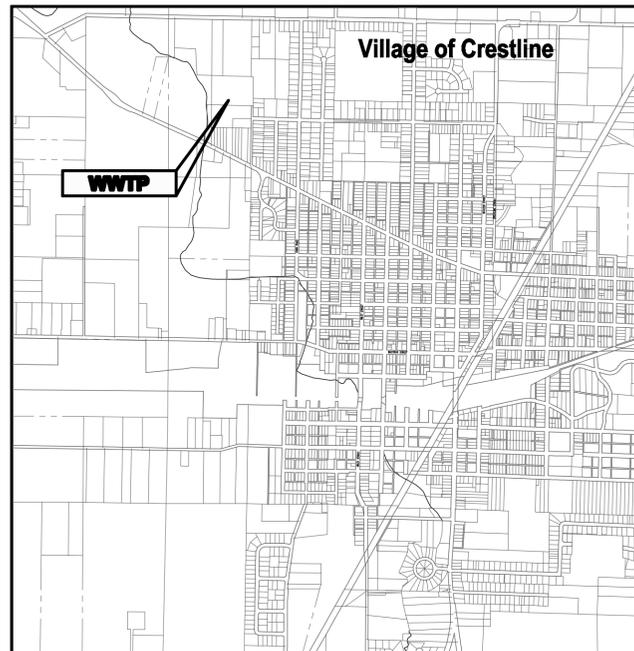


WASTEWATER TREATMENT PLANT IMPROVEMENTS - PHASE I

PROJECT NO. 12-005-002
VILLAGE OF CRESTLINE
 CRAWFORD COUNTY, OHIO
 2014

SHEET INDEX

TITLE SHEET.....	1
GENERAL NOTES.....	2
SITE PLAN - DEMOLITION.....	3
SITE PLAN - PROPOSED.....	4
SITE PLAN - DETAILS.....	5
DEMOLITION PLAN - BUILDING.....	6-7
BUILDING PLAN - FIRST FLOOR PLAN.....	8
BUILDING PLAN - BLOCK ENCLOSED AREA PLAN.....	9
BUILDING PLAN - BLOCK ENCLOSED AREA DETAILS.....	10
BUILDING PLAN - BASEMENT AREA PLAN.....	11
BUILDING PLAN - BASEMENT AREA DETAILS.....	12
BUILDING PLAN - STRUCTURAL PLAN.....	13
BUILDING PLAN - STRUCTURAL DETAILS.....	14
BUILDING ELEVATIONS.....	15
AERATION SYSTEM - PLAN & SECTIONS.....	16
ELECTRICAL PLAN, SCHEDULES AND DIAGRAMS.....	E1-E8
ELECTRICAL SITE PLAN.....	ES1
MECHANICAL PLAN, SCHEDULES AND DIAGRAMS.....	M1-M5
PLUMBING PLAN, SCHEDULES AND DIAGRAMS.....	P1-P5



LOCATION MAP 

VILLAGE OFFICIALS

MAYOR..... DAVID SHARROCK
 VILLAGE ADMINISTRATOR..... MARC MILLIRON
 FISCAL OFFICER..... GLORIA MCDONALD
 SOLICITOR..... HARRY WELSH

MEMBERS OF COUNCIL

CLAYTON HEROLD	MIKE BLAISING
KEVIN TAYLOR	AARON BUCKNER
RYAN MATLEK	STACEY WAMPLER

UNDERGROUND UTILITIES
 CONTACT BOTH SERVICES
 CALL TWO WORKING DAYS
BEFORE YOU DIG
 CALL
1-800-362-2764
 (TOLL FREE)
 OHIO UTILITIES PROTECTION SERVICE
 NON-MEMBERS
 MUST BE CALLED DIRECTLY
 OIL & GAS PRODUCERS PROTECTIVE
 SERVICE CALL: 1-800-925-0988



DATE _____

JOHN M. SABO, PE# E-69811

CALCULATED TM	DATE	DESCRIPTION	REV. NO.	CHECKED JS
				
WASTEWATER TREATMENT PLANT IMPROVEMENTS - PHASE I				
VILLAGE OF CRESTLINE				
				

GENERAL

CONSTRUCTION OF THIS PROJECT SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND CONSTRUCTION DRAWINGS, LATEST O.D.O.T. STANDARD SPECIFICATIONS INCLUDING ALL CURRENT SUPPLEMENTAL SPECIFICATIONS AND STANDARD DRAWINGS.

THE STANDARD SPECIFICATIONS OF THE OHIO DEPARTMENT OF TRANSPORTATION, LATEST EDITION, INCLUDING ALL SUPPLEMENTAL SPECIFICATIONS AND STANDARD DRAWINGS, SHALL GOVERN THIS PROJECT. FOR THE PURPOSE OF THIS PLAN, REFERENCES TO DIRECTOR OR ENGINEER SHALL BE CONSTRUED TO MEAN THE DESIGN ENGINEER AND/OR HIS REPRESENTATIVE.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON ALL DRAWINGS PRIOR TO PROCEEDING WITH CONSTRUCTION. (FIGURED DIMENSIONS ONLY SHALL BE USED). ANY DISCREPANCY BETWEEN ACTUAL AND GRAPHIC CONDITIONS SHALL BE REPORTED TO THE ENGINEER PRIOR TO PROCEEDING WITH ANY CONSTRUCTION.

ALL WORK CONTEMPLATED SHALL BE GOVERNED BY THE RULES, REGULATIONS AND SPECIFICATIONS OF THE CITY, AND AT ALL TIMES SHALL BE SUBJECT TO THEIR DIRECT SUPERVISION AND INSPECTION.

THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS BEFORE INSTALLING ANY PROPOSED PIPE, OR MANHOLES. ANY ADJUSTMENTS SHALL BE APPROVED BY THE ENGINEER.

ANY EXISTING PROPERTY, STRUCTURES OR UTILITY LINES DAMAGED IN OR OUTSIDE OF THE CONSTRUCTION LIMITS DURING THE CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

ANY EXISTING SIGNS, MAILBOXES, PAPER BOXES, LANDSCAPE ITEMS OR FENCES DAMAGED DURING CONSTRUCTION OF THIS PROJECT, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL PRESERVE ALL CORNERSTONES, IRON PINS, CONCRETE MONUMENTS, OR ANY OTHER TYPE OF LAND MONUMENT. THE CONTRACTOR SHALL HAVE ALL LAND MONUMENTS IN THE PROXIMITY OF THE WORK REFERENCED. THE CONTRACTOR SHALL REPLACE DESTROYED OR DAMAGED MONUMENTS AND SHALL FURNISH A CERTIFICATION BY A REGISTERED SURVEYOR THAT THE MONUMENTS HAVE BEEN RESTORED.

ALL WORK PERFORMED UNDER THIS CONTRACT SHALL COMPLY WITH THE U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.

ALL STATIONING SHOWN IS ALONG THE CENTERLINE OF THE RIGHT OF WAY, UNLESS OTHERWISE NOTED ON THE PLANS.

THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID TO PERSONALLY ASCERTAIN THE CONDITIONS OF THE WORK.

UPON COMPLETION OF CONSTRUCTION, THE WORK AREA SHALL BE RETURNED AS NEAR AS POSSIBLE TO ITS ORIGINAL CONDITION.

THE CONTRACTOR SHALL WORK WITHIN DESIGNATED STREET RIGHT-OF-WAYS WHILE CONSTRUCTING THIS PROJECT UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

IMMEDIATELY UPON COMPLETION OF THE WORK, ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED BY THE CONTRACTOR AND UNLESS OTHERWISE SPECIFIED WILL REMAIN THE CONTRACTOR'S PROPERTY.

THE CITY RESERVES THE RIGHT TO KEEP IN THEIR POSSESSION ANY ITEM BEING DEMOLISHED OR REMOVED AS PART OF THIS CONTRACT. THE CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF ALL MATERIALS THAT ARE REMOVED OR DEMOLISHED AS PART OF THIS CONTRACT.

THE VILLAGE OF CRESTLINE WILL PAY FOR INSPECTION OF THE PROPOSED WORK.

A PRE-CONSTRUCTION CONFERENCE SCHEDULED BY THE ENGINEER SHALL BE HELD PRIOR TO ANY WORK STARTING. IN ADDITION, THE CONTRACTOR SHALL PROVIDE 48 HOUR NOTICE PRIOR TO BEGINNING WORK TO ARRANGE FOR INSPECTION.

PRIOR TO SUBSURFACE INVESTIGATION OR ON-SITE EXAMINATION OF THE PROJECT, ALL BIDDERS OBTAIN APPROVAL FROM THE CITY AND/OR THE PROPERTY OWNERS.

SUBSURFACE CONDITIONS

IT IS THE OBLIGATION AND RESPONSIBILITY OF THE BIDDER TO MAKE HIS OWN INVESTIGATIONS OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS PROPOSAL. THE BIDDER MAY EXAMINE THE RECORDS OF ALL BORINGS, TEST EXCAVATIONS AND OTHER SUBSURFACE INVESTIGATIONS, IF ANY, MADE SOLELY FOR DESIGN PURPOSES FOR THE OWNER. SAID BORINGS, TEST EXCAVATIONS AND OTHER SUBSURFACE INVESTIGATIONS ARE NOT WARRANTED TO SHOW THE ACTUAL SUBSURFACE CONDITIONS. THE CONTRACTOR AGREES THAT HE WILL MAKE NO CLAIM AGAINST THE OWNER OR ENGINEER IF, IN CARRYING OUT THE WORK, HE FINDS THAT THE ACTUAL SUBSURFACE CONDITIONS ENCOUNTERED DO NOT CONFORM TO THOSE INDICATED BY SAID BORINGS, OR SHOWN ON THE PLAN, TEST EXCAVATIONS, AND OTHER SUBSURFACE INVESTIGATIONS.

MEASUREMENTS

POLES, TREES, BUILDINGS, MANHOLES, AND OTHERS INDICATED ON THE PLANS ARE TO THE CENTER OF THE INDICATED OBJECT AND BEING AT RIGHT ANGLES FROM BASELINE STATIONING.

BENCHMARKS

BENCHMARKS WHICH ARE GIVEN HEREON ARE BASED AS NOTED ON PLANS AND ARE THE BASIS OF THE PROPOSED CONSTRUCTION ELEVATIONS.

ACCESSIBILITY TO PRIVATE PROPERTY

ACCESS TO ALL DRIVEWAYS AND PARKING AREAS WITHIN THE PROJECT WORK LIMITS SHALL BE MAINTAINED AT ALL TIMES.

SOIL EROSION

THE CONTRACTOR SHALL IMPLEMENT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AT HIS OWN EXPENSE IN ACCORDANCE WITH THE SOIL EROSION AND SEDIMENTATION REGULATIONS OF THE OHIO DEPARTMENT OF ENVIRONMENTAL AND NATURAL RESOURCES, AND AS STATED IN THE PROJECT SPECIFICATION.

RIGHTS-OF-WAY

IN ADDITION TO DIRECT REQUIREMENTS OF THE CONTRACT SPECIFICATIONS, THE CONTRACTOR SHALL OBSERVE AND CONFORM TO THE SPECIFIC REQUIREMENTS OF ALL RIGHT-OF-WAY, INCLUDING, BUT NOT LIMITED TO, EASEMENTS, COURT ENTRIES, RIGHT-OF-ENTRY, OR ACTION FILED IN COURT, IN ACCORDANCE WITH THE CODE OF THE APPLICABLE GOVERNING AGENCY. THE COST OF THE OPERATIONS NECESSARY TO FULFILL SUCH REQUIREMENTS SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS OF THE CONTRACT.

ACCESS

ACCESS TO ALL ADJOINING PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.

DUST CONTROL

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST, DIRT AND MUD DUE TO CONSTRUCTION IN THE PROJECT AREA DURING THE LIFE OF THE PROJECT. DUST CONTROL OPERATIONS SHALL BE PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH ITEM 616 OF THE OHIO DEPARTMENT OF TRANSPORTATION (O.D.O.T.), CONSTRUCTION AND MATERIALS SPECIFICATIONS. PAYMENT FOR DUST CONTROL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE VARIOUS SIZES OF SEWER LINE.

CONSTRUCTION STAKING

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL CONSTRUCTION STAKES REQUIRED.

MATERIAL SPECIFICATIONS

MATERIAL SPECIFICATIONS CALLED FOR ON THE PLANS REPRESENT THE MINIMUM REQUIRED FOR EACH APPLICATION. THE OWNER MAY REQUEST OR THE CONTRACTOR MAY DESIRE TO SUBSTITUTE ALTERNATE MATERIALS. ANY SUCH SUBSTITUTIONS MUST BE EQUIVALENT IN QUALITY TO THE MATERIAL CALLED FOR AND MUST BE APPROVED IN WRITING BY THE APPROVING AGENCIES AND THE CONSULTING ENGINEER.

CONTRACTOR SHALL INCLUDE COST OF GRANULAR BACKFILL UNDER ALL EXISTING AND PROPOSED PAVEMENTS IN PRICE BID PER LINEAR FOOT OF PIPE.

STANDARD CONSTRUCTION DRAWINGS

WHEREVER IN THE CONTRACT DOCUMENTS REFERENCE IS MADE TO CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE OHIO DEPARTMENT OF TRANSPORTATION (O.D.O.T.) CURRENT EDITION, THE PROVISIONS OF THE REFERENCED ITEM SHALL HAVE THE FULL FORCE AND EFFECT AS OF REPRODUCED HEREIN IN THEIR ENTIRETY. HOWEVER, THE METHOD OF MEASUREMENTS, BASIS OF PAVEMENTS AND PAY ITEMS SHALL BE DIRECTED IN THE MATERIAL SPECIFICATIONS OR BID PROPOSAL FORMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING HIS OWN COPY OF THE O.D.O.T. CONSTRUCTION AND MATERIAL SPECIFICATION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESETING ANY BENCH MARKS WHICH MAY BE DISTURBED DURING CONSTRUCTION.

MATERIAL TESTING AND PERMITS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF ALL MATERIAL TESTING AND ALL PERMITS REQUIRED FOR THIS PROJECT.

UTILITIES

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF THE UTILITY OR STRUCTURE AND ITS EFFECT ON THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE UTILITY COMPANIES.

GAS LINES, WATER LINES, ELECTRIC, TELEPHONE, AND CABLE LINES MAY NEED TO BE LOWERED DUE TO THE STORM SEWER WORK ON THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING THESE POTENTIAL UTILITY RELOCATIONS BEFORE WORK BEGINS. ALL COSTS AND DELAYS ASSOCIATED WITH THIS WORK ARE THE RESPONSIBILITY OF THE CONTRACTOR.

UTILITIES (CONTINUED)

THE CONTRACTOR SHALL NOTIFY AT LEAST TWO WORKING DAYS BEFORE BREAKING GROUND ALL PUBLIC SERVICE CORPORATION, REGISTERED UNDERGROUND UTILITY PROTECTION SERVICE MEMBERS AND/OR NON-MEMBER OWNERS HAVING WIRE, POLES, PIPES, CONDUITS, OR OTHER STRUCTURES THAT MAY BE AFFECTED BY THIS OPERATION.

THE CONTRACTOR SHALL CALL OHIO UTILITIES PROTECTION SERVICE 1-800-362-2764 BEFORE DIGGING.

UTILITIES WITHIN THE LIMITS OF THIS PROJECT

COLUMBIA GAS OF OHIO 1717 ASHLAND ROAD MANSFIELD, OHIO 44905 DAN PETERSON (419) 528-1119

VILLAGE OF CRESTLINE SERVICE DEPARTMENT 100 NORTH SELTZER STREET CRESTLINE, OHIO 44827 STEVE HEIBY (419) 683-3800

OHIO EDISON 1717 ASHLAND ROAD MANSFIELD, OHIO 44905 DAN DEVILLE (419) 521-6219

FRONTIER COMMUNICATIONS

MCI

OPEN TRENCHES

THE CONTRACTOR SHALL MAINTAIN TYPE 11 BARRICADES OR STANDARD TRAFFIC BARRELS AT 50-FOOT INTERVALS ALONG UNPROTECTED TRENCHES. ALL AREAS SHALL BE RETURNED TO NORMAL TRAFFIC CONDITIONS AT THE END OF EACH WORK DAY. FENCES MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER TO PROTECT PEDESTRIAN TRAFFIC.

WATER MAINS

ALL WATER ITEMS ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE STANDARDS OF THE VILLAGE OF CRESTLINE.

PIPE MATERIAL FOR WATER MAINS SHALL BE PVC C900, ANNA C900 AND CLASS 52 D.I.P., ANNA C151, ANNA C104 (REFER TO PLAN).

SANITARY SEWERS

PIPE MATERIAL FOR SANITARY SEWERS SHALL BE PVC SDR 26 GRAVITY SEWER PIPE, ASTM D-3034, D-3212 AND CLASS 52 D.I.P., ANNA C151, ANNA C104, CERAMIC EPOXY LINING, PROTECTO 401 OR APPROVED EQUAL (REFER TO PLAN).

ALL SANITARY SEWERS MUST HAVE PREMIUM JOINTS AND THE ENTIRE SYSTEM MUST PASS BOTH AN EXFILTRATION AND AN INFILTRATION TEST AFTER CONSTRUCTION HAS BEEN COMPLETED. THE MAXIMUM ALLOWABLE RATE OF INFILTRATION AND EXFILTRATION SHALL BE 100 GAL. PER INCH DIAMETER OF SEWER PIPE PER MILE PER DAY.

NO SANITARY MANHOLES AND PREFERABLY NO SANITARY CONNECTIONS ARE TO BE CONSTRUCTED IN SIDEWALKS AND/OR DRIVEWAYS.

DEFLECTION TESTING , VIDEO TAPING AND AIR TESTING IN ACCORDANCE WITH ASTM F-1417 AND ASTM C-1244 SHALL BE REQUIRED.

CLEAN WATER CONNECTIONS TO THE SANITARY SEWER WILL NOT BE PERMITTED.

STORM SEWERS

PIPE MATERIAL FOR STORM SEWERS SHALL BE THE FOLLOWING TYPES:
12" RCP - 12" WALL, CLASS 5 (O.D.O.T. 706.02)
24" RCP - 12" WALL, CLASS 3 (O.D.O.T. 706.02)
24" D.I.P. - CLASS 52, ANNA C151, ANNA C104

ALL FIELD TILE ENCOUNTERED SHALL BE TIED INTO STORM SEWER. ANY FIELD TILE INTERCEPTED BY OTHER EXCAVATIONS SHALL BE RECONNECTED.

SEEDING & MULCHING

ALL SEEDING, FERTILIZING AND MULCHING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF O.D.O.T. ITEM 659, CLASS 1 AND/OR AS DIRECTED BY THE ENGINEER.

SEDIMENT CONTROL SHALL BE ACCOMPLISHED BY SEEDING, FERTILIZING AND MULCHING IMMEDIATELY UPON COMPLETION OF EXCAVATION OR FILL AND FINISHED GRADING IN ACCORDANCE WITH ITEM 659, OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS AND/OR AS DIRECTED BY THE ENGINEER.

ARCHAEOLOGICAL / HISTORICAL RESOURCES

CONTRACTORS AND SUBCONTRACTORS ARE REQUIRED UNDER OHIO REVISED CODE SECTION 149.53 TO NOTIFY THE OHIO HISTORICAL SOCIETY AND THE OHIO HISTORIC SITE PRESERVATION BOARD OF ARCHAEOLOGICAL DISCOVERIES IN THE PROJECT AREA, AND TO COOPERATE WITH THOSE ENTITIES IN ARCHAEOLOGICAL AND HISTORIC SURVEYS AND SALVAGE EFFORTS. CONTACT: OHIO HISTORIC PRESERVATION OFFICE, PHONE: 614-298-2000

PROHIBITED CONSTRUCTION ACTIVITIES

DISPOSING OF EXCESS OR UNSUITABLE EXCAVATED MATERIAL OR TREES, BRUSH, AND OTHER DEBRIS IN ANY STREAM CORRIDOR, ANY WETLANDS, ANY SURFACE WATERS, OR AT UNSPECIFIED LOCATIONS.

STOCKPILING MATERIALS OR STORING CONSTRUCTION EQUIPMENT AND VEHICLES ON PROPERTY NOT SPECIFIED ON THE PLANS BY THE ENGINEER FOR SUCH PURPOSES.

INDISCRIMINATE, ARBITRARY, OR CAPRICIOUS OPERATION OF EQUIPMENT IN ANY STREAM CORRIDORS, ANY WETLANDS, ANY SURFACE WATERS, OR OUTSIDE THE EASEMENT LIMITS.

PROHIBITED CONSTRUCTION ACTIVITIES (CONTINUED)

DISCHARGING POLLUTANTS SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE, OR OTHER HARMFUL WASTE INTO OR ALONGSIDE OF RIVERS, STREAMS, IMPOUNDMENTS, OR INTO ANY NATURAL OR MAN-MADE CHANNELS.

PERMANENT OR UNSPECIFIED ALTERATION OF THE FLOW LINE OF ANY STREAM.

OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT.

DISCHARGING INJURIOUS SILICA DUST CONCENTRATIONS INTO THE ATMOSPHERE RESULTING FROM BREAKING, CUTTING, CHIPPING, DRILLING, BUFFING, GRINDING, POLISHING, SHAPING OR SURFACING CLOSER THAN 200 FEET TO PLACES OF RESIDENCES OR COMMERCIAL, PROFESSIONAL, QUASI-PUBLIC, OR PUBLIC PLACES OF HUMAN OCCUPATION.

RUNNING WELL POINT OR PUMP DISCHARGE LINES THROUGH PRIVATE PROPERTY OR PUBLIC PROPERTY AND RIGHTS-OF-WAY WITHOUT THE WRITTEN PERMISSION OF THE PROPERTY OWNER AND THE CONSENT OF THE ENGINEER.

OPERATIONS ENTAILING THE USE OF VIBRATORY HAMMERS OR COMPACTORS OUTSIDE THE HOURS OF 8:00 A.M. AND 5:00 P.M. OR OUTSIDE THE HOURS ALLOWED FOR CONSTRUCTION BY LOCAL ORDINANCES OR REGULATIONS.

CLOSING OFF CLEAR ACCESS TO ANY PUBLIC ALLEY, STREET, ROAD, AVENUE, OR BOULEVARD WITHOUT THE PRIOR CONSENT OF MUNICIPAL OFFICIALS AND THE ENGINEER, AND CLOSING CLEAR ACCESS:

- BY FIRE PROTECTION EQUIPMENT AND EMERGENCY VEHICLES;

- BY THE PUBLIC TO ANY COMMERCIAL OR PROFESSIONAL PLACE OF BUSINESS, QUASI-PUBLIC OR PUBLIC ESTABLISHMENT, OR RESIDENCE; OR

- BY VEHICLES TO DRIVEWAYS WITHOUT PROVIDING ALTERNATE ACCESS.

CONCRETE NOTES

ALL STRUCTURAL CONCRETE SHALL BE CLASS "B" AND SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4,000 P.S.I. IN 28 DAYS.

MINIMUM PROTECTION OVER REINFORCING STEEL BARS EXCEPT WHERE OTHERWISE SHOWN SHALL BE AS FOLLOWS:

NOT EXPOSED TO WEATHER, WATER OR IN CONTACT WITH GROUND:
COLUMNS, BEAMS & GIRDERS: 1-1/2"
SLABS AND WALLS: 3/4"

IN CONTACT WITH WATER:
WALLS, COLUMNS, BEAMS & SLABS: 2"

IN CONTACT WITH EARTH:
FORMED WALLS & COLUMNS: 2"
SLABS & FOOTERS: 3"

FOR PRE-STRESSED CONCRETE REFER TO A.C.I. 318.

UNLESS CALLED FOR ON THE DRAWINGS, THE LOCATION OF POINTS OF BENDS IN BEAMS AND SLABS TO BE SHOWN IN SHOP DRAWING TYPICAL BENDING DIAGRAMS FOR BEAMS AND SLABS.

ALL SLAB AND BEAM REINFORCING STEEL BARS SHALL HAVE MINIMUM EXTENSION INTO THE SUPPORTS IN ACCORDANCE WITH A.C.I. BUILDING CODE (A.C.I. 318).

HOOKS, BENDS, SUPPORTS AND SPACERS SHALL BE IN ACCORDANCE WITH THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (A.C.I. 315).

LAP ALL BARS A MINIMUM OF 40 DIAMETERS, EXCEPT WHERE OTHERWISE SHOWN. WHERE BEAM OR WALL IS PARALLEL TO MAIN SLAB REINFORCING STEEL BARS PLACE A MINIMUM OF #4 BARS @ 12" IN TOP OF SLAB OVER AND AT RIGHT ANGLES TO SAID MEMBER AND EXTENDING 2'-0" FROM EITHER SIDE OF SAID MEMBER UNLESS OTHERWISE SHOWN OR NOTED.

LINTELS FOR OPENINGS IN CONCRETE NOT SPECIFICALLY SHOWN OR NOTED OTHERWISE SHALL HAVE 1-#6 HOOKED EACH END FOR EACH 4" OF WALL THICKNESS WITH 9" BEARING EACH END. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD.

DOWELS OR STUBS PLACED IN FOOTERS ARE TO BE OF THE SAME SIZE, NUMBER AND SPACING AS THE VERTICAL STEEL USED IN THE COLUMNS OR WALLS ABOVE UNLESS OTHERWISE SHOWN OR NOTED.

UNLESS OTHERWISE SHOWN, ALL COLUMN TIES ARE TO BE TYPE T-1 AND ALL BEAM STIRRUPS ARE TO BE TYPE S-3. SEE THE "MANUAL OF STANDARD PRACTICE".

BEAMS, GIRDERS, BRACKETS, COLUMN CAPITALS AND HAUNCHES SHALL BE CONSIDERED AS PART OF THE FLOOR SYSTEM AND SHALL BE PLACED MONOLITHICALLY THEREWITH UNLESS OTHERWISE SHOWN OR NOTED.

REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF A.S.T.M. A615 GRADE 60. MINIMUM YIELD STRESS OF 60,000 P.S.I.

REINFORCING BARS SHALL NOT BE SPLICED OR TIED TOGETHER BY TACK WELDING IN THE FIELD.

REINFORCING BARS SHALL NOT BE BENT IN THE FIELD BY HEATING. PRECAST CONCRETE BLOCKS SHALL NOT BE USED FOR SIDE FORM SPACERS WHERE CONCRETE WILL BE EXPOSED AFTER REMOVAL OF THE FORMS.

REINFORCING STEEL NOT SPECIFICALLY SHOWN OR NOTED SHALL BE A MINIMUM OF #4 @ 8" E.W.E.F.

ALL EXPOSED CORNERS OF SLABS, BEAMS, COLUMNS, PIERS, PILASTERS AND WALLS SHALL HAVE A MINIMUM CHAMFER OF 3/4" X 45 DEGREES.

ALL CONCRETE SHALL BE PROPERLY CURED IN COMPLIANCE WITH SPECIFICATIONS. TYPE "B" CONSTRUCTION JOINTS WITH CONTINUOUS WATERSTOPS AND KEYS SHALL BE PROVIDED FOR ALL WATER BEARING AND SUBGRADE CONCRETE WALLS AND SLAB.

REINFORCED CONCRETE SLABS AND WALLS SHALL BE PLACED SUCH THAT SHRINKAGE STRESSES ARE MINIMIZED. TYPE "B" CONSTRUCTION JOINTS SHALL BE PROVIDED AT HORIZONTAL DISTANCES NOT TO EXCEED 40 FEET IN ANY DIRECTION. PLACED CONCRETE SHALL BE ALLOWED TO CURE FOR NO LESS THAN 7 DAYS BEFORE FRESH CONCRETE IS PLACED ADJACENT TO SUCH CONSTRUCTION JOINTS. THE CONTRACTOR SHALL SUBMIT A DETAILED PLACEMENT PLAN AND SCHEDULE OF CONCRETE STRUCTURES FOR THE ENGINEER'S APPROVAL PRIOR TO CONSTRUCTION.

PRIOR TO CONSTRUCTION, ALL CONTRACTORS OF ALL TRADES SHALL COORDINATE ACTUAL SIZE AND LOCATION OF ALL OPENINGS THROUGH FLOORS, WALLS AND ROOFS.

WHEN EMPTY DURING CONSTRUCTION, ALL TANKS ARE BUOYANT. IN THE EVENT THAT THE EXCAVATION BECOMES FLOODED, THE CONTRACTOR SHALL TAKE PROPER MEASURES TO PREVENT FLotation.

CUT JOINTS FOR SLABS ON GRADE A MAXIMUM OF 12'-0" O.C., UNLESS NOTED OTHERWISE ON THE CONTRACT DOCUMENTS. CUT JOINTS WITHIN 8 (EIGHT) HOURS AFTER PLACING CONCRETE.

ENVIRONMENTAL PROTECTION MEASURES

EROSION AND SEDIMENTATION CONTROL

CLEARING AND GRUBBING SHALL NOT COMMENCE UNTIL THE CONTRACTOR IS PREPARED TO START CONSTRUCTION.

EXISTING TOPSOIL THAT IS TO BE REUSED SHALL BE STOCKPILED AND REPLACED UPON FINAL GRADING. STOCKPILED TOPSOIL SHALL BE PROTECTED WITH SILT BARRIERS AND TEMPORARY SEEDING OR A COVERING SUCH AS ANCHORED STRAW MULCH. MATERIAL SHALL BE STOCKPILED UPLAND FROM ALL WATERWAYS.

EXCESS SOIL THAT IS STOCKPILED SHALL BE EITHER REMOVED OR PERMANENTLY STABILIZED WITHIN 15 DAYS OF THE COMPLETION OF CONSTRUCTION.

ONLY THOSE TREES, SHRUBS, AND GRASSES THAT MUST BE REMOVED FOR CONSTRUCTION MAY BE REMOVED; PROTECT THE REST TO PRESERVE THEIR AESTHETIC, HABITAT, AND EROSION CONTROL VALUES.

AS CONSTRUCTION IS COMPLETED, PERMANENTLY STABILIZE EACH DISTURBED AREA WITH PERENNIAL VEGETATION INSTALLED ACCORDING TO NATURAL RESOURCES CONSERVATION SERVICE (OR EQUIVALENT) STANDARDS AND SPECIFICATIONS. IF FINAL GRADING AND SEEDING WILL NOT OCCUR WITHIN 30 DAYS, ALL DISTURBED AREAS SHALL BE TEMPORARILY SEEDED AND/OR MULCHED IMMEDIATELY.

ENVIRONMENTAL PROTECTION MEASURES (CONTINUED)

TRENCHES SHALL BE BACKFILLED IMMEDIATELY; COMPACT AND SEED AND/OR MULCH TRENCHES IN UNPAVED AREAS WITHIN 15 DAYS AFTER THEY HAVE BEEN OPENED.

CONTRACTOR SHALL REMOVE DAILY ALL MUD, SOIL, AND DEBRIS THAT MAY BE TRACKED ONTO EXISTING STREETS, DRIVES, OR WALKS BY HIS EQUIPMENT OR THAT OF SUBCONTRACTORS OR SUPPLIERS.

ALL MATERIALS TO BE DISPOSED OF OFF-SITE MUST BE DISPOSED OF IN AN ENVIRONMENTALLY SOUND MANNER IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS. NO EXCESS MATERIALS ARE TO BE DISPOSED OF IN ANY WETLAND, FLOOD PLAIN, OR OTHER ENVIRONMENTALLY SENSITIVE AREAS. EROSION CONTROL MEASURES AT THE DISPOSAL SITE MUST BE INSTALLED AND MAINTAINED UNTIL DISPOSAL IS COMPLETE AND THE DISPOSAL SITE IS PERMANENTLY STABILIZED. ALL LOCATIONS TO BE USED FOR SOIL DISPOSAL MUST BE PRE-APPROVED BY THE ENGINEER AND THE OHIO E.P.A. DIVISION OF D.E.F.A.

AIR POLLUTION / NOISE CONTROL

CONSTRUCTION SHALL BE LIMITED TO DAYTIME HOURS.

CONSTRUCTION EQUIPMENT SHALL BE PROVIDED WITH INTAKE SILENCERS AND MUFFLERS, AS REQUIRED BY SAFETY STANDARDS.

ALL CONSTRUCTION VEHICLES SHALL BE EQUIPPED WITH PROPER EMISSIONS CONTROL EQUIPMENT.

ALL EQUIPMENT AND MACHINERY SHALL BE MAINTAINED TO MINIMIZE EXHAUST EMISSIONS AND NOISE.

EARTHWORK OPERATIONS

THE DESIGNATED AREAS OF EXCAVATION AND FILL SHALL BE CLEARED AND STRIPPED BY THE CONTRACTOR PRIOR TO THE START OF ANY EARTH WORK OPERATIONS.

THE CONTRACTOR SHALL STRIP ALL TOPSOIL FROM THE RIGHT-OF-WAY AND OTHER WORK AREAS AND STOCKPILE THE TOPSOIL IN THE AREAS DESIGNATED BY THE OWNER FOR RESPREADING.

CLEARING AND GRUBBING SHALL BE PERFORMED WITHIN THE ENTIRE RIGHT-OF-WAY AND EASEMENT AREAS. CLEARING AND GRUBBING SHALL ALSO INCLUDE TREE REMOVAL IF NECESSARY.

ALL STUMPS, TREES, AND OTHER CONSTRUCTION DEBRIS SHALL BE DISPOSED OF OFF SITE BY THE CONTRACTOR UNDER THE LUMP SUM PRICE BID FOR CLEARING AND GRUBBING AS PER O.D.O.T. ITEM 201.

THE CONTRACTOR SHALL PLACE AND COMPACT ALL SUITABLE FILL MATERIAL EXCAVATED DURING HIS CONSTRUCTION OPERATIONS WITHIN THE FILL AREAS DESIGNATED ON THE IMPROVEMENT PLANS. THE FINAL GRADE OF THE EXCAVATED AND FILLED AREAS SHALL CORRESPOND TO THE PROPOSED GRADES AS SHOWN ON THE PLANS. EMBANKMENT SHALL BE PERFORMED AND TESTED IN ACCORDANCE WITH O.D.O.T. ITEM 203, WITH ADDITIONAL DIRECTION FROM THE OWNER'S GEOTECHNICAL ENGINEER.

A MINIMUM OF TWO (2) "PROOF ROLLINGS" WILL BE REQUIRED AS DIRECTED BY THE ENGINEER BEFORE PAVING. THE FIRST "PROOF ROLLING" SHALL BE PERFORMED AFTER THE INSTALLATION OF UNDERGROUND IMPROVEMENTS AND ROUGH GRADING HAS BEEN COMPLETED. AFTER FINAL GRADING, PRIOR TO PAVING THE SUBGRADE SHALL BE "PROOF ROLLED" AGAIN AND ALL NECESSARY SUBGRADE REPAIRS MADE AS DIRECTED BY THE ENGINEER.

ALL COMPACTION TESTING REQUIRED BY THE CONTRACT SPECIFICATIONS SHALL BE AT THE CONTRACTOR'S EXPENSE.

GENERAL STRUCTURAL NOTES

DESIGN LOADS	CALCULATED
DESIGN DEAD LOADS	125 PSF
FLOOR LIVE LOAD	20 PSF
ROOF LIVE LOAD	20 PSF
DESIGN SNOW LOADS	
GROUND SNOW LOAD, Pg	20 PSF
FLAT-ROOF SNOW LOAD, Pf	20 PSF
SNOW EXPOSURE FACTOR, Ce	0.9
SNOW LOAD IMPORTANCE FACTOR, I	1.0
THERMAL FACTOR, Ct	1.0
DESIGN WIND LOADS	
BASIC WIND SPEED	90 MPH
WIND LOAD IMPORTANCE FACTOR, I	1.00
WIND EXPOSURE	C
INTERNAL PRESSURE COEFFICIENT	0.18
DESIGN SEISMIC LOADS	
SEISMIC IMPORTANCE FACTOR	1.0
MAPPED SPECTRAL RESPONSE ACCELERATIONS	Ss = 0.121g, S1 = 0.057g
SITE CLASS	D
SPECTRAL RESPONSE COEFFICIENTS	Sds = 0.129g, Sd1 = 0.091g
SEISMIC DESIGN CATEGORY	B
(ADDITIONAL SEISMIC VALUES TO BE DETERMINED BY STEEL BUILDING DESIGNER)	

CODE: 2009 O.B.B.C.

ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION DELAYS DUE TO THE INADEQUATE SCHEDULING OF THE SHOP DRAWING REVIEW.

STRUCTURAL STEEL NOTES

ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN FULL ACCORDANCE WITH AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", LATEST EDITION. FURTHER, ALL WELDING SHALL BE IN ACCORDANCE WITH THE LATEST AMERICAN INSTITUTE OF STEEL CONSTRUCTION RECOMMENDED FUNDAMENTAL, PRINCIPLES, MINIMUM REQUIREMENTS AND TENTATIVE STANDARD WELDED CONNECTIONS FOR BUILDINGS.

ALL BOLTS SHALL BE 3/4" DIA. A.S.T.M. A325 HIGH STRENGTH WITH HEX NUTS AND WASHERS UNLESS OTHERWISE NOTED, FOR FRICTION TYPE CONNECTIONS.

ALL UNDERGROUND BOLTS SHALL BE GALVANIZED

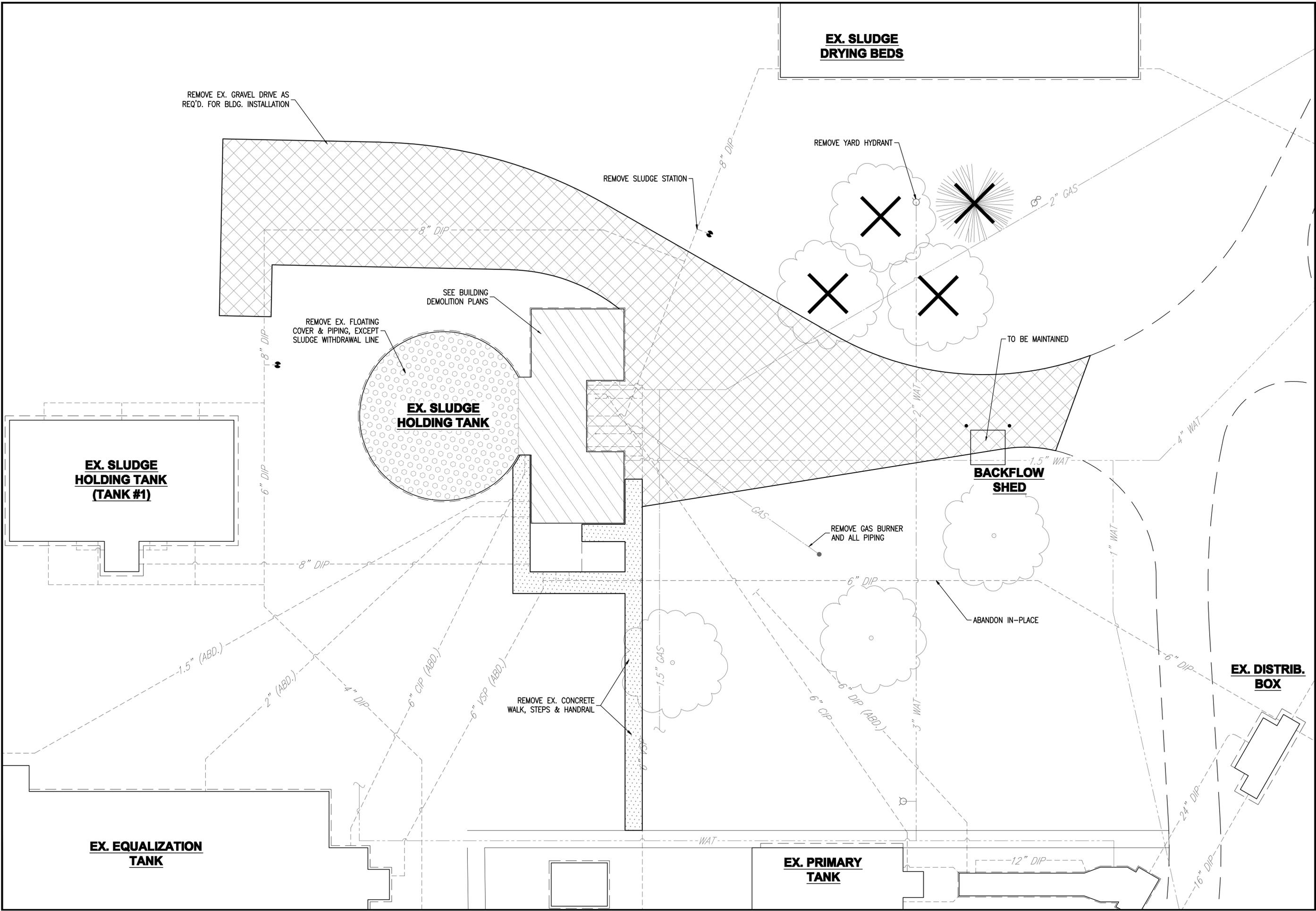
ALL SUBMERGED BOLTS AND BOLTS LOCATED AT INACCESSIBLE LOCATIONS SHALL BE STAINLESS STEEL BOLTS.

ALL STRUCTURAL SHAPES AND PLATES SHALL BE A.S.T.M. A36 STEEL.

ALL STRUCTURAL STEEL SHALL BE GIVEN ONE (1) HEAVY SHOP COAT OF A RUST INHIBITIVE PRIMER. THOSE SURFACES WHICH WILL NOT BE ACCESSIBLE AFTER ASSEMBLY OR ERECTION WILL BE GIVEN TWO (2) COATS OF PRIMER.

LINTELS FOR EXTERIOR AND INTERIOR OPENINGS NOT SPECIFICALLY SHOWN OR OTHERWISE NOTED SHALL BE ONE ANGLE 3-1/2" X 3-1/2" X 5/16" FOR EACH 4" OF WALL THICKNESS UP TO 5'-0" CLEAR OPENING. THE SIZE OF LINTEL FOR OPENINGS LARGER THAN 5'-0" SHALL BE AS DIRECTED BY THE ENGINEER. ALL LINTELS MUST EXTEND A MINIMUM OF 8" INTO THE WALL ON EACH SIDE OF THE OPENINGS, UNLESS THE FRAME INTO STRUCTURAL STEEL MEMBERS. ONE END OF LINTEL SHALL BE GREASED OR WRAPPED IN PLASTIC TO PREVENT BONDING TO MASONRY. CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS. ALL EXTERIOR WALL LINTELS SHALL BE GALVANIZED.

BEAM CONNECTIONS EXCEPT AS OTHERWISE SHOWN, SPECIFIED OR REQUIRED SHALL BE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, TYPE 2 STANDARD BEAM CONNECTION



CALCULATED

TM

CHECKED

JS

REV. NO.

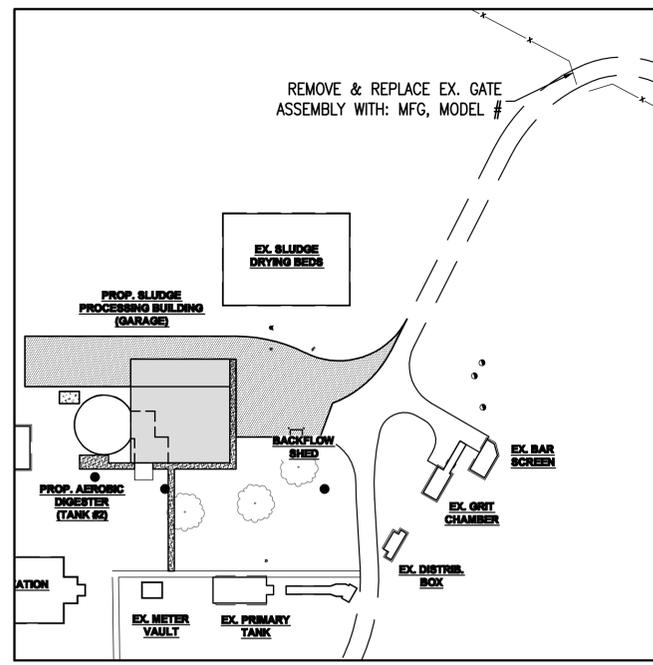
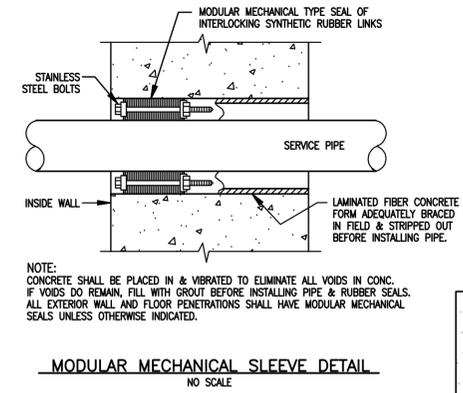
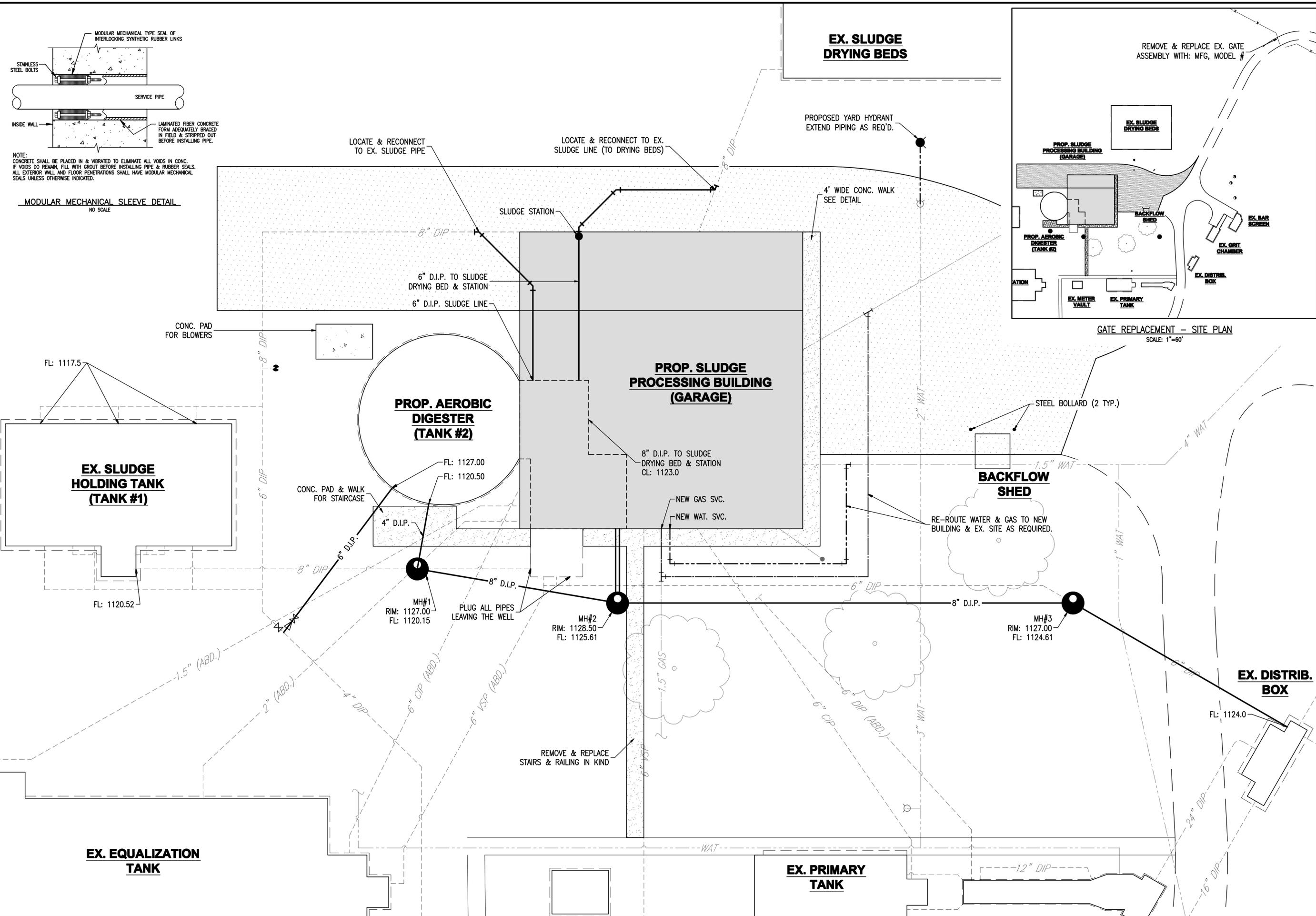
DATE

WASTEWATER TREATMENT PLANT IMPROVEMENT - PHASE I

SITE PLAN - DEMOLITION

VILLAGE OF CRESTLINE

3







HORIZONTAL SCALE IN FEET

CALCULATED	TM	CHECKED	JS
DATE			
REV. NO.			



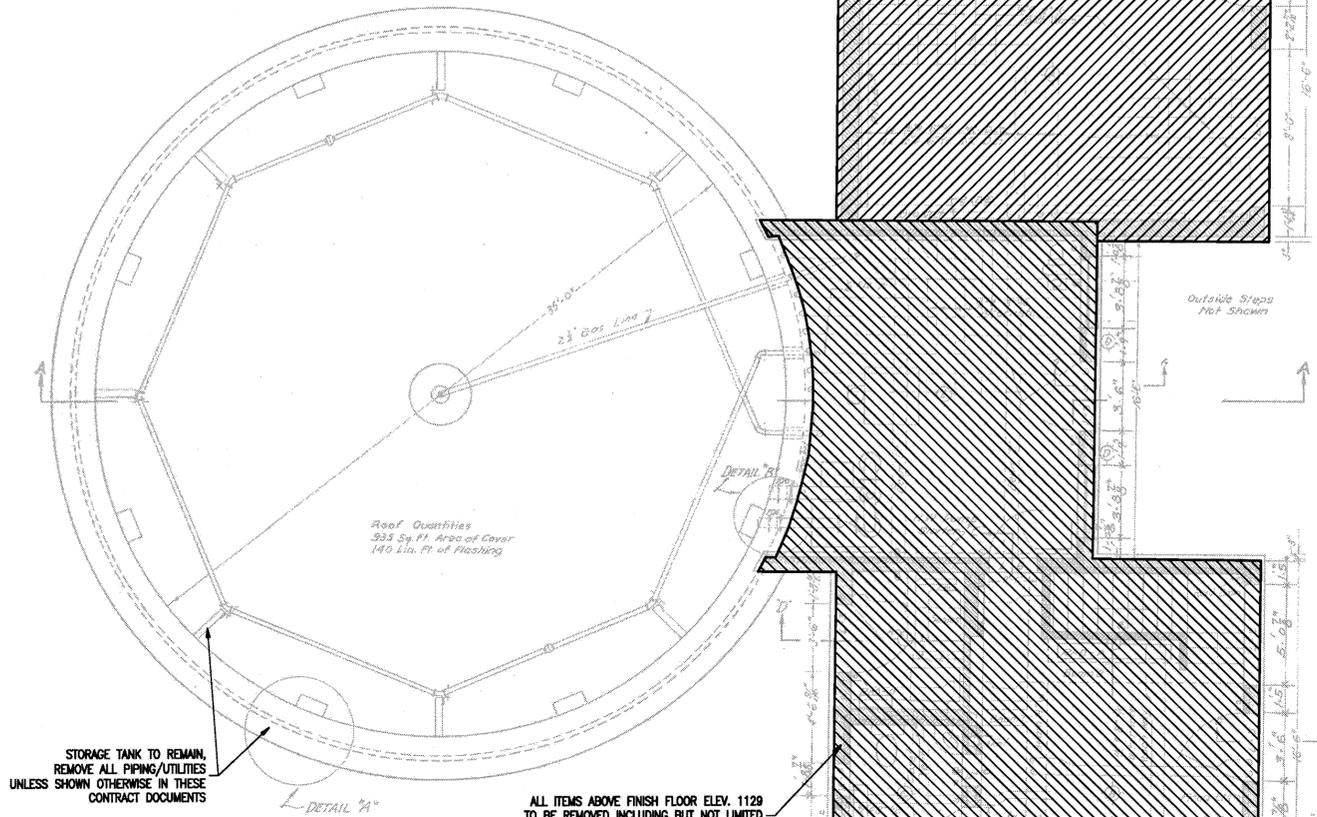
GGT CONSULTING ENGINEERS
 25000 South Blvd., Unit C
 Englewood, Ohio 43025
 Phone: 614.891.1100
 Fax: 614.891.1101
 www.ggt-engineers.com

WASTEWATER TREATMENT PLANT IMPROVEMENT - PHASE I
SITE PLAN - PROPOSED

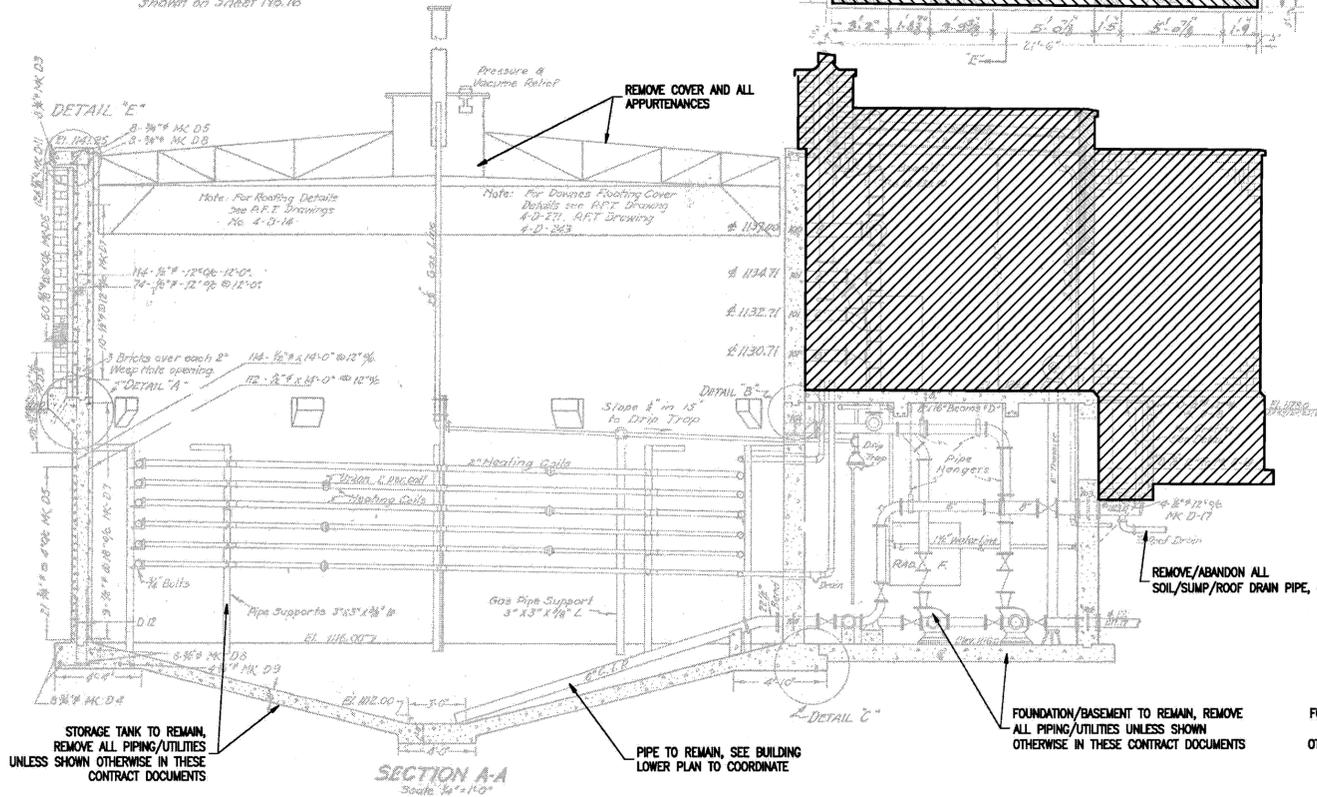
VILLAGE OF CRESTLINE



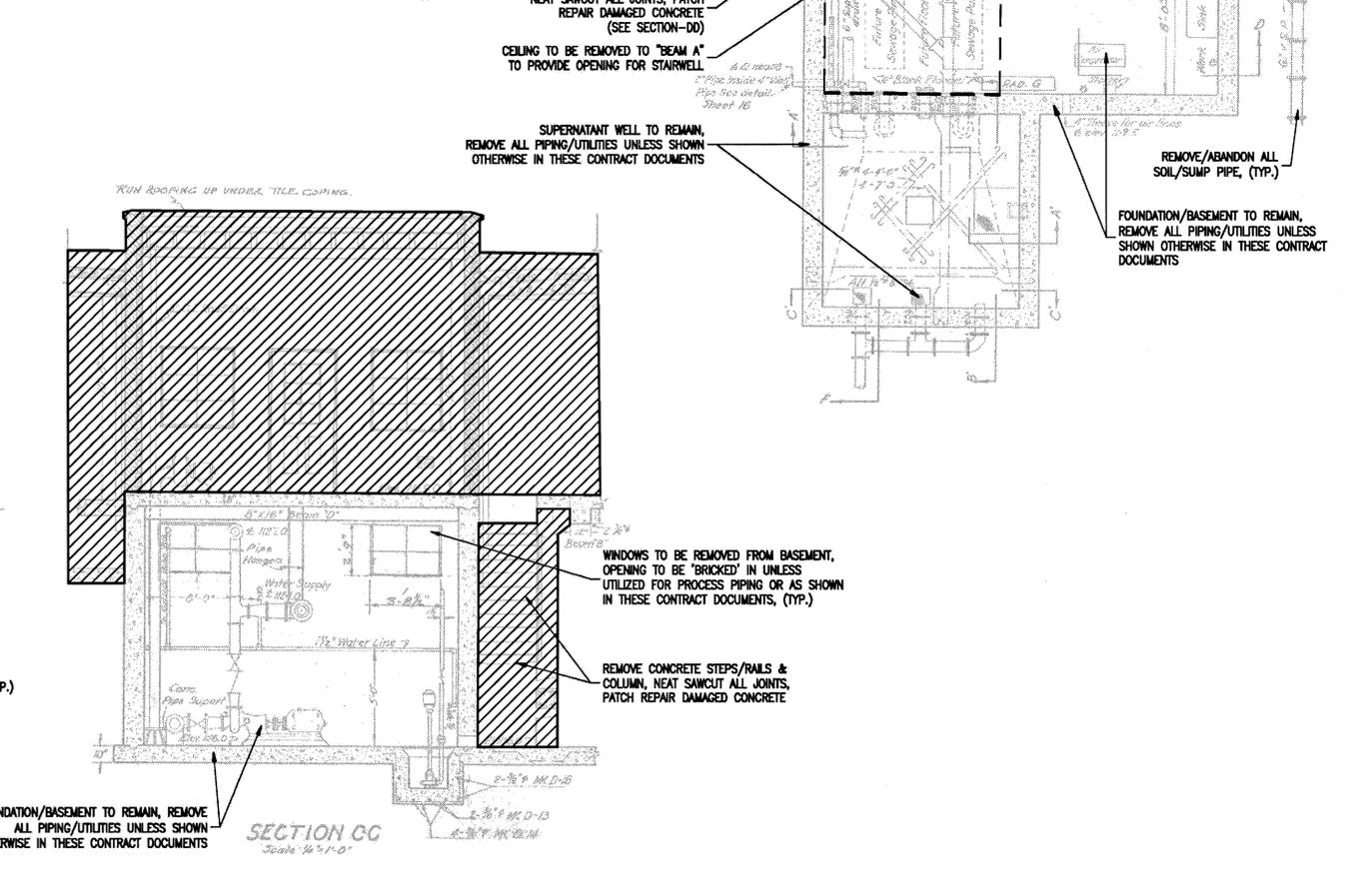
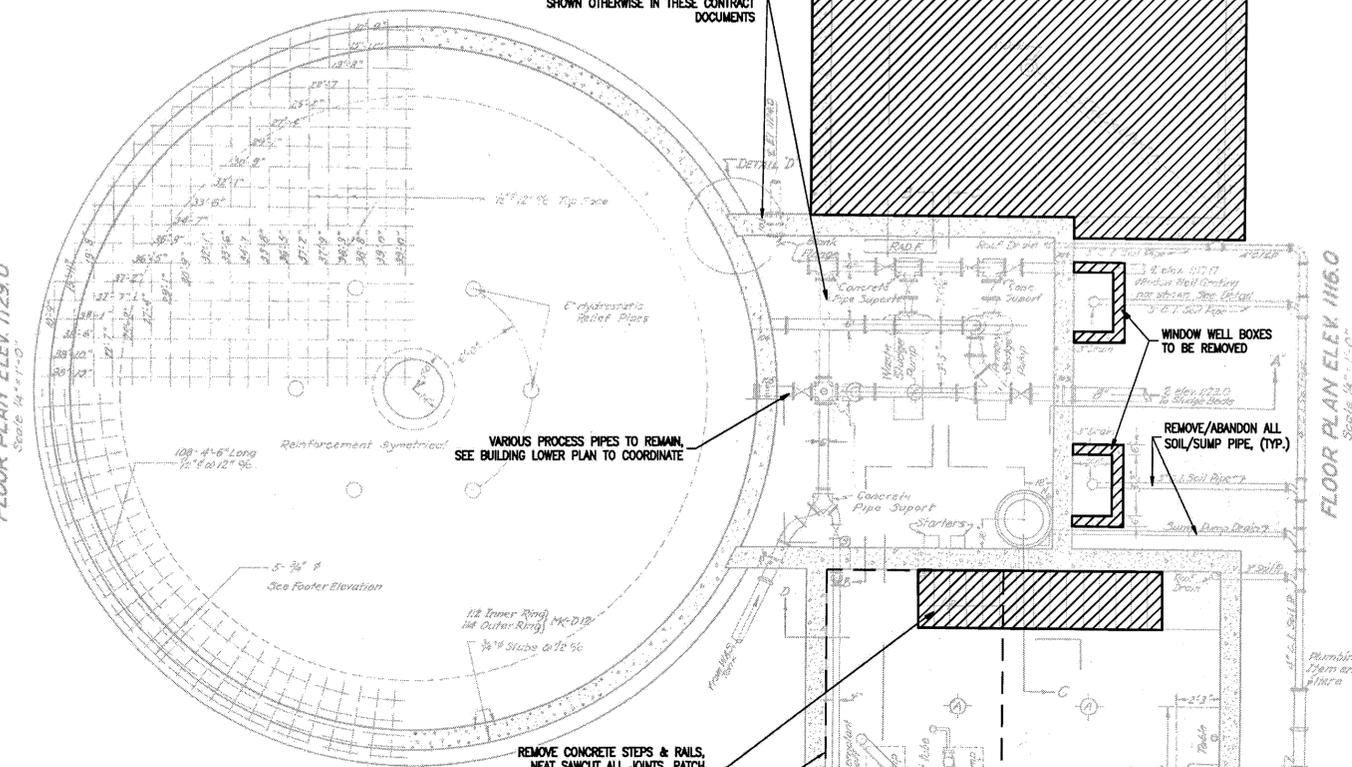
BASE DRAWING INFORMATION AS SHOWN ON: JANUARY 1941
 "SANITARY SEWERAGE SYSTEM SEWERS & SEWERAGE TREATMENT
 WORKS PLANS" PREPARED BY FLOYD G. BROWNE & ASSOC.



Note: Details A-B-C-D-E shown on Sheet No. 16



ALL STRUCTURES IN THE GARAGE, INCLUDING BUT NOT LIMITED TO THE FOUNDATION, OIL TANK, UTILITY LINES, ETC., TO BE REMOVED

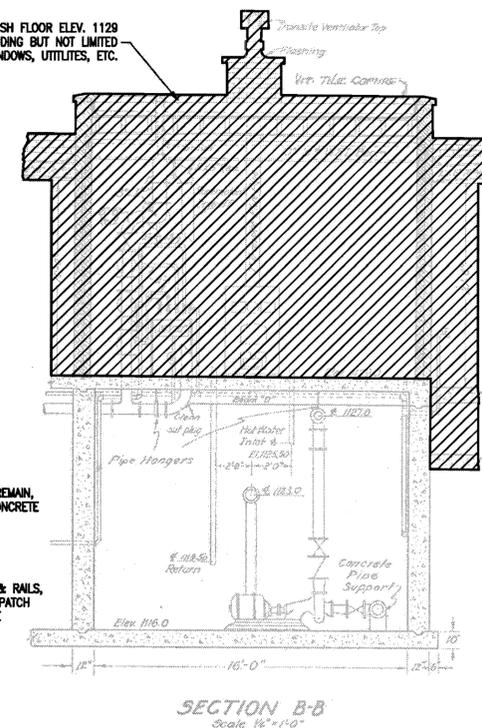
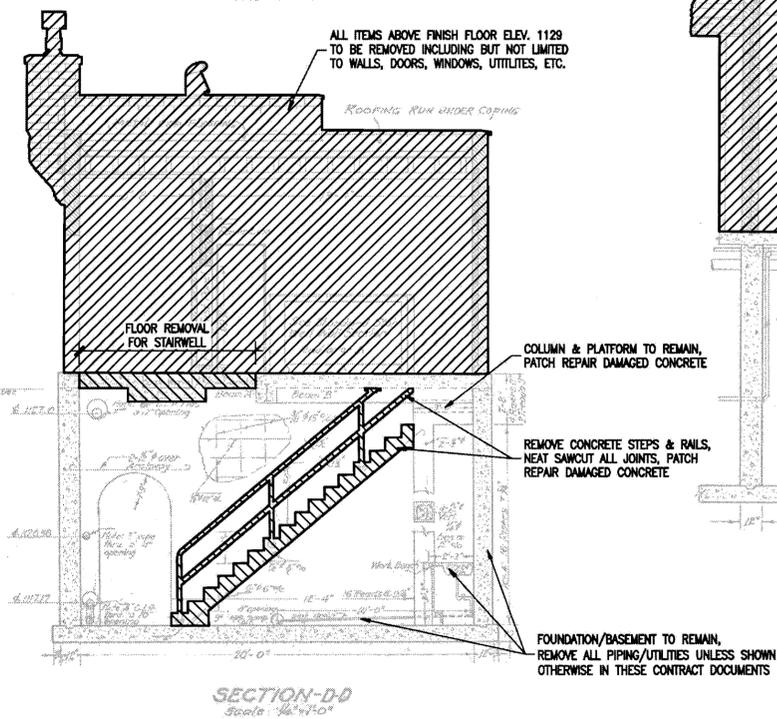
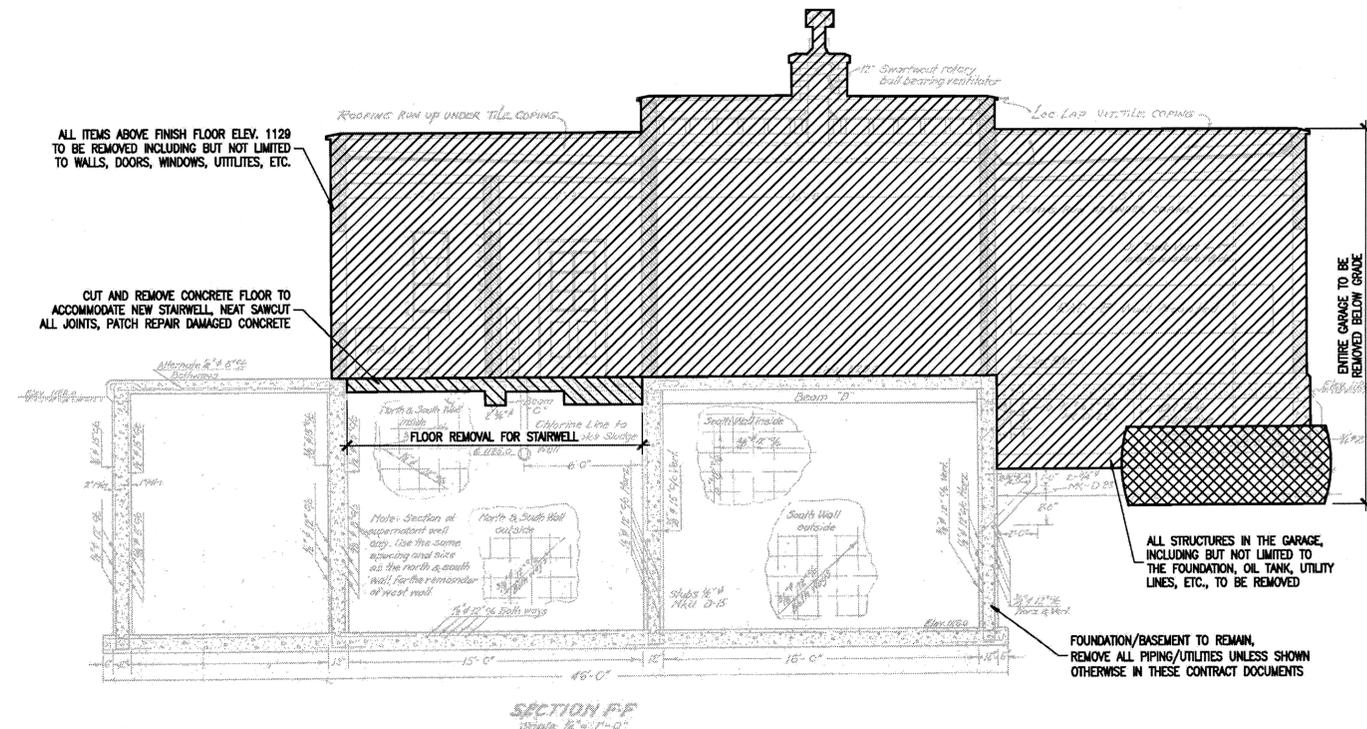
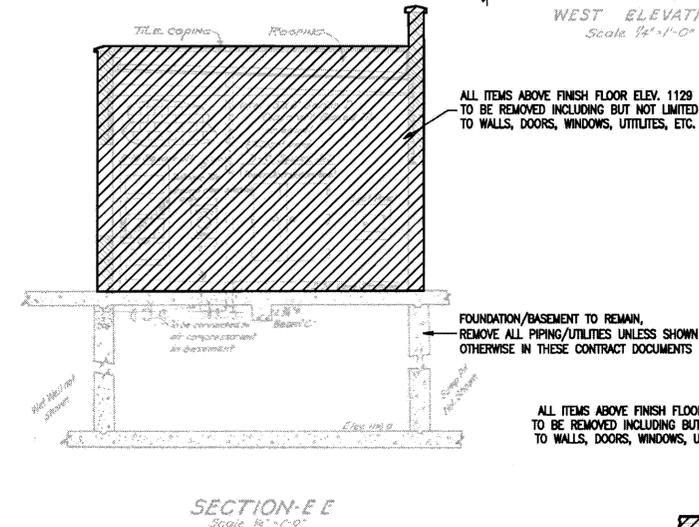
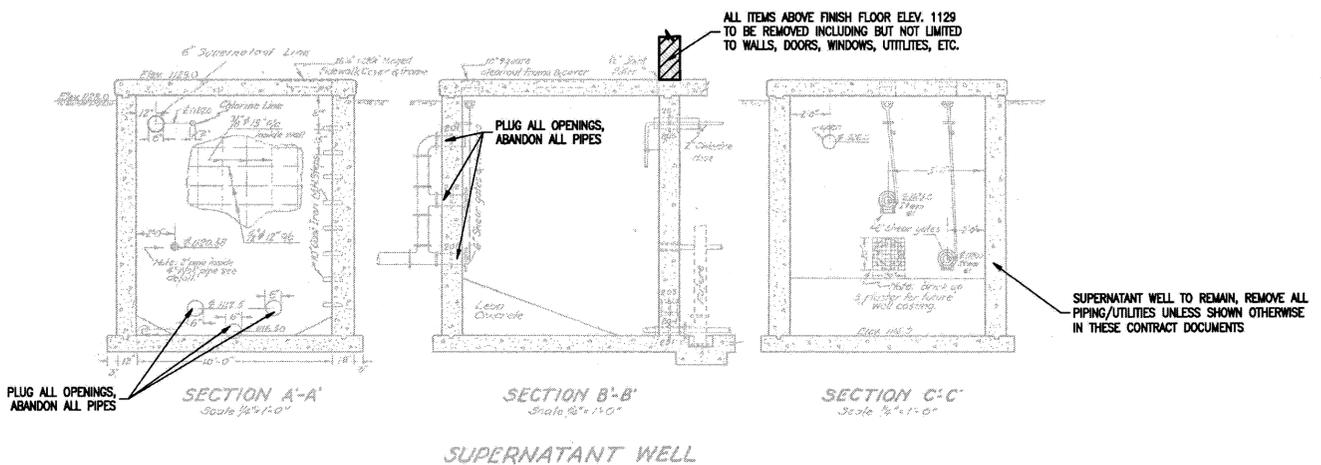
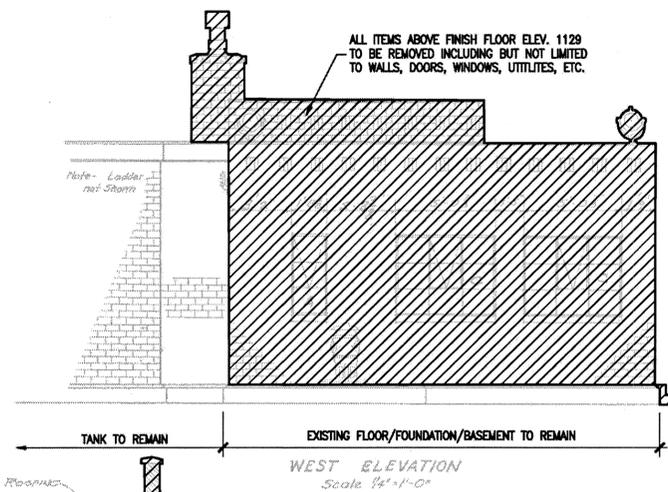
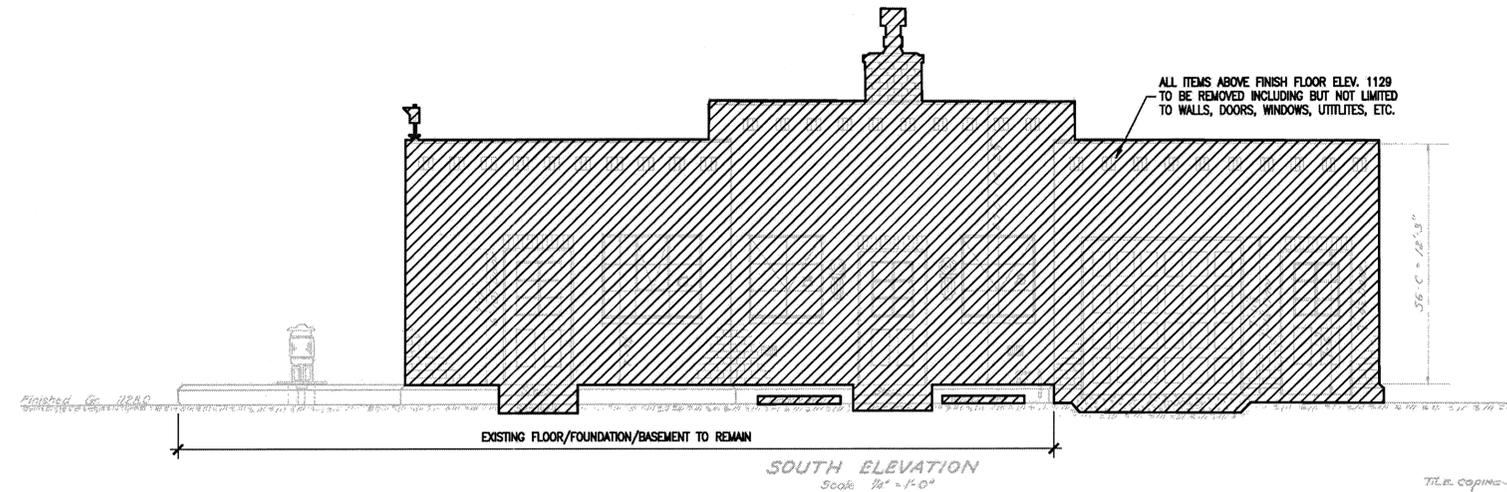


	CALCULATED	TM/JS	CHECKED	JS
	REV. NO.	DATE		

WASTEWATER TREATMENT PLANT IMPROVEMENTS - PHASE I
 DEMOLITION PLAN - BUILDING

VILLAGE OF CRESTLINE

BASE DRAWING INFORMATION AS SHOWN ON: JANUARY 1941
 "SANITARY SEWERAGE SYSTEM SEWERS & SEWERAGE TREATMENT
 WORKS PLANS" PREPARED BY FLOYD G. BROWNE & ASSOC.



REV. NO.	DATE	CALCULATED	CHECKED
		TM/JS	JS



WASTEWATER TREATMENT PLANT IMPROVEMENTS - PHASE I
 DEMOLITION PLAN - BUILDING

VILLAGE OF CRESTLINE

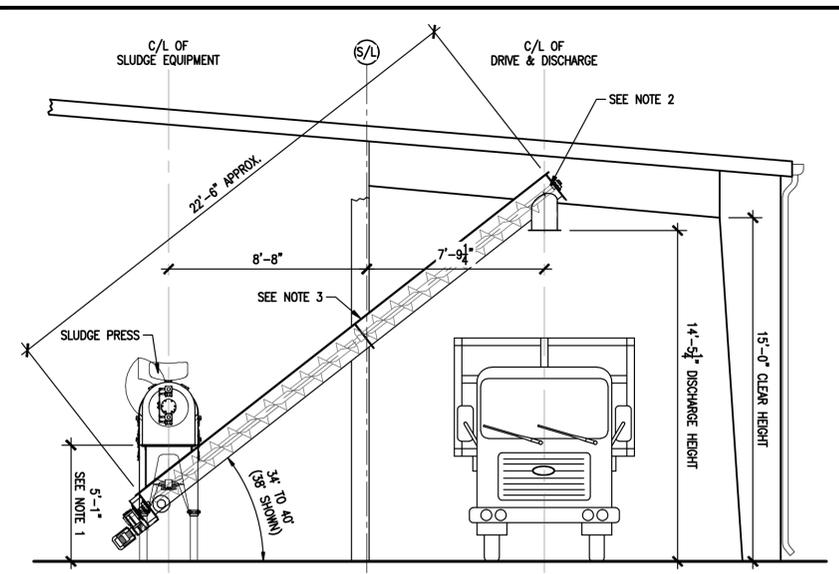


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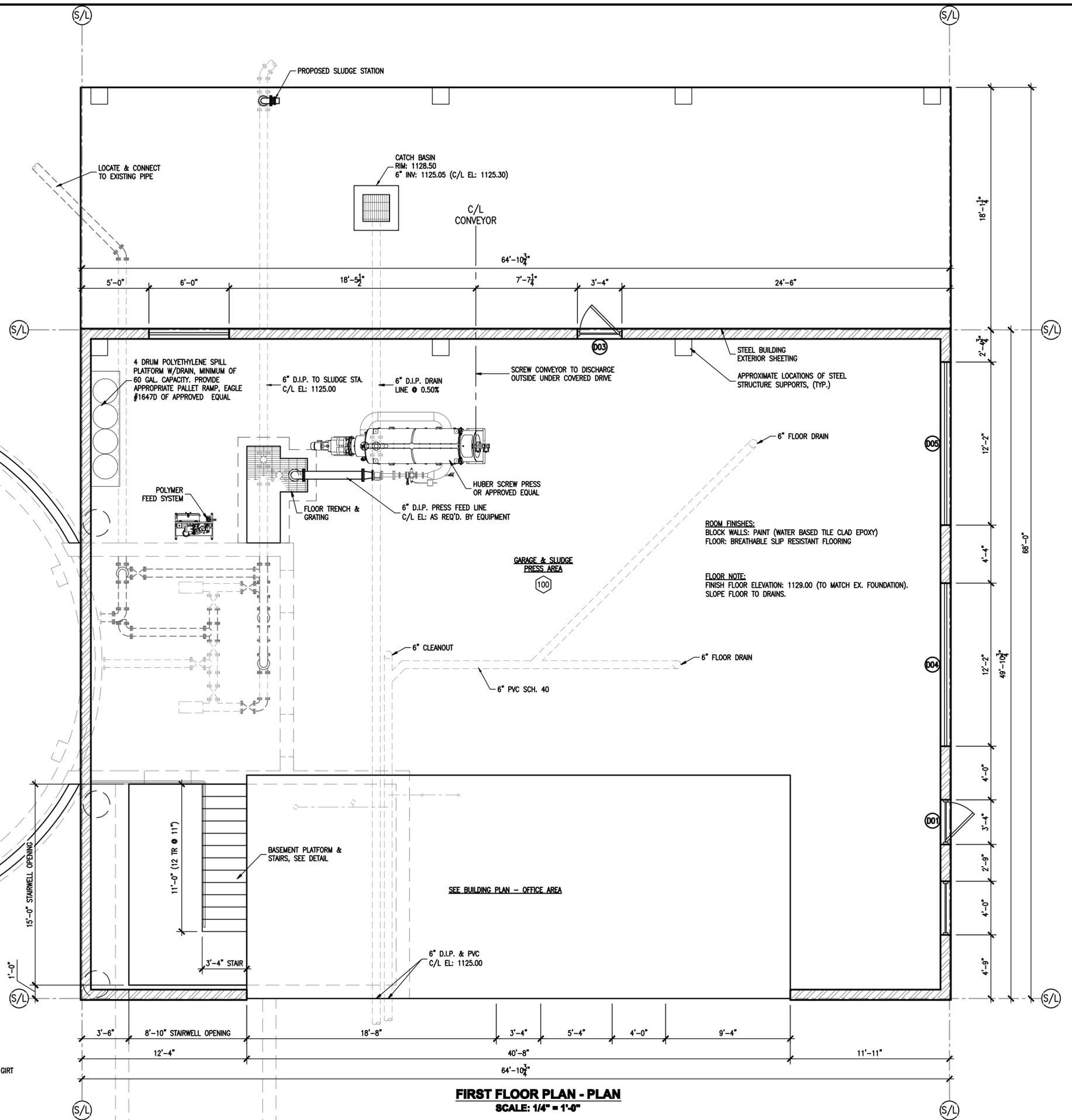
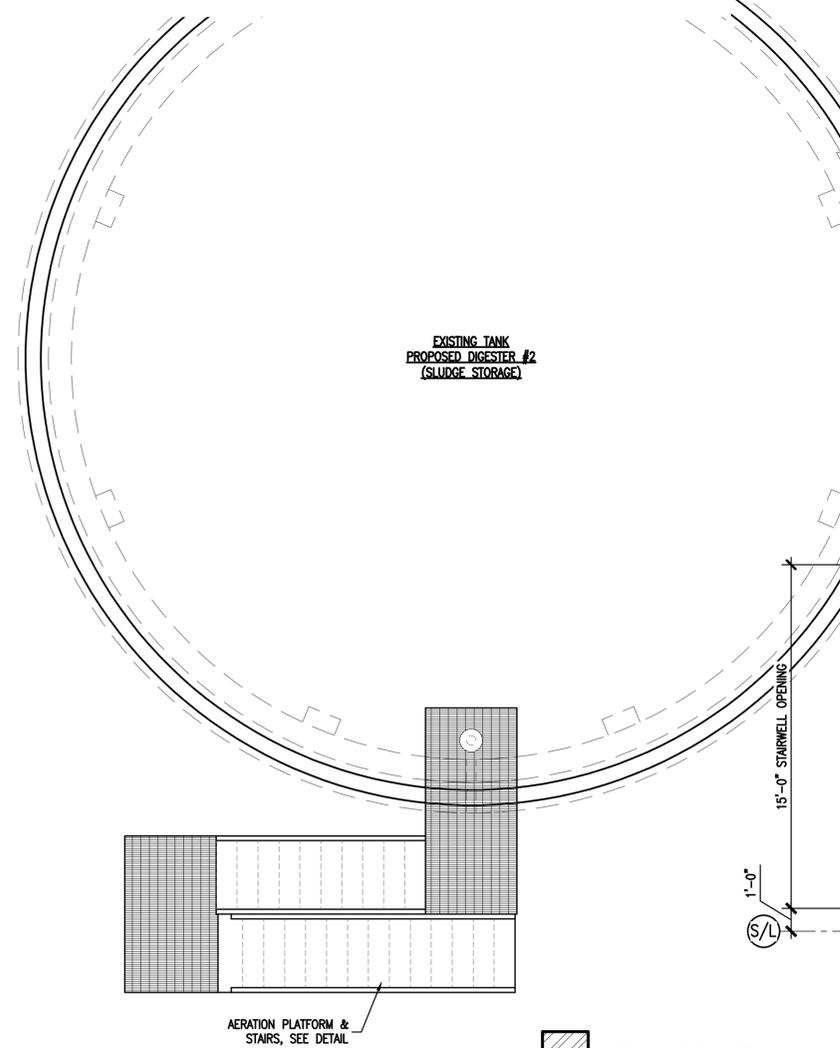
**WASTEWATER TREATMENT PLANT IMPROVEMENTS - PHASE I
BUILDING PLAN - FIRST FLOOR PLAN**

VILLAGE OF CRESTLINE

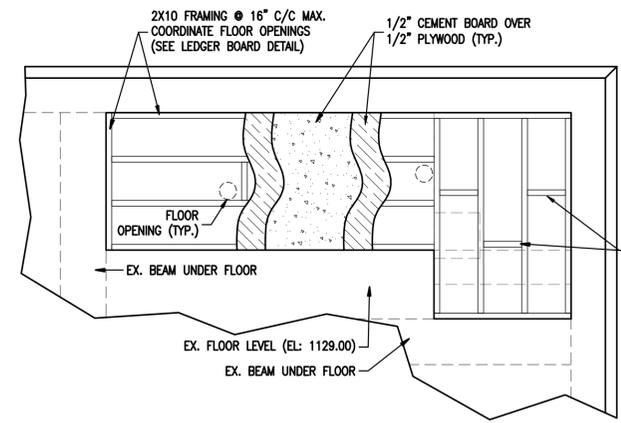


- NOTES:**
- HEIGHT OF EQUIPMENT DEPENDANT UPON ANGLE AND LENGTH OF SCREW CONVEYOR.
 - IF SCREW CONVEYOR IS NOT SELF SUPPORTING, LOADINGS TO BE HANDLED ON THE BUILDING. LOADINGS TO BE SUPPLIED TO BUILDING SUPPLIER FOR APPROPRIATE SUPPORT DESIGN.
 - LOCATION AND SIZE OF OPENING THROUGH WALL TO BE COORDINATED WITH THE BUILDING & SCREW CONVEYOR SUPPLIER.

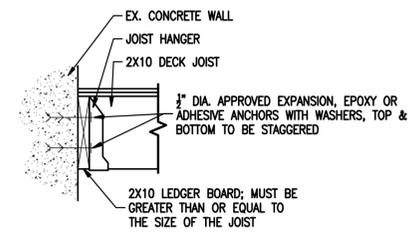
SLUDGE EQUIPMENT LAYOUT & SECTION
SCALE: 1/4" = 1'-0"



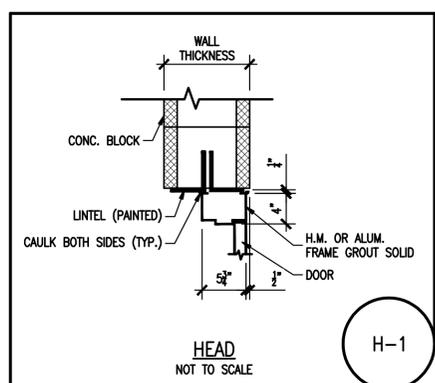
FIRST FLOOR PLAN - PLAN
SCALE: 1/4" = 1'-0"



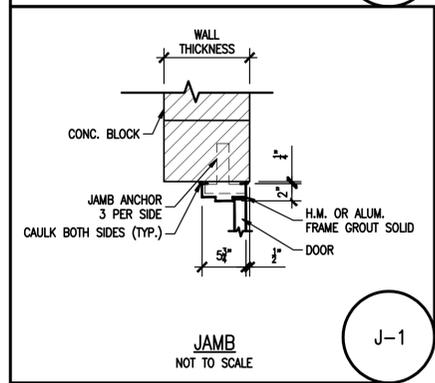
FLOOR OPENING DETAIL
SCALE: 1/2"=1'-0"



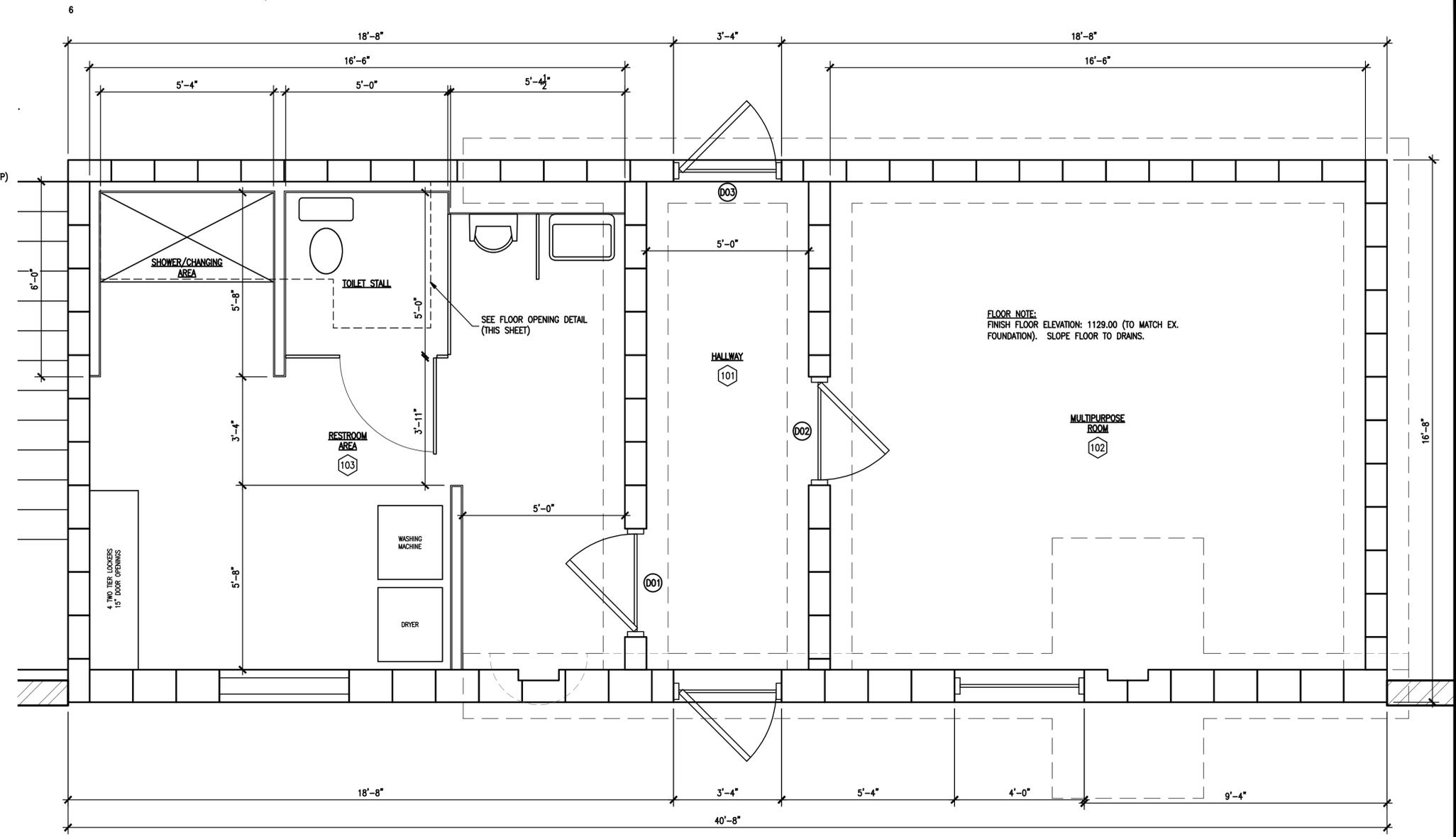
LEDGER BOARD DETAIL
SCALE: 1"=1'-0"



HEAD
NOT TO SCALE
H-1



JAMB
NOT TO SCALE
J-1



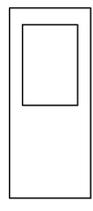
FLOOR NOTE:
FINISH FLOOR ELEVATION: 1129.00 (TO MATCH EX. FOUNDATION). SLOPE FLOOR TO DRAINS.

BLOCK BUILDING AREA - PLAN
SCALE: 1/2" = 1'-0"

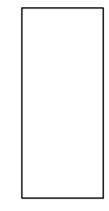
DOOR SCHEDULE										
#	DOOR DATA				WALL	TYPE	CONDITION	FRAME DATA		REMARKS
	WIDTH	HEIGHT	THICK.	MATERIAL				MATERIAL	DEPTH	
D01	3'-0"	6'-8"	1-3/4"	FIBERGLASS	B	H-1, J-1	FIBERGLASS	5"	-	
D02	3'-0"	6'-8"	1-3/4"	FIBERGLASS	B	H-1, J-1	FIBERGLASS	5"	-	
D03	3'-0"	6'-8"	1-3/4"	FIBERGLASS	A	H-1, J-1	FIBERGLASS	5"	-	

NOTES:

- DOOR HARDWARE SHALL CONSIST OF A KEYED LEVER LOCK DESIGN THAT IS ADA COMPLIANT. THIS HARDWARE SHALL BE CERTIFIED ANSI A156.2, 1989, SERIES 4000, GRADE 2. USE STANDARD SCHLAGE AL-SERIES OR APPROVED EQUAL.
- ALL MEANS OF EGRESS DOORS SHALL BE READILY OPENABLE FROM THE SIDE FROM WHICH EGRESS IS TO BE MADE WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE OR EFFORT.
- ALL NON-FIRE RESISTANCE RATED GLASS IN DOORS SHALL BE SAFETY GLAZED.



HALF-LITE
TYPE (A)



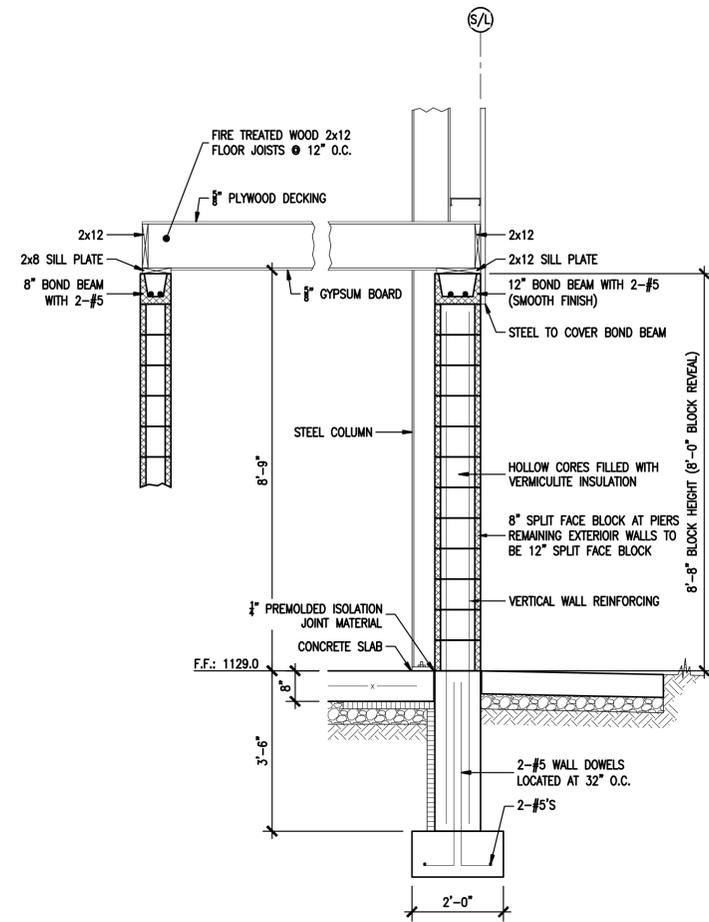
MAN DOOR
TYPE (B)

ROOM FINISH SCHEDULE																						
#	ROOM DATA	FLOOR		WALLS			WALLS			WALLS			CEILING				REMARKS					
		MAT'L	FINISH	FACE	MAT'L	FINISH	INSUL.	FACE	MAT'L	FINISH	INSUL.	FACE	MAT'L	FINISH	INSUL.	FACE		MAT'L	FINISH	INSUL.		
101	HALLWAY	CO	BSR	ALL	CB	PT	VP											GB	PT	8'-1"	BL	
102	MULTIPURPOSE ROOM	CO	BSR	ALL	CB	PT	VP											GB	PT	8'-1"	BL	
103	RESTROOM	CO	BSR	ALL	CB	PT	VP	SPEC.	WT	ST	RW							GB	PT	8'-1"	BL	SEE PLAN

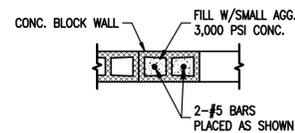
FINISH LEGEND

<p>FLOORS - MATERIALS</p> <p>CO: CONCRETE</p> <p>WALLS - MATERIALS</p> <p>GB: GYPSUM BOARD</p> <p>GB2: GYPSUM BOARD ON 2x4 WOOD STUDS</p> <p>GB3: GYPSUM BOARD ON METAL STUDS</p> <p>GB4: GYPSUM BOARD ON 2x2 STRIPS</p> <p>CB: CONCRETE BLOCK</p> <p>CO: CONCRETE C.I.P.</p> <p>WT: WOOD FRAME WITH TILE</p>	<p>CEILING - MATERIALS</p> <p>SA: SUSPENDED ACOUSTIC CEILING, TYPE 1</p> <p>GB: GYPSUM BOARD</p> <p>CO: CONCRETE</p> <p>WD: WOOD</p> <p>INSULATION - MATERIALS</p> <p>VP: VERMICULITE OR POLYURETHANE FOAM</p> <p>RC: RIGID TYPE CEILING</p> <p>RW: RIGID TYPE WALL</p> <p>BL: BLANKET BATT TYPE</p>	<p>FLOORS - FINISHES</p> <p>RT2: RUBBER FLOOR TILE, TYPE 2</p> <p>FS: FLOOR SEALER</p> <p>BSR: BREATHABLE SLIP RESISTANT FLOORING</p> <p>WALLS - FINISHES</p> <p>PT: PAINT (WATER BASED TILE CLAD EPOXY)</p> <p>UF: UNFINISHED</p> <p>ST: SEALED TILE</p> <p>CEILING - FINISHES</p> <p>PT: PAINT</p> <p>UF: UNFINISHED</p>
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NOTE: WALLS LISTED MORE THAN ONCE HAVE DIFFERENT CHARACTERISTICS AT DIFFERENT LOCATIONS ALONG THE WALL. CONSULT ENGINEER FOR EXPLANATION IF NECESSARY.

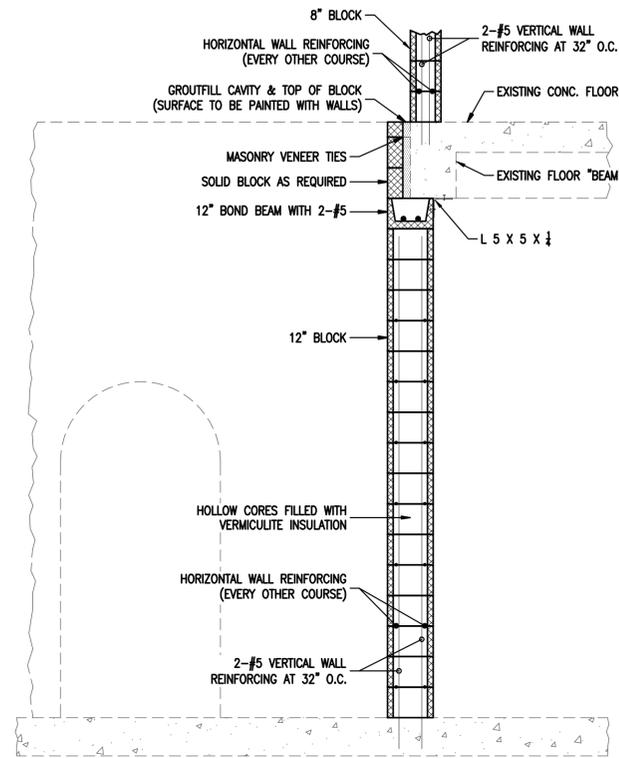


TYPICAL WALL SECTION
SCALE: 1/2"=1'-0"

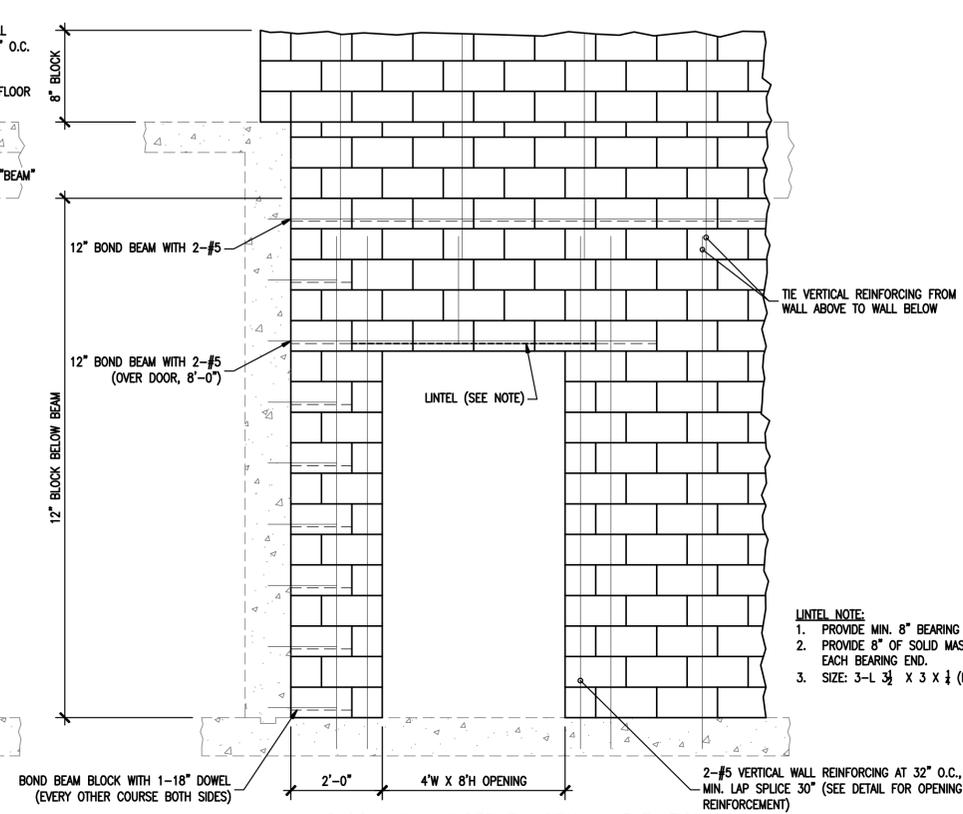


NOTE:
TYPICAL BOTH SIDES OF ALL BLOCK WALL OPENINGS.
ALL REMAINING BLOCK WALLS TO BE GROUTED AT 32" O.C.

BLOCK WALL OPENING REINFORCEMENT
SCALE: 1/2"=1'-0"



BLOCK WALL UNDER EX. BEAM - SECTION
SCALE: 1/2"=1'-0"



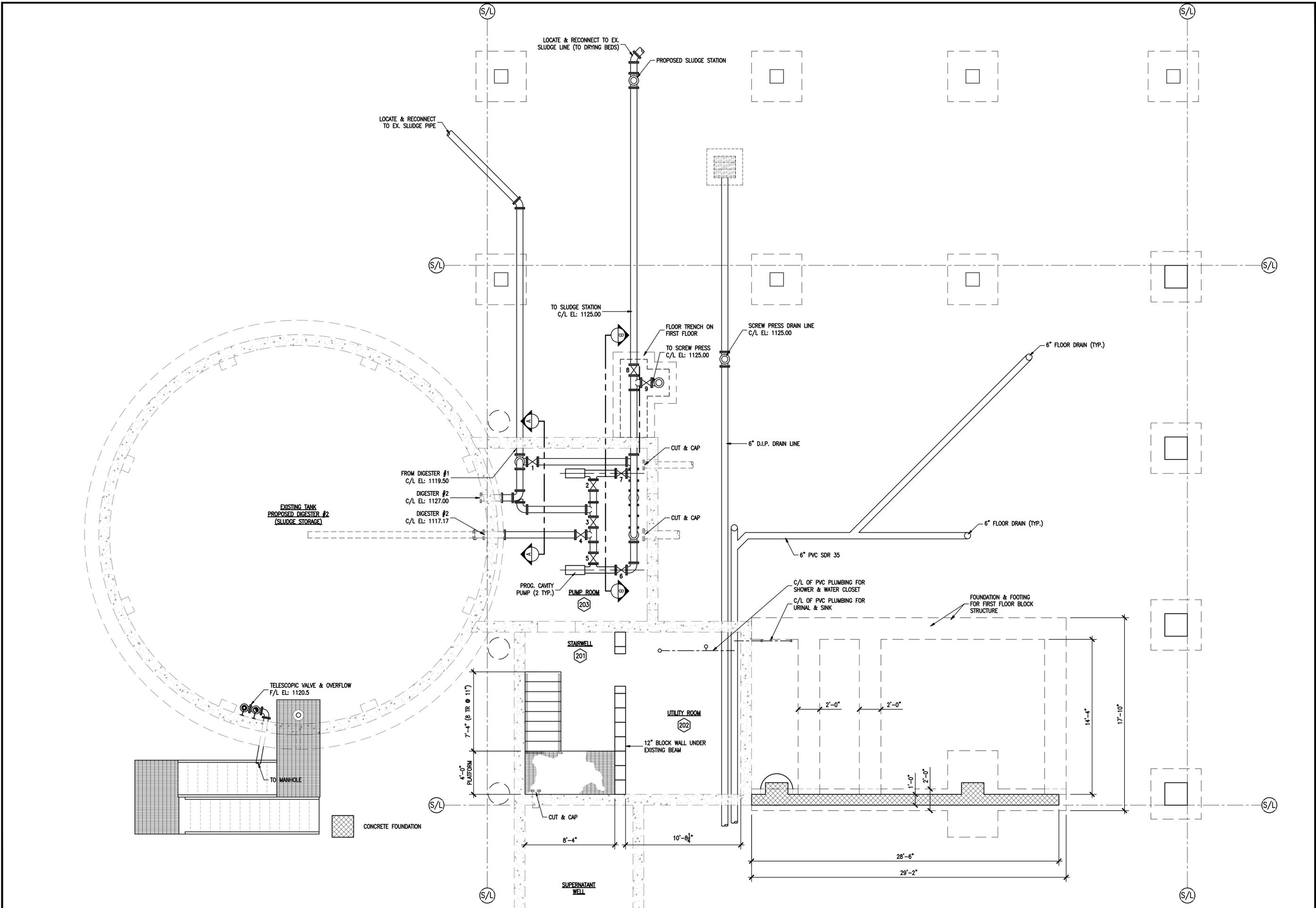
BLOCK WALL UNDER EX. BEAM - ELEVATION
SCALE: 1/2"=1'-0"

- LINTEL NOTE:
1. PROVIDE MIN. 8" BEARING AT EACH END.
 2. PROVIDE 8" OF SOLID MASONRY BELOW EACH BEARING END.
 3. SIZE: 3-L 3/4" X 3 X 1/4" (L.L.H.)

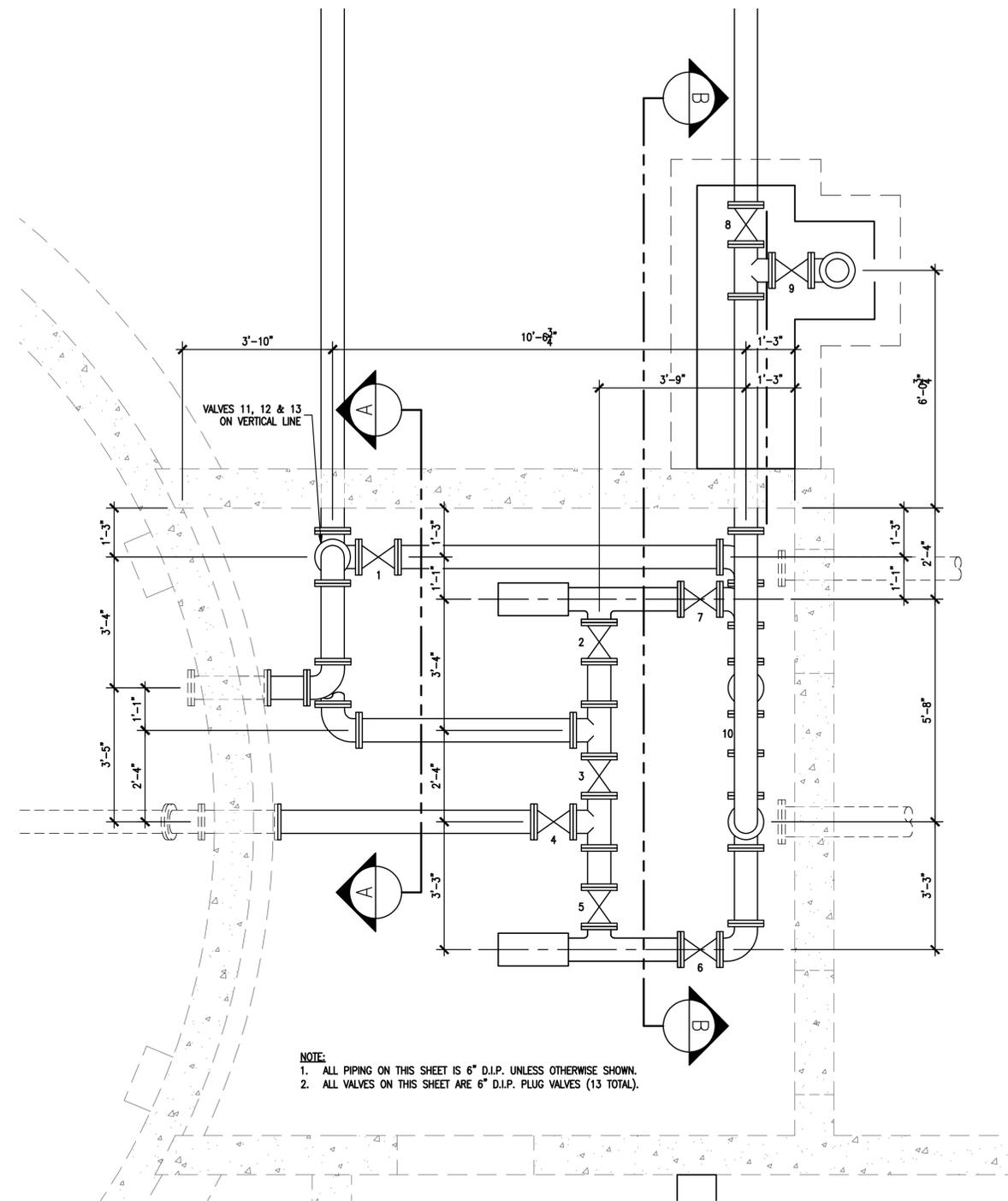
REV. NO.	DATE	CALCULATED	TN/JS	CHECKED	JS



WASTEWATER TREATMENT PLANT IMPROVEMENTS - PHASE I
BUILDING PLAN - BLOCK ENCLOSED AREA DETAILS

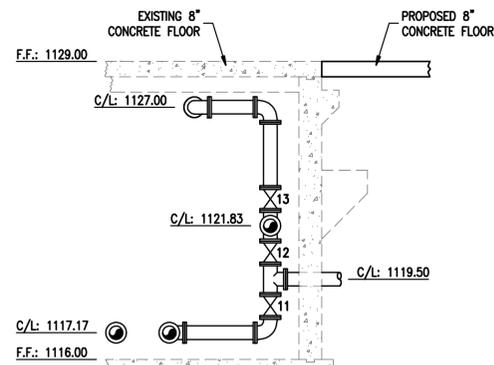


						
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CALCULATED	TM/JS					
DATE	CHECKED					
REV. NO.	JS					
 <small>GCI CONSULTING ENGINEERS 3535 South Hwy. 101, C Columbus, Ohio 43268 Phone: 614.291.1100 Fax: 614.291.1101 www.gciengineers.com</small>						
WASTEWATER TREATMENT PLANT IMPROVEMENTS - PHASE I BUILDING PLAN - BASEMENT AREA PLAN						
VILLAGE OF CRESTLINE						
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11						

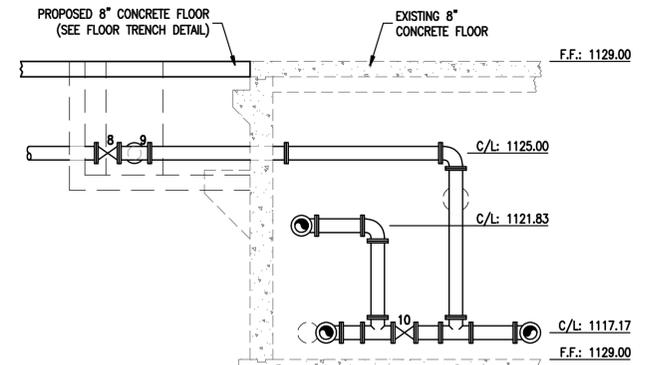


NOTE:
 1. ALL PIPING ON THIS SHEET IS 6" D.I.P. UNLESS OTHERWISE SHOWN.
 2. ALL VALVES ON THIS SHEET ARE 6" D.I.P. PLUG VALVES (13 TOTAL).

PUMP AREA ENLARGEMENT
 SCALE: 1/2"=1'-0"



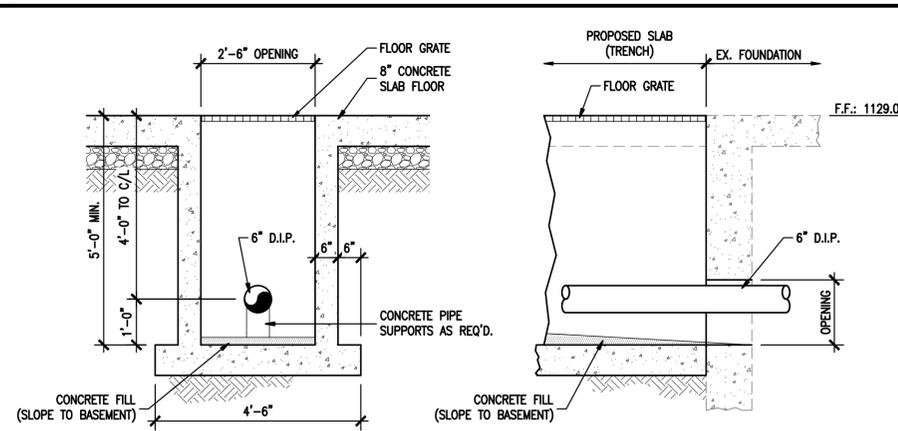
BASEMENT PIPING SECTION A-A
 SCALE: 1/4"=1'-0"



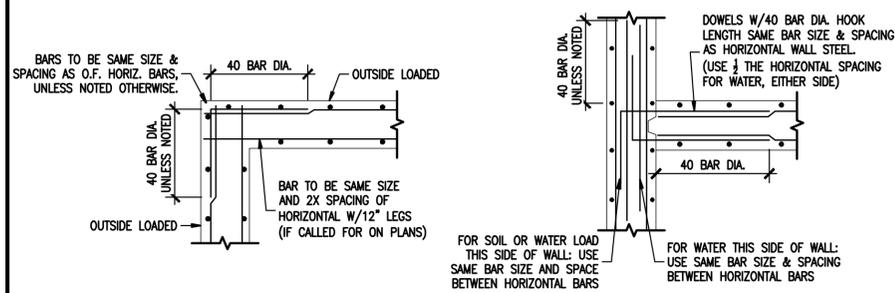
BASEMENT PIPING SECTION B-B
 SCALE: 1/4"=1'-0"

ROOM FINISH SCHEDULE																			
#	ROOM DATA NAME	FLOOR			WALLS			WALLS			WALLS			CELINGS			REMARKS		
		MAT'L	FINISH	FACE	MAT'L	FINISH	INSUL.	FACE	MAT'L	FINISH	INSUL.	FACE	MAT'L	FINISH	INSUL.				
201	STAIRWELL	CO	BSR	ALL	CB	PT										CO	PT	8'-1"	
202	UTILITY ROOM	CO	BSR	ALL	CB	PT										CO	PT	8'-1"	
203	PUMP ROOM	CO	BSR	ALL	CB	PT										CO	PT	8'-1"	

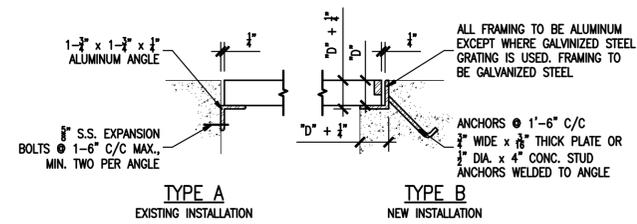
FINISH LEGEND																
FLOORS - MATERIALS					CEILING - MATERIALS					FLOORS - FINISHES						
CO: CONCRETE					SA: SUSPENDED ACOUSTIC CEILING, TYPE 1					RT2: RUBBER FLOOR TILE, TYPE 2						
WALLS - MATERIALS					GB: GYPSUM BOARD					FS: FLOOR SEALER						
GB: GYPSUM BOARD ON 2x4 WOOD STUDS					GC: GYPSUM BOARD					BSR: BREATHABLE SLIP RESISTANT FLOORING						
GB3: GYPSUM BOARD ON METAL STUDS					CO: CONCRETE					WALLS - FINISHES						
GB4: GYPSUM BOARD ON 2x2 STRIPS					WD: WOOD					PT: PAINT						
CB: CONCRETE BLOCK					INSULATION - MATERIALS					UF: UNFINISHED						
CO: CONCRETE					VF: VERMICULITE OR POLYURETHANE FOAM					ST: SEALED TILE						
WT: WOOD FRAME WITH TILE					RC: RIGID TYPE CEILING					CEILING - FINISHES						
					RW: RIGID TYPE WALL					PT: PAINT						
					BL: BLANKET BATT TYPE					UF: UNFINISHED						
NOTE:																
1. WALLS LISTED MORE THAN ONCE HAVE DIFFERENT CHARACTERISTICS AT DIFFERENT LOCATIONS ALONG THE WALL. CONSULT ENGINEER FOR EXPLANATION IF NECESSARY.																
2. WALL AND CEILING PAINT SHALL BE WATER BASED TILE CLAD EPOXY (873W00111) AS MANUFACTURED BY SHERWIN WILLIAMS OR APPROVED EQUAL.																



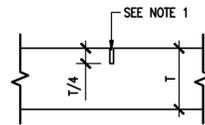
FLOOR TRENCH DETAIL
SCALE: 1/2"=1'-0"



TYPICAL CORNER REINFORCING DETAIL
SCALE: N.T.S.

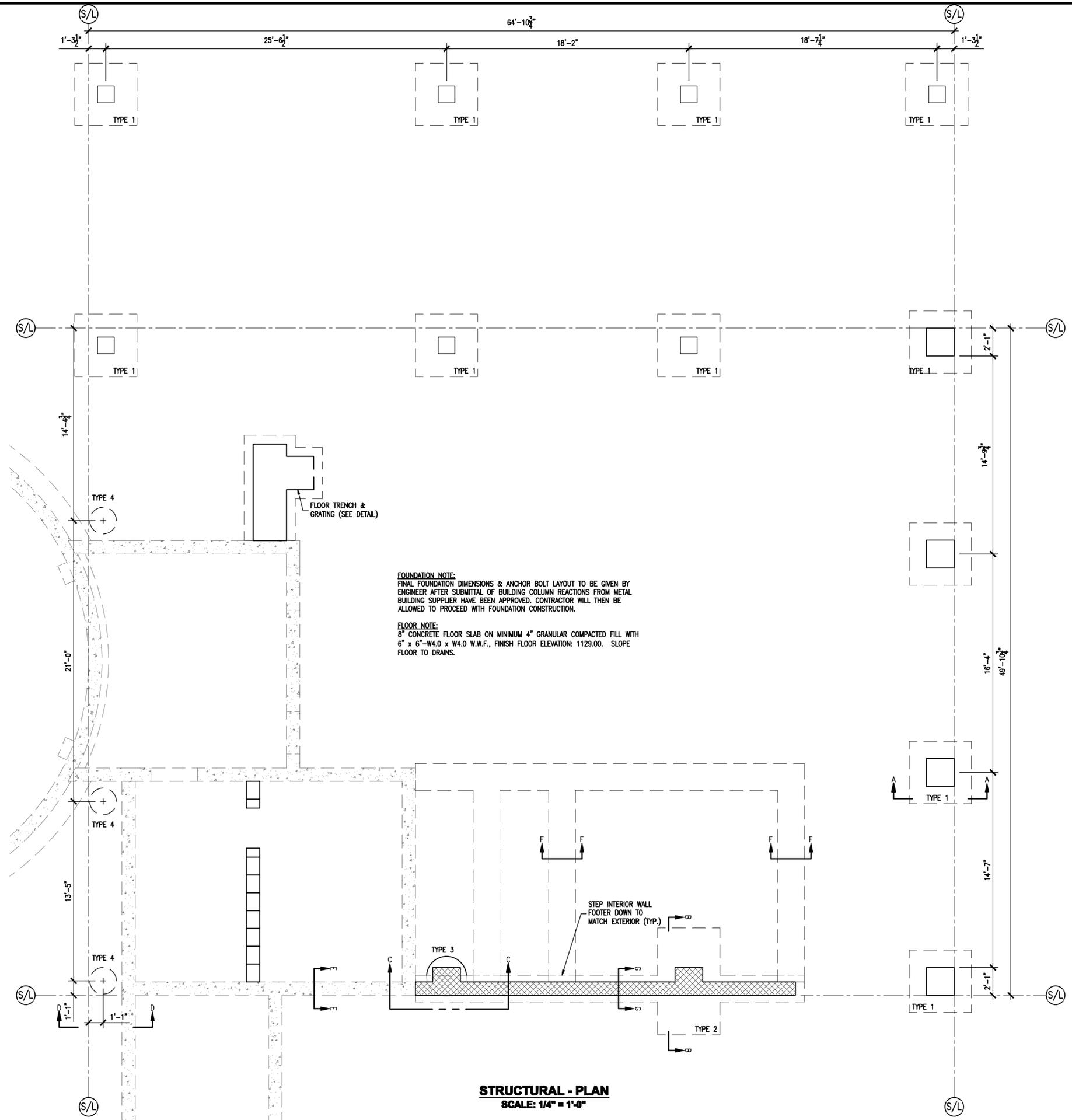


GRATING FRAMES DETAIL
NOT TO SCALE



- NOTES:**
1. "ZIP STRIP" PRE-MOLDED INSERT BY DEMAY INC., OR APPROVED EQUAL SHALL BE INSTALLED IN ACCORDANCE WITH THE MFG. RECOMMENDATIONS.
 2. APPLY BOND BREAKER SUCH AS FOIL OR POLYETHYLENE TAPE BETWEEN FILLER MATERIAL AND JOINT SEALER ONLY. SEALER SHALL ADHERE TO BOTH CONCRETE SURFACES ONLY.

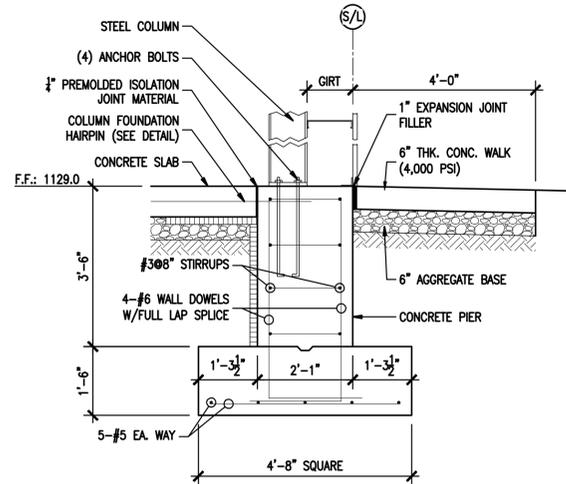
CONTROL JOINT DETAIL
SCALE: 1"=1'-0"



FOUNDATION NOTE:
FINAL FOUNDATION DIMENSIONS & ANCHOR BOLT LAYOUT TO BE GIVEN BY ENGINEER AFTER SUBMITTAL OF BUILDING COLUMN REACTIONS FROM METAL BUILDING SUPPLIER HAVE BEEN APPROVED. CONTRACTOR WILL THEN BE ALLOWED TO PROCEED WITH FOUNDATION CONSTRUCTION.

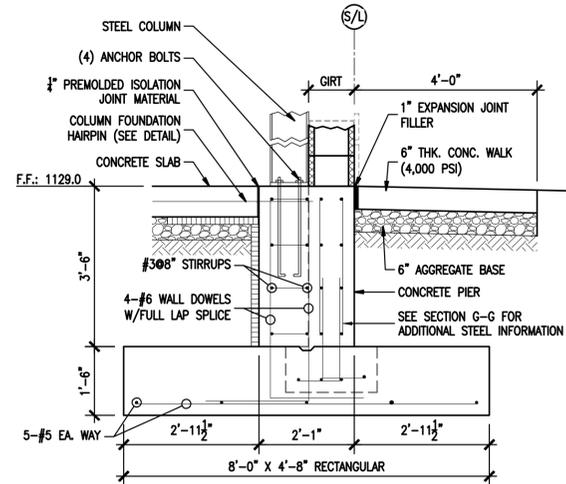
FLOOR NOTE:
8" CONCRETE FLOOR SLAB ON MINIMUM 4" GRANULAR COMPACTED FILL WITH 6" x 6"-W4.0 x W4.0 W.W.F., FINISH FLOOR ELEVATION: 1129.00. SLOPE FLOOR TO DRAINS.

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



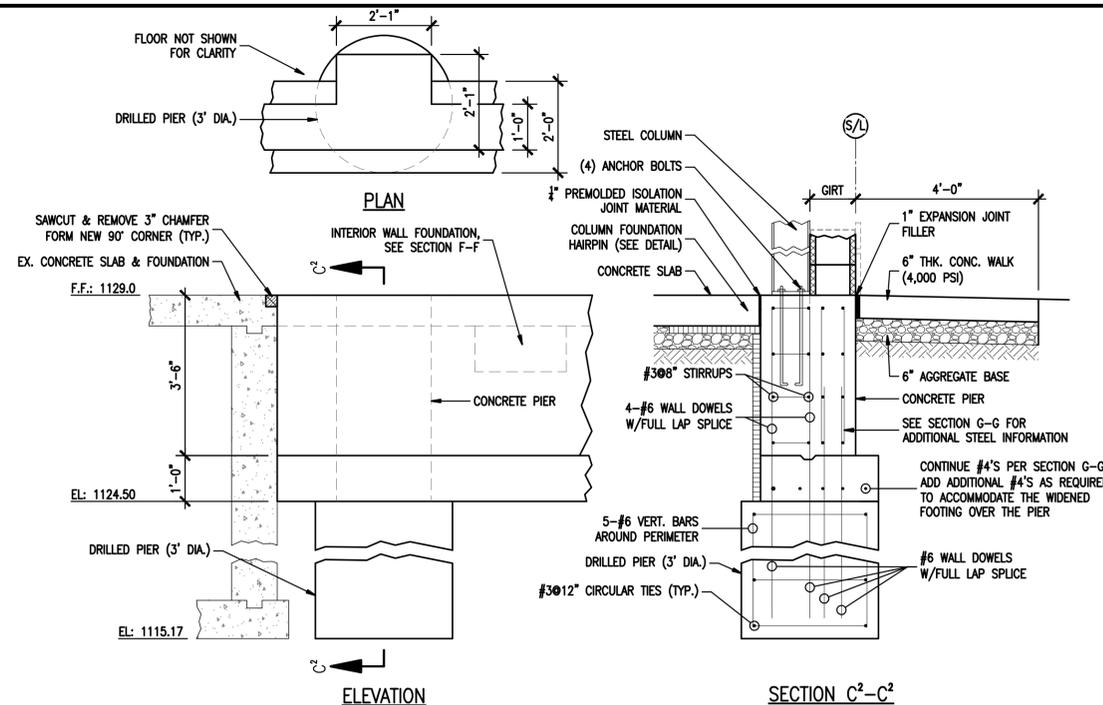
NOTES:
 • ALL FOUNDATIONS TO BEAR ON COMPACTED, STRUCTURAL FILL, SEE FOUNDATION NOTE.

SECTION A-A
 COLUMN TYPE 1 - PIER & FOUNDATION DETAIL
 SCALE: 1/2"=1'-0"

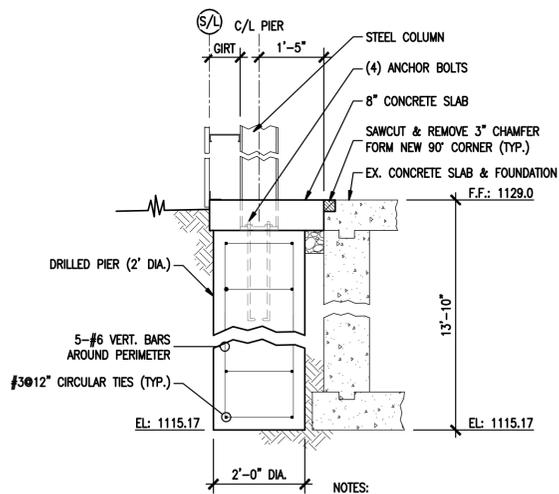


NOTES:
 • ALL FOUNDATIONS TO BEAR ON COMPACTED, STRUCTURAL FILL, SEE FOUNDATION NOTE.

SECTION B-B
 COLUMN TYPE 2 - PIER & FOUNDATION DETAIL
 SCALE: 1/2"=1'-0"

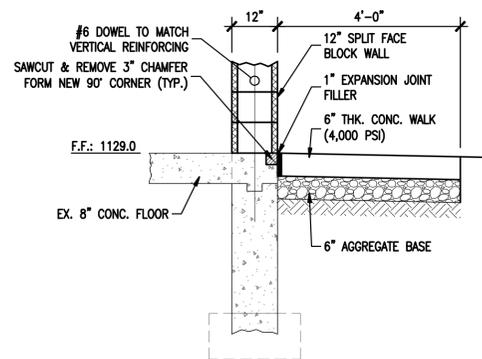


SECTION C-C
 COLUMN TYPE 3 - PIER & FOUNDATION DETAIL
 SCALE: 1/2"=1'-0"

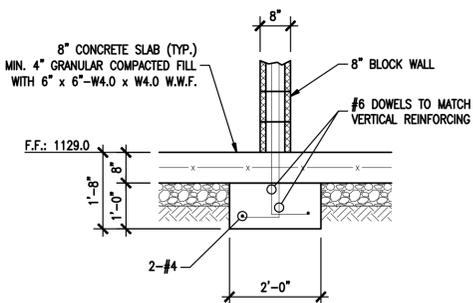


NOTES:
 • ALL FOUNDATIONS TO BEAR ON COMPACTED, STRUCTURAL FILL, SEE FOUNDATION NOTE.

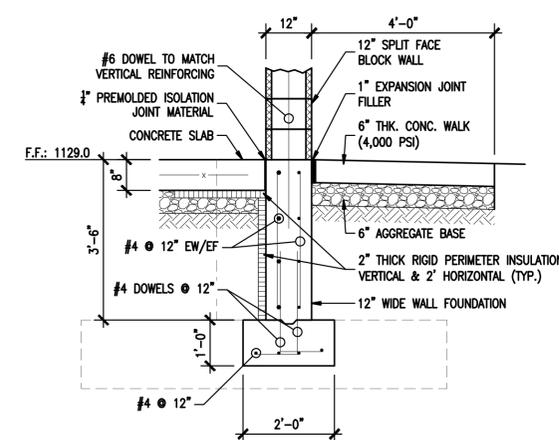
SECTION D-D
 COLUMN TYPE 4 - PIER & FOUNDATION DETAIL
 SCALE: 1/2"=1'-0"



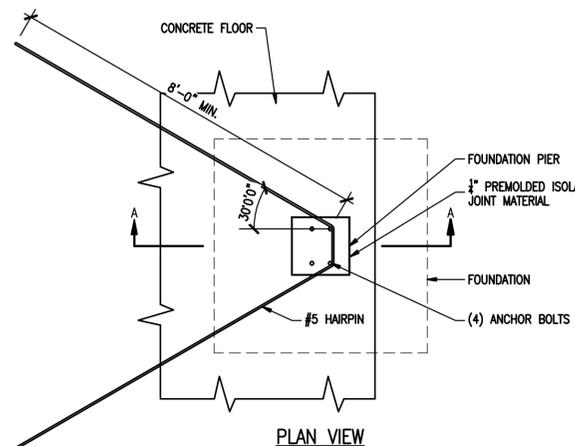
SECTION E-E
 FOUNDATION SECTION 12" BLOCK
 OVER EXISTING BASEMENT
 SCALE: 1/2"=1'-0"



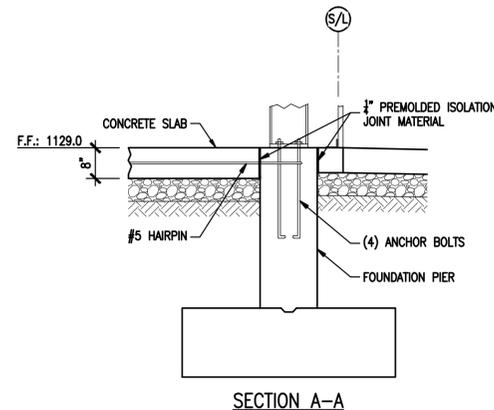
SECTION F-F
 FOUNDATION SECTION UNDER 8" BLOCK
 SCALE: 1/2"=1'-0"



SECTION G-G
 FOUNDATION SECTION UNDER 12" BLOCK
 SCALE: 1/2"=1'-0"

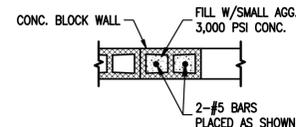


TYPICAL FOUNDATION WITH HAIRPIN DETAIL
 SCALE: 1/2"=1'-0"



BLOCK WALL OPENING REINFORCEMENT
 SCALE: 1/2"=1'-0"

FOUNDATION NOTE:
 FINAL FOUNDATION DIMENSIONS & ANCHOR BOLT LAYOUT TO BE GIVEN BY ENGINEER AFTER SUBMITTAL OF BUILDING STRUCTURE, EXTENDING THE FULL DEPTH OF THE SIDEWALK. COLUMN REACTIONS FROM METAL BUILDING SUPPLIER HAVE BEEN APPROVED. CONTRACTOR WILL THEN BE ALLOWED TO PROCEED WITH FOUNDATION CONSTRUCTION.



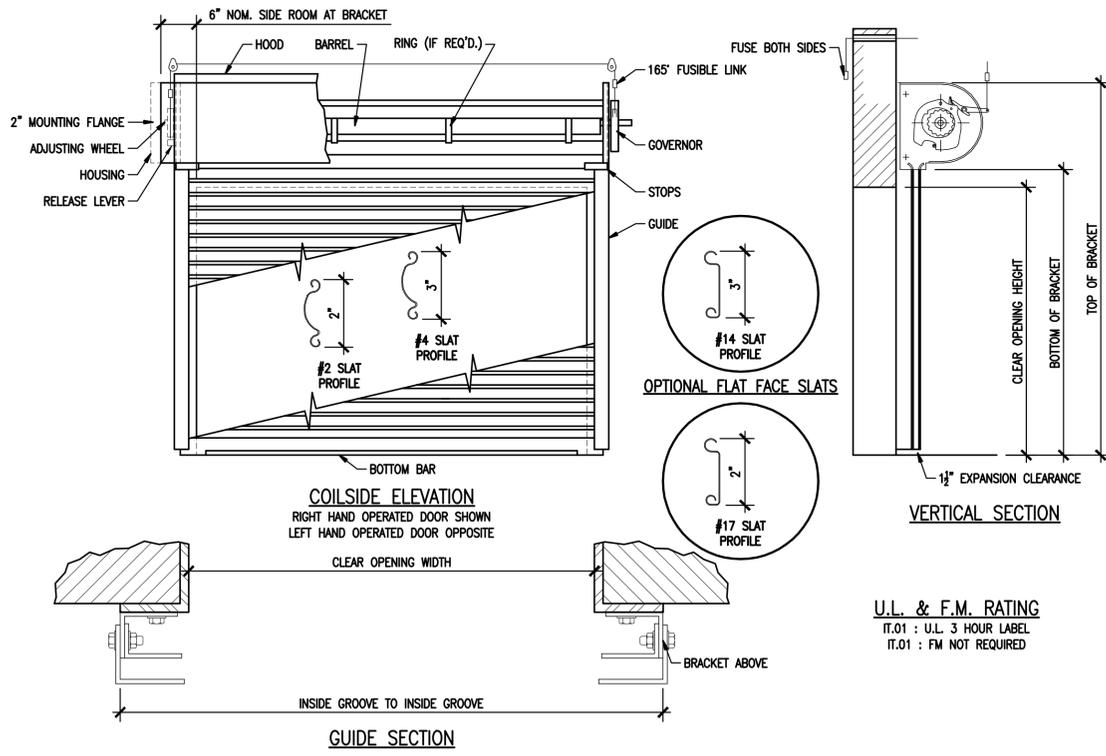
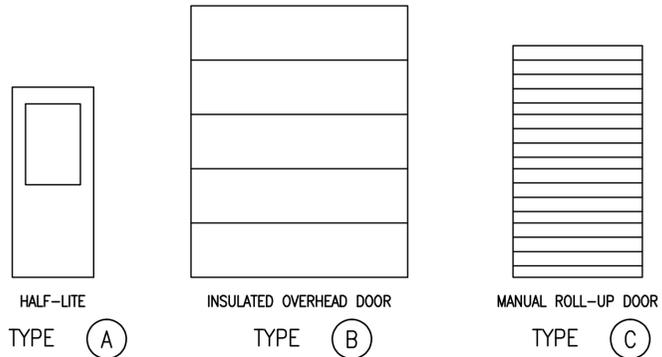
NOTES:
 • WALK TO BE DIVIDED INTO SPACED BLOCKS AT APPROXIMATELY 5'-0" INTERVALS.
 • 1" THICK EXPANSION JOINT FILLER SHALL BE INSTALLED BETWEEN WALK AND ANY FIXED STRUCTURE, EXTENDING THE FULL DEPTH OF THE SIDEWALK.
 • APPLY 2 COATS OF ANTI-SPALLING COMPOUND, 3 WEEKS AFTER CONCRETE IS POURED.
 • INSTALL PER MFG. RECOMMENDATIONS, ALLOWING PROPER DRYING TIME BETWEEN COATS.
 • THIS DETAIL APPLIES TO ALL WALKS AND PADS DIRECTLY ADJACENT TO THE BUILDING. SEE THE SIDEWALK DETAIL INCLUDED ON THE SITE DETAILS SHEET FOR ALL OTHER WALKS.

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

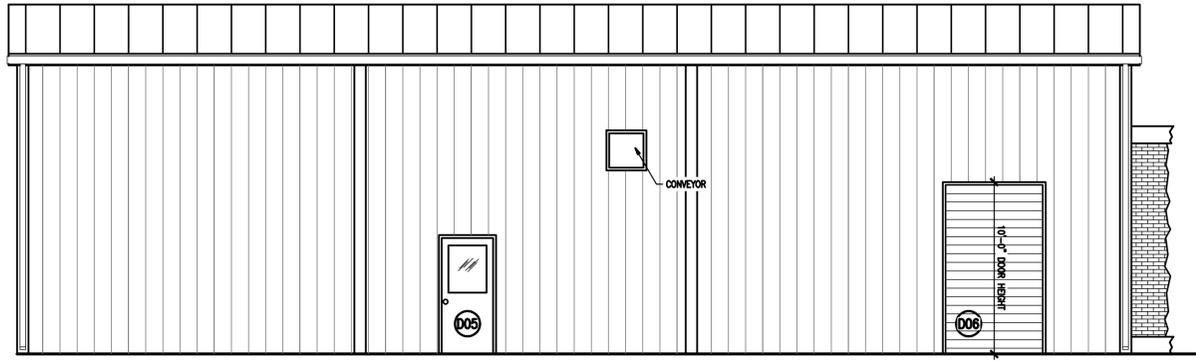
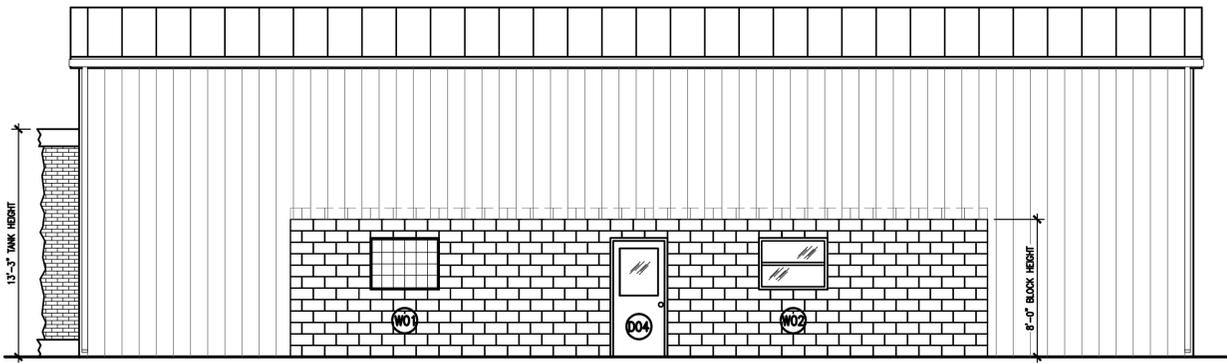
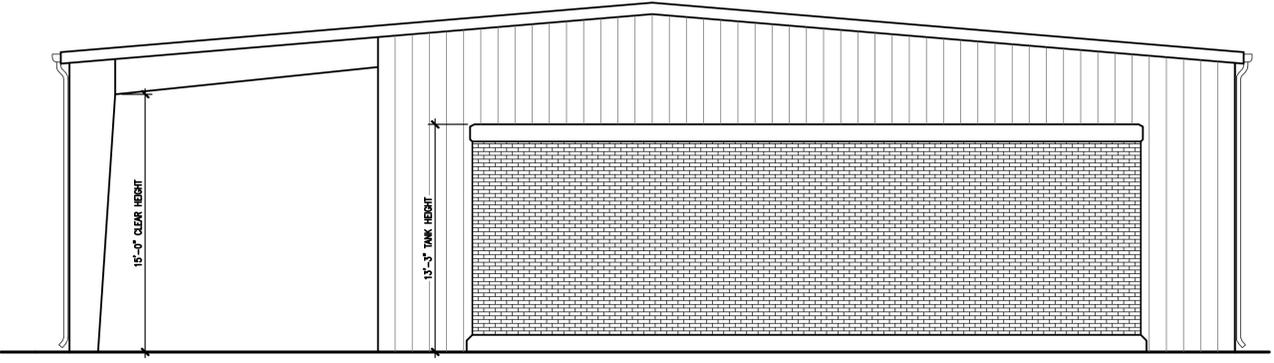
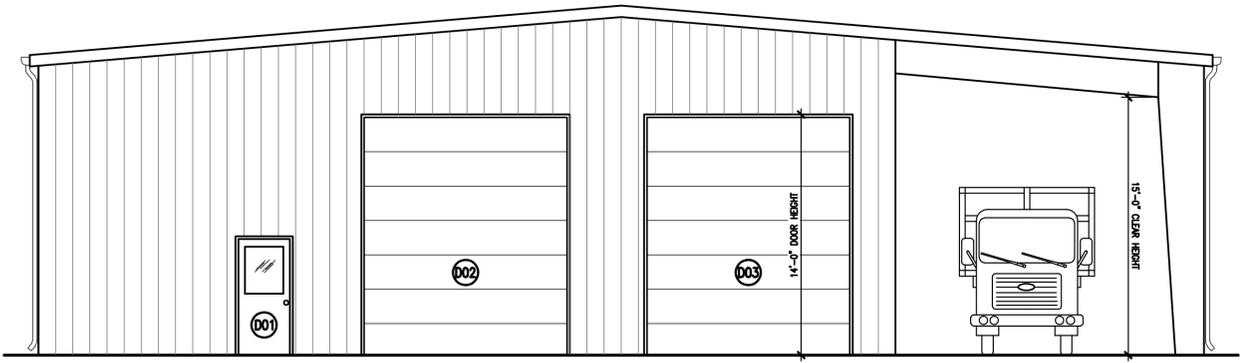
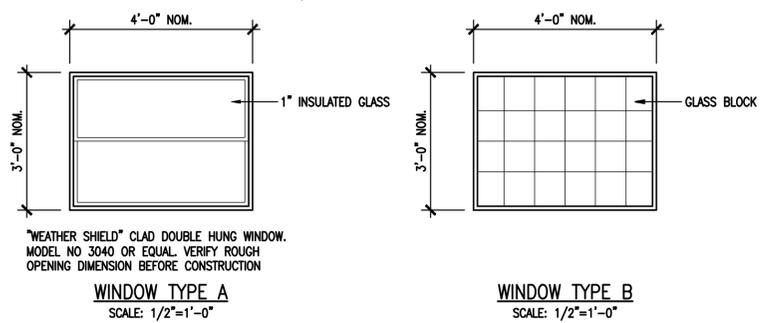
DOOR SCHEDULE									
#	DOOR DATA				WALL	FRAME DATA		REMARKS	
	WIDTH	HEIGHT	THICK.	MATERIAL		TYPE	MATERIAL		DEPTH
1	3'-0"	6'-8"	1-3/4"	FIBERGLASS	A	H-1, J-1	FIBERGLASS	5"	-
2	12'-2"	14'-0"		STEEL	B		STEEL		-
3	12'-2"	14'-0"		STEEL	B		STEEL		-
4	3'-0"	6'-8"	1-3/4"	FIBERGLASS	A	H-1, J-1	FIBERGLASS	5"	-
5	3'-0"	6'-8"	1-3/4"	FIBERGLASS	A	H-1, J-1	FIBERGLASS	5"	-
6	6'-0"	10'-0"		STEEL	C		STEEL		-

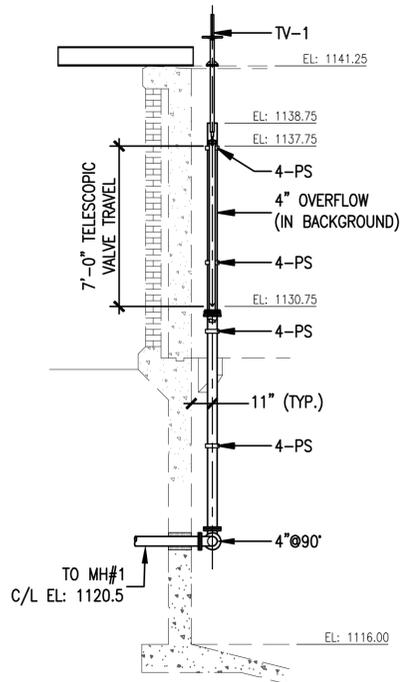
NOTES:

- DOOR HARDWARE SHALL CONSIST OF A KEYS LEVER LOCK DESIGN THAT IS ADA COMPLIANT. THIS HARDWARE SHALL BE CERTIFIED ANSI A156.2, 1989, SERIES 4000, GRADE 2. USE STANDARD SCHLAGE AL-SERIES OR APPROVED EQUAL.
- ALL MEANS OF EGRESS DOORS SHALL BE READILY OPENABLE FROM THE SIDE FROM WHICH EGRESS IS TO BE MADE WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE OR EFFORT.
- ALL NON-FIRE RESISTANCE RATED GLASS IN DOORS SHALL BE SAFETY GLAZED.

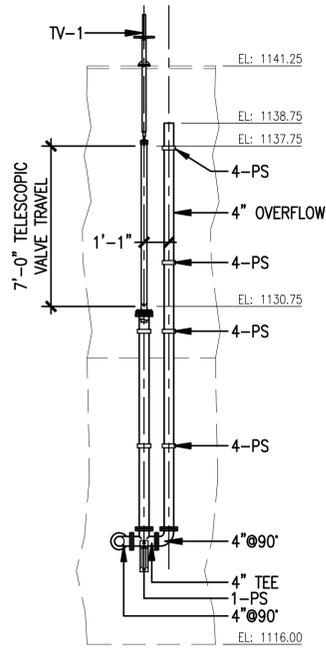


WINDOW SCHEDULE					
#	SIZE		FRAME MATERIAL	TYPE	LINTEL
	WIDTH	HEIGHT			
1	4'-0"	3'-0"	ALUMINUM	A	L1
2	4'-0"	3'-0"	ALUMINUM	B	L1

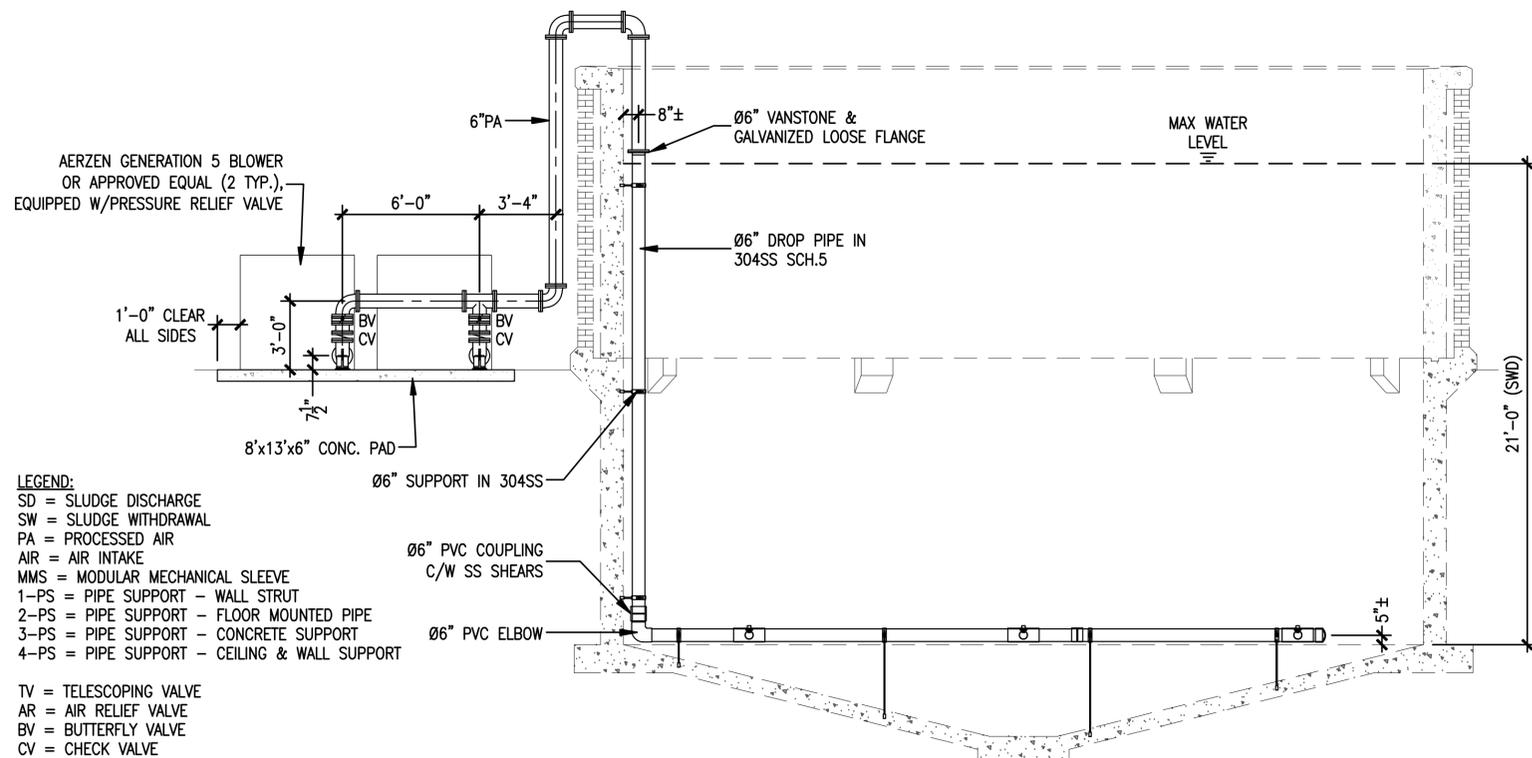




**SECTION B-B
TELESCOPIC VALVE**
SCALE: 1/4" = 1'-0"

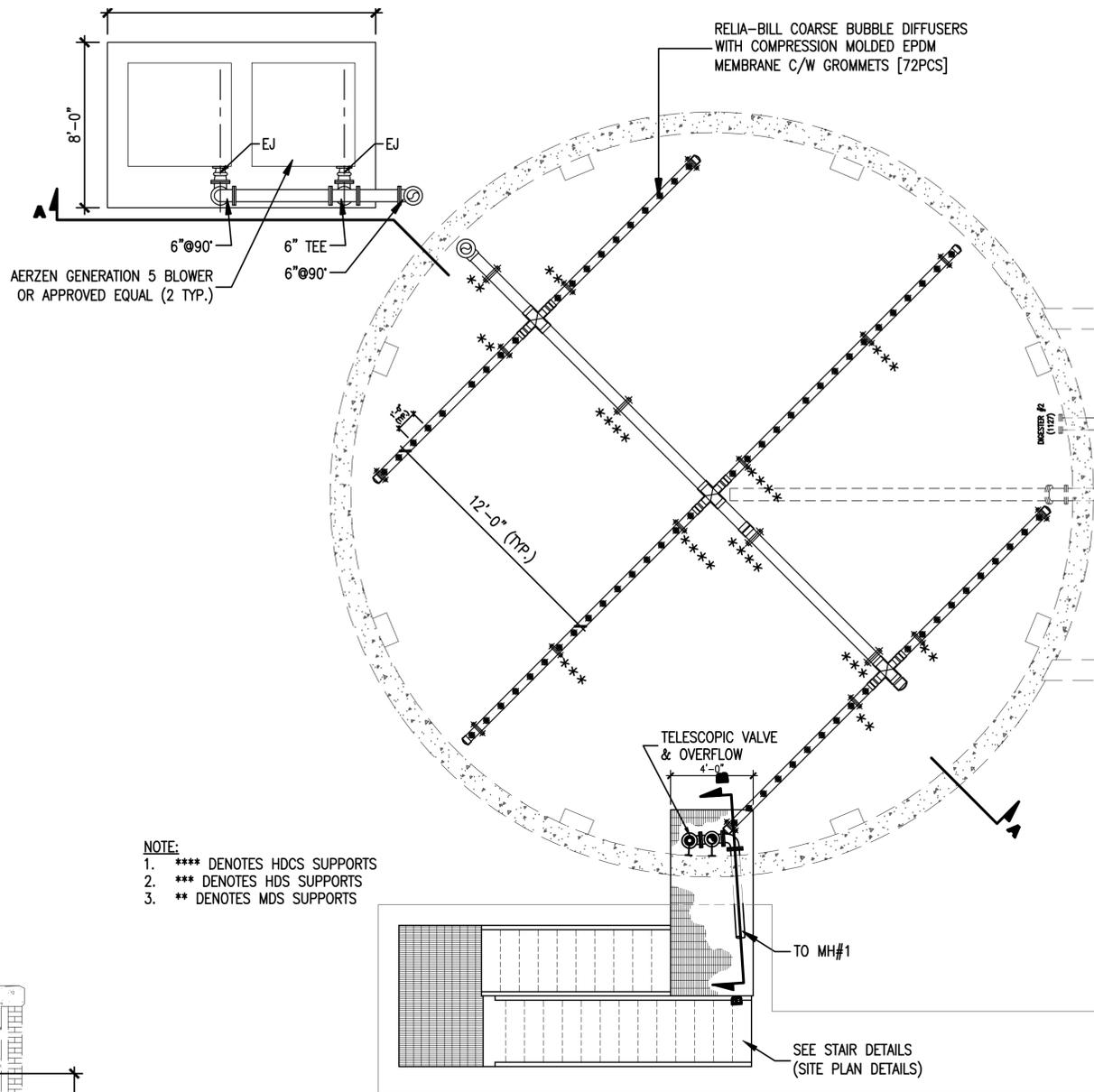


**ELEVATION
TELESCOPIC VALVE**
SCALE: 1/4" = 1'-0"



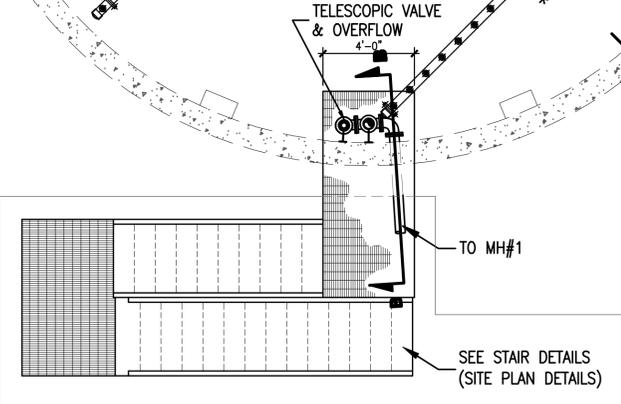
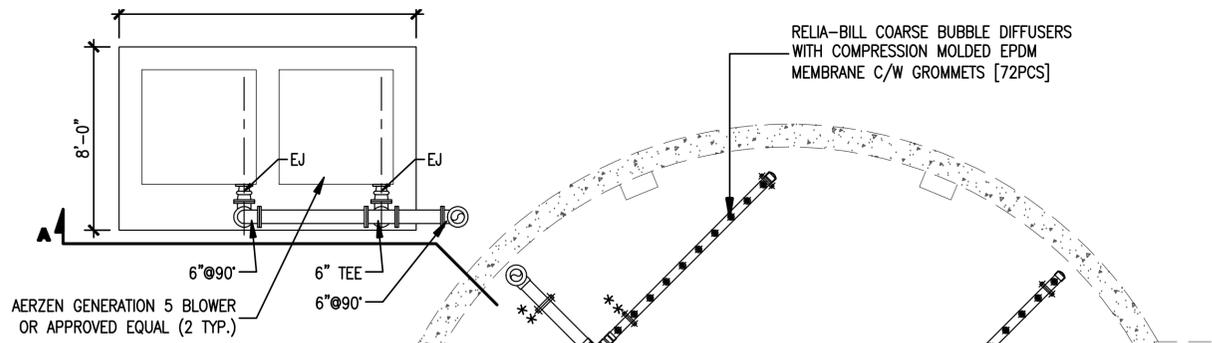
SECTION A-A
SCALE: 1/4" = 1'-0"

- LEGEND:**
SD = SLUDGE DISCHARGE
SW = SLUDGE WITHDRAWAL
PA = PROCESSED AIR
AIR = AIR INTAKE
MMS = MODULAR MECHANICAL SLEEVE
1-PS = PIPE SUPPORT - WALL STRUT
2-PS = PIPE SUPPORT - FLOOR MOUNTED PIPE
3-PS = PIPE SUPPORT - CONCRETE SUPPORT
4-PS = PIPE SUPPORT - CEILING & WALL SUPPORT
TV = TELESCOPING VALVE
AR = AIR RELIEF VALVE
BV = BUTTERFLY VALVE
CV = CHECK VALVE
PV = PLUG VALVE
HW = HAND WHEEL



**PLAN VIEW - DIGESTER
AERATION CONVERSION**
SCALE: 1/4" = 1'-0"

- NOTE:**
1. **** DENOTES HDCS SUPPORTS
2. *** DENOTES HDS SUPPORTS
3. ** DENOTES MDS SUPPORTS



RELIA-BILL COARSE BUBBLE DIFFUSERS
WITH COMPRESSION MOLDED EPDM
MEMBRANE C/W GROMMETS [72PCS]