

BOROUGH OF RUNNEMEDE HARRY WILLIAMS BUILDING ADDITION

Code Review Data:

APPLICABLE BUILDING CODES & GUIDELINES

2021 INTERNATIONAL BUILDING CODE – NEW JERSEY EDITION
2021 NATIONAL STANDARD PLUMBING CODE
2020 NATIONAL ELECTRIC CODE (NFPA 70)
2021 INTERNATIONAL MECHANICAL CODE
2021 INTERNATIONAL FUEL GAS CODE
NJUCC SUBCHAPTER 6 – REHABILITATION SUBCODE
2017 ICC/ANSI A117.1
ASHRAE 90.1–2019
BARRIER FREE SUBCODE N.J.A.C. 5:23–7
REHABILITATION SUBCODE N.J.A.C. 5:23–6

USE GROUP CLASSIFICATION (303.1)

A-3 ASSEMBLY

TYPE OF CONSTRUCTION (CHAPTER 6)

TYPE – 2B

HEIGHT LIMITATIONS (TABLE 504.3)

A-3 USE: 55'

AREA LIMITATIONS (TABLE 506.2)

A-3 USE 9,500 SF (16,825 SF W/ FRONTAGE INCREASE OF 75%)

ALLOWABLE STORIES (TABLE 504.4)

A-3 ASSEMBLY USE, 2 STORIES (NOT SPRINKLERED)

AREA OF FLOOR PLAN:

A-3 ASSEMBLY INCL. LIBRARY, SENIOR CENTER, GYMNASIUM, AND PROPOSED ADDITION: 16,124 SF
A-3 ASSEMBLY PROPOSED ADDITION: 1,303 SF

OCCUPANT LOADS (TABLE 1004.1.2)

A-3 ASSEMBLY LOBBY AREA-5 NET SF FLOOR AREA PER OCCUPANT – 615 NET SF / 5 NET SF PER OCCUPANT = 123 OCCUPANTS MAXIMUM

COMMON PATH OF EGRESS TRAVEL (1006.2.1)

(A USE) WITHOUT SPRINKLER SYSTEM: 75'

TRAVEL DISTANCE (TABLE 1017.2)

(A USE) WITHOUT SPRINKLER SYSTEM: 200'

UPON RECEIPT OF SIGNED AND SEALED PLANS. IT IS THE RESPONSIBILITY OF THE OWNER / CONTRACTOR TO VERIFY THAT ALL DESIGN ISSUES AND REQUIREMENTS HAVE BEEN MET AND ALL PARTIES INVOLVED HAVE REVIEWED THE PLANS FULLY. ANY QUESTIONS OR DISCREPANCIES REGARDING THE PLANS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT **BEFORE** CONSTRUCTION BEGINS.

NOTE TO ALL BIDDERS:

"BID PACKAGE" IS INCLUSIVE OF ALL DRAWING SHEETS LISTED ON THIS COVER SHEET, ALL SPECIFICATIONS LISTED IN SPECIFICATION TABLE OF CONTENTS, AND ALL ADDENDA ISSUED PRIOR TO BID OPENING. BIDS SUBMITTED ARE ASSUMED TO BE COMPREHENSIVE AND ACCOUNTING FOR INFORMATION CONTAINED THROUGHOUT ENTIRE "BID PACKAGE". IT IS THE RESPONSIBILITY OF BIDDER TO PROVIDE ALL SUBCONTRACTORS, VENDORS, MATERIAL AND LABOR SUPPLIERS, ETC, WITH COMPLETE BID PACKAGE. FAILURE TO DO SO WILL NOT PRECLUDE RESPONSIBILITY TO PROVIDE ALL WORK DESCRIBED IN THE "BID PACKAGE".

BROADWAY AND BLACK HORSE PIKE RUNNEMEDE, NEW JERSEY 08078



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ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

PROJECT:

**BOROUGH OF RUNNEMEDE
HARRY WILLIAMS BUILDING
ADDITION**
**2 BROADWAY
RUNNEMEDE, NEW JERSEY 08078
CAMDEN COUNTY, NEW JERSEY**

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REVISIONS		
NO.	DESCRIPTION	DATE

DRAWING TITLE:

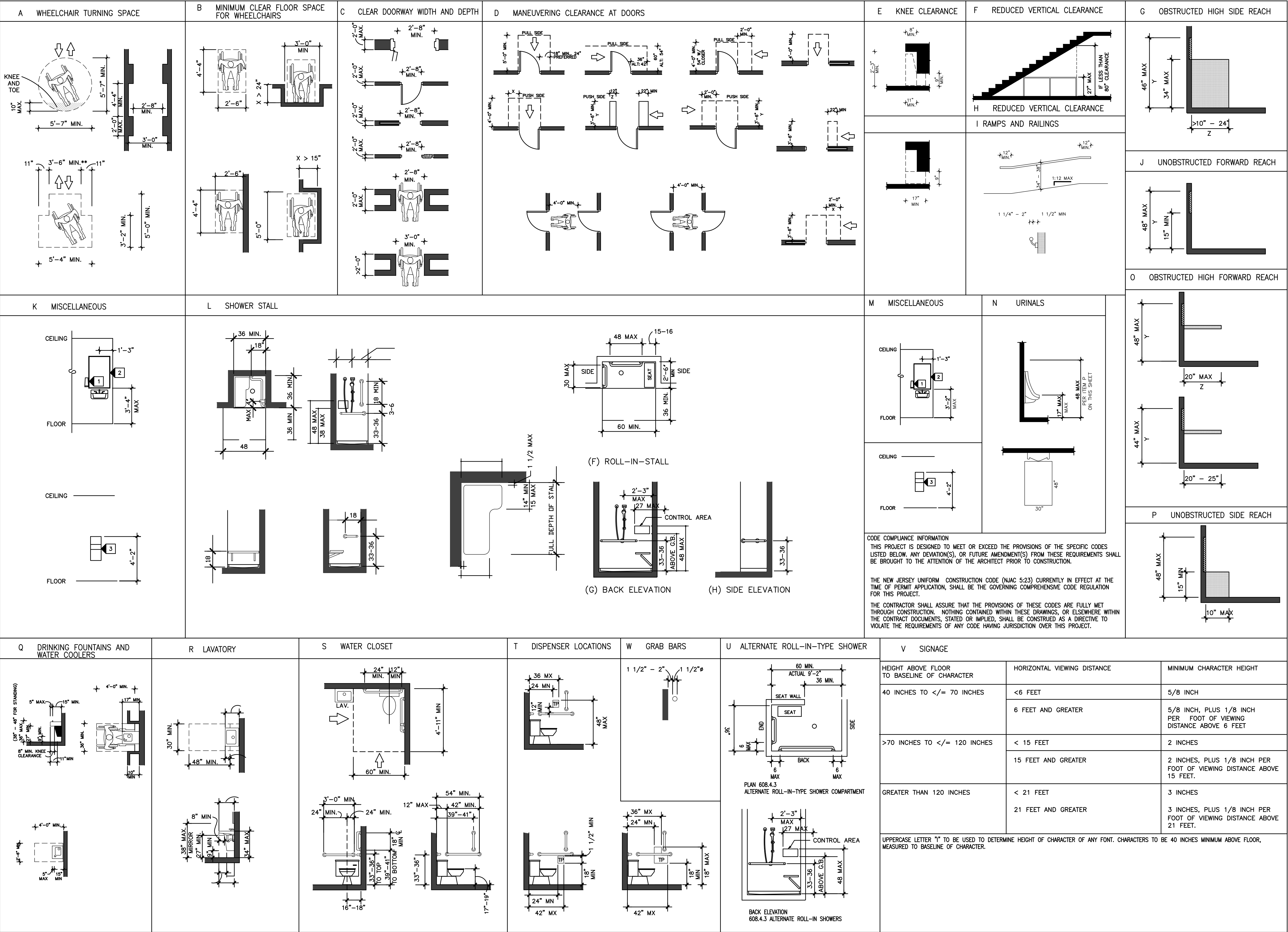
**COVER SHEET
AND INDEX
OF DRAWINGS**

JOB NO: PB2024-5	DESIGNED BY: AAW
DATE: 8-29-25	DRAWN BY: AAW
SCALE: AS NOTED	CHECKED BY: SMB

DRAWING NUMBER:

C-1

BARRIER FREE GUIDELINES FOR CONSTRUCTION – ICC/ANSI A117.1 – 2009



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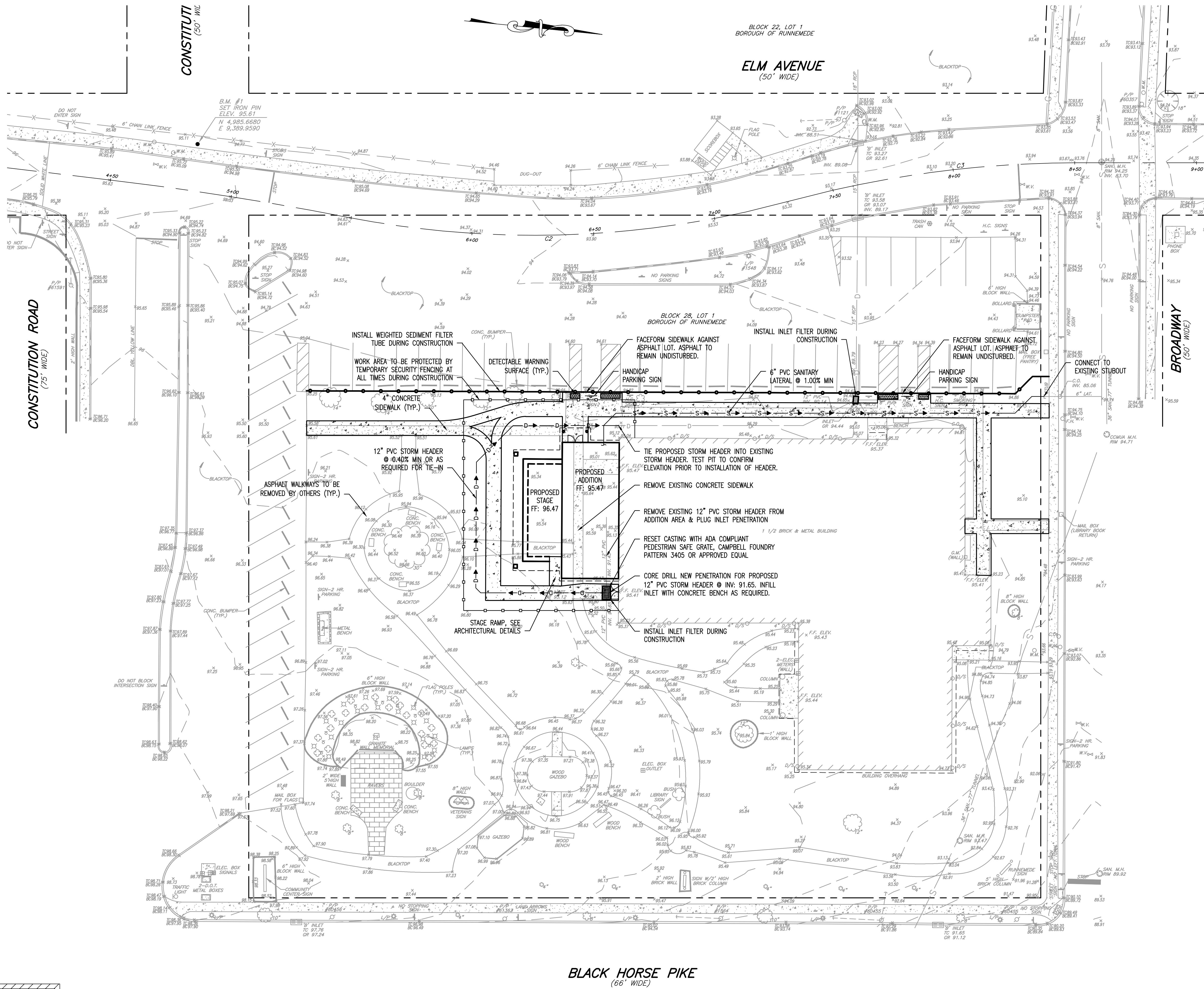
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**ADA
GUIDELINES**

JOB NO: PB2024-5	DESIGNED BY: AAW
DATE: 8-29-25	DRAWN BY: AAW
SCALE: AS NOTED	CHECKED BY: SMB

DRAWING NUMBER:

C-2



NOTE: ALL SITE IMPROVEMENTS, PERMANENT AND TEMPORARY, INCLUDING LABOR AND MATERIALS REQUIRED FOR OR INCIDENTAL TO FOR THE COMPLETION THEREOF, TO BE INCLUDED UNDER THE LUMP SUM COST OF THE PROPOSAL.

NOTE: EXISTING SPRINKLER SYSTEM IN PROJECT AREA IS ABANDONED AND CAN BE REMOVED AS NECESSARY FOR COMPLETION OF ADDITION AND SITE IMPROVEMENTS.

BLACK HORSE PIKE
(66' WIDE)

SITE PLAN

SCALE: 1" = 20'



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HARRY WILLIAMS BUILDING
NEW ENTRY AND BATHROOMS**

2 BROADWAY
RUNNEMEADE, NEW JERSEY 08078
CAMDEN COUNTY, NEW JERSEY

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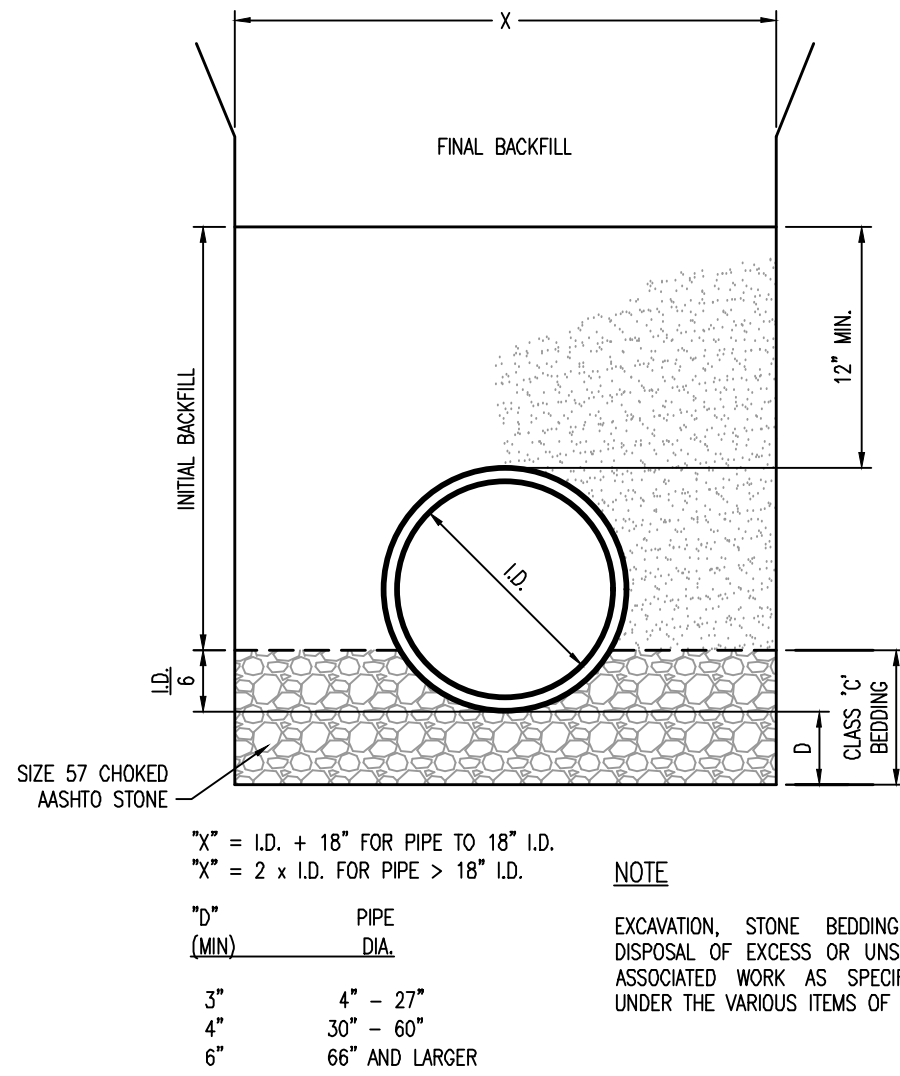
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SITE PLAN

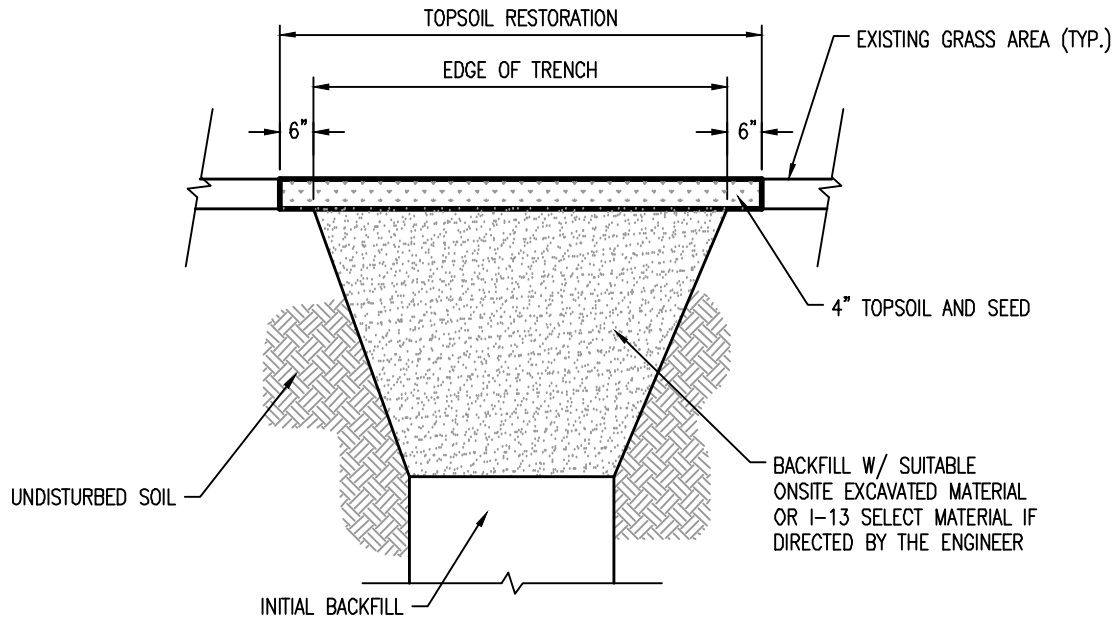
JOB NO: RB2024-5	DESIGNED BY: MRB
DATE: 08/14/25	DRAWN BY: NJB
SCALE: 1"=20'	CHECKED BY: SMB

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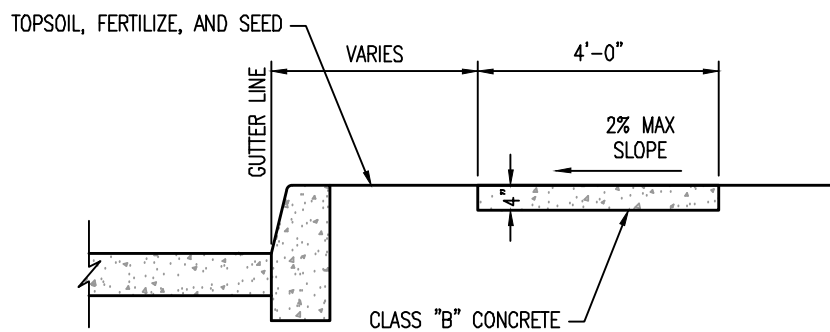
SP-1



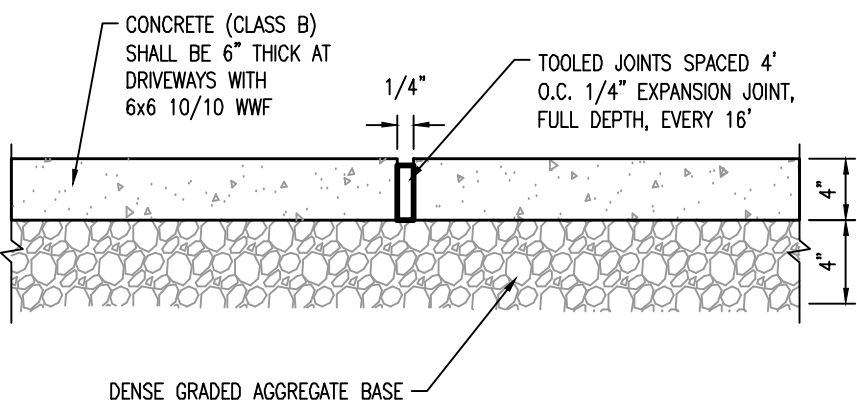
INITIAL TRENCH BACKFILLING
SCALE: NTS



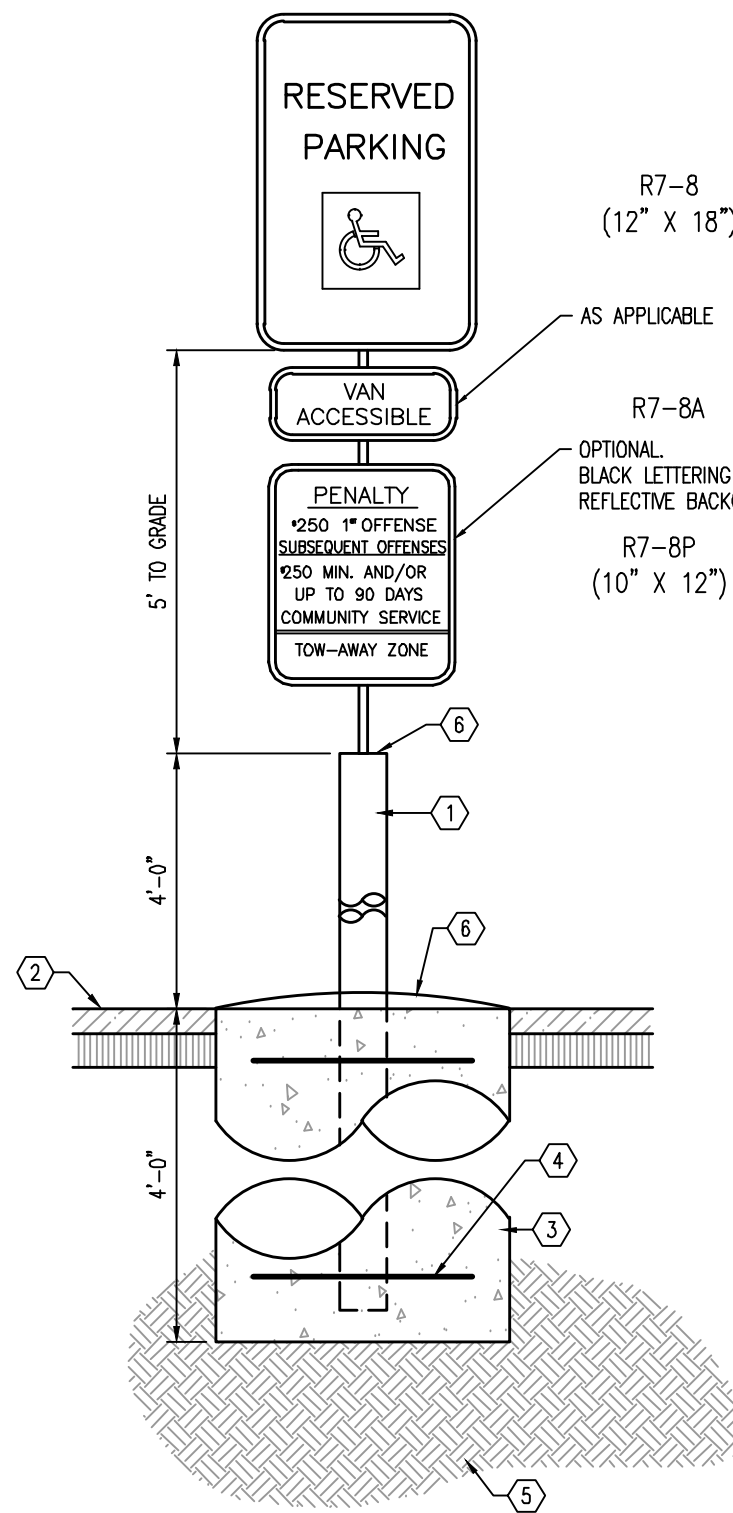
**FINAL TRENCH BACKFILLING
W/ GRASS RESTORATION**
SCALE: NTS



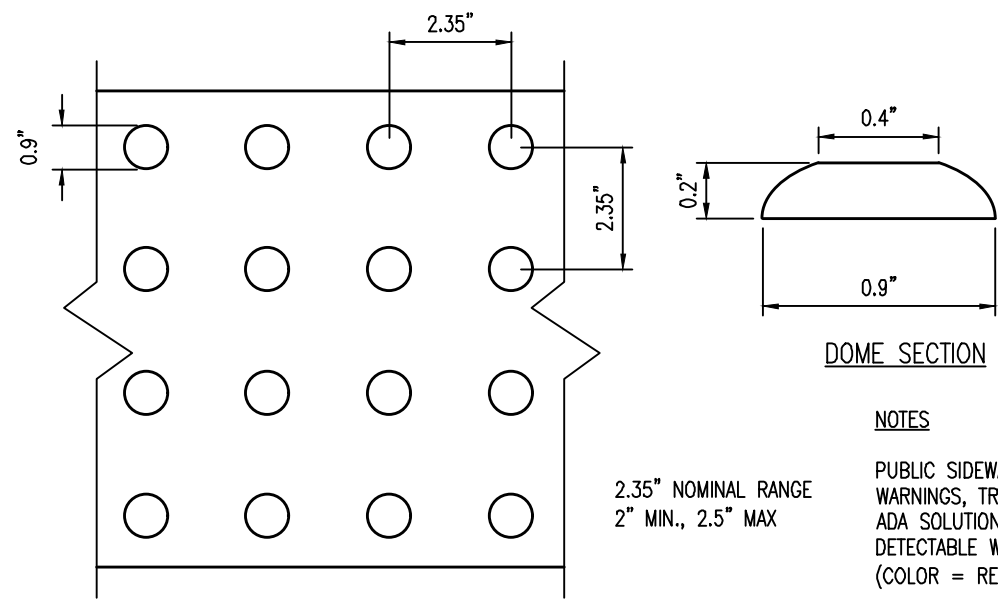
CONCRETE SIDEWALK DETAIL
SCALE: NTS
PER NJDOT SPECIFICATIONS



CONCRETE WALK DETAIL
SCALE: NTS



**HANDICAPPED PARKING SIGN
W/ PENALTY, VAN ACCESSIBLE**
SCALE: NTS
INSTALLED ON BOLLARD



TRUNCATED DOME DETAIL
SCALE: NTS



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**SITE
DETAILS**

JOB NO: RB2024-5	DESIGNED BY: MRB
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DRAWING NUMBER:

SP-2

GENERAL NOTES

THE CONTRACTOR SHALL SCHEDULE AND CONDUCT HIS OPERATIONS TO MINIMIZE EROSION OF SOILS AND TO PREVENT SILTING AND MUDDYING OF STREAMS, RIVERS, IRRIGATION SYSTEMS AND IMPOUNDMENTS (LAKES, RESERVOIRS, ETC.) CONSTRUCTION OF DRAINAGE FACILITIES AND PERFORMANCE OF THEIR CONTRACT WORK WHICH WILL CONTRIBUTE TO THE CONTROL OF EROSION AND SEDIMENTATION SHALL BE CARRIED OUT IN CONJUNCTION WITH EARTHWORK OPERATIONS OR AS SOON THEREAFTER AS PRACTICABLE. THE AREA OF BARE SOIL EXPOSED AT ANY ONE TIME BY CONSTRUCTION OPERATIONS SHALL BE KEPT TO A MINIMUM.

PRIOR TO A SUSPENSION OF CONSTRUCTION OPERATIONS FOR A PERIOD OF 20 DAYS OR MORE, ANY AREA THAT HAS BEEN DISTURBED AND LEFT EXPOSED SHALL RECEIVE TEMPORARY STABILIZATION.

POLLUTANTS SUCH AS FUELS, LUBRICANTS, BITUMENS, RAW SEWAGE AND OTHER HARMFUL MATERIALS SHALL NOT BE DISCHARGED INTO OR NEAR RIVERS, STREAMS AND IMPOUNDMENTS OR INTO NATURAL OR MANMADE CHANNELS LEADING THERETO. WASH WATER OR WASTE FROM CONCRETE MIXING OPERATIONS SHALL NOT BE ALLOWED TO ENTER LIVE STREAMS.

ALL APPLICABLE REGULATIONS OF FISH AND WILDLIFE AGENCIES AND STATUTES RELATING TO THE PREVENTION AND ABATEMENT OF POLLUTION SHALL BE COMPLIED WITHIN THE PERFORMANCE OF THE CONTRACT.

MAINTENANCE NOTES

SEDIMENTATION COLLECTED IN THE DETENTION BASIN SHALL BE REMOVED AFTER IT HAS BUILT UP TO THE ELEVATION OF THE BOTTOM OF THE DEWATERING HOLE IN THE WATERTIGHT RISER. ALL SILT COLLECTED SHALL BE PLACED BACK UP ON THE SITE.

SEEDED AREAS THAT HAVE WASHED AWAY SHALL BE FILLED AND GRADED, AS NECESSARY, AND THEN RESEEDED. ADDITIONAL HAY MULCHING SHALL BE APPLIED TO RETAIN THE SEED UNTIL IT HAS A CHANCE TO ROOT PROPERLY.

AREAS THAT CONTAIN SOD SHALL BE CHECKED VERY CAREFULLY TO ENSURE THAT JOINTS BETWEEN THE SOD STRIPS ARE TIGHT AND SECURE. WHERE JOINT SEPARATION IS IN EVIDENCE, A CAREFUL INSPECTION OF EACH JOINT SHALL BE MADE TO DETERMINE WHETHER UNDERMINING OF THE STRIPS IS OCCURRING. IF IT IS, THE STRIPS SHALL BE ROLLED UP. THE SUBSURFACE SHALL BE FILLED AND GRADED, AS REQUIRED, AND THE SOD STRIPS SHALL BE RELIAD WITH THE PROPER JOINTS AND PEGGING.

A GOOD STAND OF VEGETATION SHALL BE DEFINED AS THE MANUFACTURER'S RECOMMENDED HEIGHT.

SHOULD UNFORESEEN EROSION CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND/OR SEDIMENT DISPLACEMENT. SPECIAL ATTENTION SHOULD BE GIVEN TO FROZEN SLOPES. STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND OTHER MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.

DURING CONSTRUCTION THE CONTRACTOR WILL BE RESPONSIBLE FOR SOIL EROSION CONTROL MAINTENANCE. AFTER CONSTRUCTION THE OWNER WILL BE RESPONSIBLE FOR MAINTAINING THE FACILITIES.

TEMPORARY EROSION AND SEDIMENTATION CONTROL

TEMPORARY INLET PROTECTION SHALL BE APPLIED TO EACH INLET. THEY SHALL REMAIN IN PLACE UNTIL A GOOD STAND OF VEGETATION HAS ESTABLISHED.

SEED SHALL BE APPLIED ACCORDING TO THE ENCLOSED CHART. THE CONTRACTOR SHALL ADHERE TO THE RECOMMENDED SEEDING DATES WHEN SELECTING TEMPORARY SEED TYPES: FERTILIZED, LIME AND MULCH ACCORDANCE WITH RATES AND MATERIALS INDICATED IN PERMANENT IN STABILIZATION SECTION.

TEMPORARY SEEDINGS AND SEEDING DATES

CROP	SEEDING RATE		SEEDING DATES
	PER ACRE	PER 1,000 SF	SOUTH JERSEY
OATS (SPRING)	1 1/2 BU.	2 LBS.	BEFORE APRIL 1
RYE	2 BU.	2.4 LBS.	SEPT. 1 - NOV. 1
BARLEY	2 BU.	2.2 LBS.	SEPT. 20 - OCTOBER 15
(WINTER)			
RYEGRASSSES (PERENNIAL)	40 LBS.	0.9 LBS.	BEFORE MAY 15 AUG. 25 - NOV. 1
KOREAN LESPEDEZA*	25 LBS.	0.6 LBS.	FEB. 1 - JULY 5
MILLET (FOXTAIL)*	30 LBS.	0.7 LBS.	MAY 1 - JULY 1
SUNDANGRASS*	60 LBS.	1.4 LBS.	MAY 1 - JULY 5
WEEPING LOVE-GRASS	3 LBS.	0.1 LBS.	MAY 1 - AUG 15

* MAY BE PLANTED THROUGHOUT SUMMER IF SOIL MOISTURE IS ADEQUATE OR CAN BE IRRIGATED.

DUST CONTROL SHALL BE ACCOMPLISHED BY PERIODIC SPRINKLING OF DISTURBED AREAS WITH WATER AS REQUIRED.

MULCHING IS REQUIRED ON ALL SEEDED AREAS TO ENSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED TO PROMOTE EARLIER VEGETATIVE COVER.

PERMANENT STABILIZATION

ALL EXPOSED EARTH SURFACES SHALL BE PERMANENTLY STABILIZED AFTER COMPLETION OF CONSTRUCTION OF ALL SITE IMPROVEMENTS. PERMANENT STABILIZATION SHALL BE ACCOMPLISHED BY THE FOLLOWING METHODS AND MATERIALS.

MATERIALS	TYPE	APPLICATION RATES
LIME	PULVERIZED DOLOMITIC 50% Ca 0 Mg 0	2 TONS/ACRE
FERTILIZER	N P K 10 20 10	600 LBS./ACRE
SEED	NJDOT TYPE "A" SEED MIX (PERCENT BY WEIGHT)	175 LBS./ACRE
	KENTUCKY BLUEGRASS	20%
	RED FESCUE (CREEPING/CHEWINGS)	35%
	KENTUCKY 31	20%
	PERENNIAL RYEGRASS	10%
	RED TOP	5%
	WHITE CLOVER	5%
MULCH	STRAW MULCH OR HAY SMALL UNROTTED GRAIN	1.5 - 2 TONS/ACRE
MULCH BINDER	SYNTHETIC OR ORGANIC BINDERS SUCH AS CURASOL, DCA 70, BY MANUFACTURER TO PETRO-SET AND TERRA TACK	AT RATES RECOMMENDED BY MANUFACTURER TO ANCHOR MULCH MATERIAL

METHODS

1. WORK LIME AND FERTILIZER INTO SOIL WITH A SPRING TOOTH OR DISC HARROW.
2. APPLY SEED AT THE GIVEN RATE AND FIRM WITH A ROLLER OR LIGHT DRAG.
3. APPLY STRAW MULCH IN AN UNIFORM FASHION UNTIL 80% OF THE GROUND IS COVERED; A SLIGHTLY HEAVIER APPLICATION IS NECESSARY ON STEEP SLOPES.
4. ANCHOR STRAW MULCH IN PLACE BY SPRAYING MULCH BINDER AT GIVEN RATES.

AS AN ALTERNATIVE TO THE PRECEDING, AREAS TO RECEIVE PERMANENT VEGETATIVE COVER CAN BE HYDROSEEDING USING THE PREVIOUS FERTILIZATION, SEEDING AND LIMING RATES. WITH ADDITION OF PAPER FIBER MULCH (1500 LBS/ACRE) AND TERITAC MULCH BINDER (1 CASE/ACRE) THE USE OF HYDROSEED IS LIMITED TO FLATTER SLOPES AND ONLY DURING THE OPTIMUM SEEDING PERIODS IN THE SPRING AND FALL.

5" OF CLEAN TOP SOIL SHALL BE PROVIDED ON ALL AREAS OF DISTURBANCE WHERE TOP SOIL DOES NOT EXIST.

CAMDEN COUNTY SOIL CONSERVATION NOTES

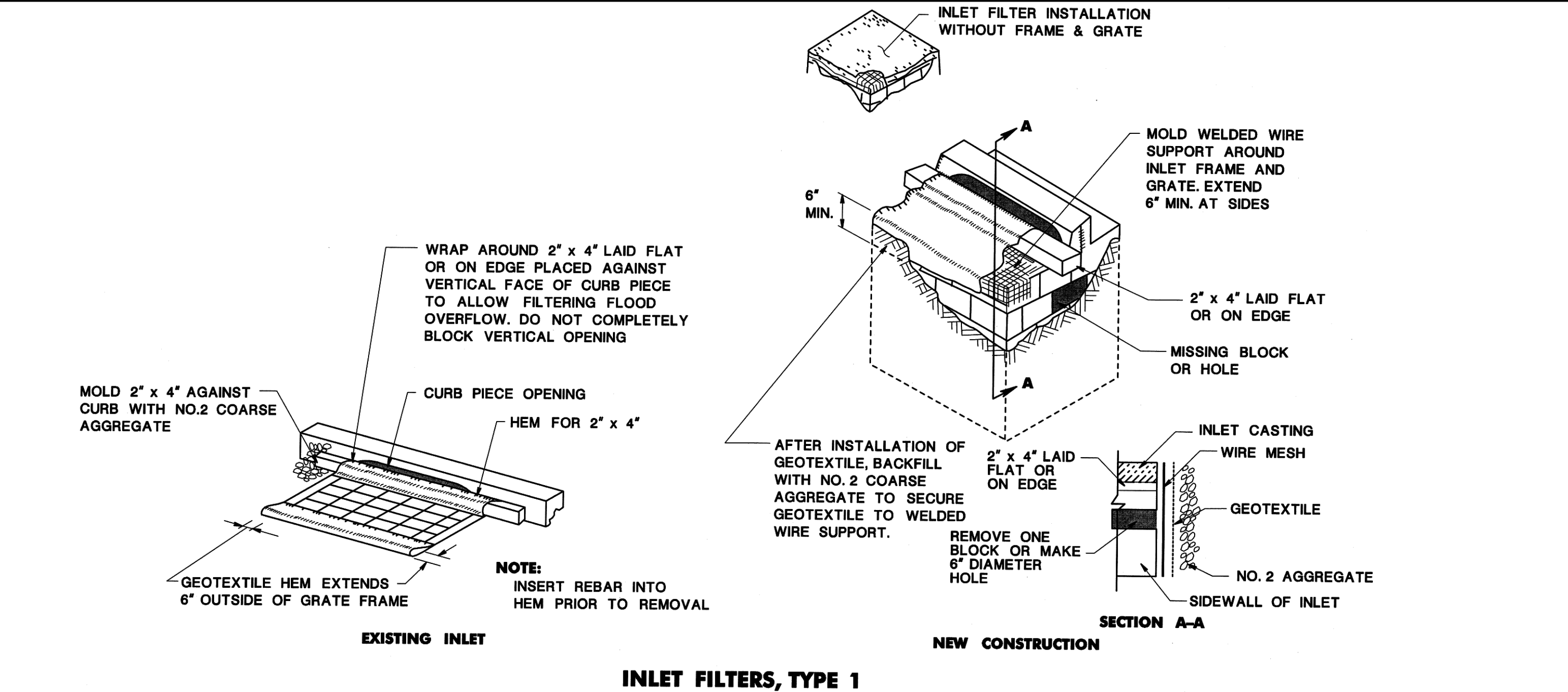
- 1) ALL APPLICABLE EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN PLACE PRIOR TO ANY GRADING OPERATION AND/OR INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES.
- 2) SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PLAN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.
- 3) APPLICABLE EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE LEFT IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND/OR THE AREA IS STABILIZED.
- 4) THE CONTRACTOR SHALL PERFORM ALL WORK, FURNISH ALL MATERIALS AND INSTALL ALL MEASURES REQUIRED TO REASONABLY CONTROL SOIL EROSION RESULTING FROM CONSTRUCTION OPERATIONS AND PREVENT EXCESSIVE FLOW OF SEDIMENT FROM THE CONSTRUCTION SITE.
- 5) ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN SIXTY (60) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING FERTILIZATION IN ACCORDANCE WITH THE NEW JERSEY STANDARDS AND THEIR RATES SHOULD BE INCLUDED IN THE NARRATIVE. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREAS WILL BE MULCHED WITH SALT HAY OR EQUIVALENT AND ANCHORED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS (I.E. PEG AND TWINE, MULCH NETTING OR LIQUID MULCH BINDER).
- 6) IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO PROVIDE CONFIRMATION OF LIME, FERTILIZER AND SEED APPLICATION AND RATES OF APPLICATION AT THE REQUEST OF THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT.
- 7) ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH AT A RATE OF 2 TONS PER ACRE, ACCORDING TO THE NEW JERSEY STANDARDS IMMEDIATELY FOLLOWING ROUGH GRADING.
- 8) THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORMWATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
- 9) ALL SEDIMENTATION STRUCTURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS AND AFTER EVERY STORM EVENT.
- 10) A CRUSHED STONE, TIRE CLEANING PAD WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS EXISTS. THE STABILIZED PAD WILL BE INSTALLED ACCORDING TO THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS.
- 11) ALL DRIVEWAYS MUST BE STABILIZED WITH 2 1/4" CRUSHED STONE OR SUB-BASE PRIOR TO INDIVIDUAL LOT CONSTRUCTION.
- 12) PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
- 13) ALL CATCH BASIN INLETS WILL BE PROTECTED ACCORDING TO THE CERTIFIED PLAN.
- 14) ALL STORM DRAINAGE OUTLETS WILL BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
- 15) ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER AREA. THE SEDIMENT FILTER SHOULD BE COMPOSED OF A SUITABLE SEDIMENT FILTER FABRIC. (SEE DETAIL) THE BASIN MUST BE DEWATERED TO NORMAL POOL WITHIN 10 DAYS OF THE DESIGN STORM.
- 16) NJSA 4-24-36, ET. SEQ. REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE ALL PROVISIONS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN COMPLIED WITH FOR PERMANENT MEASURES. ALL SITE WORK FOR THE PROJECT PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE AS A PREREQUISITE TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY.
- 17) MULCHING IS REQUIRED ON ALL SEEDED AREAS TO INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED TO PROMOTE EARLIER VEGETATIVE COVER.
- 18) OFFSITE SEDIMENT DISTURBANCE MAY REQUIRE ADDITIONAL CONTROL MEASURES TO BE DETERMINED BY THE EROSION CONTROL INSPECTOR.
- 19) A COPY OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN MUST BE MAINTAINED ON THE PROJECT SITE DURING CONSTRUCTION.
- 20) THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED 72 HOURS PRIOR TO ANY LAND DISTURBANCE.
- 21) ANY CONVEYANCE OF THIS PROJECT PRIOR TO ITS COMPLETION WILL TRANSFER FULL RESPONSIBILITY FOR COMPLIANCE WITH THE CERTIFIED PLAN TO ANY SUBSEQUENT OWNERS.
- 22) IMMEDIATELY AFTER THE COMPLETION OF STRIPPING AND STOCKPILING OF TOPSOIL, THE STOCKPILE MUST BE STABILIZED ACCORDING TO THE STANDARD FOR TEMPORARY VEGETATIVE COVER. STABILIZED TOPSOIL PILE WITH STRAW MULCH FOR PROTECTION IF THE SEASON DOES NOT PERMIT THE APPLICATION AND ESTABLISHMENT OF TEMPORARY SEEDING. ALL SOIL STOCKPILES ARE NOT TO BE LOCATED WITHIN FIFTY (50) FEET OF A FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY AND THE BASE MUST BE PROTECTED WITH A SEDIMENT BARRIER.
- 23) ANY CHANGES TO THE SITE PLAN WILL REQUIRE THE SUBMISSION OF A REVISE SOIL EROSION AND SEDIMENT CONTROL PLAN TO THE CAMDEN COUNTY SOIL CONSERVATION DISTRICT. THE REVISED PLAN MUST BE IN ACCORDANCE WITH THE CURRENT NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 24) METHODS FOR THE MANAGEMENT OF HIGH ACID PRODUCING SOILS SHALL BE IN ACCORDANCE WITH THE STANDARDS. HIGH ACID PRODUCING SOILS ARE THOSE FOUND TO CONTAIN IRON SULFIDES OR HAVE A PH OF 4 OR LESS.
- 25) TEMPORARY AND PERMANENT SEEDING MEASURES MUST BE APPLIED ACCORDING TO THE NEW JERSEY STANDARDS, AND MULCHED WITH SALT HAY OR EQUIVALENT AND ANCHORED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS (I.E. PEG AND TWINE, MULCH NETTING OR LIQUID MULCH BINDER).
- 26) MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT BE CONSTRUCTED STEEPER THAN 3:1 UNLESS OTHERWISE APPROVED BY THE DISTRICT.
- 27) DUST IS TO BE CONTROLLED BY AN APPROVED METHOD ACCORDING TO THE NEW JERSEY STANDARDS AND MAY INCLUDE WATERING WITH A SOLUTION OF CALCIUM CHLORIDE AND WATER.
- 28) ADJOINING PROPERTIES SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS ON THE PROPOSED SITE.
- 29) USED STAGED CONSTRUCTION METHODS TO MINIMIZE EXPOSED SURFACES, WHERE APPLICABLE.
- 30) ALL VEGETATIVE MATERIAL SHALL BE SELECTED IN ACCORDANCE WITH AMERICAN STANDARDS FOR NURSERY STOCK OF THE AMERICAN ASSOCIATION OF NURSERYMEN AND IN ACCORDANCE WITH THE NEW JERSEY STANDARDS.
- 31) NATURAL VEGETATION AND SPECIES SHALL BE RETAINED WHERE SPECIFIED ON THE LANDSCAPE PLAN.
- 32) THE SOIL EROSION INSPECTOR MAY REQUIRE ADDITIONAL SOIL EROSION MEASURES TO BE INSTALLED, AS DIRECTED BY THE DISTRICT INSPECTOR.

CONSTRUCTION SEQUENCE

- A. PLACEMENT OF SOIL EROSION & SEDIMENT CONTROL MEASURES
- B. CONSTRUCTION OF UNDERGROUND UTILITIES & SITE IMPROVEMENTS
- C. PERFORM TEMPORARY SEEDING AS NECESSARY
- E. FINAL GRADE AND TOPSOIL UNPAVED AREAS
- F. PERFORM PERMANENT SEEDING & LANDSCAPING

DURATION

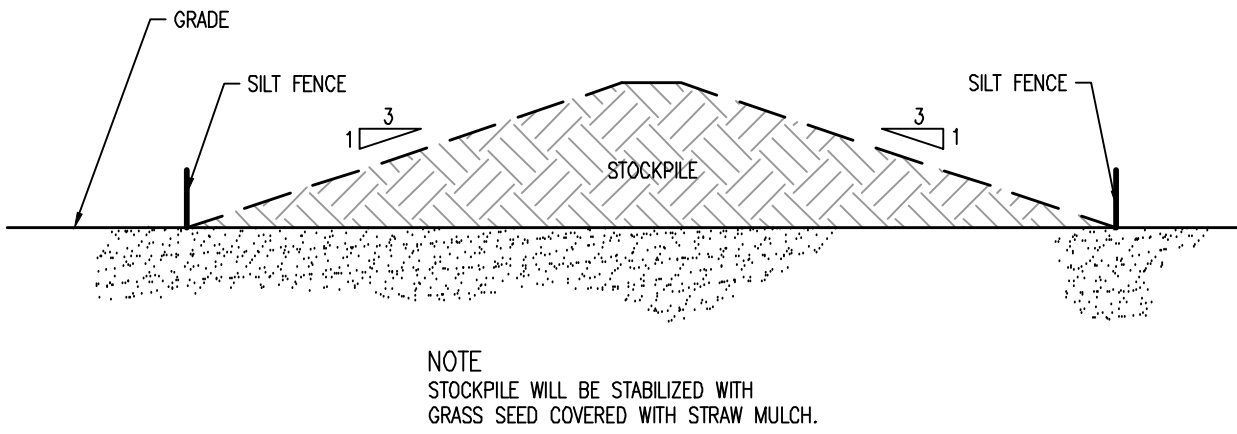
- WK 1
WK 2 - 22
WK 23
WK 24
WK 25



INLET FILTERS, TYPE 1

INLET PROTECTION DETAIL

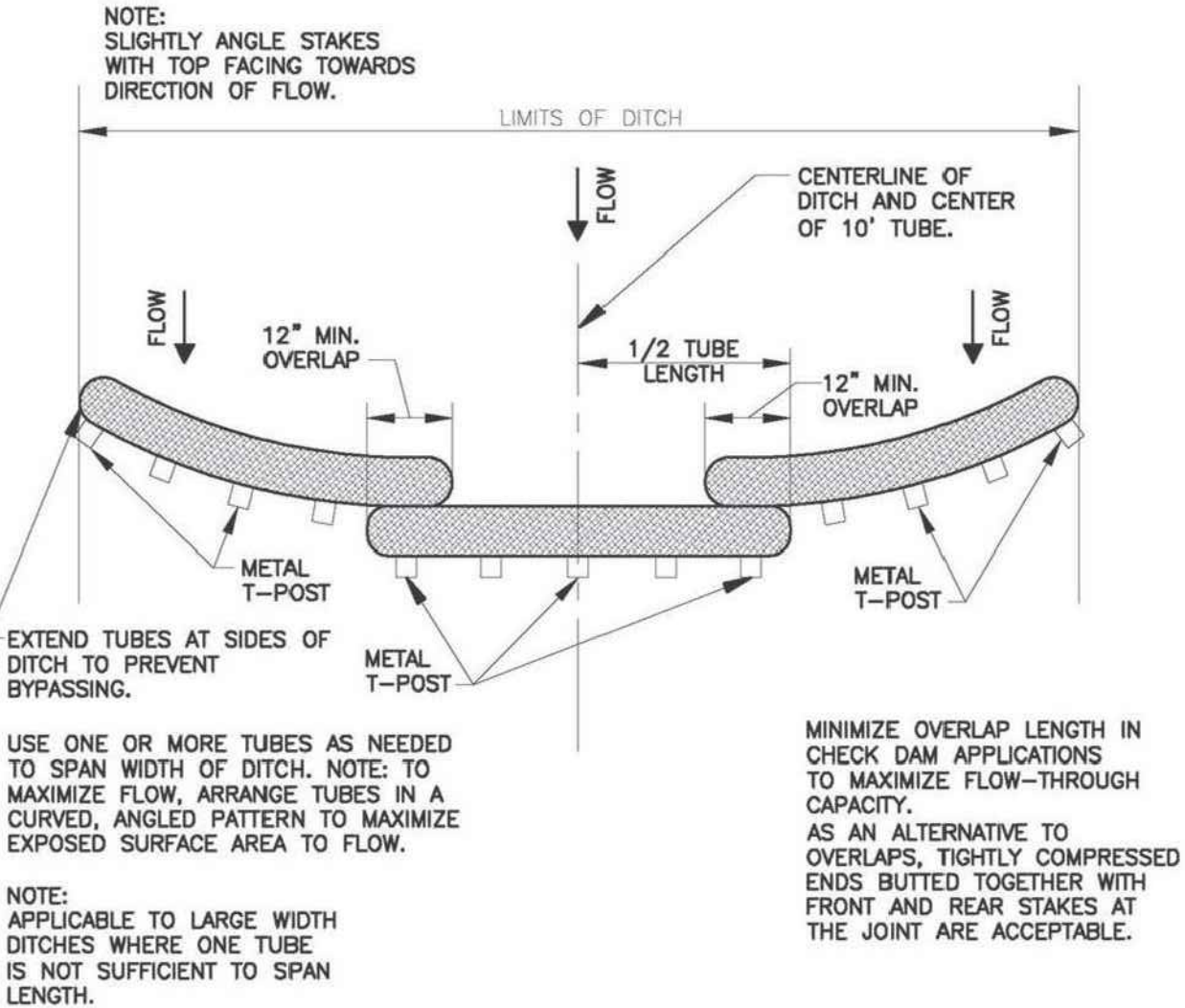
SCALE: NTS



TOPSOIL STOCKPILE DETAIL

SCALE: NTS

* APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES SUCH AS STORMWATER INLET PROTECTION AND TOPSOIL STOCKPILES SHALL BE PROVIDED FOR UTILITY REPLACEMENT VIA EXCAVATION IN ACCORDANCE WITH N.J.A.C. 7:22-10.11(C) AND N.J.A.C. 7:22-10.11(I).



WEIGHTED SEDIMENT FILTER TUBE DETAIL

SCALE: NTS

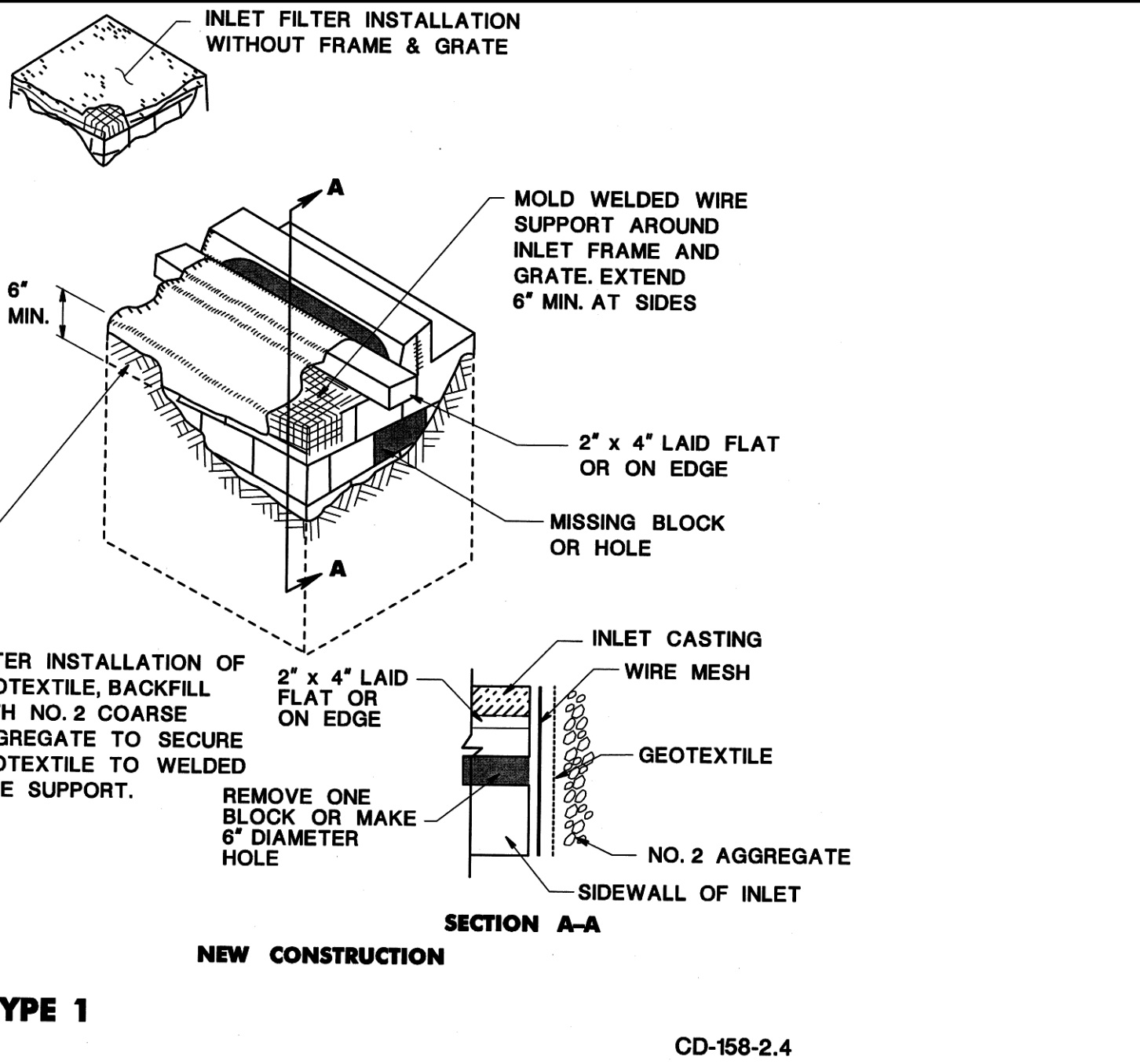
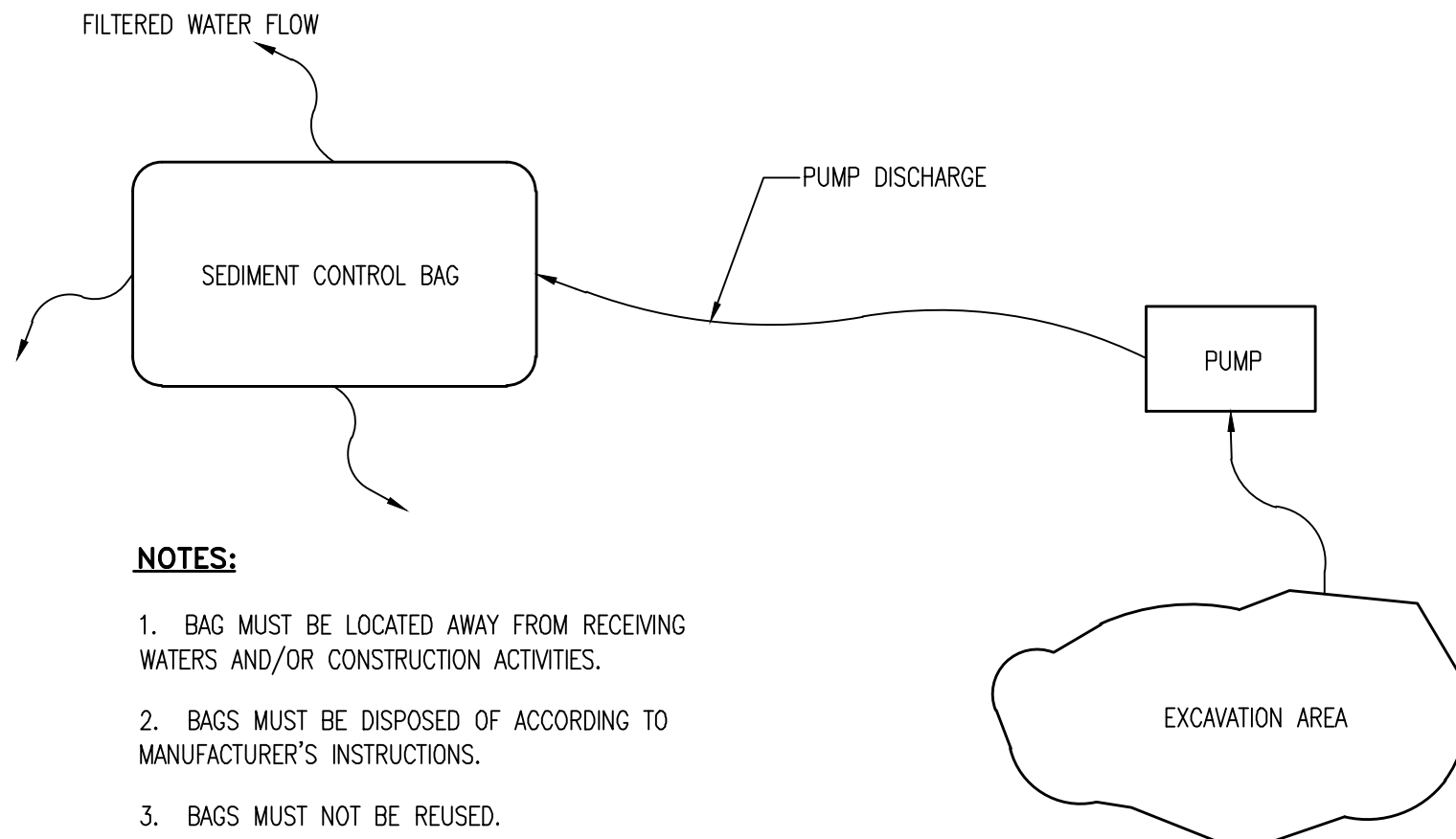


TABLE 29-1		
PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COURSE GRAIN SOIL	FINE GRAIN SOIL
0 TO 2%	50 FT.	100 FT.
2 TO 5%	100 FT.	200 FT.
> 5%	ENTIRE SURFACE STABILIZE WITH FABC BASE COURSE	

STABILIZED CONSTRUCTION ENTRANCE DETAIL

SCALE: NTS



NOTES:

1. BAG MUST BE LOCATED AWAY FROM RECEIVING WATERS AND/OR CONSTRUCTION ACTIVITIES.
2. BAGS MUST BE DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
3. BAGS MUST NOT BE REUSED.

SEDIMENT CONTROL BAG FOR DEWATERING DETAIL

SCALE: NTS



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NJ PP No. LI 05557

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PROJECT:

BOROUGH OF RUNNEMEDE
HARRY WILLIAMS BUILDING
NEW ENTRY AND BATHROOMS
2 BROADWAY
RUNNEMEDE, NEW JERSEY 08078
CAMDEN COUNTY, NEW JERSEY

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REVISIONS		
NO.	DESCRIPTION	DATE

DRAWING TITLE:

SESC NOTES & DETAILS

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DRAWING NUMBER:

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BOROUGH OF RUNNEMEDE
HARRY WILLIAMS BUILDING
ADDITION

2 BROADWAY
RUNNEMEDE, NEW JERSEY 08078
CAMDEN COUNTY, NEW JERSEY

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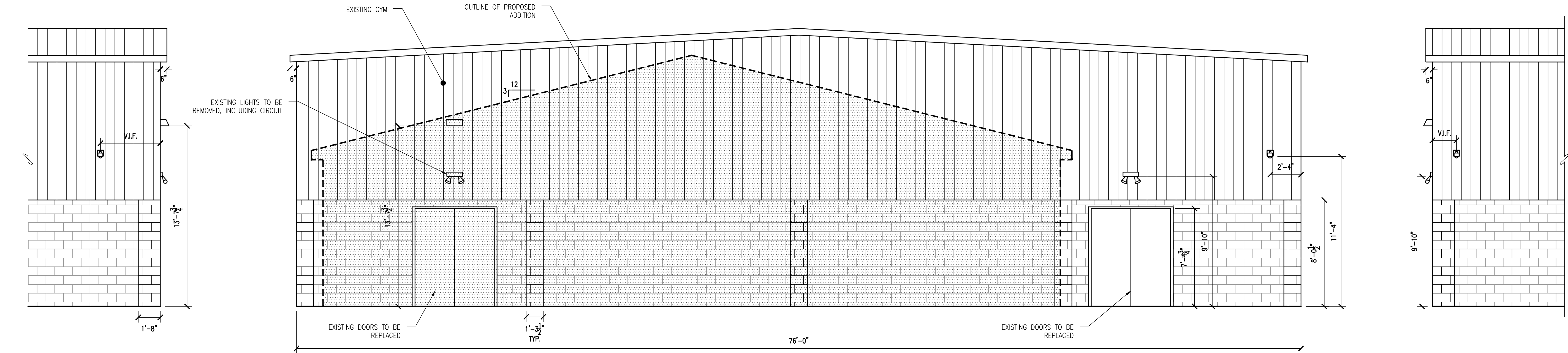
EXISTING AREA
PLAN AND
ELEVATION

JOB NO: RB2024-5	DESIGNED BY: AAW
DATE: 8-29-25	DRAWN BY: AAW
SCALE: AS NOTED	CHECKED BY: SMB

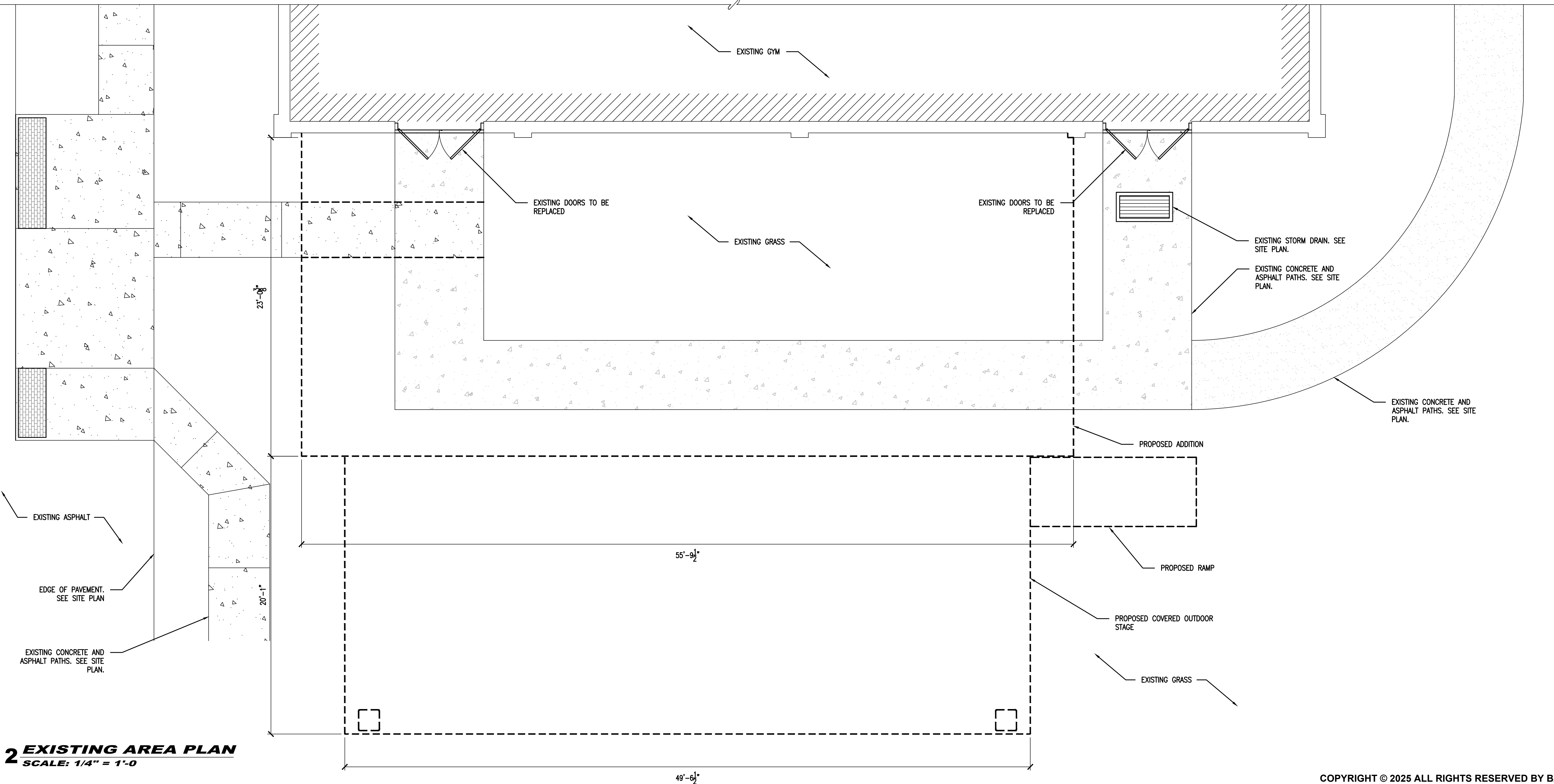
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EX-1

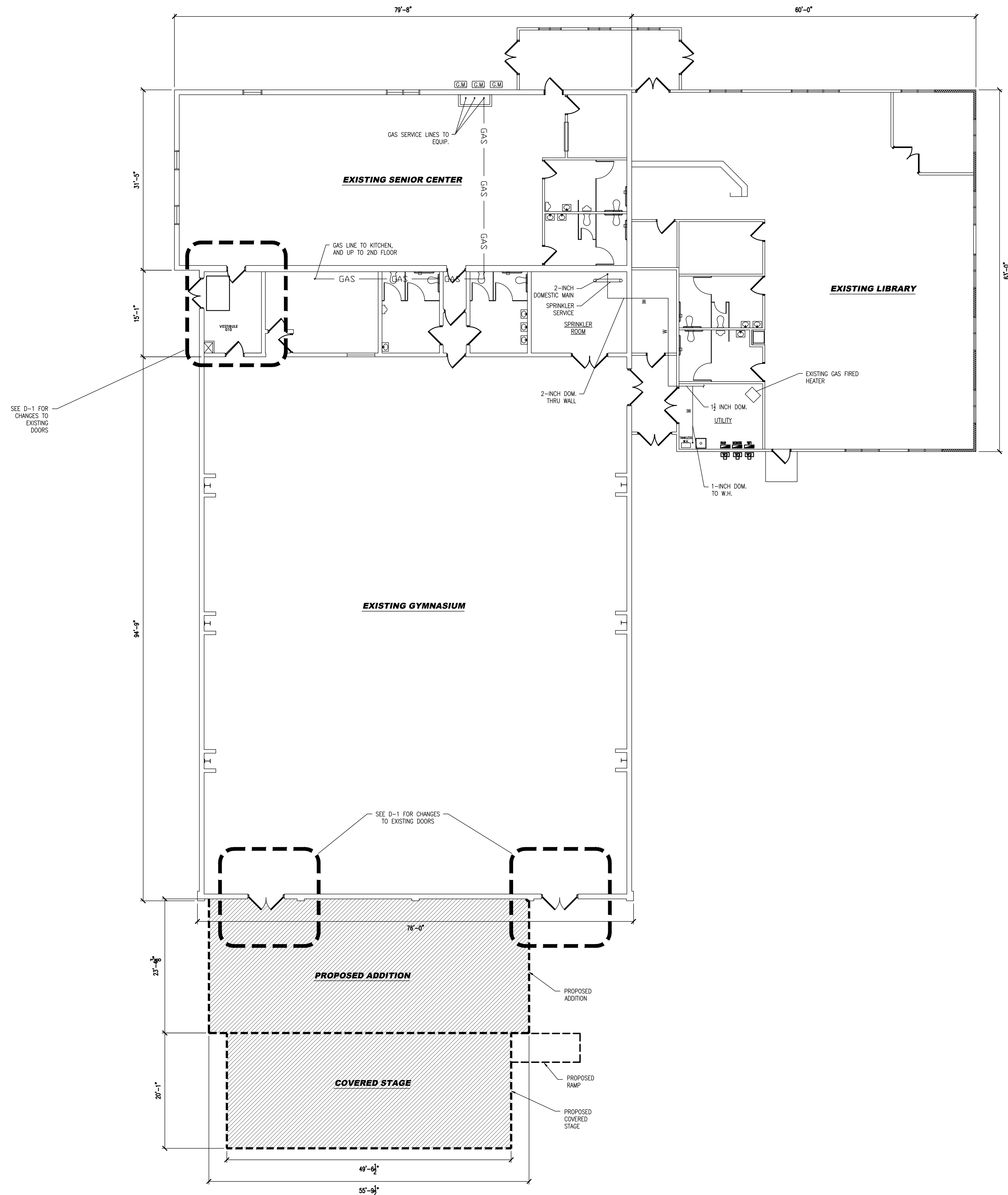
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1 EXISTING EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0



2 EXISTING AREA PLAN
SCALE: 1/4" = 1'-0



1 EXISTING OVERALL BUILDING PLAN
SCALE: NOT TO SCALE



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HARRY WILLIAMS BUILDING
ADDITION**
2 BROADWAY
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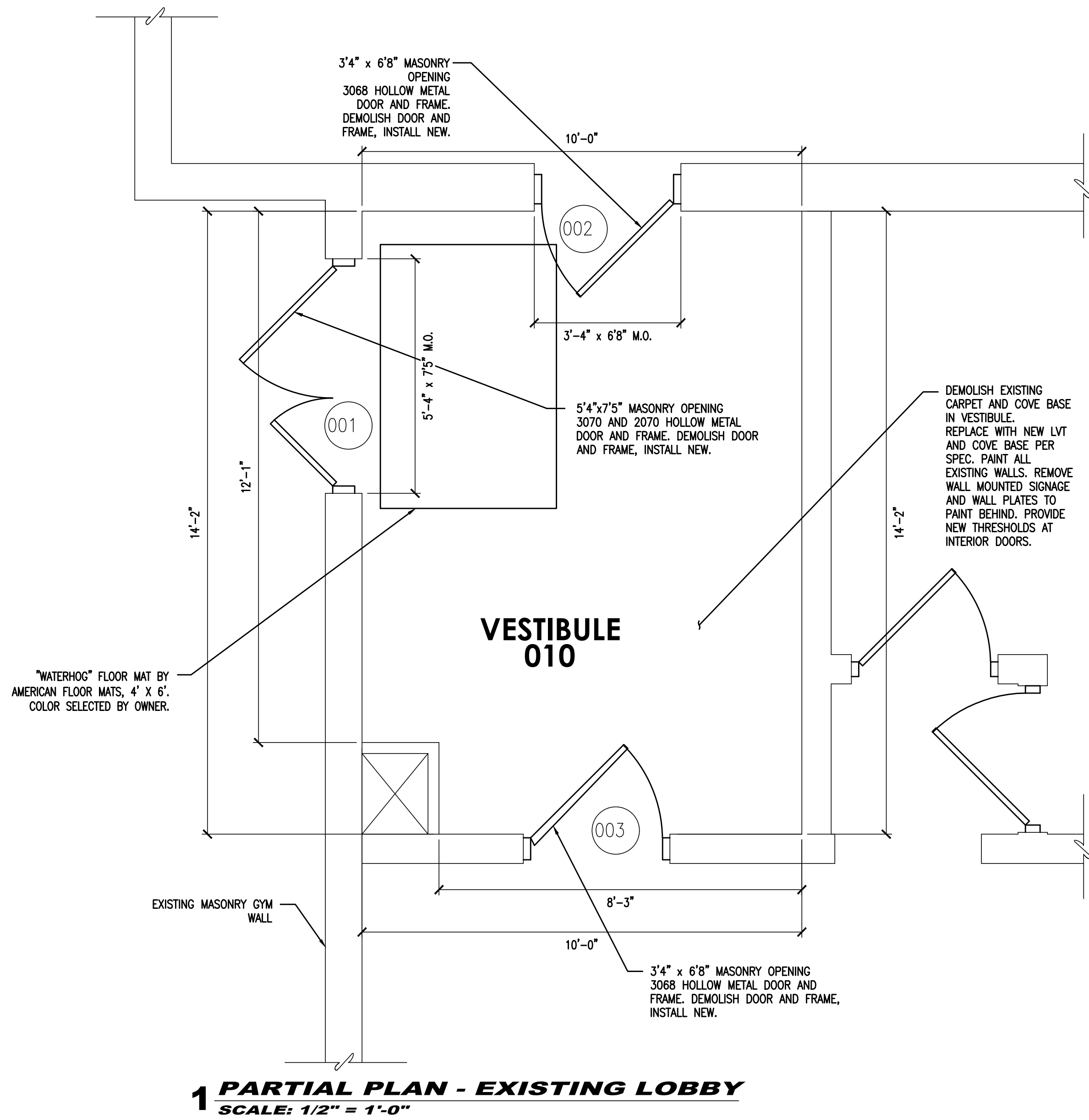
DRAWING TITLE:

**EXISTING
BUILDING PLAN**

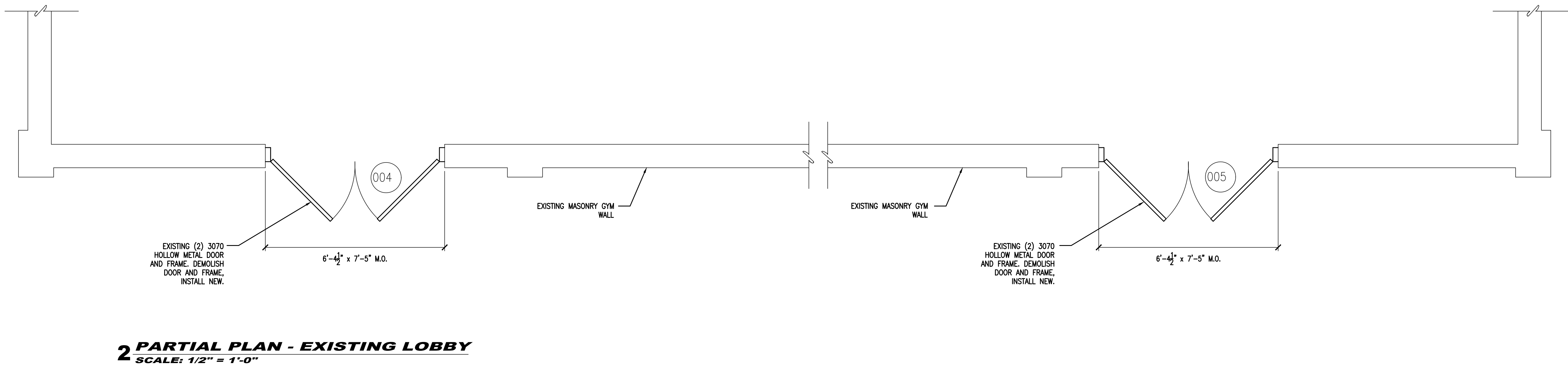
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DATE: 8-29-25	DRAWN BY: AAW
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EX-2



DOORS 001, 002, 003 ON EXISTING AUTOMATIC OPENERS. EXISTING
OPENERS AND CONTROLS TO BE RECONNECTED TO NEW FRAMES AND
DOORS.



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DRAWING TITLE:

PARTIAL
DEMOLITION
PLANS

JOB NO: RB202#-5	DESIGNED BY: AAW
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DRAWING NUMBER:

D-1



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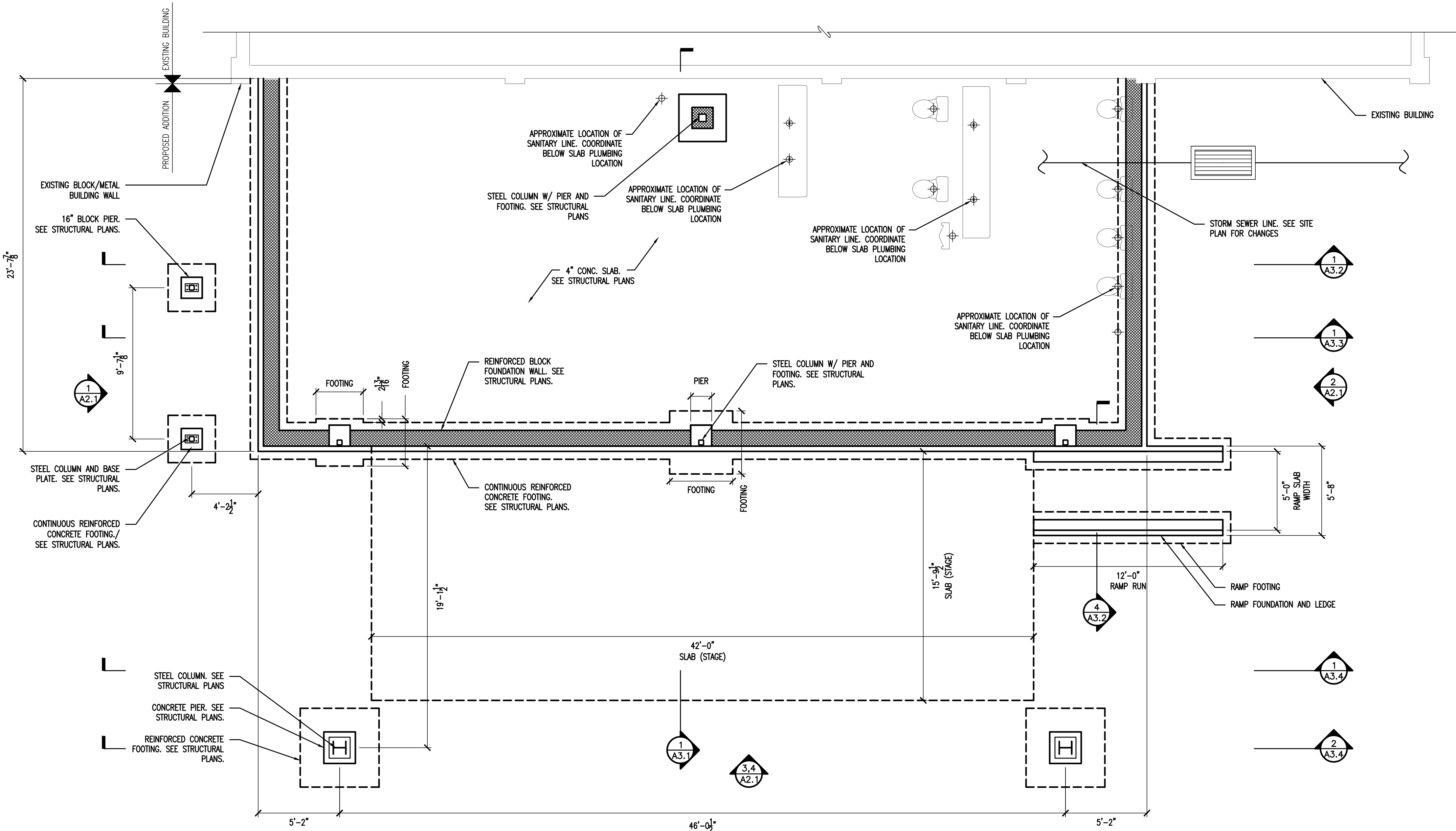
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FOUNDATION
PLAN

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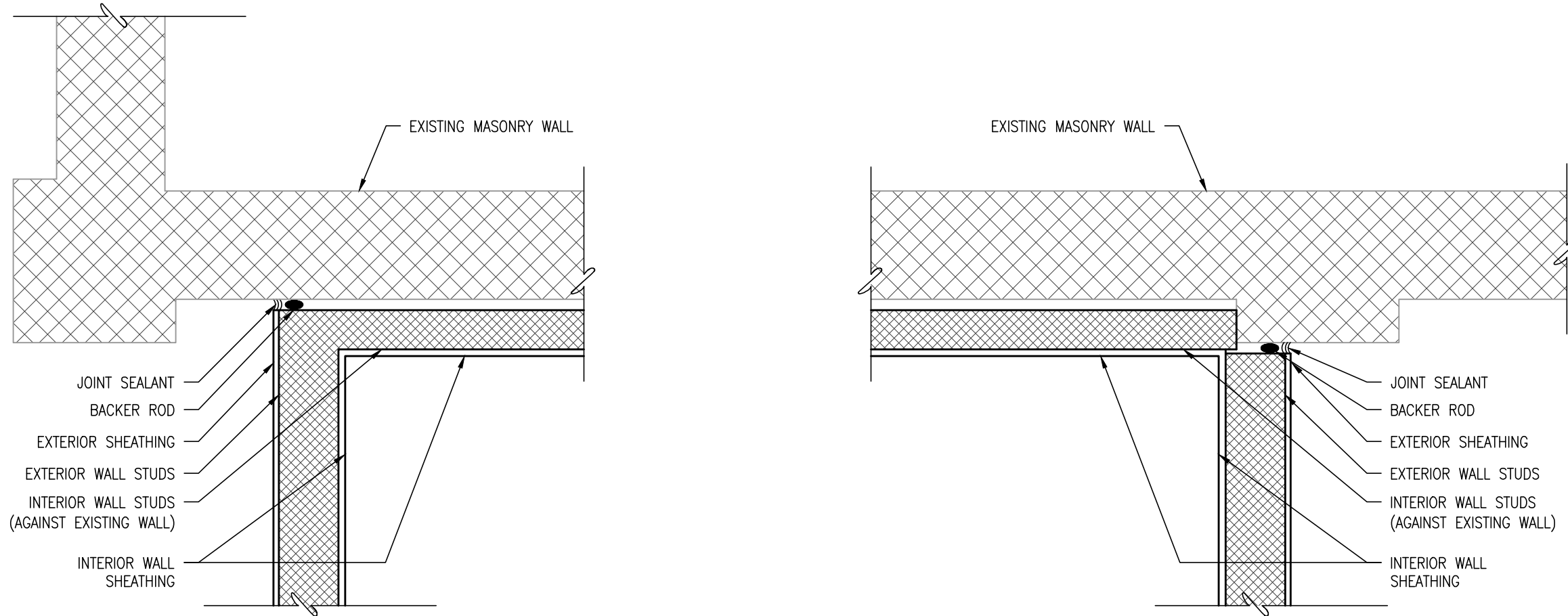
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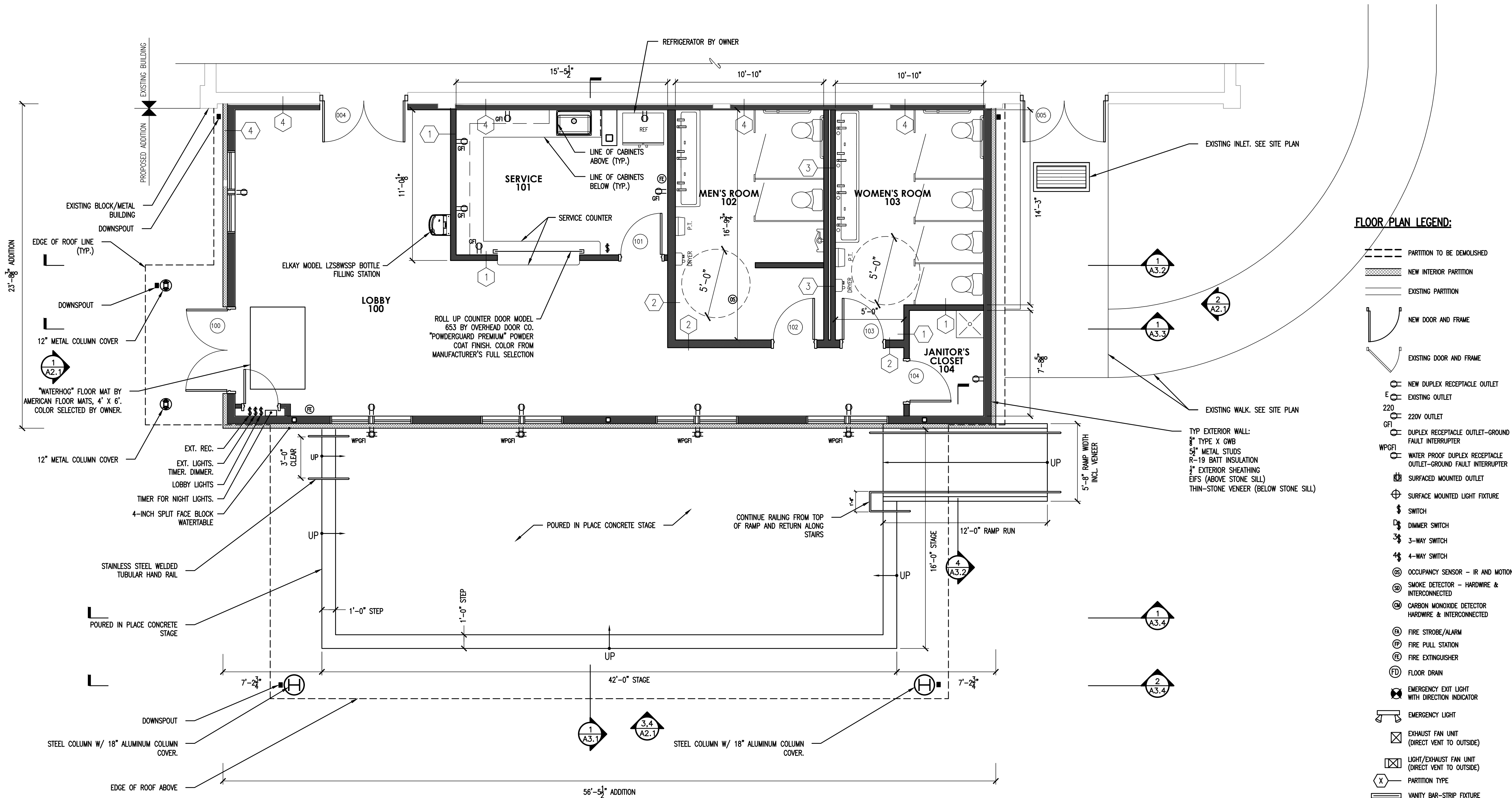


1 FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

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2 DETAIL - WEATHER SEAL @ EXISTING BUILDING
SCALE: 1" = 1'-0"



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



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FLOOR PLAN

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REVISIONS

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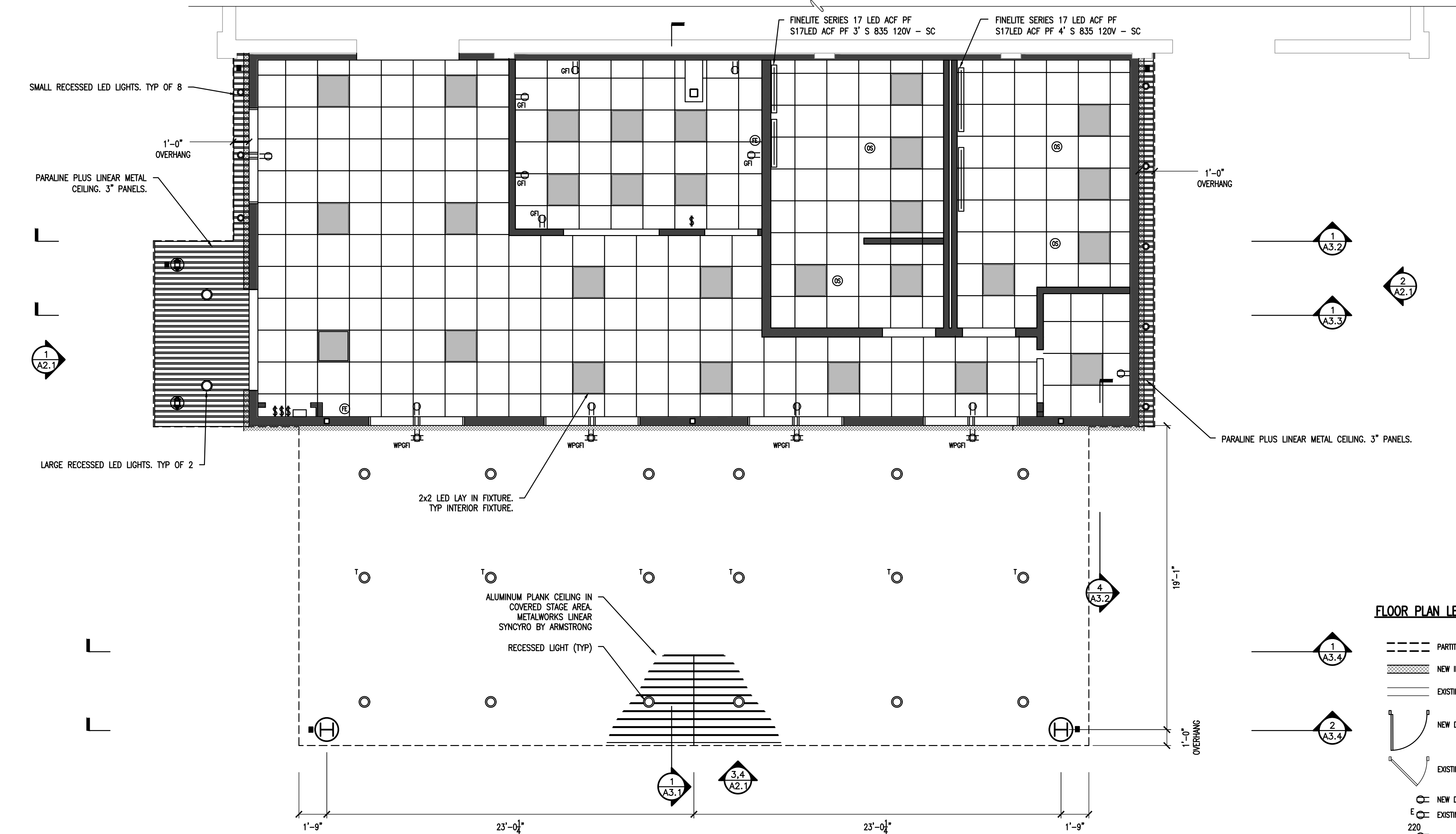
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REFLECTED
CEILING PLAN

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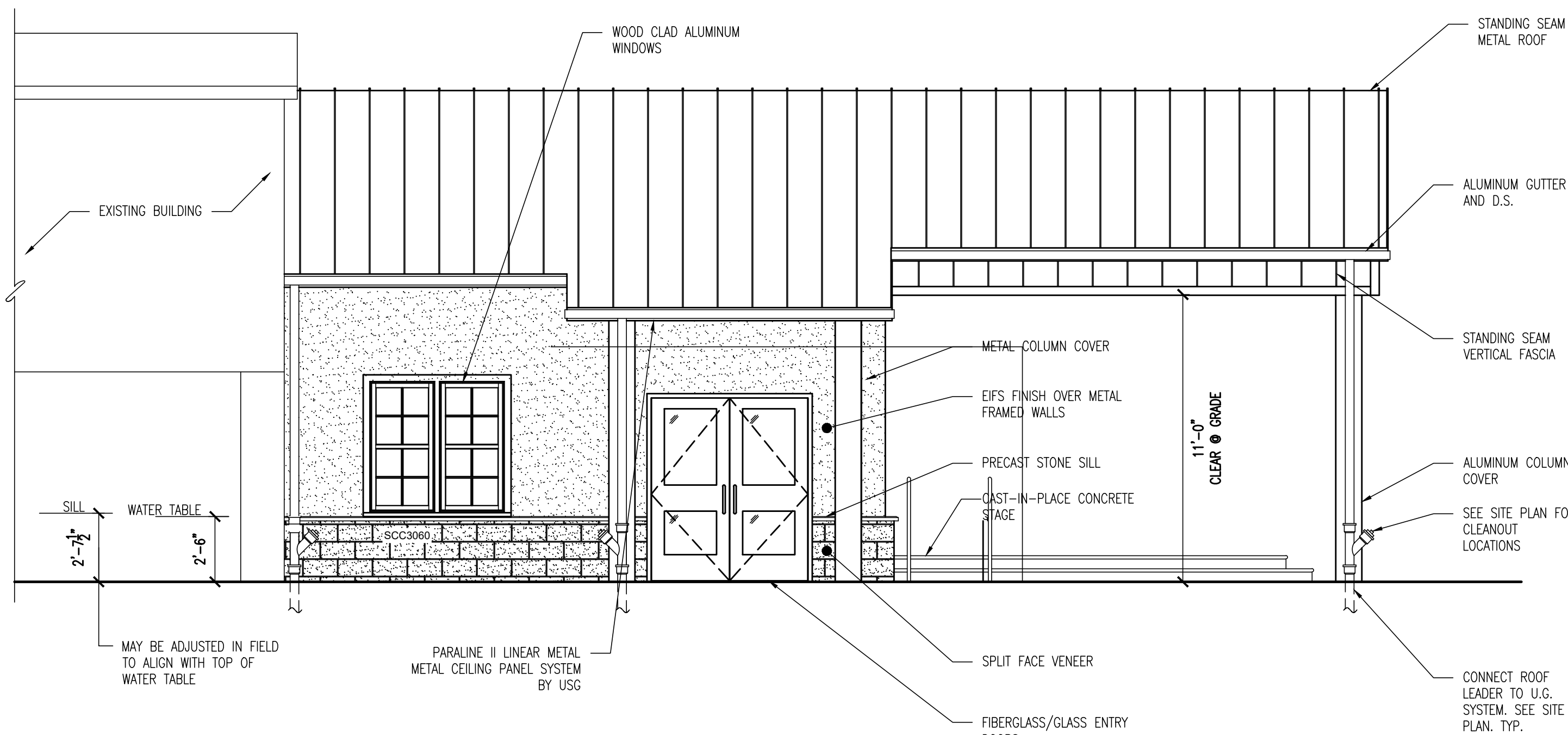
1 REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"

FLOOR PLAN LEGEND:

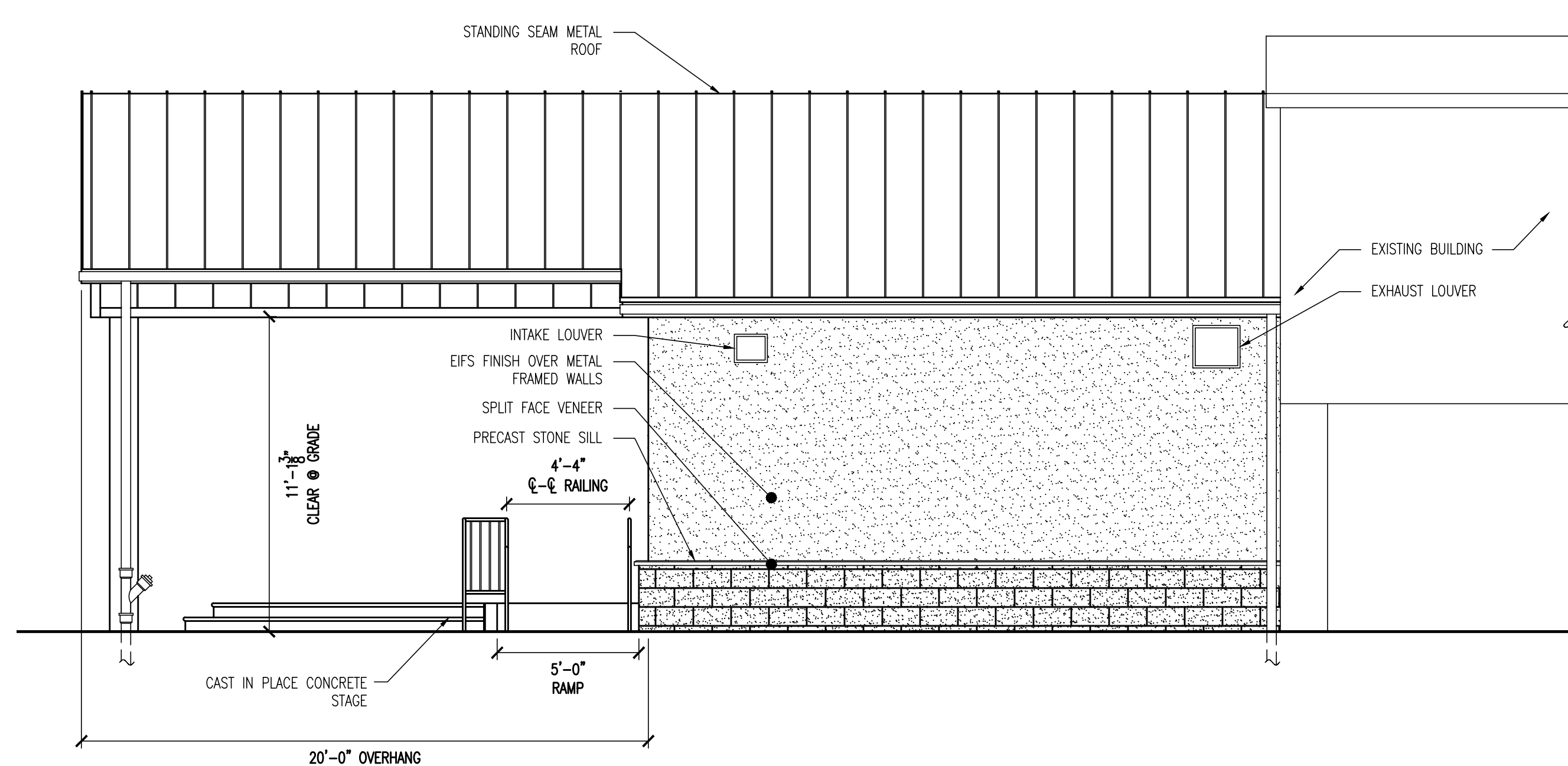
- PARTITION TO BE DEMOLISHED
- NEW INTERIOR PARTITION
- EXISTING PARTITION
- NEW DOOR AND FRAME
- EXISTING DOOR AND FRAME
- NEW DUPLEX RECEPTACLE OUTLET
- EXISTING OUTLET
- 220V OUTLET
- DUPLEX RECEPTACLE OUTLET-GROUND FAULT INTERRUPTER
- WPGFI WATER PROOF DUPLEX RECEPTACLE OUTLET-GROUND FAULT INTERRUPTER
- SURFACE MOUNTED OUTLET
- SURFACE MOUNTED LIGHT FIXTURE
- SWITCH
- DIMMER SWITCH
- 3-WAY SWITCH
- 4-WAY SWITCH
- OCCUPANCY SENSOR - IR AND MOTION
- SMOKE DETECTOR - HARDWARE & INTERCONNECTED
- CARBON MONOXIDE DETECTOR HARDWARE & INTERCONNECTED
- FIRE STROBE/ALARM
- FIRE PULL STATION
- FIRE EXTINGUISHER
- FLOOR DRAIN
- EMERGENCY EXIT LIGHT WITH DIRECTION INDICATOR
- EMERGENCY LIGHT
- EXHAUST FAN UNIT (DIRECT VENT TO OUTSIDE)
- LIGHT/EXHAUST FAN UNIT (DIRECT VENT TO OUTSIDE)
- PARTITION TYPE
- VANITY BAR-STRIP FIXTURE (ABOVE MIRROR)

REFLECTED CEILING LEGEND:

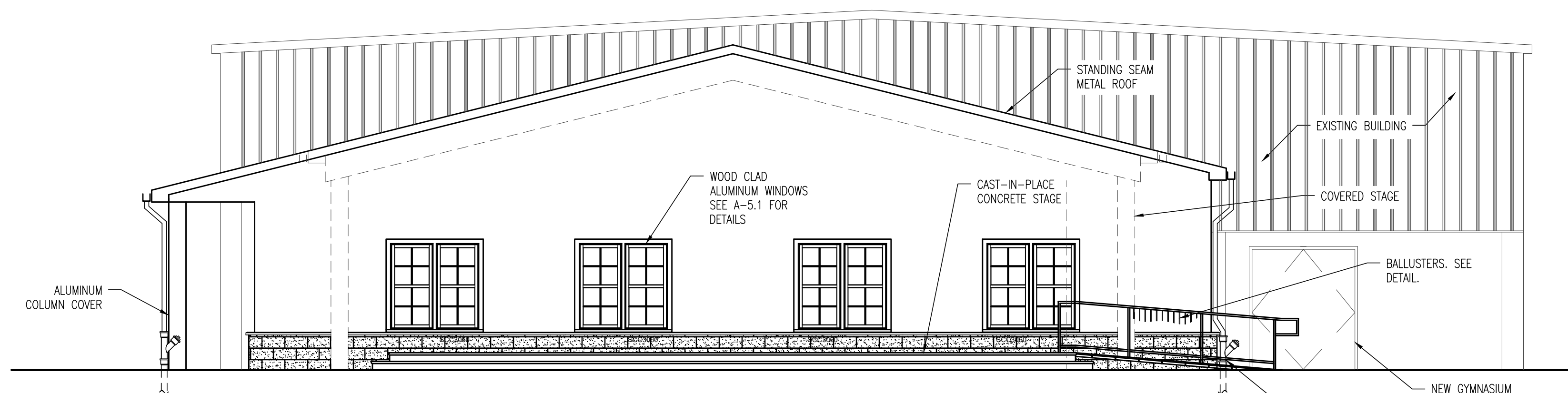
- 24x48 FLUORESCENT LIGHT FIXTURE
- 24x24 FLUORESCENT LIGHT FIXTURE
- 4x48 FLUORESCENT LIGHT FIXTURE
- DIFFUSER (SIZE VARIES)
- RETURN (SIZE VARIES)
- RECESSED LIGHT FIXTURE
- RECESSED LIGHT FIXTURE ON TIMER
- 1 BULB FLUORESCENT FIXTURE
- EMERGENCY EXIT LIGHT WITH DIRECTION INDICATOR
- EMERGENCY LIGHT
- WALL SCONCE



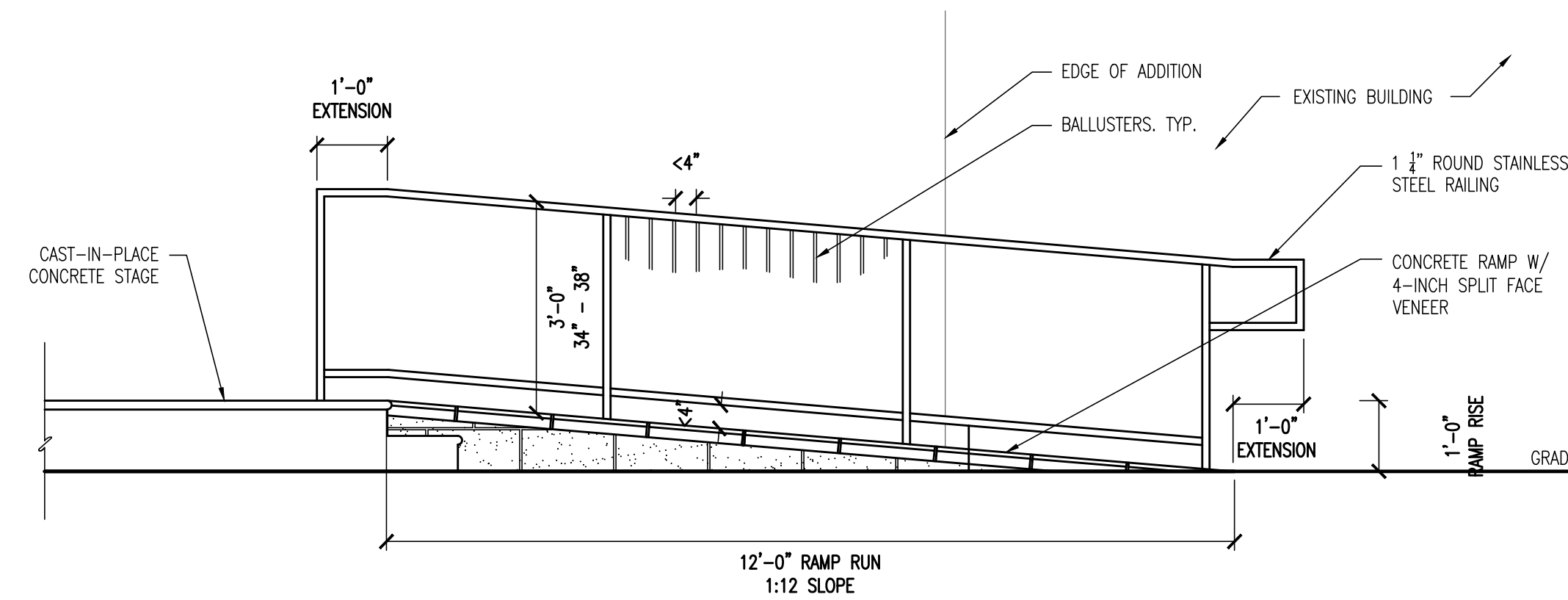
1 FRONT ELEVATION
SCALE: 1/4" = 1'-0



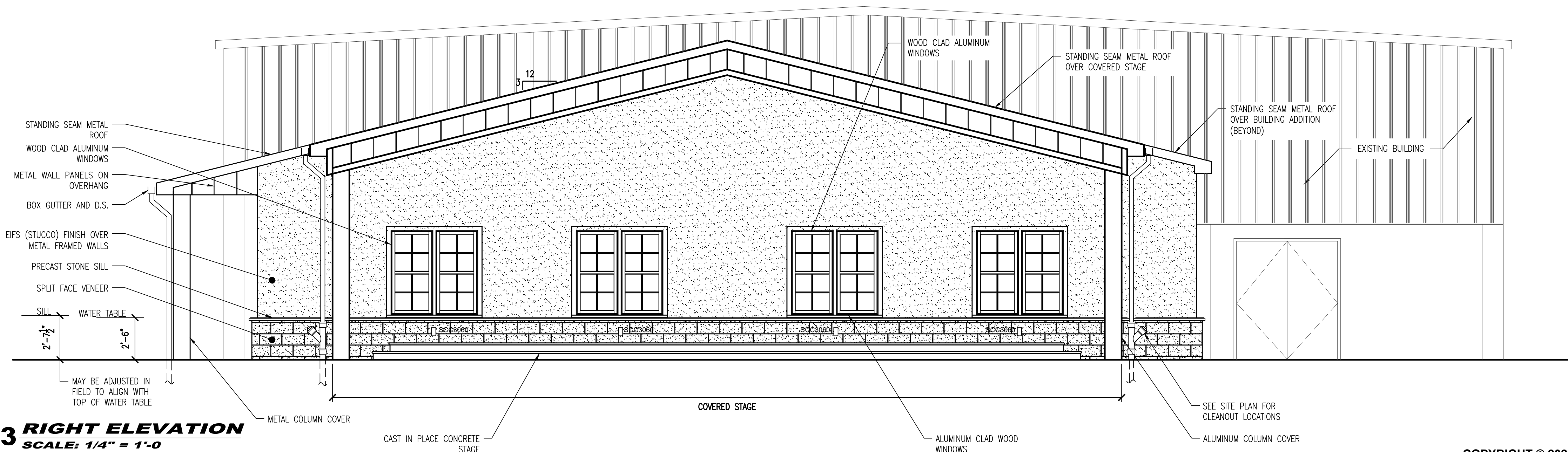
2 REAR ELEVATION
SCALE: 1/4" = 1'-0



4 RIGHT ELEVATION (COVERED STAGE SHOWN DASHED)
SCALE: 3/16" = 1'-0



5 ELEVATION - RAMP AND RAILING
SCALE: 3/16" = 1'-0



3 RIGHT ELEVATION
SCALE: 1/4" = 1'-0

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CAMDEN COUNTY, NEW JERSEY

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NJ PROFESSIONAL PLANNER No. LI 05557

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PROJECT:

BOROUGH OF RUNNEMEDE
HARRY WILLIAMS BUILDING
ADDITION
2 BROADWAY
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CAMDEN COUNTY, NEW JERSEY

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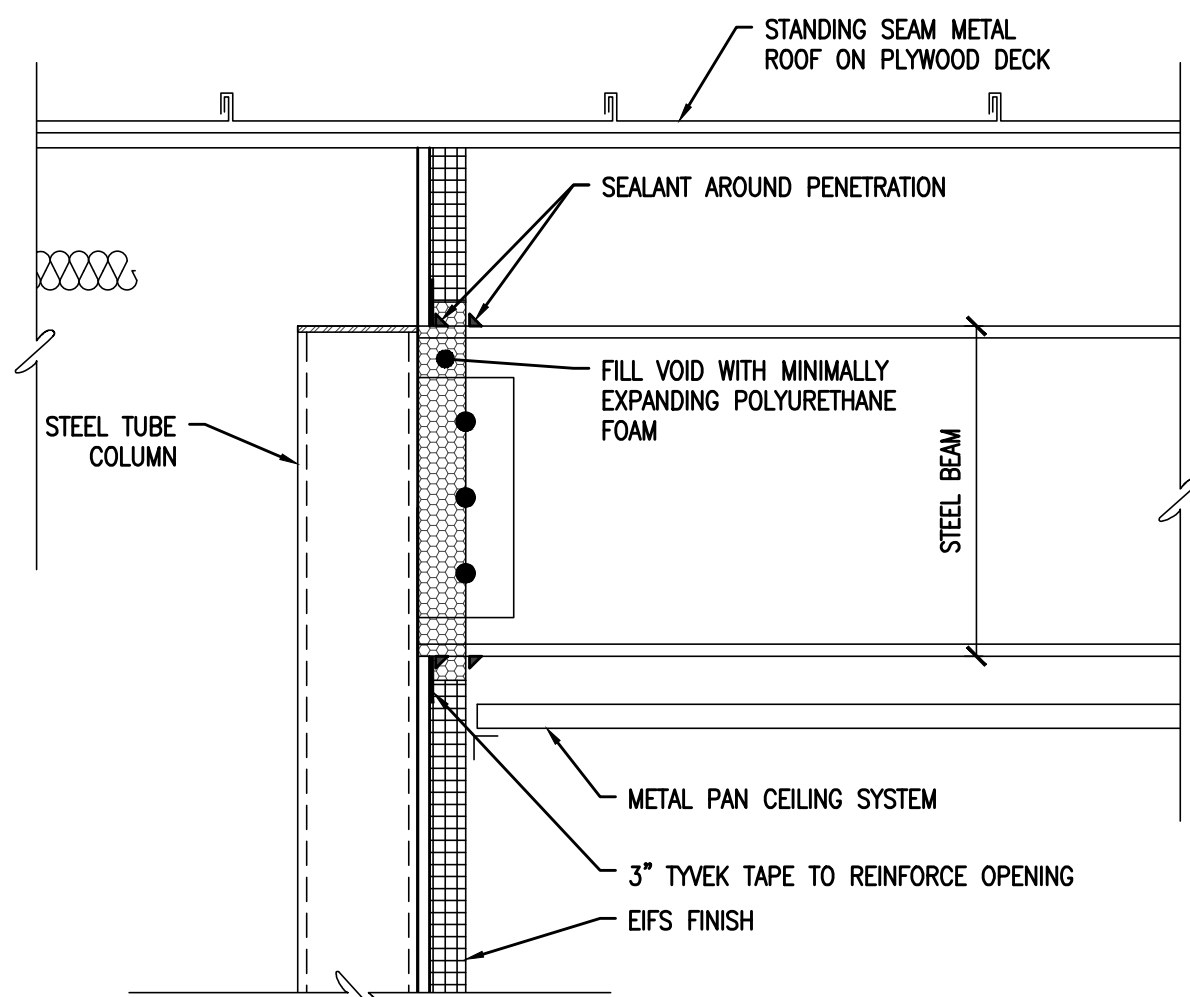
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SECTION

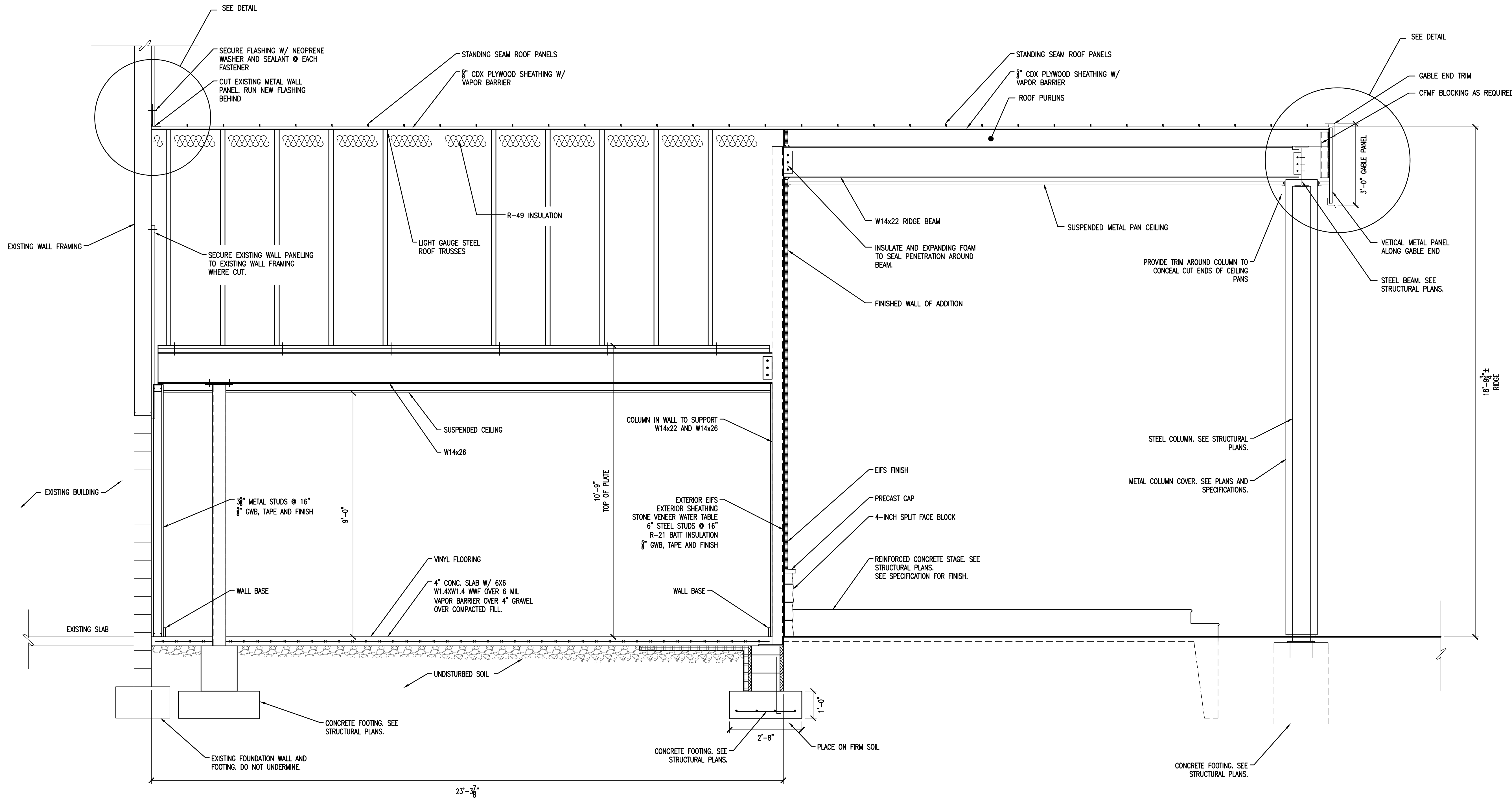
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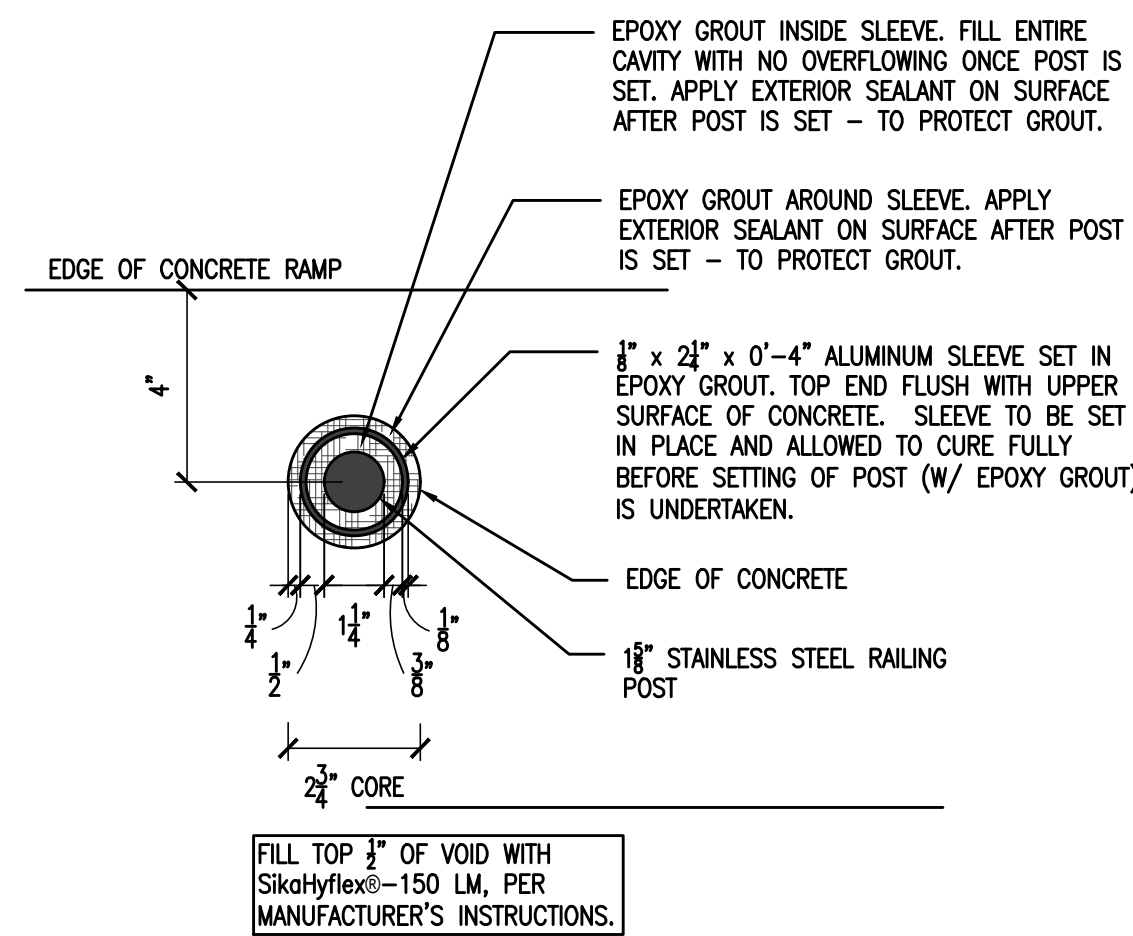
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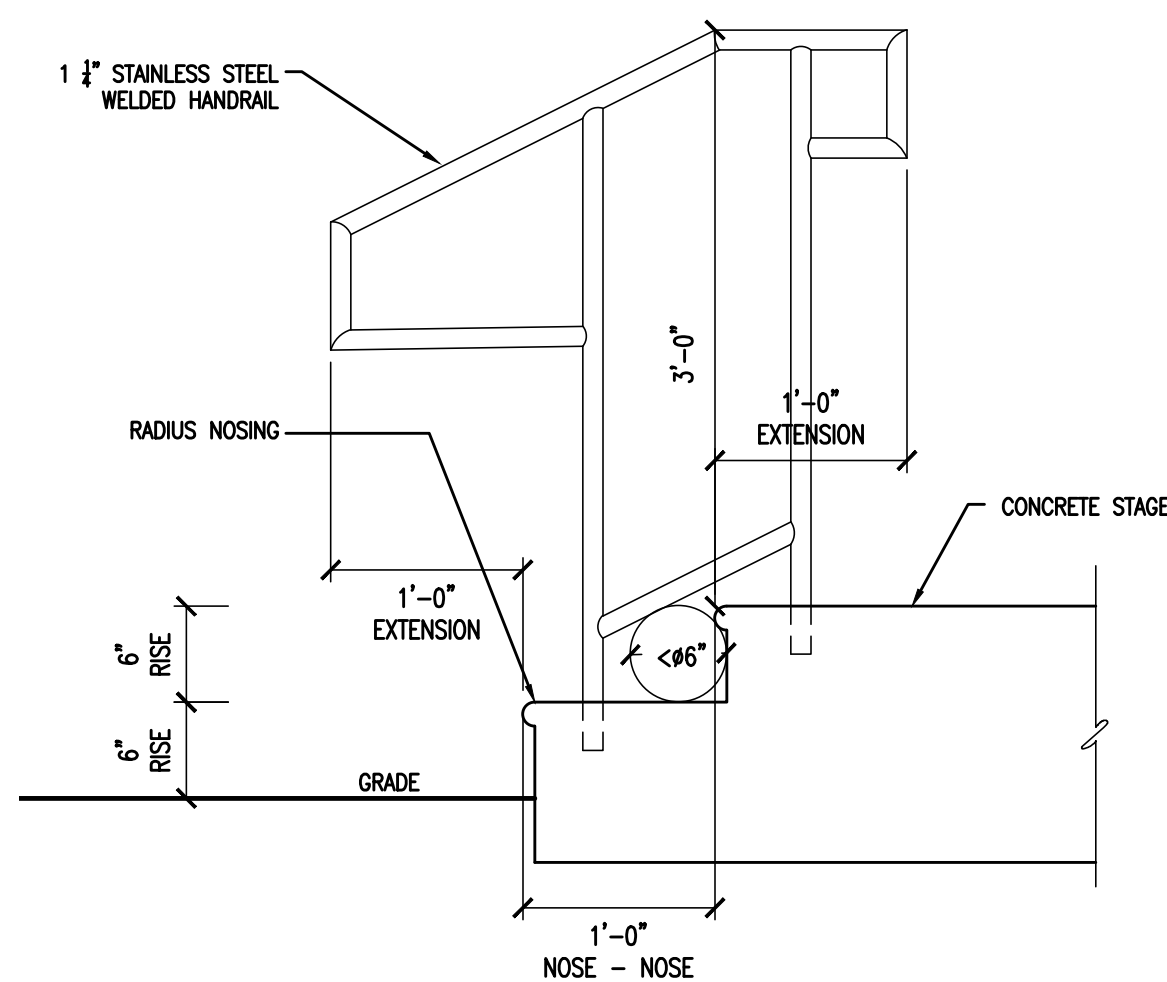
2 BEAM PENETRATION @ EIFS
SCALE: 1 1/2" = 1'-0



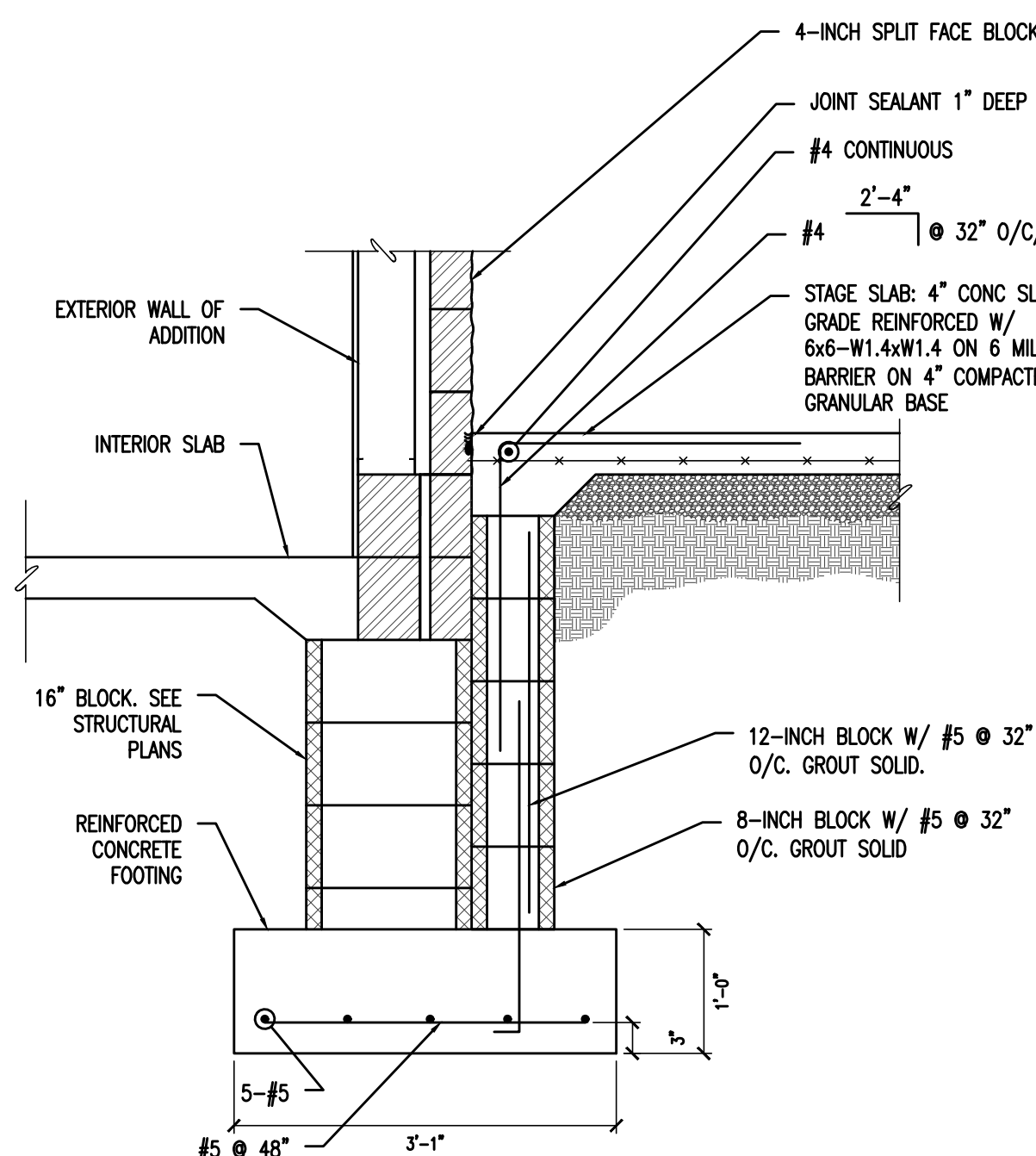
1 BUILDING SECTION
SCALE: 1/2" = 1'-0



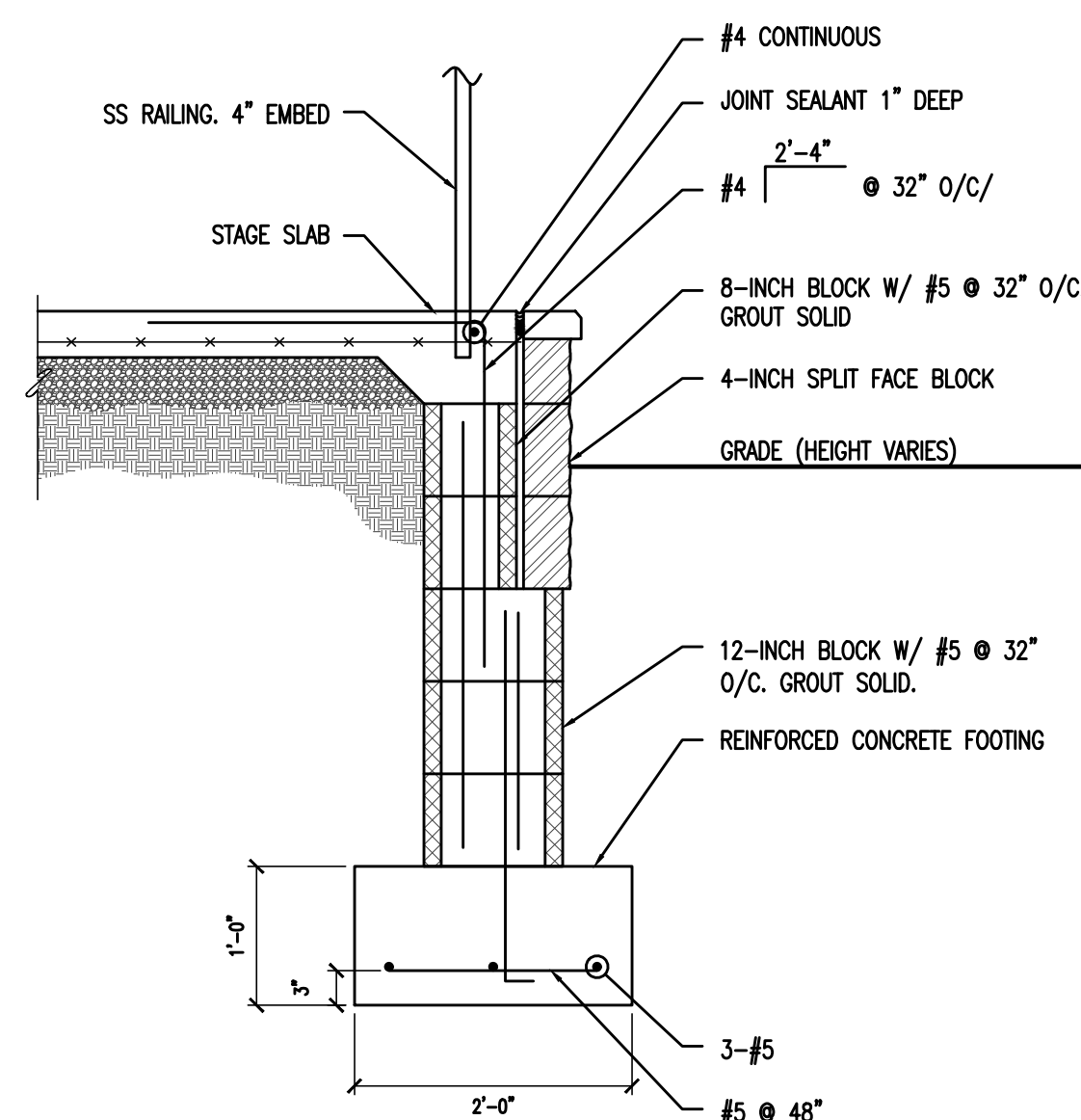
5 PLAN - RAILING SLEEVE
SCALE: 3" = 1'-0"



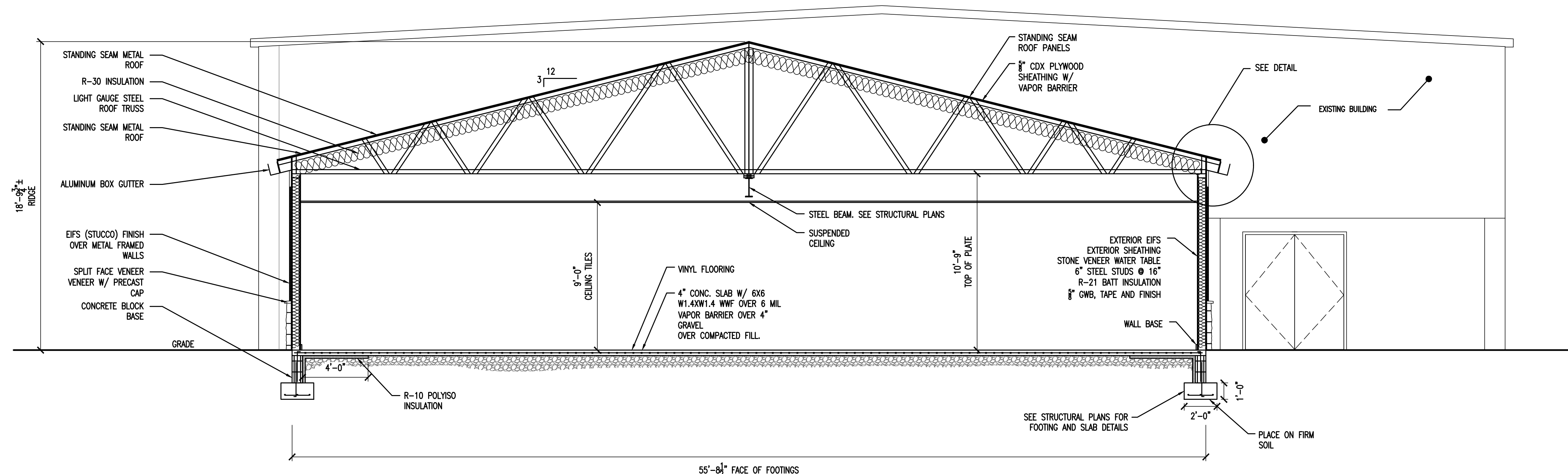
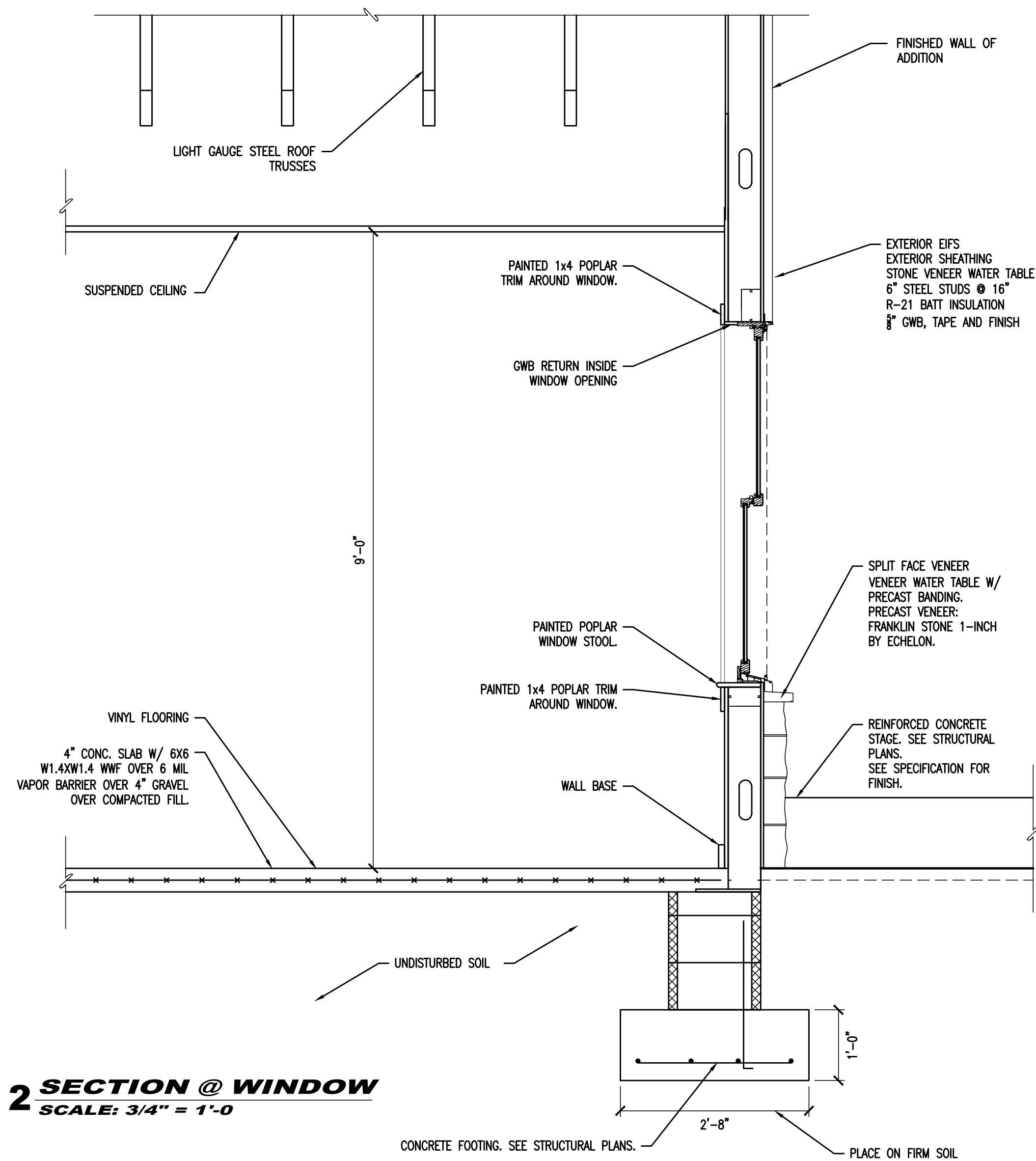
3 STAGE RAILING DETAIL
SCALE: 1" = 1'-0"



4 SECTION - RAMP
SCALE: 1 1/2" = 1'-0"



2 SECTION @ WINDOW
SCALE: 3/4" = 1'-0"



1 BUILDING SECTION - BUILDING ADDITION
SCALE: 1/4" = 1'-0"



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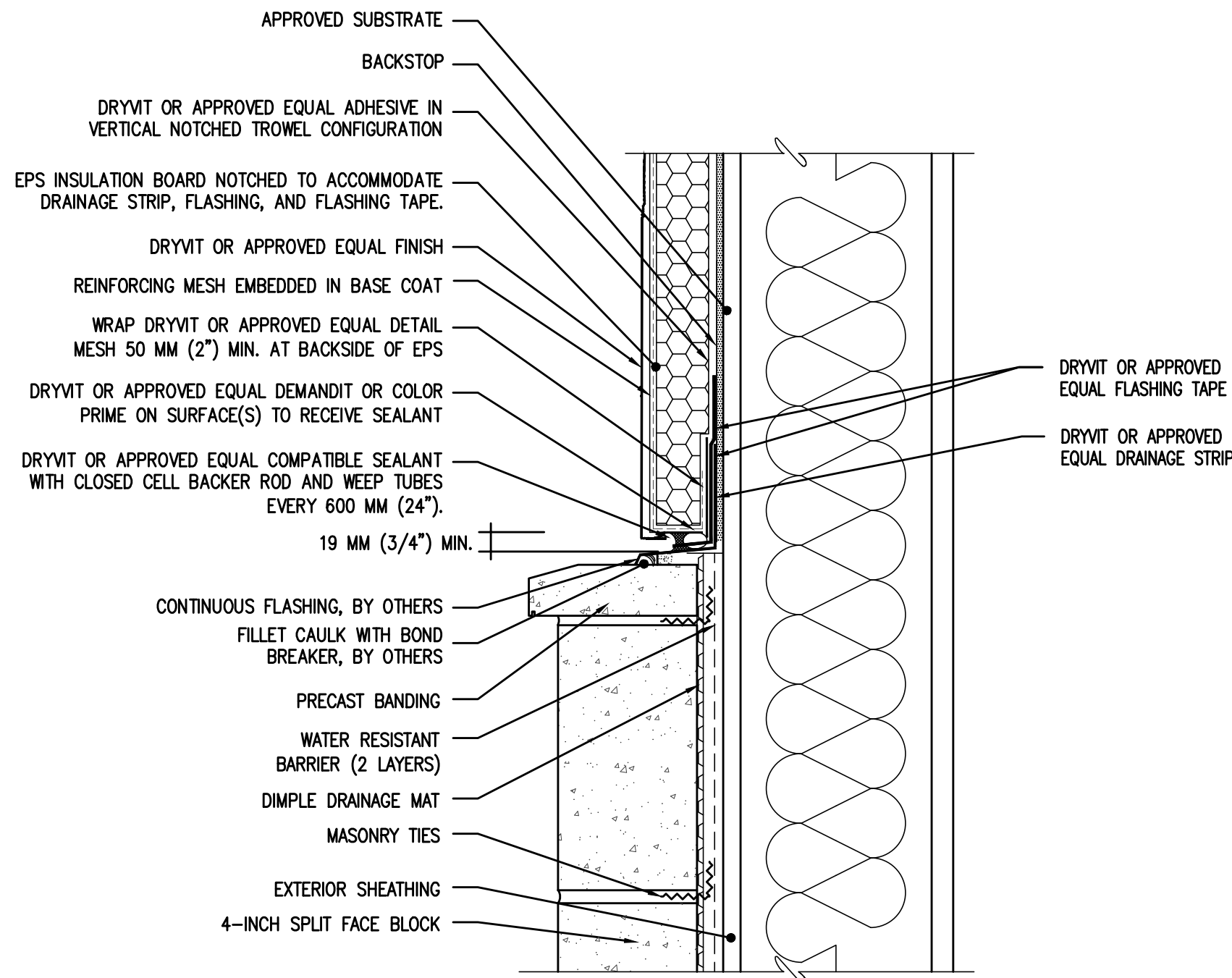
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AND DETAILS

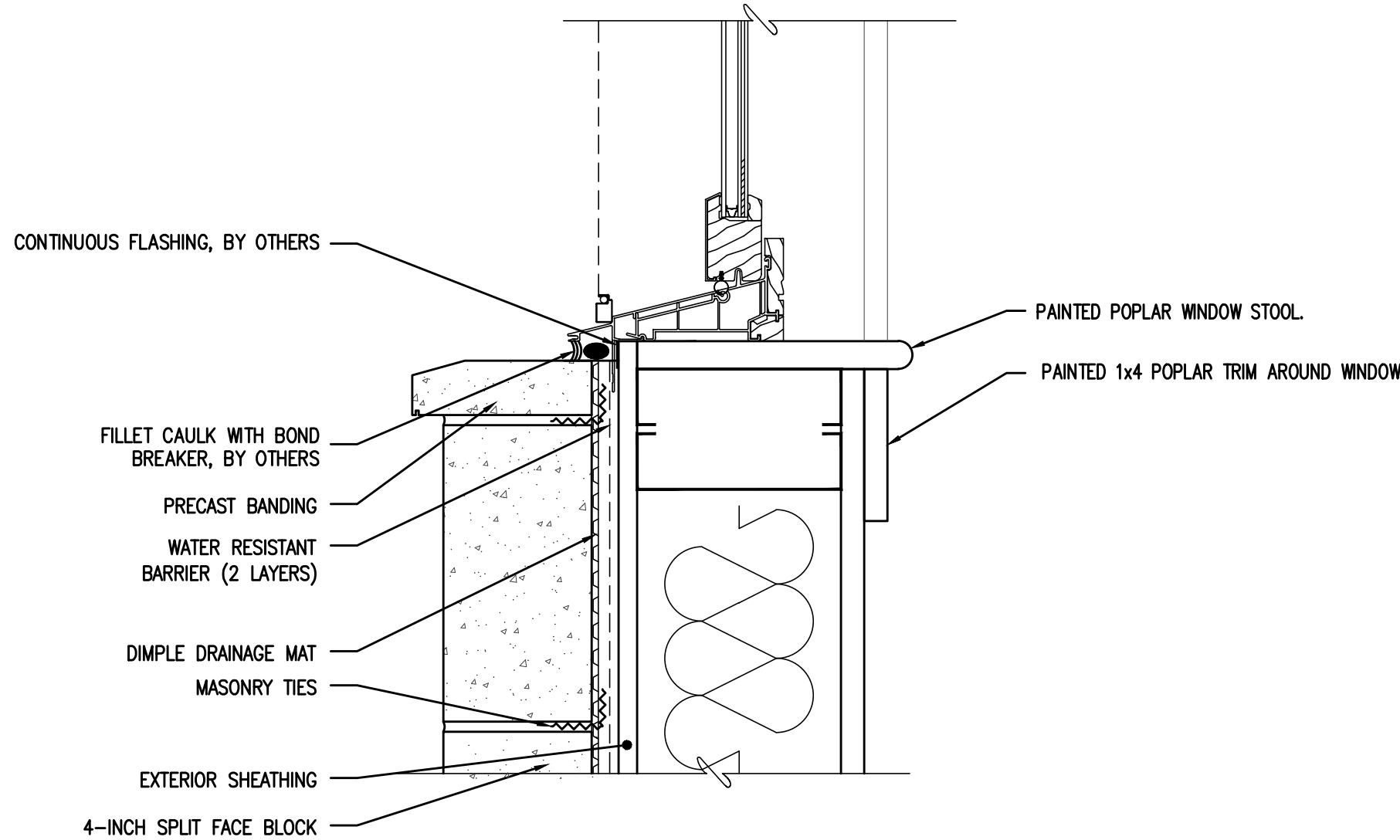
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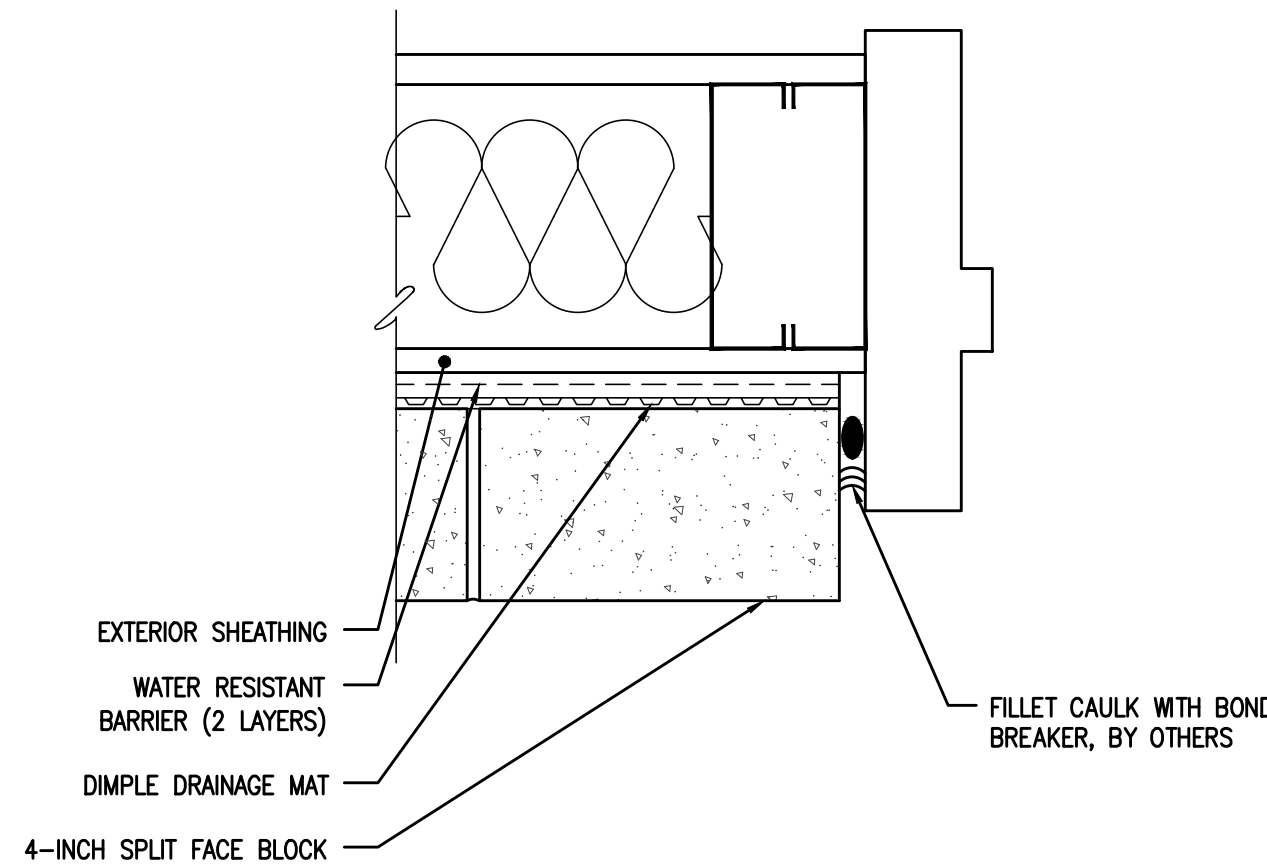
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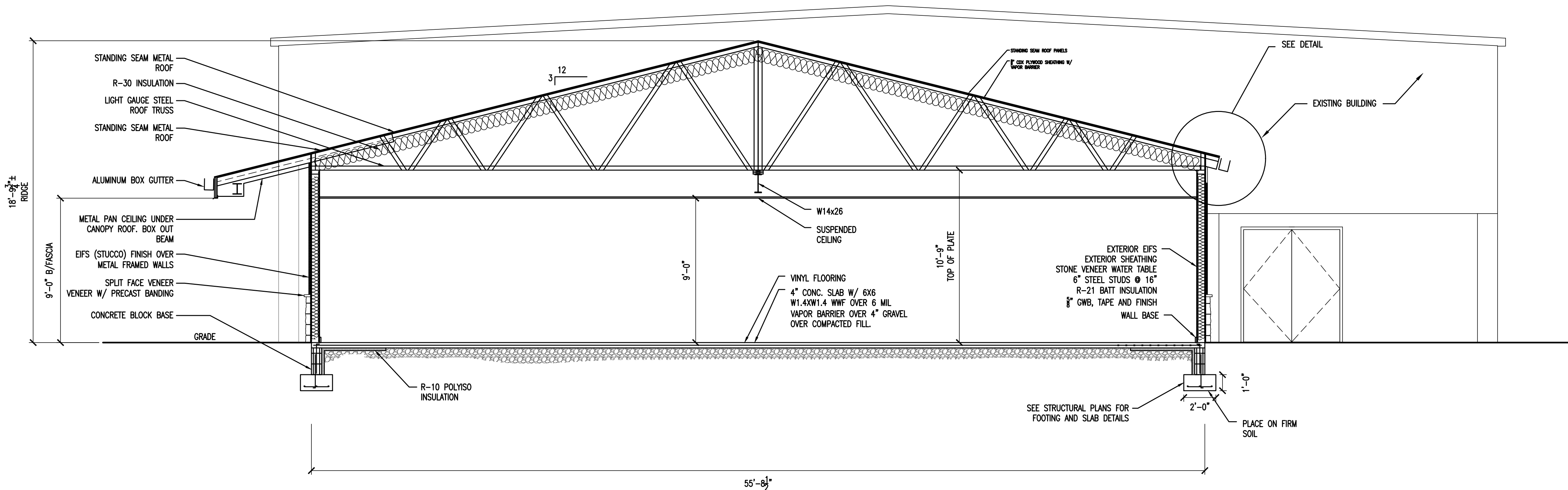
2 **DETAIL - EIFS @ VENEER**
SCALE: 3" = 1'-0"



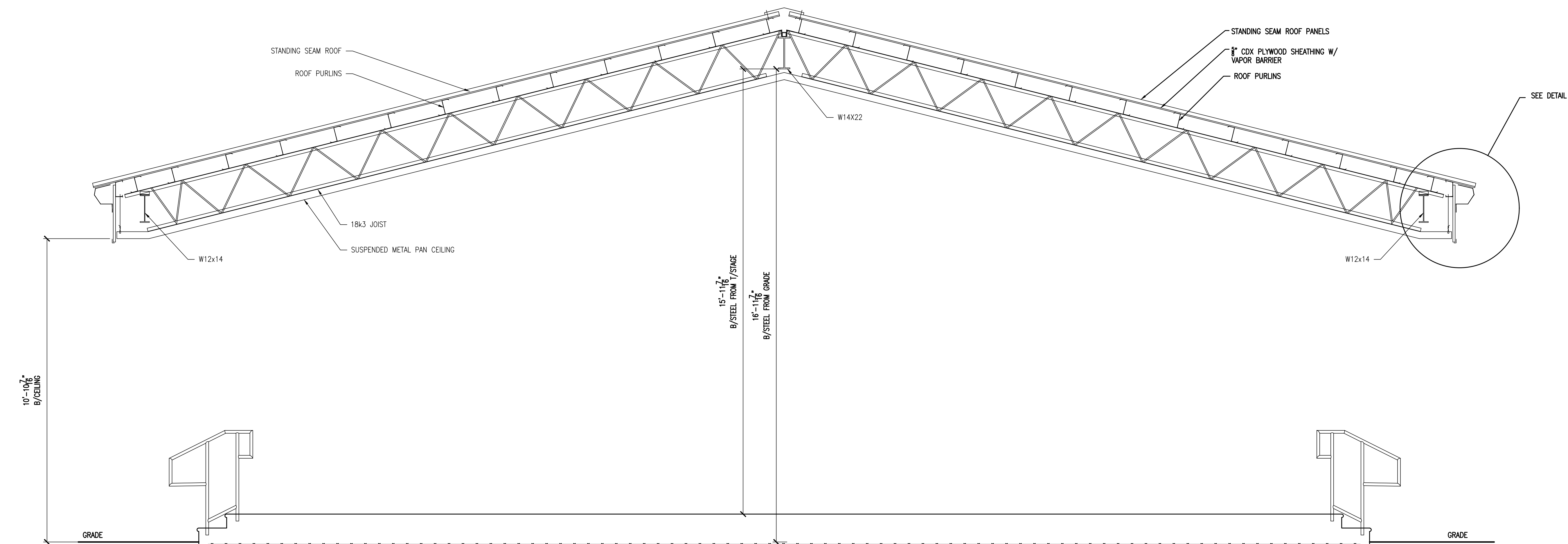
3 **DETAIL - VENEER @ SILL**
SCALE: 3" = 1'-0"



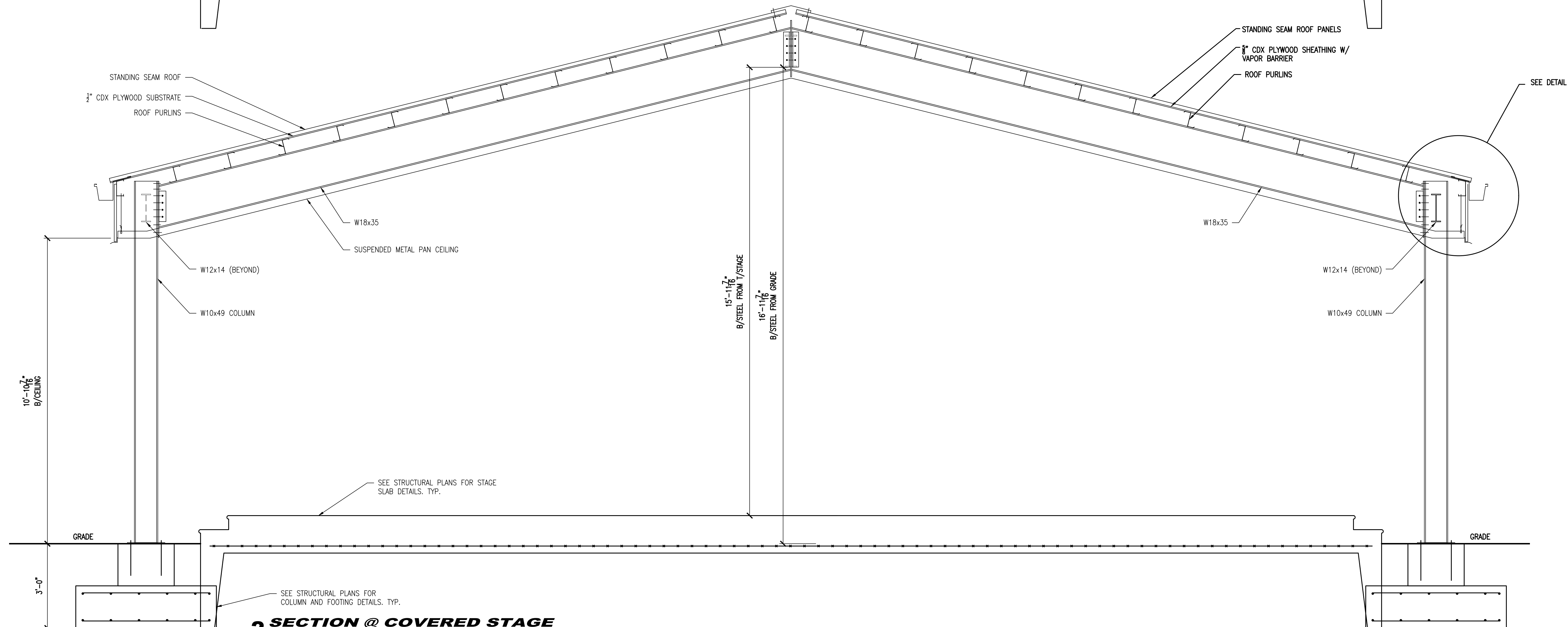
4 **DETAIL - VENEER @ JAMB**
SCALE: 3" = 1'-0"



1 **BUILDING SECTION - BUILDING ADDITION**
SCALE: 1/4" = 1'-0"



1 SECTION @ COVERED STAGE
SCALE: 1/2" = 1'-0



2 SECTION @ COVERED STAGE
SCALE: 1/2" = 1'-0

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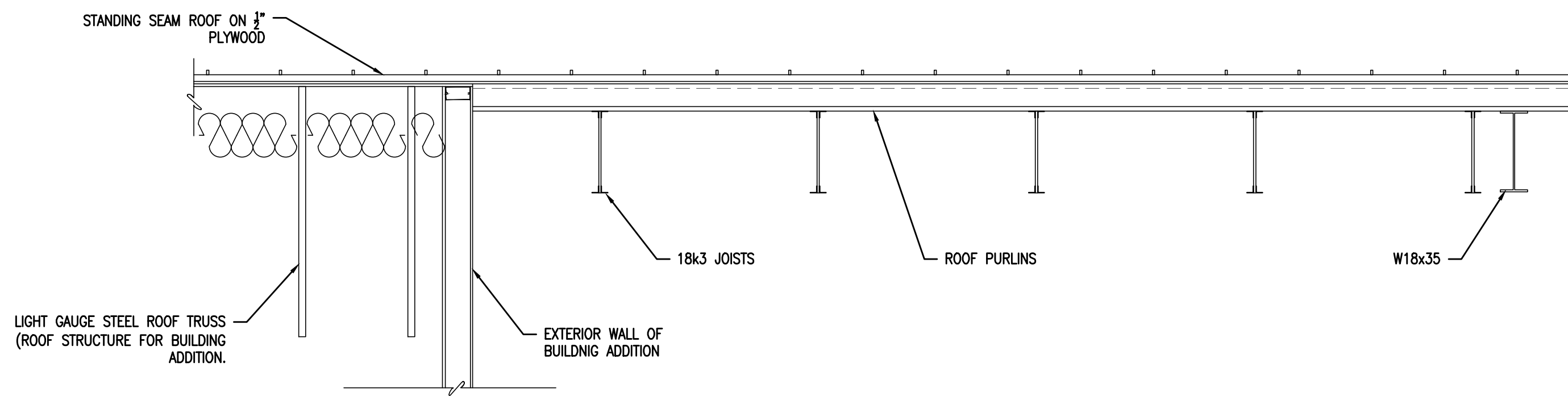
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**SECTION
- COVERED
STAGE**

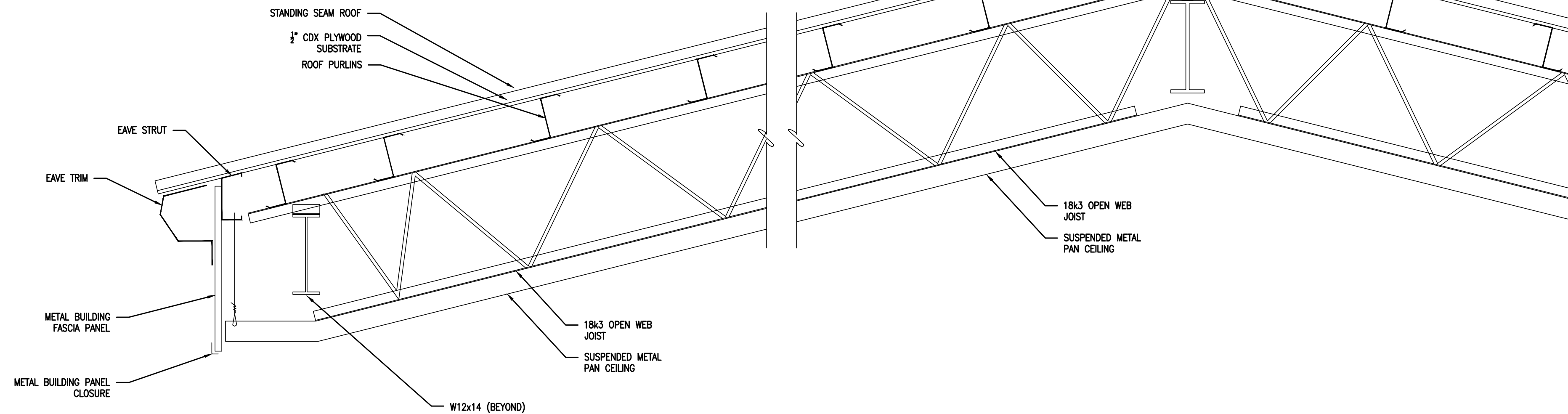
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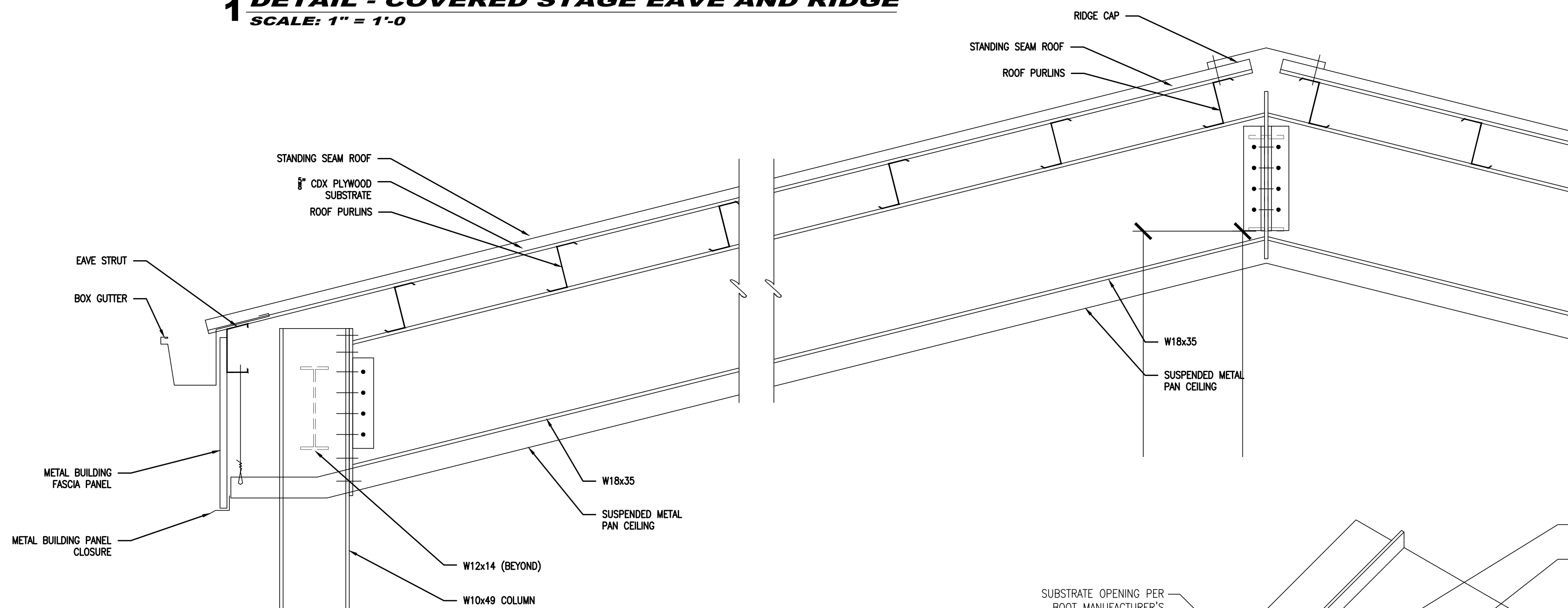
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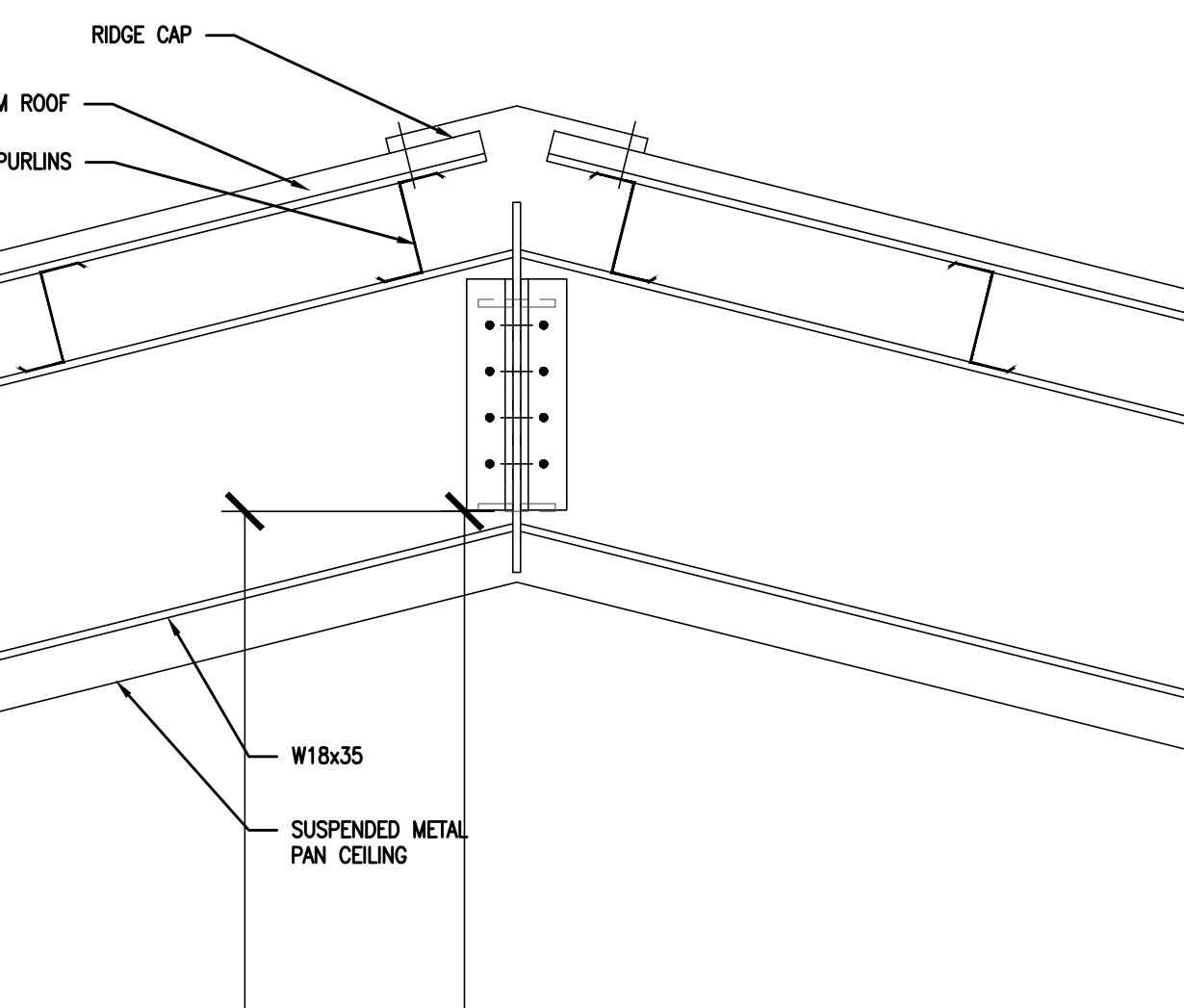
3 SECTION @ COVERED STAGE
SCALE: 1/2" = 1'-0



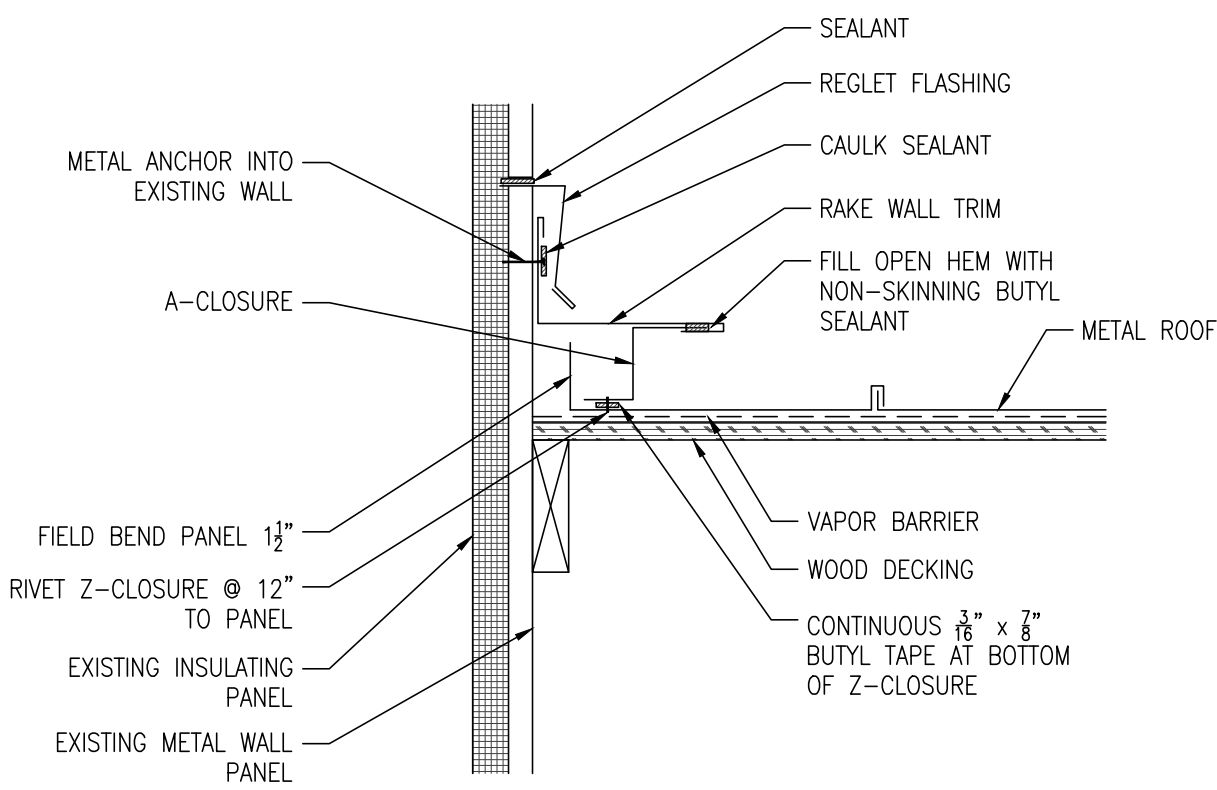
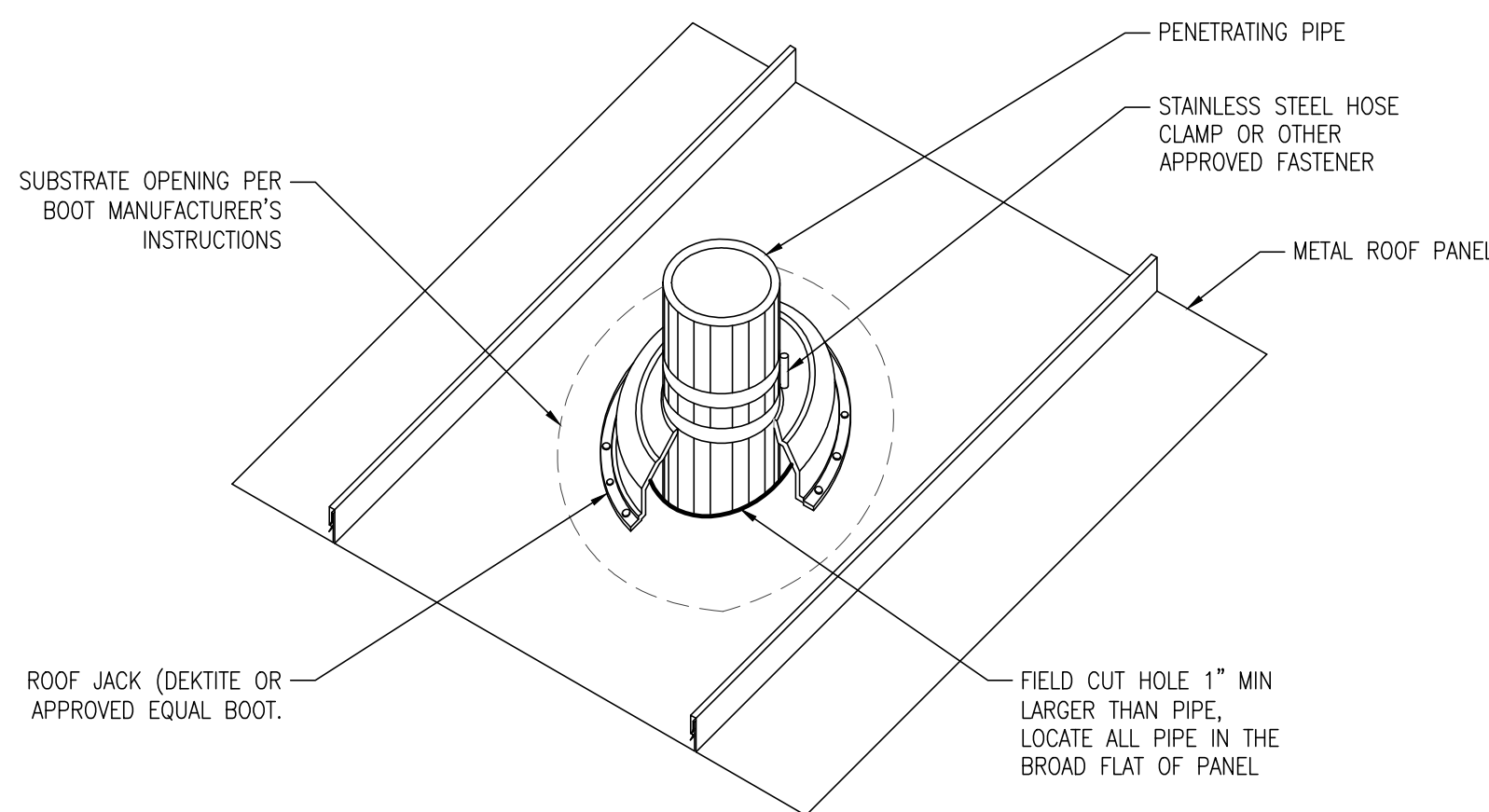
1 DETAIL - COVERED STAGE EAVE AND RIDGE
SCALE: 1" = 1'-0



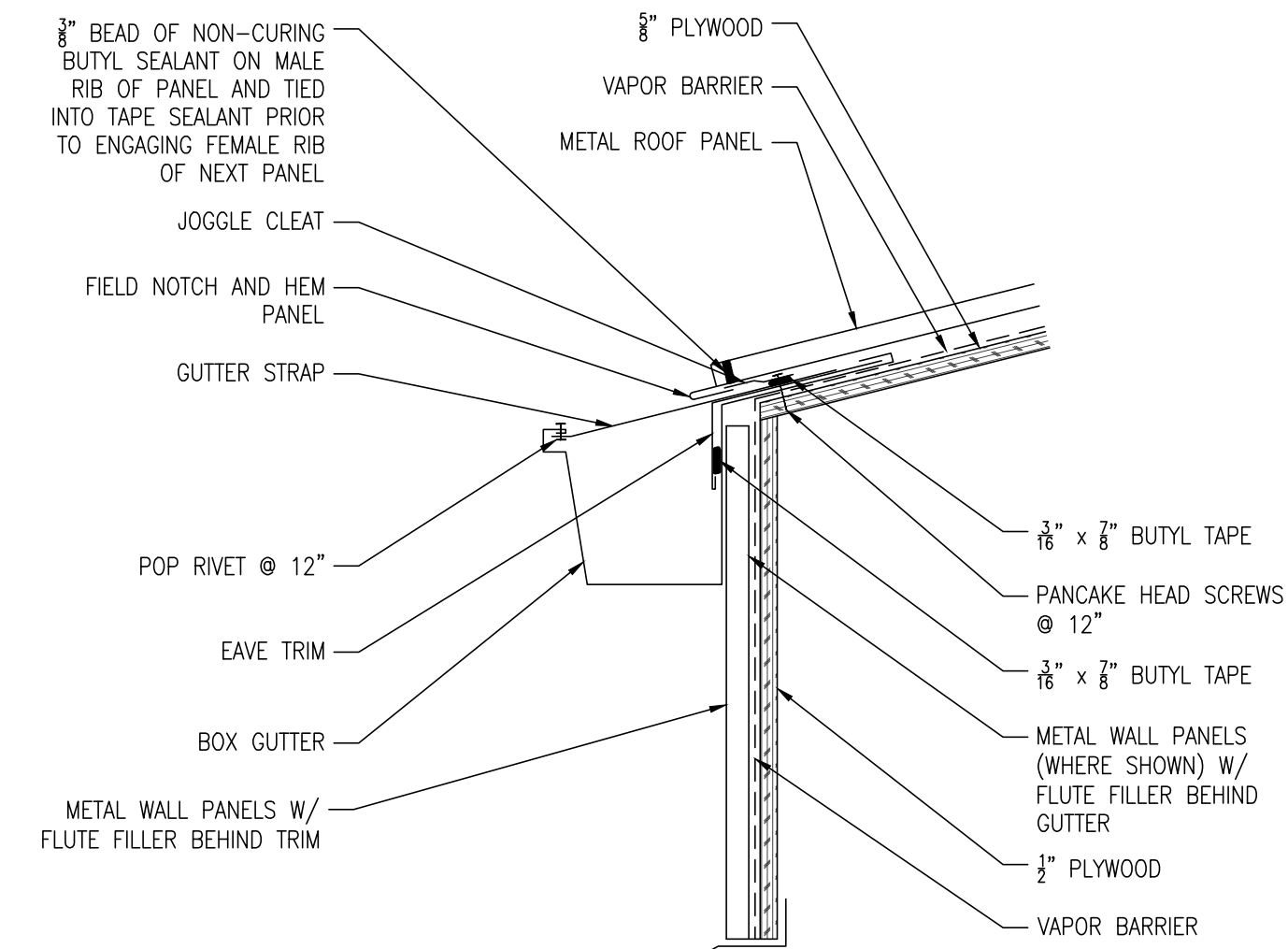
2 DETAIL - COVERED STAGE EAVE AND RIDGE
SCALE: 1" = 1'-0



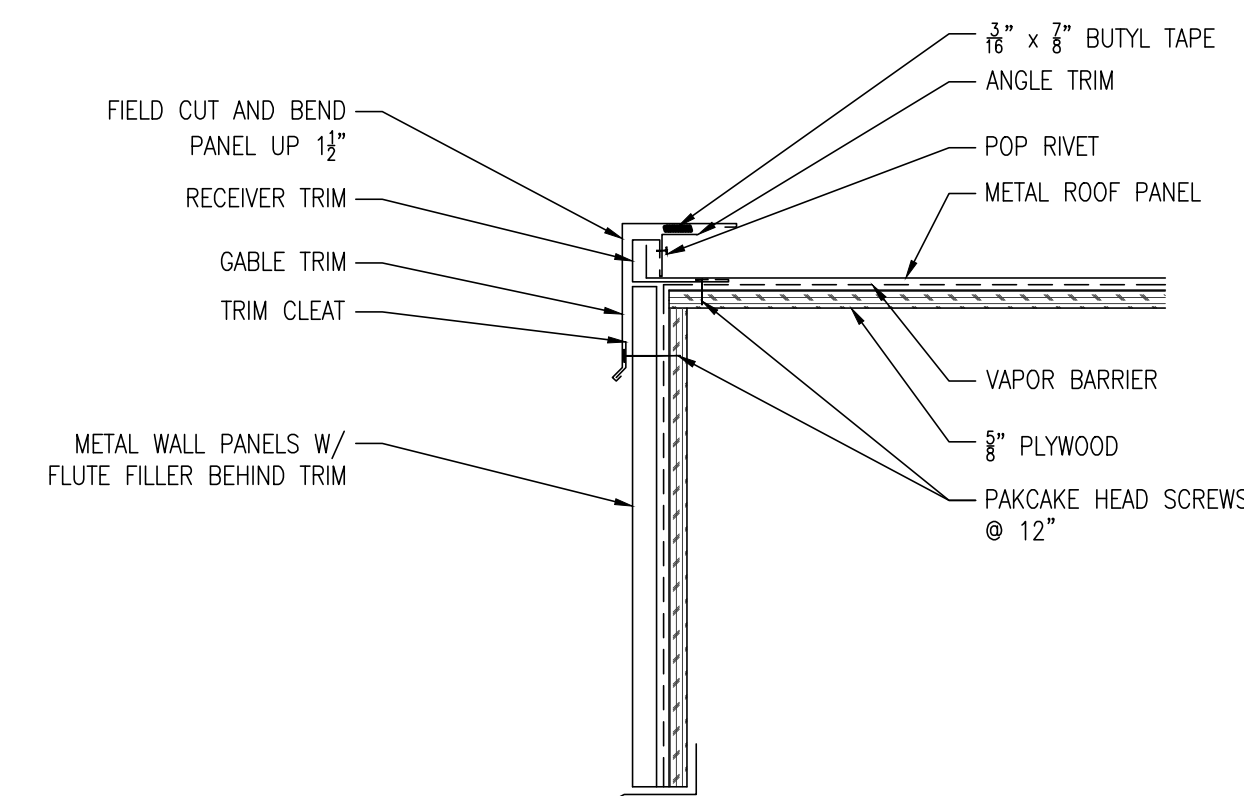
7 RIDGE DETAIL
SCALE: 1 1/2" = 1'-0



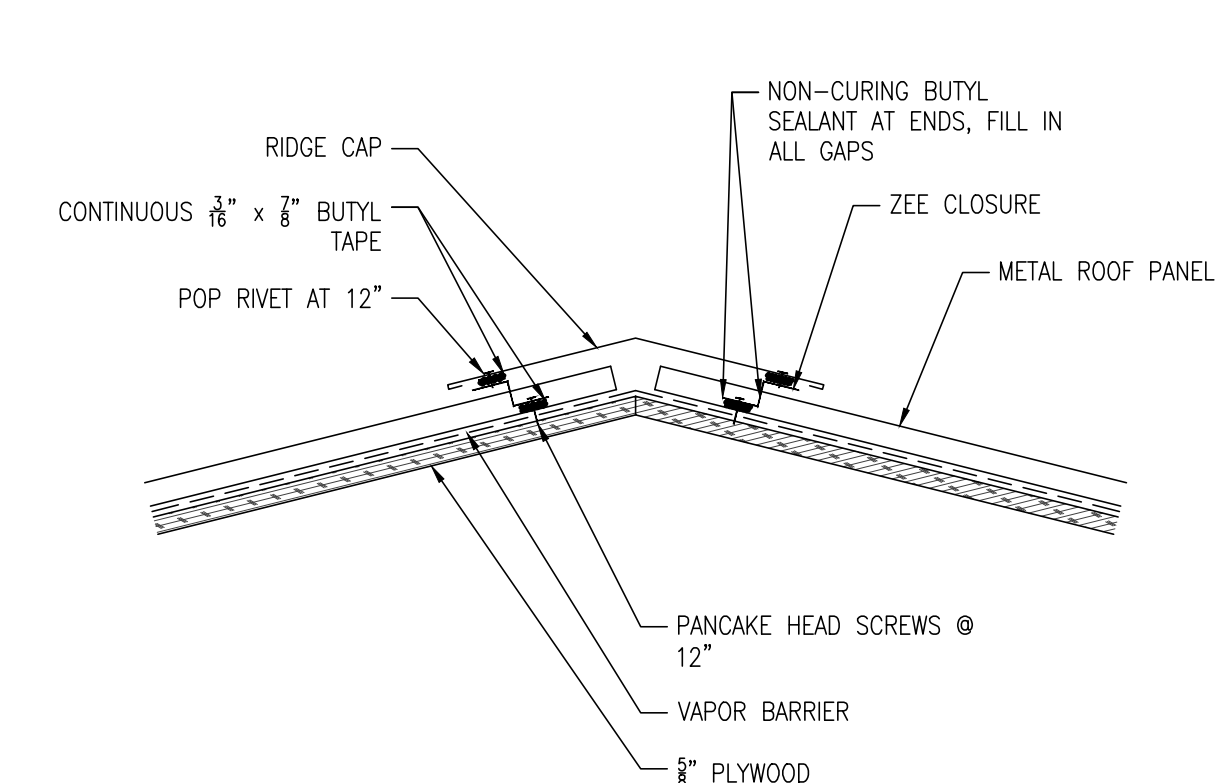
4 FLASHING @ EXISTING GYM WALL
SCALE: 1 1/2" = 1'-0



5 EAVE W/ GUTTER DETAIL
SCALE: 1 1/2" = 1'-0



6 GABLE DETAIL
SCALE: 1 1/2" = 1'-0



7 RIDGE DETAIL
SCALE: 1 1/2" = 1'-0

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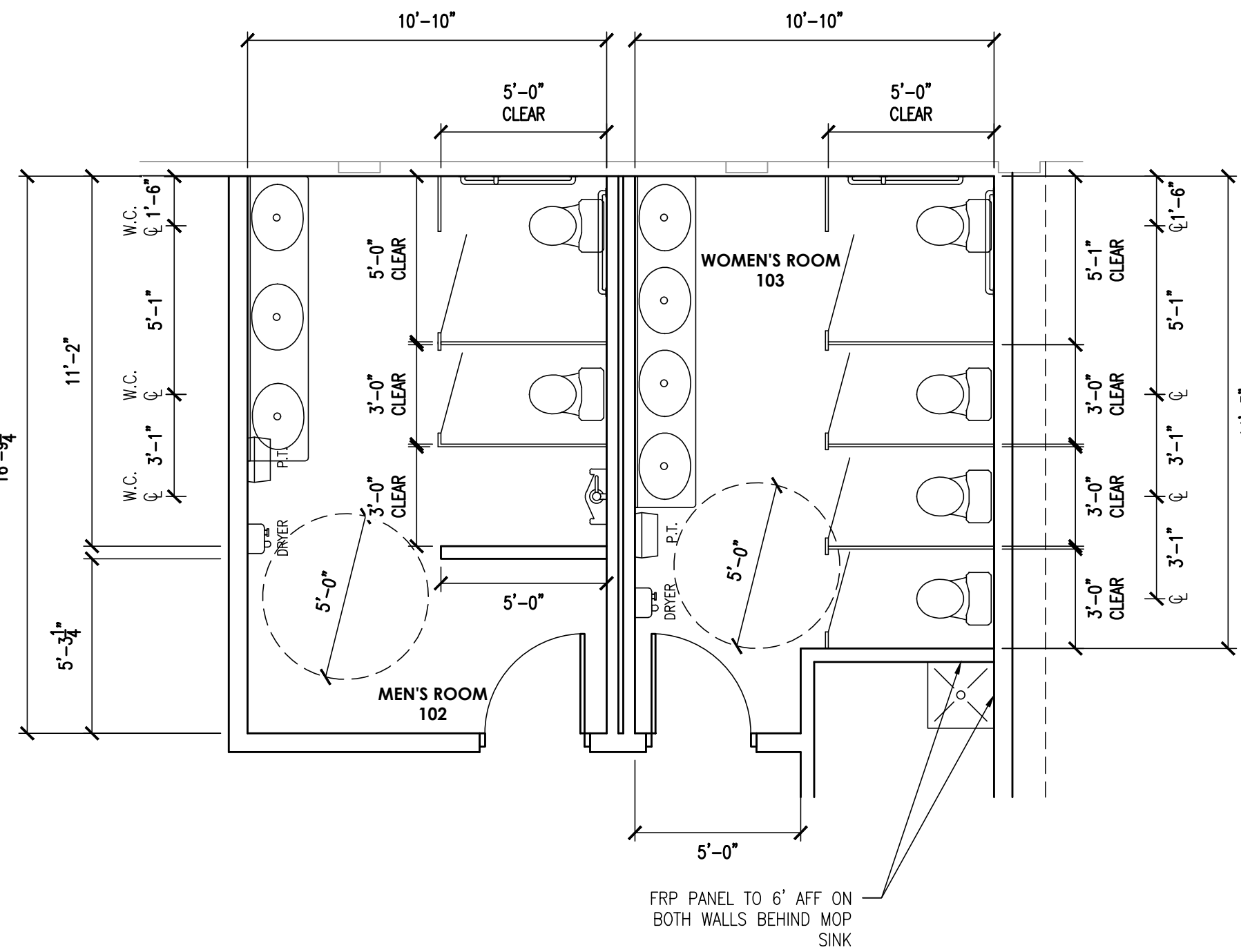
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- COVERED
STAGE**

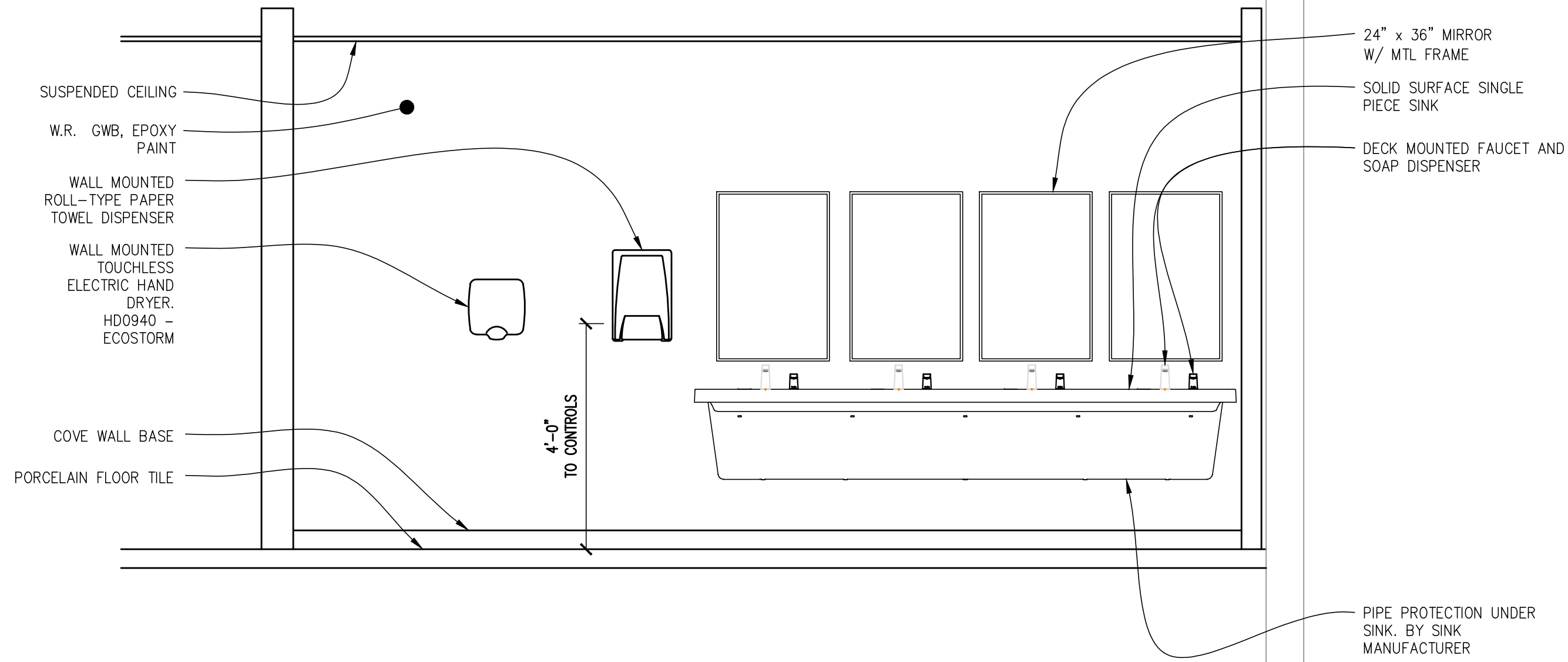
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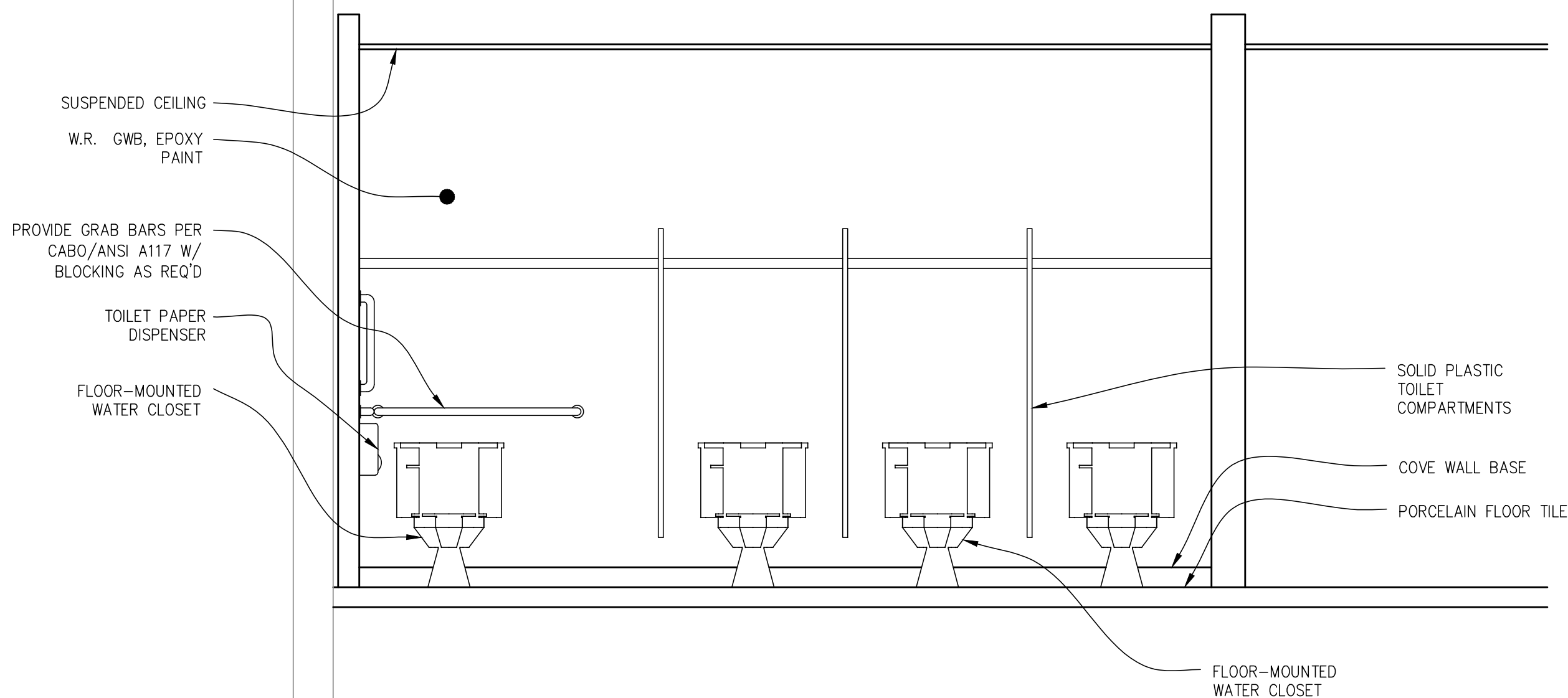
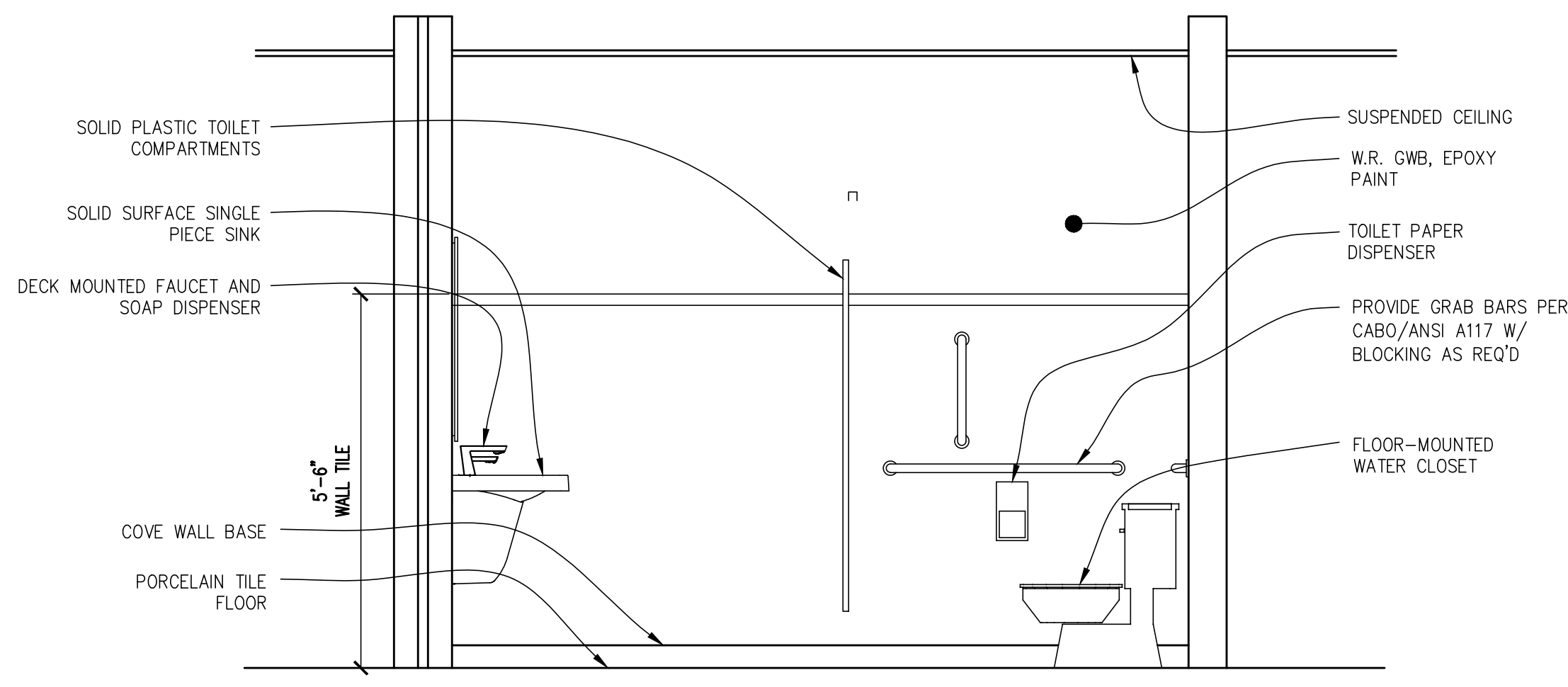
A-3.5



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



2 WOMEN'S BATHROOM ELEVATIONS
SCALE: 1/4" = 1'-0"



3 WOMEN'S BATHROOM ELEVATIONS
SCALE: 1/4" = 1'-0"



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NO.	DESCRIPTION	DATE

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**BATHROOM
PLAN AND
ELEVATIONS**

JOB NO: RB2024-5	DESIGNED BY: AAW
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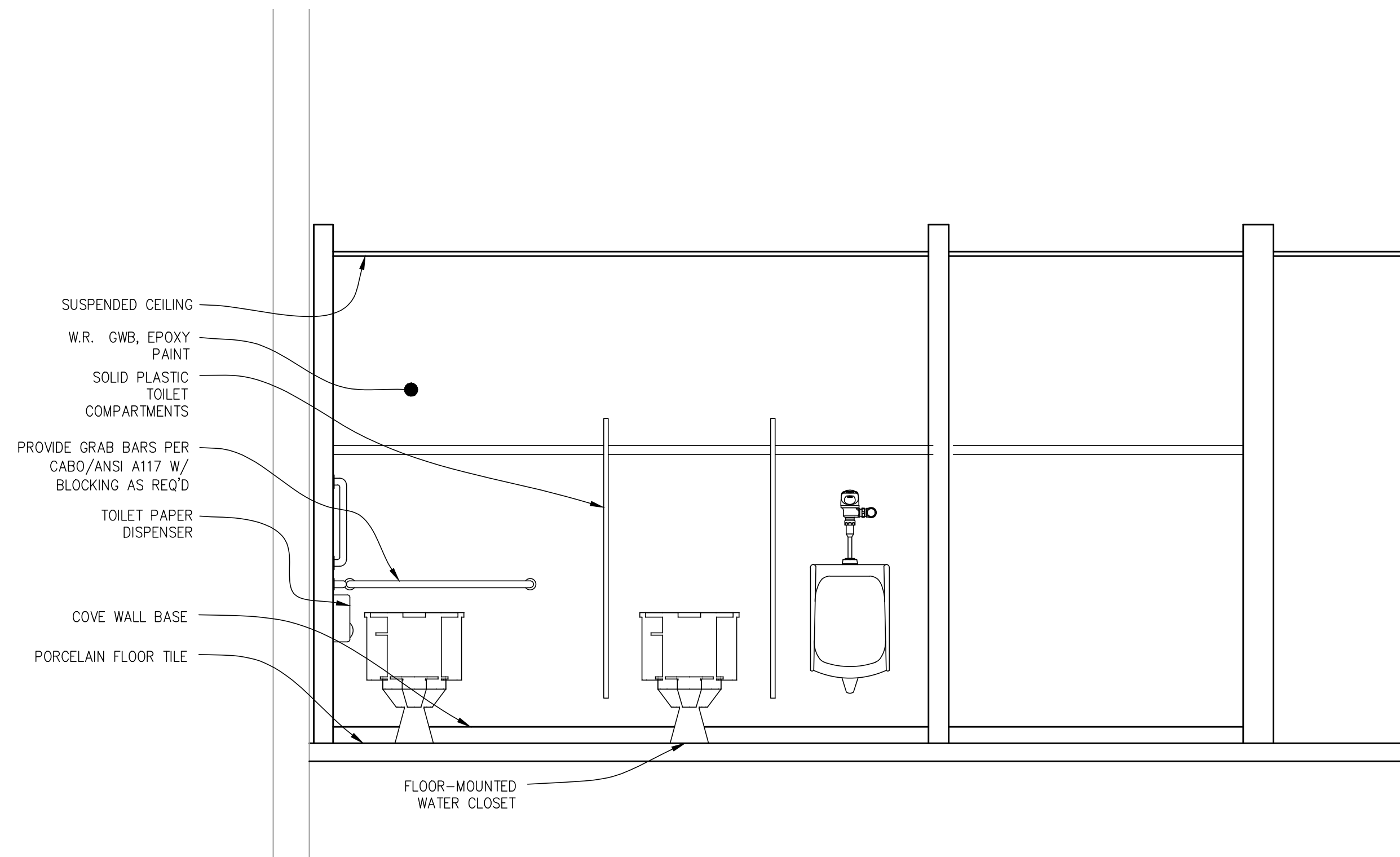
DRAWING TITLE:

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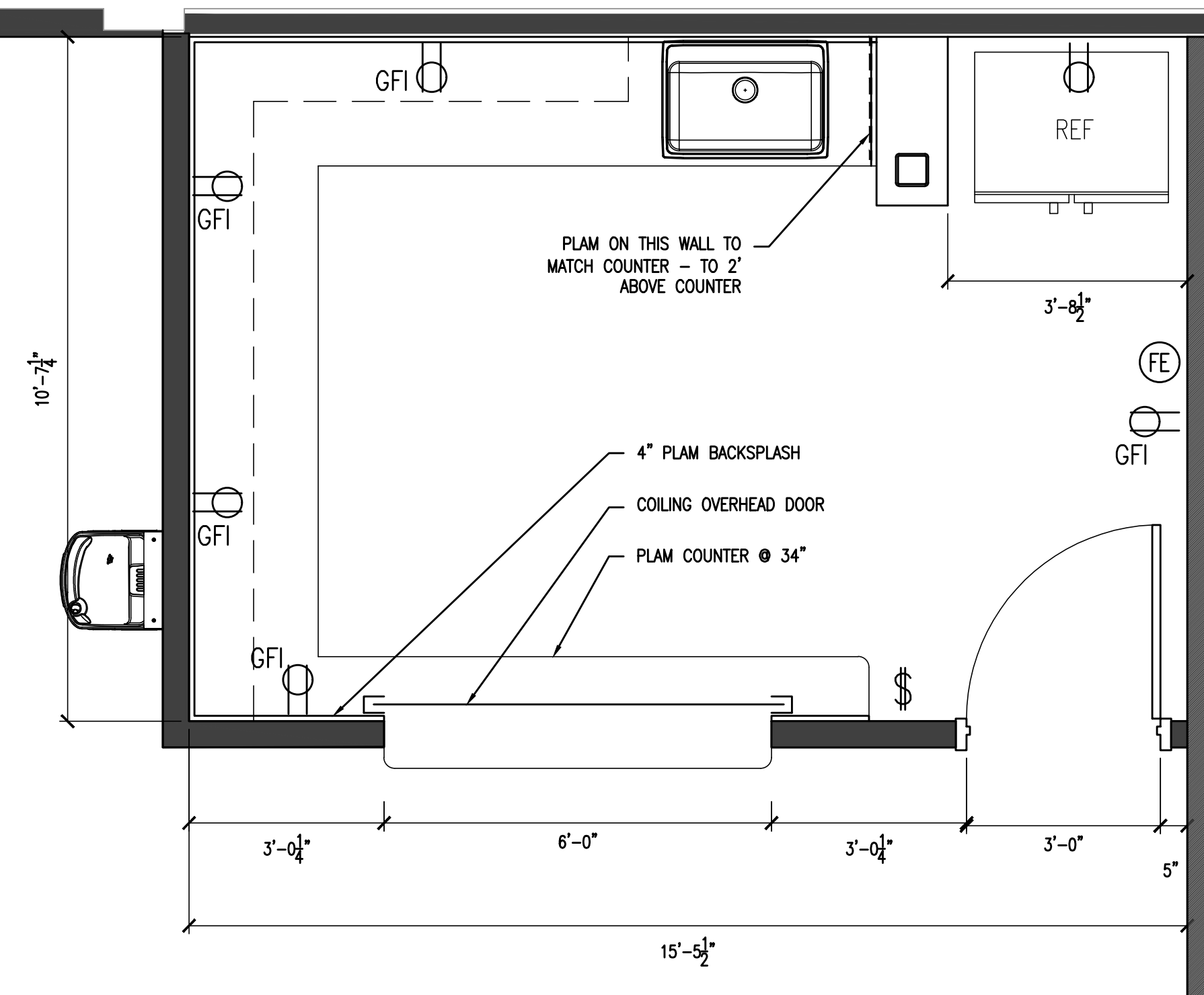
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SERVICE AREA ELEVATIONS AND DETAILS

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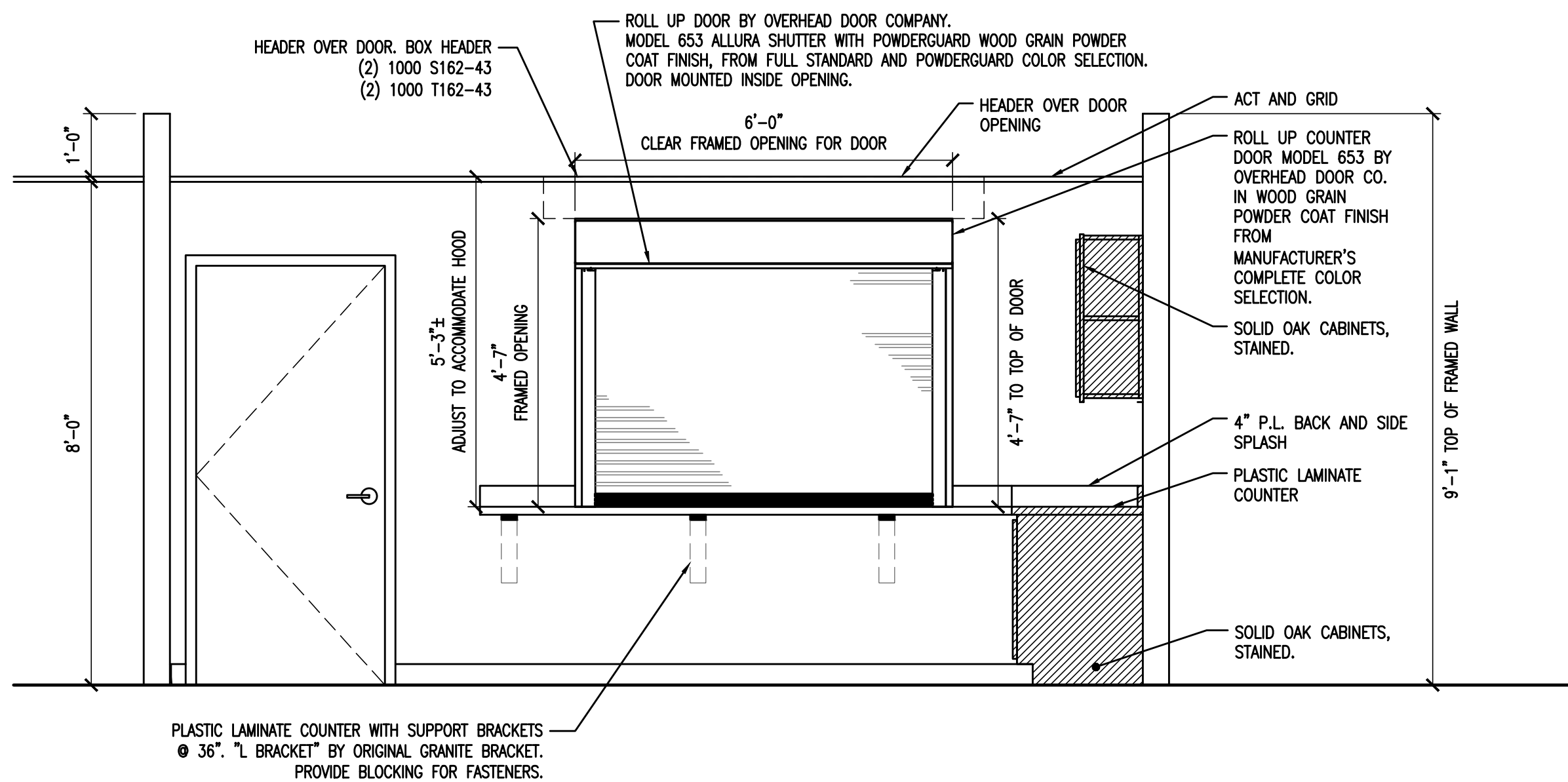
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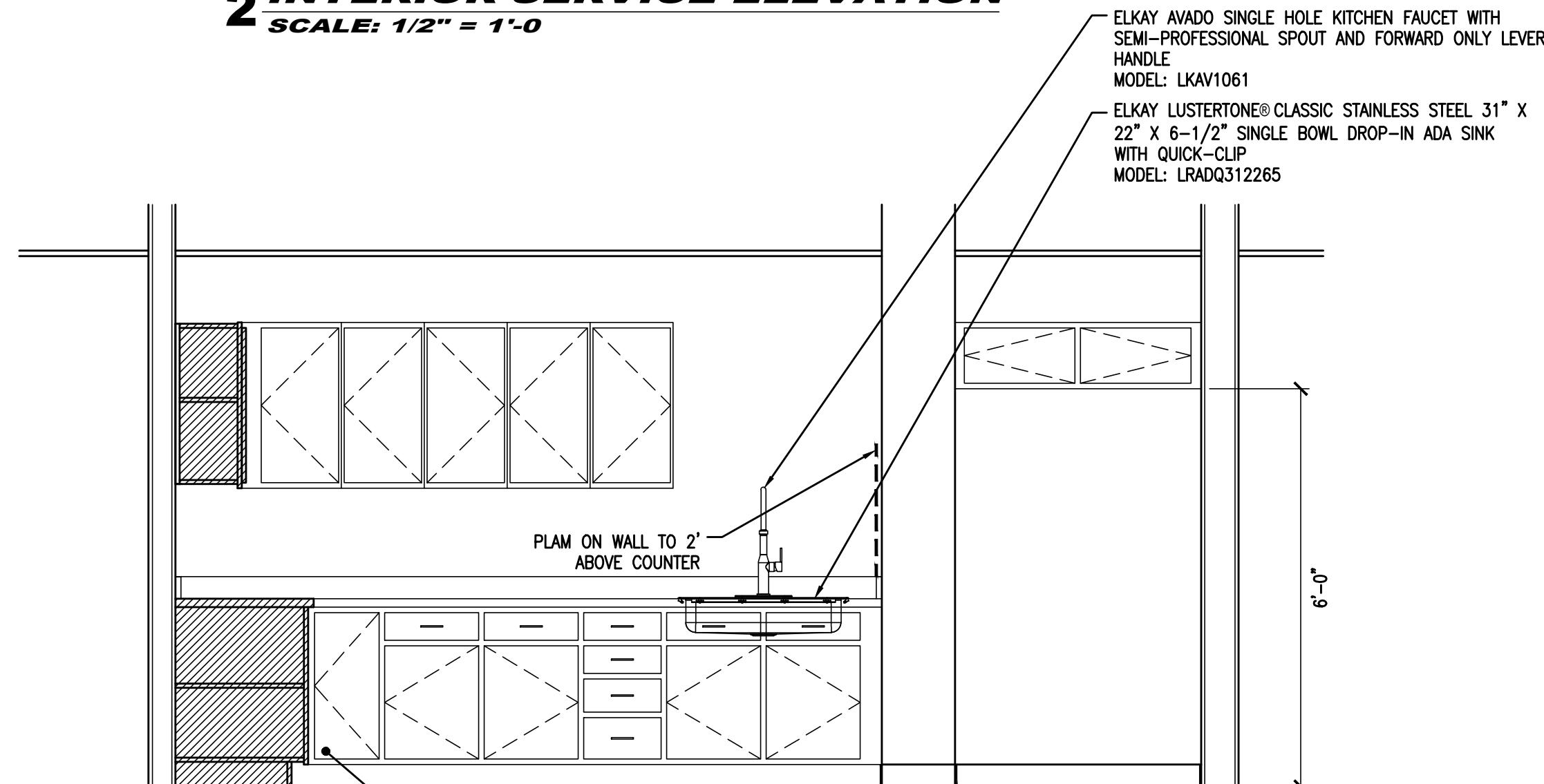


1 SERVICE AREA PLAN

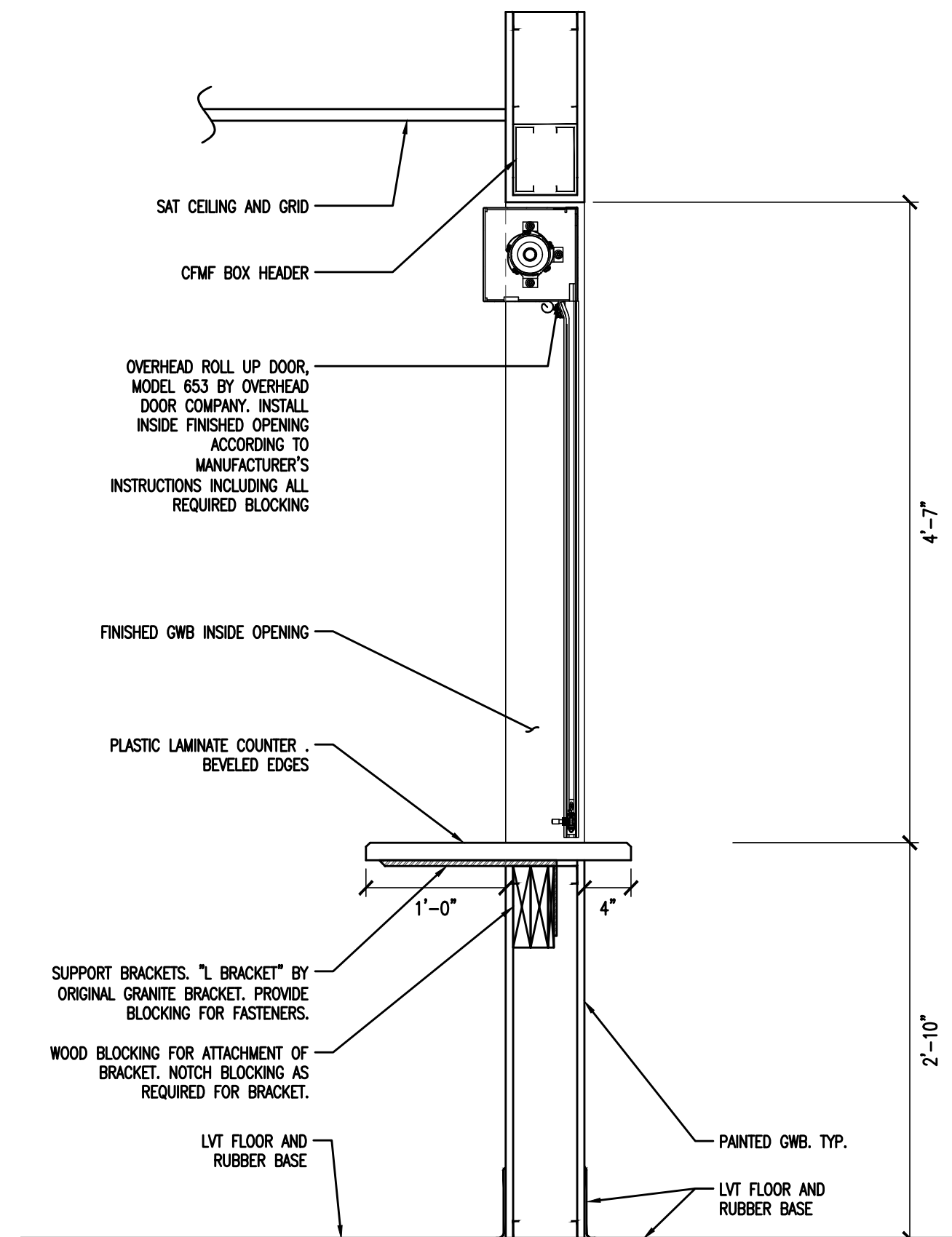
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2 INTERIOR SERVICE ELEVATION

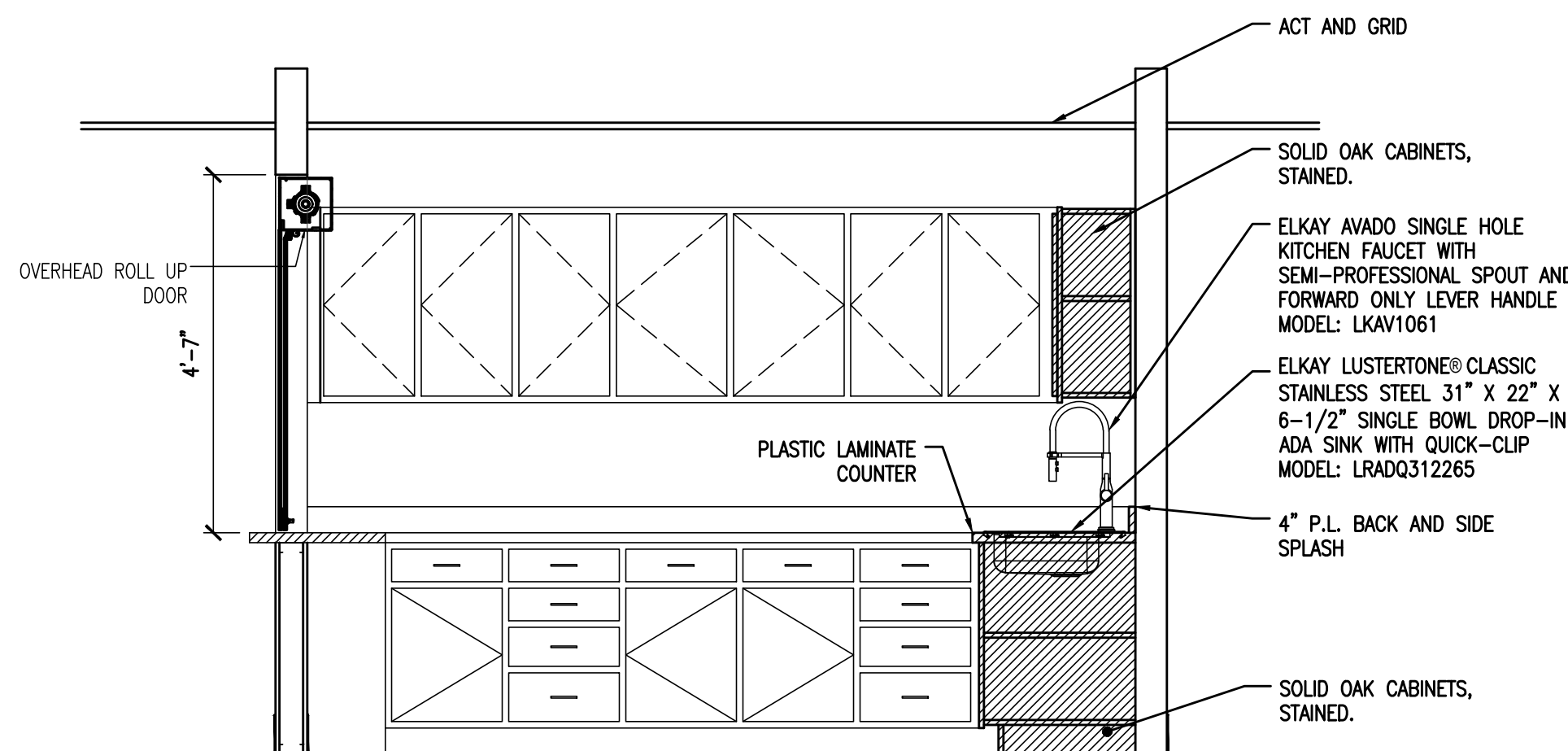


5 INTERIOR SERVICE ELEVATION

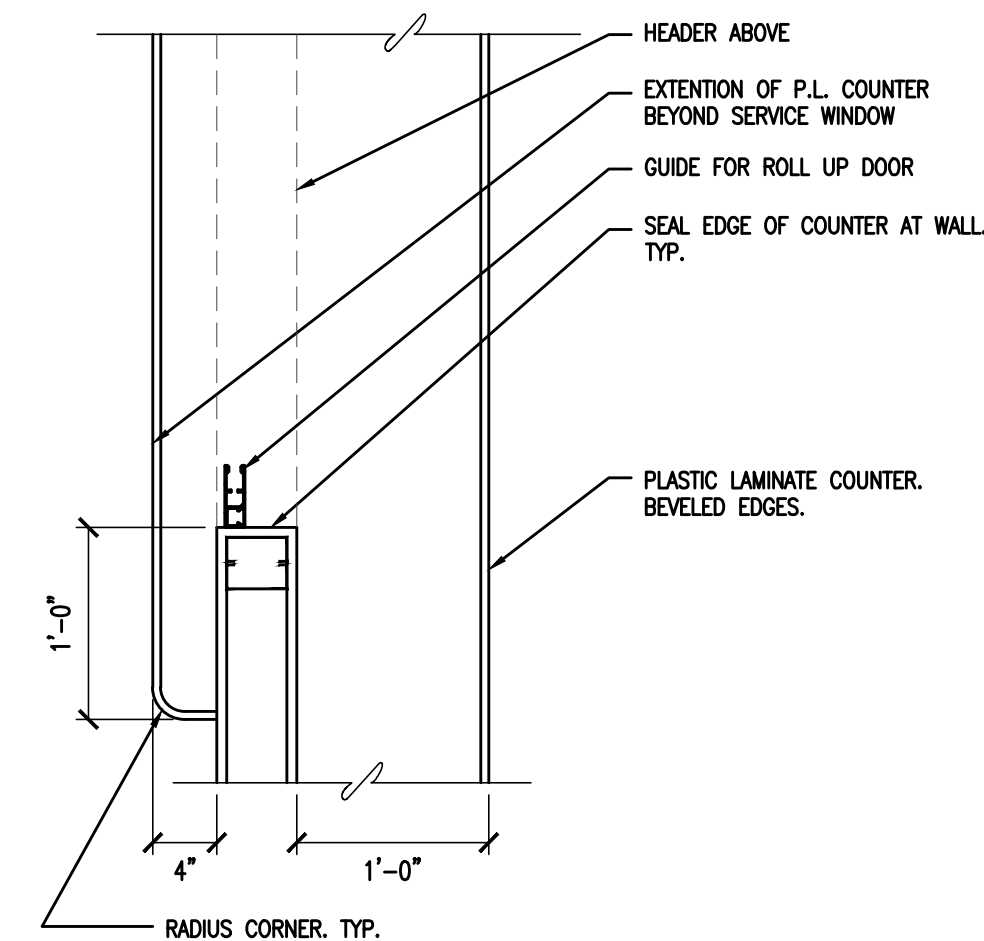


3 SECTION @ SERVICE WINDOW

SCALE: 1" = 1'-0"



6 INTERIOR SERVICE ELEVATION



4 **DETAIL - SERVICE WINDOW OPENING**

SCALE: 1/2" = 1'-0



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SEALS:

STEVEN M. BACH, PE, RA, PP, CME

NJ PROFESSIONAL ENGINEER No. GE 41507
NJ REGISTERED ARCHITECT No. AI 14872
NJ PROFESSIONAL PLANNER No. LI 05557

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

PROJECT:

BOROUGH OF RUNNEMEDE
HARRY WILLIAMS BUILDING
ADDITION
2 BROADWAY
RUNNEMEDE, NEW JERSEY 08078
CAMDEN COUNTY, NEW JERSEY

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REVISIONS

NO.	DESCRIPTION	DATE

DRAWING TITLE:

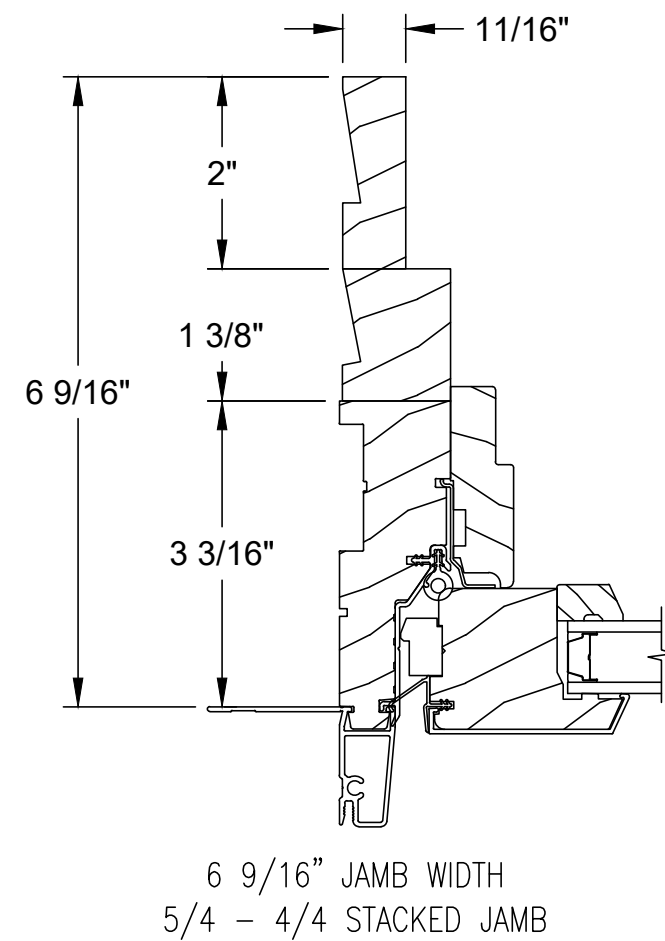
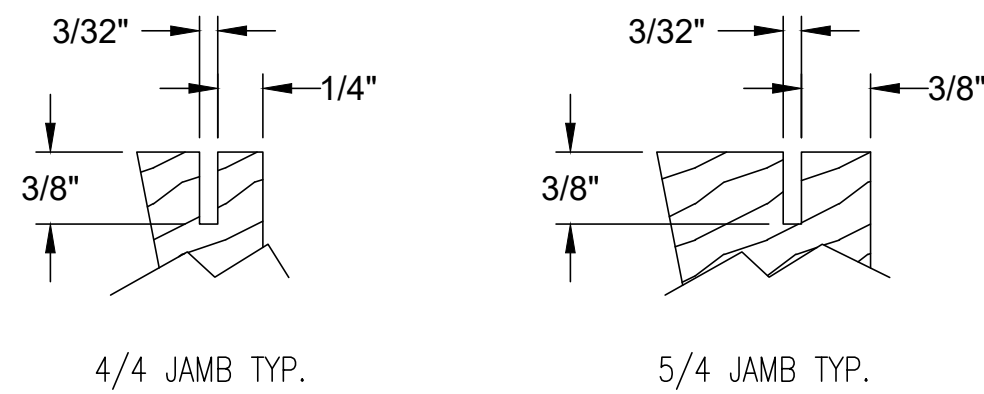
WINDOW
DETAILS

JOB NO: RB2024-5	DESIGNED BY: AAW
DATE: 8-29-25	DRAWN BY: AAW
SCALE: AS NOTED	CHECKED BY: SMB
DRAWING NUMBER:	

A-5.1

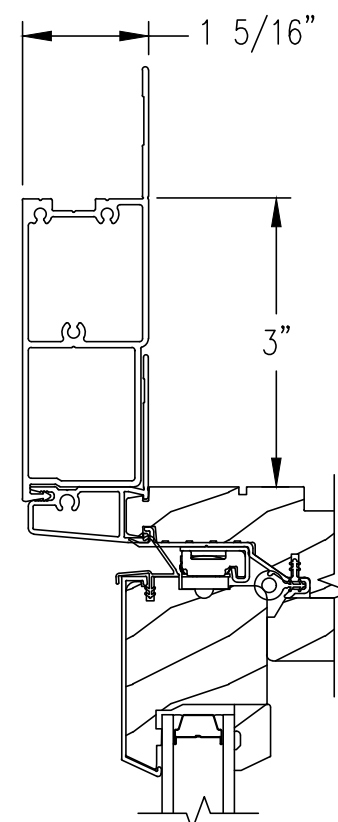
INTERIOR EXTENDERS

RETURN KERFS
GENERALLY LOCATED FROM FIRST VISIBLE INTERIOR FRAME LINE.
KERF OPTION IS TYPICALLY AVAILABLE ON ALL JAMB EXTENDER SIZES.



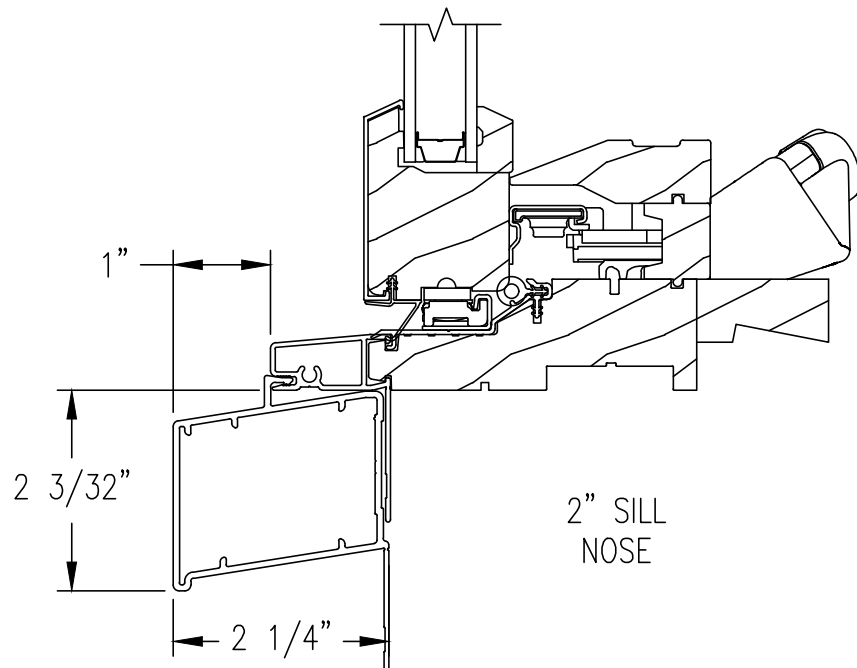
3 TRIM DETAIL
SCALE: NTS

TRIM OPTIONS



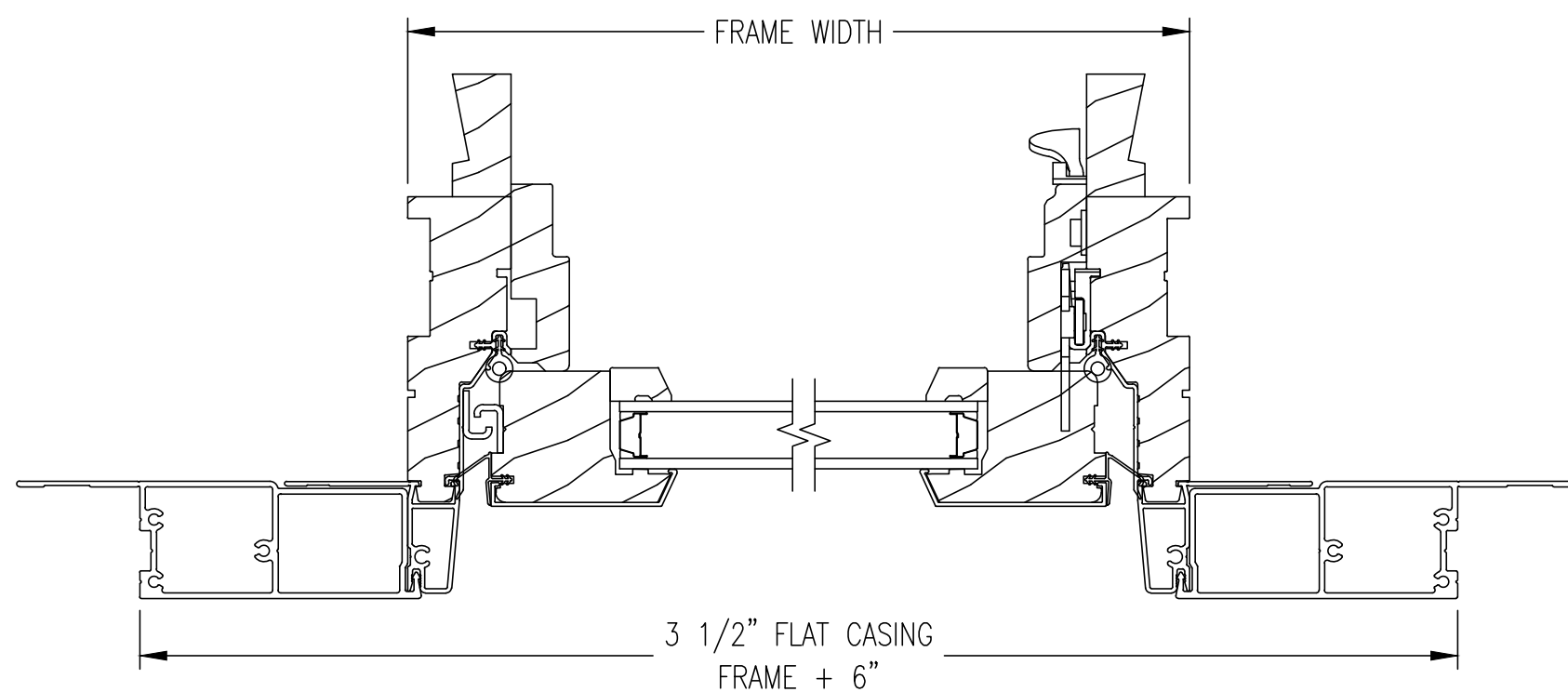
3 1/2" FLAT CASING

SILL NOSE OPTIONS



4 CASING DIMENSIONS
SCALE: NTS

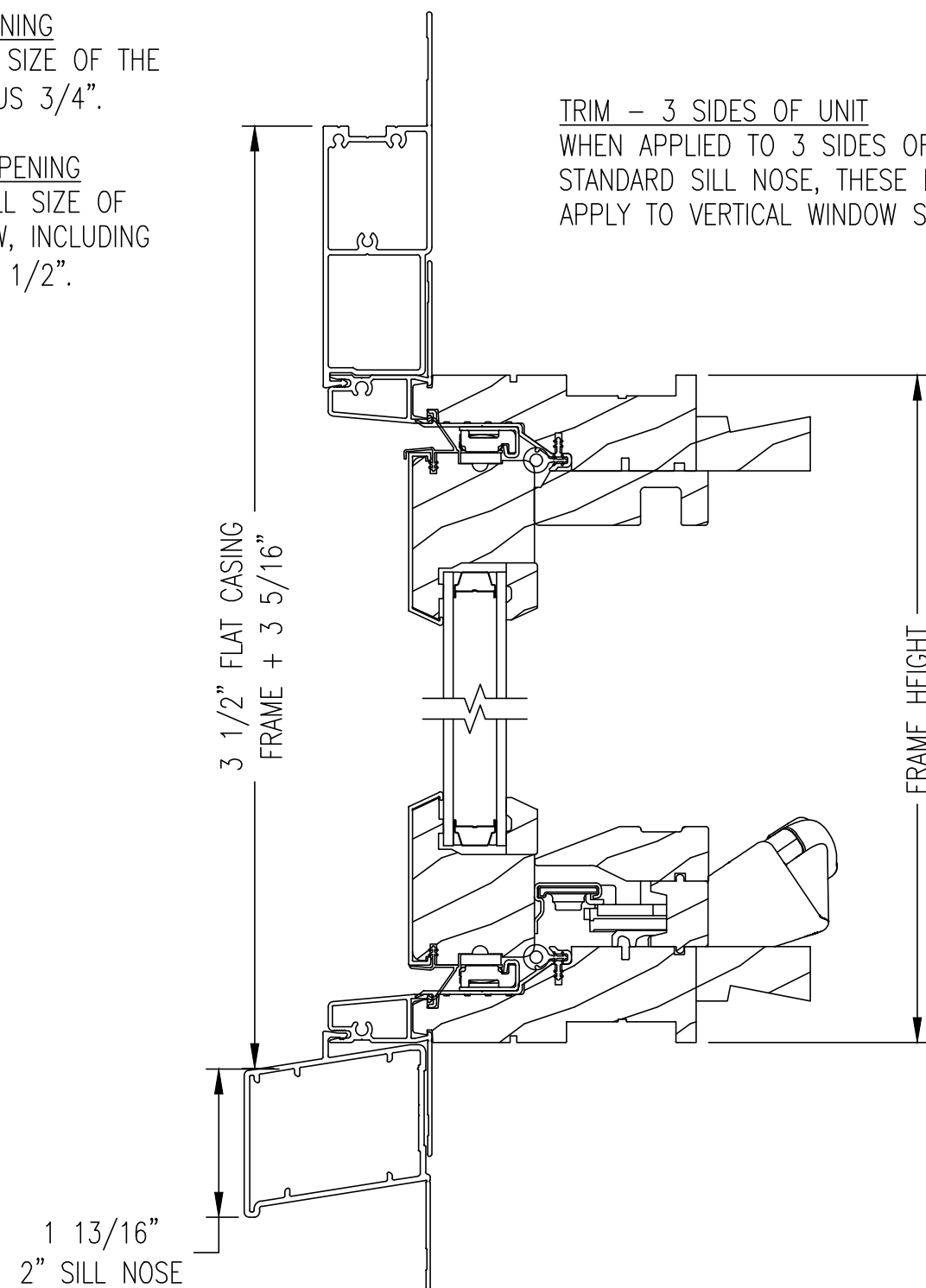
TRIM - 4 SIDES OF UNIT
WHEN APPLIED TO FOUR SIDES OF UNIT, THESE DIMENSIONS APPLY TO BOTH VERTICAL AND HORIZONTAL WINDOW SECTIONS.



ROUGH OPENING
THE FRAME SIZE OF THE WINDOW PLUS 3/4".

MASONRY OPENING
THE OVERALL SIZE OF THE WINDOW, INCLUDING TRIM, PLUS 1/2".

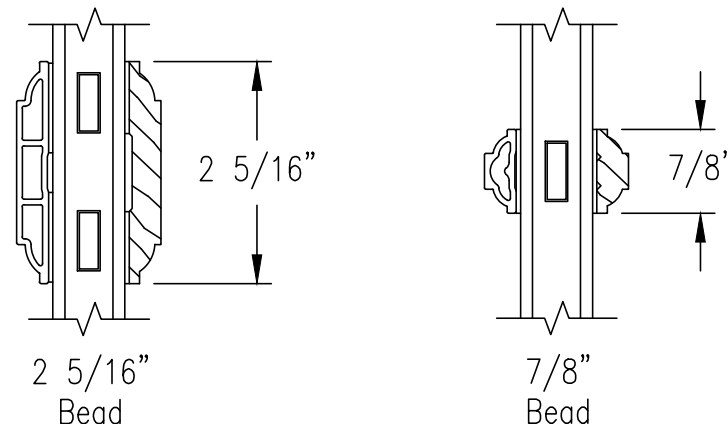
TRIM - 3 SIDES OF UNIT
WHEN APPLIED TO 3 SIDES OF THE UNIT, WITH STANDARD SILL NOSE, THESE DIMENSIONS APPLY TO VERTICAL WINDOW SECTIONS ONLY.



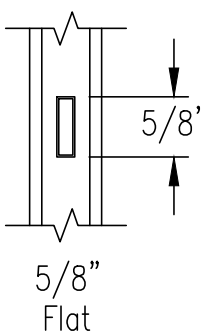
2 SIZE WITH CASING
SCALE: NTS

EXTERIOR ← → INTERIOR

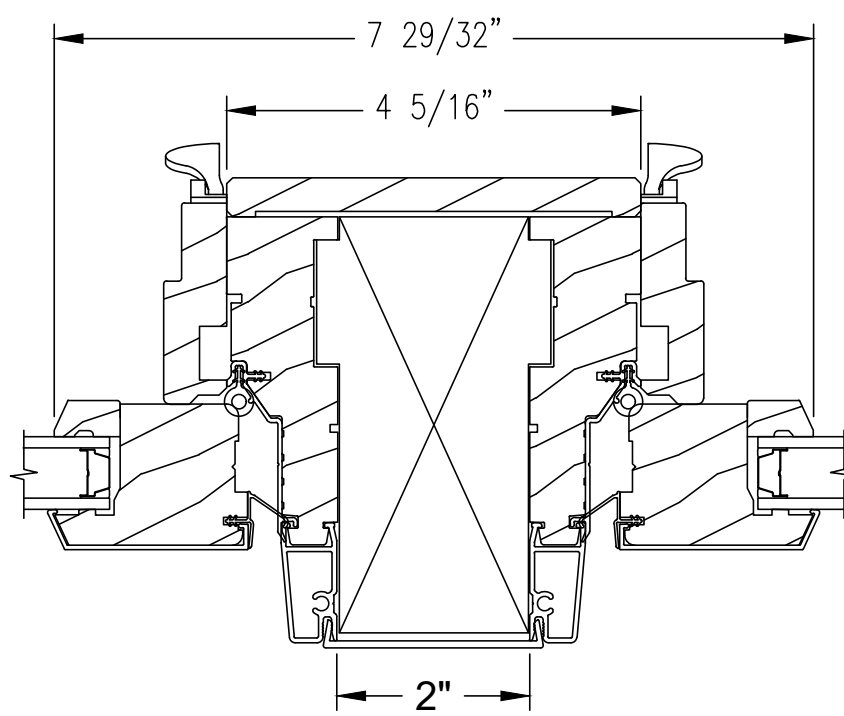
SDL OPTIONS



GBG OPTIONS

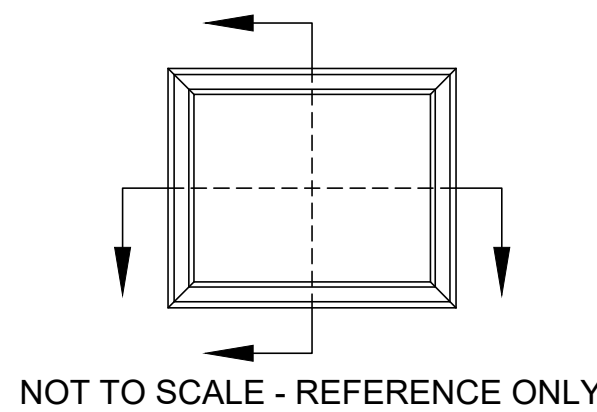


5 BAR OPTIONS
SCALE: NTS

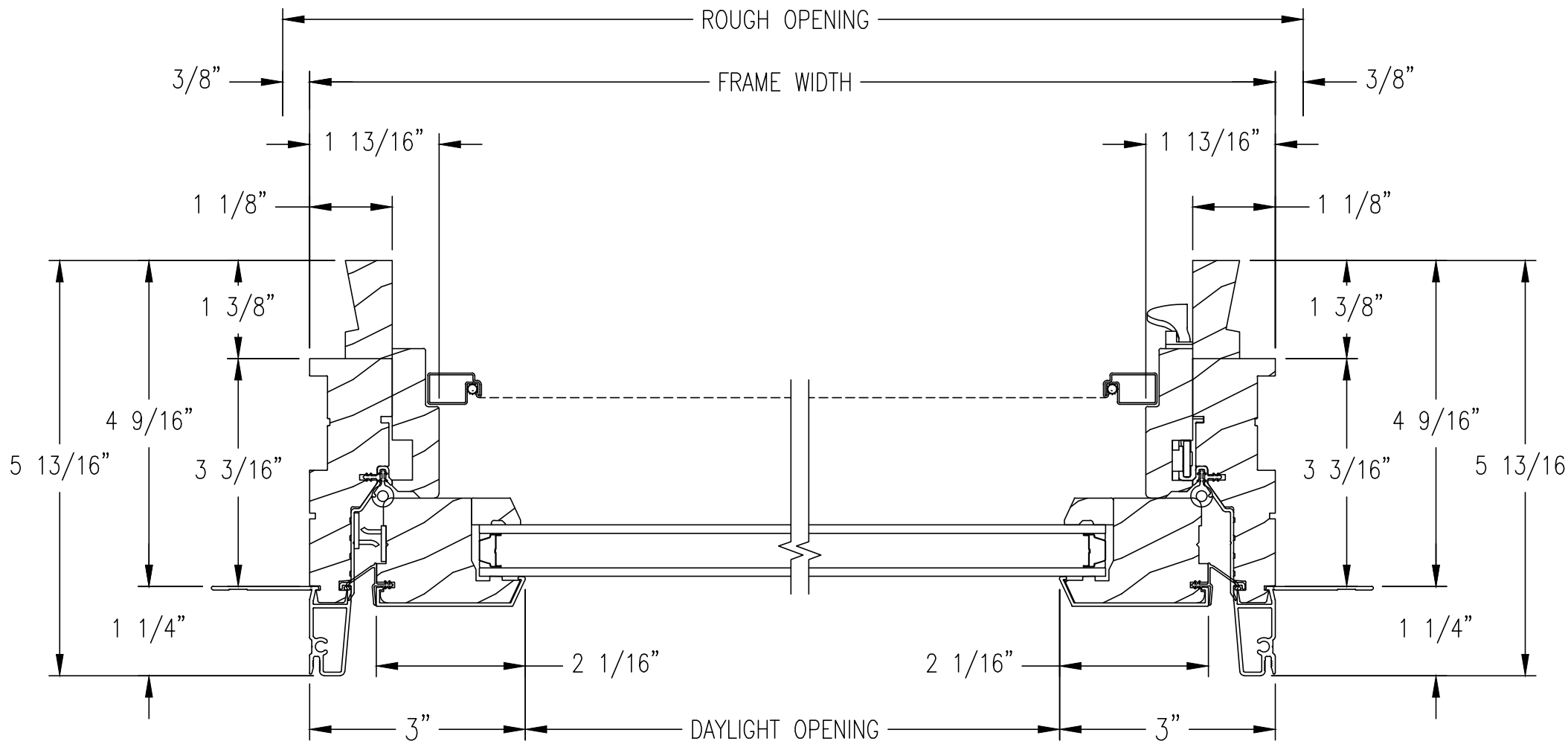
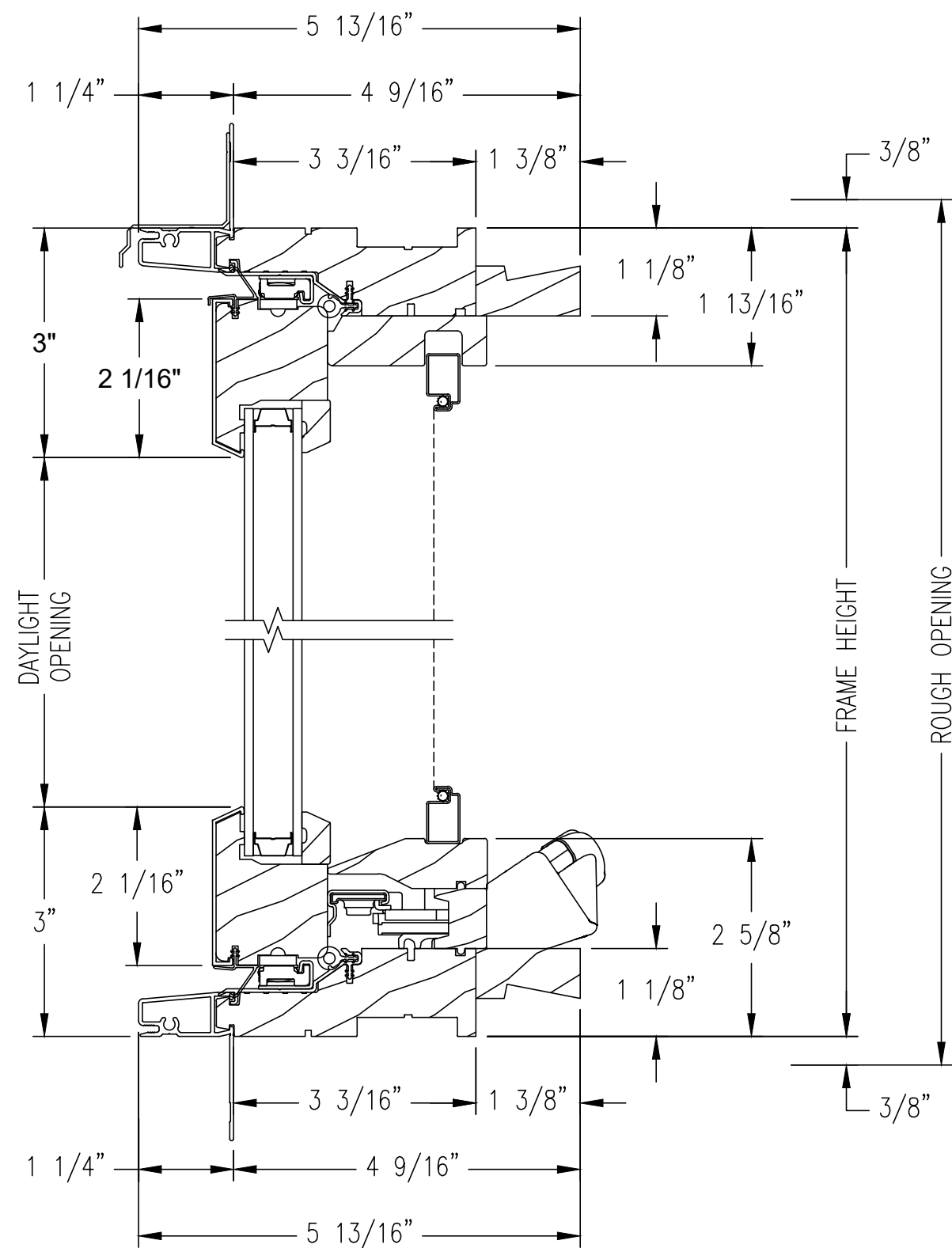


OPERATOR | OPERATOR
2" SOLID SPREAD MULL

6 MULLION DETAIL
SCALE: NTS

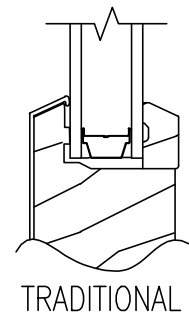


NOT TO SCALE - REFERENCE ONLY



1 UNIT DIMENSIONS
SCALE: NTS

GLASS STOP OPTIONS

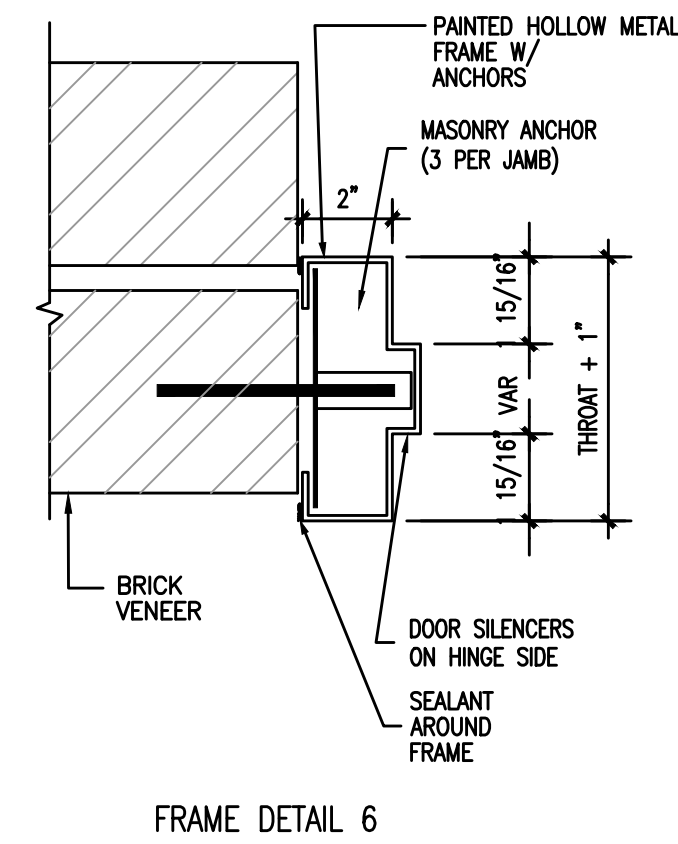
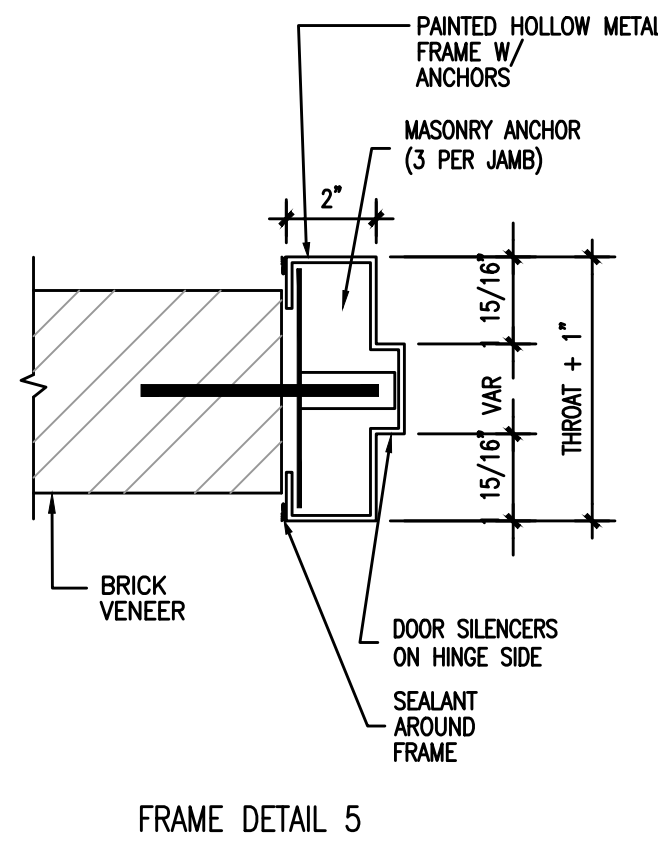
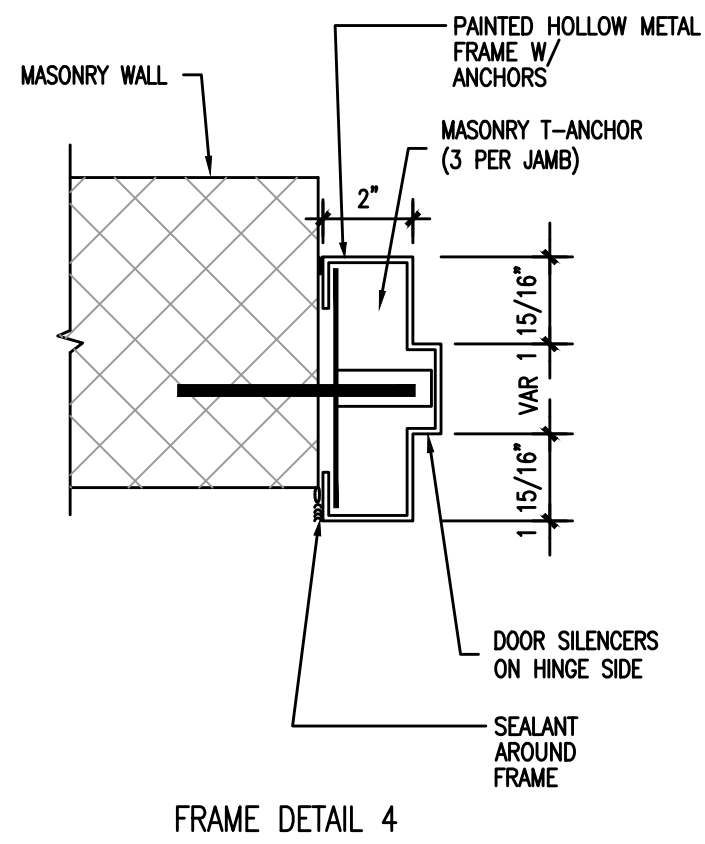
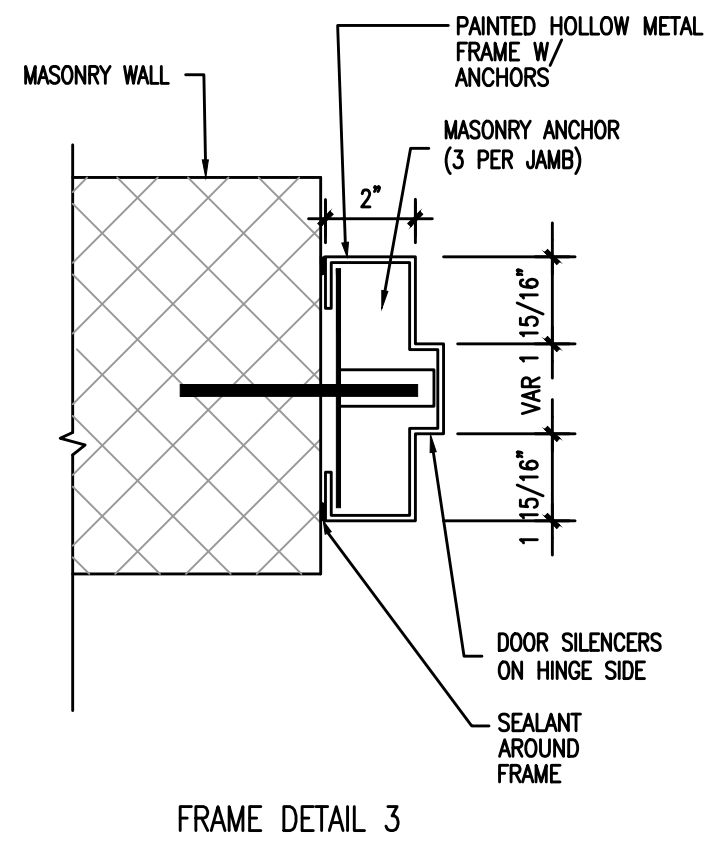
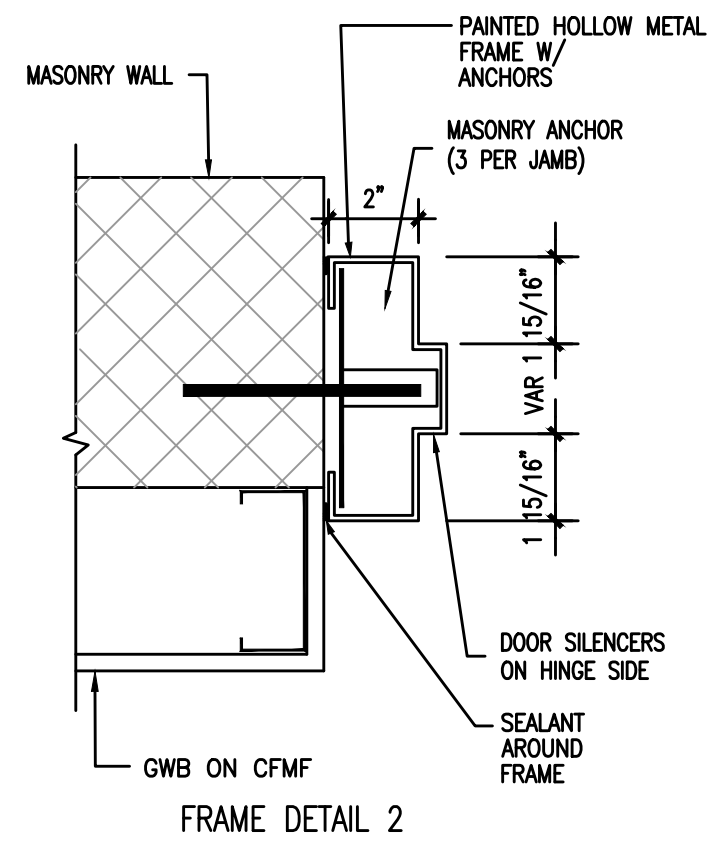
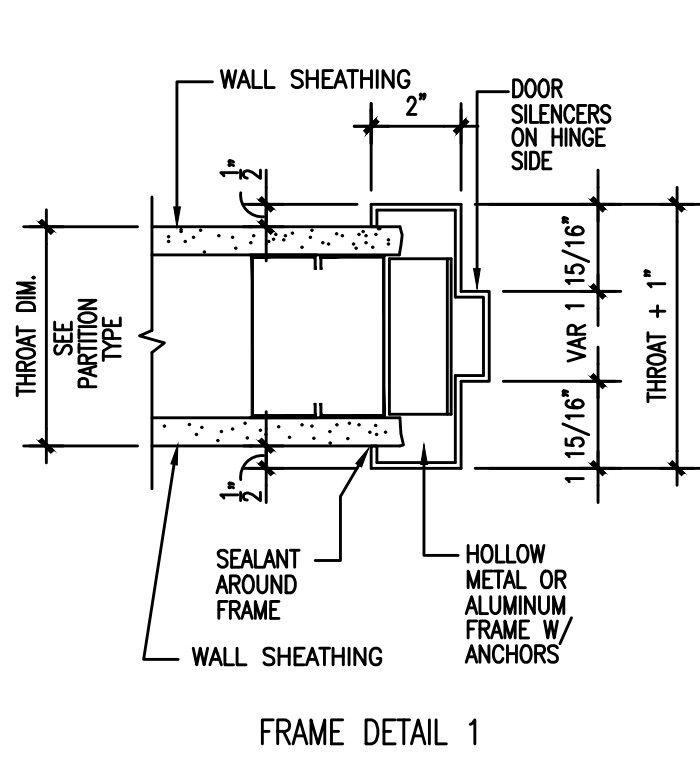


TRADITIONAL

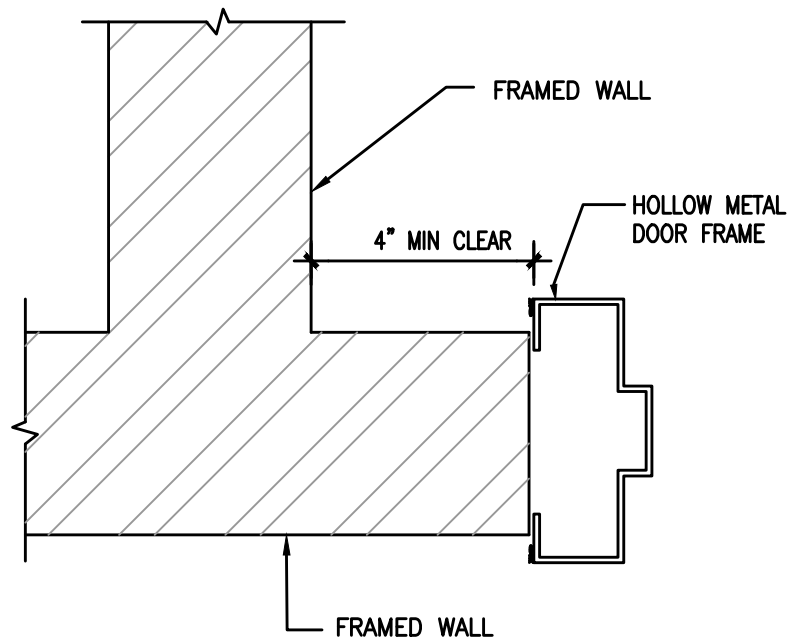
7 GLASS STOP
SCALE: NTS

BASIS OF DESIGN:
JELD-WEN W-5500 CLAD WOOD WINDOW. CASEMENT.

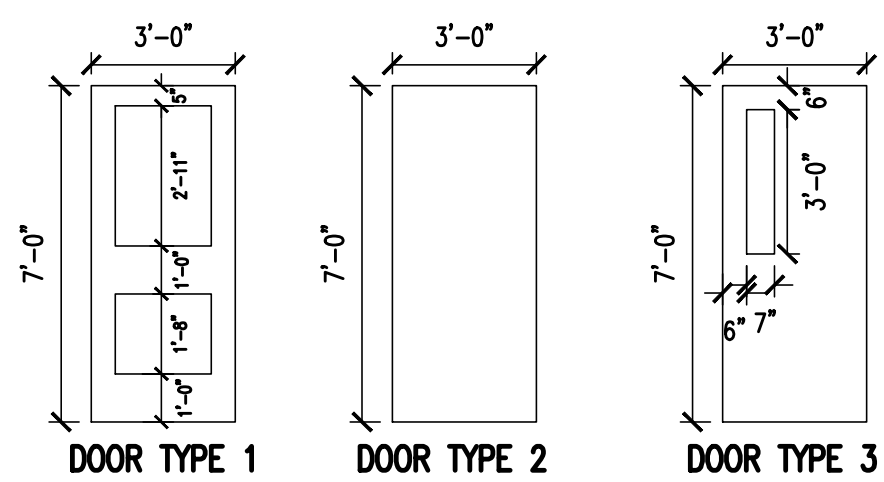
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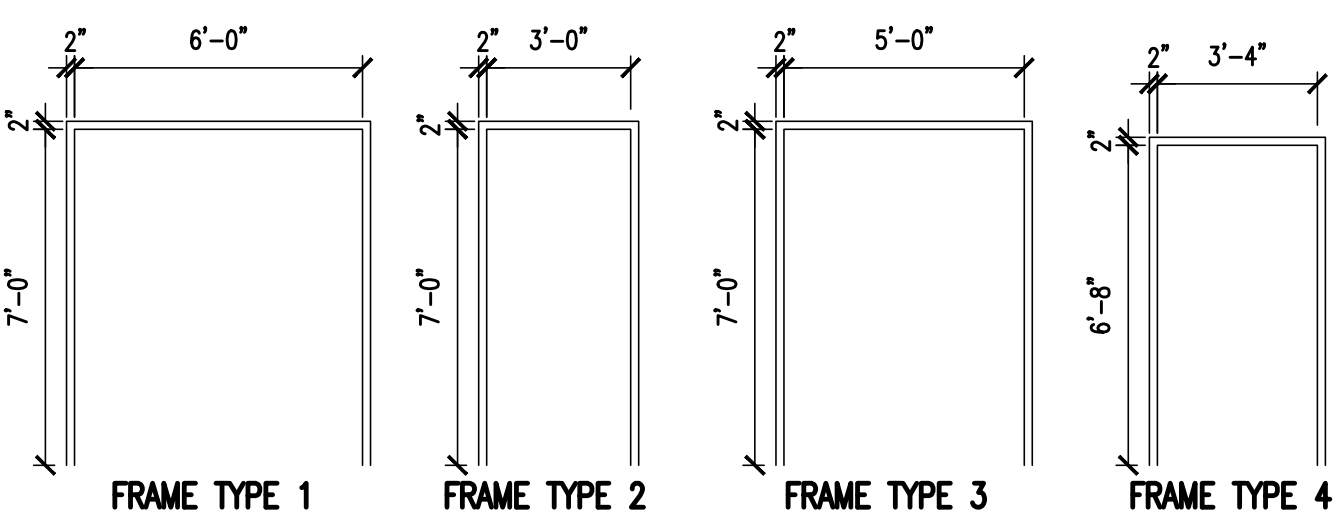
FRAME DETAILS
SCALE: NOT TO SCALE: 1/4" = 1'-0"



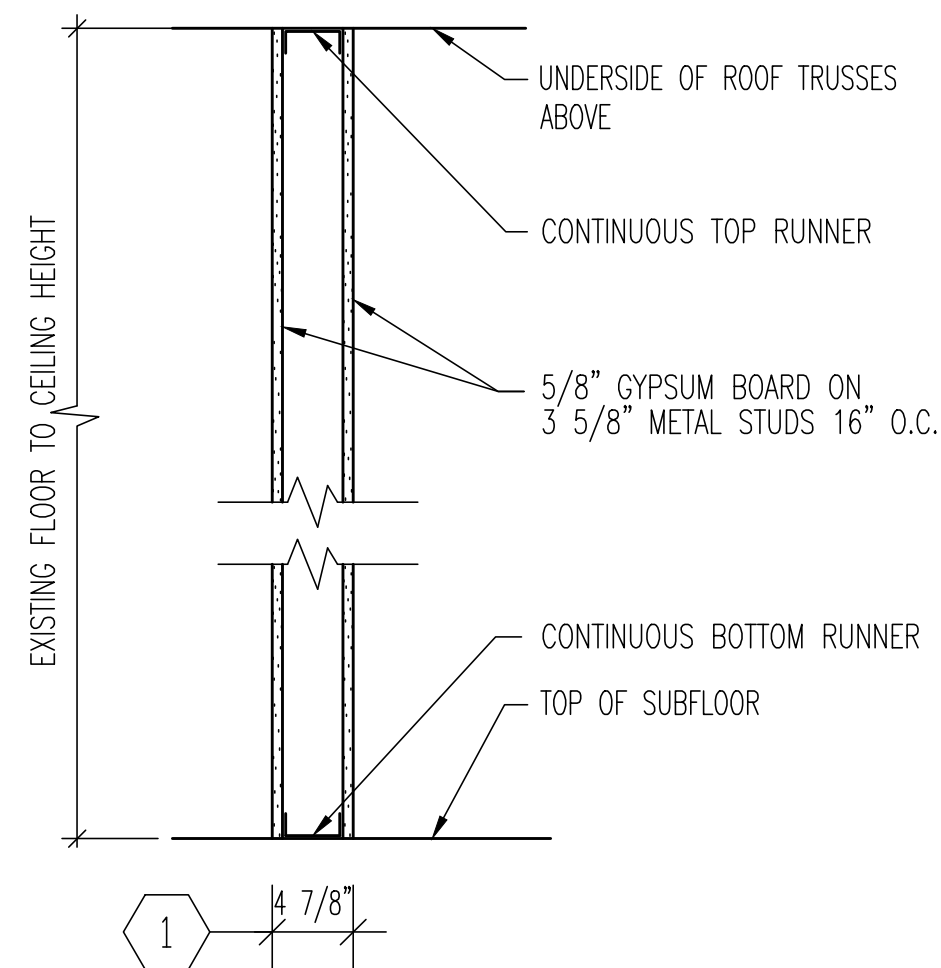
DOOR FRAME RETURN
SCALE: NOT TO SCALE



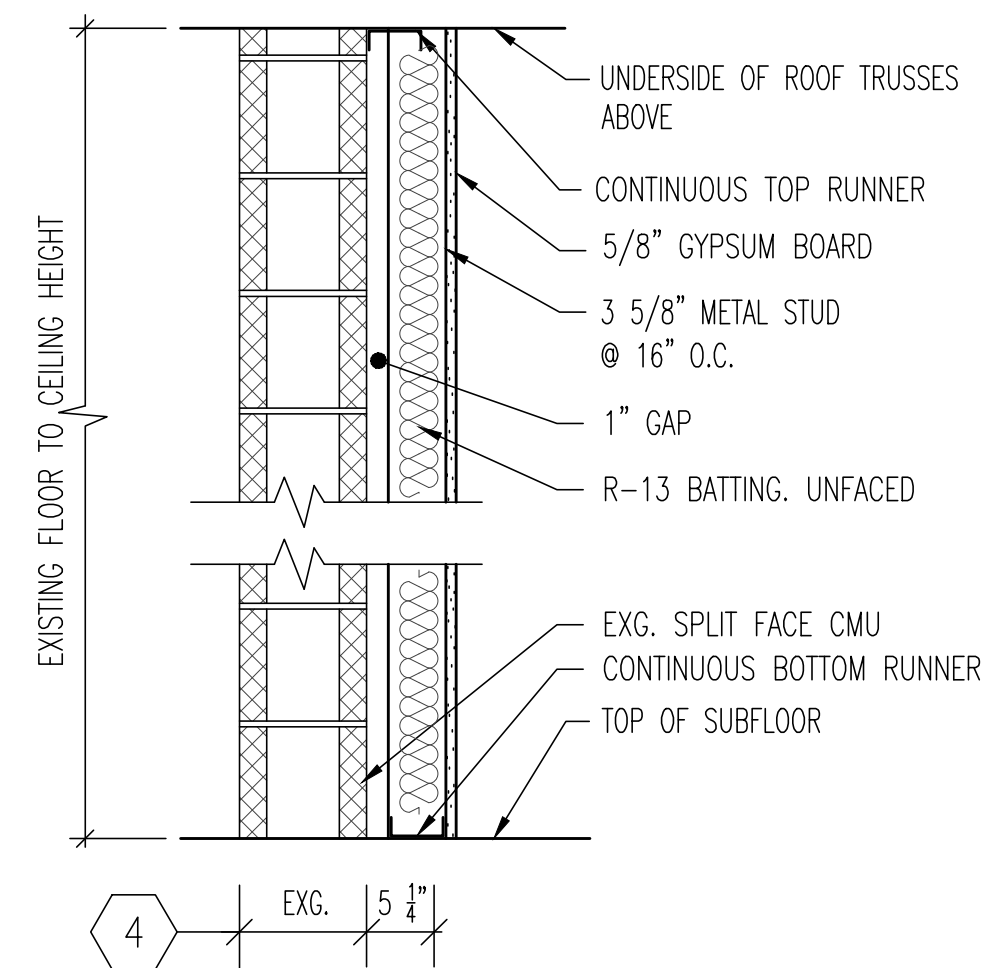
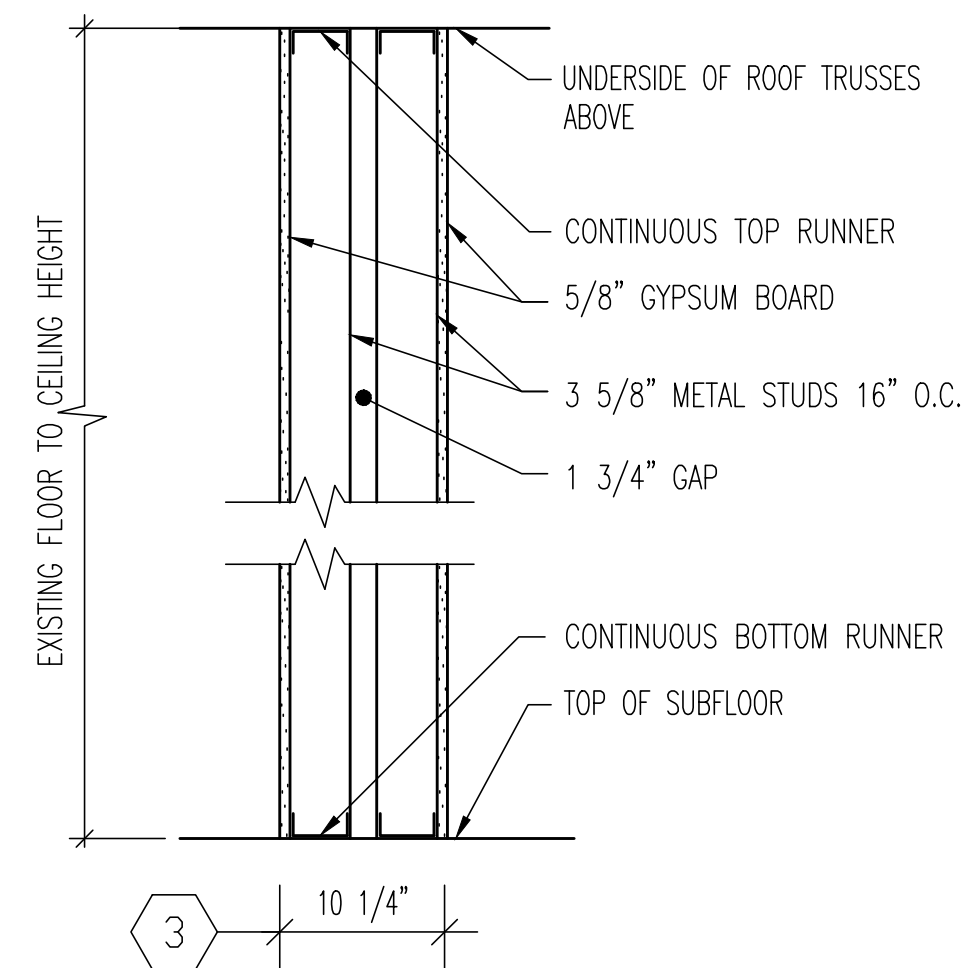
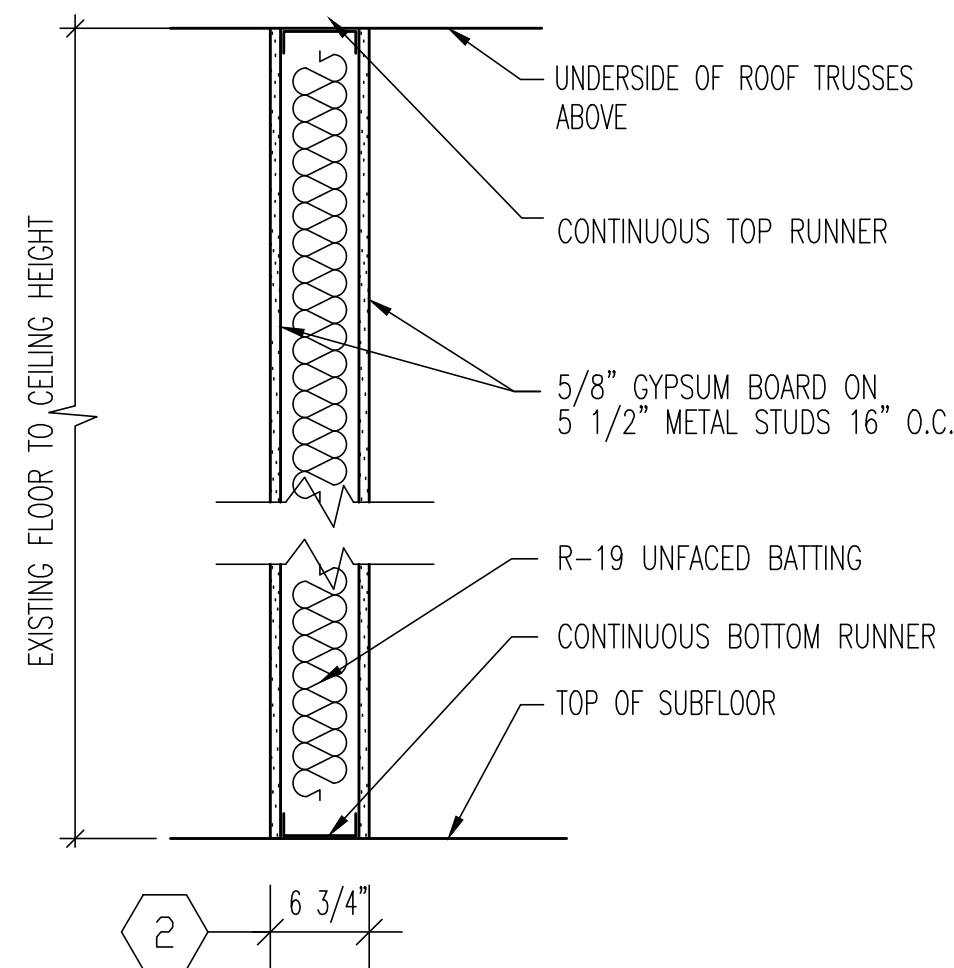
DOOR TYPES
SCALE: NOT TO SCALE



FRAME TYPES
SCALE: NOT TO SCALE



PARTITION TYPES
SCALE: NOT TO SCALE



ROOM FINISH SCHEDULE

ROOM #:				ROOM NAME:				WALLS:				CEILING	CEILING HEIGHT:	REMARKS:
		FLOOR:	BASE:	NORTH	EAST	SOUTH	WEST							
010	VESTIBULE	LVT	RUB	PAINT	PAINT	PAINT	PAINT	EXG.	9'-0"					
100	LOBBY	LVT	RUB	PAINT	PAINT	PAINT	PAINT	ACT	9'-0"					
101	SERVICE	LVT	RUB	PAINT	PAINT	PAINT	PAINT	ACT	9'-0"					
102	MEN'S ROOM	PT	PT	EPX	EPX	EPX	EPX	ACT	9'-0"	1				
103	WOMEN'S ROOM	PT	PT	EPX	EPX	EPX	EPX	ACT	9'-0"	1				
104	JANITOR	LVT	RUB	EPX	EPX	EPX	EPX	ACT	9'-0"	1				
LEGEND:												NOTES:		
VCT: VINYL COMPOSITION TILE				ACT: ACOUSTICAL CEILING TILE				EXG: EXISTING				1. ALL WALLS IN SPACE INDICATED ARE TO RECEIVE EPOXY PAINT PER SPECIFICATION.		
RUB: RUBBER COVE BASE				PT: PORCELAIN TILE										
CPT: CARPET TILE				COVE: VINYL COVE BASE										
LVT: LUXURY VINYL TILE				EPX: EPOXY PAINT										

DOOR SCHEDULE

DOOR NUMBER	DOOR				FRAME			FRAME DETAIL	HARDWARE SET	DOOR THRESHOLD	FIRE RATING	REMARKS
	SIZE	TYPE	MATERIAL	FINISH	TYPE	MATERIAL	FINISH					
001	3'-0" x 7'-0" 2'-0" x 7'-0"	3 2	STL STL	PM PM	3	HM	PM	3	001	AL	-	
002	3'-4" x 6'-8"	3	STL	PM	4	HM	PM	2	002	-	-	3
003	3'-4" x 6'-8"	3	STL	PM	4	HM	PM	3	003	-	-	3
004	(2) 3'-0" x 7'-0"	3	WD	P	1	HM	PM	3	004	-	-	3
005	(2) 3'-0" x 7'-0"	3	STL	PM	1	HM	PM	3	005	-	-	3
100	(2) 3'-0" x 7'-0"	1	FRP	FF	1	AL	FF	1	100	AL	-	1, 3
101	3'-0" x 7'-0"	2	WD	P	2	HM	PM	1	101	-	-	3
102	3'-0" x 7'-0"	2	WD	P	2	HM	PM	1	102	MAR	-	3
103	3'-0" x 7'-0"	2	WD	P	2	HM	PM	1	103	MAR	-	3
104	3'-0" x 7'-0"	2	WD	P	2	HM	PM	1	104	-	-	3

LEGEND:

AL ALUMINUM
WD WOOD
ME MATCH EXISTING
POLY STAINED

CLR CLEAR ANODIZED
PM PAINTED METAL
EX EXISTING
HM HOLLOW METAL

RES RESCUE HARDWARE
CL CLASSROOM LOCKET
PAS PASSAGE LATCH
ST STORE ROOM LOCKET

PB PANIC BAR
PRV PRIVACY LOCKET
STL STEEL
P PAINT

KPL KEYED POCKET DOOR LATCH
FF FACTORY FINISH
FG ALL FIBERGLASS
FRP FIBER REINFORCED PLASTIC

NOTE:

1. ALL GLAZING FOR DOOR AND WINDOW SHALL BE TEMPERED PLATE GLASS UNLESS NOTED OTHERWISE.
2. FIRE RATINGS TO BE APPLIED TO BOTH DOOR AND FRAME CONSTRUCTION.
3. GENERAL CONTRACTOR TO SUBMIT ALL DOOR FRAME & HARDWARE FOR ARCHITECT REVIEW AND APPROVAL.



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SEALS:



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REVISIONS		
NO.	DESCRIPTION	DATE

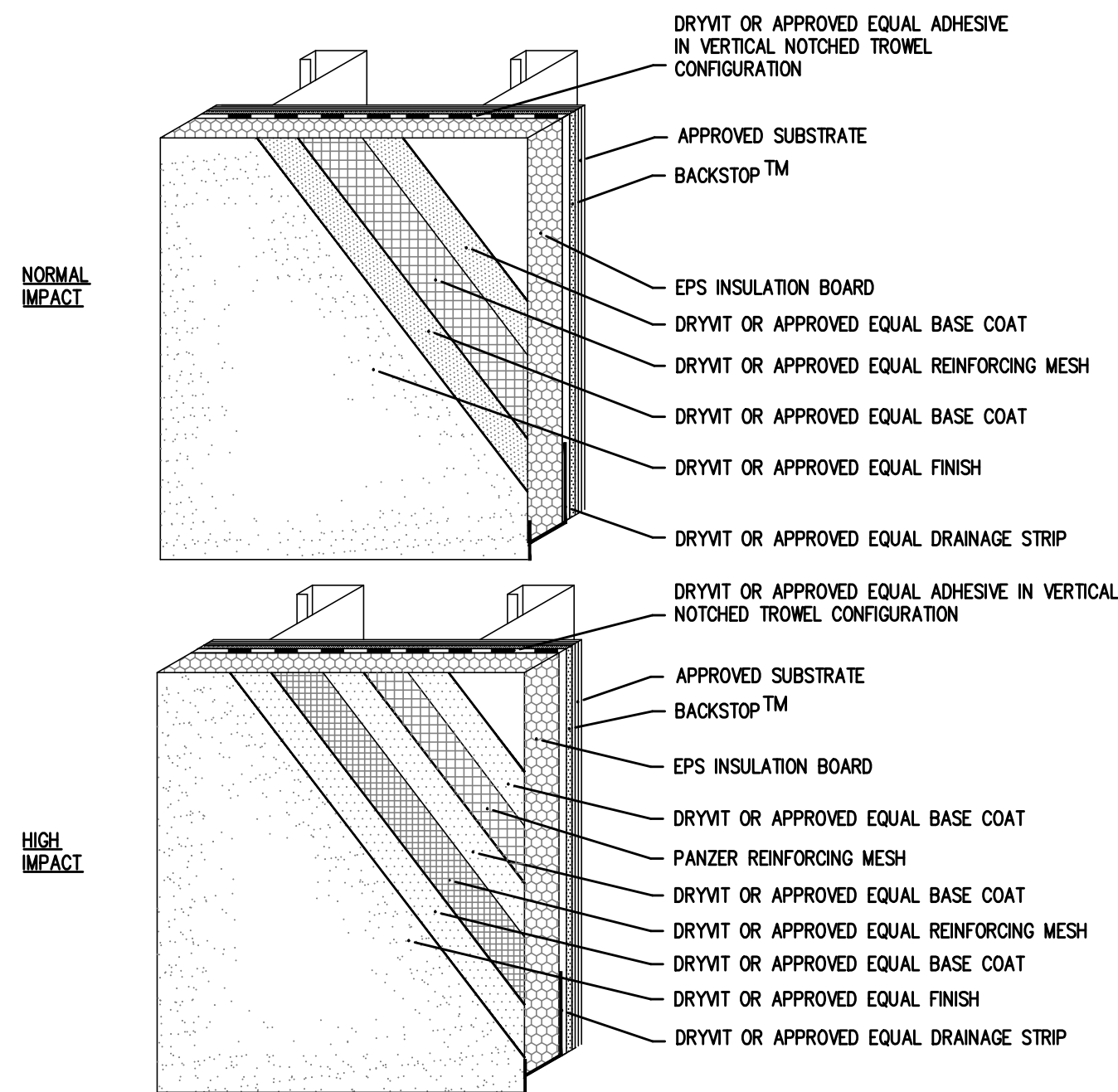
DRAWING TITLE:

**SCHEDULES
AND DETAILS**

JOB NO: RB2024-5	DESIGNED BY: AAW
DATE: 8-29-25	DRAWN BY: AAW
SCALE: AS NOTED	CHECKED BY: SMB
DRAWING NUMBER:	

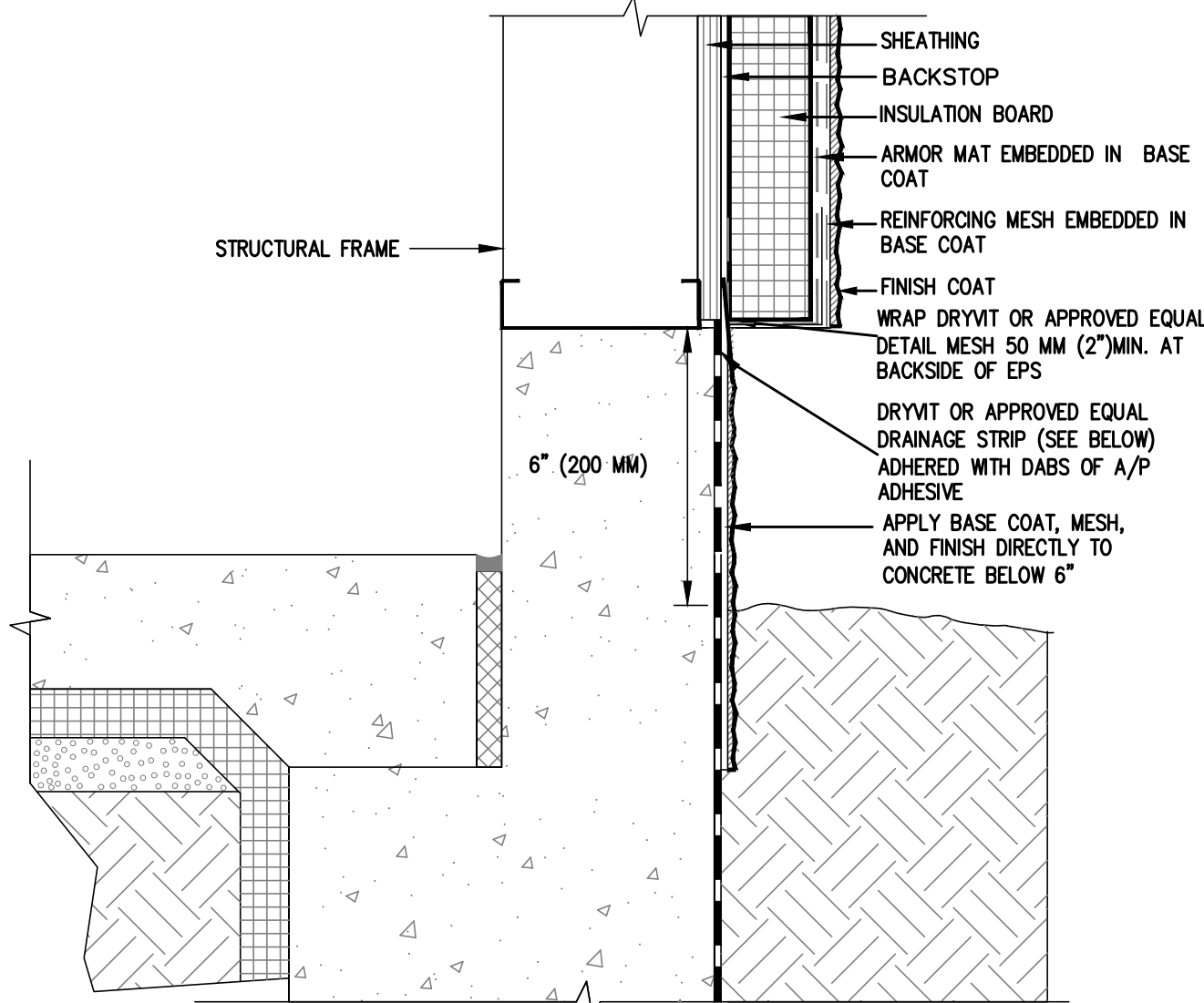
A-5.2

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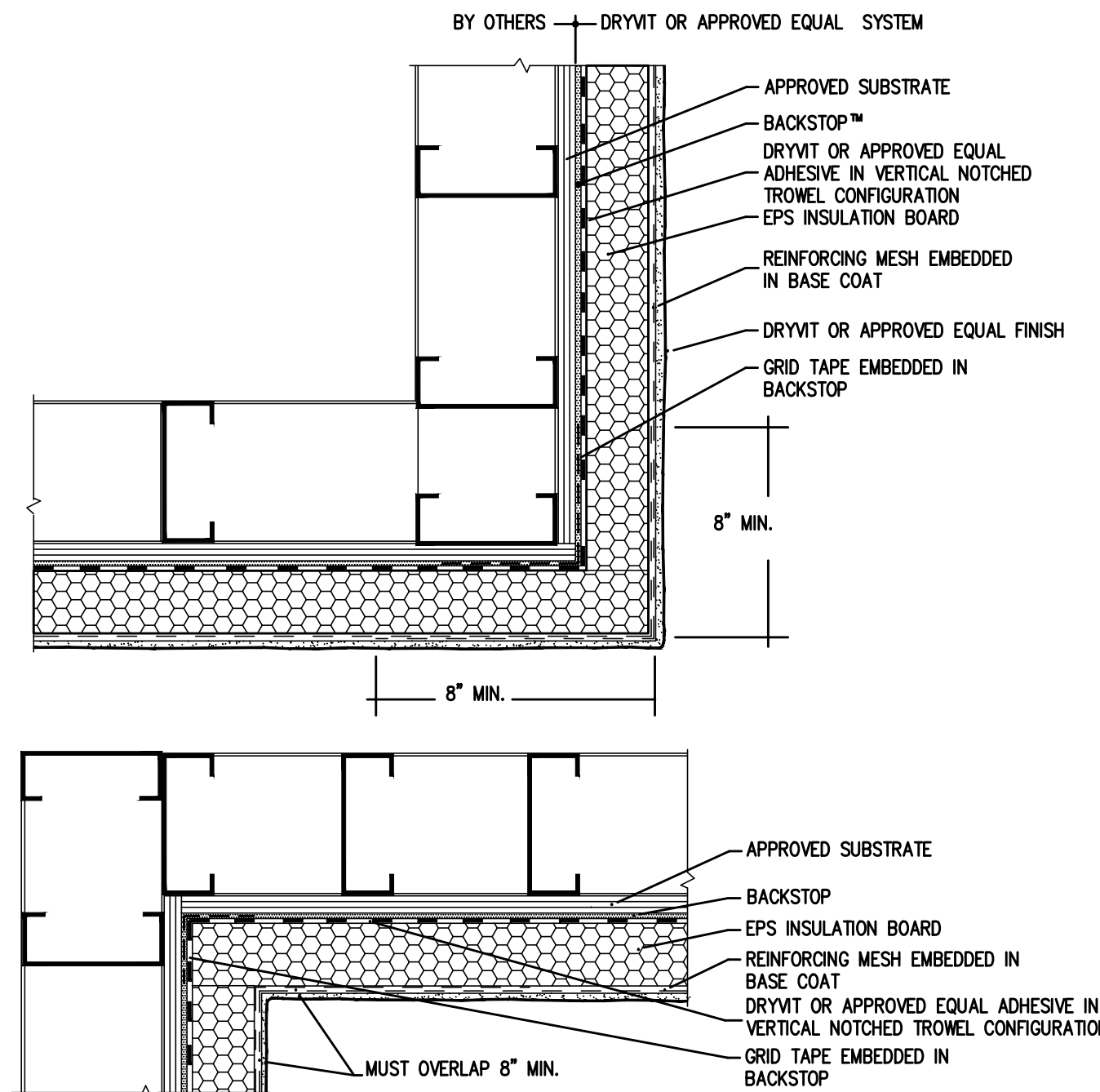
MANUFACTURERS RECOMMEND THAT GROUND FLOOR APPLICATIONS AND ALL FACADES EXPOSED TO ABNORMAL STRESS OR DELIBERATE IMPACT HAVE THE BASE COAT REINFORCED AS PER MANUFACTURER'S SPECIFICATIONS PRIOR TO APPLICATION OF STANDARD MESH. LOCATION OF HIGH-IMPACT AREAS ARE INDICATED ON CONTRACT DRAWINGS.

1 TYPICAL EIFS APPLICATION
SCALE: NOT TO SCALE



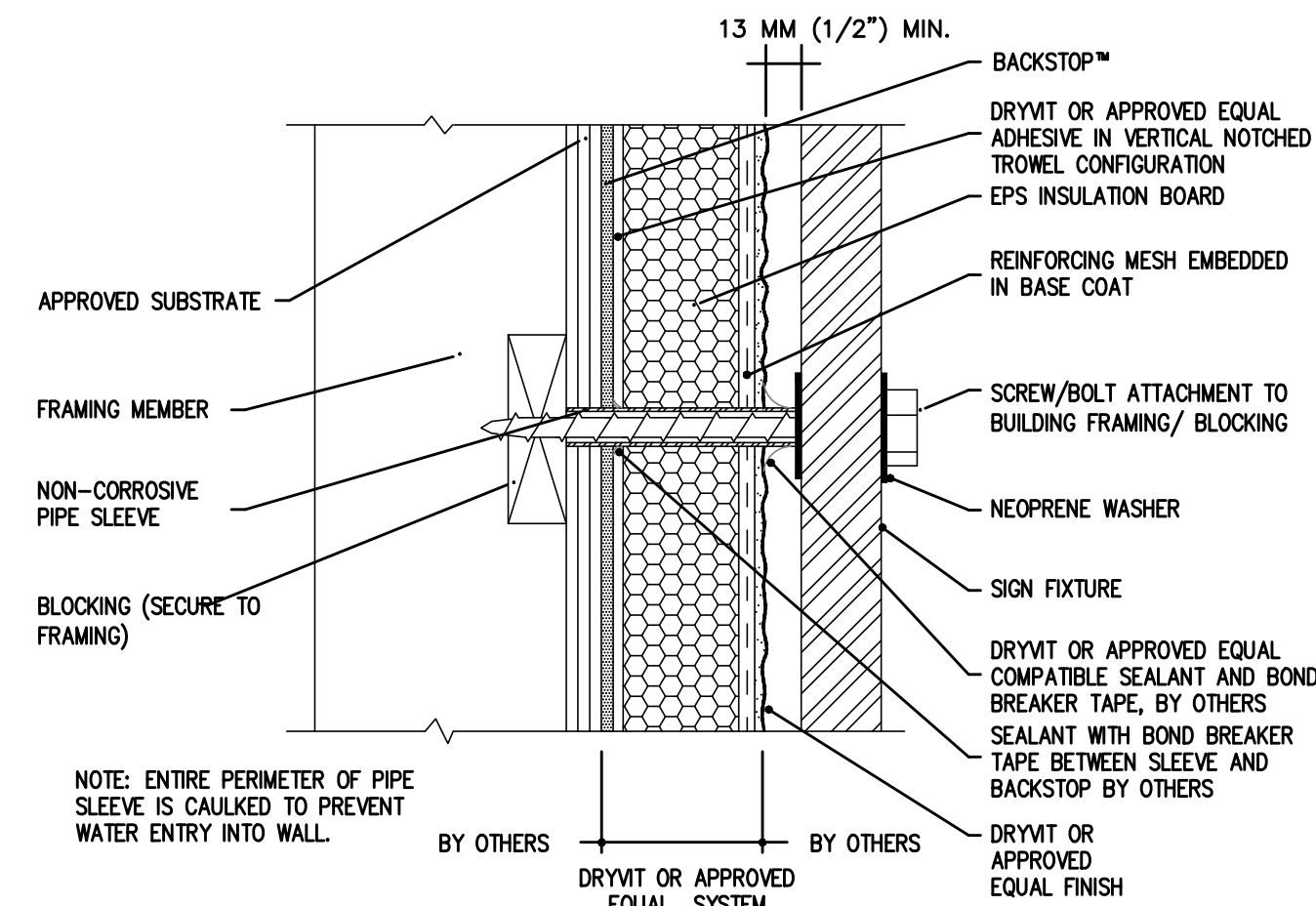
- NOTES:
1. DISTANCE TO GRADE VARIES WITH CLIMATE. ALLOW SUFFICIENT DISTANCE TO PREVENT SNOW/ICE AND PUDDLING WATER AGAINST SYSTEM.
 2. EIFS NOT ADHERED TO CONCRETE. MAINTAIN THE SEALANT AND BOND BREAKER TAPE AT EIFS TERMINATION.

3 EIFS GRADE DETAIL
SCALE: NOT TO SCALE

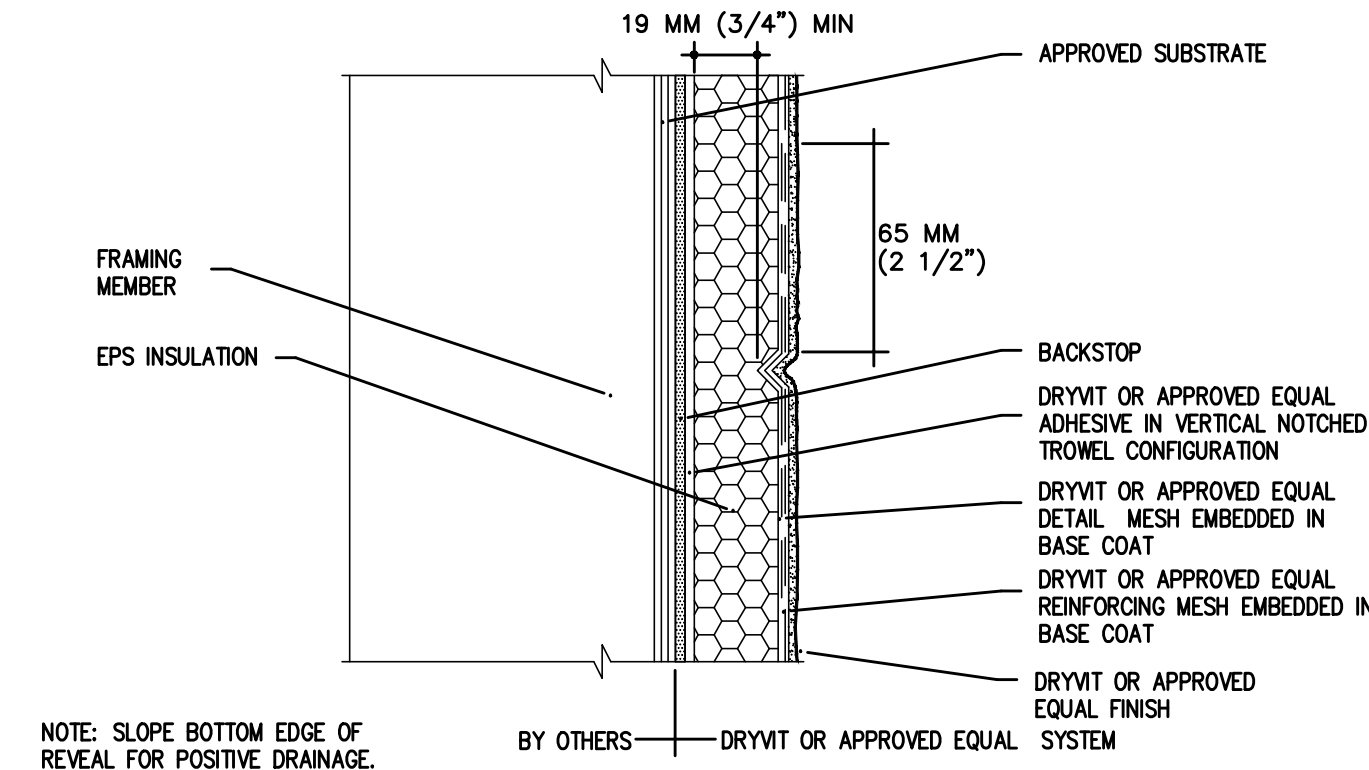


2. DOUBLE WRAP OUTSIDE CORNERS WITH REINFORCING MESH OR USE CORNER MESH.
3. DO NOT LAP REINFORCING MESH WITHIN 200 MM (8") OF A CORNER.

5 CORNER DETAIL
SCALE: NOT TO SCALE



6 SIGN ATTACHMENT
SCALE: NOT TO SCALE



NOTE: SLOPE BOTTOM EDGE OF REVEAL FOR POSITIVE DRAINAGE.

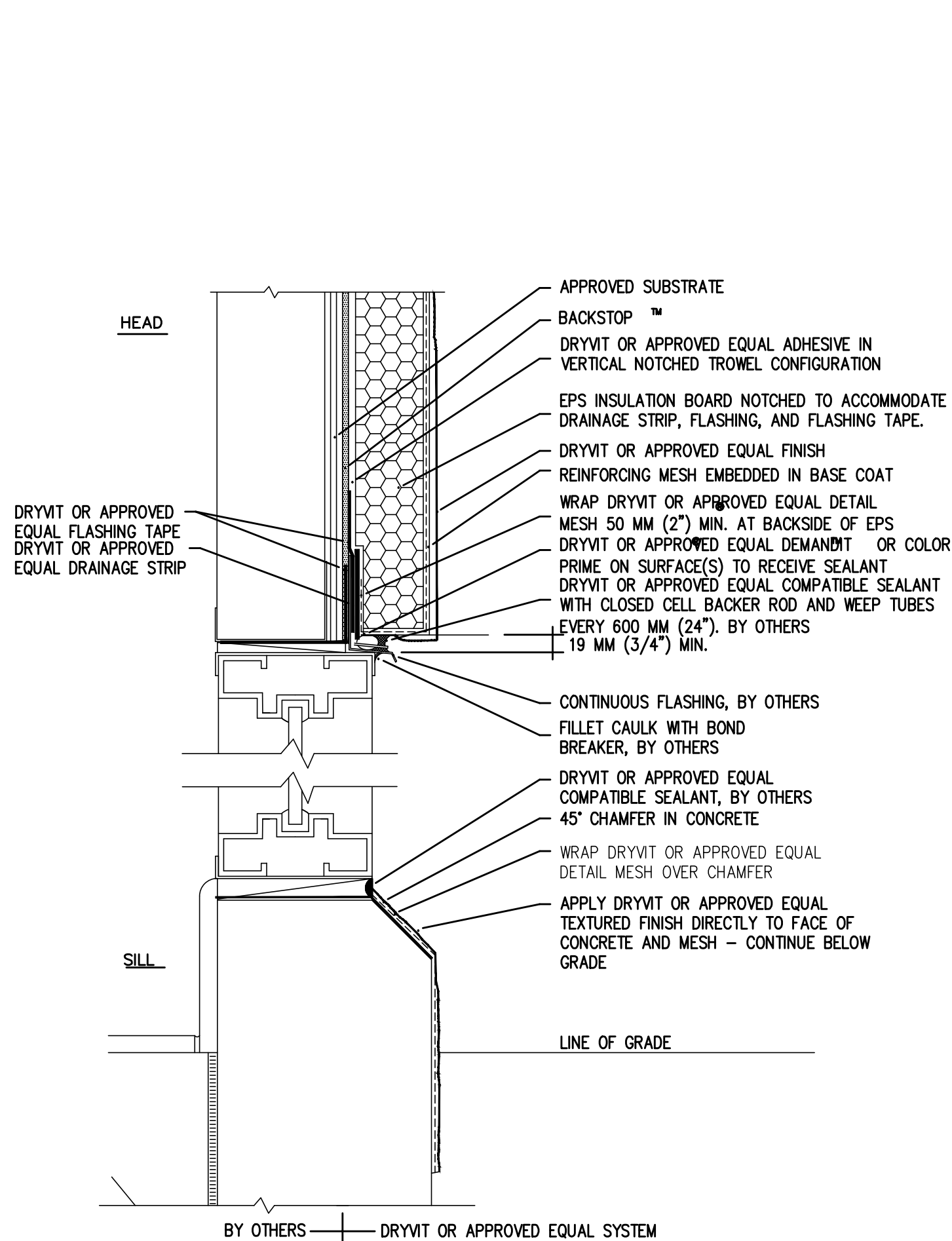
7 AESTHETIC REVEAL
SCALE: NOT TO SCALE

NOTE:

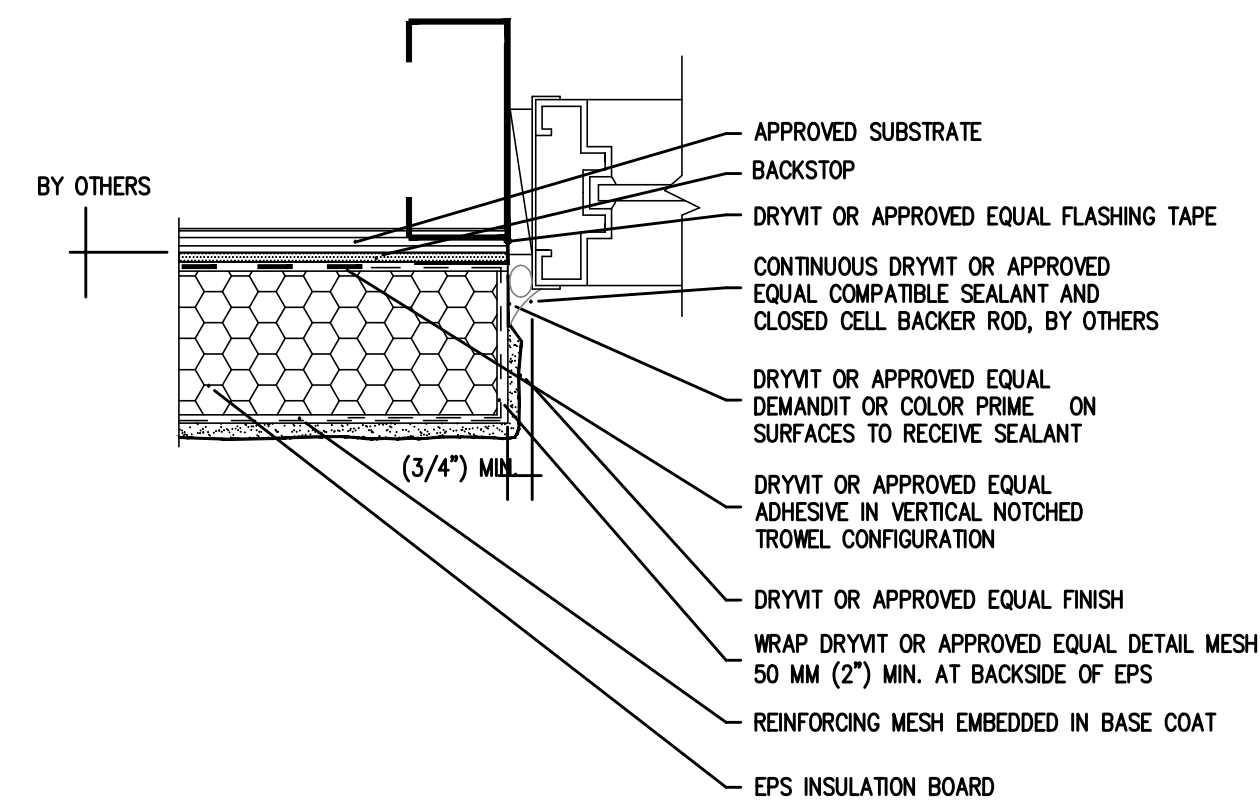
THE CONTRACTOR TO INSTALL EIFS PER MANUFACTURERS LATEST SPECIFICATIONS AND INSTALLATION DETAILS. EIFS DETAILS PROVIDED IN THIS PLAN SET (BY OTHERS), IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY LATEST SPECIFICATIONS AND DETAILS WITH EIFS MANUFACTURER.

PROVIDE BARRIER TYPE EIFS SYSTEM.

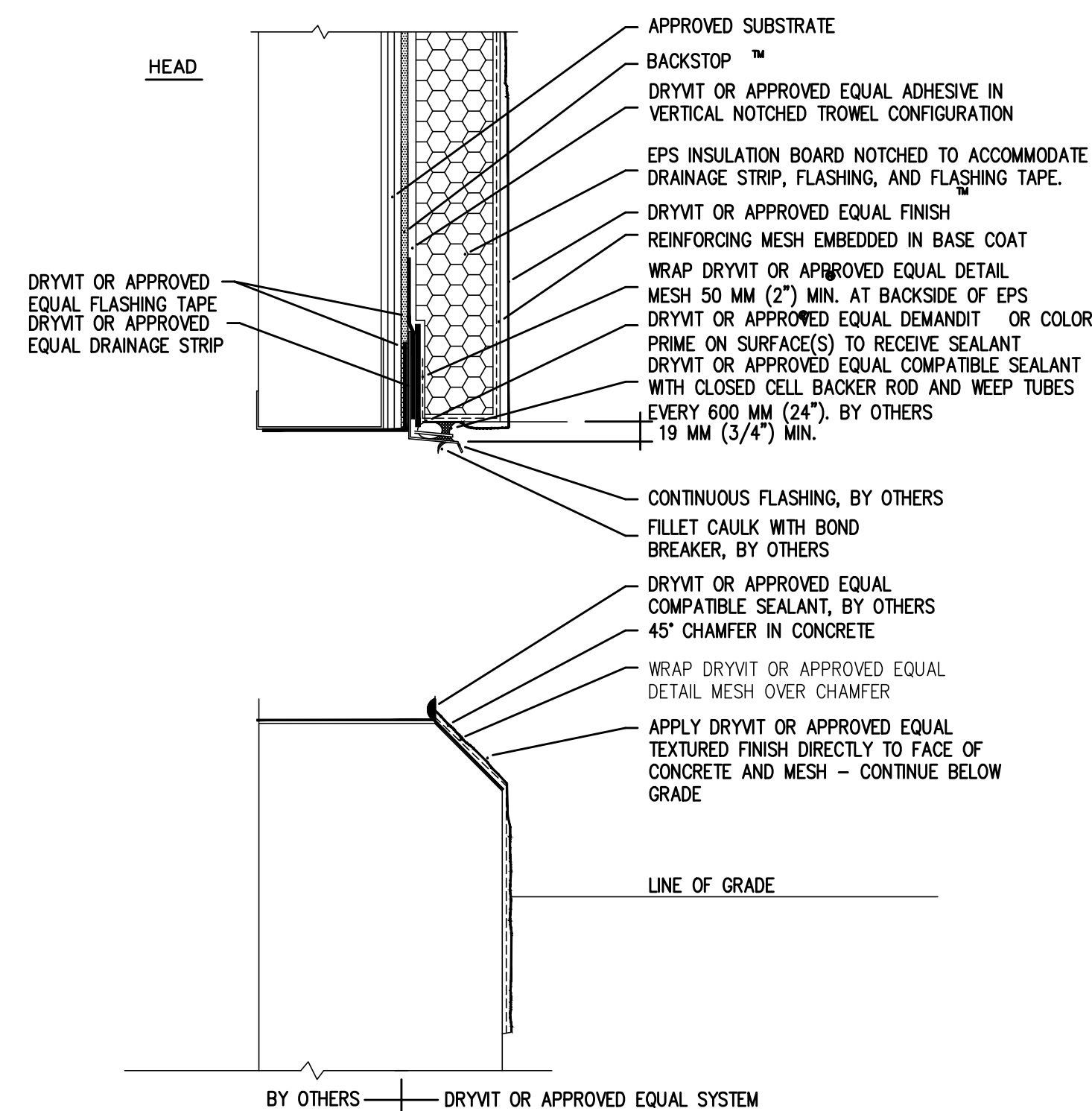
CONTRACTOR TO SUBMIT PRODUCT INFORMATION TO ARCHITECT FOR APPROVAL.



2 HEAD/ SILL DETAIL
SCALE: NOT TO SCALE



4 JAMB DETAIL
SCALE: NOT TO SCALE



8 HEAD/ SILL DETAIL
SCALE: NOT TO SCALE



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REVISIONS		
NO.	DESCRIPTION	DATE

DRAWING TITLE:

EIFS DETAILS

JOB NO: RB2024-5	DESIGNED BY: AAW
DATE: 8-29-25	DRAWN BY: AAW
SCALE: AS NOTED	CHECKED BY: SMB

DRAWING NUMBER:

A-5.3

GENERAL

- STRUCTURAL NOTES ARE NOT INTENDED TO REPLACE SPECIFICATIONS. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. FOR INCONSISTENCIES BETWEEN STRUCTURAL DRAWINGS, THE SPECIFICATIONS, AND ANY CODE OF STANDARD PRACTICE, THE STRICTER REQUIREMENT SHALL APPLY, AND THE ENGINEER SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.
- STRUCTURAL CONSTRUCTION DOCUMENTS SHALL BE USED WITH OTHER CONSTRUCTION DOCUMENTS, INCLUDING ARCHITECTURAL, M/E/P, AND SITE DOCUMENTS. COORDINATE WITH THESE DOCUMENTS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, REGISTS, SLEEVES, DEPRESSIONS, ETC., NOT INDICATED ON THE STRUCTURAL DOCUMENTS. ALL DIMENSIONS AND CONDITIONS, EXISTING AND NEW, SHALL BE FIELD VERIFIED. THE ENGINEER SHALL BE NOTIFIED OF DISCREPANCIES PRIOR TO PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.
- THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE STABILITY AND SAFETY DURING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF SHEETING, SHORING, TEMPORARY BRACINGS, GUYS, AND TIEDOWNS. THE CONTRACTOR SHALL PROVIDE SHORING AND BRACING NECESSARY TO PROTECT EXISTING AND ADJACENT STRUCTURES.
- SECTIONS AND DETAILS SHOWN ON ANY STRUCTURAL DOCUMENTS SHALL BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS THAT DO NOT HAVE A SPECIFIC SECTION INDICATED, AND SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
- APPLICABLE FEDERAL, STATE AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OSHA.
- THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED ON THE STRUCTURE. CONSTRUCTION LOADS SHALL NOT EXCEED THE SPECIFIED DESIGN LIVE LOADS. CONCRETE SLABS AND TOPPINGS SHALL NOT BE LOADED UNTIL THE CONCRETE HAS REACHED AT LEAST 75% OF THE SPECIFIED DESIGN COMPRESSIVE STRENGTH.
- THE CONTRACTOR'S CONSTRUCTION SEQUENCES SHALL ALLOW FOR THE EFFECTS OF THERMAL MOVEMENTS DURING THE CONSTRUCTION PERIOD, PRIOR TO THE BUILDING BEING ENCLOSED AND TEMPERATURE CONTROLLED. NEGATIVE EFFECTS OF SUCH THERMAL MOVEMENTS, SUCH AS MATERIAL CRACKING, FROST HEAVE, ETC., SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- IN THE ABSENCE OF SPECIFIC INSTRUCTIONS TO THE CONTRARY IN THE CONTRACT DOCUMENTS, THE TRADE PRACTICES THAT ARE DEFINED IN ANY CODE OF STANDARD PRACTICE SHALL GOVERN.

EXISTING CONSTRUCTION

- BEFORE PROCEEDING WITH ANY WORK WITHIN THE EXISTING FACILITY, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE EXISTING STRUCTURAL AND OTHER CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL NECESSARY BRACING, SHORING AND OTHER SAFEGUARDS TO MAINTAIN ALL PARTS OF THE EXISTING WORK IN A SAFE CONDITION DURING THE PROCESS OF DEMOLITION AND CONSTRUCTION, AND TO PROTECT FROM DAMAGE THOSE PORTIONS OF THE EXISTING WORK WHICH ARE TO REMAIN.
- THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS, ELEVATIONS, AND CONDITIONS NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE NEW PORTIONS OF THE WORK. THE CONTRACTOR SHALL MAKE ALL MEASUREMENTS NECESSARY FOR FABRICATION AND ERECTION OF STRUCTURAL MEMBERS. ANY DISCREPANCY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.

STRUCTURAL DESIGN CRITERIA

- DESIGN LOADS ARE IN ACCORDANCE WITH THE 2021 INTERNATIONAL BUILDING CODE, NEW JERSEY EDITION, ASCE 7-16 AND LOCAL CODE.
- OCCUPANCY GROUP = A-3 (ASSEMBLY)
RISK CATEGORY = II
- DESIGN LIVE LOADS ARE AS FOLLOWS. LIVE LOAD REDUCTIONS HAVE BEEN TAKEN WHERE APPLICABLE, UNO.
ROOF 30 PSF
ADDITION 100 PSF
STAGE 150 PSF
- SNOW LOADING IS BASED ON THE FOLLOWING. DRIFTING OR SLIDING SNOW LOADS HAVE BEEN CONSIDERED WHERE APPROPRIATE.
GROUND SNOW LOAD (Pg) 20 PSF
ROOF DESIGN SNOW LOAD (Pf) 20 PSF
SNOW EXPOSURE FACTOR (Ce) 1.0
SNOW LOAD IMPORTANCE FACTOR (I) 1.0
SNOW THERMAL FACTOR (ct) 1.0
- WIND LOADING IS BASED ON THE FOLLOWING:
ULTIMATE WIND SPEED(3 SEC GUST) 115 MPH
NOMINAL MIN SPEED 89.1 MPH
IMPORTANCE FACTOR 1.0
WIND EXPOSURE B
INTERNAL PRESSURE COEFF. ±0.18
- SEISMIC LOADING IS BASED ON THE FOLLOWING:
SEISMIC IMPORTANCE FACTOR 1.0
SPECTRAL RESPONSE ACCEL. (Ss) 0.174g
SPECTRAL RESPONSE ACCEL. (S1) 0.046g
SITE CLASS (ASSUMED) D
SPECTRAL RESPONSE COEFF. (Sds) 0.186
SPECTRAL RESPONSE COEFF. (Sd1) 0.074
SEISMIC DESIGN CATEGORY, B
BASIC SEISMIC RESISTING SYSTEM LIGHT FRAME (CFM) WALLS
DESIGN BASE SHEAR 1.8K
SEISMIC RESPONSE COEFF. (Cs) 0.093
RESPONSE MODIFICATION FACTOR (R) 2.0
ANALYSIS PROCEDURE EQUIVALENT LATERAL FORCE

FOUNDATIONS

- FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S REPORT PREPARED BY DIGNED ENGINEERING, DATED JUNE 28,2024.
- SPREAD FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR COMPACTED STRUCTURAL FILL HAVING A MINIMUM SAFE BEARING CAPACITY OF 2500 PSF.
- THE BOTTOMS OF EXTERIOR FOOTINGS SHALL BE 36 IN. MINIMUM BELOW FINISHED GRADE.
- EDGES OF FOOTINGS SHALL NOT BE PLACED AT A GREATER THAN 1 (VERTICAL) TO 2 (HORIZ) SLOPE WITH RESPECT TO ANY ADJACENT FOOTING OR EXCAVATION.
- ADJACENT COLUMN FOOTINGS THAT ABUT SHALL BE SEPARATED BY A PAPER JOINT.
- FOUNDATION CONCRETE SHALL BE NORMAL WEIGHT HAVING A MINIMUM 28 DAY DESIGN COMPRESSIVE STRENGTH AS FOLLOWS:
SPREAD FOOTINGS 3000 PSI
WALLS & PIERS 4000 PSI
SLAB-ON-GRADE (INTERIOR) 3500 PSI
SLAB-ON-GRADE (EXTERIOR) 4500 PSI, 0.45 W/C MAX.
- PROVIDE AIR-ENTRAINMENT IN ALL CONCRETE EXPOSED TO FREEZE-THAW CONDITIONS DURING THE CONSTRUCTION PERIOD AND/OR IN THE COMPLETED STRUCTURE.

CONCRETE REINFORCING

- REINFORCED CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318-14.
- CONCRETE REINFORCING SHALL CONFORM TO THE FOLLOWING DESIGNATIONS:
DEFORMED BARS ASTM A615, GRADE 60
WELDED WIRE FABRIC ASTM A1064
- LAP DEFORMED BARS 40 DIA., UNO. PROVIDE CORNER AND L BARS AT CORNERS AND INTERSECTIONS. REINFORCING INDICATED AS CONTINUOUS SHALL BE LAPPED. HOOKS SHALL BE STANDARD HOOKS, UNO. LAP WELDED WIRE FABRIC SUCH THAT THE OVERLAP OF THE OUTERMOST CROSS-WIRES OF EACH ADJOINING SHEET IS NOT LESS THAN THE SPACING OF THE CROSS-WIRES PLUS TWO IN., UNO.
- CONCRETE PROTECTION FOR REINFORCEMENT:
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3 IN.
CONCRETE EXPOSED TO EARTH OR WEATHER:
NO. 5 BAR AND SMALLER: 1-1/2 IN.
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
SLABS, WALLS, JOISTS:
NO. 11 BAR AND SMALLER: 3/4 IN.
BEAMS, COLUMNS, PIERS: 1-1/2 IN.
- REINFORCING FOR SLABS ON GRADE, WHERE NOT OTHERWISE SPECIFIED, SHALL BE AS FOLLOWS:
REINFORCING BARS: SEE FOUNDATION AND TYPICAL DETAILS. AT SLAB BLOCKOUT AND RE-ENTRANT CORNERS, PROVIDE 2#5 X 4'-0" DIAGONALS.
WIRE MESH: 6x6-M2.9 X M2.9 WWF. REINFORCING SHALL BE SUPPORTED AT MID-DEPTH OF SLAB.
- DETAILING OF CONCRETE REINFORCING AND ACCESSORIES SHALL CONFORM TO ACI DETAILING MANUAL SP-66, AND WITH ACI 315, MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES.

CONCRETE MASONRY

- CONCRETE MASONRY CONSTRUCTION SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES", TMS 402-16, AND "SPECIFICATIONS FOR MASONRY STRUCTURES", TMS 602-16.
- MINIMUM COMPRESSIVE STRENGTH OF CONCRETE MASONRY, F'M, SHALL BE 1500 PSI. (MIN NET AREA COMPRESSIVE STRENGTH OF UNIT = 1400 PSI.)
- CONCRETE MASONRY REINFORCING SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60.
- GROUT SHALL CONFORM TO ASTM C416, AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI. PROVIDE FINE AND COARSE GROUTS APPROPRIATE FOR SIZE OF VOID BEING FILLED. GROUT SHALL HAVE A MINIMUM SLUMP OF 8 INCHES PROVIDED BY SUFFICIENT WATER CONTENT. WATER-REDUCING ADMIXTURES ARE NOT PERMITTED.
- MORTAR SHALL CONFORM TO ASTM C270, TYPE M OR S, PCL OR MORTAR CEMENT. MASONRY CEMENT NOT PERMITTED.
- REINFORCED VOIDS, AND NON-REINFORCED VOIDS SPECIFIED TO BE GROUTED, IN CONCRETE MASONRY SHALL BE FILLED SOLID WITH GROUT IN 5 FT. MAXIMUM LIFTS. STOP POURS 1-1/2 INCHES BELOW THE BED JOINT TO FORM A KEY AT POUR JOINTS.
- LAP DEFORMED BARS 48 DIA., UNO.
- CONCRETE MASONRY SHALL BE LAID IN RUNNING BOND, UNO. PILASTERS SHALL BE BONDED, UNO.
- LOAD BEARING CMU SHALL HAVE FULL MORTAR BED JOINTS.
- PROVIDE HORIZONTAL LADDER-TYPE WALL REINFORCEMENT, HOT-DIP GALVANIZED, WITH 3/16" DIAMETER SIDE RODS AND 4 GA. CROSS RODS AS FOLLOWS:
TYPICAL: 16 IN. C/C MAX.
BELOW GRADE: 8 IN. C/C.
- ABOVE AND BELOW OPENINGS: TERMINATE 2 FT. BEYOND OPENING. PROVIDE CONTINUITY AT INTERSECTIONS AND CORNERS USING PREFABRICATED T-SHAPED AND L-SHAPED UNITS.
- VERTICAL CRACK CONTROL JOINTS IN WALLS SHALL BE PROVIDED AT 24 FT. O/C MAX, UNO.
- ALL MASONRY BELOW GRADE SHALL BE GROUTED SOLID.

STRUCTURAL STEEL

- STRUCTURAL STEEL FABRICATION, ERECTION AND CONNECTION DESIGN SHALL CONFORM TO AISC'S "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, 360-16.
- STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING DESIGNATIONS:
STRUCTURAL STEEL WF SHAPES ASTM A992
STEEL BARS, ANGLES AND PLATES ASTM A36, UNO
SQUARE AND RECTANGULAR TUBING ASTM A500, GRADE B
- BOLTS SHALL BE MINIMUM 3/4 IN. DIA. AND SHALL CONFORM TO THE FOLLOWING DESIGNATIONS, UNO:
HIGH STRENGTH BOLTS ASTM A325
ANCHOR BOLTS ASTM F1554, GRADE 36
- BOLTED CONNECTIONS SHALL CONFORM TO RCSC'S "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS."
- WELDING, WELDING ELECTRODES, AND FLUXES SHALL CONFORM TO AWS D1.1-17 "STRUCTURAL WELDING CODE - STEEL". ELECTRODES SHALL HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI.
- GROUT UNDER STEEL COLUMN OR POST BASEPLATES SHALL BE NONMETALLIC, SHRINKAGE-RESISTANT GROUT CONFORMING TO ASTM C827 HAVING A MINIMUM DESIGN COMPRESSIVE STRENGTH OF 5000 PSI. GROUT UNDER STEEL BEAM BEARING PLATES SHALL HAVE A MINIMUM DESIGN COMPRESSIVE STRENGTH OF 3000 PSI, AND SHALL CONFORM TO ASTM C416.
- HIGH STRENGTH BOLTED CONNECTIONS SHALL BE TIGHTENED TO THE 8NU6-TIGHT CONDITION, UNO.
- CONNECTIONS SHALL BE DESIGNED PER AISC TO CARRY FULL CAPACITY OF UNIFORMLY LOADED MEMBER, UNLESS THE ACTUAL REACTION IS NOTED ON DRAWINGS.
- PROVIDE FULL DEPTH CONNECTIONS AT BEAM OR GIRDER TO COLUMN CONNECTION.
- PROVIDE MIN. 3/8" FULL DEPTH THRU-PLATE CONNECTIONS AT PIPE AND TUBE COLUMNS.
- PROVIDE COLUMN CAP PLATES AS FOLLOWS, UNO:
FOR BEAM BEARING: SEE TYPICAL DETAILS, 3/4" THICK MIN.
PROVIDE COLUMN CAP PLATES AT ALL SQUARE, RECTANGULAR AND ROUND HSS COLUMNS.

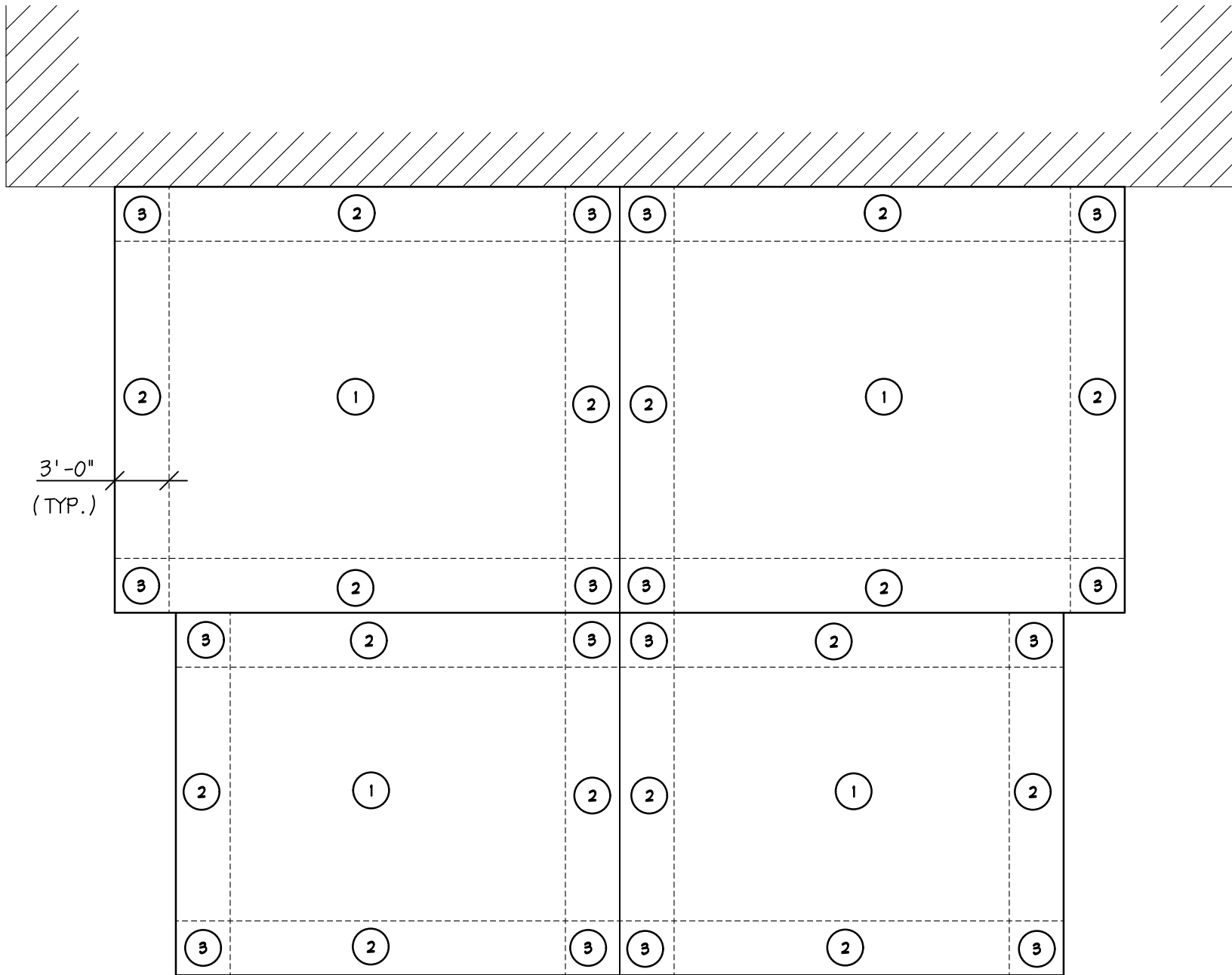
GOLD FORMED STEEL FRAMING

- ALL GOLD FORMED STEEL FRAMING INDICATED ON THE DRAWINGS IS FOR BID PURPOSES ONLY. THE GOLD-FORMED FRAMING SUBCONTRACTOR SHALL RETAIN THE SERVICES OF A LICENSED PROFESSIONAL ENGINEER TO DESIGN ALL GOLD FORMED FRAMING IN ACCORDANCE WITH THE SPECIFIED DESIGN CRITERIA AND SIGNED AND SEALED SHOP DRAWINGS SHALL BE SUBMITTED. INDICATED GOLD-FORMED FRAMING SIZES AND GAGES ARE MINIMUMS, AND SHALL NOT BE REDUCED WITHOUT APPROVAL OF THE ARCHITECT/ENGINEER.
- THE DESIGN OF GOLD FORMED STEEL FRAMING SHALL CONFORM TO AISI'S S100-16 "SPECIFICATION FOR THE DESIGN OF GOLD FORMED STEEL STRUCTURAL MEMBERS".
- GOLD FORMED STEEL FRAMING SHALL CONFORM TO ASTM C955 AND G1007, AND TO THE FOLLOWING:
12, 14 AND 16 GAGE STUDS ASTM A653, 50, GRADE 50, CLASS 1
18 AND 20 GAGE STUDS ASTM A653, CQ, GRADE 33
TRACK AND BRIDGING ASTM A653, CQ, GRADE 33
- WELDING SHALL CONFORM TO AWS D1.4-17, "STRUCTURAL WELDING CODE - SHEET STEEL".
- PROVIDE BRIDGING AND BRACING AS SPECIFIED BY MANUFACTURER OR AS REQUIRED BY DESIGN.
- THE EXTENT OF WORK FOR GOLD-FORMED FRAMING IS DETAILED ON THE ARCHITECTURAL DRAWINGS, AND PARTLY ON THE STRUCTURAL DRAWINGS. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER.
- PROVIDE GOLD-FORMED ACCESSORIES AS REQUIRED FOR A COMPLETE FRAMING SYSTEM, INCLUDING, BUT NOT LIMITED TO, TRACKS, BLOCKING, CLIP ANGLES, SLIDE CLIPS, SHOES, RUNNERS, REINFORCEMENTS, GOLD-FORMED TO GOLD-FORMED FASTENERS AND WELDS, AND GOLD-FORMED TO STRUCTURE FASTENERS AND WELDS.
- LOAD BEARING STUDS SHALL HAVE CONTINUITY THROUGH THE FLOOR SYSTEM, AND SHALL BE VERTICALLY ALIGNED THROUGHOUT THE STRUCTURE HEIGHT.
- LOAD BEARING STUDS SHALL NOT BE SPICED.
- TRACK SHALL BE SPICED WITH A SECTION OF STUD AND FASTENED TO DEVELOP THE TENSILE CAPACITY OF THE TRACK.
- BUILT-UP HEADERS SHALL HAVE WEB STIFFENERS AT BEARING POINTS.
- FOR STEEL STUD FRAMING, HORIZONTAL MECHANICAL BRIDGING SHALL BE 2 IN., 18 GAGE STRAPS, EACH SIDE OF STUD, OR 1 1/2 IN., 16 GAGE BRIDGING CHANNEL. BRIDGING SHALL BE INSTALLED AT 4 FT. O/C MAX., AND FASTENED TO EACH STUD. BRIDGING SHALL BE CONTINUOUS. FLAT STRAP BRIDGING SHALL HAVE BLOCKING AT WALL ENDS AND 10 FT. O/C MAX.
- DO NOT BEAR OR CONNECT GOLD-FORMED MEMBERS WITHIN 12 INCHES OF PUNCHED WEB OPENINGS UNLESS MEMBERS ARE REINFORCED WITH AN 18 IN. (MIN) LONG UNPUNCHED STUD OR TRACK AT THE PUNCH OPENING. SAME GAGE AS PUNCHED MEMBER. FASTEN REINFORCING MEMBER WITH A MIN. OF 8 SCREWS.
- PLACE STUDS AT UNIFORM SPACING INDICATED WITH FULL BEARING AGAINST INSIDE WEB OF RUNNERS. ALIGN WITH ALL FLANGES FACING SAME DIRECTION.
- LOCATE STUDS NOT MORE THAN 2 IN. FROM BUTTING WALLS.
- CONSTRUCT CORNERS USING MIN. 3 STUDS. PROVIDE DOUBLE STUDS AT WALL OPENINGS, AND AT WINDOW AND DOOR JAMBES, UNO.
- INSTALL INTERMEDIATE JACK STUDS (GRIPPLES) ABOVE AND BELOW OPENINGS TO MATCH WALL STUD SPACING.
- ROOF SHEATHING SHALL BE INSTALLED ON MAIN ROOF MEMBERS PRIOR TO THE INSTALLATION OF OVERFRAMING MEMBERS.
- ALL CONNECTIONS SHALL BE SCREWED OR PONDER FASTENED, UNLESS WELDING IS INDICATED.
A. SCREWS: #10 (UNO) HEX HEAD SELF-DRILLING SCREWS, MIN. 1/2 IN. LENGTH FOR GOLD-FORMED TO GOLD-FORMED CONNECTIONS. MIN 1-1/2 IN. LENGTH FOR GOLD-FORMED TO TIMBER CONNECTIONS. MIN SPACING AND EDGE DISTANCE SHALL BE 1/2 IN.
B. PONDER ACTUATED FASTENERS (PAF) IN CONCRETE: 0.145 IN (UNO) SHANK DIA. MIN. SPACING SHALL BE 4 IN. AND MIN. EDGE DISTANCE SHALL BE 3 IN.
C. PONDER ACTUATED FASTENERS (PAF) IN STEEL: 0.145 IN (UNO) KNURLED SHANK DIA. MIN. SPACING SHALL BE 1-1/2 IN. AND MIN. EDGE DISTANCE SHALL BE 1/2 IN.
- THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY AND PERMANENT BRACING AS REQUIRED FOR SAFE ERECTION AND PERFORMANCE OF THE ROOF TRUSSES. THE GUIDELINES SET FORTH BY THE LIGHT GAUGE STEEL ENGINEERS ASSOCIATION (LGS&A TECHNICAL NOTES 551d "DESIGN GUIDE FOR CONSTRUCTION BRACING OF GOLD-FORMED STEEL TRUSSES" AN 551e "DESIGN GUIDE FOR PERMANENT BRACING OF GOLD-FORMED STEEL TRUSSES" SHALL BE A MINIMUM REQUIREMENT/

PLYWOOD SHEATHING

- PLYWOOD SHALL CONFORM TO APA'S "PLYWOOD DESIGN SPECIFICATION", 2012, AND DOC'S PS 1 - 04, "CONSTRUCTION AND INDUSTRIAL PLYWOOD". ALL JOINTS SHALL BE STAGGERED. PANELS SHALL BE INSTALLED WITH THE LONG DIMENSION ACROSS SUPPORTS. NAILING SHALL COMPLY WITH MINIMUM APA REQUIREMENTS FOR PLYWOOD FLOOR/ROOF DIAPHRAGMS, AND IBC FASTENING SCHEDULE.
- PLYWOOD ROOF SHEATHING SHALL BE APA STRUCTURAL 1 RATED SHEATHING, EXPOSURE 1, THICKNESS AS INDICATED. PROVIDE PANEL CLIPS AT UNSUPPORTED EDGES.
- ROOF SHEATHING SHALL BE INSTALLED ON MAIN ROOF MEMBERS PRIOR TO THE INSTALLATION OF OVERFRAMING MEMBERS.
- MINIMUM FASTENING SHALL CONFORM TO IBC TABLE 2304.4.1, "FASTENING SCHEDULE".

COMPONENTS & CLADDING ZONES PER ASCE 7-16					
EFFECTIVE WIND AREA	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5
	INT. ROOF	EDGE ROOF	CORNER ROOF	INT. WALL	EXT. WALL
<20 SF	+16.0	+16.0	+16.0	+18.6	+18.6
	-23.5	-27.4	-46.5	-20.3	-24.4
50 SF	+16.0	+16.0	+16.0	+17.5	+17.5
	-22.2	-24.8	-40.5	-19.1	-22.2
100 SF	+16.0	+16.0	+16.0	+16.6	+16.6
	-21.2	-22.8	-36.1	-18.2	-20.3
>200 SF	+16.0	+16.0	+16.0	+16.0	+16.0
	-21.2	-22.8	-36.1	-17.4	-18.5
NOTES: 1. PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACES, RESPECTIVELY. 2. INDICATED PRESSURES ARE ULTIMATE LOADS.					



ROOF PLAN - WIND PRESSURES



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BOROUGH OF RUNNEMEDE
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REVISIONS		
NO.	DESCRIPTION	DATE

DRAWING TITLE:

STRUCTURAL
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STRUCTURAL STEEL CONSTRUCTION (IBC-18 SECTION 1705.2, AISC 360-16 CHAPTER N, AISC 341-16 CHAPTER J)	FREQUENCY	REFERENCED STANDARD
INSPECTION TASKS PRIOR TO WELDING (AISC 360-16 TABLE N5.4-2)	PERIODIC	ACI 318:3.5,7.1-7.7
1. WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	PERIODIC	6.3
2. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE.	PERIODIC	6.2
3. MATERIAL IDENTIFICATION (TYPE/GRADE)	PERIODIC	6.2
4. WELDER IDENTIFICATION SYSTEM	PERIODIC	6.4
5. FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY)	PERIODIC	
a. JOINT PREPARATION	PERIODIC	6.5.2
b. DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL)	PERIODIC	5.22
c. CLEANLINESS (CONDITION OF THE STEEL SURFACES)	PERIODIC	5.15
d. TACKING (TACK WELD QUALITY AND LOCATION)	PERIODIC	5.18
e. BACKING TYPE AND FIT (IF APPLICABLE)	PERIODIC	5.10, 5.22, 1.1
6. CONFIGURATION OF FINISH AND ACCESS HOLES	PERIODIC	6.5.2, 5.17
7. FIT-UP OF FILLET WELDS	PERIODIC	
a. DIMENSIONS (ALIGNMENT, GAPS AT ROOT)	PERIODIC	5.22.1
b. CLEANLINESS (CONDITION OF STEEL SURFACES)	PERIODIC	5.15
c. TACKING (TACK WELD QUALITY AND LOCATION)	PERIODIC	5.18
8. CHECK WELDING EQUIPMENT	PERIODIC	6.2, 5.11
INSPECTION TASKS DURING WELDING (AISC 360-16 TABLE N5.4-2)	PERIODIC	ANS D1.1/D1.1M
1. USE OF QUALIFIED WELDERS	PERIODIC	6.4
2. CONTROL AND HANDLING OF WELDING CONSUMABLES	PERIODIC	6.2
a. PACKAGING	PERIODIC	5.3.1
b. EXPOSURE CONTROL	PERIODIC	5.3.2 (SMALL) 5.3.3 (SMALL)
3. NO WELDING OVER CRACKED TACK WELDS	PERIODIC	5.18
4. ENVIRONMENTAL CONDITIONS	PERIODIC	
a. WIND SPEED WITHIN LIMITS	PERIODIC	5.12.1
b. PRECIPITATION AND TEMPERATURE	PERIODIC	5.12.2
5. WPS FOLLOWED	PERIODIC	6.3.3, 6.5.2, 5.5, 5.2.1
a. SETTINGS ON WELDING EQUIPMENT	PERIODIC	
b. TRAVEL SPEED	PERIODIC	
c. SELECTED WELDING MATERIALS	PERIODIC	
d. SHIELDING GAS TYPE/FLOW RATE	PERIODIC	
e. PREHEAT APPLIED	PERIODIC	
f. INTERPASS TEMPERATURE MAINTAINED (MIN/MAX)	PERIODIC	
g. PROPER POSITION (F,V,H,OH)	PERIODIC	
h. INTERMIX OF FILLER METALS AVOIDED UNLESS APPROVED (REF: AISC 341-10)	PERIODIC	
6. WELDING TECHNIQUES	PERIODIC	6.5.2, 6.5.3, 5.24
a. INTERPASS AND FINAL CLEANING	PERIODIC	5.30.1
b. EACH PASS WITHIN PROFILE LIMITATIONS	PERIODIC	
c. EACH PASS MEETS QUALITY REQUIREMENTS	PERIODIC	
INSPECTION TASKS AFTER WELDING (AISC 360-16 TABLE N5.4-3)		ANS D1.1/51.1M
1. WELDS CLEANED	PERIODIC	5.30.1
2. SIZE, LENGTH, AND LOCATIONS OF WELDS	CONTINUOUS	6.5.1
3. WELDS MEET VISUAL ACCEPTANCE CRITERIA	CONTINUOUS	6.5.3
a. CRACK PROHIBITION	CONTINUOUS	TABLE 6.1 (1)
b. WELD/BASE METAL-FUSION	CONTINUOUS	TABLE 6.1 (2)
c. CRATER CROSS SECTION	CONTINUOUS	TABLE 6.1 (3)
d. WELD PROFILES	CONTINUOUS	TABLE 6.1 (4), 5.24
e. WELD SIZE	CONTINUOUS	TABLE 6.1 (6)
f. UNDERCUT	CONTINUOUS	TABLE 6.1 (7)
g. POROSITY	CONTINUOUS	TABLE 6.1 (8)
4. ARC STRIKES	CONTINUOUS	5.29
5. K-AREA	CONTINUOUS	NOT ADDRESSED IN ANS
6. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	CONTINUOUS	5.10, 5.31
7. REPAIR ACTIVITIES	CONTINUOUS	6.5.3, 5.26
8. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	CONTINUOUS	6.5.4, 6.5.5
9. PLACEMENT OF REINFORCING OR CONTOURING FILLET WELDS (IF REQUIRED) (REF: AISC 341-10)	CONTINUOUS	
10. BACKING REMOVED, WELD TABS REMOVED AND FINISHED, AND FILLET WELDS ADDED (IF REQUIRED) (REF: AISC 341-10)	CONTINUOUS	

SOILS: (1.705.6)	FREQUENCY	REFERENCED STANDARD
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	PERIODIC	GEOTECHNICAL ENGINEERING REPORT
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	PERIODIC	GEOTECHNICAL ENGINEERING REPORT
3. PERFORM CLASSIFICATIONS AND TESTING OF COMPACTED FILL MATERIALS.	PERIODIC	GEOTECHNICAL ENGINEERING REPORT
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	CONTINUOUS	GEOTECHNICAL ENGINEERING REPORT
5. PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	PERIODIC	GEOTECHNICAL ENGINEERING REPORT

INSPECTION TASKS PRIOR TO BOLTING (AISC 360-16 TABLE N5.6-1)		
INSPECTION TASKS PRIOR TO BOLTING	QUALITY CONTROL	QUALITY ASSURANCE
FASTENERS ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND MASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED.	OBSERVE	PERFORM
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	OBSERVE	OBSERVE
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	OBSERVE	OBSERVE
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	OBSERVE	OBSERVE

INSPECTION TASKS DURING BOLTING (AISC 360-16 TABLE N5.6-2)		
INSPECTION TASKS PRIOR TO BOLTING	QUALITY CONTROL	QUALITY ASSURANCE
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	OBSERVE	PERFORM
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS.	OBSERVE	OBSERVE
PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	OBSERVE	OBSERVE
PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	OBSERVE	OBSERVE
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	OBSERVE	OBSERVE
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	PERFORM	OBSERVE
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, MASHERS, AND OTHER FASTENER COMPONENTS.	OBSERVE	OBSERVE

INSPECTION TASKS AFTER BOLTING (AISC 360-16 TABLE N5.6-3)		
INSPECTION TASKS AFTER BOLTING	QUALITY CONTROL	QUALITY ASSURANCE
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	OBSERVE	PERFORM

OTHER INSPECTION TASKS (AISC 360-16 TABLE N5.7)	
	FREQUENCY
1. VERIFY COMPLIANCE OF FABRICATED STEEL WITH THE DETAILS SHOWN ON THE APPROVED SHOP DRAWINGS.	PERIODIC
2. VERIFY COMPLIANCE OF THE ERECTED STEEL FRAME WITH THE DETAILS SHOWN ON THE APPROVED ERECTION DRAWINGS, INCLUDING BRACES, STIFFENERS, AND MEMBER LOCATIONS AND DETAILS.	PERIODIC
3. ANCHOR RODS AND OTHER EMBEDMENTS SUPPORT STRUCTURAL STEEL.	PERIODIC
a. VERIFY THE DIAMETER, GRADE, TYPE, AND LENGTH OF THE ANCHOR ROD OR EMBEDDED ITEM.	PERIODIC
b. VERIFY THE EXTENT OR DEPTH OF EMBEDMENT INTO THE CONCRETE.	PERIODIC

CONCRETE: (1.705.3)	FREQUENCY	REFERENCED STANDARD
NOT APPLICABLE TO ISOLATED SPREAD FOOTINGS OR NON-STRUCTURAL SLABS ON GROUND		
1. INSPECTION OF REINFORCING STEEL AND PLACEMENT	PERIODIC	ACI 318:3.5,7.1-7.7
2. INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1705.2.2, ITEM 2b.	PERIODIC	ANS D1.4 ACI 318: 3.5.2
3. INSPECTION OF ANCHORS CAST IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.	PERIODIC	ACI 318: 8.1.3, 21.2.8
4. INSPECTION OF ANCHORS POST INSTALLED IN HARDENED CONCRETE MEMBERS.	CONTINUOUS	ACI 318: 3.8.6, 8.1.3, 21.2.8
5. VERIFYING USE OF REQUIRED DESIGN MIX.	PERIODIC	ACI 318: 3.8.6, 8.1.3, Ch.4, 5.2-5.4
6. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	CONTINUOUS	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8
7. INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	CONTINUOUS	ACI 318: Ch. 5.9, 5.10
8. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING, TEMPERATURE AND TECHNIQUES.	PERIODIC	ACI 318: 5.11-5.13
9. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	PERIODIC	ACI 318: 6.1.1



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SPECIAL
INSPECTIONS

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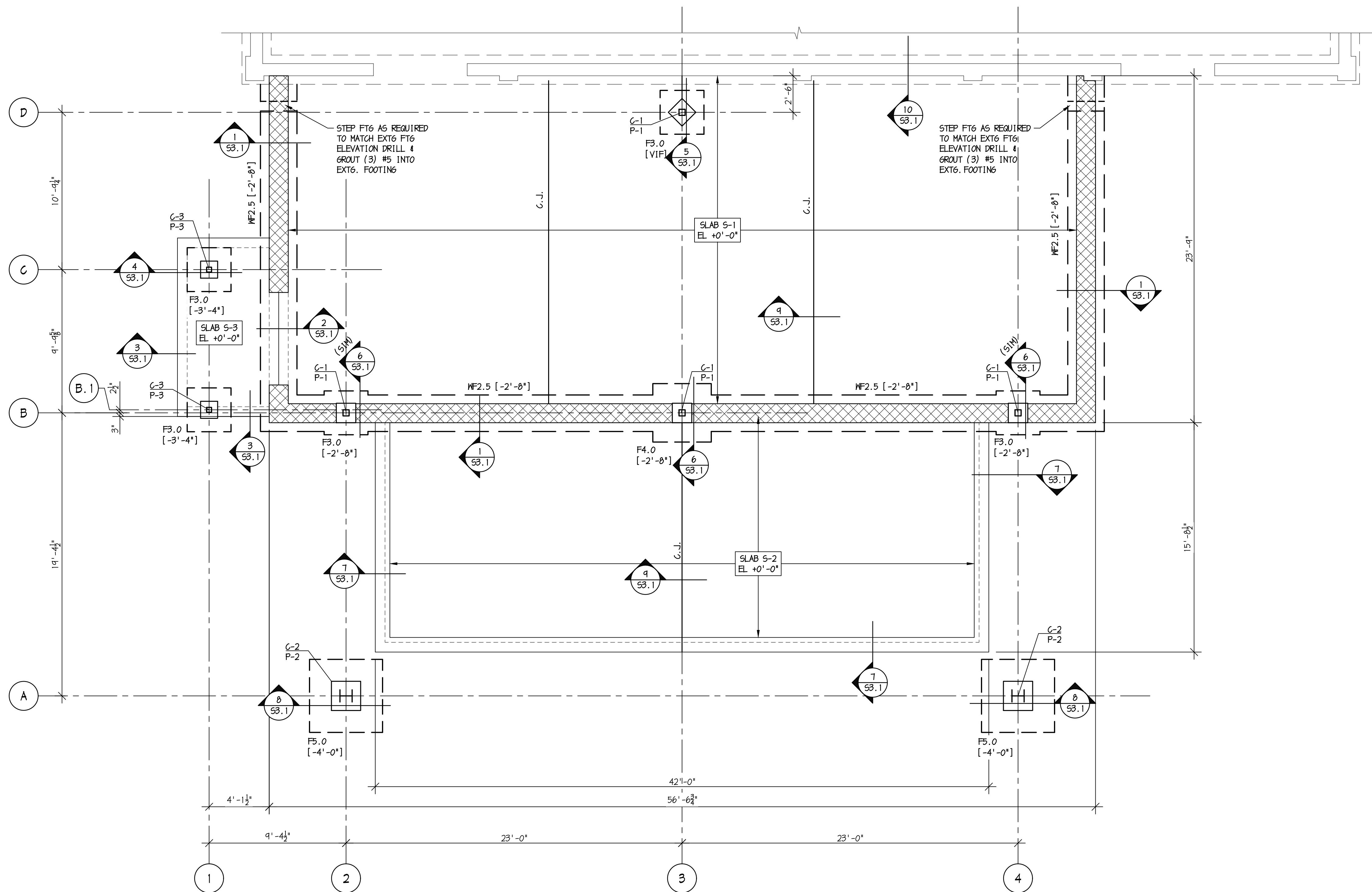
S1.2



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1 FOUNDATION & SLAB PLAN
SCALE: 1/4" = 1'-0"

FOUNDATION PLAN NOTES

1. FIRST FLOOR ELEVATION + 0'-0" IS REFERENCED RELATIVE TO EXISTING FLOOR ELEVATION.
2. ELEVATIONS ARE NOTED FROM REF. EL. 0'-0" AS FOLLOWS:
(-#'-#") INDICATES TOP OF CONCRETE SLAB
[-#'-#"] INDICATES TOP OF FOOTING
3. FOUNDATION MEMBERS SHALL BE AT THE FOLLOWING ELEVATIONS, UNO: T/FOOTING [-2'-8"]
4. FOUNDATION MEMBERS ARE DESIGNATED AS FOLLOWS:
F#.# FOOTING MARK - SEE SCHEDULE.
5. COORDINATE WITH ARCH, MECH, ELEC, AND PLUMB DRAWINGS FOR FLOOR SLOPES, DRAINS, OPENINGS, DEPRESSIONS, ETC., NOT SHOWN ON THIS PLAN.
6. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT INDICATED.
7. PROVIDE (2) #4 x 4'-0" DIAGONAL BARS AT ALL RE-ENTRANT SLAB-ON-GRADE CORNERS.
8. REFER TO STRUCTURAL NOTES ON DRAWING S1.1.

SLAB SCHEDULE

- SLAB S-1: 4" CONC. SLAB ON GRADE w/ 6x6-M2.1xM2.1 MMF ON 6 mil VAPOR BARRIER ON 4" COMPACTED GRANULAR BASE
- SLAB S-2: 5" CONC. SLAB ON GRADE w/ 6x6 - M2.1xM2.1 MMF ON 6 mil VAPOR BARRIER ON 4" COMPACTED GRANULAR BASE
- SLAB S-3: 4" CONC. SLAB ON GRADE w/ 6x6-M1.4xM1.4 MMF ON 8" COMPACTED GRANULAR BASE

WALL FOOTING SCHEDULE

MARK	SIZE	REINFORCING
		CONTINUOUS SHORT WAY
NF2.5	2'-6" x 1'-0"	3-#5 #5 @ 40"

COLUMN FOOTING SCHEDULE

MARK	SIZE	REINFORCING (BOTTOM)
F3.0	3'-0" x 3'-0" x 1'-0"	3-#5 EM
F4.0	4'-0" x 4'-0" x 1'-0"	4-#5 EM
F5.0	5'-0" x 5'-0" x 1'-0"	5-#5 EM

CONCRETE PIER SCHEDULE

MARK	SIZE	REINFORCING	
		VERTICAL	TIES
P-1	16"x16"	4-#6	#3T @ 12"
P-2	24"x24"	8-#6	#3T @ 12"
P-3	14"x14"	4-#5	#3T @ 10"

COLUMN SCHEDULE

MARK	SECTION	BASE PLATE	ANCHOR RODS
C-1	H65 5x5x1/4"	11"x11"x3/4"	4 - 3/4"φ
C-2	N10x49	16"x16"x1"	4 - 3/4"φ
C-3	H65 4x4x1/4"	10"x10"x5/8"	4 - 5/8"φ



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FOUNDATION PLAN

JOB NO: H15868-24	DESIGNED BY: GAS, BCM
DATE: 06/19/25	DRAWN BY: DMM, NLM
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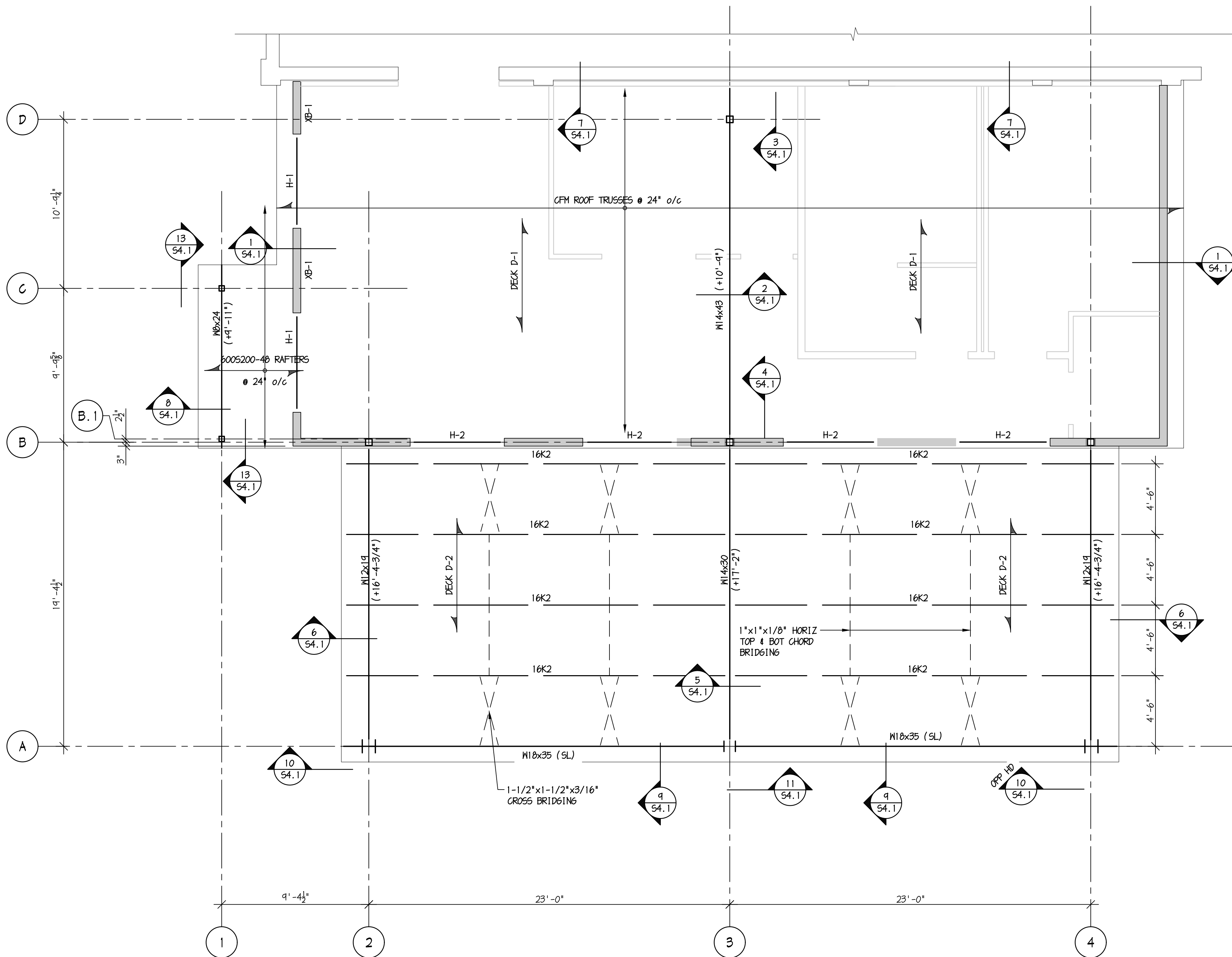
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1
S2.2
ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"

- ROOF FRAMING NOTES**
1. T/STEEL & T/PLATE ELEVATIONS NOTED THUS "+.1" - ".1" ARE REFERENCED RELATIVE TO EXISTING FIRST FLOOR ELEVATION +0'-0".
 2. "H-2" INDICATES CFM BOX HEADER - SEE SCHEDULE.
 3. "XB-1" INDICATES BRACED CFM WALL - SEE DETAIL ON S4.1.
 4. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT INDICATED.
 5. REFER TO STRUCTURAL NOTES DRAWING S1.1.
 6. REFER TO SECTIONS & DETAILS ON DRAWINGS S4.1.

COLD-FORMED METAL HEADER SCHEDULE				
MARK	HEADER	POST/JAMB	TEK SCREEN CONNX.	SECTION
H-1	(2) 600T125-60 + (2) 800S200-60	(2) 600S200-60	SHH 6/54 PATTERN 02	
H-2	(2) 600T125-43 + (2) 600S162-43	600S162-43	SHH 6/54 PATTERN 02	

DECK SCHEDULE	
MARK	TYPE
D-1	5/8" PLYWOOD ROOF SHEATHING w/ CLIPS
D-2	1"-22 GA GALVANIZED FORM DECK (UF1X) w/ 5/8" PLYWOOD ROOF SHEATHING



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PLAN**

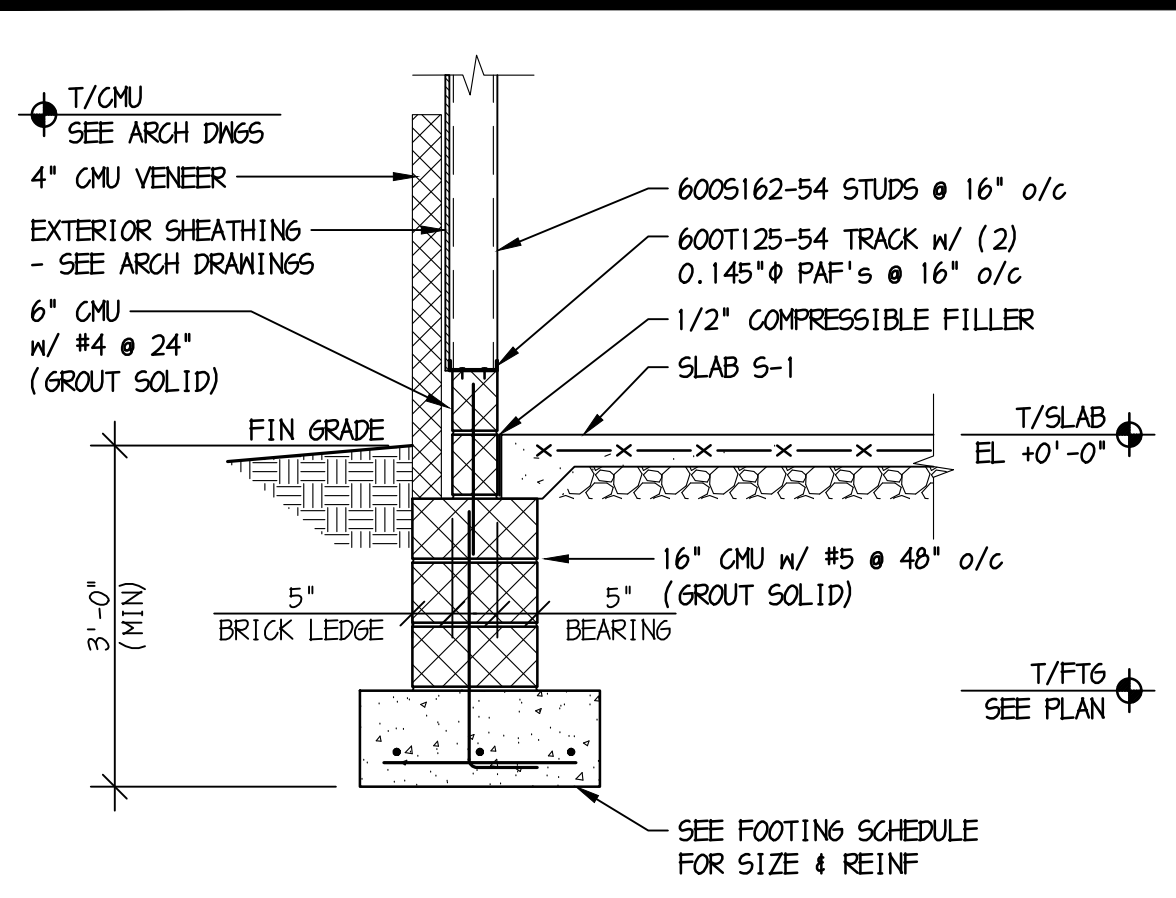
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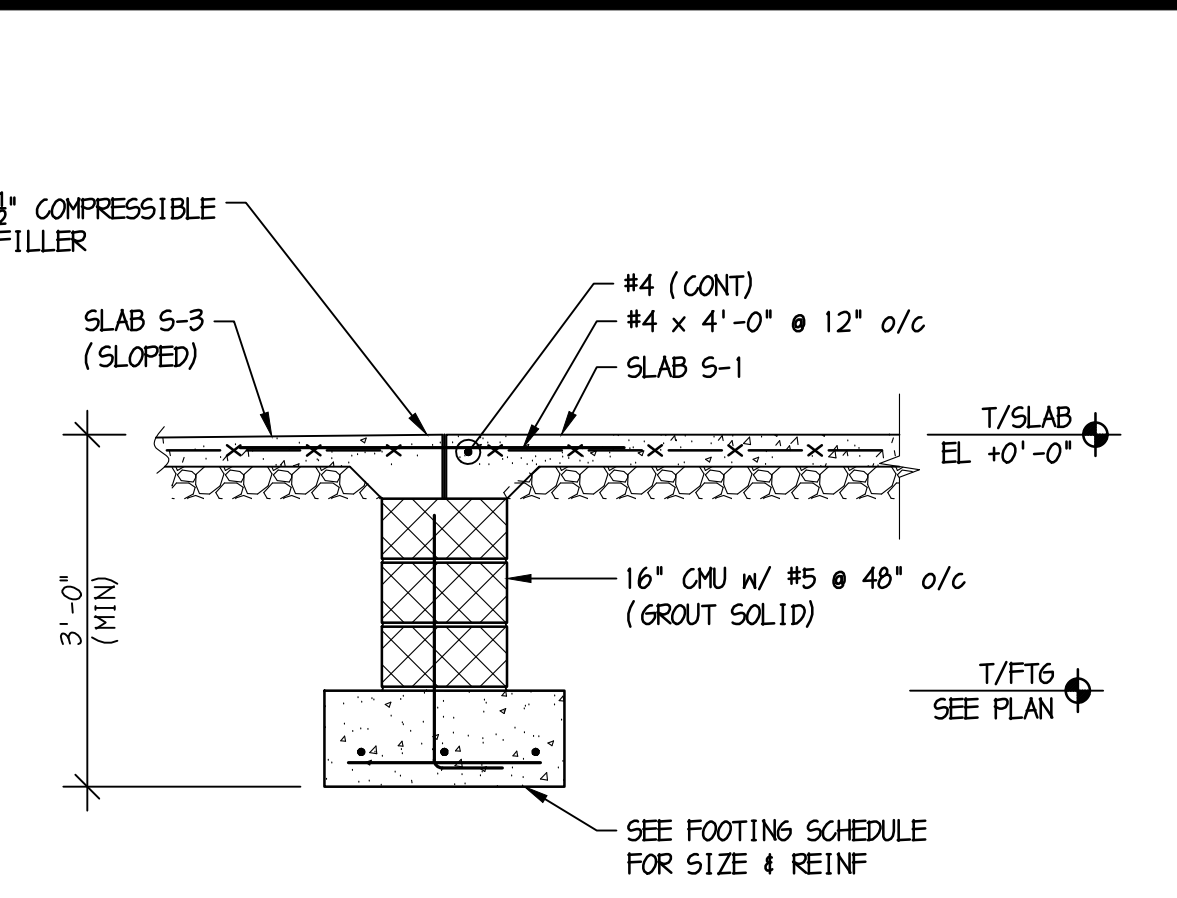
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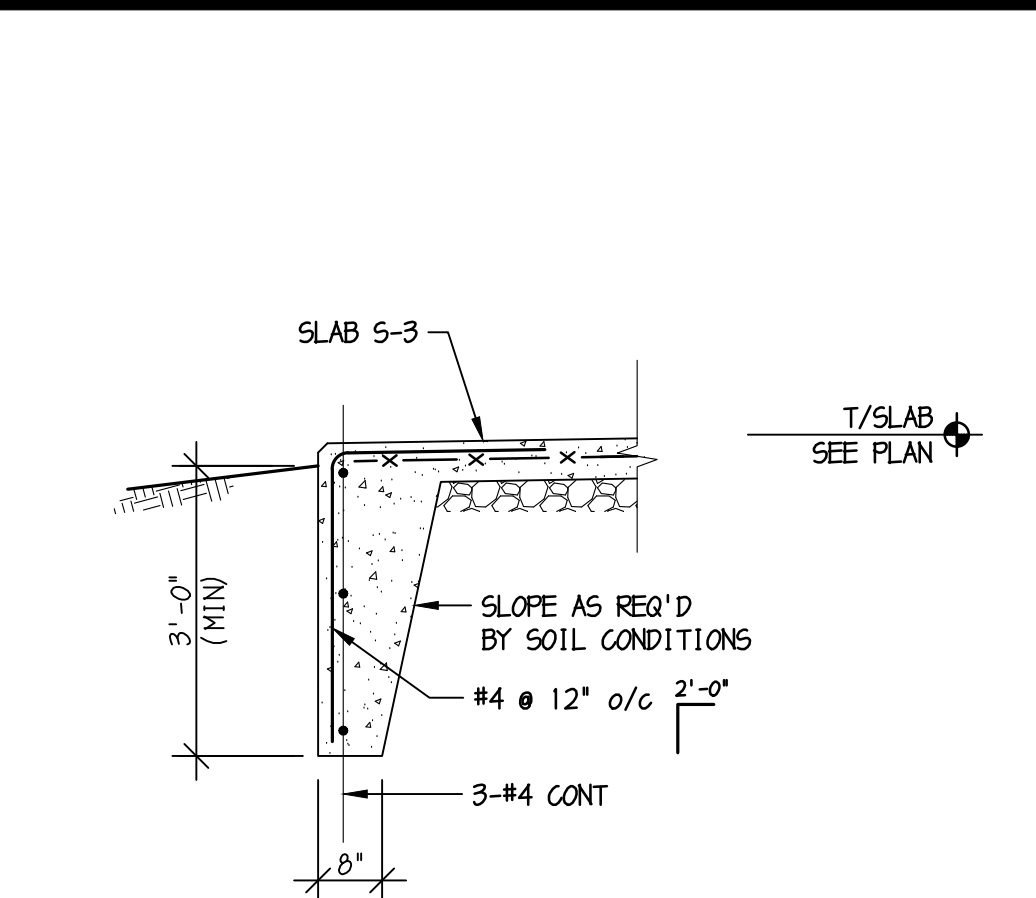
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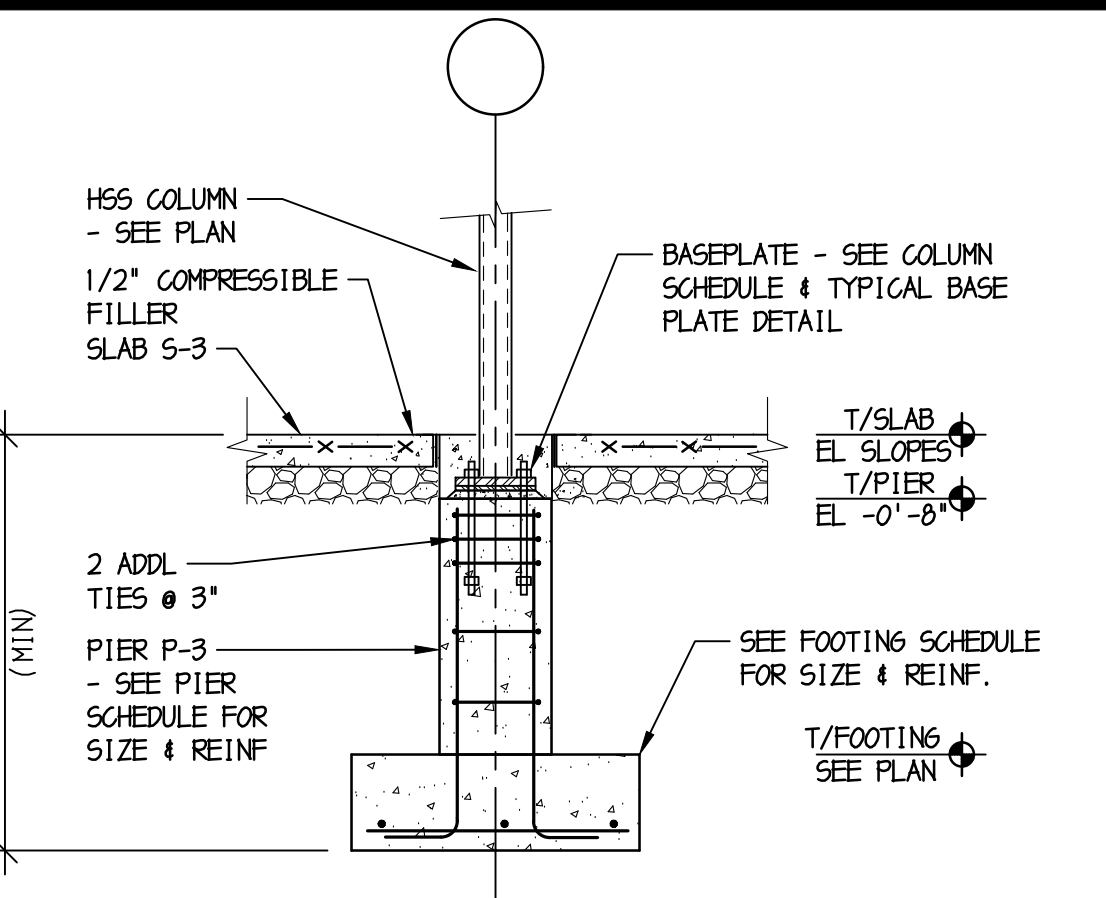
1 SECTION @ EXTERIOR WALL
S3.1 SCALE: 1/2" = 1'-0"



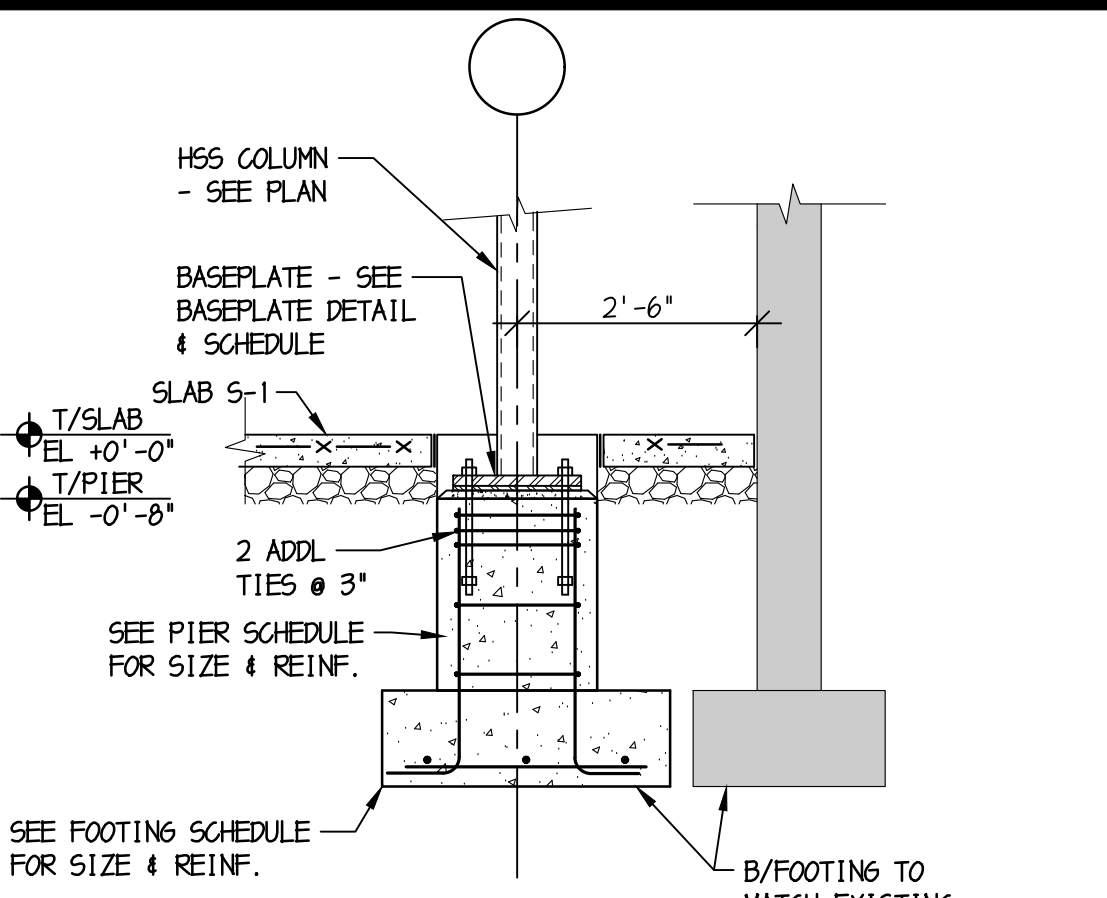
2 SECTION @ DOOR OPENING
S3.1 SCALE: 1/2" = 1'-0"



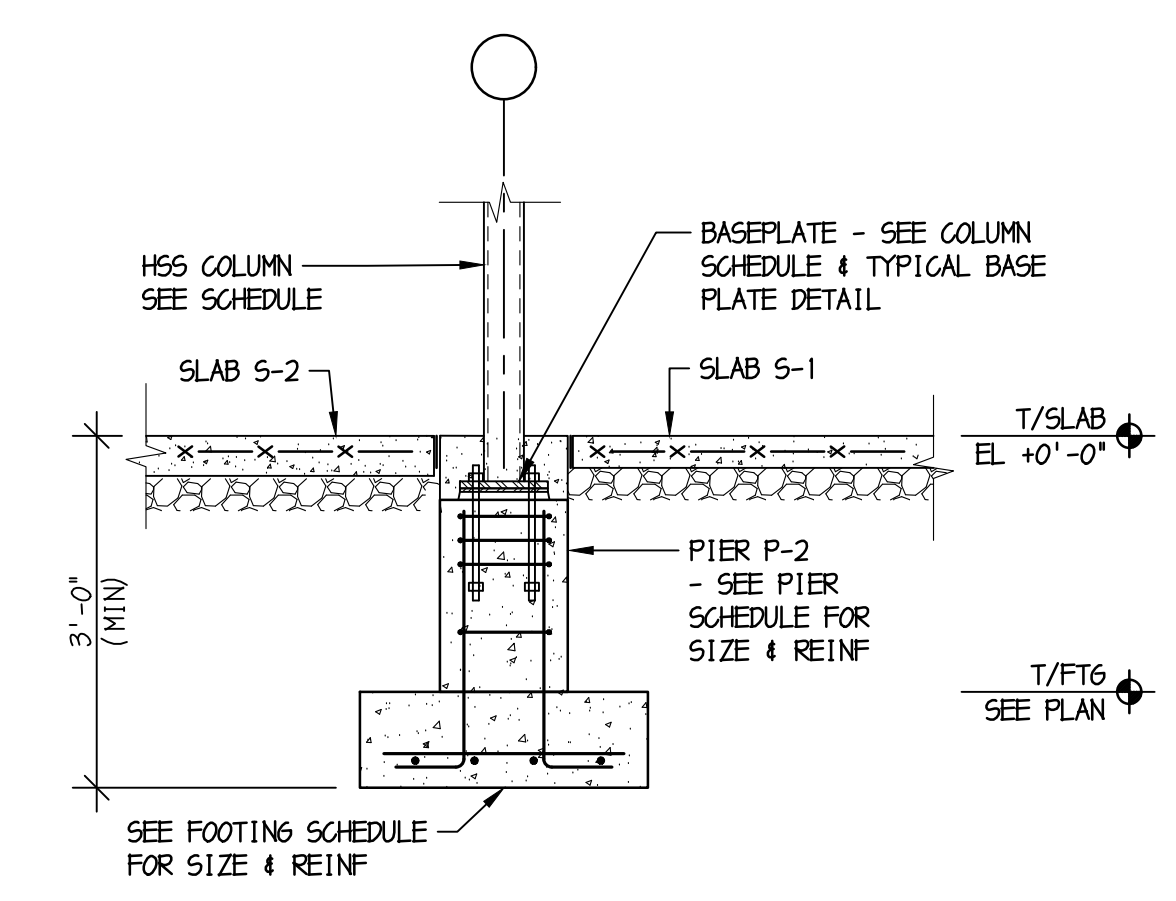
3 LANDING SLAB DETAIL
S3.1 SCALE: 1/2" = 1'-0"



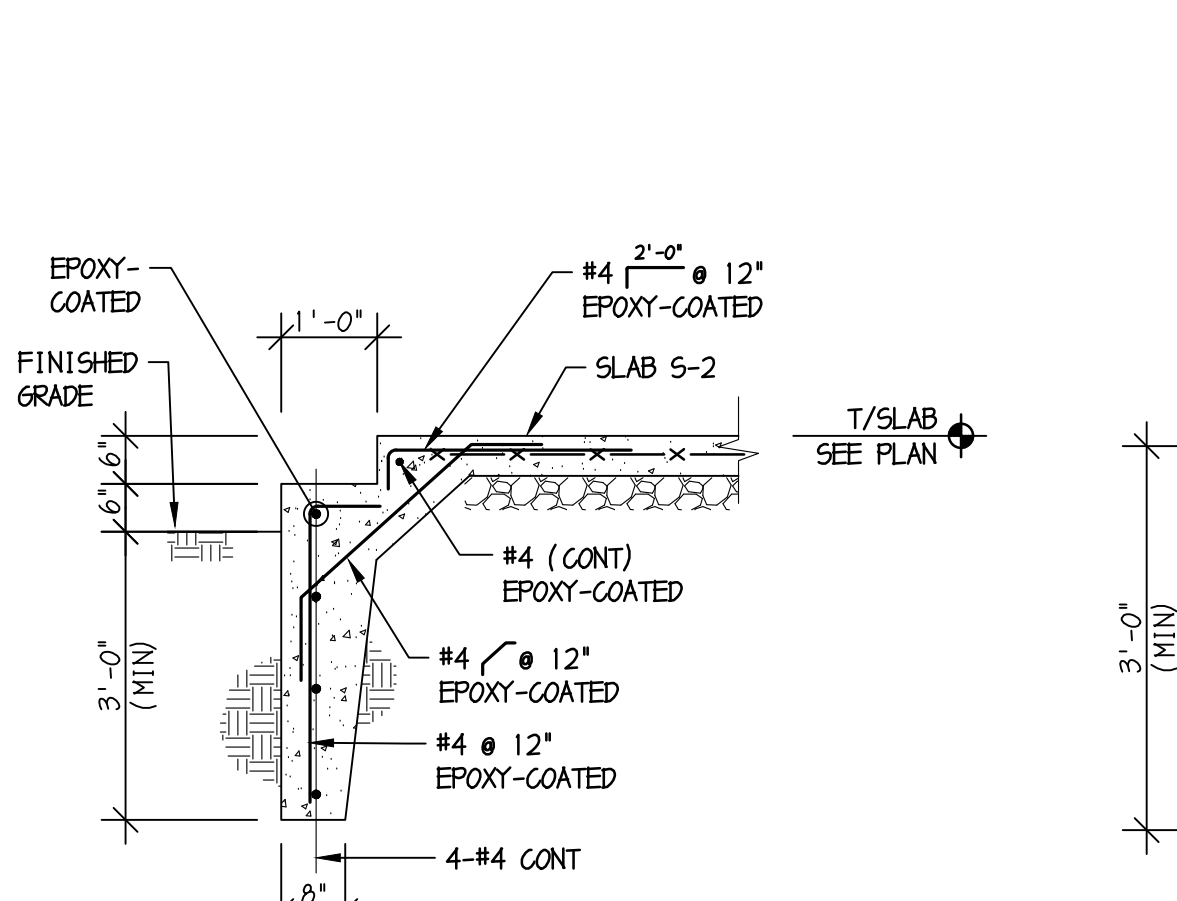
4 CANOPY PIER DETAIL
S3.1 SCALE: 1/2" = 1'-0"



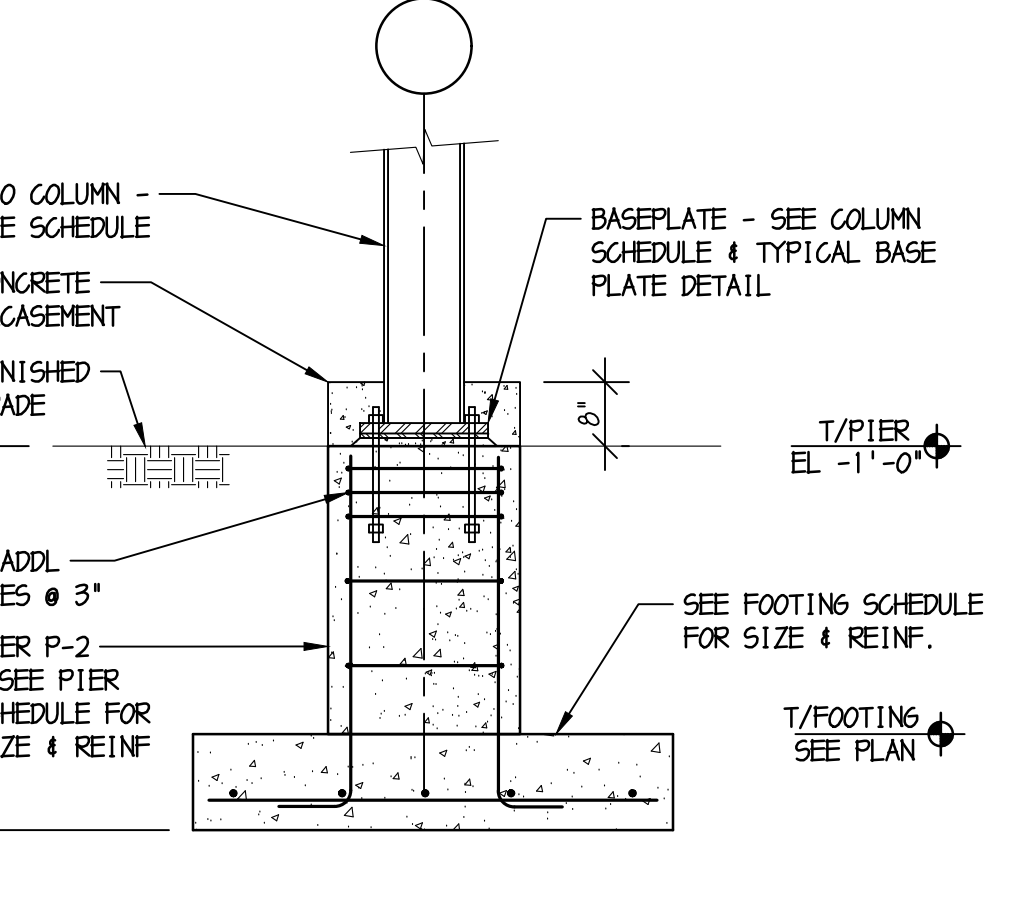
5 INTERIOR COLUMN PIER DETAIL
S3.1 SCALE: 1/2" = 1'-0"



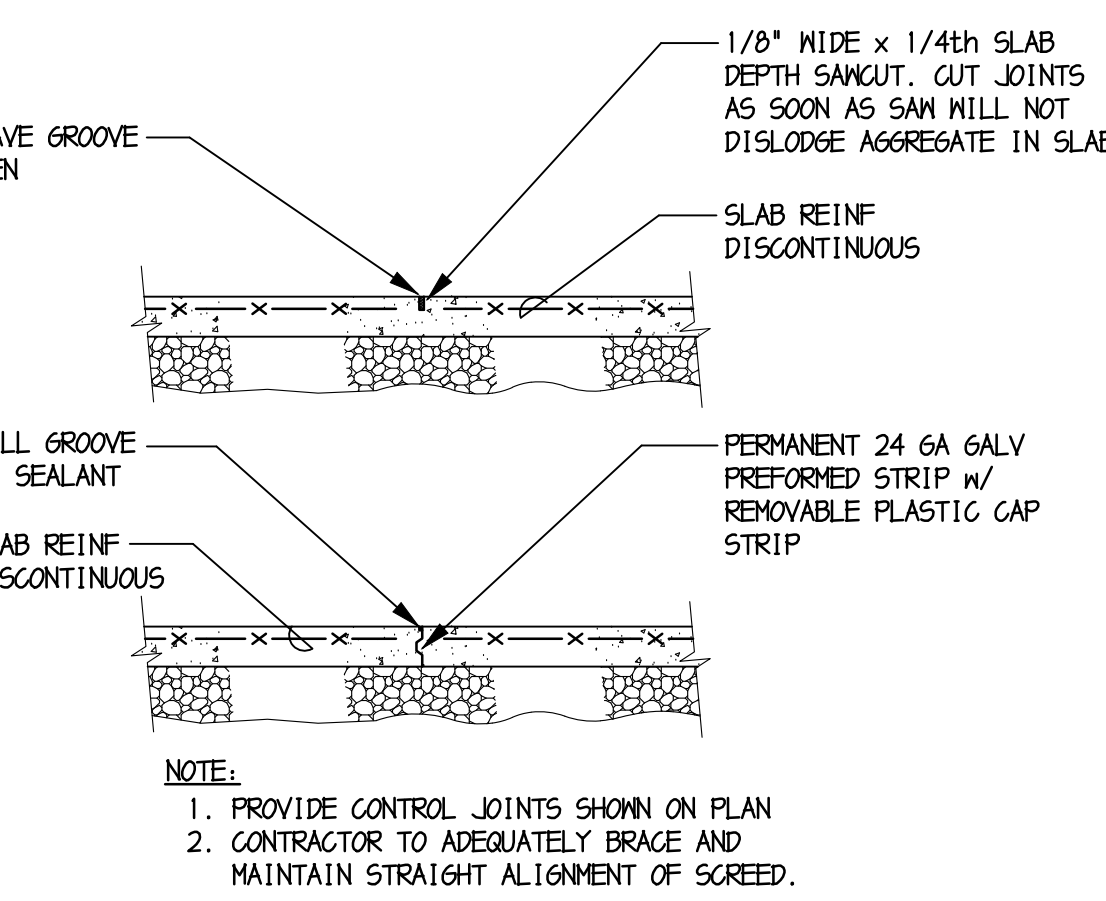
6 SECTION @ EXTERIOR COLUMN
S3.1 SCALE: 1/2" = 1'-0"



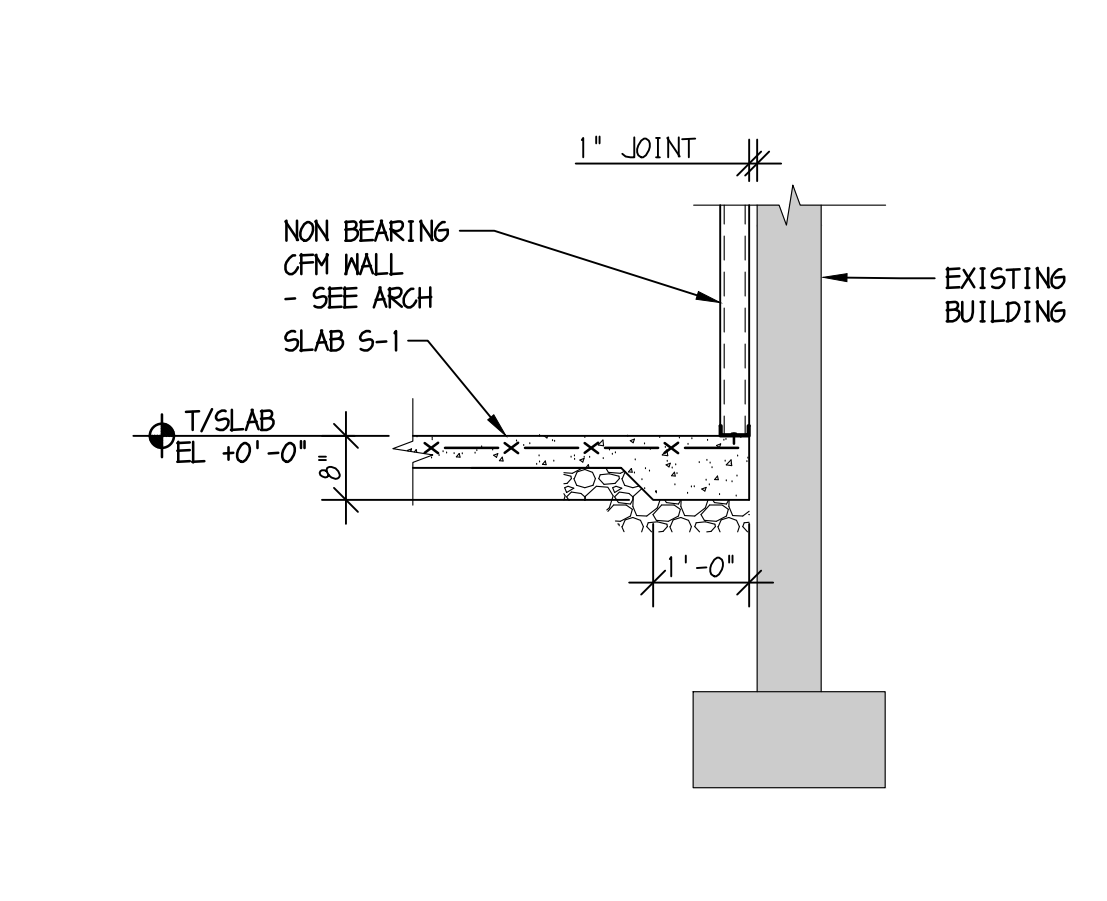
7 STAGE STAIR DETAIL
S3.1 SCALE: 1/2" = 1'-0"



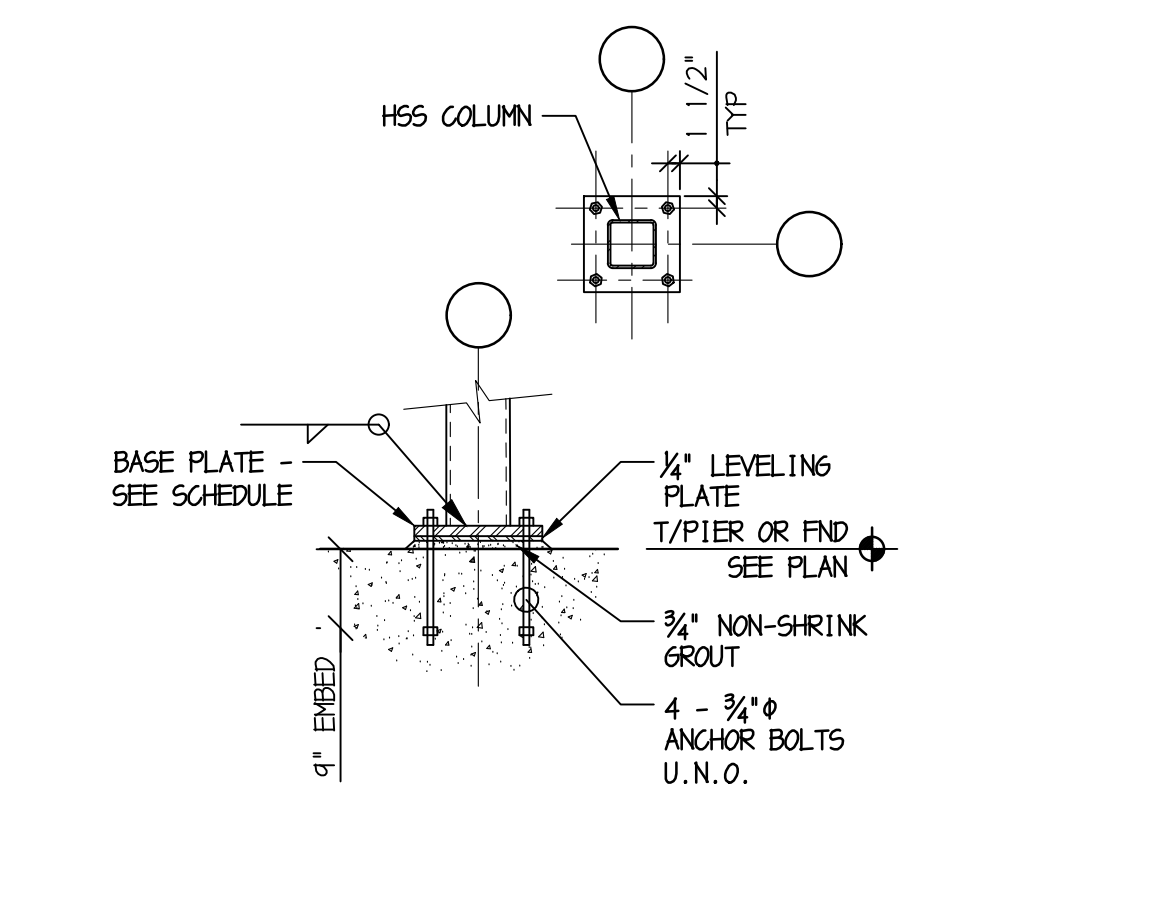
8 STAGE PIER DETAIL
S3.1 SCALE: 1/2" = 1'-0"



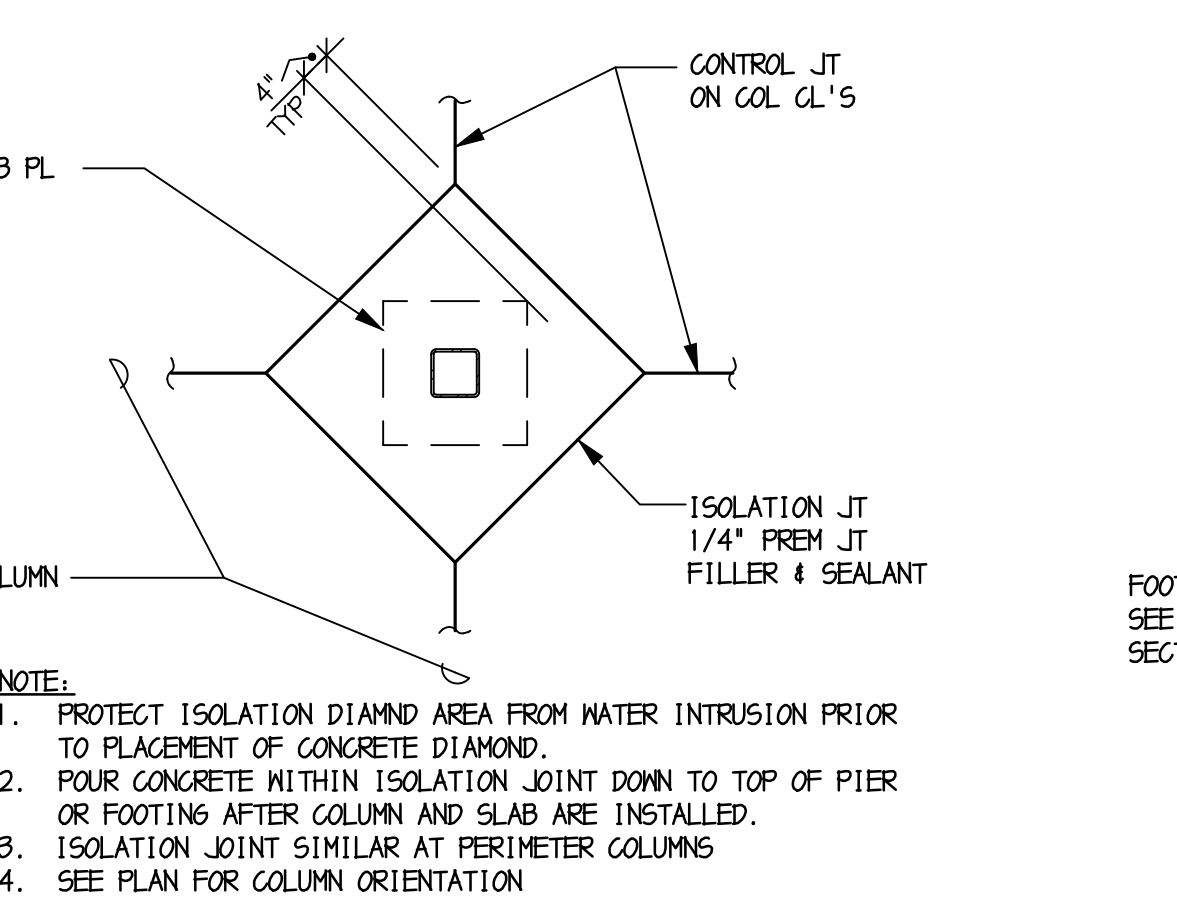
9 SLAB CONST/CONTROL JOINT
S3.1 SCALE: 1/2" = 1'-0"



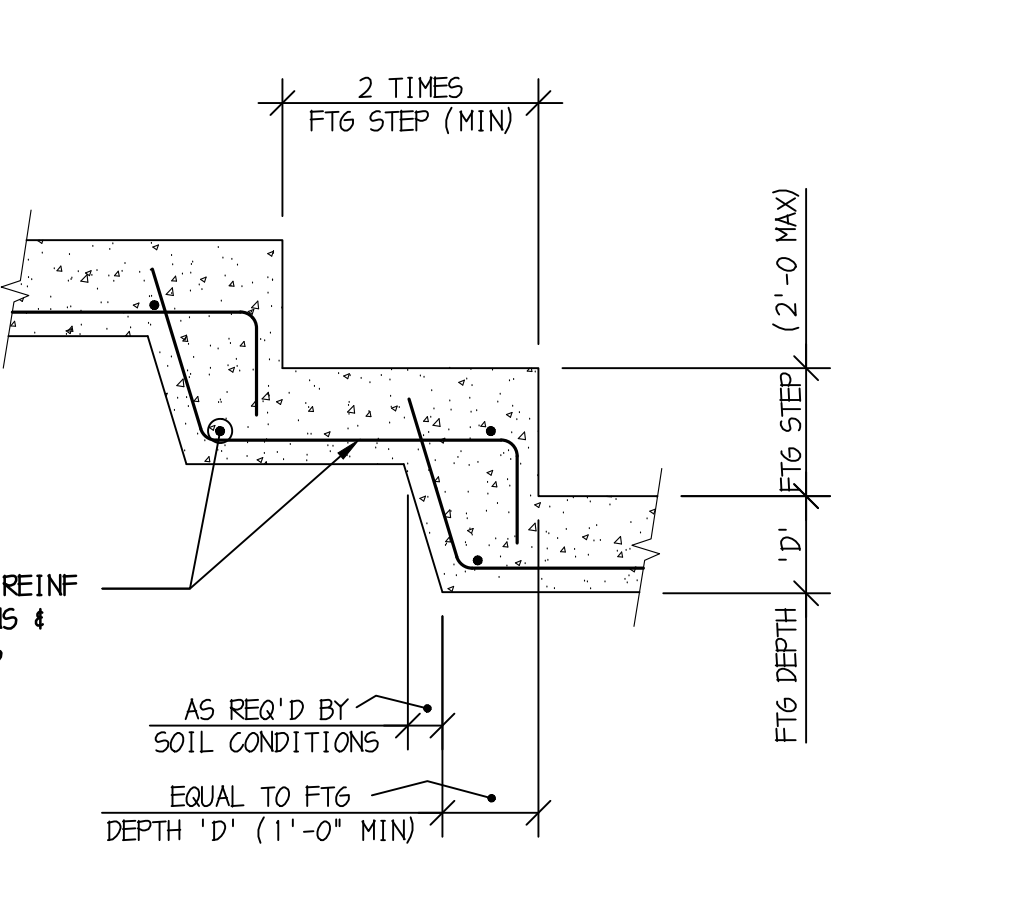
10 SLAB DETAIL @ EXTG BUILDING
S3.1 SCALE: 1/2" = 1'-0"



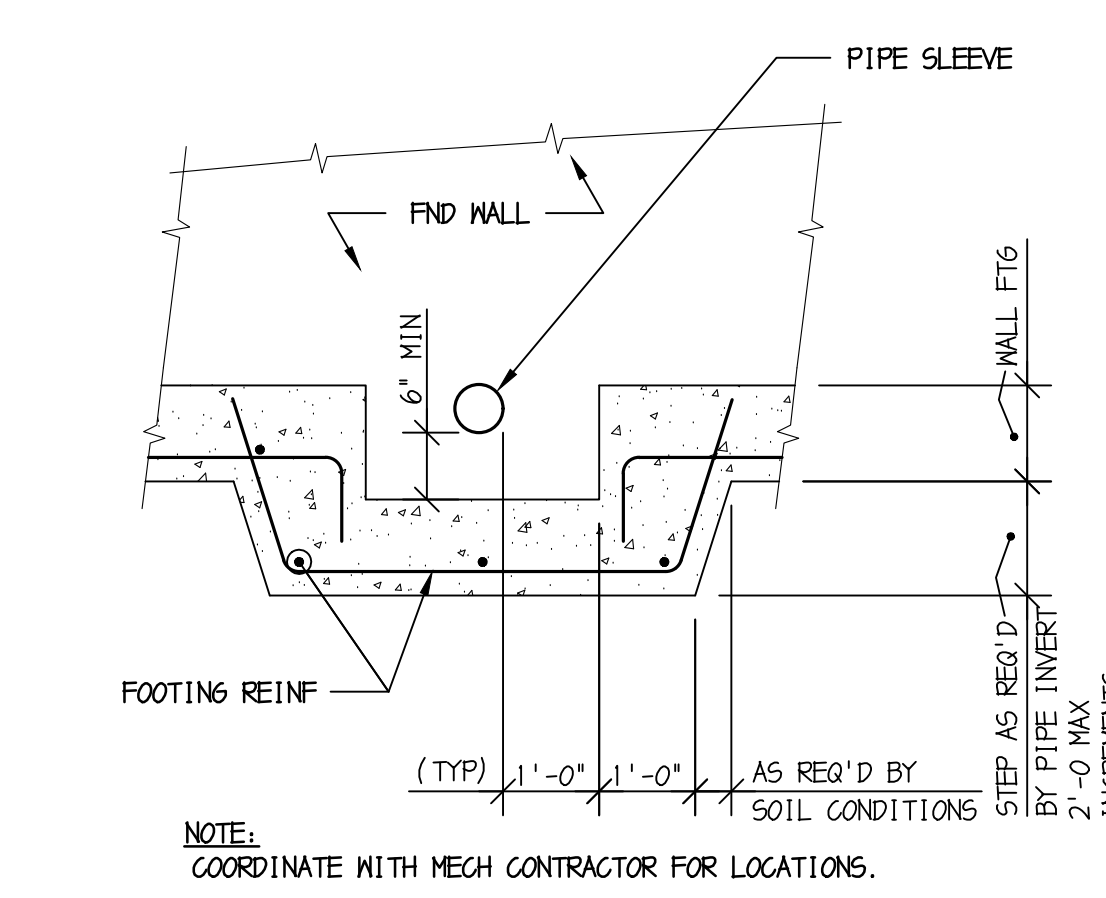
11 TYPICAL BASE PLATE DETAIL
S3.1 SCALE: 1/2" = 1'-0"



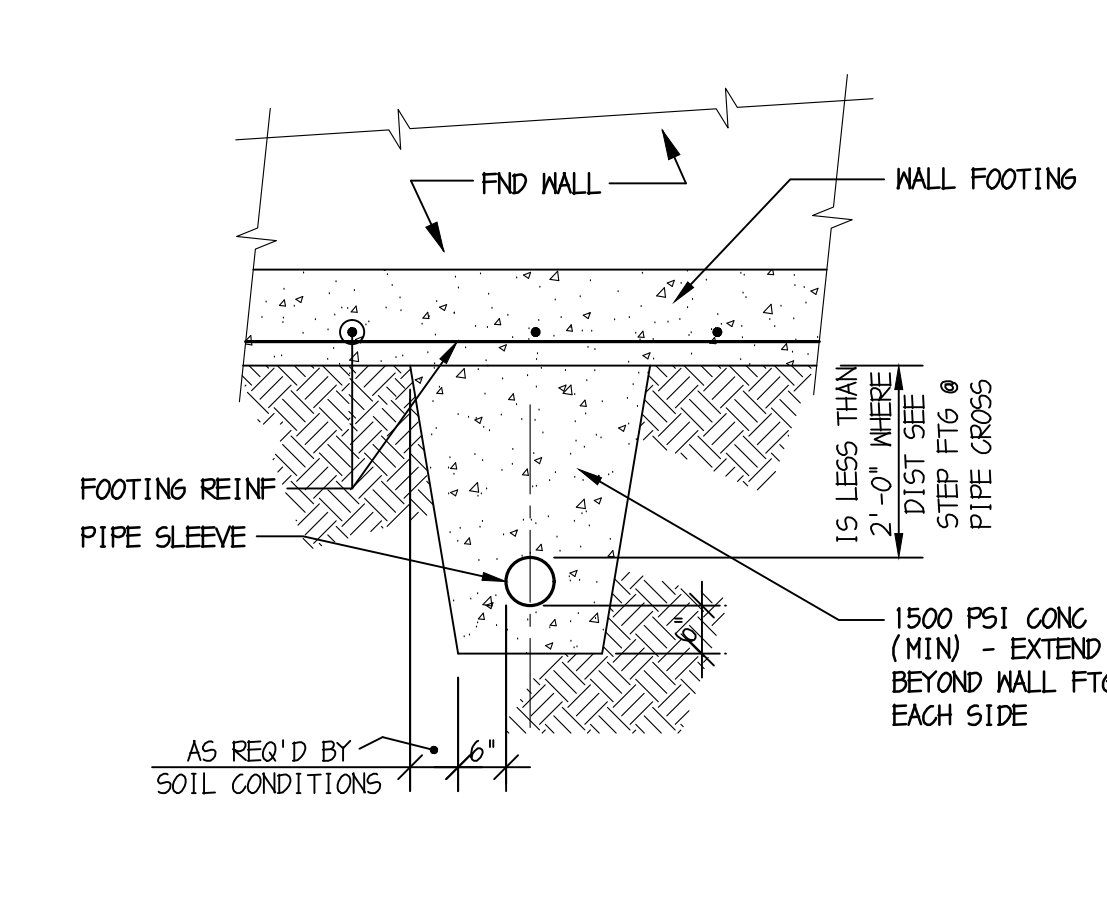
12 SLAB ISOLATION JT @ COLS
S3.1 SCALE: 1/2" = 1'-0"



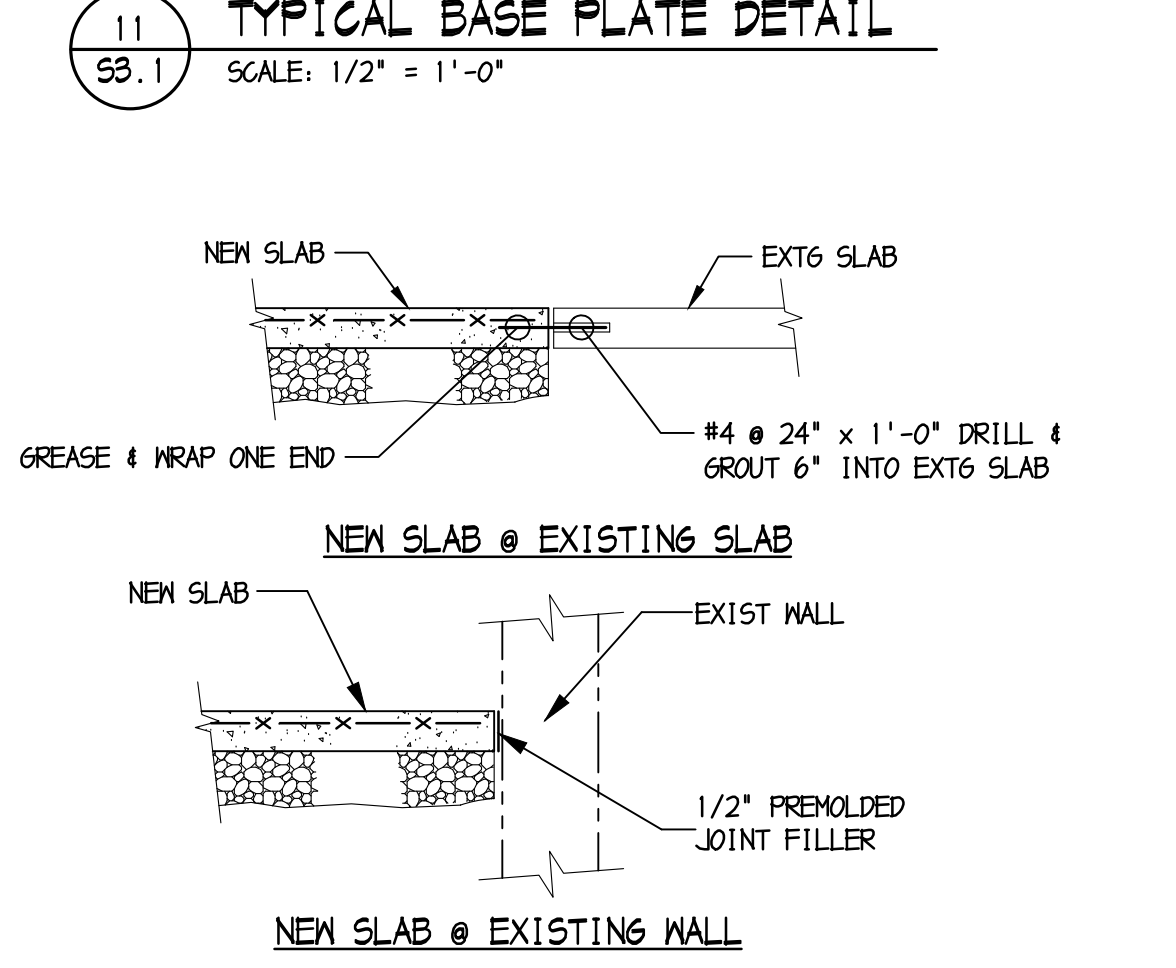
13 FOOTING STEP DETAIL
S3.1 SCALE: 1/2" = 1'-0"




14 STEP FOOTING @ PIPE CROSSING
S3.1 SCALE: 1/2" = 1'-0"



15 PIPE CROSSING BELOW WALL FTG
S3.1 SCALE: 1/2" = 1'-0"



16 SLAB DETAIL @ EXTG CONSTRUCTION
S3.1 SCALE: 1/2" = 1'-0"



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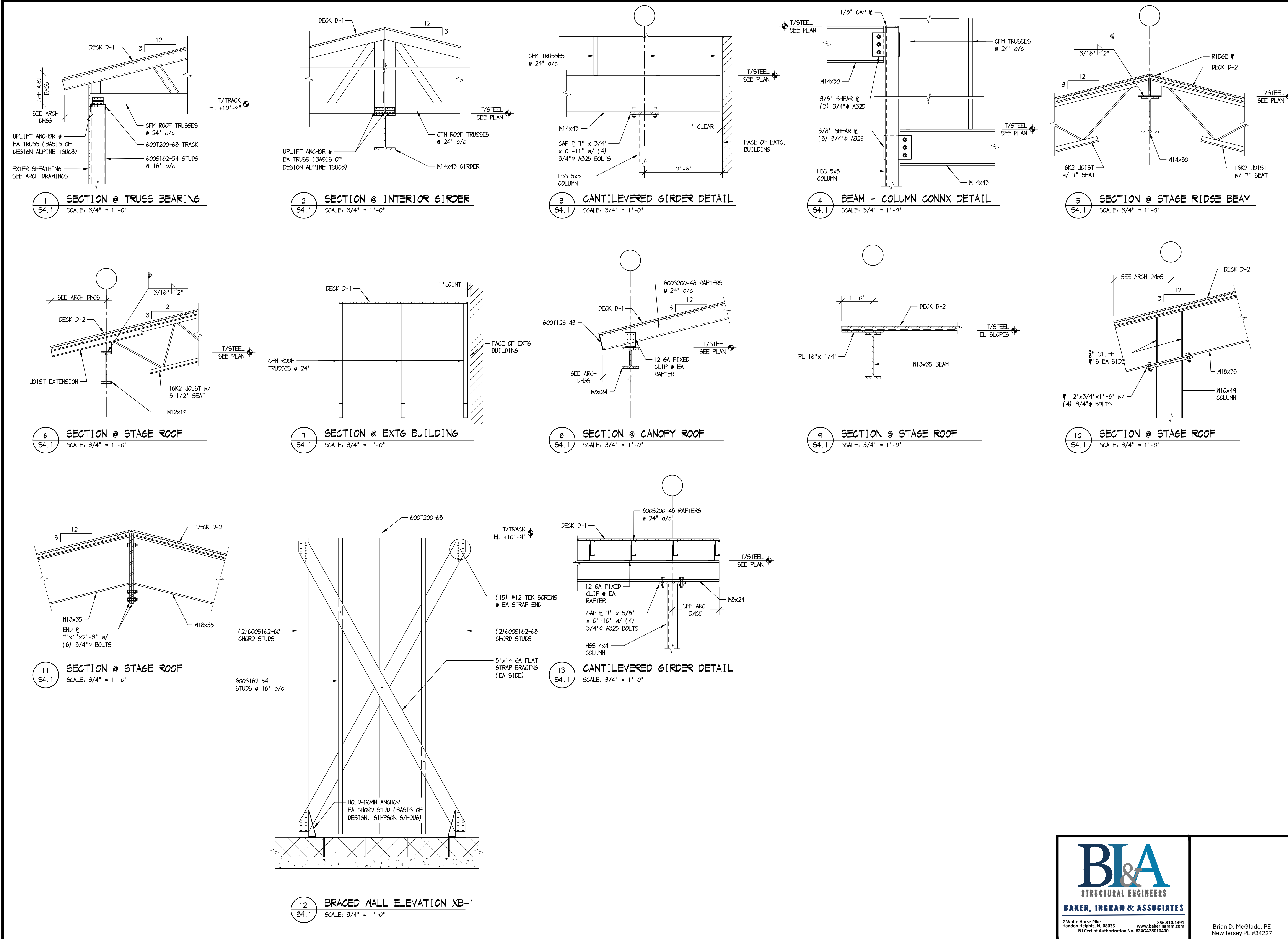
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S3.1





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ROOF FRAMING DETAILS

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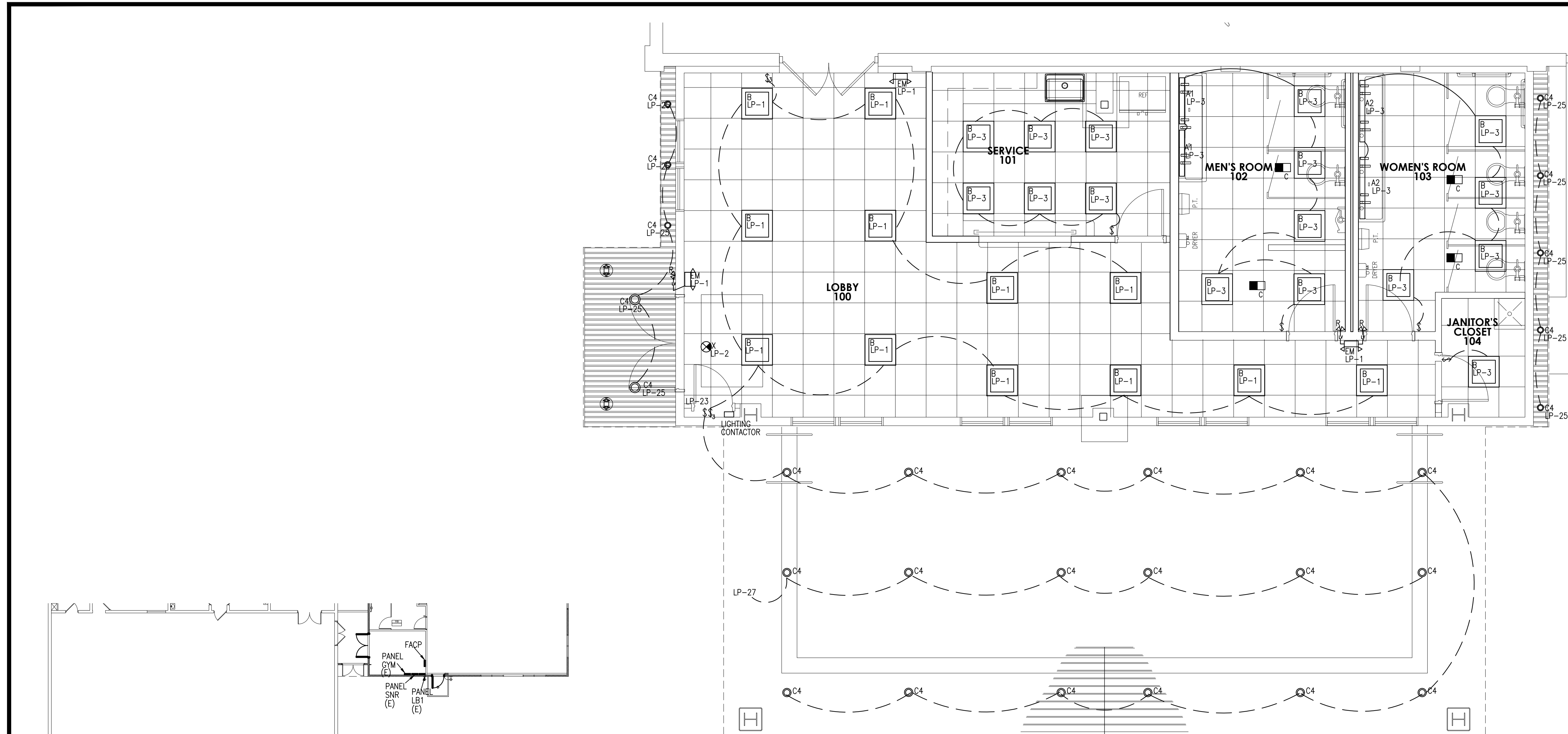
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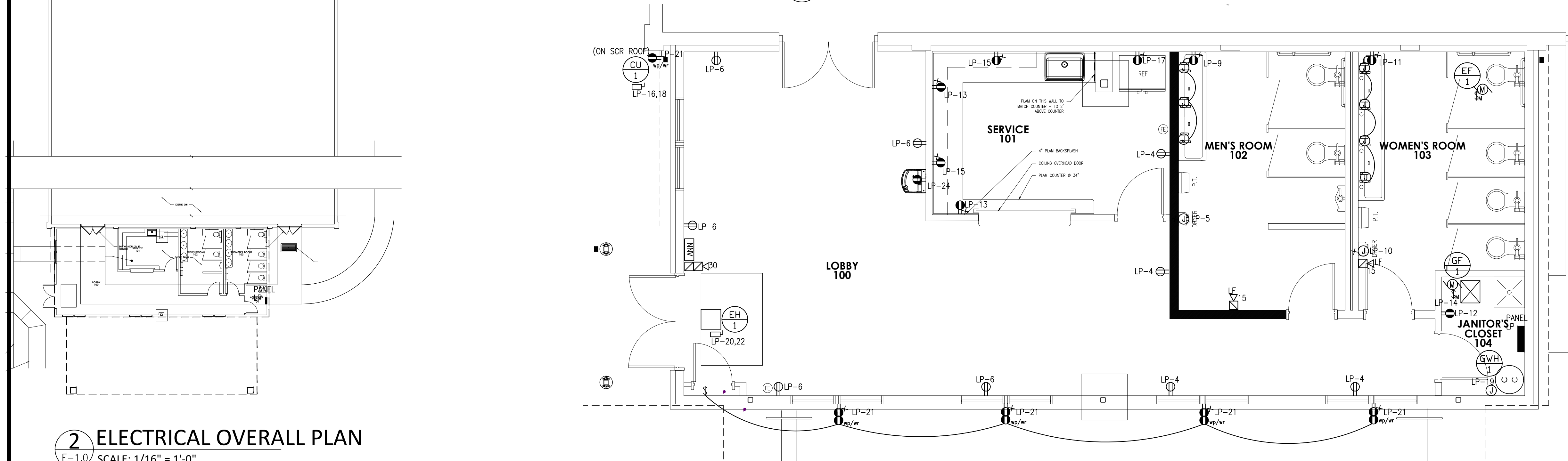
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ELECTRICAL SYMBOLS SCHEDULE

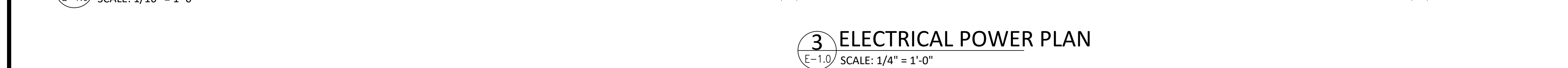
THIS IS A COMPLETE LIST OF ELECTRICAL SYMBOLS FOR REFERENCE ONLY. SYMBOLS SHOWN HERE MAY OR MAY NOT BE USED ON THIS PROJECT.		POWER DISTRIB.		COMMUNICATIONS		ELECTRICAL DEVICES		ELECTRICAL ABBREVIATIONS	
GENERAL SYMBOLS		POWER SYSTEMS		FIRE ALARM SYSTEM		TELEVISION / VIDEO SYSTEM		THIS LIST OF ABBREVIATIONS IS PROVIDED FOR CONVENIENCE ONLY. ITEMS LISTED HERE MAY OR MAY NOT BE USED ON THIS PROJECT.	
	KEY NOTE INDICATOR		TRANSFORMER		MANUAL PULL STATION		TELEVISION OUTLET	1/C	SINGLE CONDUCTOR
	EQUIPMENT INDICATOR		AUTOMATIC TRANSFER SWITCH		HORN AND FLASHING LIGHT		TELEVISION OUTLET W/ RECEPTACLE	A/C	AIR CONDITIONER
	SCHEDULED ITEM INDICATOR		EMERGENCY GENERATOR		CHIME AND FLASHING LIGHT		TELEVISION OUTLET W/ RECEPTACLE	AMP	AMPS
	DRAWING REVISION INDICATOR		POWER DISTRIBUTION UNIT		FIRE ALARM BELL		TELEVISION OUTLET W/ RECEPTACLE	ABOVE	ABOVE
CONDUIT AND WIRING			UNINTERRUPTIBLE POWER SOURCE		FLASHING LIGHT		TELEVISION OUTLET W/ RECEPTACLE	ALTERNATING CURRENT	ALTERNATING CURRENT
	BRANCH CIRCUIT RUN CONCEALED		TRANSIENT VOLTAGE SURGE SUPPRESSOR		FIRE ALARM SPEAKER – CEILING MTD		TELEVISION OUTLET W/ RECEPTACLE	ABOVE FINISHED FLOOR	ABOVE FINISHED FLOOR
	BRANCH CIRCUIT RUN UNDER FLOOR		AUTOMATIC TEMPERATURE CONTROL		FIRE ALARM SPEAKER – WALL MTD		TELEVISION OUTLET W/ RECEPTACLE	AIR HANDLING UNIT	AIR HANDLING UNIT
	BRANCH CIRCUIT UP OR DOWN	GROUNDING AND LIGHTNING PROTECTION			COMBINATION SPEAKER/FLASHING LIGHT		TELEVISION OUTLET W/ RECEPTACLE	ABOVE FINISHED GRADE	ABOVE FINISHED GRADE
	HOME RUN TO PANEL 2A CKTS 1, 3, & 5		GROUND CONDUCTOR RUN CONCEALED		IONIZATION TYPE SMOKE DETECTOR		TELEVISION OUTLET W/ RECEPTACLE	AIR HANDLING UNIT	AIR HANDLING UNIT
	EMERGENCY ONLY BRANCH CIRCUIT		GROUND CONDUCTOR RUN UNDER FLOOR		THERMAL TYPE DETECTOR		TELEVISION OUTLET W/ RECEPTACLE	AUTOMATIC TRANSFER SWITCH	AUTOMATIC TRANSFER SWITCH
	NIGHT LIGHT BRANCH CIRCUIT		THERMITE WELD TO BLDG OR EQUIP		PHOTOELECTRIC TYPE SMOKE DETECTOR		TELEVISION OUTLET W/ RECEPTACLE	ALTERNATE ARCHITECTURAL	ALTERNATE ARCHITECTURAL
	LOW VOLTAGE CIRCUIT		THERMITE WELD OF GROUND CONDUCTORS		THERMAL TYPE DETECTOR		TELEVISION OUTLET W/ RECEPTACLE	AVERAGE	AVERAGE
	SURFACE METAL RACEWAY SIZED FOR NO. OF CONDUCTORS TO BE INSTALLED		BONDING PLATE OR CLAMP CONNECTION TO PIPING OR EQUIP		IONIZATION TYPE MTD TO DUCT		TELEVISION OUTLET W/ RECEPTACLE	BKR	BREAKER
	CABLE TRAY		CONNECTION TO AIR TERMINAL FOR LIGHTNING PROTECTION		IONIZATION TYPE MTD IN PLENUM		TELEVISION OUTLET W/ RECEPTACLE	BLDG	BUILDING
	INDICATES CONNECTION TO EXISTING		THERMITE WELD TO GROUND ROD		THERMAL TYPE MTD TO DUCT		TELEVISION OUTLET W/ RECEPTACLE	BLW	BELOW
	PLUGMOLD – SEE PLAN FOR LENGTH		GROUND ROD TRIODE		REMOTE TEST SWITCH		TELEVISION OUTLET W/ RECEPTACLE	BTM	BOTTOM
SOUND SYSTEM		LIGHTING			PHOTOELECTRIC TYPE W/ RELAY		TELEVISION OUTLET W/ RECEPTACLE	C	CONDUIT
	SPEAKER – CEILING MTD FLUSH		FIXTURE DESIG. – "A" FIXTURE TYPE		FLOW SWITCH		TELEVISION OUTLET W/ RECEPTACLE	CT	CURRENT TRANSFORMER
	SPEAKER – CEILING MTD SURFACE		2X4 FIXTURE		TAMPER SWITCH		TELEVISION OUTLET W/ RECEPTACLE	CAF	CAPACITY
AUTOMATIC DOOR			2X2 FIXTURE		PRESSURE SWITCH FOR DRY TYPE SYSTEM		TELEVISION OUTLET W/ RECEPTACLE	CFM	CUBIC FEET/MINUTE
	MOTION DETECTOR H-HEAD MTD C-CEILING MTD		1X4 FIXTURE		REMOTE TROUBLE BELL		TELEVISION OUTLET W/ RECEPTACLE	CRCT	CIRCULATING CIRCUIT
	PUSH PLATE		FLUORESCENT STRIPLIGHT		ELECTROMAGNETIC SHUTTER HOLDER		TELEVISION OUTLET W/ RECEPTACLE	CLG	CEILING
	KEY SWITCH		PENDANT TUBE FIXTURE		ELECTROMAGNETIC DOOR HOLDER		TELEVISION OUTLET W/ RECEPTACLE	CLC	CONCRETE CONNECTION
	POWER RESET		RECESSED DOWNLIGHT		FIRE ALARM SYSTEM ACTIVATED DOOR CLOSER		TELEVISION OUTLET W/ RECEPTACLE	CONC	CONCRETE CONSTRUCTION
	DOOR MOUNTED SAFETY INTERLOCK		WALL WASHER		FIREMANS TELEPHONE JACK		TELEVISION OUTLET W/ RECEPTACLE	CONSTR	CONTRACTOR
	ELECTRIC STRIKE		WALL MTD FIXTURE		CONTROL ZAM		TELEVISION OUTLET W/ RECEPTACLE	CONTR	CENTRAL PROCESSING UNIT
	PUSH BUTTON		POLE MTD FIXTURE		MONITOR ZAM		TELEVISION OUTLET W/ RECEPTACLE	CPU	COPPER
SECURITY SYSTEM			CEILING MTD EXIT SIGN W/ ARROWS AS INDICATED		FIRE ALARM CONTROL PANEL		TELEVISION OUTLET W/ RECEPTACLE	DED	DEDICATED DETAIL
	CARD ACCESS STATION		WALL MTD EXIT SIGN W/ ARROWS AS INDICATED		FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	DET	DETAIL
	DOOR ALARM SWITCH W/ ELEC HINGE		LIGHTING TRACK – LENGTH OF TRACK AND NO. OF FIXTURES AS INDICATED ON PLAN.		FIRE ALARM ANNUNCIATOR		TELEVISION OUTLET W/ RECEPTACLE	DIA	DIAMETER
	SECURITY CHIME		INDICATES NIGHT LIGHT		FIRE ALARM PUNCH TAPE RECORDER		TELEVISION OUTLET W/ RECEPTACLE	DISC	DIMENSION
	KEY BY-PASS SW. FOR DOOR POSITION SW.		EMERGENCY BATTERY PACK W/ NUMBER OF HEADS AS INDICATED.		FIRE ALARM DATA GATHERING PANEL		TELEVISION OUTLET W/ RECEPTACLE	DISC	DISCONNECT DIVISION
	SECURITY SYSTEM MOTION DETECTOR		EMERGENCY LIGHTING REMOTE HEADS		FIRE ALARM CONTROL PANEL		TELEVISION OUTLET W/ RECEPTACLE	DN	DOWN
	SECURITY TV CAMERA		EMERGENCY BATTERY PACK		FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	DNR	DRAWING
	SECURITY SYSTEM CONSOLE		2 BULB 48" SURFACE MOUNTED FLUORESCENT LIGHT FIXTURE		FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	DWS	DRAWING
	ELECTROMAGNETIC LOCK				FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	EA	EACH ELECTRICAL CONTRACTOR
	REMOTE RELEASE				FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	EC	ELECTRICAL CONTRACTOR
	ELECTRIC HINGE				FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	ELEC	ELECTRICAL CONTRACTOR
	ELECTRIC STRIKE				FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	ELM	ELECTRICAL CONTRACTOR
	KEY SWITCH				FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	ELEV	ELEVATOR
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	EM	EMERGENCY ONLY
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	ENCL	ENCLOSURE
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	EQIP	EQUIPMENT
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	ENC	ELECTRIC WATER COOLER
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	EXH	EXHAUST
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	EXT	EXISTING EXTERIOR
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	F & I	FURNISHED & INSTALLED
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	FACP	FIRE ALARM CONTROL PANEL
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	FBO	FURNISHED BY OTHERS
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	FP	FIRE PROTECTION
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	FPC	FIRE PROTECTION CONTRACTOR
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	FIN	FINISH
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	FLR	FLOOR
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	FLU	FLUORESCENT
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	FUSE	FUSE
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	GA	GALVE
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	GC	GENERAL CONTRACTOR
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	GRD	GROUND
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	GRD	GROUND
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	GRD	GROUND
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	GRD	GROUND
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	GRD	GROUND
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	GRD	GROUND
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					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	GRD	GROUND
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	GRD	GROUND
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	GRD	GROUND
					FIRE ALARM COMMAND CENTER		TELEVISION OUTLET W/ RECEPTACLE	GRD	GROUND



1 ELECTRICAL LIGHTING PLAN
E-1.0 SCALE: 1/4" = 1'-0"



2 ELECTRICAL OVERALL PLAN
E-1.0 SCALE: 1/16" = 1'-0"



3 ELECTRICAL POWER PLAN
E-1.0 SCALE: 1/4" = 1'-0"

GENERAL REQUIREMENTS FOR ELECTRICAL WORK

- CONTRACTOR SHALL PROVIDE LABOR, MATERIAL, EQUIPMENT AND SERVICES FOR THE PROPER INSTALLATION AND OPERATION OF THE ELECTRICAL WORK AS INDICATED ON THE DRAWINGS AND AS SPECIFIED.
- LABOR, MATERIAL, EQUIPMENT AND SERVICE OBVIOUSLY NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF ELECTRICAL SYSTEMS, ALTHOUGH NOT SPECIFICALLY MENTIONED OR SHOWN, SHALL BE PROVIDED.
- ELECTRICAL WORK SHALL CONFORM TO THE LATEST EDITIONS OF THE NATIONAL ELECTRIC CODE AND APPLICABLE LAWS, CODES AND REGULATIONS OF MUNICIPAL, COUNTY, STATE, FEDERAL, UTILITIES, COMPANIES, INSURANCE AGENCIES AND OTHER AUTHORITIES HAVING JURISDICTION OVER THE WORK. IN CASE OF CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS AND THE CODES, THE HIGHEST STANDARD SHALL APPLY. ELECTRICAL CONTRACTOR SHALL SATISFY CODE REQUIREMENTS AS A MINIMUM STANDARD WITHOUT ANY EXTRA COST TO OWNER OR THE LICENSEE.

CONTRACTOR AND ALL EMPLOYEES SHALL FAMILIARIZE THEMSELVES WITH OWNERS, STATE, LOCAL AND FEDERAL CONSTRUCTION SAFETY GUIDELINES PRIOR TO THE COMMENCEMENT OF WORK.

- OBTAIN, PAY FOR AND DELIVER PERMITS AND CERTIFICATES OF INSPECTION AS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION. DELIVER CERTIFICATES TO THE OWNER PRIOR TO FINAL ACCEPTANCE OF THE WORK. AN ELECTRICAL INSPECTION CERTIFICATE, FOR EACH CLASS OF WORK REQUIRING INSPECTION, MUST BE SUBMITTED PRIOR TO OR WITH THE FINAL PAYMENT INVOICE. CONTRACTOR MUST MAKE APPLICATION FOR THE INSPECTION, COORDINATE SAME, AND PAY THE INSPECTION FEE.
- BEFORE SUBMITTING HIS BID, TRADE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN THE FIELD. FAILURE TO DO SO SHALL NOT RELIEVE TRADE CONTRACTOR OF HIS OBLIGATION TO PAY FOR COSTS THAT MAY BE INCURRED DUE TO CONDITIONS THAT MAY AFFECT THE COST OF INSTALLING HIS WORK. THE ELECTRICAL CONTRACTOR SHALL THOROUGHLY EXAMINE ALL AREAS WHERE EQUIPMENT, CONDUIT, AND WIRING WILL BE INSTALLED AND WILL REPORT ANY CONDITION THAT, IN HIS OPINION, PREVENTS THE PROPER INSTALLATION OF THE ELECTRICAL WORK.

- DRAWINGS ARE DIAGRAMMATIC, SMALL SCALE AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED. HOWEVER, CERTAIN RACEWAYS, BENDS, FITTINGS, BOXES, SYSTEM COMPONENTS, APPURTENANCES AND RELATED SPECIALTIES ARE NOT SHOWN, BUT SHALL BE PROVIDED TO INSURE A COMPLETE INSTALLATION.

- CONSULT THE DRAWINGS FOR EXACT LOCATION OF FIXTURES AND EQUIPMENT. WHERE SAME ARE NOT DEFINITELY LOCATED, OBTAIN THIS INFORMATION FROM THE ARCHITECT/ENGINEER.

- INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE WORK COMPLETE AND READY FOR OPERATION, EVEN IF NOT PARTICULARLY SPECIFIED OR SHOWN, SHALL BE PROVIDED WITHOUT ADDITIONAL EXPENSE. MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED, BUT MANIFESTLY NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE VARIOUS SYSTEMS, SHALL BE INCLUDED IN THE WORK, THE SAME AS IF SPECIFIED OR SHOWN ON THE DRAWINGS. NO SUCH DEPARTURES SHALL BE MADE WITHOUT PRIOR WRITTEN REVIEW.

- NO CONSIDERATION OR ALLOWANCE SHALL BE GRANTED FOR ALLEGED MISUNDERSTANDING OF MATERIALS AND EQUIPMENT TO BE FURNISHED FOR WORK TO BE ACCOMPLISHED.

- THE ELECTRICAL CONTRACTOR SHALL UNCONDITIONALLY WARRANT ALL WORK TO BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE BY OWNER. WILL REPAIR OR REPLACE ANY DEFECTIVE WORK PROMPTLY AND WITHOUT CHARGE AND RESTORE ANY OTHER EXISTING WORK DAMAGED IN THE COURSE OF REPAIRING DEFECTIVE MATERIALS AND WORKMANSHIP.

- MATERIAL AND EQUIPMENT IN THE WORK SHALL BE NEW, FIRST GRADE, FIRST CLASS, THE BEST OF THEIR RESPECTIVE KINDS, APPROPRIATE FOR THE APPLICATION AND ENVIRONMENT. EQUIPMENT AND MATERIALS SHALL CONFORM WITH APPROPRIATE PROVISIONS OF CSA, UL, NEC, ASTM, UL, ETL, NEMA, ANSI, AS APPLICABLE TO EACH INDIVIDUAL UNIT OR ASSEMBLY.

- EQUIPMENT OR APPARATUS FOR ANY ONE SYSTEM SHALL BE THE PRODUCT OF ONE MANUFACTURER. THE TERM "MANUFACTURER" SHALL BE UNDERSTOOD AS APPLYING TO A COMPANY OF ESTABLISHED REPUTATION IN THE MANUFACTURE OF A PARTICULAR PIECE OF EQUIPMENT OR APPARATUS FROM PRODUCTS OF HIS OWN MAKE AND WHO ASSUMES FULL RESPONSIBILITY FOR PRODUCTS USED IN SUCH EQUIPMENT OR APPARATUS. THE MANUFACTURER MUST SUBMIT EVIDENCE OF FIVE (5) YEARS OR MORE MANUFACTURING EXPERIENCE IN THE PRODUCTION OF THESE PRODUCTS.

- MATERIAL OR EQUIPMENT SPECIFIED BY MANUFACTURER, BRAND NAME, TYPE, OR CATALOG NUMBER ARE DESIGNED TO ESTABLISH STANDARDS OF DESIRED QUALITY, STYLE, PERFORMANCE, ELECTRICAL, MECHANICAL AND PHYSICAL CHARACTERISTICS, AND DIMENSIONS.

- WHERE CABLE PASSES THROUGH FIRE RATED STRUCTURES PROVIDE FIREPROOF FITTINGS.

- RACEWAYS SHALL BE CONCEALED IN THE CONSTRUCTION EXCEPT AS OTHERWISE SPECIFIED OR SHOWN.

- WHERE CONDUIT TERMINATES IN A CABINET, BOX OR AUXILIARY GUTTER, THE CONDUCTORS SHALL BE PROTECTED BY AN INSULATING BUSHING. LOCKOUTS SHALL BE PROVIDED BOTH INSIDE AND OUTSIDE THE ENCLOSURE.

- A PULL WIRE SHALL BE INSTALLED IN EMPTY RACEWAYS. PULL WIRE SHALL BE 200 POUND TEST NYLON. BOTH ENDS SHALL BE IDENTIFIED BY MEANS OF LABELS OR TAGS, READING "PULL WIRE" AND GIVING THE ORIGIN AND TERMINATION POINTS.

- GENERALLY, WIRING (OTHER THAN EMERGENCY) SHALL BE DONE WITH INSULATED COPPER CONDUCTORS IN CONTINUOUSLY GROUNDED METAL CONDUIT (EMT). CONDUCTORS AND RACEWAYS SHALL BE FIRST GRADE, INSTALLED CONCEALED IN THE CONSTRUCTION EXCEPT IN MECHANICAL OR ELECTRICAL SPACES, OPEN CONSTRUCTION AREAS OR WHERE SHOWN ON THE DRAWINGS.

EMERGENCY WIRING SHALL BE DONE WITH INSULATED COPPER CONDUCTORS IN CONTINUOUSLY GROUNDED METAL CONDUIT (EMT). SEVERAL OTHER WIRING AND RACEWAYS SHALL BE INSTALLED IN METAL CONDUIT (EMT) FROM CIRCUIT BREAKER PANELS TO EACH AREA.

- MC CABLEING MAY BE USED FOR CONCEALED BRANCH CIRCUIT WIRING ABOVE SUSPENDED CEILING AND INSIDE INTERIOR HOLLOW WALLS AND PARTITIONS. ALL HOME RUNS SHALL BE INSTALLED IN METAL CONDUIT (EMT) FROM CIRCUIT BREAKER PANELS TO EACH AREA.

- RACEWAYS SHALL BE SUPPORTED TO COMPLY WITH NEC.

- WHERE TELE/DATA OUTLETS ARE SHOWN, PROVIDE A SINGLE GANG BOX WITH BLANK PLATE AND CONDUIT (1" DIA. MINIMUM) WITH PULL STRING UP TO CEILING SPACE ABOVE.

- NO "THROUGH-WALL" BOXES SHALL BE PERMITTED. WHERE DRAWINGS INDICATE BOXES BACK-TO-BACK, OR SIMILAR LOCATIONS, SUCH BOXES SHALL BE INSTALLED SEPARATELY, SPACED MINIMUM SIX INCHES APART HORIZONTALLY.

- FOR CONDUITS OR CABLES THAT PENETRATE FIRE RATED WALLS, FLOORS, PARTITIONS, OR SLABS, FILL AND SEAL SPACES BETWEEN THE CONDUITS OR CABLES AND THE SLEEVE WITH 2-PART INTUMESCENT FOAM SEALANT CREATING A FIRE STOP EQUAL TO OR EXCEEDING FIRE RATING OF CONSTRUCTION MATERIAL BEING PENETRATED. FIRE SEALANT SHALL PREVENT SPREAD OF FLAME, SMOKE, AIR AND WATER THROUGH THE SLEEVE AND SHALL PASS 3 HOUR TEST PER ASTM E814 AND UL 1479. FIRE SEALANT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.

- ALL CONDUITS AND FLEXIBLE METAL CONDUIT SHALL CONTAIN A GROUNDING CONDUCTOR. CONDUITS ARE NOT TO BE USED AS A GROUNDING CONDUCTOR.

- ALL BRANCH CIRCUIT WIRING SUPPLYING NEW RECEPTACLES AND LIGHTING BEING INSTALLED SHALL BE #12 COPPER CONDUCTORS MINIMUM.

- ALL NEW DEVICES AND RACEWAYS SHALL BE SPECIFICATION GRADE, NEW RECEPTACLE, SWITCH AND OTHER DEVICES AND COVER PLATES COLORS SHALL BE DETERMINED BY ARCHITECT. EMERGENCY RECEPTACLES SHALL BE RED WITH RED COVER PLATE, PERMANENTLY LABELED WITH PANEL BOARD AND BRANCH CIRCUIT NUMBER SUPPLYING RECEPTACLE.

- IF REQUIRED, CONTRACTOR SHALL SUPPLY AND INSTALL ADDITIONAL BRANCH CIRCUITS (BREAKERS, RACEWAYS, WIRING, ETC.) AS REQUIRED TO COMPLETE THE PROJECT. CIRCUITS SHALL BE FED FROM EXISTING PANEL.

- ALL ELECTRICAL EQUIPMENT SHALL BE LABELED TO COMPLY WITH OSHA AND ANSI/ASME A13.1-2007 STANDARDS FOR THE IDENTIFICATION OF SYSTEMS. THE MARKINGS MUST IDENTIFY THE EQUIPMENT, ITS ORIGIN AND VOLTAGE OF THE CONDUITS. ALL EQUIPMENT SHALL BE IDENTIFIED USING PHENOLIC NAMEPLATES AND LABELED IN ACCORDANCE WITH THE NOMENCLATURE USED ON THE DRAWINGS AND MUST BE COMPATIBLE WITH THE MMS SYSTEM.

- ALL SYSTEMS WIRING INCLUDING LOW VOLTAGE CONTROLS, FIRE ALARM, NURSE CALL, CCTV AND TELE/DATA SHALL BE INSTALLED IN CONDUIT AND/OR CABLE TRAY/DUCT SYSTEM AND SHALL BE SUPPORTED TO COMPLY WITH THE N.E.C.

- CONTRACTOR SHALL PROVIDE AND AFFIX ARC FLASH WARNING LABELS (PER N.E.C. 110.16) AND AVAILABLE FAULT CURRENT LABELS (PER N.E.C. 110.24) TO ALL PANEL BOARDS.

- CONTRACTOR SHALL PROVIDE TO OWNER A DETAILED AS-BUILT DRAWING OF THE WORK PERFORMED. THIS PLAN SHALL INDICATE THE BRANCH CIRCUITS SUPPLYING EACH LIGHT AND DEVICE ASSOCIATED WITH THE WORK PERFORMED ON THIS PROJECT.

BHG CONSULTING ENGINEERS, INC.

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SEALS:

RONALD HEIGLER, PE
NJ PROFESSIONAL ENGINEER No. GE 44485

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

PROJECT:

BOROUGH OF RUNNEMEDE HARRY WILLIAMS BUILDING ADDITION

2 BROADWAY
RUNNEMEDE, NEW JERSEY 08078
CAMDEN COUNTY, NEW JERSEY

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REVISIONS		
NO.	DESCRIPTION	DATE

DRAWING TITLE:

ELECTRICAL FLOOR PLAN

JOB NO: RB2024-5	DESIGNED BY: REH
DATE: 8-19-2025	DRAWN BY: AKA
SCALE: AS SHOWN	CHECKED BY: REH
DRAWING NUMBER:	

E-1.0



COMcheck Software Version COMcheckWeb
Interior Lighting Compliance Certificate

Project Information

Energy Code: 2015 IECC
Project Title: HARRY WILLIAMS BUILDING ADDITION
Project Type: New Construction

Construction Site: 2 BROADWAY
RUNNEMEDE, New Jersey 08078
Owner/Agent:
Designer/Contractor: RONALD HEIGLER
BHG CONSULTING, INC.
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Additional Efficiency Package(s)

Credits: 1.0 Required 0.0 Proposed

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1-Library	1301	1.19	1548
Total Allowed Watts = 1548			

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture Fixture Watt.	D (C X D)	E
1-Library				
LED: B: 2X2: LED Panel 40W:	1	22	40	880
Total Proposed Watts = 880				

Interior Lighting PASSES: Design 43% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2015 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title Signature Date

Project Title: HARRY WILLIAMS BUILDING ADDITION
Data filename: Report date: 11/13/24
Page 1 of 4

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MOUNTING	LAMPS		MANUFACTURER'S CATALOG NUMBER	INPUT WATTS	VOLTS	REMARKS
			QTY.	LAMP DESIGNATION				
A1	RECESSED LED	RECESSED	1	17W LED	FINELITE SERIES 17 LED ACF PF S17LED ACF PF 3' S 835 120V - SC	17	120	-
A2	RECESSED LED	RECESSED	1	17W LED	FINELITE SERIES 17 LED ACF PF S17LED ACF PF 4' S 835 120V - SC	17	120	-
B	2' X 2' RECESSED LED TROFFER	RECESSED	1	36W LED	JUNO #S2X2BL-39-35-U-WH-3	36	120	-
C4	RECESSED L.E.D. DOWN LIGHT	RECESSE D	1	L.E.D.	PORTFOLIO LD6 SERIES	9	MVOLT	SUITABLE FOR WET LOCATIONS
X	EDGE LIT EXIT SIGN	UNIVERSAL	1	LED INCLUDED	DUAL LITE #LES-X-S-R-XX	4	120	X=PROVIDE MOUNTING AS REQUIRED XX=PROVIDE CHEVRONS AS SHOWN ON PLANS
EM	EMERGENCY LIGHT	UNIVERSAL	1	LED INCLUDED	SURE LITE #OU2-LED	4	120	'R' -COMPATIBLE REMOTE HEAD

NOTES: ELECTRICAL CONTRACTOR SHALL VERIFY ALL LIGHTING FIXTURE SELECTIONS WITH ARCHITECT/OWNER PRIOR TO SUBMITTING HIS BID. VERIFY ALL FLANGE, BAFFLE AND TRIM COLOR AND LENS SELECTIONS WITH ARCHITECT/OWNER. CONTRACTOR SHALL COORDINATE FIXTURES WITH CEILING TYPES AND PROVIDE MOUNTING HARDWARE AS REQUIRED. ALL EMERGENCY FIXTURES AND BATTERY UNITS SHALL BE CONNECTED AHEAD OF SWITCH LEG.

GENERAL NOTES FOR LIGHTING FIXTURE SCHEDULE:

1. LIGHT FIXTURES SHALL BE PROVIDED AS NOTED ABOVE. SEE ARCHITECTURAL PLANS FOR FIXTURE SPECIFICATIONS NOT INDICATED ON THIS SCHEDULE. FIXTURES SUPPLIED, WIRED AND INSTALLED BY CONTRACTOR. ALL EXIT AND EMERGENCY SIGNS AND LIGHTING SHALL BE SUPPLIED AND INSTALLED BY CONTRACTOR.
2. COORDINATE ALL LIGHT FIXTURES WITH CEILING, SOFFIT AND WALL CONSTRUCTION DETAILS AND VERIFY EXACT FIXTURE AND LAMP REQUIREMENTS PRIOR TO ORDERING FIXTURES. PRIOR TO ORDERING, FIELD VERIFY FIXTURE INSTALLATION REQUIREMENTS WITH ACTUAL CONSTRUCTION TO ENSURE FIXTURES WILL FIT IN SPACE(S) AS INDICATED ON THE DRAWINGS WITH ADEQUATE ACCESS FOR MAINTENANCE, LAMP REPLACEMENT AND EMERGENCY BATTERY PACK FOR FIXTURES SO EQUIPPED.
3. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF LIGHT FIXTURES ON EXTERIOR BUILDING ELEVATIONS. COORDINATE THE EXACT LOCATION OF LIGHT FIXTURES IN EQUIPMENT ROOMS TO AVOID INTERFERENCE WITH PIPING, DUCTWORK, EQUIPMENT, ETC.
4. LIGHT FIXTURES IN LAY-IN CEILINGS SHALL BE SUPPORTED INDEPENDENT OF CEILING GRID. SUPPORT TO BUILDING STRUCTURE ABOVE USING HANGING WIRE AND HARDENED STEEL CLIPS TO STRUCTURAL STEEL.
5. WALL MOUNTED FIXTURES SHALL COMPLY WITH ADA, ANSI A1176.1, SECTION 4.4 FOR PROTRUDING OBJECTS. VERIFY LOCAL CODE REQUIREMENTS WITH BUILDING OFFICIAL.
6. 'EM' OR 'NL' ON FIXTURE INDICATES EMERGENCY AND/OR NIGHT LIGHT. CONNECT TO CIRCUIT AHEAD OF SWITCH TO ALLOW CONTINUOUS OPERATION.

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PROJECT:

BOROUGH OF RUNNEMEDE
HARRY WILLIAMS BUILDING
ADDITION

2 BROADWAY
RUNNEMEDE, NEW JERSEY 08078
CAMDEN COUNTY, NEW JERSEY

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REVISIONS

NO.	DESCRIPTION	DATE

DRAWING TITLE:

ELECTRICAL
SCHEDULES

JOB NO: RB2024-5	DESIGNED BY: REH
DATE: 8-19-2025	DRAWN BY: AKA
SCALE: AS SHOWN	CHECKED BY: REH

DRAWING NUMBER:

E-1.1

GENERAL ELECTRICAL NOTES:

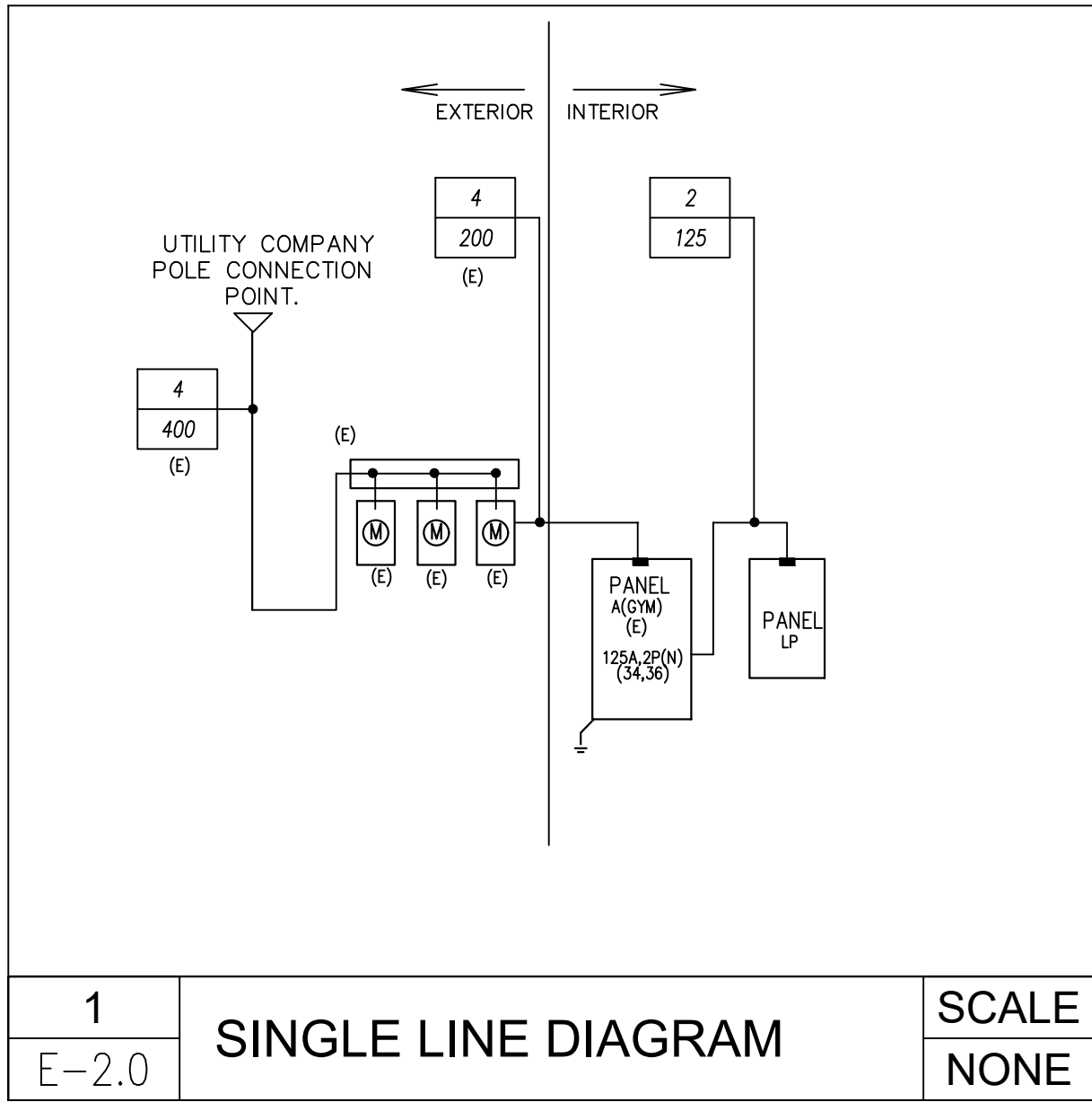
- ALL ELECTRICAL MATERIALS AND EQUIPMENT FOR THIS PROJECT SHALL BE NEW AND APPROVED BY UNDERWRITERS LABORATORY (U.L.) OR ANY OTHER NATIONALLY RECOGNIZED TESTING AGENCY.
- UPON COMPLETION OF THE WORK, THE ENTIRE WIRING SYSTEM SHALL BE FREE FROM GROUNDS, SHORT CIRCUITS, OPENS, OVERLOADS, AND IMPROPER VOLTAGE.
- LIGHTING AND POWER BRANCH CIRCUIT PANEL BOARDS SHALL BE BOLT-ON CIRCUIT BREAKER TYPE EQUIPPED WITH QUICK-MAKE, QUICK-BREAK, TRIP INDICATING, MOLDED CASE, THERMAL MAGNETIC CIRCUIT BREAKERS.
- TWO OR THREE POLE CIRCUIT BREAKERS SHALL BE COMMON TRIP TYPE. SINGLE POLE BREAKER WITH YOKED HANDLE WILL NOT BE PERMITTED.
- ALL LIGHTING AND POWER PANELS SHALL HAVE THEIR TOP AT 6'-6" ABOVE FINISHED FLOOR.
- PANEL BOARDS SHALL BE SUITABLE FOR FLUSH MOUNTING OR SURFACE MOUNTED INSTALLATION AS REQUIRED.
- PANEL BOARDS SHALL BE DEAD-FRONT, SAFETY-TYPE AND SHALL CONTAIN MAIN CIRCUIT BREAKERS, MAIN LUGS RATINGS, BRANCH CIRCUIT BREAKERS, SPACE AND BUSSES AS INDICATED ON DRAWINGS.
- THE FOLLOWING CONVENTION SHALL BE USED:

4

200

FEEDER TYPE

FEEDER SIZE
- WHERE SHORT CIRCUIT RATINGS ARE NOT INDICATED, PROVIDE 65 KAIC MINIMUM. AS ACTUAL FEEDER ROUTING MAY VARY, THE SHORT CIRCUIT RATING OF ANY LOAD CENTER MAY BE REDUCED TO 10 KAIC IF THE FEEDER LENGTH FROM THE UTILITY TRANSFORMER TO THE LOAD CENTER EXCEEDS 70 FEET.



2
E-2.0

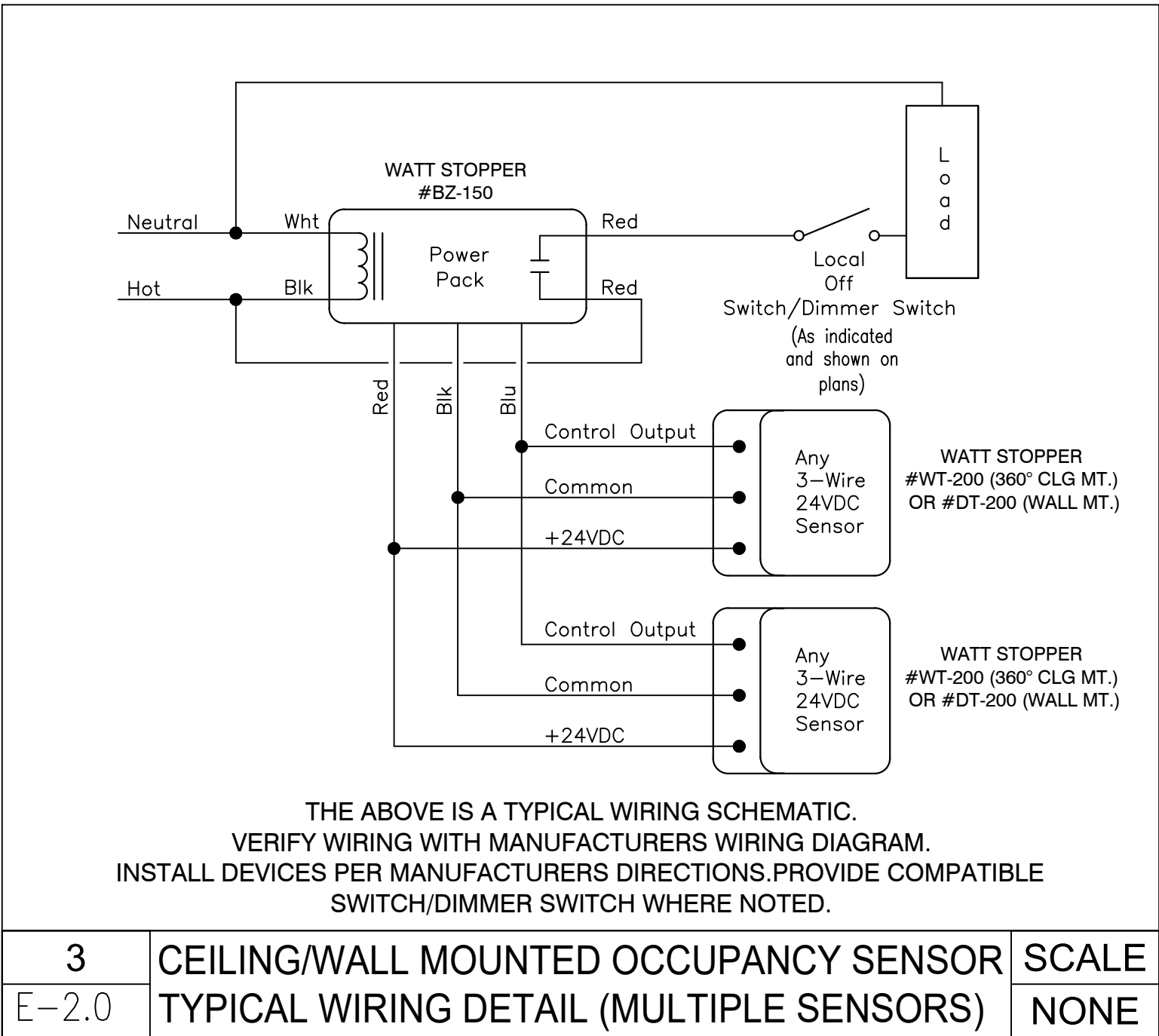
BUILDING LTG CONTROL WIRING DIAGRAM

SCALE
NONE

NOMINAL VOLTAGE TO GROUND	MINIMUM CLEAR DISTANCE		
	CONDITION 1	CONDITION 2	CONDITION 3
0-150 VOLTS	914mm (3'-0")	914mm (3'-0")	914mm (3'-0")
151-600 VOLTS	914mm (3'-0")	1.07m (3'-6")	1.22m (4'-0")
601-2500 VOLTS	914mm (3'-0")	1.2m (4'-0")	1.5m (5'-0")
2501-9000 VOLTS	1.2m (4'-0")	1.5m (5'-0")	1.8m (6'-0")
9000-25000 VOLTS	1.5m (5'-0")	1.8m (6'-0")	2.8m (9'-0")
WHERE THE FOLLOWING CONDITIONS ARE AS FOLLOWS:			
CONDITION 1 : EXPOSED LIVE PARTS ON ONE SIDE OF THE WORKING SPACE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORKING SPACE THAT ARE EFFECTIVELY GUARDED BY INSULATING MATERIALS.			
CONDITION 2 : EXPOSED LIVE PARTS ON ONE SIDE OF THE WORKING SPACE AND GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE. CONCRETE, BRICK, OR TILE WALLS SHALL BE CONSIDERED AS GROUNDED.			
CONDITION 3 : EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORKING SPACE.			

ENTRANCE TO AND EGRESS FROM WORKING SPACE:

- PER N.E.C. 110.26 (C)(1) & (2):
- MINIMUM REQUIRED: AT LEAST ONE ENTRANCE OF SUFFICIENT AREA SHALL BE PROVIDED TO GIVE ACCESS TO AND EGRESS FROM WORKING SPACE ABOUT ELECTRICAL EQUIPMENT.
 - LARGE EQUIPMENT: FOR EQUIPMENT RATED AT 1200 AMPERES OR MORE OVER 1.8m (6'-0") WIDE THAT CONTAINS OVERCURRENT DEVICES, SWITCHING DEVICES OR CONTROL DEVICES, THERE SHALL BE ONE ENTRANCE TO AND EGRESS FROM THE REQUIRED WORKING SPACE NOT LESS THAN 610mm (24") WIDE AND 2.0m (6'-6") HIGH AT EACH END OF THE WORKING SPACE. A SINGLE ENTRANCE TO AND EGRESS FROM THE REQUIRED WORKING SPACE SHALL BE PERMITTED WHERE EITHER OF THE FOLLOWING CONDITIONS ARE MET:
 - WHERE THE LOCATION PERMITS A CONTINUOUS AND UNOBSTRUCTED WAY OF EGRESS TRAVEL, A SINGLE ENTRANCE TO THE WORKING SPACE SHALL BE PERMITTED.
 - EXTRA WORKING SPACE: WHERE THE DEPTH OF THE WORKING SPACE IS TWICE THAT REQUIRED, A SINGLE ENTRANCE SHALL BE PERMITTED.



3
E-2.0

CEILING/WALL MOUNTED OCCUPANCY SENSOR
TYPICAL WIRING DETAIL (MULTIPLE SENSORS)

SCALE
NONE

FEEDER SCHEDULE				
4 225	TYPE			
	1 1PH, 2W, 4G	2 1PH, 3W, 4G	3 3PH, 3W, 4G	4 3PH, 4W, 4G
10	(2) #12 & (1) #12G - 3/4" C	(3) #12 & (1) #12G - 3/4" C	(4) #12 & (1) #12G - 3/4" C	(4) #12 & (1) #12G - 3/4" C
15	(2) #12 & (1) #12G - 3/4" C	(3) #12 & (1) #12G - 3/4" C	(4) #12 & (1) #12G - 3/4" C	(4) #12 & (1) #12G - 3/4" C
20	(2) #12 & (1) #12G - 3/4" C	(3) #12 & (1) #12G - 3/4" C	(4) #12 & (1) #12G - 3/4" C	(4) #12 & (1) #12G - 3/4" C
25	(2) #10 & (1) #10G - 3/4" C	(3) #10 & (1) #10G - 3/4" C	(4) #10 & (1) #10G - 3/4" C	(4) #10 & (1) #10G - 3/4" C
30	(2) #10 & (1) #10G - 3/4" C	(3) #10 & (1) #10G - 3/4" C	(4) #10 & (1) #10G - 3/4" C	(4) #10 & (1) #10G - 3/4" C
35	(2) #8 & (1) #8G - 3/4" C	(3) #8 & (1) #8G - 3/4" C	(4) #8 & (1) #8G - 3/4" C	(4) #8 & (1) #8G - 3/4" C
40	(2) #8 & (1) #8G - 3/4" C	(3) #8 & (1) #8G - 3/4" C	(4) #8 & (1) #8G - 3/4" C	(4) #8 & (1) #8G - 3/4" C
45	(2) #8 & (1) #8G - 3/4" C	(3) #8 & (1) #8G - 3/4" C	(4) #8 & (1) #8G - 3/4" C	(4) #8 & (1) #8G - 3/4" C
50	(2) #8 & (1) #8G - 3/4" C	(3) #8 & (1) #8G - 3/4" C	(4) #8 & (1) #8G - 3/4" C	(4) #8 & (1) #8G - 3/4" C
60	(2) #4 & (1) #10G - 1" C	(3) #4 & (1) #10G - 1" C	(4) #4 & (1) #10G - 1" C	(4) #4 & (1) #10G - 1" C
70	(2) #4 & (1) #10G - 1" C	(3) #4 & (1) #10G - 1" C	(4) #4 & (1) #10G - 1" C	(4) #4 & (1) #10G - 1" C
80	(2) #3 & (1) #10G - 1" C	(3) #3 & (1) #10G - 1" C	(4) #3 & (1) #10G - 1" C	(4) #3 & (1) #10G - 1" C
90	(2) #2 & (1) #10G - 1" C	(3) #2 & (1) #10G - 1" C	(4) #2 & (1) #10G - 1" C	(4) #2 & (1) #10G - 1" C
100	(2) #2 & (1) #10G - 1" C	(3) #2 & (1) #10G - 1" C	(4) #2 & (1) #10G - 1" C	(4) #2 & (1) #10G - 1" C
125	(2) #1 & (1) #10G - 1 1/2" C	(3) #1 & (1) #10G - 1 1/2" C	(4) #1 & (1) #10G - 1 1/2" C	(4) #1 & (1) #10G - 1 1/2" C
150	(2) #1 & (1) #10G - 1 1/2" C	(3) #1 & (1) #10G - 1 1/2" C	(4) #1 & (1) #10G - 1 1/2" C	(4) #1 & (1) #10G - 1 1/2" C
175	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C
200	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C
225	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C
250	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C
300	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C
350	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C
400	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C
450	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C
500	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C
600	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C
800	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C
900	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C
1000	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C
1200	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C
1600	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C
2000	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C
2500	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C
3000	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C
3500	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C
4000	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C

ALUMINUM FEEDER SCHEDULE				
4 225	TYPE			
	1 1PH, 2W, 4G	2 OR 3 1PH, 3W, 4G OR 3PH, 3W, 4G	4 3PH, 4W, 4G	4W 3PH, 4W, 4G AND 2000 N
100	(2) #1 & (1) #10G - 1 1/2" C	(3) #1 & (1) #10G - 1 1/2" C	(4) #1 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2" C
125	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
150	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
175	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
200	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
225	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
250	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
300	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
350	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
400	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
450	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
500	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
600	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
800	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
900	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
1000	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
1200	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
1600	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
2000	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
2500	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
3000	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
3500	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C
4000	(2) #1/0 & (1) #10G - 1 1/2" C	(3) #1/0 & (1) #10G - 1 1/2" C	(4) #1/0 & (1) #10G - 1 1/2" C	(5) #1/0 & (1) #10G - 2 1/2" C

BHG CONSULTING
ENGINEERS, INC.

1812 SOUTH 22ND STREET
PHILADELPHIA, PA 19145

Tel: 215-755-9318
Fax: 215-755-9319

RONALD HEIGLER, PE
NJ PROFESSIONAL ENGINEER No. GE 44485

ALL DIMENSIONS MUST BE VERIFIED BY
CONTRACTOR AND OWNER MUST BE NOTIFIED
OF ANY DISCREPANCIES BEFORE PROCEEDING
WITH THE WORK.

PROJECT:

BOROUGH OF RUNNEMEDE
HARRY WILLIAMS BUILDING
ADDITION

2 BROADWAY
RUNNEMEDE, NEW JERSEY 08078
CAMDEN COUNTY, NEW JERSEY

ALL DOCUMENTS PREPARED BY BACH ASSOCIATES, PC ARE INSTRUMENTS
OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED
OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS
ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY
REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY BACH
ASSOCIATES, PC FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT
OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO
BACH ASSOCIATES, PC AND OWNER SHALL INDEMNIFY AND HOLD
HARMLESS BACH ASSOCIATES, PC FROM ALL CLAIMS, DAMAGES, LOSSES
AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

REVISIONS		
NO.	DESCRIPTION	DATE

DRAWING TITLE:

ELECTRICAL
SINGLE LINE &
SCHEDULES

JOB NO: RB2024-5	DESIGNED BY: REH
DATE: 8-19-2025	DRAWN BY: AKA
SCALE: AS SHOWN	CHECKED BY: REH
DRAWING NUMBER:	

E-2.0

ITEM	DESCRIPTION	STANDBY CURRENT PER UNIT (AMPS)	QTY		TOTAL STANDBY CURRENT PER ITEM	ALARM CURRENT PER UNIT (AMPS)	QTY		TOTAL ALARM CURRENT PER ITEM		
FACP	Fire Alarm Control Panel	0.2500	X	0	=	0.0000	0.5000	X	0	=	0.0000
ANN	Annunciator	0.1250	X	1	=	0.1250	0.2500	X	1	=	0.2500
SMOKE	Smoke Detector	0.0001	X	0	=	0.0000	0.0010	X	1	=	0.0010
HEAT	Heat Detector	0.0000	X	0	=	0.0000	0.0000	X	0	=	0.0000
PULL	Pull Station	0.0000	X	1	=	0.0000	0.0000	X	1	=	0.0000
BELL	FDC Bell	0.0000	X	0	=	0.0000	0.0500	X	0	=	0.0000
HORN	Horn	0.0000	X	0	=	0.0000	0.0500	X	0	=	0.0000
STROBE	Strobe	0.0000	X	0	=	0.0000	0.1000	X	0	=	0.0000
H/S	Horn/Strobe	0.0000	X	3	=	0.0000	0.1500	X	3	=	0.4500
0	0	0.0000	X	0	=	0.0000	0.0000	X	0	=	0.0000
0	0	0.0000	X	0	=	0.0000	0.0000	X	0	=	0.0000
0	0	0.0000	X	0	=	0.0000	0.0000	X	0	=	0.0000
0	0	0.0000	X	0	=	0.0000	0.0000	X	0	=	0.0000
TOTAL SYSTEM						TOTAL SYSTEM					
STANDBY CURRENT (AMPS)						ALARM CURRENT (AMPS)					
						0.7010					

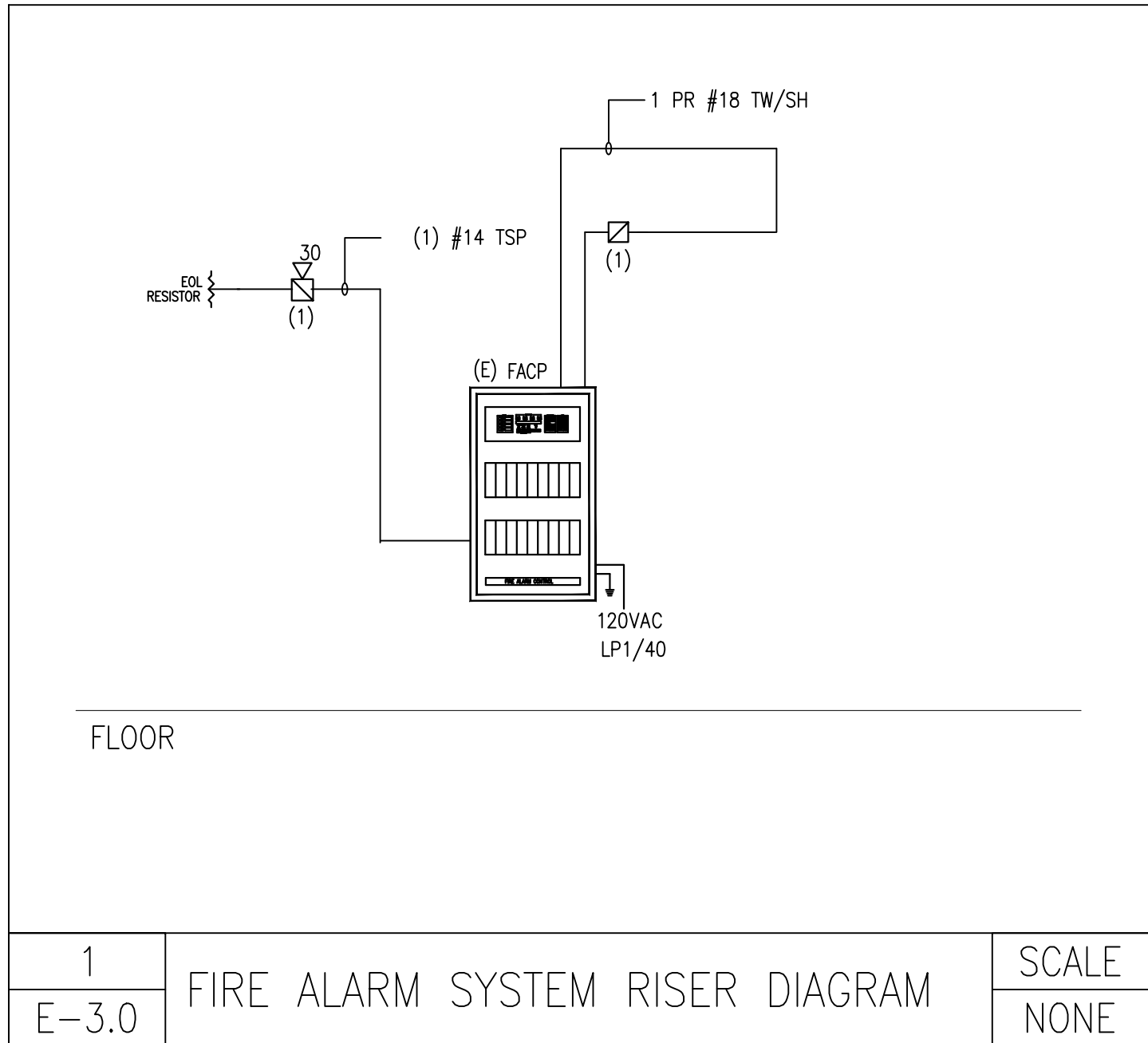
Prepared for:	REQUIRED STANDBY TIME (HRS) NFPA 72-2002 4.4.1.5.3	TOTAL SYSTEM STANDBY CURRENT (AMPS)	REQUIRED STANDBY CAPACITY (AMP-HOURS)	REQUIRED ALARM TIME (HOURS) NFPA 72-2002 4.4.1.5.3	TOTAL SYSTEM ALARM CURRENT (AMPS)	REQUIRED ALARM CAPACITY (AMP-HOURS)			
	24	X	=	3.0000	0.083	X	0.7010	=	0.0582

Prepared by:	REQUIRED STANDBY CAPACITY (AMP-HOURS)	REQUIRED ALARM CAPACITY (AMP-HOURS)	TOTAL CAPACITY (AMP-HOURS)	TOTAL CAPACITY (AMP-HOURS)	SAFETY FACTOR	ADJUSTED BATTERY CAPACITY (AMP-HOURS)
	3.00 +	0.0582 =	3.0582	3.0582 +	20% =	

This calculator provided voltage drop calculations in three formats (Point to Point, End of Line, and Load Centering).

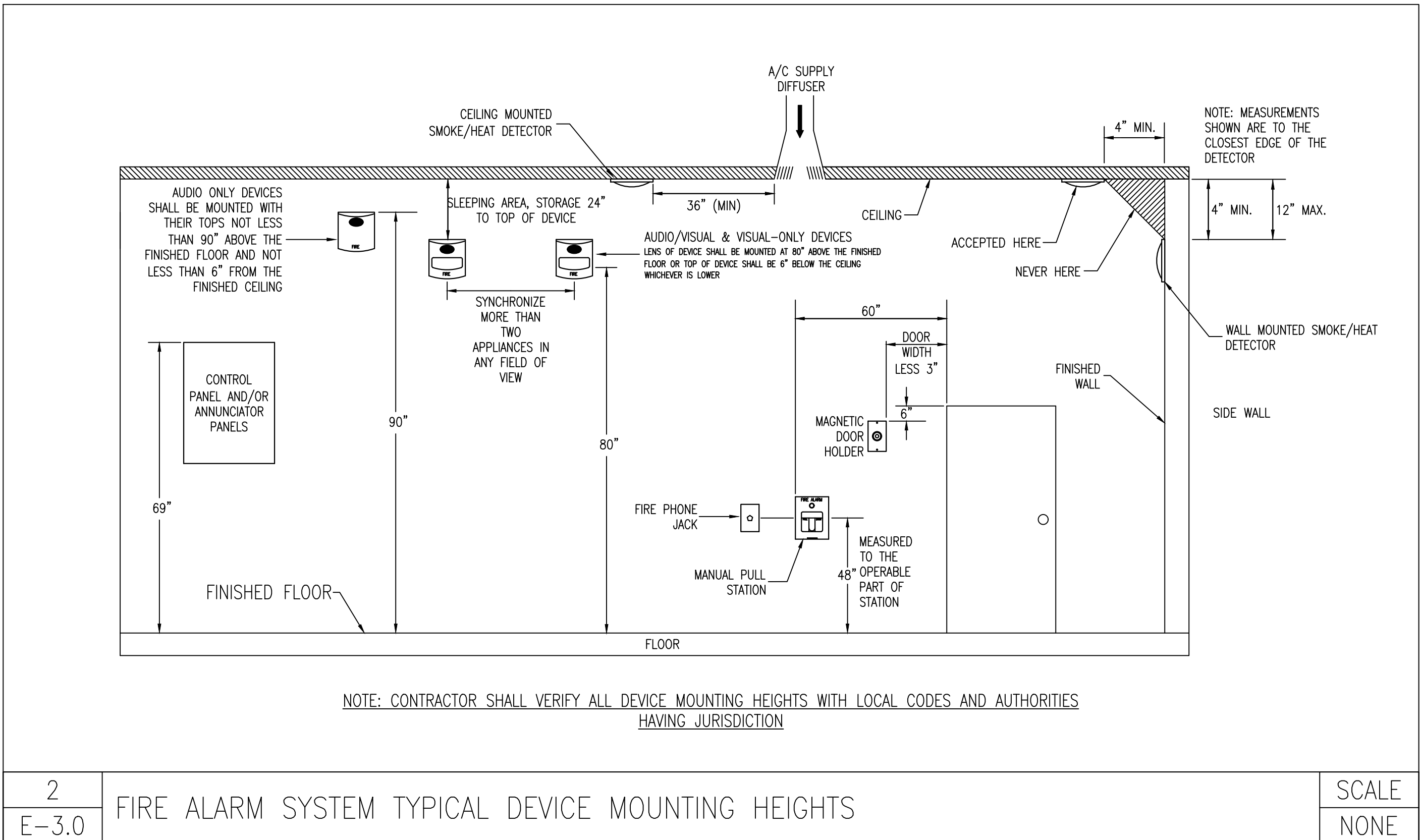
Make sure that you know what method is accepted by, and the results do not exceed the limits set by the respective jurisdiction.

Project Name		Point to Point Method			End of Line Method			Load Centering Method		
HARRY WILLIAMS BUILDING ADDITION		CIRCUIT IS WITHIN LIMITS			CIRCUIT IS WITHIN LIMITS			CIRCUIT IS WITHIN LIMITS		
Date	11/9/2024	Totals			Totals			Totals		
Circuit Number	ADDITION	Current	Distance	Voltage Drop	Current	Distance	Voltage Drop	Current	Distance	Voltage Drop
Area Covered	ADDITION	0.534	47	0.10	0.534	47	0.154	0.534	47	0.077
Nominal System Voltage		End of Line Voltage: 23.90			End of Line Voltage: 23.85			End of Line Voltage: 23.92		
Minimum Device Voltage		Percent Drop: 0.40%			Percent Drop: 0.64%			Percent Drop: 0.32%		
Total Circuit Current	0.534	End of Line and Load Centering Methods use only the wire gauge for the first device to source			Standard Wire Resistance in Ohms per 1000 feet:			18-14 Awg = Solid Conductors 12-10 Awg = Stranded Conductors		
Distance from source to 1st device	2	Wire Gauge: 14			Ohm's Per 1000: 3.07					
Wire Gauge for balance of circuit		14			3.07					
Enter current in amps:	150 = 150 ma	Notes:			Wire resistance is doubled in the calculations for two wires (Positive and Negative)			The voltage calculated to the last device in any method must not be lower then the manufactures listed minimum operating voltage (IE: rated operating voltage 20-32 VDC).		
Device Number	Device Current	Distance from previous device	At Device	Drop from source	Percent Drop	Device Manufacturer	EDWARDS IO SERIES	Device Manufacturer	EDWARD IO SERIES	
Device 1	0.178	2	23.99	0.007	0.03%					
Device 2	0.178	36	23.91	0.085	0.36%					
Device 3	0.178	9	23.90	0.095	0.40%					
END			23.90	0.095	0.40%					
END			23.90	0.095	0.40%					
END			23.90	0.095	0.40%					
END			23.90	0.095	0.40%					
END			23.90	0.095	0.40%					
END			23.90	0.095	0.40%					
END			23.90	0.095	0.40%					
END			23.90	0.095	0.40%					
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END			23.90	0.095	0.40%					
END			23.90	0.095	0.40%					
END			23.90	0.095	0.40%					
END			23.90	0.095	0.40%					
END			23.90	0.095	0.40%					
END			23.90	0.095	0.40%					
END			23.90	0.095	0.40%					
Totals	0.534	47	End of Line Voltage		23.90					



SYMBOLS

	FIRE ALARM MANUAL PULL STATION WITH PROTECTION COVER AND COVER WITH WARNING HORN		REMOTE ALARM INDICATOR W/KEY TEST SWITCH
	PHOTOELECTRIC SMOKE DETECTOR		CONTROL MODULE
	DUCT SMOKE DETECTOR		I.A.M. MODULE
	STROBE WITH 15 CANDELA OUTPUT RATING (CANDELA OUTPUT RATING IS NOT INDICATED)		FIRE ALARM CONTROL PANEL
	STROBE WITH 30 CANDELA OUTPUT RATING (CANDELA OUTPUT RATING IS NOT INDICATED)		NOTIFICATION EXTENDER PANEL
	STROBE WITH 110 CANDELA OUTPUT RATING (CANDELA OUTPUT RATING IS NOT INDICATED)		REMOTE ANNUNCIATOR
	HORN AND STROBE COMBINATION UNIT STROBE WITH 15 CANDELA OUTPUT RATING (CANDELA OUTPUT RATING IS NOT INDICATED)		END OF LINE RESISTOR
	HORN AND STROBE COMBINATION UNIT STROBE WITH 30 CANDELA OUTPUT RATING (CANDELA OUTPUT RATING IS NOT INDICATED)		DEVICE WITH WIRE GUARD
	HORN AND STROBE COMBINATION UNIT STROBE WITH 110 CANDELA OUTPUT RATING (CANDELA OUTPUT RATING IS NOT INDICATED)		WEATHER PROOF DEVICE
	FIRE ALARM MANUAL PULL STATION AND HORN AND STROBE COMBINATION UNIT ABOVE		SUPPLY AIR DUCT
	THERMAL DETECTOR		RETURN AIR DUCT
	END OF LINE RESISTOR		EXISTING MOTOR STARTER
			EXISTING CONTROL EQUIPMENT OF FIRE EXTINGUISHING SYSTEM
			120V HOUSEHOLD SMOKE DETECTOR W/ 9V BATT BACK UP
			TAMPER SWITCH
			FLOW SWITCH



FIRE ALARM SYSTEM NOTES:

- REFER TO SPECIFICATIONS FOR MATERIALS TO BE USED AND METHODS OF INSTALLATIONS.
- CONTRACTOR TO PROVIDE NEW FIRE ALARM SYSTEM. NEW FIRE ALARM SYSTEM SHALL INCLUDE A FIRE ALARM CONTROL PANEL (IF REQUIRED), POWER EXTENDER PANELS (IF REQUIRED), PULL STATIONS, HORNS, STROBES, HORN/STROBE COMBINATION UNITS, DUCT DETECTORS, CONTROL MODULES, REMOTE ANNUNCIATOR PANELS, CONDUIT, WIRING, HARDWARE, MOUNTINGS, BACK BOXES AND ALL OTHER ITEMS NECESSARY FOR A COMPLETE AND PROFESSIONAL FIRE ALARM SYSTEM INSTALLATION.
- PROVIDE A GREEN EQUIPMENT GROUNDING CONDUCTOR ALONG WITH ALL CIRCUIT POWER CONDUCTORS AND GROUND ALL RACEWAYS, BOXES, FIRE ALARM PANEL, SWITCHES, ETC.
- NOT USED
- PROVIDE A COMPLETE NEW RACEWAY SYSTEM FOR THE NEW FIRE ALARM SYSTEM AND INSTALL ALL WIRING IN METAL CONDUIT. RACEWAY SYSTEM SHALL BE INSTALLED CONCEALED. IF IT IS NOT PRACTICABLE TO CONCEAL CONDUIT THEN INSTALL EXPOSED.
- THE STROBE LOCATIONS SHALL BE AS REQUIRED PER NFPA 72, SECTION 6-4.4.2. THE STROBES IN CORRIDORS SHALL BE LOCATED NO MORE THAN 15 FEET FROM THE END OF THE CORRIDORS WITH A SEPARATION BETWEEN STROBES AS INDICATED ON DRAWINGS. VERIFY EXACT LOCATIONS OF STROBES AT SITE.
- FOR THE NEW FIRE ALARM SYSTEM, ALL WIRE SIZES, TYPES AND QUANTITIES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- PROVIDE TAGS, SIGNS AND IDENTIFICATION FOR THE FIRE PROTECTION SYSTEM AS PER NFPA AND LOCAL FIRE MARSHAL.
- PROVIDE A 120 VOLT, 1 PHASE, 30A POWER CIRCUIT TO THE NEW FIRE ALARM CONTROL PANELS FROM THE ELECTRICAL PANELS AHEAD OF THE MAIN. THE CIRCUIT SIZE SHALL BE 2-#10 THWN AND #10 GROUND IN 3/4" RIGID STEEL CONDUIT.
- THE FIRE ALARM SYSTEM RISER DIAGRAM SHOWN ON DRAWING IS TYPICAL ONLY AND MAY NOT INDICATE ALL FIRE ALARM DEVICES. THE CONTRACTOR SHALL REFER TO THE FLOOR PLANS FOR THE ACTUAL QUANTITIES AND LOCATIONS FOR THE ALL FIRE ALARM DEVICES REQUIRED FOR THIS PROJECT. THE MAXIMUM NUMBER OF STROBES AND HORN/STROBE UNITS PER CIRCUIT SHALL BE AS RECOMMENDED BY THE MANUFACTURER. THE WIRE SIZES AND QUANTITIES SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
- MOUNTING HEIGHTS OF FIRE ALARM DEVICES SHALL COMPLY WITH ADA REQUIREMENTS. THE FIRE ALARM PULL STATIONS SHALL BE MOUNTED MAXIMUM AT 48" AND MINIMUM AT 42" ABOVE FINISHED FLOOR. THE STROBE UNITS AND HORN AND STROBE COMBINATION UNITS SHALL BE MOUNTED AT 80" ABOVE FINISHED FLOOR OR 6" BELOW THE CEILING WHICHEVER IS LOWER.
- FURNISH AND INSTALL DEVICES TO THE FIRE ALARM SYSYTEM AS COVERED BY THESE SPECIFICATIONS AND DRAWINGS. WIRE AND CONNECT AND LEAVE IN A FIRST-CLASS OPERATING CONDITION. ALL EQUIPMENT SHALL BE APPROVED AND INSTALLED IN ACCORDANCE WITH THE UNDERWRITERS' LABORATORIES, THE DEPARTMENT OF LABOR AND INDUSTRY, COMPLY WITH LOCAL BUILDING AND ELECTRICAL CODE, AND NFPA 72.
- FINAL CONNECTIONS BETWEEN EQUIPMENT AND THE WIRING SYSTEM SHALL BE MADE UNDER DIRECT SUPERVISION OF A REPRESENTATIVE OF THE MANUFACTURER.
- THE CONTRACTOR SHALL GUARANTEE ALL EQUIPMENT AND WIRING FREE FROM INHERENT MECHANICAL AND ELECTRICAL DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ACCEPTANCE.
- THE CONTRACTOR IN ADDITION SHALL PROVIDE ALL NECESSARY CONTROL MODULES, RELAYS, AND DEVICES TO FULLY COMPLETE THE DEFINED FUNCTIONING SYSTEM
- SYMBOLS SHOWN ON THE FIRE ALARM SYMBOLS LIST MAY OR MAY NOT BE USED

BHG CONSULTING ENGINEERS, INC.

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PHILADELPHIA, PA 19145

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SEALS:

RONALD HEIGLER, PE
NJ PROFESSIONAL ENGINEER No. GE 44485

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

PROJECT:

BOROUGH OF RUNNEMEDE HARRY WILLIAMS BUILDING ADDITION

2 BROADWAY
RUNNEMEDE, NEW JERSEY 08078
CAMDEN COUNTY, NEW JERSEY

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REVISIONS		
NO.	DESCRIPTION	DATE

DRAWING TITLE:

FIRE ALARM SYSTEM

JOB NO: RB2024-5	DESIGNED BY: REH
DATE: 8-19-2025	DRAWN BY: AKA
SCALE: AS SHOWN	CHECKED BY: REH
DRAWING NUMBER:	

E-3.0

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PROJECT

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[illegible]

DRAWING TITLE:

FIRE ALARM
DEVICE INFO

JOB NO:	DESIGNED BY:
---------	--------------

RB2024-5	REH
----------	-----

DATE:	DRAWN BY:
8-10-2025	AKA

SCALE:	CHECKED BY:
--------	-------------

AS SHOWN	REH
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DRAWING NUMBER:

701

E-3.1

10. *Journal of the American Medical Association*, 2000; 284: 2689-2694.

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Option Cards

Expansion cards are supplied as a complete line of products and installed equipment that will enhance performance and expand capacity. Other cards are available for the micro and mini rack equipment and are connected to a host interface card, fiber interface, serial interface, or serial-to-parallel interface card. These cards are used to connect the system to other systems or to a network.

Single Board and Dual Board Controller Cards

The DCS-1 is a single board card that can be used with the DCS-2 interface for the standard 3U rack, or with the DCS-3 interface for the standard 6U rack. It will interface with a 3U or 6U rack.

Single Board and Dual Board Controller Cards

The DCS-1 is a single board card that can be used with the DCS-2 interface for the standard 3U rack, or with the DCS-3 interface for the standard 6U rack. It will interface with a 3U or 6U rack.

Expansion Cards

Expansion Card	DCS-1	DCS-2	DCS-3
DCS-1	Yes	Yes	Yes
DCS-2	Yes	Yes	Yes
DCS-3	Yes	Yes	Yes
DCS-4	Yes	Yes	Yes
DCS-5	Yes	Yes	Yes
DCS-6	Yes	Yes	Yes
DCS-7	Yes	Yes	Yes
DCS-8	Yes	Yes	Yes
DCS-9	Yes	Yes	Yes
DCS-10	Yes	Yes	Yes
DCS-11	Yes	Yes	Yes
DCS-12	Yes	Yes	Yes
DCS-13	Yes	Yes	Yes
DCS-14	Yes	Yes	Yes
DCS-15	Yes	Yes	Yes
DCS-16	Yes	Yes	Yes
DCS-17	Yes	Yes	Yes
DCS-18	Yes	Yes	Yes
DCS-19	Yes	Yes	Yes
DCS-20	Yes	Yes	Yes
DCS-21	Yes	Yes	Yes
DCS-22	Yes	Yes	Yes
DCS-23	Yes	Yes	Yes
DCS-24	Yes	Yes	Yes
DCS-25	Yes	Yes	Yes
DCS-26	Yes	Yes	Yes
DCS-27	Yes	Yes	Yes
DCS-28	Yes	Yes	Yes
DCS-29	Yes	Yes	Yes
DCS-30	Yes	Yes	Yes
DCS-31	Yes	Yes	Yes
DCS-32	Yes	Yes	Yes
DCS-33	Yes	Yes	Yes
DCS-34	Yes	Yes	Yes
DCS-35	Yes	Yes	Yes
DCS-36	Yes	Yes	Yes
DCS-37	Yes	Yes	Yes
DCS-38	Yes	Yes	Yes
DCS-39	Yes	Yes	Yes
DCS-40	Yes	Yes	Yes
DCS-41	Yes	Yes	Yes
DCS-42	Yes	Yes	Yes
DCS-43	Yes	Yes	Yes
DCS-44	Yes	Yes	Yes
DCS-45	Yes	Yes	Yes
DCS-46	Yes	Yes	Yes
DCS-47	Yes	Yes	Yes
DCS-48	Yes	Yes	Yes
DCS-49	Yes	Yes	Yes
DCS-50	Yes	Yes	Yes
DCS-51	Yes	Yes	Yes
DCS-52	Yes	Yes	Yes
DCS-53	Yes	Yes	Yes
DCS-54	Yes	Yes	Yes
DCS-55	Yes	Yes	Yes
DCS-56	Yes	Yes	Yes
DCS-57	Yes	Yes	Yes
DCS-58	Yes	Yes	Yes
DCS-59	Yes	Yes	Yes
DCS-60	Yes	Yes	Yes
DCS-61	Yes	Yes	Yes
DCS-62	Yes	Yes	Yes
DCS-63	Yes	Yes	Yes
DCS-64	Yes	Yes	Yes
DCS-65	Yes	Yes	Yes
DCS-66	Yes	Yes	Yes
DCS-67	Yes	Yes	Yes
DCS-68	Yes	Yes	Yes
DCS-69	Yes	Yes	Yes
DCS-70	Yes	Yes	Yes
DCS-71	Yes	Yes	Yes
DCS-72	Yes	Yes	Yes
DCS-73	Yes	Yes	Yes
DCS-74	Yes	Yes	Yes
DCS-75	Yes	Yes	Yes
DCS-76	Yes	Yes	Yes
DCS-77	Yes	Yes	Yes
DCS-78	Yes	Yes	Yes
DCS-79	Yes	Yes	Yes
DCS-80	Yes	Yes	Yes
DCS-81	Yes	Yes	Yes
DCS-82	Yes	Yes	Yes
DCS-83	Yes	Yes	Yes
DCS-84	Yes	Yes	Yes
DCS-85	Yes	Yes	Yes
DCS-86	Yes	Yes	Yes
DCS-87	Yes	Yes	Yes
DCS-88	Yes	Yes	Yes
DCS-89	Yes	Yes	Yes
DCS-90	Yes	Yes	Yes
DCS-91	Yes	Yes	Yes
DCS-92	Yes	Yes	Yes
DCS-93	Yes	Yes	Yes
DCS-94	Yes	Yes	Yes
DCS-95	Yes	Yes	Yes
DCS-96	Yes	Yes	Yes
DCS-97	Yes	Yes	Yes
DCS-9			

[illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible]

Installation

Single-alar Single-Station fire alarm manual pull stations must be North American 215 volt (60 Hz) deep 3 gang boxes.

Two-alar Single-alar 220V fire alarm require 4 inch (20 mm) deep 4 inch square boxes with 1 (20V), 1 (120V) and one common. Grounding must be adequate. For local coverage use 4-wire cable. For remote location, use 4-wire cable. See North Model C-100-4 for details.

All models include terminals for a signal for 4 to 18 AWG (2.5 mm² to 1.5 mm²) wires. Consult accessories. Note these fire alarm devices are not intended to be tested for tamper or tamper and tamper. See North Model C-100-4 for details.

Electronic Addressing: The key controller electronically addresses each manual station. Using a standard hand during system commissioning, the key controller can be programmed to address each station. Each address is in the range of 1 to 99. The manual station can be programmed to address the key controller and assign a "call" address to each manual station. 1-pushed, the station can be activated using the 24VDC fire alarm signal. See North Model C-100-4 for details.

Figure 3. SISA-270R, SISC-270R, SISO-270R installation

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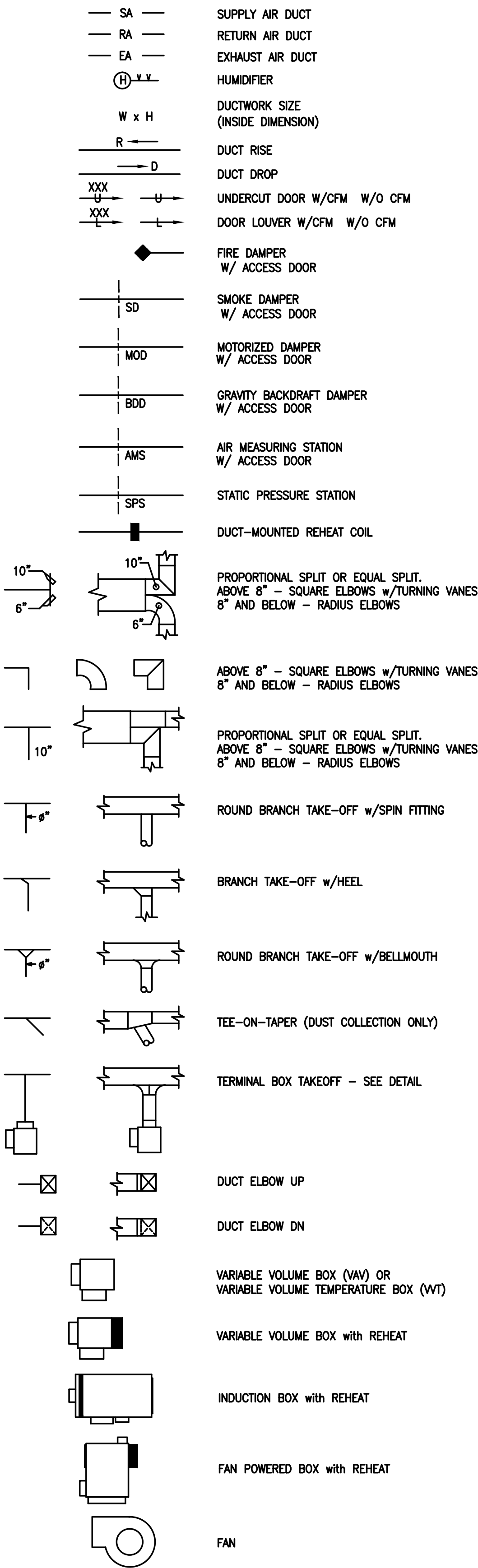
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(D)	DEMOLISH
(E)	EXISTING
(F)	REFURBISH
(N)	NEW
(R)	RELOCATE
AC	AIR CONDITIONING UNIT
ACC	AIR COOLED CONDENSER
ACCU	AIR COOLED CONDENSING UNIT
ACFM	ACTUAL CUBIC FEET PER MINUTE
AD	ACCESS DOOR
AF	AIRFOIL
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
AL	ACOUSTICAL LINING
AMB	AMBIENT
AMS	AIR FLOW MEASURING STATION
AO	ANALOG OUTPUT
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
ARCH	ARCHITECTURAL
AS	AIR SEPARATOR
ASC	APPLICATION SPECIFIC CONTROLLER
ATC	AUTOMATIC TEMPERATURE CONTROL
AVG	AVERAGE
AWT	AVERAGE WATER TEMPERATURE
B	BOILER
BAS	BUILDING AUTOMATION SYSTEM
BDD	BACKDRAFT DAMPER
BDS	BLOWDOWN SEPARATOR
BFP	BACK FLOW PREVENTOR OR BOILER FEED PUMP
BFU	BOILER FEED UNIT
BHP	BRAKE HORSEPOWER OR BOILER HORSEPOWER
BI	BACKWARD INCLINED
BI	BINARY INPUT
BLD	BUILDING
BO	BINARY OUTPUT
BOD	BOTTOM OF DUCT OR BASIS OF DESIGN
BOP	BOTTOM OF PIPE
BOT	BOTTOM
BT	BLOWDOWN TANK
BTJ	BETWEEN JOIST
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
C	CONVECTOR
CAP	CAPACITY
CB	CONCRETE BASE
CC	COOLING COIL
CCO	CAPPED CURB OPENING
CD	CEILING DIFFUSER
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CL	COOLING
CLG	CEILING
CMPR	COMPRESSOR
CO	CLEAN OUT
COL	COLUMN
CONC	CONCENTRATION OR CONCRETE
COND	CONDENSATE (STEAM OR COOLING COIL)
CONN	CONNECTION
CONT	CONTINUATION
CP	CONDENSATE PUMP
CRAC	COMPUTER ROOM AIR CONDITIONING UNIT
CT	COOLING TOWER
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CV	COEFFICIENT OF CAPACITY
D	DROP
DA	DEAERATOR
DB	DRY BULB
DC	DRY COOLER
DDC	DIRECT DIGITAL CONTROL
DEFL	DEFLECTION
DET	DETAIL
DIA	DIAMETER
DISC	DISCONNECT
DISCH	DISCHARGE
DI	DIGITAL INPUT
DN	DOWN
DO	DIGITAL OUTPUT
DR	DRAIN
DS	DISCONNECT SWITCH
DWG	DRAWING
EA	EXHAUST AIR OR EACH
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
ECH	ELECTRIC CEILING HEATER
EDB	ENTERING DRY BULB TEMPERATURE
EF	EXHAUST FAN
EFF	EFFICIENCY
EG	EXHAUST GRILLE
EJ	EXPANSION JOINT
ELEC	ELECTRIC
ELEV	ELEVATION
EM	EQUIPMENT MANUFACTURER
EMER	EMERGENCY

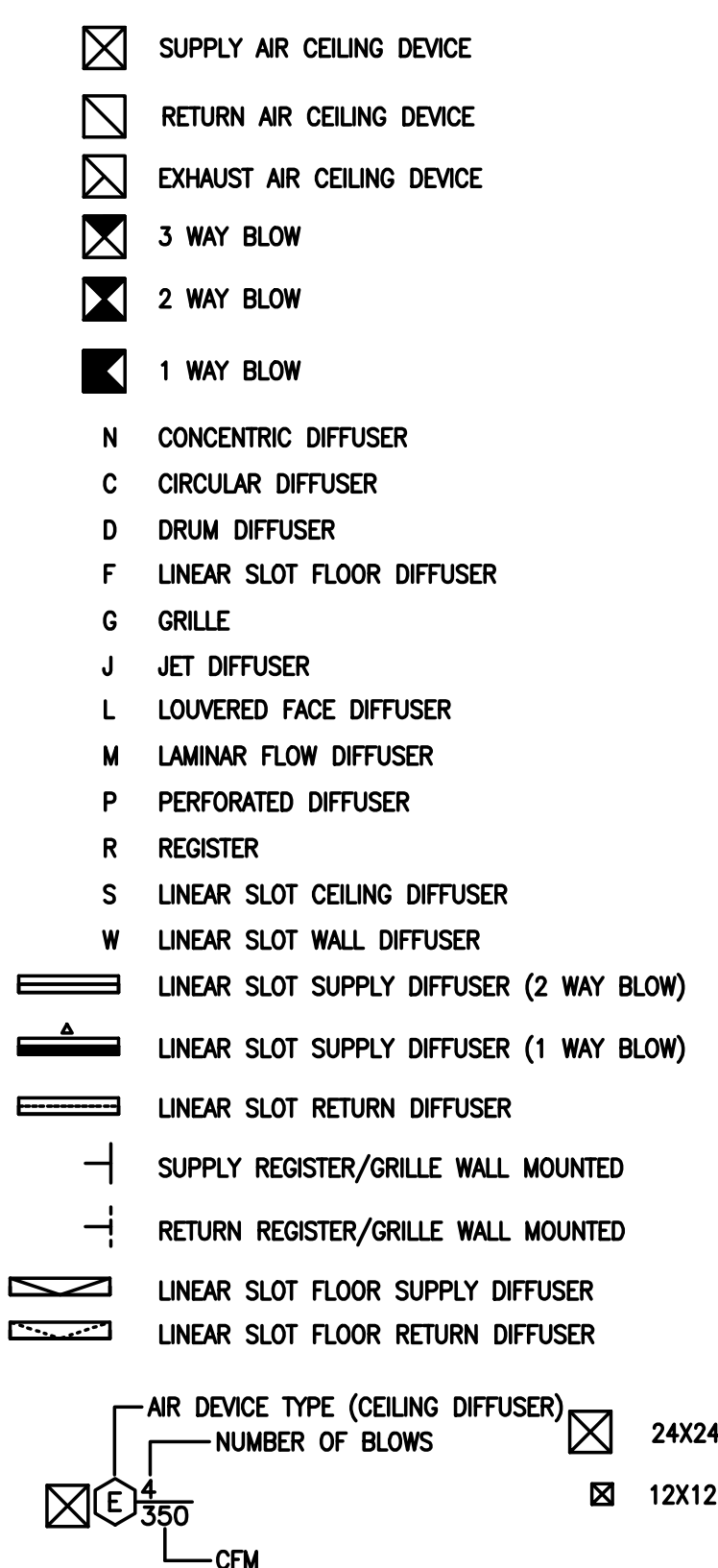
ABBREVIATIONSNOTE: NOT ALL SYMBOLS AND ABBREVIATIONS MAY BE USED.

ENT	ENTERING	OAH	OUTSIDE AIR ENTHALPY
ER	EXHAUST REGISTER	OAI	OUTSIDE AIR INTAKE
ERAD	ELECTRIC RADIATION	OAT	OUTSIDE AIR TEMPERATURE
ERC	EXHAUST ENERGY RECOVERY COIL	OBD	OPPOSED BLADE DAMPER
ERU	ENERGY RECOVERY UNIT	OC	ON CENTER
ESP	EXTERNAL STATIC PRESSURE	OED	OPEN ENDED DUCT
ET	EXPANSION TANK	OEM	ORIGINAL EQUIPMENT MANUFACTURER
EVC	EVAPORATIVE COOLER	OPER	OPERATING
EWB	ENTERING WET BULB TEMPERATURE	OPNG	OPENING
EWH	ELECTRIC WATER HEATER	P	PUMP
EWT	ENTERING WATER TEMPERATURE	PBD	PARALLEL BLADE DAMPER
EXH	EXHAUST	PC	PUMPED CONDENSATE
EXIST	EXISTING	PD	PRESSURE DROP
EXT	EXTERNAL	PFHX	PLATE & FRAME HEAT EXCHANGER
F	FILTER	PHC	PREHEAT COIL
F&T	FLOAT AND THERMOSTATIC STEAM TRAP	PLN	PLENUM
FA	FACE AREA	POS	POSITION
FAS	FIRE ALARM SYSTEM	PRESS	PRESSURE
FB	FROM BELOW	PRV	PRESSURE REDUCING VALVE
FC	FLEXIBLE CONNECTION	PSI	POUNDS PER SQUARE INCH
FCU	FAN COIL UNIT	PSIA	POUNDS PER SQUARE INCH-- ABSOLUTE
FD	FIRE DAMPER OR FLOOR DRAIN	PSIG	POUNDS PER SQUARE INCH-- GAUGE
FIN	FINAL	QUAN	QUANTITY
FLA	FULL LOAD AMPS	R	RISE
FLEX	FLEXIBLE	RA	RETURN OR RELIEF AIR
FLR	FLOOR	RAH	RETURN AIR ENTHALPY
FLTR	FILTER	RAT	RETURN AIR TEMPERATURE
FM	FLOW METERING DEVICE	RCP	RADIANT CEILING PANEL
FO	FUEL OIL	REQ	REQUIRED
FOB	FLAT ON BOTTOM	RET	RETURN
FOF	FUEL OIL FILL	REV	REVISION
FOO	FUEL OIL OVERFLOW	RF	RETURN FAN
FOP	FUEL OIL PUMP	RG	RETURN GRILLE
FOS	FUEL OIL SUPPLY	RH	RELIEF HOOD OR RELATIVE HUMIDITY
FOT	FLAT ON TOP	RHC	REHEAT COIL
FPB	FAN POWERED BOX	RHW	ROTARY HEAT WHEEL
FPM	FEET PER MINUTE	RLA	RUN LOAD AMPS
FPS	FEET PER SECOND	RM	ROOM
FT	FLASH TANK OR FOOT OR FEET	RP	RECIRCULATION PUMP
FTR	FINNED TUBE RADIATION	RPM	REVOLUTIONS PER MINUTE
FUT	FUTURE	RR	RETURN REGISTER
GPH	GALLONS PER HOUR	RTU	ROOFTOP UNIT
GPM	GALLONS PER MINUTE	RV	RELIEF VALVE
GR	GRILLE	SA	SUPPLY AIR
GRV	GRAVITY ROOF VENT	SB	STRUCTURAL BASE
GV	GRAVITY VENT	SCU	SELF CONTAINED UNIT
H	HUMIDIFIER	SD	SMOKE DAMPER OR DETECTOR
HAV	HEAT ACTUATED SHUTOFF VALVE	SEC	SECOND
HC	HEATING COIL	SEER	EFFICIENCY RATING
HG	MERCURY	SENS	SENSIBLE
HO	HUB OUTLET	SF	SUPPLY FAN
HP	HORSEPOWER	SG	SUPPLY GRILLE
HTG	HEATING	SI	SPRING HANGER
HV	HEATING & VENTILATING UNIT	SO	SCREENED OPENING
HWG	HOT WATER GENERATOR	SP	STATIC PRESSURE IN WG
HX	HEAT EXCHANGER	SPD	STEAM PRESSURE DROP
ID	INSIDE DIAMETER	SR	SUPPLY REGISTER
IN	INCHES	SRC	SUPPLY ENERGY RECOVERY COIL
INT	INITIAL	SRV	SAFETY RELIEF VALVE
KW	KILOWATT	SRV	SAFETY RELIEF VALVE
LAT	LEAVING AIR TEMPERATURE	SSF	SIDE-STREAM FILTER
LB	POUND	ST	SOUND ATTENUATOR
LD	LINEAR DIFFUSER	STBY	STANDBY
LDB	LEAVING DRY BULB TEMPERATURE	STM	STEAM
LF	LINEAR FOOT	SUP	SUPPLY
LG	LINEAR GRILLE	SUT	SURGE TANK
LOC	LOCATION	TEC	TERMINAL EQUIPMENT CONTROLLER
LP	PROPANE	TG	TRANSFER GRILLE
LRA	LOCKED ROTOR AMPS	TOD	TOP OF DUCT
LVG	LEAVING	TOP	TOP OF PIPE
LWB	LEAVING WET BULB TEMPERATURE	TOT	TOTAL
LWT	LEAVING WATER TEMPERATURE	TP	TRANSFER PUMP
MAX	MAXIMUM	TSP	TOTAL STATIC PRESSURE
MBC	MODULAR BUILDING CONTROLLER	TTS	TIGHT TO STRUCTURE
MBH	1000 BTU PER HOUR	TYP	TYPICAL
MC	MECHANICAL CONTRACTOR	UH	UNIT HEATER
MCC	MOTOR CONTROL CENTER	UNO	UNLESS NOTED OTHERWISE
MECH	MECHANICAL	VAV	VARIABLE AIR VOLUME
MER	MECHANICAL EQUIPMENT ROOM	VD	VOLUME DAMPER
MFR	MANUFACTURER	VEL	VELOCITY
MH	MANHOLE	VFD	VARIABLE FREQUENCY DRIVE
MIN	MINIMUM OR MINUTE	VIB	VIBRATION
MOCP	MAXIMUM OVER-CURRENT PROTECTION	VIV	VARIABLE INLET VALVES
MOD	MOTOR OPERATED DAMPER	VTR	VENT THROUGH ROOF
MODU	MODULATING	W/	WITH
MXB	MIXING BOX	W/O	WITHOUT
N	NEW	WB	WET BULB
NC	NORMALLY CLOSED	WCU	WATER COOLED CONDENSING UNIT
NG	NATURAL GAS	WG	WATER GAUGE
NIC	NOT IN CONTRACT	WHP	WATER SOURCE HEAT PUMP
NO	NORMALLY OPEN OR NUMBER	WMS	WIRE MESH SCREEN
NTS	NOT TO SCALE	WPD	WATER PRESSURE DROP
OA	OUTSIDE AIR		

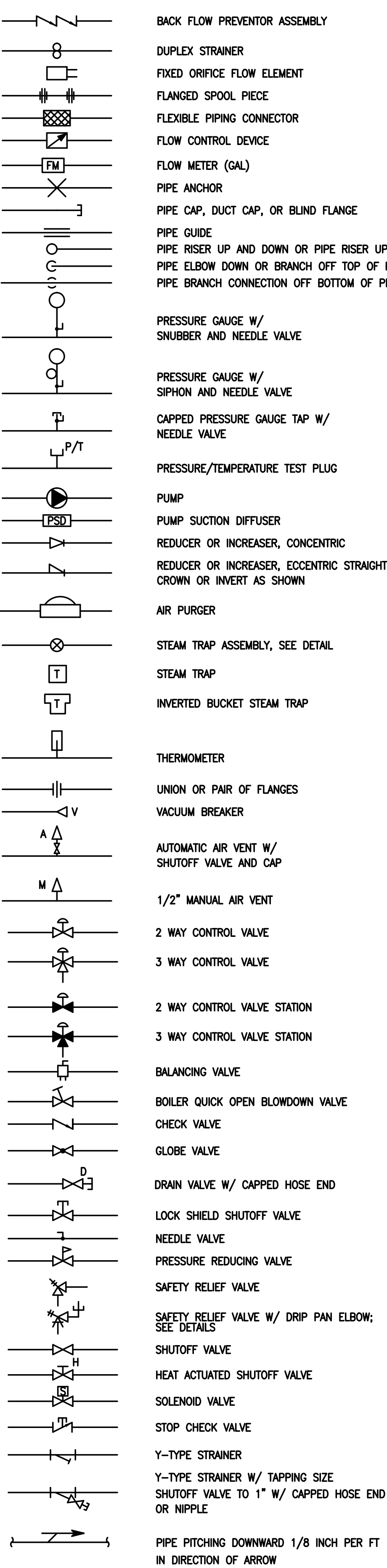
DUCT SYMBOLS



AIR DEVICE LEGEND



PIPE SYMBOLS



BHG CONSULTING ENGINEERS, INC.

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SEALS:

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NJ PROFESSIONAL ENGINEER No. GE 44485

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**BOROUGH OF RUNNEMEDE
HARRY WILLIAMS BUILDING
NEW ENTRY AND BATHROOMS**
2 BROADWAY
RUNNEMEDE, NEW JERSEY 08078
CAMDEN COUNTY, NEW JERSEY

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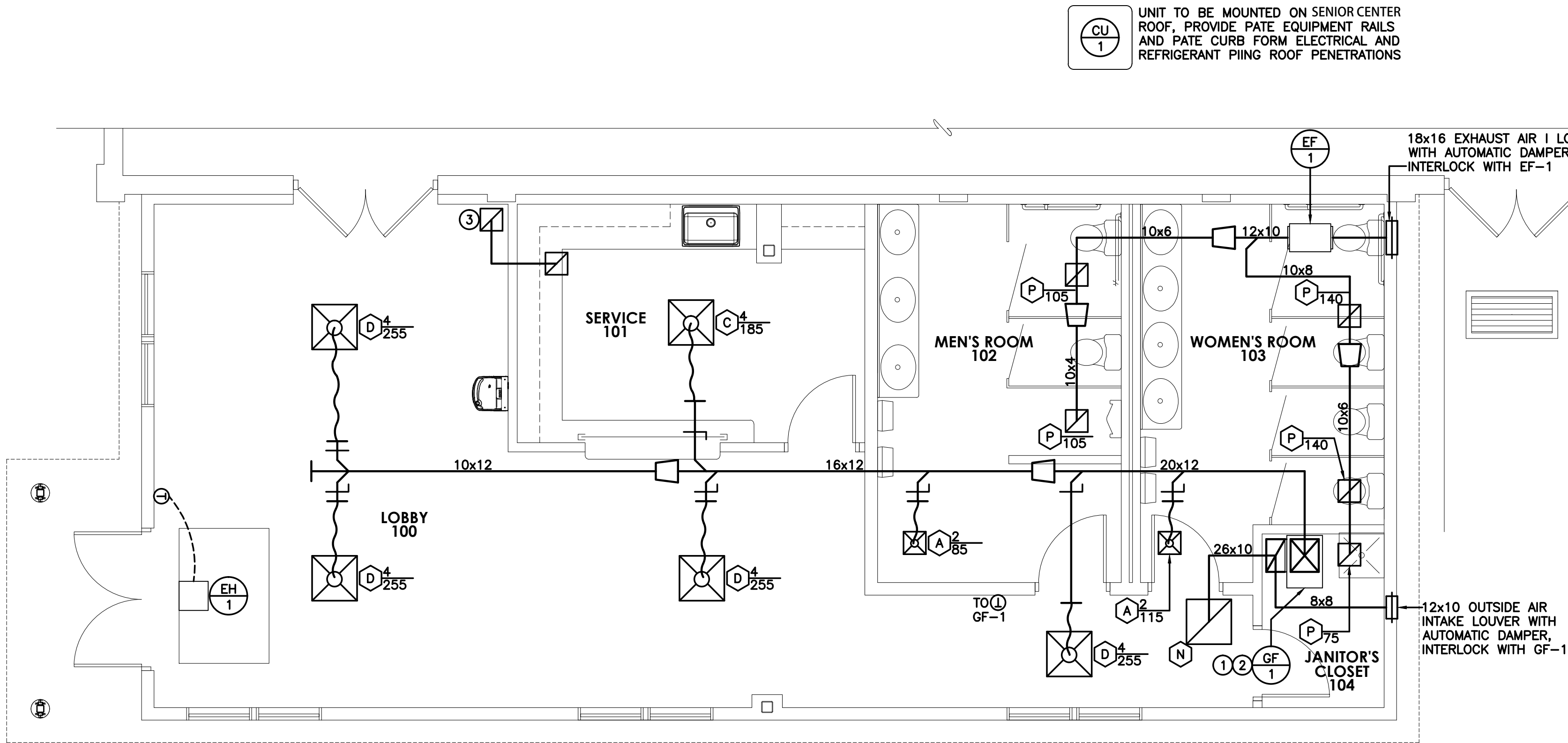
DRAWING TITLE:

**MECHANICAL
COVER
SHEET**

RB2024-5

JOB NO:	DESIGNED BY: DJP
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MECHANICAL FLOOR PLAN
1/4"=1'-0"

MECHANICAL SHEET NOTES:

- VENT AND AIR INTAKE UP THRU ROOF WITH FACTORY SUPPLIED CONCENTRIC TERMINATION KIT. MAXIMUM LENGTH AND MINIMUM SIZE PER MANUFACTURES REQUIREMENTS
- CONDENSATE LINE FROM UNIT TO DRAIN. LINE TO BE FULL SIZE OF UNIT OPENING. DISCHARGE TO GRADE WITH SPLASH BLOCK WHERE DRAIN IS NOT PROVIDED.
- PROVIDE 14x10 ACOUSTICALLY LINED TRANSFER DUCT WITH 90 DEGREE ELBOW AND (2)12x12 TRANSFER GRILLES.

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**MECHANICAL
FLOOR PLAN**

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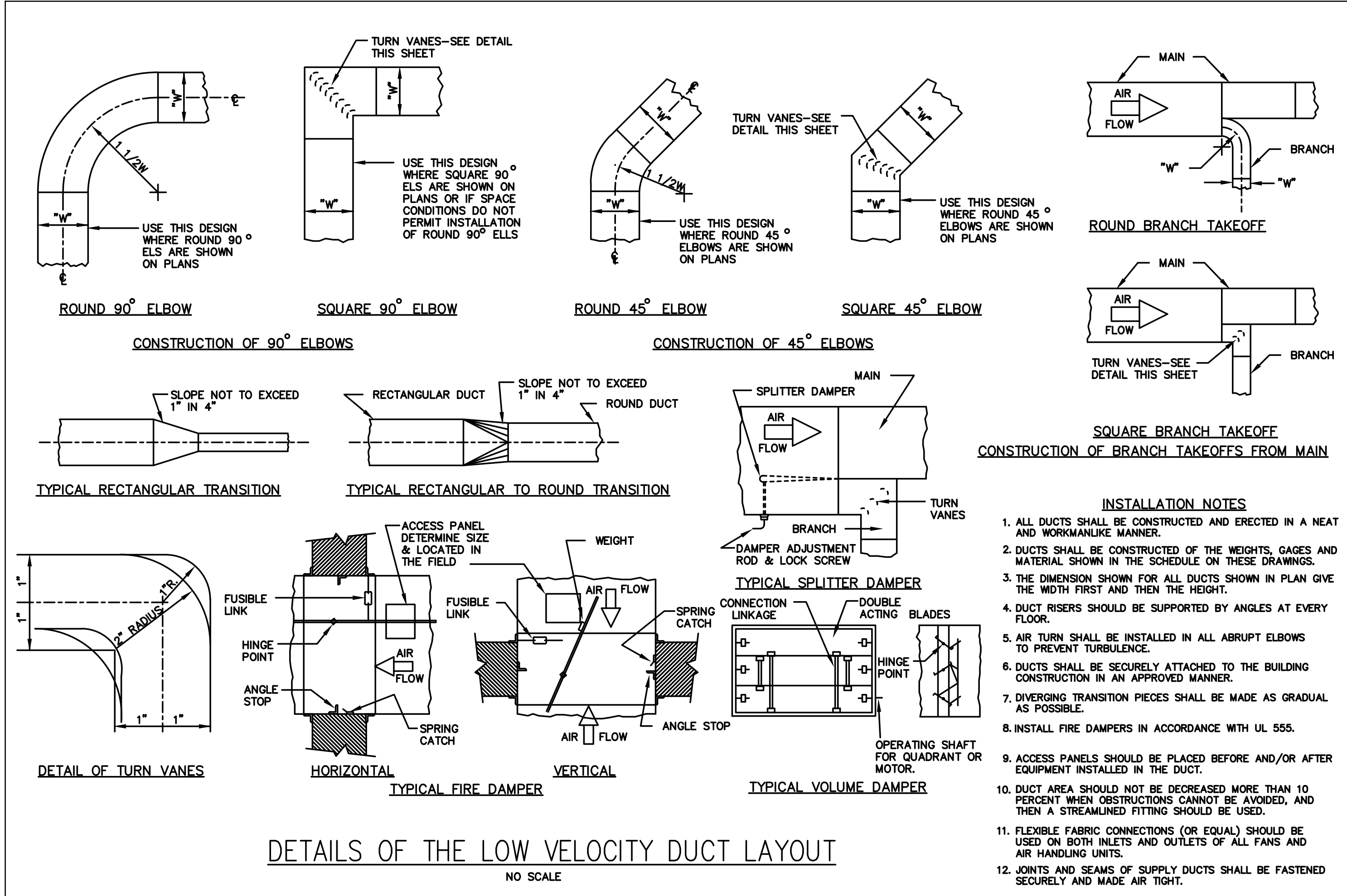
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AIR DEVICE SCHEDULE						
NO.	NECK SIZE	FACE SIZE	CFM RANGE	TYPE	MANUFACTURER MODEL NUMBER	REMARKS
A	6"	12x12	0-137	SUPPLY AIR DIFFUSER	PRICE OR EQUAL	
B	6"	24x24	0-137	SUPPLY AIR DIFFUSER	PRICE OR EQUAL	
C	8"	24x24	138-244	SUPPLY AIR DIFFUSER	PRICE OR EQUAL	
D	10"	24x24	245-327	SUPPLY AIR DIFFUSER	PRICE OR EQUAL	
L	12x12	24x48	0-365	RETURN AIR GRILLE	PRICE OR EQUAL	
M	24x12	24x12	366-720	RETURN AIR GRILLE	PRICE OR EQUAL	
N	24x24	24x24	721-1440	RETURN AIR GRILLE	PRICE OR EQUAL	
P	12x12	24x48	0-365	RETURN AIR GRILLE	PRICE OR EQUAL	

SUPPLY/EXHAUST FAN SCHEDULE										SYMBOL	EF	SF
NO.	CFM	S.P.	RPM	H.P.	TYPE	DRIVE	ELECTRICAL			MANUFACTURER MODEL NUMBER	NOTES	
							VOLTS	PHASE	HERTZ			
1	565	0.50"	1742	1/4	INLINE CENTRIFUGAL	BELT	115	1	60	GREENHECK BSQ-80-4	①②	
NOTES: ① FAN TO RUN CONTINUOUS IN OCCUPIED MODE ② WITH BACKDRAFT DAMPER												

GAS FIRED FURANCE SCHDULE												SYMBOL	<div><div>GF</div><div>CU</div></div>	
NO.	COOLING CAP'Y TONS	CFM	EXT. S.P.	FAN H.P.	HEATING		O.A. CFM	ELECTRICAL			MANUFACTURER MODEL NUMBER	NOTES		
					INPUT CFH	OUTPUT MBH		VOLTS	PHASE	HERTZ				
1	3.5	1400	0.50	3/4	39.0 60.0	37.8 58.3	170	115	1	60	TRANE INDOOR-S9X2B060 OUTDOOR-STTR3042	①②③④⑤		
NOTES														
① WITH PROGRAMMABLE THERMOSTAT WITH REMOTE SENSOR								④ WITH MATCHING CONDENSING UNIT (208-1-60)						
② WITH MATCHING COOLING COIL								⑤ WITH VENT AND AIR INTAKE, MAXIMUM LENTGH AND MINIMUM SIZE PER MANUFACTURES REQUIREMTS, PROVIDE CONCENTRIC TERMINATION						
③ HIGH EFFICIENT FURNACE								KIT UP THRU ROOF						

ELECTRIC HEATER SCHEDULE							SYMBOL	<div><div></div>EH</div>
NO.	HEATING CAPACITY KW	TYPE	ELECTRICAL			MANUFACTURER MODEL NUMBER	REMARKS	
			VOLTS	PHASE	HERTZ			
1	4.0	CLG. HEATER	208	1	60	QMARK SERIES FFCH	①	
NOTES: ① WITH REMOTE THERMOSTAT ② WITH INTEGRAL VANDAL PROOF THERMOSTAT								



DUCT CONSTRUCTION MINIMUM SHEET METAL THICKNESSES				
RECTANGULAR DUCTS				
MAXIMUM SIZE (INCHES)	STEEL (MINIMUM THICKNESS, NOMINAL)			
THROUGH 12	0.022 INCH (26 GAGE, GALV.)			
13 THROUGH 30	0.028 INCH (24 GAGE, GALV.)			
31 THROUGH 54	0.034 INCH (22 GAGE, GALV.)			
55 THROUGH 84	0.040 INCH (20 GAGE, GALV.)			
OVER 84	0.052 INCH (18 GAGE, GALV.)			
ROUND DUCTS				
MAXIMUM SIZE (INCHES)	SPIRAL SEAM DUCT		LONGITUDINAL SEAM DUCT	FITTINGS
	STEEL (MINIMUM THICKNESS, NOMINAL)	STEEL (MINIMUM THICKNESS, NOMINAL)	STEEL (MINIMUM THICKNESS, NOMINAL)	STEEL (MINIMUM THICKNESS, NOMINAL)
THROUGH 12	0.019 INCH (28 GAGE, GALV.)	0.022 INCH (26 GAGE, GALV.)	0.022 INCH (26 GAGE, GALV.)	0.022 INCH (26 GAGE, GALV.)
13 THROUGH 18	0.022 INCH (26 GAGE, GALV.)	0.028 INCH (24 GAGE, GALV.)	0.028 INCH (24 GAGE, GALV.)	0.028 INCH (24 GAGE, GALV.)
19 THROUGH 28	0.028 INCH (24 GAGE, GALV.)	0.034 INCH (22 GAGE, GALV.)	0.034 INCH (22 GAGE, GALV.)	0.034 INCH (22 GAGE, GALV.)
29 THROUGH 36	0.034 INCH (22 GAGE, GALV.)	0.040 INCH (20 GAGE, GALV.)	0.040 INCH (20 GAGE, GALV.)	0.040 INCH (20 GAGE, GALV.)
37 THROUGH 52	0.040 INCH (20 GAGE, GALV.)	0.052 INCH (18 GAGE, GALV.)	0.052 INCH (18 GAGE, GALV.)	0.052 INCH (18 GAGE, GALV.)

DUCT CONSTRUCTION SCHEDULE					
DUCT SYSTEM	SMACNA PRESSURE CLASS	SMACNA SEALING CLASS	DUCT MATERIAL	JOINING METHOD	INSUL TYPE & THICKNESS
SUPPLY	+ 1 INCH	C	GALV. STL.	DUCTMATE	1.5" BATT
RETURN	- 1 INCH	C	GALV. STL.	DUCTMATE	1.5" BATT
GENERAL EXHAUST	- 1 INCH	C	GALV. STL.	DUCTMATE	
NOTE: EXISTING DUCTWORK REQUIRING DEMOLITION SHALL BE TERMINATED PROPERLY IN ACCORDANCE WITH SMACNA STDS. FOR +2 OR -2 PRESSURE RATING.					

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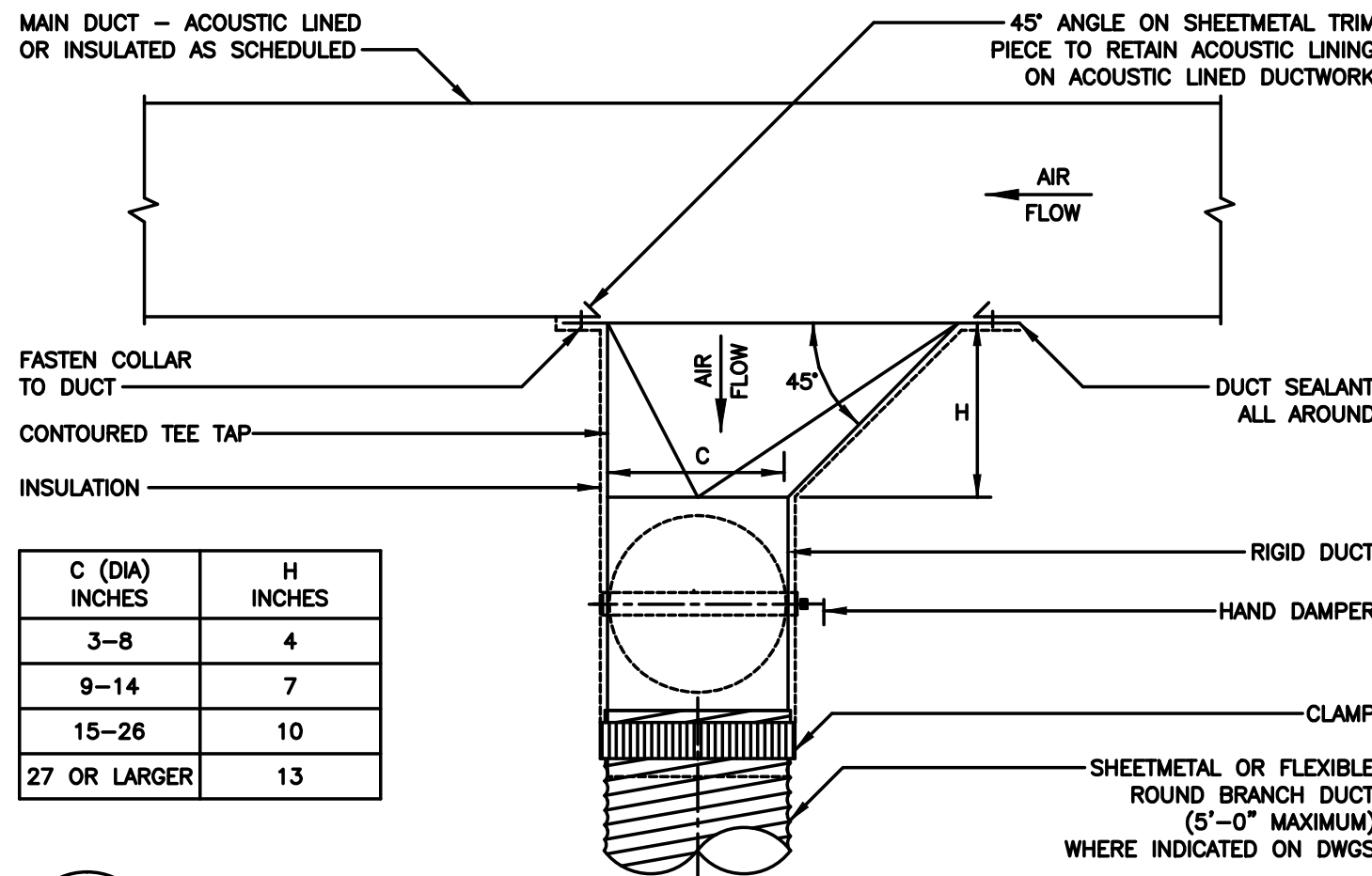
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MECHANICAL SCHEDULES

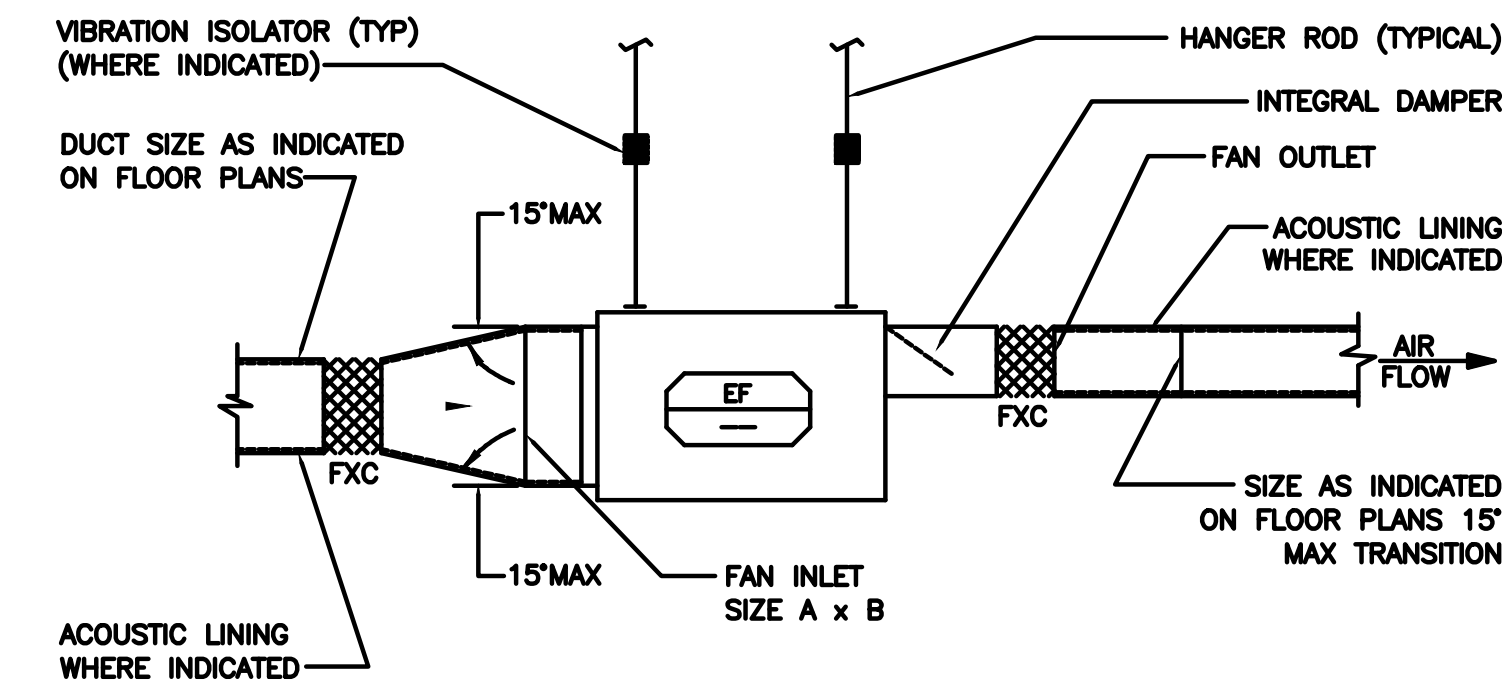
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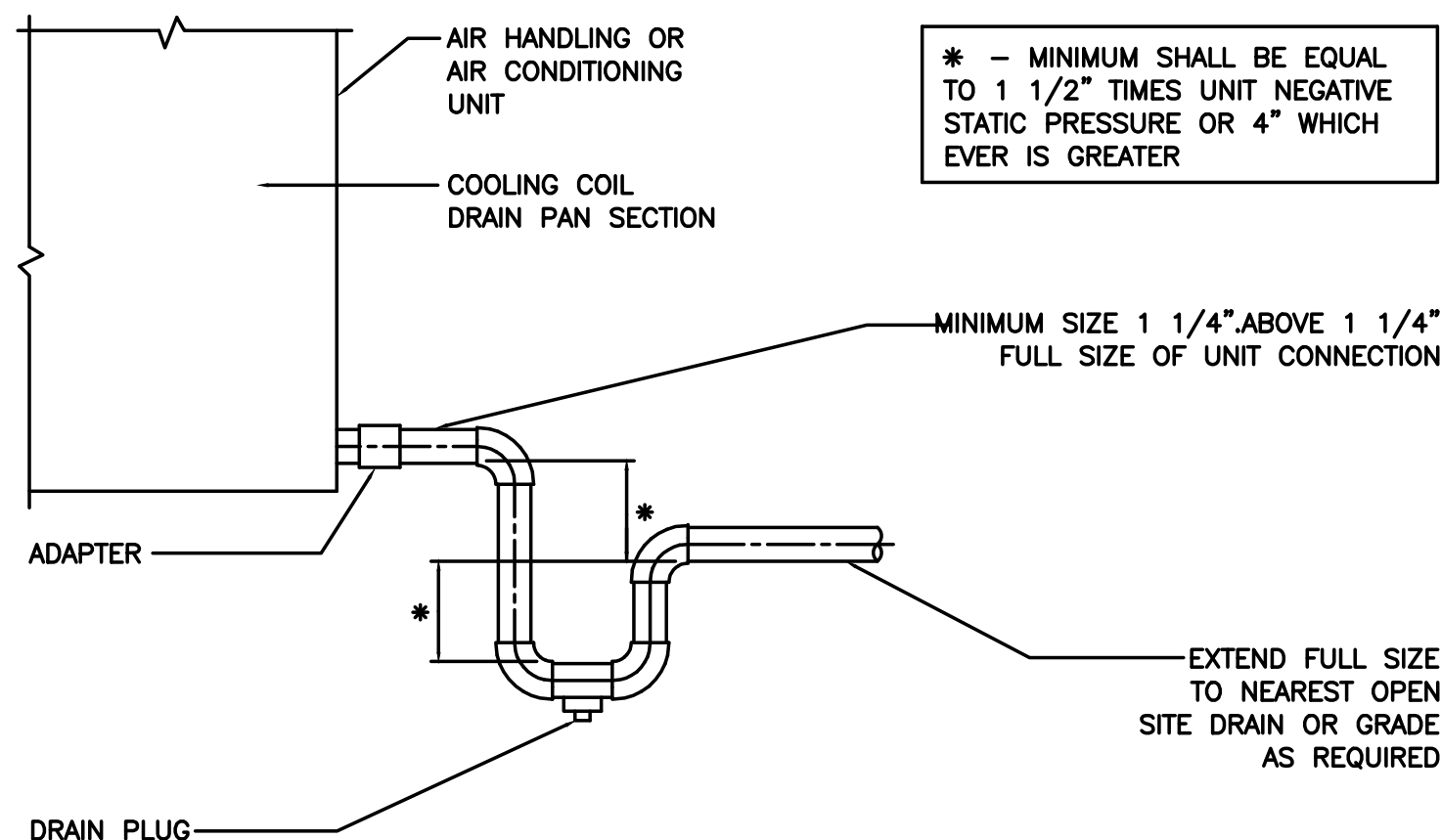
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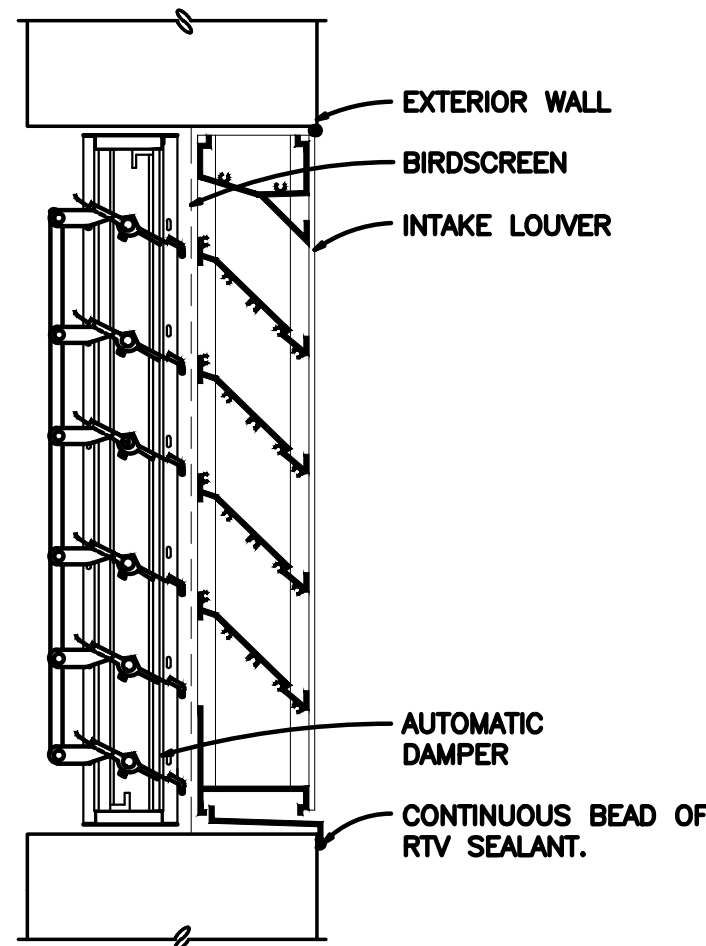
1
M4.0
DETAIL - CONTOURED TEE TAP BRANCH DUCT
TAKE-OFF
NO SCALE



3
M4.0
ELEVATION
DETAIL - INLINE EXHUST FAN



2
M4.0
DETAIL - CONDENSATE DRAIN



4
M-4.0
LOUVER MOUNTING DETAIL
SCALE: NTS

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**MECHANICAL
DETAIL
SHEET**






































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PLUMBING ABBREVIATIONS

ACD	ACCESS DOOR	INV	INVERT
A	AIR	IWH	INSTANTANEOUS WATER HEATER
ACL	ABOVE CEILING LEVEL	JP	JOCKEY PUMP
AD	AREA DRAIN (EXPOSED TO RAIN)	2KS	KITCHEN SINK (2 COMPARTMENT)
AFF	ABOVE FINISHED FLOOR	KS OR K	KITCHEN SINK
AFR	ABOVE FIXTURE RIM	LAV OR L	LAVATORY
ARL	ABOVE ROOF LEVEL	LP	LOW PRESSURE
BCL	BELOW CEILING LEVEL	LS	LEVEL SENSOR
BCT	BELOW COUNTER TOP	LWM	LAUNDRY WASHER MACHINE
BFL	BELOW FLOOR LEVEL	M	METER
BFP	BACKFLOW PREVENTER	MECH	MECHANICAL
BLJ	BELOW JOISTS	MH	MANHOLE
BP	BOOSTER PUMP	MP	MEDIUM PRESSURE
BJW	BETWEEN JOISTS	MR	MOP RECEPTOR
BLR	BOILER (STEAM ONLY)	MV	MIXING VALVE
BMW	BACKWATER VALVE	N	NORTH
C OR COND	CONDENSATE	NG	NATURAL GAS
CD	CONDENSATE DRAIN	O	OXYGEN
CF	CHEMICAL FEED	O/H	OVERHEAD
CHWS/R	CHILLED WATER SUPPLY/RETURN	OVF	OVERFLOW
CP	CIRCULATOR PUMP	PI	PRESSURE INDICATOR
CS	CLINIC SINK	PRV	PRESSURE REDUCING VALVE
DOW/HW	DOMESTIC COLD WATER/HOT WATER (POTABLE)	PW	PURE WATER
DHWS/R	DOMESTIC HOT WATER SUPPLY/RETURN	RD	ROOF DRAIN
DD	DECK DRAIN	RH	RADIANT HEATER
DF	DRINKING FOUNTAIN	RM	ROOM
DFU	DRAIN FIXTURE UNIT	RO	REVERSE OSMOSIS
DP	DUPLEX PUMP	RTC	RUNNING TRAP WITH CLEANOUT
DR	DOOR	RV	RELIEF VALVE
DSTP	DRY STANDPIPE	RWC	RAIN WATER CONDUCTOR
DV	DRY VENT	S	SOUTH OR STEAM
DVC	DRY VENT CONNECTION (ABOVE FIXTURE RIM LEVEL)	SAN	SANITARY/WASTE
DWH	DOMESTIC WATER HEATER (POTABLE)	SF	SQUARE FOOT
DWM	DISH WASHER MACHINE	SFU	SUPPLY FIXTURE UNIT
E	EAST	SH OR S	SHOWER
(E)	EXISTING	SLV	SOLENOID VALVE
EL	ELEVATION (STRUCTURAL HEIGHT)	SP	SUMP PUMP OR SEWAGE PUMP
EW	EYE WASH	SS	SERVICE SINK OR LAUNDRY SINK OR STAINLESS STEEL
EW C	ELECTRIC WATER COOLER	ST	STORM WATER
EXP	EXPANSION TANK	STK	STACK
FAI	FRESH AIR INTAKE	STM	STEAM
FCO	FLOOR CLEANOUT	SV	SAFETY VALVE
FCW	FILTERED COLD WATER	TD	TRENCH DRAIN OR THERMO DYNAMIC
FD	FLOOR DRAIN (NOT EXPOSED TO RAIN)	TEA	THERMAL EXPANSION ABSORBER
FHC	FIRE HOSE CONNECTION	TI	TEMPERATURE INDICATOR
FND	FUNNEL DRAIN	TP	TRAP PRIMER
FP	FIRE PUMP	TS	TEMPERATURE SENSOR
FS	FLOOR SINK	T	TUB OR TRAP
FW	FIRE WATER	U/G	UNDERGROUND
FWG	FOOD WASTE GRINDER	UR	URINAL
FT	FLOAT & THERMOSTATIC	V	VACUUM
FU	FIXTURE UNIT	VB	VACUUM BREAKER
GHC	GARDEN HOSE CONNECTION	VBD	VALVE BOX AND DRAIN
GI	GREASE INTERCEPTOR	VR	VENT RISER (DRY VENT)
GD	GUTTER DRAIN	VST	VENT STACK
GWM	GLASS WASHER MACHINE	VT	VENT
HCO	HORIZONTAL CLEANOUT	VTR	VENT THROUGH ROOF
HI	HAIR INTERCEPTOR	W	WEST
HP	HIGH PRESSURE	WBP	WATER BOOSTER PUMP
HS	HAND SINK	WC OR W	WATER CLOSET
HWG	HOT WATER GENERATOR (HYDRONIC SYSTEM)	WCO	WALL CLEANOUT
HWS/R	HOT WATER SUPPLY/RETURN (HYDRONIC SYSTEM)	WHA	WATER HAMMER ARRESTOR
IB	INVERTED BUCKET	WP	WHIRLPOOL
IPS	IRON PIPE SIZE	WTSP	WET STANDPIPE
IKS	ISLAND KITCHEN SINK	YV	YOKE VENT
IW	INDIRECT WASTE	YVR	YOKE VENT RISER
		ZV	ZONE VALVE

PLUMBING LEGEND

	BUTTERFLY VALVE
	ANGLE GLOBE VALVE
	SAFETY OR RELIEF VALVE
	GATE VALVE OR VALVE IN GENERAL
	BALL VALVE
	GLOBE VALVE
	BALANCING VALVE
	PRESSURE REDUCING VALVE (SPRING LOADED)
	PRESSURE REDUCING VALVE (PILOT TYPE)
	FLOOR/DECK OR AREA DRAIN
	FUNNEL DRAIN
	ROOF DRAIN
	90 DEG. ELBOW FAR FLOW
	90 DEG. ELBOW NEAR FLOW
	TEE NEAR FLOW
	TEE FAR FLOW
	PLUG VALVE
	BACKFLOW PREVENTER
	GARDEN HOSE/WASHDOWN OR FIRE DEP. HOSE CONNECTION
	COLD WATER
	DOMESTIC HOT WATER
	140°F DOMESTIC HOT WATER
	SANITARY SEWER - UNDER GROUND/SLAB/FLOOR
	STORM WATER
	VENT PIPING
	FIRE PROTECTION PIPE
	GAS PIPE
	PIPE CLEANOUT (HORIZONTAL OR WALL)
	PIPE CLEANOUT (GRADE OR FLOOR)
	FUNNEL DRAIN
	REDUCER
	FLOOR DRAIN, AREA DRAIN OR FLOOR SINK
	TEMPERATURE INDICATOR
	PRESSURE INDICATOR
	VALVE BOX AND DRAIN
	KITCHEN SINK WITH DISHWASHER MACHINE
	TARGET POINTING TO CONNECTION BETWEEN EXISTING AND NEW OR TO THE EXTENT OF DEMOLITION

PLUMBING NOTES

- THE PRIORITY OF ILLUSTRATED PIPING ON PLANS IS TO SHOW CLEARLY THE SERVICE FROM ONE POINT TO ANOTHER WITH MINIMUM OR NO OBSTRUCTION BY THE BACKGROUND. PHYSICALLY THE PIPE RUNS ARE INSTALLED INSIDE WALLS, ABOVE CEILING OR WITHIN PIPE CHASES. ARCHITECT SHALL REVIEW AND APPROVE THE FINAL LOCATION OF PLUMBING COMPONENTS WHERE THEY AFFECT ARCHITECTURAL FINISHES.
- UNLESS THE INSTALLATION IS DIMENSIONED, DRAWINGS ARE DIAGRAMMATIC AND INDICATING THE GENERAL ARRANGEMENT OF PIPING NETWORK TO BE PERFORMED. ALL MINOR DETAILS ARE NOT SHOWN ON PLANS OR SPECIFIED, BUT NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF ALL SYSTEMS, SHALL BE PROVIDED BY THE CONTRACTOR WITH NO ADDITIONAL CHARGES TO THE OWNER.
- DOMESTIC WATER SERVICE TO FAUCETS OR EQUIPMENT (COLD AND HOT) SHALL BE 1/2" PIPE SIZE UNLESS NOTED OTHERWISE. ALL FIXTURES AND EQUIPMENT SHALL HAVE ONE FULL PORT AND PIPE SIZE SHUTOFF VALVE PER PIPE CONNECTION FOR MAINTENANCE PURPOSE. ALL DOMESTIC SERVICES SHALL BE INSULATED.
- PLUMBING CONTRACTOR SHALL CHECK AND VERIFY ALL MEASUREMENTS, ILLUSTRATED PIPING LOCATIONS AND AREAS AFFECTED BY STRUCTURAL, MECHANICAL AND ELECTRICAL CONDITIONS PRIOR TO PRECEDING WITH DEMOLITION AND/OR NEW WORK. ANY CONFLICT OR DISCREPANCY BETWEEN SUBMITTED DRAWINGS AND FIELD CONDITION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEERS WITHOUT DELAY.
- AVOID INSTALLING WATER SERVICE PIPE IN EXTERNAL WALL DUE TO FREEZING CONDITION. (ELECTRICAL HEAT TRACE FOR PIPING IS EXPENSIVE AND NOT RELIABLE, SHALL BE CONSIDERED ONLY AS A LAST RESOURCE.)
- INSULATION ON WATER PIPE DOES NOT PREVENT FREEZING, IT ONLY EXTENDS THE SOLIDIFICATION TIME. WHERE WATER SERVICE IS NEAR EXTERIOR WALL, PROVIDE STUDDED PARTITION FLUSH TO THE EXTERIOR WALL. APPLY INSULATION ON THE EXTERIOR WALL SIDE OF THE PARTITION WITH NO INSULATION ON THE ROOM SIDE.
- ALL SANITARY PIPING LAID BELOW SURFACE OF FREEZING TEMPERATURE SHALL HAVE MINIMUM 3'-0" COVER.

PLUMBING SHEET NOTES:

- EXISTING DOMESTIC WATER METER AND BACKFLOW PREVENTER AS REQUIRED BY LOCAL WATER COMPANY. CONNECT NEW WATER LINE TO EXISTING METER
- PROVIDE TRAP GUARDS AS MANUFACTURED BY PROVENT FOR ALL FLOOR DRAINS, UNLESS NOTED OTHERWISE.
- NEW DOMESTIC WATER LINE TO MAIN, FOR CONTINUATION AND EXACT LOCATION SEE ENGINEER SITE PLAN. MAINTAIN A MINIMUM OF 3'-0" COVER.
- AIR INTAKE AND VENT FROM WATER HEATER, UP THRU FLOORS AND ROOF WITH FACTORY SUPPLIED TERMINATION KIT, MAXIMUM LENTGH AND MINIMUM SIZE PER MANUFACTURES REQUIREMENTS.
- NEW 4" SANITARY LATERAL, FOR CONTINUATION AND EXACT LOCATION, SEE ENGINEER SITE PLAN. MAINTAIN A MINIMUM OF 3'-0" COVER.
- EXISTING GAS METER PER PSE&G REQUIREMENTS. ALL GAS PIPING PER PSE&G AND NFGC REQUIREMENTS. CONNECT NEW GAS LINE TO EXISTING METER.
- GAS LINE TO GAS FIRED EQUIPMENT WITH 6" SEDIMENT LEG AND GAS SHUT OFF VALVE. GAS LINE SIZE AS SHOWN ON PLAN.
- NEW GAS SERVICE, CONNECT TO MAIN, FOR CONTIUNATION AND EXACT LOCATION SEE ENGINEER SITE PLAN. MAINTAIN A MINIMUM OF 3'-0" COVER.
- ¾"CW LINE DOWN TO WALL HYDRANT WITH SHUT-OFF VALVE.

PLUMBING FIXTURE CONNECTION SCHEDULE

FIXTURE TYPE	ABBREV	FIX. UNIT VALUE	CONNECTION SIZES			REMARKS
			(TRAP) SAN	VENT	HW	CW
WATER CLOSET	WC	4	3	2	-	1/2
LAVATORY	LAV	2	1-1/2	1-1/4	1/2	1/2
FLOOR DRAIN	FD	2	3	2	-	-
INDIRECT WASTE	IDW	5	3	2	-	-
URINAL	UR	4	3	2	-	1
ELECTRIC WATER COOLER	EW C	.5	1-1/2	1-1/4	-	1/2

GAS FIRED DOMESTIC WATER HEATER SCHEDULE

SYMBOL 

NO.	STORAGE CAPACITY GALLONS	RECOVERY AT 100°F GALLONS	GAS INPUT MBH	MANUFACTURE AND MODEL NUMBER	REMARKKS
1	40	96	50.0	BRADFORD WHITE LG2DV50H503N	①②③④⑤
① PROVIDE AIR INLET AND VENT, MAXIMUM SIZE AND MINIMUM LENGTH PER MANUFACTURES REQUIREMENTS.					
② PROVIDE P AND T RELIEF VALVE, PIPE TO FLOOR DRAIN					
③ WITH EXPANSION TANK, SEE DETAIL					
④ PROVIDE DRAIN PAN BELOW WATER HEATER, SEE DETAIL ON SHEET P-4.0					
⑤ PROVIDE A MINIMUM OF 4 FEET IN DEVELOPED LENGTH OF COPPER TUBING CONNECTIONS TO WATER HEATERS INLET AND OUTLET					

ELECTRIC DOMESTIC WATER HEATER SCHEDULE

SYMBOL 

NO.	STORAGE CAPACITY GALLONS	RECOVERY AT 90°F GALLONS	ELECTRIC HEATING CAPY. KW	MANUFACTURE AND MODEL NUMBER	REMARKKS
1	NA	NA	2.4	BRADFORD WHITE TEF024V120	①②③④
① WITH P AND T REIELF VALVE, PIPE DRAIN PAN					

- ② PROVIDE DRAIN PAN BELOW WATER HEATER, FACTORY SUPPLIED
- ③ PROVIDE A MINIMUM OF 4 FEET IN DEVELOPED LENGTH OF COPPER TUBING CONNECTIONS TO WATER HEATERS INLET AND OUTLET

PIPE SPECIFICATION

SYSTEM	MATERIAL	JOINTS	NOTES	INSULATION TYPE	INSULATION THICKNESS	NOTES
DOMESTIC WATER ABOVE GRADE	TYPE L COPPER	SOLDERED OR THREADED		RIGID FIBERGLASS	1"	PVC FITTING COVERS. EXPOSED PIPING 24 GAGE SS JACKETED INCLUDING FITTINGS.
WASTE, DRAIN & VENT BELOW GRADE	PVC	SOLVENT WELD				
WASTE & DRAIN ABOVE GRADE 2" AND SMALLER	PVC	SOLVENT WELD				
WASTE & DRAIN ABOVE GRADE 2½" AND LARGER	PVC	SOLVENT WELD				
DRY VENT PIPE 2" AND SMALLER ABOVE GRADE	PVC	SOLVENT WELD				
DRY VENT PIPE 2½" AND LARGER ABOVE GRADE	PVC	SOLVENT WELD				

BHG CONSULTING ENGINEERS, INC.

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SEALS:

RONALD HEIGLER, PE
NJ PROFESSIONAL ENGINEER No. GE 44485

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

PROJECT:

BOROUGH OF RUNNEMEDE
HARRY WILLIAMS BUILDING
NEW ENTRY AND BATHROOMS

2 BROADWAY
RUNNEMEDE, NEW JERSEY 08078
CAMDEN COUNTY, NEW JERSEY

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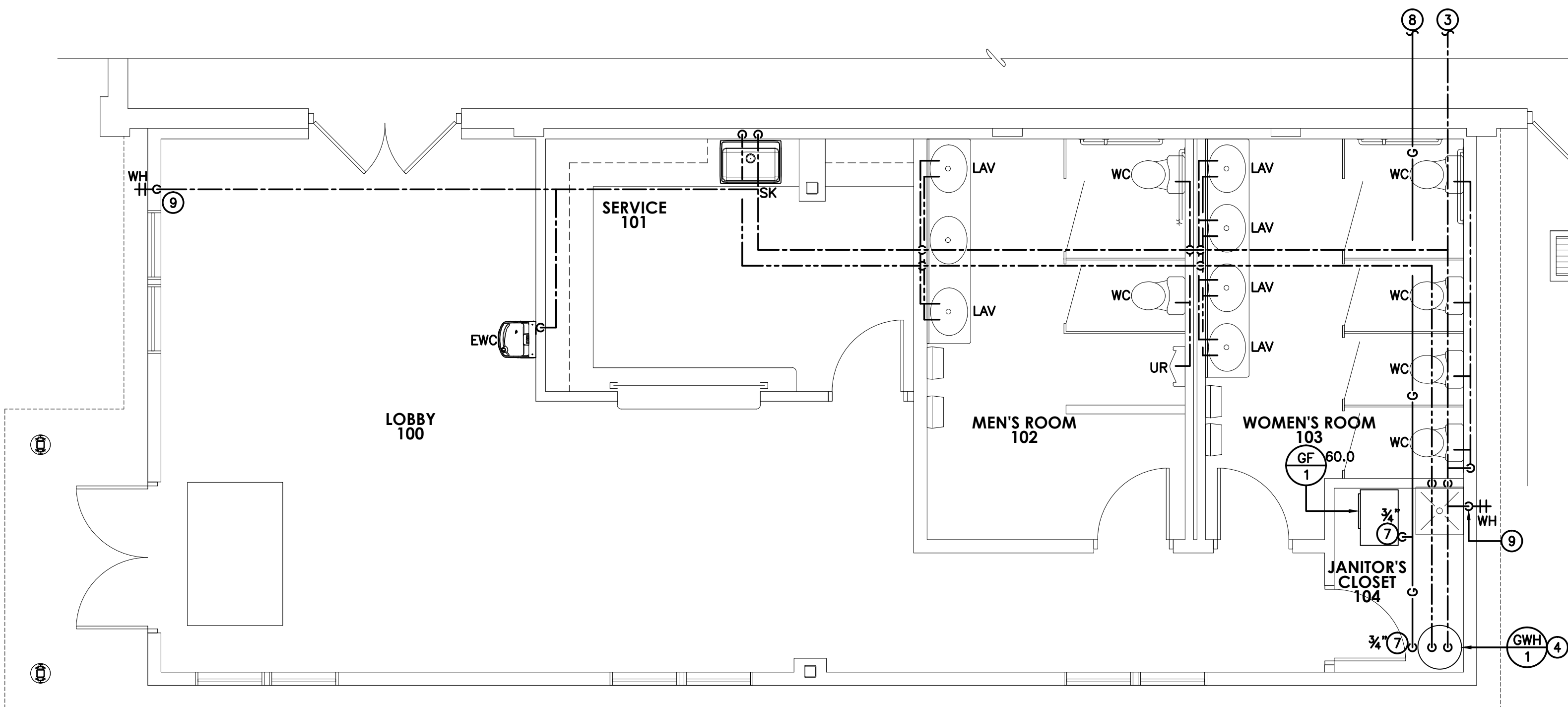
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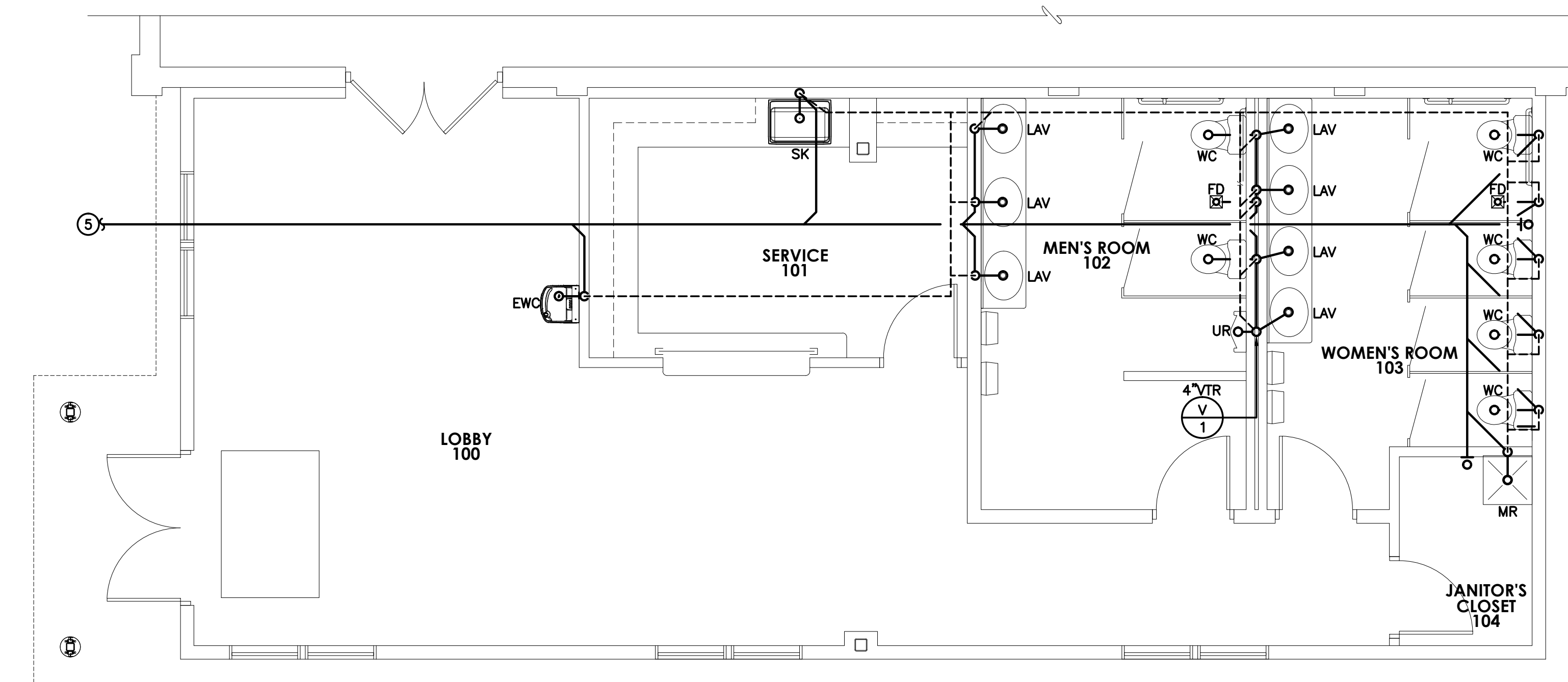
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P-1.0



1 PLUMBING FLOOR PLAN (WATER & GAS)
P-2.0 1/4"=1'-0"



2 PLUMBING FLOOR PLAN (WASTE & VENT)
P-2.0 1/4"=1'-0"

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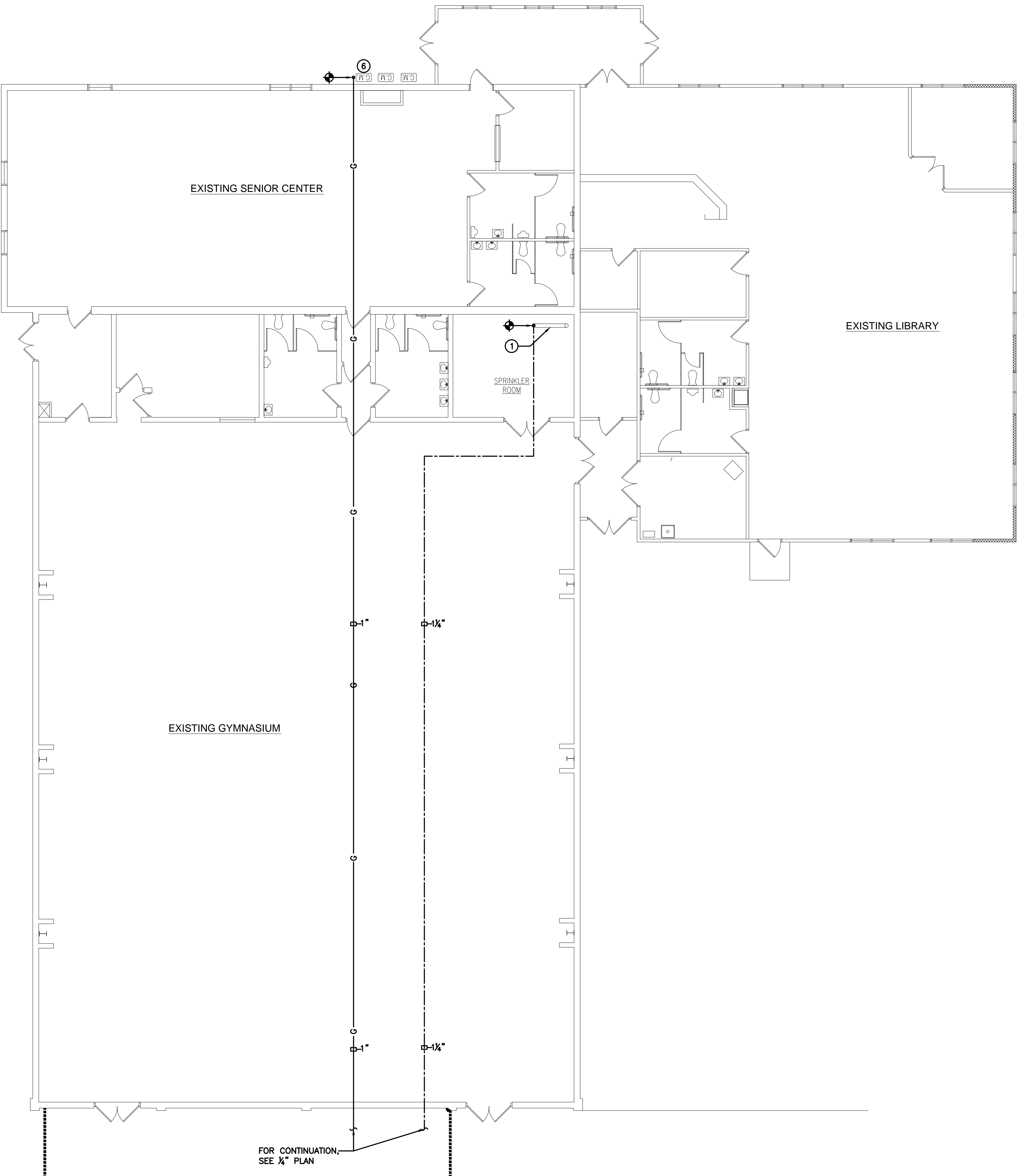
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FLOOR PLANS**

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1
P-2.1

PARTIAL OVERALL PLUMBING FLOOR PLAN

1/8"=1'-0"

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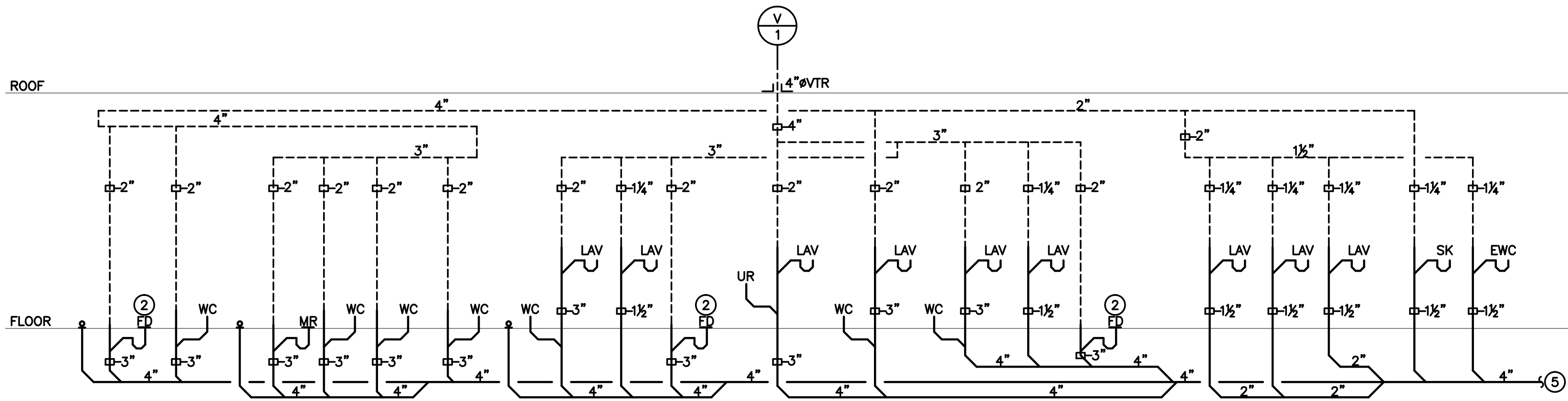
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OVERALL
FLOOR PLAN**

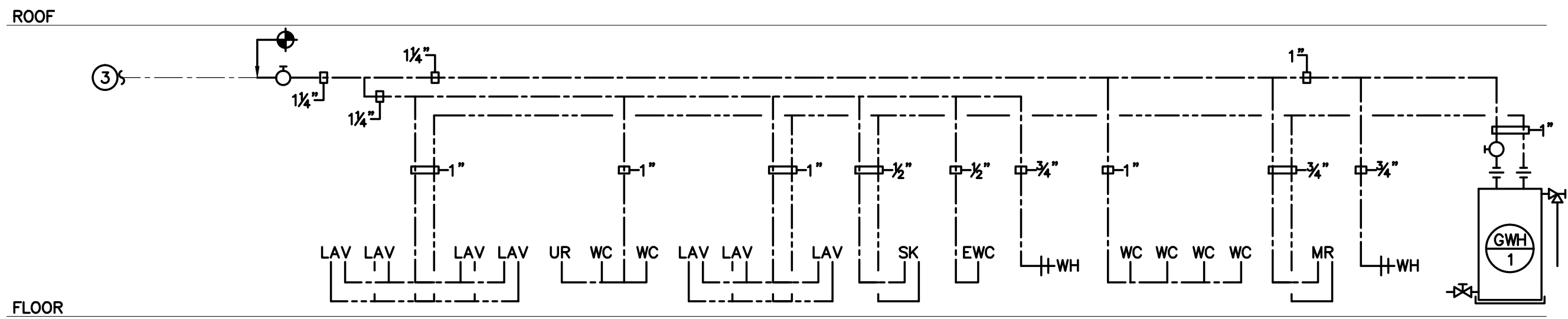
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1 SANITARY RISER DIAGRAM
1/4"=1'-0"



2 DOMESTIC WATER RISER DIAGRAM
1/4"=1'-0"

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**PLUMBING
RISER DIAGRAMS**

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P-3.0



P-4.0