SOUTH VALLEY WATER RECLAMATION FACILITY

SOLIDS HOLDING TANK REFURBISHMENT PROJECT

VOLUME 2 - 100% DESIGN DRAWINGS
MAY, 2023

SOUTH VALLEY WATER RECLAMATION FACILITY
TAIGON WORTHEN - FACILITY ENGINEER / ASSISTANT GM

DESIGN TEAM
JOHN MATTA, PE, PRINCIPAL - WATER WORKS ENGINEERS
JENNY CALDERON, PE, PROJECT MANAGER - WATER WORKS ENGINEERS

FOR INFORMATION REGARDING
THIS PROJECT CONTACT:

JENNY CALDERON
385-288-1465

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

NO	DATE	REVISION	BY	APVD

LICENSED PROFESSIONAL ENGINEER — JOHN H. MATTA — NO.8169064-2202 — 05/22/2023 — STATE OF UTAH

LICENSED PROFESSIONAL ENGINEER — JENNIFER CALDERON — 12284243-2202 — 5/22/2023 — STATE OF UTAH

DESIGN	JC
DRAWN	DAT
CHECKED	WF
APPROVED	JHM

WATERWORKS ENGINEERS
1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING
DAY TANK

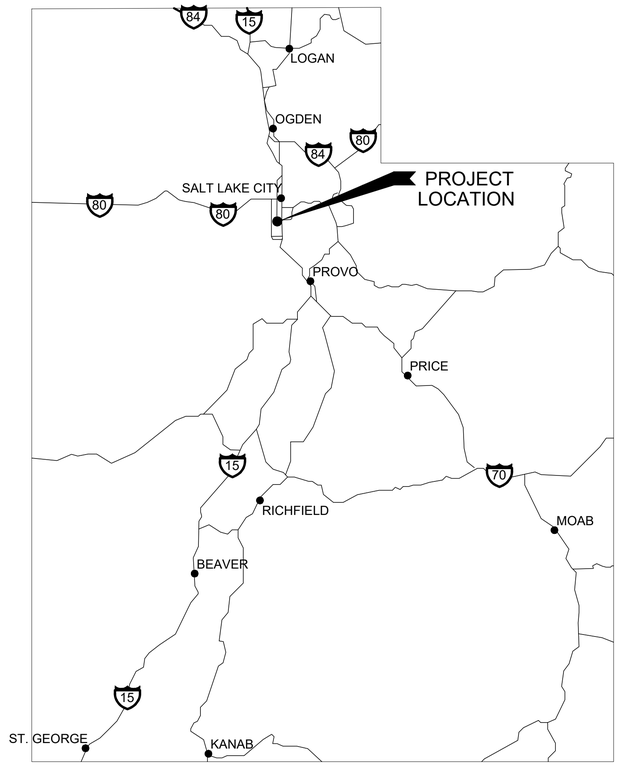
GENERAL
TITLE PAGE

DATE	MAY 2023
PROJECT NO.	22-097
DRAWING NO.	G-1
SHEET NO.	1 OF 20

FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\G-1 (COVER SHEET).DWG

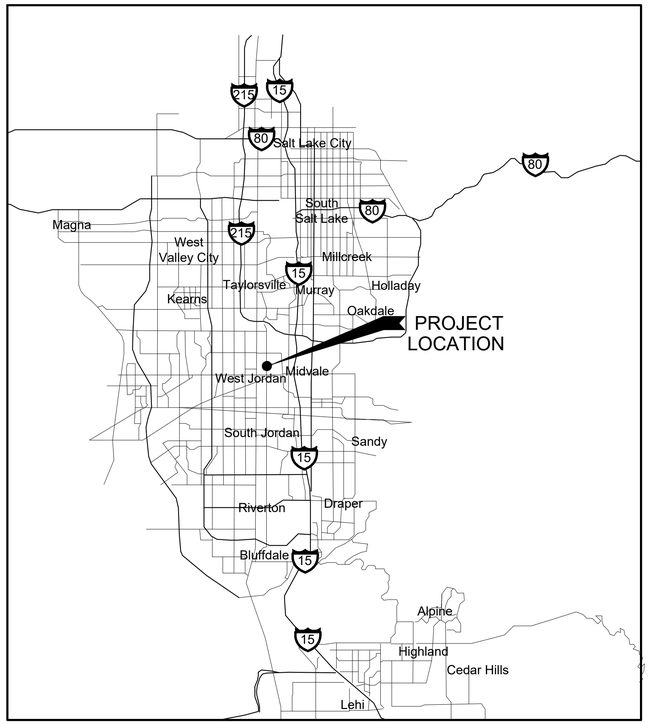
PLOT DATE: May 22, 2023

PLOT TIME: 12:16 PM



NORTH

VICINITY MAP
NTS



NORTH

LOCATION MAP
NTS

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LICENSED PROFESSIONAL ENGINEER — JENNIFER CALDERON — 12284243-2202 — 5/22/2023 — STATE OF UTAH

DESIGN	JC
DRAWN	DAT
CHECKED	FWF
APPROVED	JHM

WATERWORKS ENGINEERS
1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING
DAY TANK

GENERAL

VICINITY AND LOCATION MAP

DATE	MAY 2023
PROJECT NO.	22-097
DRAWING NO.	G-2
SHEET NO.	2 OF 20

FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\G-2 (SITE AND VICINITY).DWG

PLOT DATE: May 22, 2023 PLOT TIME: 12:18 PM

DRAWING INDEX

SHEET NUMBER	DISCIPLINE/ DRAWING NUMBER	TITLE
	GENERAL	
1	G-1	TITLE PAGE
2	G-2	VICINITY AND LOCATION MAPS
3	G-3	DRAWING INDEX
4	G-4	GENERAL ABBREVIATIONS
5	G-5	GENERAL DESIGNATIONS
	DEMOLITION	
6	D10-1	SOLIDS HOLDING DAY TANK STRUCTURAL PLAN
7	D10-2	SOLIDS HOLDING DAY TANK STRUCTURAL SECTION
8	D10-3	SOLIDS HOLDING DAY TANK MECHANICAL PLAN
	STRUCTURAL	
9	GS-1	STRUCTURAL NOTES NO. 1
10	GS-2	STRUCTURAL NOTES NO. 2
11	GS-3	STRUCTURAL DETAILS
12	S10-1	SOLIDS HANDLING DAY TANK ADHESIVE ANCHORS PLAN
13	S10-2	SOLIDS HOLDING DAY TANK SECTION
	MECHANICAL	
14	GM-1	LEGEND AND NOTES
15	GM-2	STANDARD DETAILS 1
16	GM-3	STANDARD DETAILS 2
17	M10-1	SOLIDS HOLDING DAY TANK PLAN 1
18	M10-2	SOLIDS HOLDING DAY TANK PLAN 2
19	M10-3	SOLIDS HOLDING DAY TANK SECTIONS 1
20	M10-4	SOLIDS HOLDING DAY TANK SECTIONS 2

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LICENSED PROFESSIONAL ENGINEER
JENNIFER CALDERON
12284243-2202
STATE OF UTAH
5/22/2023

DESIGN: JC
DRAWN: DAT
CHECKED: FWF
APPROVED: JHM

WATERWORKS ENGINEERS
1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING DAY TANK

GENERAL

DRAWING INDEX

DATE: MAY 2023
PROJECT NO.: 22-097
DRAWING NO.: G-3
SHEET NO.: 3 OF 20

FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\G-3 (DRAWING INDEX).DWG
PLOT DATE: May 22, 2023
PLOT TIME: 12:18 PM

GENERAL ABBREVIATIONS

ABBREVIATION	DEFINITION
@	AT
°C	CELSIUS
°F	DEGREE FAHRENHEIT
A	AERATION
AB	AGGREGATE BASE, ANCHOR BOLT
AC	ASPHALTIC CONCRETE, ASBESTOS CEMENT
ACI	AMERICAN CONCRETE INSTITUTE
ACU	AIR CONDITIONING UNIT
ADD	ADDITIONAL
ADJ	ADJACENT, ADJUSTABLE
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AL, ALUM	ALUMINUM
ALT	ALTERNATE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATE
APVD	APPROVED
APWA	AMERICAN PUBLIC WORKS ASSOCIATION
ARCH, A	ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AUTO	AUTOMATIC
AUX	AUXILIARY
AWWA	AMERICAN WATER WORKS ASSOCIATION
BLDG	BUILDING
BLK	BLACK
BOT	BOTTOM
BYP	BYPASS
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CHEM	CHEMICAL
CL	CENTERLINE
CLR	CLEAR, CLEARANCE
CLSM	CONTROLLED LOW STRENGTH MATERIAL
COMB	COMBINED
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS, CONTINUATION
COORD	COORDINATE
CTR	CENTER
CTRD, CTD	CENTERED
CU FT, CF	CUBIC FOOT
CU IN	CUBIC INCH
CU YD	CUBIC YARD
DBA	DEFORMED BAR ANCHOR, A-WEIGHTED DECIBELS
DBL	DOUBLE
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIR	DIRECTION
DIST	DISTANCE
DN	DOWN
DTL	DETAIL
DWG	DRAWING
E	EAST, ELECTRIC, ELECTRICAL
EA	EACH
ECC	ECCENTRIC
EF	EACH FACE, EXHAUST FAN
EL	ELEVATION
ELB, ELL	ELBOW
ENGR	ENGINEER
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EQPT, EQUIP	EQUIPMENT
EXC	EXCAVATE
EXP	EXPOSED, EXPANSION
EXST	EXISTING
FEXT	FIRE EXTINGUISHER
FF	FINISH FLOOR
FG	FINISH GRADE
FIG	FIGURE
FL	FLOOR, FLOW LINE
FM	FLOW METER
FOC	FACE OF CONCRETE
FRP	FIBERGLASS REINFORCED PLASTIC
FS	FINISHED SURFACE, FLOW SWITCH
FSS	FOAM SPRAY SYSTEM (UTILITY WATER)
FT	FOOT OR FEET
FWD	FORWARD
GA	GAGE
GAC	GRANULAR ACTIVATED CARBON
GAL	GALLON

ABBREVIATION	DEFINITION
GALV	GALVANIZED
GL	GLASS
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPR	GROUND PENETRATING RADAR
GPM	GALLONS PER MINUTE
GSP	GALVANIZED STEEL PIPE
GW	GROUND WATER
HDPE	HIGH DENSITY POLYETHLENE
HGL	HYDRAULIC GRADE LINE
HORIZ	HORIZONTAL
HPT	HIGH POINT, HYDROPNEUMATIC TANK
HWL	HIGH WATER LEVEL
HWY	HIGHWAY
I&C	INSTRUMENTATION AND CONTROL
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IF	INSIDE FACE
IN	INCH
INSUL	INSULATE, INSULATION
INV	INVERT
IP	IRON PIPE
L	LEFT, ANGLE, LENGTH
LAB	LABORATORY
LB	POUNDS
LB/CU FT	POUNDS PER CUBIC FOOT
LF	LINEAR FEET
LR	LONG RADIUS
LWL	LOW WATER LEVEL
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MFR	MANUFACTURER
MGD	MILLION GALLONS PER DAY
MIN	MINIMUM, MINUTE
MISC	MISCELLANEOUS
MPH	MILES PER HOUR
MSP	MILL STEEL PIPE, MANUAL OF STANDARD PRACTICE
MWS	MAXIMUM WATER SURFACE
N	NORTH
NC	NORMALLY CLOSED
NE	NORTHEAST
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN, NUMBER
NPT	NATIONAL PIPE THREAD
NTS	NOT TO SCALE
NW	NORTHWEST
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE, OVERFLOW
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OG	ORIGINAL GROUND
OPNG	OPENING
OPP	OPPOSITE
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
OZ	OUNCE
PE	PLAIN END, POLYETHYLENE
PL	PLATE, PROPERTY LINE
PPM	PARTS PER MILLION
PREFAB	PREFABRICATED
PRESS	PRESSURE
PRI	PRIMARY
PROP	PROPERTY
PS	PUMP STATION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH, GAUGE

ABBREVIATION	DEFINITION
R, RAD	RADIUS
RDCR	REDUCER
REF	REFER, REFERENCE
REQD	REQUIRED
RJ	RESTRAINED JOINT
RM	ROOM
RT	RIGHT
S	I-BEAM, SOUTH, SLOPE, STRUCTURAL
SCFH	STANDARD CUBIC FEET PER HOUR
SCFM	STANDARD CUBIC FEET PER MINUTE
SCH	SCHEDULE
SE	SOUTHEAST
SEC	SECONDARY
SECT	SECTION
SH	SHEET
SIM	SIMILAR
SP	SPACE, SPACES
SPEC	SPECIFICATION
SQ	SQUARE
SQ FT	SQUARE FOOT
SQ IN	SQUARE INCH
SST	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STR	STRAIGHT
STRUCT	STRUCTURE, STRUCTURAL
SUSP	SUSPEND
SW	SOUTHWEST
T	TANGENT, TELEPHONE LINE, TOP
t, T	THICKNESS
TECH	TECHNICAL
TEL	TELEPHONE
TEMP	TEMPORARY, TEMPERATURE
THD	THREAD
THK	THICK
TNK	TANK
TOC	TOP OF CURB, TOP OF CONCRETE
TOW	TOP OF WALL
TRANS	TRANSITION
TSL	THICKENED SLUDGE
TURB	TURBIDITY
TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
UG	UNDERGROUND
UH	UNIT HEATER
UNK	UNKNOWN
UNO	UNLESS NOTED OTHERWISE
V	VENT, VOLT, VALVE
VAC	VACUUM
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
W	WIDE FLANGE (BEAM), WEST, WATER
W/	WITH
WP	WATER PROOF
WR	WATER RESISTANT
WS	WATER SURFACE, WATER STOP
WSE	WATER SURFACE ELEVATION
WWS	WALL WASH SYSTEM (UTILITY WATER)
XMFR	TRANSFORMER

NOTES:

1. THESE ARE GENERAL ABBREVIATIONS, NOT ALL ABBREVIATIONS MAY BE USED.
2. SEE DRAWINGS FOR EACH DISCIPLINE FOR DISCIPLINE-SPECIFIC ABBREVIATIONS, WHICH MAY DIFFER THAN THOSE SHOWN ON THIS DRAWING.

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NO	DATE	REVISION	BY	APVD

LICENSED PROFESSIONAL ENGINEER — JENNIFER CALDERON — 12284243-2202 — 5/22/2023 — STATE OF UTAH

DESIGN	JC
DRAWN	DAT
CHECKED	FWF
APPROVED	JHM

WATERWORKS ENGINEERS

1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING
DAY TANK

GENERAL

GENERAL ABBREVIATIONS

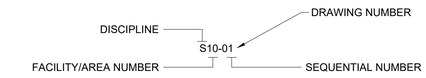
DATE	MAY 2023
PROJECT NO.	22-097
DRAWING NO.	G-4
SHEET NO.	4 OF 20

FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\G-4 (ABBREVIATIONS).DWG

PLOT DATE: May 22, 2023

PLOT TIME: 12:20 PM

DRAWING NUMBERING

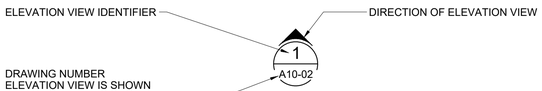


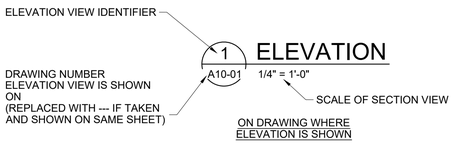
LETTER	DISCIPLINE OR DRAWING TYPE
G	GENERAL
C	CIVIL
Y	YARD PIPING
D	DEMOLITION
A	ARCHITECTURAL
S	STRUCTURAL
M	MECHANICAL
H	HEATING, VENTILATION AND COOLING (HVAC)
P	PLUMBING
E	ELECTRICAL
I	INSTRUMENTATION
SD	STANDARD DETAIL
EC	ENERGY COMPLIANCE
FD	FIRE DEPARTMENT REVIEW

NOTES:

1. LETTERS MAY BE COMBINED FOR DUAL-DISCIPLINE DRAWINGS
   EXAMPLE: CD-01, 10-AS-01, 10-SM-01, ETC.
2. LETTERS MAYBE COMBINED FOR DISCIPLINE-SPECIFIC STANDARD DETAIL DRAWINGS
   EXAMPLE: CSD-01, SSD-01, MSD-01, ETC.

ELEVATIONS

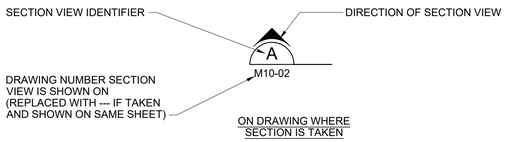


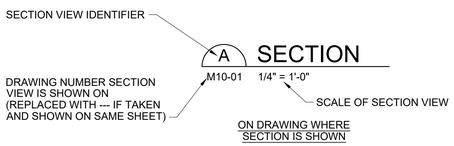


NOTES:

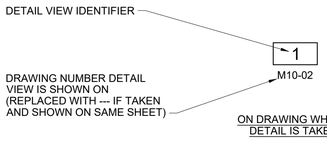
1. SIMILAR SYMBOLOGY IS USED FOR ISOMETRIC VIEWS.

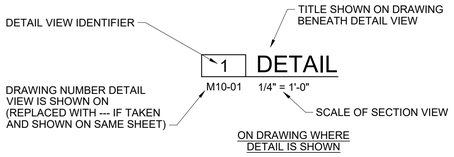
SECTIONS





DETAILS

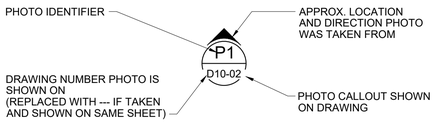


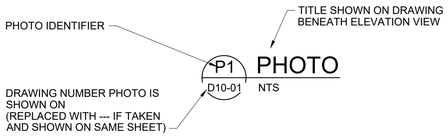


NOTES:

1. SIMILAR SYMBOLOGY IS USED FOR PARTIAL PLANS.

PHOTOS





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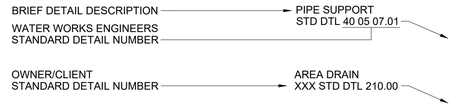

GENERAL SYMBOLOGY

———	BLACK	NEW WORK WITHIN DISCIPLINE OF DRAWING
———	DARK GRAY	NEW WORK OUTSIDE OF DISCIPLINE OF DRAWING ("OFF DISCIPLINE)
———	LIGHT OR MEDIUM GRAY OR SCREENED	EXISTING FEATURES OR NEW WORK OUTSIDE OF DISCIPLINE OF DRAWING ("OFF DISCIPLINE")
		EXISTING STRUCTURE OR EQUIPMENT TO BE DEMOLISHED
		EXISTING PIPE OR LINEAR ELEMENT TO BE DEMOLISHED
		EXISTING PIPE OR LINEAR ELEMENT TO BE ABANDONED
		WATER SURFACE
		BREAK LINE

GENERAL NOTES

NOTES:

1. EQUIPMENT COMPONENTS OR PANELS SHOWN WITH A DOUBLE DIAMOND (♦♦) ARE TO BE PROVIDED AS PART OF A PACKAGE SYSTEM.

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DESIGN	JC
DRAWN	DAT
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APPROVED	JHM

WATERWORKS ENGINEERS

1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING
DAY TANK

GENERAL

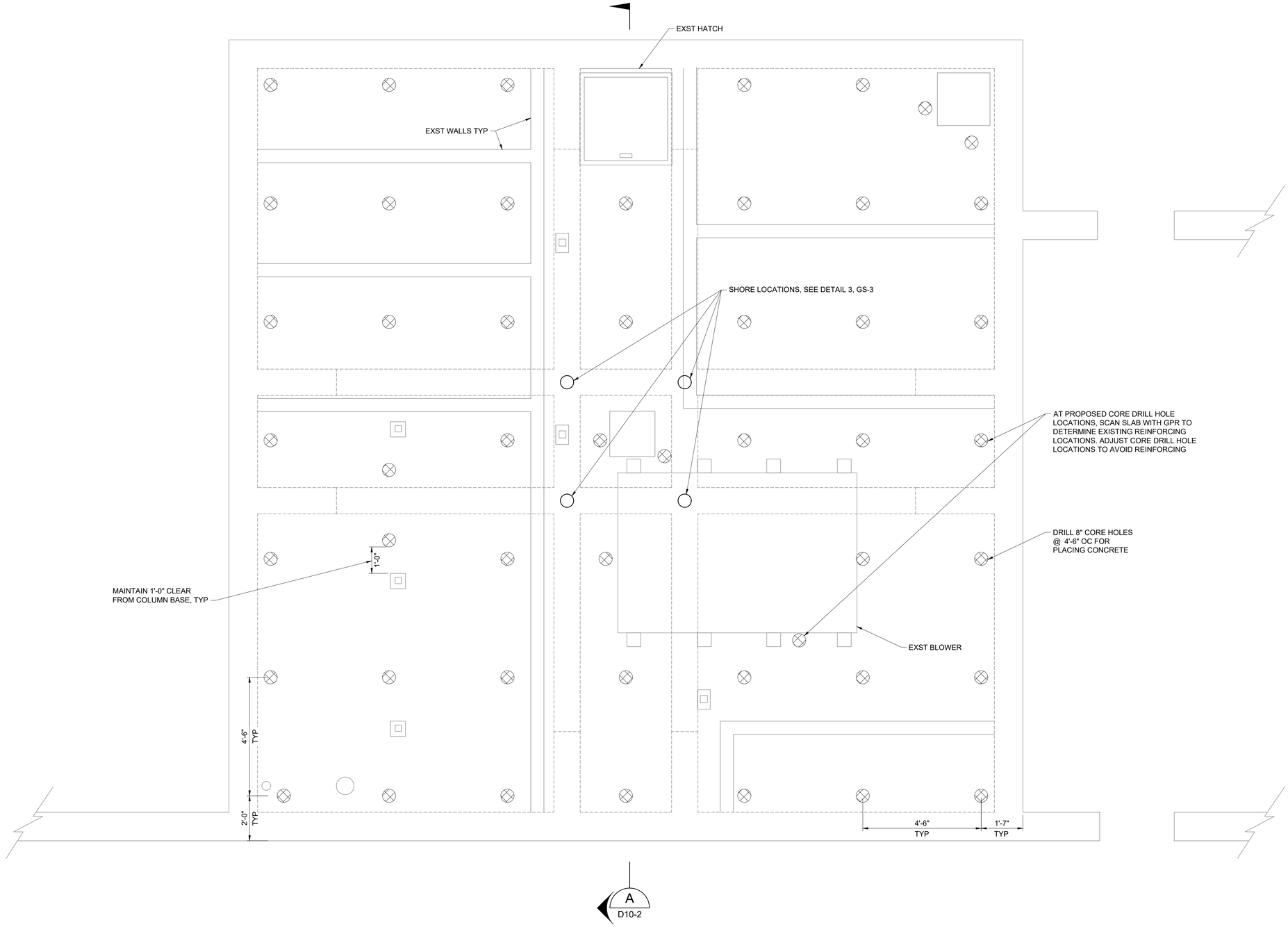
GENERAL DESIGNATIONS

DATE	MAY 2023
PROJECT NO.	22-097
DRAWING NO.	G-5
SHEET NO.	5 OF 20

FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\G-5 (STANDARD DESIGNATIONS).DWG

PLOT DATE: May 22, 2023

PLOT TIME: 12:20 PM



NOTES:

1. ALL EXISTING PIPE PENETRATIONS AND HATCHES THROUGH THE CEILING SLAB MUST BE EXTENDED THROUGH THE NEW SLAB UNLESS OTHERWISE NOTED. MATCH EXISTING MATERIALS UNLESS OTHERWISE NOTED. PIPE AND VENT PENETRATIONS SHALL BE AS SHOWN IN DETAIL (40 05 09.06)

NORTH

0 1 2 4

1/2" = 1'-0"

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LICENSED PROFESSIONAL ENGINEER — JENNIFER CALDERON — 12284243-2202 — 5/22/2023 — STATE OF UTAH

PROFESSIONAL STRUCTURAL ENGINEER — No. 166598 — MARTIN E. PUHLMANN — 05/22/2023 — STATE OF UTAH

DESIGN: JC
DRAWN: DAT
CHECKED: FWF
APPROVED: JHM

WATERWORKS ENGINEERS

1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING
DAY TANK

DEMOLITION

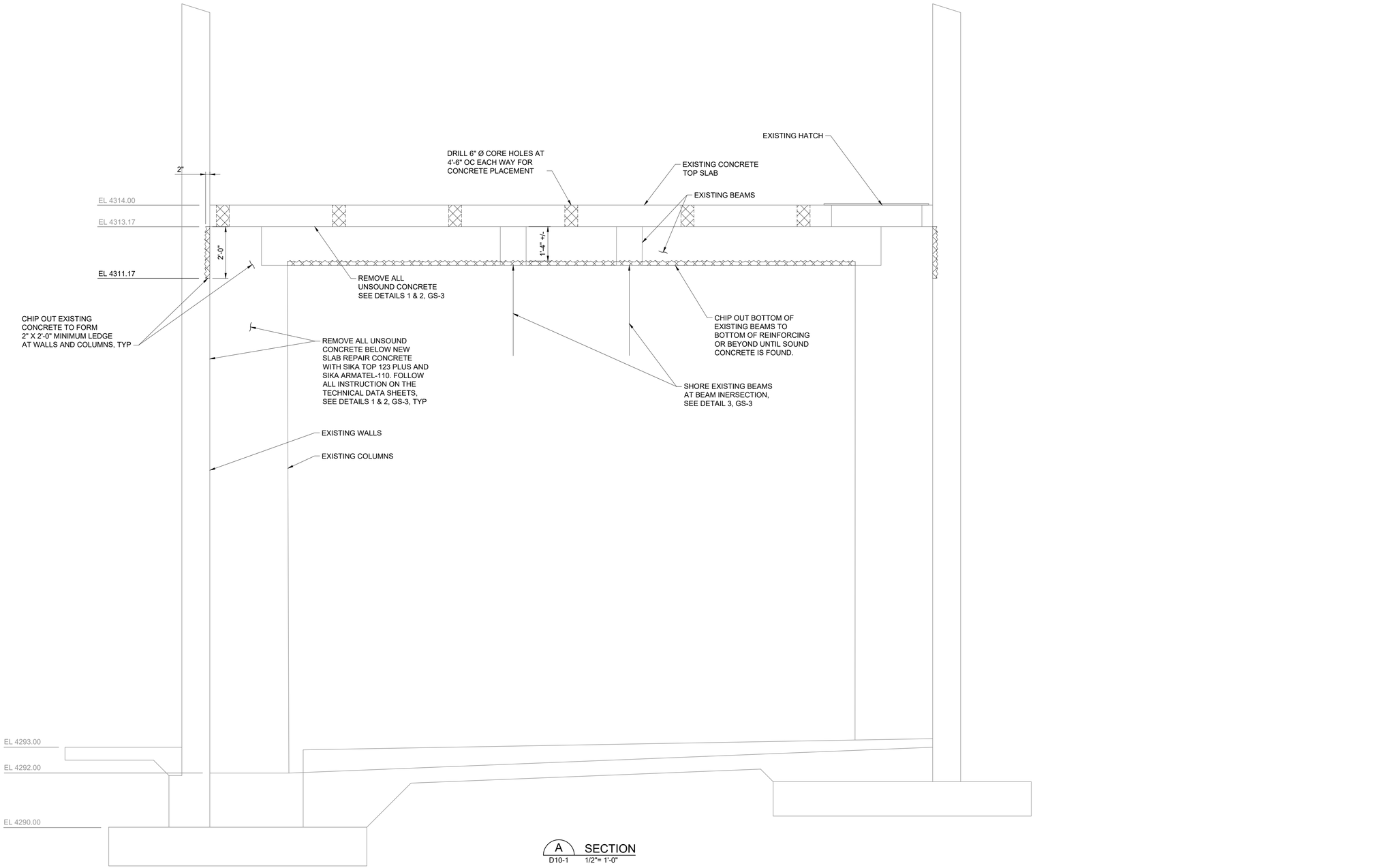
SOLIDS HOLDING
DAY TANK STRUCTURAL PLAN

DATE: MAY 2023
PROJECT NO.: 22-097
DRAWING NO.: D10-1
SHEET NO.: 6 OF 20

FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\D10-1 (DEMOLITION STRUCTURAL).DWG

PLOT DATE: May 22, 2023

PLOT TIME: 12:23 PM



A D10-1 SECTION 1/2"= 1'-0"

0 1 2 4
1/2" = 1'-0"

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PROFESSIONAL STRUCTURAL ENGINEER — No. 166598 — MARTIN E. PUHLMANN — 05/22/2023 — STATE OF UTAH

DESIGN MP
DRAWN DAT
CHECKED JC
APPROVED JHM

WATERWORKS ENGINEERS
1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING
DAY TANK

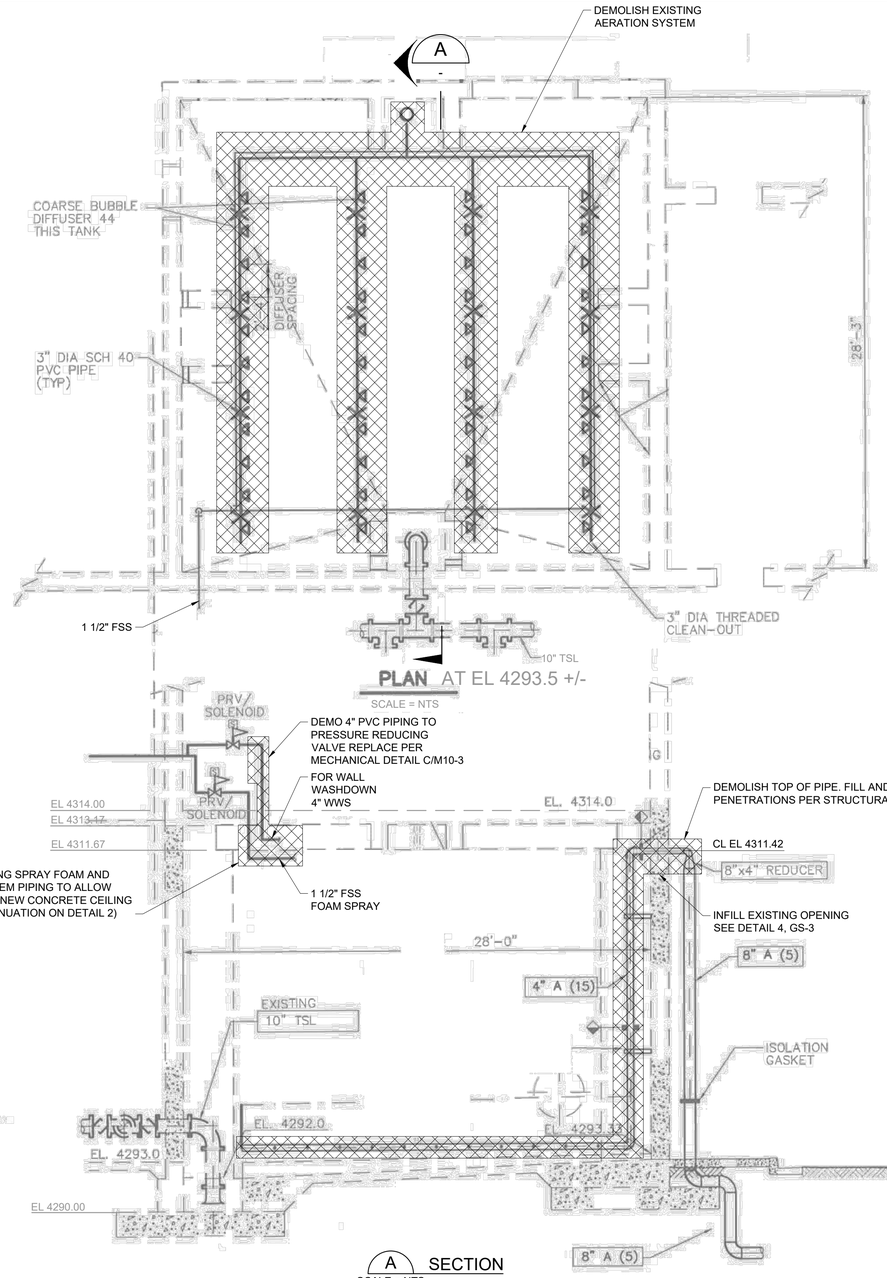
DEMOLITION

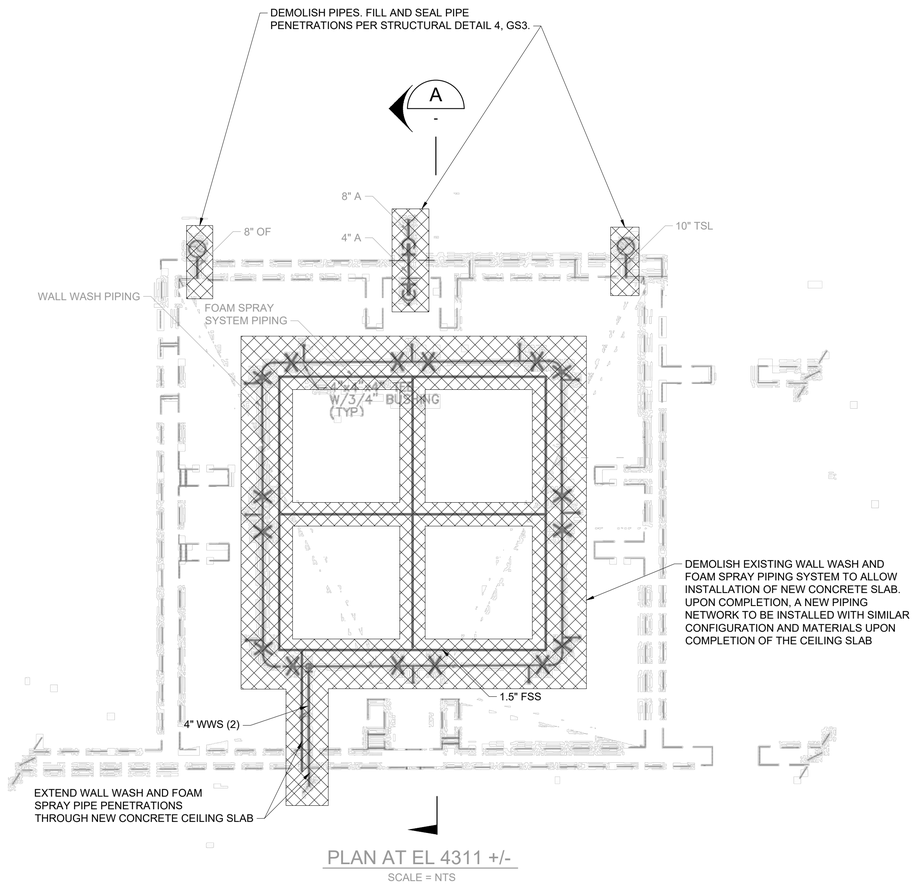
SOLIDS HOLDING
DAY TANK STRUCTURAL SECTION

DATE MAY 2023
PROJECT NO. 22-097
DRAWING NO. D10-2
SHEET NO. 7 OF 20

FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\D10-2 (DEMOLITION STRUCTURAL).DWG

PLOT DATE: May 22, 2023 PLOT TIME: 12:23 PM





VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	NO	DATE	REVISION	BY / APVD

JENNIFER CALDERON 12284243-2202 5/22/2023 — LICENSED PROFESSIONAL ENGINEER — STATE OF UTAH

No. 166598 MARTIN E. PUHLMANN 05/22/2023 — PROFESSIONAL STRUCTURAL ENGINEER — STATE OF UTAH

DESIGN: JC
DRAWN: DAT
CHECKED: FWF
APPROVED: JHM

WATERWORKS ENGINEERS
1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING DAY TANK

DEMOLITION

SOLIDS HOLDING DAY TANK MECHANICAL PLAN

DATE: MAY 2023
PROJECT NO.: 22-097
DRAWING NO.: D10-3
SHEET NO.: 8 OF 20

FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\D10-3 (DEMOLITION MECHANICAL).DWG
PLOT DATE: May 22, 2023
PLOT TIME: 12:24 PM

DESIGN CRITERIA:

1. APPLICABLE CODE: 2018 INTERNATIONAL BUILDING CODE (IBC), AS AMENDED BY WEST JORDAN CITY.

2. REFER TO THE SPECIFICATIONS FOR ADDITIONAL AND SPECIFIC STRUCTURAL LOADINGS AND REQUIREMENTS.

3. FLOOR LOAD:
   - FLOOR — 125 psf

4. WIND LOAD:
   - RISK CATEGORY — III
   - BASIC WIND SPEED (ASCE 7-16) — 110 mph
   - EXPOSURE CATEGORY — C
   - DESIGN METHOD — DIRECTIONAL PROCEDURE

5. SEISMIC LOAD:
   - RISK CATEGORY — III
   - IMPORTANCE FACTOR I_e — 1.25
   - S_s: 1.32 — S_{DS}: 1.056
   - S_1: 0.463 — S_{D1}: 0.567
   - SITE CLASS — D
   - SEISMIC DESIGN CATEGORY — D

GENERAL INFORMATION:

1. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE BUILDING CODE.

2. DESIGN DETAILS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO ALL SIMILAR SITUATIONS OCCURRING THROUGHOUT THE PROJECT, WHETHER OR NOT THEY ARE KEYED IN EACH LOCATION. CONSULT THE ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.

3. VERIFY ALL OPENING DIMENSIONS IN WALLS, SLABS, AND DECKS WITH THE MECHANICAL DRAWINGS.

4. FOR NUMBER, TYPE, SIZE, ARRANGEMENT, AND/OR LOCATION OF EQUIPMENT PADS AND OPENINGS SEE MECHANICAL DRAWINGS. COORDINATE ALL OPENINGS AND EQUIPMENT PADS WITH OTHER DISCIPLINES AND EQUIPMENT SUPPLIERS PRIOR TO PLACING SLABS, WALLS AND FOUNDATIONS.

5. NO STRUCTURAL MEMBER SHALL BE CUT FOR PIPES, DUCTS, ETC UNLESS SPECIFICALLY DETAILED OR APPROVED IN WRITING BY THE ENGINEER.

FORMWORK, SHORING AND BRACING:

1. THE STRUCTURES SHOWN ON THE DRAWINGS HAVE BEEN DESIGNED FOR STABILITY UNDER FINAL CONDITIONS ONLY. THE DESIGN SHOWN DOES NOT INCLUDE THE NECESSARY COMPONENTS OR EQUIPMENT FOR THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION. THE CONTACTOR IS RESPONSIBLE FOR ALL WORK RELATING TO CONSTRUCTION ERECTION METHODS, BRACING, SHORING, RIGGING, GUYS SCAFFOLDING, FORMWORK, AND OTHER WORK AIDS REQUIRED TO SAFELY PERFORM THE WORK SHOWN. CONSTRUCTION OF SHORING AND BRACING OF FORMWORK SHALL BE IN ACCORDANCE WITH ACI 347 “GUIDE TO FORMWORK FOR CONCRETE”.

CONCRETE:

1. STRUCTURAL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS AND A SLUMP AS SPECIFIED IN SECTION 03300 - CAST-IN-PLACE CONCRETE.

2. THE CONTRACTOR SHALL SUBMIT THE CONCRETE MIX DESIGNS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO USE.

3. PLACEMENT OF PIPES, CONDUITS OR OTHER EMBEDDED ITEMS IN THE CONCRETE SHALL BE IN ACCORDANCE WITH THESE DRAWINGS OR SHALL BE APPROVED BY THE ENGINEER.

4. NO ALUMINUM OR ANY OTHER MATERIAL INJURIOUS TO CONCRETE SHALL BE EMBEDDED IN THE CONCRETE.

5. CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C94.

6. THE REQUIREMENTS FOR CONCRETE MIXES, PLACING, TESTING AND CURING ARE CONTAINED IN THE PROJECT SPECIFICATIONS.

7. PORTLAND CEMENT SHALL CONFORM TO ASTM C150 TYPE II, AGGREGATE SHALL CONFORM TO ASTM C33.

8. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AT LEAST 48 BUSINESS HOURS NOTICE PRIOR TO THE PLACEMENT OF CONCRETE TO ALLOW SUFFICIENT TIME FOR INSPECTIONS AND SCHEDULING OF TESTING SERVICES.

CONCRETE REINFORCING:

1. CLEARANCE FOR REINFORCEMENT BARS, UNLESS SHOWN OTHERWISE, SHALL BE: SURFACES OF PRIMARY AND SECONDARY LIQUID CONTAINING STRUCTURES = 2”.

2. ALL BENDS, UNLESS OTHERWISE SHOWN, SHALL BE 90 DEGREE ACI 318 STANDARD HOOKS.

ALL REINFORCING BENDS AND LAPS, UNLESS OTHERWISE NOTED, SHALL SATISFY THE FOLLOWING MINIMUM REQUIREMENTS:

CONCRETE DESIGN STRENGTH = 4,000 PSI #		GRADE 60 REINFORCED STEEL						
BAR SIZE		#4	#5	#6	#7	#8	#9	#10
LAP SPLICE LENGTH								
	TOP BAR *	2'-8"	3'-4"	4'-0"	5'-10"	6'-8"	7'-7"	8'-6"
	OTHER BAR	2'-1"	2'-7"	3'-1"	4'-6"	5'-2"	5'-10"	6'-7"

* TOP BARS SHALL BE DEFINED AS ANY HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12” OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR IN ANY SINGLE POUR. HORIZONTAL WALL BARS ARE CONSIDERED TOP BARS.

*

STRUCTURAL STEEL:

1. STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS AND CODE OF STANDARD PRACTICE.

2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATION:
   - HOLLOW STRUCTURAL SECTIONS: A500 GRADE B MINIMUM F_y = 46 ksi
   - PIPE: A53 GRADE B MINIMUM F_y = 35 ksi
   - WIDE FLANGE SECTIONS: A992 MINIMUM F_y = 50 ksi
   - PLATES, ANGLES, AND CHANNELS: A36 MINIMUM F_y = 36 ksi

3. OPENINGS SHALL NOT BE PLACED IN STEEL MEMBERS UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL PLANS.

4. STRUCTURAL STEEL SHALL BE FREE OF EXCESSIVE RUST, MILL SCALE OR GREASE.

5. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS AND SHALL CONFORM TO THE REQUIREMENTS OF IBC SECTION 2204 AND THE AMERICAN WELDING SOCIETY (AWS), LATEST EDITION, AS FOLLOWS:
   - D1.1, STRUCTURAL WELDING CODE – STEEL
   - D1.2, STRUCTURAL WELDING CODE – ALUMINUM
   - D1.4, STRUCTURAL WELDING CODE – REINFORCING STEEL
   - D1.6, STRUCTURAL WELDING CODE – STAINLESS STEEL

6. WELDING ELECTRODES SHALL BE THE FOLLOWING TYPES: E70XX.

7. ALL FILLET WELDS SHALL BE AISC MINIMUM AND BUTT WELDS SHALL BE COMPLETE JOINT PENETRATION (CJP) UNLESS INDICATED OTHERWISE.

8. ALL BOLTS SHALL BE HIGH-STRENGTH ASTM A325X UNLESS NOTED OTHERWISE. ALL HIGH-STRENGTH BOLTED CONNECTIONS SHALL BE ASSUMED TO BE SNUG-TIGHTENED JOINTS.

9. DISTANCE FROM EDGE OF PLATE TO CENTER OF BOLT SHALL BE 1 1/2” UNO.

10. INSTALLATION AND INSPECTION OF HIGH STRENGTH BOLTS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST AISC SPECIFICATION, SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS (RCSC). CONTACT FACES OF STEEL AT CONNECTIONS WHERE HIGH STRENGTH SNUG-TIGHTENED BOLTS ARE USED MAY BE PAINTED. CONTACT FACES OF SLIP CRITICAL CONNECTIONS SHALL MEET THE REQUIREMENTS FOR CLASS B FAYING SURFACES. COATED FAYING SURFACES, WHEN SPECIFIED, SHALL BE QUALIFIED IN ACCORDANCE WITH CLASS A COATING.

11. THE STRUCTURAL STEEL FABRICATOR/CONTRACTOR SHALL FURNISH SHOP DRAWINGS OF ALL STRUCTURAL STEEL FOR ENGINEERS REVIEW AND APPROVAL PRIOR TO FABRICATION.

STAINLESS STEEL:

1. STAINLESS STEEL MEMBERS SHALL CONFORM TO ASTM SPECIFICATIONS:
   - PLATES: A240
   - STRUCTURAL SHAPES: A276, A479 OR A1069
   - FASTENERS AND FITTINGS: A320
   - DEFORMED AND PLAIN BARS: A955

2. ALL COMPONENTS SHALL BE STAINLESS STEEL TYPE 316, UNLESS SHOWN OTHERWISE.

3. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS AND SHALL CONFORM TO THE REQUIREMENTS OF ANSI/AWS D1.6. WELDERS SHALL HOLD VALID CERTIFICATES ISSUED BY AN ACCEPTED TESTING AGENCY WITHIN THE LAST 12 MONTHS.

4. ALL FILLET WELDS SHALL BE AWS MINIMUM AND BUTT WELDS SHALL BE COMPLETE JOINT PENETRATION (CJP), UNLESS INDICATED OTHERWISE.

5. WELDERS SHALL SUBMIT PRE-QUALIFIED WELDS AND WELDING PROCEDURES FOR REVIEW AND TO BE AVAILABLE ON PREMISES FOR REVIEW.

6. OPENINGS SHALL NOT BE PLACED IN STAINLESS STEEL MEMBERS UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL PLANS.

7. THE STAINLESS STEEL FABRICATOR/CONTRACTOR SHALL FURNISH SHOP DRAWINGS OF ALL STAINLESS STEEL FOR ENGINEER’S REVIEW AND APPROVAL PRIOR TO FABRICATION.

ALUMINUM:

1. ALUMINUM CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE ALUMINUM CONSTRUCTION MANUAL OF THE ALUMINUM ASSOCIATION.

2. UNLESS OTHERWISE INDICATED, STRUCTURAL ALUMINUM MEMBERS SHALL BE ALLOY 6061-T6.

3. WHERE ALUMINUM IS IN CONTACT WITH CONCRETE OR MASONRY SURFACES, CONTACT SURFACES SHALL BE COATED WITH HEAVY ALKALI-RESISTANT BITUMINOUS PAINT.

4. GRATING AND CHECKERED PLATE SHALL BE ALUMINUM, UNLESS NOTED OTHERWISE. PROVIDE FULLY BANDED ALUMINUM GRATING WITH NON-SKID SURFACE OVER AREAS INDICATED ON THE DRAWINGS. MATERIAL SHALL BE 6061-T6 OR 6063-T6 PROVIDED WITH AN ANODIZED FINISH AND MEET THE STRENGTH AND DEFLECTION REQUIREMENTS.

5. THE ALUMINUM FABRICATOR/CONTRACTOR SHALL FURNISH SHOP DRAWINGS OF ALL ALUMINUM MEMBERS AND GRATING FOR ENGINEERS REVIEW AND APPROVAL PRIOR TO FABRICATION.

ADHESIVE ANCHORS:

1. THE ADHESIVE ANCHOR SYSTEM USED FOR POST-INSTALLED ANCHORAGE TO CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE MOST RECENTLY PUBLISHED ACI 355.4, ACCEPTANCE CRITERIA FOR QUALIFICATION OF POST-INSTALLED ADHESIVE ANCHORS IN CONCRETE AND COMMENTARY. THE ANCHOR SYSTEM SHALL BE ONE OF THE FOLLOWING:
   - HILTI HIT-HY 200.
   - SIMPSON SET-3G..

2. ADHESIVE ANCHORS SHALL BE SUPPLIED AS AN ENTIRE SYSTEM INCLUDING, BUT NOT LIMITED TO, THE NEW ADHESIVE CARTRIDGE, A CLEAN MIXING NOZZLE, EXTENSION TUBE, A DISPENSING GUN, AND ALL MANUFACTURER RECOMMENDED SUPPLIES FOR PROPERLY CLEANING THE DRILLED HOLE.

3. ALL-THREAD ROD TO BE USED IN ADHESIVE ANCHOR ASSEMBLIES SHALL CONFORM TO ASTM A36, A193 (GR B7), A307, OR F1554. STAINLESS STEEL ANCHOR RODS SHALL BE TYPE 316. NUTS, WASHERS, AND OTHER HARDWARE USED WITH AN ALL-THREAD SHALL HAVE A MATERIAL OR ALLOY DESIGNATION THAT MATCHES THE ALL-THREAD MATERIAL / ALLOY.

4. REINFORCING BARS SHALL BE ASTM A615 OR A706.

5. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AT THE TIME OF ADHESIVE ANCHOR INSTALLATION. CONCRETE SHALL HAVE A MINIMUM AGE OF 21 DAYS AT THE TIME OF ADHESIVE ANCHOR INSTALLATION.

6. CONCRETE TEMPERATURE AT THE TIME OF ADHESIVE ANCHOR INSTALLATION SHALL BE WITHIN THE ALLOWABLE TEMPERATURE RANGE SPECIFIED IN THE MANUFACTURER’S PRINTED INSTALLATION INSTRUCTIONS AND ICC REPORT.

7. EMBEDMENT DEPTH AND ANCHOR PROJECTION FROM THE CONCRETE SURFACE SHALL BE AS SHOWN ON THE DRAWINGS FOR THE PARTICULAR ANCHOR OR GROUP OF ANCHORS BEING INSTALLED. ABSENT ANY INFORMATION, THE MINIMUM EMBEDMENT DEPTH SHALL BE 12d WHERE “d” IS THE ANCHOR DIAMETER.

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

NO	DATE	REVISION	BY	APVD

LICENSED PROFESSIONAL ENGINEER — JENNIFER CALDERON — 12284243-2202 — 5/22/2023 — STATE OF UTAH

PROFESSIONAL STRUCTURAL ENGINEER — No. 166598 — MARTIN E. PUHLMANN — 05/22/2023 — STATE OF UTAH

DESIGN	MP
DRAWN	DAT
CHECKED	FWF
APPROVED	JHM

WATERWORKS ENGINEERS

1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING
DAY TANK

STRUCTURAL

STRUCTURAL NOTES NO.1

DATE	MAY 2023
PROJECT NO.	22-097
DRAWING NO.	GS-1
SHEET NO.	9 OF 20

FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\GS-1 (STRUCTURAL NOTES NO. 1).DWG

PLOT DATE: May 22, 2023

PLOT TIME: 12:27 PM

ADHESIVE ANCHORS (C0NT.):

8. ADHESIVE ANCHORS SHALL BE INSTALLED BY QUALIFIED PERSONNEL TRAINED TO INSTALL ADHESIVE ANCHORS IN ACCORDANCE WITH THE SPECIFICATIONS. POST-INSTALLED ADHESIVE ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.

9. INSTALLATION OF ADHESIVE ANCHORS HORIZONTALLY OR UPWARDLY INCLINED TO SUPPORT SUSTAINED TENSION LOADS SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM. THESE ANCHORS ARE DESIGNATED WITH A (CERT) AFTER THE ANCHOR CALL-OUT.

10. THE INSTALLER'S QUALIFICATIONS SHALL BE SUBMITTED AND APPROVED IN ACCORDANCE WITH SECTION 05051 OF THE SPECIFICATIONS.

11. WHEN DRILLING HOLES IN EXISTING CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. MAINTAIN A REASONABLE CLEARANCE BETWEEN REINFORCEMENT AND THE DRILLED-IN ANCHOR.

12. SPECIAL INSPECTION IS REQUIRED PER IBC SECTION 1705 AND THE REQUIREMENTS OF THE ICC REPORT. THE SPECIAL INSPECTOR MUST BE PERIODICALLY ON THE JOBSITE DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, HOLE CLEANLINESS, EMBEDMENT DEPTH, CONCRETE TYPE, DRILL BIT DIAMETER, HOLE DEPTH, EDGE DISTANCE, ANCHOR SPACING, AND CONCRETE THICKNESS.

13. ADHESIVE ANCHORS INSTALLED IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS SHALL BE CONTINUOUSLY INSPECTED DURING INSTALLATION BY AN INSPECTOR SPECIALLY APPROVED FOR THAT PURPOSE BY THE BUILDING OFFICIAL.

STATEMENT OF SPECIAL INSPECTIONS:

1. SPECIAL INSPECTION IS IN ADDITION TO THE INSPECTIONS REQUIRED BY SECTION 110 OF THE IBC. THE OWNER OR CONTRACTOR SHALL EMPLOY A SPECIAL INSPECTOR DURING CONSTRUCTION ON THE TYPES OF WORK INDICATED BELOW. REFERENCE THE PROJECT SPECIFICATIONS FOR DETERMINATION OF WHO IS RESPONSIBLE TO PAY FOR SPECIAL INSPECTIONS SERVICES AND ASSOCIATED TESTS.

2. SPECIAL INSPECTIONS SHALL BE PERFORMED BY AN INDEPENDENT QUALIFIED PERSON WHO IS ACCEPTABLE TO THE ENGINEER AND BUILDING DEPARTMENT. THE INSPECTORS FOR EACH SYSTEM AND MATERIAL WILL BE ICC CERTIFIED OR OTHERWISE APPROVED BY THE BUILDING OFFICIAL. THE SPECIAL INSPECTOR SHALL OBSERVE THE INDICATED WORK FOR COMPLIANCE WITH THE APPROVED CONTRACT DOCUMENTS AND SUBMIT RECORDS OF INSPECTION.

3. INSPECTION RECORDS AND TESTING REPORTS SHALL BE SUBMITTED TO THE ENGINEER, OWNER, AND BUILDING OFFICIAL WITHIN ONE WEEK OF INSPECTION OR WITHIN ONE WEEK OF TEST COMPLETION.

4. AT THE CONCLUSION OF CONSTRUCTION, A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF DISCREPANCIES SHALL BE SUBMITTED.

5. PERIODIC SPECIAL INSPECTION IS DEFINED AS SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK TO BE INSPECTED HAS BEEN OR IS BEING PERFORMED.

6. SPECIAL INSPECTION IS REQUIRED PER CHAPTER 17 OF THE IBC FOR THE FOLLOWING ITEMS:
   - CONCRETE CONSTRUCTION
   - STEEL CONSTRUCTION
   - ANCHORAGE OF MECHANICAL AND ELECTRICAL COMPONENTS

REQUIRED SPECIAL INSPECTION OF CONCRETE CONSTRUCTION					
VERIFICATION AND INSPECTION		CONTINUOUS	PERIODIC	REFERENCED STANDARD	2018 IBC REFERENCE
1.	INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDIONS, AND VERIFY PLACEMENT	-	X	ACI 318: Ch. 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
2.a.	VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706	-	X	AWS D1.4, ACI 318: 26.6.4	-
2.b.	INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"	-	X	AWS D1.4, ACI 318: 26.6.4	-
2.c.	INSPECT ALL OTHER REINFORCING BAR WELDS	X		AWS D1.4, ACI 318: 26.6.4	-
3.	INSPECTION OF ANCHORS CAST IN CONCRETE	-	X	ACI 318: 17.8.2	-
4.a.	INSPECTION OF ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	X	-	ACI 318: 17.8.2.4	-
4.b.	INSPECTION OF MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a.	-	X	ACI 318: 17.8.2	-
5.	VERIFYING USE OF REQUIRED DESIGN MIX	-	X	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6.	PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-	ASTM: C172, C31 ACI318: 26.5, 26.12	1908.10
7.	INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	-	ACI 318: 26.5	1908.6, 1908.7, 1908.8
8.	VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	-	X	ACI 318: 26.5.3-26.5.5	1908.9
9.	INSPECT PRESTRESSED CONCRETE FOR: A. APPLICATION OF PRESTRESSING FORCES B. GROUTING OF BONDED PRESTRESSING TENDONS	X	-	ACI 318: 26.10	-
10.	INSPECT ERECTION OF PRECAST CONCRETE MEMBERS	-	X	ACI 318: 26.9	-
11.	VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS	-	X	ACI 318: 26.11.2	-
12.	INSPECTION FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	-	X	ACI 318: 26.11.1.2(b)	-

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

NO	DATE	REVISION	BY	APVD

LICENSED PROFESSIONAL ENGINEER — JENNIFER CALDERON — 12284243-2202 — 5/22/2023 — STATE OF UTAH

PROFESSIONAL STRUCTURAL ENGINEER — No. 166598 — MARTIN E. PUHLMANN — 05/22/2023 — STATE OF UTAH

DESIGN MP
DRAWN DAT
CHECKED FWF
APPROVED JHM

WATERWORKS ENGINEERS
1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

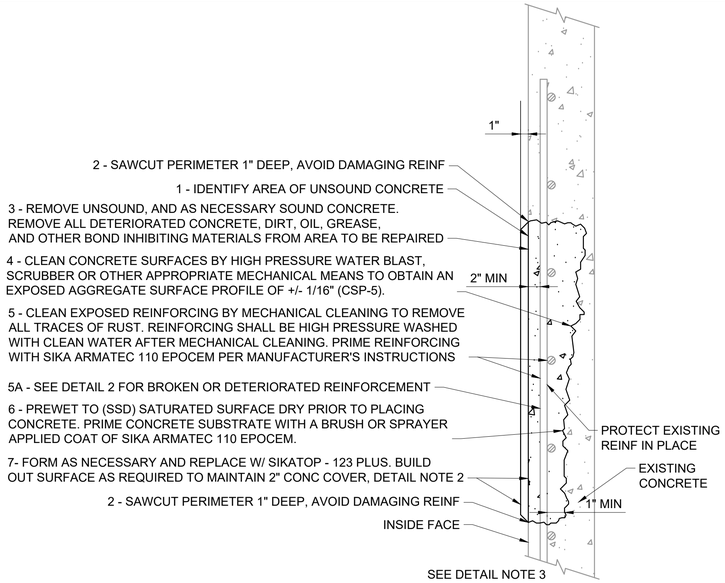
SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING
DAY TANK

STRUCTURAL

STRUCTURAL NOTES NO.2

DATE MAY 2023
PROJECT NO. 22-097
DRAWING NO. GS-2
SHEET NO. 10 OF 20

FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\GS-2 (STRUCTURAL NOTES NO. 2).DWG
PLOT DATE: May 22, 2023
PLOT TIME: 12:28 PM

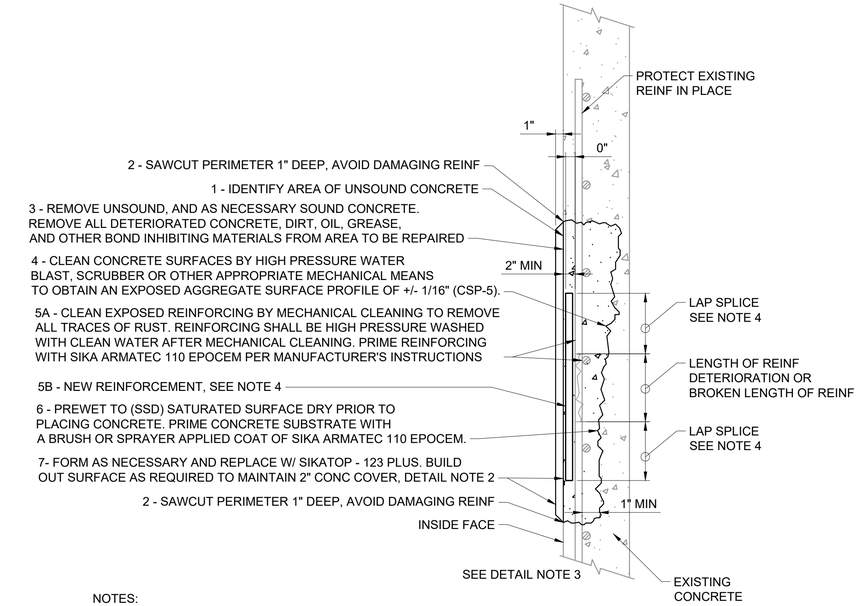


NOTES:

1. PROVIDE A MOCK-UP FOR REBUILD IF REQUESTED BY THE OWNER/ENGINEER. MOCK-UP SHALL INCLUDE FORM WORK, SUPPLEMENTAL REBAR (IF REQUIRED) , BUILD OUT FORM WORK, CONCRETE PREPARATION AND CLEANING, REBAR PREPARATION AND CLEANING.
2. BUILD OUT CONCRETE AS REQUIRED TO PROVIDE MINIMUM 2" AND MAXIMUM 3" CONCRETE COVER OVER REINFORCEMENT. A 1" BUILD OUT IS SHOWN FOR BIDDING PURPOSES. CONTRACTOR MAY BE REQUIRED TO DECREASE OR INCREASE THE BUILD OUT DEPTH AT NO ADDITIONAL COST TO THE OWNER. WHERE MAXIMUM 3" CONCRETE COVER IS EXCEEDED, CONTRACTOR SHALL ADD SUPPLEMENTAL REBAR AT THE DIRECTION OF THE ENGINEER AT NO ADDITIONAL COST.
3. PNEUMATIC CHIPPING HAMMERS SHALL BE LIMITED TO MAXIMUM NOMINAL 30 LBS CLASS. NOMINAL 30 LBS CLASS WILL NOT BE ALLOWED WITHIN 4" OF THE LIMITS SHOWN. WHERE ONLY NOMINAL 15 LBS CLASS WILL BE REQUIRED.

1 DETAIL 1: WALL REPAIR

D10-2 S10-2 NTS

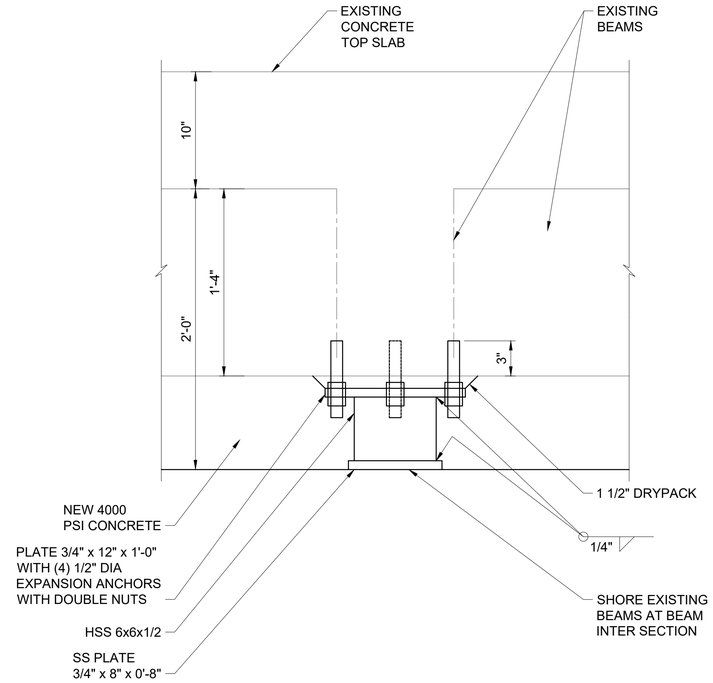


NOTES:

1. PROVIDE A MOCK-UP FOR REBUILD IF REQUESTED BY THE OWNER/ENGINEER. MOCK-UP SHALL INCLUDE FORM WORK, SUPPLEMENTAL REBAR (IF REQUIRED) , BUILD OUT FORM WORK, CONCRETE PREPARATION AND CLEANING, REBAR PREPARATION AND CLEANING.
2. BUILD OUT CONCRETE AS REQUIRED TO PROVIDE MINIMUM 2" AND MAXIMUM 3" CONCRETE COVER OVER REINFORCEMENT. A 1" BUILD OUT IS SHOWN FOR BIDDING PURPOSES. CONTRACTOR MAY BE REQUIRED TO DECREASE OR INCREASE THE BUILD OUT DEPTH AT NO ADDITIONAL COST TO THE OWNER. WHERE MAXIMUM 3" CONCRETE COVER IS EXCEEDED, CONTRACTOR SHALL ADD SUPPLEMENTAL REBAR AT THE DIRECTION OF THE ENGINEER AT NO ADDITIONAL COST.
3. PNEUMATIC CHIPPING HAMMERS SHALL BE LIMITED TO MAXIMUM NOMINAL 30 LBS CLASS. NOMINAL 30 LBS CLASS WILL NOT BE ALLOWED WITHIN 4" OF THE LIMITS SHOWN. WHERE ONLY NOMINAL 15 LBS CLASS WILL BE REQUIRED.
4. NEW REINFORCEMENT STEEL OR ALTERNATELY MULTIPLE NUMBER OF REINFORCEMENT STEEL TO MATCH EXISTING REINFORCEMENT IN AREA TO SUPPLEMENT AN EXISTING REINFORCEMENT STEEL WHICH HAS A SECTION LOSS IN DIAMETER OF 25% OR MORE OF THE ORIGINAL DIAMETER OR THE EXISTING REINFORCEMENT STEEL IS BROKEN. THE NEW REINFORCEMENT STEEL SHALL EXTEND 30 BAR DIAMETERS IN EACH DIRECTION FROM WHERE THE SECTION LOSS OR BREAK ENDS. MODIFY THE LIMITS OF THE REPAIR AREA TO MEET THE REINFORCEMENT STEEL SPLICE LAP REQUIREMENTS.

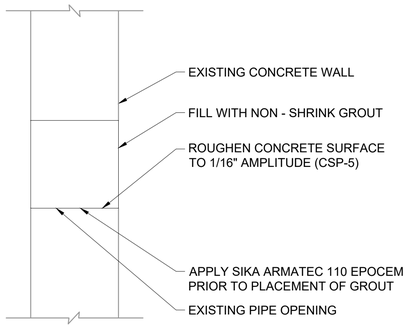
2 DETAIL 2: WALL REPAIR AT BROKEN OR DETERIORATED REINFORCEMENT

D10-2 S10-2 NTS



3 DETAIL 3: SHORING SUPPORT

D10-1 D10-2 S10-2 NTS



4 DETAIL 4: INFILL OF PIPE OPENING

D10-3 NTS

VERIFY SCALE	NO	DATE	REVISION	BY	APVD
BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY					

JENNIFER CALDERON 12284243-2202 5/22/2023 — LICENSED PROFESSIONAL ENGINEER — STATE OF UTAH

No. 166598 MARTIN E. PUHLMANN 05/22/2023 — PROFESSIONAL STRUCTURAL ENGINEER — STATE OF UTAH

DESIGN	JENNY C
DRAWN	DAT
CHECKED	FWF
APPROVED	JHM

WATERWORKS ENGINEERS
1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

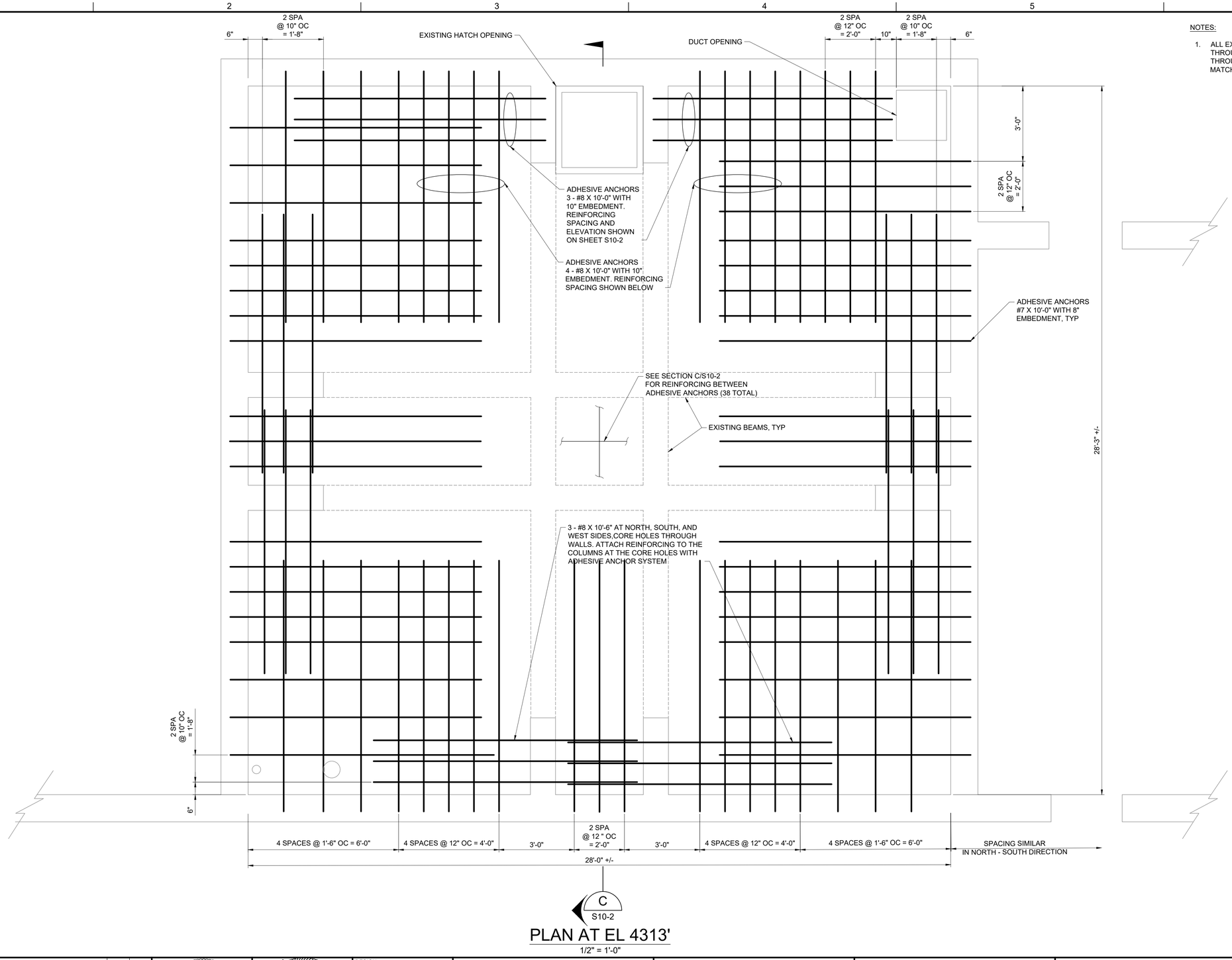
SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING
DAY TANK

MECHANICAL

STRUCTURAL DETAILS

DATE	MAY 2023
PROJECT NO.	22-097
DRAWING NO.	GS-3
SHEET NO.	11 OF 20

FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\GS-3 (STRUCTURAL DETAILS).DWG PLOT DATE: May 22, 2023 PLOT TIME: 12:29 PM



PLAN AT EL 4313'

1/2" = 1'-0"

NOTES:

1. ALL EXISTING PIPE PENETRATIONS AND HATCHES THROUGH THE CEILING SLAB MUST BE EXTENDED THROUGH THE NEW SLAB UNLESS OTHERWISE NOTED. MATCH EXISTING MATERIALS UNLESS OTHERWISE NOTED.

NORTH

0 1 2 4

1/2" = 1'-0"

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

NO	DATE	REVISION	BY	APVD

LICENSED PROFESSIONAL ENGINEER
JENNIFER CALDERON
12284243-2202
05/22/2023
STATE OF UTAH

PROFESSIONAL STRUCTURAL ENGINEER
No. 166598
MARTIN E. PUHLMANN
05/22/2023
STATE OF UTAH

DESIGN MP
DRAWN DAT
CHECKED JC
APPROVED JHM

WATERWORKS ENGINEERS
1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING DAY TANK

STRUCTURAL

SOLIDS HANDLING DAY TANK
ADHESIVE ANCHORS PLAN

DATE MAY 2023
PROJECT NO. 22-097
DRAWING NO. S10-1
SHEET NO. 12 OF 20

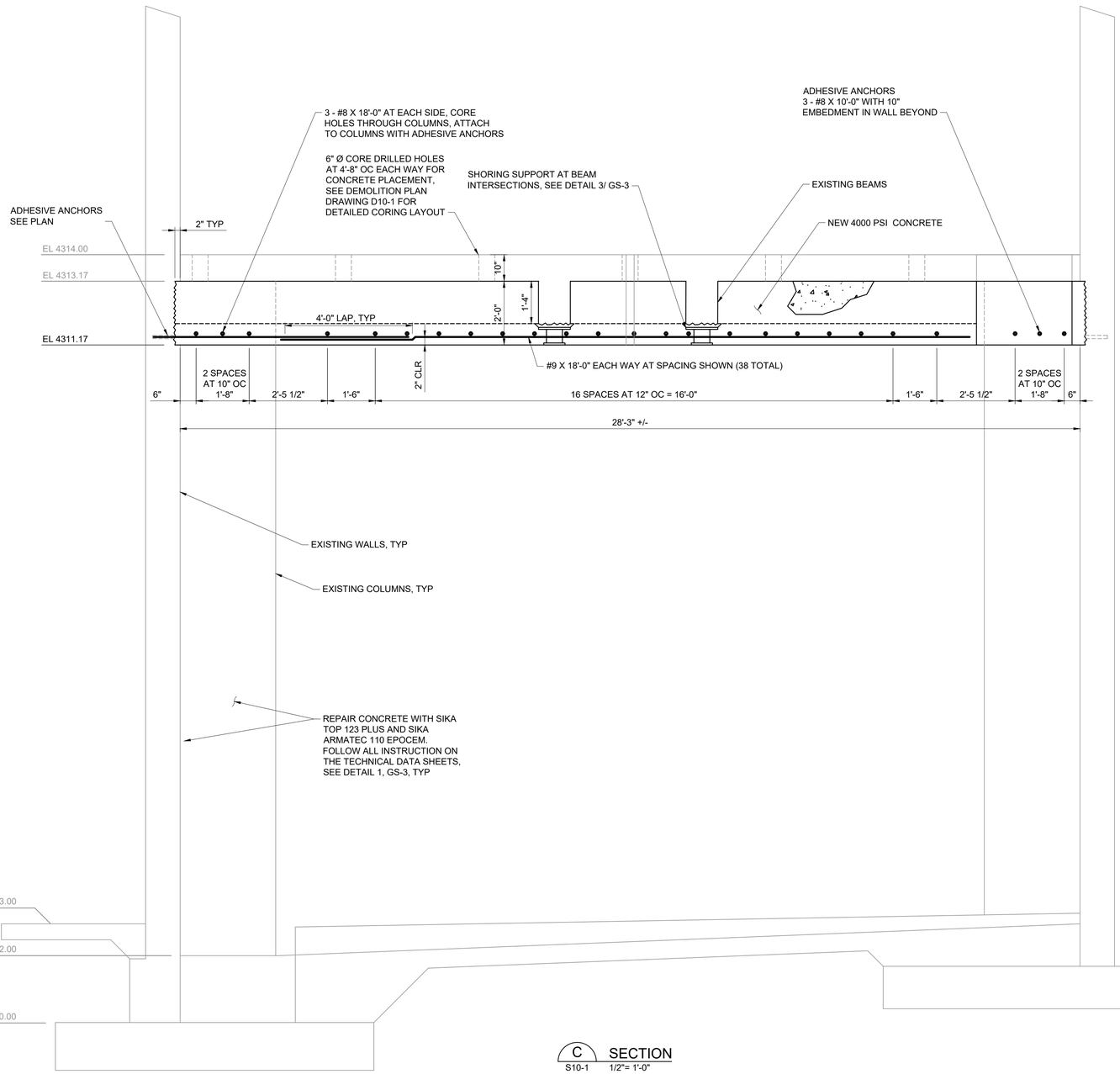
FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\S10-1 (SOLIDS HANDLING DAY TANK).DWG

PLOT DATE: May 22, 2023

PLOT TIME: 12:32 PM

NOTES:

1. ALL EXISTING PIPE PENETRATIONS AND HATCHES THROUGH THE CEILING SLAB MUST BE EXTENDED THROUGH THE NEW SLAB UNLESS OTHERWISE NOTED. MATCH EXISTING MATERIALS UNLESS OTHERWISE NOTED.



C S10-1 SECTION
1/2"= 1'-0"

0 1 2 4
1/2" = 1'-0"

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

NO	DATE	REVISION	BY	APVD

LICENSED PROFESSIONAL ENGINEER
JENNIFER CALDERON
12284243-2202
5/22/2023
STATE OF UTAH

PROFESSIONAL STRUCTURAL ENGINEER
No. 166598
MARTIN E. PUHLMANN
05/22/2023
STATE OF UTAH

DESIGN MP
DRAWN DAT
CHECKED FWF
APPROVED JHM

WATERWORKS ENGINEERS
1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING DAY TANK

STRUCTURAL

SOLIDS HOLDING DAY TANK SECTION

DATE MAY 2023
PROJECT NO. 22-097
DRAWING NO. S10-2
SHEET NO. 13 OF 20

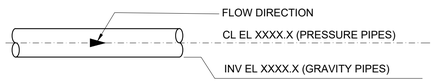
FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\S10-2 (SOLIDS HANDLING DAY TANK).DWG
PLOT DATE: May 22, 2023
PLOT TIME: 12:31 PM

PIPE SYMBOLOGY

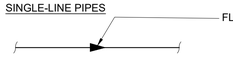
DOUBLE-LINE	SINGLE-LINE	DESCRIPTION
		EXISTING PIPE (SCREENED)
		NEW PIPE
		EXISTING PIPE TO BE ABANDONED
		EXISTING PIPE TO BE DEMOLISHED OR REMOVED AND SALVAGED

PIPE IDENTIFICATION

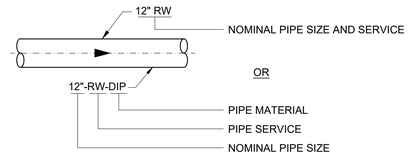
DOUBLE-LINE PIPES



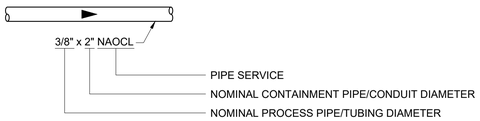
SINGLE-LINE PIPES



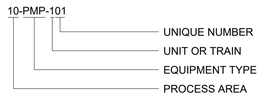
PIPE IDENTIFICATION



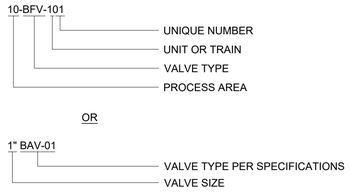
DOUBLE CONTAINED PIPING/TUBING IDENTIFICATION



EQUIPMENT IDENTIFICATION



VALVE IDENTIFICATION



PIPING NOTES

1. LAY PIPE TO UNIFORM GRADE BETWEEN INDICATED ELEVATION POINTS. MINIMUM COVER SHALL BE 36 INCHES UNLESS OTHERWISE SHOWN.
2. 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. LOCATION AND NUMBER OF PIPE HANGERS AND PIPE SUPPORTS SHOWN IS ONLY APPROXIMATE. FINAL SUPPORT REQUIREMENTS SHALL BE DETERMINED IN THE FIELD AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. MAXIMUM SPACING SHALL BE AS SPECIFIED.
4. APPROPRIATE STANDARD WALL PIPE DETAIL SHALL BE USED WHEREVER PIPING PASSES FROM A STRUCTURE TO BACKFILL.
5. ALL FLEXIBLE CONNECTORS OR FLANGED COUPLING ADAPTERS SHALL BE PROVIDED WITH THRUST TIES, THRUST BLOCKS, OR ANCHORS, UNLESS OTHERWISE NOTED. THRUST PROTECTION SHALL BE ADEQUATE FOR TEST PRESSURES SPECIFIED.
6. SYMBOLS, LEGENDS, AND PIPING IDENTIFIERS SHOWN SHALL BE FOLLOWED THROUGHOUT THE DRAWINGS, WHEREVER APPLICABLE. ALL OF THE VARIOUS APPLICATIONS ARE NOT NECESSARILY USED IN THE PROJECT.
7. ALL PIPING SPECIFIED TO BE PRESSURE TESTED, EXCEPT FLANGED, WELDED, GROOVED END, OR SCREWED PIPING, SHALL BE PROVIDED WITH TRUST PROTECTION AT ALL DIRECTION CHANGES, UNLESS OTHERWISE NOTED. SEE THRUST DETAILS AND NOTES ON DRAWINGS.
8. NUMBER AND LOCATION OF UNIONS SHOWN ON DRAWINGS ARE ONLY APPROXIMATE. PROVIDE ALL UNIONS NECESSARY TO FACILITATE CONVENIENT REMOVAL OF VALVES AND MECHANICAL EQUIPMENT.
9. THE CONTRACTOR FOR THIS PROJECT IS RESPONSIBLE FOR COORDINATING AND PERFORMING THE CONNECTION OF THE PIPING AND ASSOCIATED APPURTENANCES INSTALLED UNDER THIS CONTRACT TO BOTH THE EXISTING PIPING AND FACILITIES.
10. PRIOR TO SUBMITTING PIPING DRAWINGS FOR ANY NEW PIPE THAT IS TO CONNECT TO OR CROSS AN EXISTING PIPE OR STRUCTURE, THE CONTRACTOR SHALL EXPOSE THE EXISTING PIPE OR STRUCTURE TO VERIFY ITS EXACT LOCATION, SIZE, MATERIALS, AND INVERT ELEVATIONS.

PIPE SERVICES

ID	DESCRIPTION
A	AIR
AHP	AIR, HIGH PRESSURE
AIR	COMPRESSED AIR
ALP	AIR LOW PRESSURE
BD	BLOW DOWN
BWD	BACKWASH DISPOSAL
BWI	BACKWASH IN
BWO	BACKWASH OUT
BWS	BACKWASH SUPPLY
BWW	BACKWASH WASTE
CE	CONDENSATE
CL2	CHLORINE
CWTP	CIRCULATING WATER
DEC	DECANT
DIL	DILUTE
DS	DIGESTED SLUDGE
EFL	EFFLUENT
EQ	EQUALIZATION
ERW	EFFLUENT REUSE WATER
FE	FILTER EFFLUENT
FI	FILTER INFLUENT
FIL	FILTRATE
FO	FUEL OIL
FSS	FOAM SPRAY SYSTEM (UTILITY WATER)
G	GAS
GPR	GROUND PENETRATING RADAR
HF	HIGH PRESSURE FEEDWATER
IA	INSTRUMENT AIR
IMLR	INTERNAL MIXED LIQUOR RETURN
INFL	INFLUENT
IS	INTERMEDIATE PRESSURE STREAM
IW	INJECTION WATER
LS	LOW PRESSURE STREAM
MW	MAKE UP WATER
NH	AMMONIA
NAOH	SODIUM HYDROXIDE
NPW	NON-POTABLE WATER
OF	OVERFLOW
OFR	OVERFLOW RETURN
PA	PROCESS AIR
PR	PRESSATE
PW	POTABLE WATER, PROCESS WATER
RBW	RECLAIMED BACKWASH
REW	RECYCLED WATER
RO	REVERSE OSMOSIS
RTN	RETURN WATER
RW	RAW WATER
SA	SERVICE AIR
SC	SCUM
SDS	SECONDARY DIGESTED SLUDGE
SHC	SODIUM HYPOCHLORITE
SLG	SLUDGE
SMP	SAMPLE
SOLN	SOLUTION
SPD	SUMP PUMP DRAIN
SUP	SUPERNATANT, SUPPLY
TSL	THICKENED SLUDGE
TW	TREATED GROUND WATER
UD	UNDERDRAIN
VAR	VENT, ACID RESISTANT
W	WATER
W1	POTABLE WATER
W2	UTILITY WATER
W3	RECYCLED WATER
WTR	WATER
WW	WASH WATER, WASTEWATER
WWS	WALL WASH SYSTEM (UTILITY WATER)

MECHANICAL ABBREVIATIONS

ABBREVIATION	DEFINITION
ARV	AIR RELEASE VALVE
AVV	AIR/VACUUM VALVE
BAV	BALL VALVE
BF	BLIND FLANGE
BFP	BACKFLOW PREVENTER
BFV	BUTTERFLY VALVE
BO	BLOW OFF
BUNA-N	NITRILE BUTADIENE RUBBER
CAV	COMBINATION AIR VALVE
CE	CERAMIC EPOXY
CKV	CHECK VALVE
CLDIP	CEMENT-LINED DUCTILE IRON PIPE
CM	CEMENT MORTAR
CPLG	COUPLING
CPVC	CHLORINATED POLYVINYL CHLORIDE
CU	COPPER
CV	CONTROL VALVE
DIP	DUCTILE IRON PIPE
DMJ	DISMANTLING JOINT
DR	DRAIN
DV	DIAPHRAGM VALVE
EO	EMERGENCY OVERFLOW
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
FBE	FUSION BONDED EPOXY
FC	FLEXIBLE COUPLING
FCA	FLANGED COUPLING ADAPTER
FES	FLARED END SECTION
FH	FIRE HYDRANT
FKM	FLUOROCARBON (FPM or VITON®)
FLG	FLANGE
FOE	FLANGED ONE END
FRP	FIBERGLASS REINFORCED PLASTIC
GAV	GATE VALVE
GEC	GROOVED END COUPLING
GLV	GLOBE VALVE
GRV	GROOVED END
HDPE	HIGH DENSITY POLYETHYLENE
HSV	HOSE VALVE
IE	INVERT ELEVATION
KGV	KNIFE GATE VALVE
LLDPE	LINEAR LOW DENSITY POLYETHYLENE
MDV	MUD VALVE
MJ	MECHANICAL JOINT
MON	WATER MONITOR
MPV	MULTI-PORT VALVE
NDV	NEEDLE VALVE
NPT	NATIONAL PIPE THREAD
PFA	PERFLUOROALKOXY
PLV	PLUG VALVE
PNV	PINCH VALVE
PO	PUSH ON JOINT
POE	PLAIN ONE END
PRJ	PROPRIETARY RESTRAINED JOINT
PRV	PRESSURE REGULATING VALVE
PTFE	POLYTETRAFLUOROETHYLENE (TEFLON®)
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
RFCA	RESTRAINED FLANGED COUPLING ADAPTER
RLS	RUBBER LINED STEEL
RMJ	RESTRAINED MECHANICAL JOINT
SAV	SAFETY VALVE
SLD	SOLDERED SOCKET JOINT
SLV	SOLVENT WELDED SOCKET JOINT
SOV	SOLENOID VALVE
SOW	SLIP ON WELD
TBG	TUBING
TDH	TOTAL DYNAMIC HEAD
THR	THREADED JOINT
TMV	THERMOSTATIC MIXING VALVE
TT	THRUST TIE
V	VENT
VAC	VACUUM
WLD	BUTT WELDED JOINT
WSP	WELDED STEEL PIPE

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

NO	DATE	REVISION	BY	APVD

LICENSED PROFESSIONAL ENGINEER — JENNIFER CALDERON — 12284243-2202 — 5/22/2023 — STATE OF UTAH

DESIGN: JENNY C
DRAWN: JAM
CHECKED: FWF
APPROVED: JHM

WATERWORKS ENGINEERS
1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING DAY TANK

MECHANICAL

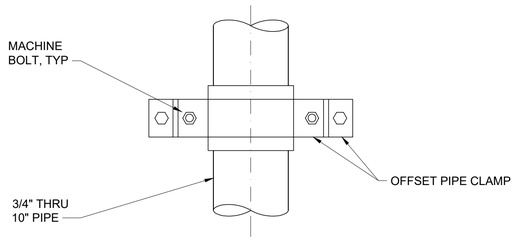
LEGEND AND NOTES

DATE: MAY 2023
PROJECT NO.: 22-097
DRAWING NO.: GM-1
SHEET NO.: 14 OF 20

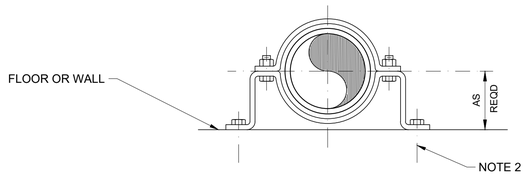
FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\GM-1 (MECHANICAL LEGEND AND NOTES).DWG

PLOT DATE: May 22, 2023

PLOT TIME: 12:39 PM



PLAN OR
VERTICAL PIPE
ELEVATION



SECTION

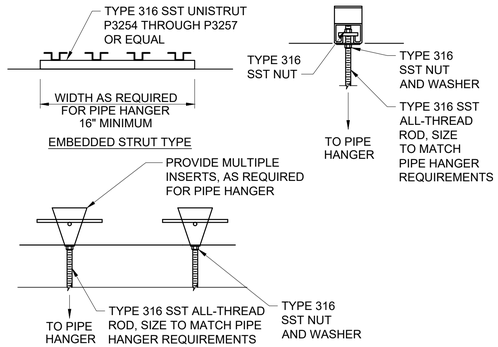
NOTES:

1. FOR VERTICAL PIPE RUNS ONLY.
2. ATTACH TO WALL WITH SST ANCHORS, 3/8" DIAMETER MIN, COORDINATED WITH WALL CONSTRUCTION.

WALL-MOUNTED STANDOFF PIPE SUPPORT, TYPE 1

40 05 07.41

NTS



SINGLE POINT EMBED TYPE

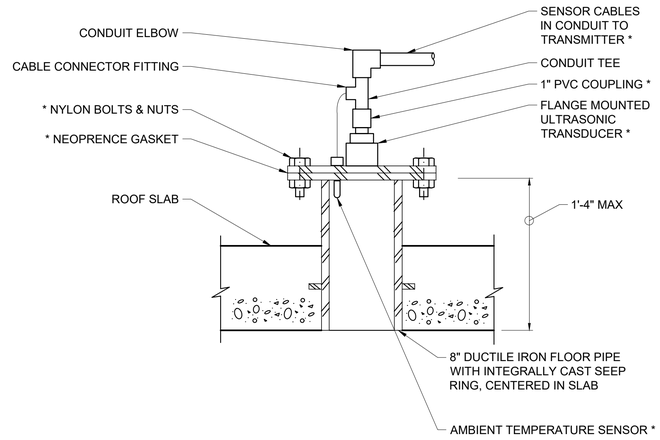
NOTES:

1. MAXIMUM LOAD FOR EITHER STYLE EMBED IS 3000 LBS. PROVIDE EMBEDS RATED FOR MAXIMUM OF 3000 LBS.

CEILING-MOUNTED HANGER ROD SUPPORT

40 05 07.81

NTS



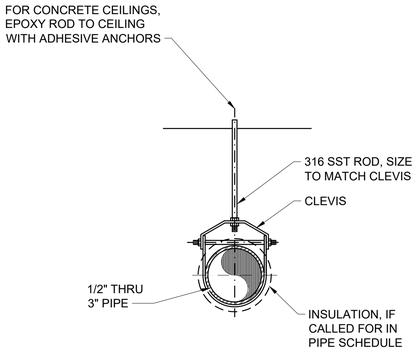
NOTES:

1. COMPONENTS DESIGNATED BY * ARE SUPPLIED BY INSTRUMENT MANUFACTURER.
2. COAT FLOOR PIPE WITH SPECIFIED PAINT SYSTEM PRIOR TO CONCRETE PLACEMENT.

ULTRASONIC LEVEL ELEMENT INSTALLATION - CONCRETE ROOF

40 70 03.10

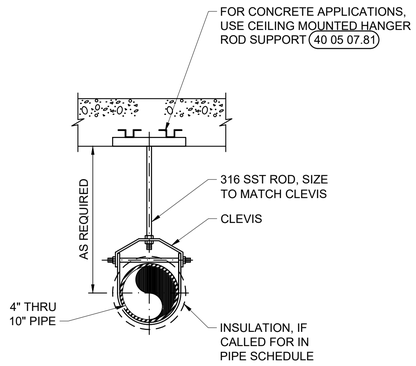
NTS



CEILING-MOUNTED PIPE HANGER UP TO 3" PIPE

40 05 07.92

NTS



CEILING-MOUNTED PIPE HANGER 4" TO 10" PIPE

40 05 07.93

NTS

NO	DATE	REVISION	BY	APVD

VERIFY SCALE

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0 1"

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LICENSED PROFESSIONAL ENGINEER
JENNIFER CALDERON
12284243-2202
5/22/2023
STATE OF UTAH

DESIGN: JENNY C
DRAWN: DAT
CHECKED: FWF
APPROVED: JHM

WATERWORKS ENGINEERS

1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING
DAY TANK

MECHANICAL

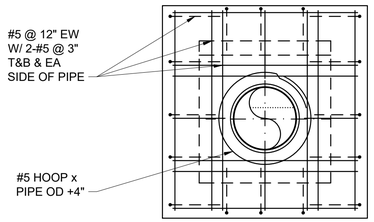
STANDARD DETAILS 1

DATE: MAY 2023
PROJECT NO.: 22-097
DRAWING NO.: GM-2
SHEET NO.: 15 OF 20

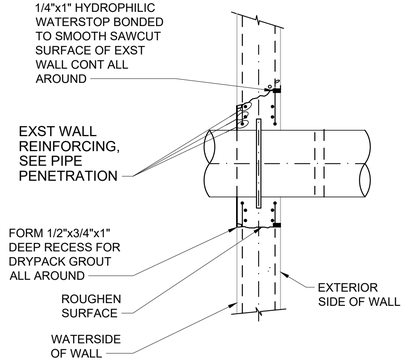
FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\GM-2 (MECHANICAL DETAILS).DWG

PLOT DATE: May 22, 2023

PLOT TIME: 12:40 PM



ELEVATION



SECTION

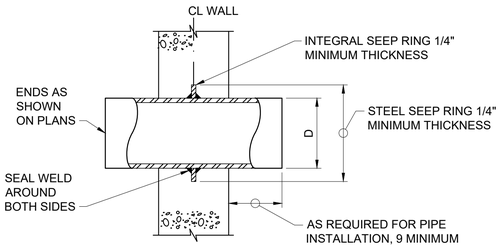
NOTES:

1. SAW-CUT 1-INCH DEEP x PIPE OD + 12" SQUARE SCORE LINE ON EACH FACE OF (VERIFY DEPTH OF CUT TO CLEAR REINFORCING.) (INCREASE HEIGHT AS NOTED AT TOP ON WATERSIDE FACE FOR POURING.)
2. CHIP TO REMOVE THE CONCRETE WITHIN THE SCORE LINE, WHILE PRESERVING THE EXISTING WALL REINFORCING.
3. CUT EXISTING REINFORCING AT CENTER OF OPENING AND BEND TO CLEAR PIPE.
4. GRIND 1 1/2" WIDE x CONT SMOOTH SURFACE ALL AROUND THE OPENING AT CENTER OF CLEAN WALLSURFACES AND BOND CONTINUOUS HYDROPHILIC WATERSTOP IN PLACE.
5. INSTALL WALL PIPE. (COAT CONCRETE ENCASED PORTION OF PIPE WITH SPECIFIED COATING SYSTEM.)
6. INSTALL ADDITIONAL REINFORCING EACH FACE, EACH SIDE, ABOVE AND BELOW PIPE. HORIZONTAL REINFORCING TO HAVE COMBINED AREA EQUAL TO AREA OF HORIZONTAL REINFORCING CUT. VERTICAL REINFORCING TO HAVE COMBINED AREA EQUAL TO AREA OF VERTICAL REINFORCING CUT.
7. SOAK CONCRETE SURFACES AND WITHIN 15-MINUTES CAST CONCRETE CLOSURE. (CONCRETE CLOSURE MUST BE CAST BEFORE HYDROPHILIC WATERSTOP EXPANDS.) FORM GROOVE ON ALL SIDES OF OPENING EXCEPT AT TOP ON THE POUR SIDE.
8. CLEAN SURFACES OF FORMED GROOVE WITH POWER WIRE BRUSH OR SANDBLASTING AND DRY-PACK WITH NON-SHRINK GROUT AFTER NEW CONCRETE MIN 28-DAYS OLD.

STAINLESS STEEL WALL PIPE AT EXISTING WALL

NTS

03 13 03.22



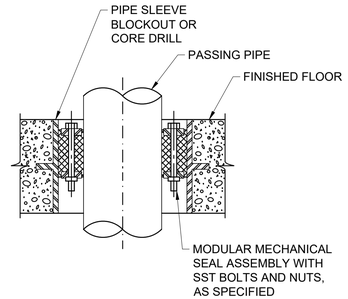
NOTES:

1. MATCH PIPE MATERIAL FOR SYSTEM, UNLESS OTHERWISE NOTED.

TYPE 316 STAINLESS STEEL WALL PIPE

NTS

40 05 09.31



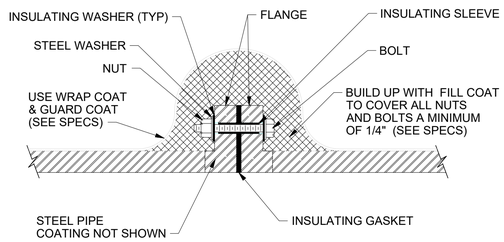
NOTES:

1. CAN BE USED FOR EXISTING FLOOR BY CORE DRILLING FLOOR. THIS IS A WATERTIGHT SEAL INSTALLATION.

FLOOR SLEEVE WITH MODULAR MECHANICAL SEAL

NTS

40 05 09.06



NOTES:

1. WRAP & FILL COAT MAY BE DELETED FOR EXPOSED JOINTS.
2. WRAP & FILL COAT SHALL BE USED UNDER THE GROUTED RCCP TO STEEL PIPE CONNECTION.

INSULATING - FLANGE JOINT

NTS

40 05 10.40

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

NO	DATE	REVISION	BY	APVD

LICENSED PROFESSIONAL ENGINEER — JENNIFER CALDERON — 12284243-2202 — 5/22/2023 — STATE OF UTAH

DESIGN: JENNY C
DRAWN: DAT
CHECKED: FWF
APPROVED: JHM

WATERWORKS ENGINEERS
1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING
DAY TANK

MECHANICAL

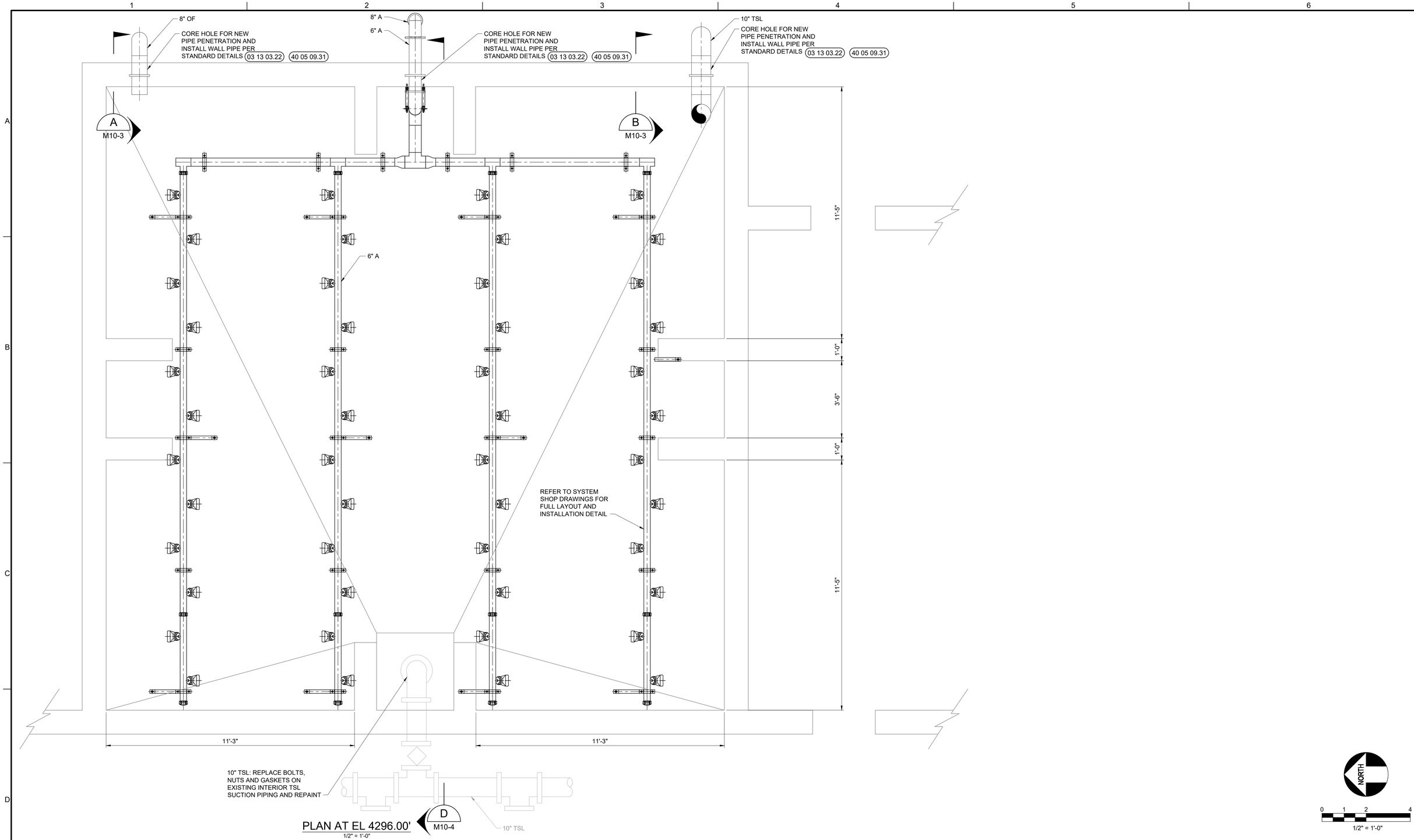
STANDARD DETAILS 2

DATE: MAY 2023
PROJECT NO.: 22-097
DRAWING NO.: GM-3
SHEET NO.: 16 OF 20

FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\GM-3 (MECHANICAL DETAILS).DWG

PLOT DATE: May 22, 2023

PLOT TIME: 12:41 PM



VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	NO	DATE	REVISION	BY / APVD

LICENSED PROFESSIONAL ENGINEER — JENNIFER CALDERON — 12284243-2202 — 5/22/2023 — STATE OF UTAH

DESIGN	JENNY C
DRAWN	DAT
CHECKED	FWF
APPROVED	JHM

WATERWORKS ENGINEERS
1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING DAY TANK

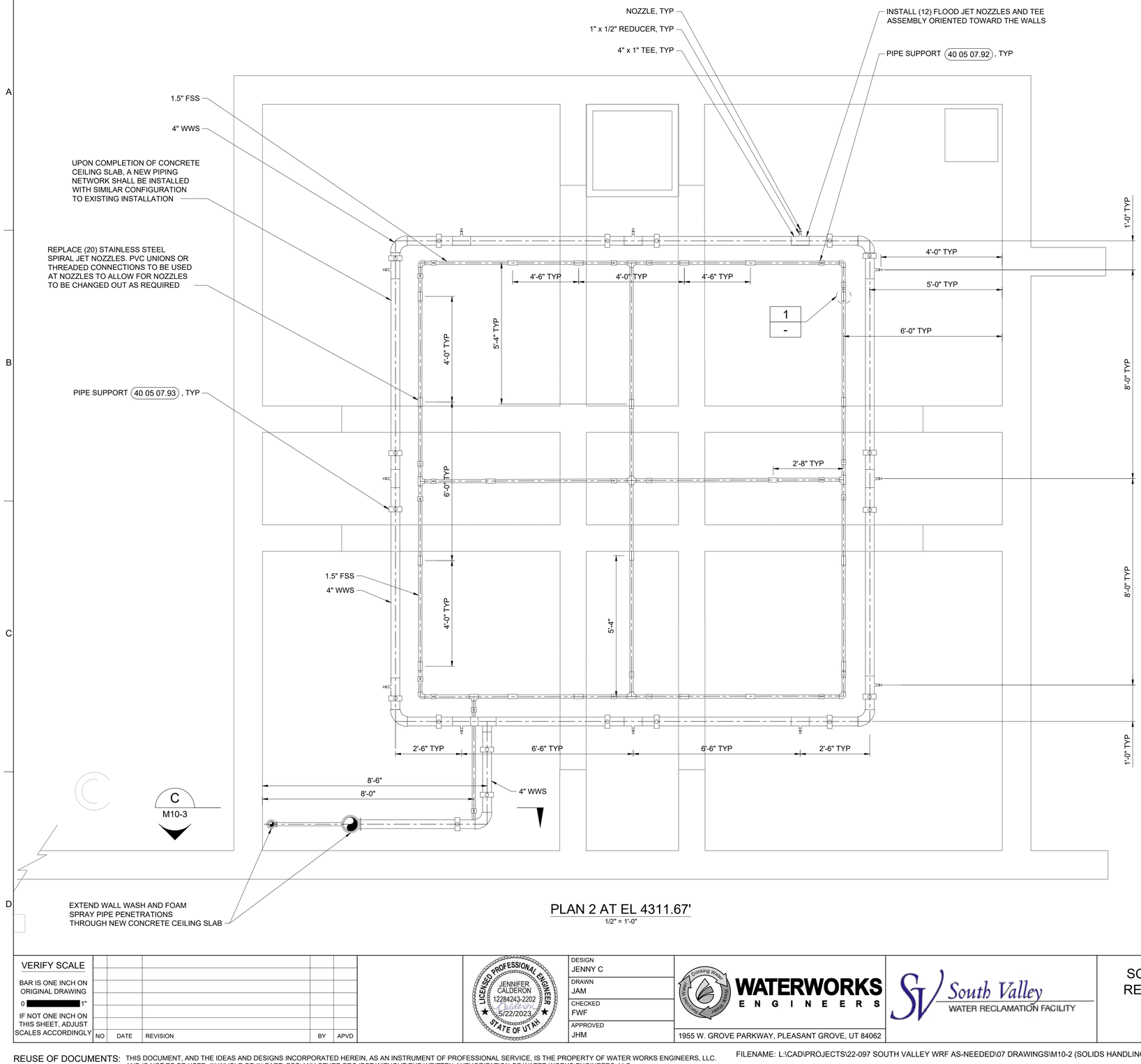
MECHANICAL

SOLIDS HOLDING DAY TANK PLAN 1

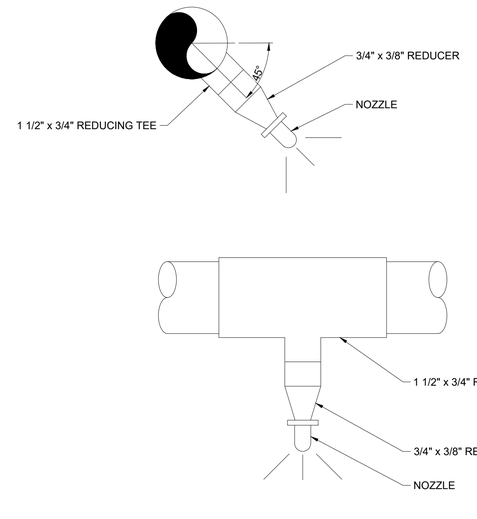
DATE	MAY 2023
PROJECT NO.	22-097
DRAWING NO.	M10-1
SHEET NO.	17 OF 20

FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\M10-1 (SOLIDS HANDLING DAY TANK).DWG

PLOT DATE: May 22, 2023 PLOT TIME: 12:47 PM



PLAN 2 AT EL 4311.67'
1/2" = 1'-0"



1 DETAIL 1: FOAM SPRAY SYSTEM NOZZLE TYPICAL OF 20 NOZZLES
NTS

NORTH

0 1 2 4
1/2" = 1'-0"

VERIFY SCALE	NO	DATE	REVISION	BY	APVD
BAR IS ONE INCH ON ORIGINAL DRAWING					
0 1"					
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY					

JENNIFER CALDERON 12284243-2202 5/22/2023 LICENSED PROFESSIONAL ENGINEER STATE OF UTAH

DESIGN: JENNY C
DRAWN: JAM
CHECKED: FWF
APPROVED: JHM

WATERWORKS ENGINEERS
1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING DAY TANK

MECHANICAL

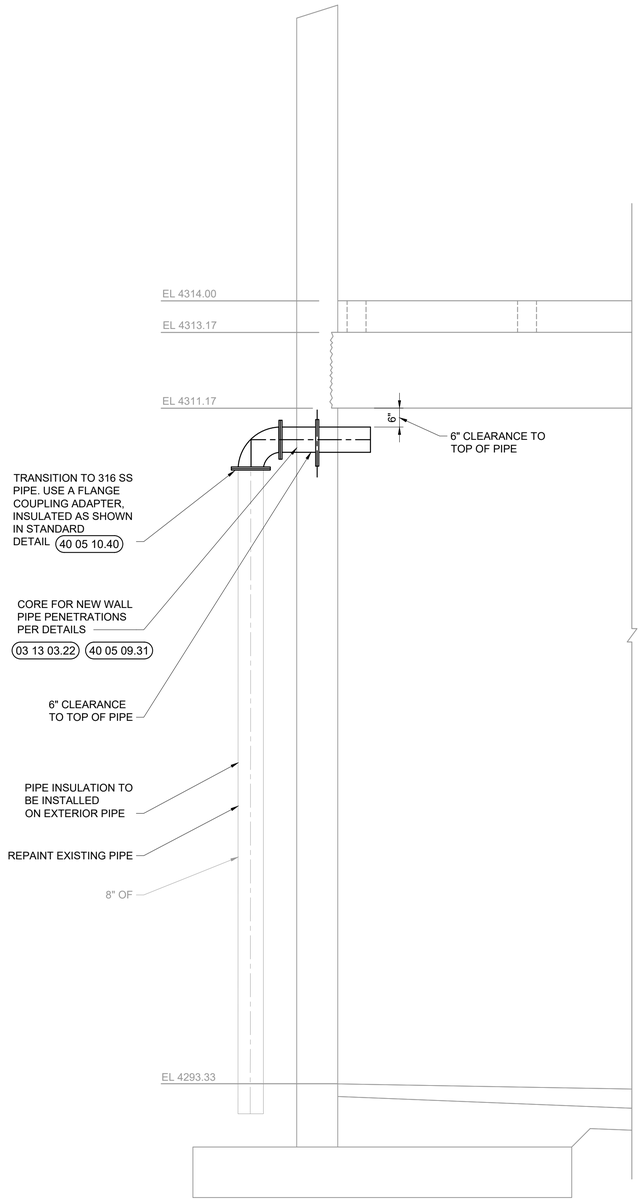
SOLIDS HOLDING DAY TANK PLAN 2

DATE: MAY 2023
PROJECT NO.: 22-097
DRAWING NO.: M10-2
SHEET NO.: 18 OF 20

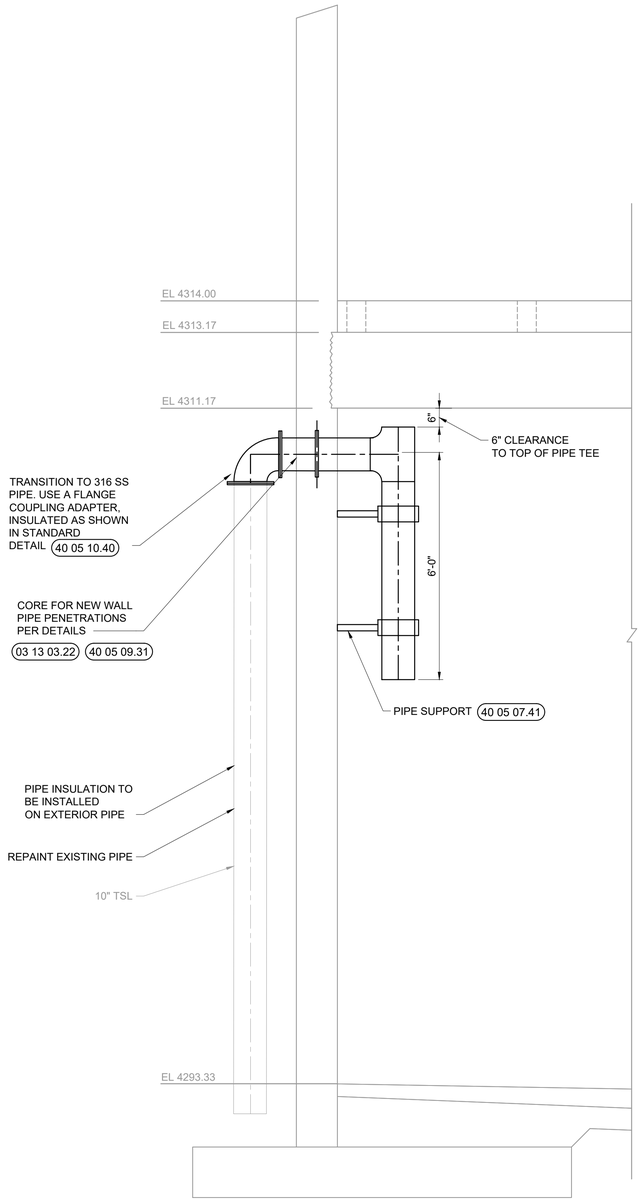
FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\M10-2 (SOLIDS HANDLING DAY TANK).DWG
PLOT DATE: May 22, 2023
PLOT TIME: 12:48 PM

NOTES:

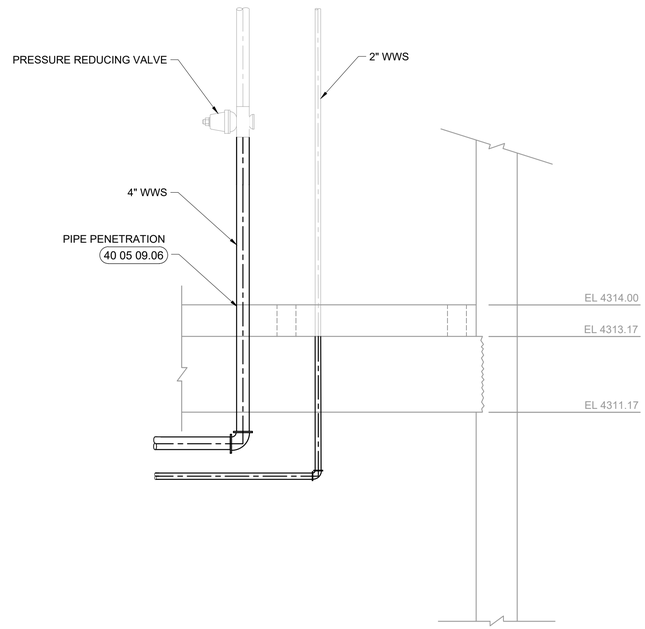
1. ALL EXISTING PIPE PENETRATIONS AND HATCHES THROUGH THE CEILING SLAB MUST BE EXTENDED THROUGH THE NEW SLAB UNLESS OTHERWISE NOTED. MATCH EXISTING MATERIALS UNLESS OTHERWISE NOTED. PIPE AND VENT PENETRATIONS SHALL BE AS SHOWN IN DETAIL (40 05 09.06)



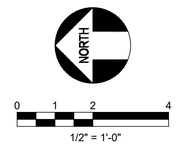
A SECTION
M10-1 1/2" = 1'-0"



B SECTION
M10-1 1/2" = 1'-0"



C SECTION
M10-1 1/2" = 1'-0"



VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

NO	DATE	REVISION	BY	APVD

JENNIFER CALDERON 12284243-2202 STATE OF UTAH LICENSED PROFESSIONAL ENGINEER 5/22/2023

DESIGN	JENNY C
DRAWN	DAT
CHECKED	FWF
APPROVED	JHM

WATERWORKS ENGINEERS
1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING
DAY TANK

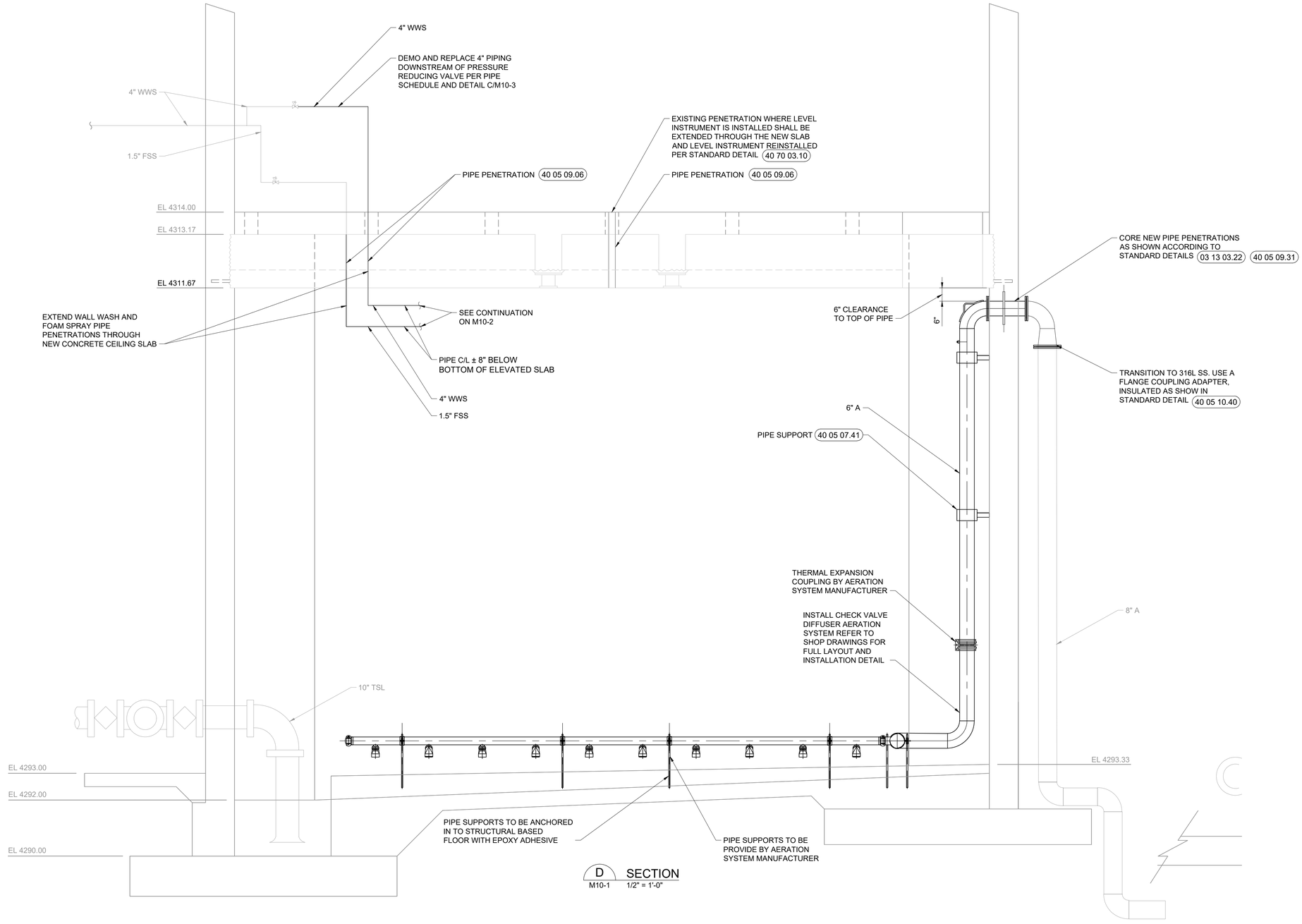
MECHANICAL

SOLIDS HOLDING
DAY TANK SECTIONS 1

DATE	MAY 2023
PROJECT NO.	22-097
DRAWING NO.	M10-3
SHEET NO.	19 OF 20

FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\M10-3 (SOLIDS HANDLING DAY TANK SECTIONS).DWG

PLOT DATE: May 22, 2023 PLOT TIME: 12:48 PM



D SECTION
M10-1 1/2" = 1'-0"

NORTH

0 1 2 4
1/2" = 1'-0"

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

NO	DATE	REVISION	BY	APVD

LICENSED PROFESSIONAL ENGINEER
JENNIFER CALDERON
12284243-2202
5/22/2023
STATE OF UTAH

DESIGN	JENNY C
DRAWN	DAT
CHECKED	FWF
APPROVED	JHM

WATERWORKS ENGINEERS
1955 W. GROVE PARKWAY, PLEASANT GROVE, UT 84062

South Valley WATER RECLAMATION FACILITY

SOUTH VALLEY WATER RECLAMATION FACILITY
SOLIDS HANDLING
DAY TANK

MECHANICAL

SOLIDS HOLDING
DAY TANK SECTIONS 2

DATE	MAY 2023
PROJECT NO.	22-097
DRAWING NO.	M10-4
SHEET NO.	20 OF 20

FILENAME: L:\CAD\PROJECTS\22-097 SOUTH VALLEY WRF AS-NEEDED\07 DRAWINGS\M10-4 (SOLIDS HANDLING DAY TANK).DWG
PLOT DATE: May 22, 2023
PLOT TIME: 12:49 PM