

OFFICE BUILDING AND MAINTENANCE GARAGE

PREPARED FOR

MUHLENBERG TOWNSHIP AUTHORITY

MUHLENBERG TOWNSHIP, BERKS COUNTY, PENNSYLVANIA

BY



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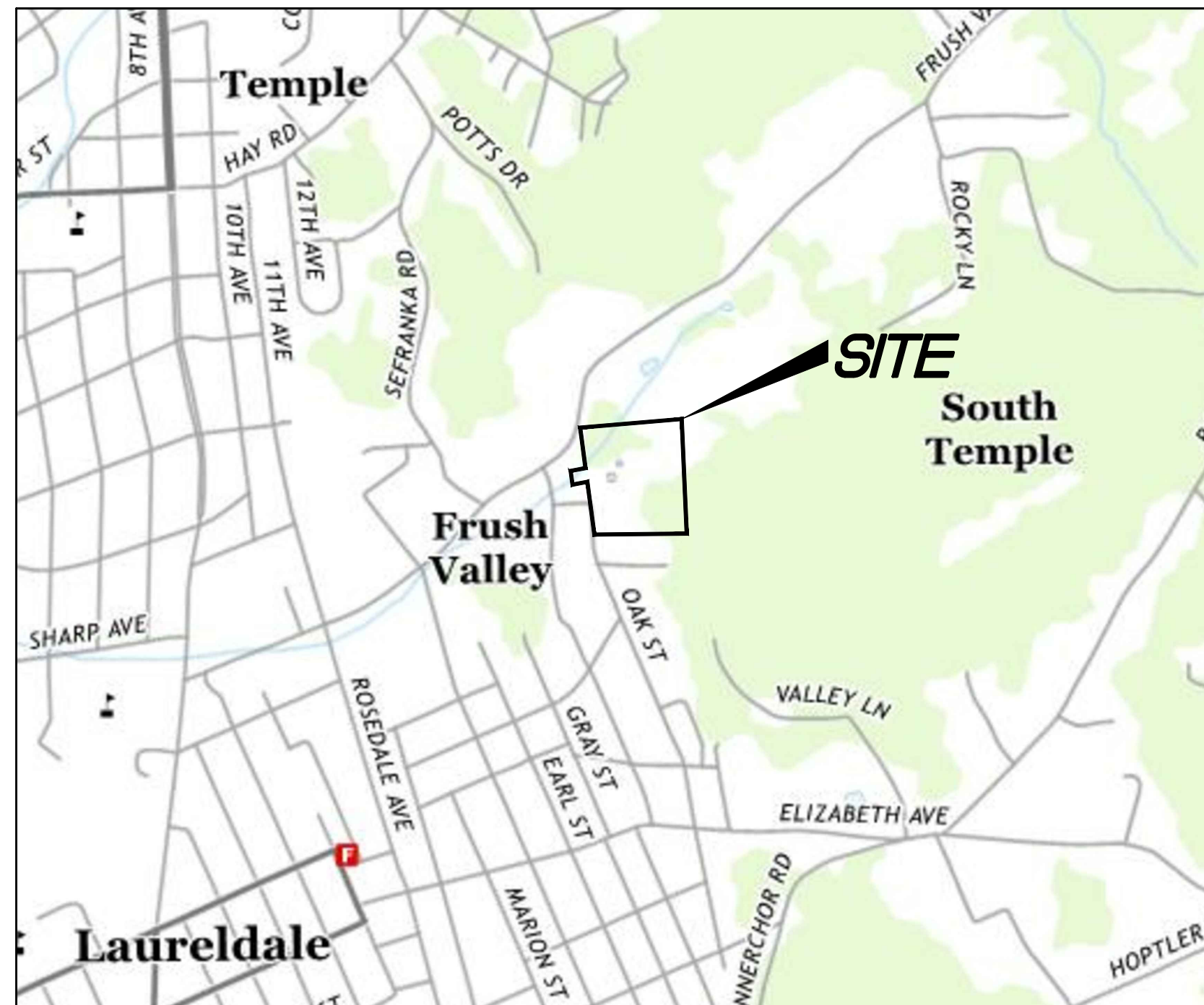


PA ONE CALL INFORMATION

PA ONE CALL SERIAL NUMBER: 20192631456
MUNICIPALITY: MUHLENBERG TOWNSHIP, BERKS COUNTY
IT IS THE CONTRACTORS RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 AND TO CONTACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

LOCATION MAP

SCALE: 1" = 1,000'



OWNER AND DEVELOPER:

MUHLENBERG TOWNSHIP AUTHORITY
2840 KUTZTOWN ROAD
READING, PA 19605

SOURCE OF TITLE:

BEING THE SAME PROPERTY WHICH READING SUBURBAN WATER COMPANY BY DEED DATED JULY 19, 1940 AND RECORDED IN DEED BOOK VOLUME 834, PAGE 626, BERKS COUNTY RECORDS AT READING, PENNSYLVANIA, GRANTED AND CONVEYED UNTO MUHLENBERG TOWNSHIP AUTHORITY.

PROJECT DESCRIPTION:

THIS PROJECT PROPOSES THE DEMOLITION OF AN EXISTING MAINTENANCE GARAGE AND CLEAR CUTTING OF TREES FOR THE CONSTRUCTION OF A PROPOSED MAINTENANCE GARAGE AND OFFICE.

ELEVATION DATUM:

COORDINATES ARE BASED ON NORTH AMERICAN DATUM OF 1983 AND ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988, OBTAINED BY A VIRTUAL REFERENCE SPATIAL SYSTEM.

TRACT SIZE:

13.61 ACRES

TAX PIN NUMBER:

531904531745

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LEGEND

	EXISTING LIGHT
	EXISTING TREE
	EXISTING SIGN
	EXISTING FIRE HYDRANT
	EXISTING ELECTRIC MANHOLE
	EXISTING GASLINE
	EXISTING WATERLINE
	EXISTING FENCE
	EXISTING STORM SEWER
	EXISTING SANITARY SEWER
	EXISTING TYPE M INLET
	EXISTING TYPE C INLET
	EXISTING PARKING METER
	EXISTING TRAFFIC SIGNAL
	EXISTING HANDICAP PARKING
	EXISTING TELEPHONE MANHOLE
	EXISTING WATER MANHOLE
	EXISTING STORM MANHOLE
	EXISTING SANITARY MANHOLE
	EXISTING OVERHEAD UTILITY LINES
	EXISTING GAS VALVE
	EXISTING WATER CURB STOP
	EXISTING WATER VALVE
	EXISTING SANITARY CLEANOUT
	EXISTING UTILITY POLE
	EXISTING BENCHMARK
	EXISTING MONUMENT
	EXISTING PROPERTY CORNER
	EXISTING MONITORING WELL
	EXISTING MAILBOX
	EXISTING TREEROW
	EXISTING GUIDERAIL
	EXISTING UG ELECTRIC
	EXISTING UG TELEPHONE
	EXISTING UG CABLE
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	EXISTING PROPERTY LINE
	EXISTING ZONING BOUNDARY
	EXISTING CONCRETE CURB
	EXISTING BUILDING SETBACK LINE

LEGEND

	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED SPOT ELEVATION
	PROPOSED CONCRETE CURB
	PROPOSED FENCING
	PROPOSED GUIDE RAIL
	PROPOSED TREE
	PROPOSED SHRUB
	PROPOSED HANDICAP PARKING
	PROPOSED PARKING SPACES
	PROPOSED STORM PIPE
	PROPOSED WATER SERVICE
	PROPOSED FIRE SERVICE
	PROPOSED CATCH BASIN
	PROPOSED GATE VALVE
	PROPOSED YARD HYDRANT
	PROPOSED CLEANOUT
	PROPOSED SANITARY PIPE
	PROPOSED SANITARY MANHOLE
	PROPOSED ELECTRICAL LINE
	PROPOSED GAS PIPE
	PROPOSED STORM MANHOLE
	PROPOSED FIRE HYDRANT
	PROPOSED SIGN
	PROPOSED PIPE BOLLARD
	PROPOSED GRASS
	PROPOSED CONCRETE
	PROPOSED STANDARD PAVING
	PROPOSED HEAVY DUTY PAVING
	PROPOSED AREA OF DEMOLITION

GENERAL NOTES:

- EXISTING SITE CONDITIONS SURVEYED BY SPOTTS, STEVENS AND MCCOY, INC. ON JULY 2019.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. ALL KNOWN OR VISIBLE TO SURFACE UTILITIES HAVE BEEN SHOWN ON THE PLAN. SOME EXPLORATORY DIGGING MAY BE REQUIRED BY THE CONTRACTOR TO ACCURATELY LOCATE AND VERIFY LOCATION, SIZE, MATERIAL AND APPURTENANCES OF ON-SITE UTILITIES.
- DURING CONSTRUCTION, CONTRACTOR SHALL PROTECT ALL PEDESTRIAN WALKWAYS AND VEHICULAR DRIVEWAY AREAS WITH APPROPRIATE BARRICADES AND WARNING DEVICES. TEMPORARY CONSTRUCTION FENCING SHALL BE IMPLEMENTED TO KEEP THE AREA OF DISTURBANCE FREE OF NON-CONSTRUCTION RELATED PERSONNEL. THE CONTRACTOR SHALL UTILIZE TRAFFIC CONTROL DEVICES, EMPLOY FLAG MAN OR TRAFFIC CONTROL PERSONNEL AS NECESSARY TO ENSURE VEHICULAR MOTORISTS NAVIGATE THE WORK ZONE SAFELY.
- CONTRACTOR SHALL SAFEGUARD ALL UTILITIES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL MAINTAIN AND PROTECT ALL EXISTING UTILITIES INCLUDING BUT NOT LIMITED TO SANITARY SEWER FACILITIES, STORMWATER MANAGEMENT FACILITIES, THROUGHOUT THE CONSTRUCTION OF THE PROJECT.
- LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLAN HAVE BEEN DEVELOPED FROM EXISTING UTILITY RECORDS AND/OR ABOVE GROUND EXAMINATION OF THE SITE. COMPLETENESS OR ACCURACY OF LOCATION AND DEPTH OF UNDERGROUND UTILITIES OR STRUCTURES CANNOT BE GUARANTEED. THE CONTRACTOR(S) IS (ARE) RESPONSIBLE TO CONTACT EACH UTILITY COMPANY OR AUTHORITY AT LEAST THREE (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 DEPTHS AND LOCATIONS AND TO VERIFY THAT STORM DRAINAGE AND UTILITY SYSTEMS PIPE, EXCAVATION, FILL AND GRADING MAY BE INSTALLED IN COMPLIANCE WITH ORIGINAL DESIGN AND REFERENCE STANDARDS. IF THE CONTRACTOR DETERMINES THAT THE ORIGINAL DESIGN IS IN CONFLICT WITH THE EXISTING UTILITIES, HE SHALL IMMEDIATELY NOTIFY THE DESIGN PROFESSIONAL OF SUCH CONFLICT. CONTRACTOR IS CAUTIONED NOT TO ORDER ANY MATERIALS OR PERFORM ANY FURTHER WORK UNTIL SUCH VERIFICATION AND/OR DESIGN PROTESTATION CLARIFICATION HAS BEEN PROVIDED. CONTRACTOR WILL BE REQUIRED TO REPAIR ALL DAMAGE UTILITY LINES. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL REQUIRED MUNICIPAL PERMITS.
- 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.
- ALL CONSTRUCTION IMPROVEMENTS SHALL BE LOCATED, DESIGNED, INSTALLED AND/OR CONSTRUCTED IN ACCORDANCE WITH ALL CURRENT STANDARDS SPECIFIC BY MUHLENBERG TOWNSHIP. IF NOT COVERED, THEN PENNDOT PUBLICATION 408-SPECIFICATIONS AND PENNDOT STANDARDS FOR ROADWAY CONSTRUCTION RC SERIES SHALL APPLY, UNLESS OTHERWISE NOTED ON THE PLANS.
- ALL FINISH GRADING IS TO BE DONE SO AS TO ENSURE POSITIVE DRAINAGE TOWARD THE APPROPRIATE INLET OR DRAINAGE FACILITY.
- SPOT ELEVATIONS INDICATE FINISH SURFACE ELEVATION UNLESS OTHERWISE NOTED ON THE PLAN. ALL GRADES SHALL BE SMOOTH AND CONTINUOUS.
- ALL DIMENSIONS AND CONDITIONS MUST BE CHECKED AND VERIFIED IN THE FIELD BEFORE STARTING WORK. ANY DISCREPANCY SHALL BE CALLED TO THE ATTENTION OF THE OWNER'S ENGINEER FOR A RESOLUTION BEFORE PROCEEDING WITH THE WORK.
- ALL ADA ACCESS ROUTES, RAMPS AND PARKING AREAS SHALL BE CONSTRUCTION IN ACCORDANCE WITH THE ADAAG (2010), ANSI A117.1-2003 AND/OR OTHER BUILDING CODES, WHERE REQUIRED.
- CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN DETAILED "AS-BUILT" INFORMATION OF THE LATERALS, BENDS, VALVES, DROP CONNECTIONS, ETC. OF ALL UTILITY LINE CONSTRUCTION.
- THE PROJECT SITE DRAINS TO AN UNNAMED TRIBUTARY TO LAUREL RUN, WHICH IS CLASSIFIED AS WARM WATER FISHERY (WWF) ACCORDING TO PA CHAPTER 93 WATER QUALITY STANDARDS.
- THE PROJECT AREA IS NOT LOCATED WITHIN THE 100-YEAR FLOODPLAIN.
- THERE ARE NO KNOWN WETLANDS WITHIN THE PROJECT AREA.
- ALL STORMWATER CONVEYANCE AND MANAGEMENT FACILITIES (BASINS, SWALES, PIPES, AND INFILTRATORS) SHOWN ON THIS PLAN ARE PERMANENT AND ARE NOT TO BE REMOVED OR FILLED WITHOUT APPROVAL BY THE MUNICIPALITY.
- THE OWNER IS RESPONSIBLE FOR ALL EXTERIOR MAINTENANCE OF THE PROPERTY. THE MAINTENANCE OF THE UTILITIES OUTSIDE OF PUBLIC RIGHT-OF-WAY LINES INCLUDING STORMWATER FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS REQUIRED FOR CONSTRUCTION.
- ALL PARKING AREAS SHALL BE LINE PAINTED, EACH PARKING SPACE SHALL BE DELINEATED WITH FOUR INCH PAINTED LINES. ALL LINE PAINTING PLACEMENT SHALL BE IN ACCORDANCE WITH PENNDOT PUBLICATION 408.

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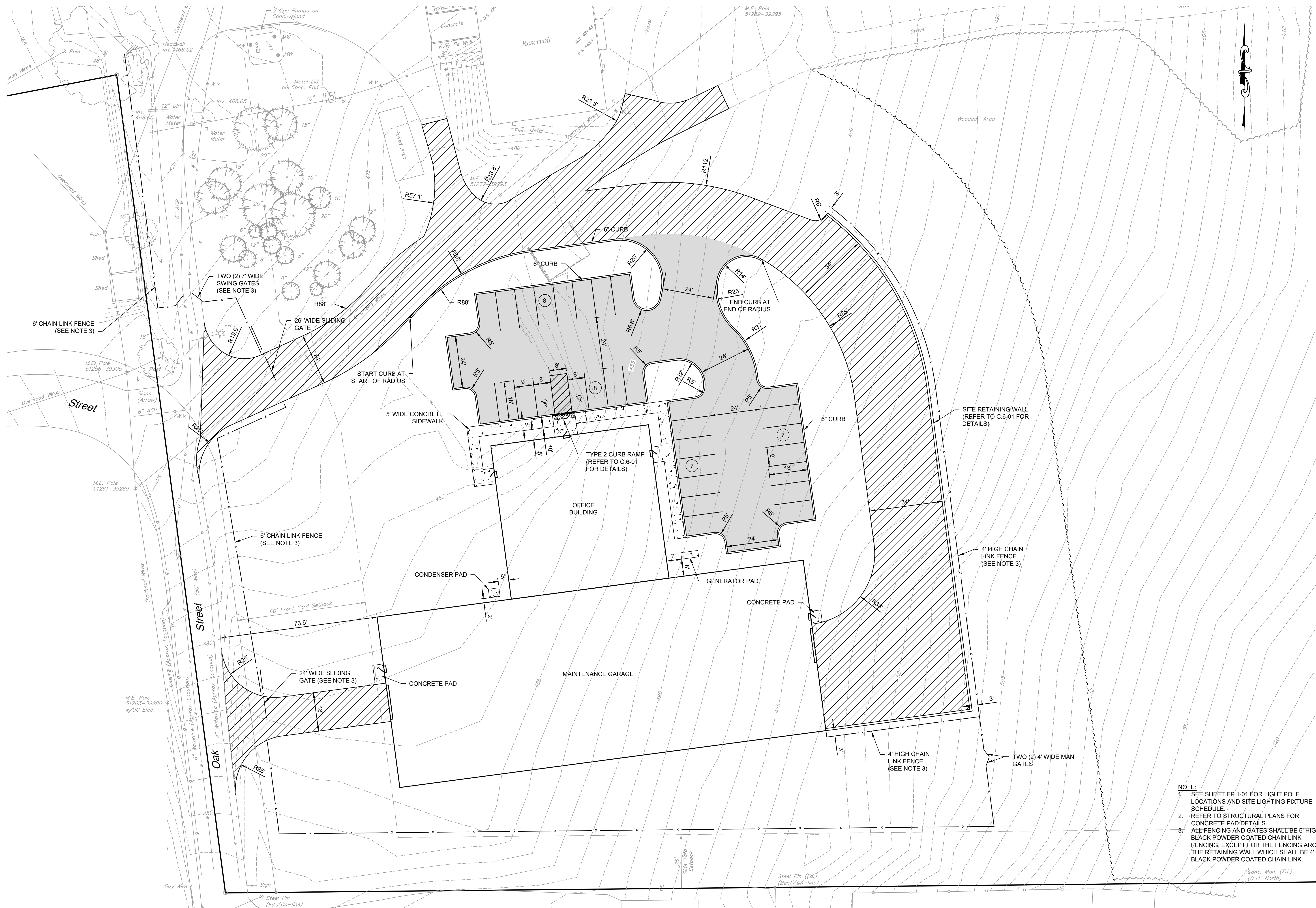
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PROJECT MANAGER: HMM DATE: _____
 BASE BY: HMM N.B.: _____
 DRAWN BY: HBD DESIGNED BY: AW CHRD: _____

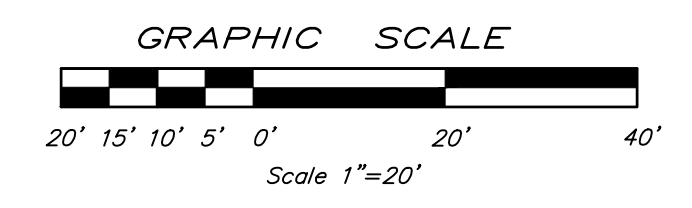
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LEGENDS AND NOTES
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NOTE:
 1. SEE SHEET EP-1-01 FOR LIGHT POLE LOCATIONS AND SITE LIGHTING FIXTURE SCHEDULE.
 2. REFER TO STRUCTURAL PLANS FOR CONCRETE PAD DETAILS.
 3. ALL FENCING AND GATES SHALL BE 6' HIGH BLACK POWDER COATED CHAIN LINK FENCING, EXCEPT FOR THE FENCING AROUND THE RETAINING WALL WHICH SHALL BE 4' HIGH BLACK POWDER COATED CHAIN LINK.



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1	02/07/20		

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 PROJECT MANAGER: NMF
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 SITE PLAN
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1	02/07/20		MADE CHD APVD

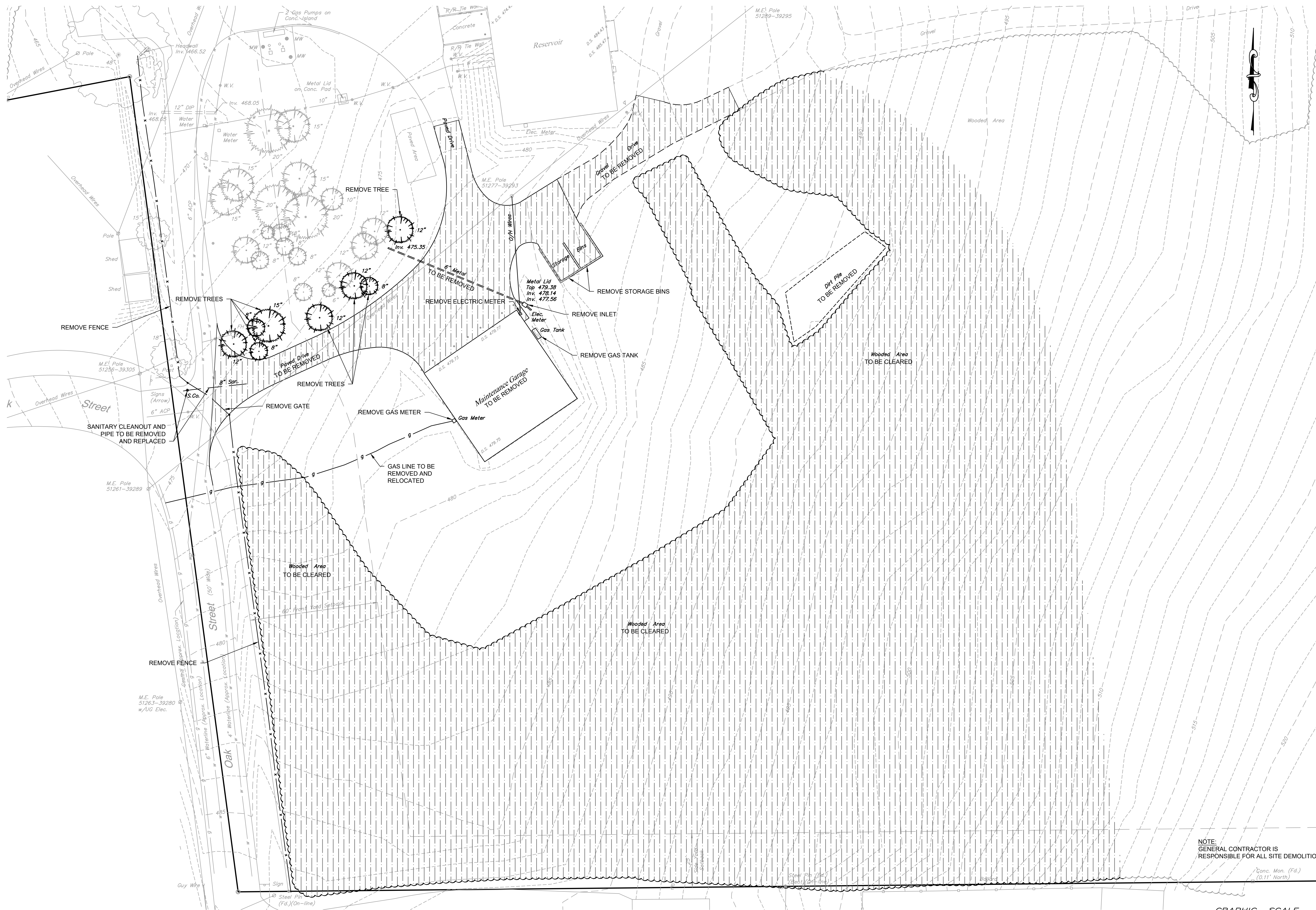
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PROJECT MANAGER: NMF
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 DRAWN BY: HMB

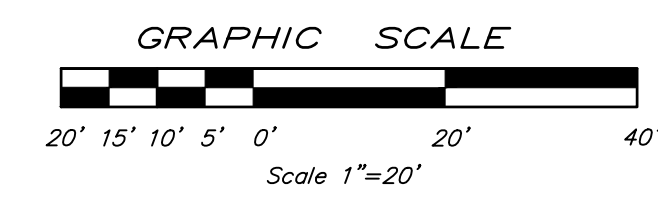
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C.1-50



NOTE:
GENERAL CONTRACTOR IS
RESPONSIBLE FOR ALL SITE DEMOLITION



NO.	DATE	BIDDING	DESCRIPTION
1	02/07/20		

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CHKD:

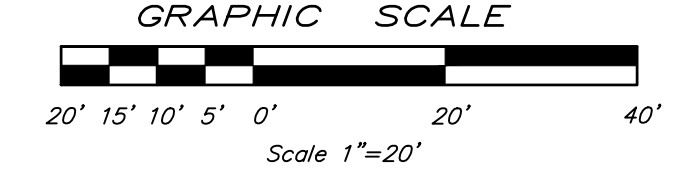
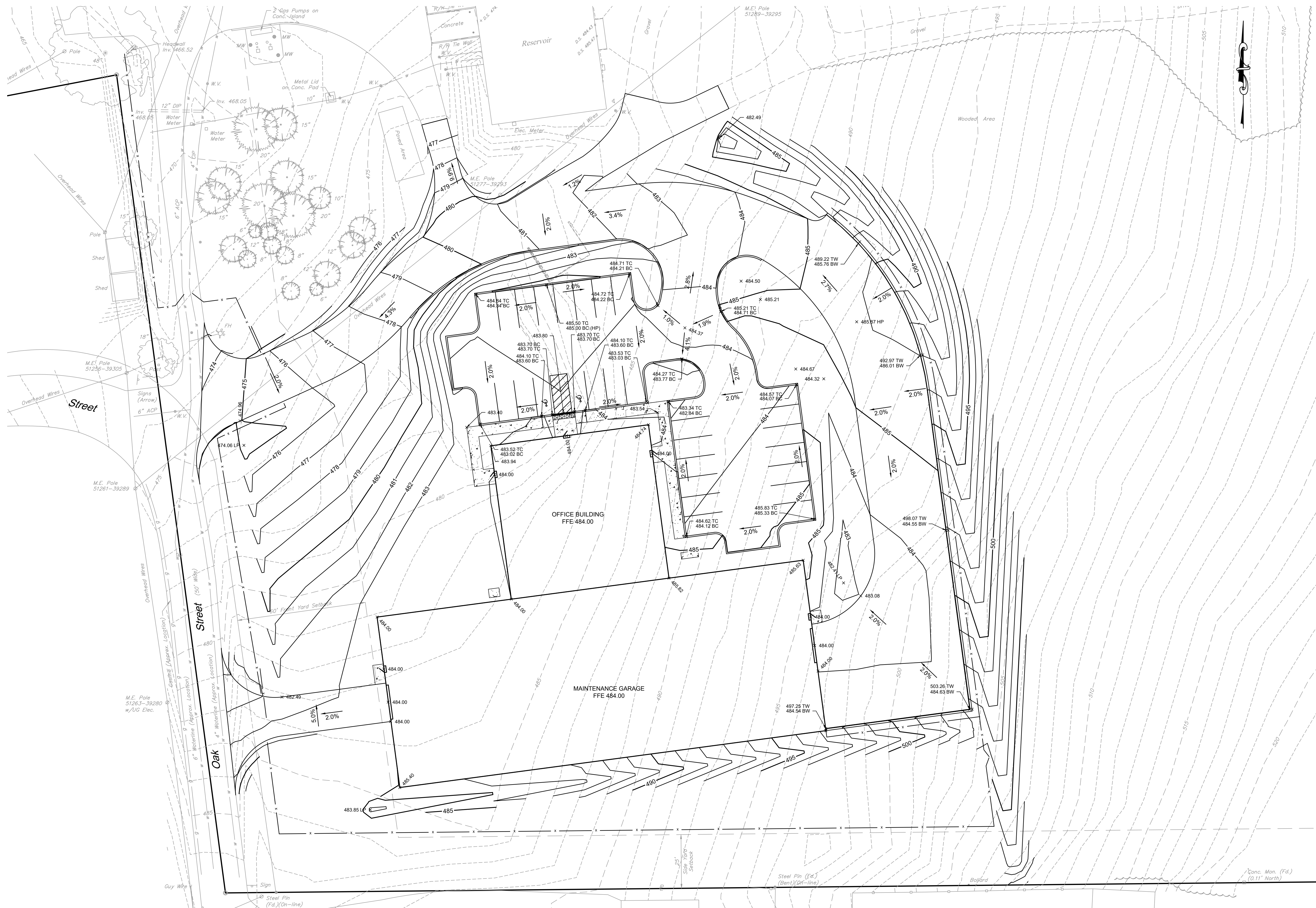
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2		MADE CHD APVD

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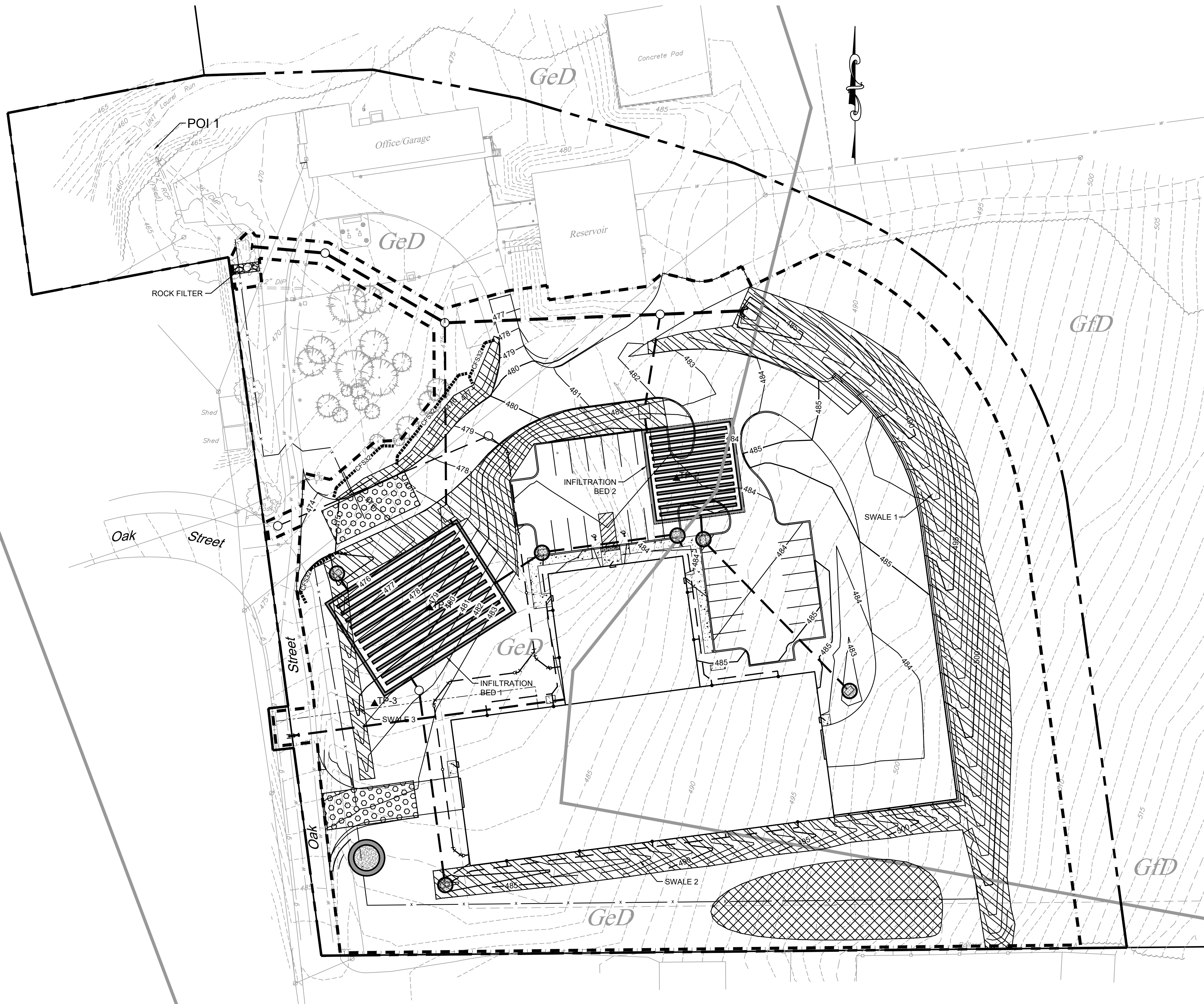
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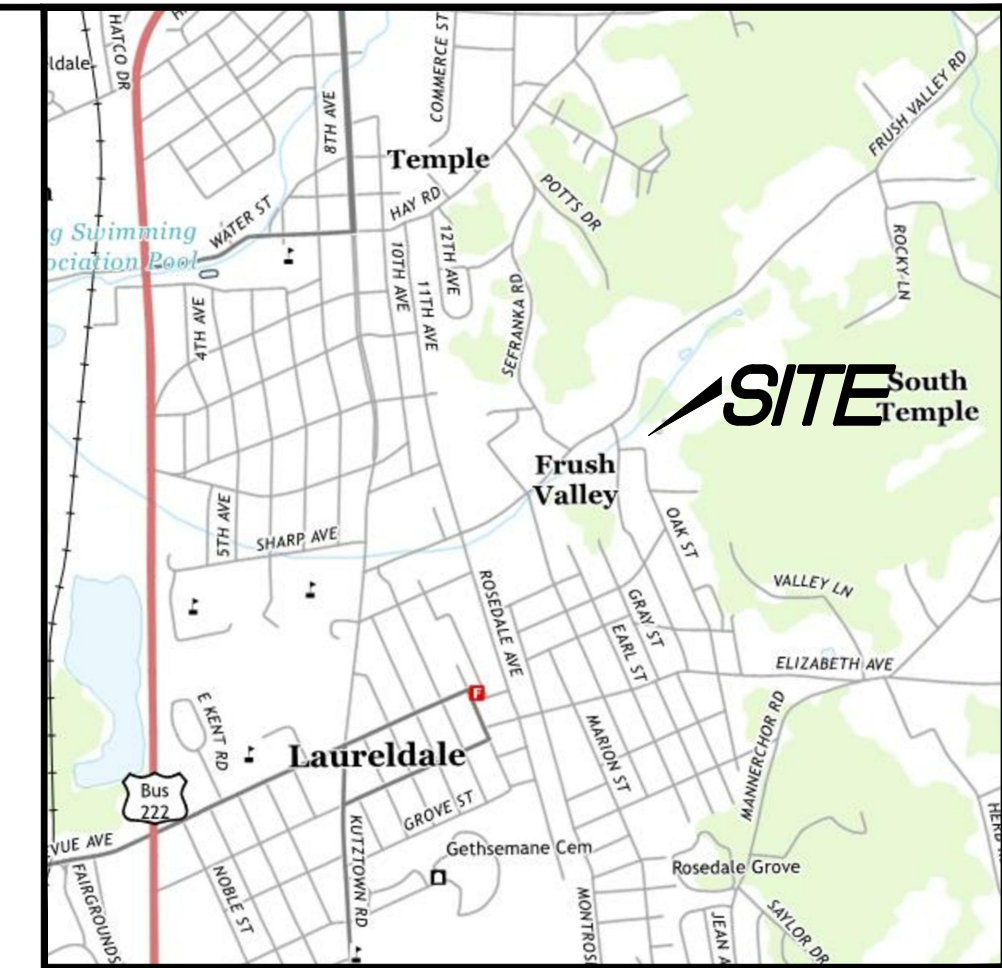
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 GRADING PLAN
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SOILS	
TYPE	DESCRIPTION
GeD	GLADSTONE GRAVELLY LOAM, 15 TO 25 % SLOPES
GfD	GLADSTONE GRAVELLY LOAM, 8 TO 25 % SLOPES, VERY BOULDERY

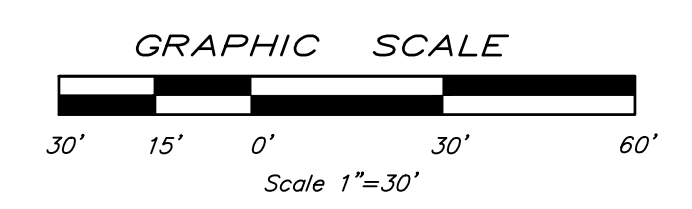


LOCATION MAP
SCALE: 1" = 2000'

- E&S LEGEND**
- LIMIT OF DISTURBANCE
 - NPDES PERMIT BOUNDARY
 - CF532----- COMPOST FILTER SOCK (32" DIAMETER)
 - [Rock Filter Symbol] ROCK FILTER
 - [Erosion Control Blanket Symbol] EROSION CONTROL BLANKET
 - [Rock Construction Entrance Symbol] ROCK CONSTRUCTION ENTRANCE
 - [Topsoil Stockpile Area Symbol] TOPSOIL STOCKPILE AREA
 - [Filter Bag Inlet Protection Symbol] FILTER BAG INLET PROTECTION
 - GeD / GfD SOIL BOUNDARY AND TYPES
 - [Concrete Washout Symbol] CONCRETE WASHOUT
 - ▲ TP-1 INFILTRATION TEST LOCATION

SOIL LIMITATIONS AND RESOLUTIONS:

LIMITATION	RESOLUTION	SOIL TYPE	
		GeD	GfD
CUTBANKS CAVE	LAYBACK SLOPES	X	X
CORROSIVE TO CONCRETE/STEEL	CORROSION RESISTANT CONCRETE	X	X
DROUGHTY	N/A		
EASILY ERODIBLE	MAINTAIN EROSION CONTROL BMPs	X	X
FLOODING	AVOID WORK IN FLOOD AREAS		
DEPTH TO WATER TABLE/SATURATED ZONE	PUMPED WATER FILTER, FOOTER DRAINS		
HYDRIC/HYDRIC INCLUSIONS	AVOIDANCE, PUMPED WATER FILTER BAG, TRENCH PLUGS	X	X
LOW STRENGTH/LANDSLIDE PRONE	LAYBACK SLOPES/DESIGN FOR CONDITIONS		
SLOW PERCOLATION	DRAINAGE DITCH, PUMPED WATER FILTER BAG	X	X
PIPING	TRENCH PLUG		
POOR SOURCE OF TOPSOIL	AVOID REUSE AS TOPSOIL OR AMEND AS NECESSARY		
FROST ACTION	CONSTRUCT BELOW FROST DEPTHS/POSITIVE SUBGRADE	X	X
SHRINK/SWELL	AVOID USE OF CLAY SOILS IN BUILDING AREAS	X	X
POTENTIAL SINKHOLE	SINKHOLE MITIGATION TECHNIQUES		
PONDING	PROVIDE POSITIVE DRAINAGE		
WETNESS	UTILIZE GOOD WEATHER/TEMPORARY DRAIN TILE		



NO.	DATE	DESCRIPTION	MADE	CHKD	APVD

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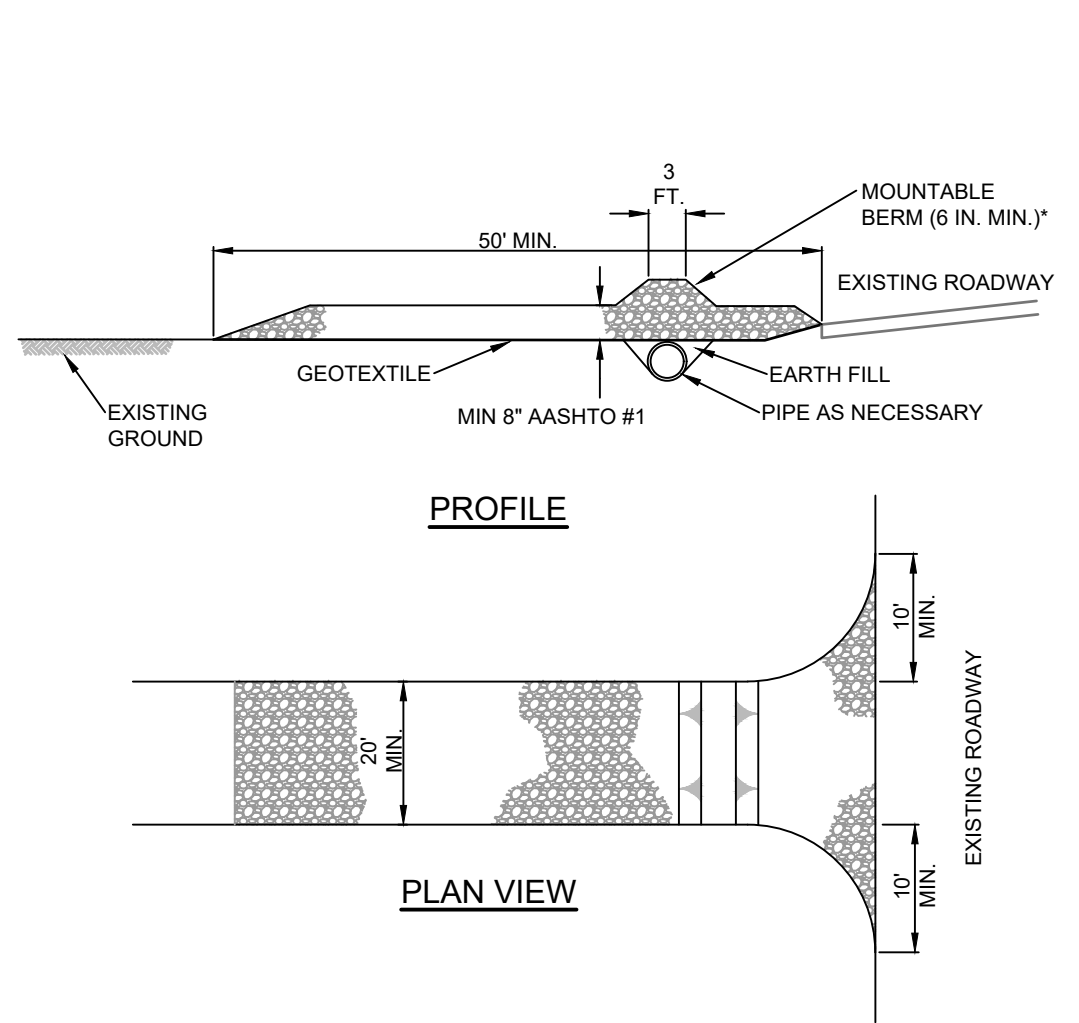
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EROSION AND SEDIMENT CONTROL PLAN
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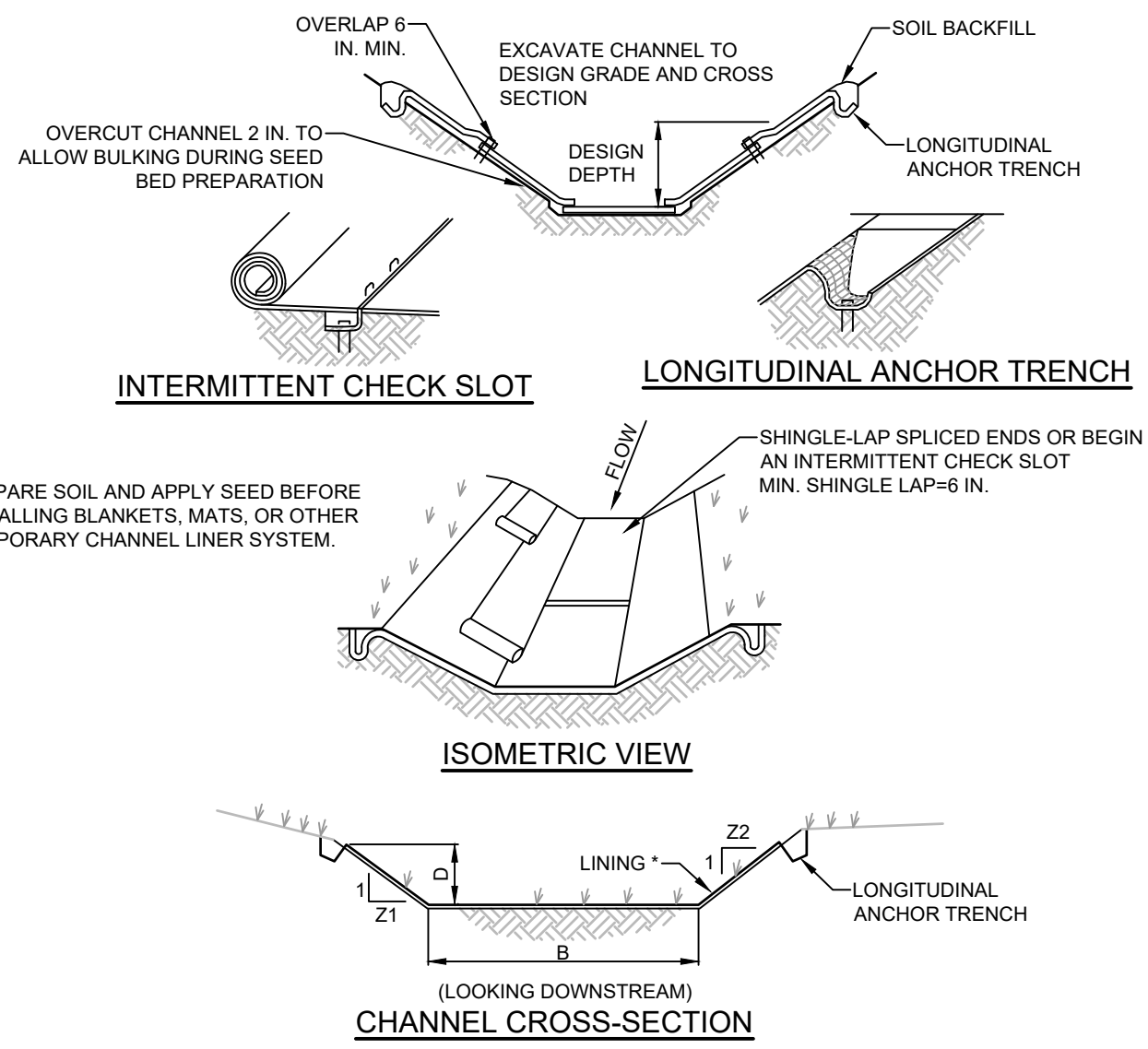
REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL. CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

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 ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

**STANDARD CONSTRUCTION DETAIL #3-1
ROCK CONSTRUCTION ENTRANCE**
NOT TO SCALE



INTERMITTENT CHECK SLOT

OVERLAP 6 IN. MIN. EXCAVATE CHANNEL TO DESIGN GRADE AND CROSS SECTION. SOIL BACKFILL. LONGITUDINAL ANCHOR TRENCH.

LONGITUDINAL ANCHOR TRENCH

PREPARE SOIL AND APPLY SEED BEFORE INSTALLING BLANKETS, MATS, OR OTHER TEMPORARY CHANNEL LINER SYSTEM.

ISOMETRIC VIEW

SHINGLE-LAP SPICED ENDS OR BEGIN NEW ROLL IN AN INTERMITTENT CHECK SLOT MIN. SHINGLE LAP=6 IN.

CHANNEL CROSS-SECTION

* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

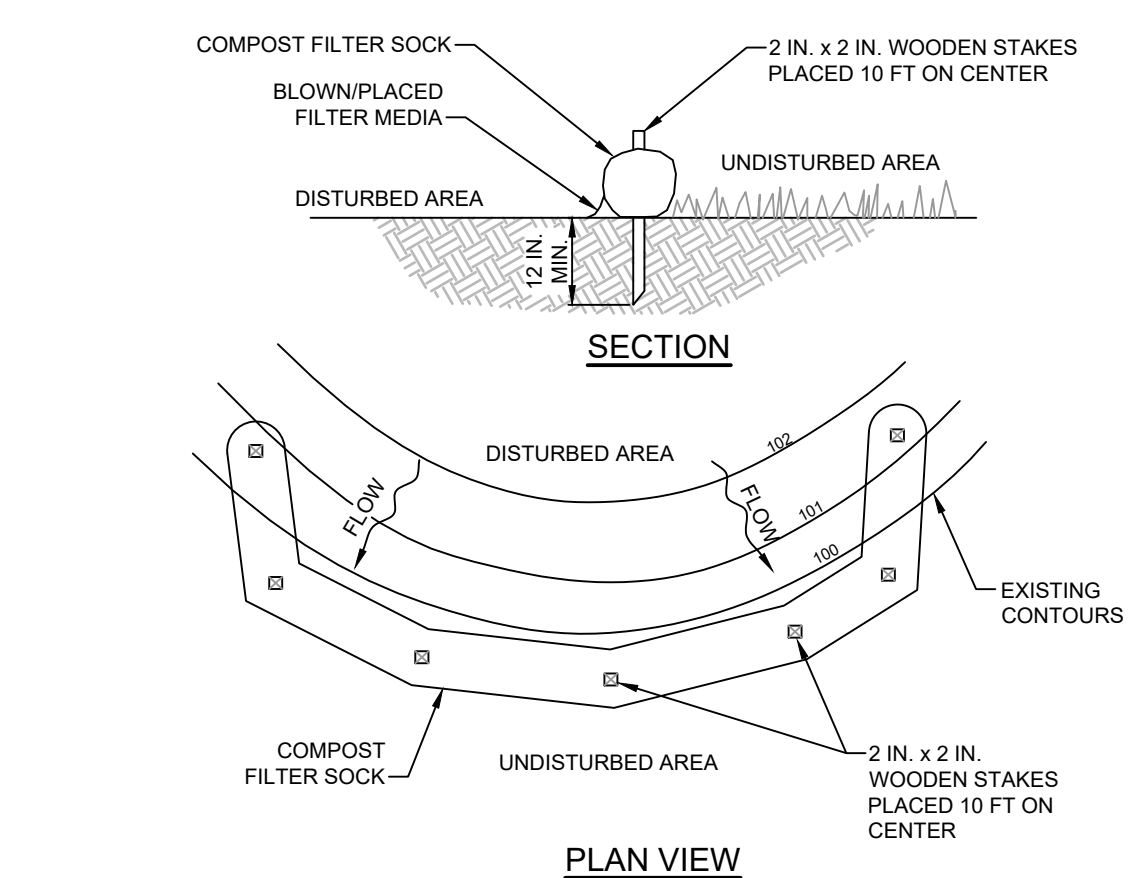
NOTES:

ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.

CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION. SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.

NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

**STANDARD CONSTRUCTION DETAIL #6-1
VEGETATED CHANNEL**
NOT TO SCALE



NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

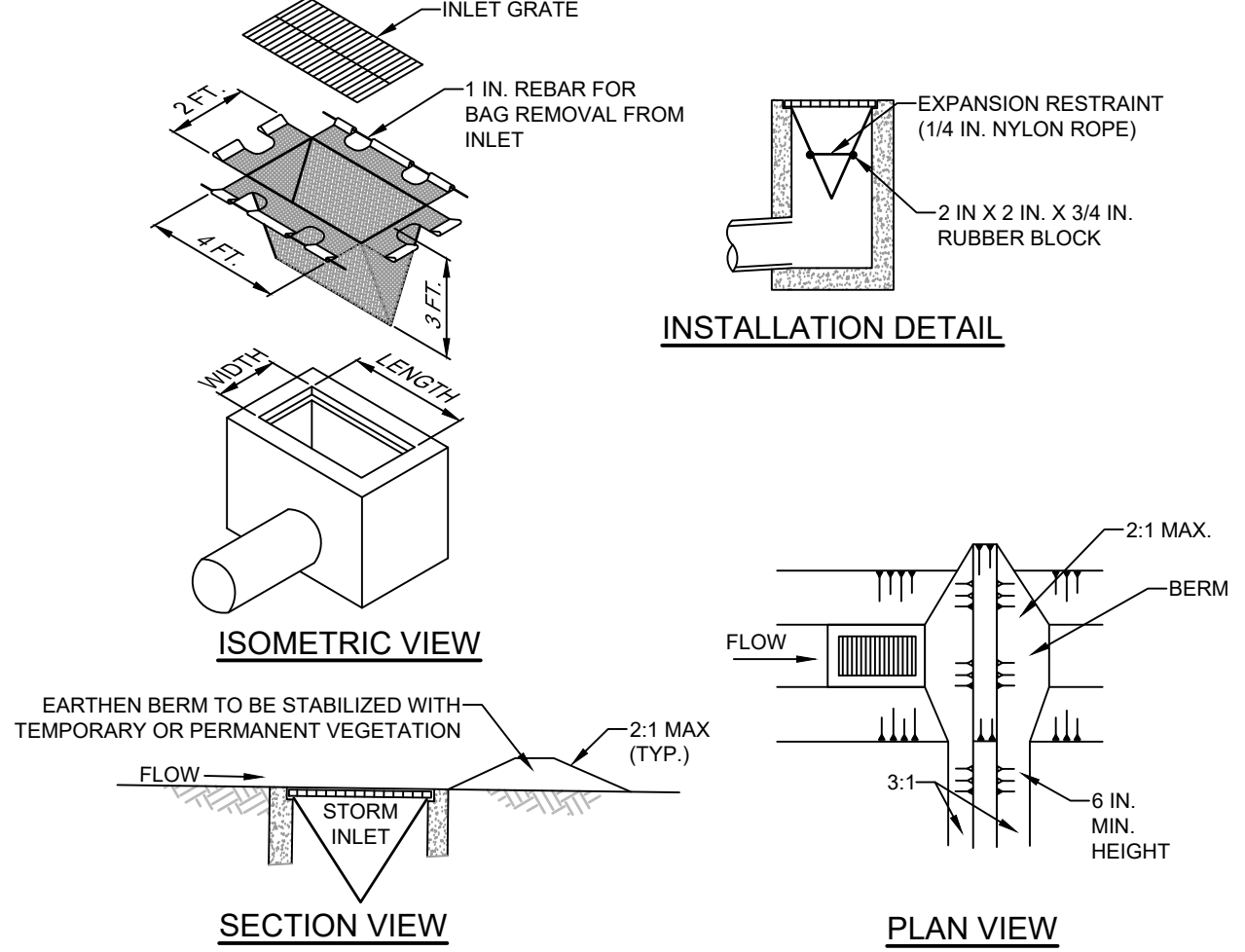
ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER 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.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS. PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

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 MULCH SPREAD AS A SOIL SUPPLEMENT.

**STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK**
NOT TO SCALE



INSTALLATION DETAIL

INLET GRATE. 1 IN. REBAR FOR BAG REMOVAL FROM INLET. EXPANSION RESTRAINT (1/4 IN. NYLON ROPE). 2 IN X 2 IN. X 3/4 IN. RUBBER BLOCK.

ISOMETRIC VIEW

EARTHEN BERM TO BE STABILIZED WITH TEMPORARY OR PERMANENT VEGETATION.

SECTION VIEW

PLAN VIEW

NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

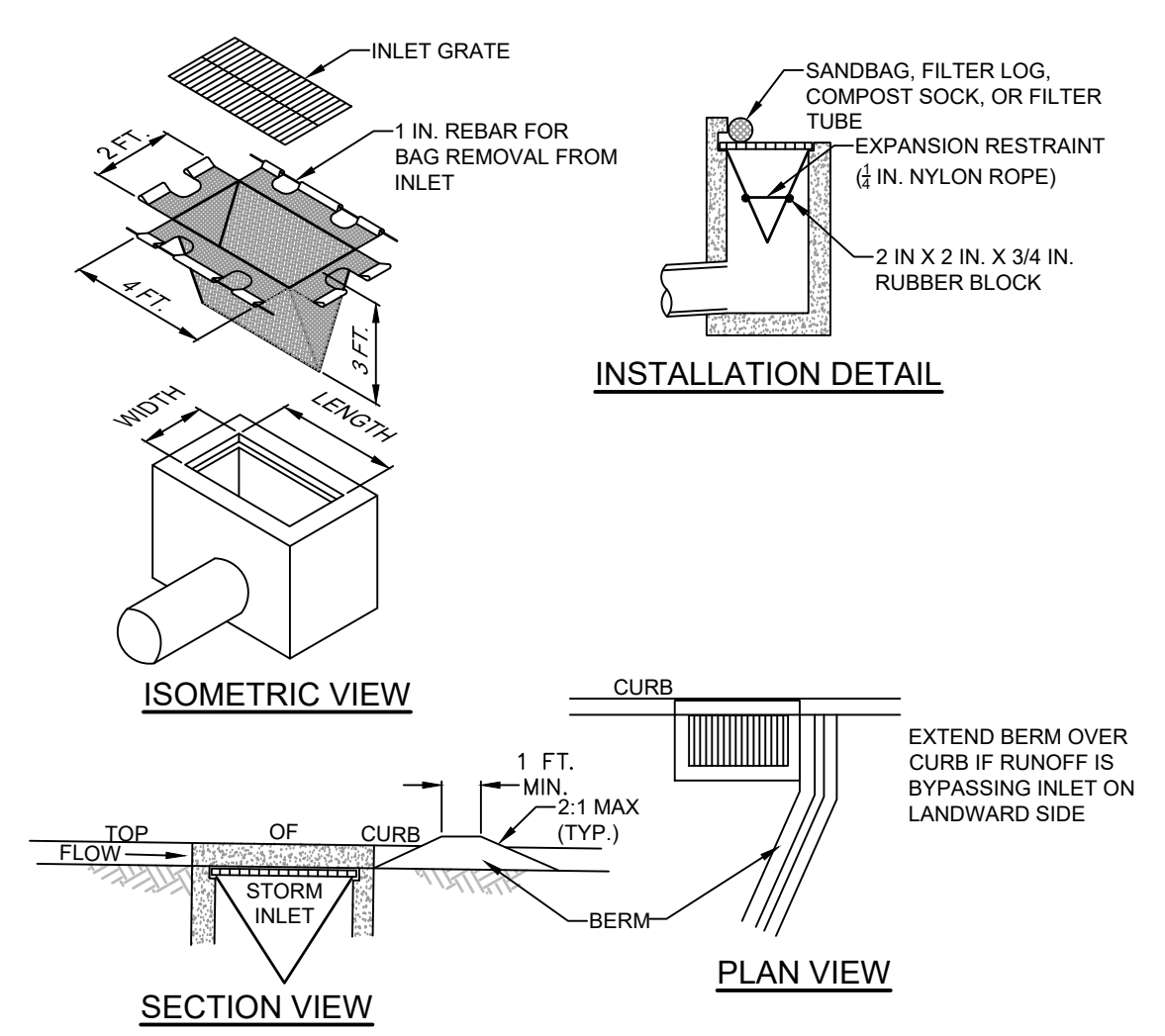
ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.

AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS., A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

**STANDARD CONSTRUCTION DETAIL #4-16
FILTER BAG INLET PROTECTION - TYPE M INLET**
NOT TO SCALE



INSTALLATION DETAIL

INLET GRATE. 1 IN. REBAR FOR BAG REMOVAL FROM INLET. SANDBAG, FILTER LOG, COMPOST SOCK, OR FILTER TUBE. EXPANSION RESTRAINT (1/4 IN. NYLON ROPE). 2 IN X 2 IN. X 3/4 IN. RUBBER BLOCK.

ISOMETRIC VIEW

SECTION VIEW

PLAN VIEW

NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

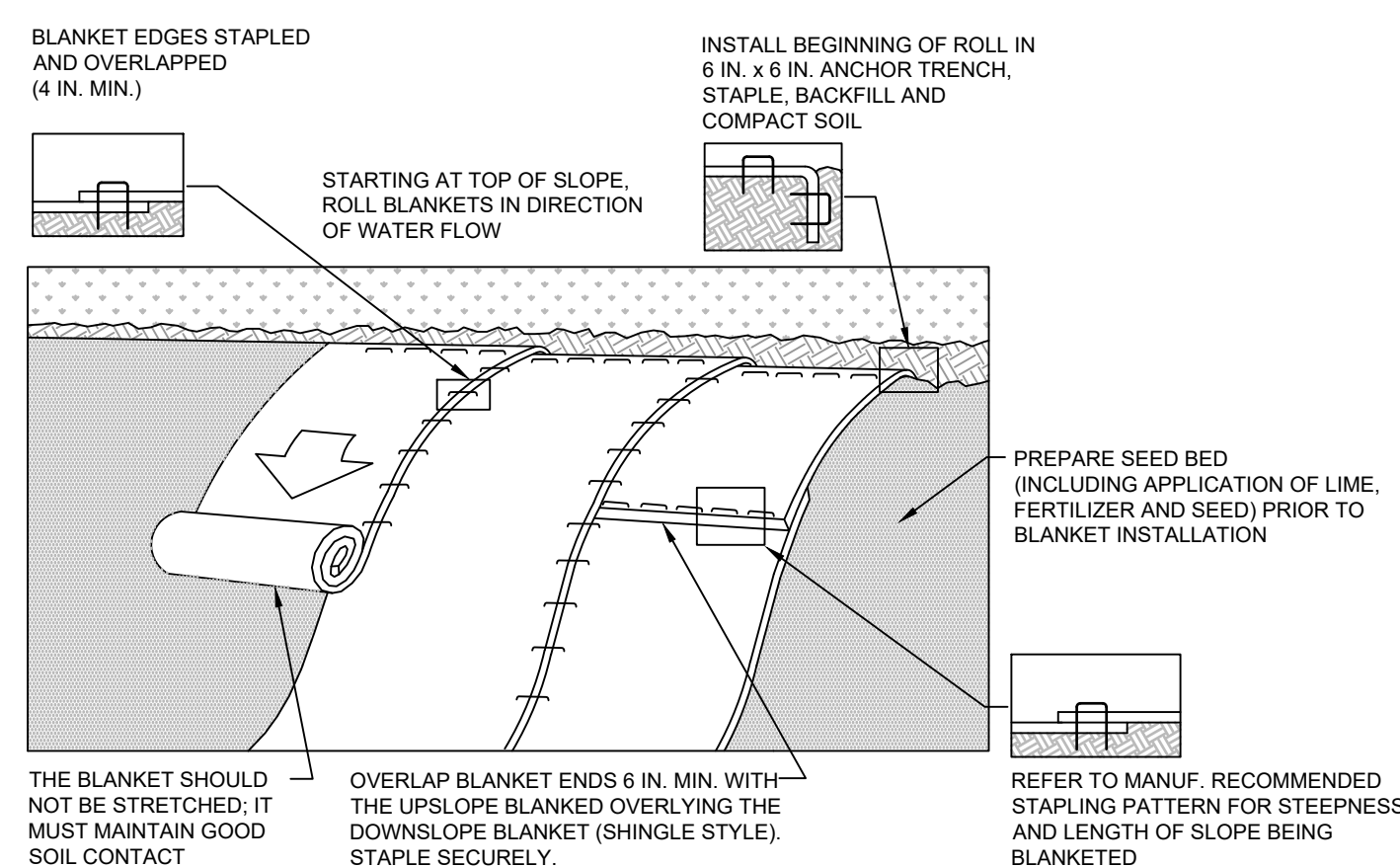
ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.

AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS., A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

**STANDARD CONSTRUCTION DETAIL #4-15
FILTER BAG INLET PROTECTION - TYPE C INLET**
NOT TO SCALE



NOTES:

SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

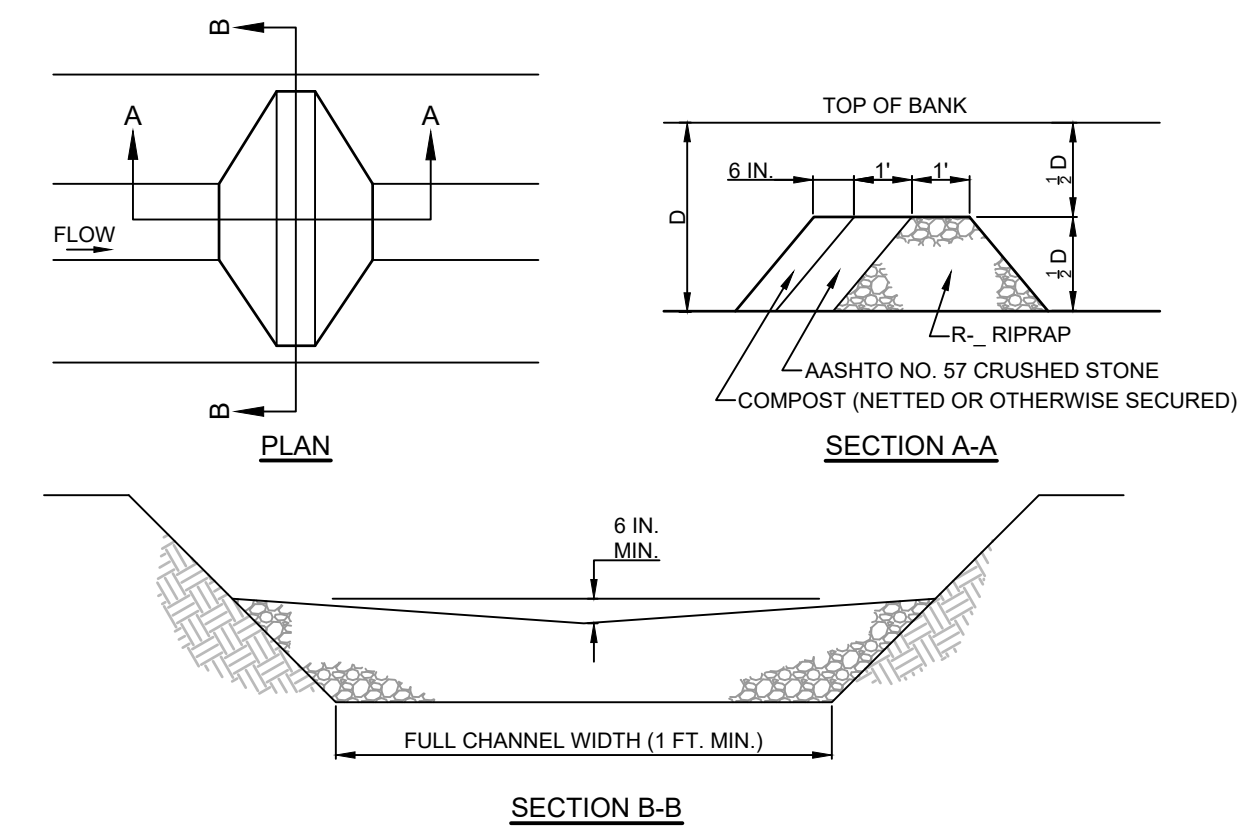
SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

BLANKET SHALL HAVE 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.

THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

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 4 CALENDAR DAYS.

**STANDARD CONSTRUCTION DETAIL #11-1
EROSION CONTROL BLANKET INSTALLATION**
NOT TO SCALE



ROCK FILTER NO.	LOCATION	D (FT)	RIPRAP SIZE (R-)

NOTES:

SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE HEIGHT OF THE FILTERS.

IMMEDIATELY UPON STABILIZATION OF EACH CHANNEL, REMOVE ACCUMULATED SEDIMENT, REMOVE ROCK FILTER, AND STABILIZE DISTURBED AREAS.

**STANDARD CONSTRUCTION DETAIL #4-14
ROCK FILTER**
NOT TO SCALE

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MUHLBERG TOWNSHIP AUTHORITY
2840 KUTZDOW ROAD, READING PA 19605

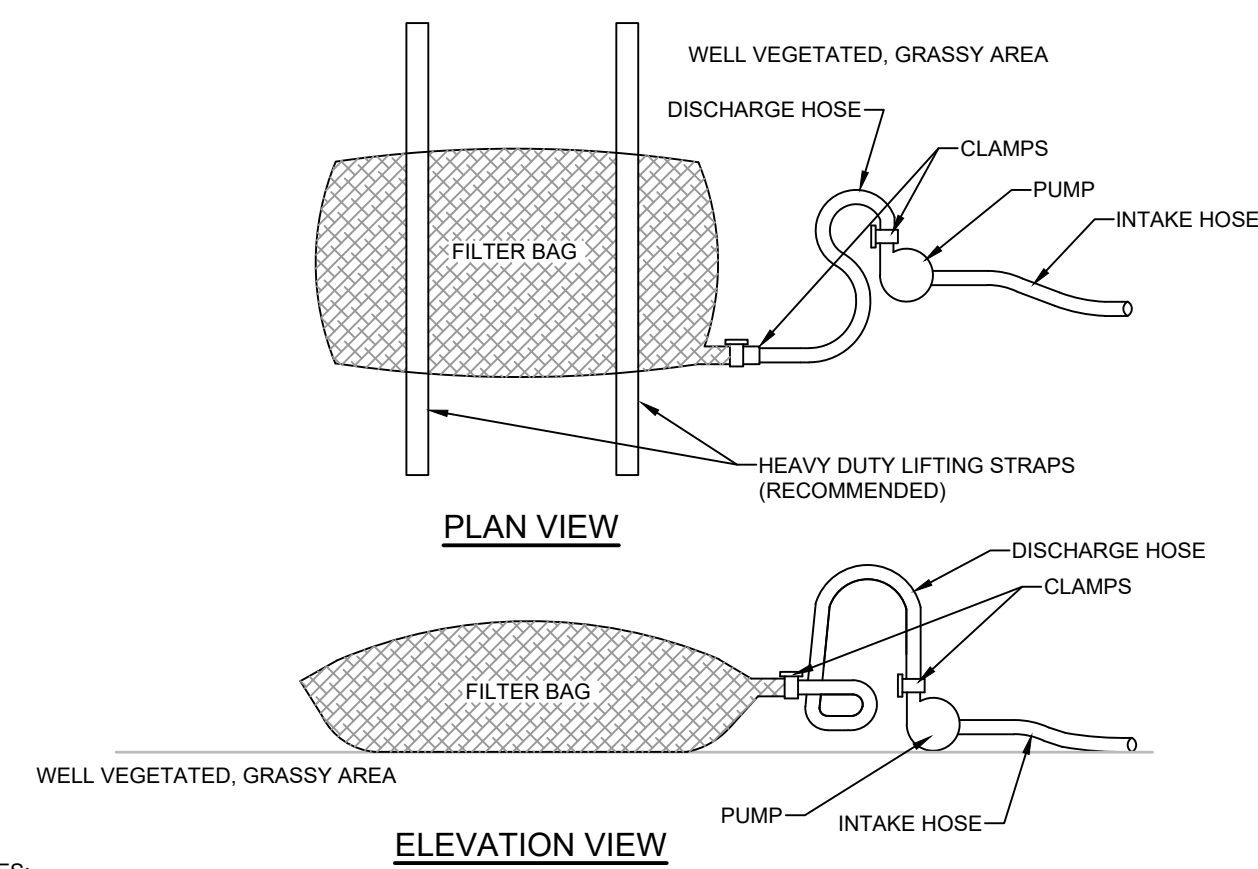
OFFICE BUILDING AND MAINTENANCE GARAGE
EROSION AND SEDIMENT CONTROL DETAILS
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NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED 3" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS.

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. 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.

BAGS SHALL BE LOCATED IN 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.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HO OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

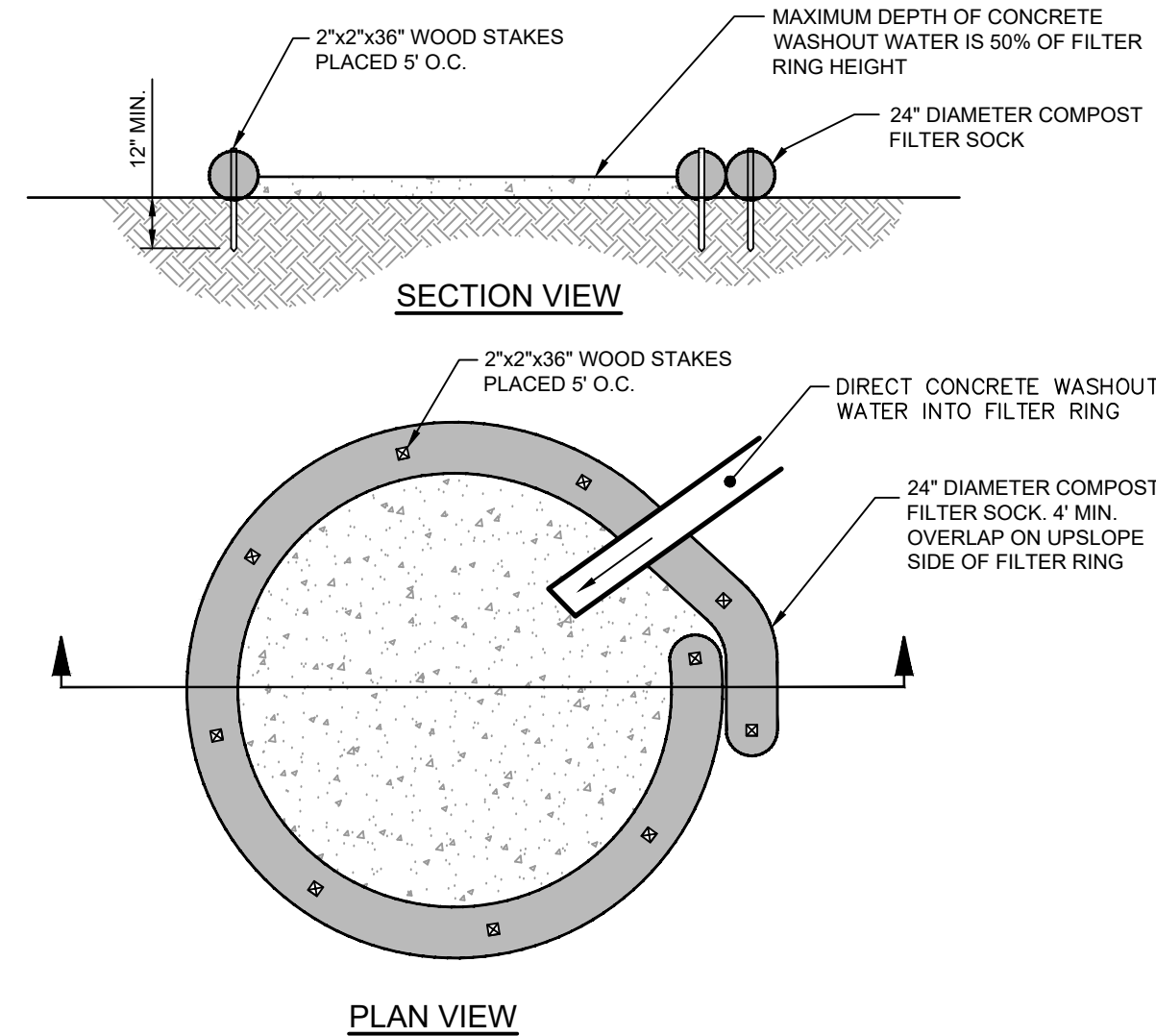
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

**STANDARD CONSTRUCTION DETAIL #3-16
PUMPED WATER FILTER BAG**

NOT TO SCALE

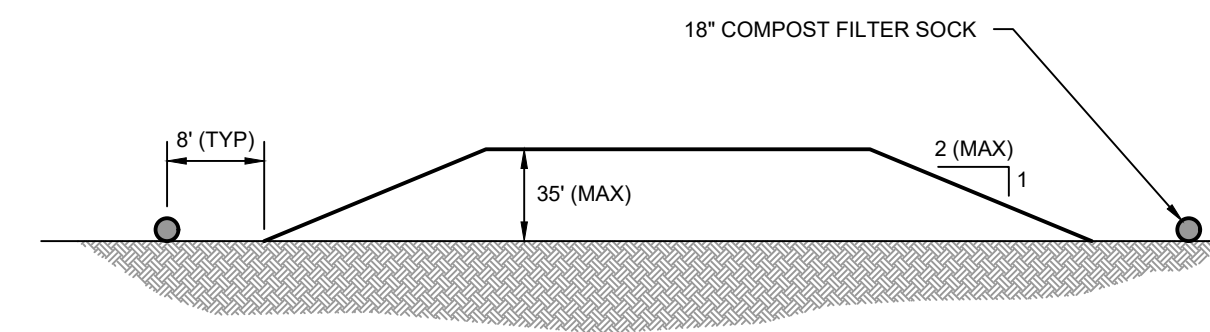


NOTES:

1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2. 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.

COMPOST SOCK WASHOUT

NOT TO SCALE

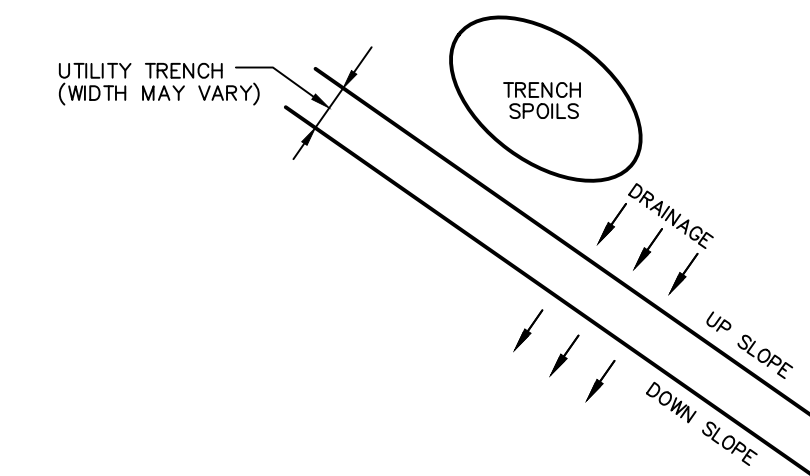


NOTES:

1. STOCKPILE HEIGHT SHALL NOT EXCEED 35'.
2. TOPSOIL STOCKPILES SHALL BE SEEDED IN ACCORDANCE WITH THE TEMPORARY SEEDING SPECIFICATIONS, AT THE END OF EACH WORKING DAY.
3. STOCKPILES SHALL BE SURROUNDED BY 18" COMPOST FILTER SOCKS (OR THE DOWNSTREAM EDGE IF ON A SLOPE) ALONG EXISTING LEVEL GRADE AT LEAST 8' FROM THE BASE OF THE STOCKPILE SIDE SLOPES. ACCUMULATED SEDIMENT SHALL BE REMOVED ONCE IT REACHES 1/2 THE HEIGHT OF THE SOCKS

TOPSOIL STOCKPILE

NOT TO SCALE



NOTES:

1. ALL TRENCH SPOILS SHALL BE SIDE CAST ON THE UP SLOPE SIDE OF THE TRENCH.
2. ALL DISTURBED AREAS SHALL BE STABILIZED PRIOR TO THE END OF EACH WORKING DAY (WITH COMPACTED GRAVEL, SEEDING AND MULCH, MULCH CONTROL NETTING OR RIP-RAP DEPENDING ON CONDITIONS AND LOCATION).

TRENCH SPOIL SIDE CAST DETAIL

NOT TO SCALE

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PROJECT MANAGER: HMF
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DRAWN BY: MBD
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N.B.: _____
CHKD: _____

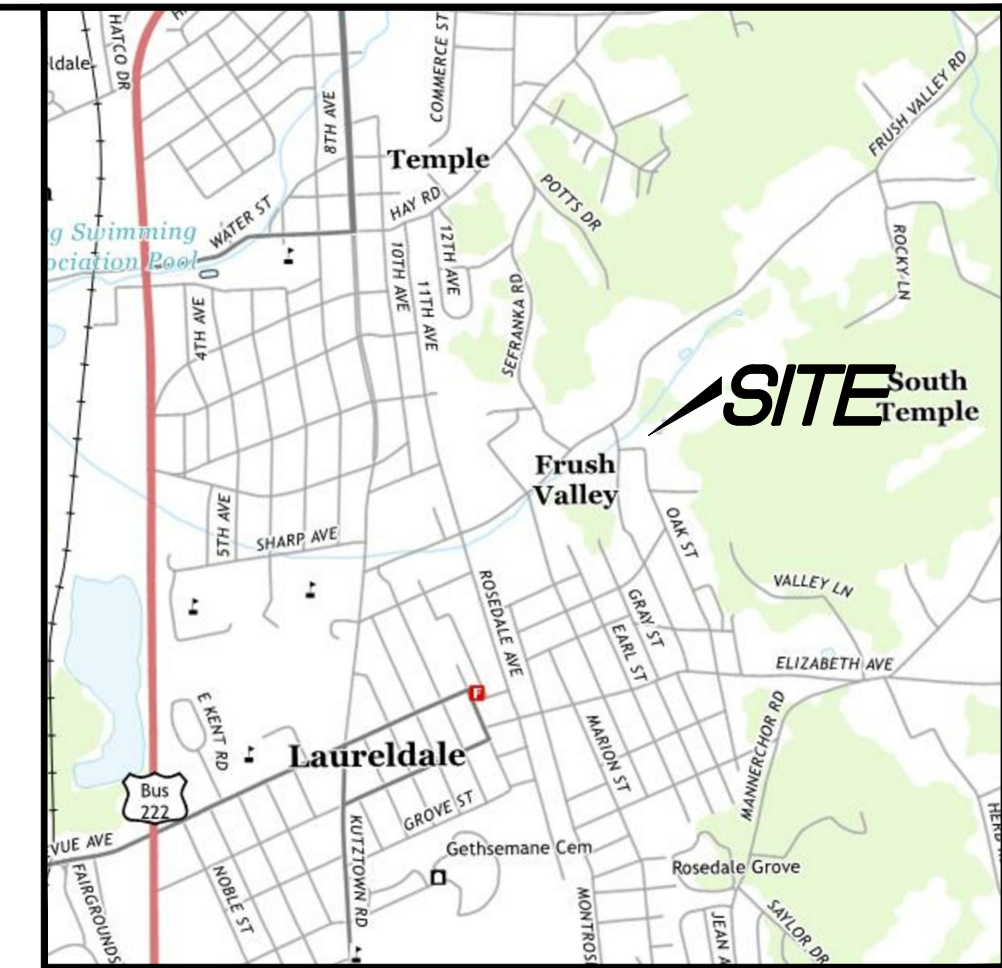
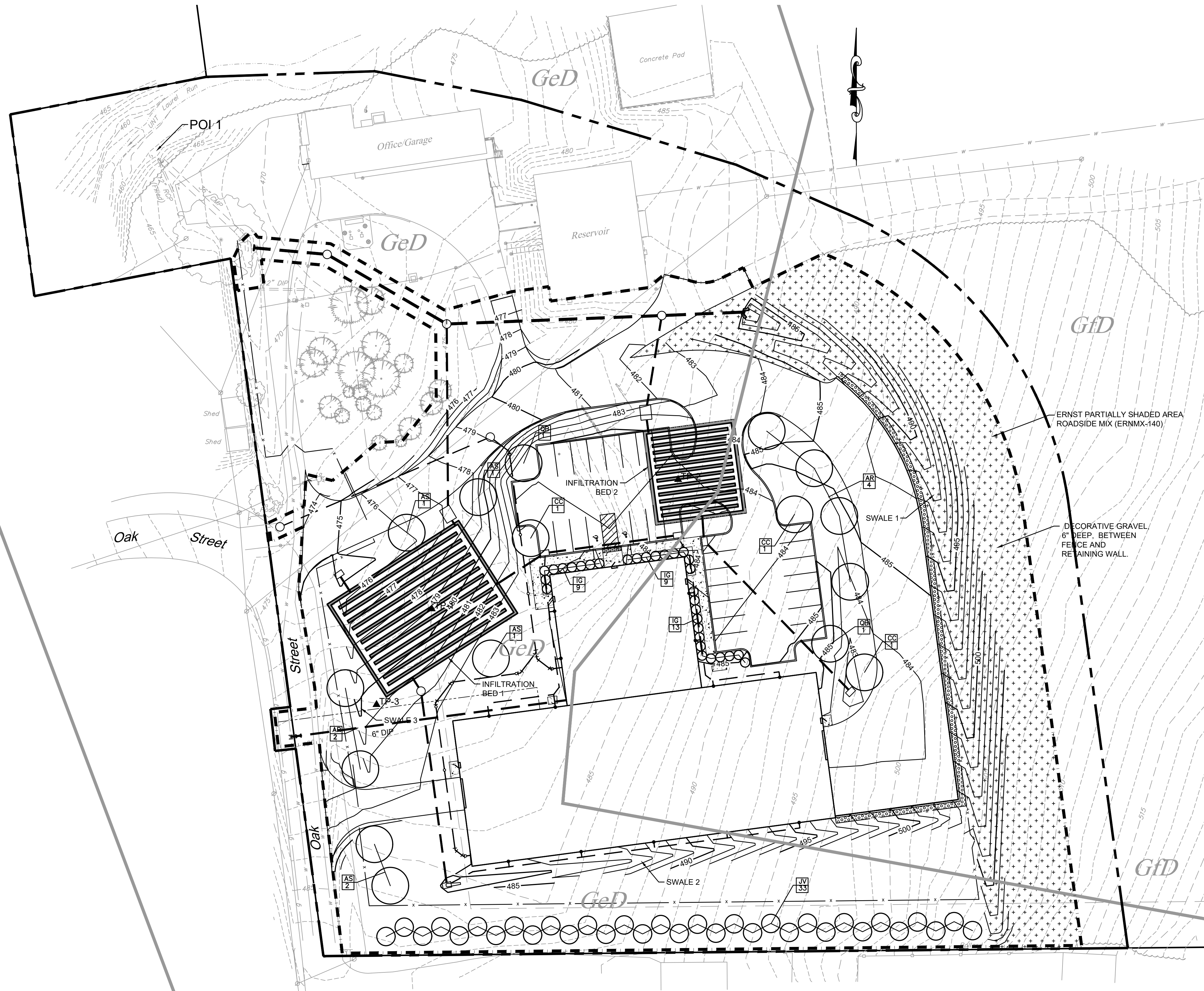


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MUHLBERG TOWNSHIP AUTHORITY
2840 RUTZDOWN ROAD, READING PA, 19605
OFFICE BUILDING AND MAINTENANCE GARAGE
EROSION AND SEDIMENT CONTROL DETAILS
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LOCATION MAP
SCALE: 1" = 2000'

PCSM PLAN LEGEND

- LIMIT OF DISTURBANCE
- NPDES PERMIT BOUNDARY
- SOIL BOUNDARY AND TYPES
- INFILTRATION TEST LOCATION

PLANTING SCHEDULE

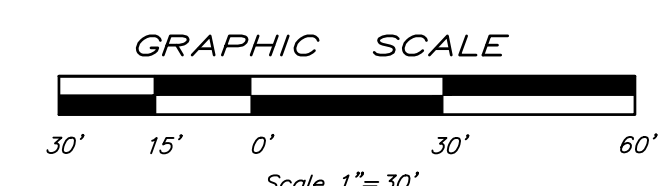
KEY	QUANTITY	SCIENTIFIC NAME	COMMON NAME
AR	6	Acer rubrum	Red Maple
AS	5	Acer saccharinum	Silver Maple
CC	3	Carpinus caroliniana	Ironwood
IG	31	Ilex glabra	Hollyberry
JV	33	Juniperus virginiana	Eastern Red Cedar
QB	2	Quercus bicolor	Swamp White Oak

SOILS

TYPE	DESCRIPTION
GeD	GLADSTONE GRAVELLY LOAM, 15 TO 25% SLOPES
GfD	GLADSTONE GRAVELLY LOAM, 8 TO 25% SLOPES, VERY BOULDERY

SOIL LIMITATIONS AND RESOLUTIONS:

LIMITATION	RESOLUTION	SOIL TYPE	
		GeD	GfD
CUTBANKS CAVE	LAYBACK SLOPES	X	X
CORROSIVE TO CONCRETE/STEEL	CORROSION RESISTANT CONCRETE	X	X
DROUGHTY	N/A		
EASILY ERODIBLE	MAINTAIN EROSION CONTROL BMPs	X	X
FLOODING	AVOID WORK IN FLOOD AREAS		
DEPTH TO WATER TABLE/SATURATED ZONE	PUMPED WATER FILTER, FOOTER DRAINS		
HYDRIC/HYDRIC INCLUSIONS	AVOIDANCE, PUMPED WATER FILTER BAG, TRENCH PLUGS	X	X
LOW STRENGTH/LANDSLIDE PRONE	LAYBACK SLOPES/DESIGN FOR CONDITIONS		
SLOW PERCOLATION	DRAINAGE DITCH, PUMPED WATER FILTER BAG	X	X
PIPING	TRENCH PLUG		
POOR SOURCE OF TOPSOIL	AVOID REUSE AS TOPSOIL OR AMEND AS NECESSARY		
FROST ACTION	CONSTRUCT BELOW FROST DEPTHS/POSITIVE SUBGRADE	X	X
SHRINK/SWELL	AVOID USE OF CLAY SOILS IN BUILDING AREAS	X	X
POTENTIAL SINKHOLE	SINKHOLE MITIGATION TECHNIQUES		
PONDING	PROVIDE POSITIVE DRAINAGE		
WETNESS	UTILIZE GOOD WEATHER/TEMPORARY DRAIN TILE		



RELEASED FOR: **FINAL**

PROJECT MANAGER: MWF
BASE BY: HMM
DRAWN BY: MBD

NO. DATE DESCRIPTION
MADE CHD APVD

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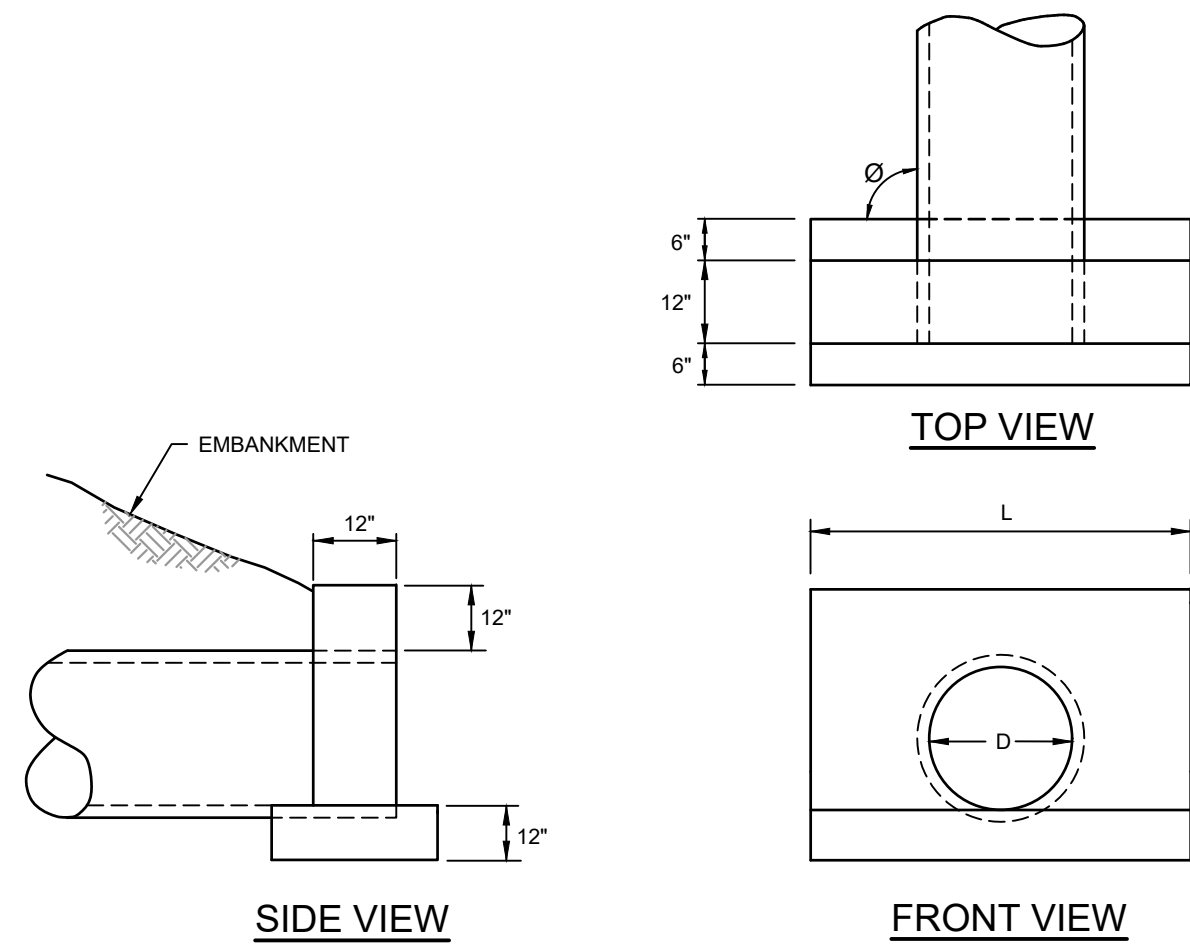
OFFICE BUILDING AND MAINTENANCE GARAGE
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
MUHLENBERG TOWNSHIP, BERKS COUNTY, PA

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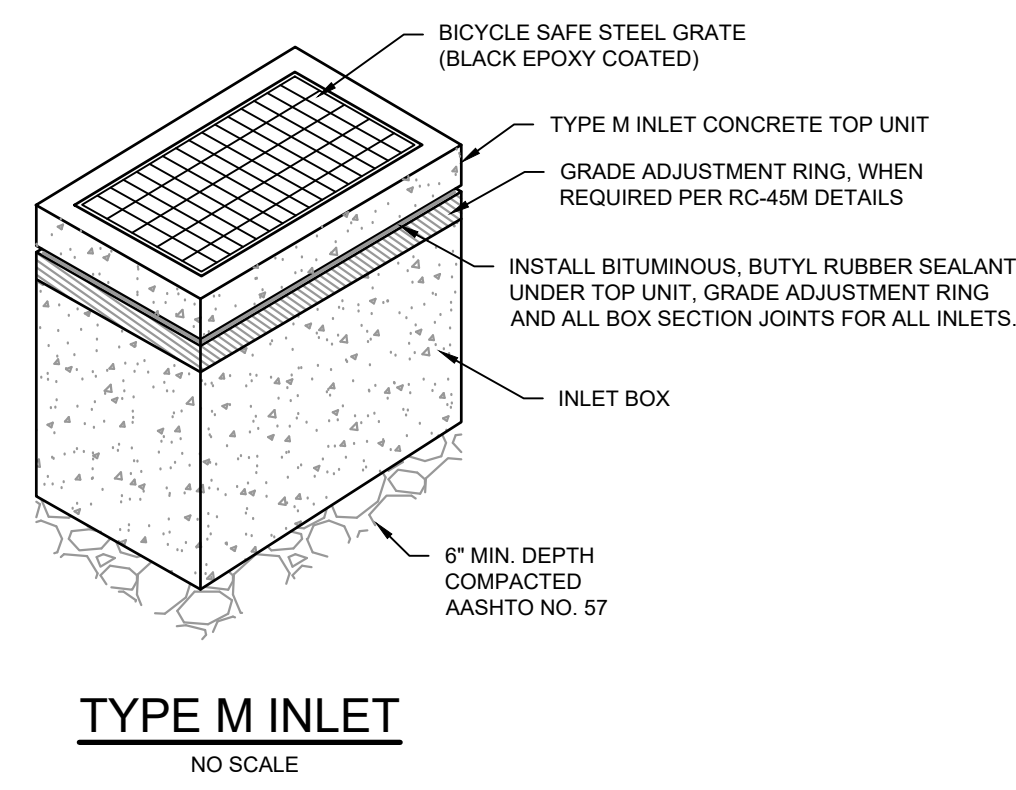
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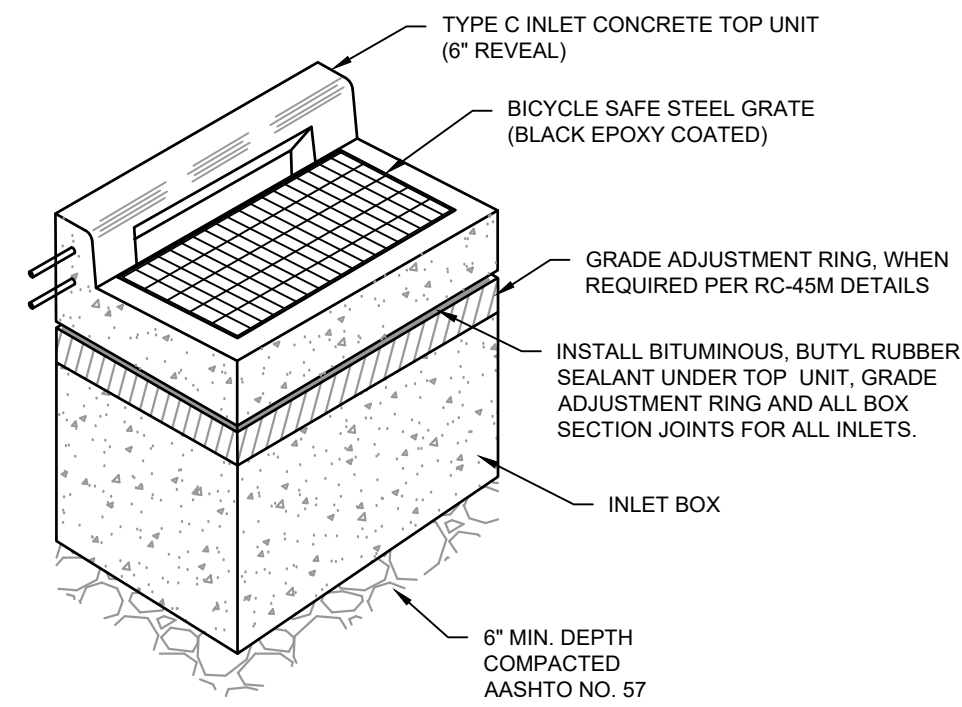
EW	D (IN)	Ø	L (IN)
1	18	90	60

- NOTES:
- SEE RC-31M FOR REINFORCEMENT REQUIREMENTS.
 - USE CLASS A CEMENT CONCRETE.

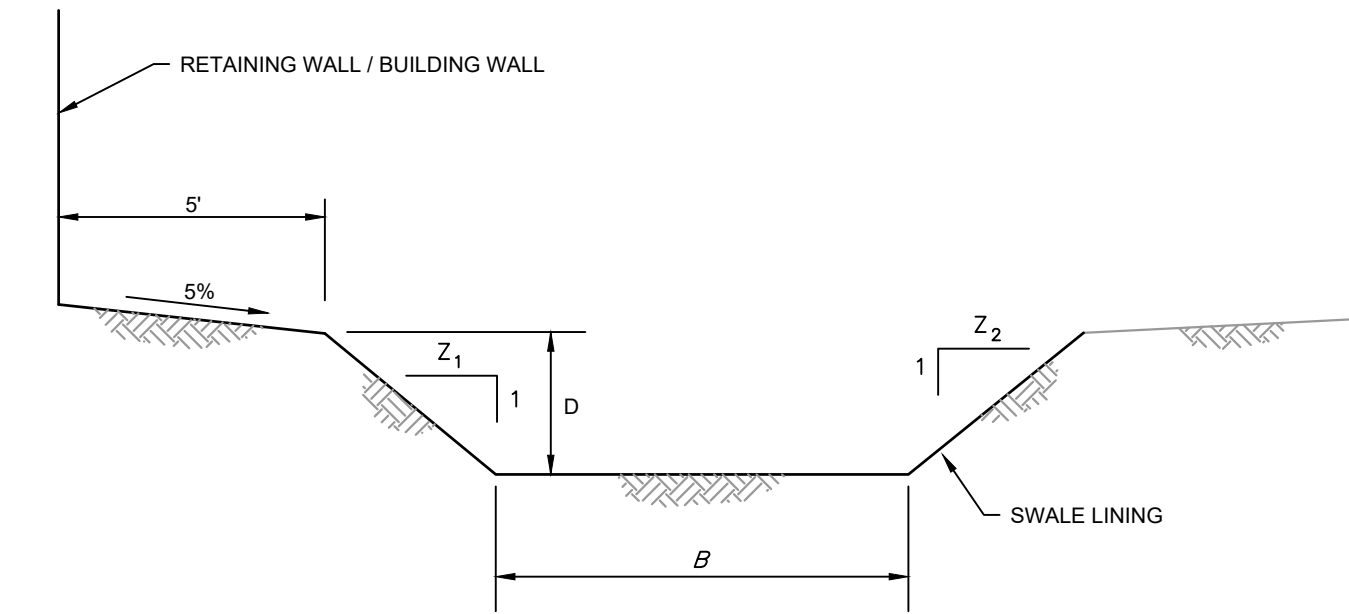
TYPE D ENDWALL
NO SCALE



TYPE M INLET
NO SCALE

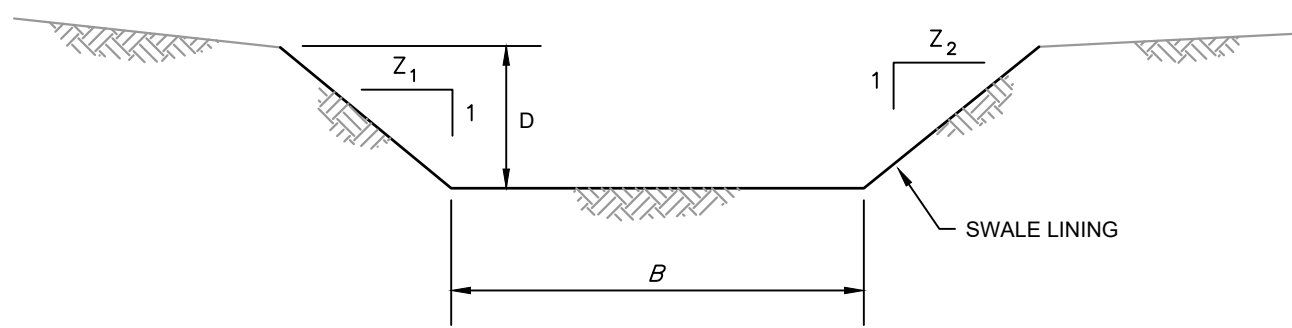


TYPE C INLET
NO SCALE



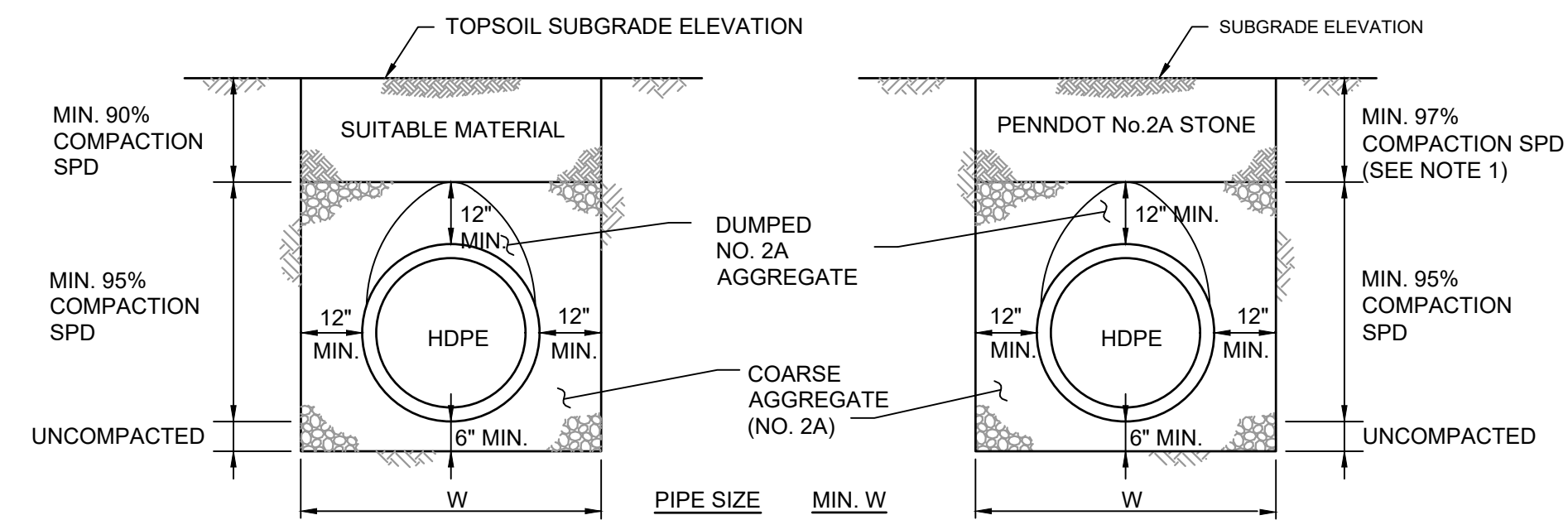
SWALE	B (FT.)	D (FT.)	Z ₁	Z ₂
1	4	1 MIN.	3	3
2	1	1 MIN.	3	3

TRAPEZOIDAL SWALE ALONG RETAINING WALL / BUILDING WALL
NO SCALE



SWALE	B (FT.)	D (FT.)	Z ₁	Z ₂
3	1	0.5 MIN.	3	3

TRAPEZOIDAL SWALE
NO SCALE

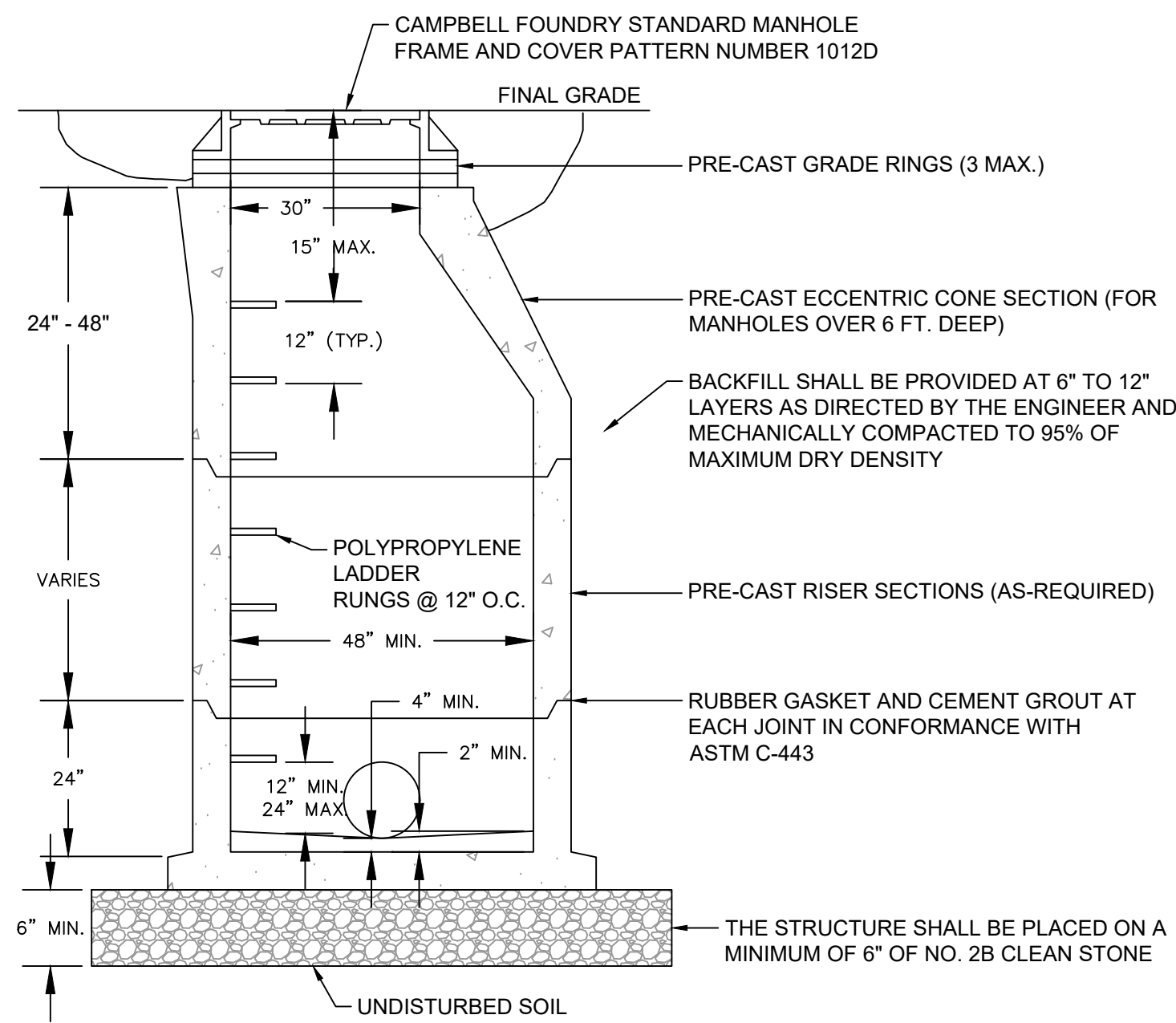


CROSS-COUNTRY INSTALLATIONS

UNDER BITUMINOUS PAVED SURFACES

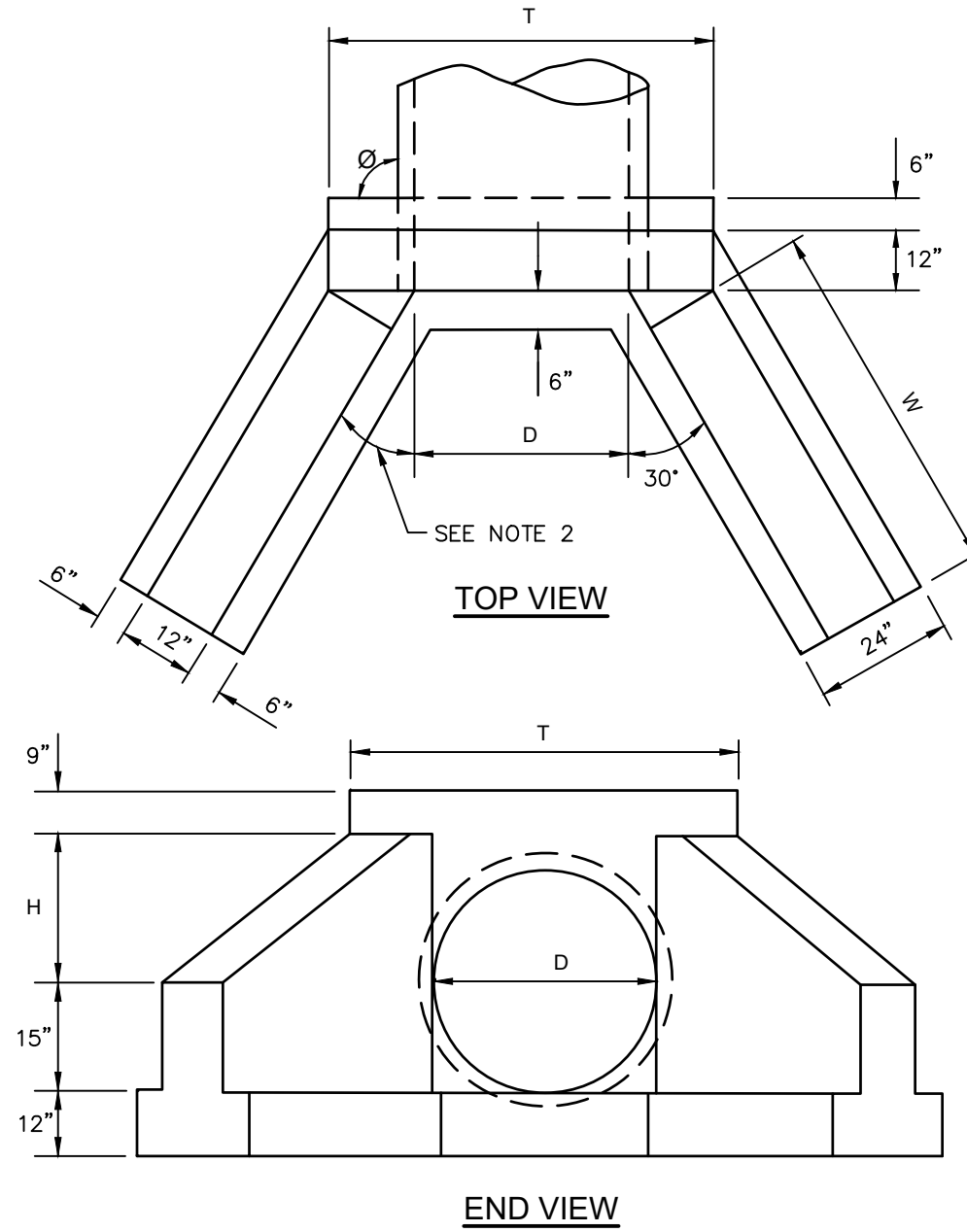
- NOTES:
- COMPACT TOP 36" TO 100% PER PENNDOT PUBLICATION 408, SECTION 206.3.
 - SPD IS STANDARD PROTECTOR DENSITY.

TRENCH & BACKFILL FOR HIGH-DENSITY POLYETHYLENE PIPE
NO SCALE



- NOTES:
- THE STORM MANHOLE CONCRETE STRUCTURE SHALL BE PRECAST CONCRETE TO MEET A MINIMUM OF HS-26 LOADING. ALL UNITS SHALL BE CONSTRUCTED AND REINFORCED IN ACCORDANCE WITH THE APPROPRIATE ASTM, ACI, AND AASHTO STANDARDS. ALL PRECAST SECTIONS SHALL BE JOINED USING A GASKET AND CEMENT GROUP TO PRODUCE A LEAK-PROOF JOINT.
 - THE INLET FRAME AND GRATE/COVER SHALL BE CAMPBELL FOUNDRY PATTEN NO. 1012D, OR APPROVED EQUAL.
 - ALL PIPES SHALL EXTEND NO MORE THAN 1 INCH INTO THE STRUCTURE.
 - SUITABLE EXCAVATED SOIL MAY BE USED AS BACKFILL IN NON-STRUCTURALLY SUPPORTING AREAS OF AS DIRECTED BY THE MUNICIPAL ENGINEER. AREAS SUPPORTING ANY STRUCTURE SHALL BE BACKFILLED USING DENSE GRADED AGGREGATE OR AS DIRECTED BY THE ENGINEER.
 - THE INSIDE DIAMETER IS A MINIMUM DIMENSION. INSIDE DIAMETER TO BE ADJUSTED AS NECESSARY TO ACCOMMODATE STORM PIPE SIZES AND ALIGNMENT.
 - ALL MANHOLES SHALL CONFORM TO PENNDOT SPECIFICATIONS.

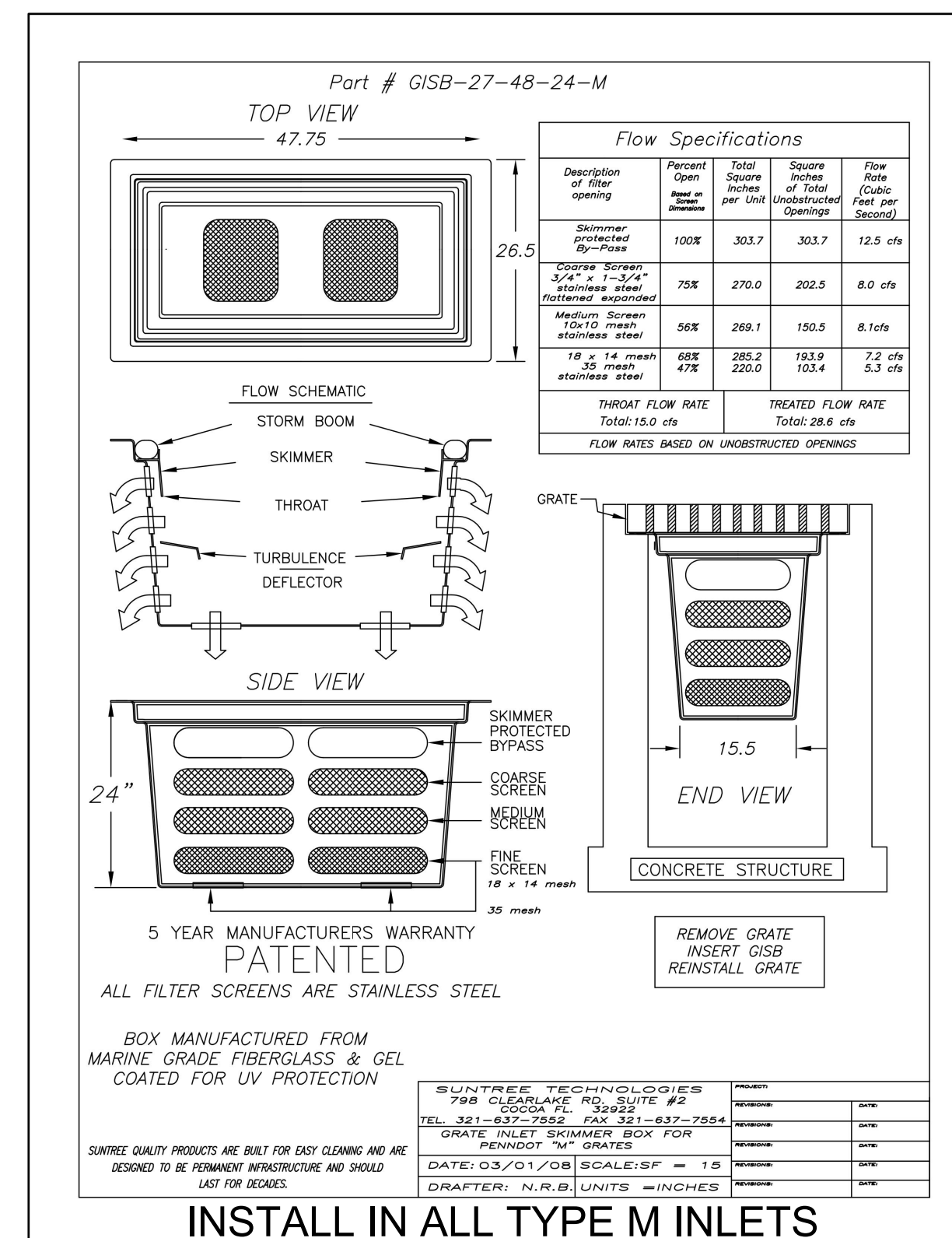
STORM MANHOLE DETAIL
NO SCALE



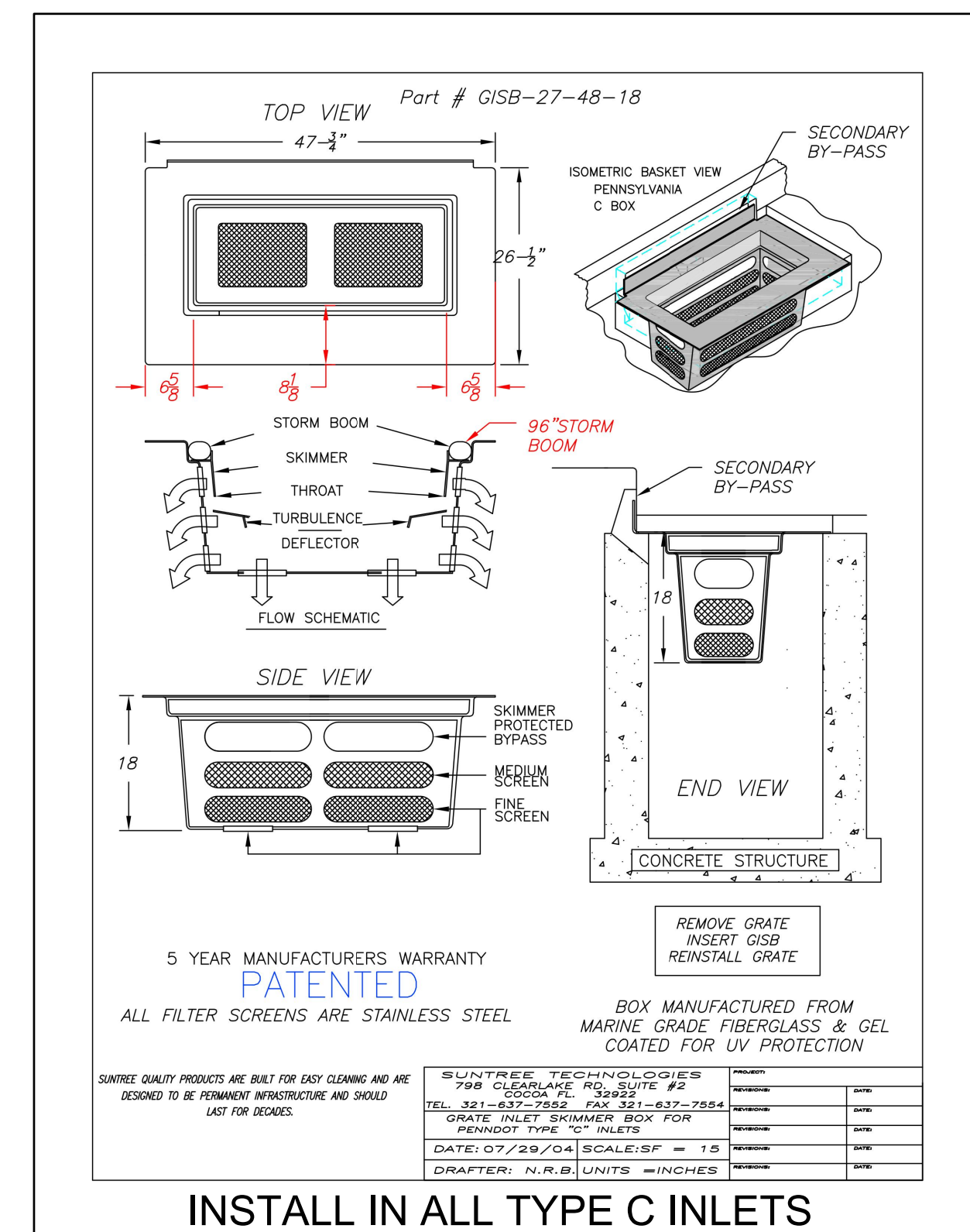
HW	D (IN)	H (IN)	T (IN)	W (IN)	Ø
1	18	12	55	24	90

- NOTES:
- SEE RC-31M FOR REINFORCEMENT REQUIREMENTS.
 - FOR Ø OTHER THAN 90" SEE RC-31M FOR WINDOW DIMENSIONS, ANGLES AND OVERALL TOP LENGTH.
 - USE CLASS A CEMENT CONCRETE.

TYPE D-W ENDWALL
NO SCALE



INSTALL IN ALL TYPE M INLETS



INSTALL IN ALL TYPE C INLETS

RELEASED FOR:
FINAL



MUHLBERG TOWNSHIP AUTHORITY
2840 KUTZDOWN ROAD, READING PA 19605
OFFICE BUILDING AND MAINTENANCE GARAGE
POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS
MUEHLBERG TOWNSHIP, BERKS COUNTY, PA
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11/15/19 100608.0063
DATE DIGITAL FILENAME

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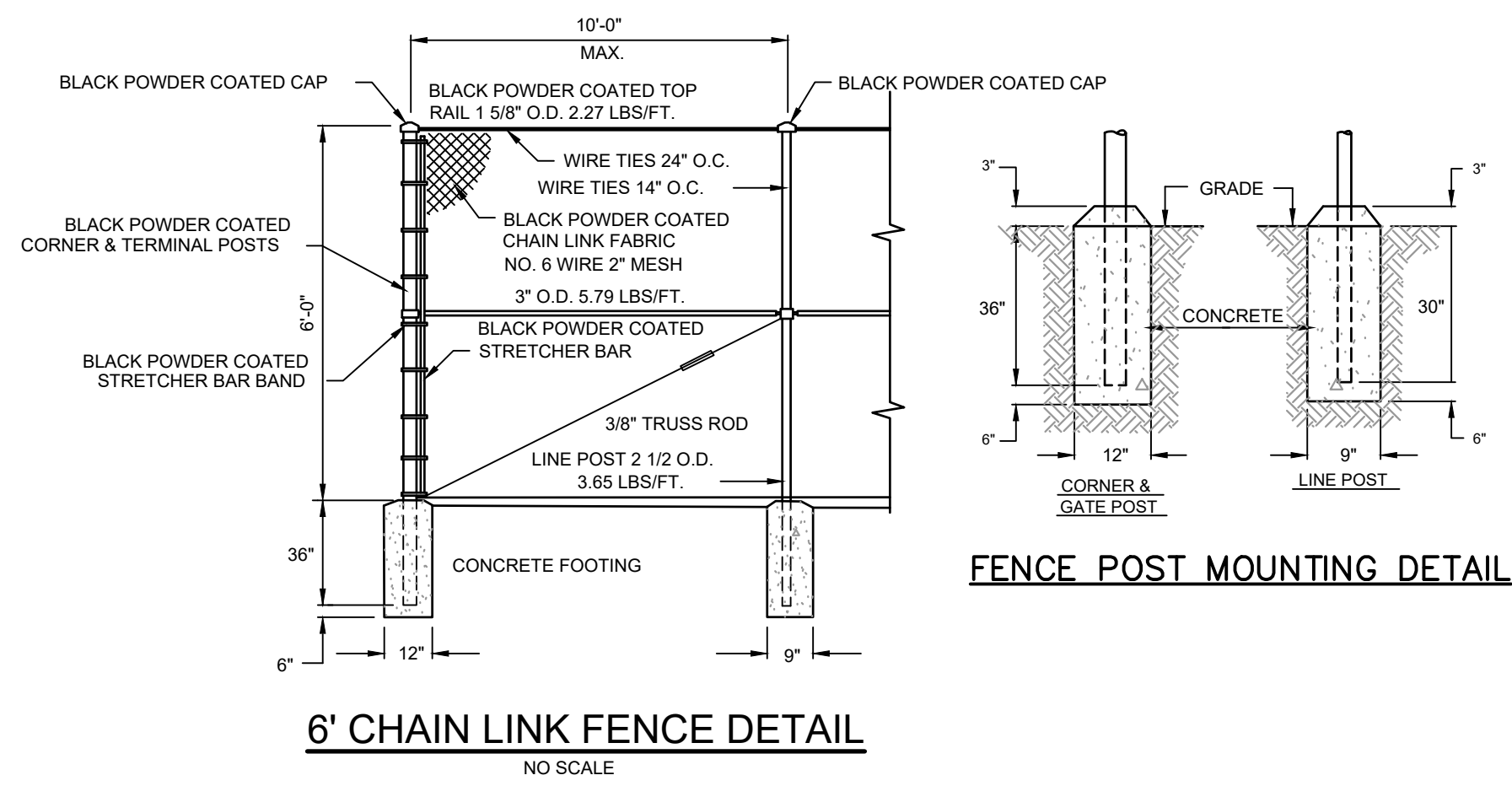
WORK ORDER NUMBER

C.2-62

DRAWING NUMBER

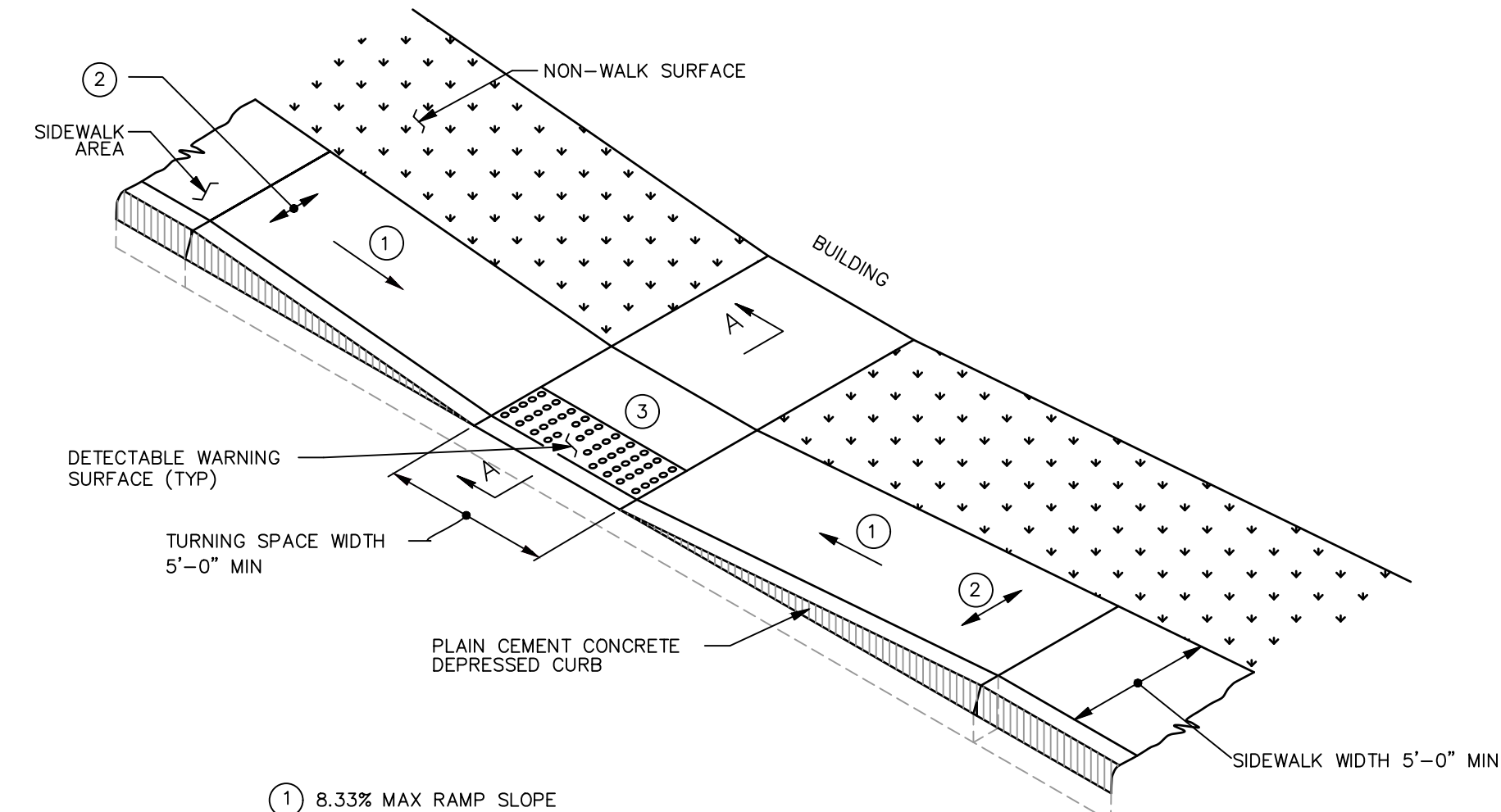
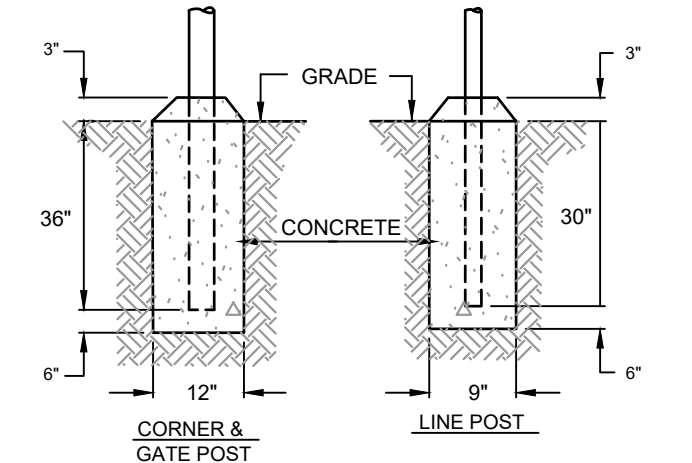
PROJECT MANAGER: HMF
BASE BY: HMF
DRAWN BY: HMD
DATE: N.B.
DESIGNED BY: AW
CHKD: N.B.
DESCRIPTION: NO. DATE

MADE CHD APVD

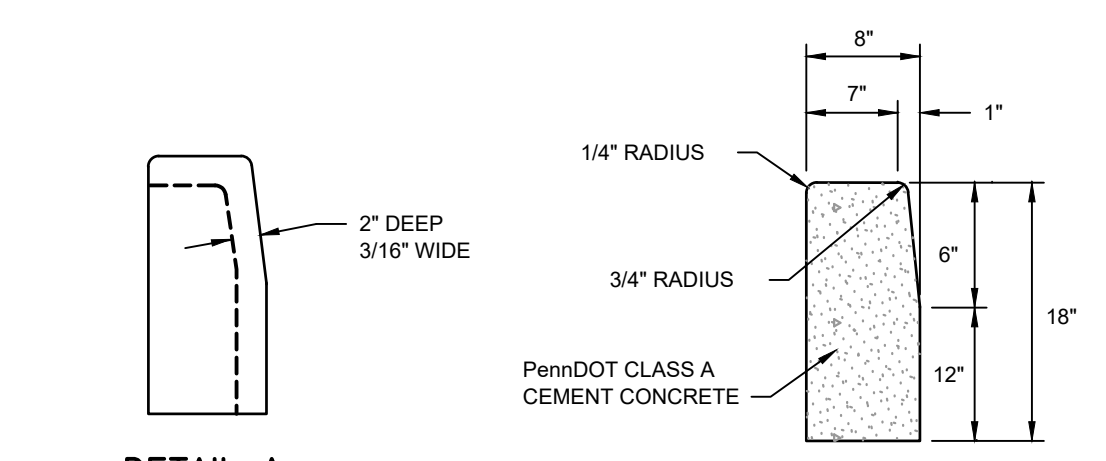


6' CHAIN LINK FENCE DETAIL
NO SCALE

FENCE POST MOUNTING DETAIL

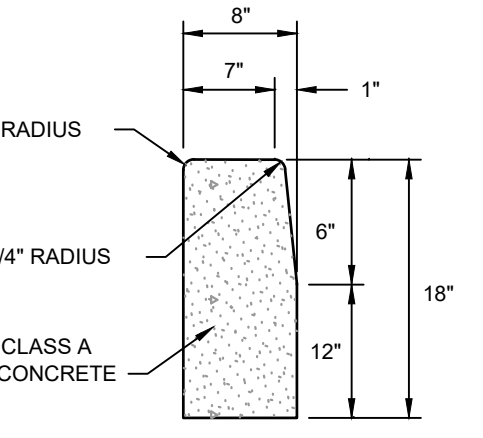


HANDICAP PARKING SPACE DETAIL
NO SCALE

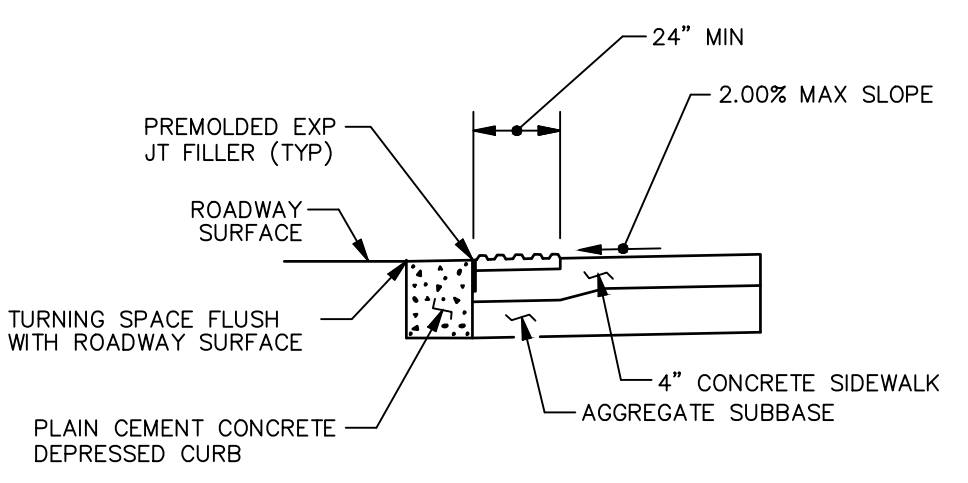


CONCRETE CURB DETAIL
NO SCALE

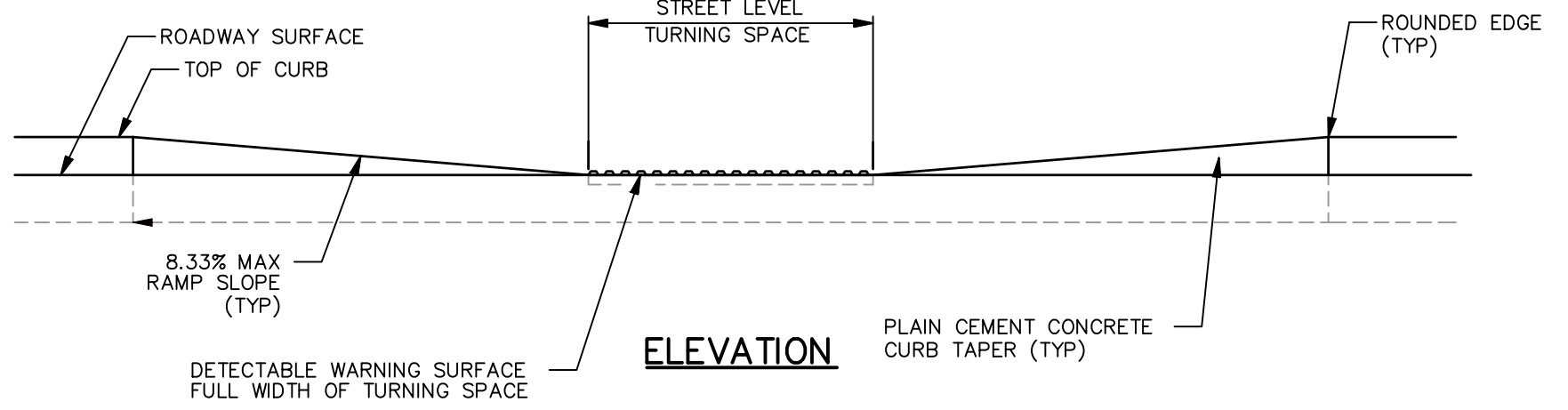
TYPICAL CROSS SECTION



- ① 8.33% MAX RAMP SLOPE
- ② SLOPE: ZERO ±2.00%
- ③ CURB RAMP REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS.

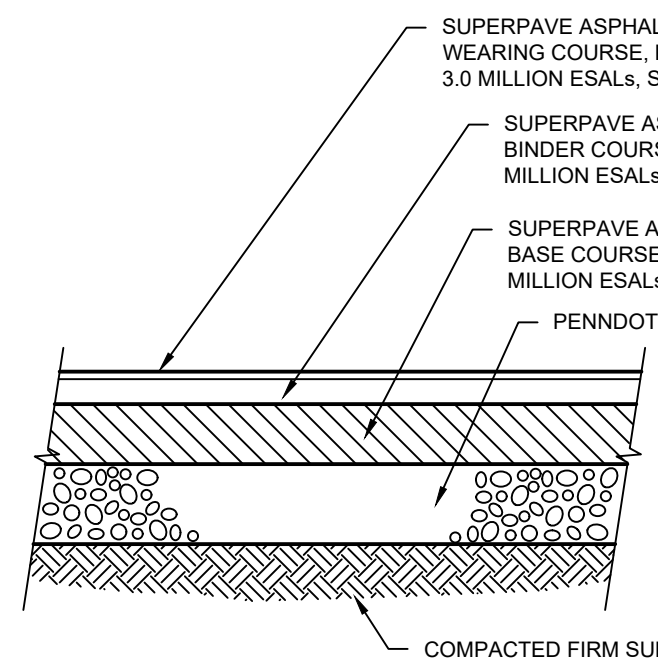


SECTION A-A

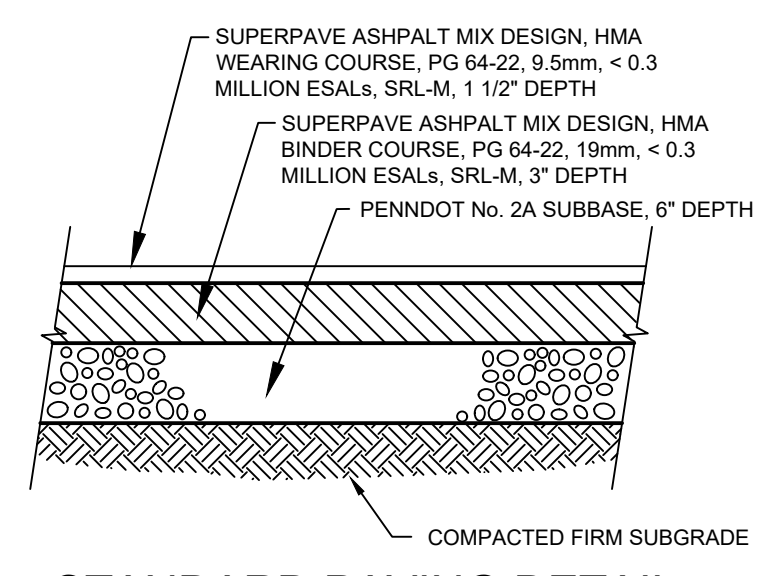


ELEVATION

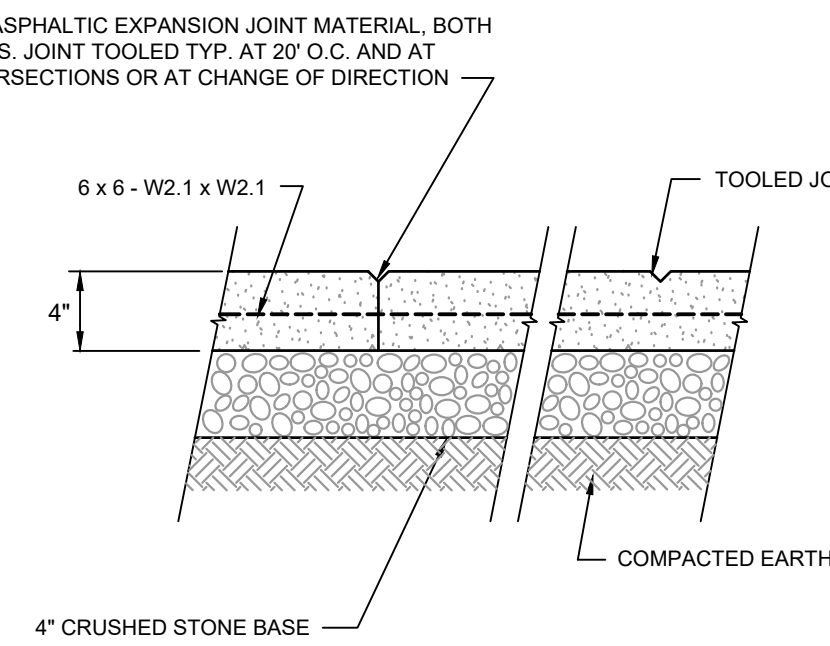
TYPE 2 CURB RAMP
NO SCALE



HEAVY DUTY PAVING DETAIL
NO SCALE

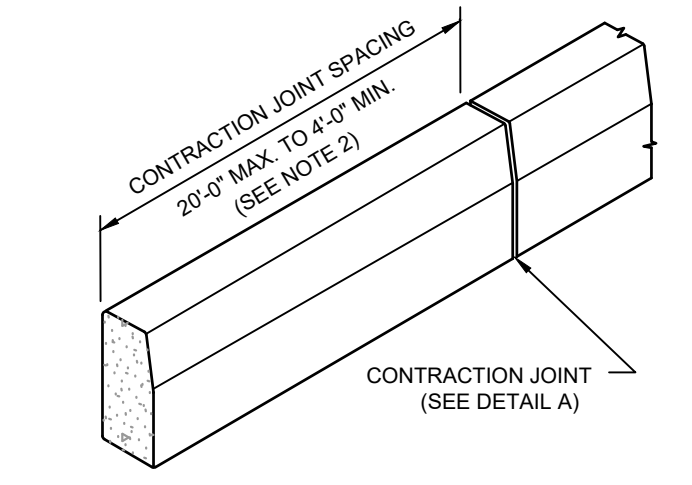


STANDARD PAVING DETAIL
NO SCALE



- 1. TOOL ALL EDGES
- 2. CONCRETE SHALL BE PENNDOT CLASS A CEMENT CONCRETE
- 3. BROOM OR BURLAP FINISH

SIDEWALK DETAIL
NO SCALE

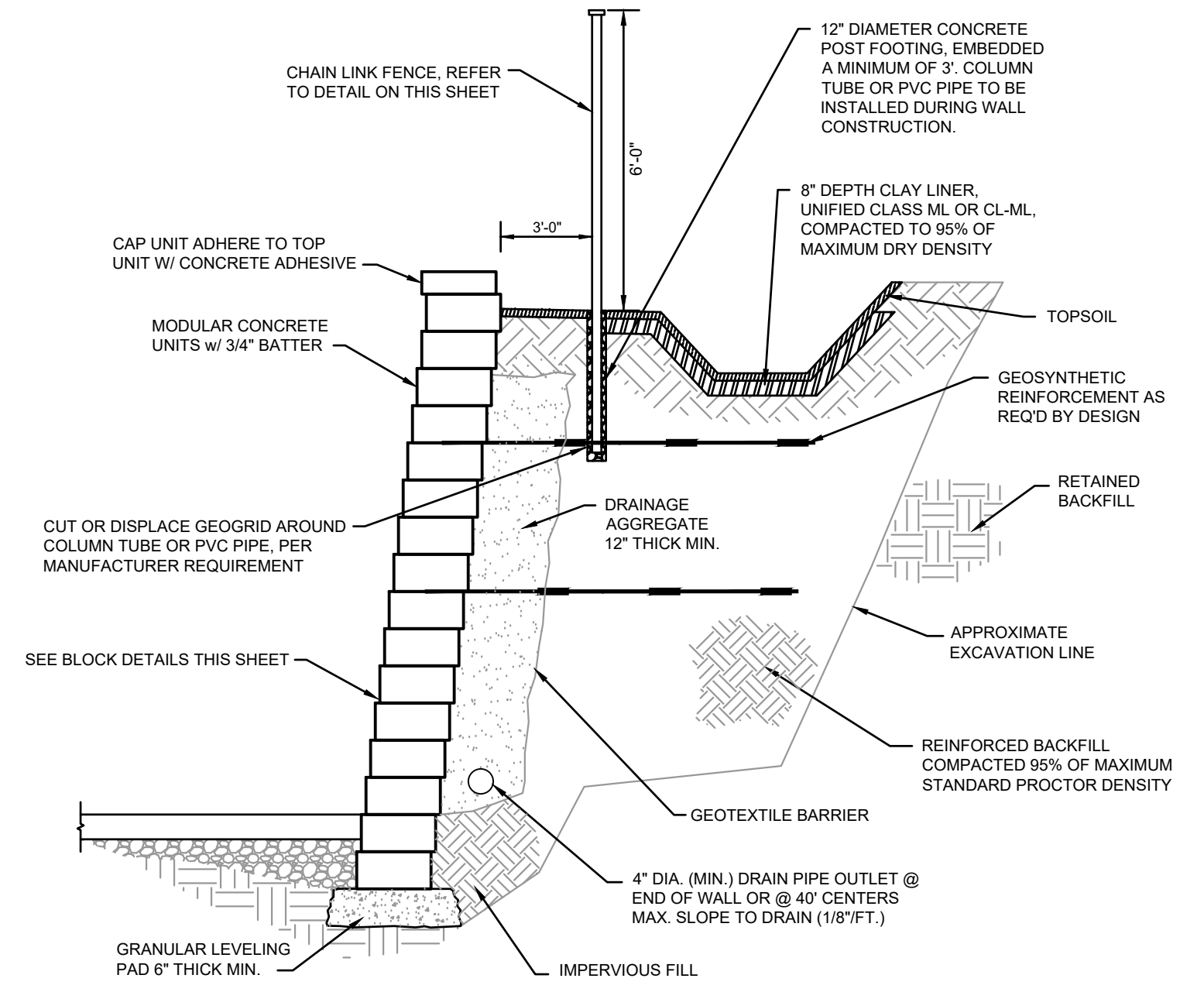


DETAIL A CONTRACTION JOINT

NOTES:

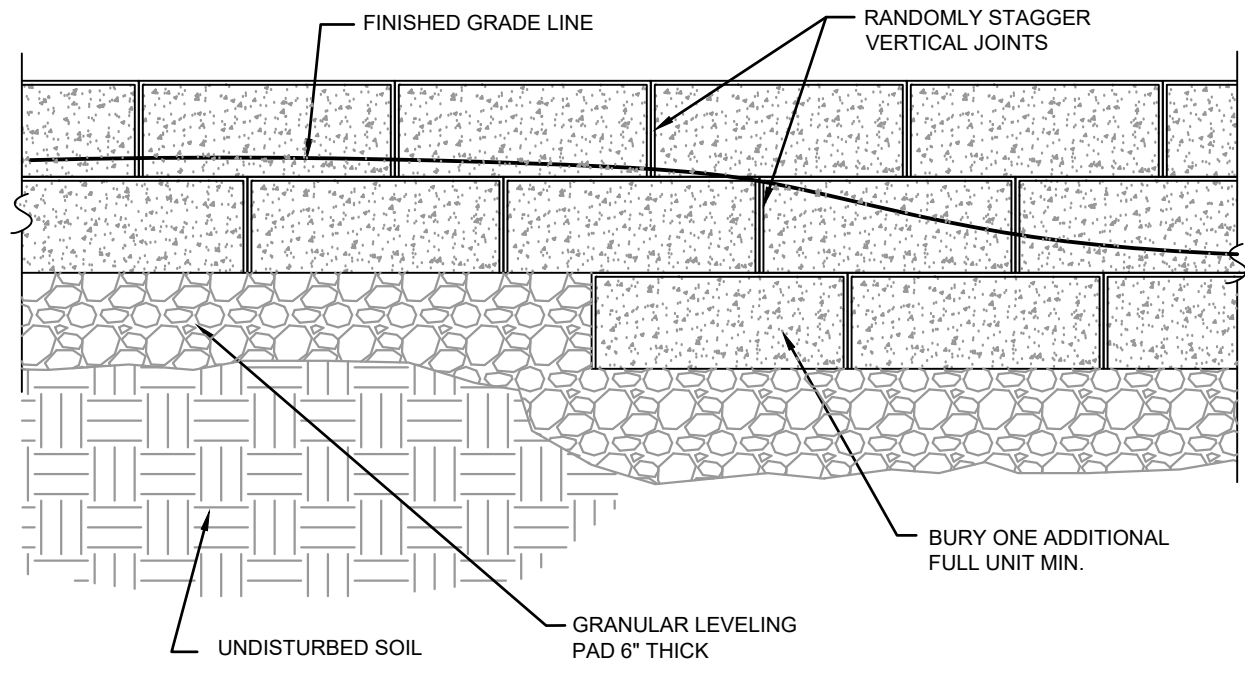
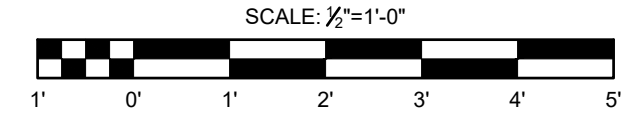
- 1. MATERIALS AND CONSTRUCTION SHALL MEET THE REQUIREMENTS OF PUBLICATION 408, SECTION 830.
- 2. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
- 3. PLACE 3/4\"/>

CONCRETE CURB DETAIL
NO SCALE



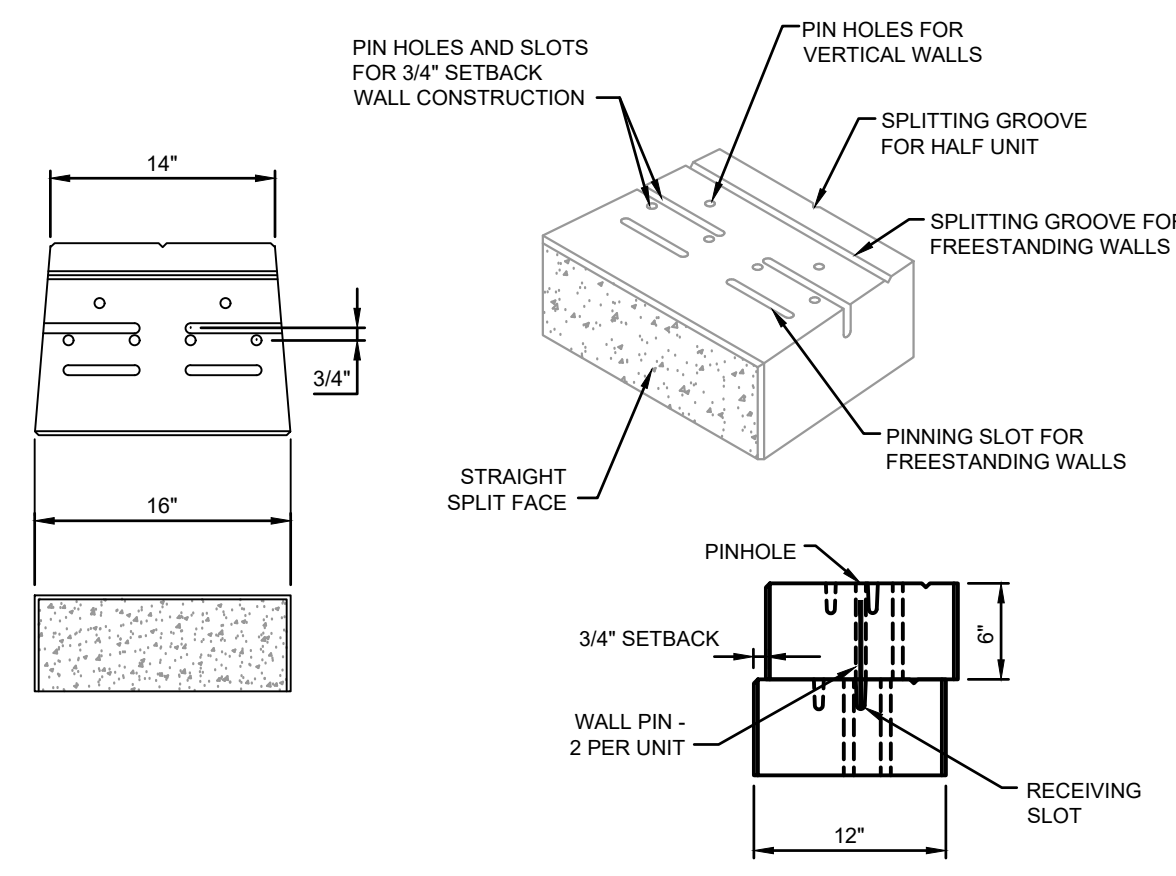
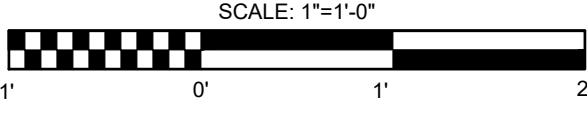
- 1. REFER TO THE GRADING PLAN FOR EXACT GRADE ELEVATIONS TO BE USED FOR DESIGN.
- 2. REFER TO DETAIL ON SHEET C.2-62 FOR SPECIFIC SWALE DIMENSIONS.

TYPICAL SEGMENTAL BLOCK RETAINING WALL SECTION

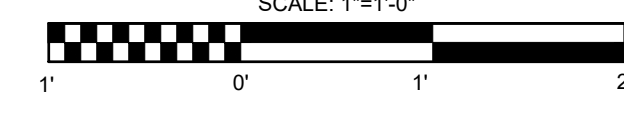


- 1. LIMIT CHANGES IN BASE ELEVATION TO 6\"/>

TYPICAL SEGMENTAL BLOCK RETAINING WALL - BLOCK DETAIL



TYPICAL SEGMENTAL BLOCK RETAINING WALL - BLOCK DETAIL



NO.	DATE	DESCRIPTION
01	02/07/20	BIDDING

RELEASED FOR:
BIDDING
NOT FOR CONSTRUCTION

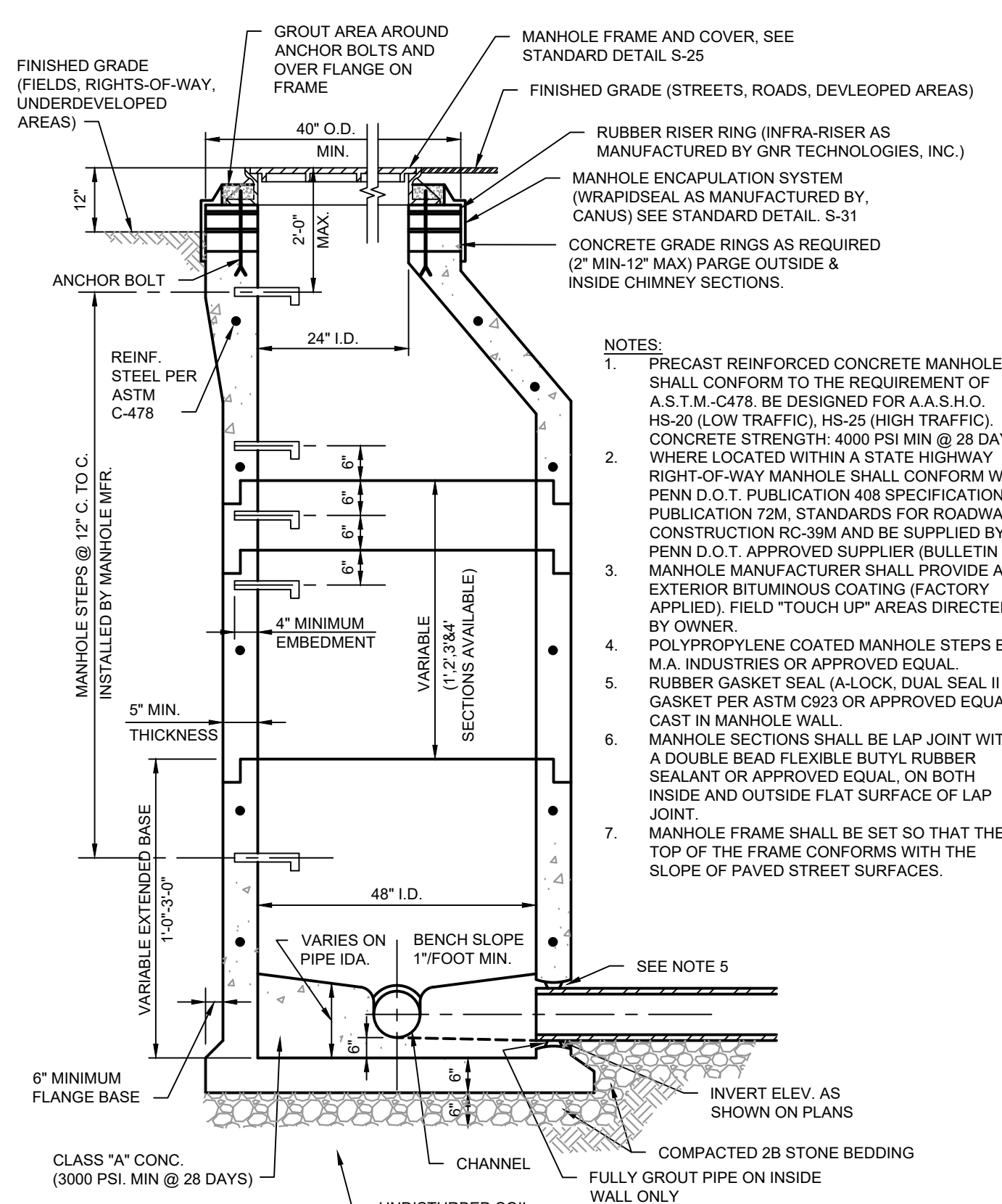
PROJECT MANAGER: WMF
BASE BY: HMM
DRAWN BY: HMD
DESIGNED BY: AW

DATE: _____
N.B.: _____
CHRD: _____

SSM
SPOTTIS, STEVENS & MCCOY
Engineers and Consultants
8800 Rte. 100
Lancaster, PA 17603
P: 717.339.1000
F: 717.339.1001
www.ssmgroup.com

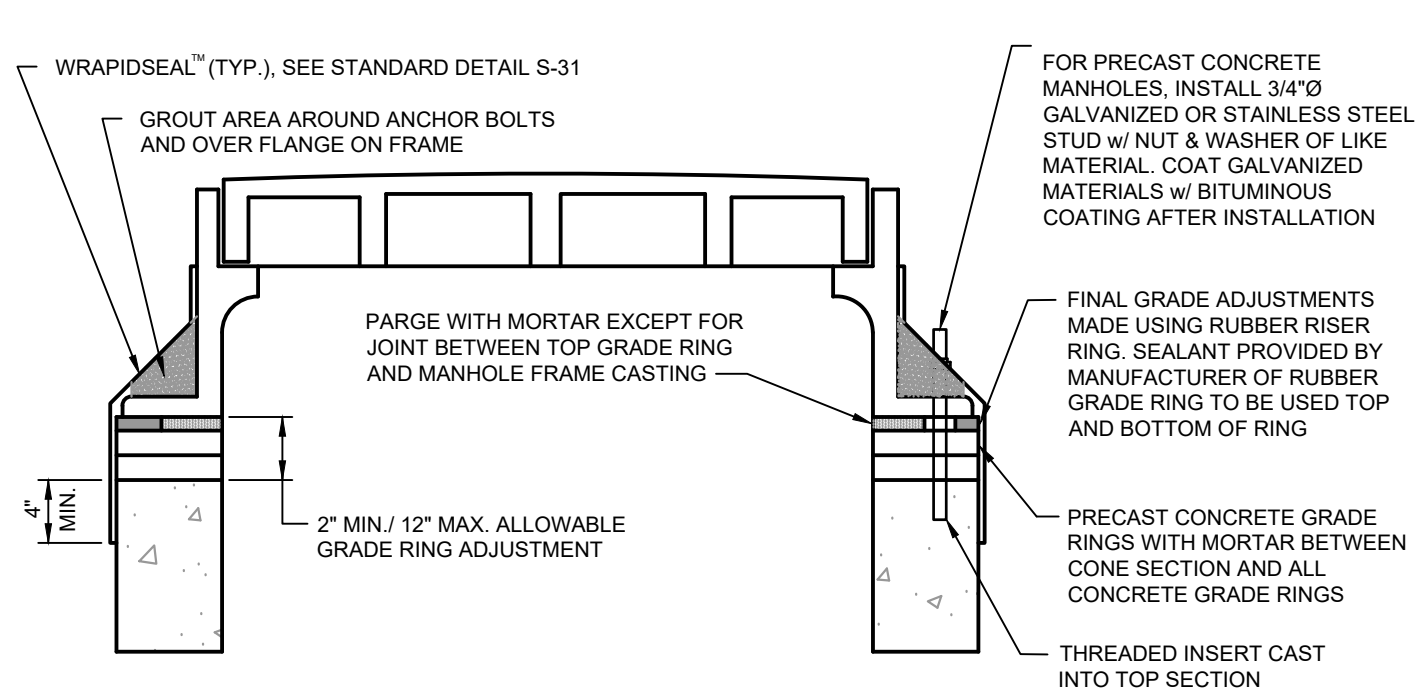
MUHLENBERG TOWNSHIP AUTHORITY
2840 KUTZDOW ROAD, READING PA 19605
OFFICE BUILDING AND MAINTENANCE GARAGE
CONSTRUCTION DETAILS
MUHLENBERG TOWNSHIP, BERKS COUNTY, PA
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11/15/19	100608.0063
DATE	DIGITAL FILENAME
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WORK ORDER NUMBER	
C.6-01	
DRAWING NUMBER	



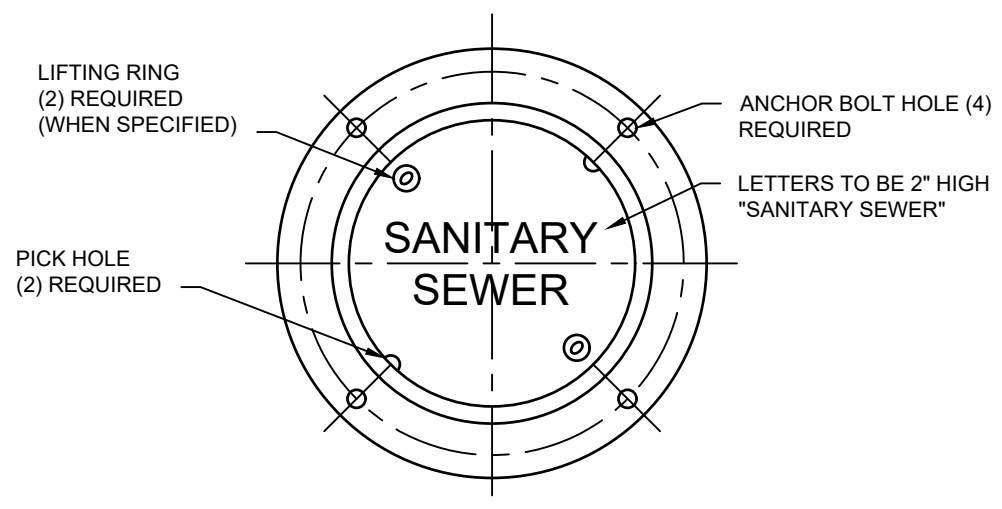
- NOTES:**
1. PRECAST REINFORCED CONCRETE MANHOLES SHALL CONFORM TO THE REQUIREMENT OF A.S.T.M. - C478. BE DESIGNED FOR A.A.S.H.O. HS-20 (LOW TRAFFIC), HS-25 (HIGH TRAFFIC). CONCRETE STRENGTH: 4000 PSI MIN @ 28 DAYS. WHERE LOCATED WITHIN A STATE HIGHWAY RIGHT-OF-WAY MANHOLE SHALL CONFORM WITH PENN D.O.T. PUBLICATION 408 SPECIFICATIONS, PUBLICATION 72M, STANDARDS FOR ROADWAY CONSTRUCTION RC-388 AND BE SUPPLIED BY A PENN D.O.T. APPROVED SUPPLIER (BULLETIN 15).
 2. MANHOLE MANUFACTURER SHALL PROVIDE AN EXTERIOR BITUMINOUS COATING (FACTORY APPLIED). FIELD "TOUCH UP" AREAS DIRECTED BY OWNER.
 3. POLYPROPYLENE COATED MANHOLE STEPS BY M.A. INDUSTRIES OR APPROVED EQUAL. RUBBER GASKET SEAL (A-LOCK, DUAL SEAL II OR GASKET PER ASTM C923 OR APPROVED EQUAL). CAST IN MANHOLE WALL.
 4. MANHOLE SECTIONS SHALL BE LAP JOINT WITH A DOUBLE BEAD FLEXIBLE BUTYL RUBBER SEALANT OR APPROVED EQUAL, ON BOTH INSIDE AND OUTSIDE FLAT SURFACE OF LAP JOINT.
 5. MANHOLE FRAME SHALL BE SET SO THAT THE TOP OF THE FRAME CONFORMS WITH THE SLOPE OF PAVED STREET SURFACES.

STANDARD MANHOLE SECTION PRECAST BASE
NO SCALE

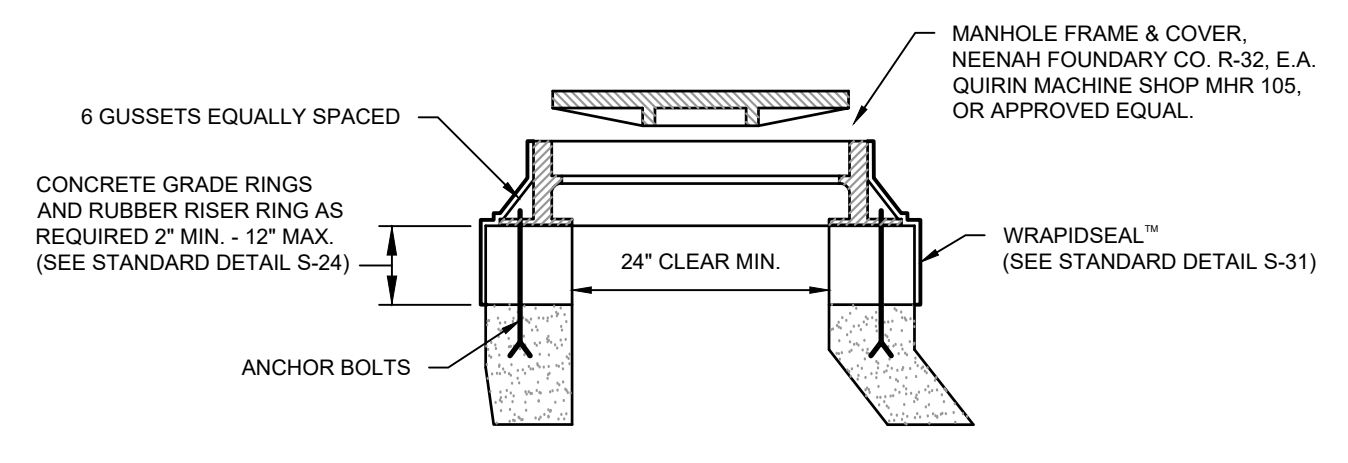


- NOTES:**
1. GRADE ADJUSTMENTS TO BE MADE USING RUBBER RISER RINGS (INFRA-RISER AS MANUFACTURED BY GNR TECHNOLOGIES) AND CONCRETE GRADE RINGS.
 2. MINIMUM ADJUSTMENT BY GRADE RINGS IS 2", MAXIMUM IS 12".
 3. WHERE ADJUSTMENT IS GREATER THAN 2", CONCRETE GRADE RINGS ARE TO BE USED TO WITHIN 2" OF THE FINAL GRADE. THE REMAINING VERTICAL ADJUSTMENT SHALL BE MADE UP WITH THE RUBBER GRADE RING.
 4. ALL NON-SHRINK CONCRETE GROUT SHALL BE TROWELED SMOOTH.
 5. CONCRETE SURFACES SHALL BE CLEAN AND DRY PRIOR TO PARGING.
 6. FRAME SHALL BE SET SO THAT THE TOP OF THE FRAME CONFORMS WITH THE SLOPE OF PAVED SURFACES. FOR UNPAVED AREAS, FRAME TO HAVE 18" HEIGHT FROM EXISTING GRADE. GRADE RINGS ARE NOT REQUIRED IN UNPAVED AREAS.

MANHOLE GRADE RING DETAIL
NO SCALE



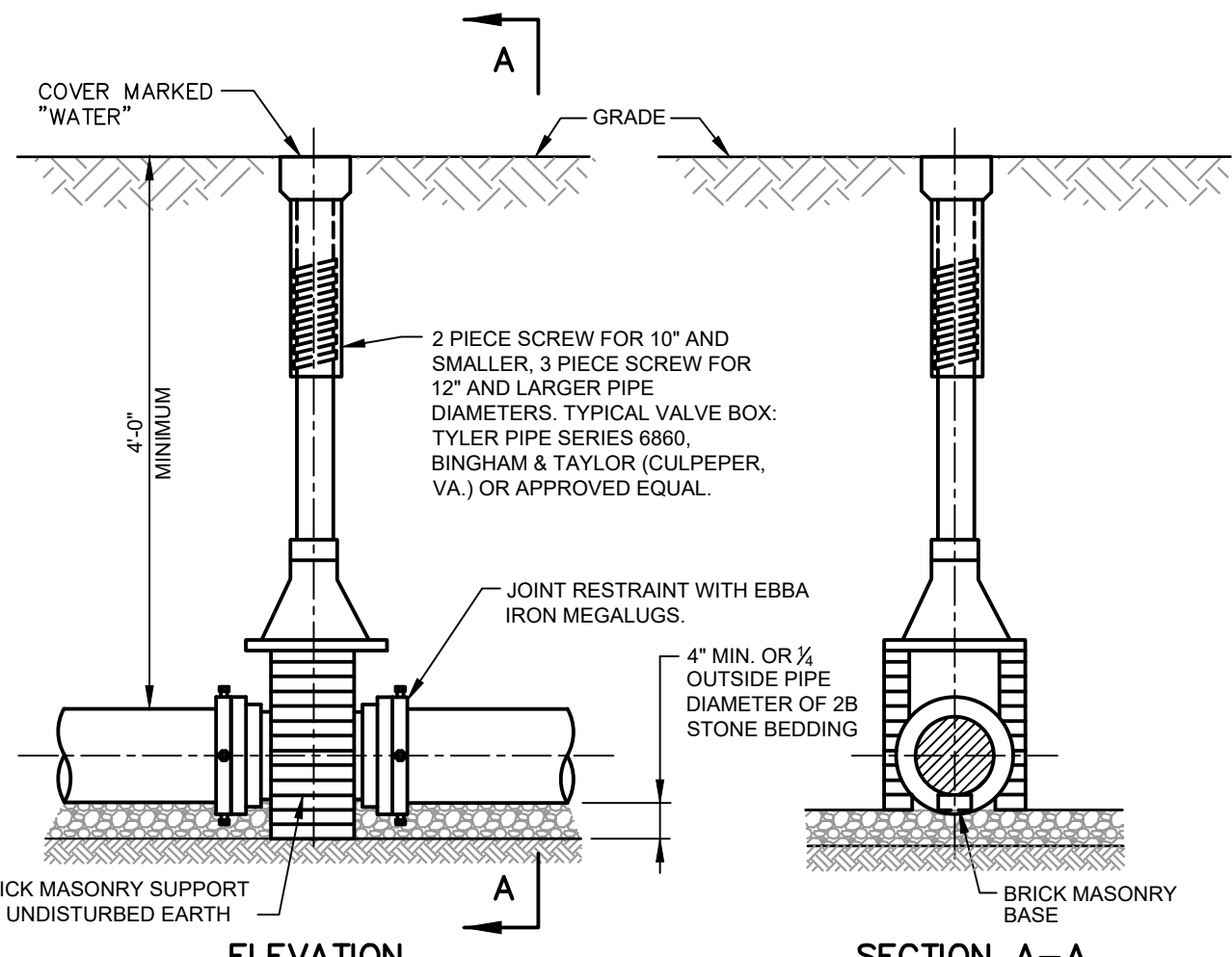
PLAN



SECTION

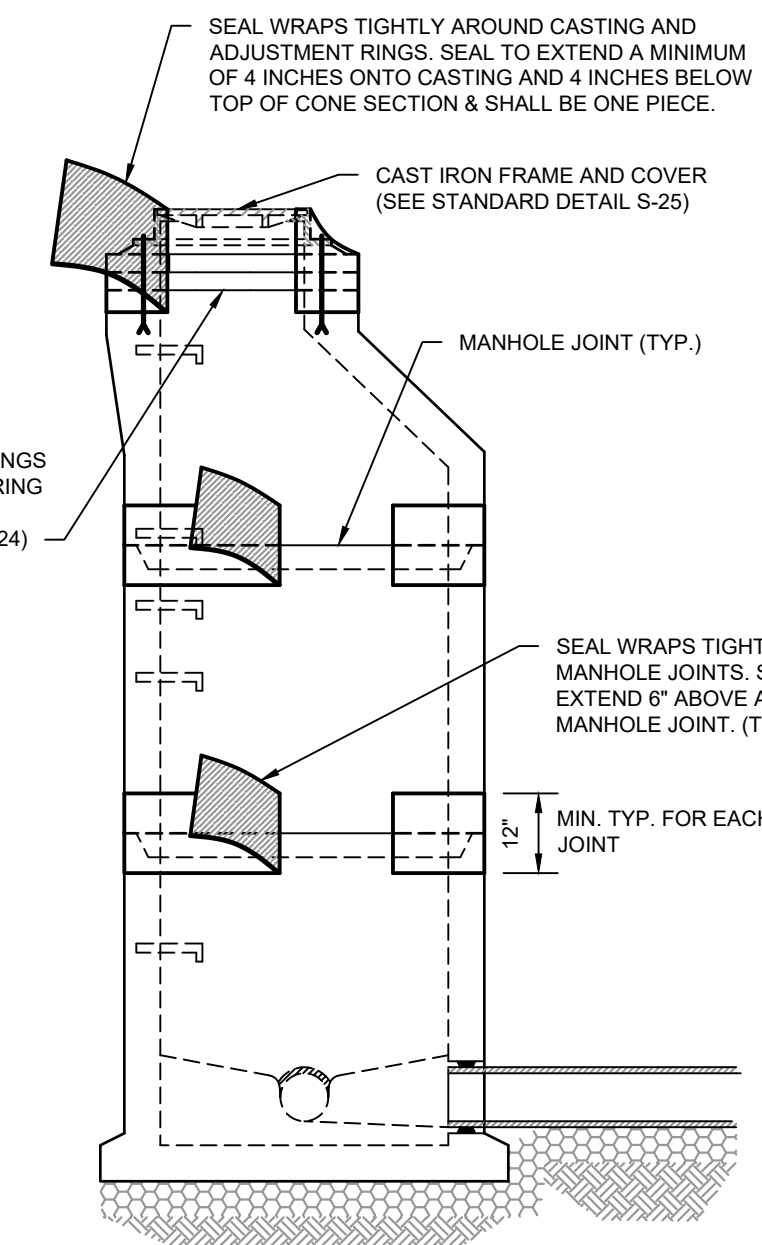
- NOTES:**
1. CAST IRON SHALL HAVE MINIMUM TENSILE STRENGTH OF 30,000 LBS. PER SQUARE INCH AND BE DESIGNED FOR HS-20 TRAFFIC LOADING.
 2. REQUEST BOLT DOWN LID MODEL FROM MANUFACTURER WHEN SPECIFIED. (STAINLESS STEEL BOLTS (4)).
 3. SIZE AND POSITION OF LETTERS TO BE CONFIRMED BY CLIENT.
 4. PROVIDE (2) LIFTING RINGS WHEN SPECIFIED.
 5. PROVIDE (2) CONCEALED WATERTIGHT PICK HOLES.
 6. PROVIDE WATERPROOF NEOPRENE SEALING GASKET.
 7. PROVIDE FOUR 1" DIAMETER ANCHOR BOLT HOLES.
 8. MARKER POSTS SHALL BE INSTALLED TO MARK MANHOLE LOCATIONS IN OPEN FIELD INSTALLATIONS.

STANDARD MANHOLE FRAME & COVER INSTALLATION
NO SCALE



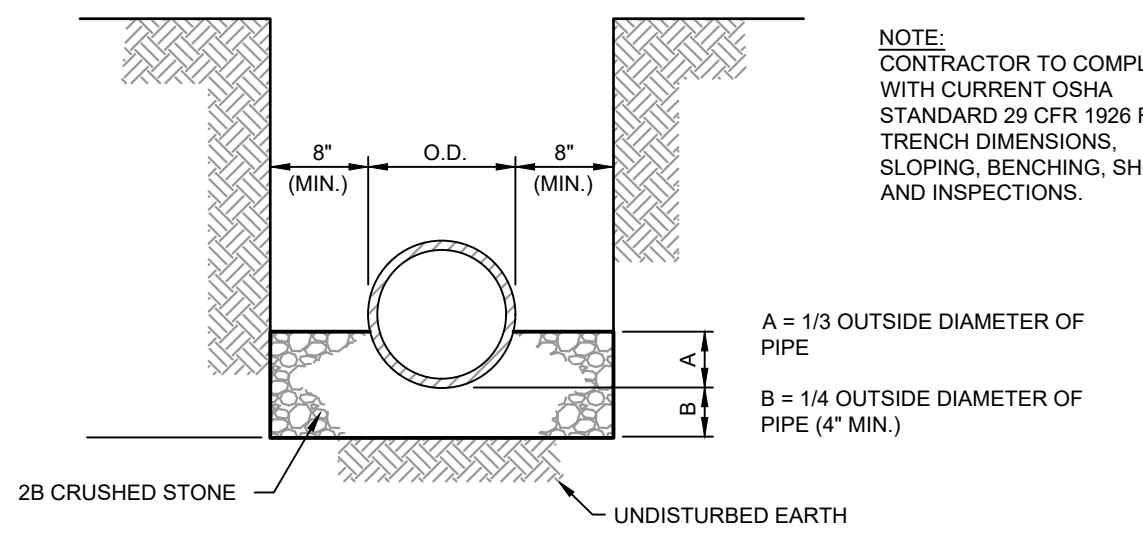
- NOTES:**
1. ALL VALVES SHALL CONFORM TO AWWA C515 FOR RESILIENT SEATED GATE VALVES AS MANUFACTURED BY AMERICAN FLOW CONTROL OR APPROVED EQUAL.
 2. VALVE BOX BASES TO BE:
No. 4 DOME - VALVES 4" AND SMALLER
No. 6 ROUND - 6" AND 8" VALVES
No. 160 OVAL - 10" TO 24" VALVES
 3. MECHANICAL JOINTS WITH JOINT RESTRAINT FOR ALL VALVES AND FITTINGS. PROVIDE FIELD LOCK GASKETS 60 LF IN AND OUT OF ALL VALVES AND FITTINGS.

GATE VALVE DETAIL
NOT TO SCALE

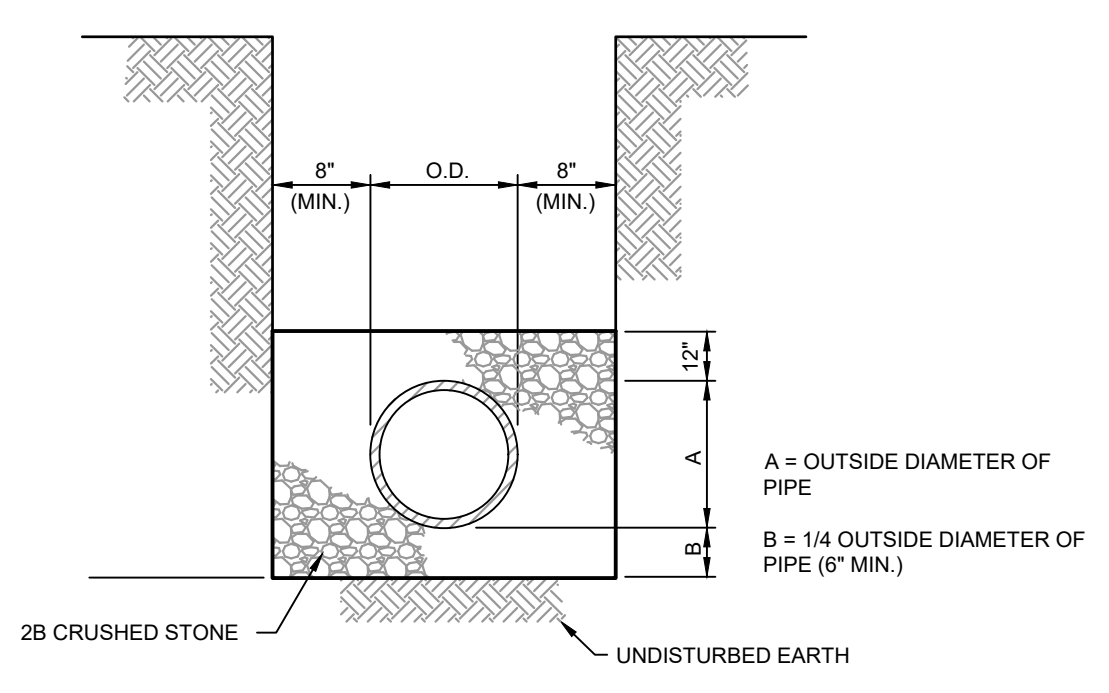


- NOTES:**
1. MANHOLE SEAL TO BE WRAPIDSEAL MANUFACTURED BY CANUSA-CPS OR APPROVED EQUAL.
 2. MANHOLE JOINT SEALS INSTALLED AS DIRECTED BY THE ENGINEER AND ON ALL JOINTS 10' OR MORE BELOW FINISHED GRADE.

HEAT SHRINKABLE MANHOLE SEAL
NO SCALE



WATER MAINS AND FORCE MAINS
CRUSHED STONE BEDDING FOR D.I.P. AND OTHER RIGID PIPE
NO SCALE



CRUSHED STONE BEDDING FOR PVC AND OTHER FLEXIBLE PIPE
NOTE: CONTRACTOR TO COMPLY WITH CURRENT OSHA STANDARD 29 CFR 1926 FOR TRENCH DIMENSIONS, SLOPING, BENCHING, SHORING AND INSPECTIONS.

NO.	DATE	BIDDING	DESCRIPTION
1	02/07/20		

RELEASED FOR:
BIDDING
NOT FOR CONSTRUCTION

PROJECT MANAGER: NMF
BASE BY: HMM
DRAWN BY: MBD
DESIGNED BY: AW

DATE:
N.B.:
CHRD:

SSM
SPOTTIS, STEVENS & MCCOY
Engineers and Consultants
8800 Rte 100
Reading, PA 19608
F: 610.661.2001

LANCASTER
1000 N. 17th St.
Lancaster, PA 17602
F: 610.661.2001

MUHLBERG TOWNSHIP AUTHORITY
2840 RUTZDOWN ROAD, READING PA 19605
OFFICE BUILDING AND MAINTENANCE GARAGE

CONSTRUCTION DETAILS
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11/15/19
DATE

100608.0063
C.6-02
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100608.0063
WORK ORDER NUMBER

C.6-02
DRAWING NUMBER

LIVE LOADS

Table with 2 columns: OCCUPANCY CATEGORY OF BUILDING: II, APPLICABLE CODE: IBC 2015 EDITION. Rows include FLOOR LIVE LOADS, LIVE LOAD OFFICE AREA, LIVE LOAD MAINTENANCE AREA, ROOF LOADS, ROOF LIVE LOAD, ROOF SNOW LOAD, GROUND SNOW LOAD - Pg, FLAT ROOF SNOW LOAD - Pf, SNOW EXPOSURE FACTOR - Ce, SNOW LOAD IMPORTANCE FACTOR - Is, THERMAL FACTOR - Ct.

WIND LOAD

Table with 2 columns: RISK CATEGORY, BASIC WIND SPEED - V (3-SEC. GUST), WIND LOAD EXPOSURE CATEGORY, INTERNAL PRESSURE COEFFICIENT, WIND DESIGN PRESSURE, SEISMIC LOAD, SEISMIC DESIGN CATEGORY, SEISMIC USE GROUP, SPECTRAL RESPONSE COEFFICIENT - SDS, SPECTRAL RESPONSE COEFFICIENT - SOI, SITE CLASS, BASIC SEISMIC FORCE RESISTING SYSTEM.

ANALYSIS PROCEDURE:

EQUIVALENT LATERAL FORCE PROCEDURE

WIND LOAD CONTROL DESIGNS

FOR LATERAL FORCING

MISCELLANEOUS NOTES:

- 1. THESE GENERAL NOTES SUPPLEMENT THE PROJECT SPECIFICATIONS. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
1.1. DISCREPANCIES FOUND IN THESE DRAWINGS AND SPECIFICATIONS SHALL BE IMMEDIATELY REPORTED IN WRITING TO THE ENGINEER FOR CLARIFICATION.
2. STRUCTURAL DRAWINGS ARE INTENDED TO BE USED WITH CIVIL, ARCHITECTURAL, MECHANICAL, PLUMBING, AND SPRINKLER DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK. DISCREPANCIES FOUND IN THESE DRAWINGS AND SPECIFICATIONS SHALL BE IMMEDIATELY REPORTED IN WRITING TO THE ARCHITECT FOR CLARIFICATION.
... (rest of notes) ...

FOUNDATION NOTES:

- 1. FOUNDATION SOIL BEARING PRESSURE: 2800 PSF AT 5 FT BELOW GRADE, 4000 PSF AT 15 FT BELOW GRADE.
2. FOUNDATION SHALL BE PLACED ON VIRGIN SOIL.
3. THE ENGINEER SHALL APPROVE ALL BEARING STRATA PRIOR TO PLACEMENT OF THE CONCRETE FOOTINGS.
4. EXAMINE THE SITE, RECORDS OF EXISTING UTILITIES AND CONSTRUCTION TO DETERMINE THE CONDITIONS UNDER WHICH THE WORK WILL BE PERFORMED.
... (rest of notes) ...

STRUCTURAL STEEL NOTES:

- 1. STRUCTURAL STEEL CONSTRUCTION SHALL BE IN ACCORDANCE WITH AISCS CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES AND SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - ALLOWABLE STRESS DESIGN, LATEST EDITION.
2. STEEL MATERIALS
W-SHAPES: ASTM A 992, Fy=50,000 psi
CHANNELS, ANGLES: ASTM A 36, Fy=36,000 psi
PLATE AND BAR: ASTM A 36, Fy=36,000 psi
COLD-FORMED HOLLOW STRUCTURAL SECTIONS: Fy=46,000 psi
HOT-FORMED HOLLOW STRUCTURAL SECTIONS: ASTM A 501, Fy=46,000 psi
STEEL PIPE: ASTM A 53, TYPE E OR S, GRADE B, Fy=36,000 psi
3. CONNECTOR MATERIALS: BOLTS: ASTM A325 AND ASTM F1852, TYPE 1, TENSION CONTROL HIGH STRENGTH BOLT-NUT-WASHER ASSEMBLY WITH HEX OR ROUND HEADS AND SPLINED ENDS.
... (rest of notes) ...

CONCRETE NOTES:

- 1. REINFORCED CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318, LATEST EDITION.
2. CONCRETE MIX REQUIREMENTS (ACI 308.1): MIX DESIGN FOR ALL CONCRETE COMPONENTS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW IN ACCORDANCE WITH ASTM C94 AND THE FOLLOWING CHARACTERISTICS:
A. EXTERIOR FLATWORK AND GARAGE FLOOR CONCRETE MIX: COMPRESSIVE STRENGTH 4000 psi, WATER CEMENT RATIO, 0.44 MAX. AIR ENTRAINED TO 4% ±1%.
... (rest of notes) ...

LAP SPlice SCHEDULE table with columns: BAR SIZE, TENSION SPLICES (INCHES) - TOP BARS, OTHER BARS, COMPRESSION SPLICES (INCHES). Rows include #3, #4, #5, #6, #7, #8, #9, #10, #11.

- 6. MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT AS FOLLOWS:
CAST AGAINST EARTH: 3" CLEAR
CONCRETE EXPOSED TO EARTH OR WATER: 2" CLEAR
ALL OTHER CONCRETE: 1 1/2" CLEAR
7. MINIMUM CONCRETE SLAB REINFORCEMENT SHALL BE AS FOLLOWS:
PLACE ALL REINFORCING AND WVF 1/2" BELOW TOP OF SLAB WHERE APPLICABLE.
... (rest of notes) ...

MASONRY NOTES:

- 1. MASONRY CONSTRUCTION SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES" (ACI 530) AND "SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF LOAD-BEARING CONCRETE MASONRY" (N.C.M.A.)
2. MASONRY MATERIALS: CONCRETE MASONRY UNITS: ASTM C90, TYPE 1, MIN COMP. STRENGTH = 1500 PSI AT 28 DAYS ON NET AREA
MORTAR - TYPE M OR S GROUT: ASTM C476, MIN COMP. STRENGTH = 3000 PSI, SLUMP BETWEEN 8 AND 11 INCHES
3. REINFORCING MATERIALS: REINFORCING BARS: ASTM A615, GRADE 60, DEFORMED
JOINT REINFORCING: ASTM A 951, 0.148" RODS MIN.
... (rest of notes) ...

TESTING:

- 1. A THIRD PARTY TESTING AGENCY SHALL CAST AND TEST ONE (1) SET OF FOUR (4) CYLINDERS FOR NOT LESS THAN EACH 150 CY OR 0.000 SF OF WALLS/SLAB. TEST CYLINDERS ARE NOT REQUIRED WHEN THE TOTAL VOLUME OF CONCRETE IN A GIVEN CLASS IS LESS THAN 50 CY.
2. CYLINDERS TO BE TESTED AT 7 DAYS (1 CYL.) AND AT 28 DAYS (AVERAGE OF 2 CYL.) WITH ONE SPARE. THREE COPIES OF THE TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER.
3. SLUMP TESTS SHALL BE MADE FOR EACH BATCH OF CONCRETE DELIVERED.
... (rest of notes) ...

TIMBER NOTES:

- 1. ALL WOOD FRAMING SHALL BE FABRICATED, ERECTED, AND BRACED IN ACCORDANCE WITH THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, LATEST EDITION.
2. ALL SAWN LUMBER SHALL BE HEM-FIR #2, U.N.O. 19% MAXIMUM MOISTURE CONTENT OR BETTER. THE MINIMUM DESIGN VALUES SHALL BE:
Fb = 850 psi
Fv = 150 psi
Fc = 1300 psi
E = 1,300,000 psi
... (rest of notes) ...

TRUSS NOTES:

- 1. WOOD TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THE PROVISIONS OF THE IBC AND ACCEPTED ENGINEERING PRACTICE. MEMBERS ARE PERMITTED TO BE JOINED BY NAILS, GLUE, BOLTS, TIMBER CONNECTORS, METAL CONNECTOR PLATES OR OTHER APPROVED FRAMING DEVICES.
2. LUMBER FOR TRUSS FABRICATION SHALL BE SPECIES AND GRADE STAMPED, KILN DRIED, AND STRESS GRADED IN ACCORDANCE WITH APPROVED SHOP DRAWINGS.
3. SUBMITTALS
A. SUBMIT STRUCTURAL CALCULATIONS FOR TRUSS DESIGNS PREPARED BY THE MANUFACTURER BEARING THE SEAL OF A REGISTERED ENGINEER FOR APPROVAL BY THE STRUCTURAL ENGINEER. CALCULATIONS SHALL INCLUDE, BUT ARE NOT LIMITED TO:
a. DESCRIPTION OF THE DESIGN CRITERIA
b. ENGINEERING ANALYSIS DEPICTING STRESS AND DEFLECTION REQUIREMENTS FOR EACH TRUSS APPLICATION
c. SELECTION OF TRUSS COMPONENTS AND ACCESSORIES
d. VERIFICATION OF ATTACHMENTS TO STRUCTURE AND/OR ADJACENT FRAMING COMPONENTS
... (rest of notes) ...

COLD-FORMED FRAMING NOTES

- 1. COLD-FORMED METAL FRAMING DESIGN SHALL BE IN ACCORDANCE WITH AISI'S SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, LATEST EDITION.
2. MEMBERS INDICATED ON THE STRUCTURAL DRAWINGS SHALL BE CONSIDERED MINIMUM REQUIREMENTS, AND SHALL BE VERIFIED BY DESIGN.
3. SHOP DRAWINGS AND STRUCTURAL CALCULATIONS, SHALL BE PREPARED BY A QUALIFIED STRUCTURAL ENGINEER. SHALL BE SUBMITTED INCLUDING LAYOUT, SPACINGS, SIZES, THICKNESSES, AND TYPES OF COLD-FORMED METAL FRAMING, FABRICATION, AND FASTENING AND ANCHORAGE DETAILS, INCLUDING MECHANICAL FASTENERS. LOADING CRITERIA AND PERFORMANCE REQUIREMENTS ARE INDICATED IN THE SPECIFICATION.
... (rest of notes) ...

SHOP DRAWINGS:

- 1. SUBMIT THREE (3) PRINTS OR DIGITAL (PDF) COPY OF EACH OF ALL SHOP DRAWINGS FOR REVIEW. SHOP DRAWINGS MUST BE CHECKED BY THE DETAILER PRIOR TO SUBMISSION; FAILURE TO DO SO WILL BE CAUSE FOR REJECTION.
2. SHOP DRAWINGS MUST BE SUBMITTED IN ORIGINAL SIZE. REPRODUCTIONS SHALL NOT BE REDUCED IN SIZE.
3. ALL REVISIONS TO SHOP DRAWINGS AFTER THE FIRST SUBMISSION MUST BE IDENTIFIED ON SUBSEQUENT SUBMISSION.
4. REVIEW OF SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF ANY CONTRACT REQUIREMENT, EVEN IF SUCH ITEMS ARE NOT SHOWN ON THE SHOP DRAWINGS.
... (rest of notes) ...

SPECIAL INSPECTIONS

- 1. PROVIDE STRUCTURAL TESTS AND INSPECTIONS IN COMPLIANCE WITH THE REQUIREMENTS OF THE IBC 2015, CHAPTER 17, AND THE PROJECT SPECIFICATIONS.
2. THE ITEMS CHECKED WITH AN 'X' IN THE SPECIAL INSPECTION SCHEDULE SHALL BE INSPECTED IN ACCORDANCE WITH IBC 2015, CHAPTER 17 BY A CERTIFIED SPECIAL INSPECTOR FROM AN ESTABLISHED TESTING AGENCY. FOR MATERIAL SAMPLING AND TESTING REQUIREMENTS, REFER TO PROJECT SPECIFICATIONS, AND THE STRUCTURAL NOTES. THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE REGISTERED DESIGN PROFESSIONAL AND THE BUILDING OFFICIAL. ANY MATERIALS WHICH FAIL TO MEET THE PROJECT SPECIFICATIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL AND THE BUILDING OFFICIAL.
... (rest of notes) ...

TRUSS LOADING/DEFLECTION

LIVE LOAD DEFLECTION LIMIT: L/360 OR 0.75" MAXIMUM

TOTAL LOAD DEFLECTION 1" MAXIMUM

TOP CHORD LOADING: LIVE: SEE NOTES DEAD: 15 PSF + OVERFRAMING

BOTTOM CHORD LOADING: LIVE: SEE NOTES DEAD: 10 PSF

ALL TRUSS DIMENSIONS SHOWN ARE APPROXIMATE FOR DESIGN PURPOSES - CONTRACTOR IS RESPONSIBLE FOR EXACT DIMENSIONS OF BEARING LOCATIONS.

TRUSS CONFIGURATIONS SHOWN ARE APPROXIMATE. ACTUAL DESIGN OF WOOD TRUSSES TO BE BY THE TRUSS MANUFACTURER. SUBMIT CALCULATIONS PER SPECS.

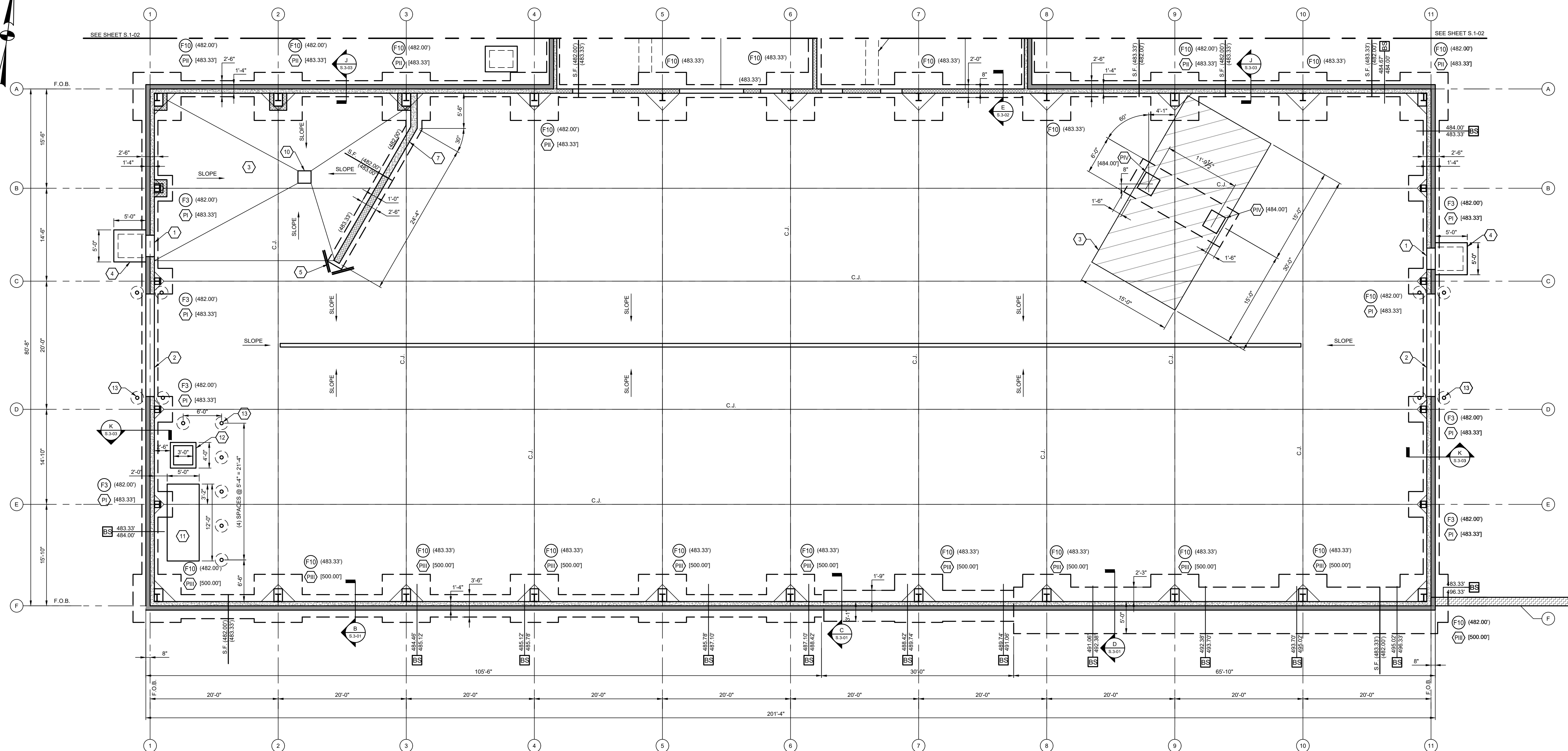
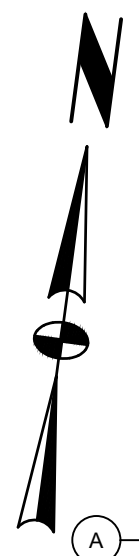
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Table with 4 columns: PROJECT MANAGER, DATE, N.B. / N/A, CHECKED BY. Includes fields for SSM, 01/20/2020, N.B. / N/A, and JMT.

SSM logo and contact information for SPOTTS, STEVENS & MCCOY, Engineers and Consultants. Includes address in Albemarle, VA and phone numbers.

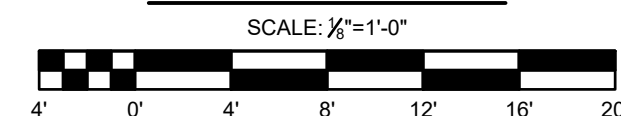
MUHLBERG TOWNSHIP AUTHORITY logo and information. Includes date 02/07/20, digital filename 100608.0063, work order number 100608.0063, and drawing number S.0-01.



KEYED NOTES / LEGEND

- 1 DROP TOP OF WALL & STOP FACADE @ DOOR - SEE 2/S.4-01
 - 2 DROP TOP OF WALL & STOP FACADE @ GARAGE DOOR - SEE 6/S.4-01
 - 3 PROVIDE CLEAR EPOXY FINISH WITH SAND GRIT IN MAINTENANCE AND WASH BAY AREAS.
 - 4 CONCRETE PORCH SLAB - SEE 2/S.4-01
 - 5 (2) #5 REBAR IN SLAB AT RE-ENTRANT CORNERS
 - 6 FROST WALL - SEE 2/S.4-01
 - 7 INTERIOR NON-LOAD BEARING CMU WALL @ WASH BAY - SEE 33 / S.4-03
 - 8 NON-LOADBEARING PARTITION WALL - SEE 4 / S.4-01
 - 9 TRENCH DRAIN, SEE TYPICAL TRENCH DRAIN DETAIL 32 / S.4-03
 - 10 INLET BOX, SEE DETAIL 32 / S.4-03
 - 11 EQUIPMENT PAD, SEE 40 / S.4-04
 - 12 SUMP PIT, SEE 42 / S.4-04
 - 13 BOLLARD, SEE 43 / S.4-04
- BS DENOTES BRICK SHELF ELEVATION OR STEP IN ELEVATION. CONTRACTOR TO VERIFY BRICK SHELF ELEVATION IS AT LEAST 8" BELOW PROPOSED GRADE ELEVATION
 S.F. (XXX.XXX) DENOTES STEP IN CONTINUOUS FOOTING ELEVATION, SEE 8 / S.4-01.
- F (***.**) FOOTING DEFINING TAG
 PI (***.**) PIER DEFINING TAG

MAINTENANCE GARAGE FOUNDATION PLAN

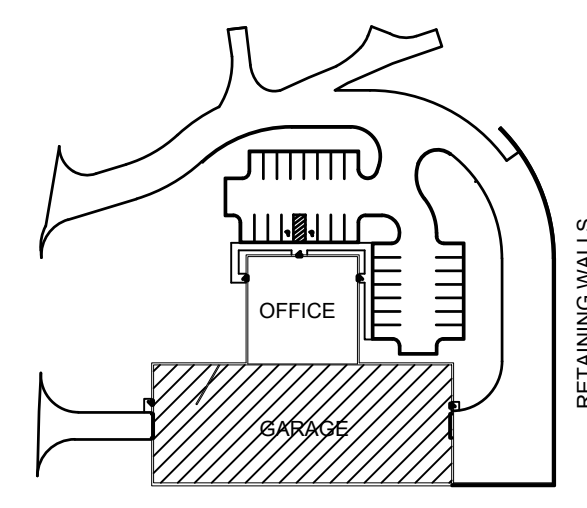


NOTES:

1. FINISHED FIRST FLOOR ELEVATION 484.00' AT SLAB EDGE (ARCH ELEV. 0'-0"). COORDINATE SLOPED SLAB ELEVATION W/ ARCH DRAWINGS.
2. GARAGE SLAB: 8" THICK FLOOR SLAB w/ 6 X 6 - W2.1 X W2.1 WWF AND #6 @ 12" o.c. EW BOTTOM BARS OVER 10 MIL VAPOR BARRIER ON 6" CRUSHED STONE.
3. TOP OF FOOTING ELEVATION NOTED (000.00').
4. TOP OF PIER ELEVATION NOTED (000.00').
5. S.F. DENOTES STEP IN FOOTINGS - SEE 8 / S.4-01.
6. C.J. DENOTES CONTROL JOINTS - SEE 9 / S.4-01.
7. COORDINATE WITH ARCHITECT'S DRAWINGS FOR LOCATION OF INTERIOR WALL FOOTINGS.
8. F.O.B. DENOTES FACE OF BUILDING FOR PRE-ENGINEERED BUILDING DESIGN.
9. [Symbol] DENOTES EXTENT OF MAINTENANCE AREA.

FOUNDATION WALL LEGEND

- OFFICE EXTERIOR WALL:
 - 8" BRICK SHELF FOR RIGID INSULATION, AIR SPACE & CMU VENEER.
 - 8" CONCRETE STEM FOR 8" METAL STUD WALL. SEE SECTIONS & TYP. DETAILS FOR REINF.
- GARAGE EXTERIOR WALL (N.E.W SIDES):
 - 8" BRICK SHELF FOR RIGID INSULATION, AIR SPACE & CMU VENEER
 - 8" CONCRETE STEM FOR 8" NOM. CMU WALL. SEE SECTIONS & TYP. DETAILS FOR REINF.
- GARAGE EXTERIOR WALL (S SIDE):
 - 8" BRICK SHELF FOR RIGID INSULATION, AIR SPACE & CMU VENEER
 - 8" CONCRETE STEM. SEE SECTIONS & TYP. DETAILS FOR REINF.
- RETAINING WALL:
 - SEGMENTAL RETAINING WALL. SEE CIVIL DRAWINGS.
- INTERNAL CMU WALL:
 - 8" NOM. CMU WALL. PROVIDE #4 @ 48" O.C. - GROUT REINF. CORES W/ 3000 PSI GROUT. PROVIDE 9 GA LADDER TYPE JOINT REINF. @ 16" O.C. VERT. (U.N.O. ON WALL SECTIONS)
- INTERNAL CMU WALL:
 - 8" CONCRETE STEM WALL AT 8" NOM. CMU WALL. SEE SECTIONS & TYP. DETAILS FOR REINF.



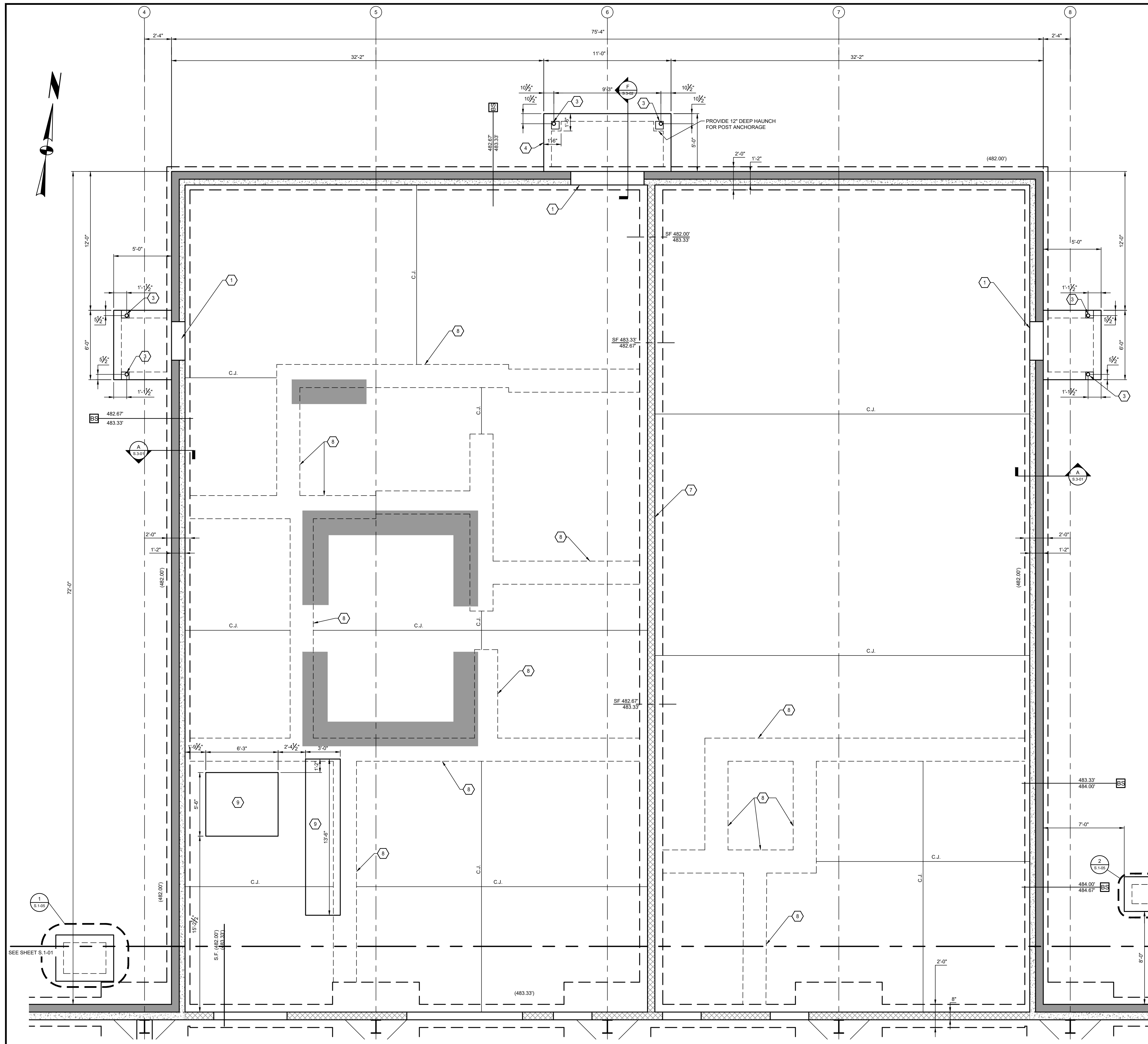
KEY PLAN
NO SCALE

TWO POST LIFT BASIS OF DESIGN:

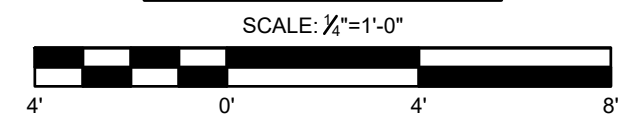
LIFT EQUIPMENT B.O.D.: ROTARY LIFT SPD-20-SW SUPER DUTY SYMMETRIC
 (2) TWO POST VEHICLE LIFT
 TYPE: (2) TWO POST LIFT
 CAPACITY: 20,000 LBS
 DRIVE THRU WIDTH: 11'1 1/32"
 OVERALL WIDTH: 13'-5"
 FRAME: FREE - STANDING W/O BRACING TO BE SUPPLIED BY LIFT MANUFACTURER
 16'-0"
 OVERALL HEIGHT: SSM TO PROVIDE FOUNDATION DESIGN OF CRANE SUPPORTS BASED UPON LOADING PROVIDED BY CRANE SUPPLIER. SEE DETAIL 38 / S.4-04.

NOTE:
FOOTING AND PIER SIZES SHOWN ARE PRELIMINARY AND SUBJECT TO CHANGE PER FINAL PRE-ENGINEERED BUILDING DESIGN

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<p>PROJECT MANAGER: KF BASE BY: SSM DRAWN BY: CMF</p>	<p>DATE: 1/1/19 DESIGNED BY: JMT CHECKED BY: --</p>
<p>SSM SPOTTIS, STEVENS & MCCOY Engineers and Consultants www.ssmgroup.com</p>	
<p>MUHLBERG TOWNSHIP AUTHORITY</p> <p>OFFICE BUILDING & MAINTENANCE GARAGE</p> <p>STRUCTURAL GARAGE FOUNDATION PLAN</p> <p>COPYRIGHT 2020, SPOTTIS, STEVENS & MCCOY</p>	
<p>DATE: 02/07/20</p> <p>DIGITAL FILENAME: 100608.0063</p>	<p>WORK ORDER NUMBER: S.1-01</p> <p>S.1-01</p> <p>DRAWING NUMBER</p>



OFFICE BUILDING FOUNDATION PLAN



NOTES:

1. FINISHED FIRST FLOOR ELEVATION AT 484.00' (ARCH. ELEV. 0'-0\"/>

KEYED NOTES / LEGEND

- 1 DROP TOP OF WALL & STOP FACADE @ DOOR - SEE 2/S.4-01
 - 2 DROP TOP OF WALL & STOP FACADE @ GARAGE DOOR - SEE 6/S.4-01
 - 3 HSS POST BASE - SEE F/S.3-02
 - 4 CONCRETE PORCH SLAB - SEE 2/S.4-01
 - 5 (2) #5 REBAR IN SLAB AT RE-ENTRANT CORNERS
 - 6 FROST WALL - SEE 2/S.4-01
 - 7 INTERIOR LOAD BEARING CMU WALL - SEE D/S.3-01
 - 8 HAUNCH SLAB AT NON-LOADBEARING PARTITION WALL - SEE 4/S.4-01
 - 9 EQUIPMENT PAD - SEE 40 / S.4-04.
- BS DENOTES BRICK SHELF ELEVATION OR STEP IN ELEVATION. CONTRACTOR TO VERIFY BRICK SHELF ELEVATION IS AT LEAST 8\"/>

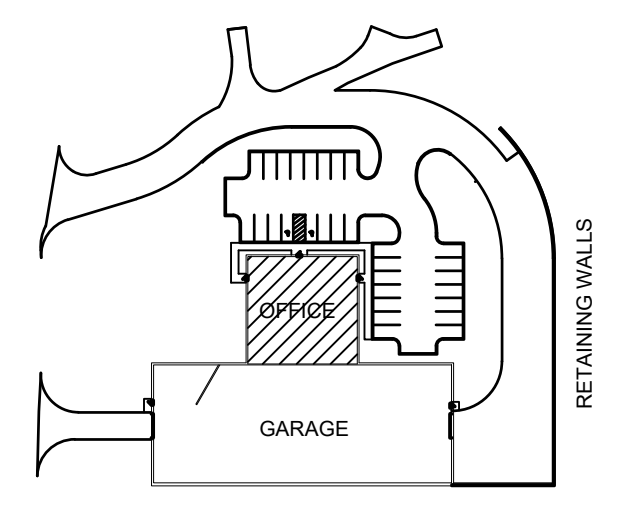
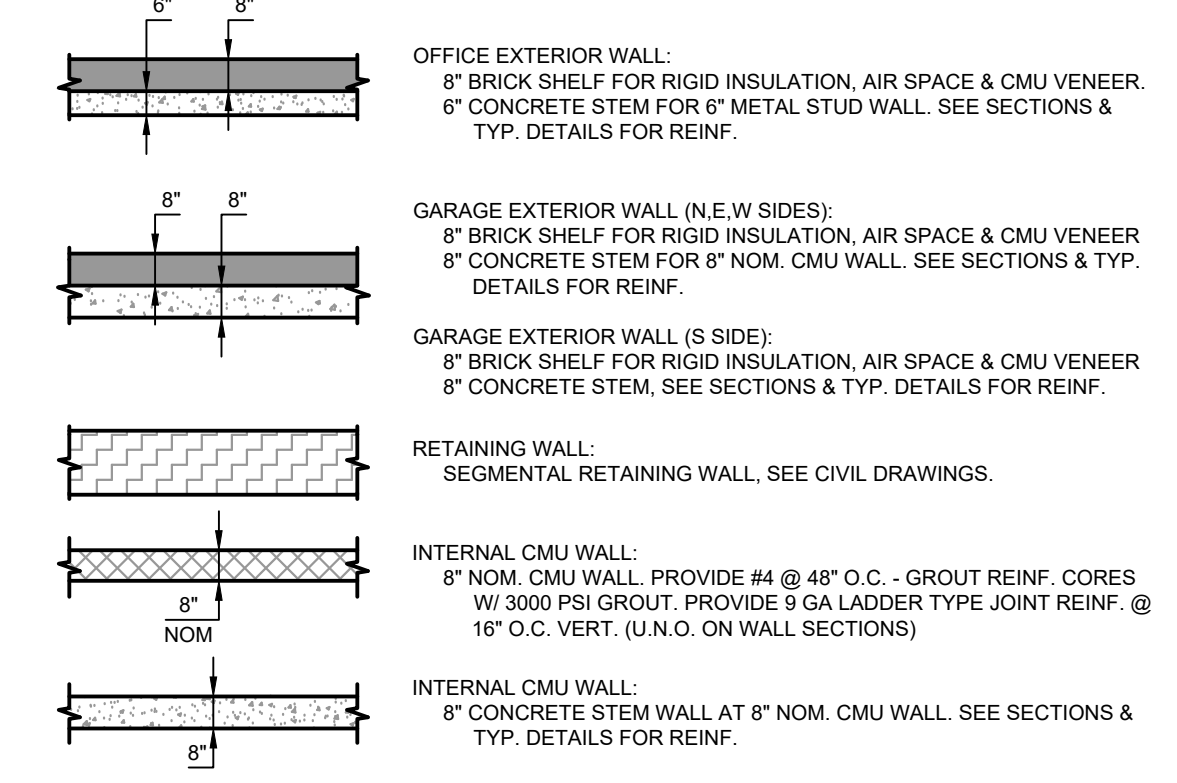
S.F. (XXX.XX) / (XXX.XX) DENOTES STEP IN CONTINUOUS FOOTING ELEVATION, SEE 8 / S.4-01.

F' (\"/>

P' (\"/>

█ DENOTES 4\"/>

FOUNDATION WALL LEGEND



NO.	DATE	RELEASED FOR BIDDING	DESCRIPTION
1	02/07/20		

RELEASED FOR BIDDING

NOT FOR CONSTRUCTION

PROJECT MANAGER: N/A
 BASE BY: SSM
 DRAWN BY: CMF
 DATE: 1/19
 DESIGNED BY: JMT
 CHECKED BY: -

SSM
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 1000 Walnut Street
 Lancaster, PA 17602
 P: 717.391.1000
 F: 717.391.1001
 www.ssmgroup.com

MUHLENBERG TOWNSHIP AUTHORITY

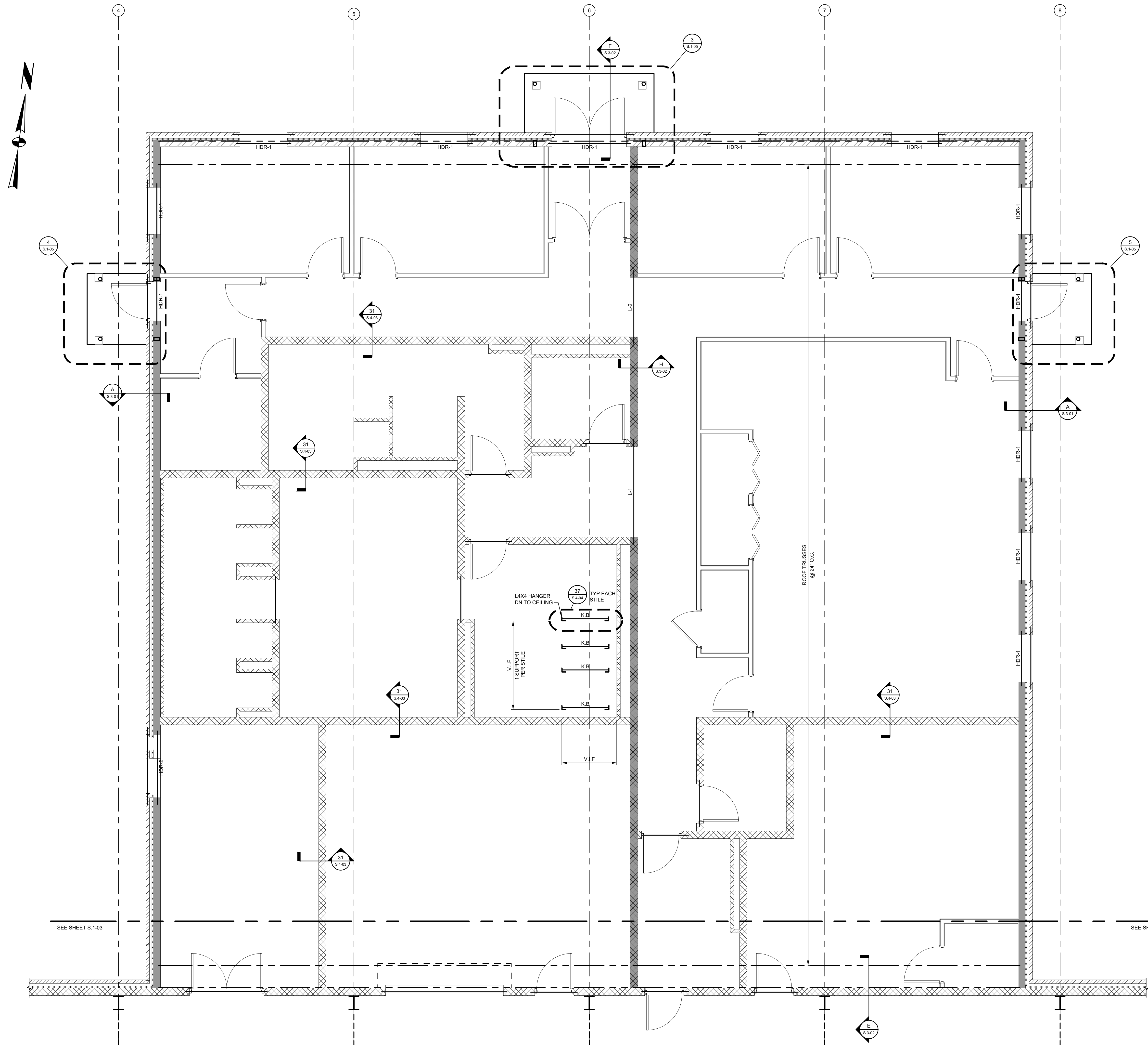
OFFICE BUILDING & MAINTENANCE GARAGE

STRUCTURAL

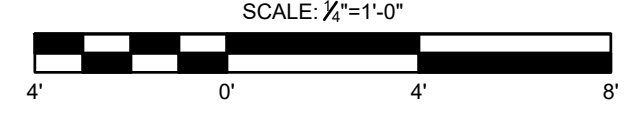
OFFICE BUILDING FOUNDATION PLAN

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02/07/20	100608.0063
DATE	DIGITAL FILENAME
100608.0063	
WORK ORDER NUMBER	
S.1-02	
DRAWING NUMBER	



**OFFICE BUILDING
ROOF FRAMING PLAN**



WALL LEGEND

- NON-LOADBEARING OFFICE EXTERIOR WALL:
 SEE ARCHITECTURAL DRAWINGS FOR RIGID INSULATION, AIR SPACE & CMU VENEER.
 600-S162-43 @ 16" O.C./ METAL STUD WALL.
- LOADBEARING OFFICE EXTERIOR WALL:
 SEE ARCHITECTURAL DRAWINGS FOR RIGID INSULATION, AIR SPACE & CMU VENEER.
 600-S162-43 @ 16" O.C./ METAL STUD WALL.
- LOADBEARING OFFICE CMU WALL:
 8" NOM. CMU WALL, PROVIDE #4 @ 48" O.C. - GROUT REINF. CORES W/ 3000 PSI GROUT. PROVIDE 9 GA LADDER TYPE JOINT REINF. @ 16" O.C. VERT. (U.N.O. ON WALL SECTIONS)
- NON-LOADBEARING CMU WALL:
 10" NOM. CMU WALL, PROVIDE #5 @ 24" O.C. - GROUT REINF. CORES W/ 3000 PSI GROUT. PROVIDE 9 GA LADDER TYPE JOINT REINF. @ 16" O.C. VERT.

ROOF FRAMING NOTES:

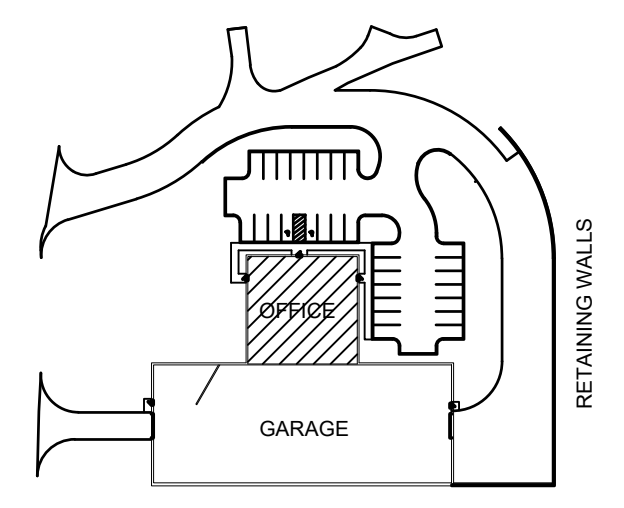
1. ROOF TRUSSES SHALL BE SPACED AT 24" MAX U.N.O. PITCH TRUSSES PER PROFILE DRAWINGS ON S.3-02. COORDINATE WITH ARCHITECTURAL DRAWINGS.
2. TRUSS BEARING ELEVATION 496'-0". U.N.O.
3. ROOF SHEATHING TO BE 5/8" SPAN RATED CDX PLYWOOD. OSB IS NOT PERMITTED FOR ROOF SHEATHING.
4. ALL CONNECTORS FOR WOOD TRUSSES TO BE DESIGNED AND SUPPLIED BY THE TRUSS MANUFACTURER.
5. HDR DENOTES DOOR/WINDOW OPENING HEADER. SEE SCHEDULE.

STEEL LINTEL SCHEDULE

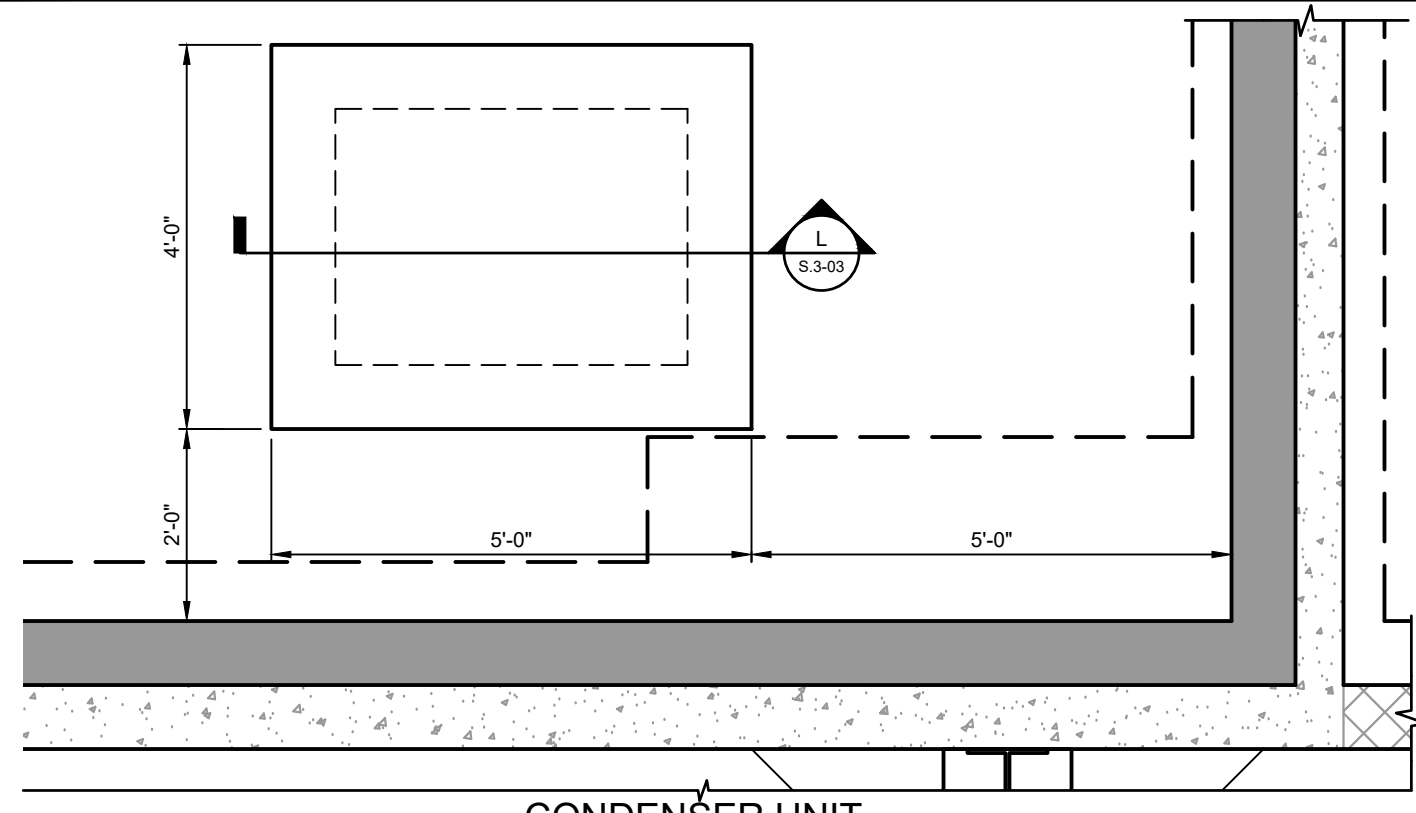
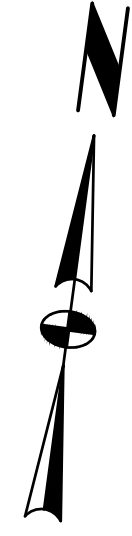
MARK	SIZE	GEOMETRY	DETAIL
L-1	W12x19 w/ 3/8" x 7" CONT. PLATE		
L-2	W12x14 w/ 3/8" x 7" CONT. PLATE		

- NOTES:**
1. LENGTH OF HEADER TO BE FULL OPENING AND A MINIMUM OF 8" BEARING ON EACH END.
 2. HEADERS OVER MECH. OPENINGS IN EXTERIOR WALLS SHALL BE 3/4" x 3 1/2" x 1/4".
 3. ALL STEEL LINTELS IN EXTERIOR WALLS ARE TO BE HOT-DIPPED GALVANIZED.

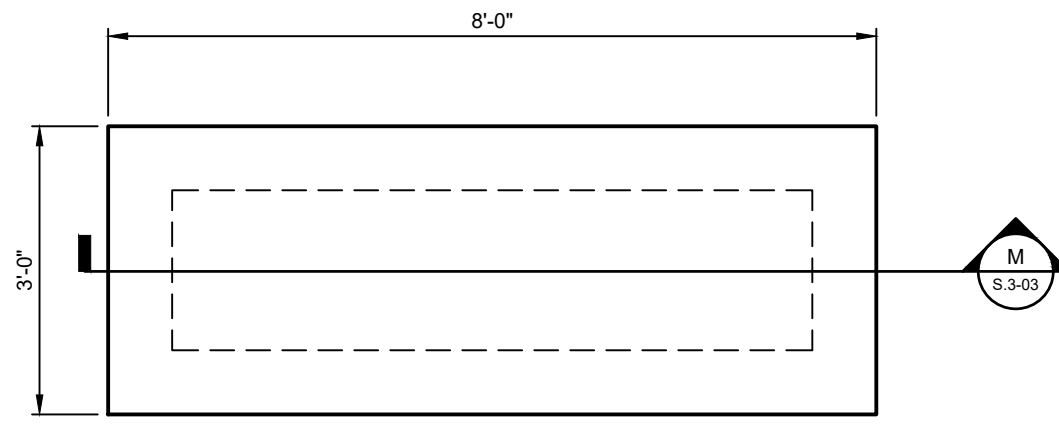
NOTE:
LOOSE LINTELS IN NON BEARING MASONRY AND BRICK WALLS ARE SCHEDULED ON SHEET S.3-02



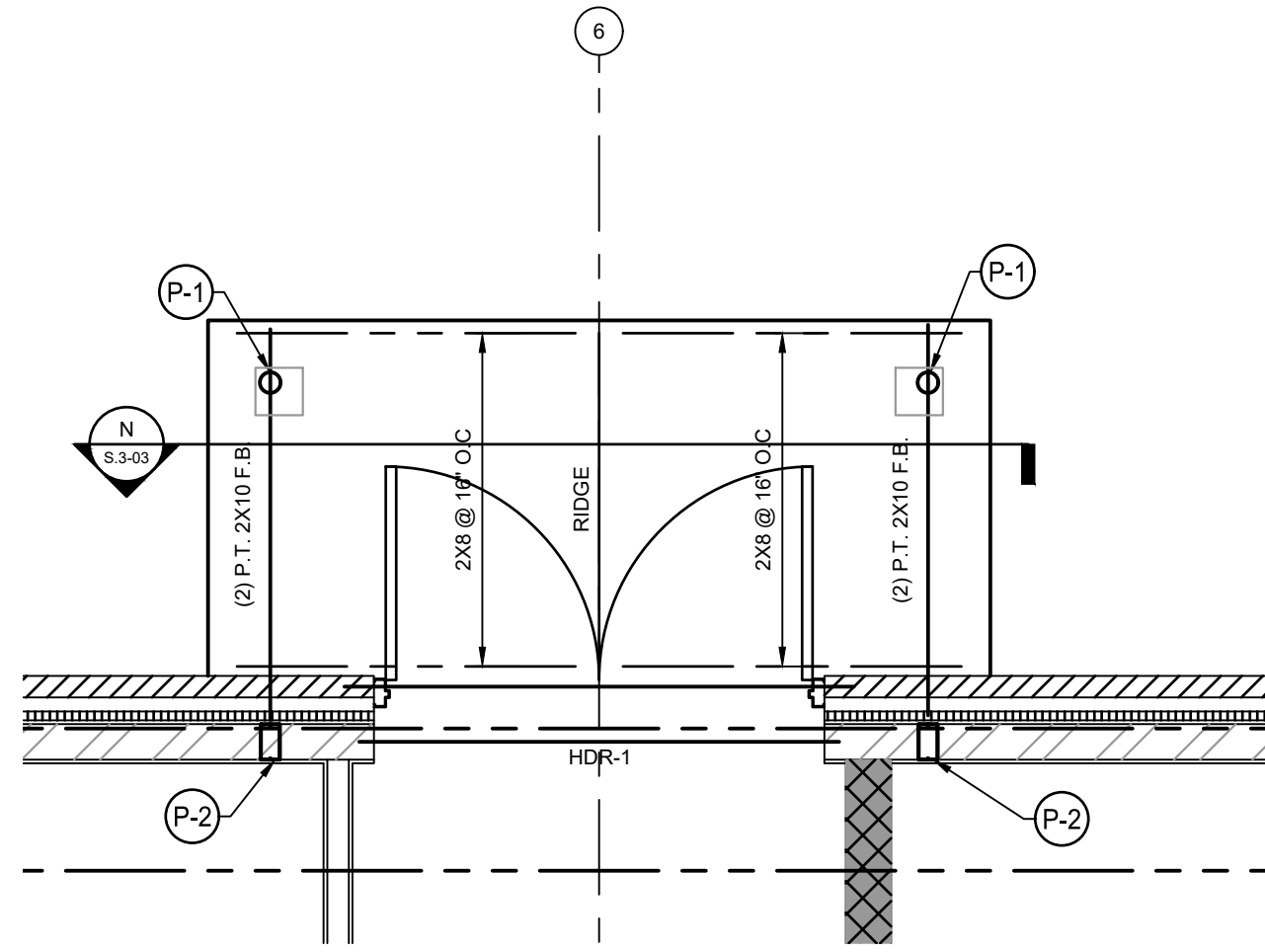
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BASE BY: SSM	N.B.: N/A	DESIGNED BY: JMT	CHECKED BY: --				
DRAWN BY: CMF							
 SSM SPOTTS, STEVENS & MCCOY Engineers and Consultants 1000 Walnut Street, Suite 100 Allentown, PA 18104 Phone: 610.262.2001 Fax: 610.262.2001 www.ssmgroup.com							
MUHLENBERG TOWNSHIP AUTHORITY OFFICE BUILDING & MAINTENANCE GARAGE STRUCTURAL OFFICE BUILDING ROOF FRAMING PLAN COPYRIGHT 2020, SPOTTS, STEVENS & MCCOY							
02/07/20		100608.0063		S.1-04			
DATE		DIGITAL FILENAME		100608.0063			
WORK ORDER NUMBER							
S.1-04							
DRAWING NUMBER							



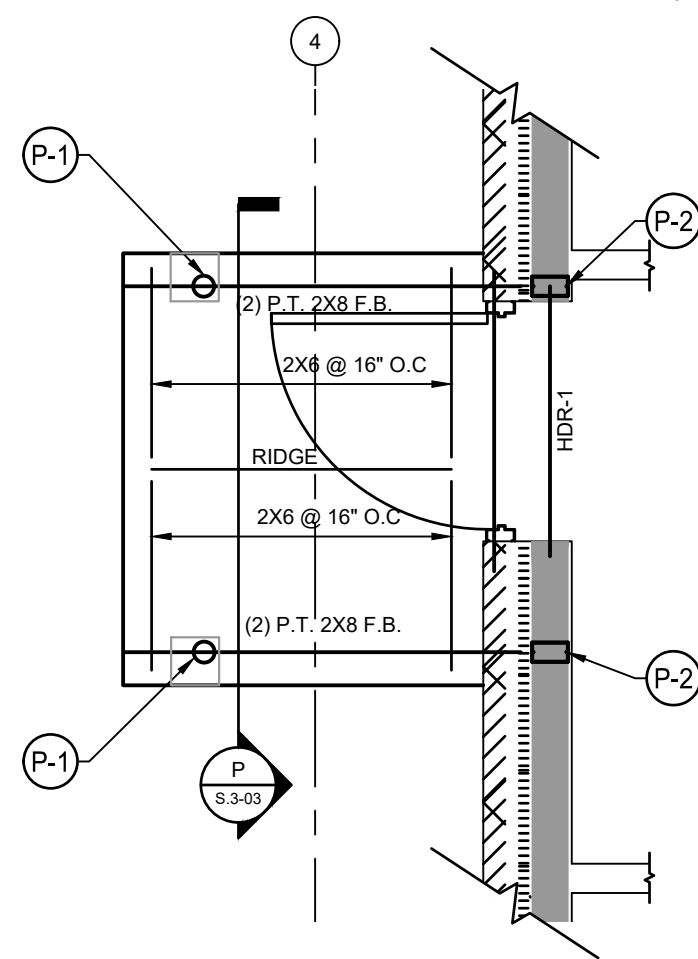
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CONDENSER UNIT
FOUNDATION PLAN
SCALE: 1/2"=1'-0"



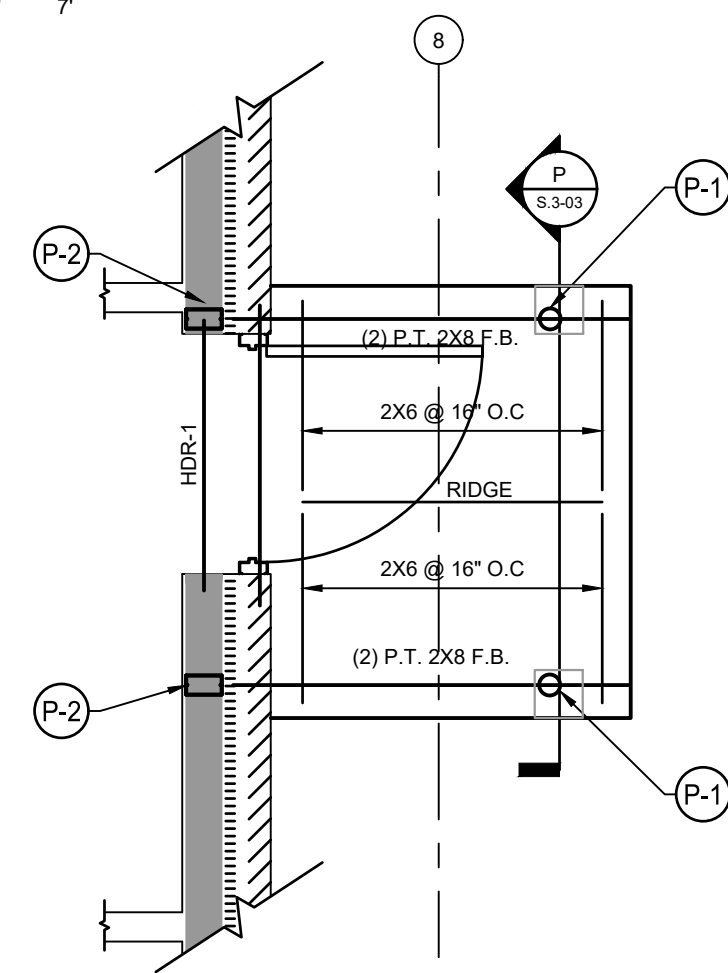
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GENERATOR
FOUNDATION PLAN
SCALE: 1/2"=1'-0"



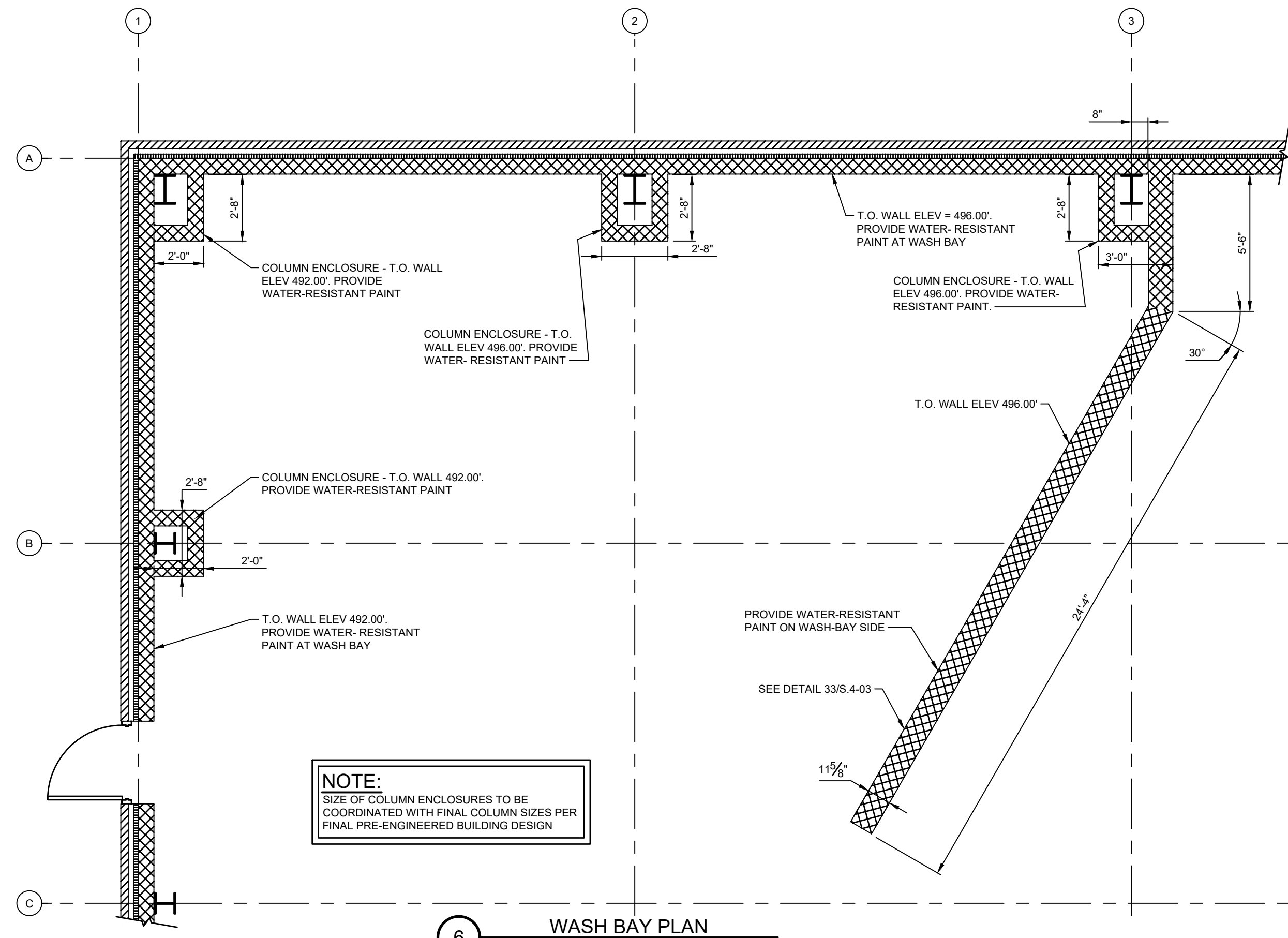
3
PORCH FRAMING PLAN
SCALE: 3/8"=1'-0"



4
PORCH FRAMING PLAN
SCALE: 3/8"=1'-0"

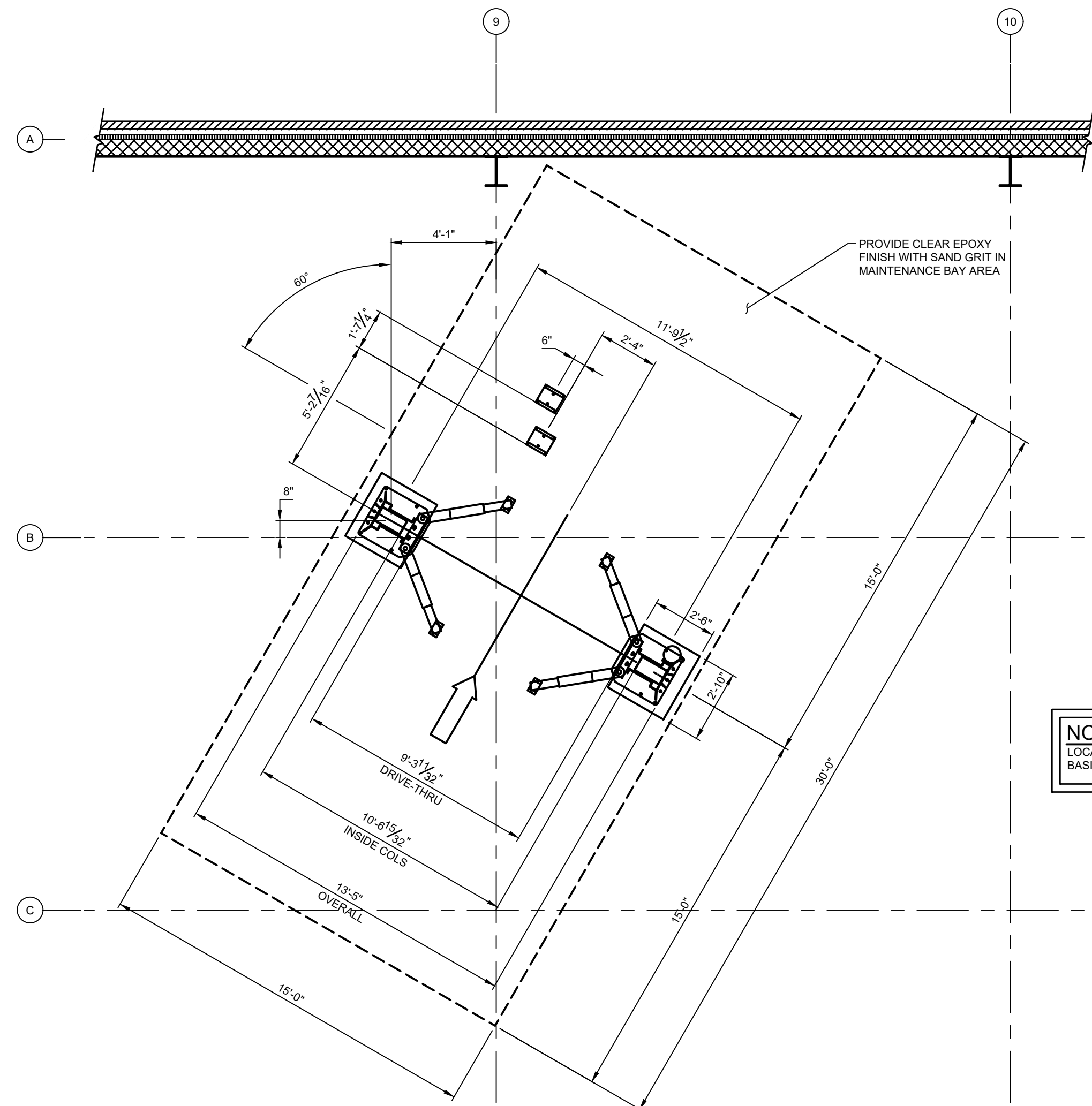


5
PORCH FRAMING PLAN
SCALE: 3/8"=1'-0"



NOTE:
SIZE OF COLUMN ENCLOSURES TO BE
COORDINATED WITH FINAL COLUMN SIZES PER
FINAL PRE-ENGINEERED BUILDING DESIGN

6
WASH BAY PLAN
SCALE: 1/2"=1'-0"



NOTE:
LOCATION AND DIMENSIONS BASED ON
BASIS-OF-DESIGN LIFT

7
MAINTENANCE BAY PLAN
SCALE: 1/2"=1'-0"

NO.	DATE	RELEASED FOR BIDDING	DESCRIPTION
1	10/07/2020		
2			
3			
4			
5			
6			
7			
8			
9			
10			

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PROJECT MANAGER: KF
BASE BY: SSM
DRAWN BY: CMF

N.B.: N/A
DATE: 11/19
DESIGNED BY: JMT
CHECKED BY: --

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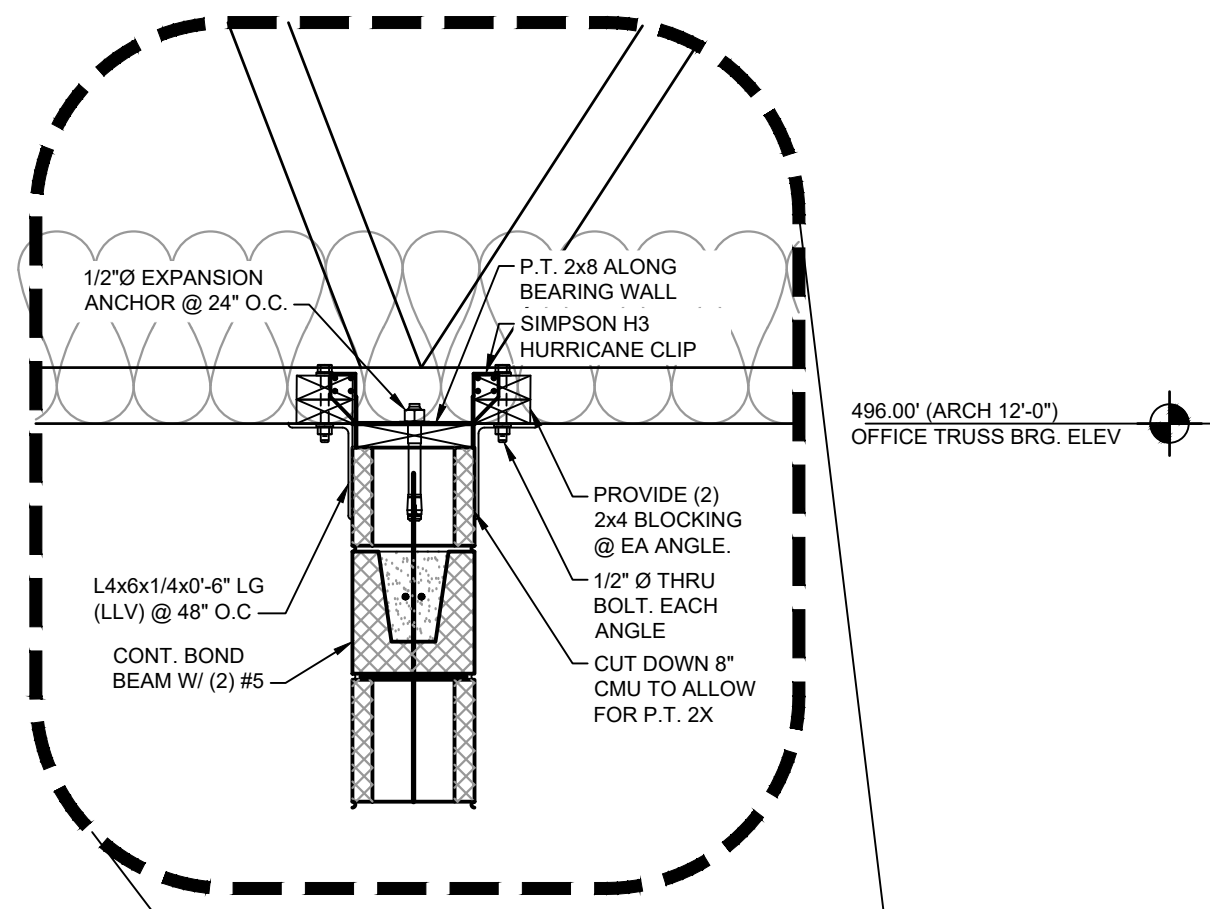
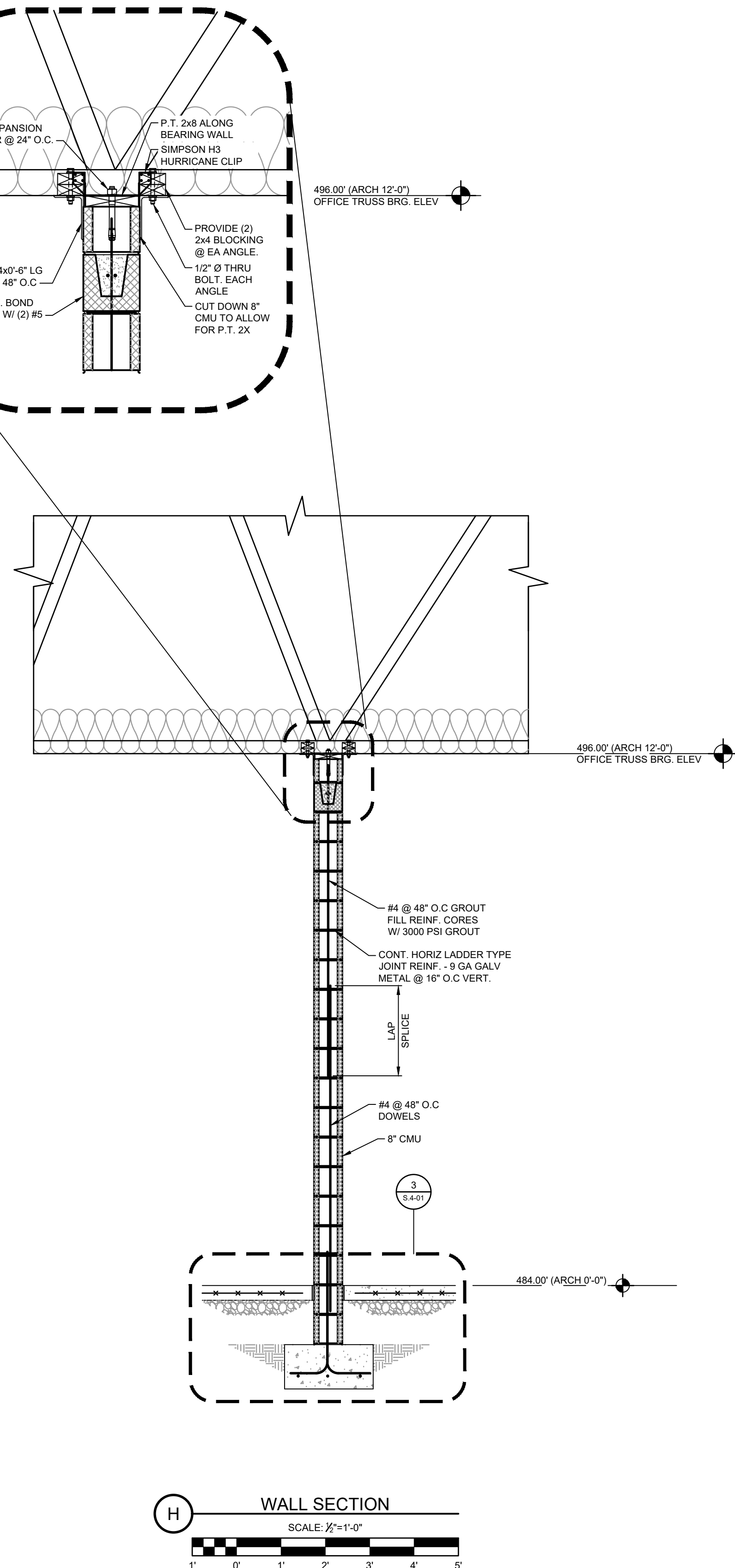
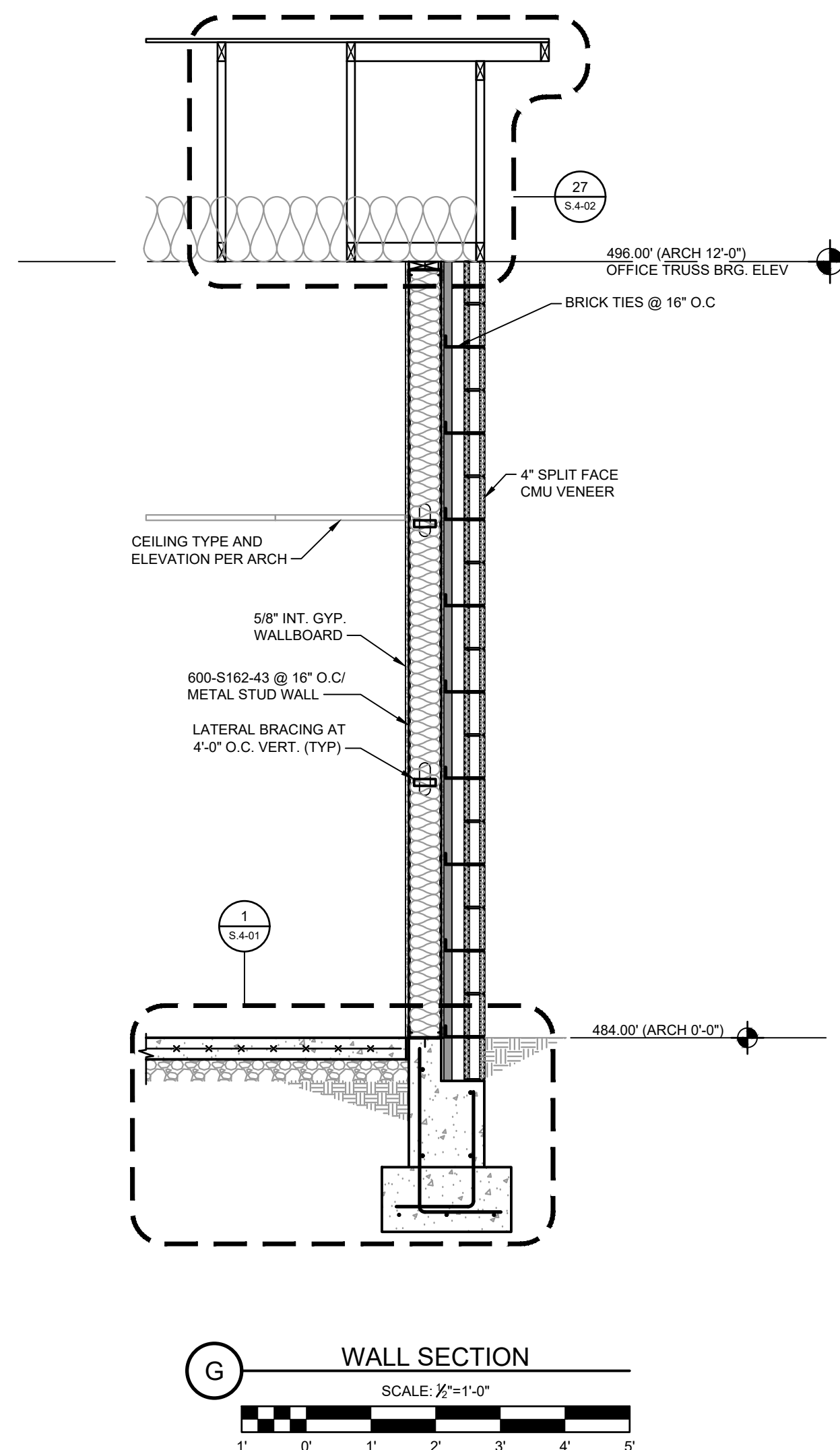
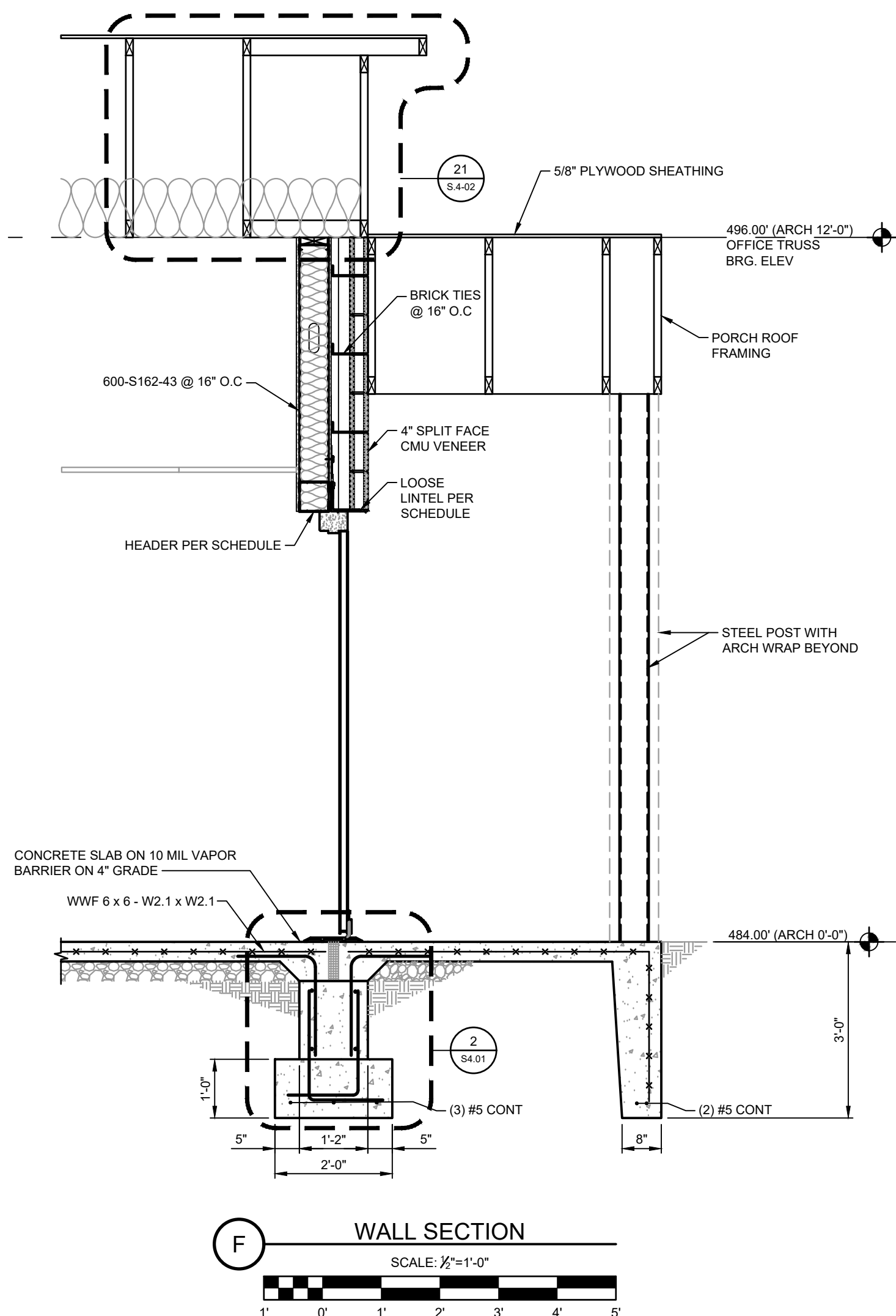
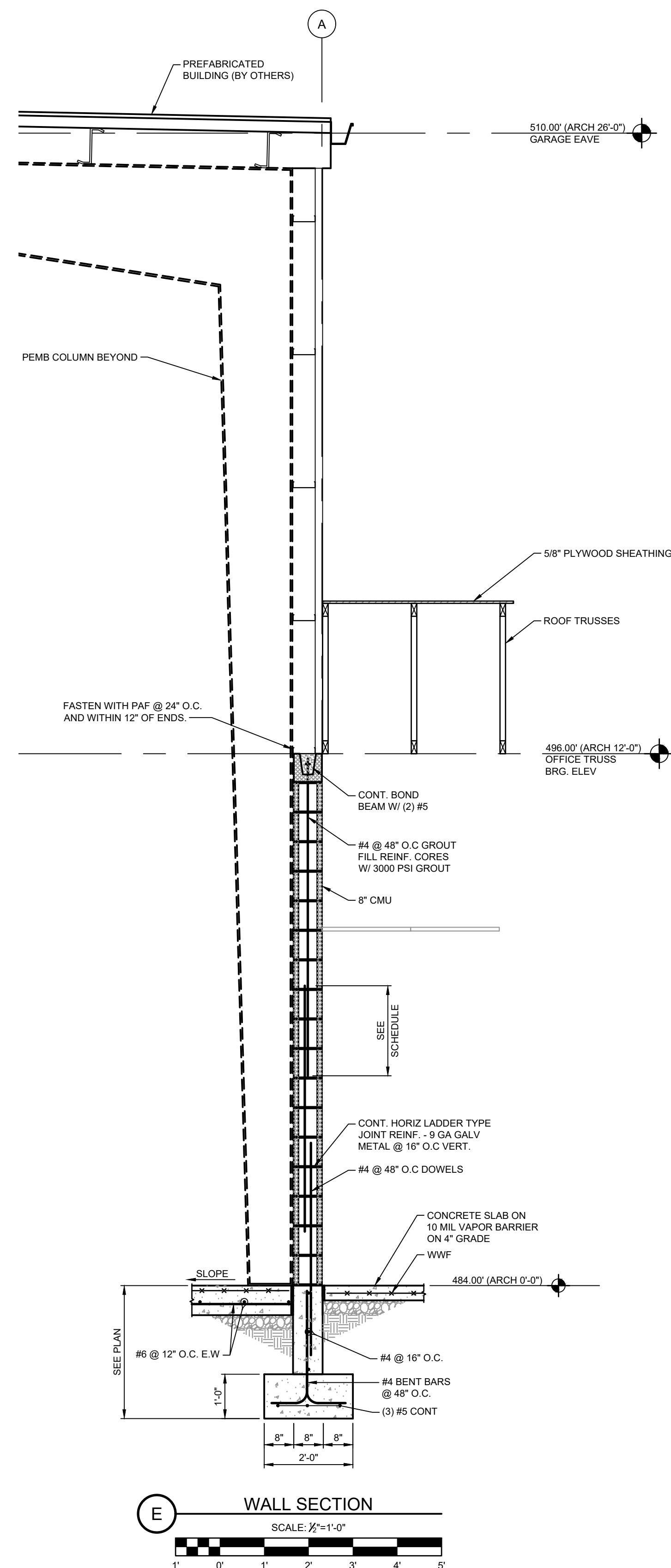
LANCASTER
1400 N. MARKET STREET
LANCASTER, PA 17602
P: 717.391.1200
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LEWIS
1000 W. MARKET STREET
LANCASTER, PA 17602
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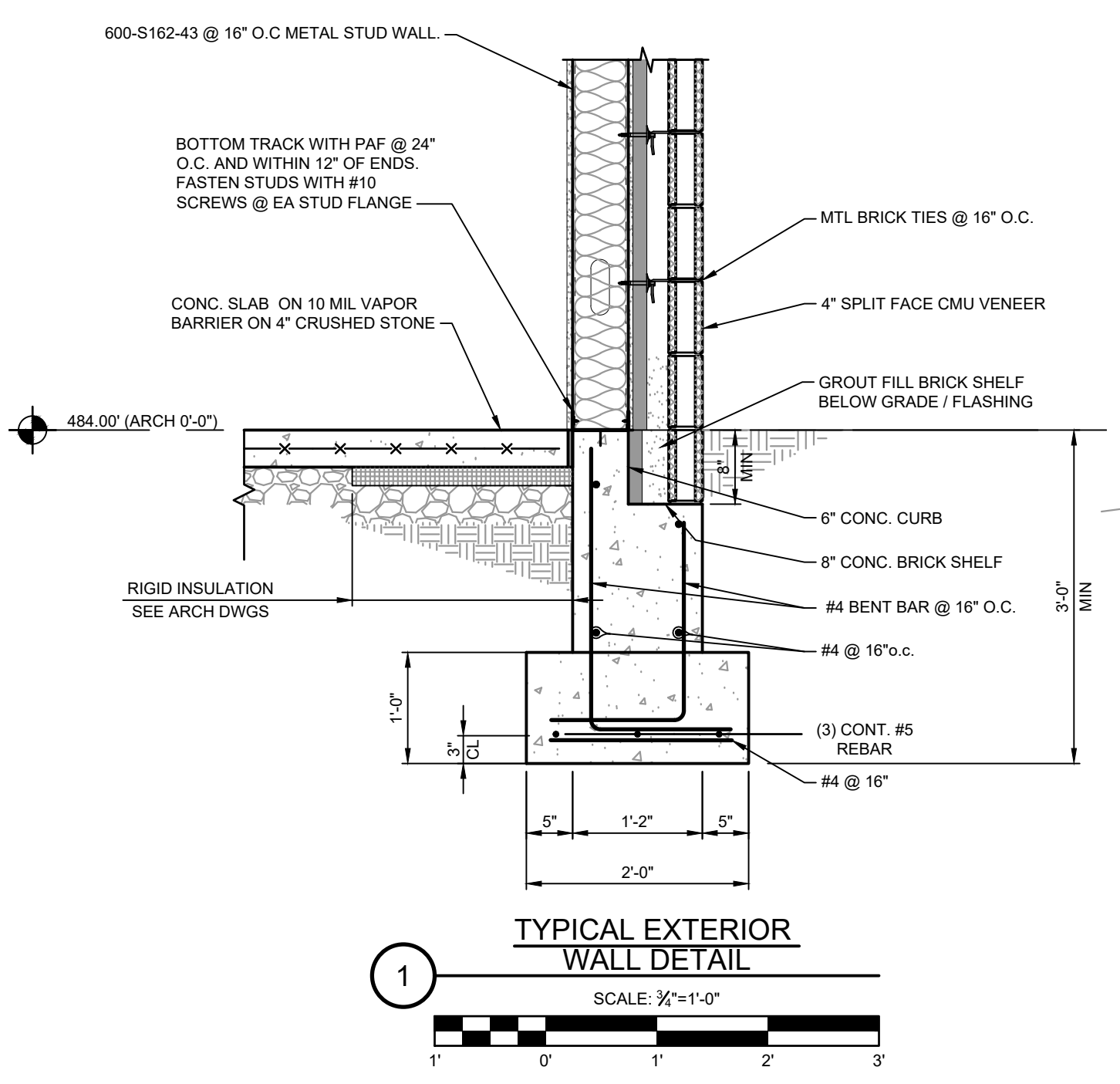
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 DESIGNED BY: JMT
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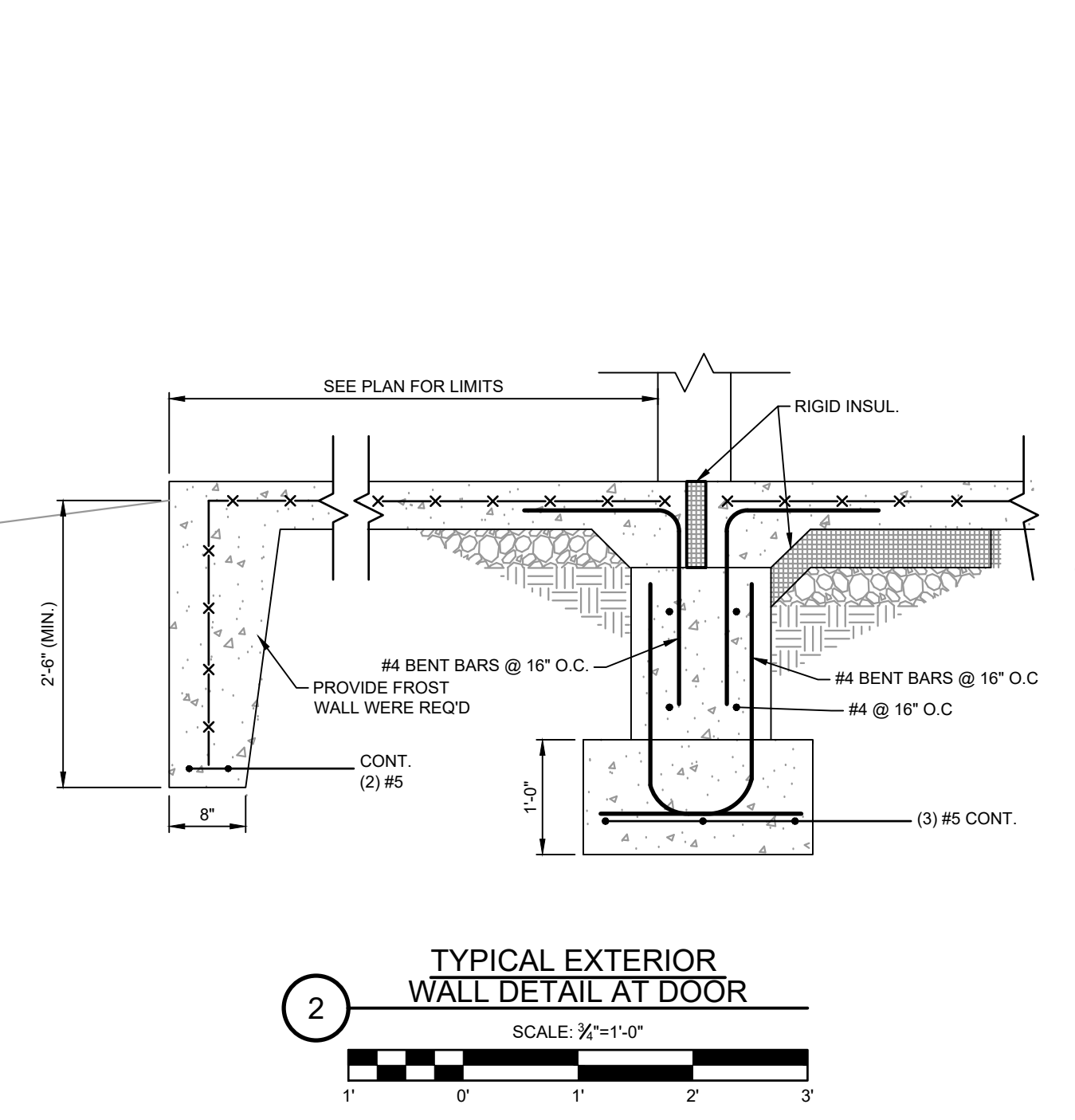
SSM
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 Engineers and Consultants
 1000 Walnut Street, Suite 100
 Allentown, PA 18104
 Phone: 610.262.2001
 Fax: 610.262.2001
 Email: info@ssmgroup.com

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 STRUCTURAL SECTIONS
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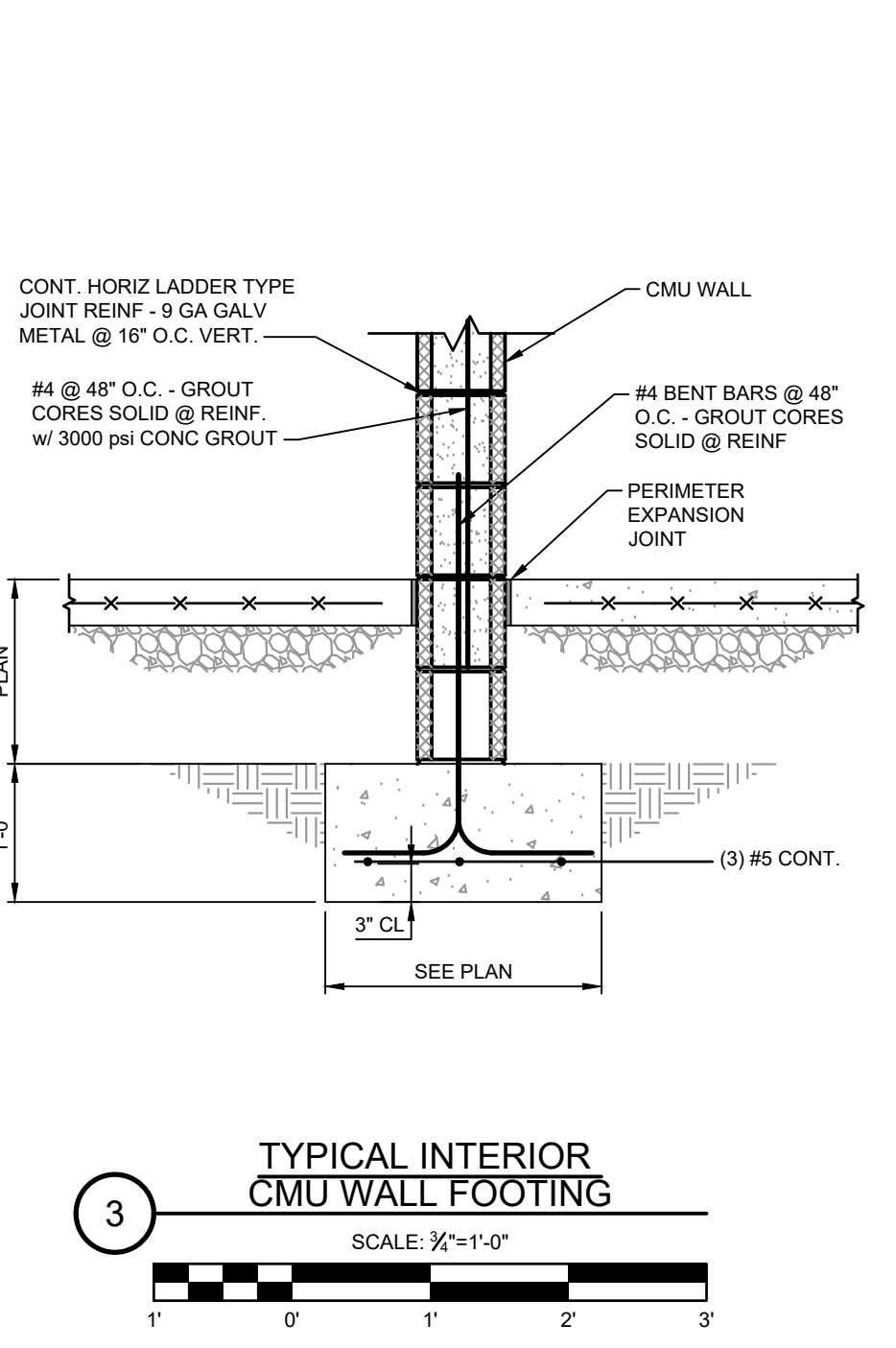
02/07/20
 100608.0063
 S.3-01
100608.0063
 WORK ORDER NUMBER
S.3-02
 DRAWING NUMBER



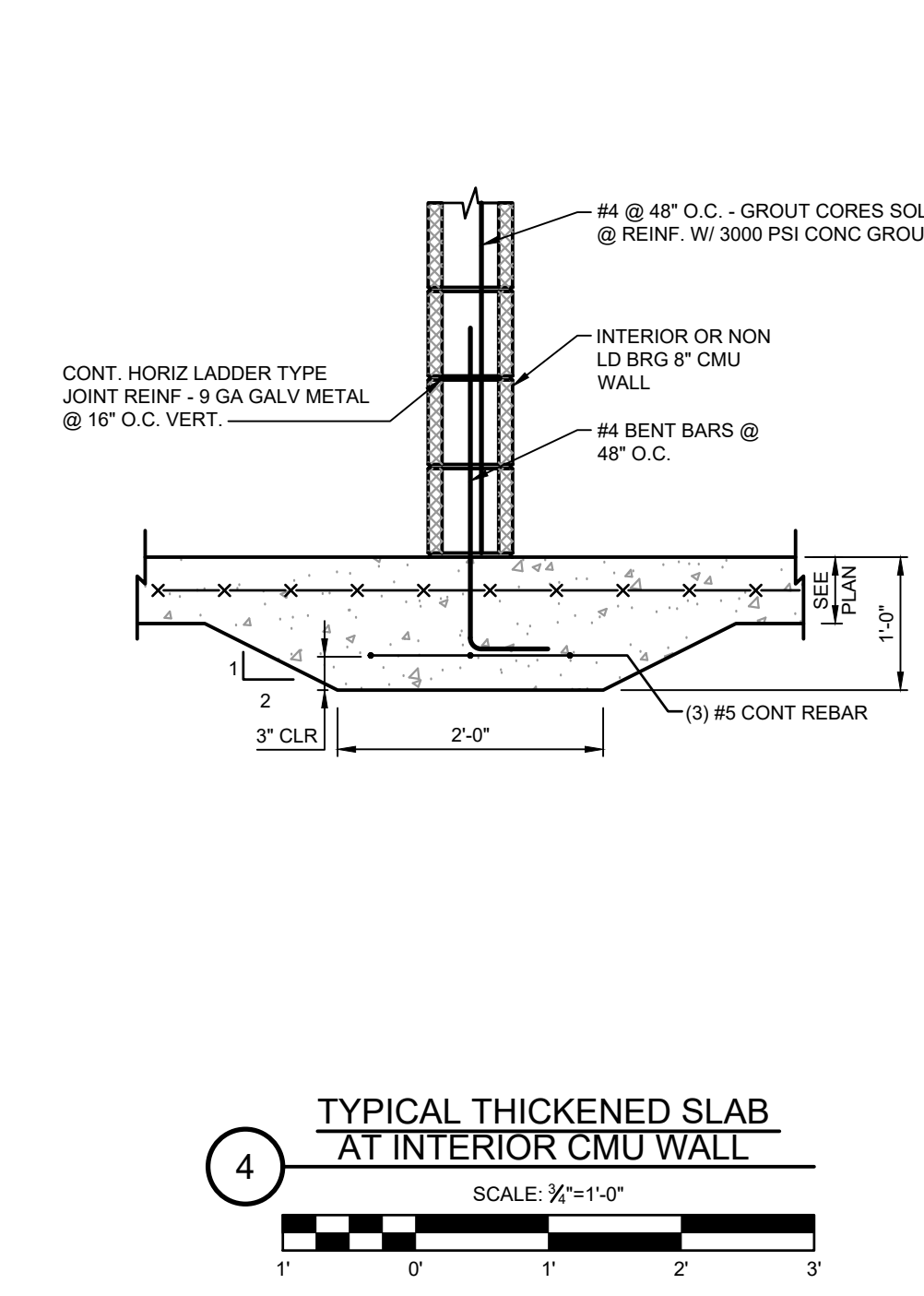
1 TYPICAL EXTERIOR WALL DETAIL
SCALE: 3/8"=1'-0"



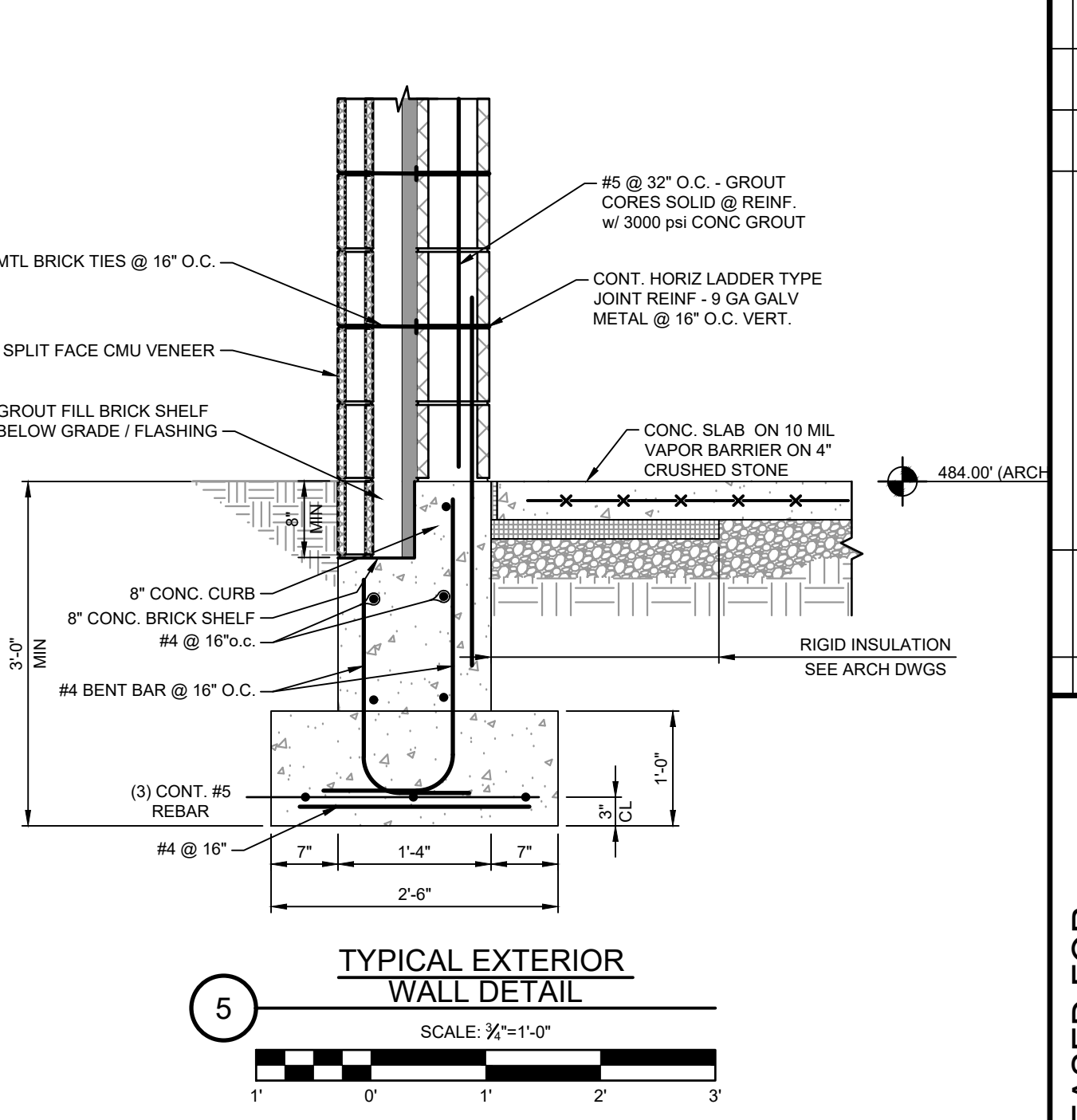
2 TYPICAL EXTERIOR WALL DETAIL AT DOOR
SCALE: 3/8"=1'-0"



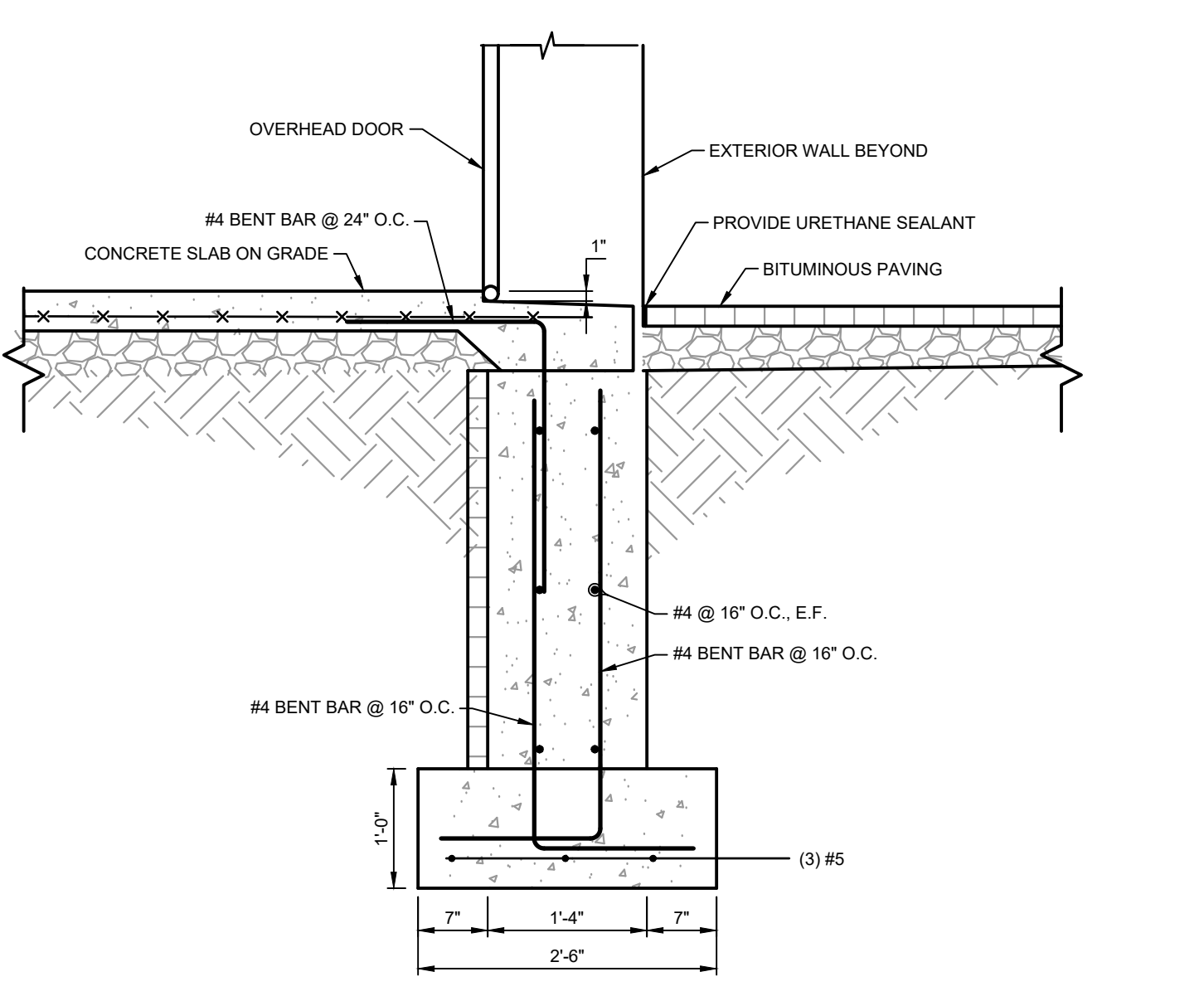
3 TYPICAL INTERIOR CMU WALL FOOTING
SCALE: 3/8"=1'-0"



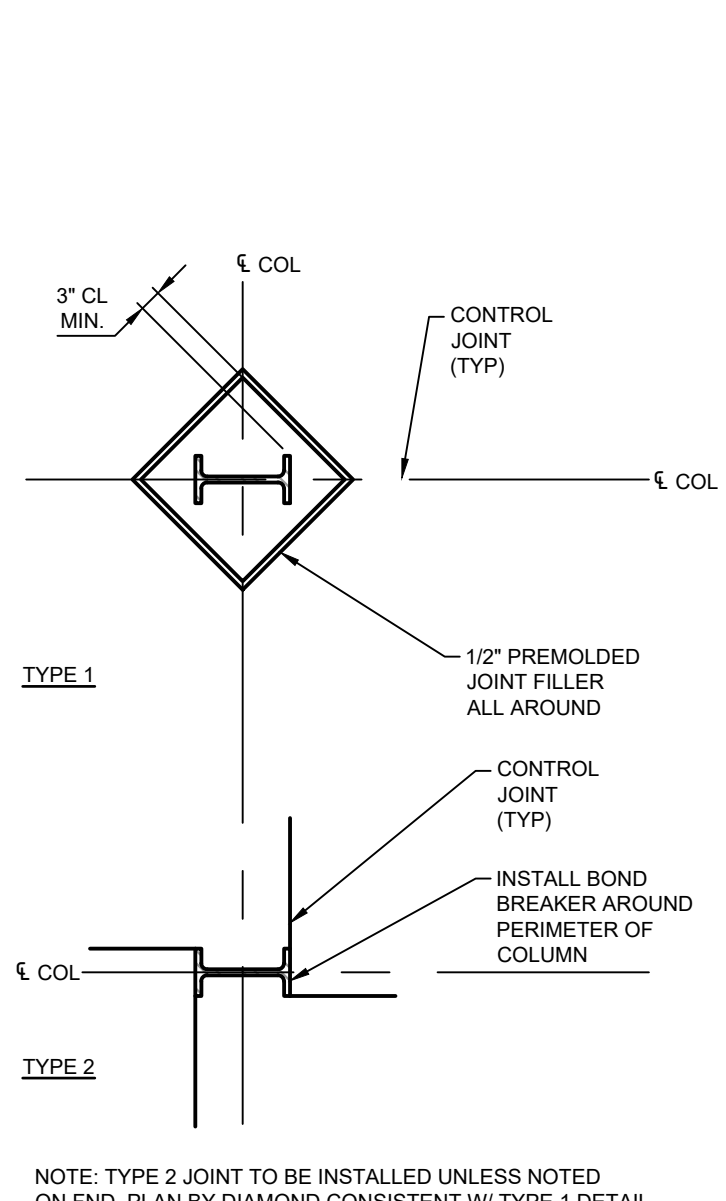
4 TYPICAL THICKENED SLAB AT INTERIOR CMU WALL
SCALE: 3/8"=1'-0"



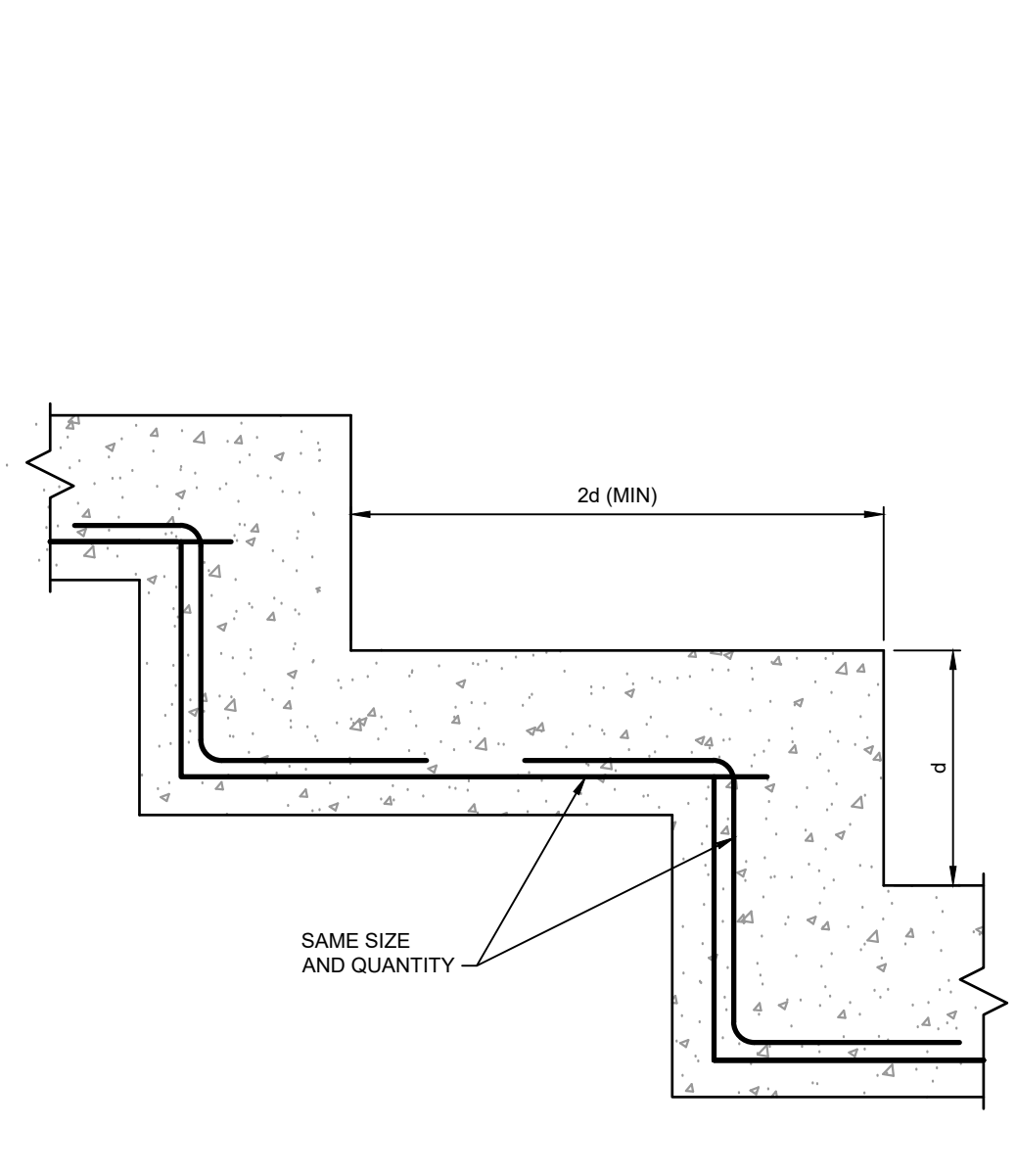
5 TYPICAL EXTERIOR WALL DETAIL
SCALE: 3/8"=1'-0"



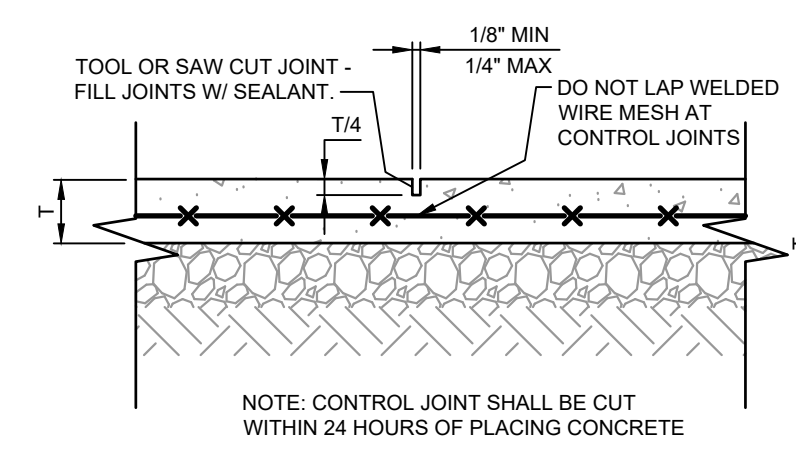
6 TYPICAL EXTERIOR WALL DETAIL AT OVERHEAD DOOR
SCALE: 3/8"=1'-0"



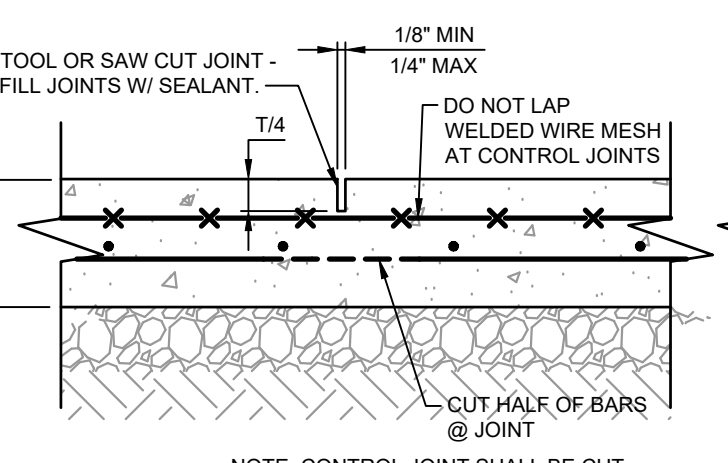
7 TYPICAL COLUMN ISOLATION JOINT
SCALE: 3/8"=1'-0"



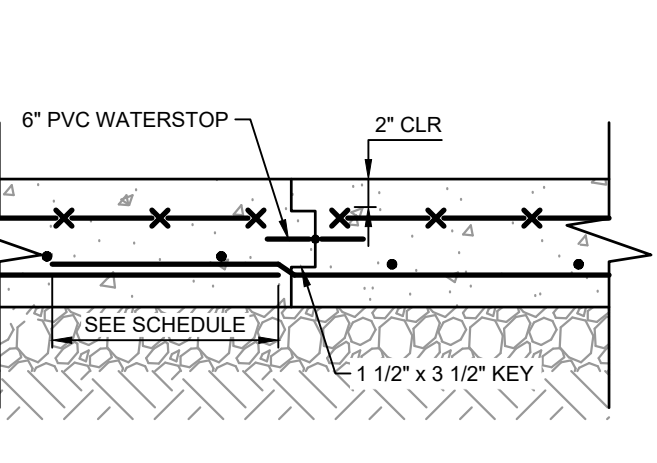
8 TYPICAL FOOTING STEP DETAIL
SCALE: 3/8"=1'-0"



TYPICAL CONTROL JOINT AT OFFICE



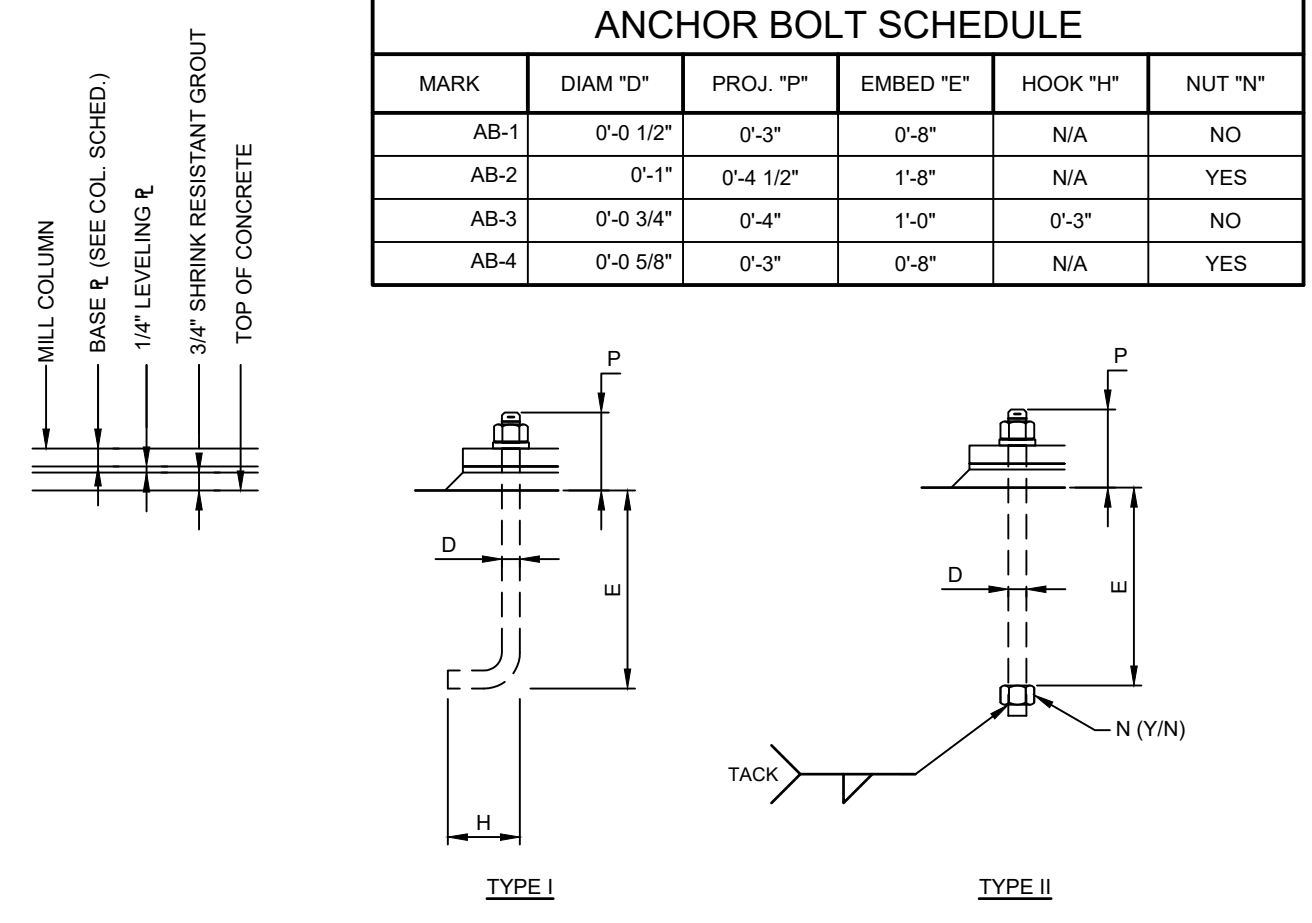
TYPICAL CONTROL JOINT AT GARAGE



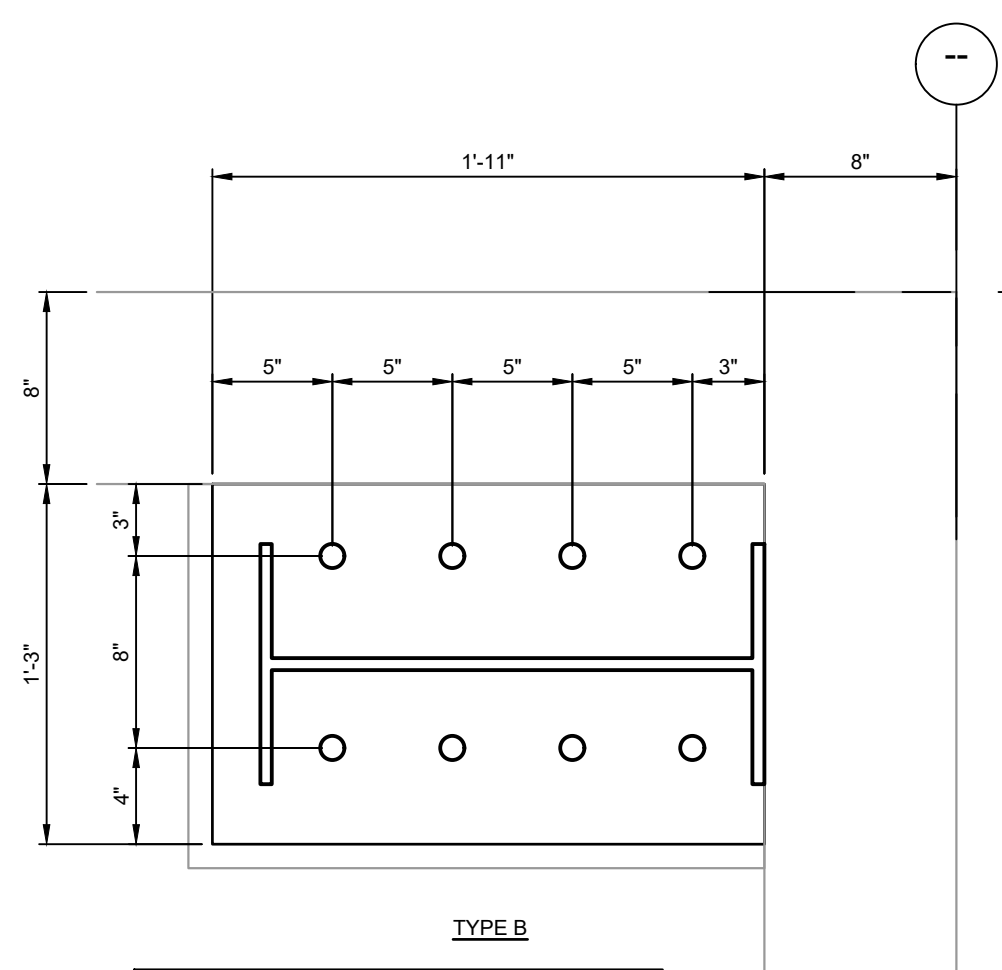
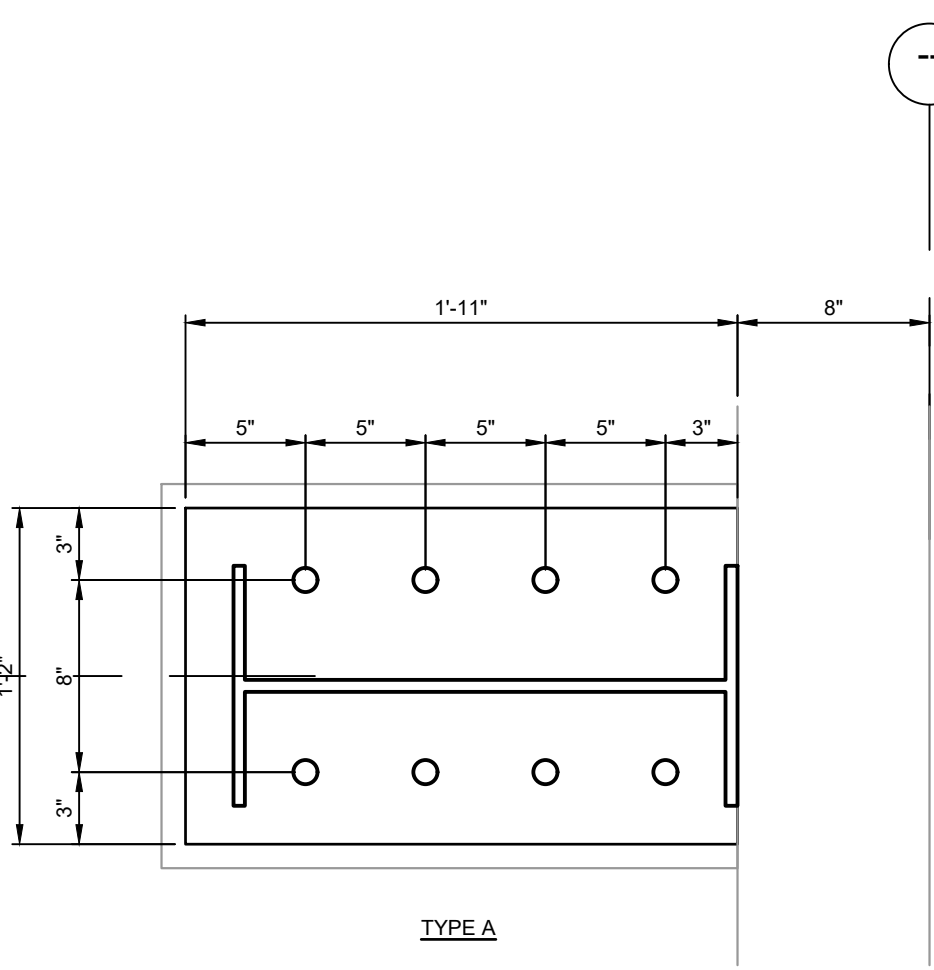
TYPICAL CONSTRUCTION JOINT AT GARAGE

9 TYPICAL CONTROL / CONSTRUCTION JOINTS
SCALE: 1"=1'-0"

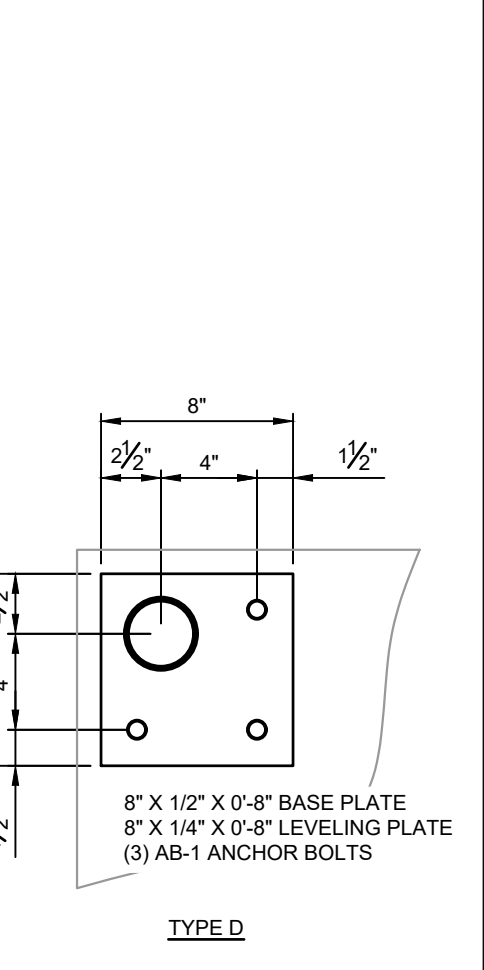
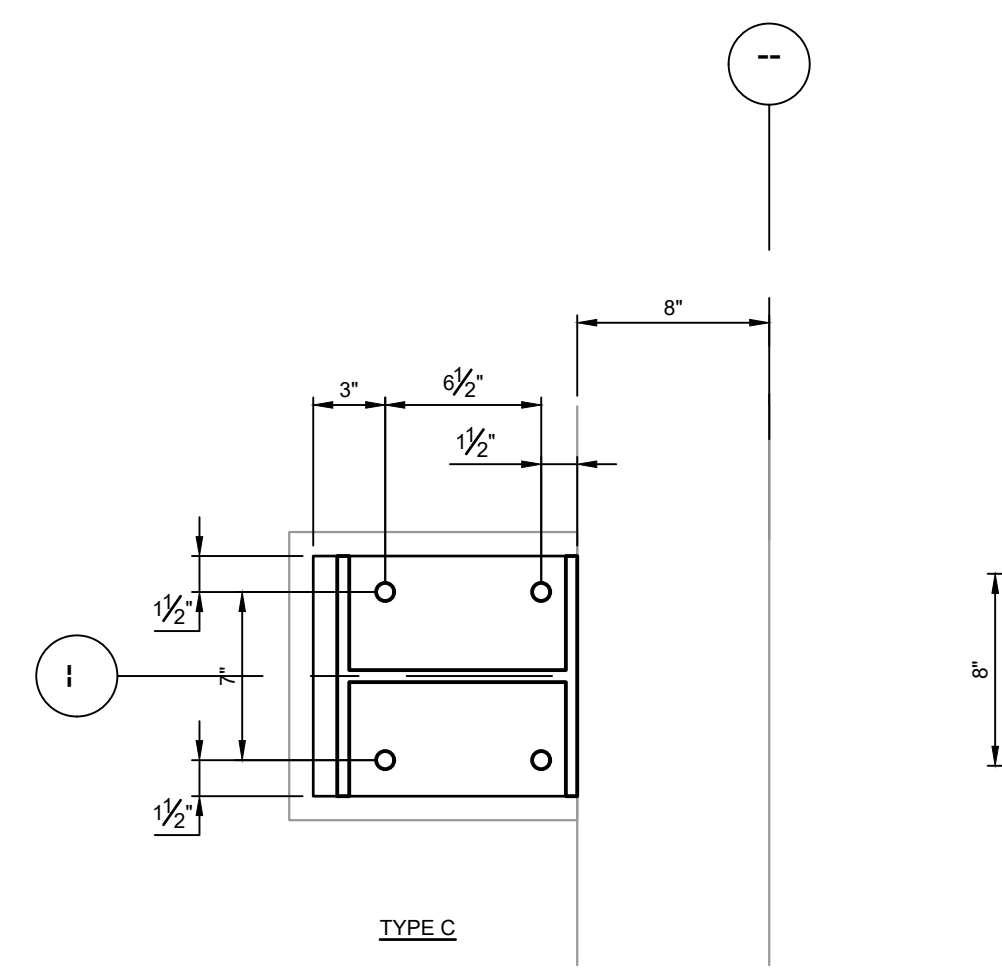
ANCHOR BOLT SCHEDULE					
MARK	DIAM "D"	PROJ. "P"	EMBED "E"	HOOK "H"	NUT "N"
AB-1	0'-0 1/2"	0'-3"	0'-8"	N/A	NO
AB-2	0'-1"	0'-4 1/2"	1'-8"	N/A	YES
AB-3	0'-0 3/4"	0'-4"	1'-0"	0'-3"	NO
AB-4	0'-0 5/8"	0'-3"	0'-8"	N/A	YES



10 TYPICAL ANCHOR BOLT DETAILS
SCALE: 1/2"=1'-0"



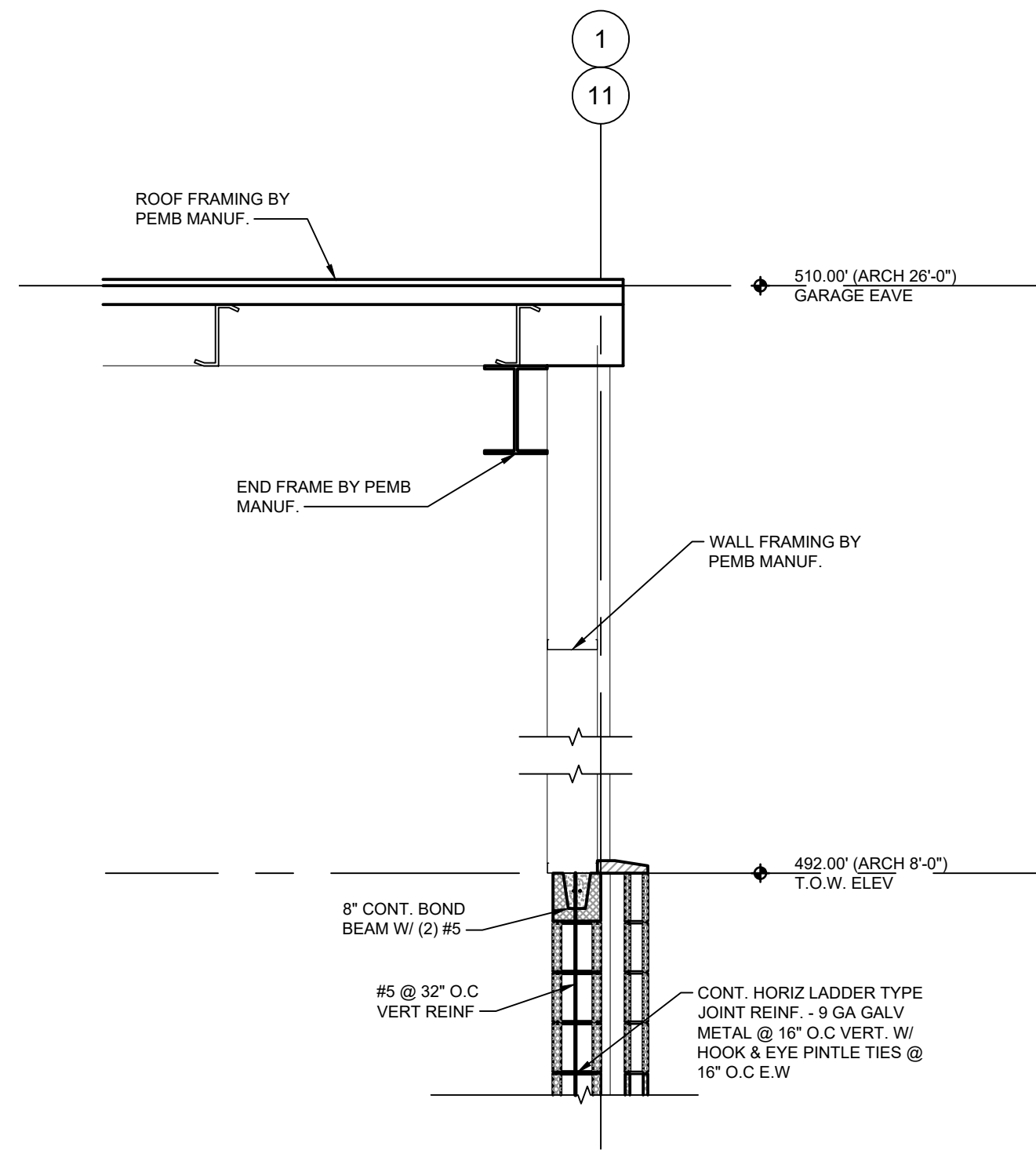
11 BASEPLATE AND LEVELING PLATE DETAILS
SCALE: 1/2"=1'-0"



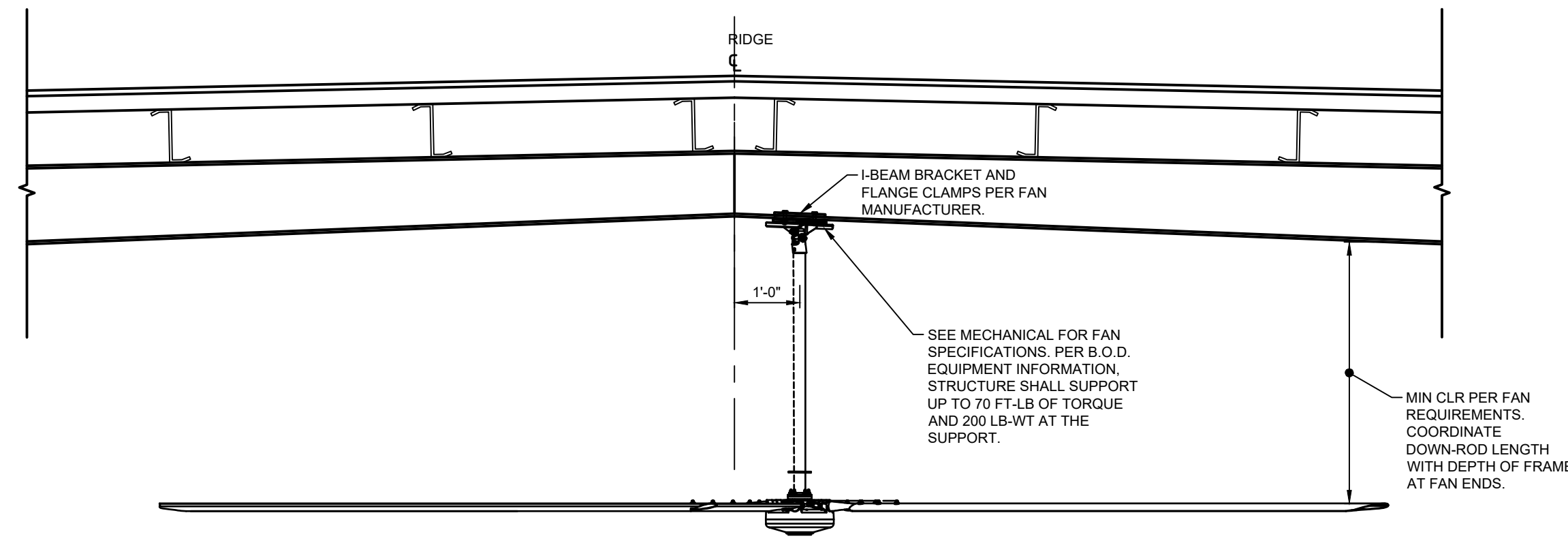
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PROJECT MANAGER: N/A
BASE BY: SSM
DRAWN BY: CMF
DATE: 12/07/20
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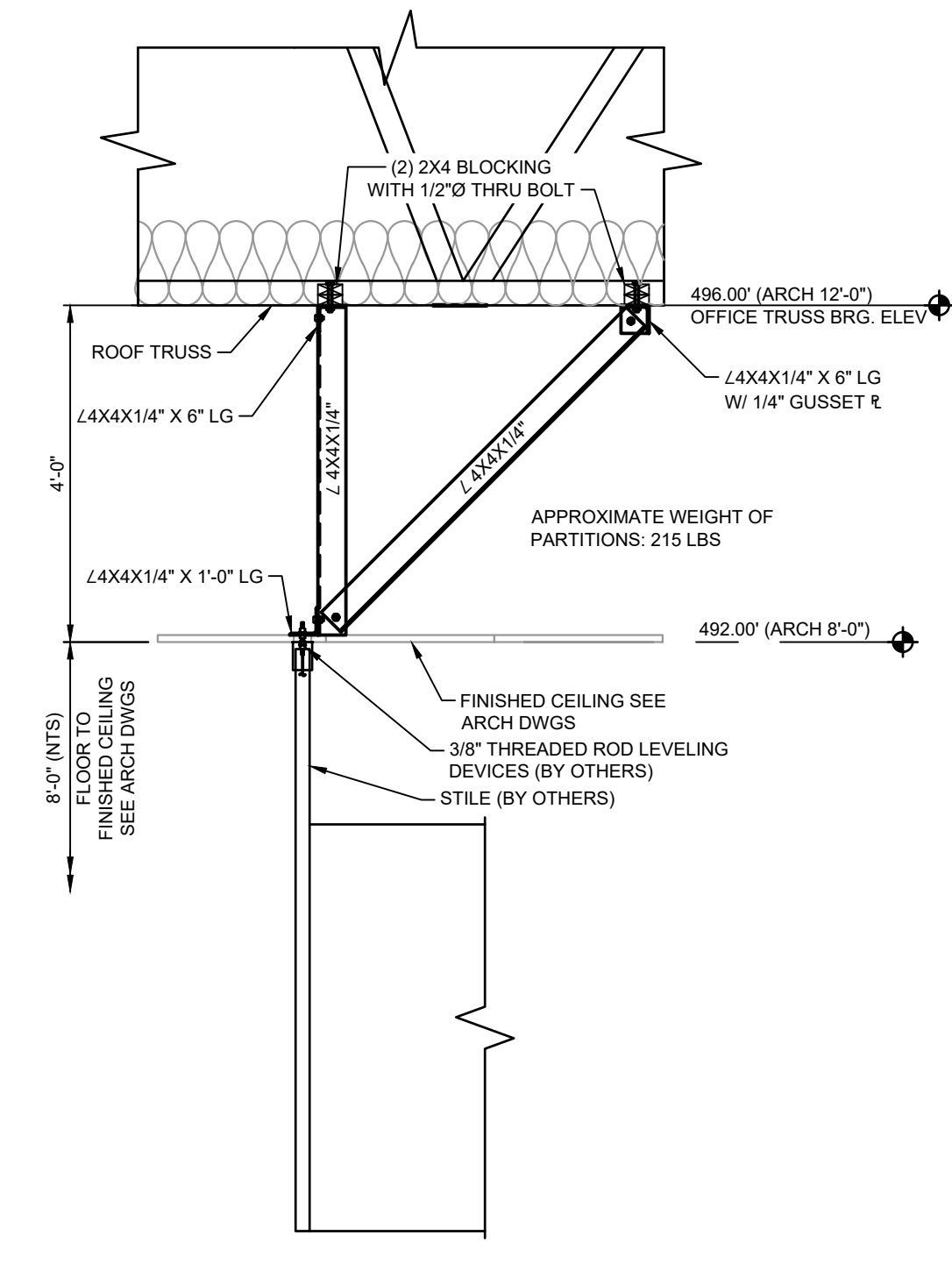
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OFFICE BUILDING & MAINTENANCE GARAGE
STRUCTURAL DETAILS
DATE: 02/07/20
DIGITAL FILENAME: 100608.0063
WORK ORDER NUMBER: S.4-01
DRAWING NUMBER: S.4-01



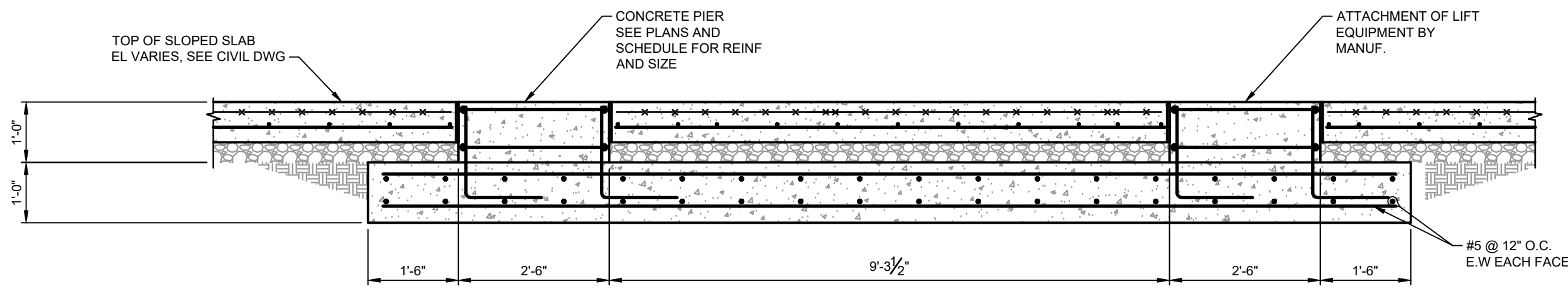
35 WALL SECTION
SCALE: 1/2"=1'-0"



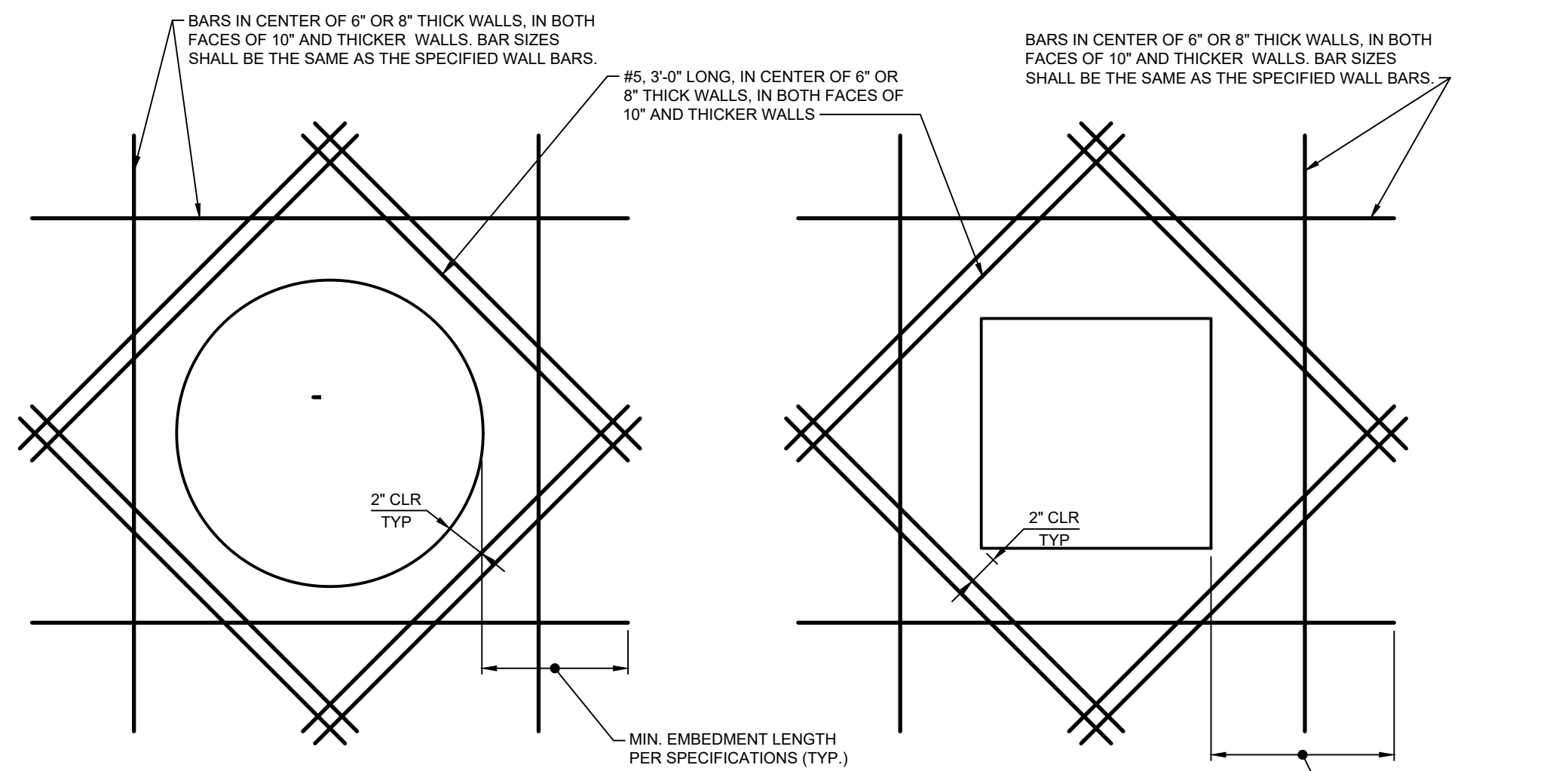
36 FAN MOUNTING DETAIL
SCALE: 1/2"=1'-0"



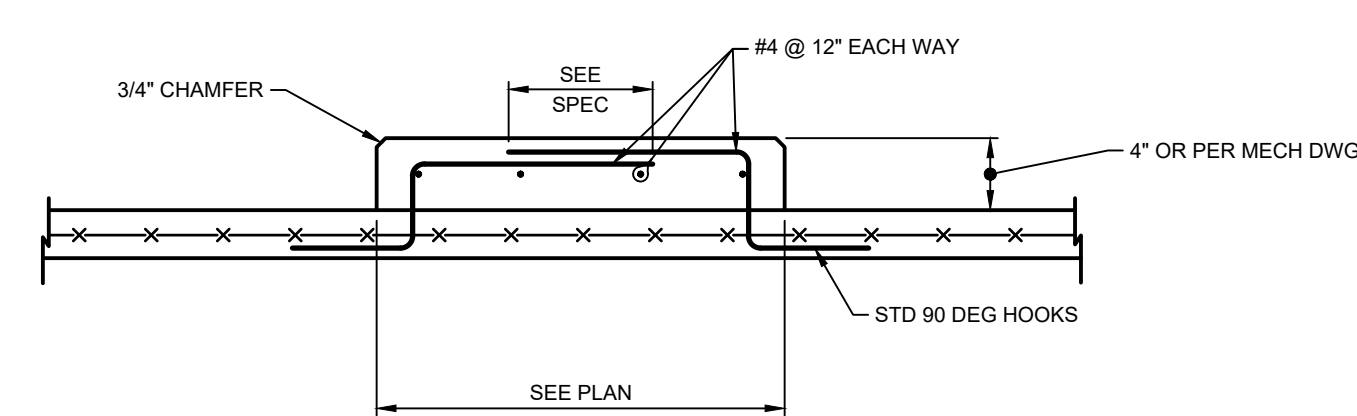
37 PARTITION SUPPORT
SCALE: 1/2"=1'-0"



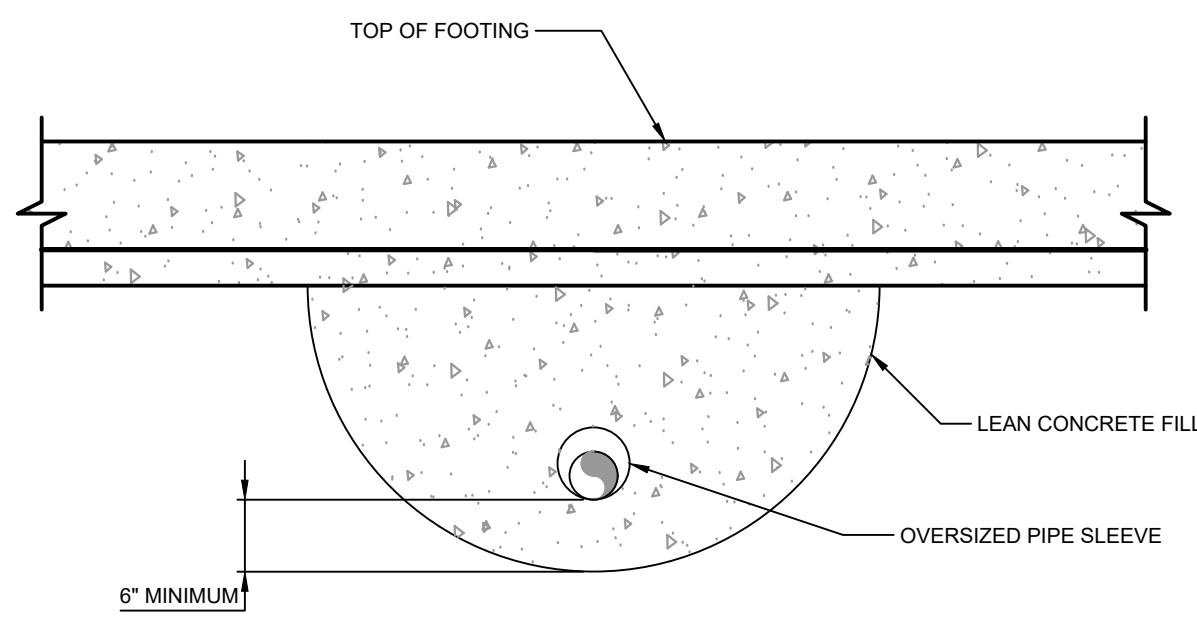
38 LIFT SUPPORT
SCALE: 1/2"=1'-0"



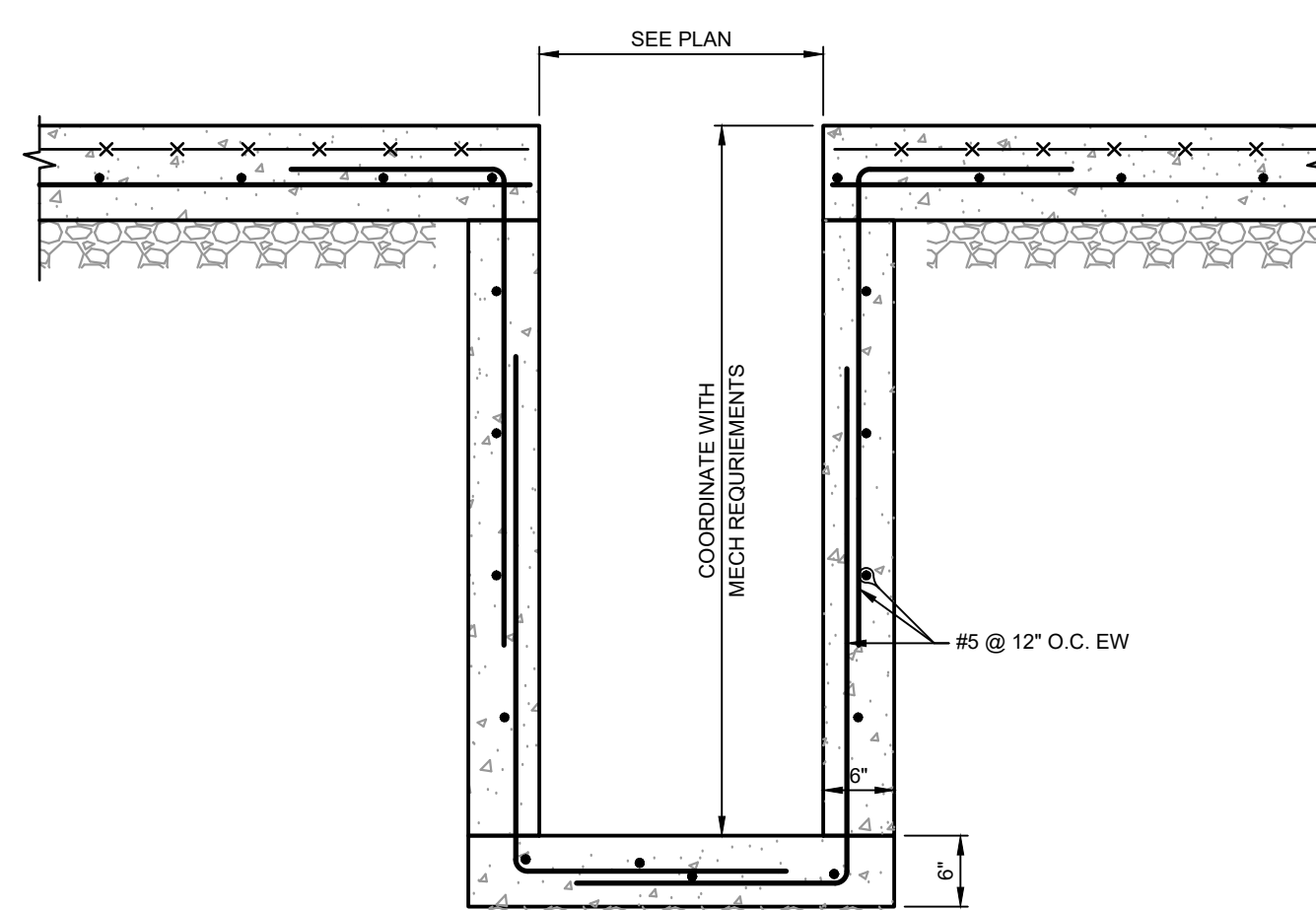
39 ADDITIONAL REINFORCING AROUND WALL OPENINGS
SCALE: 1/2"=1'-0"



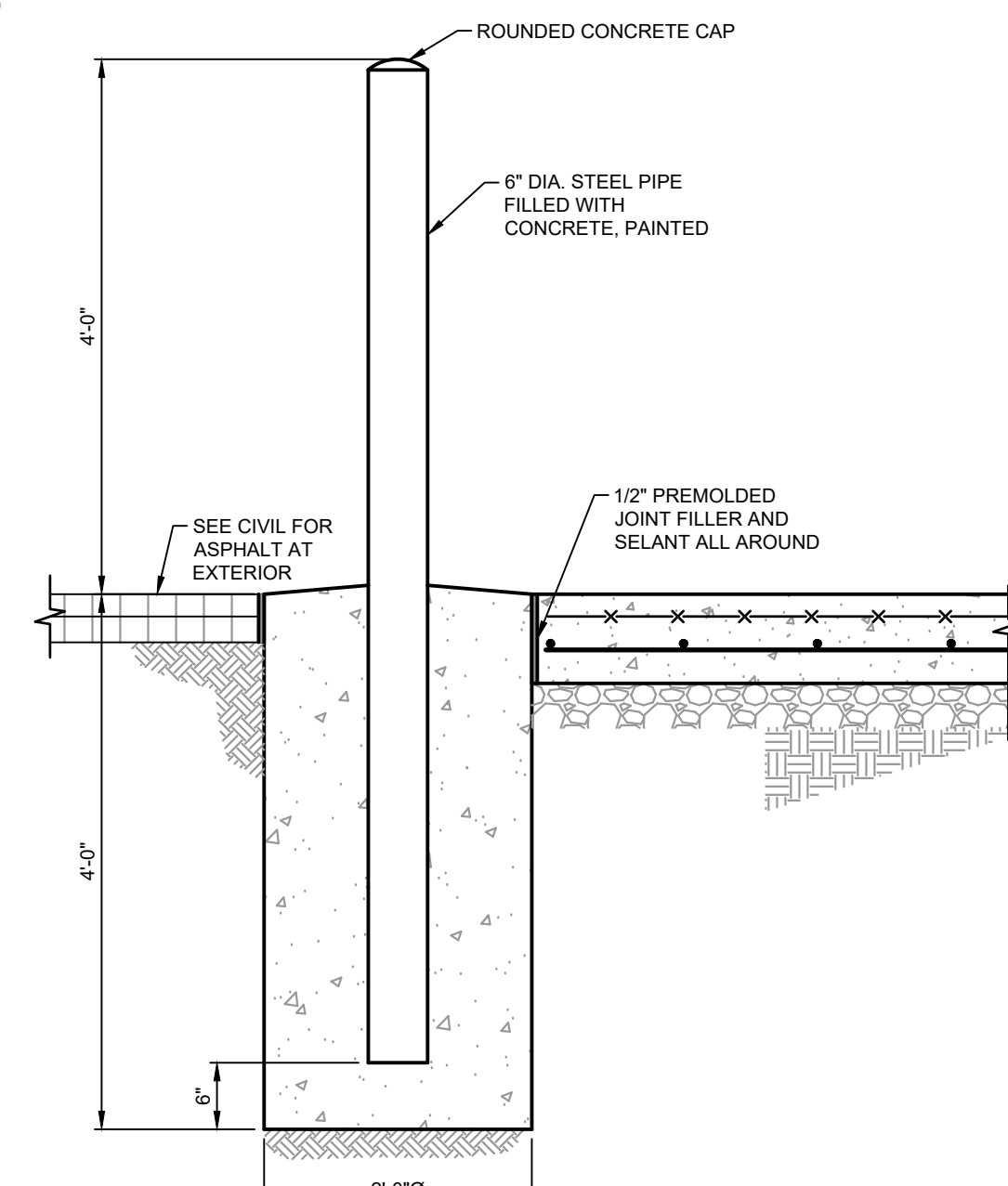
40 TYPICAL CONCRETE EQUIPMENT PAD AT INTERIOR LOCATIONS
SCALE: 1/2"=1'-0"



41 TYPICAL PIPE UNDER FOOTING DETAIL
SCALE: 1/2"=1'-0"



42 SUMP PIT
SCALE: 1/2"=1'-0"



43 BOLLARD DETAIL
SCALE: 1/2"=1'-0"

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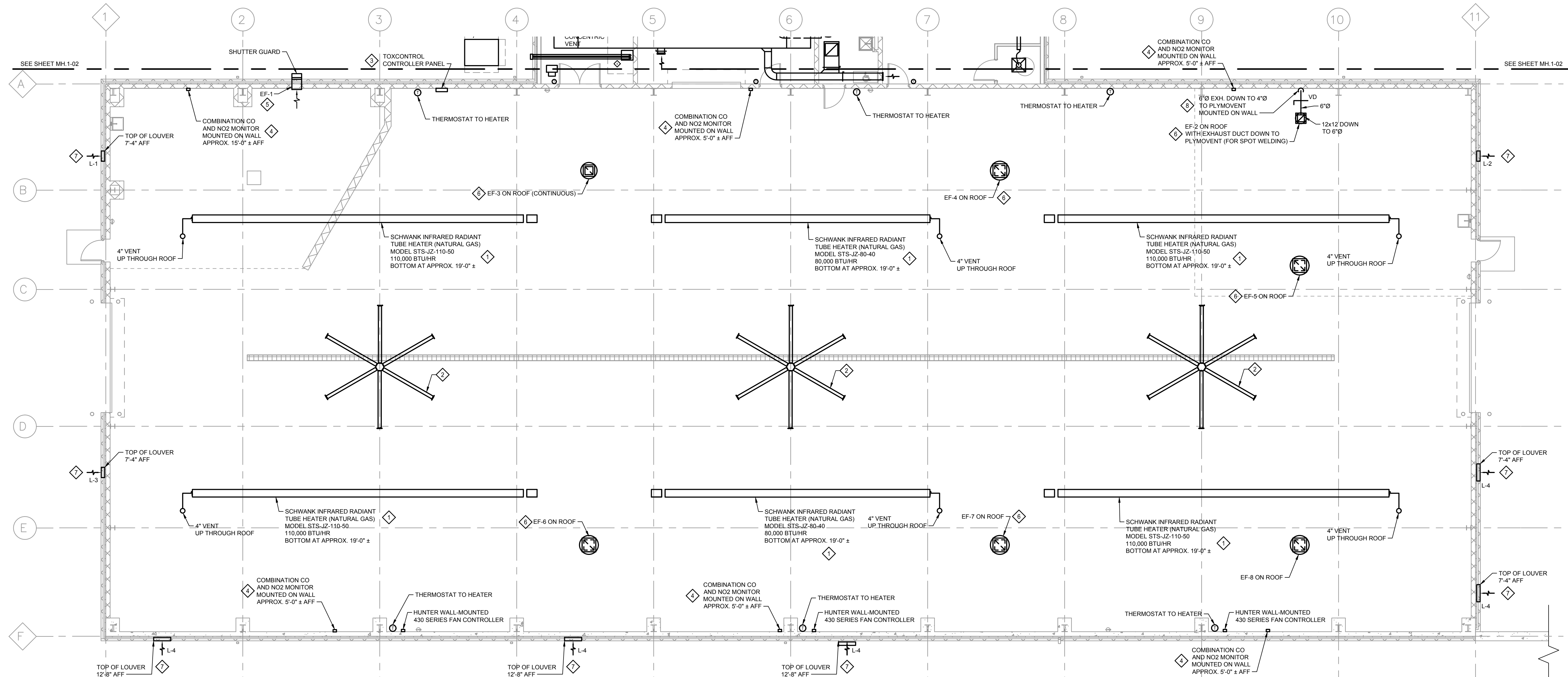
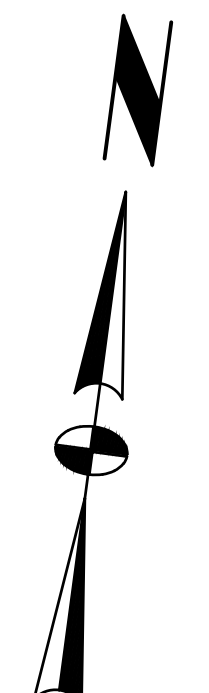


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PROJECT: 100608.0063
DATE: 02/07/2020
PROJECT MANAGER: KF
DESIGNED BY: JMT
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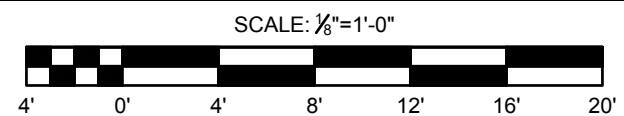
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02/07/20 100608.0063
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100608.0063
WORK ORDER NUMBER

S.4-04
DRAWING NUMBER



GARAGE AREA MECHANICAL - HVAC PLAN



INSTALLATION NOTES:

- 1. PROVIDE NEW SCHWANK PREMIERSCHWANK COMMERCIAL INDUSTRIAL NATURAL GAS TUBE HEATER AS INDICATED. PROVIDE WITH TRU-TEMP 24V SET BACK THERMOSTAT. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE MOUNTING HEIGHT WITH STRUCTURE AND OTHER PIPING AND EQUIPMENT.
- 2. PROVIDE NEW HUNTER TITAN 18" DIAMETER INDUSTRIAL FAN, 95 RPM, 1 HP, 208V, SINGLE PHASE, WEIGHT APPROXIMATELY 183 POUNDS. PROVIDE WITH WALL MOUNTED CONTROLLER. COORDINATE INSTALLATION WITH OTHER CONTRACTORS. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 3. PROVIDE NEW TOXALERT TOXCONTROL MODEL TOXC-12 CONTROLLER PANEL FOR THE CARBON MONOXIDE AND NITROGEN DIOXIDE DETECTION SYSTEM. THE GAS DETECTION SYSTEM SHALL BE TIED INTO EXHAUST FANS EF-4, EF-5, EF-6, EF-7, AND EF-8. COORDINATE INSTALLATION WITH OTHER CONTRACTORS. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 4. PROVIDE NEW TOXALERT SENSOR MODULE, MODEL TOX-EC-CO/NO2. SENSOR MODULE TO BE A CARBON MONOXIDE AND NITROGEN DIOXIDE SENSOR. COORDINATE INSTALLATION WITH OTHER CONTRACTORS. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 5. PROVIDE NEW SIDEWALL EXHAUST FAN. REFER TO THE EXHAUST FAN SCHEDULE ON DRAWING M-4-01. CONTRACTOR TO PROVIDE ADDITIONAL SUPPORT FOR EXHAUST FAN AS REQUIRED. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE INSTALLATION WITH OTHER CONTRACTORS.
- 6. PROVIDE NEW DOWNBLAST ROOFTOP EXHAUST FAN. REFER TO THE EXHAUST FAN SCHEDULE ON DRAWING M-4-01. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE INSTALLATION WITH OTHER CONTRACTORS.
- 7. PROVIDE NEW LOUVER IN THE WALL. REFER TO THE LOUVER SCHEDULE ON DRAWING M-4-01. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE INSTALLATION WITH OTHER CONTRACTORS.
- 8. PROVIDE NEW MINIMAN MMH-100-21 PLYMOVENT, 300 CFM, 7'-0" WORKING RADIUS, 4"Ø CONNECTION SIZE. PROVIDE WITH WALL BRACKET AND SWIVEL JOINT. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

EXHAUST FANS SEQUENCE OF OPERATION:

- EF-1:**
 1. EF-1 SHALL BE OPERATED VIA A WALL MOUNTED SWITCH. WHEN THE WASH BAY AREA IS IN USE, THE USER MAY TURN ON THE EXHAUST FAN. LOUVER DAMPER IS INTERLOCKED WITH THE EXHAUST FAN. REFER TO THE ELECTRICAL DRAWING EP-1-02.
- EF-2:**
 1. EF-2 SHALL BE OPERATED VIA A WALL MOUNTED SWITCH. WHEN THE MAINTENANCE AREA IS IN USE AND WELDING IS BEING DONE, THE USER MAY TURN ON THE EXHAUST FAN. LOUVER DAMPER IS INTERLOCKED WITH THE EXHAUST FAN. REFER TO THE ELECTRICAL DRAWING EP-1-02.
- EF-3:**
 1. EF-3 SHALL OPERATE AT A CONTINUOUS RATE OF 800 CFM. LOUVER DAMPER IS INTERLOCKED WITH THE EXHAUST FAN. REFER TO THE ELECTRICAL DRAWING EP-1-02.
- EF-4, EF-5, EF-6, EF-7 AND EF-8:**
 1. EXHAUST FANS SHALL BE TIED INTO THE GAS MONITORING SYSTEM. WHEN A GAS CONCENTRATION IS DETECTED, THE EXHAUST FANS SHALL TURN ON. LOUVER DAMPERS ARE INTERLOCKED WITH EXHAUST FANS FOR EACH LOUVER. REFER TO THE ELECTRICAL DRAWING EP-1-02.

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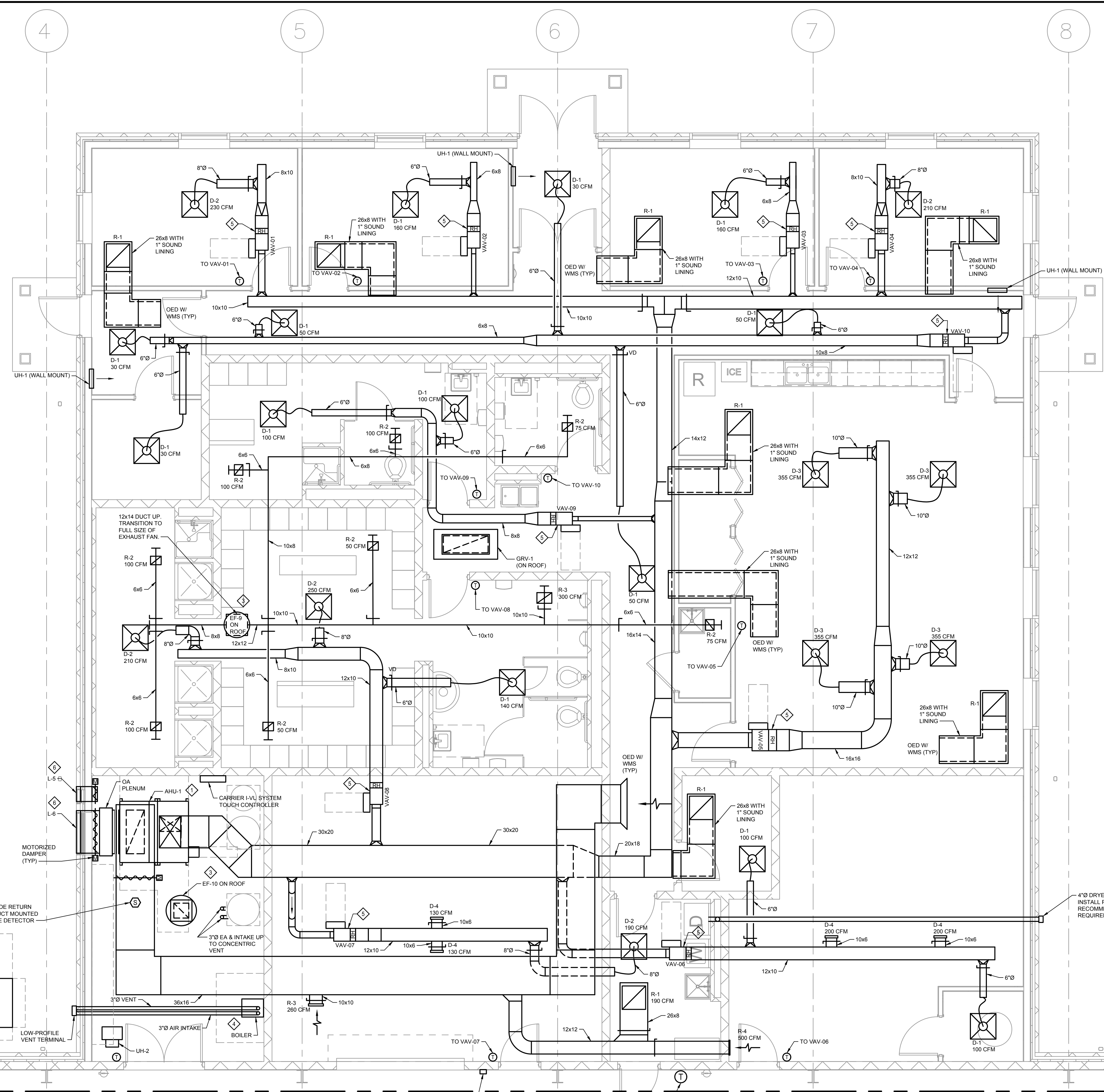
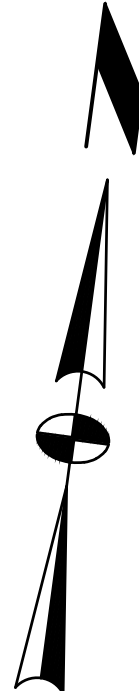
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BIDDING
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 PROJECT MANAGER: KF
 BASE BY: SSM
 DRAWN BY: TAE
 N.B.: N/A
 DATE: 1/1/19
 CHECKED BY: BHB

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 F: 6/16/01.2001
 Name: LANCESTER
 Normal Corporate Center, Suite 108
 Allentown, PA, 18104
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WORK ORDER NUMBER	
DRAWING NUMBER	MH.1-01



EQUIPMENT LIST:

ELECTRIC UNIT HEATERS

UH-1: BERKO AWH SERIES, ARCHITECTURAL HEAVY DUTY ELECTRIC WALL HEATER, MODEL NUMBER AWH4404F, 1.5 KW, 7.2 AMPS, 208V, SINGLE PHASE, STATUARY BRONZE COLOR, FIELD CONVERT FROM 3.0 KW TO HALF WATTAGE (1.5 KW).

UH-2: REZNOR MODEL WS, 22.3 MBH, 1.5 GPM, 0.3 FT, 165°F AVERAGE WATER TEMP, 0.682 MOTOR HP, 115V, 1PH 1.2 A, 2 SPEED MOTOR. PROVIDE WITH WALL MOUNTED THERMOSTAT WITH GUARD COVER.

REGISTERS, DIFFUSERS, AND GRILLES

D-1: KRUEGER 55HR LOUVERED FACE DIFFUSER, ALUMINUM, 6" ROUND INLET, 9"x9" FACE, 4-WAY THROW, 24x24 LAY-IN PANEL.

D-2: KRUEGER 55HR LOUVERED FACE DIFFUSER, ALUMINUM, 8" ROUND INLET, 9"x9" FACE, 4-WAY THROW, 24x24 LAY-IN PANEL.

D-3: KRUEGER 55HR LOUVERED FACE DIFFUSER, ALUMINUM, 10" ROUND INLET, 12"x12" FACE, 4-WAY THROW, 24x24 LAY-IN PANEL.

D-4: KRUEGER 580 ALUMINUM SINGLE DEFLECTION SUPPLY GRILLE WITH 3/4" BLADE SPACING, 10"x6" GRILLE.

R-1: KRUEGER EGCS EGG GRATE RETURN GRILL, 1/2"x1/2"x1/2" ALUMINUM CUBE RETURN GRILLE WITH 1 1/4" FLANGE, 24"x24" PANEL.

R-2: KRUEGER S880 ALUMINUM RETURN GRILLE WITH 3/4" SPACING, 6"x6" GRILLE.

R-3: KRUEGER S880 ALUMINUM RETURN GRILLE WITH 3/4" SPACING, 10"x10" GRILLE.

R-4: KRUEGER S880 ALUMINUM RETURN GRILLE WITH 3/4" SPACING, 12"x12" GRILLE.

GRV-1: LOREN COOK GR 12x42 THROAT. DUCT TO CEILING PLENUM WITH WIRE MESH SCREEN. PROVIDE MANUFACTURER'S RECOMMENDED ROOF CURB SIZE.

INSTALLATION NOTES:

- 1. PROVIDE NEW AIR HANDLING UNIT. REFER TO THE AIR HANDLING UNIT SCHEDULE ON DRAWING M.4-01. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE INSTALLATION WITH OTHER CONTRACTORS.
- 2. PROVIDE NEW CONDENSING UNIT. REFER TO THE CONDENSING UNIT SCHEDULE ON DRAWING M.4-01. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE INSTALLATION WITH OTHER CONTRACTORS.
- 3. PROVIDE NEW EXHAUST FANS. REFER TO THE EXHAUST FAN SCHEDULE ON DRAWING M.4-01. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE INSTALLATION WITH OTHER CONTRACTORS.
- 4. PROVIDE NEW BOILER. REFER TO THE EQUIPMENT LIST ON DRAWING M.4-01. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE INSTALLATION WITH OTHER CONTRACTORS.
- 5. PROVIDE NEW VAV BOXES. REFER TO THE VAV SCHEDULE ON DRAWING M.4-01. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE INSTALLATION WITH OTHER CONTRACTORS.
- 6. PROVIDE NEW LOUVERS. REFER TO THE LOUVER SCHEDULE ON DRAWING M.4-01. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE INSTALLATION WITH OTHER CONTRACTORS.

NO.	DATE	RELEASED FOR BIDDING	DESCRIPTION
1	10/07/2020		

DESIGNED BY: TAE
 DRAWN BY: SSM
 PROJECT MANAGER: KF
 N.B.: N/A
 DATE: 1/1/19
 CHECKED BY: BHB

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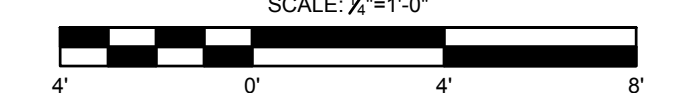
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 1000 Walnut Street, Suite 100
 Lancaster, PA 17303
 P: 717.391.1234
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 F: 01/06/2021
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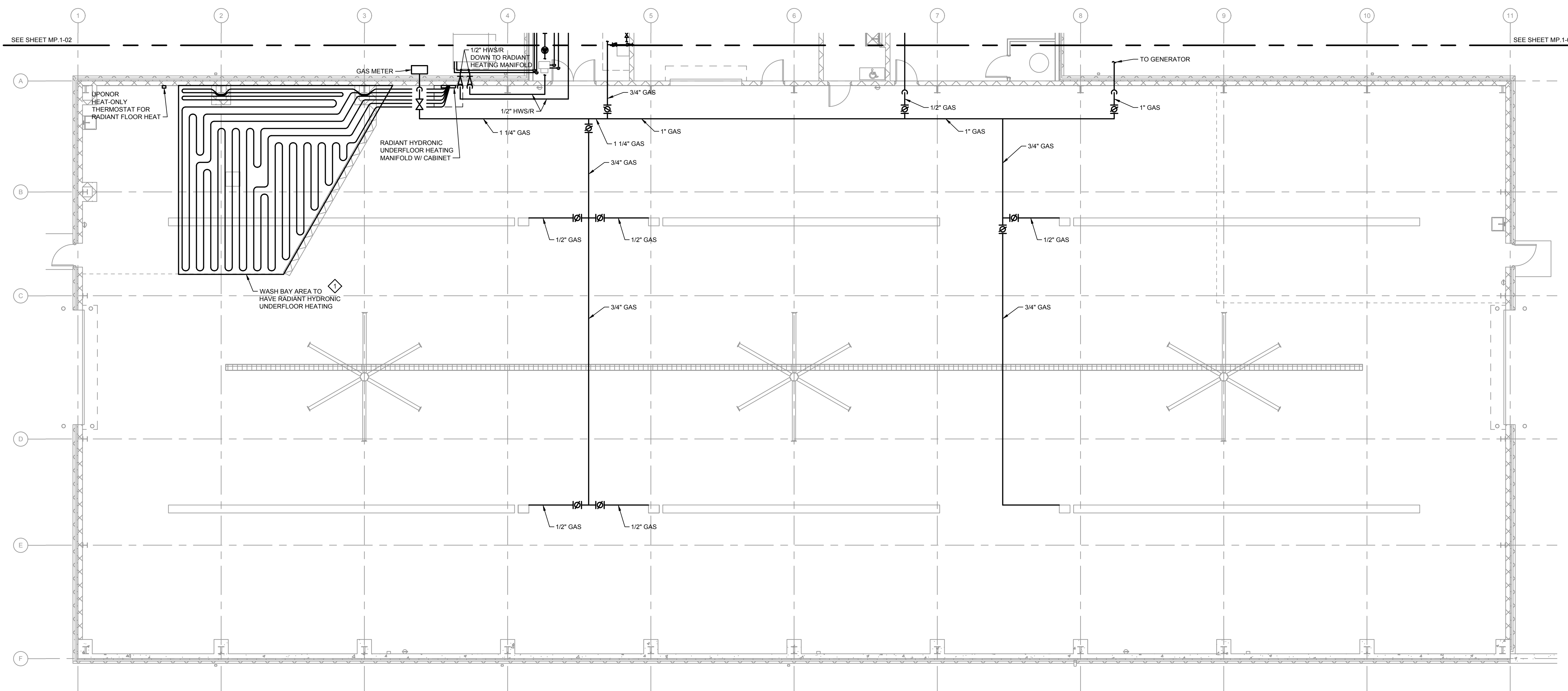
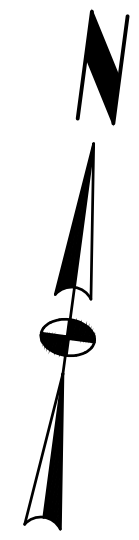
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MH.1-02
 DRAWING NUMBER

OFFICE AREA MECHANICAL - HVAC PLAN



SEE SHEET MH.1-01

SEE SHEET MH.1-01



GARAGE AREA MECHANICAL PIPING PLAN
 SCALE: 1/8" = 1'-0"

INSTALLATION NOTES:

◆ PROVIDE PACKAGED UPONOR RADIANT HYDRONIC UNDERFLOOR HEATING SYSTEM IN THE WASH BAY AREA. CONTACT AUSTIN LIND WITH UPONOR AT 952-679-6234 FOR COORDINATION. HOT WATER SUPPLY TEMP FOR RADIANT HEATING SYSTEM TO BE 95°F, RETURN TEMP TO BE 75°F. PROVIDE WITH STAINLESS-STEEL MANIFOLD ASSEMBLY, 3 LOOPS, SINGLE-ZONE PUMP RELAY, HEAT-ONLY THERMOSTAT WITH TOUCHSCREEN, SLAB SENSOR, MANIFOLD WALL CABINET, AND BRASS MANIFOLD PRESSURE TEST KIT. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND COORDINATE INSTALLATION WITH OTHER CONTRACTORS. REFER TO THE FLOW DIAGRAM ON DRAWING M.5-01.

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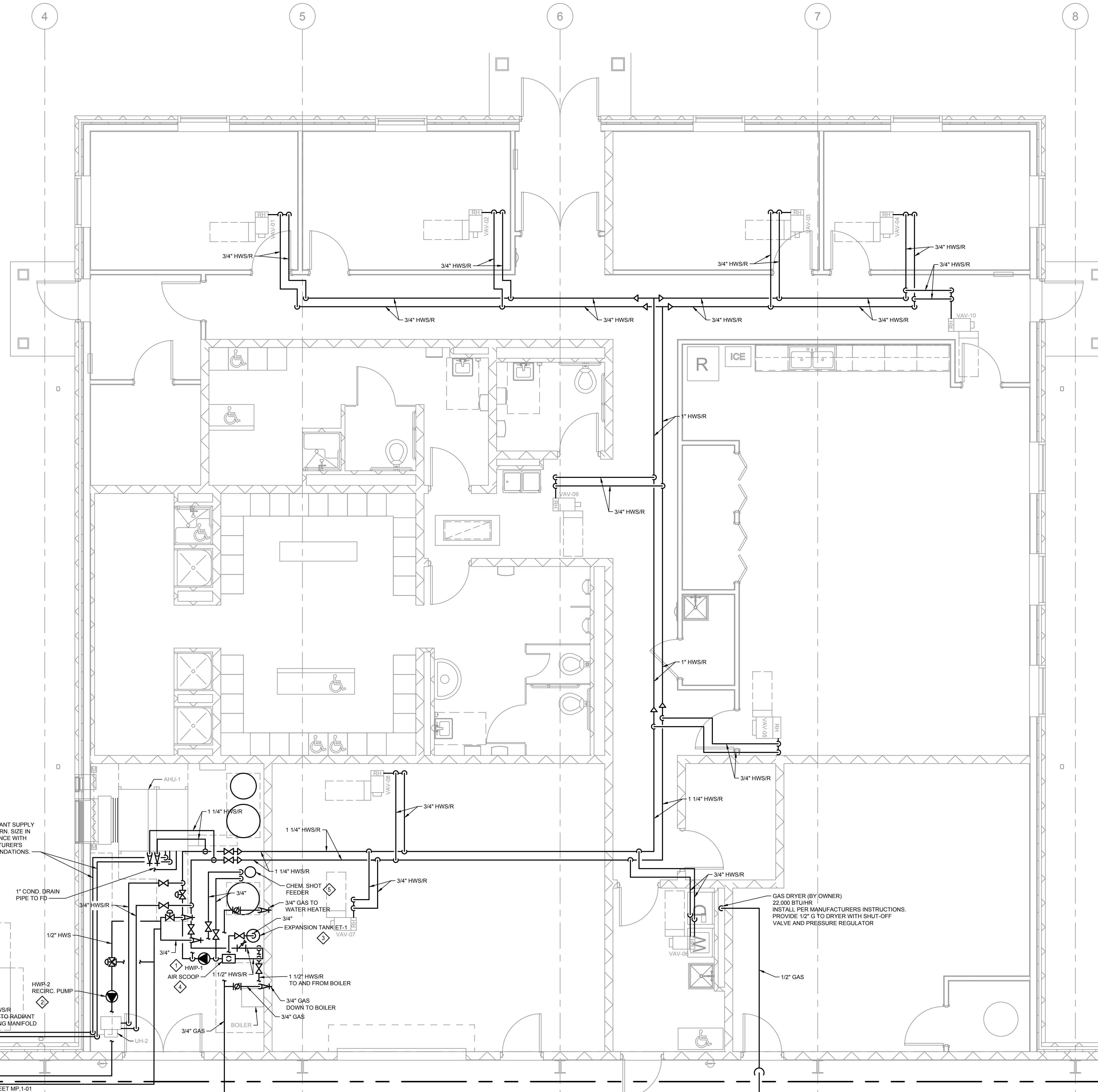
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 1000 North Lincoln Highway
 Allentown, PA 18104
 610.261.1234
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PROJECT MANAGER: KF
 BASE BY: SSM
 DRAWN BY: TAE
 N.B.: N/A
 DESIGNED BY: TAE
 DATE: 11/19
 CHECKED BY: BHB



- INSTALLATION NOTES:**
- 1 PROVIDE NEW HEATING HOT WATER PUMP (HWP-1). REFER TO THE EQUIPMENT LIST ON DRAWING M.4-01. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. REFER TO THE FLOW DIAGRAM ON DRAWING M.5-01.
 - 2 PROVIDE NEW HEATING HOT WATER RECIRCULATION PUMP (HWP-2). REFER TO THE EQUIPMENT LIST ON DRAWING M.4-01. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. REFER TO THE FLOW DIAGRAM ON DRAWING M.5-01.
 - 3 PROVIDE NEW EXPANSION TANK. EXPANSION TANK TO BE AMTROL EXTROL MODEL AX-15I-DD HYDRONIC EXPANSION TANK. VERTICAL AX SERIES ASME, 125 PSIG WORKING PRESSURE, 240°F MAXIMUM OPERATING TEMPERATURE, 125 PSIG MAXIMUM WORKING PRESSURE.
 - 4 PROVIDE NEW AIR SCOOP. AIR SCOOP TO BE TACO AIR SCOOP, PRODUCT NUMBER 433, SIZE 1 1/2", CAST IRON, MAXIMUM WORKING TEMPERATURE OF 300°F. PROVIDE WITH TACO AIR VENT MODEL 416-1 HY-VENT, 1/8" CONNECTION SIZE. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 - 5 PROVIDE NEW CHEMICAL SHOT FEEDER. CHEMICAL SHOT FEEDER TO BE NEPTUNE VERTICAL STYLE - DISH BOTTOM OUT MODEL DBFC-5, 5 GALLON CAPACITY, 300 PSI MAXIMUM WORKING PRESSURE. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

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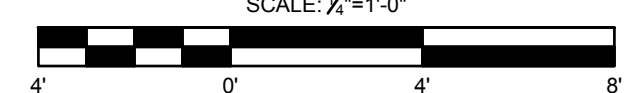


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30		SSM	SSM

OFFICE AREA MECHANICAL PIPING PLAN
 SCALE: 1/2"=1'-0"



SEE SHEET MP.1-01

REFRIGERANT SUPPLY AND RETURN SIZE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

1" COND. DRAIN PIPE TO FD

1/2" HWS

1/2" HWS/R DOWN TO RADIANT HEATING MANIFOLD

HWP-2 RECIRC. PUMP

UH-2

SEE SHEET MP.1-01

3/4" HWS/R

1 1/2" HWS/R TO AND FROM BOILER

3/4" GAS DOWN TO BOILER

3/4" GAS

1 1/4" HWS/R

1 1/4" HWS/R

1 1/4" HWS/R

1 1/4" HWS/R

1 1/4" HWS/R

1 1/4" HWS/R

1 1/4" HWS/R

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AIR HANDLING UNIT SCHEDULE																																
TAG	MAKE	MODEL	SUPPLY AIRFLOW (CFM)	OUTDOOR AIRFLOW (CFM)	TOTAL SP (IN-WG)	FAN RPM	FAN HP	TOTAL COOLING CAPACITY (MBH)	SENSIBLE COOLING CAPACITY (MBH)	DX COIL MODEL	EAT				LAT				REFRIG.	HEATING CAPACITY (MBH)	HW COIL MODEL	EAT °F DB	LAT °F DB	GPM	FLUID PRES. DROP (FT WG)	ELECTRICAL DATA						NOTES
											°F DB	°F WB	°F DB	°F WB	VOLTAGE	PH	HZ	FLA								MCA	MOCP					
AHU-1	CARRIER	39L SIZE 10	4,230	950	3.49	1800	5	137.71	110.17	28NE	78.80	64.60	54.98	53.65	R410A	132.79	28NB	53.50	81.45	9	0.90	208	3	60	14	17	30	1				

NOTES:

1. PROVIDE WITH CARRIER I-VU SYSTEM TOUCH CONTROLLER.

CONDENSING UNIT SCHEDULE																									
TAG	MAKE	MODEL	NOMINAL CAPACITY (TONS)	NET COOLING CAPACITY (MBH)	TOTAL POWER (KW)	EER	IEER	REFRIG.	SOUND POWER LEVELS (dB)								ELECTRICAL DATA						NOTES		
									TOTAL	63	125	250	500	1000	2000	4000	8000	VOLTAGE	PH	HZ	MCA	FUSE OR HACR BRKR		DISCONNECT FLA	DISCONNECT LRA
CU-1	CARRIER	38AUD14(D)	12.5	148	13.50	11	13	R410A	85.2	64.8	68.9	71.4	82.8	79.0	74.2	69.0	61.9	208	3	60	59	80	60	300	1.2,3

NOTES:

1. PROVIDE WITH MOTORMASTER HEAD PRESSURE CONTROL.
2. PROVIDE WITH HOT GAS BYPASS.
3. PROVIDE WITH CONVENIENCE OUTLET.

EXHAUST FAN SCHEDULE														
TAG	MAKE	MODEL	CATALOG NUMBER	FAN TYPE	DRIVE	EXHAUST AIRFLOW	SP	MOTOR	FAN	ELECTRICAL DATA			SPACE SERVED	NOTES
						CFM	IN-W.G.	HP	RPM	VOLTAGE	PHASE	HZ		
EF-1	LOREN COOK	XPHD	12XPH26D17	SIDEWALL	DIRECT	1000	-	1/4	1725	120	1	60	GARAGE	1.2
EF-2	LOREN COOK	ACE-D	90C15DH	DOWNBLAST CENTRIFUGAL	DIRECT	300	.5	1/8	1426	120	1	60	GARAGE	3,4,5,6
EF-3	LOREN COOK	ACE-D	120C13D	DOWNBLAST CENTRIFUGAL	DIRECT	800	.25	1/4	952	120	1	60	GARAGE	4,6,7,8
EF-4	LOREN COOK	ACE-D	150C15D	DOWNBLAST CENTRIFUGAL	DIRECT	2200	.25	3/4	1156	120	1	60	GARAGE	4,9,10,11
EF-5	LOREN COOK	ACE-D	150C15D	DOWNBLAST CENTRIFUGAL	DIRECT	2200	.25	3/4	1156	120	1	60	GARAGE	4,9,10,11
EF-6	LOREN COOK	ACE-D	150C15D	DOWNBLAST CENTRIFUGAL	DIRECT	2200	.25	3/4	1156	120	1	60	GARAGE	4,9,10,11
EF-7	LOREN COOK	ACE-D	150C15D	DOWNBLAST CENTRIFUGAL	DIRECT	2200	.25	3/4	1156	120	1	60	GARAGE	4,9,10,11
EF-8	LOREN COOK	ACE-D	150C15D	DOWNBLAST CENTRIFUGAL	DIRECT	2200	.25	3/4	1156	120	1	60	GARAGE	4,9,10,11
EF-9	LOREN COOK	ACE-D	120C15D	DOWNBLAST CENTRIFUGAL	DIRECT	950	.40	1/4	1158	120	1	60	MEN'S RESTROOM, LOCKER ROOM, SHOWERS, WOMEN'S RESTROOM(S)	4,6,7,9,12
EF-10	LOREN COOK	ACE-D	90C15DH	DOWNBLAST CENTRIFUGAL	DIRECT	250	.40	1/8	1258	120	1	60	MECHANICAL ROOM	3,4,5,6

NOTES:

1. PROVIDE WITH STL SHUTTER GUARD.
2. PROVIDE WITH NEMA-3 DISCONNECT SWITCH.
3. PROVIDE WITH BD-12 DAMPER.
4. PROVIDE WITH NEMA-1 DISCONNECT SWITCH.
5. PROVIDE WITH RCG 16-13.5H ROOF CURB W/ TRAY.
6. PROVIDE WITH FAN SPEED CONTROLLER, 5 AMP 120 VOLT.
7. PROVIDE WITH BD-14 DAMPER.
8. PROVIDE WITH RCG 18-13.5H ROOF CURB W/ TRAY.
9. PROVIDE WITH BD-18 DAMPER.
10. PROVIDE WITH RCG 22-13.5H ROOF CURB W/ TRAY.
11. PROVIDE WITH FAN SPEED CONTROLLER, 10 AMP 120V PREWIRE.
12. PROVIDE PROGRAMMABLE TIME CLOCKS WITH EXHAUST FAN, REFER TO THE SPECIFICATIONS AND ELECTRICAL DRAWINGS.

VAV SCHEDULE									
TAG	MAKE	MODEL	INLET SIZE	ORIENTATION	SPACE SERVED	MAX AIRFLOW (CFM)	MIN AIRFLOW (CFM)	REHEAT (MBH)	NOTES
VAV-1	KRUEGER	LMHS	6	RH	OFFICE 101	230	150	6.6	1
VAV-2	KRUEGER	LMHS	4	RH	OFFICE 102	160	120	5.2	1
VAV-3	KRUEGER	LMHS	4	RH	OFFICE 104	160	120	5.1	1
VAV-4	KRUEGER	LMHS	6	RH	OFFICE 105	210	160	6.6	1
VAV-5	KRUEGER	LMHS	14	RH	LUNCH ROOM 116	1,420	500	21.1	1
VAV-6	KRUEGER	LMHS	8	RH	STORAGE ROOM 118, IT 117, AND EQUIPMENT 119	600	350	14.8	1
VAV-7	KRUEGER	LMHS	6	RH	STORAGE ROOM 121 AND CORRIDOR 120	450	400	17.1	1
VAV-8	KRUEGER	LMHS	8	RH	MEN'S LOCKERS 111, MEN'S SHOWER 112, AND MEN'S RESTROOM 113	600	350	14.6	1
VAV-9	KRUEGER	LMHS	4	RH	WOMEN'S LOCKERS 109	200	100	4.4	1
VAV-10	KRUEGER	LMHS	6	RH	CORRIDOR 106, UNIFORM 108, VEST, 103, AND VEST 107	220	150	5.9	1

NOTES:

1. PROVIDE WITH CARRIER ZS-PRO THERMOSTAT.

LOUVER SCHEDULE									
TAG	MAKE	MODEL	TYPE	MAX INTAKE VOLUME FLOW RATE	SP	DIMENSIONS			NOTES
				CFM	IN-W.G.	WIDTH (IN.)	HEIGHT (IN.)	DEPTH (IN.)	
L-1	POTTORFF	EXD-645	COMBINATION LOUVER/DAMPER	1000	0.15	18	36	6	1.2,3
L-2	POTTORFF	EXD-645	COMBINATION LOUVER/DAMPER	300	0.15	18	24	6	1.2,3
L-3	POTTORFF	EXD-645	COMBINATION LOUVER/DAMPER	800	0.15	18	24	6	1.2,3
L-4	POTTORFF	EXD-645	COMBINATION LOUVER/DAMPER	2200	0.15	30	48	6	1.2,3
L-5	POTTORFF	EFD-437	EXTRUDED ALUMINUM DRAINABLE BLADE	250	0.05	14	14	4	2,4,5
L-6	POTTORFF	EFD-437	EXTRUDED ALUMINUM DRAINABLE BLADE	4230	.05	40	40	4	2,4,6

NOTES:

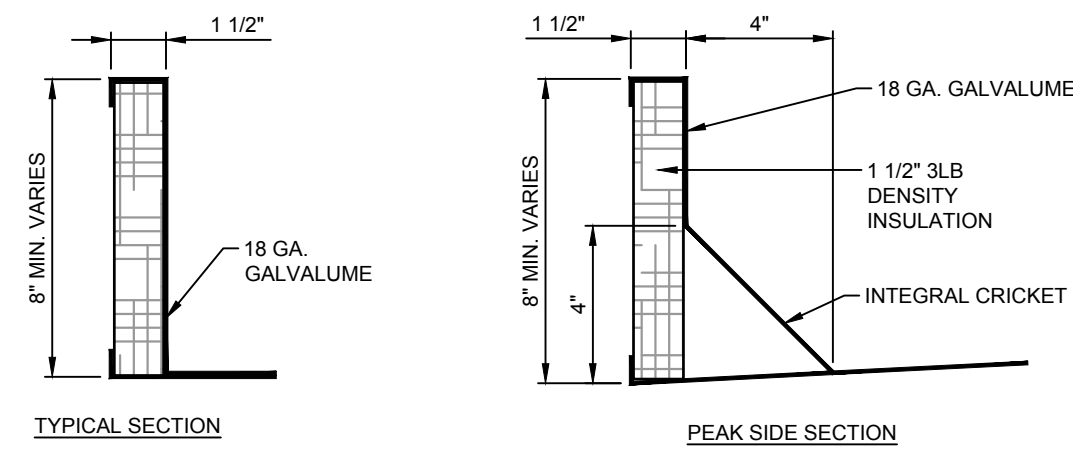
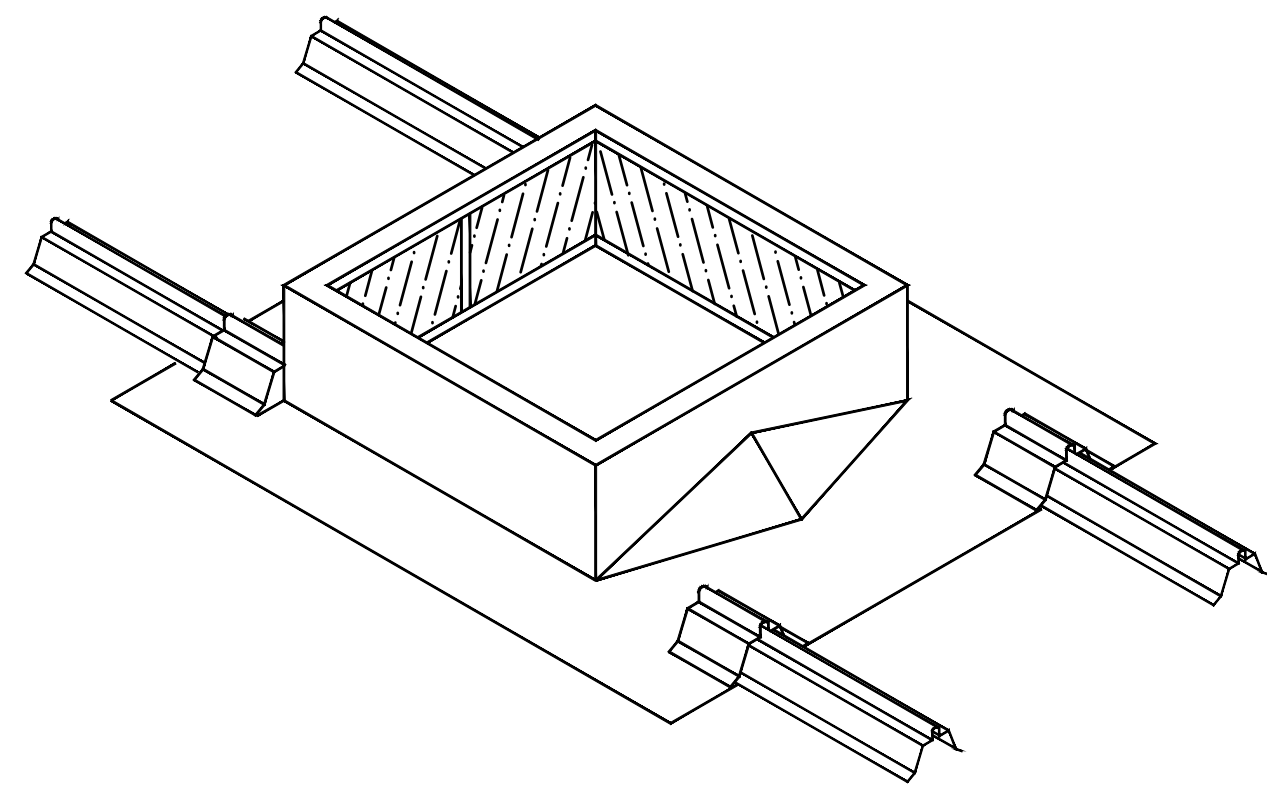
1. PROVIDE WITH 120V ELECTRIC ACTUATOR, NEMA 1.
2. PROVIDE WITH BIRD/INSECT SCREEN.
3. PROVIDE WITH BAKED ENAMEL FINISH.
4. PROVIDE WITH DAMPER EQUAL TO POTTORFF MODEL CD-41 (2-POSITION SPRING RETURN).
5. PROVIDE WITH DAMPER ACTUATOR EQUAL TO POTTORFF MODEL TFB120, 120V, 2.5W.
6. PROVIDE WITH 24V ELECTRIC DAMPER ACTUATOR, INTERLOCK WITH AIR HANDLING UNIT RETURN DAMPER.

MECHANICAL LEGEND		
	SHUTOFF VALVE	
	BALL VALVE	
	BUTTERFLY VALVE	
	GATE VALVE	
	DIFFERENTIAL PRESSURE SENSOR	
	TEMPERATURE SENSOR	
	PRESSURE REDUCING VALVE	
	MOTOR OPERATED VALVE-2 WAY	
	MOTOR OPERATED VALVE-3 WAY	
	CHECK VALVE	
	REDUCED PRESSURE BACKFLOW PREVENTER	
	STRAINER W/ BLOWDOWN	
	RELIEF VALVE	
	AIR VENT - MANUAL	
	AIR VENT - AUTOMATIC	
	PRESSURE GAUGE W/ GAUGE COCK	
	THERMOMETER	
	CALIBRATED BALANCING VALVE	
	PIPING FLEXIBLE CONNECTION	
	UNION	
	REDUCER	
	FLOW METER	
	PIPING UP	A.F.G.
	PIPING DOWN	A.F.F.
	TEE DOWN	T.O.P.
	TEE UP	B.O.P.
	45- ELBOW	T.O.D.
	CONTINUATION	B.O.D.
	FLOW ARROW	(E)
	CHILLED WATER SUPPLY	(RBF)
	CHILLED WATER RETURN	(RAC)
	HOT WATER SUPPLY	DIA
	HOT WATER RETURN	SA
	CONDENSATE	RA
	MAKE-UP WATER	CFM
	VENT PIPING	CM
	REFRIGERANT LIQUID	GC
	REFRIGERANT SUCTION	PC
	FUEL OIL SUPPLY	EC
	FUEL OIL RETURN	AFF
	CONDENSER WATER SUPPLY	AHU
	CONDENSER WATER RETURN	CH
	THERMOSTAT	C
	HUMIDISTAT	EF
	CARBON DIOXIDE SENSOR (CO ₂)	FC
	TEMPERATURE SENSOR	FT
	THERMOSTAT - REVERSE ACTING	UH
	THERMOSTAT - NITE SET-BACK	UV
	EQUIPMENT DESIGNATION	MAU
	24x12	OAI
	DUCT SIZE	
	DIRECTION OF FLOW	
	DUCT SECTION, RETURN AIR	
	DUCT SECTION, SUPPLY AIR	
	VOLUME DAMPER	
	TRANSITION	
	TURNING VANES	
	MOTOR OPERATED DAMPER	
	ACCESS DOOR	
	FIRE DAMPER	
	FLEXIBLE CONNECTION	
	SUPPLY AIR DIFFUSER	
	RETURN AIR DIFFUSER	
	FLEX DUCT	
	EXISTING ITEM	
	ITEM TO DEMOLISH	
	NEW ITEM	
	CONNECTION TO EXISTING	
	EXTENT OF DEMOLITION	
	INSTALLATION NOTE	
	REMOVAL NOTE	
	ABOVE FINISHED GRADE	
	ABOVE FINISHED FLOOR	
	TOP OF PIPE	
	BOTTOM OF PIPE	
	TOP OF DUCT	
	BOTTOM OF DUCT	
	EXISTING	
	RUN BELOW FLOOR	
	RUN ABOVE CEILING	
	DIAMETER	
	SUPPLY AIR	
	RETURN AIR	
	CUBIC FEET PER MINUTE	
	CONSTRUCTION MANAGER	
	GENERAL CONTRACTOR	
	PLUMBING CONTRACTOR	
	ELECTRICAL CONTRACTOR	
	ABOVE FINISHED FLOOR	
	AIR HANDLING UNIT	
	CABINET HEATER	
	CONVECTOR	
	EXHAUST FAN	
	FAN COIL	
	FIN TUBE	
	UNIT HEATER	
	UNIT VENTILATOR	
	MAKE UP AIR UNIT	
	OUTDOOR AIR INTAKE	

RELEASED FOR: BIDDING
 NOT FOR CONSTRUCTION
 PROJECT MANAGER: KF
 BASE BY: SSM
 DRAWN BY: TAE

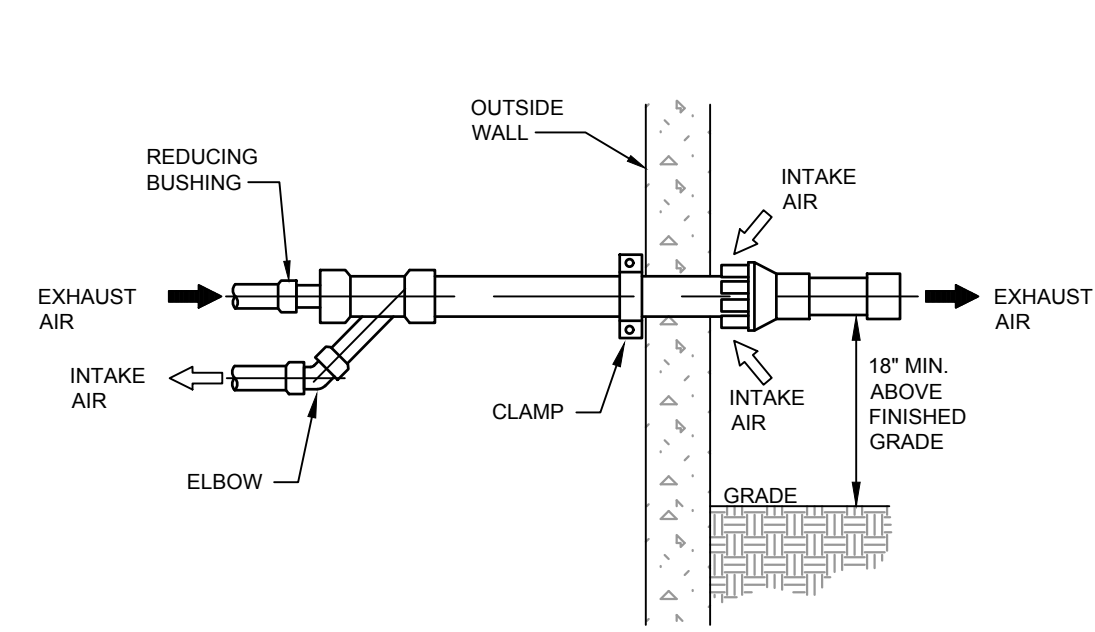
DATE: 1/19
 N.B.: N/A
 DESIGNED BY: MMH
 CHECKED BY: BHB

MUHLENBERG TOWNSHIP AUTHORITY
 OFFICE BUILDING & MAINTENANCE GARAGE
 MECHANICAL SCHEDULES AND LEGEND
 COPYRIGHT 2020 SPOTTS, STEVENS & MCCOY
 100608.0063
 M.4-01
 WORK ORDER NUMBER
 100608.0063
 M.4-01
 DRAWING NUMBER

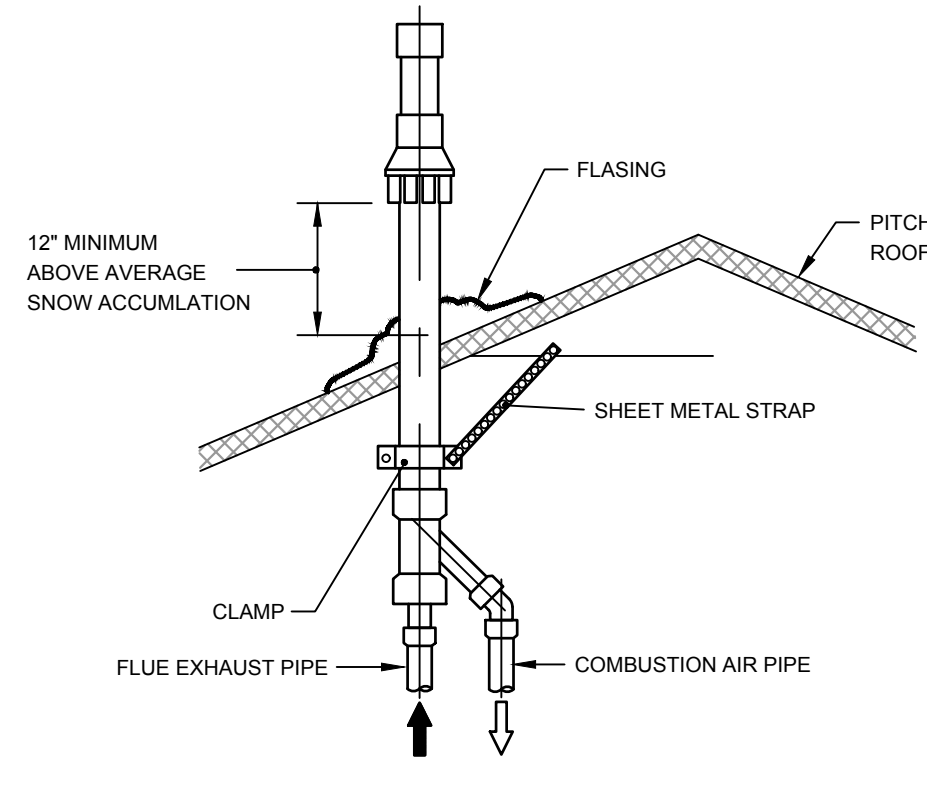


METAL ROOF CURB DETAIL
NOT TO SCALE

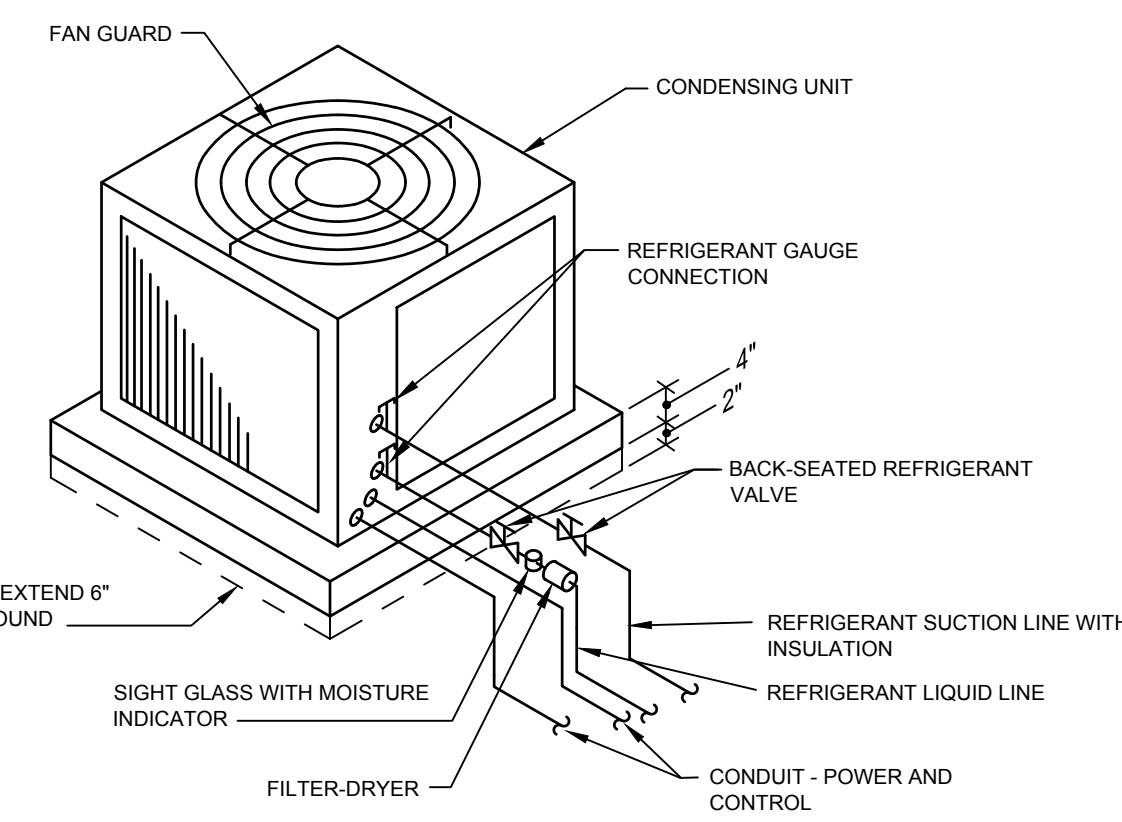
THYCURB METAL BUILDING CURB FOR
PRE-ENGINEERED METAL BUILDINGS



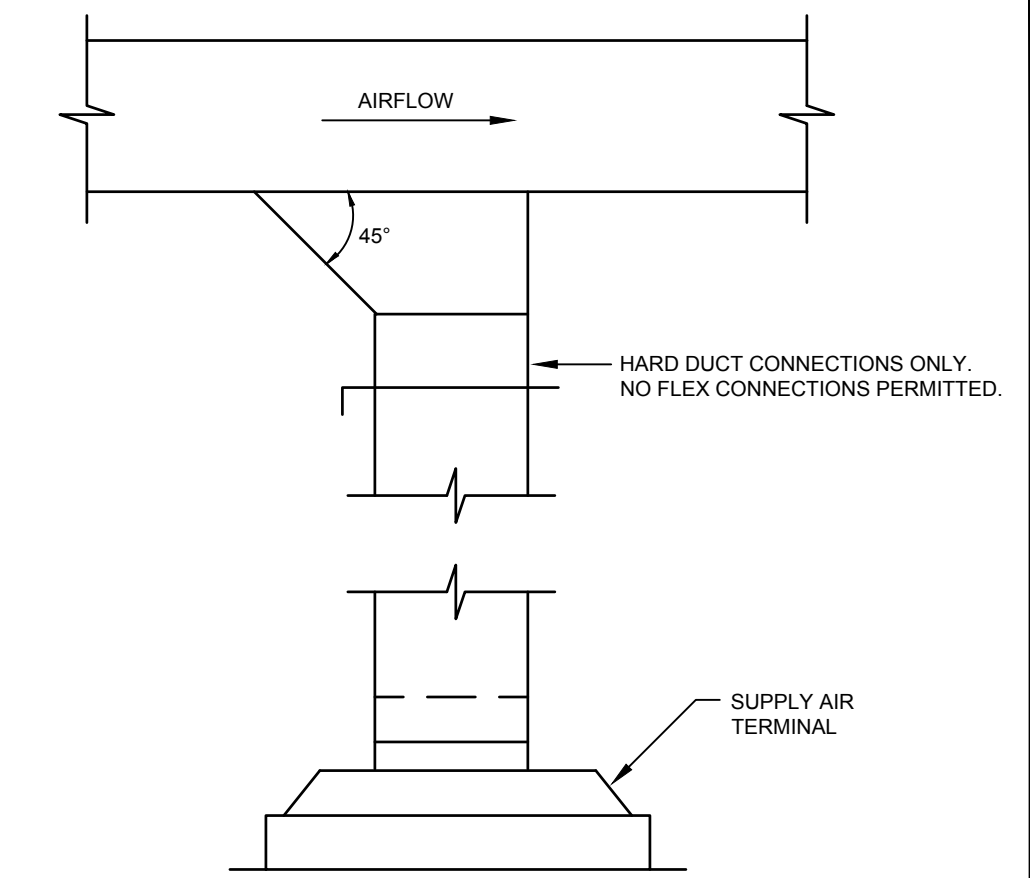
**CONCENTRIC WALL TERMINATION
INSTALLATION DETAIL**
(TYPICAL FOR HIGH EFFICIENCY GAS FURNACES)
N.T.S.



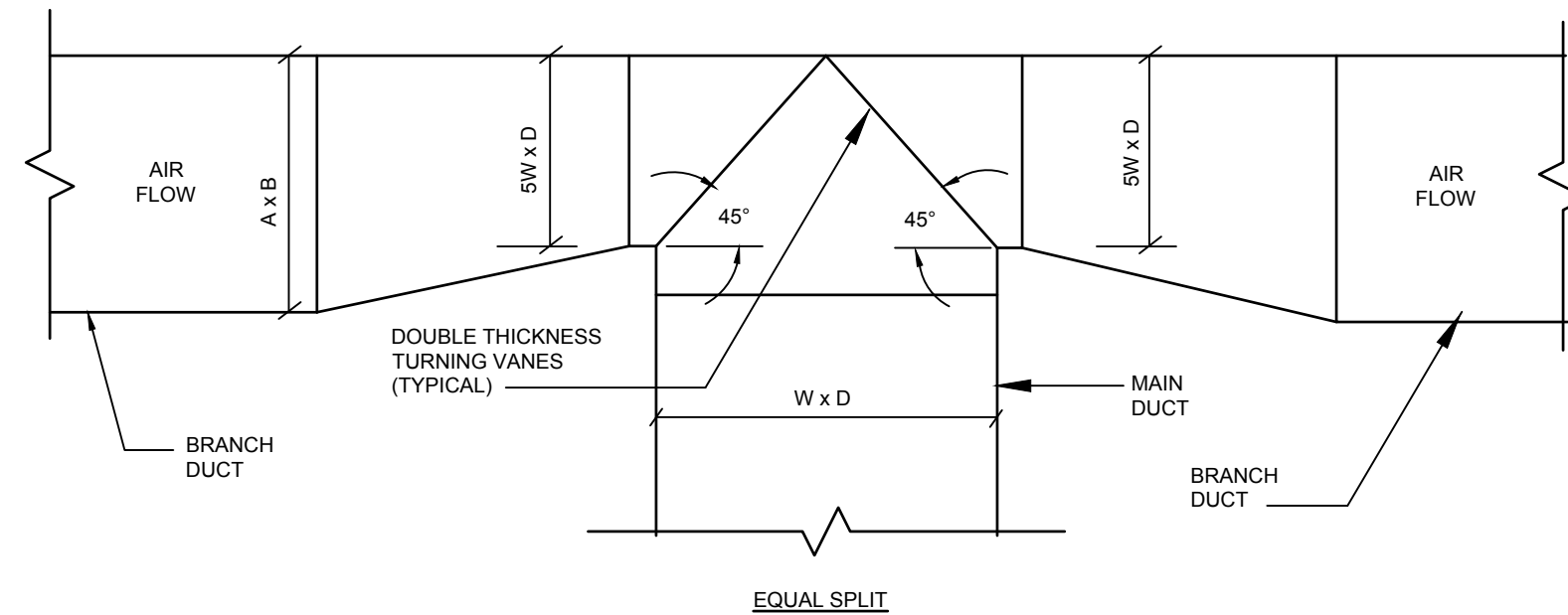
**CONCENTRIC SLOPED ROOF TERMINATION
INSTALLATION DETAIL**
(TYPICAL FOR HIGH EFFICIENCY GAS FURNACES)
N.T.S.



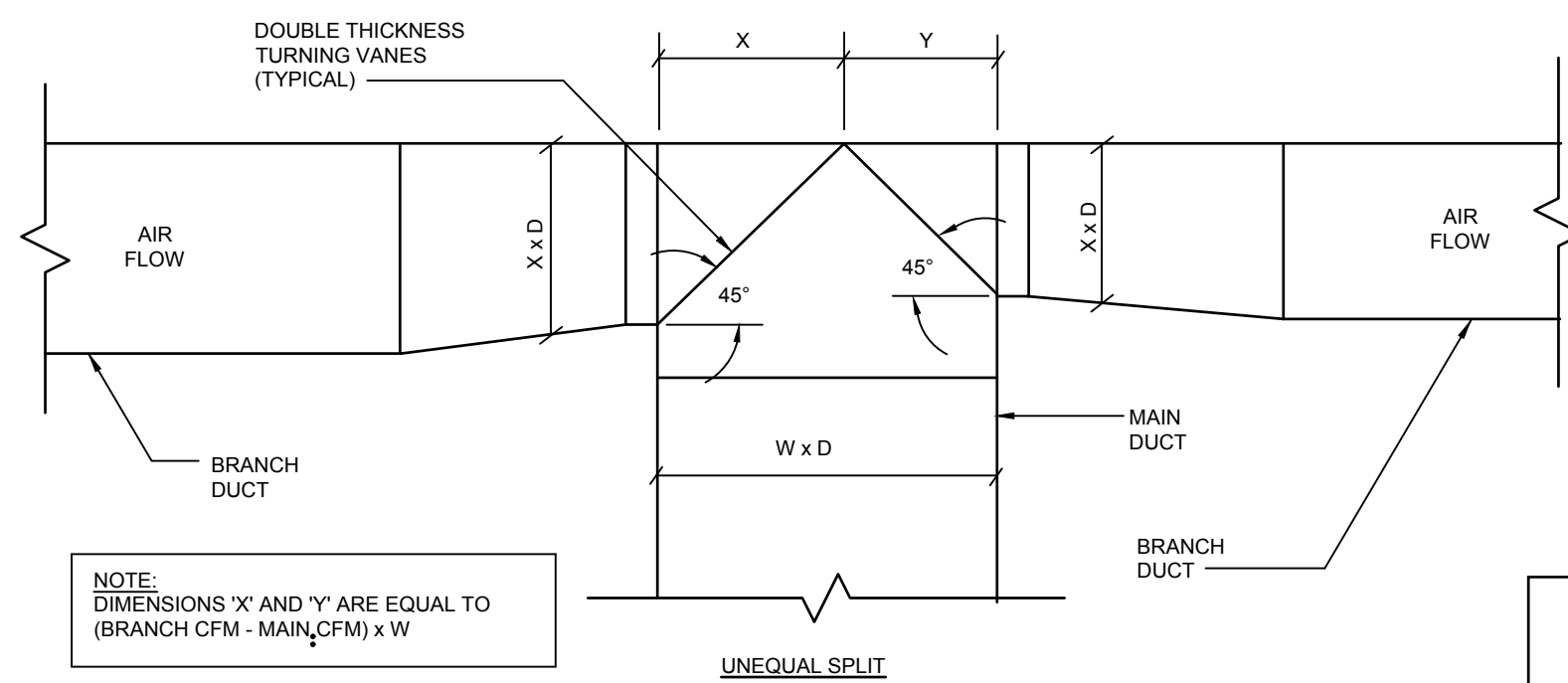
**AIR-COOLED CONDENSING UNIT
- SLAB MOUNTED AT GRADE**
N.T.S.



DUCT BRANCH TAKE-OFF DETAIL
NOT TO SCALE



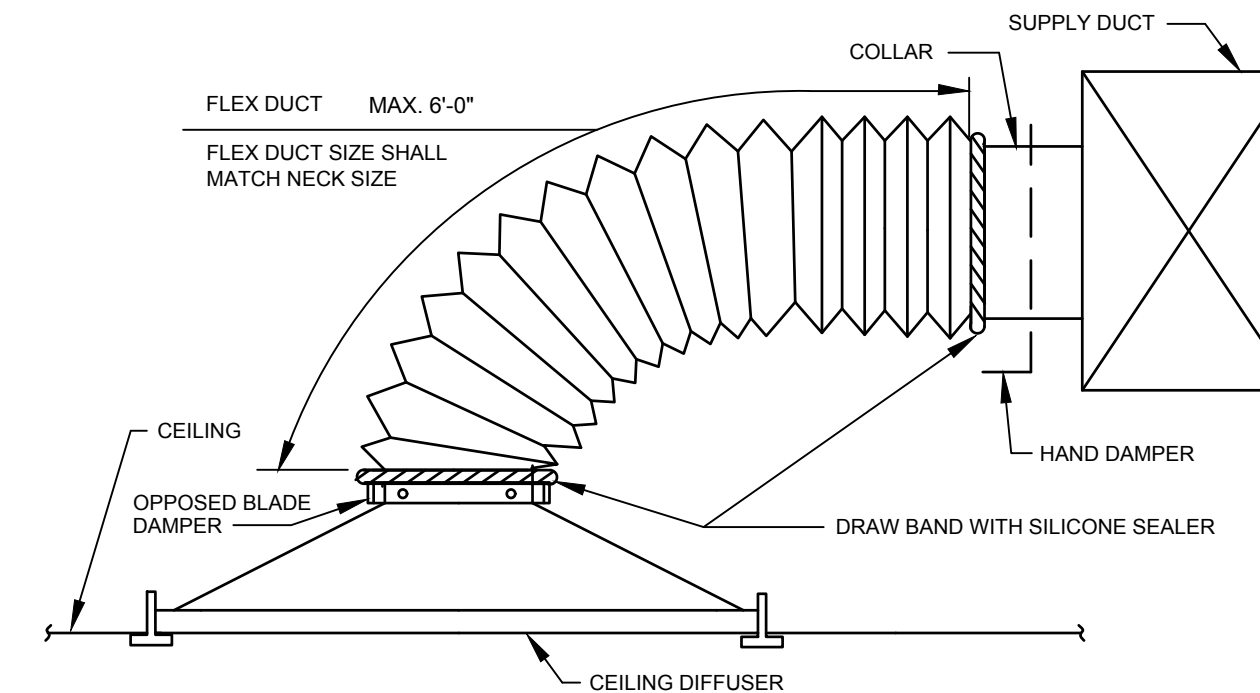
EQUAL SPLIT



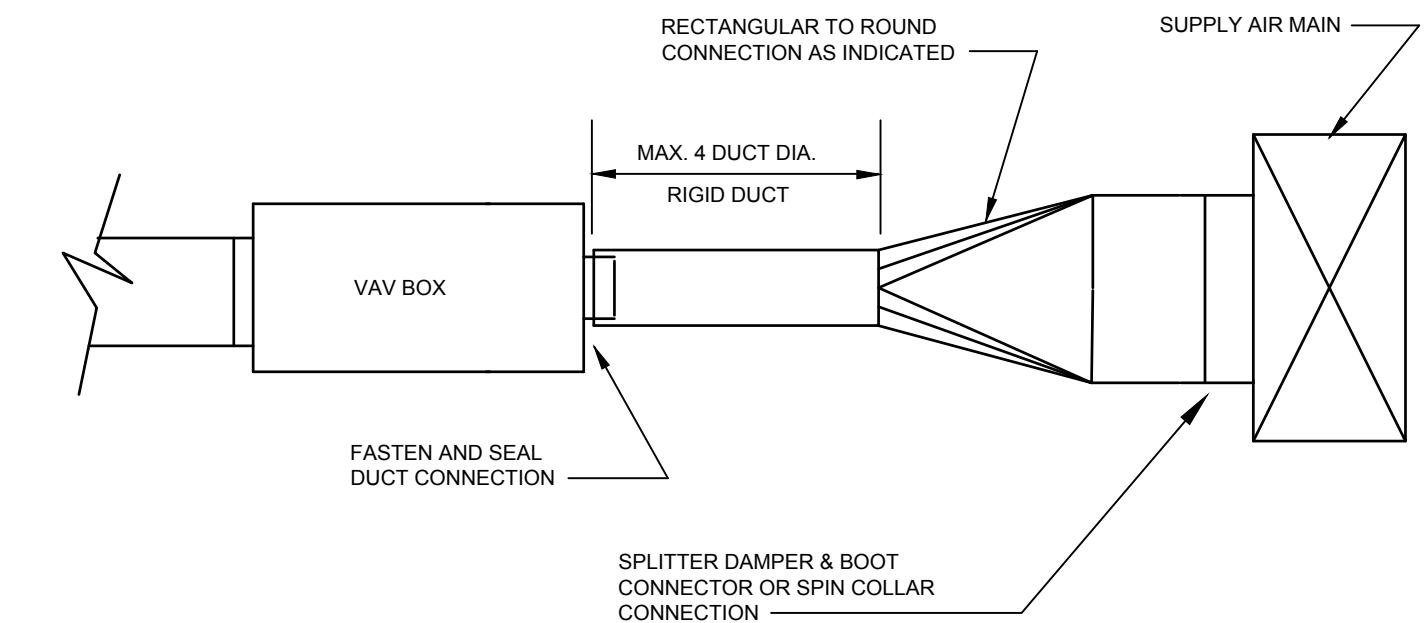
UNEQUAL SPLIT

NOTE:
DIMENSIONS 'X' AND 'Y' ARE EQUAL TO
(BRANCH CFM - MAIN CFM) x W

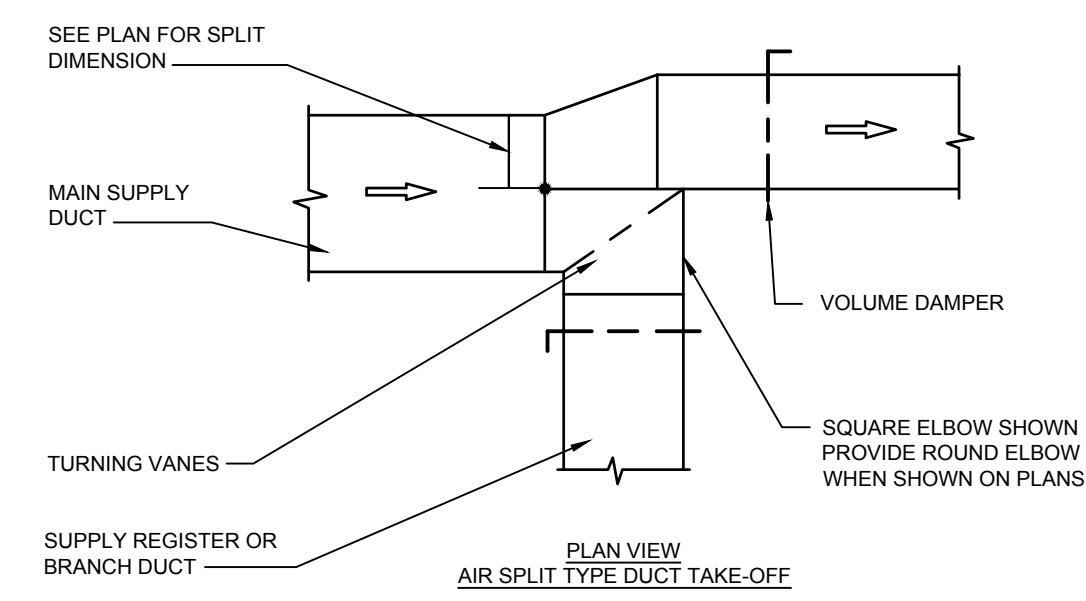
DUCT TEE CONNECTION DETAIL
NOT TO SCALE



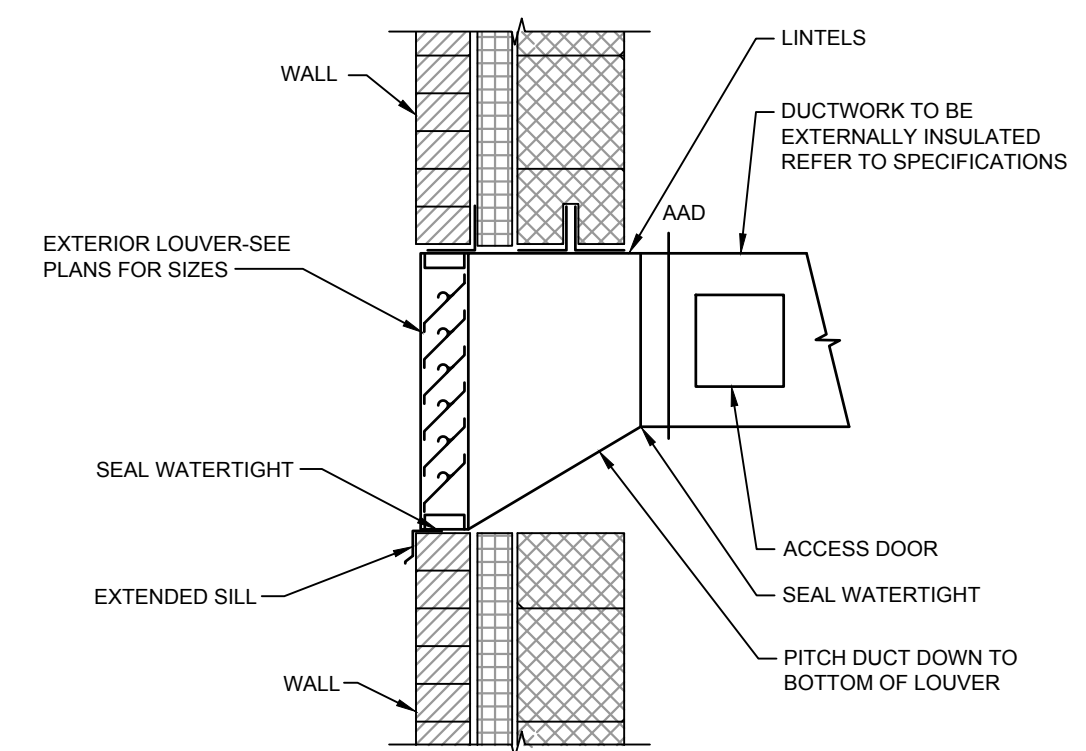
TYPICAL DIFFUSER CONNECTION
(SIDE OF DUCT CONNECTION)
NOT TO SCALE



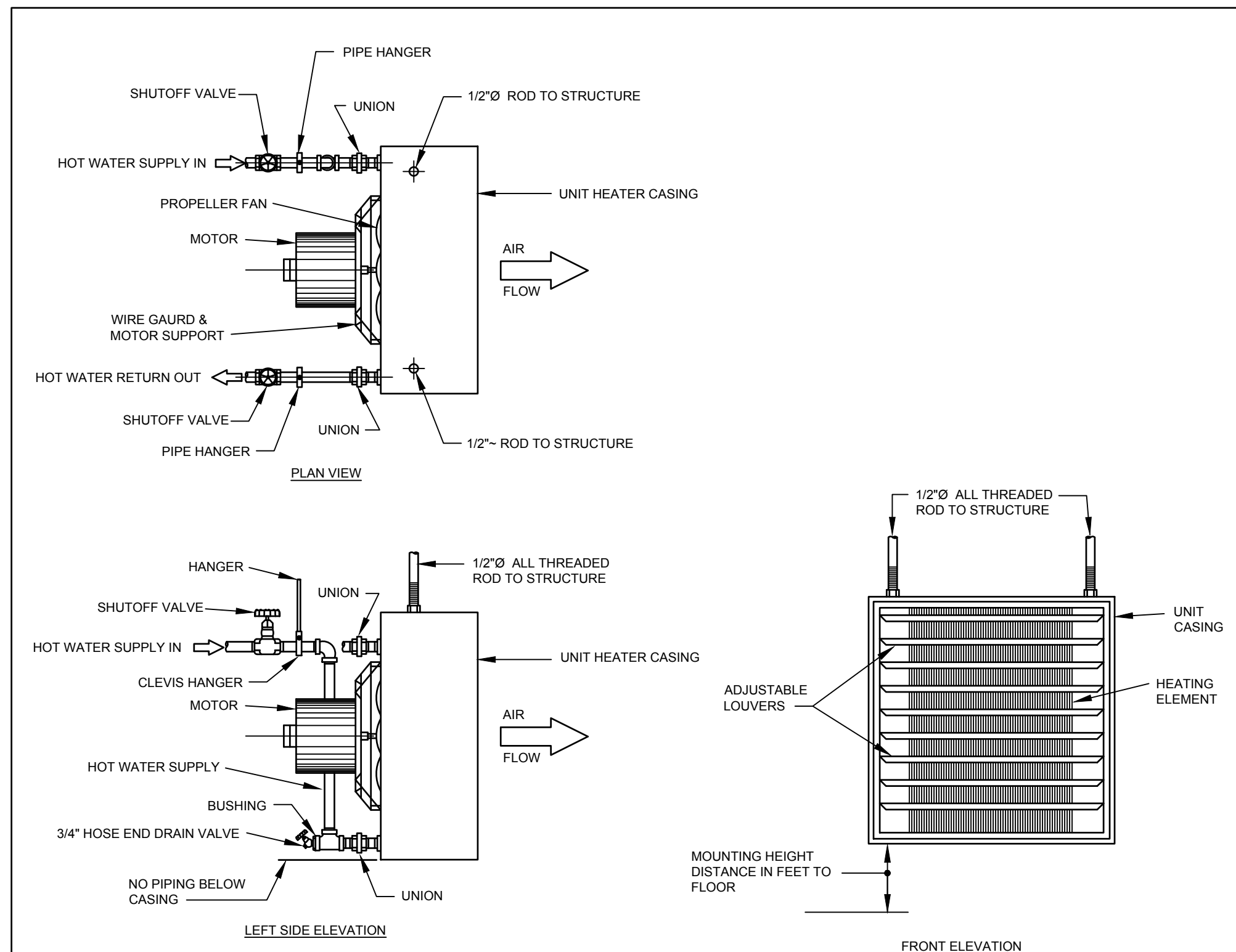
TERMINAL BOX CONNECTION
NOT TO SCALE



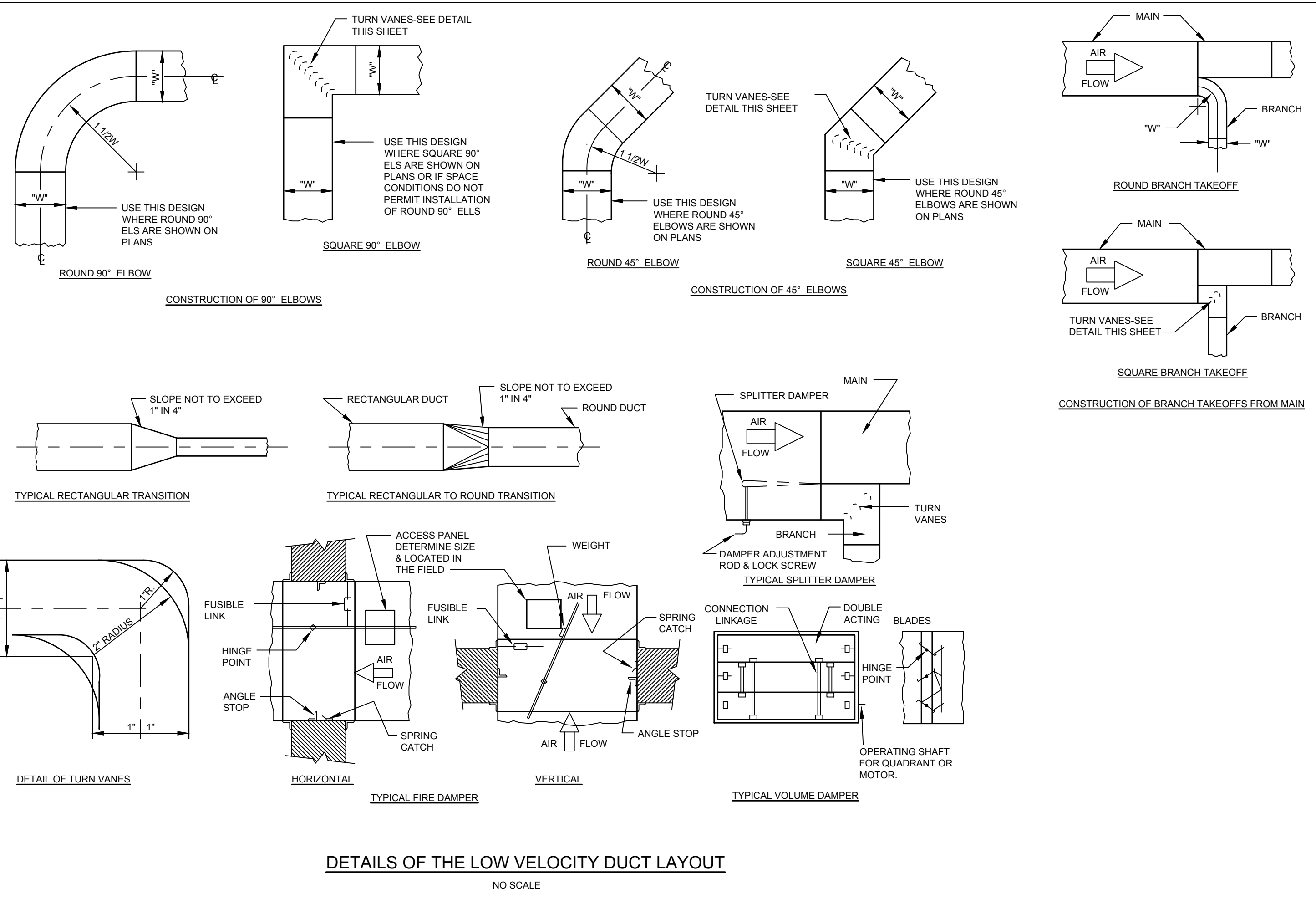
SPLITTER DUCT DETAIL
NOT TO SCALE



EXTERIOR LOUVER DETAIL
NOT TO SCALE

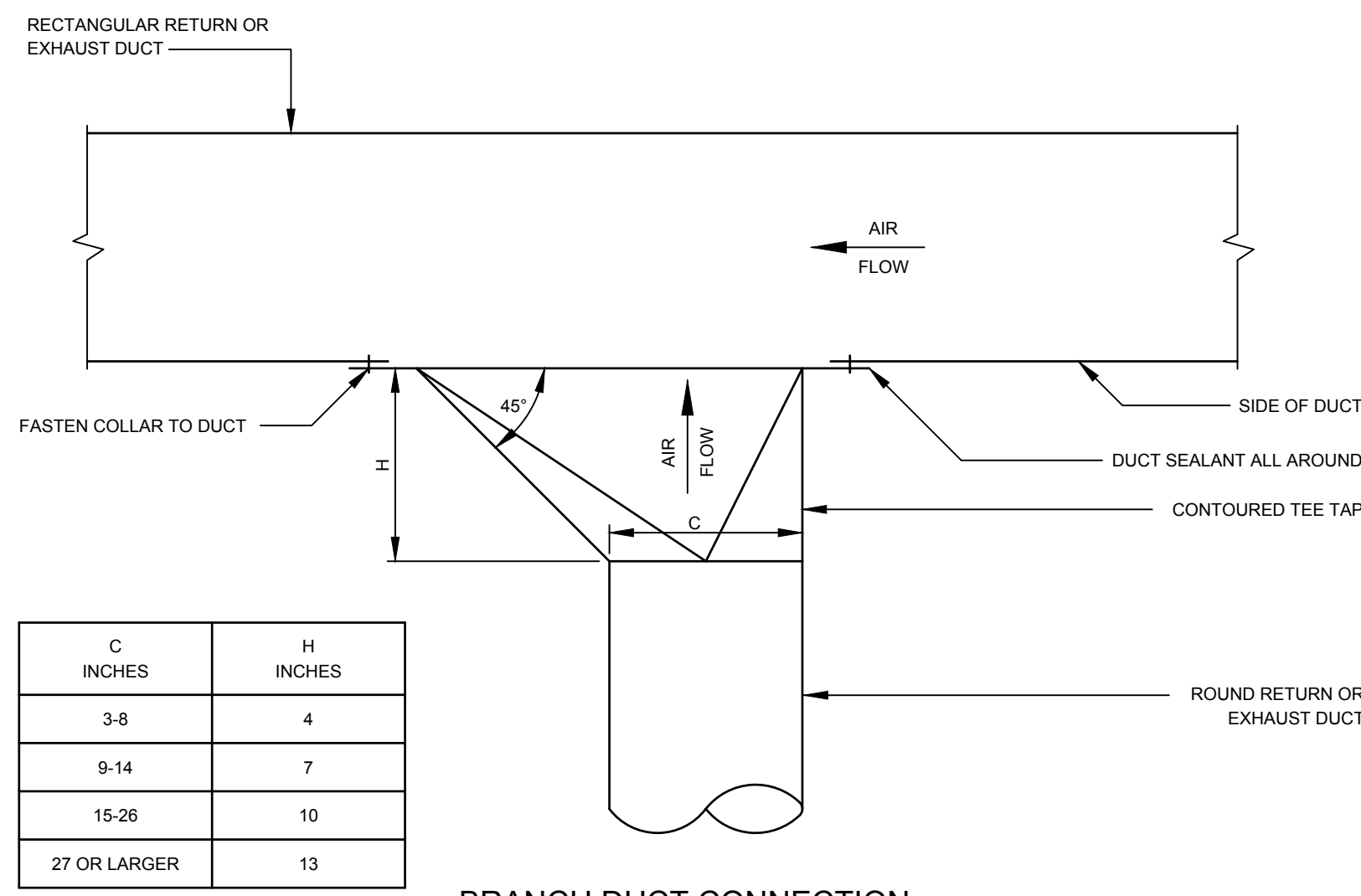


HORIZONTAL HOT WATER UNIT HEATER DETAIL
N.T.S.



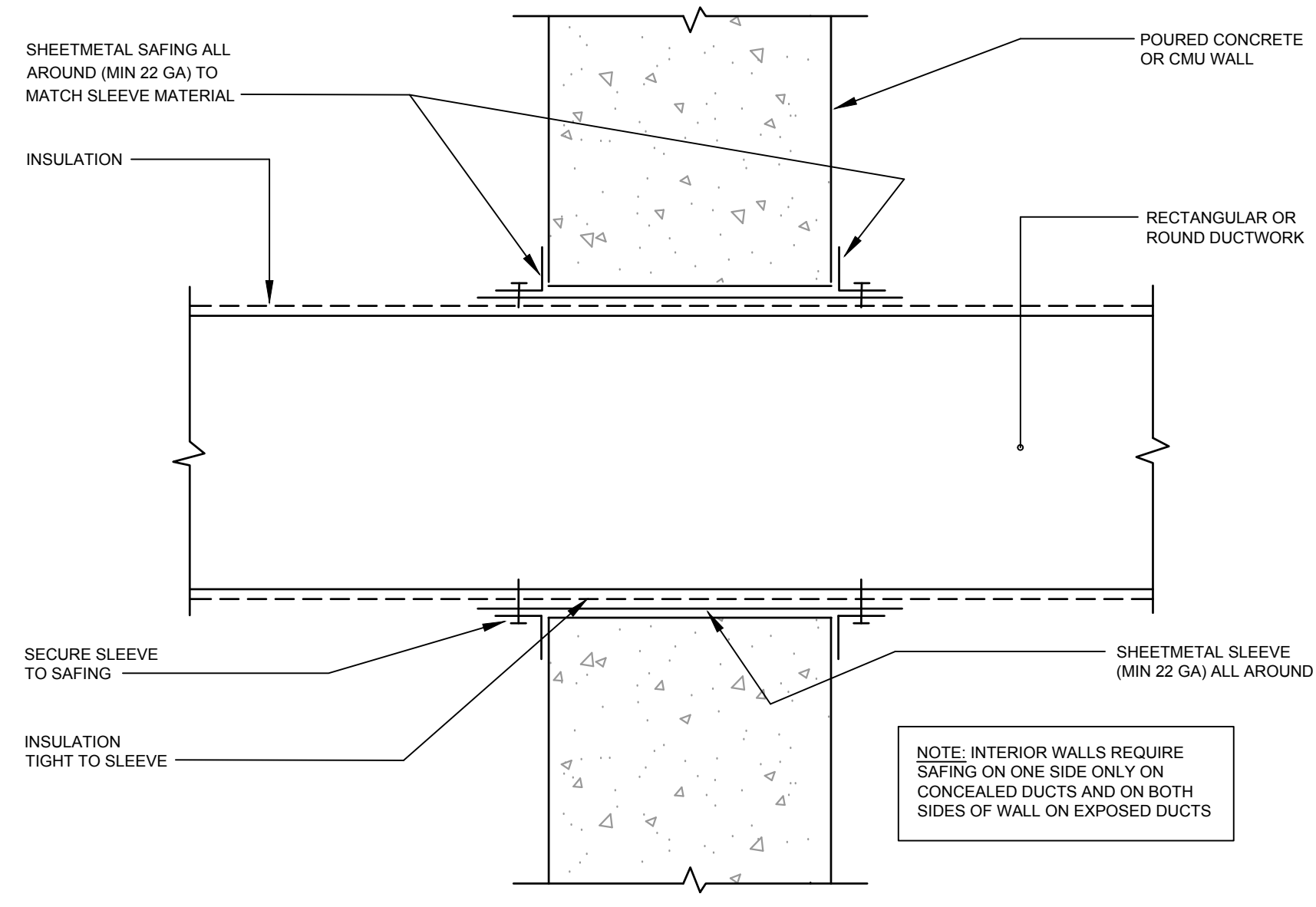
DETAILS OF THE LOW VELOCITY DUCT LAYOUT
NO SCALE

PROJECT MANAGER: KF	N.B. N/A	DATE: 1/19	DESIGNED BY: MMH	CHECKED BY: BBH
BASE BY: SSM				
DRAWN BY: MMH				
RELEASED FOR BIDDING: SSM				
MADE CHD AP/D				
RELEASED FOR BIDDING				
NOT FOR CONSTRUCTION				
SSM				
SPOTTS, STEVENS & MCCOY Engineers and Consultants 1000 N. 10th St. Allentown, PA 18104 P: 610.261.2001 F: 610.261.2001				
MUHLBERG TOWNSHIP AUTHORITY				
OFFICE BUILDING & MAINTENANCE GARAGE				
MECHANICAL DETAILS				
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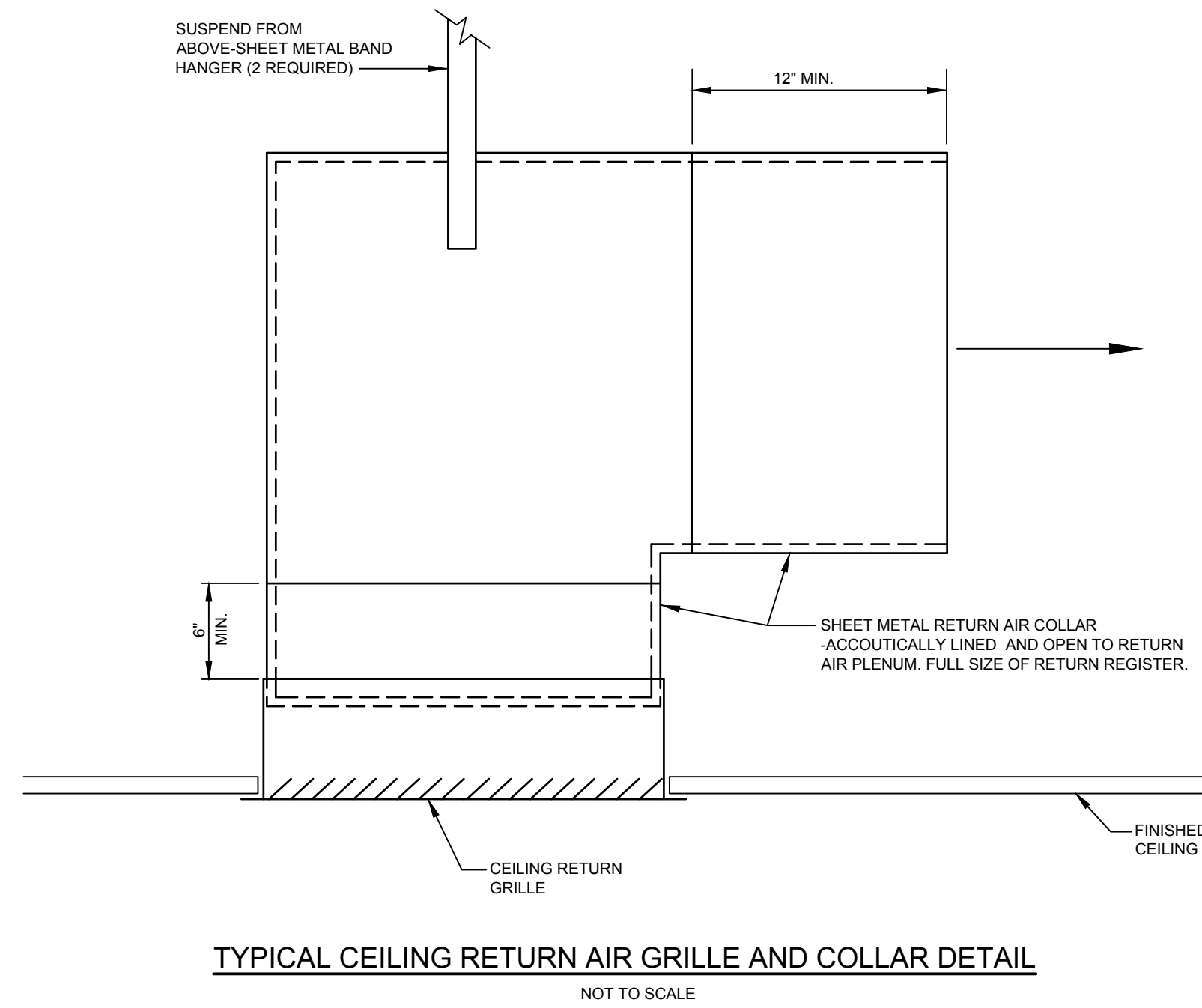


C INCHES	H INCHES
3-8	4
9-14	7
15-26	10
27 OR LARGER	13

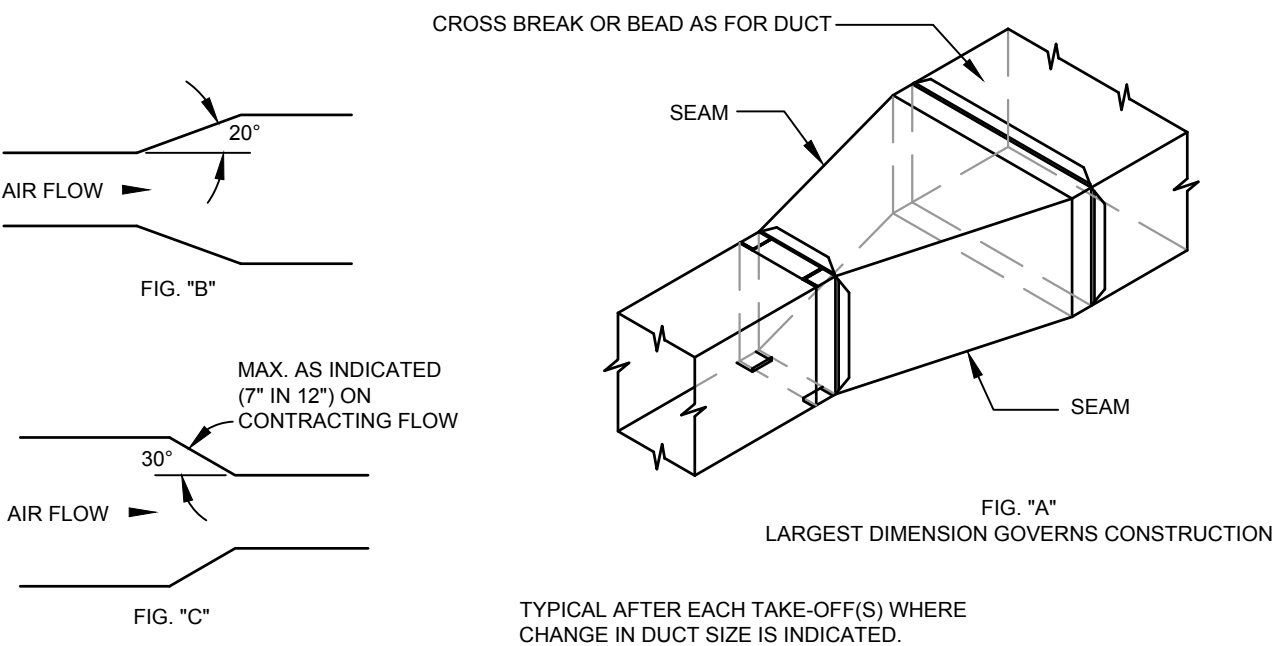
BRANCH DUCT CONNECTION - RETURN AND LOW PRESSURE EXHAUST
NOT TO SCALE



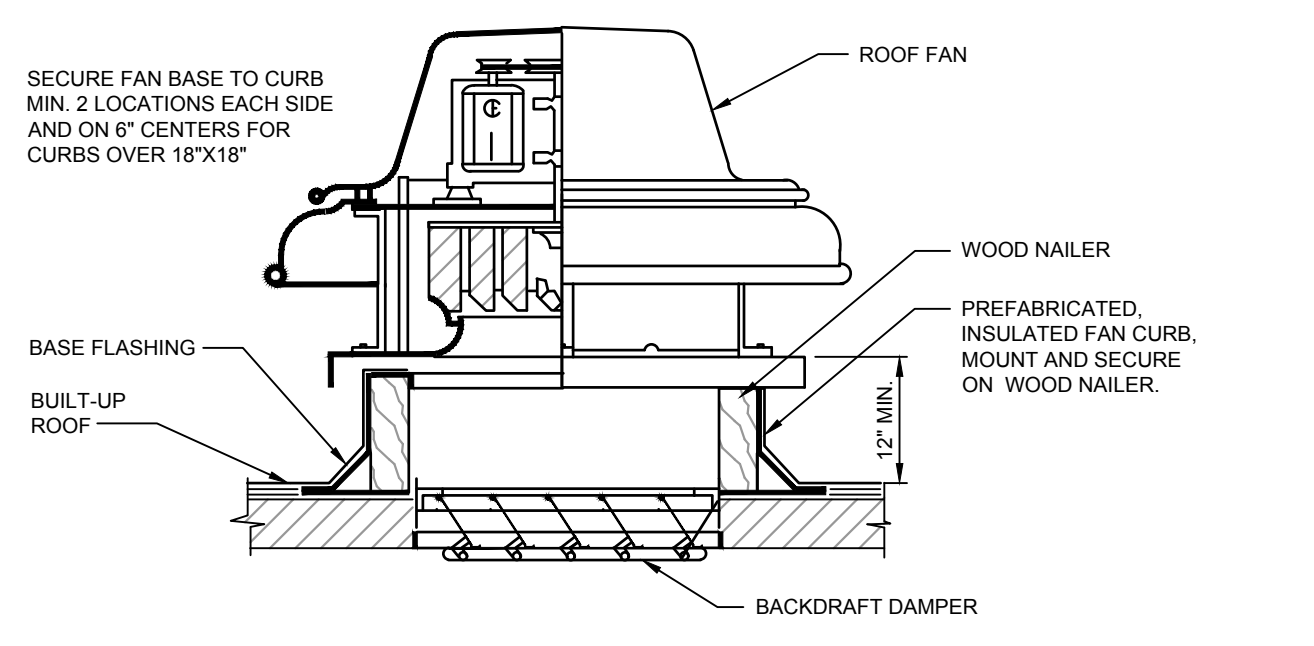
DUCT PENETRATION DETAIL (INSULATED DUCTS) NON-FIRE RATED WALLS ONLY
NOT TO SCALE



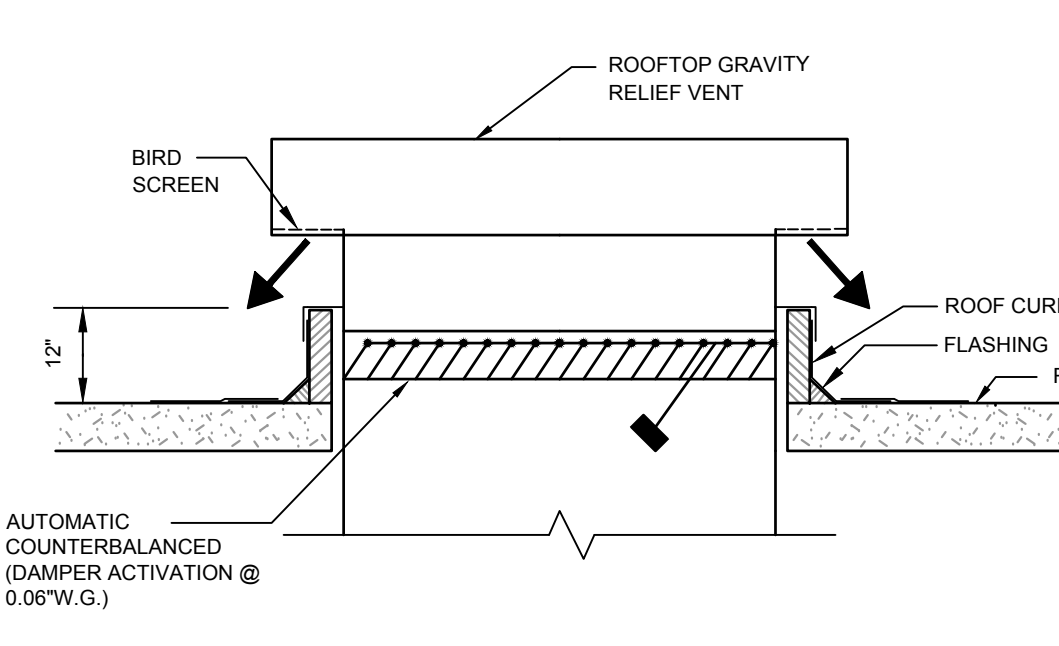
TYPICAL CEILING RETURN AIR GRILLE AND COLLAR DETAIL
NOT TO SCALE



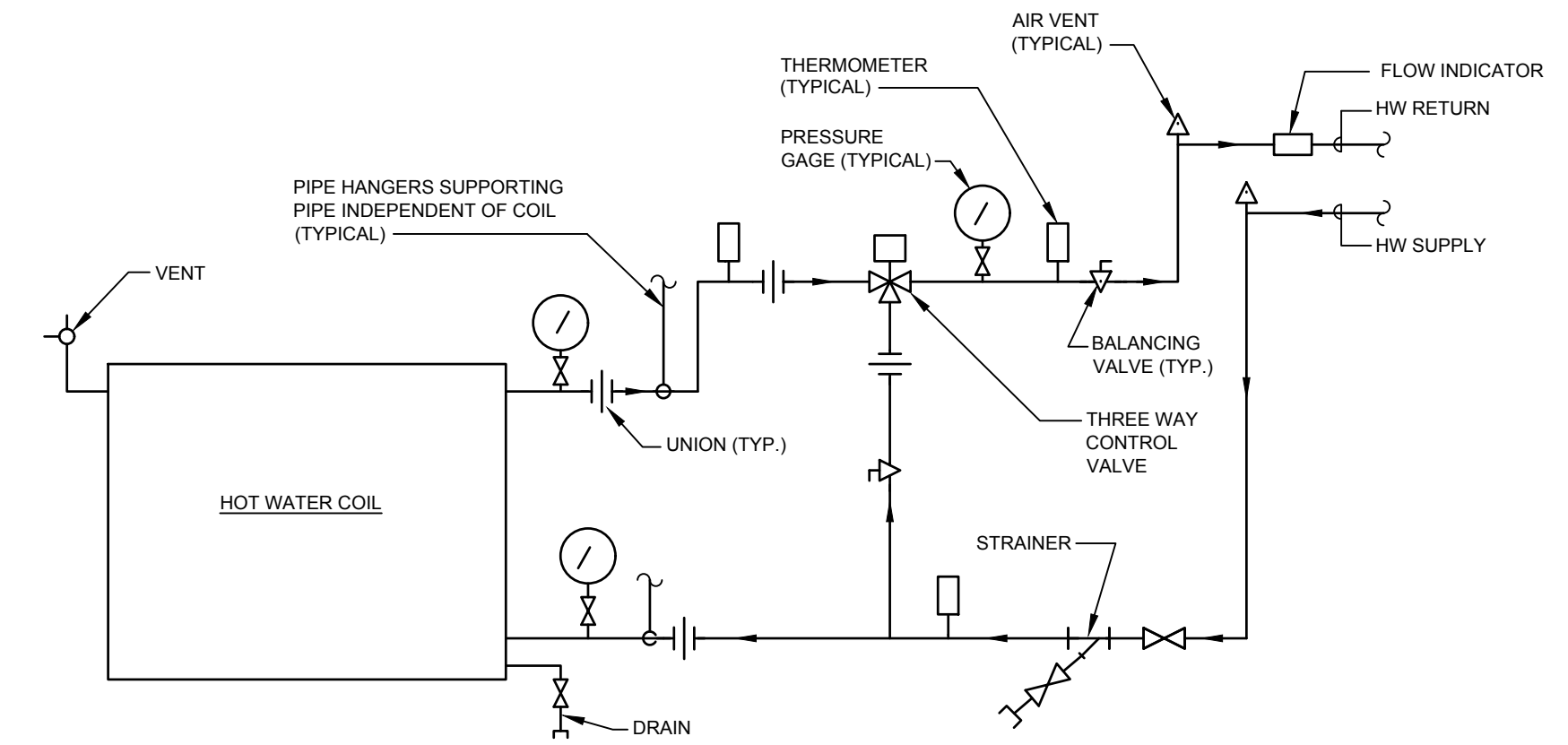
DUCT TRANSITION DETAIL
NOT TO SCALE



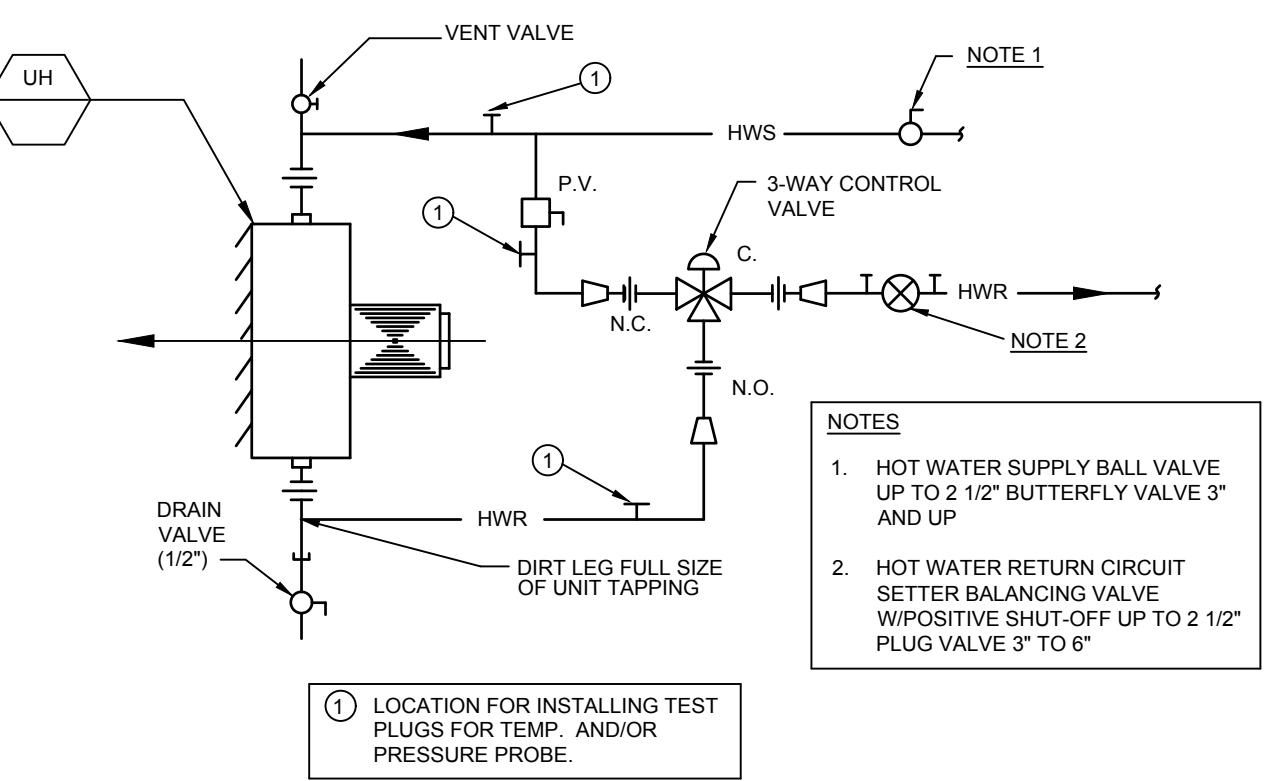
ROOF FAN MOUNTING DETAIL
NOT TO SCALE



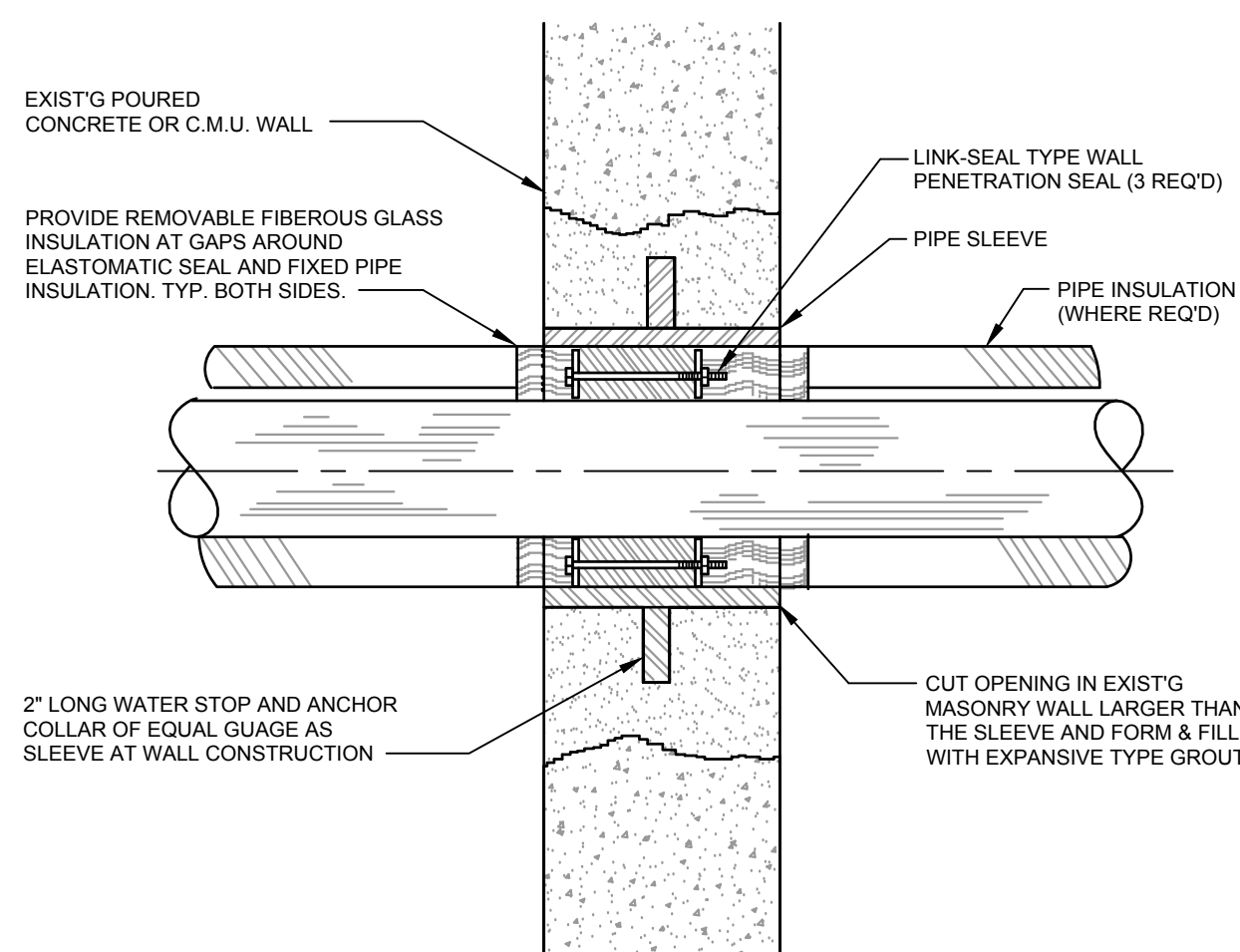
GRAVITY RELIEF VENT DETAIL
N.T.S.



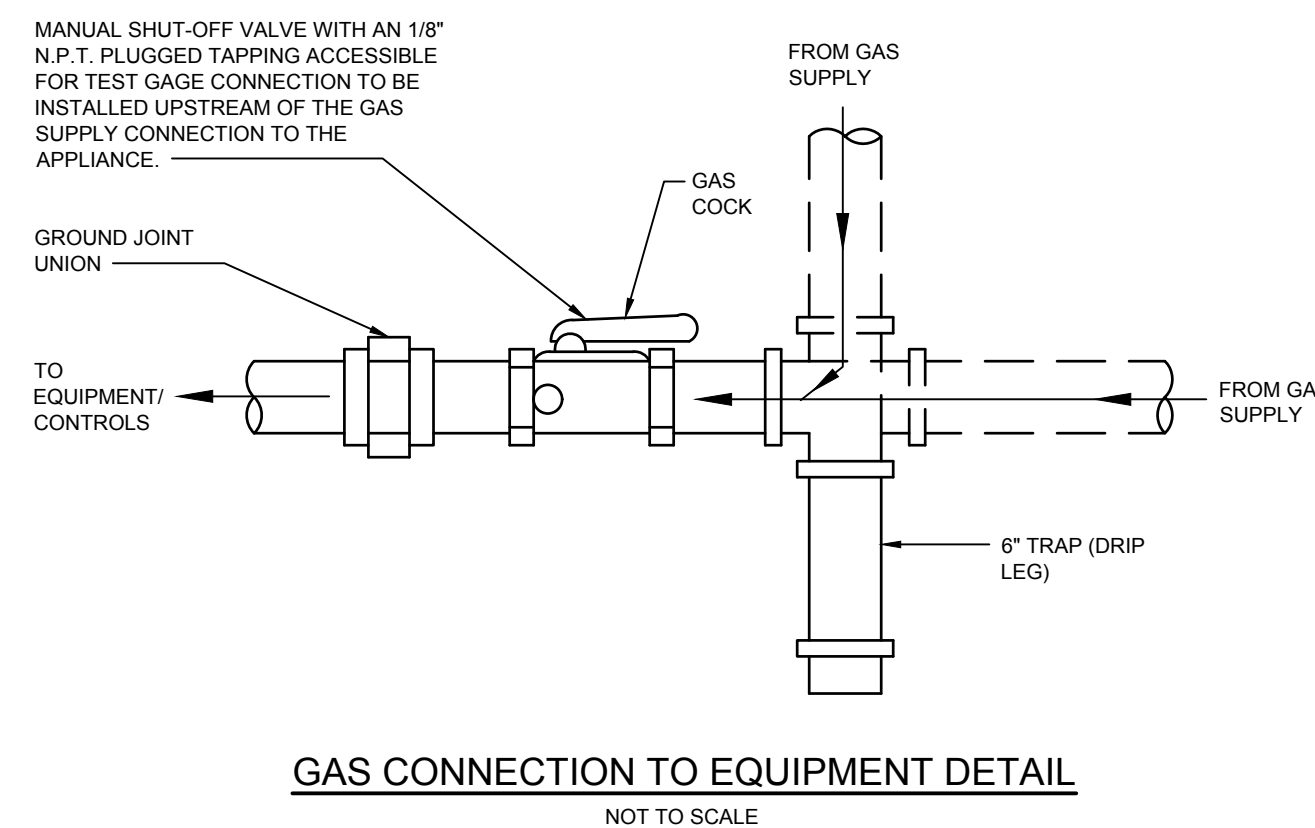
HOT WATER COIL PIPING DETAIL
NOT TO SCALE



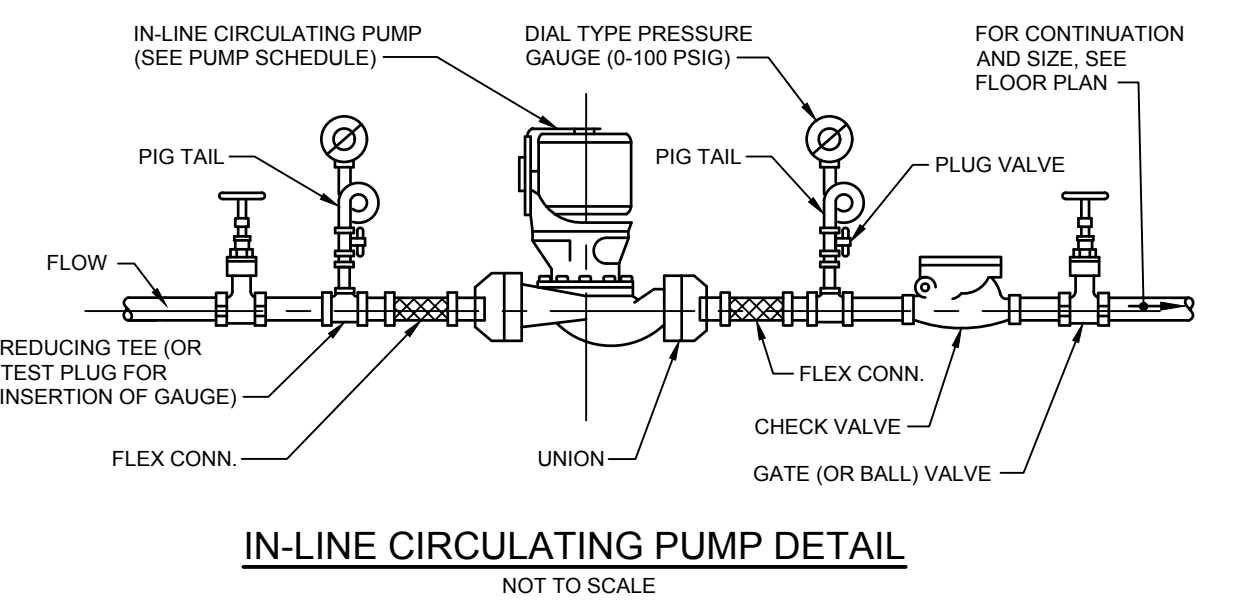
PIPING ARRANGEMENT - HOT WATER UNIT HEATER
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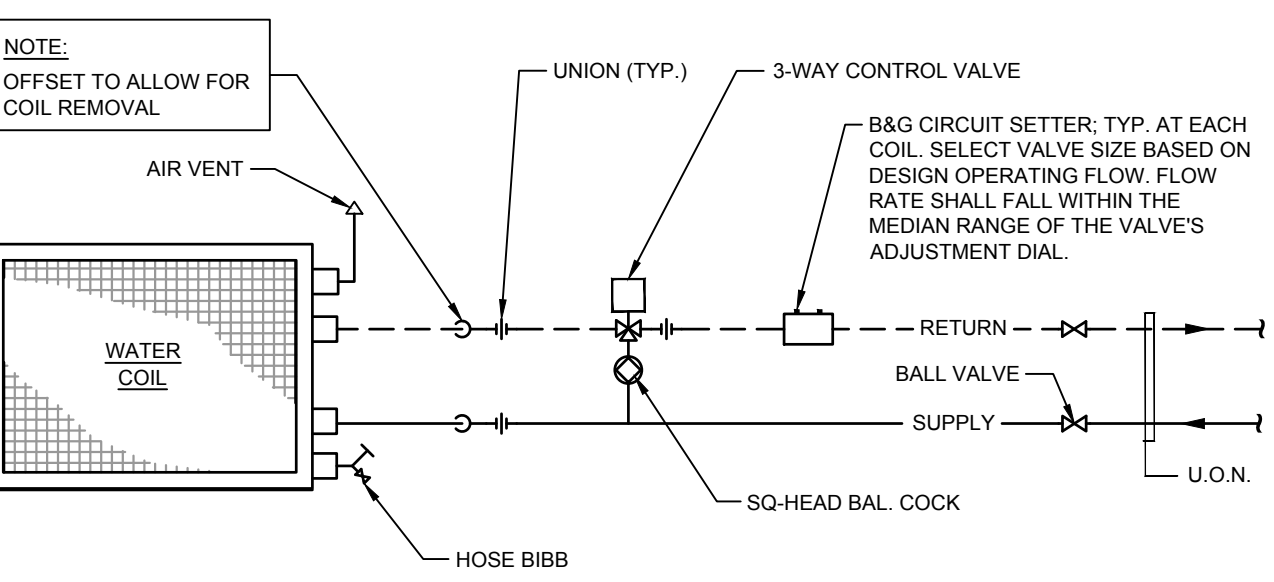
PIPE SLEEVE THROUGH WALL DETAIL
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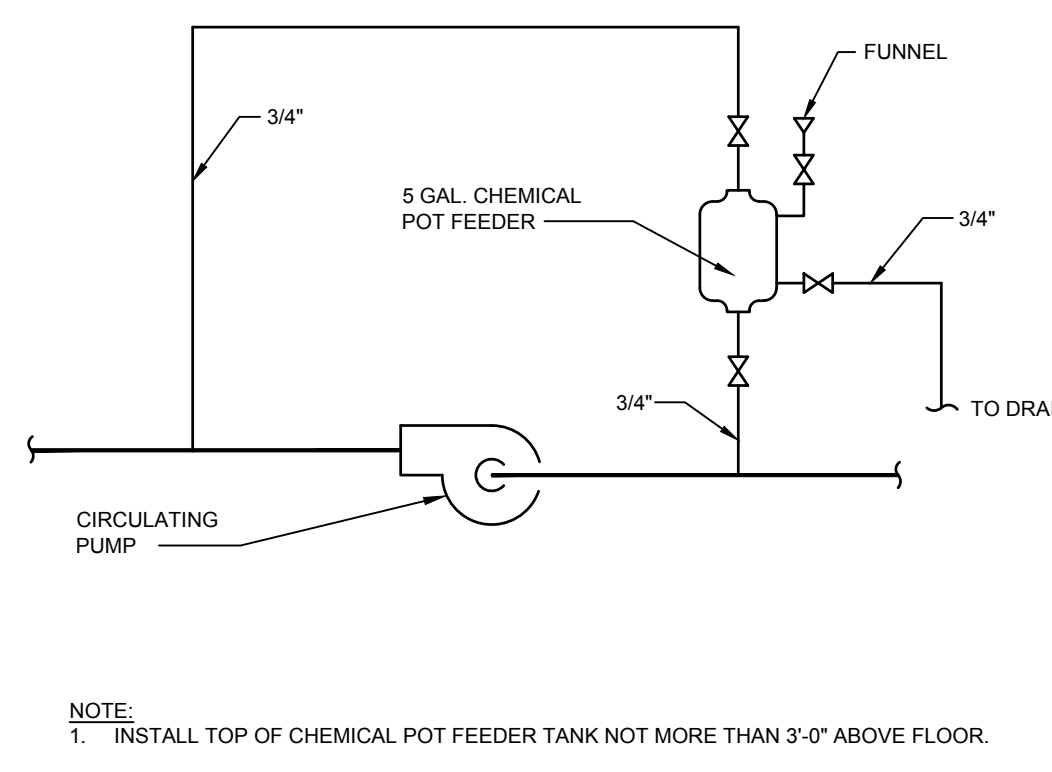
GAS CONNECTION TO EQUIPMENT DETAIL
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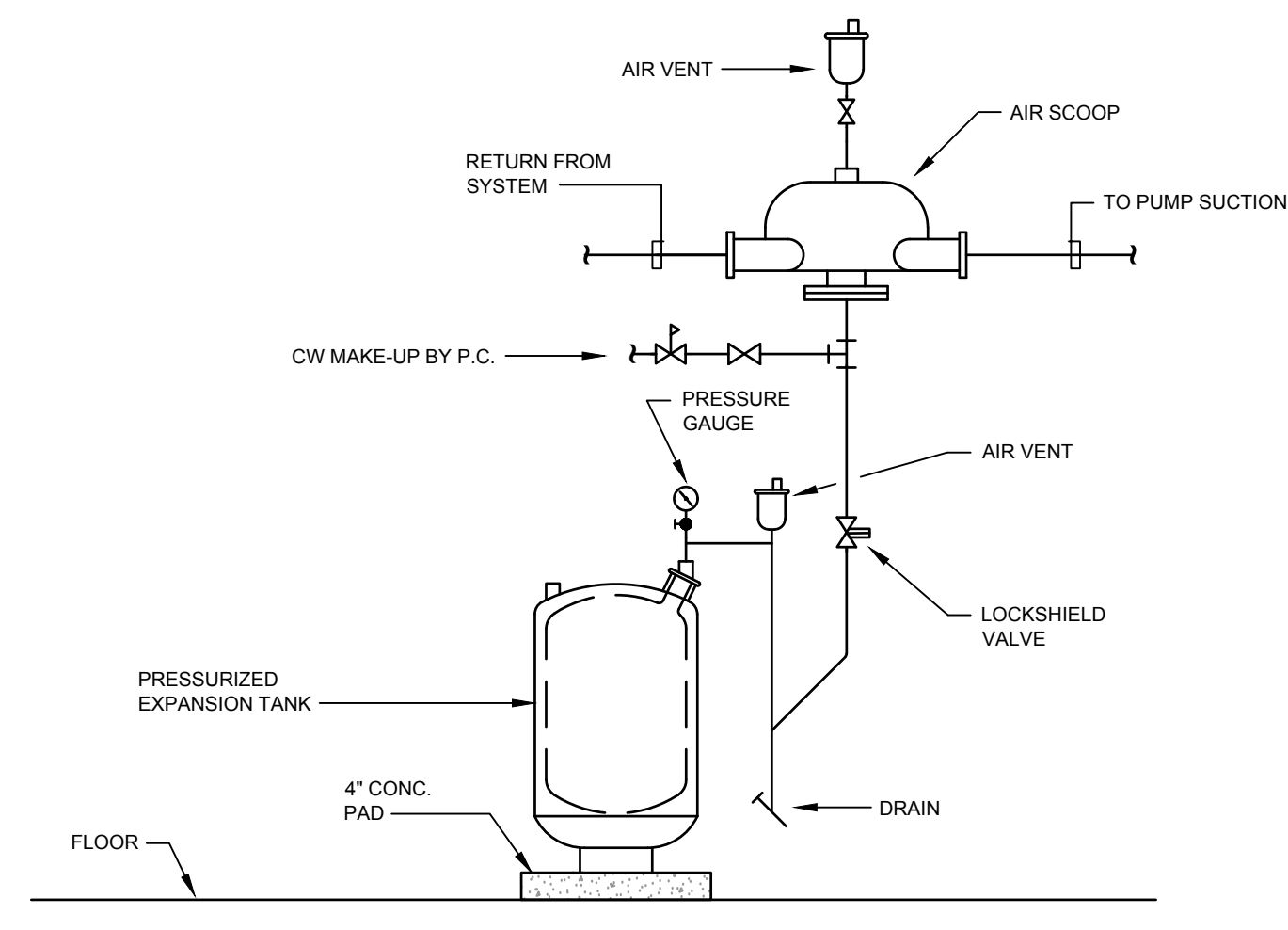
IN-LINE CIRCULATING PUMP DETAIL
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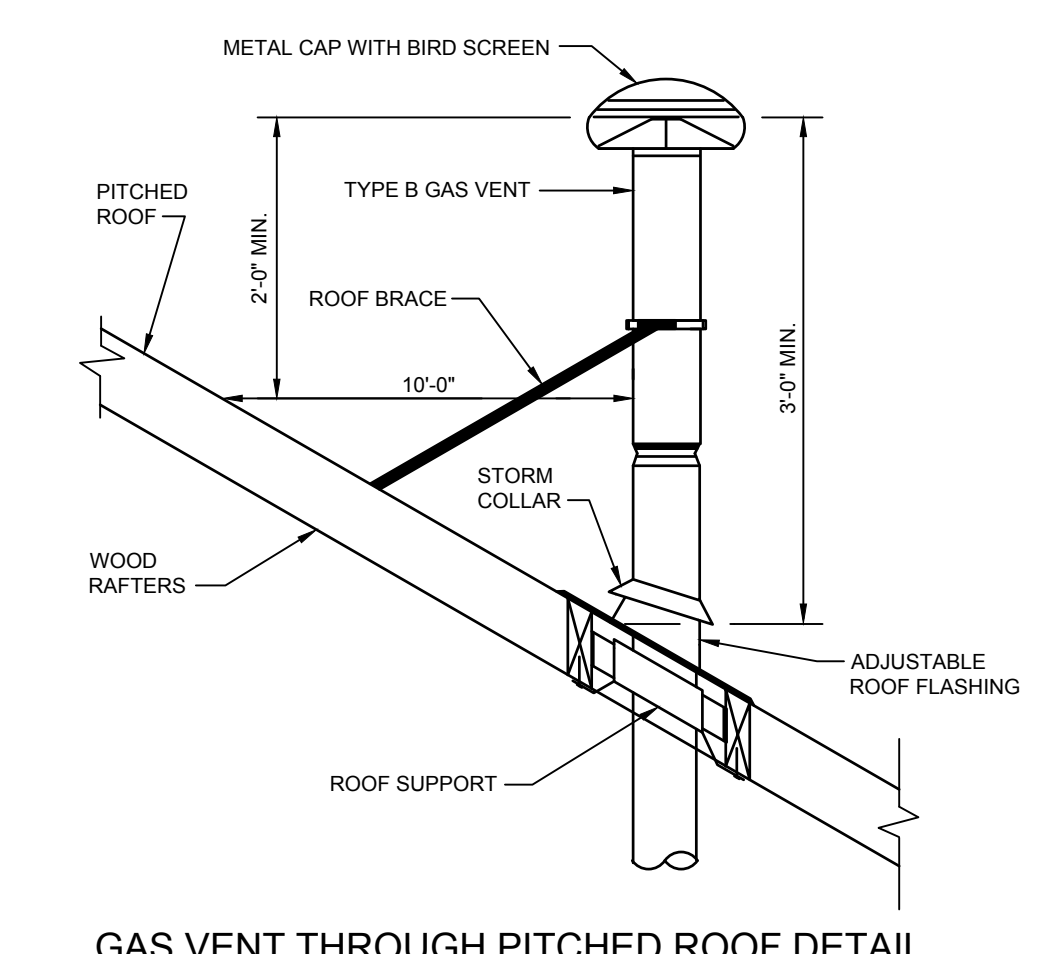
VAV BOX HOT WATER COIL PIPING
NOT TO SCALE



WATER TREATMENT SYSTEM DETAIL
NOT TO SCALE



EXPANSION TANK DETAIL
NOT TO SCALE



GAS VENT THROUGH PITCHED ROOF DETAIL
NOT TO SCALE

NO.	DATE	RELEASED FOR BIDDING	DESCRIPTION
1	10/27/2020		

DESIGNED BY: MMH
CHECKED BY: BBH
DATE: 11/19
N.B.: N/A
PROJECT MANAGER: KF
BASE BY: SSM
DRAWN BY: MMH

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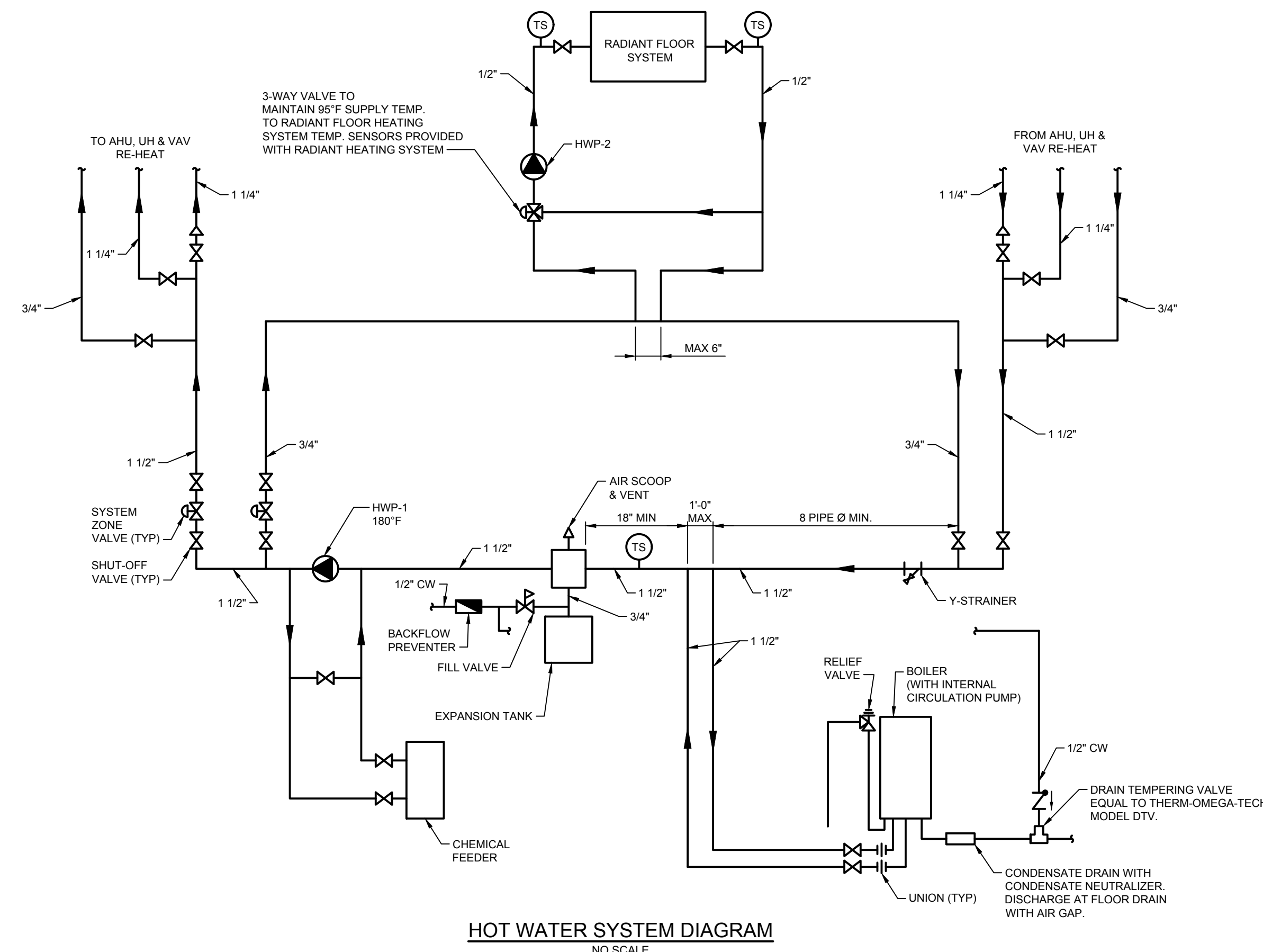
READING: 10/27/2020
PROJECT NO: 100608.0063
DATE: 11/19/2020
SCALE: AS SHOWN
DRAWN BY: MMH
CHECKED BY: BBH
DATE: 11/19/2020

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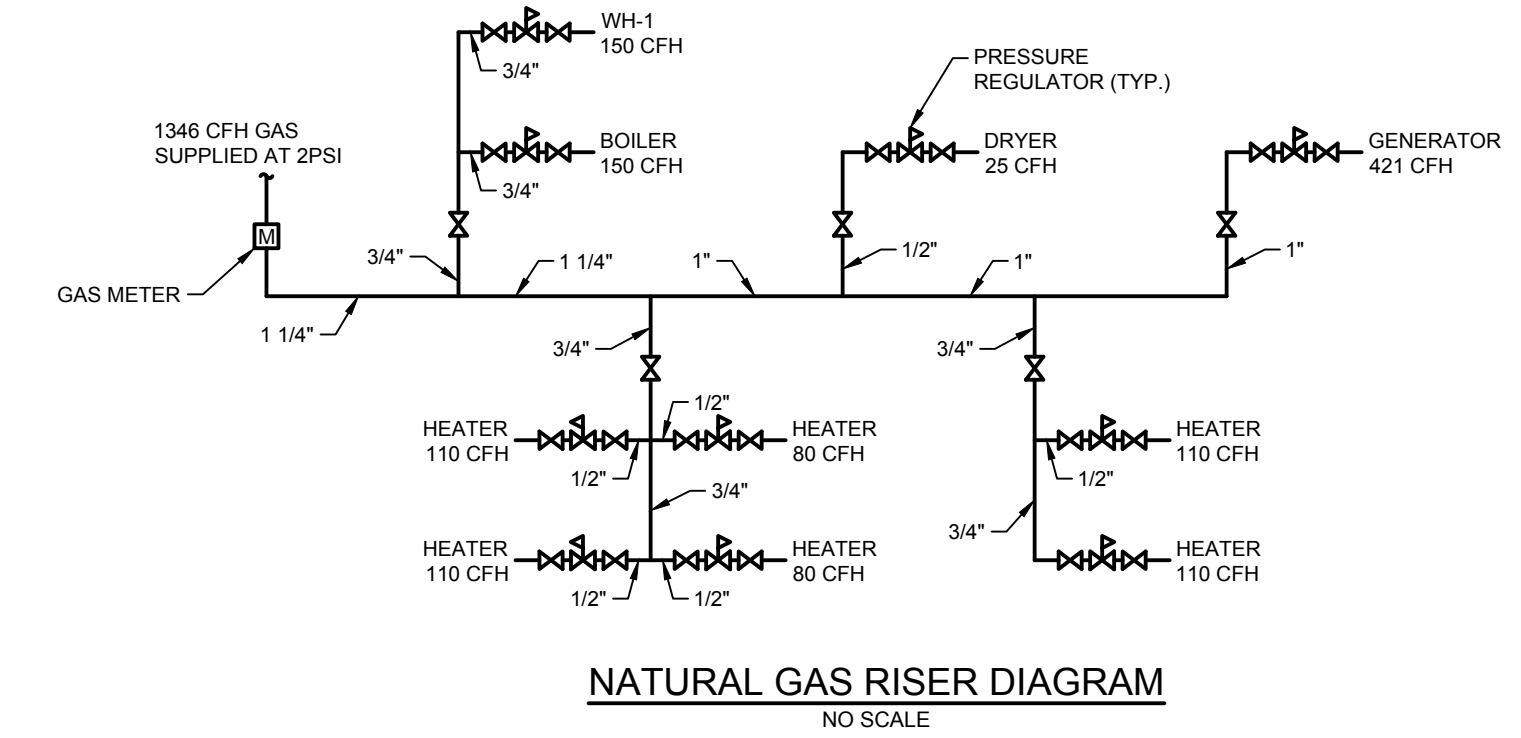
100608.0063
M.4-03

100608.0063
M.4-03

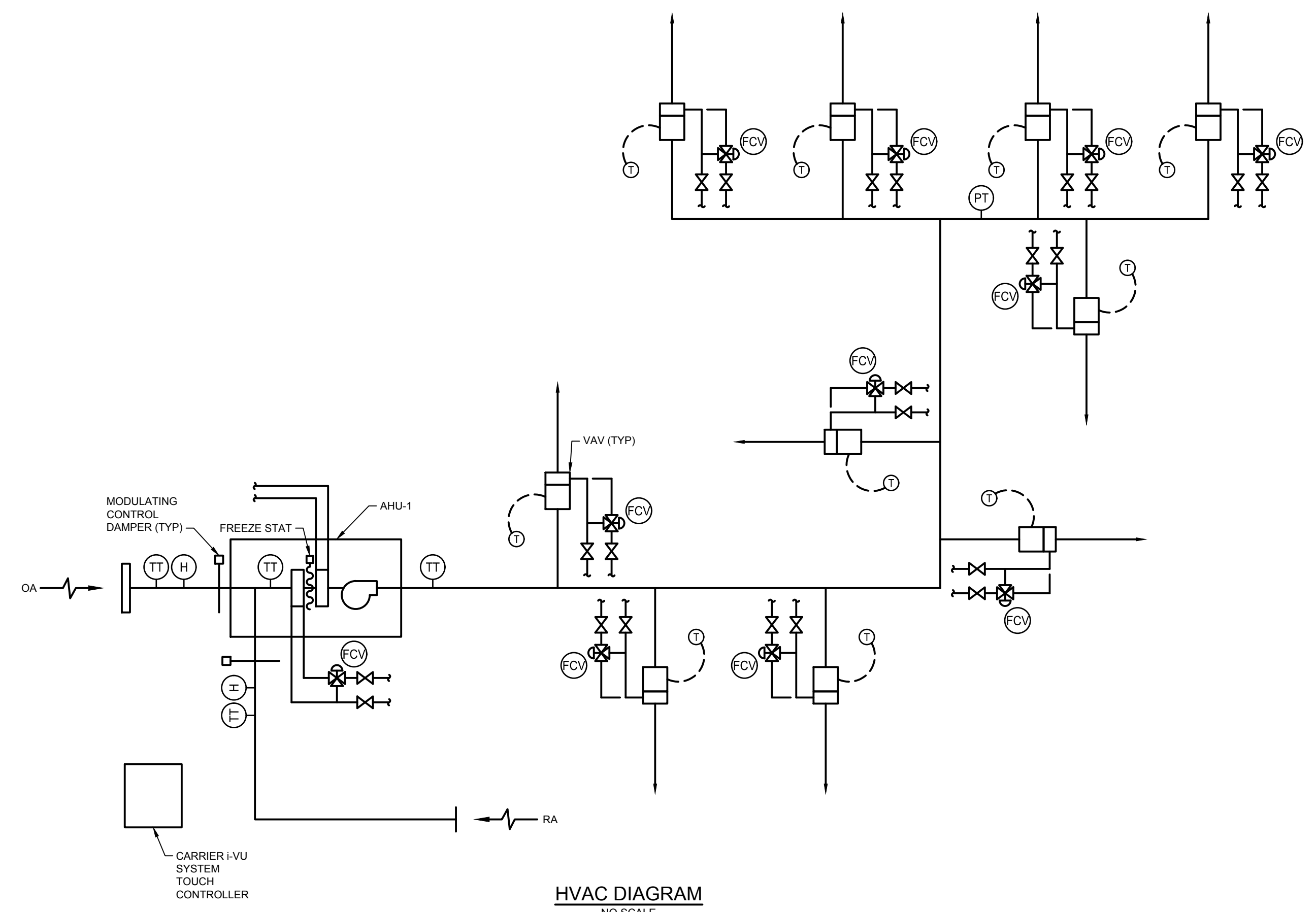
M.4-03



HOT WATER SYSTEM DIAGRAM
NO SCALE



NATURAL GAS RISER DIAGRAM
NO SCALE



HVAC DIAGRAM
NO SCALE

NO.	DATE	RELEASED FOR BIDDING	DESCRIPTION
01	10/27/2020		
02	02/07/2021		
03	02/07/2021		
04	02/07/2021		
05	02/07/2021		
06	02/07/2021		
07	02/07/2021		
08	02/07/2021		
09	02/07/2021		
10	02/07/2021		
11	02/07/2021		
12	02/07/2021		
13	02/07/2021		
14	02/07/2021		
15	02/07/2021		
16	02/07/2021		
17	02/07/2021		
18	02/07/2021		
19	02/07/2021		
20	02/07/2021		

RELEASED FOR:
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PROJECT MANAGER: KF
BASE BY: SSM
DRAWN BY: MMH
DESIGNED BY: MMH
CHECKED BY: BBH
DATE: 11/19
N.B.: N/A

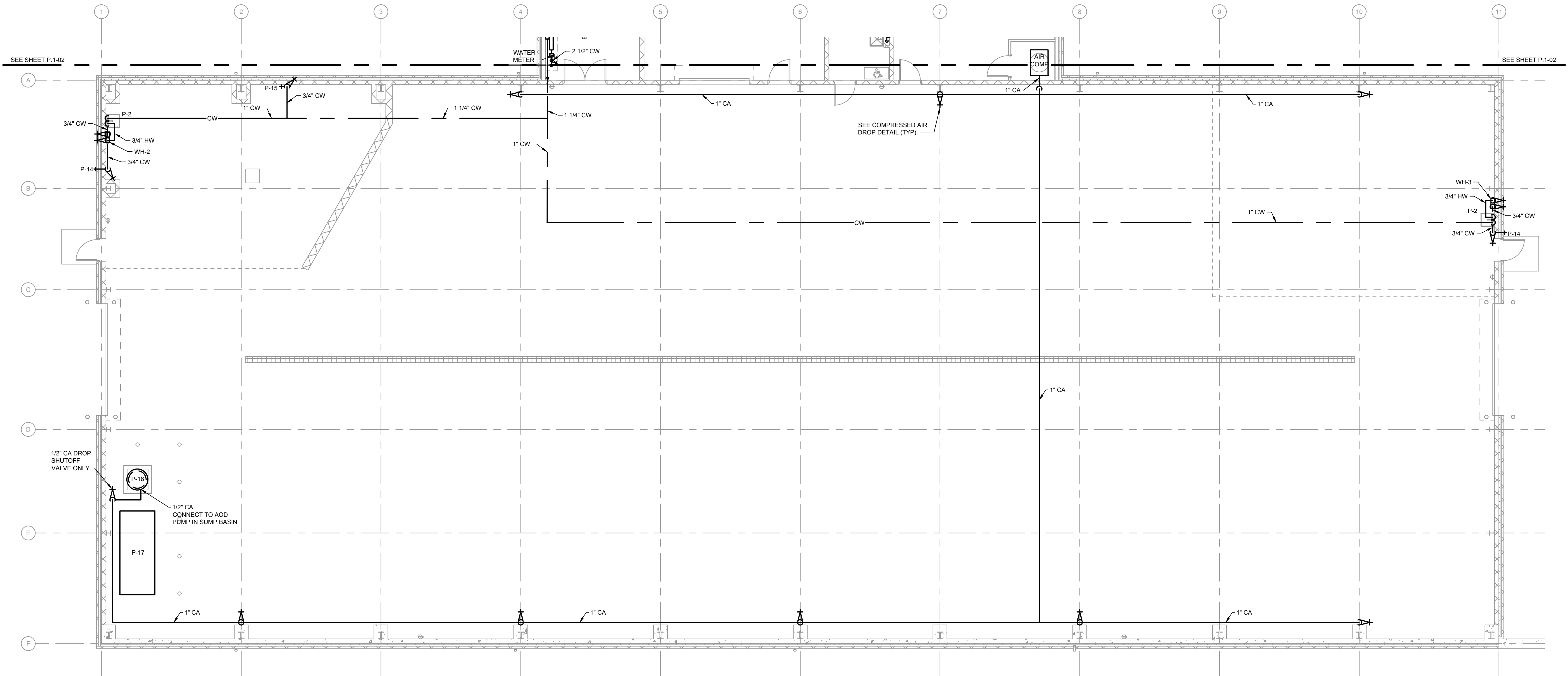
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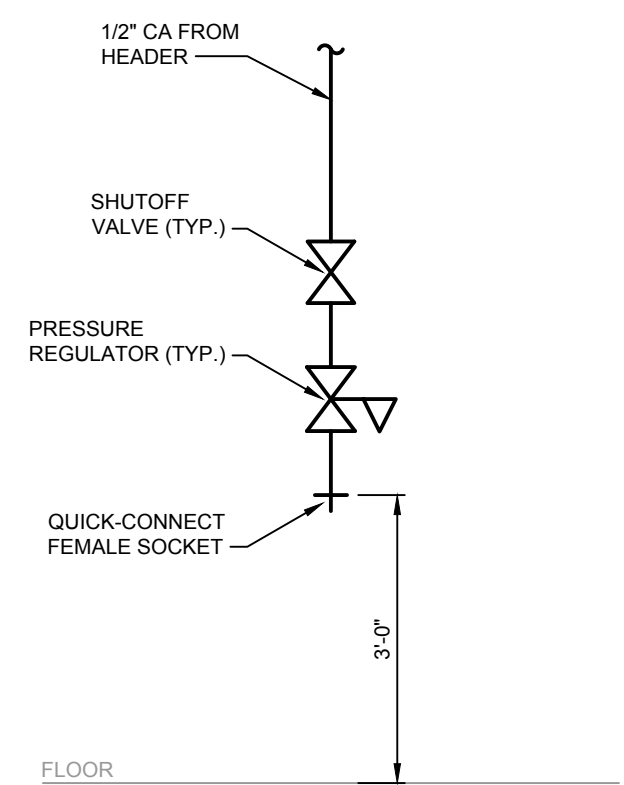
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DATE: 02/07/20
DIGITAL FILENAME: 100608.0063
WORK ORDER NUMBER: M.5-01
DRAWING NUMBER: **M.5-01**



GARAGE AREA PLUMBING PLAN
SCALE: 1/2"=1'-0"



COMPRESSED AIR DROP DETAIL
SCALE: 1/2"=1'-0"

NO.	DATE	RELEASED FOR BIDDING	DESCRIPTION
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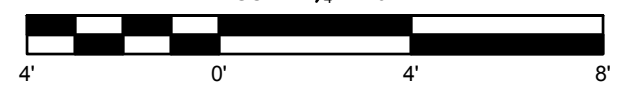
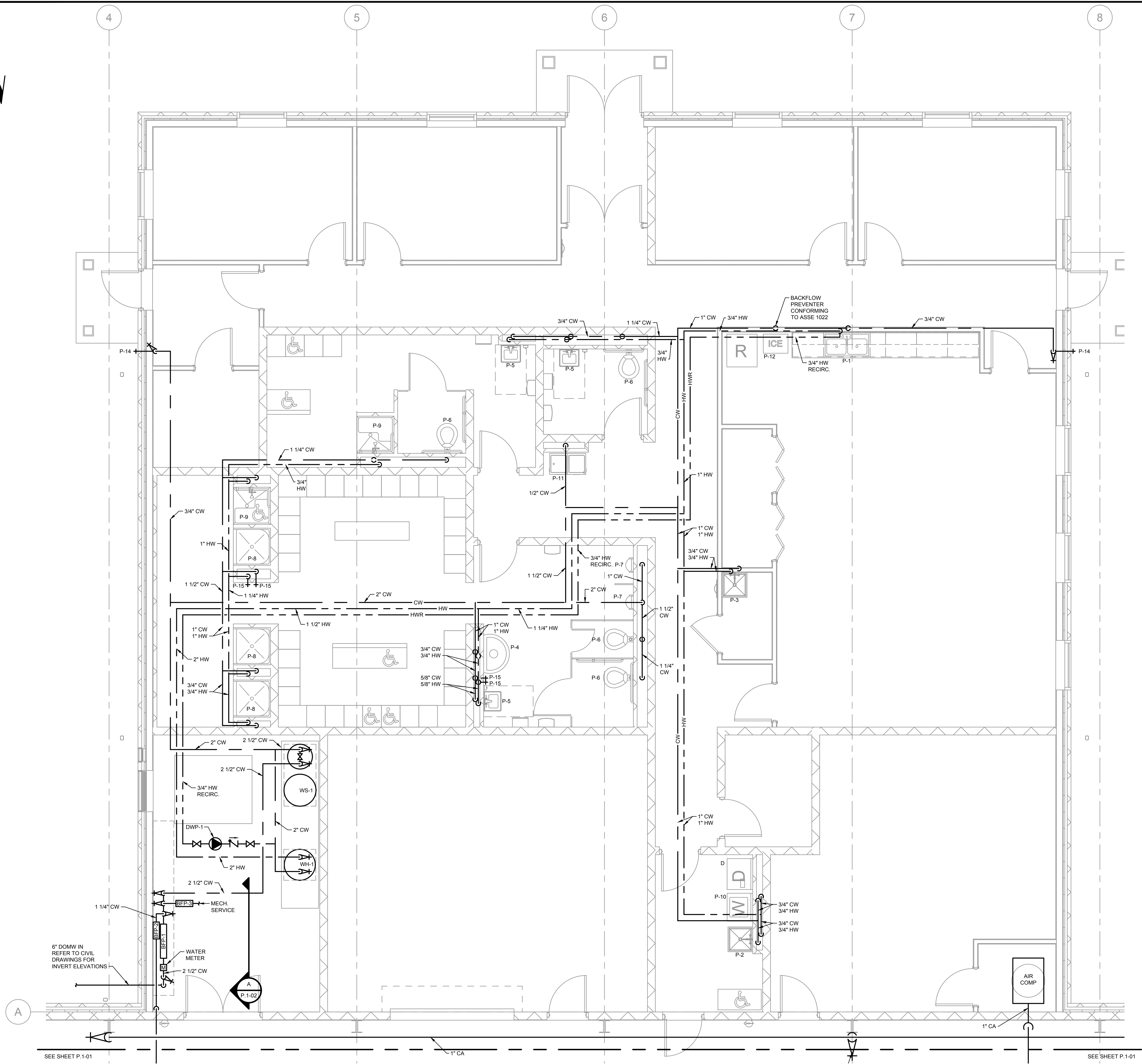
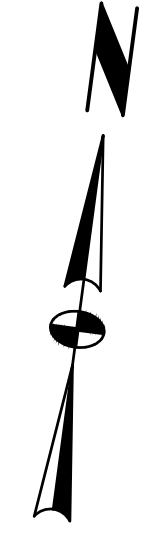
PROJECT MANAGER: KF
 BASE BY: SSM
 DRAWN BY: JAF
 N.B.: N/A
 DATE: 11/19
 DESIGNED BY: JAF
 CHECKED BY: BHB

RELEASED FOR:
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 OFFICE BUILDING & MAINTENANCE GARAGE
 PLUMBING - DOMESTIC WATER
 PROPOSED PLAN
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02/07/20
 100608.0063
 P.1-01
 100608.0063
 WORK ORDER NUMBER
P.1-01
 DRAWING NUMBER



SEE SHEET P.1-01

SEE SHEET P.1-01

NO.	DATE	RELEASED FOR BIDDING	DESCRIPTION
1	10/07/2020		
2	11/19		

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BIDDING
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PROJECT MANAGER: KF
BASE BY: SSM
DESIGNED BY: JAF
DATE: 11/19
N.B.: N/A
CHECKED BY: BHB

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DATE: 11/19/20
PROJECT: 100608.0063
DRAWING: P.1-02
SCALE: AS SHOWN
DESIGNED BY: JAF
CHECKED BY: BHB
DATE: 11/19/20
PROJECT: 100608.0063
DRAWING: P.1-02
SCALE: AS SHOWN

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02/07/20 100608.0063
DATE DIGITAL FILENAME
P.1-02

100608.0063
WORK ORDER NUMBER
P.1-02
DRAWING NUMBER

PLUMBING FIXTURE SCHEDULE									
ITEM NO.	DESCRIPTION	PIPING CONNECTIONS				BASIS OF DESIGN		NOTES	
		SAN	VENT	CW	HW	MANUFACTURER	MODEL		
P-1	KITCHEN SINK	1 1/2"	1 1/4"	3/4"	3/4"	KOHLER	K-3847-3	TOP-MOUNT, DOUBLE EQUAL BOWL CONFIGURATION, 9" DEPTH, STAINLESS STEEL.	
P-2	SERVICE SINK	2"	1 1/2"	3/4"	3/4"	FIAT PRODUCTS	TAT1	SINGLE BOWL LAUNDRY TUB WITH LEGS, INCLUDES FAUCET WITH 4" CENTERSET/4" BLADE HANDLES/6-3/4" SWING SPOUT/AERATOR AND HOSE ADAPTOR.	
P-3	MOP SINK	3"	1 1/2"	3/4"	3/4"	FIAT PRODUCTS	MSBIDTG2424	MOP SERVICE BASIN, MOLDED STONE, INCLUDES SS STRAINER/FAUCET/HOSE AND BRACKET/MOP BRACKET/QUICK DRAIN CONNECTOR.	
P-4	WASH FOUNTAIN	1 1/2"	1 1/4"	5/8"	5/8"	BRADLEY	WF2703	36" SEMI-CIRCULAR, 3-USERS, STAINLESS STEEL, FOOT ACTIVATION TYPE.	
P-5	LAVATORY	1 1/2"	1 1/4"	5/8"	5/8"	KOHLER	K-2005	WALL-MOUNT, SINGLE BOWL, COLOR - WHITE (0), PROVIDE KOHLER LAV FAUCET K-400T20-4ANA.	
P-6	WATER CLOSET	3"	2"	1 1/4"	N/A	KOHLER	K04325	WALL-MOUNT, SIPHON JET, 1.28 GPF, COLOR - WHITE (0), PROVIDE KOHLER FLUSHOMETER K-10673-SV AND KOHLER TOILET SEAT K-4666-CA.	
P-7	URINAL	3"	2"	1"	N/A	KOHLER	K-5016-ET	WALL-MOUNT, SIPHON JET, 0.5 OR 1.0 GPF, COLOR - WHITE (0), PROVIDE KOHLER FLUSHOMETER K-10675-SV.	
P-8	SHOWER	2"	1 1/2"	3/4"	3/4"	BEST BATH SYSTEMS	KPACKB36XXS	36" WIDE BARRIER FREE SHOWER. PROVIDE WITH SYMMONS VALVE PACKAGE WITH 1.5 GPM HAND HELD SHOWER AND 30" GLIDE BAR KIT, 22"x16" PADDED SEAT WITH LEGS, 42"x74" WHITE VINYL SHOWER CURTAIN, 35.5" CURTAIN ROD KIT, 3" T-SHAPED WATERSTOPPER, 18" AND 24" SS SAFETY BARS, 2" NO CAULK BRASS DRAIN.	
P-9	ADA SHOWER	2"	1 1/2"	3/4"	3/4"	BEST BATH SYSTEMS	KPACKATXX38	38" DEEP ADA TRANSFER SHOWER. PROVIDE WITH SYMMONS VALVE PACKAGE WITH 1.5 GPM HAND HELD SHOWER AND 30" GLIDE BAR KIT, 32"x16" PHENOLIC SEAT WITH LEGS, 42"x74" WHITE VINYL SHOWER CURTAIN, 37.5" CURTAIN ROD KIT, WHITE SURFACE MOUNT SOAP DISH, 3" T-SHAPED WATERSTOPPER - GREY, 12" / 18" / 27" SS SAFETY BARS, 2" NO CAULK BRASS DRAIN.	
P-10	WASHING MACHINE	2"	1 1/2"	3/4"	3/4"	X	X	PROVIDED BY OWNER.	
P-11	DRINKING FOUNTAIN	1 1/2"	1 1/4"	1/2"	N/A	ELKAY	LZSTL8LC	BI-LEVEL, ADA FILTERED, 8 GPH, 115V/60HZ, WALL-MOUNT, 5 AMPS.	
P-12	ICE MACHINE	2"	1 1/2"	3/8"	N/A	MANITOWOC	1YT0450A-161	PROVIDED BY OWNER. 30" AIR COOLED HALF DICE ICE MACHINE, 115 V, SINGLE PHASE. PROVIDE MANITOWOC D-570 ICE STORAGE BIN. PROVIDE WATER FILTER AND INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.	
P-13	TRENCH DRAIN	4"	N/A	N/A	N/A	ZURN	Z556-HD	6-3/4" WIDE REVEAL, HEAVY-DUTY FRAME ASSEMBLY, 4" THROAT, 20" OR 40" NOMINAL GRATE LENGTH.	
P-14	HOSE BIB (OUTSIDE)	N/A	N/A	3/4"	N/A	MIFAB	MHY-26	ENCASED NON-FREEZE LOW LEAD WALL HYDRANT, 16" WALL THICKNESS	
P-15	HOSE BIB (INSIDE)	N/A	N/A	3/4"	3/4"	PRIER	C-168	ANIT-SIPHON HOSE BIBB, HANDLE OPERATED, 3/4" INLET, SATIN NICKEL PLATED.	
P-16	CATCH BASIN	4"	N/A	N/A	N/A	ZURN	Z887-24-HD	23.25" WIDE REVEAL, 24.625" LONG, 24" DEEP CATCH BASIN WITH HEAVY-DUTY FRAME ASSEMBLY.	
P-17	OIL WATER SEPARATOR	2" / 4"	2"	N/A	N/A	HIGHLAND TANK	R-HTC-2000	RECTANGULAR ABOVE GROUND OIL WATER SEPARATOR. MINIMUM 1200 GALLON CAPACITY (TANK SPECIFIED: 2000 GALLONS). PROVIDE FLOAT SENSOR ALARMS FOR HIGH LIQUID LEVEL (SHUTS DOWN PUMP IN SUMP BASIN) AND HIGH OIL STORAGE (OIL NEEDS TO BE CLEANED OUT OF SEPARATOR). 2" SAN INLET, 4" SAN OUTLET.	
P-18	SUMP BASIN	4" / 2"	2"	N/A	N/A	HIGHLAND TANK	DSB-600	DEEP SUMP BASIN WITH INFLUENT DIAPHRAGM PUMP (AIR POWERED, 40 GPM (20 SCFM @ 40 PSI). SUPPLY COMPRESSED AIR TO PUMP INSIDE DSB (REGULATOR INCLUDED WITH PUMP). PROVIDE FLOAT SENSOR ALARM FOR HIGH LIQUID LEVEL. 4" SAN INLET, 2" SAN OUTLET.	
FD	FLOOR DRAIN	2"	1 1/2"	N/A	N/A	ZURN	FD-2322-NH2	LOW PROFILE ADJUSTABLE FLOOR DRAIN. PROVIDE WITH 2" SURE SEAL TRAP GUARD (MODEL #: 97041) OR EQUAL.	
D	DRYER	N/A	1 1/2"	N/A	N/A	X	X	NATURAL GAS DRYER. PROVIDED BY OWNER.	

GAS WATER HEATER SCHEDULE									
ITEM NO.	TYPE / FUEL	TANK CAPACITY	INPUT	RECOVERY GPH @ Δ°F	GAS VENT SIZE	VOLTAGE	BASIS OF DESIGN		NOTES
							MANUFACTURER	MODEL	
WH-1	GAS	60	150 MBH	182 GPH @ Δ80°F	3"	115	BRADFORD WHITE	EF-60T-150E-3N	1, 2, 3

- NOTES:
- PROVIDE AMTROL ST-5C THERMAL EXPANSION TANK.
 - PROVIDE MAXITROL GAS PRESSURE REGULATING VALVE.
 - PROVIDE WITH CONCENTRIC VENT KIT.

ELECTRIC WATER HEATER SCHEDULE										
ITEM NO.	TYPE / FUEL	TANK CAPACITY	WATTAGE	VOLTAGE	AMPERAGE	ACTIVATION GPM	GPM @ Δ°F	BASIS OF DESIGN		NOTES
								MANUFACTURER	MODEL	
WH-2	ELECTRIC	0	28 KW	208 V	135 A	0.25	2.4 GPM @ Δ80°F	AO SMITH	C4LA-280X	
WH-3	ELECTRIC	0	28 KW	208 V	135 A	0.25	2.4 GPM @ Δ80°F	AO SMITH	C4LA-280X	

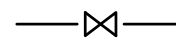
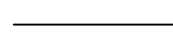
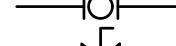
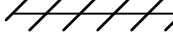
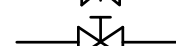

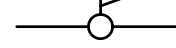

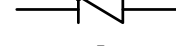

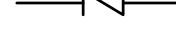

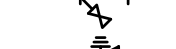

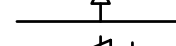
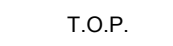
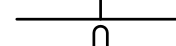
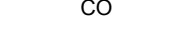
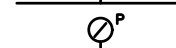
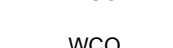


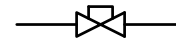


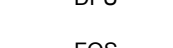
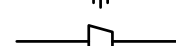

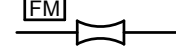
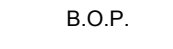
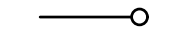
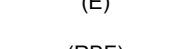


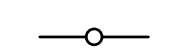

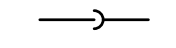



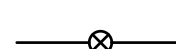

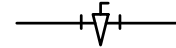

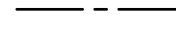



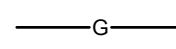

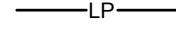
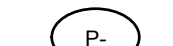

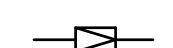
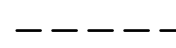

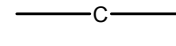

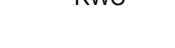














WATER SOFTENER SCHEDULE							
ITEM NO.	RESIN QUANTITY (CU. FT.)	CONNECTING PIPE SIZE	SALT TANK CAPACITY (LBS.)	MAX. DRAIN FLOW (GPM)	RECHARGE WATER USE (GAL.)	BASIS OF DESIGN	
						MANUFACTURER	MODEL
WS-1	6	2"	1500	12	271	ECOWATER SYSTEMS	EWS192S

PUMP SCHEDULE								
ITEM NO.	FLOW (GPM)	PRESSURE DROP (FT HD)	INPUT POWER	VOLTAGE	PHASE	BASIS OF DESIGN		NOTES
						MANUFACTURER	MODEL	
DWP-1	1	2	0.0023 HP	115	1	BELL & GOSSETT	ECOCIRC 19-16	1

- NOTES:
- PROVIDE WITH STAINLESS STEEL PUMP BODY.

BACKFLOW PREVENTER SCHEDULE						
TAG	TYPE	SIZE	SERVICE	BASIS OF DESIGN		NOTES
				MANUFACTURER	MODEL	
BFP-1	DOUBLE CHECK	2 1/2"	DOMW INLET	WATTS	LF007	
BFP-2	DOUBLE CHECK	1 1/4"	GARAGE CW	WATTS	LF007	
BFP-3	DOUBLE CHECK	3/4"	MECHANICAL SYSTEM	WATTS	LF007	

PLUMBING LEGEND

	SHUTOFF VALVE		EXISTING ITEM
	BALL VALVE		ITEM TO DEMOLISH
	BUTTERFLY VALVE		NEW ITEM
	GATE VALVE		CONNECTION TO EXISTING
	PRESSURE REDUCING VALVE		EXTENT OF DEMOLITION
	CHECK VALVE		INSTALLATION NOTE
	REDUCED PRESSURE BACKFLOW PREVENTER		REMOVAL NOTE
	STRAINER W/ BLOWDOWN		ABOVE FINISHED GRADE
	RELIEF VALVE		ABOVE FINISHED FLOOR
	AIR VENT - MANUAL		TOP OF PIPE
	AIR VENT - AUTOMATIC		CLEANOUT
	PRESSURE GAUGE W/ GAUGE COCK		FLOOR CLEANOUT
	THERMOMETER		WALL CLEANOUT
	CALIBRATED BALANCING VALVE		CLEANOUT TO GRADE
	PIPING FLEXIBLE CONNECTION		VENT THRU ROOF
	UNION		DRAINAGE FIXTURE UNIT
	REDUCER		FUEL OIL SUPPLY
	FLOW METER		FUEL OIL RETURN
	PIPING UP		BOTTOM OF PIPE
	PIPING DOWN		EXISTING
	TEE DOWN		RUN BELOW FLOOR
	TEE UP		RUN ABOVE CEILING
	45 - ELBOW		DIAMETER
	CONTINUATION		CONSTRUCTION MANAGER
	FLOW ARROW		GENERAL CONTRACTOR
	WATER HAMMER ARRESTOR		MECHANICAL CONTRACTOR
	GAS COCK		ELECTRICAL CONTRACTOR
	DOMESTIC COLD WATER PIPING		ABOVE FINISHED FLOOR
	DOMESTIC HOT WATER PIPING		FLOOR DRAIN
	DOMESTIC HOT WATER RECIRCULATING		MAIN HOUSE TRAP
	NATURAL GAS PIPING		EQUIPMENT DESIGNATION
	LP GAS PIPING		GAS CONSUMPTION (MBH)
	SANITARY PIPING BELOW GRADE		FLOW CONTROL DEVICE
	STORM SEWER		FIXTURE DESIGNATION
	VENT PIPING		BACKFLOW PREVENTER
	CONDENSATE DRAIN PIPING		RECIRCULATOR PUMP
	RAINWATER CONDUCTOR PIPING		

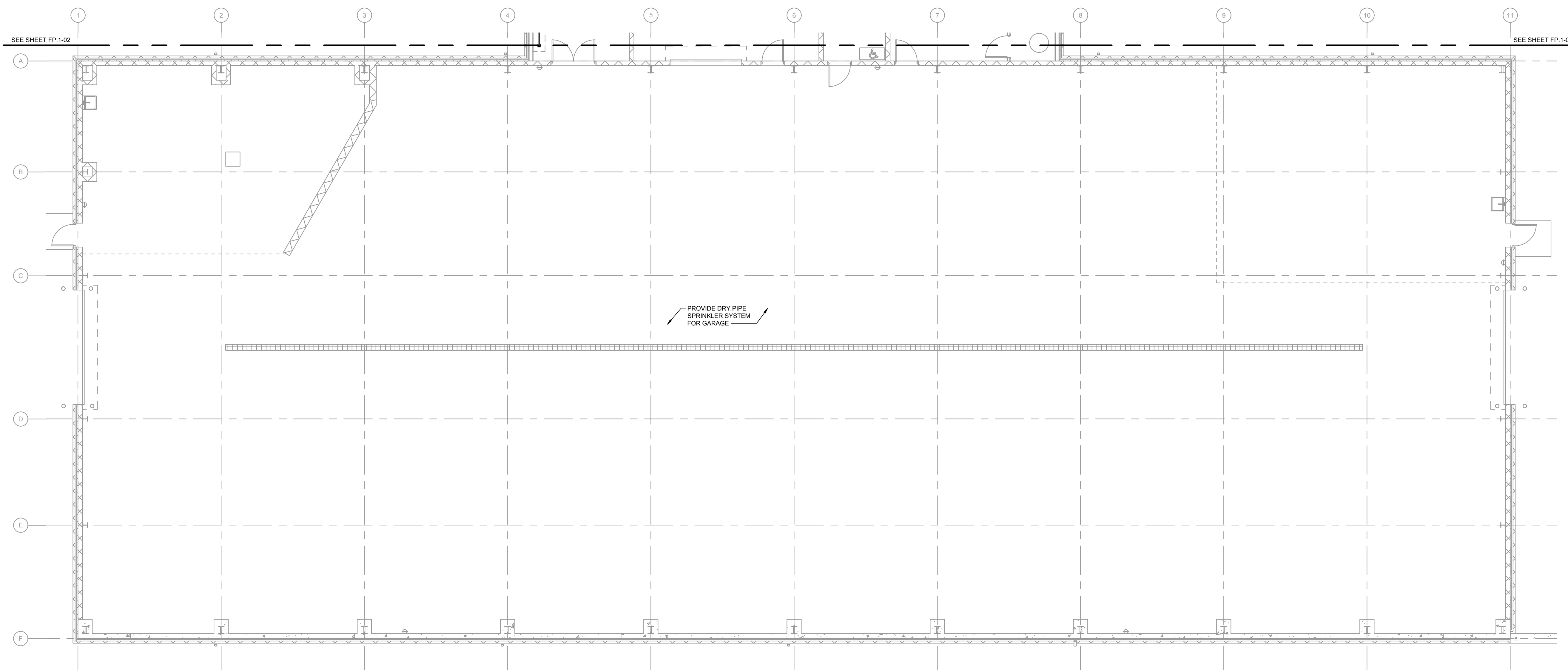
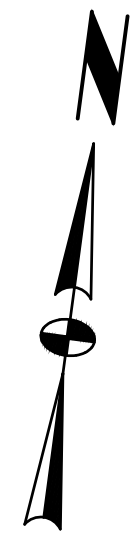
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BIDDING
NOT FOR CONSTRUCTION



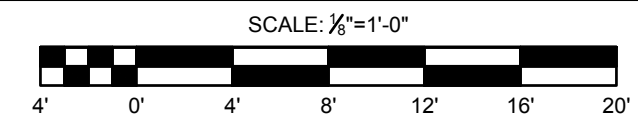
READING: [Small text]
PROJECT MANAGER: JAF
DESIGNED BY: JAF
DRAWN BY: JAF
DATE: 11/19
CHECKED BY: BBH

MUHLENBERG TOWNSHIP AUTHORITY
OFFICE BUILDING & MAINTENANCE GARAGE
PLUMBING
SCHEDULES AND LEGEND
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02/07/20
100608.0063
P.4-01
100608.0063
WORK ORDER NUMBER
P.4-01
DRAWING NUMBER



GARAGE AREA FIRE PROTECTION PLAN



SYSTEM DESIGN CRITERIA

LOCATION: MUHLENBERG TOWNSHIP, PA
BUILDING CONSTRUCTION: NON-COMBUSTIBLE
OCCUPANCY: GROUP B AND GROUP S (SEE ARCHITECTURAL DRAWINGS)
DESIGN BASIS: 2015 INTERNATIONAL BUILDING CODE
 2015 INTERNATIONAL FIRE CODE
 NFPA 13 - 2013 EDITION
AREA CLASSIFICATIONS
LIGHT HAZARD: OFFICE AREAS, CONFERENCE ROOM, BREAK ROOM, LUNCH ROOM, LOCKER ROOMS, RESTROOMS.
ORDINARY HAZARD: GARAGE AREA

FIRE PROTECTION WATER SUPPLY INFORMATION					
DATE	LOCATION OF RESIDUAL HYDRANT	LOCATION OF FLOW HYDRANT	STATIC (PSI)	RESIDUAL (PSI)	FLOW (GPM)
1/14/2020	R1 3450 OAK STREET	3761 OAK STREET	83	63	670
	R2 SEFRANKA ROAD		94	90	

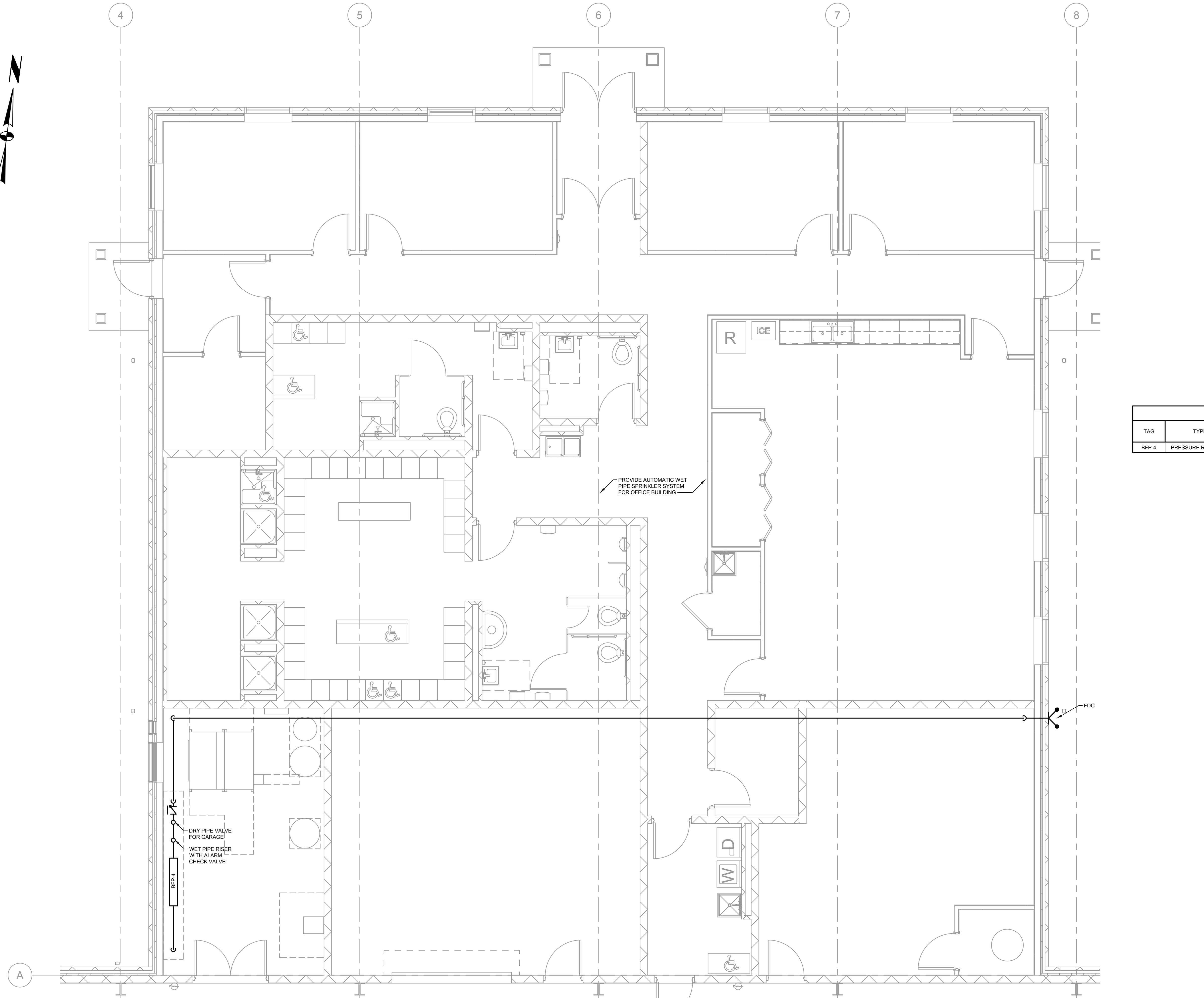
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NOT FOR CONSTRUCTION
 PROJECT MANAGER: KF
 BASE BY: SSM
 DRAWN BY: AJW
 N.B.: N/A
 DATE: 11/19
 CHECKED BY: BHB

SSM
 SPOTTS, STEVENS & MCCOY
 Engineers and Consultants
 ssmgroup.com
 1000 Walnut Street, Suite 100
 Lancaster, PA 17602
 717.399.1100
 17602 PA 17603
 F 610.601.2001

MUHLENBERG TOWNSHIP AUTHORITY
 OFFICE BUILDING & MAINTENANCE GARAGE
 FIRE PROTECTION
 PROPOSED PLAN
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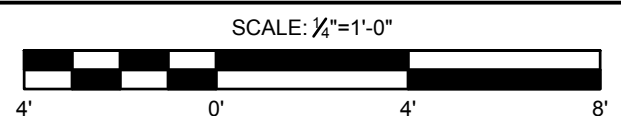
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100608.0063
 WORK ORDER NUMBER
FP.1-01
 DRAWING NUMBER



SEE SHEET FP-1-01

SEE SHEET FP-1-01

OFFICE AREA FIRE PROTECTION PLAN



BACKFLOW PREVENTER SCHEDULE						
TAG	TYPE	SIZE	SERVICE	BASIS OF DESIGN		NOTES
				MANUFACTURER	MODEL	
BFP-4	PRESSURE REDUCING	6"	FIRE PROTECTION	WATTS	4000SS	

NO.	DATE	RELEASED FOR BIDDING	DESCRIPTION
1	02/07/20		

RELEASED FOR BIDDING
BIDDING
 NOT FOR CONSTRUCTION

PROJECT MANAGER: MF
 BASE BY: SSM
 DRAWN BY: ALW
 N.B.: N/A
 DATE: 11/19
 CHECKED BY: BHB

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 Engineers and Consultants
 ssmgroup.com

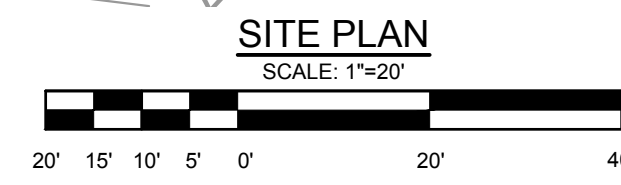
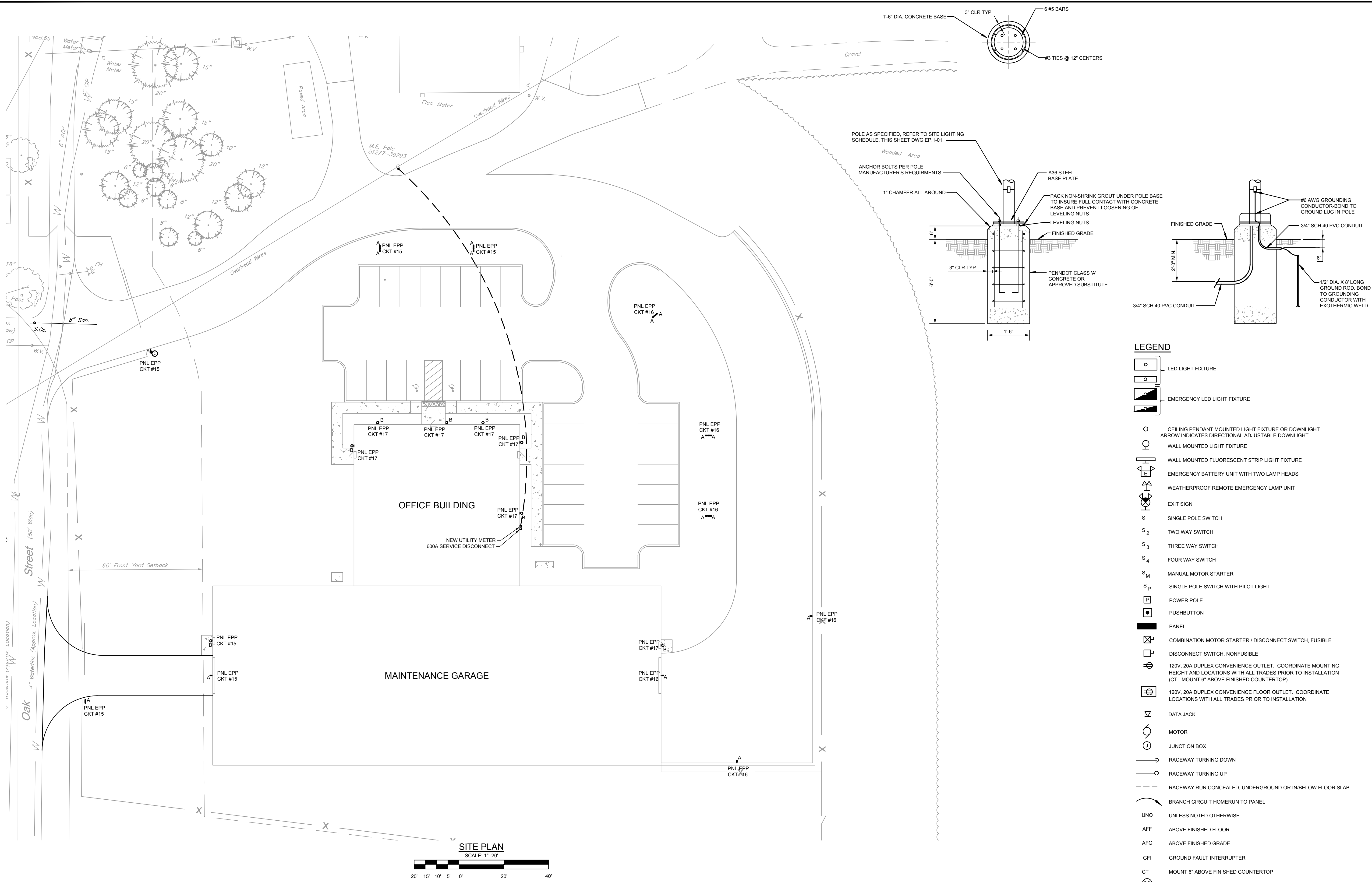
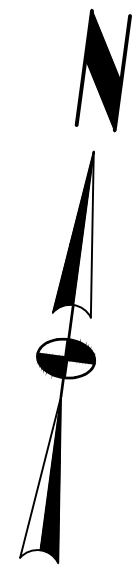
LANCASTER
 1400 N. MARKET STREET
 LANCASTER, PA 17602
 F: 717.399.1200

LEWIS
 1000 N. MARKET STREET
 LANCASTER, PA 17602
 F: 717.399.1200

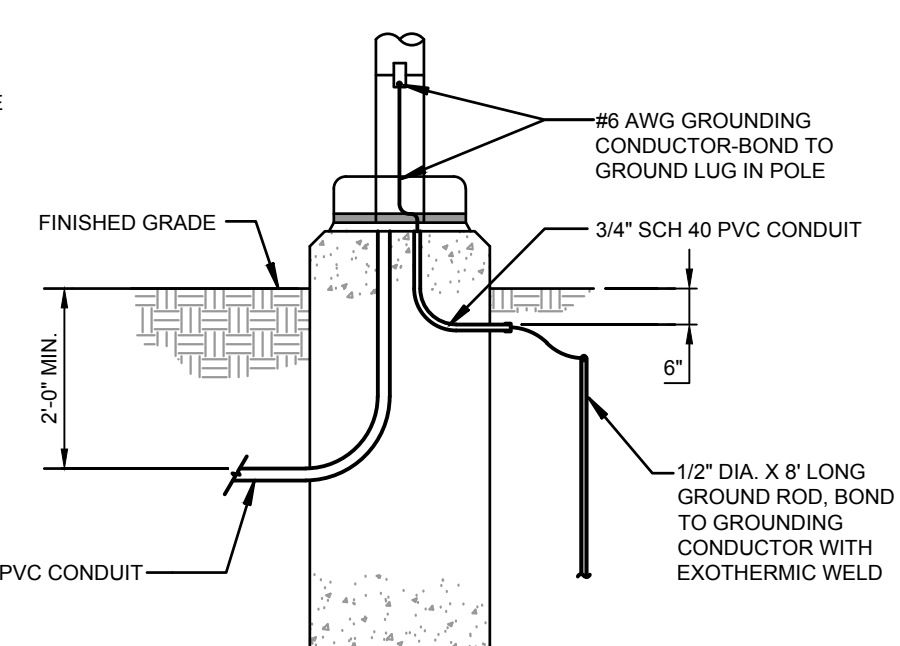
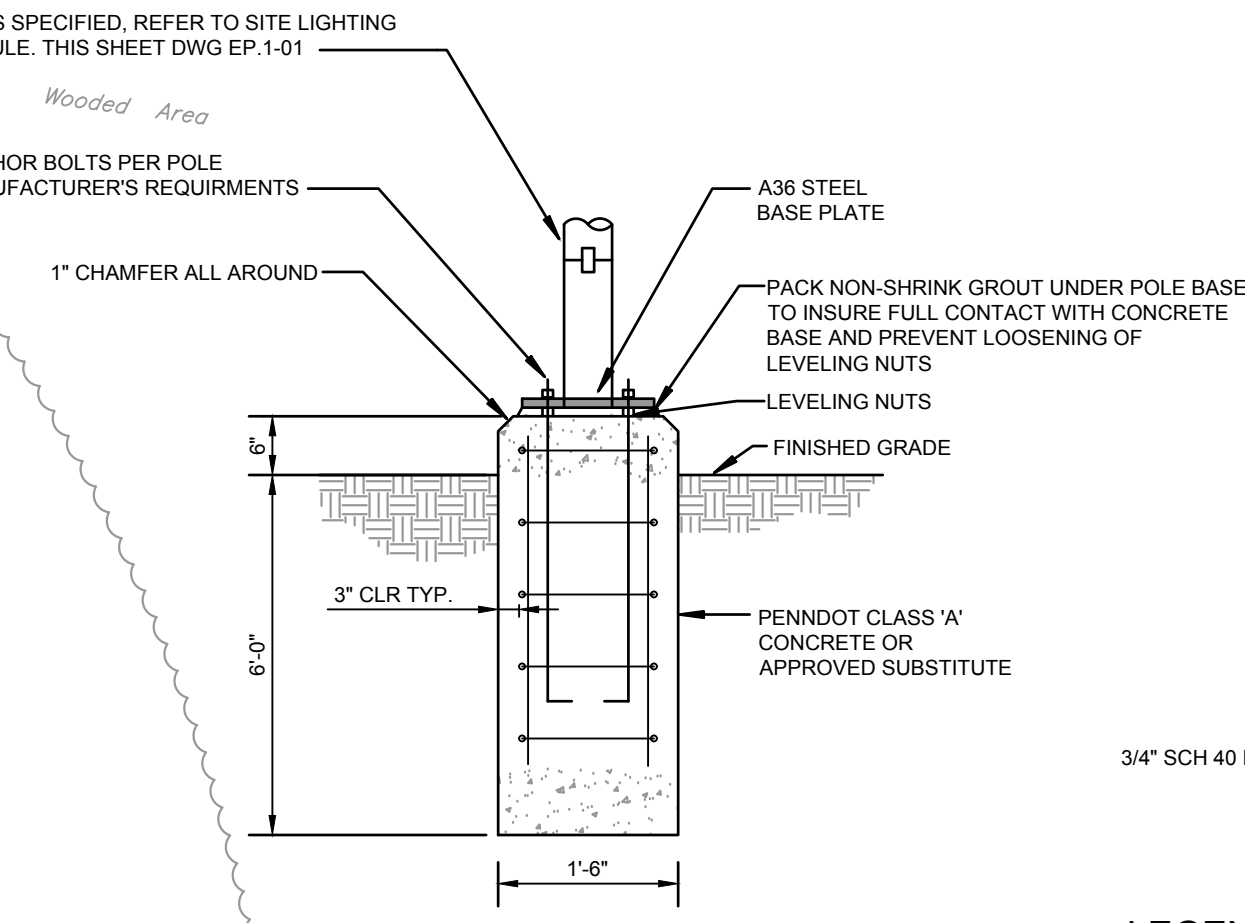
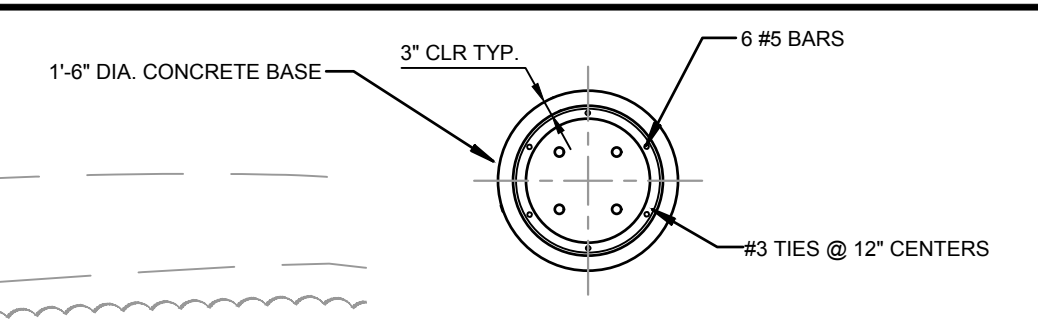
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 FIRE PROTECTION
 PROPOSED PLAN
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02/07/20
 DATE
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 WORK ORDER NUMBER

FP-1-02
 DRAWING NUMBER



SITE LIGHTING FIXTURE SCHEDULE								
TYPE	DESCRIPTION	MANUFACTURER	CATALOG NO.	LAMPS	VOLTS	MTG.	POLE CATALOG NO.	RMK
A	LED TYPE 4, 50W, 5000K, POLE MOUNTED FIXTURE, MOUNTING HEIGHT 25'	RAB LIGHTING	WPLED4T50K/PCT	LED SUPPLIED W/ FIXTURE	120V	POLE / WALL	RAB LIGHTING CATALOG NO. PS4-07-2SD2	
B	LED WALL PACK, 5000K, WALL MOUNTED FIXTURE	RAB LIGHTING	WP1LED30/PC	LED SUPPLIED W/ FIXTURE	120V	WALL		



LEGEND

- LED LIGHT FIXTURE
- EMERGENCY LED LIGHT FIXTURE
- CEILING PENDANT MOUNTED LIGHT FIXTURE OR DOWNLIGHT
ARROW INDICATES DIRECTIONAL ADJUSTABLE DOWNLIGHT
- WALL MOUNTED LIGHT FIXTURE
- WALL MOUNTED FLUORESCENT STRIP LIGHT FIXTURE
- EMERGENCY BATTERY UNIT WITH TWO LAMP HEADS
- WEATHERPROOF REMOTE EMERGENCY LAMP UNIT
- EXIT SIGN
- SINGLE POLE SWITCH
- TWO WAY SWITCH
- THREE WAY SWITCH
- FOUR WAY SWITCH
- MANUAL MOTOR STARTER
- SINGLE POLE SWITCH WITH PILOT LIGHT
- POWER POLE
- PUSHBUTTON
- PANEL
- COMBINATION MOTOR STARTER / DISCONNECT SWITCH, FUSIBLE
- DISCONNECT SWITCH, NONFUSIBLE
- 120V, 20A DUPLEX CONVENIENCE OUTLET. COORDINATE MOUNTING HEIGHT AND LOCATIONS WITH ALL TRADES PRIOR TO INSTALLATION (CT - MOUNT 6" ABOVE FINISHED COUNTERTOP)
- 120V, 20A DUPLEX CONVENIENCE FLOOR OUTLET. COORDINATE LOCATIONS WITH ALL TRADES PRIOR TO INSTALLATION
- DATA JACK
- MOTOR
- JUNCTION BOX
- RACEWAY TURNING DOWN
- RACEWAY TURNING UP
- RACEWAY RUN CONCEALED, UNDERGROUND OR IN/BELOW FLOOR SLAB
- BRANCH CIRCUIT HOMERUN TO PANEL
- UNLESS NOTED OTHERWISE
- ABOVE FINISHED FLOOR
- ABOVE FINISHED GRADE
- GROUND FAULT INTERRUPTER
- MOUNT 6" ABOVE FINISHED COUNTERTOP
- OCCUPANCY SENSOR
- WALL MOUNTED 60" AFF
- 120V, 20A DUPLEX CONVENIENCE OUTLET. COORDINATE MOUNTING HEIGHT AND LOCATIONS WITH ALL TRADES PRIOR TO INSTALLATION (WP - INDICATES GFI RECEPTACLE WITH WEATHERPROOF "WHILE-IN-USE" COVER)
- FIRE ALARM PULL STATION
- FIRE ALARM AUDIBLE & VISUAL
- CARD READER
- CAMERA

RELEASED FOR:
BIDDING
NOT FOR CONSTRUCTION

PROJECT MANAGER: KF
BASE BY: SSM
DRAWN BY: CJC

DATE: 11/19
N.B.: N/A
DESIGNED BY: CJC
CHECKED BY:

NO. DATE RELEASED FOR BIDDING DESCRIPTION

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Engineers and Consultants
ssmgroup.com

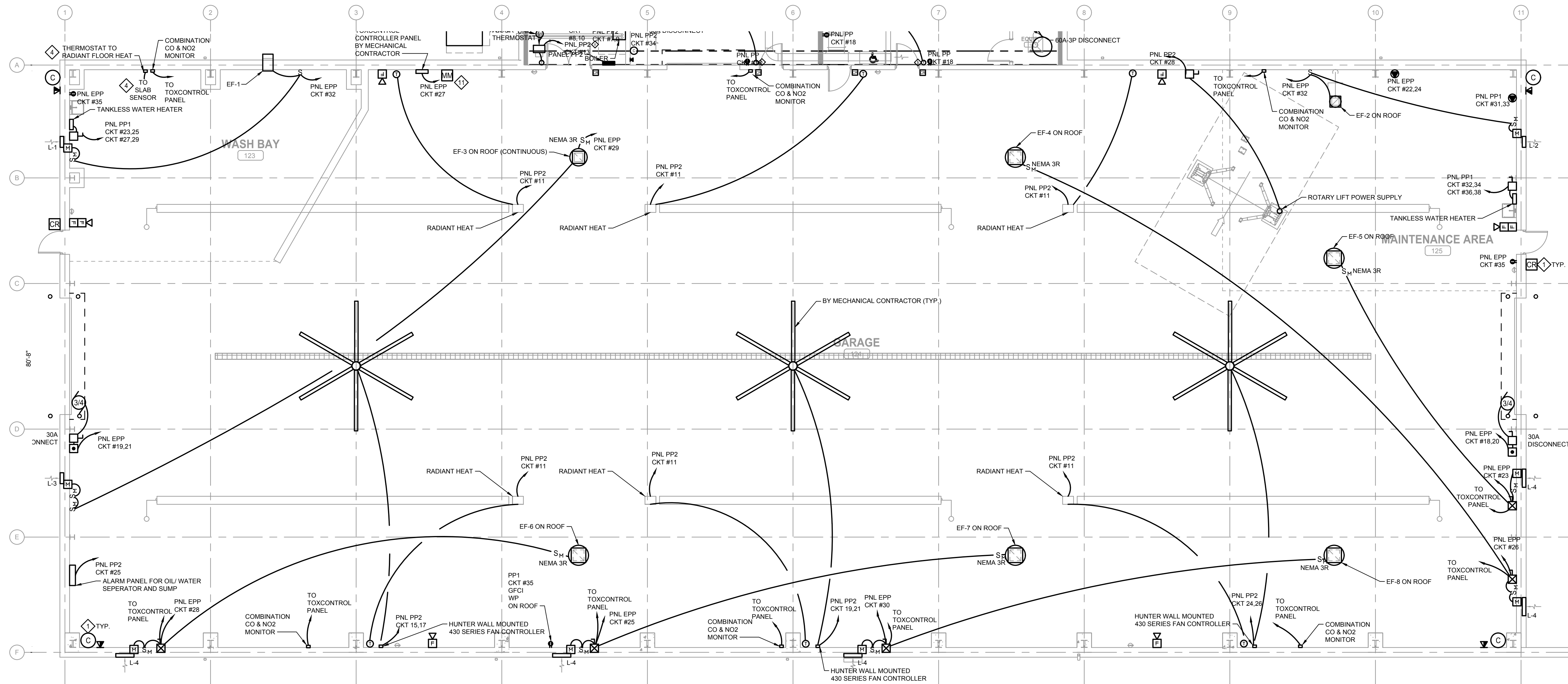
LANCASTER
1825 PA 17543
PA 17602-2001
F 610.691.2001

LELEY
North Corporate Center, Suite 108
Aldersburg, PA 17004
F 610.691.2001

READING
100 Lakeside Blvd
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Reading, PA 19606-0207
F 610.691.2001

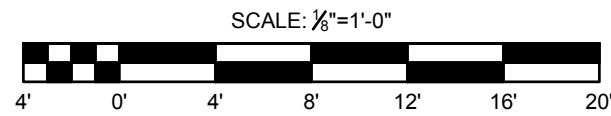
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ELECTRICAL - POWER
SITE PLAN
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EP-1-01
100608.0063
EP-1-01
DRAWING NUMBER



NEW PANEL 'PP1' SCHEDULE																								
VOLTAGE		208 Y/120		3/4" W MAIN LUGS		AMPS		MOUNTING		WALL		OPTIONS:		CONDUCTORS		LOAD		LOAD		DESCRIPTION	CKT #			
SHORT CIRCUIT DUTY		25 KVA/C MAIN BUS		CONDUCTORS		GND		COND		BKR		A/P		A		B		C		PHASE	CONDUCTORS			
CKT #	DESCRIPTION	LOAD TYPE	LOAD (VA)	QTY	SIZE	SIZE	SIZE	SIZE	SIZE	A/P	A	B	C	A/P	SIZE	SIZE	SIZE	SIZE	QTY	(VA)	TYPE	CKT #		
1	VAV-01 & 02	M	200	2	12	12	3/4	201	400		201	3/4	12	12	2	200	M	VAV-03 & 04		2		2		
3	VAV-05 & 06	M	200	2	12	12	3/4	201			400	201	3/4	12	12	2	200	M	VAV-07 & 08		4			
5	VAV-09 & 10	M	200	2	12	12	3/4	201								12200	N			6		6		
7	15KVA XFMR	N	7500	3	2	8	1-1/2	90/2	19500			2003	2	6	30	4	12000	N	PP2		8			
9									19500								12000	N			10			
11	DRYER	R	180	2	12	12	3/4	201			360	201	3/4	12	12	2	180	R	WASHER		12			
13	RECEPTACLES MENS RM	R	540	2	12	12	3/4	201	1260			201	3/4	12	12	2	720	R	RECEPTACLES OFFICE 101		14			
15	RECEPTACLES OFFICE 102	R	720	2	12	12	3/4	201			1440	201	3/4	12	12	2	720	R	RECEPTACLES OFFICE 104		16			
17	RECEPTACLES OFFICE 105	R	720	2	12	12	3/4	201			1980	201	3/4	12	12	2	1260	R	RECEPTACLES CORRIDOR		18			
19	REFRIGERATOR	R	180	2	12	12	3/4	201	360			201	3/4	12	12	2	180	R	ICE MACHINE		20			
21	RECEPTACLES LUNCH RM	R	360	2	12	12	3/4	201			900	201	3/4	12	12	2	540	R	RECEPTACLES LUNCH RM		22			
23	TANKLESS WATER HEATER	EH	7000	3	2	8	1-1/2	90/2			7720	201	3/4	12	12	2	720	R	RECEPTACLES WOMEN RM		24			
25									17000								10000	N	ATS		26			
27	TANKLESS WATER HEATER	EH	7000	3	2	8	1-1/2	90/2			17000			110/3	1-1/2	6	2	4	10000	N		30		
29											17000						10000	N			32			
31	208V RECEPTACLE	R	180	3	12	12	3/4	201	7180			90/2	1-1/2	8	2	3	7000	EH	TANKLESS WATER HEATER		34			
33	MAINTENANCE AREA	R	180						7180			7000					7000	EH			36			
35	ROOF RECEPTACLE	R	180	2	12	12	3/4	201			7180	90/2	1-1/2	8	2	3	7000	EH	TANKLESS WATER HEATER		38			
37									7000								7000	EH			40			
41									0								0				42			
43									0								0				44			
45									0								0				46			
47									0								0				48			
49									0								0				50			
51									0								0				52			
53									0								0				54			
TOTAL CONNECTED LOAD (VA) A, B, C															52700	46420	46440	KVA WITH DIVERSITY APPLIED			109.9	KVA		
TOTAL CONNECTED LOAD (AMP) A, B, C															439.2	388.8	387.0	AMPS WITH DIVERSITY APPLIED			305.4	AMPS		

GARAGE AREA ELECTRICAL POWER PLAN

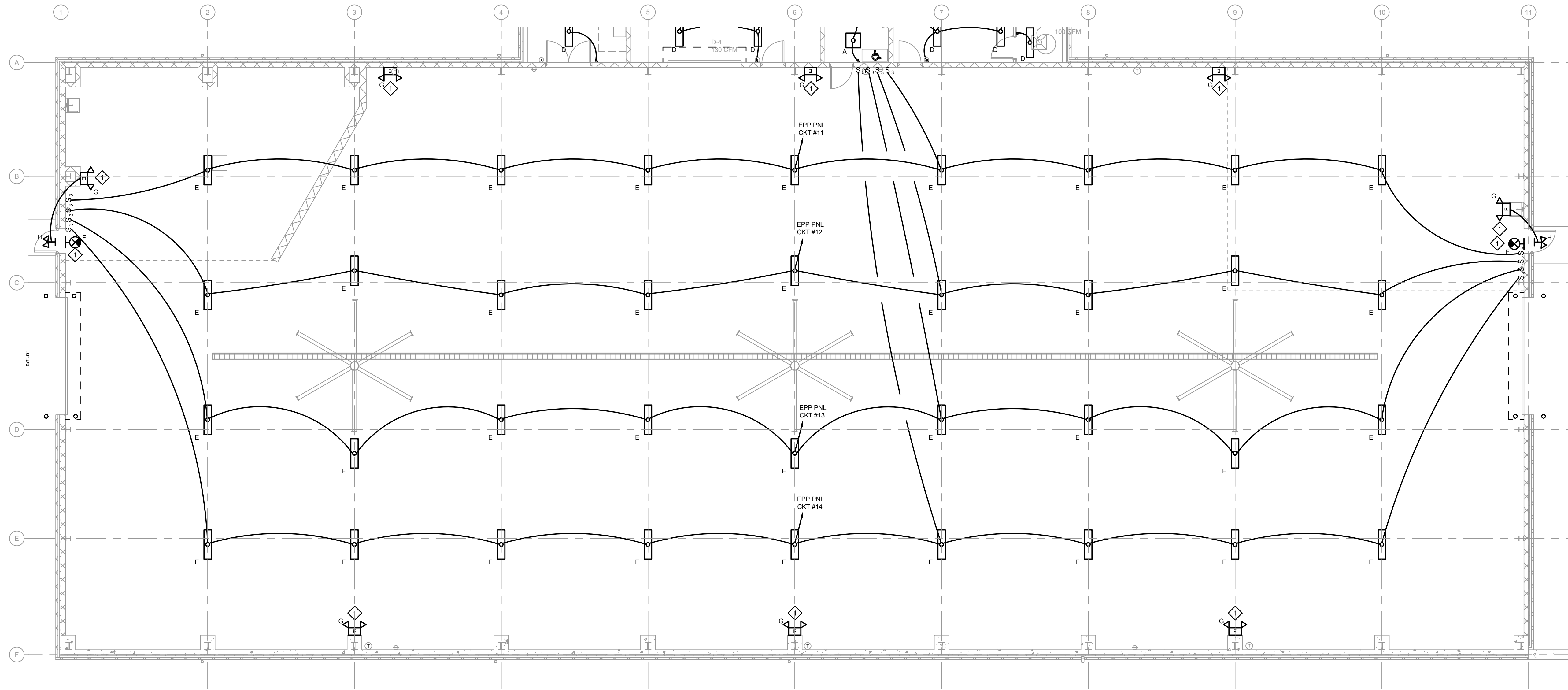


INSTALLATION NOTES:

- 1 CARD READER AND CAMERA SHALL BE INSTALLED AND FURNISHED BY SECURITY CONTRACTOR.
- 2 EXHAUST FANS EF-9 & 10 SHALL RUN ONLY DURING WORKING HOURS (6AM-6PM).
- 3 NEW TRANSFORMER SHALL BACK FEED EXISTING RESERVOIR. COORDINATE SHUTDOWN OF RESERVOIR WITH OWNER AND UTILITY.
- 4 COORDINATE LOCATION AND INSTALLATION WITH MECHANICAL PLUMBING CONTRACTOR.
- 5 CONNECT CONTROL WIRING TO CARRIER I-VU SYSTEM CONTROLLER LOCATED IN MECHANICAL ROOM.
- 6 CONNECT VAV TO THREE WAY CONTROL VALVE.
- 7 THE CONTRACTOR SHALL COORDINATE WITH THE FIRE PROTECTION CONTRACTOR ACTUAL ELECTRICAL INSTALLATION REQUIREMENTS FOR CONNECTION OF DRY PIPE SYSTEM AIR COMPRESSOR. PROVIDE BREAKER, RACEWAY AND WIRE SIZED TO MATCH COMPRESSOR. PROVIDE COMPRESSOR CONTROL WIRE AS REQUIRED.
- 8 PROVIDE 120V COIL FOR CONNECTION TO BOILER CONTROL PANEL.
- 9 THE CONTRACTOR SHALL PROVIDE FIRE ALARM SYSTEM CONTROL RELAY FOR CONNECTION OF FIRE ALARM PANEL TO AHU FOR UNIT SHUTDOWN. COORDINATE CONNECTION WITH AHU TO BE PROVIDED.
- 10 THE CONTRACTOR SHALL PROVIDE PRESSURE AND TAMPER SWITCHES FOR CONNECTION OF SPRINKLER WET AND DRY PIPE SYSTEMS TO THE FIRE ALARM PANEL. COORDINATE CONNECTION WITH FIRE PROTECTION CONTRACTOR PRIOR TO WORK.
- 11 THE CONTRACTOR SHALL PROVIDE MONITORING MODULE FOR CONNECTION OF TOXCONTROL PANEL TO THE FIRE ALARM PANEL. COORDINATE CONNECTION WITH MECHANICAL CONTRACTOR.

NEW PANEL 'PP2' SCHEDULE																								
VOLTAGE		208 Y/120		3/4" W MAIN LUGS		AMPS		MOUNTING		WALL		OPTIONS:		CONDUCTORS		LOAD		LOAD		DESCRIPTION	CKT #			
SHORT CIRCUIT DUTY		25 KVA/C MAIN BUS		CONDUCTORS		GND		COND		BKR		A/P		A		B		C		PHASE	CONDUCTORS			
CKT #	DESCRIPTION	LOAD TYPE	LOAD (VA)	QTY	SIZE	SIZE	SIZE	SIZE	SIZE	A/P	A	B	C	A/P	SIZE	SIZE	SIZE	SIZE	QTY	(VA)	TYPE	CKT #		
1		M	1300								3800									2500	M	2		
3	AIR HANDLING UNIT	M	1300	3	10	10	1	30/3			3800			40/3	1	10	8	4	2500	M	AR COMPRESSOR	4		
5		M	1300								3800								2500	M		6		
7	HWP1	M		3	12	12	3/4	201	700					201	3/4	12	12	3	700	M	HWP-2	8		
9		M							0													10		
11	RADIANT TUBE HEATERS	EH	1000	2	12	12	3/4	201			1050	201	3/4	12	12	2	50	EH	RADIANT FLOOR HEATING		12			
13	UH-2	EH	100	2	12	12	3/4	201	4600										4500	M		14		
15	HUNTER	M	400	3	12	12	3/4	201	4900					8003	1-1/4	8	4	3	4500	M	CONDENSING UNIT	16		
17		M	400						4900										4500	M		18		
19	HUNTER	M	400	3	12	12	3/4	201	1150					201	3/4	12	12	3	750	EH	UH-1	20		
21		M	400						1150										750	EH		22		
23	WATER SOFTENER	M	100	2	12	12	3/4	201			500	201	3/4	12	12	3	400	M	HUNTER FAN		24			
25	ALARM PNL OIL/WATER	R	100	2	12	12	3/4	201	500										400	M		26		
27	UH-1	EH	750	3	12	12	3/4	201			950			201	3/4	12	12	2	200	R	ROTARY LIFT	28		
29		EH	750								850			201	3/4	12	12	2	100	M	DWP-1	30		
31	UH-1	EH	750	3	12	12	3/4	201	850					201	3/4	12	12	2	100	EH	WATER HEATER (WH-1)	32		
33		EH	750								1250			201	3/4	12	12	2	500	EH	BOILER	34		
35	CARRIER I-VU	N	100	2	12	12	3/4	201			100											36		
37									0													38		
39									0													40		
41									0													42		
TOTAL CONNECTED LOAD (VA) A, B, C															11600	12050	11200	KVA WITH DIVERSITY APPLIED			34.9	KVA		
TOTAL CONNECTED LOAD (AMP) A, B, C															96.7	100.4	93.3	AMPS WITH DIVERSITY APPLIED			96.8	AMPS		

NEW PANEL 'EPP' SCHEDULE																							
VOLTAGE		208 Y/120		3/4" W MAIN LUGS		AMPS		MOUNTING		WALL		OPTIONS:		CONDUCTORS		LOAD		LOAD		DESCRIPTION	CKT #		
SHORT CIRCUIT DUTY		25 KVA/C MAIN BUS		CONDUCTORS		GND		COND		BKR		A/P		A		B		C		PHASE	CONDUCTORS		
CKT #	DESCRIPTION	LOAD TYPE	LOAD (VA)	QTY	SIZE	SIZE	SIZE	SIZE	SIZE	A/P	A	B	C	A/P	SIZE	SIZE	SIZE	SIZE	QTY	(VA)	TYPE	CKT #	
1	LGTS OFFICE 101-102	L	200	2	12	12	3/4	201	400					201	3/4	12	12	2	200	L	LGTS VEST 103, 107, 108	2	
3	LGTS OFFICE 104-105	L	200	2	12	12	3/4	201			700			201	3/4	12	12	2	500	L	LGTS CORRIDOR 106	4	
5	LGTS LUNCH ROOM 116	L	400	2	12	12	3/4	201			700	201	3/4	12	12	2	300	L	LGTS WOMENS 109, 110		6		
7	LGTS MENS RM 111-113	L	300	2	12	12	3/4	201	900					201	3/4	12	12	2	600	L	LGTS STORAGE 118, 119	8	
9	LGTS 117 & 120	L	200	2	12	12	3/4	201			1100			201	3/4	12	12	2	900	L	LGTS STORAGE 121, 122	10	
11	LGTS GARAGE	L	900	2	12	12	3/4	201			1800	201	3/4	12	12	2	900	L	LGTS GARAGE		12		
13	LGTS GARAGE	L	900	2	12	12	3/4	201	1800					201	3/4	12	12	2	900	L	LGTS GARAGE	14	
15	EXTERIOR LGTS	L	400	2	12	12	3/4	201			900	201	3/4	12	12	2	500	L	EXTERIOR LGTS		16		
17	EXTERIOR LGTS	L	200	2	12	12	3/4	201			500	201	3/4	12	12	3	300	M	GARAGE DOOR		18		
19	GARAGE DOOR	M	300	3	12	12	3/4	201	600					201	3/4	12	12	2	100	N	FIRE ALARM PANEL	34	
21		M	300								480			201	3/4	12	12	3	180	R	208V RECEPTACLE 125	24	
23	EF-5	M	560	2	10	10	1	30/1			740			30/1	1	10	10	2	560	M	EF-4	26	
25	EF-7	M	560	2	10	10	1	30/1	1120					30/1	1	10	10	2	560	M	EF-6	28	
27	TOXCONTROL PANEL	R	100	2	12	12	3/4	201			660			30/1	1	10	10	2	560	M	EF-8	30	
29	EF-3, 9, & 10	M	300	2	12	12	3/4	201			860	30/1	1	10	10	2	560	M	EF-8 & 2		32		
31	ACCESS GATE	M		3	12	12	3/4	201	300					201	3/4	12	12	2	300	M		36	
33		M							100					201	3/4	12	12	2	100	N		38	
35	GARAGE RECEPTACLE	R	360	2	12	12	3/4	201			360											40	
37									0													42	
39	GARAGE AIR COMPRESSOR								0														



GARAGE AREA LIGHTING PLAN
SCALE: 1/8"=1'-0"

INSTALLATION NOTES:
 CONNECT TO UNSWITCHED LEG OF LIGHTING CIRCUIT.

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	CATALOG NO.	LAMPS	VOLTS	MTG.	RMK
A	LED 2' X 2' FIXTURE, 4000K, 2000 LUMEN OUTPUT	LSI	LPASC22 LED 20L UNV DIM1 40	LED SUPPLIED W/ FIXTURE	120V	RC	
B	LED 4' FIXTURE, 3500K, LOW LUMEN OUTPUT	COLUMBIA LIGHTING	LPT4-35LW-EDU	LED SUPPLIED W/ FIXTURE	120V	WALL	
C	6" LED DOWNLIGHT, 2000 LUMEN OUTPUT, 3500K	HE WILLIAMS	6PR-TL-L20/835-DIM-UNV-LW-OF-CS-N-F1	LED SUPPLIED W/ FIXTURE	120V	CEILING	
D	LED 4' FIXTURE, 3500K, MEDIUM LUMEN OUTPUT	COLUMBIA LIGHTING	MPL4-35ML-AD-EU	LED SUPPLIED W/ FIXTURE	120V	CEILING	
E	LED 4' FIXTURE, 3500K, VERY HIGH LUMEN OUTPUT	COLUMBIA LIGHTING	MPL4-35VL-AD-EU	LED SUPPLIED W/ FIXTURE	120V	CEILING	
F	SINGLE FACE EXIT SIGN, WHITE HOUSING, RED LETTERING	EMERGH-LITE	LWX14R	LED SUPPLIED W/ FIXTURE	120V	CEILING	
G	DUAL HEAD BATTERY UNIT, WHITE HOUSING, 12V, 200W LEAD-CALCIUM	EMERGH-LITE	12LC200-2150LJ	LED SUPPLIED W/ FIXTURE	120V	WALL	
H	DUAL HEAD LED OUTDOOR REMOTE HEADS	EMERGH-LITE	EF12D-LED	LED SUPPLIED W/ FIXTURE	6V	WALL	

NO.	DATE	RELEASED FOR BIDDING	DESCRIPTION
1	02/07/20		

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BIDDING
 NOT FOR CONSTRUCTION
 PROJECT MANAGER: KF
 BASE BY: SSM
 DRAWN BY: CLC
 DESIGNED BY: CLC
 DATE: 11/19
 N.B.: N/A
 CHECKED BY:

SSM
 SPOTTS, STEVENS & MCCOY
 Engineers and Consultants
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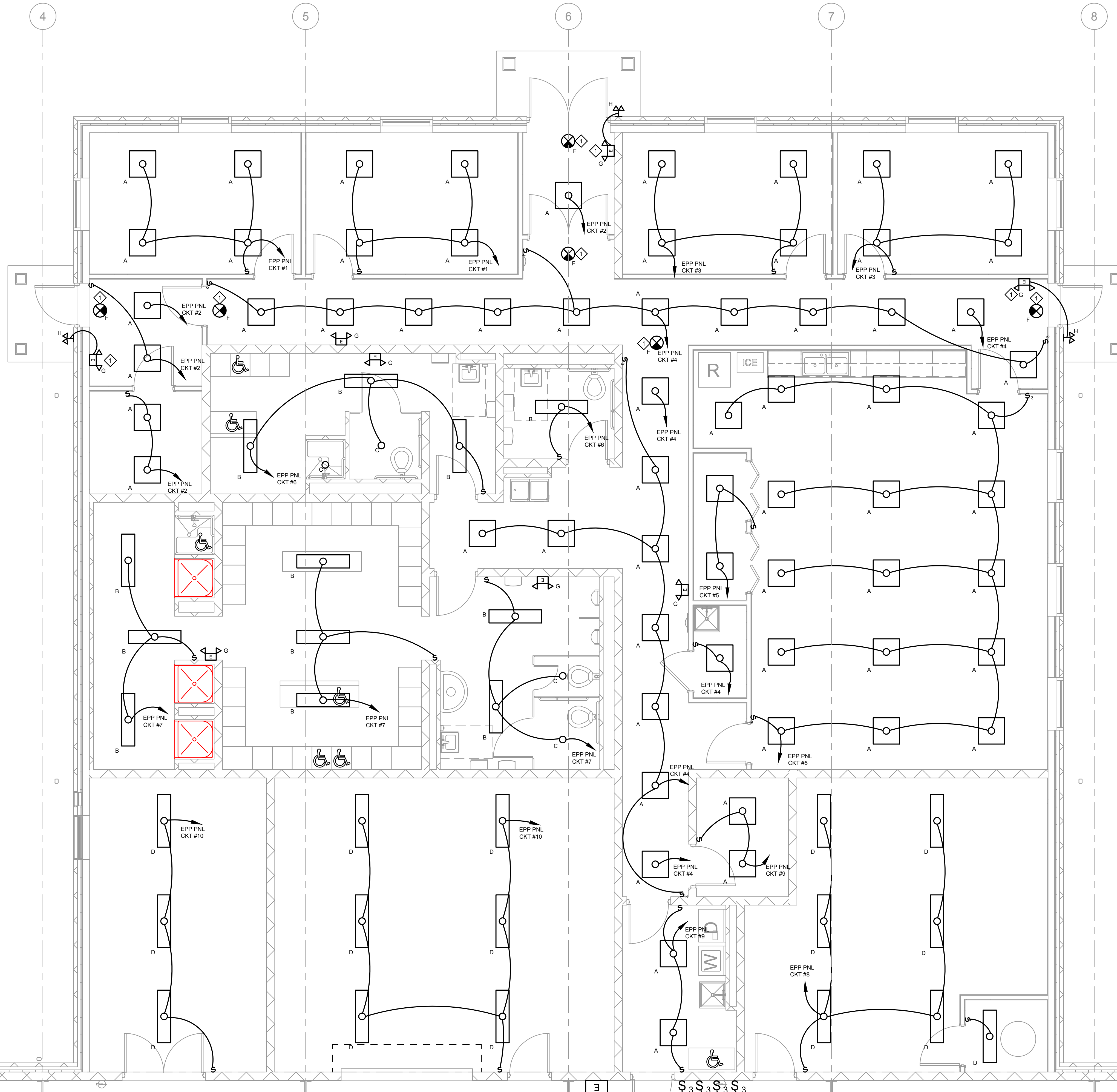
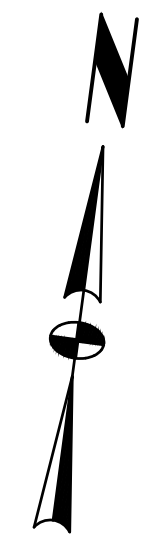
LANCASTER
 1400 PA 17943
 F: 610.692.2001

LEWIS
 1000 PA 17303
 F: 610.692.2001

READING
 1000 PA 19607
 F: 610.692.2001

MUHLENBERG TOWNSHIP AUTHORITY
 OFFICE BUILDING & MAINTENANCE GARAGE
 ELECTRICAL - LIGHTING
 PROPOSED PLAN
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100608.0063	
WORK ORDER NUMBER	
EL.1-01	
DRAWING NUMBER	



INSTALLATION NOTES:
 ◇ CONNECT TO UNSWITCHED LEG OF LIGHTING CIRCUIT.

OFFICE AREA LIGHTING PLAN
 SCALE: 1/8"=1'-0"

NO.	DATE	RELEASED FOR BIDDING	SSM	SSM	SSM

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BIDDING
 NOT FOR CONSTRUCTION

PROJECT MANAGER: MF
 BASE BY: SSM
 DRAWN BY: CJC

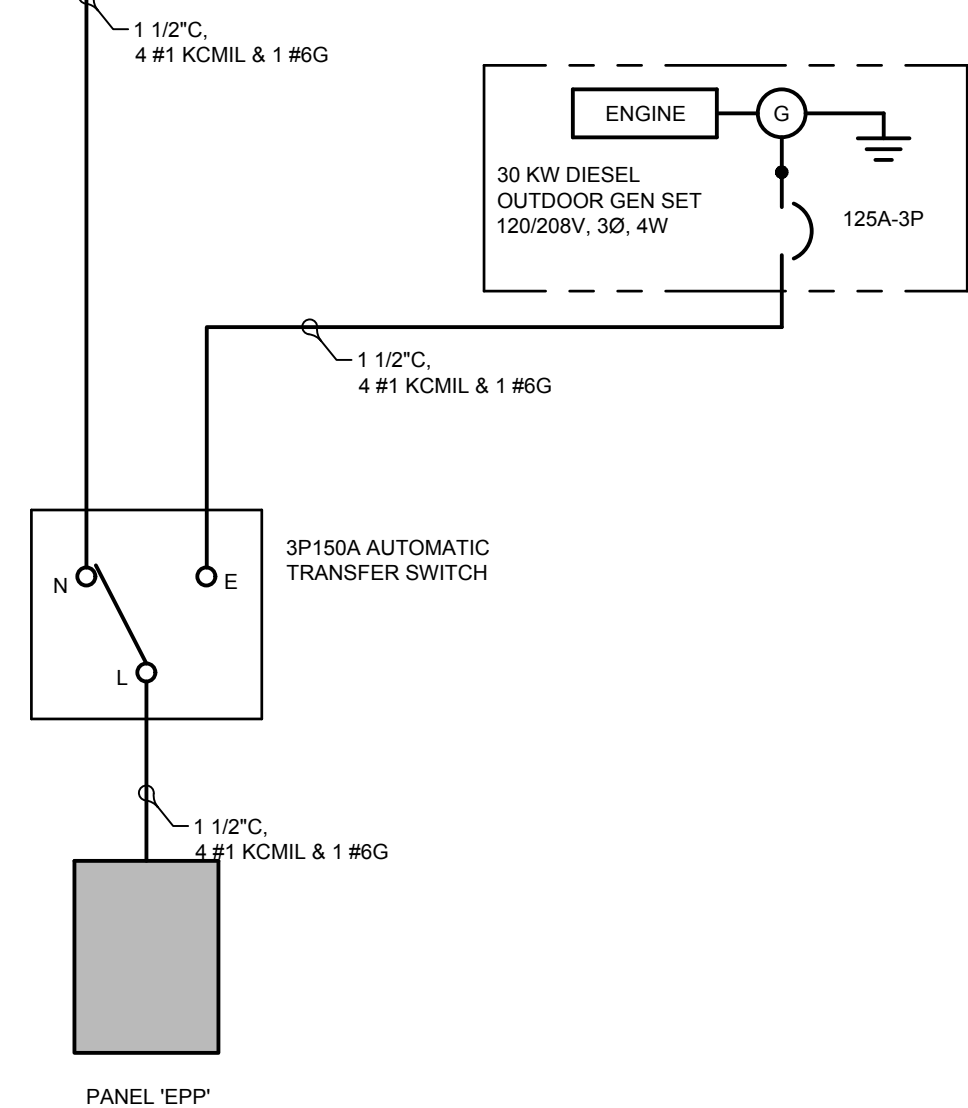
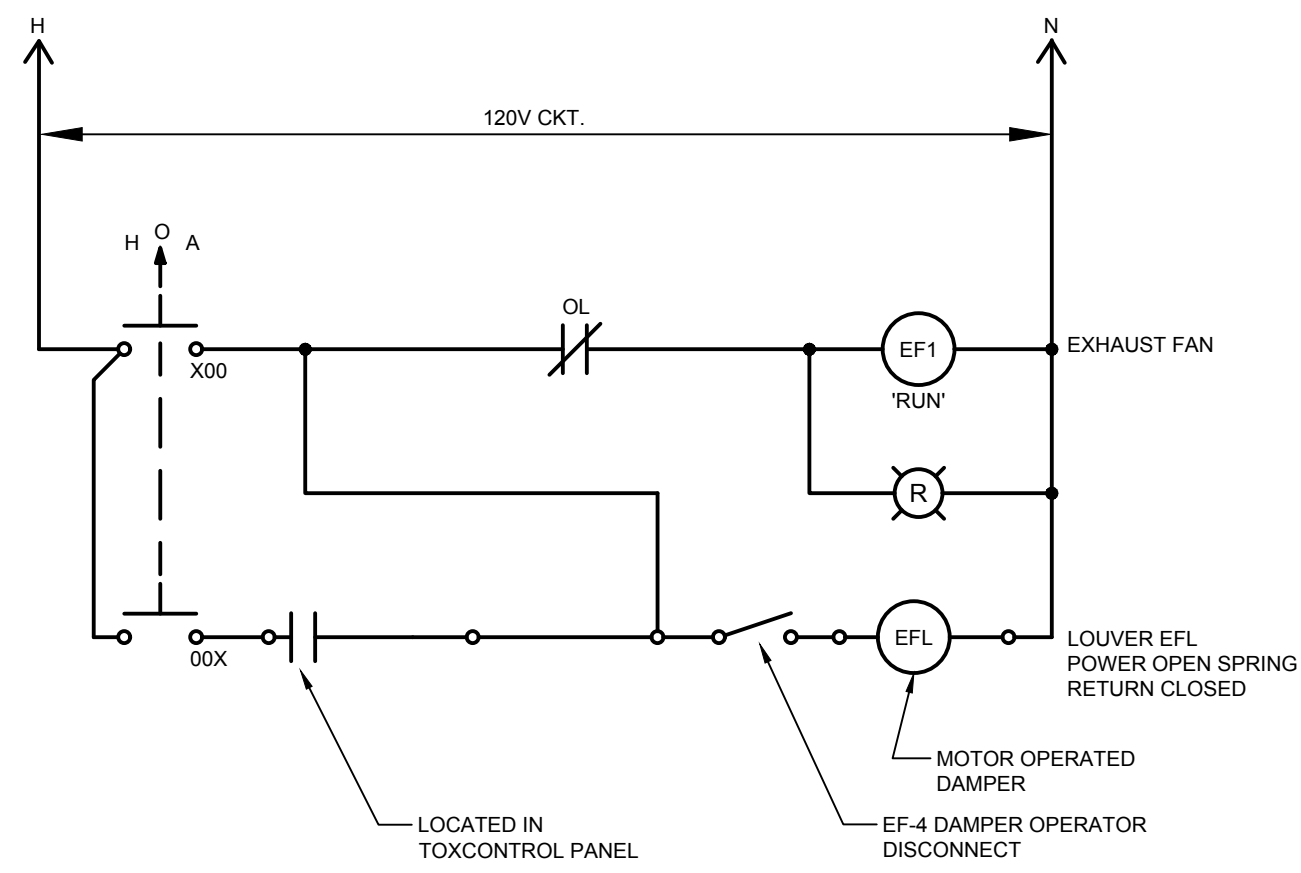
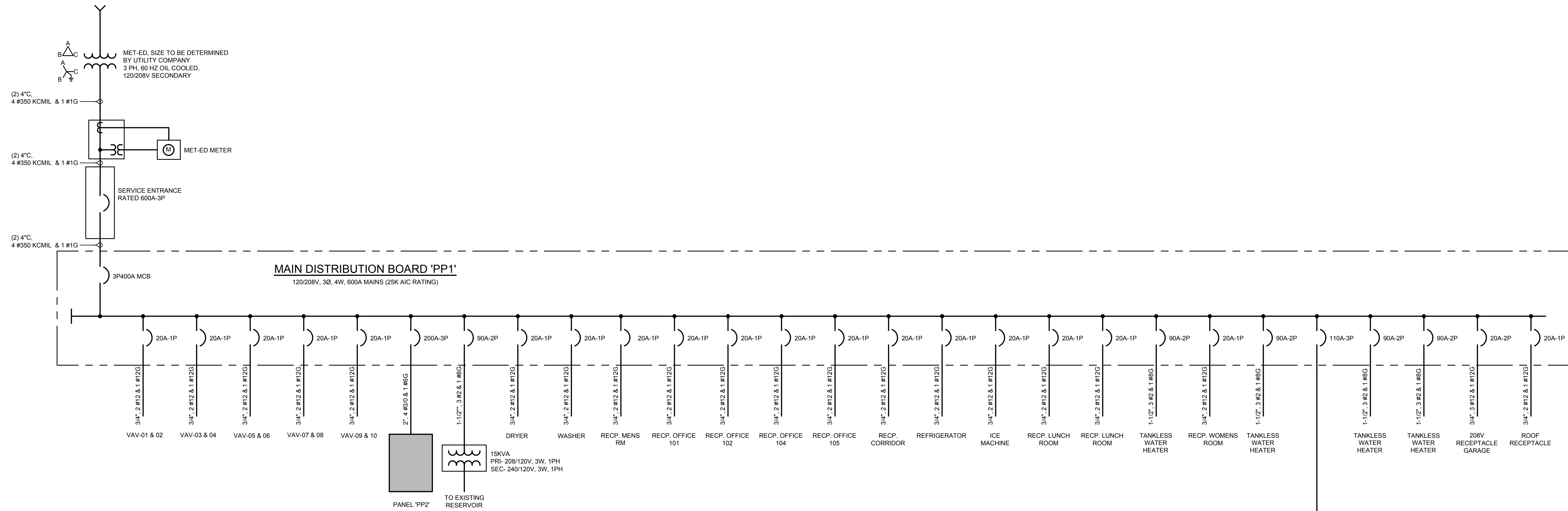
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 OFFICE BUILDING & MAINTENANCE GARAGE
 ELECTRICAL - LIGHTING
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DRAWING NUMBER	



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	01/20/2020		MADE	CHD	APVD

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PROJECT MANAGER: KF
BASE BY: SSM
DRAWN BY: CLC

N.B.: N/A
DESIGNED BY: CLC
CHECKED BY: SSM
DATE: 11/19

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Project: 100608.0063
Drawing: EP-1-02
Date: 02/07/20
Author: J. L. STEVENS
Checked: J. L. STEVENS
Approved: J. L. STEVENS
Date: 02/07/20

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OFFICE BUILDING & MAINTENANCE GARAGE
ELECTRICAL - POWER
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WORK ORDER NUMBER	100608.0063
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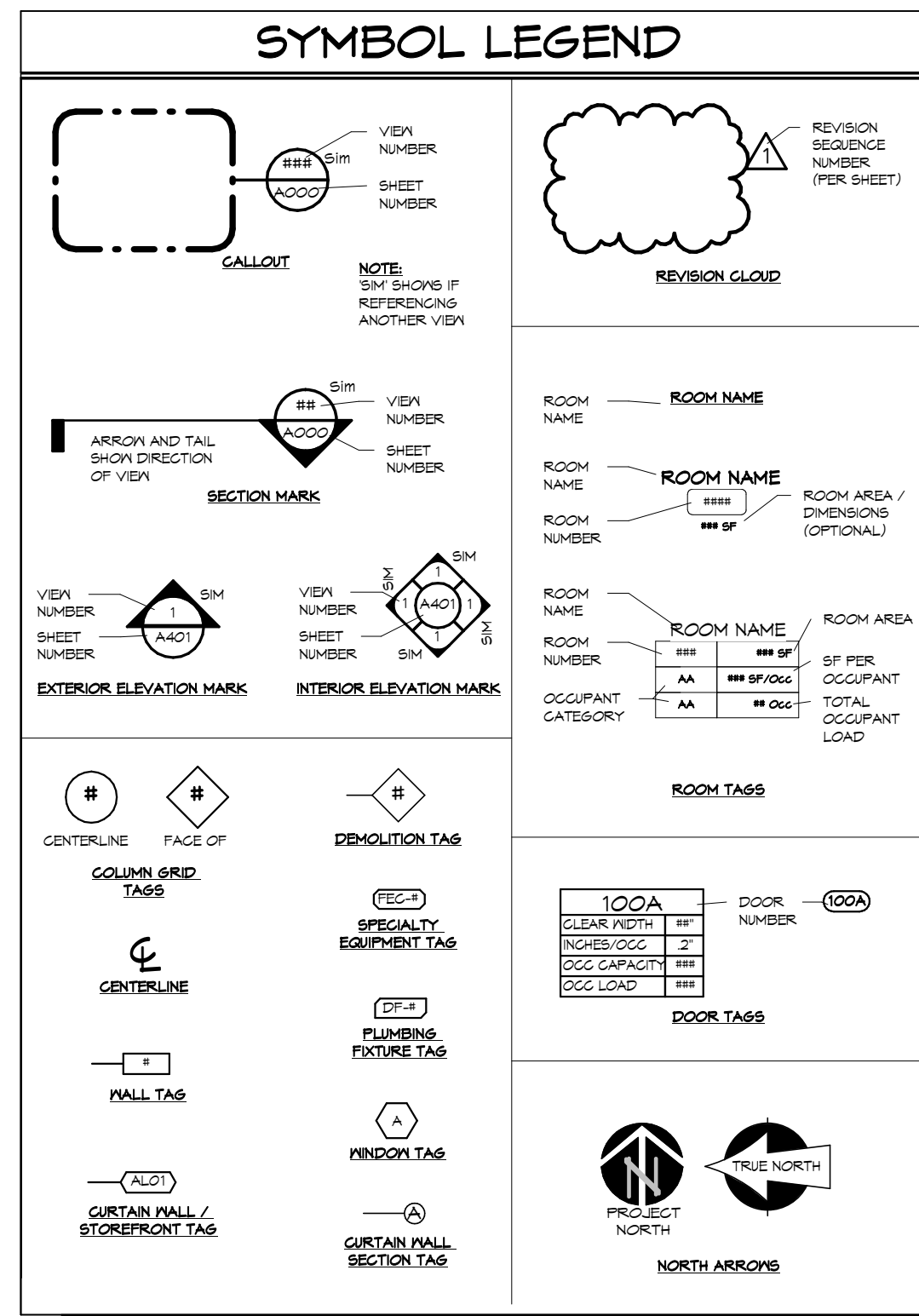
ARCHITECTURAL DATA SHEET

MUHLENBERG TOWNSHIP AUTHORITY

OFFICE BUILDING & MAINTENANCE GARAGE

19-080 MUHLENBERG TOWNSHIP AUTHORITY OFFICE BUILDING & MAINTENANCE GARAGE

NOTE: ABBREVIATIONS MAY OR MAY NOT SHOW PERIODS		ABBREVIATIONS		NOTE: ADDITIONAL ABBREVIATION LEGENDS IN SET AS APPLICABLE	
# / LB	AT NUMBER OR POUND / POUND	EPS	EXTRUDED POLYSTYRENE	NIC	NOT IN CONTRACT
ABV	ABOVE	EQ	EQUAL	NO	NUMBER
ACUST	ACOUSTICAL	EQUIP	EQUIPMENT	NOM	NOMINAL
ACT	ACOUSTICAL CEILING TILE	ES	EACH SIDE	NTS	NOT TO SCALE
A/C	AIR CONDITIONING	EST	ESTIMATE(D)	OA	OVERALL
ADA	AMERICANS w/ DISABILITIES ACT	ETR	EXISTING TO REMAIN	OC	ON CENTER
ADD	ADDENDUM / ADDITIONAL	ENC	ELECTRIC WATER COOLER	OCG	OCCUPANT(S)
ADH	ADHESIVE	EX	EXAMPLE	OD	OUTSIDE DIAMETER
ADJ	ADJUSTABLE / ADJACENT	EXIST	EXISTING	OFF	OFFICE
AFF	ABOVE FINISHED FLOOR	EXP	EXPANSION	OH	OVERHEAD
AHU	AIR HANDLING UNIT	EXT	EXTERIOR	OPNG	OPENING
AIA	AMERICAN INSTITUTE OF ARCHITECTS	FD	FLOOR DRAIN	OPP	OPPOSITE
ALT	ALTERNATE	FE	FIRE EXTINGUISHER	OSB	ORIENTED STRAND BOARD
ALUM	ALUMINUM	FGC	FIRE EXTINGUISHER CABINET	P	PLASTIC
ANCH	ANCHOR / ANCHORAGE	FFE	FINISHED FLOOR ELEVATION	PERF	PERFORATED
ANOD	ANODIZED	FIN	FINISH / FINISHED	PERM	PERIMETER
APPROX	APPROXIMATE	FL	FLUSHED	PF	PRE-FINISHED
ARCH	ARCHITECT / ARCHITECTURAL	FLR(S)	FLOOR(S)	PLAM	PLASTIC LAMINATE
ATTN	ATTENTION	FR	FIRE RATED	PLAS	PLASTER
AVG	AVERAGE	FRT	FIRE RETARDANT TREATED	PLMB	PLUMBING
BD	BOARD	FND	FOUNDATION	PLY	PLYWOOD
BLDG	BUILDING	FO	FACE OF	PMF	PRE-MOLDED FILLER
BLKG	BLOCKING	FOB	FURNISHED BY OTHERS	PNT(D)	PAINT(ED)
BO	BOTTOM OF	FOF	FACE OF FACE	POB	POINT OF BEARING
BOD	BOTTOM OF DECK	FOY	FIRE STOP	PRE-FAB	PRE-FABRICATED
BOS	BOTTOM OF STEEL	FS	FIRE STOP	PROJ	PROJECT / PROJECTION
BOF	BOTTOM OF WALL	FT	FEET / FOOT	PSF	POUNDS PER SQUARE FOOT
BSMT	BASEMENT	FTG	FOOTING	PSI	POUNDS PER SQUARE INCH
BTWN	BETWEEN	GA	GAUGE	PT	PRESSURE TREATED
BU	BUILT UP	GAB	Gypsum Wall Board	PVC	POLY VINYL CHLORIDE
BULL	BULLETIN	GC	GENERAL CONTRACTOR	QT	QUANTITY
BRG	BEARING	GL	GLASS / GLAZING	QTY	QUANTITY
CAB	CABINET	GYP	GYPSONUM	R	RISER
CER	CERAMIC	H	HIGH	RAD	RADIUS
CI	CONTINUOUS INSULATION	HC	HANDICAPPED	RB	RUBBER BASE
CIP	CAST IN-PLACE	HGD	HOLLOW CORE WOOD DOOR	RCP	REFLECTED CEILING PLAN
CJ	CONTROL JOINT	HGT	HEIGHT	RD	ROOF DRAIN
CLK	CAULK	HM	HOLLOW METAL	REC	RECESSED
CL	CENTER LINE	HORIZ	HORIZONTAL	REF	REFLECTED
CLS	CEILING	HR	HOUR	REFLD	REFLECTED
CLO	CLOSET	HR	HANDRAIL	RENF	REINFORCED
CLR	CLEAR	HND	HARDWARE	REQD	REQUIRED
CMU	CONCRETE MASONRY UNIT	HVAC	HEATING, VENTILATING, AIR CONDITIONING	REV(S)	REVISION(S)
COL	COLUMN	IBC	INTERNATIONAL BUILDING CODE	RM	ROOM
COMP	COMPONENT(S)	ID	INSIDE DIAMETER / INTERIOR DESIGN	RO	ROUGH OPENING
CONC	CONCRETE	IN	INCHES	RTU	ROOF TOP UNIT
CONST	CONSTRUCTION	INCL	INCORPORATED	RVC	RAIN WATER CONDUCTOR
CONT	CONTINUOUS	INCL	INCLUDED(ING)	S	SCHEDULE
CONTR	CONTRACTOR	INSUL	INSULATED / INSULATION	SCD	SCHEDULE
COORD	COORDINATE	INT	INTERIOR	SEC	SECRETARY
COOR	COORDINATE	JC	JANITOR'S CLOSET	SECT	SECTION
CTOP	COUNTERTOP	JT	JOINT	SFT	SHEET
CT	CERAMIC TILE	L	LENGTH	SHT	SHEATHING
CN	CURTAIN WALL	LAM(D)	LAMINATED(D)	SM	SIMILAR
D	DOUBLE	LAV	LAVATORY	SMT	SURFACE MOUNTED
DBL	DOUBLE	LTD	LIMITED	SLB	SLAB ON GRADE
DEPT	DEPARTMENT	LTV	LIMITED VENEER LUMBER	SPEC(S)	SPECIFY / SPECIFICATION(S)
DF	DRINKING FOUNTAIN	LVT	LUXURY VINYL TILE	SPT	SPOT
DIAM	DIAMETER	LVS	LUXURY VINYL PLANK	SQ	SQUARE
DISP	DISPENSER	LVR	LOUVER	SS	STAINLESS STEEL
DM	DIMENSION	MANUF	MANUFACTURER	SSF	SOLID SURFACE
DN	DOWN	MATL	MATERIAL	ST/S	STAIR
DR	DOOR	MAX	MAXIMUM	STC	SOUND TRANSMISSION COEFFICIENT
DS	DWNSPOUT	MB	MEDIUM DENSITY FIBERBOARD	STD	STANDARD
DTL	DETAIL	MDF	MEDIUM DENSITY FIBERBOARD	STND	STANDARD
DN	DISHWASHER	MIR	MIRROR(ED)	STN(D)	STAIN(ED)
DWG	DRAWING	MISC	MISCELLANEOUS	STL	STEEL
E	EACH	MLDG	MOLDING	STR	STRUCTURAL
EAF	EXTERIOR INSULATION & FINISH SYSTEM	MNTD	MOUNT(ED)	SUSP	SUSPENDED
ELEC	ELECTRIC / ELECTRICAL	MR	MOISTURE RESISTANT	SY	SYSTEM(S)
EL	ELEVATION (HEIGHT)	MTL	METAL	T	TREAD
ELEV	ELEVATION (VIEW)	N	NORTH	T&G	TONGUE & GROOVE
ELEV	ELEVATION (VIEW)			T&D	TO BE DETERMINED
ENG	ENGINEER			TEL	TELEPHONE
				TEMP	TEMPERARY / TEMPERED
				THK	THICK



- ### GENERAL CONSTRUCTION NOTES
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO START OF WORK.
 - CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS, STATUTES, ORDINANCES, LAWFUL ORDERS AND REGULATIONS. IF THE CONTRACTOR RECOGNIZES THAT PORTIONS OF THE CONTRACT DOCUMENTS DO NOT CONFORM WITH APPLICABLE STANDARDS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ARCHITECT, THE CONSTRUCTION MANAGER (IF APPLICABLE) AND THE OWNER, IN WRITING, BEFORE PROCEEDING WITH THE WORK.
 - ALL INFORMATION CONTAINED IN THE SPECIFICATIONS IS PART OF THE CONTRACT DOCUMENTS. ANY DISCREPANCIES BETWEEN THE SPECIFICATIONS AND DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT, IN WRITING, PRIOR TO COMMENCING WORK. UNLESS NOTED OTHERWISE, THE MORE STRINGENT/HIGHER QUALITY/MORE EXPENSIVE CONDITION WILL APPLY.
 - THE CONTRACTOR SHALL NOT SCALE DRAWINGS. DIMENSIONS ARE LABELED ON DRAWINGS. IN THE EVENT OF OMISSION OR DISCREPANCY OF NECESSARY DIMENSIONS OR INFORMATION, NOTIFY THE ARCHITECT IN WRITING.
 - EACH CONTRACTOR SHALL COORDINATE ITS WORK WITH OTHER TRADES. EACH CONTRACTOR WHO FAILS TO COORDINATE ITS WORK WITH OTHER TRADES SHALL BEAR ALL COSTS OF EACH TRADE TO REMEDY THE RELATED CONDITION, INCLUDING DISCONNECTION, REMOVAL, PATCHING, AND RE-INSTALLATION OF AFFECTED ELEMENTS.
 - EACH CONTRACTOR SHALL PROTECT ALL ADJACENT CONSTRUCTION AND SYSTEMS FROM DAMAGE BY ITS WORK. EACH CONTRACTOR WHO FAILS TO SUFFICIENTLY PROTECT ADJACENT CONSTRUCTION SHALL BEAR ALL COSTS OF REPAIR OR REPLACEMENT OF ADJACENT CONSTRUCTION OR SYSTEMS. DAMAGE TO ELEMENTS TO REMAIN SHALL BE PATCHED AND REPAIRED.
 - CONTRACTOR SHALL COORDINATE ALL INSPECTIONS AND TESTING WITH OWNER'S INDEPENDENT TESTING AGENCY AND LOCAL CODE OFFICIALS.
 - PLAN DIMENSIONS ARE TO FACE OF STUD, FACE OF MASONRY OR CENTERLINE OF COLUMN, UNLESS NOTED OTHERWISE.
 - ALL DIMENSIONS LISTED AS 'CLEAR', 'HOLD', 'MIN' OR 'MAX' ARE ABSOLUTE AND NOT SUBJECT TO CONSTRUCTION TOLERANCES.
 - EXISTING CONSTRUCTION IS SHOWN FOR REFERENCE ONLY AND IS ASSUMED. FOR ANY EXISTING CONSTRUCTION AFFECTED BY NEW WORK, INCLUDING DEMOLITION, VERIFY IN FIELD.
 - CIVIL, STRUCTURAL, ELECTRICAL, PLUMBING, HVAC AND FOOD SERVICE INFORMATION SHOWN ON THE ARCHITECTURAL DRAWINGS ARE FOR REFERENCE ONLY. REFER TO EACH DISCIPLINE'S DRAWINGS FOR SPECIFIC INFORMATION.
 - FOR ALL INSTALLED EQUIPMENT, PLUMBING FIXTURES, DOORS, WINDOWS, ETC., VERIFY ALL ROUGH OPENING DIMENSIONS WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 - PROVIDE CONCEALED, IN-WALL BLOCKING, SUFFICIENT TO SUPPORT ALL CASEWORK, PLUMBING FIXTURES, TOILET ACCESSORIES, SPECIALTY EQUIPMENT AND MISCELLANEOUS ITEMS.
 - ALL CODE REQUIRED SIGNAGE SHALL BE INCLUDED IN CONTRACT. QUANTITY, TYPE AND LOCATIONS TO BE APPROVED BY CODE OFFICIAL.
 - EACH CONTRACTOR SHALL PREPARE ALL SUBSTRATES AS REQUIRED FOR INSTALLATION OF THEIR PORTION OF WORK.

THESE DRAWINGS ARE AN INSTRUMENT OF SERVICE. THEY ARE NOT TO BE REPRODUCED OR COPIED WITHOUT THE WRITTEN PERMISSION AND SIGNATURE OF THE ARCHITECT. ANY REPRODUCTION OR COPIING WITHOUT THE ARCHITECT'S PERMISSION IS PROHIBITED.

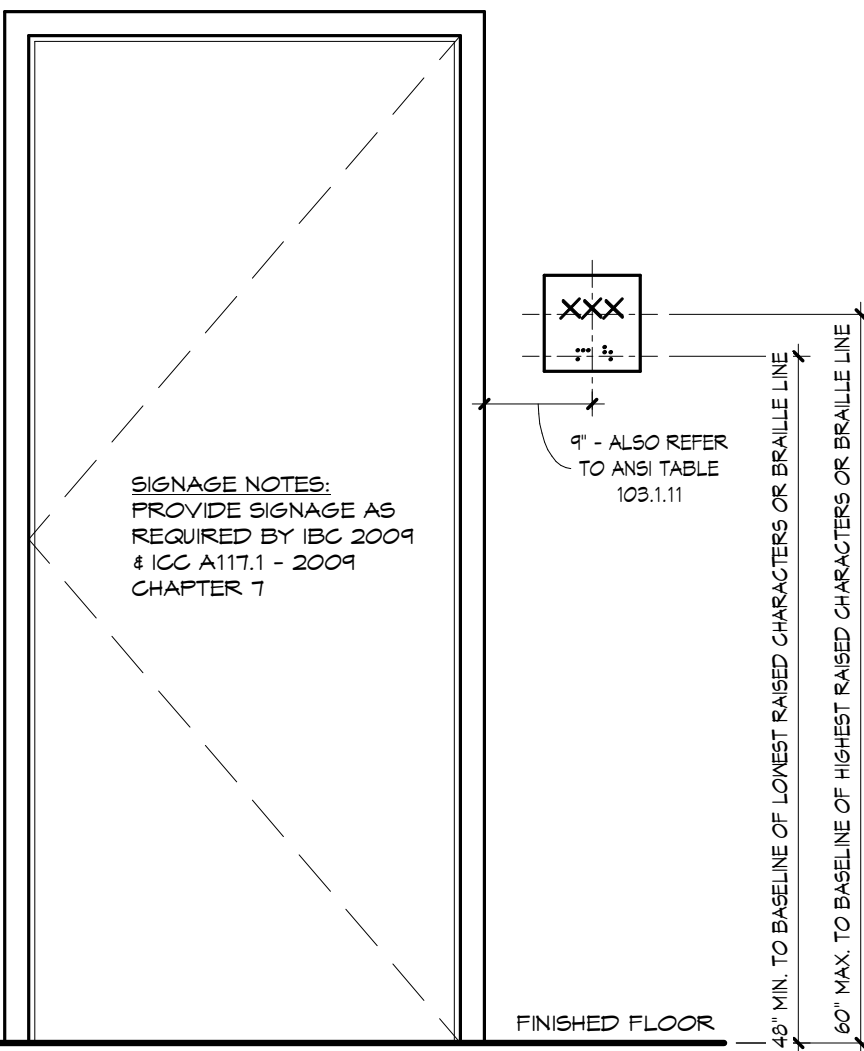
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Issue Date: 02/07/20

Sheet Number:
A000
BH JOB NO. 19-080

PROVIDE TACTILE SIGNAGE AT EACH EXIT AND RESTROOM ENTRANCE

- NOTES
- UNIVERSAL "WHEELCHAIR" SYMBOLS ON PAINTED ALUMINUM
 - CHARACTERS AND BACKGROUND SHALL HAVE EGGSHELL, MATTE, OR OTHER NON-GLARE FINISH
 - CHARACTERS AND BACKGROUND SHALL CONTRAST, EITHER LIGHT CHARACTERS ON DARK BACKGROUND OR DARK CHARACTERS ON LIGHT BACKGROUND
 - PROVIDE BRAILLE AND RAISED LETTERING
 - PERMANENT IDENTIFICATION PROVIDED FOR ROOMS AND SPACES SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR
 - WHERE THERE IS NO WALL SPACE TO LATCH SIDE OF THE DOOR, INCLUDING AT DOUBLE-LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL
 - MOUNTING LOCATION FOR SUCH SIGNAGE SHALL BE SO THAT A PERSON MAY APPROACH WITHIN 3' OF SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR



3 TYP. SIGNAGE DETAIL
3/4" = 1'-0"

PLUMBING FIXTURE CALCULATIONS

AS PER IBC TABLE 2902.1
NOTE: ALL REQUIRED QUANTITIES ROUND UP

OCCUPANCY TYPE	WATER CLOSETS		LAVATORIES		BATHTUBS / SHOWERS	DRINKING FOUNTAINS	SERVICE SINKS / KITCHEN SINKS
	MALE	FEMALE	MALE	FEMALE			
B - 61 OCCUPANTS (# 33.5 / # 33.5)	1 PER 25 FOR THE FIRST 50 AND 1 PER 50 FOR THE REMAINDER EXCEEDING 50 = 1.34	1 PER 25 FOR THE FIRST 50 AND 1 PER 50 FOR THE REMAINDER EXCEEDING 50 = 1.34	1 PER 40 FOR THE FIRST 80 AND 1 PER 80 FOR THE REMAINDER EXCEEDING 80 = 0.84	1 PER 40 FOR THE FIRST 80 AND 1 PER 80 FOR THE REMAINDER EXCEEDING 80 = 0.84	N/A	1 PER 100 = 0.67	
S - 61 OCCUPANTS (30.5 M / 30.5 F)	1 PER 100 = 0.31	1 PER 100 = 0.31	1 PER 100 = 0.31	1 PER 100 = 0.31	N/A	1 PER 1,000 = 0.06	
TOTAL REQUIRED FIXTURES	1.65 (ROUND UP TO 2)	1.65 (ROUND UP TO 2)	1.15 (ROUND UP TO 2)	1.15 (ROUND UP TO 2)	0	0.74 (ROUND UP TO 1)	1 SERVICE SINK
TOTAL PROVIDED FIXTURES	4	2	2	2	4 MALE SHOWERS 1 FEMALE SHOWER	1 HIGH/LOW	1 SERVICE SINK

OCCUPANT COUNT SCHEDULE - IBC TABLE 1004.1.1 - FLOOR 1

ASSEMBLY						
Number	Room Name	Area	Occ Type Primary	Area per Occ	Occ Count Primary	
116	LUNCH ROOM	730 SF	AT	15	48	
TOTAL LEVEL OCC FOR OCCUPANCY TYPE HERE:						
48						

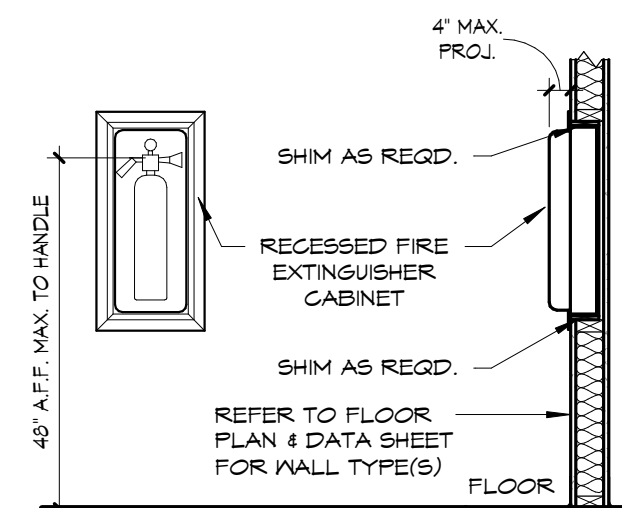
BUSINESS						
Number	Room Name	Area	Occ Type Primary	Area per Occ	Occ Count Primary	
101	OFFICE	112 SF	BU	100	2	
102	OFFICE	179 SF	BU	100	2	
104	OFFICE	171 SF	BU	100	2	
105	OFFICE	171 SF	BU	100	2	
TOTAL LEVEL OCC FOR OCCUPANCY TYPE HERE:						
8						

LOCKER ROOM						
Number	Room Name	Area	Occ Type Primary	Area per Occ	Occ Count Primary	
109	WOMENS	219 SF	LK	50	5	
112	LOCKERS	308 SF	LK	50	7	
TOTAL LEVEL OCC FOR OCCUPANCY TYPE HERE:						
12						

STORAGE						
Number	Room Name	Area	Occ Type Primary	Area per Occ	Occ Count Primary	
118	STORAGE	437 SF	ST	300	2	
121	STORAGE	578 SF	ST	300	2	
122	MECH.	301 SF	ST	300	2	
123	WASH BAY	904 SF	ST	300	4	
124	GAIRANCE	1354.9 SF	ST	300	46	
125	MAINTENANCE AREA	1226 SF	ST	300	5	
TOTAL LEVEL OCC FOR OCCUPANCY TYPE HERE:						
61						

OCCUPANT COUNT SUMMARY AND TOTAL

Occ Type Primary	Occ Count Primary
AT	48
BU	8
LK	12
ST	61
Total Building Occupants:	128



2 TYP. NON-RATED FIRE EXTINGUISHER AND CABINET DETAIL & FE MOUNT HGT
1/2" = 1'-0"

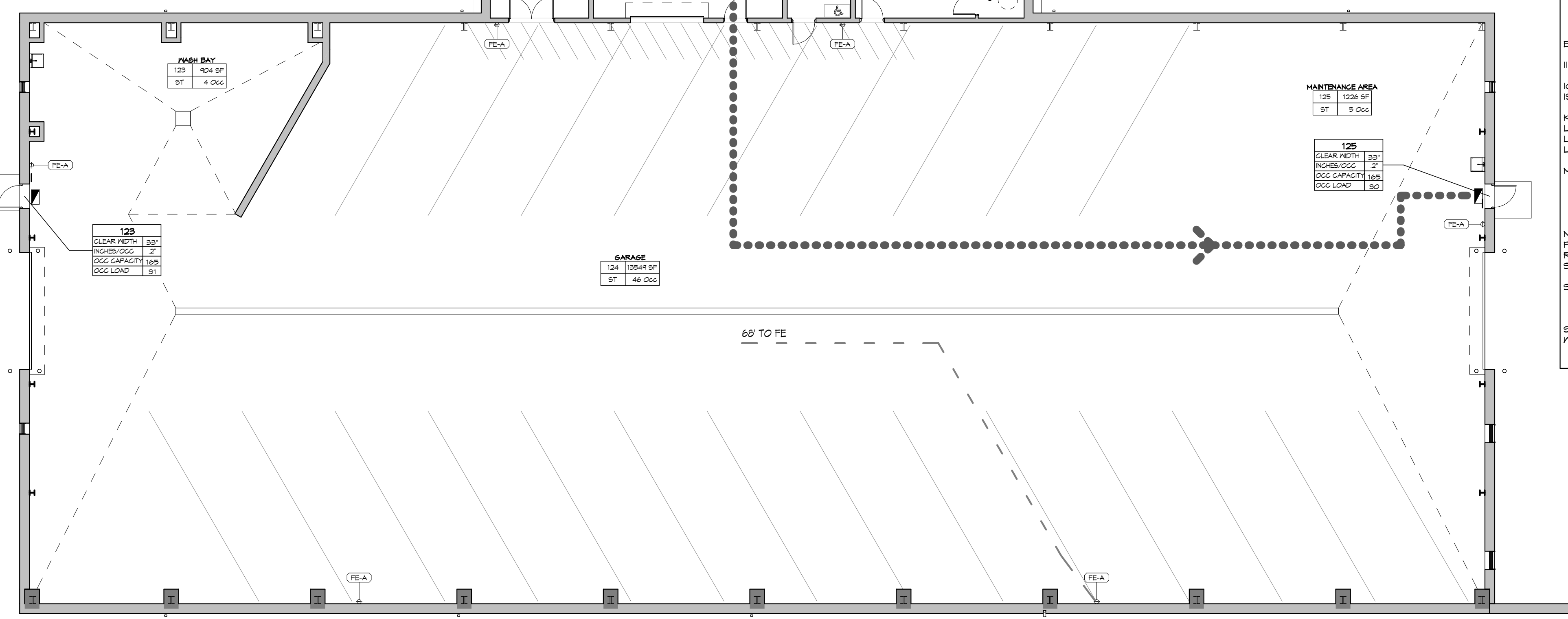
OCCUPANT COUNT LEGEND IBC TABLE 1004.1.1

GROSS (G) NET (N)

AC	ASSEMBLY CHAIRS	(N) 1 SF/OCC
AF	ASSEMBLY FIXED SEATING	
AFD	NO DIVIDING ARMS	18 IN/OCC SEAT COUNT
AFD	DIVIDED BY ARMS	
AG	AGRICULTURAL BUILDING	(G) 300 SF/OCC
AS	ASSEMBLY STANDING	(N) 5 SF/OCC
AT	ASSEMBLY TABLES AND CHAIRS	(N) 15 SF/OCC
BU	BUSINESS	(G) 100 SF/OCC
CC	COURTROOM (NON-FIXED SEATING)	(N) 40 SF/OCC
DC	DAY CARE	(N) 35 SF/OCC
DM	DORMITORY	(G) 50 SF/OCC
EC	EDUCATIONAL CLASSROOM	(N) 20 SF/OCC
ECS	EDUCATIONAL CLASSROOM - SUPPLEMENTAL	(N) 20 SF/OCC
- THESE SPACES ARE SUPPLEMENTAL USE AND WILL TAKE OCCUPANTS FROM OTHER SPACES WHEN IN USE (NOT INCLUDED IN PLUMBING FIXTURE COUNTS)		
EX	EXERCISE WITH EQUIPMENT	(G) 50 SF/OCC
II	INSTITUTIONAL INPATIENT TREATMENT	(G) 240 SF/OCC
IO	INSTITUTIONAL OUTPATIENT	(G) 100 SF/OCC
IS	INSTITUTIONAL SLEEPING	(G) 120 SF/OCC
KC	KITCHEN COMMERCIAL	(G) 200 SF/OCC
LK	LIBRARY READING ROOM	(N) 50 SF/OCC
LS	LIBRARY STACKS	(G) 100 SF/OCC
LK	LOCKER ROOMS	(G) 50 SF/OCC
MT	MERCANTILE	(G) 60 SF/OCC
MTA	AREAS ON OTHER FLOORS	(G) 60 SF/OCC
MTB	BASEMENTS	(G) 30 SF/OCC
MTG	GROUND/PRIMARY FLOOR	(G) 30 SF/OCC
MTS	STORAGE, STOCK, SHIPPING	(G) 300 SF/OCC
N/A	NOT APPLICABLE	0 SF/OCC
PG	PARKING GARAGE	(G) 200 SF/OCC
RS	RESIDENTIAL	(G) 200 SF/OCC
SP	STAGES AND PLATFORMS	(N) 15 SF/OCC
SR	SKATING RINKS AND POOLS	(G) 50 SF/OCC
SRP	RINK, POOL	(G) 15 SF/OCC
SRD	DECKS	(G) 15 SF/OCC
ST	ACCESSORY STORAGE	(G) 300 SF/OCC
WH	WAREHOUSE	(G) 300 SF/OCC

CODE LEGEND

	FIRE EXTINGUISHER PATH
	EGRESS PATH
	ACCESSIBLE CLEARANCES
	FIRE EXTINGUISHER CABINET W/ ABC EXTINGUISHER
	ABC FIRE EXTINGUISHER - SURFACE MOUNTED WALL HANGER
	HI-LO DRINKING FOUNTAIN
	ILLUMINATED EXIT SIGN
	TACTILE EXIT SIGNAGE
	ACCESSIBLE ELEMENT (DOES NOT INDICATE ALL ACCESSIBLE ELEMENTS)



1 CODE PLAN - FLOOR 1
3/32" = 1'-0"

CODE INFORMATION

PROJECT NAME: MUHLBERG TOWNSHIP AUTHORITY OFFICE BUILDING & MAINTENANCE GARAGE
PROJECT LOCATION: READING, PA 19605 MUHLBERG TOWNSHIP
PROJECT OCCUPANCY: USE GROUP B (BUSINESS) & S1 (STORAGE), NON SEPARATED BH PROJECT NO. 19-080
BUILDING SITE FOOTPRINT: 21,439 SQUARE FEET
BUILDING FULLY SPRINKLERED
BUILDING AREA INFORMATION (IBC CHAPTER 2 DEFINITIONS):
 FIRST FLOOR: 20,842 SQUARE FEET (BUSINESS: 9,652 SF, STORAGE: 11,240 SF)
BUILDING HEIGHT INFORMATION (IBC CHAPTER 2 DEFINITIONS):
 1-STORY

SCOPE OF WORK
 NEW CONSTRUCTION OF A BUSINESS OFFICE & MAINTENANCE GARAGE

APPLICABLE BUILDING AND LIFE SAFETY CODES

CODE	FOR EXISTING BUILDING PATH TO COMPLIANCE (SEE EXISTING BUILDING CODE INFORMATION THIS DRAWING)	REQUIRED	PROVIDED	REFERENCE (SECTION)
2015 (IBC)	INTERNATIONAL BUILDING CODE WITH 2015 IBC ACCESSIBILITY PROVISIONS AND IBC A117.1			
2009 (ICC)	INTERNATIONAL MECHANICAL CODE			
2015 (IMC)	INTERNATIONAL MECHANICAL CODE			
2015 (IPC)	INTERNATIONAL PLUMBING CODE			
2015 (IECC)	INTERNATIONAL ENERGY CONSERVATION CODE			
2015 (IFC)	INTERNATIONAL FIRE CODE			
2014 (NEC)	NATIONAL ELECTRIC CODE (NFPA-70)			
2010	DOJ ADA STANDARDS FOR ACCESSIBLE DESIGN			
USE AND OCCUPANCY CLASSIFICATION	GROUP "B" & "S1" MIXED USE NON-SEPARATED			IBC 304
CONSTRUCTION CLASSIFICATION	VB FULLY-SPRINKLERED			IBC 602
OCCUPANT LOAD				
TOTAL BUILDING OCCUPANTS (SEE OCCUPANT COUNT SCHEDULE - DWG A-011)	128 OCCUPANTS			IBC TABLE 1004.1.2
HEIGHT AND AREA LIMITATIONS		MAXIMUM	PROVIDED	CHAPTER 5
ALLOWABLE HEIGHT		40'	28'	IBC TABLE 504.3
ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE		2	1	IBC TABLE 504.4
TABLE ALLOWABLE AREA		36,000 SF (SINGLE STORY, FULLY SPRINKLERED)	20,842 SF	IBC TABLE 506.2 IBC 506.3
FIRE RESISTIVE CONSTRUCTION				CHAPTER 6
PRIMARY STRUCTURAL FRAME		0-HR	0-HR	IBC TABLE 601
BEARING WALLS (EXTERIOR)		0-HR	0-HR	IBC TABLE 601 & 705.2
BEARING WALLS (INTERIOR)		0-HR	0-HR	IBC TABLE 601
NON-BEARING WALLS (EXTERIOR)		0-HR	0-HR	IBC TABLE 601 & 705.2
NON-BEARING WALLS (INTERIOR)		0-HR	0-HR	IBC TABLE 601
FLOOR CONSTRUCTION & SECONDARY MEMBERS		0-HR	0-HR	IBC TABLE 601
ROOF CONSTRUCTION & SECONDARY MEMBERS		0-HR	0-HR	IBC TABLE 601
WALLS (EXTERIOR) BASED ON BUILDING FIRE SEPARATION DISTANCE		0-HR	0-HR	IBC TABLE 602
OPENING REQUIREMENTS		0-HR	N/A	IBC TABLE 716.5
ROOF ASSEMBLY INFORMATION				IBC CHAPTER 15
FIRE CLASSIFICATION		CLASS "C"	CLASS "C"	IBC TABLE 1505.1
MEANS OF EGRESS (SPRINKLERED BUILDING)				IBC CHAPTER 10
HEADROOM (STAIR ONLY MIN. 6'-8" & CEILING AREA MIN. 7'-6")				IBC 1011.3 1009.2 & 1209.2
EGRESS WIDTH PER OCCUPANT (TOTAL OCCUPANTS / # OF EXITS X 0.30)		N/A	N/A	IBC 1005.1 & 1014.8 PROJECTIONS
DOORS / CORRIDORS / RAMPS (TOTAL OCCUPANTS / # OF EXITS X 0.20)		5.12' OCC LOAD WIDTH	39"	IBC 1009.1 & 1009.3.3 PROJECTIONS
MINIMUM NUMBER OF EXITS PER OCCUPANT LOAD		2 REQ'D.	5 PROVIDED	IBC TABLE 1006.3.1
DEAD END CORRIDOR		MAX. 50 FT.	42 FT.	IBC 1020.4
CORRIDOR WIDTH - 44" MIN.		44" MIN.	60" MIN.	IBC TABLE 1020.2 & 1009.3.3 PROJECTIONS
COMMON PATH OF EGRESS TRAVEL		MAX. 75 FT.	< 75 FT.	IBC TABLE 1006.3.2(2)
MINIMUM EGRESS DOOR OPENING		32" CLEAR MIN.	32" MIN.	39"
EXIT ACCESS TRAVEL DISTANCE / TRAVEL DISTANCE TO EXIT		MAX. 250 FT.	175 FT.	IBC TABLE 1011.2
EXIT ACCESS TO A PUBLIC WAY		REQUIRED	PROVIDED	IBC 1028.5
ACCESSIBLE PUBLIC ENTRIES		MIN. 60%	100%	IBC 1105.1
ACCESSIBLE MEANS OF EGRESS		REQUIRED	PROVIDED	IBC 1004.1
AUTOMATIC SPRINKLER SYSTEMS		REQUIRED	FULLY SPRINKLERED	IBC CHAPTER 9, SECTION 903 & 904.11
FIRE ALARM & DETECTION SYSTEMS				
FIRE ALARM	NOT REQUIRED	N/A	N/A	IBC 907
DETECTION	NOT REQUIRED	N/A	N/A	IBC 907
MANUAL FIRE ALARM BOXES	NOT REQUIRED	N/A	N/A	IBC 907.4.2
MEANS OF EGRESS ILLUMINATION	REQUIRED	PROVIDED	PROVIDED	IBC 1008
EXIT SIGNS	REQUIRED	PROVIDED	PROVIDED	IBC 1018
FIRE EXTINGUISHERS		1	2	IBC TABLE 905.3(1) & (2)
CLASS A FIRE HAZARDS (ORDINARY 2-A)		75' MAX.	65' MAX.	2A = 3,000 MAX. S.F.
INTERIOR FINISHES		MINIMUM		
CORRIDORS PROVIDING EXIT ACCESS	CLASS C	CLASS A, B OR C	CLASS C	IBC TABLE 803.11
ROOMS OR ENCLOSED SPACES	CLASS C	CLASS A, B OR C	CLASS C	IBC TABLE 803.11
NET AREAS: PROVIDE NON-POROUS MATERIALS	RESTROOMS			IBC 1210
SIGNAGE				CHAPTER 11 & ICC A117.1-2009
EXTERIOR - (CODE REQUIRED MINIMUM)	REQUIRED	PROVIDED	PROVIDED	IBC 1111 & ICC A117.1 - 109
INTERIOR - (CODE REQUIRED MINIMUM)	REQUIRED	PROVIDED	PROVIDED	

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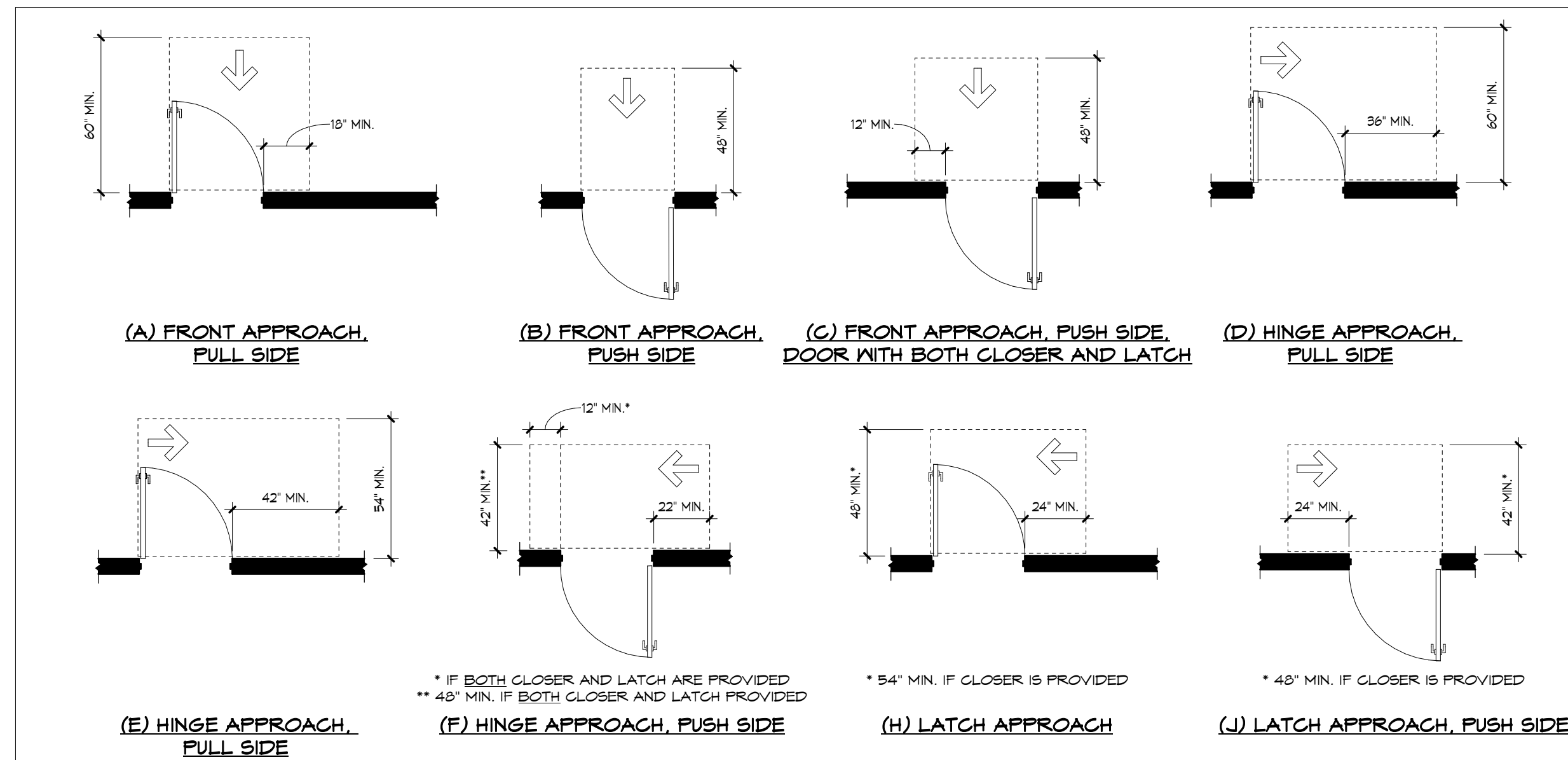
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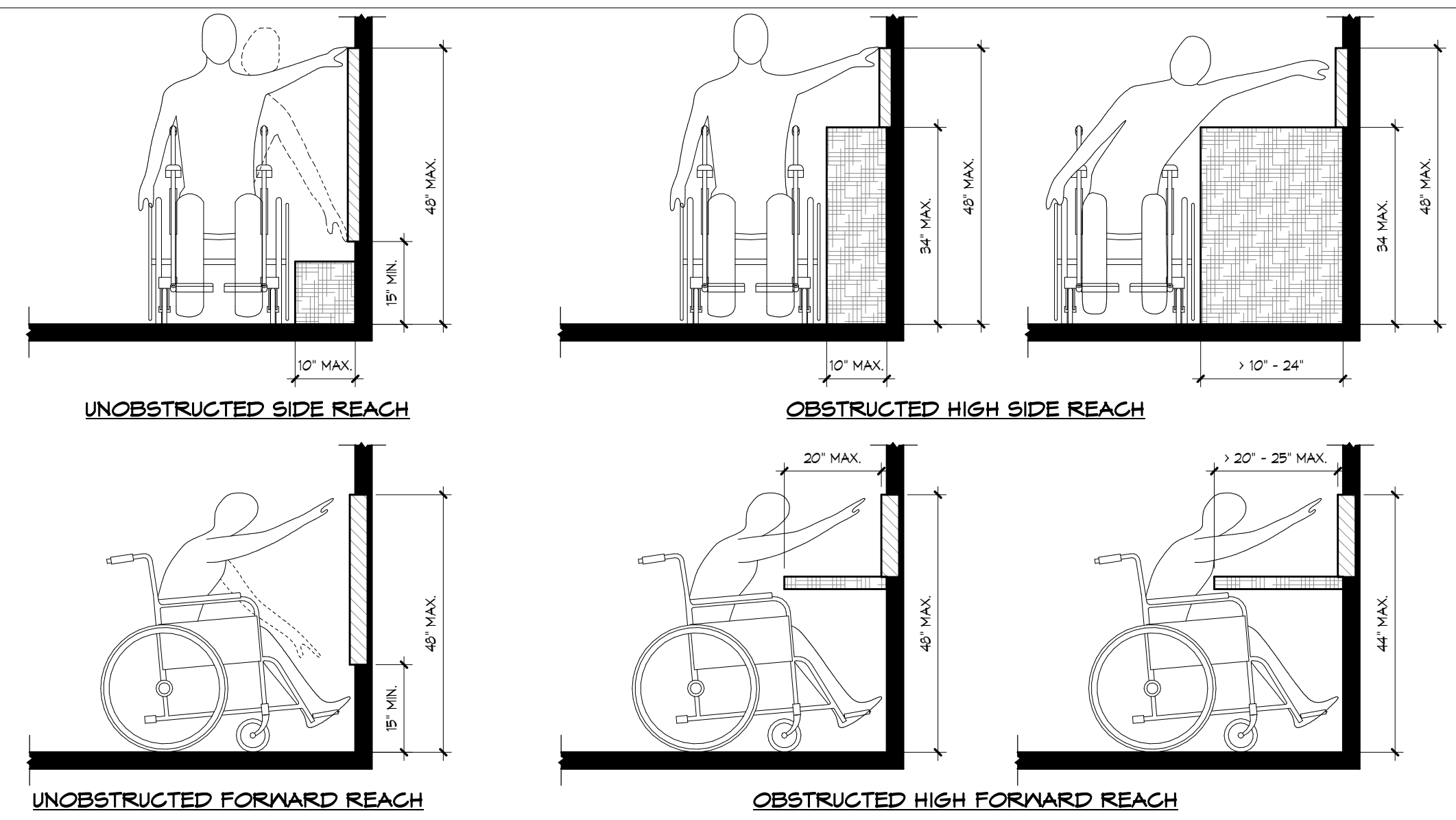
CODE PLAN

A011

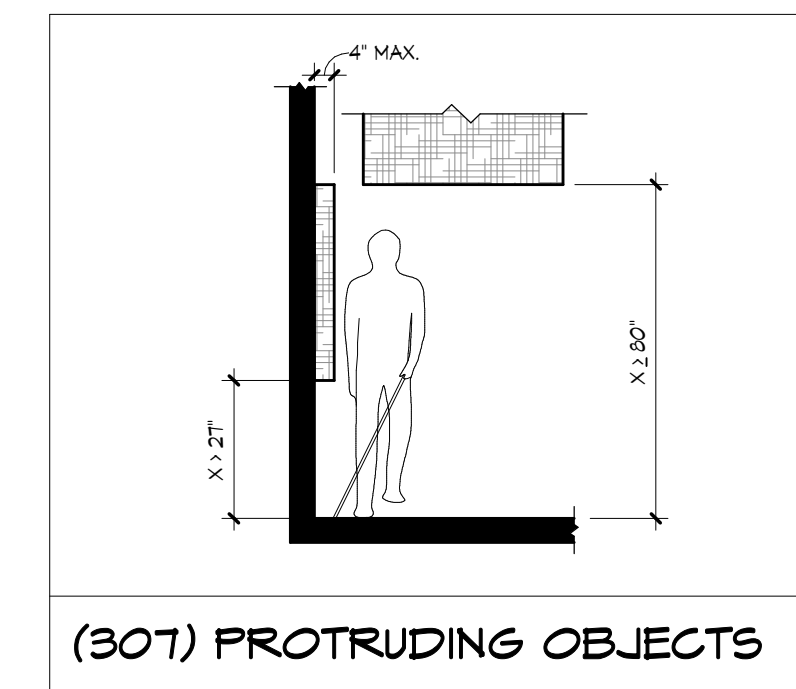
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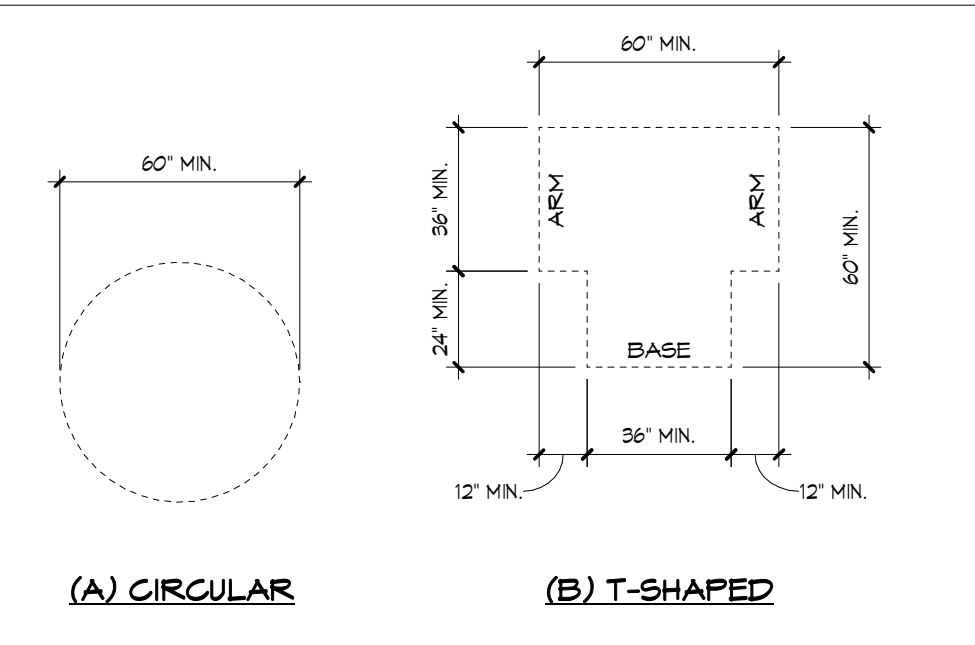
404.2.4 MANEUVERING CLEARANCES AT MANUAL SWING DOORS



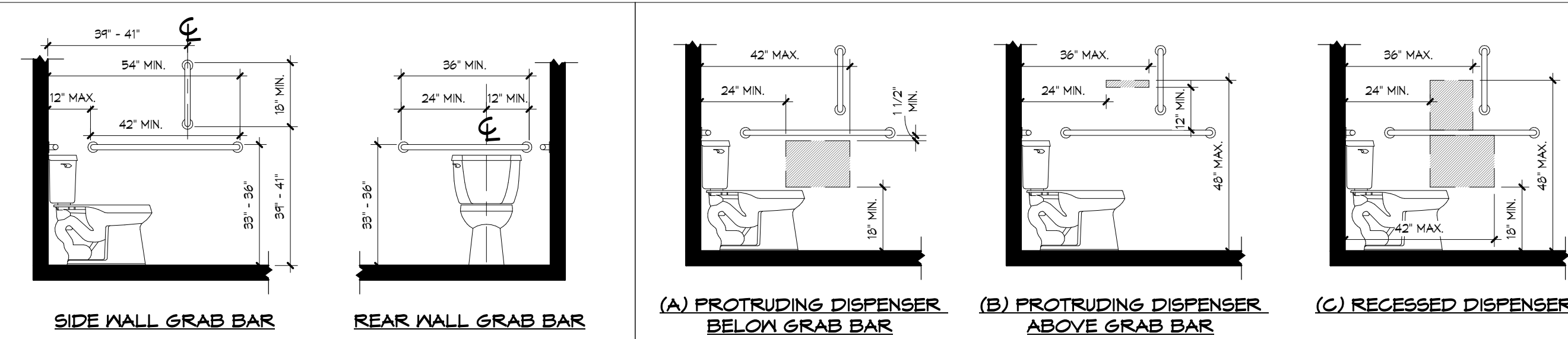
(308) ACCESSIBLE REACHING RANGES



(307) PROTRUDING OBJECTS

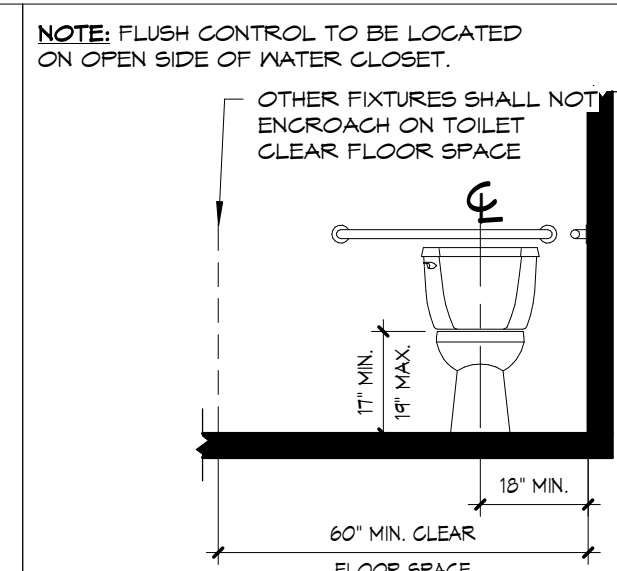


(304) TURNING SPACE SIZE

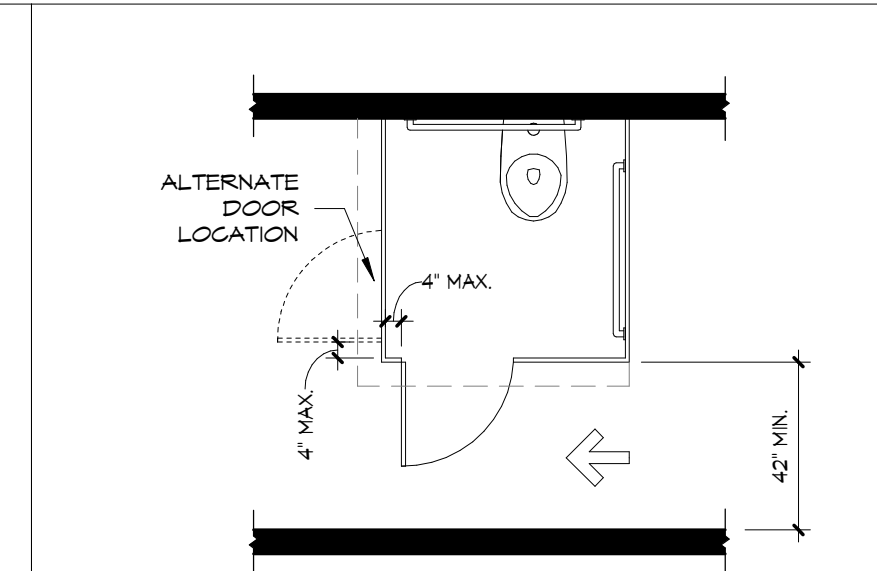


(604.5) GRAB BARS FOR WATER CLOSET

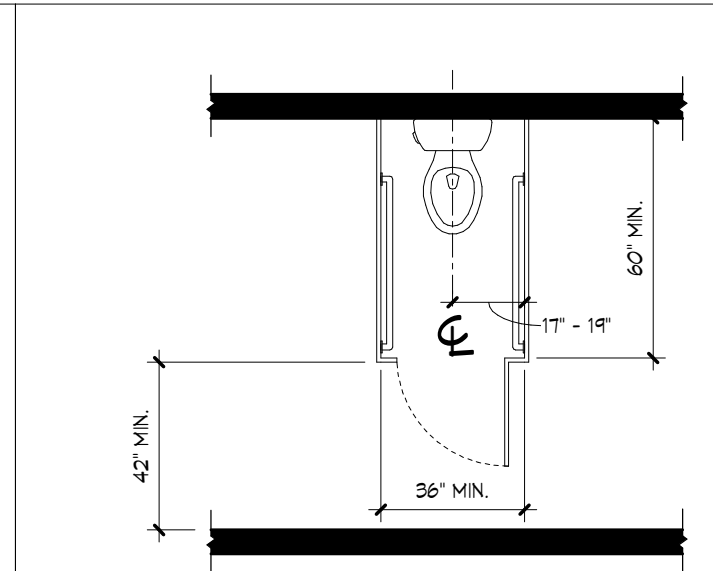
(604.7) DISPENSER OUTLET LOCATION



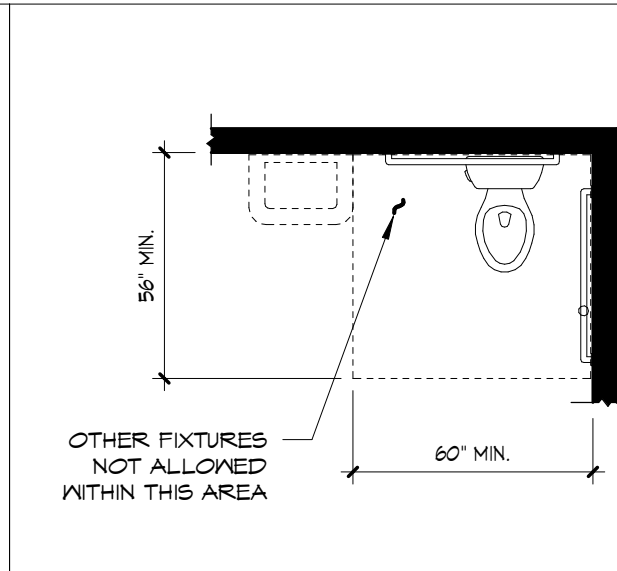
WATER CLOSET CLEARANCES



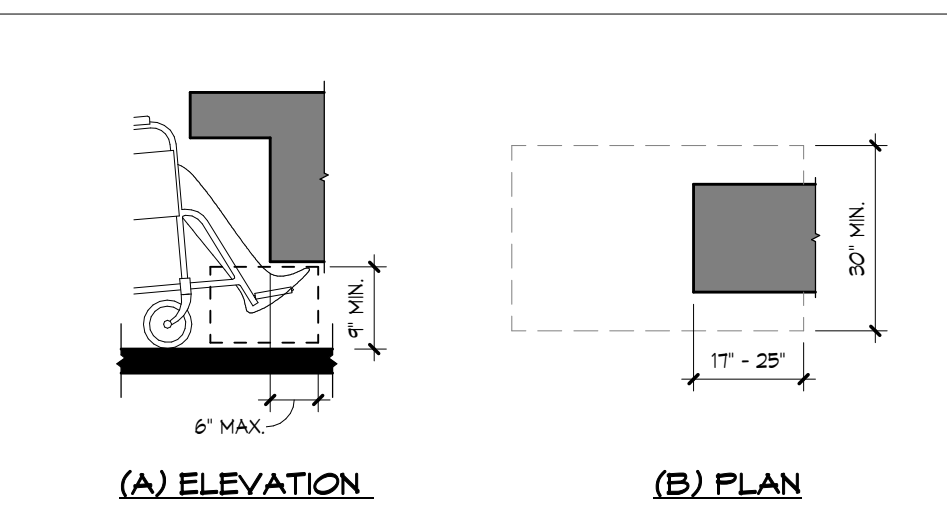
(604) WHEELCHAIR ACCESS. TOILET



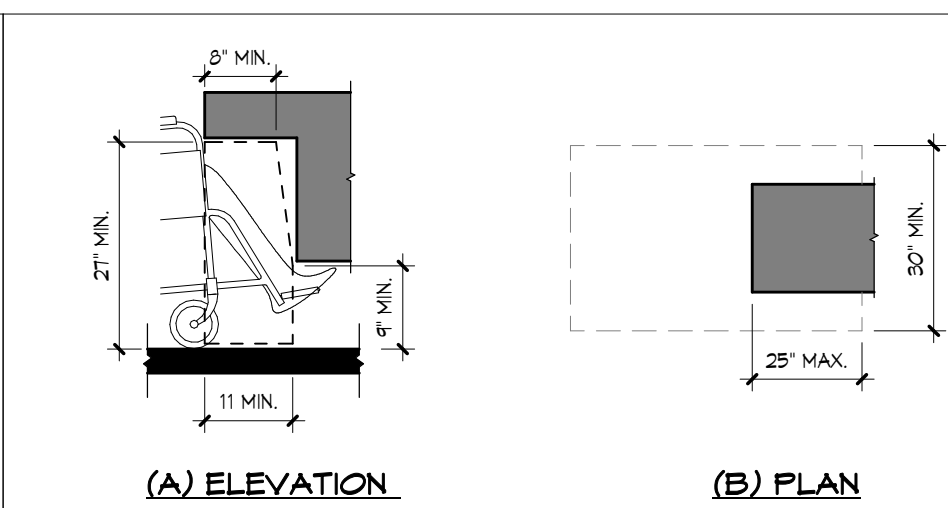
(604) AMBULATORY ACCESS



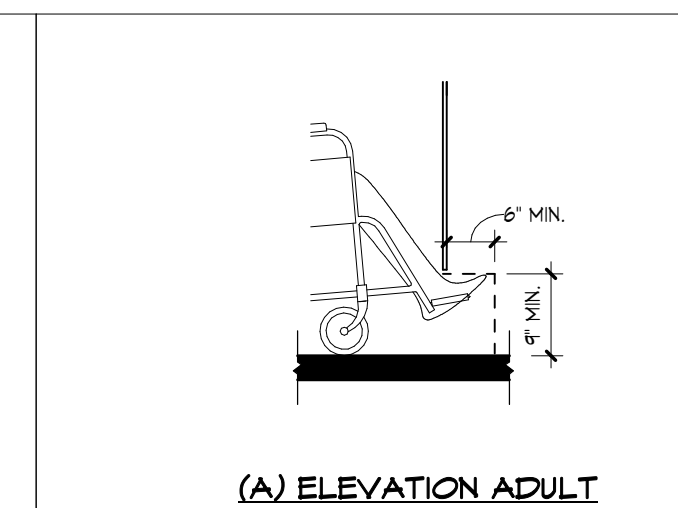
(604) CLEARANCE FOR WC



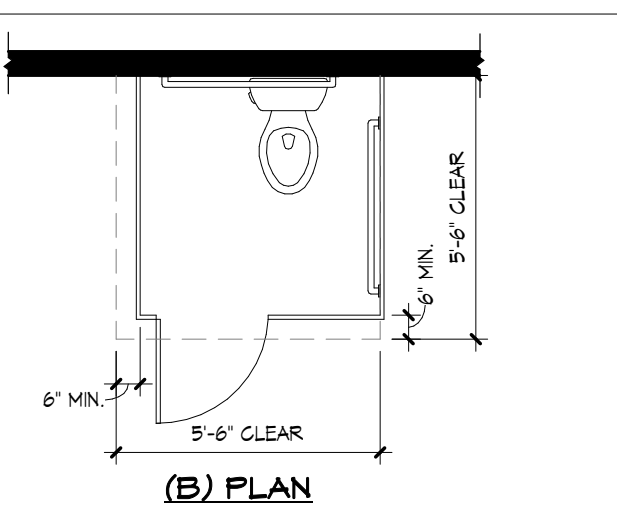
(306.2) TOE CLEARANCE



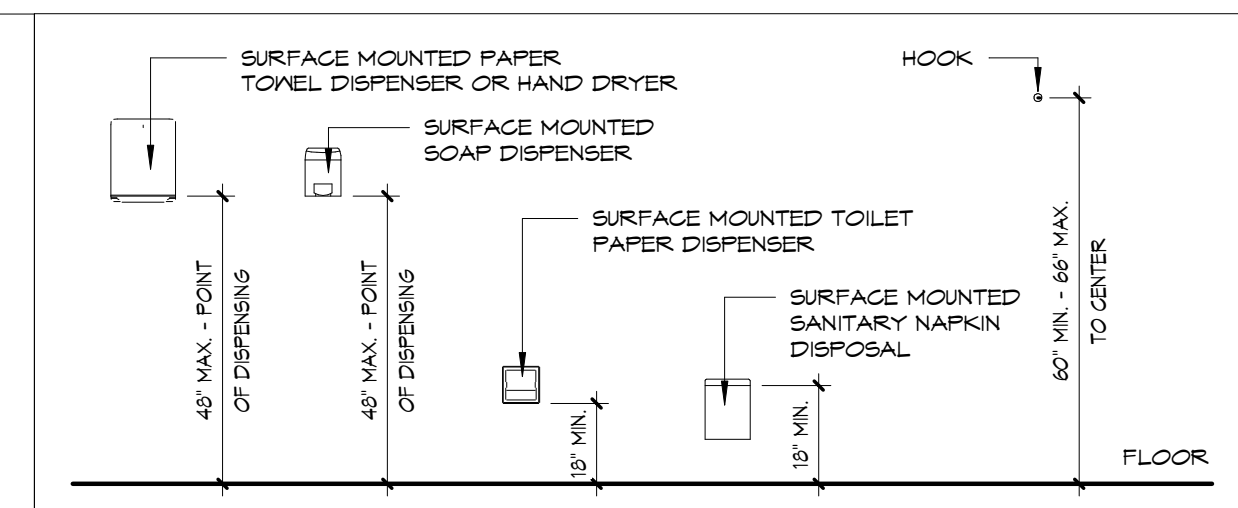
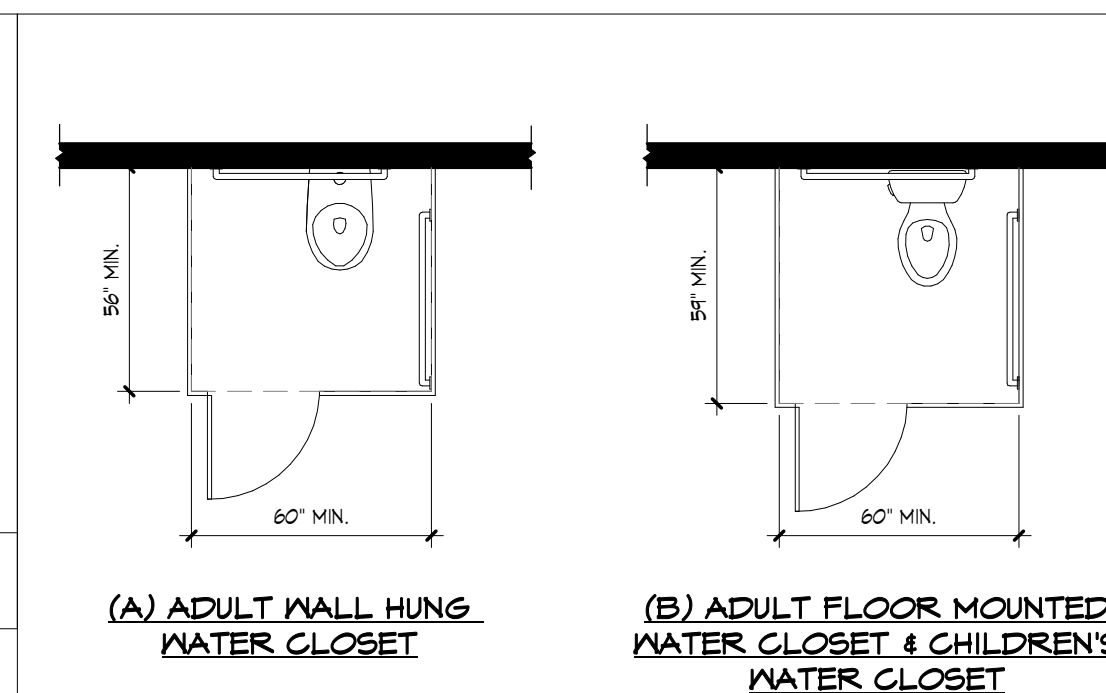
(306.3) KNEE CLEARANCE



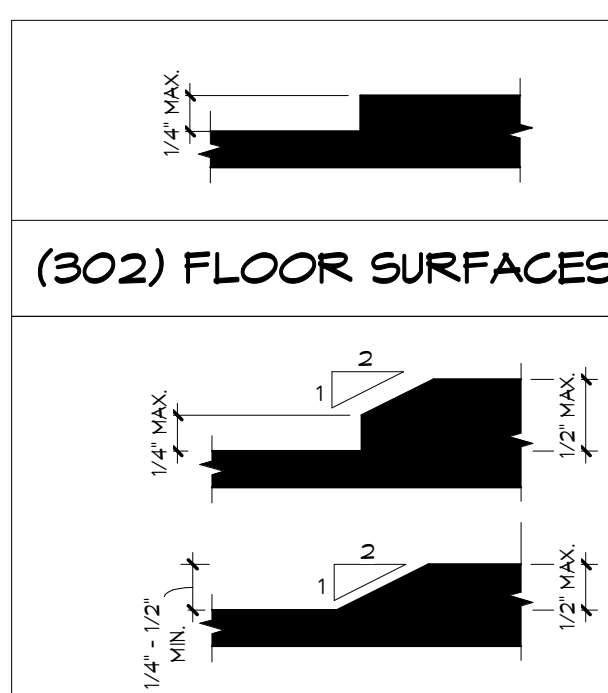
(604.8) WHEELCHAIR COMPARTMENT TOE CLEARANCE



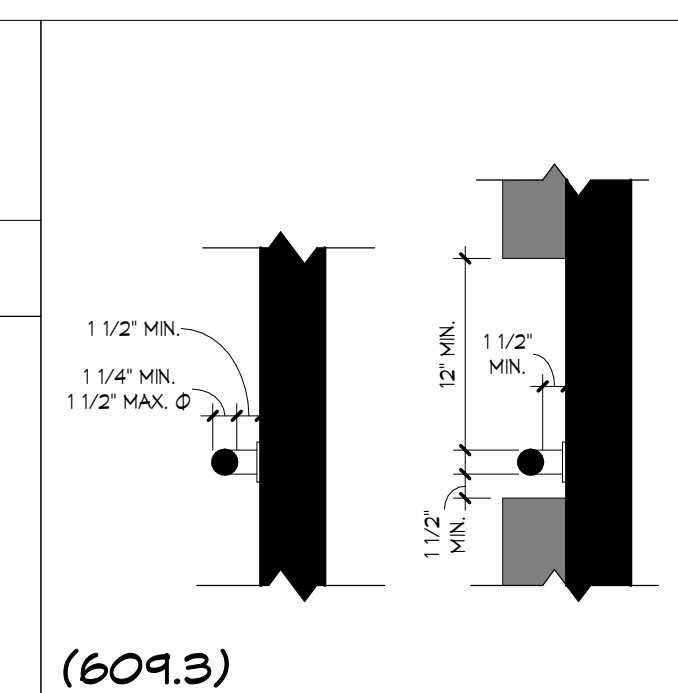
(604.9) SIZE OF TOILET COMPARTMENT



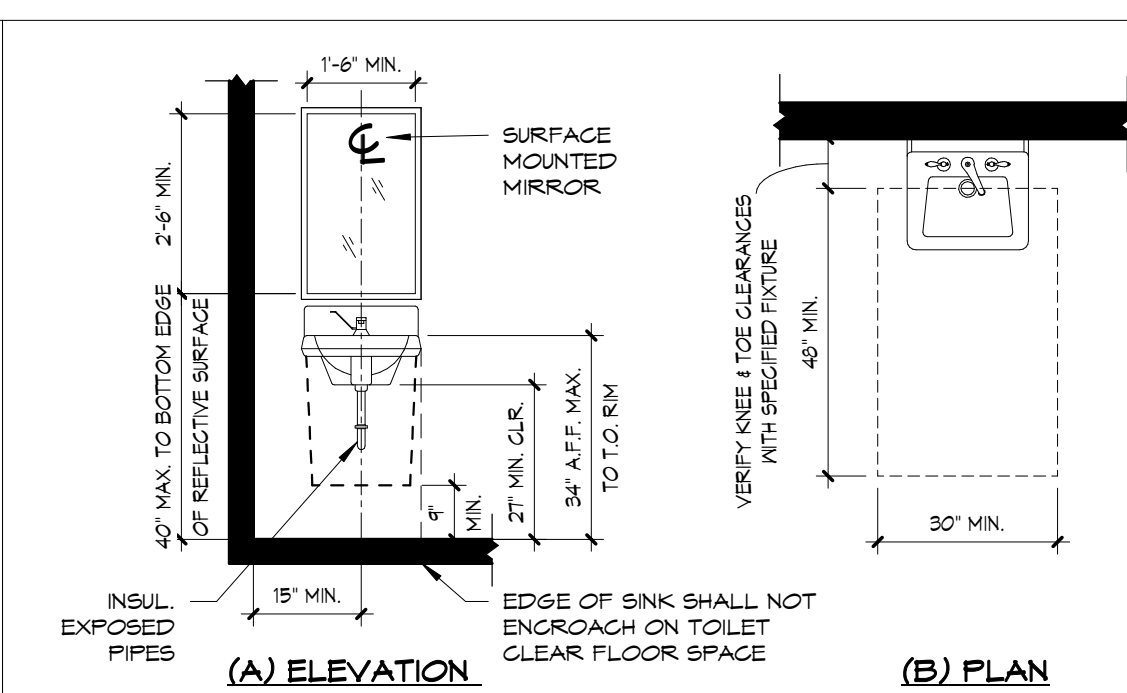
TOILET ACCESSORIES MOUNTING HEIGHTS



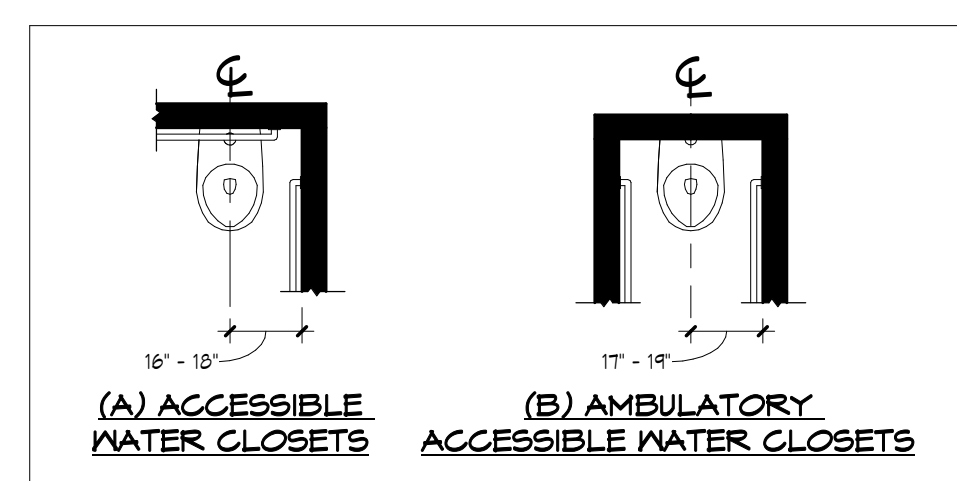
(302) FLOOR SURFACES



(609.3) SPACING OF GRAB BARS

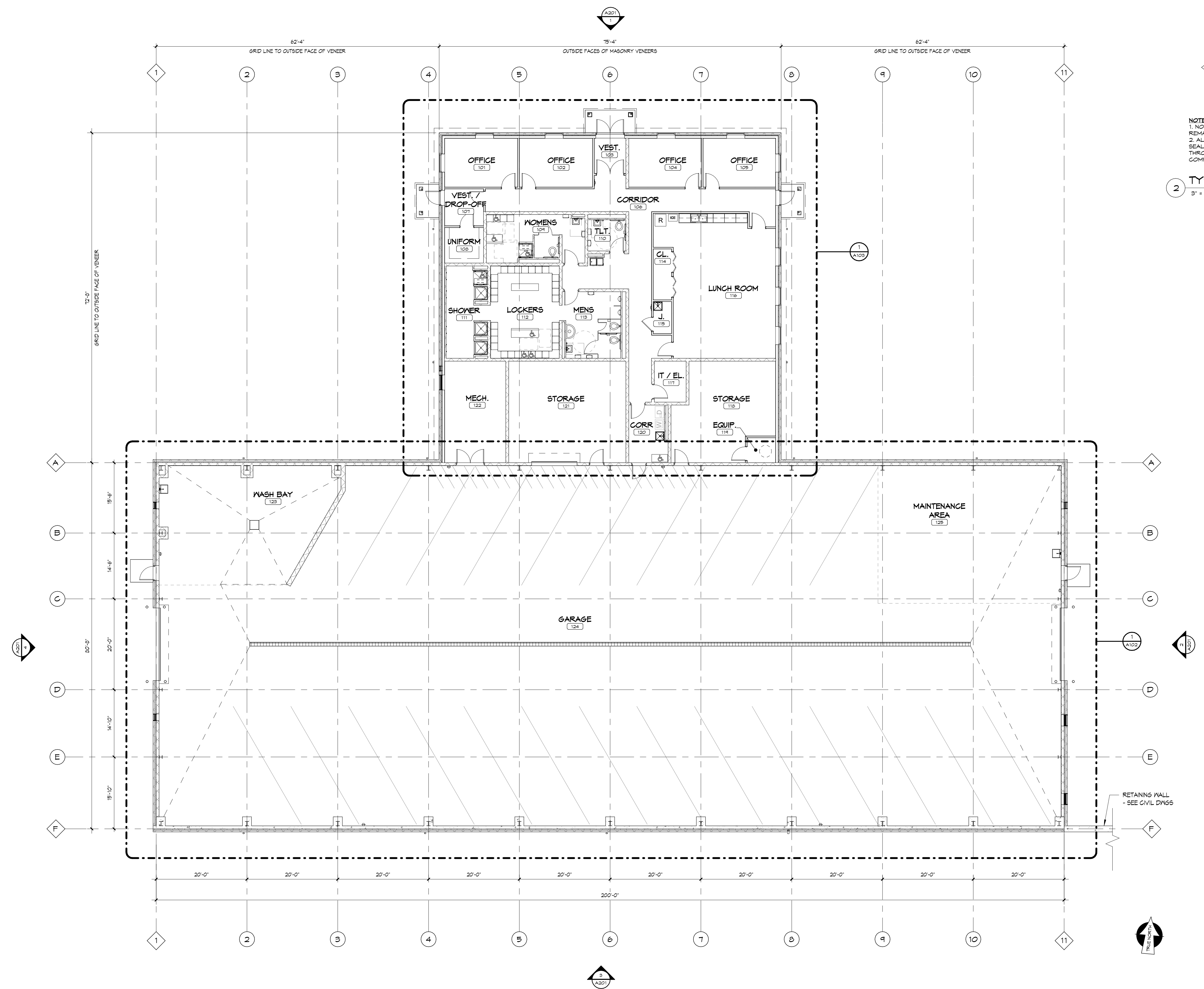


LAVATORY CLEARANCES

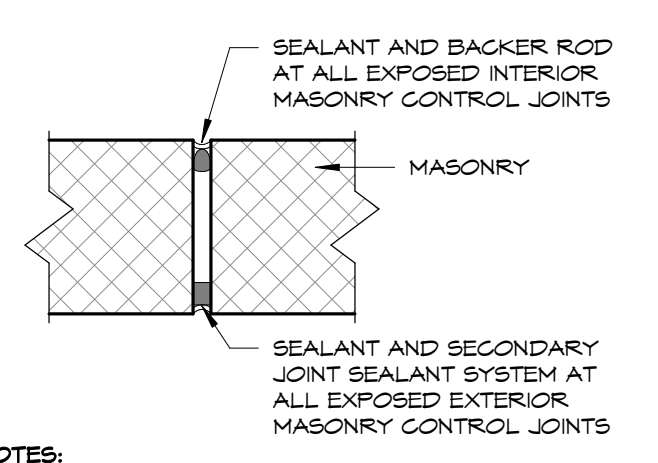


(604) WC LOCATION

3-7-2020 14:25:05 AM



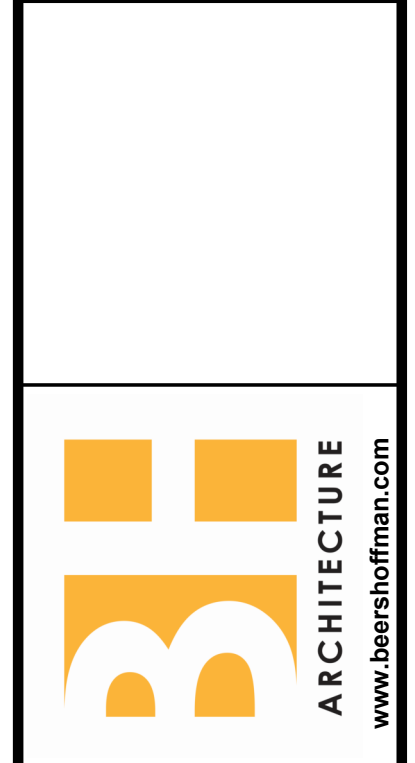
1 FLOOR PLAN - OVERALL
3/32" = 1'-0"



NOTES:
 1. NON-EXPOSED, NON-RATED WALL JOINTS MAY REMAIN OPEN, TYP. U.N.O.
 2. ALL RATED WALL JOINTS REQUIRE A RATED JOINT SEALANT ASSEMBLY, WHERE CONTROL JOINT PASSES THROUGH ON BOTH SIDES OF OVERALL WALL COMPOSITION, PROVIDE ON BOTH SIDES.

2 TYP. MASONRY EXP. JT.
3" = 1'-0"

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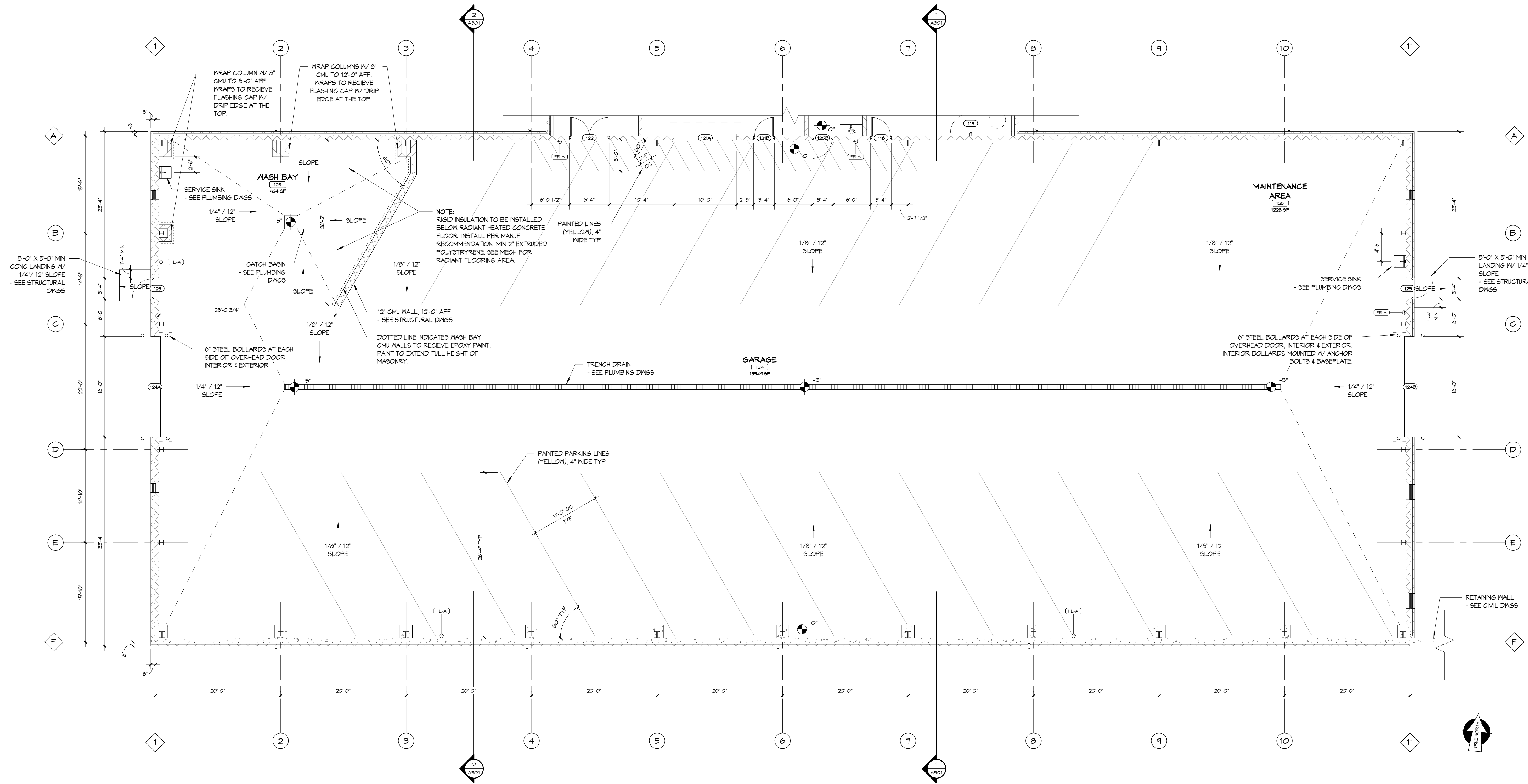
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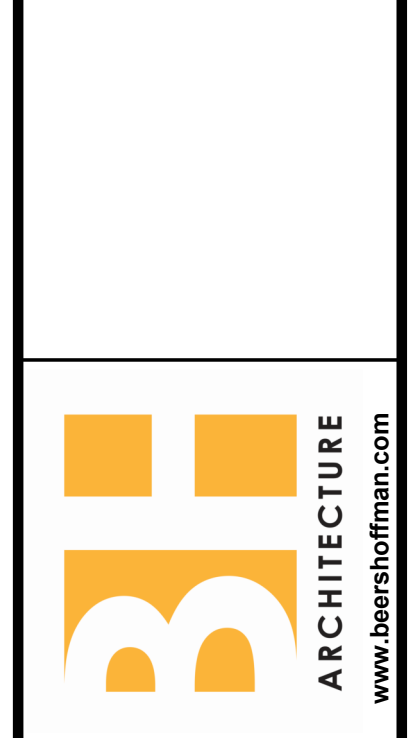
FLOOR PLAN

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A101
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1 GARAGE AREA FLOOR PLAN
1/8" = 1'-0"

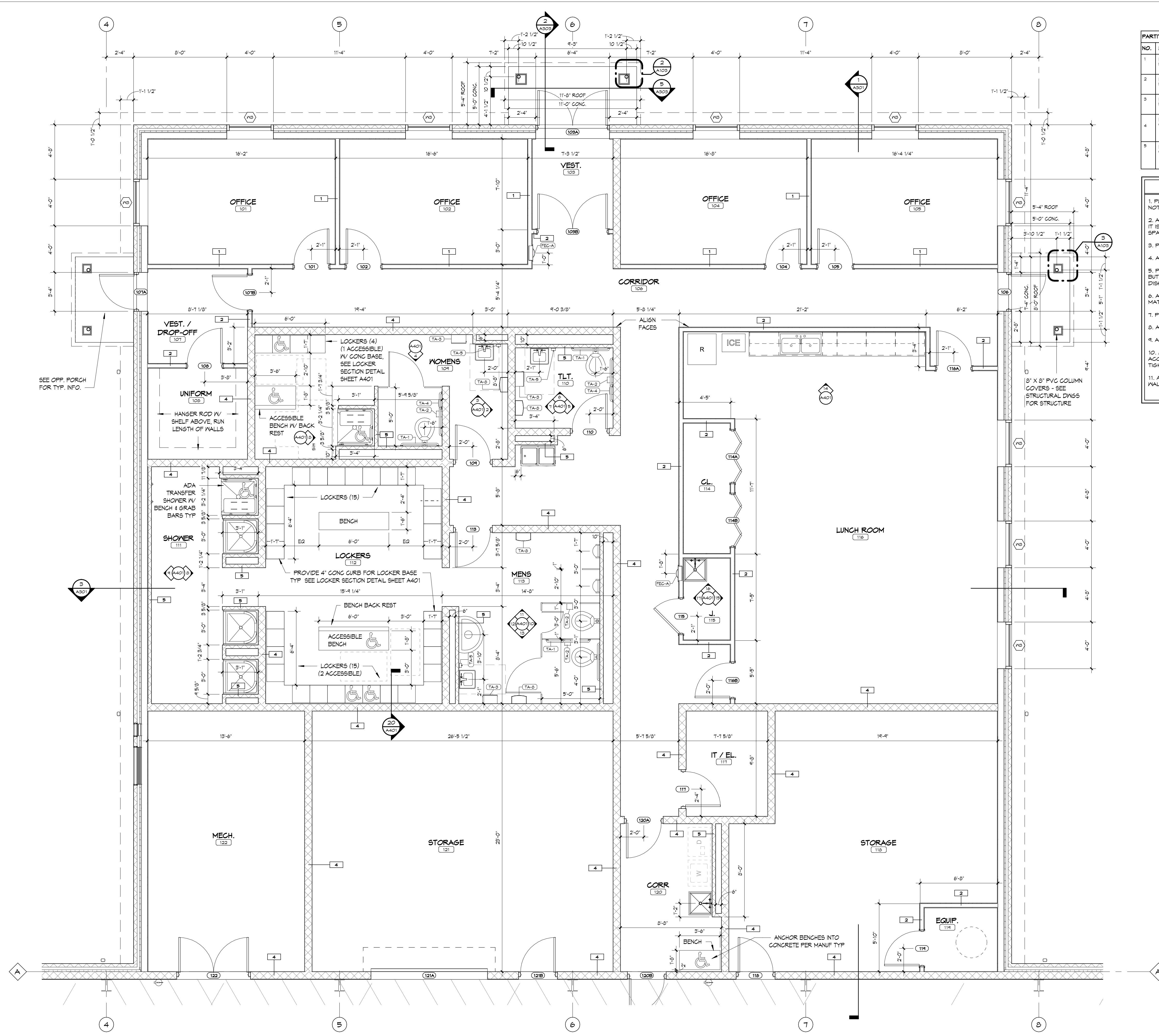
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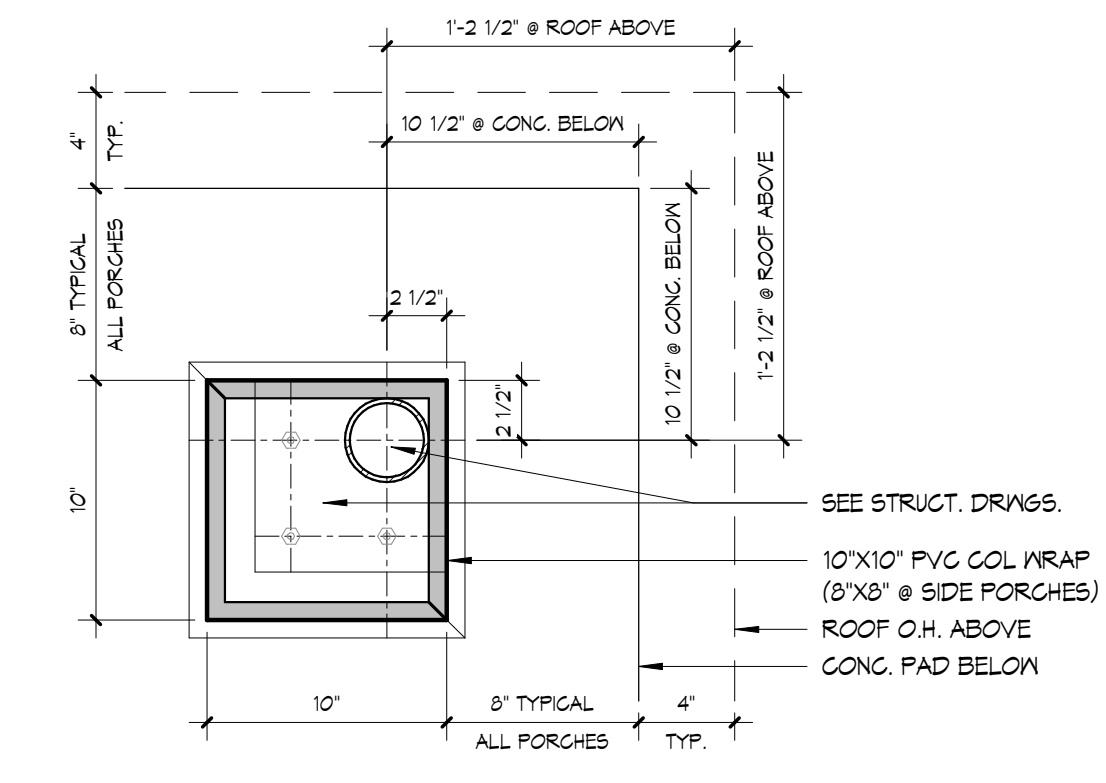
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GARAGE AREA FLOOR PLAN		
Sheet Number:		
A102		
BH JOB NO. 19-080		



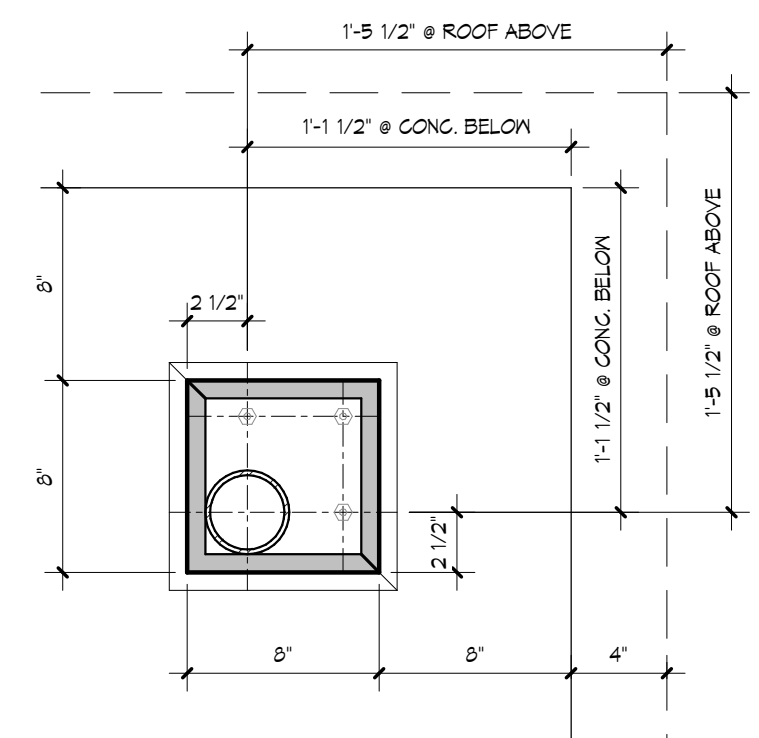
1 OFFICE AREA FLOOR PLAN
1/4" = 1'-0"

NO.	WALL TYPE	PLAN	DESCRIPTION	HEIGHT	RATING
1	INTERIOR NON-LOAD BEARING PARTITION - 3 5/8" STUD		3 5/8" METAL STUD 16" O.C., w/ SOUND ATTENUATION BLANKET (FRACTION FIT), 5/8" GYB BOTH SIDES	UNDERSIDE OF TRUSS	NON-RATED
2	INTERIOR NON-LOAD BEARING PARTITION - 3 5/8" STUD		3 5/8" METAL STUD 16" O.C., 5/8" GYB BOTH SIDES	1'-0" ABOVE CEILING SYSTEM	NON-RATED
3	INTERIOR NON-LOAD BEARING PARTITION - 3 5/8" STUD		3 5/8" METAL STUD 16" O.C., w/ SOUND ATTENUATION BLANKET (FRACTION FIT), 1/2" PLYWOOD BOTH SIDES	1'-0" ABOVE CEILING SYSTEM	NON-RATED
4	INTERIOR NON-LOAD BEARING CMU PARTITION		CONCRETE MASONRY UNIT - 4" NOMINAL SIZE HORIZONTAL JOINT REINFORCING & GRID AND REINFORCING AS INDICATED ON STRUCTURAL DRAWINGS	1 COURSE ABOVE CEILING FINISH MN	NON-RATED
5	INTERIOR NON-LOAD BEARING CMU PARTITION		CONCRETE MASONRY UNIT - 8" NOMINAL SIZE HORIZONTAL JOINT REINFORCING & GRID AND REINFORCING AS INDICATED ON STRUCTURAL DRAWINGS	UNDERSIDE OF TRUSS	NON-RATED

- ### GENERAL WALL NOTES
- PLAN DIMENSIONS ARE TO FACE OF STUD, FACE OF MASONRY OR CENTERLINE OF COLUMN, UNLESS NOTED OTHERWISE.
 - ALL METAL STUD GAUGES, SPACING AND HEIGHT LIMITATIONS ARE FOR GENERAL DESIGN PURPOSES. IT IS THE RESPONSIBILITY OF THE METAL STUD MANUFACTURER TO DETERMINE THE FINAL GAUGES AND SPACING TO ACCOMPLISH THE DESIGN.
 - PROVIDE SLOTTED TOP TRACK FOR ALL PARTITIONS AS REQUIRED FOR DEFLECTION.
 - ALL GYPSUM BOARD WALL FINISHES TO HAVE 1/2" GAP AT FLOOR SLAB, TYP. UNO.
 - PROVIDE MOISTURE RESISTANT GYPSUM BOARD FOR ALL GYPSUM BOARD IN WET AREAS, SUCH AS, BUT NOT LIMITED TO, TOILET AND BATHING ROOMS, JANITORS CLOSETS WITH MOP SINKS, LAUNDRY AND DISHWASHING AREAS.
 - ALL CORNERS AND ALL VISIBLE DRYWALL EDGES AT OPENINGS, PENETRATIONS, CHANGES IN MATERIAL, ETC., SHALL HAVE CORNER BEAD, "J" BEAD OR "J" CHANNEL AS APPLICABLE.
 - PROVIDE TILE BACKER BOARD FOR ALL TILE LOCATIONS. SEE FINISH DRAWINGS FOR LOCATIONS.
 - ALL INTERIOR WALL FINISHES SHALL EXTEND 6" MIN ABOVE SUSPENDED CEILING, TYP. UNO.
 - ALL EXPOSED INTERIOR CMU OUTSIDE CORNERS SHALL BE BULLNOSED.
 - AT ALL WALLS WITH AN STC RATING, EXTEND WALL TO UNDERSIDE OF TRUSS AND PROVIDE ACOUSTICAL SEALANT ASSEMBLY AT ALL JOINTS AND PENETRATIONS. ALL OPENINGS SHALL BE CUT TIGHT TO FIT AND INFILLED WITH ACOUSTICAL SEALANT ASSEMBLY.
 - AT ALL WALLS WITH AN STC RATING, STAGGER RECESSED ELEMENTS ON OPPOSING SIDES OF THE WALL IN DIFFERENT STUD SPACES TO REDUCE SOUND TRANSMISSION.

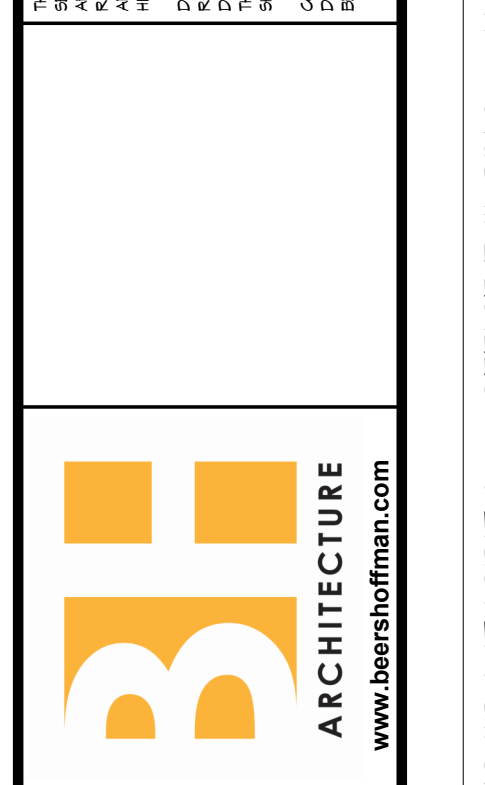


2 LARGE PORCH COLUMN DETAIL
1 1/2" = 1'-0"



3 SIDE PORCH COLUMN DETAIL
1 1/2" = 1'-0"

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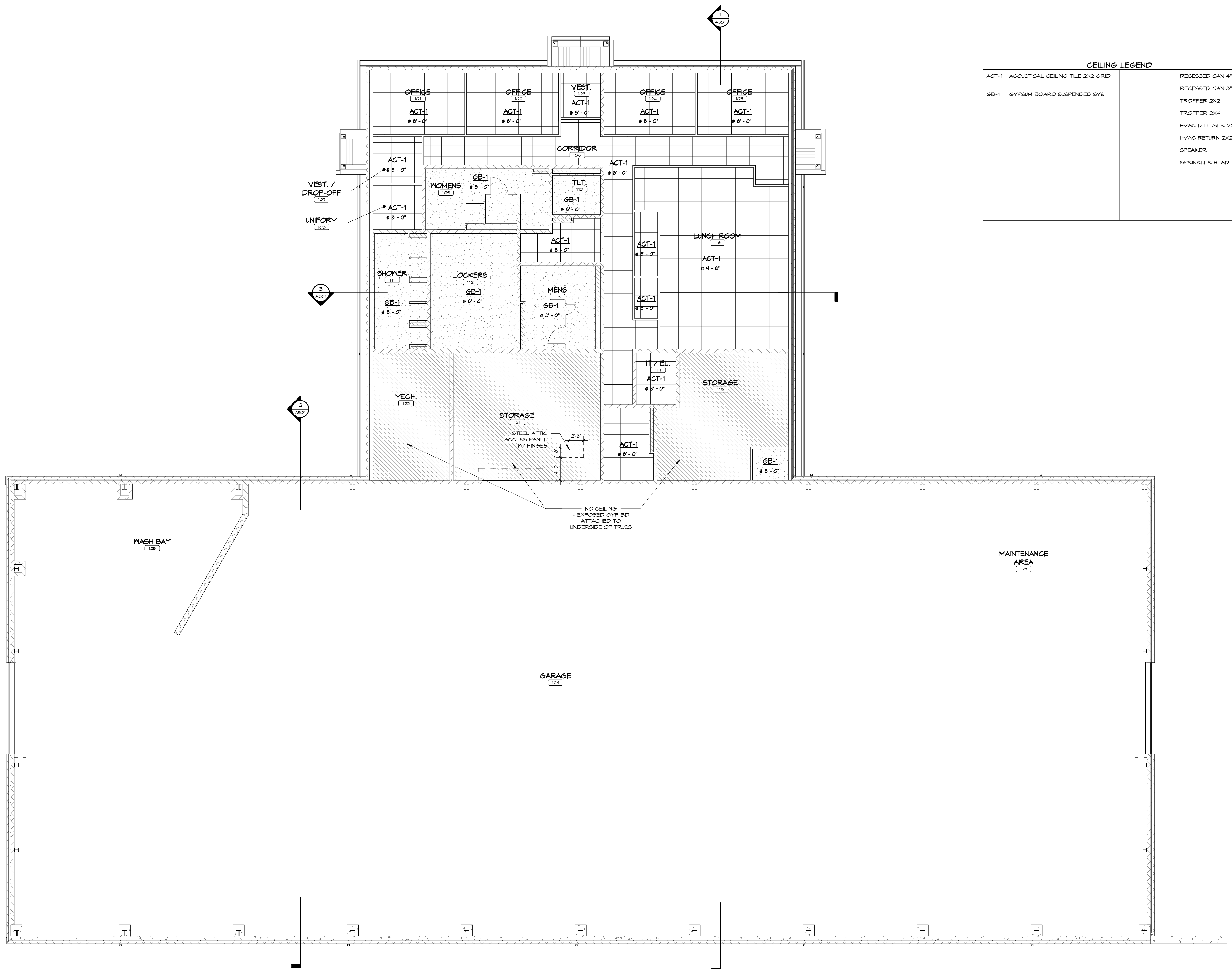


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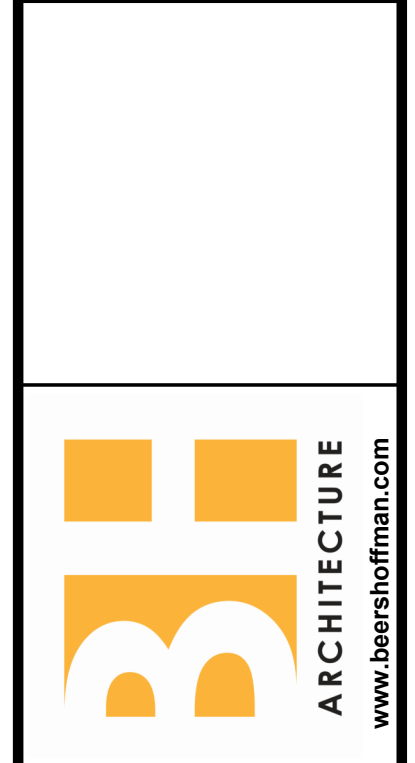
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ENLARGED OFFICE PLAN
Sheet Number:
A103
BH JOB NO. 19-080



CEILING LEGEND		
ACT-1	ACOUSTICAL CEILING TILE 2X2 GRID	RECESSED CAN 4"
GB-1	GYPSUM BOARD SUSPENDED SYS	RECESSED CAN 8"
		TROFFER 2X2
		TROFFER 2X4
		HVAC DIFFUSER 2X2
		HVAC RETURN 2X2
		SPEAKER
		SPRINKLER HEAD

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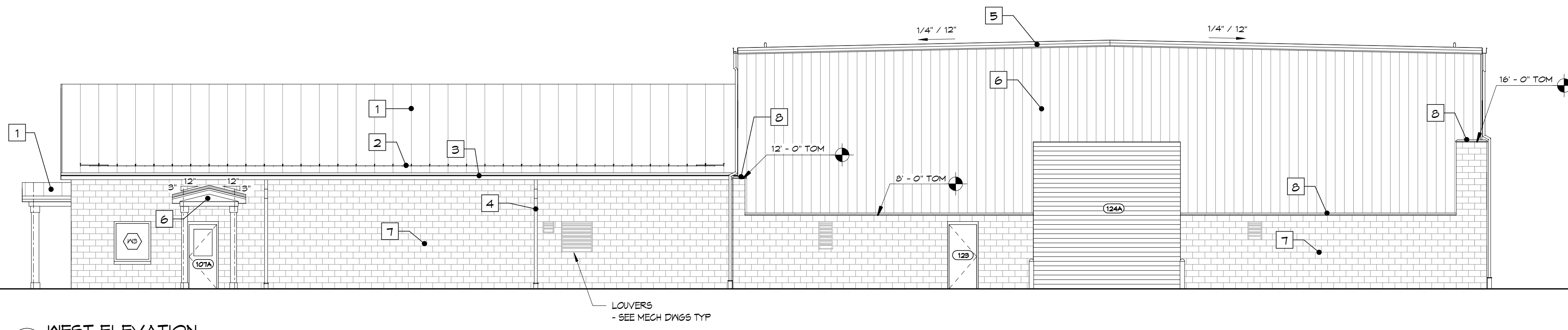
Issue Date: 02/01/20
 Drawn By: JZ / SG
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 Sheet Name:

CEILING PLANS

Sheet Number:
A111
 BH JOB NO. 19-080

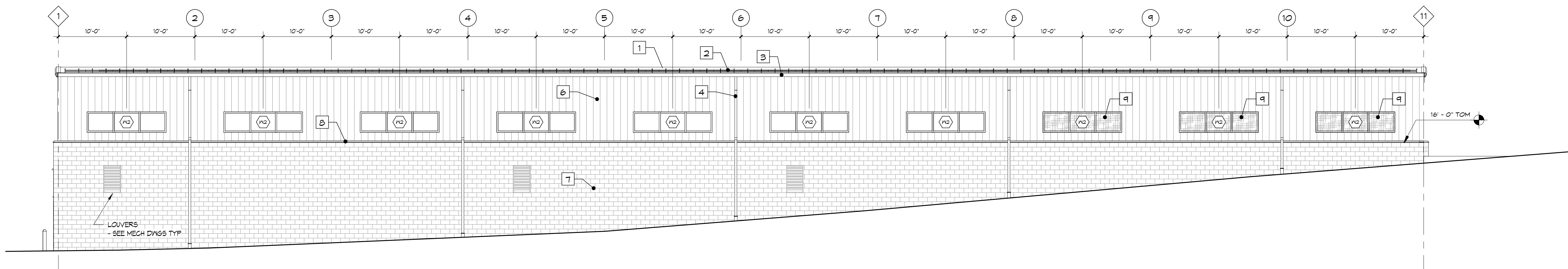
2 REFLECTED CEILING PLAN - FLOOR 1
 1/8" = 1'-0"

2/7/2020 4:2:20 AM



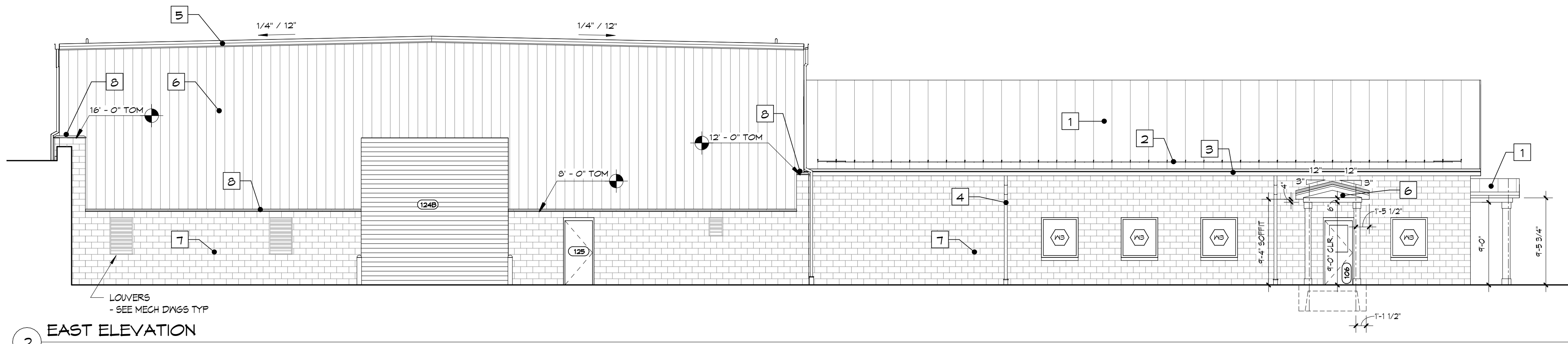
4 WEST ELEVATION
1/8" = 1'-0"

LOWERS
- SEE MECH DWGS TYP



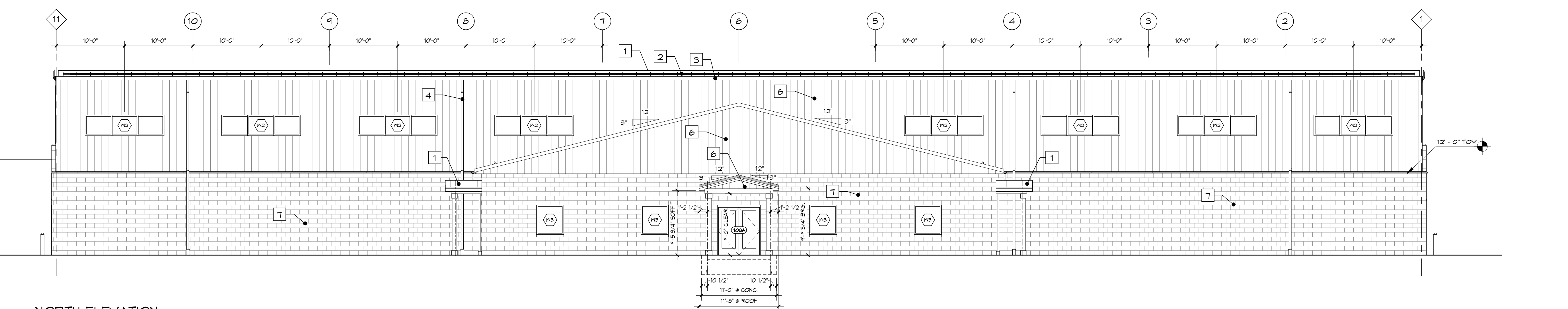
3 SOUTH ELEVATION
1/8" = 1'-0"

LOWERS
- SEE MECH DWGS TYP



2 EAST ELEVATION
1/8" = 1'-0"

LOWERS
- SEE MECH DWGS TYP



1 NORTH ELEVATION
1/8" = 1'-0"

#	EXTERIOR FINISH / COMPONENT SCHEDULE	
TAG #	COMPONENT	COMMENTS
1	STANDING SEAM METAL ROOF	
2	SNOW GUARDS	
3	GUTTERS	
4	4" X 5" DOWNSPOUTS W/ DOWNSPOUT BOOTS - TYPICAL	
5	METAL BUILDING RAKE TRIM	
6	METAL BUILDING WALL PANELS	
7	4" X 8" X 16" SPLIT FACE CMU VENEER	
8	PRECAST WALL SILL	
9	SECURITY SCREEN - INSTALLED ON EXTERIOR FACE OF WINDOW TYPE 'W2'	SEE WINDOW DETAILS FOR MORE INFO

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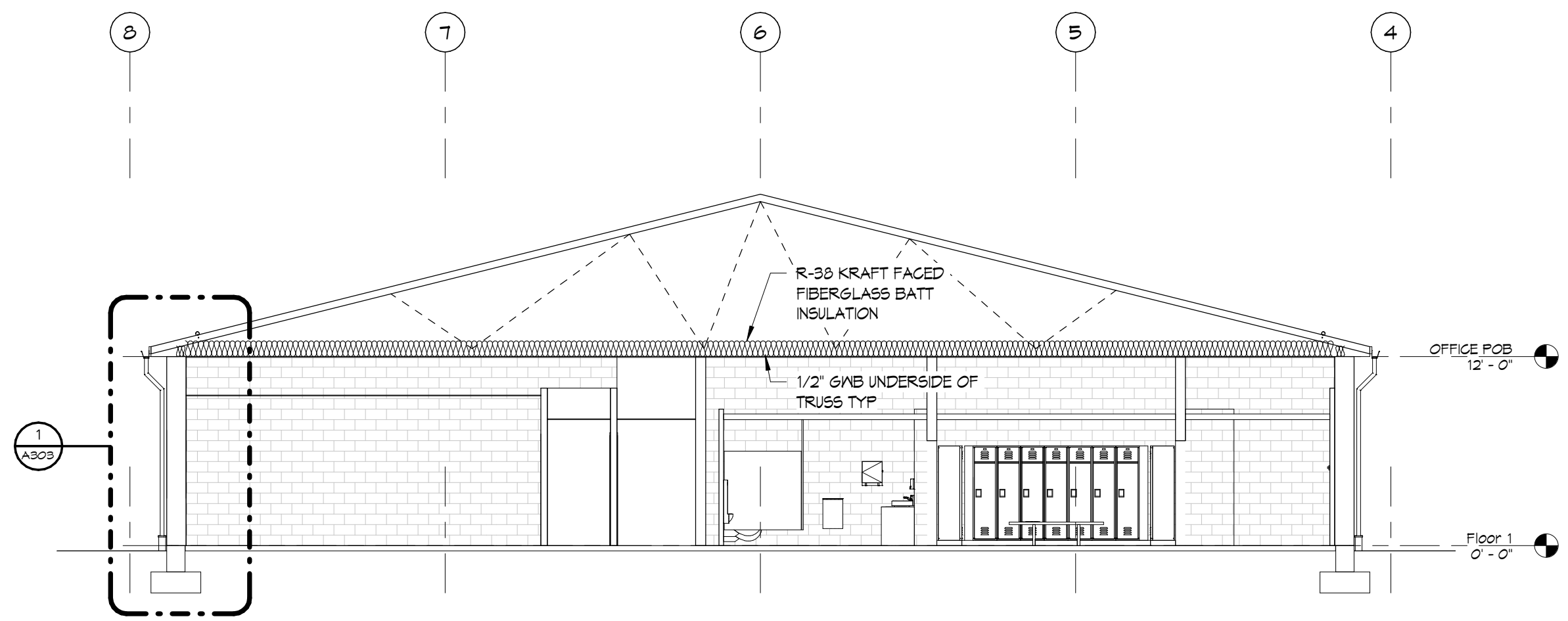
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EXTERIOR ELEVATIONS

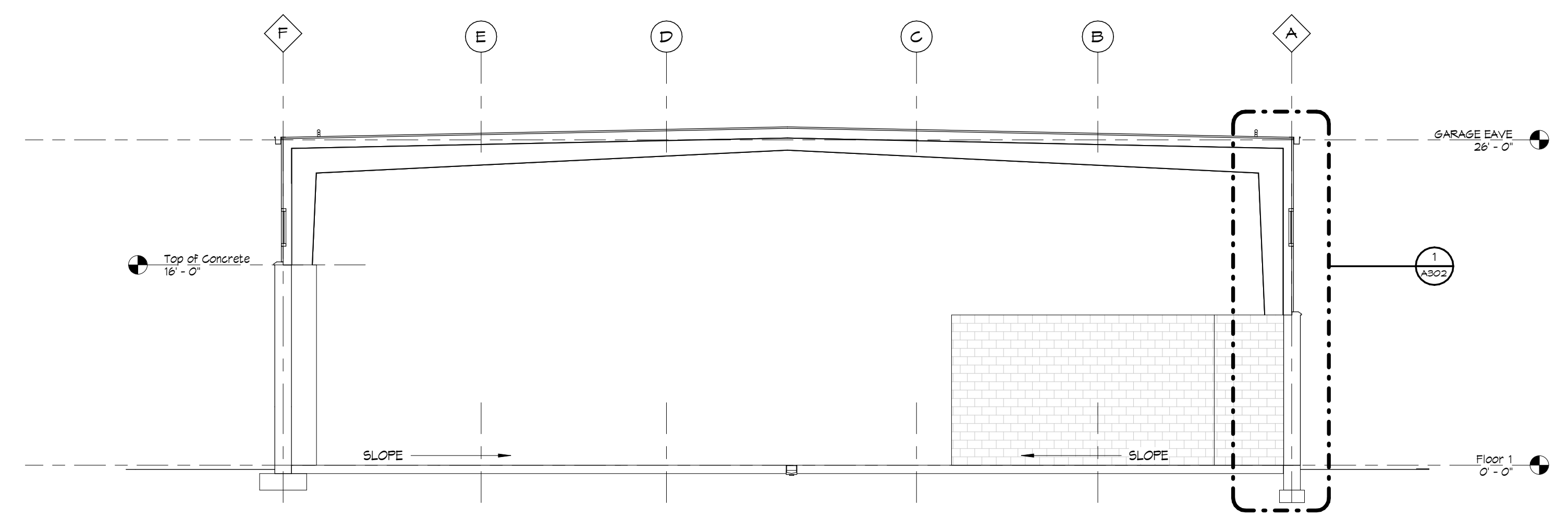
Sheet Number:
A201

BH JOB NO. 19-080

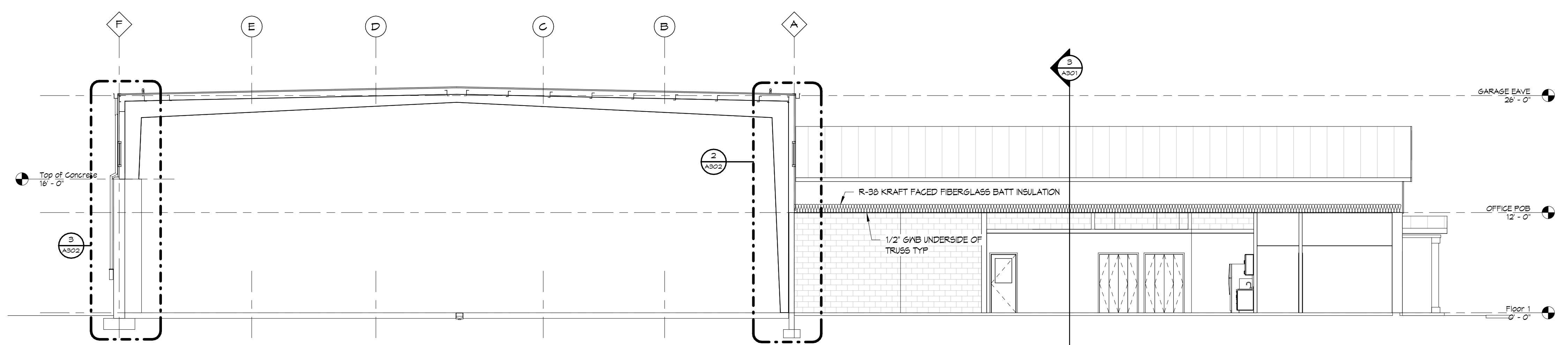
2/7/2020 4:21:15 AM



3 BUILDING SECTION - OFFICE AREA
1/8" = 1'-0"

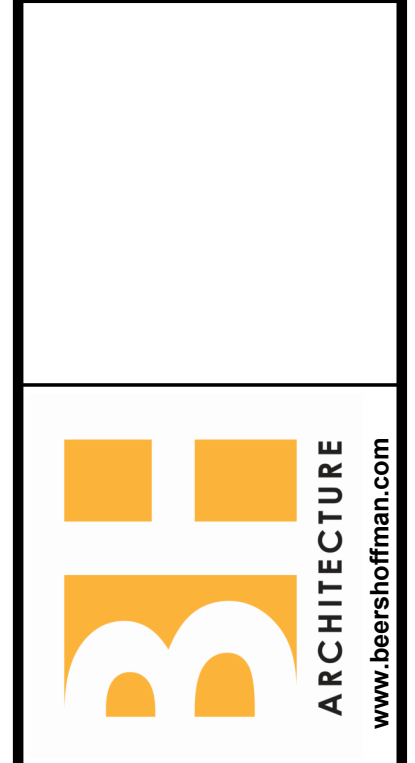


2 BUILDING SECTION - GARAGE AREA
1/8" = 1'-0"



1 BUILDING SECTION - GARAGE & OFFICE AREA
1/8" = 1'-0"

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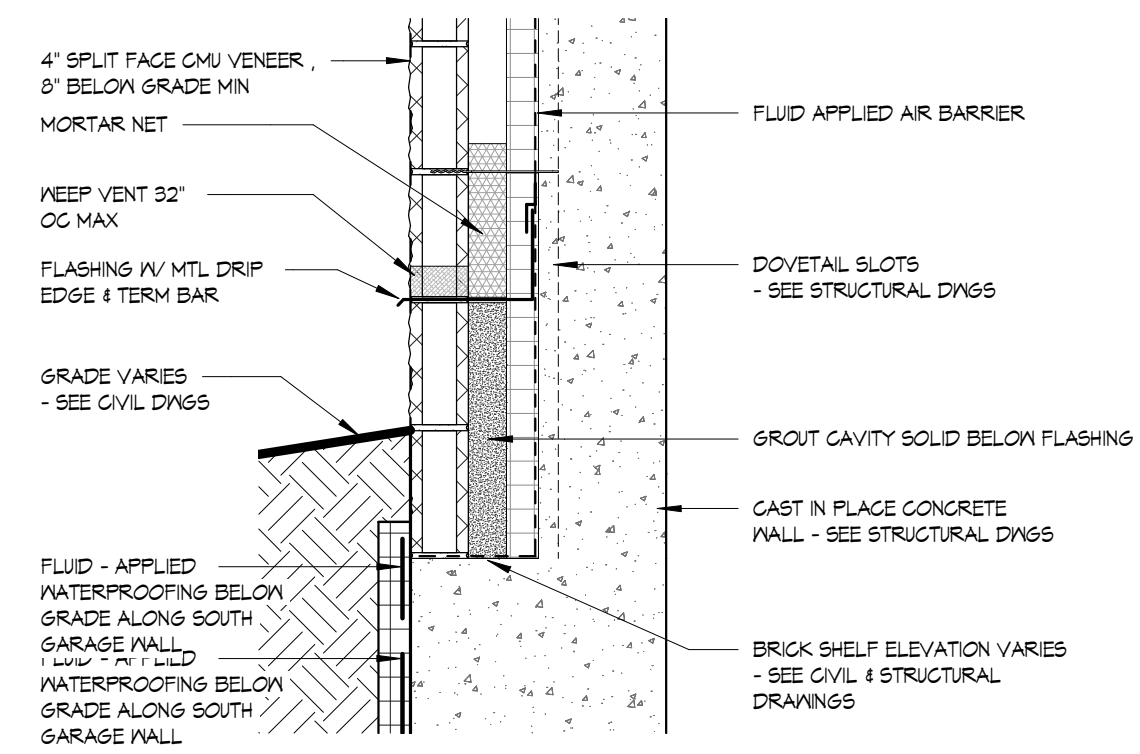
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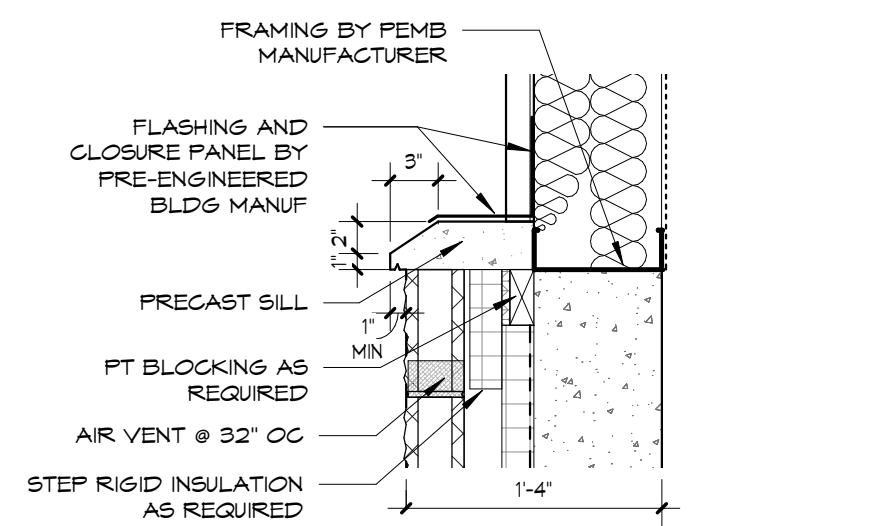
Issue Date: 02/01/20
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BUILDING SECTIONS

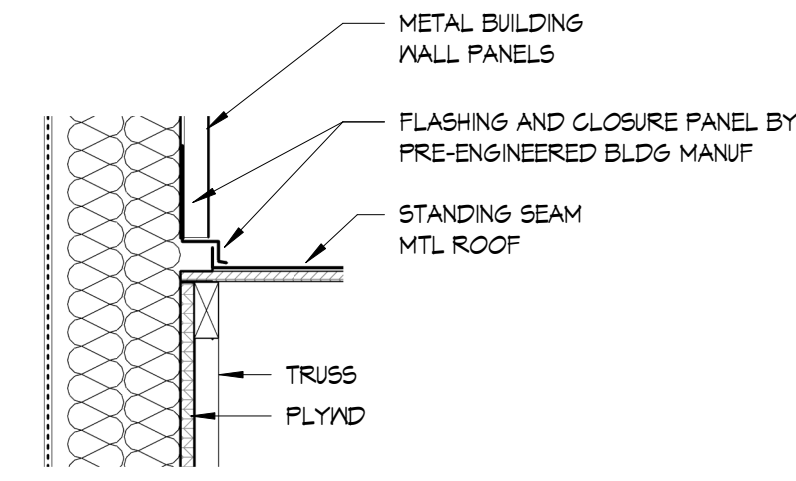
Sheet Number:
A301
BH JOB NO. 19-080



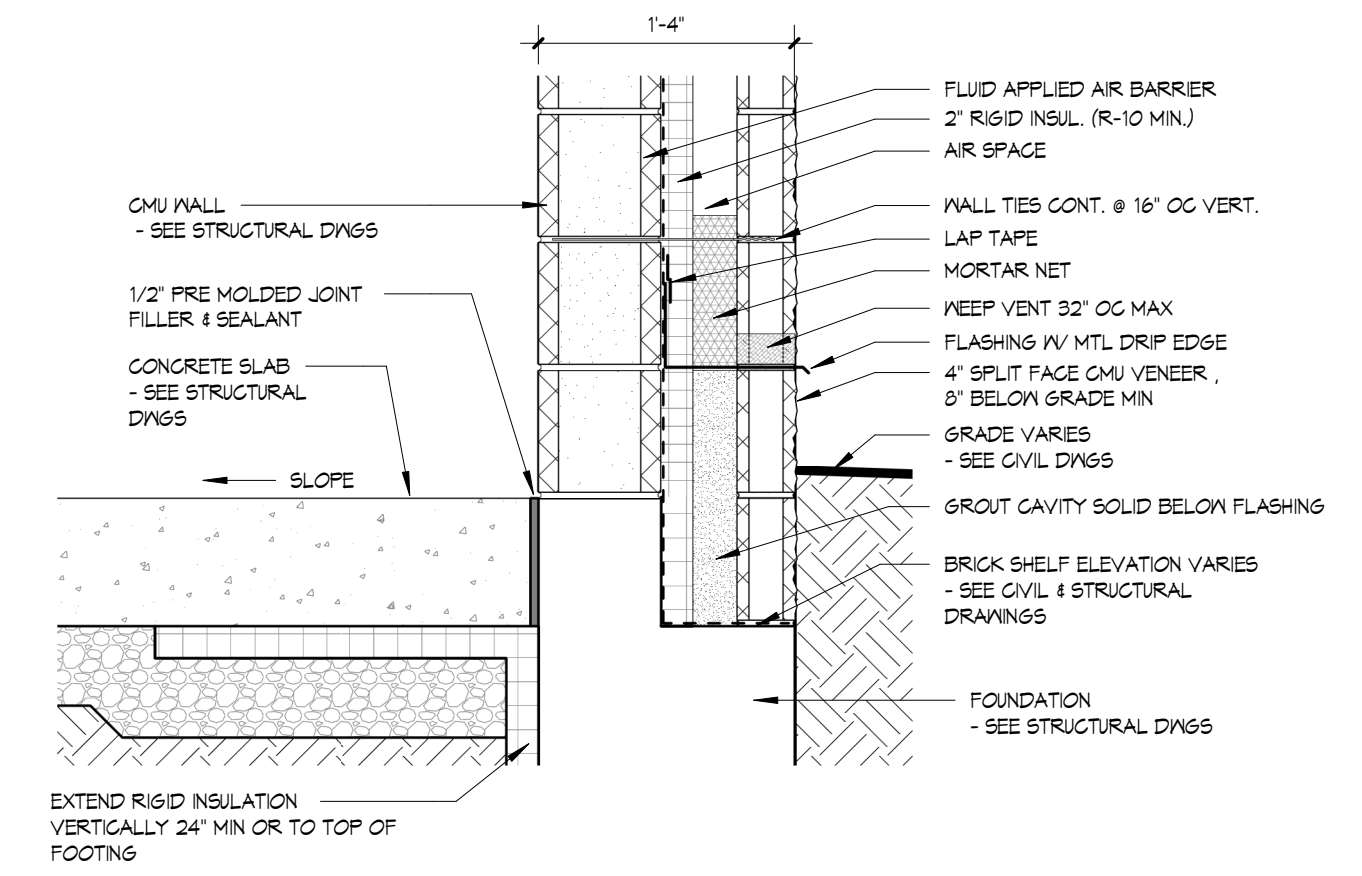
7 SOUTH GARAGE WALL BRICK SHELF
1" = 1'-0"



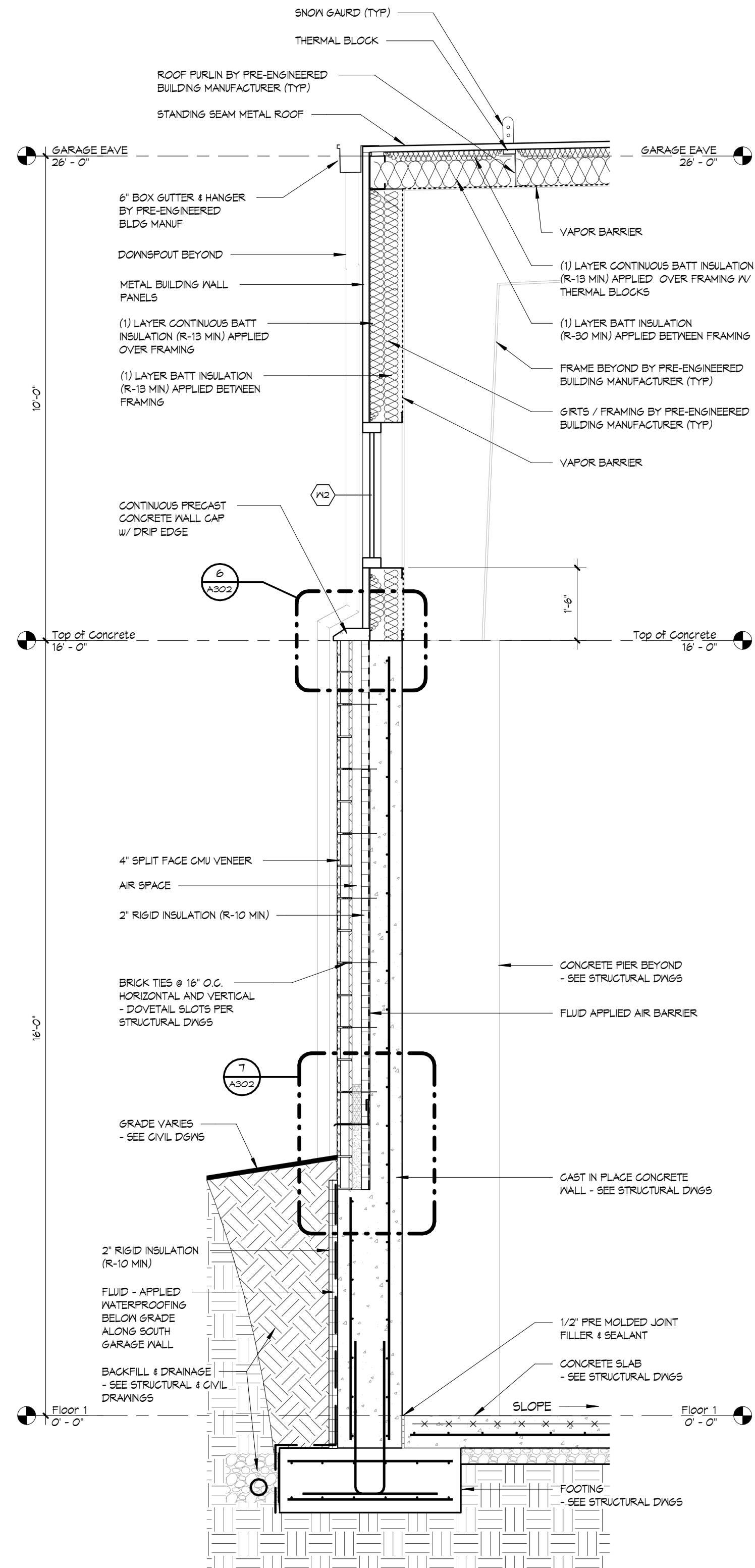
6 PRECAST WALL SILL DETAIL
1" = 1'-0"



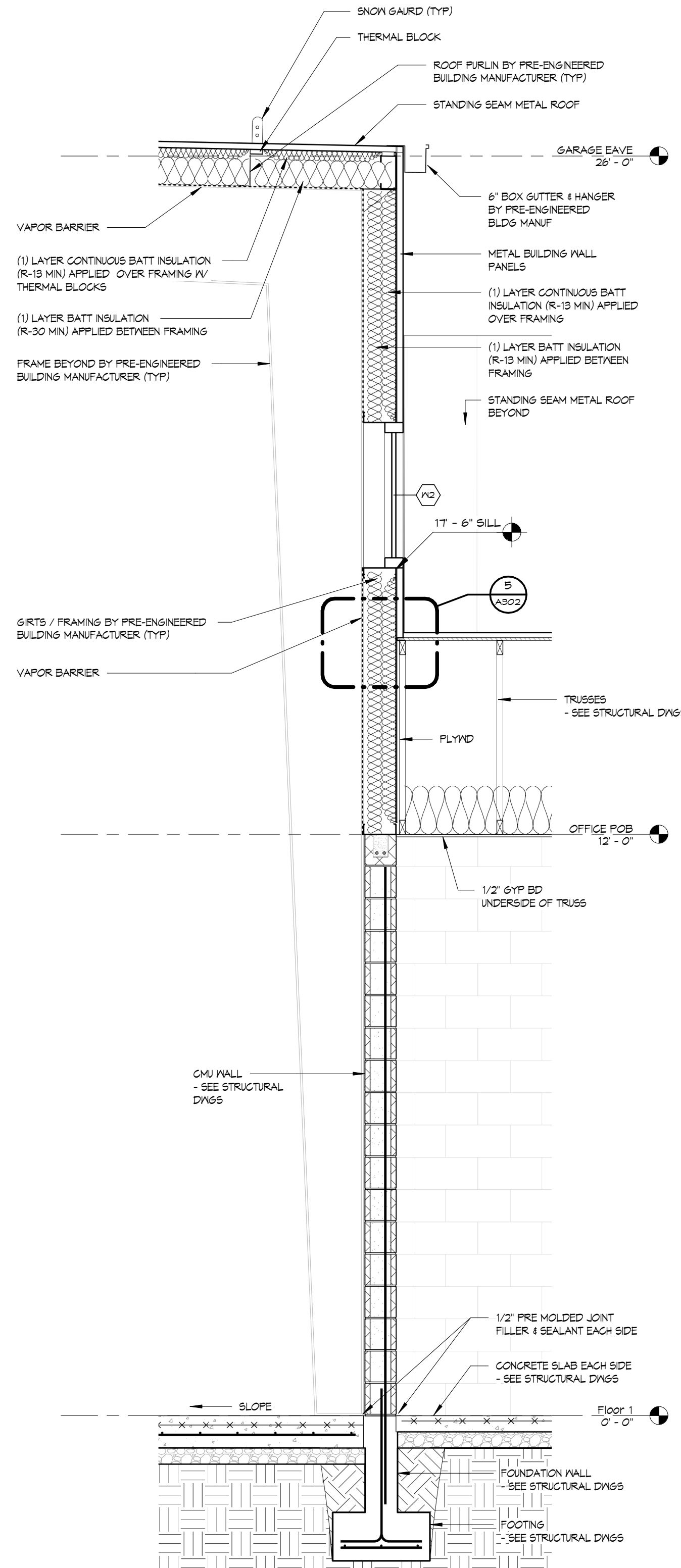
5 ROOF & MTL BUILDING INTERSECTION
1" = 1'-0"



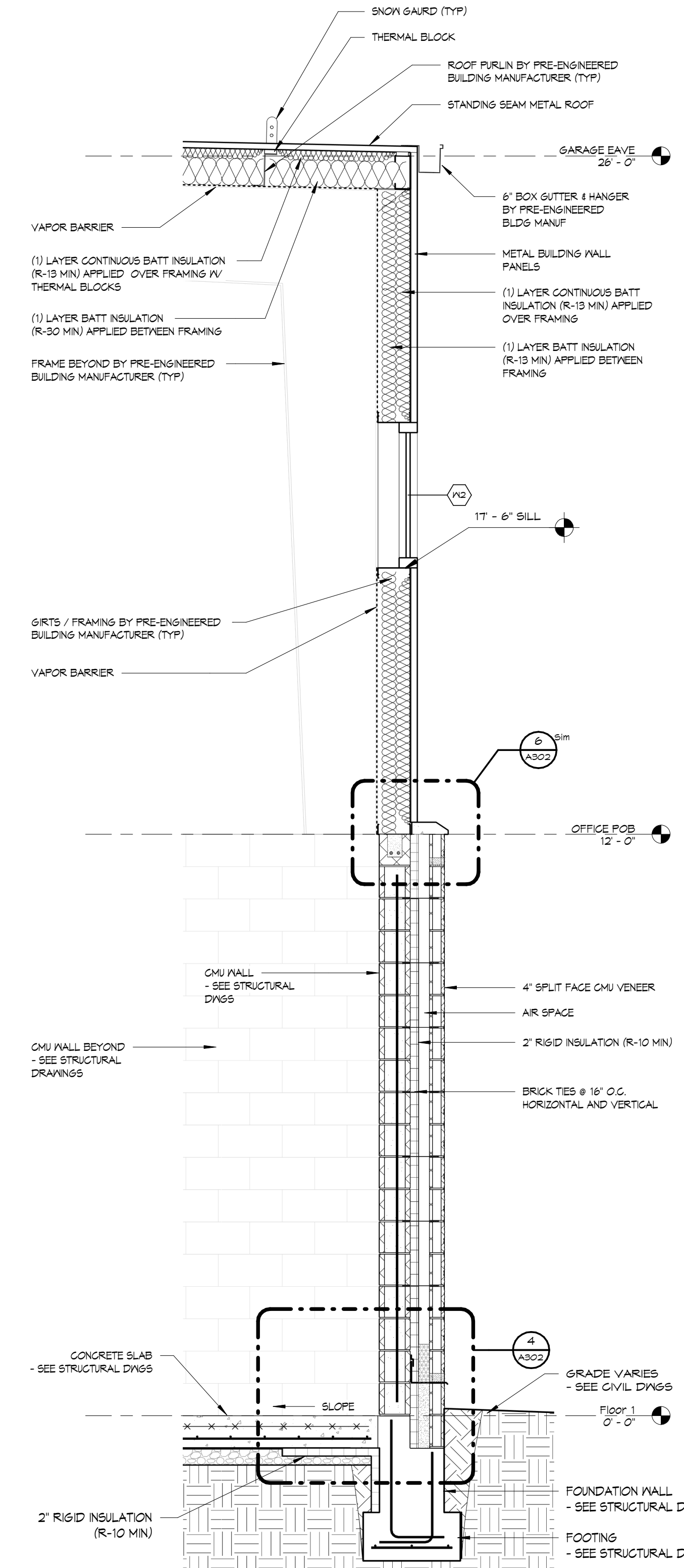
4 TYP CMU WALL W/ CMU VENEER - WALL TO SLAB DETAIL
1" = 1'-0"



3 SOUTH GARAGE WALL
1/2" = 1'-0"



2 NORTH GARAGE WALL @ OFFICE WING INTERSECTION
1/2" = 1'-0"



1 NORTH GARAGE WALL
1/2" = 1'-0"

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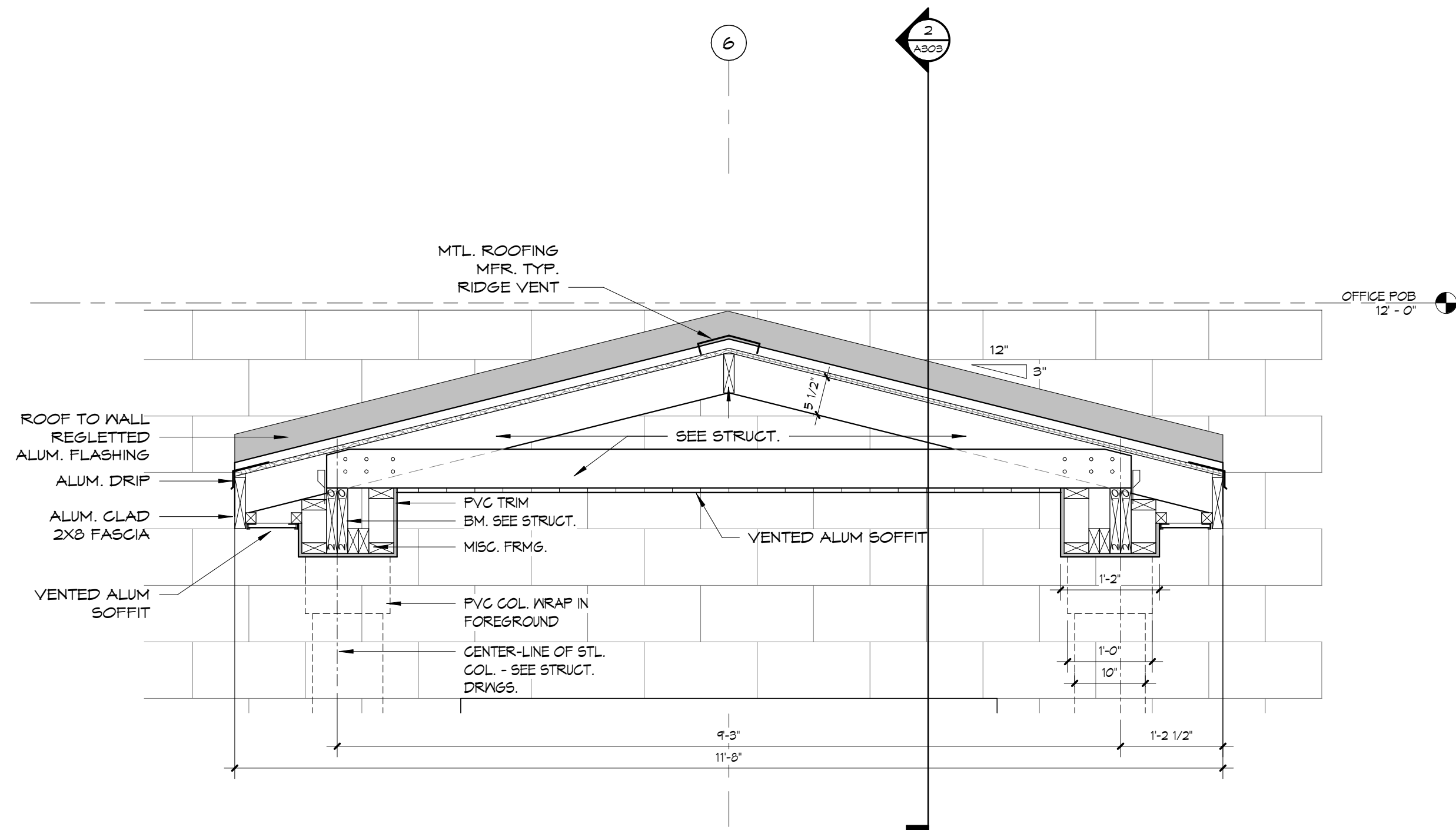


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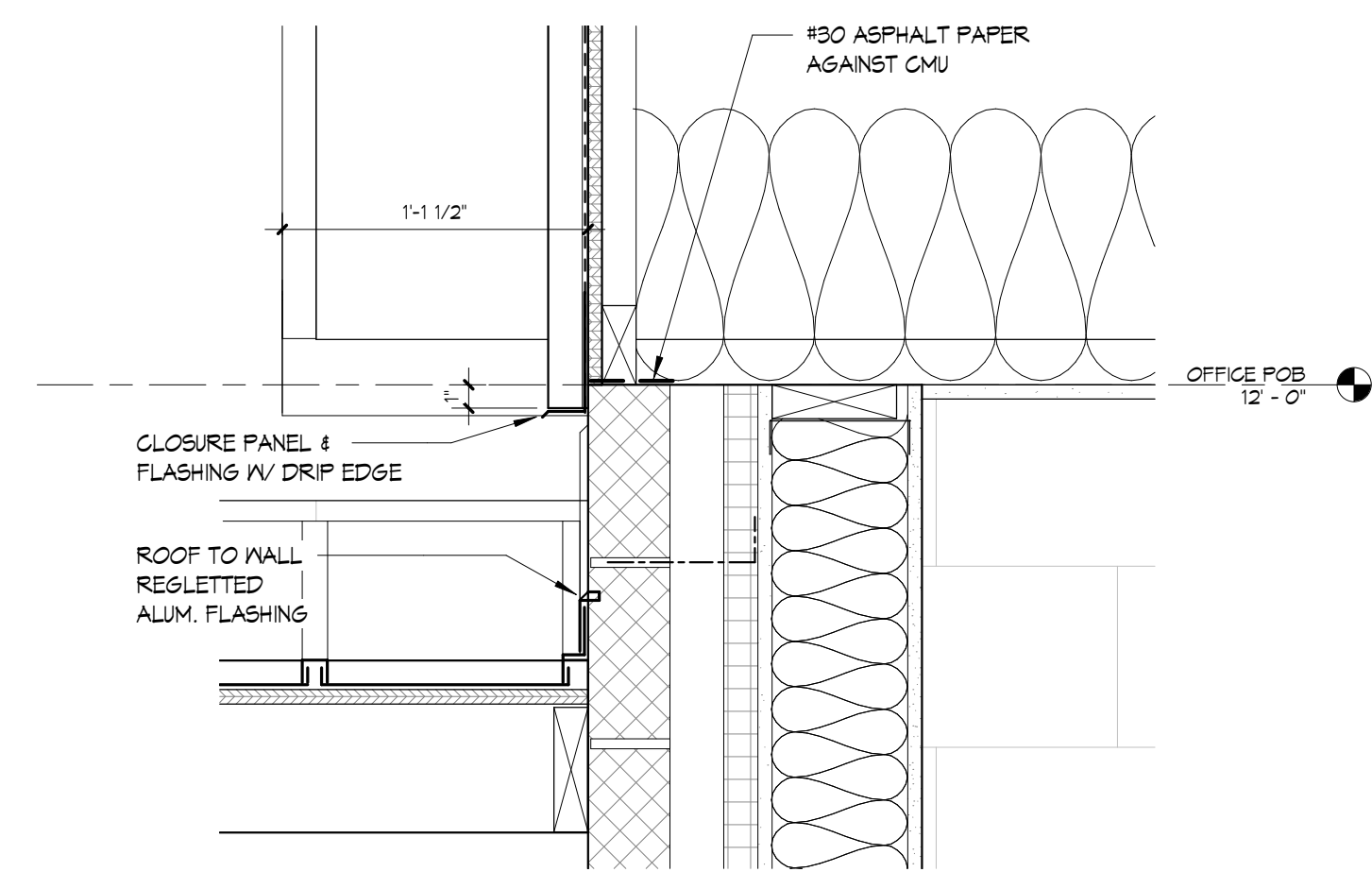
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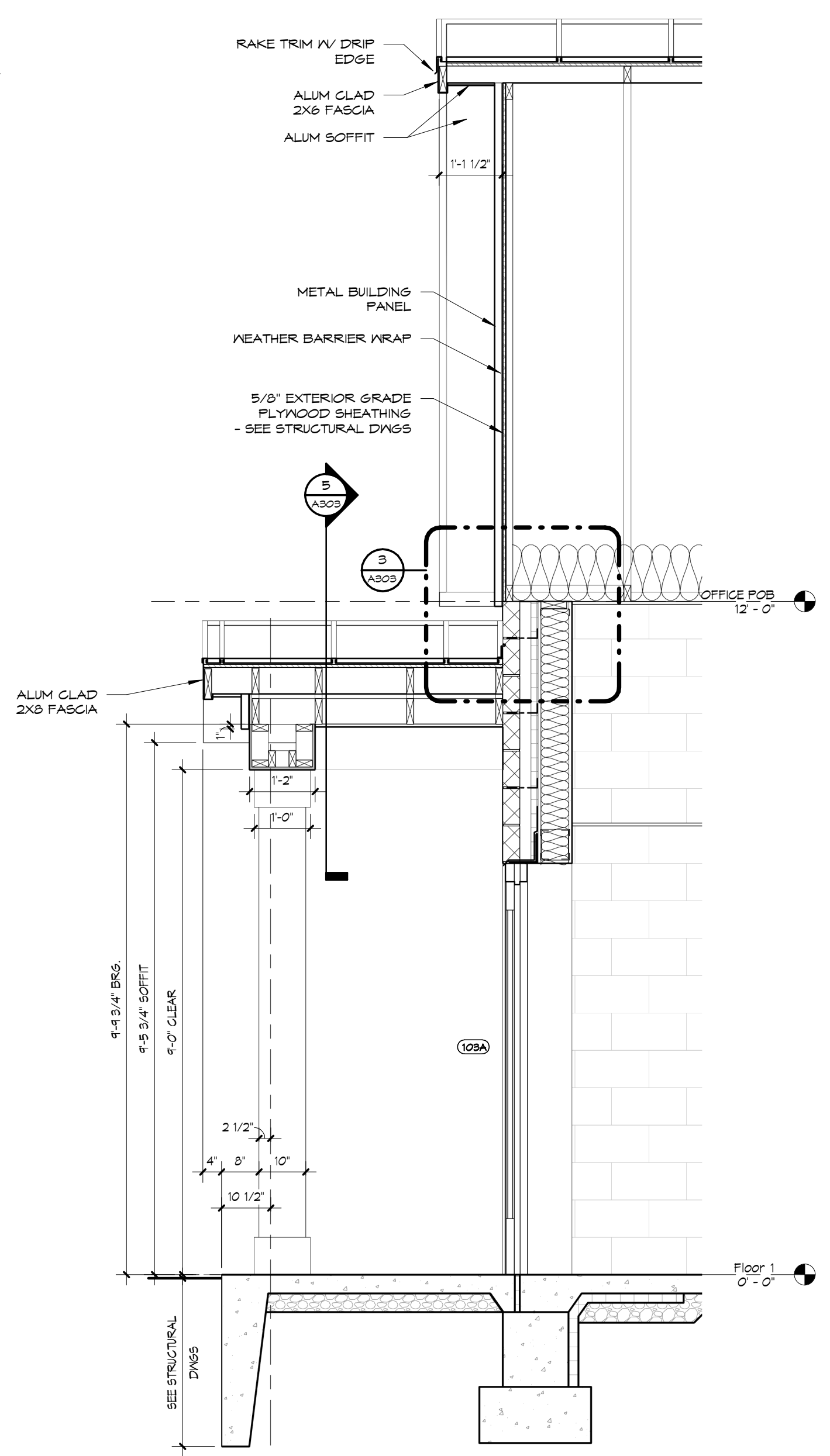
Issue Date: 02/01/20
 Drawn By: JZ / SG
 Checked By: JZ / SA
 Sheet Name: WALL SECTIONS
 Sheet Number: A302
 BH JOB NO. 19-080



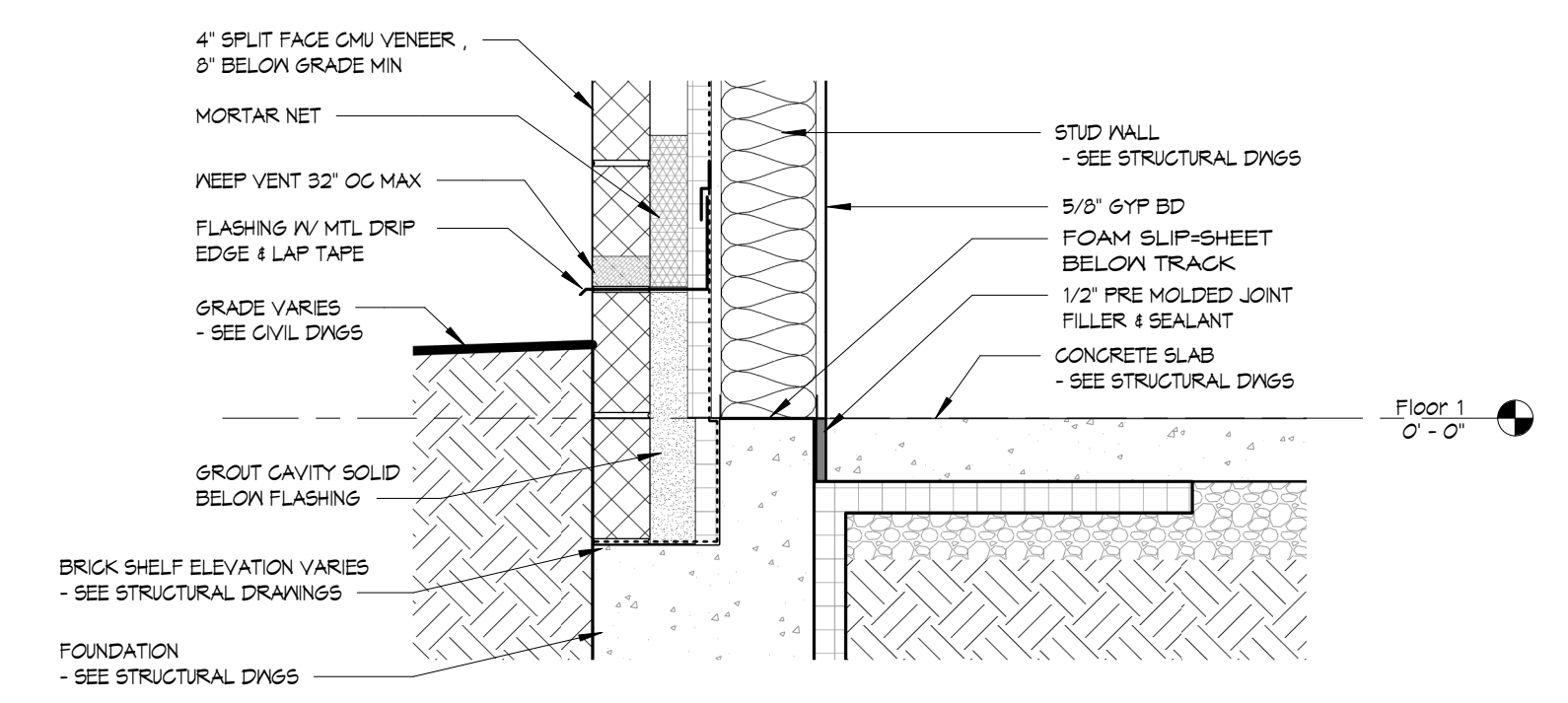
5 NORTH ENTRY CANOPY SECTION - EAST & WEST CANOPIES
SIMILAR
3/4" = 1'-0"



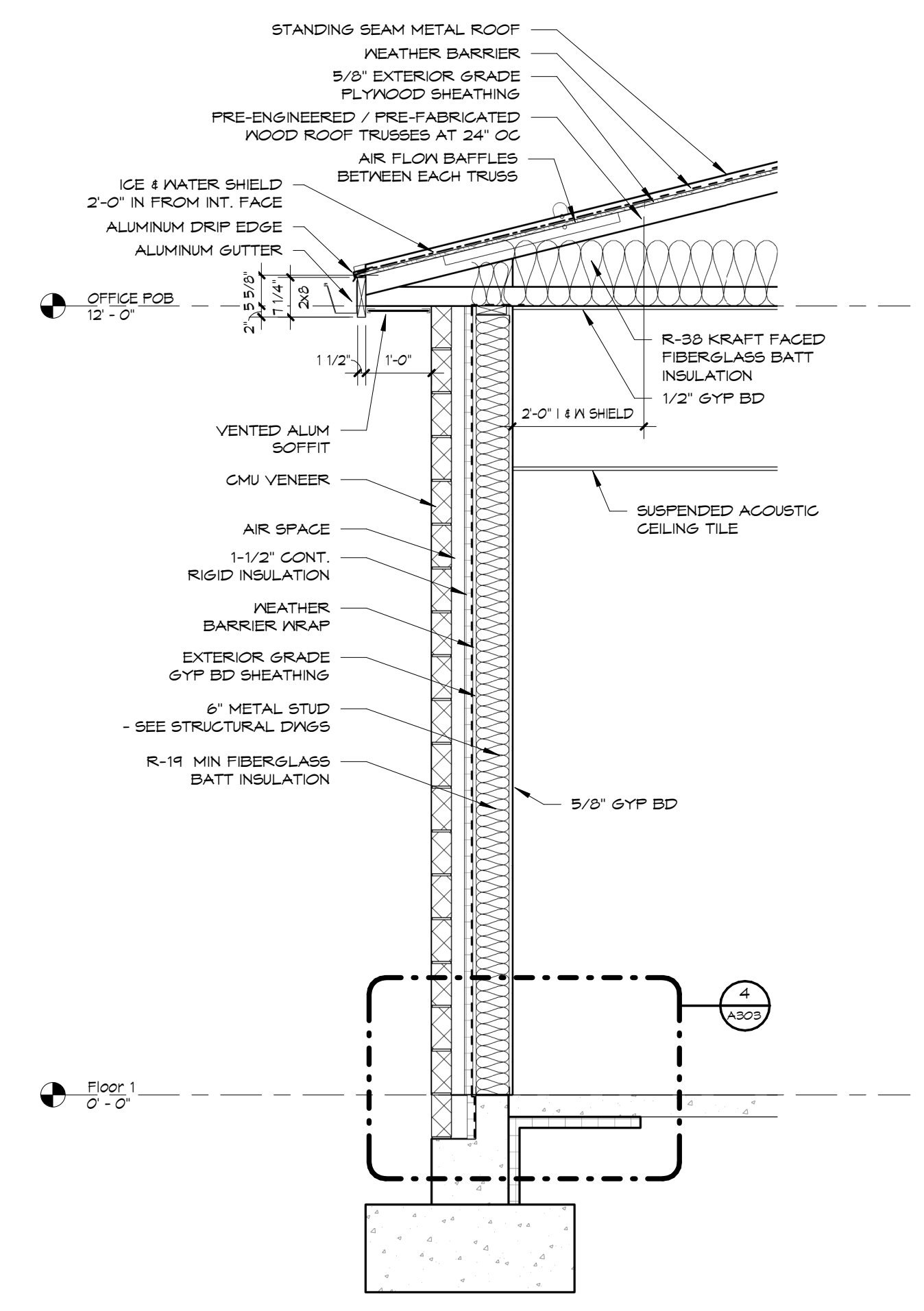
3 NORTH OFFICE WALL @ ENTRY CANOPY - DETAIL
1 1/2" = 1'-0"



2 NORTH OFFICE WALL @ ENTRY CANOPY
1/2" = 1'-0"



4 TYP STUD WALL w/ CMU VENEER - WALL TO SLAB DETAIL
1" = 1'-0"



1 EAST OFFICE WALL
1/2" = 1'-0"

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WALL SECTIONS & DETAILS

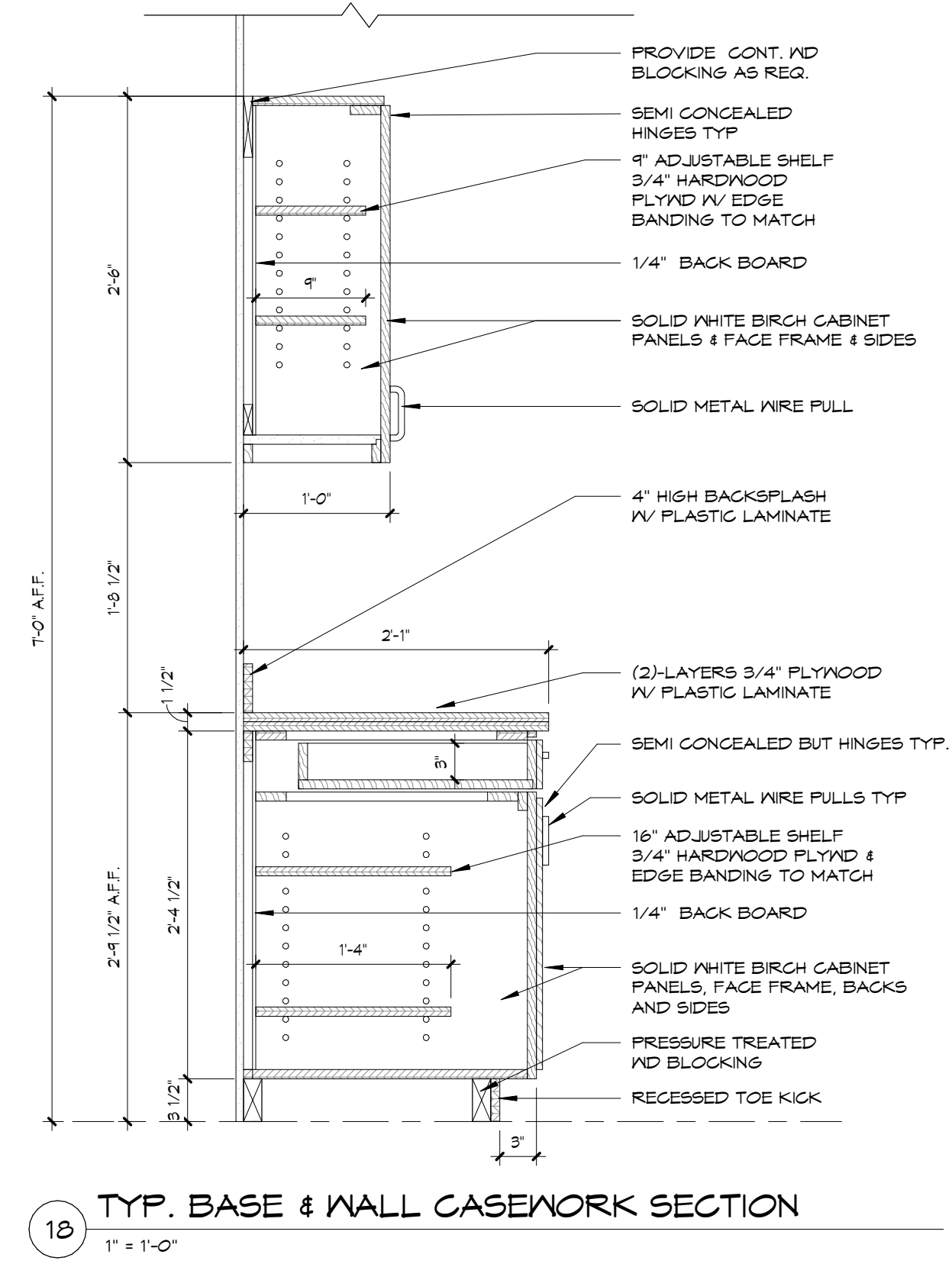
Sheet Number:
A303
BH JOB NO. 19-080



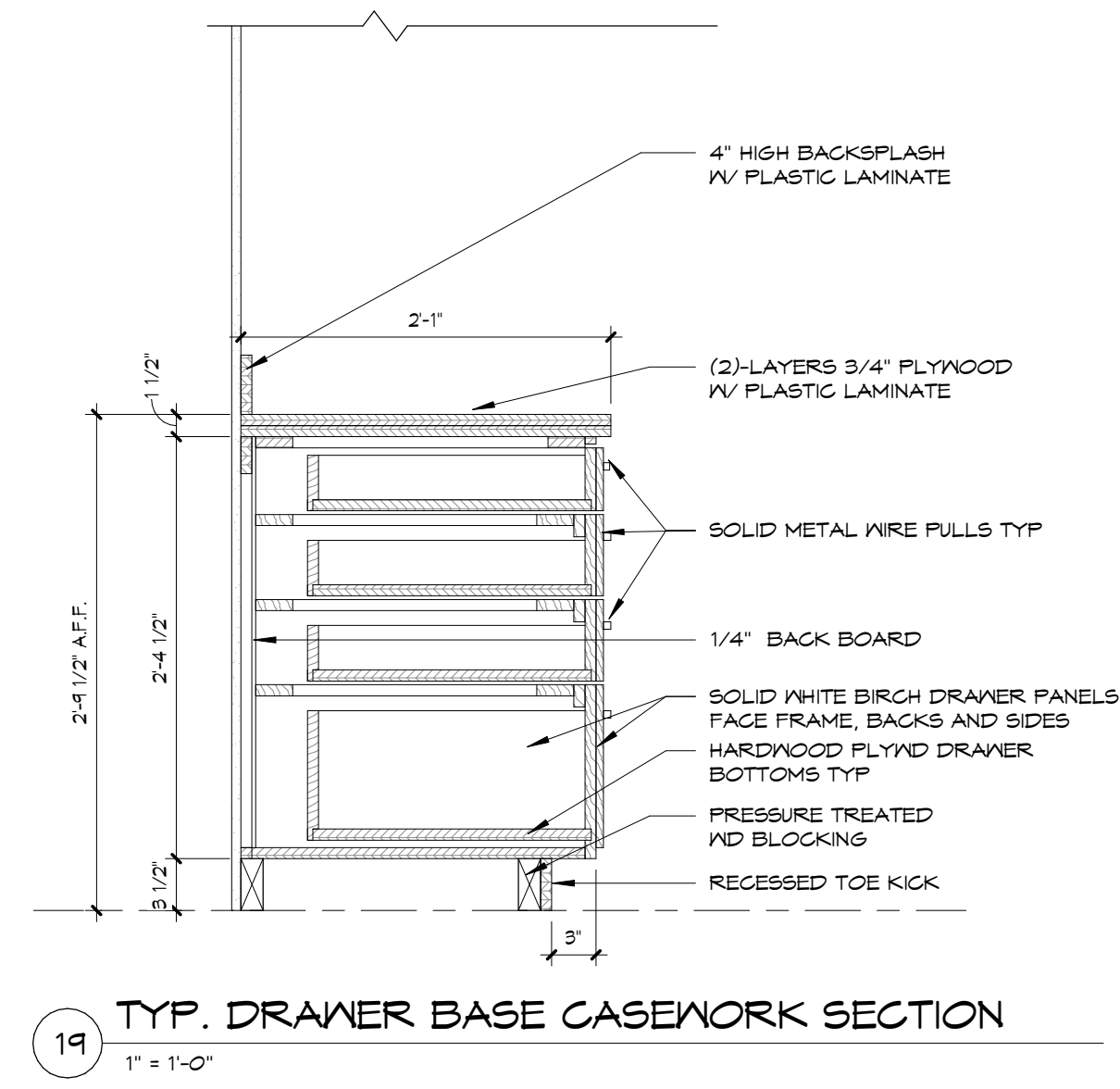
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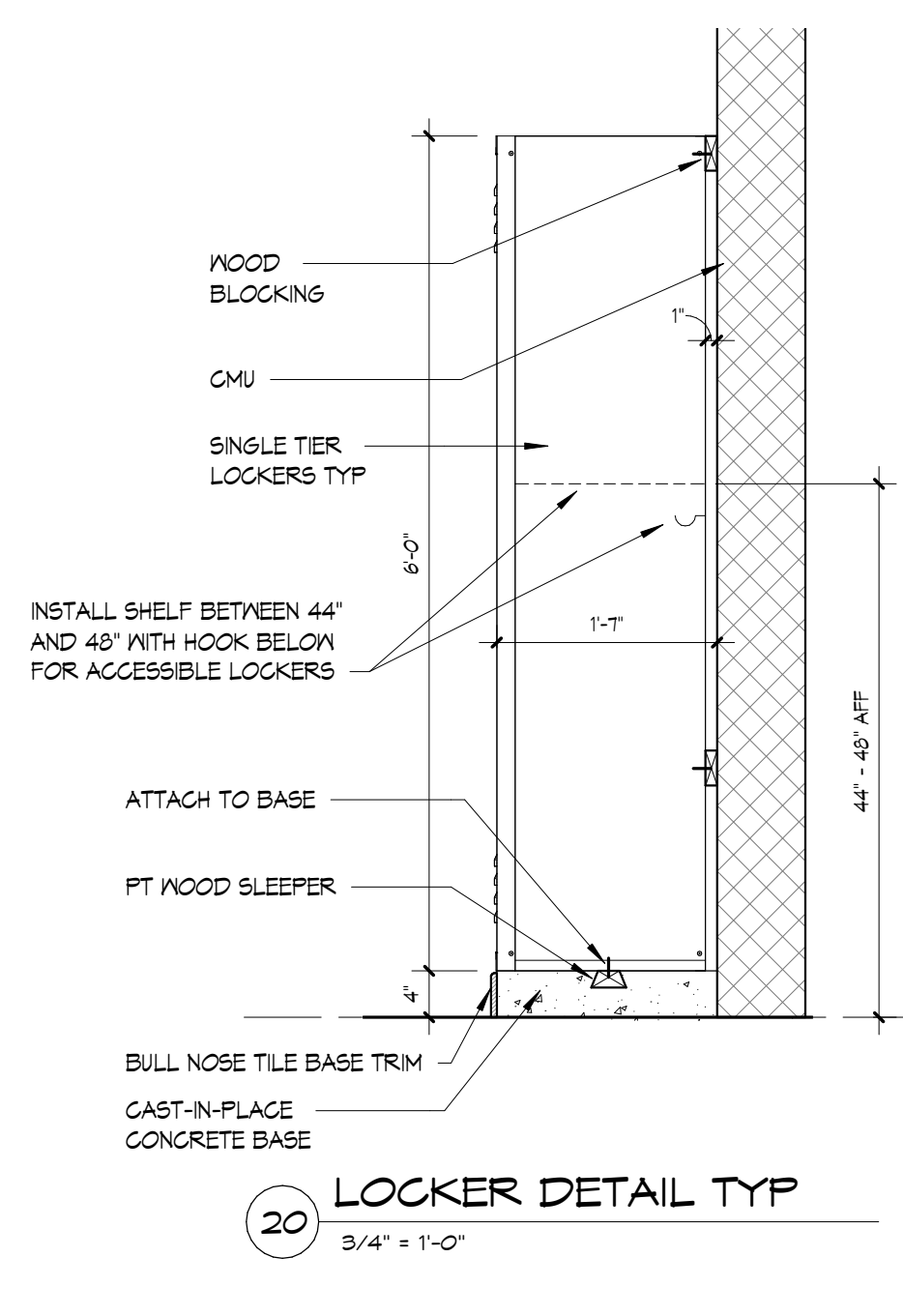
Issue Date: 02/01/20
 Drawn By: JZ / SG
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 Sheet Number:
A401
 BH JOB NO. 19-080



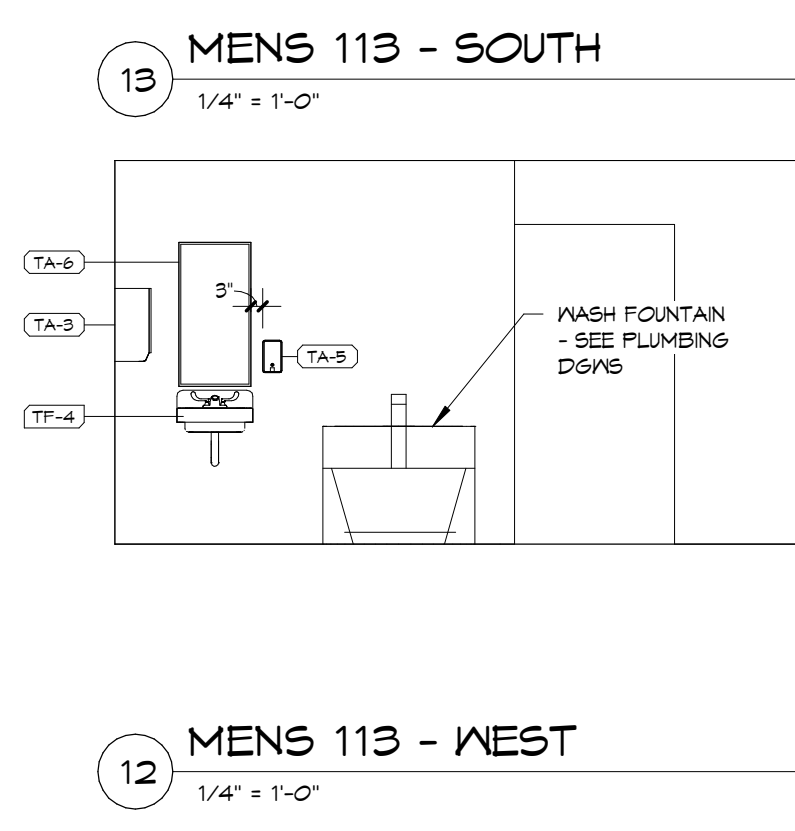
18 TYP. BASE & WALL CASEWORK SECTION
1" = 1'-0"



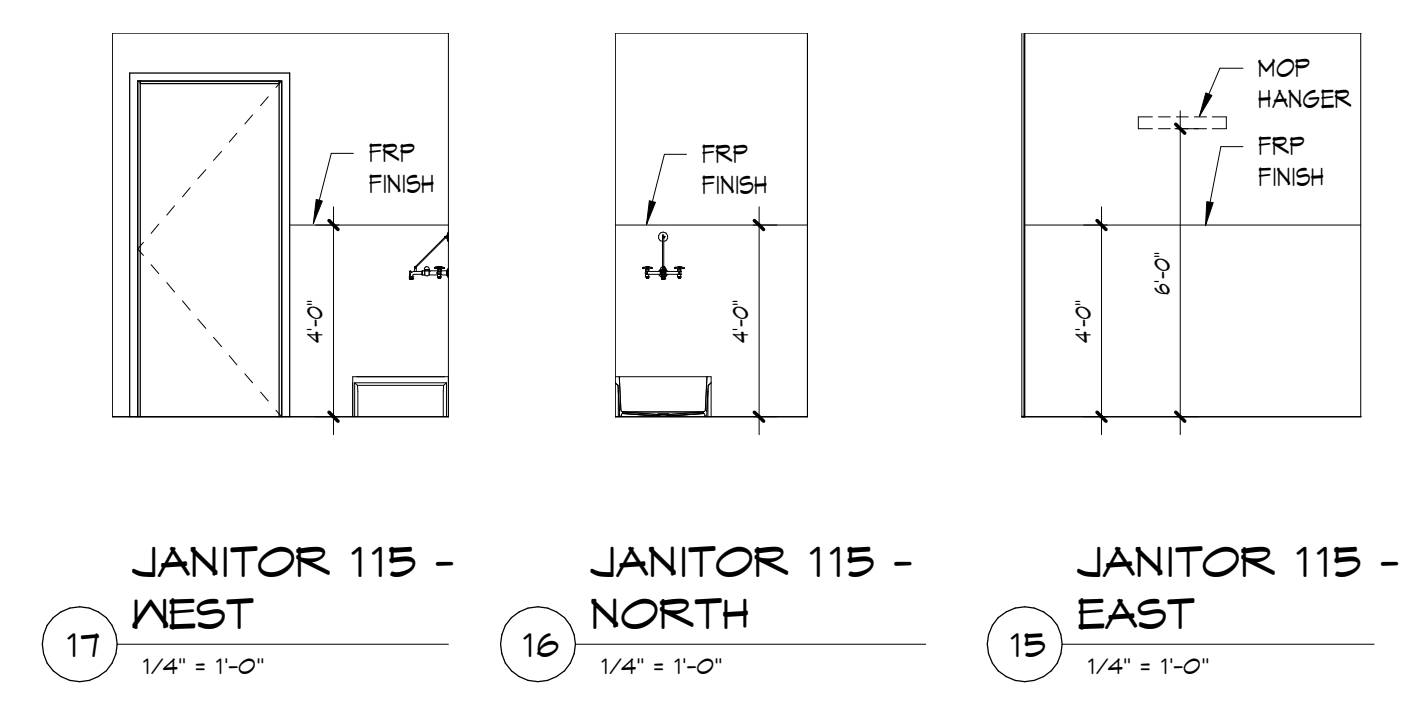
19 TYP. DRAWER BASE CASEWORK SECTION
1" = 1'-0"



20 LOCKER DETAIL TYP
3/4" = 1'-0"



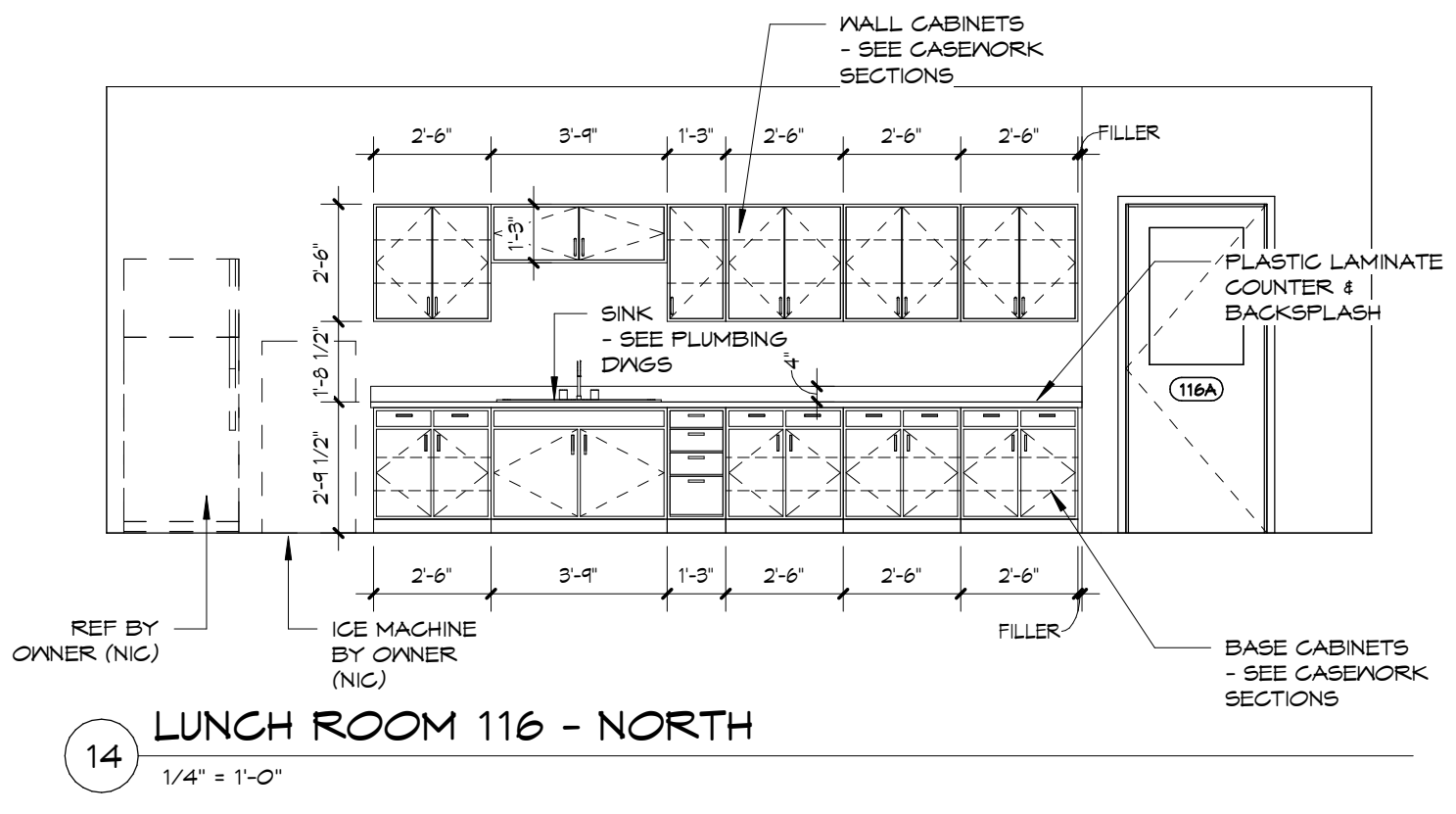
13 MENS 113 - SOUTH
1/4" = 1'-0"



17 JANITOR 115 - WEST
1/4" = 1'-0"

16 JANITOR 115 - NORTH
1/4" = 1'-0"

15 JANITOR 115 - EAST
1/4" = 1'-0"

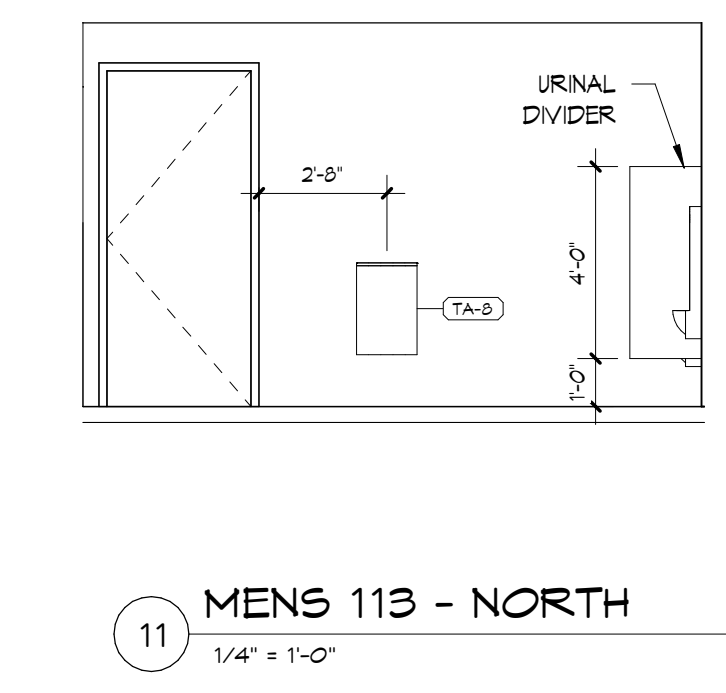


14 LUNCH ROOM 116 - NORTH
1/4" = 1'-0"

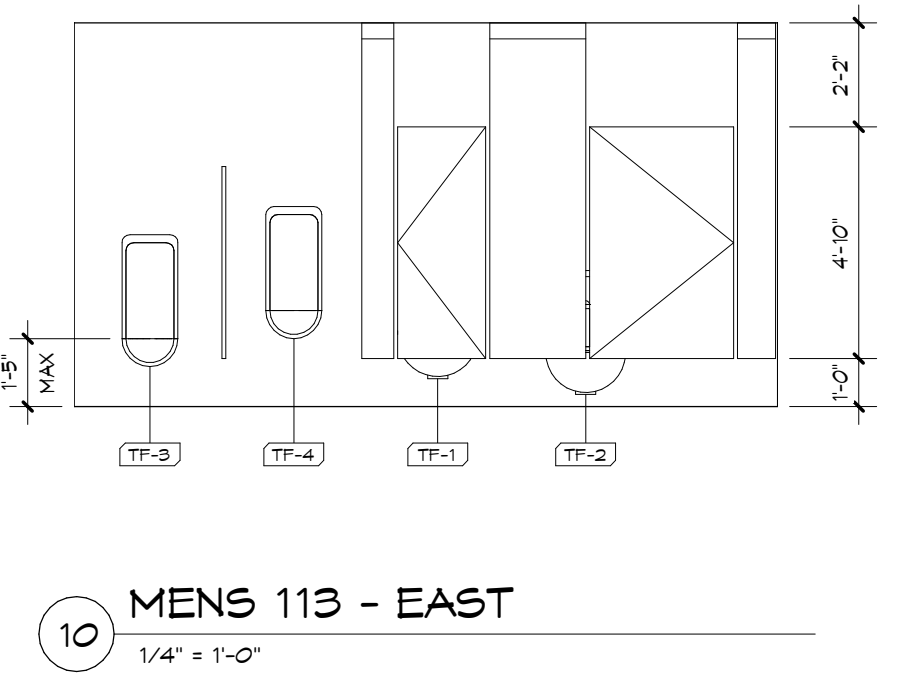
TOILET ROOM FIXTURE SCHEDULE					
SYMBOL	DESCRIPTION	MANF	MODEL NO	MOUNT	REMARKS
TYPICAL TOILET ROOM - FLOOR 1					
TF-1	TOILET	REFER TO PLUMBING DWGS		WALL	REFER TO PLUMBING DRAWINGS
TF-2	ACCESSIBLE TOILET	REFER TO PLUMBING DWGS		WALL	REFER TO PLUMBING DRAWINGS
TF-3	URNAL	REFER TO PLUMBING DWGS		WALL	REFER TO PLUMBING DRAWINGS
TF-4	ACCESSIBLE URNAL	REFER TO PLUMBING DWGS		WALL	REFER TO PLUMBING DRAWINGS
TF-5	ACCESSIBLE LAVATORY	REFER TO PLUMBING DWGS		WALL	REFER TO PLUMBING DRAWINGS
TA-1(A)	GRAB BAR	BOBRICK	B-6806X42"	WALL / PARTITION	HORIZONTAL
TA-1(B)	GRAB BAR	BOBRICK	B-6806X36"	WALL / PARTITION	HORIZONTAL
TA-1(C)	GRAB BAR	BOBRICK	B-6806X18"	WALL / PARTITION	VERTICAL
TA-2	TOILET TISSUE DISPENSER	BOBRICK	B-2088	WALL / PARTITION	
TA-3	PAPER TOWEL DISPENSER	BOBRICK	B-12974	WALL	
TA-4	SANITARY NAPKIN DISPOSALS	BOBRICK	B-270	WALL / PARTITION	
TA-5	SOAP DISPENSER	BOBRICK	B-2111	WALL	
TA-6	FRAMED MIRROR	BOBRICK	B-165-1036	WALL	18"X X 30"X
TA-7	CLOTHES HOOK	BOBRICK	B-2116	WALL / PARTITION	
TA-8	WASTE RECEPTACLE	BOBRICK	B-277	WALL	

ALL ACCESSORIES TO BE MOUNTED PER ICC/ANSI 117.1-2009 REQUIREMENTS

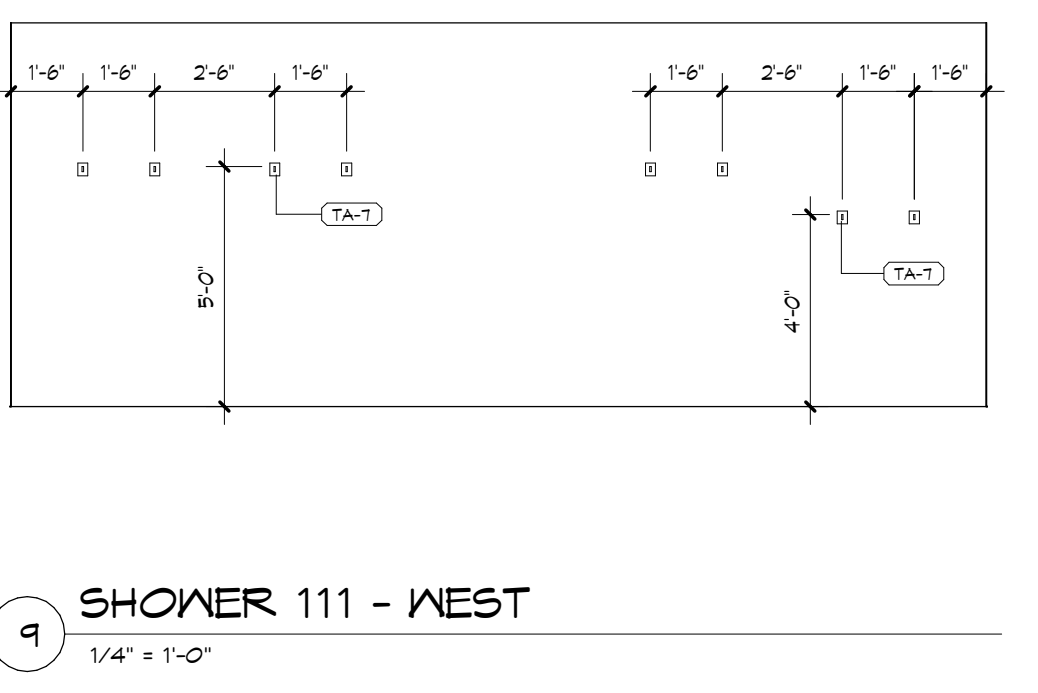
GENERAL NOTES:
 1. CONTRACTORS SHALL FIELD-VERIFY ALL FIXTURES AND REPORT ANY DISCREPANCIES TO THE ARCHITECT IMMEDIATELY, PRIOR TO COMMENCEMENT OF ANY WORK.
 2. GENERAL CONTRACTOR TO PROVIDE REQUIRED BLOCKING FOR ALL TOILET ROOM FIXTURES AND ACCESSORIES.



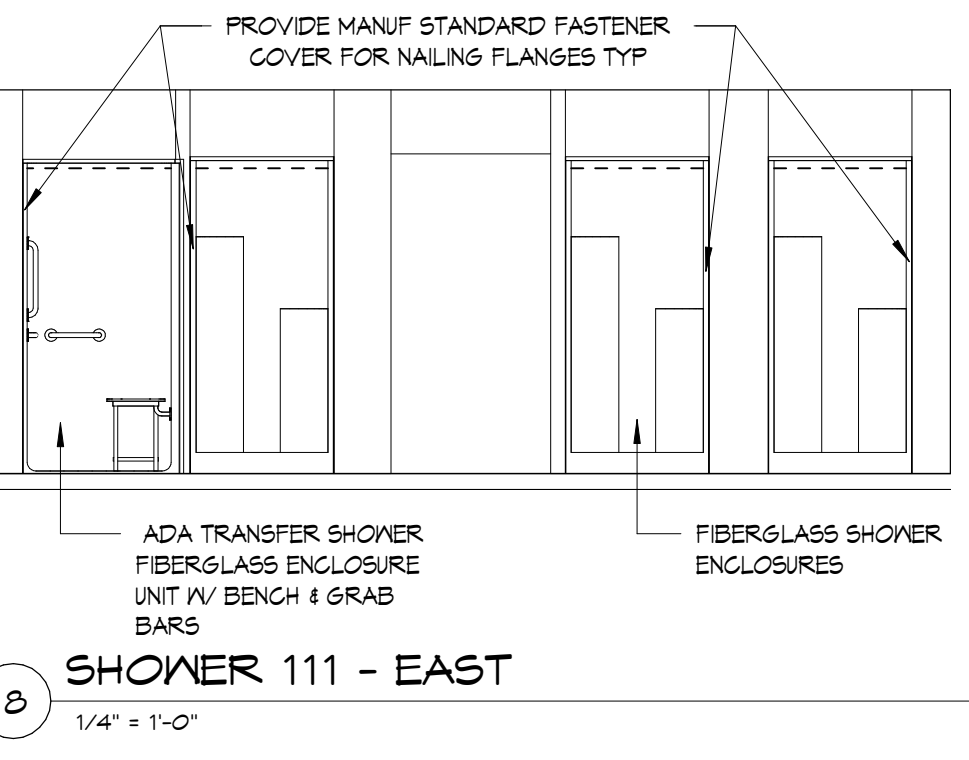
11 MENS 113 - NORTH
1/4" = 1'-0"



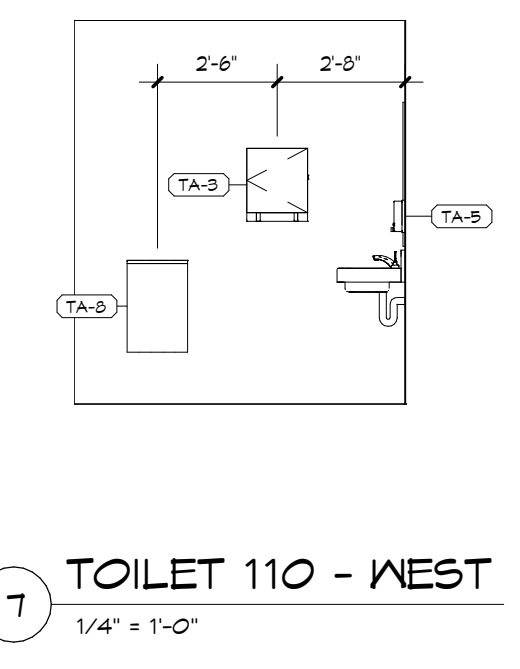
10 MENS 113 - EAST
1/4" = 1'-0"



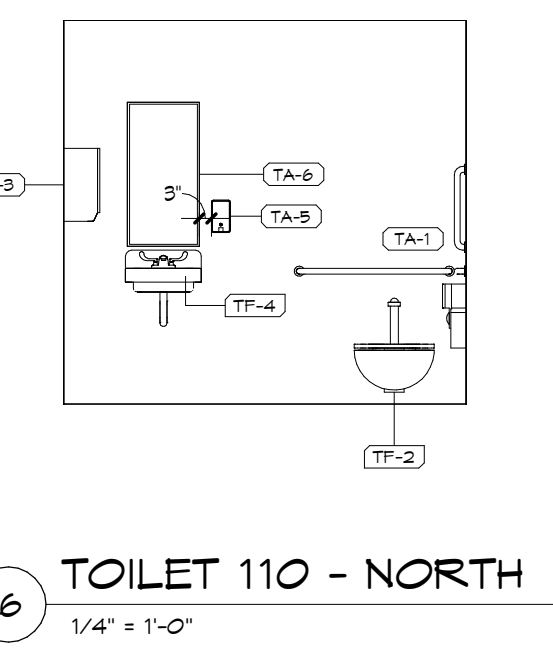
9 SHOWER 111 - WEST
1/4" = 1'-0"



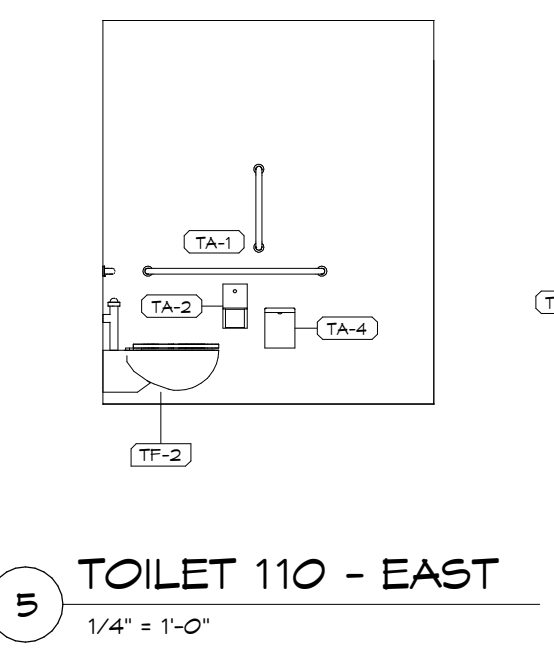
8 SHOWER 111 - EAST
1/4" = 1'-0"



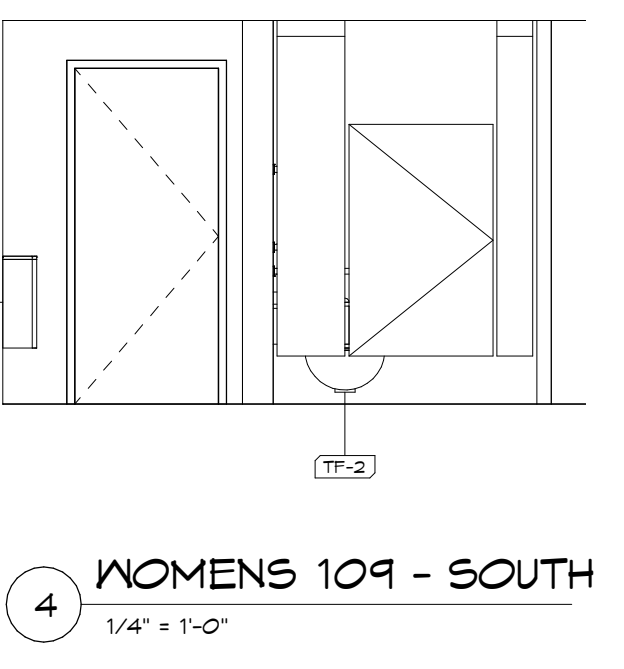
7 TOILET 110 - WEST
1/4" = 1'-0"



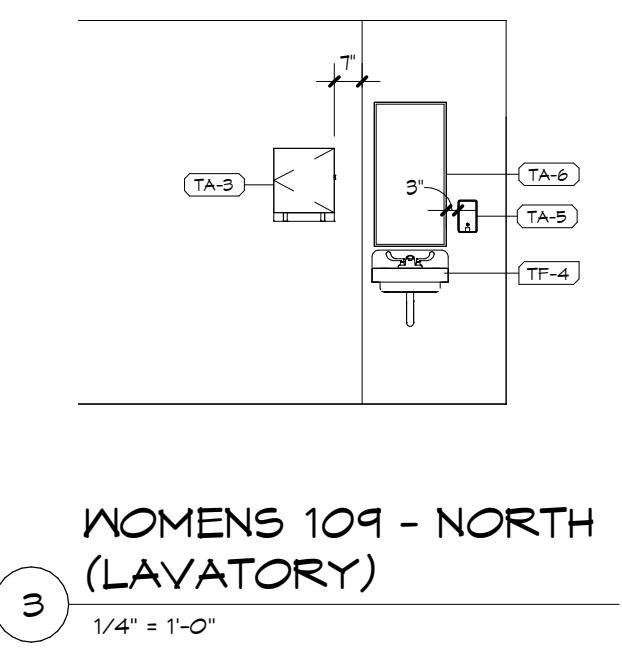
6 TOILET 110 - NORTH
1/4" = 1'-0"



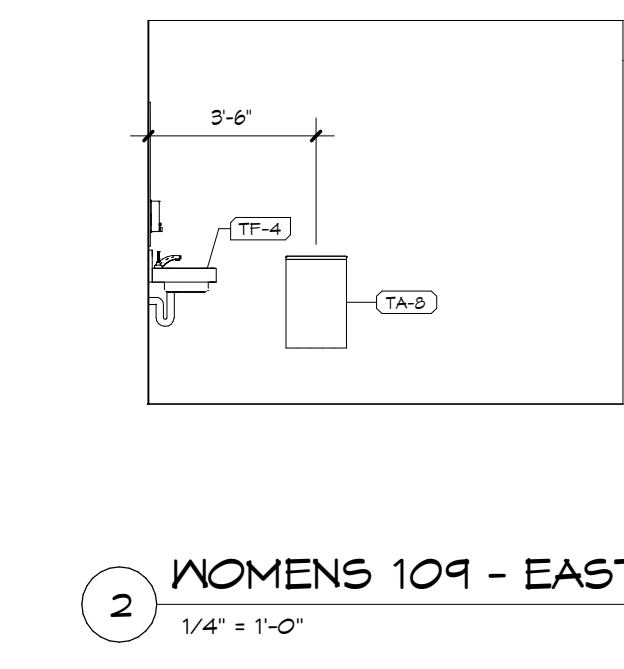
5 TOILET 110 - EAST
1/4" = 1'-0"



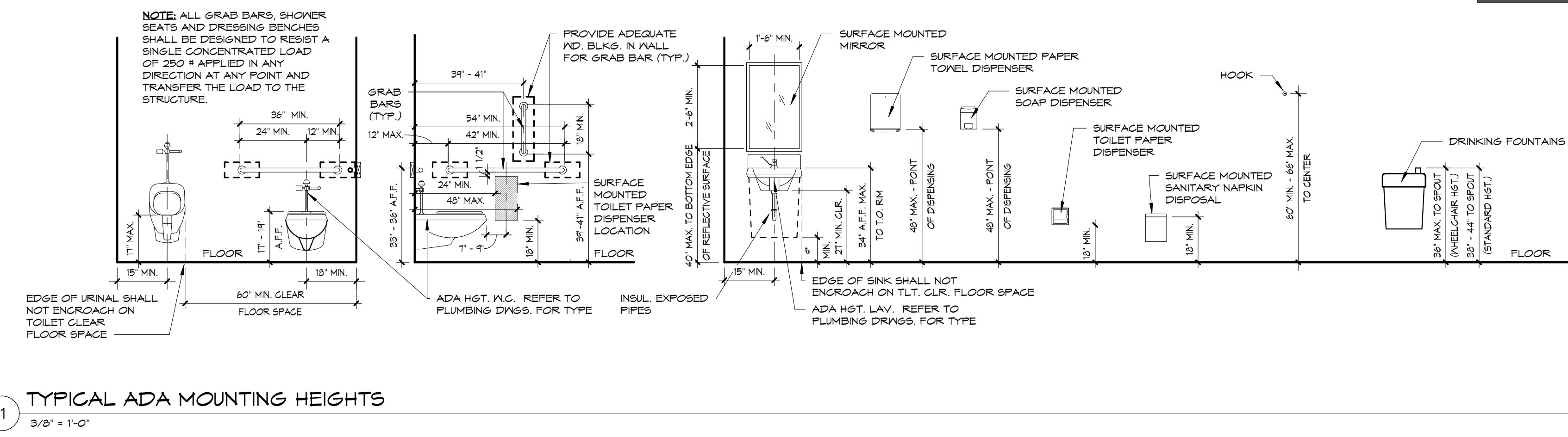
4 WOMENS 109 - SOUTH
1/4" = 1'-0"



3 WOMENS 109 - NORTH (LAVATORY)
1/4" = 1'-0"



2 WOMENS 109 - EAST
1/4" = 1'-0"



1 TYPICAL ADA MOUNTING HEIGHTS
3/8" = 1'-0"

GENERAL TOILET NOTES

- CONTINUE WALL FINISHES 6" ABOVE CEILING
- PROVIDE BLOCKING CONCEALED IN WALL AT ALL GRAB BAR LOCATIONS
- GRAB BARS, ACCESSORIES AND ANCHORAGE SHALL HAVE SUFFICIENT STRENGTH TO SUSTAIN A WEIGHT OF 250 POUNDS FOR 5 MINUTES.
- PROVIDE MOISTURE RESISTANT GYPSUM BOARD FOR ALL GYPSUM BOARD CONSTRUCTION IN WET AREAS, SUCH AS, BUT NOT LIMITED TO, TOILET & BATHING ROOMS, JANITORS CLOSETS W/ MOP SINK, LAUNDRY, DISHWASHING AREAS.

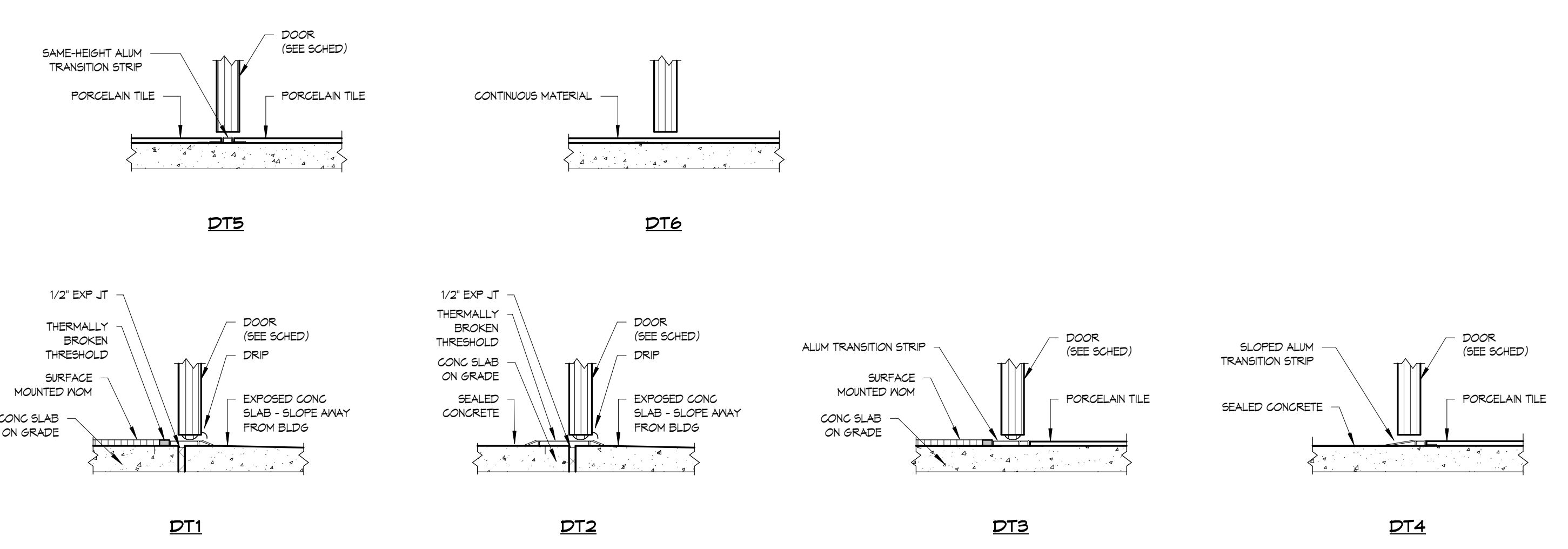


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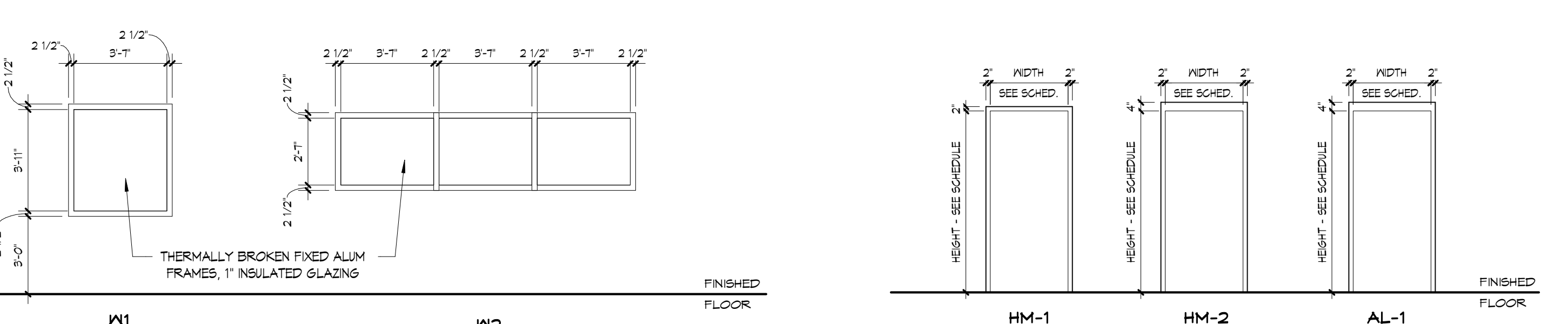
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Issue Date: 02/01/20
Drawn By: JZ / SG
Checked By: JZ / SA
Sheet Name:
DOOR AND WINDOW SCHED
Sheet Number:
A601
BH JOB NO. 19-080

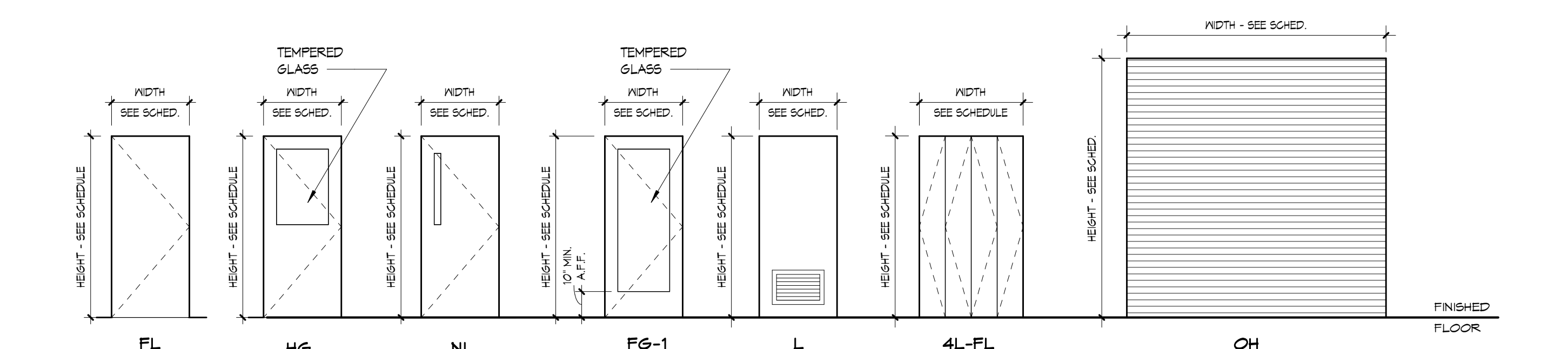
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DOOR THRESHOLD / FLOOR TRANSITIONS
1 1/2" = 1'-0"



WINDOW TYPES
1/4" = 1'-0"



DOOR FRAME TYPE
1/4" = 1'-0"

DOOR TYPES
1/4" = 1'-0"

Door #	Room Name	Room Number	Door Information						Frame Information						Comments	Door #		
			Door Type	Width	Height	Thickness	Material	Finish	Type	Material	Frame Finish	Head	Jamb	Threshold			Rating	Hardware
101	OFFICE	101	NL	3'-0"	T-0"	1 3/4"	SCND	STAIN	HM-1	HM	PNT	DH1	DJ1	5	-	15		101
102	OFFICE	102	NL	3'-0"	T-0"	1 3/4"	SCND	STAIN	HM-1	HM	PNT	DH1	DJ1	5	-	15		102
103A	VESTIBULE	103	(2) FG	6'-0"	T-0"	1 3/4"	ALUM	PF	AL-1	ALUM	PF	DH4	DJ4	1	-	2		103A
103B	VESTIBULE	103	(2) FG	6'-0"	T-0"	1 3/4"	SCND	PNT	HM-1	HM	PNT	DH1	DJ1	3	-	3		103B
104	OFFICE	104	NL	3'-0"	T-0"	1 3/4"	SCND	STAIN	HM-1	HM	PNT	DH1	DJ1	5	-	15		104
105	OFFICE	105	NL	3'-0"	T-0"	1 3/4"	SCND	STAIN	HM-1	HM	PNT	DH1	DJ1	5	-	15		105
106	CORRIDOR	106	HG	3'-0"	T-0"	1 3/4"	FRP	PF	AL-1	ALUM	PF	DH4	DJ4	1	-	3		106
107A	VEST / DROP-OFF	114	HG	3'-0"	T-0"	1 3/4"	FRP	PF	AL-1	ALUM	PF	DH4	DJ4	1	-	3		107A
107B	VEST / DROP-OFF	134	HG	3'-0"	T-0"	1 3/4"	SCND	STAIN	HM-1	HM	PNT	DH1	DJ1	3	-	7		107B
108	UNIFORM	108	FL	3'-0"	T-0"	1 3/4"	SCND	STAIN	HM-1	HM	PNT	DH1	DJ1	3	-	4	PROVIDE DOOR UNDERCUT	108
109	WOMENS	109	FL	3'-0"	T-0"	1 3/4"	SCND	STAIN	HM-2	HM	PNT	DH2	DJ2	6	-	14	PROVIDE DOOR UNDERCUT	109
110	TOILET	110	FL	3'-0"	T-0"	1 3/4"	SCND	STAIN	HM-2	HM	PNT	DH2	DJ2	6	-	12	PROVIDE DOOR UNDERCUT	110
113	MENS	113	FL	3'-0"	T-0"	1 3/4"	SCND	STAIN	HM-2	HM	PNT	DH2	DJ2	6	-	14	PROVIDE DOOR UNDERCUT	113
114A	CLOSET	114	4L-FL	4'-6"	T-0"	1 3/4"	SCND	STAIN	HM-1	HM	PNT	DH1	DJ1	6	-	13	PROVIDE DOOR UNDERCUT	114A
114B	CLOSET	114	4L-FL	3'-6"	T-0"	1 3/4"	SCND	STAIN	HM-1	HM	PNT	DH1	DJ1	6	-	13	PROVIDE DOOR UNDERCUT	114B
115	JANITORIAL	115	FL	3'-0"	T-0"	1 3/4"	SCND	STAIN	HM-1	HM	PNT	DH1	DJ1	6	-	10	PROVIDE DOOR UNDERCUT	115
116A	LUNCH ROOM	116	HG	3'-0"	T-0"	1 3/4"	SCND	STAIN	HM-1	HM	PNT	DH1	DJ1	3	-	11		116A
116B	LUNCH ROOM	116	HG	3'-0"	T-0"	1 3/4"	SCND	STAIN	HM-1	HM	PNT	DH1	DJ1	5	-	11		116B
117	IT / EL	117	FL	3'-0"	T-0"	1 3/4"	SCND	STAIN	HM-2	HM	PNT	DH2	DJ2	4	-	15		117
118	STORAGE	118	FL	3'-0"	T-0"	1 3/4"	HM	PNT	HM-2	HM	PNT	DH2	DJ2	2	-	5		118
119	EQUIPMENT	119	L	3'-0"	T-0"	1 3/4"	HM	PNT	HM-1	HM	PNT	DH1	DJ1	6	-	4	VENTED DOOR	119
120A	CORRIDOR	120	HG	3'-0"	T-0"	1 3/4"	SCND	STAIN	HM-2	HM	PNT	DH2	DJ2	6	-	15		120A
120B	CORRIDOR	120	HG	3'-0"	T-0"	1 3/4"	HM	PNT	HM-1	HM	PNT	DH2	DJ2	1	-	6		120B
121A	STORAGE	121	OH	10'-0"	10'-0"	3"	STEEL	PF	-	-	PF	DH5	DJ5	-	-	-		121A
121B	STORAGE	121	FL	3'-0"	T-0"	1 3/4"	HM	PNT	HM-2	HM	PNT	DH2	DJ2	2	-	5		121B
122	MESH	122	(2) FL	6'-0"	T-0"	1 3/4"	HM	PNT	HM-2	HM	PNT	DH2	DJ2	2	-	4		122
123	WASH BAY	123	FL	3'-0"	T-0"	1 3/4"	FRP	PF	AL-1	ALUM	PF	DH3	DJ3	2	-	3		123
124A	GARAGE	124	OH	16'-0"	16'-0"	3"	STEEL	PF	-	-	PF	DH5	DJ5	-	-	-		124A
124B	GARAGE	124	OH	16'-0"	16'-0"	3"	STEEL	PF	-	-	PF	DH5	DJ5	-	-	-		124B
125	MAINTENANCE AREA	125	FL	3'-0"	T-0"	1 3/4"	FRP	PF	AL-1	ALUM	PF	DH3	DJ3	2	-	3		125

GENERAL WINDOW NOTES

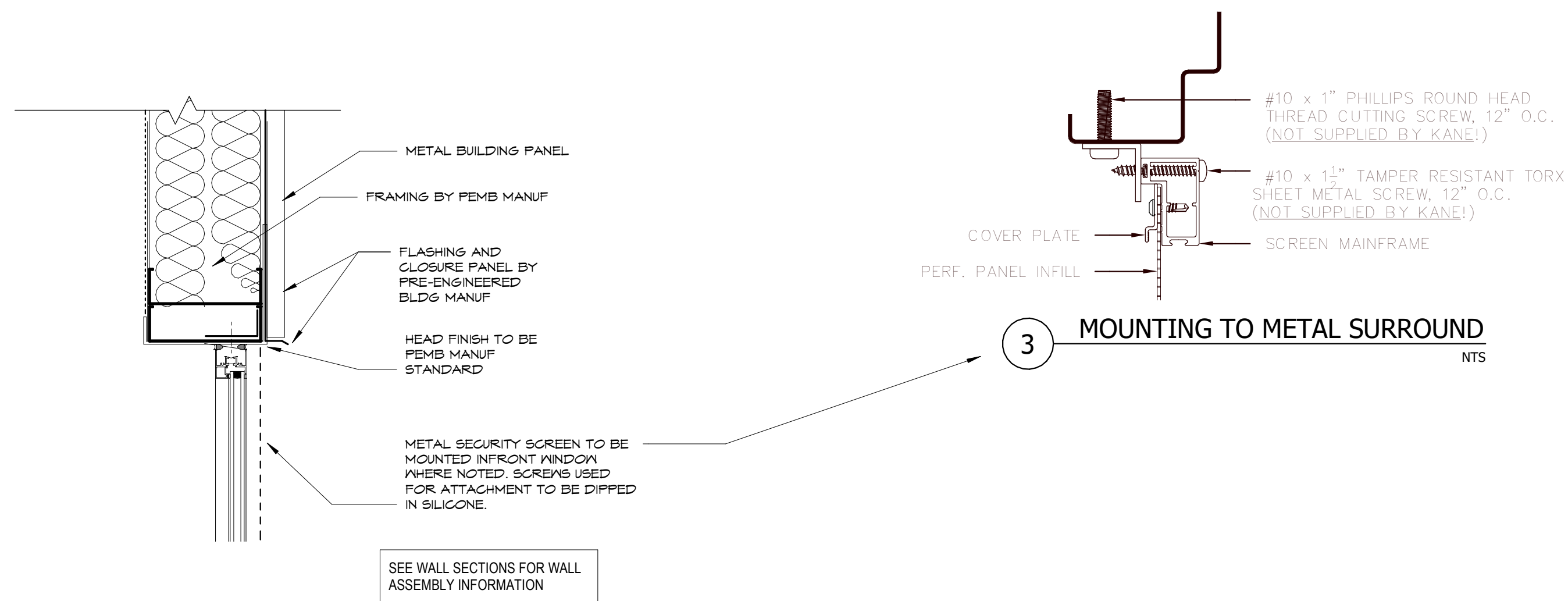
- ALL EXTERIOR FRAMES SHALL BE THERMALLY BROKEN.
- ALL O.A. DIMENSIONS SHOWN ARE R.O. DIMENSIONS, U.N.O., WHERE MASONRY IS PRESENT ON EITHER SIDE OF FRAME.

WINDOW / DOOR ABBREVIATIONS

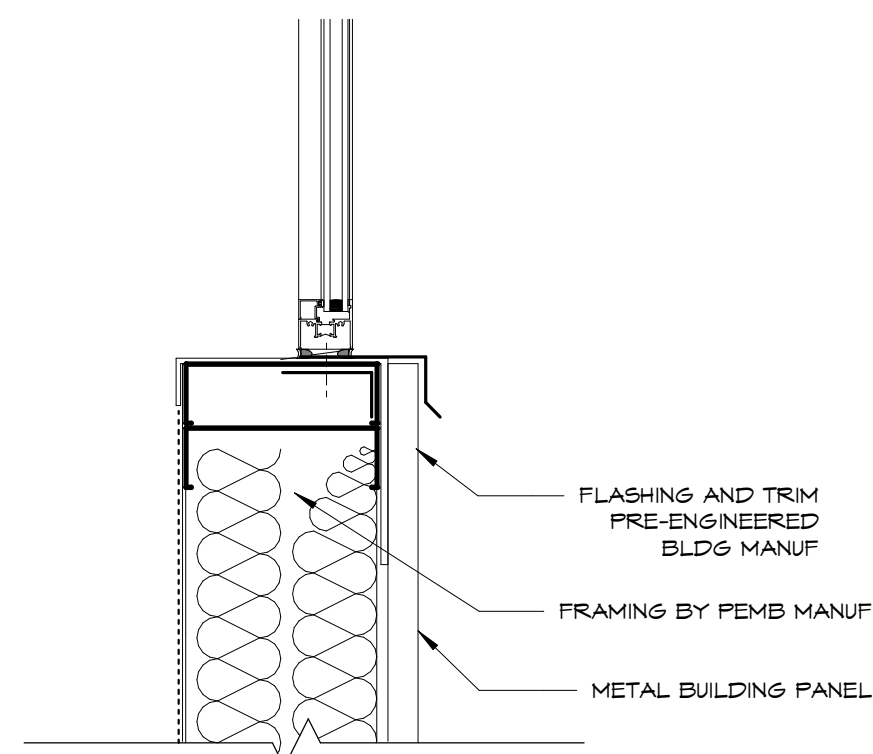
2L-XX	TWO LEAF - PANEL TYPE
4L-XX	FOUR LEAF - PANEL TYPE
6P	SIX PANEL
ALUM	ALUMINUM
CJM	CURTAIN WALL
FG	FULL GLASS
FL	FLUSH
GALV	GALVANIZED
HG	HOLLOW CORE
HS	HALF GLASS
HM	HOLLOW METAL
INSUL	INSULATED
LV	LOUVERED
M	MESH
PF	PRE-FINISHED
PNT(D)	PAINT(D)
NL	NARROW LIGHT
OH	OVERHEAD
SC	SOLID CORE
SF	STORE FRONT
SL-XX	SLIDING - PANEL TYPE
SS	STAINLESS STEEL
STL	STEEL
ST(ND)	STAIN(ED)
WD	WOOD

GENERAL HARDWARE NOTES

- ALL HARDWARE SHALL BE BRUSHED ALUM. FINISH OR AS OTHERWISE SELECTED BY OWNER.
- G.C. TO SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL OF ALL DOOR HARDWARE.
- SEE SPECIFICATIONS FOR DOOR HARDWARE SET INFORMATION.

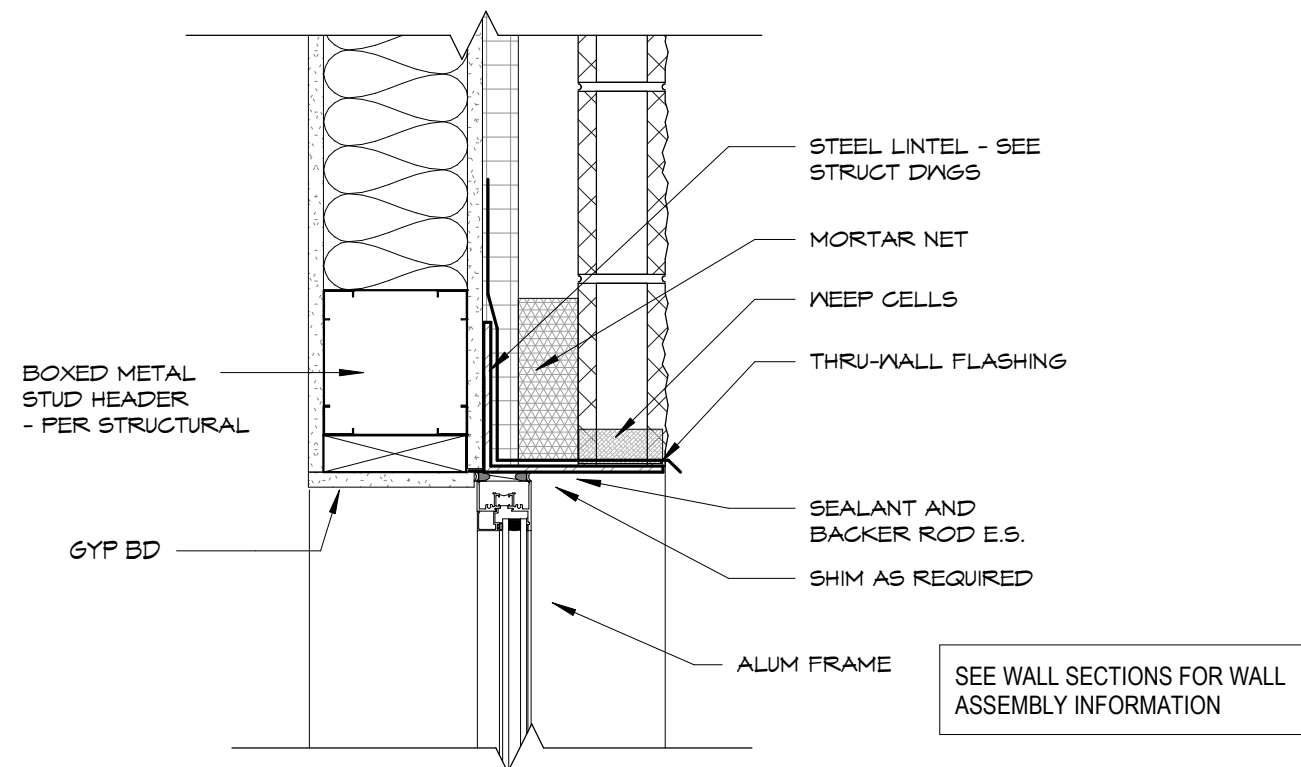


12 W2 - HEAD
1 1/2" = 1'-0"



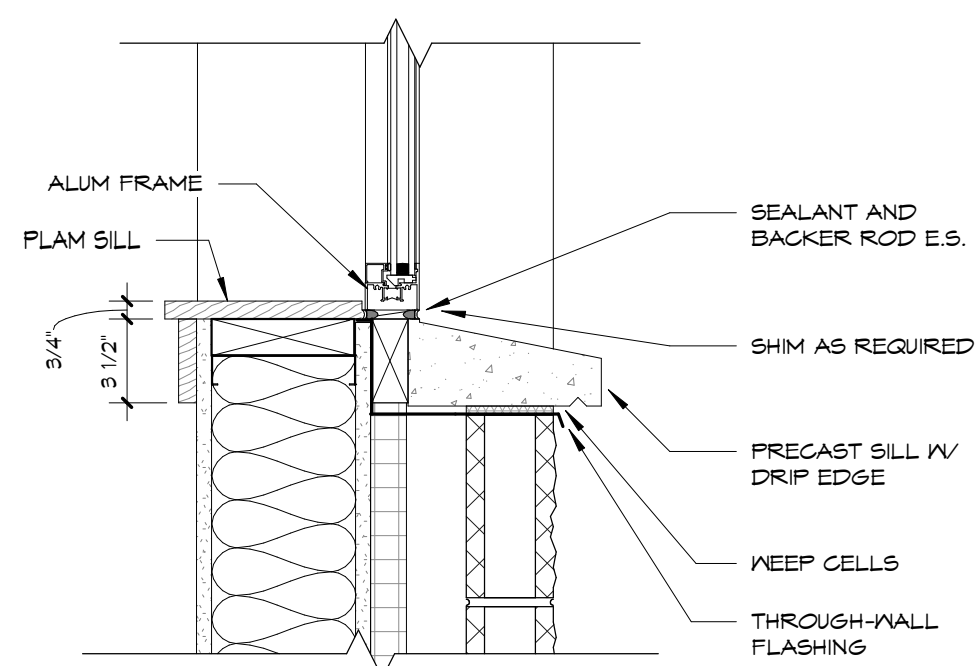
SEE WALL SECTIONS FOR WALL ASSEMBLY INFORMATION

13 W2 - SILL
1 1/2" = 1'-0"



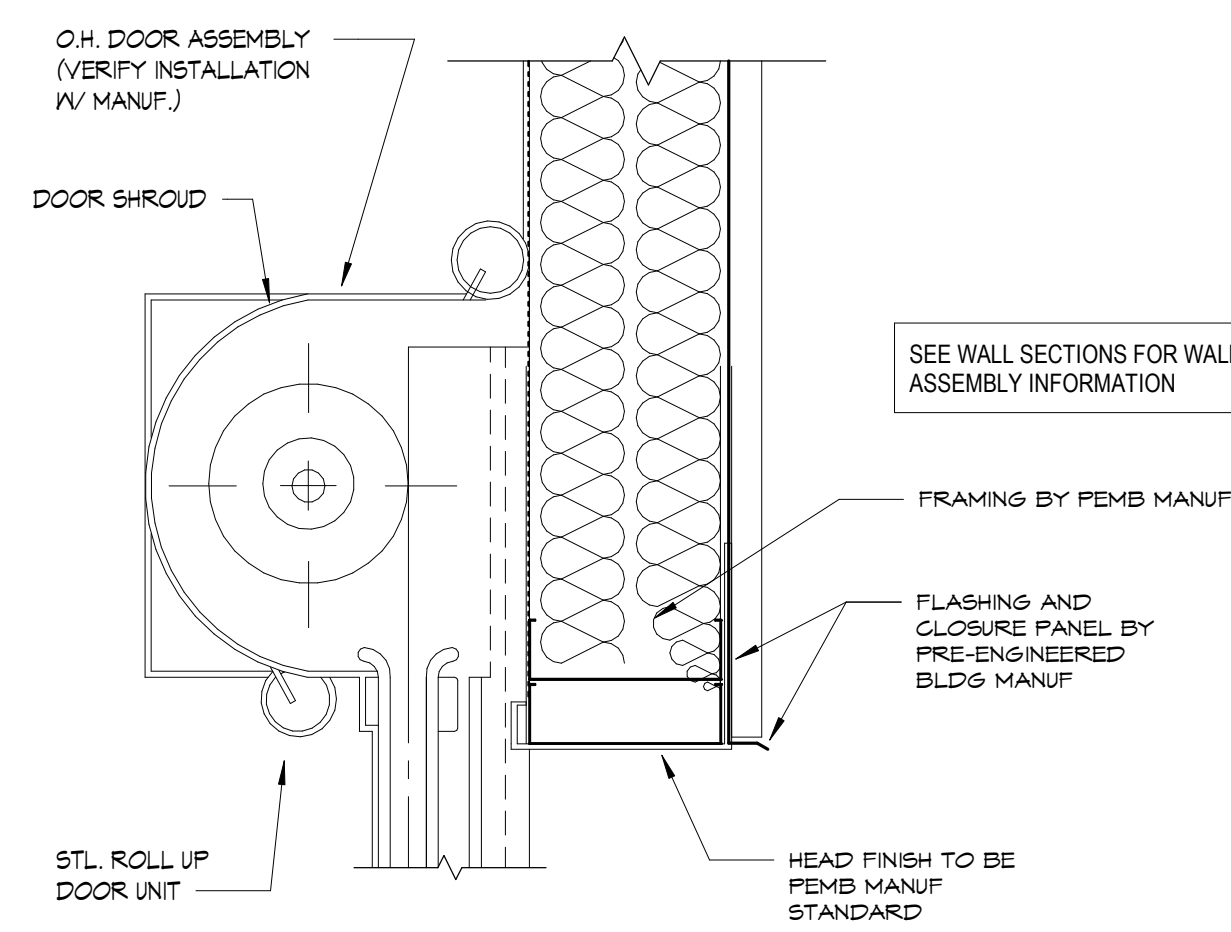
SEE WALL SECTIONS FOR WALL ASSEMBLY INFORMATION

W1 - HEAD
1 1/2" = 1'-0"



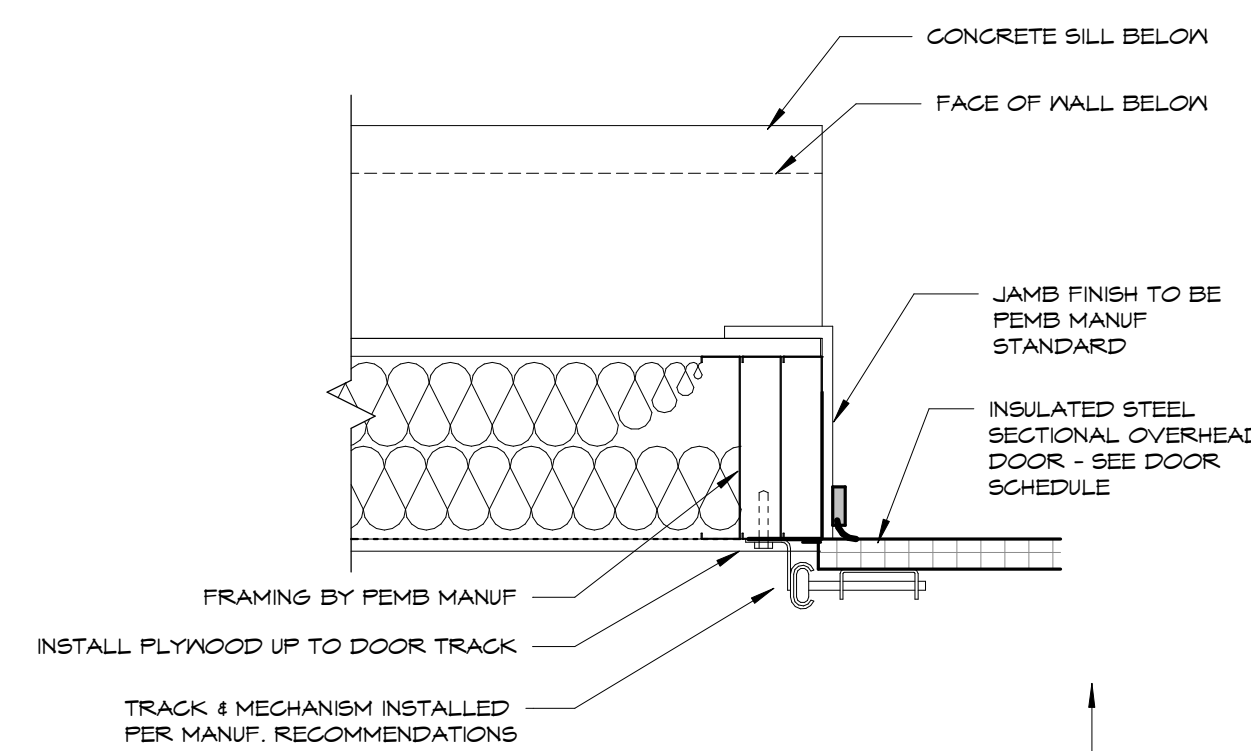
SEE WALL SECTIONS FOR WALL ASSEMBLY INFORMATION

W1 - SILL
1 1/2" = 1'-0"



SEE WALL SECTIONS FOR WALL ASSEMBLY INFORMATION

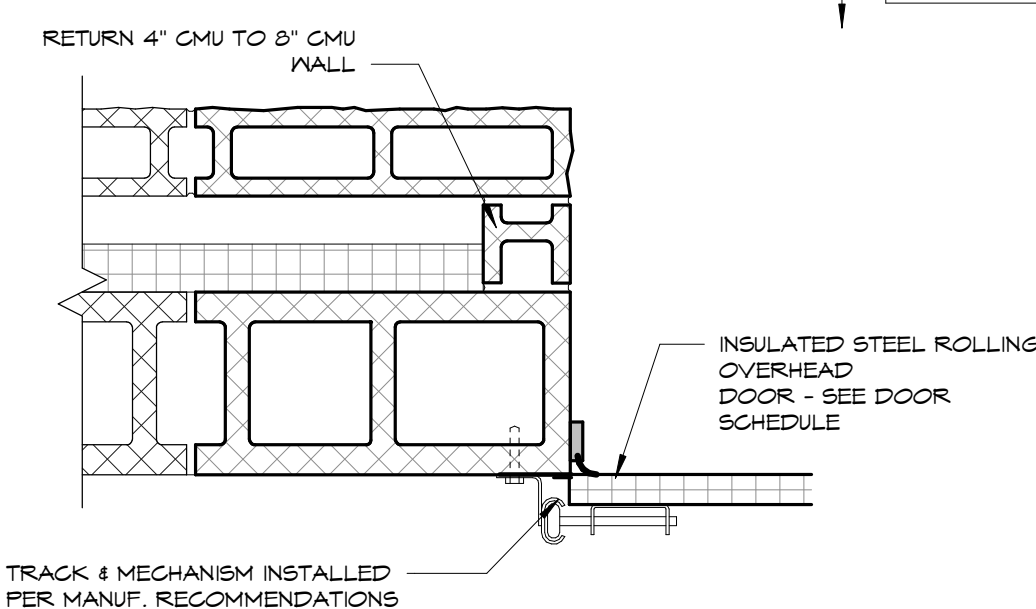
DH5
1 1/2" = 1'-0"



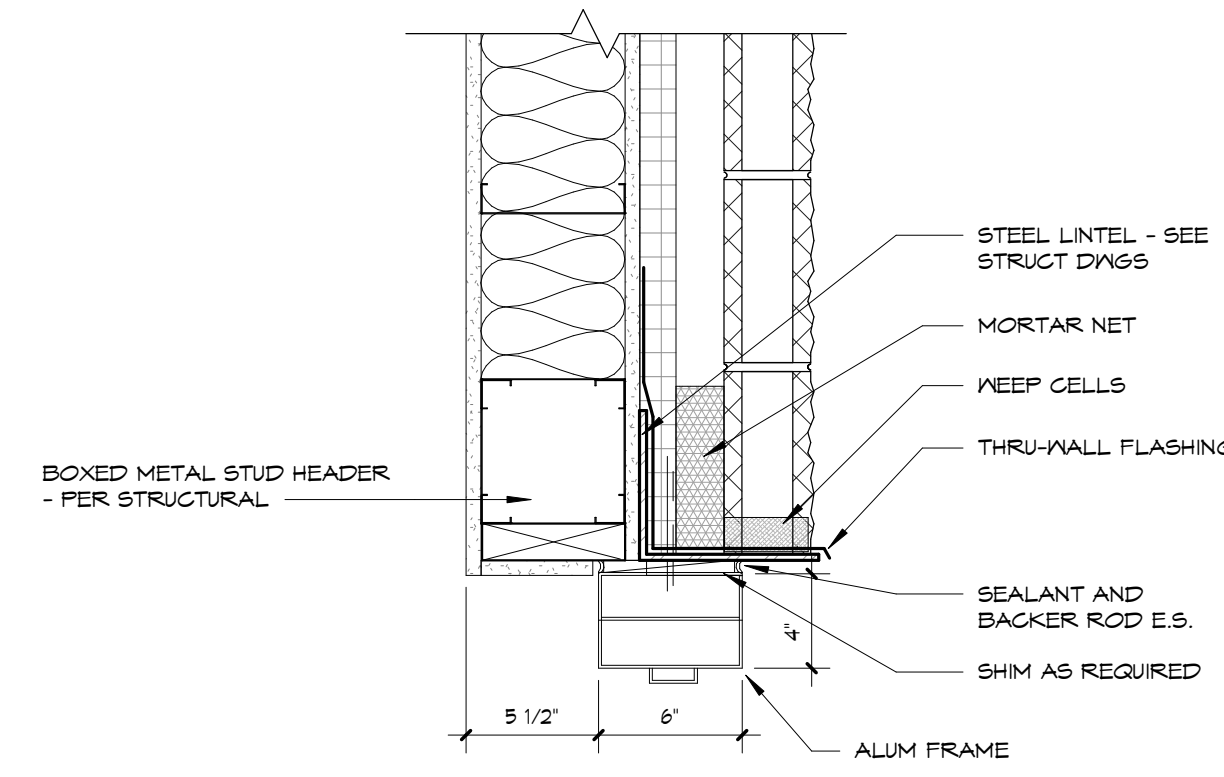
ABOVE WATER TABLE

BELOW WATER TABLE

SEE WALL SECTIONS FOR WALL ASSEMBLY INFORMATION

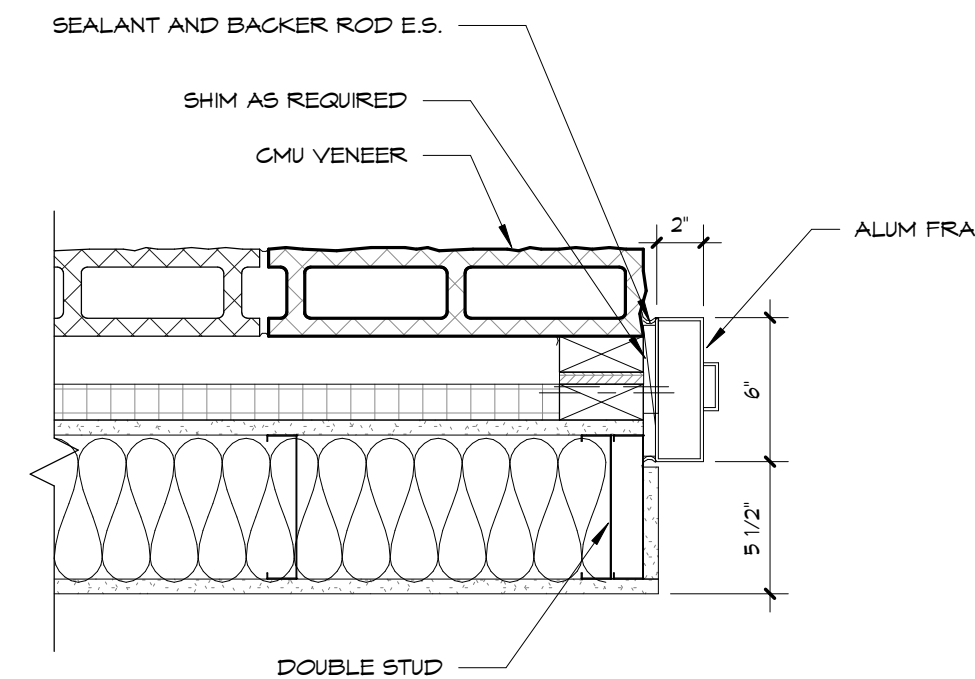


DJ5
1 1/2" = 1'-0"



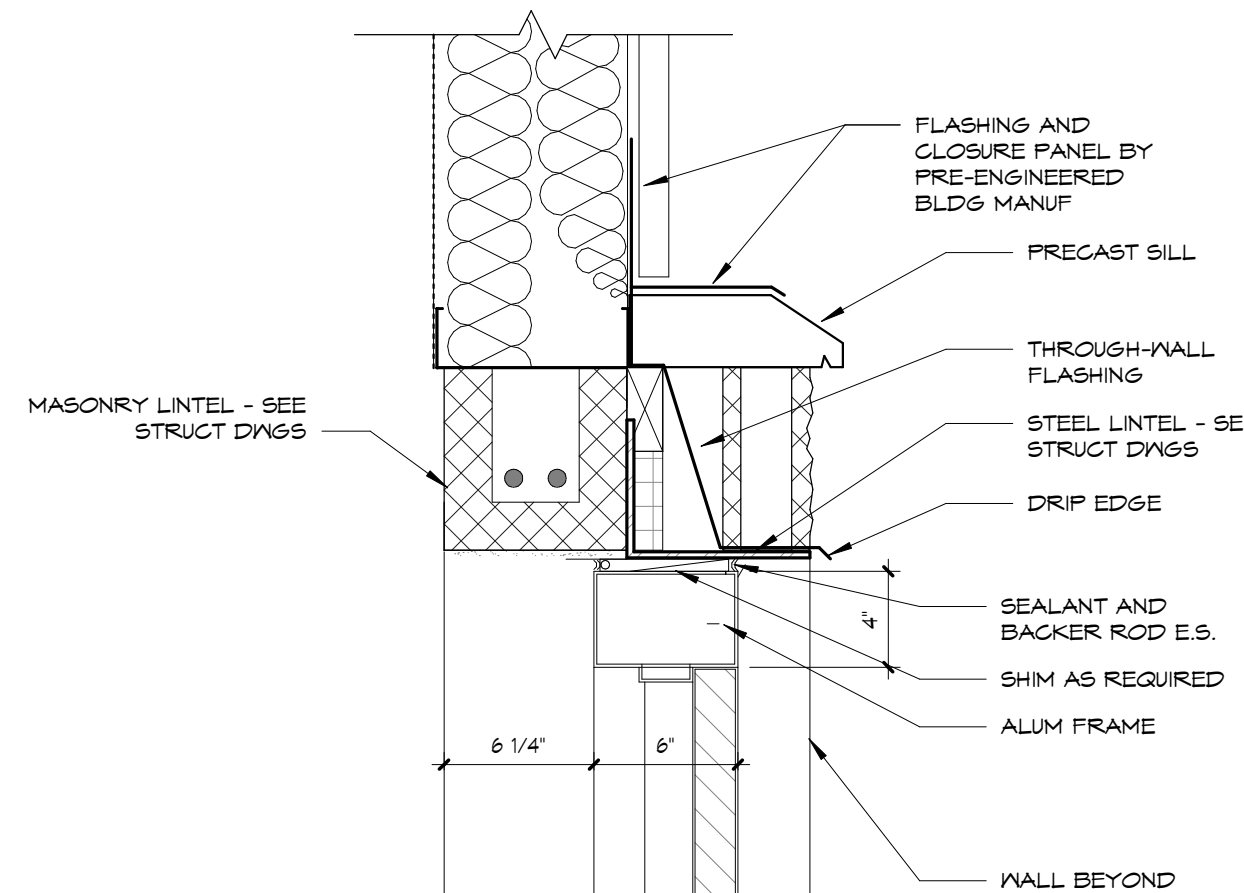
REFER TO WALL SECTIONS FOR WALL CONSTRUCTION NOTES

DH4
1 1/2" = 1'-0"



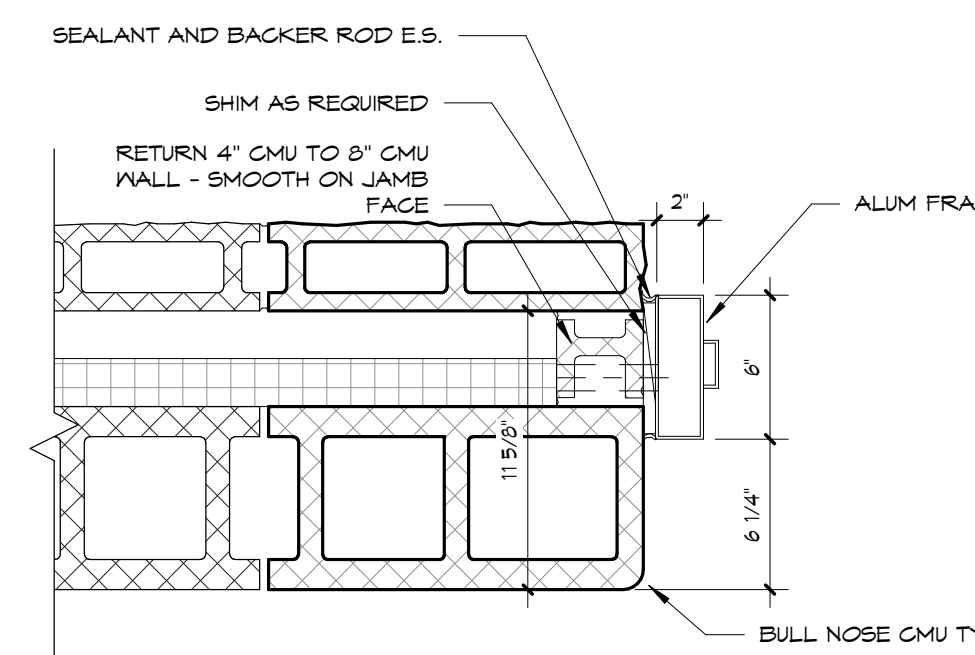
REFER TO WALL SECTIONS FOR WALL CONSTRUCTION NOTES

DJ4
1 1/2" = 1'-0"



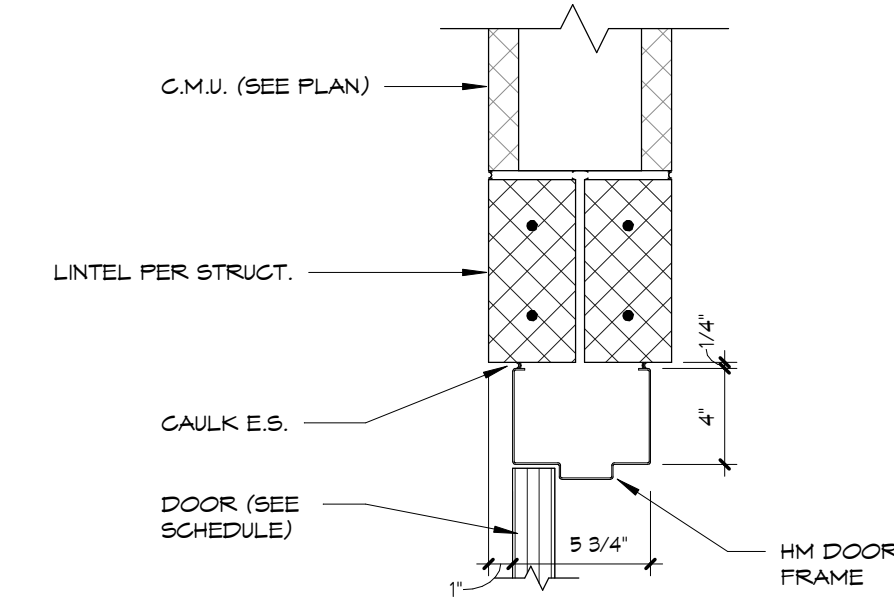
REFER TO SECTIONS FOR WALL CONSTRUCTION NOTES

DH3
1 1/2" = 1'-0"

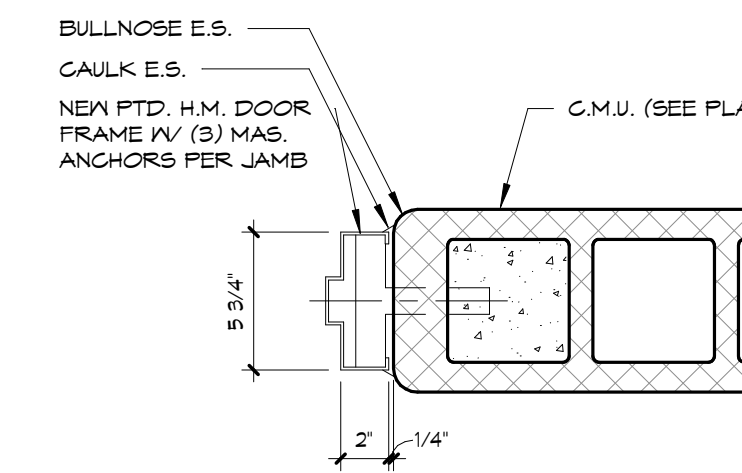


REFER TO WALL SECTIONS FOR WALL CONSTRUCTION NOTES

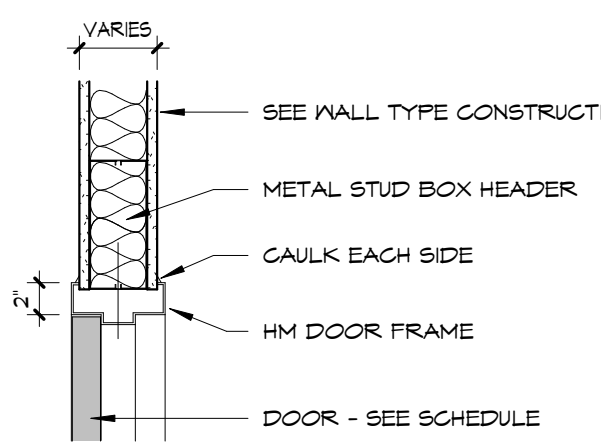
DJ3
1 1/2" = 1'-0"



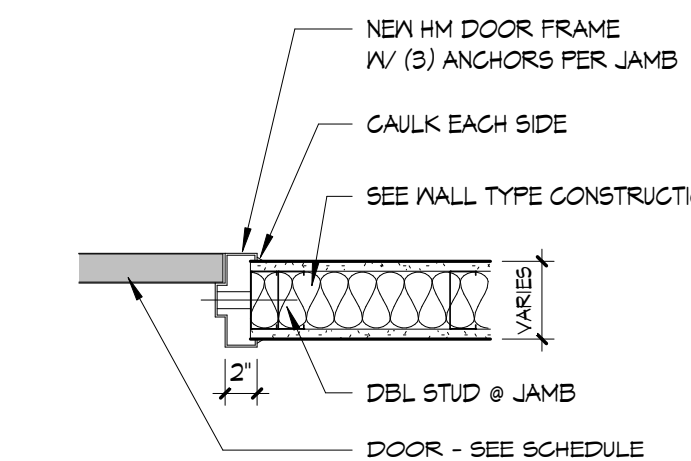
DH2
1 1/2" = 1'-0"



DJ2
1 1/2" = 1'-0"



DH1
1" = 1'-0"

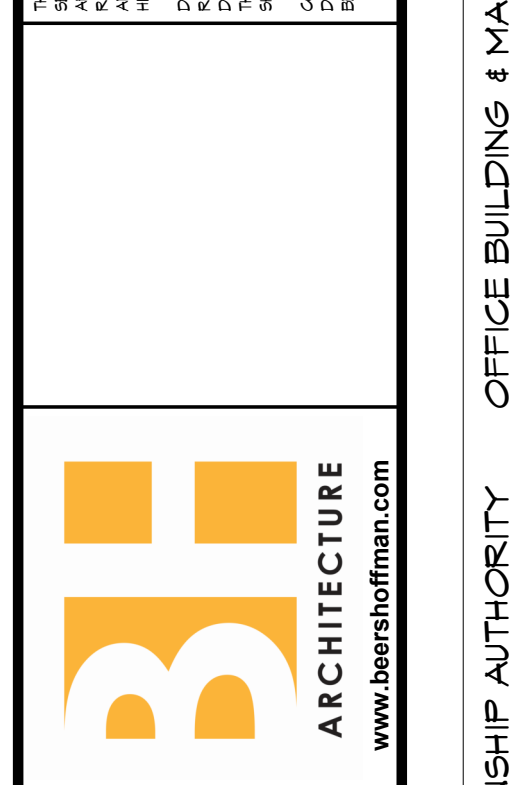


DJ1
1" = 1'-0"

NO.	DATE	RELEASE
0	02/01/2020	RELEASED FOR BIDDING

Issue Date: 02/01/20
Drawn By: JZ / SG
Checked By: JZ / SH
Sheet Name:
DOOR AND WINDOW DETAILS
Sheet Number:
A602
BH JOB NO. 19-080

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND IS THE PROPERTY OF THE ARCHITECT. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. ANY REUSE OR MODIFICATION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT IS PROHIBITED. ANY CHANGES TO THIS DRAWING SHALL BE INDICATED BY A REVISION TABLE. THE ARCHITECT ASSUMES NO LIABILITY FOR CONSTRUCTION PROCEDURES NOT SHOWN AND NOT SPECIFIED IN THIS DRAWING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS AT THE SITE BEFORE PROCEEDING WITH THE WORK.



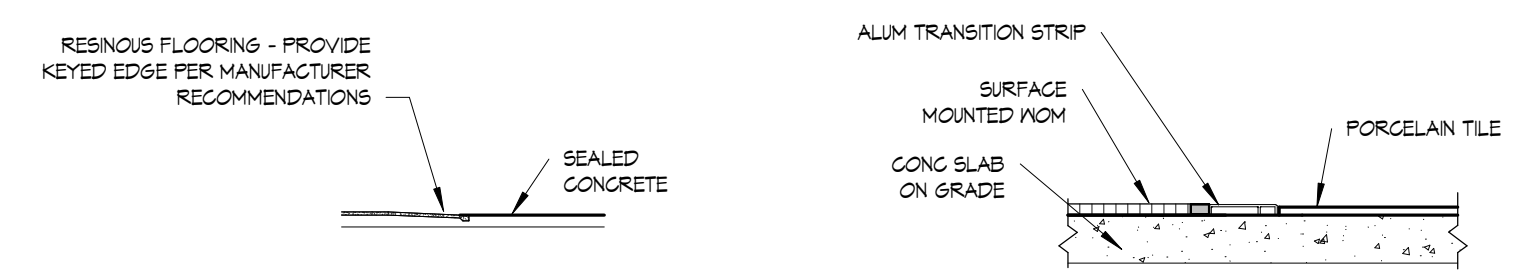
MUHLENBERG TOWNSHIP AUTHORITY
OFFICE BUILDING & MAINTENANCE GARAGE
2840 KUTZTOWN RD
READING, PA 19605 MUHLENBERG TOWNSHIP

MUHLENBERG TOWNSHIP AUTHORITY
OFFICE BUILDING & MAINTENANCE GARAGE
2840 KUTZTOWN RD
READING, PA 19605 MUHLENBERG TOWNSHIP

NO. DATE RELEASE
0 02/01/2020 RELEASED FOR BIDDING

Issue Date: 02/01/20
Drawn By: JZ / SG
Checked By: JZ / SA
Sheet Name: FINISH PLAN
Sheet Number: A801
BH JOB NO. 19-080

- GENERAL FINISH NOTES**
1. ANY MODIFICATION AND/OR CHANGES TO FINISH SELECTIONS MUST BE SUBMITTED TO ARCHITECT FOR APPROVAL
 2. CONTRACTOR TO FOLLOW ALL MANUFACTURERS WRITTEN SPECIFICATIONS AND PROCEDURE
 3. PROVIDE TRANSITION STRIP AT ALL FLOORING MATERIAL CHANGES AND TRANSITIONS, I.E., CERAMIC TILE TO CARPET, SHEET VINYL TO CARPET, ETC. PROFILE MINIMAL AS POSSIBLE FINISHED TO MATCH FLOORING.
 4. WHERE FLOORING TRANSITION OCCURS AT DOORS, PROVIDE TRANSITION STRIP AS APPLICABLE AND CENTER UNDER DOOR IN CLOSED POSITION.
 5. ALL ACCESS PANELS, ELECTRICAL PANELS AND/OR MECHANICAL GRILLES THAT OCCUR IN WALLS, SHALL BE PAINTED TO MATCH ADJACENT SURFACE, NOTIFY ARCHITECT IS A CONDITION OCCURS IN WALLS THAT HAVE A FINISH OTHER THAN PAINT, SUCH AS VINYL WALL COVERINGS, ETC.
 6. COORDINATE LOCATION AND QUANTITY OF COUNTER GROMMETS ON SITE. GROMMETS SHALL BE 3" PLASTIC TO MATCH COUNTERTOP. GC TO SUBMIT SUBMITTAL FOR APPROVAL, UNLESS NOTED OTHERWISE.
 7. ALL CABINETS SHALL BE FINISHED ON ALL EXPOSED SURFACES WITH FINISHED INTERIORS, UNLESS NOTED OTHERWISE.



FLOOR TRANSITIONS
1 1/2" = 1'-0"

FINISH ABBREVIATIONS

CONC	CONCRETE
CT	CERAMIC TILE
CT B	CERAMIC TILE BASE
EXP	EXPOSED
FRP	FIBERGLASS REINFORCED PLASTIC PANEL
EPXY	FOURED EPOXY FLOOR
FNT(D)	PAINT(ED)
PT	PORCELAIN TILE
S CONC	SEALED CONCRETE
VB	VINYL BASE
NOM	WALK-OFF MAT

FINISH LEGEND

PT-1	PORCELAIN TILE
PT-2	PORCELAIN TILE
FNT(D)-1	PAINT(ED)
FNT(D)-2	PAINT(ED)
FNT(D)-3	PAINT(ED)
EPXY	
S CONC	
ENTRANCE FLOOR MAT SYSTEM	

FLOORING LEGEND

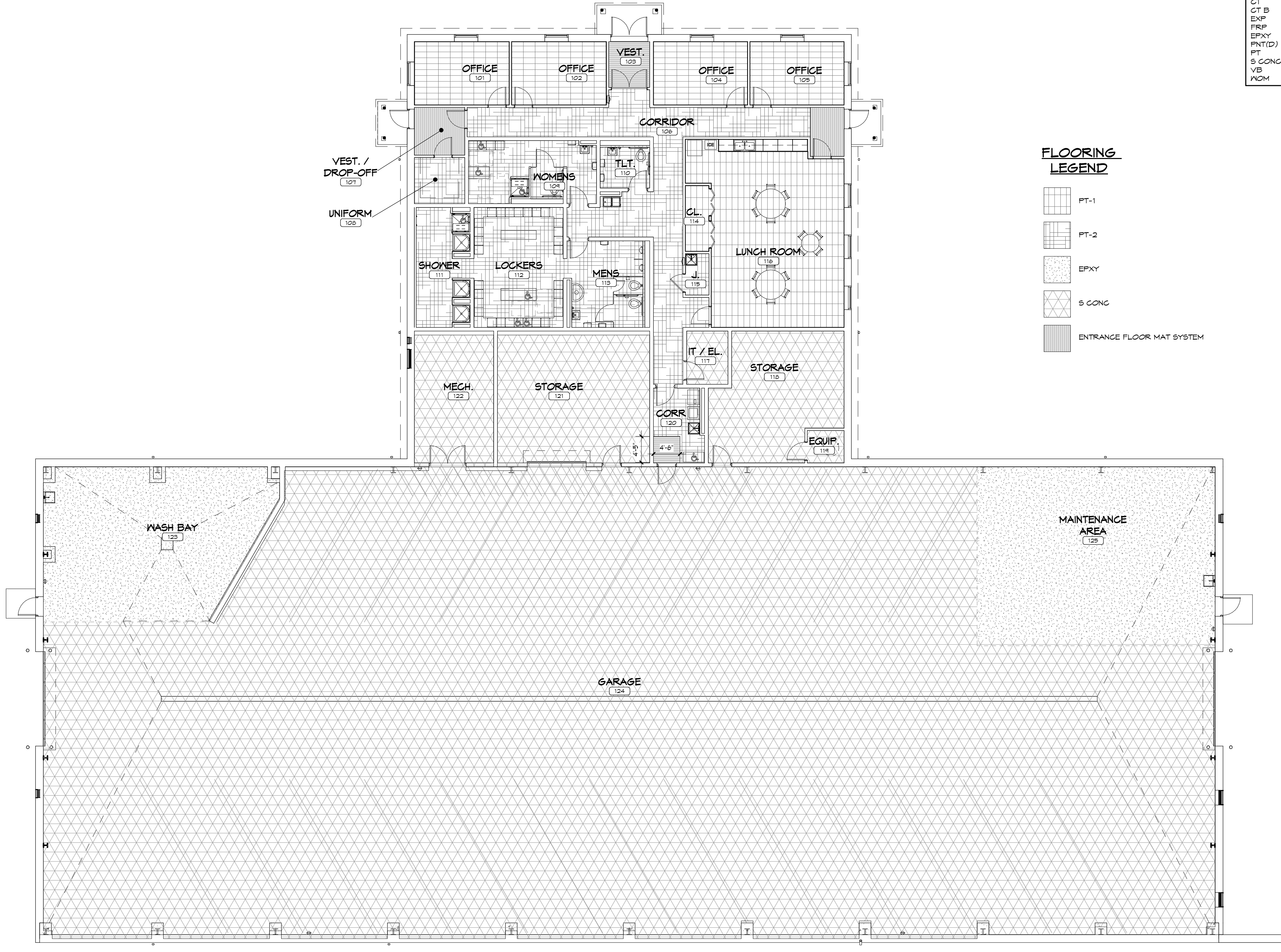
[Pattern]	PT-1
[Pattern]	PT-2
[Pattern]	EPXY
[Pattern]	S CONC
[Pattern]	ENTRANCE FLOOR MAT SYSTEM

ROOM FINISH SCHEDULE - FLOOR 1

Number	Name	Floor Finish	Base Finish	Wall Finish	Area	Comments
101	OFFICE	PT-1	VINYL BASE	FNT-1	172 SF	
102	OFFICE	PT-1	VINYL BASE	FNT-1	173 SF	
103	VEST.	NOM-1	VB-1	FNT-1	54 SF	
104	OFFICE	PT-1	CT B	FNT-1	171 SF	
105	OFFICE	PT-1	CT B	FNT-1	171 SF	
106	CORRIDOR	PT-2	PT BASE	FNT-1	607 SF	
107	VEST. / DROP-OFF	NOM-1	VB-1	FNT-1	68 SF	
108	UNIFORM	PT-2	PT BASE	FNT-1	67 SF	
109	WOMENS	PT-2	PT BASE	FNT-2	213 SF	
110	TLT.	PT-2	PT BASE	FNT-2	50 SF	
111	SHOWER	PT-2	PT BASE	FNT-2	171 SF	
112	LOCKERS	PT-2	PT BASE	FNT-2	300 SF	
113	MENS	PT-2	PT BASE	FNT-2	182 SF	
114	CL.	PT-1	VINYL BASE	FNT-1	45 SF	
115	J.	PT-2	PT BASE	FNT-1	20 SF	
116	LUNCH ROOM	PT-1	VINYL BASE	FNT-1	730 SF	
117	IT / EL.	S CONC	VINYL BASE	FNT-2	60 SF	
118	STORAGE	S CONC	VINYL BASE	FNT-2	437 SF	
119	EQUIP.	S CONC	VINYL BASE	FNT-2	34 SF	
120	CORR	EPXY-1	EPXY COVE	FNT-1	104 SF	
121	STORAGE	S CONC	VINYL BASE	FNT-2	570 SF	
122	MECH.	S CONC	VINYL BASE	FNT-2	301 SF	
123	WASH BAY	EPXY-2	EPXY COVE	FNT-2	904 SF	
124	GARAGE	S CONC		FNT-2	13544 SF	
125	MAINTENANCE AREA	EPXY-2	EPXY COVE	FNT-2	1226 SF	

FINISH SCHEDULE COMMENTS

1. ALL WINDOWS IN OFFICES AND LUNCH ROOM TO RECEIVE VERTICAL BLINDS.



1 FLOOR PLAN - FLOOR 1
3/32" = 1'-0"