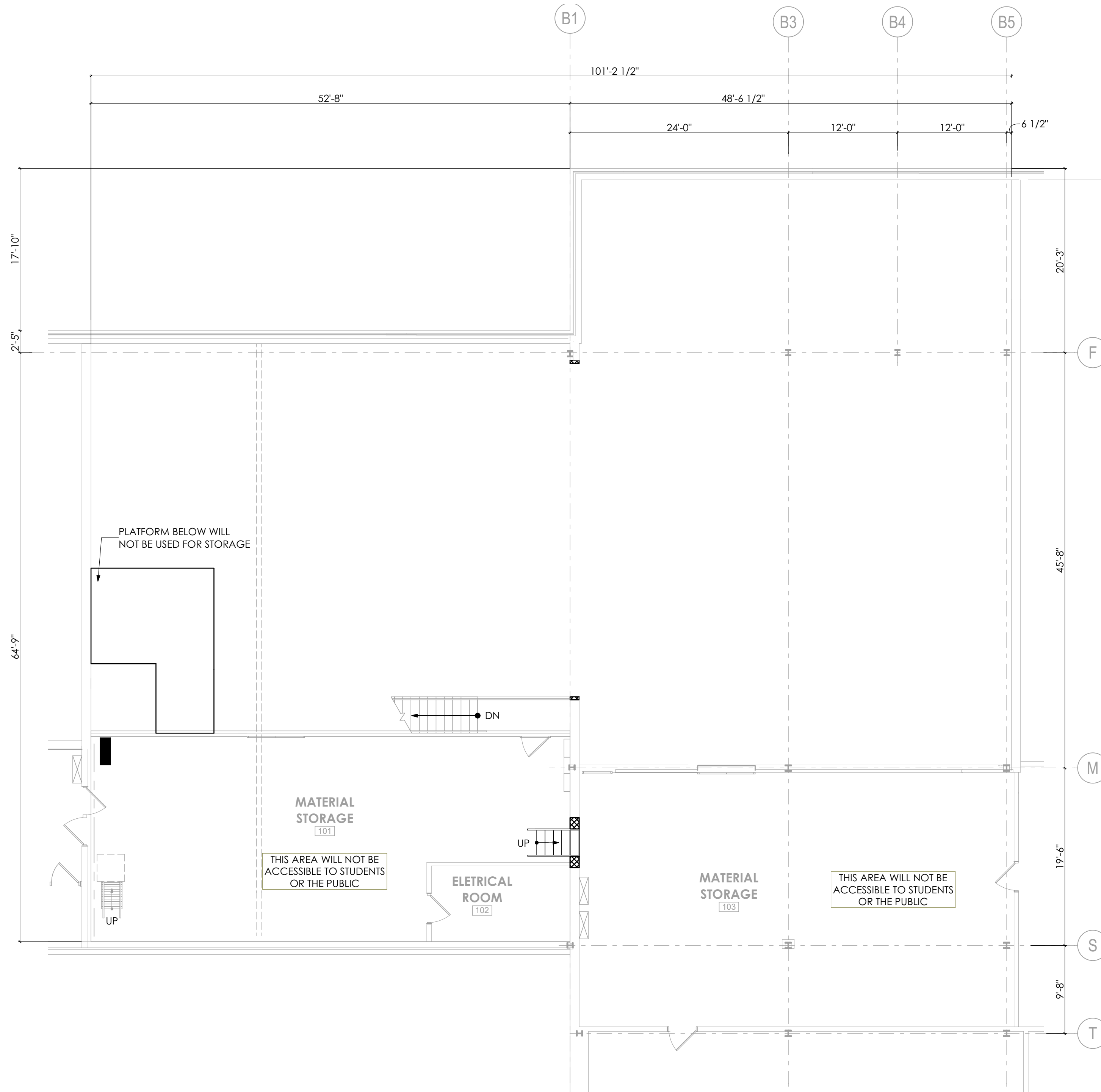


1 LIFE SAFETY PLAN - FIRST FLOOR
 SCALE: 1/8" = 1'-0"

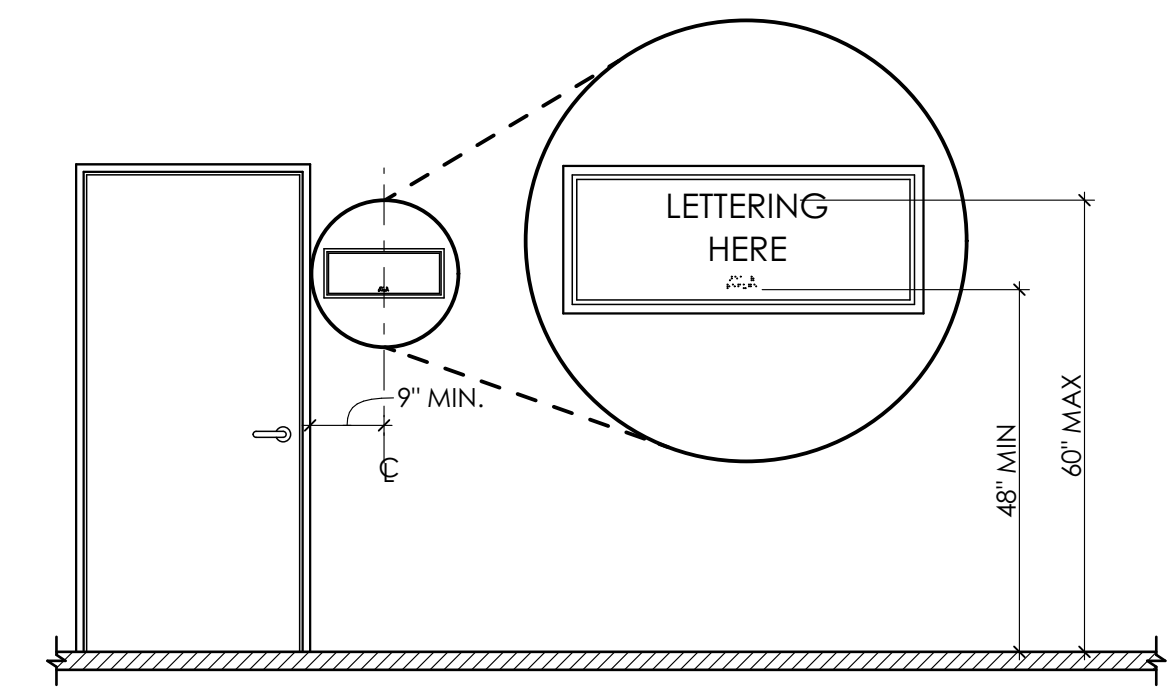
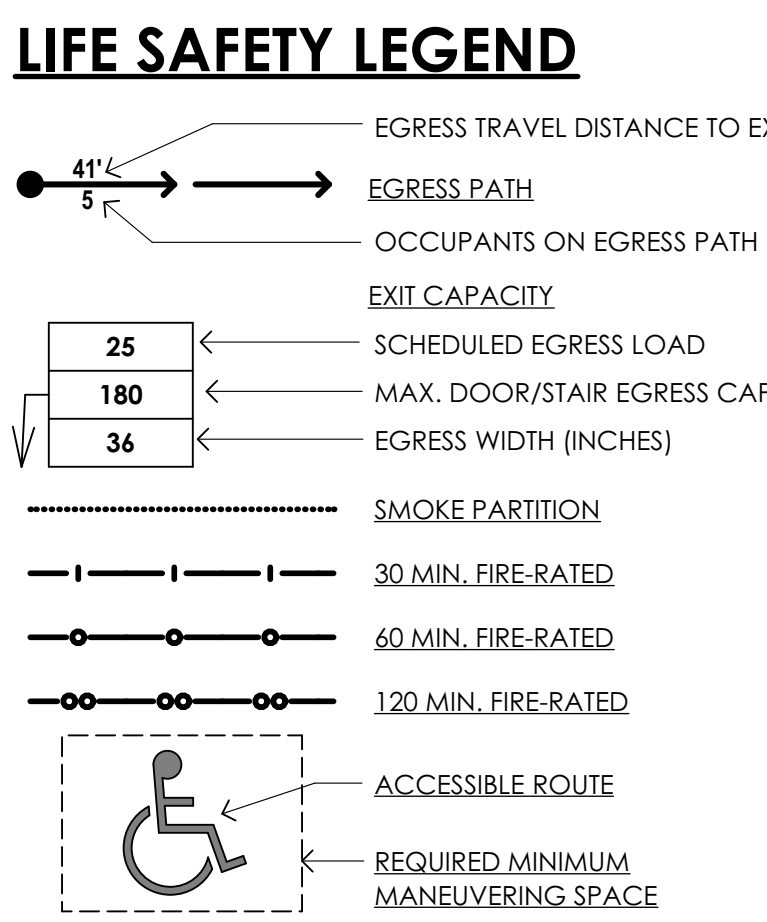


2 LIFE SAFETY PLAN - MEZZANINE
 SCALE: 1/8" = 1'-0"

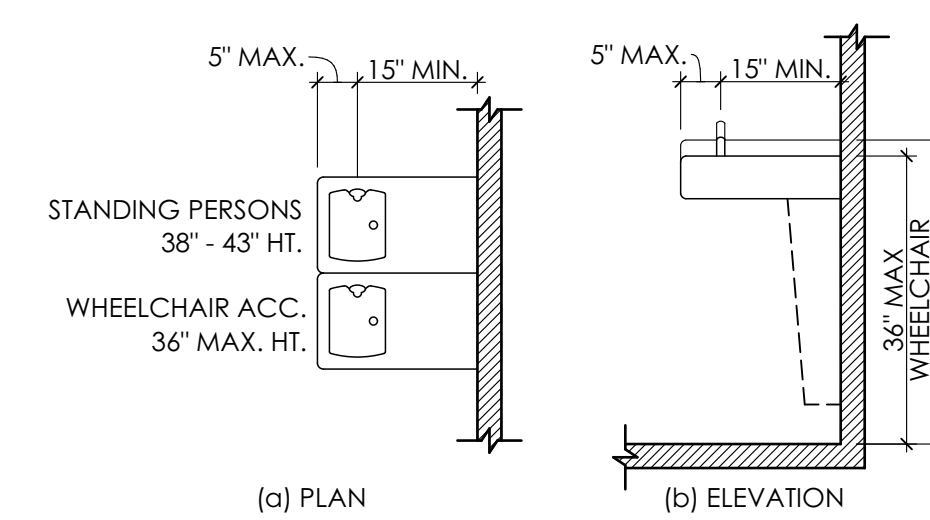
BUILDING CODE SUMMARY		APPLICABLE CODES AND ORDINANCES		
PROJECT SCOPE: INTERIOR RENOVATIONS TO CREATE NEW ENLARGED CLASSROOM		2015 IBC: ALL APPLICABLE CHAPTERS 2015 IBC: CHAPTER 8 - LEVEL 2 ALTERATION ANSI 117.1, 2009 EDITION: ALL APPLICABLE CHAPTERS 2018 IBC: CHAPTER 11 ONLY		
BUILDING AND PROJECT DATA				
BUILDING DESCRIPTION AND USE	1 STORY WITH MEZZANINE	EDUCATION		
CLASSIFICATION OF WORK	CHAPTER 8	LEVEL 2 ALTERATION		
IBC 2015		REQUIRED	PROVIDED	
USE AND OCCUPANCY	CHAPTER 3	E- EDUCATIONAL		
CONSTRUCTION TYPE	SECTION 402 AND TABLE 601	TYPE II-B (ASSUMED EXISTING)		
AUTOMATIC SPRINKLER SYSTEM	SECTION 903	YES	YES (EXISTING)	
BUILDING HEIGHT	TABLE 504.3	55' MAX.	APPX. 26'-8"	
BUILDING STORIES	TABLE 504.4	2 STORIES	1 STORIES	
FLOOR AREA / STORY	TABLE 506.2	58,000 (S1)		
OVERALL FLOOR AREA		176,000 SQ. FT.		
AREA OF WORK		7,500		
MEZZANINE AREA (EXISTING)		2,500		
OCCUPANCY CALCS		AREA	OCC. LOAD	
TABLE 1004.1.2 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT				
THEORY ROOM	500 SQ. FT.	20 NET SQ. FT. / PERSON	25 OCCUPANTS	
WORK ROOM	6,750 SQ. FT.	50 NET SQ. FT. / PERSON	135 OCCUPANTS	
LOCKER ROOM(S)	250 SQ. FT.	50 GROSS SQ. FT. / PERSON	5 OCCUPANTS	
ALL OCCUPANCIES	7,500 SQ. FT. (GROSS)		165	
MEANS OF EGRESS		IBC 2015	REQUIRED	PROVIDED
MEANS OF EGRESS SIZING	SECTION 1005			
STAIRWAYS	SECTION 1005.3.1	0.3 INCHES PER OCCUPANT	N/A	
OTHER EGRESS COMPONENTS	SECTION 1005.3.2	0.2 INCHES PER OCCUPANT	SEE LIFE SAFETY PLANS	
MAXIMUM PATH OF COMMON EGRESS TRAVEL	SECTION 1006.2.1	75'	SEE LIFE SAFETY PLANS	
DISTANCE BETWEEN EXISTS	SECT. 1007.1.1	1/3 MAX. TRAVEL DISTANCE	SEE LIFE SAFETY PLANS	
MAXIMUM EXIT ACCESS TRAVEL DISTANCE	SECTION 1017 & TABLE 1017.2	250'	SEE LIFE SAFETY PLANS	
MINIMUM CORRIDOR WIDTH	SECTION 1020.2	44"	N/A	
MAXIMUM DEAD END	SECTION 1020.4	20'	N/A	
MINIMUM NUMBER OF EXITS	SECT. 1006 & TABLE 1006.3.1	2	SEE LIFE SAFETY PLANS	

CODE REQUIRED SIGNAGE - IBC 2015						
ID OR POSTED OCCUPANT LOAD						
CS	SIGNAGE TEXT		SIZE	DUPLICATE BRAILLE TEXT	TACTILE TEXT	ISA
CS-3	EXIT/EXIT ACCESS (IN ADDITION TO ILLUMINATED SIGN)	IBC SECTION 1013	4"x6"	YES	YES	YES
CS-6	TOILET ROOM (MENS/WOMENS/UNISEX)	IBC SECTION 2902.4	6"x9"	YES	YES	NO
CS-7	FIRE EXTINGUISHER	IFC SECTION 906.6	3"x6"	YES	YES	NO
CS-8	EVACUATION ROUTE PLAN	IBC SECTION 1001.4	11"x11"	YES	YES	NO
CS-15	LOCKER ROOM (MENS/WOMENS/UNISEX)	IBC SECTION 2902.4	6"x9"	YES	YES	NO
GENERAL SIGNAGE NOTES						
1. ALL REQUIRED ACCESSIBILITY SIGNAGE SHALL FOLLOW THE INTERNATIONAL SYMBOL OF ACCESSIBILITY IN SIZE, COLOR, PROPORTIONS, AND TEXT (TACTILE AND BRAILLE TEXT REQUIREMENTS).						
2. ALL SIGNAGE SHALL FOLLOW IBC 2015, ICC A117.1-2009, AND 2010 ADA STANDARDS/REQUIREMENTS.						
3. GENERAL CONTRACTOR SHALL VERIFY SIGNAGE QUANTITIES.						
4. REFER TO LIFE SAFETY PLANS FOR SIGNAGE LOCATIONS. GENERAL CONTRACTOR SHALL VERIFY/CONFIRM FINAL LOCATIONS OF ALL SIGNS WITH AUTHORITY HAVING JURISDICTION.						

GENERAL SHEET NOTES
 1. SEE A-101 FOR LOCATION OF ADA COMPLIANT TOILET ROOMS AND EXISTING DRINKING FOUNTAINS. DISTANCE FROM CLASSROOM TO ADA COMPLIANT TOILET ROOMS IS 82'.



3 SIGNAGE MOUNTING DETAIL
 SCALE: 1/2" = 1'-0"



4 DRINKING FOUNTAIN DETAIL
 SCALE: 1/2" = 1'-0"

ISSUED FOR BID		
DATE: 5/17/2022		
REV. ID	DESCRIPTION	DATE

PROJ. MGR.: JAMES A. SARRO, AIA
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 DRAWN BY: BB, DK
 CLIENT PROJ #:

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3D FABRICATION
 SHEET TITLE:
CODE SUMMARY AND LIFE SAFETY PLANS

A-002

CODE REQUIRED SIGNAGE - IBC 2015							
☐ ID OR POSTED OCCUPANT LOAD							
ID	SIGNAGE TEXT		SIZE	DUPLICATE BRAILLE TEXT	TACTILE TEXT	ISA	
CS-1	BUILDING ADDRESS NUMBER	IFC SECTION 505.1	9"x6"	YES	NO	NO	
CS-3	EXIT/EXIT ACCESS (IN ADDITION TO ILLUMINATED SIGN)	IBC SECTION 1013	4"x6"	YES	YES	YES	
CS-5	BUILDING CORE ROOMS/FIRE PROTECTION EQUIPMENT	IFC SECTION 509 AND 605.3.1	3"x6"	YES	YES	NO	
CS-6	TOILET ROOM (MENS/WOMENS/UNISEX)	IBC SECTION 2902.4	6"x9"	YES	YES	NO	
CS-7	FIRE EXTINGUISHER	IFC SECTION 906.6	3"x6"	YES	YES	NO	
CS-8	EVACUATION ROUTE PLAN	IBC SECTION 1001.4	11"x11"	YES	YES	NO	
CS-10	ASSEMBLY OCCUPANCY LOAD	IBC SECTION 1004.3	4"x6"	YES	YES	NO	
CS-11	ACCESSIBLE ELEMENTS	IBC SECTION 1111	4"x6"	YES	YES	NO	
CS-15	LOCKER ROOM (MENS/WOMENS/UNISEX)	IBC SECTION 2902.4	6"x9"	YES	YES	NO	

GENERAL SIGNAGE NOTES

- ALL REQUIRED ACCESSIBILITY SIGNAGE SHALL FOLLOW THE INTERNATIONAL SYMBOL OF ACCESSIBILITY IN SIZE, COLOR, PROPORTIONS, AND TEXT (TACTILE AND BRAILLE TEXT REQUIREMENTS).
- ALL SIGNAGE SHALL FOLLOW IBC 2015, ICC A 117.1, 2009, AND 2010 ADA STANDARDS/REQUIREMENTS.
- GENERAL CONTRACTOR SHALL VERIFY SIGNAGE QUANTITIES.
- REFER TO LIFE SAFETY PLANS FOR SIGNAGE LOCATIONS. GENERAL CONTRACTOR SHALL VERIFY/CONFIRM FINAL LOCATIONS OF ALL SIGNS WITH AUTHORITY HAVING JURISDICTION.

BUILDING CODE SUMMARY	APPLICABLE CODES AND ORDINANCES	
	2015 IBC: ALL APPLICABLE CHAPTERS	
	ANSI 117.1, 2009 EDITION: ALL APPLICABLE CHAPTERS	
2018 IBC: CHAPTER 11 ONLY		
PROJECT SCOPE: NEW FREE-STANDING BUILDING TO HOUSE THE SCHOOL'S WELDING PROGRAM AND CLASSES, INCLUDING WORKSPACES AND CLASSROOM.		

BUILDING AND PROJECT DATA			
BUILDING DESCRIPTION AND USE	1-STORY NEW CONSTRUCTION	EDUCATIONAL	
		IBC 2015	REQUIRED
USE AND OCCUPANCY	CHAPTER 3		E - EDUCATIONAL
CONSTRUCTION TYPE	SECTION 602 AND TABLE 601		TYPE II-B
AUTOMATIC SPRINKLER SYSTEM	SECTION 903	NOT REQUIRED	YES
BUILDING HEIGHT	TABLE 504.3	55' MAX.	APPX. 24'-0"
BUILDING STORIES	TABLE 504.4	3 STORIES	1 STORIES
FLOOR AREA / STORY	TABLE 506.2	58,000 (S1)	8,584 SQ. FT

OCCUPANCY CALCS			
TABLE 1004.1.2 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT			
THEORY CLASSROOM	883 SQ. FT.	20 NET SQ. FT. / PERSON	44 OCCUPANTS
WORKROOM	6,382 SQ. FT.	50 NET SQ. FT. / PERSON	127 OCCUPANTS
LOCKER ROOM(S)	445 SQ. FT.	50 GROSS SQ. FT. / PERSON	8 OCCUPANTS
STORAGE	436 SQ. FT.		
ALL OCCUPANCIES	8,584 SQ. FT. (GROSS)		179 OCCUPANTS

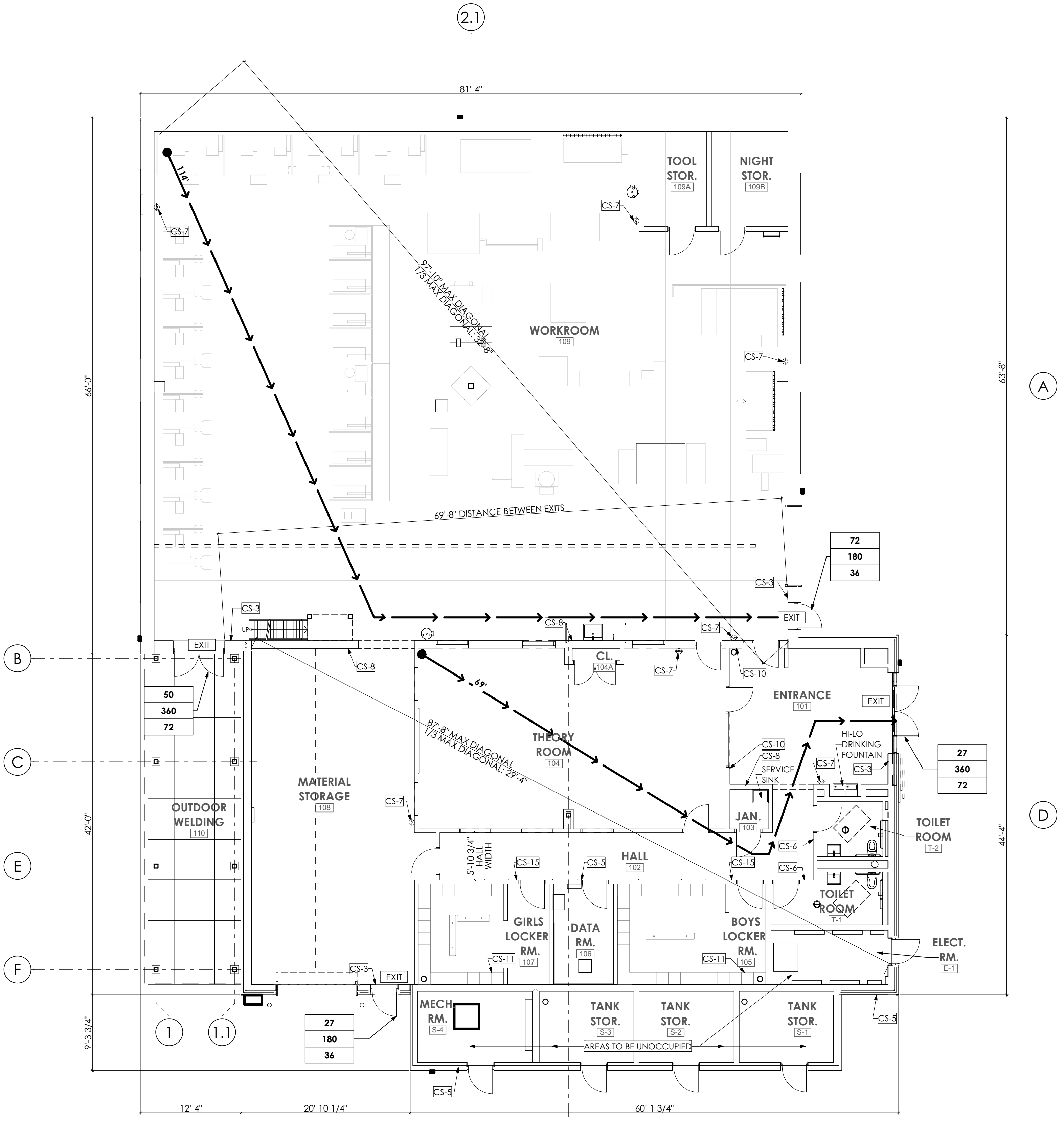
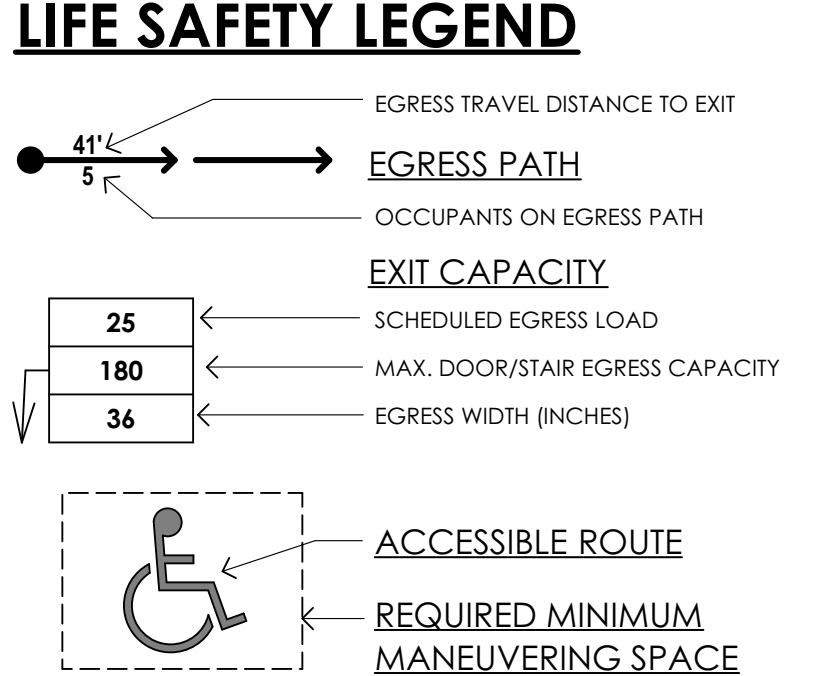
FIRE RESISTANCE RTG - IIB			
PRIMARY STRUCTURAL FRAME	TABLE 601 AND SECTION 704	0 HOURS	0 HOURS
BEARING WALLS			
EXTERIOR	TABLE 601, 602 & SECTION 705	0 HOURS	0 HOURS
INTERIOR	TABLE 601	0 HOURS	0 HOURS
NONBEARING WALLS AND PARTITIONS	TABLE 601, 602 & SECTION 705		
EXTERIOR		0 HOURS	0 HOURS
INTERIOR	TABLE 601	0 HOURS	0 HOURS
FLOOR CONSTRUCTION	TABLE 601	0 HOURS	0 HOURS
ROOF CONSTRUCTION	TABLE 601	0 HOURS	0 HOURS
EXTERIOR WALL OPENINGS (DIST. ≥ 30 FEET)			
UNPROTECTED, SPRINKLERED	TABLE 705.8	NO LIMIT	NO LIMIT
PROTECTED	TABLE 705.8	NO LIMIT	NO LIMIT

MEANS OF EGRESS			
MEANS OF EGRESS SIZING	SECTION 1005		
STAIRWAYS	SECTION 1005.3.1	0.3 INCHES PER OCCUPANT	SEE LIFE SAFETY PLANS
OTHER EGRESS COMPONENTS	SECTION 1005.3.2	0.2 INCHES PER OCCUPANT	SEE LIFE SAFETY PLANS
MAXIMUM PATH OF COMMON EGRESS TRAVEL	SECTION 1006.2.1	75'	SEE LIFE SAFETY PLANS
MAXIMUM EXIT ACCESS TRAVEL DISTANCE	SECTION 1017 & TABLE 1017.2	250'	SEE LIFE SAFETY PLANS
MINIMUM CORRIDOR WIDTH	SECTION 1020.2	44"	SEE LIFE SAFETY PLANS
MAXIMUM DEAD END	SECTION 1020.4	20'	N/A
MINIMUM NUMBER OF EXITS	SECT. 1006 & TABLE 1006.3.1	2	SEE LIFE SAFETY PLANS
DISTANCE BETWEEN EXITS		1/3 MAX DIAGONAL	SEE LIFE SAFETY PLAN

ENERGY CONSERVATION			
CLIMATE ZONE	SECT. C301 AND TAB. 301.1	PENNSYLVANIA - BERKS COUNTY - 5A	
TABLES C402.1.3 & C402.1.4 OPAQUE THERMAL ENVELOPE INSULATION COMPONENT MINIMUM REQUIREMENTS			
ROOFS	R-VALUE	U-FACTOR	PROVIDED
INSULATION ABOVE ROOF DECK	R-30ci	U-0.032	R-30 ci
WALLS, ABOVE GRADE			
MASS	R-11.4ci	U-0.090	R-12 ci
WALLS, BELOW GRADE	R-7.5ci	U-0.119	-
SLAB-ON-GRADE FLOORS			
UNHEATED SLABS	R-10 24" BELOW	F-0.54	R-10
DOORS			
OPAQUE, NON-SWINGING	R-4.75	U-0.21	U-0.136
OPAQUE, SWINGING		U-0.37	U-0.16 0
TABLE C402.4 BUILDING ENVELOPE FENESTRATION MAXIMUM U-FACTOR AND SHGC REQUIREMENTS			
FENESTRATION	U-FACTOR	ORIENTATION	SOUTH EAST WEST NORTH
FIXED FENESTRATION	0.38	PF < 0.2	0.40 0.53
OPERABLE FENESTRATION	0.45	0.2 ≤ PF < 0.5	0.48 0.58
ENTRANCE DOORS (GLAZED)	0.77	PF ≤ 0.5	0.64 0.64

PLUMBING SYSTEMS			
TABLE 2902.1 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES			
OCCUPANCY CLASSIFICATION: E (EDUCATIONAL)			
WATER CLOSETS - MALE		1	
WATER CLOSETS - FEMALE	1 PER 50	2	(SEE NOTE #1)
LAVATORIES - MALE		1	
LAVATORIES - FEMALE	1 PER 50	2	(SEE NOTE #1)
BATHUBS / SHOWERS			
DRINKING FOUNTAINS (DF)	1 PER 100	2	1 (HI-LOW)
OTHER	SERVICE SINK (SS)	1	1

- GENERAL SHEET NOTES:**
- SEE SHEET A-002 FOR ANSI/CODE DETAILS
 - SEE SHEET AS-101 FOR LOCATION OF ADA-COMPLIANT TOILET ROOMS AND DRINKING FOUNTAINS. DISTANCE FROM THEORY RM. TO ADA-COMPLIANT TOILET ROOMS IS 300'.



LIFE SAFETY PLAN
SCALE: 1/8" = 1'-0"

MG ARCHITECTS
ESTABLISHED 1920

ARCHITECTURAL DESIGN
INTERIOR DESIGN
CODE ANALYSIS
PLANNING SERVICES
REPORTS AND STUDIES
ENGINEERING SERVICES
HISTORIC PRESERVATION

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CLIENT PROJ #:

WELDING BUILDING
SHEET TITLE:
CODE SUMMARY AND LIFE SAFETY PLANS

A-003

RMCTC WELDING & FABRICATION BUILDING

FINAL LAND DEVELOPMENT PLAN

MUHLENBERG TOWNSHIP, BERKS COUNTY, PENNSYLVANIA

GENERAL NOTES

- THESE PLANS HAVE BEEN PREPARED FOR LAND DEVELOPMENT PURPOSES ONLY. ADDITIONAL DATA MAY BE NECESSARY FOR CONSTRUCTION.
- DO NOT SCALE THESE DRAWINGS. NOTIFY STACKHOUSE BENSINGER INC. (SBI) IN CASES OF DIMENSIONAL OR INFORMATIONAL DISCREPANCIES OR CONDITIONS REQUIRING CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
- REFER TO THE LATEST ARCHITECTURAL DRAWINGS FOR COMPLETE DIMENSIONS AND CONSTRUCTION DETAILS FOR THE PROPOSED BUILDING AND ASSOCIATED EXTERIOR FEATURES. DO NOT USE THESE PLANS FOR BUILDING CONSTRUCTION.
- REFER TO THE LATEST STRUCTURAL DRAWING DETAILS FOR CONCRETE PADS ATTACHED TO THE BUILDING AND CONCRETE PADS FOR MECHANICAL/UTILITY EQUIPMENT.
- THIS BOUNDARY SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE SEARCH. PURSUANT TO PA ACT 121 (2008), NOTIFICATION TO THE "ONE-CALL SYSTEM" IS REQUIRED AT LEAST THREE (3) WORKING DAYS PRIOR TO DISTURBING EARTH WITH ANY TYPE OF POWERED EQUIPMENT. CALL 1-800-242-1776.
- THE CONTOURS AND TOPOGRAPHICAL INFORMATION SHOWN IS BASED ON A FIELD SURVEY PERFORMED BY STACKHOUSE BENSINGER INC. (SBI) IN OCTOBER 2021.
- NO OPENINGS WITHIN THE CLEAR ZONE OF AN OPEN ROAD. ACCESS DRIVE OR PARKING AREA SHALL BE ALLOWED AT THE END OF EACH WORKDAY. IF A TRENCH NEEDS TO BE LEFT OPEN AT THE END OF A WORKDAY, REFER TO PennDOT SPECIFICATIONS FOR ACCEPTABLE PROTECTION GUIDELINES FOR ALL OPENINGS.
- WORK ZONE TRAFFIC CONTROL SHALL COMPLY WITH PUBLICATION 23 (MAINTENANCE MANUAL) AND PUBLICATION 213 (TEMPORARY TRAFFIC CONTROL GUIDELINES) SPECIFIED BY THE TOWNSHIP OF MUHLENBERG. IF NOT COVERED, THEN PennDOT PUBLICATION 408-SPECIFICATIONS, PENNDOT STANDARDS FOR ROADWAY CONSTRUCTION RC SERIES SHALL APPLY, UNLESS OTHERWISE NOTED ON THE PLANS.
- ALL PAVING THICKNESSES SHOWN ARE THE COMPACTED THICKNESS.
- ALL ADA ACCESS ROUTES, RAMPS AND PARKING AREAS SHALL BE CONSTRUCTED IN ACCORDANCE TO THE DIMENSIONS INDICATED ON THE PLANS AND DETAILS. THEY SHALL COMPLY WITH THE FOLLOWING GUIDELINES AS WELL AS ALL APPLICABLE BUILDING CODES FOR THIS PROJECT:
 - CROSS-SLOPES FOR RAMPS AND ACCESS ROUTES SHALL NOT EXCEED 2 PERCENT.
 - ALL CONCRETE SURFACES SHALL HAVE A SLIP-RESISTANT FINISH.
 - RAMPS SHALL NOT EXCEED 1:12 SLOPE (8.3 PERCENT) AND SHALL NOT EXCEED A VERTICAL RISE OF 30 INCHES.
 - ACCESS ROUTES SHALL NOT EXCEED 1:20 SLOPE (5 PERCENT) AND SHALL NOT EXCEED A LONGITUDINAL LENGTH OF 200 FEET.
 - PASSENGER LOADING ZONES SHALL PROVIDE AN ACCESS AISLE AT LEAST 60 INCHES WIDE AND 20 FEET LONG ADJACENT AND PARALLEL TO THE VEHICLE PULL-UP SPACE AND SHALL NOT EXCEED 2 PERCENT IN ALL DIRECTIONS.
 - HANDRAILS SHALL BE INSTALLED ON BOTH SIDES OF RAMPS IF THE RAMP LENGTH EXCEEDS 6 FEET OR THE VERTICAL RISE EXCEEDS 6 INCHES. THE TOP HEIGHT OF HANDRAILS SHALL BE A MINIMUM OF 34 INCHES AND A MAXIMUM OF 38 INCHES. HANDRAILS ARE NOT REQUIRED ON CURB RAMPS.
 - WHERE PROVIDED, THE MINIMUM INSIDE CLEARANCE BETWEEN HANDRAILS SHALL BE AS SPECIFIED ON THE DRAWINGS. EXCEPT IN NO CASE SHALL THE CLEARANCE BE LESS THAN 36 INCHES FOR RAMPS. LANDINGS THAT CHANGE DIRECTION SHALL MAINTAIN A CLEARANCE OF AT LEAST 60 INCHES BETWEEN HANDRAILS.
 - GUARDS SHALL BE PROVIDED ALONG OPEN-SIDED WALKING SURFACES, INDUSTRIAL EQUIPMENT PLATFORMS, STEPS, RAMPS AND LANDINGS THAT ARE LOCATED MORE THAN 30 INCHES ABOVE THE FLOOR OR GRADE BELOW. GUARDS SHALL FORM A PROTECTIVE BARRIER NOT LESS THAN 42 INCHES IN HEIGHT. REFER TO THE SECTION "GUARDS" IN THE BUILDING CODE FOR ADDITIONAL CONSTRUCTION REQUIREMENTS.

- IF THE CONTRACTOR DETERMINES THAT THE LOCATION OF EXISTING UTILITY LINES ARE NOT AS DEPICTED ON THE DRAWINGS (HORIZONTALLY OR VERTICALLY) OR THE ORIGINAL DESIGN IS IN CONFLICT WITH THE EXISTING UTILITIES, HE SHALL IMMEDIATELY NOTIFY THE DESIGN PROFESSIONAL OF SUCH CONFLICT. THE CONTRACTOR IS CAUTIONED NOT TO ORDER ANY MATERIALS OR PERFORM ANY FURTHER WORK UNTIL SUCH VERIFICATION AND/OR DESIGN PROFESSIONAL CLARIFICATION HAS BEEN PROVIDED.
- CONTRACTOR MUST CONFIRM BUILDING DIMENSIONS PRIOR TO ANY SUCH CONSTRUCTION. BUILDING DIMENSIONS AND DETAILS FOR EXTERIOR STEPS, RAILINGS, ETC. SHOULD BE TAKEN FROM THE ARCHITECTURAL PLANS. DO NOT USE THESE PLANS FOR BUILDING-RELATED CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES, AND SHALL COMPLY WITH ALL NOTES LISTED ON THE E&S&C PLAN. A COPY OF THE STAMPED APPROVED E&S&C PLAN AND NARRATIVE MUST BE KEPT ON SITE AT ALL TIMES BY THE CONTRACTOR.

- IF THE CONTRACTOR DETERMINES THAT STRUCTURES OR IMPROVEMENTS CANNOT BE MANUFACTURED OR CONSTRUCTED AS INDICATED ON THE DRAWINGS, OR IF THE DESIGN DRAWINGS INDICATE CONFLICTING INFORMATION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN PROFESSIONAL. THE CONTRACTOR IS CAUTIONED NOT TO ORDER ANY MATERIALS OR PERFORM ANY FURTHER WORK UNTIL SUCH VERIFICATION AND/OR DESIGN PROFESSIONAL CLARIFICATION HAS BEEN PROVIDED.
- CONTRACTOR MUST CONFIRM BUILDING DIMENSIONS PRIOR TO ANY SUCH CONSTRUCTION. BUILDING DIMENSIONS AND DETAILS FOR EXTERIOR STEPS, RAILINGS, ETC. SHOULD BE TAKEN FROM THE ARCHITECTURAL PLANS. DO NOT USE THESE PLANS FOR BUILDING-RELATED CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES, AND SHALL COMPLY WITH ALL NOTES LISTED ON THE E&S&C PLAN. A COPY OF THE STAMPED APPROVED E&S&C PLAN AND NARRATIVE MUST BE KEPT ON SITE AT ALL TIMES BY THE CONTRACTOR.

CONTRACTORS ARE RESPONSIBLE TO CONFIRM THESE REQUIREMENTS. IF DRAWING GRADES OR DIMENSIONS DO NOT MEET THESE REQUIREMENTS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN PROFESSIONAL PRIOR TO STARTING CONSTRUCTION OR ORDERING MATERIALS.

19. ALL GRADING SHALL PROMOTE POSITIVE DRAINAGE AWAY FROM THE BUILDING.

20. LOCATION OF LANDSCAPING WILL BE SUCH AS TO ENSURE NO INTERFERENCE WITH EXISTING OR PROPOSED SEWER LINES, WATER LINES, UTILITY LINES AND STORM DRAINAGE FACILITIES.

21. NO OBJECTS GREATER THAN THIRTY (30) INCHES IN HEIGHT SHALL BE LOCATED WITHIN THE CLEAR SIGHT TRIANGLES. NO STRUCTURING OR GRADING MAY BE CONSTRUCTED, INSTALLED OR PERFORMED WITHIN THE AREA OF THE CLEAR SIGHT TRIANGLE WHICH WOULD OBSCURE THE VISION OF MOTORISTS. DEEDS TO LOTS WHICH CONTAIN CLEAR SIGHT TRIANGLES SHALL PROVIDE THAT NO STRUCTURES, LANDSCAPING OR GRADING SHALL BE ERECTED, INSTALLED OR PERFORMED WITHIN THE AREA OF THE CLEAR SIGHT TRIANGLE WHICH WOULD OBSCURE THE VISION OF MOTORISTS.

22. ALL PROPOSED UTILITY AND MECHANICAL EQUIPMENT LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE AND ARE BASED ON THE CURRENT PLANS AND INFORMATION OBTAINED FROM THE ARCHITECT, MECHANICAL CONSULTANT AND THE UTILITY COMPANIES AT THE TIME THESE PLANS WERE PREPARED. SBI WILL NOT BE HELD RESPONSIBLE OR LIABLE FOR ANY CHANGES OR MODIFICATIONS TO THE LOCATION OF THE FACILITIES OR OTHER SITE IMPROVEMENTS AFFECTED BY THESE CHANGES AFTER THE PLANS HAVE BEEN APPROVED BY THE MUNICIPALITY AND RECORDED IN THE COUNTY OF BERKS.

- SOLID WASTE STORAGE AND DISPOSAL: ALL SOLID WASTE SHALL BE STORED IN APPROVED CONTAINERS, INCLUDING SEPARATE RECYCLING MATERIALS, AND BEED UP ON A REGULAR BASIS BY AN APPROVED COLLECTION AND HAULING COMPANY (OR THE MUNICIPALITY) AND TAKEN TO AN APPROVED RECEIVING SITE PER LOCAL MUNICIPALITIES REQUIREMENTS.

CONTRACTOR NOTES

- WHERE EXISTING IMPROVEMENTS ARE DESIGNATED TO BE REMOVED (TBR), THEY SHALL BE REMOVED, FILLED, AND/OR GRADED PER THE GRADING PLANS, OR RESTORED TO EXISTING GRADES WHERE NEW GRADING IS NOT BEING PROPOSED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOUNT FOR THE STRUCTURAL FILL NEEDED TO FILL THE VOID LEFT BY THE REMOVAL OF A STRUCTURE WITH FOUNDATION WALLS AND/OR FOOTERS, UNDERGROUND TANKS OR VAULTS, OR ANY OTHER STRUCTURE WHOSE REMOVAL RESULTS IN A NEED FOR FILL TO ACHIEVE PROPOSED GRADES.
- AS IT RELATES TO CONSTRUCTION ACTIVITY, AND AS NEEDED TO CONSTRUCT IMPROVEMENTS AS INDICATED ON THE PLANS, THE CONTRACTOR SHALL REMOVE AND/OR DISPOSE OF ANY BY-PRODUCTS, UNUSED STOCK, DEMOLITION DEBRIS, ETC. IN ACCORDANCE WITH ALL LOCAL, STATE, AND/OR FEDERAL REGULATIONS GOVERNING SUCH DISPOSAL.
- STACKHOUSE BENSINGER INC. HAS NOT PROVIDED THE DESIGN OF SHORING, TRENCHING, EXCAVATION, SUPPORT, SHIELDING OR BENCHING ASSOCIATED WITH THE INSTALLATION OF UTILITIES, GRADING, ETC. (ON THE PLANS). IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE LOCATION OF UTILITIES AND TO COMPLY WITH OSHA TRENCHING REQUIREMENTS.
- IF UNFORESEEN SUBSURFACE OR GEOLOGIC CONDITIONS ARE ENCOUNTERED, INCLUDING BUT NOT LIMITED TO DUMPS, FOUNDATIONS, ARCHAEOLOGICAL ARTIFACTS OR FEATURES, SPRINGS, ROCK, SINKHOLES, ETC., THE CONTRACTOR SHALL STOP WORK IMMEDIATELY AND NOTIFY STACKHOUSE BENSINGER INC. AND THE OWNER.
- ALL EQUIPMENT OPERATED ON NEWLY PAVED SURFACES SHALL HAVE RUBBER WHEELS OR RUNNERS AND SHALL HAVE RUBBER, WOOD, OR SIMILAR PROTECTIVE PADS BETWEEN OUTRIGGERS AND THE ROADWAY SURFACE. IN THE EVENT THAT OTHER THAN RUBBER EQUIPPED MACHINERY IS AUTHORIZED FOR USE, THE PAVED SURFACE SHALL BE PROTECTED BY THE USE OF MATTING, WOOD, OR OTHER SUITABLE PROTECTIVE MATERIAL HAVING A MINIMUM THICKNESS OF (4) FOUR INCHES.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE APPROPRIATE UTILITY COMPANY THE REMOVAL, RELOCATION, ABANDONMENT OR INSTALLATION OF ANY PUBLIC UTILITY LINES, POLES, VAULTS, ETC. (GAS, ELECTRIC, TELEPHONE, CABLE TV AND FIBER OPTIC COMMUNICATIONS).
- CONTRACTOR(S) SHALL BE RESPONSIBLE TO MAINTAIN DETAILED "AS-BUILT" INFORMATION OF LATERALS, BENDS, VALVES, DROP CONNECTIONS, ETC. OF ALL UTILITY LINE CONSTRUCTION. THIS IS TO INCLUDE DIMENSIONED "TIE-DOWNS" OF ALL FITTINGS, VALVES AND WYE CONNECTIONS.
- THE CONTRACTOR(S) IS/ARE RESPONSIBLE TO CONTACT EACH UTILITY COMPANY OR AUTHORITY AT LEAST 3 DAYS BEFORE ANY EXCAVATION OF EXISTING UTILITIES. PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL INVESTIGATE EXISTING UNDERGROUND UTILITY LOCATIONS, RESEARCH PUBLIC AND SITE UTILITY RECORDS, AND DIG TEST PITS IN AREAS TO THE EXTENT NECESSARY TO VERIFY EXISTING UTILITY LOCATIONS AND LOCATIONS AND TO VERIFY THAT GROUND DRAINAGE AND UTILITY SYSTEMS PIPE, EXCAVATION, FILLING AND GRADING MAY BE INSTALLED IN COMPLIANCE WITH ORIGINAL DESIGN AND REFERENCED STANDARDS.

IF THE CONTRACTOR DETERMINES THAT THE LOCATION OF EXISTING UTILITY LINES ARE NOT AS DEPICTED ON THE DRAWINGS (HORIZONTALLY OR VERTICALLY) OR THE ORIGINAL DESIGN IS IN CONFLICT WITH THE EXISTING UTILITIES, HE SHALL IMMEDIATELY NOTIFY THE DESIGN PROFESSIONAL OF SUCH CONFLICT. THE CONTRACTOR IS CAUTIONED NOT TO ORDER ANY MATERIALS OR PERFORM ANY FURTHER WORK UNTIL SUCH VERIFICATION AND/OR DESIGN PROFESSIONAL CLARIFICATION HAS BEEN PROVIDED. THE CONTRACTOR WILL BE REQUIRED TO REPAIR ALL DAMAGED UTILITY LINES AT HIS EXPENSE.

THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL REQUIRED MUNICIPAL, UTILITY OR CONSTRUCTION PERMITS NOT PROVIDED BY THE OWNER OR CONSULTANTS.

- IF THE CONTRACTOR DETERMINES THAT STRUCTURES OR IMPROVEMENTS CANNOT BE MANUFACTURED OR CONSTRUCTED AS INDICATED ON THE DRAWINGS, OR IF THE DESIGN DRAWINGS INDICATE CONFLICTING INFORMATION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN PROFESSIONAL. THE CONTRACTOR IS CAUTIONED NOT TO ORDER ANY MATERIALS OR PERFORM ANY FURTHER WORK UNTIL SUCH VERIFICATION AND/OR DESIGN PROFESSIONAL CLARIFICATION HAS BEEN PROVIDED.
- CONTRACTOR MUST CONFIRM BUILDING DIMENSIONS PRIOR TO ANY SUCH CONSTRUCTION. BUILDING DIMENSIONS AND DETAILS FOR EXTERIOR STEPS, RAILINGS, ETC. SHOULD BE TAKEN FROM THE ARCHITECTURAL PLANS. DO NOT USE THESE PLANS FOR BUILDING-RELATED CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES, AND SHALL COMPLY WITH ALL NOTES LISTED ON THE E&S&C PLAN. A COPY OF THE STAMPED APPROVED E&S&C PLAN AND NARRATIVE MUST BE KEPT ON SITE AT ALL TIMES BY THE CONTRACTOR.

DEMOLITION NOTES

- SAW CUT LINE REPRESENTS THE APPROXIMATE LIMIT OF PAVING RECONSTRUCTION.
- FIELD ADJUST PAVING TO PROVIDE AN APPROPRIATE TRANSITION TO EXISTING PAVING. THERE SHALL BE NO LESS THAN A 6" TAPER.
- THE CONTRACTOR'S RESPONSIBILITY TO ACCOUNT FOR THE STRUCTURAL FILL NEEDED TO FILL THE VOID LEFT BY THE REMOVAL OF A STRUCTURE WITH FOUNDATION WALLS AND/OR FOOTERS, UNDERGROUND TANKS OR VAULTS, OR ANY OTHER STRUCTURE WHOSE REMOVAL RESULTS IN A NEED FOR FILL TO ACHIEVE PROPOSED GRADES.

THE FOLLOWING WAIVERS OF THE STORMWATER MANAGEMENT ORDINANCE FOR THE TOWNSHIP OF MUHLENBERG HAVE BEEN REQUESTED:

SECTION 297-15 - GROUND WATER RECHARGE
SECTION 297-16 - WATER QUALITY
SECTION 297-17 - STREAM BANK EROSION
SECTION 297-18 - RATE CONTROL

THE FOLLOWING WAIVERS OF THE SUBDIVISION AND LAND DEVELOPMENT ORDINANCE OF THE TOWNSHIP OF MUHLENBERG HAVE BEEN REQUESTED:

SECTION 310-14 - PRELIMINARY PLAN
SECTION 310-25(G)(6)(a) - ENVIRONMENTAL IMPACT ASSESSMENT
SECTION 310-25(G)(8)(b) - COMMUNITY FACILITIES IMPACT ASSESSMENT
SECTION 310-25(G)(8)(c) - TRAFFIC IMPACT ASSESSMENT
SECTION 310-25(G)(8)(d) - UTILITY IMPACT ASSESSMENT

- REQUIREMENTS.
- ALL SANITARY LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWNSHIP OF MUHLENBERG AND/OR THE MUHLENBERG TOWNSHIP AUTHORITY'S CURRENT RULES AND REGULATIONS AND DEP REGULATIONS. THE CONTRACTOR IS RESPONSIBLE TO APPLY FOR ALL MUNICIPAL PERMITS PRIOR TO THE START OF CONSTRUCTION. IT IS RECOMMENDED THAT THE PERMIT(S) BE OBTAINED PRIOR TO ORDERING OF MATERIALS IN THE EVENT THE MUNICIPAL SPECIFICATIONS DIFFER FROM INFORMATION SHOWN ON THE DRAWINGS. THE CONTRACTOR MUST MEET THE MUNICIPALITY'S SPECIFICATIONS.
- ALL LATERALS/BUILDING SEWERS SHALL HAVE A MINIMUM COVER OF FOUR (4) FEET AND A MINIMUM SLOPE OF 1/4" PER FOOT.
- ALL WATER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE THE MUHLENBERG TOWNSHIP AUTHORITY'S RULES AND SPECIFICATIONS AND CURRENT DEP REGULATIONS.
- A 10' MINIMUM HORIZONTAL CLEARANCE SHALL BE PROVIDED BETWEEN MAIN MANS AND WATER LATERALS AND SANITARY SEWER MAINS AND SANITARY SEWER LATERALS. IF THE HORIZONTAL SEPARATION CANNOT BE MAINTAINED THEN AN 18" (INCH) MINIMUM VERTICAL SEPARATION SHALL BE PROVIDED.
- THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH ALL REGULATIONS GOVERNING THE DEMOLITION, REMOVAL TRANSPORTATION AND DISPOSAL OF ALL DEMOLITION DEBRIS.
- THE CONTRACTOR SHALL LOCATE AND REMOVE ALL UNDERGROUND UTILITY PIPING, UTILITY CABLES (ELECTRIC, TELEPHONE, ETC.) IN THE PROJECT SITE, INDICATED TO BE REMOVED, UP TO A DEPTH AS REQUIRED TO PERMIT PROPOSED CONSTRUCTION.
- THE CONTRACTOR SHALL ADJUST OR RELOCATE UNDERGROUND UTILITIES, INDICATED TO REMAIN, AS REQUIRED TO PERMIT PROPOSED CONSTRUCTION.
- THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS FOR EXCAVATION AND TRENCHING PROCEDURES. CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, ETC. AS NECESSARY FOR THESE OPERATIONS, AND SHALL COMPLY WITH ALL OSHA PERFORMANCE CRITERIA.
- THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL PROPERTY CORNER MONUMENTS, AND SHALL HAVE, AT HIS EXPENSE, ALL CORNER MONUMENTS REPLACED WHICH ARE DISTURBED BY CONSTRUCTION ACTIVITIES.
- NOTES SHOWN HERE ON REGARDING SPECIFIC ITEMS OF DEMOLITION ARE GENERAL IN NATURE, AND ARE NOT INTENDED TO BE WHOLLY INCLUSIVE. THE CONTRACTOR SHALL DEMOLISH AND REMOVE ALL EXISTING IMPROVEMENTS TO THE EXTENT AS NOTED ON THESE PLANS AND IN THE SPECIFICATIONS, TO THE SATISFACTION OF THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING DISCONNECTION OF ALL UTILITIES SERVING THE EXISTING BUILDINGS WITH THE APPROPRIATE UTILITY COMPANY, AND SHALL OBTAIN APPROVAL FROM SAME TO COMMENCE DEMOLITION ACTIVITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLUGGING, CAPPING, OR OTHERWISE TERMINATING UTILITY SERVICE LINES AT EXISTING METER LOCATIONS, CLEANOUTS, ETC., UNLESS OTHERWISE DIRECTED BY THE UTILITY COMPANY.
- INFORMATION SHOWN HAS BEEN PROVIDED TO STACKHOUSE BENSINGER INC. (SBI) BY ELYSIAN PARTNERS LLC AND BY UTILITY COMPANIES RESPONDING TO THE PA ONE-CALL SYSTEM. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS INCLUDING ABOVE GROUND AND UNDERGROUND ELECTRICAL, MECHANICAL, PIPING, AND CONDUITS PRIOR TO PROCEEDING WITH THE DEMOLITION WORK.
- ANY DISCREPANCIES, INCONSISTENCIES, OR OMISSIONS ARE FOUND, THE DESIGN ENGINEER AND PROPERTY OWNER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION PRIOR TO PROCEEDING WITH DEMOLITION WORK.
- ALL EXISTING BUILDINGS AND UTILITIES ASSOCIATED WITH THE BUILDING, INCLUDING HVAC, PLUMBING, ELECTRICAL, ETC., SHALL BE BY OTHERS. THIS PLAN SHOWS THE REMOVAL OF THE EXISTING BUILDINGS, NOT HOW IT IS TO BE REMOVED.
- REFER TO THE GRADING AND UTILITY PLAN FOR ANY UTILITY STRUCTURE RIMS, GRATES OR TOPS THAT ARE BEING ADJUSTED DUE TO PAVING OR LAWN REGRADING.

GRADING NOTES

- TOPSOIL AND SUBSOIL MATERIAL SHALL BE EXCAVATED AND STOCKPILED SEPARATELY. TOPSOIL CONTAMINATED WITH SUBSOIL SHALL NOT BE USED FOR FINAL GRADING AND SEEDED PREPARATION WITHOUT SPECIFIC AUTHORIZATION BY THE OWNER. SUBSOIL CONTAMINATED WITH TOPSOIL AND/OR OTHER ORGANIC MATERIAL SHALL NOT BE USED FOR STRUCTURAL FILL, AND MAY ONLY BE USED FOR NON-STRUCTURAL FILL OR SPOILED ON THE SITE CENTER. SPECIFIC AUTHORIZATION BY THE OWNER. CONTAMINATED SOILS NOT AUTHORIZED FOR USE ON THE SITE SHALL BE HAULED OFF-SITE TO AN APPROVED LOCATION AT NO COST OR LIABILITY TO THE OWNER.
- THE CONTRACTOR SHALL COMPACT AND PREPARE THE SUBGRADE FOR ALL IMPROVEMENTS INCLUDING BUT NOT LIMITED TO PAVING AND CONCRETE PADS. UNSUITABLE MATERIAL SHALL BE REMOVED DOWN TO APPROVED SUBGRADE OR ACCEPTABLE FILL MATERIAL SHALL BE IMPORTED AND PREPARED.
- ALL FILL MATERIAL SHALL CONSIST OF SUITABLE MATERIAL FREE OF ALL ROOTS, SOD, FROZEN SOIL OR ROCK OVER 3 INCHES IN DIAMETER AND CONTAINING NOT MORE THAN 20 PERCENT CLAY BY WEIGHT. ALL FILL SHALL BE PLACED IN MAXIMUM 8 INCH LIFTS AT 12 PERCENT OPTIMUM MOISTURE CONTENT AND UNFORMALLY COMPACTED TO 98 PERCENT FOR FOUNDATIONS AND FLOOR SLABS, 95 PERCENT FOR PAVEMENTS AND 93 PERCENT FOR NON-STRUCTURAL FILL (ASTM D-698). ON SITE SOILS MAY NEED TO BE DRIED TO MEET THESE REQUIREMENTS. SAMPLES (MINIMUM OF 65 LBS. OR 2 5-GALON BUCKETS) OF ON-SITE OR BORROW SOURCES OF FILL SHALL BE SUBMITTED TO THE GEOTECHNICAL ENGINEER FOR TESTING AT LEAST 1 WEEK BEFORE USE ON THE SITE, IF REQUIRED BY THE OWNER OR CONTRACT DOCUMENTS.
- WHERE EXISTING IMPROVEMENTS ARE DESIGNATED TO BE REMOVED (TBR), THEY SHALL BE REMOVED, FILLED AND/OR GRADED PER THE GRADING PLAN(S) OR RESTORED TO EXISTING GRADES WHERE NEW GRADING IS NOT BEING PROPOSED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOUNT FOR THE STRUCTURAL FILL NEEDED TO FILL THE VOID LEFT BY THE REMOVAL OF A STRUCTURE WITH FOUNDATION WALLS AND/OR FOOTERS, UNDERGROUND TANKS OR VAULTS, OR ANY OTHER STRUCTURE WHOSE REMOVAL RESULTS IN A NEED FOR FILL TO ACHIEVE PROPOSED GRADES.

UTILITY NOTES

- THE LOCATIONS OF UNDERGROUND UTILITIES HAVE BEEN SHOWN BASED ON FIELD SURVEY AND SURFACE OBSERVATION AND EXISTING DATA PROVIDED BY UTILITIES. STACKHOUSE BENSINGER INC. (SBI) MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. SBI DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THEIR EXACT LOCATION, THEREFORE, SBI SHALL NOT BE RESPONSIBLE OR HELD LIABLE FOR ANY UTILITY NOT SHOWN OR SHOWN ON THE DRAWINGS IN A LOCATION OTHER THAN WHERE IT IS ACTUALLY DISCOVERED UPON EXCAVATION. SBI HAS NOT PHYSICALLY

- EXCAVATED AND LOCATED ANY UNDERGROUND LINES.
- ALL SANITARY LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWNSHIP OF MUHLENBERG AND/OR THE MUHLENBERG TOWNSHIP AUTHORITY'S CURRENT RULES AND REGULATIONS AND DEP REGULATIONS. THE CONTRACTOR IS RESPONSIBLE TO APPLY FOR ALL MUNICIPAL PERMITS PRIOR TO THE START OF CONSTRUCTION. IT IS RECOMMENDED THAT THE PERMIT(S) BE OBTAINED PRIOR TO ORDERING OF MATERIALS IN THE EVENT THE MUNICIPAL SPECIFICATIONS DIFFER FROM INFORMATION SHOWN ON THE DRAWINGS. THE CONTRACTOR MUST MEET THE MUNICIPALITY'S SPECIFICATIONS.
- ALL LATERALS/BUILDING SEWERS SHALL HAVE A MINIMUM COVER OF FOUR (4) FEET AND A MINIMUM SLOPE OF 1/4" PER FOOT.
- ALL WATER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE THE MUHLENBERG TOWNSHIP AUTHORITY'S RULES AND SPECIFICATIONS AND CURRENT DEP REGULATIONS.
- A 10' MINIMUM HORIZONTAL CLEARANCE SHALL BE PROVIDED BETWEEN MAIN MANS AND WATER LATERALS AND SANITARY SEWER MAINS AND SANITARY SEWER LATERALS. IF THE HORIZONTAL SEPARATION CANNOT BE MAINTAINED THEN AN 18" (INCH) MINIMUM VERTICAL SEPARATION SHALL BE PROVIDED.
- THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH ALL REGULATIONS GOVERNING THE DEMOLITION, REMOVAL TRANSPORTATION AND DISPOSAL OF ALL DEMOLITION DEBRIS.
- THE CONTRACTOR SHALL LOCATE AND REMOVE ALL UNDERGROUND UTILITY PIPING, UTILITY CABLES (ELECTRIC, TELEPHONE, ETC.) IN THE PROJECT SITE, INDICATED TO BE REMOVED, UP TO A DEPTH AS REQUIRED TO PERMIT PROPOSED CONSTRUCTION.
- THE CONTRACTOR SHALL ADJUST OR RELOCATE UNDERGROUND UTILITIES, INDICATED TO REMAIN, AS REQUIRED TO PERMIT PROPOSED CONSTRUCTION.
- THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS FOR EXCAVATION AND TRENCHING PROCEDURES. CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, ETC. AS NECESSARY FOR THESE OPERATIONS, AND SHALL COMPLY WITH ALL OSHA PERFORMANCE CRITERIA.
- THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL PROPERTY CORNER MONUMENTS, AND SHALL HAVE, AT HIS EXPENSE, ALL CORNER MONUMENTS REPLACED WHICH ARE DISTURBED BY CONSTRUCTION ACTIVITIES.
- NOTES SHOWN HERE ON REGARDING SPECIFIC ITEMS OF DEMOLITION ARE GENERAL IN NATURE, AND ARE NOT INTENDED TO BE WHOLLY INCLUSIVE. THE CONTRACTOR SHALL DEMOLISH AND REMOVE ALL EXISTING IMPROVEMENTS TO THE EXTENT AS NOTED ON THESE PLANS AND IN THE SPECIFICATIONS, TO THE SATISFACTION OF THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING DISCONNECTION OF ALL UTILITIES SERVING THE EXISTING BUILDINGS WITH THE APPROPRIATE UTILITY COMPANY, AND SHALL OBTAIN APPROVAL FROM SAME TO COMMENCE DEMOLITION ACTIVITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLUGGING, CAPPING, OR OTHERWISE TERMINATING UTILITY SERVICE LINES AT EXISTING METER LOCATIONS, CLEANOUTS, ETC., UNLESS OTHERWISE DIRECTED BY THE UTILITY COMPANY.
- INFORMATION SHOWN HAS BEEN PROVIDED TO STACKHOUSE BENSINGER INC. (SBI) BY ELYSIAN PARTNERS LLC AND BY UTILITY COMPANIES RESPONDING TO THE PA ONE-CALL SYSTEM. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS INCLUDING ABOVE GROUND AND UNDERGROUND ELECTRICAL, MECHANICAL, PIPING, AND CONDUITS PRIOR TO PROCEEDING WITH THE DEMOLITION WORK.
- ANY DISCREPANCIES, INCONSISTENCIES, OR OMISSIONS ARE FOUND, THE DESIGN ENGINEER AND PROPERTY OWNER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION PRIOR TO PROCEEDING WITH DEMOLITION WORK.
- ALL EXISTING BUILDINGS AND UTILITIES ASSOCIATED WITH THE BUILDING, INCLUDING HVAC, PLUMBING, ELECTRICAL, ETC., SHALL BE BY OTHERS. THIS PLAN SHOWS THE REMOVAL OF THE EXISTING BUILDINGS, NOT HOW IT IS TO BE REMOVED.
- REFER TO THE GRADING AND UTILITY PLAN FOR ANY UTILITY STRUCTURE RIMS, GRATES OR TOPS THAT ARE BEING ADJUSTED DUE TO PAVING OR LAWN REGRADING.

STORMWATER MANAGEMENT NOTES

- THE GRADING SHALL BE IN ACCORDANCE WITH THE GRADING PLANS. ANY DEVIATION FROM THE PROPOSED GRADING SHOWN ON THESE PLANS MUST HAVE THE WRITTEN APPROVAL OF THE MUHLENBERG TOWNSHIP ENGINEER. THE PROPERTY OWNER IS PROHIBITED FROM THE PLACEMENT OF ANY STRUCTURE, VEGETATION OR OTHER SURFACE WATER OBSTRUCTION IN ANY MANNER THAT WOULD IMPEDE OR REDIRECT STORM WATER DISCHARGING FROM THE LOTS IN A PATTERN DIFFERING FROM THAT INDICATED ON THE GRADING PLANS.
- AS-BUILT PLANS SHALL BE PREPARED AND CERTIFIED BY A PROFESSIONAL ENGINEER THAT THE SITE WORK, INCLUDING DETENTION BASIN, INFILTRATION SYSTEM AND STORM SEWERS, WERE CONSTRUCTED IN ACCORDANCE WITH THE PLAN.
- THE PROPERTY OWNER IS RESPONSIBLE FOR THE MAINTENANCE AND OWNERSHIP OF ALL STORMWATER MANAGEMENT FACILITIES LOCATED OUTSIDE OF THE ROAD RIGHTS-OF-WAY. THE RIGHT TO INSPECT THESE FACILITIES IS RESERVED TO THE MUHLENBERG TOWNSHIP. IN THE EVENT THAT MAINTENANCE AND STRUCTURAL INTEGRITY ARE NOT MAINTAINED BY THE OWNER AS REQUIRED BY THE TOWNSHIP, THE OWNER HEREBY GRANTS TO THE TOWNSHIP THE RIGHT TO ENTER UPON SUCH PROPERTY AND TO PERFORM ANY AND ALL IMPROVEMENTS, REVISIONS OR MAINTENANCE AS MAY BE DETERMINED NECESSARY BY THE TOWNSHIP AND TO RECOVER THE COSTS THEREOF FROM THE PROPERTY OWNER BY ALL LAWFUL MEANS INCLUDING, BUT NOT LIMITED TO, THE IMPOSITION OF A MUNICIPAL FINE ON THE SUBJECT PROPERTY.
- BASED ON A RECENT INSPECTION OF THE STORMWATER MANAGEMENT FACILITY, IT HAS BEEN DETERMINED THAT THE EXISTING DETENTION BASIN #1 HAS BEEN MAINTAINED AND OPERATED IN AN ACCEPTABLE MANNER SUCH THAT IT HAS THE CAPACITY TO RECEIVE THE ADDITIONAL STORMWATER RUNOFF GENERATED BY THE PROPOSED SITE IMPROVEMENTS DEPICTED ON THIS LAND DEVELOPMENT PLAN.

CARBONATE NOTES:

- CARE SHOULD BE TAKEN TO PREVENT COLLECTION AND DRAINAGE OF SURFACE WATER INTO EXCAVATED OR LOW LYING AREAS OF THE SITE DURING EXCAVATION AND CONSTRUCTION.
- SOFT AND WET CONDITIONS SHALL BE LOCATED WHEREVER THEY MAY EXIST OR BE ENCOUNTERED.
- SOFT AREAS SHALL BE REMOVED AND REPLACED WITH SUITABLE FILL COMPACTED IN ACCORDANCE WITH RECOGNIZED STANDARDS, SUCH AS ASTM.
- THE BOTTOM OF ALL EXCAVATIONS SHALL BE INSPECTED FOR SOFT OR UNUSUALLY MOIST CONDITIONS. A VISUAL INSPECTION OF THE EXCAVATED BEARING SURFACE, TOGETHER WITH SOULDNINGS OR PROBES OF THE SOIL AT REGULAR INTERVALS, SHALL BE PERFORMED. ANY SOFT OR UNUSUALLY MOIST SOIL SHALL BE EXCAVATED AND A DETERMINATION MADE OF THE EXTENT OF THE PROBLEM. REMEDIAL MEASURES SHALL BE ADOPTED AS NECESSARY. FINDINGS AND REMEDIATIONS SHALL BE DOCUMENTED AND PROVIDED TO THE MUNICIPALITY.
- THE END POINTS OF SEWERS AND OUTLET LOCATIONS FOR DRAINAGE PIPES SHALL BE LINED WITH IMPERMEABLE LINERS INSTEAD OF STONE RIP-RAP IN ORDER TO PREVENT INFILTRATION OF RUNOFF.
- EXCAVATION SHOULD BE KEPT TO A PRACTICAL MINIMUM.
- WATER FROM ROOF DRAINS OR OTHER DRAINAGE SYSTEMS SHOULD BE COLLECTED AND CONVEYED AWAY FROM STRUCTURES TO PREVENT INFILTRATION NEAR FOUNDATIONS. IF POSSIBLE, ROOF DRAINS SHOULD DISCHARGE DIRECTLY INTO A STORM SYSTEM OR A STREET GUTTER.
- WATER TIGHT PIPE CONNECTIONS SHALL BE USED FOR STORM SEWERS.
- SUBSOIL EROSION/SINKHOLES THAT OCCUR DURING THE CONSTRUCTION OF A PROJECT SHALL BE CORRECTED AS QUICKLY AS POSSIBLE UNDER THE SUPERVISION OF A QUALIFIED GEOTECHNICAL ENGINEER.
- BLASTING SHOULD BE AVOIDED.

REFER TO ZONING ORDINANCE SECTION 355-35 CARBONATE GEOLOGY OVERLAY DISTRICT FOR ADDITIONAL INFORMATION.

SITE DATA

RECORD OWNER: READING SCHOOL DISTRICT AND MUHLENBERG SCHOOL DISTRICT
2615 WARREN ROAD
READING PA 19605
OWNER'S REPRESENTATIVE: ERIC KAHLER (ADMINISTRATIVE DIRECTOR OF THE READING MUHLENBERG CAREER AND TECHNOLOGY CENTER)
610-921-7300

DEED BOOK VOLUME: 1814, PAGE 487
SOURCE OF TITLE: BEING PART OF THE SAME PREMISES WHICH READING-MUHLENBERG AREA VOCATIONAL-TECHNICAL SCHOOL AUTHORITY, BY DEED DATED APRIL 5, 1981 AND RECORDED IN THE OFFICE FOR THE RECORDER OF DEEDS, IN DEED BOOK VOLUME 1814 PAGE 487, BERKS COUNTY RECORDS, GRANTED AND CONVEYED INTO READING SCHOOL DISTRICT AND MUHLENBERG SCHOOL DISTRICT.
UPI / PROPERTY ID: 66-5318-14-34-9436
TOTAL TRACT AREA: 54.946 ACRES (GROSS)
SOURCE OF DATUM: EXISTING SANITARY SEWER MANHOLE INVERT (ELEVATION 483.23) NEAR THE END OF THE CONNECTOR B (APPROX. 7+00) AS SHOWN ON THE BELOW REFERENCED PLAN RECORDED IN PLAN BOOK 270, PAGE 86, BERKS COUNTY RECORDS.

REFERENCES USED TO PREPARE PLANS: "READING-MUHLENBERG AREA VOCATIONAL TECHNICAL SCHOOL ADDITIONS & RENOVATIONS" PLAN RECORDED IN PLAN BOOK 270, PAGE 86, BERKS COUNTY RECORDS.

NOTES:

- THE LOCATIONS OF UNDERGROUND UTILITIES HAVE BEEN SHOWN BASED ON FIELD SURVEY AND SURFACE OBSERVATION AND EXISTING DATA PROVIDED BY UTILITIES. STACKHOUSE BENSINGER INC. (SBI) MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. SBI DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION, THEREFORE, SBI SHALL NOT BE RESPONSIBLE OR HELD LIABLE FOR ANY UTILITY NOT SHOWN OR SHOWN ON THE DRAWINGS IN A LOCATION OTHER THAN WHERE IT IS ACTUALLY DISCOVERED UPON EXCAVATION. SBI HAS NOT PHYSICALLY EXCAVATED AND LOCATED ANY UNDERGROUND LINES.
- THE PROPERTY SHOWN HERE IS LOCATED WITHIN A ZONE X AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER FLOOD INSURANCE RATE MAP PANEL NO. 42011C0506G AND 42011C0507G, WITH AN EFFECTIVE DATE OF JULY 3, 2012.

INTENT: CONSTRUCT NEW BUILDING AND RELATED IMPROVEMENTS (NO ADDITIONAL STAFF, STUDENTS, ETC. WILL BE ADDED AS PART OF THIS PROJECT, NO ADDITIONAL PARKING IS PROPOSED OR NECESSARY)
PROPOSED WATER SUPPLY: PUBLIC
PROPOSED SANITARY SEWER DISPOSAL: PUBLIC

ZONING DATA

R-2 (LOW TO MEDIUM DENSITY RESIDENTIAL DISTRICT) REQUIREMENTS FOR EDUCATIONAL USES	REQUIRED	PROVIDED
MINIMUM LOT AREA:	3 ACRES	54.946 ACRES
MINIMUM LOT WIDTH:	250 FEET	250+ FEET
MINIMUM FRONT YARD:	60 FEET	200+ FEET
MINIMUM SIDE YARD:	25 FEET	198+ FEET
MINIMUM REAR YARD:	50 FEET	198+ FEET
MAXIMUM BUILDING COVERAGE:	30 PERCENT	7.4 PERCENT
MAXIMUM LOT COVERAGE:	24 PERCENT*	20.0 PERCENT
	50 PERCENT*	
	40 PERCENT*	
MAXIMUM BUILDING HEIGHT:	50 FEET	

BYPASS INTERCHANGE OVERLAY DISTRICT

MINIMUM LOT AREA:	REQUIRED	PROVIDED
MINIMUM LOT AREA:	3 ACRES PER PERMITTED USE	54.946 ACRES
MINIMUM LOT WIDTH:	200 FEET	250+ FEET
MINIMUM FRONT YARD:	60 FEET	250+ FEET
MINIMUM SIDE YARD:	30 FEET**	200+ FEET
MINIMUM REAR YARD:	50 FEET**	198+ FEET
MAXIMUM BUILDING COVERAGE:	40 PERCENT*	19.8 PERCENT
	32 PERCENT*	
MAXIMUM LOT COVERAGE:	60 PERCENT*	20.0 PERCENT
	48 FEET**	
	50 FEET	

*DUE TO THE FACT THAT MORE THAN 10 PERCENT OF THE OVERALL PROPERTY CONTAINS SLOPES WITHIN THE CATEGORY 3 SLOPES, THE MAXIMUM COVERAGE AREAS SHALL BE REDUCED BY 20 PERCENT
**MINIMUM SETBACK INCREASES TO 100 FEET IF THE ADJOINING PROPERTY CONTAINS AN EXISTING RESIDENTIAL USE

EXISTING IMPERVIOUS COVER TO BE REMOVED:

- CONCRETE: 3,499.83 S.F.
- GRAVEL: 14,053.90 S.F.

PROPOSED IMPERVIOUS COVER TO BE ADDED:

- BUILDING: 9,099.12 S.F.
- PAVING: 956.12 S.F.
- CONCRETE: 1,983.78 S.F.

CHANGE IN IMPERVIOUS COVER: 5,514.71 S.F. INCREASE

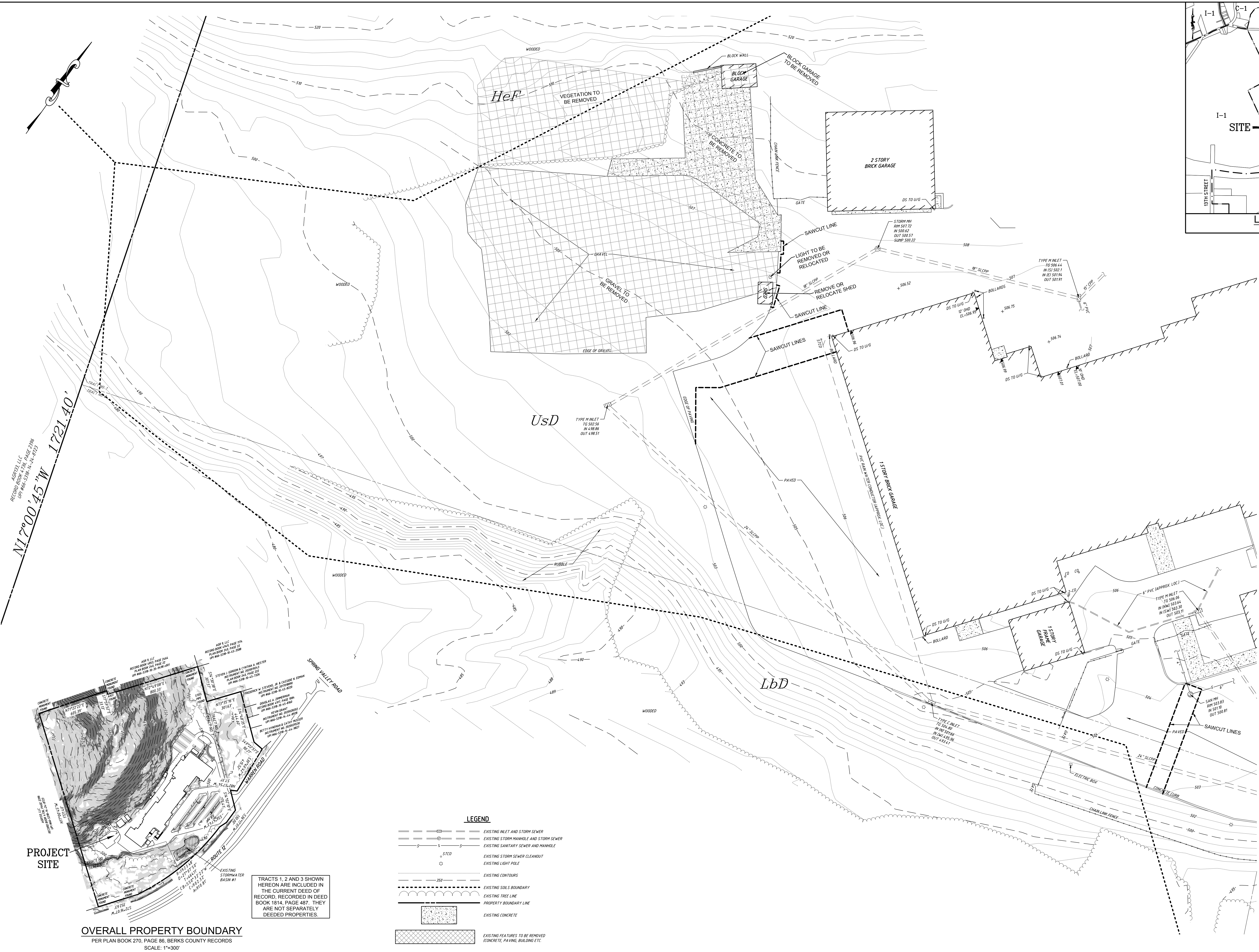
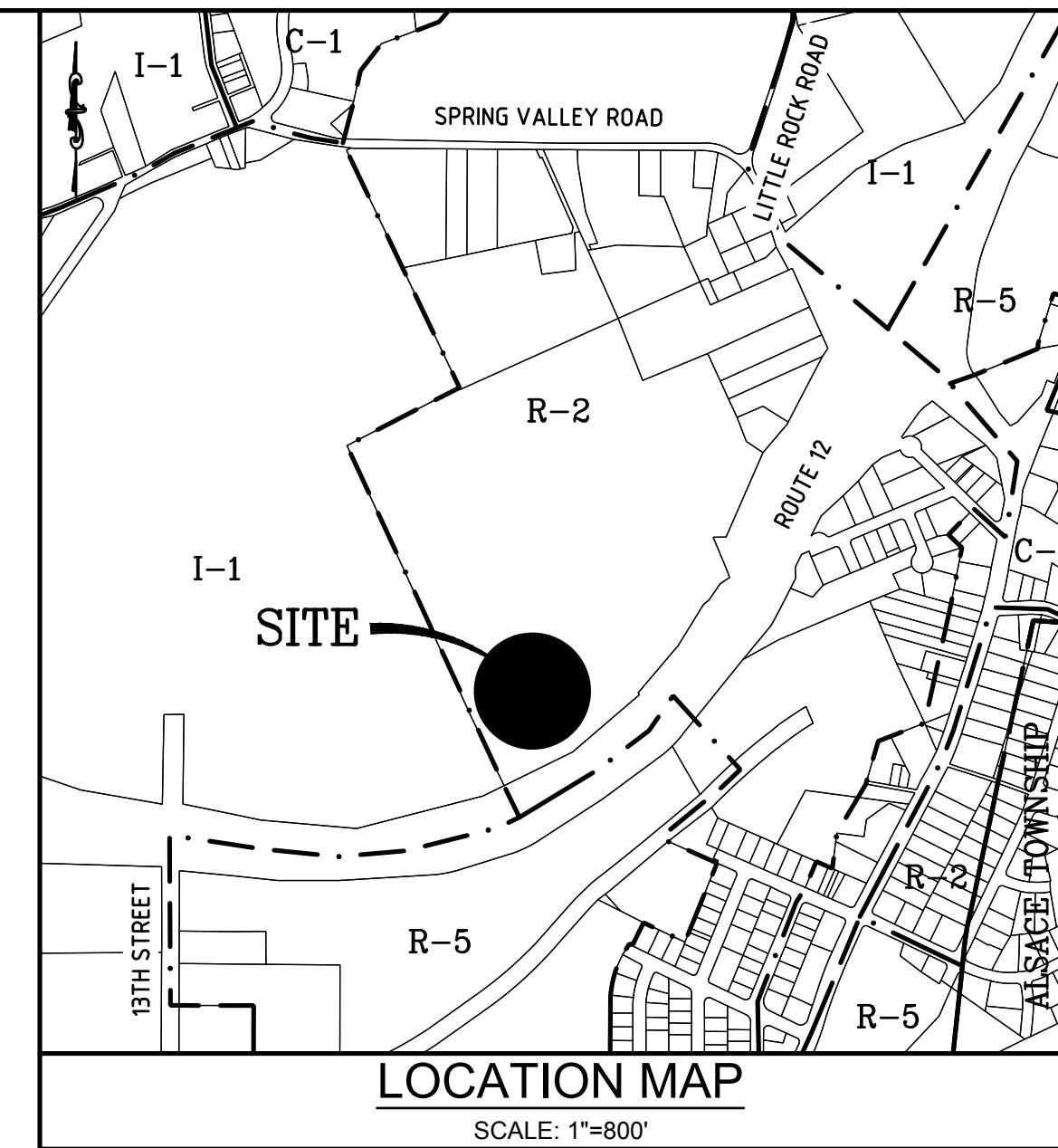
PLAN LIST INDEX

PLAN TITLE	PLAN NO.	SHEET NO.
COVER SHEET AND SITE CONSTRUCTION NOTES	C-1.1	SHEET 1 OF 6
EXISTING CONDITIONS & DEMOLITION	C-2.1	SHEET 2 OF 6
LAND DEVELOPMENT & LANDSCAPE	C-3.1	SHEET 3 OF 6
GRADING & UTILITY	C-4.1	SHEET 4 OF 6
PROFILES	C-5.1	SHEET 5 OF 6
SITE CONSTRUCTION DETAILS	C-6.1	SHEET 6 OF 6
EROSION & SEDIMENT CONTROL (E & SC) PLAN	C-6S1	SHEET 1 OF 3
E & SC PLAN DETAILS	C-6S2	SHEET 2 OF 3
E & SC PLAN NOTES	C-6S3	SHEET 3 OF 3
LIGHTING	E-104	SHEET 1 OF 1
ALL PLANS LISTED IN THE PLAN LIST INDEX WILL BE RECORDED IN THE BERKS COUNTY RECORDER OF DEEDS OFFICE.		

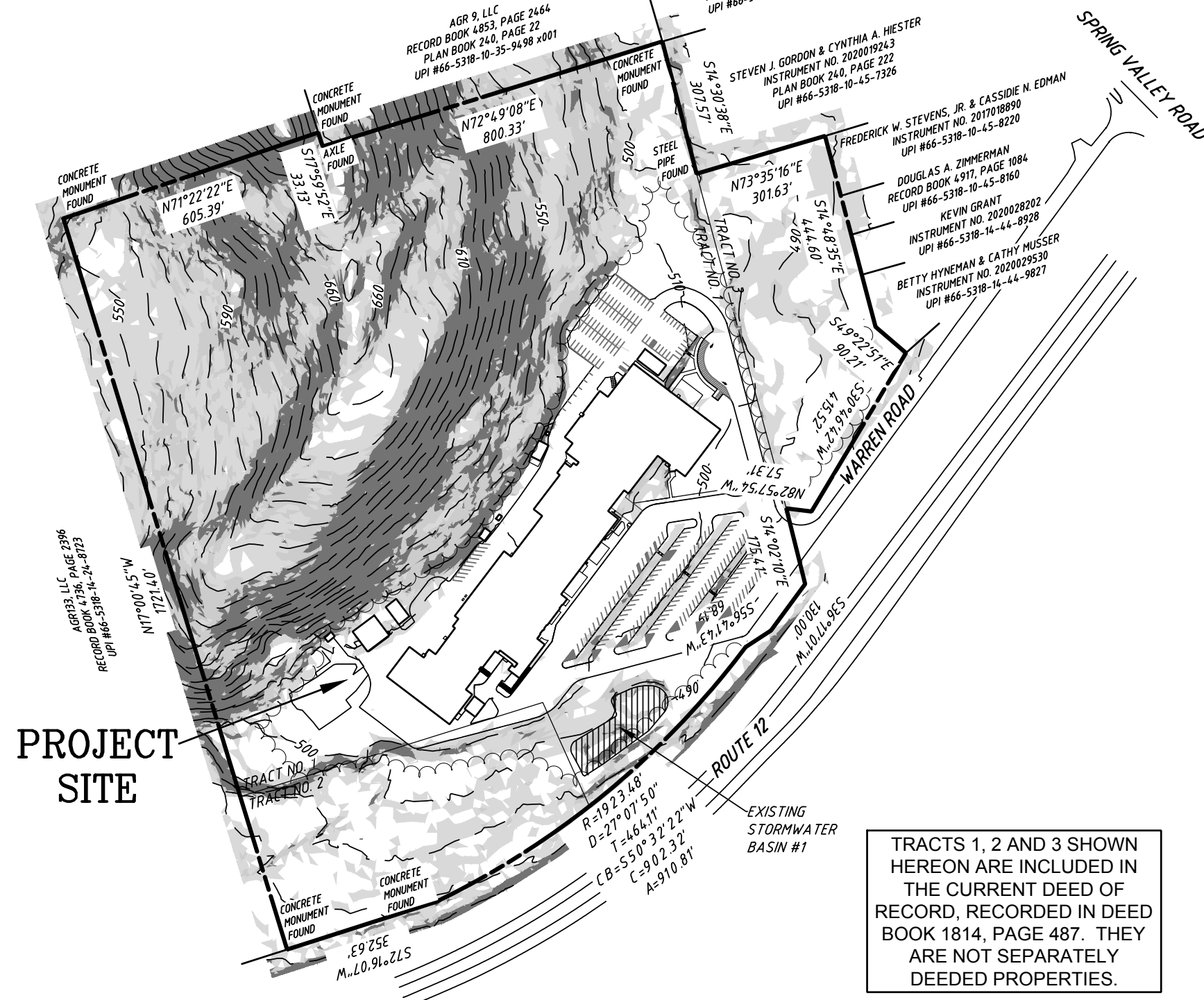
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH THE PENNSYLVANIA ACT 121 AND TO CONTACT THE "ONE-CALL SYSTEM" WORKING DAYS PRIOR TO CONSTRUCTION (UNLESS OTHERWISE INDICATED). PA ONE-CALL NUMBER: 1-800-242-1776 OR 811.
2. ALL EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE LOCATIONS AND MUST BE VERIFIED WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO ANY CONSTRUCTION OR OPERATION BEING UNDERTAKEN ON THIS SITE.
3. ANY CONSTRUCTION OR OPERATION UNDERTAKEN ON THIS SITE MUST CONFORM TO ANY AND ALL LOCAL, STATE, DEED OR OTHER RESTRICTIONS AS EFFECT AT THE TIME OF OPERATION.

SERIAL NUMBER: 20212801733

NOTES:
1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH THE PENNSYLVANIA ACT 121 AND TO CONTACT THE "ONE-CALL SYSTEM" WORKING DAYS PRIOR TO CONSTRUCTION (UNLESS OTHERWISE INDICATED). PA ONE-CALL NUMBER: 1-800-242-1776 OR 811.
2. ALL EXISTING UNDERGROUND UTILITIES SHOWN ARE APPRO

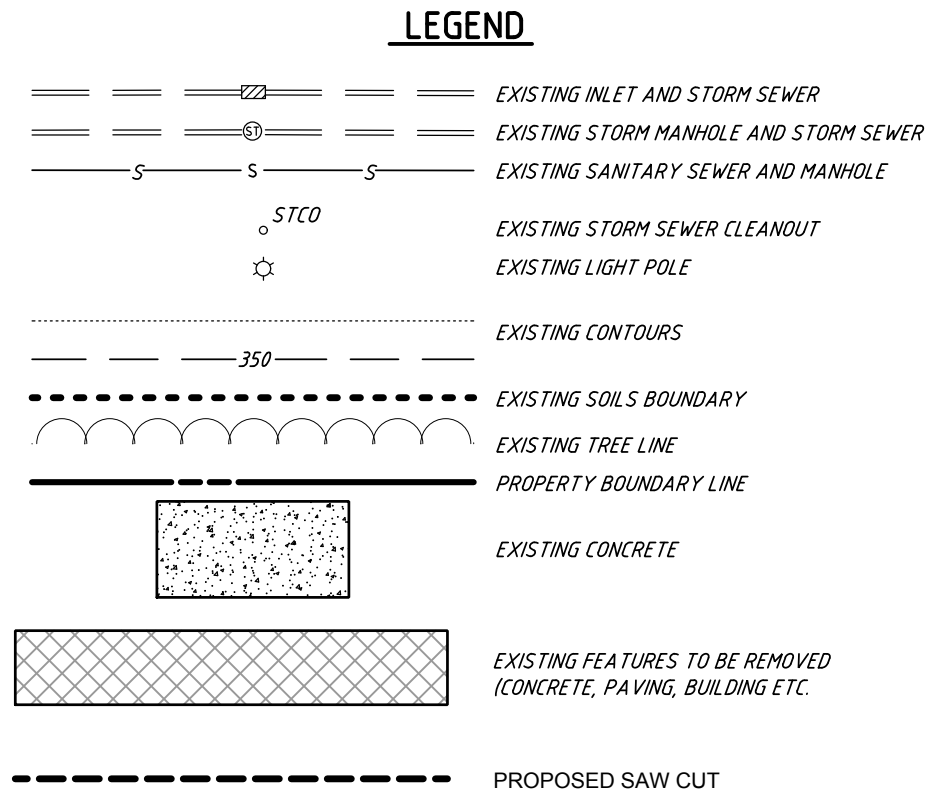


N17°00'45" W 1721.40'
 RECORD BOOK 274, PAGE 2386
 CPT 186-5318-14-187D



OVERALL PROPERTY BOUNDARY
 PER PLAN BOOK 270, PAGE 86, BERKS COUNTY RECORDS
 SCALE: 1"=300'

PROPERTY LINE CURVE FUNCTIONS				
CATEGORY	MINIMUM SLOPE	MAXIMUM SLOPE	AREA (S.F)	PERCENTAGE OF OVERALL PROPERTY
1	10	20	534,631	22 PERCENT
2	20	30	373,100	16 PERCENT
3	30	-	479,381	20 PERCENT



SOILS INFORMATION
 (TAKEN FROM BERKS COUNTY SOILS SURVEY)

Hef - HAZELTON VERY CHANNERY LOAM, 25 TO 60 PERCENT SLOPES, EXTREMELY STONY
 LbD - LAZIG VERY GRAVELLY LOAM, 8 TO 28 PERCENT SLOPES, EXTREMELY STONY
 UsD - URBAN LAND-LAIDIG COMPLEX, 8 TO 25 PERCENT SLOPES

TRACTS 1, 2 AND 3 SHOWN
 HEREON ARE INCLUDED IN
 THE CURRENT DEED OF
 RECORD, RECORDED IN DEED
 BOOK 1814, PAGE 487. THEY
 ARE NOT SEPARATELY
 DEEDED PROPERTIES.

REVISIONS	
NO.	DATE
1	2/23/22

REVISOR: PER TYP REVIEW
 LETTER DATED 2/14/22

CONSULTANT

STACKHOUSE BENSENGER INC.
 LANDSCAPE ARCHITECTURE
 CIVIL ENGINEERING
 LAND PLANNING
 MUNICIPAL CONSULTING
 SURVEYING

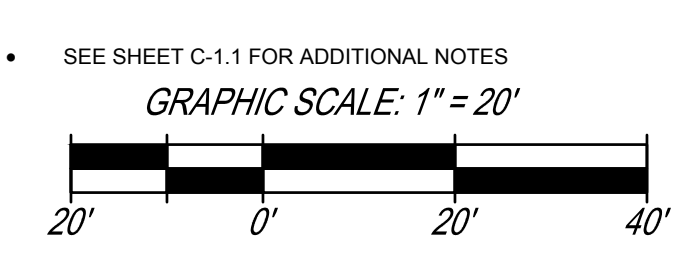
330 REVERE BOULEVARD
 SINKING SPRING, PA 19808
 VOICE: (610) 777-8000 FAX: (610) 796-2983
 WWW: stackhousebensenger.com
 EMAIL: ssainc@seinc.com

PROJECT INFORMATION

CLIENT: **Muhlenberg Greene Architects**
 955 Berkshire Boulevard Wyomissing PA 19810

PROJECT: **RMCTC Welding & Fabrication Building**
 Muhlenberg Township Berks County Pennsylvania

PLAN TITLE:	EXISTING CONDITIONS & DEMOLITION
PLAN STATUS:	FINAL
ISSUE DATE:	January 19, 2022
UPI / PROPERTY ID:	66-5318-14-34-9436
FILE NAME:	2021-087DGN
DRAWN BY:	DLG
CHECKED BY:	SHB
PLAN SCALE:	1"=20'
PROJECT NUMBER:	2021-087
PLAN NO.:	C-2.1
SHEET NO.:	2 OF 6



APR 2022, LLC
 RECORD DRAWING PER PAGE 2708
 UPI #66-5318-14-34-9436

N17°00'45" W 1721.40'

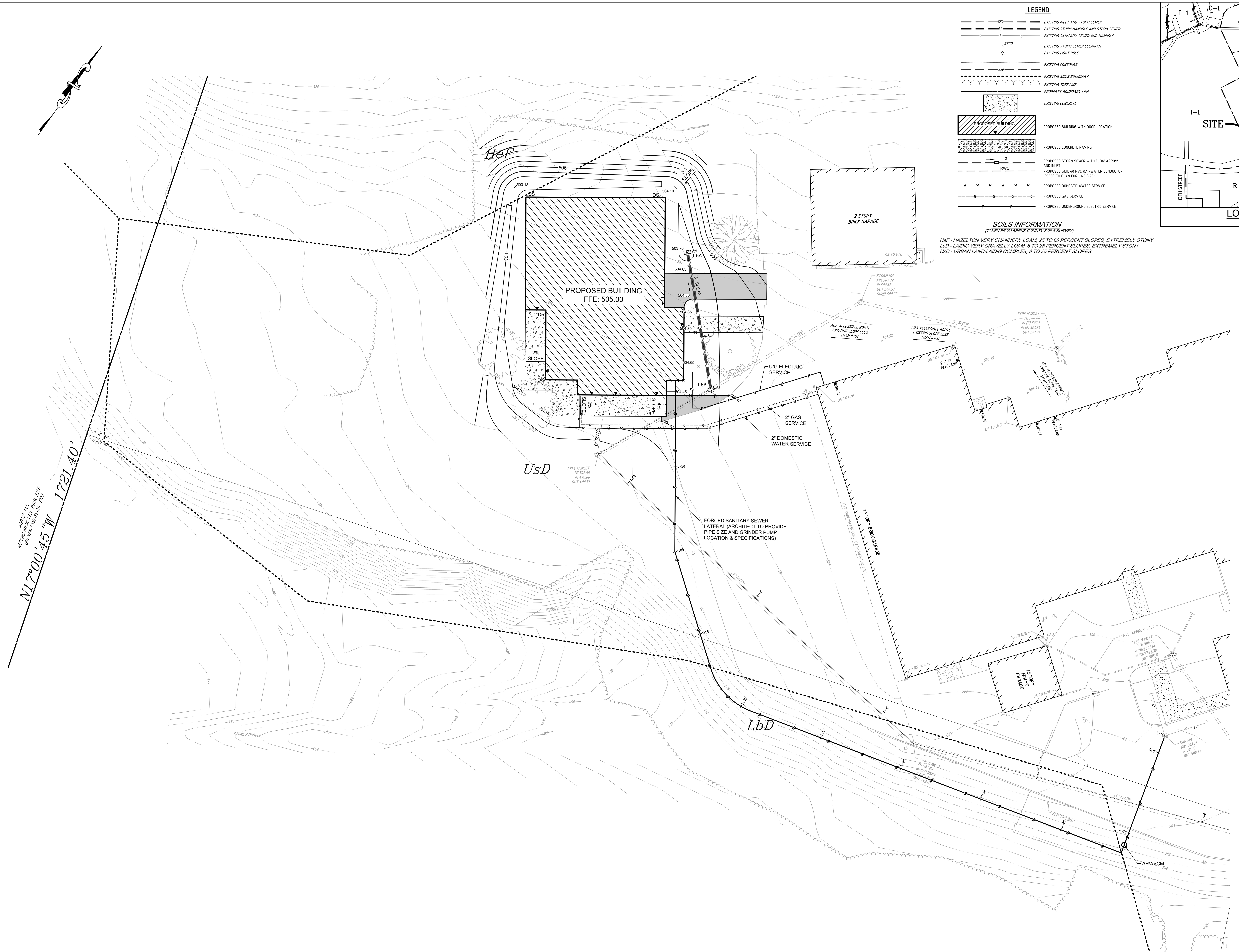
LEGEND

- EXISTING INLET AND STORM SEWER
- EXISTING STORM MANHOLE AND STORM SEWER
- EXISTING SANITARY SEWER AND MANHOLE
- EXISTING STORM SEWER CLEANOUT
- EXISTING LIGHT POLE
- EXISTING CONTOURS
- EXISTING SOILS BOUNDARY
- EXISTING TREE LINE
- PROPERTY BOUNDARY LINE
- EXISTING CONCRETE
- PROPOSED BUILDING WITH DOOR LOCATION
- PROPOSED CONCRETE PAVING
- PROPOSED STORM SEWER WITH FLOW ARROW AND INLET
- PROPOSED SCH. 40 PVC RAINWATER CONDUCTOR (REFER TO PLAN FOR LINE SIZE)
- PROPOSED DOMESTIC WATER SERVICE
- PROPOSED GAS SERVICE
- PROPOSED UNDERGROUND ELECTRIC SERVICE

SOILS INFORMATION
 (TAKEN FROM BERKS COUNTY SOILS SURVEY)

HeF - HAZELTON VERY CHANNERY LOAM, 25 TO 60 PERCENT SLOPES, EXTREMELY STONY
 LbD - LAIDIG VERY GRAVELLY LOAM, 8 TO 25 PERCENT SLOPES, EXTREMELY STONY
 UsD - URBAN LAND-LAIDIG COMPLEX, 8 TO 25 PERCENT SLOPES

LOCATION MAP
 SCALE: 1"=800'



SEAL

NO.	DATE	REVISION
1	2/23/22	REVISED PER TYP. REVIEW LETTER DATED 2/14/22

REVISIONS
 CONSULTANT

STACKHOUSE BENNINGER INC.
 LANDSCAPE ARCHITECTURE
 CIVIL ENGINEERING
 LAND PLANNING
 MUNICIPAL CONSULTING
 SURVEYING

330 REVERE BOULEVARD
 SINKING SPRING, PA 19808
 VOICE: (610) 777-8000 FAX: (610) 796-2983
 WWW: stackhousebensinger.com
 EMAIL: ssainc@seinc.com

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PROJECT INFORMATION

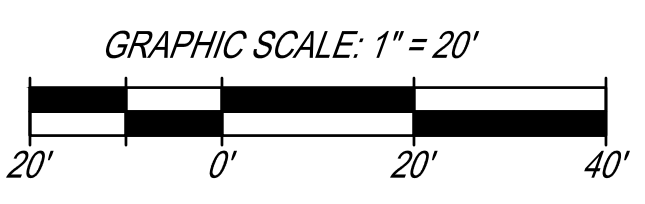
CLIENT:
Muhlenberg Greene Architects
 955 Berkshire Boulevard Wyomissing PA 19810

PROJECT:
RMCTC Welding & Fabrication Building
 Muhlenberg Township Berks County Pennsylvania

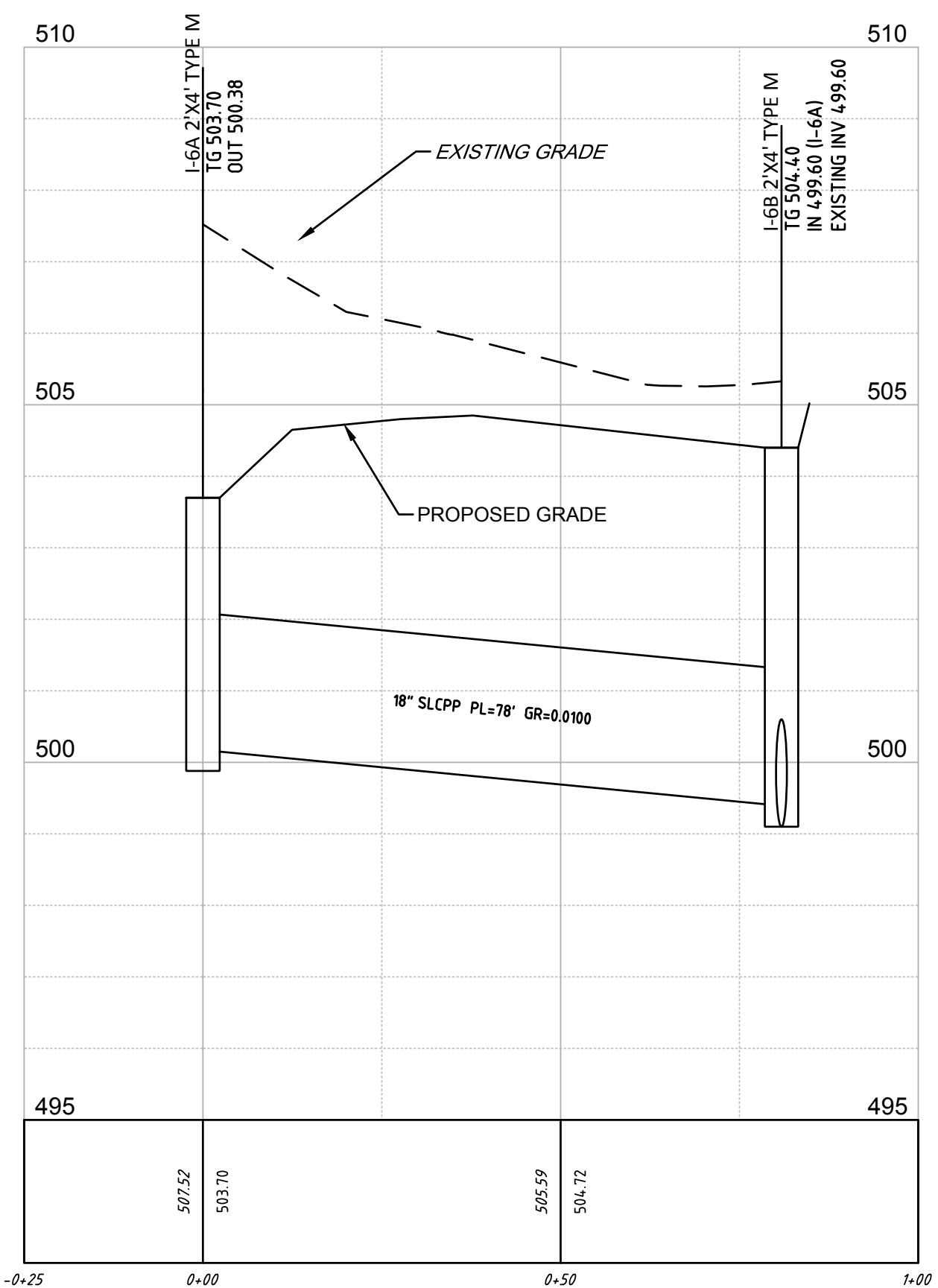
PLAN TITLE:
GRADING & UTILITY

PLAN STATUS:	FINAL
ISSUE DATE:	January 19, 2022
UPI / PROPERTY ID:	66-5318-14-34-9436
FILE NAME:	2021-087.DGN
DRAWN BY:	DLG
CHECKED BY:	SHB
PLAN SCALE:	1"=20'
PROJECT NUMBER:	2021-087

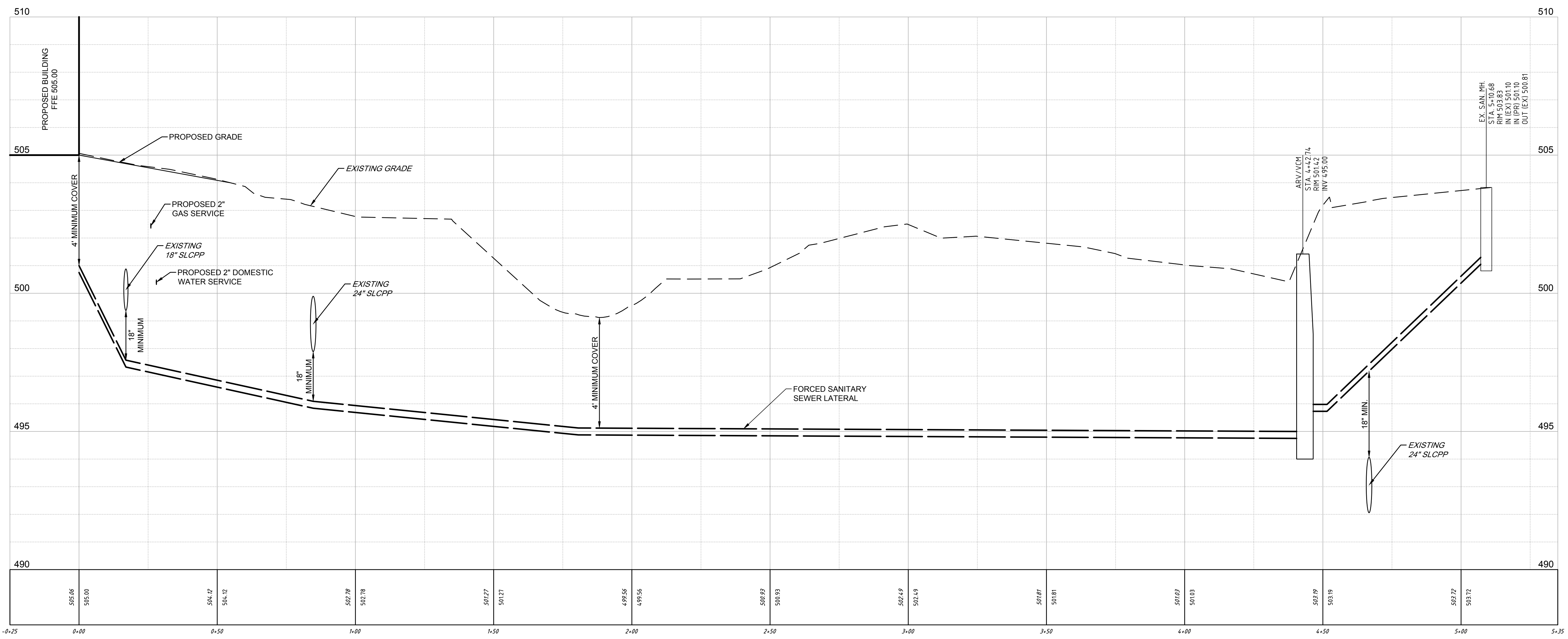
SEE SHEET C-1.1 FOR ADDITIONAL NOTES
 THIS PLAN DOES NOT REFLECT ALL EXISTING FEATURES. SEE EXISTING CONDITIONS AND DEMOLITION PLAN FOR ALL EXISTING FEATURES THAT ARE TO BE REMOVED.
 SEE FROM PLAN DETAIL SHEETS FOR PERMANENT STORMWATER MANAGEMENT BMP DETAILS AND NOTES.



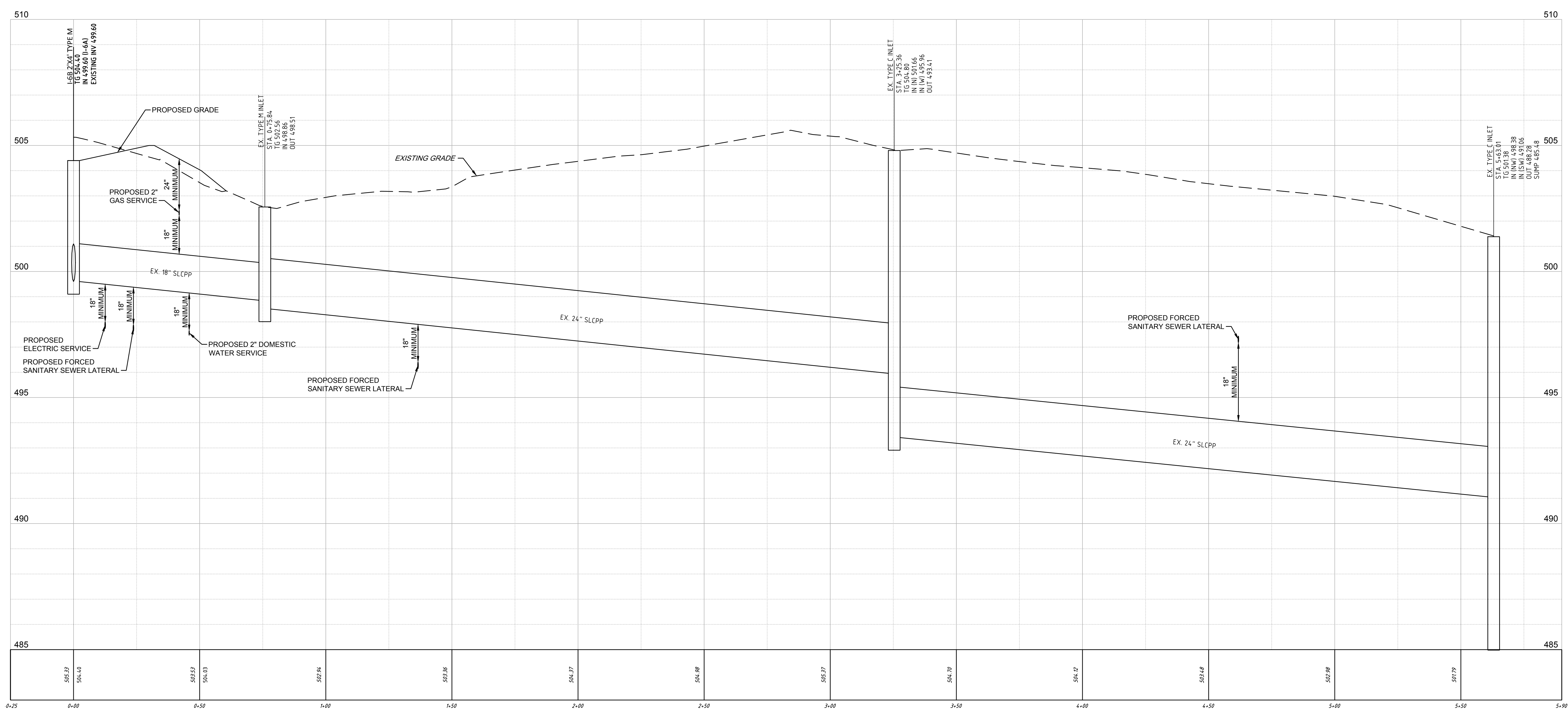
C-4.1
 SHEET 4 OF 6



STORM SEWER PROFILE: I-6A to I-6B
 SCALE HORIZ: 1"=20'
 VERT: 1"=2'



SANITARY SEWER PROFILE: SANITARY SEWER LATERAL
 SCALE HORIZ: 1"=20'
 VERT: 1"=2'



STORM SEWER PROFILE: I-6B TO EX. TYPE C INLET
 SCALE HORIZ: 1"=20'
 VERT: 1"=2'

REVISIONS		
NO.	DATE	REVISION
1	2/23/22	REVISED PER TWP REVIEW LETTER DATED 2/14/22

CONSULTANT



STACKHOUSE BENSSINGER INC.
 LANDSCAPE ARCHITECTURE
 CIVIL ENGINEERING
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 MUNICIPAL CONSULTING
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 330 REVERE BOULEVARD
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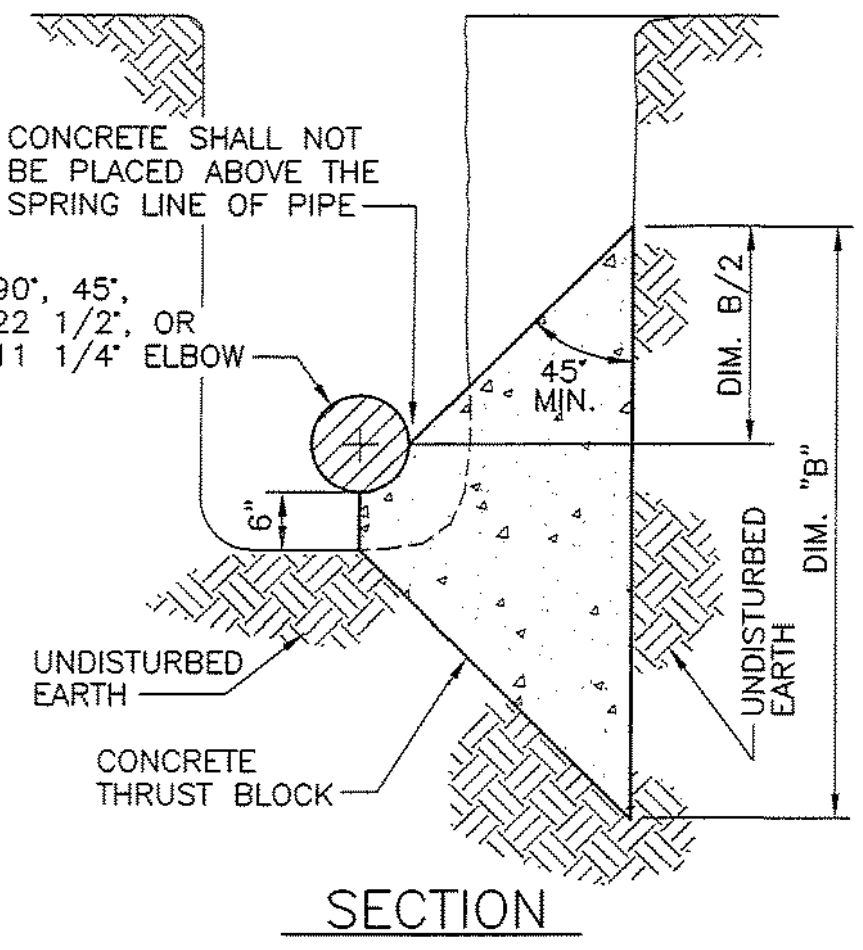
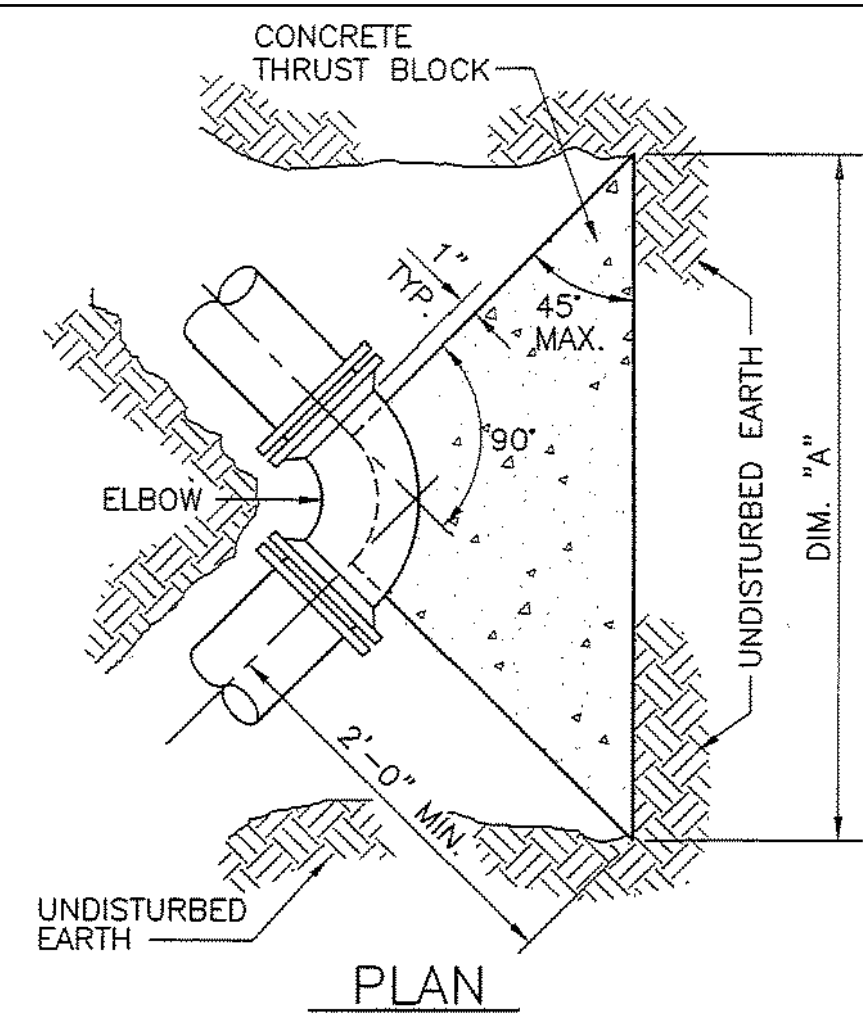
PROJECT INFORMATION
 CLIENT: **Muhlenberg Greene Architects**
 955 Berkshire Boulevard Wyomissing PA 19810
 PROJECT: **RMCTC Welding & Fabrication Building**
 Muhlenberg Township Berks County Pennsylvania

PLAN TITLE: **PROFILES**

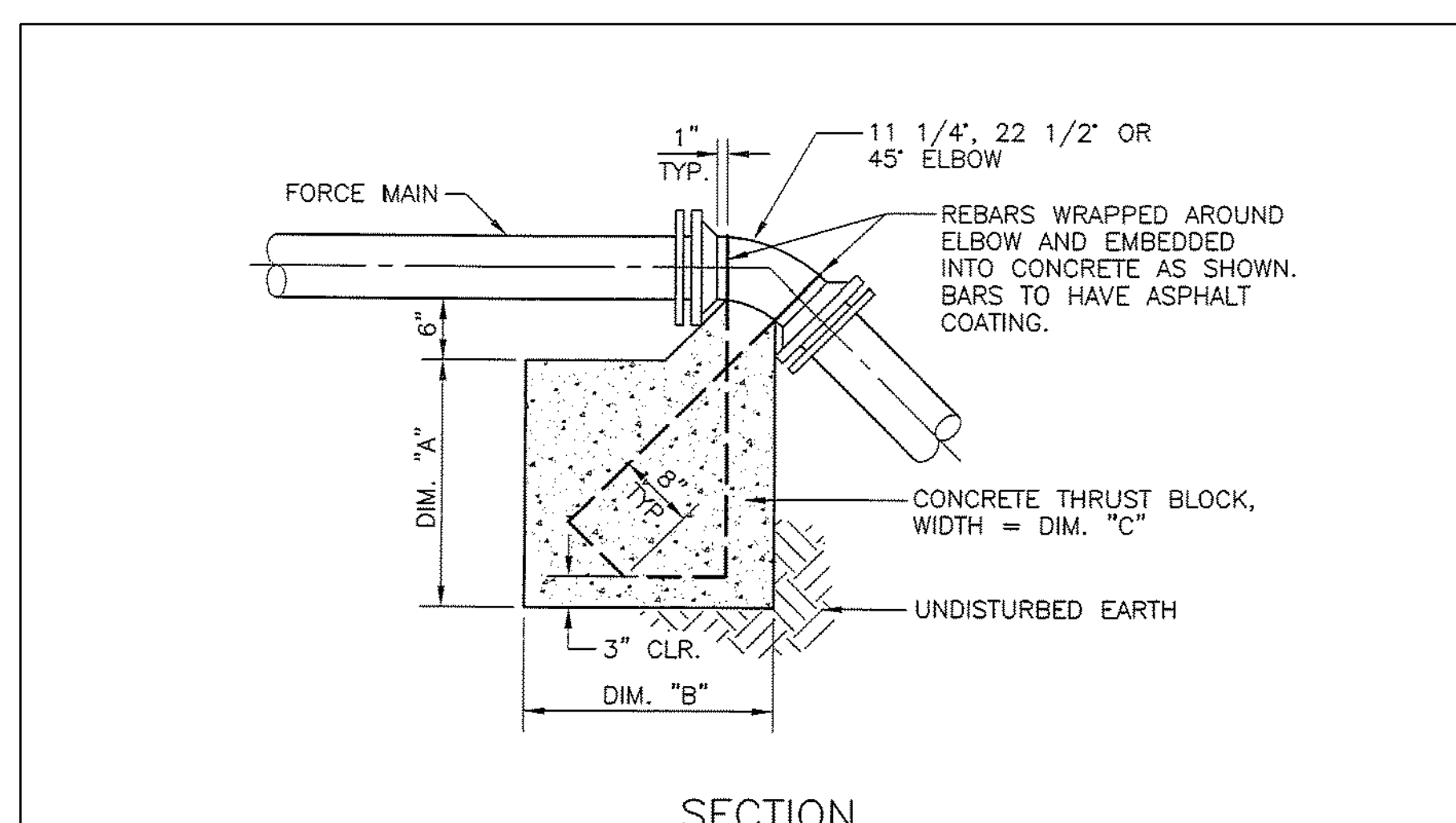
PLAN STATUS:	FINAL
ISSUE DATE:	January 19, 2022
UPI / PROPERTY ID:	66-5318-14-34-9436
FILE NAME:	2021-087.DGN
DRAWN BY:	DLG
CHECKED BY:	SHB
PLAN SCALE:	NO SCALE
PROJECT NUMBER:	2021-087
PLAN NO.:	C-5.1
SHEET NUMBER:	SHEET 5 OF 6

THRUST BLOCK DIMENSION SCHEDULE - ELBOWS(*)					
PIPE DIAM.	DIM.	ELBOW DEFLECTION ANGLE			
		11 1/4"	22 1/2"	45°	90°
1 1/2" THRU 4"	A	12"	18"	24"	24"
	B	12"	12"	12"	18"
6"	A	18"	24"	30"	42"
	B	12"	18"	24"	30"
8"	A	24"	24"	42"	60"
	B	12"	24"	30"	36"
12"	A	30"	42"	54"	90"
	B	24"	30"	36"	48"

(*) THRUST BLOCK DESIGN BASED ON THE MINIMUM SOIL HORIZONTAL BEARING STRENGTH OF 3000 PSF AND 150 PSI WORKING PRESSURE PLUS 50% WATER HAMMER ALLOWANCE.
FOR PIPE SIZES GREATER THAN 12", SUBMIT ENGINEERING CALCULATIONS TO VERIFY PROPOSED THRUST BLOCK SIZES.



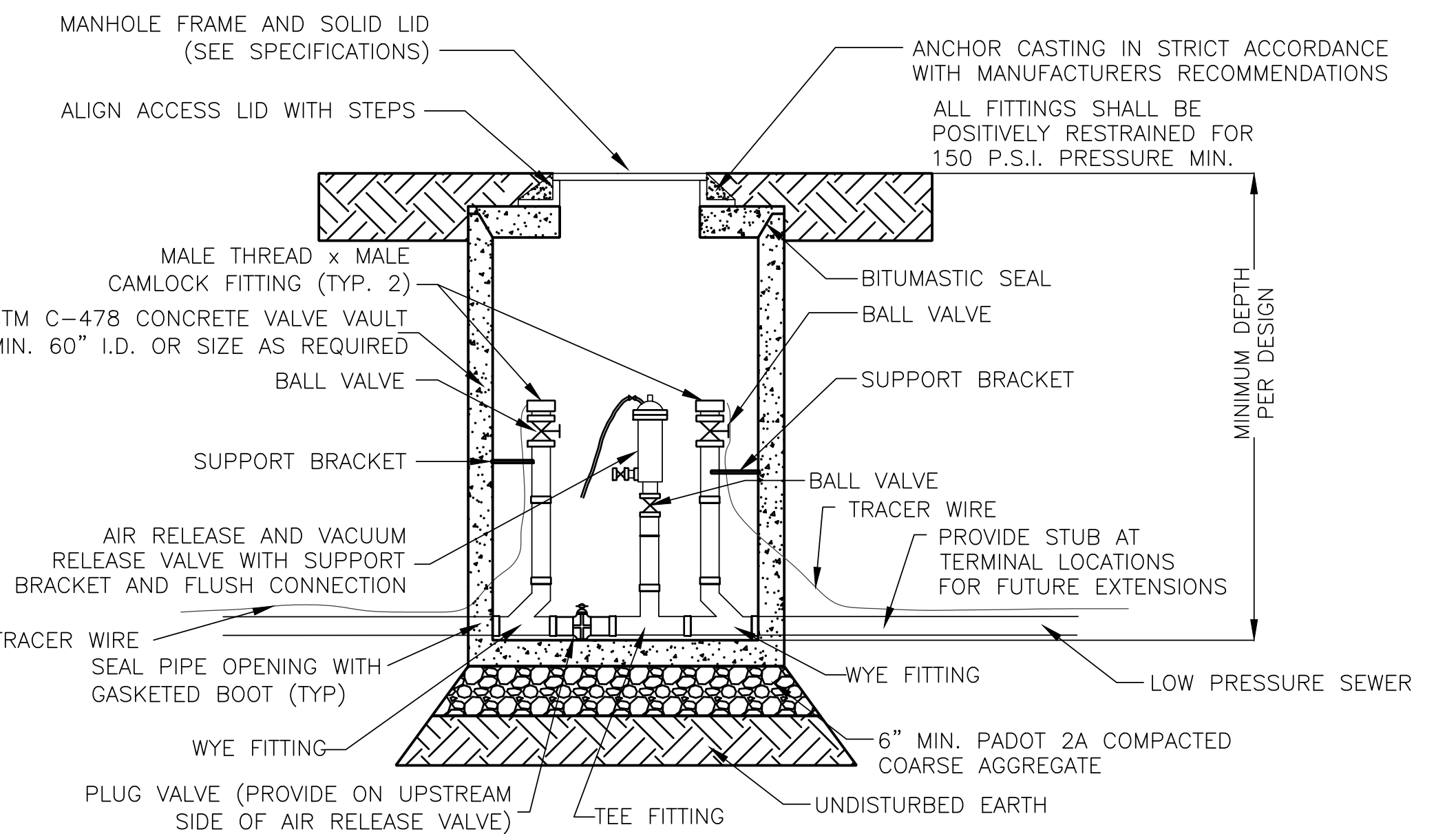
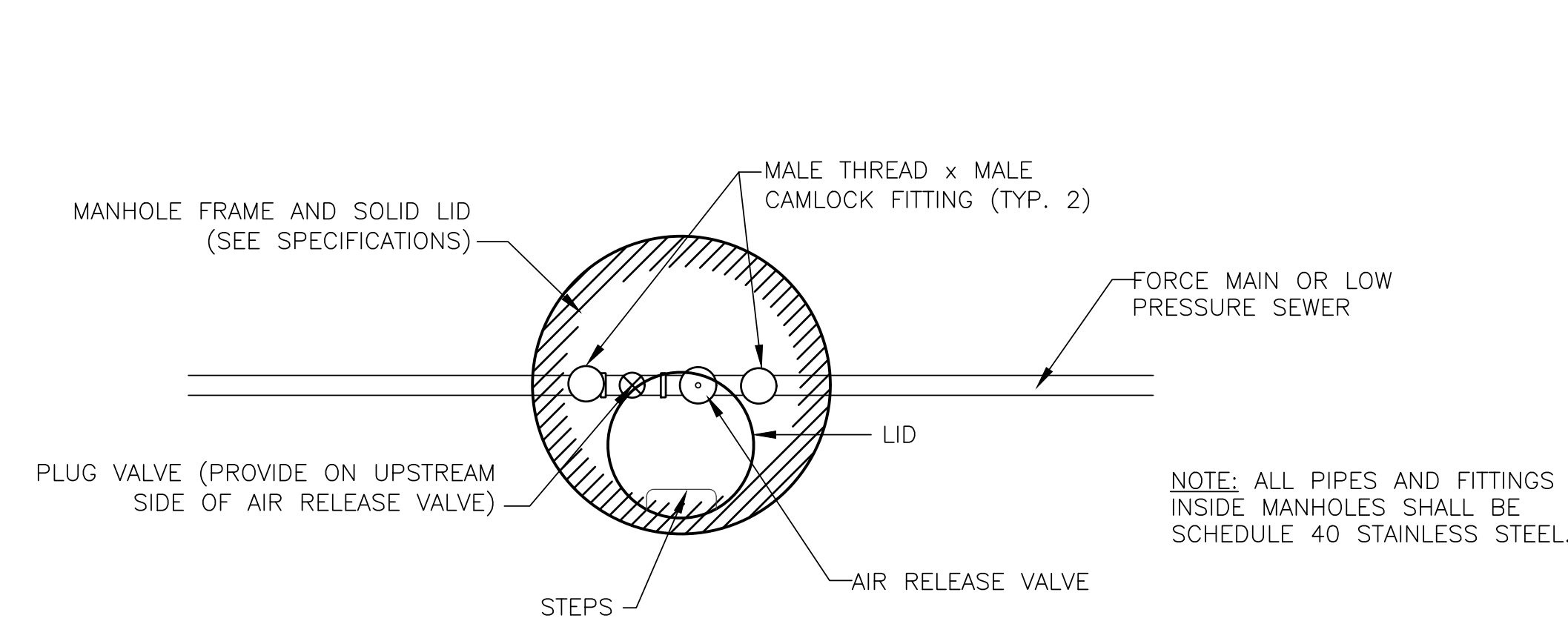
HORIZ. & VERT. UP RESTRAINT THRUST BLOCK DETAIL-ELBOWS



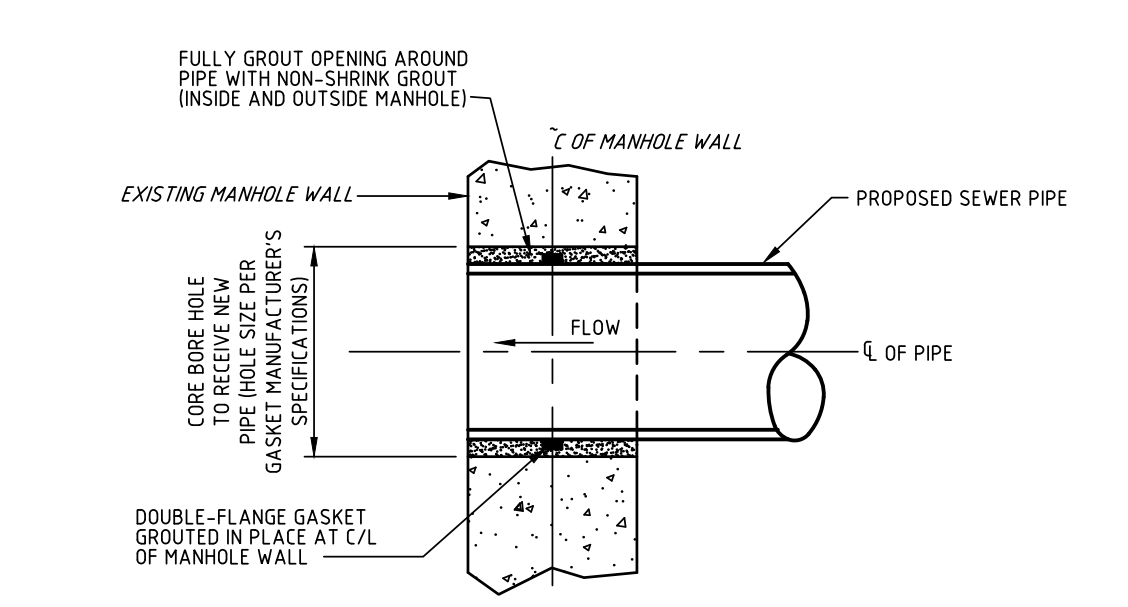
THRUST BLOCK DIMENSION SCHEDULE - VERTICAL ELBOWS(*) (DUCTILE IRON PIPE)										
DIM.	1 1/2" - 6"		8"		12"		1 1/2" - 6"		12"	
	11 1/4"	11 1/4"	11 1/4"	11 1/4"	22 1/2"	22 1/2"	22 1/2"	22 1/2"	45"	45"
A	12"	18"	36"	18"	36"	54"	36"	48"	48"	54"
B	18"	24"	36"	24"	36"	48"	36"	48"	48"	54"
C	18"	24"	24"	24"	24"	30"	24"	30"	30"	48"
REBAR	#4	#4	#6	#4	#4	#6	#4	#4	#4	#6

(*) THRUST BLOCK DESIGN BASED ON THE MINIMUM SOIL HORIZONTAL BEARING STRENGTH OF 3000 PSF AND 150 PSI WORKING PRESSURE PLUS 50% WATER HAMMER ALLOWANCE.
FOR PIPE SIZES GREATER THAN 12", SUBMIT ENGINEERING CALCULATIONS TO VERIFY PROPOSED THRUST BLOCK SIZES.

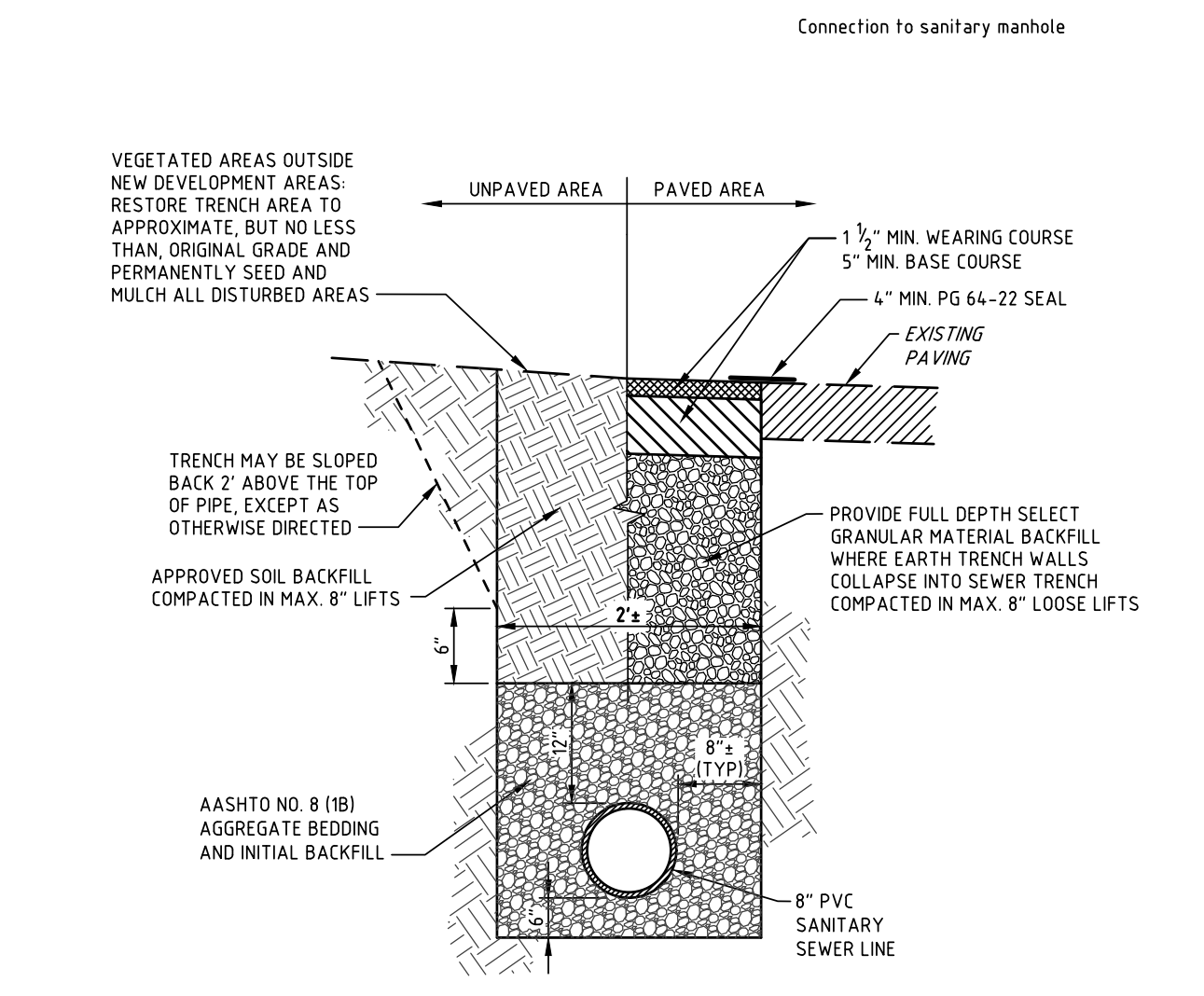
VERTICAL DOWN RESTRAINT THRUST BLOCK DETAIL-ELBOWS



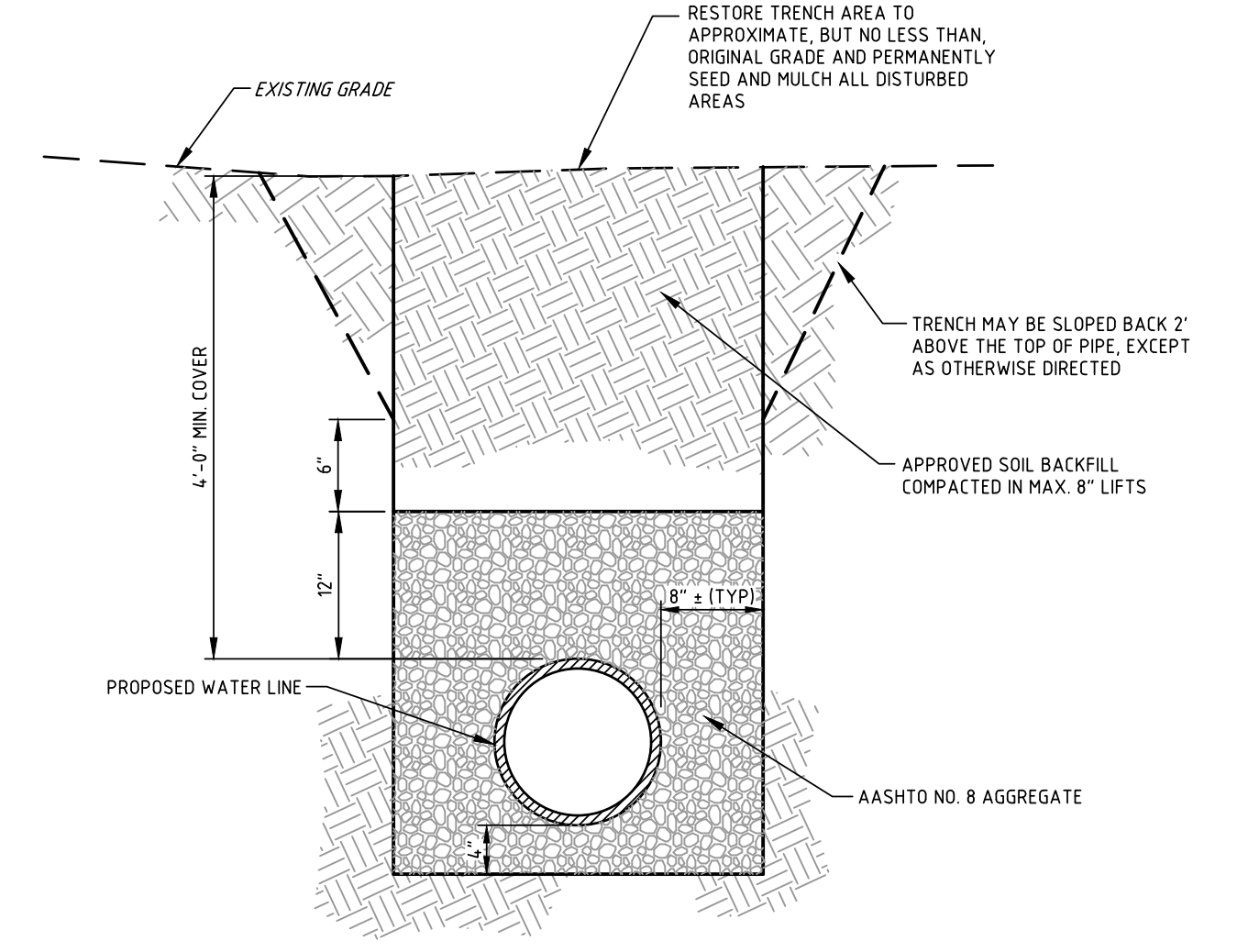
COMBINATION AIR RELEASE VALVE VAULT (ARV) AND VALVE & CLEANOUT MANHOLE (VCM)



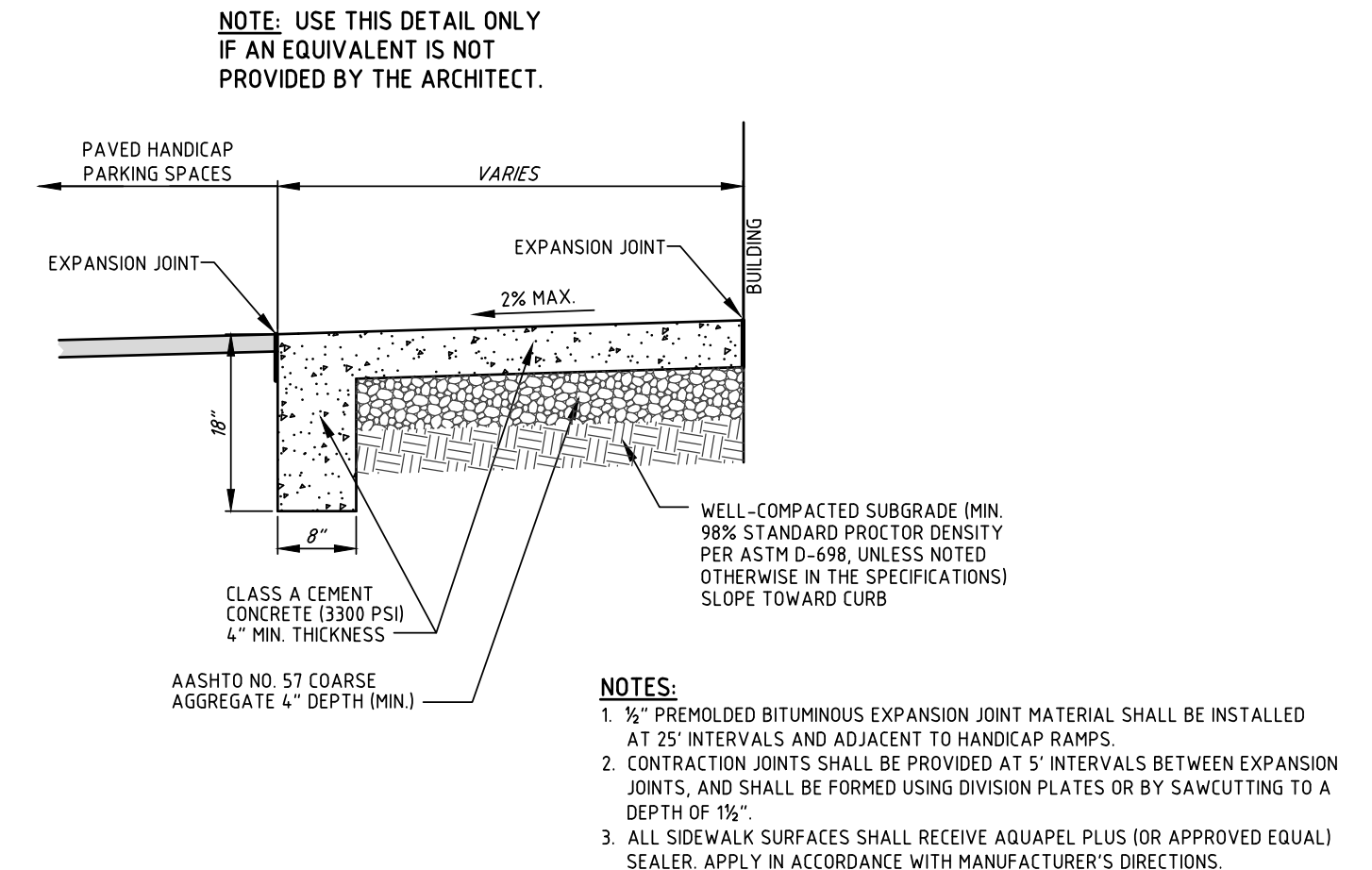
PIPE CONNECTION TO EXISTING SANITARY MANHOLE



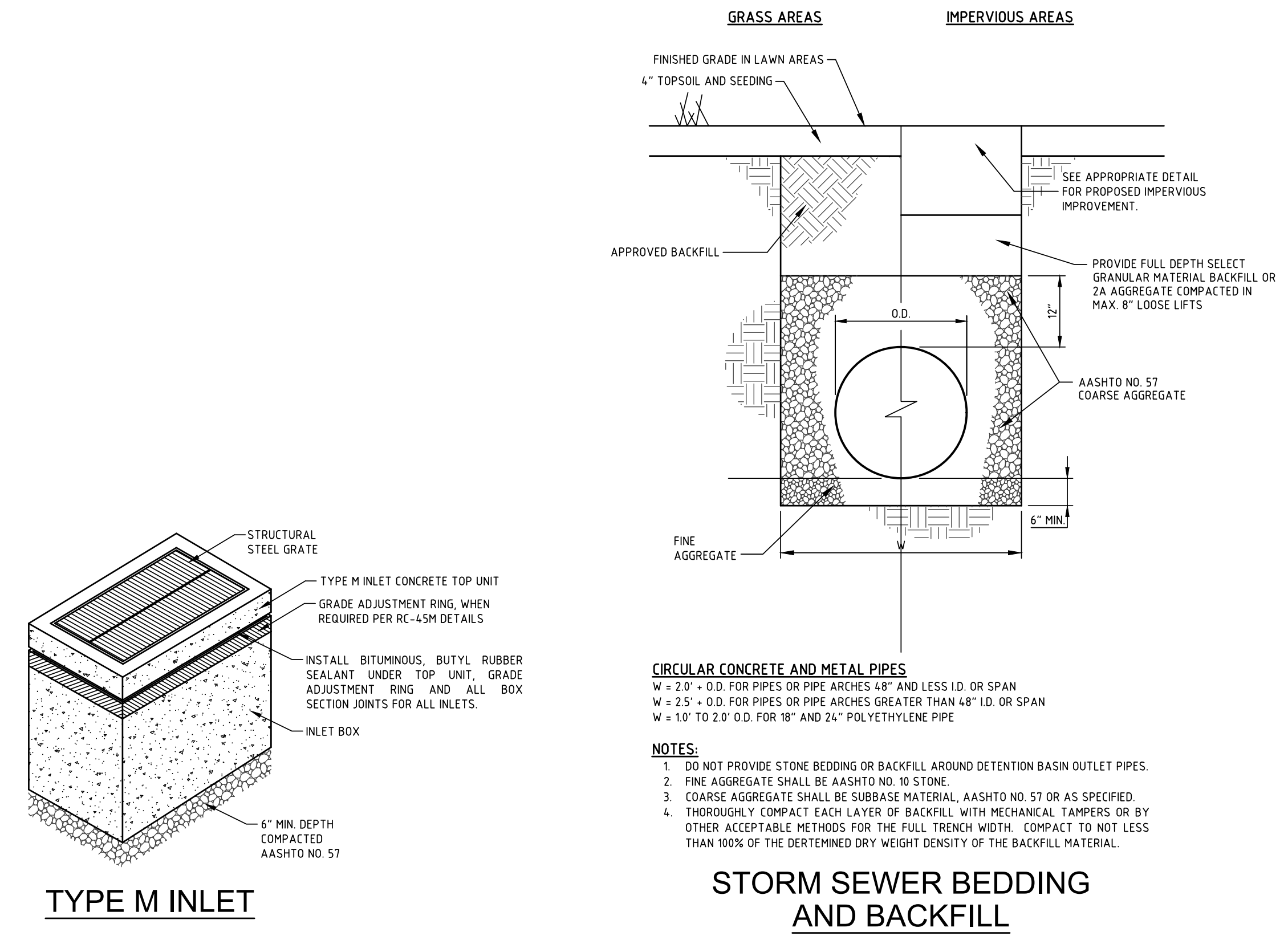
SANITARY SEWER PIPE BEDDING DETAIL



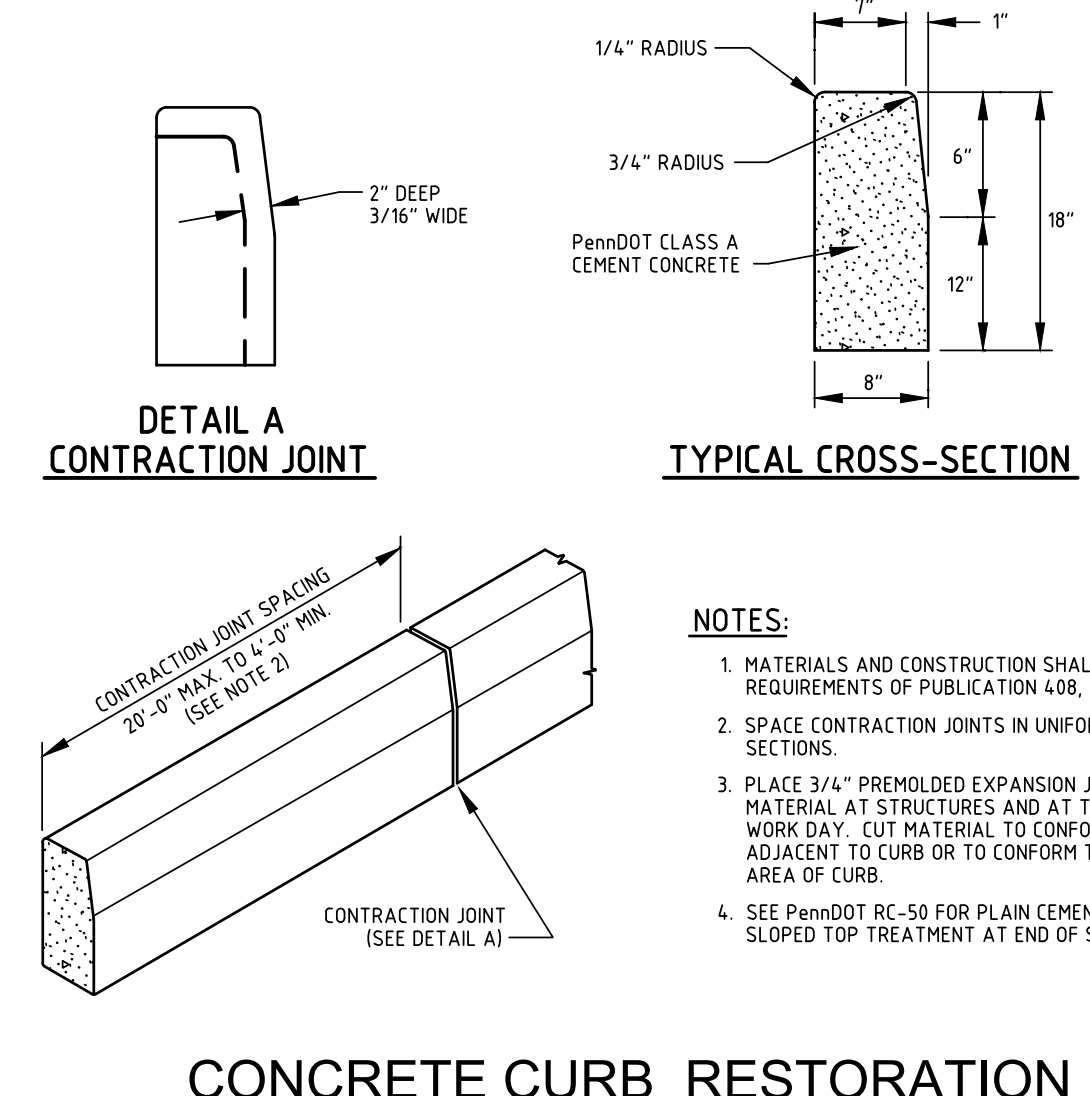
WATER LINE BEDDING/BACKFILL IN UNPAVED AREAS



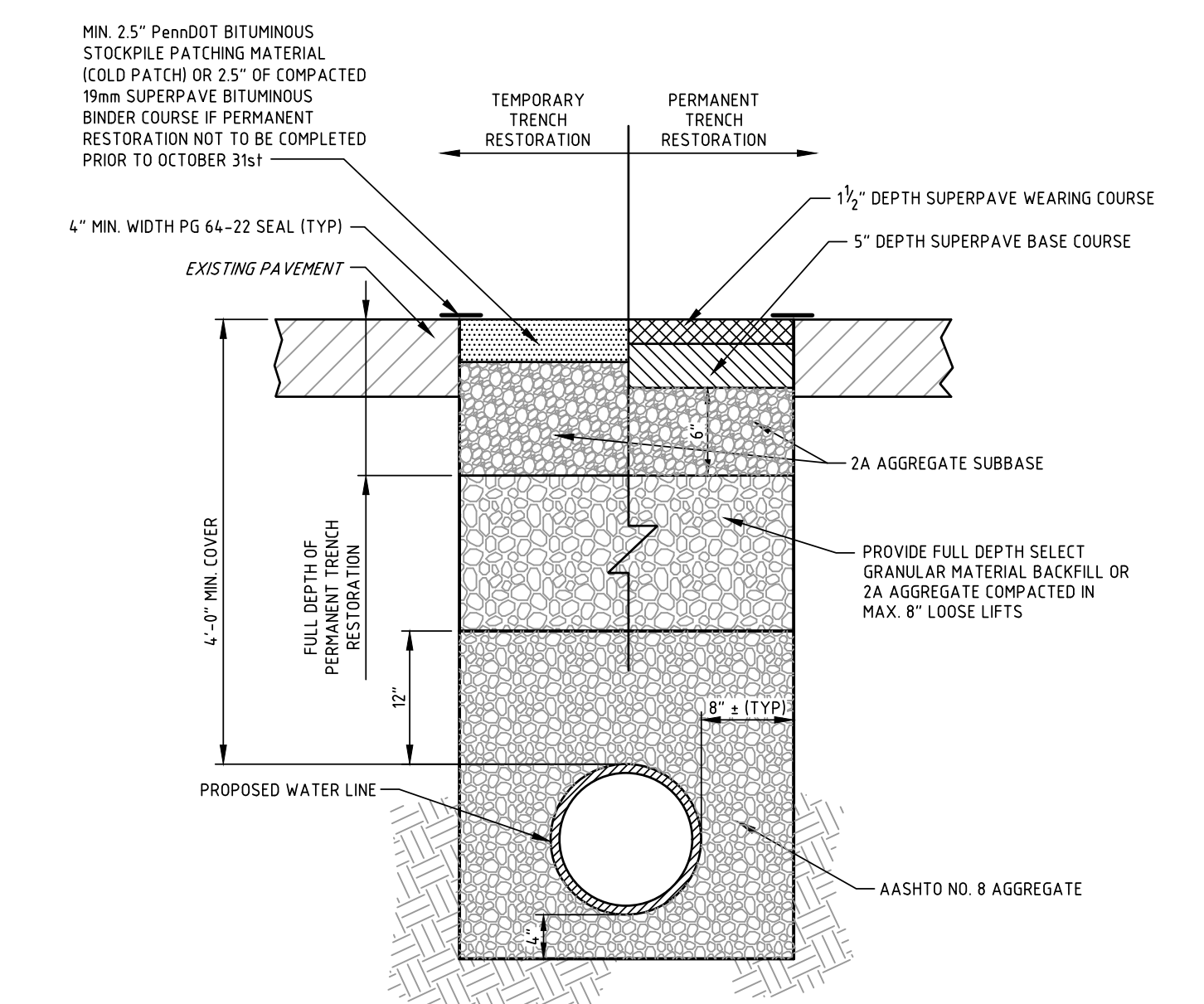
CONCRETE SIDEWALK FLUSH WITH PAVING



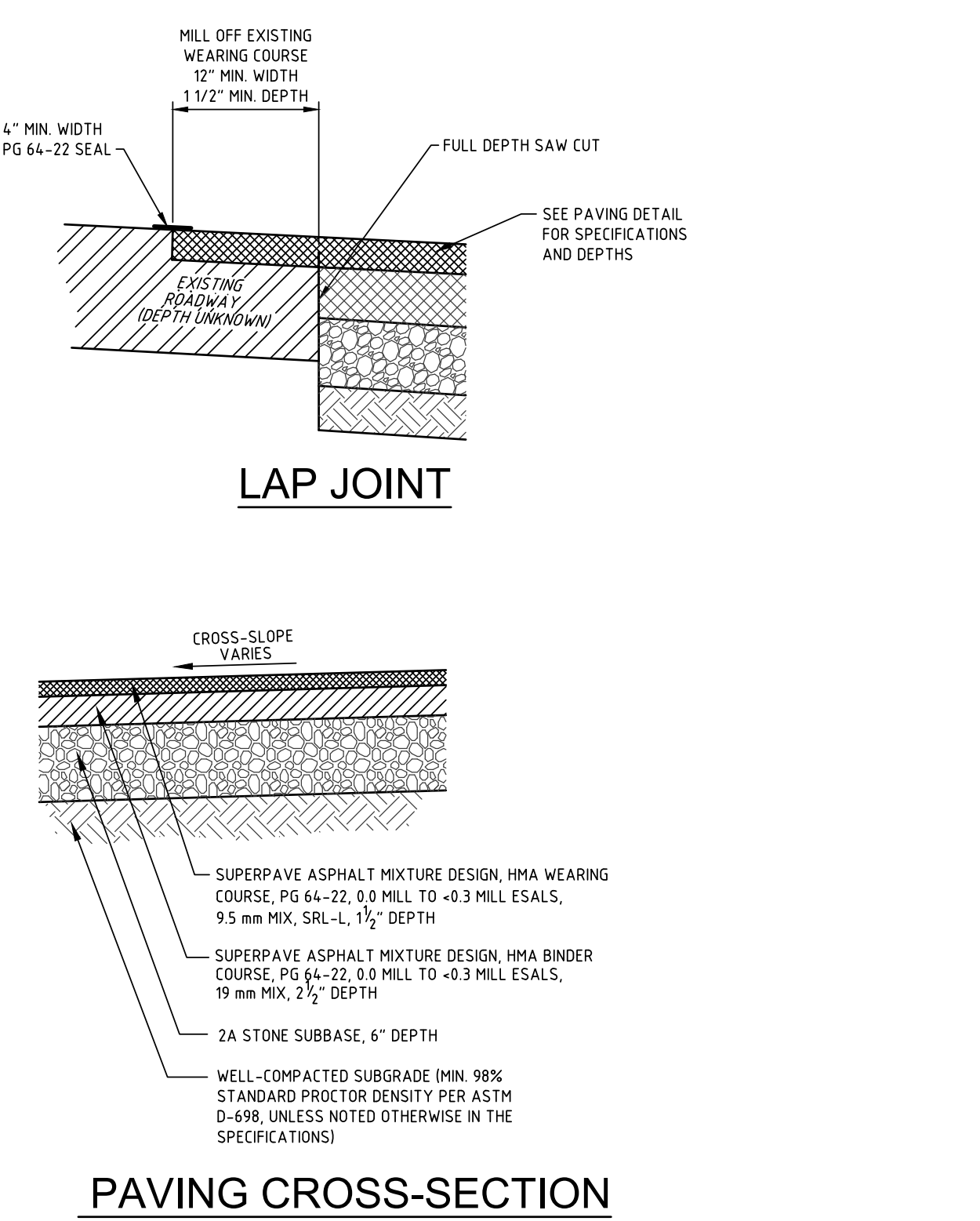
STORM SEWER BEDDING AND BACKFILL



CONCRETE CURB RESTORATION



WATER LINE BEDDING/BACKFILL & TRENCH RESTORATION IN EXISTING PAVED AREAS



PAVING CROSS-SECTION

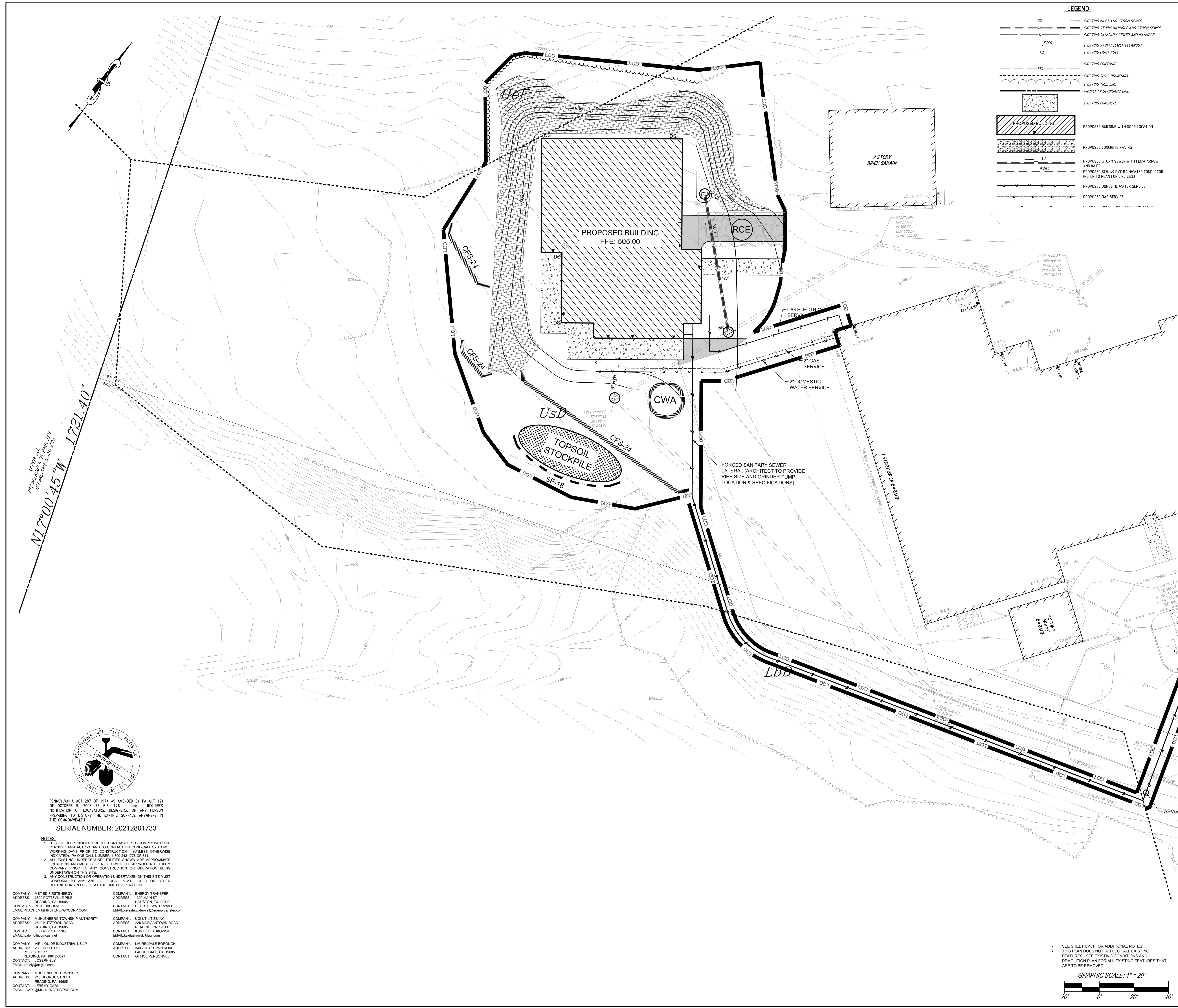
REVISIONS			
NO.	DATE	REVISION	REVIEW
1	2/23/22	REVISED PER TYP. REVIEW LETTER DATED 2/14/22	

SEAL

STACKHOUSE BENSINGER INC.
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
MUNICIPAL CONSULTING
SURVEYING
330 REVERE BOULEVARD
SINKING SPRING, PA 19008
VOICE: (610) 777-8000 FAX: (610) 796-2983
WWW.SBACROUSEBENSINGER.COM
EMAIL: ssainc@sbainc.com

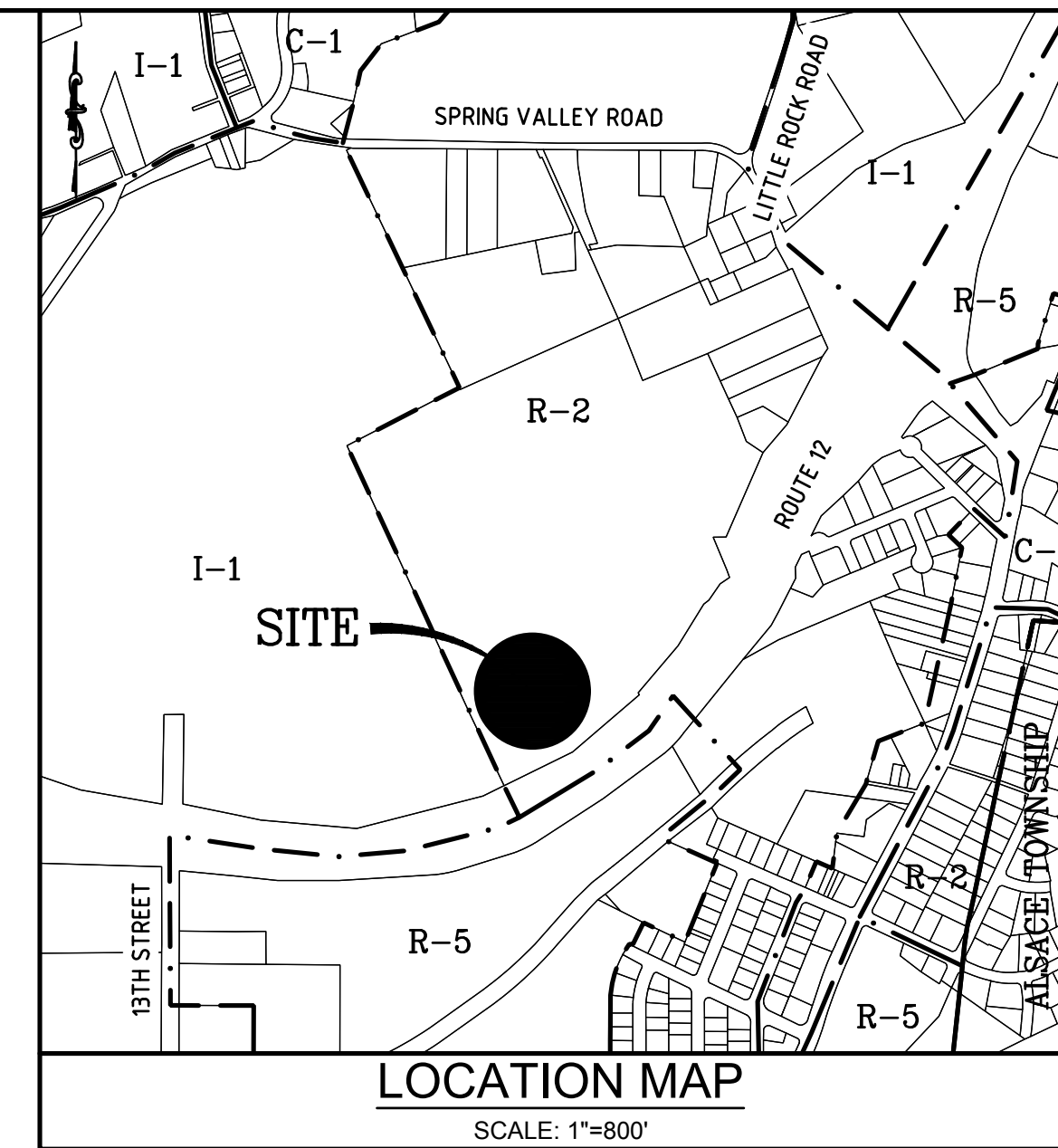
PROJECT INFORMATION
CLIENT: **Muhlenberg Greene Architects**
955 Berkshire Boulevard Wyomissing PA 19810
PROJECT: **RMCTC Welding & Fabrication Building**
Muhlenberg Township Berks County Pennsylvania

SITE CONSTRUCTION DETAILS
PLAN STATUS: **FINAL**
ISSUE DATE: **January 19, 2022**
UPI / PROPERTY ID: **66-5318-14-34-9436**
FILE NAME: **2021-087.DGN**
DRAWN BY: **DLG** PLAN NO.:
CHECKED BY: **SHB**
PLAN SCALE: **NO SCALE**
PROJECT NUMBER: **2021-087** SHEET **C-6.1** OF **6**



LEGEND

	EXISTING INLET AND STORM SEWER
	EXISTING STORM MANHOLE AND STORM SEWER
	EXISTING SANITARY SEWER AND MANHOLE
	EXISTING STORM SEWER CLEANOUT
	EXISTING LIGHT POLE
	EXISTING CONTOURS
	EXISTING SOILS BOUNDARY
	EXISTING TREE LINE
	PROPERTY BOUNDARY LINE
	EXISTING CONCRETE
	PROPOSED BUILDING WITH DOOR LOCATION
	PROPOSED CONCRETE PAVING
	PROPOSED STORM SEWER WITH FLOW ARROW AND INLET
	PROPOSED SCH. 48 PVC RAINWATER CONDUCTOR (REFER TO PLAN FOR LINE SIZE)
	PROPOSED DOMESTIC WATER SERVICE
	PROPOSED GAS SERVICE



SOILS INFORMATION
(TAKEN FROM BERKS COUNTY SOILS SURVEY)

HcF - HAZELTON VERY CHANNERY LOAM, 25 TO 60 PERCENT SLOPES, EXTREMELY STONY
 LbD - LAIDIG VERY GRAVELLY LOAM, 8 TO 25 PERCENT SLOPES, EXTREMELY STONY
 UsD - URBAN LAND-LAIDING COMPLEX, 0 TO 25 PERCENT SLOPES

AGRIUS LLC
 RECORD BOOK #238 PAGE 2386
 UPI #66-5318-14-34-9436

N 17°00'45" W 1721.40'

SEAL

NO.	DATE	REVISION

REVISIONS
CONSULTANT



STACKHOUSE BENSSINGER INC.
 LANDSCAPE ARCHITECTURE
 CIVIL ENGINEERING
 LAND PLANNING
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330 REVERE BOULEVARD
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PROJECT INFORMATION

CLIENT: **Muhlenberg Greene Architects**
 955 Berkshire Boulevard Wyomissing PA 19610

PROJECT: **RMCTC Welding & Fabrication Building**
 Muhlenberg Township Berks County Pennsylvania

PLAN TITLE: **EROSION & SEDIMENT CONTROL (E & SC) PLAN**

PLAN STATUS: **ISSUE DATE: February 23, 2022**

UPJ / PROPERTY ID: **66-5318-14-34-9436**

FILE NAME: **2021-087.DGN**

DRAWN BY: **DLG** PLAN NO.: **C-ESC1**

CHECKED BY: **MH**

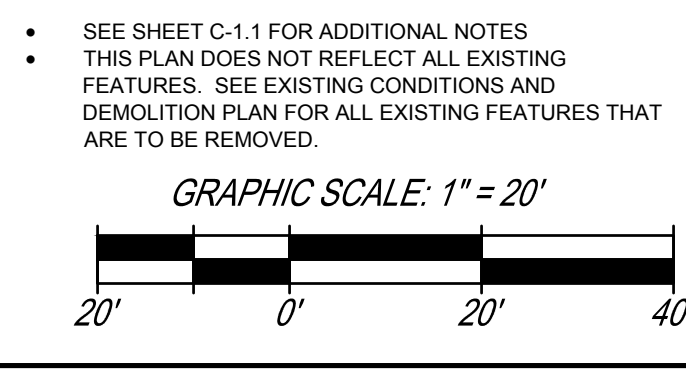
PLAN SCALE: **1"=20'**

PROJECT NUMBER: **2021-087** SHEET 1 OF 3

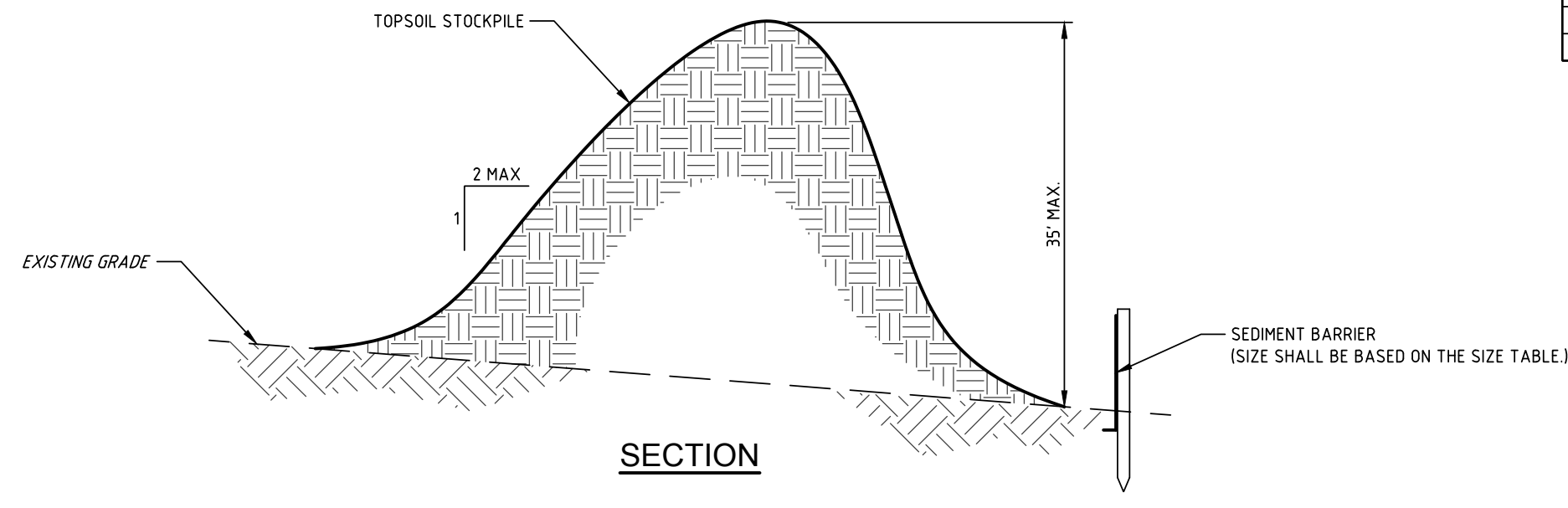
PENNSYLVANIA ACT 287 OF 1974 AS AMENDED BY PA ACT 121 OF OCTOBER 9, 2008 73 P.S. 176 et. seq., REQUIRES NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE COMMONWEALTH

SERIAL NUMBER: 20212801733

- NOTES:**
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH THE PENNSYLVANIA ACT 121 AND TO CONTACT THE "ONE-CALL SYSTEM" 3 WORKING DAYS PRIOR TO CONSTRUCTION. (UNLESS OTHERWISE INDICATED), PA ONE-CALL NUMBER: 1-800-241-7763 OR 811.
 - ALL EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE LOCATIONS AND MUST BE VERIFIED WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO ANY CONSTRUCTION OR OPERATION BEING UNDERTAKEN ON THIS SITE.
 - ANY CONSTRUCTION OR OPERATION UNDERTAKEN ON THIS SITE MUST CONFORM TO ANY AND ALL LOCAL, STATE, CODED OR OTHER RESTRICTIONS IN EFFECT AT THE TIME OF OPERATION.
- | | |
|--|---|
| COMPANY: MET ED FIRSTENERGY
ADDRESS: 2800 POTTSVILLE PIKE
READING, PA 19605
CONTACT: PETE HACHEM
EMAIL: PHACHEM@FIRSTENERGYCORP.COM | COMPANY: ENERGY TRANSFER
ADDRESS: 1300 MAIN ST
HOUSTON, TX 77002
CONTACT: CELESTE WATERWALL
EMAIL: celeste.waterwall@energytransfer.com |
| COMPANY: MUHLENBERG TOWNSHIP AUTHORITY
ADDRESS: 2840 KUTZTOWN ROAD
READING, PA 19605
CONTACT: JEFFREY CALPINO
EMAIL: jcalpino@mta.gov | COMPANY: UGI UTILITIES INC
ADDRESS: 225 MORGANTOWN ROAD
READING, PA 19611
CONTACT: KURT ZELASKOWSKI
EMAIL: kzdelaskowski@ugiu.com |
| COMPANY: AIR LIQUIDE INDUSTRIAL US LP
ADDRESS: 2500 N 11TH ST
PO BOX 13077
READING, PA 19612-3577
CONTACT: JOSEPH ELY
EMAIL: jpe.ely@airgas.com | COMPANY: LAURELDALE BOROUGH
ADDRESS: 3406 KUTZTOWN ROAD
LAURELDALE, PA 19066
CONTACT: OFFICE PERSONNEL |
| COMPANY: MUHLENBERG TOWNSHIP
ADDRESS: 210 GEORGE STREET
READING, PA 19605
CONTACT: JEREMY GARR
EMAIL: jgarr@mta.gov | |



COUNTY CONSERVATION DISTRICT STAMP

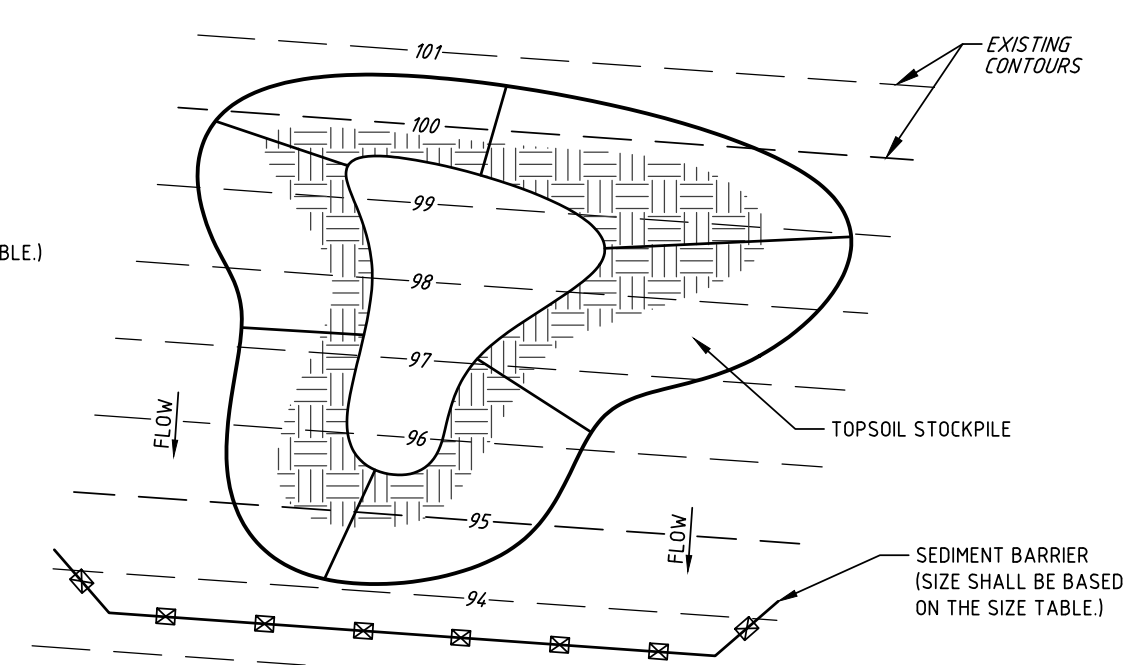


- NOTES:**
1. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATIONS SHOWN ON THE LBS PLANS IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL CORRODED AREAS THAT ARE TO BE STABILIZED BY VEGETATION.
 2. WHEN EXCESS TOPSOIL IS TO BE HAUL OFF-SITE, ALL OFF-SITE WASTE AREAS MUST HAVE AN LBS PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
 3. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. THE SEDIMENT BARRIER USED TO PROTECT EACH STOCKPILE SHALL BE BASED ON SEDIMENT BARRIER SIZE TABLE.
 4. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
 5. CESSATION OF STOCKPILING ACTIVITY FOR AT LEAST FOUR (4) DAYS REQUIRES TEMPORARY STABILIZATION. TEMPORARY STABILIZATION SHALL BE IN ACCORDANCE WITH THE TEMPORARY SEEDING AND MULCHING SPECIFICATIONS. LIME AND FERTILIZER ARE NOT REQUIRED FOR TOPSOIL STOCKPILES.

TOPSOIL STOCKPILE

SEDIMENT BARRIER SIZE TABLE

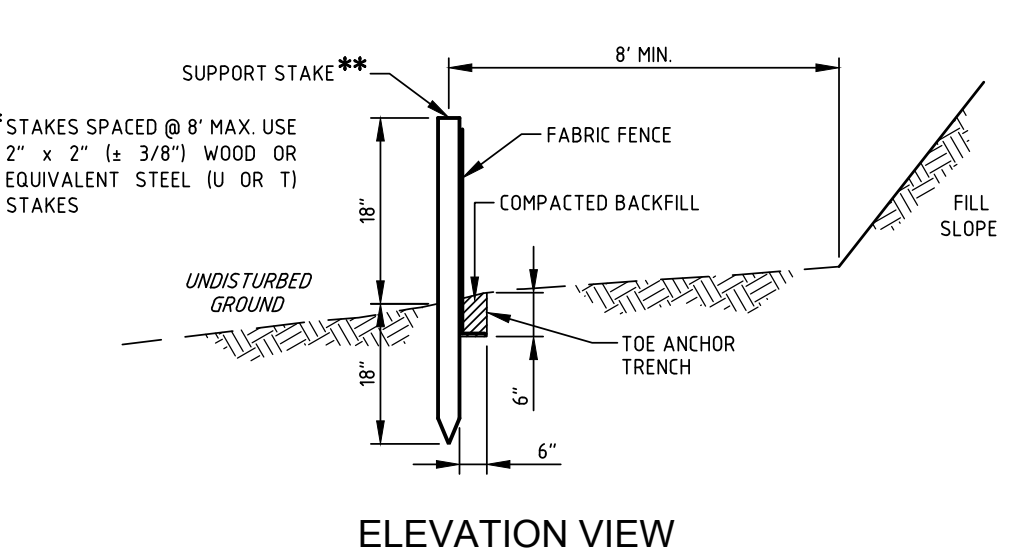
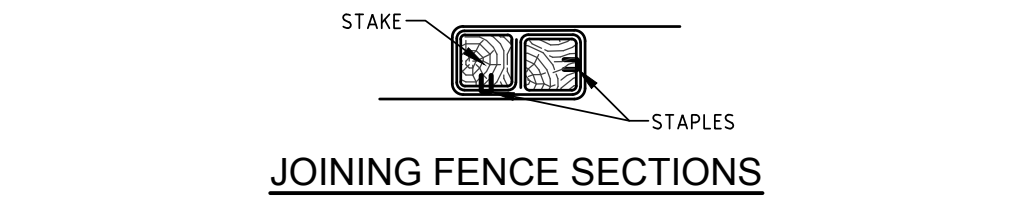
MAXIMUM STOCKPILE HEIGHT (FT)	COMPOST FILTER SOCK (IN)	SILT FENCE (IN)
+10	12	18
16-20	18	30
20-35	24	SUPER SILT FENCE



STOCKPILE PROTECTION PLAN

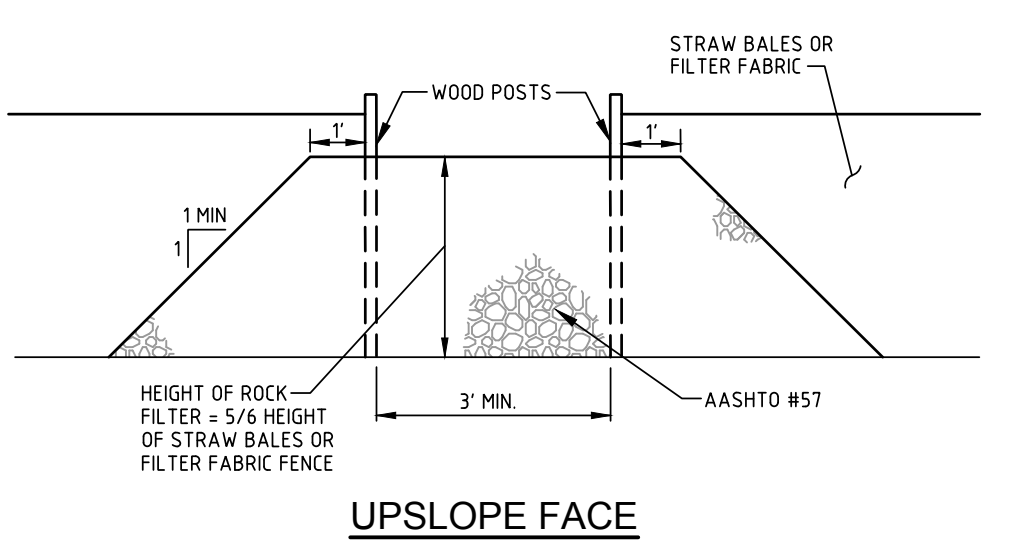
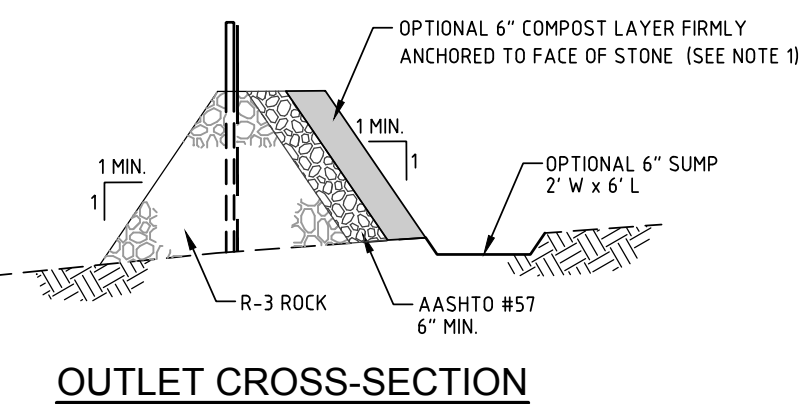
TABLE 4.3 FABRIC PROPERTIES FOR SILT FENCE

FABRIC PROPERTY	MIN. ACCEPTABLE VALUE	TEST METHOD
GRAB TENSILE STRENGTH (LB)	10	ASTM D 1682
ELONGATION AT FAILURE (%)	20% MAX.	ASTM D 1682
MULLER BURST STRENGTH (PSI)	200	ASTM D 3786
TRAPEZOIDAL TEAR STRENGTH (LBI)	30	
PUNCTURE STRENGTH (LBI)	0.3	ASTM D 751 (MODIFIED)
SURRY FLOW RATE (GAL/MIN/5F)	10	ASTM D 5141
EQUIVALENT OPENING SIZE	30	US STD. SIEVE CW-0275
ULTRAVIOLET RADIATION STABILITY (X)	80	ASTM G-26



- NOTES:**
1. FABRIC SHALL MEET THE MINIMUM PROPERTIES IN TABLE 4.3.
 2. FABRIC WIDTH SHALL BE 30" MINIMUM. STAKES SHALL BE HARDWOOD OR EQUIVALENT STEEL (U OR T) STAKES.
 3. SILT FENCE SHALL BE INSTALLED AT LEVEL EXISTING GRADE. BOTH ENDS OF THE FENCE SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45° TO THE MAIN FENCE ALIGNMENT (SEE FIGURE 4.1).
 4. SILT FENCE SHOULD BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION.
 5. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE FENCE.
 6. ANY SECTION OF SILT FENCE WHICH HAS BEEN UNDERMINED OR TOPPED SHALL BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET (SEE DETAIL).
 7. FENCE SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN TRIBUTARY AREA IS PERMANENTLY STABILIZED.

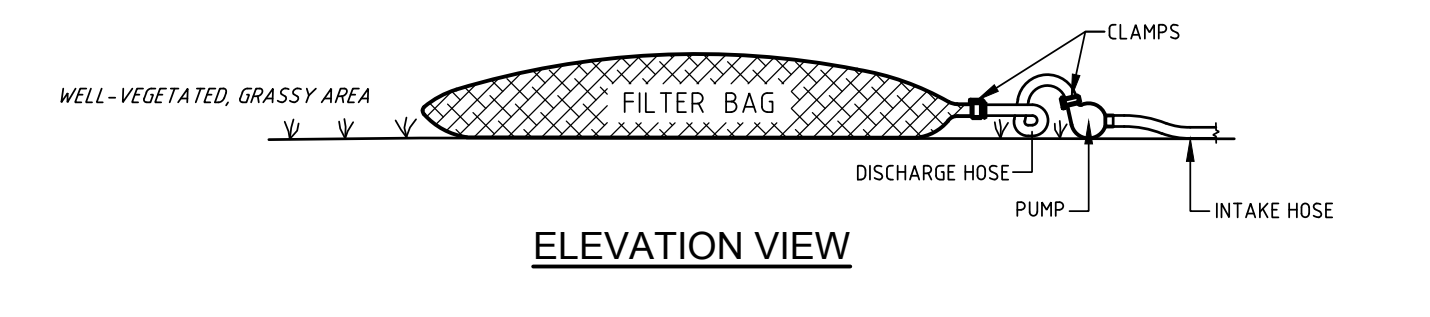
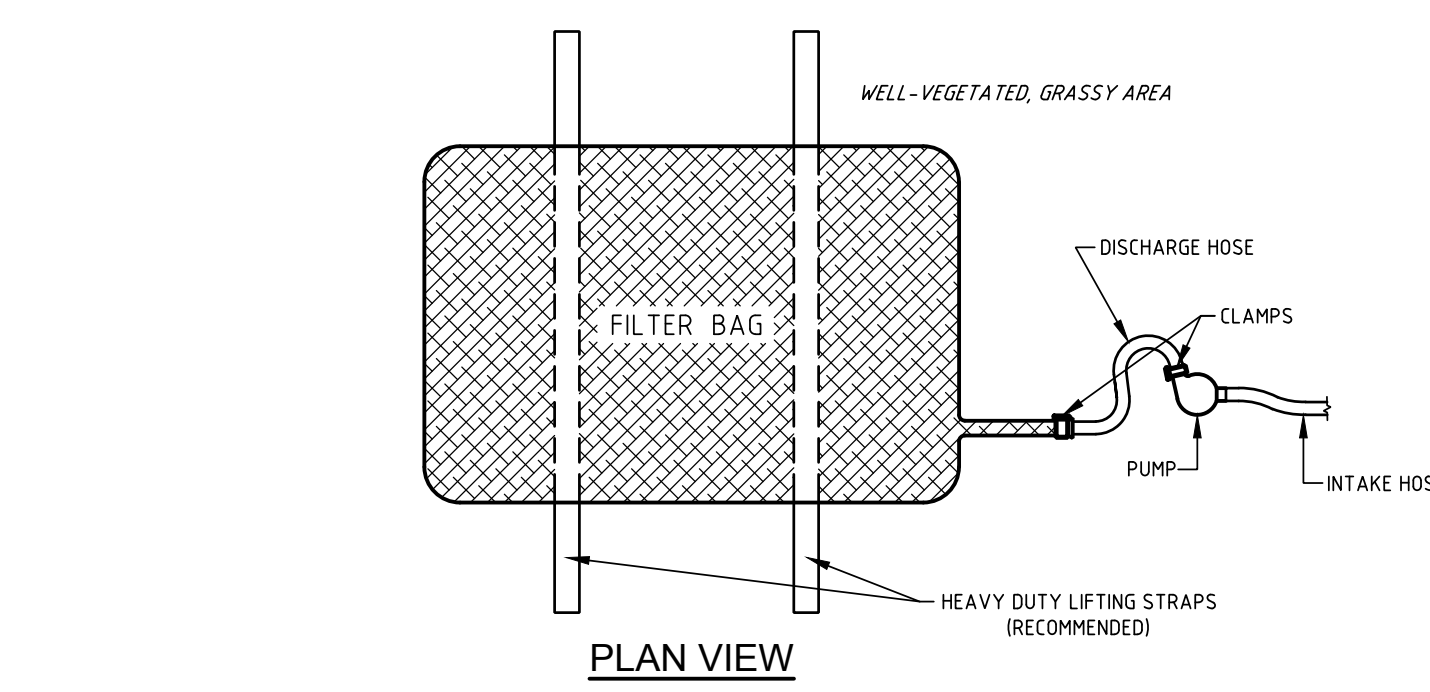
STANDARD SILT FENCE (18" HIGH)



- NOTES:**
1. A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A STRAW BALE BARRIER OR FILTER FABRIC FENCE HAS OCCURRED DUE TO CONCENTRATED FLOW ANCHORED COMPOST LAYER SHALL BE PROVIDED ON UPSLOPE FACE IN HD AND EV WATERSHEDS.
 2. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

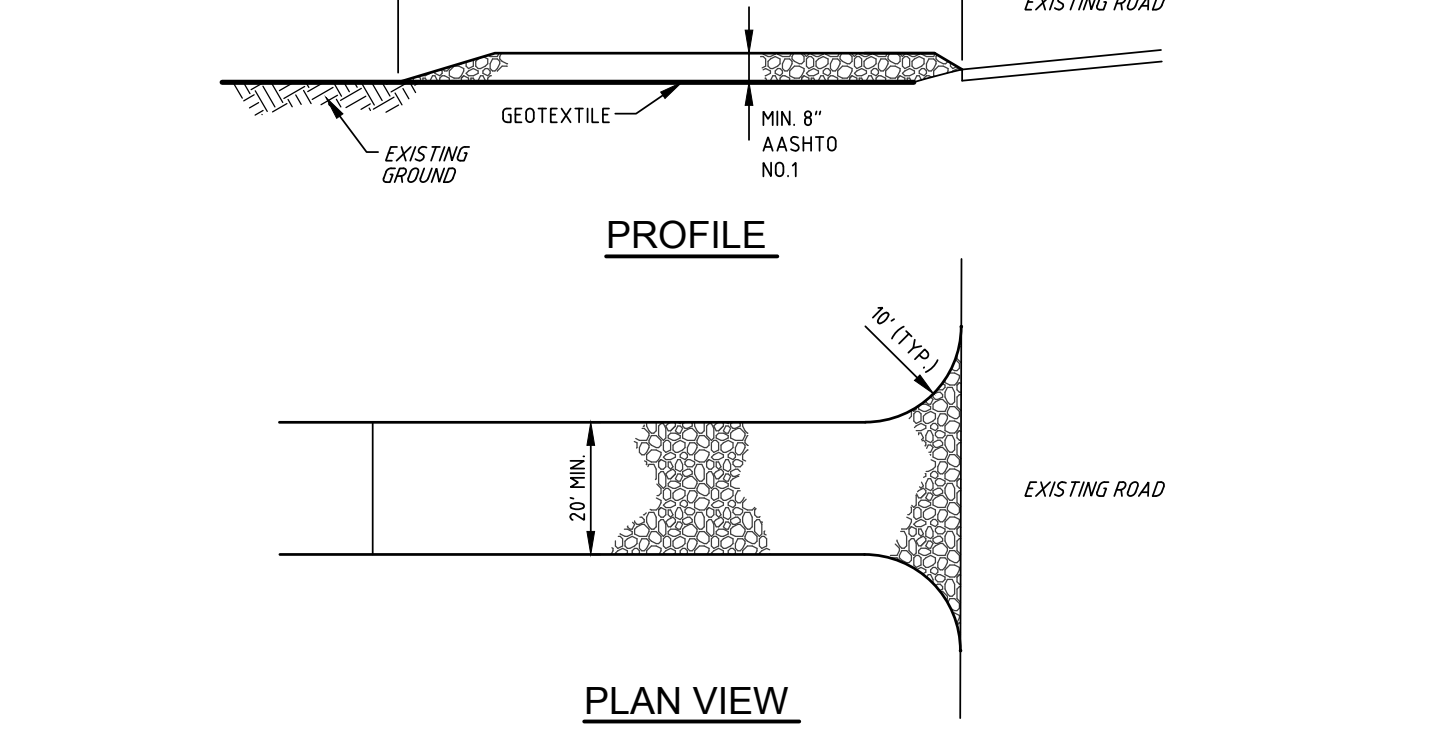
ROCK FILTER OUTLET

* SEE 2012 "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL."



- NOTES:**
1. LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH DOUBLE STITCHED "7" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS MAY BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:
- | PROPERTY | TEST METHOD | MINIMUM STANDARD |
|--------------------------|-------------|------------------|
| AVG. WIDE WIDTH STRENGTH | ASTM D-488 | 60 LB./IN. |
| GRAB TENSILE | ASTM D-462 | 205 LB. |
| PUNCTURE | ASTM D-483 | 110 LB. |
| MULLER BURST | ASTM D-3786 | 300 PSI |
| UV RESISTANCE | ASTM D-435 | 70% |
| AOS % RETAINED | ASTM D-4751 | 80 SIEVE |
2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.
 3. BAGS SHALL BE LOCATED IN A WELL-VEGETATED (GRASSY) AREA AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS, WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5% FOR SLOPES EXCEEDING 5% CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.
 4. NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BROWN OR COMPOST FILTER SOCK SHOULD BE INSTALLED BELOW BAGS LOCATED IN HD OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASS AREA IS NOT AVAILABLE.
 5. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAG IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.
 6. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED. THE MAXIMUM PUMPING RATE FOR ANY BAG SHOULD BE AVAILABLE AT THE SITE AT ALL TIMES DURING PUMPING OPERATIONS.
 7. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

PUMPED WATER FILTER BAG



- NOTES:**
1. REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE.
 2. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
 3. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
- MAINTENANCE:**
- ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON THE ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50' INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, STORM SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

ROCK CONSTRUCTION ENTRANCE

TABLE 4.1 COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 ML HDPE	5 ML HDPE	5 ML HDPE	MULTI-FILAMENT POLYPROPYLENE (HDPE)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDPE)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12", 18"	12", 18", 24", 30", 36"	12", 18", 24", 30", 36"	12", 18", 24", 30", 36"	12", 18", 24", 30", 36"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH		26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	23% AT 1,000 HRS	23% AT 1,000 HRS		100% AT 1,000 HRS	100% AT 1,000 HRS
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS

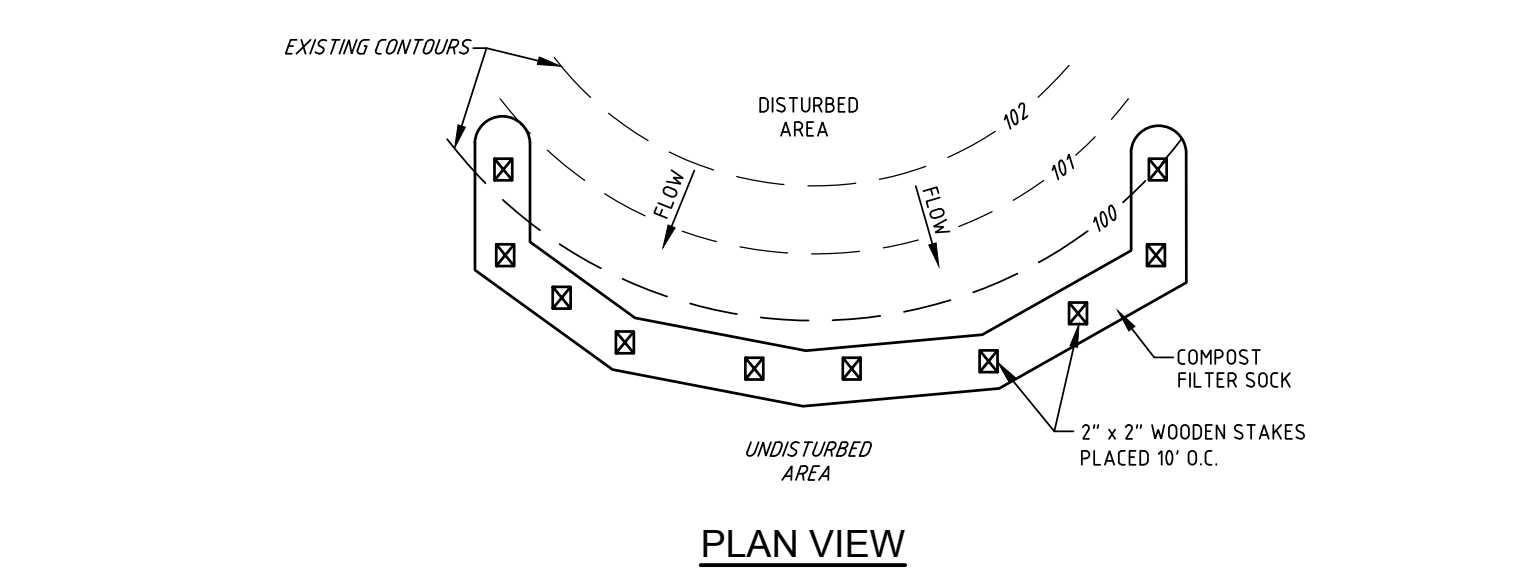
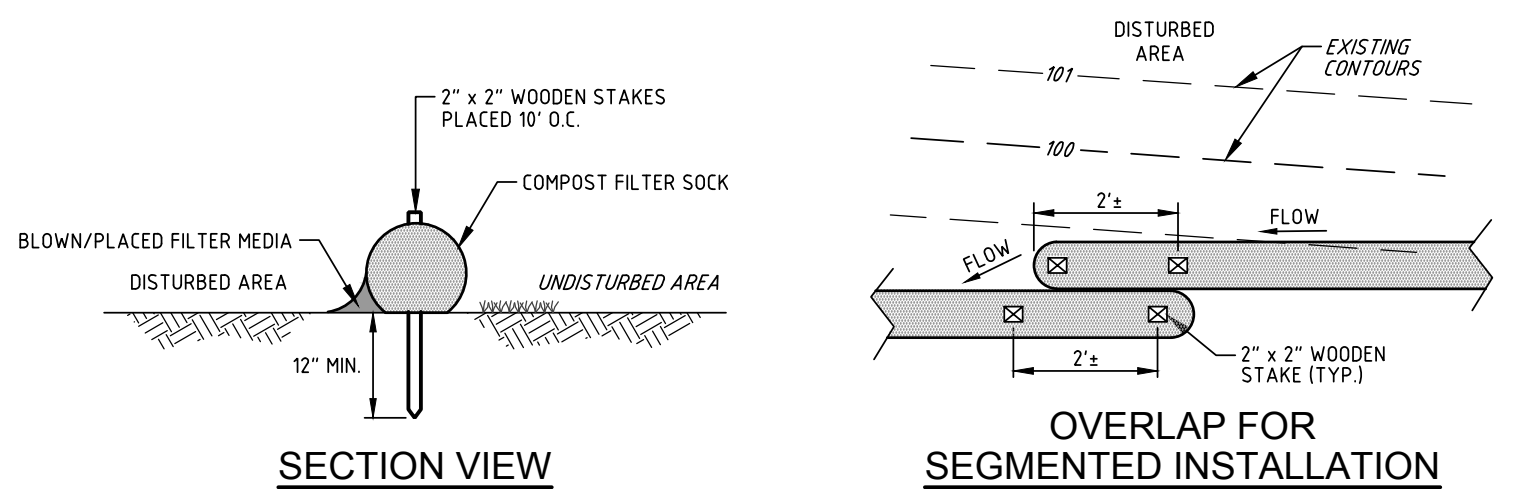
TWO-PLY SYSTEMS

INNER CONTAINMENT NETTING	HOPE BIAXIAL NET (CONTINUOUSLY WOUND)
	FUSION-WELDED JUNCTURES
	3/4" x 3/4" MAX. APERTURE SIZE
OUTER FILTRATION MESH	COMPOSITE POLYPROPYLENE FABRIC (TWO LAYER AND NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH)
	3/8" MAX. APERTURE SIZE

SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS.

TABLE 4.2 COMPOST STANDARDS

ORGANIC MATTER CONTENT	15% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5 - 8.5
MOISTURE CONTENT	30% - 60%
PARTICLE SIZE	70% - SIZE PASS THROUGH "6" SIEVE
SOLUBLE SALT CONCENTRATION	5.0 dS/m (mmhos/cm) MAXIMUM

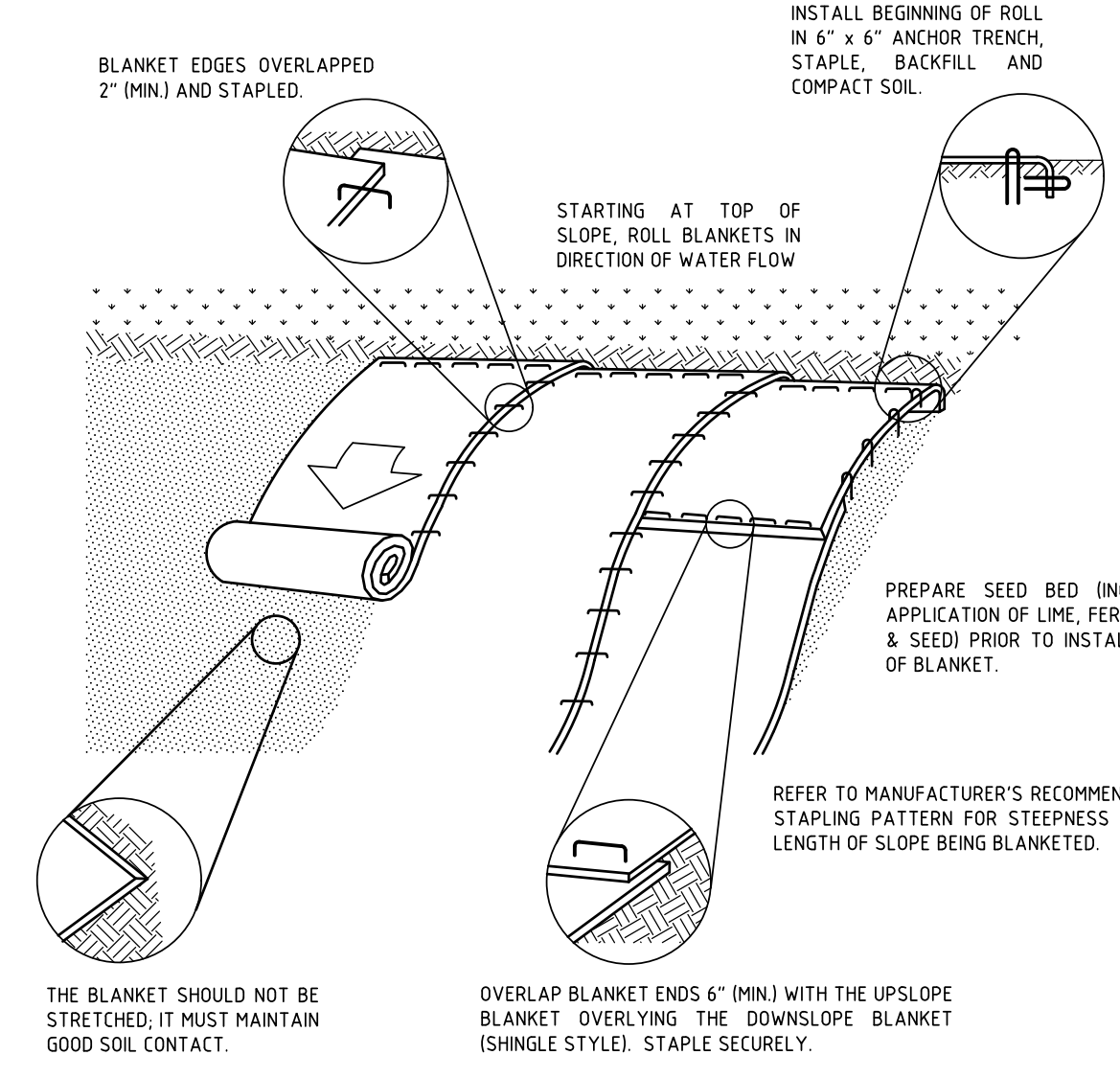


- NOTES:**
1. SOCK FABRIC SHALL MEET THE STANDARDS OF TABLE 4.1.
 2. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2.
 3. COMPOST SOCKS SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45° TO THE MAIN SOCK ALIGNMENT (SEE FIGURE 4.1). MAXIMUM SLOPE LENGTH ABOVE ANY SOCK SHALL NOT EXCEED THAT SHOWN ON FIGURE 4.1. SOCKS MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
 4. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS (SEE NOTE 9).
 5. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
 6. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
 7. BIODEGRADABLE FILTER SOCK SHALL BE REPLACED AFTER 6 MONTHS, PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
 8. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MESH SPREAD AS A SOIL SUPPLEMENT.
 9. SECTIONS OF FILTER SOCK MAY BE INSTALLED IN SHORTER SEGMENTS TO ALLOW FOR EASIER REMOVAL AND REPLACEMENT FOR EQUIPMENT ACCESS. SEGMENTS MUST BE OVERLAPPED AS DETAIL.
 10. THE FLAT DIMENSION OF THE SOCK SHOULD BE AT LEAST 15 TIMES THE NOMINAL DIAMETER.

* SEE 2012 "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL."

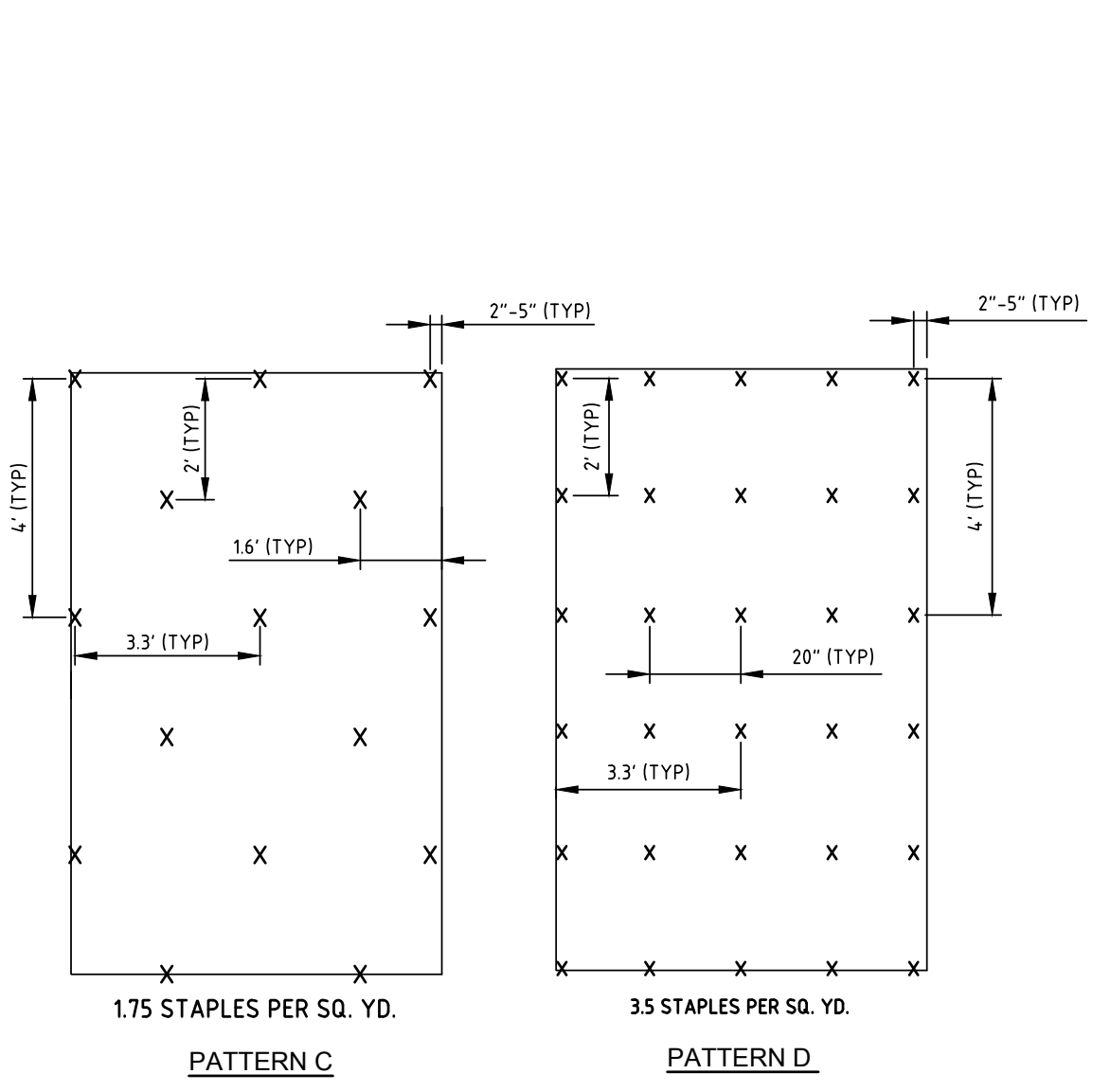
COMPOST FILTER SOCK

- LICENSED CONTRACTORS:**
- WEAVER HULLER
386 STRASBURG RD
COATSVILLE, PA 19320
CONTACT: JAMES WEAVER
TEL: 610-383-8818
- RIVER VALLEY ORGANICS
1178 NURSERY ROAD
WRIGHTSVILLE, PA 17368
PHONE: 888-496-1266
- HILLTOP SERVICE INC.
3443 PRITTSVILLE PIKE
HAMBURG, PA 19526
PHONE: 610-562-3724
FAX: 610-562-3953
EMAIL: HILLTOPSERVICE@COMCAST.NET
- EAST COAST EROSION BLANKETS
555 MOUNTAIN HOME ROAD
SINKING SPRING, PA 19008
PHONE: 800-582-0005 OR 610-927-0751

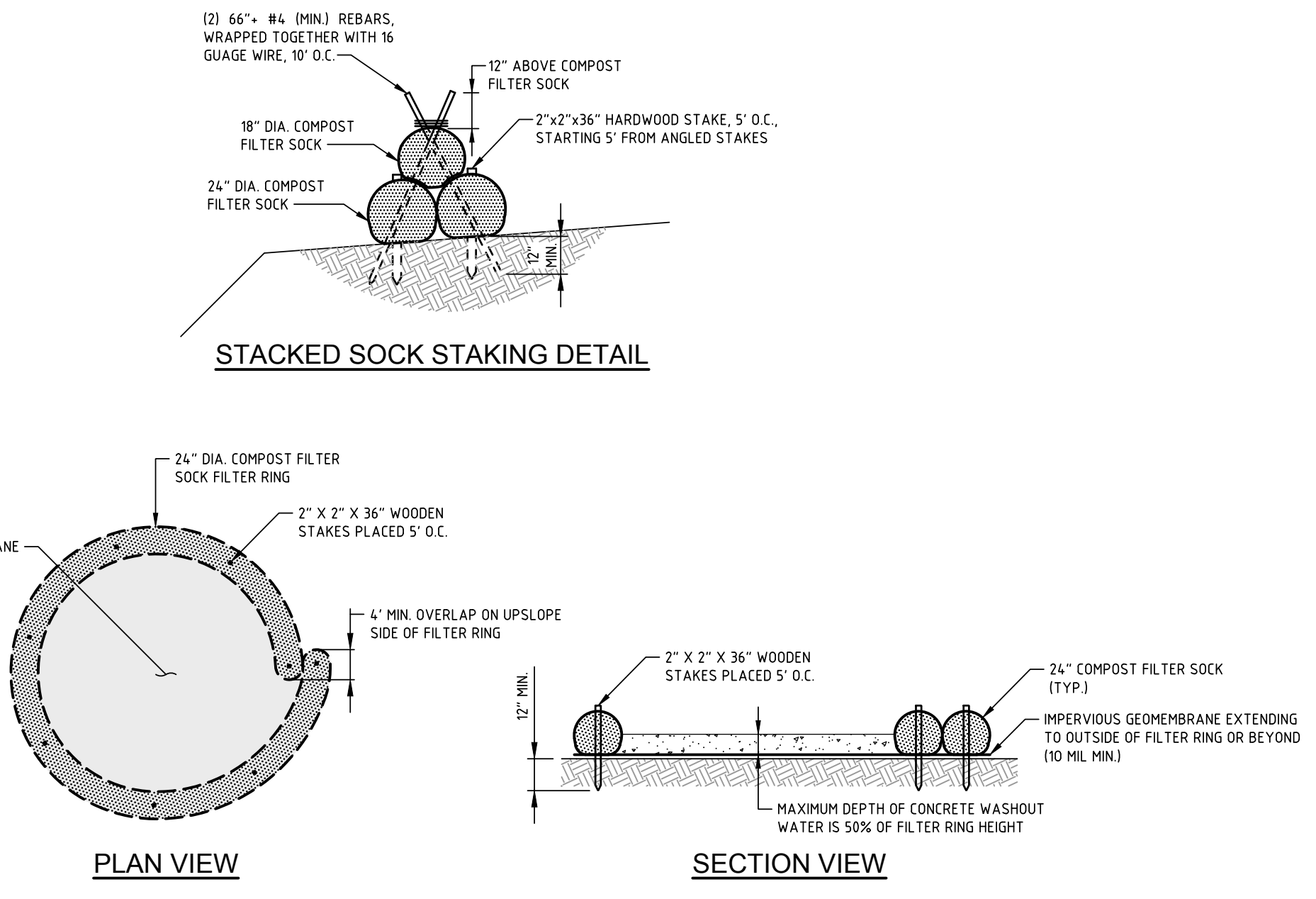


- NOTES:**
1. SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.
 2. PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.
 3. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS.
 4. BLANKET SHALL HAVE A GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.
 5. STAPLING OF THE BLANKET SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
 6. BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 5 CALENDAR DAYS.

EROSION CONTROL BLANKET INSTALLATION



EROSION CONTROL BLANKET STAPLE INSTALLATION DETAIL



- NOTES:**
1. WASHOUT FACILITIES SHOULD NOT BE PLACED WITHIN 50 FEET OF STORM DRAINS, OPEN DITCHES OR SURFACE WATERS. THEY SHOULD BE IN A CONVENIENT LOCATION FOR THE TRUCKS, PREFERABLY NEAR THE PLACE WHERE THE CONCRETE IS BEING POURED, BUT FAR ENOUGH FROM OTHER VEHICULAR TRAFFIC TO MINIMIZE THE POTENTIAL FOR ACCIDENTAL DAMAGE OR SPILLS.
 2. INSTALL ON GRADES 3% FOR OPTIMUM PERFORMANCE.
 3. 18" DIAMETER FILTER SOCKS MAY BE STAKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT. SEE STACKED SOCK STAKING DETAIL.
 4. ALL CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED DAILY. DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY.
 5. ACCUMULATED MATERIALS SHOULD BE REMOVED WHEN THEY REACH 75% CAPACITY.
 6. PLASTIC LINERS SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.

CONCRETE WASH AREA

NO.	DATE	REVISION

REVISIONS CONSULTANT

STACKHOUSE BENSINGER INC.

LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
MUNICIPAL CONSULTING
SURVEYING

330 REVERE BOULEVARD
SINKING SPRING, PA 19008
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PROJECT INFORMATION

CLIENT:
Muhlenberg Greene Architects
955 Berkshire Boulevard Womissin PA 19610

PROJECT:
RMCTC Welding & Fabrication Building
Muhlenberg Township Berks County Pennsylvania

PLAN TITLE:
E & SC PLAN DETAILS

PLAN STATUS:

ISSUE DATE: **February 23, 2022**

UPJ / PROPERTY ID: **66-5318-14-34-9436**

FILE NAME: **2021-087DGN**

DRAWN BY: **DLG**

CHECKED BY: **MH**

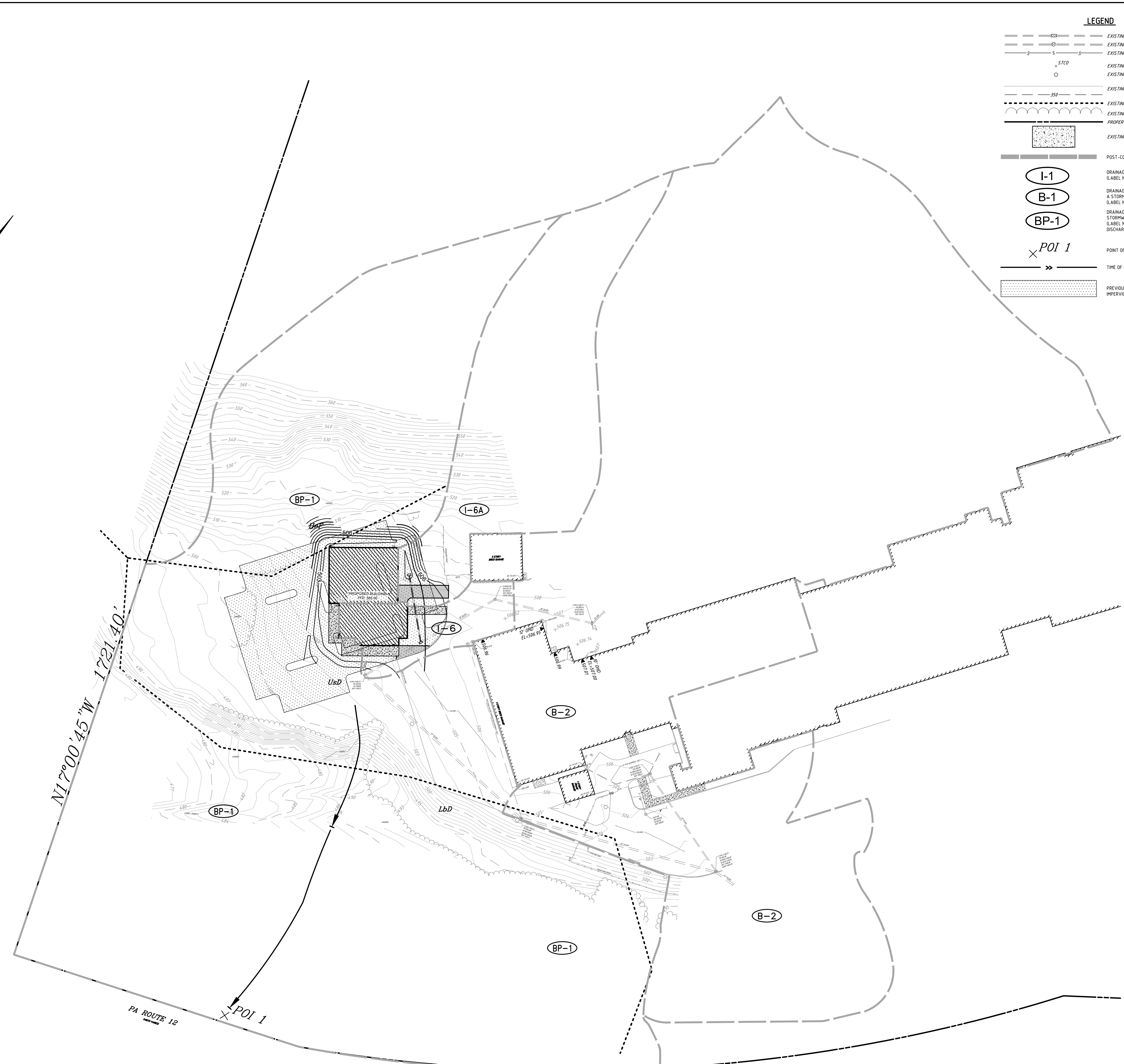
PLAN SCALE: **NO SCALE**

PROJECT NUMBER: **2021-087**

PLAN NO.: **C-ESC2**

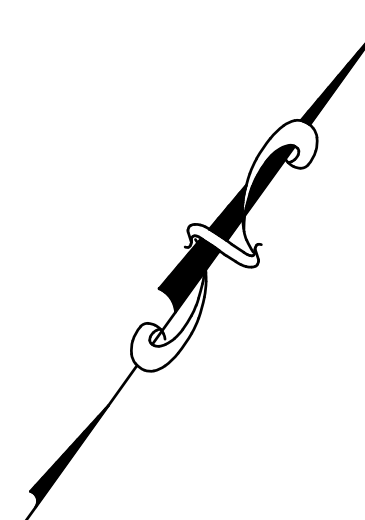
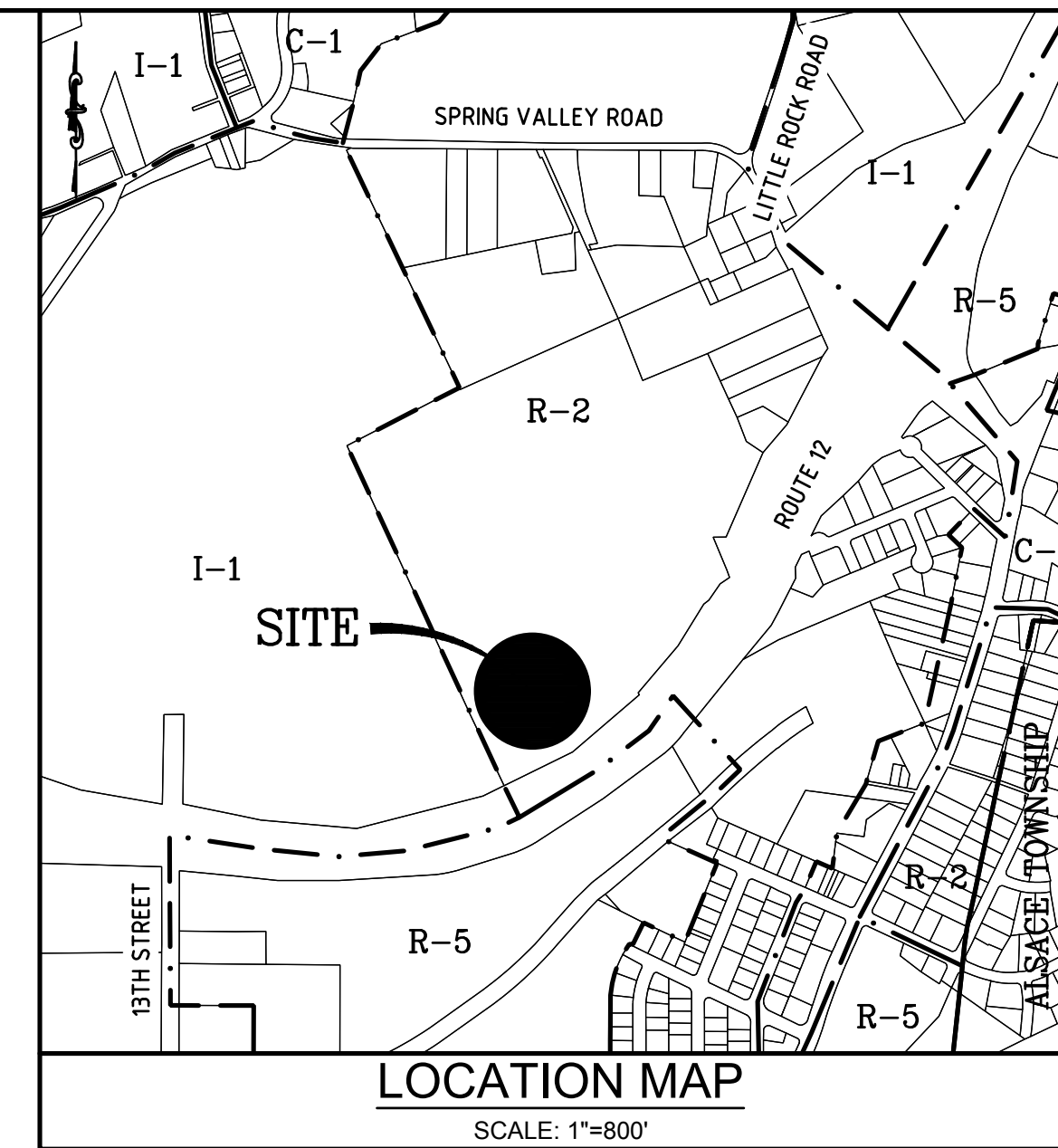
SHEET 2 OF 3

COUNTY CONSERVATION DISTRICT STAMP



LEGEND

	EXISTING INLET AND STORM SEWER
	EXISTING STORM MANHOLE AND STORM SEWER
	EXISTING SANITARY SEWER AND MANHOLE
	EXISTING STORM SEWER CLEANOUT
	EXISTING LIGHT POLE
	EXISTING CONTOURS
	EXISTING SOILS BOUNDARY
	EXISTING TREE LINE
	PROPERTY BOUNDARY LINE
	EXISTING CONCRETE
	POST-CONSTRUCTION DRAINAGE AREA BOUNDARY
	DRAINAGE AREA BOUNDARY TO STORM INLET (LABEL NUMBER CORRESPONDS TO STRUCTURE NUMBER)
	DRAINAGE AREA BOUNDARY FOR OVERLAND FLOW TO A STORMWATER MANAGEMENT BASIN (LABEL NUMBER CORRESPONDS TO BASIN NUMBER)
	DRAINAGE AREA BOUNDARY FOR AREAS THAT BYPASS STORMWATER MANAGEMENT BASINS (LABEL NUMBER CORRESPONDS TO THE POINT OF DISCHARGE TO WHICH THE BYPASS AREA FLOWS)
	POINT OF INTEREST LABEL
	TIME OF CONCENTRATION FLOW PATH
	PREVIOUSLY APPROVED PHASE 2 IMPERVIOUS AREA (35,160 SQ. FT.)



SEAL			
NO.	DATE	REVISION	REVIEW
1	2/23/22	REVISED PER TYP	REVIEW LETTER DATED 2/14/22

REVISIONS
CONSULTANT

STACKHOUSE BENSINGER INC.
 LANDSCAPE ARCHITECTURE
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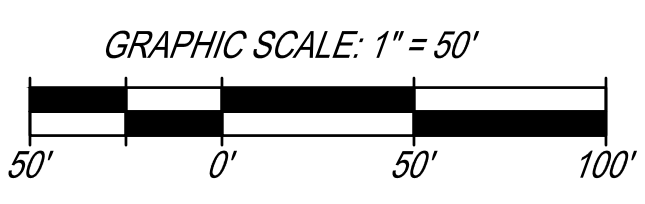
PROJECT INFORMATION
 CLIENT: **Muhlenberg Greene Architects**
 955 Berkshire Boulevard Wyomissing PA 19810
 PROJECT: **RMCTC Welding & Fabrication Building**
 Muhlenberg Township Berks County Pennsylvania

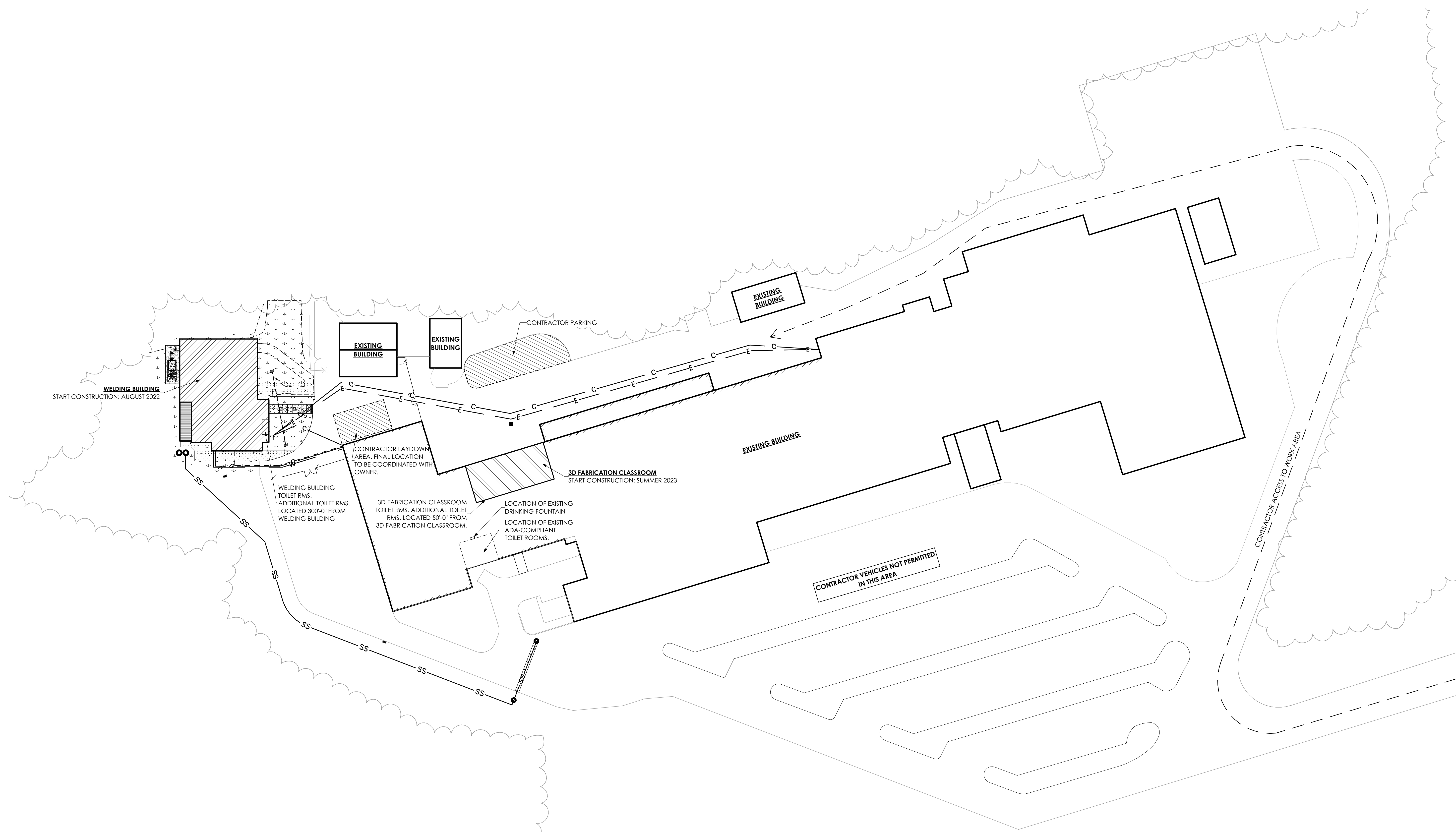
PLAN TITLE:
POST-CONSTRUCTION DRAINAGE AREA PLAN

PLAN STATUS:
 ISSUE DATE: **January 19, 2022**
 UPI / PROPERTY ID: **66-5318-14-34-9436**
 FILE NAME: **2021-087.DGN**
 DRAWN BY: **DLG**
 CHECKED BY: **MH**
 PLAN SCALE: **1"=50'**
 PROJECT NUMBER: **2021-087**

C-POSTDA
 SHEET 1 OF 1

NOTE:
 THIS PLAN IS A REFERENCE FOR THE POST-CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN NARRATIVE ONLY. SEE APPENDIX C IN THE PCSM PLAN NARRATIVE FOR SUPPORTING CALCULATIONS. THIS PLAN SHOULD NOT BE USED FOR CONSTRUCTION.





PHASING PLAN
SCALE: 1" = 50'

- PHASING LEGEND**
- WELDING BUILDING
START: AUGUST 2022
COMPLETE: MAY 1, 2023
 - 3D FABRICATION CLASSROOM
START: SUMMER 2023
COMPLETE: AUGUST 14, 2023

MG ARCHITECTS ESTABLISHED 1920
ARCHITECTURAL DESIGN
INTERIOR DESIGN
CODE ANALYSIS
PLANNING SERVICES
REPORTS AND STUDIES
ENGINEERING SERVICES
HISTORIC PRESERVATION
955 BERKSHIRE BLVD., SUITE 101
WYOMISSING, PA 19610
610.376.4927
www.MG-Architects.com

PROJECT #:
4525A

PROFESSIONAL SEAL

JAMES A SARRO AIA, LEED AP+
jim@MG-Architects.com

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CHEFFNER@rmctc.org

READING MUHLENBERG CAREER & TECHNOLOGY CENTER
PROGRAM UPGRADES
2615 WARREN ROAD READING, PA 19604

ISSUED FOR BID
DATE: 5/17/2022

REV. NO.	DESCRIPTION	DATE

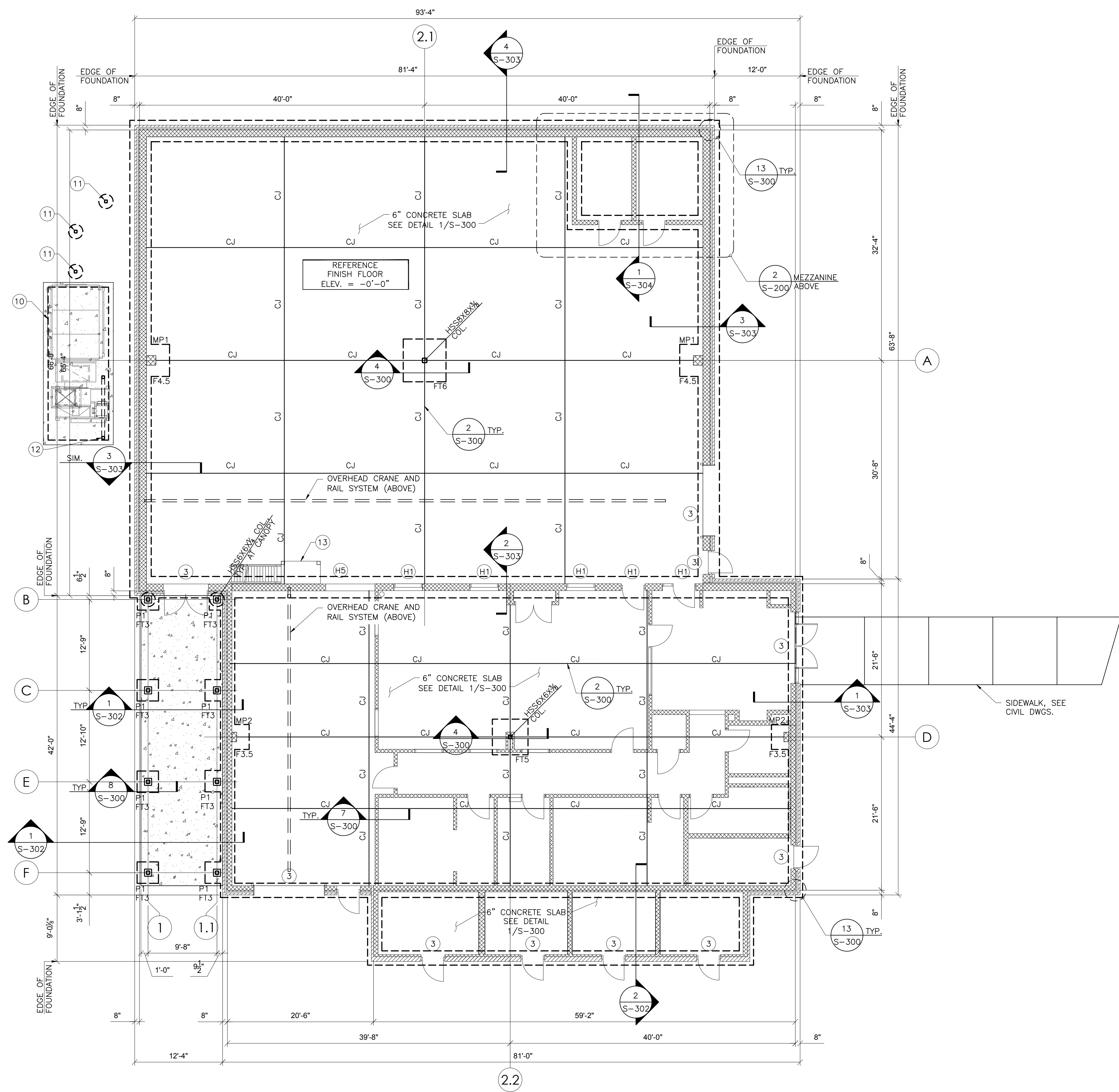
PROJ. MGR.: JAMES A. SARRO, AIA
P.M. e-MAIL: jim@MG-Architects.com
DRAWN BY: BB, DK
CLIENT PROJ #:
SHEET SCALE: 1" = 50'
BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING

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WELDING BUILDING
SHEET TITLE:

PHASING PLAN

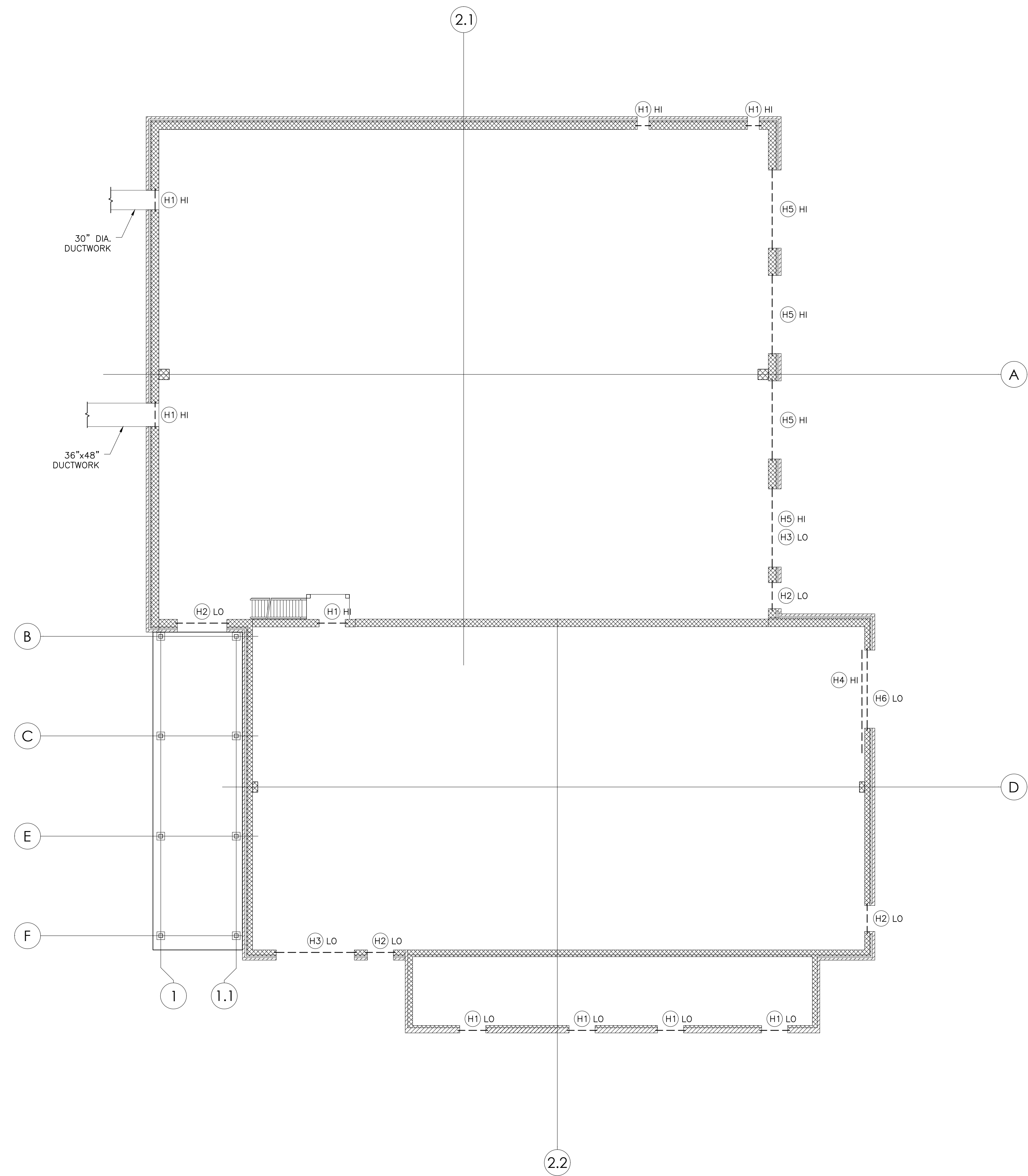
AS-101



1 FOUNDATION PLAN
S-101 SCALE: 1/8" = 1'-0"

NOTES:

1. BOTTOM OF EXT. FOOTING TO BE -3'-8" BELOW FINISHED FLOOR 0'-0" UNLESS NOTED OTHERWISE NOTED THUS (-).
2. COORDINATE BOTTOM OF FOOTING ELEV. SHOWN ABOVE WITH CIVIL/GRADING PLANS. SEE 3/S-300 FOR STEPPED FOOTING DETAIL.
3. COORDINATE FOUNDATION WALL/CONCRETE HOLD DOWNS WITH DOOR LOCATIONS SHOWN ON ARCHITECTURAL DRAWINGS (SEE 6/S-300).
4. FINISH FLOOR ELEVATION AS NOTED ON PLAN.
5. COORDINATE EXTENT AND LOCATION OF SIDE WALKS AND EXIT STEP-OFF PADS WITH ARCH AND CIVIL DRAWINGS.
6. TYP. TOP OF LEVELING PLATE ELEVATION TO BE (-7") BELOW FINISH FLOOR FOR ALL COLUMNS. U.N.O.
7. SOIL BEARING CAPACITY - 3000 PSF ASSUMED TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
8. REFER TO ARCHITECTURAL FLOOR PLANS FOR ADDITIONAL DIMENSIONS AND FOR COORDINATING LOCATIONS OF COLUMNS, BEARING WALLS AND SHEAR WALLS.
9. SEE ARCH. DWG'S FOR EXTENT AND LOCATION OF PERIMETER UNDER-SLAB RIGID INSULATION.
10. EXTERIOR CONC. EQUIP. PAD, SEE DETAIL 9/S-300.
11. ELEVATED DUCTWORK SUPPORT, SEE DETAIL 11/S-300.
12. ELEVATED DUCTWORK SUPPORT, SEE DETAIL 12/S-300.
13. SHIPS LADDER AND PLATFORM, SEE 2/S-304.



2 HEADER/HIGH WINDOW PLAN
S-101 SCALE: 1/8" = 1'-0"

HEADER & LINTEL SCHEDULE

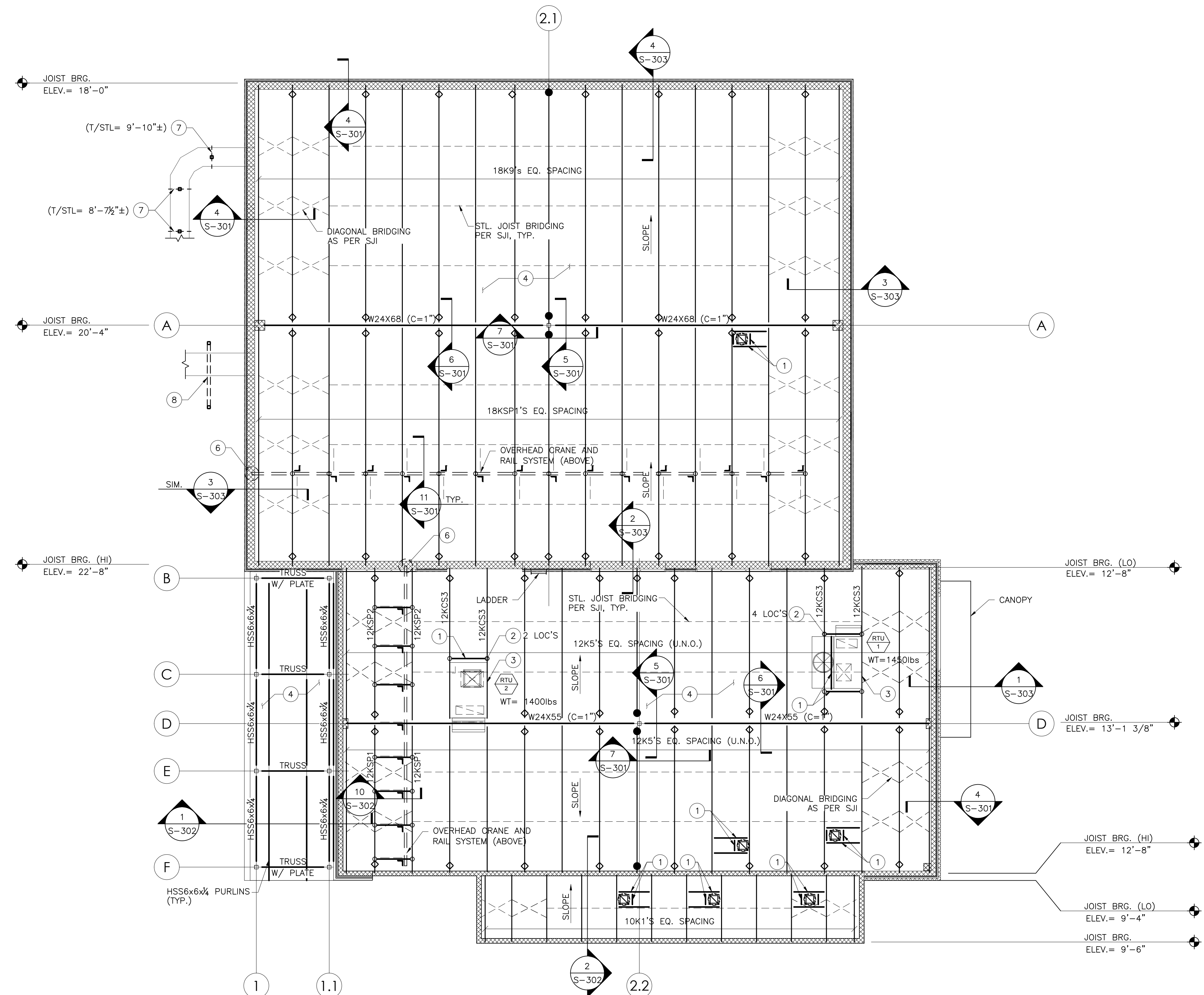
MARK	MATERIAL	REMARKS	REMARKS
(H1)	PRE-CAST CONC. HEADER + $\angle 6 \times 4 \times \frac{3}{8}$ (GALV.)	BOLTED TO CMU W/ $\frac{1}{2}$ " DIA. EXP. BOLTS @ 12" O.C.	SEE DTL. 1/S-301
(H2)	PRE-CAST CONC. HEADER + $\angle 6 \times 6 \times \frac{3}{8}$ (GALV.)	LOOSE LINTEL, 8" BRG. EA. END	SEE DTL. 1/S-301
(H3)	W8x24 W/ $\frac{3}{8}$ BOTT. \bar{r}		SEE DTL. 2/S-301
(H4)	W16x26 W/ $\frac{3}{8}$ BOTT. \bar{r}		SEE DTL. 2/S-301
(H5)	W8x21 W/ $\frac{3}{8}$ BOTT. \bar{r}		SEE DTL. 2/S-301
(H6)	HSS8x8x $\frac{3}{8}$	(GALV.)	SEE DTL. 2/S-301

REV. NO.	DESCRIPTION	DATE

REV/ID	DESCRIPTION	DATE

PROJ. MGR.: S.DI GENOVA
P.M. e-MAIL: <consultant pm email>
DRAWN BY: QW
CLIENT PROJ #: 2021-084.00
DATE: 5/17/2022
SCALE: 1/8"=1'-0"
BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING

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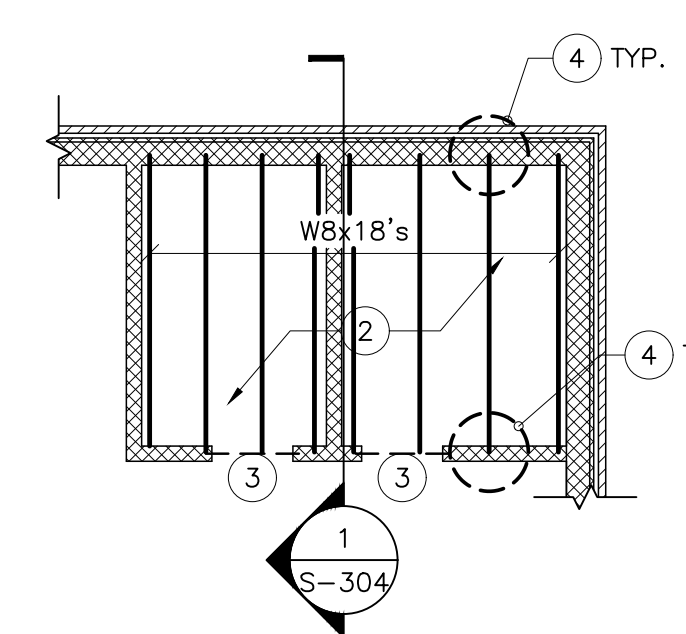
1 ROOF FRAMING PLAN
SCALE: 1/8"=1'-0"

- NOTES:
- PROVIDE FRAMED ROOF OPENING FOR ALL RTU LOC'S AND PENETRATIONS, SEE DETAIL 8/S-301
 - PROVIDE JOIST REINF. FOR ALL RTU LOCATION, SEE DETAIL 9/S-301
 - LINE UP ONE SIDE OF UNIT OVER JOIST/BEAM.
 - 1/2" - 22ga GALV. ROOF DECK
 - NET UPLIFT = 20PSF
 - EXTEND HOIST BEAM INTO CMU WALL AND PROVIDE BEAM BRG. POCKET SEE DETAIL 10/S-301.
 - ELEVATED DUCTWORK SUPPORT, SEE DET. 11/S-300.
 - ELEVATED DUCTWORK SUPPORT, SEE DET. 12/S-300.

- LEGEND:
- FIXED BOTTOM CHORD EXTENSION OF JOIST
 - LOOSE BOTTOM CHORD EXTENSION OF JOIST
 - DENOTES MOMENT CONNECTION (SEE 6/S3.1)
 - DENOTES TOP CHORD EXTENSION
 - [XX'-XX'] DENOTES BOT. OF STEEL
 - (XX'-XX') DENOTES T.O. STEEL
 - (S) DENOTES SLOPED BEAM
 - (C) CAMBER

2 MEZZANINE FRAMING PLAN
SCALE: 1/8"=1'-0"

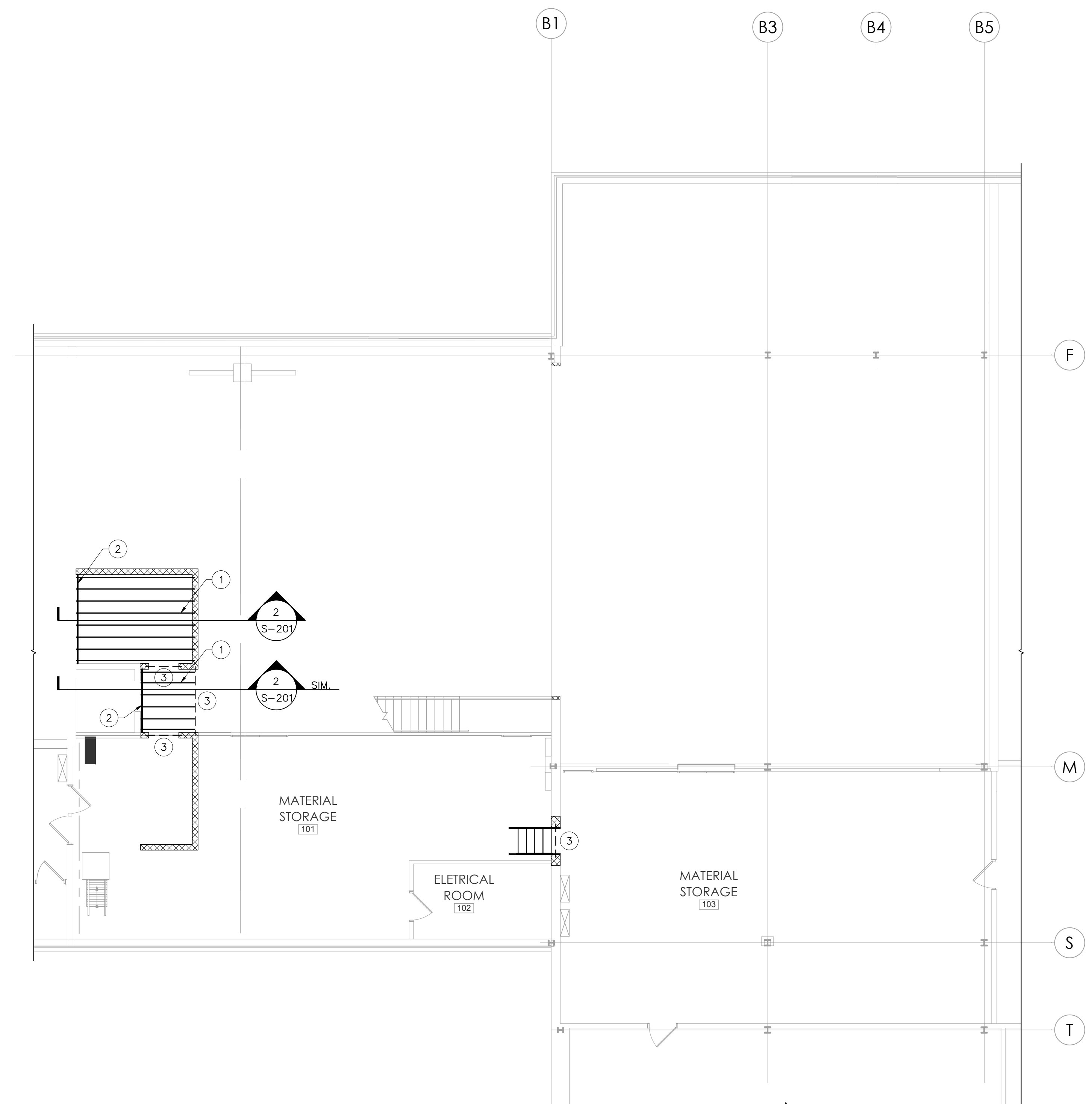
- NOTES:
- T.O. MEZZ ELEV. = 9'-0", T.O.S ELEV. = 8'-8".
 - MEZZ SLAB = 4" TOTAL THICKNESS NORMAL WEIGHT CONC. w/ 6x6xW2.9xW2.9 WWF. ON 1-1/2" - 20GA. COMP. FLOOR DECK.
 - (N) PRE-CAST/CONC. HEADER, SEE 1/S-301.
 - PROVIDE BM BRG POCKET IN (N) CMU WALL, SEE 10/S-301.
 - MEZZANINE LIVE LOAD = 100PSF
 - PROVIDE 3/8" ANGLE OR BENT PLATE POUR STOP ALL AROUND DECK EDGE (OR FOR ANY FLOOR OPENINGS), TYP.



REV	DESCRIPTION	DATE

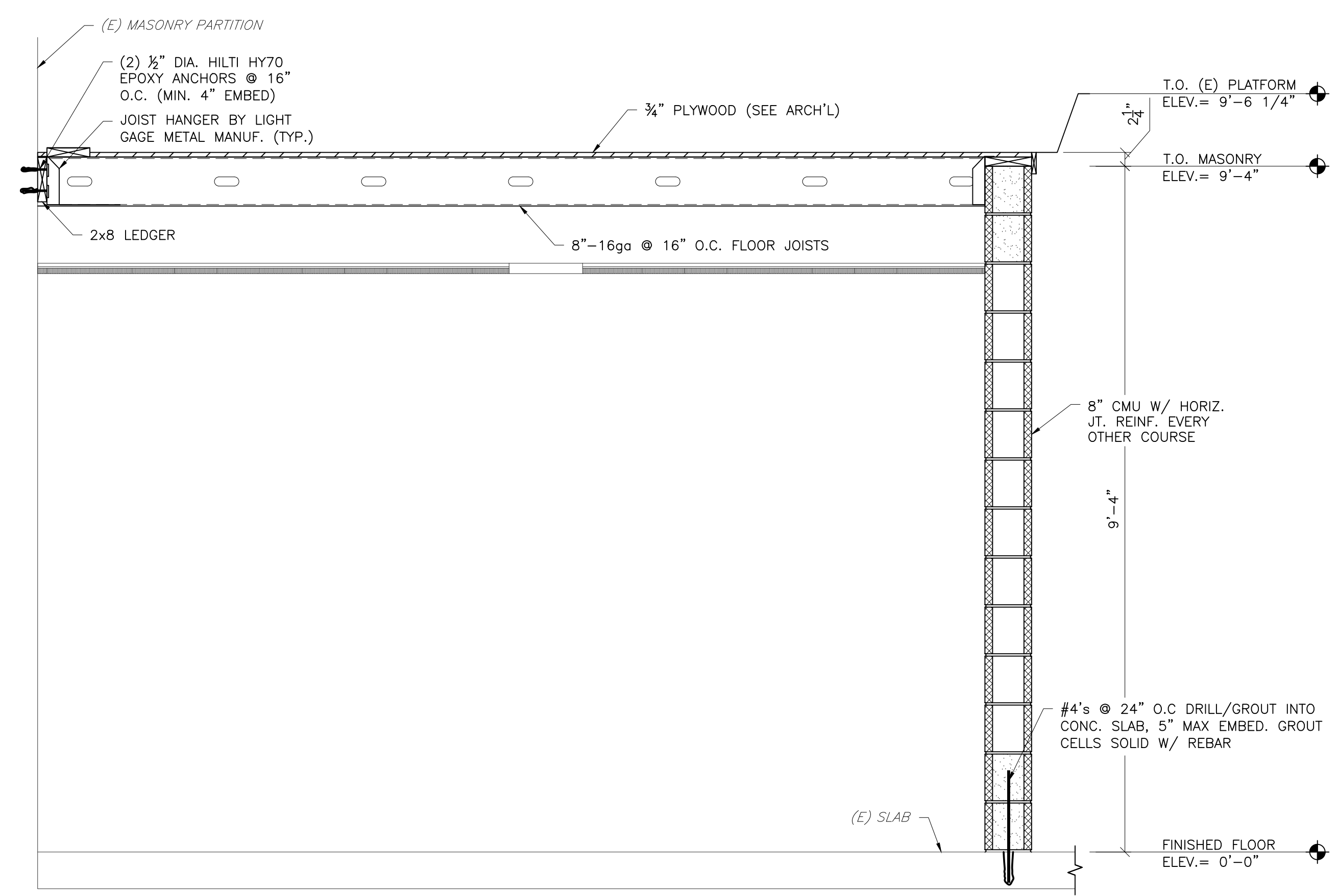


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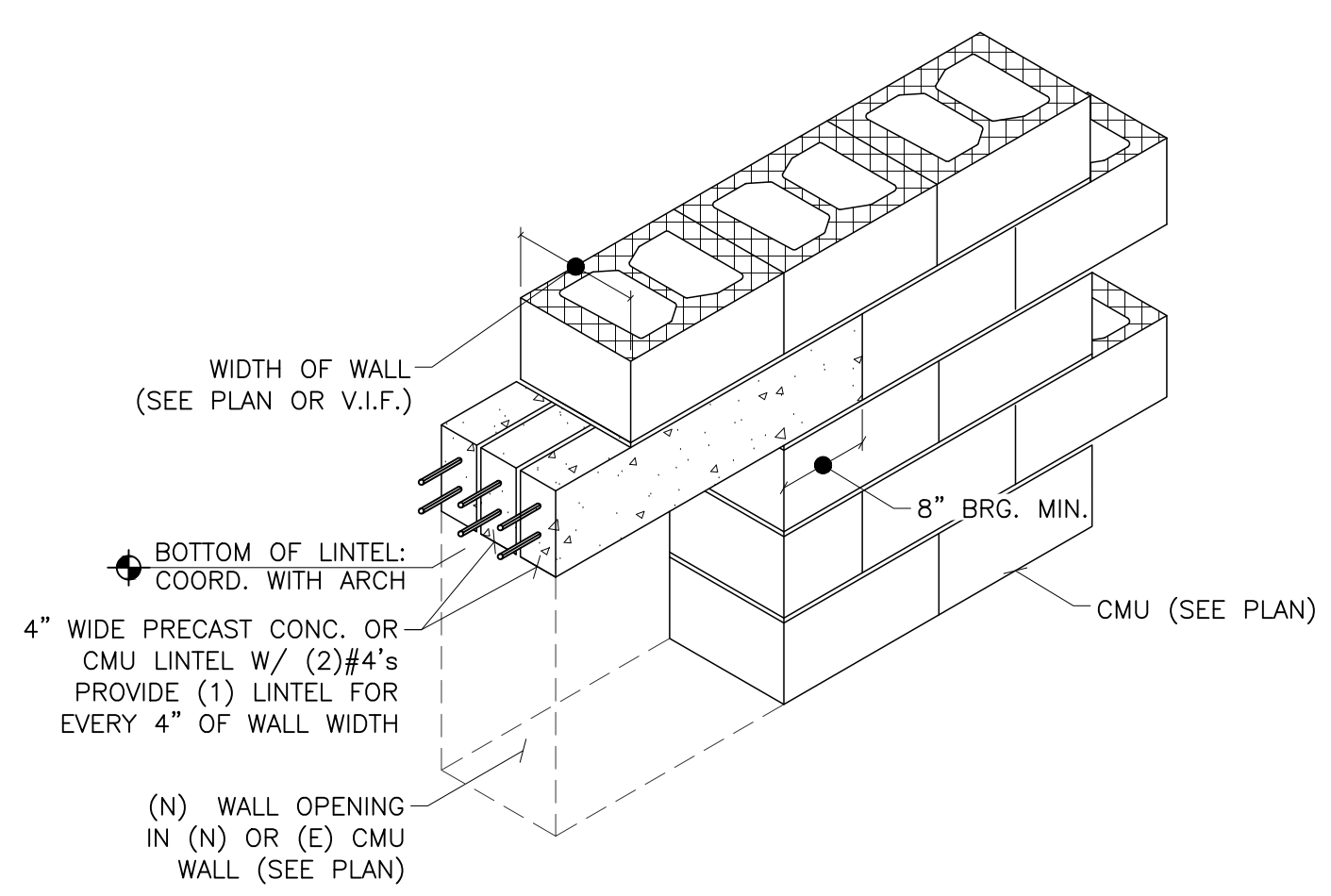


1 MEZZANINE PLAN
S-201 SCALE: 1/8"=1'-0"

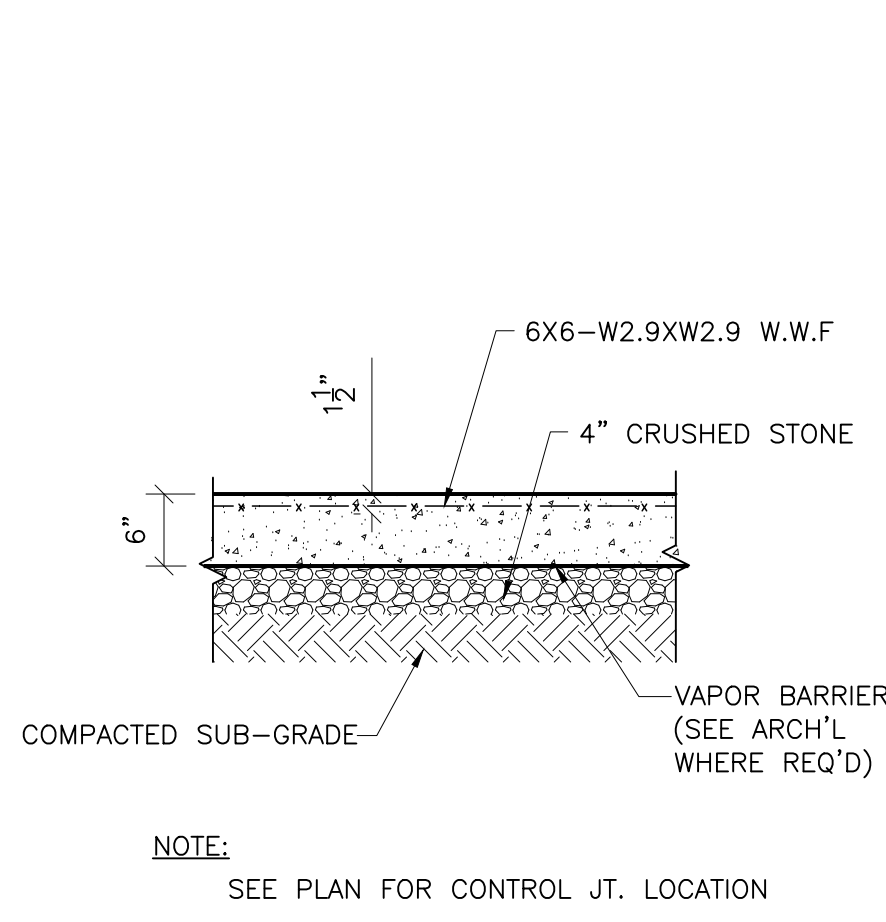
- NOTES:
- 1 8"-16ga @ 16" O.C. FLOOR JOISTS.
 - 2 2x LEDGER BOLTED TO (E) CMU.
 - 3 (N) PRE-CAST/CONC. HEADER, SEE 3/S-201.



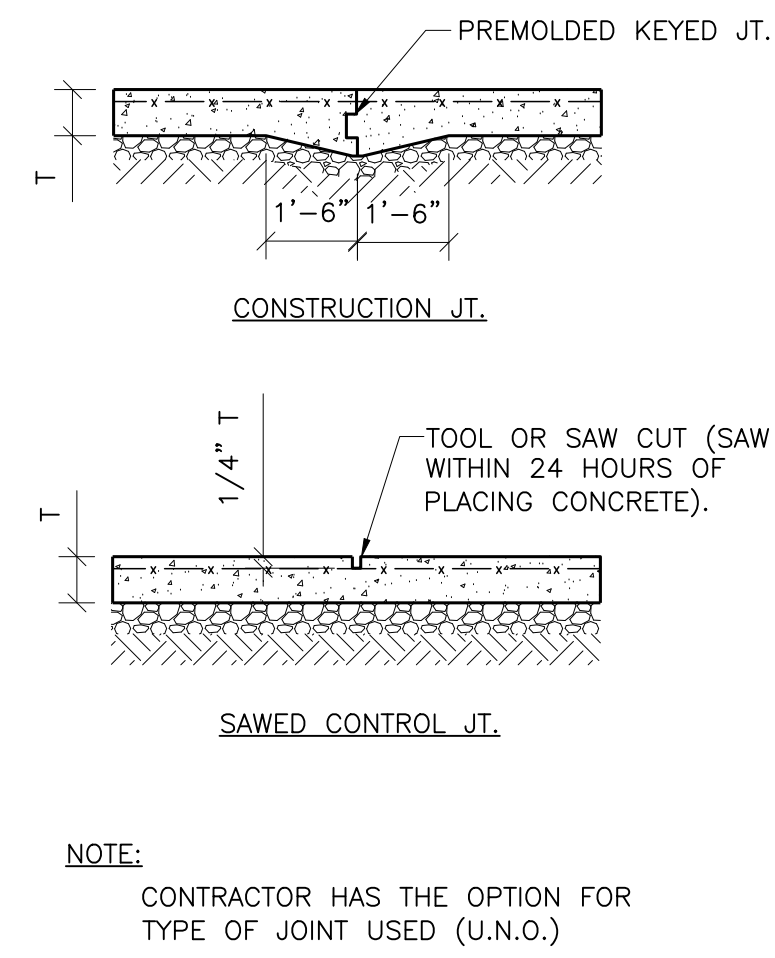
2 SECTION
S-201 SCALE: 3/4"=1'-0"



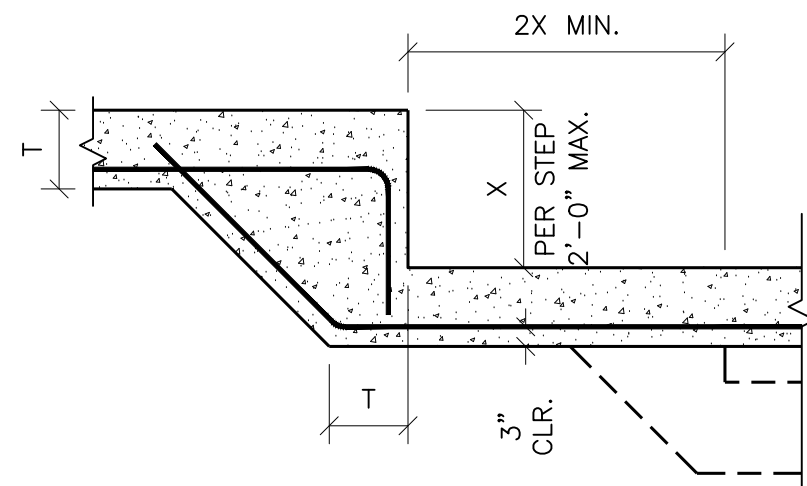
3 PRE-CAST HEADER DETAIL
S-201 SCALE: 3/4"=1'-0"



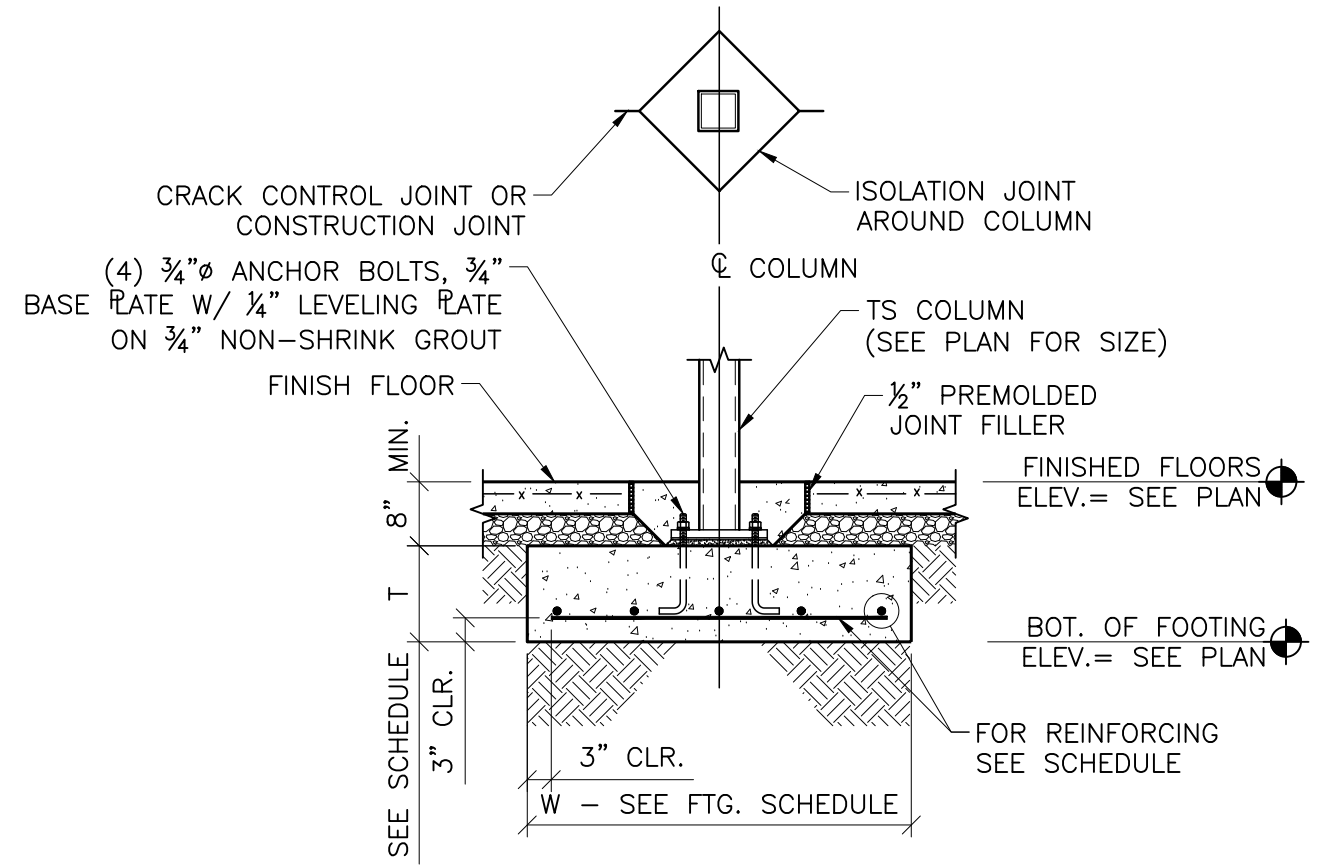
1 SLAB ON GRADE
S-300 SCALE: 3/4"=1'-0"



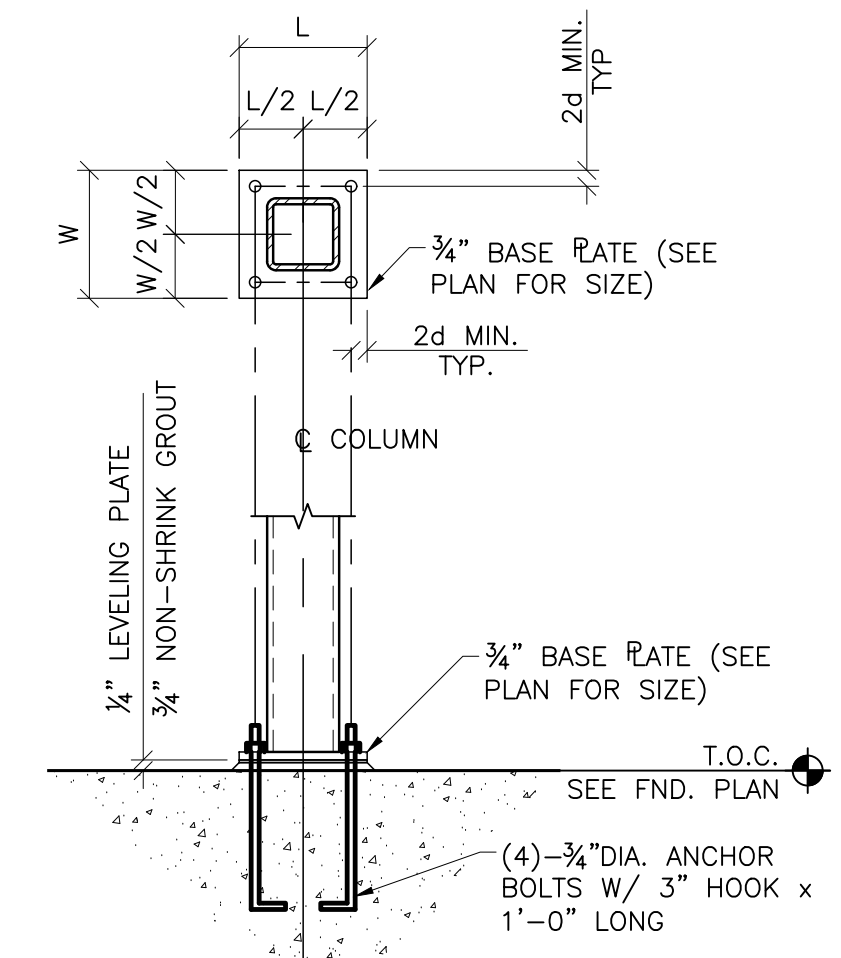
2 CONTROL JOINTS
S-300 SCALE: 3/4"=1'-0"



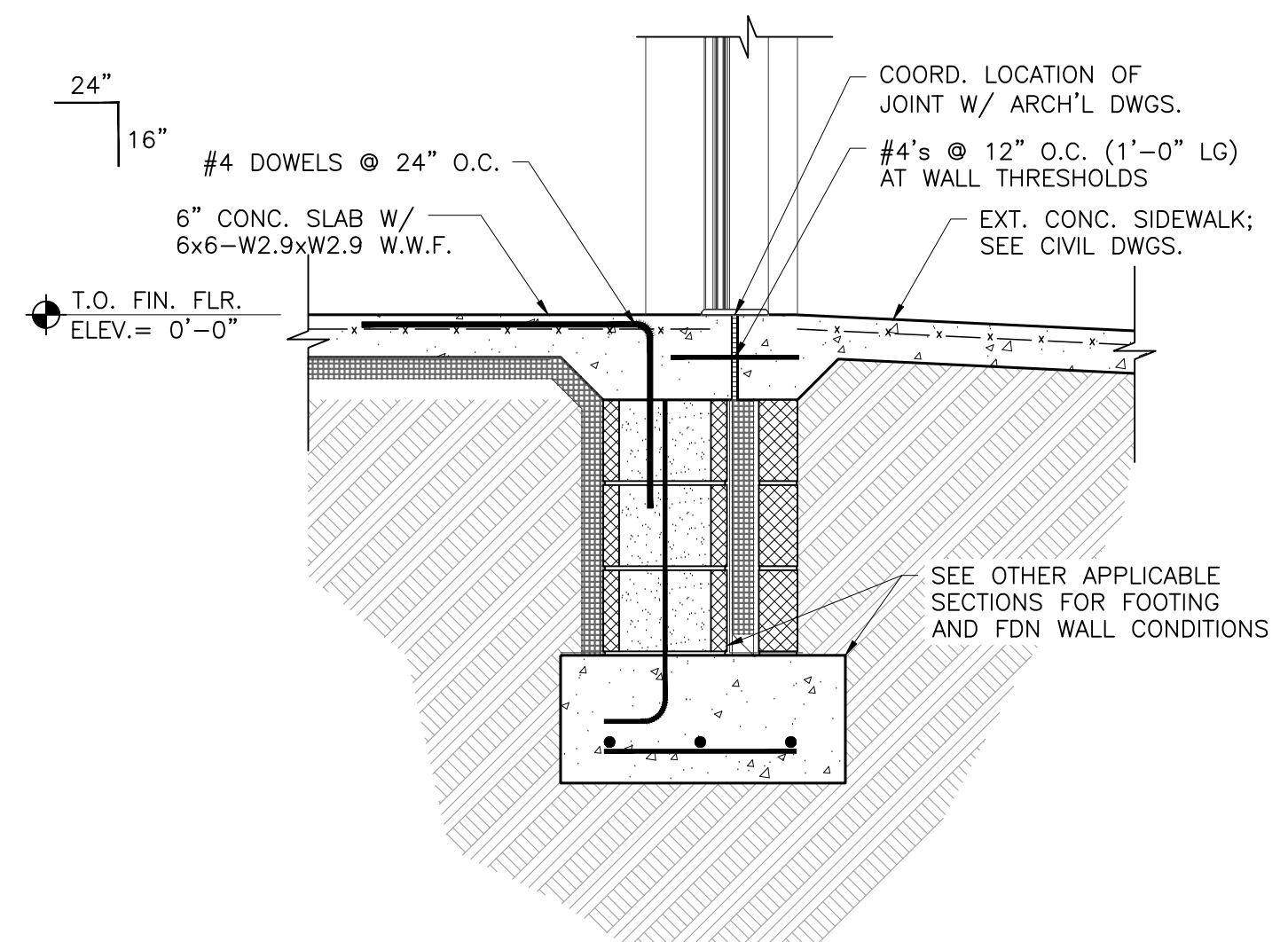
3 STEPPED FTG.
S-300 SCALE: 3/4"=1'-0"



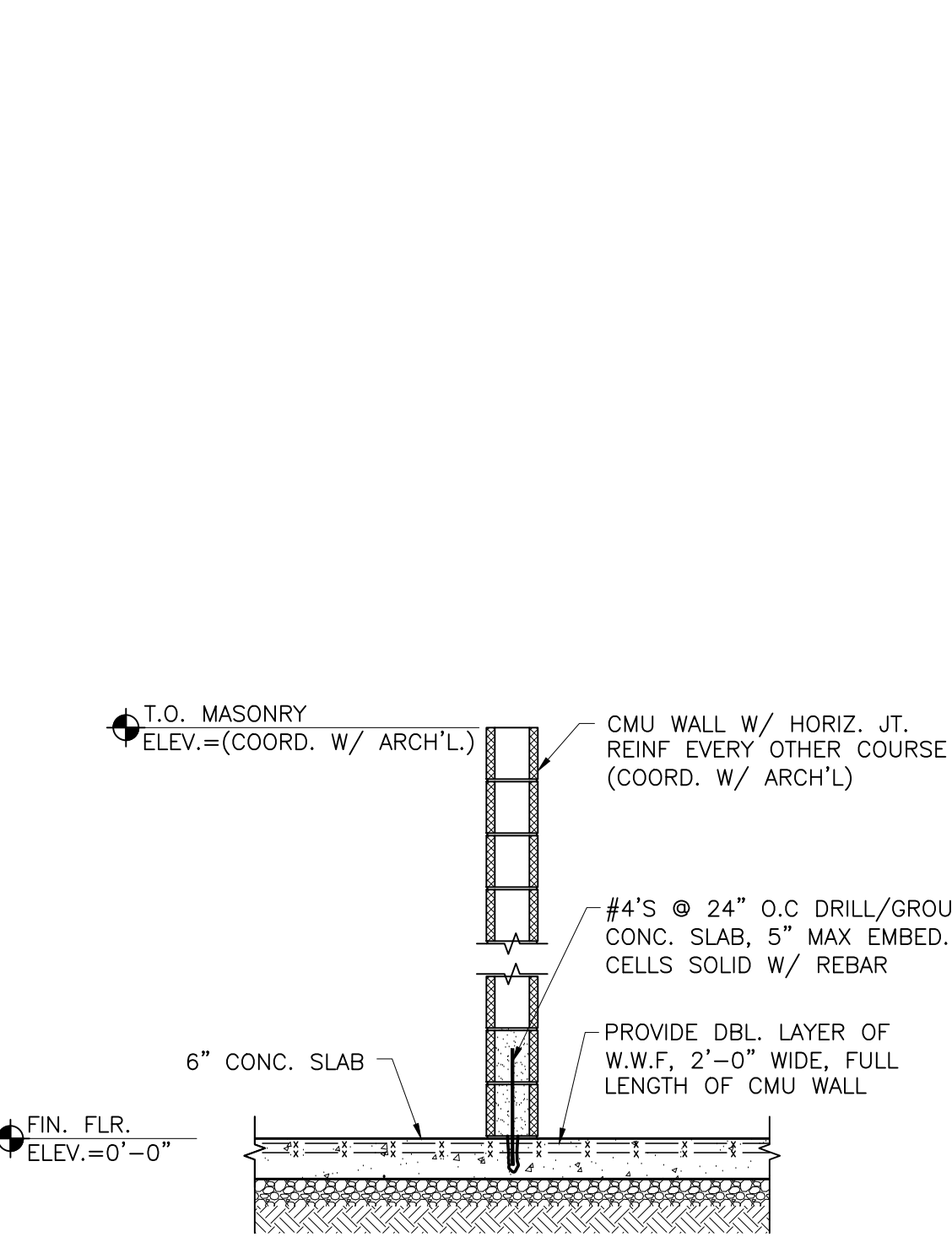
4 INT. COL. ON FTG.
S-300 SCALE: 1/2"=1'-0"



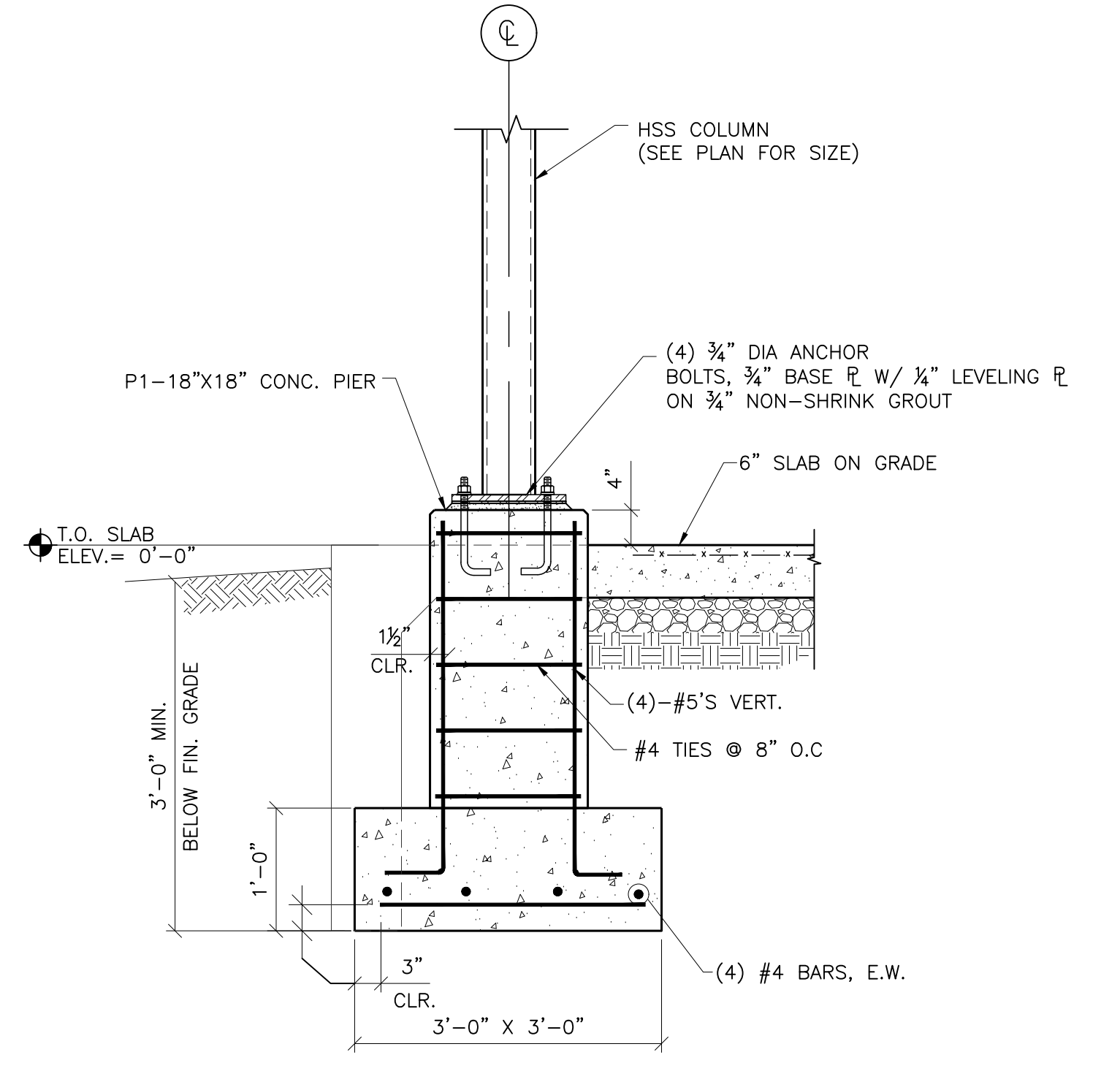
5 TYP. BASE PLATE
S-301 SCALE: 3/4"=1'-0"



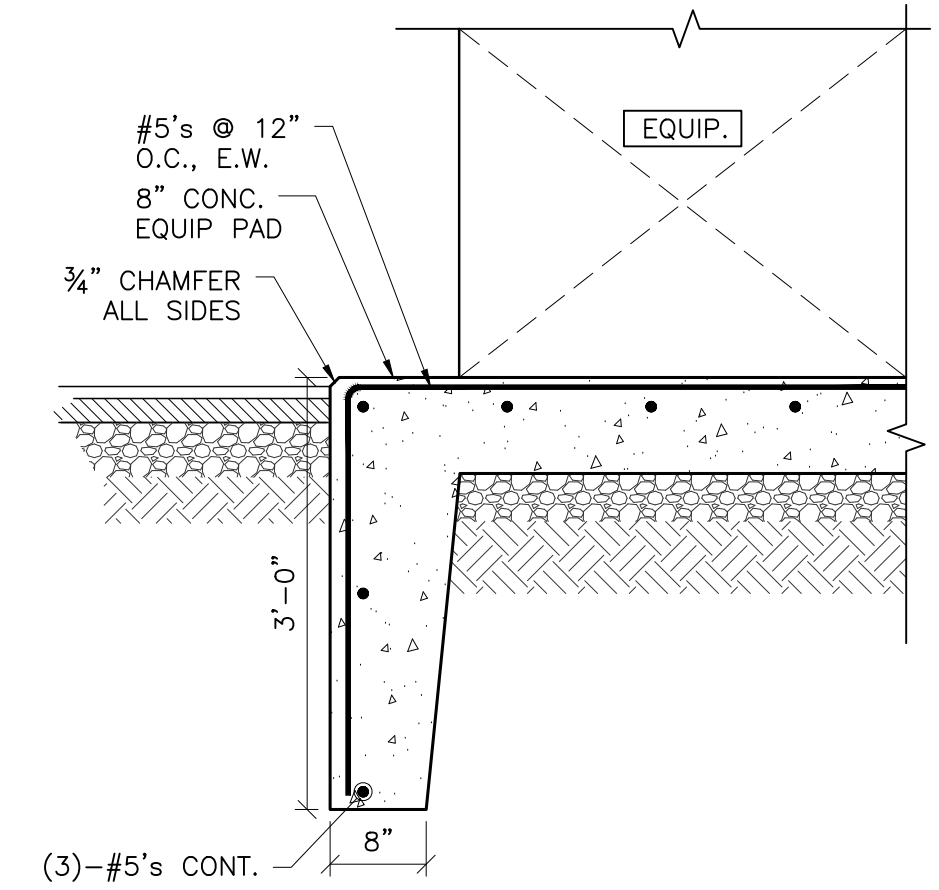
6 HOLD DOWN DETAIL
S-301 SCALE: 3/4"=1'-0"



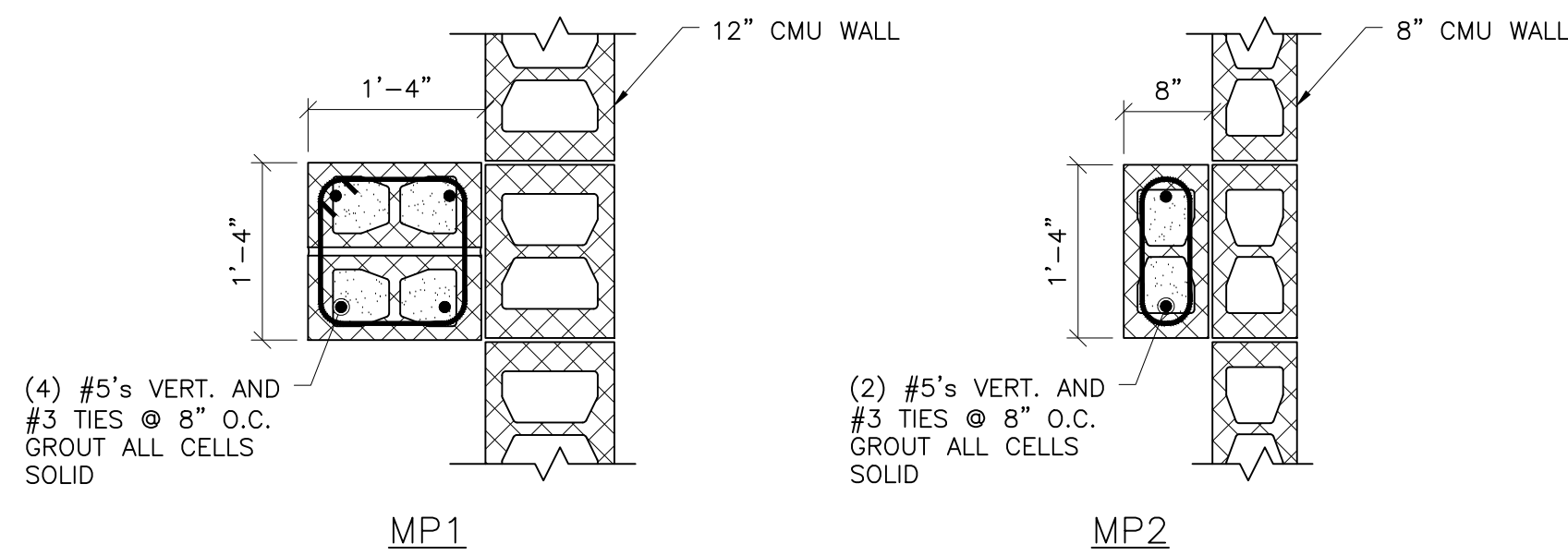
7 INTERIOR CMU PARTITION WALL
S-300 SCALE: 1/2"=1'-0"
NOTE:
1. FOR ALL OPENINGS IN CMU PARTITION WALLS (NON-LOAD BEARING), PROVIDE PRE-CAST CONC. HEADER, SEE DTL. 1/5-301. COORD. ALL LOCATIONS W/ ARCH'L DWGS.



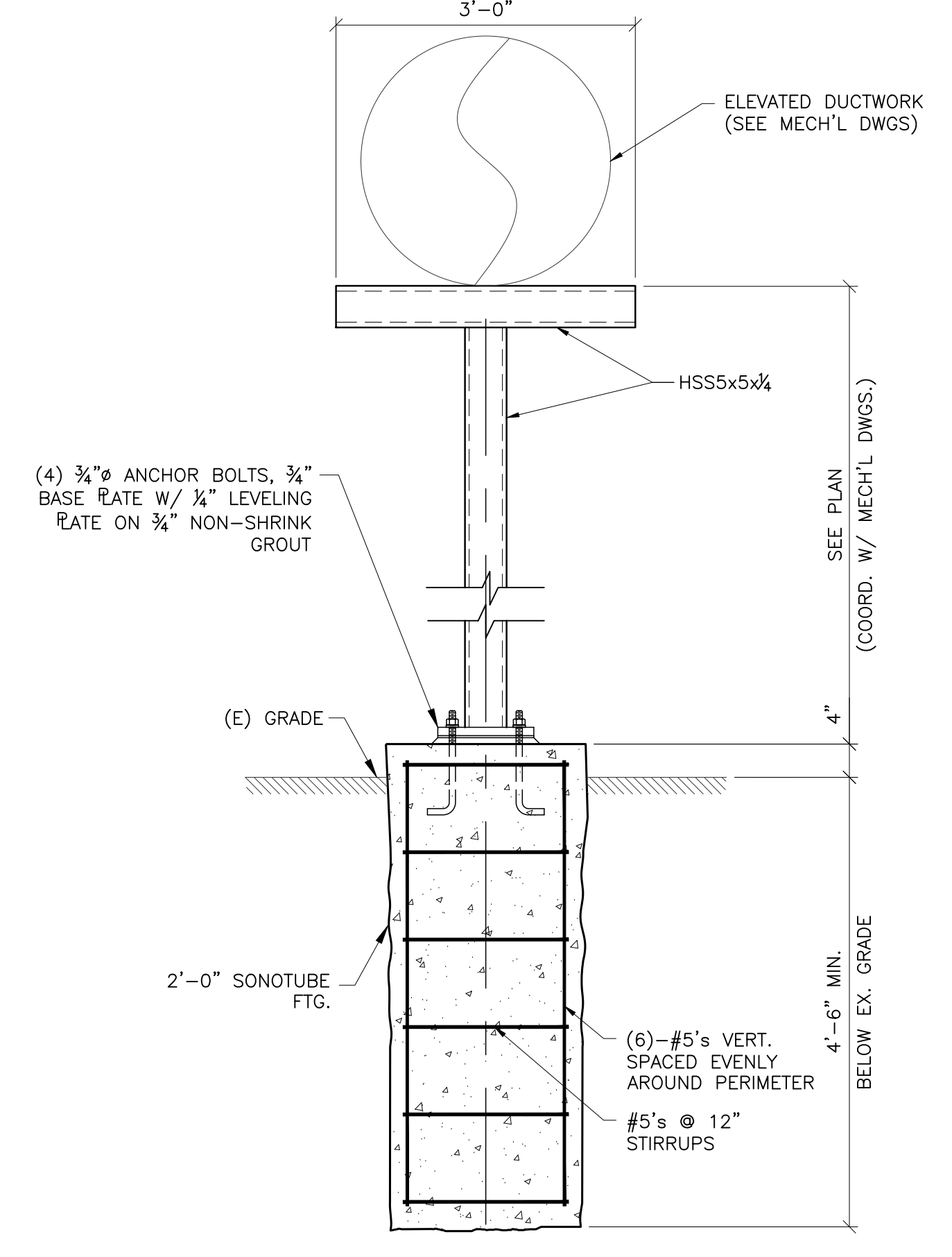
8 COLUMN/PIER DETAIL
S-300 SCALE: 3/4"=1'-0"



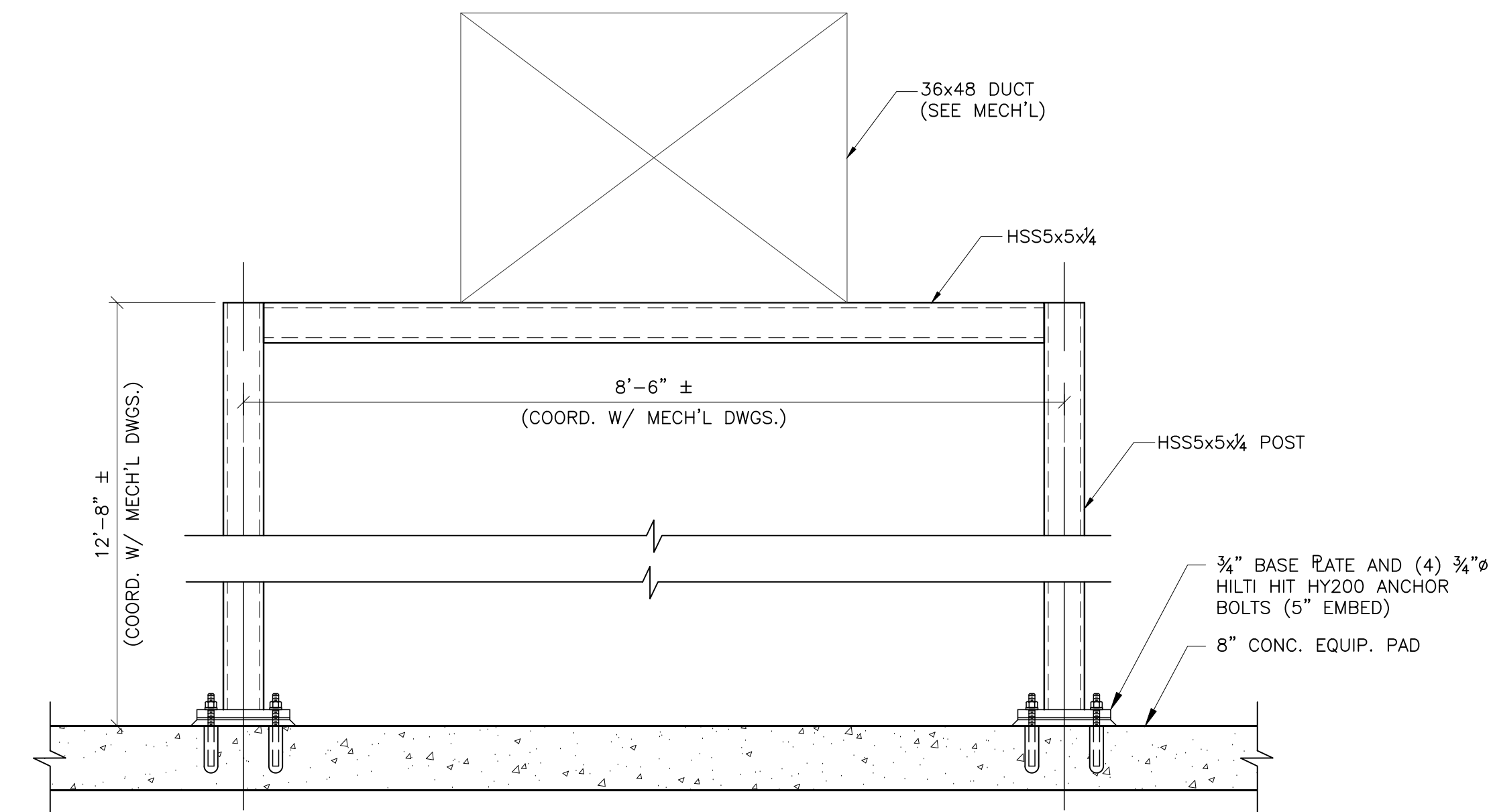
9 EXTERIOR EQUIPMENT PAD
S-300 SCALE: 1/2"=1'-0"
NOTE:
1. COORDINATE EXACT LOCATION AND SIZE W/ ARCH'L MECH'L DRAWINGS AND EQUIPMENT MANUFACTURER.



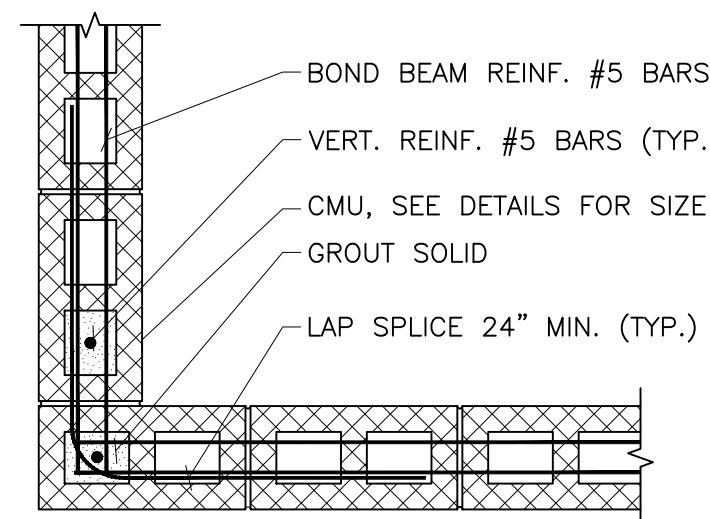
10 MASONRY PIER DETAILS
S-300 SCALE: 3/4"=1'-0"
NOTES:
1. COORD. TOP/PIER ELEV. W/ BEAM BRG. HEIGHT.
2. ALTERNATE COURSES AND 'TOOTH IN' TO WALL COM.



11 ELEVATED DUCTWORK SUPPORT DETAIL
S-300 SCALE: 3/4"=1'-0"
NOTES:
1. SEE PLAN FOR LOCATIONS AND COORD. W/ ARCH'L AND MECH'L DWGS.
2. ALL EXTERIOR STEEL TO BE GALVANIZED.

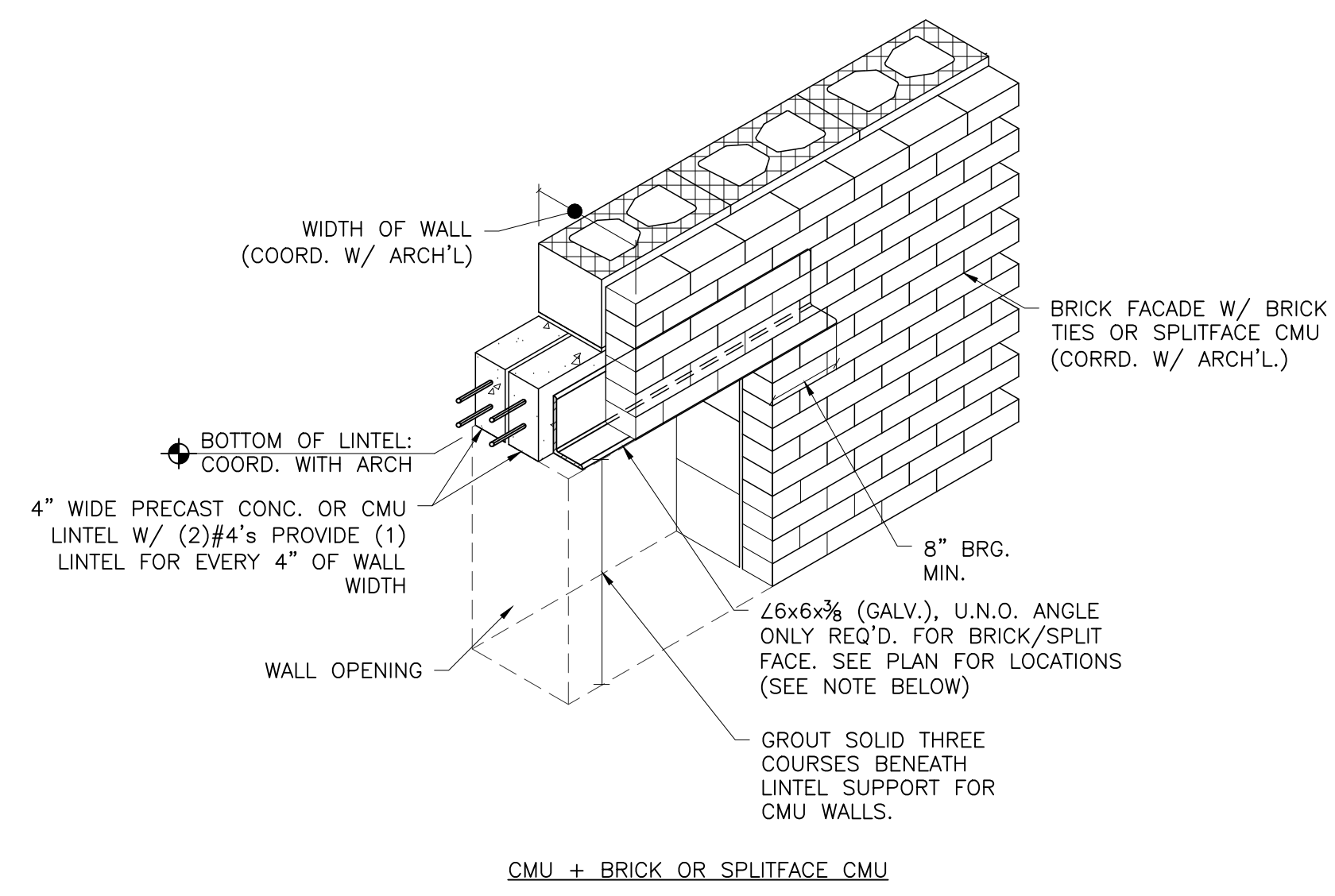


12 ELEVATED DUCTWORK SUPPORT DETAIL
S-300 SCALE: 3/4"=1'-0"
NOTES:
1. SEE PLAN FOR LOCATIONS AND COORD. W/ ARCH'L AND MECH'L DWGS.
2. ALL EXTERIOR STEEL TO BE GALVANIZED.



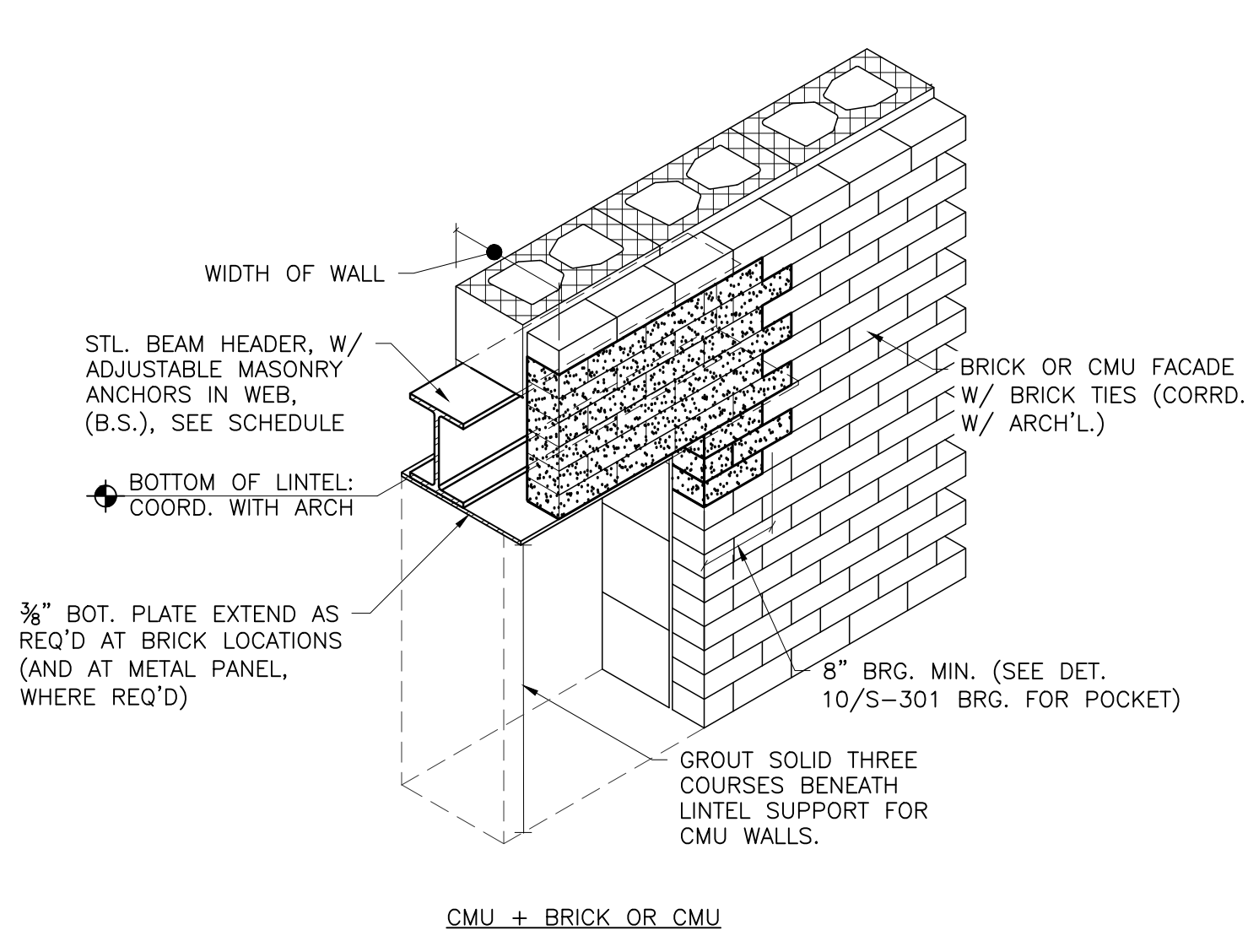
13 CMU CORNER REINF. DETAIL
S-300 SCALE: 1/2"=1'-0"

REV ID	DESCRIPTION	DATE

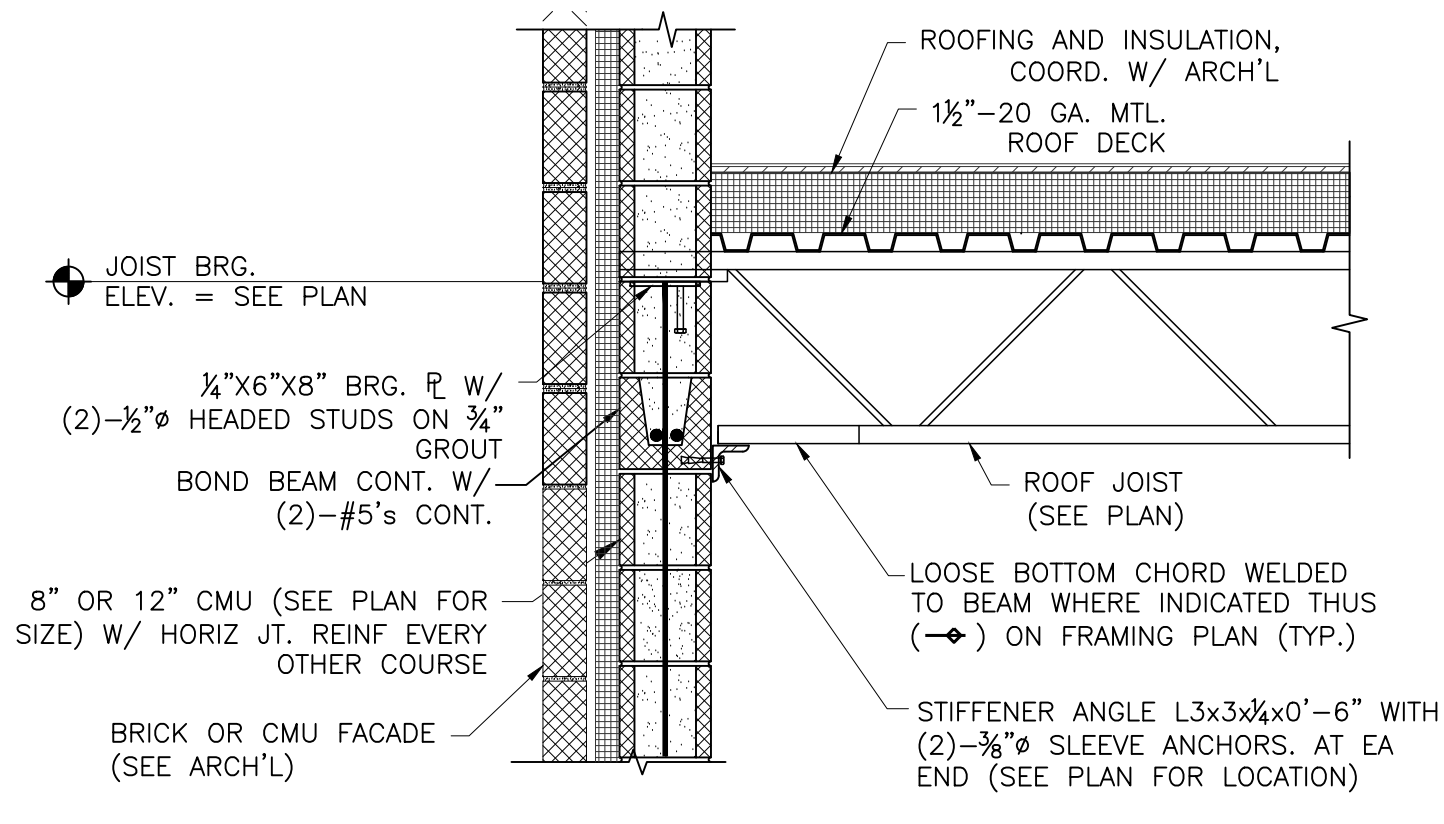


1 PRE-CAST HEADER DETAIL
S-301 SCALE: 3/4"=1'-0"

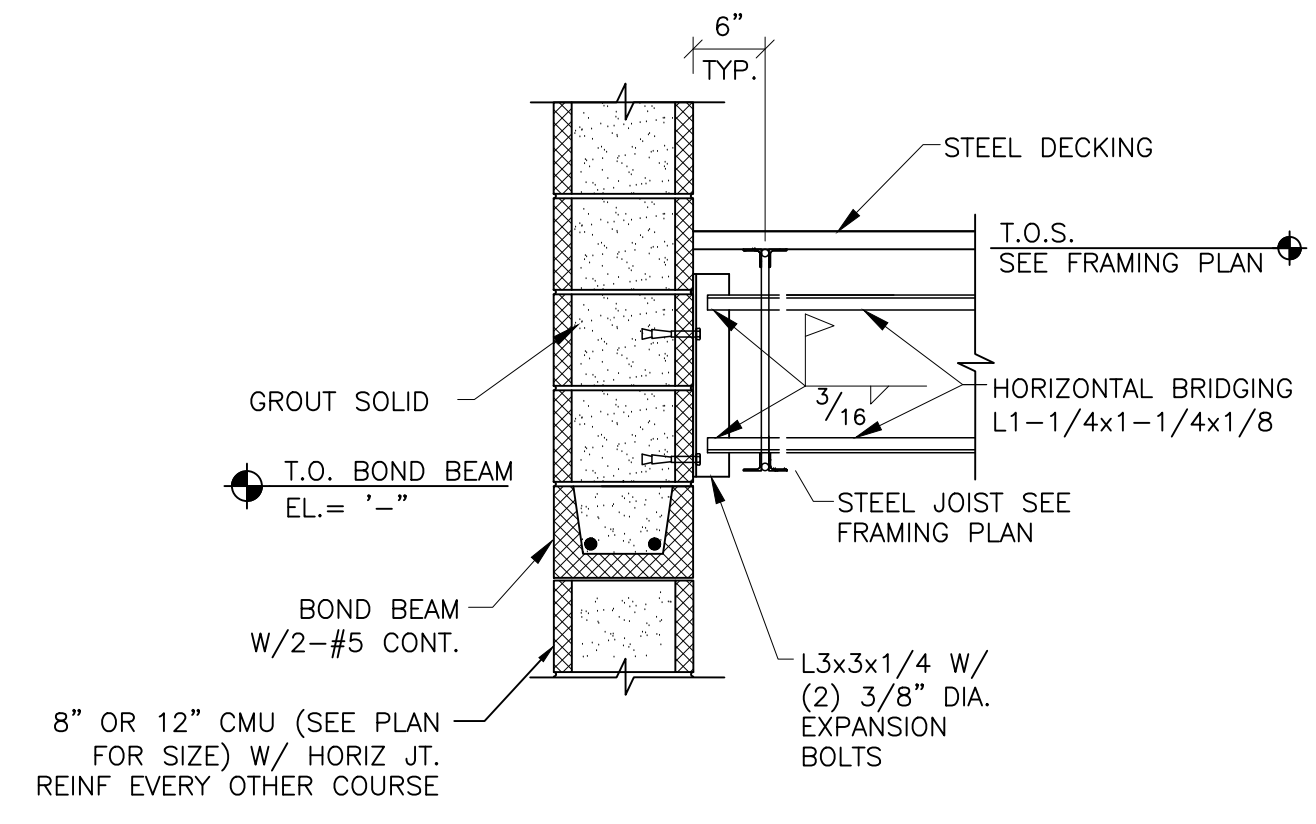
- NOTES:
1. PROVIDE $\angle 6 \times 4 \times \frac{3}{8}$ (GALV.) FOR SUPPORT OF METAL PANEL FACADE, WHERE REQ'D. SEE PLAN AND COORD. W/ ARCH'L DWGS. BOLT ANGLE TO CMU W/ $\frac{1}{2}$ " DIA. EXP. BOLTS @ 12" O.C. MAX.
 2. IF NOT SPECIFICALLY SHOWN, PROVIDE PRE-CAST HEADER FOR ALL OPENINGS IN CMU WALL, UP TO 5'-0" WIDE. (COORD. W/ ARCH'L & MECH'L DWGS.)



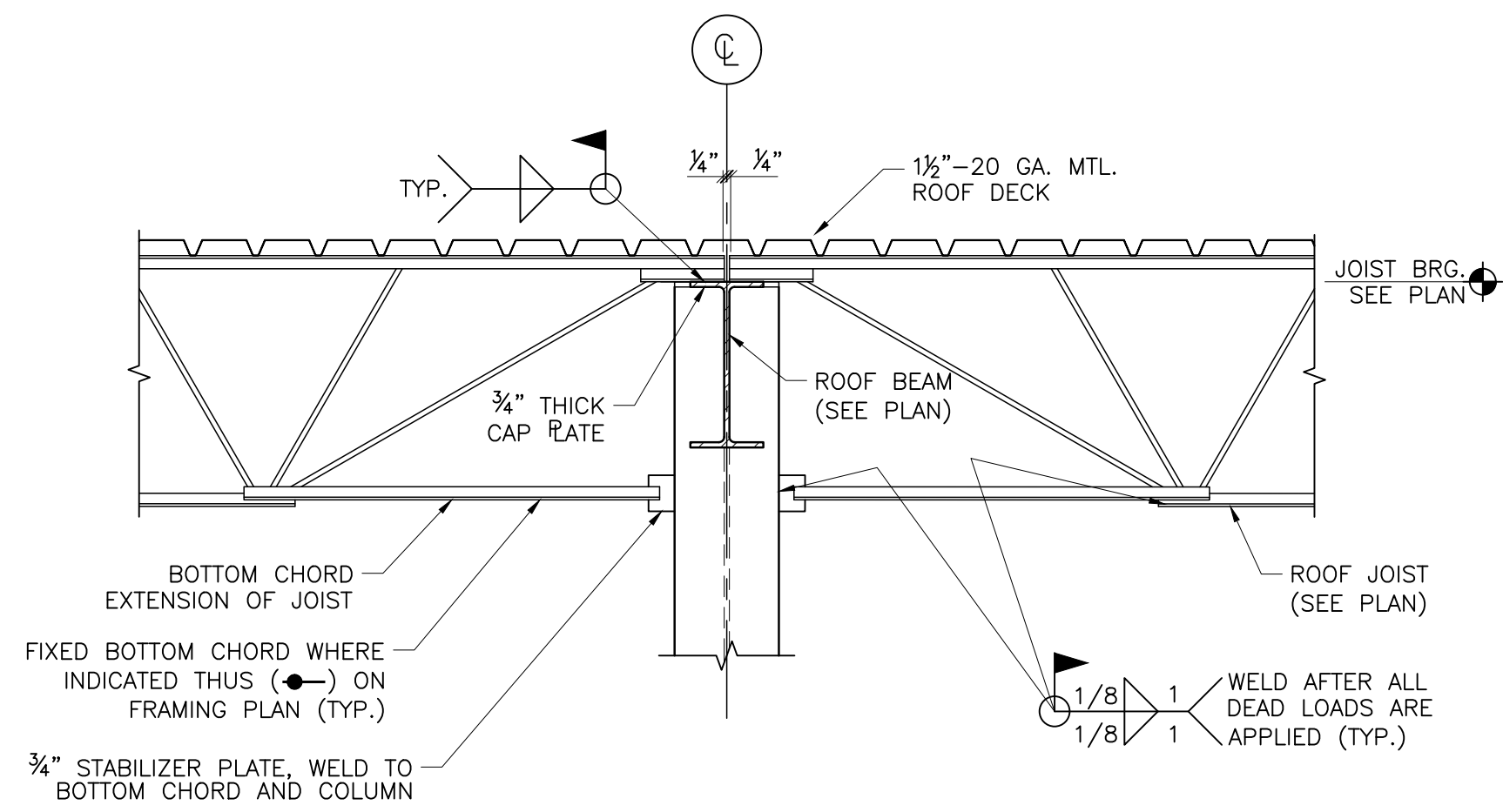
2 STEEL BM. HEADER DETAIL
S-301 SCALE: 3/4"=1'-0"



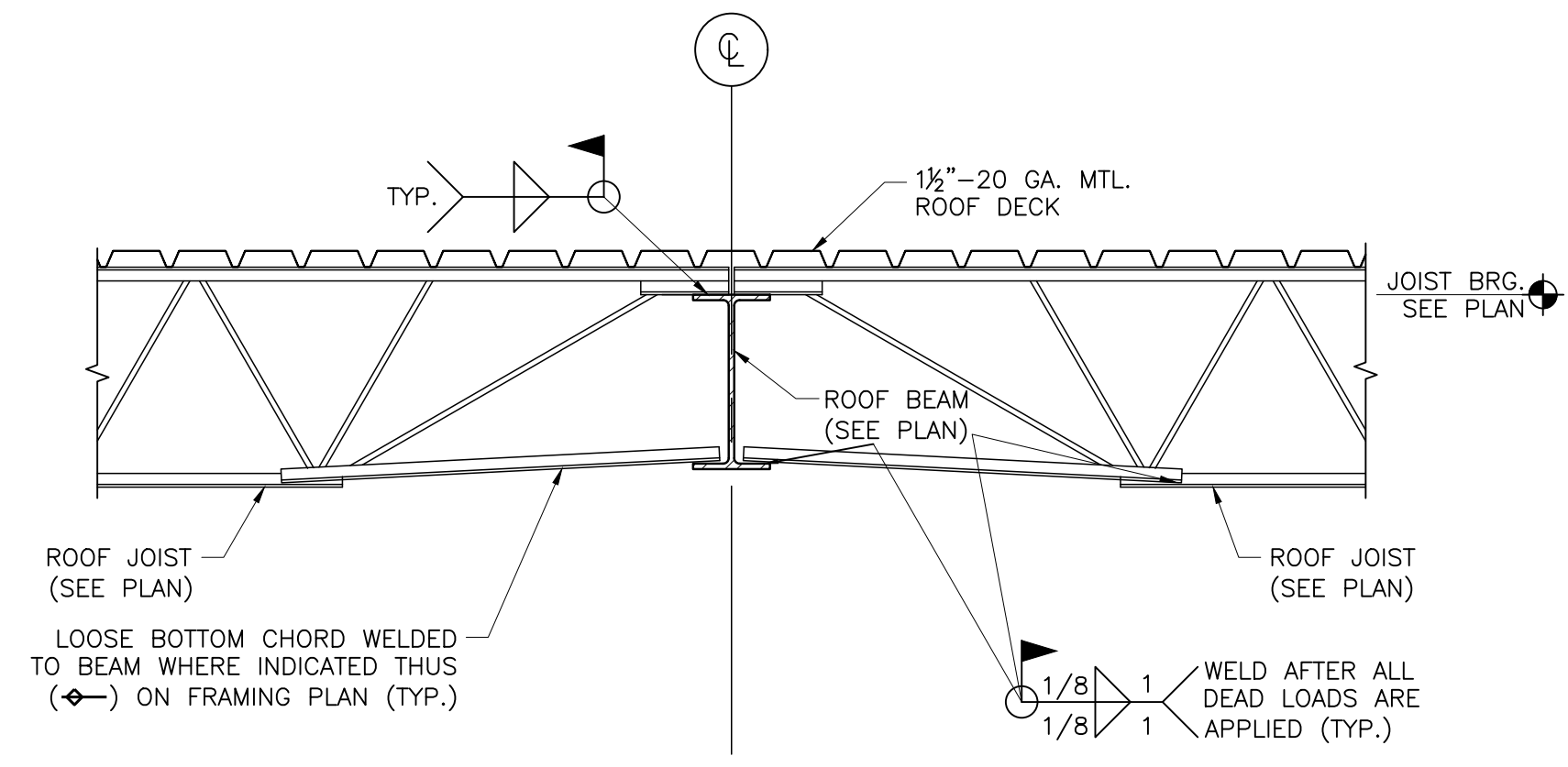
3 TYP. JOIST BRG. ON CMU
S-301 SCALE: 3/4"=1'-0"



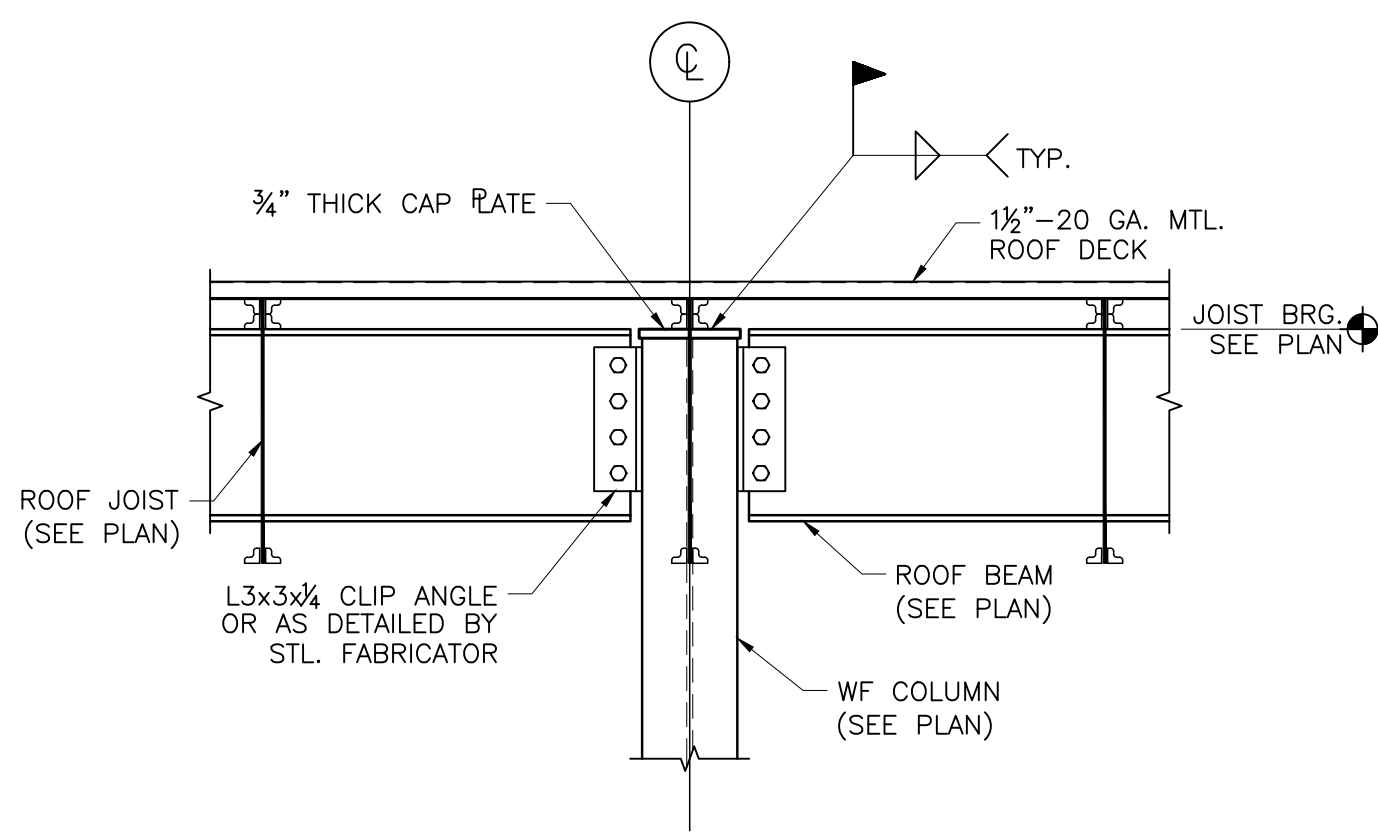
4 TYP. JOIST BRIDGING DETAIL
S-301 SCALE: 3/4"=1'-0"



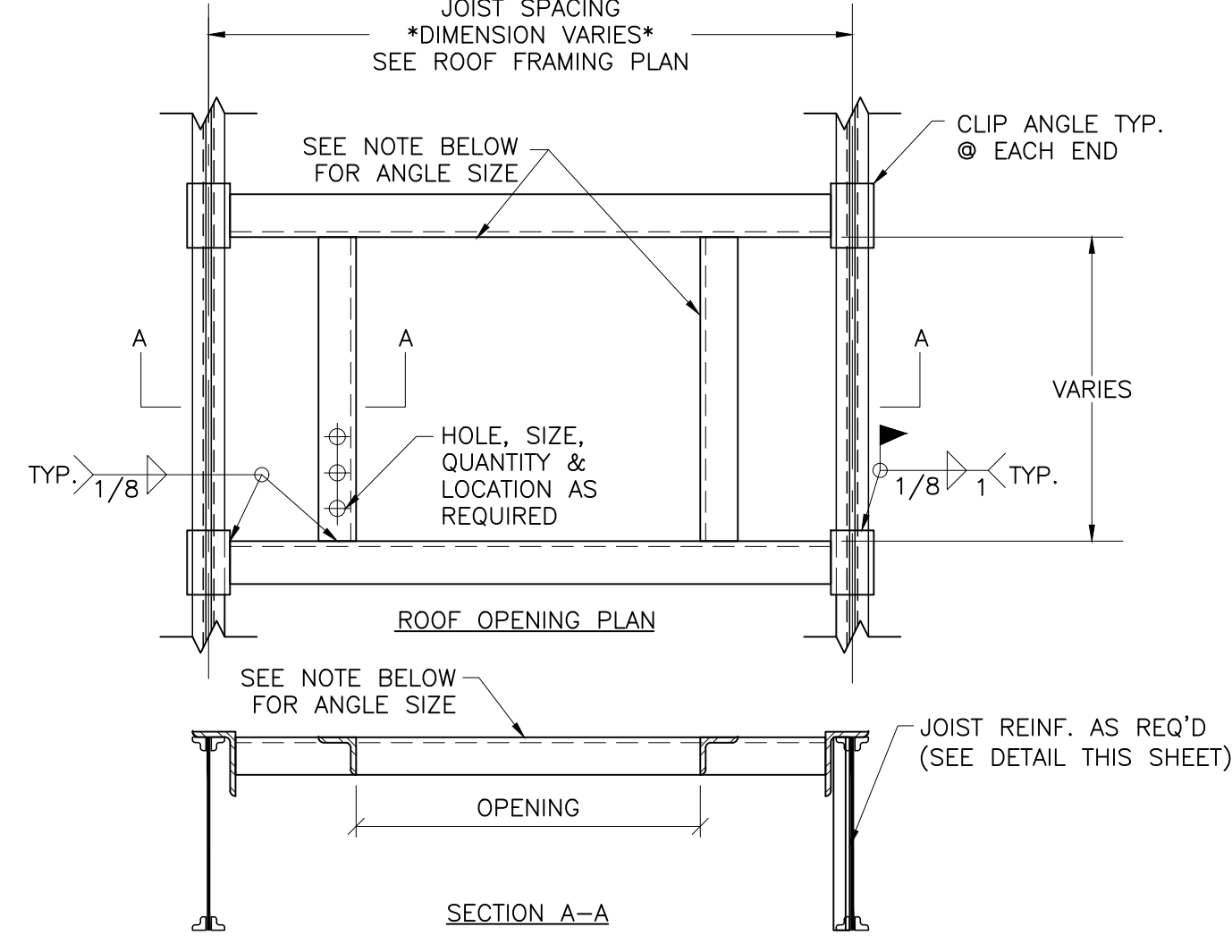
5 JOIST ON COLUMN CONN.
S-301 SCALE: 3/4"=1'-0"



6 JOIST TO BEAM CONN.
S-301 SCALE: 3/4"=1'-0"

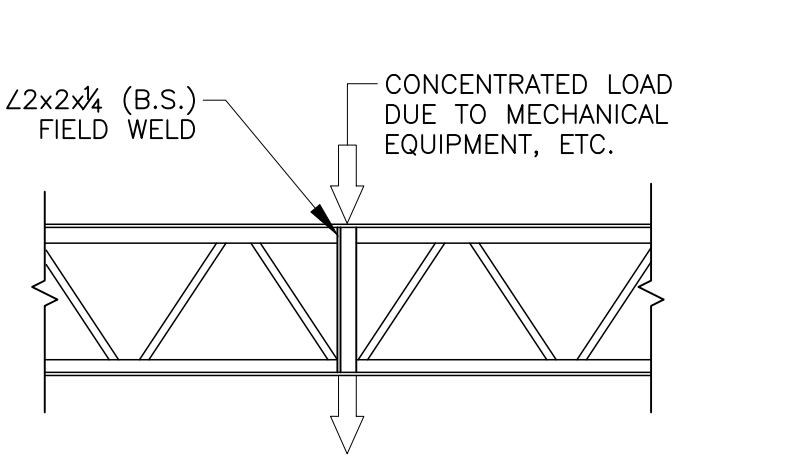


7 BEAM TO COLUMN CONN.
S-301 SCALE: 3/4"=1'-0"



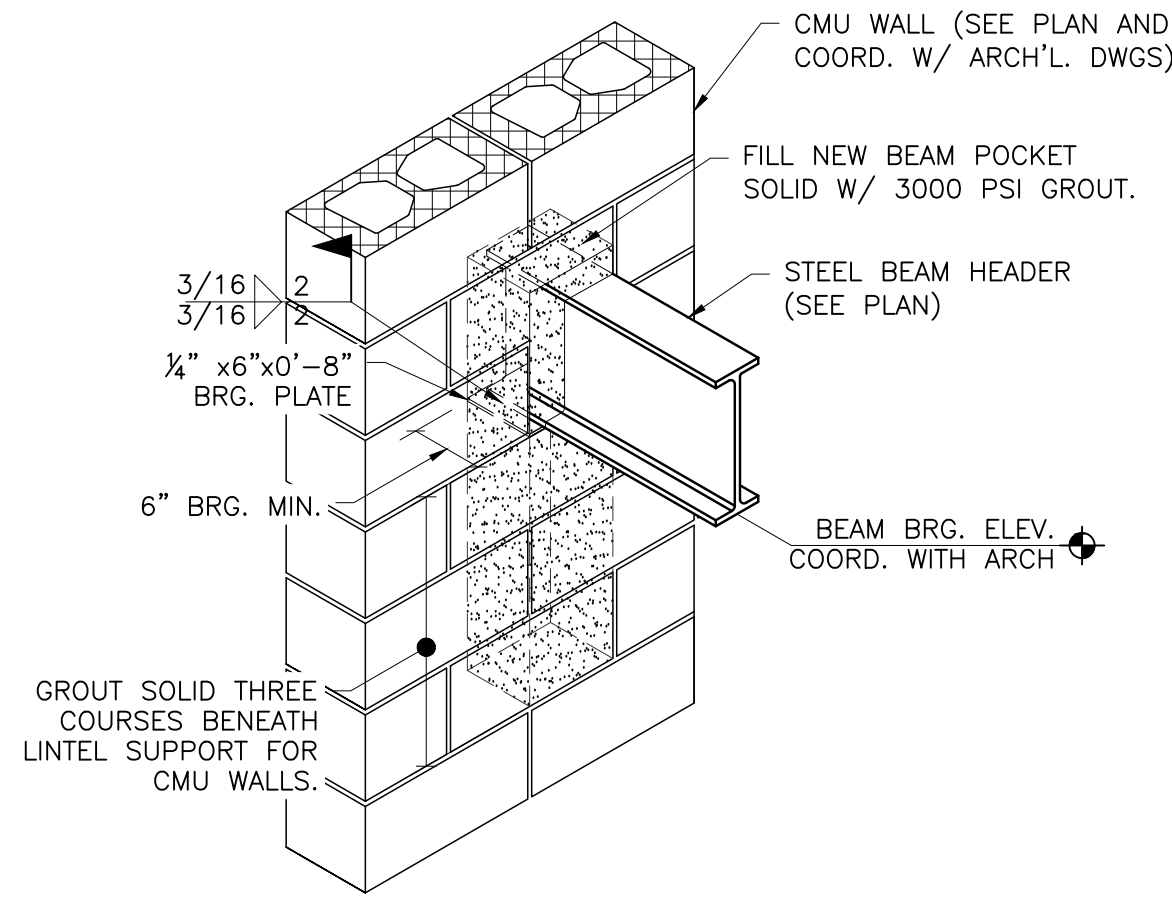
- NOTES:
1. VERIFY ALL ROOF OPENING SIZES WITH MECHANICAL UNIT VENDOR DRAWINGS
 2. IF LARGEST OPENING DIMENSIONS IS: 2'-0" OR LESS USE $\angle 3 \times 3 \times \frac{3}{8}$; 5'-0" OR LESS USE $\angle 4 \times 3 \times \frac{3}{8}$ (LLV); 10'-0" OR LESS USE $\angle 5 \times 3 - 1/2 \times 3/8$ (LLV)

8 ROOF FRAME OPENING DETAIL
S-301 SCALE: 3/4"=1'-0"

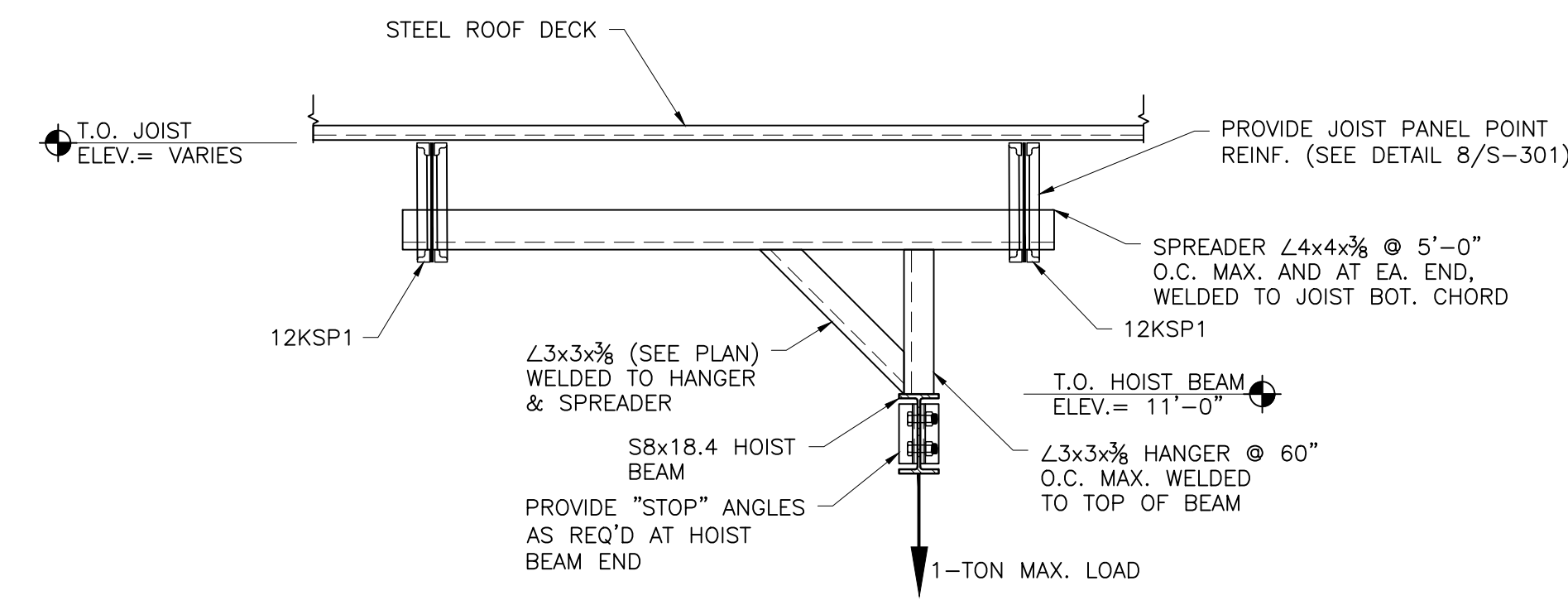


- NOTES:
1. REINFORCE JOIST IN SHOP OR FIELD WHEN CONCENTRATED LOADS FROM MECHANICAL EQUIPMENT OR OTHER SOURCE EXCEEDS 250 LBS.
 2. ADD $2 \times 2 \times \frac{1}{2}$ FOR CONCENTRATED LOAD AT LOCATION CLOSEST TO PANEL POINT WHEN LOAD LOCATION IS GREATER THAN 4" FROM PANEL POINT.
 3. WELDING BY CERTIFIED WELDER.
 4. WELD TO SUPPORTING BEAM OR JOIST $\frac{3}{8}$ " FILLET 2" LONG

9 JOIST REINF. DETAIL
S-301 SCALE: 3/4"=1'-0"

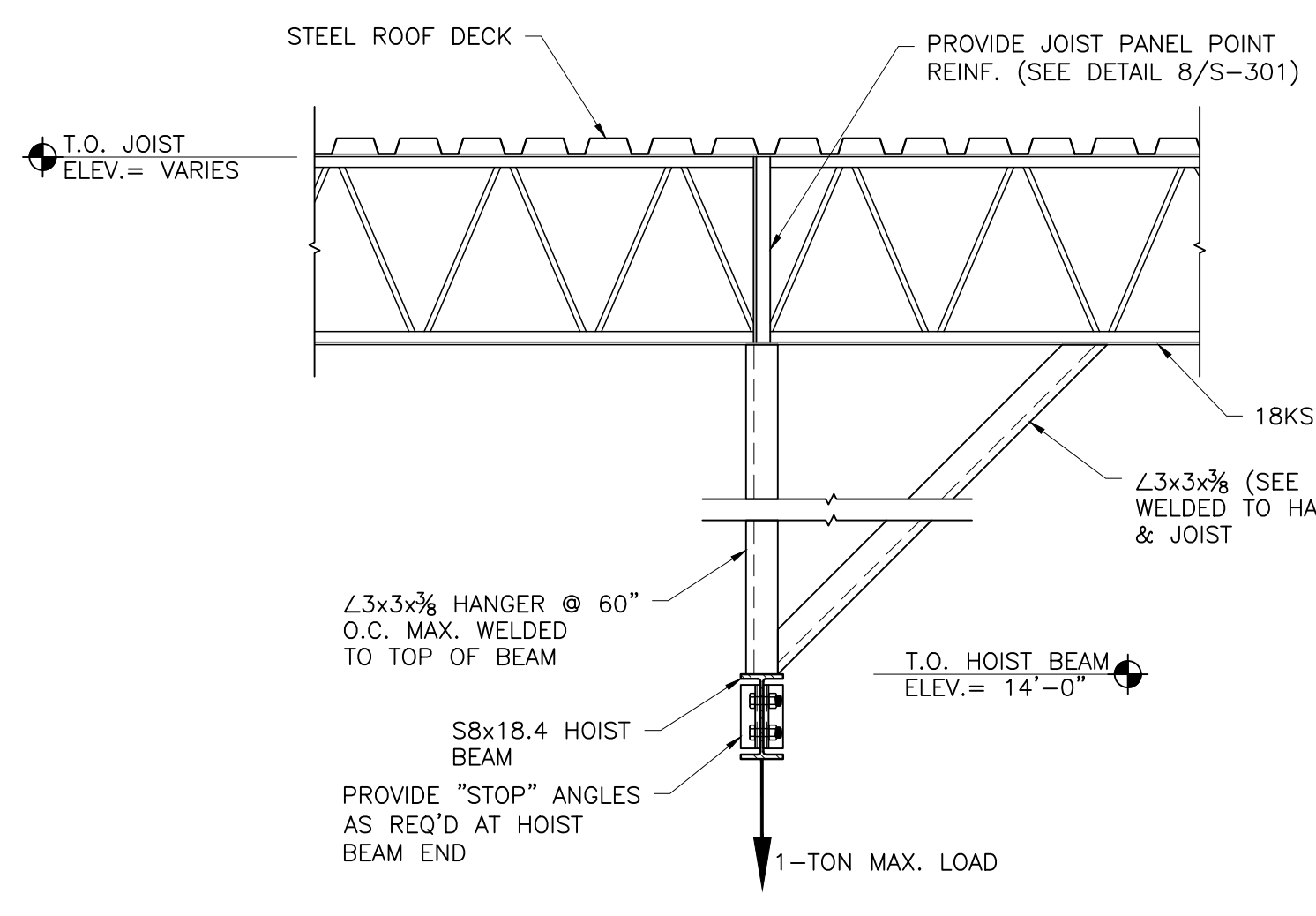


10 BEAM BRG. POCKET
S-301 SCALE: 3/4"=1'-0"



11 SECTION @ HOIST BEAM
S-301 SCALE: 3/4"=1'-0"

- NOTES:
1. 12KSP1 JOISTS TO BE DESIGNED FOR UNIFORM LOAD (MIN. 120pif D.L. + 180pif L.L.) + MOVING 2,000lbs LIVE LOAD.
 2. 12KSP2 JOISTS TO BE DESIGNED SAME AS ABOVE + SNOW DRIFT LOADING AS APPLICABLE.



12 SECTION @ HOIST BEAM
S-301 SCALE: 3/4"=1'-0"

- NOTES:
1. 18KSP1 JOISTS TO BE DESIGNED FOR UNIFORM LOAD (MIN. 120pif D.L. + 180pif L.L.) + 2,000lbs CONCENTRATED LIVE LOAD.



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PROJECT #:
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CONSULTANT

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1700 West Main St., 2nd Floor 610.770.1657 Fax
PROJECT #: 2021-086.00

SALVATORE DIGENOVA
ENGINEER
REGISTRATION NO. 042432-E
DATE: _____ SIGNED

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contact: CHAD HEFFNER
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client phone number
ekahler@rmctc.org

READING MUHLBERG CAREER &
TECHNOLOGY CENTER
PROGRAM UPGRADES
2615 WARREN ROAD
READING, PA 19604

ISSUED FOR BID
DATE: 5/17/2022

REV	DESCRIPTION	DATE

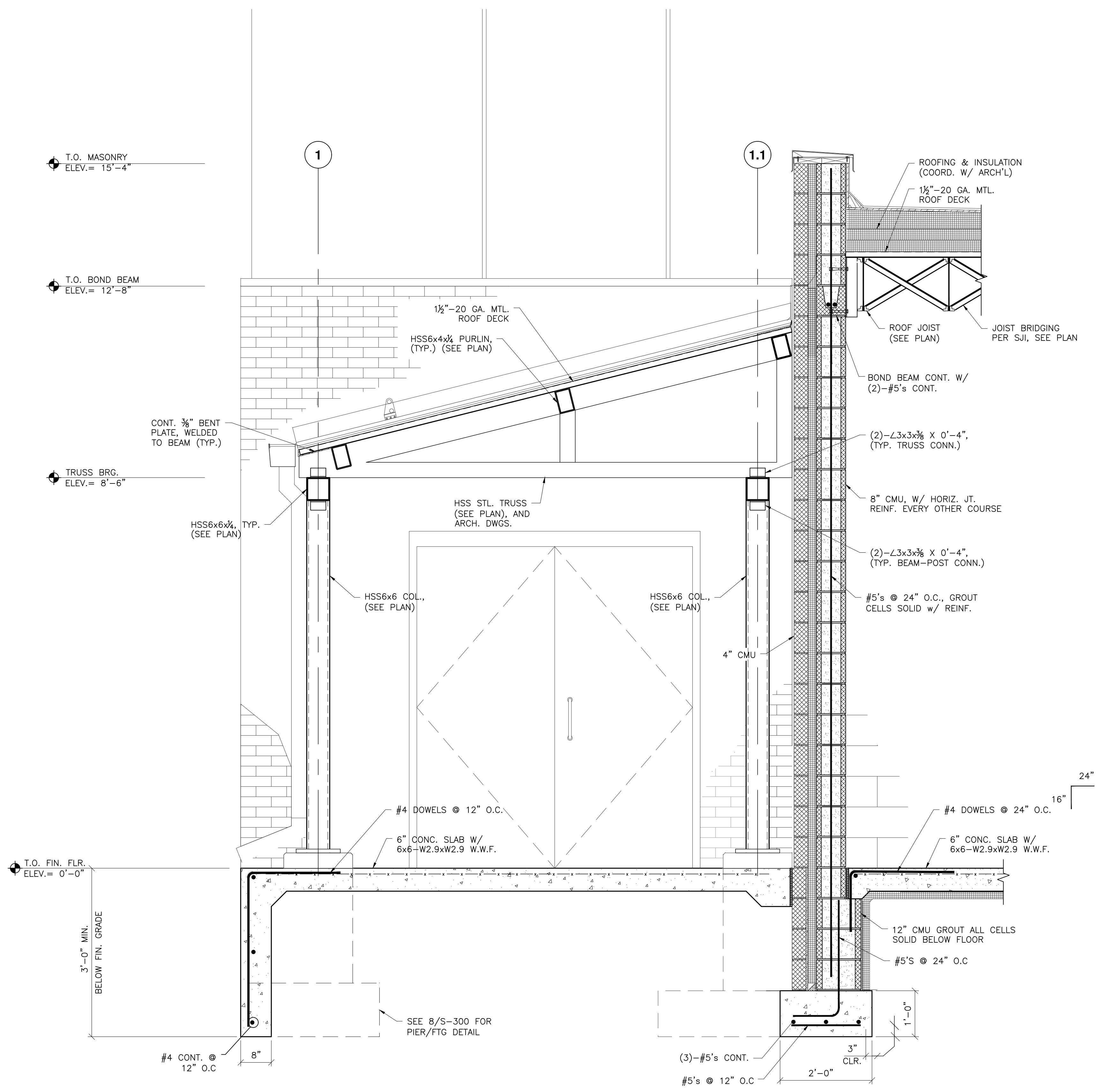
PROJ. MGR.: S.DI GENOVA
P.M. e-MAIL: <consultant.pmi@email>
DRAWN BY: QW
CLIENT PROJ #: 2021-086.00
VERIFICATION: 1
BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING

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WELDING BUILDING

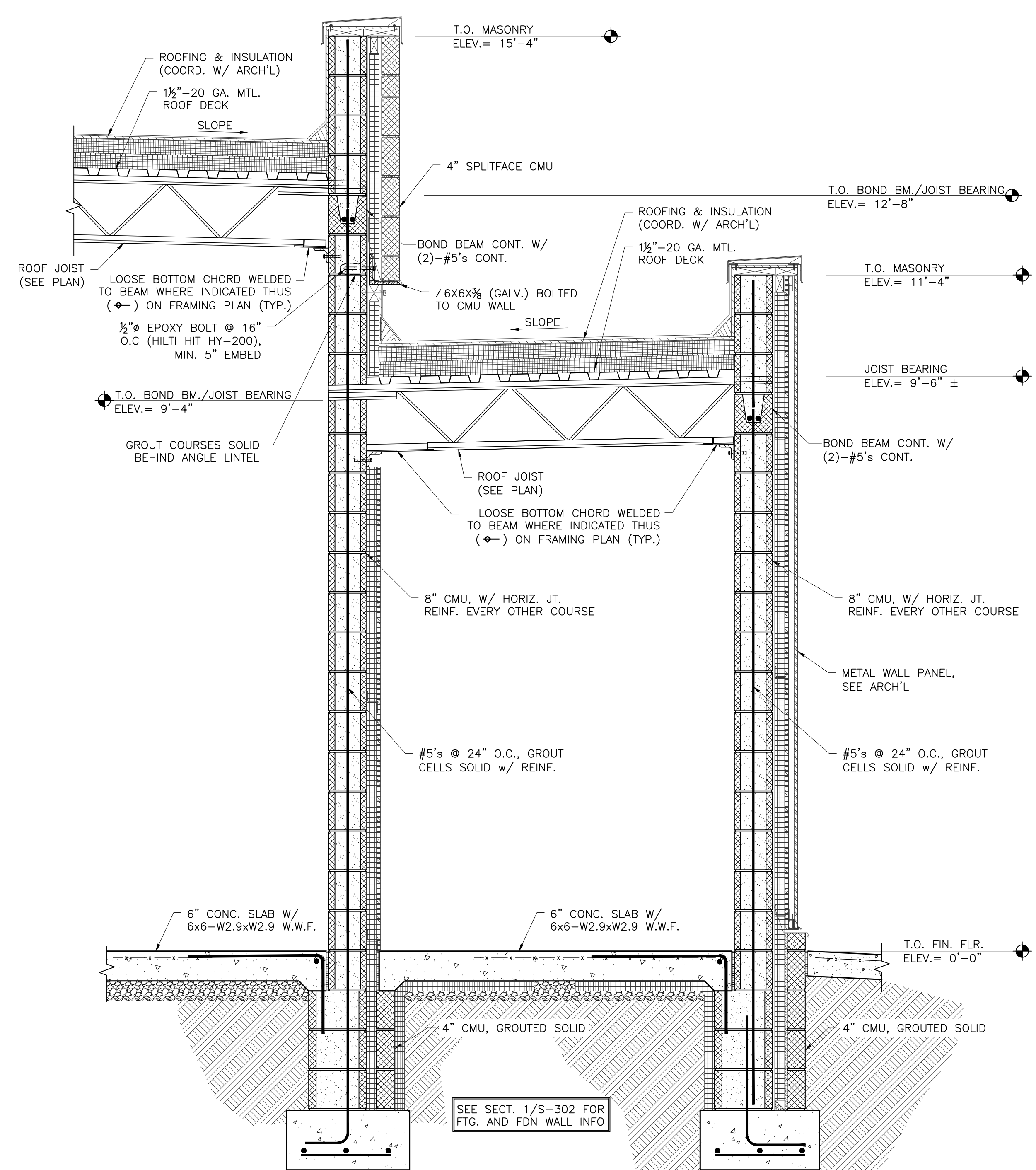
SHEET TITLE:
SECTIONS AND DETAILS

S-301



1 SECTION
S-302 SCALE: 3/4"=1'-0"

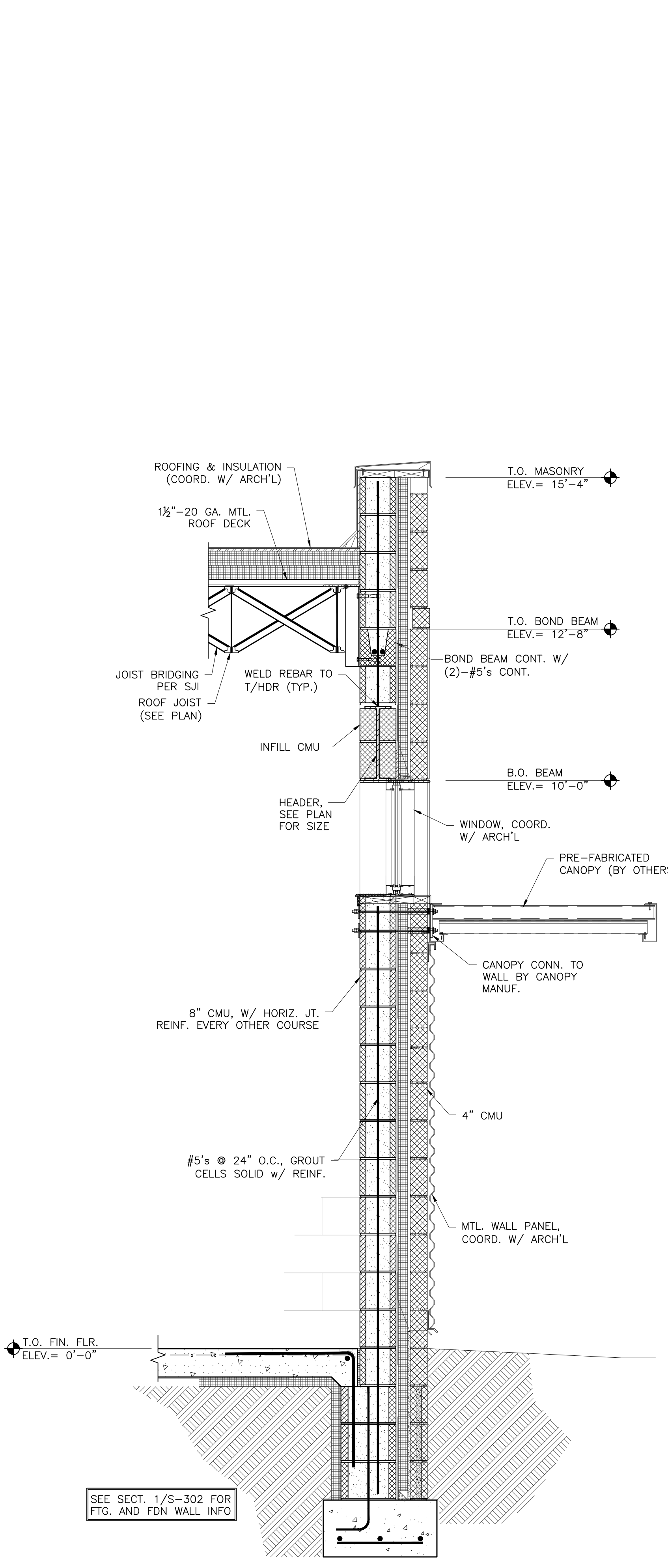
NOTE:
1. ALL EXTERIOR STEEL, COLUMNS, TRUSSES, ETC. TO BE GALVANIZED.



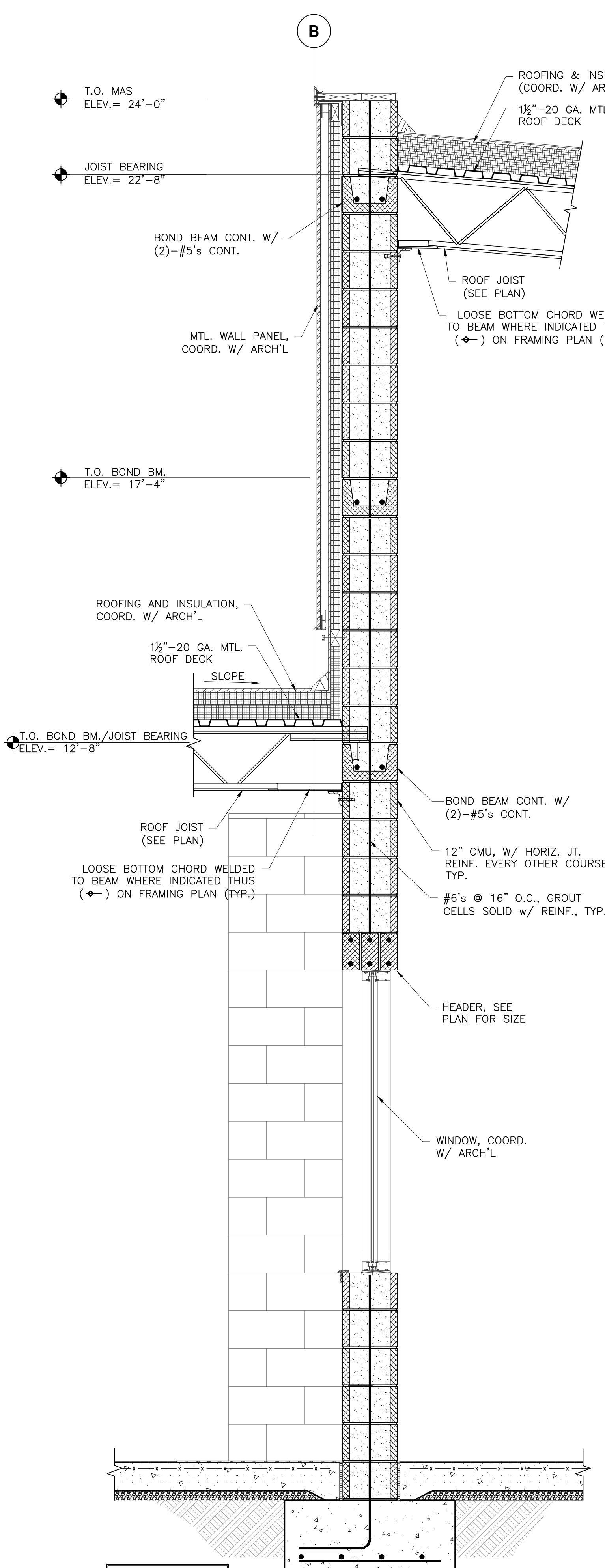
2 SECTION
S-302 SCALE: 3/4"=1'-0"

REV	DESCRIPTION	DATE

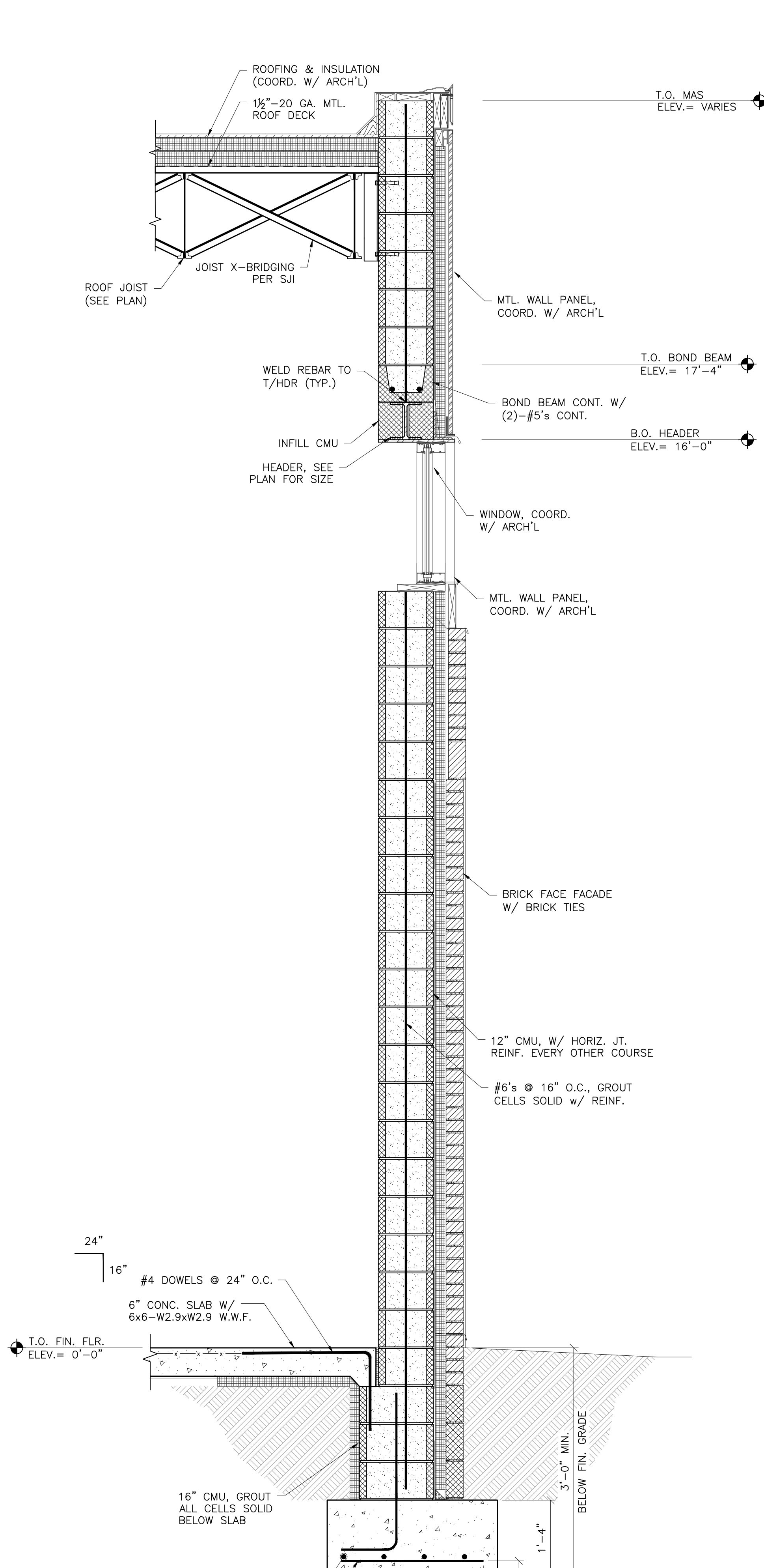
REV. #	DESCRIPTION	DATE



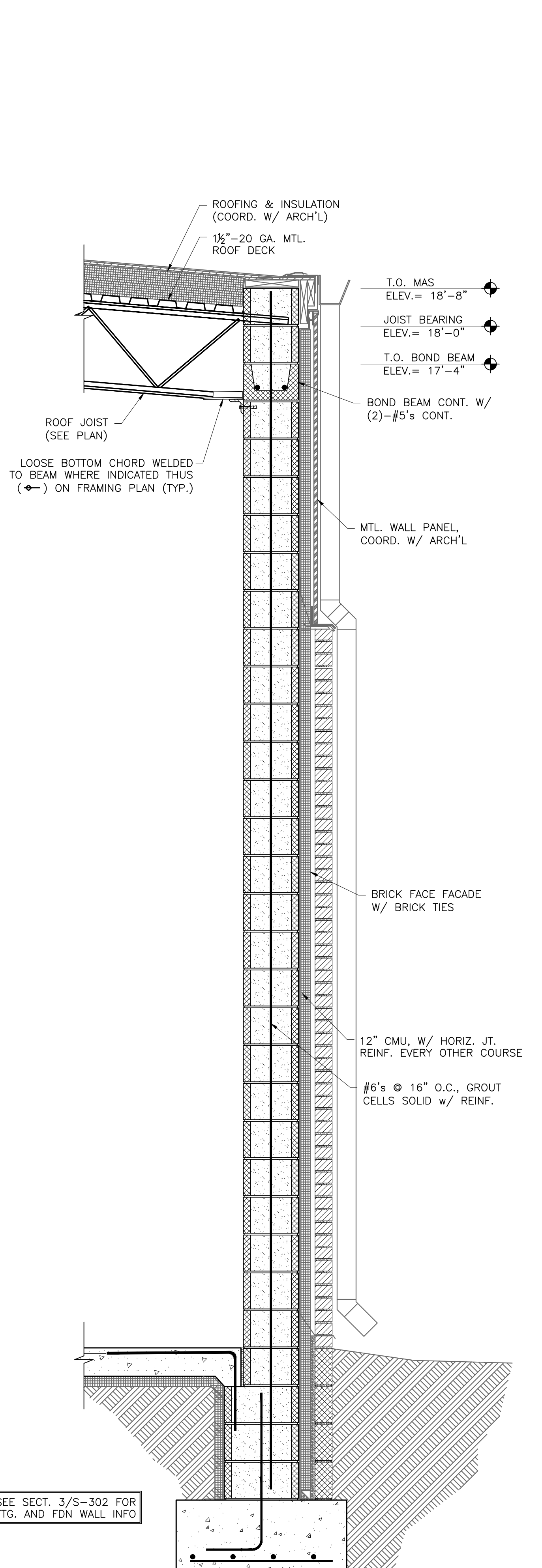
1 SECTION
S-303 SCALE: 3/4"=1'-0"



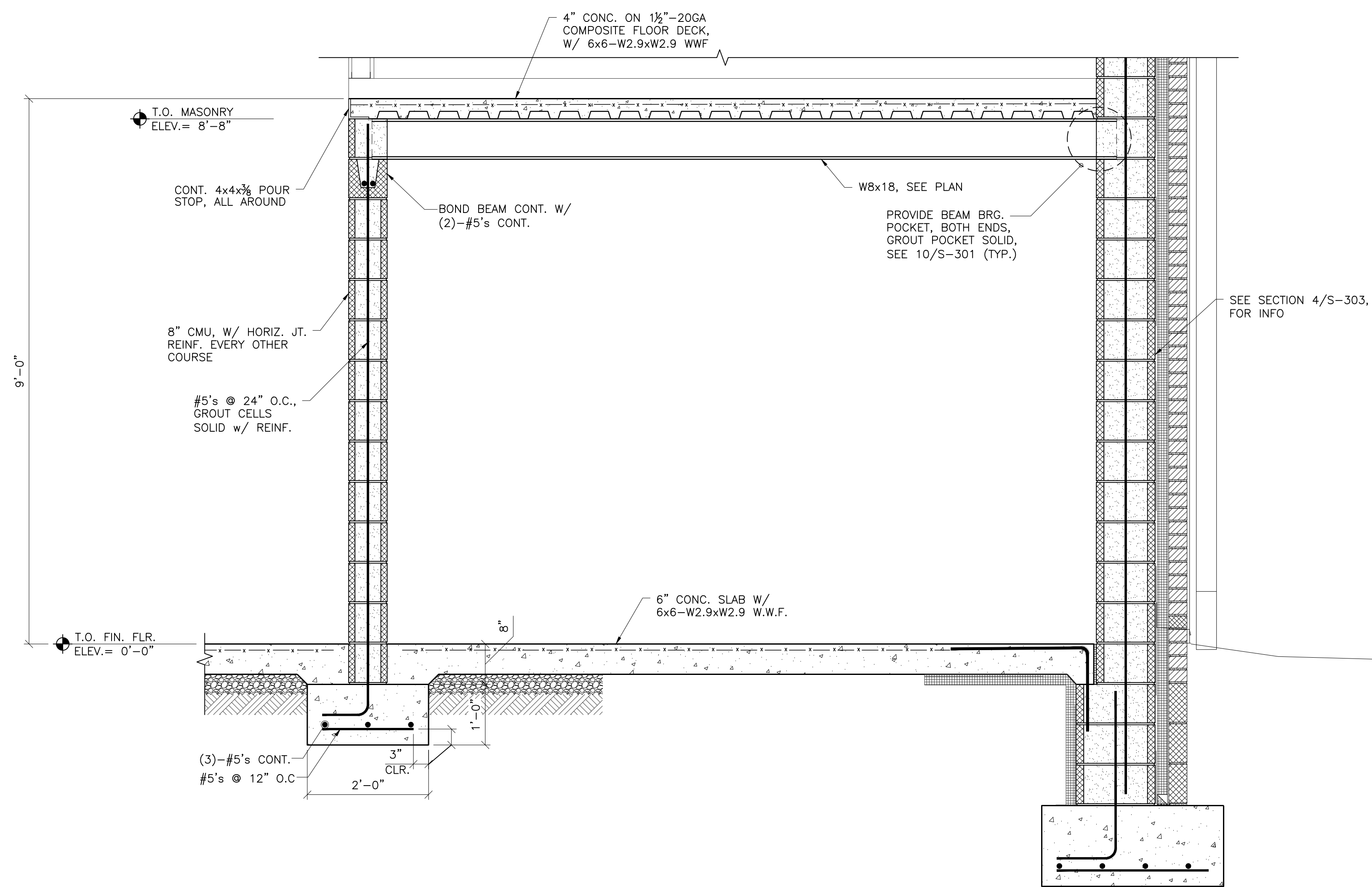
2 SECTION
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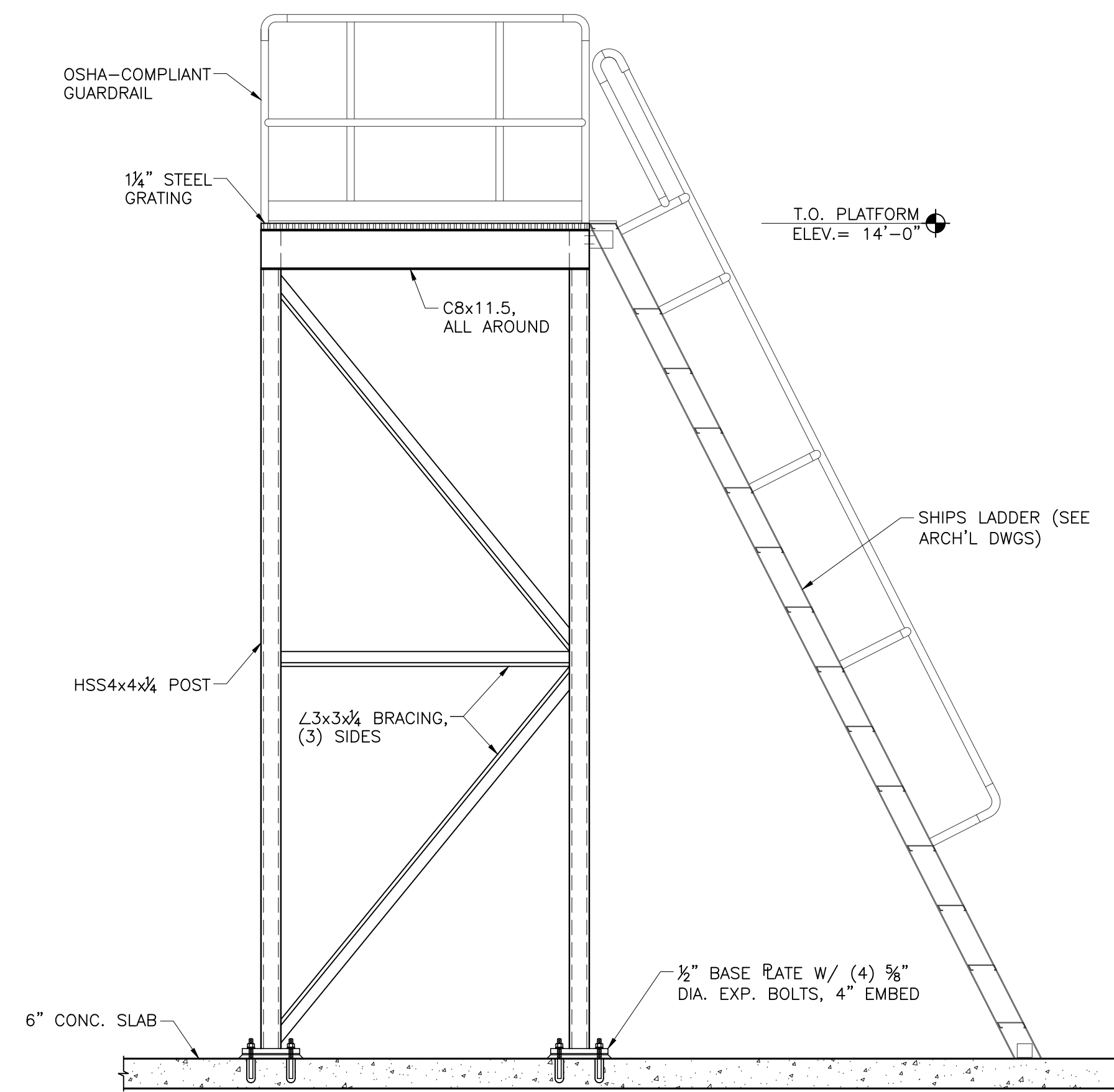
3 SECTION
S-303 SCALE: 3/4"=1'-0"



4 SECTION
S-303 SCALE: 3/4"=1'-0"

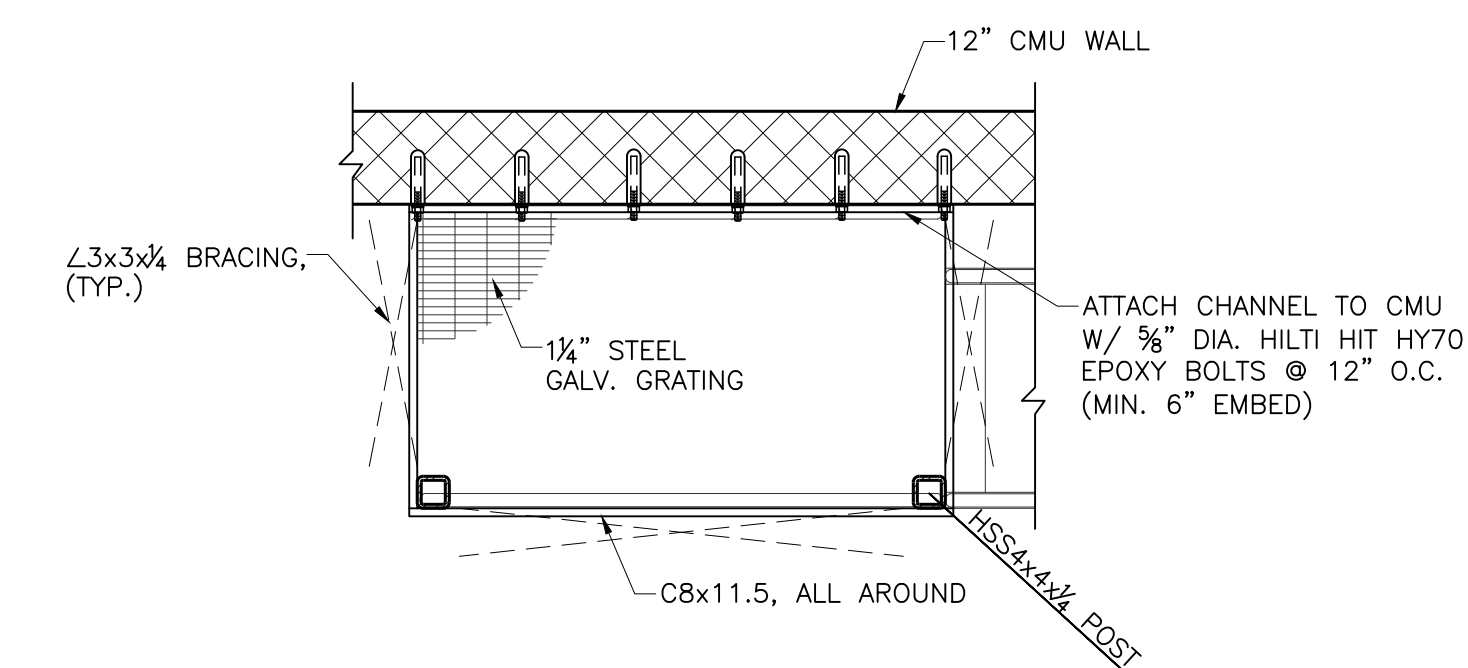


1 SECTION @ MEZZANINE
S-304 SCALE: 3/4"=1'-0"



ELEVATION

2 SHIPS LADDER/PLATFORM
S-304 SCALE: 1/2"=1'-0"



PLATFORM PLAN

REV#	DESCRIPTION	DATE

PROJ. MGR.: S.DI GENOVA
P.M. e-MAIL: <consultant pm email>
DRAWN BY: QW
CLIENT PROJ # : 2021-086.00
SCALE: 1/2"=1'-0"
BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING

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KEYED NOTES

- 03 CONCRETE**
- 3.30 CAST-IN-PLACE CONCRETE | SPEC 032000/033000
- 3.30.10 CAST-IN-PLACE CONCRETE SLAB. SEE STRUCTURAL DRAWINGS.

- 05 METALS**
- 5.31 STEEL DECKING | SPEC 053100
- 5.31.03 3" STEEL ROOF DECK; COORDINATE WITH STRUCTURAL DRAWINGS.
- 5.50 METAL FABRICATIONS | SPEC 055000
- 5.50.03 GALVANIZED METAL LADDER ANCHORED TO FACE OF WALL STRUCTURE.
- 5.50.04 METAL SHIPS LADDER w/ 1-1/2" WELDED TUBE HANDRAILS AND BAR GRATING TREADS.
- 5.50.06 METAL BAR GRATE LANDING.
- 5.52 PIPE AND TUBE RAILINGS | SPEC 055213 / 099123
- 5.52.03 1-1/2" DIA. 42" HT. GUARDRAIL PREP AND PAINT

- 22 PLUMBING | BY P.C.**
- WORK DESCRIBED IN THESE KEYNOTES IS THE RESPONSIBILITY OF THE P.C. UNLESS NOTED OTHERWISE. COORDINATE WITH PLUMBING DRAWINGS.
- 22.01.07 FLOOR DRAIN.
- 22.01.09 FLOOR CLEANOUT.

- 23 HVAC | BY H.C.**
- WORK DESCRIBED IN THESE KEYNOTES IS THE RESPONSIBILITY OF THE H.C. UNLESS NOTED OTHERWISE. COORDINATE WITH MECHANICAL DRAWINGS.
- 23.01.01 ROOFTOP UNIT.

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PROJECT #:
4525A

PROFESSIONAL SEAL

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 2615 WARREN ROAD READING, PA 19604

ISSUED FOR BID
 DATE: 5/17/2022

REV. NO.	DESCRIPTION	DATE

PROJ. MGR.: JAMES A. SARRO, AIA
 P.M. e-MAIL: JimS@MG-Architects.com
 DRAWN BY: BB, DK
 CLIENT PROJ #:
 SHEET SCALE: 1/8" = 1'-0"
 BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING

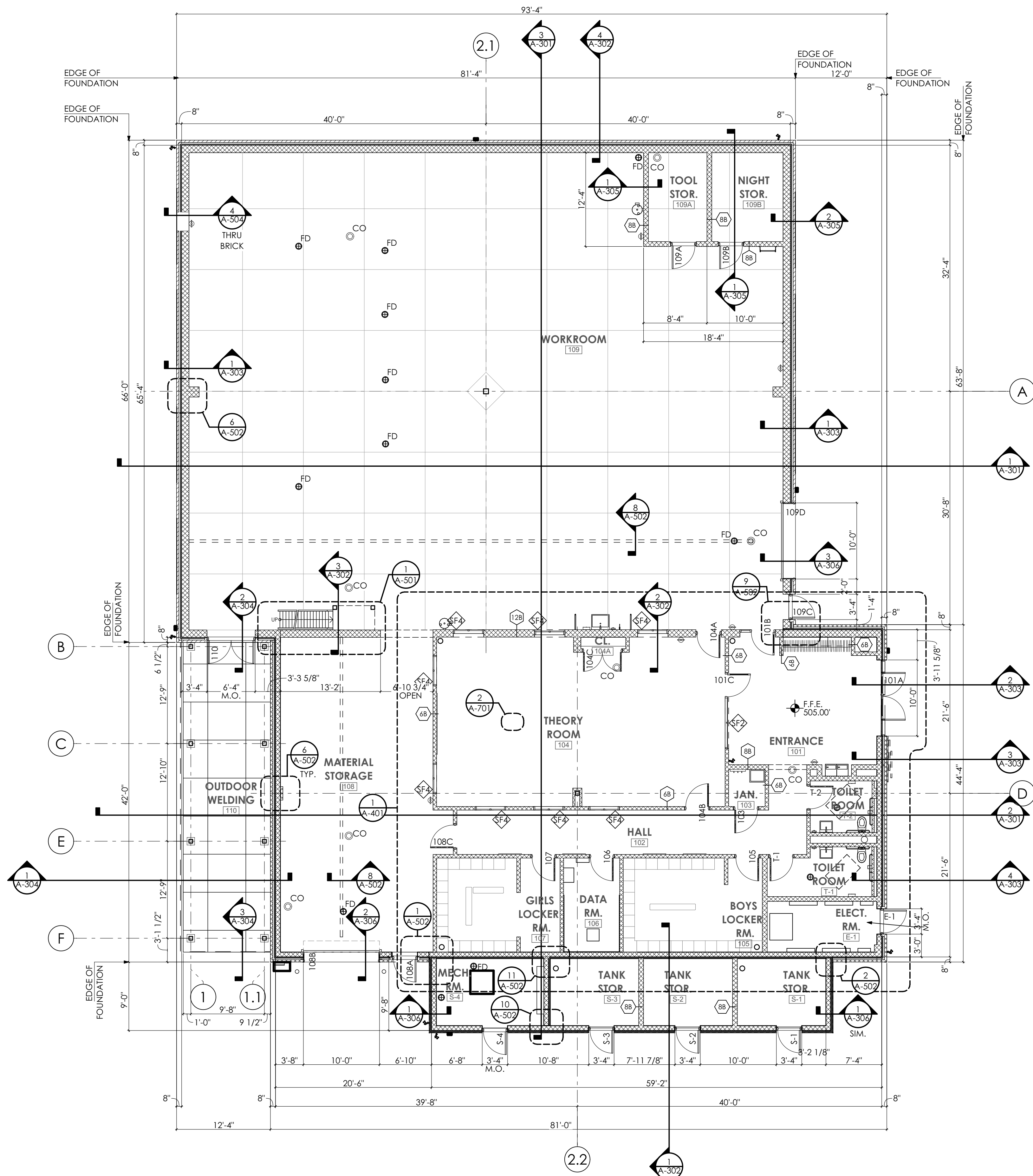
FLOOR PLAN LEGEND

- FD FLOOR DRAIN (22.01.07)
- CO FLOOR CLEANOUT (22.01.09)
- CJ FLOOR SLAB CONTROL JOINT COORDINATE W/ STRUCTURAL DRAWINGS

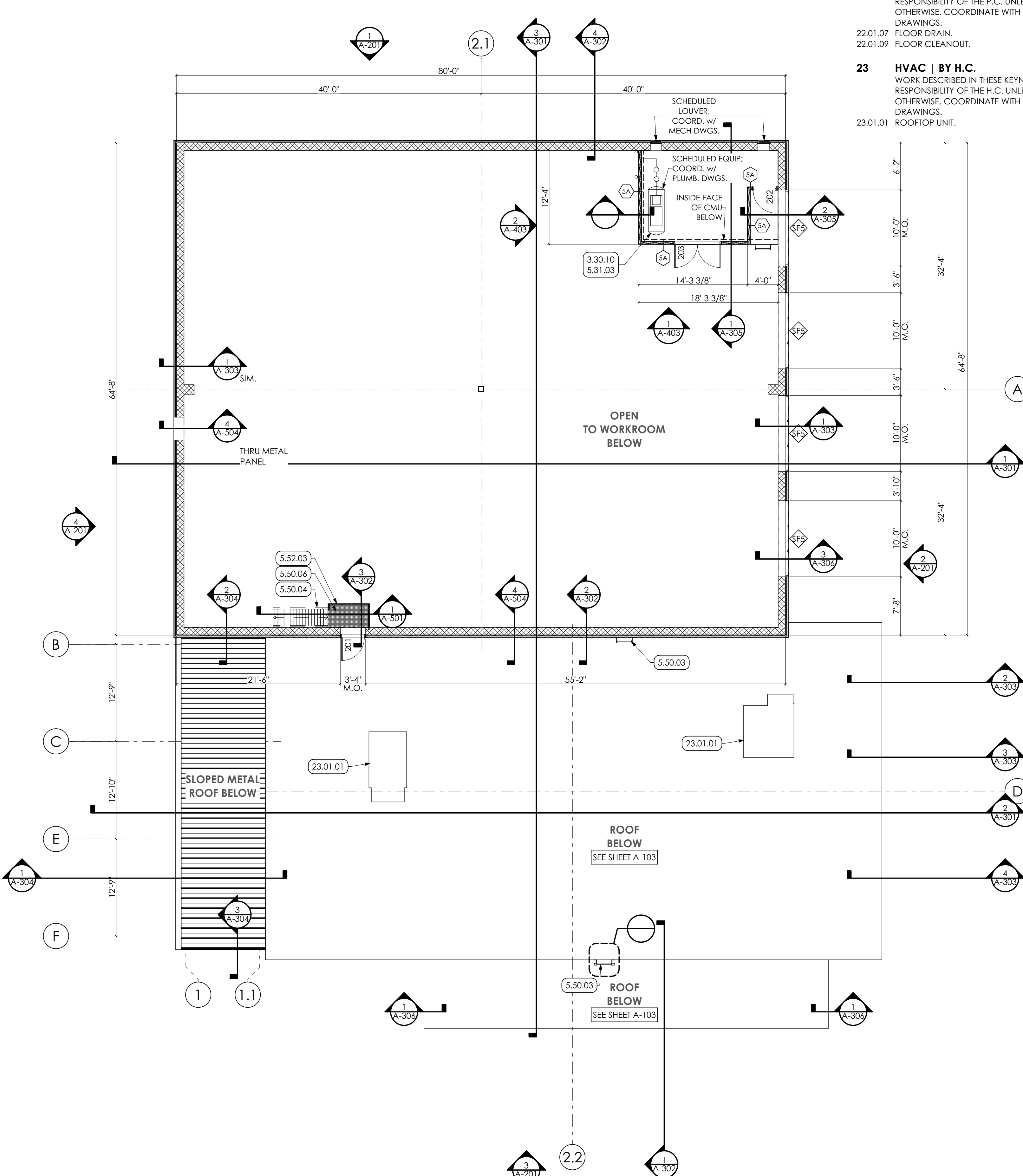
GENERAL SHEET NOTES

- SEE SHEET A-601 FOR SCHEDULES.
- SEE SHEET A-603 FOR PARTITION TYPES.

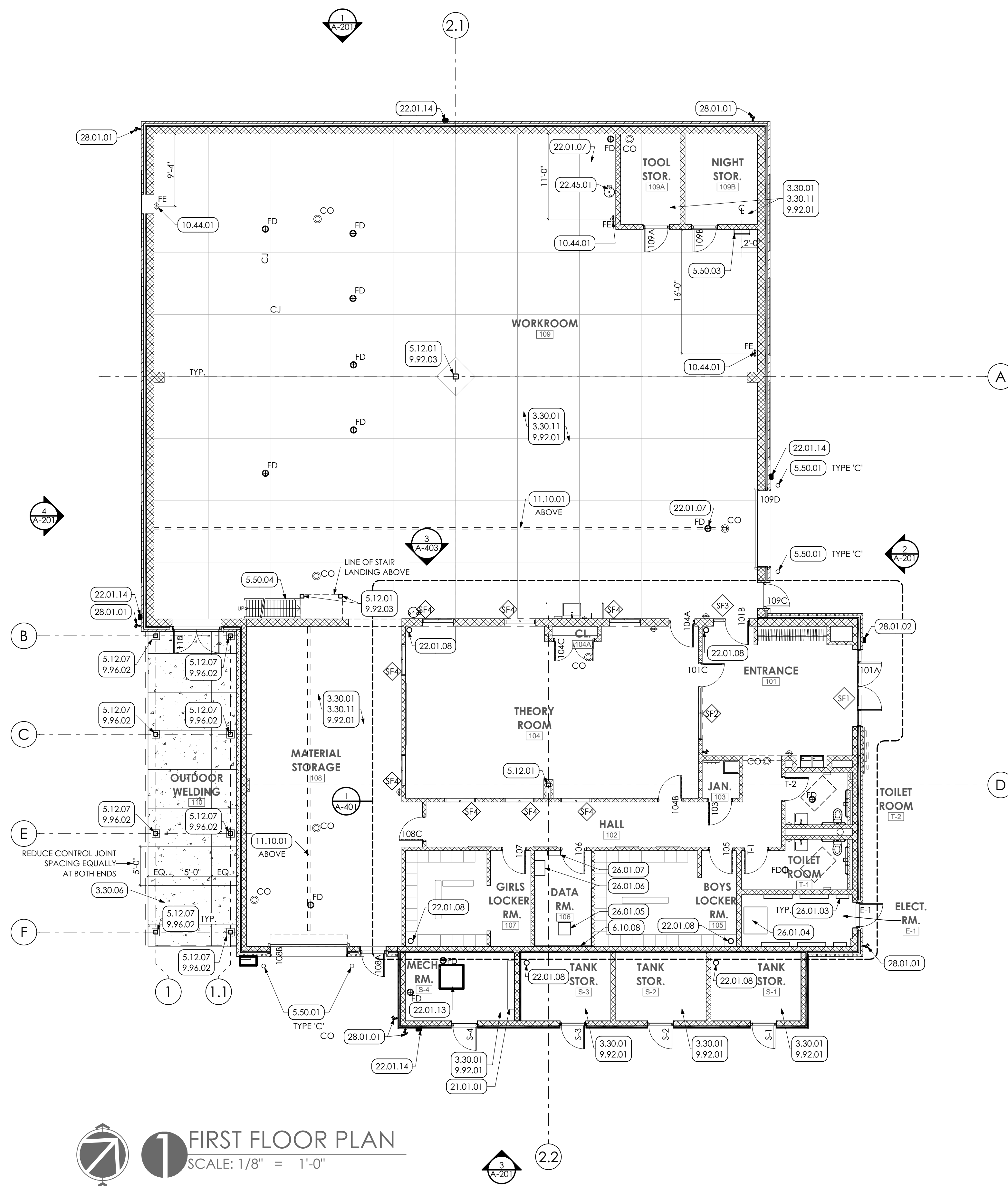
WELDING BUILDING
 SHEET TITLE:
PARTITION PLANS AND DETAILS
A-101



1 PARTITION PLAN
 SCALE: 1/8" = 1'-0"

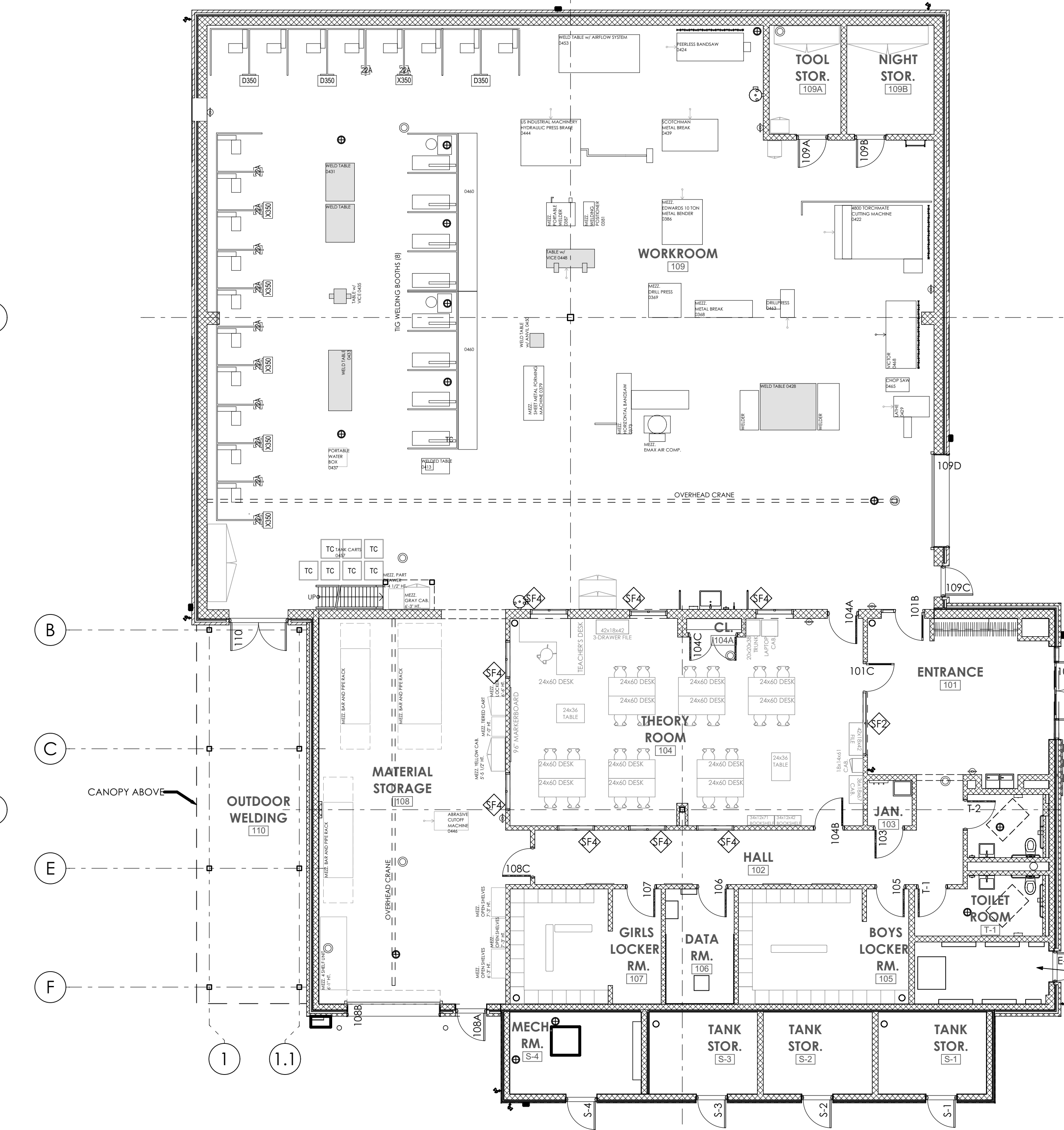


2 HIGH WINDOW PLAN
 SCALE: 1/8" = 1'-0"



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

EQUIPMENT PLAN
SCALE: 1/8" = 1'-0"



- KEYED NOTES**
- 03 CONCRETE**
3.30 CAST-IN-PLACE CONCRETE | SPEC 032000/033000
3.30.01 CAST-IN-PLACE CONCRETE SLAB ON STONE DRAINAGE FILL OVER 10 MIL VAPOR BARRIER. SEAL SLAB. COORDINATE WITH STRUCTURAL DRAWINGS.
3.30.06 CAST-IN-PLACE CONCRETE SLAB ON STONE DRAINAGE FILL. COORDINATE WITH STRUCTURAL DRAWINGS. PROVIDE CONTROL JOINTS AT 5'-0" TYPICAL.
3.30.11 PREP AND SEAL COAT OF ENTIRE SURFACE OF EXPOSED CONCRETE SLAB.
 - 05 METALS**
5.12 STRUCTURAL STEEL FRAMING | SPEC 051200/099400
5.12.01 4" X 4" STEEL COLUMN. COORDINATE WITH STRUCTURAL DRAWINGS.
5.12.07 6" X 6" STEEL COLUMN. COORDINATE WITH STRUCTURAL DRAWINGS.
5.50 METAL FABRICATIONS | SPEC 055000
5.50.01 CONCRETE FILLED METAL PIPE BOLLARD. TYPE INDICATED ON PLAN.
5.50.03 GALVANIZED METAL LADDER ANCHORED TO FACE OF WALL STRUCTURE.
5.50.04 METAL SHIPS LADDER W/ 1-1/2" WELDED TUBE HANDRAILS AND BAR GRATING TREADS.
 - 06 WOODS, PLASTICS AND COMPOSITES**
6.10 ROUGH CARPENTRY | SPEC 061000
6.10.08 3/4" PLYWOOD SHEATHING.
 - 09 FINISHES**
9.92 INTERIOR PAINTING | SPEC 09123
9.92.01 PREP AND PAINT (PRIMER AND TWO (2) COATS) ALL WALLS IN ROOM. UNLESS SPECIFIC WALLS NOTED OTHERWISE. PAINT ENTIRE WALL INCLUDING EXPOSED CONDUIT. FROM FLOOR TO 4" ABOVE NEW CEILING GRID OR TO UNDERSIDE OF ROOF DECK IN AREAS OF OPEN CEILINGS.
9.92.03 PREP AND PAINT (PRIMER AND TWO (2) COATS) STEEL COLUMN FROM FLOOR TO UNDERSIDE OF ROOF ABOVE.
9.96 HIGH PERFORMANCE COATINGS | SPEC 099400
9.96.02 PREP AND PAINT (PRIMER AND TWO (2) COATS) ALL EXPOSED STRUCTURE AND ROOF DECK, INCLUDING ALL ANCHORS AND CONDUIT WITH HIGH PERFORMANCE COATING.
 - 10 SPECIALTIES**
10.44 FIRE PROTECTION SPECIALTIES | SPEC 104416
10.44.01 FIRE EXTINGUISHER AND MOUNTING BRACKET
 - 11 EQUIPMENT**
11.10 STEEL ELECTRIC CHAIN HOIST WITH QUICK INSTALL MANUAL TROLLEY. 2,000 POUND CAPACITY. (BASIS OF DESIGN: VESTIL MODEL ECH-20-1 PH / VESTIL MODEL QIT-2).
 - 21 FIRE SUPPRESSION**
21.01.01 FIRE SUPPRESSION EQUIPMENT. BY P.C. COORDINATE WITH PLUMBING DRAWINGS.
 - 22 PLUMBING | BY P.C.**
WORK DESCRIBED IN THESE KEYNOTES IS THE RESPONSIBILITY OF THE P.C. UNLESS NOTED OTHERWISE. COORDINATE WITH PLUMBING DRAWINGS.
22.01.07 FLOOR DRAIN.
22.01.08 RAINWATER CONDUCTOR. SEE PLUMBING DRAWINGS FOR SIZE.
22.01.09 FLOOR CLEANOUT.
22.01.13 WATER HEATER.
22.01.14 WALL HYDRANT.
22.45 EMERGENCY PLUMBING FIXTURES
22.45.01 EMERGENCY EYEWASH STATION.
 - 26 ELECTRICAL | BY E.C.**
WORK DESCRIBED IN THESE KEYNOTES IS THE RESPONSIBILITY OF THE E.C. UNLESS NOTED OTHERWISE. COORDINATE WITH ELECTRICAL DRAWINGS.
26.01 GENERAL
WORK DESCRIBED IN THESE KEYNOTES IS THE RESPONSIBILITY OF THE E.C. UNLESS NOTED OTHERWISE. COORDINATE WITH ELECTRICAL DRAWINGS.
26.01.03 ELECTRIC PANELS BY E.C. COORDINATE WITH ELECTRICAL DRAWINGS.
26.01.04 TRANSFORMER BY E.C. COORDINATE WITH ELECTRICAL DRAWINGS.
26.01.05 DATA RACK.
26.01.06 INTERCOM/CLOCK CABINET.
26.01.07 FIRE ALARM PANEL.
 - 28 ELECTRONIC SAFETY AND SECURITY**
28.01.01 WALL MOUNTED SECURITY CAMERA. PROVIDED BY OWNER AND INSTALLED BY E.C.
28.01.02 INTERCOM STATION PROVIDED BY OWNER AND INSTALLED BY E.C.

FLOOR PLAN LEGEND

FD	FLOOR DRAIN	22.01.07	Drill
CO	FLOOR CLEANOUT	22.01.09	Drill
CJ	FLOOR SLAB CONTROL JOINT		COORDINATE W/ STRUCTURAL DRAWINGS

- GENERAL SHEET NOTES**
- SEE SHEET A-003. CODE SUMMARY AND LIFE SAFETY PLAN. FOR ADDITIONAL SCOPES OF WORK.
 - SEE SHEET A-601 FOR SCHEDULES.
 - SEE MEP DRAWINGS FOR ADDITIONAL SCOPES OF WORK AND COORDINATION.
 - SEE STRUCTURAL DRAWINGS FOR STEEL SIZES.

- EQUIPMENT PLAN NOTES**
- THIS EQUIPMENT PLAN IS BEING PROVIDED FOR REFERENCE ONLY. VERIFY FINAL EQUIPMENT LAYOUT WITH OWNER.
 - UNLESS NOTED OTHERWISE, ALL EQUIPMENT SHOWN ON THIS PLAN TO BE PROVIDED BY OWNER.
 - EC/HC/PC TO PROVIDE FINAL CONNECTIONS BETWEEN EQUIPMENT AND INFRASTRUCTURE. COORDINATE WITH MEP DRAWINGS.
 - G.C. TO RELOCATE EXISTING EQUIPMENT FROM CURRENT LOCATION TO WHERE SHOWN. COORDINATE RELOCATION AND LOCATIONS WITH SCHOOL.
 - G.C. TO PROTECT ALL EXISTING FINISHES ALONG ROUTES INSIDE SCHOOL USED TO RELOCATE EQUIPMENT. PROTECTION INCLUDES, BUT IS NOT LIMITED TO, FLOORS, DOORS, AND WALLS.

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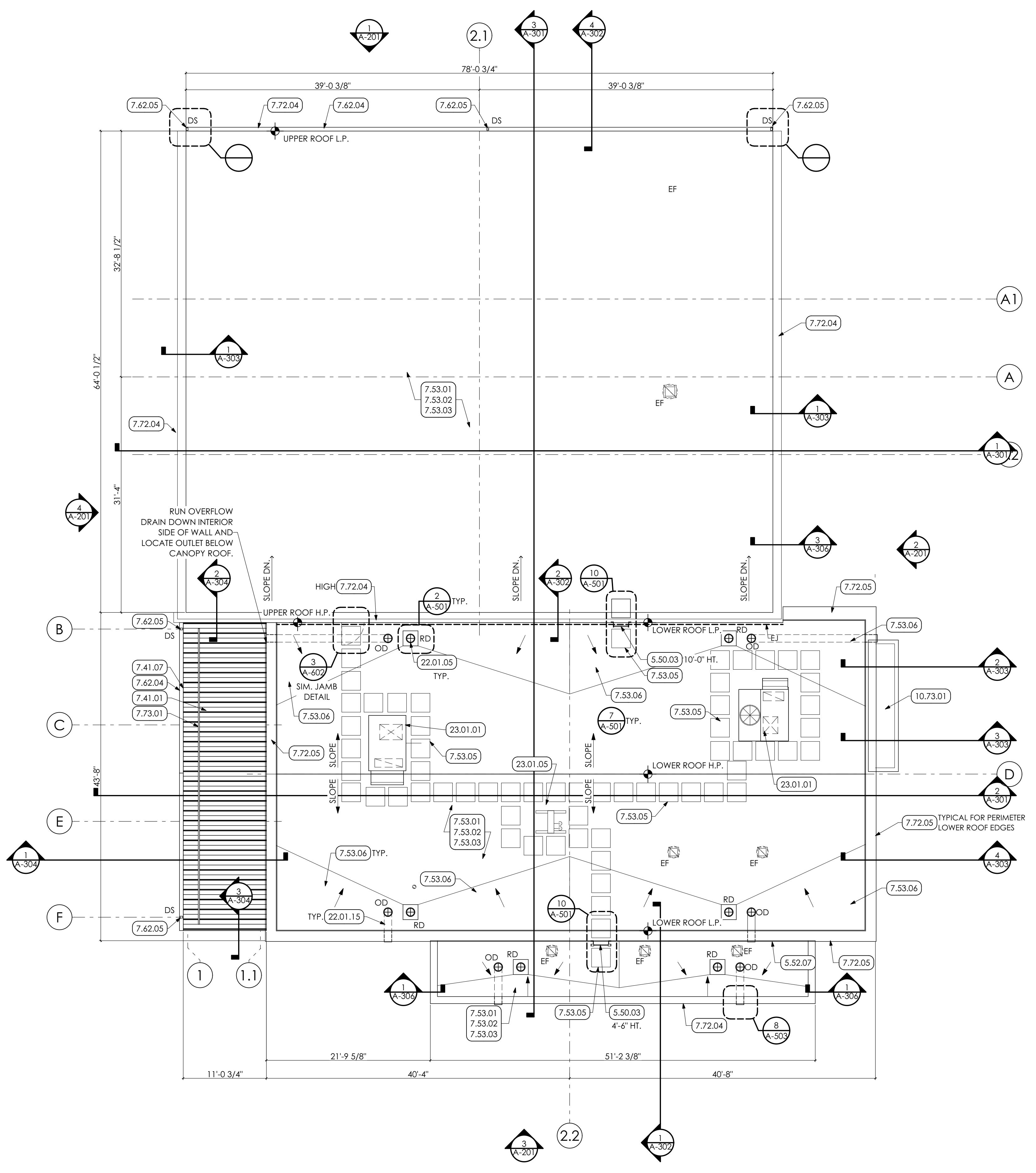
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SHEET SCALE: 1
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WELDING BUILDING
SHEET TITLE:

FLOOR PLANS

A-102

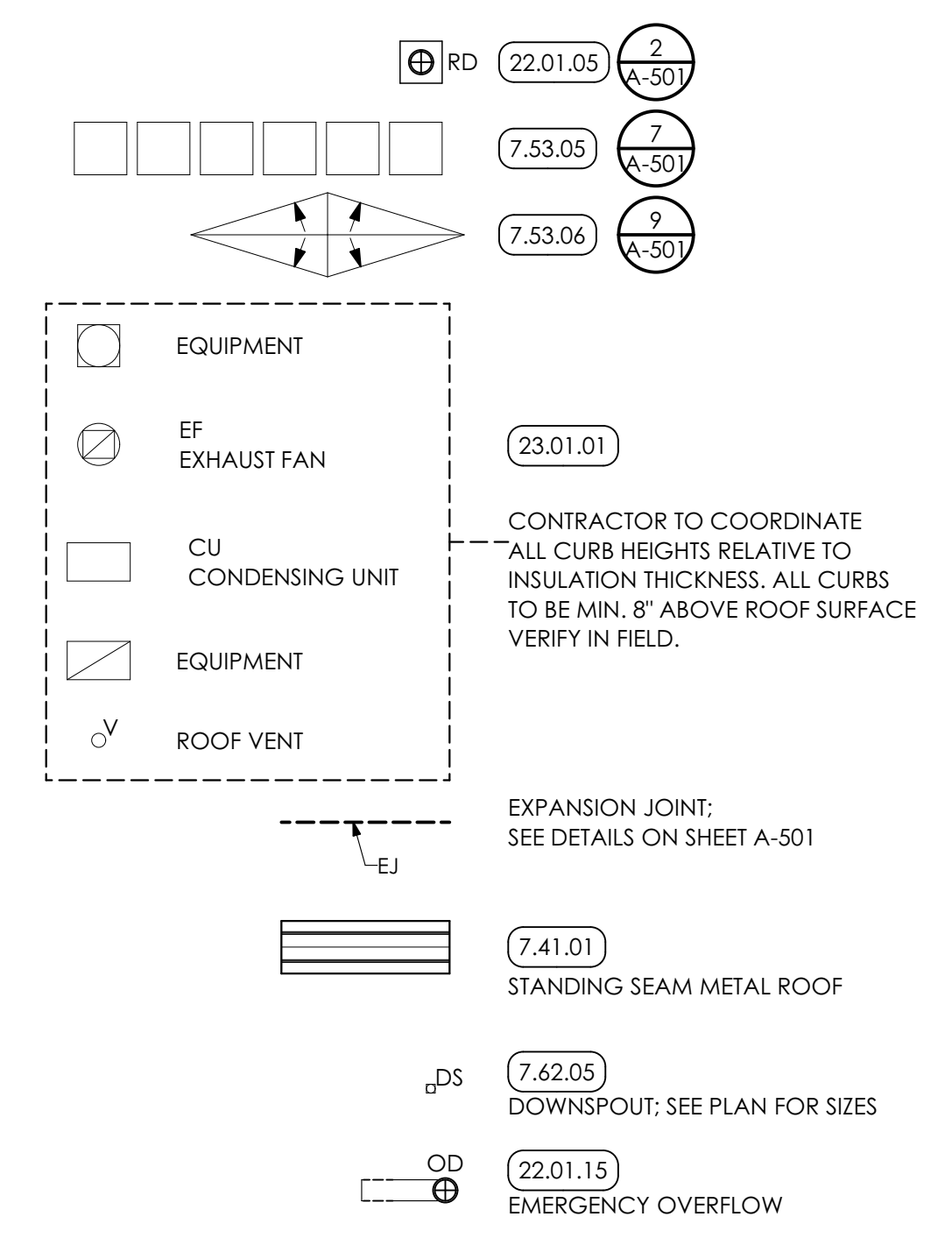


ROOF PLAN
SCALE: 1/8" = 1'-0"

KEYED NOTES

- 05 METALS**
- 5.50.03 METAL FABRICATIONS | SPEC 055000 GALVANIZED METAL LADDER ANCHORED TO FACE OF WALL STRUCTURE.
- 5.52 PIPE AND TUBE RAILINGS | SPEC 055213 / 099123 GALVANIZED 42" HT. SURFACE MOUNTED FALL PROTECTION RAILING. ANCHOR TO FACE OF MASONRY WALL. SEE DETAIL.
- 5.52.07
- 07 THERMAL AND MOISTURE PROTECTION**
- 7.41 STANDING SEAM METAL ROOF PANELS | SPEC 074113.16
- 7.41.01 STANDING SEAM METAL ROOF PANELS. MANUFACTURER STANDARD METAL FASCIA TRIM. COORDINATE WITH ROOF CUTTER INSTALLATION.
- 7.41.07
- 7.53 EPDM ROOFING | SPEC 075323
- 7.53.01 EPDM ROOFING MEMBRANE OVER ENTIRE ROOF AREA.
- 7.53.02 1/2" GLASS-MAT GYPSUM COVER BOARD OVER ENTIRE ROOF AREA.
- 7.53.03 TWO (2) LAYERS OF 3" POLY-ISO INSULATION (6" TOTAL THICKNESS) OVER ENTIRE ROOF AREA. STAGGER INSULATION LAYER JOINTS.
- 7.53.05 30" x 30" FLEXIBLE WALKWAYS. TYPICAL AS SHOWN ON PLAN. AROUND ALL ROOFTOP MECHANICAL UNITS. AND TOP AND BOTTOM OF ALL LADDERS. BY G.C.
- 7.53.06 TAPERED RIGID INSULATION/CRICKET. CRICKET TO BE SLOPED AT 1/2"/FT. MINIMUM TO PROVIDE POSITIVE FLOW TO ROOF DRAIN.
- 7.62 SHEET METAL FLASHING/TRIM | SPEC 076200
- 7.62.04 4"x4" PREFINISHED METAL BOX CUTTER.
- 7.62.05 3"x4" PREFINISHED METAL DOWNSPOUT.
- 7.72 ROOF ACCESSORIES | SPEC 077200
- 7.72.04 METAL ROOF EDGE FASCIA.
- 7.72.05 METAL ROOF EDGE PARAPET COPING.
- 7.73 SNOWGUARDS | SPEC 077353
- 7.73.01 RAIL TYPE, SEAM MOUNTED SNOWGUARD.
- 10 SPECIALTIES**
- 10.73 AWNINGS | SPEC 107313
- 10.73.01 PREMANUFACTURED WALL MOUNTED CANTILEVER AWNING.
- 22 PLUMBING | BY P.C.**
- WORK DESCRIBED IN THESE KEYNOTES IS THE RESPONSIBILITY OF THE P.C. UNLESS NOTED OTHERWISE. COORDINATE WITH PLUMBING DRAWINGS.
- 22.01.05 ROOF DRAIN. COORDINATE WITH PLUMBING DRAWINGS.
- 22.01.15 EMERGENCY OVERFLOW PIPE. PROJECT 4" ABOVE FINISH ROOF. COORDINATE WITH PLUMBING DRAWINGS.
- 23 HVAC | BY H.C.**
- WORK DESCRIBED IN THESE KEYNOTES IS THE RESPONSIBILITY OF THE H.C. UNLESS NOTED OTHERWISE. COORDINATE WITH MECHANICAL DRAWINGS.
- 23.01.01 ROOFTOP UNIT.
- 23.01.05 CONDENSER UNIT.

ROOF PLAN LEGEND



GENERAL SHEET NOTES

1. COORDINATE EXACT LOCATIONS OF ROOFTOP AND MECHANICAL EQUIPMENT WITH MEP DRAWINGS. EQUIPMENT SHOWN FOR REFERENCE ONLY.
2. COORDINATE LOCATIONS OF ROOF DRAINS AND OVERFLOW DRAINS WITH PLUMBING DRAWINGS.
3. ROOF SLOPES ARE INDICATED BY ARROWS WHICH DIRECT DOWNWARD.
4. SLOPE OF EPDM MEMBRANE TO BE 1/4" / FT. MINIMUM. UNLESS INDICATED OTHERWISE.
5. COORDINATE ROOFTOP CURBS AND PENETRATIONS WITH MEP DRAWINGS.
6. HC TO PROVIDE ROOF CURB. GC TO INSTALL. HC TO PROVIDE LOCATIONS FOR CURBS.

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WELDING BUILDING
SHEET TITLE:
ROOF PLAN

A-103