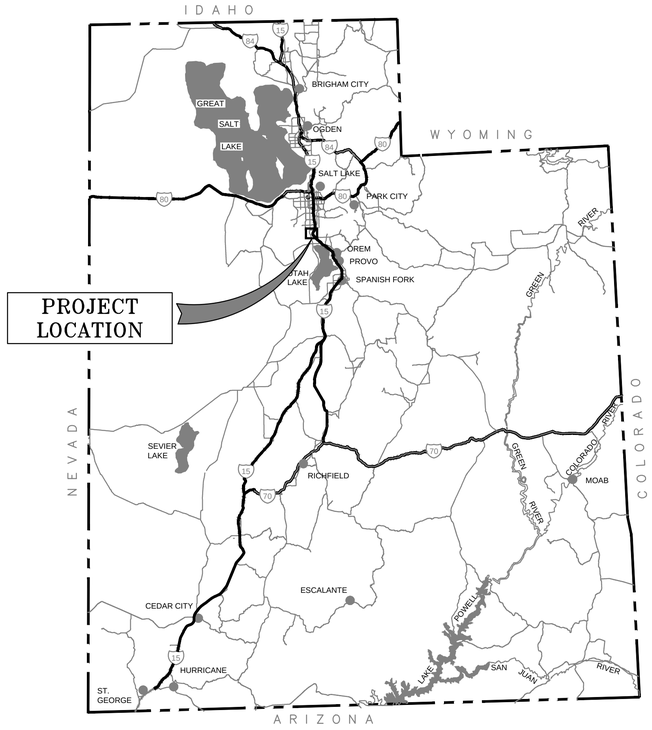
JORDAN VALLEY WATER
CONSERVANCY DISTRICT

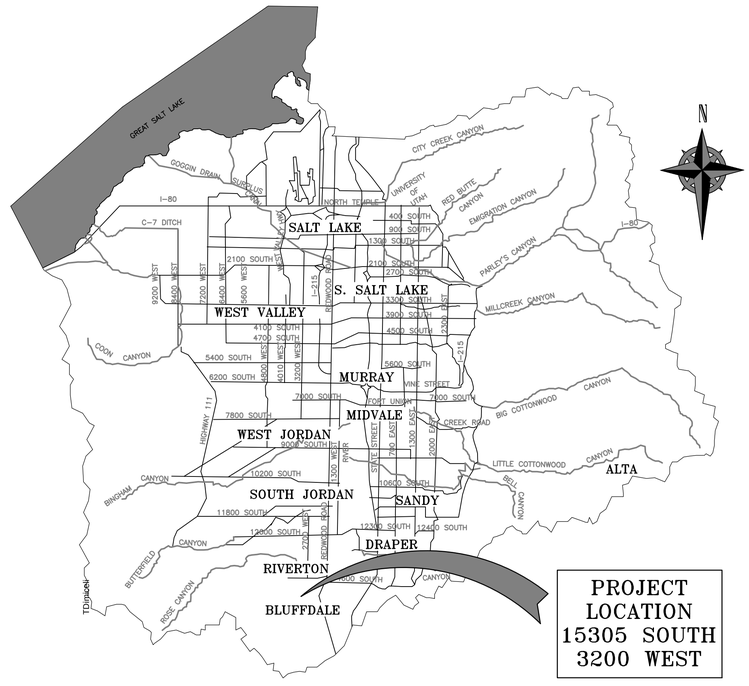
JORDAN VALLEY WATER TREATMENT PLANT
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

JORDAN VALLEY PROJECT 4277

STATE MAP



PROJECT VICINITY



VOLUME III OF IV
BID SET
JUNE 2022

Brown AND Caldwell

Jun 14, 2022 - 9:05am
C:\bcpw\d186824\2\G-00-001.dwg

DRAWING INDEX

GENERAL NOTES

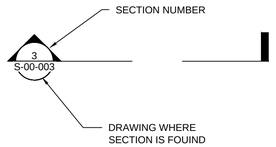
1. THE NOTE IN THE TITLE BLOCK OF THIS DRAWING WHICH READS "TWO INCHES AT FULL SCALE" APPEARS ON DRAWINGS FOR IDENTIFICATION OF SCALE DISTORTIONS ON HALF SIZE DRAWINGS AND DRAWING REPRODUCTIONS. IT SHALL MEAN THAT THE DRAWING IS FULL SIZE AND THE DRAWING SCALES ACCURATE WHEN THE LENGTH OF THIS LINE IS TWO INCHES. IF THE LENGTH IS OTHER THAN TWO INCHES, DRAWING SCALES MUST BE ADJUSTED ACCORDINGLY.
2. ABBREVIATIONS USED IN THIS CONTRACT DOCUMENT CONFORM TO ANSI Y1.1, UNLESS NOTED OTHERWISE ON DRAWINGS.
3. ALL STANDARD DETAILS APPLY TO ALL THE CONTRACTORS WORK WHETHER SPECIFICALLY REFERENCED OR NOT.
4. SEE FRONT END SHEETS FOR EACH DISCIPLINES STANDARD SYMBOLS, ETC.
5. THE SHADED PORTIONS (EXISTING CONDITIONS) OF THE DRAWINGS WERE TAKEN FROM JVWCD RECORD DRAWINGS BUT HAVE NOT BEEN VERIFIED BY BROWN AND CALDWELL. DIMENSIONS, FEATURES, AND DETAILS MAY VARY FROM FIELD CONDITIONS. CONTRACTOR MUST VERIFY ALL EXISTING CONDITIONS THAT MAY IMPACT WORK.
6. SEE ADDITIONAL GENERAL NOTES THROUGHOUT DRAWING SET.

CROSS REFERENCING SYSTEM

1. PLAN TITLES:

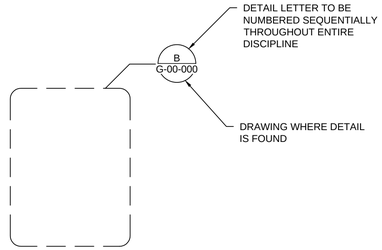
PLAN TITLE
SCALE: 1/4" = 1'-0"

2. SECTION CUTS



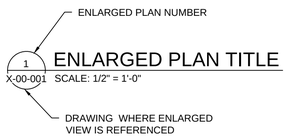
3. DETAIL CALLOUT

A: BY CALLOUT:

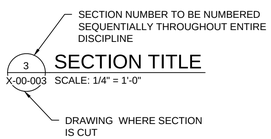


B: BY NOTE: "SEE DETAIL B/D-01-105"
B IS DETAIL REFERENCE LETTER
D-01-105 IS DRAWING WHERE DETAIL IS SHOWN

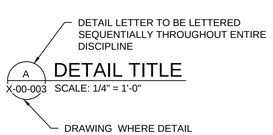
4. ENLARGED PLAN TITLES:



5. SECTION TITLES:



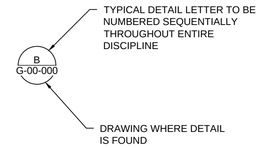
6. DETAIL TITLES:



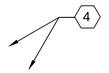
5. TYPICAL DETAIL TITLES

CROSS REFERENCING SYSTEM (CONTINUED)

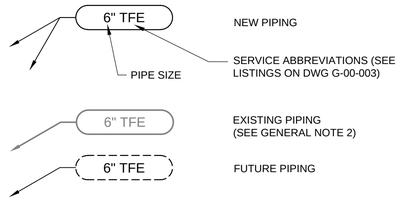
6. STANDARD DETAILS REFERENCE:



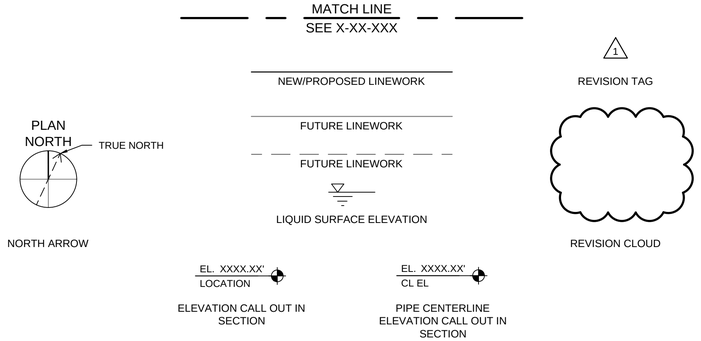
7. KEYNOTES:



PIPING IDENTIFICATION SYSTEM



MISCELLANEOUS



DRAWING NUMBERING SYSTEM

G-00-001

- SEQUENTIAL NUMBER
- AREA
- DISCIPLINE

AREAS
- 00 GENERAL SHEETS
- 01 DESIGN SHEETS

DISCIPLINES
- G GENERAL
- D DEMOLITION
- C CIVIL
- S STRUCTURAL
- M PROCESS/MECHANICAL
- H HVAC
- E ELECTRICAL
- N INSTRUMENTATION

Brown AND Caldwell

STATE OF UTAH — REGISTERED PROFESSIONAL ENGINEER
No. 8887408
JACOB C. HIMEBAUGH
6/1/22

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: J. HIMEBAUGH
DRAWN: T. DIMICELI
CHECKED:
CHECKED:
APPROVED: J. HIMEBAUGH

FILENAME
G-00-002.dwg
BC PROJECT NUMBER
157012
CLIENT PROJECT NUMBER
4277

GENERAL

DRAWING INDEX, GENERAL NOTES, LEGENDS AND SYMBOLS

DRAWING NUMBER
G-00-002

SHEET NUMBER 2 OF 48

Path: C:\BCPWD\1868242 FILENAME: G-00-002.DWG PLOT DATE: 6/17/2022 4:32 PM CAD USER: TONY DIMICELI

- A -

A/C	AIR CONDITIONING
AB	ANCHOR BOLT
ABAN	ABANDON
ABC	AGGREGATE BASE COURSE
ABS	ABSOLUTE
ABUT	ABUTMENT
ABV	ABOVE
AC	ASPHALTIC CONCRETE
ACKV	AUTOMATIC CHECK VALVE
ACP	ASBESTOS CEMENT PIPE
ACS	ACCESS
ADA	AMERICAN DISABILITY ACT
AD	AREA DRAIN
ADDL	ADDITIONAL
ADDM	ADDENDUM
ADJ	ADJUSTABLE
AGGR	AGGREGATE
AHD	AHEAD
AL	ALUMINUM
ALT	ALTERNATE
AMS	ANGLE METER STOP
AMT	AMOUNT
&	AND
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ANT	ANTENNA
AP	ACCESS PANEL
APN	ASSESSOR PARCEL NUMBER
APPROX	APPROXIMATE
APPVD	APPROVED
ASPH	ASPHALT
ASSN	ASSOCIATION
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS
AUX	AUXILIARY
AV	AIR VENT/AIR VALVE
AVAR	AIR VACUUM AIR RELEASE VALVE
AVE	AVENUE
AVRV	AIR/VAC RELIEF VALVE
AWG	AMERICAN WIRE GAUGE
AWWA	AMERICAN WATER WORKS ASSOCIATION

- B -

B/H	BUMPED HEAD
B&S	BELL & SPIGOT
BAL	BALANCE
BC	BOLT CIRCLE/BACK OF CURB
BCV	BUTTERFLY CHECK VALVE
BE	BELL END
BETW	BETWEEN
BFP	BACKFLOW PREVENTER
BFV	BUTTERFLY VALVE
BK	BOOK/BACK
BL-FLG	BLIND FLANGE
BLDG	BUILDING
BLK	BLOCK
BLM	BUREAU OF LAND MANAGEMENT
BLVD	BOULEVARD
BM	BENCHMARK
BO	BLOW OFF ASSEMBLY
BOC	BACK OF CURB
BOT	BOTTOM
BOW	BACK OF WALK
BPV	BACK PRESSURE VALVE
BRG	BEARING
BS	BACK SIGHT
BUR	BURIED
BV	BALL VALVE
BW	BOTH WAYS/BACK OF SIDEWALK

- C -

C/C	CENTER TO CENTER
C	CONDUIT
C&G	CURB & GUTTER
CAL	CALIBRATE
CAP	CAPACITY
CAV	COMBINATION AIR VALVE
CB	CATCH BASIN
CEM	CEMENT
CI	CAST IRON
CIP	CAST IRON PIPE/CAST IN PLACE
CIR	CIRCLE
CIRCUM	CIRCUMFERENCE
CJP	COMPLETE JOINT PENETRATION
CL	CEMENT LINED
CL OR ℄	CENTERLINE
CL2	CHLORINE
CLG	CEILING
CLO	CLEANOUT
CLP	CLAMP
CLR	CLEAR
CLSM	CONTROLLED LOW STRENGTH MATERIAL
CM	CEMENT MORTAR
CM	CENTIMETER
CMCL	CEMENT MORTAR COATING AND LINING
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CO	COUNTY/COMPANY/CONTRACT

- C - (CONT.)

COL	COLUMN
COMB	COMBINATION
COMM	COMMUNICATION
COMPL	COMPLETE
CON	CONCENTRIC
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUE OR CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
COR	CORNER
CORP STOP	CORPORATION STOP
COV PL	COVER PLATE
CPLG	COUPLING
CPVC	CHLORINATED POLYVINYL CHLORIDE PIPE
CT	COURT
CTR	CENTER
CTV	CABLE TELEVISION
CU	CUBIC/COPPER
CUST	CUSTOMER
CV	CONTROL VALVE
CW	CLOCKWISE
CY	CUBIC YARD
CYL	CYLINDER

- D -

D OR △	DELTA ANGLE
D/W	DRIVEWAY
DEC	DECIMETER
DEMO	DEMOLITION
DEPT	DEPARTMENT
DET	DETAIL
DEV	DEVELOPMENT
DI	DROP INLET OR DUCTILE IRON
DIA OR Ø	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DIR	DIRECTION
DISCH	DISCHARGE
DIST	DISTANCE
DISTR	DISTRIBUTION
DIV	DIVISION
DL	DEAD LOAD
DMH	DROP MANHOLE
DN	DOWN
DR	DRIVE
DRW	DRY WELL
DUPL	DUPLICATE
DWCCC	DAVIS AND WEBER COUNTIES CANAL COMPANY
DWG	DRAWING

- E -

E	EAST OR EDGE
EA	EACH
EC	EPOXY COATED/END OF CURB
ECC	ECCENTRIC
EF	EACH FACE
EL	EPOXY LINED
ELEC	ELECTRICAL
ELEV	ELEVATION
ELL	ELBOW
ENG	ENGINE/ENGINEERING
ENGR	ENGINEER
EOP	EDGE OF PAVEMENT
EOS	EDGE OF SHOULDER
EPP	EPOXY AND POLYURETHANE
EQ	EQUAL OR EQUATION
EQ SP	EQUALLY SPACED
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ESMT	EASEMENT
EST	ESTIMATE
ETC	ETCETERA
EW	EACH WAY
EXC	EXCAVATE
EXIST	EXISTING
EXP JT	EXPANSION JOINT
EXT	EXTENSION

- F -

F/F	FACE TO FACE
FABR	FABRICATION/FABRICATED
FC	FACE OF CURB
FD	FLOOR DRAIN
FDN	FOUNDATION
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
FIG	FIGURE
FL OR ℄	FLOW LINE
FLG	FLANGE
FLR	FLOOR
FM	FLOW METER

- F - (CONT.)

FMCT	FLOW METER COMPOUND TORRENT
FMH	FLEXIBLE METAL HOSE
FN	FENCE
FND	FOUND
FO	FIBER OPTIC
FOC	FACE OF CURB
FOW	FACE OF WALL
FPC	FLEXIBLE PIPE COUPLING
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FPT	FEMALE PIPE THREAD
FREQ	FREQUENCY
FRP	FIRE RETARDANT POLYESTER RESIN/ FIBERGLASS REINFORCED POLYMER
FSTNR	FASTENER
FT	FOOT OR FEET
FTG	FOOTING
FUT	FUTURE

- G -

G/B	GRADE BREAK
G	GAS
GA	GAGE
GAL(S)	GALLON(S)
GALV	GALVANIZED
GENL	GENERAL
GIS	GEOGRAPHIC INFORMATION SYSTEM
GND	GROUND
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GRD	GRADE
GRT	GRATE
GV	GATE VALVE

- H -

H	HOUSE
H&V	HEATING & VENTILATION
HARN	HIGH ACCURACY FREQUENCY NETWORK
HB	HOSE BIBB
HD	HEAD
HDR	HEADER
HEX	HEXAGONAL
HMWPE	HIGH MOLECULAR WEIGHT POLYETHYLENE
HORIZ	HORIZONTAL
HP	HORSEPOWER
HPI	HORIZONTAL POINT OF INTERSECTION
HPG	HIGH PRESSURE GAS
HR	HOUR
HSA	HAND SWITCH AUTO
HT	HEIGHT
HV	HOSE VALVE
HWY	HIGHWAY

- I -

ID	INSIDE DIAMETER
IN	INCH
INST	INSTALL
INSTR	INSTRUMENT
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
IPS	IRON PIPE SIZE
IRR	IRRIGATION

- J -

JT	JOINT

- K -

kg	KILOGRAM
km	KILOMETER

- L -

LAD	LADDER
LB OR #	POUND
LDR	LEADER
LEN OR L	LENGTH OF CURVATURE
LF	LINEAR FOOT
LG	LONG
LN	LANE
LT	LEFT/LIGHT
LWR	LOWER

- M -

M	METER
MATL	MATERIAL
MAX	MAXIMUM
MC	MORTAR COATED
MEAS	MEASUREMENT
MECH	MECHANICAL
MFR	MANUFACTURER
MG	MILLION GALLONS
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MKR	MARKER

- M - (CONT.)

ML	MORTAR LINED
MLC	MORTAR LINED & COATED
MON	MONUMENT
MOV	MOTOR OPERATED VALVE
MPT	MALE PIPE THREAD
MSD	MAIN SERVICE DISTRIBUTION
MSDS	MATERIAL SAFETY DATA SHEET
MTD	MOUNTED

- N -

N	NORTH
N/A	NOT APPLICABLE
NaOCL	SODIUM HYPOCHLORITE
NAVD	NORTH AMERICAN VERTICAL DATUM
NAP	NOT-A-PART
NBS	NATIONAL BUREAU OF STANDARDS
NC	NATIONAL COARSE
NE	NORTHEAST
NF	NORTH FACE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NG	NATURAL GROUND
NIC	NOT IN CONTRACT
NIP	NOT IN PROJECT
NO. #	NUMBER
NOM	NOMINAL
NPS	NOMINAL PIPE SIZE
NPT	NATIONAL TAPER PIPE THREAD
NRS	NON-RISING STEM
NTS	NOT TO SCALE
NW	NORTHWEST

- O -

O/O	OUT TO OUT
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OFC	OFFICE
OH	OVER HEAD
OHP	OVER HEAD POWER
OHTEL	OVER HEAD TELEPHONE
OPER	OPERATOR
OPNG	OPENING
OPP	OPPOSITE
ORF	ORIFICE
ORIG	ORIGINAL
OS&Y	OUTSIDE SCREW & YOKE
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
OVFL	OVERFLOW
oz	OUNCE

- P -

P	POLE/PRESSURE/PIPE/POWER
P/L / ℄	PROPERTY LINE
PAT	PATENT
PAVMT	PAVEMENT
PB	PULL BOX
PC	PRESSURE CLASS
PCCP	PRESTRESSED CONCRETE CYLINDER PIPE
PDL	PUMP DISCHARGE LINE
PE	PLAIN END/POLYETHYLENE PIPE
PED	PEDESTAL
PERM	PERMANENT
PERP	PERPENDICULAR
PG	PRESSURE GAGE
PH	PHASE
PI	POINT OF INTERSECTION
PHYD	POST HYDRANT
PKG	PACKAGE
PKWY	PARKWAY
PL	PLACE/PLATE/PARCEL LINE
PLS	PROFESSIONAL LAND SURVEYOR
PLT	PLATE (DRAWING)
PO	PUSH-ON
POLY	POLYETHYLENE
PP	POWER POLE
PPM	PARTS PER MILLION
PR	PAIR
P/R	PATENT RESERVATION
PRC	PRECAST REINFORCED CONCRETE
PRELIM	PRELIMINARY
PRIM	PRIMARY
PROP	PROPOSED
PRV	PRESSURE REGULATING VALVE
PS	PRESSURE SWITCH/PUMP STATION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT/POINT OF TANGENCY
PTW	POLYETHYLENE TAP WRAP
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE PIPE

- Q -

QCV	QUICK COUPLER VALVE
QDC	QUICK DISCONNECT COUPLING
QS	QUAD SHEET
QTR	QUARTER
QTY	QUANTITY

- R -

R	RADIUS
(R)	RADIAL
RA	RAW WATER
R/W	RIGHT-OF-WAY
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
REC	RECESSED
RECT	RECTANGULAR
RED	REDUCER
REF	REFERENCE (DIMENSION)
REG	REGULATING (REGULATOR)
REINF	REINFORCED (REBAR)
REQD	REQUIRED
RES	RESIDENTIAL OR RESERVOIR
RET	RETURN
REV	REVISION OR REVERSE
RF	RAISED FACE
RM	ROOM
RME	RESIDENTIAL MAIN EXTENSION
RPM	REVOLUTIONS PER MINUTE
RPS	REVOLUTIONS PER SECOND
RPPA	REDUCED PRESSURE PRINCIPLE ASSEMBLY
RR	RAILROAD
RSGV	RESILIENT SEATED GATE VALVE
RT	RIGHT/RING TITE
RV	RELIEF VALVE

- S -

S	SOUTH/SLOPE
SA	SAMPLE LINE
S/C	SAW CUT
SCCP	STEEL CYLINDER CONCRETE PIPE
SCH	SCHEDULE
SD	STORM DRAIN
SDWK	SIDEWALK
SE	SOUTHEAST
SEC	SECTION/SECOND(ARY)
SEG	SEGMENT
SHLDR	SHOULDER
SHT	SHEET
SID	SPECIAL IMPROVEMENT DISTRICT
SIG	SIGNAL
SIM	SIMILAR
SL	SLOPE
SLV	SLEEVE
SO	STUBOUT
SPC	STATE PLANE COORDINATES
SPEC(S)	SPECIFICATION(S)
SQ	SQUARE
SQ FT	SQUARE FOOT (FEET)
SQ YD	SQUARE YARD
SR	SAMPLE RETURN
SRM	SINGLE RESIDENTIAL MAIN
SS	SANITARY SEWER
ST	STREET
STA	STATION
STD	STANDARD
STIR	STIRRUP
STL	STEEL
STLT	STREET LIGHT
SST	STAINLESS STEEL
SUPPL	SUPPLEMENT
SUR	SURVEY
SV	SOLENOID VALVE
SW	SIDEWALK OR SOUTHWEST
SY	SQUARE YARD
SYM	SYMBOL
SYMM	SYMMETRICAL
SYS	SYSTEM

- T -

t	THICKNESS OF WELD
T	TELEPHONE/TANGENT
T&B	TOP & BOTTOM
T&G	TONGUE AND GROOVE
TAN	TANGENT
TBE	THREAD BOTH ENDS
TBM	TEMPORARY BENCH MARK
TC	TOP OF CURB
TD	TRENCH DRAIN
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPORARY
THK	THICK(NESS)
THR BLK	THRUST BLOCK
THRD	THREADED
TK	TANK
TMH	TOP OF MANHOLE
TOE	THREAD ONE END
TOF	TOP OF FOOTING
TOG	TOGETHER

- T - (CONT.)

TOGR	TOP OF GRATE
TOP	TOP OF PIPE
TOR	TOP OF RIM
TOS	TOP OF SLAB
TOSTL	TOP OF STEEL
TOSW	TOP OF SIDEWALK
TOT	TOTAL
TOW	TOP OF WALL
TP	TELEPHONE POLE/TOP OF PIPE
TR	TRAIL OR TRACK/TOP OF RIM
TRANS	TRANSITION/TRANSMISSION
(TYP)	TYPICAL

- U -

UDOT	UTAH DEPARTMENT OF TRANSPORTATION
UE	UNDERGROUND ELECTRIC
UFC	UNIFORM FIRE CODE
UG	UNDERGROUND
UGC	UNDERGROUND CONDUIT
UGP	UNDERGROUND POWER
UGT	UNDERGROUND TELEPHONE
UL	UNDERWRITERS LABORATORIES
UNC	AMERICAN STANDARD UNIFIED COARSE THREAD
UNF	AMERICAN STANDARD UNIFIED FINE THREAD
UNIV	UNIVERSAL
UNO	UNLESS NOTED OTHERWISE
UPC	UNIFORM PLUMBING CODE
UPRR	UNION PACIFIC RAILROAD
USGS	UNITED STATES GEODETIC SURVEY
UTIL	UTILITIES

- V -

V	VOLT OR VALVE
VAC	VACUUM
VAR	VARIES
VB	VALVE BOX
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VEL	VELOCITY
VENT	VENTILATOR
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VG	VALLEY GUTTER
VHF	VERY HIGH FREQUENCY
VIB	VIBRATION
VIN	VINYL
VISC	VISCOSITY
VOL	VOLUME
VPI	VERTICAL POINT OF INTERSECTION
VS	VALVE SHEET
VT	VENT

- W -

W/	WITH
W	WEST/WATER
W/O	WITHOUT
WD	WIDTH
WDN	WASTE DRAIN
WF	WIDE FLANGE
WH	WALL HYDRANT
WI	WROUGHT IRON
WL	WASTE LINE
WLD	WELDED
WM	WATER METER
WP	WORK POINT/WEATHER PROOF
WS	WATER SURFACE
WSP	WELDED STEEL PIPE
WSTP	WATER STOP
WT	WEIGHT
WTR	WATER
WV	WATER VALVE
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

- X -

XARM	CROSS ARM
XFMR	TRANSFORMER
XFR	TRANSFER
XSEC	CROSS SECTION

- Y -

YD	YARD
YH	YARD HYDRANT
YLD	YIELD

Brown AND Caldwell

PROFESSIONAL ENGINEER
No. 8807408
JACOB C. HIMEBAUGH
6/1/22
STATE OF UTAH

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: J. HIMEBAUGH
DRAWN: T. DIMICELI
CHECKED:
CHECKED:
APPROVED: J. HIMEBAUGH

FILENAME
G-00-003.dwg

BC PROJECT NUMBER
157012

CLIENT PROJECT NUMBER
4277

GENERAL

ABBREVIATIONS

DRAWING NUMBER
G-00-003

SHEET NUMBER 3 OF 48

Path: C:\BCPW\D1868242 FILENAME: G-00-003.DWG PLOT DATE: 6/1/2022 2:04 PM CAD USER: RUSSELL PERSHING

GENERAL NOTES:

1. THE CONTRACTOR SHALL STAGE AND STORE ALL MATERIAL AND EQUIPMENT IN THE DESIGNATED STAGING AREAS.
2. ACCESS TO SITE SHALL BE THROUGH THE SOUTH ENTRANCE DESIGNATED ON THIS DRAWING. ALL DELIVERIES SHALL BE VIA THIS ENTRANCE.
3. VERIFY LOCATION OF RAW WATER INFLUENT PIPE PRIOR TO STAGING AND ARRIVAL OF EQUIPMENT AND VEHICLES. LOCATION OF PIPE SHOWN ON THIS DRAWING MAY DIFFER THAN ACTUAL LOCATION.
4. PROTECT RAW WATER INFLUENT PIPE AT CROSSINGS WITH THE ACCESS ROAD. LIMIT TRAFFIC TO H-20 RATED LOADINGS OR LESS. WHEN CROSSING WITH ANYTHING HEAVIER, PROTECT THE CROSSING WITH A BRIDGE (E.G. STEEL PLATES) TO DISTRIBUTE LOAD.
5. DO NOT STAGE EQUIPMENT WITHIN 25 FEET OF RAW WATER INFLUENT PIPE CENTERLINE.

KEY NOTES:

1. STAGING AND CONTRACTOR PARKING AREA
2. SOUTH PLANT ENTRANCE
3. 90" RAW WATER INFLUENT PIPE

BUILDING INDEX:

A. FILTER BUILDING
B. CHEMICAL/CONTROLS BUILDING
C. SEDIMENTATION BASIN 1
D. SEDIMENTATION BASIN 2
E. SEDIMENTATION BASIN 3
F. SEDIMENTATION BASIN 4
G. SEDIMENTATION BASIN 5
H. SEDIMENTATION BASIN 6

PLAN NORTH

Brown AND Caldwell

REGISTERED PROFESSIONAL ENGINEER
No. 8807408
JACOB C. HIMEBAUGH
6/1/22
STATE OF UTAH

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: J. HIMEBAUGH
DRAWN: T. DIMICELI
CHECKED:
CHECKED:
APPROVED: J. HIMEBAUGH
FILENAME G-00-004.dwg
BC PROJECT NUMBER 157012
CLIENT PROJECT NUMBER 4277

GENERAL

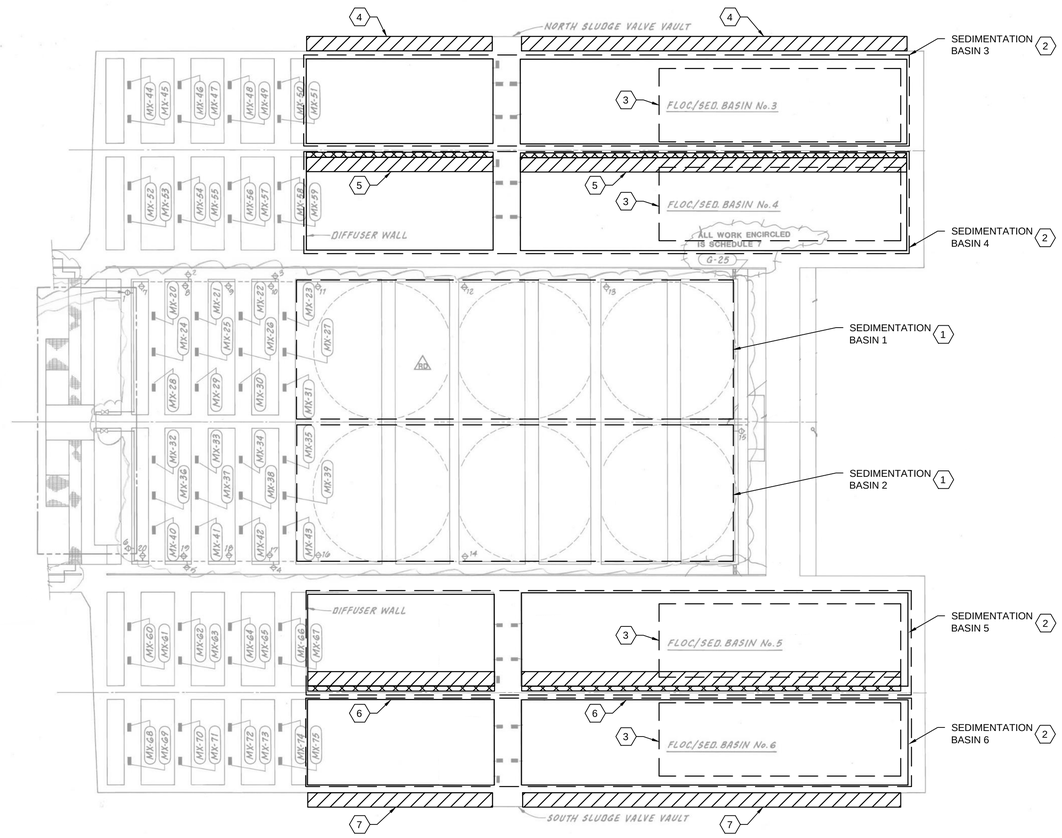
SITE LAYOUT AND STAGING AREA

DRAWING NUMBER
G-00-004

SHEET NUMBER 4 OF 48

Path: C:\BCPWD\1868242 FILENAME: G-00-004.DWG PLOT DATE: 6/17/2022 9:13 AM CAD USER: TONY DIMICELI

PLAN NORTH



FLOCCULATION-SEDIMENTATION BASIN OVERVIEW PLAN

GENERAL NOTES:

1. REFER TO DRAWINGS AND INSTALLATION INSTRUCTIONS PROVIDED BY EACH MANUFACTURER DURING THE SUBMITTAL PROCESS FOR ALL INFORMATION REQUIRED FOR INSTALLATION OF THE CHAIN AND FLIGHT AND PLATE SETTLER EQUIPMENT.
2. ALL ANCHORS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION 01 73 24 AND SECTION 05 05 20. INSTALLATION SHALL BE IN ACCORDANCE WITH BOTH THE EQUIPMENT MANUFACTURER'S AND EPOXY SYSTEM MANUFACTURER'S INSTRUCTIONS.
3. PROPER CARE SHALL BE TAKEN TO PREVENT CONTAMINATION OF STAINLESS STEEL COMPONENTS WITH FREE IRON. FOLLOW ALL RECOMMENDATIONS PROVIDED IN PARAGRAPH 8 OF ASTM A380.
4. CONTRACTOR SHALL ALERT ENGINEER OF ANY BLOOMING OR EVIDENCE OF RUST FOUND ON STAINLESS STEEL COMPONENTS SUPPLIED BY THE MANUFACTURER PRIOR TO INSTALLATION. ANY BLOOMING OR EVIDENCE OF RUST FOUND AFTER INSTALLATION SHALL BE CLEANED AND TESTED BY MANUFACTURER IN ACCORDANCE WITH ASTM A380.
5. REFER TO WORK SEQUENCE SPECIFICATION (SECTION 01 12 16) FOR INFORMATION ON WORK RESTRICTIONS AND CONSTRUCTION SEQUENCING.
6. THIS SHEET REFERS TO GENERAL ASPECTS OF THE WORK CONTAINED IN THIS PROJECT TO PROVIDE CLARIFICATION TO THE DRAWING PACKAGE. IT IS NOT CONSIDERED A COMPLETE LIST OF THE WORK PERFORMED FOR THIS PROJECT. REFER TO ALL VOLUMES OF THE CONTRACT DOCUMENTS FOR A COMPLETE OVERVIEW OF THE WORK.

KEY NOTES:

1. PERFORM WORK ON THE THREE CIRCULAR SOLIDS REMOVAL MECHANISMS IN EACH BASIN (BASIN 1 AND BASIN 2).
2. INSTALL THE CHAIN AND FLIGHT SOLIDS COLLECTION EQUIPMENT IN THE FORE AND AFT BAY OF BASIN 3 THROUGH BASIN 6. REFER TO VOLUME IV OF IV FOR FURTHER INFORMATION.
3. PROVIDE AND INSTALL INCLINED PLATE SEDIMENTAITON EQUIPMENT IN BASIN 3 THORUGH BASIN 6. REFER TO SECTION 43 73 76 FOR FURTHER INFORMATION.
4. PERFORM STRUCTURAL MODIFICATIONS ON EXTERIOR WALL OF BASIN 3 AS DISCUSSED IN THE CONTRACT DOCUMENTS.
5. PERFORM STRUCTURAL MODIFICATIONS ON THE NORTH (PLAN NORTH) WALL OF BASIN 4 AS INSTRUCTED IN THE CONTRACT DOCUMENTS.
6. PERFORM STRUCTURAL MODIFICATIONS ON THE SOUTH (PLAN SOUTH) WALL OF BASIN 5 AS INSTRUCTED IN THE CONTRACT DOCUMENTS
7. PERFORM STRUCTURAL MODIFICATIONS ON THE EXTERIOR WALL OF BASIN 6 AS INSTRUCTED IN THE CONTRACT DOCUMENTS.

Brown AND Caldwell

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: J. HIMEBAUGH
DRAWN: T. DIMICELI
CHECKED:
CHECKED:
APPROVED: J. HIMEBAUGH
FILENAME G-01-005.dwg
BC PROJECT NUMBER 157012
CLIENT PROJECT NUMBER 4277

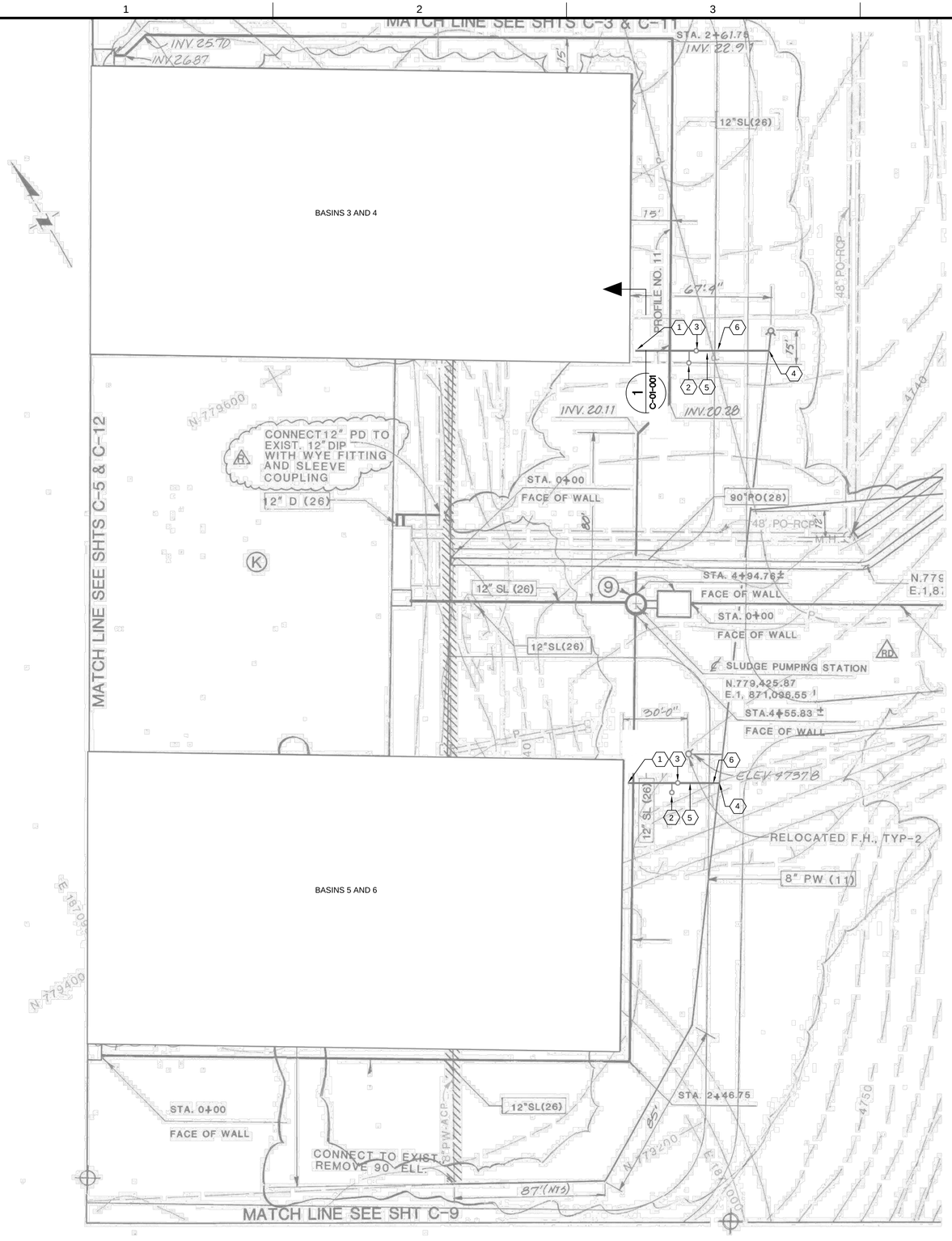
GENERAL

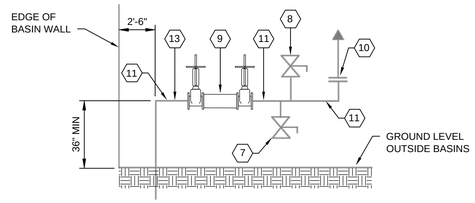
GENERAL JVWTP BASIN LAYOUT

DRAWING NUMBER
G-01-005

SHEET NUMBER 5 OF 48

Path: C:\BCPW\D1868242 FILENAME: G-01-005.DWG PLOT DATE: 6/17/2022 4:23 PM CAD USER: TONY DIMICELI





SECTION 1 (12)
RPZ BACKFLOW PREVENTER DETAIL

GENERAL NOTES:

1. ALL ANCHORS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION 01 73 24 AND SECTION 05 05 20. INSTALLATION SHALL BE IN ACCORDANCE WITH BOTH THE EQUIPMENT MANUFACTURER'S AND EPOXY SYSTEM MANUFACTURER'S INSTRUCTIONS.

KEY NOTES:

1. PROVIDE BACKFLOW PREVENTER LAYOUT IN ACCORDANCE WITH THE DETAIL PROVIDED ON THIS DRAWING.
2. PROVIDE A 1" BRASS CURB STOP VALVE TO DRAIN THE PIPING BETWEEN THE BACKFLOW PREVENTER AND THE ISOLATION VALVE MARKED AS KEYNOTE 3. INSTALL BELOW THE LOCAL FROST LINE OF 30" OR AT OR BELOW THE INVERT ELEVATION OF THE NEW 4" DUCTILE IRON PIPE. PROVIDE A CURB BOX AND OPERATOR KEY OF SUFFICIENT LENGTH TO ACCESS THE OPERATOR NUT ON THE VALVE FROM THE SURFACE.
3. PROVIDE A 4" FLANGED AWWA 509 GATE VALVE (CLOW F-6102, AMERICAN AVK SERIES 25 OR EQUAL) IN LOCATION SHOWN. INSTALL BELOW THE LOCAL FROST LINE OF 30". PROVIDE AN EXTENSION STEM, VALVE BOX AND AWWA STANDARD 2-INCH SQUARE NUT OPERATOR WITHIN SIX INCHES OF THE VALVE BOX COVER. INSTALL VALVE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. PROTECT VALVE WITH SHRINK SLEEVE OR POLYETHYLENE SHEATH ATTACHED TO THE PIPE WITH TAPE WRAP. POSITION APPROXIMATELY 35' FROM BASIN WALL.
4. CUT EXISTING PIPE TO INSTALL A FLANGED 8"x8"x4" REDUCING TEE UP STREAM OF THE SHUT-OFF VALVE OF THE HYDRANT AS TO NOT INTERFERE WITH ITS OPERATION OR VALVE BOX. INSTALL TEE BETWEEN TWO US PIPE TR FLEX FLANGE CONNECTION PIECES. PROVIDE THRUST BLOCK ON BACK DESIGNED TO RESIST 150 PSI HYDROSTATIC PRESSURE. PROVIDE A SUBMITTAL WITH DETAILED DESIGN OF THE THRUST BLOCK PRIOR TO INSTALLATION.
5. USE DUCTILE IRON PIPE (250 PSI PRESSURE RATING MINIMUM) WITH US PIPE TR FLEX RESTRAINED JOINT PIPE. USE FLANGED CONNECTIONS FOR ABOVE GROUND PIPING. USE NON-CORROSIVE, HIGH STRENGTH, 316 STAINLESS STEEL FASTENERS FOR ALL BURIED CONNECTIONS. USE ASTM A193 GRADE B7 BOLTS AND ASTM A194 GRADE 2H HEAVY HEX NUTS FOR ALL ABOVE GROUND PIPING. COAT PIPE AND FASTENERS WITH AN NSF-61 CERTIFIED COATING SUCH AS TNEMIC SERIES 22 OR EQUAL.
6. SAW CUT ASPHALT PRIOR TO REMOVING. AFTER REFILLING T-TRENCH, SAW CUT ASPHALT AROUND ANY DAMAGED EDGES BEFORE PATCHING. PATCH AREA WITH ASPHALT OF SAME GRADE AND THICKNESS AS EXISTING.
7. PROVIDE A 2" SCH 80 GALVANIZED STEEL DRAIN WITH A BRASS BODIED BALL VALVE. CONNECT DRAIN TO UNDERSIDE OF PIPE USING A THREADED CONNECTION.
8. PROVIDE A 1/2" SCHEDULE 80 GALVANIZED STEEL CONNECTION FOR AIR PURGING DURING WINTERIZATION WITH A BRASS BODIED BALL VALVE. CONNECT VENT TO TOP OF PIPE USING A THREADED CONNECTION.
9. PROVIDE 4" NSF 61 COMPLIANT REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTER (WATT SERIES 994 OR EQUAL) SUITABLE FOR OUTDOOR INSTALLATION.
10. TRANSITION FROM DUCTILE IRON PIPE TO CPVC AT THIS LOCATION. SEE DRAWING M-01-001 FOR A CONTINUATION OF THE PIPING. REDUCE FROM 4" TO 3" IN CPVC AFTER FLANGE.
11. MOUNT 316 SS WALL BRACKET (UNISTRUT TYP P2945 OR EQUAL) AT LOCATIONS SHOWN USING TWO 316 SS ANCHORS AND HARDWARE. ATTACH PIPE TO BRACKET USING A 316 SS PIPE CLAMP (UNISTRUT TYPE P1119 OR EQUAL).
12. DETAIL SHOWS RPZ FOR BASINS 3 AND 4. RPZ FOR BASINS 5 AND 6 IS A MIRROR IMAGE OF THAT SHOWN IN THE DETAIL.
13. PROVIDE A 4" NSF 61 COMPLIANT PRESSURE REDUCING VALVE (WATTS SERIES LFF127W OR EQUAL) SUITABLE FOR OUTDOOR INSTALLATION.

Brown AND Caldwell

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: J. HIMEBAUGH
DRAWN: T. DIMICELI
CHECKED:
CHECKED:
APPROVED: J. HIMEBAUGH

FILENAME
C-01-001.dwg

BC PROJECT NUMBER
157012

CLIENT PROJECT NUMBER
4277

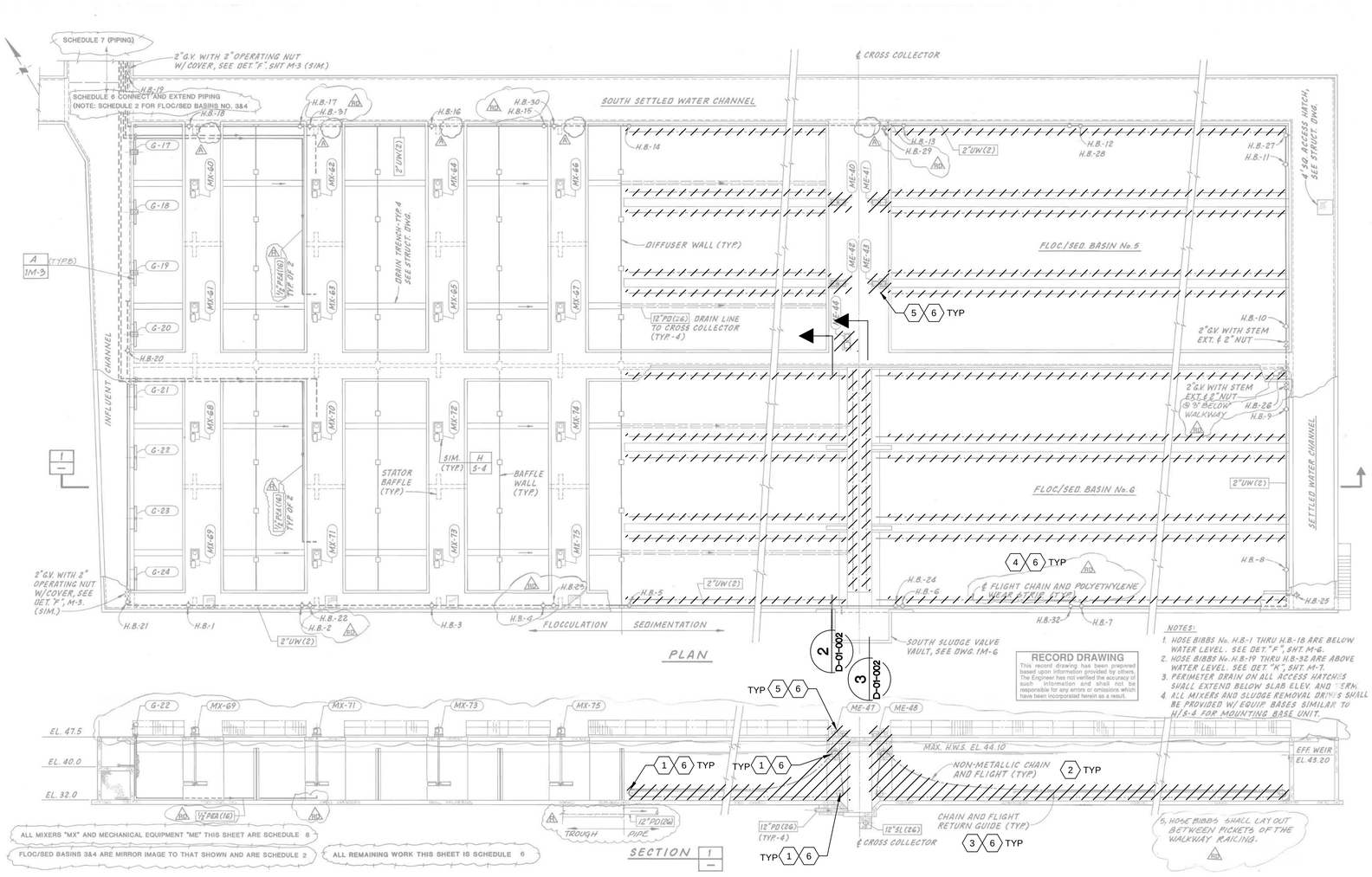
CIVIL

CIVIL YARD PIPING

DRAWING NUMBER
C-01-001

SHEET NUMBER 6 OF 48

PLAN NORTH



GENERAL NOTES:

1. DEMOLITION WORK SHALL BE SEQUENCED AND COMPLETED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
2. CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO DEMOLITION.
3. CONTRACTOR TO VERIFY WITH OWNER EQUIPMENT TO BE SALVAGED.
4. PERFORM DEMOLITION OF THE CHAIN AND FLIGHT EQUIPMENT IN SEDIMENTATION BASIN 3 AND 4 AS DEFINED ON THIS DRAWING FOR SEDIMENTATION BASIN 5 AND 6. LAYOUT OF SEDIMENTATION BASIN 3 AND 4 IS A MIRROR IMAGE OF SEDIMENTATION BASIN 5 AND 6 SHOWN ON THIS DRAWING.
5. REFER TO THE STRUCTURAL DRAWINGS FOR INFORMATION ON DEMOLITION OF SELECT CURB WALLS, CORBELS AND SHORT WALLS IN THE BASIN.

KEY NOTES:

1. REMOVE SHAFT, SPROCKETS AND BEARINGS FROM WALL (TYP OF THREE PER MECHANISM).
2. REMOVE ALL CARRIER CHAIN AND FLIGHTS PER EACH MECHANISM (SEVEN MECHANISMS PER BASIN)
3. REMOVE RETURN RAIL, RAIL SUPPORTS AND WEAR STRIPS. (TWO SETS PER MECHANISM).
4. REMOVE WEAR STRIPS AND FASTENERS FROM BASIN FLOOR (TWO SETS PER MECHANISM).
5. REMOVE ALL CHAIN AND FLIGHT EQUIPMENT ABOVE DECK (HOUSING, MOTOR, GEARBOX ASSEMBLY, DRIVE CHAIN, ETC.)(FIVE ASSEMBLIES PER BASIN)
6. CUT ALL REMAINING ANCHORAGE BACK A MINIMUM OF 1/4" INTO THE CONCRETE BEFORE FILLING THE OPENINGS WITH SIKADUR 31 (OR EQUAL).

Brown AND Caldwell

STATE OF UTAH — REGISTERED PROFESSIONAL ENGINEER
No. 8807408
JACOB C. HIMEBAUGH
6/1/22

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: J. HIMEBAUGH
DRAWN: T. DIMICELI
CHECKED:
CHECKED:
APPROVED: J. HIMEBAUGH

FILENAME
D-01-001.dwg

BC PROJECT NUMBER
157012

CLIENT PROJECT NUMBER
4277

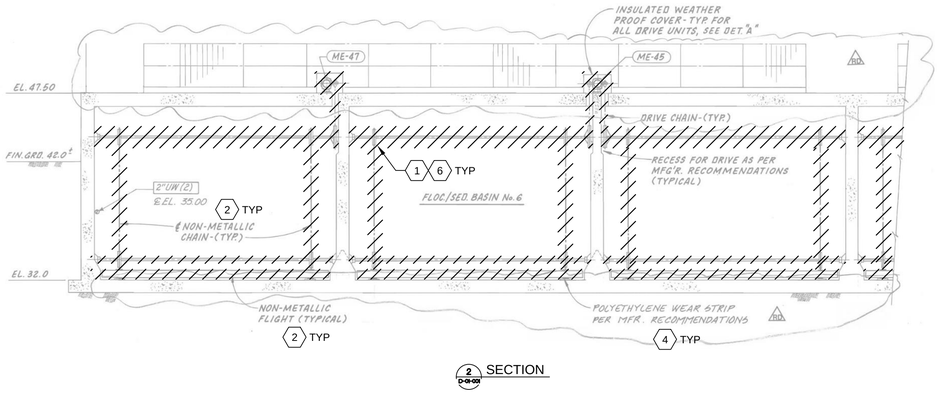
PROCESS DEMOLITION

CHAIN AND FLIGHT DEMOLITION - PLAN AND SECTIONS 1

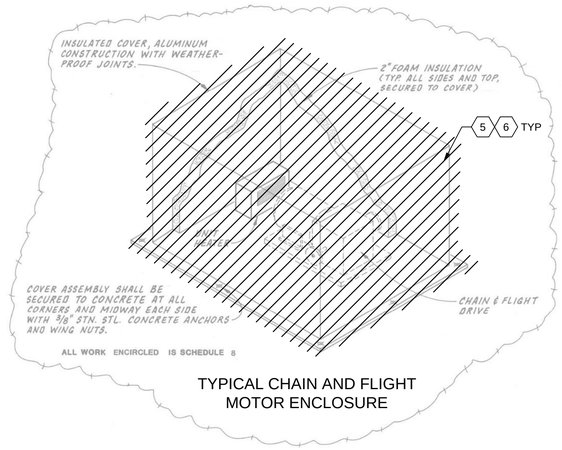
DRAWING NUMBER
D-01-001

SHEET NUMBER 7 OF 48

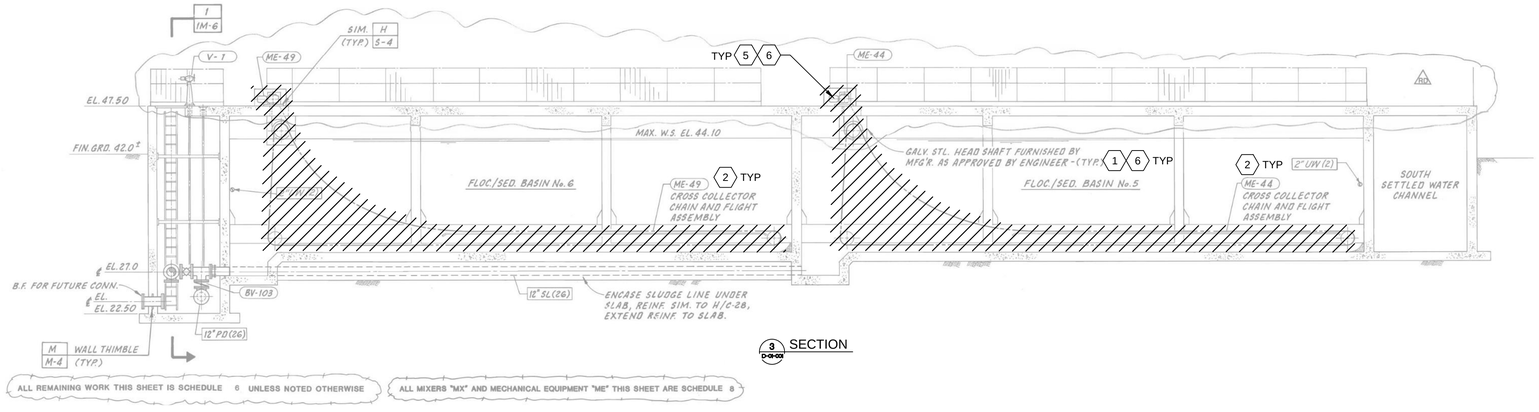
Path: C:\BCPWD2350231 FILENAME: D-01-001.DWG PLOT DATE: 6/17/2022 9:01 AM CAD USER: TONY DIMICELI



2 SECTION
D-01-02



TYPICAL CHAIN AND FLIGHT MOTOR ENCLOSURE



3 SECTION
D-01-02

ALL REMAINING WORK THIS SHEET IS SCHEDULE 6 UNLESS NOTED OTHERWISE

ALL MIXERS "MX" AND MECHANICAL EQUIPMENT "ME" THIS SHEET ARE SCHEDULE 8

GENERAL NOTES:

1. DEMOLITION WORK SHALL BE SEQUENCED AND COMPLETED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
2. CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO DEMOLITION.
3. CONTRACTOR TO VERIFY WITH OWNER EQUIPMENT TO BE SALVAGED.
4. PERFORM DEMOLITION OF THE CHAIN AND FLIGHT EQUIPMENT IN SEDIMENTATION BASIN 3 AND 4 AS DEFINED ON THIS DRAWING FOR SEDIMENTATION BASIN 5 AND 6. LAYOUT OF SEDIMENTATION BASIN 3 AND 4 IS A MIRROR IMAGE OF SEDIMENTATION BASIN 5 AND 6 SHOWN ON THIS DRAWING.
5. REFER TO THE STRUCTURAL DRAWINGS FOR INFORMATION ON DEMOLITION OF SELECT CURB WALLS, CORBELS AND SHORT WALLS IN THE BASIN.

KEY NOTES:

1. REMOVE SHAFT, SPROCKETS AND BEARINGS FROM WALL (TYP OF THREE PER MECHANISM).
2. REMOVE ALL CARRIER CHAIN AND FLIGHTS PER EACH MECHANISM (SEVEN MECHANISMS PER BASIN)
3. REMOVE RETURN RAIL, RAIL SUPPORTS AND WEAR STRIPS. (TWO SETS PER MECHANISM).
4. REMOVE WEAR STRIPS AND FASTENERS FROM BASIN FLOOR (TWO SETS PER MECHANISM).
5. REMOVE ALL CHAIN AND FLIGHT EQUIPMENT ABOVE DECK (HOUSING, MOTOR, GEARBOX ASSEMBLY, DRIVE CHAIN, ETC.) (FIVE ASSEMBLIES PER BASIN)
6. CUT ALL REMAINING ANCHORAGE BACK A MINIMUM OF 1/4" INTO THE CONCRETE BEFORE FILLING THE OPENINGS WITH SIKADUR 31 (OR EQUAL).

Brown AND Caldwell

REGISTERED PROFESSIONAL ENGINEER
No. 8807408
JACOB C. HIMEBAUGH
6/1/22
STATE OF UTAH

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED:	J. HIMEBAUGH
DRAWN:	T. DIMICELI
CHECKED:	
CHECKED:	
APPROVED:	J. HIMEBAUGH

FILENAME
D-01-002.dwg

BC PROJECT NUMBER
157012

CLIENT PROJECT NUMBER
4277

PROCESS DEMOLITION

CHAIN AND FLIGHT DEMOLITION - PLAN AND SECTIONS 2

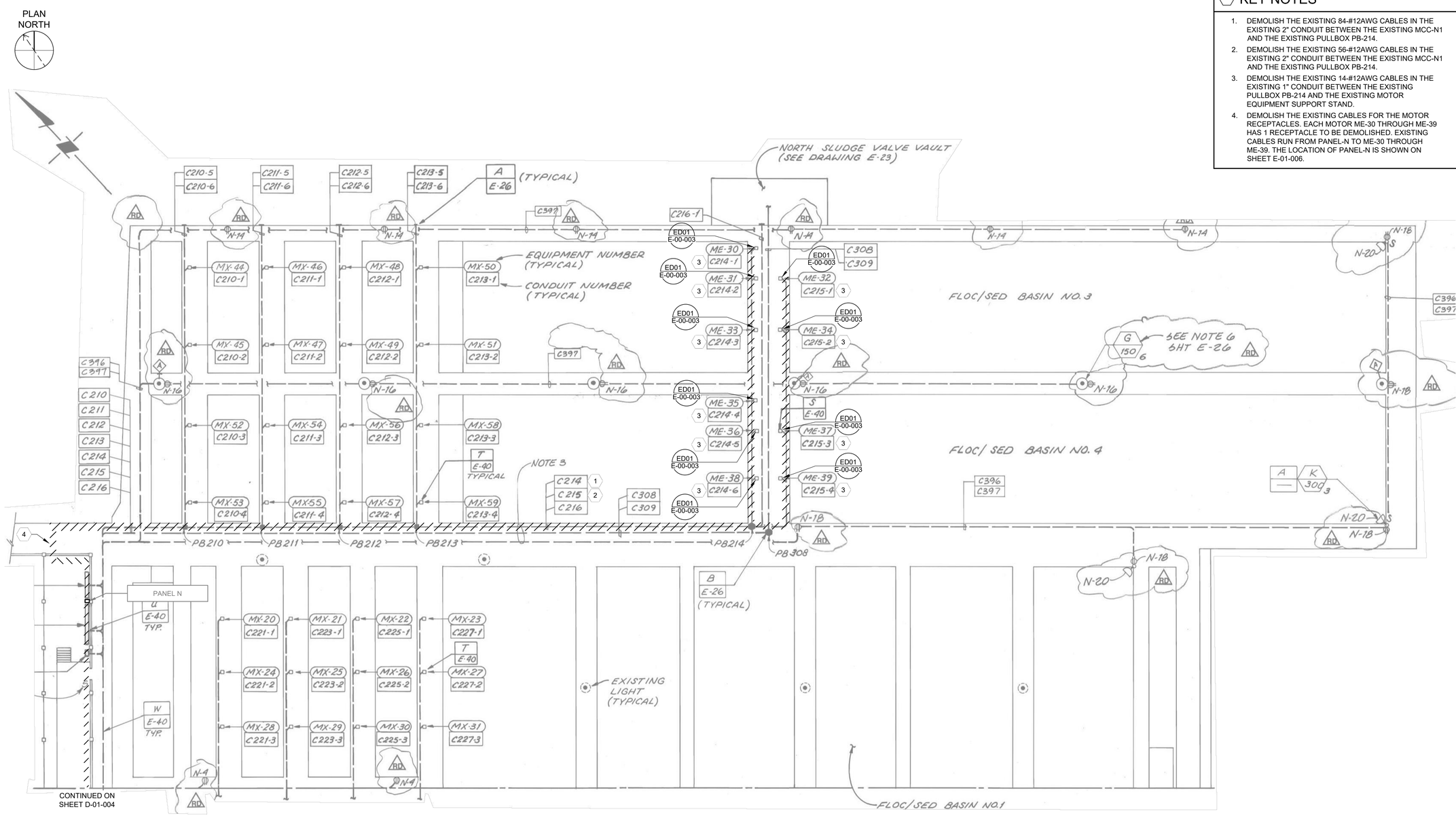
DRAWING NUMBER
D-01-002

SHEET NUMBER 8 OF 48

Path: C:\BCPW\D2350231 FILENAME: D-01-002.DWG PLOT DATE: 6/17/2022 9:08 AM CAD USER: TONY DIMICELI

KEY NOTES

1. DEMOLISH THE EXISTING 84-#12AWG CABLES IN THE EXISTING 2" CONDUIT BETWEEN THE EXISTING MCC-N1 AND THE EXISTING PULLBOX PB-214.
2. DEMOLISH THE EXISTING 56-#12AWG CABLES IN THE EXISTING 2" CONDUIT BETWEEN THE EXISTING MCC-N1 AND THE EXISTING PULLBOX PB-214.
3. DEMOLISH THE EXISTING 14-#12AWG CABLES IN THE EXISTING 1" CONDUIT BETWEEN THE EXISTING PULLBOX PB-214 AND THE EXISTING MOTOR EQUIPMENT SUPPORT STAND.
4. DEMOLISH THE EXISTING CABLES FOR THE MOTOR RECEPTACLES. EACH MOTOR ME-30 THROUGH ME-39 HAS 1 RECEPTACLE TO BE DEMOLISHED. EXISTING CABLES RUN FROM PANEL-N TO ME-30 THROUGH ME-39. THE LOCATION OF PANEL-N IS SHOWN ON SHEET E-01-006.



SEDIMENTATION BASINS 3 AND 4 DEMOLITION PLAN

SCALE: 1" = 20'-0"

0 20 40

SCALE IN FEET

Brown AND Caldwell

OREGON PROFESSIONAL ENGINEER
No. 123551PE 2007
DAVID IDDO STAR
6/2/22
STATE OF UTAH

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: N. ANDERSON
DRAWN: B. PENALBA
CHECKED: J. HIMEBAUGH
CHECKED: D. STAR
APPROVED: D. STAR

FILENAME
D-01-003.dwg

BC PROJECT NUMBER
157012

CLIENT PROJECT NUMBER
4277

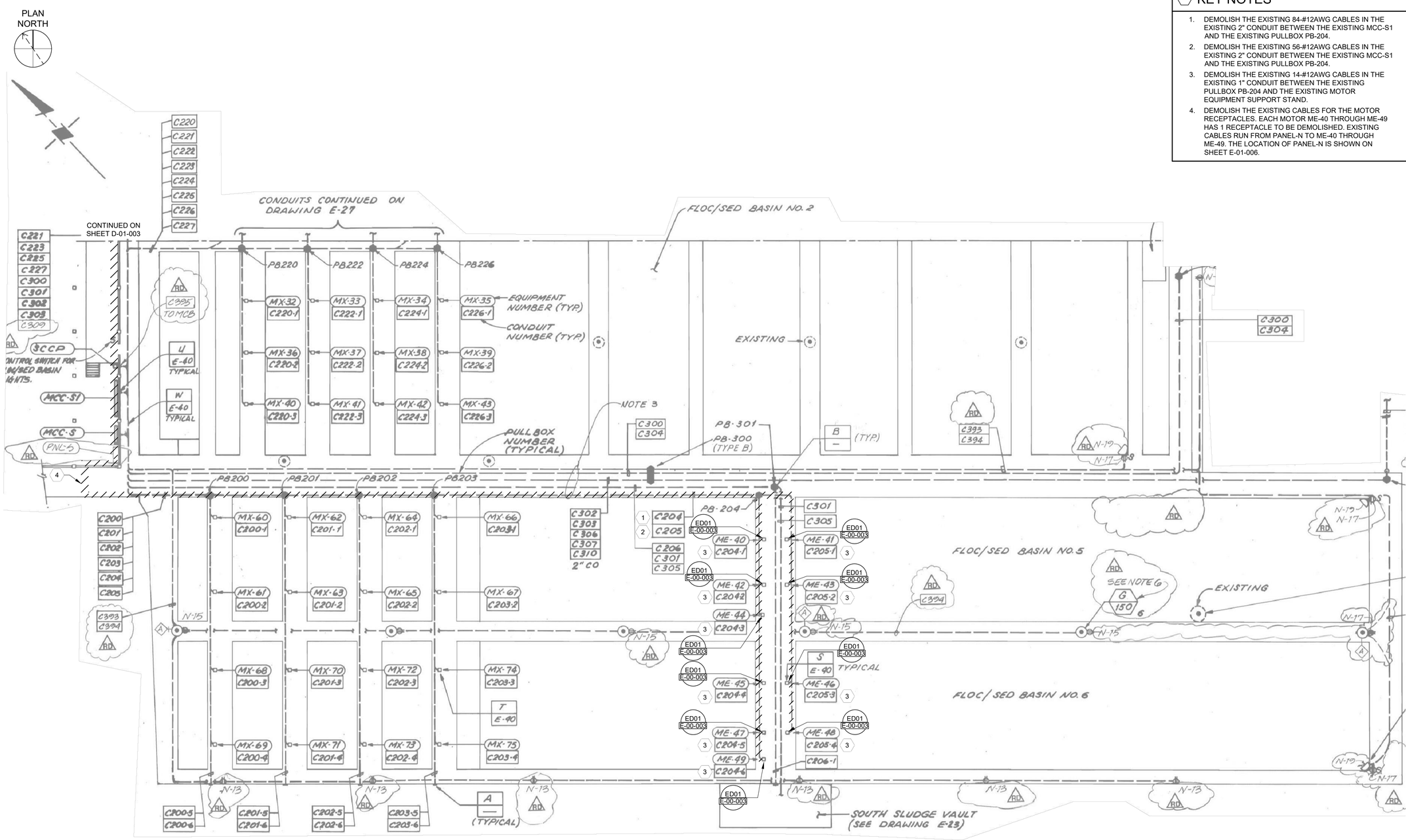
ELECTRICAL DEMOLITION

SEDIMENTATION BASINS 3 AND 4 DEMOLITION

DRAWING NUMBER
D-01-003

SHEET NUMBER 9 OF 48

Path: C:\BCPWD2350231 FILENAME: D-01-003.DWG PLOT DATE: 6/2/2022 4:16 PM CAD USER: NATE ANDERSON



SEDIMENTATION BASINS 5 AND 6 DEMOLITION PLAN

SCALE: 1" = 20'-0"

KEY NOTES

1. DEMOLISH THE EXISTING 84-#12AWG CABLES IN THE EXISTING 2" CONDUIT BETWEEN THE EXISTING MCC-S1 AND THE EXISTING PULLBOX PB-204.
2. DEMOLISH THE EXISTING 56-#12AWG CABLES IN THE EXISTING 2" CONDUIT BETWEEN THE EXISTING MCC-S1 AND THE EXISTING PULLBOX PB-204.
3. DEMOLISH THE EXISTING 14-#12AWG CABLES IN THE EXISTING 1" CONDUIT BETWEEN THE EXISTING PULLBOX PB-204 AND THE EXISTING MOTOR EQUIPMENT SUPPORT STAND.
4. DEMOLISH THE EXISTING CABLES FOR THE MOTOR RECEPTACLES. EACH MOTOR ME-40 THROUGH ME-49 HAS 1 RECEPTACLE TO BE DEMOLISHED. EXISTING CABLES RUN FROM PANEL-N TO ME-40 THROUGH ME-49. THE LOCATION OF PANEL-N IS SHOWN ON SHEET E-01-006.

Brown AND Caldwell

DAVID IDDO STAR
No. 125355 - 2202
PROFESSIONAL ENGINEER
STATE OF UTAH
6/2/22

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: N. ANDERSON
DRAWN: B. PENALBA
CHECKED: J. HIMEBAUGH
CHECKED: D. STAR
APPROVED: D. STAR

FILENAME
D-01-004.dwg
BC PROJECT NUMBER
157012
CLIENT PROJECT NUMBER
4277

ELECTRICAL DEMOLITION

SEDIMENTATION BASINS 5 AND 6 DEMOLITION

DRAWING NUMBER
D-01-004

SHEET NUMBER 10 OF 48

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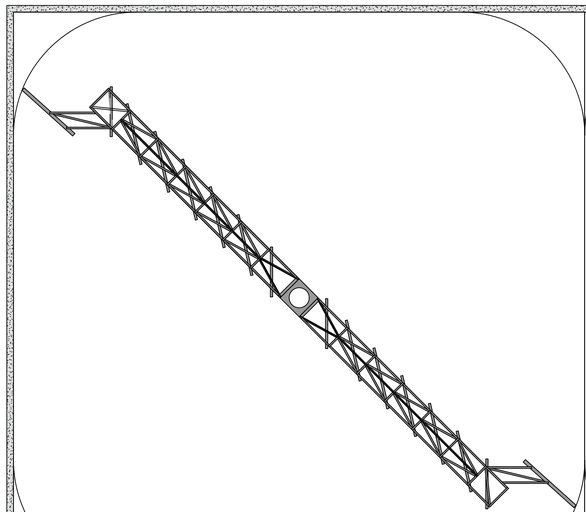
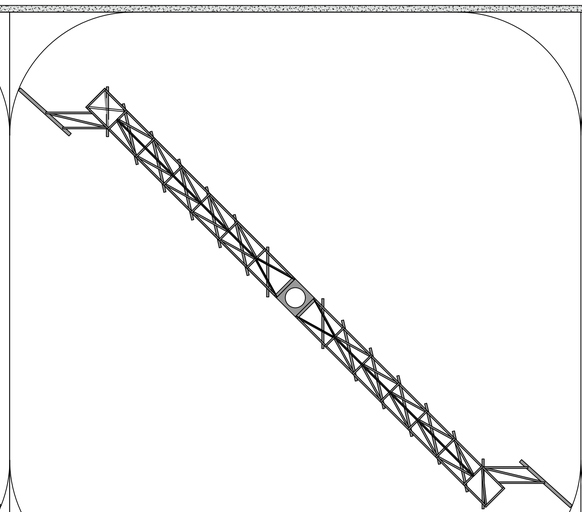
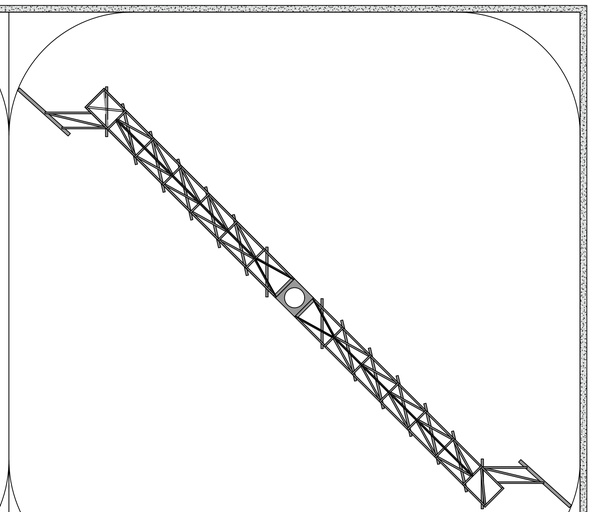
PLAN NORTH



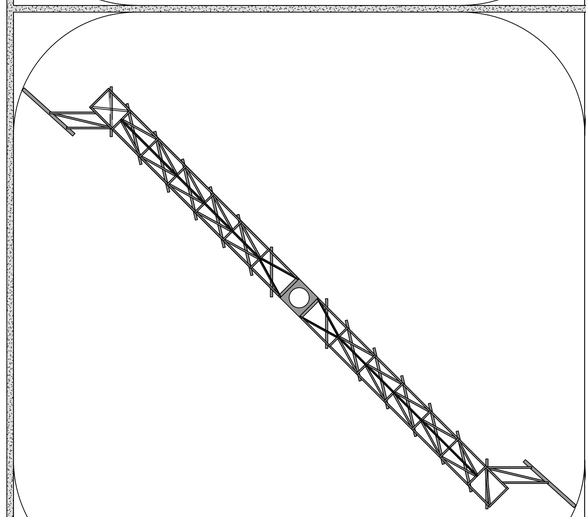
SEDIMENTATION BASIN 1
WEST MECHANISM
S-01-003



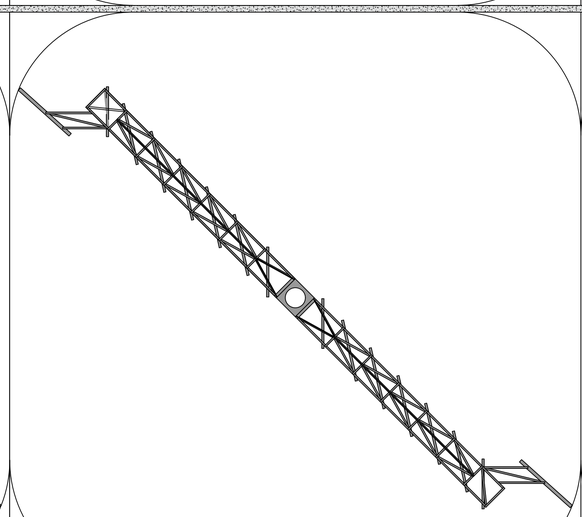
SEDIMENTATION BASIN 1
CENTER MECHANISM
S-01-003



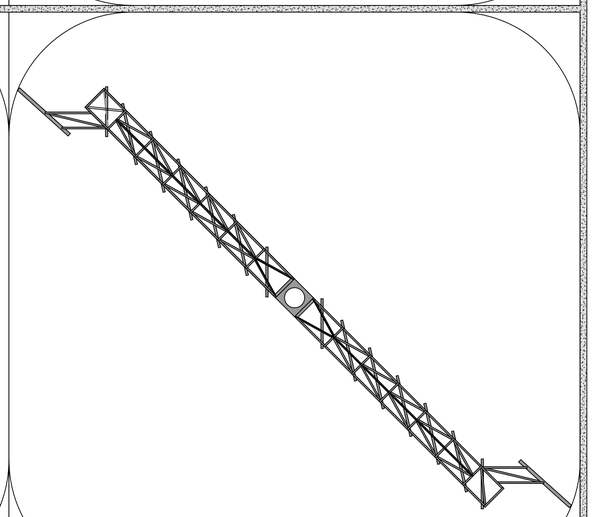
SEDIMENTATION BASIN 1
EAST MECHANISM
S-01-004



SEDIMENTATION BASIN 2
WEST MECHANISM
S-01-004



SEDIMENTATION BASIN 2
CENTER MECHANISM
S-01-005



SEDIMENTATION BASIN 2
EAST MECHANISM
S-01-005

GENERAL NOTES:

1. ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF AWS D1.1. CONTRACTOR SHALL SUBMIT WELD PROCEDURE SPECIFICATIONS, PROCEDURE QUALIFICATION RECORDS AND WELDER CERTIFICATION RECORDS AS PART OF THE SUBMITTAL PROCESS.
2. AREAS OF DAMAGED COATING ON RAKE ARMS IN EXCESS OF FOUR INCHES SQUARED (2IN X 2IN) SHALL BE MARKED FOR RECOATING. INCLUDE (20) TWENTY AREAS PER MECHANISM FOR A TOTAL OF 80 INCHES SQUARED PER MECHANISM AS PART OF THE WORK INCLUDED IN THE BID. CONTRACTOR SHALL ALLOW ENGINEER TO INSPECT MARKED LOCATIONS AND RECOMMEND ANY ADDITIONAL AREAS FOR RECOATING PRIOR TO PERFORMING COATING REPAIRS.
3. COAT ALL AREAS MARKED FOR REPAIR AND ALL STRUCTURAL MEMBERS ADDED DURING THE WORK AS FOLLOWS:
   A. REMOVE DAMAGED COATING IN AFFECTED AREA IN ACCORDANCE WITH SSPC-SP 2 OR SSPC-SP 3.
   B. REMOVAL SHALL EXTEND BEYOND DAMAGED AREA OR NEW WELDS TO ENSURE NO LOOSE OR UNADHERED COATING EXISTS AROUND THE PERIMETER OF THE EFFECTED AREA.
   C. EXISTING COATING SHALL BE FEATHERED (TAPERED) BEYOND THE AFFECTED AREA OVER APPROXIMATELY TWO INCHES TO ENSURE A SMOOTH TRANSITION BETWEEN EXISTING AND THE AFFECTED AREA. NO SHARP EDGES SHALL EXIST OVER THE TRANSITION.
   D. COATING SHALL BE AN EPOXY COATING MEETING THE REQUIREMENTS PROVIDED IN AWWA C210. COATING SHALL BE NSF-61 CERTIFIED AND DESIGNED FOR IMMERSIVE SERVICE SUCH AS TNEMIC SERIES 22 OR EQUAL.
   E. RECOATING SHALL BE PERFORMED IN ACCORDANCE WITH AWWA C210 AND MANUFACTURER'S INSTRUCTIONS.
   F. FINAL DRY FILM THICKNESS (DFT) SHALL BE NO LESS THAN 16 MILS. FINAL DFT MAY REQUIRE MULTIPLE COATS AS EACH COAT SHALL NOT EXCEED THE MAXIMUM DFT DEFINED BY THE MANUFACTURER.
4. PROVIDE COATING DATA SHEETS, COATING PROCEDURES AND INSPECTION PROCEDURES, INCLUDING THE QUALITY ASSURANCE PROGRAM OF THE COATER AS PART OF THE SUBMITTAL PROCESS.
5. EACH MECHANISM SHALL BE RE-LEVELED IN ACCORDANCE WITH THE FOLLOWING PROCEDURE:
   A. VERIFY THE RAKE ARMS ARE PARALLEL TO THE FLOOR. IF RAKE ARM VARIES BY MORE THAN 1/8" FROM THE CENTER COLUMN TO THE END OF THE RAKE ARM, USE JACKS TO SUPPORT AND RAISE/LOWER THE RAKE ARM AND ADJUST TIE RODS TO SUPPORT THE RAKE ARM IN THE NEW POSITION. DO NOT ADJUST RAKE ARM WITH THE TIE RODS.
   B. PERFORM A FULL ROTATION OF THE RAKE ARM AND VERIFY SQUEEGEES DO NOT INTERFERE WITH THE BASIN FLOOR. READJUST AS NECESSARY.

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BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP
SOLIDS COLLECTION EQUIPMENT
UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: J. HIMEBAUGH
DRAWN: T. DIMICELI
CHECKED:
CHECKED: N. KUNZ
APPROVED: J. HIMEBAUGH
FILENAME S-01-001.dwg
BC PROJECT NUMBER 157012
CLIENT PROJECT NUMBER 4277

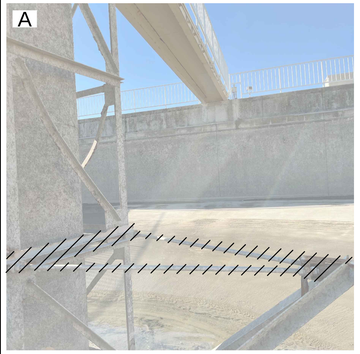
STRUCTURAL

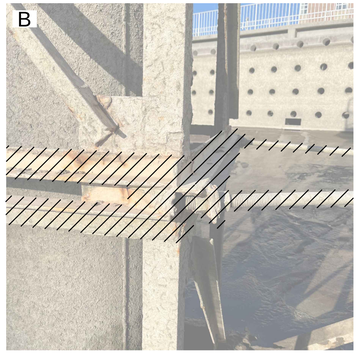
CIRCULAR SOLIDS REMOVAL EQUIPMENT - 1&2 BASIN LAYOUT

DRAWING NUMBER
S-01-001

SHEET NUMBER 11 OF 48

Path: C:\BCPWD\1868249 FILENAME: S-01-001.DWG PLOT DATE: 6/17/2022 9:20 AM CAD USER: TONY DIMICELI





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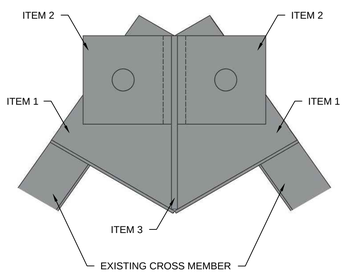

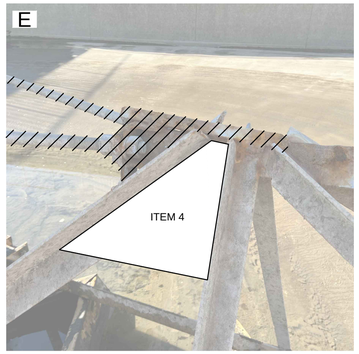

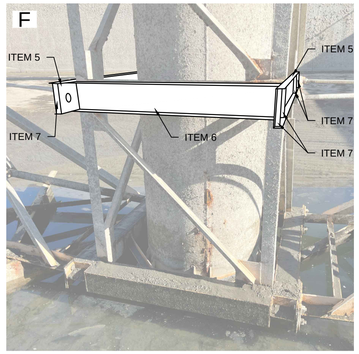

NOTES:
1. REMOVE TIE RODS, DOUBLE ANGLES SURROUNDING THE CENTER STRUCTURAL CAGE AND CONNECTION TO THE RAKE ARM IN THE LOCATIONS SHOWN ON IMAGE A, B AND E.
2. WELD COMPONENTS SHOWN IN IMAGE C AND D TO RAKE ARM, WHICH CONSIST OF THE FOLLOWING:
   ITEM 1: TWO 1/4" PLATES WELDED TO THE EXISTING CROSS MEMBERS, EXTENDED APPROXIMATELY 10 INCHES DOWN THE CROSS MEMBER AND MEETING AT THE VERTICAL CENTER PLANE OF THE RAKE ARM FORMING A V SHAPE.
   ITEM 2: TWO L 4" X 4" X 3/8" STRUCTURAL ANGLE (4" LENGTH) WELDED TO ITEM 3. HOLE SHALL BE OVERSIZED TO ACCOMMODATE INSTALLATION OF A TIE ROD.
   ITEM 3: ONE 1/4" VERTICAL PLATE RUNNING THE LENGTH OF THE VALLEY FORMED WITH BOTH OCCURRENCES OF ITEM 1.
3. ENFORCE AREA BETWEEN CROSS MEMBER AND VERTICAL MEMBER BEHIND TIE ROD CONNECTION WITH A 1/4" PLATE (ITEM 4) ON BOTH SIDES OF THE RAKE ARM. PLATE SHALL EXTEND APPROXIMATELY 10 INCHES DOWN THE CROSS MEMBER.
4. WELD COMPONENTS SHOWN IN IMAGE F TO CENTER STRUCTURAL CAGE, WHICH CONSISTS OF THE FOLLOWING:
   ITEM 5: TWO C CHANNELS (C8X11.5) THAT EXTEND APPROXIMATELY 6 INCHES BEYOND THE EDGES OF THE CENTER STRUCTURAL CAGE TO PROVIDE ROOM FOR A OVERSIZED HOLE USED TO ATTACH THE TIE ROD ON EACH END. RIBS (ITEM 7) SHALL BE WELDED ON BOTH SIDES OF EACH HOLE.
   ITEM 6: TWO C CHANNELS (C8 X 15), EACH WELDED TO THE CENTER STRUCTURAL CAGE AND BOTH OCCURRENCES OF ITEM 5.
   ITEM 7: TWO 1/4" RIBS SURROUNDING THE FOUR HOLES USED TO ATTACH THE TIE RODS. THIS RIBS WELD TO ITEM 5 TO STRENGTHEN THE CHANNEL IN THE AREA OF THE CONNECTION.
5. PROVIDE TIE RODS OF THE SAME DIAMETER AS EXISTING. TIE RODS SHALL BE INSTALLED BETWEEN THE WELDMENT SHOWN IN IMAGE D AND IMAGE F. USE BEVELED WASHERS TO ANGLE THE TIE ROD.
6. MATERIAL SHALL BE A36 CS OR EQUAL. WELD IN ACCORDANCE WITH REQUIREMENTS DEFINED IN DRAWING S-01-0001.
7. COAT STRUCTURAL MEMBER AND SURROUNDING AREA IN ACCORDANCE WITH PROCEDURE DEFINED IN DRAWING S-01-0001.
8. PROVIDE UNIT PRICE FOR THIS WORK IN THE BID SCHEDULE AS INSTRUCTED IN SECTION 01 21 00.

DETAIL S-1001

NOTES:
1. REMOVE BENT SQUEEGEE SUPPORT AND REPLACE WITH NEW SUPPORT OF THE SAME SIZE AND SHAPE. MATERIAL SHALL BE A36 CS OR EQUAL.
2. COAT SUPPORT IN ACCORDANCE WITH THE REQUIREMENTS DEFINED IN DRAWING S-01-0001.

DETAIL S-1002

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STATE OF UTAH

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: J. HIMEBAUGH
DRAWN: T. DIMICELI
CHECKED:
CHECKED: N. KUNZ
APPROVED: J. HIMEBAUGH
FILENAME S-01-002.dwg
BC PROJECT NUMBER 157012
CLIENT PROJECT NUMBER 4277

STRUCTURAL

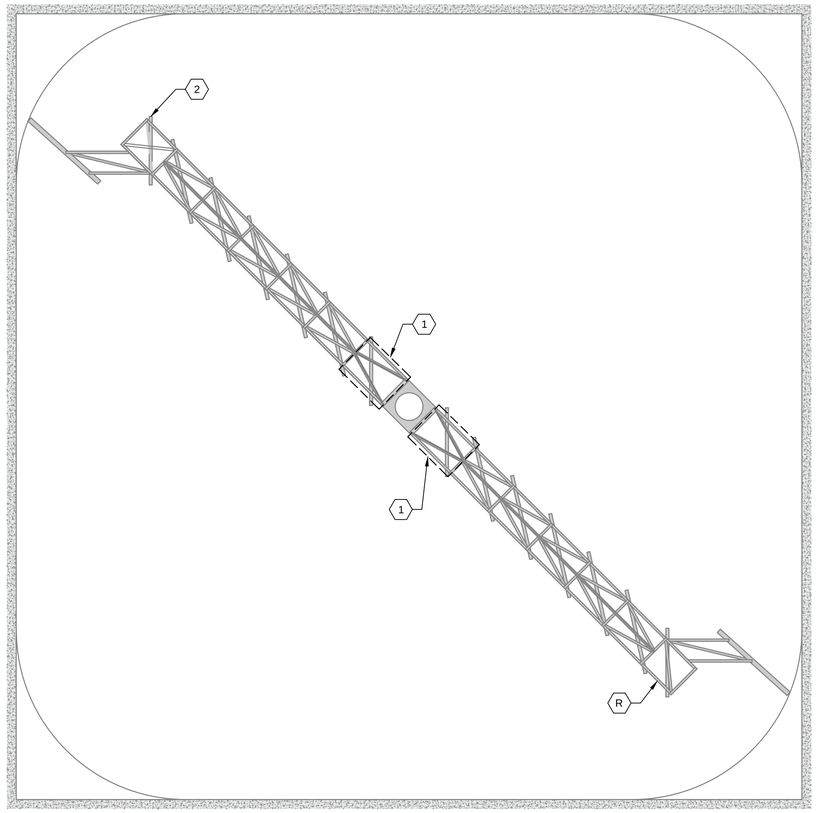
CIRCULAR SOLIDS REMOVAL EQUIPMENT - REPAIR DETAILS

DRAWING NUMBER
S-01-002

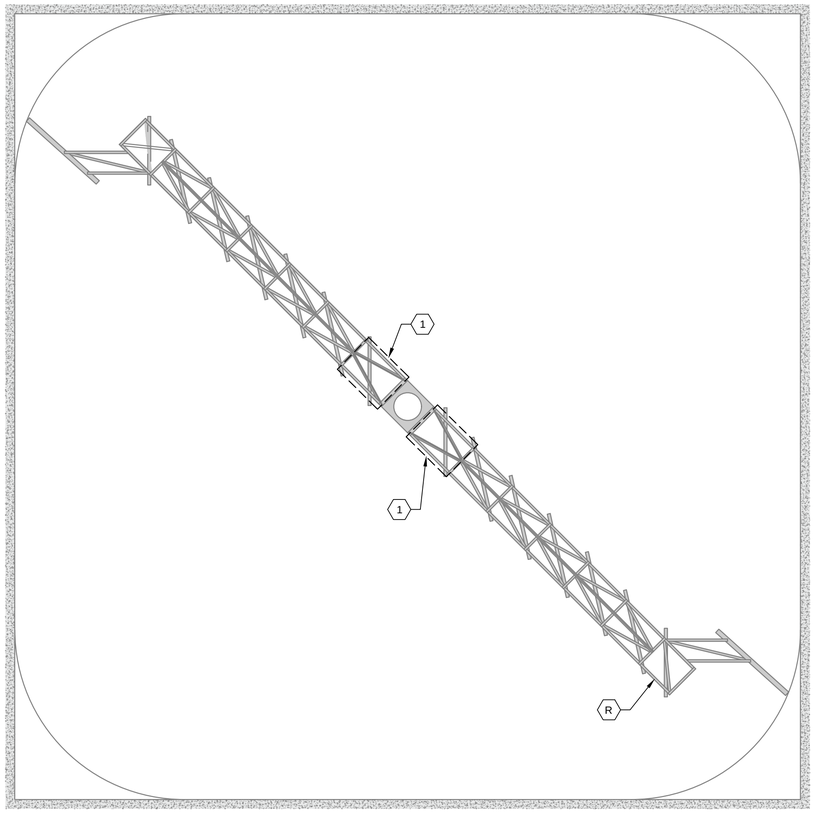
SHEET NUMBER 12 OF 48

Path: C:\BCPW\D1868249 FILENAME: S-01-002.DWG PLOT DATE: 6/17/2022 9:19 AM CAD USER: TONY DIMICELI

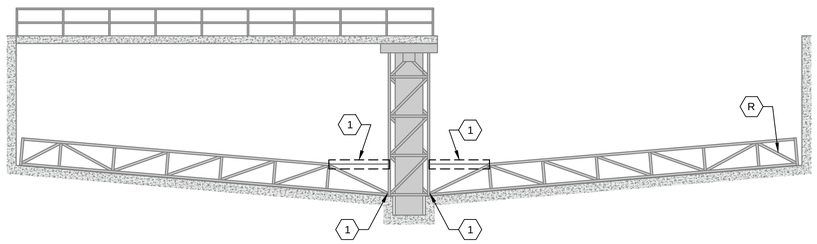
PLAN NORTH

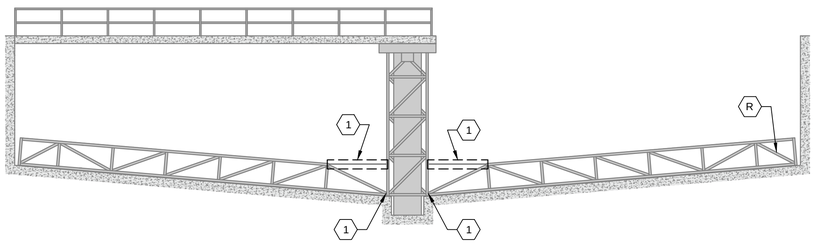


SEDIMENTATION BASIN 1
WEST MECHANISM



SEDIMENTATION BASIN 1
CENTER MECHANISM





GENERAL NOTES:

1. RECOAT ALL STRUCTURAL AREAS MEETING CRITERIA DEFINED ON DRAWING S-01-001.
2. RE-LEVEL RAKE ARMS AND REPOSITION SQUEEGEE SUPPORT BEAMS AND SQUEEGEES IN ACCORDANCE WITH THE INSTRUCTIONS DEFINED ON DRAWING S-01-001.

KEY NOTES:

R. LOCATE RED ZIP TIE ON CROSS MEMBER BEHIND COUNTERWEIGHTS IN THIS LOCATION TO ORIENT DRAWING.

1. PROVIDE A UNIT PRICE FOR THE FOLLOWING WORK IN THE BID SCHEDULE AS INSTRUCTED IN SECTION 01 21 00. REMOVE EXISTING TIE RODS. REMOVE COATING ON THE STRUCTURE AT THE TIE ROD CONNECTIONS AND THE JOINT BETWEEN THE CENTER STRUCTURAL CAGE AND RAKE ARM USING MECHANICAL OR CHEMICAL METHODS ACCEPTABLE FOR POTABLE WATER APPLICATIONS. INSPECT CONNECTIONS AND ALERT ENGINEER OF ANY EVIDENCE OF SIGNIFICANT CORROSION OR MATERIAL LOSS. CONNECTIONS FOUND TO HAVE SIGNIFICANT CORROSION OR MATERIAL LOSS SHALL BE REPAIRED IN ACCORDANCE WITH DETAIL S-1001 ON DRAWING S-01-002. RECOAT EXPOSED AREAS AS OUTLINED ON DRAWING S-1001 PRIOR TO INSTALLING NEW TIE RODS AND FASTENERS.
2. REPLACE BENT SQUEEGEE SUPPORT BEAM ON RAKE ARM IN LOCATION SHOWN. PERFORM WORK IN ACCORDANCE WITH DETAIL S-1002 ON DRAWINGS S-01-002.

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STATE OF UTAH

BID SET

JORDAN VALLEY WATER
CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED:	J. HIMEBAUGH
DRAWN:	T. DIMICELI
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CHECKED:	N. KUNZ
APPROVED:	J. HIMEBAUGH
FILENAME	S-01-003.dwg
BC PROJECT NUMBER	157012
CLIENT PROJECT NUMBER	4277

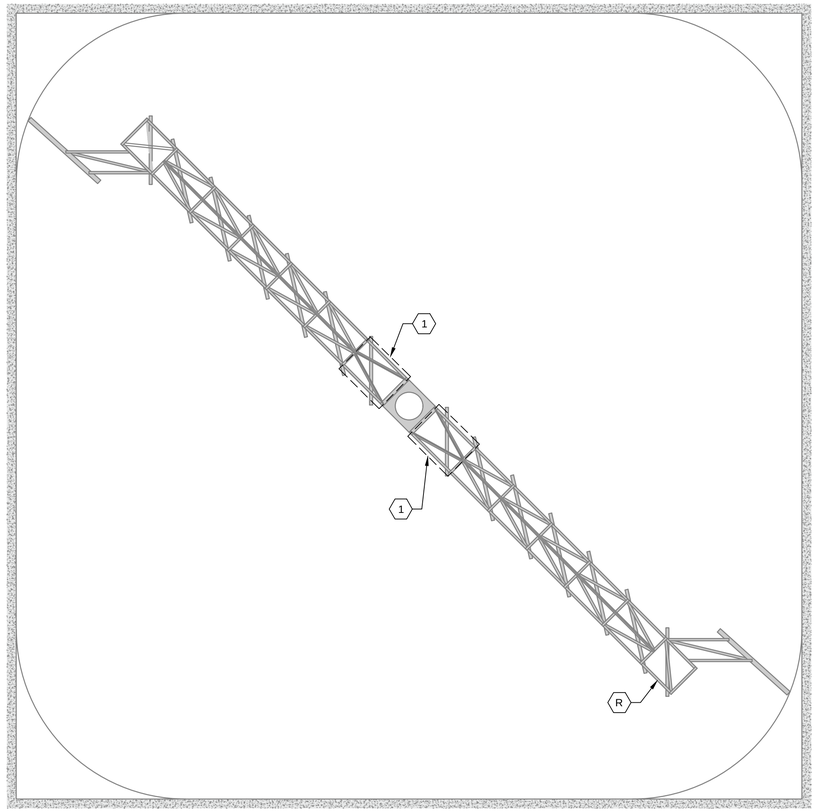
STRUCTURAL

CIRCULAR SOLIDS REMOVAL EQUIPMENT REPAIR - PLANS 1

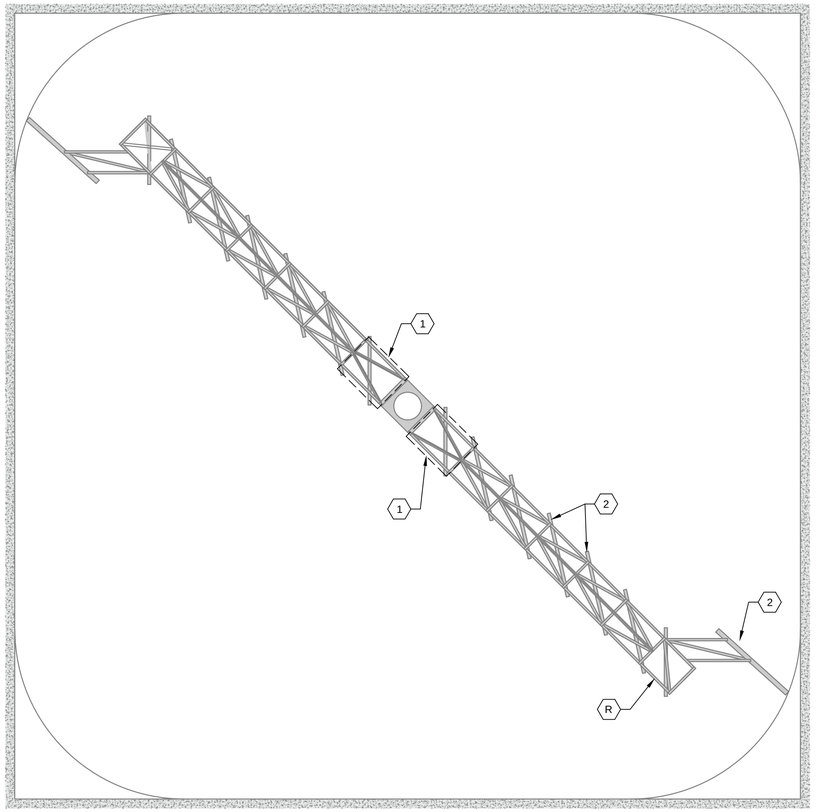
DRAWING NUMBER
S-01-003

SHEET NUMBER 13 OF 48

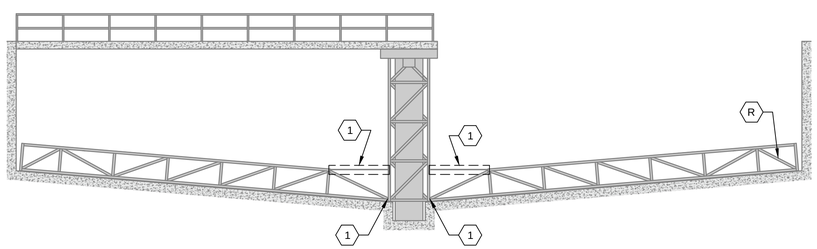
PLAN NORTH

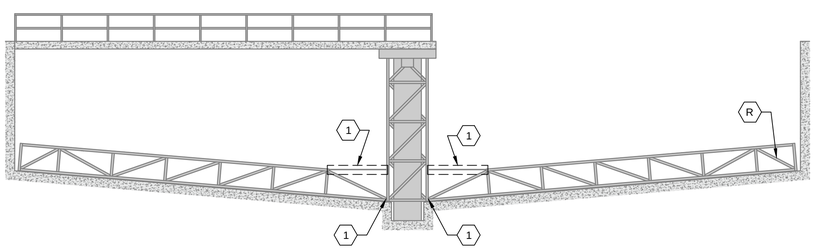


SEDIMENTATION BASIN 1
EAST MECHANISM



SEDIMENTATION BASIN 2
WEST MECHANISM





GENERAL NOTES:

1. RECOAT ALL STRUCTURAL AREAS MEETING CRITERIA DEFINED ON DRAWING S-01-001.
2. RE-LEVEL RAKE ARMS AND REPOSITION SQUEEGEE SUPPORT BEAMS AND SQUEEGEES IN ACCORDANCE WITH THE INSTRUCTIONS DEFINED ON DRAWING S-01-001.

KEY NOTES:

R. LOCATE RED ZIP TIE ON CROSS MEMBER BEHIND COUNTERWEIGHTS IN THIS LOCATION TO ORIENT DRAWING.

1. PROVIDE A UNIT PRICE FOR THE FOLLOWING WORK IN THE BID SCHEDULE AS INSTRUCTED IN SECTION 01 21 00. REMOVE EXISTING TIE RODS. REMOVE COATING ON THE STRUCTURE AT THE TIE ROD CONNECTIONS AND THE JOINT BETWEEN THE CENTER STRUCTURAL CAGE AND RAKE ARM USING MECHANICAL OR CHEMICAL METHODS ACCEPTABLE FOR POTABLE WATER APPLICATIONS. INSPECT CONNECTIONS AND ALERT ENGINEER OF ANY EVIDENCE OF SIGNIFICANT CORROSION OR MATERIAL LOSS. CONNECTIONS FOUND TO HAVE SIGNIFICANT CORROSION OR MATERIAL LOSS SHALL BE REPAIRED IN ACCORDANCE WITH DETAIL S-1001 ON DRAWING S-01-002. RECOAT EXPOSED AREAS AS OUTLINED ON DRAWING S-1001 PRIOR TO INSTALLING NEW TIE RODS AND FASTENERS.
2. REPLACE BENT SQUEEGEE SUPPORT BEAM ON RAKE ARM IN LOCATION SHOWN. PERFORM WORK IN ACCORDANCE WITH DETAIL S-1002 ON DRAWINGS S-01-002.

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JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

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CHECKED: N. KUNZ
APPROVED: J. HIMEBAUGH
FILENAME S-01-004.dwg
BC PROJECT NUMBER 157012
CLIENT PROJECT NUMBER 4277

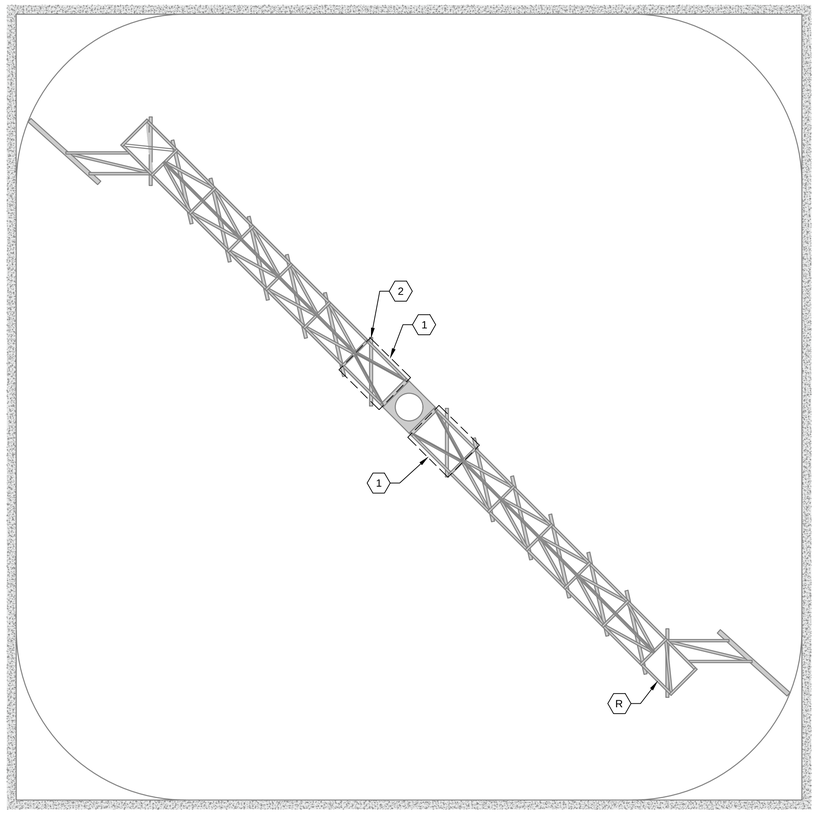
STRUCTURAL

CIRCULAR SOLIDS REMOVAL EQUIPMENT REPAIR - PLANS 2

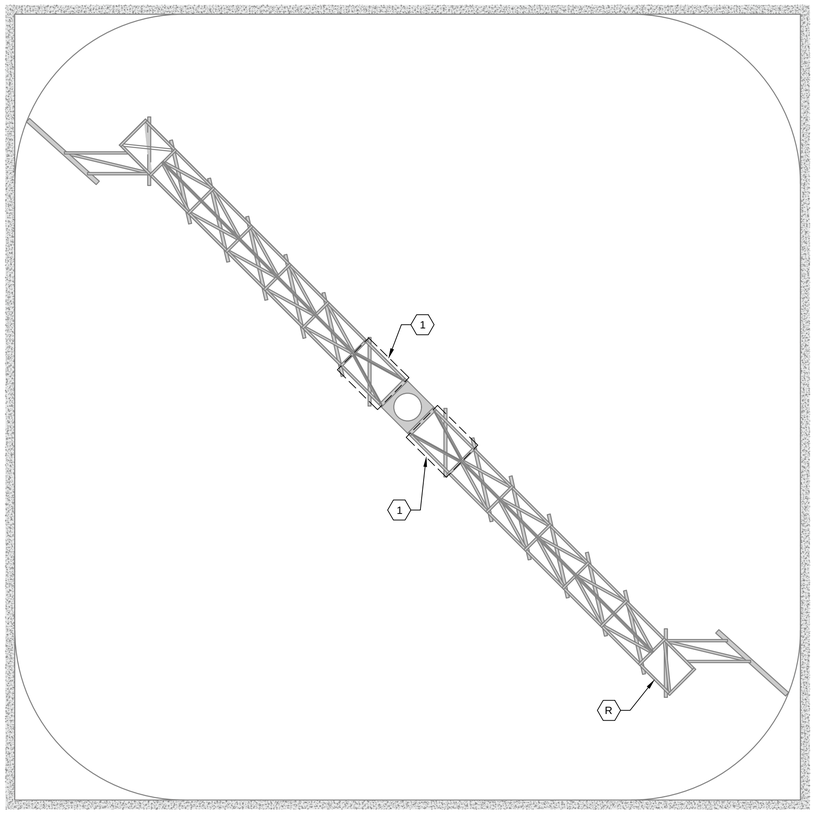
DRAWING NUMBER
S-01-004

SHEET NUMBER 14 OF 48

PLAN NORTH



SEDIMENTATION BASIN 2
CENTER MECHANISM



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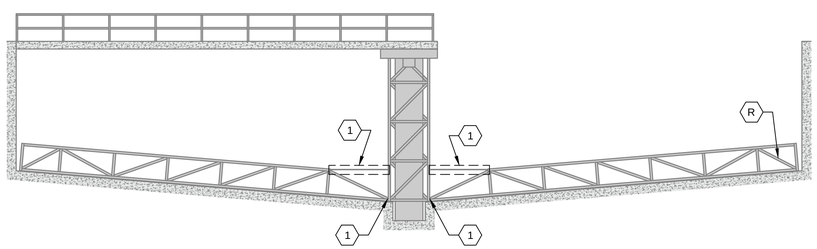
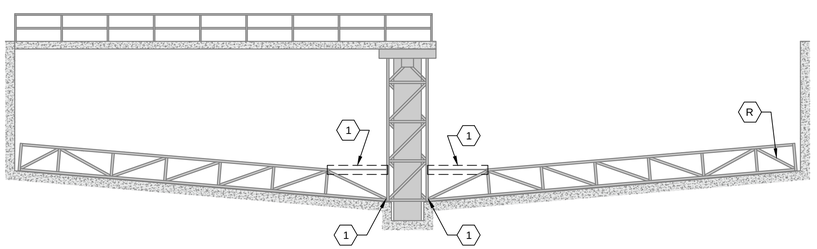
EAST MECHANISM





GENERAL NOTES:

1. RECOAT ALL STRUCTURAL AREAS MEETING CRITERIA DEFINED ON DRAWING S-01-001.
2. RE-LEVEL RAKE ARMS AND REPOSITION SQUEEGEE SUPPORT BEAMS AND SQUEEGEES IN ACCORDANCE WITH THE INSTRUCTIONS DEFINED ON DRAWING S-01-001.

KEY NOTES:

R. LOCATE RED ZIP TIE ON CROSS MEMBER BEHIND COUNTERWEIGHTS IN THIS LOCATION TO ORIENT DRAWING.

1. PROVIDE A UNIT PRICE FOR THE FOLLOWING WORK IN THE BID SCHEDULE AS INSTRUCTED IN SECTION 01 21 00. REMOVE EXISTING TIE RODS. REMOVE COATING ON THE STRUCTURE AT THE TIE ROD CONNECTIONS AND THE JOINT BETWEEN THE CENTER STRUCTURAL CAGE AND RAKE ARM USING MECHANICAL OR CHEMICAL METHODS ACCEPTABLE FOR POTABLE WATER APPLICATIONS. INSPECT CONNECTIONS AND ALERT ENGINEER OF ANY EVIDENCE OF SIGNIFICANT CORROSION OR MATERIAL LOSS. CONNECTIONS FOUND TO HAVE SIGNIFICANT CORROSION OR MATERIAL LOSS SHALL BE REPAIRED IN ACCORDANCE WITH DETAIL S-1001 ON DRAWING S-01-002. RECOAT EXPOSED AREAS AS OUTLINED ON DRAWING S-1001 PRIOR TO INSTALLING NEW TIE RODS AND FASTENERS.
2. REPLACE BENT SQUEEGEE SUPPORT BEAM ON RAKE ARM IN LOCATION SHOWN. PERFORM WORK IN ACCORDANCE WITH DETAIL S-1002 ON DRAWINGS S-01-002.

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JORDAN VALLEY WATER
CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: J. HIMEBAUGH
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CHECKED:
CHECKED: N. KUNZ
APPROVED: J. HIMEBAUGH
FILENAME S-01-005.dwg
BC PROJECT NUMBER 157012
CLIENT PROJECT NUMBER 4277

STRUCTURAL

CIRCULAR SOLIDS REMOVAL EQUIPMENT REPAIR - PLANS 3

DRAWING NUMBER
S-01-005

SHEET NUMBER 15 OF 48

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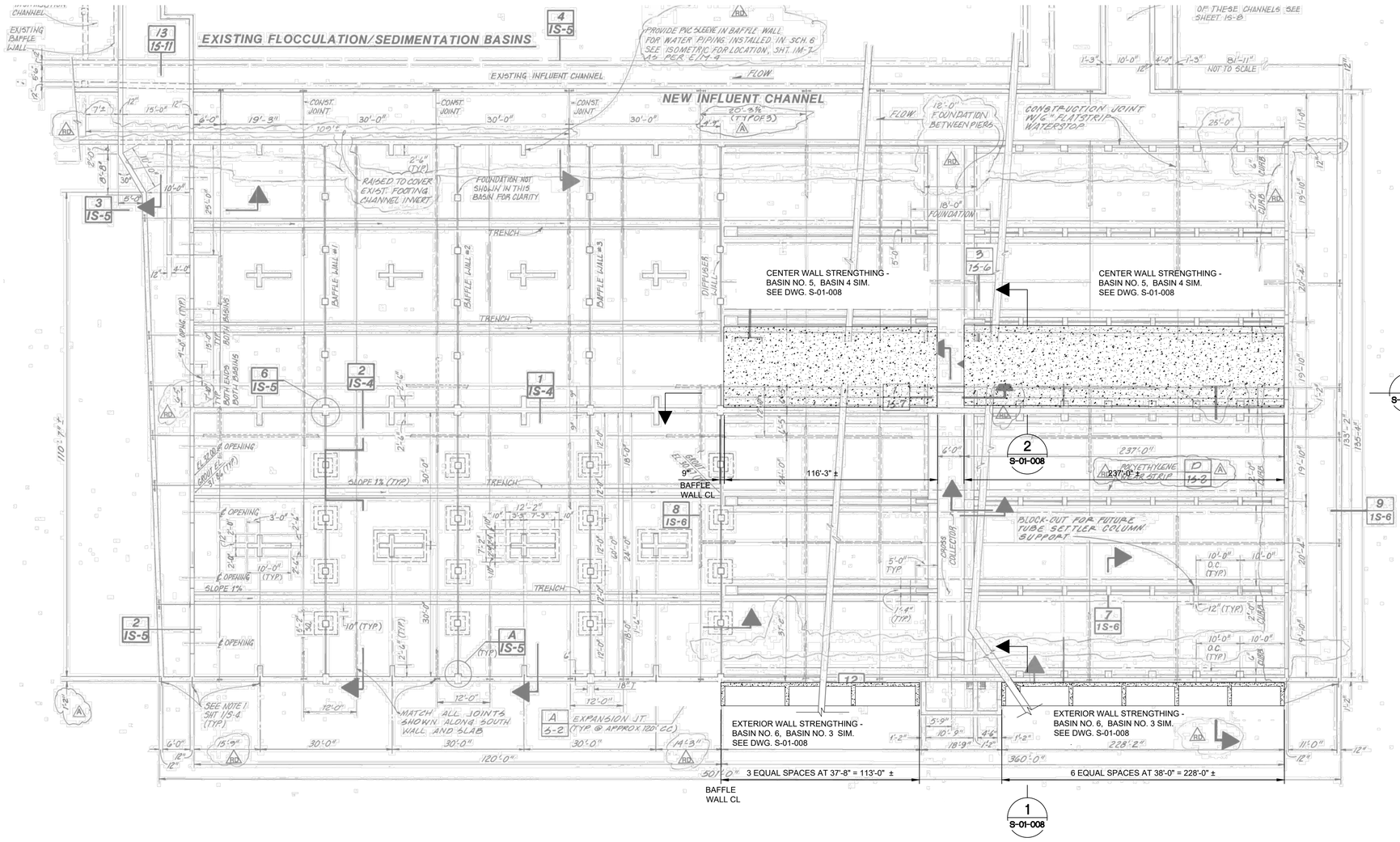
PLAN NORTH



GENERAL NOTES:

1. BASINS NO 5 & 6 SHOWN, MIRROR PLAN FOR BASINS 3 & 4 UNLESS NOTED OTHERWISE, SEE G-00-004 FOR ADDITIONAL INFORMATION.
2. CONTRACTOR SHALL FIELD VERIFY ALL ELEVATIONS AND DIMENSIONS THAT RELATE TO THE EXISTING STRUCTURE.
3. CONTRACTOR SHALL SUBMIT PROPOSED CONCRETE PLACEMENT SEQUENCE TO ENGINEER FOR REVIEW / APPROVAL PRIOR TO ANY CONCRETE PLACEMENT.
4. GRATING, PLATFORM FRAMING, AND LADDERS SHALL BE STAINLESS STEEL TYPE 316L UNLESS NOTED OTHERWISE, SEE SPECIFICATION SECTIONS 05 10 00, 05 53 10, FOR ADDITIONAL INFORMATION.
5. DRY, CLEAN, AND ROUGHEN EXISTING CONCRETE TO 1/4" AMPLITUDE, SEE SPECIFICATION 03 30 00 FOR ADDITIONAL INFORMATION.
6. PROTECT DISSIMILAR METALS FROM GALVANIC CORROSION.

* VERIFY WITH APPROVED EQUIPMENT SUBMITTAL.

KEY NOTES:

Brown AND Caldwell

REGISTERED PROFESSIONAL ENGINEER
No. 12286225-2202
DANA HENSHAW
6/12/22
STATE OF UTAH

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: J. HIMEBAUGH
DRAWN: T. DIMICELI
CHECKED:
CHECKED: J. HIMEBAUGH
APPROVED: D. HENSHAW
FILENAME S-01-006.dwg
BC PROJECT NUMBER 157012
CLIENT PROJECT NUMBER 4277

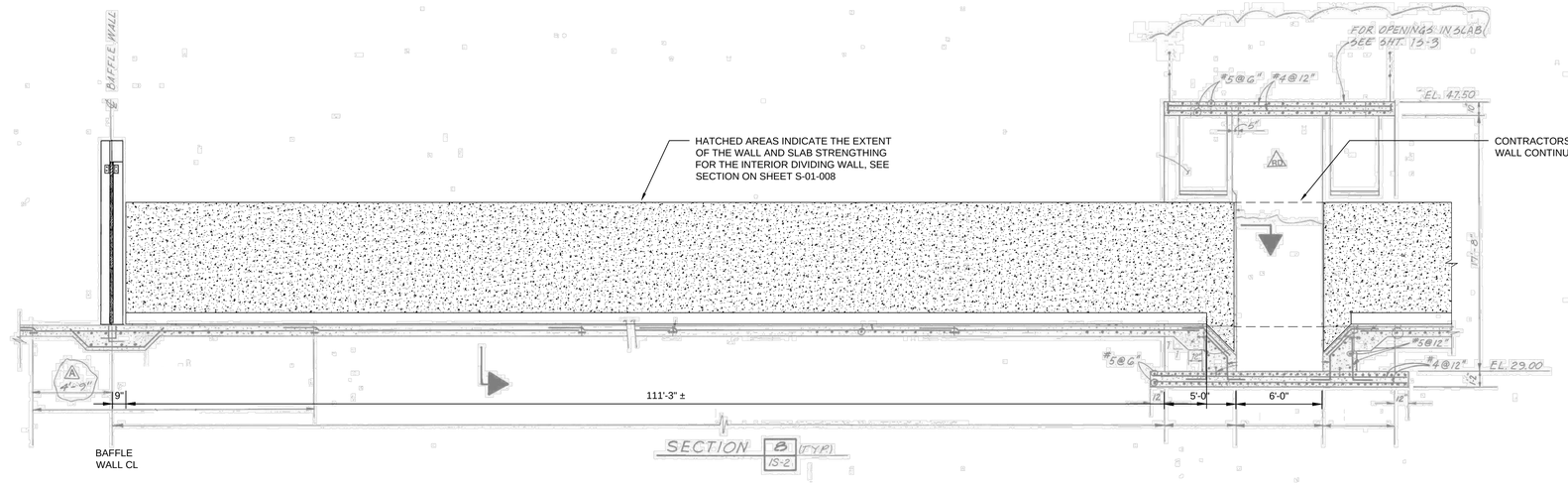
STRUCTURAL

SEDIMENTATION BASIN - PLAN

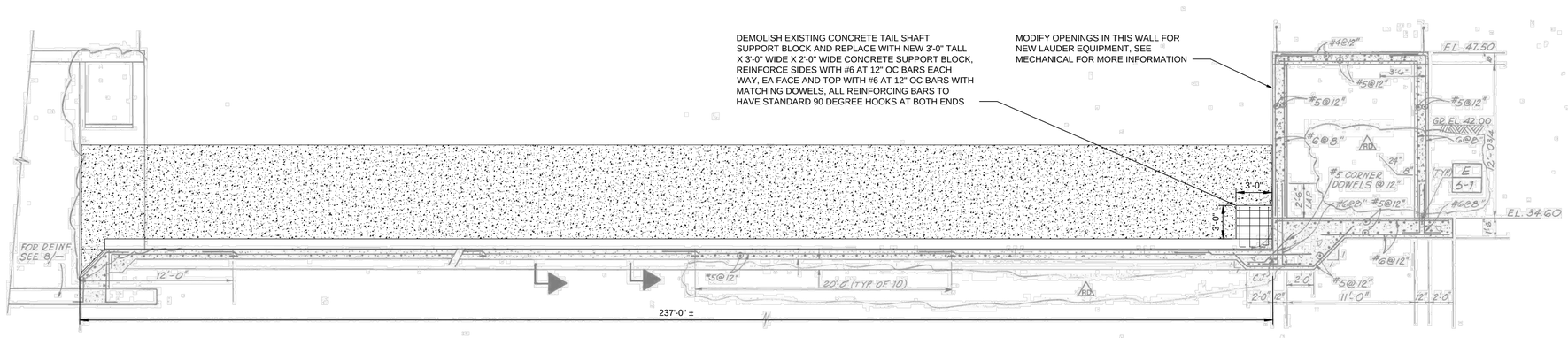
DRAWING NUMBER
S-01-006

SHEET NUMBER 16 OF 48

Path: C:\BCPWD1868249 FILENAME: S-01-006.DWG PLOT DATE: 6/2/2022 7:37 AM CAD USER: TODD BOWMAN



1 S-01-006 SECTION
SCALE: XX" = 1'-0"



1 S-01-006 SECTION
SCALE: XX" = 1'-0"

GENERAL NOTES:

1. STRENGTHENING SHOWN HERE FOR INTERIOR WALL OF BASINS NO 5 & 6, MIRROR SECTION FOR BASINS 3 & 4 UNLESS NOTED OTHERWISE, SEE G-00-004 FOR ADDITIONAL INFORMATION.
2. CONTRACTOR SHALL FIELD VERIFY ALL ELEVATIONS AND DIMENSIONS THAT RELATE TO THE EXISTING STRUCTURE.
3. CONTRACTOR SHALL SUBMIT PROPOSED CONCRETE PLACEMENT SEQUENCE TO ENGINEER FOR REVIEW / APPROVAL PRIOR TO ANY CONCRETE PLACEMENT.
4. GRATING, PLATFORM FRAMING, AND LADDERS SHALL BE STAINLESS STEEL TYPE 316L UNLESS NOTED OTHERWISE, SEE SPECIFICATION SECTIONS 05 10 00, 05 53 10, FOR ADDITIONAL INFORMATION.
5. DRY, CLEAN, AND ROUGHEN EXISTING CONCRETE TO 1/4" AMPLITUDE, SEE SPECIFICATION 03 30 00 FOR ADDITIONAL INFORMATION.
6. PROTECT DISSIMILAR METALS FROM GALVANIC CORROSION.

* VERIFY WITH APPROVED EQUIPMENT SUBMITTAL.

KEY NOTES:

Brown AND Caldwell

REGISTERED PROFESSIONAL ENGINEER
No. 12286225-2202
DANA HENSHAW
6/1/22
STATE OF UTAH

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: J. HIMEBAUGH
DRAWN: T. DIMICELI
CHECKED:
CHECKED: J. HIMEBAUGH
APPROVED: D. HENSHAW
FILENAME S-01-007.dwg
BC PROJECT NUMBER 157012
CLIENT PROJECT NUMBER 4277

STRUCTURAL

SEDIMENTATION BASIN - SECTIONS 1

DRAWING NUMBER
S-01-007

SHEET NUMBER 17 OF 48

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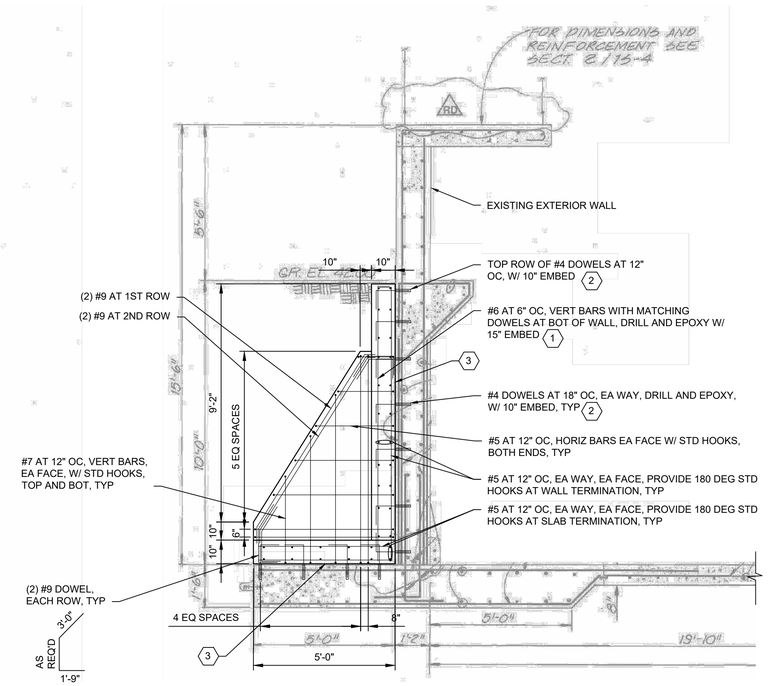
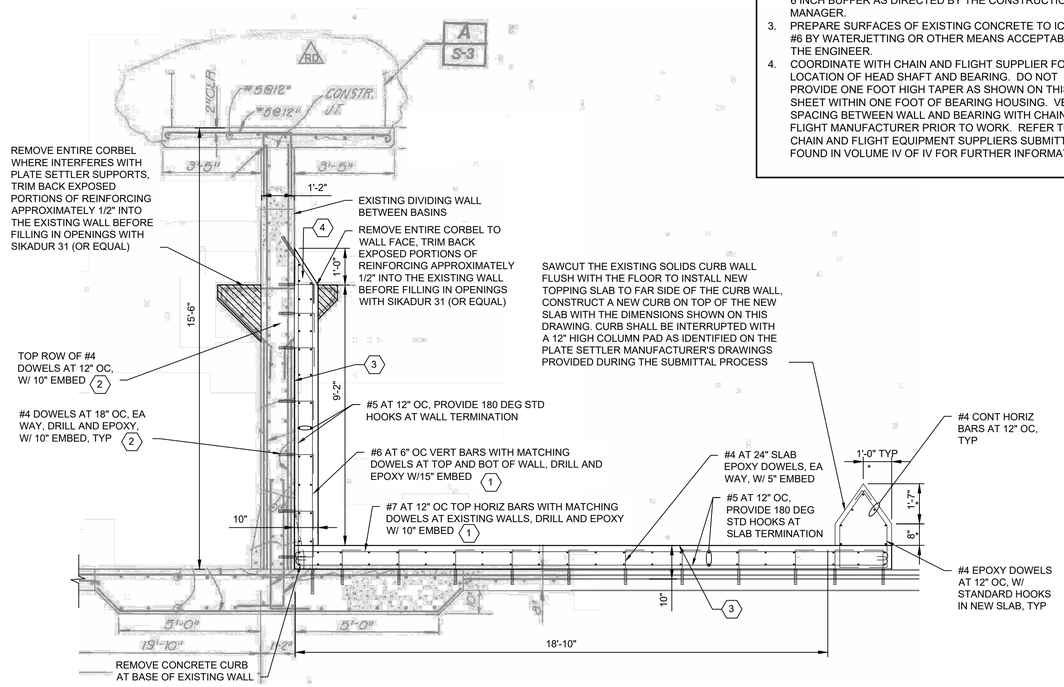


1 S-01-006 EXTERIOR WALL STRENGTHENING -BASINS 3 & 6

SCALE: NTS



2 S-01-006 CENTER WALL STRENGTHENING -BASINS 4 & 5

SCALE: NTS

GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL ELEVATIONS AND DIMENSIONS THAT RELATE TO THE EXISTING STRUCTURE.
2. CONTRACTOR SHALL SUBMIT PROPOSED CONCRETE PLACEMENT SEQUENCE TO ENGINEER FOR REVIEW / APPROVAL PRIOR TO ANY CONCRETE PLACEMENT.
3. DRY, CLEAN, AND ROUGHEN EXISTING CONCRETE TO 1/4" AMPLITUDE, SEE SPECIFICATION 03 30 00 FOR ADDITIONAL INFORMATION.
4. SHALL LOCATE HOLES FOR DOWELS TO MISS EXISTING CONCRETE REINFORCING. PRIOR TO DRILLING HOLES, FIELD VERIFY AND MARK THE LOCATION OF NEARBY EXISTING REINFORCING BARS, STIRRUPS AND EMBEDMENTS USING A PACHOMETER. IF THEY ARE HIT DURING DRILLING, NOTIFY THE OWNER.
5. GRATING, PLATFORM FRAMING, AND LADDERS SHALL BE STAINLESS STEEL TYPE 316L UNLESS NOTED OTHERWISE, SEE SPECIFICATION SECTIONS 05 10 00, 05 53 10, FOR ADDITIONAL INFORMATION.
6. PROTECT DISSIMILAR METALS FROM GALVANIC CORROSION.
7. WHERE CORBELS ARE REMOVED TO INSTALL THE PLATE SETTLER SUPPORT BEAMS, REMOVE THE CORBEL BY SAWCUTTING FLUSH WITH THE WALL.

* VERIFY WITH APPROVED EQUIPMENT SUBMITTAL.

KEY NOTES:

1. PROVIDE FULL LAP LENGTH BETWEEN EPOXY DOWELS AND TYPICAL BARS.
2. DO NOT INSTALL DOWELS WITHIN 6 INCHES OF PLATE SETTLER SUPPORT BEAMS TO AVOID CONFLICTS WITH ANCHOR BOLTS; INSTALL AFFECTED DOWELS OUTSIDE THE 6 INCH BUFFER AS DIRECTED BY THE CONSTRUCTION MANAGER.
3. PREPARE SURFACES OF EXISTING CONCRETE TO ICRI-CSP #6 BY WATERJETTING OR OTHER MEANS ACCEPTABLE TO THE ENGINEER.
4. COORDINATE WITH CHAIN AND FLIGHT SUPPLIER FOR LOCATION OF HEAD SHAFT AND BEARING. DO NOT PROVIDE ONE FOOT HIGH TAPER AS SHOWN ON THIS SHEET WITHIN ONE FOOT OF BEARING HOUSING. VERIFY SPACING BETWEEN WALL AND BEARING WITH CHAIN AND FLIGHT MANUFACTURER PRIOR TO WORK. REFER TO CHAIN AND FLIGHT EQUIPMENT SUPPLIERS SUBMITTAL FOUND IN VOLUME IV OF IV FOR FURTHER INFORMATION.

Brown AND Caldwell

REGISTERED PROFESSIONAL ENGINEER — No. 12286225-2202 — DANA HENSHAW — 6/1/22 — STATE OF UTAH

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

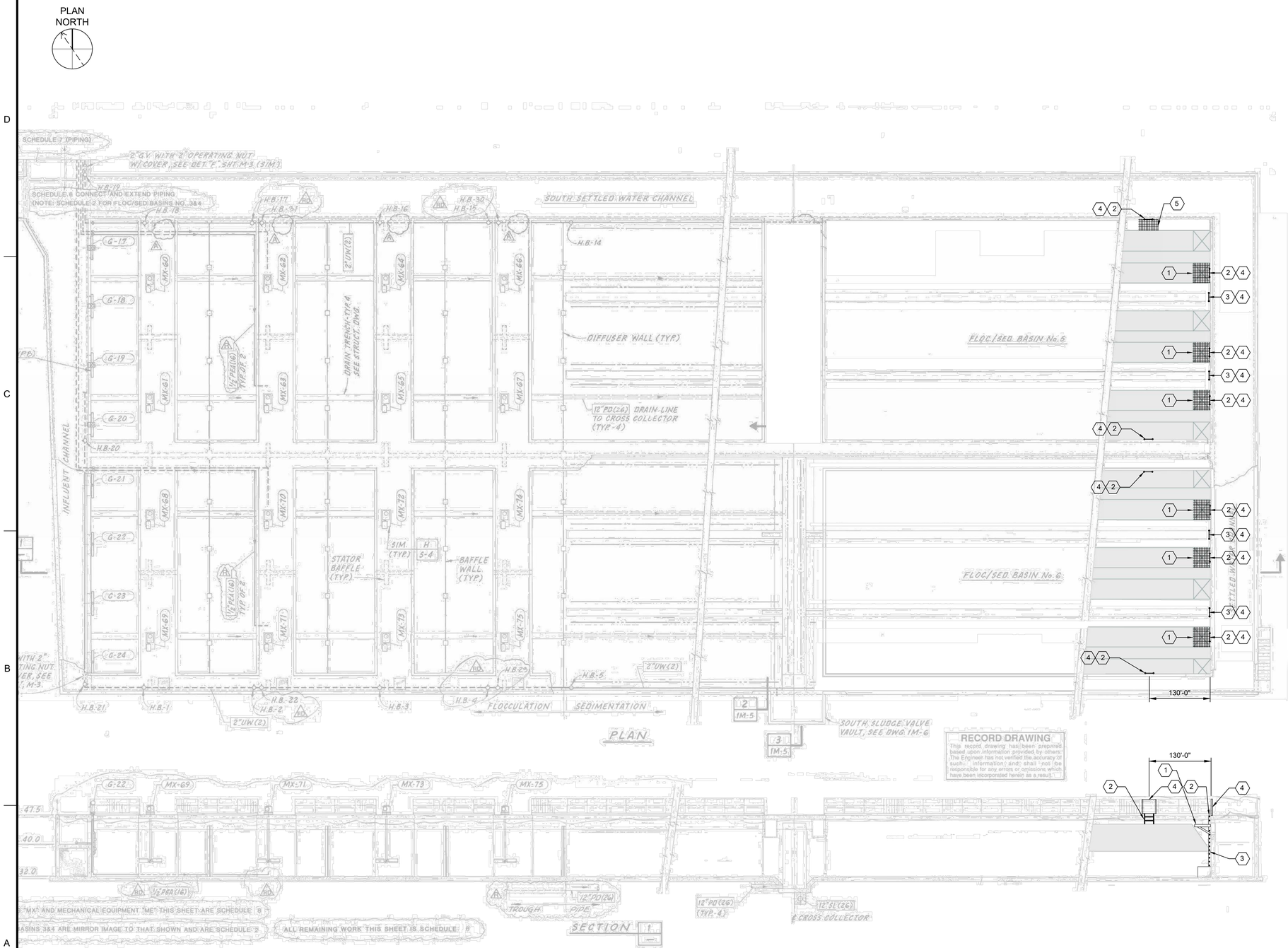
DESIGNED: J. HIMEBAUGH
DRAWN: T. DIMICELI
CHECKED:
CHECKED: J. HIMEBAUGH
APPROVED: D. HENSHAW
FILENAME S-01-008.dwg
BC PROJECT NUMBER 157012
CLIENT PROJECT NUMBER 4238

STRUCTURAL

SEDIMENTATION BASIN - SECTIONS 2

DRAWING NUMBER
S-01-008

SHEET NUMBER 18 OF 48



GENERAL NOTES:

1. CHAIN AND FLIGHT EQUIPMENT NOT SHOWN FOR CLARITY.
2. REFER TO MECHANICAL DRAWINGS FOR FURTHER INFORMATION ON PLATE SETTLERS AND CHAIN AND FLIGHT EQUIPMENT PLACEMENT.
3. PERFORM INSTALLATION OF LADDERS AND PLATFORMS IN SEDIMENTATION BASINS 5 AND 6. LAYOUT OF SEDIMENTATION BASINS 3 AND 4 IS A MIRROR IMAGE OF SEDIMENTATION BASINS 5 AND 6 SHOWN ON THIS DRAWING.
4. ALL ANCHORS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION 01 73 24 AND SECTION 05 05 20.
5. LAYOUT OF SEDIMENTATION 3 AND 4 IS A MIRROR IMAGE OF SEDIMENTATION BASIN 5 AND 6. SUPPLY ALL COMPONENTS SHOWN ON THIS DRAWING IN BASIN 3 AND 4.

KEY NOTES:

1. PLATFORM SHALL BE APPROXIMATELY 4'x4' AND MADE OF 316 SST. REFER TO THE PLATE SETTLER SUBMITTALS PROVIDED BY THE MANUFACTURER TO ENSURE PLATFORM WILL NOT INTERFERE WITH THE PLATE PACKS. PLATFORM SHALL BE CENTERED OVER THE PLATE RACK ROW SHOWN ON THIS SHEET WITH TOP OF GRATING FLUSH WITH THE TOP OF THE PLATE SETTLER PLATES. SEE DETAIL S1906 ON DRAWING S-01-011 FOR MORE INFORMATION.
2. PROVIDE A 316 SST LADDER DOWN TO THE PLATFORM OR TOP OF PLATE SETTLER PLATES IN ACCORDANCE WITH DETAIL S1301 ON DRAWING S-01-010. REMOVE EXISTING LADDERS IN THESE LOCATIONS WHERE PRESENT.
3. PROVIDE A 316 SST LADDER DOWN TO THE BOTTOM OF THE BASIN AT EACH LOCATION SHOWN IN ACCORDANCE WITH DETAIL S1301 ON DRAWING S-01-010. REMOVE EXISTING LADDERS IN THESE LOCATIONS WHERE PRESENT.
4. MODIFY EXISTING HANDRAIL AND PROVIDE A SELF CLOSING AND LOCKING GATE OF SAME MATERIAL AND TYPE. REFER TO DETAIL S1401 ON DRAWING S-01-010 FOR FURTHER INFORMATION.
5. PLATFORM SHALL BE APPROXIMATELY 4' WIDE AND EXTEND TO THE EDGE OF THE PLATE PACK. REFER TO THE PLATE SETTLER SUBMITTALS PROVIDED BY THE MANUFACTURER TO ENSURE PLATFORM WILL NOT INTERFERE WITH THE PLATE PACKS. TOP OF PLATFORM GRATING SHALL BE FLUSH WITH THE TOP OF THE PLATE SETTLER PLATES. SEE DETAIL S1906 ON DRAWING S-01-011 FOR MORE INFORMATION.

Brown AND Caldwell

REGISTERED PROFESSIONAL ENGINEER
No. 12286225-2202
DANA HENSHAW
6/1/22
STATE OF UTAH

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: J. HIMEBAUGH
DRAWN: T. DIMICELI
CHECKED:
CHECKED: J. HIMEBAUGH
APPROVED: D. HENSHAW
FILENAME S-01-009.dwg
BC PROJECT NUMBER 157012
CLIENT PROJECT NUMBER 4228

STRUCTURAL

LADDER AND PLATFORM LOCATIONS

DRAWING NUMBER
S-01-009

SHEET NUMBER 19 OF 48

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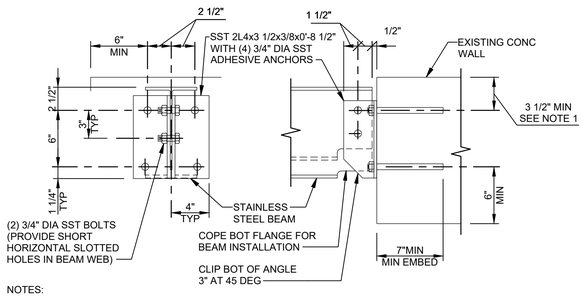
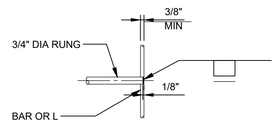


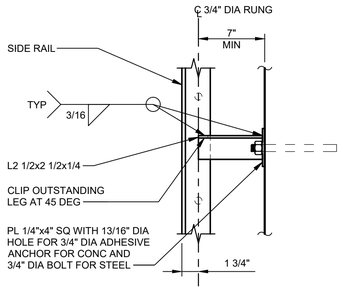
NOTES:

1. DO NOT CUT EXISTING CONCRETE REINFORCING DURING DRILL-IN ANCHOR INSTALLATION. FIELD LOCATE REINFORCING PRIOR TO FABRICATION. ADD LENGTH TO CLIP ANGLES AS REQUIRED TO LOWER ANCHORS TO CLEAR REINFORCING WHILE MAINTAINING SPACING AND EDGE DISTANCE AS SHOWN.

S1001A WALL CONNECTION

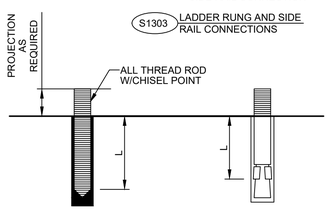


RUNG CONNECTION



SIDE RAIL CONNECTION

S1303 LADDER RUNG AND SIDE RAIL CONNECTIONS



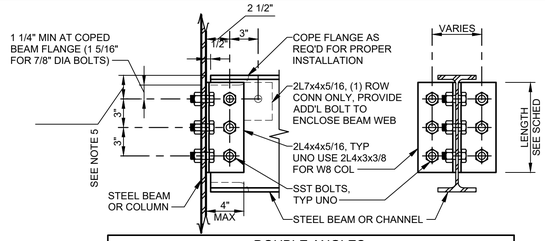
ADHESIVE ANCHOR EXPANSION ANCHOR

MINIMUM EMBEDMENT LENGTH, L		
DIAMETER	ADHESIVE ANCHOR	EXPANSION ANCHOR
3/8"	4 1/2"	3 1/2"
1/2"	6"	4 3/4"
5/8"	7 1/2"	5 1/2"
3/4"	9"	6 1/2"
7/8"	10 1/2"	-
1"	12"	-

NOTES:

1. CONFORM TO ICC EVALUATION SERVICE REPORT (ES REPORT) REQUIREMENTS AND MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION.
2. PROVIDE TYPE 316 STAINLESS STEEL ALL-THREAD ROD MATERIAL.
3. PROVIDE HOLE DIAMETER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.
4. EXPANSION ANCHOR EMBEDMENT LENGTHS ARE BASED ON HILTI KWIK BOLT TZ STAINLESS STEEL ANCHORS. SUBMIT ICC EVALUATION SERVICE REPORT (ES REPORT) FOR ALTERNATE PRODUCTS.
5. ADHESIVE ANCHOR EMBEDMENT LENGTHS ARE BASED ON HILTI HIT-RE 500-V3 ADHESIVE SUBMIT ICC ES REPORT FOR ALTERNATE PRODUCTS.

S0501 CONCRETE ANCHORS

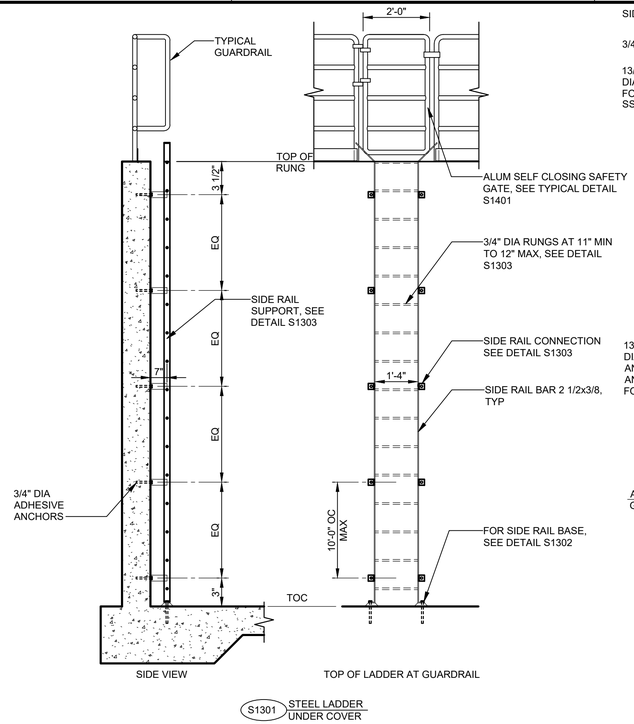


DOUBLE ANGLES				
NOMINAL BEAM DEPTH, INCHES	ROWS OF BOLTS	BOLT DIA	LENGTH OF DOUBLE ANGLE, INCHES	COMMENTS
36	10	7/8"	2' - 5 1/2"	-
33	9	7/8"	2' - 2 1/2"	-
30	8	7/8"	1' - 11 1/2"	-
27	7	3/4"	1' - 8 1/2"	-
24	6	3/4"	1' - 5 1/2"	-
21	5	3/4"	1' - 2 1/2"	-
16 - 18	4	3/4"	0' - 11 1/2"	-
12 - 15	3	3/4"	0' - 8 1/2"	-
8 - 10	2	3/4"	0' - 5 1/2"	-
5 - 6	1	3/4"	0' - 3"	SEE NOTE 3
4	1	3/4"	0' - 2 3/4"	SEE NOTE 3

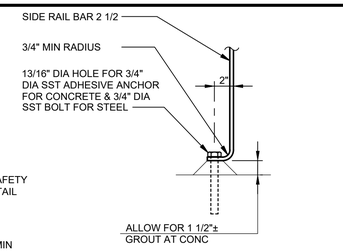
NOTES:

1. UNLESS NOTED OTHERWISE, NUMBER OF ROWS IS EQUAL TO NUMBER OF BOLTS TO ENCLOSE BEAM WEB.
2. ALL BEAM FRAMING CONNECTIONS SHALL CONFORM TO THIS DETAIL UNLESS SPECIFICALLY NOTED OTHERWISE OR APPROVED IN WRITING BY THE ENGINEER.
3. FOR NOMINAL BEAM DEPTHS LESS THAN 8", EXTEND LONG LEG OF DOUBLE ANGLE ALONG BEAM WEB AND PROVIDE ADDITIONAL BOLT TO ENCLOSE BEAM WEB AS SHOWN.
4. PROVIDE ADDITIONAL 1 1/2" LENGTH TO DOUBLE ANGLE FOR STAGGERED BOLT CONNECTIONS WHERE REQUIRED.
5. DIMENSION SHALL BE 3" UNLESS OTHERWISE REQUIRED FOR PROPER FABRICATION.
6. PER OSHA 1926.756(C) ISSUED 1-23-01, AN ERECTION SEAT, DESIGNED AND DETAILED BY THE STEEL FABRICATOR SHALL BE PROVIDED AT DOUBLE CONNECTIONS AT COLUMN AND/OR AT BEAM WEBS OVER A COLUMN IF THE FOLLOWING CONDITION CANNOT BE MET: WHEN BEAMS ON OPPOSITE SIDES OF A COLUMN, OR A BEAM WEB OVER A COLUMN, ARE CONNECTED SHARING COMMON CONNECTION HOLES, AT LEAST ONE BOLT WITH ITS WRENCH-TIGHT NUT SHALL REMAIN CONNECTED TO THE FIRST BEAM ERECTED (I.E. TWO BEAMS OF SIMILAR DEPTH WITH THE SAME NUMBER OF BOLT ROWS WILL REQUIRE AN ERECTION SEAT). THE ERECTION SEAT SHALL BE DESIGNED BY THE FABRICATOR TO SUPPORTS THE CONSTRUCTION LOAD DURING THE DOUBLE CONNECTION PROCESS.

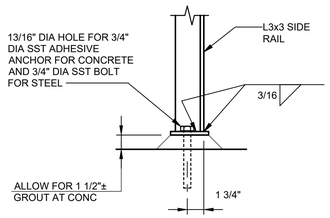
S1003 BEAM / BEAM CONNECTION - STEEL



S1301 STEEL LADDER UNDER COVER



BAR SIDE RAIL BASE

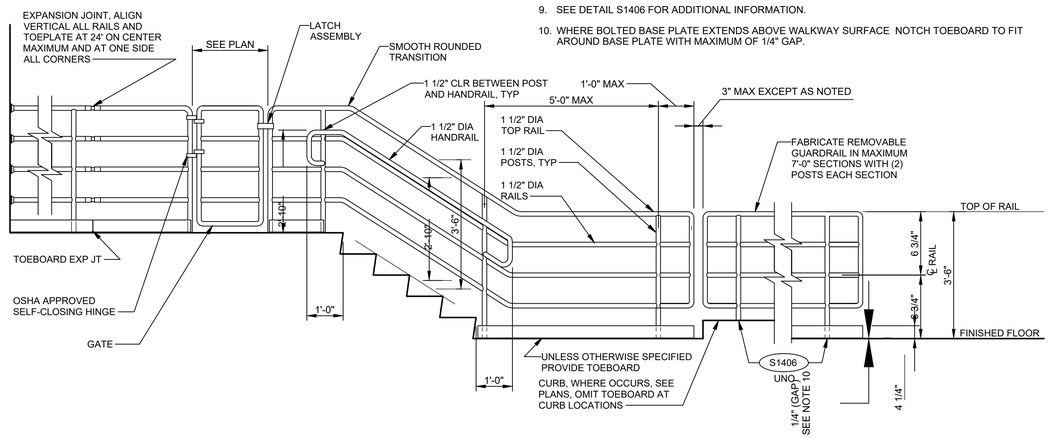


L SIDE RAIL BASE

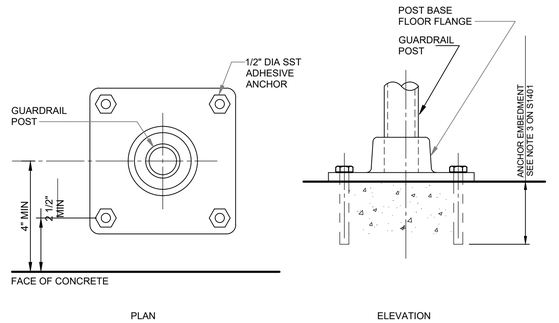
S1302 LADDER SIDE RAIL BASE

GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, HANDRAIL, GUARDRAIL, AND MOUNTING APPURTENANCES SHALL BE ANODIZED ALUMINUM.
2. ALL FASTENERS SHALL BE STAINLESS STEEL, TYPE 316.
3. NUMBER OF ANCHORS AND SIZE OF ANCHORS ARE MINIMUM. PROVIDE LARGER ANCHOR SIZE IF NECESSARY TO MEET LOAD REQUIREMENTS. CONTRACTOR'S SUPPLIER AND ENGINEER ARE RESPONSIBLE FOR DESIGNING BASE BRACKET AND STAINLESS STEEL ANCHOR BOLT SIZE AND EMBEDMENT DEPTH INTO CONCRETE TO RESIST LOADS TAKING INTO ACCOUNT ANCHOR EDGE DISTANCES AND CONCRETE STRENGTHS AT THE POINT OF ATTACHMENT.
4. UNLESS SPECIFICALLY INDICATED OTHERWISE, GUARDRAIL MOUNTING MAY BE BY ANY SHOWN METHOD AS APPLICABLE.
5. RAILING POST LOCATION SHALL BE FIELD MEASURED AND RAILING FABRICATED TO FIT.
6. TOP AND MIDDLE RAILS SHALL BE CONTINUOUS EXCEPT AT GUARDRAIL SECTIONS SPECIFICALLY CALLED OUT ON DRAWINGS AS REMOVABLE GUARDRAIL.
7. THE SPACING OF EXPANSION JOINTS IN GUARDRAILS AND TOEBOARDS SHALL NOT EXCEED 24 FEET.
8. ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE, GROUT, OR DISSIMILAR METALS SHALL HAVE CONTACT SURFACE PROTECTED IN ACCORDANCE WITH SPECIFICATIONS.
9. SEE DETAIL S1406 FOR ADDITIONAL INFORMATION.
10. WHERE BOLTED BASE PLATE EXTENDS ABOVE WALKWAY SURFACE NOTCH TOEBOARD TO FIT AROUND BASE PLATE WITH MAXIMUM OF 1/4" GAP.



S1401 TYPICAL HANDRAIL / GUARDRAIL - 4 RAIL



S1406 TYPICAL HANDRAIL / GUARDRAIL - 4 RAIL

Brown AND Caldwell

REGISTERED PROFESSIONAL ENGINEER No. 12286225-2202 DANA HENSHAW 6/2/22 STATE OF UTAH

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: J. HIMEBAUGH
DRAWN: T. DIMICELI
CHECKED:
CHECKED: J. HIMEBAUGH
APPROVED: D. HENSHAW
FILENAME S-01-010.dwg
BC PROJECT NUMBER 157012
CLIENT PROJECT NUMBER 4277

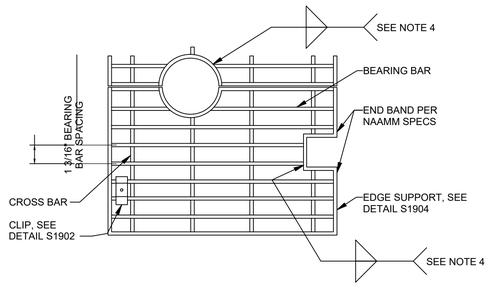
STRUCTURAL

STRUCTURAL DETAILS 1

DRAWING NUMBER S-01-010

SHEET NUMBER 20 OF 48

Path: C:\BCPW\D1868249 FILENAME: S-01-010.DWG PLOT DATE: 6/17/2022 9:25 AM CAD USER: TODD BOWMAN



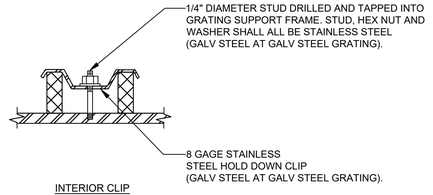
NOTES:

1. CONFORM TO THE METAL BAR GRATING MANUAL OF NAAMM. MATCH SUPPLEMENTAL GRATING SUPPORT BEAM FINISH TO GRATING MATERIAL. USE SST GRATING SUPPORT ANGLES AND EMBEDS AT ALL AL AND SST GRATING. USE GALV STEEL GRATING SUPPORT ANGLES AND EMBEDS AT ALL GALV STEEL GRATING.
2. AL GRATING SHALL BE SWAGE LOCKED. GALV AND SST GRATING SHALL BE WELDED.
3. PROVIDE REMOVABLE GRATING WITH (4) HOLD DOWN CLIPS WITH SELF-TAPPING SCREWS APPROXIMATELY 4" FROM THE CORNERS OF EACH PIECE.
4. WELD BEARING AND CROSS BARS TO END BANDS AT AL GRATING.
5. CLEAR SPAN IS PLAN DIMENSION, FACE TO FACE OF OPENING.
6. AL GRATING SCHEDULE AND DETAILS ARE DESIGNED FOR PEDESTRIAN LOAD ONLY (100 PSF MAXIMUM). NO VEHICLE LOADS ARE ALLOWED.
6. AL GRATING SCHEDULE AND DETAILS ARE DESIGNED FOR PEDESTRIAN LOAD ONLY (100 PSF MAXIMUM). NO VEHICLE LOADS ARE ALLOWED.
7. GALV AND SST GRATING DESIGNED FOR 300 PSF (GOLF CART TRAFFIC) UNO ON DRAWINGS. PROVIDE 2" MINIMUM END BEARING. SEE PLANS FOR BEARING BAR SIZE AND SPANS.
8. ALL AL SURFACES IN CONTACT WITH CONCRETE, GROUT, OR DISSIMILAR METALS SHALL HAVE CONTACT SURFACE PROTECTED IN ACCORDANCE WITH SPECIFICATIONS.

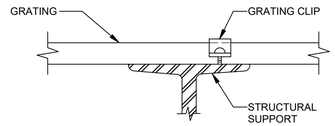
SERRATED GRATING SCHEDULE

CLEAR SPAN MAXIMUM	BEARING BAR SIZE	MINIMUM END BEARING
4'-0"	1 1/2 x 3/16	1"
4'-6"	1 3/4 x 3/16	1"
5'-0"	2 x 3/16	1 1/2"
6'-0"	2 1/4 x 3/16	1 1/2"
6'-6"	2 1/2 x 3/16	2"

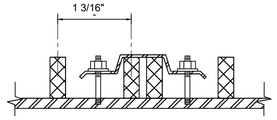
S1901 GRATING PLAN



INTERIOR CLIP

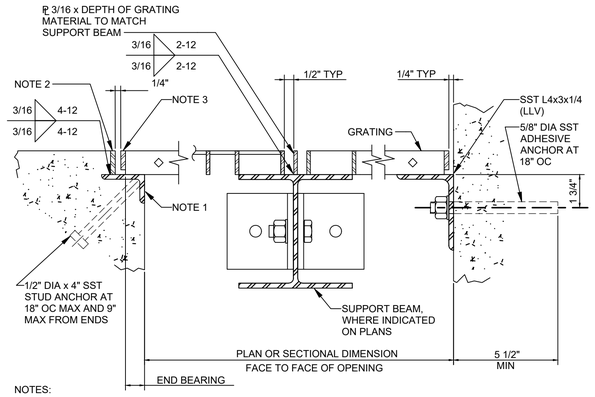


CLIPS ON FRAMING



CLIP AT EDGES

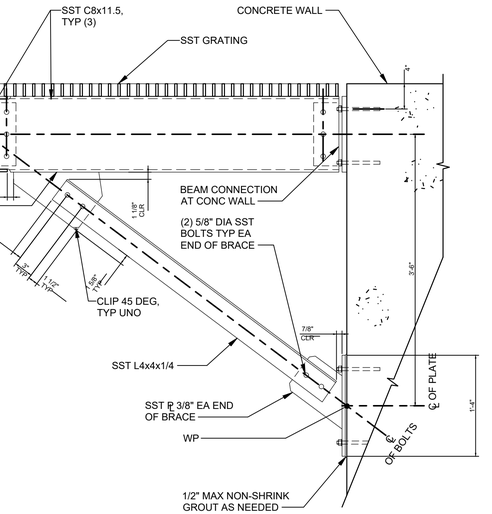
S1901 GRATING CLIPS



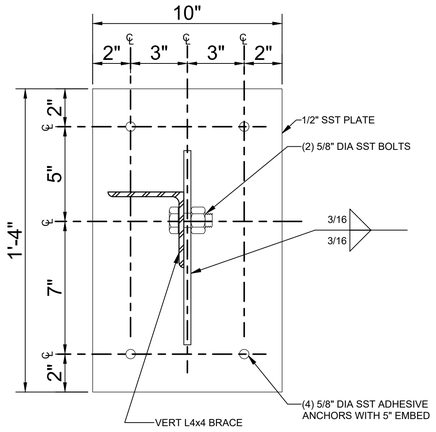
NOTES:

1. SST L3x2x1/4 (LLH) MITER AND WELD CORNERS.
2. CONTINUOUS SST FLAT BAR, 1/4" x DEPTH OF GRATING. WELD CORNERS.
3. END EDGE BAND, 1/4" LESS THAN DEPTH OF GRATING, TYPICAL AT BEARING SEATS.
4. PROVIDE GALV STEEL ANGLES AND FLAT BARS AT GALV STEEL GRATING.

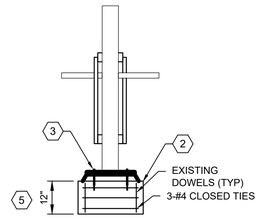
S1904 GRATING SUPPORT AT CONCRETE



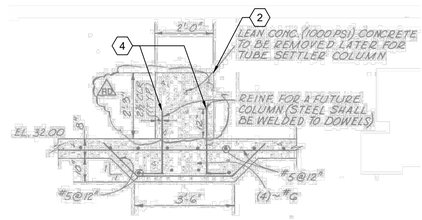
S1906 GRATING SUPPORT SECTION



S1907 GRATING SUPPORT BRACE CONNECTION



NEW COLUMN N.T.S.



EXISTING COLUMN N.T.S.

1. REFER TO DRAWING M-01-003 FOR MORE INFORMATION.
2. REMOVE LEAN CONCRETE SECTIONS ALONG EXISTING CURBS SPANNING THE BASIN WHERE NECESSARY TO INSTALL SUPPORT COLUMNS. REPLACE WITH A ONE FOOT HIGH CONCRETE PAD IN ACCORDANCE WITH THE SPECIFICATIONS WITH THE SAME LENGTH AND WIDTH DIMENSIONS AS THE LEAN CONCRETE SECTION REMOVED.
3. INSTALL ANCHORS USING A NUT ABOVE AND BELOW THE BASEPLATE TO ALLOW FOR ADJUSTMENT TO LEVEL AND PLUMB THE COLUMN FOLLOWING THE PLATE MANUFACTURER'S INSTALLATION INSTRUCTIONS. LEAVE SPACE FOR 1" OF GROUT UNDER BASEPLATE. GROUT UNDER BASEPLATE IN ACCORDANCE WITH THE GROUT SPECIFICATION (03 60 00).
4. REMOVE EXISTING LEAN CONCRETE AND PRESERVE THE EXISTING DOWELS.
5. DIMENSION REPRESENTS ELEVATION ABOVE FINISHED FLOOR. FOR COLUMNS NEXT TO SEISMIC UPGRADES, DIMENSION WILL BE ABOVE NEW FLOOR ELEVATION.

S1908 SUPPORT COLUMN AND CONCRETE MODIFICATIONS

Brown AND Caldwell

RECISTERED PROFESSIONAL ENGINEER
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6/1/22
STATE OF UTAH

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

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DESIGNED: J. HIMEBAUGH
DRAWN: T. DIMICELI
CHECKED:
CHECKED: J. HIMEBAUGH
APPROVED: D. HENSHAW
FILENAME S-01-011.dwg
BC PROJECT NUMBER 157012
CLIENT PROJECT NUMBER 4277

STRUCTURAL

STRUCTURAL DETAILS 2

DRAWING NUMBER
S-01-011

SHEET NUMBER 21 OF 48

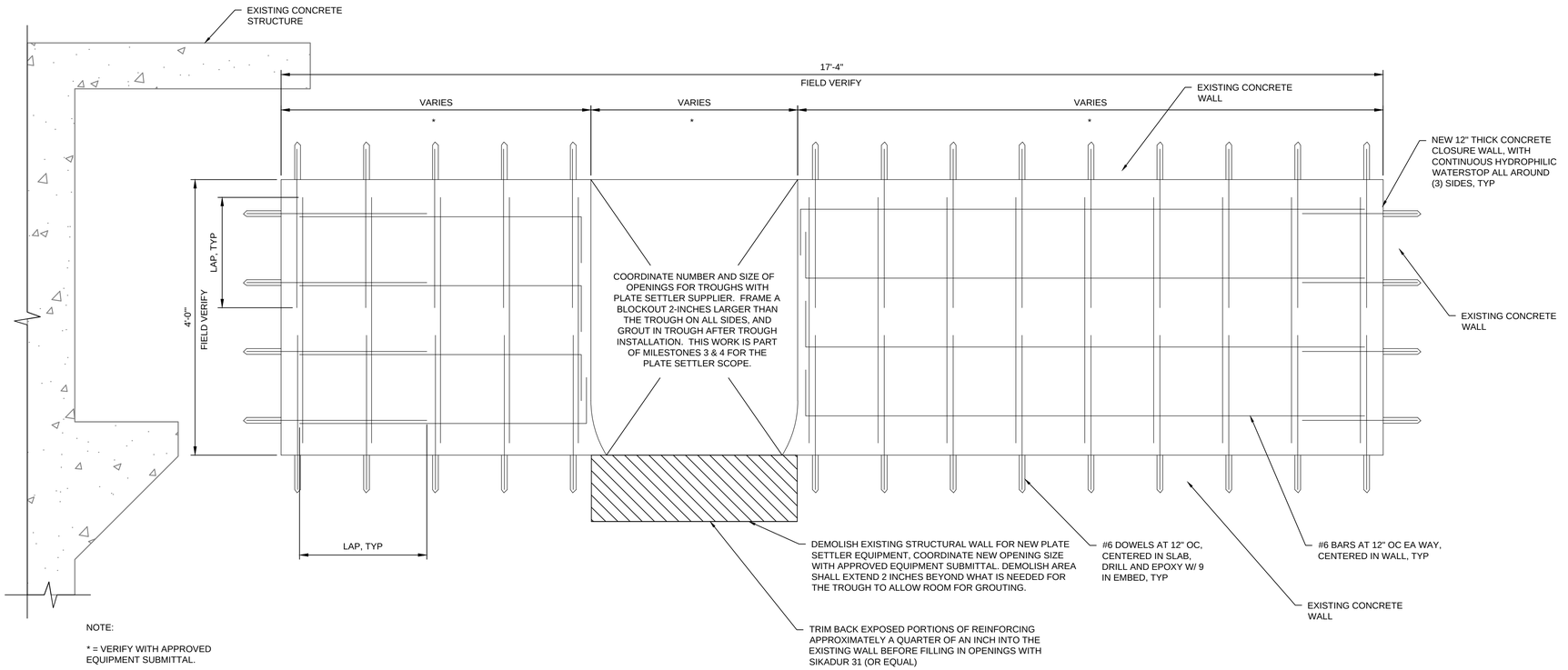
Path: C:\BCPWD1868249 FILENAME: S-01-011.DWG PLOT DATE: 5/31/2022 2:42 PM CAD USER: TODD BOWMAN

GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL ELEVATIONS AND DIMENSIONS THAT RELATE TO THE EXISTING STRUCTURE.
2. CONTRACTOR SHALL SUBMIT PROPOSED CONCRETE PLACEMENT SEQUENCE TO ENGINEER FOR REVIEW / APPROVAL PRIOR TO ANY CONCRETE PLACEMENT.
3. DRY, CLEAN, AND ROUGHEN EXISTING CONCRETE TO 1/4" +/- AMPLITUDES, AND APPLY EPOXY BONDING AGENT, SEE SPECIFICATION 03 30 00 FOR ADDITIONAL INFORMATION.
4. SHALL LOCATE HOLES FOR DOWELS TO MISS EXISTING CONCRETE REINFORCING. PRIOR TO DRILLING HOLES, FIELD VERIFY AND MARK THE LOCATION OF NEARBY EXISTING REINFORCING BARS, STIRRUPS AND EMBEDMENTS USING A PACHOMETER. IF THEY ARE HIT DURING DRILLING, NOTIFY THE OWNER

* VERIFY WITH APPROVED EQUIPMENT SUBMITTAL.

KEY NOTES:



NOTE:

* = VERIFY WITH APPROVED EQUIPMENT SUBMITTAL.

3 M-01-003 SECTION

SCALE: 1" = 1'-0"

Brown AND Caldwell

RECISTERED PROFESSIONAL ENGINEER
No. 12286225-2202
DANA HENSHAW
6/1/22
STATE OF UTAH

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: S. BELLIS
DRAWN: T. BOWMAN
CHECKED:
CHECKED: J. HIMEBAUGH
APPROVED: D. HENSHAW
FILENAME S-01-012.dwg
BC PROJECT NUMBER 157012
CLIENT PROJECT NUMBER 4277

STRUCTURAL

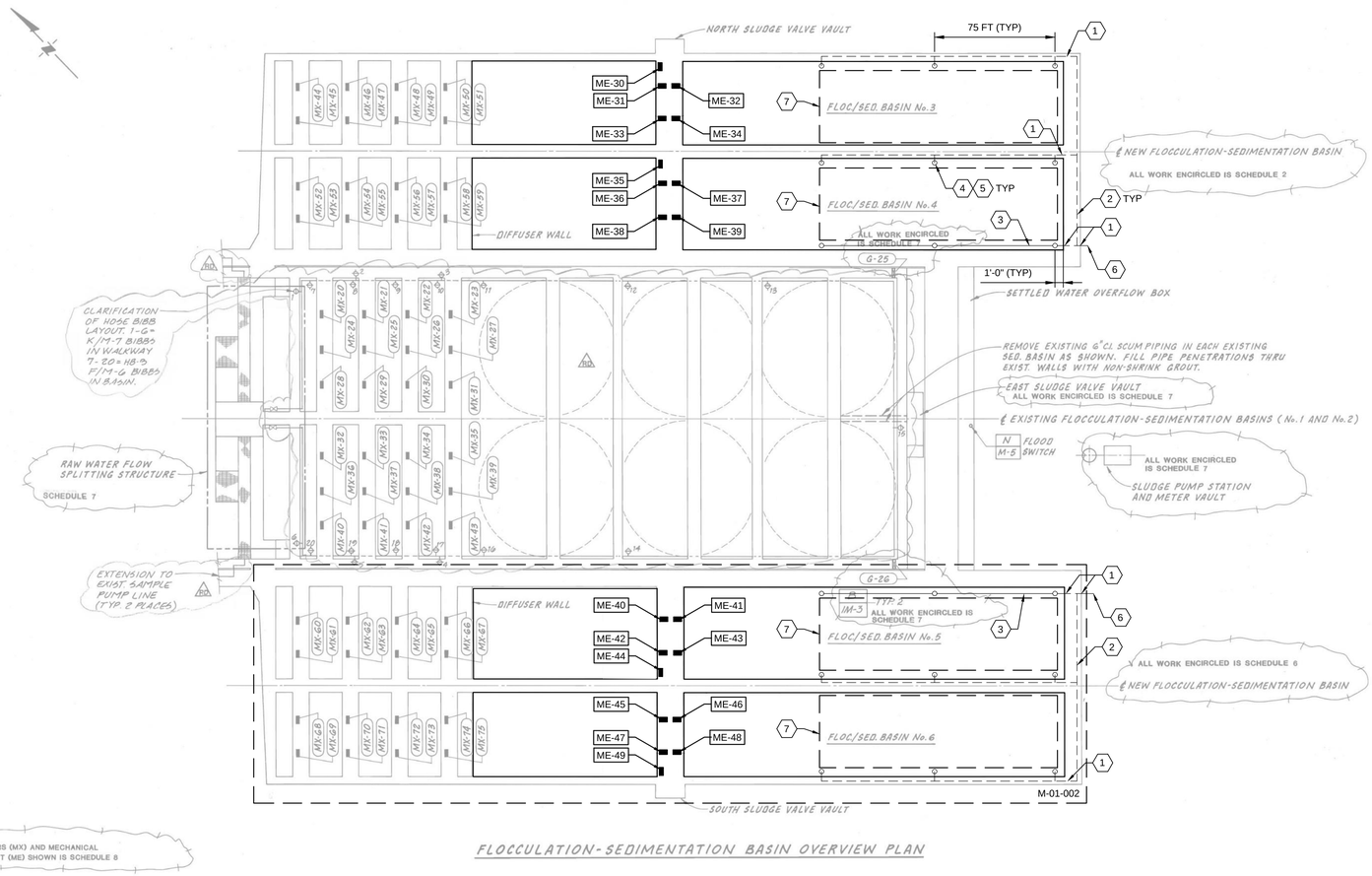
STRUCTURAL DETAILS 3

DRAWING NUMBER
S-01-012

22 SHEET NUMBER OF 48

Path: C:\BCPW\D1868249 FILENAME: S-01-012.DWG PLOT DATE: 6/13/2022 10:32 AM CAD USER: RUSSELL PERSHING

PLAN NORTH



FLOCCULATION-SEDIMENTATION BASIN OVERVIEW PLAN

GENERAL NOTES:

1. REFER TO DRAWINGS AND INSTALLATION INSTRUCTIONS PROVIDED BY EACH MANUFACTURER DURING THE SUBMITTAL PROCESS FOR ALL INFORMATION REQUIRED FOR INSTALLATION OF THE CHAIN AND FLIGHT AND PLATE SETTLER EQUIPMENT.
2. ALL ANCHORS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION 01 73 24 AND SECTION 05 05 20. INSTALLATION SHALL BE IN ACCORDANCE WITH BOTH THE EQUIPMENT MANUFACTURER'S AND EPOXY SYSTEM MANUFACTURER'S INSTRUCTIONS.
3. PROPER CARE SHALL BE TAKEN TO PREVENT CONTAMINATION OF STAINLESS STEEL COMPONENTS WITH FREE IRON. FOLLOW ALL RECOMMENDATIONS PROVIDED IN PARAGRAPH 8 OF ASTM A380.
4. CONTRACTOR SHALL ALERT ENGINEER OF ANY BLOOMING OR EVIDENCE OF RUST FOUND ON STAINLESS STEEL COMPONENTS SUPPLIED BY THE MANUFACTURER PRIOR TO INSTALLATION. ANY BLOOMING OR EVIDENCE OF RUST FOUND AFTER INSTALLATION SHALL BE CLEANED AND TESTED BY MANUFACTURER IN ACCORDANCE WITH ASTM A380.
5. REFER TO WORK SEQUENCE SPECIFICATION (SECTION 01 12 16) FOR INFORMATION ON WORK RESTRICTIONS AND CONSTRUCTION SEQUENCING.

KEY NOTES:

1. PROVIDE A NSF 61 APPROVED LINK SEAL DESIGNED FOR CPVC PIPING AND OUTDOOR USE AT ALL WALL PENETRATIONS IN THE SETTLED WATER CHANNELS. GROUT BOTH SIDES OF WALL PENETRATION WITH AN NSF 61 APPROVED NON-SHRINKING GROUT IN ACCORDANCE WITH SECTION 03 60 00. CHAMFER GROUT AROUND PIPE OUTSIDE OF OPENING TO PROVIDE A SMOOTH TRANSITION BETWEEN PIPE AND WALL. REFER TO SECTION 1 ON DRAWING M-01-002 FOR SECTION.
2. ROUTE 3" NPS SCHEDULE 80 CPVC PIPING UNDER DECK AS SHOWN ON THIS SHEET. MOUNT 316 SS UNISTRUT SEGMENT UNDER DECK (UNISTRUT TYPE P1000) EVERY FIVE FEET ALONG PIPE ROUTE USING TWO 316 SS ANCHORS AND HARDWARE. ATTACH PIPE TO UNISTRUT SEGMENT USING A 316 SS PIPE CLAMP (UNISTRUT TYPE P1119 OR EQUAL).
3. ROUTE 3" NPS SCHEDULE 80 CPVC PIPING ALONG WALL AS SHOWN ON THIS SHEET. MOUNT 316 SS WALL BRACKET (UNISTRUT TYP P2945 OR EQUAL) EVERY FIVE FEET ALONG PIPE ROUTE USING TWO 316 SS ANCHORS AND HARDWARE. ATTACH PIPE TO BRACKET USING A 316 SS PIPE CLAMP (UNISTRUT TYP P1119 OR EQUAL).
4. PROVIDE A 1.5" NPS SCHEDULE 80 BRANCH OFF THE 3" LINE NEAR EACH LOCATION SHOWN ON THIS SHEET. ROUTE 1.5" PIPE TOWARDS THE EDGE OF THE DECK, TRANSITIONING TO A GALVANIZED ELBOW AND VERTICAL MALE 1.5" MNPT NIPPLE AT THE DECK EDGE. MOUNT 316 SS UNISTRUT SEGMENT HORIZONTALLY TO DECK EDGE (UNISTRUT TYPE 1000) EVERY FIVE FEET ALONG PIPE ROUTE USING TWO 316 SS ANCHORS AND HARDWARE. ATTACH PIPE NIPPLE TO UNISTRUT SEGMENT USING A 316 SS PIPE CLAMP (UNISTRUT TYPE P1115 OR EQUAL).
5. ATTACH A 1.5" FREEZELESS UTILITY HYDRANT (WOODWARD MODEL U150 OR EQUAL) WITH AN OVERALL LENGTH OF APPROXIMATELY 5.5 FEET AND MANUAL CLOSING LEVER HANDLE AT EACH LOCATION SHOWN ON THIS SHEET (18 TOTAL). UTILITY HYDRANT SHALL BE SECURED TO THE HANDRAIL USING A GALVANIZED OR 316 SS HEAVY DUTY CLAMP ON CROSS OVER BRACKET. PROVIDE EACH UTILITY HYDRANT WITH A 1.5" COLLAPSIBLE FABRIC FIRE HOSE (50 FOOT LENGTH) RATED FOR 150 PSI. INCLUDE A HOSE RACK SECURELY MOUNTED TO THE HANDRAIL AT EACH LOCATION.
6. ROUTE 3" NPS SCHEDULE 80 CPVC PIPING DOWN WALL FROM PIPE PENETRATION TO GROUND LEVEL IN LOCATIONS SHOWN. MOUNT 316 SS WALL BRACKET HORIZONTALLY (UNISTRUT P2945 OR EQUAL) EVERY FIVE FEET ALONG PIPE ROUTE USING TWO 316 SS ANCHORS AND HARDWARE. ATTACH PIPE TO BRACKET USING A 316 SS PIPE CLAMP (UNISTRUT TYPE P1119 OR EQUAL). SEE DRAWING C-01-001 FOR A CONTINUATION OF THE PIPING.
7. PLATE SETTLER EQUIPMENT SHALL BE PROVIDED IN BASIN 3 THROUGH 6 AS DEFINED IN SECTION 46 43 76.

Brown AND Caldwell

REGISTERED PROFESSIONAL ENGINEER
No. 8807408
JACOB C. HIMEBAUGH
6/1/22
STATE OF UTAH

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: J. HIMEBAUGH
DRAWN: T. DIMICELI
CHECKED:
CHECKED:
APPROVED: J. HIMEBAUGH
FILENAME M-01-001.dwg
BC PROJECT NUMBER 157012
CLIENT PROJECT NUMBER 4277

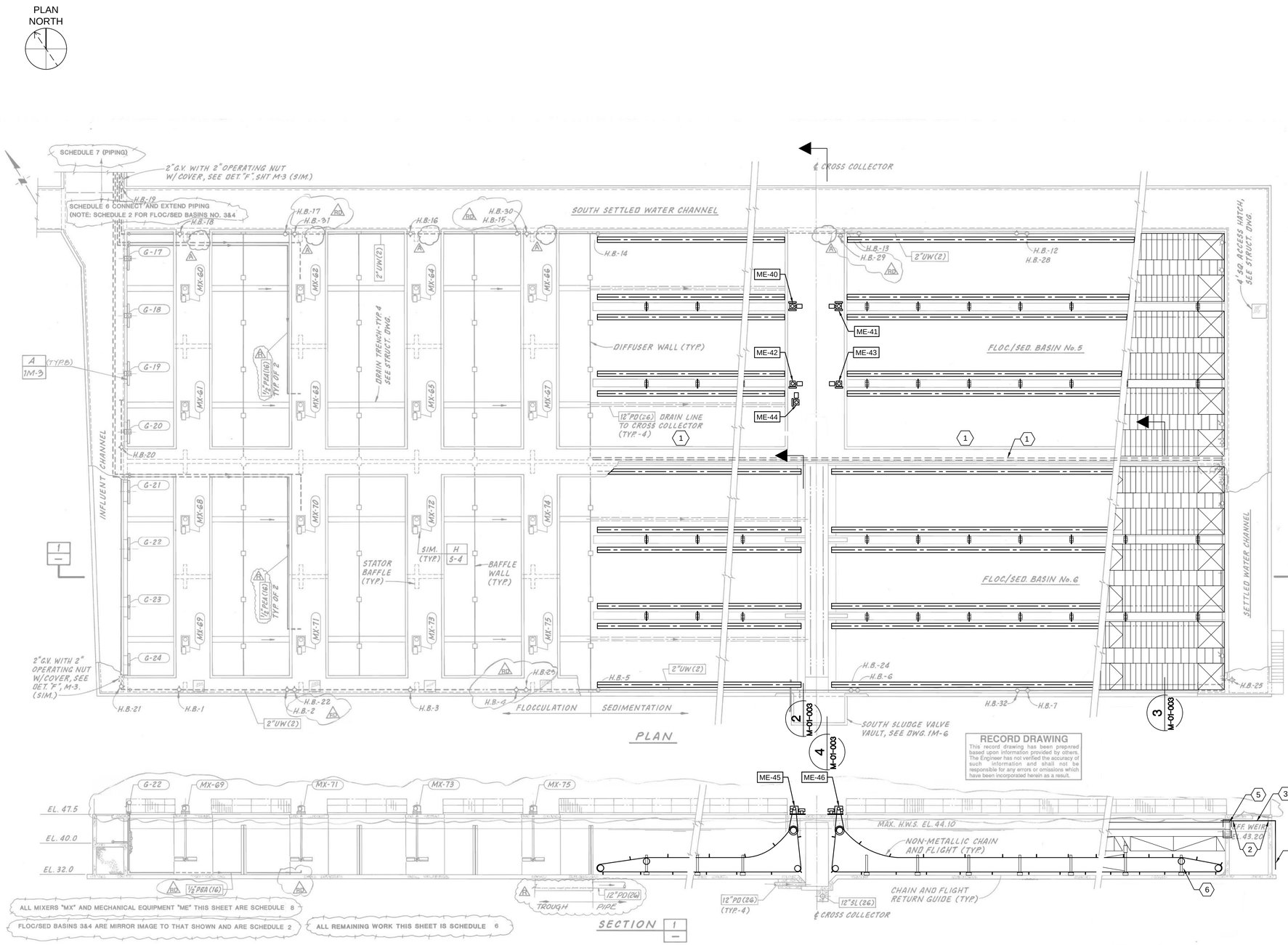
PROCESS

BASIN OVERVIEW AND GENERAL NOTES

DRAWING NUMBER
M-01-001

SHEET NUMBER 23 OF 48

Path: C:\BCPWD1868251 FILENAME: M-01-001.DWG PLOT DATE: 6/17/2022 8:43 AM CAD USER: TONY DIMICELI



GENERAL NOTES:

1. PERFORM INSTALLATION OF THE CHAIN AND FLIGHT AND PLATE SETTLER EQUIPMENT IN SEDIMENTATION BASIN 3 AND 4 AS DEFINED ON THIS DRAWING FOR SEDIMENTATION BASIN 5 AND 6. LAYOUT OF SEDIMENTATION BASINS 3 AND 4 IS A MIRROR IMAGE OF SEDIMENTATION BASINS 5 AND 6 SHOWN ON THIS DRAWING.
2. REFER TO DRAWINGS AND INSTALLATION INSTRUCTIONS PROVIDED BY EACH MANUFACTURER DURING THE SUBMITTAL PROCESS FOR ALL INFORMATION REQUIRED FOR INSTALLATION OF THE CHAIN AND FLIGHT AND PLATE SETTLER EQUIPMENT.
3. ALL ANCHORS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION 01 73 24 AND SECTION 05 05 20. INSTALLATION SHALL BE IN ACCORDANCE WITH BOTH THE EQUIPMENT MANUFACTURER'S AND EPOXY SYSTEM MANUFACTURER'S INSTRUCTIONS.
4. PROPER CARE SHALL BE TAKEN TO PREVENT CONTAMINATION OF STAINLESS STEEL COMPONENTS WITH FREE IRON. FOLLOW ALL RECOMMENDATIONS PROVIDED IN PARAGRAPH 8 OF ASTM A380.
5. CONTRACTOR SHALL ALERT ENGINEER OF ANY BLOOMING OR EVIDENCE OF RUST FOUND ON STAINLESS STEEL COMPONENTS SUPPLIED BY THE MANUFACTURER PRIOR TO INSTALLATION. ANY BLOOMING OR EVIDENCE OF RUST FOUND AFTER INSTALLATION SHALL BE CLEANED AND TESTED BY MANUFACTURER IN ACCORDANCE WITH ASTM A380.
6. WHEN PLATE SETTLER EQUIPMENT IS INSTALLED NEXT TO A WALKWAY, INSTALL EDGE OF PLATE PACK AT EDGE OF WALKWAY.

KEY NOTES:

1. SEISMIC MODIFICATIONS TO THE SOUTH WALL AND ADJOINING FLOOR IN THE FORE AND AFT BAY OF BASIN 5 AND THE NORTH WALL AND ADJOINING FLOOR IN THE FORE AND AFT BAY OF BASIN 4 RESULT IN A UNIQUE LONGITUDINAL CHAIN AND FLIGHT MECHANISMS FOR TWO OF THE SIX LONGITUDINAL MECHANISMS IN EACH SET OF BASINS. REFER TO THE LATEST SUBMITTAL DRAWINGS PROVIDED BY THE CHAIN AND FLIGHT MANUFACTURER TO ENSURE CORRECT COMPONENTS ARE INSTALLED AND SPECIFIC DIMENSIONS ARE USED TO LOCATE COMPONENTS FOR THESE TWO MECHANISMS. ADDITIONALLY, REFER TO THE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION ON THE AREAS AFFECTED BY THE SEISMIC MODIFICATIONS.
2. PROVIDE A NSF 61 APPROVED LINK SEAL DESIGNED FOR CPVC PIPING AND OUTDOOR USE AT ALL WALL PENETRATIONS IN THE SETTLED WATER CHANNELS. GROUT BOTH SIDES OF WALL PENETRATION WITH AN NSF 61 APPROVED NON-SHRINKING GROUT IN ACCORDANCE WITH SECTION 03 60 00. CHAMFER GROUT AROUND PIPE OUTSIDE OF OPENING TO PROVIDE A SMOOTH TRANSITION BETWEEN PIPE AND WALL. REFER TO DETAIL 1 ON DRAWING M-01-002 FOR SECTION.
3. ROUTE 3" NPS SCHEDULE 80 CPVC PIPING UNDER DECK AS SHOWN ON THIS SHEET. MOUNT 316 SS UNISTRUT SEGMENT UNDER DECK (UNISTRUT TYPE P1000) EVERY FIVE FEET ALONG PIPE ROUTE USING TWO 316 SS ANCHORS AND HARDWARE. ATTACH PIPE TO UNISTRUT SEGMENT USING A 316 SS PIPE CLAMP (UNISTRUT TYPE P1119 OR EQUAL).
4. ROUTE 3" NPS SCHEDULE 80 CPVC PIPING DOWN WALL FROM PIPE PENETRATION TO GROUND LEVEL IN LOCATIONS SHOWN. MOUNT 316 SS WALL BRACKET HORIZONTALLY (UNISTRUT P2945 OR EQUAL) EVERY FIVE FEET ALONG PIPE ROUTE USING TWO 316 SS ANCHORS AND HARDWARE. ATTACH PIPE TO BRACKET USING A 316 SS PIPE CLAMP (UNISTRUT TYPE P1119 OR EQUAL). SEE DRAWING C-01-001 FOR A CONTINUATION OF THE PIPING.
5. TROUGHS SHALL CONNECT TO THE SETTLED WATER CHANNEL BY CASTING THEM INTO THE WALL. DEPTH OF TROUGH MAY REQUIRE REMOVAL OF CONCRETE TO ACCOMMODATE. SEE STRUCTURAL DETAILS ON DRAWING S-01-012 FOR FURTHER INFORMATION. REFER TO PLATE SETTLER MANUFACTURER'S DRAWINGS PROVIDED DURING THE SUBMITTAL PROCESS TO LOCATE TROUGHS.
6. DESIGN THE FINAL SUPPORT BEFORE THE END WALL TO CARRY ALL LIVE AND DEAD LOADS IMPOSED BY THE CHAIN AND FLIGHT RETURN SHAFT.

Brown AND Caldwell

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

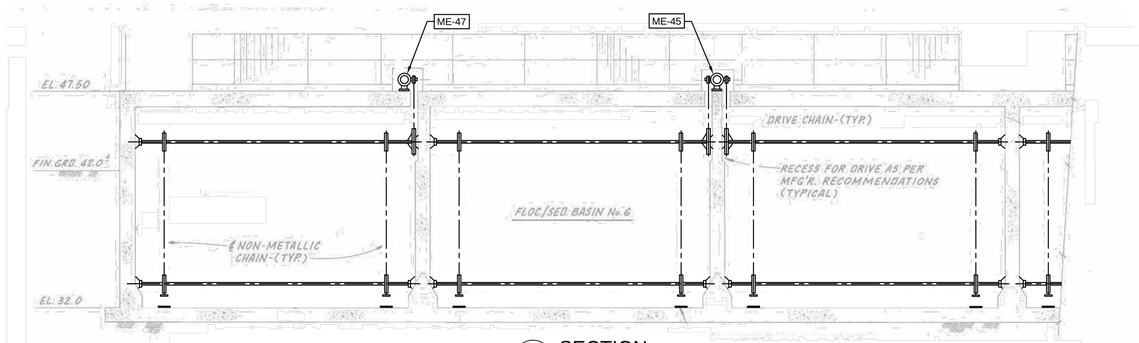
DESIGNED: J. HIMEBAUGH
DRAWN: T. DIMICELI
CHECKED:
CHECKED:
APPROVED: J. HIMEBAUGH
FILENAME M-01-002.dwg
BC PROJECT NUMBER 157012
CLIENT PROJECT NUMBER 4277

PROCESS

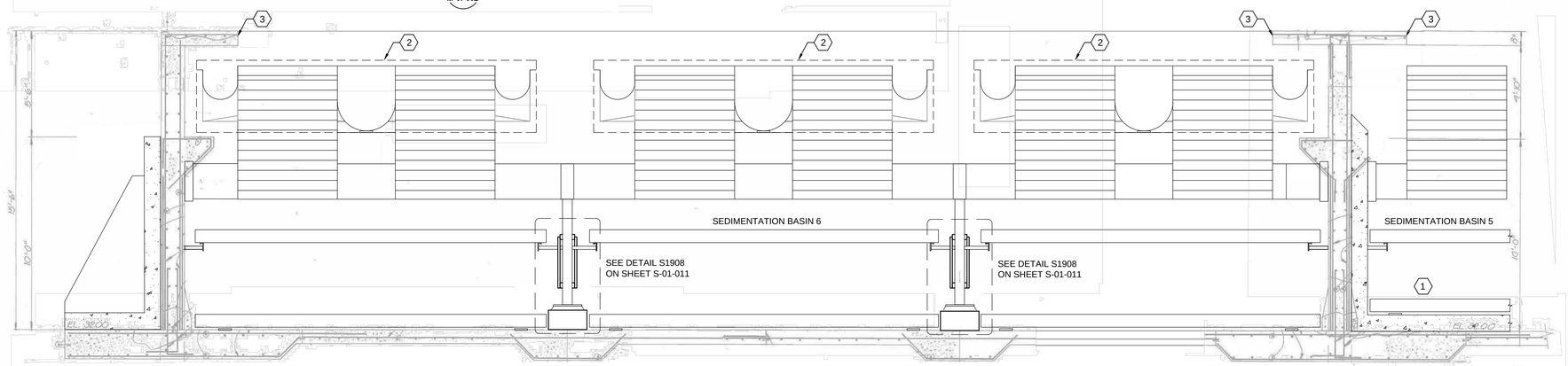
SEDIMENTATION BASIN - PLAN AND SECTIONS 1

DRAWING NUMBER
M-01-002

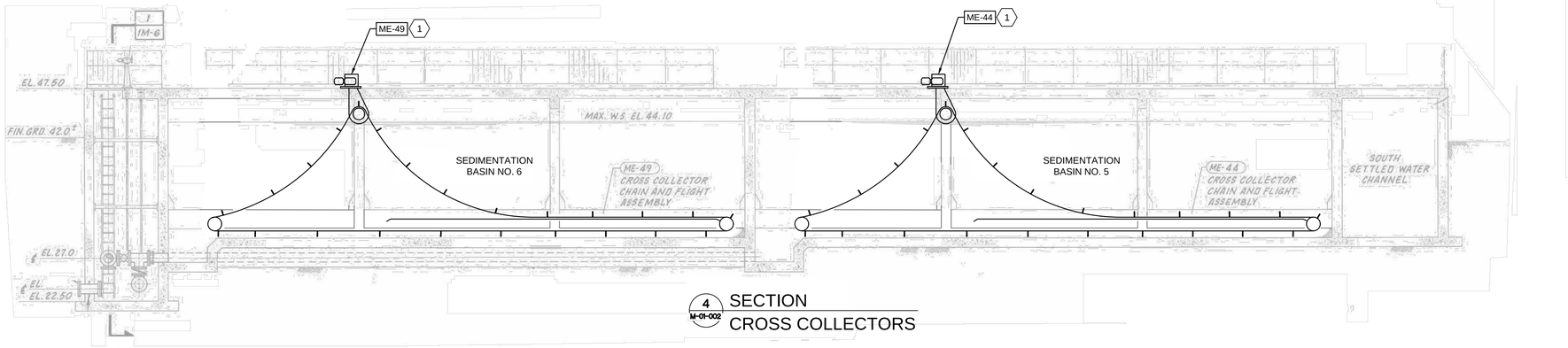
SHEET NUMBER 24 OF 48



2 M-01-002 SECTION



3 M-01-002 SECTION
AREA UNDER PLATES



4 M-01-002 SECTION
CROSS COLLECTORS

GENERAL NOTES:

1. PERFORM INSTALLATION OF THE CHAIN AND FLIGHT AND PLATE SETTLER EQUIPMENT IN SEDIMENTATION BASIN 3 AND 4 AS DEFINED ON THIS DRAWING FOR SEDIMENTATION BASIN 5 AND 6. LAYOUT OF SEDIMENTATION BASIN 3 AND 4 IS A MIRROR IMAGE OF SEDIMENTATION BASIN 5 AND 6 SHOWN ON THIS DRAWING.
2. REFER TO DRAWINGS AND INSTALLATION INSTRUCTIONS PROVIDED BY EACH MANUFACTURER DURING THE SUBMITTAL PROCESS FOR ALL INFORMATION REQUIRED FOR INSTALLATION OF THE CHAIN AND FLIGHT AND PLATE SETTLER EQUIPMENT.
3. ALL ANCHORS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION 01 76 24 AND SECTION 05 05 20. INSTALLATION SHALL BE IN ACCORDANCE WITH BOTH THE EQUIPMENT MANUFACTURER'S AND EPOXY SYSTEM MANUFACTURER'S INSTRUCTIONS.
4. PROPER CARE SHALL BE TAKEN TO PREVENT CONTAMINATION OF STAINLESS STEEL COMPONENTS WITH FREE IRON. FOLLOW ALL RECOMMENDATIONS PROVIDED IN PARAGRAPH 8 OF ASTM A380.
5. CONTRACTOR SHALL ALERT ENGINEER OF ANY BLOOMING OR EVIDENCE OF RUST FOUND ON STAINLESS STEEL COMPONENTS SUPPLIED BY THE MANUFACTURER PRIOR TO INSTALLATION. ANY BLOOMING OR EVIDENCE OF RUST FOUND AFTER INSTALLATION SHALL BE CLEANED AND TESTED BY MANUFACTURER IN ACCORDANCE WITH ASTM A380.

KEY NOTES:

1. SEISMIC MODIFICATIONS TO THE SOUTH WALL AND ADJOINING FLOOR IN THE FORE AND AFT BAY OF BASIN 5 AND THE NORTH WALL AND ADJOINING FLOOR IN THE FORE AND AFT BAY OF BASIN 4 RESULT IN A UNIQUE LONGITUDINAL CHAIN AND FLIGHT MECHANISMS FOR TWO OF THE SIX LONGITUDINAL MECHANISMS IN EACH OF THE BASINS. REFER TO THE LATEST DRAWINGS PROVIDED BY THE CHAIN AND FLIGHT MANUFACTURER TO ENSURE CORRECT COMPONENTS ARE INSTALLED AND SPECIFIC DIMENSIONS ARE USED TO LOCATE COMPONENTS FOR THESE TWO MECHANISMS. ADDITIONALLY, REFER TO THE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION ON THE AREAS AFFECTED BY THE SEISMIC MODIFICATIONS.
2. SETTLED WATER CHANNEL WALL OPEN IN THREE LOCATIONS AS SHOWN. TROUGHS SHALL EXTEND INTO SETTLED WATER CHANNEL THROUGH THESE OPENINGS. DEPTH OF TROUGH MAY REQUIRE REMOVAL OF CONCRETE TO ACCOMMODATE. OPENING OUTSIDE THE TROUGHS SHALL BE FILLED. SEE STRUCTURAL DETAILS ON DRAWING S-01-012 FOR FURTHER INFORMATION. REFER TO PLATE SETTLER MANUFACTURER'S DRAWINGS PROVIDED DURING THE SUBMITTAL PROCESS TO LOCATE TROUGHS. QUANTITY AND SIZE OF TROUGHS PER THE APPROVED SUBMITTAL OF THE PLATE SETTLER MANUFACTURER.
3. WHEN PLATE SETTLER EQUIPMENT IS INSTALLED NEXT TO A WALKWAY, INSTALL EDGE OF PLATE PACK AT EDGE OF WALKWAY.

Brown AND Caldwell

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: J. HIMEBAUGH
DRAWN: T. DIMICELI
CHECKED:
CHECKED:
APPROVED: J. HIMEBAUGH
FILENAME M-01-003.dwg
BC PROJECT NUMBER 157012
CLIENT PROJECT NUMBER 4277

PROCESS

SEDIMENTATION BASIN - PLAN AND SECTIONS 2

DRAWING NUMBER
M-01-003

SHEET NUMBER 25 OF 48

Path: C:\BCPWD1868251 FILENAME: M-01-003.DWG PLOT DATE: 6/17/2022 8:53 AM CAD USER: TONY DIMICELI

RACEWAYS

HH23 — MANHOLE (MH), HANDHOLE (HH), PULLBOX (PB)

JB1900 — JUNCTION BOX. OPTIONAL IDENTIFIER

TB-1301 — TERMINAL BOX. OPTIONAL IDENTIFIER

PBD-1900-1,3,5 — HOME RUN EXPOSED - SEE PANELBOARD, SWITCHBOARD, OR MCC SCHEDULE FOR CIRCUIT INFORMATION

EXAMPLE: HOME TO PANELBOARD PBD-1900, CIRCUITS 1, 3, AND 5

PBD-1900-1,3,5 — HOME RUN CONCEALED - SEE PANELBOARD, SWITCHBOARD, OR MCC SCHEDULE FOR CIRCUIT INFORMATION.

EXAMPLE: HOME TO PANELBOARD PBD-1900, CIRCUITS 1, 3, AND 5

CABLE TRAY MODIFIERS:

CTS - 24VDC OR LESS

CTC - 120V CONTROL CONDUCTORS

CTP - 600V POWER CONDUCTORS

CABLE #4/0 AND LARGER SHALL NOT BE STACKED VERTICALLY

WHEN TWO TRAY MODIFIERS IDENTIFY A SINGLE TRAY, THE CONTRACTOR MAY USE DIVIDER OR INSTALL SEPARATE TRAYS (CTC/CTS)

CABLE TRAY WITH COVER MODIFIER, AS ABOVE

P-00000 — RACEWAY IDENTIFIER

RACEWAY EXPOSED

MODIFIERS FOR RACEWAY TYPE:

H - POWER (ABOVE 600V)

P - POWER

C - CONTROL

S - SIGNAL

D - DATA

F - FIBER OPTIC

PC - POWER AND CONTROL

X - SPARE

RACEWAY CONCEALED

RACEWAY TURNED TOWARD THE THE VIEWER

RACEWAY TURNED DOWN

CONDUIT CAPPED

DB 05P1100 — DUCT BANK IDENTIFIER (OPTIONAL)

DB — DUCT BANK, DIRECT BURIED

CDB — DUCT BANK, CONCRETE ENCASED

RC — RC — DUCTBANK, REINFORCED CONCRETE ENCASED

OH — OVERHEAD POWER LINE

DISTRIBUTION EQUIPMENT

APPROXIMATE SHAPE AND SCALE REPRESENTED WHERE POSSIBLE. HOWEVER, EXACT SIZE AND NUMBER OF SECTIONS IS ESTIMATED

FLOOR-STANDING DISTRIBUTION ASSEMBLY, SUCH AS A SWITCHBOARD, TRANSFORMER, OR MOTOR CONTROL CENTER

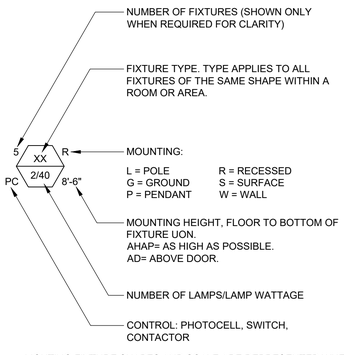
MCC-001 — EQUIPMENT DESIGNATION (EXAMPLE)

WALL-MOUNTED DISTRIBUTION ASSEMBLY, SUCH AS PANELBOARD, MOTOR STARTER PANEL, OR TERMINAL CABINET

LCP-0001 — EQUIPMENT DESIGNATION (EXAMPLE)

LIGHTING

FIXTURE IDENTIFIER:



LIGHTING FIXTURE SHAPES AND SCALE ARE REPRESENTED WHERE POSSIBLE. THE EXAMPLES SHOWN BELOW ARE TYPICAL APPLICATIONS

RECESSED LIGHTING FIXTURE

SUSPENDED PENDANT MOUNTED FIXTURE

SURFACE MOUNTED FIXTURE

NS — EMERGENCY LIGHTING FIXTURES, FIXTURES WITH EMERGENCY BALLASTS, AND FIXTURES IDENTIFIED WITH AN 'NS' SHALL BE PROVIDED WITH NON-SWITCHED POWER SOURCE

E — LIGHTING FIXTURE WITH EMERGENCY BATTERY PACK

LIGHT FIXTURE

WALL MOUNTED FIXTURE

DIRECTIONAL LIGHT

POLE MOUNTED AREA LIGHT

EMERGENCY LIGHTING UNIT SELF CONTAINED

LIGHTING CONTINUED

EXIT LIGHTS:

SURFACE ON CEILING

WALL MOUNTED

WITH DIRECTIONAL ARROWS

3a — CIRCUIT IDENTIFIER: WHEN SHOWN ADJACENT TO FIXTURE IDENTIFIES CIRCUIT NUMBER AND SWITCH. EXAMPLE: CIRCUIT 3, CONTROLLED BY SWITCH a

PC — PHOTO CELL

OS — OCCUPANCY SENSOR

WIRING DEVICES

SWITCHES:

UNLESS OTHERWISE NOTED, ALL SWITCHES ARE WALL MOUNTED

$ — TOGGLE SWITCH, SINGLE POLE

$$ — GANGED SWITCHES IN COMMON BOX WITH COMMON WALL PLATE

$a3 — SUPERSCRIPT INDICATES CIRCUIT CONTROLLED: a, b, c, ETC. MAY BE COMBINED WITH CIRCUIT NUMBER. EXAMPLE: 1a, 4b, ETC

SUBSCRIPT MODIFIER INDICATES:

2 = DOUBLE POLE

3 = THREE WAY

4 = FOUR WAY

k = KEY OPERATED

MC = MOMENTARY CONTACT, THREE POSITION

MS = MANUAL (MOTOR) STARTER OR SWITCH WITH OVERLOADS

R = RHEOSTAT (DIMMER, SPEED CONTROL)

OS = OCCUPANCY SWITCH

D — DIMMER

RECEPTACLES:

WP — DUPLEX RECEPTACLE

RECEPTACLE MODIFIERS:
WP = WEATHER PROOF
GFI = GROUND FAULT CIRCUIT INTERRUPTER

HAZARDOUS AREA; EXPLOSION PROOF

EXPLOSION PROOF, CLASS 1, DEAD FRONT, 45° ANGLE, TWO GANG

RECESSED FLOOR RECEPTACLE - ANY RECEPTACLE INSIDE A SQUARE

SURFACE FLOOR RECEPTACLE - ANY RECEPTACLE INSIDE A TRIANGLE

GANGED RECEPTACLES--IN COMMON BOX, WITH COMMON WALL PLATE

C — RECEPTACLE, CLOCK HANGER

RECEPTACLE, DUPLEX ON EMERGENCY

EQUIPMENT OR SPECIAL PURPOSE CONNECTION

GROUNDING

GROUND ROD

GROUND ROD WITH GROUND WELL

GROUND CONNECTION, COMPRESSION TYPE, EXOTHERMIC. SEE SPECIFIC

GROUNDING CONDUCTOR

GROUND CONNECTION

GROUND CONNECTION TO STRUCTURAL REINFORCEMENT

O — LIGHTNING ROD/AIR TERMINAL

MOTORS AND EQUIPMENT

MOTOR STARTER, INDIVIDUAL. NOT LOCATED IN AN MCC OR SIMILAR GROUP ASSEMBLY

COMBINATION MOTOR STARTER. NOT LOCATED IN AN MCC OR SIMILAR GROUP ASSEMBLY

DISCONNECT SWITCH, NON-FUSED
EXAMPLE: 60 AMP

F — DISCONNECT SWITCH, FUSED
EXAMPLE: 100 AMP, 2P, 80 AMP FUSES

M — MOTOR

SV — SOLENOID VALVE

H — HEATER

T — THERMOSTAT

WH — WATER HEATER

FIELD INSTRUMENT

LOCAL CONTROL STATION

LCP-0001 — EQUIPMENT DESIGNATION

CONTROL PANEL, VFD, RVSS, APPROXIMATE SHAPE AND SCALE.

AREA IDENTIFICATION

C1-D1 — HAZARDOUS AREA CLASSIFICATION

C1-D2 — HAZARDOUS AREA CLASSIFICATION

TELEPHONE & COMMUNICATION SYSTEMS

UNLESS OTHERWISE NOTED, TELEPHONE OUTLETS SHALL BE MOUNTED AT SAME HEIGHT AS THE RECEPTACLES.

A — EXTERNAL LINE OR PLANT PHONE SYSTEM OUTLET

OPTIONAL MODIFIERS:
A = ATTENDANT'S CONSOLE
F = FUTURE INSTRUMENT
J = JACK, PLUG-IN TYPE
W = WALL INSTRUMENT

BELL

D — OUTLET, DATA COMMUNICATION

SECURITY CAMERA

SPEAKER

H — AUDIBLE HORN

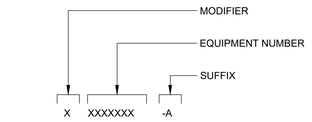
B — STROBE LIGHT (BLUE SHOWN)

CS — ELECTRONIC CARD SWIPE

SD — SMOKE DETECTOR

R — RATE-OF-RISE DETECTOR

CIRCUIT IDENTIFICATION



NOTE:

MODIFIERS FOR CABLE TYPE INCLUDE:
H - POWER (ABOVE 600V)
P - POWER
C - CONTROL
S - SIGNAL
D - DATA
F - FIBER OPTIC
PC - POWER AND CONTROL
X - SPARE

SUFFIX:
A - LETTER TO CREATE UNIQUE ID

EXAMPLE 1: P101-1: 3 #2/0, #6G, 2"C	FOR CIRCUIT P101: THREE NO. 2/0 CONDUCTORS, ONE NO. 6 AWG GROUND WIRE IN A 2" CONDUIT
EXAMPLE 2: SES-2: 2[3 #1/0, #6G, 1 1/2"C]	FOR SES-2: TWO PARALLEL RUNS OF THREE NO. 1/0 CONDUCTORS, ONE NO. 6 AWG GROUND IN 1 1/2" CONDUIT
EXAMPLE 3: C111: 2-1 PR #16S, 1"C	FOR CONTROL CIRCUIT: TWO SIGNAL CABLES OF #16 AWG TWISTED SHIELDED PAIR IN 1" C.
EXAMPLE 4: VND, 1"C	VENDOR CABLE, 1"C (CONDUIT BY CONTRACTOR) TYP

GENERAL NOTES:

1. SYMBOLS AND ABBREVIATION DRAWINGS ARE GENERAL IN NATURE. SOME SYMBOLS SHOWN HEREON MAY NOT BE USED ON THE CONTRACT DRAWINGS
2. SYMBOLS ARE ARRANGED ON SPECIFIC DRAWINGS AND IN CATEGORIES FOR CONVENIENCE ONLY; SYMBOLS MAY BE USED ON ANY OF THE CONTRACT DRAWINGS
3. IDENTIFICATIONS (ID), SIZES, RATINGS, LOCATIONS AND SIMILAR INFORMATION SHOWN ASSOCIATED WITH SYMBOLS ARE OPTIONAL; EXAMPLES OF SUCH INFORMATION ARE SHOWN WITH SOME SYMBOLS FOR CLARITY

Brown AND Caldwell

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: N. ANDERSON
DRAWN: B. PENALBA
CHECKED: J. HIMEBAUGH
CHECKED: D. STAR
APPROVED: D. STAR

FILENAME
E-00-001.dwg

BC PROJECT NUMBER
157012

CLIENT PROJECT NUMBER
4277

ELECTRICAL

STANDARD DETAILS, SYMBOLS AND ABBREVIATIONS - 1

DRAWING NUMBER
E-00-001

SHEET NUMBER 26 OF 48

Path: C:\BCPW\D1868259 FILENAME: E-00-001.DWG PLOT DATE: 6/2/2022 4:42 PM CAD USER: NATE ANDERSON

CONTROL DIAGRAM SYMBOLS

GENERAL

- CONDUCTORS CONNECTED
- CONDUCTORS NOT CONNECTED
- TERMINAL POINT FOR EXTERNAL CONNECTIONS
- EXISTING EQUIPMENT (SCREENED)

INDICATING LIGHTS

- DIRECT CONNECTION
- PUSH TO TEST. TEST VOLTAGE TERMINAL SHOWN (X1)

LENS COLOR: (L = LENS COLOR)
- A = AMBER
- B= BLUE
- G= GREEN
- R= RED
- W= WHITE

PUSHBUTTONS

- HS-XXXX — PUSHBUTTON, MOMENTARY CONTACT, NORMALLY OPEN
- HS-XXXX — PUSHBUTTON, MOMENTARY CONTACT, NORMALLY CLOSED
- HS-XXXX — PUSHBUTTON WITH MUSHROOM HEAD, EMERGENCY STOP

SELECTOR SWITCHES

HS-XXXXX, 1, 2, XO — 2 POSITION MAINTAINED CONTACT
X = CONTACTS CLOSED
O = CONTACTS OPEN

HS-XXXXX, 1, 2, XO, OX — 2 POSITION SPRING RETURNED TO RIGHT
O = CONTACTS OPENED
X = CONTACTS CLOSED

HS-XXXXX, 3, 1, 2, OXO, OX — 3 POSITION MAINTAINED CONTACT
X = CONTACTS CLOSED
O = CONTACTS OPENED

CONTROL RELAYS

- CR 1 FUNCTION — OPERATION COIL: CR = CONTROL RELAY
- L U 8 LR — MECHANICALLY LATCHED RELAY WITH UNLATCHED COIL
- CR1 CR2 LINE 30 LINE 30 OL — OUTPUT CONTACTS. LINE NUMBER OF RELAY COIL SHOWN (OPTIONAL)
  OPERATING COIL FUNCTIONS:
  - L = LATCH
  - U = UNLATCH
  - TR = TIMER RELAY
  - LR = LATCH RELAY
- OVERLOAD RELAY

INPUT SWITCHES

NORMALLY OPEN	NORMALLY CLOSED	INITIATING VARIABLE
SS	SS	SPEED
TS	TS	TEMPERATURE
WS	WS	SHEAR OR TORQUE
ZS	ZS	POSITION (LIMIT)
FS	FS	FLOW
LS	LS	LEVEL
PS	PS	PRESSURE

TIMING RELAYS

- TR 1 SEC / MIN — OPERATING COIL
  FUNCTION:
  ON OR OFF DELAY
  RANGE: SEC / MIN
  SET: SEC / MIN

NORMALLY OPEN	NORMALLY CLOSED	
TR3 LINE 50 OR TR3 TC	TR3 LINE 50 OR TR3 TO	DELAY ON COIL ENERGIZATION (ON DELAY)
TR3 LINE 50 OR TR3 TC	TR3 LINE 50 OR TR3 TO	DELAY ON COIL DE-ENERGIZATION (ON DELAY)

LINE = ID OF LINE OR RUNG NUMBER
(LINE OR RUNG NUMBER 50 SHOWN)

CONTACTORS

- ID — OPERATING COIL:
  - C = CONTACTOR, LIGHTING, OR GENERAL USE
  - F = FAST OR FORWARD
  - M = MAIN OR LINE
  - 1M = FIRST MAIN OR WYE
  - 2M = SECOND MAIN OR DELTA
  - R = RUN OR REVERSE
  - S = SLOW OR START
  - IC = ISOLATION CONTROL
- ID, SIZE X — MAIN CONTACTS:
  MAIN CONTACTS AIR BREAK, NEMA SIZE OPTIONAL
  MODIFIERS:
  - FVR = FULL VOLTAGE REVERSING
  - RVS = REDUCED VOLTAGE STARTER
  - RVSS = REDUCED VOLTAGE SOLID STATE STARTER
  - RVAT = REDUCED VOLTAGE AUTOTRANSFORMER STARTER
  - 2S2W = TWO SPEED, TWO WINDING STARTER
- M, SIZE 1 — VACUUM CONTACTOR, NEMA SIZE OPTIONAL

MISCELLANEOUS

- FU 30, 30A — FUSE WITH SIZE AND OPTIONAL IDENTIFICATION
- FU 30, 30A — FUSE WITH BLOWN FUSE INDICATOR
- 480 VAC, 250VA — CONTROL TRANSFORMER PRIMARY AND SECONDARY SIZE AS SHOWN OR AS SPECIFIED
- 250/5, 3 — CURRENT TRANSFORMER PRIMARY/SECONDARY TURNS RATIO SHOWN (OPTIONAL)
- 250 OHM, RES — RESISTOR
- RECTIFIER
- SURGE OR ARC SUPPRESSION
- 55 KVAR — CAPACITOR
- CONNECTOR
- XX — INCOMING LINE POWER SUPPLY
- DRAWOUT MECHANISM
- CV-1000 — SOLENOID VALVE: DEVICE ID 'CV-1000' SHOWN
- BUS DUCT
- GROUND CONNECTION
- POTENTIOMETER
- H — METER W/ ALPHA IDENTIFIER:
  - A = AMMETER
  - H = ELAPSED TIME
  - V = VOLTMETER
- BATTERY
- CABLE ID — SHIELDED CABLE
- LOCATED IN FIELD
- AC TERMINAL BLOCK
- DC TERMINAL BLOCK
- DO — PLC I/O POINTS
  - DI = DIGITAL INPUT
  - DO = DIGITAL OUTPUT
  - AI = ANALOG INPUT
  - AO = ANALOG OUTPUT

ONE LINE DIAGRAM SYMBOLS

- TRIP FRAME, 52 — POWER CIRCUIT BREAKER (AIR, OIL, OR GAS)
  FRAME AND TRIP SETTING AND OPTIONAL I.D. SHOWN
- 3P, 100 AT 100 AF, LSIG — CIRCUIT BREAKER W/ ADJUSTABLE ELECTRONIC TRIP OVER BREAKER FRAME SIZE.
  SOLID STATE TRIP FEATURES SHOWN:
  - L = LONG DELAY
  - S = SHORT DELAY
  - I = INSTANTANEOUS
  - G = GROUND FAULT
- 100 AT 100 AF, LSIG, 3P
- AMPS, MCP — CIRCUIT BREAKER
  - MCP = MOTOR CIRCUIT PROTECTOR
  - 3P = 3 POLE THERMAL MAGNETIC TRIP
- MCP, 3P
- AMPS
- 3P
- 30A 3P, CLF — FUSED SWITCH:
  FUSE RATING AND POLES SHOWN
  MODIFIERS:
  - CLF = CURRENT LIMITING FUSE
  - DE = DUAL ELEMENT
  - F = CLASS 'F'
  - E = E RATED
- FU 30, 30A — FUSE:
  100A CLASS 'F' SHOWN
- ATS# 100A, 3P — POWER TRANSFER SWITCH:
  DESIGNATION, AMP RATING, AND CONFIGURATION SHOWN
  - ATS = AUTOMATIC TRANSFER SWITCH
  - MTS = MANUAL TRANSFER SWITCH
  - SUSE = SUITABLE FOR USE AS SERVICE ENTRANCE
- 1 FVR — AIR BREAK CONTACTOR, FVNR U.O.N. NEMA SIZE 1 INDICATED
  - FVR = FULL VOLTAGE, REVERSING STARTER
  - 2S2W = TWO SPEED, TWO WINDING STARTER
- METERING (ANSI / IEEE FUNCTIONS SPECIFIED)
  - POWER MONITOR (PM)
  - POWER QUALITY MONITOR (HARMONIC ANALYSIS) (PQM)
  - MOTOR MONITOR AND PROTECTION RELAY (MPR)
  - FEEDER PROTECTION RELAY (FPR)
- 5 KVA — PACKAGED EQUIPMENT OR NON-MOTOR LOAD.
  KVA, KW, AMPS, AS NOTED.
- XX HP ### AMPS, OR, VFD — VARIABLE FREQUENCY DRIVE (VFD)
  NORMAL DUTY UON
  HP IS INDICATED IF DIFFERENT THAN DRIVEN LOAD HP
  ##AMPS = RATED CONTINUOUS AMPS
- RVSS — REDUCED VOLTAGE SOLID STATE STARTER
- SPD — SURGE PROTECTION DEVICE
- 64 N, 3 — ANSI C37.2 DEVICE & QUANTITIES SHOWN

- 600kW, 480V, 60 Hz, G, 3P, 4W — GENERATOR WITH WINDING CONFIGURATION
  VOLTAGE, POWER, FREQUENCY SHOWN.
  POWER FACTOR OPTIONAL
- 500 — MOTOR, HORSE POWER SHOWN
- 55 KVAR — POWER FACTOR CORRECTIONS CAPACITOR
  KVAR RATING SHOWN
- POTHEAD
- STRESS CONE
- PORTABLE CABLE
- CABLE BUS
- BUS CONDUCTOR
- CABLE CONDUCTOR
- SURGE ARRESTOR
- LIGHTNING ARRESTOR
- TEST DEVICE
- 200A — DISCONNECT OR ISOLATING SWITCH
  200 AMP SHOWN
- 480 VAC, 30KVA, 5% Z, 208/120V — POWER TRANSFORMER, VOLTAGES, SIZE, AND IMPEDANCE SHOWN
- 1.5 KVA, 480 VAC, 2.5% Z, 480 VAC — ISOLATION TRANSFORMER, VOLTAGES, SIZE, AND IMPEDANCE SHOWN
- 3, 480VAC - 120VAC — POTENTIAL TRANSFORMER, PT QUANTITY SHOWN (3) AND VOLTAGES SHOWN
- 250/5, 3 — CURRENT TRANSFORMER, CT QUANTITY AND 250:5 TURNS RATIO SHOWN

WINDING CONFIGURATIONS:
- DELTA
- WYE (GROUNDED)
- K — KIRK KEY INTERLOCK
- 50 AMP / 30 SEC, GDR — NEUTRAL GROUNDING RESISTOR.
  AMPS/TIME RATING SHOWN
- 1 — SMART MOTOR STARTER, NEMA SIZE 1

Brown AND Caldwell

JORDAN VALLEY WATER CONSERVANCY DISTRICT

BID SET

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED:	N. ANDERSON
DRAWN:	B. PENALBA
CHECKED:	J. HIMEBAUGH
CHECKED:	D. STAR
APPROVED:	D. STAR
FILENAME	E-00-002.dwg
BC PROJECT NUMBER	157012
CLIENT PROJECT NUMBER	4277

ELECTRICAL

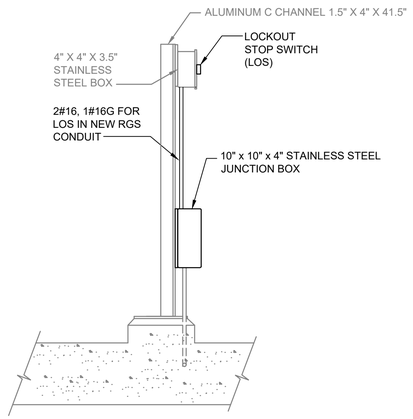
STANDARD DETAILS, SYMBOLS AND ABBREVIATIONS - 2

DRAWING NUMBER
E-00-002

SHEET NUMBER 27 OF 48

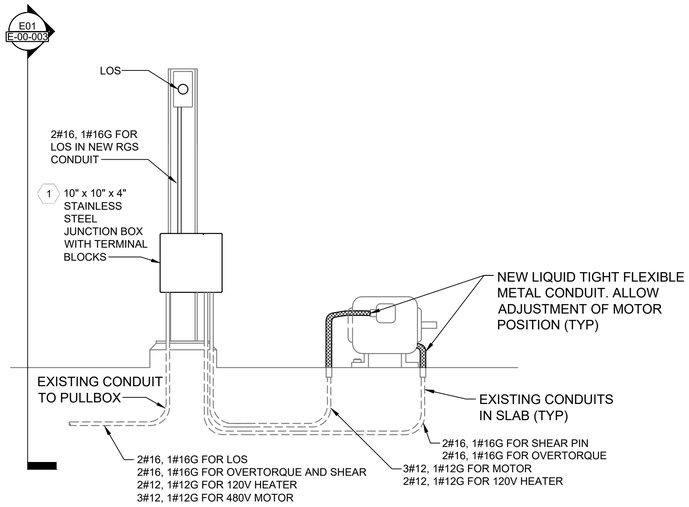
KEY NOTES

1. PROVIDE TERMINAL BLOCKS TO COMBINE SHEAR AND OVERTORQUE SWITCHES INTO SINGLE CONTROL CIRCUIT BACK TO THE MCC BUCKET. SEE SHEET E-01-005 FOR SCHEMATIC.



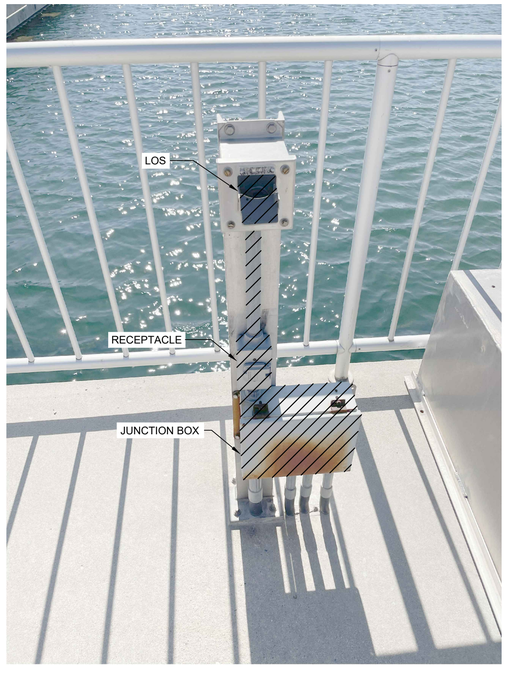
EQUIPMENT SUPPORTS INSTRUMENT/CONTROL STAND - ALUM

DETAIL E01



LOS SWITCH AND POWER INSTALLATION

DETAIL E02



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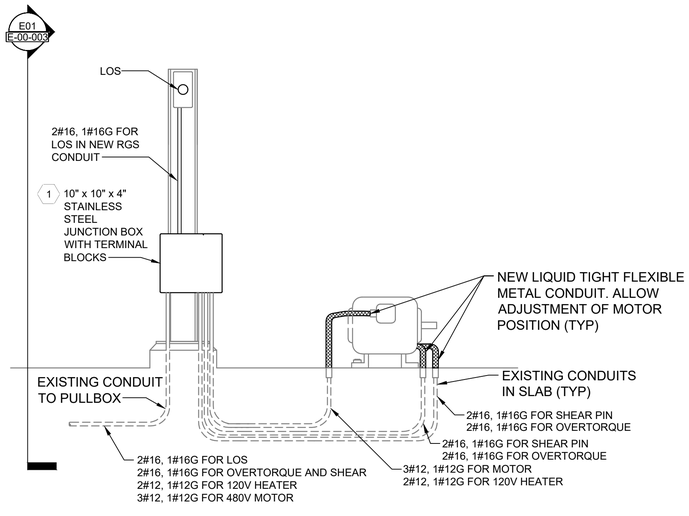
DETAIL ED01



LOS SWITCH AND POWER INSTALLATION

DETAIL E03

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JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED:	N. ANDERSON
DRAWN:	B. PENALBA
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CHECKED:	D. STAR
APPROVED:	D. STAR

FILENAME
E-00-003.dwg

BC PROJECT NUMBER
157012

CLIENT PROJECT NUMBER
4277

ELECTRICAL

STANDARD ELECTRICAL DETAILS

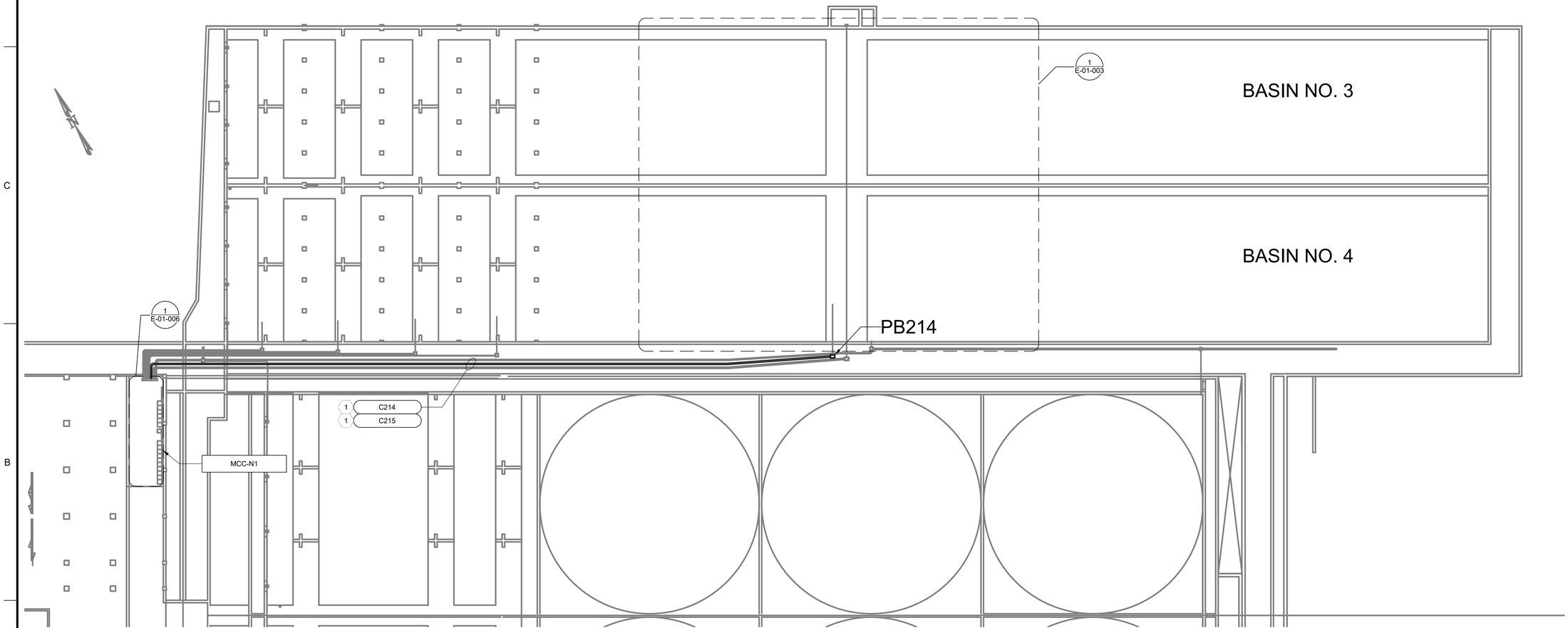
DRAWING NUMBER
E-00-003

SHEET NUMBER 28 OF 48

Path: C:\BGPWD\1868259 FILENAME: E-00-003.DWG PLOT DATE: 6/15/2022 10:41 AM CAD USER: NATE ANDERSON

KEY NOTES

1. ROUTE NEW POWER AND CONTROL CABLES IN THE EXISTING CONCRETE-ENCASED CONDUIT.



SEDIMENTATION BASINS 3 AND 4 POWER PLAN

SCALE: 1" = 20'-0"

0 20 40

SCALE IN FEET

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OREGON PROFESSIONAL ENGINEER
No. 123551PE 2007
DAVID IDDO STAR
6/2/22
STATE OF UTAH

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

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DRAWN:	B. PENALBA
CHECKED:	J. HIMEBAUGH
CHECKED:	D. STAR
APPROVED:	D. STAR

FILENAME
E-01-001.dwg

BC PROJECT NUMBER
157012

CLIENT PROJECT NUMBER
4277

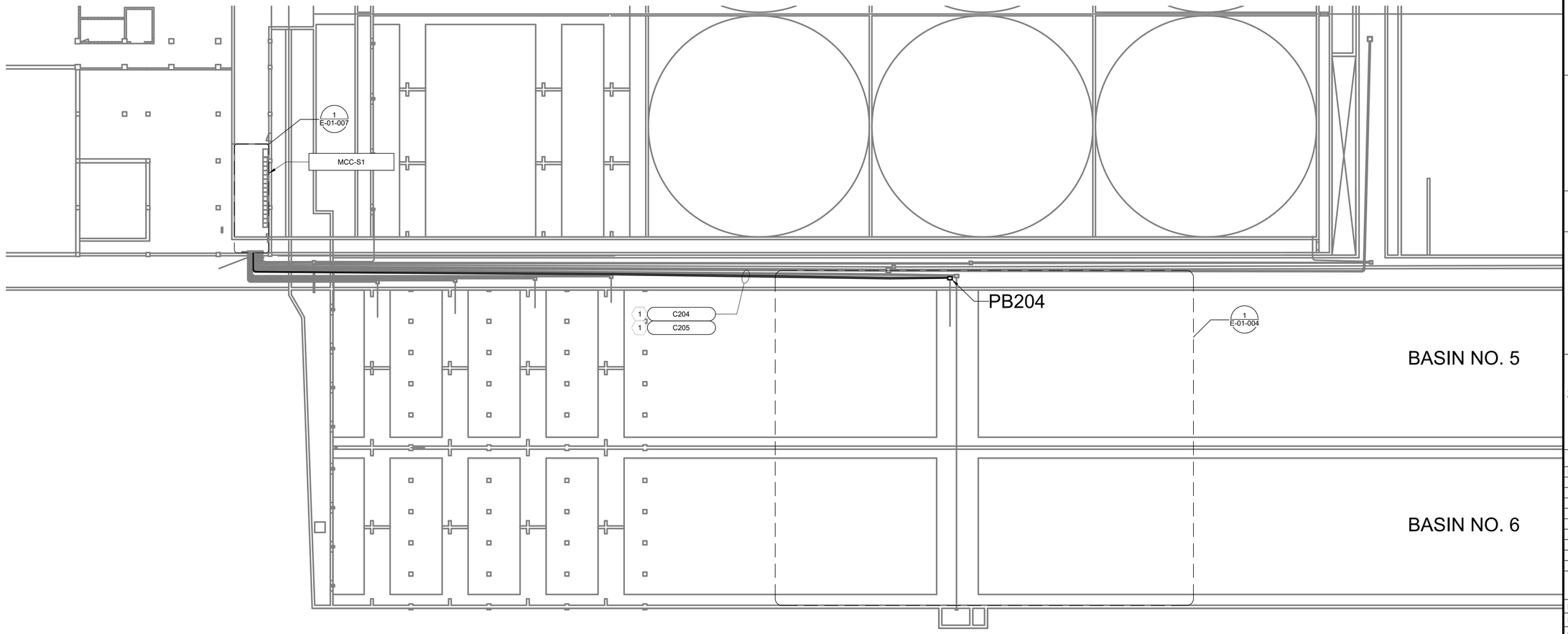
ELECTRICAL

SEDIMENTATION BASINS 3 AND 4 POWER AND CONTROL PLAN

DRAWING NUMBER
E-01-001

SHEET NUMBER 29 OF 48

Path: C:\BCPWD1868259 FILENAME: E-01-001.DWG PLOT DATE: 6/2/2022 5:10 PM CAD USER: NATE ANDERSON



SEDIMENTATION BASINS 5 AND 6 POWER PLAN
SCALE: 1" = 20'-0"

KEY NOTES

1. ROUTE NEW POWER CABLES IN A SINGLE EXISTING CONCRETE-ENCASED CONDUIT.

0 20 40
SCALE IN FEET

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JORDAN VALLEY WATER
CONSERVANCY DISTRICT

JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

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LINE IS 2 INCHES
AT FULL SIZE

DESIGNED: N. ANDERSON
DRAWN: B. PENALBA
CHECKED: J. HIMEBAUGH
CHECKED: D. STAR
APPROVED: D. STAR

FILENAME
E-01-002.dwg
BC PROJECT NUMBER
157012
CLIENT PROJECT NUMBER
4277

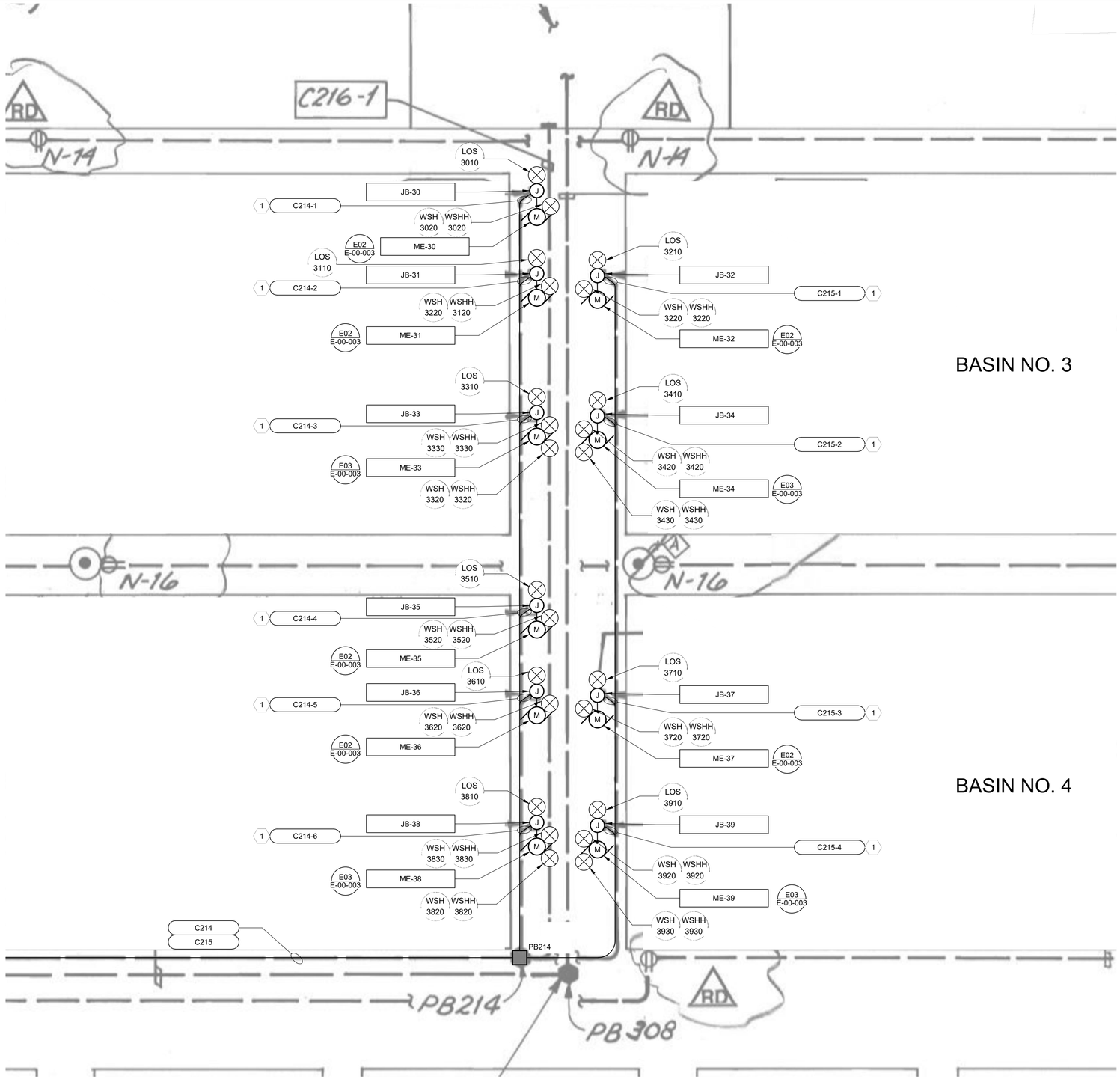
ELECTRICAL

SEDIMENTATION BASINS 5 AND 6 POWER AND CONTROL PLAN

DRAWING NUMBER
E-01-002

SHEET NUMBER 30 OF 48

Path: C:\BCPWD\D1868259 FILENAME: E-01-002.DWG PLOT DATE: 6/2/2022 6:11 PM CAD USER: NATE ANDERSON



1 E-01-003 SCALE: 1/8" = 1'-0"

SEDIMENTATION BASINS 3 AND 4 ENLARGED PLAN

KEY NOTES

1. ROUTE NEW POWER AND CONTROL CABLES IN THE EXISTING CONCRETE-ENCASED CONDUIT.

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JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

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CHECKED: J. HIMEBAUGH
CHECKED: D. STAR
APPROVED: D. STAR

FILENAME
E-01-003.dwg

BC PROJECT NUMBER
157012

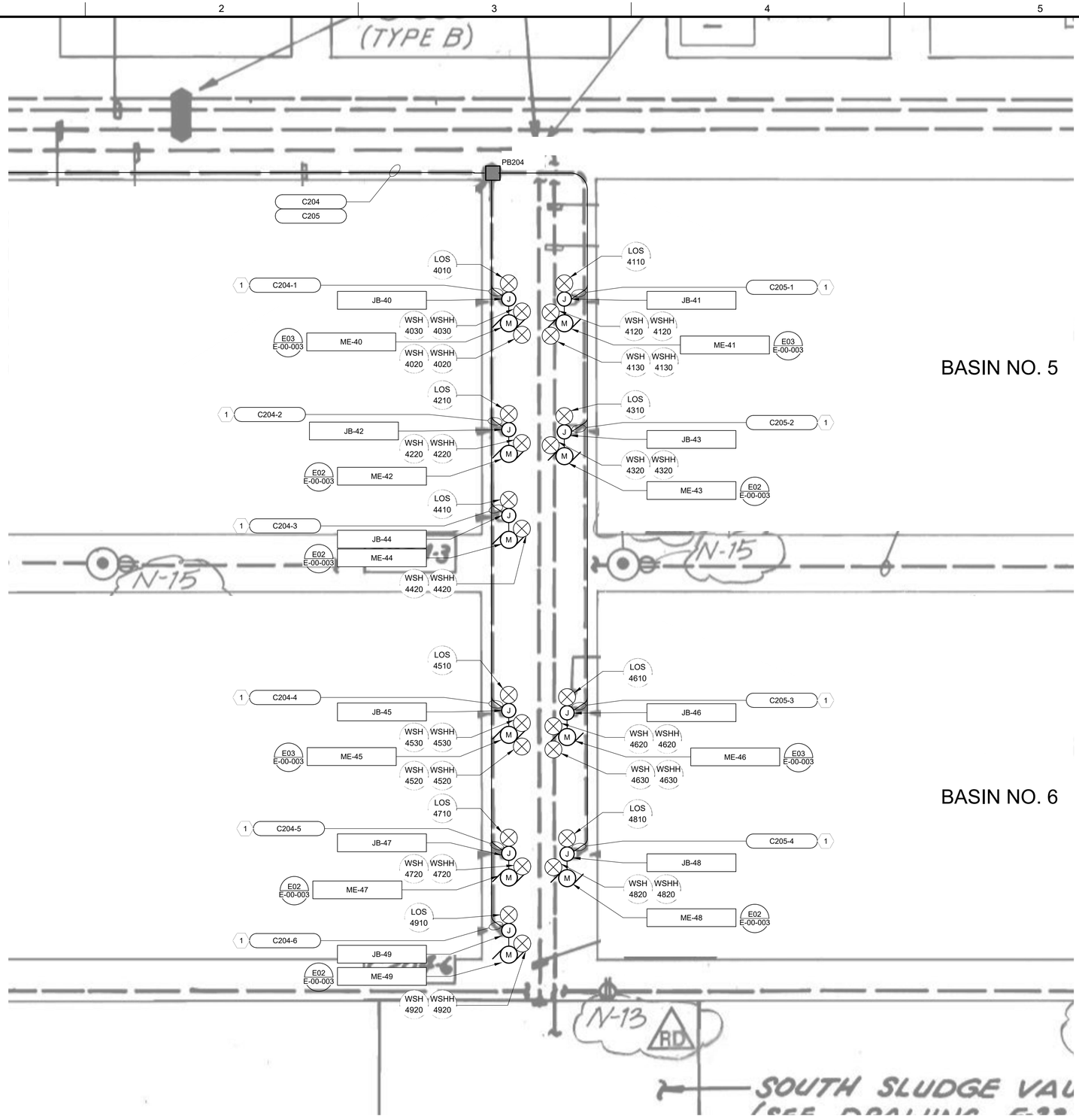
CLIENT PROJECT NUMBER
4277

ELECTRICAL

SEDIMENTATION BASINS 3 AND 4 ENLARGED PLAN

DRAWING NUMBER
E-01-003

SHEET NUMBER 31 OF 48



BASIN NO. 5

BASIN NO. 6

1 E-01-004 SCALE: 1/8" = 1'-0"

SEDIMENTATION BASINS 5 AND 6 ENLARGED PLAN

KEY NOTES

1. ROUTE NEW POWER AND CONTROL CABLES IN THE EXISTING CONCRETE-ENCASED CONDUIT.

Brown AND Caldwell

DAVID IDDO STAR
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PROFESSIONAL ENGINEER
STATE OF UTAH
6/2/22

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

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DESIGNED:	N. ANDERSON
DRAWN:	B. PENALBA
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CHECKED:	D. STAR
APPROVED:	D. STAR
FILENAME	E-01-004.dwg
BC PROJECT NUMBER	157012
CLIENT PROJECT NUMBER	4277

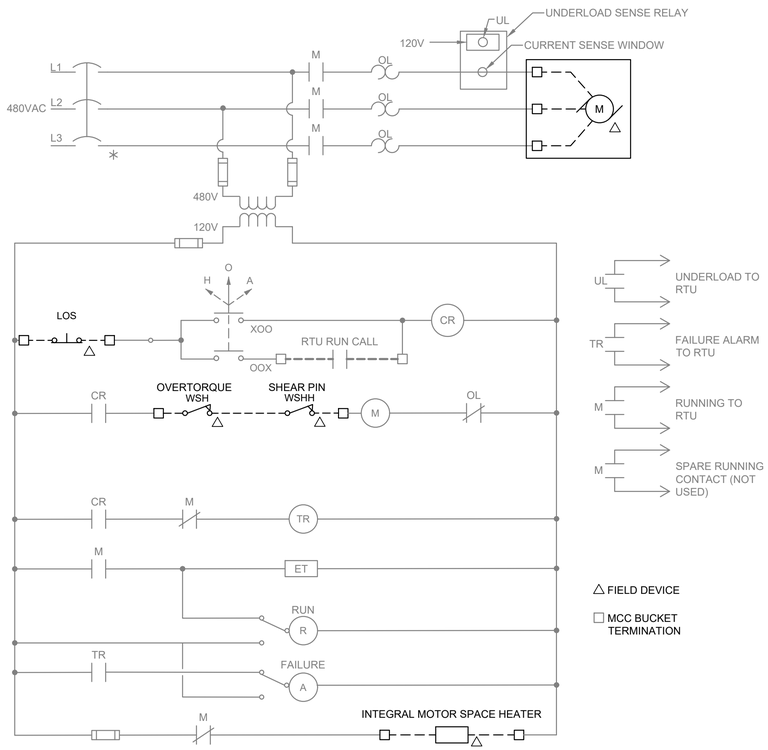
ELECTRICAL

SEDIMENTATION BASINS 5 AND 6 ENLARGED PLAN

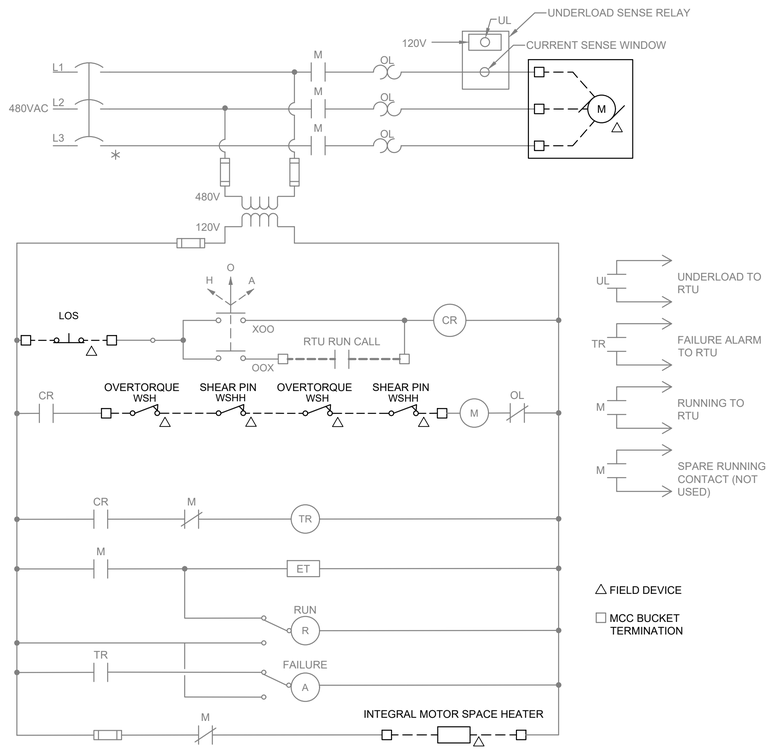
DRAWING NUMBER
E-01-004

SHEET NUMBER 32 OF 48

Path: C:\BCPWD\1868259 FILENAME: E-01-004.DWG PLOT DATE: 6/15/2022 10:43 AM CAD USER: NATE ANDERSON



MOTOR CONTROL SCHEMATIC 1
NTS



MOTOR CONTROL SCHEMATIC 2
NTS

MOTOR TAG	EQUIPMENT NAME	P&ID
ME-30	SLUDGE COLLECTOR 2330	I-01-001
ME-31	SLUDGE COLLECTOR 2331	I-01-001
ME-32	SLUDGE COLLECTOR 2332	I-01-001
ME-35	SLUDGE COLLECTOR 2335	I-01-002
ME-36	SLUDGE COLLECTOR 2336	I-01-002
ME-37	SLUDGE COLLECTOR 2337	I-01-002
ME-42	SLUDGE COLLECTOR 2342	I-01-003
ME-43	SLUDGE COLLECTOR 2343	I-01-003
ME-44	SLUDGE COLLECTOR 2344	I-01-003
ME-47	SLUDGE COLLECTOR 2347	I-01-004
ME-48	SLUDGE COLLECTOR 2348	I-01-004
ME-49	SLUDGE COLLECTOR 2349	I-01-004

MOTOR TAG	EQUIPMENT NAME	P&ID
ME-33	SLUDGE COLLECTOR 2333	I-01-001
ME-34	SLUDGE COLLECTOR 2334	I-01-001
ME-38	SLUDGE COLLECTOR 2338	I-01-002
ME-39	SLUDGE COLLECTOR 2339	I-01-002
ME-40	SLUDGE COLLECTOR 2340	I-01-003
ME-41	SLUDGE COLLECTOR 2341	I-01-003
ME-45	SLUDGE COLLECTOR 2345	I-01-004
ME-46	SLUDGE COLLECTOR 2346	I-01-004

ABBREVIATIONS:
LOS = LOCK OUT STOP
HOA = HAND-OFF-AUTO
UL = UNDERLOAD
OL = OVERLOAD
TR = TIME RELAY

Brown AND Caldwell

DAVID IDDO STAR
No. 12353515-2202
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6/2/22

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

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DESIGNED: N. ANDERSON
DRAWN: B. PENALBA
CHECKED: J. HIMEBAUGH
CHECKED: D. STAR
APPROVED: D. STAR

FILENAME
E-01-005.dwg
BC PROJECT NUMBER
157012
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4277

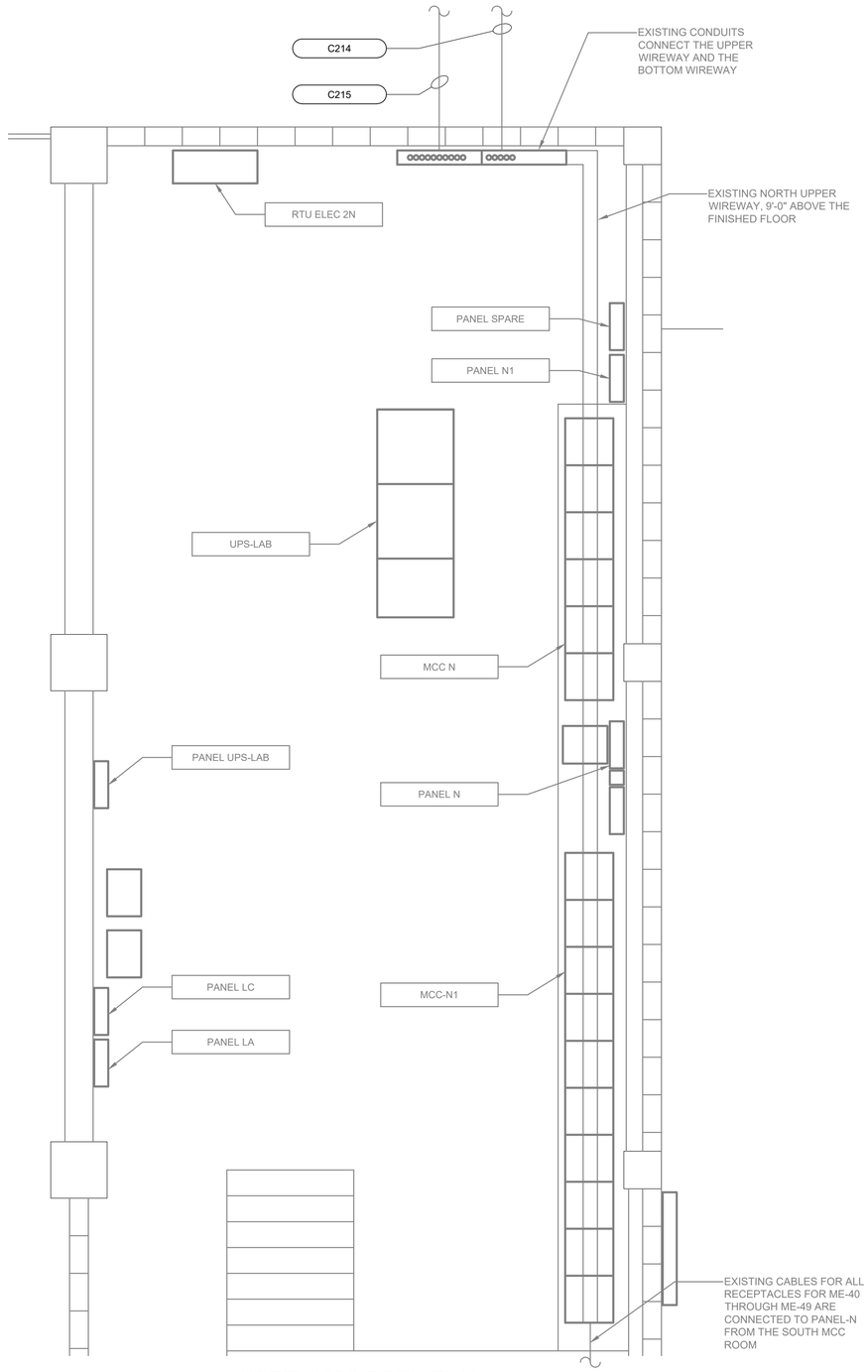
ELECTRICAL

PANEL, CONDUIT AND CONDUCTOR SCHEDULE

DRAWING NUMBER
E-01-005

33 SHEET NUMBER OF 48

Path: C:\BCPWD\16682\59 FILENAME: E-01-005.DWG PLOT DATE: 6/15/2022 10:44 AM CAD USER: NATE ANDERSON



NORTH MCC ROOM PLAN
SCALE: 3/8" = 1'-0"

0 2.66 5.33
SCALE IN FEET

Brown AND Caldwell

DAVID IDDO STAR
No. 125355-2202
PROFESSIONAL ENGINEER
STATE OF UTAH
6/2/22

BID SET

JORDAN VALLEY WATER
CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

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DRAWN: B. PENALBA
CHECKED: J. HIMEBAUGH
CHECKED: D. STAR
APPROVED: D. STAR

FILENAME
E-01-006.dwg

BC PROJECT NUMBER
157012

CLIENT PROJECT NUMBER
4277

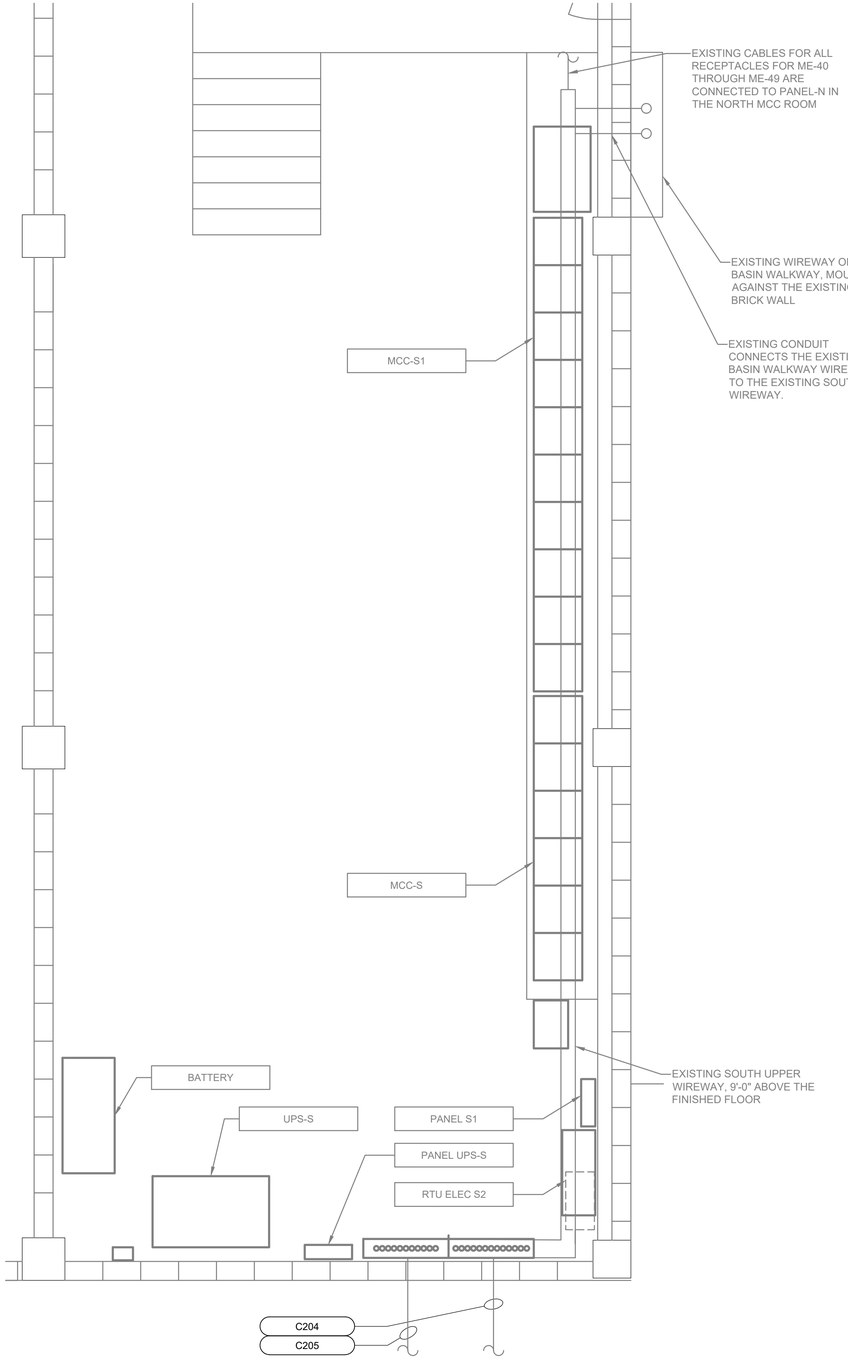
ELECTRICAL

NORTH MCC ROOM PLAN

DRAWING NUMBER
E-01-006

SHEET NUMBER 34 OF 48

Path: C:\BCPW\D1868259 FILENAME: E-01-006.DWG PLOT DATE: 6/15/2022 10:44 AM CAD USER: NATE ANDERSON



SOUTH MCC ROOM PLAN

SCALE: 3/8" = 1'-0"

0 2.66 5.33

SCALE IN FEET

Brown AND Caldwell

STATE OF UTAH — LICENSED PROFESSIONAL ENGINEER — No. 125355-2202 — DAVID IDDO STAR — 6/2/22

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: N. ANDERSON
DRAWN: B. PENALBA
CHECKED: J. HIMEBAUGH
CHECKED: D. STAR
APPROVED: D. STAR

FILENAME
E-01-007.dwg

BC PROJECT NUMBER
157012

CLIENT PROJECT NUMBER
4277

ELECTRICAL

SOUTH MCC ROOM PLAN

DRAWING NUMBER
E-01-007

SHEET NUMBER 35 OF 48

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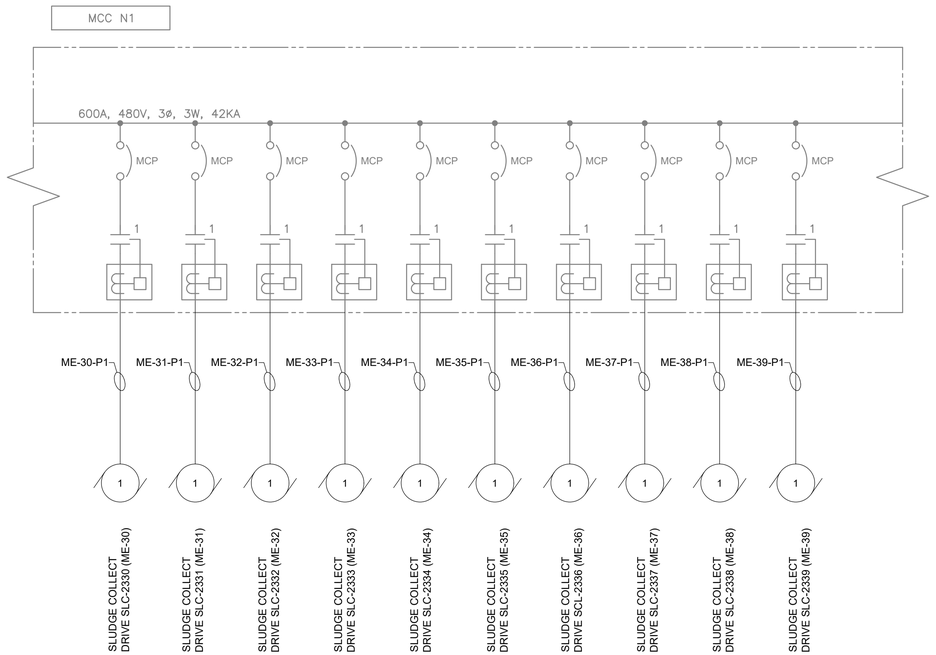
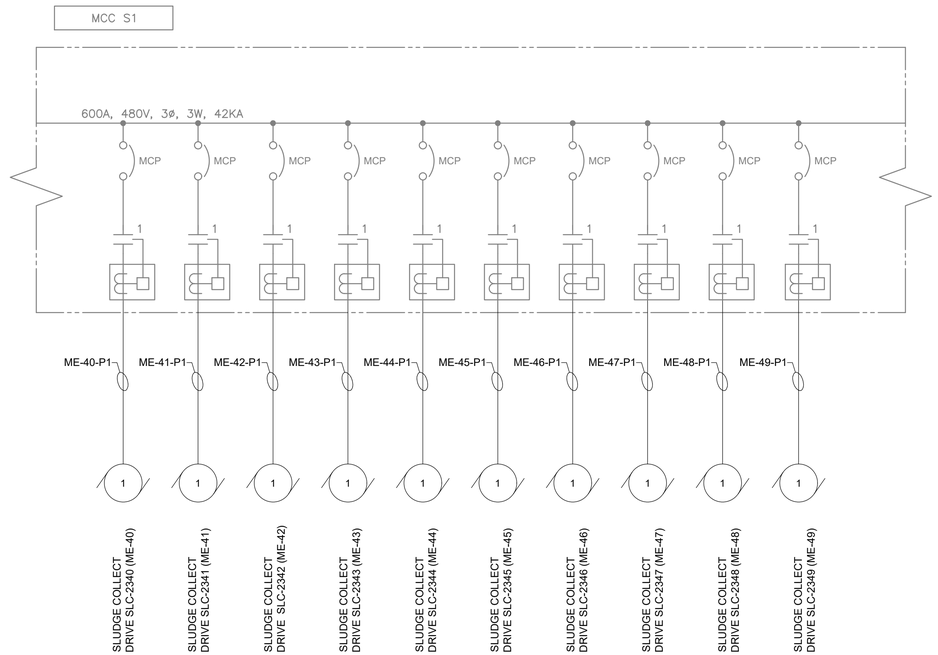


MOTOR CONTROL CENTER - N1

NTS



MOTOR CONTROL CENTER - S1

NTS

SOURCE LINE TERMINATION	FLOCCULATION MIXER 2220 (MX-20)	FLOCCULATION MIXER 2224 (MX-24)	FLOCCULATION MIXER 2228 (MX-28)	SLUDGE COLLECTOR 2330 (ME-30)	SLUDGE COLLECTOR 2334 (ME-34)	SLUDGE COLLECTOR 2338 (ME-38)	SPACE	NORTH RAPID MIX PUMP	SPACE
							SPACE		SPACE
	FLOCCULATION MIXER 2222 (MX-22)	FLOCCULATION MIXER 2226 (MX-26)	FLOCCULATION MIXER 2270 (MX-70)	SLUDGE COLLECTOR 2331 (ME-31)	SLUDGE COLLECTOR 2335 (ME-35)	SLUDGE COLLECTOR 2339 (ME-39)	PANEL PP-9 FEEDER		SPACE
FLOCCULATION MIXER 2244 (MX-44)	FLOCCULATION MIXER 2245 (MX-45)	FLOCCULATION MIXER 2252 (MX-52)	FLOCCULATION MIXER 2253 (MX-53)	SLUDGE COLLECTOR 2332 (ME-32)	SLUDGE COLLECTOR 2336 (ME-36)	SPACE	SPACE	SPACE	SPACE
						UPS-LAB FEEDER	SPACE		SPACE
FLOCCULATION MIXER 2248 (MX-48)	FLOCCULATION MIXER 2240 (MX-40)	FLOCCULATION MIXER 2256 (MX-56)	FLOCCULATION MIXER 2257 (MX-57)	SLUDGE COLLECTOR 2333 (ME-33)	SLUDGE COLLECTOR 2337 (ME-37)	PANEL LA TRANSFORMER FEEDER	SPACE	SPACE	SPACE

MOTOR CONTROL CENTER - N1 ELEVATION

NTS

SOURCE LINE TERMINATION AND MAIN BREAKER	FLOCCULATION MIXER 2232 (MX-32)	FLOCCULATION MIXER 2236 (MX-36)	FLOCCULATION MIXER 2240 (MX-40)	SLUDGE COLLECTOR 2340 (ME-40)	SLUDGE COLLECTOR 2344 (ME-44)	SLUDGE COLLECTOR 2348 (ME-48)	STORAGE TENT	SOUTH RAPID MIX PUMP	SPACE
							SPARE		SPACE
	FLOCCULATION MIXER 2234 (MX-34)	FLOCCULATION MIXER 2238 (MX-38)	FLOCCULATION MIXER 2242 (MX-42)	SLUDGE COLLECTOR 2341 (ME-41)	SLUDGE COLLECTOR 2345 (ME-45)	SLUDGE COLLECTOR 2349 (ME-49)	PANEL S1 XFMR FEEDER / PILOT PLANT PANEL XFMR FEEDER		SPACE
FLOCCULATION MIXER 2260 (MX-60)	FLOCCULATION MIXER 2261 (MX-61)	FLOCCULATION MIXER 2268 (MX-68)	FLOCCULATION MIXER 2269 (MX-69)	SLUDGE COLLECTOR 2342 (ME-42)	SLUDGE COLLECTOR 2346 (ME-46)	SPARE	UPS-S1 RECTIFIER	SPACE	SPACE
						SPARE	SPACE		SPACE
FLOCCULATION MIXER 2264 (MX-64)	FLOCCULATION MIXER 2265 (MX-65)	FLOCCULATION MIXER 2272 (MX-72)	FLOCCULATION MIXER 2273 (MX-73)	SLUDGE COLLECTOR 2343 (ME-43)	SLUDGE COLLECTOR 2347 (ME-47)	SPARE	SPACE	SPACE	SPACE

MOTOR CONTROL CENTER - S1 ELEVATION

NTS

Brown AND Caldwell

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: N. ANDERSON

DRAWN: B. PENALBA

CHECKED: J. HIMEBAUGH

CHECKED: D. STAR

APPROVED: D. STAR

FILENAME
E-01-008.dwg

BC PROJECT NUMBER
157012

CLIENT PROJECT NUMBER
4277

ELECTRICAL

ONE-LINE DIAGRAM

DRAWING NUMBER
E-01-008

SHEET NUMBER 36 OF 48

Path: C:\BCPW\D1868259 FILENAME: E-01-008.DWG PLOT DATE: 6/2/2022 6:30 PM CAD USER: NATE ANDERSON

CABLE SCHEDULE

CABLE	DRAWING	COUNT/AWG	TYPE	FROM	TO	VIA						REMARKS
ME-30-P1	E-01-006 E-01-001 E-01-003	3#12, 1#12G	XHHW	MCC-N1	ME-30	NORTH WIREWAY	C214	PB-214	C214-1	JB-30		480V POWER
ME-30-P2	E-01-006 E-01-001 E-01-003	2#12, 1#12G	XHHW	MCC-N1	ME-30	NORTH WIREWAY	C214	PB-214	C214-1	JB-30		120V HEATER
ME-30-C1	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-30	MCC-N1		JB-30	C214-1	PB-214	C214	NORTH WIREWAY	LOCK OUT STOP
ME-30-C2	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-30	MCC-N1		JB-30	C214-1	PB-214	C214	NORTH WIREWAY	SHEAR AND OVERTORQUE
ME-31-P1	E-01-006 E-01-001 E-01-003	3#12, 1#12G	XHHW	MCC-N1	ME-31	NORTH WIREWAY	C214	PB-214	C214-2	JB-31		480V POWER
ME-31-P2	E-01-006 E-01-001 E-01-003	2#12, 1#12G	XHHW	MCC-N1	ME-31	NORTH WIREWAY	C214	PB-214	C214-2	JB-31		120V HEATER
ME-31-C1	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-31	MCC-N1		JB-31	C214-2	PB-214	C214	NORTH WIREWAY	LOCK OUT STOP
ME-31-C2	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-31	MCC-N1		JB-31	C214-2	PB-214	C214	NORTH WIREWAY	SHEAR AND OVERTORQUE
ME-32-P1	E-01-006 E-01-001 E-01-003	3#12, 1#12G	XHHW	MCC-N1	ME-32	NORTH WIREWAY	C215	PB-214	C215-1	JB-32		480V POWER
ME-32-P2	E-01-006 E-01-001 E-01-003	2#12, 1#12G	XHHW	MCC-N1	ME-32	NORTH WIREWAY	C215	PB-214	C215-1	JB-32		120V HEATER
ME-32-C1	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-32	MCC-N1		JB-32	C215-1	PB-214	C215	NORTH WIREWAY	LOCK OUT STOP
ME-32-C2	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-32	MCC-N1		JB-32	C215-1	PB-214	C215	NORTH WIREWAY	SHEAR AND OVERTORQUE
ME-33-P1	E-01-006 E-01-001 E-01-003	3#12, 1#12G	XHHW	MCC-N1	ME-33	NORTH WIREWAY	C214	PB-214	C214-3	JB-33		480V POWER
ME-33-P2	E-01-006 E-01-001 E-01-003	2#12, 1#12G	XHHW	MCC-N1	ME-33	NORTH WIREWAY	C214	PB-214	C214-3	JB-33		120V HEATER
ME-33-C1	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-33	MCC-N1		JB-33	C214-3	PB-214	C214	NORTH WIREWAY	LOCK OUT STOP
ME-33-C2	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-33	MCC-N1		JB-33	C214-3	PB-214	C214	NORTH WIREWAY	SHEAR AND OVERTORQUE
ME-34-P1	E-01-006 E-01-001 E-01-003	3#12, 1#12G	XHHW	MCC-N1	ME-34	NORTH WIREWAY	C215	PB-214	C215-2	JB-34		480V POWER
ME-34-P2	E-01-006 E-01-001 E-01-003	2#12, 1#12G	XHHW	MCC-N1	ME-34	NORTH WIREWAY	C215	PB-214	C215-2	JB-34		120V HEATER
ME-34-C1	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-34	MCC-N1		JB-34	C215-2	PB-214	C215	NORTH WIREWAY	LOCK OUT STOP
ME-34-C2	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-34	MCC-N1		JB-34	C215-2	PB-214	C215	NORTH WIREWAY	SHEAR AND OVERTORQUE

Brown AND Caldwell

DAVID IDDO STAR
No. 125355-2202
PROFESSIONAL ENGINEER
STATE OF UTAH
6/2/22

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: N. ANDERSON
DRAWN: N. ANDERSON
CHECKED: J. HIMEBAUGH
CHECKED: D. STAR
APPROVED: D. STAR

FILENAME
E-01-009.dwg

BC PROJECT NUMBER
157012

CLIENT PROJECT NUMBER
4277

ELECTRICAL

CABLE SCHEDULE 1

DRAWING NUMBER
E-01-009

SHEET NUMBER 37 OF 48

CABLE SCHEDULE

CABLE	DRAWING	COUNT/AWG	TYPE	FROM	TO	VIA						REMARKS
ME-35-P1	E-01-006 E-01-001 E-01-003	3#12, 1#12G	XHHW	MCC-N1	ME-35	NORTH WIREWAY	C214	PB-214	C214-4	JB-35		480V POWER
ME-35-P2	E-01-006 E-01-001 E-01-003	2#12, 1#12G	XHHW	MCC-N1	ME-35	NORTH WIREWAY	C214	PB-214	C214-4	JB-35		120V HEATER
ME-35-C1	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-35	MCC-N1		JB-35	C214-4	PB-214	C214	NORTH WIREWAY	LOCK OUT STOP
ME-35-C2	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-35	MCC-N1		JB-35	C214-4	PB-214	C214	NORTH WIREWAY	SHEAR AND OVERTORQUE
ME-36-P1	E-01-006 E-01-001 E-01-003	3#12, 1#12G	XHHW	MCC-N1	ME-36	NORTH WIREWAY	C214	PB-214	C214-5	JB-36		480V POWER
ME-36-P2	E-01-006 E-01-001 E-01-003	2#12, 1#12G	XHHW	MCC-N1	ME-36	NORTH WIREWAY	C214	PB-214	C214-5	JB-36		120V HEATER
ME-36-C1	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-36	MCC-N1		JB-36	C214-5	PB-214	C214	NORTH WIREWAY	LOCK OUT STOP
ME-36-C2	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-36	MCC-N1		JB-36	C214-5	PB-214	C214	NORTH WIREWAY	SHEAR AND OVERTORQUE
ME-37-P1	E-01-006 E-01-001 E-01-003	3#12, 1#12G	XHHW	MCC-N1	ME-37	NORTH WIREWAY	C215	PB-214	C215-3	JB-37		480V POWER
ME-37-P2	E-01-006 E-01-001 E-01-003	2#12, 1#12G	XHHW	MCC-N1	ME-37	NORTH WIREWAY	C215	PB-214	C215-3	JB-37		120V HEATER
ME-37-C1	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-37	MCC-N1		JB-37	C215-3	PB-214	C215	NORTH WIREWAY	LOCK OUT STOP
ME-37-C2	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-37	MCC-N1		JB-37	C215-3	PB-214	C215	NORTH WIREWAY	SHEAR AND OVERTORQUE
ME-38-P1	E-01-006 E-01-001 E-01-003	3#12, 1#12G	XHHW	MCC-N1	ME-38	NORTH WIREWAY	C214	PB-214	C214-6	JB-38		480V POWER
ME-38-P2	E-01-006 E-01-001 E-01-003	2#12, 1#12G	XHHW	MCC-N1	ME-38	NORTH WIREWAY	C214	PB-214	C214-6	JB-38		120V HEATER
ME-38-C1	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-38	MCC-N1		JB-38	C214-6	PB-214	C214	NORTH WIREWAY	LOCK OUT STOP
ME-38-C2	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-38	MCC-N1		JB-38	C214-6	PB-214	C214	NORTH WIREWAY	SHEAR AND OVERTORQUE
ME-39-P1	E-01-006 E-01-001 E-01-003	3#12, 1#12G	XHHW	MCC-N1	ME-39	NORTH WIREWAY	C215	PB-214	C215-4	JB-39		480V POWER
ME-39-P2	E-01-006 E-01-001 E-01-003	2#12, 1#12G	XHHW	MCC-N1	ME-39	NORTH WIREWAY	C215	PB-214	C215-4	JB-39		120V HEATER
ME-39-C1	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-39	MCC-N1		JB-39	C215-4	PB-214	C215	NORTH WIREWAY	LOCK OUT STOP
ME-39-C2	E-01-003 E-01-001 E-01-006	2#16, 1#16G	XHHW	ME-39	MCC-N1		JB-39	C215-4	PB-214	C215	NORTH WIREWAY	SHEAR AND OVERTORQUE

Brown AND Caldwell

DAVID IDDO STAR
No. 12353515-2202
6/2/22
STATE OF UTAH
REGISTERED PROFESSIONAL ENGINEER

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: N. ANDERSON
DRAWN: N. ANDERSON
CHECKED: J. HIMEBAUGH
CHECKED: D. STAR
APPROVED: D. STAR

FILENAME
E-01-010.dwg

BC PROJECT NUMBER
157012

CLIENT PROJECT NUMBER
4277

ELECTRICAL

CABLE SCHEDULE 2

DRAWING NUMBER
E-01-010

38 SHEET NUMBER OF 48

Path: C:\BCPWD\1868259 FILENAME: E-01-010.DWG PLOT DATE: 6/2/2022 6:33 PM CAD USER: NATE ANDERSON

CABLE SCHEDULE

CABLE	DRAWING	COUNT/AWG	TYPE	FROM	TO	VIA						REMARKS
ME-40-P1	E-01-007 E-01-002 E-01-004	3#12, 1#12G	XHHW	MCC-S1	ME-40	SOUTH WIREWAY	C204	PB-204	C204-1	JB-40		480V POWER
ME-40-P2	E-01-007 E-01-002 E-01-004	2#12, 1#12G	XHHW	MCC-S1	ME-40	SOUTH WIREWAY	C204	PB-204	C204-1	JB-40		120V HEATER
ME-40-C1	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-40	MCC-S1		JB-40	C204-1	PB-204	C204	SOUTH WIREWAY	LOCK OUT STOP
ME-40-C2	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-40	MCC-S1		JB-40	C204-1	PB-204	C204	SOUTH WIREWAY	SHEAR AND OVERTORQUE
ME-41-P1	E-01-007 E-01-002 E-01-004	3#12, 1#12G	XHHW	MCC-S1	ME-41	SOUTH WIREWAY	C205	PB-204	C205-1	JB-41		480V POWER
ME-41-P2	E-01-007 E-01-002 E-01-004	2#12, 1#12G	XHHW	MCC-S1	ME-41	SOUTH WIREWAY	C205	PB-204	C205-1	JB-41		120V HEATER
ME-41-C1	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-41	MCC-S1		JB-41	C205-1	PB-204	C205	SOUTH WIREWAY	LOCK OUT STOP
ME-41-C2	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-41	MCC-S1		JB-45	C205-1	PB-204	C205	SOUTH WIREWAY	SHEAR AND OVERTORQUE
ME-42-P1	E-01-007 E-01-002 E-01-004	3#12, 1#12G	XHHW	MCC-S1	ME-42	SOUTH WIREWAY	C204	PB-204	C204-2	JB-42		480V POWER
ME-42-P2	E-01-007 E-01-002 E-01-004	2#12, 1#12G	XHHW	MCC-S1	ME-42	SOUTH WIREWAY	C204	PB-204	C204-2	JB-42		120V HEATER
ME-42-C1	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-42	MCC-S1		JB-42	C204-2	PB-204	C204	SOUTH WIREWAY	LOCK OUT STOP
ME-42-C2	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-42	MCC-S1		JB-42	C204-2	PB-204	C204	SOUTH WIREWAY	SHEAR AND OVERTORQUE
ME-43-P1	E-01-007 E-01-002 E-01-004	3#12, 1#12G	XHHW	MCC-S1	ME-43	SOUTH WIREWAY	C205	PB-204	C205-2	JB-43		480V POWER
ME-43-P2	E-01-007 E-01-002 E-01-004	2#12, 1#12G	XHHW	MCC-S1	ME-43	SOUTH WIREWAY	C205	PB-204	C205-2	JB-43		120V HEATER
ME-43-C1	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-43	MCC-S1		JB-43	C205-2	PB-204	C205	SOUTH WIREWAY	LOCK OUT STOP
ME-43-C2	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-43	MCC-S1		JB-43	C205-2	PB-204	C205	SOUTH WIREWAY	SHEAR AND OVERTORQUE
ME-44-P1	E-01-007 E-01-002 E-01-004	3#12, 1#12G	XHHW	MCC-S1	ME-44	SOUTH WIREWAY	C204	PB-204	C204-3	JB-44		480V POWER
ME-44-P2	E-01-007 E-01-002 E-01-004	2#12, 1#12G	XHHW	MCC-S1	ME-44	SOUTH WIREWAY	C204	PB-204	C204-3	JB-44		120V HEATER
ME-44-C1	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-44	MCC-S1		JB-44	C204-3	PB-204	C204	SOUTH WIREWAY	LOCK OUT STOP
ME-44-C2	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-44	MCC-S1		JB-44	C204-3	PB-204	C204	SOUTH WIREWAY	SHEAR AND OVERTORQUE
ME-45-P1	E-01-007 E-01-002 E-01-004	3#12, 1#12G	XHHW	MCC-S1	ME-45	SOUTH WIREWAY	C204	PB-204	C204-4	JB-45		480V POWER
ME-45-P2	E-01-007 E-01-002 E-01-004	2#12, 1#12G	XHHW	MCC-S1	ME-45	SOUTH WIREWAY	C204	PB-204	C204-4	JB-45		120V HEATER
ME-45-C1	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-45	MCC-S1		JB-45	C204-4	PB-204	C204	SOUTH WIREWAY	LOCK OUT STOP
ME-45-C2	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-45	MCC-S1		JB-45	C204-4	PB-204	C204	SOUTH WIREWAY	SHEAR AND OVERTORQUE

Brown AND Caldwell

DAVID IDDO STAR
No. 12353515-2202
6/2/22
STATE OF UTAH
REGISTERED PROFESSIONAL ENGINEER

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: N. ANDERSON
DRAWN: N. ANDERSON
CHECKED: J. HIMEBAUGH
CHECKED: D. STAR
APPROVED: D. STAR

FILENAME
E-01-011.dwg
BC PROJECT NUMBER
157012
CLIENT PROJECT NUMBER
4277

ELECTRICAL

CABLE SCHEDULE 3

DRAWING NUMBER
E-01-011

39 SHEET NUMBER OF 48

CABLE SCHEDULE

CABLE	DRAWING	COUNT/AWG	TYPE	FROM	TO	VIA						REMARKS
ME-46-P1	E-01-007 E-01-002 E-01-004	3#12, 1#12G	XHHW	MCC-S1	ME-46	SOUTH WIREWAY	C205	PB-204	C205-3	JB-46		480V POWER
ME-46-P1	E-01-007 E-01-002 E-01-004	2#12, 1#12G	XHHW	MCC-S1	ME-46	SOUTH WIREWAY	C205	PB-204	C205-3	JB-46		120V HEATER
ME-46-C1	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-46	MCC-S1		JB-46	C205-3	PB-204	C205	SOUTH WIREWAY	LOCK OUT STOP
ME-46-C2	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-46	MCC-S1		JB-46	C205-3	PB-204	C205	SOUTH WIREWAY	SHEAR AND OVERTORQUE
ME-47-P1	E-01-007 E-01-002 E-01-004	3#12, 1#12G	XHHW	MCC-S1	ME-47	SOUTH WIREWAY	C204	PB-204	C204-5	JB-47		480V POWER
ME-47-P2	E-01-007 E-01-002 E-01-004	2#12, 1#12G	XHHW	MCC-S1	ME-47	SOUTH WIREWAY	C204	PB-204	C204-5	JB-47		120V HEATER
ME-47-C1	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-47	MCC-S1		JB-47	C204-5	PB-204	C204	SOUTH WIREWAY	LOCK OUT STOP
ME-47-C2	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-47	MCC-S1		JB-47	C204-5	PB-204	C204	SOUTH WIREWAY	SHEAR AND OVERTORQUE
ME-48-P1	E-01-007 E-01-002 E-01-004	3#12, 1#12G	XHHW	MCC-S1	ME-48	SOUTH WIREWAY	C205	PB-204	C205-4	JB-48		480V POWER
ME-48-P2	E-01-007 E-01-002 E-01-004	2#12, 1#12G	XHHW	MCC-S1	ME-48	SOUTH WIREWAY	C205	PB-204	C205-4	JB-48		120V HEATER
ME-48-C1	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-48	MCC-S1		JB-48	C205-4	PB-204	C205	SOUTH WIREWAY	LOCK OUT STOP
ME-48-C2	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-48	MCC-S1		JB-48	C205-4	PB-204	C205	SOUTH WIREWAY	SHEAR AND OVERTORQUE
ME-49-P1	E-01-007 E-01-002 E-01-004	3#12, 1#12G	XHHW	MCC-S1	ME-49	SOUTH WIREWAY	C204	PB-204	C204-6	JB-49		480V POWER
ME-49-P2	E-01-007 E-01-002 E-01-004	2#12, 1#12G	XHHW	MCC-S1	ME-49	SOUTH WIREWAY	C204	PB-204	C204-6	JB-49		120V HEATER
ME-49-C1	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-49	MCC-S1		JB-49	C204-6	PB-204	C204	SOUTH WIREWAY	LOCK OUT STOP
ME-49-C2	E-01-004 E-01-002 E-01-007	2#16, 1#16G	XHHW	ME-49	MCC-S1		JB-49	C204-6	PB-204	C204	SOUTH WIREWAY	SHEAR AND OVERTORQUE

Brown AND Caldwell

LICENSED PROFESSIONAL ENGINEER
No. 12353510-2202
DAVID IDDO STAR
6/2/22
STATE OF UTAH

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: N. ANDERSON
DRAWN: N. ANDERSON
CHECKED: J. HIMEBAUGH
CHECKED: D. STAR
APPROVED: D. STAR

FILENAME
E-01-012.dwg

BC PROJECT NUMBER
157012

CLIENT PROJECT NUMBER
4277

ELECTRICAL

CABLE SCHEDULE 4

DRAWING NUMBER
E-01-012

SHEET NUMBER 40 OF 48

Path: C:\BCPW\D1868259 FILENAME: E-01-012.DWG PLOT DATE: 6/2/2022 6:36 PM CAD USER: NATE ANDERSON

CONDUIT SCHEDULE						
CONDUIT	SIZE	FROM	TO	CABLE		REMARKS
NORTH WIREWAY	WIRE WAY	C214 C215	MCC-N1 PANEL N	ME-30-P1 ME-30-P2 ME-30-C1 ME-30-C2 ME-31-P1 ME-31-P2 ME-31-C1 ME-31-C2 ME-32-P1 ME-32-P2 ME-32-C1 ME-32-C2 ME-33-P1 ME-33-P2 ME-33-C1 ME-33-C2 ME-34-P1 ME-34-P2 ME-34-C1 ME-34-C2	ME-35-P1 ME-35-P2 ME-35-C1 ME-35-C2 ME-36-P1 ME-36-P2 ME-36-C1 ME-36-C2 ME-37-P1 ME-37-P2 ME-37-C1 ME-37-C2 ME-38-P1 ME-38-P2 ME-38-C1 ME-38-C2 ME-39-P1 ME-39-P2 ME-39-C1 ME-39-C2	480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C214	2"	NORTH WIREWAY	PB-214	ME-30-P1 ME-30-P2 ME-30-C1 ME-30-C2 ME-31-P1 ME-31-P2 ME-31-C1 ME-31-C2 ME-32-P1 ME-32-P2 ME-32-C1 ME-32-C2	ME-33-P1 ME-33-P2 ME-33-C1 ME-33-C2 ME-34-P1 ME-34-P2 ME-34-C1 ME-34-C2	BASIN 3. 480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C214-1	1"	PB-214	JB-30	ME-30-P1 ME-30-P2 ME-30-C1		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C214-2	1"	PB-214	JB-31	ME-31-P1 ME-31-P2 ME-31-C1 ME-31-C2		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C214-3	1"	PB-214	JB-33	ME-33-P1 ME-33-P2 ME-33-C1		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C214-4	1"	PB-214	JB-35	ME-35-P1 ME-35-P2 ME-35-C1 ME-35-C2		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C214-5	1"	PB-214	JB-36	ME-36-P1 ME-36-P2 ME-36-C1		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C214-6	1"	PB-214	JB-38	ME-38-P1 ME-38-P2 ME-38-C1		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C215	2"	NORTH WIREWAY	PB-214	ME-35-P1 ME-35-P2 ME-35-C1 ME-35-C2 ME-36-P1 ME-36-P2 ME-36-C1 ME-36-C2	ME-37-P1 ME-37-P2 ME-37-C1 ME-37-C2 ME-38-P1 ME-38-P2 ME-38-C1 ME-38-C2 ME-39-P1 ME-39-P2 ME-39-C1 ME-39-C2	BASIN 4. 480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C215-1	1"	PB-214	JB-32	ME-32-P1 ME-32-P2 ME-32-C1 ME-32-C2		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C215-2	1"	PB-214	JB-34	ME-34-P1 ME-34-P2 ME-34-C1		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C215-3	1"	PB-214	JB-37	ME-37-P1 ME-37-P2 ME-37-C1 ME-37-C2		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C215-4	1"	PB-214	JB-39	ME-39-P1 ME-39-P2 ME-39-C1		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE

CONDUIT SCHEDULE						
CONDUIT	SIZE	FROM	TO	CABLE		REMARKS
SOUTH WIREWAY	WIRE WAY	C204 C205	MCC-S1 PANEL S	ME-40-P1 ME-40-P2 ME-40-C1 ME-40-C2 ME-41-P1 ME-41-P2 ME-41-C1 ME-41-C2 ME-42-P1 ME-42-P2 ME-42-C1 ME-42-C2 ME-43-P1 ME-43-P2 ME-43-C1 ME-43-C2 ME-44-P1 ME-44-P2 ME-44-C1 ME-44-C2	ME-45-P1 ME-45-P2 ME-45-C1 ME-45-C2 ME-46-P1 ME-46-P2 ME-46-C1 ME-46-C2 ME-47-P1 ME-47-P2 ME-47-C1 ME-47-C2 ME-48-P1 ME-48-P2 ME-48-C1 ME-48-C2 ME-49-P1 ME-49-P2 ME-49-C1 ME-49-C2	480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C204	2"	SOUTH WIREWAY	PB-204	ME-40-P1 ME-40-P2 ME-40-C1 ME-40-C2 ME-41-P1 ME-41-P2 ME-41-C1 ME-41-C2 ME-42-P1 ME-42-P2 ME-42-C1 ME-42-C2	ME-43-P1 ME-43-P2 ME-43-C1 ME-43-C2 ME-44-P1 ME-44-P2 ME-44-C1 ME-44-C2	BASIN 5. 480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C204-1	1"	PB-204	JB-40	ME-40-P1 ME-40-P2 ME-40-C1		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C204-2	1"	PB-204	JB-42	ME-42-P1 ME-42-P2 ME-42-C1 ME-42-C2		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C204-3	1"	PB-204	JB-44	ME-44-P1 ME-44-P2 ME-44-C1 ME-44-C2		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C204-4	1"	PB-204	JB-45	ME-45-P1 ME-45-P2 ME-45-C1		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C204-5	1"	PB-204	JB-47	ME-47-P1 ME-47-P2 ME-47-C1 ME-47-C2		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C204-6	1"	PB-204	JB-49	ME-49-P1 ME-49-P2 ME-49-C1 ME-49-C2		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C205	2"	SOUTH WIREWAY	PB-204	ME-45-P1 ME-45-P2 ME-45-C1 ME-45-C2 ME-46-P1 ME-46-P2 ME-46-C1 ME-46-C2 ME-47-P1 ME-47-P2 ME-47-C1 ME-47-C2	ME-48-P1 ME-48-P2 ME-48-C1 ME-48-C2 ME-49-P1 ME-49-P2 ME-49-C1 ME-49-C2	BASIN 6. 480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C205-1	1"	PB-204	JB-41	ME-41-P1 ME-41-P2 ME-41-C1		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C205-2	1"	PB-204	JB-43	ME-43-P1 ME-43-P2 ME-43-C1		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C205-3	1"	PB-204	JB-46	ME-46-P1 ME-46-P2 ME-46-C1		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE
C205-4	1"	PB-204	JB-48	ME-48-P1 ME-48-P2 ME-48-C1		480V POWER, 120V HEATER, LOS, SHEAR AND OVERTORQUE

Brown AND Caldwell

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: N. ANDERSON
DRAWN: N. ANDERSON
CHECKED: J. HIMEBAUGH
CHECKED: D. STAR
APPROVED: D. STAR

FILENAME
E-01-013.dwg
BC PROJECT NUMBER
157012
CLIENT PROJECT NUMBER
4277

ELECTRICAL

CONDUIT SCHEDULE 1

DRAWING NUMBER
E-01-013

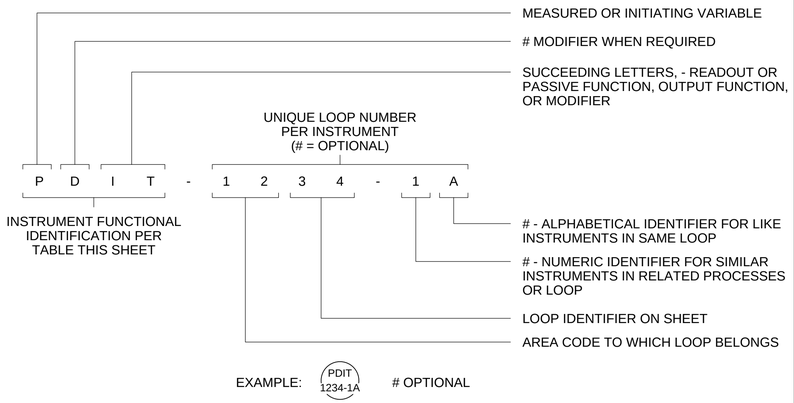
41 SHEET NUMBER OF 48

Path: C:\BCPWD\1868259 FILENAME: E-01-013.DWG PLOT DATE: 6/3/2022 8:51 AM CAD USER: NATE ANDERSON

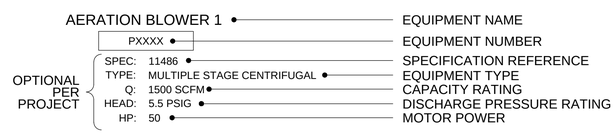
FUNCTIONAL IDENTIFICATION

VARIABLE	MEASURED OR INITIATING VARIABLE DESCRIPTION	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM		
B	BURNER, COMBUSTION				
C	CONDUCTIVITY			CONTROL	CLOSE
D	DENSITY, SPECIFIC GRAVITY	DIFFERENTIAL			DEVIATION
E	VOLTAGE, SOLENOID		PRIMARY ELEMENT		
F	FLOW, FLOW RATE	RATIO			
G	FIRE, SMOKE		GLASS		
H	HAND				HIGH
I	CURRENT		INDICATE		
J	POWER		SCAN		
K	TIME, SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT		LOW
M	MOISTURE, HUMIDITY, MOTION	MOMENTARY			MIDDLE, INTERMEDIATE
N	EQUIPMENT STATUS				
O	DISSOLVED OXYGEN		ORIFICE		OPEN
P	PRESSURE, VACUUM		POINT (TEST) CONNECTION		
Q	QUANTITY	INTEGRATE, TOTALIZE			
R	RADIATION		RECORD		RUN
S	SPEED, FREQUENCY	SAFETY		SWITCH	STOP
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VIBRATION, MECHANICAL ANALYSIS			VALVE, DAMPER, LOUVER	
W	WEIGHT, FORCE, TORQUE		WELL, PROBE		
X	UNCLASSIFIED	X AXIS			
Y	EVENT, STATE OR PRESENCE	Y AXIS		AUXILIARY DEVICES	
Z	POSITION, DIMENSION	Z AXIS		DRIVER, ACTUATOR, FINAL CONTROL ELEMENT	

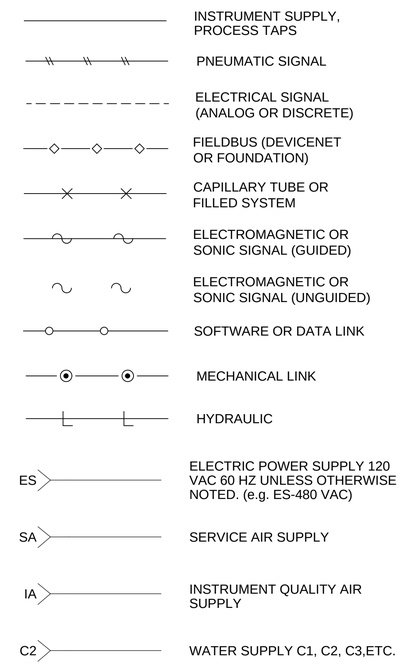
INSTRUMENT TAG AND LOOP IDENTIFICATION



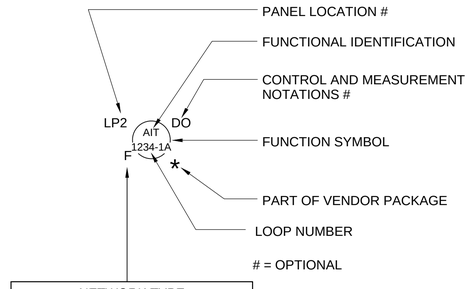
EQUIPMENT IDENTIFICATION SYSTEM



INSTRUMENT SIGNAL LINES



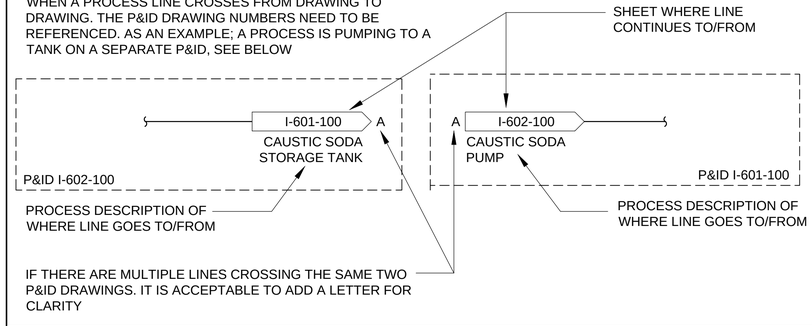
TYPICAL INSTRUMENT IDENTIFICATION



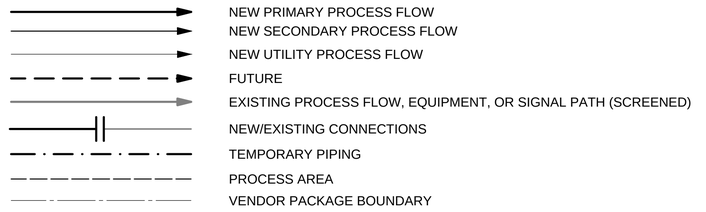
NETWORK TYPE	
F	FOUNDATION FIELDBUS
D	DEVICENET
E	ETHERNET
P	PROFIBUS
PN	PROFINET
M-RTU	MODBUS RTU
M-TCP	MODBUS TCP
CIP	CONTROL INDUSTRIAL PROTOCOL
E-SNMP	SIMPLE NETWORK MANAGEMENT PROTOCOL

PROCESS AND SIGNAL CROSS REFERENCE SYSTEM

WHEN A PROCESS LINE CROSSES FROM DRAWING TO DRAWING. THE P&ID DRAWING NUMBERS NEED TO BE REFERENCED. AS AN EXAMPLE; A PROCESS IS PUMPING TO A TANK ON A SEPARATE P&ID, SEE BELOW



PROCESS LINES



CONTROL AND MEASUREMENT NOTATIONS

ACK	ACKNOWLEDGE
AM	AUTO/MAN
BYP	BYPASS
CL	CLOSE
CL2	CHLORINE
CMAT	COMPUTER/MANUAL/AUTO/TRACKING
COMB	COMBUSTIBLE GAS
CP	CONTROL POWER
COND	CONDUCTIVITY
DEC	DECREASE
DO	DISSOLVED OXYGEN
ESP	EMERGENCY STOP
FWD	FORWARD
F/R	FORWARD/REVERSE
F/S	FAST/SLOW
HLOA	HIGH/LOW/OFF/AUTO
HOA	HAND/OFF/AUTO
HOAL	HAND/OFF/AUTO/LOCAL
HOR	HAND/OFF/REMOTE
INC	INCREASE
JOA	JOG/OFF/AUTO
LL	LEAD/LAG
LOR	LOCAL/OFF/REMOTE
LOS	LOCKOUT STOP
L/R	LOCAL/REMOTE
M/A LS	MAN/AUTO LOADING STATION
OCA	OPEN/CLOSE/AUTO
OCP	PURGE VALVE OP/CL/PC
OL	OVERLOAD
OP	OPEN
OSC/LP	OPEN/STOP/CLOSE WITH LOCAL/REMOTE SELECT
PA	PAUSE
PAL	LOW PRESSURE
PB	PUSH BUTTON
pH	pH
POT	POTENTIOMETER
RDY	READY
REV	REVERSE
RNG	RUNNING
ROF	REVERSE/OFF/FORWARD
RST	RESET
SO2	SULFUR DIOXIDE
SP	STOP
ST	START
TCP	TEST/CLOSE/PC
T/S	TEST/NORMAL/SILENCE
TBL	TROUBLE

GENERAL NOTES:

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Brown AND Caldwell

PROFESSIONAL ENGINEER
No. 10186727
LORIN DANIEL MACKAY
6/1/22
STATE OF UTAH

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: D. MACKAY
DRAWN: A. LAPIERRE
CHECKED: J. HIMEBAUGH
CHECKED:
APPROVED: D. MACKAY
FILENAME I-00-001.dwg
BC PROJECT NUMBER 157012
CLIENT PROJECT NUMBER 4277

INSTRUMENTATION

LEGEND AND SYMBOLS - 1

DRAWING NUMBER
I-00-001

SHEET NUMBER 42 OF 48

Path: C:\BCPWD\1868261 FILENAME: I-00-001.DWG PLOT DATE: 5/25/2022 8:51 AM CAD USER: RUSSELL PERSHING

MISCELLANEOUS SYMBOLS

- MCC (MOTOR CONTROL/STARTER)
- PURGE OR FLUSHING DEVICE
- RESET FOR LATCH-TYPE OPERATOR
- SEAL WATER CONTROL UNIT
- INTERLOCKING OR CONTROL FUNCTION
- INTRINSIC SAFETY BARRIER
- DISCRETE INPUT
- DISCRETE OUTPUT
- ANALOG INPUT
- ANALOG OUTPUT
- CAMERA (CCTV)
- VFD — VARIABLE FREQUENCY DRIVE
- VSD — VARIABLE SPEED DRIVE

ACTUATORS/MOTORS/POWER

- ASD — ADJUSTABLE SPEED DRIVE (MECHANICAL)
- ROTARY PISTON ACTUATORS, VALVE OR GATE
- LINEAR PISTON ACTUATORS, VALVE OR GATE
- SOLENOID ACTUATOR, VALVE
- MANUAL OR HAND ACTUATOR, VALVE OR GATE (OR BLANK)
- MOTOR (ACTUATOR, VALVE , GATE OR EQUIPMENT)
- ENGINE
- EJECTOR, PNEUMATIC
- GENERATOR

PRIMARY ELEMENT SYMBOLS

- ORIFICE PLATE
- VENTURI OR FLOW TUBE
- NOZZLE FLOW
- PITOT TUBE
- PROPELLER OR TURBINE METER
- FLUME
- WEIR
- VARIABLE AREA FLOW INDICATOR (ROTAMETER) — OR — FI
- DIAPHRAGM SEAL
- IN-LINE ANNULAR SEAL
- MAGNETIC FLOWMETER
- SONIC FLOWMETER (DOPPLER OR TRANSIT TIME)
- POSITIVE DISPLACEMENT METER
- THERMAL FLOW ELEMENT
- VORTEX FLOW ELEMENT
- CORIOLIS FLOW ELEMENT
- FLOAT LEVEL ELEMENT
- ULTRASONIC LEVEL ELEMENT
- BUBBLER LEVEL TUBE
- SUBMERSIBLE LEVEL TRANSMITTER
- HYDROSTATIC LEVEL PROBE
- RADAR OR ULTRASONIC LEVEL ELEMENT
- ANNUBAR, PITOT TUBE
- AVERAGING PITOT TUBE

VALVES

NORMALLY OPEN		NORMALLY CLOSED
	GATE VALVE	
	PLUG VALVE	
	BALL VALVE	
	GLOBE VALVE	
	NEEDLE VALVE	
	KNIFE GATE VALVE	
	DIAPHRAGM VALVE	
	BUTTERFLY VALVE	
	ANGLE VALVE	
	THREE WAY VALVE	
	FOUR WAY VALVE	
	FLOAT VALVE	
	PINCH VALVE	
	BALANCING COCK	
	THERMOSTATICALLY CONTROLLED VALVE	

- DOUBLE LEAF CHECK VALVE
- CHECK VALVE
- BALL CHECK VALVE
- PUMP DISCHARGE VALVE
- GAUGE OR ROOT VALVE
- PRESSURE AND VACUUM RELIEF VALVE
- VACUUM RELIEF VALVE
- PRESSURE RELIEF VALVE
- IN-LINE SPRING LOADED RELIEF VALVE
- PRESSURE REGULATING VALVE (SELF-CONTAINED)
- BACK PRESSURE REGULATING VALVE (SELF-CONTAINED)
- FUSIBLE LINK

- SOLENOID VALVE
- DIAPHRAGM OPERATED VALVE
- PRESSURE BALANCE OPERATED VALVE
- MOTOR OPERATED VALVE
- MOTOR OPERATED VALVE, MODULATING

NOTE: USE VALVE BODY SYMBOL TO MATCH TYPE OF VALVE.

- PISTON OPERATED VALVE
- TELESCOPING VALVE
- MUD VALVE
- ANTI SIPHON VALVE
- LIFT CHECK VALVE
- BRAIDED FLEX CONNECTOR

FUNCTION SYMBOLS

- SHARED DISPLAY, PROCESS CONTROL SYSTEM
- SOFTWARE FUNCTIONALITY
- FIELD OR PANEL DEVICE

LOCATION AND ACCESSIBILITY MODIFIERS FOR FUNCTION SYMBOLS

- STAND ALONE DEVICE, OPERATOR ACCESSIBLE
- LOCATED ON FRONT OF PANEL OR CONSOLE, OPERATOR ACCESSIBLE
- LOCATED IN REAR OF PANEL OR CONSOLE, OPERATOR INACCESSIBLE

INSTRUMENTATION SYMBOLS

- INTEGRAL INSTRUMENT — PRIMARY ELEMENT SYMBOL
- CLOSE COUPLED INSTRUMENT — PRIMARY ELEMENT SYMBOL
- SEPARATE OR REMOTE MOUNTED INSTRUMENT — PRIMARY ELEMENT SYMBOL
- MULTI VARIABLE INSTRUMENT
- SEPARATE OR REMOTE MOUNTED INSTRUMENT — PRIMARY ELEMENT SYMBOL — FLANGE OR ELEMENT TAPS
- SEPARATE OR REMOTE MOUNTED INSTRUMENT — PRIMARY ELEMENT SYMBOL — PIPE TAPS
- SEPARATE OR REMOTE MOUNTED INSTRUMENT — PRIMARY ELEMENT SYMBOL — COMBINATION TAPS
- SINGLE VARIABLE INSTRUMENT

SLIDE AND SLUICE GATES

NORMALLY OPEN		NORMALLY CLOSED
	FLAP GATE	
NO	BUTTERFLY GATE	NC
	STOP GATE	
	SLIDE GATE	
	SLUICE GATE	

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PROFESSIONAL ENGINEER — No. 10186727 — LORIN DANIEL MACKAY — 6/1/22 — STATE OF UTAH

BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: D. MACKAY
DRAWN: A. LAPIERRE
CHECKED: J. HIMEBAUGH
CHECKED:
APPROVED: D. MACKAY

FILENAME: I-00-002.dwg
BC PROJECT NUMBER: 157012
CLIENT PROJECT NUMBER: 4277

INSTRUMENTATION

STANDARD DETAILS, SYMBOLS, ABBREVIATIONS - 1

DRAWING NUMBER
I-00-002

SHEET NUMBER 43 OF 48

Path: C:\BCPWD1868261 FILENAME: I-00-002.DWG PLOT DATE: 5/25/2022 8:53 AM CAD USER: RUSSELL PERSHING

PIPING SYSTEMS

ABBREVIATION	SERVICE
A	AERATION AIR
AA	AGITATION AIR
AFE	AIR FLOTATION EFFLUENT
AL	ALUM
AW	APPLIED WATER
B	BRINE
BA	BACKWASH AIR
BC	BIOFILTER CIRCULATION
BCTL	BOILER CHEMICAL TREATMENT, LOW PRESSURE
BCTM	BOILER CHEMICAL TREATMENT, MEDIUM PRESSURE
BDL	BOILER BLOWDOWN, LOW PRESSURE
BDM	BOILER BLOWDOWN, MEDIUM PRESSURE
BFE	BIOFILTER EFFLUENT
BFL	BIOFILTER FEEDWATER, LOW PRESSURE
BFM	BIOFILTER FEEDWATER, MEDIUM PRESSURE
BW	BACKWASH WATER
CCW	CONDENSER COOLING WATER
CD	CHEMICAL DRAIN
CEN	CENTRATE
CF	CENTRIFUGE FEED
CL	CONDENSATE, LOW PRESSURE
CLG	CHLORINE GAS
CLL	CHLORINE LIQUID
CLS	CHLORINE SOLUTION
CLV	CHLORINE VACUUM
CM	CONDENSATE, MEDIUM PRESSURE
CS	CIRCULATING SLUDGE
CSO	CAUSTIC SODA
CWR	CHILLED WATER RETURN
CWS	CHILLED WATER SUPPLY
D	DRAIN
DIW	DEIONIZED WATER
DS	DIGESTED SLUDGE
DSF	DIESEL FUEL
DSS	SCREENED DIGESTED SLUDGE
DW	DISTILLED WATER
EE	ENGINE EXHAUST
ES	EQUALIZED SLUDGE
F	FLOAT
FA	FOUL AIR
FC	FERRIC CHLORIDE
FLT	FILTRATE
FS	FLOTATION SLUDGE
FW	FILTERED WATER
GAS	GASOLINE
GAV	GAS VAPOR RETURN
GC	GAS CIRCULATION
GR	GRIT
HOH	HIGH PRESSURE HYDRAULIC OIL
HRR	HEAT RESERVOIR RETURN
HRS	HEAT RESERVOIR SUPPLY
HRW	RECIRCULATING POTABLE HOT WATER
HSG	HIGH PRESSURE SLUDGE GAS
HW	POTABLE HOT WATER
HWR	LOW TEMPERATURE HEATING RETURN
HWS	LOW TEMPERATURE HEATING SUPPLY
IA	INSTRUMENT AIR
JWR	JACKET WATER RETURN
JWS	JACKET WATER SUPPLY
LOR	LUBE OIL RETURN
LOS	LUBE OIL SUPPLY
LOW	LUBE OIL WASTE
LSG	LOW PRESSURE SLUDGE GAS
MG	MIXED GAS
ML	MIXED LIQUOR
MS	MIXED SLUDGE
MSG	MEDIUM PRESSURE SLUDGE GAS
MTWR	MEDIUM TEMPERATURE HEATING RETURN
MTWS	MEDIUM TEMPERATURE HEATING SUPPLY
NG	NATURAL GAS
OF	OVERFLOW
OLP	OXYGEN LOW PRESSURE
PD	PUMPED DRAINAGE
PE	PRIMARY EFFLUENT
POL	POLYMER
PS	PRIMARY SLUDGE
PSC	PRIMARY SCUM
RAS	RETURN ACTIVATED SLUDGE
RS	RAW SEWAGE
RW	RAW WATER
RWP	RAINWATER PIPE
RWR	RECLAIMED WATER
SA	SERVICE AIR
SCR	STEAM CLEAN RINSE
SCR	STEAM CLEAN RINSE
SCS	STEAM CLEAN SUPPLY
SD	SANITARY DRAIN
SDG	SULFUR DIOXIDE GAS
SDL	SULFUR DIOXIDE LIQUID
SDS	SULFUR DIOXIDE SOLUTION
SDV	SULPHUR DIOXIDE VACUUM
SE	SECONDARY EFFLUENT
SEP	SEPTAGE
SN	SUPERNATANT
SS	SECONDARY SLUDGE
SSC	SECONDARY SCUM
STA	STARTING AIR
STD	STORM DRAIN
STML	STEAM, LOW PRESSURE
STMM	STEAM, MEDIUM PRESSURE
TD	TANK DRAIN
TE	THICKENER EFFLUENT
THS	THICKENED SLUDGE
TO	THICKENER OVERFLOW
TS	TRANSFER SLUDGE
TSC	THICKENED SCUM
TWAS	THICKENED WASTE ACTIVATED SLUDGE
V	VENT
VA	VACUUM
VC	CHEMICAL VENT
VP	PETROLEUM VENT
VSL	STEAM VENT, LOW PRESSURE
VSM	STEAM VENT, MEDIUM PRESSURE
WAS	WASTE ACTIVATED SLUDGE
WML	WASTE MIXED LIQUOR
1W	POTABLE WATER (CITY WATER)
1WS	POTABLE SOFT WATER
2W	NONPOTABLE CITY WATER
2WHP	NO. 2 WATER HIGH PRESSURE
2WL	LANDSCAPE IRRIGATION
2WS	SOFTENED NONPOTABLE CITY WATER
3W	NO.3 WATER (SECONDARY EFFLUENT)
3WHP	NO. 3 WATER HIGH PRESSURE
3WLC	NO. 3 WATER LOW PRESSURE CHLORINATED
3WLP	NO. 3 WATER LOW PRESSURE
3WS	NO. 3 SPRAY WATER

EQUIPMENT PREFIXES

A	AERATOR	EB	ENGINE BLOWER MODULE	MOP	MOTOR OPERATOR	TFR	TRANSFORMER
ACC	AIR CONDITION COIL	EG	ENGINE GENERATOR MODULE	MSP	MOTOR STARTER PANEL	TM	TIMER
ACU	AIR CONDITIONING UNIT	EPR	EVAPORATOR	MUX	MULTIPLEXER	TRS	TRANSFER SWITCH
AD	AIR DRYER			MX	MIXER		
AF	AIR FILTER	F	FAN	MZ	MULTIZONE UNIT	UH	UNIT HEATER
AHC	AIR HANDLING UNIT W/COIL	FLC	FLOCCULATOR			US	UTILITY STATION
AHU	AIR HANDLING UNIT	FLT	FILTER	ORT	ODOR REMOVAL TOWER		
ASC	ADJUSTABLE SPEED CONTROL	FP	FILTER PRESS			VEN	VENTILATOR
ASD	ADJUSTABLE SPEED DRIVE	FPU	FLUID POWER UNIT	P	PUMP	VP	VACUUM PUMP
ATS	AUTOMATIC TRANSFER SWITCH	FUR	FURNACE	PBD	PANELBOARD, ELECTRICAL LIGHTING AND BRANCH CIRCUIT	WH	WATER HEATER
B	BLOWER	GEN	GENERATOR			WHR	WASHER
BFP	BELT FILTER PRESS	GDR	GRINDER	PC	PROCESS OR PERSONAL COMPUTER	WSR	WATER SOFTENER UNIT
BLR	BOILER	GT	GATE				
BNR	BURNER			PEJ	PNEUMATIC EJECTOR		
BP	BACKFLOW PREVENTER	H	HOIST	PLC	PROGAMMABLE LOGIC CONTROLLER		
BSN	BAR SCREEN	HEX	HEAT EXCHANGER				
		HOP	HYDRAULIC OPERATOR	PNL	PANEL		
C	COIL	HP	HEAT PUMP	POP	PNEUMATIC OPERATOR		
CDR	CONDENSOR	HPU	HYDRAULIC POWER UNIT	PVL	PRESSURE VESSEL		
CFR	CHEMICAL FEEDER	HTR	HEATER				
CHR	CHILLER	HTT	HEAT TRACER TAPE	REC	RECEIVER		
COL	COLLECTOR	HV	HAND OPERATED VALVE				
COM	COMMINUTOR			SCN	SCREEN (BAR, ETC.)		
CON	CONVEYOR	INJ	INJECTOR	SCR	SCRUBBER		
CP	COMPRESSOR			SEP	SEPARATOR		
CRN	CRANE	LOS	LOCK OUT STOP (SWITCH)	SLR	SILENCER		
CTF	CENTRIFUGE	LVR	LOUVER	SMP	SAMPLER		
CV	CONTROL VALVE			SS	SAND SEPARATOR		
CYL	CYLINDER	M	MOTOR	ST	STEAM TRAP		
		MCC	MOTOR CONTROL CENTER	SUB	SUBSTATION		
DIS	DISTRIBUTOR	MEE	MISCELLANEOUS ELECTRICAL EQUIPMENT	SWBD	SWITCHBOARD		
DPR	DAMPER			SWGR	SWITCHGEAR		
DS	DISCONNECT SWITCH	MIE	MISCELLANEOUS INSTRUMENTATION EQUIPMENT	T	TANK		
DU	DRIVE UNIT			TBN	TURBINE		
		MME	MISCELLANEOUS MECHANICAL EQUIPMENT	TCV	TEMPERATURE CONTROL VALVE		
E	ENGINE						

GENERAL NOTES:

1. THIS DRAWING IS GENERAL IN NATURE. SOME SYMBOLS AND IDENTIFICATIONS SHOWN HEREON MAY NOT BE USED ON THE CONTRACT DRAWINGS.
2. SYMBOLS ARE ARRANGED ON SPECIFIC DRAWINGS AND IN CATEGORIES FOR CONVENIENCE ONLY; SYMBOLS MAY BE USED ON ANY OF THE CONTRACT DRAWINGS.

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BID SET

JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: D. MACKAY
DRAWN: A. LAPIERRE
CHECKED: J. HIMEBAUGH
CHECKED:
APPROVED: D. MACKAY

FILENAME
I-00-003.dwg
BC PROJECT NUMBER
157012
CLIENT PROJECT NUMBER
4277

INSTRUMENTATION

ABBREVIATIONS

DRAWING NUMBER
I-00-003

SHEET NUMBER 44 OF 48

RTU ELEC 2N

	FAIL	RUNNING	CALL TO RUN	UNDER LOAD
	YA 3310	YI 3310	YS 3310	YR 3310
	YA 3110	YI 3110	YS 3110	YR 3110
	YA 3010	YI 3010	YS 3010	YR 3010
	YA 3410	YI 3410	YS 3410	YR 3410
	YR 3210	YA 3210	YI 3210	YS 3210

MCC-N1

M

HS 3110 LOS — LP3101

HS 3010 LOS — LP3001

HS 3210 LOS — LP3201

WSH 3120 — WSHH 3120 — M — ME-31

M — ME-30

WSH 3020 — WSHH 3020

WSH 3220 — WSHH 3220 — M — ME-32

HS 3310 LOS — LP3301

HS 3410 LOS — LP3401

WSH 3320 — WSHH 3320 — M — WSH 3330 — WSHH 3330 — ME-33

WSH 3420 — WSHH 3420 — M — WSH 3430 — WSHH 3430 — ME-34

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CHECKED:
APPROVED: D. MACKAY

FILENAME
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BC PROJECT NUMBER
157012

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INSTRUMENTATION

SEDIMENTATION BASINS 3

DRAWING NUMBER
I-01-001

SHEET NUMBER 45 OF 48

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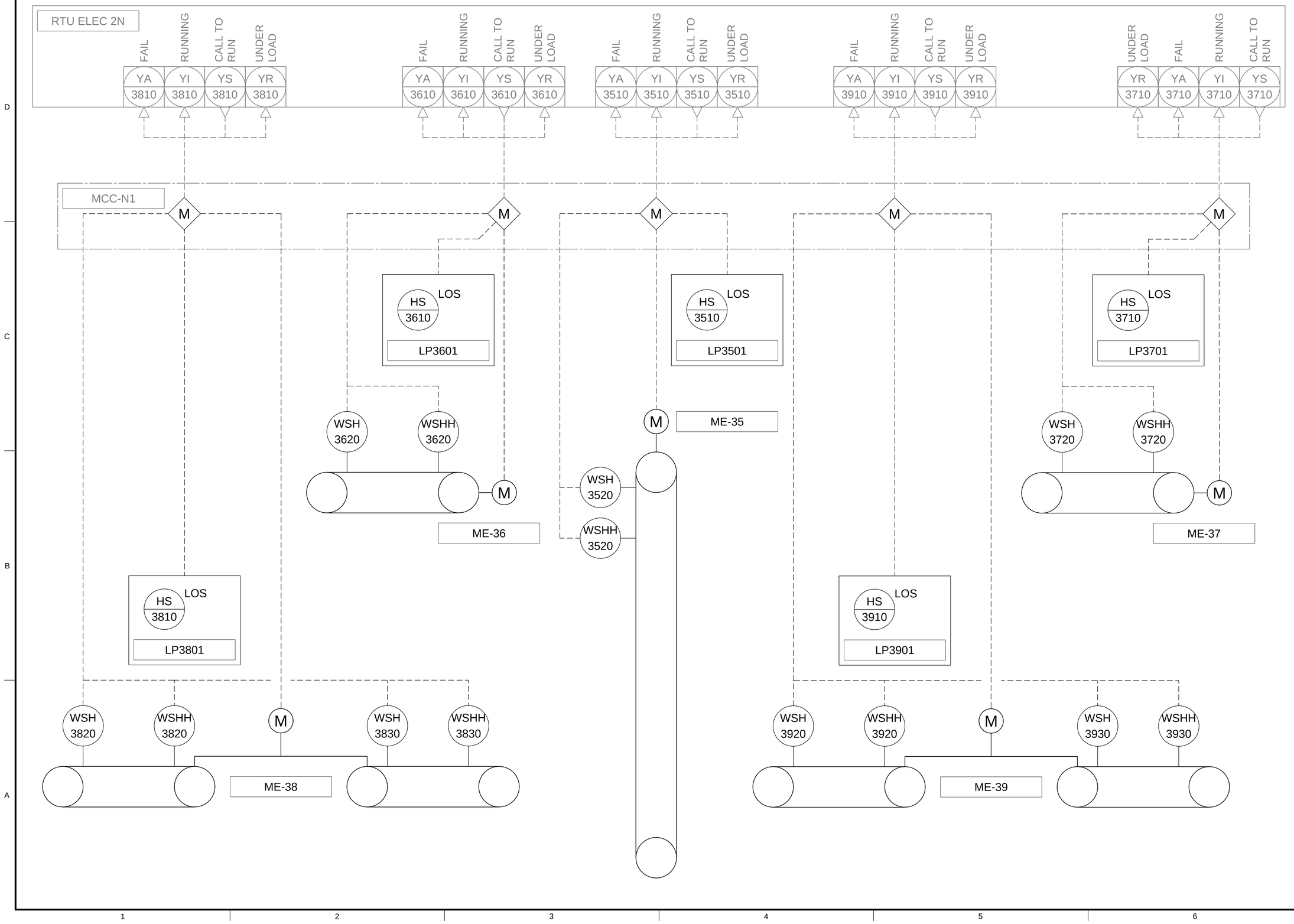

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JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

REV	DATE	DESCRIPTION

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DESIGNED: D. MACKAY
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CHECKED:
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FILENAME
I-01-002.dwg

BC PROJECT NUMBER
157012

CLIENT PROJECT NUMBER
4277

INSTRUMENTATION

SEDIMENTATION BASIN 4

DRAWING NUMBER
I-01-002

SHEET NUMBER 46 OF 48

RTU ELEC 2S

FAIL	RUNNING	CALL TO RUN	UNDER LOAD
YA 4010	YI 4010	YS 4010	YR 4010
YA 4210	YI 4210	YS 4210	YR 4210
YA 4410	YI 4410	YS 4410	YR 4410
YA 4110	YI 4110	YS 4110	YR 4110
UNDER LOAD	FAIL	RUNNING	CALL TO RUN
YR 4310	YA 4310	YI 4310	YS 4310

MCC-S1

M

HS 4210 LOS — LP4201

HS 4410 LOS — LP4401

HS 4310 LOS — LP4301

HS 4010 LOS — LP4001

HS 4110 LOS — LP4101

WSH 4220 / WSHH 4220 — M — ME-42

WSH 4420 / WSHH 4420

M — ME-44

WSH 4320 / WSHH 4320 — M — ME-43

WSH 4020 / WSHH 4020 — M — WSH 4030 / WSHH 4030 — ME-40

WSH 4120 / WSHH 4120 — M — WSH 4130 / WSHH 4130 — ME-41

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PROFESSIONAL ENGINEER No. 10186727 LORIN DANIEL MACKAY 6/1/22 STATE OF UTAH

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JORDAN VALLEY WATER CONSERVANCY DISTRICT

JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

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CHECKED: J. HIMEBAUGH
CHECKED:
APPROVED: D. MACKAY

FILENAME
I-01-003.dwg

BC PROJECT NUMBER
157012

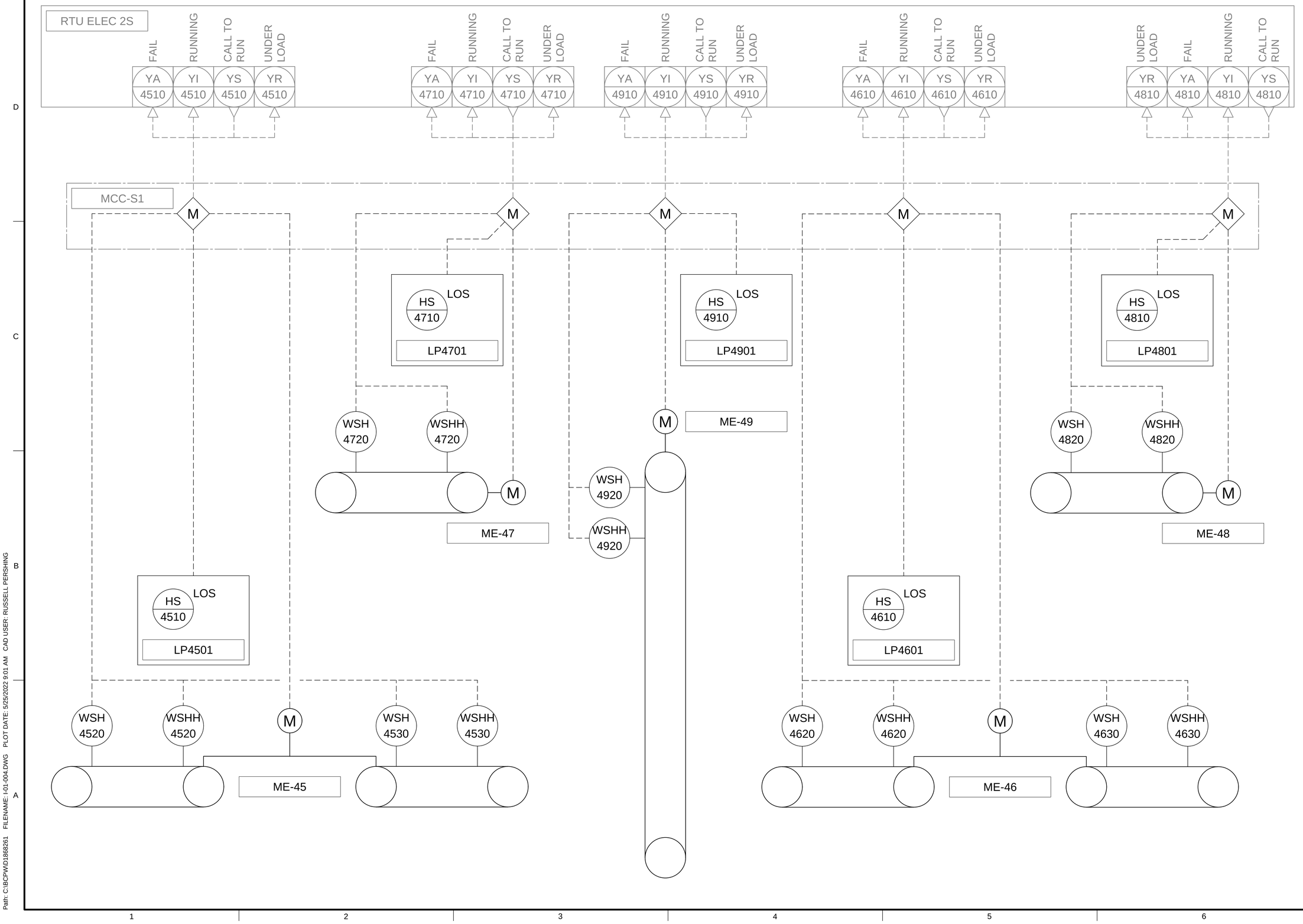
CLIENT PROJECT NUMBER
4277

INSTRUMENTATION

SEDIMENTATION BASINS 5

DRAWING NUMBER
I-01-003

SHEET NUMBER 47 OF 48



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Brown AND Caldwell

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JVWTP
SOLIDS COLLECTION EQUIPMENT UPGRADE PROJECT

REVISIONS

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DRAWN: A. LAPIERRE
CHECKED: J. HIMEBAUGH
CHECKED:
APPROVED: D. MACKAY

FILENAME
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BC PROJECT NUMBER
157012

CLIENT PROJECT NUMBER
4277

INSTRUMENTATION

SEDIMENTATION BASIN 6

DRAWING NUMBER
I-01-004

48 SHEET NUMBER OF 48