CS SUSPENDED SOLIDS TERMINAL ENCLOSURE TEMP TEMPERATURE DO DISSOLVED OXYGEN TERMINAL JUNCTION BOX TJB TYP TYPICAL **ESTOP** EMERGENCY STOP UPS UNINTERRUPTIBLE POWER

MISCELLANEOUS SYMBOLS

VENT TO

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 $+ \boxtimes +$

 $\langle R \rangle$

INTERLOCK,SEE

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CONTROL DIAGRAMS

PULSATION

WYE STRAINER

STATIC MIXER

ETHERNET SWITCH

ATMOSPHERE

DIAPHRAGM SEAL

ANNULAR SEAL

AUTOMATIC

DRAIN TRAF

RELAY

FLEXIBLE

CONNECTION

120VAC

480VAC -

208VAC -

ISR

ISB

s I

 \bigcirc

SP

TE

00000

120 VOLT, 60-HZ POWER

480 VOLT, 3-PHASE, 60-HZ POWER

208 VOLT, 3-PHASE, 60-HZ POWER

INLINE SILENCER

SEAL WATER SET

HOSE ADAPTOR

BLIND FLANGE

MOTOR

AIR FILTER

FILTER

INTRINSICALLY SAFE RELA

INTRINSICALLY BARRIER

FLUSHING CONNECTION

QUICK CONNECT FITTING

TERMINATION ENCLOSURE (FOR LT)

FINE BUBBLE DIFFUSER

QUICK DISCONNECT

RECEPTACLE

REDUCER

QUICK DISCONNECT PLUG

SURGE PROTECTOR

FEEDBACK VFD VARIABLE FREQUENCY

HUMAN MACHINE INTERFACE HAND-OFF-AUTO

LCP LOCAL CONTROL PANEL MOTOR CONTROL CENTER

INPUT/OUTPUT

MASTER CONTROL PANEL MANUFACTURER SUPPLIED MCP MSC

NORMALLY CLOSED

NORMALLY OPEN ON-OFF-REMOTE N.O. OOR OPEN-CLOSE (D) OPEN-CLOSE-REMOTE
OPERATOR INTERFACE TERMINAL OVERLOAD.

ON-OFF-AUTO OPEN-STOP-CLOSE PLC PROGRAMMABLE LOGIC

REM REMOTE

GENERAL NOTES

- THIS A STANDARD LEGEND, THEREFORE NOT ALL OF THIS INFORMATION
- 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.

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

REGISTERED

CONTROL acop

INSTRUMENTATION AND LEGEND

FOR CONSTRUCTION

VERIFY SCALE BAR IS ONE INCH ON

RIFY SCALE
IS ONE INCH ON
SINAL DRAWING.

DECEMBER 2022
W8Y12900 PROJ WG 001-G-0007 SHEET 7 of 40

\$PWURL

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INTERFACE TO OR FROM

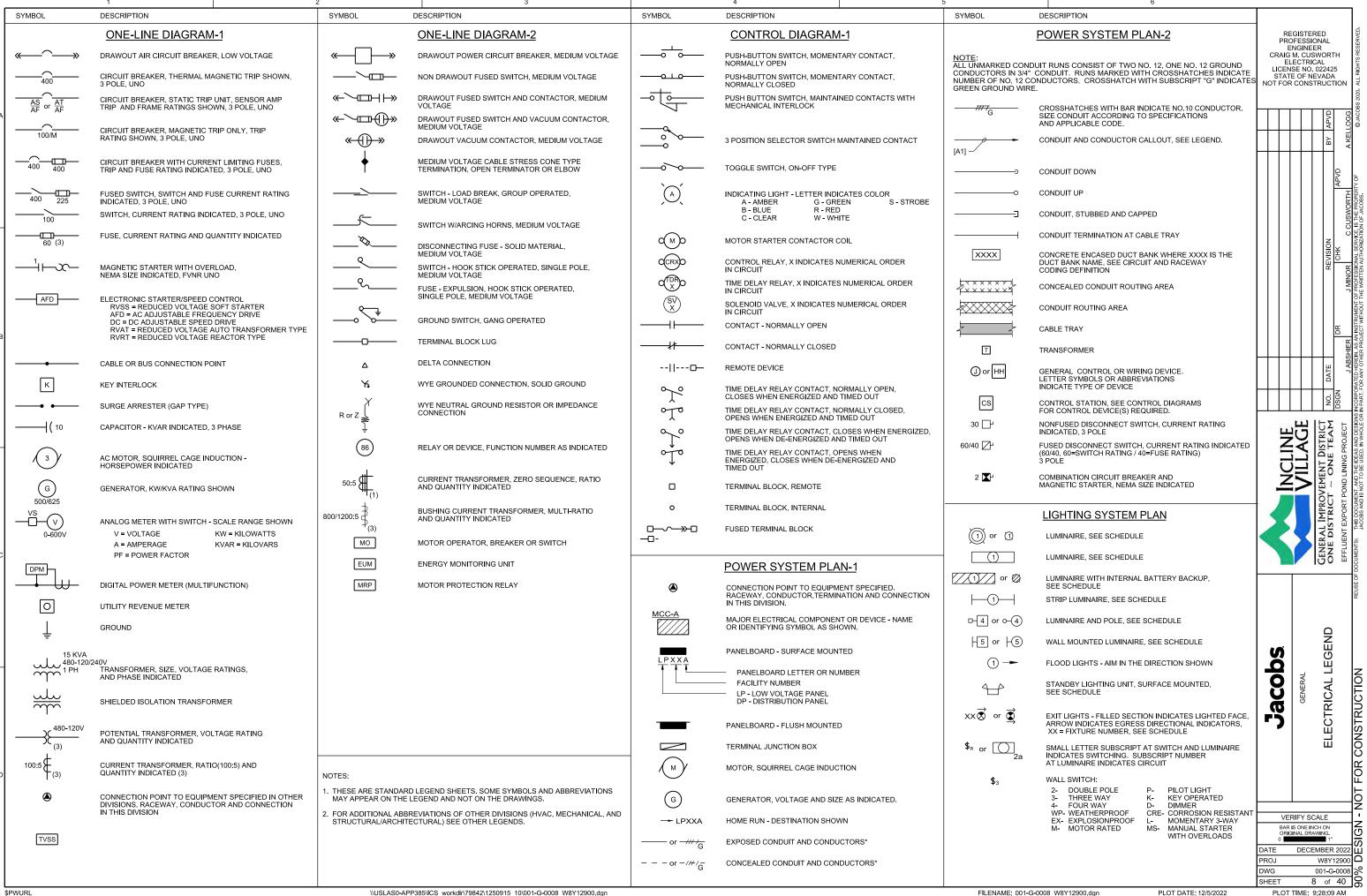
PROCESS EXTERNAL TO

PROJECT

FILENAME: 001-G-0007 W8Y12900.dgn

PLOT DATE: 12/5/2022

PLOT TIME: 9:28:05 AM



LEGEND

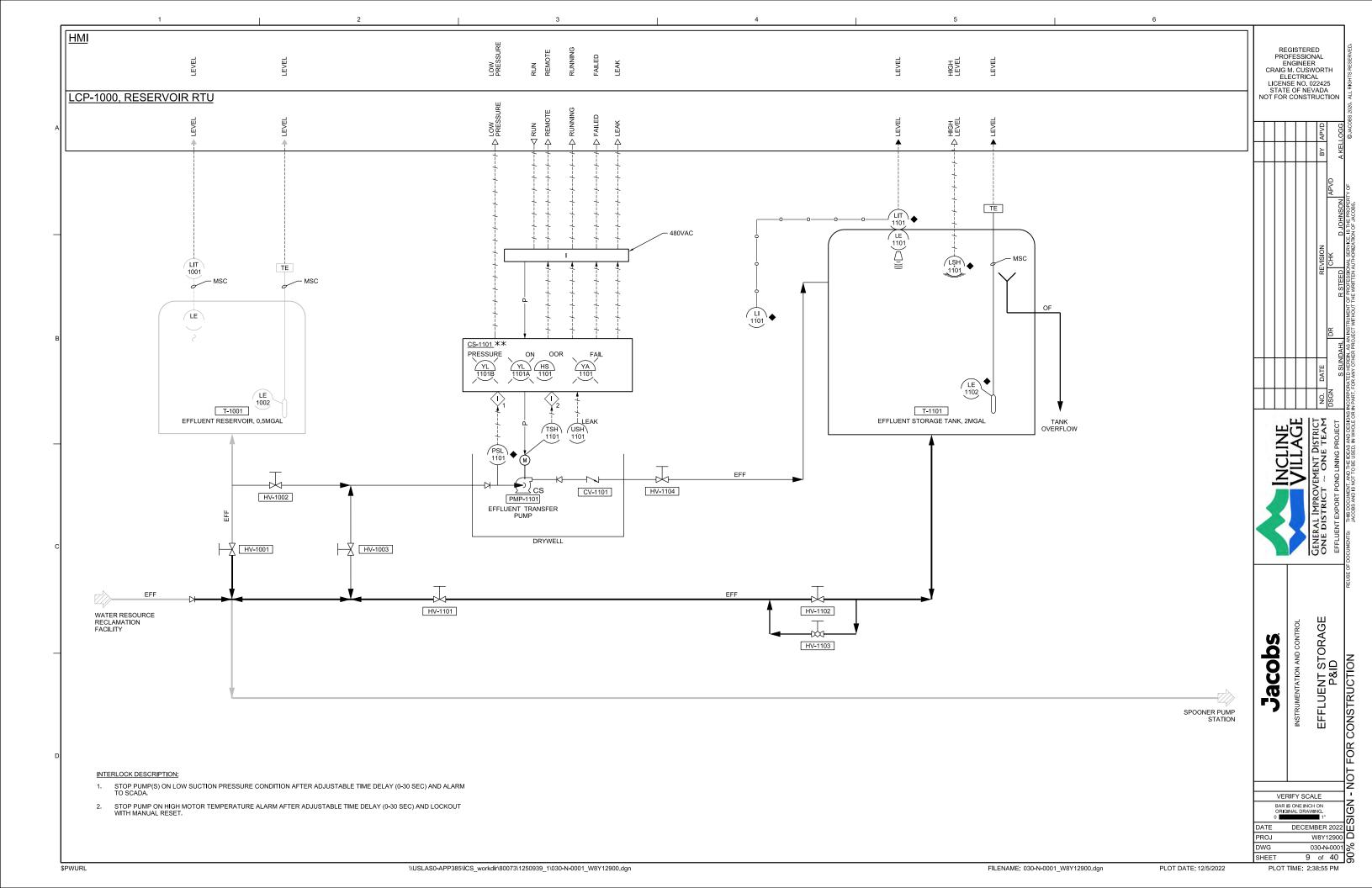
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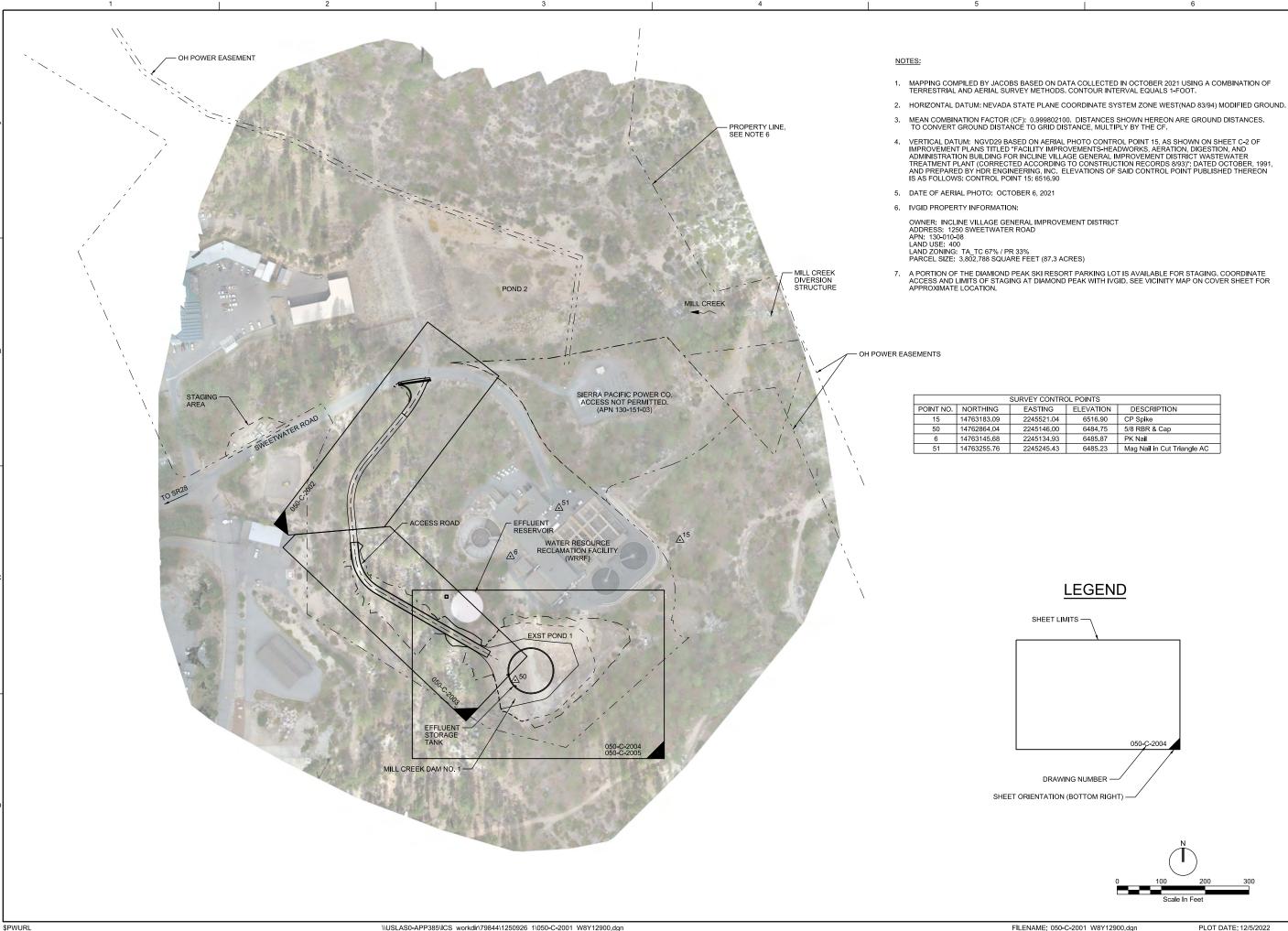
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001-G-0008

8 of 40

NOT FOR CONSTRUCTION





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

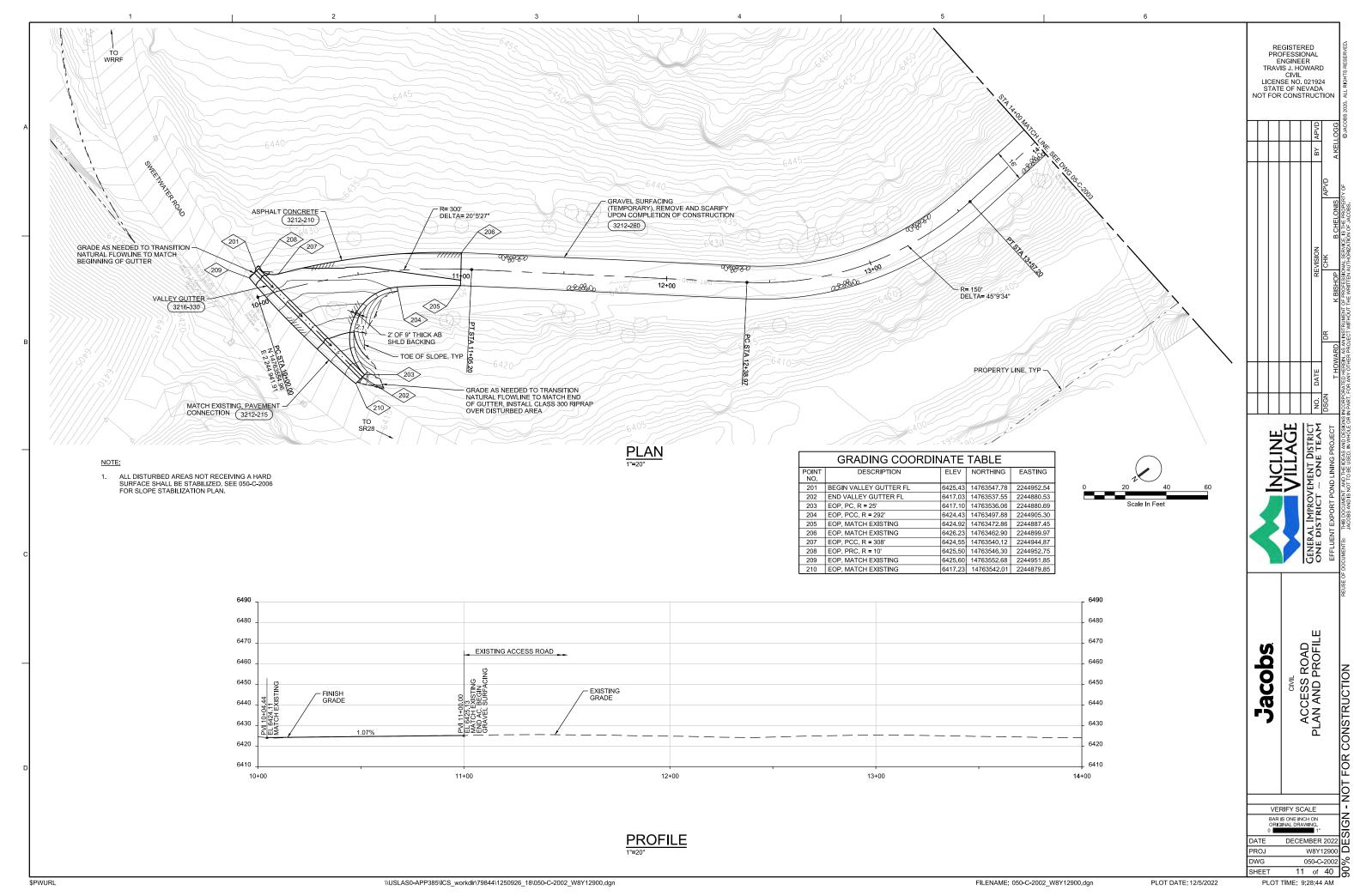
Jacobs

OVERALL SITE PLAN AND SURVEY CONTROI - NOT FOR CONSTRUCTION

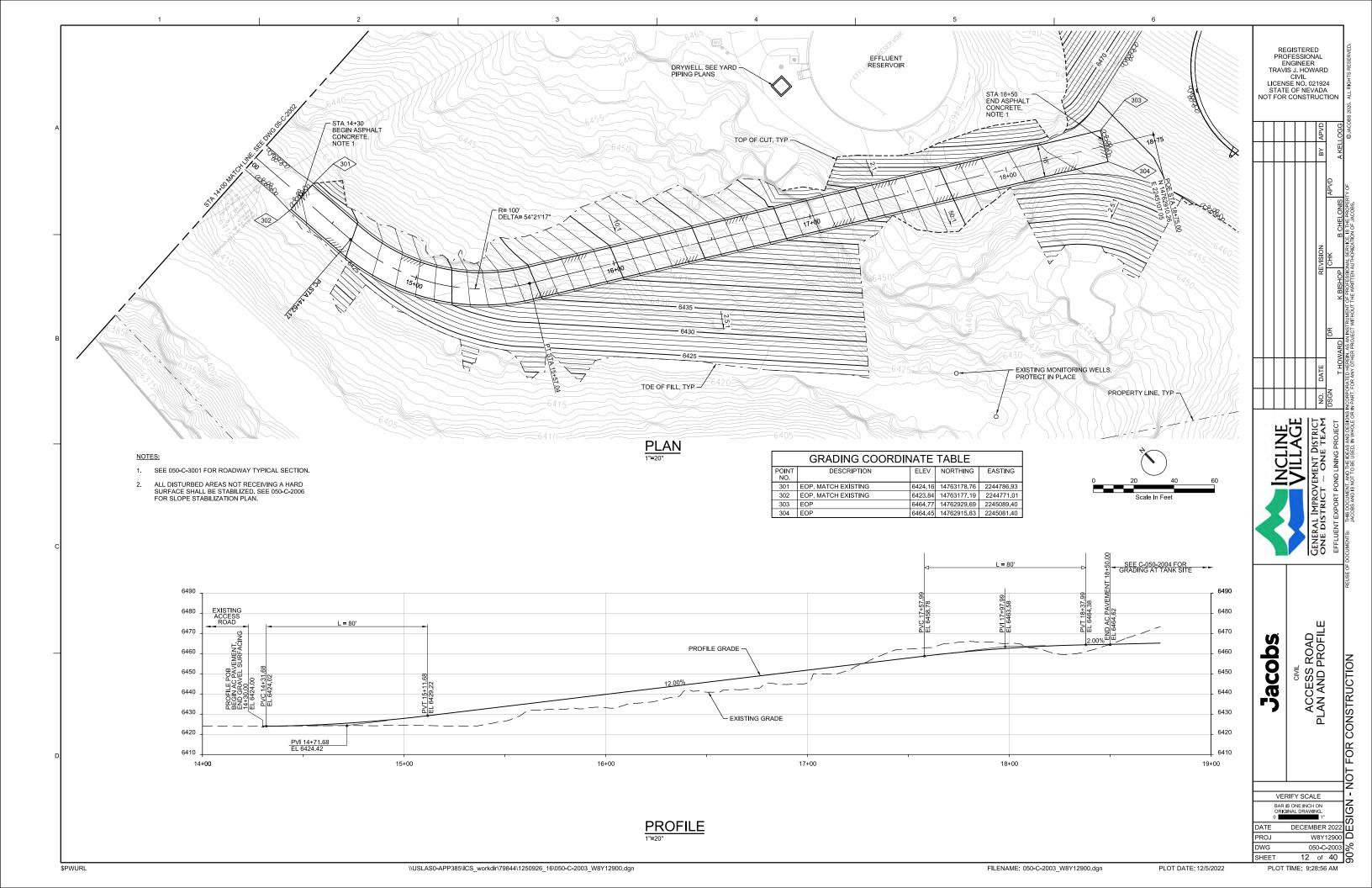
VERIFY SCALE RIFY SCALE
IS ONE INCH ON
SINAL DRAWING.

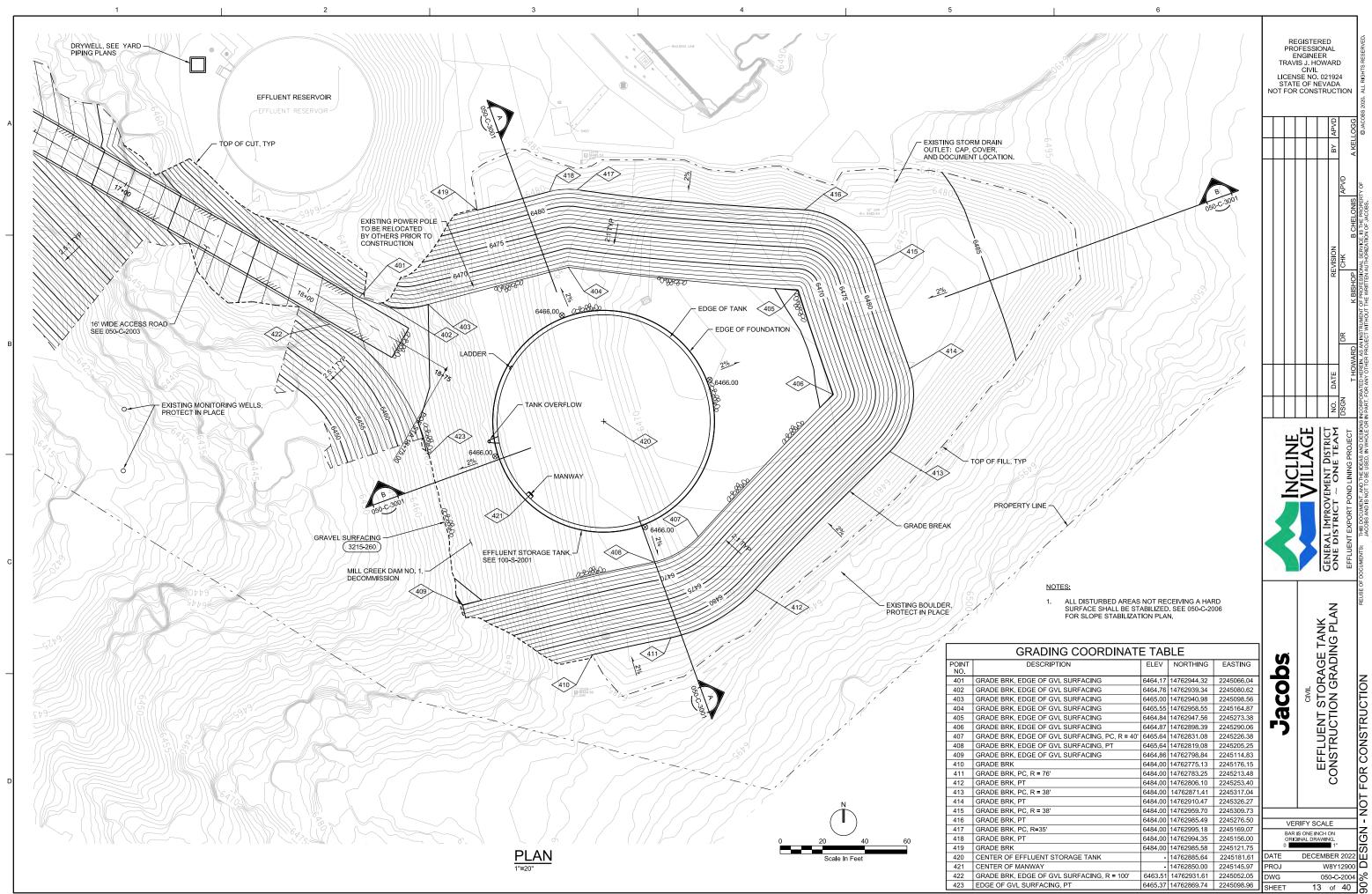
DECEMBER 2022
W8Y12900 BAR IS ONE INCH ON ORIGINAL DRAWING.

PROJ WG 050-C-2001 10 of 40 SHEET

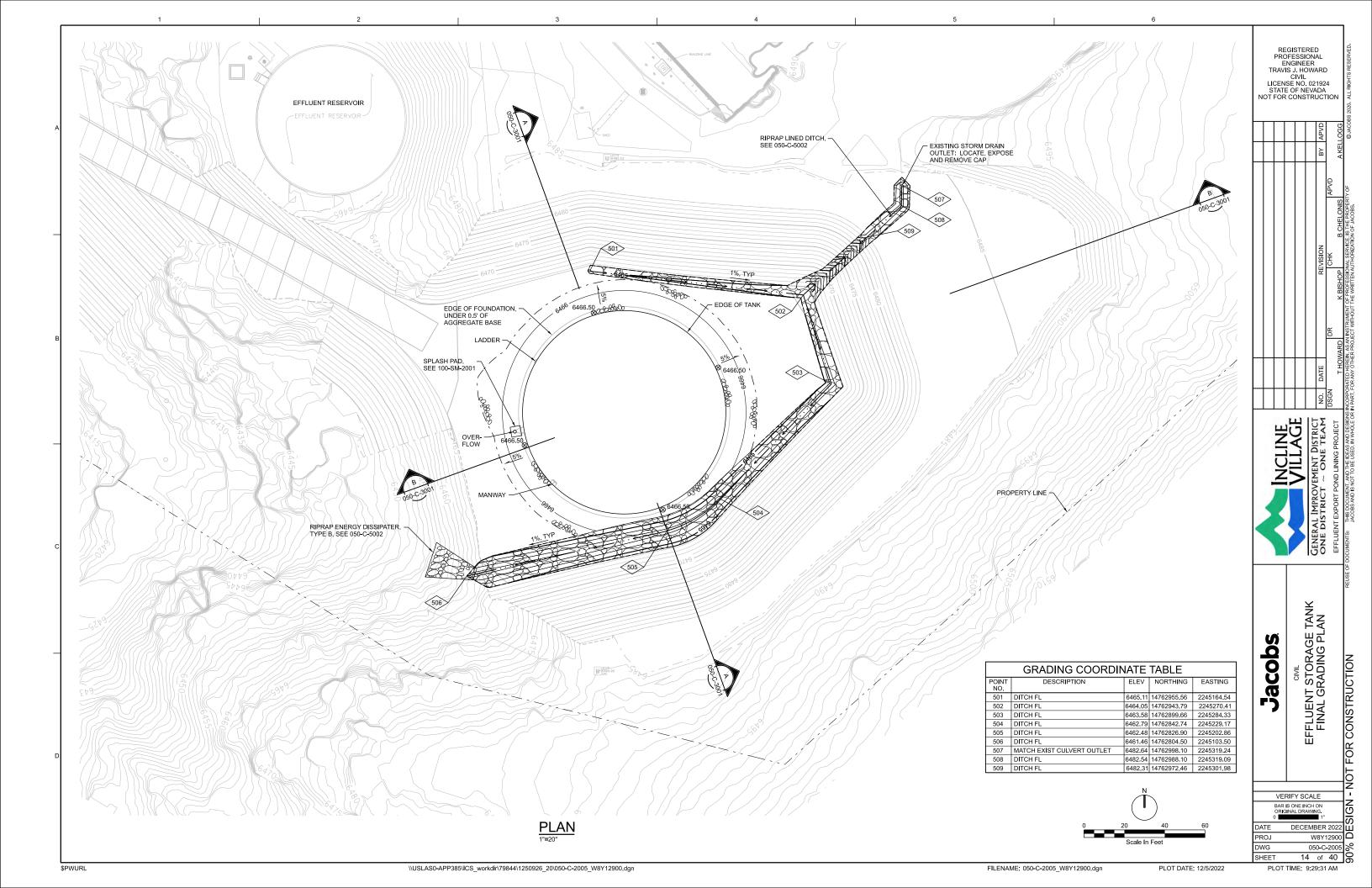


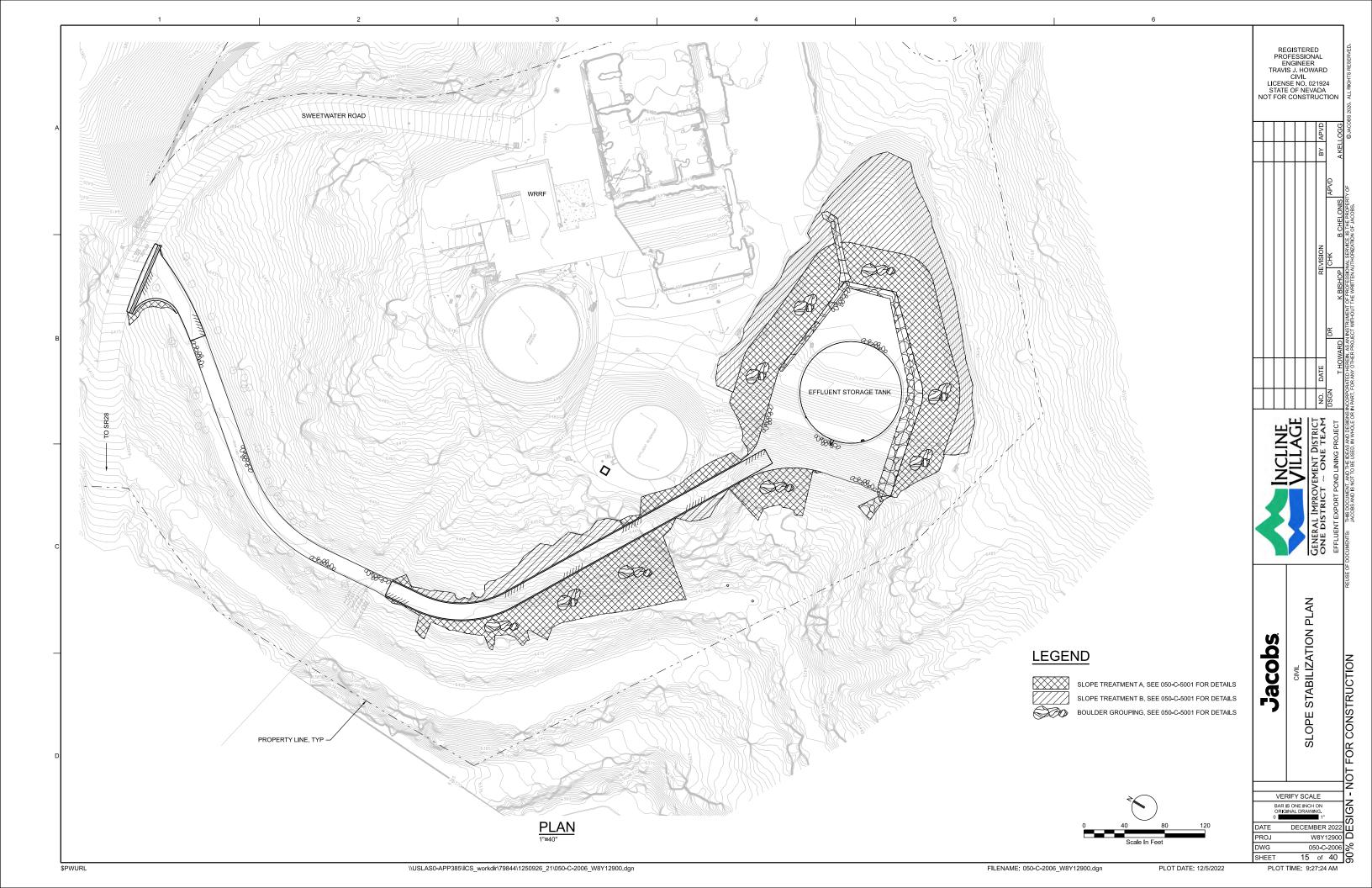
- NOT FOR CONSTRUCTION

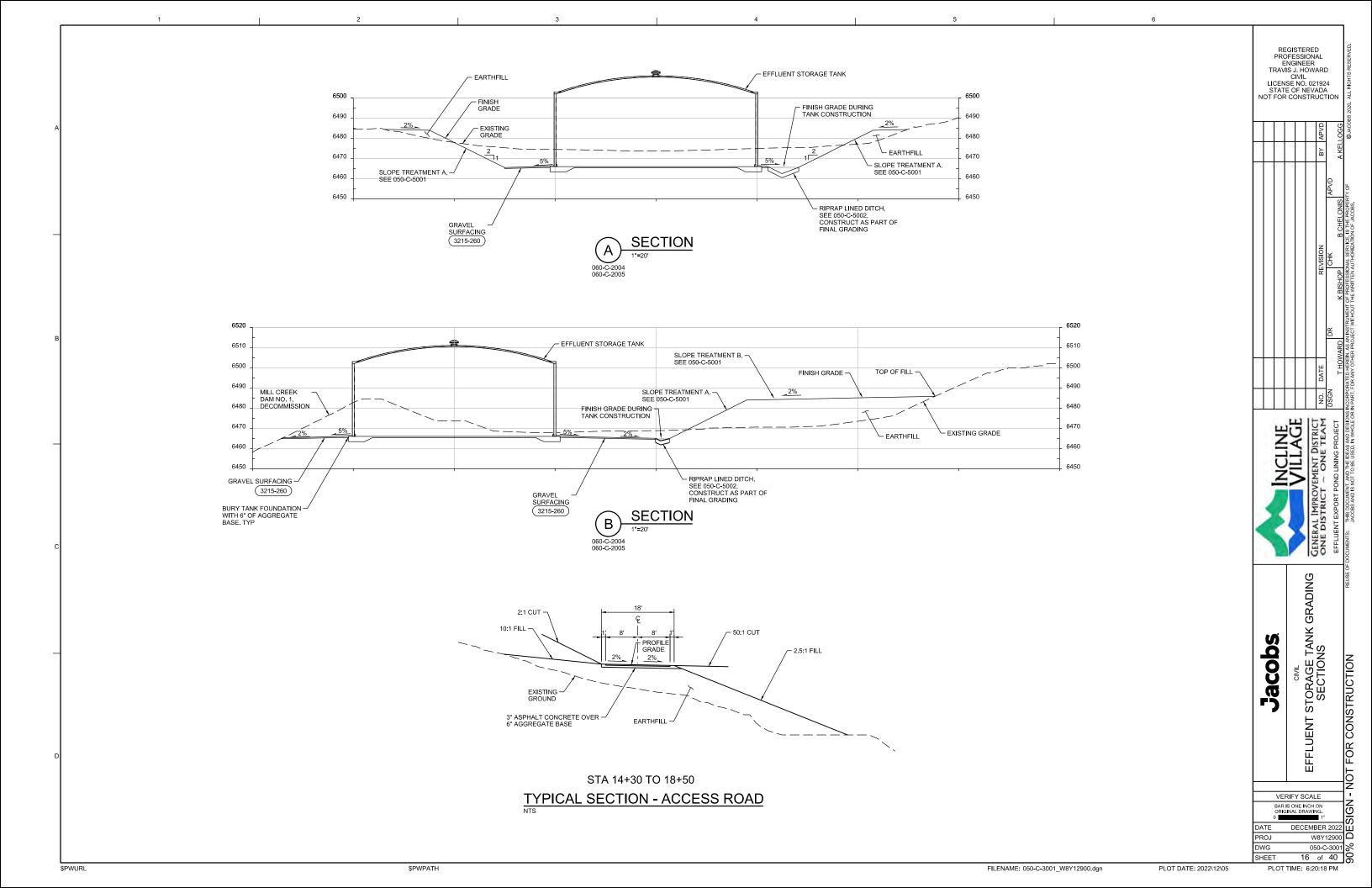




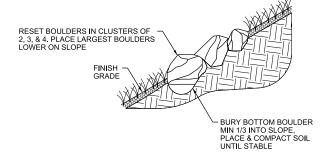
- NOT FOR CONSTRUCTION







INSTALL BOULDER GROUPINGS, -SEE DETAIL THIS SHEET EROSION CONTROL BLANKET 4" MULCH/PINE NEEDLE BLEND SEE SLOPE TREATMENT NOTES EXISTING GRADE ¬ SLOPE TREATMENT A - EXISTING GRADE 4" MULCH/PINE NEEDLE BLEND SEE SLOPE TREATMENT NOTES - FINISH GRADE FLATTER THAN 2.5:1 $\underset{\text{\tiny NTS}}{\underline{\text{SLOPE TREATMENT B}}}$



NOTES:

- 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

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.
- 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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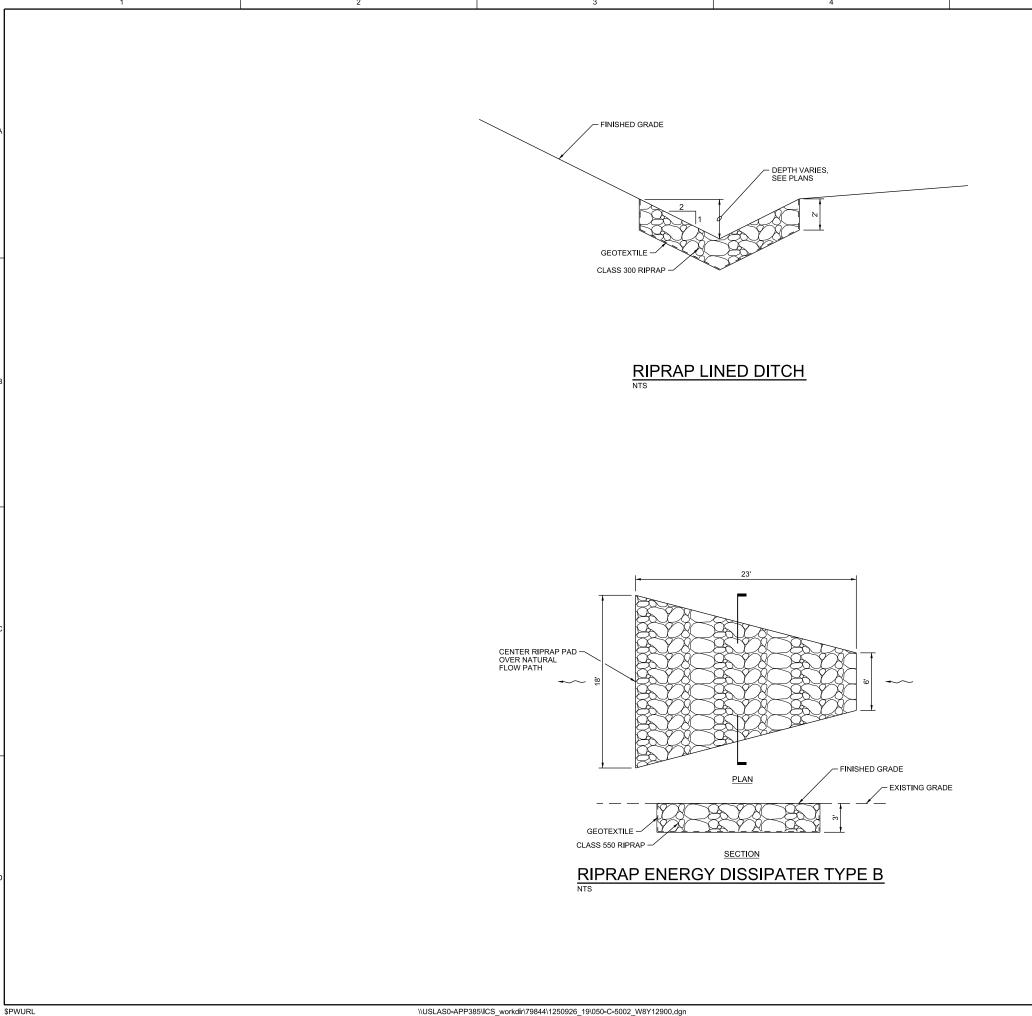
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			RE	DR	A STEED	CORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS.
					T HOWARD	EIN, AS A
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Jacobs

CIVIL SLOPE STABILIZATION DETAILS

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING.

RIFY SCALE
IS ONE INCH ON SINAL DRAWING.
DECEMBER 2022
W8Y12900 050-C-5001 % 17 of 40 SHEET



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ENGINEER
TRAVIS J. HOWARD
CIVIL
LICENSE NO. 021924
STATE OF NEVADA
NOT FOR CONSTRUCTION DRAINAGE DETAILS Jacobs DECEMBER 2022

WBY12900

O50-C-5002

WBY12900

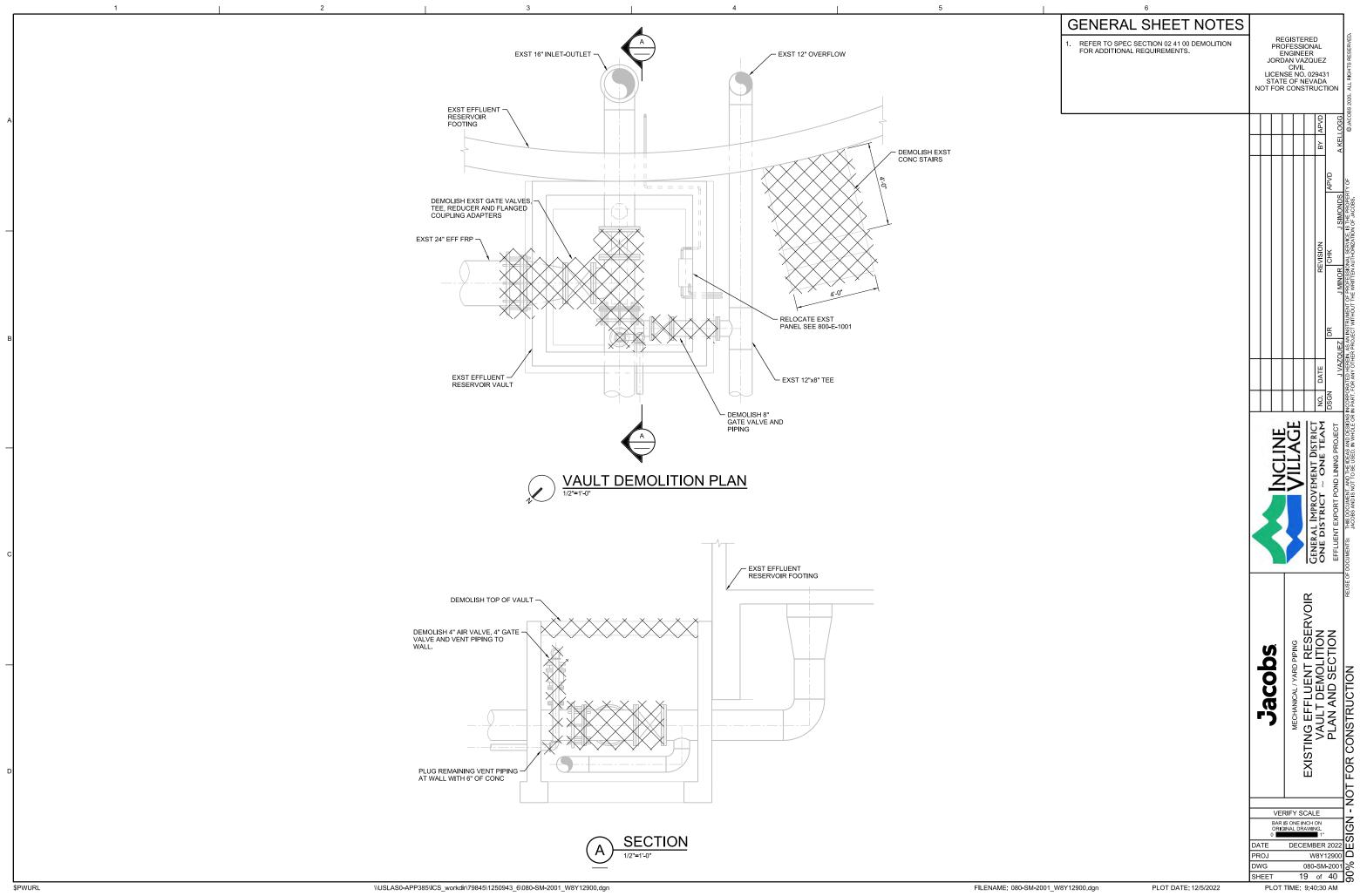
O50-C-5002

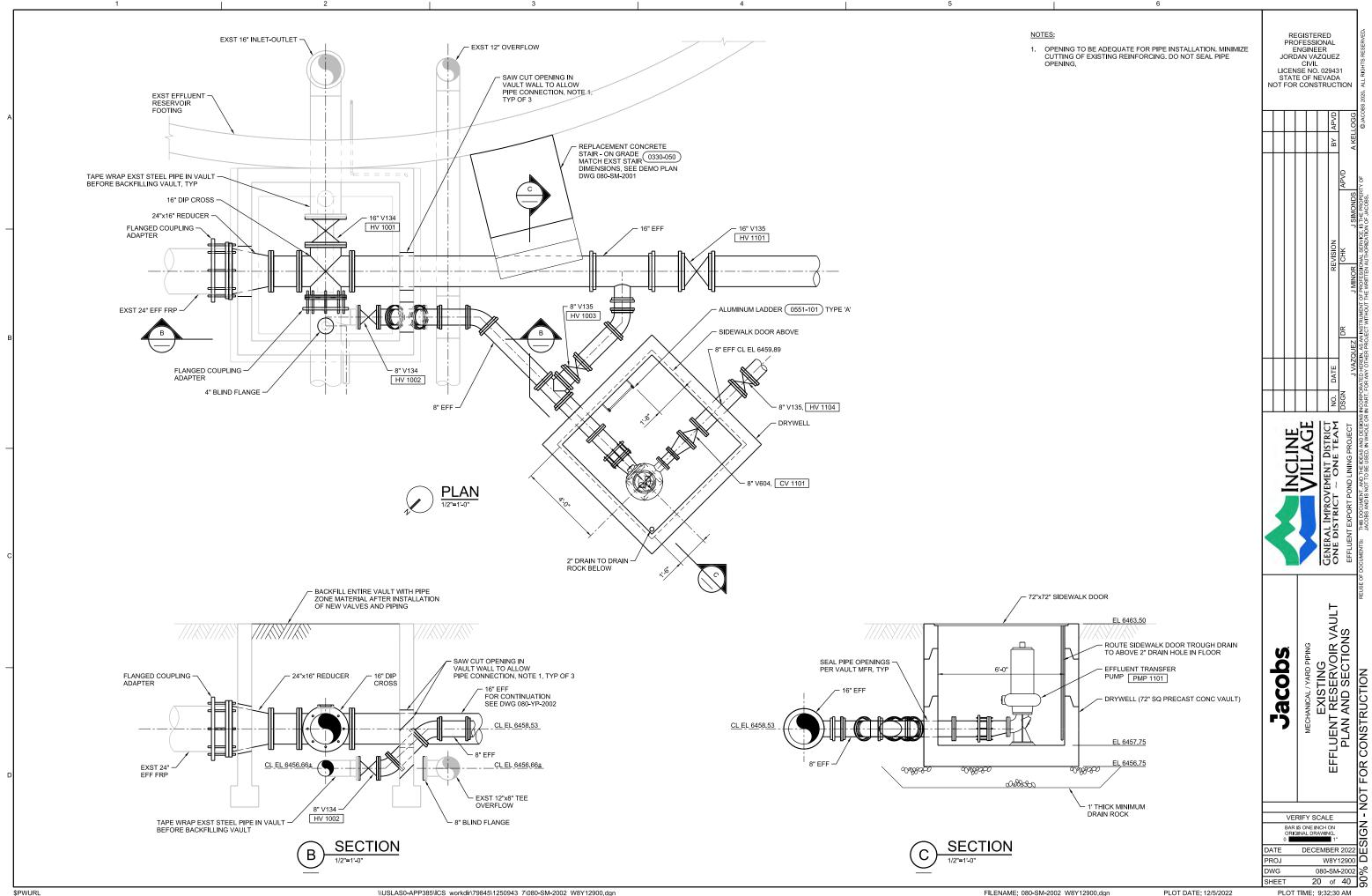
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PLOT DATE: 12/5/2022

050-C-5002 18 of 40 PLOT TIME: 9:42:11 AM

BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"





FILENAME: 080-SM-2002_W8Y12900.dgn

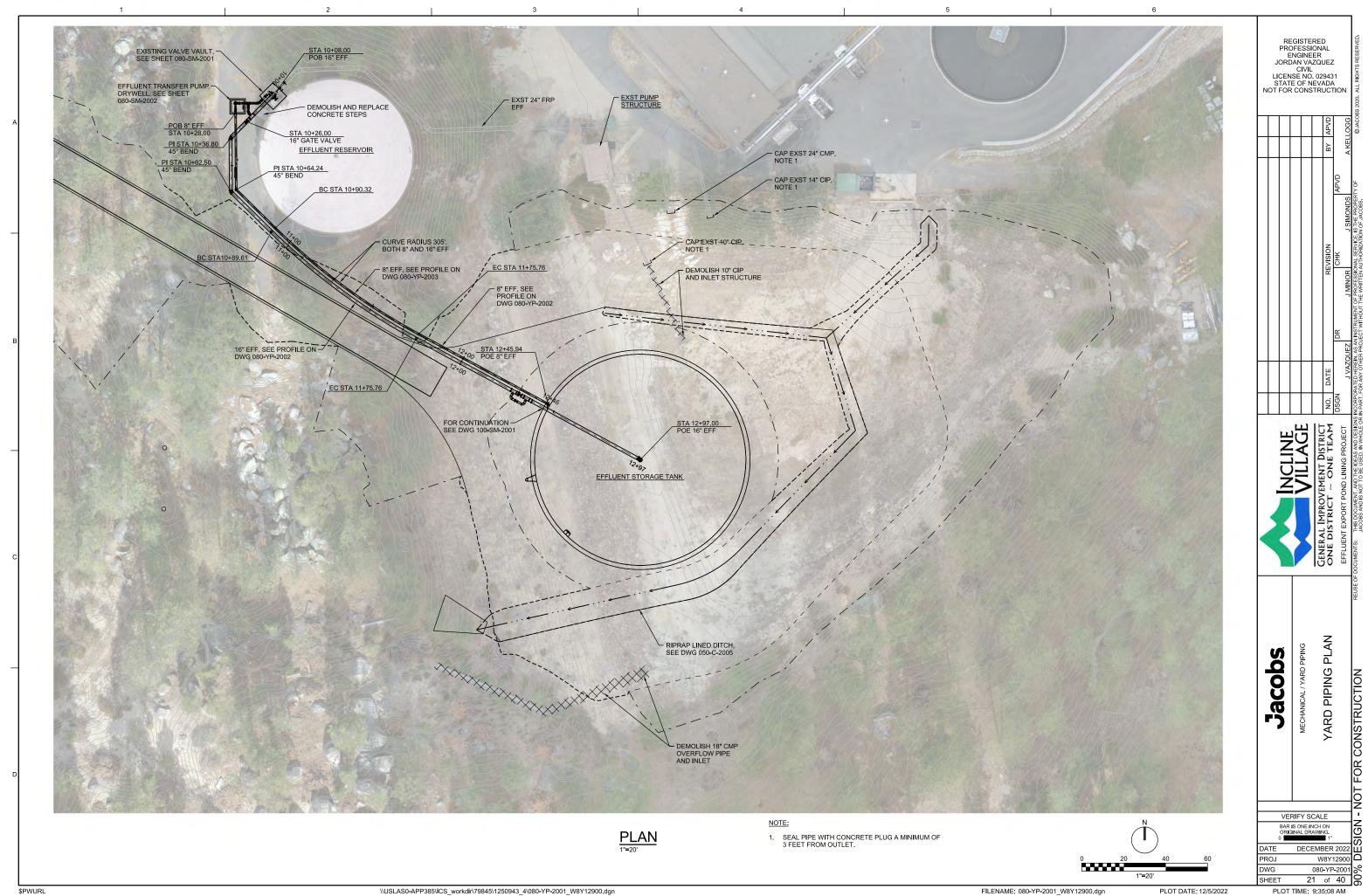
080-SM-2002 % 20 of 40 PLOT TIME: 9:32:30 AM

EXISTING EFFLUENT RESERVOIR VAULT PLAN AND SECTIONS

- NOT FOR CONSTRUCTION

\\USLAS0-APP385\ICS_workdir\79845\1250943_7\080-SM-2002_W8Y12900.dgn

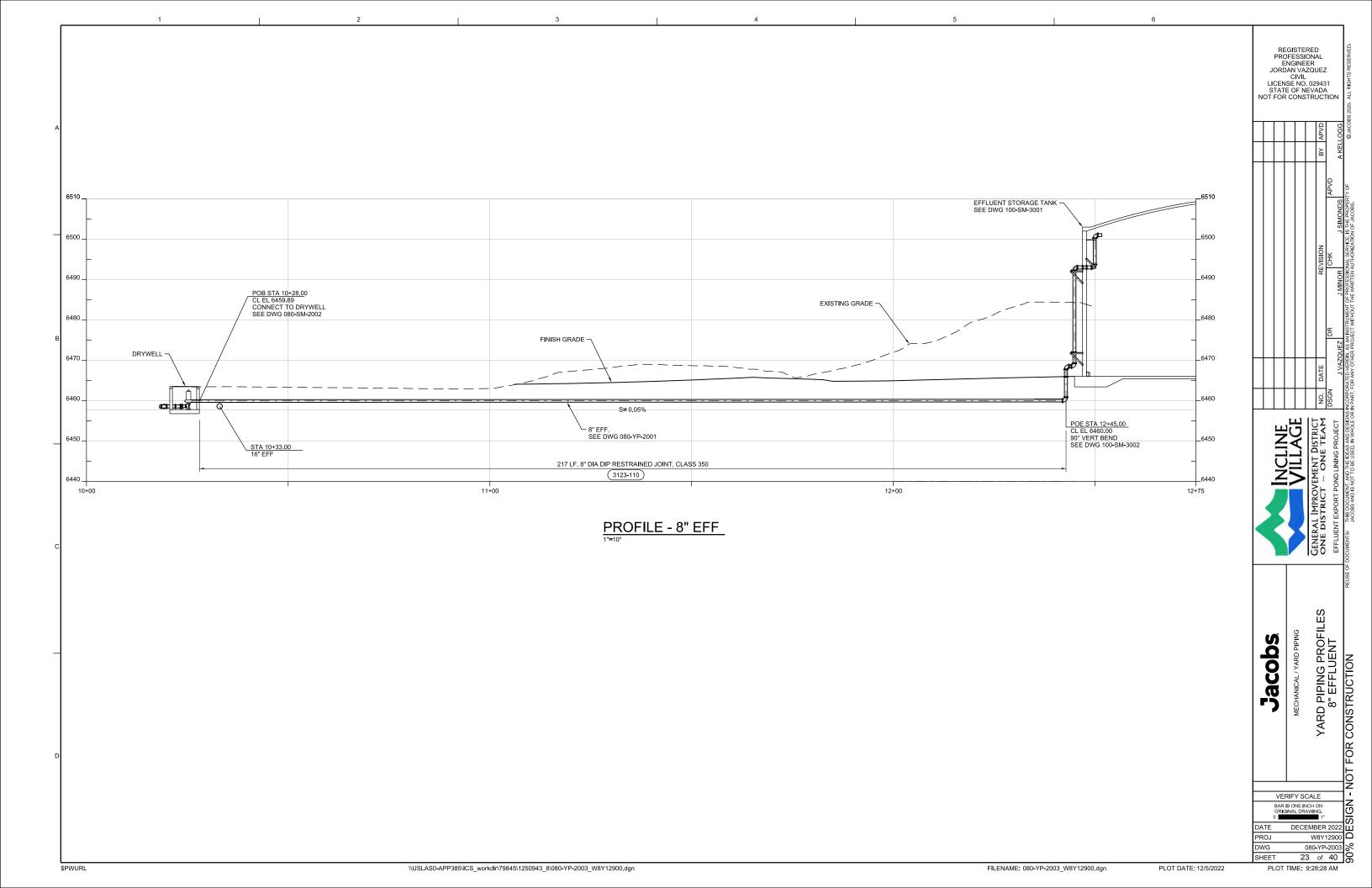
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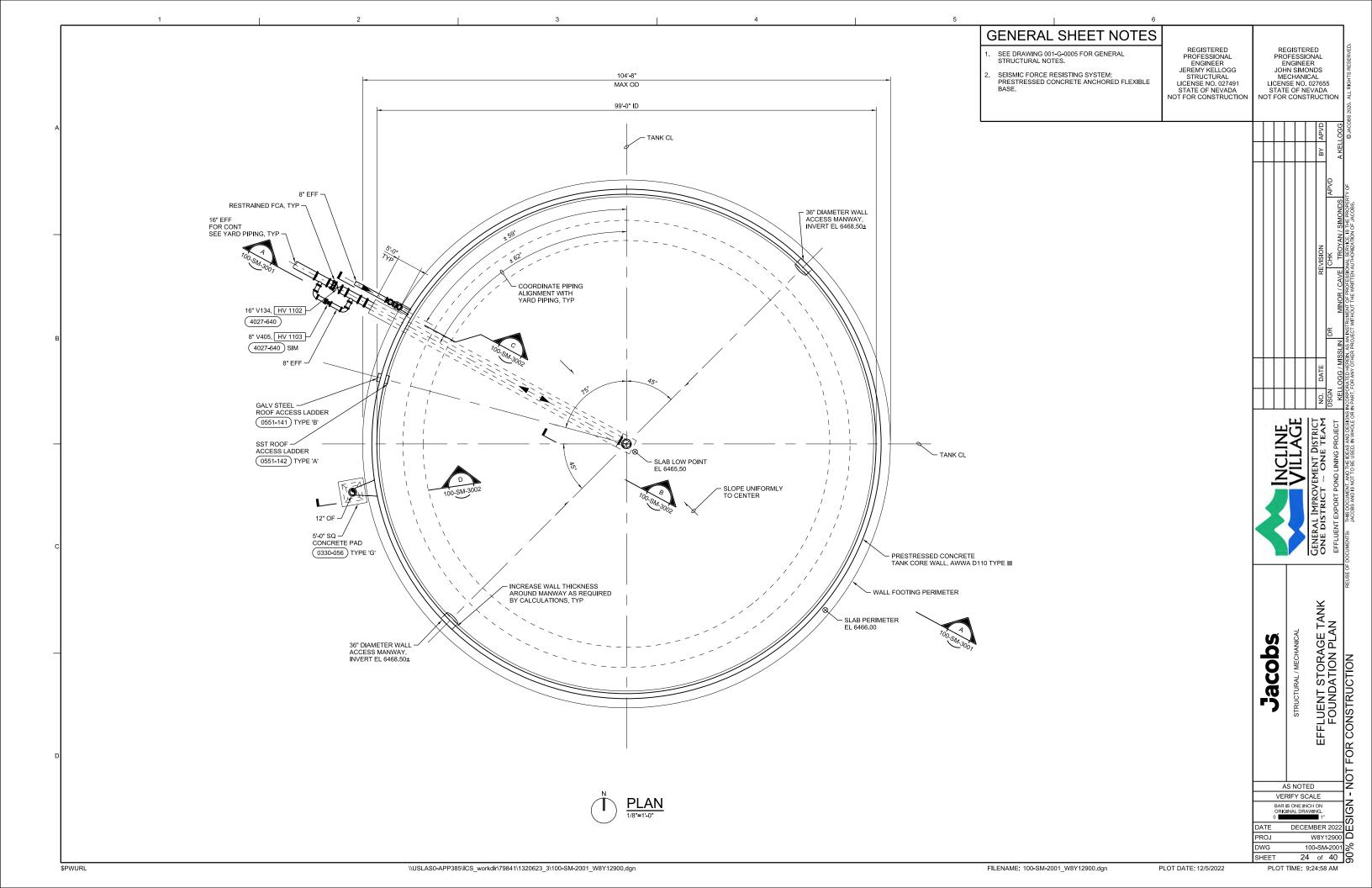


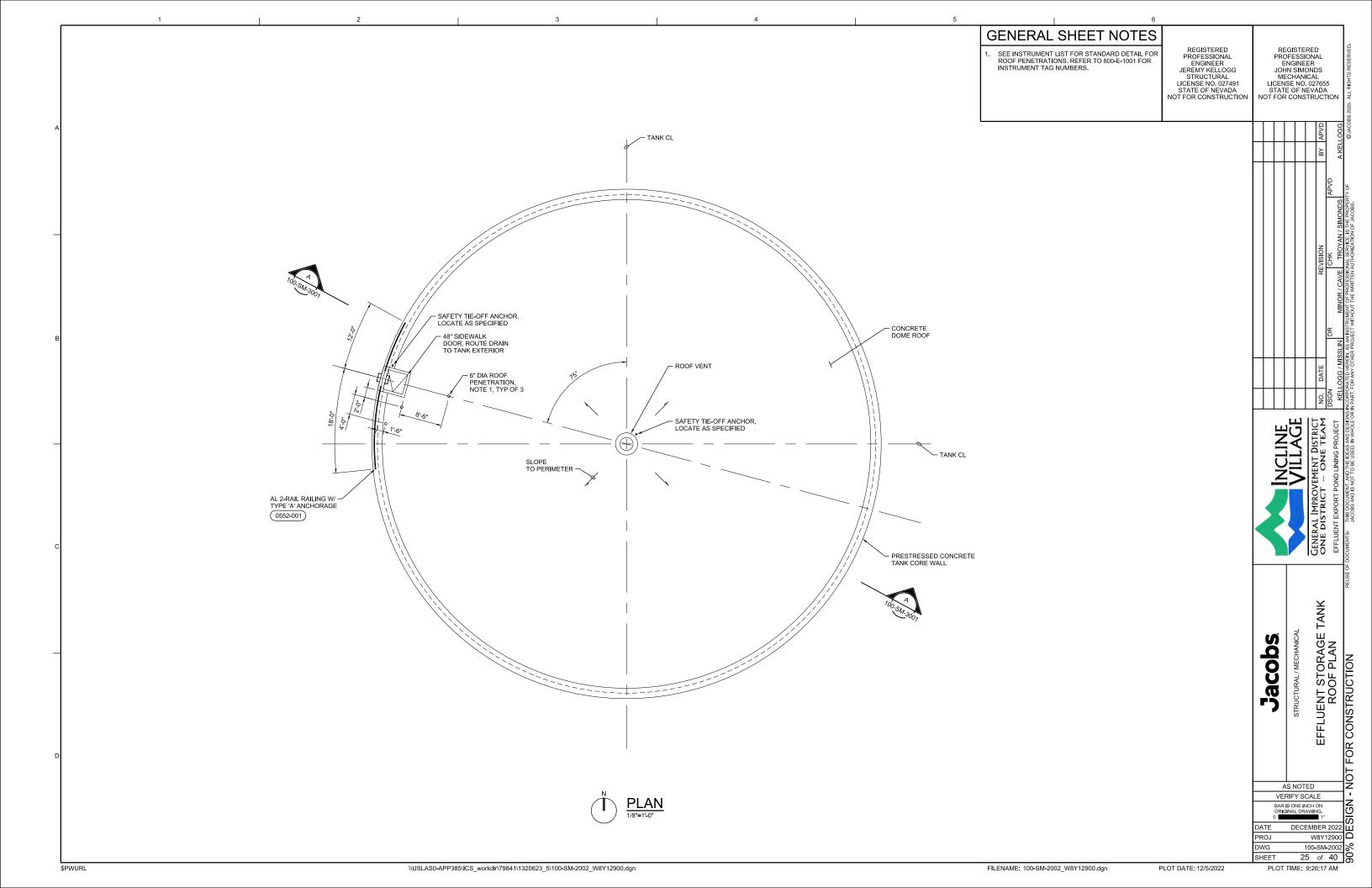
080-YP-2001 % 21 of 40 PLOT TIME: 9:35:08 AM

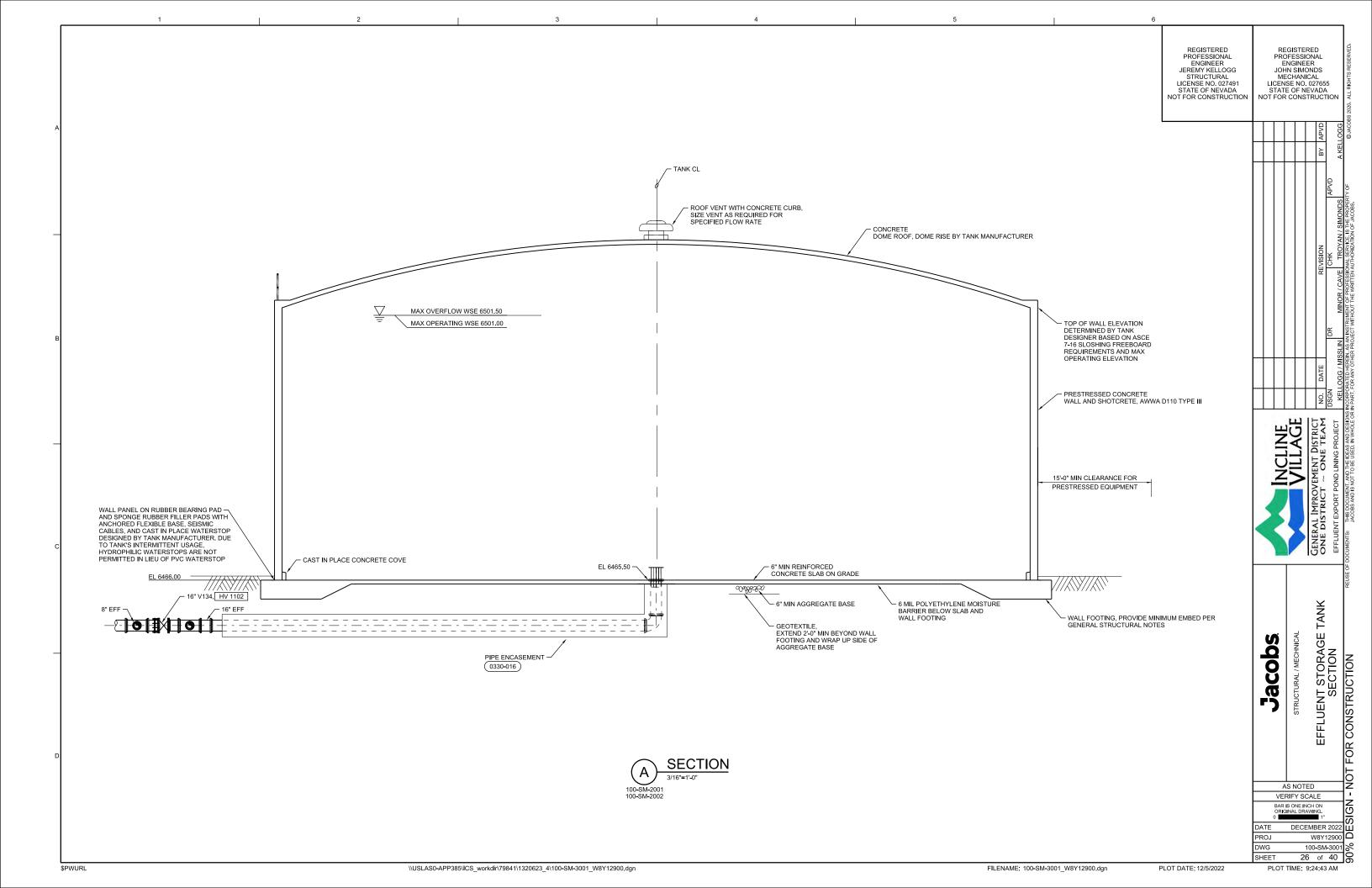
YARD PIPING PLAN

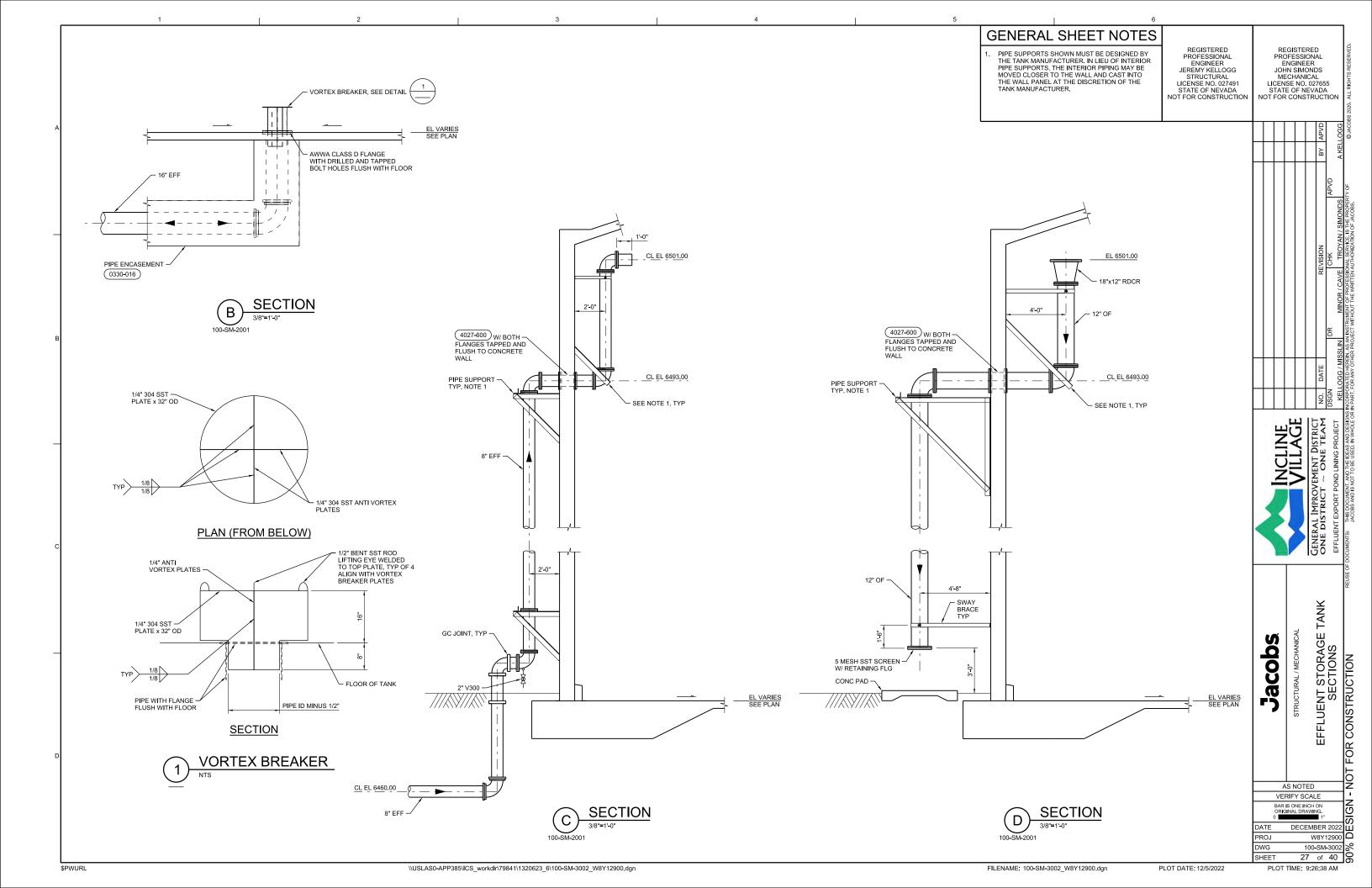
REGISTERED
PROFESSIONAL
ENGINEER
JORDAN VAZQUEZ
CIVIL
LICENSE NO. 029431
STATE OF NEVADA
NOT FOR CONSTRUCTION 6500 6490_ POB STA 10+08.00 16" DIP CROSS CL EL 6458.53 CONNECTION DETAIL SEE DWG 080-SM-2002 6480 STA 10+22.00 16"x16"x8" TEE SEE DWG 080-SM-2002 FINISH GRADE EXST -EXISTING GRADE -STA 10+26.00 16" GATE VALVE CL EL 6458.53 6470 _ S= 0.53% STA 10+06.00 EXST 12" OVERFLOW - 16" EFF SEE DWG 200-YP-2001 6450. - DRAIN TO DRYWELL - EXST 8" DRAIN 142 LF, 16" DIA DIP RESTRAINED JOINT, CLASS 250 (3123-110) 6440 _ _6440 11+50 10+00 11+00 PROFILE - 16" EFF 6510_ EFFLUENT STORAGE TANK -SEE DWG 100-SM-3001 6500 6490 6480. EXISTING GRADE PIPE ENCASEMENT MECHANICAL / YARD PIPING
YARD PIPING PROFILE
16" EFFLUENT
16" EFFLUENT
DESIGN - NOT FOR CONSTRUCTION (0330-016) Jacobs 6470 6460 S= 0.53% POE STA 12+97.00 CL EL 6460.00 90° VERT BEND SEE DWG 100-SM-3001 STA 12+32.00 16" GATE VALVE SEE DWG 100-SM-300 6450 147 LF, 16" DIA DIP RESTRAINED JOINT, CLASS 250 (3123-110) 6440 _ 11+50 12+00 13+00 VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1 PROFILE - 16" EFF 080-YP-2002 % 22 of 40 SHEET \$PWURL \\USLAS0-APP385\ICS_workdir\79845\1250943_5\080-YP-2002_W8Y12900.dgn FILENAME: 080-YP-2002_W8Y12900.dgn PLOT DATE: 12/5/2022 PLOT TIME: 9:30:35 AM

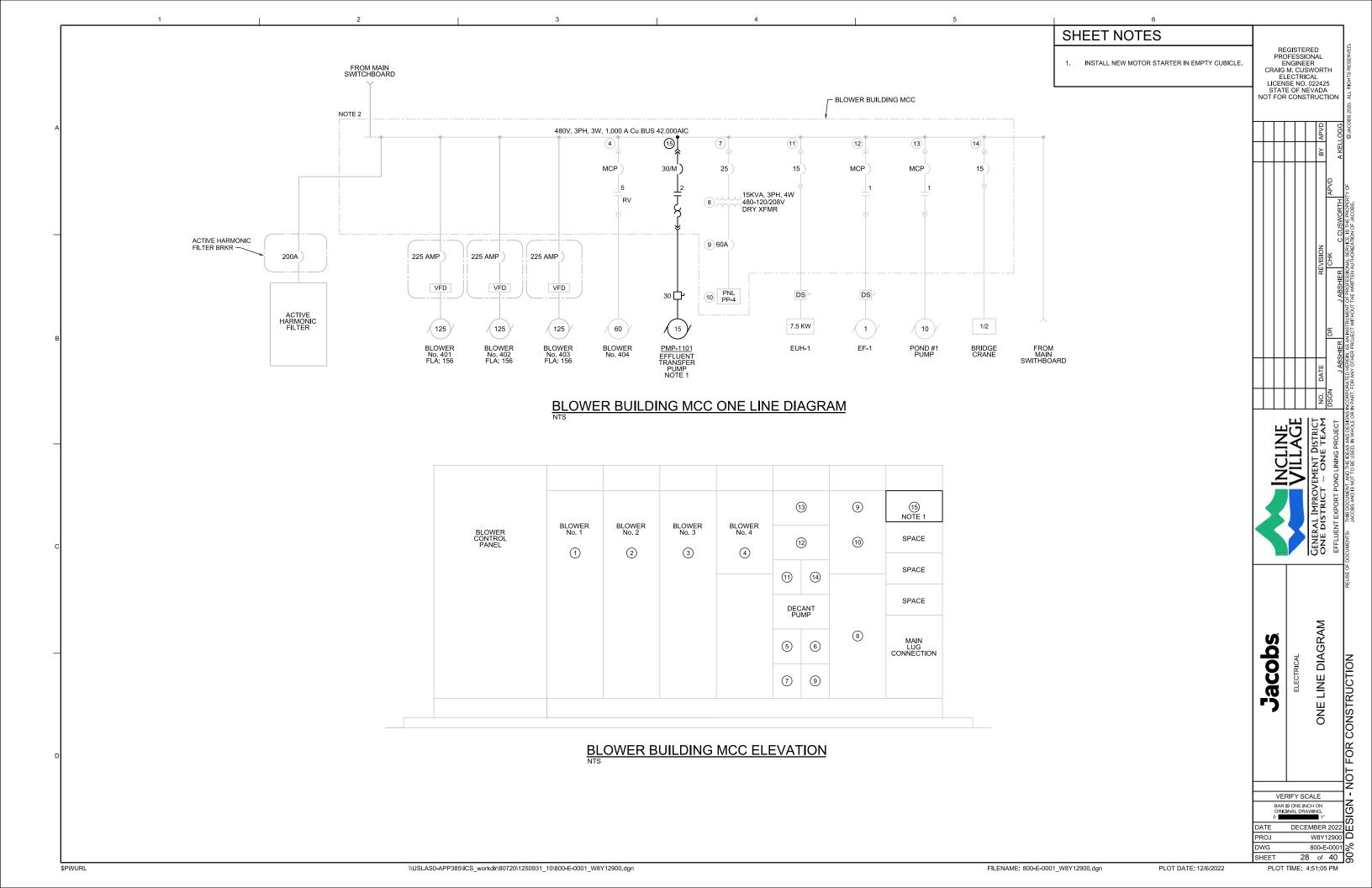


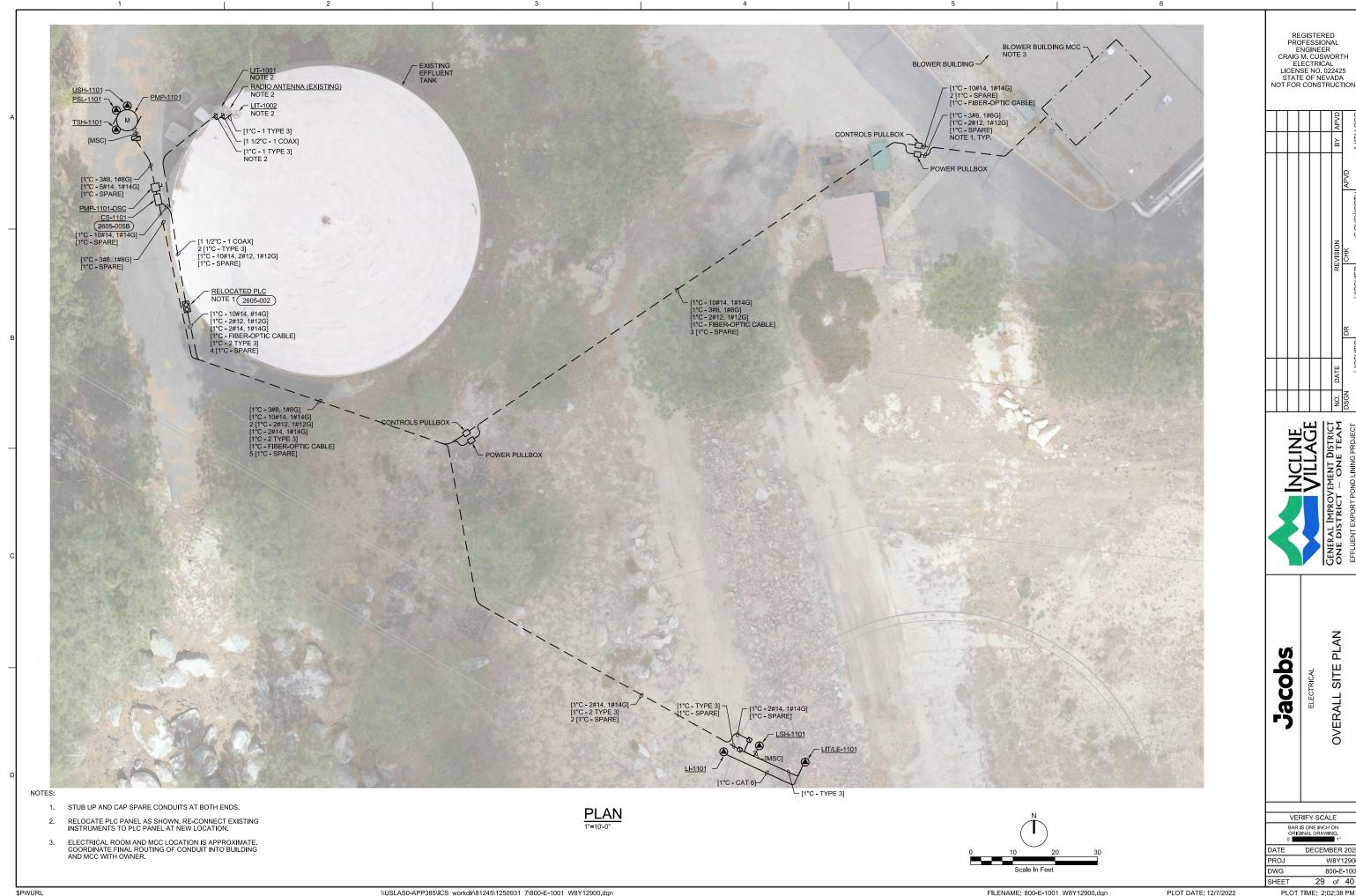












VERIFY SCALE

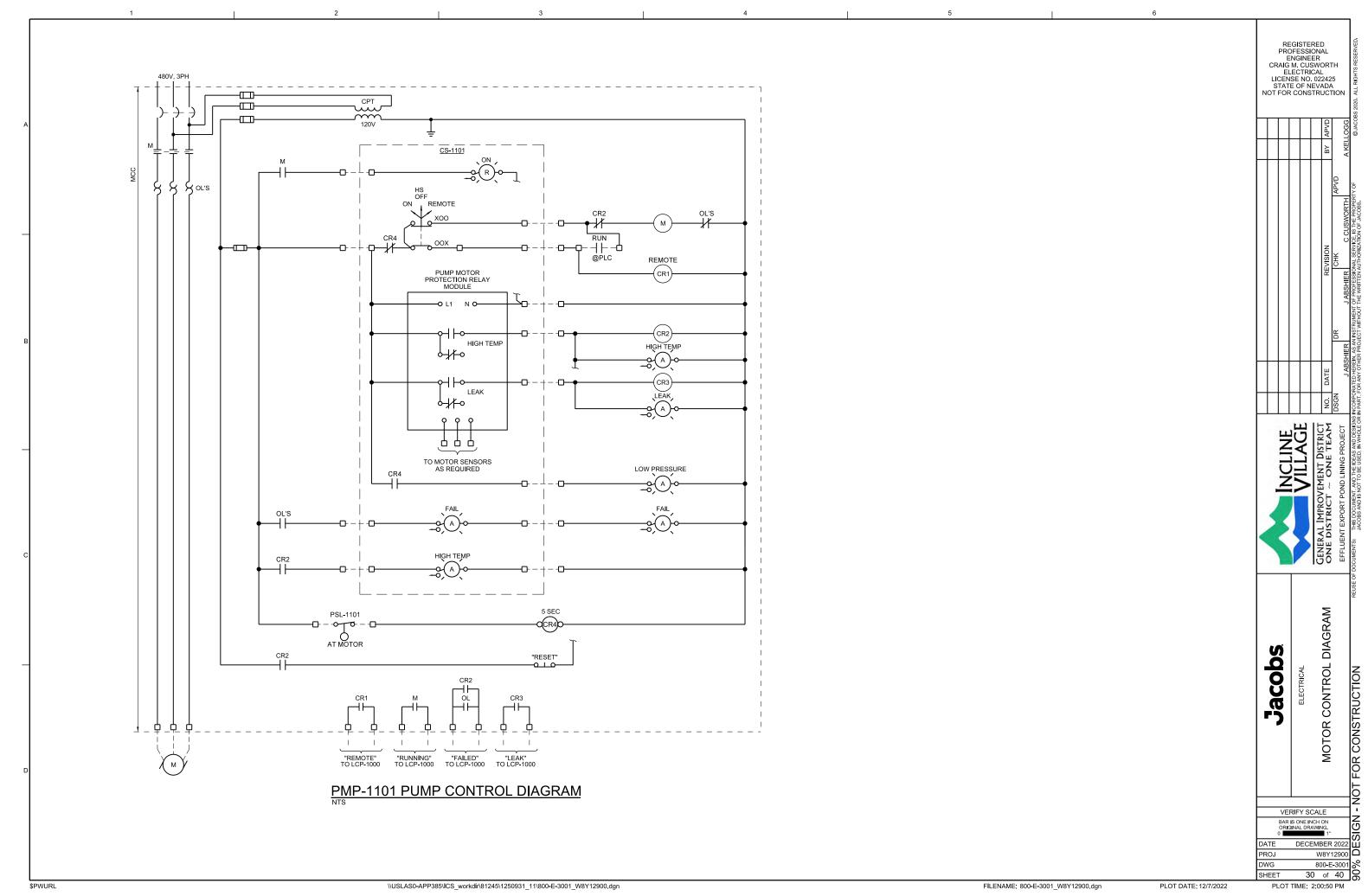
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IS ONE INCH ON SINAL DRAWING.

DECEMBER 2022

W8Y12900

OVERALL SITE PLAN

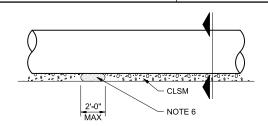
- NOT FOR CONSTRUCTION



MOTOR CONTROL DIAGRAM

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1" 800-E-3001 30 of 40



ELEVATION

PLASTIC MARKING TAPE FOR METALLIC PIPE, METALLIC MARKING TAPE FOR SURFACE RESTORATION AND TRENCH BACKFILL ABOVE THE PIPE ZONE, 3123-115 FOR NON-METALLIC PIPE,

NOTES 2 AND 3 - 12", NOTE 5 MATERIAL "B" SEE TABLE

AT THE CONTRACTOR'S OPTION, CLSM MAY BE USED FOR PIPE ZONE MATERIAL.

VERTICAL TRENCH WALLS ARE SHOWN FOR ILLUSTRATION PURPOSES ONLY. EXCAVATE AS NEEDED FOR CONSTRUCTION AND SLOPE AND/OR PROVIDE ADEQUATE SHORING FOR SAFETY AND IN CONFORMANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL CODES AND REGULATIONS. DO NOT EXCEED AVAILABLE WORK AREA.

PIPE ZONE AND TRENCH BACKFILL MATERIAL AS SHOWN OR SPECIFIED SHALL EXTEND TO THE EDGE OF THE EXCAVATED TRENCH UNLESS SHOWN

4. PIPE SHALL BE CENTERED IN TRENCH.

CLSM 12" ABOVE THE TOP OF THE PIPE MAY BE SUBSTITUTED WITH GRANULAR PIPE ZONE MATERIAL.

SUPPORT PIPE ON SANDBAGS PRIOR TO PLACING CLSM. LIMIT NUMBER OF SANDBAG SUPPORTS TO QUARTER POINTS (+/- 3 FEET) ALONG PIPE SECTIONS

SEE SPECIFICATIONS FOR MATERIAL PLACEMENT AND COMPACTION REQUIREMENTS.

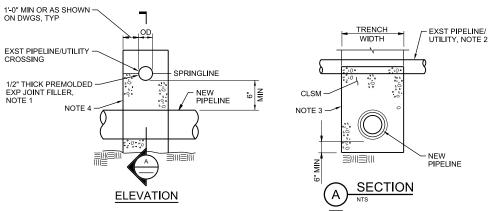
PIPE DIAMETER	MINIMUM DIMENSIONS (GRANULAR PIPE ZONE MATERIAL)		MINIMUM DIMENSIONS (CLSM PIPE ZONE MATERIAL)	
	"A"	"B"	"A"	"B"
16" TO 24"	18"	6"	9"	9"
14" & SMALLER	12"	6"	9"	6"

SECTION

TRENCH SECTION

SEE TABLE

(3123-110)

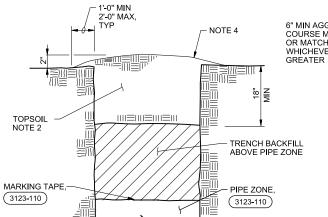


MATERIAL WRAPPED IN NONWOVEN GEOTEXTILE, TO BE INSTALLED ONLY AS APPROVED AND DIRECTED BY THE ENGINEER. SEE SPECIFICATIONS.

- 1. PREMOLDED EXPANSION JOINT FILLER TO BE USED IN SUPPORT FOR ALL PIPE MATERIALS. FOR DUCT BANK INTERFACES USE AN 8mil POLYETHYLENE SHEET TO PREVENT BONDING.
- 2. EXISTING FACILITIES REQUIRE A CLSM CRADLE.
- 3. VERTICAL TRENCH WALLS ARE SHOWN FOR ILLUSTRATION PURPOSES ONLY. EXCAVATE AS NEEDED FOR CONSTRUCTION AND SLOPE AND/OR PROVIDE ADEQUATE SHORING FOR SAFETY & CONFORMANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL CODES AND REGULATIONS. DO NOT EXCEED AVAILABLE WORK AREA.
- 4. VERTICAL LIMIT SHOWN. SLOPE AS NEEDED FOR CONSTRUCTION AND SAFETY.

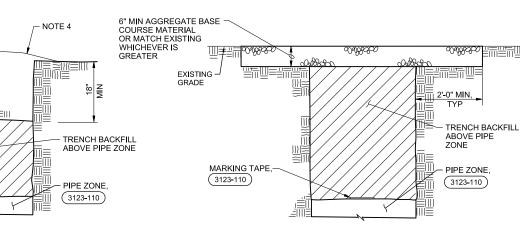
TYPICAL PIPELINE CROSSING SUPPORT DETAILS

3123-120



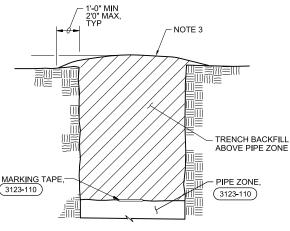
- THIS DETAIL WILL GENERALLY BE USED IN AREAS WHERE TOPSOIL NOW EXISTS AND REPLACEMENT IS REQUIRED.
- 2. SEE SPECIFICATIONS FOR MATERIAL PLACEMENT AND COMPACTION REQUIREMENTS.
- 3. DO NOT MOUND TOPSOIL IN DRAINAGE DITCHES OR WHERE MOUND

CLASS A



- THIS DETAIL WILL GENERALLY BE USED IN UNPAVED PORTIONS
 OF COUNTY ROADS, UNPAVED ACCESS ROADS AND SHOULDERS ON WHICH GRAVEL SURFACING WILL BE REPLACED OR ADDED.
- 2. SEE SPECIFICATIONS FOR MATERIAL PLACEMENT AND COMPACTION REQUIREMENTS.

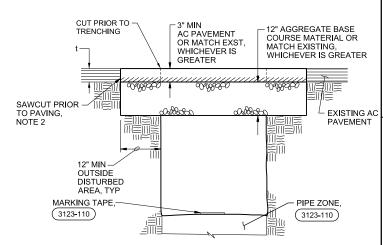
CLASS C



- 1. THIS DETAIL WILL GENERALLY BE USED IN OPEN AREAS THAT ARE UNSURFACED, UNCULTIVATED AND UNLANDSCAPED.
- 2. SEE SPECIFICATIONS FOR MATERIAL PLACEMENT AND COMPACTION REQUIREMENTS.
- 3. DO NOT MOUND EARTH BACKFILL IN DIRT ROADS, DRAINAGE DITCHES OR WHERE MOUND MAY OBSTRUCT RUNOFF.

CLASS B

SURFACE RESTORATION



- 1. THIS DETAIL WILL GENERALLY BE USED IN PAVED ROADWAYS.
- 2. SAW CUTS OF EXISTING PAVEMENT SHALL BE STRAIGHT, SQUARE, AND PARALLEL TO THE TRENCH.
- 3. ALL EDGES OF EXISTING PAVEMENT BEING JOINED AND SURFACE BEING OVERLAID SHALL RECEIVE A TACKCOAT OF ASPHALT EMULSION.
- 4. SEE SPECIFICATIONS FOR MATERIAL PLACEMENT AND COMPACTION REQUIREMENTS.

CLASS D

PROJ 3123-115 WG HEET

DECEMBER 2022 W8Y12900 900-SD-0001 31 of 40

VERIFY SCALE BAR IS ONE INCH ON

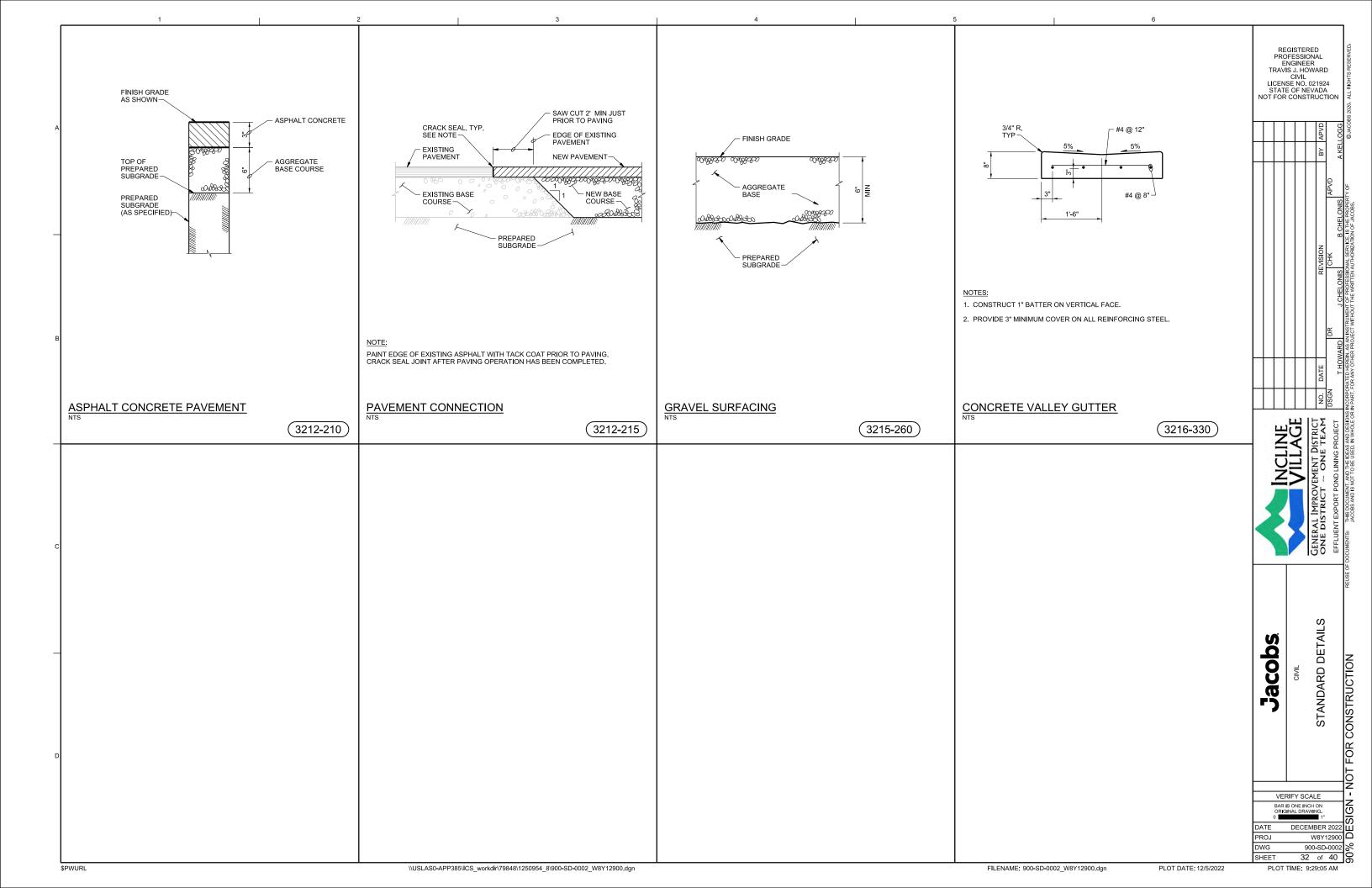
STANDARD DETAILS

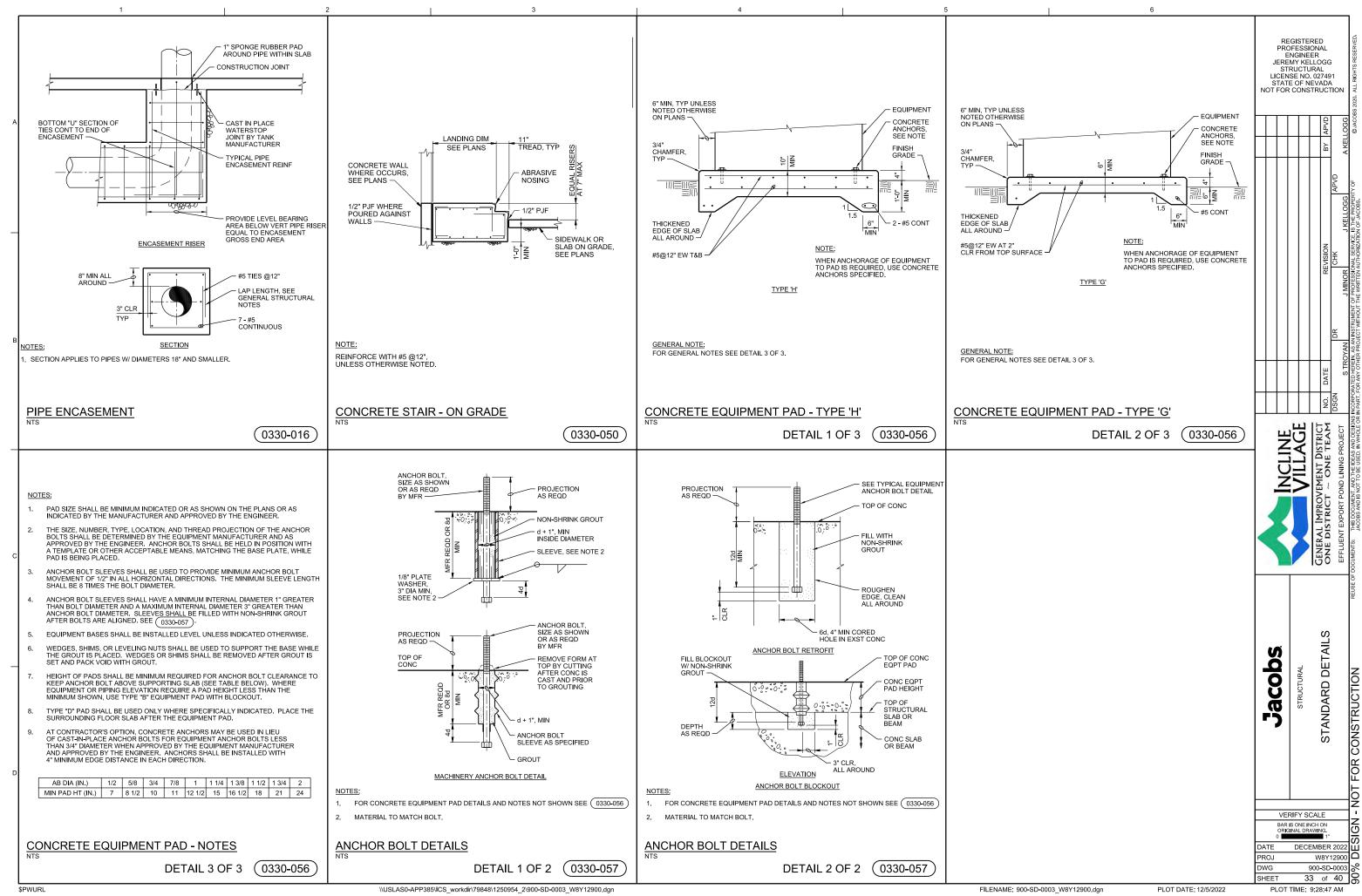
NOT FOR CONSTRUCTION

Jacobs

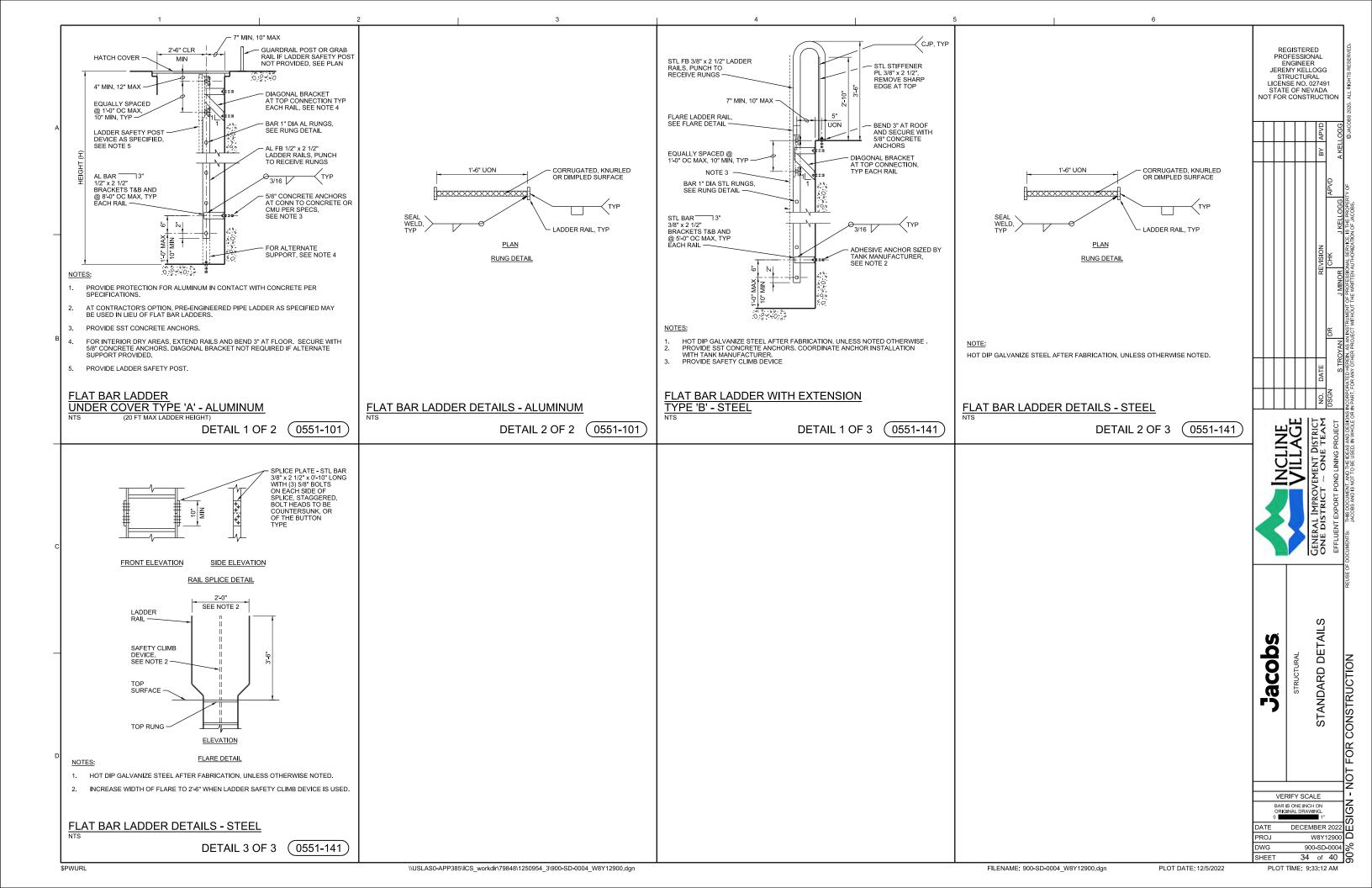
REGISTERED PROFESSIONAL

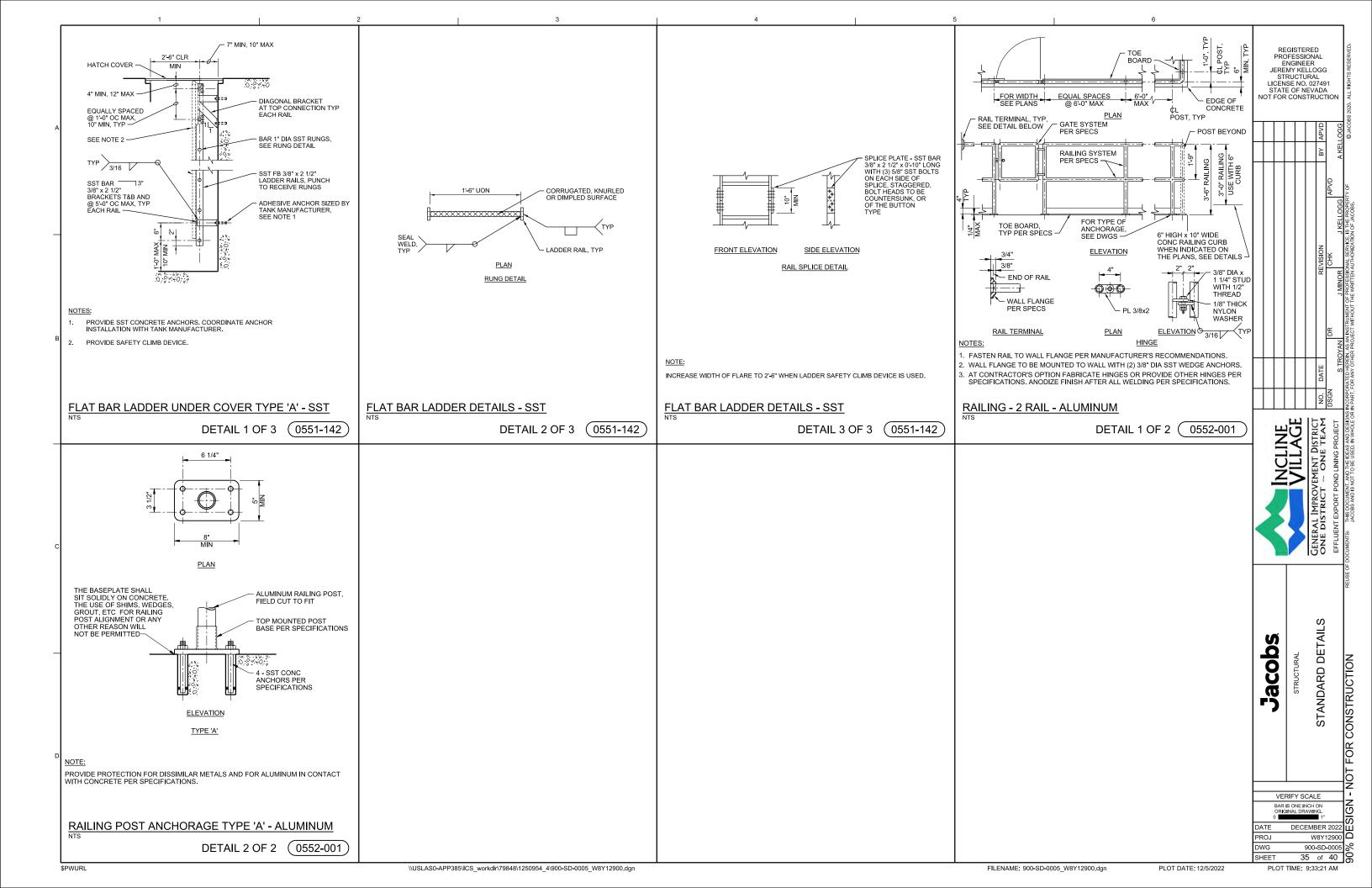
ENGINEER ENGINEER
TRAVIS J. HOWARD
CIVIL
LICENSE NO. 021924
STATE OF NEVADA
NOT FOR CONSTRUCTION

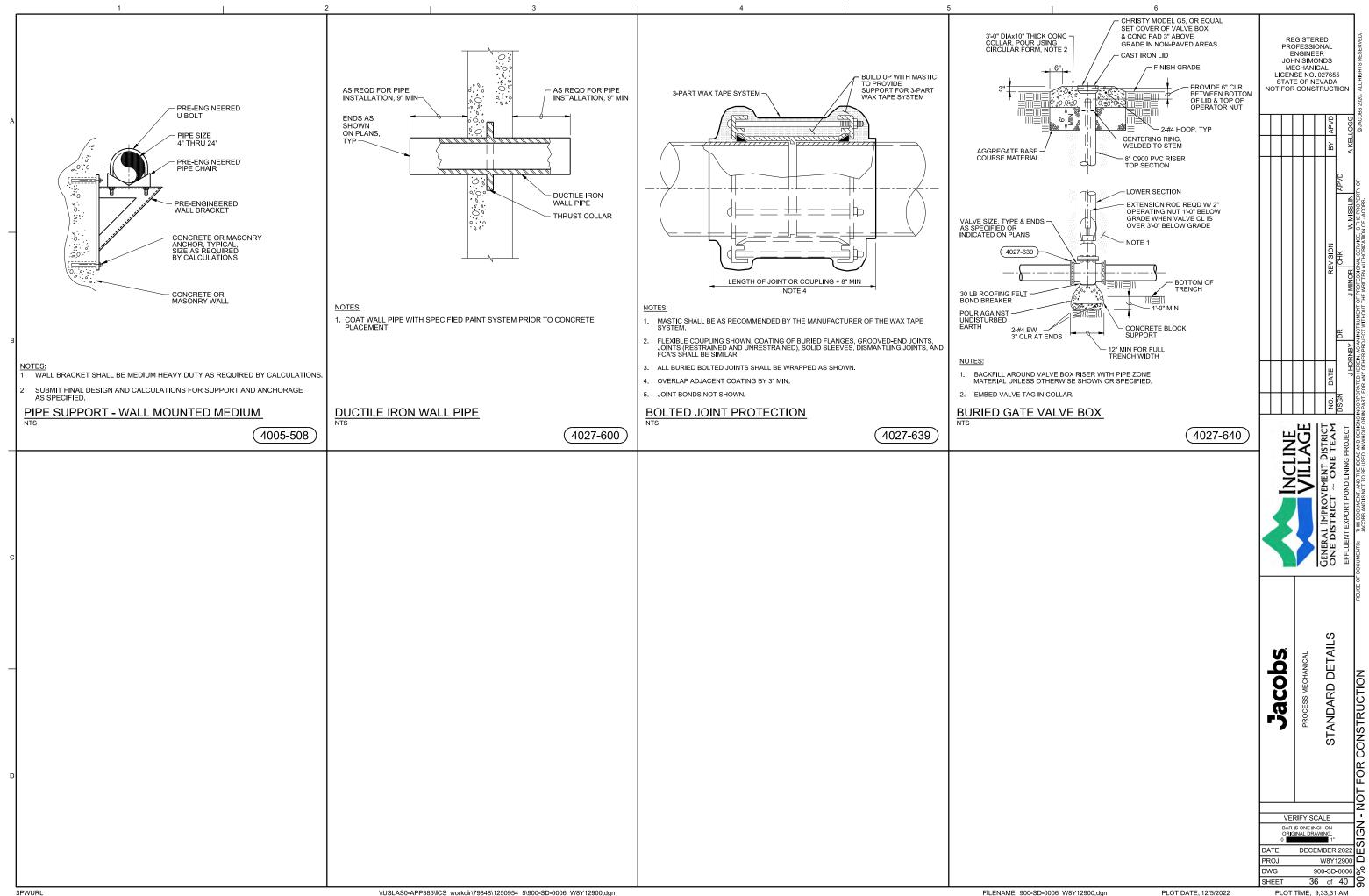




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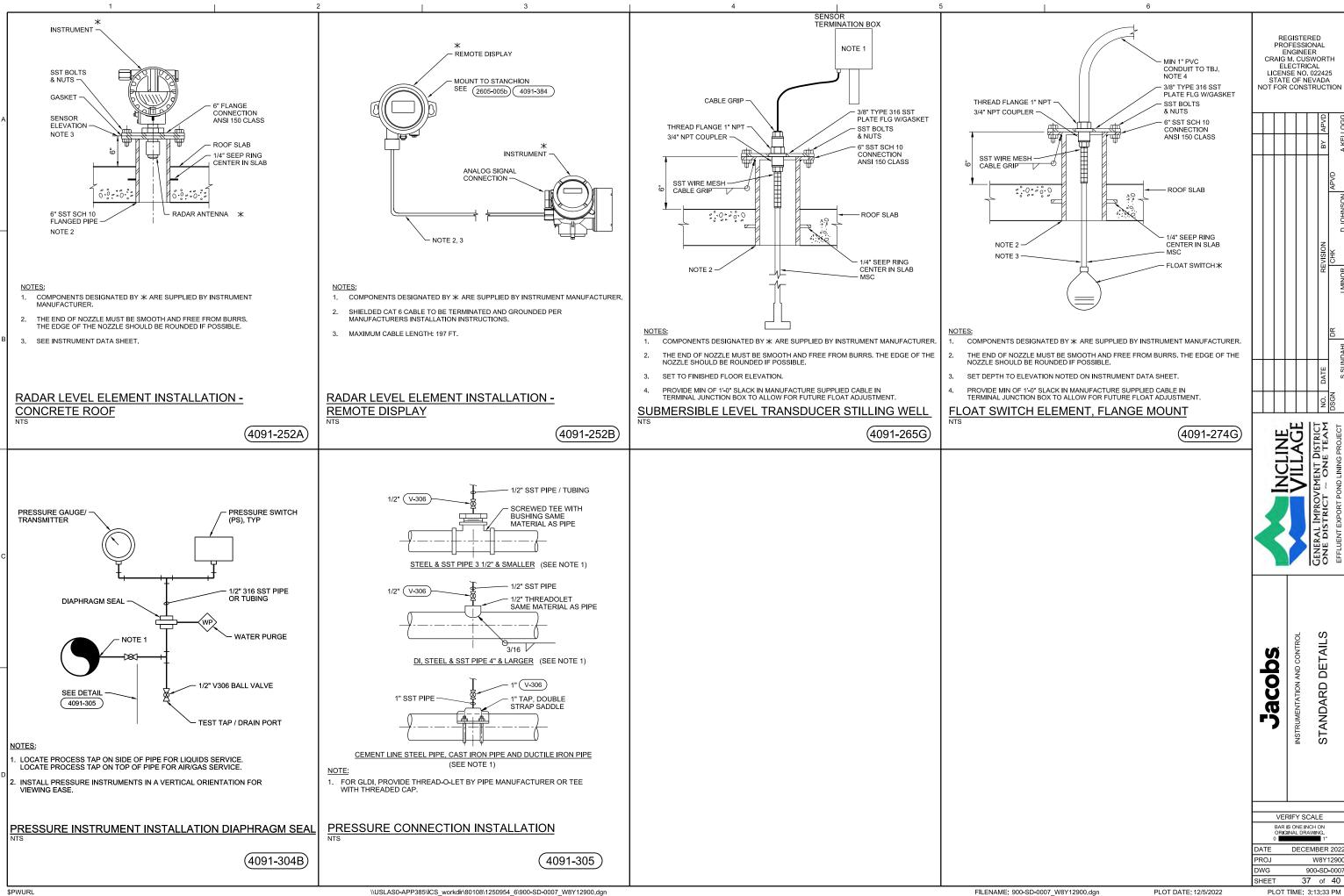






STANDARD DETAIL

- NOT FOR CONSTRUCTION

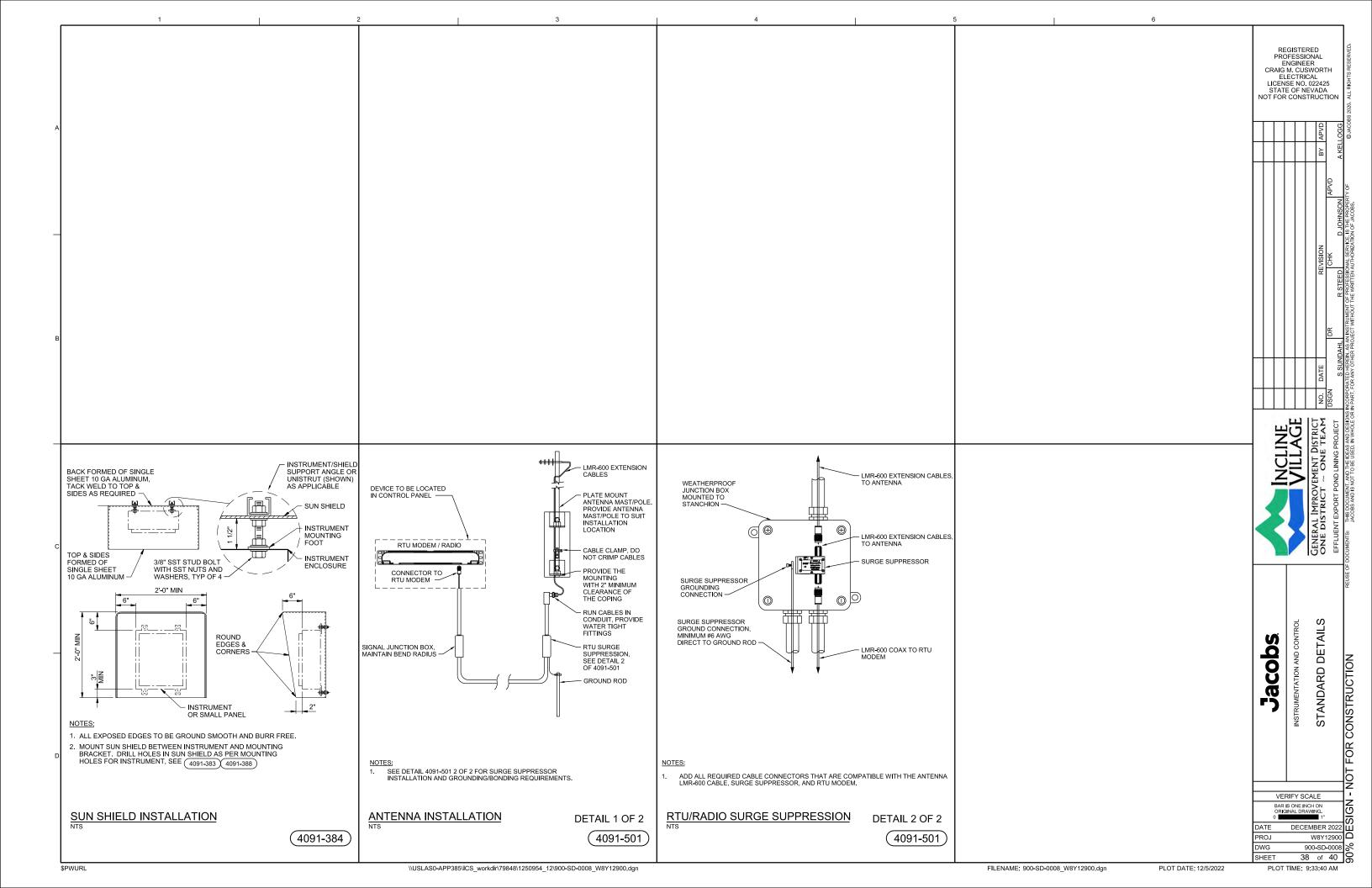


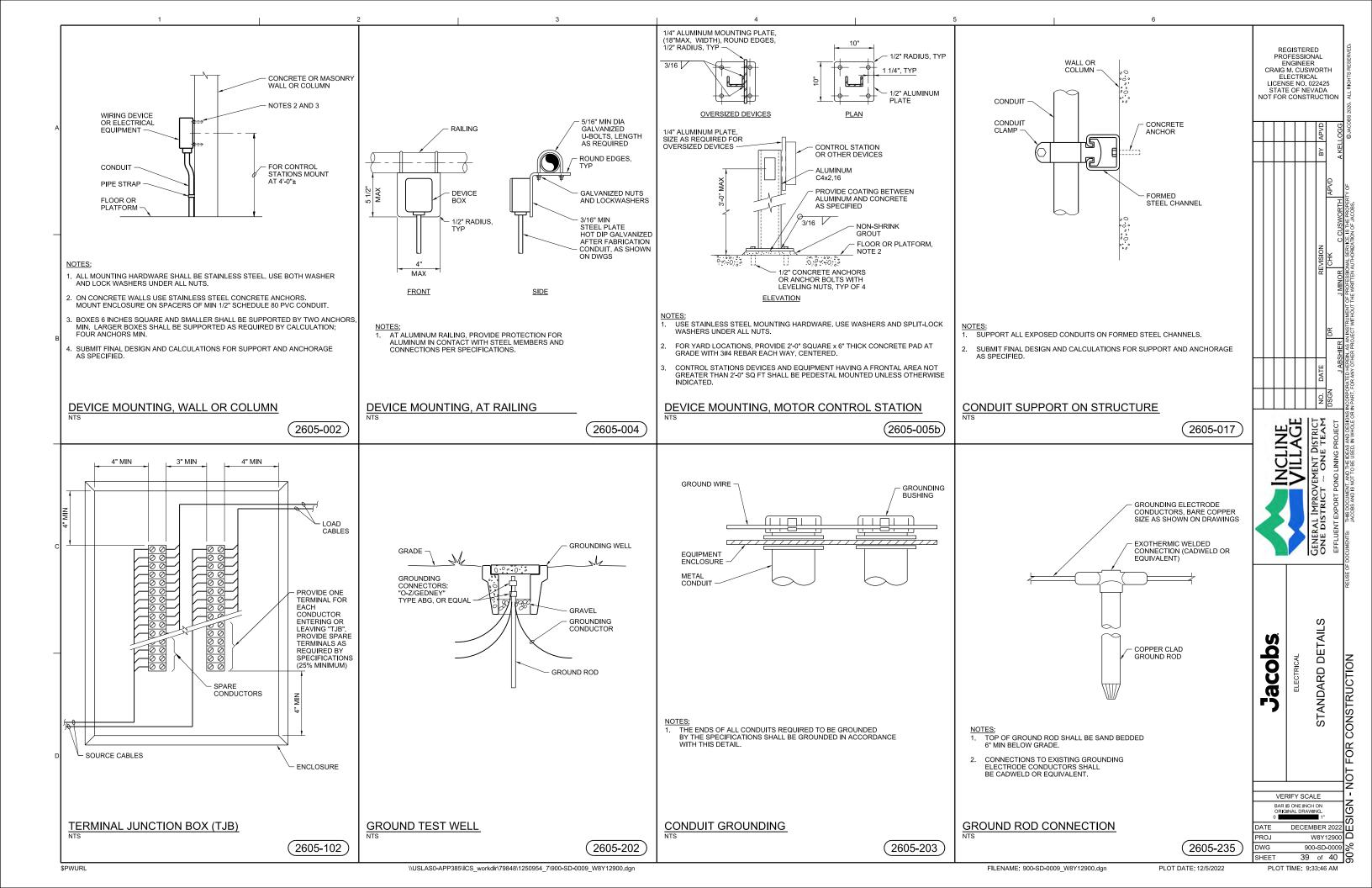
37 of 40 PLOT DATE: 12/5/2022 PLOT TIME: 3:13:33 PM

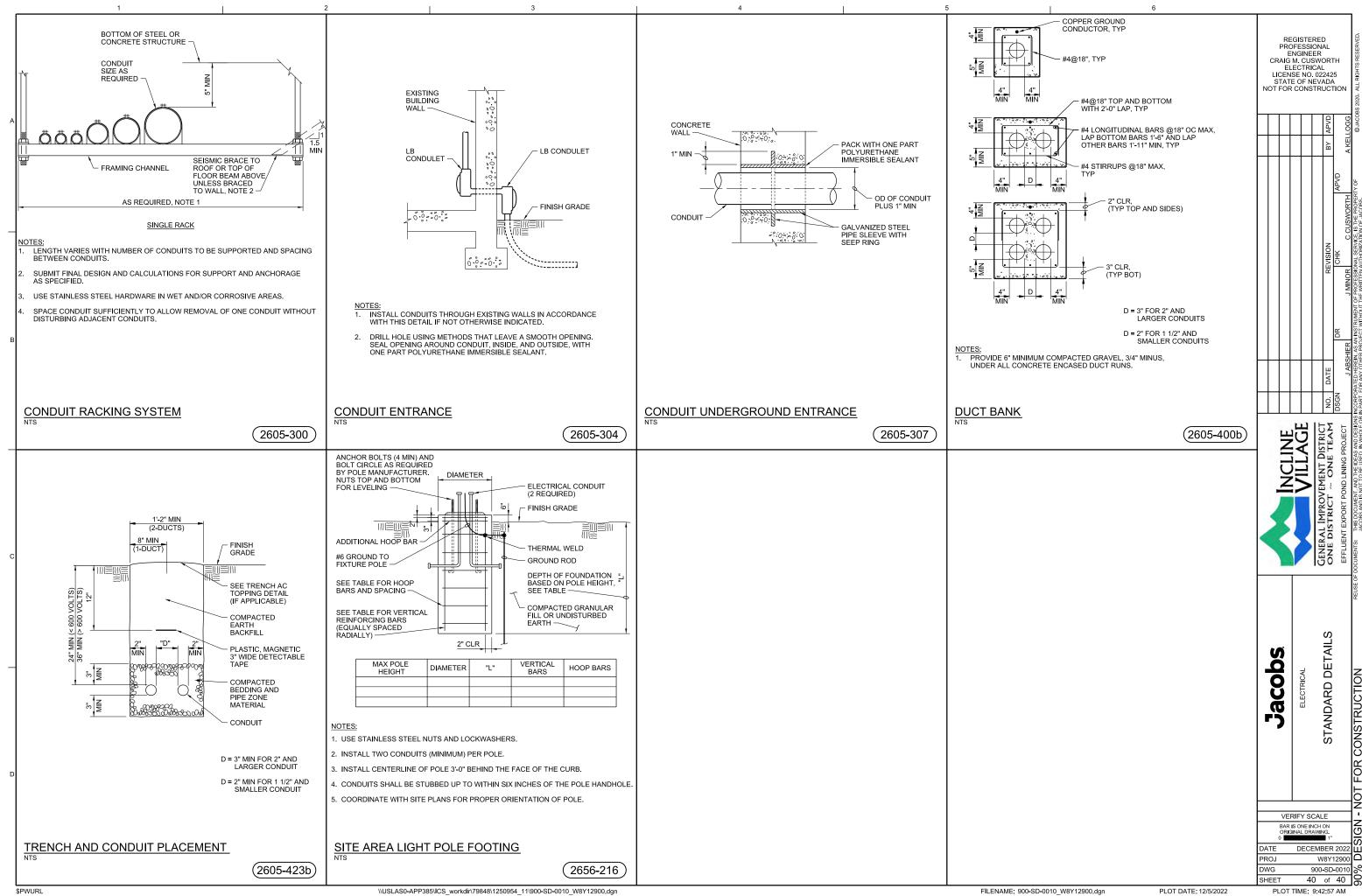
STANDARD DETAIL

W8Y12900

900-SD-0007







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EMBER 2022

W8Y12900 DECEMBER 2022