ETOWAH WATER & SEWER AUTHORITY

DAWSON FOREST WRF
SLUDGE DEWATERING UPGRADES

DAWSON COUNTY
GEORGIA

Etowah
WATER & SEWER AUTHORITY
"Excellence in every drop"

BOARD OF DIRECTORS

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WIEDEMAN AND SINGLETON, INC.
Civil and Environmental Engineers

3091 GOVERNORS LAKE DRIVE
SUITE 430
NORCROSS, GEORGIA 30071
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BID READY SET
2/26/2020

GEORGIA REGISTERED No. 18758 PROFESSIONAL ENGINEER PETER JOHNS 2/26/20

SIGNATURE: _____ DATE: 2/26/2020

PETER J. JOHNS, P.E.
GA. REGISTRATION NO. 18758

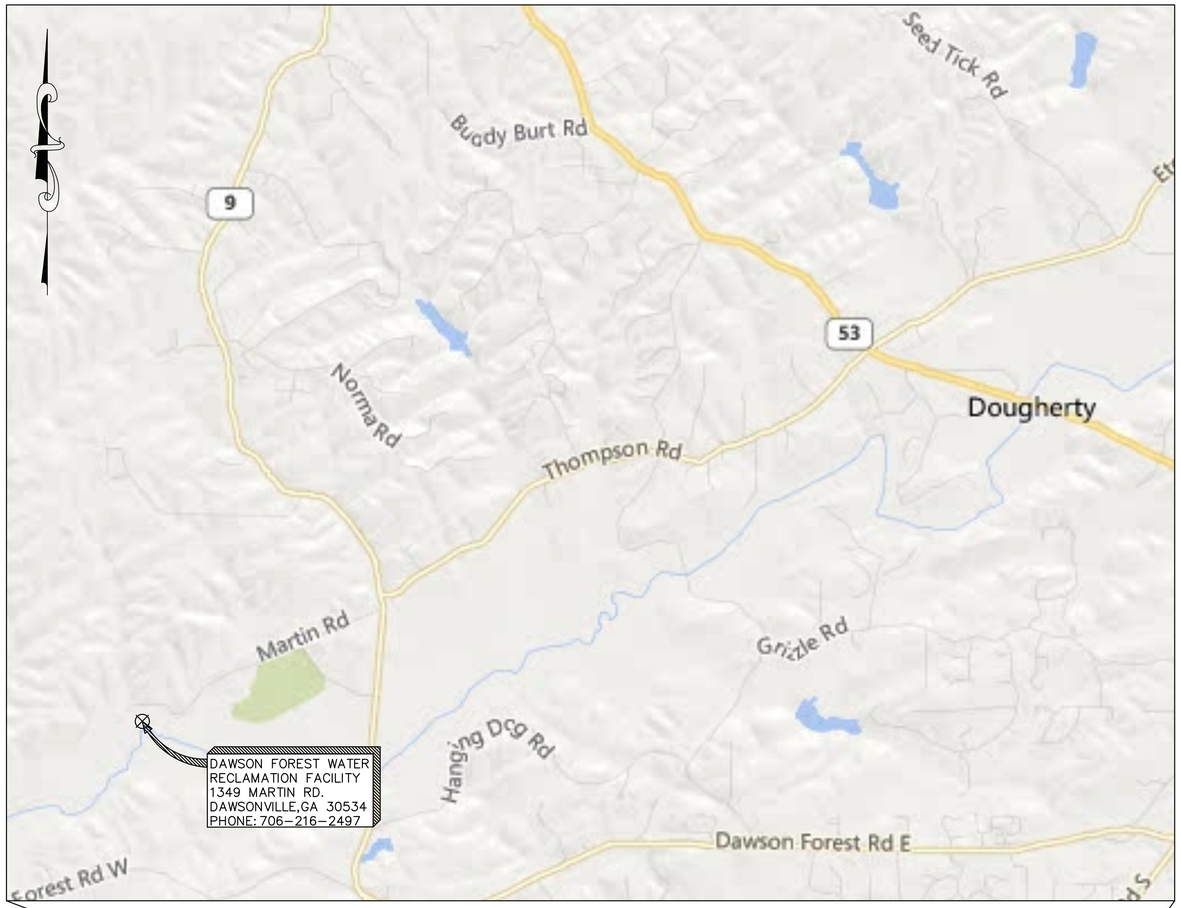
SHEET INDEX

DWG NO. LEGEND:
DISCIPLINE SHEET NO.
C . 01

DISCIPLINES:
G – GENERAL
C – CIVIL
ESC – EROSION & SEDIMENTATION CONTROL
D – DEMOLITION
M – MECHANICAL
S – STRUCTURAL
E – ELECTRICAL
H – HVAC

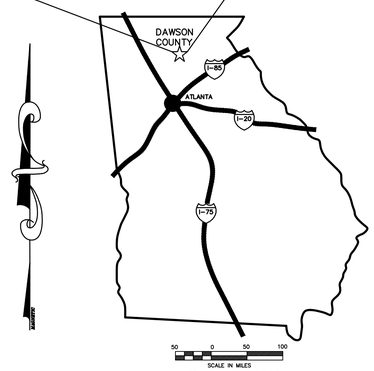
SHEET NO.	DRAWING NO.	TITLE
		GENERAL
1	G.00	COVER SHEET AND SHEET INDEX
2	G.01	LOCATION MAP AND GENERAL NOTES
		CIVIL
3	C.01	EXISTING SITE SURVEY AND DEMOLITION PLAN
4	C.02	CIVIL SITE PLAN
5	C.03	SLUDGE LINE PROFILES
6	C.04	MISCELLANEOUS CIVIL DETAILS
		EROSION & SEDIMENTATION CONTROL
7	ESC.01	INITIAL CLEARING PHASE EROSION CONTROL PLAN
8	ESC.02	INTERMEDIATE PHASE EROSION CONTROL PLAN
9	ESC.03	FINAL PHASE EROSION CONTROL PLAN
10	ESC.04	EROSION CONTROL NOTES & DETAILS I
11	ESC.05	EROSION CONTROL NOTES & DETAILS II
		DEMOLITION
12	D.01	DEMOLITION PLAN AND SECTIONS
		MECHANICAL
13	M.01	3D VIEWS
14	M.02	SUB-FLOOR PLAN
15	M.03	OPERATING FLOOR PLAN
16	M.04	SECTIONS AND DETAILS I
17	M.05	SECTIONS AND DETAILS II
18	M.06	SECTIONS AND DETAILS III
19	M.07	SECTIONS AND DETAIL IV
20	M.08	MISCELLANEOUS MECHANICAL DETAILS
		STRUCTURAL
21	S.01	STRUCTURAL NOTES I
22	S.02	STRUCTURAL NOTES II
23	S.03	STATEMENT OF SPECIAL INSPECTIONS
24	S.04	FOUNDATION PLAN
25	S.05	FLOOR PLAN
26	S.06	ROOF PLAN
27	S.07	SECTIONS & DETAILS I
28	S.08	SECTIONS & DETAILS II
29	S.09	SECTIONS & DETAILS III
30	S.10	WALL SECTIONS & DETAILS
31	S.11	FRAMING PLANS, ELEVATIONS, AND DETAILS
32	S.12	FRAMING ELEVATIONS AND DETAILS
33	S.13	STANDARD CONCRETE DETAILS
34	S.14	MISCELLANEOUS STRUCTURAL DETAILS
35	S.15	TYPICAL GRATING DETAILS
		ELECTRICAL
36	E.01	ELECTRICAL ONE LINE, NOTES, AND SCHEDULES
37	E.02	ELECTRICAL SITE PLAN
38	E.03	ELECTRICAL PLAN – POWER
39	E.04	ELECTRICAL PLAN – LIGHTING AND GROUNDING
40	E.05	SCHEMATIC DIAGRAMS 1
41	E.06	SCHEMATIC DIAGRAMS 2
42	E.07	P&ID
		HVAC
43	H.01	HVAC SCHEDULES AND NOTES
44	H.02	HVAC PLAN AND SECTIONS

811 Know what's **below.** **Call** before you dig.



LOCATION MAP

0 2000' 4000'



STATE MAP

VICINITY MAP

Know what's below. Call before you dig.

GENERAL PROJECT NOTES:

1. UNDERGROUND UTILITIES SHOWN HEREIN ARE APPROXIMATELY LOCATED. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE HORIZONTAL OR VERTICAL ACCURACY OF SAID UTILITIES, OR THE POSSIBILITY THAT UNDERGROUND UTILITIES OTHER THAN THE ONES SHOWN MAY EXIST. **THE CONTRACTOR SHALL CALL THE UTILITIES PROTECTION INC., "CALL BEFORE YOU DIG" (1-800-282-7411) PRIOR TO CONSTRUCTION AND BE RESPONSIBLE FOR LOCATING ALL UTILITIES.** SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. PROVIDE ENGINEER WITH 24 HOURS (MIN.) NOTICE PRIOR TO THE PLACING OF ANY CONCRETE.
3. CONTRACTOR SHALL NOT OPERATE ANY EXISTING EQUIPMENT, VALVES, ETC. WITHOUT AUTHORIZATION FROM OWNER, UNLESS AN EMERGENCY SITUATION EXISTS. IN GENERAL, THE OPERATING STAFF OF THE OWNER WILL OPERATE ANY EXISTING EQUIPMENT, VALVES, ETC. WHICH THE CONTRACTOR MAY REQUIRE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL STAKEOUT AND SURVEYING WORK REQUIRED ON THE PROJECT. CONTRACTOR SHALL CONTACT ENGINEER AND/OR OWNER TO VERIFY LOCATION OF ALL PROPOSED STRUCTURES PRIOR TO PLACEMENT OF ANY CONCRETE.
5. THE ENGINEER WILL PROVIDE SURVEY COORDINATES IN GA STATE PLANE COORDINATE SYSTEM (WEST ZONE) FOR LAYOUT PURPOSES TO THE CONTRACTOR. SITE SURVEY COMPLETED BY ROBBIE HENDERSON SURVEYING & PLANNING.
6. UNLESS SPECIFICALLY DETAILED OTHERWISE, CONNECTIONS TO EXISTING MANHOLES AND STRUCTURES SHALL BE CORED AND LINK SEALED. CONTRACTORS SHALL USE LINK SEALS THAT HAVE ALL STAINLESS STEEL HARDWARE.
7. THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES SHALL TAKE PLACE PRIOR TO LAND DISTURBING ACTIVITIES.
8. ALL EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE CHECKED DAILY AND ANY DEFICIENCIES NOTED WILL BE CORRECTED BY THE END OF THE DAY. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AND BEST MANAGEMENT PRACTICES (BMP's) SHALL BE INSTALLED BY CONTRACTOR IF DEEMED NECESSARY AFTER ON-SITE INSPECTION BY THE LOCAL ISSUING AUTHORITY AND/OR THE OWNER.
9. ALL CUT AND FILL SLOPES MUST BE SURFACE ROUGHENED AND VEGETATED DAILY. NO PERMANENT CUT OR FILL SLOPES STEEPER THAN 3:1 ARE ALLOWED UNLESS SPECIFICALLY DETAILED OTHERWISE.
10. THE EXISTING DAWSON FOREST WRF SITE IS A SECURED SITE WITH CONTROLLED ACCESS TO VISITORS. DURING CONSTRUCTION, THE CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY FENCING, GATES, BARRICADES, ETC. AS REQUIRED TO LIMIT PUBLIC ACCESS TO THE SITE.
11. THE CONTRACTOR SHALL SEQUENCE AND SCHEDULE CONSTRUCTION OF THE WORK TO ALLOW FOR CONTINUOUS OPERATION OF THE DAWSON FOREST WRF THROUGHOUT THE CONSTRUCTION PERIOD. TEMPORARY SHUTDOWNS AND TIE-INS SHALL BE SCHEDULED WITH THE OWNER'S OPERATING STAFF AND WHEN APPROVED SHALL BE LIMITED TO NO MORE THAN TWO (2) HOURS AT ANY ONE TIME. TEMPORARY SHUTDOWNS AND TIE-INS SHALL BE MINIMIZED. ALL OTHER WORK SHALL BE SCHEDULED IN A LOGICAL MANNER TO ALLOW FOR CONTINUOUS OPERATION OF THE DAWSON FOREST WRF DURING THE CONSTRUCTION PERIOD AND TO HELP MINIMIZE OR PREVENT TEMPORARY SHUTDOWNS. SEE SPECIFICATIONS FOR ADDITIONAL CONSTRUCTION SEQUENCING REQUIREMENTS. THE CONTRACTOR'S WORK HOURS DURING THE CONSTRUCTION OF THIS PROJECT ARE LIMITED. THE CONTRACTOR MAY WORK BETWEEN THE HOURS OF 7AM TO 7PM, MONDAY THROUGH SATURDAY.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL TEMPORARY PLUGS AND BULKHEADS, TEMPORARY PIPING, TEMPORARY BYPASS PUMPING, ETC. REQUIRED FOR CONTINUOUS OPERATION OF THE DAWSON FOREST WRF.

GENERAL PIPING NOTES:

1. ALL LINK SEALS SHALL HAVE S.S. HARDWARE.
2. ALL WALL PIPES CAST FLUSH WITH WALLS OR SLABS SHALL BE TAPPED FOR STUDS.
3. ALL WALL PIPES SHALL HAVE WALL COLLARS. WALL COLLARS SHALL HAVE A MIN. CONCRETE COVER OF 3 INCHES.
4. PROVIDE PIPE SUPPORTS AT ALL LOCATIONS SHOWN ON DRAWINGS AND AS REQUIRED BY THE SPECIFICATIONS. FOR CLARITY, NOT ALL REQUIRED PIPE SUPPORTS ARE DETAILED ON THESE DRAWINGS.
5. ALL FORCE MAINS SHALL BE DUCTILE IRON PIPE WITH CEMENT LINING. OTHER PIPELINES SHALL BE CONSTRUCTED WITH PIPE MATERIALS SPECIFIED AND AS SHOWN ON THE DRAWINGS.
6. WATER LINES AND FORCE MAINS (I.E., NON-GRAVITY FLOW) SHALL HAVE CONCRETE THRUST BLOCKING INSTALLED AT ALL UNDERGROUND FITTINGS UNLESS OTHER JOINT RESTRAINTS (E.G., MECHANICALLY RESTRAINED JOINTS) ARE SPECIFICALLY DETAILED. INSTALL MECHANICALLY RESTRAINED JOINTS WHERE DETAILED.
7. IF NOT DETAILED, WATER VALVES SHALL BE GATE VALVES, AND WASTEWATER VALVES SHALL BE PLUG VALVES.
8. INSTALL LOCATOR WIRE (NUMBER 12 AWG SOLID PLASTIC COATED COPPER WIRE) ABOVE ALL PVC WATER MAINS.
9. JOINT DEFLECTION OF FORCE MAINS AND WATER SERVICE LINES SHALL NOT EXCEED 50% OF THE MANUFACTURER'S PRINTED RECOMMENDATIONS.
10. DUCTILE IRON PIPE (DIP) WITH GROOVE JOINTS SHALL BE FURNISHED AND SUPPLIED IN ACCORDANCE WITH ANSI/AWWA C606, INCLUDING MINIMUM SPECIAL THICKNESS CLASSES REFERENCED. ALL GROOVE JOINTS SHALL BE MADE IN THE FACTORY.
11. INTERIOR WATER LINES (LESS THAN 4 INCHES) SHALL BE COPPER AS DETAILED ON THESE DRAWINGS. LARGER BURIED WATER LINES SHALL BE D.I.P. (MIN. CLASS 350).
12. ALL POLYMER FEED LINES SHALL BE SCHEDULE 80 PVC PIPING; VALVES SHALL BE TRU-UNION TYPE PVC BALL VALVES.
13. PROVIDE MINIMUM 4'-0" COVER ON ALL WATER SERVICE LINES.
14. PROVIDE MASONRY OR CONCRETE PIPE PLUGS AS REQUIRED WHEN ABANDONING AND REMOVING EXISTING PIPE SEGMENTS DETAILED. INSTALL CONCRETE BLOCKING AT ALL PLUGS UNDER PRESSURE.
15. ALL BURIED VALVES SMALLER THAN 4" SHALL BE INSTALLED IN A CAST IRON METER BOX. SEE MISCELLANEOUS DETAILS.
16. ALL EXPOSED PIPING 12" AND SMALLER THAT REMAINS FULL OF LIQUID AT ALL TIMES SHALL BE INSULATED, HEAT TRACED, AND PROTECTED WITH ALUMINUM COVER. SEE SPECIFICATIONS FOR DETAILS. POWER HEAT TRACING FROM NEAREST 120 VOLT SOURCE.

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
ALUM	ALUMINUM
B	BOTTOM
B.F.	BLIND FLANGE
BFPV	BACK FLOW PREVENTER
BV	BALL VALVE (< 4") BUTTERFLY VALVE (> 4")
CB	CATCH BASIN
CI	CAST IRON PIPE
CIP	CAST-IN-PLACE
CJ	CONSTRUCTION JOINT
℄	CENTER LINE
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONARY UNIT
C.O.	CLEANOUT
CONC	CONCRETE
CV	CHECK VALVE
DI	DROP INLET
DIP	DUCTILE IRON PIPE
DWL(S)	DOWEL
DWV	DRAIN WASTE VENT
ø	DIAMETER
EA	EACH
ECC	ECCENTRIC
EE	EACH END
EF	EACH FACE
EL	ELEVATION
ES	EACH SIDE
EW	EACH WAY
EXIST	EXISTING
FH	FIRE HYDRANT
FV	FLAP VALVE
FM	FORCE MAIN
G	GAS LINE
GV	GATE VALVE
HB	HOSE BIB
HOR	HORIZONTAL
HW	HEADWALL
IF	INSIDE FACE
INV	INVERT
IPF	IRON PIN FOUND
IPS	IRON PIN SET
JB	JUNCTION BOX
KSI	KIPS PER SQUARE INCH
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
M.O.	MASONRY OPENING
MON	MONUMENT
NTS	NOT TO SCALE
OC	ON CENTER
OF	OUTSIDE FACE
OHPL	OVERHEAD POWER LINE
OHUL	OVERHEAD UTILITY LINE
P	UNDERGROUND POWER LINE
PG	PRESSURE GAUGE
PL	PROPERTY LINE
PRV	PRESSURE REDUCING VALVE (WATER SERVICE LINES)
PSI	POUNDS PER SQUARE INCH
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
R/W	RIGHT OF WAY
SD1	SILT FENCE
S.S.	SANITARY SEWER
SS	STAINLESS STEEL
SV	SOLENOID VALVE
SVC	SERVICE
T	TELEPHONE LINE
T	TOP
T&B	TOP & BOTTOM
TBA	TO BE ABANDONED IN PLACE
TBM	TEMPORARY BENCH MARK
TBR	TO BE REMOVED
TFS	TAPPED FOR STUDS
TM	TELEPHONE MARKER
TMH	TELEPHONE MANHOLE
TOS	TOP OF SLAB
TYP	TYPICAL
VERT	VERTICAL
W	WATER LINE
WM	WATER METER
WS	WATER SERVICE
WV	WATER VALVE
W/	WITH
W/S	WATER STOP
YH	YARD HYDRANT

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% REVIEW SET	PJJ
2	1/6/2020	90% REVIEW SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ
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SEAL

GEORGIA REGISTERED No. 18768 PROFESSIONAL ENGINEER PETER JOHNS 2/26/20

OWNER

Etowah Water & Sewer Authority
"Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: PJJ
DRAWN BY: SPM
CHECKED BY: PJJ
FILENAME: G.01 LOCATION MAP AND GENERAL NOTES.dwg
PROJECT NO.: 273-18-210

Wiedeman and Singleton, Inc.
Civil and Environmental Engineers
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SUITE 430
NORCROSS, GA 30071
(404) 876-5862
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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: LOCATION MAP AND GENERAL NOTES

SCALE: 1" = 2000'

NOTE: DRAWING SCALE IS BASED ON 24x36 SHEETS.

0 1" 2"

DRAWING G.01

SHEET 2 OF 44

DrawingFile: G.01 LOCATION MAP AND GENERAL NOTES.dwg Feb 25, 2020 - 2:24pm

GENERAL NOTES:

1. THE BOUNDARY OF THE FIELD SURVEY COMPLETED BY ROBBIE HENDERSON SURVEYING AND PLANNING IS SHOWN; FEATURES OUTSIDE OF THIS BOUNDARY HAVE BEEN APPROXIMATED FROM HISTORICAL ENGINEERING DRAWINGS. CONTRACTOR TO VERIFY EXISTING CONDITIONS.
2. CONTRACTOR SHALL UTILIZE EXTREME CAUTION DURING CONSTRUCTION AS THERE MAY BE ADDITIONAL UNDERGROUND UTILITIES ON SITE THAT ARE NOT SHOWN ON THESE PLANS.

LEGEND

DESCRIPTION	EXISTING
CONTOUR (SURVEY)	760
CONTOUR (DRAWING)	760
EDGE OF PAVEMENT	
POWER POLE	
ASPHALT PAVING	
CONCRETE PAVING	
GRAVEL	
SOIL BORING	

ELEC. BLDG.
CAR PORT
STORAGE BUILDING
AEROBIC DIGESTER NO. 1
AEROBIC DIGESTER NO. 2
SBR TANK NO. 1
SBR TANK NO. 2
FUTURE POST EQ TANK
SLUDGE HOLDING TANK
EXISTING BELT PRESS/BLOWER BUILDING
COVERED DUMPSTER AREA
OPERATIONS BUILDING
EXISTING BUILDING
DECK
ASPHALT
INFLUENT SCREENING
RECYCLE PUMP STATION A
T/SLAB EL. 1052.40
ABANDONED RECYCLE PUMP STATION B
T/SLAB EL. 1050.97
INV. IN: 1047.33
INV. OUT: 1047.13
EMERGENCY STORAGE POND
INFLUENT PUMP STATION
EXISTING GAB ROADWAY LIMITS (TYP.)
FIELD SURVEY BOUNDARY
EXIST. MANHOLE (PREV. GRINDER PS) TOP: 1051.17 I.E.: 1047.06
BENCHMARK ELEV: 1051.61' N: 1586860.85 E: 2306734.78
EXIST. DRAIN MH TOP: 1049.90 INV. IN: 1048.10 INV. IN: 1047.90
EXIST. MH S-4 4'Ø ℄ N: 1586751.71 E: 2306676.18 INV OUT: 1044.57
EXIST. MH S-3 4'Ø ℄ N: 1586787.65 E: 2306761.38 INV IN: 1043.50 INV OUT: 1042.41
EXIST. MH S-2 4'Ø ℄ N: 1586836.24 E: 2306876.60 INV IN: 1040.44
12 L.F. 8" PVC DRAIN W/ PLUG
HEADWALL I.E. 1035.93
HEADWALL I.E. 1033.19
18" RCP STORM DRAIN
EXISTING 6' MH-L1 TOP: 1034.64 INV. IN: INV. OUT:
EXISTING 8' MH-L2 TOP: 1034.72 INV. IN: 1012.45 INV. OUT: 1012.25
2" PLANT WATER
6" POTABLE
8" LAS
4" WAS
6" RECYCLE (ABANDONED IN PLACE)
12" RAW SEWAGE
8" SUPERNATANT
16" SBR INF.
4" SLUDGE (ABANDONED IN PLACE)
8" AIR
4" DRAIN
6" DRAIN
6" DI
6" DI POTABLE
6" DI STUB FOR FUTURE CONNECTION
3" PVC POTABLE
4" PLANT WATER
8" PVC DRAIN
3" PVC POTABLE WATER (ABANDONED IN PLACE)
8" PVC LAS FORCE MAIN (ABANDONED IN PLACE)
4" RECYCLE
10" RECYCLE
24" RAW SEWAGE
42" RAW SEWAGE
1-1/4" PVC SCH 40
FH
YH
PP
PB
LP
ELEC.
C.O.

AERIAL
SCALE: 1" = 100'

EXISTING SITE PLAN
SCALE: 1" = 20'

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% REVIEW SET	PJJ
2	1/6/2020	90% REVIEW SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ

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CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: PJJ
DRAWN BY: SKR/SPM
CHECKED BY: PJJ
FILENAME: C-01 EXISTING SITE PLAN.dwg
PROJECT NO.: 273-18-210

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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: EXISTING SITE SURVEY AND CONDITIONS

SCALE: 1" = 20'

NOTE: DRAWING SCALE IS BASED ON 24x36 SHEETS.

0 1" 2"

DRAWING C.01

SHEET 3 OF 44

Drawing file: C:\01 EXISTING SITE PLAN.dwg C.01 EXISTING SITE PLAN Feb 25, 2020 - 2:24pm

SLUDGE LINE B STA:0+00

SLUDGE LINE B STA:0+08.04
1-6" 45° MJ (RJ) BEND
N:1586833.32
E:2306626.40

ROUTE 6" SLUDGE LINE B TO EXISTING AEROBIC DIGESTER NO. 2 AS SHOWN, SEE M DRAWINGS FOR MORE DETAILS.

SLUDGE LINE B STA:0+14.93
1-6" 45° MJ (RJ) WYE W/ 6" MJ (RJ) CLEANOUT
N:1586830.63
E:2306632.71

2" PLANT WATER

8" AIR

8" AIR

PROPOSED 6" DIP MJ (RJ) SLUDGE LINE B TO AEROBIC DIGESTER NO. 2

SLUDGE LINE B STA:0+50

4" SLUDGE (ABANDONED IN PLACE)

4" DRAIN

6" POTABLE

ROUTE 6" SLUDGE LINE A TO EXISTING SLUDGE HOLDING TANK AS SHOWN, SEE M DRAWINGS FOR MORE DETAILS.

SLUDGE LINE A STA:0+00

TIE NEW 4" WATER LINE TO EXISTING PIPE W/ 6" X 4" TAPPING SLEEVE AND VALVE W/ V.B. AND CONCRETE BLOCKING
N:1586831.26
E:2306768.24

2" PLANT WATER

6" RECYCLE

6" RECYCLE (ABANDONED IN PLACE)

12" RAW SEWAGE

12" RAW SEWAGE

SLUDGE LINE B STA:0+87.10
1-6" 45° MJ (RJ) WYE W/ 6" MJ (RJ) CLEANOUT
N:1586763.65
E:2306659.66

16" SBR INF.

4" WAS

PROPOSED 6" DIP MJ (RJ) SLUDGE LINE A TO SLUDGE HOLDING TANK

SLUDGE LINE A STA:0+44.16 = SLUDGE LINE B STA:1+13.67
1-6" 45° MJ (RJ) WYE
N:1586739.21
E:2306649.24

2" PLANT WATER

8" SUPERNATANT

SLUDGE LINE B STA:1+00

SLUDGE LINE B STA:1+14

SLUDGE LINE A STA:0+50

6" RECYCLE (ABANDONED IN PLACE)

6" DRAIN

8" PVC DRAIN

1049

EXISTING GAB ROADWAY LIMITS (TYP.)

ASPHALT

EXISTING 8" LAS FORCE MAIN HAS BEEN ABANDONED AND IS NO LONGER IN USE. THE CONTRACTOR MAY DEMO AND PLUG THE EXISTING MAIN AS REQUIRED TO CONSTRUCT THE PROPOSED IMPROVEMENTS.

3" PVC POTABLE WATER

1048

SLUDGE LINE A STA:0+62.06
1-6" 45° MJ (RJ) WYE W/ 6" MJ (RJ) CLEANOUT
N:1586722.61
E:2306655.91

PROPOSED PIPE BOLLARDS, SEE DETAIL (TYP. 2)
N:1586746.94
E:2306720.58

PROPOSED 8" PVC DRAIN @ MIN. 1% SLOPE; REMOVE EXISTING PVC PLUG AND CONNECT TO EXISTING 8" PVC DRAIN PIPE W/ TRANSITION COUPLING, SEE DETAIL.

N:1586772.89
E:2306785.10

GRAVEL PAVING

PROPOSED SOLIDS DEWATERING BUILDING T/FLOOR EL. 1049.88

1049.81 TYP. AT DOORS

1049.81 AT DUMPSTER SLAB

1049.25

1047

1046

3" PVC POTABLE WATER (ABANDONED IN PLACE)

8" PVC LAS FORCE MAIN (ABANDONED IN PLACE)

SLUDGE LINE A STA:1+00

SLUDGE LINE A STA:1+42

1049.81 TYP. AT DOORS

NEW 4" DIP WATER LINE

SLUDGE LINE A STA:1+00.32
1-6" 45° MJ (RJ) WYE W/ 6" MJ (RJ) CLEANOUT
N:1586707.60
E:2306691.11

N:1586702.41
E:2306738.49

STUB OUT OF 4" MJ DIP FOR CONNECTION TO FUTURE REUSE SUPPLY; EXTEND 8' BEYOND BUILDING FOUNDATION LIMITS AND PLUG.

N:1586728.35
E:2306803.01

1049.25

1049.81 TYP. AT SIDEWALK

30

1045

PP

4" MJ 90° BEND W/ CONCRETE BLOCKING
N:1586726.02
E:2306809.92

4" MJ 90° BEND W/ CONCRETE BLOCKING
N:1586703.18
E:2306753.12

FIELD SURVEY BOUNDARY

1052

1051

1050

1049

REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIALS:

IN ACCORDANCE WITH GEOTECHNICAL EXPLORATION PERFORMED BY SOUTHERN GEOTECHNICAL CONSULTANTS (SGC), UNSUITABLE FILL MATERIALS EXIST AT THE SITE OF THE PROPOSED SOLIDS DEWATERING BUILDING. THE CONTRACTOR SHALL REMOVE AND REPLACE THESE UNSUITABLE MATERIALS IN ACCORDANCE WITH THE GEOTECHNICAL REPORT, THE STRUCTURAL DRAWINGS, AND THE FOLLOWING:

1.1. FOUNDATION SUBGRADE
- 1.1.1. UNDERCUT TO A DEPTH OF 2-FEET BELOW BOTTOM OF THE PROPOSED FOUNDATION AND BACKFILL AS FOLLOWS:
  - 1.1.1.1. BACKFILL THE UNDERCUT AREAS WITH A TRI-AXIAL GRID (TENSAR TX 140, OR EQUAL), FOLLOWED BY 1 1/2-FEET OF COARSE CRUSHED STONE (NO. 4 OR SMALL SURGE STONE). CAP THE STONE WITH GEOFABRIC (MIRAFI 500X) THEN 6-INCHES OF COMPACTED GAB CRUSHED STONE. EXTEND UNDERCUT AREAS 2-FEET (MIN.) OUTSIDE THE LIMITS OF THE PROPOSED STRUCTURE FOUNDATION, AS DETAILED ON THE STRUCTURAL DRAWINGS.

1.2. DEWATERING
- 1.2.1. DEWATERING OF THE BUILDING SITE IS REQUIRED. SEE SPECS AND STRUCTURAL DRAWINGS FOR ADDITIONAL DETAILS AND INFORMATION.

1.3. PAYMENT
- 1.3.1. ALL SHOWN ON DRAWINGS SHALL BE INCLUDED IN THE LUMP SUM BID.
- 1.3.2. PAYMENT FOR ADDITIONAL REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIALS IF AUTHORIZED WILL BE PAID FOR USING EXTRA-WORK.

PROPOSED SITE PLAN

SCALE: 1" = 10'

LEGEND

DESCRIPTION	EXISTING	PROPOSED
CONTOUR (SURVEY)	760	
CONTOUR (DRAWINGS)	760	760
EDGE OF PAVEMENT		
POWER POLE		
PLANT PIPING		
WATER LINE	W	W
DITCH LINE		
HOSE BIBB		
VALVE		
MANHOLE		
DROP INLET		
SPOT ELEVATION		
SOIL BORING		
ASPHALT PAVING		
CONCRETE PAVING		
GRAVEL PAVING		
SITE DEMO ITEMS		

GENERAL CIVIL NOTES:

1. THE BOUNDARY OF THE FIELD SURVEY COMPLETED BY ROBBIE HENDERSON SURVEYING AND PLANNING IS SHOWN; FEATURES OUTSIDE OF THIS BOUNDARY HAVE BEEN APPROXIMATED FROM HISTORICAL ENGINEERING DRAWINGS. CONTRACTOR TO VERIFY EXISTING CONDITIONS.
2. CONTRACTOR SHALL UTILIZE EXTREME CAUTION DURING CONSTRUCTION AS THERE MAY BE ADDITIONAL UNDERGROUND UTILITIES ON SITE THAT ARE NOT SHOWN ON THESE PLANS.
3. THE LOCATION OF BURIED UTILITIES DETAILED IS APPROXIMATE AND NOT ALL EXISTING BURIED UTILITIES ARE KNOWN AND SHOWN ON THESE DRAWINGS.
4. INSTALL UNDERGROUND PIPING WITH 4' MINIMUM COVER.
5. DUCTILE IRON PIPING TO BE INSTALLED WITH CEMENT LINING.
6. CONTRACTOR LAYOUT AREA(S) SHALL BE SHOWN ON THE DRAWINGS AND/OR AT LOCATIONS TO MINIMIZE DISTURBANCE TO DAILY PLANT OPERATIONS.
7. CONCRETE BLOCKING IS REQUIRED ON THE FITTINGS FOR THE PROPOSED 4-INCH WATER LINE, AS SHOWN; BLOCKING FOR THE 4-INCH FITTINGS SHALL BE THE SAME AS THE REQUIRED BLOCKING FOR 6-INCH FITTINGS AS DETAILED ON THE STANDARD DETAILS DRAWING.
8. PRIOR TO INSTALLING PAVING, PROOF ROLL EXISTING SUBGRADE TO REMAIN PER THE PAVING SPECIFICATIONS. REMOVE AND REPLACE UNSUITABLE MATERIALS WITH CRUSHED STONE. REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIALS WILL BE PAID FOR VIA EXTRA WORK.
9. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GAB ROADWAY DURING CONSTRUCTION.
10. GRAVEL PAVING NOTES
    - 10.1. DEPTH OF ALL PROPOSED GRAVEL PAVING AND GRAVEL PAVING TO BE REPLACED SHALL BE 8" MINIMUM, OR SHALL MATCH THE EXISTING GRAVEL PAVING DEPTH, WHICHEVER IS GREATER.
    - 10.2. ALL EXISTING GRAVEL PAVING AREAS DISTURBED DURING CONSTRUCTION SHALL RECEIVE A NEW LAYER OF GRAVEL PAVING.
    - 10.3. COMPACT THE TOP 6" OF EXISTING SUBGRADE TO 100% STANDARD PROCTOR AND PROOF-ROLL SUBGRADE IN AREA TO BE PAVED IN THE PRESENCE OF THE ENGINEER PRIOR TO INSTALLING CRUSHED STONE BASE.
    - 10.4. REMOVE AND/OR REROUTE EXISTING WATER LINES AND BURIED UTILITIES AS REQUIRED TO CONSTRUCT THE PROPOSED IMPROVEMENTS.
11. SITE GRADING NOTES
    - 11.1. CUT AND FILL SLOPES SHALL BE AT 3H:1V MAXIMUM, UNLESS SPECIFICALLY DETAILED OTHERWISE OR APPROVED BY ENGINEER IN THE FIELD.
      - 11.1.1. EXCESS SPOIL MATERIAL NOT SHOWN TO BE USED ON THE SITE SHALL BE HAULED OFF SITE AND DISPOSED OF BY THE GENERAL CONTRACTORS.
      - 11.1.2. SEE THE SEDIMENTATION AND EROSION CONTROL PLAN DRAWINGS FOR ADDITIONAL DETAILS AND REQUIREMENTS.

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% REVIEW SET	PJJ
2	1/6/2020	90% REVIEW SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ
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SEAL

GEORGIA REGISTERED No. 18758 PROFESSIONAL ENGINEER PETER JOHNS

OWNER

Etowah WATER & SEWER AUTHORITY "Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: PJJ
DRAWN BY: SKR/SPM
CHECKED BY: PJJ
FILENAME: C.02 PROPOSED SITE PLAN.dwg
PROJECT NO.: 273-18-210

WIEDEMAN AND SINGLETON, INC.
Civil and Environmental Engineers
3091 GOVERNORS LAKE DRIVE
SUITE 430
NORCROSS, GA 30071
(404) 876-5862
WWW.WIEDEMAN.COM

PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: CIVIL SITE PLAN

SCALE: 1" = 10'

NOTE: DRAWING SCALE IS BASED ON 24x36 SHEETS.

0 1" 2"

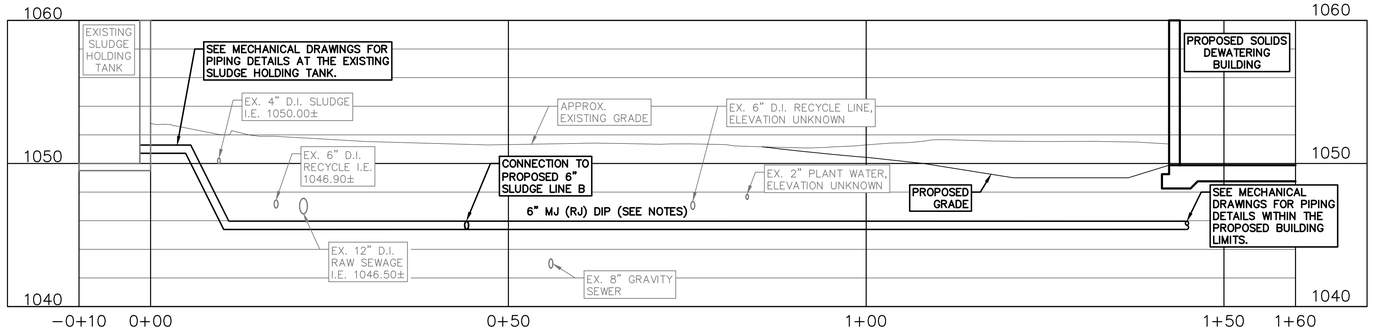
DRAWING C.02

SHEET 4 OF 44

Drawing file: C.02 PROPOSED SITE PLAN.dwg Feb 25, 2020 - 2:24pm

SLUDGE LINE NOTES:

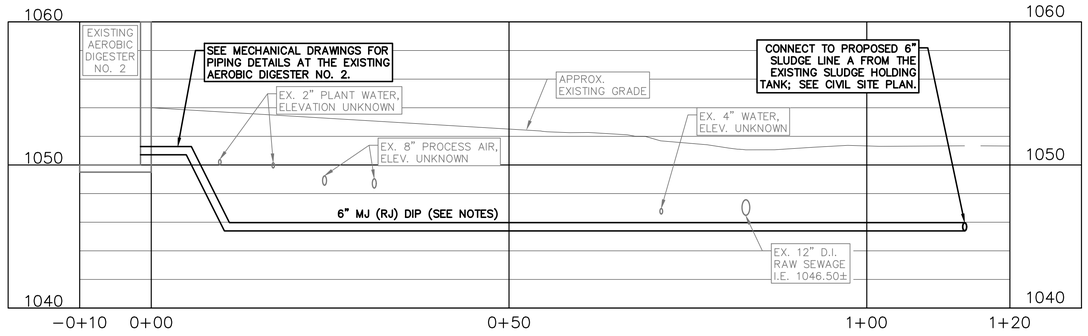
1. THE CONTRACTOR SHALL FIELD LOCATE THE DEPTH OF ALL EXISTING PIPE CONFLICTS ALONG THE PROPOSED PIPELINE ROUTES PRIOR TO BEGINNING PIPE INSTALLATION.
2. THE PROPOSED 6" DIP SLUDGE LINES SHALL BE INSTALLED ON A MINIMUM 0.1% FALLING GRADE TO THE PROPOSED SOLIDS DEWATERING BUILDING (I.E., TO AVOID ANY INTERMEDIATE HIGH-POINTS BETWEEN THE SLUDGE HOLDING TANK OR AEROBIC DIGESTER NO. 2 TANK AND THE DEWATERING BUILDING).
3. THE PROPOSED SLUDGE LINES (A AND B) SHALL BE INSTALLED WITH A MINIMUM OF 4'-0" OF COVER OVER THE TOP OF THE PIPES.
4. THE CONTRACTOR SHALL ADJUST THE DEPTH OF COVER AS NEEDED TO AVOID CONFLICTS WITH EXISTING UTILITIES AND TO MAINTAIN A CONTINUOUS RISING GRADE TO THE SLUDGE HOLDING OR AEROBIC DIGESTER NO. 2 TANKS.
5. THE CONTRACTOR SHALL PROVIDE THE PROPOSED SLUDGE LINE PROFILES TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO BEGINNING SLUDGE LINE INSTALLATIONS.



STA. -0+10 TO STA. 1+60

PROPOSED 6" SLUDGE LINE A - PROFILE

SCALE: 1" = 10' HOR. 1" = 5' VERT.



STA. -0+10 TO STA. 1+20

PROPOSED 6" SLUDGE LINE B - PROFILE

SCALE: 1" = 10' HOR. 1" = 5' VERT.

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% REVIEW SET	PJJ
2	1/6/2020	90% REVIEW SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ
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SEAL

GEORGIA REGISTERED No. 18758 PROFESSIONAL ENGINEER PETER JOHNS 2/26/20

OWNER

Etowah WATER & SEWER AUTHORITY "Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: PJJ
DRAWN BY: SKR/SPM
CHECKED BY: PJJ
FILENAME: C-02 PROPOSED SITE PLAN.dwg
PROJECT NO.: 273-18-210

WIEDEMAN AND SINGLETON, INC.
Civil and Environmental Engineers
3091 GOVERNORS LAKE DRIVE
SUITE 430
NORCROSS, GA 30071
(404) 876-5862
WWW.WIEDEMAN.COM

PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SLUDGE LINE PROFILES

SCALE: AS SHOWN

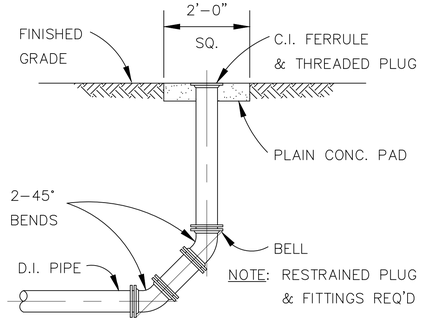
NOTE: DRAWING SCALE IS BASED ON 24x36 SHEETS.

0 1" 2"

DRAWING C.03

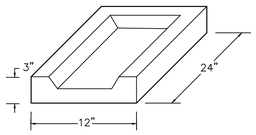
SHEET 5 OF 44

Drawing file: C:\02 PROPOSED SITE PLAN.dwg C.03 PROPOSED SITE PLAN - SOUTH Feb 25, 2020 - 2:24pm



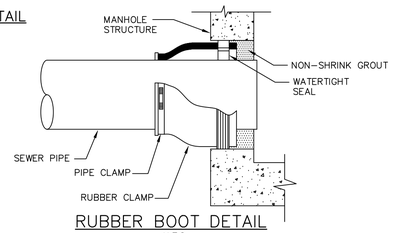
CLEANOUT DETAIL

N.T.S.



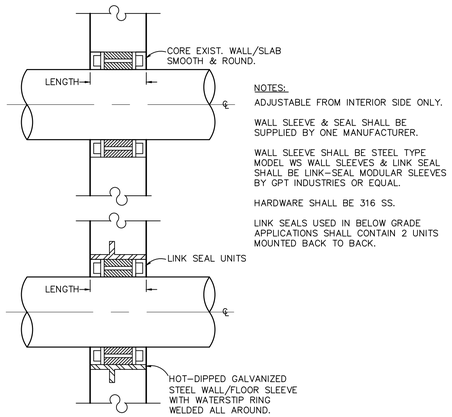
SPLASH BLOCK DETAIL

N.T.S.



RUBBER BOOT DETAIL

N.T.S.



NOTES:

ADJUSTABLE FROM INTERIOR SIDE ONLY.

WALL SLEEVE & SEAL SHALL BE SUPPLIED BY ONE MANUFACTURER.

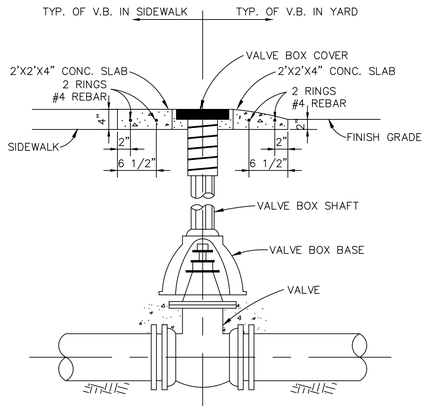
WALL SLEEVE SHALL BE STEEL TYPE MODEL WS WALL SLEEVES & LINK SEAL SHALL BE LINK-SEAL MODULAR SLEEVES BY GPT INDUSTRIES OR EQUAL.

HARDWARE SHALL BE 316 SS.

LINK SEALS USED IN BELOW GRADE APPLICATIONS SHALL CONTAIN 2 UNITS MOUNTED BACK TO BACK.

TYPICAL LINK SEAL DETAIL

N.T.S.

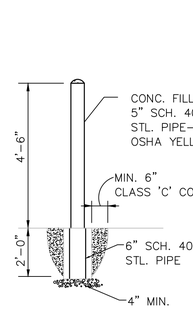


VALVE, VALVE BOX
& PROTECTION DETAIL

N.T.S

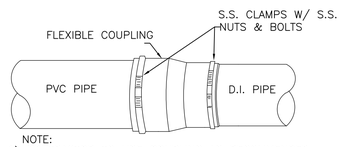
Pipe Size Nominal	Actual Outside Pipe Diameter O.D.	Steel Pipe Sleeve Std. Weight Wall			Link Seal Model	Links Per Seal
		Pipe Size	Wall	I.D.		
2-inch	2.500"	3.5-inch	0.220"	3.550"	LS-300-S	6
3-inch	3.960"	6-inch	0.280"	6.070"	LS-315-S	10
4-inch	4.800"	8-inch	0.322"	7.981"	LS-410-S	7
6-inch	6.900"	10-inch	0.365"	10.020"	LS-410-S	10
8-inch	9.050"	12-inch	0.375"	12.000"	LS-400-S	9
10-inch	11.100"	14-inch	0.375"	13.250"	LS-340-S	24
12-inch	13.200"	18-inch	0.375"	17.250"	LS-475-S	18
14-inch	15.300"	20-inch	0.375"	19.250"	LS-575-S	17
16-inch	17.400"	22-inch	0.375"	21.250"	LS-475-S	23
18-inch	19.500"	24-inch	0.375"	23.250"	LS-575-S	21
20-inch	21.600"	26-inch	0.375"	35.250"	LS-475-S	27
24-inch	25.800"	30-inch	0.375"	29.250"	LS-400-S	23
30-inch	32.000"	36-inch	0.375"	35.250"	LS-400-S	29
36-inch	38.300"					
42-inch	44.500"					
48-inch	50.800"					

SEE MFG. DWG'S FOR LARGER SIZES



PIPE BOLLARD DETAIL

N.T.S.

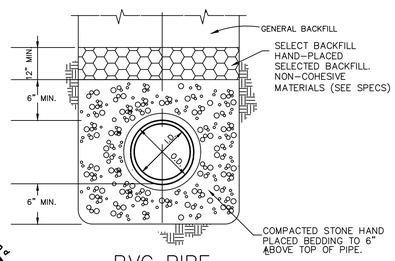


NOTE:

1) CONTRACTOR TO USE COUPLING AS RECOMMENDED BY MFG IN JOINING UNLIKE TYPES OF PIPE.
2) CONTRACTOR TO USE FLEXIBLE COUPLING IN LIEU OF CONC. COLLAR, PIPE SIZES 6" THRU 27"

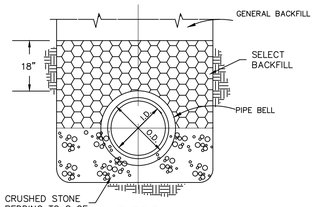
TYPICAL DETAIL - FLEXIBLE COUPLING FOR JOINTING D.I. PIPE TO PVC PIPE

N.T.S.



PVC PIPE
BEDDING DETAILS

N.T.S.



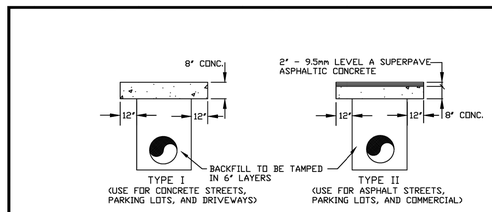
TYPE 5

PIPE BEDDED TO ITS CENTERLINE IN COMPACTED GRANULAR MATERIAL, 4-INCH (100-MM) MINIMUM UNDER PIPE, COMPACTED GRANULAR OR SELECT MATERIAL TO 18" ABOVE TOP OF PIPE (APPROX. 95% STANDARD PROCTOR, AASHTO T-99).

NOTE: SEE MAXIMUM DEPTH OF COVER AND BEDDING TYPE TABLE IN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

DUCTILE IRON PIPE
BEDDING DETAIL

N.T.S.

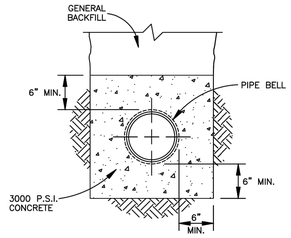


NOTES:

1. USE 8" COMPACTED GRADED AGGREGATE BASE FOR REPLACEMENT AT GRAVEL DRIVES.
2. 1½" TYPE "F" RESURFACING IS A SEPERATE PAY ITEM FROM TYPE IV PAVEMENT REPLACEMENT
3. FOR ASPHALT COUNTY ROADS, ALL TYPE I PATCHES SHALL BE DYED BLACK TO MATCH EXISTING SURFACE. UNLESS OTHERWISE DIRECTED BY THE CITY.

PAVEMENT REPLACEMENT DETAILS

ETOWAH WATER & SEWER AUTHORITY	STANDARD NO. 716
	DATE: DEC 16
	SCALE: NONE



CONCRETE ENCASEMENT

ETOWAH WATER & SEWER AUTHORITY	STANDARD NO. 731
	DATE: DEC 16
	SCALE: NONE

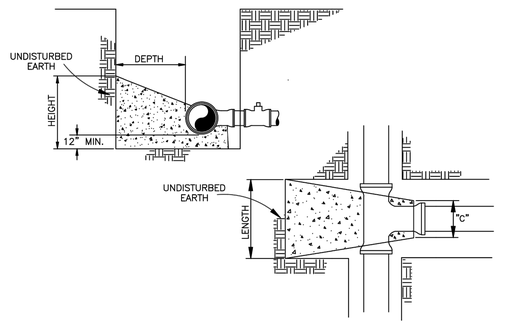


TABLE FOR CONCRETE BLOCKING
(250 PSI TEST PRESSURE)

MINIMUM DIMENSIONS OF BLOCKING

SIZE	DEPTH (FT.)	LENGTH (FT.)	"C" (IN.)	HEIGHT (FT.)	VOLUME (C.Y.)	THRUST (LB.)
6"	1.0	2.5	12	1.5	0.10	7,070
8"	1.7	3.25	14	2.0	0.27	12,565
10"	2.0	4.0	18	2.5	0.50	19,635
12"	2.5	4.5	20	3.25	0.91	28,275
16"	3.0	5.0	26	5.0	1.77	50,265
20"	4.0	7.0	32	5.75	3.69	78,540
24"	6.0	9.0	40	6.5	7.94	113,100

NOTES:

1. SOIL BEARING STRENGTH OF 2000 PSF IS ASSUMED IN THE CALCULATIONS ABOVE. ENGINEER SHALL VERIFY.
2. COVER GLANDS AND BOLTS WITH POLYETHYLENE BEFORE PLACING CONCRETE.
3. ALLOW CONCRETE TO SET UP A MINIMUM OF 6 HOURS BEFORE PLACING BACKFILL.
4. CONCRETE SHALL BE 3000 PSI, CLASS A.
5. ALL IRON FITTINGS IN DIP MAINS SHALL BE BLOCKED AND SUPPORTED AS SHOWN ABOVE.

CONCRETE BLOCKING FOR TEES AND PLUGS

ETOWAH WATER & SEWER AUTHORITY	STANDARD NO. 709
	DATE: DEC 16
	SCALE: NONE

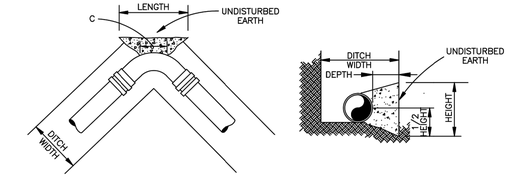


TABLE FOR CONCRETE BLOCKING
(250 PSI TEST PRESSURE)

MINIMUM DIMENSIONS OF BLOCKING

FITTING	SIZE	DEPTH (FT.)	LENGTH (FT.)	"C" (IN.)	HEIGHT (FT.)	VOLUME (C.Y.)	THRUST (LB.)
11 1/4° BEND	6"	1.0	2.0	6	1.0	0.04	1,385
11 1/4° BEND	8"	1.0	2.0	7	1.0	0.05	2,465
11 1/4° BEND	10"	1.0	2.0	9	1.0	0.07	3,850
11 1/4° BEND	12"	1.0	2.5	11	1.5	0.12	5,550
11 1/4° BEND	16"	2.0	2.5	12	2.1	0.26	9,860
11 1/4° BEND	20"	2.0	3.5	15	2.5	0.48	15,406
11 1/4° BEND	24"	2.0	4.0	18	3.0	0.70	22,185
22 1/2° BEND	6"	1.0	2.0	6	1.0	0.04	2,760
22 1/2° BEND	8"	1.0	2.0	7	1.5	0.06	4,905
22 1/2° BEND	10"	1.0	2.0	9	2.0	0.10	7,665
22 1/2° BEND	12"	1.0	3.0	11	2.0	0.16	11,040
22 1/2° BEND	16"	2.0	3.5	12	3.0	0.45	19,625
22 1/2° BEND	20"	2.0	4.0	15	4.0	0.74	30,665
22 1/2° BEND	24"	3.0	5.0	18	4.5	1.47	44,160
45° BEND	6"	1.0	2.0	6	1.5	0.06	5,415
45° BEND	8"	1.0	2.5	7	2.0	0.10	9,625
45° BEND	10"	2.0	3.5	9	2.5	0.31	15,040
45° BEND	12"	2.0	3.5	11	3.0	0.41	21,655
45° BEND	16"	3.0	5.0	12	4.0	1.45	38,495
45° BEND	20"	4.0	6.0	15	5.0	2.05	60,145
45° BEND	24"	4.0	7.5	18	6.5	3.35	91,610
90° BEND	6"	1.0	2.5	12	2.0	0.13	10,005
90° BEND	8"	2.0	3.0	14	3.0	0.38	17,785
90° BEND	10"	2.5	4.5	18	3.0	0.74	27,785
90° BEND	12"	3.0	5.0	20	4.0	1.24	40,000
90° BEND	16"	4.0	6.5	26	5.5	2.91	71,125
90° BEND	20"	4.0	8.0	32	7.0	4.68	111,135
90° BEND	24"	5.0	10.0	40	8.0	8.50	160,035

NOTES:

1. SOIL BEARING STRENGTH OF 2000 PSF IS ASSUMED IN THE CALCULATIONS ABOVE. ENGINEER SHALL VERIFY.
2. COVER GLANDS AND BOLTS WITH POLYETHYLENE BEFORE PLACING CONCRETE.
3. ALLOW CONCRETE TO SET UP A MINIMUM OF 4 HOURS BEFORE PLACING BACKFILL.
4. CONCRETE SHALL BE 3000 PSI, CLASS A.
5. ALL IRON FITTINGS IN DIP MAINS SHALL BE BLOCKED AND SUPPORTED AS SHOWN ABOVE.
6. VERTICAL BENDS WITH AN UPWARD THRUST SHALL BE RESTRAINED AS SHOWN IN STANDARD 713.
7. VERTICAL BENDS WITH A DOWNWARD THRUST SHALL BE RESTRAINED AS SHOWN IN STANDARD 714.

CONCRETE BLOCKING FOR BENDS

ETOWAH WATER & SEWER AUTHORITY	STANDARD NO. 708
	DATE: DEC 16
	SCALE: NONE

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% REVIEW SET	PJJ
2	1/6/2020	90% REVIEW SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ
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SEAL

GEORGIA REGISTERED No. 18769 PROFESSIONAL ENGINEER PETER JOHNS

OWNER

Etowah WATER & SEWER AUTHORITY "Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: PJJ
DRAWN BY: SKR/SPM
CHECKED BY: PJJ
FILENAME: C:\0.1 MISCELLANEOUS CIVIL DETAILS.dwg
PROJECT NO.: 273-18-210

WIEDEMAN AND SINGLETON, INC.
Civil and Environmental Engineers
3091 GOVERNORS LAKE DRIVE
SUITE 430
NORCROSS, GA 30071
(404) 876-5862
WWW.WIEDEMAN.COM

PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: MISCELLANEOUS CIVIL DETAILS

SCALE: AS SHOWN

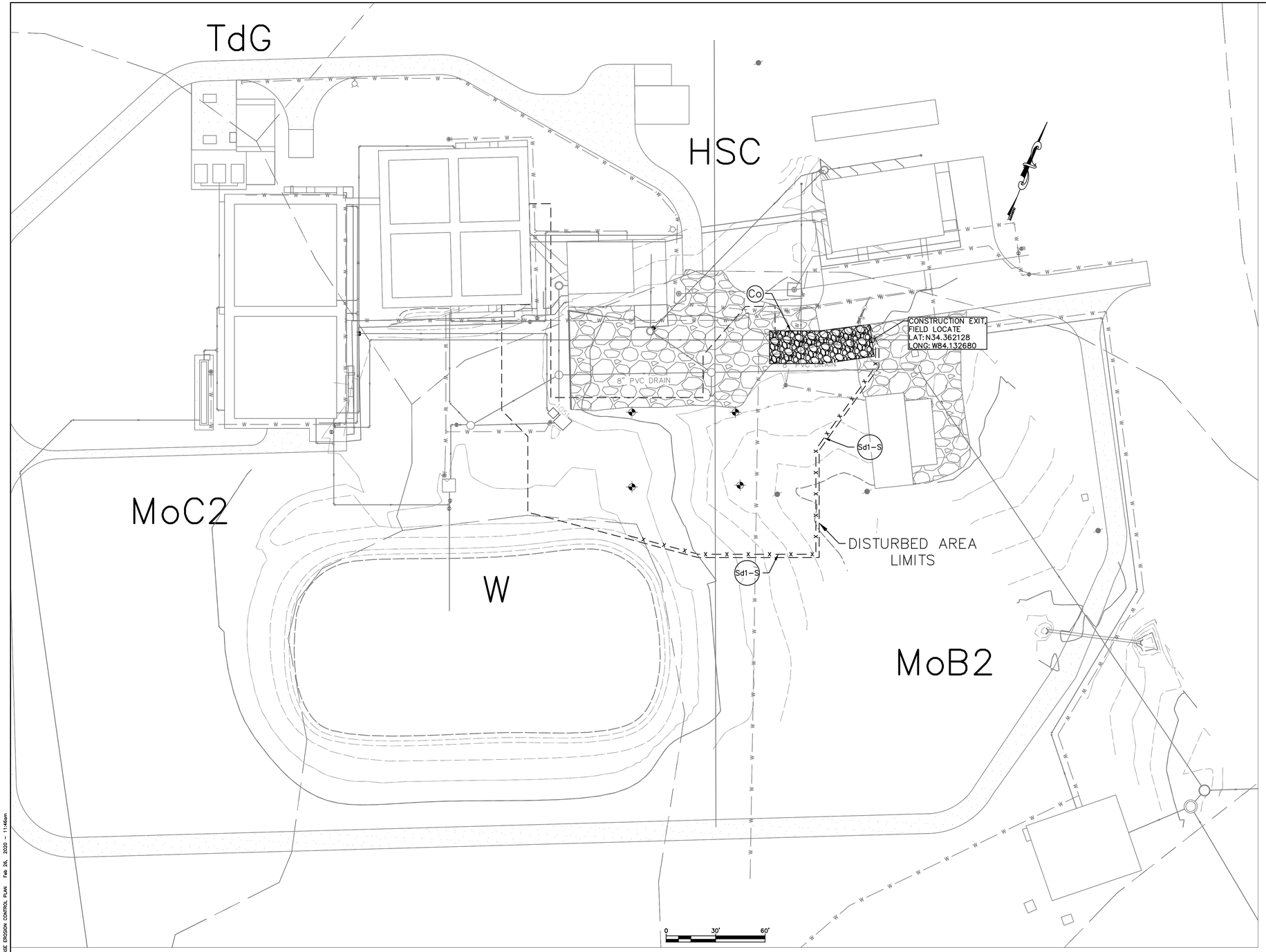
NOTE: DRAWING SCALE IS BASED ON 24x36 SHEETS.

0 1" 2"

DRAWING C.04

SHEET 6 OF 44

Drawing file: C:\0.1 MISCELLANEOUS CIVIL DETAILS.dwg MISCELLANEOUS CIVIL DETAILS Feb 26, 2020 - 11:45am



INITIAL CLEARING PHASE EROSION CONTROL NOTES:

1. PRIOR TO THE LAND DISTURBING CONSTRUCTION, THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE INSPECTOR TO VERIFY ALL BMP'S ARE INSTALLED PER THE PLAN.
2. THE CONTRACTOR SHALL OBSERVE THE PROJECT SEQUENCE SHOWN ON THE PLANS. THE CONTRACTOR SHALL MAINTAIN CAREFUL SCHEDULING AND PERFORMANCE TO INSURE THAT LAND STRIPPED OF ITS NATURAL COVER IS EXPOSED ONLY IN SMALL QUANTITIES.
3. A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT (IF APPLICABLE) SHALL BE PRESENT ON THE SITE AT ALL TIMES.
4. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES.
5. PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS. THE LOCATION AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE ACTIVITY SHALL BE DEMARCATED FOR THE DURATION OF THE CONSTRUCTION ACTIVITY. NO LAND DISTURBANCE SHALL OCCUR OUTSIDE THE APPROVED LIMITS INDICATED ON THE PLANS.
6. PRIOR TO ANY OTHER CONSTRUCTION, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT EACH POINT OF ENTRY TO OR EXIT FROM THE SITE OR ONTO ANY PUBLIC ROADWAY.
7. THE FOLLOWING INITIAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY.
   A. IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION ENTRANCE/EXIT ALL PERIMETER EROSION CONTROL AND STORM WATER MANAGEMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE CLEARING PHASE EROSION CONTROL PLAN.
   B. TYPE "S" SILT FENCE SHOULD BE INSTALLED AT THE PERIMETER OF THE DISTURBED AREA SHOWN ON THE PLAN. THE SILT FENCE SHOULD BE PLACED IN ACCORDANCE WITH THE MANUAL OF EROSION CONTROL IN GEORGIA, TABLE 6-20.2. DOUBLE ROWS OF TYPE "S" SILT FENCE, WHEN USED, SHALL BE PLACED MINIMUM OF 36 INCHES APART. THE SILT FENCE SHOULD BE KEPT ERECT AT ALL TIMES AND REPAIRED WHEN REQUESTED BY THE SITE INSPECTOR OR THE PROJECT DESIGN PROFESSIONAL OF RECORD. SILT FENCE SHOULD BE REMOVED WHEN ACCUMULATION REACHES ½ HEIGHT OF BARRIER. THE PERIMETER SILT FENCE SHOULD BE INSPECTED DAILY FOR ANY FAILURES. ANY FAILURES OF SAID FENCING SHOULD BE REPLACED IMMEDIATELY.
8. AFTER INSTALLATION OF INITIAL EROSION CONTROL MEASURES THE SITE CONTRACTOR SHALL CONDUCT AN INSPECTION BY THE PROJECT DESIGN PROFESSIONAL. NO OTHER CONSTRUCTION ACTIVITIES SHALL OCCUR UNTIL THE PROJECT DESIGN PROFESSIONAL APPROVES THE INSTALLATION OF SAID EROSION CONTROL MEASURES. IF UNFORESEEN CONDITIONS EXIST IN THE FIELD THAT WARRANT ADDITIONAL EROSION CONTROL MEASURES THE CONTRACTOR MUST CONSTRUCT ANY ADDITIONAL EROSION CONTROL DEVICES DEEMED NECESSARY BY THE SITE INSPECTION.
9. AFTER APPROVAL OF THE INITIAL EROSION CONTROL INSTALLATION, THE CONTRACTOR MAY PROCEED WITH CLEARING AND GRUBBING ACTIVITIES. AS CLEARING PERMITS THE CONTRACTOR SHALL CONSTRUCT TEMPORARY SEDIMENT PONDS AND DIVISION DIKES AS SHOWN ON THE CLEARING PHASE PLAN TO CONTROL EROSION AND STORM WATER RUN OFF.
10. NO BURN OR BURY PITS SHALL BE PERMITTED ON THE CONSTRUCTION SITE.
11. ADDITIONAL SILT BARRIERS MUST BE PLACED AS SHOWN ON THE PLAN AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL TAKE PLACE UNTIL SILT BARRIER INSTALLATION AND SEDIMENT PONDS ARE CONSTRUCTED AS SHOWN THE INITIAL PHASE EROSION CONTROL PLAN.
12. MULCH/TEMPORARY GRASSING AND/OR ANIONIC POLYACRYLAMIDE (PAM) OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE.
13. ALL DISTURBED AREAS LEFT MULCHED AFTER 30 DAYS SHALL BE STABILIZED WITH TEMPORARY VEGETATION.
14. SEDIMENT AND EROSION CONTROL MEASURES SHOULD BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.
15. THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1-3" OF STONE, AS CONDITIONS DEMAND. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY.
16. THE CONTRACTOR SHALL PROVIDE A PERSON CERTIFIED TO LEVEL 1A BY GSWCC TO INSPECT CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
17. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE AS DIRECTED BY THE ON SITE INSPECTOR OR CIVIL ENGINEER.
18. FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.

MAP LEGEND	
MAP UNIT SYMBOL	DESCRIPTION
TdG	TALLAPOOSA SOILS, 25 TO 70 PERCENT SLOPES
HSC	HIWASSEE LOAM, 2 TO 10 PERCENT SLOPES
MoC2	MASADA FINE SANDY LOAM, 6 TO 10 PERCENT SLOPES, ERODED
MoB2	MASADA FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES, ERODED
W	WATER

THE DESIGN PROFESSIONAL WHO PREPARED THE ESHPC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPS WITHIN 7 DAYS AFTER INSTALLATION.

NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

AMENDMENT/REVISIONS TO THE ESHPC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPS WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.

WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD OF 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

overhead / underground

UTILITIES PROTECTION CENTER OF GEORGIA

BEFORE ANY EXCAVATION WORK BEGINS OR ANY WORK BEGINS WITHIN TEN (10') FT. OF OVERHEAD POWER LINES OF 750 VOLTS OR MORE, NOTIFICATION MUST BE MADE TO THE UTILITIES PROTECTION CENTER (UPC) AT 1-800-282-7411 (404-623-4344 IN METRO ATLANTA).

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% REVIEW SET	PJJ
2	1/6/2020	90% REVIEW SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ
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SEAL

GEORGIA REGISTERED No. 18768 PROFESSIONAL ENGINEER PETER JOHNS 2/26/20

OWNER

Etowah WATER & SEWER AUTHORITY "Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: PJJ
DRAWN BY: SPM
CHECKED BY: PJJ
FILENAME: ESC.01 - 05 EROSION CONTROL.dwg
PROJECT NO.: 273-18-210

Protecting Public Health and the Environment Since 1946

WIEDEMAN AND SINGLETON, INC.
Civil and Environmental Engineers
3091 GOVERNORS LAKE DRIVE
SUITE 450
NORCROSS, GA 30071
(404) 876-5862
WWW.WIEDEMAN.COM

PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: INITIAL CLEARING PHASE EROSION CONTROL PLAN

SCALE: 1" = 30'

NOTE: DRAWING SCALE IS BASED ON 24x36 SHEETS.

0 1" 2"

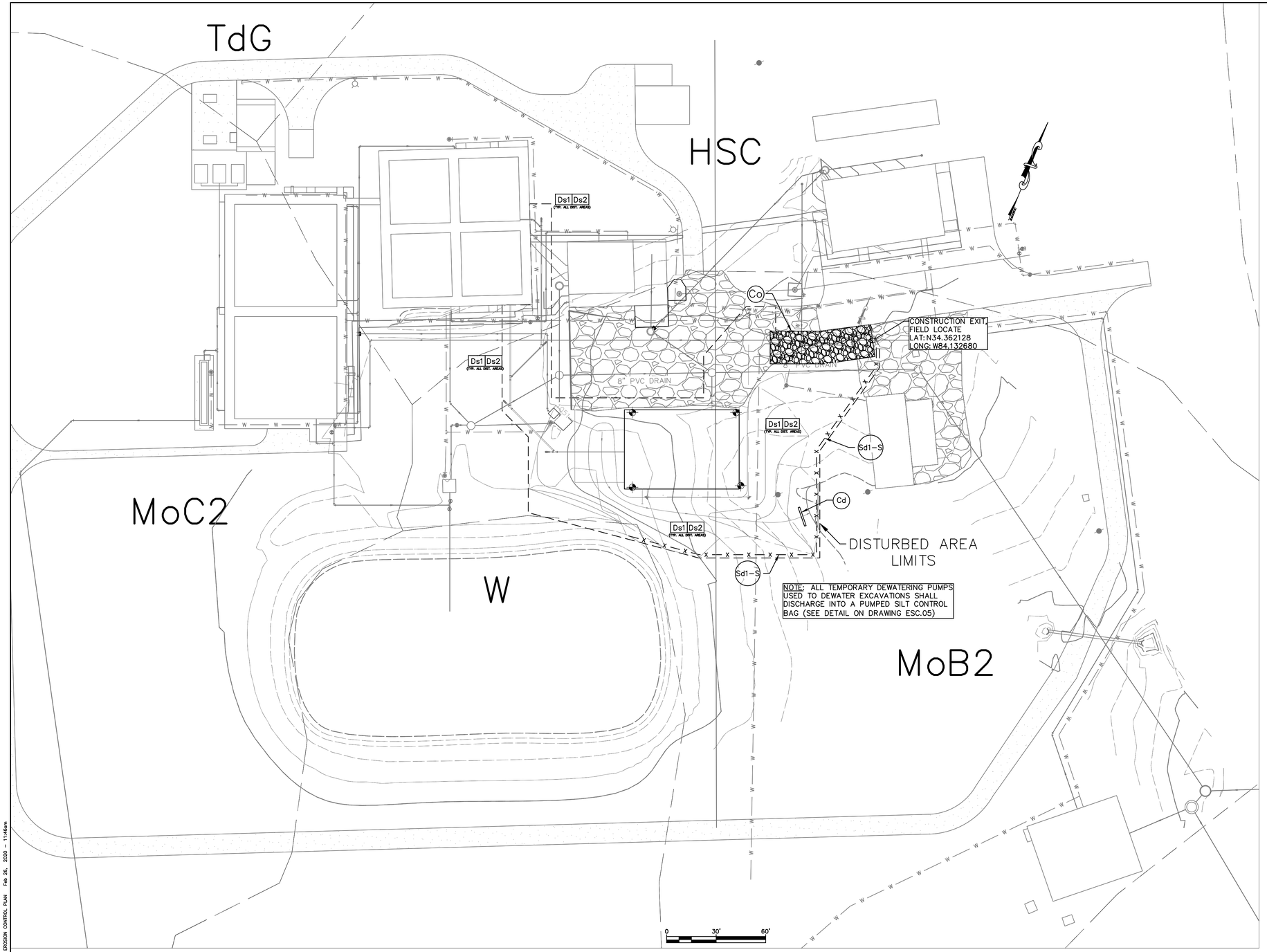
GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

PETER J. JOHNS
LEVEL II CERTIFIED DESIGN PROFESSIONAL
CERTIFICATION NUMBER 0000019344
ISSUED: 11/01/2018 EXPIRES: 11/01/2021

DRAWING ESC.01

SHEET 7 OF 44

Drawing file: ESC.01 - 05 EROSION CONTROL.dwg ESC.01 INITIAL CLEARING PHASE EROSION CONTROL PLAN Feb 26, 2020 - 11:46am



INTERMEDIATE PHASE EROSION CONTROL NOTES:

1. DURING CONSTRUCTION THE CONTRACTOR SHALL MAINTAIN CAREFUL SCHEDULING AND PERFORMANCE TO ENSURE THAT LAND STRIPPED OF ITS NATURAL GROUND COVER IS EXPOSED ONLY IN SMALL QUANTITIES AND THEREFORE LIMITED DURATION BEFORE PERMANENT EROSION PROTECTION IS ESTABLISHED.
2. EARTHWORK OPERATIONS IN THE VICINITY OF STREAM BUFFERS SHALL BE CAREFULLY CONTROLLED TO AVOID DUMPING OR SLOUGHING INTO THE BUFFER AREAS.
3. SEDIMENT SHALL NOT BE WASHED INTO INLETS. IT SHALL BE REMOVED FROM THE SEDIMENT TRAPS AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLETS AGAIN.
4. EROSION CONTROL DEVICES SHALL BE INSTALLED IMMEDIATELY AFTER GROUND DISTURBANCE OCCURS. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE DESIGN PROFESSIONAL IMMEDIATELY.
5. TYPE "S" SILT FENCE SHOULD BE INSTALLED AT THE TOE OF ALL SLOPES 10 FEET OR GREATER IN HEIGHT. THE SILT FENCE SHOULD BE PLACED IN ACCORDANCE WITH THE MANUAL FOR EROSION CONTROL IN GEORGIA, TABLE 6-20.2. THE SILT FENCE SHALL BE MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED ON THE SLOPE. SILT SHALL BE REMOVED WHEN ACCUMULATION REACHES ½ HEIGHT OF THE BARRIER. ADDITIONALLY, DIVERSION DIKES SHALL BE CONSTRUCTED ALONG THE TOP OF ALL SAID FILL SLOPES WITH THE USE OF TEMPORARY DOWN DRAINS TO CONTROL STORM WATER RUN OFF AS SHOWN ON THE PLANS. SEE SEPARATE DETAILS FOR ADDITIONAL INFORMATION.
6. PERMANENT CUT AND FILL SLOPES ARE NOT TO EXCEED "3H:1V"
7. ALL SLOPES STEEPER THAN 2.5:1 AND WITH A HEIGHT OF TEN FEET OR GREATER, AND CUTS AND FILLS WITHIN STREAM BUFFERS SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL MATTING OR BLANKETS. SEE SEPARATE DETAILS FOR ADDITIONAL INFORMATION.
8. TYPE "S" SILT FENCE SHALL BE PLACED AT THE TOE OF ALL DIRT STOCK PILE AREAS.
9. ALL DRAINAGE SWALES SHALL BE APPLIED WITH RIP-RAP (SEE DETAIL) AS SOON AS FINAL GRADE IS ACHIEVED.
10. ALL GRADED AREAS SHALL BE APPLIED WITH VEGETATIVE COVER AS SOON AS FINAL GRADE IS ACHIEVED.
11. MULCH/TEMPORARY GRASSING AND/OR ANIONIC POLYACRYLAMIDE (PAM) OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE.
12. ALL DISTURBED AREAS LEFT MULCHED AFTER 30 DAYS SHALL BE STABILIZED WITH TEMPORARY GRASSING.
13. SEDIMENT AND EROSION CONTROL MEASURES SHOULD BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.
14. THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1-5" OF STONE. AS CONDITIONS DEMAND, ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLE INTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY.
15. THE CONTRACTOR SHALL PROVIDE A PERSON CERTIFIED TO LEVEL 1A BY GSWCC TO INSPECT CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
16. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE AS DIRECTED BY THE ON SITE INSPECTOR OR THE CIVIL ENGINEER.
17. FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.

MAP LEGEND	
MAP UNIT SYMBOL	DESCRIPTION
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MoB2	MASADA FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES, ERODED
W	WATER

THE DESIGN PROFESSIONAL WHO PREPARED THE ES-I-PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPS WITHIN 7 DAYS AFTER INSTALLATION.

NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

AMENDMENT/REVISIONS TO THE ES-I-PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPS WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.

WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD OF 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

UTILITIES PROTECTION CENTER OF GEORGIA

BEFORE ANY EXCAVATION WORK BEGINS OR ANY WORK BEGINS WITHIN TEN (10') FT. OF OVERHEAD POWER LINES OF 750 VOLTS OR MORE, NOTIFICATION MUST BE MADE TO THE UTILITIES PROTECTION CENTER (UPC) AT 1-800-282-7411 (404-623-4344 IN METRO ATLANTA).

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1	11/22/2019	60% REVIEW SET	PJJ
2	1/6/2020	90% REVIEW SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ
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SEAL

GEORGIA REGISTERED No. 18768 PROFESSIONAL ENGINEER PETER JOHNS

OWNER

Etowah WATER & SEWER AUTHORITY
"Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: PJJ
DRAWN BY: SPM
CHECKED BY: PJJ
FILENAME: ESC.01 - 05 EROSION CONTROL.dwg
PROJECT NO.: 273-18-210

WIEDEMAN AND SINGLETON, INC.
Civil and Environmental Engineers
3091 GOVERNORS LAKE DRIVE
SUITE 430
NORCROSS, GA 30071
(404) 876-5862
WWW.WIEDEMAN.COM

PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: INTERMEDIATE PHASE EROSION CONTROL PLAN

SCALE: 1" = 30'

NOTE: DRAWING SCALE IS BASED ON 24x36 SHEETS.
0 1" 2"

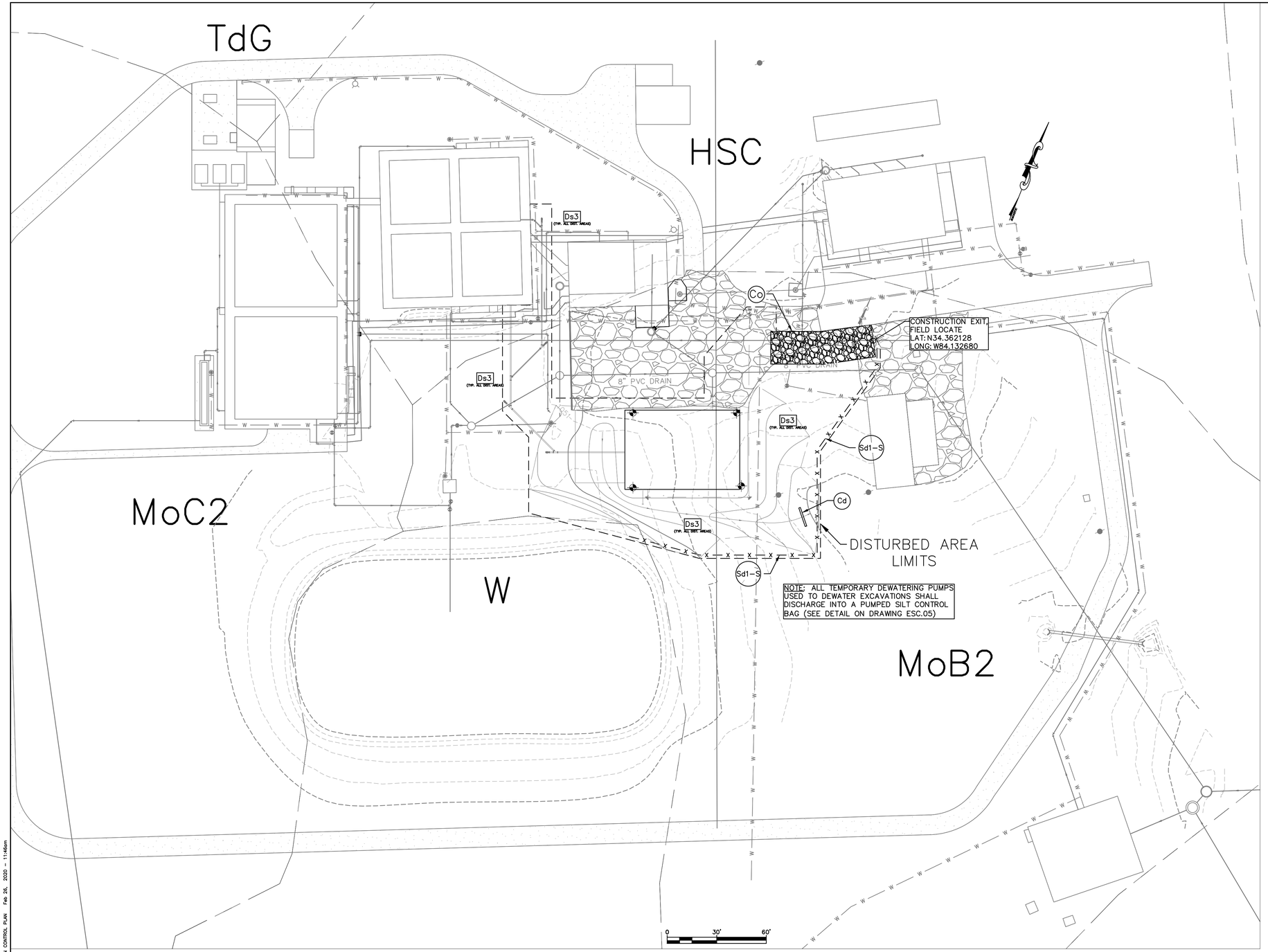
GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

PETER J. JOHNS
LEVEL II CERTIFIED DESIGN PROFESSIONAL
CERTIFICATION NUMBER 0000019344
ISSUED: 11/01/2018 EXPIRES: 11/01/2021

DRAWING ESC.02

SHEET 8 OF 44

Drawing file: ESC.01 - 05 EROSION CONTROL.dwg ESC.02 INTERMEDIATE PHASE EROSION CONTROL PLAN Feb 26, 2020 - 11:44am



FINAL PHASE EROSION CONTROL NOTES:

1. SEDIMENT SHALL NOT BE WASHED INTO INLETS. IT SHALL BE REMOVED FROM THE SEDIMENT TRAPS AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLETS AGAIN.
2. MULCH/TEMPORARY GRASSING AND/OR ANIONIC POLYACRYLAMIDE (PAM) SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE.
3. ALL DISTURBED AREAS LEFT MULCHED AFTER 30 DAYS SHALL BE STABILIZED WITH TEMPORARY GRASSING.
4. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
5. ALL ROADWAY AND PARKING SHOULDERS SHOULD BE APPLIED WITH VEGETATIVE COVER AS SOON AS FINAL GRADE IS ACHIEVED BEHIND CURBS.
6. SEDIMENT AND EROSION CONTROL MEASURES SHOULD BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.
7. THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1-3" OF STONE. AS CONDITIONS DEMAND, ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY.
8. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION CONTROL AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE AS DIRECTED BY THE ON SITE INSPECTOR OR CIVIL ENGINEER.
9. FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.
10. UPON COMPLETION AND ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND DISPOSE OF THEM UNLESS NOTED ON PLANS OR OTHERWISE DIRECTED IN THE FIELD BY THE OWNER OR ENGINEER.

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% REVIEW SET	PJJ
2	1/6/2020	90% REVIEW SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ
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SEAL

GEORGIA REGISTERED No. 18768 PROFESSIONAL ENGINEER PETER JOHNS

OWNER

Etowah Water & Sewer Authority
"Excellence in every drop"

MAP LEGEND	
MAP UNIT SYMBOL	DESCRIPTION
TdG	TALLAPOOSA SOILS, 25 TO 70 PERCENT SLOPES
HSC	HIWASSEE LOAM, 2 TO 10 PERCENT SLOPES
MoC2	MASADA FINE SANDY LOAM, 6 TO 10 PERCENT SLOPES, ERODED
MoB2	MASADA FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES, ERODED
W	WATER

THE DESIGN PROFESSIONAL WHO PREPARED THE ES-I-PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPS WITHIN 7 DAYS AFTER INSTALLATION.

NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

AMENDMENT/REVISIONS TO THE ES-I-PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPS WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.

WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD OF 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

overhead UTILITIES PROTECTION CENTER OF GEORGIA underground

BEFORE ANY EXCAVATION WORK BEGINS OR ANY WORK BEGINS WITHIN TEN (10') FT. OF OVERHEAD POWER LINES OF 750 VOLTS OR MORE, NOTIFICATION MUST BE MADE TO THE UTILITIES PROTECTION CENTER (UPC) AT 1-800-282-7411 (404-623-4344 IN METRO ATLANTA).

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

PETER J. JOHNS
LEVEL II CERTIFIED DESIGN PROFESSIONAL
CERTIFICATION NUMBER 0000019344
ISSUED: 11/01/2018 EXPIRES: 11/01/2021

CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: PJJ
DRAWN BY: SPM
CHECKED BY: PJJ
FILENAME: ESC.01 - 05 EROSION CONTROL.dwg
PROJECT NO.: 273-18-210

Wiedeman and Singleton, Inc.
Civil and Environmental Engineers
3091 GOVERNORS LAKE DRIVE
SUITE 430
NORCROSS, GA 30071
(404) 876-5862
WWW.WIEDEMAN.COM

PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: FINAL PHASE EROSION CONTROL PLAN

SCALE: 1" = 30'

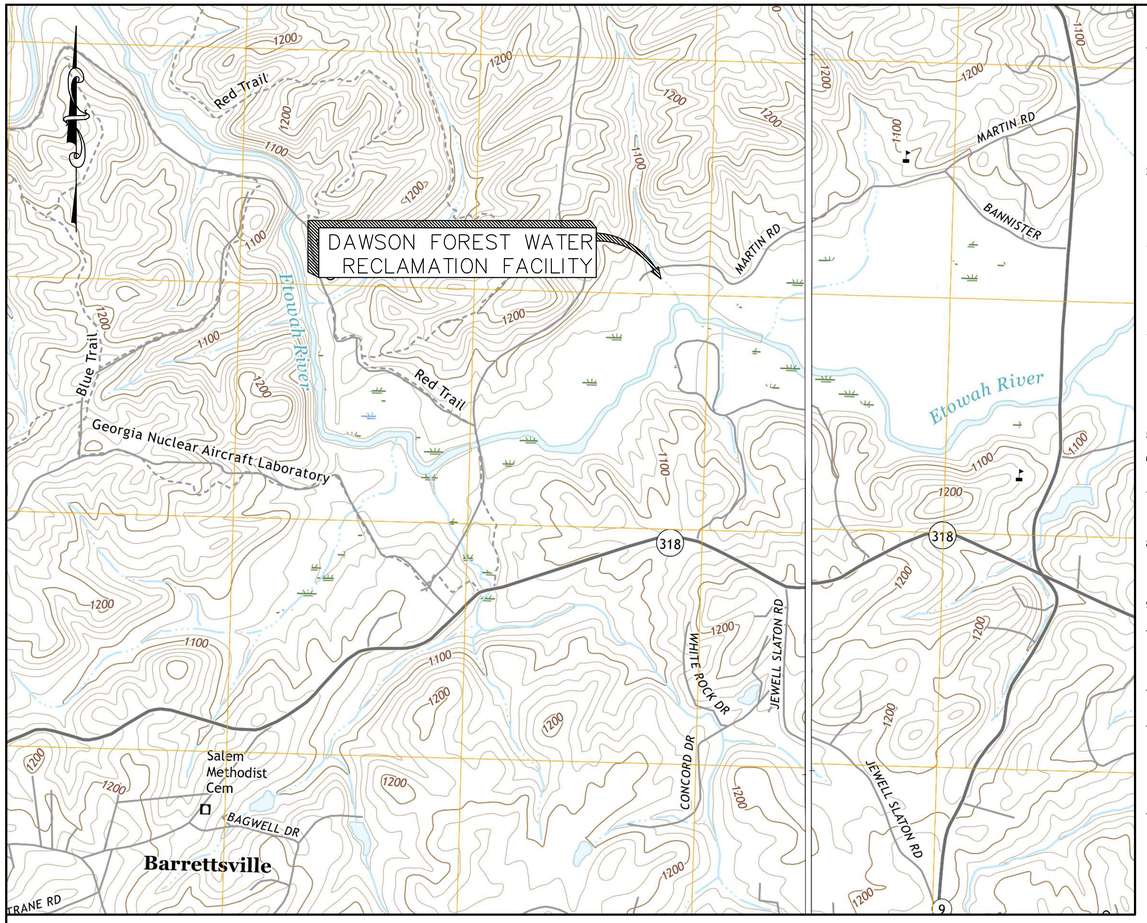
NOTE: DRAWING SCALE IS BASED ON 24x36 SHEETS.

0 1" 2"

DRAWING ESC.03

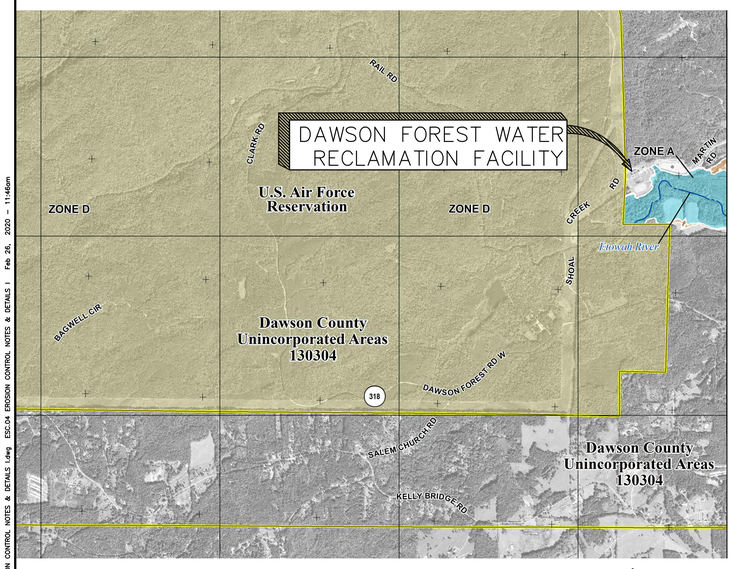
SHEET 9 OF 44

Drawing file: ESC.01 - 05 EROSION CONTROL.dwg ESC.03 FINAL PHASE EROSION CONTROL PLAN Feb 26, 2020 - 11:46am



LOCATION MAP

0 1000' 2000'



DAWSON FOREST WRF FEMA FIRM PANEL (PARTIAL)

FIRM PANEL #13085C0200C DATED APRIL 4, 2018

0 1000' 2000'

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT

HTTP://MSC.FEMA.GOV

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) *Zone A,V,A99*
	With BFE or Depth *Zone AE, AO, AH, VE, AR*
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
	Future Conditions 1% Annual Chance Flood Hazard *Zone X*
	Area with Reduced Flood Risk due to Levee See Notes *Zone X*
OTHER AREAS	NO SCREEN Area of Minimal Flood Hazard *Zone X*
	Area of Undetermined Flood Hazard *Zone D*
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall
OTHER FEATURES	18.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
	Coastal Transect
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature
	513 Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary

EROSION CONTROL NOTES:

1. PROJECT DESCRIPTION – THE WORK CONSISTS OF CONSTRUCTING A NEW SLUDGE DEWATERING BUILDING AND VARIOUS SITE IMPROVEMENTS, INCLUDING YARD PIPING, TO REPLACE THE EXISTING BELT PRESS BUILDING, AS WELL AS GRADING AT THE NEW BUILDING. DEMOLITION WORK AS DETAILED ON THE DRAWINGS WILL BE REQUIRED AT THE EXISTING BELT PRESS BUILDING TO REMOVE THE BELT PRESS EQUIPMENT AND APPURTENANCES. THE TOTAL VOLUME OF EARTHWORK OF TRENCH CUT AND FILL AND SITE DEVELOPMENT IS APPROXIMATELY 125 CUBIC YARDS (C.Y.).

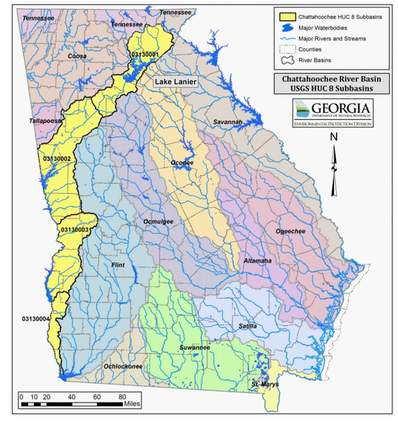
   CUT = 100 C.Y.
   FILL = 25 C.Y.

2. EXISTING SITE CONDITIONS AND ADJACENT AREAS – THE MAJORITY OF THE EXISTING SITE IS MIX OF PAVED AREAS (ASPHALT, CONCRETE, & GRAVEL), WOODED, AND GRASSED AREAS. SLOPES RANGE FROM GENTLE TO STEEP SLOPES AND DRAINS INTO A CREEK THAT MUST BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. THE PROJECT RECEIVING WATER FOR THIS SITE IS THOMPSON CREEK. THOMPSON CREEK IS NOT LISTED AS AN IMPAIRED STREAM.

3. OWNER (PRIMARY PERMITTEE):
   ETOWAH WATER & SEWER AUTHORITY
   1162 HIGHWAY 53 EAST
   DAWSONVILLE, GA 30534
   TIMC@ETOWAHWATER.ORG
   (706) 216 - 8474

4. 24 HR. CONTACT:
   MR. TIM COLLINS
   ASSISTANT GENERAL MANAGER
   ETOWAH WATER & SEWER AUTHORITY
   1162 HIGHWAY 53 EAST
   DAWSONVILLE, GA 30534
   (706) 216 - 8474

5. DISTURBED ACREAGE – THE TOTAL AREA OF LAND THAT WILL BE DISTURBED AT THIS SITE IS APPROXIMATELY 0.55 ACRES.
6. PRIOR TO ANY CONSTRUCTION, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT EACH ENTRY TO OR EXIT FROM THE SITE. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD INTO PUBLIC RIGHT-OF-WAY.
7. IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION ENTRANCES/EXITS, ALL PERIMETER EROSION CONTROL DEVICES SHALL BE INSTALLED. EROSION CONTROL MEASURES AND DEVICES SHALL BE INSTALLED TO PREVENT THE ESCAPE OF SEDIMENT FROM THE SITE OF LAND-DISTURBING ACTIVITIES PRIOR TO OR CONCURRENT WITH THE LAND-DISTURBING ACTIVITIES.
8. EROSION CONTROL MEASURES AND PRACTICES SHALL BE MAINTAINED AT ALL TIMES. SILT BARRIERS TO BE PLACED AS SHOWN AND/OR DIRECTED BY PROJECT ENGINEER. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
9. A COPY OF THE APPROVED LAND DISTURBANCE PLAN SHALL BE PRESENT ON THE SITE WHENEVER LAND DISTURBING ACTIVITY IS IN PROGRESS.
32. WASTE MATERIALS – ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL SOLID WASTE MANAGEMENT REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED INTO THE DUMPSTER. THE DUMPSTER WILL BE EMPTIED A MINIMUM OF ONCE PER WEEK, OR MORE OFTEN IF NECESSARY, AND TRASH WILL BE HAULED AS REQUIRED BY LOCAL REGULATIONS.
33. DISPOSAL OF DEBRIS – NO CONSTRUCTION DEBRIS SHALL BE BURIED OR BURNED ON SITE. THE DEBRIS SHALL BE HAULED OFF SITE AND DISPOSED OF IN A PROPERLY PERMITTED LANDFILL BY THE GENERAL CONTRACTOR.
34. THIS DRAWING IS FOR EROSION CONTROL PURPOSES ONLY. PROVISIONS TO PREVENT EROSION OF THE SOIL OF THE SITE SHALL CONFORM TO THE REQUIREMENTS OF THE "EROSION AND SEDIMENTATION ACT OF 1975" AS SHOWN HEREIN AND STIPULATED IN THE "MANUAL FOR EROSION CONTROL AND SEDIMENT CONTROL IN GEORGIA" BY THE STATE SOIL AND WATER CONSERVATION COMMITTEE. THE PROVISIONS IN THE MANUAL SHALL BE FOLLOWED AND INSTALLED IN A MANNER SO AS TO MINIMIZE EROSION OF THE DISTURBED AREAS AND PREVENT SEDIMENT FROM LEAVING THE SITE.
35. ANY ADDITIONAL SILT FENCE, RIP RAP, MULCHING, CHECK DAMS, OR PERMANENT GRASSING REQUIRED BY THE PLANS SHALL BE INSTALLED IMMEDIATELY AFTER CONSTRUCTION HAS PROCEEDED TO THE POINT THAT THESE MEASURES CAN BE EFFECTIVELY IMPLEMENTED AND SHALL BE MAINTAINED IN PROPER WORKING ORDER UNTIL ALL DISTURBED AREAS ARE STABILIZED AND PERMANENT VEGETATION HAS BEEN ESTABLISHED. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FROM ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING ANY PHASE OF CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
36. THE EROSION CONTROL MEASURES DETAILED HEREIN SHALL BE CONTINUED UNTIL THE PERMANENT DRAINAGE FACILITIES HAVE BEEN CONSTRUCTED AND UNTIL THE GRASS ON PLANTED SHOULDERS AND SLOPES IS SUFFICIENTLY ESTABLISHED TO BE AN EFFECTIVE EROSION DETERRENT. THE SEDIMENT REMOVED FROM THE CONTROL STRUCTURES SHALL BE EVENLY DISTRIBUTED OUTSIDE CONSTRUCTION LIMITS. DISPOSED SEDIMENT SHALL BE PERMANENTLY GRASSED.
37. FLOOD HAZARD STATEMENT – THIS PROJECT OCCURS OUTSIDE THE FLOOD PLAIN PER FEMA FIRM PANEL # 13085C0200C DATED APRIL 4, 2018.
38. THE CONTRACTOR SHALL REMOVE ACCUMULATED SILT WHEN THE SILT ACCUMULATES TO 6 INCHES OF THE SILT FENCE UTILIZED FOR EROSION CONTROL.
39. SILT FENCE SHALL BE PLACED DOWN GRADIENT OF ALL STOCKPILED SOIL OR BORROW AREAS.
40. ALL FILL SLOPES WILL HAVE SILT FENCE AT TOE (BOTTOM) OF SLOPES.
41. A DOUBLE ROW OF TYPE "S" SILT FENCE OR HAY BALES AND TYPE "S" SILT FENCE SHALL BE REQUIRED WHEN PLACED ALONG STATE WATERS AND AT THE TOE OF SLOPES GREATER THAN 10' IN HEIGHT.
42. TEMPORARY EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT COVER IS ESTABLISHED AND THEN REMOVED SO THAT DRAINAGE FROM THE SITE IS NOT IMPEDED.
43. ALL DISTURBED AREAS WITH SLOPES 2:1 OR FLATTER WHICH ARE NOT STABILIZED BY OTHER MEASURES SUCH AS MULCHING SHALL BE SEEDED AS SPECIFIED IN "PERMANENT SEEDING."
44. ALL VEGETATIVE STABILIZATION SHALL BE ACCOMPLISHED WITHIN ONE DAY OF CONSTRUCTION. IN ANY SITUATION, ALL CUT AND FILL SLOPES STEEPER THAN 3:1 MUST BE SURFACED ROUGHENED (Su) AND VEGETATED WITHIN THREE (3) DAYS OF CONSTRUCTION EXCEPT WHERE EROSION CONTROL MATTING OR BLANKETS ARE INSTALLED.
45. WORK WILL BE DONE TO MINIMIZE EXPOSED AREAS. GRASSING WILL BE SOWN ON A DISTURBED SECTION BEFORE MOVING TO ANOTHER SECTION. ADDITIONAL EROSION CONTROL REQUIREMENTS ARE INCLUDED IN THE CONSTRUCTION SPECIFICATIONS.
46. CONTRACTOR SHALL PROVIDE A 24-HOUR CONTACT FOR EROSION CONTROL PRIOR TO BEGINNING WORK.
47. ALL BMP'S WILL BE INSPECTED DAILY AND ANY DEFICIENCIES NOTED WILL BE CORRECTED BY THE END OF EACH DAY. ADDITIONAL BMP'S WILL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION.
48. MULCHING ONLY (DS1)
    DESCRIPTION: ESTABLISHING TEMPORARY PROTECTION FOR DISTURBED AREAS WHERE SEEDING MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDING COVER.
49. TEMPORARY SEEDING (DS2)
    LIME: AS REQUIRED
    FERTILIZER: 500-700 POUNDS OF 10-10-10 PER ACRE.
    SEEDING: APPLY SEED FOR TEMPORARY VEGETATION PER VEGETATIVE COVER SCHEDULE ABOVE.
    MULCH: SHALL BE UNCHOPPED, UNROTTED, SMALL GRAIN STRAW APPLIED AT A RATE OF 2.5 TONS PER ACRE. MULCH MATERIAL SHALL BE RELATIVELY FREE OF ALL KINDS OF WEEDS AND SHALL BE FREE OF PROHIBITED NOXIOUS WEEDS WHICH ARE: CANADA THISTLE, JOHNSONGRASS AND QUACKGRASS. SPREAD MULCH MECHANICALLY OR UNIFORMLY BY HAND. MULCH ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER MULCH PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY PEG AND TWINE METHOD. MULCH ANCHORING TOOL, NETTING OR LIQUID MULCH BINDERS.
28. PERMANENT SEEDING (DS3)
    SEEDBED PREPARATION
    AREA TO BE SEEDED SHALL BE LOOSE AND PLIABLE TO A DEPTH OF AT LEAST 3 INCHES. THE TOP LAYER SHALL BE LOOSENED BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING COURS. IN LIEU OF SOIL TEST RESULTS, APPLY 2 TONS OF DOLOMITIC LIMESTONE AND 1500 POUNDS OF 10-10-10 FERTILIZER PER ACRE. HARROW OR DISC LIME AND FERTILIZER INTO THE SOIL TO A DEPTH OF AT LEAST 3 INCHES ON SLOPES FLATTER THAN 3:1. NO ATTEMPT SHOULD BE MADE TO DRAG ANY DISCED AREA TO MAKE THE SOIL SURFACE SMOOTH AFTER DISCING.
    SEEDING
    APPLY SEED FOR PERMANENT VEGETATION PER VEGETATIVE COVER SCHEDULE ABOVE. APPLY SEED UNIFORMLY WITH A CYCLONE SEEDED DRILL CULTIPACKER SEEDER OR HYDROSEEDER (SLURRY INCLUDES SEEDS AND FERTILIZER, RECOMMENDED ON STEEP SLOPES ONLY) ON A MOIST, FIRM SEEDBED. MAXIMUM SEED DEPTH SHOULD BE 1/2 INCH IN CLAY SOILS AND 1 INCH IN SANDY SOILS WHEN USING OTHER THAN THE HYDROSEEDER METHOD. IRRIGATE UNTIL VEGETATION IS FIRMLY ESTABLISHED IF SOIL MOISTURE IS NOT SUFFICIENT TO SUPPORT ADEQUATE GROWTH. ALL SEED SHALL BEAR THE GROWER'S ANALYSIS TESTING TO 98% FOR PURITY AND 90% FOR GERMINATION.
30. LIMITS OF CLEARING – ALL CONSTRUCTION ACTIVITIES AND LIMITS OF CLEARING SHALL BE WITHIN THE LIMITS OF CLEARING DETAILED. NO FILL TO BE PLACED WITHIN 100-YR FLOOD LIMITS.
31. STREAM BUFFERS – A 25' UNDISTURBED VEGETATIVE STREAM BUFFER MEETING STATE REGULATIONS WILL BE PRESERVED ADJACENT TO ALL RUNNING STREAMS AND CREEKS AND WILL BE LEFT UNDISTURBED OR OTHERWISE AS DETAILED.
32. MAINTENANCE OF ALL EROSION CONTROL MEASURES, WHETHER TEMPORARY OR PERMANENT, SHALL AT ALL TIMES BE THE RESPONSIBILITY OF THE CONTRACTOR AND THE OWNER.
33. ANY SOIL OR DEBRIS ON ROAD WILL BE REMOVED DAILY OR IMMEDIATELY IF A HAZARDOUS ROAD CONDITION EXISTS.
34. EXPOSED SOIL WILL BE COVERED DAILY USING Ds1, Ds2, OR Ds3.
35. SEE THE EROSION CONTROL PLANS AND DETAIL SHEETS FOR ADDITIONAL DETAILS AND REQUIREMENTS.
36. THE CONTRACTOR IS RESPONSIBLE FOR PREPARING A COMPREHENSIVE MONITORING PLAN IN ACCORDANCE WITH THE REQUIREMENTS OF NPDES GENERAL PERMIT NO. GAR100001. ALL CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH NPDES GENERAL PERMIT NO. GAR 100001. SEE THE CONTRACT SPECIFICATIONS FOR ADDITIONAL DETAILS.
37. THE CONTRACTOR SHALL PROVIDE SECONDARY SPILL CONTAINMENT FOR ALL PETROLEUM (GASOLINE, DIESEL, ETC.) TANKS USED DURING CONSTRUCTION.
38. DRAINAGE BASINS
    38.1. THE SLUDGE DEWATERING UPGRADES PROJECT DISTURBS APPROXIMATELY 0.55 ACRES OF GRASSED AND GRAVEL AREA AT THE EXISTING DAWSON FOREST WRF SITE WITH NO NET CHANGE IN IMPERVIOUS AREAS. THE PROJECT IS LOCATED WITHIN THE COOSA RIVER BASIN, WHICH IS DETAILED ON THE MAP BELOW.



GEORGIA RIVER BASINS

EROSION CONTROL CERTIFICATION:

1. I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE STATE SOIL AND WATER CONSERVATION COMMISION AS OF JANUARY 1 OF THE YEAR IN WHICH LAND DISTRUBING ACTIVITY WAS PERMITTED.

2. THE CONTRACTOR SHALL DEVELOP A PLAN THAT PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORM WATER OUTFALLS. THE DESIGNED SYSTEM OF BEST MANAGMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR 100001.

3. I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A VISIT TO THE LOCATIONS DESCRIBED HERIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION.

PETER J. JOHNS
WIEDEMAN AND SINGLETON, INC.
PROFESSIONAL ENGINEER NO. 18758
LEVEL II CERTIFIED DESIGN PROFESSIONAL NO. 19344

_____

overhead underground
UTILITIES PROTECTION CENTER OF GEORGIA
BEFORE ANY EXCAVATION WORK BEGINS OR ANY WORK BEGINS WITHIN TEN (10') FT. OF OVERHEAD POWER LINES OF 750 VOLTS OR MORE, NOTIFICATION MUST BE MADE TO THE UTILITIES PROTECTION CENTER (UPC) AT 1-800-282-7411 (404-623-4344 IN METRO ATLANTA).

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% REVIEW SET	PJJ
2	1/6/2020	90% REVIEW SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ
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SEAL

GEORGIA REGISTERED No. 18758 PROFESSIONAL ENGINEER PETER JOHNS 2/26/20

OWNER

Etowah WATER & SEWER AUTHORITY "Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: PJJ
DRAWN BY: SKR/SPM
CHECKED BY: PJJ
FILENAME: ESC.04 EROSION CONTROL NOTES & DETAILS 1.dwg
PROJECT NO.: 273-18-210

Protecting Public Health and the Environment Since 1946
WIEDEMAN AND SINGLETON, INC.
Civil and Environmental Engineers
3091 GOVERNORS LAKE DRIVE SUITE 430
NORCROSS, GA 30071
(404) 876-5862
WWW.WIEDEMAN.COM

PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES DAWSON COUNTY, GEORGIA

SHEET TITLE: EROSION CONTROL NOTES & DETAILS 1

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION
PETER J. JOHNS
LEVEL II CERTIFIED DESIGN PROFESSIONAL
CERTIFICATION NUMBER 0000019344
ISSUED: 11/01/2018 EXPIRES: 11/01/2021

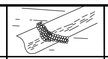
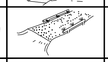
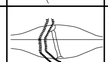
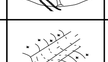
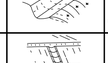
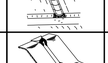
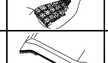
SCALE: 1" = 30'
NOTE: DRAWING SCALE IS BASED ON 24x36 SHEETS.
0 1" 2"

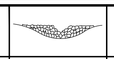
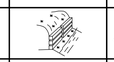
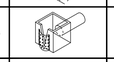
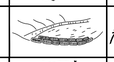
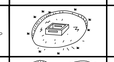
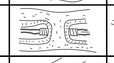
DRAWING ESC.04
SHEET 10 OF 44

Drawing file: ESC.04 EROSION CONTROL NOTES & DETAILS 1.dwg ESC.04 EROSION CONTROL NOTES & DETAILS 1 Feb 26, 2020 - 11:46am

UNIFORM CODING SYSTEM
FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECKDAM			A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.
Ch	CHANNEL STABILIZATION			Improving, constructing or stabilizing an open channel, existing stream, or ditch.
Co	CONSTRUCTION EXIT		 (Label)	A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
Dc	STREAM DIVERSION CHANNEL			A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.
Dl	DIVERSION			An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.
Dn1	TEMPORARY DOWNDRAIN STRUCTURE		 (Label)	A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.
Dn2	PERMANENT DOWNDRAIN STRUCTURE		 (Label)	A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.
Ga	GABION			Rock filled baskets which are hand-placed into position forming soil stabilizing structures.
Gr	GRADE STABILIZATION STRUCTURE		 (Label)	Permanent structures installed to protect natural or artificial channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.
Lv	LEVEL SPREADER			A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Rd	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainageways.
Re	RETAINING WALL		 (Label)	A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.
Rt	RETROFITTING		 (Label)	A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
Sd1	SEDIMENT BARRIER		 (Indicated type)	A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel or a sediment fence. The barriers are usually temporary and inexpensive.
Sd2	INLET SEDIMENT TRAP			An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.
Sd3	TEMPORARY SEDIMENT BASIN			A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out. The basin is usually temporary but may be designed as a permanent pond or stormwater retention device.
Sr	TEMPORARY STREAM CROSSING		 (Label)	A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
St	STORM DRAIN OUTLET PROTECTION			A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Su	SURFACE ROUGHENING			A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
Tp	TOPSOILING		 (Show Stripping & Storage Areas)	The practice of stripping off the more fertile top soil, storing it, then spreading it over the disturbed area after the completion of construction activities.
Wt	VEGETATED WATERWAY OR STORMWATER CONVEYANCE CHANNEL			Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.

VEGETATIVE MEASURES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Bf	BUFFER ZONE		(Label)	An undisturbed natural "green belt" separating the land-disturbed site from surrounding property and bordering streams. It serves to reduce water velocity and remove some sediment. It is also at times a noise or "vision pollution" barrier.
Cs	COASTAL DUNE STABILIZATION (WITH VEGETATION)		Cs	Planting vegetation on dunes that are denuded, artificially constructed, or re-nourished.
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Ds1	Establishing temporary protection for disturbed areas where seedings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)		Ds2	Establishing temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)		Ds3	Establishing permanent vegetative cover such as trees, shrubs, vines, grasses, sod, or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (WITH SODDING)		Ds4	A permanent vegetative cover using sods on highly erodible or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS		Du	Controlling surface and air movement of dust on construction sites, roadways and similar sites.
Mb	EROSION CONTROL MATTING AND BLANKETS		Mb	The installtion of a protective covering (blanket) or soil stabilization mat on a prepared planting area of a steep slope, channel, or shoreline.

TYPE "S" SILT FENCE

1. DESCRIPTION: WATER PERMEABLE FILTER FENCE MATERIAL COMPOSED OF STRONG ROT PROOF SYNTHETIC FIBERS FORMED INTO A MATRIX OF WOVEN OR NON-WOVEN FABRIC. EITHER TYPE OF FABRIC SHALL BE FREE OF ANY TREATMENT OF COATING WHICH MIGHT SIGNIFICANTLY ALTER ITS PHYSICAL PROPERTIES AFTER INSTALLATION. THE FABRIC SHALL CONTAIN STABILIZER AND/OR INHIBITORS TO MAKE THE FILAMENTS RESISTANT TO DETERIORATION RESULTING FROM EXPOSURE TO SUNLIGHT OR HEAT. THE FABRIC SHALL BE A PERVIOUS SHEET OF SYNTHETIC FIBERS ORIENTED INTO A NETWORK SO THAT FIBERS RETAIN THEIR RELATIVE POSITION WITH RESPECT TO EACH OTHER. EDGES OF THE FABRIC SHALL BE FINISHED TO PREVENT THE OUTER YARN FROM PULLING AWAY FROM THE MATERIAL. THE FABRIC SHALL BE FREE OF DEFECTS OR FLAWS WHICH SIGNIFICANTLY AFFECT THE PHYSICAL AND/OR FILTERING PROPERTIES. THE FABRIC SHALL HAVE A MINIMUM WIDTH OF THIRTY SIX (36) INCHES. SHEETS OF FABRIC MAY BE PERMITTED DUE TO THE PRESENCE OF THE SEAM. THE FABRIC MAY BE MANUFACTURED WITH POCKETS FOR POSTS, HEMS WITH CORD POSTS PREATTACHED.
2. MATERIALS
   A. POSTS
      1. STEEL: POSTS SHALL BE ROUND, U.T. OR C SHAPED WITH A MINIMUM WEIGHT OF 1.3 POUNDS PER FOOT AND HAVE PROJECTIONS FOR FASTENING THE WIRE TO THE FENCE FOR TYPE A OR C FABRIC. WITH A MINIMUM LENGTH OF FOUR (4) FEET. SPACING FOUT (4) FOOT CENTER MAXIMUM.
   B. FABRIC: USE TYPE C 36" GA. D.O.T. APPROVED FABRIC. FABRIC SHALL HAVE P-FACTOR NO GREATER THAN 0.030
   C. FASTENERS: SECURLY FASTEN FILTER FABRIC TO WOVEN WIRE FENCE BACKING & POSTS WITH WIRE.
3. INSTALLATION: TEMPORARY SILT FENCE INSTALLATION SHALL CONFORM TO THE STANDARDS SET FORTH IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.
4. MAINTENANCE: THE DEVELOPER/CONTRACTOR SHALL MAINTAIN THE SILT FENCE UNTIL THE LDA IS COMPLETE AND FINAL STABILIZATION IS ACHIEVED. FILTER FABRIC SHALL BE REMOVED AND REPLACED WHENEVER IT HAS DETERIORATED OR BEEN OTHERWISE DAMAGED TO SUCH EXTENT THAT IT REDUCES THE EFFECTIVENESS OF THE INSTALLATION OF FABRIC FENCE MATERIAL IN AREAS OF CONCENTRATED FLOW IS NOT RECOMMENDED UNLESS PROPER PROVISIONS ARE MADE TO SUPPLEMENT OR OTHERWISE STRENGTHEN THE FENCE TO WITHSTAND INCREASED DRAINAGE WATER VELOCITIES. NOTE: VENDOR MUST SUPPLY LETTER OF WARRANTY FOR AFORMENTIONED SPECIFICATIONS. IN ADDITION, THIS LETTER SHOULD STATE THAT THE FABRIC IS ON THE GEORGIA QPL #36.

TYPE "S" SILT FENCE (Sd1)
N.T.S.

PLAN

*SIZE FOR REQUIRED FLOW

DETAIL OF PUMPED SILT CONTROL BAG
N.T.S.

NOTES:

1. LOCATION OF CONCRETE WASHOUT AREA (CWA) SHALL BE FIELD LOCATED AT A LOCATION AGREED TO WITH OWNER.
2. INSTALL A SIGN ADJACENT TO THE CWA TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER AREA.
3. CWA SHALL BE ECO-PAN OR APPROVED EQUAL TYPE.
4. CWA SHALL BE CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE FROM WASHOUT OPERATIONS.
5. SIZE OF CWA SHALL ALLOW FOR 12" OF FREE BOARD.
6. CWA SHALL BE REPLACED ONCE THE CWA IS 75% FULL.
7. CWA SHALL BE INSPECTED WEEKLY FOR DAMAGE AND REPAIRED AS REQUIRED.

CONCRETE WASHOUT AREA (CWA)
N.T.S.

CRUSHED STONE CONSTRUCTION EXIT (Co)
N.T.S.

DITCH CHECKS PLAN (Cd) TOE OF SLOPE PLAN

HAY OR STRAW BALES
N.T.S.

POINTS "A" SHOULD BE HIGHER THAN POINT "B"

PROPER PLACEMENT OF STRAW BALE BARRIER IN DRAINAGE WAY (Cd)
N.T.S.

EROSION CONTROL CERTIFICATION:

1. I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE STATE SOIL AND WATER CONSERVATION COMMISION AS OF JANUARY 1 OF THE YEAR IN WHICH LAND DISTRUBING ACTIVITY WAS PERMITTED.
2. THE CONTRACTOR SHALL DEVELOP A PLAN THAT PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORM WATER OUTFALLS. THE DESIGNED SYSTEM OF BEST MANAGMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR 100002.
3. "I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A VISIT TO THE LOCATIONS DESCRIBED HERIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY DIRECT SUPERVISION."

PETER J. JOHNS
WIEDEMAN AND SINGLETON, INC.
PROFESSIONAL ENGINEER NO. 18758
LEVEL II CERTIFIED DESIGN PROFESSIONAL NO. 19344

MANAGEMENT PLAN AND MAINTENANCE:

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED DAILY AND AFTER EACH HEAVY-RUNOFF PRODUCING RAINFALL. ALL NEEDED REPAIRS SHALL BE MADE IMMEDIATELY TO MAINTAIN A FUNCTIONING EROSION CONTROL SYSTEM. THE FAILURE OF ANY EROSION CONTROL DEVICE TO FUNCTION AS INTENDED, FOR ANY REASON, SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION BY THE OWNER, ENGINEER OR COUNTY INSPECTOR. STRUCTURES THAT SHALL BE INSPECTED INCLUDE:

SEEDING, AND FERTILIZING (Ds1 | Ds2 | Ds3)

SEEDED AREA SHALL BE INSPECTED FOR FAILURE AND NECESSARY REPAIRS SHALL BE MADE WITHIN THE SAME SEASON, IF POSSIBLE. IF NEEDED, UTILIZE Ds1 WHERE TEMPORARY SEEDING IS NOT PRACTICAL.

SILT FENCE (Sd1)

ANY FABRIC WHICH COLLAPSES, TEARS, DECOMPOSES, OR BECOMES INEFFECTIVE WILL BE REPLACED IMMEDIATELY. REMOVE SEDIMENT DEPOSITS BEHIND FENCE WHEN SEDIMENT ACCUMULATES TO 6 INCHES.

INLET PROTECTION (Sd2)

REMOVE SEDIMENT WHEN 6 INCHES OF SEDIMENT HAS ACCUMULATED IN THE SEDIMENT AROUND THE INLET.

STONE CHECK DAM (Cd)

INSPECT FOR SIGNIFICANT EROSION AROUND THE EDGES AND BETWEEN DAMS. INSTALL PROTECTIVE RIP RAP LINERS IN PORTIONS OF THE CHANNEL WHERE EROSION OCCURS. REMOVE SEDIMENT ACCUMULATED BEHIND THE DAMS AS REQUIRED TO PREVENT DAMAGE TO CHANNEL VEGETATION. ADD STONES TO DAMS AS REQUIRED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.

CONSTRUCTION EXIT (Co)

MAINTAIN IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1.5-3.5 INCH STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES OR SITE ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

VEGETATIVE COVER SCHEDULE

Month	Temporary (Ds2)	Rate/Acre Alone	Rate/Acre Mix	Permanent (Ds3)	Rate/Acre Alone	Rate/Acre Mix
January	Rye	3 bu.	.5 bu.	Sericea Lespedeza [2]		75 lbs.
	Annual Ryegrass	40 lbs.		Unhulled Bermuda		10 lbs.
				Kentucky 31 Fescue	50 lbs.	30 lbs.
February	Rye	3 bu.	.5 bu.	Sericea Lespedeza [1, 2]		75 lbs.
	Annual Ryegrass	40 lbs.		Kentucky 31 Fescue	50 lbs.	30 lbs.
	Annual Lespedeza [3]	40 lbs.	10 lbs.			
March	Annual Ryegrass	40 lbs.		Sericea Lespedeza [2]		60 lbs.
				Hulled Bermuda	10 lbs.	6 lbs.
				Kentucky 31 Fescue	50 lbs.	30 lbs.
April	Sudangrass	60 lbs.		Same as March		
	Brown Top Millet	40 lbs.	10 lbs.			
May	Same as April			Same as March		
June	Same as April			Hulled Bermuda	10 lbs.	6 lbs.
July	Sudengrass	60 lbs.				
	Pearl Millet	50 lbs.				
August	Pearl Millet	50 lbs.				
September	Same as January			Sericea Lespedeza [2]		75 lbs.
October	Wheat	3 bu.	.5 bu.	Same as September		
	Annual Ryegrass	40 lbs.		Kentucky 31 Fescue	50 lbs.	30 lbs.
	Rye	3 bu.	.5 bu.			
November	Same as October			Same as January		
December	Same as October			Same as January		

NOTES:
1. Seed should be scarified.
2. Innoculate seed.
3. For temporary vegetation, provide 500-700 lbs. of 10-10-10 fertilizer per acre.
4. For permanent vegetation, provide agricultural lime at 1.5 tons per acre and 10-10-10 fertilizer at 1500 lbs. per acre.

CONSTRUCTION SCHEDULE

ACTIVITY	MONTHS 1*	2	3	4	5	6	7	8	9
INSTALLATION OF SEDIMENT CONTROL									
CLEARING, GRUBBING & GRADING									
CONSTRUCTION									
MAINTENANCE OF SEDIMENT CONTROL									
TEMPORARY GRASSING									
PERMANENT GRASSING									
CLEANUP & PROJECT CLOSEOUT									
REMOVAL OF EROSION CONTROL DEVICES									

NOTE:
* THE APPROXIMATE BEGINNING DATE FOR WORK IS APRIL 6, 2020.
EROSION CONTROL MEASURES AND PRACTICES SHALL BE INSTALLED PRIOR TO OR CONCURRENT WITH LAND-DISTURBING ACTIVITIES. THE ABOVE SCHEDULE INDICATES ESTIMATED SEQUENCE AND DURATION OF EVENTS IN CONSTRUCTION ACTIVITIES. IT HAS BEEN PREPARED WITHOUT THE ASSISTANCE OF THE CONTRACTOR. AFTER SELECTION OF THE CONTRACTOR BY THE OWNER, THE CONTRACTOR MAY PROPOSE ADJUSTMENT TO THIS SCHEDULE AS CONSIDERED NECESSARY TO SCHEDULE THE PROJECT. HOWEVER, SUCH ADJUSTMENT MUST BE APPROVED IN ADVANCE BY THE LAND DISTURBANCE PERMIT ISSUING AGENCY.

CONSTRUCTION SCHEDULE

1. CONFIRM LOCATION OF AND CONSTRUCT/INSTALL SILT FENCES, CHECK DAMS AND THE CONSTRUCTION ENTRANCE AS SHOWN ON THE DRAWINGS AND IN ACCORDANCE WITH CONTRACT SPECIFICATIONS.
2. CLEAR, GRUB, AND STRIP TOPSOIL IN ACCORDANCE WITH CONTRACT SPECIFICATIONS (IF REQUIRED).
3. BEGIN EXCAVATION AND GRADING ACTIVITIES AFTER ALL REQUIRED EROSION CONTROL MEASURES HAVE BEEN INSTALLED AND CONSTRUCTED.
4. BEGIN CONSTRUCTION AND APPLY PERMANENT SOIL STABILIZATION, WHEN APPROPRIATE, IN ACCORDANCE WITH CONTRACT SPECIFICATIONS.
5. AREAS TO BE LEFT DORMANT FOR LONGER THAN 7 DAYS THAT HAVE NOT ALREADY BEEN PERMANENTLY SEEDED MUST BE TEMPORARILY STABILIZED.
6. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH HEAVY RUNOFF-PRODUCING RAINFALL. NEEDED REPAIRS SHALL BE MADE IMMEDIATELY.
7. AFTER GROUND COVER IS WELL ESTABLISHED AND THE SITE IS STABILIZED, RETURN TO THE SITE AND REMOVE ALL TEMPORARY MEASURES INCLUDING SILT FENCES AND ROCK CHECK DAMS. INSTALL PERMANENT VEGETATION TO ALL AREAS DISTURBED BY THE TEMPORARY MEASURES.
8. REMOVE EROSION CONTROL MEASURES WITHIN 30 CALENDAR DAYS AFTER FINAL SITE STABILIZATION.

UTILITIES PROTECTION CENTER OF GEORGIA
BEFORE ANY EXCAVATION WORK BEGINS OR ANY WORK BEGINS WITHIN TEN (10') FT. OF OVERHEAD POWER LINES OF 750 VOLTS OR MORE, NOTIFICATION MUST BE MADE TO THE UTILITIES PROTECTION CENTER (UPC) AT 1-800-282-7411 (404-623-4344 IN METRO ATLANTA).

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION
PETER J. JOHNS
LEVEL II CERTIFIED DESIGN PROFESSIONAL
CERTIFICATION NUMBER 0000019344
ISSUED: 11/01/2018 EXPIRES: 11/01/2021

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% REVIEW SET	PJJ
2	1/6/2020	90% REVIEW SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ
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SEAL

OWNER

Etowah Water & Sewer Authority
"Excellence in every drop"

CONSULTANT INFORMATION
PROJECT MANAGER: PJJ
DESIGNED BY: PJJ
DRAWN BY: SPM
CHECKED BY: PJJ
FILENAME: ESC-01 EROSION CONTROL NOTES & DETAILS.dwg
PROJECT NO.: 273-18-210

Wiedeman and Singleton, Inc.
Civil and Environmental Engineers
3091 GOVERNORS LAKE DRIVE
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NORCROSS, GA 30071
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PROJECT INFORMATION

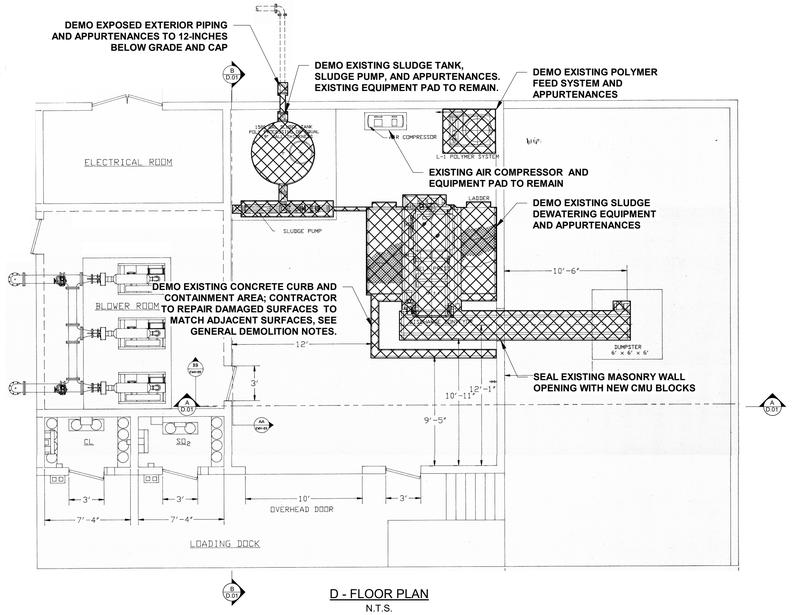
PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: EROSION CONTROL NOTES & DETAILS

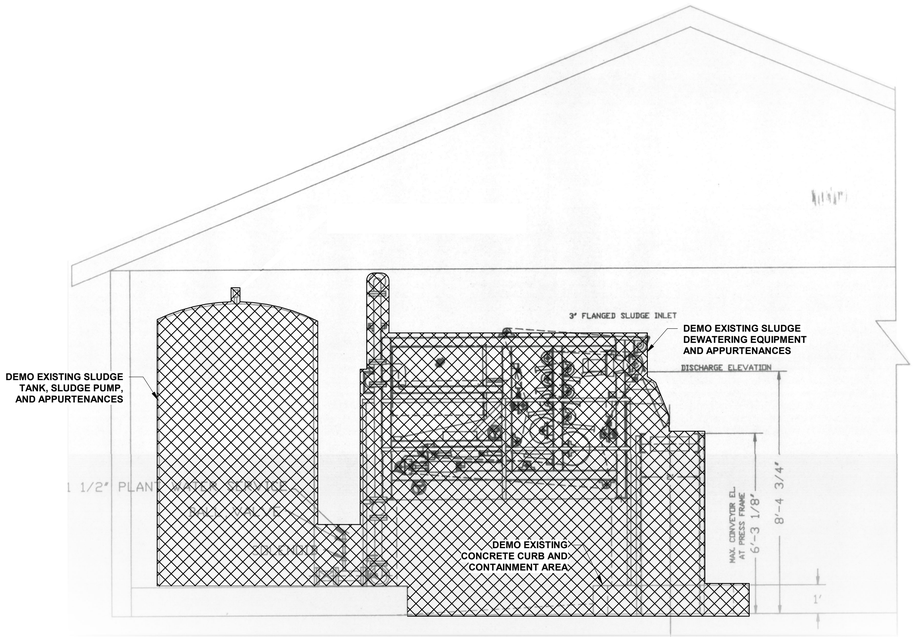
SCALE: AS SHOWN
NOTE: DRAWING SCALE IS BASED ON 24x36 SHEETS.
0 1" 2"

DRAWING ESC.05
SHEET 11 OF 44

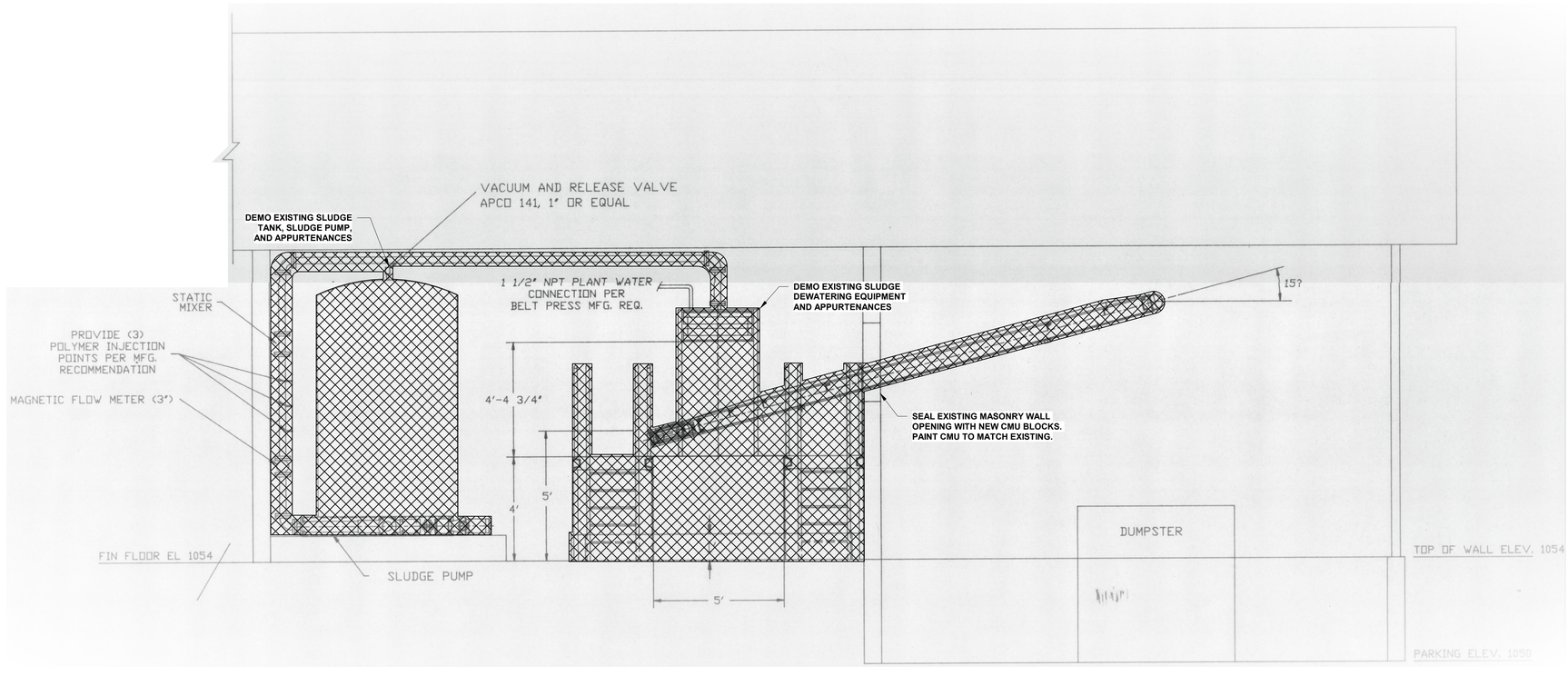
Drawing File: ESC-01 EROSION CONTROL NOTES & DETAILS.dwg EROSION CONTROL NOTES & DETAILS Feb 26, 2020 - 11:46am



D - FLOOR PLAN
N.T.S.



D - SECTION A
N.T.S.



D - SECTION B
N.T.S.

GENERAL DEMOLITION NOTES:

1. EXISTING ELECTRICAL, LIGHTING, AND HVAC EQUIPMENT AND APPURTENANCES NOT ASSOCIATED WITH THE SLUDGE DEWATERING EQUIPMENT TO REMAIN IN PLACE.
2. EXISTING AIR COMPRESSOR AND AIR COMPRESSOR EQUIPMENT PAD SHALL REMAIN IN PLACE.
3. SEE GENERAL NOTES FOR SCHEDULING RESTRICTIONS ASSOCIATED FOR WORK DETAILED.
4. THE CONTRACTOR SHALL EXERCISE FULL CARE AND SHALL USE SUCH METHODS AND EQUIPMENT DURING DEMOLITION AS WILL MAINTAIN THE USEFULNESS OF THE VARIOUS MATERIALS AND EQUIPMENT DEMOLISHED.
5. ANY DAMAGE DONE TO STRUCTURES OR EQUIPMENT DURING REMOVAL AND ANY PATCHING, PLUGGING OF HOLES, OR REPAIRS NECESSITATED BECAUSE OF REMOVAL OF EQUIPMENT AND PIPING SHALL BE REPAIRED AND THE COST THEREOF SHALL BE INCLUDED IN THE CONTRACT PRICE.
6. EQUIPMENT SPECIFIED TO BE DEMOLISHED SHALL BE REMOVED COMPLETELY, INCLUDING ALL RELATED ACCESSORIES AND CONCRETE BASES, UNLESS OTHERWISE NOTED. ANY EMBEDDED ITEMS SUCH AS ANCHOR BOLTS, STEEL REINFORCEMENT, CONDUIT, AND PIPING SHALL BE CUT OFF 1 INCH BELOW ADJACENT FINISHED SURFACES. THE SURFACE SHALL THEN BE REPAIRED TO MATCH ADJACENT SURFACES IN FINISH AND APPEARANCE.
7. PRIOR TO REMOVING ANY ELECTRICAL OR SCADA EQUIPMENT, THE AUTHORITY STAFF WILL DISCONNECT ALL ELECTRICAL AND SCADA DETAILED TO BE REMOVED TO THE OUTSIDE OF EACH PANEL. THE CONTRACTOR SHALL NOT DISCONNECT OR REMOVE ANY ELECTRICAL OR SCADA EQUIPMENT PRIOR TO THE AUTHORITY'S DISCONNECTIONS. UNUSED CONDUITS SHALL BE REMOVED, INCLUDING UNUSED SUPPORTS, CLAMPS, TIES, SCREWS, ETC.
8. BLEMISHES OR UNSIGHTLY AREAS ON WALLS AND FLOORS LEFT AFTER REMOVAL OF EQUIPMENT SHALL BE CLEANED AND REFINISHED AND PAINTED AS NECESSARY TO MATCH ADJACENT SURFACES.
9. ALL HOLES AND OPENINGS LEFT AFTER REMOVAL OF CONDUITS AND/OR EQUIPMENT SHALL BE FILLED OR PLUGGED TO PROVIDE A NEAT AND WORKMANLIKE APPEARANCE. CONCRETE OPENINGS SHALL BE FILLED WITH NON-SHRINK GROUT.
10. WHERE EQUIPMENT OR PIPING DESIGNATED FOR REMOVAL SERVES TO SUPPORT OTHER EQUIPMENT OR PIPING DESIGNATED TO REMAIN IN SERVICE, THE CONTRACTOR SHALL PROVIDE PERMANENT SUPPORTS IN PLACE OF THE REMOVED EQUIPMENT AND PIPING. WHERE IT IS NECESSARY TO TEMPORARILY REMOVE OTHER EQUIPMENT, PIPING, OR ELECTRICAL WORK IN ORDER TO GAIN ACCESS TO AN ITEM OF EQUIPMENT OR PIPING DESIGNATED FOR REMOVAL, THE CONTRACTOR SHALL RESTORE ALL SUCH EQUIPMENT, PIPING, OR ELECTRICAL WORK TO ITS ORIGINAL CONDITION. THE CONTRACTOR IS TO PROVIDE A SUBMITTAL TO THE ENGINEER FOR EACH PROPOSED PERMANENT SUPPORT.
11. ALL REUSABLE MATERIALS REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE CAREFULLY MOVED AND STORED WHERE DIRECTED BY THE OWNER. COORDINATE MATERIALS TO BE RETAINED WITH THE OWNER.
12. THE CONTRACTOR WILL ASSUME OWNERSHIP OF AND LEGALLY DISPOSE OF ANY REMOVED EQUIPMENT, PIPING, AND MATERIALS WHICH CANNOT BE REUSED. ANY UNUSED EQUIPMENT, PIPING, AND MATERIALS SHALL BE REMOVED OFF SITE AT NO ADDITIONAL COST TO THE OWNER.
13. ALL PIPING REMOVED SHALL BE TERMINATED WITH SUITABLE CAPS OR PLUGS.

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3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ

SEAL

GEORGIA REGISTERED No. 18758 PROFESSIONAL ENGINEER PETER JOHNS 2/26/20

OWNER

Etowah WATER & SEWER AUTHORITY "Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: PJJ
DRAWN BY: SPM
CHECKED BY: PJJ
FILE NAME: FILE NAME
PROJECT NO.: 273-18-210

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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
DEMOLITION PLAN AND SECTIONS

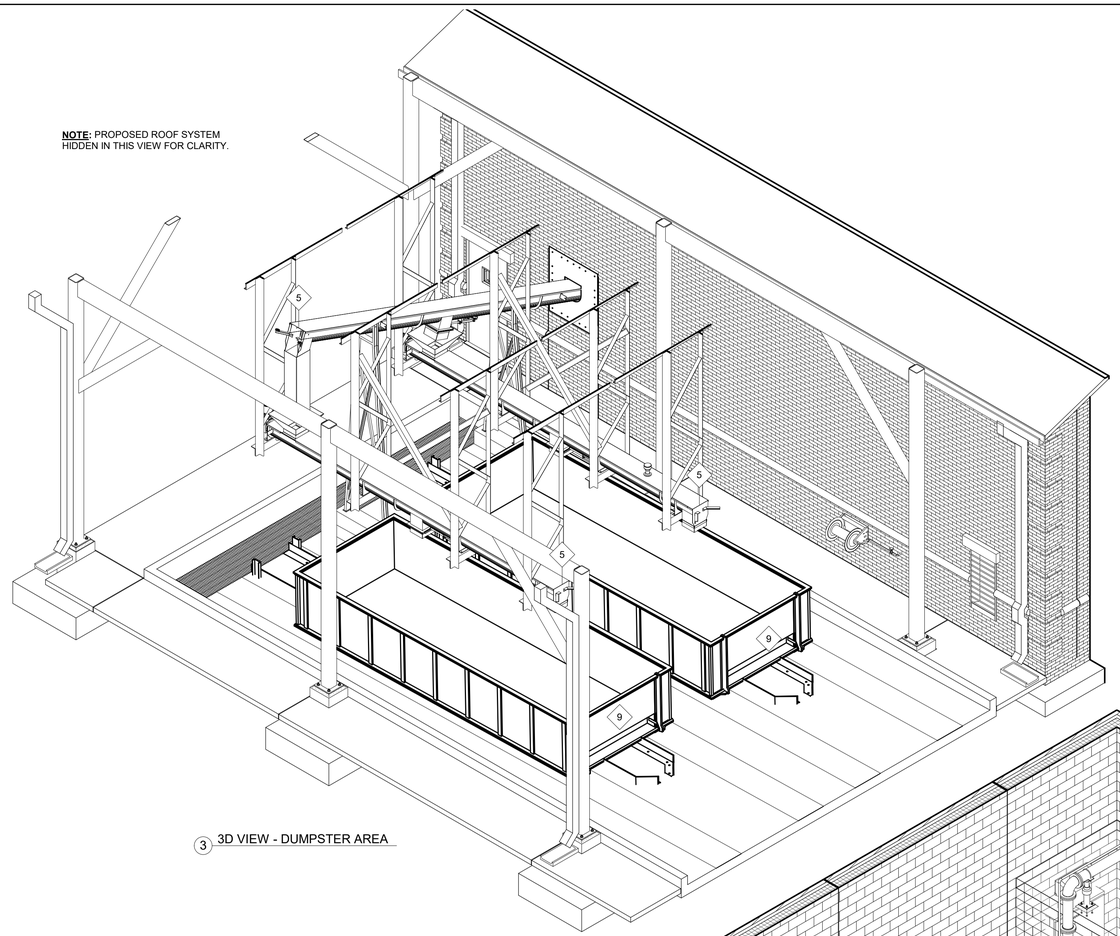
SCALE: N.T.S. 1'-0"
NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.
0 1" 2"

DATE: 2/26/2020

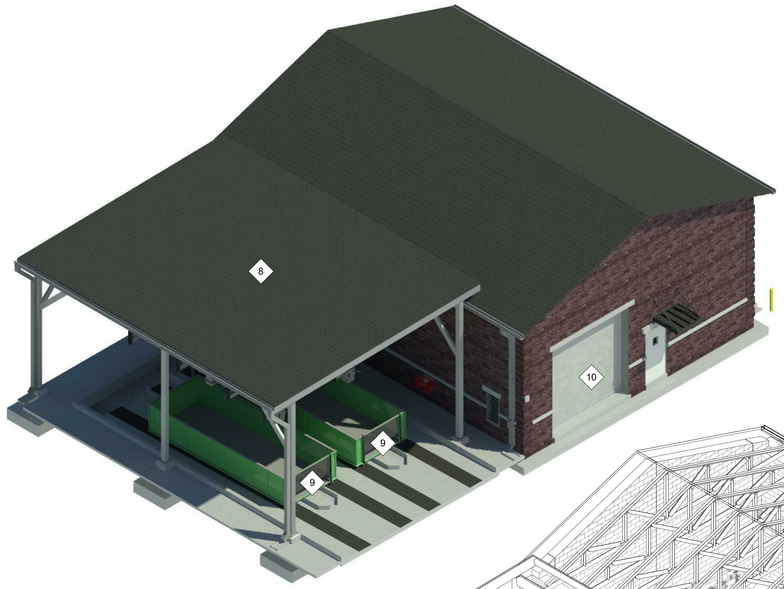
DRAWING D.01

SHEET 12 OF 44

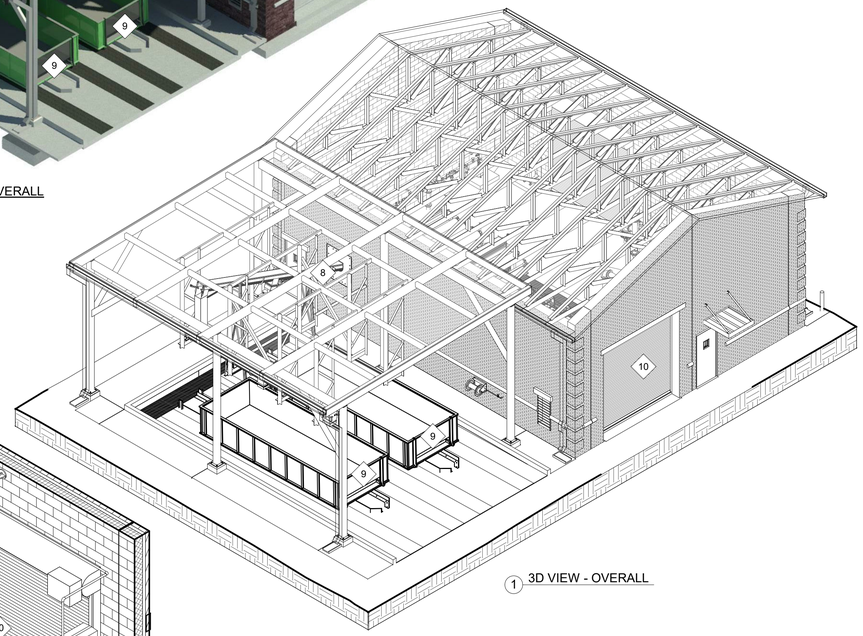
NOTE: PROPOSED ROOF SYSTEM HIDDEN IN THIS VIEW FOR CLARITY.



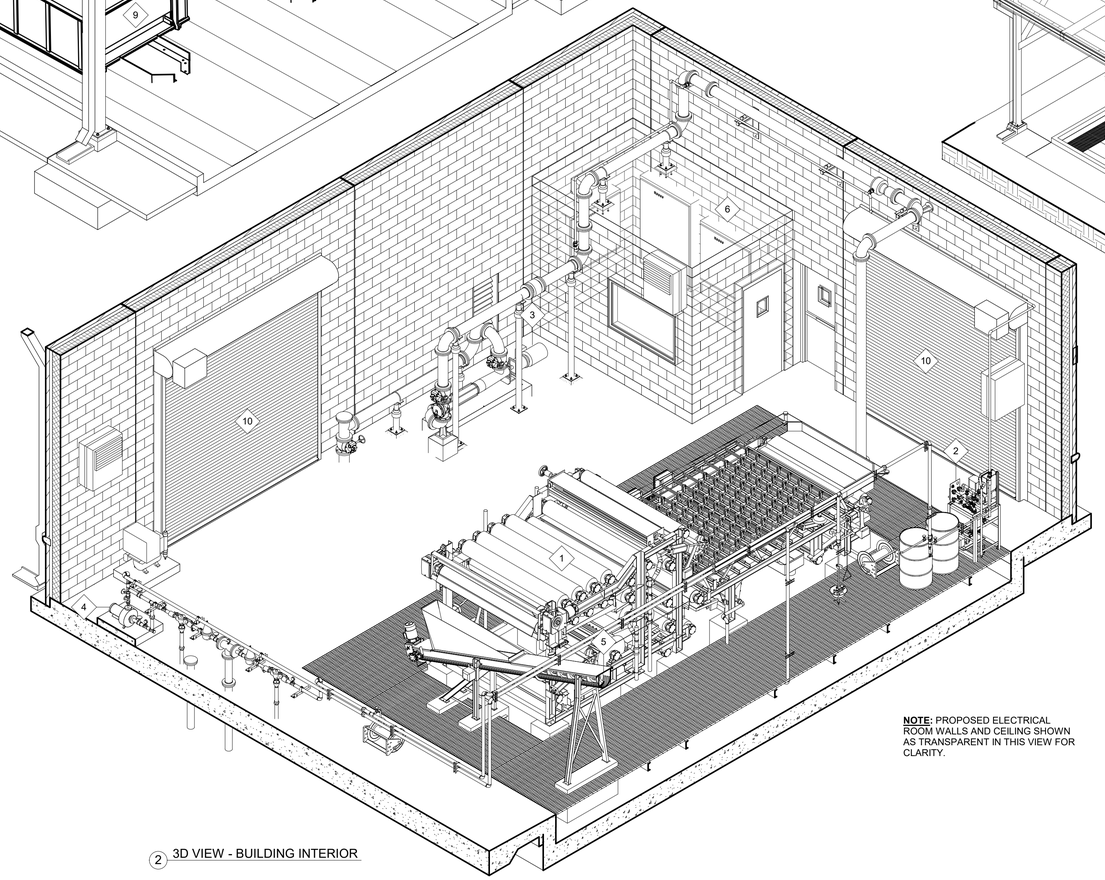
3 3D VIEW - DUMPSTER AREA



RENDER VIEW - OVERALL



1 3D VIEW - OVERALL



2 3D VIEW - BUILDING INTERIOR

NOTE: PROPOSED ELECTRICAL ROOM WALLS AND CEILING SHOWN AS TRANSPARENT IN THIS VIEW FOR CLARITY.

LEGEND FOR 3D VIEWS

1 PROPOSED 2.2M BELT FILTER PRESS	6 ELECTRICAL ROOM
2 POLYMER FEED SYSTEM	7 HOSE RACK
3 SLUDGE FEED PUMP	8 ROOF SYSTEM
4 WASH WATER BOOSTER PUMP	9 DUMPSTERS (PROVIDED BY OWNER)
5 10" Ø SHAFTLESS CONVEYORS	10 12' X 12' OVERHEAD DOOR

3D DRAWING NOTES:

1. CERTAIN COMPONENTS (E.G. EQUIPMENT, SLABS, WALLS, ROOFING SYSTEMS, ETC.) OF THE PROPOSED INFRASTRUCTURE HAVE BEEN OMITTED FROM THESE 3D DRAWINGS FOR CLARITY. SEE THE STRUCTURAL, MECHANICAL, HVAC, AND ELECTRICAL DRAWINGS FOR ADDITIONAL DETAILS.
2. THE OWNER SHALL SELECT ALL COLORS DURING CONSTRUCTION DURING SUBMITTAL REVIEW. COLORS SHOWN ON 3D VIEWS IS ONLY FOR ILLUSTRATION PURPOSES.

BELT PRESS AND APPURTENANCES - GENERAL NOTES:

1. THE OWNER HAS PRE-NEGOTIATED A SCOPE OF SUPPLY AND BASE BID COSTS WITH CHARTER MACHINE COMPANY FOR THE PROPOSED BELT PRESS AND APPURTENANCES. SEE SECTION 46 76 21 OF THE SPECIFICATIONS FOR ADDITIONAL DETAILS. THE CONTRACTOR SHALL COORDINATE WITH CHARTER MACHINE COMPANY AND SHALL PROVIDE ALL ADDITIONAL EQUIPMENT, APPURTENANCES, LABOR, ETC. REQUIRED TO INSTALL THE BELT PRESS AND APPURTENANCES AS A COMPLETE WORKING SYSTEM.
2. DRUMS OF LIQUID POLYMER REQUIRED DURING START-UP OF THE BELT PRESS AND APPURTENANCES WILL BE PROVIDED BY THE OWNER.

PIPING - GENERAL NOTES:

1. PROVIDE UNI-STRUT PIPE SUPPORTS FOR SMALL PIPING RUNNING OVERHEAD AND/OR ALONG WALLS; ALL UNI-STRUT PIPING SHALL BE ALUMINUM OR STAINLESS STEEL.
2. HOSE BIBB/RACKS
   A. HOSE RACKS SHALL BE REELCRAFT MODEL NO. CA37118L.
   B. HOSE RACKS TO BE CONSTRUCTED OF ALUMINUM WITH STAINLESS STEEL HARDWARE. PROVIDE STIFFENERS AS REQUIRED TO SUPPORT THE HOSE RACK REEL.

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4	2/26/2020	BID READY SET	PJJ

SEAL

GEORGIA REGISTERED No. 16758 PROFESSIONAL ENGINEER PETER JOHNS 2/26/20

OWNER

Etowah Water & Sewer Authority "Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: PJJ
DRAWN BY: SPM
CHECKED BY: AAA
FILE NAME:FILE NAME
PROJECT NO.: 169-18-110

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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING 3D VIEWS

SCALE: As indicated

NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

0 1" 2"

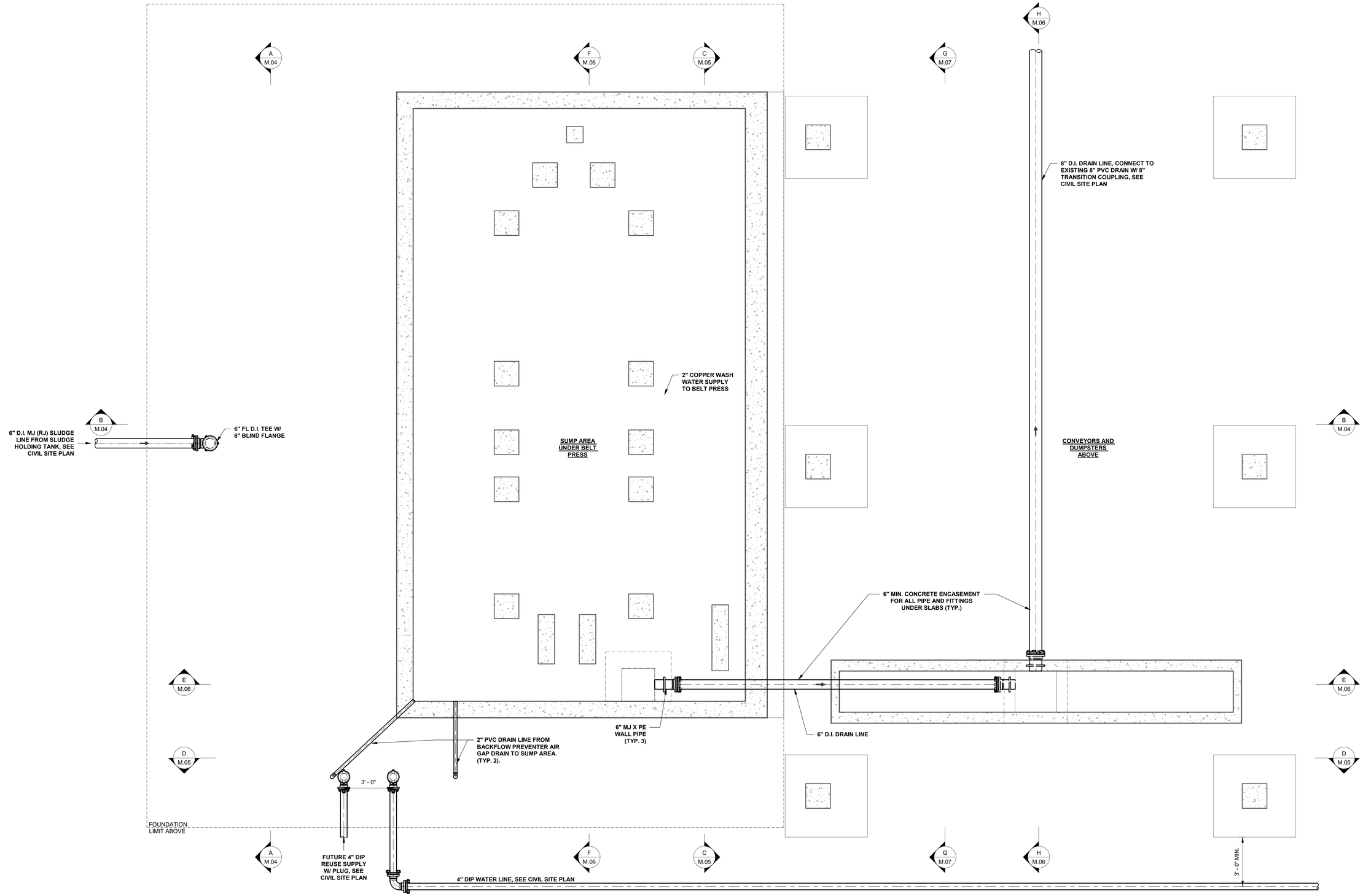
DATE: 2/26/2020

DRAWING M.01

SHEET 13 OF 44

BIM 360://ETOWAH - Dawson Forest/Proposed Dewatering Building.rvt

2/26/2020 11:26:47 AM



1 M - SUB-FLOOR PLAN
3/8" = 1'-0"

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OWNER

Etowah WATER & SEWER AUTHORITY "Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER:	PJJ
DESIGNED BY:	PJJ
DRAWN BY:	SKR/SPM
CHECKED BY:	AAA
FILE NAME:	FILE NAME
PROJECT NO.:	169-18-110

WIEDEMAN AND SINGLETON, INC.
Civil and Environmental Engineers
3091 GOVERNORS LAKE DRIVE
SUITE 430
NORCROSS, GA 30071
(404) 876-5862
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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
SUB-FLOOR PLAN

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

NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

0 1" 2"

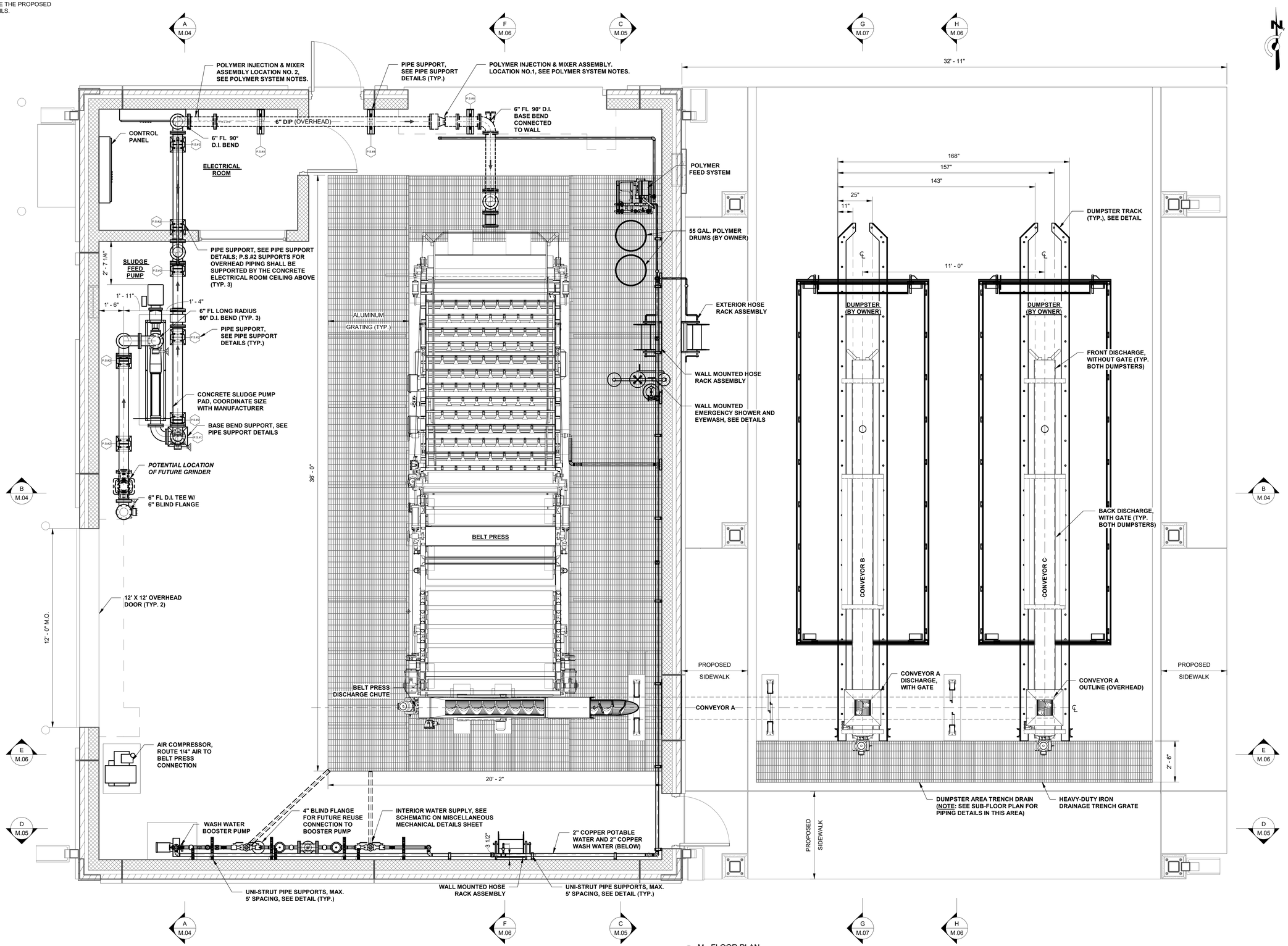
DATE: 2/26/2020

DRAWING M.02

SHEET 14 OF 44

BIM 360://ETOWAH - Dawson Forest/Proposed Dewatering Building.rvt
2/26/2020 11:26:33 AM

NOTE: THE PROPOSED HVAC EQUIPMENT HAS BEEN HIDDEN IN THE MECHANICAL PLANS AND SECTIONS FOR CLARITY. SEE THE PROPOSED HVAC DRAWINGS FOR DETAILS.



1 M - FLOOR PLAN
3/8" = 1'-0"

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% DESIGN SET	PJJ
2	1/6/2020	90% DESIGN SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ

SEAL

GEORGIA REGISTERED No. 16758 PROFESSIONAL ENGINEER PETER JOHNS 2/26/20

OWNER

Etowah WATER & SEWER AUTHORITY "Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER:	PJJ
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DRAWN BY:	SKR/SPM
CHECKED BY:	AAA
FILE NAME:	FILE NAME
PROJECT NO.:	169-18-110

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PROJECT INFORMATION

PROJECT: DAWSON FOREST WRF
SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
OPERATING FLOOR PLAN

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

NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

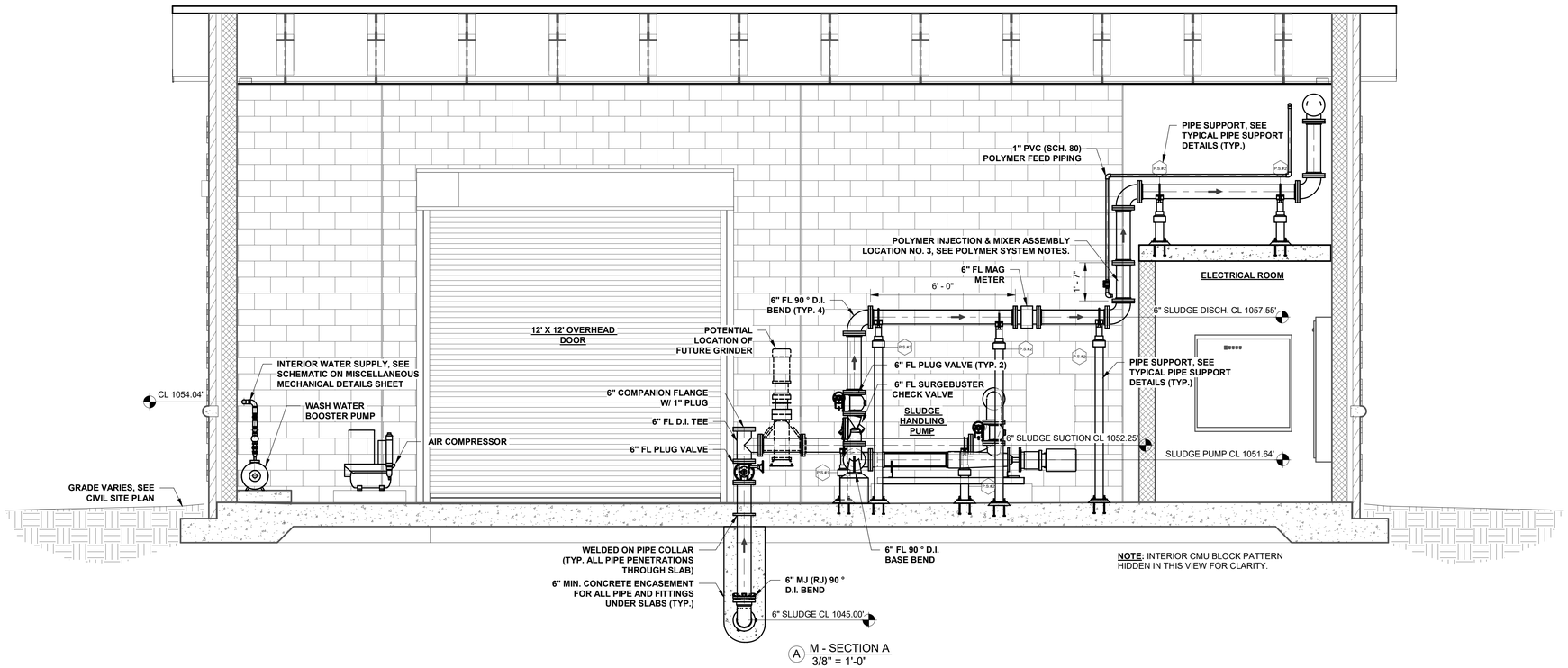
0 1" 2"

DATE: 2/26/2020

DRAWING M.03

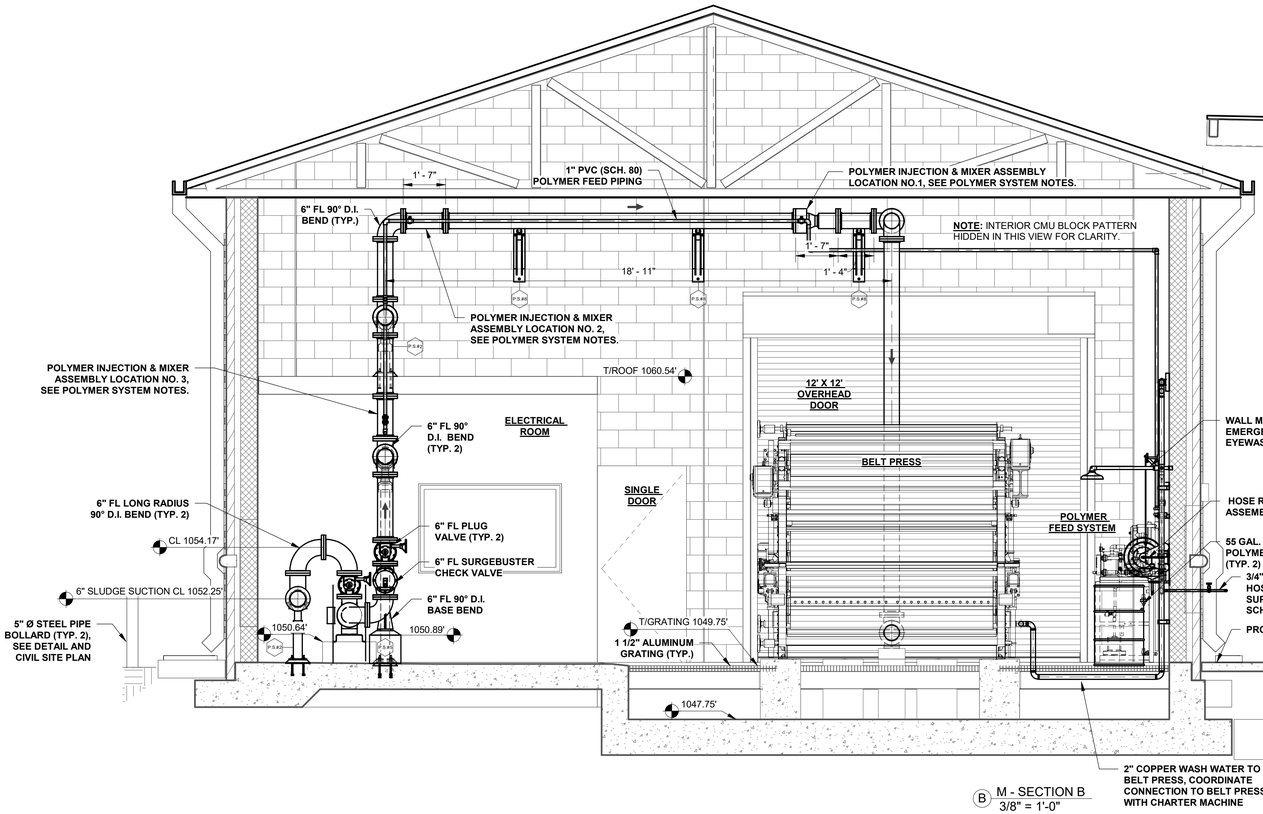
SHEET 15 OF 44

2/26/2020 11:27:46 AM BIM 360://ETOWAH - Dawson Forest/Proposed Dewatering Building.rvt

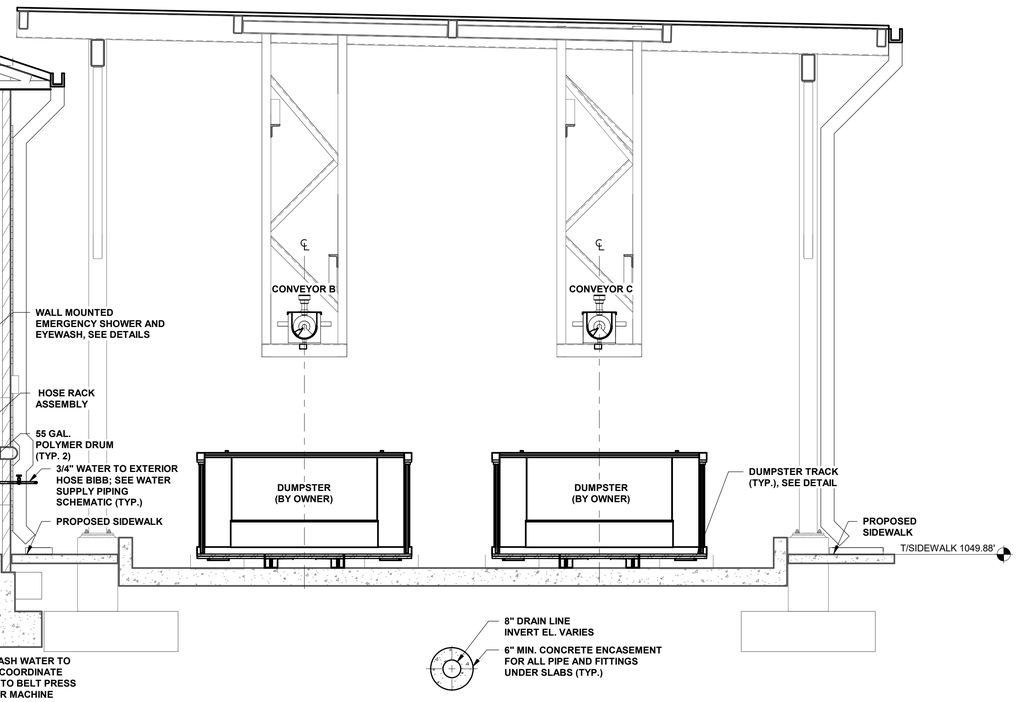


A M - SECTION A
3/8" = 1'-0"

NOTE: INTERIOR CMU BLOCK PATTERN HIDDEN IN THIS VIEW FOR CLARITY.



B M - SECTION B
3/8" = 1'-0"



POLYMER SYSTEM NOTES:

1. THE POLYMER INJECTION POINT AND MIXER ASSEMBLY IS A 6" FLANGED VENTURI MIXER TO BE PROVIDED BY CHARTER MACHINE CO.
2. FINAL LOCATION OF THE POLYMER INJECTION POINT AND MIXER ASSEMBLY WILL BE DETERMINED BASED ON ACTUAL FIELD TESTING OF THE DEWATERING SYSTEM.
3. THE POLYMER INJECTION POINT AND MIXER ASSEMBLY SHALL BE INSTALLED AT LOCATION NO.1, AND 1' - 7" LONG FLANGE X FLANGE PIPE SECTIONS SHALL BE INSTALLED AT LOCATIONS 2 AND 3.
4. THE CONTRACTOR SHALL INCLUDE COST IN THEIR BID TO RELOCATE THE POLYMER INJECTION POINT AND MIXER ASSEMBLY AT LEAST FOUR (4) TIMES BETWEEN SOME OR ALL THREE (3) LOCATIONS.
5. POLYMER FEED PIPE SHALL BE ROUTED TO EACH FEED POINT LOCATION, WITH AN ISOLATION PVC BALL VALVE AT EACH LOCATION.

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% DESIGN SET	PJJ
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3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	

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GEORGIA REGISTERED No. 16758 PROFESSIONAL ENGINEER PETER JOHNS 2/26/20

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Etowah WATER & SEWER AUTHORITY "Excellence in every drop"

CONSULTANT INFORMATION

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PROJECT MANAGER:	PJJ
DESIGNED BY:	PJJ
DRAWN BY:	AAA/SPM
CHECKED BY:	AAA
FILE NAME:	FILE NAME
PROJECT NO.:	169-18-110

PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
SECTIONS AND DETAILS I

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

NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

0 1" 2"

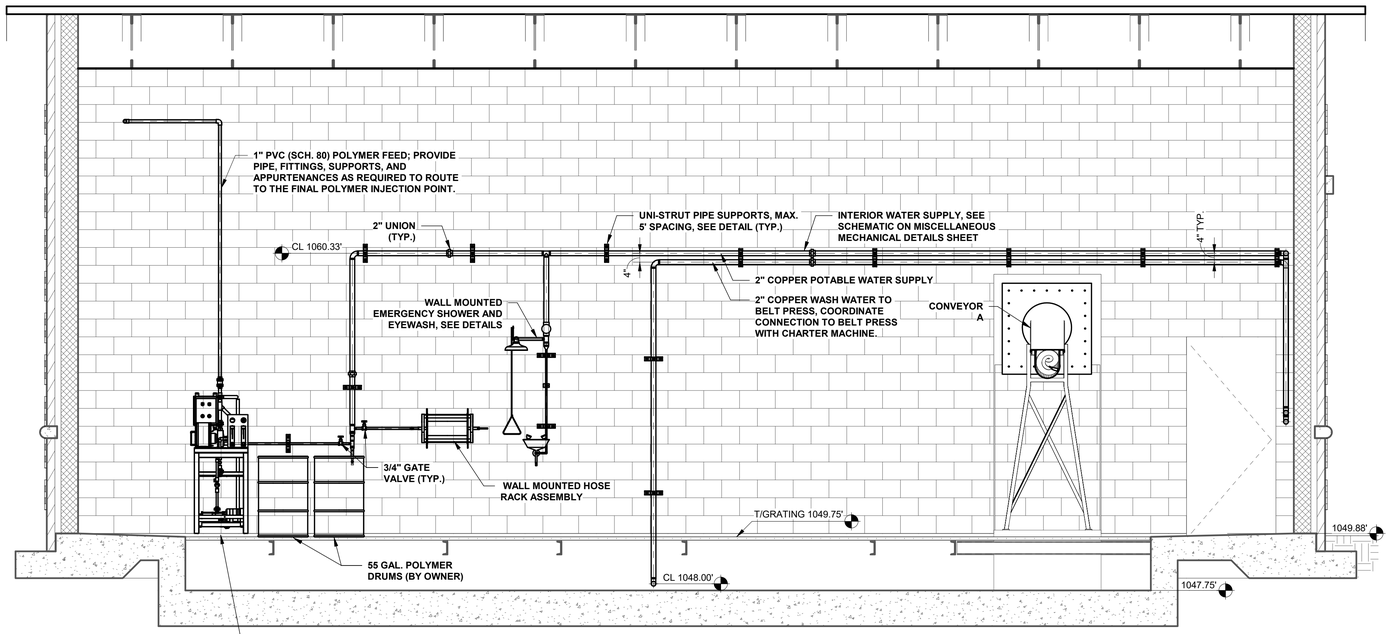
DATE: 2/26/2020

DRAWING M.04

SHEET 16 OF 44

BIM 360://ETOWAH - Dawson Forest/Proposed Dewatering Building.rvt

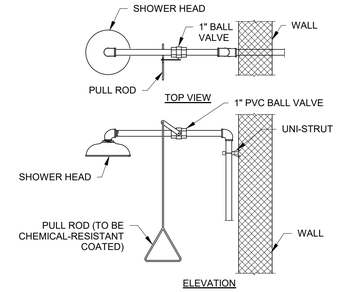
2/27/2020 4:49:11 AM



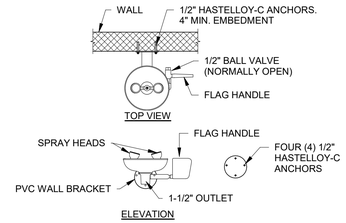
C M - SECTION C
3/8" = 1'-0"

6" MIN. CONCRETE ENCASEMENT FOR ALL PIPE AND FITTINGS UNDER SLABS (TYP.)

6" D.I. DRAIN LINE, SEE M - SECTION D FOR DETAILS

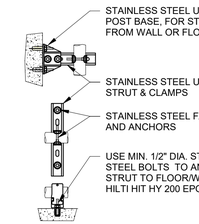


MODEL 1643 EMERGENCY SHOWER, HORIZONTALLY MONTED, PLASTIC SHOWER HEAD BY GUARDIAN EQUIPMENT OR EQUAL..



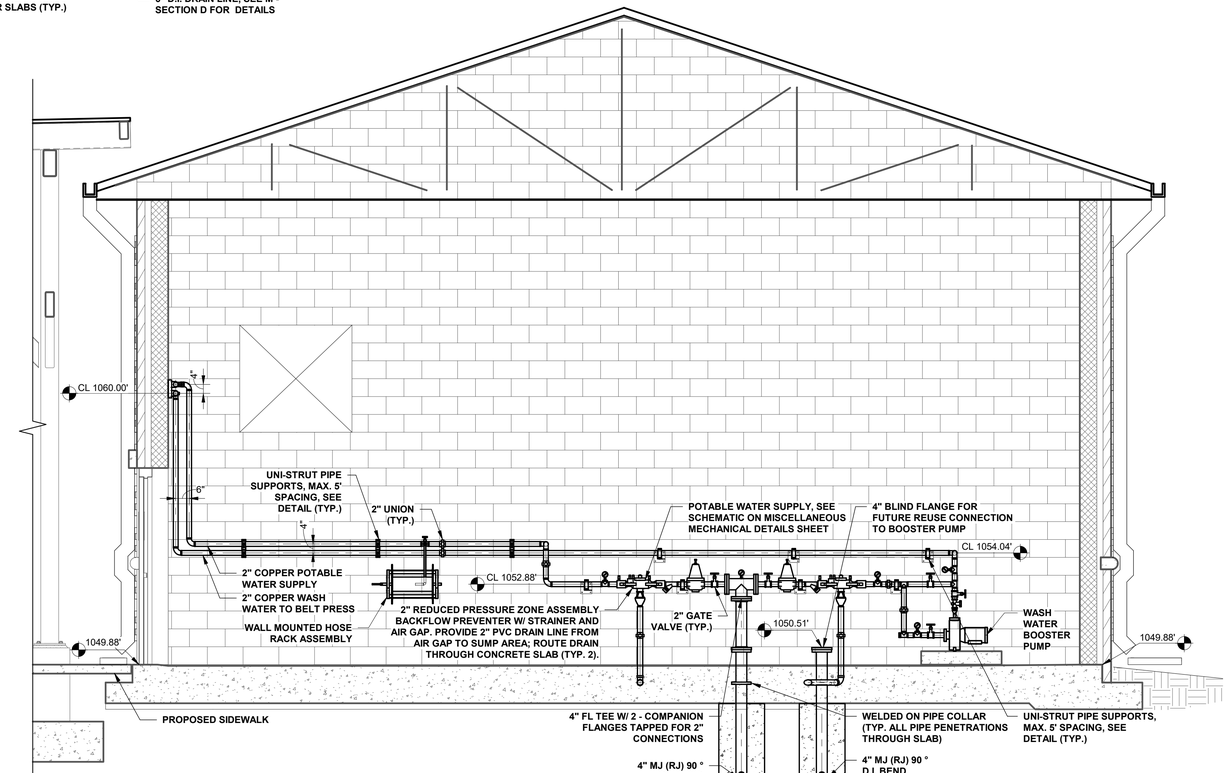
MODEL G1782 EYE/FACE WASH, WALL MOUNTED ALL-PVC CONSTRUCTION BY GUARDIAN EQUPMENT OR EQUAL.

1 WALL MOUNTED EMERGENCY SHOWER AND EYEWASH DETAIL
1/16" = 1'-0"



NOTES:
1. IT IS ACCEPTABLE TO USE CLEVIS HANGERS AND/OR CABLE TRAY SUPPORT RACKS AS ALTERNATE MEANS OF SUPPORTING OVERHEAD PIPING.

UNI-STRUT PIPE SUPPORTS DETAIL
N.T.S.



D M - SECTION D
3/8" = 1'-0"

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% DESIGN SET	PJJ
2	1/6/2020	90% DESIGN SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ

SEAL

GEORGIA REGISTERED No. 16758 PROFESSIONAL ENGINEER PETER JOHNS
2/26/20

OWNER

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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
SECTIONS AND DETAILS II

SCALE: As indicated

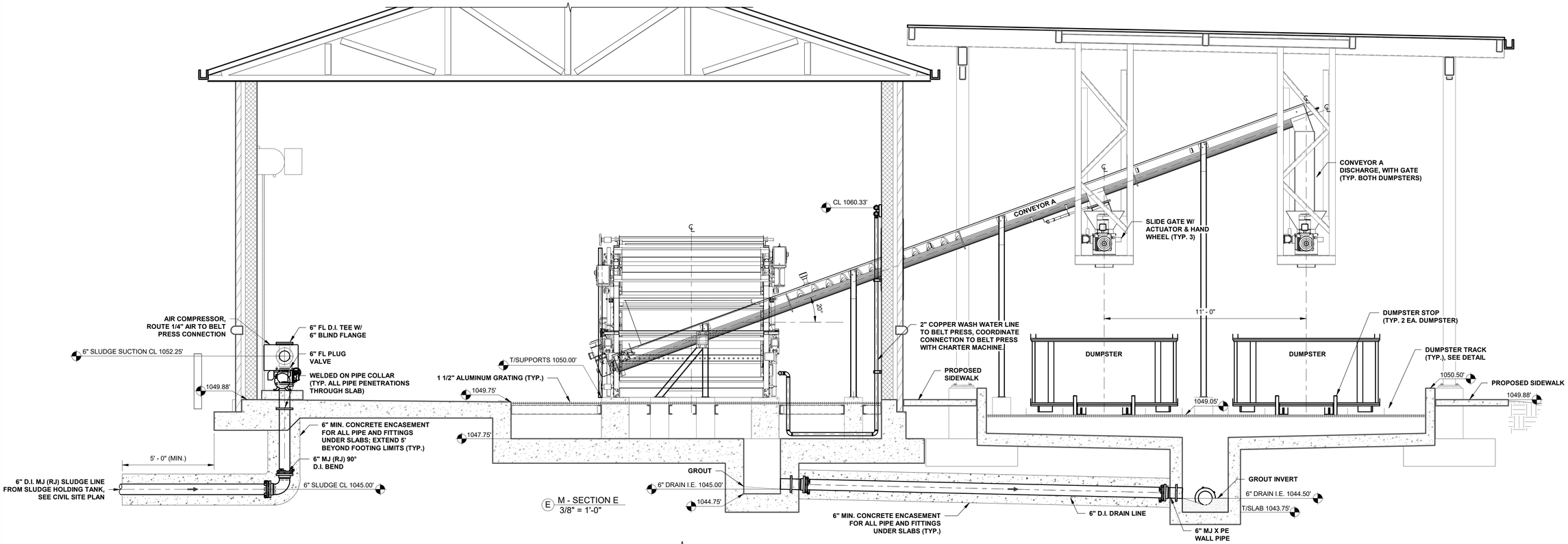
NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

0 1" 2"

DATE: 2/26/2020

DRAWING M.05

SHEET 17 OF 44



REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% DESIGN SET	PJJ
2	1/6/2020	90% DESIGN SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ

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GEORGIA REGISTERED No. 16758 PROFESSIONAL ENGINEER PETER JOHNS 2/26/20

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PROJECT MANAGER:	PJJ
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FILE NAME:FILE NAME	
PROJECT NO.:	169-18-110

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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
SECTIONS AND DETAILS III

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

NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

0 1" 2"

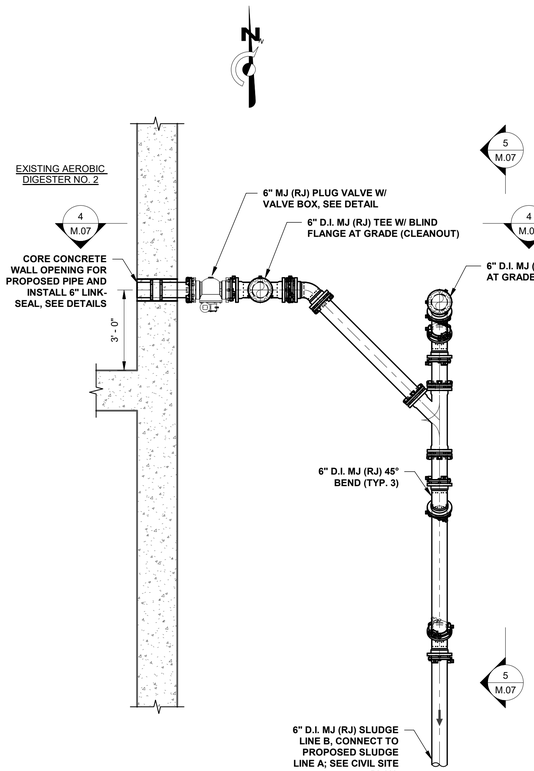
DATE: 2/26/2020

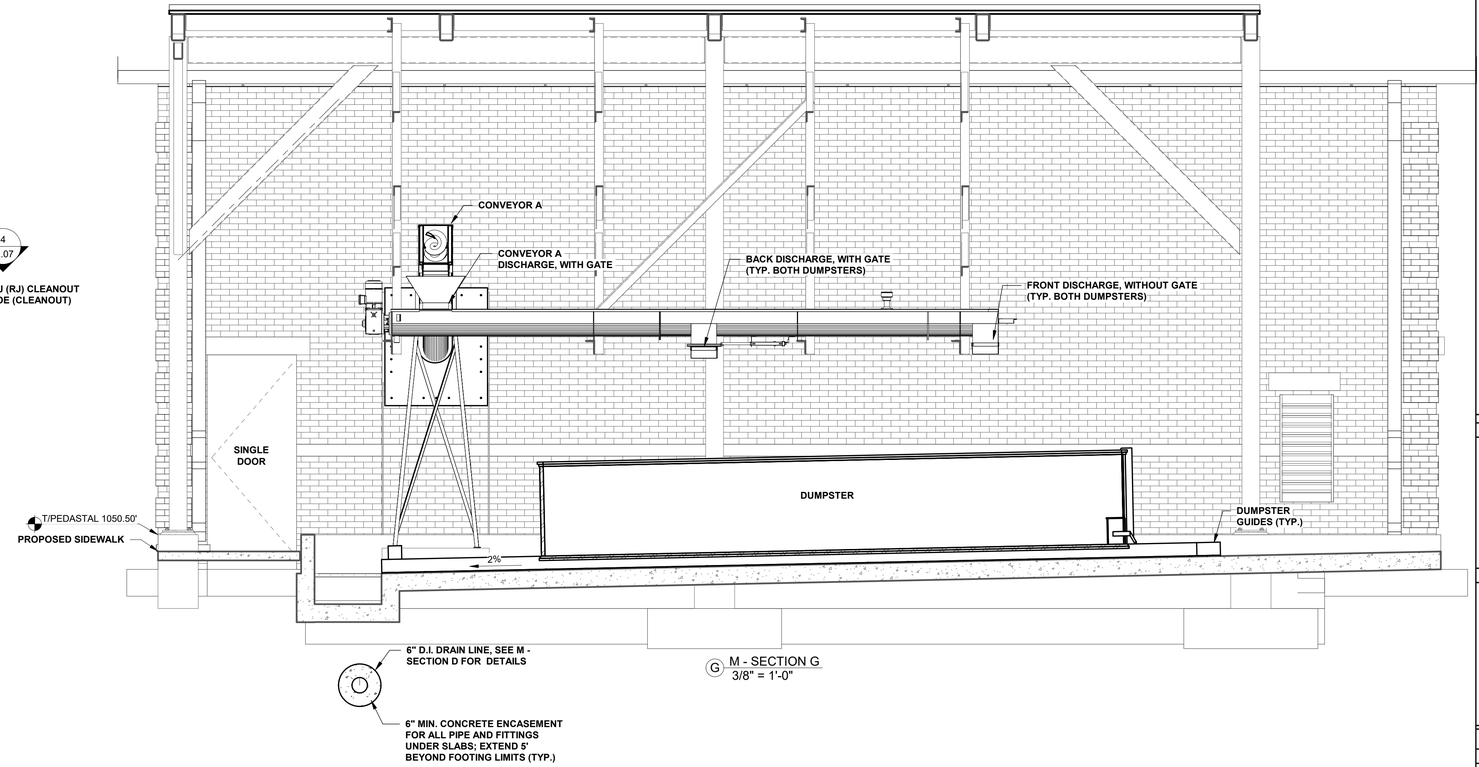
DRAWING M.06

SHEET 18 OF 44

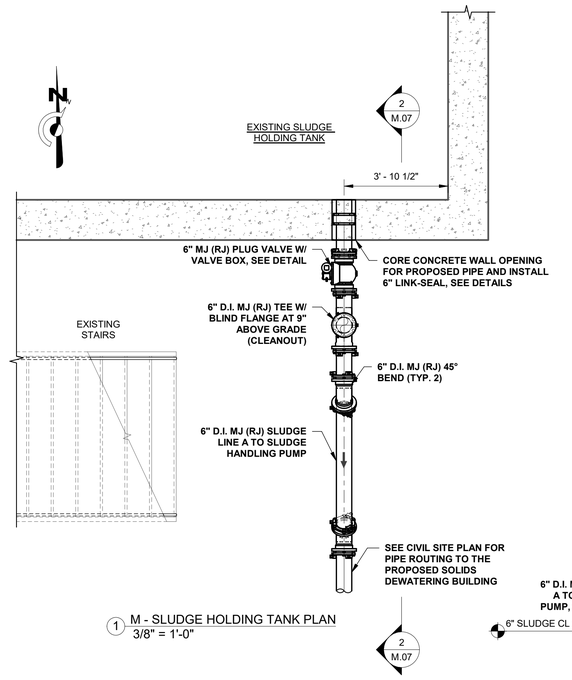
BIM 360://ETOWAH - Dawson Forest/Proposed Dewatering Building.rvt

2/26/2020 2:59:50 PM



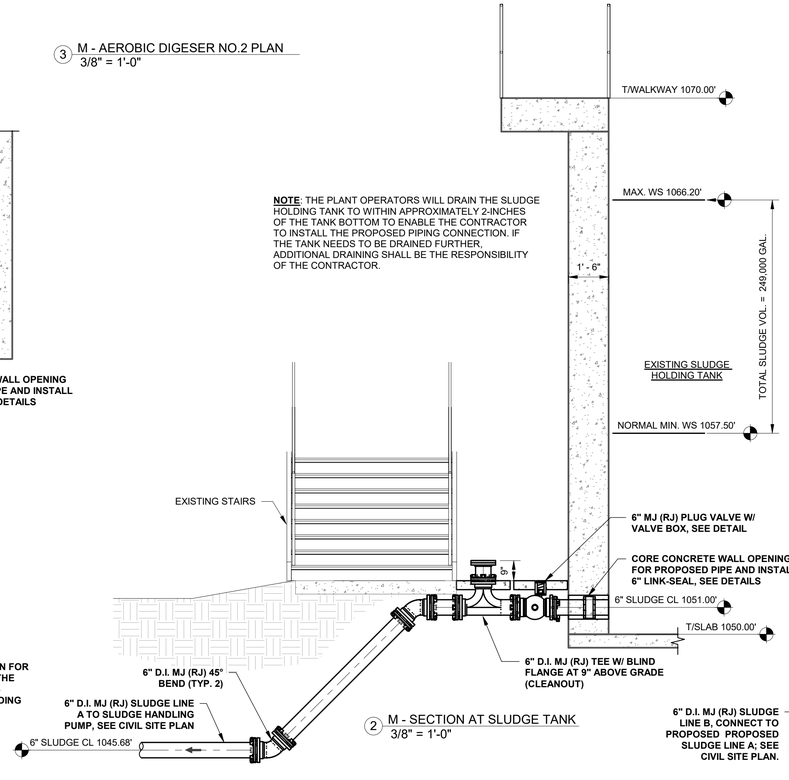


G M - SECTION G
3/8" = 1'-0"



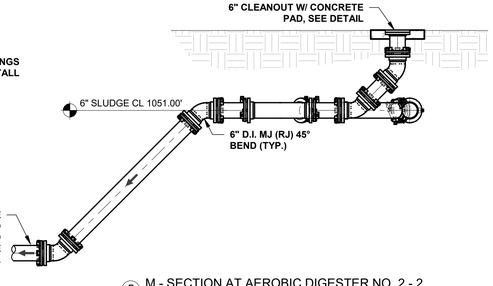
1 M - SLUDGE HOLDING TANK PLAN
3/8" = 1'-0"

3 M - AEROBIC DIGESER NO.2 PLAN
3/8" = 1'-0"

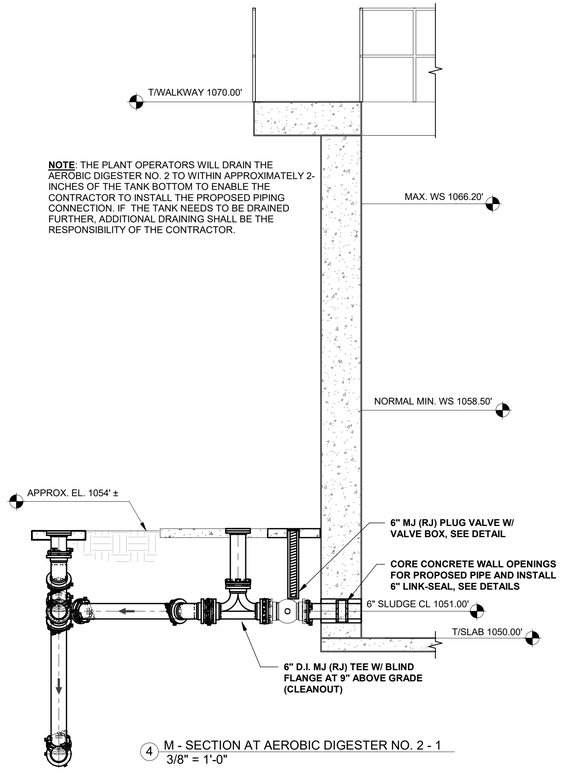


NOTE: THE PLANT OPERATORS WILL DRAIN THE SLUDGE HOLDING TANK TO WITHIN APPROXIMATELY 2-INCHES OF THE TANK BOTTOM TO ENABLE THE CONTRACTOR TO INSTALL THE PROPOSED PIPING CONNECTION. IF THE TANK NEEDS TO BE DRAINED FURTHER, ADDITIONAL DRAINING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

2 M - SECTION AT SLUDGE TANK
3/8" = 1'-0"



5 M - SECTION AT AEROBIC DIGESTER NO. 2 - 2
3/8" = 1'-0"



NOTE: THE PLANT OPERATORS WILL DRAIN THE AEROBIC DIGESTER NO. 2 TO WITHIN APPROXIMATELY 2-INCHES OF THE TANK BOTTOM TO ENABLE THE CONTRACTOR TO INSTALL THE PROPOSED PIPING CONNECTION. IF THE TANK NEEDS TO BE DRAINED FURTHER, ADDITIONAL DRAINING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

4 M - SECTION AT AEROBIC DIGESTER NO. 2 - 1
3/8" = 1'-0"

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% DESIGN SET	PJU
2	1/6/2020	90% DESIGN SET	PJU
3	1/24/2020	REGULATORY REVIEW SET	PJU
4	2/26/2020	BID READY SET	PJU

SEAL

GEORGIA REGISTERED No. 16758 PROFESSIONAL ENGINEER PETER JOHNS 2/26/20

OWNER

Etowah WATER & SEWER AUTHORITY
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CONSULTANT INFORMATION

PROJECT MANAGER:	PJJ
DESIGNED BY:	PJJ
DRAWN BY:	SPM
CHECKED BY:	PJJ/AAA
FILE NAME:	FILE NAME
PROJECT NO.:	169-18-110

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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
SECTIONS AND DETAILS IV

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

NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

0 1" 2"

DATE: 2/26/2020

DRAWING M.07

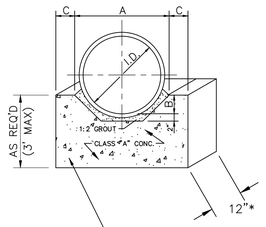
SHEET 19 OF 44

BIM 360://ETOWAH - Dawson Forest/Proposed Dewatering Building.rvt
2/26/2020 2:59:59 PM

GENERAL PIPE SUPPORT NOTES:
INCLUDE VALVES & FITTINGS IN ADDITION TO PIPE WEIGHT WHEN DETERMINING SUPPORT SPACING.

CONTRACTOR CAN USE OTHER TYPES OF PIPE SUPPORTS (SUCH AS GRINNELL FIG. 199 WITH U-BOLT) WHEN APPROVED BY THE ENGINEER.

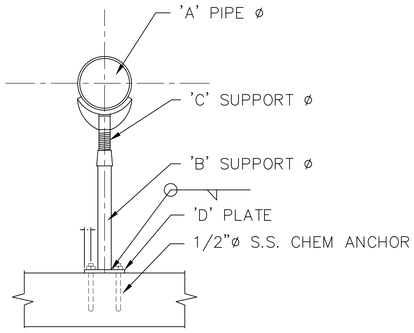
SCHEDULE GOVERNING DIMENSIONS CONCRETE PIERS			
I.D. PIPE	"A"	"B"	"C"
6"	9 1/2"	1 1/2"	6 3/4"
8"	11 1/2"	2"	6 3/4"
10"	13 1/2"	2 1/2"	5 3/4"
12"	15 1/2"	3"	5 3/4"
16"	19"	4"	8"
18"	21"	5"	9"
20"	23"	5"	10"
24"	26"	6"	10"
30"	32"	7 1/2"	10"
36"	38"	9"	10"
42"	46"	11 1/2"	10"
48"	50"	13"	10"
54"	64"	15"	10"



REINF. CONC. W/ #5@12" E.W.E.F. WITH 4 VERT. CORNER BARS DOWELED INTO CONC. SLAB BELOW SUPPORT.

* 12" PIER WIDTH UNLESS SPECIFICALLY DETAILED OTHERWISE ON DRAWINGS.

P.S.#1 TYPICAL CONCRETE PIPE SUPPORT
N.T.S.

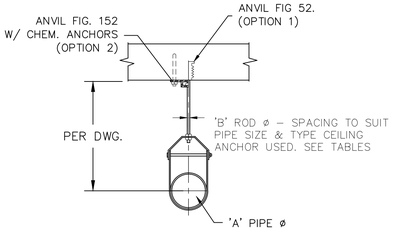


USE ANVIL FIG. 259 IF SUPPORT MUST HANDLE UPWARD FORCES.

'A' PIPE SIZE	'B'	'C'	'D' PLATE SIZE
4" – 12"	3	2.5	1/4" X9" X 9"
14"– 16"	4	3	1/4" X12" X 12"
18"– 36"	6	4	1/4" X 16" X 16"

P.S.#2 TYPICAL ADJUSTABLE PIPE SUPPORT
N.T.S. (ANVIL FIG. 264 OR EQUAL)

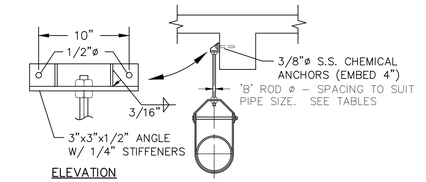
'B' ROD SIZE	FIG. 152 MAX LOAD (LBS)	FIG 52 MAX LOAD (LBS)
3/8"	610	610
1/2"	1130	1130
5/8"	1260	1810
3/4"	2500	2710
7/8"	2550	3770
1"	---	4960



"ALL THREAD ROD" NOT TO BE USED FOR ROD. CONTRACTOR HAS OPTION TO USE EITHER FIG. 52 OR 152 TO SECURE TO CEILING.

'A' PIPE SIZE	'B' ROD SIZE	MAX LOAD (LBS)	CLEVIS MODEL
< 1"	3/8"	250	65
1" – 2"	3/8"	250	65
2" – 3"	1/2"	350	65
4"	1/2"	400	65
6"	3/4"	1940	260
8"	3/4"	2000	260
10"	7/8"	3600	260
12"	7/8"	3800	260

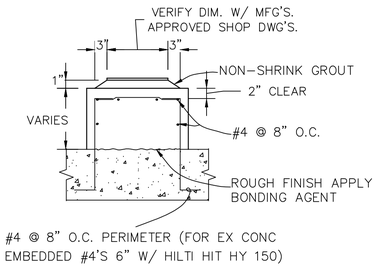
P.S.#3 TYPICAL PIPE HANGER SUPPORT
N.T.S. (ANVIL FIG. 65, 260 OR EQUAL)



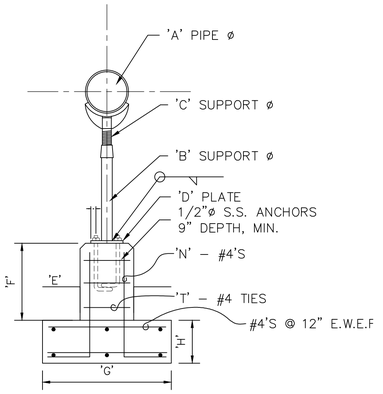
ELEVATION

'B' ROD SIZE	FIG 49 MAX LOAD (LBS)
3/8"	610
1/2"	1130
5/8"	1810
3/4"	2710
7/8"	3770
1"	4960
1 1/4"	8000

P.S.#4 TYPE II PIPE HANGER SUPPORT DETAIL
N.T.S.



TYP. EQUIP. PAD DETAIL
N.T.S.

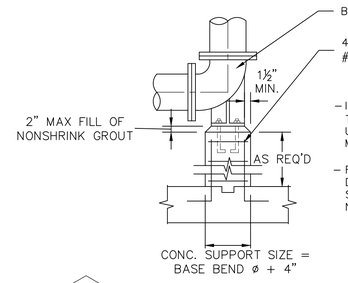


GRINNELL FIG. 264 OR EQUAL
USE ANVIL FIG. 259 ON FORCE MAINS OR IF SUPPORT MUST HANDLE UPWARD FORCES.

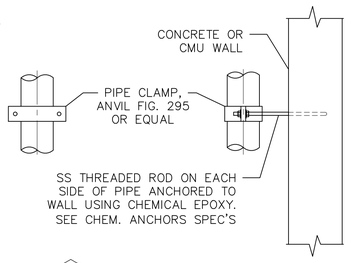
'A' PIPE SIZE	'B'	'C'	'D' PLATE SIZE
4" – 12"	3	2.5	1/4" X9" X 9"
14"– 16"	4	3	1/4" X12" X 12"
18"– 36"	6	4	1/4" X 16" X 16"

'A' PIPE SIZE	'E'	'F'	'G'	'H'	'N'	'T'
4" – 12"	12"	12"	24"	12"	4	2
14"– 16"	14"	24"	36"	12"	8	3
18"– 36"	18"	24"	48"	16"	8	3

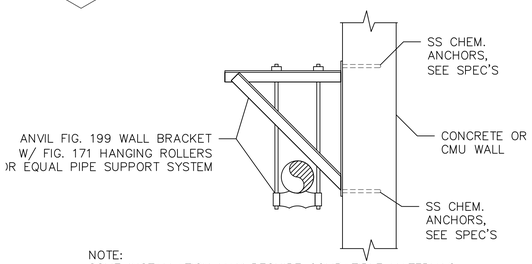
P.S.#8 TYPICAL ADJUSTABLE PIPE SUPPORT
N.T.S.



P.S.#5 TYPICAL BASE BEND SUPPORT
N.T.S.



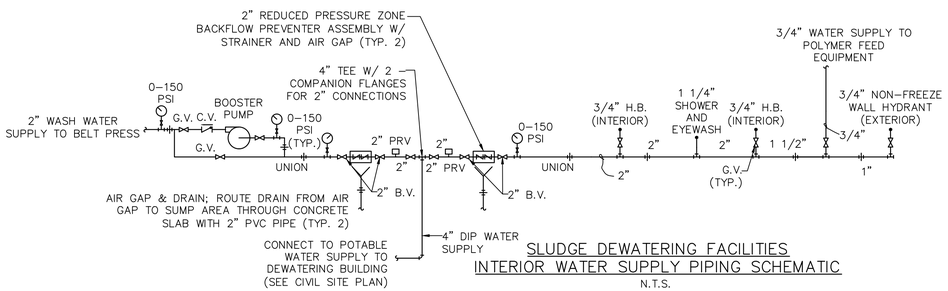
P.S.#7 PIPE CLAMP SUPPORT
N.T.S.



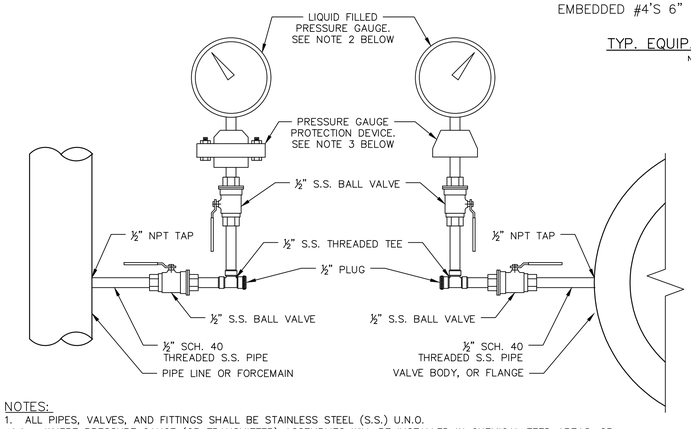
NOTE:
SOME INSTALLATION MAY REQUIRE COMPATIBLE MATERIALS FOR WALL BRACKET AND/OR ROLLER. COMPATIBLE MATERIALS MAY INCLUDE SS, FRP OR ALUMINUM

P.S.#6 WALL BRACKET SUPPORT
N.T.S.

WATER SUPPLY PIPING NOTES:
1. ALL INTERIOR PIPING TO BE COPPER.
2. PROVIDE TRANSITION FITTINGS AS REQ'D.
3. SEE MECHANICAL DRAWINGS FOR LOCATION OF MAJOR FITTINGS AND APPURTENANCES. FIELD LOCATE AND SUPPORT PIPING AND FITTINGS AS REQUIRED.
4. INSTALL UNIONS (NOT SHOWN) IN APPROXIMATELY EVERY 10 FEET OF PIPING RUN.
5. SEE P&ID DRAWINGS FOR WATER SUPPLY SOLENOID VALVE LOCATIONS. SOLENOID VALVE SIZES TO MATCH SIZE OF SUPPLY PIPING SHOWN.
6. CONTRACTOR RESPONSIBLE FOR FIELD ROUTING SMALL PIPING NOT SHOWN AND FURNISHING AND INSTALLING REQUIRED PIPE SUPPORTS; SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

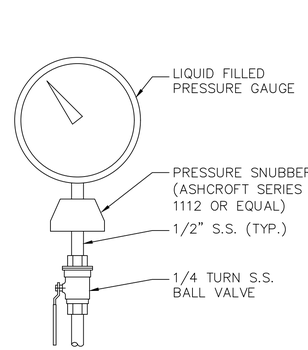


SLUDGE DEWATERING FACILITIES
INTERIOR WATER SUPPLY PIPING SCHEMATIC
N.T.S.

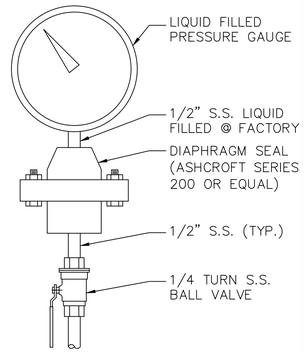


NOTES:
1. ALL PIPES, VALVES, AND FITTINGS SHALL BE STAINLESS STEEL (S.S.) U.N.O.
 1.1. WHERE PRESSURE GAUGE (OR TRANSMITTER) ASSEMBLIES WILL BE INSTALLED IN CHEMICAL FEED AREAS, OR CORROSIVE ENVIRONMENTS, THE MATERIALS OF THE GAUGE (OR TRANSMITTER), PIPES, VALVES, FITTINGS, & ACCESSORIES SHALL BE COMPATIBLE WITH ENVIRONMENTS IN WHICH THEY WILL BE INSTALLED.
2. PRESSURE GAUGE REQUIREMENTS:
 2.1. PRESSURE GAUGE SHALL BE ASHCROFT SERIES 1279 OR EQUAL U.N.O.
  2.1.1. WHERE PRESSURE GAUGE WILL BE INSTALLED OUTDOORS AND EXPOSED TO DIRECT SUNLIGHT, THEN USE ASHCROFT SERIES 1109 OR EQUAL.
 2.2. PRESSURE GAUGE UNITS SHALL BE IN POUNDS PER SQUARE INCH (PSI). UNITS OF VACUUM FOR COMPOUND GAUGES SHALL BE IN INCHES OF MERCURY (in.Hg).
 2.3. PRESSURE GAUGE RANGES SHALL BE AS NOTED ON THE DRAWINGS OR SPEC'S. IF NO RANGE IS DETAILED, THEN THE MINIMUM RANGE SHALL BE PER THE FOLLOWING REQUIREMENTS:
  2.3.1. FOR PUMP DISCHARGE; 0 PSI TO THE PUMPS SHUT-OFF PRESSURE.
  2.3.2. FOR PUMP SUCTION: 30 inHg TO 15 PSI.
  2.3.3. FOR PIPES OR FORCEMAINS: 0 PSI TO TWO (2) TIMES THE NORMAL OPERATING PRESSURE.
 2.4. PRESSURE GAUGES SHALL BE MOUNTED VERTICALLY U.N.O. OR AS REQUIRED FOR ACCESS/VIEWING.
3. PRESSURE GAUGE PROTECTION DEVICE SHALL BE AS REQUIRED FOR GAUGE APPLICATION;
 3.1. FOR POTABLE WATER USE A PRESSURE SNUBBER (ASHCROFT SERIES 1112 OR EQUAL)
 3.2. FOR WASTEWATER OR CHEMICAL FEED USE A DIAPHRAGM SEAL (ASHCROFT SERIES 200 OR EQUAL).
  3.2.1. DIAPHRAGM MATERIAL SHALL BE COMPATIBLE WITH CHEMICAL.
4. NPT TAP (1" MAX.) ON FLANGES OR VALVES SHALL BE INSTALLED AT FACTORY. VERIFY TAP SIZE WITH EQUIPMENT, VALVE, OR FLANGE MANUFACTURER.
 4.1. TAP SHALL BE MADE SUCH THAT THE ½" PIPE WILL BE HORIZONTAL (LEVEL) OR VERTICAL (PLUMB).

1 PRESSURE GAUGE ASSEMBLY: INTERIOR APPLICATION
Scale: N.T.S.



PRESSURE GAUGE ASSEMBLY (WATER)
N.T.S.



PRESSURE GAUGE ASSEMBLY (WASTEWATER)
N.T.S.

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% REVIEW SET	PJJ
2	1/6/2020	90% REVIEW SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ
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SEAL
GEORGIA REGISTERED No. 18769 PROFESSIONAL ENGINEER PETER JOHNS
2/26/20

OWNER
Etowah WATER & SEWER AUTHORITY "Excellence in every drop"

CONSULTANT INFORMATION
PROJECT MANAGER: PJJ
DESIGNED BY: AAA
DRAWN BY: AAA
CHECKED BY: PJJ
FILENAME: M.08 MISCELLANEOUS MECHANICAL DETAILS.dwg
PROJECT NO.: 273-18-210

Wiedeman and Singleton, Inc.
Civil and Environmental Engineers
3091 GOVERNORS LAKE DRIVE SUITE 430
NORCROSS, GA 30071
(404) 876-5862
WWW.WIEDEMAN.COM

PROJECT INFORMATION
PROJECT: ETOWAH WATER & SEWER AUTHORITY DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES DAWSON COUNTY, GEORGIA
SHEET TITLE: MISCELLANEOUS MECHANICAL DETAILS

SCALE: AS SHOWN
NOTE: DRAWING SCALE IS BASED ON 24x36 SHEETS.
0 1" 2"

DRAWING M.08
SHEET 20 OF 44

Drawing File: M.08 MISCELLANEOUS MECHANICAL DETAILS.dwg M.08 MISCELLANEOUS MECHANICAL DETAILS Feb 25, 2020 - 2:18pm

GENERAL:

1. ALL BUILDING DESIGN SHALL CONFORM TO GEORGIA STATE MINIMUM STANDARD CODE CITED IN THE OFFICIAL CODE OF GEORGIA ANNOTATED, CHAPTER 2, TITLE 8, SECTION 8-2-20(9)(B) AND DICTATED AS "THE 2012 STANDARD BUILDING CODE WITH AMENDMENTS" PER THE DEPARTMENT OF COMMUNITY AFFAIRS.

2. DESIGN AND LOADS.
   2.A. ALL LOADS ARE PER ASCE 7-16, IBC 2018, AND VENDOR DOCUMENTS. SEE STRUCTURAL DRAWINGS FOR GEOMETRY OF STRUCTURES. SEE MECHANICAL/ELECTRICAL DRAWINGS FOR EQUIPMENT LOCATIONS.

3. CONTRACTOR SHALL PROVIDE AND BE RESPONSIBLE FOR THE PROTECTION OF ALL STRUCTURES AGAINST HYDRAULIC UPLIFT.

4. REFER TO CIVIL, ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS, OR SPECIFICATIONS FOR LOCATIONS AND DIMENSIONS OF ALL CHASES, CLOTS, INSERTS, CURBS, OPENINGS, SLEEVES, ANCHOR BOLTS, FLOOR PITCHES, ANGLE FRAMES, SLUICE GATE FRAMES, SLIDE GATE FRAMES, ROLLER GATE FRAMES, AND ALL OTHER PROJECT REQUIREMENTS NOT INDICATED ON STRUCTURAL DRAWINGS.

5. CONTRACTOR SHALL PROVIDE ALL OPENINGS REQUIRED FOR THE PURCHASED EQUIPMENT AND PIPING.

6. INSTALL ALL ANCHOR BOLTS, NUTS, AND WASHERS INDICATED OR SPECIFIED, AND NON-SHRINK, NONMETALLIC GROUT, CONCRETE PADS AND REINFORCING STEEL REQUIRED FOR THE INSTALLATION OF ALL EQUIPMENT. REFER TO THE CONCRETE PEDESTAL STANDARD DETAILS.

7. VERIFY AND COORDINATE DIMENSIONS OF STRUCTURAL ELEMENTS WITH THE PURCHASED EQUIPMENT BEFORE SETTING REINFORCEMENT & EMBEDDING ITEMS, AND PLACING CONCRETE. ANCHOR BOLTS SHALL BE SIZED AND FURNISHED BY THE EQUIPMENT SUPPLIER UNLESS OTHERWISE INDICATED OR SPECIFIED.

8. INSTALL WATERSTOPS IN CONSTRUCTION AND EXPANSION JOINTS BETWEEN DRY AREAS AND SOURCES OF LIQUID, INCLUDING THE GROUND. WATERSTOPS SHALL FORM A CONTINUOUS WATERTIGHT DIAPHRAGM TO PREVENT LEAKAGE.

9. TERMINATE VERTICAL WATERSTOPS THREE INCHES BELOW TOP OF CONCRETE WALLS IN OPEN TANKS AT THE UNDERSIDE OF ELEVATED FRAMED SLABS THAT ARE ABOVE MAXIMUM PROCESS LIQUID LEVELS AND ABOVE GRADE IN EXTERIOR FOUNDATION WALLS. WHERE MULTIPLE CONDITIONS EXIST SIMULTANEOUSLY, TERMINATE THE WATERSTOP AT THE CONDITION WITH MAXIMUM LENGTH.

10. DIMENSIONS AND ELEVATIONS INDICATED ON EXISTING STRUCTURES HAVE BEEN OBTAINED FROM DRAWINGS OR FIELD SURVEYS. VERIFY ALL DIMENSIONS AND ELEVATIONS WHICH ARE REQUIRED FOR FABRICATION AND INSTALLATION OF ADDITIONS TO EXISTING STRUCTURES WITH FIELD MEASUREMENTS.

11. WHERE A SECTION NOTE OR DETAIL IS SHOWN FOR ONE CONDITION IT SHALL APPLY AT ALL LIKE OR SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.

12. A MINIMUM OF EXCAVATION SHALL BE DONE TO INSTALL THE WORK SHOWN BY THE DRAWINGS. AT NO TIME SHALL THE UNBRACED SIDES OF AN EXCAVATION BE STEEP ENOUGH TO ENDANGER THE WORKMEN. NO EXCAVATION EMBANKMENT SHALL BE SLOPED AT AN ANGLE NO GREATER THAN 30° TO THE PLANE PERPENDICULAR TO PLUMB. THE CONTRACTOR SHALL PLAN HIS WORK TO AVOID ANY STANDING WATER IN EXCAVATIONS OR AGAINST WALLS.

13. THE STRUCTURAL SYSTEMS DEPICTED BY THESE DRAWINGS ARE STRUCTURALLY STABLE ONLY IN THEIR COMPLETED FORM. THEREFORE, THE CONTRACTOR MUST BRACE ALL WORK TO RESIST GRAVITY, EARTH, WIND, AND CONSTRUCTION LOADS DURING THE CONSTRUCTION PERIOD.

14. ALL TOPSOIL AND VEGETATION SHALL BE REMOVED FROM FILL AREA PRIOR TO INITIATION OF GRADING. AREAS TO RECEIVE FILL SHALL BE PROOF-ROLLED WITH A MINIMUM 10 TON LOADED TRUCK AND SOFT SPOTS SHALL BE UNDERCUT.

15. PROVIDE A MINIMUM OF 6" COMPACTED NO.57 CRUSHED STONE UNDER ALL STRUCTURAL SURFACES UNLESS NOTED OTHERWISE.

16. THE CONTRACTOR SHALL REVIEW AND STAMP ALL SHOP DRAWINGS BEFORE SUBMITTAL FOR APPROVAL.

FOUNDATION:

1. FOUNDATION DESIGNS ARE BASED UPON THE GROSS ALLOWABLE SOIL-BEARING CAPACITY AS INDICATED IN THE GEOTECHNICAL REPORT PROVIDED IN THE SPECIFICATIONS.

2. PERCENT COMPACTION IS DEFINED AS THE RATIO OF THE FIELD DRY DENSITY, AS DETERMINED BY ASTM D-1556, TO THE MAXIMUM DRY DENSITY, AS DETERMINED BY ASTM-01557, METHOD C, MULTIPLIED BY 100.

3. PERFORM ALL EARTH WORK, EXCAVATIONS, AND COMPACTION AS SPECIFIED UNDER SECTION 31 00 00

4. COMPACT ALL BACKFILL UNDER FOUNDATION MATS, BASE SLABS, FOOTINGS, AND SLABS ON GRADE TO 95 PERCENT OF MAXIMUM DRY DENSITY MINIMUM. THE MOISTURE CONTENT OF THE FILL SOIL SHALL BE BETWEEN 0 AND 3 PERCENT OF OPTIMUM AS IT IS COMPACTED, UNLESS OTHERWISE INDICATED OR SPECIFIED.
   4.A. THE TOP 12-INCHES OF MATERIAL SUPPORTING PAVEMENT SHALL BE COMPACTED TO 100 PERCENT OF THE MAXIMUM DRY DENSITY.
   4.B. FILL PLACED FOR GENERAL SIDE GRADING SHALL BE COMPACTED TO 95 PERCENT OF THE MAXIMUM DRY DENSITY.

5. COMPACT ALL EMBANKMENTS TO 90 AT LEAST PERCENT OF THEIR MAXIMUM DRY DENSITY, UNLESS OTHERWISE INDICATED OR SPECIFIED.

6. DO NOT BACKFILL AGAINST CONCRETE WALLS UNTIL LATERAL SUPPORT IS PROVIDED BY FLOOR OR ROOF SLABS THAT HAVE REACHED THEIR 28-DAY DESIGN STRENGTH. DO NOT BACKFILL AGAINST CANTILEVER WALLS UNTIL THE CONCRETE HAS REACHED ITS 28-DAY DESIGN STRENGTH.

7. PROVIDE FOUNDATION PREPARATION AS INDICATED OR SPECIFIED. REFER TO THE FOUNDATION PREPARATION STANDARD DETAILS.

8. THE OWNER AND ENGINEER ASSUME NO RESPONSIBILITY FOR THE VALIDITY OF THE SUBSURFACE CONDITIONS DESCRIBED. THE DATA IS INCLUDED ONLY TO ASSIST THE CONTRACTOR DURING BIDDING AND SUBSEQUENT CONSTRUCTION AND REPRESENT CONDITIONS ONLY OF THE SPECIFIC LOCATION AT THE PARTICULAR TIME THEY WERE MADE.

9. DO NOT PLACE FOUNDATION CONCRETE IN WATER OR ON FROZEN OR DISTURBED GROUND.

10. COMPACT THE BOTTOM SURFACE OF THE EXPOSED EXCAVATION WITH A VIBRATORY STEEL DRUM ROLLER TO ACHIEVE A NEAR SURFACE DENSITY OF AT LEAST 95 PERCENT.

11. CONFORM TO SPECIFIED REQUIREMENTS AND LIMITATIONS FOR ALL ROCK BLASTING.

12. THE CONTRACTOR SHALL PROPERLY REMOVE AND DISPOSE OF UNSUITABLE MATERIALS OFF-SITE.

DEWATERING:

1. A TEMPORARY DEWATERING SYSTEM SHALL BE INSTALLED AND UTILIZED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND SPECIFICATIONS SECTION 31 23 19.

2. DEWATER EXACAVATION(S) CONTINUOUSLY TO MAINTAIN GROUND WATER LEVEL AT LEAST TWO (2) FEET BELOW BOTTOM OF EXCAVATION OR TRENCH.

3. CONTROL DRAINAGE IN THE VICINITY OF EXCAVATION(S) SO THE GROUND SURFACE IS PROPERLY PITCHED TO PREVENT WATER FROM RUNNING INTO THE EXCAVATION(S).

STRUCTURAL FILL:

1. STRUCTURAL FILL IS DEFINED AS INORGANIC NATURAL SOILS WITH MAXIMUM PARTICLE SIZE OF 3-INCHES, AND PLASTICITY INDEX OF 30 OR LESS.

2. STRUCTURAL SHALL BE PLACED IN THIN LAYERS (8 TO 12 INCHES) AND COMPACTED TO AT LEAST 95% OF THE SOIL'S MAXIMUM DRY DENSITY AS DETERMINED BY STANDARD PROCTOR (ASTM D698) COMPACTION TEST.

3. THE UPPER 12-INCHES OF PAVEMENT SUB-GRADE SHALL BE COMPACTED TO 98% OF THE SOIL'S MAXIMUM DRY DENSITY AS DETERMINED BY STANDARD PROCTOR (ASTM D698) COMPACTION TEST.

4. SEE SPECIFICATIONS AND GEOTECHINCAL REPORT FOR ADDITIONAL REQUIREMENTS.

5. THE CONTRACTOR SHALL MAKE ARRANGEMENTS TO IMPORT SUITABLE STRUCTURAL FILL MATERIAL FROM OFF-SITE IF THE EXCAVATED SOILS AT THE SITE ARE DEEMED UNSUITABLE. INCLUDE ALL COSTS FOR ADDITIONAL IMPORT AND PLACEMENT OF FILL IN LUMP SUM BID.

CONCRETE:

1. CONFORM TO THE BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY, LATEST EDITION AND TO THE ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES REPORT BY ACI COMMITTEE LATEST EDITION FOR CONCRETE WORK.

2. SEE SPEC SECTION 03 30 00 FOR CAST-IN-PLACE CONCRETE STRENGTH AND LOCATION. CONCRETE SHALL BE CLASS A WITH A MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI. SEE SPEC FOR ADDITIONAL REQUIREMENTS.

3. SEE THE "STANDARD CONCRETE DETAILS" SHEET (SCD) FOR ALL STANDARD DETAILS FOR REINFORCED CONCRETE.

4. AIR-ENTRAIN ALL CONCRETE.

5. USE WELDED WIRE FABRIC CONFORMING TO ASTM A1064 OR A1064M. LAP SPLICE AT LEAST TWO FULL MESHES, AND STAGGER SPLICES IN EITHER DIRECTION.

6. REINFORCE CONCRETE FILL AND TOPPING SLABS THAT ARE TWO INCHES OR MORE THICK WITH WELDED WIRE FABRIC SIZED IN CONFORMANCE WITH STANDARD DETAIL. TYPICAL W.W.F. FOR CONCRETE FILL AND TOPPING SLABS UNLESS OTHERWISE INDICATED OR SPECIFIED.

7. PROVIDE TYPE I (NON-CONTACT) SPLICE FOR ALL CONTINUOUS REINFORCEMENT UNLESS OTHERWISE INDICATED OR SPECIFIED.

8. IN ELEVATED SLABS AND BEAMS, LAP CONTINUOUS BOTTOM REINFORCEMENT AT SUPPORTS AND CONTINUOUS TOP REINFORCEMENT AT THE CENTER OF A SPAN UNLESS OTHERWISE INDICATED OR SPECIFIED.

9. IN FOUNDATION MATS AND BASE SLABS, LAP CONTINUOUS BOTTOM REINFORCEMENT AT THE CENTER OF A SPAN AND CONTINUOUS TOP REINFORCEMENT AT SUPPORTS, UNLESS OTHERWISE INDICATED OR SPECIFIED.

10. PROVIDE REINFORCEMENT BAR SUPPORTS, SPACERS, AND ACCESSORIES RECOMMENDED IN ACI SP-66, ACI DETAILING MANUAL. PROVIDE ALL PLASTIC OR STAINLESS STEEL ACCESSORIES, SUCH AS SLAB BOLSTERS, AND BEAM AND SLAB SHARES IN CONTACT WITH EXPOSED SURFACE.

11. PROVIDE #5 HORIZONTAL BARS AT NO MORE THAN 12-INCH CENTERS ON EACH SIDE FOR CONCRETE BEAMS AND GIRDERS 30 INCHES AND DEEPER, UNLESS OTHERWISE NOTED.

12. THE MINIMUM CONCRETE COVER TO BE PROVIDED FOR CONCRETE REINFORCING SHALL BE IN ACCORDANCE WITH SECTION 7.7 "CONCRETE PROTECTION FOR REINFORCEMENT' IN THE ACI 318 LATEST EDITION CODE. SET AND MAINTAIN REINFORCEMENT CLEAR COVER FOR CAST-IN-PLACE CONCRETE, AS INDICATED IN THE SCD.

13. PROVIDE ADDITIONAL REINFORCEMENT ALONG EACH SIDE OF OPENINGS AS INDICATED IN THE SCD, UNLESS OTHERWISE INDICATED OR SPECIFIED.

14. SET AND TIE ALL REINFORCEMENT BEFORE POURING CONCRETE. SETTING DOWELS OR PLACING REINFORCEMENT INTO WET CONCRETE IS PROHIBITED.

15. SUBMIT ALL PROPOSED ADDITIONAL CONSTRUCTION AND EXPANSION JOINTS TO THE ENGINEER FOR THEIR WRITTEN APPROVAL. DO NOT OMIT ANY CONSTRUCTION OR EXPANSION JOINTS UNLESS APPROVED IN WRITING BY THE ENGINEER.

16. CONTINUE ALL REINFORCING THROUGH CONSTRUCTION JOINTS AND PROVIDE DOWELS AS INDICATED IN THE SCD.

17. LOCATE CONSTRUCTION JOINTS IN ELEVATED SLABS NEAR THE MIDDLE OF THE SPANS OF SLABS AND BEAMS UNLESS OTHERWISE INDICATED OR SPECIFIED. IF A BEAM INTERSECTS A GIRDER AT THIS LOCATION, OFFSET THE CONSTRUCTION JOINT A DISTANCE EQUAL TO TWICE THE WIDTH OF THE BEAM AND PROVIDE INCLINED REINFORCEMENT IN CONFORMANCE WITH THE SCD.

18. PROVIDE CONSTRUCTION AND EXPANSION JOINTS IN CONCRETE FILL AND TOPPING SLABS AT THE SAME LOCATION AS THE CONSTRUCTION AND EXPANSION JOINTS IN THE SUPPORTING CONCRETE.

19. HORIZONTALLY ADJACENT FOUNDATION MATS, BASE SLABS, SLABS ON GRADE, WALLS, AND ELEVATED SLABS MAY BE CAST 24 HOURS MINIMUM AFTER THE ABUTTED SECTION HAS BEEN POURED.
   19.A. DO NOT POUR CONCRETE BEAMS, GIRDERS, OR ELEVATED SLABS UNTIL THE CONCRETE IN THE SUPPORTING COLUMNS OR WALLS HAS OBTAINED IT'S 28 DAY COMPRESSIVE STRENGTH.
   19.B. POUR ELEVATED SLABS AND BEAMS MONOLITHICALLY UNLESS OTHERWISE INDICATED OR SPECIFIED.

20. PROVIDE 3/4-INCH CHAMFER ON ALL EXPOSED EDGES OF CONCRETE ELEMENTS, SUCH AS COLUMNS, PILASTERS, BEAMS, CURBS, AND EQUIPMENT PEDESTALS.

21. FINISH CONCRETE AS SPECIFIED IN SECTION 03 35 00. THE TOP OF ALL TANK WELLS, FLOORS, ROOFS, CONCRETE FILL, AND TOPPING SLABS MUST BE STEEL-TROWELED UNLESS OTHERWISE INDICATED OR SPECIFIED. EXTERIOR CONCRETE PLATFORMS, STAIRS, AND LOADING DOCKS MUST BE BROOM FINISHED.

22. FILL FLOOR POCKETS FOR GATE FRAMES WITH CONCRETE AFTER GATE INSTALLATION.

23. USE NON-SHRINK, NONMETALLIC GROUT, AS SPECIFIED IN SECTION 03 60 00 TO THICKNESS INDICATED OR SPECIFIED UNDER BASE PLATES AND BEARING PLATES.

24. FLOOR AND ROOF SLOPES ARE AN INTEGRAL PART OF STRUCTURAL SLABS. SEPARATE CONCRETE FILL OR TOPPING SLABS ARE NOT PERMITTED UNLESS OTHERWISE INDICATED OR SPECIFIED.

25. FURNISH ALL CONCRETE MASONRY UNIT (CMU) WALL REINFORCEMENT TO THE MASONRY SUBCONTRACTOR FOR HIS INSTALLATION. REINFORCEMENT SIZE, SPACING, LENGTH, AND LOCATION ARE INDICATED ON ARCHITECTURAL OR STRUCTURAL DRAWINGS. SET ALL REINFORCEMENT BAR DOWELS TO BE EMBEDDED INTO CONCRETE ELEMENTS AT TOP AND BOTTOM OF CMU WALLS AS INDICATED.

26. MAINTAIN BEAM SOFFITS AT CONSTANT ELEVATION BELOW THE SLAB LOW POINT INDICATED. THE SCHEDULED BEAM DEPTH IS MEASURED FROM THE SLAB LOW-POINT. THE ACTUAL DEPTH VARIES WITH THE SLAB SURFACE SLOPES. BEAM TOP REINFORCEMENT SHALL BE LEVEL BENEATH THE SLAB LOW POINT.

27. ALL CONCRETE STAIRS SPANNING 10'-0" OR MORE SHALL BE 9" THICK WITH #7 @ 6" E.W. BOTTOM WITH #4 NOSING BAR AND ALUMINUM STAIR NOSING. ALL CONCRETE STAIRS SPANNING LESS THAN 10'-0" SHALL BE 6" THICK WITH #5'S @ 6" E.W. BOTTOM WITH #4 NOSING BAR AND ALUMINUM STAIR NOSING.

28. STEEL REINFORCEMENT SHALL CONFORM TO ASTM A615 SPECIFICATION FOR DEFORMED AND PLAIN BILLETT-STEEL BARS FOR CONCRETE REINFORCEMENT, GRADE 60.

29. ALL REINFORCING BAR SPLICES AND LAPS SHALL CONFORM TO ACI 318 LATEST EDITION BUILDING CODE REQUIREMENTS FOR REINFORCING CONCRETE, CLASS B, UNLESS NOTED OTHERWISE, REFER TO THE CORRESPONDING TABLE IN THE SCD. ALL REQUIREMENTS FOR REINFORCING BARS SHALL BE IN ACCORDANCE WITH "THE CRSI MANUAL OF STANDARD PRACTICE", LATEST EDITION.

REINFORCING DETAILS:

1. THE MINIMUM REINFORCING FOR ALL CONCRETE WALLS AND SLABS SHALL BE AS SPECIFIED IN THE SCD. PROVIDE LARGER SIZES AND MORE REINFORCING IN ALL SECTIONS OF CONCRETE WHERE REQUIRED BY THE DETAILS ON THE DRAWINGS OR BY THE SPECIFICATIONS.

2. IN GENERAL, THE WALL CORNER REINFORCING SIZES AND SPACING SHALL BE CALLED OUT ON THE PLANS AND SHALL REFERENCE THE CORRESPONDING SCD DETAILS. THE TYPICAL HORIZONTAL WALL REINFORCING SHALL LAP WITH THE CORNER OR INTERSECTION HORIZONTAL REINFORCING.

3. ALL BENDS, UNLESS OTHERWISE SHOWN, SHALL BE 90° STANDARD HOOKS AS DEFINED IN THE LATEST EDITION OF ACI 318.

4. ALL WALL CORNER AND WALL INTERSECTION REINFORCEMENT BARS SHALL BE CONTINUOUS AROUND CORNERS AND THROUGH COLUMNS OR PILASTERS. REINFORCEMENT SHALL BE EXTENDED INTO CONNECTING WALLS AND LAPPED ON THE OPPOSITE FACE OF THE CONNECTING WALLS, AS INDICATED ON THE SCD.

5. VERTICAL WALL BARS SHALL BE LAPPED WITH DOWELS FROM BASE SLABS. FURTHERMORE, VERTICAL WALL BARS SHALL EXTEND INTO THE TOP FACE OF FLOOR OR ROOF SLABS AND SHALL BE LAPPED WITH TOP SLAB REINFORCEMENT. PROVIDE A MINIMUM OF TWO FULL HEIGHT VERTICAL BARS WITH MATCHING DOWELS AT WALL ENDS, CORNERS, AND INTERSECTIONS WITH SIZE TO MATCH TYPICAL VERTICAL REINFORCING STEEL SHOWN OR AS REQUIRED BY THE SCD.

6. UNLESS INDICATED OTHERWISE, CONTRACTOR MAY SPLICE CONTINUOUS SLAB OR LONGITUDINAL BEAM AT LOCATIONS OF HIS CHOOSING, EXCEPT THAT TOP BAR SPLICES SHALL BE LOCATED AT MIDSPAN AND BOTTOM BAR SPLICES SHALL BE LOCATED AT SUPPORTS.

7. ALL REINFORCEMENT BENDS AND LAPS SHALL SATISFY THE FOLLOWING MINIMUM REQUIREMENTS, UNLESS OTHERWISE NOTED:
   7.A. TOP BARS SHALL BE DEFINED AS ANY HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE BAR IN ANY SINGLE POUR, OR IN SLABS LESS THAN 12" THICK WITH LESS THAN 1 MAT OF STEEL. HORIZONTAL WALL BARS ARE CONSIDERED TOP BARS.
   7.B. CONTINUOUS WATERSTOPS, AS SPECIFIED, SHALL BE INSTALLED IN ALL CONSTRUCTION JOINTS IN WALLS AND SLABS OF WATER HOLDING BASINS AND CHANNELS.
   7.C. FOR EPOXY COATED BARS, INCREASE LAP LENGTHS SHOWN ON SCD FOR TOP BARS BY 30% AND LAP LENGTHS FOR BOTTOM BARS BY 50%.
   7.D. PLACE HORIZONTAL WALL REINFORCING WITHIN 3" OF ALL CONSTRUCTION JOINTS AND WITHIN 3" OF TOP OF ALL WALLS.
   7.E. PLACE REINFORCING WITHIN 3" OF ALL EXPANSION JOINTS, ENDS OF WALLS, SLABS, AND EDGES OF OPENINGS.

CONCRETE ANCHORS:

1. CONCRETE ANCHORS SHALL CONFORM TO THE REQUIREMENTS OF ASTM E488 "STANDARD TEST METHODS FOR STRENGTH OF ANCHORS IN CONCRETE AND MASONRY ELEMENTS FOR CAST-IN-PLACE OR POST-INSTALLED ANCHORS".

2. ANCHORS SHALL BE INSTALLED TO DEVELOP THE MAXIMUM CAPACITY FOR THE EMBEDMENT, TYPE, AND ANCHOR SIZE WITH A MINIMUM SAFETY FACTOR OF THREE AND A HALF (3½).

3. ANCHOR BOLTS OR ANCHOR RODS SHALL BE PLACED IN FORMS PRIOR TO POURING CONCRETE UNLESS OTHERWISE SHOWN OR DETAILED ON THE CONTRACT DRAWINGS.

4. INSTALLATION OF POST-INSTALLED ANCHORS TO CONFORM TO MANUFACTURER'S CURRENT PRINTED INSTRUCTIONS.

6. WEDGE TYPE ANCHORS ARE NOT PERMITTED FOR STRUCTURAL USE.

7. ALL ANCHORS SHALL HAVE STANDARD UNC THREADS.

8. ALL POST-INSTALLED ANCHORS SHALL CONFORM TO THE REQUIREMENTS OF SPECIFICATIONS SECTION 05 05 19.

9. ALL ANCHOR BOLTS FOR NON-STRUCTURAL STEEL (E.G. ALUMINUM, FIBERGLASS, PLASTIC, ETC) SHALL BE TYPE F593 STAINLESS STEEL UNLESS OTHERWISE INDICATED OR SPECIFIED. PROVIDE EACH ANCHOR WITH TYPE F594 STAINLESS STEEL NUT AND WASHER, UNLESS NOTED OTHERWISE.

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% REVIEW SET	PJJ
2	1/6/2020	90% REVIEW SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ
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SEAL

GEORGIA REGISTERED No. PE035562 PROFESSIONAL ENGINEER MAHMED A. AN-NAIM

02/26/2020

OWNER

Etowah Water & Sewer Authority
"Excellence in every drop"

CONSULTANT INFORMATION

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PROJECT MANAGER: PJJ
DESIGNED BY: PJJ
DRAWN BY: SKR/SPM
CHECKED BY: AAA
FILENAME: S.01 & S.02 STRUCTURAL NOTES.dwg
PROJECT NO.: 273-18-210

PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: STRUCTURAL NOTES - 1

SCALE: N.T.S.

NOTE: DRAWING SCALE IS BASED ON 24x36 SHEETS. 11x17 IS 212%± OF SCALE SHOWN.

0 1" 2"

DRAWING S.01

SHEET 21 OF 44

Drawing File: S.01 & S.02 STRUCTURAL NOTES.dwg S.01 STRUCTURAL NOTES - 1 Feb 26, 2020 - 4:21pm

GENERAL MASONRY NOTES:

1. NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNIT (CMU) IS 2500 PSI, MINIMUM.
2. FURNISH ALL CMU WALL REINFORCEMENT TO THE MASONRY SUBCONTRACTOR FOR HIS INSTALLATION. REINFORCEMENT SIZE SPACING, LENGTH AND LOCATION INDICATED ON ARCHITECTURAL OR STRUCTURAL DRAWINGS. PROVIDE AND SET ALL REINFORCING BAR DOWELS TO BE EMBEDDED INTO CONCRETE ELEMENTS AT TOP AND BOTTOM OF CMU WALLS AS INDICATED OR SPECIFIED.
3. CONCRETE BLOCKS SHALL BE HOLLOW LOAD BEARING UNITS CONFORMING TO ASTM C90, NORMAL WEIGHT, GRADE N–II AND SHALL HAVE A MINIMUM f'_m OF 1900 PSI AT 28 DAYS. ALL BLOCKS SHALL HAVE TWO CORE CELLS (MAX.)
4. MORTAR SHALL BE PORTLAND CEMENT/ LIME TYPE S. MORTAR SHALL NOT BE AIR ENTRAINED. MORTAR SHALL CONFORM TO ASTM C270.
5. GROUT FILL SHALL CONFORM TO THE REQUIREMENTS OF ASTM C476 AND SHALL HAVE A MINIMUM f'_g OF 3000 PSI AT AGE 28 DAYS. GROUT FILL SHALL HAVE A SLUMP OF 8" TO 10" AT TIME OF PLACEMENT.
6. GROUT FILL SHALL BE TESTED IN ACCORDANCE WITH ASTM C1019. EACH BATCH OF GROUT SHALL BE TESTED.
7. THREE TEST PRISMS SHALL BE MADE FOR EVERY 5000 SQ. FT. OF WALL AREA DURING CONSTRUCTION AND TESTED IN ACCORDANCE WITH ASTM C1314. THE MINIMUM REQUIRED PRISM STRENGTH (f'_m) IS 1500 PSI. PRISMS SHALL BE FIELD CURED.
8. BED JOINTS SHALL BE FULLY MORTARED. HEAD JOINTS OF LINTELS AND BEAMS SHALL BE PACKED SOLID WITH MORTAR. HEAD JOINTS SHALL BE CONSIDERED FULLY MORTARED WHEN MORTAR JOINT IS A MINIMUM THICKNESS OF MASONRY FACE SHELL.
9. REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60.
10. GROUT FILL AT VERTICAL REINFORCING.
    - 10.A. PROVIDE CLEAN–OUT HOLES AT THE BOTTOM OF THE CELLS TO BE GROUTED.
    - 10.B. MARK CELLS WITH DOWELS TO ASSURE THAT VERTICAL REINFORCING IS PLACED IN SAME CELL AS DOWEL.
    - 10.C. PLACE REINFORCING PRIOR TO GROUTING.
    - 10.D. POUR GROUT INTO CELL A MAXIMUM HEIGHT OF 5'–0".
    - 10.E. CONSOLIDATE GROUT BY VIBRATING 1 TO 2 SECONDS USING A LOW VELOCITY VIBRATOR WITH A 3/4" HEAD. DO NOT CONSOLIDATE BY RODDING WITH REINFORCING BARS.
    - 10.F. AFTER INITIAL WATER LOSS, RE–CONSOLIDATE GROUT WITH LOW VELOCITY VIBRATOR.
    - 10.G. REPEAT STEPS D THROUGH F AS REQUIRED TO FILL CELLS FULL HEIGHT OF THE GROUT POUR PLUS SPLICE LENGTH.
    - 10.H. THE TOP OF A GROUT POUR SHALL NOT BE LOCATED AT THE TOP OF A UNIT BUT WITHIN 1 1/2" OF THE BED JOINT.
11. LINTELS SHALL BE SHORED UNTIL THE GROUT FILL HAS ATTAINED ITS FULL 28 DAYS STRENGTH.
12. SHOP DRAWINGS FOR REINFORCING ARE REQUIRED. WALL REINFORCING SHALL BE SHOWN IN ELEVATION.
13. WALLS SHALL BE PROVIDED WITH TRUSS OR LADDER TYPE JOINT REINFORCING AT 16" O.C. SIDE AND CROSS RODS SHALL BE W1.7.
14. PROVIDE CONTROL JOINTS IN EXTERIOR MASONRY WALLS AT 24'–8" MAXIMUM.
15. DO NOT PROVIDE CONTROL JOINTS IN INTERIOR MASONRY WALLS.
16. PROVIDE CONTROL JOINTS BETWEEN EXTERIOR AND INTERIOR WALLS.
17. PROVIDE REINFORCING IN MASONRY WALLS AS SHOWN BY THE STRUCTURAL DRAWINGS. WHERE NO REINFORCEMENT IS SHOWN, USE MINIMUM VERTICAL REINFORCEMENT SHALL BE #5'S @ 32".
18. REINFORCING BARS SHALL BE HELD IN POSITIONS SHOWN BY THE DRAWING.

REINFORCING UNIT MASONRY:

1. POSITION REINFORCEMENT ACCURATELY AT THE SPACING INDICATED. SUPPORT AND SECURE VERTICAL BARS AGAINST DISPLACEMENT. HORIZONTAL REINFORCEMENT MAY BE PLACED AS THE MASONRY WORK PROGRESSES. WHERE VERTICAL BARS ARE SHOWN IN CLOSE PROXIMITY, PROVIDE A CLEAR DISTANCE BETWEEN BARS OF NOT LESS THAN THE NOMINAL BAR DIAMETER OR 1" (WHICHEVER IS GREATER).
2. PROVIDE NOT LESS THAN MINIMUM LAP INDICATED AND AS REQUIRED BY GOVERNING CODE.
3. MAINTAIN VERTICAL CONTINUITY OF CORE OR CELL CAVITIES WHICH ARE TO BE REINFORCED AND GROUTED, TO PROVIDE MINIMUM CLEAR DIMENSION INDICATED AND TO PROVIDE MINIMUM CLEARANCE AND GROUT COVERAGE FOR VERTICAL REINFORCEMENT BARS. KEEP CAVITIES FREE OF MORTAR.
4. WHERE HORIZONTAL REINFORCED BEAMS (BOND BEAMS OR LINTELS) ARE SHOWN, USE LINTEL UNITS OR MODIFY REGULAR UNITS TO ALLOW FOR PLACEMENT OF CONTINUOUS HORIZONTAL REINFORCEMENT BARS. PLACE SMALL MESH EXPANDED METAL LATH OR WIRE SCREENING IN MORTAR JOINTS UNDER METAL BOND BEAM COURSES OVER CORES OR CELLS OF NON–REINFORCED VERTICAL CELLS, OR PROVIDE UNITS WITH SOLID BOTTOMS.
5. DO NOT PLACE GROUT UNTIL ENTIRE HEIGHT OF MASONRY TO BE GROUTED HAS ATTAINED SUFFICIENT STRENGTH TO RESIST DISPLACEMENT OF MASONRY UNITS AND BREAKING OF MORTAR BOND. INSTALL SHORES AND BRACING BEFORE STARTING GROUTING OPERATIONS.
6. LIMIT GROUT POURS TO SECTIONS WHICH CAN BE COMPLETED IN ONE WORKING DAY WITH NOT MORE THAN ONE HOUR INTERRUPTION OF POURING OPERATION. PLACE GROUT IN LIFTS WHICH DO NOT EXCEED 5 FEET. ALLOW NOT LESS THAN 30 MINUTES, NOR MORE THAN ONE HOUR BETWEEN LIFTS OF A GIVEN POUR. VIBRATE WALLS DURING ALL POURING OPERATIONS.
7. WHEN MORE THAN ONE POUR IS REQUIRED TO COMPLETE A GIVEN SECTION OF MASONRY, EXTEND REINFORCEMENT BEYOND MASONRY AS REQUIRED FOR PLACING. POUR GROUT TO WITHIN 1–1/2" OF TOP COURSE OF FIRST POUR. AFTER GROUTED MASONRY IS CURED, LAY MASONRY UNITS AND PLACE REINFORCEMENT FOR SECOND POUR SECTION BEFORE GROUTING. REPEAT SEQUENCE IF MORE POURS ARE REQUIRED.
8. GROUT FOR UNIT MASONRY SHALL COMPLY WITH ASTM C476. USE GROUT OF CONSISTENCY AT TIME OF PLACEMENT WHICH WILL COMPLETELY FILL ALL SPACES INTENDED TO RECEIVE GROUT.

CONCRETE BONDING AGENT:

1. LIGHTLY BRUSH–HAMMER THE SURFACE OF EXISTING FORMED CONCRETE TO EXPOSE A FRESH CLEAN SURFACE.
2. CLEAN THE SURFACE OF EXISTING CONCRETE OF ALL LOOSE AND FRACTURED MATERIAL.
3. COAT SURFACE OF EXISTING CONCRETE TO BE JOINED TO NEW CONCRETE WITH A BONDING AGENT.
4. PROTECT SURFACES TO RECEIVE A BONDING AGENT FROM MATERIAL WHICH WOULD REDUCE ITS EFFECTIVENESS.
5. STORE AND APPLY THE BONDING AGENT ACCORDING TO THE MANUFACTURER'S PRINTED INSTRUCTIONS.
6. PLACE NEW CONCRETE AGAINST THE BONDING AGENT WITHIN THE TIME LIMIT SPECIFIED AS ITS WORKING LIFE.
7. BONDING MATERIAL SHALL BE WELD–CRETE AS MANUFACTURED BY LARSEN PRODUCTS CORPORATION OF ROCKVILLE, MARYLAND, OR APPROVED EQUAL.

STRUCTURAL STEEL:

1. ALL STRUCTURAL STEEL SHALL CONFORM TO SPEC SECTION 05 12 00.
2. WELDING TO CONFORM TO THE STRUCTURAL WELDING CODE, AWS D1.1.
3. USE E70XX EPOXY WELDING ELECTRODES.
4. FIELD WELDING OF STRUCTURAL MEMBERS IS NOT PERMITTED UNLESS SPECIFICALLY INDICATED.
5. FIELD AND SHOP CONNECTIONS SHALL BE BOLTED UNLESS WELDING IS INDICATED.
6. PROVIDE 3/4" DIAMETER ASTM A325N HIGH STRENGTH BOLTS FOR BOLTED CONNECTIONS. PROVIDE 13/16" DIAMETER HOLES UNLESS OTHERWISE INDICATED. PROVIDE ONE HARDENED WASHER UNDER THE ELEMENT TURNED IN TIGHTENING. PROVIDE PLATE WASHERS IN BOTH OUTER PLIES WHEN OVERSIZED OR SLOTTED HOLES ARE INDICATED.
7. TIGHTEN HIGH STRENGTH BOLTS FOR SLIP–CRITICAL JOINTS OR CONNECTIONS SUBJECTED TO DIRECT TENSION IN CONFORMANCE WITH AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A 325 OR A490 BOLTS. TENSION CONTROL BOLTING MAY NOT BE SUBSTITUTED FOR CALIBRATED WRENCH BOLTING WHEN USING HOT–DIP GALVANIZED BOLTS.
8. SIMPLY SUPPORTED BEAM–TO–COLUMN AND BEAM–TO–BEAM CONNECTIONS SHALL BE MADE WITH DOUBLE ANGLES IN CONFORMANCE WITH THE AISC MANUAL, TABLE 10–1, USING A SINGLE ROW OF THE MAXIMUM NUMBER OF BOLTS ALLOWED FOR THE CORRESPONDING STRUCTURAL SHAPE, UNLESS OTHERWISE INDICATED.
9. FURNISH AND INSTALL ONE WASHER AND ONE HEAVY HEX NUT WITH ASTM A36 ANCHOR BOLTS UNLESS OTHERWISE INDICATED.
10. DETAIL BRACING MEMBERS TO AVOID ECCENTRIC CONNECTIONS AND FOR DRAWING THE BRACING MEMBER TOGETHER.
11. PROVIDE TEMPORARY BRACING AND STAYS DURING STEEL ERECTION TO RESIST VERTICAL AND LATERAL LOADS UNTIL MEMBERS ARE PERMANENTLY FASTENED AND FLOORS AND ROOFS COMPLETED.
12. PROVIDE 1/16" MINIMUM CONTINUOUS FILLET SEAL WELDS FOR ALL WELDED CONNECTIONS TO MEMBERS HAVING TYPE S OR TYPE E SERVICE AND TO ALL WELDED CONNECTIONS THAT WILL BE GALVANIZED. DO NOT GALVANIZE SECTIONS THAT WILL BE WELDED UNTIL AFTER ALL WELDING IS COMPLETE.
13. APPLY 1/8" THICK TROWEL GRADE BITUMINOUS MASTIC DAMP–PROOFING TO STEELWORK TO BE ENCASED IN EXTERIOR MASONRY WALLS UNLESS DIRECT CONTACT SPRAY–ON OR TROWEL–ON FIREPROOFING IS INDICATED OR SPECIFIED.
14. PROVIDE 3/16" X 1" LONG FILLET WELD FOR ELECTRICAL CONTINUITY BETWEEN MEMBERS AT CONNECTIONS.
15. SHEAR STUDS TO CONFORM TO ASTM A108. INSTALL IN ACCORDANCE WITH AWS D1.1.
16. PROVIDE 13/16" DIAMETER DRAIN HOLES THROUGH MEMBERS AT LOW POINTS OR AS INDICATED TO PREVENT ACCUMULATION OF WATER.
17. USE NON–SHRINK, NON–METALLIC GROUT AS INDICATED AND SPECIFIED UNDER BASE AND BEARING PLATES.

ALUMINUM:

1. STRUCTURAL ALUMINUM SHALL BE ALLOY 6061–T6. DETAIL AND FABRICATED IN CONFORMANCE WITH THE LATEST ASCE SPECIFICATIONS FOR ALUMINUM STRUCTURES.
2. FIELD WELDING OF STRUCTURAL MEMBERS IS NOT PERMITTED UNLESS SPECIFICALLY INDICATED.
3. SHOP CONNECTIONS MAY BE BOLTED OR WELDED UNLESS THE CONNECTION METHOD IS INDICATED.
4. PROVIDE 3/4" DIAMETER TYPE 304 OR 316 STAINLESS STEEL BOLTS FOR BOLTED CONNECTIONS. PROVIDE 13/16" DIAMETER HOLES UNLESS OTHERWISE INDICATED. PROVIDE PLATE WASHERS IN BOTH OUTER PLIES WHEN OVERSIZE OR SLOTTED HOLES ARE INDICATED.
5. SIMPLY SUPPORTED BEAM–TO–COLUMN AND BEAM–TO–BEAM CONNECTIONS SHALL BE MADE WITH DOUBLE ANGLES SIMILAR TO THOSE DESCRIBED FOR STRUCTURAL STEEL SECTIONS IN NOTE #8 OF THE PREVIOUS SECTION.
6. DETAIL BRACING MEMBERS TO AVOID ECCENTRIC CONNECTIONS AND FOR PULLING THE BRACING MEMBERS TOGETHER.
7. PROVIDE TEMPORARY BRACING AND STAYS DURING STEEL ERECTION TO RESIST VERTICAL AND LATERAL LOADS UNTIL MEMBERS ARE PERMANENTLY FASTENED AND FLOORS AND ROOFS ARE COMPLETED.
8. PAINT ALUMINUM IN CONTACT WITH CONCRETE WITH BITUMINOUS MASTIC OR ASPHALTIC PAINT IN CONFORMANCE WITH SPECIFICATIONS SECTION 09 90 00.
9. PROVIDE DISSIMILAR METAL PROTECTION AT BOLT LOCATIONS AND OTHER LOCATIONS WHERE DISSIMILAR METALS ARE IN CONTACT. PROTECT WITH A MINIMUM 4–MIL DRY THICKNESS COAT OF ZINC CHROMATE PRIMER ON THE ALUMINUM SURFACES AND A MINIMUM 2–MIL DRY THICKNESS COAT OF ALL–METAL PRIMER FOLLOWED BY ONE COAT IF MINIMUM 3–MIL DRY THICKNESS ALUMINUM PAINT TO THE DISSIMILAR METAL.
10. USE NON–SHRINK, NON–METALLIC GROUT AS INDICATED AND SPECIFIED UNDER BASEPLATES AND BEARING PLATES.

DESIGN LOADS:

1. LIVE LOADS
   - 1.A. ROOF LIVE LOADS = 50 PSF
   - 1.B. FLOOR LIVE LOAD = 100 PSF
   - 1.C. FOR STAIRS AND PLATFORM = 100 PSF
2. GROUND SNOW LOAD P_g = 5 PSF
3. WIND LOAD
   - 3.A. REF. ASCE 7–16
   - 3.B. BASIC WIND SPEED, (V) = 113 MPH
   - 3.C. IMPORTANCE FACTOR (I) = 1.15
   - 3.D. EXPOSURE CATEGORY = "C"
4. EARTHQUAKE LOADS
   - 4.A. SITE CLASS = "D"
   - 4.B. IMPORTANCE FACTOR, I_E =1.25
   - 4.C. SEISMIC DESIGN CATEGORY ="D"
   - 4.D. MAPPED SPECTRAL RESPONSE COEFFICIENTS
     S_S = 0.242G
     S_1 = 0.094G
   - 4.E. SPECTRAL RESPONSE COEFFICIENTS
     S_{DS} = 0.258G
     S_{D1} = 0.15G
   - 4.F. LONG PERIOD: T_L = 12s

ABBREVIATIONS

AB	ANCHOR BOLT
ADDL	ADDITIONAL
ALT	ALTERNATE
ALUM	ALUMINUM
ARCH	ARCHITECTURAL
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
BM	BEAM
BOT. OR B.	BOTTOM
CJ	CONSTRUCTION JOINT
CL	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
DEG	DEGREE
DET	DETAIL
DIA	DIAMETER
DIR	DIRECTION
DN	DOWN
DWG	DRAWING
DWL	DOWEL
EA	EACH
EF	EACH FACE
EL	ELEVATION
EW	EACH WAY
EJ	EXPANSION JOINT
EXIST	EXISTING
FD	FLOOR DRAIN
IF	INSIDE FACE
LG	LONG
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LP	LOW POINT
MAX	MAXIMUM
MFR	MANUFACTURER
MECH	MECHANICAL
MIN	MINIMUM
NTS	NOT TO SCALE
OC	ON CENTER
OF	OUTSIDE FACE
OPNG	OPENING
PC	PIECE
PCF	POUNDS PER CUBIC FEET
PJF	PREMOULDED JOINT FILLER
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PROJ	PROJECTION
SECT	SECTION
SPECS	SPECIFICATIONS
SQ	SQUARE
SSPC	STEEL STRUCTURES PAINTING COUNCIL
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
SYMM	SYMMETRICAL
T	TOP
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
TR	THREADS
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT. OR V	VERTICAL
WS	WATERSTOP
WWF	WELDED WIRE FABRIC

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% REVIEW SET	PJJ
2	1/6/2020	90% REVIEW SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ
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SEAL

GEORGIA REGISTERED No. PE035560 PROFESSIONAL ENGINEER AHMED A. AN-NAIM

02/26/2020

OWNER

Etowah Water & Sewer Authority
"Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: PJJ
DRAWN BY: SKR/SPM
CHECKED BY: AAA
FILENAME: S.01 & S.02 STRUCTURAL NOTES.dwg
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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE
DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: STRUCTURAL NOTES - 2

SCALE: N.T.S.

NOTE: DRAWING SCALE IS BASED ON 24x36 SHEETS. 11x17 IS 212%± OF SCALE SHOWN.

0 1" 2"

DRAWING S.02

SHEET 22 OF 44

Drawing File: S.01 & S.02 STRUCTURAL NOTES - 2 Feb 26, 2020 - 4:21pm S.02 STRUCTURAL NOTES.dwg

STATEMENT OF SPECIAL INSPECTIONS

STATEMENT DATE: JANUARY 24, 2020
PROJECT NAME: DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
BUILDING PERMIT NUMBER:
PROJECT ADDRESS: 1349 MARTIN RD. DAWSONVILLE, GEORGIA 30534
OWNER: ETOWAH WATER AND SEWER AUTHORITY
STRUCTURAL ENGINEER OF RECORD: AHMED A. ANNAIM
DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE (DPIRC): AHMED A. ANNAIM

THE FOLLOWING INFORMATION IS BEING SUBMITTED IN ACCORDANCE WITH THE SPECIAL INSPECTION PROVISIONS OF THE INTERNATIONAL BUILDING CODE (IBC). ATTACHED IS THE SCHEDULE OF SPECIAL INSPECTIONS (SSI) REQUIRED FOR THIS PROJECT. THIS COMPLETED FORM IS REQUIRED TO BE PLACED ON THE DRAWINGS FOR PLAN REVIEW. AFTER PERMIT ISSUANCE, A LISTING OF THE SPECIAL INSPECTION FIRMS (SIF) AND THE DESIGNATED SPECIAL INSPECTORS (DSI) FOR EACH INSPECTION TYPE WILL BE ATTACHED TO THIS FORM AND TURNED IN TO THE BUILDING INSPECTOR PRIOR TO SCHEDULING THE PRE-CONSTRUCTION MEETING WITH THE COUNTY CODE ENFORCEMENT. NO WORK IS PERMITTED TO BE PERFORMED PRIOR TO THE SPECIAL INSPECTIONS PRE-CONSTRUCTION MEETING.

THIS AND ALL SUBSEQUENT REPORTS, LOGS, TESTING RESULTS, AND OTHER RELATED SPECIAL INSPECTIONS DOCUMENTS SHALL BE TURNED IN TO THE BUILDING INSPECTIONS OFFICE WITHIN 10 BUSINESS DAYS OF THE EVENT DOCUMENTED. ONLY DOCUMENTS THAT ARE PREPARED BY AUTHORIZED SPECIAL INSPECTORS (ASI) AND SIGNED/SEALED BY DSI ARE VALID AND ARE PERMITTED TO BE TURNED IN TO THE BUILDING INSPECTIONS OFFICE. THE DSI WILL NOTIFY THE DEPARTMENT UPON THE DISCOVER OF INFORMATION THAT WOULD CONTROVERT THE RESULT OF ANY INFORMATION REPORTED AND UPDATE SAID INFORMATION WITHIN 10 DAYS.

THE DSI IS RESPONSIBLE FOR VERIFYING ALL INFORMATION ON EACH DOCUMENT PRIOR TO SIGNING/SEALING AND TURNING IT IN. THE DSI IS RESPONSIBLE FOR VERIFYING EACH DOCUMENT THAT IS REPORTED TO THE INSPECTION OFFICE IS THE CORRECT DOCUMENT.

THE DSI IS RESPONSIBLE FOR CORRECTING ANY DOCUMENTS THAT HAVE INCORRECT ATTRIBUTES OR CONTAIN ERRORS, AND RESUBMITTING THE CORRECT INFORMATION OR DOCUMENT TO THE INSPECTION OFFICE. THE DSI IS RESPONSIBLE FOR VERIFYING ALL ASI'S MAINTAIN CURRENT CERTIFICATIONS DURING THE COURSE OF THE PROJECT, AS FAILURE TO MAINTAIN CURRENT CERTIFICATIONS MAY RESULT IN A VOIDED DOCUMENT. AT THE CONCLUSION OF EACH INDIVIDUAL SPECIAL INSPECTION ITEM, THE DSI WILL COMPLETE A FINAL REPORT AD TURN IT IN TO THE DPIRC AND THE BUILDING INSPECTOR. THE DPIRC IS RESPONSIBLE FOR COMPLETING THE DPIRC LETTER AT THE CONCLUSION OF ALL SPECIAL INSPECTIONS.

THE SPECIAL INSPECTION PROGRAM OUTLINED HEREIN, DOES NOT RELIEVE THE CONTRACTOR OR ANY OTHER ENTITY OF ANY CONTRACTUAL DUTIES, INCLUDING QUALITY CONTROL, QUALITY ASSURANCE, OR SAFETY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, AND JOB SITE SAFETY. FAILURE TO ADHERE TO THE SI PROGRAM AS OUTLINED HEREIN, MAY RESULT IN A STOP WORK NOTICE BEING ISSUED BY THE DEPARTMENT.

RESPECTFULLY SUBMITTED,
AHMED A. ANNAIM
P.E., GA LICENSE No. 35562

GEORGIA REGISTERED No. PE035562 PROFESSIONAL ENGINEER AHMED A. AN-NAIM

1/24/2020
_____
SIGNATURE & DATE

SCHEDULE OF SPECIAL INSPECTIONS SERVICES - STEEL CONSTRUCTION

	MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT Y/N	EXTENT	AGENT*	DATE COMPLETED
1705.2.1 STRUCTURAL STEEL CONSTRUCTION						
1	FABRICATOR AND ERECTOR DOCUMENTS (VERIFY REPORTS AND CERTIFICATES AS LISTED IN AISC 360, SECTION N 3.2 FOR COMPLIANCE WITH CONSTRUCTION DOCUMENTS)	SUBMITTAL REVIEW	Y	EACH SUBMITTAL		
2	MATERIAL VERIFICATION OF STRUCTURAL STEEL	SHOP (3) AND FIELD INSPECTION	Y	PERIODIC		
3	STRUCTURAL STEEL WELDING:					
a.	INSPECTION TASKS PRIOR TO WELDING (OBSERVE, OR PERFORM FOR EACH WELDED JOINT OR MEMBER, THE QA TASKS LISTED IN AISC 360, TABLE N5.4- 1)	SHOP (3) AND FIELD INSPECTION	N	OBSERVE OR PERFORM AS NOTED (4)		
b.	INSPECTION TASKS DURING WELDING (OBSERVE, OR PERFORM FOR EACH WELDED JOINT OR MEMBER, THE QA TASKS LISTED IN AISC 360, TABLE N5.4- 2)	SHOP (3) AND FIELD INSPECTION	N	OBSERVE (4)		
c.	INSPECTION TASKS AFTER WELDING (OBSERVE, OR PERFORM FOR EACH WELDED JOINT OR MEMBER, THE QA TASKS LISTED IN AISC 360, TABLE N5.4- 3)	SHOP (3) AND FIELD INSPECTION	Y	OBSERVE OR PERFORM AS NOTED (4)		
d.	NONDESTRUCTIVE TESTING (NDT) OF WELDED JOINTS: SEE COMMENTARY					
1)	COMPLETE PENETRATION GROOVE WELDS 5/16" OR GREATER IN RISK CATEGORY III OR IV	SHOP (3) OR FIELD ULTRASONIC TESTING - 100%	N	PERIODIC		
2)	COMPLETE PENETRATION GROOVE WELDS 5/16" OR GREATER IN RISK CATEGORY II	SHOP (3) OR FIELD ULTRASONIC TESTING 10% OF WELDS MINIMUM	N	PERIODIC		
3)	WELDED JOINTS SUBJECT TO FATIGUE WHEN REQUIRED BY AISC 360, APPENDIX 3, TABLE A-3.1	SHOP (3) OR FIELD RADIOGRAPHIC OR ULTRASONIC TESTING	N	PERIODIC		
4)	FABRICATOR'S NDT REPORTS WHEN FABRICATOR PERFORMS NDT	VERIFY REPORTS	N	EACH SUBMITTAL (5)		
4	STRUCTURAL STEEL BOLTING:	SHOP (3) AND FIELD INSPECTION				
a.	INSPECTION TASKS PRIOR TO BOLTING (OBSERVE, OR PERFORM TASKS FOR EACH BOLTED CONNECTION, IN ACCORDANCE WITH QA TASKS LISTED IN AISC 360, TABLE N5.6-1)		Y	OBSERVE OR PERFORM AS NOTED (4)		
b.	Inspection tasks During Bolting (Observe the QA tasks listed in AISC 360, Table N5.6-2)		Y	OBSERVE (4)		
1)	PRE-TENSIONED AND SLIP-CRITICAL JOINTS					
a)	TURN-OF-NUT WITH MATCHING MARKINGS		N	PERIODIC		
b)	DIRECT TENSION INDICATOR		Y	PERIODIC		
c)	TWIST-OFF TYPE TENSION CONTROL BOLT		N	PERIODIC		
d)	TURN-OF-NUT WITHOUT MATCHING MARKINGS		N	CONTINUOUS		
e)	CALIBRATED WRENCH		N	CONTINUOUS		
2)	SNUG-TIGHT JOINTS		Y	PERIODIC		
c.	INSPECTION TASKS AFTER BOLTING (PERFORM TASKS FOR EACH BOLTED CONNECTION IN ACCORDANCE WITH QA TASKS LISTED IN AISC 360, TABLE N5.6-3)		Y	PERFORM (4)		
5	VISUAL INSPECTION OF EXPOSED CUT SURFACES OF GALVANIZED STRUCTURAL STEEL MAIN MEMBERS AND EXPOSED CORNERS OF THE RECTANGULAR HSS FOR CRACKS SUBSEQUENT TO GALVANIZING. VISUAL INSPECTION OF EXPOSED CUT SURFACES OF GALVANIZED STRUCTURAL STEEL MAIN MEMBERS AND EXPOSED CORNERS OF THE RECTANGULAR HSS FOR CRACKS SUBSEQUENT TO GALVANIZING	SHOP (3) AND FIELD INSPECTION	Y	PERIODIC		
6	EMBEDMENTS (VERIFY DIAMETER, GRADE, TYPE, LENGTH, EMBEDMENT. SEE 1705.3 FOR ANCHORS)	FIELD INSPECTION	Y	PERIODIC		
7	VERIFY MEMBER LOCATIONS, BRACES, STIFFENERS, AND APPLICATION OF JOINT DETAILS AT EACH CONNECTION COMPLY WITH CONSTRUCTION DOCUMENTS	FIELD INSPECTION	Y	PERIODIC		
1705.2.2 COLD-FORMED STEEL DECK						
1	MANUFACTURER DOCUMENTS (VERIFY REPORTS AND CERTIFICATES AS LISTED IN SDI QA/QC, SECTION 2, PARAGRAPHS 2.1 AND 2.2 FOR COMPLIANCE WITH CONSTRUCTION DOCUMENTS)	SUBMITTAL REVIEW	Y	EACH SUBMITTAL		
2	MATERIAL VERIFICATION OF STEEL DECK, MECHANICAL FASTENERS AND WELDING MATERIALS	SHOP (3) AND FIELD INSPECTION	Y	PERIODIC		
3	COLD-FORMED STEEL DECK PLACEMENT:	SHOP (3) AND FIELD INSPECTION				
a.	INSPECTION TASKS PRIOR TO DECK PLACEMENT (PERFORM THE QA TASKS LISTED IN SDI QA/QC, APPENDIX 1 TABLE 1.1)		N	PERFORM (4)		
b.	INSPECTION TASKS AFTER DECK PLACEMENT (PERFORM THE QA TASKS LISTED IN SDI QA/QC, APPENDIX 1 TABLE 1.2)		Y	PERFORM (4)		
4	COLD-FORMED STEEL DECK WELDING:	SHOP (3) AND FIELD INSPECTION				
a.	INSPECTION TASKS PRIOR TO WELDING (OBSERVE THE QA TASKS LISTED IN SDI QA/QC, APPENDIX 1 TABLE 1.3)		N	OBSERVE (4)		
b.	INSPECTION TASKS DURING WELDING (OBSERVE THE QA TASKS LISTED IN SDI QA/QC, APPENDIX 1 TABLE 1.4)		N	OBSERVE (4)		
c.	INSPECTION TASKS AFTER WELDING (PERFORM THE QA TASKS LISTED IN SDI QA/QC, APPENDIX 1 TABLE 1.5)		N	PERFORM (4)		
5	COLD-FORMED STEEL DECK MECHANICAL FASTENING:	SHOP (3) AND FIELD INSPECTION				
a.	INSPECTION TASKS PRIOR TO MECHANICAL FASTENING (OBSERVE THE QA TASKS LISTED IN SDI QA/QC, APPENDIX 1 TABLE 1.6)		N	OBSERVE (4)		
b.	INSPECTION TASKS DURING MECHANICAL FASTENING (OBSERVE THE QA TASKS LISTED IN SDI QA/QC, APPENDIX 1 TABLE 1.7)		N	OBSERVE (4)		
c.	INSPECTION TASKS AFTER MECHANICAL FASTENING (PERFORM THE QA TASKS LISTED IN SDI QA/QC, APPENDIX 1 TABLE 1.8)		N	PERFORM (4)		
1705.2.3. OPEN-WEB STEEL JOISTS AND JOIST GIRDERS						
1	INSTALLATION OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS.					
a.	END CONNECTIONS - WELDING OR BOLTED. END CONNECTIONS - WELDING OR BOLTED.	PER SJI CJ OR SJI 100	N	PERIODIC		
b.	BRIDGING - HORIZONTAL OR DIAGONAL.					
1)	STANDARD BRIDGING	PER SJI CJ OR SJI 100	N	PERIODIC		
2)	BRIDGING THAT DIFFERS FROM THE SPECIFICATIONS LISTED IN SJI CJ OR SJI 100.		N	PERIODIC		
1705.2.4. COLD-FORMED STEEL TRUSSES SPANNING 60 FEET OR GREATER						
	VERIFY TEMPORARY AND PERMANENT RESTRAINT/BRACING ARE INSTALLED IN ACCORDANCE WITH THE APPROVED TRUSS SUBMITTAL PACKAGE	FIELD INSPECTION	N	PERIODIC		

SCHEDULE OF SPECIAL INSPECTIONS SERVICES - SOILS

	MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT Y/N	EXTENT	AGENT*	DATE COMPLETED
1705.6 SOILS						
1	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	FIELD INSPECTION	Y	PERIODIC		
2	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	FIELD INSPECTION	Y	PERIODIC		
3	PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	FIELD INSPECTION	Y	PERIODIC		
4	VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL	FIELD INSPECTION	Y	PERIODIC		
5	PRIOR TO PLACEMENT OF CONTROLLED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	FIELD INSPECTION	Y	PERIODIC		

SCHEDULE OF SPECIAL INSPECTIONS SERVICES - MASONRY CONSTRUCTION

	MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT Y/N	EXTENT	AGENT*	DATE COMPLETED
1705.4 MASONRY CONSTRUCTION						
MINIMUM VERIFICATION REQUIREMENTS						
(A)	LEVEL 1, 2 AND 3 QUALITY ASSURANCE:					
1	PRIOR TO CONSTRUCTION, VERIFICATION OF COMPLIANCE OF SUBMITTALS	SUBMITTAL REVIEW	Y	PRIOR TO CONSTRUCTION		
(B)	LEVEL 2 & 3 QUALITY ASSURANCE:					
1	PRIOR TO CONSTRUCTION VERIFICATION OF F'M AND F'AAC EXCEPT WHERE SPECIFICALLY REQUIRED BY THE CODE	TESTING BY UNIT STRENGTH METHOD OR PRISM TEST METHOD	Y	PRIOR TO CONSTRUCTION		
2	DURING CONSTRUCTION, VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX (VSI) WHEN SELF- CONSOLIDATING GROUT IS DELIVERED TO PROJECT SITE.	TESTING BY UNIT STRENGTH METHOD OR PRISM TEST METHOD	Y	PERIODIC		
(C)	LEVEL 3 QUALITY ASSURANCE:					
1	DURING CONSTRUCTION, VERIFICATION OF F'M AND F'AAC FOR EVERY 5,000 SF	TESTING BY UNIT STRENGTH METHOD OR PRISM TEST METHOD	N	PERIODIC		
2	DURING CONSTRUCTION, VERIFICATION OF PROPORTIONS OF MATERIALS AS DELIVERED TO THE PROJECT SITE FOR PREMIXED OR PREBLENDED MORTAR, PRESTRESSING GROUT, AND GROUT OTHER THAN SELF-CONSOLIDATING GROUT.	FIELD INSPECTION	N	PERIODIC		
MINIMUM SPECIAL INSPECTION REQUIREMENTS						
(D)	LEVELS 2 AND 3 QUALITY ASSURANCE:					
1	AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN					
a.	PROPORTIONS OF THE SITE- PREPARED MORTAR	FIELD INSPECTION	N	PERIODIC		
b.	GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES	FIELD INSPECTION	N	PERIODIC		
c.	GRADE, TYPE, AND SIZE OF REINFORCEMENT, ANCHOR BOLTS, AND PRESTRESSING TENDONS AND ANCHORAGES	FIELD INSPECTION	Y	PERIODIC		
d.	PRESTRESSING TECHNIQUE	FIELD INSPECTION		PERIODIC		
e.	PROPERTIES OF THIN-BED MORTAR FOR AAC MASONRY	FIELD INSPECTION	N	LEVEL 2 - CONTINUOUS (b) LEVEL 2 - PERIODIC (c)		
(b)	REQUIRED FOR THE FIRST 5,000 SQUARE FEET		Y	LEVEL 3 - CONTINUOUS		
(c)	REQUIRED AFTER THE FIRST 5,000 SQUARE FEET		Y			
f.	SAMPLE PANEL CONSTRUCTION	FIELD INSPECTION	Y	LEVEL 2 - PERIODIC		
			Y	LEVEL 3 - CONTINUOUS		
2	PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:					
a.	GROUT SPACE	FIELD INSPECTION	Y	LEVEL 2 - PERIODIC		
			N	LEVEL 3 - CONTINUOUS		
b.	PLACEMENT OF PRESTRESSING TENDONS AND ANCHORAGES	FIELD INSPECTION	N	PERIODIC		
c.	PLACEMENT OF REINFORCEMENT, CONNECTORS, AND ANCHOR BOLTS	FIELD INSPECTION	N	LEVEL 2 - PERIODIC		
			Y	LEVEL 3 - CONTINUOUS		
d.	PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSSING GROUT FOR BONDED TENDONS	FIELD INSPECTION	Y	PERIODIC		
3	VERIFY COMPLIANCE OF THE FOLLOWING DURING CONSTRUCTION:					
a.	MATERIALS AND PROCEDURES WITH THE APPROVED SUBMITTALS	FIELD INSPECTION	Y	PERIODIC		
b.	PLACEMENT OF MASONRY UNITS AND MORTAR JOINT CONSTRUCTION	FIELD INSPECTION	Y	PERIODIC		
c.	SIZE AND LOCATION OF STRUCTURAL MEMBERS	FIELD INSPECTION	Y	PERIODIC		
d.	TYPE, SIZE, LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION	FIELD INSPECTION	Y	LEVEL 2 - PERIODIC		
			N	LEVEL 3 - CONTINUOUS		
e.	WELDING OF REINFORCEMENT	FIELD INSPECTION	N	CONTINUOUS		
f.	PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F)	FIELD INSPECTION	Y	PERIODIC		
g.	APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE	FIELD TESTING	N	CONTINUOUS		
h.	PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS IS IN COMPLIANCE	FIELD INSPECTION	Y	CONTINUOUS		
i.	PLACEMENT OF AAC MASONRY UNITS AND CONSTRUCTION OF THIN-BED MORTAR JOINTS	FIELD INSPECTION	N	LEVEL 2 - CONTINUOUS (b) LEVEL 2 - PERIODIC (c)		
(b)	REQUIRED FOR THE FIRST 5,000 SQUARE FEET		Y	LEVEL 3 - CONTINUOUS		
(c)	REQUIRED AFTER THE FIRST 5,000 SQUARE FEET		Y			
4	OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS	FIELD INSPECTION	Y	LEVEL 2 - PERIODIC		
			N	LEVEL 3 - CONTINUOUS		

SCHEDULE OF SPECIAL INSPECTIONS SERVICES - CONCRETE CONSTRUCTION

	MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT Y/N	EXTENT	AGENT*	DATE COMPLETED
1705.3 CONCRETE CONSTRUCTION						
1	INSPECTION AND PLACEMENT VERIFICATION OF REINFORCING STEEL AND PRESTRESSING TENDONS.	SHOP (3) AND FIELD INSPECTION	Y	PERIODIC		
2	REINFORCING BAR WELDING:	FIELD INSPECTION				
a.	VERIFICATION OF WELDABILITY OF BARS OTHER THAN ASTM A706.		N	PERIODIC		
b.	INSPECTION OF SINGLE-PASS FILLET WELDS 5/16 OR LESS IN SIZE.		N	PERIODIC		
c.	INSPECTION OF ALL OTHER WELDS.		N	CONTINUOUS		
3	INSPECTION OF ANCHORS CAST IN CONCRETE.	SHOP (3) AND FIELD INSPECTION	Y	PERIODIC		
4	INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS PER RESEARCH REPORTS, OR, IF NO SPECIFIC REQUIREMENTS ARE PROVIDED, REQUIREMENTS SHALL BE PROVIDED BY THE REGISTERED DESIGN PROFESSIONAL AND APPROVED BY THE BUILDING OFFICIAL, INCLUDING VERIFICATION OF ANCHOR TYPE, ANCHOR DIMENSIONS, HOLE DIMENSIONS, HOLE CLEANING PROCEDURES, ANCHOR SPACING, EDGE DISTANCES, CONCRETE MINIMUM THICKNESS, ANCHOR EMBEDMENT AND TIGHTENING TORQUE		Y	PERIODIC OR AS REQUIRED BY THE RESEARCH REPORT ISSUED BY AN APPROVED SOURCE		
a.	ADHESIVE ANCHORS INSTALLED IN HORIZONTAL OR UPWARD-INCLINED ORIENTATION THAT RESIST SUSTAINED TENSION LOADS.		Y	CONTINUOUS		
b.	MECHANICAL AND ADHESIVE ANCHORS NOTE DEFINED IN 4a.		Y	PERIODIC		
5	VERIFY USE OF APPROVED DESIGN MIX	SHOP (3) AND FIELD INSPECTION	Y	PERIODIC		
6	PRIOR TO PLACEMENT, FRESH CONCRETE SAMPLING, PERFORM SLUMP AND AIR CONTENT TESTS AND DETERMINE TEMPERATURE OF CONCRETE AND PERFORM ANY OTHER TESTS AS SPECIFIED IN CONSTRUCTION DOCUMENTS.	SHOP (3) AND FIELD INSPECTION	Y	CONTINUOUS		
7	INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	SHOP (3) AND FIELD INSPECTION	Y	CONTINUOUS		
8	VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	SHOP (3) AND FIELD INSPECTION	Y	PERIODIC		
9	INSPECTION OF PRESTRESSED CONCRETE	SHOP (3) AND FIELD INSPECTION				
a.	APPLICATION OF PRESTRESSING FORCE		N	CONTINUOUS		
b.	GROUTING OF BONDED PRESTRESSING TENDONS		N	CONTINUOUS		
10	INSPECT ERECTION OF PRECAST CONCRETE MEMBERS		N	PERIODIC		
11	VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS	REVIEW FIELD TESTING AND LABORATORY REPORTS	Y	PERIODIC		
12	INSPECTION OF FORMWORK FOR SHAPE, LINES, LOCATION AND DIMENSIONS	FIELD INSPECTION	Y	PERIODIC		
13	CONCRETE STRENGTH TESTING AND VERIFICATION OF COMPLIANCE WITH CONSTRUCTION DOCUMENTS	FIELD TESTING AND REVIEW OF LABORATORY REPORTS	Y	PERIODIC		

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% REVIEW SET	PJJ
2	1/6/2020	90% REVIEW SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ
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SEAL

GEORGIA REGISTERED No. PE035562 PROFESSIONAL ENGINEER AHMED A. AN-NAIM
02/26/2020

OWNER

Etowah WATER & SEWER AUTHORITY "Excellence in every drop"

CONSULTANT INFORMATION

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PROJECT MANAGER: PJJ
DESIGNED BY: AAA
DRAWN BY: AAA
CHECKED BY: AAA
FILENAME: S.03 STATEMENT OF SPECIAL INSPECTIONS.dwg
PROJECT NO.: 273-18-210

PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES DAWSON COUNTY, GEORGIA

SHEET TITLE: STATEMENT OF SPECIAL INSPECTIONS

SCALE: N.T.S.

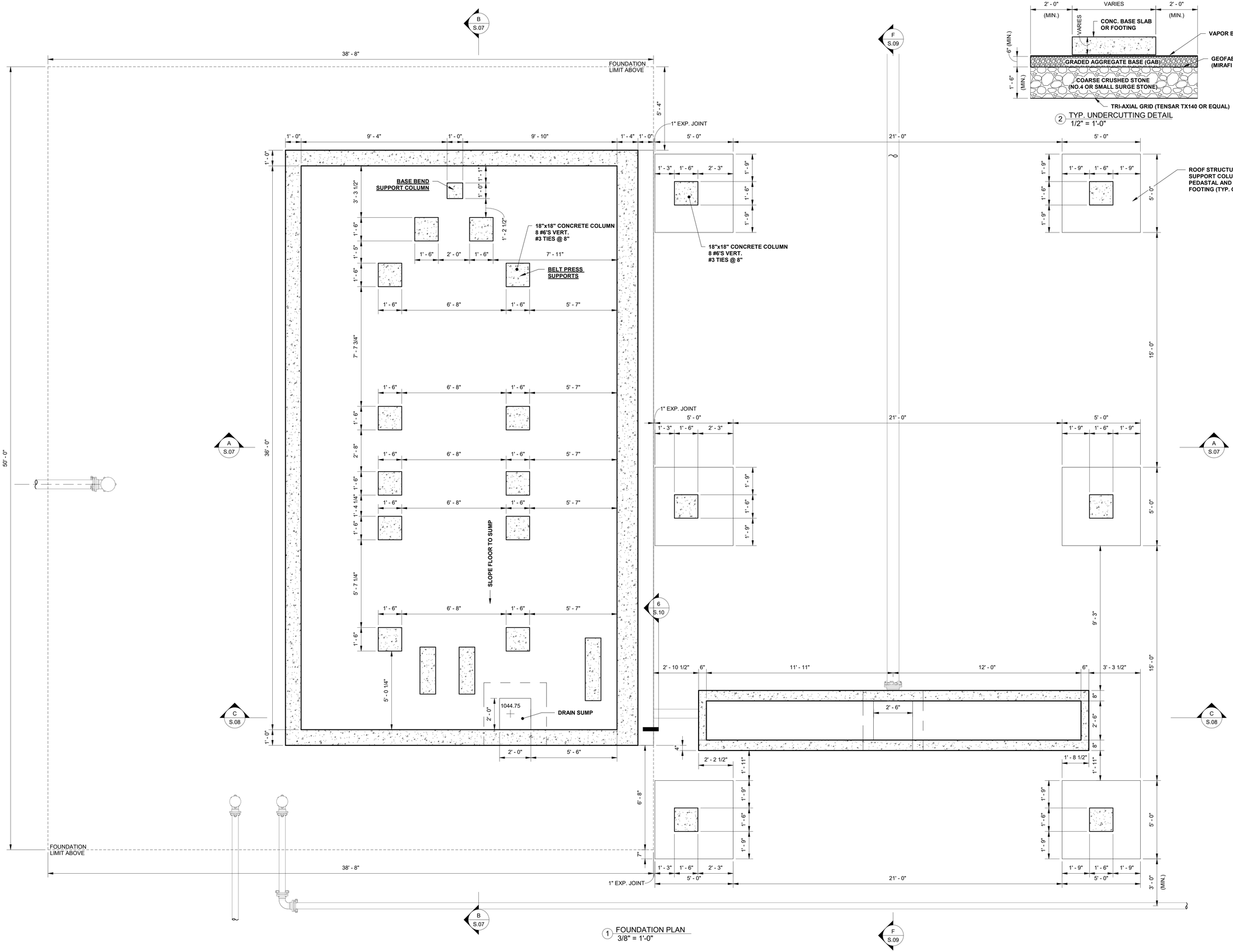
NOTE: DRAWING SCALE IS BASED ON 24x36 SHEETS. 11x17 IS 212%± OF SCALE SHOWN.

0 1" 2"

DRAWING S.03

SHEET 23 OF 44

Drawing file: S.03 STATEMENT OF SPECIAL INSPECTIONS.dwg S.03 STATEMENT OF SPECIAL INSPECTIONS Feb 26, 2020 - 4:22pm



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4	2/26/2020	BID READY SET	PJJ

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GEORGIA REGISTERED No. PE035562 PROFESSIONAL ENGINEER MOHAMED A. AN-NAJM

02/26/2020

OWNER

Etowah WATER & SEWER AUTHORITY "Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER:	PJJ
DESIGNED BY:	AAA
DRAWN BY:	AAA/BB
CHECKED BY:	AAA
FILE NAME:	FILE NAME
PROJECT NO.:	169-18-110

WIEDEMAN AND SINGLETON, INC.
Civil and Environmental Engineers
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SUITE 430
NORCROSS, GA 30071
(404) 876-5862
WWW.WIEDEMAN.COM

PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
FOUNDATION PLAN

SCALE: As indicated

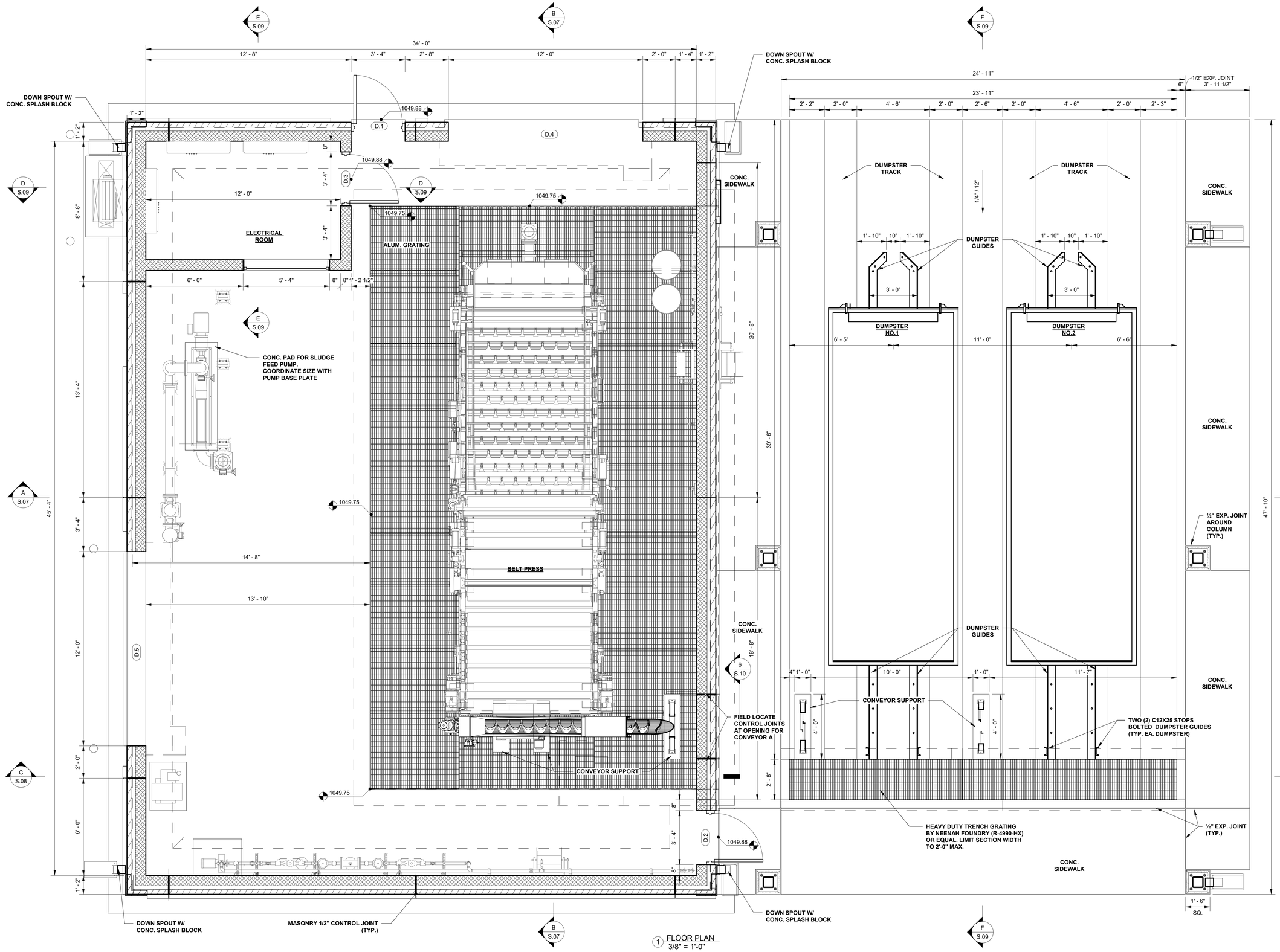
NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

0 1" 2"

DATE: 2/26/2020

DRAWING S.04

SHEET 24 OF 44



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SEAL

GEORGIA REGISTERED No. PE035562 PROFESSIONAL ENGINEER AHMED A. AN-NAIM

02/26/2020

OWNER

Etowah Water & Sewer Authority "Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER:	PJJ
DESIGNED BY:	AAA
DRAWN BY:	AAA/BB
CHECKED BY:	AAA
FILE NAME:	FILE NAME
PROJECT NO.:	169-18-110

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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
FLOOR PLAN

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

NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

0 1" 2"

DATE: 2/26/2020

DRAWING S.05

SHEET 25 OF 44

E S.09

B S.07

F S.09

4'X4' AWNING @ SINGLE DOOR

6" 1' - 6" 1' - 2 1/2" 16' - 11 1/2" 17' - 0" 1' - 2" 1' - 6" 6"

ALUM. ROOF GUTTERS. FINISH TO MATCH ROOF SYSTEM

6"X4" (MIN.) DOWN SPOUT. PROVIDE TWO (2) PER GUTTER

DUMPSTER AREA ROOF DECK NOTES:
ROOF DECK: VULCRAFT 1.5B, 18 GA. PRIMED
FASTERNER PATTERN: 36/7 #12 TEK SCREWS
SIDE LAPS: 5-#10 TEK SCREWS

D S.09

1' - 6"
1' - 2"
EQ.

1' - 9"
3" 1' - 3" 6" 30' - 9"

4"

ALUM. ROOF GUTTERS. FINISH TO MATCH ROOF SYSTEM

A S.07

50' - 8"
45' - 4"
QUANTITY & SPACING OF ROOF TRUSSES BY ROOF SYSTEM SUPPLIER

4" / 12" 4" / 12"

1/4" / 12"

40' - 0" 40' - 8"

A S.07

C S.08

6 S.10

C S.08

EQ.
1' - 2"
1' - 6"

1' - 3" 7' - 0" 8' - 0" 8' - 0" 8' - 0" 3"
32' - 6"
3' - 0" 26' - 6" 3' - 0"

DOWN SPOUT (6"X4" MIN.)

ALUM. ROOF GUTTERS. FINISH TO MATCH ROOF SYSTEM

B S.07

F S.09

1 ROOF PLAN
3/8" = 1'-0"

BIM 360://ETOWAH - Dawson Forest/Proposed Dewatering Building.rvt
2/27/2020 4:49:18 AM

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% DESIGN SET	PJJ
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4	2/26/2020	BID READY SET	PJJ

SEAL

GEORGIA REGISTERED No. PE035562 PROFESSIONAL ENGINEER MOHAMED A. AN-NAJIM

02/26/2020

OWNER

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CONSULTANT INFORMATION

PROJECT MANAGER:	PJJ
DESIGNED BY:	PJJ
DRAWN BY:	SKR
CHECKED BY:	AAA
FILE NAME:FILE NAME	
PROJECT NO.:	169-18-110

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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
ROOF PLAN

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

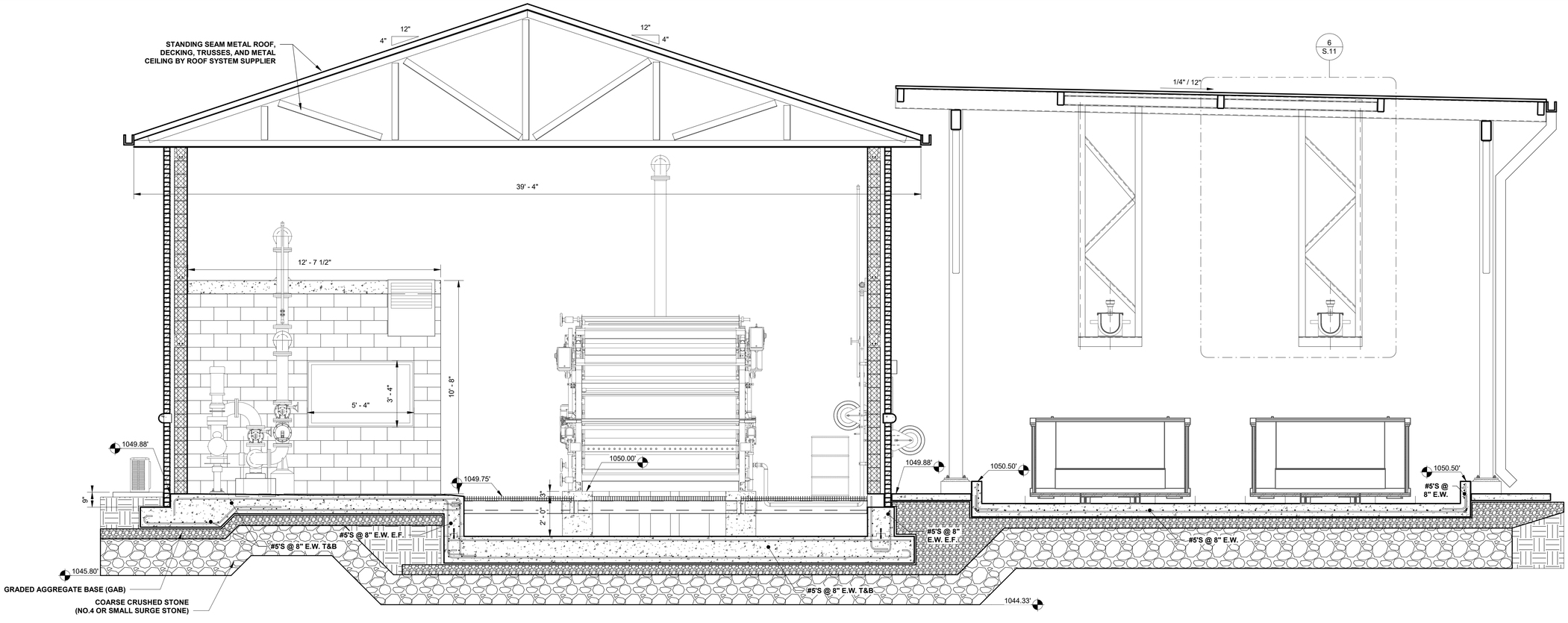
NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

0 1" 2"

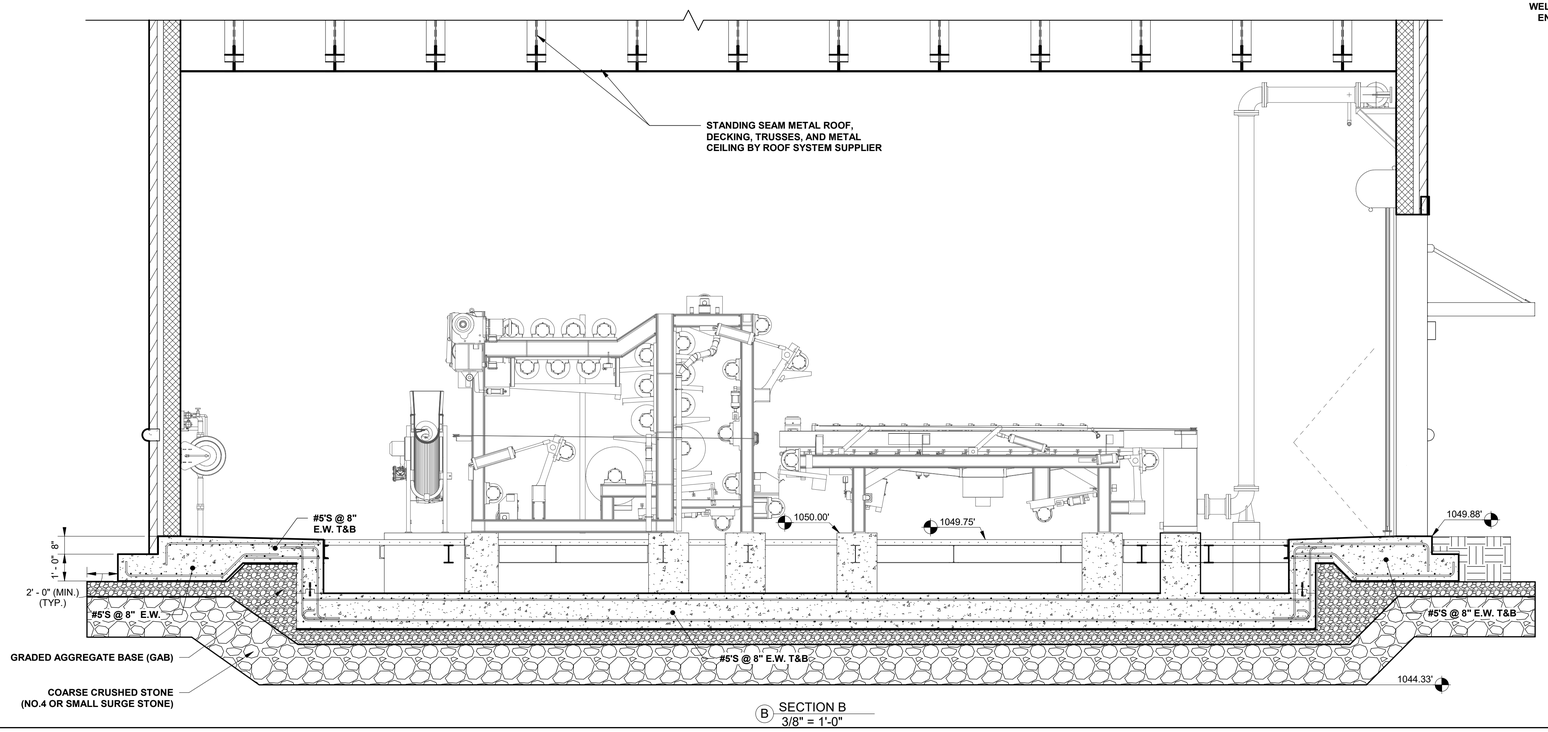
DATE: 2/26/2020

DRAWING S.06

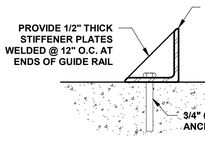
SHEET 26 OF 44



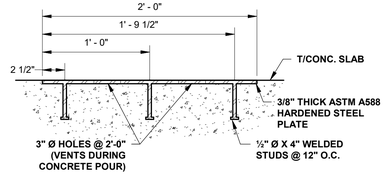
A SECTION A
3/8" = 1'-0"



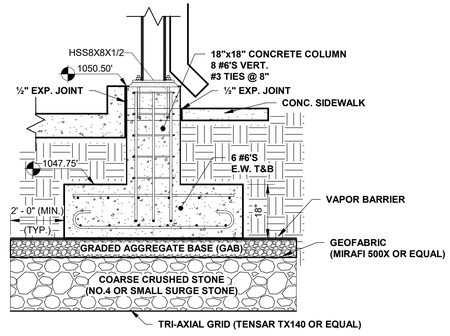
B SECTION B
3/8" = 1'-0"



1 DUMPSTER GUIDE DETAIL
1 1/2" = 1'-0"



3 DUMPSTR TRACK DETAIL
1 1/2" = 1'-0"



2 TYPICAL COLUMN FOOTING DETAIL
1/2" = 1'-0"

REV.	DATE	DESCRIPTION	BY
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SEAL

GEORGIA REGISTERED No. PE035562 PROFESSIONAL ENGINEER AHMED A. AN-NAIM

02/26/2020

OWNER

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CONSULTANT INFORMATION

PROJECT MANAGER:	PJJ
DESIGNED BY:	AAA
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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
SECTIONS & DETAILS I

SCALE: As indicated

NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

0 1" 2"

DATE: 2/26/2020

DRAWING S.07

SHEET 28 OF 44

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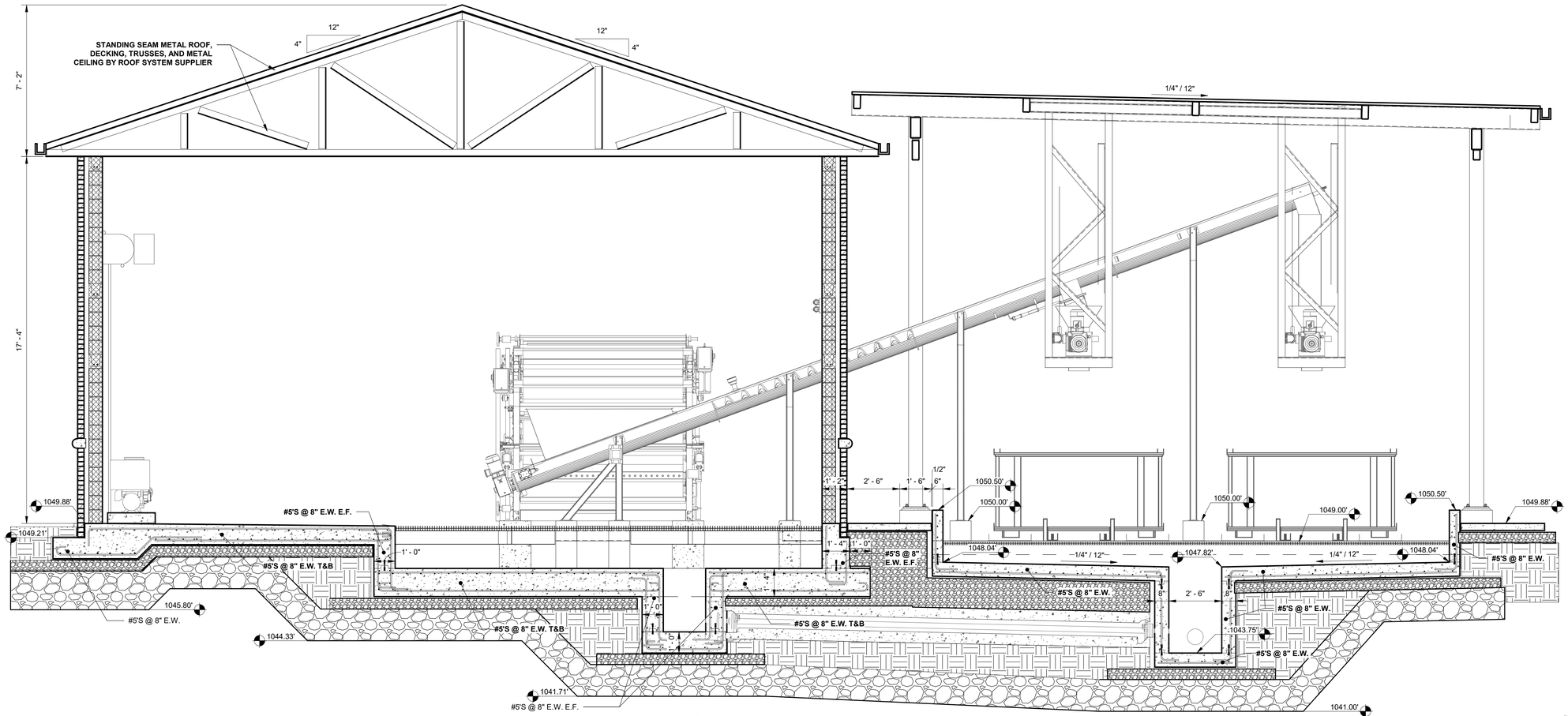
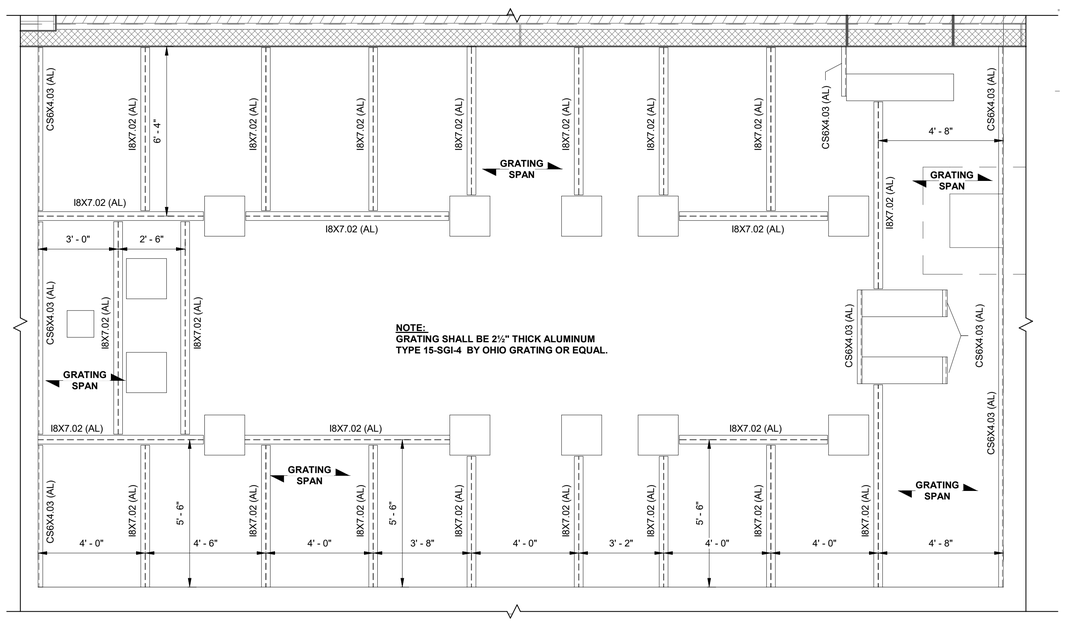
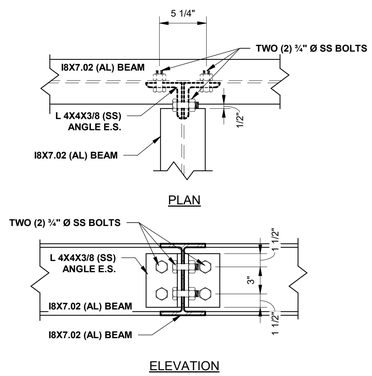


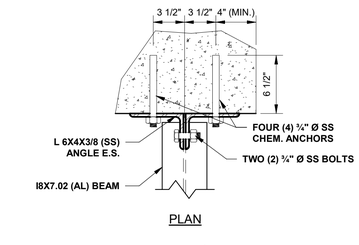
C SECTION C
3/8" = 1'-0"



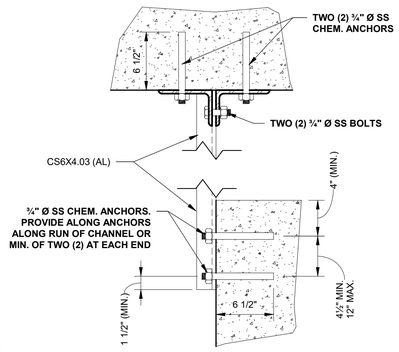
1 PRESS DRAIN AREA FRAMING PLAN
3/8" = 1'-0"



2 ALUMINUM BEAM TO BEAM CONNECTION DETAIL
1 1/2" = 1'-0"



3 ALUMINUM BEAM TO CONCRETE CONNECTION DETAIL
1 1/2" = 1'-0"



4 ALUMINUM CHANNEL TO CONCRETE CONNECTION DETAIL
1 1/2" = 1'-0"

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% DESIGN SET	PJU
2	1/6/2020	90% DESIGN SET	PJU
3	1/24/2020	REGULATORY REVIEW SET	PJU
4	2/26/2020	BID READY SET	PJU

SEAL

GEORGIA REGISTERED No. PE035562 PROFESSIONAL ENGINEER MOHAMMED A. AN-NAJIM

02/26/2020

OWNER

Etowah WATER & SEWER AUTHORITY
"Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER:	PJU
DESIGNED BY:	PJU
DRAWN BY:	SKR
CHECKED BY:	AAA
FILE NAME:	FILE NAME
PROJECT NO.:	169-18-110

WIEDEMAN AND SINGLETON, INC.
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3091 GOVERNORS LAKE DRIVE
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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
SECTIONS & DETAILS II

SCALE: As indicated

NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

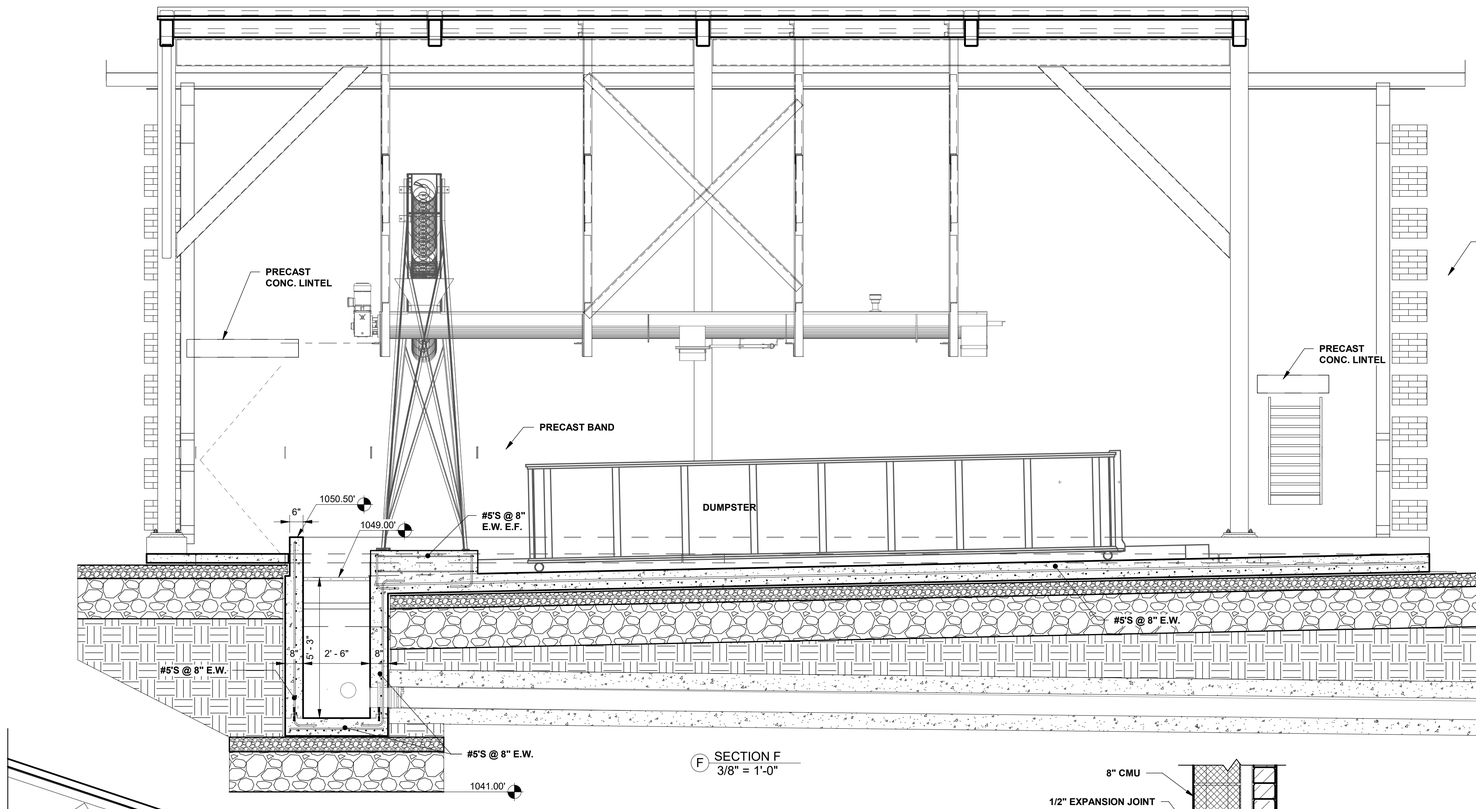
0 1" 2"

DATE: 2/26/2020

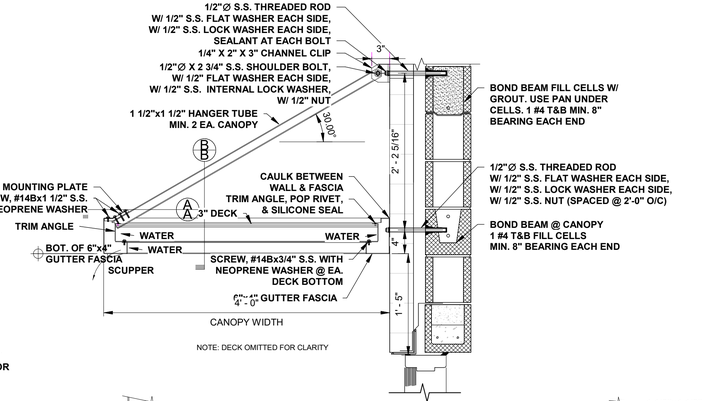
DRAWING S.08

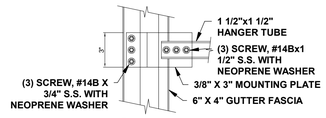
SHEET 27 OF 44

BIM 360://ETOWAH - Dawson Forest/Proposed Dewatering Building.rvt
2/27/2020 4:49:36 AM

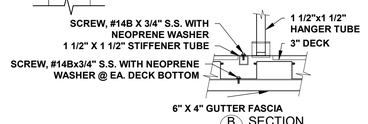


F SECTION F
3/8" = 1'-0"



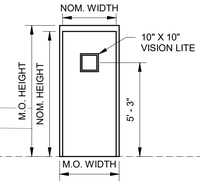


A A SECTION



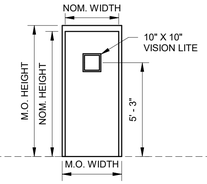
B B SECTION

5 AWNING SUPPORT DETAIL
1" = 1'-0"



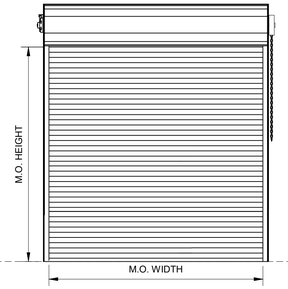
EXTERIOR SINGLE DOOR
DOOR TYPE-A

A



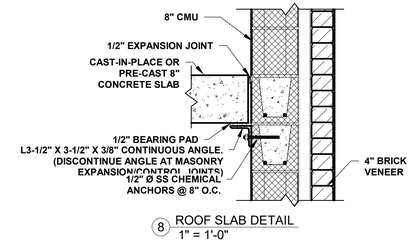
INTERIOR SINGLE DOOR
DOOR TYPE-C

C

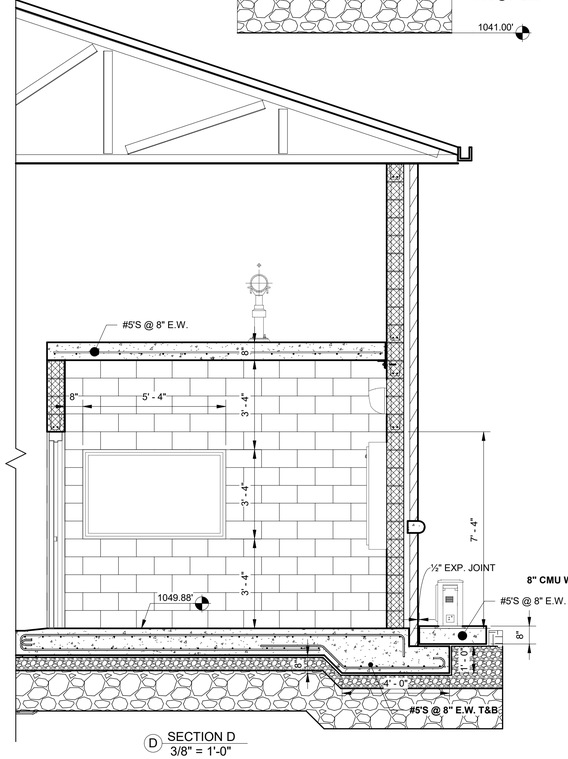


EXTERIOR ROLL UP METAL DOOR
DOOR TYPE-E

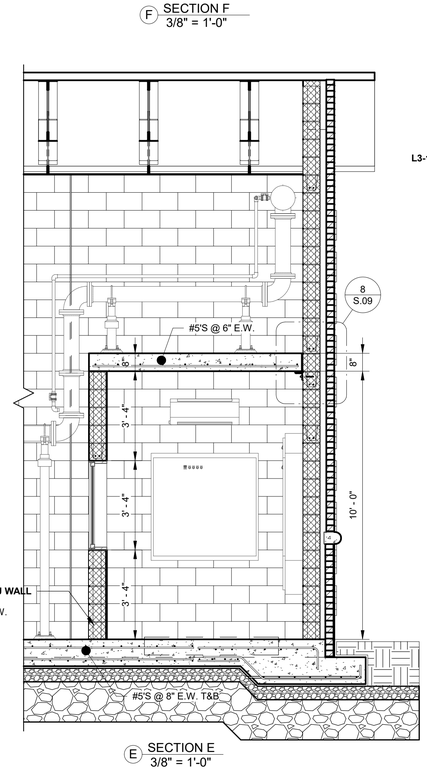
E



8 ROOF SLAB DETAIL
1" = 1'-0"



D SECTION D
3/8" = 1'-0"



E SECTION E
3/8" = 1'-0"

ROOM FINISH SCHEDULE

AREA	FLOOR		WALLS		BASE		CEILING	
	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH
BELT PRES ROOM	CONC.	ER	CMU	PAINT	CMU	PAINT	STEEL	PAINT*
ELECT./CONTROL ROOM	CONC.	ER	CMU	PAINT	CMU	PAINT	CONC.	PAINT

ER = EPOXY RESIN (NON-SLIP TYPE)
* THIS INCLUDES PAINTING ALL HARDWARE ATTACHING ROOF AND METAL DECKING. ALL OF CEILING SHALL BE PAINTED THE SAME COLOR

DOOR SCHEDULE

NO.	DOOR TYPE	OPENING TYPE	DOOR NOMINAL DIMENSIONS			MASONRY OPENING		HDW. SET	FRAME & DOOR MATERIAL	REMARKS
			WIDTH	HEIGHT	THICK.	WIDTH	HEIGHT			
D.1	A	2	3' - 0"	7' - 0"	1-3/4"	3' - 4"	7' - 4"	2	ALUMINUM	
D.2	A	2	3' - 0"	7' - 0"	1-3/4"	3' - 4"	7' - 4"	2	ALUMINUM	
D.3	C	3	3' - 0"	7' - 0"	1-3/4"	3' - 4"	7' - 4"	7	ALUMINUM	
D.4	E	1	2' - 4"	6' - 8"	1-3/4"	12' - 0"	12' - 0"	-	ALUMINUM	
D.5	E	1	12' - 0"	12' - 0"		12' - 0"	12' - 0"	-	ALUMINUM	

NOTES:
1. THE COLOR, FINISH, AND HARDWARE FOR ALL DOORS SHALL MATCH THE EXISTING OPERATIONS BUILDING DOORS.
2. THE INTENT OF THE DOOR SCHEDULE IS TO PROVIDE SUPPLEMENTARY INFORMATION TO THE DOOR SPECIFICATIONS.
3. ALL EXTERIOR CONDITIONS SHALL BE WEATHERPROOFED WITH SEALANT ON BOTH INTERIOR AND EXTERIOR SIDES AT ALL HEAD AND JAMB CONDITIONS UNLESS OTHERWISE NOTED.
4. SET SILLS IN FULL BED OF SEALANT.
5. ALL INTERIOR FRAMES SHALL BE CAULKED ON BOTH SIDES AT HEAD AND JAMB CONDITIONS UNLESS OTHERWISE NOTED.
6. THE OWNER SHALL SELECT COLOR, FINISH, AND TEXTURE FOR ALL DOORS.
7. ALL DOORS PROVIDED WITH CYLINDER LOCKS SHALL BE KEYED TO MATCH OWNER'S EXISTING KEYING SYSTEM. SEE SPECIFICATIONS.
8. TYPE E ROLL-UP DOORS SHALL BE MOTORIZED WITH ADDITIONAL HARDWARE AND APPURTENANCES NOT SHOWN ON THIS SCHEDULE. SEE ROLL UP DOOR SPECIFICATIONS.

DOOR HARDWARE SCHEDULE

HARDWARE SET	BALL BEARING HINGES	CONTINUOUS GEAR HINGES	OUTSIDE TRIM NIGHT LATCH W/ PULL	OUTSIDE TRIM W/ STD. LEVER	BATH/BEDROOM PRIVACY LOCK/LEVER	STORE ROOM LOCK	ELECTRIC LOCK	OFFSET DOOR PULL	DOOR PULL	PANIC BAR EXIT DEVICE W/ LATCH	PANIC BAR EXIT DEVICE, CONCEALED ROD	PANIC BAR EXIT DEVICE, FIRE RATED	LATCH SET	LOCK CYLINDER	STRIKE PLATE	DEAD BOLT	DEAD LATCH	KICK PLATES	HOLDERS	THRESHOLD	T ASTRAGEL	CLOSER W/ HOLD OPEN	CLOSER	WEATHERSTRIPPING	ADJ. ASTRAGEL WEATHERSTRIPPING	DOOR BOTTOM SEAL	CONCEALED ADJ. BOTTOM BRUSH	WALL BUMPER	FLOOR STOP	WALL STOP	FOOT BOLTS	HEAD BOLTS	DESCRIPTION/LOCATION/TYPE/USE	**REMARKS
2	X		X	X						X			X	X	X					X		X		X		X							EXTERIOR / SINGLE	
7	X			X							X	X	X		X					X			X	X		X							INTERIOR / SINGLE / EXTERIOR RATED / FIRE RATED	
13	X				X					X			X	X	X							X								X	X		INTERIOR / SINGLE / BATH	

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4	2/26/2020	BID READY SET	PJU

SEAL

GEORGIA REGISTERED No. PE035562 PROFESSIONAL ENGINEER MAHMED A. AN-NAJIM

02/26/2020

OWNER

Etowah Water & Sewer Authority "Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER:	PJU
DESIGNED BY:	AAA
DRAWN BY:	AAA/BB
CHECKED BY:	AAA
FILE NAME:	FILE NAME
PROJECT NO.:	169-18-110

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Civil and Environmental Engineers
3091 GOVERNORS LAKE DRIVE
SUITE 430
NORCROSS, GA 30071
(404) 876-5862
WWW.WIEDEMAN.COM

PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
SECTIONS & DETAILS III

SCALE: As indicated

NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

0 1" 2"

DATE: 2/26/2020

DRAWING S.09

SHEET 29 OF 44

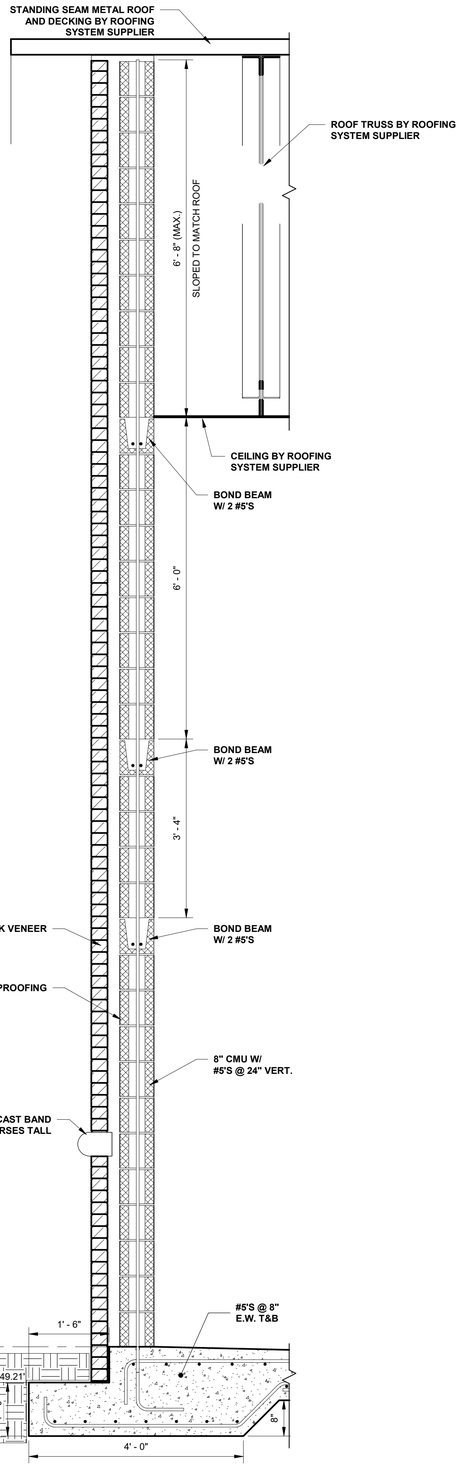
BUILDING EXTERIOR GENERAL NOTES:

1. THE INTENT IS FOR THE DEWATERING BUILDING EXTERIOR TO MATCH THE EXISTING OPERATIONS BUILDING. ALL NEW BRICK TYPE, COLOR, LAYOUT, COURSES, PRECAST HEADER, PRECAST BAND, AND CORNERS SHALL MATCH THE EXISTING OPERATIONS BUILDING.

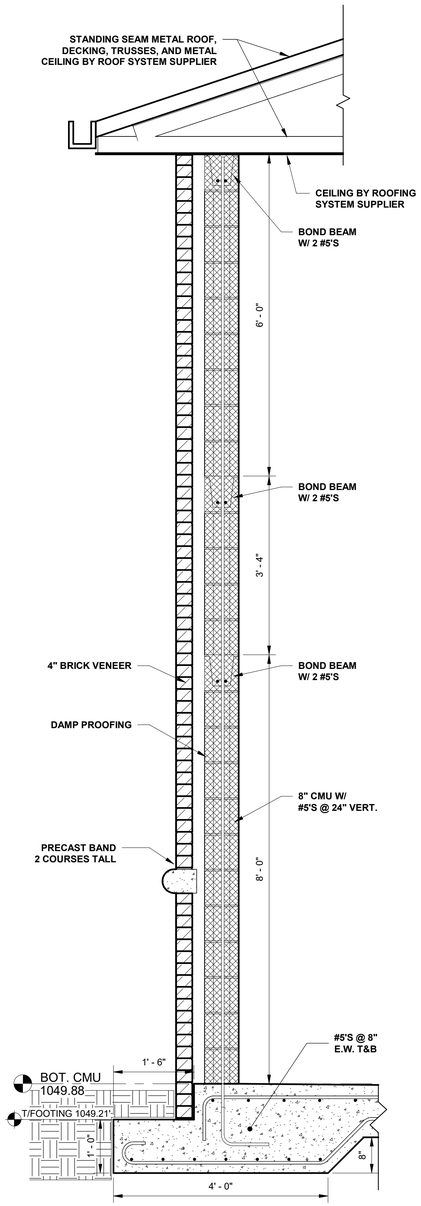
   A. EXISTING OPERATIONS BUILDING MASONRY AND PRECAST LINTELS WERE PROVIDED BY:

      W. GARNER CONST. CO.
      3887 JODECO ROAD
      McDONOUGH, GEORGIA

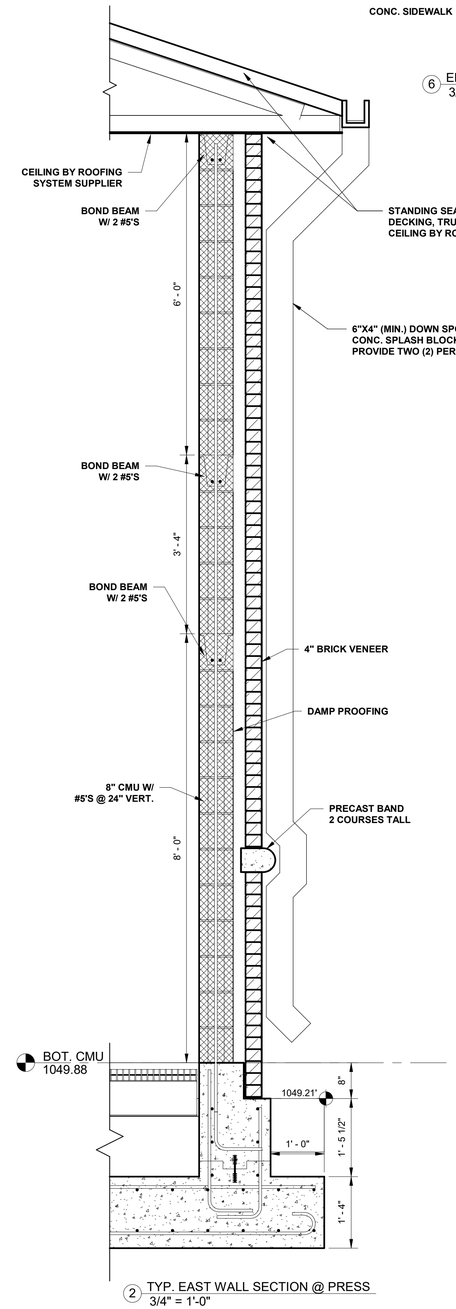
1. STANDING STEAM METAL ROOF, SOFITS, GUTTERS, FACIA'S, ETC. SHALL MATCH THE EXISTING OPERATIONS BUILDING.



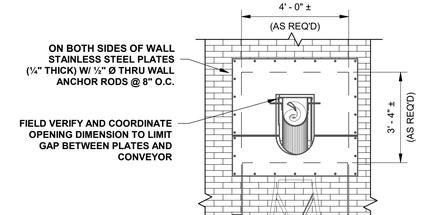
3 TYP. WALL SECTION @ SOUTH WALL (NORTH WALL SIM.)
3/4" = 1'-0"



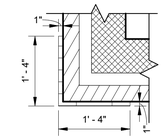
4 TYP. WEST WALL SECTION
3/4" = 1'-0"



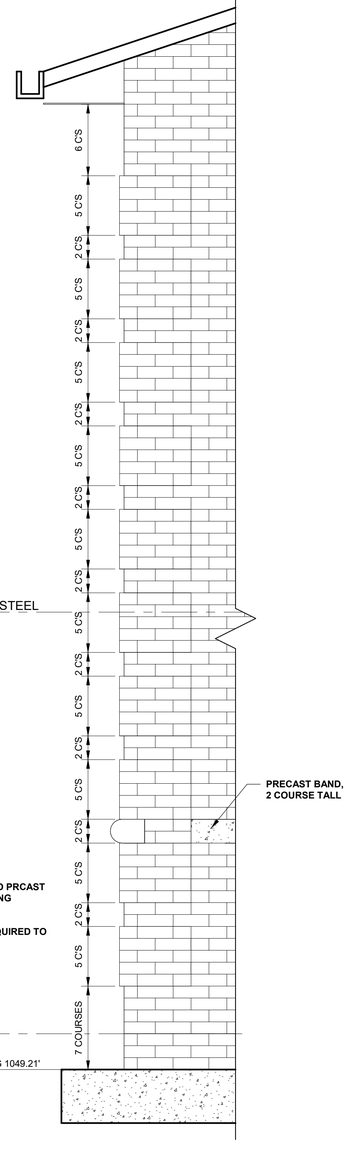
2 TYP. EAST WALL SECTION @ PRESS
3/4" = 1'-0"



6 ELEVATION AT CONVEYOR WALL OPENING
3/8" = 1'-0"



1 BRICK QUOIN CORNER PLAN
3/4" = 1'-0"



BRICK CORNER NOTES:

1. THE BRICK QUOIN CORNERS AND PRCAST BAND SHALL MATCH THE EXISTING OPERATIONS BUILDING.
2. CUT BRICK AT CORNERS AS REQUIRED TO MAINTAIN RUNNING BOND.

5 BRICK QUOIN CORNER ELEVATION
3/4" = 1'-0"

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% DESIGN SET	PJJ
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4	2/26/2020	BID READY SET	PJJ

SEAL

GEORGIA REGISTERED No. PE035562 PROFESSIONAL ENGINEER MAHMED A. AN-NAIM

02/26/2020

OWNER

Etowah WATER & SEWER AUTHORITY "Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER:	PJJ
DESIGNED BY:	AAA
DRAWN BY:	AAA/BB
CHECKED BY:	AAA
FILE NAME:FILE NAME	
PROJECT NO.:	169-18-110

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3091 GOVERNORS LAKE DRIVE
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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
WALL SECTIONS & DETAILS

SCALE: As indicated

NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

0 1" 2"

DATE: 2/26/2020

DRAWING S.10

SHEET 30 OF 44

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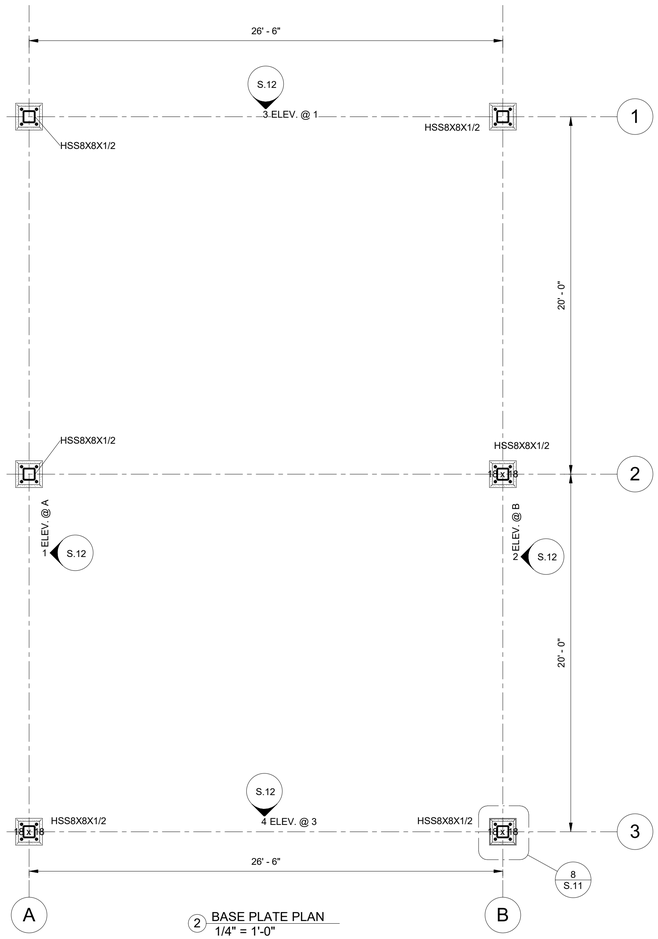
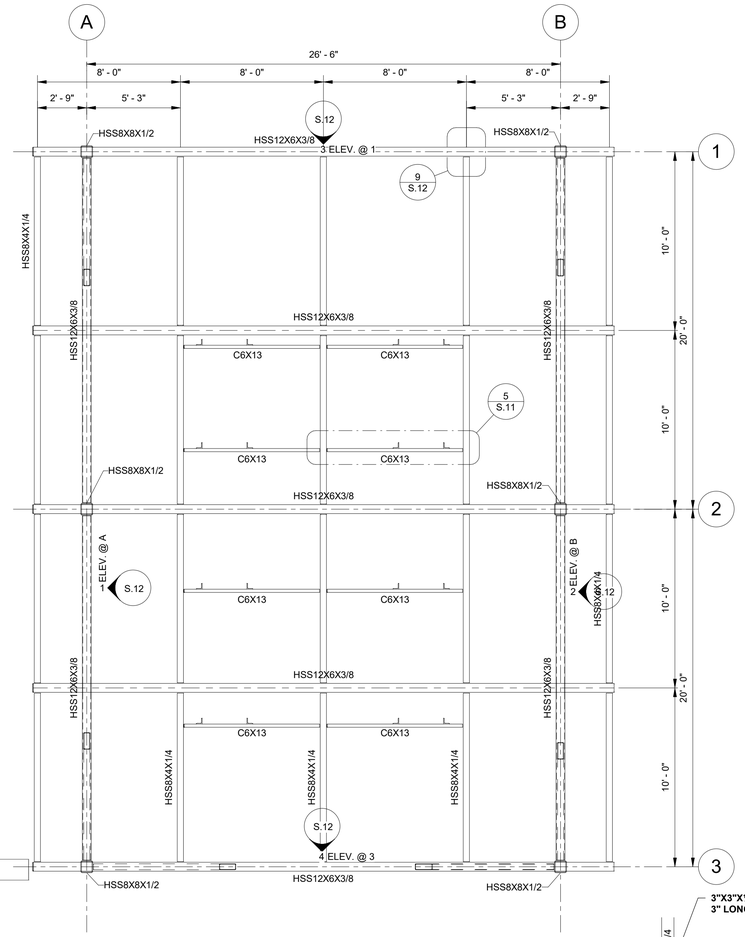
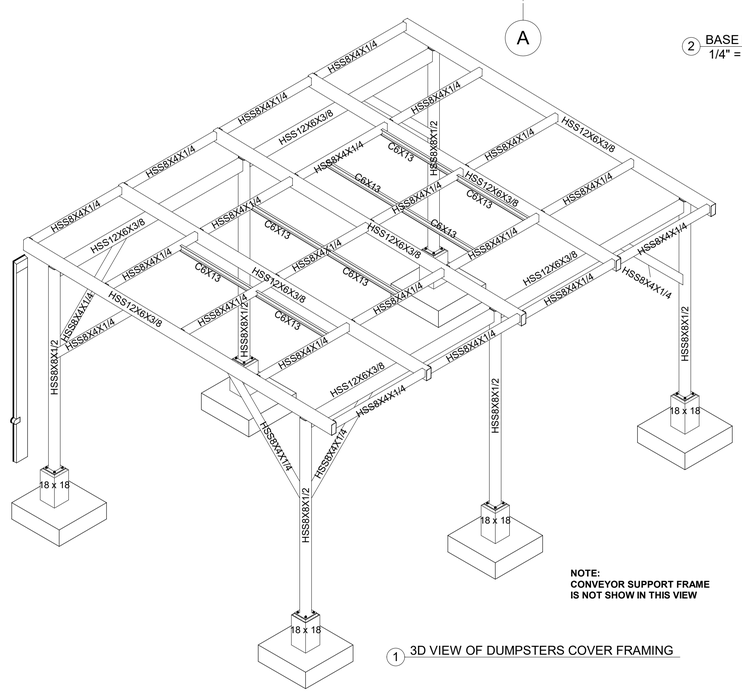
2/27/2020 4:49:40 AM



2 BASE PLATE PLAN
1/4" = 1'-0"

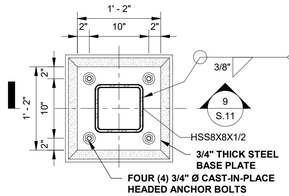


3 ROOF FRAMING PLAN
1/4" = 1'-0"

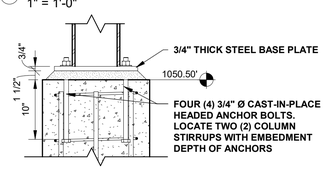


1 3D VIEW OF DUMPSTERS COVER FRAMING

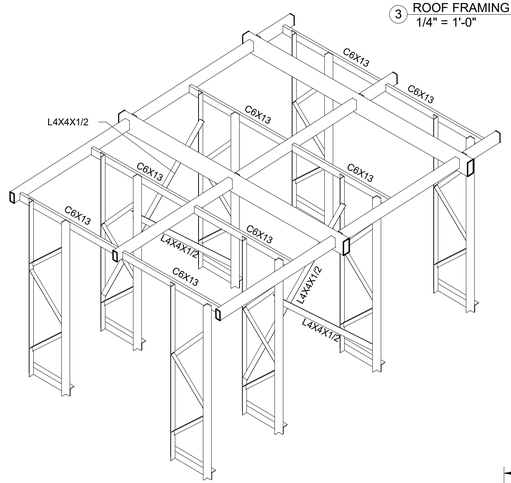
NOTE:
CONVEYOR SUPPORT FRAME IS NOT SHOW IN THIS VIEW



8 TYP. BASE PLATE DETAIL
1" = 1'-0"

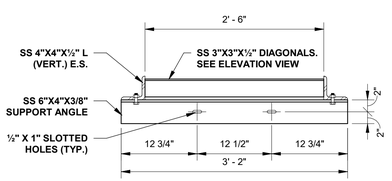


9 TYP. BASE PLATE SECTION
1" = 1'-0"



4 3D VIEW - CONVEYOR B SUPPORT FRAME

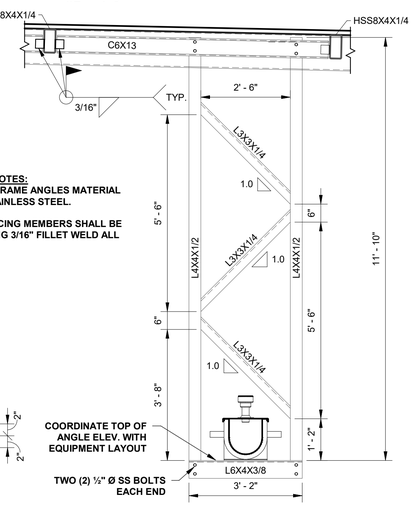
FRAMING PLANS, ELEVATIONS, 3D DRAWINGS, & DETAILS GENERAL NOTES:
1. CERTAIN COMPONENTS (E.G. EQUIPMENT, SLABS, WALLS, ROOFING SYSTEMS, ETC.) OF THE PROPOSED INFRASTRUCTURE HAVE BEEN OMITTED FROM THESE 3D DRAWINGS FOR CLARITY. SEE THE STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL DETAILS.
2. THE OWNER SHALL SELECT ALL COLORS DURING CONSTRUCTION DURING SUBMITTAL REVIEW. COLORS SHOWN ON 3D VIEWS IS ONLY FOR ILLUSTRATION PURPOSES.



7 TYP. CONVEYOR SUPPORT BOTTOM PLAN
1" = 1'-0"

5 TYP. CONVEYOR SUPPORT TOP CONNECTION
1/2" = 1'-0"

CONVEYOR SUPPORT FRAME NOTES:
1. **ALL CONVEYOR SUPPORT FRAME ANGLES MATERIAL SHALL BE 304L OR 316L STAINLESS STEEL.**
2. **ALL FRAME DIAGONAL BRACING MEMBERS SHALL BE WELDED AT EACH END USING 3/16" FILLET WELD ALL AROUND.**



6 CONVEYOR SUPPORT FRAME ELEVATION
1/2" = 1'-0"

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% DESIGN SET	PJJ
2	1/6/2020	90% DESIGN SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ

SEAL

GEORGIA REGISTERED No. PE035562 PROFESSIONAL ENGINEER AHMED A. AN-NAIM

02/26/2020

OWNER

Etowah WATER & SEWER AUTHORITY
"Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER:	PJJ
DESIGNED BY:	AAA
DRAWN BY:	AAA/BB
CHECKED BY:	AAA
FILE NAME:FILE NAME	
PROJECT NO.:	169-18-110

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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
FRAMING PLANS, ELEVATIONS, AND DETAILS

SCALE: As indicated

NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

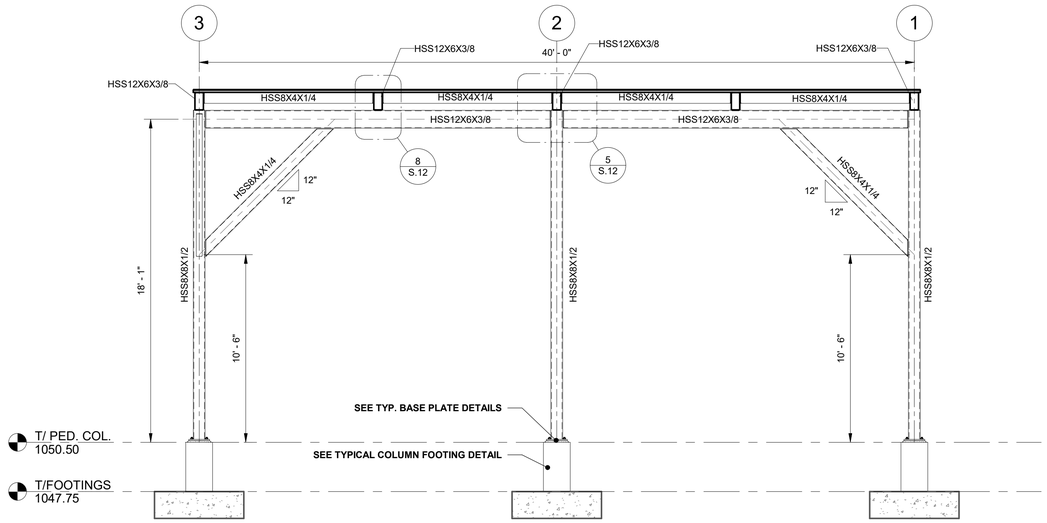
0 1" 2"

DATE: 2/26/2020

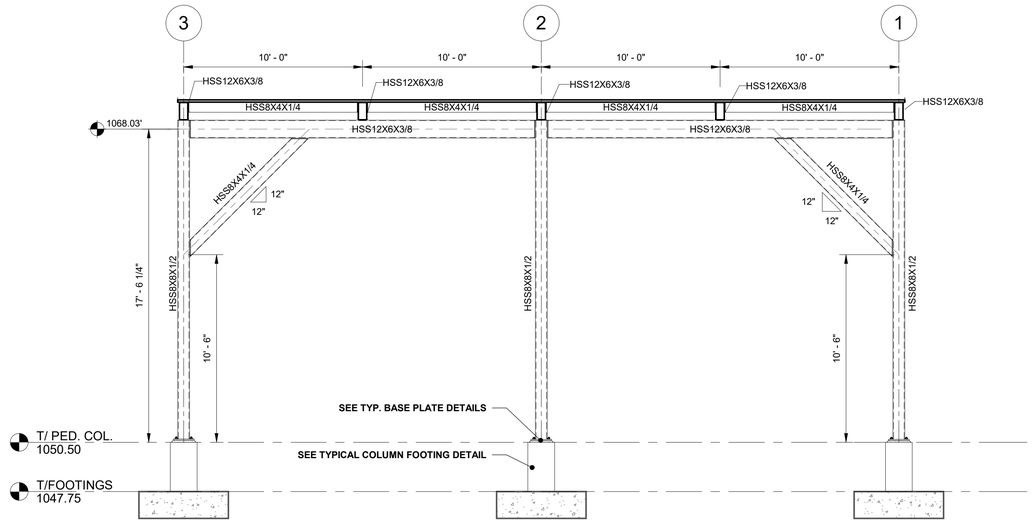
DRAWING S.11

SHEET 31 OF 44

BIM 360://ETOWAH - Dawson Forest\Proposed Dewatering Building.rvt
2/27/2020 4:49:41 AM



1 FRAMING ELEVATION ALONG COLUMN LINE A
1/4" = 1'-0"

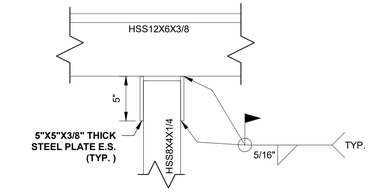


2 FRAMING ELEVATION ALONG COLUMN LINE B
1/4" = 1'-0"

3 FRAMING ELEVATION ALONG COLUMN LINES 1 & 2
1/4" = 1'-0"

7 BRACING CONNECTION TO BEAM
1 1/2" = 1'-0"

6 BRACING CONNECTION TO COLUMN
1 1/2" = 1'-0"



9 BEAM TO BEAM CONN. DETAIL (TYPE 2)
1 1/2" = 1'-0"

4 FRAMING ELEVATION ALONG COLUMN LINE 3
1/4" = 1'-0"

5 TYP. BEAM TO COLUMN DETAIL
1 1/2" = 1'-0"

8 BEAM TO BEAM CONN. DETAIL (TYPE 1)
1 1/2" = 1'-0"

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% DESIGN SET	PJJ
2	1/6/2020	90% DESIGN SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ

SEAL

GEORGIA REGISTERED No. PE035562 PROFESSIONAL ENGINEER MOHAMED A. AN-NAIM

02/26/2020

OWNER

Etowah WATER & SEWER AUTHORITY
"Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER:	PJJ
DESIGNED BY:	AAA
DRAWN BY:	AAA/BB
CHECKED BY:	AAA
FILE NAME:	FILE NAME
PROJECT NO.:	169-18-110

WIEDEMAN AND SINGLETON, INC.
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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
FRAMING ELEVATIONS AND DETAILS

SCALE: As indicated

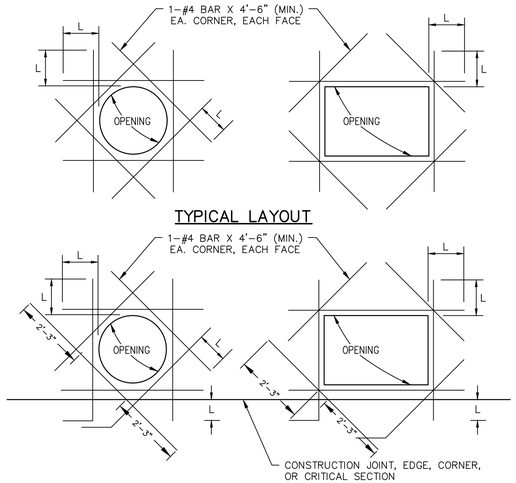
NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

0 1" 2"

DATE: 2/26/2020

DRAWING S.12

SHEET 32 OF 44



ALTERNATE LAYOUT

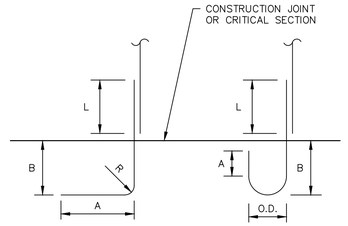
NOTES:
1. PROVIDE EXTRA BARS IN EACH MAT ON 4 SIDES OF OPENINGS 12" AND LARGER.
   1.1. BARS SHALL BE SAME SIZE AS LARGEST INTERRUPTED BAR.
   1.2. NUMBER OF BARS IN EACH FACE SHALL BE EQUAL TO THE NUMBER OF BARS INTERRUPTED EXCEPT MIN. SHALL BE ONE EACH SIDE AS SHOWN.
2. DIAGONAL BARS SHALL BE 4-#4 BARS EA. MAT.
3. FOR OPENINGS ABUTTING CONSTRUCTION JOINTS OR CORNERS AT WALLS OR SLABS WHERE DEVELOPMENT LENGTH 'L' IS NOT PRESENT BETWEEN OPENING & CRITICAL SECTION, PROVIDE DEVELOPMENT LENGTH 'L' BEYOND THE CRITICAL SECTION.
   3.1. WHERE DEVELOPMENT LENGTH 'L' IS NOT PRESENT USE 90° or 180° HOOKS.

3 OPENING IN WALL OR SLAB
NOT TO SCALE

BAR LAP AND BENDING SCHEDULE (1)(2)

BAR SIZE	BAR DIAMETER (d_B)	MINIMUM LAP (6) TYPE I (3) "NON-CONTACT" L (5)	MINIMUM LAP (6) TYPE I (3) "NON-CONTACT" LD (5)	MINIMUM LAP (6) TYPE II (4) "CONTACT" L (5)	MINIMUM LAP (6) TYPE II (4) "CONTACT" LD (5)	90° HOOK R	90° HOOK A	90° HOOK B (7)(8)	180° HOOK O.D.	180° HOOK A	180° HOOK B (7)(8)
	INCHES	INCHES	INCHES	INCHES	INCHES	INCHES	INCHES	INCHES	INCHES	INCHES	INCHES
#3	0.375	18	23	27	35	1.50	6	6	3	1.50	6
#4	0.500	24	31	35	46	2.00	8	7	4	2.00	7
#5	0.625	30	38	44	57	2.50	10	8	5	2.50	8
#6	0.750	35	46	53	69	3.00	12	10	6	3.00	10
#7	0.875	52	67	77	100	3.50	14	12	7	3.50	12
#8	1.000	59	76	88	114	4.00	16	13	8	4.00	13
#9	1.128	67	86	99	129	5.75	19	15	12	5.75	15
#10	1.270	75	97	111	145	6.50	22	17	13	6.50	17
#11	1.410	83	107	124	161	7.00	24	18	14	7.00	18

BAR LAP AND BENDING SCHEDULE NOTES:
1. DEVELOPMENT LENGTHS SHALL BE PER ACI 318-LATEST EDITION.
2. APPLIES TO NORMAL WEIGHT CONCRETE WITH COMPRESSIVE STRENGTH (f'c) = 4,500 PSI AND UNCOATED REINF. YIELD STRENGTH (Fy) = 60,000 PSI.
3. TYPE I LAP IS ONLY PERMITTED IF ONE OF THE FOLLOWING CONDITIONS EXIST;
   3.1. THE BAR CLEAR SPACING AND CLEAR COVER ARE MORE THAN Db, AND THERE ARE STIRRUPS ALONG THE SPLICE LENGTH.
   3.2. THE BAR CLEAR SPACING IS MORE THAN 2*Db, AND THE CLEAR COVER IS MORE THAN Db.
4. TYPE II LAP SHALL BE USED WHEN CONDITIONS OF 3.1 AND 3.2 ARE NOT SATISFIED.
5. LD DIMENSION SHALL BE USED FOR HORIZONTAL SPLICES WITH MORE THAN 12" OF FRESH CONCRETE BELOW THE SPLICE.
6. SIDE COVER NOT LESS THAN 2½" AND COVER ON EXTENSION NOT LESS THAN 2".
7. THE "B" DIMENSION MAY BE REDUCED TO 80% OF AMOUNT SHOWN (6" MINIMUM) FOR HOOKS ENCLOSED WITHIN TIES OR STIRRUPS.

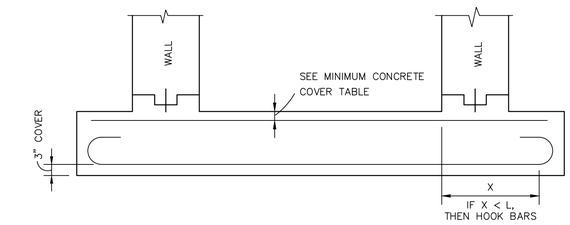


1 90° HOOK — NOT TO SCALE

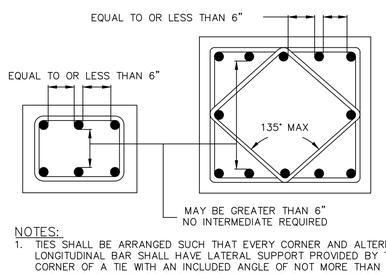
2 180° HOOK — NOT TO SCALE

MINIMUM CONCRETE COVER FOR REINFORCEMENT

		WATER RETAINING STRUCTURES (ACI 350-LATEST EDITION) DRY CONDITIONS	WATER RETAINING STRUCTURES (ACI 350-LATEST EDITION) EXTERIOR/WEATHER, WET/SUBMERGED, OR BURIED CONDITION	NON-WATER RETAINING STRUCTURES (ACI 318-LATEST EDITION) DRY CONDITIONS	NON-WATER RETAINING STRUCTURES (ACI 318-LATEST EDITION) EXTERIOR/WEATHER, WET/SUBMERGED OR BURIED CONDITION
		(INCHES)	(INCHES)	(INCHES)	(INCHES)
SLABS AND JOISTS	#11 BAR & SMALLER	0.75	--	0.75	--
	#14 & #18 BARS	1.50	--	1.50	--
	#5 BAR & SMALLER	--	1.50	--	1.50
	#6 THROUGH #18 BARS	--	2.00	--	2.00
BEAMS AND COLUMNS	STIRRUPS, SPIRALS, & TIES	1.50	2.00	1.50	1.50
	PRINCIPAL REINFORCEMENT	2.00	2.50	1.50	2.00
WALLS	#11 BAR & SMALLER	0.75	2.00	0.75	--
	#14 & #18 BARS	1.50	2.00	1.50	--
	#5 BAR & SMALLER	--	--	--	1.50
	#6 THROUGH #18 BARS	--	--	--	2.00
FOOTINGS AND BASE SLABS	FORMED SURFACE	--	2.00	--	2.00
	UNFORMED SURFACES IN CONTACT WITH EARTH/STONE	--	3.00	--	3.00
SHELLS, FOLDED PLATE MEMBERS	#6 BAR & LARGER	--	--	0.75	--
	#5 BAR, W31 OR D31 WIRE & SMALLER	--	--	0.50	--

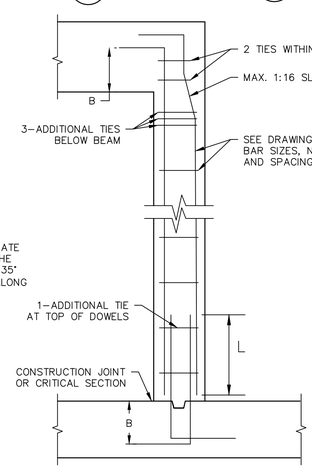


4 TYPICAL FOUNDATION SLAB REINFORCING
NOT TO SCALE



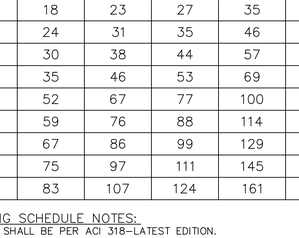
NOTES:
1. TIES SHALL BE ARRANGED SUCH THAT EVERY CORNER AND ALTERNATE LONGITUDINAL BAR SHALL HAVE LATERAL SUPPORT PROVIDED BY THE CORNER OF A TIE WITH AN INCLUDED ANGLE OF NOT MORE THAN 135° AND NO BAR SHALL BE FARTHER THAN 6" CLEAR ON EACH SIDE ALONG THE TIE FROM SUCH A LATERALLY SUPPORTED BAR.
2. TIES AND STIRRUPS SHALL BE CLOSED.

5 TIES/STIRRUP CONFIGURATION
NOT TO SCALE



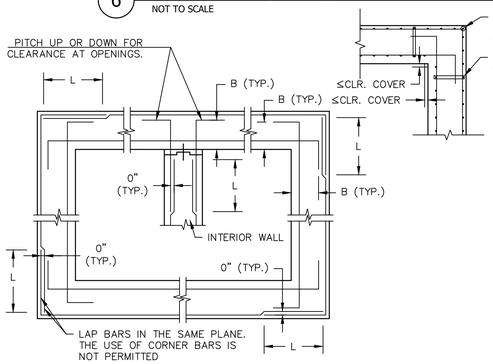
7 COLUMN DETAIL
NOT TO SCALE

6 TYPICAL SLAB, BEAM, AND GIRDER REINFORCING
NOT TO SCALE

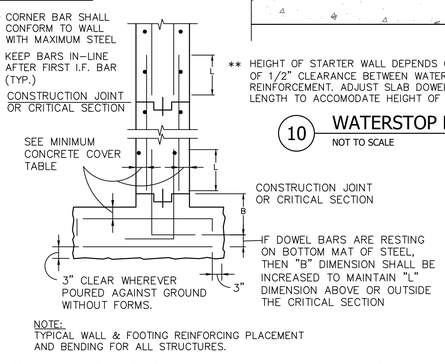


** HEIGHT OF STARTER WALL DEPENDS ON WATERSTOP SIZE. MINIMUM OF 1/2" CLEARANCE BETWEEN WATERSTOP AND SLAB REINFORCEMENT. ADJUST SLAB DOWELS AND WALL REINFORCEMENT LENGTH TO ACCOMODATE HEIGHT OF STARTER WALL.

10 WATERSTOP DETAIL
NOT TO SCALE

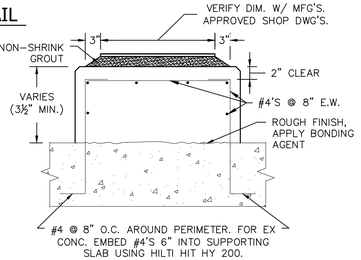


8 TYPICAL LAP ALL HORIZONTAL STEEL
NOT TO SCALE

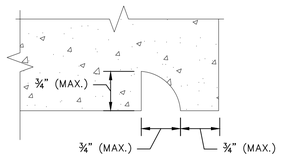


NOTE: TYPICAL WALL & FOOTING REINFORCING PLACEMENT AND BENDING FOR ALL STRUCTURES.

9 TYPICAL SECTION AT WALL & FOOTING
NOT TO SCALE



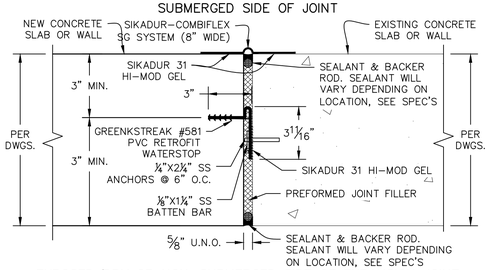
11 TYPICAL EQUIPMENT PAD
NOT TO SCALE



NOTE: PROVIDE DRIP EDGE AT ALL CONCRETE (CAST-IN-PLACE OR PRECAST) OVERHANGS OR EXTENSIONS BEYOND THE FACE OF WALL BELOW. THIS INCLUDES ALL CANTILEVERED SLABS, CHANNELS, TROUGHS, HEADERS, SILLS, ETC.

12 TYPICAL CONCRETE DRIP EDGE
NOT TO SCALE

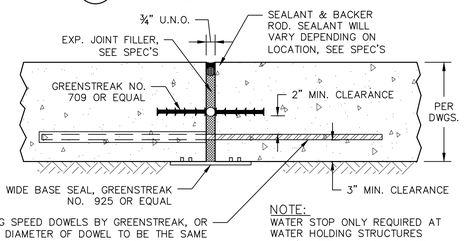
SUBMERGED SIDE OF JOINT



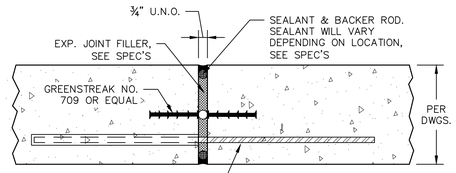
EXPOSED/DRY OR NON-SUBMERGED SIDE OF EXPANSION JOINT

NOTES:
1. THIS DETAIL APPLIES TO ALL LOCATIONS WHERE THERE IS AN EXPANSION JOINT BETWEEN NEW CONCRETE AND EXISTING CONCRETE, AND WATER IS OR COULD BE PRESENT ON ONE SIDE THE EXPANSION JOINT.
2. MAINTAIN A MINIMUM ½" CLEARANCE BETWEEN PVC WATER STOP AND REINFORCING STEEL.

13 TYP. EXP. JOINT AT NEW CONC. ADJACENT TO EXIST. CONC.
NOT TO SCALE



14 TYP. EXP. JOINT AT BASE /FOUNDATION SLABS
NOT TO SCALE



15 TYP. EXP. JOINT AT WALLS & ELEVATED SLABS
NOT TO SCALE

CHEMICAL ANCHOR EMBEDMENT DEPTH (IN.)			
ANCHOR SIZE/TYPE		CONCRETE STRENGTH	
REBAR²	THREADED³ (IN.)	< 4,000 PSI	> 4,000 PSI
#3	⅜	3¾	3
#4	½	5½	4¾
#5	⅝	7	5¼
#6	¾	8½	6½
#7	⅞	10	7¾
#8	1	11¾	9

CHEMICAL ANCHORS NOTES:
1. SEE SPECIFICATIONS SECTION 05 19 00 FOR ADDITIONAL REQUIREMENTS REGARDING CHEMICAL OR POST-INSTALLED ANCHORS.
2. EMBEDMENT DEPTHS SHOWN IN THIS TABLE ARE BASED ON HILTI HIT HY 200.
3. ANCHOR SPACING AND EDGE DISTANCE REDUCTION FACTORS ARE NOT INCLUDED.
4. REINFORCING STEEL ASTM A615 GRADE 60
5. THREADED FASTENERS ASTM F593 304/316 SS
6. ANCHOR SPACING SHALL BE AT LEAST 1.5 TIMES THE EMBEDMENT DEPTH SHOWN ABOVE.
7. ANCHOR EDGE DISTANCE SHALL BE AT LEAST 1.5 TIMES THE EMBEDMENT DEPTH SHOWN ABOVE.
8. ANCHORS EMBEDMENT DEPTHS AND SPACING SHALL BE AS SHOWN AND NOTED ABOVE UNLESS SPECIFICALLY DETAILED OTHERWISE ON THE DRAWINGS.

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% REVIEW SET	PJJ
2	1/6/2020	90% REVIEW SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ
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SEAL

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 033560 SIGNED A. AN-NAIM

02/26/2020

OWNER

Etowah Water & Sewer Authority "Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: PJJ
DRAWN BY: SKR/SPM
CHECKED BY: AAA
FILENAME: S.13 STANDARD CONCRETE DETAILS.dwg
PROJECT NO.: 273-18-210

Wiedeman and Singleton, Inc.
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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES DAWSON COUNTY, GEORGIA

SHEET TITLE: STANDARD CONCRETE DETAILS

SCALE: N.T.S.

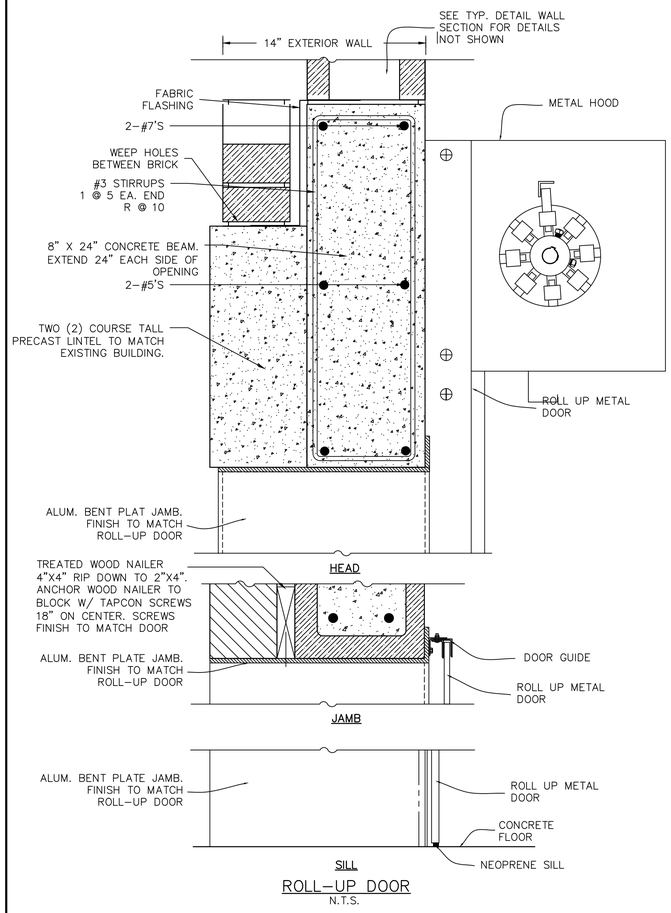
NOTE: DRAWING SCALE IS BASED ON 24x36 SHEETS. 11x17 IS 212%± OF SCALE SHOWN.

0 1" 2"

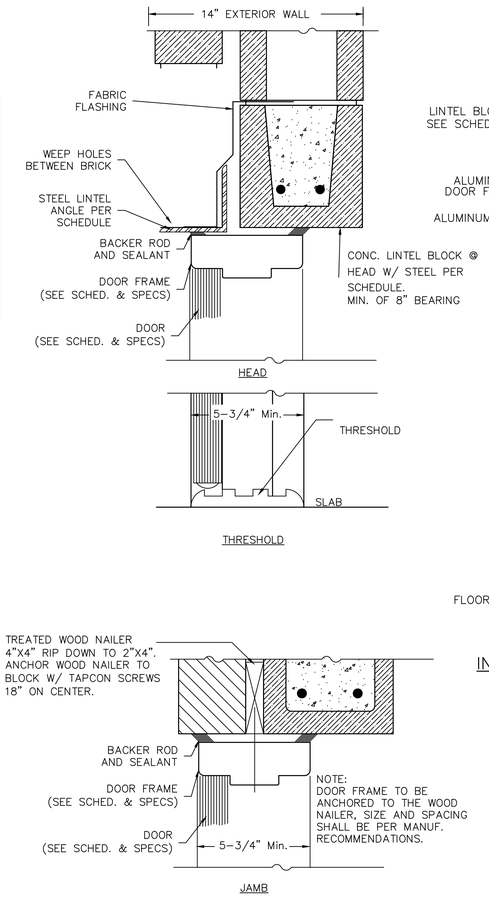
DRAWING S.13

SHEET 33 OF 44

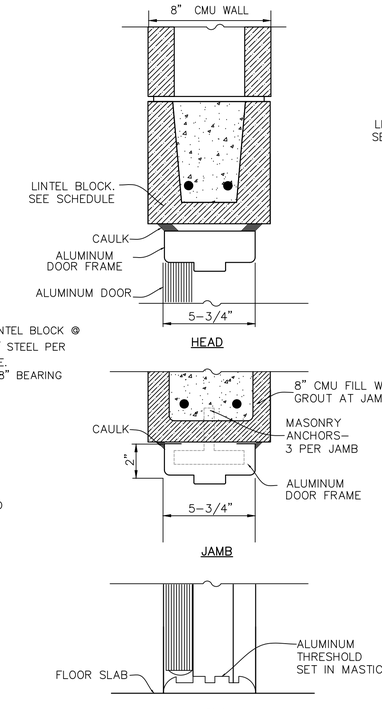
Drawing File: S.13 STANDARD CONCRETE DETAILS.dwg Feb 26, 2020 - 4:22pm



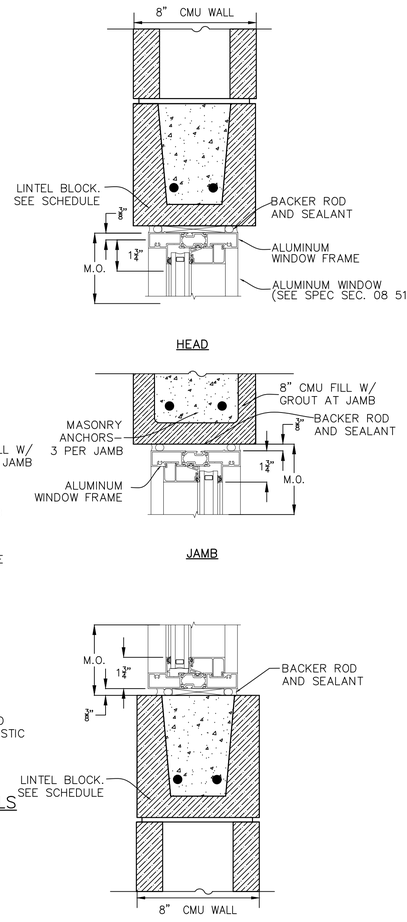
ROLL-UP DOOR
N.T.S.



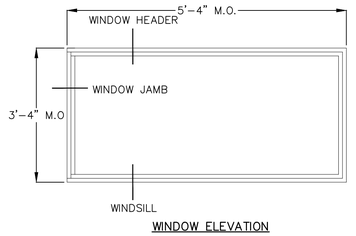
EXTERIOR DOOR OPENING
N.T.S.



INTERIOR DOOR OPENING DETAILS
NTS



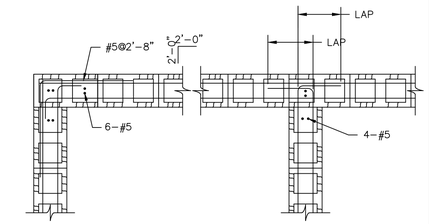
INTERIOR WINDOW OPENING DETAILS
NTS



WINDOW ELEVATION

W	"A" BARS		"B" BARS		"C" BARS		# CELLS TO GROUT NOTE 3	
	8" CMU	12" CMU	8" CMU	12" CMU	8" CMU	12" CMU	8" CMU	12" CMU
≤2'-0"	1-#5	2-#5	1-#5	2-#5	1-#5	2-#5	ONE	ONE
>2'-0" ≤6'-0"	2-#5	2-#5	1-#5	2-#5	1-#5	2-#5	ONE	ONE
>6'-0" ≤8'-0"	2-#6	2-#6	2-#5	2-#6	2-#5	2-#5	TWO	TWO
>8'-0" ≤10'-0"	2-#7	2-#8	2-#6	2-#6	2-#5	2-#6	THREE	THREE
>10'-0" ≤12'-0"	SEE DWGS.	SEE DWGS.	SEE DWGS.	SEE DWGS.	SEE DWGS.	4-#7	THREE	THREE

NOTES:
1. EXTEND "C" BARS 2'-0" MINIMUM BEYOND TOP AND BOTTOM OF OPENING EXCEPT THAT WHEN "H" OR "W" EXCEEDS 2'-0", "C" BARS SHALL EXTEND FULL HEIGHT.
2. "A" AND "B" BARS SHALL EXTEND 2'-0" EACH SIDE OF THE OPENING.
3. GROUT TO END OF BARS SEE SCHEDULE FOR NUMBER OF CELLS TO GROUT ON EACH SIDE OF THE OPENING.
4. GROUT ALL CELLS OVER OPENING TO W/2 OR 2'-0" WHICH EVER IS GREATER UNLESS TO OF WALL IS REACHED FIRST.



EXTERIOR CORNER INTERIOR CORNER

DOUBLE MAT

EXTERIOR CORNER INTERIOR CORNER

SINGLE MAT

NOTE:
LAP=48 BAR DIAMETERS OR 2'-0" MIN UNLESS OTHERWISE NOTED.

CMU WALL CORNERS
NTS

LINTEL SCHEDULE

FOR EACH 4" OF WALL THICKNESS, THE FOLLOWING ITEMS SHALL BE USED.

STEEL: (FOR BRICK WORK)

SPANS UP TO 2'-0"

2'-0" - 5'-0"	1 FLAT PLATE-3 1/2" X 3/8"
5'-0" - 6'-0"	1 ANGLE- 3 1/2 X 3 1/2 X 5/16" S.L.O.
6'-0" - 7'-0"	1 ANGLE- 4 X 3 1/2" X 5/16" S.L.O.
7'-0" - 8'-0"	1 ANGLE- 5 X 3 1/2" X 3/8" S.L.O.
8'-0" - 9'-0"	1 ANGLE- 6 X 3 1/2" X 3/8" S.L.O.

CONCRETE: (PRE-CAST)

SPANS UNDER 4'-0"

4'-0" - 5'-6"	8" DEEP 1 #4 BOTTOM
5'-6" - 7'-0"	8" DEEP 1 #4 BOTTOM
7'-0" - 8'-6"	8" DEEP 1 #6 BOTTOM
8'-0" - 11'-0"	16" DEEP 1 #6 BOTTOM

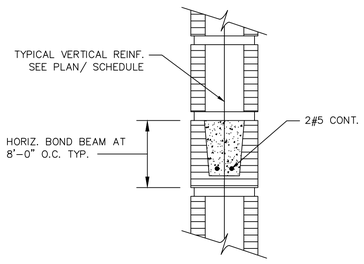
BLOCK: (CONCRETE FILLED LINTEL BLOCK)

SPANS UNDER 3'-6"

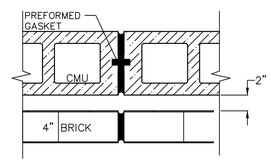
3'-6" - 5'-0"	8" DEEP 1 #4 BOTTOM
5'-0" - 6'-0"	8" DEEP 1 #4 BOTTOM
6'-0" - 8'-0"	16" DEEP 1 #6 BOTTOM 1 #5 BOTTOM

NOTE: BEAR ALL LINTELS A MIN. OF 8" EACH END.

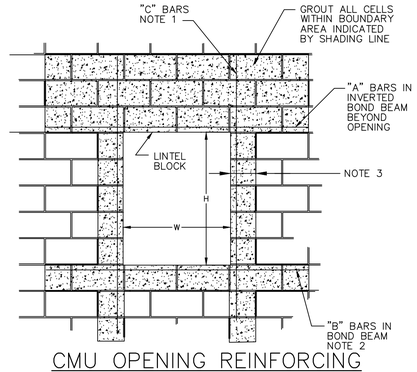
LINTEL SCHEDULE
NTS



TYP. HORIZ. BOND BEAM DETAIL
NTS



CONTROL JOINT DETAIL
N.T.S.



CMU OPENING REINFORCING
NTS

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% REVIEW SET	PJJ
2	1/6/2020	90% REVIEW SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	----
----	----	----	----
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SEAL

GEORGIA REGISTERED No. PE035562 PROFESSIONAL ENGINEER AHMED A. AN-NAIM
02/26/2020

OWNER

Etowah WATER & SEWER AUTHORITY "Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: PJJ
DRAWN BY: SKR/SPM
CHECKED BY: AAA
FILENAME: S14 MISCELLANEOUS STRUCTURAL-DETAILS.dwg
PROJECT NO.: 273-18-210

WIEDEMAN AND SINGLETON, INC.
Civil and Environmental Engineers
3091 GOVERNORS LAKE DRIVE
SUITE 450
NORCROSS, GA 30071
(404) 876-5862
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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: MISCELLANEOUS STRUCTURAL DETAILS

SCALE: AS SHOWN

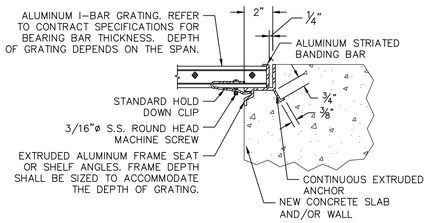
NOTE: DRAWING SCALE IS BASED ON 24x36 SHEETS.

0 1" 2"

DRAWING S.14

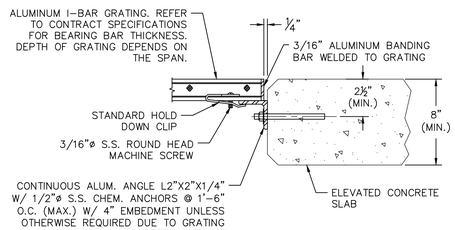
SHEET 34 OF 44

Drawing File: S.14 MISCELLANEOUS STRUCTURAL DETAILS.dwg, S.14 MISCELLANEOUS STRUCTURAL DETAILS, Feb 26, 2020 - 4:22pm

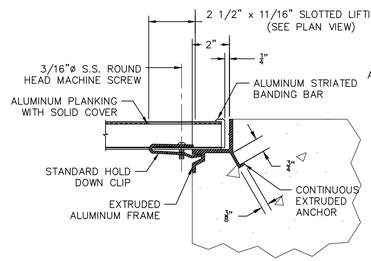


NOTE: ALUM. SURFACES IN CONTACT WITH CONC. AND/OR GROUT TO BE COATED WITH BITUMASTIC.

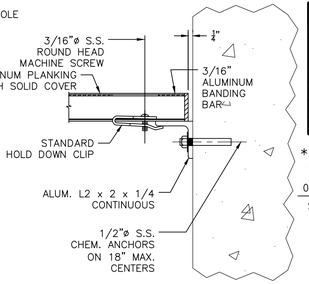
1 GRATING AT NEW CONCRETE
Scale: NTS



2 GRATING AT ELEVATED CONCRETE SLAB
Scale: NTS



3 SOLID COVER PLANKING
Scale: NTS



4 PUNCHED COVER PLANKING
Scale: NTS

ALUMINUM I-BAR TREADS	
BEARING BAR SIZE	MAXIMUM TREAD LENGTH *
1 1/4"	2'-8"
1 1/2"	3'-6"
1 3/4"	4'-7"
2"	5'-8"

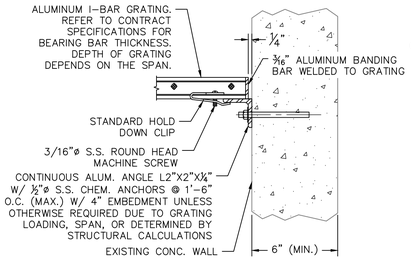
* BASED ON 400 LB. CONCENTRATED LOAD APPLIED ON THE CENTERLINE OF THE SPAN AND DISTRIBUTED OVER THE NOSING & 4 BEARING BARS

SAME TABLE FOR PLANKING TREADS WHEN SPECIFIED ON DRAWINGS

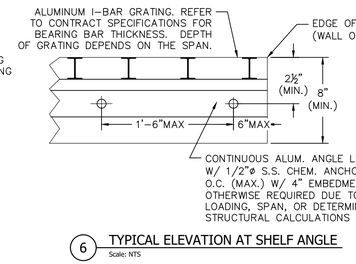
NOTES:
1. GRATING SHALL BE FABRICATED OF ALUMINUM I-SHAPED BARS, ALLOY 6063-T6, WITH SWAGED CROSS BARS SPACED ON 4" CENTERS. BEARING BARS SHALL BE SPACED ON 1 3/16" CENTERS. TOP SURFACE OF BEARING BARS SHALL BE STRIATED TO PROVIDE A NON-SLIP SURFACE.
2. PLANKING SHALL BE EXTRUDED FROM ALUMINUM ALLOY 6063-T6. TOP SURFACE SHALL BE PUNCHED (WITH UPSET EDGES) OR UNPUNCHED, AS SPECIFIED ON THE PLANS, AND SHALL HAVE CONTINUOUS STRIATIONS FOR SKID RESISTANCE.
3. GRATING AND PLANKING SHALL SUPPORT A UNIFORM LOAD OF 200 POUNDS PER SQUARE FOOT WITH A DEFLECTION OF NOT MORE THAN 1/4". MAXIMUM FIBER STRESS SHALL NOT EXCEED THAT ALLOWED BY THE ALUMINUM ASSOCIATION. MINIMUM DEPTH SHALL BE 1 1/4".
4. STANDARD INSTALLATION CLEARANCES AND TOLERANCES SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT METAL BAR GRATING MANUAL PUBLISHED BY THE NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS.
5. INSTALL ALUMINUM CLAMPS OR CLIPS TO ANCHOR GRATING AND PLANKING TO SUPPORTS. A MINIMUM OF FOUR FASTENERS IS REQUIRED PER PANEL UNLESS OTHERWISE NOTED ON THE DRAWINGS. CLIPS SHALL NOT PROTRUDE ABOVE THE TOP OF THE GRATING.
6. CUTOUTS FOR CIRCULAR OBSTRUCTIONS TO BE AT LEAST 2" LARGER IN DIAMETER THAN THE OBSTRUCTION. CUTOUTS FOR ALL PIPING 4" AND LESS IN DIAMETER TO BE MADE IN THE FIELD. ALL OPENINGS WHERE MORE THAN FOUR BEARING BARS ARE CUT SHALL BE BANDED WITH BAR THE SAME DEPTH AS THE BEARING BARS. THE ENDS OF ALL GRATING AND PLANKING SHALL BE BANDED.
7. SHELF ANGLES SHALL BE ANCHORED TO CONCRETE WITH STAINLESS STEEL TYPE 303 OR 304 WEDGE ANCHORS.
8. ALUMINUM STAIR TREADS SHALL BE I-BAR GRATING TYPE TREADS AND SHALL BE FURNISHED WITH EXTRUDED ALUMINUM CORRUGATED NOSING. ALUMINUM CARRIER ANGLES SHALL BE WELDED TO THE ENDS OF STAIR TREADS. MINIMUM DEPTH OF GRATING TREADS SHALL BE 1 1/4".
9. ALUMINUM SURFACES IN CONTACT WITH CONCRETE OR DISSIMILAR METALS SHALL BE PROTECTED WITH A COAT OF BITUMINOUS PAINT.

LOAD CHART FOR ALUMINUM PLANK GRATING	
MAXIMUM SPAN	GRATING DEPTH
4'-0"	1 1/4"
4'-8"	1 1/2"
5'-2"	1 3/4"
5'-8"	2"
6'-2"	2 1/4"
6'-9"	2 1/2"

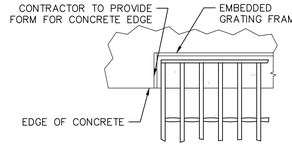
ALUMINUM I-BAR TREADS		
TREAD WIDTH	NUMBER OF BEARING BARS	DIM. A
6 5/8"	5	2 1/2"
7 13/16"	6	4 1/2"
9"	7	4 1/2"
10 3/16"	8	7"
11 3/8"	9	7"
12 9/16"	10	7"



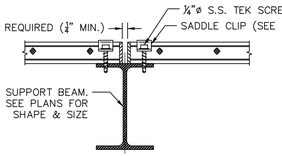
5 GRATING AT FACE OF EXISTING CONCRETE WALL
Scale: NTS



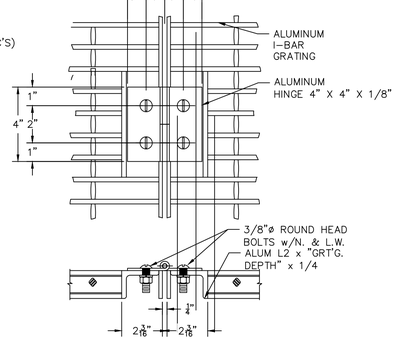
6 TYPICAL ELEVATION AT SHELF ANGLE
Scale: NTS



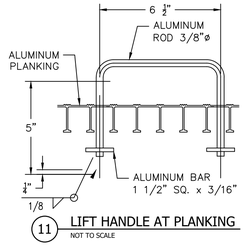
7 OPEN ENDED GRATING FRAME
Scale: NTS



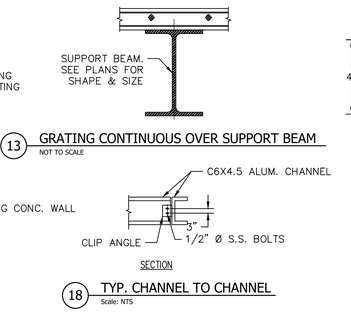
8 GRATING AT END SUPPORT BEAM
Scale: NTS



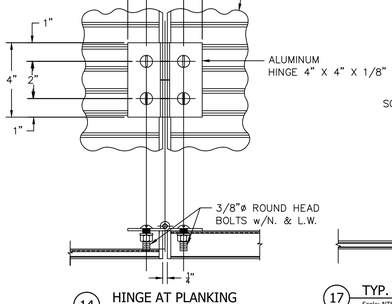
9 HINGE AT I-BAR GRATING
NOT TO SCALE



11 LIFT HANDLE AT PLANKING
NOT TO SCALE



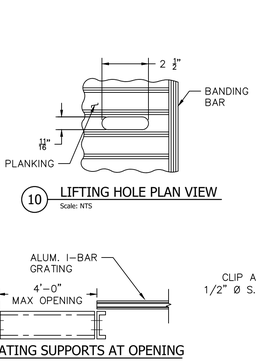
12 GRATING AT TOP OF EXISITNG CONCRETE WALL
Scale: NTS



13 GRATING CONTINUOUS OVER SUPPORT BEAM
NOT TO SCALE

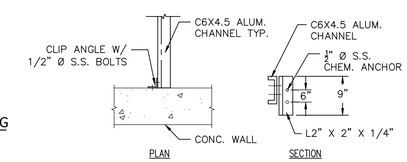
18 TYP. CHANNEL TO CHANNEL
Scale: NTS

14 HINGE AT PLANKING
Scale: NTS

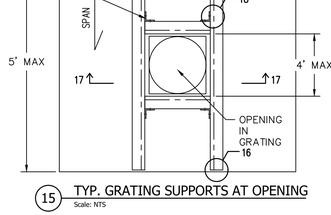


10 LIFTING HOLE PLAN VIEW
Scale: NTS

17 TYP. GRATING SUPPORTS AT OPENING
Scale: NTS



16 TYP. CHANNEL TO WALL
Scale: NTS



15 TYP. GRATING SUPPORTS AT OPENING
Scale: NTS

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% REVIEW SET	PJJ
2	1/6/2020	90% REVIEW SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ
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SEAL

GEORGIA REGISTERED No. PE035562 PROFESSIONAL ENGINEER AHMED A. AN-NAIM
02/26/2020

OWNER

Etowah Water & Sewer Authority
"Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: PJJ
DRAWN BY: SKR/SPM
CHECKED BY: AAA
FILENAME: S.15 TYPICAL GRATING DETAILS.dwg
PROJECT NO.: 273-18-210

Wiedeman and Singleton, Inc.
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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: TYPICAL GRATING DETAILS

SCALE: N.T.S.

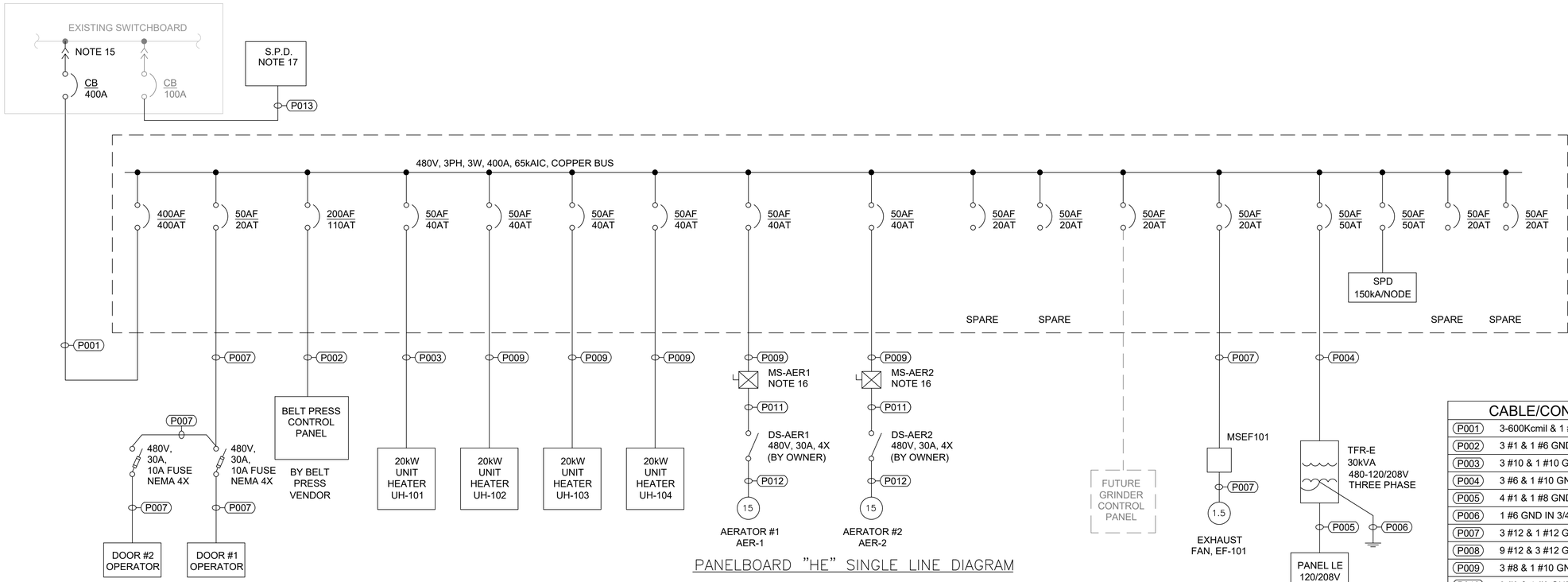
NOTE: DRAWING SCALE IS BASED ON 24x36 SHEETS. 11x17 IS 212%± OF SCALE SHOWN.

0 1" 2"

DRAWING S.15

SHEET 35 OF 44

Drawing file: S.15 TYPICAL GRATING DETAILS.dwg S.15 TYPICAL GRATING DETAILS Feb 26, 2020 - 4:22pm



PANELBOARD "HE" SINGLE LINE DIAGRAM

CABLE/CONDUIT SCHEDULE	
P001	3-600Kcmil & 1 #3 GND IN 3.5" C.
P002	3 #1 & 1 #6 GND IN 1.25" C
P003	3 #10 & 1 #10 GND IN 3/4" C
P004	3 #6 & 1 #10 GND IN 3/4" C
P005	4 #1 & 1 #8 GND IN 1.5" C
P006	1 #6 GND IN 3/4" C
P007	3 #12 & 1 #12 GND IN 3/4" C
P008	9 #12 & 3 #12 GND IN 1" C
P009	3 #8 & 1 #10 GND IN 3/4" C
P010	3 #3 & 1 #8 GND IN 1" C
P011	3 #6 & 1 #6 GND IN 1" C.
P012	AERATOR CABLE BY VENDOR
P013	5 #2 IN 1.25" C.

GENERAL NOTES:

1. ALL ELECTRICAL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE 2017 EDITION, THE LIFE SAFETY CODE, AND ALL STATE, COUNTY AND LOCAL CODES.
2. THE CONTRACTOR SHALL OBTAIN ALL THE REQUIRED PERMITS FOR CONSTRUCTION PAY ALL FEES AND OBTAIN ALL THE REQUIRED INSPECTIONS, IN PROVIDING THE OWNER WITH A COMPLETE ELECTRICAL SYSTEM, READY FOR CERTIFICATE OF OCCUPANCY.
3. THE CONTRACTOR SHALL COORDINATE THE WORK WITH ALL TRADES AT ALL STAGES OF CONSTRUCTION, COORDINATE THE LOCATION OF DEVICES TO AVOID CONFLICTS AND REPORT ALL SUCH CONFLICTS TO THE OWNER/ENGINEER. SEE SEQUENCING OF WORK NOTES FOR SCHEDULING RESTRICTIONS ASSOCIATED FOR WORK DETAILED.
4. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS BEFORE SUBMITTING HIS OR HER BID. WORK ON NEW CONSTRUCTION SHALL NOT OBSTRUCT DAILY OPERATIONS OF THE FACILITIES.
5. THE CONTRACTOR CAN COMBINE HOME RUNS FOR CIRCUITS ON A SINGLE RACEWAY. PROVIDE DEDICATED NEUTRAL. NO MORE THAN 3 CIRCUITS IN A SINGLE RACEWAY EQUIVALENT TO A 3 PHASE 4 WIRE CIRCUIT IN A SINGLE RACEWAY SHALL BE ACCEPTABLE.
6. ALL SIGNAL CONDUCTORS SHALL BE ROUTED IN DEDICATED CONDUIT. DO NOT ROUTE WITH POWER OR CONTROL (#14) CONDUCTORS. WHEN SIGNAL CONDUCTORS SHARE COMMON JUNCTION BOX, PULLBOX, HANDHOLE, OR MANHOLE PROVIDE A PHYSICAL BARRIER BETWEEN CONDUCTORS.
7. CONTRACTOR SHALL TERMINATE ALL CONTROL AND SIGNAL CABLES IN ALL CONTROL PANELS. PROVIDE LABELS FOR ALL CONDUCTORS.
8. THE CONTRACTOR SHALL INSTALL NEW CONDUCTORS AS SHOWN ON THE DRAWINGS. CONTRACTOR SHALL INSTALL NEW CONDUIT AS REQUIRED FOR FINAL TERMINATIONS TO LIGHTS, PANELS, RECEPTACLES, DEVICES, ETC.
9. IN CASE OF DISCREPANCY BETWEEN THE DRAWINGS AND THE SPECIFICATIONS, THE CONTRACTOR SHALL PRICE THE MOST EXPENSIVE ITEM AND REQUEST APPROPRIATE DIRECTION FROM THE OWNER AND ENGINEER. UNDER NO CIRCUMSTANCES SHALL SUCH DISCREPANCIES RESULT IN ADDITIONAL COSTS TO THE OWNER OR RESULT IN ANY CHANGE ORDERS.
10. ALL OUTSIDE DEVICES SHALL BE NEMA 4X SS INCLUDING BOXES, PANELS, HARDWARE, FASTENERS, ETC., UNLESS NOTED OTHERWISE.
11. CONTRACTOR COORDINATE ALL DUCTBANK ROUTING WITH EXISTING UNDERGROUND PIPING, CONDUITS, TREES, AND UTILITIES.
12. ALL EXTERIOR CONDUIT SHALL BE ALUMINUM. ALL INTERIOR CONDUIT INSIDE THE DEWATERING BUILDING SHALL BE ALUMINUM; ALL OTHER PLACES SHALL BE RIGID GALVANIZED STEEL. ALL UNDERGROUND CONDUIT SHALL BE PVC-SCHEDULE 40, U.N.O.
13. ALL EXTERIOR CONDUIT AND BOX CONNECTIONS SHALL BE MADE WITH MYERS WATERTIGHT HUBS.
14. EF-101 VFD WILL BE FURNISHED BY THE HVAC CONTRACTOR. CONTRACTOR SHALL PROVIDE POWER AND CONDUIT TO VFD AND FAN AND INTERCONNECTING WIRING (2 #12 & 1 #12 GND IN 3/4" C.) BETWEEN VFD AND LOUVER #1, LOUVER #2, AND THE FAN DAMPER.
15. INSTALL NEW 480V, 3P, 400A BREAKER IN EXISTING SWITCHBOARD. NEW BREAKER SHALL BE OF THE SAME MANUFACTURER AND HAVE THE SAME AIC RATING AS THE EXISTING BREAKERS. SEE FIGURE 1: EXISTING SWITCHBOARD ON E.06.

SYMBOLS

- DISCONNECT, NON-FUSED. PROVISION FOR CLASS R FUSES.
- FIELD INSTRUMENT CONNECTION
- NEMA 4X START/STOP HAND STATION MOUNTED TO HANDRAIL
- $ — 120V, 20A, 1P, WP TOGGLE SWITCH WITH ALUMINUM PLATE.
- $M — 120V, 20A, 1P, MOTOR TOGGLE SWITCH - NEMA 4X FRP
- DUPLEX 120V RECEPTACLE, 120V, 20A, 1P, GFCI, WEATHERPROOF WITH PHENOLIC PLATE MOUNT 18" AFF UON. PROVIDE FRP BOXES AND COVERS FOR RECEPTACLES IN DEWATERING BUILDING.
- DUPLEX 120V RECEPTACLE, 120V, 20A, 1P MOUNT 6" ABOVE COUNTER TOP
- JB J — JUNCTION BOX - NEMA 4X SS UNLESS OTHERWISE NOTED
- WIRING RUN CONCEALED IN FINISHED AREAS OR EXPOSED IN UNFINISHED AREAS. CONTINUOUS LINE INDICATES ABOVE FLOOR WIRING; DASHED LINE INDICATES WIRING BELOW GRADE OR BELOW SLAB. HASH MARKS INDICATE NUMBER OF #12 WIRES (SHORT WIRES INDICATE PHASE CONDUCTORS, LONG HASH INDICATES NEUTRAL CONDUCTOR IF REQUIRED; GROUND WIRE IS NOT INDICATED, BUT IS ALWAYS PRESENT BY THE REQUIREMENT THAT ALL CONDUITS CONTAIN A GREEN GROUNDING CONDUCTOR). NO HASH MARKS INDICATE 2 #12 AND 1 #12 GROUND IN 3/4" CONDUIT.

EXAMPLES:

2 HOTS, 1 NEUT., 1 GND. — 3 HOTS, 1 NEUT., 1 GND. — 3 HOTS, 0 NEUT., 1 GND. — 4 HOTS, 2 NEUT., 1 GND.

- LP-1,3 — HOMERUN TO PANEL BOARD (i.e. PANEL BOARD "LP", CIRCUITS 1&3); DEPICTION OF LINE INDICATES SAME AS NOTED ABOVE. NO HASH MARKS INDICATE 2 #12 AND 1 #12 GROUND IN 3/4" CONDUIT.

16. FURNISH AND INSTALL A NEMA 1 COMBINATION STARTER / DISCONNECT WITH THE FOLLOWING OPTIONS: 15HP, 480V, 3PH, NEMA FVNR SIZE 2 COMBINDATION STARTER, 120V CONTROL VOLTAGE, ON INDICATOR LIGHT, OFF INDICATOR LIGHT, H-O-A SWITCH (AUTO FROM SCADA), ELAPSED TIME METER, ELECTRONIC OVERLOAD. TYPICAL FOR 2.
17. INSTALL NEW WALL MOUNTED SURGE PROTECTION DEVICE (SPD) IN MAIN ELECTRICAL ROOM. SPD SHALL BE ABB TG3 IN NEMA 1 ENCLOSURE WITH THE FOLLOWING OPTIONS: 200kA, WALL MOUNT, FILTER, 480Y/277V, ADVANCED MONITORING PACKAGE WITH SURGE COUNTER. LOCATE WITHIN 10 FEET OF BREAKER.

SERVICE 120/208V,3ø,4W — **PANEL LE** — MAIN 100A M.B

MTG SURFACE — A.I.C. 10,000 — REMARKS BELT PRESS CONTROL ROOM

BRANCH CIRCUIT NO.	LOAD DESCRIPTION	LOAD(kVA) A	B	C	TRIP	PHASE A B C	TRIP	LOAD(kVA) A	B	C	LOAD DESCRIPTION	BRANCH CIRCUIT NO.
1	DEWATERING EXTERIOR LIGHTS	1.60			20		20	0.9			BELT PRESS RECEPTACLES	2
3	DEWATERING EXTERIOR LIGHTS		1.44		20		20		0.9		BELT PRESS RECEPTACLES	4
5	DEWATERING INTERIOR LIGHTS			0.24	20		20			0.9	BELT PRESS RECEPTACLES	6
7	DEWATERING INTERIOR LIGHTS	0.5			15		20	0.9			BELT PRESS RECEPTACLES	8
9	POLYMER CONTROL PNL		0.75		20		20		0.1		LCP-DEWATERING	10
11	BELT PRESS LOCAL PANEL			0.1	20		15			1.25	MINI SPLIT SYSTEM	12
13	SPARE				20		↓	1.25			↓	14
15	SPARE				20		20		0.1		HEAT TRACE CIRCUIT	16
17	SPARE				20						SPACE	18
19	SPARE				20						SPACE	20
21	SPARE				20						SPACE	22
23	SPARE				20						SPACE	24
25	SPACE										SPACE	26
27	SPACE										SPACE	28
29	SPACE										SPACE	30
31	SPACE										SPACE	32
33	SPACE										SPACE	34
35	SPACE										SPACE	36
37	SPACE										SPACE	38
39	SPACE										SPACE	40
41	SPACE										SPACE	42

NOTE 4 — NOTE 3

NOTES: 1) ROUTE 2 #12 & 1 #12 GND IN 3/4" C. TO EACH 20A, 1P CIRCUIT SHOWN
2) PROVIDE GFCI CIRCUIT BREAKER
3) PROVIDE 25mA GFCI CIRCUIT BREAKER
4) ROUTE THROUGH LIGHTING CONTACTOR

CONNECTED LOAD: A 5.15 kVA B 3.29 kVA C 2.39 kVA TOTAL 10.83 kVA

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% DESIGN SET	DMZ
2	1/6/2020	90% DESIGN SET	DMZ
3	1/24/2020	REGULATORY REVIEW SET	DMZ
4	2/26/2020	BID READY SET	DMZ

SEAL

GEORGIA REGISTERED No. 38080 PROFESSIONAL 2/26/20 ENGINEER DAVID M. ZIMMER

OWNER

Etowah Water & Sewer Authority "Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: DMZ
DRAWN BY: AP
CHECKED BY: DMZ
FILE NAME: FILE NAME
PROJECT NO.: 273-18-210

Wiedeman and Singleton, Inc.
Civil and Environmental Engineers
3091 GOVERNORS LAKE DRIVE
SUITE 430
NORCROSS, GA 30071
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WWW.WIEDEMAN.COM

PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
ELECTRICAL ONE LINE, NOTES, AND SCHEDULES

SCALE: N.T.S.

NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

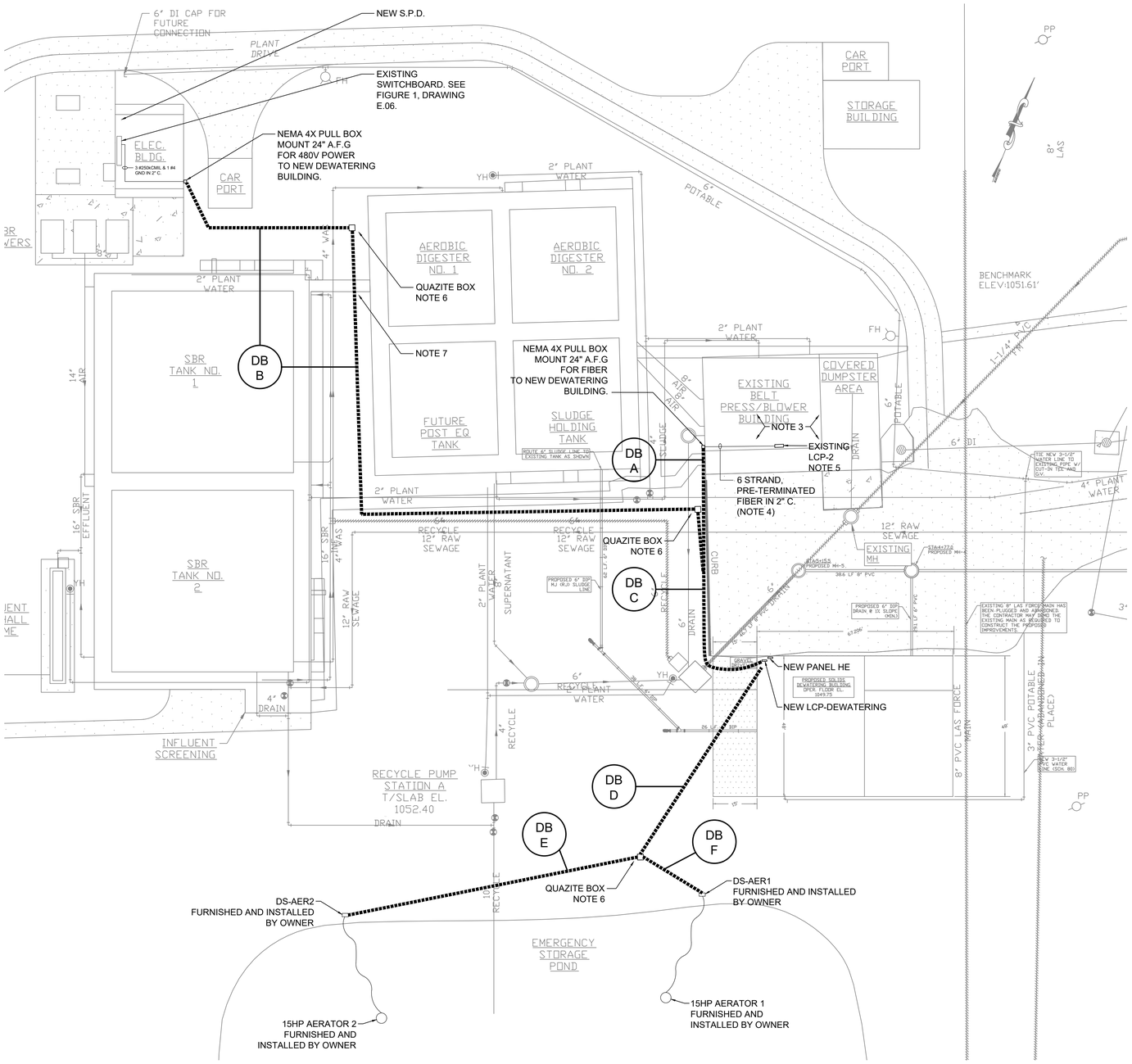
0 1" 2"

DATE: 1/6/20

DRAWING E.01 SHEET OF

ESAD PROJECT #20001

ESAD, LLC
885 WOODSTOCK ROAD
SUITE 430-231
ROSWELL, GA 30075
PH: 678-469-5196



1 ELECTRICAL SITE PLAN
1" = 20'-0"

NOTES:
1. CONTRACTOR SHALL COORDINATE ALL DUCTBANK ROUTING WITH THE EXISTING UNDERGROUND UTILITIES, INCLUDING PROCESS PIPING, PRIOR TO INSTALLATION. IF CONFLICT OCCURS, CONTRACTOR SHALL REROUTE DUCTBANK AT NO EXTRA CHARGE TO THE OWNER.

2. ALL DUCTBANKS SHALL BE CONCRETE ENCASED. ALL DUCTBANKS UNDER ROADWAYS, VEHICLE TRAFFIC, ASPHALT SHALL BE REINFORCED. DUCTBANKS SHALL BE EXTENDED UNDER NEW BUILDING TO EQUIPMENT BEING SERVED. DO NOT STOP AT BUILDING EDGE.

3. SEE DEMOLITION PLAN AND SECTIONS (D.01) FOR INTERIOR AND EXTERIOR DEMOLITION SCOPE OF WORK IN THIS AREA.

4. CONTRACTOR SHALL FURNISH AND INSTALL A 6 STRAND INDOOR / OUTDOOR PRE-TERMINATED FIBER CABLE BETWEEN EXISTING LCP-2 PANEL AND THE LCP-DEWATERING PANEL. FIBER CABLE SHALL BE BERKTEK 62.5/125uM, MULTIMODE, LOOSE TUBE, ST CONNECTORS AT BOTH ENDS, 6 STRANDS, AND BE RATED FOR INDOOR/OUTDOOR USE AND IN DUCTBANKS.

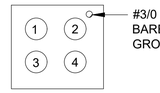
5. EXTEND CONDUIT AND FIBER CABLE TO EXISTING LCP-2 PANEL. FIBER SHALL INCLUDE 10 FEET OF SLACK INSIDE EXISTING PANEL LCP-2. OWNER WILL MODIFY PANEL.

6. 13" x 24" x 18" DEEP QUAZITE POLYMER CONCRETE BOX WITH OPEN BOTTOM AND #PG1324HH17 COVER. INSTALL ON 10" BED OF #57 CRUSHED STONE. TYPICAL FOR 3. BOX SHALL BE LOCATED AT LOW POINT OF DUCTBANK SUCH THAT WATER CANNOT FLOW INTO BUILDINGS.

7. CUT EXISTING CONCRETE WALKWAY AS REQUIRED FOR NEW DUCTBANK. REPAIR TO LIKE NEW CONDITION. TYPICAL FOR TWO LOCATIONS.

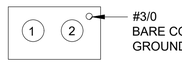
DB-A

1 - 2" PVC (480V POWER)
2 - 2" PVC (SPARE)



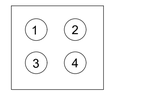
DB-C

1 - 3.5" PVC (480V POWER)
2 - 2" PVC (FIBER)
3 - 2" PVC (SPARE)
4 - 3.5" PVC (SPARE)



DB-B

1 - 3.5" PVC (480V POWER)
2 - 3.5" PVC (SPARE)



DB-D

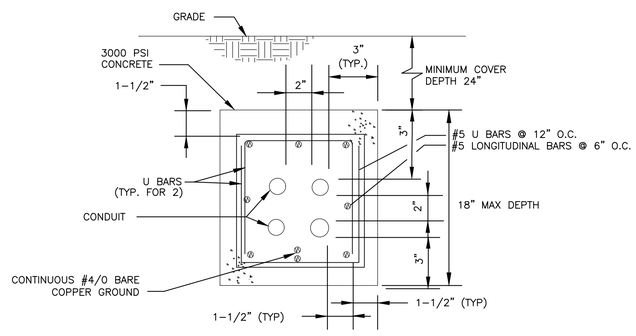
1 - 1" PVC (AERATOR 1)
2 - 1" PVC (AERATOR 2)
3 - 1" PVC (SPARE)
4 - 1" PVC (SPARE)

DB-E

1 - 1 PVC (AERATOR 2)

DB-F

1 - 1 PVC (AERATOR 1)



NOTES:
1. INSTALL IN VERTICAL AND HORIZONTAL PLANES, AT TRANSITION, PROVIDE 24" X 24" BENT BARS FOR SPLICING.
2. PROVIDE REINFORCED DUCT BANK BEYOND STRUCTURE AND DIRECTLY UNDER EQUIPMENT BEING SERVED. DO NOT STOP AT BUILDING EXTERIOR.
3. DUCTABNKS AT BUILDINGS AND STRUCTURES SHALL NOT BE LOW POINTS (SLOPE DUCTBANKS DOWN AND AWAY FROM BUILDING AND STRUCTURES).

REINFORCED DUCT BANK SECTION

DETAIL A / E.2

SCALE: NONE

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% DESIGN SET	DMZ
2	1/6/2020	90% DESIGN SET	DMZ
3	1/24/2020	REGULATORY REVIEW SET	DMZ
4	2/26/2020	BID READY SET	DMZ

SEAL

GEORGIA REGISTERED No.38080 PROFESSIONAL 2/26/20 ENGINEER DAVID M. ZIMMER

OWNER

Etowah WATER & SEWER AUTHORITY
"Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER:	PJJ
DESIGNED BY:	DMZ
DRAWN BY:	AP
CHECKED BY:	DMZ
FILE NAME:	FILE NAME
PROJECT NO.:	273-18-210

Wiedeman and Singleton, Inc.
Civil and Environmental Engineers
3091 GOVERNORS LAKE DRIVE
SUITE 430
NORCROSS, GA 30071
(404) 876-5862
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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
ELECTRICAL SITE PLAN

SCALE: 1" = 20'

NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

0 1" 2"

DATE: 1/6/20

DRAWING E.02 SHEET OF

ESAD PROJECT #20001

ESAD, LLC
885 WOODSTOCK ROAD
SUITE 430-231
ROSWELL, GA 30075
PH: 678-469-5196

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NOTES:
1. PROVIDE 4" HOUSEKEEPING PAD FOR THE BELT PRESS CONTROL PANEL AND 30kVA TRANFORMER.

2. ALL DUPLEX RECEPTACLES LOCATED IN THE BELT PRESS BUILDING, UNDER THE DUMPSTER CANOPY, AND OUTSIDE SHALL BE PROVIDED WITH WEATHERPROOF ENCLOSURES AND BE RATED FOR GFCI.

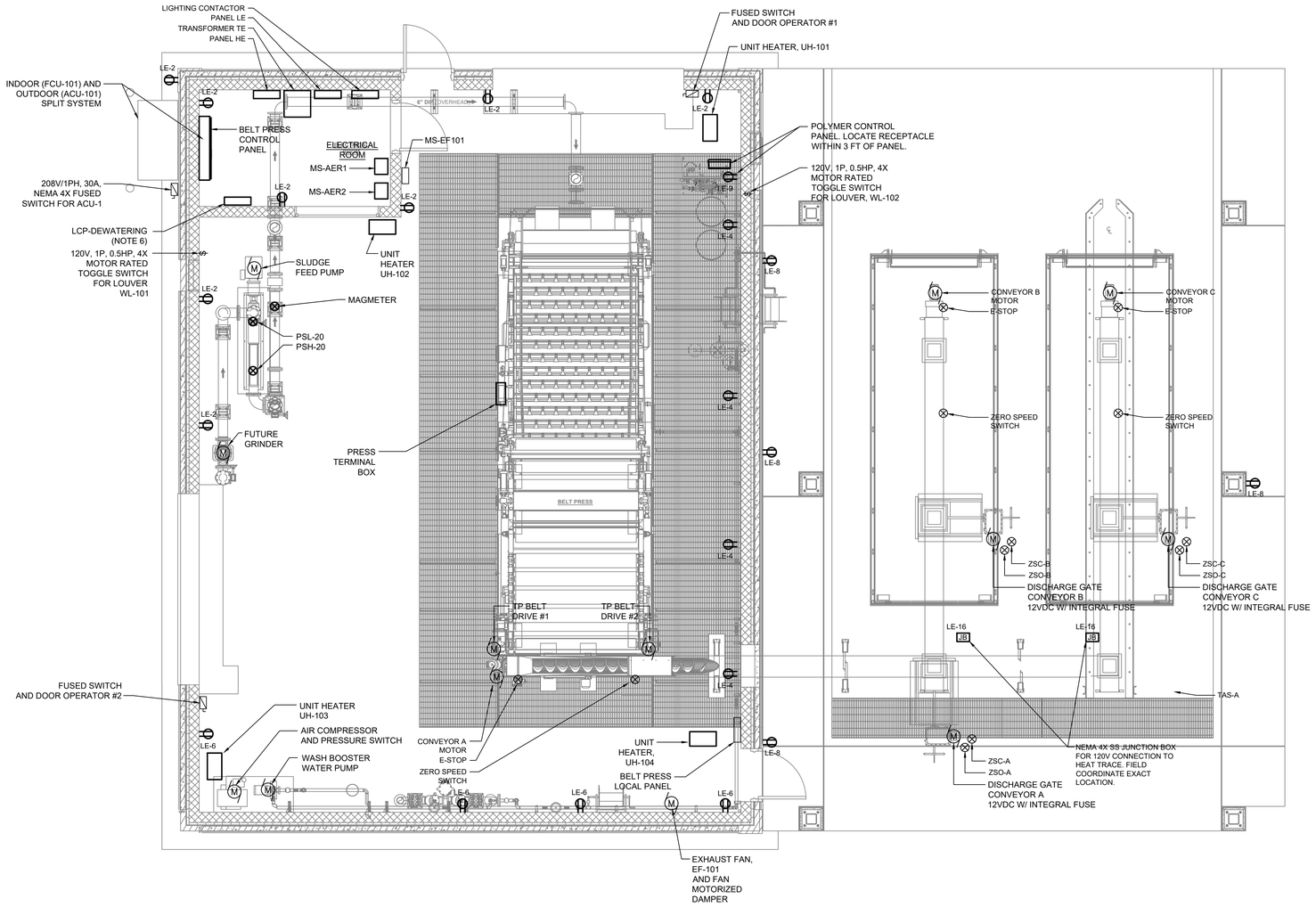
3. ALL EXPOSED CONDUIT IN BELT PRESS BUILDING AND UNDER CANOPY SHALL BE RIGID ALUMINUM.

4. CONTRACTOR SHALL INSTALL ROLL-UP DOOR OPERATORS AND SIZE FUSE PER MANUFACTURER'S RECOMMENDATIONS. TYPICAL FOR TWO DOORS.

5. CONTRACTOR SHALL PROVIDE ALL INTERCONNECTING CONDUIT AND CONDUCTORS SHOWN ON THE BELT PRESS SHOP DRAWINGS.

6. THE LCP-DEWATERING CONTROL PANEL WILL BE PROVIDED AND INSTALLED BY OWNER. CONTRACTOR SHALL INSTALL OWNER PROVIDED CONTROL PANEL AND INSTALL THE FOLLOWING CABLES/CONDUITS:
   A) 120V POWER - 3 #12 IN 3 /4" CONDUIT FROM PANEL LE TO LCP-DEWATERING
   B) COMMUNICATIONS - CAT 6 CABLE IN 3/4" CONDUIT FROM BELT PRESS CONTROL PANEL TO LCP-DEWATERING
   C) INSTALL 2" CONDUIT FROM LCP-DEWATERING TO THE EXISTING LCP-2 LOCATED IN THE EXISTING DEWATERING BUILDING. SEE SITE PLAN.

7. CONTRACTOR MAY ROUTE CONDUITS UNDER GROUND. FIELD COORDINATE STUB-UPS PRIOR TO CONCRETE POUR.



1 FLOOR PLAN
1/4" = 1'-0"

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% DESIGN SET	DMZ
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4	2/26/2020	BID READY SET	

SEAL

GEORGIA REGISTERED No. 38080 PROFESSIONAL 2/26/20 ENGINEER DAVID M. ZIMMER

OWNER

Etowah WATER & SEWER AUTHORITY
"Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER:	PJJ
DESIGNED BY:	DMZ
DRAWN BY:	AP
CHECKED BY:	DMZ
FILE NAME:	FILE NAME
PROJECT NO.:	273-18-210

Wiedeman and Singleton, Inc.
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3091 GOVERNORS LAKE DRIVE
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NORCROSS, GA 30071
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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
ELECTRICAL PLAN - POWER

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

NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

0 1" 2"

ESAD PROJECT #20001

ESAD, LLC
885 WOODSTOCK ROAD
SUITE 430-231
ROSWELL, GA 30075
PH: 678-469-5196

DATE: 1/6/20

DRAWING E.03

SHEET OF

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NOTES:
1. WIRE EXIT AND EMERGENCY LIGHT FIXTURES AHEAD OF BUILDING LIGHTS SUCH THAT THEY ARE NOT SWITCHED.

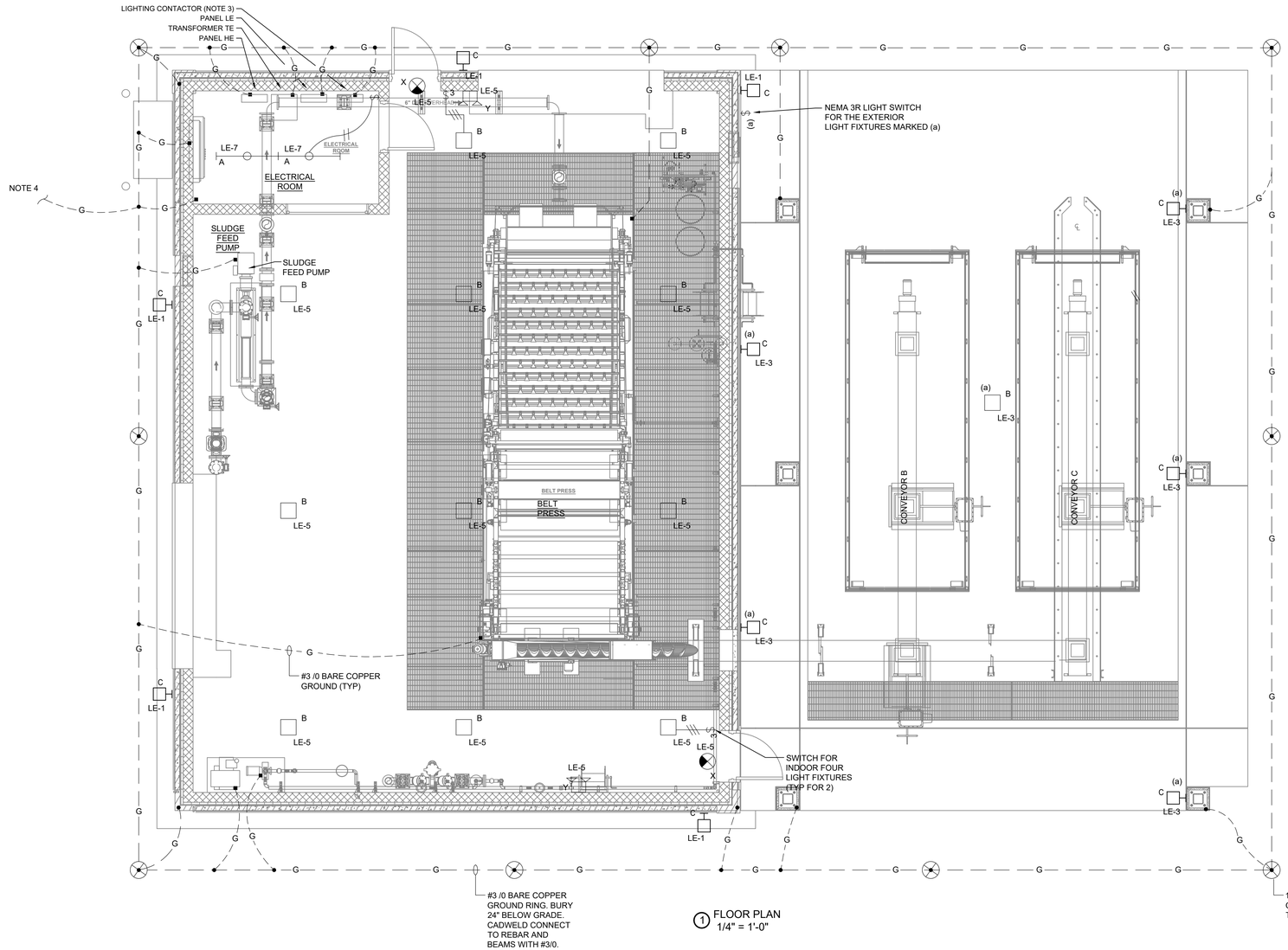
2. ALL CONDUIT IN BELT PRESS BUILDING SHALL BE RIGID ALUMINUM.

3. FURNISH AND INSTALL AN ASCO 918 LIGHTING CONTACTOR WITH 4-20A, 1 POLES FOR EXTERIOR LIGHTS, PHOTOCELL, 365 DAY DIGITAL DISPLAY TIME CLOCK, NEMA 1 ENCLOSURE WITH H-O-A SWITCH. ROUTE EXTERIOR LIGHTING CIRCUITS THROUGH CONTACTOR. INTSTALL PHOTOCELL ON WALL FACING WEST. ROUTE 3 #12 IN 3 /4" C. BETWEEN CONTACTOR AND PHOTOCELL.

4. EXTEND #3/0 BARE COPPER CONDUCTOR IN CONCRETE ENCASED DUCTBANK AND CONNECT TO GROUND RING AROUND EXISTING ELECTRICAL BUILDING. CADWELD CONNECT GROUND CONDUCTOR TOGETHER IN EACH OF THE TWO QUAZITE BOXES.

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	MOUNTING	VOLT/PHASE	LAMP
A	INDUSTRIAL LENSED LED STRIP W/ ACRYLIC LENS	COLUMBIA CAT#LCL 4 35 ML E U	CEILING	120V/1PH	LED
B	BEACON ENDURA SERIES LED SQUARE LIGHT	BEACON ENDURA SERIES CAT#EDR/48NB-110/4K/T5QM/ UNV/BZT, SQUARE OPTICS, 4000K	16' A.F.G.	120V/1PH	LED
C	WALL MOUNTED LED FLOODLIGHT WITH PHOTOCELL	COOPER CAT#ISS-E02-LED-E1-BL3-BZ-PHOTOCELL-120V	WALL	120V/1PH	INCLUDED
X	LED EXIT SIGN, NEMA 4X, ARROW AS REQUIRED INTEGRAL BATTERY PACK	LITHONIA CAT#LV-S-120V-ELN-UM-4X	WALL	120V/1PH	INCLUDED
Y	INDUSTRIAL GRADE EMERGENCY LIGHT W/ TWO 12V, 20W LAMPS	LITHONIA CAT#IND12300-H2012	WALL	120V/1PH	INCLUDED



1 FLOOR PLAN
1/4" = 1'-0"

REV.	DATE	DESCRIPTION	BY
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SEAL

GEORGIA REGISTERED No. 36080 PROFESSIONAL 2/26/20 ENGINEER DAVID M. ZIMMER

OWNER

Etowah WATER & SEWER AUTHORITY
"Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER:	PJJ
DESIGNED BY:	DMZ
DRAWN BY:	AP
CHECKED BY:	DMZ
FILE NAME:	FILE NAME
PROJECT NO.:	273-18-210

Wiedeman and Singleton, Inc.
Civil and Environmental Engineers
3091 GOVERNORS LAKE DRIVE
SUITE 430
NORCROSS, GA 30071
(404) 876-5862
WWW.WIEDEMAN.COM

PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
ELECTRICAL PLAN - LIGHTING AND GROUNDING

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

NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

0 1" 2"

DATE: 1/6/20

DRAWING E.04 SHEET OF

ESAD PROJECT #20001

ESAD, LLC
885 WOODSTOCK ROAD
SUITE 430-231
ROSWELL, GA 30075
PH: 678-469-5196

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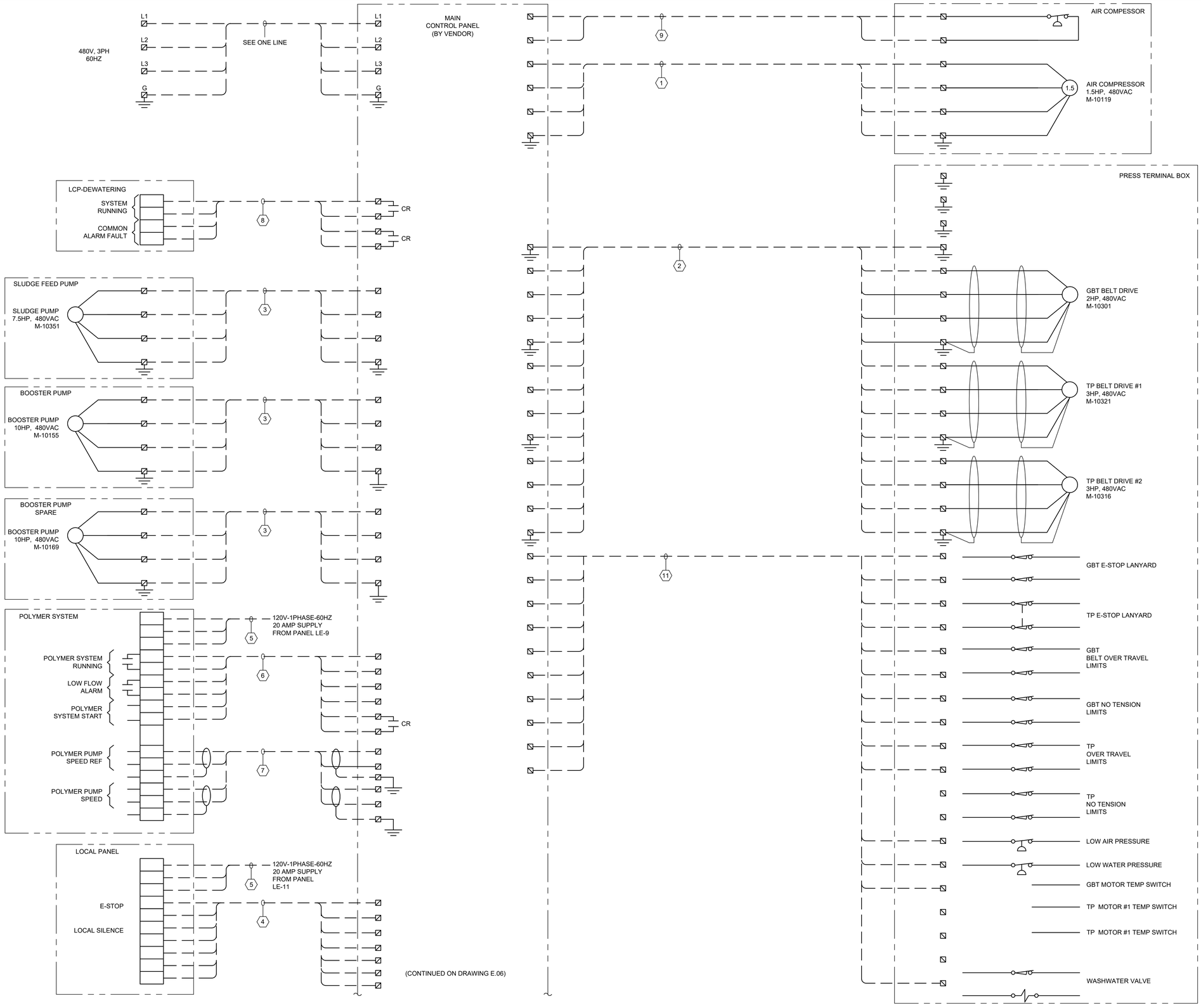

BELT FILTER PRESS CONTROL PANEL
SCHEMATIC

NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR ALL INTERCONNECTING WIRING AND CONDUIT BETWEEN THE PRESS CONTROL PANEL AND THE FIELD DEVICES. CONTRACTOR SHALL FIELD COORDINATE WITH THE VENDOR SHOP DRAWINGS PRIOR TO INSTALLING CONDUIT AND CABLES.

2. ALL CONDUCTORS SHALL BE LABELED PER VENDOR SHOP DRAWINGS.

CABLE/CONDUIT SCHEDULE

1	3 #12, 2 #14, & 1 #12 GND IN 3/4" C.
2	3 - 3/C #12 W/ GND (VFD CABLES) IN 1.5" C.
3	3 #10, 2 #14, & 1 #10 GND IN 3/4" C.
4	7 #14 & 4 #14 IN 3/4" C.
5	2 #12 & 1 #12 GND IN 3/4" C.
6	6 #14 & 4 #14 SPARE IN 3/4" C.
7	2 - #16 TSP IN 1" C.
8	4 #14 & CAT 6E IN 1" C.
9	3 #14 IN 3/4" C.
10	3 #14 IN 3/4" C.
11	35 #14, 1 #14 GND & 10 #14 SPARE IN 1.25" C.

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4	2/26/2020	BID READY SET	DMZ

SEAL

GEORGIA REGISTERED No.38080 PROFESSIONAL 2/26/20 ENGINEER DAVID M. ZIMMER

OWNER

Etowah WATER & SEWER AUTHORITY
"Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER:	PJJ
DESIGNED BY:	DMZ
DRAWN BY:	AP
CHECKED BY:	DMZ
FILE NAME:	FILE NAME
PROJECT NO.:	273-18-210

Wiedeman and Singleton, Inc.
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WWW.WIEDEMAN.COM

PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING
SCHEMATIC DIAGRAMS 1

SCALE: N.T.S.

NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

0 1" 2"

ESAD PROJECT #20001

ESAD, LLC
885 WOODSTOCK ROAD
SUITE 430-231
ROSWELL, GA 30075
PH: 678-469-5196

DATE: 1/6/20

DRAWING E.05

SHEET OF

12/26/2019 5:22:23 PM Proposed Dewatering Building - Update_detached.rvt

BELT PRESS MAIN
CONTROL PANEL
(CONTINUED ON DRAWING E.05)

CONVEYOR #A

CONVEYOR #1
2HP, 480VAC
M-10205

1

CONVEYOR #A
ZERO SPEED
SWITCH

2

CONVEYOR #A
E-STOP LANYARD

3

DISCHARGE
GATE
CONVEYOR A

CALL TO
OPEN

100%
OPEN

100%
CLOSED

12Vdc

4

CONVEYOR B

CONVEYOR B
2HP, 480VAC
M-10219

1

CONVEYOR B
ZERO SPEED
SWITCH

2

CONVEYOR B
E-STOP LANYARD

3

DISCHARGE
GATE
CONVEYOR B

CALL TO
OPEN

100%
OPEN

100%
CLOSED

12Vdc

4

CONVEYOR C

CONVEYOR C
2HP, 480VAC
M-10255

1

CONVEYOR C
ZERO SPEED
SWITCH

2

CONVEYOR C
E-STOP LANYARD

3

DISCHARGE
GATE
CONVEYOR C

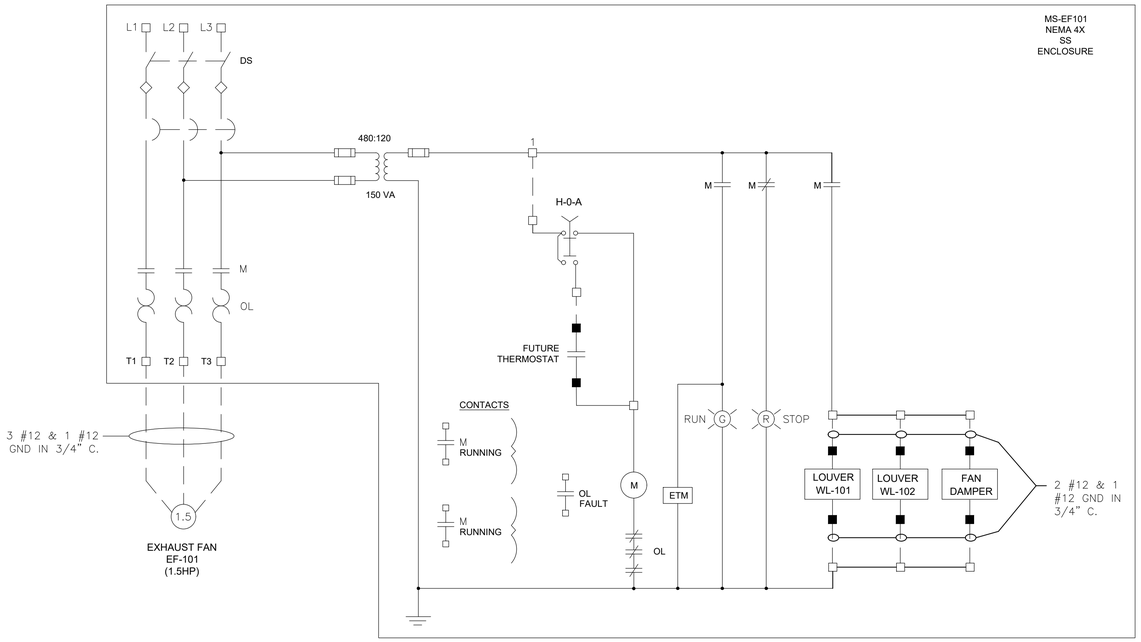
CALL TO
OPEN

100%
OPEN

100%
CLOSED

12Vdc

4



EXHAUST FAN SCHEMATIC

FIGURE 1: EXISTING SWITCHBOARD

FIGURE 2: EXISTING ELECTRICAL ROOM

CABLE/CONDUIT SCHEDULE	
1	3 #12, 2 #14, & 1 #12 GND IN 3/4" C.
2	4 #14 & 1 #14 GND IN 3/4" C.
3	2 #14 & 1 #14 GND IN 3/4" C.
4	6 #14 & 4 #14 SPARE IN 3/4" C.

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% DESIGN SET	DMZ
2	1/6/2020	90% DESIGN SET	DMZ
3	1/24/2020	REGULATORY REVIEW SET	DMZ
4	2/26/2020	BID READY SET	DMZ

SEAL

GEORGIA
No.38080
PROFESSIONAL
2/26/20
ENGINEER
DAVID M. ZIMMER

OWNER

Etowah
WATER & SEWER AUTHORITY
"Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: DMZ
DRAWN BY: AP
CHECKED BY: DMZ
FILE NAME: FILE NAME
PROJECT NO.: 273-18-210

Wiedeman and Singleton, Inc.
Civil and Environmental Engineers
3091 GOVERNORS LAKE DRIVE
SUITE 430
NORCROSS, GA 30071
(404) 876-5862
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PROJECT INFORMATION

PROJECT:
ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE
DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE:
SOLIDS DEWATERING BUILDING
SCHEMATIC DIAGRAMS 2

SCALE: N.T.S.

NOTE: DRAWING SCALE IS
BASED ON 24X36 SHEETS.

0 1" 2"

DATE: 1/6/20

DRAWING E.06

SHEET OF

ESAD PROJECT #20001

ESAD, LLC
885 WOODSTOCK ROAD
SUITE 430-231
ROSWELL, GA 30075
PH: 678-469-5196

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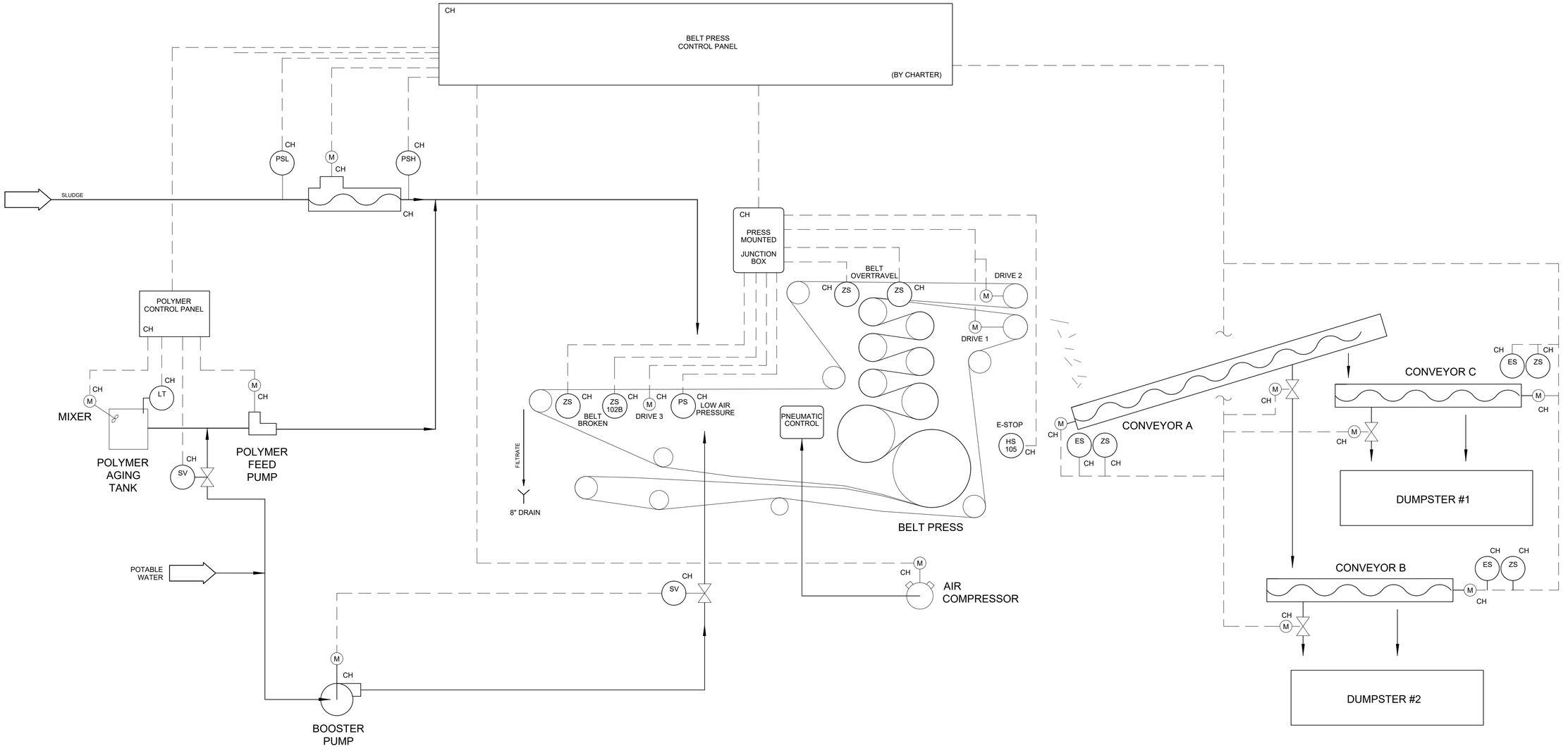

EQUIPMENT LEGEND

CO - FURNISHED AND INSTALLED BY CONTRACTOR
CH - FURNISHED BY CHARTER. INSTALLED BY CONTRACTOR

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% DESIGN SET	DMZ
2	1/6/2020	90% DESIGN SET	DMZ
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SEAL

GEORGIA REGISTERED No.38080 PROFESSIONAL 2/26/20 ENGINEER DAVID M. ZIMMER

OWNER

Etowah WATER & SEWER AUTHORITY "Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: DMZ
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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: SOLIDS DEWATERING BUILDING P&ID

SCALE: N.T.S.

NOTE: DRAWING SCALE IS BASED ON 24X36 SHEETS.

0 1" 2"

DATE: 1/6/20

DRAWING E.07

SHEET OF

ESAD PROJECT #20001

ESAD, LLC
885 WOODSTOCK ROAD
SUITE 430-231
ROSWELL, GA 30075
PH: 678-469-5196

12/26/2019 5:22:23 PM Proposed Dewatering Building - Update .detached.rvt

DUCTWORK SYMBOLS

DOUBLE LINE	SINGLE LINE	
		EXISTING DUCTWORK OR EQUIPMENT TO BE REMOVED
		EXISTING DUCTWORK TO REMAIN
		NEW DUCTWORK
MVD, M	MVD, M	MANUAL VOLUME DAMPER (MVD)
		MOTOR OPERATED DAMPER (MOD)
AD	AD	ACCESS DOOR
		RADIUS ELBOW (R=1.5)
		VANED DAMPER
		BRANCH DUCT TAKE-OFF
D, R	D, R	RISE OR DROP IN THE DIRECTION OF AIR FLOW
		FLEXIBLE DUCT CONNECTION
		DIFFUSER
		DEILING RETURN OR EZHAUST REGISTER (R) OF GRILLE (G)
		SUPPLY AIR GRILLE (G) OR SUPPLY AIR REGISTER (R)
		RETURN AND/OR EXHAUST AIR GRILLE (G) OR REGISTER (R)

LEGEND

- CONTROL DAMPER - OPPOSED BLADE
- CONTROL DAMPER - PARALLEL BLADE
- BACK DRAFT DAMPER
- UC — UNDERCUT DOOR
- DL — DOOR LOUVER (FREE AREA INDICATED IN SQ. FT.)
- M — MOTOR OPERATED DAMPER
- EQUIPMENT SYMBOL
- AIR DEVICE TO BE REMOVED
- SUPPLY AIR
- RETURN OR EXHAUST AIR
- OUTSIDE AIR
- (F) — FIRE DAMPER WITH ACCESS DOOR
- (T) — THERMOSTAT
- (S) — SMOKE DETECTOR
- (S) — FAN CONTROL SWITCH

ABBREVIATIONS

AC	AIR CONDITIONING UNIT	FLR	FLOOR	MOD	MOTOR OPERATED DAMPER
AD	ACCESS DOOR	FOB	FLAT ON BOTTOM	OA	OUTSIDE AIR
AFF	ABOVE FINISHED FLOOR	FOT	FLAT ON TOP	OAI	OUTSIDE AIR INTAKE
AH	AIR HANDLER (SPLIT REFRIG.)	FOP	FUEL OIL PUMP	OAT	OUTSIDE AIR TEMPERATURE
AHU	AIR HANDLING UNIT	FP	FIRE PUMP	OC	ON CENTER
AL	ACOUSTICAL LINING	FPM	FEET PER MINUTE	OD	OUTSIDE DIAMETER
AP	ACCESS PANEL	FTR	FINNED TUBE RADIATION	OBD	OPPOSED BALDE DAMPER
BB	ELECTRIC BASEBOARD RADIATION	GC	GENERAL CONTRACTOR	PBD	PARALLEL BLADE DAMPER
B	BOILER	GPH	GALLONS PER HOUR	PRV	PRESSURE REDUCING VALVE
BDD	BACK DRAFT DAMPER	GPM	GALLONS PER MINUTE	SP	STATIC PRESSURE
BFC	BELOW FINISHED CEILING	HD	HAND DAMPER	TYP	TYPICAL
BOB	BOTTOM OF BEAM	HP	HEAT PUMP	UH	UNIT HEATER
BOD	BOTTOM OF DUCT	HV	HEATING AND VENTILATING UNIT	UON	UNLESS OTHERWISE NOTED
BOP	BOTTOM OF PIPE	HWC	HOT WATER CONVERTER		
EF	EXHAUST FAN	MC	MECHANICAL CONTRACTOR		
ESP	EXTERNAL STATIC PRESSURE	MTD	MOUNTED		

GENERAL NOTES - HVAC

1. ALL WORK AND EQUIPMENT SHALL CONFORM WITH THE REQUIREMENTS OF THE INTERNATIONAL MECHANICAL CODE WITH GEORGIA AMENDMENTS, NFPA 90A, AND ALL APPLICABLE LOCAL CODES AND ORDINANCES.
2. IT SHALL BE UNDERSTOOD THAT THE DRAWINGS SHOW THE APPROXIMATE LOCATION OF APPARATUS. CONTRACTOR TO FIELD VERIFY ALL FIELD DIMENSIONS AND INVESTIGATE EXISTING CONDITIONS PRIOR TO FABRICATING AND LOCATING EQUIPMENT. PENETRATIONS THROUGH WALLS SHALL BE COORDINATED WITH EXIST. UTILITIES AND OBSTRUCTIONS. COORDINATE ALL ROUTING WITH LIGHTING AND ARCHITECTURAL FEATURES. NOTE THAT THE DRAWINGS REPRESENT WORK TO BE INSTALLED BY A KNOWLEDGABLE, LICENSED MECHANICAL CONTRACTOR FAMILIAR WITH THE TYPES OF SYSTEMS INDICATED AND DO NOT NECESSARILY SHOW ALL DETAILS FOR SYSTEM INSTALLATION.
3. CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL PLANS AND SHALL FURNISH EQUIPMENT WIRED FOR VOLTAGES AS REQUIRED. CONTRACTOR TO COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH ELECTRICAL CONTRACTOR BEFORE ORDERING EQUIPMENT.
4. MOUNT THERMOSTATS AT 5'-0" UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL MECHANICAL EQUIPMENT, DUCTWORK, ETC. TO FIT WITHIN THE SPACE ALLOWED BY ARCHITECTURAL AND STRUCTURAL CONDITIONS. CUTTING OR OTHERWISE ALTERING ANY STRUCTURAL MEMBER SHALL NOT BE PERMITTED.
6. ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
7. CONTRACTOR SHALL PROVIDE PERMANENT EQUIPMENT NAME TAGS ATTACHED TO ALL EQUIPMENT LISTED IN THE EQUIPMENT SCHEDULES. TAGS SHALL BE TWO LAYER LAMINATED HARD PLASTIC WITH CONTRASTING LETTERS AND BACKGROUND (WHITE LETTERS ON BLACK BACKGROUND)

WALL LOUVER SCHEDULE

MARK	CFM	MAX. PRESS. DROP (IN W.C.)	UNIT WIDTH (IN.)	UNIT HEIGHT (IN.)	UNIT DEPTH (IN.)	MIN. FREE AREA (SQ. FT.)
WL-101	3000	0.10	24	48	4	3.45
WL-102	3000	0.10	24	48	4	3.45

1. INSTALL LOUVERS PER MANUFACTURERS INSTRUCTIONS CORRESPONDING TO THE WALL CONSTRUCTION TYPE.
2. PROVIDE WITH HEAVY DUTY MOTORIZED DAMPER WITH EPOXY COATING AND 120V MOTOR OPERATOR INTERLOCKED TO OPEN WHEN THE FAN IS ENERGIZED. PROVIDE SLEEVES AS REQUIRED TO ACCOMMODATE WALL THICKNESS FOR PROPER LOUVER AND DAMPER CONNECTION.

ELECTRIC UNIT HEATER SCHEDULE

MARK	BASIS OF DESIGN	MODEL	CFM	FAN (HP)	HEATER KW	ELECTRICAL	REMARKS
UH-101	Q-MARK	QWD20432	2400	1/2	20	460/3/60	1, 2
UH-102	Q-MARK	QWD20432	2400	1/2	20	460/3/60	1, 2
UH-103	Q-MARK	QWD20432	2400	1/2	20	460/3/60	1, 2
UH-104	Q-MARK	QWD20432	2400	1/2	20	460/3/60	1, 2

1. PROVIDE UNIT MOUNTED THERMOSTAT, CONTACTOR, AND INTEGRAL FAN CONTROL POWER TRANSFORMER. UNIT SHALL BE PROVIDED WITH NEMA 4X INTEGRAL DISCONNECT SWITCH.
2. PROVIDE WITH WALL MOUNTING BRACKET AND MASONRY WALL ANCHORS.

FAN SCHEDULE

MARK	BASIS OF DESIGN	MODEL	CFM	POWER (HP)	ELECTRICAL	SONES	TYPE	DRIVE	ESP IN. WC	REMARKS
EF-101	GREENHECK	SE2-24-610-A15	6,000	1-1/2	460/3/60	42	PROPELLER	DIRECT	0.50	1, 2, 3

1. FAN TO BE PROVIDED WITH WALL HOUSING, MOTOR GUARD, MOTORIZED OUTLET SHUTTER AND BIRD SCREEN.
2. INTERLOCK FAN WITH WALL LOUVER(S) AS DESCRIBED IN THE WALL LOUVER SCHEDULE. LOUVER(S) TO OPEN WHEN FAN IS ENERGIZED.
3. FAN AND ACCESSORIES (HOUSING, SCREEN, DAMPERS, ETC.) SHALL BE PROVIDED WITH HI-PRO POLYESTER COATING. OWNER TO SELECT COLOR.

SPLIT SYSTEM AIR CONDITIONER SCHEDULE

	COOLING CAPACITY			HEATING	FAN COIL UNIT				AIR COOLED CONDENSING UNIT		
MARK	TOTAL (MBH)	SENSIBLE (MBH)	MIN. SEER	HEATING CAPACITY (MBH)	SUPPLY AIR CFM	OUTSIDE AIR CFM	ELECTRICAL	MCA	ELECTRICAL	MCA	MOCP
FCU/ACU-101	9.0	7.0	20.5	4.7	400	0	208/1/60	1.0	208/1/60	12.0	15

1. BASIS OF DESIGN SHALL BE EQUAL TO MITSUBISHI ELECTRIC (FAN COIL UNIT SHALL BE EQUAL TO MSY-GE12NA AND CONDENSING UNIT SHALL BE EQUAL TO MUY-GE12NA)
2. INDOOR UNIT SHALL BE WALL MOUNTED.
3. UNIT SHALL BE PROVIDED WITH A FULL CHARGE OF R410A REFRIGERANT.
4. UNIT SHALL BE PROVIDED WITH A SINGLE POINT POWER CONNECTION AND INTERCONNECT WIRE FROM OUTDOOR UNIT TO INDOOR UNIT.

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% REVIEW SET	PJJ
2	1/6/2020	90% REVIEW SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ
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SEAL

GEORGIA REGISTERED NO. 20349 PROFESSIONAL ENGINEER JAY JAMES LEVEN
2-26-2020

OWNER

Etowah Water & Sewer Authority
"Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: PJJ
DRAWN BY: SKR/SPM
CHECKED BY: AAA
FILENAME: H.01 - HVAC SCHEDULES DETAILS AND NOTES.dwg
PROJECT NO.: 273-18-210

Wiedeman and Singleton, Inc.
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PROJECT INFORMATION

PROJECT: ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE: HVAC SCHEDULES DETAILS AND NOTES

SCALE: N.T.S.

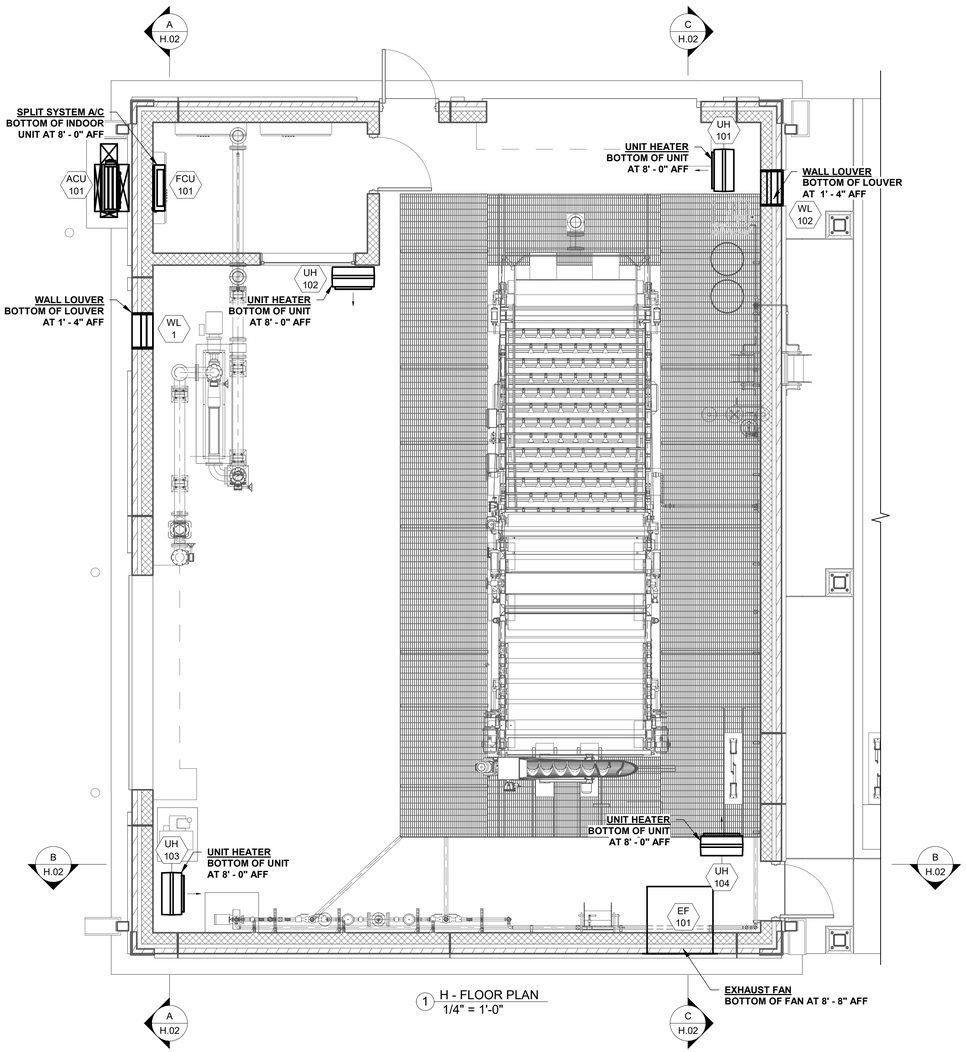
NOTE: DRAWING SCALE IS BASED ON 24x36 SHEETS. 11x17 IS 212%± OF SCALE SHOWN.

0 1" 2"

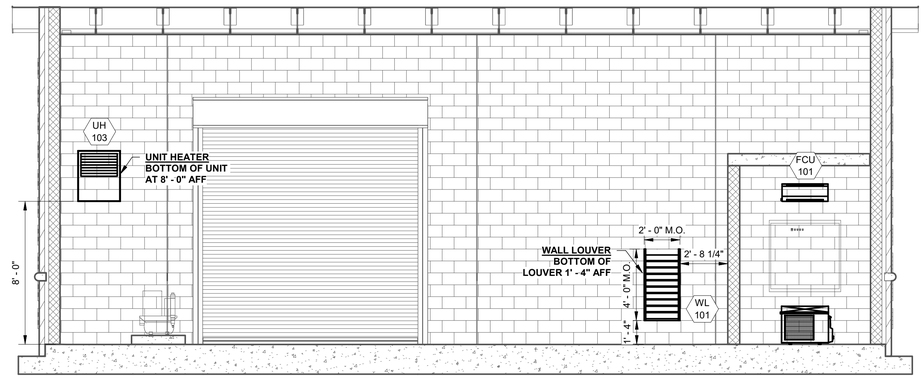
DRAWING H.01

SHEET 35 OF 44

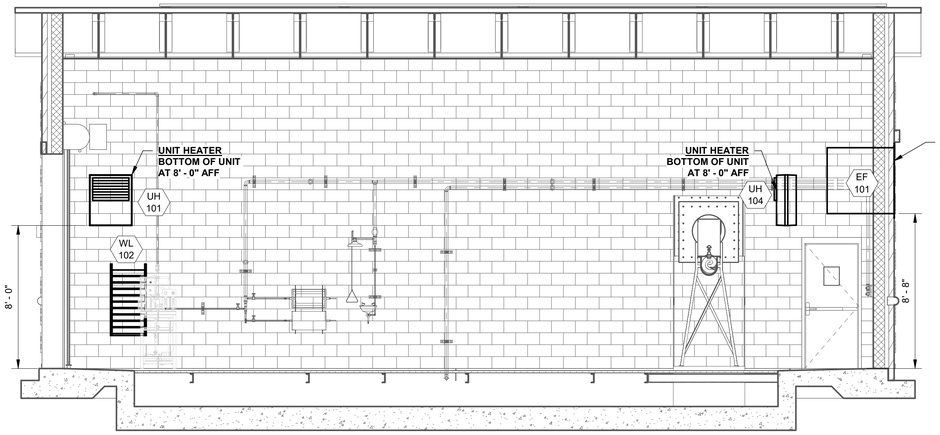
Drawing File: H.01 - HVAC SCHEDULES DETAILS AND NOTES.dwg H.01 HVAC SCHEDULES DETAILS AND NOTES Feb 26, 2020 - 10:59am



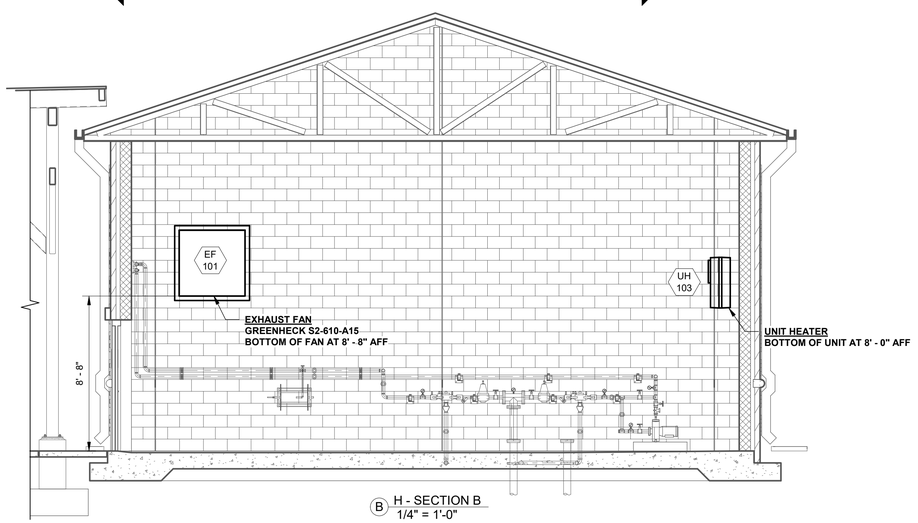
1 H - FLOOR PLAN
1/4" = 1'-0"



A H - SECTION A
1/4" = 1'-0"



C H - SECTION C
1/4" = 1'-0"



B H - SECTION B
1/4" = 1'-0"

REV.	DATE	DESCRIPTION	BY
1	11/22/2019	60% DESIGN SET	PJJ
2	1/6/2020	90% DESIGN SET	PJJ
3	1/24/2020	REGULATORY REVIEW SET	PJJ
4	2/26/2020	BID READY SET	PJJ

SEAL

GEORGIA REGISTERED NO. 20349 PROFESSIONAL ENGINEER JAY JAMES JOHNSON
2-26-2020

OWNER

Etowah
WATER & SEWER AUTHORITY
"Excellence in every drop"

CONSULTANT INFORMATION

PROJECT MANAGER: PJJ
DESIGNED BY: JBC
DRAWN BY: SPM
CHECKED BY: JBC
FILE NAME:FILE NAME
PROJECT NO.: 169-18-110

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PROJECT INFORMATION

PROJECT
ETOWAH WATER & SEWER AUTHORITY
DAWSON FOREST WRF SLUDGE
DEWATERING UPGRADES
DAWSON COUNTY, GEORGIA

SHEET TITLE:
SOLIDS DEWATERING BUILDING
HVAC PLAN AND SECTIONS

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

NOTE: DRAWING SCALE IS
BASED ON 24X36 SHEETS.

0 1" 2"

DATE: 2/26/2020

DRAWING
H.02

SHEET
44
OF
44

2/26/2020 11:59:07 AM BIM 360://ETOWAH - Dawson Forest/Proposed Dewatering Building.rvt