



TOWN OF YORKTOWN YORKTOWN, NY

CATSKILL WATER SUPPLY DRINKING WATER FLUORIDATION PROJECT

CONTRACT 19-2 CONTRACT 19-2 PART 1: GENERAL CONSTRUCTION CONTRACT 19-2 PART 2: ELECTRICAL WORK

SEPTEMBER 2019



LOCATION MAP
NOT TO SCALE

TOWN SUPERVISOR

ILAN GILBERT

TOWN BOARD

ED LACHTERMAN

ALICE E. ROKER

TOM DIANA

VISHNU PATEL

TOWN ENGINEER

MICHAEL QUINN, P.E.

DISTRIBUTION SUPERINTENDENT

KEN RUNDLE

DRAWING INDEX

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ABBREVIATIONS

⊙	AT	LF	LINEAR FEET
&	AND	MAX	MAXIMUM
°	DEGREE	MGS	MORTAR GROUT SCREEN
⊕	CENTERLINE	MH	MANHOLE
#	NUMBER	MIN	MINIMUM
ALUM	ALUMINUM	NTS	NOT TO SCALE
AFF	ABOVE FINISH FLOOR	NYS	NEW YORK STATE
BFW	BUTT FUSION WELD	NWJWW	NORTHERN WESTCHESTER JOINT WATER WORKS
BS	BELL AND SPIGOT	OC	ON CENTER
BTWN	BETWEEN	OPNG	OPENING
CI	CAST IRON	PLC	PROGRAMMABLE LOGIC CONTROLLER
CMD	COMMAND	PSI	POUNDS PER SQUARE INCH
CMU	CONCRETE MASONRY UNIT	PSIG	POUNDS PER SQUARE INCH IN GAUGE
CONC	CONCRETE	PT	POINT
CONT	CONTINUOUS	PVC	POLYVINYL CHLORIDE
DFT	DRY FILM THICKNESS	RCP	REINFORCED CONCRETE PIPE
DIA	DIAMETER	REQ'D	REQUIRED
DOH	DEPARTMENT OF HEALTH	SCH	SCHEDULE
DWLS	DOWELS	SF	SQUARE FEET
EL	ELEVATION	S/S	START/STOP
EW	EACH WAY	SST	STAINLESS STEEL
EX	EXISTING	SW	SOLVENT WELD
EXIST	EXISTING	THD	THREADED
EXT'G	EXISTING	T.O.	TOP OF
EXT	EXTERIOR	TYP	TYPICAL
F	FAHRENHEIT	UON	UNLESS OTHERWISE NOTED
F.G.	FINISHED GRADE	VOL	VOLUME
FRP	FIBERGLASS REINFORCED PLASTIC	W/	WITH
GAL	GALLON	WC	WESTCHESTER COUNTY
HDPE	HIGH DENSITY POLYETHYLENE	WD	WOOD
HM	HOLLOW METAL	WTP	WATER TREATMENT PLANT
LB	POUND		
LDPE	LOW DENSITY POLYETHYLENE		

LEGEND

	EXISTING STRUCTURE
	PROPOSED STRUCTURE
	EXISTING STRUCTURE TO BE REMOVED
	BUILDING ELEVATION THIS SIDE
	CENTERLINE
	DIAMETER
	NUMBER
	ROOM NUMBER
	WINDOW NUMBER SYMBOL
	WALL PARTITION TYPE
	ELEVATION INDICATION
	SECTION/ DETAIL
	BUILDING SECTION
	DIRECTION OF EGRESS PATH
	EXIT SIGN LOCATION
	FIRE EXTINGUISHER, DRY CHEMICAL
	FIRE EXTINGUISHER, CARBON DIOXIDE

GENERAL NOTES

- 1) BEFORE COMMENCING WORK, CONTRACTOR SHALL NOTIFY ALL INVOLVED AGENCIES. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FOR WORK AFFECTING UTILITIES, STRUCTURES, ROADWAYS AND HIGHWAYS.
- 2) FROST: THE ATTENTION OF THE CONTRACTOR IS CALLED TO THE FACT THAT WORK MAY BE REQUIRED DURING THE PERIOD FROM DECEMBER 15TH TO MARCH 15TH. THE ENGINEER RESERVES THE RIGHT; HOWEVER, TO DISCONTINUE WORK AT ANY TIME BETWEEN THIS PERIOD, IF IN ENGINEER'S OPINION, WEATHER OR FROST CONDITIONS ARE SUCH THAT SATISFACTORY WORK OR BACKFILL CANNOT BE PERFORMED. NO ALLOWANCE OTHER THAN AN EXTENSION OF THE TIME WILL BE ALLOWED THE CONTRACTOR BECAUSE OF SUCH DISCONTINUANCE.
- 3) ALL EXCAVATION SHALL BE DONE BY HAND WITHIN ONE FOOT OF EXISTING STRUCTURES AND UTILITIES.
- 4) CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING UTILITIES OR STRUCTURES DURING CONSTRUCTION. ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER BY THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.
- 5) CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY 8-FOOT HIGH CHAIN LINK FENCING. THE FENCING SHALL BE DESIGNED TO MAINTAIN SECURITY AND PROVIDE SAFETY FOR THE CONSTRUCTION SITE.
- 6) CONTRACTOR'S NAME, CONTRACT NUMBER AND 24-HOUR EMERGENCY TELEPHONE NUMBER MUST BE POSTED ON ALL BARRICADES.
- 7) ALL MATERIALS ARE TO BE PROPERLY STORED AND SECURED AWAY FROM TRAFFIC AND PEDESTRIANS.
- 8) THE CONTRACTOR MUST REMOVE ALL WASTE MATERIAL FROM ALL AREAS WHEN CONSTRUCTION IS COMPLETED.
- 9) ALL TRAFFIC SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE NEW YORK STATE (NYS) MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). IN THE EVENT OF A CONFLICT BETWEEN THE NYS MUTCD AND THE FEDERAL MUTCD, THE FEDERAL MANUAL SHALL APPLY.
- 10) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING VEHICLE ACCESS TO ALL DRIVEWAYS AND SIDE STREETS ALONG THE CONSTRUCTION ROUTE TO THE MAXIMUM PRACTICAL EXTENT. CONTRACTOR SHALL COORDINATE WITH THE POLICE AND FIRE DEPARTMENTS SUCH THAT ACCESS FOR EMERGENCY VEHICLES IS ALWAYS MAINTAINED.
- 11) THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UNDERGROUND UTILITIES AND FACILITIES AGAINST DAMAGE FROM CONTRACTOR'S DEMOLITION AND/OR CONSTRUCTION OPERATIONS. IN NO CASE SHALL THE CONTRACTOR PLACE VEHICLE LOADS EXCEEDING THE LEGAL LOAD LIMIT WITHIN 10 FEET OF THESE FACILITIES. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIREMENTS OF SECTION 105-12 OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS. IF THE CONTRACTOR ELECTS TO PLACE LOADS EXCEEDING THE LEGAL LIMIT ON THESE OR OTHER UNDERGROUND FACILITIES OR UTILITIES, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND ADVISE THE OWNER OF THE TYPE, SIZE, AND WEIGHT OF ALL VEHICLES HE INTENDS TO USE OVER THESE FACILITIES DURING CONSTRUCTION TAKING INTO ACCOUNT THE CONDITION OF THE EXISTING FACILITIES. THIS DETERMINATION SHALL BE MADE BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK EMPLOYED AND PAID BY THE CONTRACTOR AND IS TO BE MADE PRIOR TO THE USE OF ANY FACILITIES WILL ALL RESTRICTIONS ENUMERATED BY HIM BEING STRICTLY ADHERED TO. IN THE EVENT THE CONTRACTOR OR ANY SUBCONTRACTORS FAIL TO COMPLY WITH FINDINGS OF THE PROFESSIONAL ENGINEER, THE WORK SHALL BE IMMEDIATELY CEASED UNTIL CORRECTIVE PROCEDURES, SATISFACTORILY TO THE PROFESSIONAL ENGINEER AND OWNER, ARE EMPLOYED. ALL DAMAGE, DIRECT OR INDIRECT, OF WHATEVER NATURE RESULTING FROM THE PERFORMANCE OF THE WORK OR RESULTING TO THE WORK DURING ITS PROCESS FROM WHATEVER CAUSE, SHALL BE BORNE AND SUSTAINED BY THE CONTRACTOR.
- 12) EXISTING UTILITY LOCATIONS AND ELEVATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE AND ARE INTENDED ONLY TO INDICATE EXISTENCE OF SUCH UTILITIES. BEFORE PROCEEDING WITH THE WORK, THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS AND NOTIFY THE ENGINEER.
- 13) THE LOCATION OF EXISTING PIPING AND EQUIPMENT WAS OBTAINED FROM THE CONTRACT DRAWINGS UNDER WHICH THEY WERE INSTALLED AND, THEREFORE, MAY NOT REPRESENT "AS-BUILT" CONDITIONS. PRIOR TO THE INSTALLATION OF ANY PIPING UNDER THIS CONTRACT THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXISTING PIPING, EQUIPMENT AND OTHER RELEVANT EXISTING CONDITIONS. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ALL DISCREPANCIES BEFORE REALLOCATION OF UTILITIES.
- 14) ALL DISTURBED AREAS BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITIONS INCLUDING ALL PAVED AND GRASSED AREAS.
- 15) CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE NOISE REGULATIONS DURING CONSTRUCTION.
- 16) ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED IN ACCORDANCE WITH NYSDEC STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
- 17) CERTIFICATION OF CONSTRUCTION COMPLIANCE AND SUBMITTAL OF AS BUILT PLANS IS REQUIRED TO BE SUBMITTED TO WCDH FOR APPROVAL PRIOR TO AUTHORIZATION TO PLACE THE FACILITY IN SERVICE.



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SEALS



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TOWN OF YORKTOWN, NY

DRINKING WATER FLUORIDATION PROJECT

ARCADIS PROJ. NO. 02328010.0000

NO.	DATE	ISSUED FOR	BY

COPYRIGHT: 2017 ARCADIS OF NEW YORK, INC.

DATE: SEPTEMBER 2019

PROJECT NO.: 02328010.0000

FILE NAME: G-01

DESIGNED BY: L. MCCARTHY

DRAWN BY: A. CHAMBERS

CHECKED BY: V. MCPHERSON

SHEET TITLE

GENERAL

LEGEND, ABBREVIATIONS, AND GENERAL NOTES

SCALE: NO SCALE

G-01

SHEET 2 OF 23



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TOWN OF YORKTOWN, NY

**DRINKING WATER
FLUORIDATION PROJECT**

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PROJECT NO.: 02328010.0000

FILE NAME: G-02

DESIGNED BY: L. MCCARTHY

DRAWN BY: A. CHAMBERS

CHECKED BY: V. MCPHERSON

SHEET TITLE

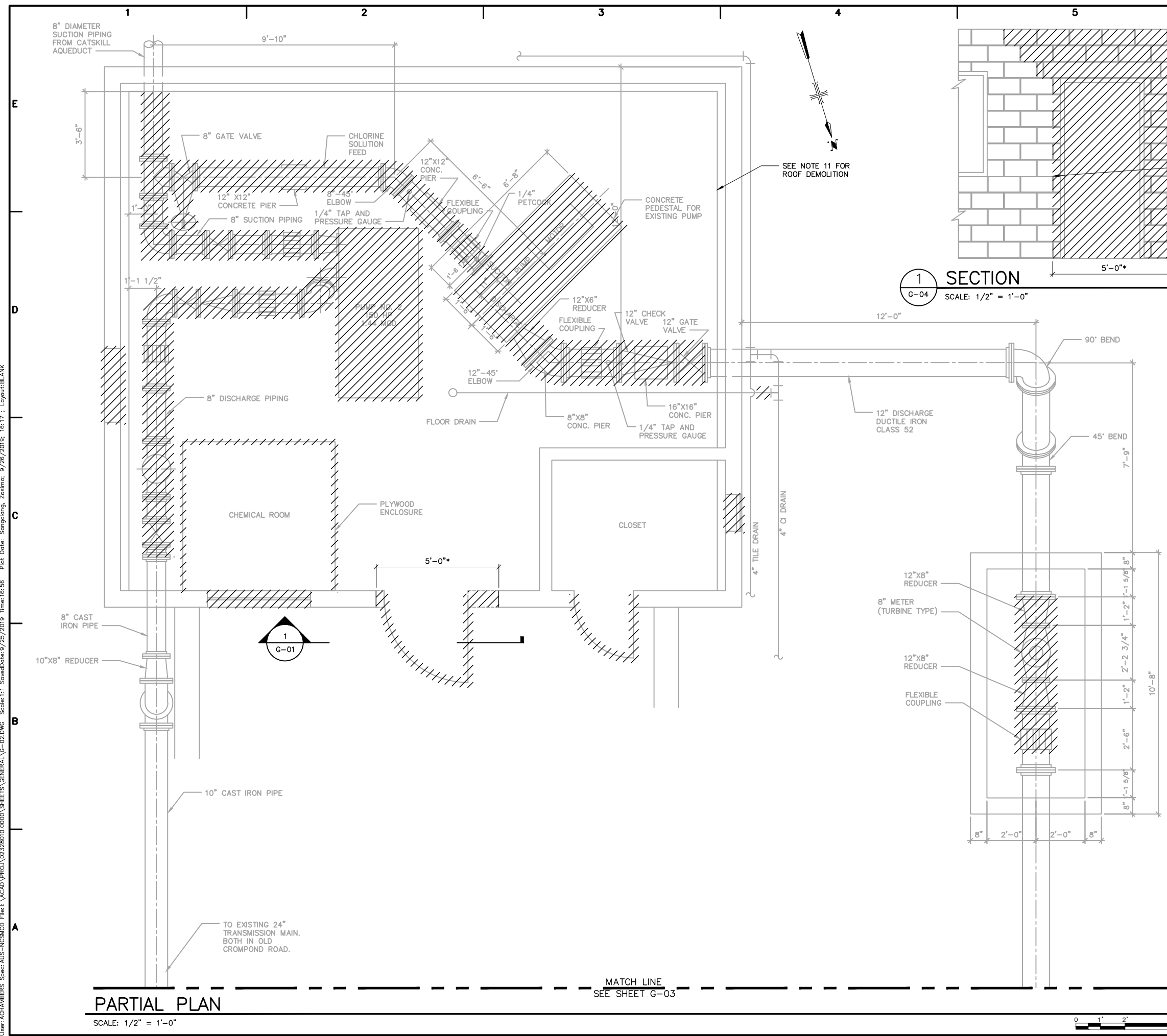
GENERAL

**DEMOLITION
CATSKILL AQUEDUCT
PUMPING STATION
SHEET 1**

SCALE: AS SHOWN

G-02

SHEET 3 OF 23

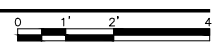


- NOTES:**
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.
 - ALL DEMOLITION SHALL BE IN ACCORDANCE WITH SECTION 02 41 00, DEMOLITION.
 - CONTRACTOR SHALL NOTE THE PRESENCE OF MATERIALS AS DESCRIBED IN HAZARDOUS MATERIALS REPORT DATED NOVEMBER 2018, AND PERFORM DEMOLITION IN ACCORDANCE WITH SECTION 02 41 00, DEMOLITION.
 - COORDINATE DEMOLITION WITH REQUIRED PROJECT STAGING AS DESCRIBED IN SECTION 01 12 13, SUMMARY OF WORK.
 - DEMOLISH EXISTING PUMPS, PIPING, WEIGH SCALES, VALVES, CONCRETE PADS, AND APPURTENANCES, UNLESS OTHERWISE NOTED.
 - CONTRACTOR SHALL DEMOLISH ALL SMALL DIAMETER PIPING AND APPURTENANCES NOT SHOWN. EXISTING WATER LINE CONNECTION AND PRESSURE TRANSMITTER SHALL REMAIN.
 - LIMITS OF DEMOLITION ON THE PIPING SHALL BE UP TO THE FLANGE BEFORE THE WALL FOR THE NORTH AND WEST PIPING.
 - LIMITS OF DEMOLITION OF THE SOUTH PIPING SHALL BE AS CLOSE TO THE WALL TO ALLOW FOR THE PIPE TO BE CAPPED.
 - CONTRACTOR SHALL PATCH FLOORS AFTER DEMOLITION. REFER TO SHEET G-08 FOR REPAIR INFORMATION.
 - ANCHORAGE FOR EXISTING SUPPORTS AND EQUIPMENT DEMOLISHED SHALL BE CUT FLUSH WITH THE SURFACE AND A ZINC RICH PRIMER APPLIED.
 - REMOVE ROOFING, ROOF TOP EQUIPMENT, ROOF FRAMING, EQUIPMENT AND PIPING SUPPORTED BY ROOF FRAMING TO REMAIN SHALL BE REMOVED AND REINSTALLED IF INACTIVE; IF EQUIPMENT IS ACTIVE THEN TEMPORARILY SUPPORT EQUIPMENT AND PIPING FROM FLOOR. PREPARE TOP OF MASONRY WALLS FOR MASONRY WORK, ROOF FRAMING AND GROUTING.
 - REMOVE CURBS AND PADS DOWN TO FLOOR. PATCH FLOOR FLUSH WITH CONCRETE PATCH. REFER TO DETAIL ON G-08.
 - REMOVE WALL PAINT, PANELS, ABANDONED FASTENERS, AND SUPPORT COMPONENTS ON FLOOR AND WALLS. PATCH WALL WITH GROUT OR MORTAR COMPOUND. REFER TO MATERIAL REQUIREMENTS ON G-06.
 - REMOVE DOORS, DOOR FRAMES, NON-MASONRY INFILL IN MASONRY OPENING AND LOUVERS FROM MASONRY OPENINGS.
 - REMOVE EXTERIOR ABANDONED FASTENERS, AND SUPPORT COMPONENTS FROM WALLS. PREPARE EXISTING MASONRY WALLS FOR NEW FAÇADE AND SUPPORT FRAMING. PATCH EXTERIOR WALL BY FILLING IN MASONRY HOLES AND CRACKS. REPAIR FACE OF DETERIORATED CMU OR CONCRETE WALLS. REFER TO G-06 FOR PATCHING AND REPAIRING INFORMATION.
 - REMOVE EXTERIOR PANELS AND EQUIPMENT, SAVE ACTIVE COMPONENTS AND TURNOVER TO OWNER.
 - MAINTAIN WATERTIGHTNESS DURING DEMOLITION, REPLACEMENT AND REPAIR WORK.
 - PROVIDE TEMPORARY FLOOR MOUNTED LIGHTING DURING ROOF REPLACEMENT

PARTIAL PLAN

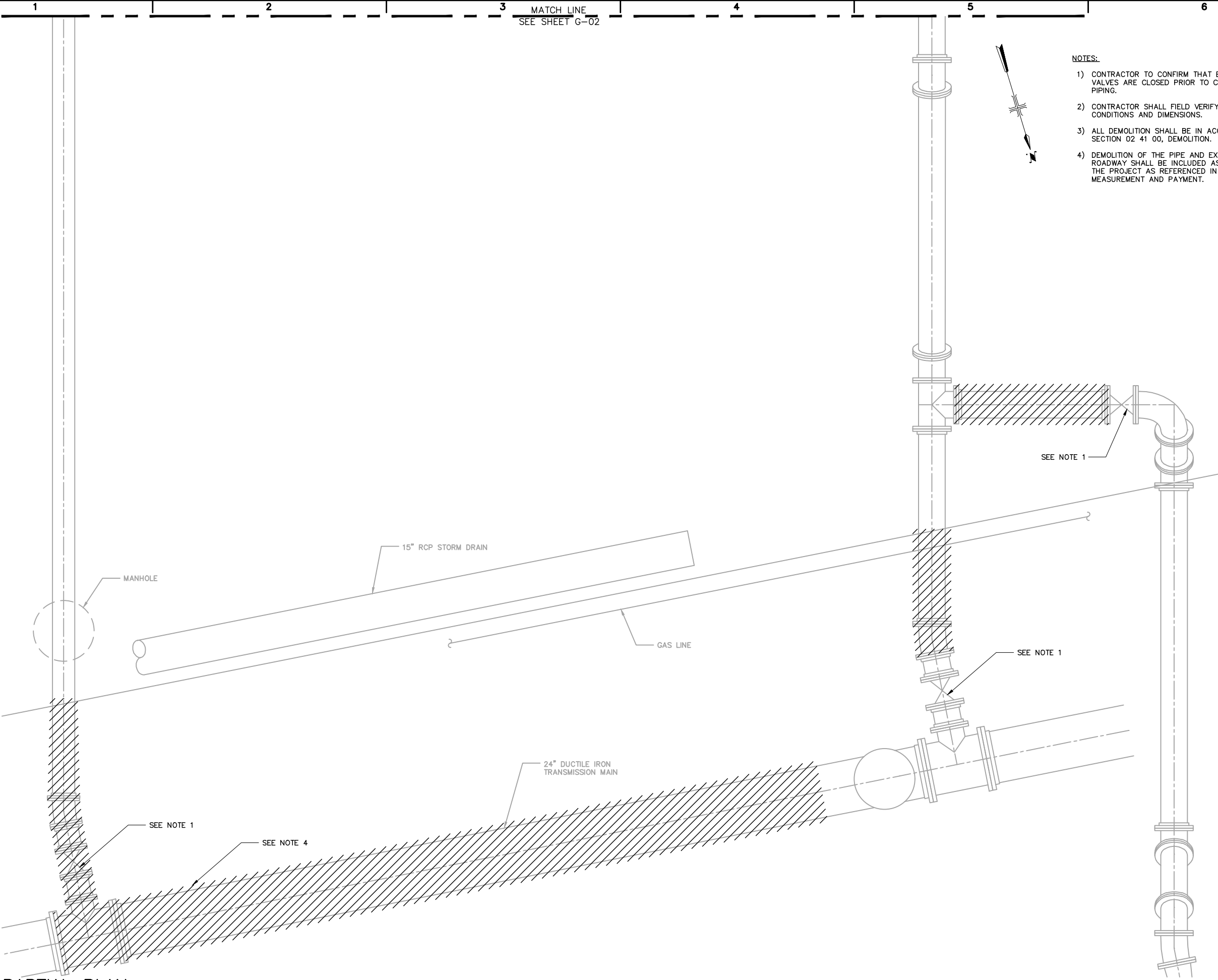
SCALE: 1/2" = 1'-0"

MATCH LINE
SEE SHEET G-03



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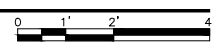
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- NOTES:**
- 1) CONTRACTOR TO CONFIRM THAT EXISTING ISOLATION VALVES ARE CLOSED PRIOR TO CUTTING EXISTING PIPING.
 - 2) CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.
 - 3) ALL DEMOLITION SHALL BE IN ACCORDANCE WITH SECTION 02 41 00, DEMOLITION.
 - 4) DEMOLITION OF THE PIPE AND EXCAVATION OF THE ROADWAY SHALL BE INCLUDED AS A BID ALTERNATE TO THE PROJECT AS REFERENCED IN SECTION 01 22 13, MEASUREMENT AND PAYMENT.

PARTIAL PLAN

SCALE: 1/2" = 1'-0"



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TOWN OF YORKTOWN, NY

DRINKING WATER FLUORIDATION PROJECT

ARCADIS PROJ. NO. 02328010.0000

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DATE: SEPTEMBER 2019
 PROJECT NO.: 02328010.0000
 FILE NAME: G-03
 DESIGNED BY: L. MCCARTHY
 DRAWN BY: A. CHAMBERS
 CHECKED BY: V. MCHPHERSON

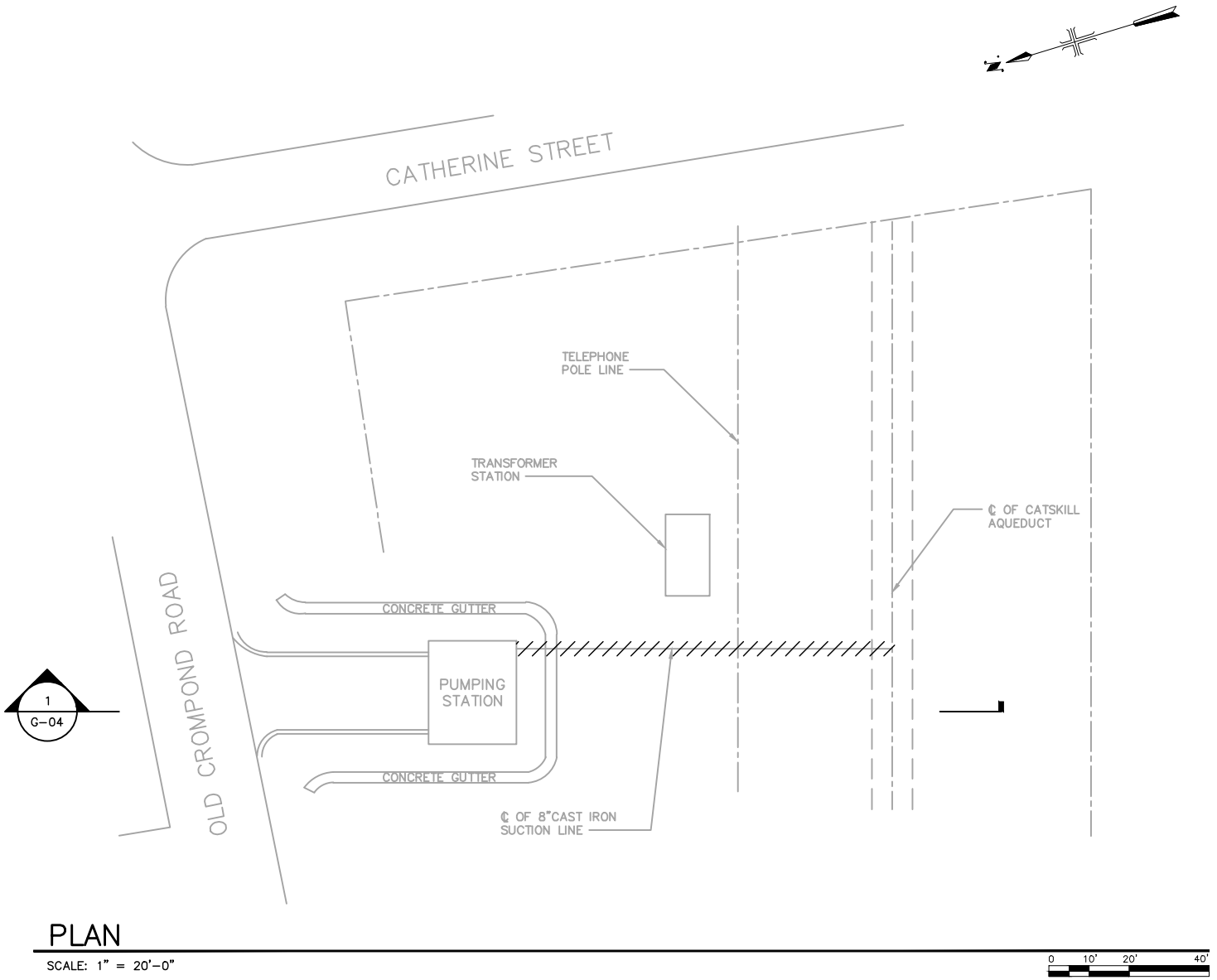
SHEET TITLE

GENERAL
DEMOLITION CATSKILL AQUEDUCT PUMPING STATION SHEET 2

SCALE: AS SHOWN

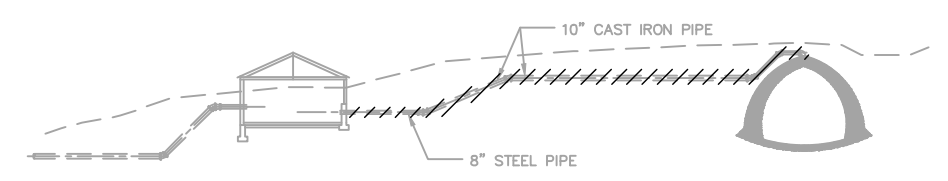
G-03
SHEET 4 OF 23

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PLAN

SCALE: 1" = 20'-0"



SECTION

SCALE: 1" = 20'-0"

- NOTES:**
- 1) DEMOLITION OF CATSKILL AQUEDUCT PIPING IS INCLUDED AS A BID ALTERNATE TO THE PROJECT.
 - 2) CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS.
 - 3) ALL DEMOLITION SHALL BE IN ACCORDANCE WITH SECTION 02 41 00, DEMOLITION, AND NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS.
 - 4) ALL EXCAVATION AND BACKFILL SHALL BE IN ACCORDANCE WITH SECTION 31 23 16.13, TRENCHING.
 - 5) CONTRACTOR SHALL CUT THE EXISTING CATSKILL AQUEDUCT SUCTION PIPING DIRECTLY INSIDE THE BUILDING AT THE INTERIOR WALL. CONTRACTOR SHALL REMOVE PIPING, FITTINGS, AND APPURTENANCES FROM THE INTERIOR BUILDING CUT PIPE LOCATION TO THE CROWN OF THE CATSKILL AQUEDUCT. PIPING LOCATED OVER THE CATSKILL AQUEDUCT SHALL NOT BE REMOVED.
 - 6) FILL MASONRY OPENING IN BUILDING WITH GROUT.
 - 7) ALL DISTURBED AREAS BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITIONS.



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 FILE NAME: G-04
 DESIGNED BY: L. MCCARTHY
 DRAWN BY: A. CHAMBERS
 CHECKED BY: V. MCPHERSON

SHEET TITLE

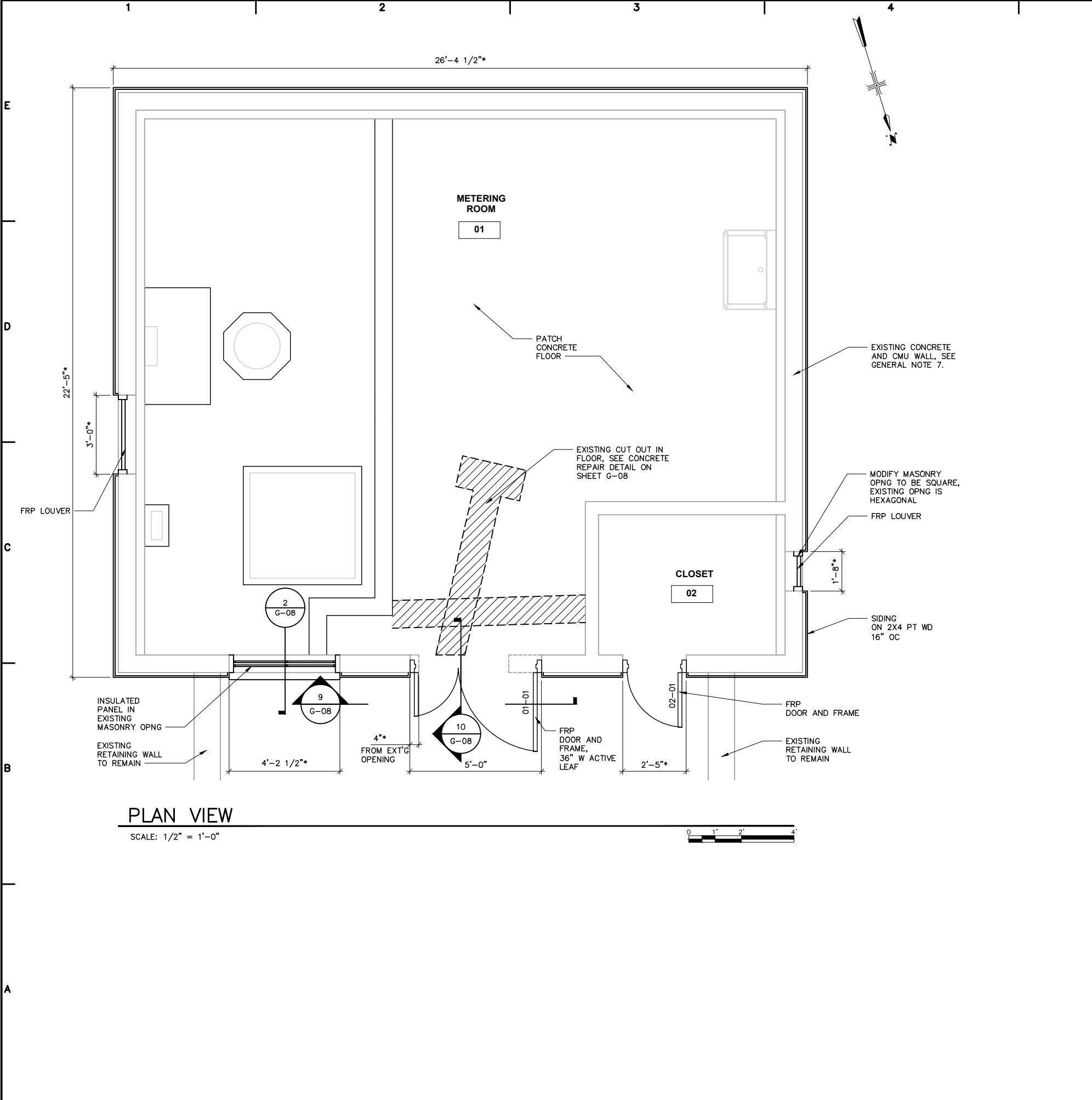
GENERAL

**BID ALTERNATE 2
DEMOLITION
CATSKILL AQUEDUCT
SUCTION PIPING**

SCALE: AS SHOWN

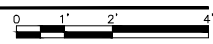
G-04
SHEET 5 OF 23

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PLAN VIEW

SCALE: 1/2" = 1'-0"



GENERAL ARCHITECTURAL NOTES:

1. ALL WORK SHALL COMPLY WITH NEW YORK STATE CODES AND REGULATIONS AND LOCAL ORDINANCES.
2. ALL WORK SHALL COMPLY WITH OSHA 1910 AND OSHA 1926 REGULATIONS.
3. ALL WORK SHALL COMPLY WITH 2015 NYS EXISTING BUILDING CODE (IEBC-2015) CLASSIFICATION OF WORK IS DEFINED AS FOLLOWS:
 - 3.1. REPLACEMENTS OF DOORS - ALTERATION LEVEL 1.
 - 3.2. MASONRY REPAIRS - REPAIRS.
 - 3.3. ROOF AND FRAMING REPLACEMENT - ALTERATION LEVEL 1.
 - 3.4. REMOVAL OF PIPING AND INSTALLATION OF FLUORIDATION EQUIPMENT - ALTERATION LEVEL 2
4. BUILDING DATA
 - 4.1. CONSTRUCTION TYPE-111 B-NO CHANGE.
 - 4.2. OCCUPANCY TYPE - F-2 - NO CHANGE.
 - 4.3. CHEMICAL: FLUOROSILICIC ACID CORROSIVE: QUANTITY UNDER 500 GALLONS.
 - 4.4. BUILDING AREA: 574 SF - NO CHANGE.
 - 4.5. BUILDING HEIGHT/STORY: 15.67 FEET/1 STORY.
 - 4.6. MEANS OF EGRESS: ONE EXIT - NO CHANGE.
5. ENERGY CODE: BUILDING RENOVATION SHALL COMPLY WITH ASHRAE 90.1
 - 5.1 LEVEL 1 & 2 WORK SHALL COMPLY WITH ENERGY CONSERVATION CODE.
 - 5.2 WALLS: PROVIDE 1" RIGID INSULATION ON EXTERIOR OF BUILDING. WALL ASSEMBLY IS U-0.097.
 - 5.3 ROOF: PROVIDE R-30 INSULATION BETWEEN RAFTERS. 2" CONTINUOUS RIGID INSULATION COMBINED WITH R-30 BATT EQUALS ASSEMBLY U-FACTOR OF 0.025.
6. ALL DIMENSIONS SHALL BE VERIFIED IN FIELD.
7. SEE G AND E DRAWINGS FOR WALL PENETRATIONS. SEAL ALL PENETRATIONS.
8. * ASTERISK: VERIFY DIMENSION IN FIELD OR VERIFY DIMENSION OF EQUIPMENT WITH APPROVED MANUFACTURER.
9. ALL PRODUCTS IDENTIFIED OR LISTED ON DRAWING SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL.
 - 9.1. SUBMIT PRODUCT DATA.
 - 9.2. SUBMIT PRODUCT CERTIFICATION AS REQUIRED.
 - 9.3. SUBMIT PRODUCT SAMPLE AND COLOR CHART.
 - 9.4. FOR SIDING PROVIDE IN PLACE MOCK UP FOR APPROVAL.

INTERIOR FINISH NOTES:

1. FLOOR - CONCRETE PATCH, SEE DETAIL.
2. WALLS - INTERIOR WALL (CMU AND CONCRETE) PAINT SHALL BE REMOVED TO THE GREATEST EXTENT POSSIBLE WITH METHODS TO MINIMIZE DUST MIGRATION. PATCH CMU AND CONCRETE SURFACE AT SPALLING OR PITTED SURFACES. ASSUME CONCRETE PATCHING OF 10 SF BY 1/2" DEEP AND CMU PATCHING OF 10 SF BY 1/4" DEEP.
3. DOORS - FRP DOOR AND FRAMES SHALL BE PREFINISHED. COLOR SHALL BE MEDIUM BROWN.
4. CEILING - EXPOSED WOOD FRAMING SHALL REMAIN UNPAINTED.



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DATE: SEPTEMBER 2019

PROJECT NO.: 02328010.0000

FILE NAME: G-05

DESIGNED BY: E. DAWKINS

DRAWN BY: R. BOBY

CHECKED BY: G. BIONDI

SHEET TITLE

GENERAL

ARCHITECTURAL BUILDING PLAN

SCALE: 1/2"=1'-0"

G-05
SHEET 6 OF 23



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TOWN OF YORKTOWN, NY

**DRINKING WATER
FLUORIDATION PROJECT**

ARCADIS PROJ. NO. 02328010.0000

NO.	DATE	ISSUED FOR	BY

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DATE: SEPTEMBER 2019

PROJECT NO.: 02328010.0000

FILE NAME: G-06

DESIGNED BY: E. DAWKINS

DRAWN BY: R. BOBY

CHECKED BY: G. BIONDI

SHEET TITLE

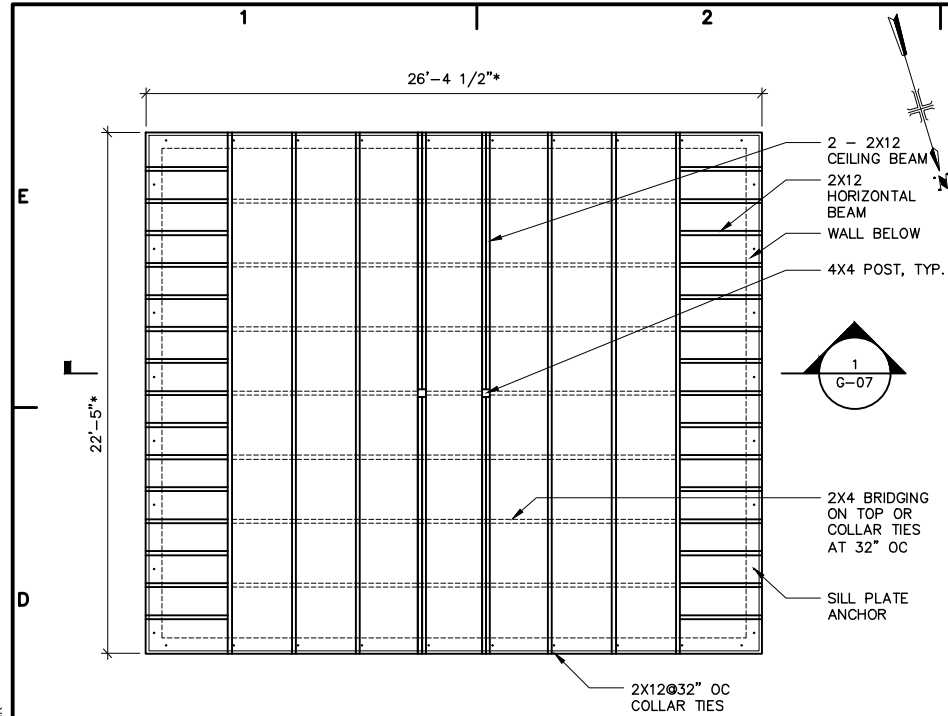
GENERAL

**ARCHITECTURAL
ROOF
PLAN**

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

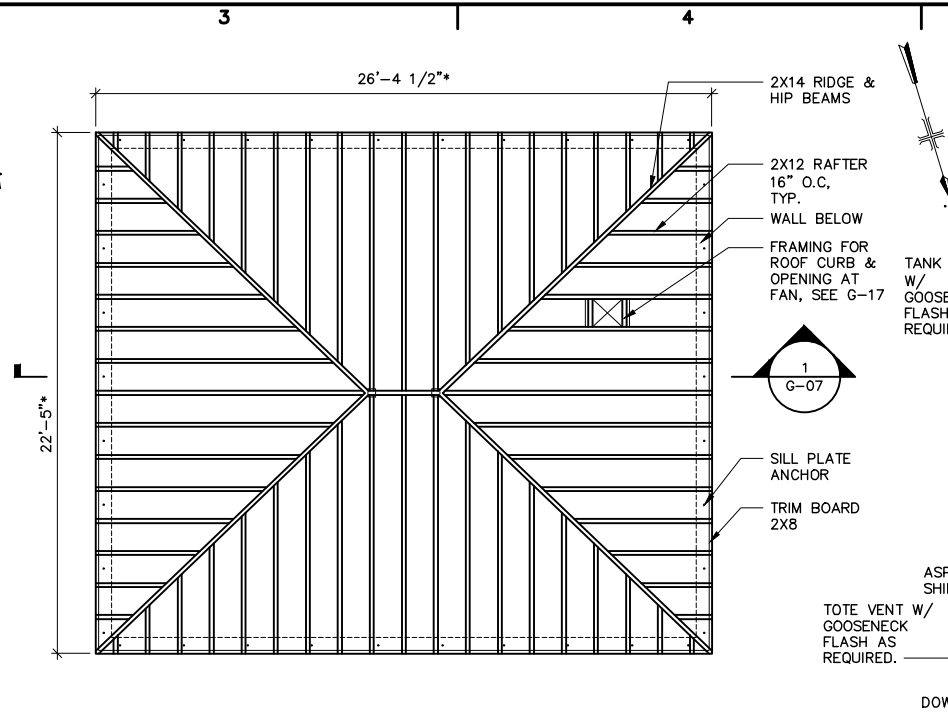
G-06

SHEET 7 OF 23



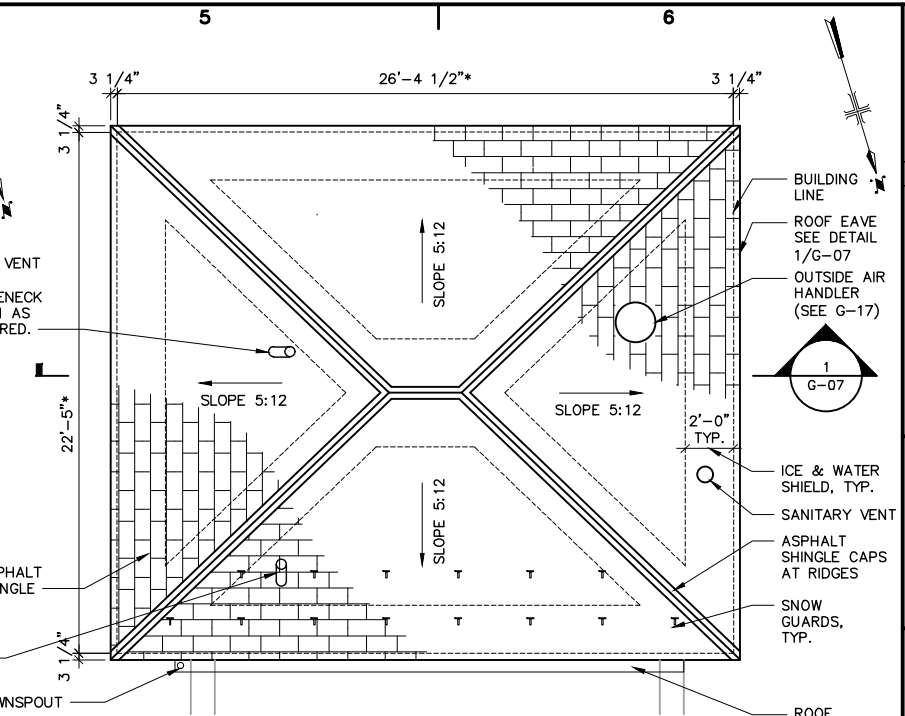
CEILING FRAMING PLAN

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



ROOF FRAMING PLAN

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



ROOF PLAN

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

MATERIAL REQUIREMENTS:

MASONRY

- MORTAR MATERIALS
 - PORTLAND CEMENT: PROVIDE THE FOLLOWING FOR PORTLAND CEMENT-LIME MORTARS:
 - ASTM C150, TYPE 1.
 - USE ASTM C150, TYPE III HIGH-EARLY STRENGTH, FOR LAYING MASONRY WHEN AIR TEMPERATURE IS LESS THAN 50 DEGREES F.
 - PROVIDE NONSTAINING PORTLAND CEMENT OF NATURAL COLOR.
 - HYDRATE LIME: ASTM C207 TYPE S, OR LIME PUTTY ASTM C5.
 - SAND AGGREGATES:
 - ASTM C144, EXCEPT FOR JOINTS LESS THAN 1/4 INCH, USE AGGREGATE GRADED WITH 100 PERCENT PASSING THE NO. 16 SIEVE.
 - WITE MORTAR AGGREGATES: PROVIDE NATURAL WHITE SAND OR GROUND WHITE STONE FOR PORTLAND CEMENT-LIME MORTARS.
 - COLOR MORTAR AGGREGATES: PROVIDE GROUND MARBLE, GRANITE, OR OTHER SOUND STONE AS REQUIRED TO MATCH THE SAMPLE APPROVED BY ENGINEER FOR PORTLAND CEMENT LIME MORTARS.
 - COURSE AGGREGATE FOR GROUT: ASTM C404, SIZE NO. 8 OR SIZE NO. 89.
 - WATER: FREE FROM INJURIOUS AMOUNTS OF OILS ACIDS, ALKALIS, OR ORGANIC MATTER AND CLEAN, FRESH AND POTABLE.
- MORTAR MIXES
 - MORTAR FOR UNIT MASONRY: COMPLY WITH ASTM C270, TABLE 2, EXCEPT LIMIT MATERIALS TO THOSE SPECIFIED IN THIS SECTION, DO NOT SUBSTITUTE ASTM C91 MASONRY CEMENT FOR ASTM 150 PORTLAND CEMENT WITHOUT AN SUBMITTAL APPROVAL BY ENGINEER, AND LIMIT CEMENT TO LIME RATIO BY VOLUME AS FOLLOWS:
 - TYPE S
 - PORTLAND CEMENT: ONE PART
 - HYDRATED LIME OR LIME PUTTY: OVER 1/4 TO 1/2 MAXIMUM.
 - AGGREGATE RATIO: NOT LESS THAN 2-1/4 AND NOT MORE THAN 3 TIMES SUM OF VOLUMES OF CEMENTITIOUS MATERIALS.
 - GROUT:
 - FINE GROUT
 - PROVIDE THE FOLLOWING PROPORTIONS BY VOLUME:
 - PORTLAND CEMENT: ONE PART
 - HYDRATED LIME OR LIME PUTTY: ZERO TO 1/10 PART.
 - AGGREGATE RATIO (MEASURED IN A DAMP LOOSE CONDITION): SAND SHALL BE NOT LESS THAN 2.25 TIMES AND NOT MORE THAN THREE TIMES SUM OF VOLUMES OF CEMENT AND LIME.
 - MIX GROUT TO HAVE A SLUMP OF TEN INCHES PLUS OR MINUS ONE INCH AT PLACEMENT.
 - COARSE GROUT:
 - PROVIDE THE FOLLOWING PROPORTIONS BY VOLUME"
 - PORTLAND CEMENT: ONE PART
 - HYDRATED LIME OR LIME PUTTY: ZERO TO 1/10 PART.
 - FINE AGGREGATE RATIO (MEASURED IN A DAMP LOOSE CONDITION): SAND SHALL BE NOT LESS THAN 2.25 TIMES AND NOT MORE THAN THREE TIMES OF VOLUMES OF CEMENT AND LIME.
 - COARSE AGGREGATE RATIO: NOT LESS THAN ONE AND NOT MORE THAN TWO TIMES SUM OF VOLUMES OF CEMENT AND LIME.
 - MIX GROUT TO HAVE SLUMP OF TEN INCHES PLUS OR MINUS ONE INCH, AT PLACEMENT.
 - ACCESSORIES
 - REINFORCING BARS: DEFORMED CARBON STEEL, ASTM A615, GRADE 60.
 - FILL MESH: MGS GROUT SCREEN BY H & B OR EQUAL.
- CONCRETE MASONRY UNITS
 - HOLLOW AND SOLID LOAD BEARING CONCRETE MASONRY UNITS: ASTM C90 WITH MINIMUM OF 15 PERCENT COAL FLY ASH AND 50 PERCENT RECYCLE AGGREGATE AS PART OF CONCRETE MIX.
 - WEIGHT
 - PROVIDE NORMAL WEIGHT UNITS USING CONCRETE AGGREGATES COMPLYING WITH ASTM C33 PRODUCING DRY NET WEIGHT OF NOT LESS THAN 125 POUNDS PER CUBIC FOOT.
 - SIZE: MANUFACTURERS STANDARD UNITS WITH NOMINAL FACE DIMENSIONS OF 16 INCHES LONG BY EIGHT INCHES HIGH BY NOMINAL WIDTH DIMENSION SHOWN ON DRAWINGS (15-5/8 INCHES BY 7-5/8 INCHES ACTUAL).
 - SPECIAL SHAPES: PROVIDE THE FOLLOWING:
 - LINTELS, BOND BEAMS, REINFORCING UNITS AND FLUSH END REINFORCING UNITS, INTERIOR AND EXTERIOR CORNER SHAPES, SOLID JAMBS, SASH BLOCK, COVERS, PRE-MOLDED CONTROL JOINT BLOCKS, HEADERS AND OTHER SPECIAL CONDITIONS.

- WATERPROOFING ADMIXTURE: MANUFACTURE ALL TYPES OF CONCRETE UNIT MASONRY, USED IN CONSTRUCTION OF EXTERIOR WALLS (INCLUDING INTERIOR WYTHE OF CAVITY WALLS) WITH AN INTEGRAL WATERPROOFING ADMIXTURE AS FOLLOWS:
 - MATERIAL: CROSS LINKING ACRYLIC POLYMER.
 - PROPORTION: IN STRICT ACCORDANCE WITH MANUFACTURES INSTRUCTIONS.
 - PRODUCTS AND MANUFACTURERS: PROVIDE PRODUCTS OF ONE OF THE FOLLOWING:
 - DRY-BLOCK SYSTEM BY FORRER INDUSTRIES, A UNIT OF W.R GRACE AND COMPANY CONSTRUCTION PRODUCTS DIVISION.
 - EUCON BLOCKTITE BY EUCLID COMPANY.
 - OR EQUAL.
- PROVIDE TWO-CORE CONCRETE MASONRY UNITS.
- INSPECTION
 - PRECONSTRUCTION TESTING: TESTING AGENCY SHALL PERFORM TESTS PRIOR TO INSTALLATION OF UNIT MASONRY. SPECIAL INSPECTIONS TESTING PROCEDURES ARE SPECIFIED IN THE REFERENCED STANDARDS AND THE CONTRACT DOCUMENTS.
 - MORTAR TEST: FOR EACH MIX REQUIRED, PER ASTM C780.
 - GROUT TEST: FOR EACH MIX REQUIRED, PER ASTM C1019 AND ACI 530.1.
 - PRISM TEST: FOR EACH TYPE OF CONSTRUCTION REQUIRED, PER ASTM C 1314 AND ACI 530.1.
 - COMPRESSIVE STRENGTH OF COMPLETED CONCRETE UNIT MASONRY WALLS SHALL NOT BE LESS THAN 1500 PSI AS DETERMINED BY METHODS SPECIFIED IN ACI 530.1.
 - PREPARATION
 - MEASUREMENT OF MORTAR MATERIALS:
 - CEMENT AND HYDRATED LIME: BATCHED BY THE BAG.
 - SAND: BATCHED BY VOLUME IS SUITABLE CALIBRATED CONTAINERS, PROVIDED PROPER ALLOWANCE IS MADE FOR BULKING AND CONSOLIDATION AND FOR WEIGHT PER CUBIC OF CONTAINED MOISTURE.
 - PROPORTION OF VOLUMETRIC MIXTURES: ONE 94 POUND SACK OF PORTLAND CEMENT AND ONE 50 POUND SACK OF HYDRATED LIME CONSTITUTE NOMINAL ONE CUBIC FOOT.
 - SHOVEL MEASUREMENT: NOT ALLOWED.
 - MORTAR MIXING:
 - TYPE OF MIXER: MACHINE MIX IN APPROVED MIXER IN WHICH QUANTITY OF WATER IS ACCURATELY AND UNIFORMLY CONTROLLED.
 - WHILE MIXER IS IN OPERATION ADD APPROXIMATELY 3 QUARTERS OF REQUIRED WATER, HALF THE SAND, ALL THE CEMENT, THEN ADD REMAINDER OF SAND.
 - ALLOW BATCH TO MIX BRIEFLY THE ADD WATER IN SMALL QUANTITIES UNTIL SATISFACTORY WORKABILITY IS OBTAINED.
 - MIX FOR AT LEAST FIVE MINUTES AFTER ALL MATERIALS HAVE BEEN ADDED.
 - HYDRATED LIME FOR MORTAR REQUIRING LIME CONTENT: USE DRY MIX METHOD. TURN OVER MATERIALS FOR EACH BATCH TOGETHER UNTIL EVEN COLOR OF MIXED, DRY MATERIALS INDICATES THAT CEMENTITIOUS MATERIALS HAS BEEN THOROUGHLY DISTRIBUTED THROUGHOUT MASS, THE ADD WATER TO OBTAIN REQUIRED PLASTICITY.
 - LIME PUTTY, IF APPROVED FOR USE, SHALL BE PREPARED IN ACCORDANCE WITH ASTM C5.
 - RE-TEMPERING OF MORTAR IS NOT ALLOWED.
 - WETTING OF MASONRY UNITS:
 - CONCRETE MASONRY UNITS: EXCEPT FOR ABSORBENT UNITS SPECIFIED TO BE WETTED, LAY MASONRY UNITS DRY. DO NOT WET CONCRETE UNITS.
 - CLEANING REINFORCEMENT: BEFORE BEING PLACED, REMOVE LOOSE RUST, MILL SCALE, EARTH, ICE AND OTHER COATINGS EXCEPT GALVANIZING FROM REINFORCEMENT. DO NOT USE REINFORCING BARS WITH KINKS OR BENDS NOT SHOWN ON DRAWINGS OR APPROVED SHOP DRAWINGS OR BARS WITH REDUCED CROSS SECTION.
- INSTALLATION
 - CUT MASONRY UNITS USING WET CUTTING, MOTOR DRIVEN SAWS TO PROVIDE CLEAN, SHARP, UNCHIPPED EDGES. CUT UNITS TO PROVIDE PATTERN SHOWN AND TO FIT ADJOINING WORK NEATLY. USE FULL SIZE UNITS WITHOUT CUTTING WHEREVER POSSIBLE.
- LAYING MASONRY WALLS
 - MORTAR BEDDING AND JOINTING
 - LAY SOLID MASONRY UNITS WITH COMPLETELY FILLED BED AND HEAD JOINTS; BUTTER ENDS WITH SUFFICIENT MORTAR TO FILL HEAD JOINTS AND SHOVE INTO PLACE. DO NOT SLUSH HEAD JOINTS.
 - LAY HOLLOW MASONRY UNITS WITH FULL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS.

- BED WEBS IN MORTAR IN STARTING COURSE OF PIERS, COLUMNS AND PILASTERS AND WHERE ADJACENT TO CELLS OR CAVITIES TO BE REINFORCED OR FILLED WITH CONCRETE OR GROUT.
 - MAINTAIN JOINT WIDTHS SHOWN, EXCEPT FOR MINOR VARIATIONS REQUIRED TO MAINTAIN PATTERN BOND ALIGNMENT. LAY WALLS WITH 3/8 INCH JOINTS.
 - CUT JOINTS FLUSH FOR MASONRY WALLS THAT ARE TO BE CONCEALED OR TO BE COVERED BY OTHER MATERIALS, EXCEPT PAINT, UNLESS OTHERWISE SHOWN.
 - TOOL EXPOSED JOINTS WHEN MORTAR IS "THUMBPRINT" HARD, SLIGHTLY CONCAVE. RAKE OUT MORTAR IN PREPARATION FOR APPLICATION OF CAULKING OR SEALANTS WHERE REQUIRED.
 - CONCAVE TOOL EXTERIOR JOINTS BELOW GRADE.
 - REMOVE MASONRY UNITS DISTURBED AFTER LAYING; CLEAN AND RESET IN FRESH MORTAR. DO NOT POUND CORNERS AT JAMBS TO FIT STRETCHER UNITS WHICH HAVE BEEN SET IN POSITION. IF ADJUSTMENTS ARE REQUIRED, REMOVE UNITS, CLEAN OFF MORTAR AND RESET IN FRESH MORTAR.
 - LINTELS AND BOND BEAMS:
 - PROVIDE MASONRY LINTELS AND BOND BEAMS WHERE OPENINGS OF 16 INCHES OR MORE ARE SHOWN. PROVIDE FORMED IN PLACE MASONRY LINTELS AND BOND BEAMS. TEMPORARILY SUPPORT FORMED-I-PLACE LINTELS AND BOND BEAMS.
 - UNLESS OTHERWISE SHOWN, PROVIDE ONE HORIZONTAL NUMBER SIX DEFORMED REINFORCING BAR FOR EACH 4 INCHES OF WALL THICKNESS.
 - FOR HOLLOW MASONRY UNIT WALLS, USE SPECIALLY FORMED 'U' SHAPED LINTEL AND BOND BEAM UNITS WITH REINFORCING BARS PLACED AS SHOWN, FILLED WITH COARSE GROUT AS SPECIFIED.
 - PROVIDE MINIMUM BEARING AT EACH JAMB OF EIGHT INCHES FOR ALL OPENINGS.
 - ON CONCRETE UNIT MASONRY WALLS WHERE PATTERN BOND REMAINS VISUALLY EXPOSED, INCREASE MINIMUM BEARING OF MASONRY LINTELS TO MAINTAIN JOINT PATTERN OF WALL AND INSTALL TO BE INDISTINGUISHABLE FROM SURROUNDING MASONRY.
- REPAIR, POINTING AND CLEANING
 - REMOVE AND REPLACE MASONRY UNITS THAT ARE LOOSE, CHIPPED, OR BROKEN AS DIRECTED BY ENGINEER. PROVIDE NEW UNITS TO MATCH ADJOINING UNITS AND INSTALL IN FRESH MORTAR OR GROUT, POINTED TO ELIMINATE EVIDENCE OF REPLACEMENT.
 - REPAIRS AND PATCHING: PROVIDE PRE-MIX CONCRETE PATCH BY SAKRETE OR EQUAL.
 - POINTING: DURING TOOLING OF JOINTS, ENLARGE VOIDS OR HOLES, EXCEPT WEEP HOLES AND COMPLETELY FILL WITH MORTAR. POINT UP ALL JOINTS AT CORNERS, OPENINGS AND ADJACENT WORK TO PROVIDE NEAT, UNIFORM APPEARANCE PROPERLY PREPARED FOR APPLICATION OF SEALANT COMPOUNDS.
 - PROTECTION:
 - PROTECT UNIT MASONRY CONSTRUCTION WORK FROM DETERIORATION, DISCOLORATION OR DAMAGE DURING SUBSEQUENT CONSTRUCTION OPERATIONS.

GENERAL FRAMING NOTES:

- SEE SPECIFICATION SECTION 06 10 53 & 06 11 00 FOR WOOD FRAMING SPECIFICATIONS.
- PROVIDE SIGNED AND SEALED FRAMING PLANS INDICATING COMPLIANCE WITH NYS BUILDING CODE ALLOWABLE LOADS.
- PROVIDE TERMITE SHIELD AND SILL PLATE GASKET UNDER WOOD SILL AT TOP OF MASONRY.
- ALL FASTENERS AND ANCHORS SHALL BE STAINLESS STEEL TYPE 316 UNLESS OTHERWISE NOTED.
- ALL WOOD FRAMING AND BLOCKING SHALL BE PRESSURE TREATED UNLESS OTHERWISE NOTED.
- ALL WOOD JOIST, BEAM AND RAFTER FRAMING SHALL BE SELECT STRUCTURAL OR NO 1 GRADE.
- WOOD FRAMING CONNECTORS SHALL BE STAINLESS STEEL TYPE 316
 - CEILING JOIST TIES SHALL BE MINIMUM OF 1 1/4" WIDE AND 0.062 INCHES THICK.
 - RAFTER TIE-DOWNS SHALL BE A MINIMUM OF 1 1/2" WIDE AND 0.062 INCHES THICK.
- EXTERIOR GRADE ROOF SHEATHING SHALL BE EXTERIOR STRUCTURAL 1 OR EXTERIOR SHEATHING. SPAN RATING SHALL BE 16/0 AND NOMINAL THICKNESS NOT LESS THAN 5/8 INCHES.



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TOWN OF YORKTOWN, NY

DRINKING WATER FLUORIDATION PROJECT

ARCADIS PROJ. NO. 02328010.0000

NO.	DATE	ISSUED FOR	BY

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DATE: SEPTEMBER 2019

PROJECT NO.: 02328010.0000

FILE NAME: G-08

DESIGNED BY: E. DAWKINS

DRAWN BY: R. BOBY

CHECKED BY: G. BIONDI

SHEET TITLE

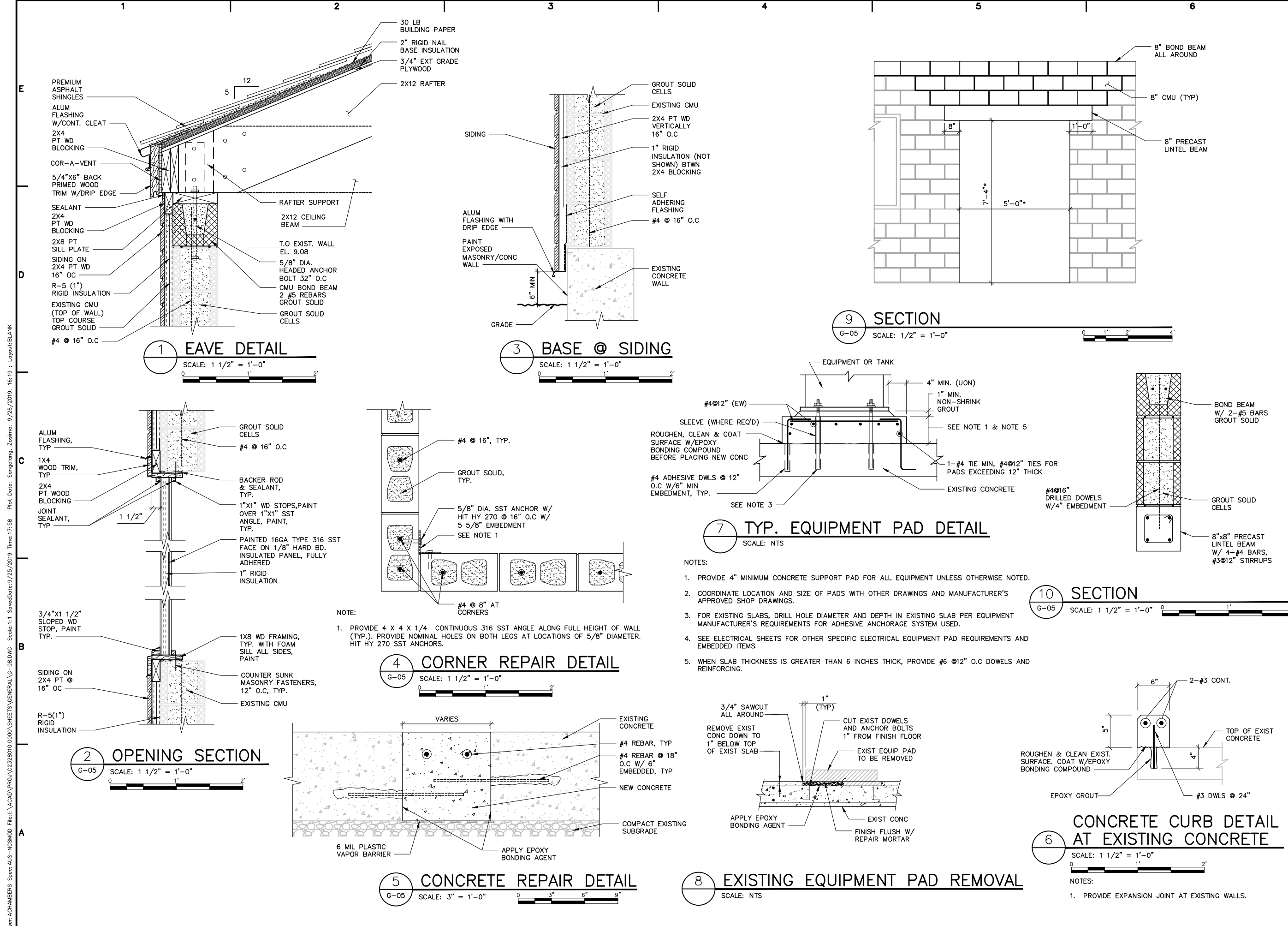
GENERAL

ARCHITECTURAL BUILDING SECTION AND DETAILS

SCALE: AS SHOWN

G-08

SHEET 9 OF 23



User: ACHAMBERS Spec: AUS-NCS3MOD File: \\ARCAD\PROJ\02328010.0000\SHEETS\GENERAL\G-08.DWG Scale: 1:1 SavedDate: 9/25/2019 Time: 17:58 Plot Date: Songdang, Zsaozao, 9/26/2019, 16:19 Layout: BLANK



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TOWN OF YORKTOWN, NY

DRINKING WATER FLUORIDATION PROJECT

ARCADIS PROJ. NO. 02328010.0000

Table with 4 columns: NO., DATE, ISSUED FOR, BY

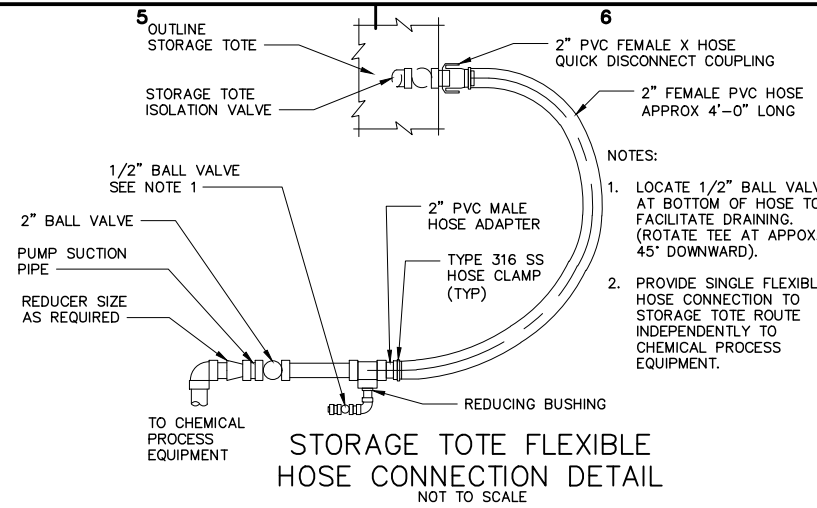
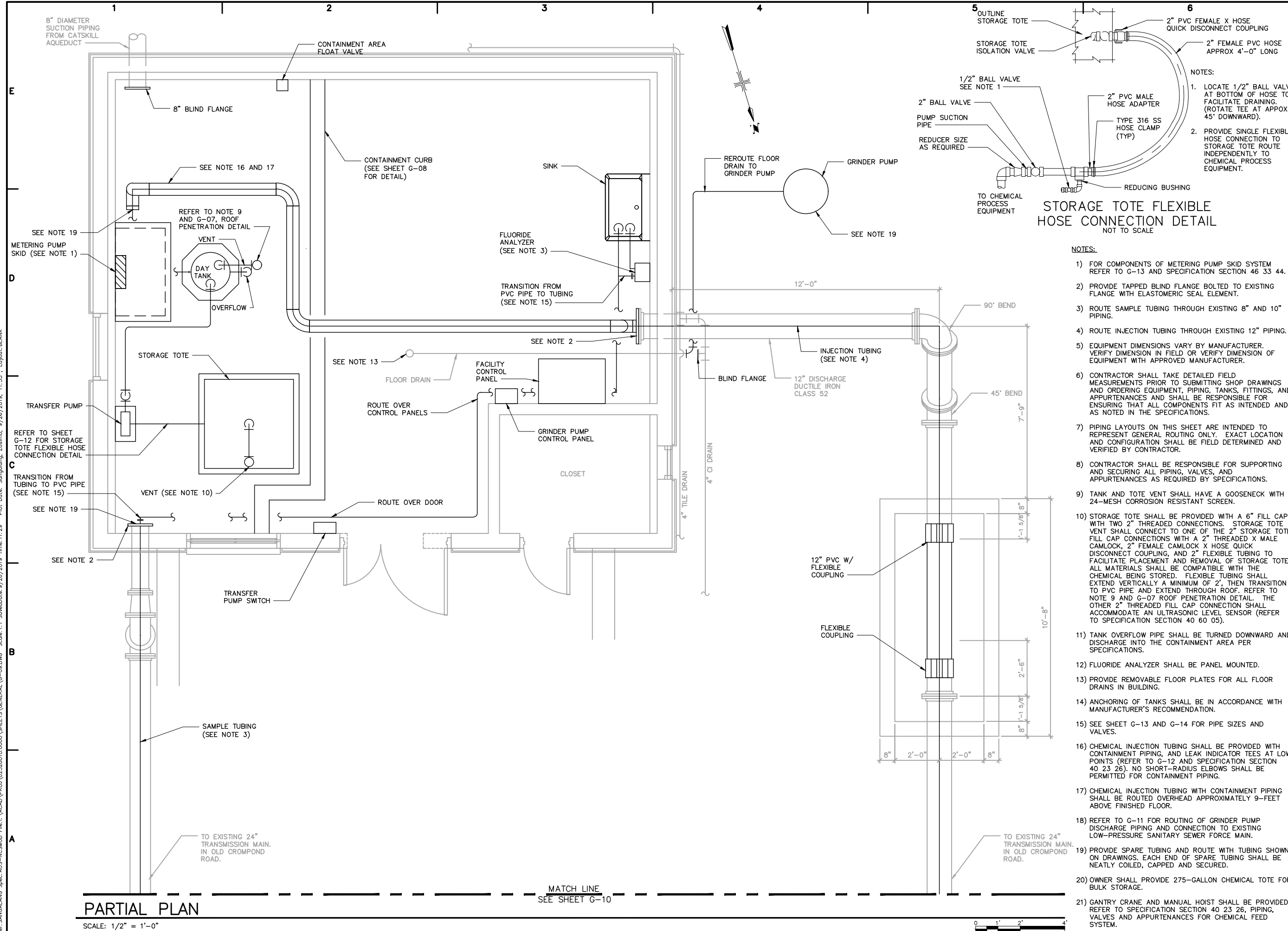
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DATE: SEPTEMBER 2019
PROJECT NO.: 02328010.0000
FILE NAME: G-09
DESIGNED BY: L. MCCARTHY
DRAWN BY: A. CHAMBERS
CHECKED BY: V. MCPHERSON

SHEET TITLE

MECHANICAL PIPING AND EQUIPMENT PARTIAL PLAN SHEET 1

SCALE: AS SHOWN



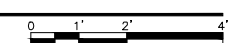
STORAGE TOTE FLEXIBLE HOSE CONNECTION DETAIL NOT TO SCALE

- NOTES: 1) LOCATE 1/2" BALL VALVE AT BOTTOM OF HOSE TO FACILITATE DRAINING... 2) PROVIDE SINGLE FLEXIBLE HOSE CONNECTION TO STORAGE TOTE ROUTE INDEPENDENTLY TO CHEMICAL PROCESS EQUIPMENT. 1) FOR COMPONENTS OF METERING PUMP SKID SYSTEM... 2) PROVIDE TAPPED BLIND FLANGE BOLTED TO EXISTING 8" PIPING... 3) ROUTE SAMPLE TUBING THROUGH EXISTING 8" AND 10" PIPING... 4) ROUTE INJECTION TUBING THROUGH EXISTING 12" PIPING... 5) EQUIPMENT DIMENSIONS VARY BY MANUFACTURER... 6) CONTRACTOR SHALL TAKE DETAILED FIELD MEASUREMENTS... 7) PIPING LAYOUTS ON THIS SHEET ARE INTENDED TO REPRESENT GENERAL ROUTING ONLY... 8) CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORTING AND SECURING ALL PIPING... 9) TANK AND TOTE VENT SHALL HAVE A GOOSENECK WITH 24-MESH CORROSION RESISTANT SCREEN... 10) STORAGE TOTE SHALL BE PROVIDED WITH A 6" FILL CAP WITH TWO 2" THREADED CONNECTIONS... 11) TANK OVERFLOW PIPE SHALL BE TURNED DOWNWARD... 12) FLUORIDE ANALYZER SHALL BE PANEL MOUNTED... 13) PROVIDE REMOVABLE FLOOR PLATES... 14) ANCHORING OF TANKS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION... 15) SEE SHEET G-13 AND G-14 FOR PIPE SIZES AND VALVES... 16) CHEMICAL INJECTION TUBING SHALL BE PROVIDED WITH CONTAINMENT PIPING... 17) CHEMICAL INJECTION TUBING WITH CONTAINMENT PIPING SHALL BE ROUTED OVERHEAD... 18) REFER TO G-11 FOR ROUTING OF GRINDER PUMP DISCHARGE... 19) PROVIDE SPARE TUBING AND ROUTE WITH TUBING SHOWN ON DRAWINGS... 20) OWNER SHALL PROVIDE 275-GALLON CHEMICAL TOTE... 21) GANTRY CRANE AND MANUAL HOIST SHALL BE PROVIDED.

PARTIAL PLAN

SCALE: 1/2" = 1'-0"

MATCH LINE SEE SHEET G-10



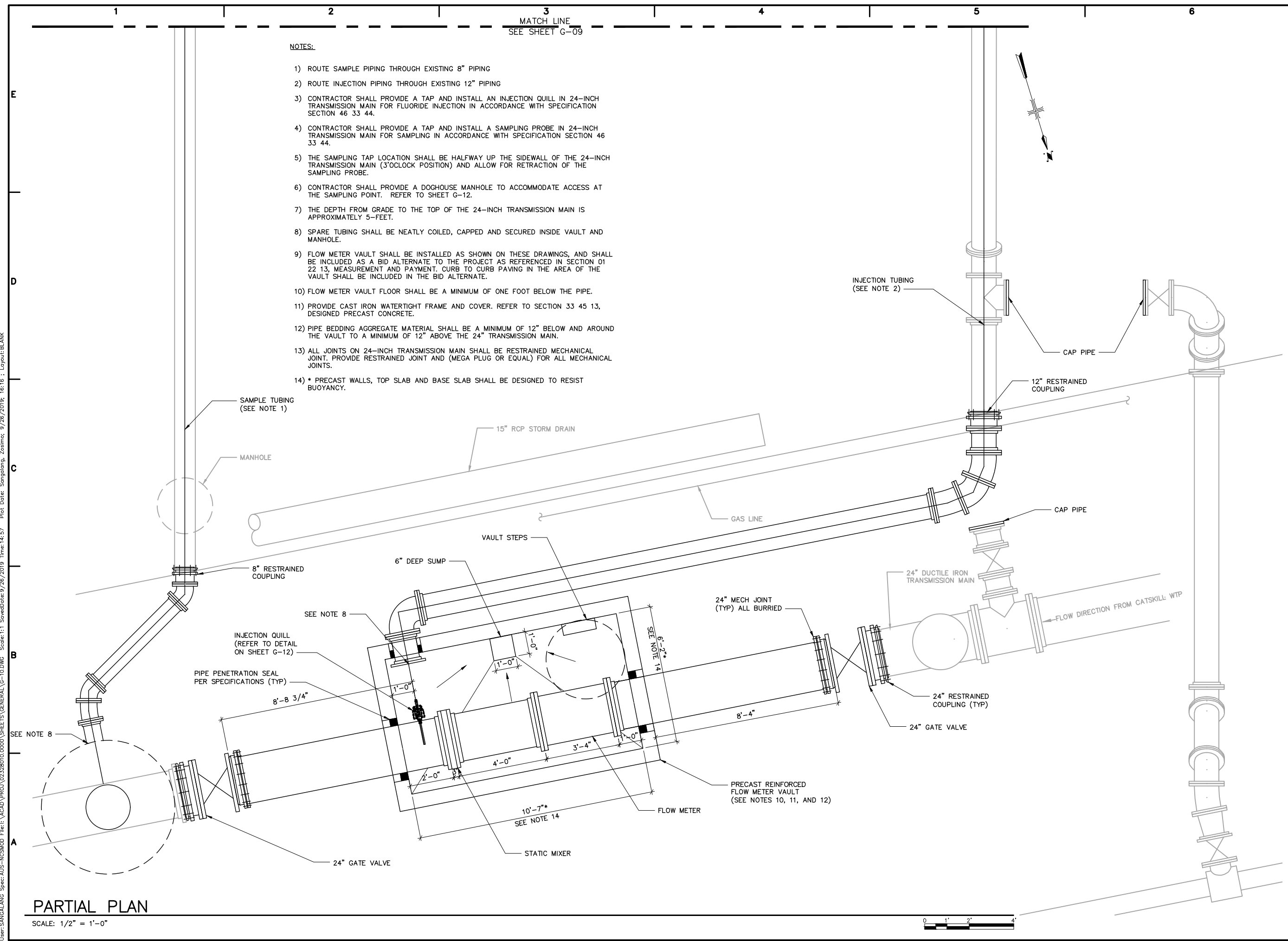
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User: SANGALANG Spec: AUS-NCS3MOD File: I:\ACAD\PROJ\02328010.0000\SHEETS\GENERAL\G-10.DWG Scale: 1:1 Saved Date: 9/26/2019 Time: 14:57 Plot Date: 9/26/2019 Time: 16:16 : Layout: BLANK

MATCH LINE
SEE SHEET G-09

NOTES:

- 1) ROUTE SAMPLE PIPING THROUGH EXISTING 8" PIPING
- 2) ROUTE INJECTION PIPING THROUGH EXISTING 12" PIPING
- 3) CONTRACTOR SHALL PROVIDE A TAP AND INSTALL AN INJECTION QUILL IN 24-INCH TRANSMISSION MAIN FOR FLUORIDE INJECTION IN ACCORDANCE WITH SPECIFICATION SECTION 46 33 44.
- 4) CONTRACTOR SHALL PROVIDE A TAP AND INSTALL A SAMPLING PROBE IN 24-INCH TRANSMISSION MAIN FOR SAMPLING IN ACCORDANCE WITH SPECIFICATION SECTION 46 33 44.
- 5) THE SAMPLING TAP LOCATION SHALL BE HALFWAY UP THE SIDEWALL OF THE 24-INCH TRANSMISSION MAIN (3'O'CLOCK POSITION) AND ALLOW FOR RETRACTION OF THE SAMPLING PROBE.
- 6) CONTRACTOR SHALL PROVIDE A DOGHOUSE MANHOLE TO ACCOMMODATE ACCESS AT THE SAMPLING POINT. REFER TO SHEET G-12.
- 7) THE DEPTH FROM GRADE TO THE TOP OF THE 24-INCH TRANSMISSION MAIN IS APPROXIMATELY 5- FEET.
- 8) SPARE TUBING SHALL BE NEATLY COILED, CAPPED AND SECURED INSIDE VAULT AND MANHOLE.
- 9) FLOW METER VAULT SHALL BE INSTALLED AS SHOWN ON THESE DRAWINGS, AND SHALL BE INCLUDED AS A BID ALTERNATE TO THE PROJECT AS REFERENCED IN SECTION 01 22 13, MEASUREMENT AND PAYMENT. CURB TO CURB PAVING IN THE AREA OF THE VAULT SHALL BE INCLUDED IN THE BID ALTERNATE.
- 10) FLOW METER VAULT FLOOR SHALL BE A MINIMUM OF ONE FOOT BELOW THE PIPE.
- 11) PROVIDE CAST IRON WATERTIGHT FRAME AND COVER. REFER TO SECTION 33 45 13, DESIGNED PRECAST CONCRETE.
- 12) PIPE BEDDING AGGREGATE MATERIAL SHALL BE A MINIMUM OF 12" BELOW AND AROUND THE VAULT TO A MINIMUM OF 12" ABOVE THE 24" TRANSMISSION MAIN.
- 13) ALL JOINTS ON 24-INCH TRANSMISSION MAIN SHALL BE RESTRAINED MECHANICAL JOINT. PROVIDE RESTRAINED JOINT AND (MEGA PLUG OR EQUAL) FOR ALL MECHANICAL JOINTS.
- 14) * PRECAST WALLS, TOP SLAB AND BASE SLAB SHALL BE DESIGNED TO RESIST BUOYANCY.



LEGAL ENTITY:
ARCADIS OF NEW YORK, INC.

CONSULTANTS



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DATE: SEPTEMBER 2019

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FILE NAME: G-10

DESIGNED BY: L. MCCARTHY

DRAWN BY: A. CHAMBERS

CHECKED BY: V. MCPHERSON

SHEET TITLE

GENERAL

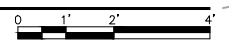
MECHANICAL PIPING AND EQUIPMENT PARTIAL PLAN SHEET 2

SCALE: AS SHOWN

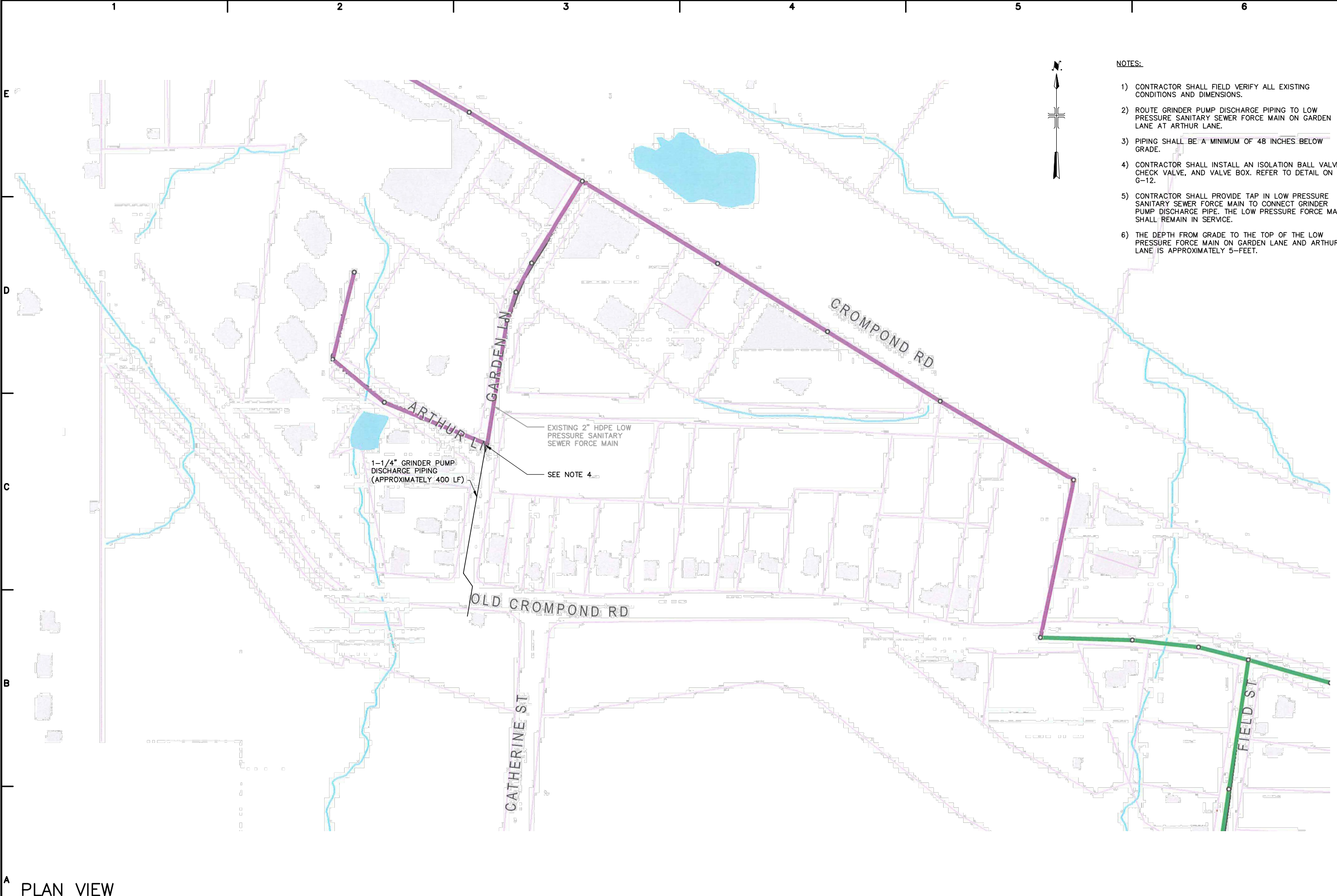
G-10
SHEET 11 OF 23

PARTIAL PLAN

SCALE: 1/2" = 1'-0"



User: ACHAMBERS Spec: AUS-NCS3MOD File: \\ARCAD\PROJ\02328010.0000\SHEETS\GENERAL\C-11.DWG Scale: 1:1 Saved Date: 9/25/2019 Time: 18:49 Plot Date: 9/26/2019 16:20 : Layout: BLANK



- NOTES:**
- 1) CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.
 - 2) ROUTE GRINDER PUMP DISCHARGE PIPING TO LOW PRESSURE SANITARY SEWER FORCE MAIN ON GARDEN LANE AT ARTHUR LANE.
 - 3) PIPING SHALL BE A MINIMUM OF 48 INCHES BELOW GRADE.
 - 4) CONTRACTOR SHALL INSTALL AN ISOLATION BALL VALVE, CHECK VALVE, AND VALVE BOX. REFER TO DETAIL ON G-12.
 - 5) CONTRACTOR SHALL PROVIDE TAP IN LOW PRESSURE SANITARY SEWER FORCE MAIN TO CONNECT GRINDER PUMP DISCHARGE PIPE. THE LOW PRESSURE FORCE MAIN SHALL REMAIN IN SERVICE.
 - 6) THE DEPTH FROM GRADE TO THE TOP OF THE LOW PRESSURE FORCE MAIN ON GARDEN LANE AND ARTHUR LANE IS APPROXIMATELY 5- FEET.

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SEALS

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FILE NAME: G-11

DESIGNED BY: L. MCCARTHY

DRAWN BY: A. CHAMBERS

CHECKED BY: V. MCPHERSON

SHEET TITLE

GENERAL

**MECHANICAL
GARDEN LANE
CONNECTION**

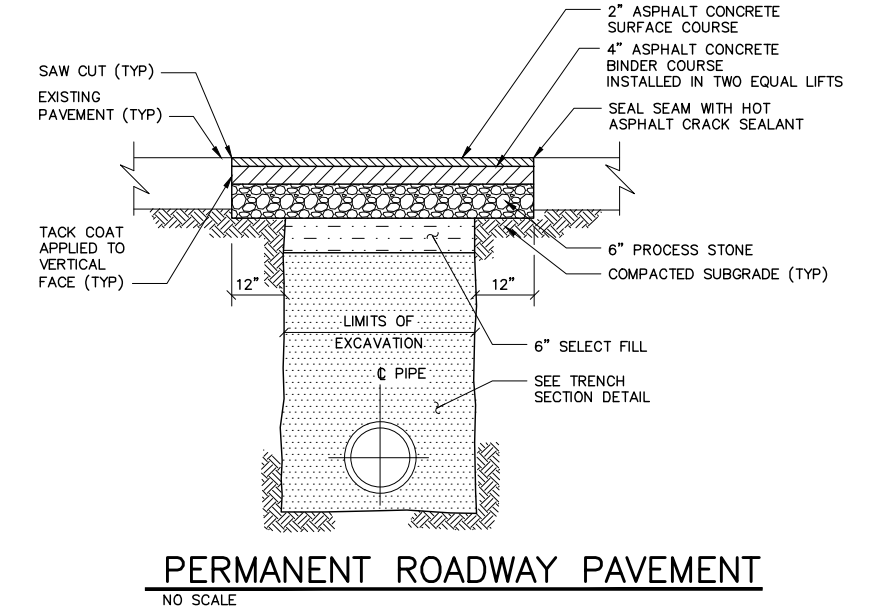
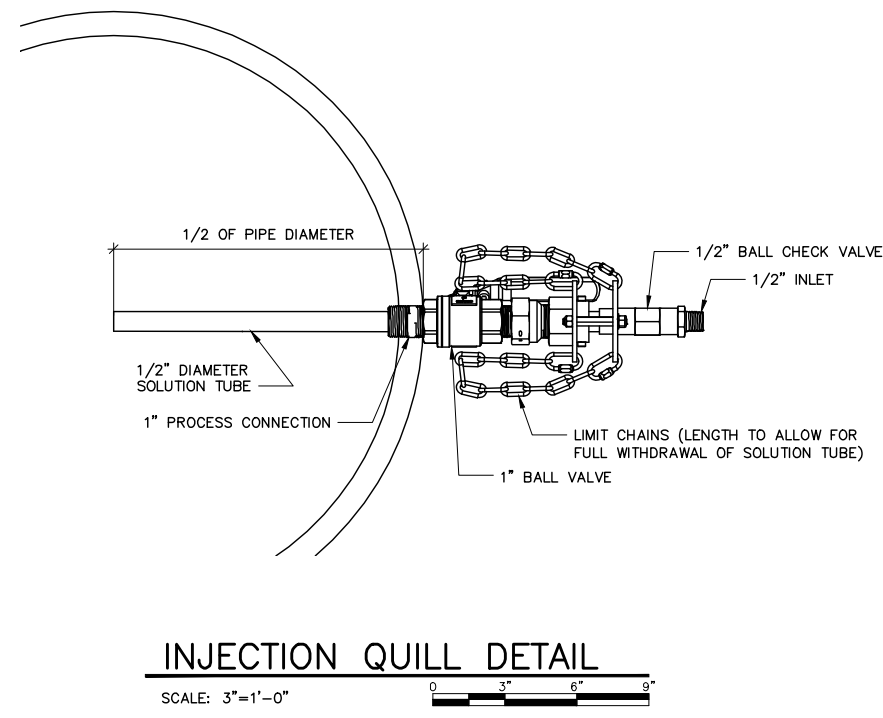
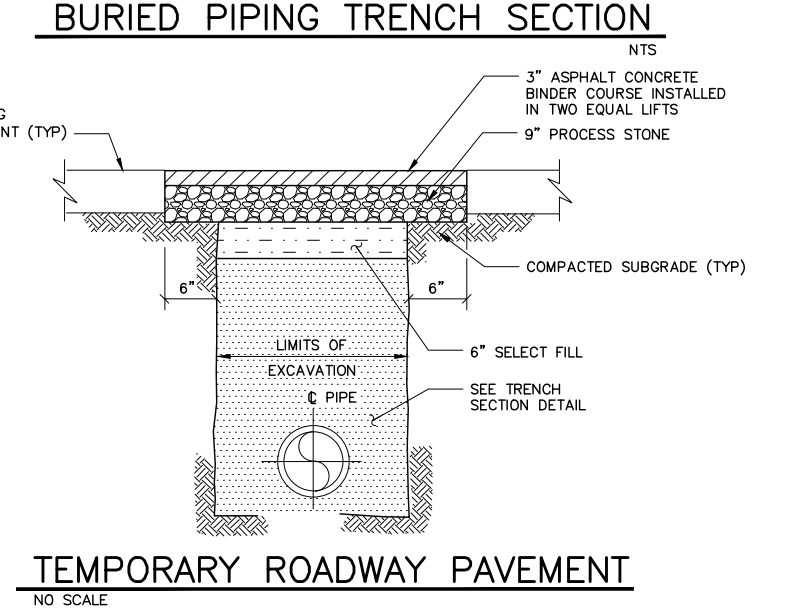
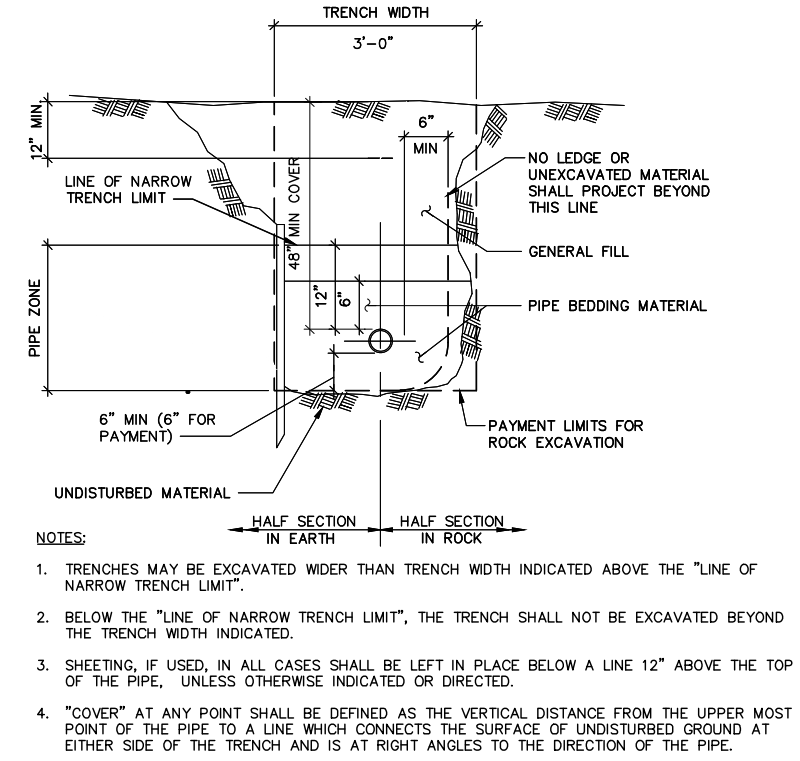
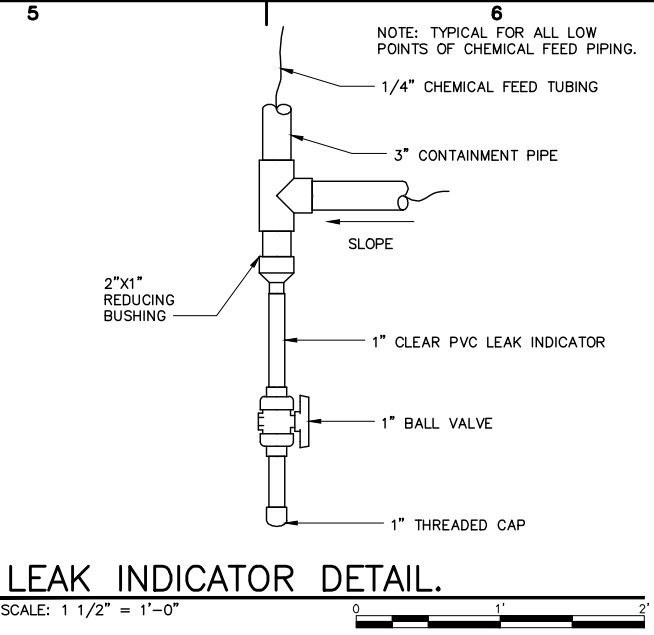
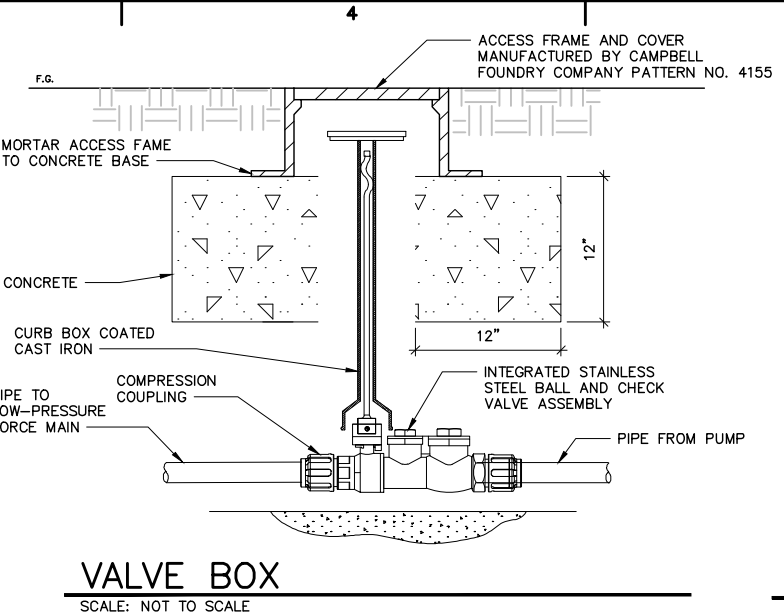
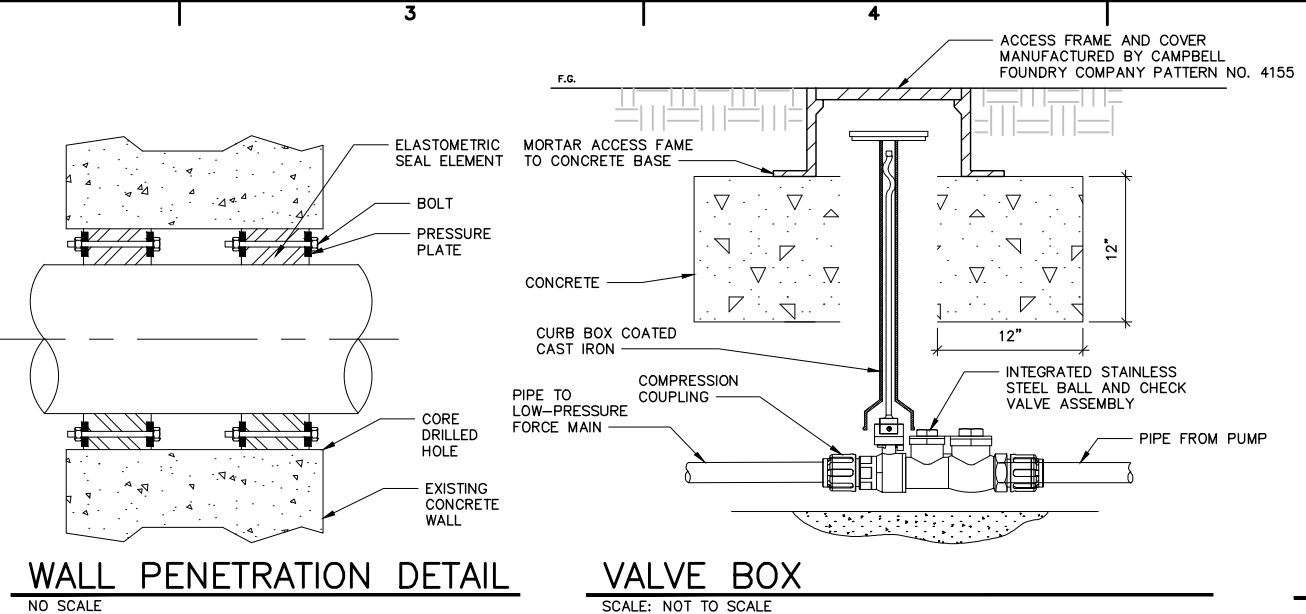
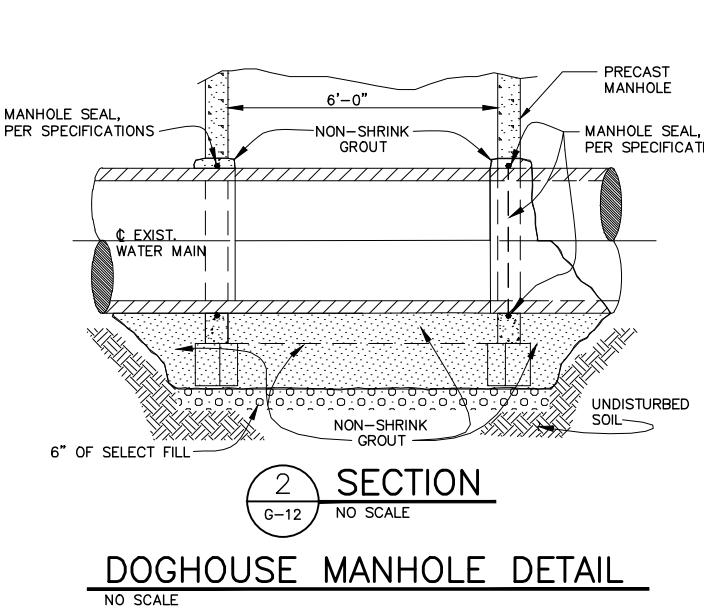
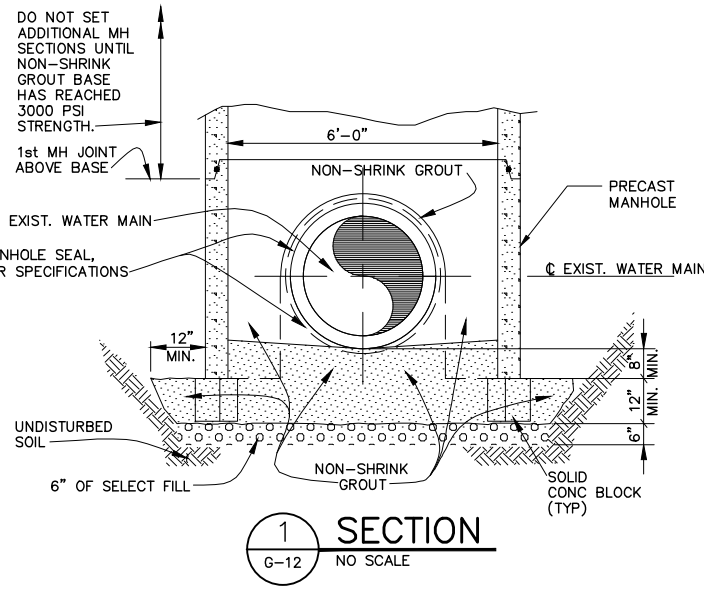
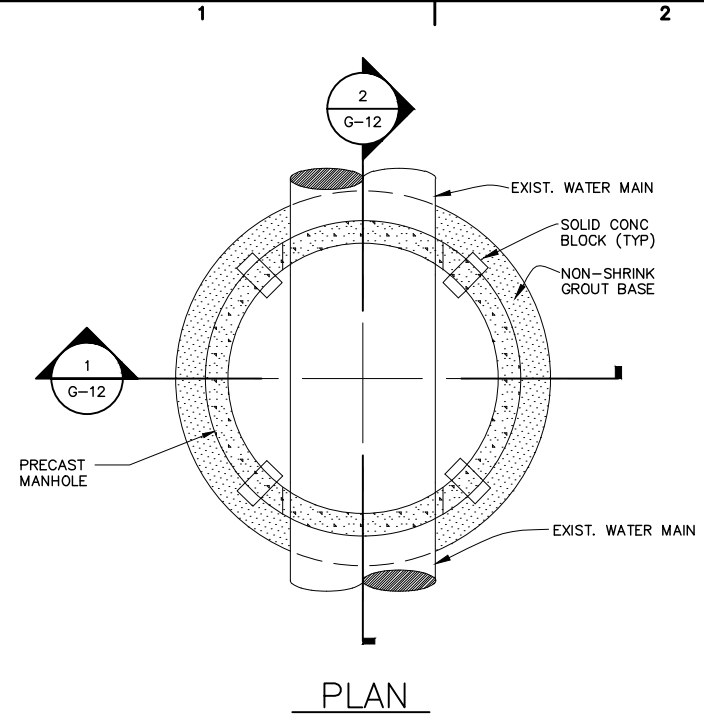
SCALE: NO SCALE

G-11

SHEET 12 OF 23

PLAN VIEW

User: ACHAMBERS Spec: AUS-NCS3MOD File: \\ARCAD\PROJ\02328010.0000\SHEETS\GENERAL\G-12.DWG Scale: 1:1 SavedDate: 9/25/2019 Time: 19:05 Plot Date: Samsung, Zeebans, 9/26/2019, 16:20 : Layout: BLANK



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TOWN OF YORKTOWN, NY

DRINKING WATER FLUORIDATION PROJECT

ARCADIS PROJ. NO. 02328010.0000

NO.	DATE	ISSUED FOR	BY

COPYRIGHT: 2017 ARCADIS OF NEW YORK, INC.

DATE: SEPTEMBER 2019

PROJECT NO.: 02328010.0000

FILE NAME: G-12

DESIGNED BY: L. MCCARTHY

DRAWN BY: A. CHAMBERS

CHECKED BY: V. MCPHERSON

SHEET TITLE: GENERAL

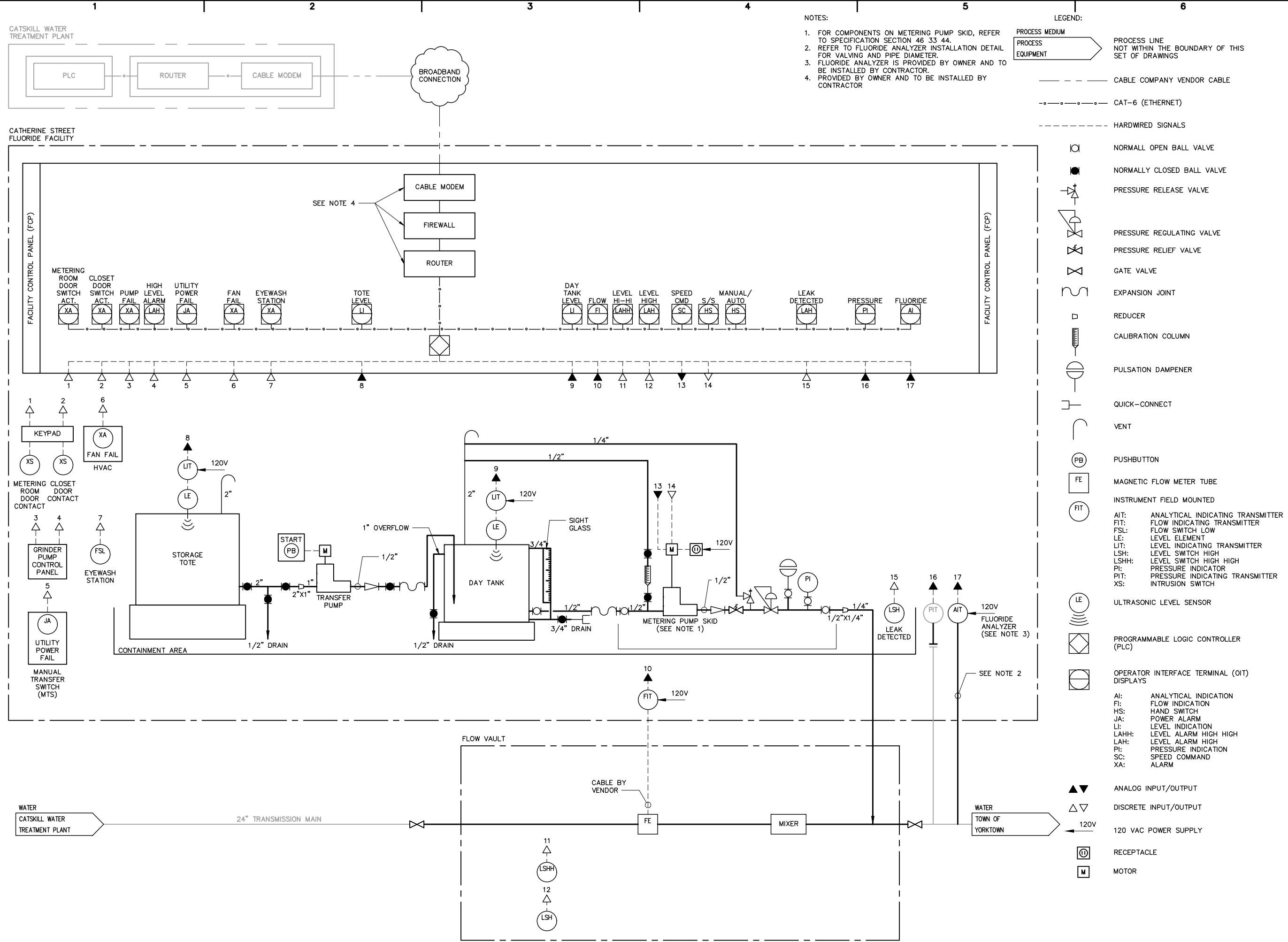
MECHANICAL MISCELLANEOUS DETAILS

SCALE: AS SHOWN

G-12

SHEET 13 OF 23

User: CPAUL Spec: AUS-NCSKMOD File: \\NY03FP01\DATA\WHI\CAD\VOL2\ACAD\PROJ\02328010.0000\SHEETS\GENERAL\G-13.DWG Scale: 1:1 SavedDate: 9/28/2019 Time: 15:40 Plot Date: Paul, Greg: 9/28/2019: 15:41 : Layout: BLANK



- NOTES:
1. FOR COMPONENTS ON METERING PUMP SKID, REFER TO SPECIFICATION SECTION 46 33 44.
 2. REFER TO FLUORIDE ANALYZER INSTALLATION DETAIL FOR VALVING AND PIPE DIAMETER.
 3. FLUORIDE ANALYZER IS PROVIDED BY OWNER AND TO BE INSTALLED BY CONTRACTOR.
 4. PROVIDED BY OWNER AND TO BE INSTALLED BY CONTRACTOR

- LEGEND:
- PROCESS MEDIUM
 PROCESS EQUIPMENT
- PROCESS LINE NOT WITHIN THE BOUNDARY OF THIS SET OF DRAWINGS
- CABLE COMPANY VENDOR CABLE
 - - - - CAT-6 (ETHERNET)
 - - - - HARDWIRED SIGNALS
- NORMALLY OPEN BALL VALVE
 ● NORMALLY CLOSED BALL VALVE
 ▽ PRESSURE RELEASE VALVE
 ▽ PRESSURE REGULATING VALVE
 ▽ PRESSURE RELIEF VALVE
 ▽ GATE VALVE
 S EXPANSION JOINT
 ▽ REDUCER
 ▽ CALIBRATION COLUMN
 ▽ PULSATION DAMPENER
 T QUICK-CONNECT
 V VENT
 PB PUSHBUTTON
 FE MAGNETIC FLOW METER TUBE
 FIT INSTRUMENT FIELD MOUNTED
- AIT: ANALYTICAL INDICATING TRANSMITTER
 FIT: FLOW INDICATING TRANSMITTER
 FSL: FLOW SWITCH LOW
 LE: LEVEL ELEMENT
 LIT: LEVEL INDICATING TRANSMITTER
 LSH: LEVEL SWITCH HIGH
 LSHH: LEVEL SWITCH HIGH HIGH
 PI: PRESSURE INDICATOR
 PIT: PRESSURE INDICATING TRANSMITTER
 XS: INTRUSION SWITCH
- LE ULTRASONIC LEVEL SENSOR
 PLC PROGRAMMABLE LOGIC CONTROLLER (PLC)
 OIT OPERATOR INTERFACE TERMINAL (OIT) DISPLAYS
- AI: ANALYTICAL INDICATION
 FI: FLOW INDICATION
 HS: HAND SWITCH
 JA: POWER ALARM
 LI: LEVEL INDICATION
 LAHH: LEVEL ALARM HIGH HIGH
 LAH: LEVEL ALARM HIGH
 PI: PRESSURE INDICATION
 SC: SPEED COMMAND
 XA: ALARM
- ▲▼ ANALOG INPUT/OUTPUT
 ▲▽ DISCRETE INPUT/OUTPUT
 120V 120 VAC POWER SUPPLY
 ⊕ RECEPTACLE
 M MOTOR

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NO.	DATE	ISSUED FOR	BY

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DATE: SEPTEMBER 2019

PROJECT NO.: 02328010.0000

FILE NAME: G-13

DESIGNED BY: F. ARANGO

DRAWN BY: G. PAUL

CHECKED BY: F. ARANGO

SHEET TITLE

GENERAL

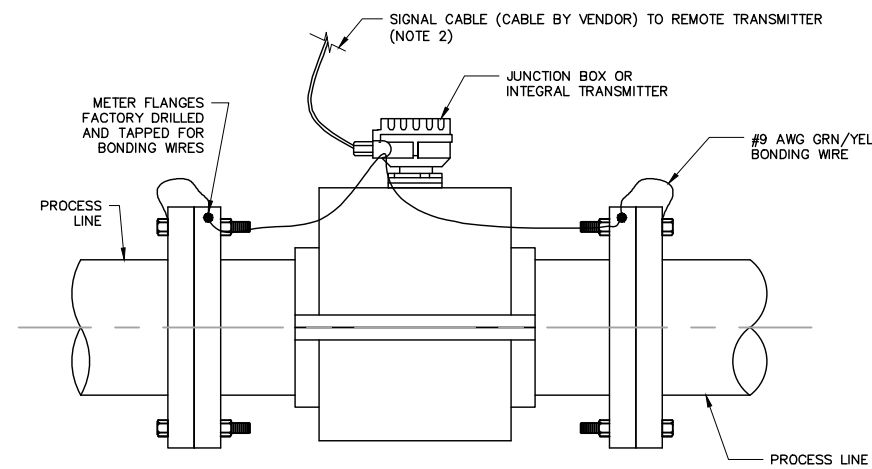
INSTRUMENTATION P&ID AND NETWORK ARCHITECTURE

SCALE: AS SHOWN

G-13

SHEET 14 OF 23

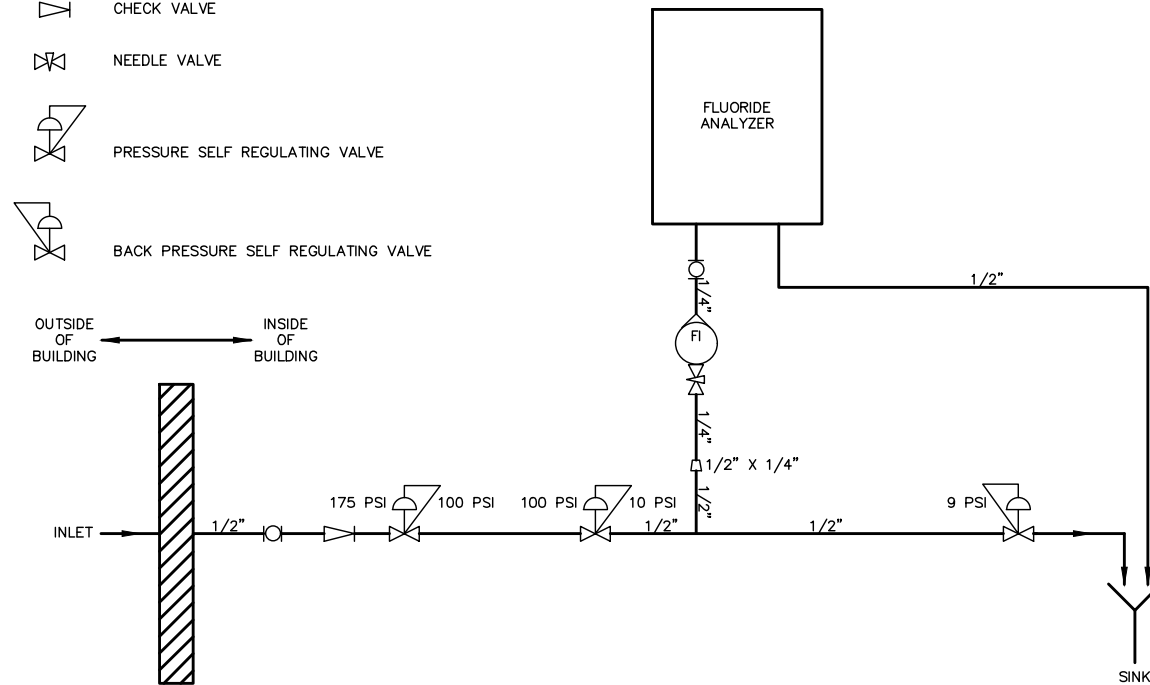
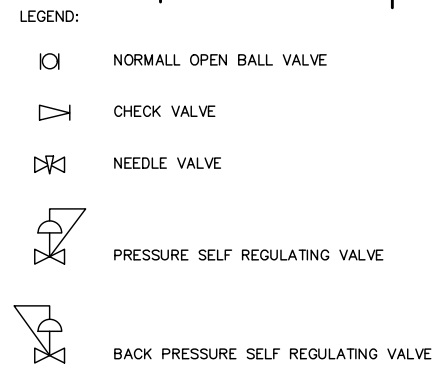
User: G-PAUL Spec: AUS-NCSM00 File: \\NY03FP01\DATA\WHI_CAD\VOL2\ACAD\PROJ\02328010.0000\SHEETS\GENERAL\G-14.DWG Scale: 1:1 SavedDate: 9/28/2019 Time: 15:38 Plot Date: Paul, Greg, 9/28/2019, 15:41 : Layout: BLANK



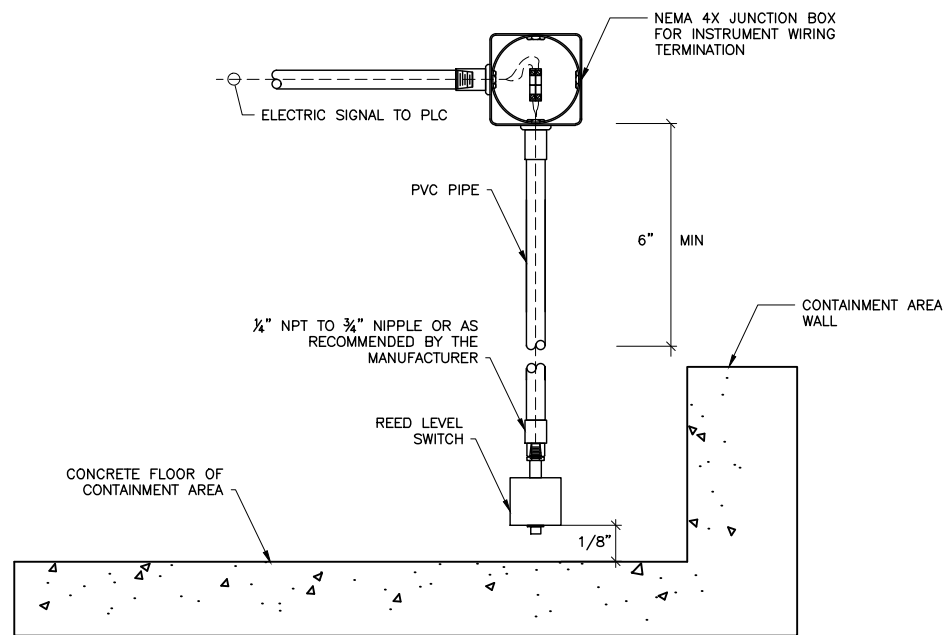
NOTES:

1. FLOW METER DETAIL SHOWN SHALL BE USED FOR BOTH ELECTRICALLY NON-CONDUCTIVE AND CONDUCTIVE TYPE PIPELINES.
2. BOND MAGNETIC FLOW METER TO ONE OF THE FOLLOWING ACCEPTABLE GROUNDS:
 - a. METALLIC WATER PIPE IF BURIED PORTION IS MORE THAN 10 FEET.
 - b. STRUCTURAL STEEL
3. REMOTE TRANSMITTER SHALL BE LOCATED IN A SUITABLE LOCATION AND TRANSMITTER SHALL BE PEDESTAL MOUNTED OR WALL MOUNTED AS REQUIRED.
4. PROVIDE SURGE SUPPRESSOR ON OUTDOOR INSTALLATIONS.
5. GROUND WIRE SHALL BE NO. 12AWG INSULATED. IF LENGTH OF GROUND WIRE IS MORE THAN 6 FEET, INSTALL CONDUCTOR IN 3/4" CONDUIT.
6. SIGNAL CABLE SHALL BE INSTALLED IN CONDUIT. CONDUIT NOT SHOWN.
7. PROVIDE POWER TO TRANSMITTER. POWER WIRING AND CONDUIT NOT SHOWN.
8. FLOW TUBE ELECTRICAL INSTALLATION SHALL BE RATED IP68. TERMINATION BOX SHALL BE FILLED WITH RESIN TO PROTECT TERMINATIONS AND ELECTRIC COMPONENTS.

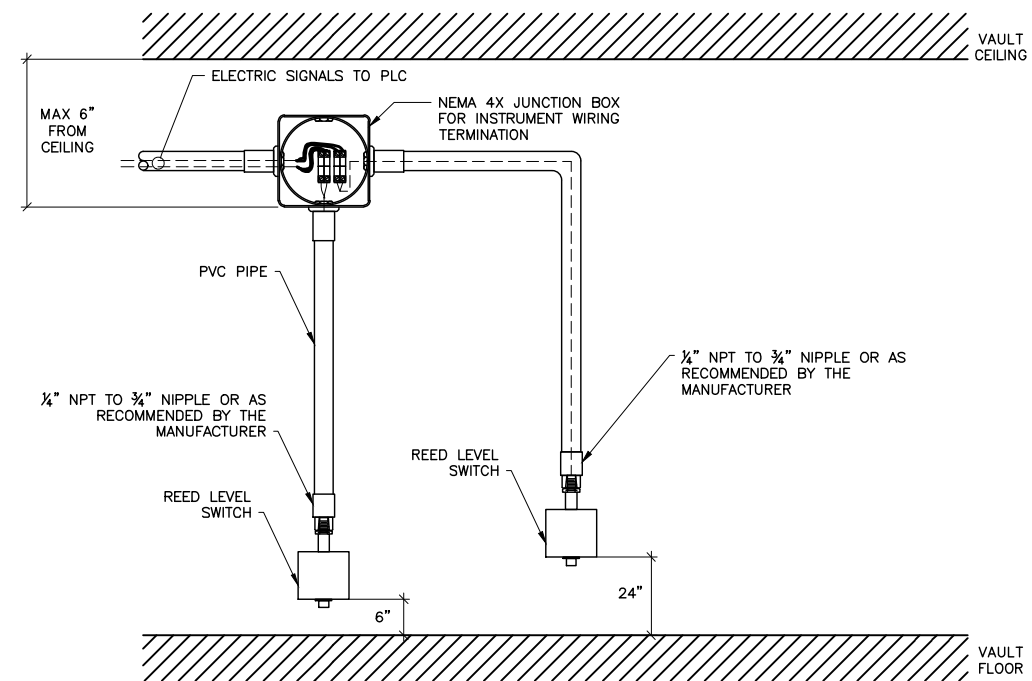
1 MAGNETIC FLOW METER
G-14 NOT TO SCALE



2 FLUORIDE ANALYZER INSTALLATION DETAIL
G-14 NOT TO SCALE



3 CONTAINMENT AREA LEAK DETECTOR INSTALLATION DETAIL
G-14 NOT TO SCALE



4 FLOW METER VAULT LEAK DETECTOR INSTALLATION DETAIL
G-14 NOT TO SCALE



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TOWN OF YORKTOWN, NY

**DRINKING WATER
FLUORIDATION PROJECT**

ARCADIS PROJ. NO. 02328010.0000

NO.	DATE	ISSUED FOR	BY

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DATE: SEPTEMBER 2019

PROJECT NO.: 02328010.0000

FILE NAME: G-14

DESIGNED BY: F. ARANGO

DRAWN BY: G. PAUL

CHECKED BY: F. ARANGO

SHEET TITLE

GENERAL

**INSTRUMENTATION
CONTROL PANEL AND
INSTRUMENT INSTALLATION
DETAILS**

SCALE: AS SHOWN

G-14

SHEET 15 OF 23

User: JROSS Spec: AUS-NCSM00 File: N:\AUTOCAD DRAWINGS\1902 YORKTOWN FLUORIDE\DWG\G-15.DWG Scale: 1:1 Saved Date: 9/26/2019 Time: 10:03 Plot Date: Justin Ross: 9/26/2019 13:54 Layout: G-14

TEMPERATURE MIXING VALVE SCHEDULE

UNIT NO.	SERVICE	FLOWRATE (GPM)	PRESSURE DROP (PSI)	MAXIMUM OPERATING PRESSURE (PSI)	CONNECTION SIZE			MAXIMUM INLET TEMPERATURE	TEMPERATURE RANGE	TEMPERATURE SETPOINT	MFR. & MODEL NO.	REMARKS
					CW	HW	TW					
TMV 1	METERING ROOM	20	21.3	125	3/4"	3/4"	1"	180° F	65° F - 90° F	65° F	BRADLEY S19-2100	① ② ③

- NOTE:
- ① FURNISH WITH WALL MOUNTING BRACKET
 - ② FURNISH WITH INLET AND OUTLET SHUTOFF
 - ③ FURNISH WITH SURFACE MOUNT STAINLESS STEEL CABINET

PRESSURE REDUCING VALVE SCHEDULE

UNIT NO.	SERVICE	CONNECTION SIZE	FLOW (GPM)	REDUCED PRESSURE RANGE (PSI)	REDUCED PRESSURE SETTING (PSI)	MAXIMUM ALLOWABLE PRESSURE (PSI)	MFR. & MODEL NO.	REMARKS
PRV 1	METERING ROOM	3/4"	20	50-145	70	300	WATTS 3/4" LF223-S	① ②

- NOTE:
- ① FURNISH WITH STRAINER
 - ② ADJUST PRV SO THAT EWS OUTLET IS 30 PSI IN ACCORDANCE WITH ANSI Z358.1

EMERGENCY SHOWER/EYE WASH STATION SCHEDULE

UNIT NO.	SERVICE	EMERGENCY SHOWER FLOWRATE (GPM)	INLET PRESSURE (PSI)	CONNECTION SIZE	TEMPERATURE RANGE	TEMPERATURE SETPOINT	MFR. & MODEL NO.	REMARKS
EWS 1	METERING ROOM	20	30	1 1/2"	65° F - 90° F	65° F	BRADLEY S19-310LL	

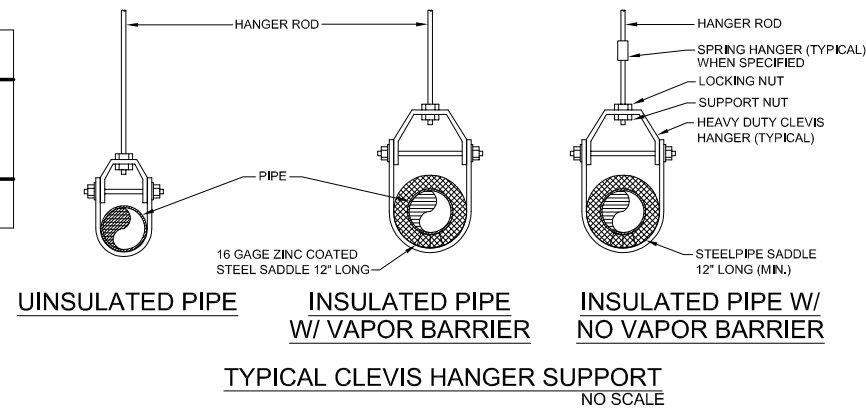
REDUCED PRESSURE ZONE BACKFLOW VALVE SCHEDULE

UNIT NO.	SERVICE	CONNECTION SIZE	FLOW (GPM)	PRESSURE DROP (PSI)	MAXIMUM ALLOWABLE PRESSURE (PSI)	MFR. & MODEL NO.	REMARKS
RPZ 1	METERING ROOM	3/4"	20	15	175	WATTS 3/4" 009M3QT	

ELECTRIC WATER HEATER SCHEDULE

UNIT NO.	STORAGE CAPACITY	TEMP. RISE °F	MAXIMUM PRESSURE	RECOVERY GPH	INPUT	ELECTRIC SERVICE	FLA	MFR. & MODEL NO.	REMARKS
WH 1	80 GALS.	80	150 PSI	31	6 kW	208V - 3Ø - 60HZ	16.7	AOSMITH MOD. DRE-80-6	①

- ① FURNISH WITH TEMPERATURE AND PRESSURE RELIEF VALVE.



INDIVIDUAL PIPE HANGER ROD & SPACING SCHEDULE

NOMINAL PIPE OR TUBE SIZE - INCHES	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8	10	12
HANGER ROD SIZES - INCHES	3/8	3/8	3/8	3/8	1/2	1/2	5/8	5/8	7/8	7/8	7/8	7/8
MAXIMUM SPACING BETWEEN PIPE SUPPORTS - FEET	6	7	9	10	11	12	14	16	17	19	22	23
MAX. SPACING BETWEEN CU. TUBE SUPPORTS - FEET	6	6	8	9	10	10	12	14	14	16	18	20

NOTES: TRAPEZE HANGER SPACING SHALL BE BASED ON SPACING OF SMALLEST PIPE ON TRAPEZE. TRAPEZE SHALL BE DESIGNED WITH A FACTOR OF SAFETY OF 5 FOR CENTER OF SPAN CONCENTRATED LOAD.

PIPE SUPPORT DETAIL

NO SCALE

LEGEND

SYMBOL	DESCRIPTION
—	NEW WORK
---	EXISTING/WORK BY OTHER TRADES
	WORK TO BE REMOVED
⊖	PIPE DOWN
⊕	PIPE UP
⊘	SHUT OFF VALVE
⊕	MIXING VALVE
—	COLD WATER
—	HOT WATER
—	TEMPER WATER SUPPLY
—	SANITARY LINE
- · - · -	VENT
- - - - -	HIDDEN WORK
CW	COLD WATER
HW	HOT WATER
TW	TEMPERED WATER
V	VENT
SAN	SANITARY LINE
S	SINK
FD	FLOOR DRAIN
WCO	WALL CLEAN OUT
FCO	FLOOR CLEANOUT
CO	CLEANOUT
VTR	VENT THROUGH ROOF
⊕	DENOTES WATER HEATER 1
⊕	DENOTES TEMPERATURE MIXING VALVE 1
⊕	DENOTES PRESSURE REDUCING VALVE 1
⊕	DENOTES EMERGENCY EYE WASH/SHOWER STATION 1
⊕	DENOTES REDUCED PRESSURE ZONE BACKFLOW ASSEMBLY 1
M	DENOTES WATER METER

NOTE: ALL WORK IS NEW UNLESS NOTED OTHERWISE.



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TOWN OF YORKTOWN, NY

DRINKING WATER FLUORIDATION PROJECT

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NO.	DATE	ISSUED FOR	BY

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DATE: SEPTEMBER 2019
 PROJECT NO.: 02328010.0000
 FILE NAME: G-15
 DESIGNED BY: J. ROSS
 DRAWN BY: J. ROSS
 CHECKED BY: G. LYNCH

SHEET TITLE
 GENERAL
 PLUMBING LEGEND, SCHEDULES, AND DETAILS

SCALE: AS SHOWN

G-15
 SHEET 16 OF 23



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TOWN OF YORKTOWN, NY

**DRINKING WATER
FLUORIDATION PROJECT**

ARCADIS PROJ. NO. 02328010.0000

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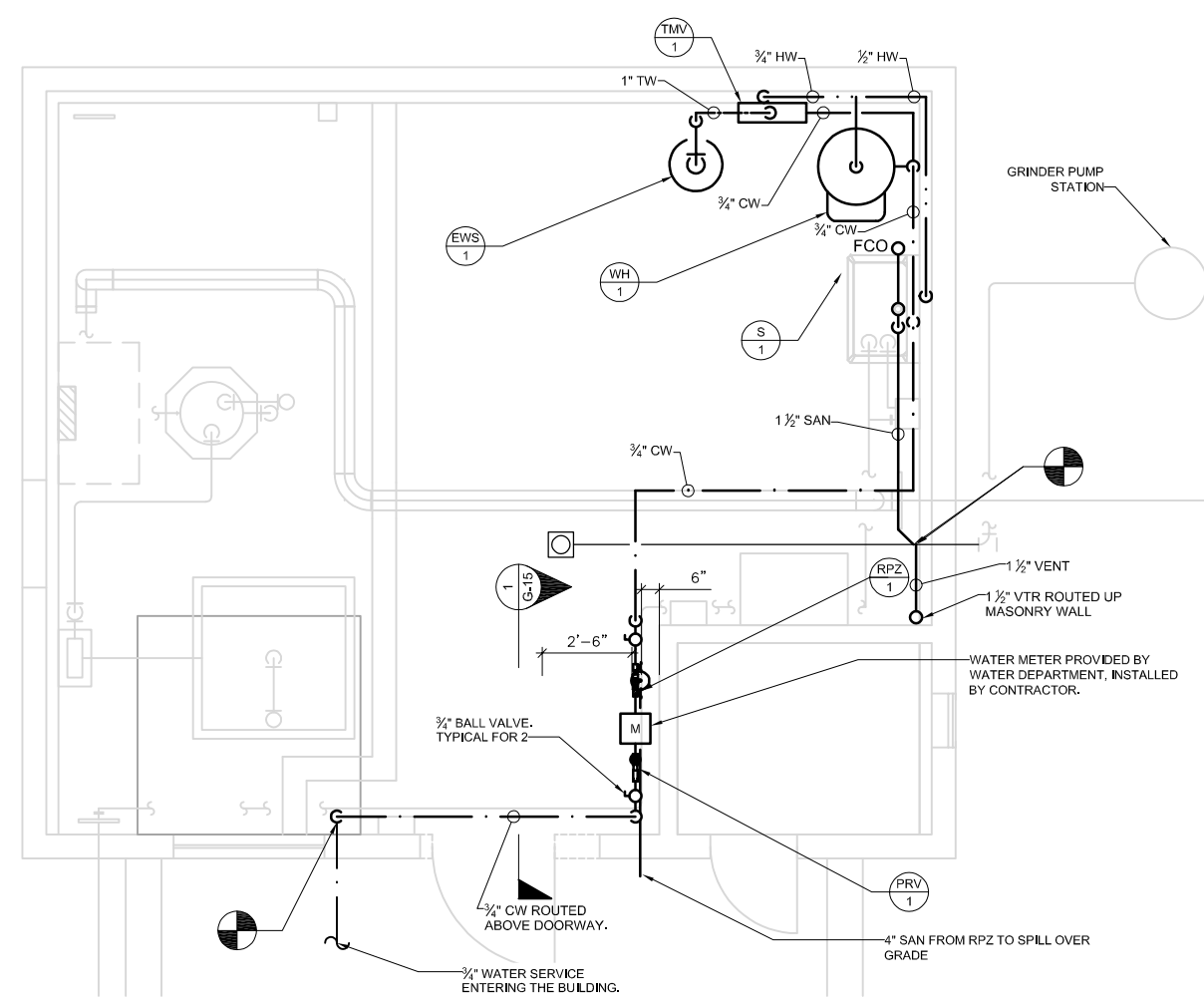
DATE: SEPTEMBER 2019
 PROJECT NO.: 02328010.0000
 FILE NAME: G-16
 DESIGNED BY: J. ROSS
 DRAWN BY: J. ROSS
 CHECKED BY: G. LYNCH

SHEET TITLE

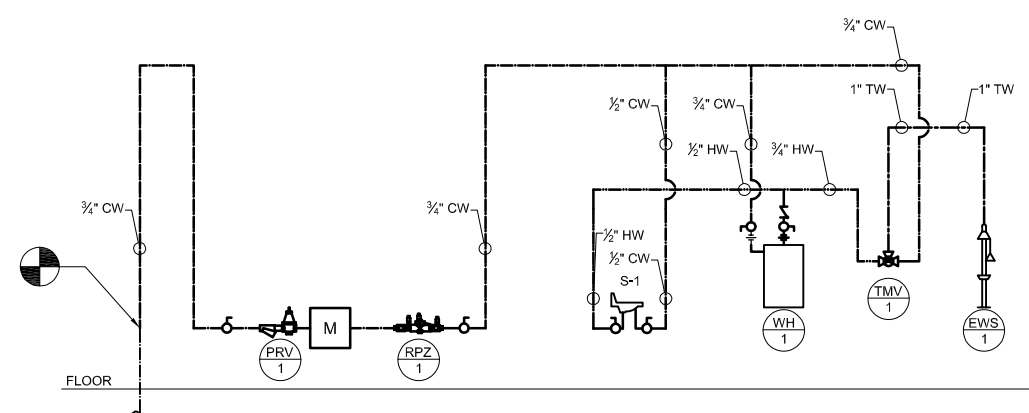
GENERAL
PLUMBING FLOOR PLAN

SCALE: AS SHOWN

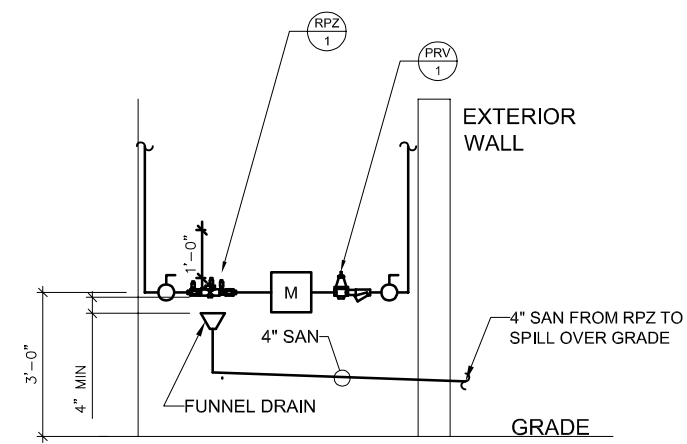
G-16
SHEET 17 OF 23



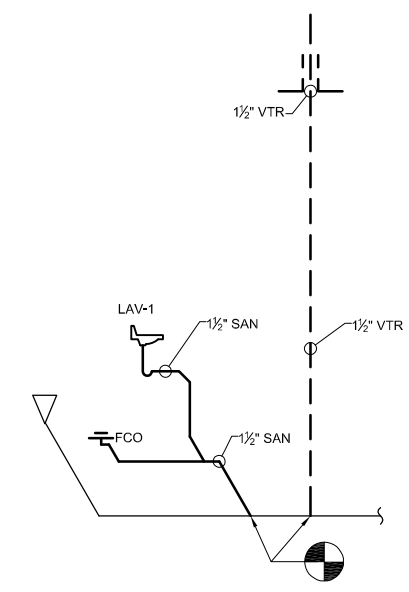
PLUMBING FLOOR PLAN
SCALE: 3/8" = 1'-0"



DOMESTIC RISER DETAIL
NO SCALE



SECTION 1 G-15
SCALE: 1/2"=1'-0"



SANITARY RISER DETAIL
NO SCALE

User: JROSS Spec: AUS-NCSM00 File: N:\AUTOCAD DRAWINGS\1902 YORKTOWN FLUORIDE\DWG\G-16.DWG Scale: 1:1 SavedDate: 9/26/2019 Time: 10:03 Plot Date: Justin Ross: 9/26/2019 13:55 Layout: M-2

User: JROSS Spec: AUS-NCSM00 File: N:\AUTOCAD DRAWINGS\1902 YORKTOWN FLUORIDE\DWG\G-17.DWG Scale: 1:1 SavedDate: 9/26/2019 Time: 10:03 Plot Date: Justin Ross: 9/26/2019 13:55 Layout: H-1



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 PROJECT NO.: 02328010.0000
 FILE NAME: G-17
 DESIGNED BY: J. ROSS
 DRAWN BY: J. ROSS
 CHECKED BY: G. LYNCH

SHEET TITLE

GENERAL

HVAC LEGEND,
DETAILS & SCHEDULES

SCALE: AS SHOWN

G-17
SHEET 18 OF 23

LEGEND	
SYMBOL	DESCRIPTION
—	NEW WORK
---	EXISTING/WORK BY OTHERS
OA	OUTSIDE AIR
EAT	ENTERING AIR TEMPERATURE
LAT	LEAVING AIR TEMPERATURE
ESP	EXTERNAL STATIC PRESSURE
BDD	BACK DRAFT DAMPER
EF 1	DENOTES EXHAUST FAN 1
UH 1	DENOTES UNIT HEATER 1
OAI 1	DENOTES OUTSIDE AIR INTAKE HOOD 1

NOTE: ALL WORK IS NEW, UNLESS OTHERWISE NOTED.

FAN SCHEDULE

UNIT NO.	SERVICE	CFM	SP ("WG)	RPM	MOTORS			STATIC EFFICIENCY (%)	TYPE	MFR. & MODEL NO.	REMARKS
					BHP	HP	V/PH/Hz				
EF 1	METERING ROOM	400	.75	1391	.17	1/2	115/1/60	27	SIDEWALL DIRECT DRIVE EXHAUST FAN	GREENHECK AER-E20C-605-VG	

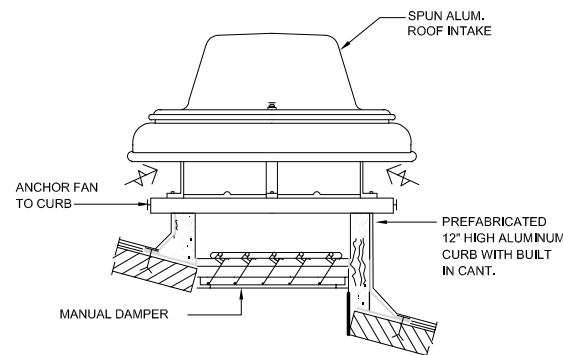
ELECTRIC UNIT HEATER SCHEDULE

UNIT NO.	SERVICE	CAPACITY (KW)	SETPOINT TEMPERATURE	FAN SECTION				ELECTRICAL DATA	MFR. & MODEL NO.	REMARKS
				MOTOR HP	CFM	RPM	HORIZ. AIR THROW			
UH 1, UH 2	METERING ROOM	7.5	60° F	1/80	700	1550	22 FT	208V-3Ø-60 HZ	TRANE MODEL # UHEC-072A	1 2 3 4 5

- NOTE:
- 1 FURNISH WITH LOCKED T-STAT
 - 2 FURNISH WITH FACTORY MTD DISCONNECT SWITCH
 - 3 FURNISH WITH UNIVERSAL WALL/CEILING BKT
 - 4 FURNISH WITH BUILT IN TRANSFORMER AND POWER CONTACTOR
 - 5 FURNISH WITH EPOXY COATING

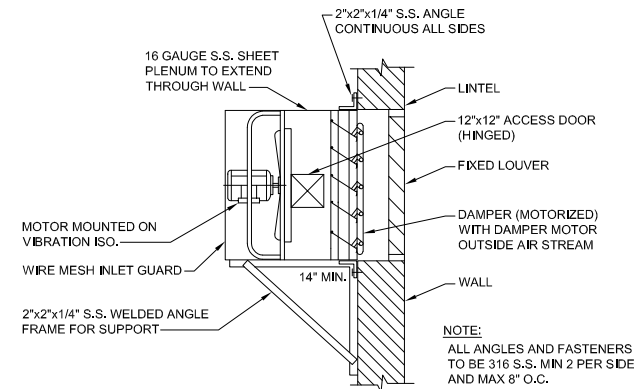
OUTSIDE AIR INTAKE HOOD SCHEDULE

UNIT NO.	SERVICE	AIRFLOW (CFM)	TOTAL PRESSURE DROP (IN WG)	WEIGHT (LBS)	MFR. & MODEL NO.	REMARKS
OAI 1	METERING ROOM	400	.08	8	GREENHECK MODEL GRSH10	ROOF MOUNTED



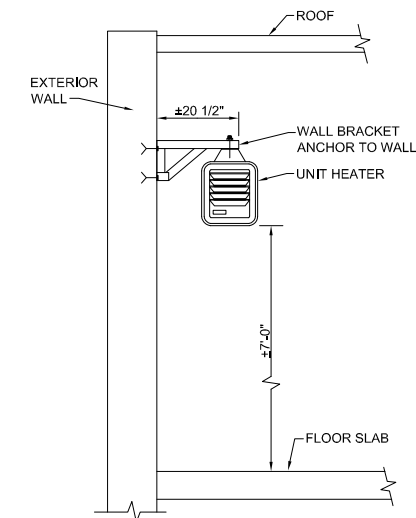
ROOF INTAKE HOOD DETAIL

NO SCALE



WALL FAN MOUNTING DETAIL

NO SCALE



ELECTRIC UNIT HEATER SUPPORT DETAIL (TYP.)

NO SCALE

User: JROSS Spec: AUS-NCSMOD File: N:\AUTOCAD DRAWINGS\1902 YORKTOWN FLUORIDE\DWG-G-18.DWG Scale: 1:1 SavedDate: 9/26/2019 Time: 10:03 Plot Date: Justin Ross: 9/26/2019 13:56 Layout: H-2



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PROJECT NO.: 02328010.0000

FILE NAME: G-18

DESIGNED BY: J. ROSS

DRAWN BY: J. ROSS

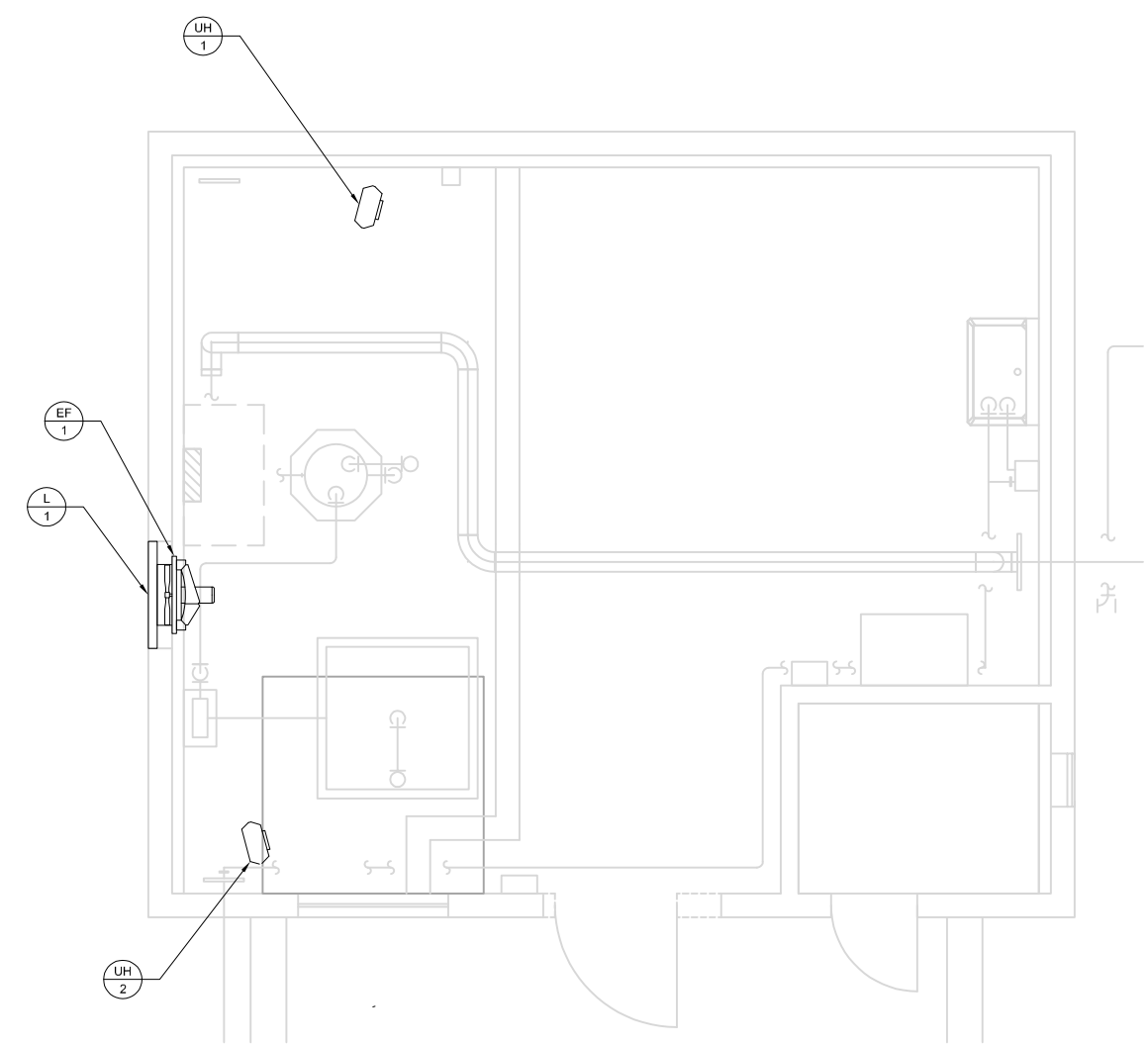
CHECKED BY: G. LYNCH

SHEET TITLE

MECHANICAL FLOOR PLAN

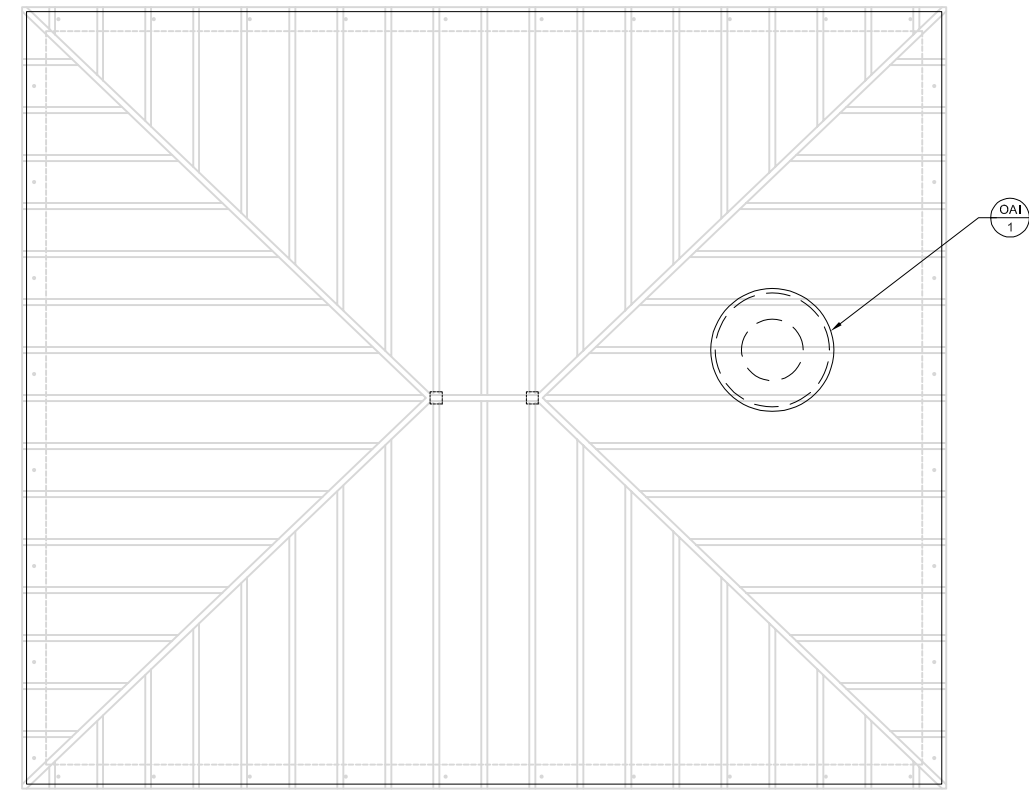
SCALE: AS SHOWN

SHEET **G-18** OF 23



MECHANICAL FLOOR PLAN

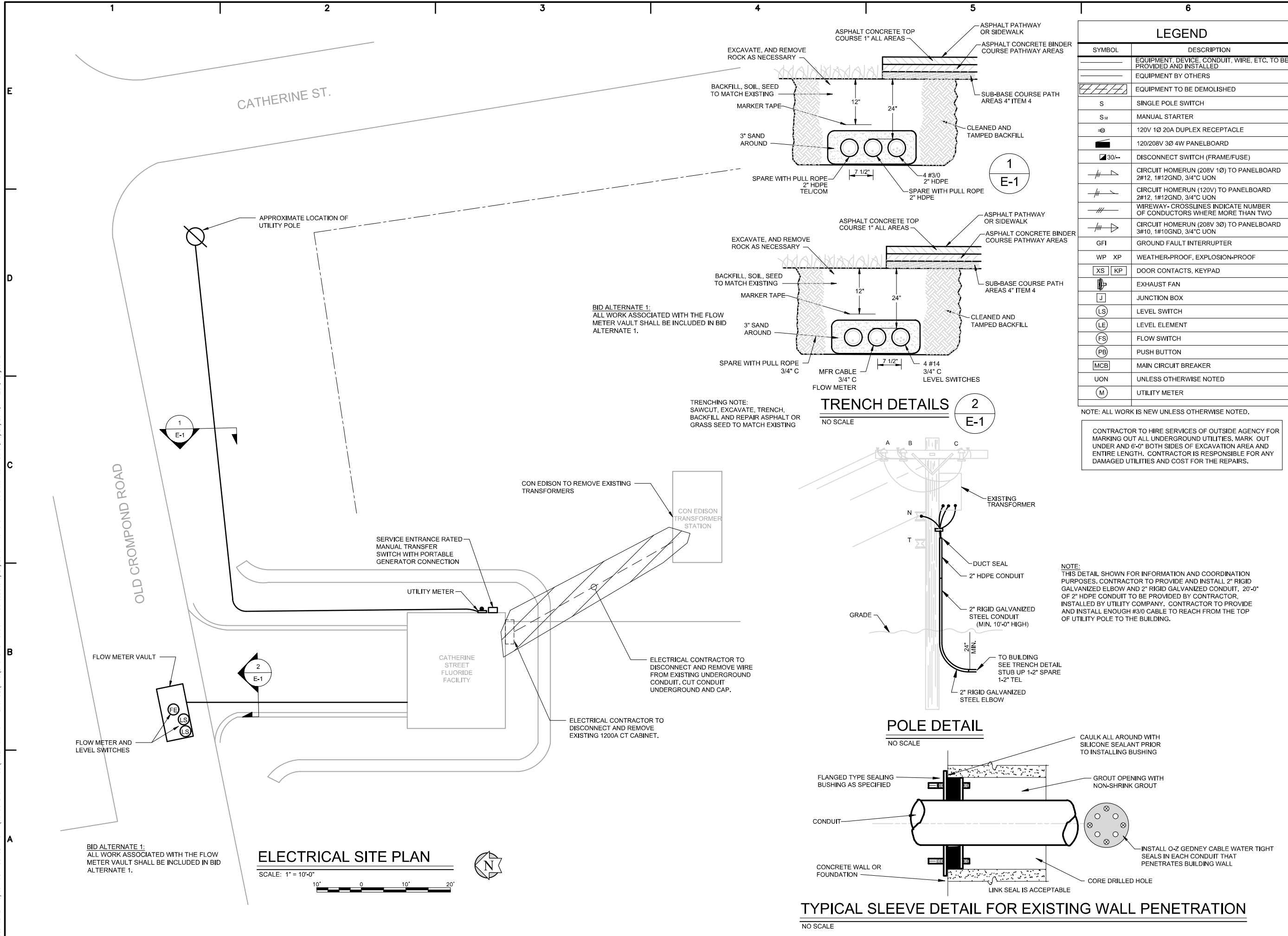
SCALE: 3/8" = 1'-0"



MECHANICAL ROOF PLAN

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

User:JDULLAK Spec:AUS-NCSMOD File:N:\AUTOCAD DRAWINGS\1902 YORKTOWN FLUORIDE\DWG\E-01.DWG Scale:1:1 SavedDate:9/26/2019 Time:13:57 Plot Date: John Dulak: 9/26/2019 14:25 : Layout:E-1



LEGEND	
SYMBOL	DESCRIPTION
—	EQUIPMENT, DEVICE, CONDUIT, WIRE, ETC. TO BE PROVIDED AND INSTALLED
---	EQUIPMENT BY OTHERS
---	EQUIPMENT TO BE DEMOLISHED
S	SINGLE POLE SWITCH
S _M	MANUAL STARTER
⊕	120V 1Ø 20A DUPLEX RECEPTACLE
⊞	120/208V 3Ø 4W PANELBOARD
⊞/—	DISCONNECT SWITCH (FRAME/FUSE)
—	CIRCUIT HOMERUN (208V 1Ø) TO PANELBOARD 2#12, 1#12GND, 3/4" C UON
—	CIRCUIT HOMERUN (120V) TO PANELBOARD 2#12, 1#12GND, 3/4" C UON
—	WIREWAY- CROSSLINES INDICATE NUMBER OF CONDUCTORS WHERE MORE THAN TWO
—	CIRCUIT HOMERUN (208V 3Ø) TO PANELBOARD 3#10, 1#10GND, 3/4" C UON
GFI	GROUND FAULT INTERRUPTER
WP XP	WEATHER-PROOF, EXPLOSION-PROOF
XS KP	DOOR CONTACTS, KEYPAD
⊞	EXHAUST FAN
J	JUNCTION BOX
LS	LEVEL SWITCH
LE	LEVEL ELEMENT
FS	FLOW SWITCH
PB	PUSH BUTTON
MCB	MAIN CIRCUIT BREAKER
UON	UNLESS OTHERWISE NOTED
M	UTILITY METER

NOTE: ALL WORK IS NEW UNLESS OTHERWISE NOTED.

CONTRACTOR TO HIRE SERVICES OF OUTSIDE AGENCY FOR MARKING OUT ALL UNDERGROUND UTILITIES, MARK OUT UNDER AND 6'-0" BOTH SIDES OF EXCAVATION AREA AND ENTIRE LENGTH. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGED UTILITIES AND COST FOR THE REPAIRS.

NOTE: THIS DETAIL SHOWN FOR INFORMATION AND COORDINATION PURPOSES. CONTRACTOR TO PROVIDE AND INSTALL 2" RIGID GALVANIZED ELBOW AND 2" RIGID GALVANIZED CONDUIT. 20'-0" OF 2" HDPE CONDUIT TO BE PROVIDED BY CONTRACTOR, INSTALLED BY UTILITY COMPANY. CONTRACTOR TO PROVIDE AND INSTALL ENOUGH #3/0 CABLE TO REACH FROM THE TOP OF UTILITY POLE TO THE BUILDING.

ARCADIS

LEGAL ENTITY:
ARCADIS OF NEW YORK, INC.

CONSULTANTS

LYNSTAAR
ENGINEERING, P.C.
CIVIL - PLUMBING - ELECTRICAL - MECHANICAL
12 Water Street, Suite 202, White Plains, New York 10601
914-741-1250 (tel) 914-741-1253 (fax) www.lynstaar.com

SEALS

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TOWN OF YORKTOWN, NY

DRINKING WATER FLUORIDATION PROJECT

ARCADIS PROJ. NO. 02328010.0000

NO.	DATE	ISSUED FOR	BY

COPYRIGHT: 2017 ARCADIS OF NEW YORK, INC.

DATE: SEPTEMBER 2019

PROJECT NO.: 02328010.0000

FILE NAME: E-01

DESIGNED BY: J. DULAK

DRAWN BY: G. DELCID

CHECKED BY: G. LYNCH

SHEET TITLE

ELECTRICAL

ELECTRICAL SITE PLAN AND DETAILS

SCALE: AS SHOWN

E-01

SHEET 20 OF 23



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TOWN OF YORKTOWN, NY

**DRINKING WATER
FLUORIDATION PROJECT**

ARCADIS PROJ. NO. 02328010.0000

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FILE NAME: E-02

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SHEET TITLE

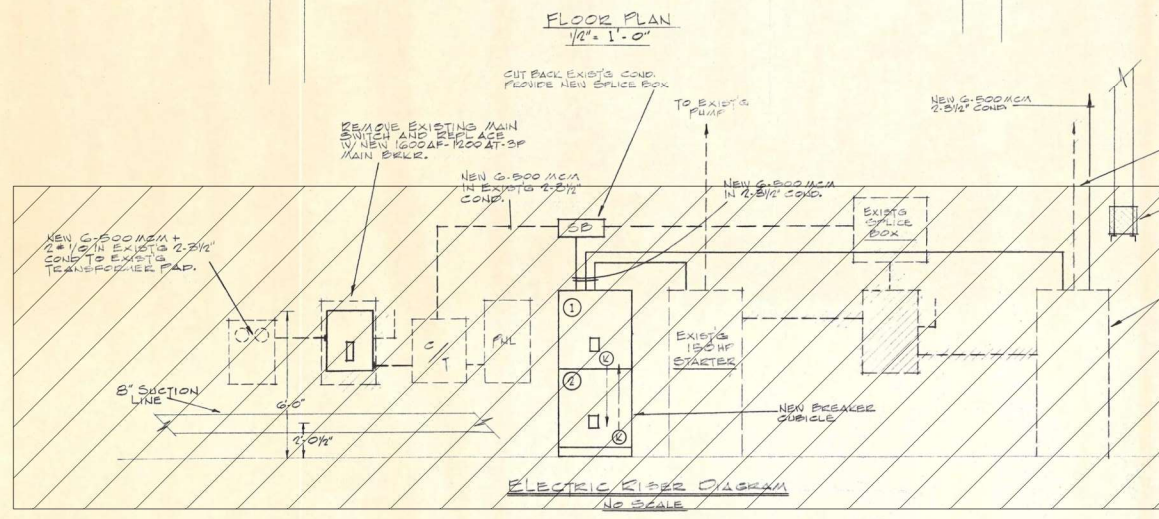
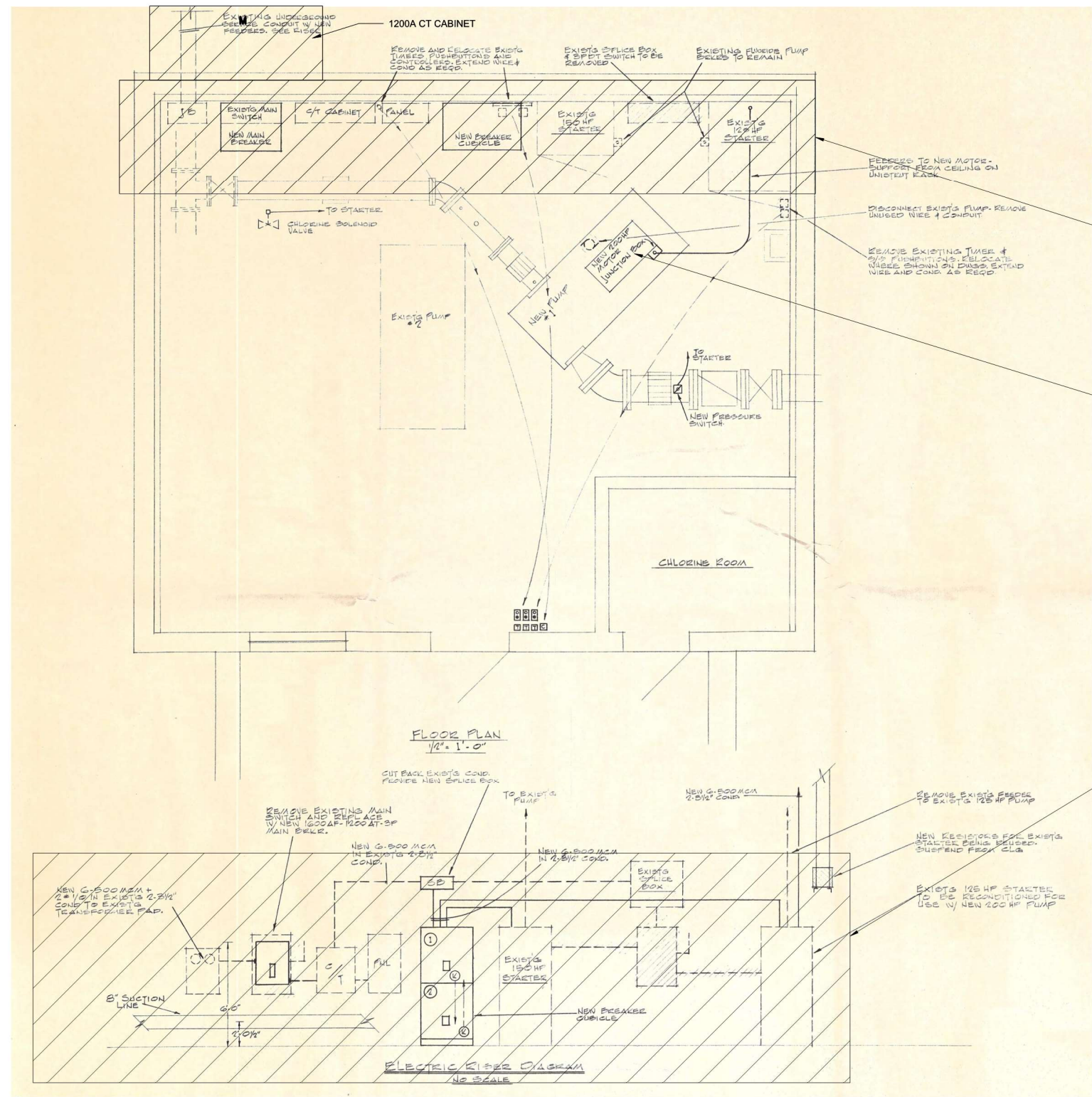
ELECTRICAL

**EXISTING ELECTRICAL
DEMOLITION FLOOR PLAN
AND RISER DIAGRAM**

SCALE: AS SHOWN

E-02

SHEET 21 OF 23



EXISTING ELECTRICAL FLOOR PLAN AND RISER DIAGRAM
NO SCALE



ELECTRICAL CONTRACTOR SHALL DISCONNECT AND REMOVE ALL ELECTRICAL EQUIPMENT SHOWN. ALL ASSOCIATED WIRING AND CONDUITS SHALL ALSO BE REMOVED.

PUMP DEMOLISHED BY OTHERS. TYPICAL FOR 2 PUMPS

ELECTRICAL CONTRACTOR SHALL DISCONNECT AND REMOVE ALL ELECTRICAL EQUIPMENT SHOWN. ALL ASSOCIATED WIRING AND CONDUITS SHALL ALSO BE REMOVED.

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TOWN OF YORKTOWN, NY

DRINKING WATER FLUORIDATION PROJECT

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PROJECT NO.: 02328010.0000
FILE NAME: E-03
DESIGNED BY: J. DULAK
DRAWN BY: G. DELCID
CHECKED BY: G. LYNCH

SHEET TITLE

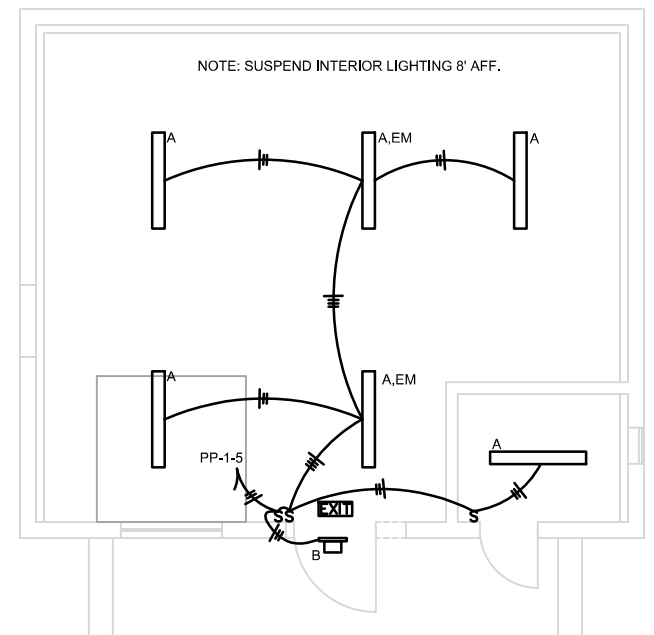
ELECTRICAL

PLANS, DIAGRAMS AND SCHEDULES

SCALE: AS SHOWN

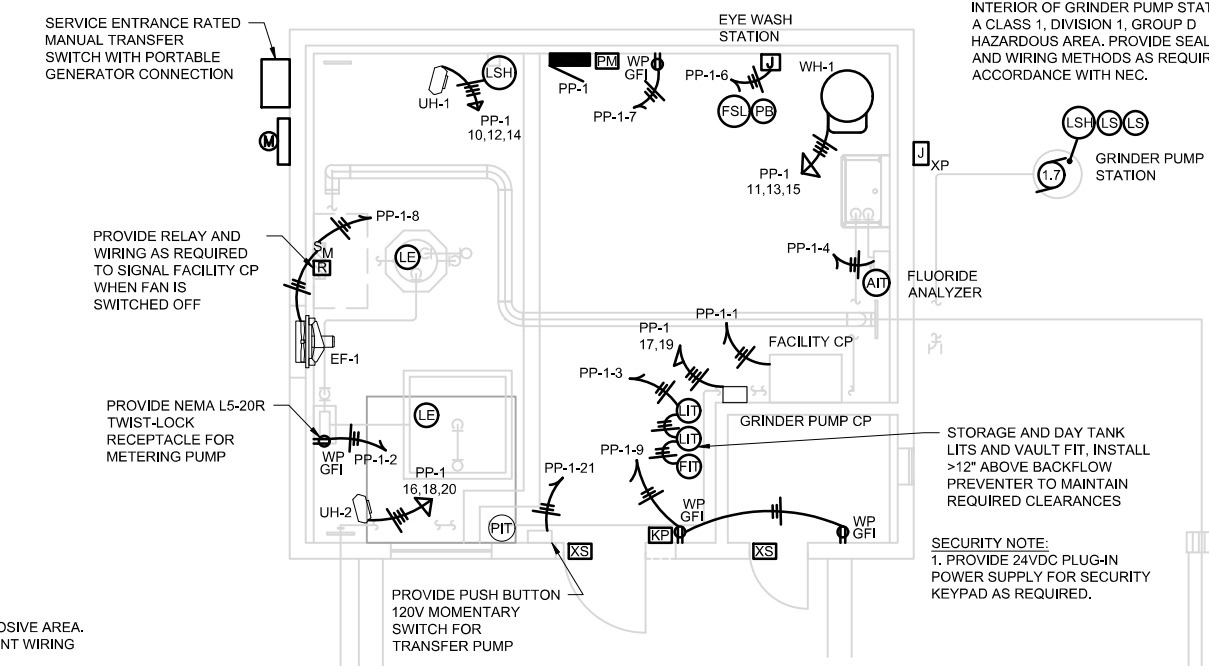
E-03

SHEET 22 OF 23



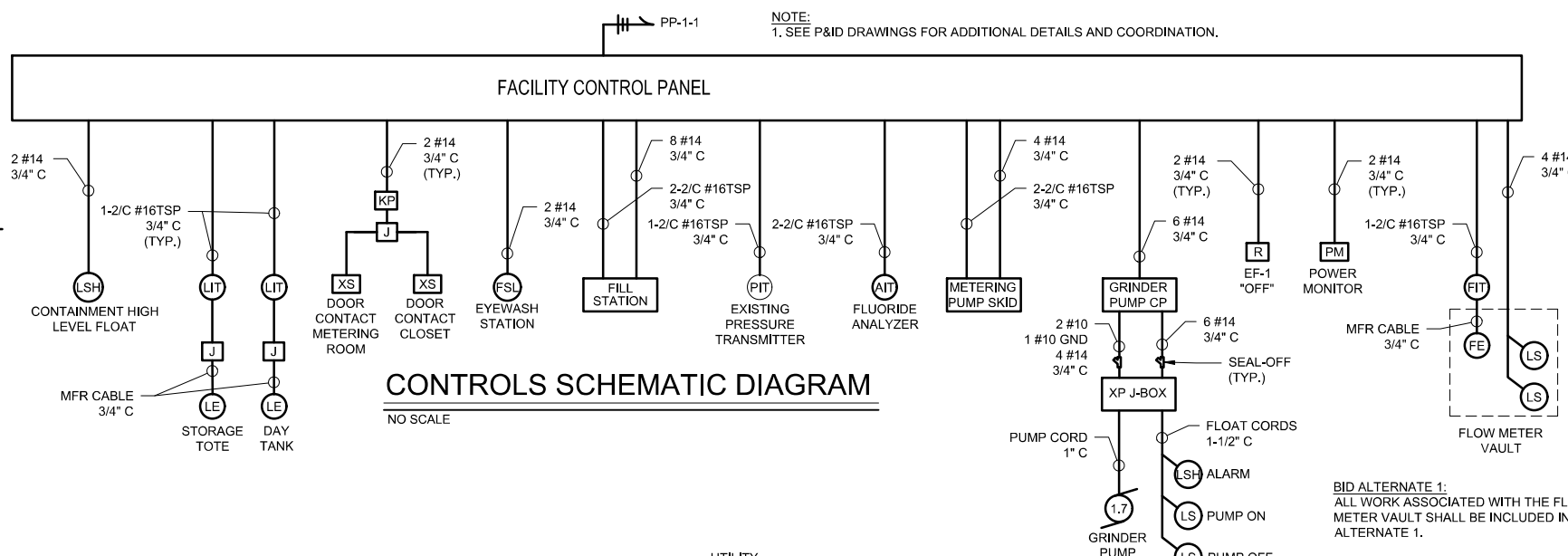
LIGHTING REFLECTED CEILING PLAN

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



POWER FLOOR PLAN

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



CONTROLS SCHEMATIC DIAGRAM

NO SCALE

PANELBOARD PP-1 SCHEDULE

MAIN BUS RATINGS: 200A, 120/208 VOLTS, 3 PHASE, 4 WIRE
MINIMUM SHORTCIRCUIT INTERRUPTION RATING: 22,000 AIC
MAIN BREAKER TRIP: 200A
ESTIMATED CONNECTED LOAD: 26.5 KW

FED FROM: MAIN CIRCUIT BREAKER
INCOMING FEED: 4 #3/0
ENCLOSURE: NEMA 12
SURGE PROTECTIVE DEVICE INCLUDED

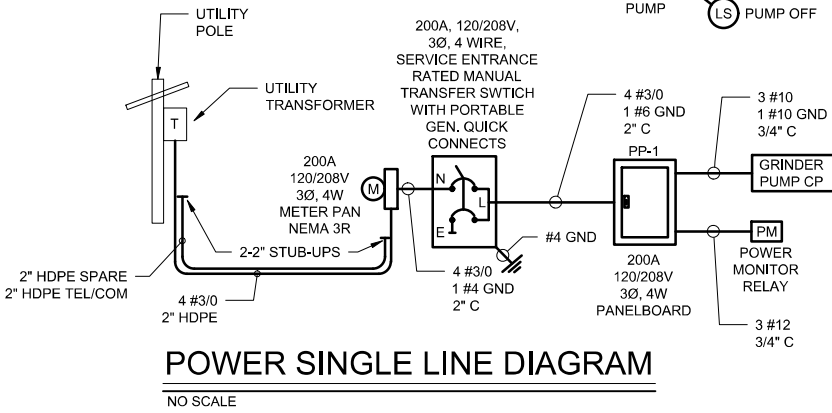
DESCRIPTION	LOAD KW	CB TRIP/POLE	CIR. NO	A	B	C	CIR. NO	CB TRIP/POLE	LOAD KW	DESCRIPTION
FACILITY CP	1.2	20A/1P	1	•	•	•	2	20A/1P	0.1	METERING PUMP SKID
FIT & LITS	0.3	20A/1P	3	•	•	•	4	20A/1P	0.2	FLUORIDE ANALYZER
LIGHTING	0.2	20A/1P	5	•	•	•	6	20A/1P	0.1	EYE WASH STATION
RECEPTACLES	0.2	20A/1P	7	•	•	•	8	20A/1P	1.1	EF-1 FAN
RECEPTACLES	0.6	20A/1P	9	•	•	•	10			
HOT WATER HEATER	6	30A/3P	11	•	•	•	12	30A/3P	7.5	UH-1
			13	•	•	•	14			
			15	•	•	•	16			
GRINDER PUMP	1.3	30A/2P	17	•	•	18	30A/3P	7.5	UH-2	
TRANSFER PUMP	0.1	20A/1P	21	•	•	22	20A/1P	--	SPARE	
SPARE	--	20A/1P	23	•	•	24	20A/1P	--	SPARE	
SPARE	--	20A/1P	25	•	•	26				
SPARE	--	20A/1P	27	•	•	28	15A/3P	0.1	POWER MONITOR	
SPARE	--	20A/1P	29	•	•	30				

PANELBOARD NOTES:
1. PROVIDE 2 #12, 1 #12 GND, 3/4" C FOR ALL 20A/1P CIRCUITS AS REQUIRED.
2. PROVIDE 3 #10, 1 #10 GND FOR ALL 30A/2P AND 30A/3P CIRCUITS AS REQUIRED.

SCHEDULE OF LIGHTING FIXTURES

TYPE	LAMPS WATTS	MOUNTING	VOLTAGE	FIXTURE MANUFACTURER AND CATALOG NUMBER	REMARKS
A	33W	SUSPENDED	120V	LITHONIA LIGHTING VAP LED SERIES	4000 LUMENS, FROSTED LENS, MEDIUM, 4000 K, 90 CRI, "EM" PROVIDE BATTERY PACK
B	45W	WALL MOUNT	120V	LITHONIA LIGHTING TWP LED SERIES	4000K, TYPE 3 MEDIUM, PHOTOELECTRIC CELL DARK BRONZE
EXIT				LITHONIA SELF-LUMINOUS EXITS D-TRITIUM SERIES, 20 YEAR LIFE, SINGLE FACE, RED LETTERS	

- POWER SINGLE LINE NOTES:**
- ALL UTILITY WORK SHALL COMPLY WITH CON ED APPROVED SERVICE LAYOUT AND ANY OTHER UTILITY REQUIREMENTS. CONTRACTOR TO PROVIDE AND INSTALL ENOUGH #3/0 CABLE AND CONDUIT TO REACH THE TOP OF THE UTILITY POLE. VERIFY LENGTH OF CABLE REQUIRED IN FIELD.
 - ALL CONDUIT BETWEEN UTILITY POLE AND METER SHALL BE SCHED. 40 HDPE.
 - ELECTRIC UTILITY SERVICE WIRING BETWEEN UTILITY POLE AND METER SHALL BE COPPER, TYPE USE-2 INSULATION. SECONDARY SERVICE CONNECTIONS AT UTILITY POLE WILL BE BY THE UTILITY COMPANY.
 - PROVIDE ALL DEVICES, ACCESSORIES, ETC. AS REQUIRED BY THE UTILITY COMPANY.
 - OWNER TO PAY ALL UTILITY FEES DIRECTLY.
 - PROVIDE #4 SERVICE GROUND, BOND TO GROUND ROD AND WATER SERVICE.
 - MANUAL TRANSFER SWITCH SHALL BE SERVICE ENTRANCE RATED, BREAK-BEFORE-MAKE TYPE.
 - POWER MONITOR RELAY SHALL BE TIME-MARK 158B SERIES, 3-PHASE POWER MONITOR RELAY, PROVIDE NEMA 12 ENCLOSURE AS REQUIRED.



POWER SINGLE LINE DIAGRAM

NO SCALE

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