



NOTE: IMAGE SHOWN IS CONCEPTUAL IN NATURE AND MAY NOT ACCURATELY DEPICT THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS.

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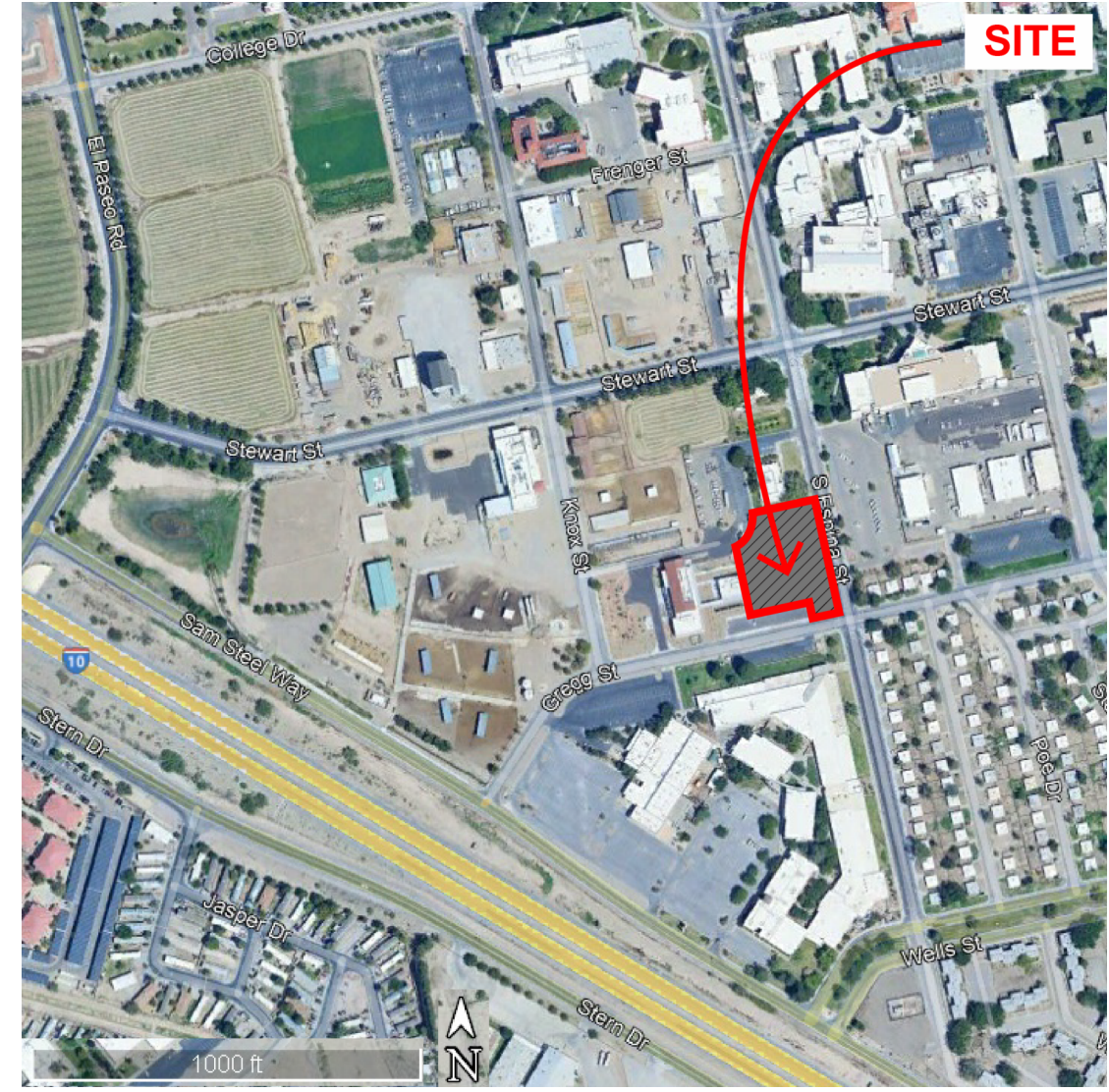
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VICINITY PLAN



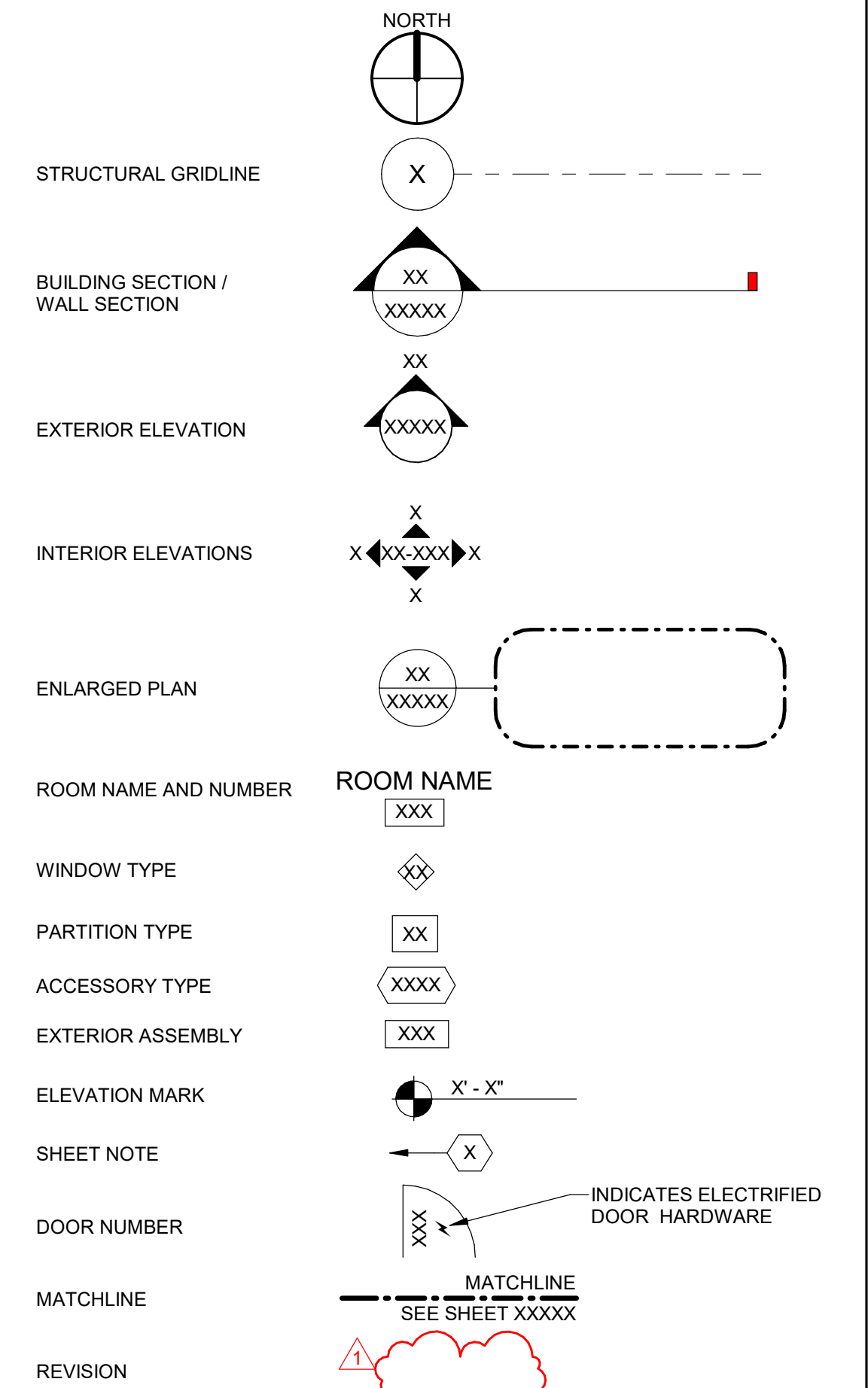
GENERAL NOTES

- A. REFER TO GI100 SERIES FOR CODE ANALYSIS.
B. REFER TO SHEET AS100 FOR SITE DATA.
C. PLYWOOD, NAILERS AND BLOCKING ARE TO BE FIRE-RETARDANT-TREATED.

PRODUCT IDENTIFIERS LEGEND

- NOTE: PRODUCT IDENTIFIERS APPEAR IN REFERENCE KEYNOTES AND SCHEDULES THROUGHOUT THE DRAWINGS (RE: IN-04), AND DIRECTLY CORRELATE TO PROJECT/MATERIAL SELECTIONS.
INSULATION
IN-XX TYPICALLY ANNOTATED IN REFERENCE KEYNOTES
GLAZING
GL-XX SEE GLAZING SCHEDULE IN AE680 SHEET SERIES
EXPANSION JOINTS
EJ-XX TYPICALLY ANNOTATED IN REFERENCE KEYNOTES
SEE INTERIOR FINISH SCHEDULE FOR IDENTIFIERS RELATED TO INTERIOR FINISH PRODUCTS AND MATERIALS.

GENERAL SYMBOLS LEGEND



DEKKER PERICH SABATINI
Architecture in Progress

NMSU NM DEPT OF AGRICULTURE OFFICE BUILDING
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50% CONSTRUCTION DOCUMENTS

Table with columns for REVISIONS, DRAWN BY, REVIEWED BY, DATE, and PROJECT NO.

DRAWING NAME
SYMBOLS AND ABBREVIATIONS

SHEET NO
GI000

<p>GENERAL SHEET NOTES</p> <p>A. SHOP DRAWINGS FOR AUTOMATIC SPRINKLER SYSTEM SHALL BE SUBMITTED TO FIRE MARSHAL'S OFFICE FOR REVIEW AND PERMITTING PRIOR TO INSTALLATION. B. SHOP DRAWINGS FOR FIRE ALARM AND DETECTION SYSTEM SHALL BE SUBMITTED TO FIRE MARSHAL'S OFFICE FOR REVIEW AND PERMITTING PRIOR TO INSTALLATION. C. LOCATIONS OF EXIT SIGNAGE AND EMERGENCY LIGHTING IS SUBJECT TO REVIEW BY FIRE MARSHAL AND CODE OFFICIAL PRIOR TO INSTALLATION. D. EXIT SIGNS WITH BATTERY BACK-UP ARE INDICATED ON ELECTRICAL SHEETS. E. EMERGENCY LIGHTING IS INDICATED ON ELECTRICAL SHEETS.</p> <p>APPLICABLE CODES</p> <p>2021 INTERNATIONAL BUILDING CODE (IBC) 2021 INTERNATIONAL FIRE CODE (IFC) 2021 UNIFORM MECHANICAL CODE (UMC) 2021 UNIFORM PLUMBING CODE (UPC) 2020 NATIONAL ELECTRICAL CODE (NEC) 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) 2017 ICC/ANSI A117.1, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES</p> <p>ALL REFERENCED CODES SUBJECT TO LOCAL AND STATE AMENDMENTS</p> <p>FIRE PROTECTION SYSTEMS</p> <ul style="list-style-type: none"> BUILDING IS EQUIPPED WITH AUTOMATIC FIRE SPRINKLERS AS REQUIRED FOR 392 OCCUPANCIES (IBC 903.7???) BUILDING IS EQUIPPED WITH AN EMERGENCY VOICE AND COMMUNICATION FIRE ALARM SYSTEM AS REQUIRED FOR 7 OCCUPANCIES (IBC 907.7???) PORTABLE FIRE EXTINGUISHERS (IBC 906): <ul style="list-style-type: none"> LEVEL 1: 77/777/777 = 77/77/77 FIRE EXTINGUISHERS PROVIDED. 	<p>OCCUPANCY CLASSIFICATION</p> <p>OCCUPANCY GROUP: B BUSINESS</p> <p>MIXED USE AND OCCUPANCY (SECTION 508) BUILDING 1: SEPARATED OCCUPANCIES (SECTION 508.4) NO SEPARATION REQUIRED BETWEEN E AND A OCCUPANCIES PER TABLE 508.4</p> <p>INCIDENTAL ACCESSORY OCCUPANCIES (SECTION 509): LABS / SHOPS IN E OCCUPANCY SMOKE PARTITIONS PER 509.4.2</p> <p>TYPE OF CONSTRUCTION AND FIRE RESISTANCE RATINGS OF BUILDING ELEMENTS</p> <p>CONSTRUCTION CLASSIFICATION (SECTION 602.2): TYPE 2B</p> <p>FIRE RESISTANCE RATING FOR BUILDING ELEMENTS (TABLE 601)</p> <p>PRIMARY STRUCTURAL FRAME: 0-HRS BEARING WALLS: 0-HRS NONBEARING INTERIOR WALLS: 0-HRS FLOOR AND ROOF CONSTRUCTION: 0-HRS</p> <p>NORTH - SEPARATION DISTANCE >30' = 0-HRS SOUTH - SEPARATION DISTANCE >30' = 0-HRS EAST - SEPARATION DISTANCE >30' = 0-HRS WEST - SEPARATION DISTANCE >30' = 0-HRS</p> <p>FIRE-RESISTANCE RATING OF EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE (TABLE 602)</p>	<p>BUILDING HEIGHT AND AREA</p> <p>BUILDING 1: ALLOWABLE HEIGHT (IBC TABLE 504.3): 75 FT. ACTUAL BUILDING HEIGHT: 28 FT.</p> <p>ALLOWABLE NUMBER OF STORIES (IBC TABLE 504.4): 4 STORIES ACTUAL NUMBER OF STORIES: 1 STORY</p> <p>ALLOWABLE BUILDING AREA (IBC 508.4.2): 92,000 SQ. FT. BUILDING AREA (IBC 508.2.4): 27,358 SQ. FT.</p>	<p>MEANS OF EGRESS</p> <p>OCCUPANT LOAD CALCULATED AT THE RATE OF 1 OCCUPANT PER UNIT OF AREA (IBC 1004.1.2): 392</p> <p>TOTAL OCCUPANT LOAD: 392</p> <p>EGRESS REQUIREMENTS:</p> <ol style="list-style-type: none"> MINIMUM NUMBER OF EXITS FOR A TOTAL OCCUPANT LOAD OF MORE THAN 1000 (TABLE 1006.3.1): ? TOTAL ALLOWABLE EXIT ACCESS LENGTH W/ SPRINKLER SYSTEM (IBC TABLE 1017.2): 777 FT REQUIRED FIRE RESISTANCE RATING OF CORRIDOR FOR E AND A OCCUPANCY WITH SPRINKLER SYSTEM (TABLE 1020.1): ? HOURS MINIMUM EXIT WIDTH FOR BUILDINGS EQUIPPED WITH EMERGENCY VOICE AND COMMUNICATION (EVAC) FIRE ALARM SYSTEM: <ul style="list-style-type: none"> STAIRS: 0.7 INCHES / OCCUPANT (IBC 1005.3.1, EXC. 1) DOORS: 0.7 INCHES / OCCUPANT (IBC 1005.3.2, EXC. 1) <p>ENERGY CONSERVATION IECC 21</p> <p>DONA ANA COUNTY, CITY OF LAS CRUCES, NM CLIMATE ZONE: 3B</p> <p>INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT</p> <table border="1"> <tr> <th>REQUIRED</th> <th>PROVIDED</th> </tr> <tr> <td>ROOF: COMPLETELY ABOVE DECK</td> <td>R-25 cl</td> </tr> <tr> <td>METAL FRAMED</td> <td>R-13 + 7.5 cl</td> </tr> <tr> <td>NON-HEATED SLAB</td> <td>NR</td> </tr> <tr> <td>DOOR: NON-WOOD</td> <td>U-0.39</td> </tr> <tr> <td>FENESTRATION: FIXED</td> <td>U-0.42</td> </tr> <tr> <td>FENESTRATION: OPERABLE</td> <td>U-0.43</td> </tr> <tr> <td>ENTRANCE DOOR</td> <td>U-0.68</td> </tr> <tr> <td>SHGC: PF.0.2 (SEW/N)</td> <td>U-0.30</td> </tr> </table>	REQUIRED	PROVIDED	ROOF: COMPLETELY ABOVE DECK	R-25 cl	METAL FRAMED	R-13 + 7.5 cl	NON-HEATED SLAB	NR	DOOR: NON-WOOD	U-0.39	FENESTRATION: FIXED	U-0.42	FENESTRATION: OPERABLE	U-0.43	ENTRANCE DOOR	U-0.68	SHGC: PF.0.2 (SEW/N)	U-0.30	<p>PLUMBING FIXTURES</p> <table border="1"> <tr> <th colspan="2">OCC: ASSEMBLY - A-3</th> <th colspan="2">OCCUPANTS: 239</th> <th colspan="2">(120 M 120 F)</th> </tr> <tr> <td>WATER CLOSET</td> <td></td> <td>LAVATORIES</td> <td></td> <td>BATH/SHWR</td> <td></td> </tr> <tr> <td>MALE</td> <td>1</td> <td>MALE</td> <td>1</td> <td>DRINKING FOUNTAINS</td> <td>1</td> </tr> <tr> <td>FEMALE</td> <td>2</td> <td>FEMALE</td> <td>1</td> <td>OTHER</td> <td>1 Service Sink</td> </tr> <tr> <td>REQUIRED:</td> <td></td> <td>REQUIRED:</td> <td></td> <td>PROVIDED:</td> <td></td> </tr> </table> <p>*WHERE TOTAL COMBINED WATER CLOSETS IS 6 OR MORE, A FAMILY/ASSISTED USE RESTROOM IS REQUIRED. REQUIRED FAMILY/ASSISTED USE RESTROOM CAN BE COUNTED AS A REQUIRED FIXTURE FOR MALE/FEMALE.</p> <p>*OCCUPANT LOAD USED TO DETERMINE PLUMBING FIXTURE QUANTITY REQUIREMENTS FOR THE E (EDUCATION) OCCUPANCY PORTION OF THE BUILDING EXCLUDE SPACES THAT ARE FOR USE BY THE BUILDING OCCUPANTS ONLY SUCH AS LOBBY/OPEN SEATING, STAFF LOUNGE AND WORKROOM AND LIBRARY. *FIXTURES IN THE EDUCATION WING ARE ACCESSIBLE TO THE ASSEMBLY WING DURING EVENTS. PLUMBING FIXTURES PROVIDED ARE THE GREATER OF THE 2 OCCUPANCIES REQUIRED NUMBER.</p> <table border="1"> <tr> <th colspan="2">OCC: BUSINESS - B</th> <th colspan="2">OCCUPANTS: 153</th> <th colspan="2">(77 M 77 F)</th> </tr> <tr> <td>WATER CLOSET</td> <td></td> <td>LAVATORIES</td> <td></td> <td>BATH/SHWR</td> <td></td> </tr> <tr> <td>MALE</td> <td>3</td> <td>MALE</td> <td>2</td> <td>DRINKING FOUNTAINS</td> <td>2</td> </tr> <tr> <td>FEMALE</td> <td>3</td> <td>FEMALE</td> <td>2</td> <td>OTHER</td> <td>1 Service Sink</td> </tr> <tr> <td>REQUIRED:</td> <td></td> <td>REQUIRED:</td> <td></td> <td>PROVIDED:</td> <td></td> </tr> </table>	OCC: ASSEMBLY - A-3		OCCUPANTS: 239		(120 M 120 F)		WATER CLOSET		LAVATORIES		BATH/SHWR		MALE	1	MALE	1	DRINKING FOUNTAINS	1	FEMALE	2	FEMALE	1	OTHER	1 Service Sink	REQUIRED:		REQUIRED:		PROVIDED:		OCC: BUSINESS - B		OCCUPANTS: 153		(77 M 77 F)		WATER CLOSET		LAVATORIES		BATH/SHWR		MALE	3	MALE	2	DRINKING FOUNTAINS	2	FEMALE	3	FEMALE	2	OTHER	1 Service Sink	REQUIRED:		REQUIRED:		PROVIDED:		<p>SHEET LEGEND</p> <table border="1"> <tr> <th>NAME</th> <th>ROOM NAME</th> <th>AREA OF ROOM / OCCUPANT LOAD FACTOR</th> <th>OCCUPANT LOAD OF ROOM</th> </tr> <tr> <td>77/777</td> <td>77/777</td> <td>77/777</td> <td>77/777</td> </tr> <tr> <td>XXX MAX</td> <td>XXX ACTUAL</td> <td>XXX ACTUAL</td> <td>XXX ACTUAL</td> </tr> <tr> <td>XX.X'</td> <td></td> <td></td> <td></td> </tr> </table> <p>MAXIMUM OCCUPANT LOAD FOR DOOR ACTUAL OCCUPANT LOAD FOR DOOR WIDTH OF DOOR (IN INCHES)</p> <p>DIRECTION OF TRAVEL NUMBER OF OCCUPANTS</p> <p>FEC FIRE EXTINGUISHER CABINET</p> <p>FEK FIRE EXTINGUISHER IN ALUX AND MAIN GYM TO BE SURFACE MOUNTED, 5 LB UNITS FIRE EXTINGUISHER: K TYPE IN CABINET</p> <p>1 HOUR RATED WALL ASSEMBLY 1 HOUR RATED WALL ASSEMBLY SMOKE BARRIER</p> <p>FIRE OR SMOKE RATED WALLS, BARRIERS, OR PARTITIONS WITH ACCESSIBLE IMMEDIATELY ADJACENT TO THEM SHALL BE IDENTIFIED AS REQUIRED.</p> <ul style="list-style-type: none"> 15 FEET FROM THE END OF EACH WALL AND EVERY 30 LINEAR FEET OF WALL LETTERS TO BE 2" IN HEIGHT WITH A 3/8" MINIMUM STROKE WORDING TO BE SIMILAR TO "FIRE BARRIER, PROTECT ALL OPENINGS AND PENETRATIONS" 	NAME	ROOM NAME	AREA OF ROOM / OCCUPANT LOAD FACTOR	OCCUPANT LOAD OF ROOM	77/777	77/777	77/777	77/777	XXX MAX	XXX ACTUAL	XXX ACTUAL	XXX ACTUAL	XX.X'			
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DEKKER PERICH SABATINI

Architecture in Progress

SEAL

PROJECT

NMSU NM DEPT OF AGRICULTURE OFFICE BUILDING

3910 SOUTH ESPINA STREET LAS CRUCES, NEW MEXICO 88003

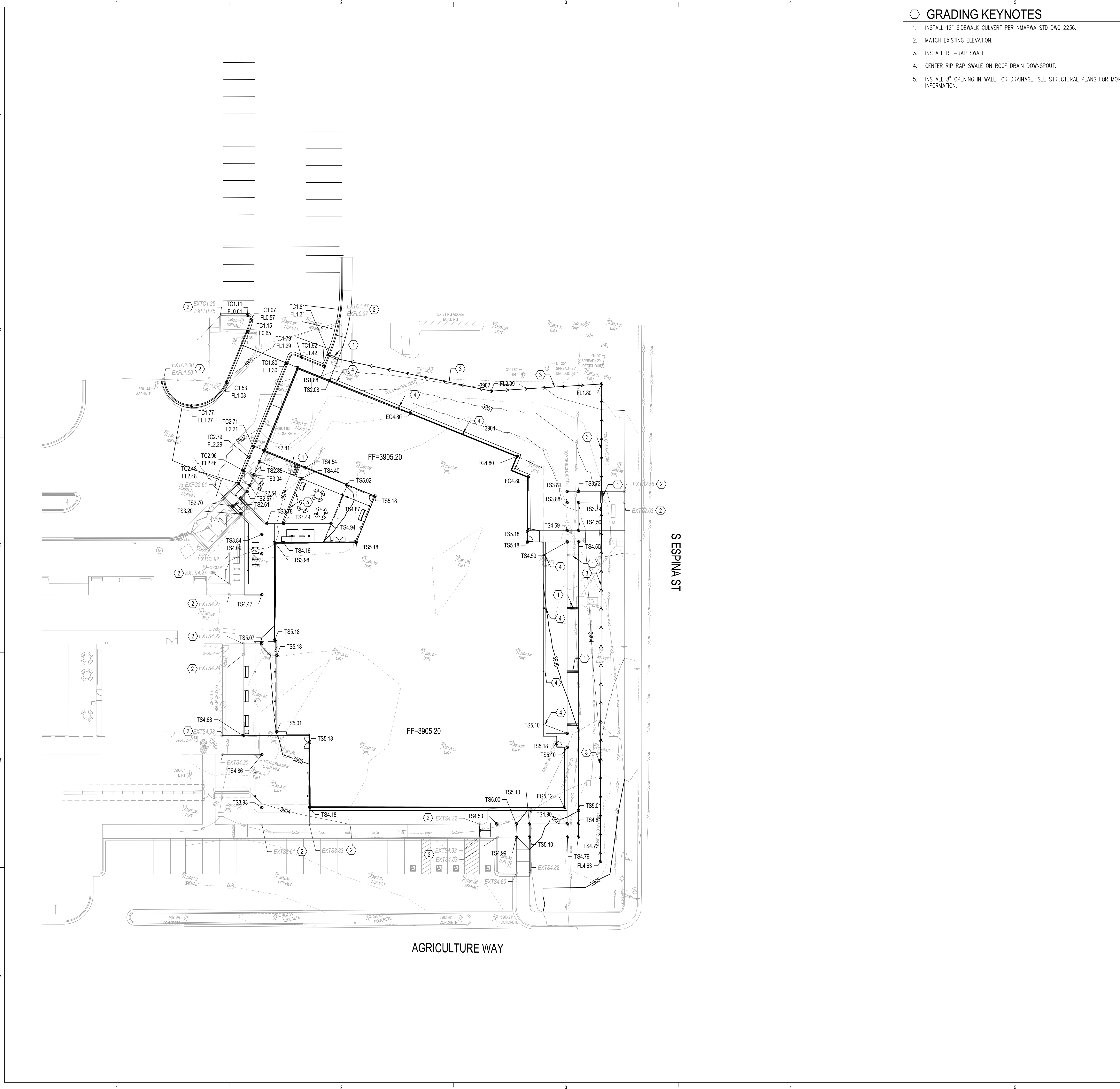
50% CONSTRUCTION DOCUMENTS

REVISIONS

DRAWN BY CS
 REVIEWED BY SL
 DATE 01/10/2024
 PROJECT NO 22-0227.001

DRAWING NAME
CODE ANALYSIS

SHEET NO
G1101



GRADING KEYNOTES

1. INSTALL 12" SIDEWALK CULVERT PER NMAPWA STD DWG 2236.
2. MATCH EXISTING ELEVATION.
3. INSTALL RIP-RAP SWALE
4. CENTER RIP-RAP SWALE ON ROOF DRAIN DOWNSPOUT.
5. INSTALL 8" OPENING IN WALL FOR DRAINAGE. SEE STRUCTURAL PLANS FOR MORE INFORMATION.

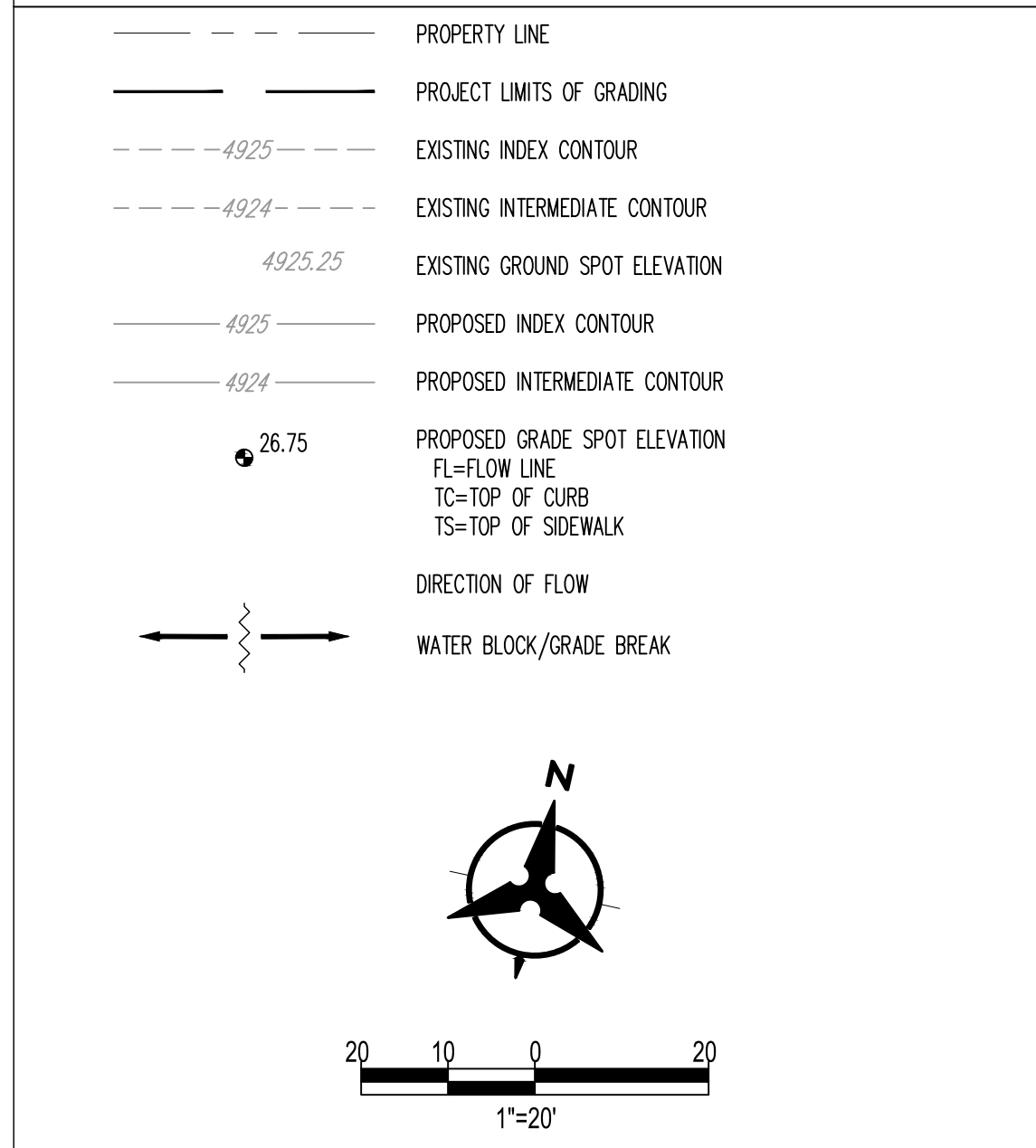
GRADING NOTES

- A. EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.
- B. THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST, AND INCLUDED IN THE BID.
- C. EARTH SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL UNLESS SHOWN OTHERWISE.
- D. IT IS THE INTENT OF THESE PLANS THAT THIS CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE OF THE PROPERTY BOUNDARIES EXCEPT AS REQUIRED BY THIS PLAN.
- E. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHT-OF-WAY.
- F. A DISPOSAL SITE FOR ANY & ALL EXCESS EXCAVATION MATERIAL, AND UNSUITABLE MATERIAL AND/OR A BORROW SITE CONTAINING ACCEPTABLE FILL MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS AND APPROVED BY THE INSPECTOR. ALL COSTS INCURRED IN OBTAINING A DISPOSAL OR BORROW SITE AND HAUL TO OR FROM SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.
- G. PAVING AND ROADWAY GRADES SHALL BE +/-0.1' FROM PLAN ELEVATIONS. PAD ELEVATION SHALL BE +/-0.05' FROM BUILDING PLAN ELEVATION.
- H. ALL PROPOSED CONTOURS REFLECT TOP OF PAVEMENT ELEVATIONS IN THE PARKING AREA AND MUST BE ADJUSTED FOR MEDIANS AND ISLANDS.
- I. VERIFY ALL ELEVATIONS SHOWN ON PLAN FROM BASIS OF ELEVATION CONTROL STATION PRIOR TO BEGINNING CONSTRUCTION.
- J. THE CONTRACTOR SHALL PROVIDE AS-BUILT SURVEY DATA TO ENSURE COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. THE SURVEY SHALL BE PERFORMED BY A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF NEW MEXICO. THE AS-BUILT DRAWING SHALL BE CERTIFIED BY THE SURVEYOR OF RECORD.
- K. SIDEWALKS ARE TO BE INSTALLED AT A MINIMUM CROSS SLOPE OF 1% AND A MAXIMUM OF 2%.

GENERAL NOTES

- A. ALL WORK DETAILED ON THESE PLANS AND PERFORMED UNDER THIS CONTRACT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THE PROJECT GEOTECHNICAL REPORT, WHERE APPLICABLE, CITY OF LAS CRUCES STANDARD SPECIFICATIONS SHALL APPLY.
- B. THE CONTRACTOR SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING EPA REQUIREMENTS WITH RESPECT TO STORM WATER DISCHARGE.
- C. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL POTENTIAL OBSTRUCTIONS INCLUDING ALL UNDERGROUND UTILITIES. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION OBSERVER OR ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- D. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT LINE LOCATING SERVICE FOR LOCATION OF EXISTING UTILITIES.
- E. ALL ELECTRICAL, TELEPHONE, CABLE TV, GAS AND OTHER UTILITY LINES, CABLES, AND APPURTENANCES ENCOUNTERED DURING CONSTRUCTION THAT REQUIRE RELOCATION, SHALL BE COORDINATED WITH THAT UTILITY AND NMSU FACILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL NECESSARY UTILITY ADJUSTMENTS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DELAYS OR INCONVENIENCES CAUSED BY UTILITY COMPANY WORK CREWS. THE CONTRACTOR MAY BE REQUIRED TO RESCHEDULE HIS ACTIVITIES TO ALLOW UTILITY CREWS TO PERFORM THEIR REQUIRED WORK.
- F. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND APPROVED BY THE CONSTRUCTION OBSERVER.
- G. CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS. ANY DAMAGE TO ADJACENT PROPERTIES RESULTING FROM THE CONSTRUCTION PROCESS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- H. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS OR DESIGNATED TRAFFIC LANES. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT OR MATERIAL WITHIN THE PUBLIC RIGHT-OF-WAY.
- I. THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FOR THE PROJECT PRIOR TO COMMENCING CONSTRUCTION (I.E., BARRICADING, TOPSOIL DISTURBANCE, EXCAVATION PERMITS, EPA STORM WATER PERMITS, ETC.).
- J. ALL PROPERTY CORNERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ALL PROPERTY CORNERS MUST BE RESET BY A REGISTERED LAND SURVEYOR.
- K. CONTRACTOR TO VERIFY IF PROPOSED IMPROVEMENTS WITHIN ADJACENT STREETS REQUIRE TO MEET CITY OF LAS CRUCES STANDARDS. IF SO, THEN THE CONTRACTOR SHALL PREPARE A CONSTRUCTION TRAFFIC CONTROL AND SIGNING PLAN AND OBTAIN APPROVAL OF SUCH PLAN FROM THE CITY OF LAS CRUCES, PRIOR TO BEGINNING ANY CONSTRUCTION WORK ON OR ADJACENT TO EXISTING STREETS.
- L. ALL BARRICADES AND CONSTRUCTION SIGNING SHALL CONFORM TO APPLICABLE SECTIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), US DEPARTMENT OF TRANSPORTATION, LATEST EDITION.
- M. THE CONTRACTOR SHALL MAINTAIN ALL CONSTRUCTION BARRICADES AND SIGNING AT ALL TIMES. THE CONTRACTOR SHALL VERIFY THE PROPER LOCATION OF ALL BARRICADING AT THE END AND BEGINNING OF EACH DAY.
- N. THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO CONFORM WITH EPA REQUIREMENTS, INCLUDING COMPLIANCE WITH NPDES PHASE 2 REQUIREMENTS.
- O. THE CONTRACTOR SHALL PROVIDE 1 HARD COPY AND 1 ELECTRONIC COPY OF THE EPA STORM WATER POLLUTION PREVENTION PLAN TO THE CITY OF LAS CRUCES TWO WEEKS PRIOR TO THE START OF SITE DISTURBANCE.
- P. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH OWNER AND MUST MAINTAIN ACCESS TO ADJACENT AREAS THROUGHOUT THE DURATION OF CONSTRUCTION.

LEGEND



**DEKKER
PERICH
SABATINI**
Architecture
in Progress

PRELIMINARY
NOT FOR CONSTRUCTION

PROJECT

NMSU NMDA New Office Building
3190 S Espina St
Las Cruces, NM 88001

50%
CONSTRUCTION
DRAWINGS

REVISIONS
△
△
△
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△
△
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DRAWN BY NP
REVIEWED BY AP
DATE 04/25/2024
PROJECT NO. 22-0027

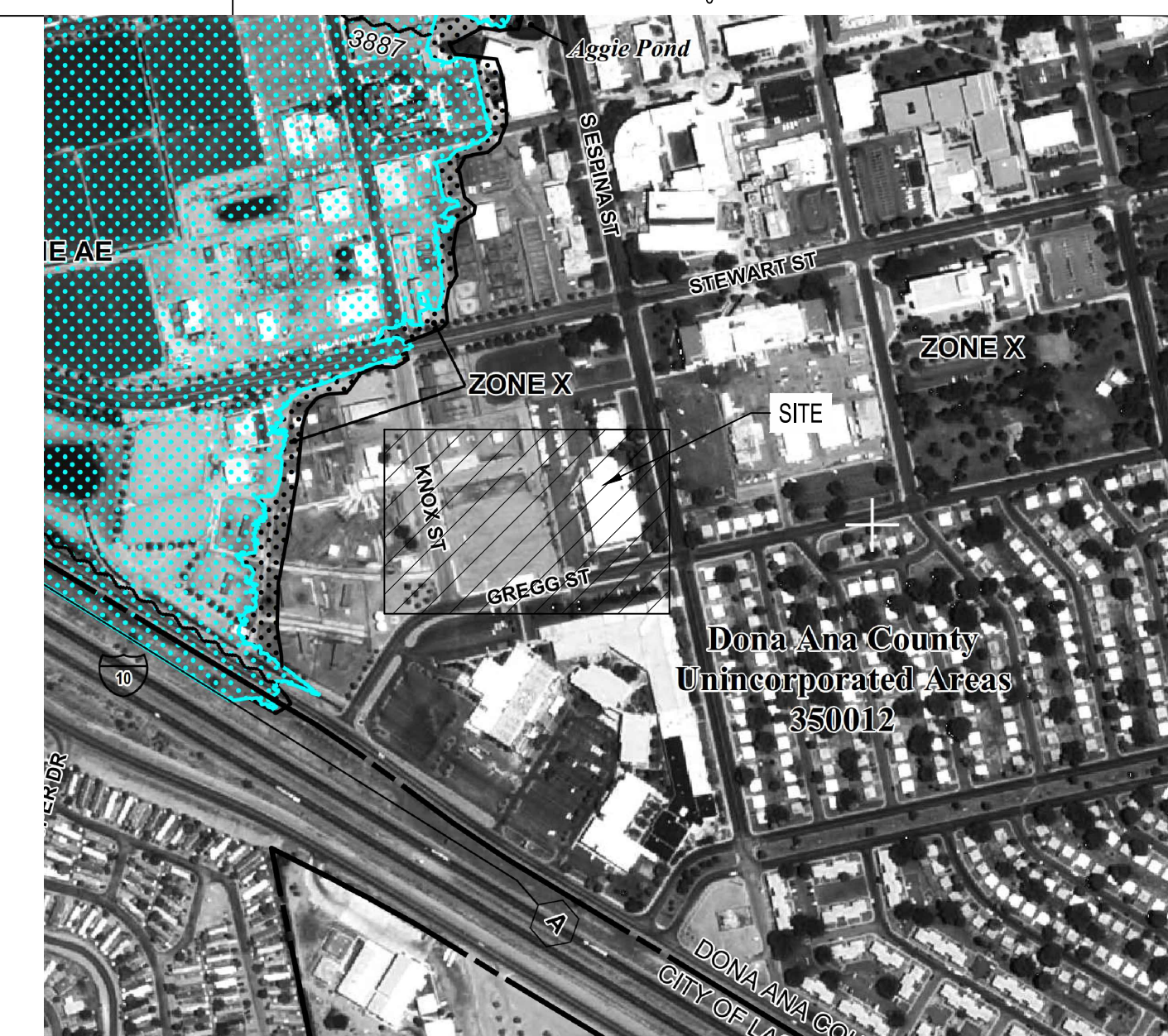
DRAWING NAME
GRADING
PLAN

SHEET NO.
C101

REVISIONS

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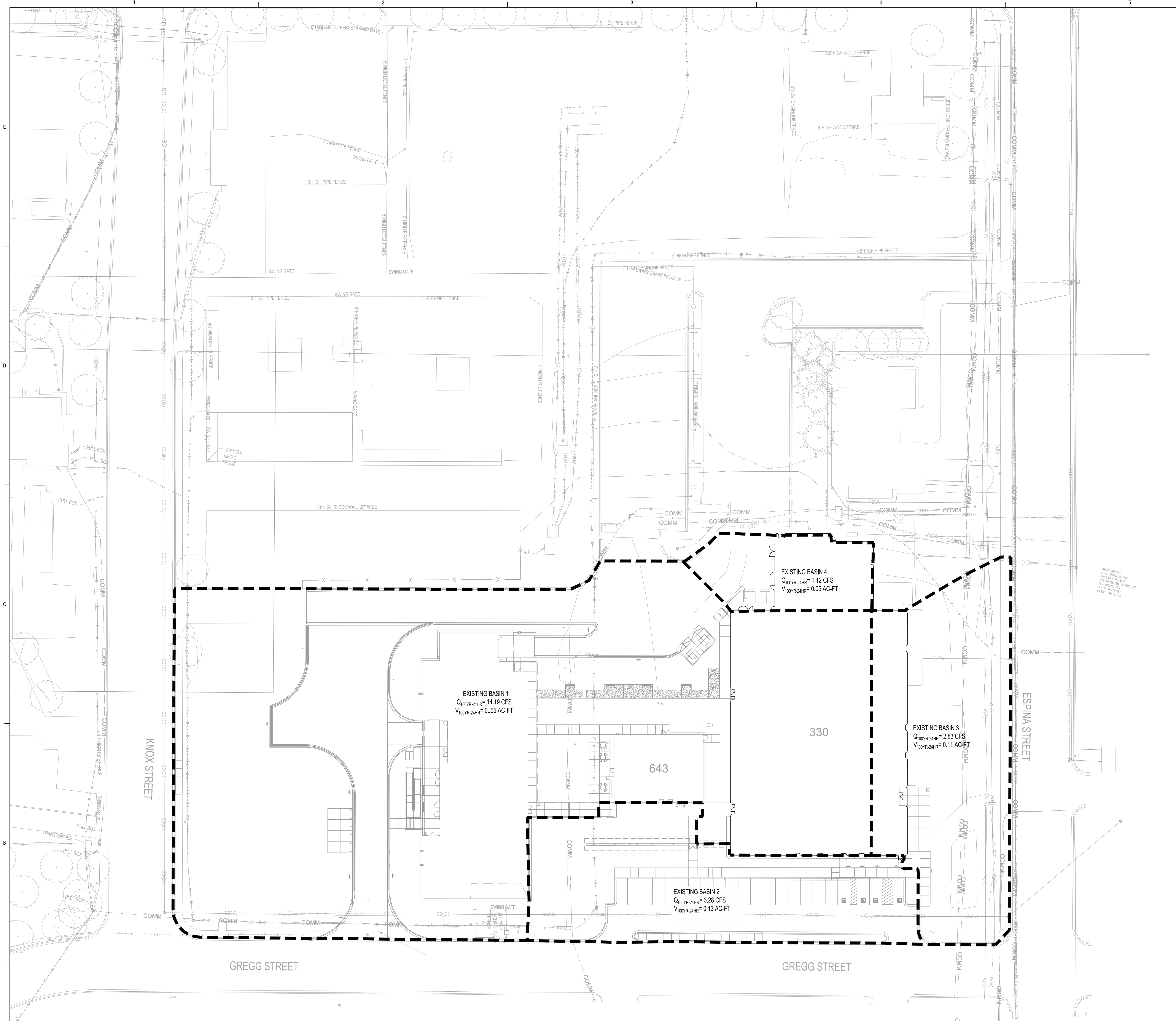
DRAWN BY: NP
 REVIEWED BY: AP
 DATE: 04/25/2024
 PROJECT NO.: 22-0027



FEMA MAP

LEGEND

- 5025 --- EXISTING MAJOR CONTOUR
- 5024 --- EXISTING MINOR CONTOUR
- MAJOR DRAINAGE BASIN
- SUB BASIN
- FLOW ARROW



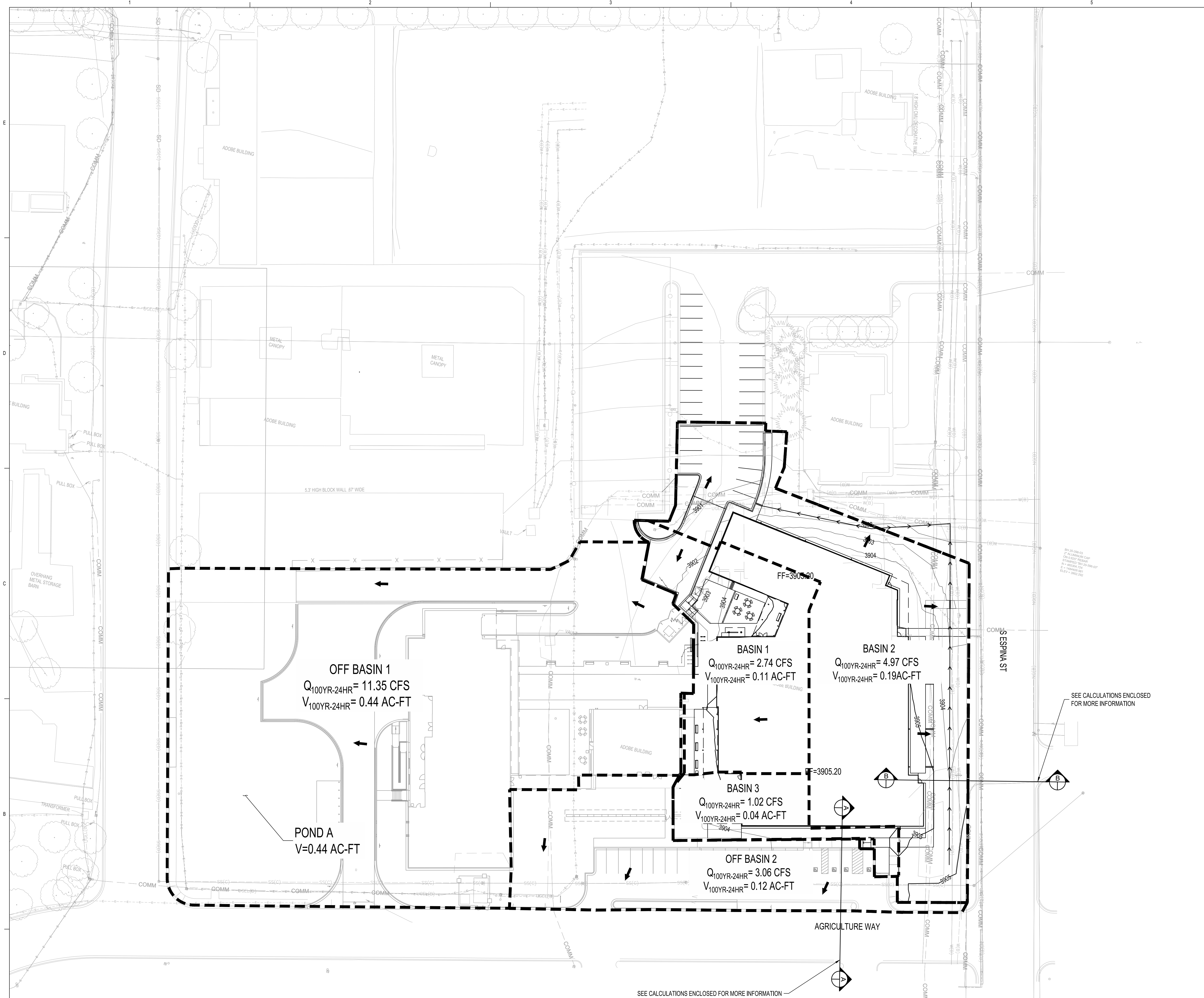
HISTORIC/PRE-DEVELOPED CONDITIONS

	Area (sq ft)	Area (ac)	Area (sq. mi.)	T _c (min)	SCS Curve Number	Percent Impervious	Q _{100yr} (24 HR) (cfs)	Q/Acre (cfs/acre)	Volume 100yr (24HR) (ac-ft)
EXISTING BASIN 1	78316	1.80	0.002809	6.0	63	0%	2.89	1.61	0.12
EXISTING BASIN 2	21303	0.49	0.000764	6.0	63	0%	0.79	1.62	0.03
EXISTING BASIN 3	23725	0.54	0.000851	6.0	63	0%	0.87	1.60	0.03
EXISTING BASIN 4	36813	0.85	0.001320	6.0	63	0%	1.36	1.61	0.05
TOTAL	160157	3.68	0.005745	6.0	63	0%	5.91	1.61	0.23

CURRENT EXISTING CONDITIONS

	Area (sq ft)	Area (ac)	Area (sq. mi.)	T _c (min)	SCS Curve Number	Percent Impervious	Q _{100yr} (24 HR) (cfs)	Q/Acre (cfs/acre)	Volume 100yr (24HR) (ac-ft)
EXISTING BASIN 1	108043	2.48	0.003876	6.0	77	50%	14.19	5.72	0.65
EXISTING BASIN 2	21995	0.50	0.000789	6.0	77	73%	3.28	6.50	0.13
EXISTING BASIN 3	23725	0.54	0.000851	6.0	77	30%	2.83	5.20	0.11
EXISTING BASIN 4	6438	0.15	0.000231	6.0	77	100%	1.12	7.58	0.05
TOTAL	160191	3.68	0.005746	6.0	77	100%	21.42	5.82	0.84

The information on this drawing was prepared by the design professional named below and is not to be used for any other project without the written consent of the design professional.



LEGEND

- 5025 --- EXISTING MAJOR CONTOUR
- 5024 --- EXISTING MINOR CONTOUR
- MAJOR DRAINAGE BASIN
- SUB BASIN
- FLOW ARROW

INTRODUCTION:
 THE PROPOSED NMDA BUILDING 330 IS LOCATED NEAR THE NORTHWEST CORNER OF AGRICULTURE WAY AND ESPINA STREET, JUST EAST OF THE EXISTING BUILDING 643 WITHIN THE NMSU CAMPUS. THE SITE WAS PREVIOUSLY DEVELOPED WITH AN EXISTING BUILDING BUT IT HAS RECENTLY BEEN DEMOLISHED FOR THIS PROPOSED DEVELOPMENT. THE MAJORITY OF THE PROPOSED IMPROVEMENTS ARE TO BE INSTALLED IN THE SAME LOCATION OF THE PRIOR BUILDING FOOTPRINT.

METHODOLOGY:
 THE METHODOLOGY SELECTED TO COMPUTE RUNOFF VOLUMES IS BASED ON THE NMSU URBAN DRAINAGE CRITERIA PROVIDED BY NMSU. RAINFALL VALUES WERE DETERMINED FROM THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) ATLAS 14. THE BASINS WERE ANALYZED FOR THE 100 YEAR - 24 HOUR STORM EVENT USING THE US ARMY CORPS OF ENGINEERS HYDROLOGIC ENGINEERING CENTER'S HYDROLOGIC MODELING SYSTEM (HEC-HMS, VERSION 4.1). SURFACE CHARACTERISTICS AFFECTING INITIAL ABSTRACTION AND INFILTRATION RATES ARE REPRESENTED BY CURVE NUMBERS AND WERE DETERMINED USING THE NATIONAL RESOURCES CONSERVATION SERVICE (NRCS) SOIL SURVEY DATABASE. CURVE NUMBERS FOR EACH DRAINAGE BASIN WERE ASSIGNED USING THE NRCS SOIL SURVEY GEOGRAPHIC DATABASE AND APPROPRIATE LAND TREATMENT TYPES AS ESTABLISHED IN THE NMDOT DRAINAGE MANUAL. FOR PURPOSE OF THIS ANALYSIS, TABLES 402-2 THROUGH 402-5 WERE UTILIZED.

EXISTING CONDITIONS:
 THE EXISTING SITE IN ITS CURRENT CONDITION CAN BE SEEN TO BE MADE UP OF FOUR DRAINAGE BASINS AS SHOWN ON THE EXISTING CONDITIONS BASIN SHEET. EX-BASIN 1, WHICH CONSISTS OF THE MAJORITY OF THE SITE, GENERALLY DRAINS FROM EAST TO WEST WHERE THE FLOWS GENERATED BY THIS PORTION OF THE SITE DRAIN INTO THE RETENTION POND AND THEN OVERFLOWS TO KNOX STREET. EX-BASIN 2 IS LOCATED DUE SOUTH OF THE 643 BUILDING AND SURFACE DRAINS TO THE SOUTH TO AGRICULTURE WAY. EX-BASIN 3, LOCATED ON THE EASTERN SIDE OF THE SITE SURFACE DRAINS TO THE EAST TO ESPINA STREET. EX-BASIN 4 IS LOCATED ON THE NORTH SIDE OF THE SITE AND DRAINS TO THE NORTH THROUGH THE EXISTING PARKING LOT AND THEN EAST TO ESPINA STREET.

IN TOTAL, IT CAN BE SEEN THAT THERE IS A TOTAL FLOW RATE 21.42 CFS FOR THE 100YR-24HR STORM EVENT AND 0.84 AC-FT OF VOLUME IN THE EXISTING CONDITIONS. EX-BASIN 1 HAS A VOLUME OF 0.55AC-FT DRAINING TO THE WEST, EX-BASIN 2 HAS 0.13 AC-FT DRAINING TO THE NORTH, EX-BASIN 3 HAS 0.11 AC-FT DRAINING TO THE SOUTH, AND EX-BASIN 4 HAS 0.05 AC-FT DRAINING TO THE NORTH.

HISTORIC CONDITIONS
 PER THE NMSU URBAN DRAINAGE CRITERIA SECTIONS II.A.III AND III.C.II.F, THE EXISTING CONDITIONS SHALL BE CALCULATED ASSUMING HISTORIC UNDEVELOPED FLOWS. BASED ON THE TOTAL AREA OF THE LIMITS OF 3.68 ACRES WITH AN SCS CURVE NUMBER OF 63 AND A 0% IMPERVIOUS AREA, THE TOTAL FLOW RATE IS APPROXIMATELY 5.91 CFS FOR THE 100-24HR STORM EVENT AND A TOTAL OF 0.23 AC-FT OF VOLUME OF RUNOFF FLOWING OFF THE SITE IN THE HISTORIC UNDEVELOPED CONDITION.

PROPOSED CONDITIONS:
 IN PROPOSED CONDITIONS, THE SITE AREA IS BROKEN UP INTO FIVE DIFFERENT DRAINAGE BASINS. OFFSITE BASIN 1 CONSISTS OF A MAJORITY OF THE EXISTING SITE THAT GENERALLY DRAINS FROM EAST TO WEST INTO THE EXISTING RETENTION POND. OFFSITE BASIN 2 IS LOCATED DUE SOUTH OF THE 643 BUILDING AND SURFACE DRAINS TO THE SOUTH TO AGRICULTURE WAY. BASIN 1, WHICH CONSISTS OF THE WEST PORTION OF THE BUILDING AND DRAINS TO THE WEST INTO THE EXISTING RETENTION POND. BASIN 2 CONSISTS OF THE EAST PORTION OF THE BUILDING AND DRAINS TO THE EAST WITHOUT ATTENUATION DIRECTLY TO ESPINA STREET. BASIN 3 CONSISTS OF THE SOUTHERN PORTION OF THE BUILDING THAT DRAINS TO THE SOUTH WITHOUT ATTENUATION TO AGRICULTURE WAY.

IN TOTAL, IT CAN BE SEEN THAT THERE IS A TOTAL FLOW RATE OF 23.14 CFS FOR THE 100YR-24HR STORM EVENT AND 0.90 AC-FT OF VOLUME IN THE PROPOSED CONDITIONS. OFFSITE BASIN 1 HAS A VOLUME OF 0.44 AC-FT DRAINING TO THE WEST, OFFSITE BASIN 2 HAS 0.12 AC-FT DRAINING TO THE SOUTH, PR-BASIN 1 HAS 0.11 AC-FT DRAINING TO THE WEST, PR-BASIN 2 HAS 0.19 AC-FT DRAINING TO THE EAST AND PR-BASIN 3 HAS 0.04 AC-FT DRAINING TO THE SOUTH.

AS REQUIRED BY THE NMSU URBAN DRAINAGE CRITERIA, COMPARING THE TOTAL FLOWS OF THE SITE FROM THE HISTORIC/PRE-DEVELOPED CONDITIONS TO THE PROPOSED CONDITIONS AT THE 100-YR 24HR STORM EVENT, WE ARE REQUIRED TO PROVIDE AN ONSITE RETENTION VOLUME OF 0.67 AC-FT (0.90-0.23). THE ALREADY BUILT RETENTION POND ONLY PROVIDES A TOTAL OF 0.44 AC-FT OF VOLUME AT THE HIGH WATER ELEVATION OF 3996.20. THEREFORE, THE PROPOSED IMPROVEMENTS ARE DEFICIENT OF APPROXIMATELY 0.23 AC-FT OF RETENTION VOLUME TO MEET THE REQUIREMENTS.

CONCLUSION
 IT'S OUR UNDERSTANDING THAT NMSU HAS FUTURE PLANS FOR THE ENTIRE CAMPUS TO IMPROVE STORMWATER MANAGEMENT/DRAINAGE AND INCREASE THE OVERALL STORAGE CAPACITY FOR STORMWATER RUNOFF. THE FINAL MASTER DRAINAGE MANAGEMENT PLAN PREPARED BY MICHAEL CORBIN DATED FEBRUARY 2024 SUMMARIZES THESE SOLUTIONS WHICH ARE DOWNSTREAM OF THIS PROPOSED DEVELOPMENT'S RUNOFF AND WOULD DIRECTLY BENEFIT THE PROJECT. THEREFORE, TO MEET THE REQUIREMENTS AS OUTLINED IN THE NMSU URBAN DRAINAGE CRITERIA, WE PROPOSE THAT 0.23 AC-FT OF RETENTION VOLUME BE ACCOUNTED FOR ELSEWHERE ON THE CAMPUS AS PART OF THOSE FUTURE IMPROVEMENTS. IN ADDITION, WE ANALYZED AND COMPARED THE CURRENT EXISTING CONDITIONS (WHERE THE EXISTING 330 BUILDING WAS NOT DEMOLISHED) TO THE PROPOSED CONDITIONS (WHERE THE NEW BUILDING AND IMPROVEMENTS WILL BE DEVELOPED). THE EXISTING CONDITIONS VOLUME AT THE 100-YR 24HR STORM EVENT HAD 0.84 AC-FT OF RUNOFF AND THE PROPOSED CONDITIONS VOLUME HAD 0.90 AC-FT OF RUNOFF. THEREFORE, THERE IS A MINOR INCREASE OF 0.06 AC-FT OF RUNOFF VOLUME LEAVING THE SITE FROM CURRENT EXISTING CONDITIONS TO PROPOSED CONDITIONS.

TO CALCULATE THE FINISHED FLOOR ELEVATION OF THE PROPOSED BUILDING, WE USED THE FLOWS FROM THE 1995 MASTER DRAINAGE MANAGEMENT REPORT WITHIN THE ADJACENT ROADWAYS OF AGRICULTURE WAY AT CROSS SECTION A-A AND ESPINA STREET AT CROSS SECTION B-B. FOR THE CROSS SECTION A-A ON AGRICULTURE WAY, ABOUT 75% OF UPSTREAM BASIN 138 (110.25 CFS) AND 20% OF UPSTREAM BASIN 139 (20.2 CFS) IS BEING ANALYZED FOR A TOTAL FLOW OF 130.45 CFS FOR THE 100YR-24HR STORM EVENT. BASED ON THE PROPOSED PROFILE OF CROSS SECTION A-A, THE HIGH WATER ELEVATION WITHIN AGRICULTURE WAY IS 3905.03.

FOR CROSS SECTION B-B ON ESPINA ST, ABOUT 25% OF UPSTREAM BASIN 138 (36.75 CFS) AND 20% OF UPSTREAM BASIN 128 (13.6 CFS) IS BEING ANALYZED FOR A TOTAL FLOW OF 50.35 CFS FOR THE 100YR-24HR STORM EVENT. BASED ON THE PROPOSED PROFILE OF CROSS SECTION B-B, THE HIGH WATER ELEVATION WITHIN ESPINA IS 3904.90.

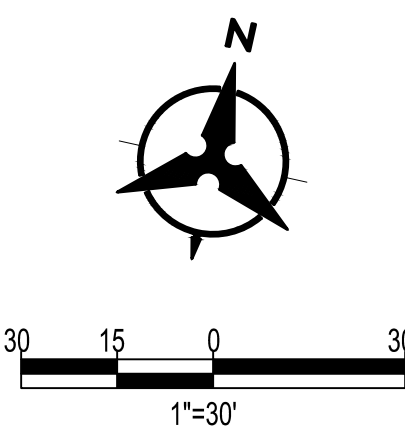
THE PROPOSED BUILDING FINISHED FLOOR ELEVATION IS ANTICIPATED TO BE SET AT 3905.20 WHICH IS 0.17-FT ABOVE THE HIGH WATER ELEVATION ON AGRICULTURE WAY AND IS 0.30-FT ABOVE THE HIGH WATER ELEVATION ON ESPINA ST. KEEPING THE FINISHED FLOOR 1-FT ABOVE THE HIGHEST WATER ELEVATION OF THE ADJACENT ROADWAY IS BEST PRACTICE FOR SUFFICIENT FREEBOARD, HOWEVER THIS CANNOT BE MET DUE TO THE SITE DESIGN OF THE DEVELOPMENT.

PROPOSED CONDITIONS

	Area (sq ft)	Area (ac)	Area (sq mi)	T _c (min)	SCS Curve Number	Percent Impervious	Q _{100yr} (24 HR) (cfs)	Q/Acre (cfs/acre)	Volume (24 HR) (ac-ft)
OFF BASIN 1	86387	1.98	0.003099	6.0	77	50%	11.35	5.72	0.44
OFF BASIN 2	20524	0.47	0.000736	6.0	77	71%	3.06	6.49	0.12
BASIN 1	16533	0.38	0.000593	6.0	77	90%	2.74	7.22	0.11
BASIN 2	37852	0.87	0.001358	6.0	77	50%	4.97	5.72	0.19
BASIN 3	6139	0.14	0.000220	6.0	77	90%	1.02	7.24	0.04
TOTAL	167435	3.84	0.006006				23.14	7.24	0.90

SEE CALCULATIONS ENCLOSED FOR MORE INFORMATION

SEE CALCULATIONS ENCLOSED FOR MORE INFORMATION



DEKKER PERICH SABATINI
 Architecture in Progress

PRELIMINARY NOT FOR CONSTRUCTION

PROJECT

NMSU NMDA New Office Building
 3190 S Espina St
 Las Cruces, NM 88001

50% CONSTRUCTION DRAWINGS

REVISIONS

- △
- △
- △
- △
- △

DRAWN BY NP
 REVIEWED BY AP
 DATE 04/25/2024
 PROJECT NO. 22-0027

DRAWING NAME
PROPOSED DRAINAGE MANAGEMENT PLAN

SHEET NO.
C202



GENERAL SHEET NOTES

- A. PROVIDE SAFETY MEASURES TO PROTECT PEDESTRIANS, VEHICLES, AND EXISTING CONSTRUCTION TO REMAIN.
- B. EXISTING UTILITIES ARE SHOWN FOR REFERENCE ONLY. SOME EXISTING UTILITIES MAY NOT APPEAR ON THIS SHEET. VERIFY EXISTING UTILITY LOCATIONS BEFORE EXCAVATING.
- C. UNLESS INDICATED, DEMOLITION MATERIALS ARE TO BE REMOVED TO A LEGAL WASTE FACILITY. SUPPLY REUSE CONTAINERS TO COLLECT DEBRIS TO BE REMOVED AND PAY FEES ASSOCIATED WITH REMOVAL AND DISPOSAL OF REMOVED ITEMS.
- D. COORDINATE WITH OWNER FOR ALLOWABLE STAGING AREAS DURING CONSTRUCTION. EXISTING LANDSCAPE AREAS ARE NOT ACCEPTABLE LOCATIONS FOR STAGING UNLESS COORDINATED WITH PROJECT DESIGN TEAM AND OWNER.
- E. SAW CUT CONCRETE AT EXISTING JOINTS, UNLESS CUTTING IN BETWEEN JOINTS IS NECESSARY TO MAKE A SMOOTH TRANSITION TO NEW ABUTTING CONCRETE.
- F. FIELD VERIFY DEMOLITION ITEMS.
- G. COORDINATE UTILITY DEMOLITION WITH THE OWNER PRIOR TO COMMENCING WORK.
- H. REFERENCE CIVIL, ELECTRICAL, AND MECHANICAL DRAWINGS FOR UTILITY DEMOLITION INFORMATION.
- I. REPAIR AREAS TO REMAIN, INCLUDING LANDSCAPE, IRRIGATION, AND OTHER SITE/SURFACE ELEMENTS THAT ARE DISTURBED DURING CONSTRUCTION TO MATCH PRE-CONSTRUCTION CONDITION AT NO ADDITIONAL COST TO THE OWNER.
- J. FIELD VERIFY AND PHOTO DOCUMENT THE PRE-CONSTRUCTION CONDITION OF EXISTING PLANT MATERIAL TO REMAIN THAT ARE LOCATED WITHIN THE LIMITS OF WORK, AND PROTECT PLANTS DURING DEMOLITION AND CONSTRUCTION.
- K. TREE PROTECTION: INSTALL TREE AND PLANT PROTECTION FENCING PER THE PLANS PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
- L. REPLACE PLANT MATERIAL AFFECTED BY DEMOLITION OR CONSTRUCTION AT EQUAL SIZE, OR REPAIRED TO PRE-CONSTRUCTION CONDITIONS.

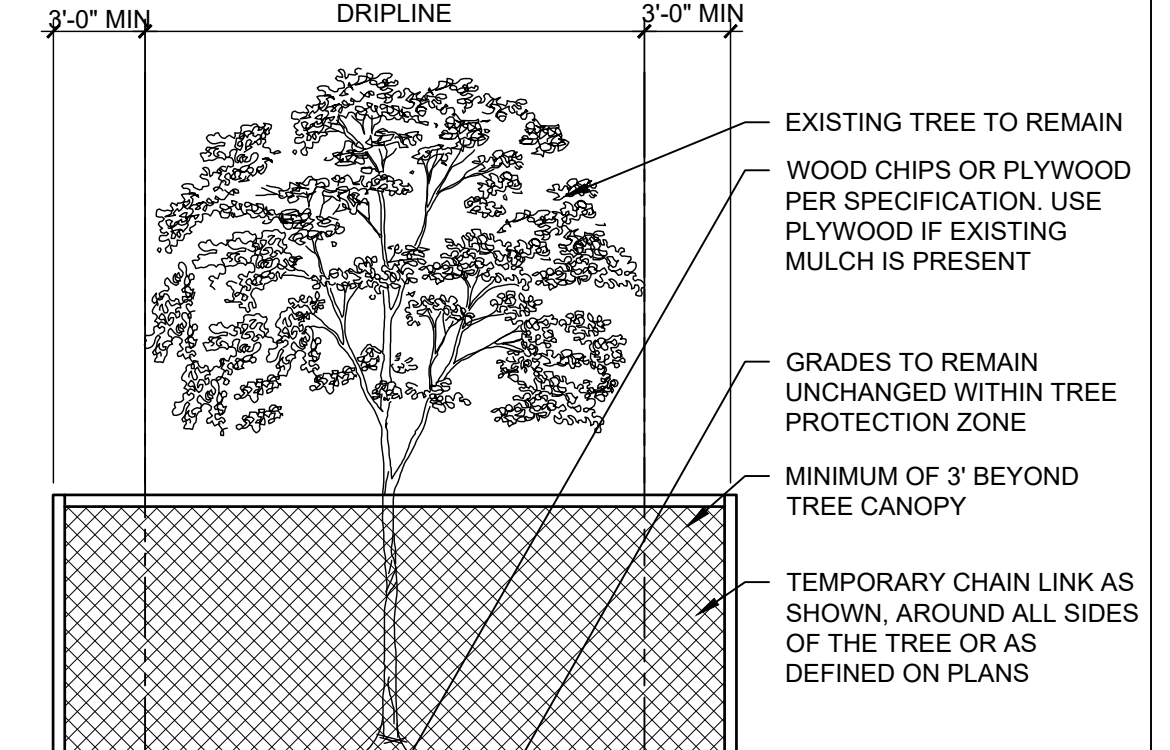
KEY NOTES

LEGEND

- COMPLETELY REMOVE TREE AND GRIND STUMP MINIMUM 18" BELOW EXISTING GRADE
- EXISTING TREE TO REMAIN AND BE PROTECTED DURING CONSTRUCTION WITH TREE PROTECTION FENCING. SEE A6/ASD101 AND SPECIFICATIONS
- DEMOLITION CUT LINE
- LIMIT OF WORK, COORDINATE WITH CIVIL
- REMOVE PLANT MATERIAL AND SALVAGE GRAVEL FOR REUSE; IF EXCAVATION WILL INTERFERE WITH EXISTING IRRIGATION SYSTEM, MODIFY SYSTEM IN ORDER TO MAINTAIN IRRIGATION OF EXISTING PLANT MATERIAL TO REMAIN. SEE IRRIGATION PLANS

NOTES:

1. SEE TREE PROTECTION SPECIFICATION SECTION 01 5639.



A6 TREE PROTECTION
N.T.S.

A1 SITE DEMOLITION PLAN
1" = 20'-0"
0 10' 20' 40'

**DEKKER
PERICH
SABATINI**

**Architecture
in Progress**

**PRELIMINARY
NOT FOR CONSTRUCTION**

PROJECT

NMSU NMDA New Office Building
3190 S Espina St
Las Cruces, NM 88001

**50%
CONSTRUCTION
DOCUMENTS**

REVISIONS

DRAWN BY: **BG**
REVIEWED BY: **CM**
DATE: **04/25/2024**
PROJECT NO.: **22-0027**

DRAWING NAME:
**SITE DEMOLITION
PLAN**

SHEET NO.:
AD101

REVISIONS

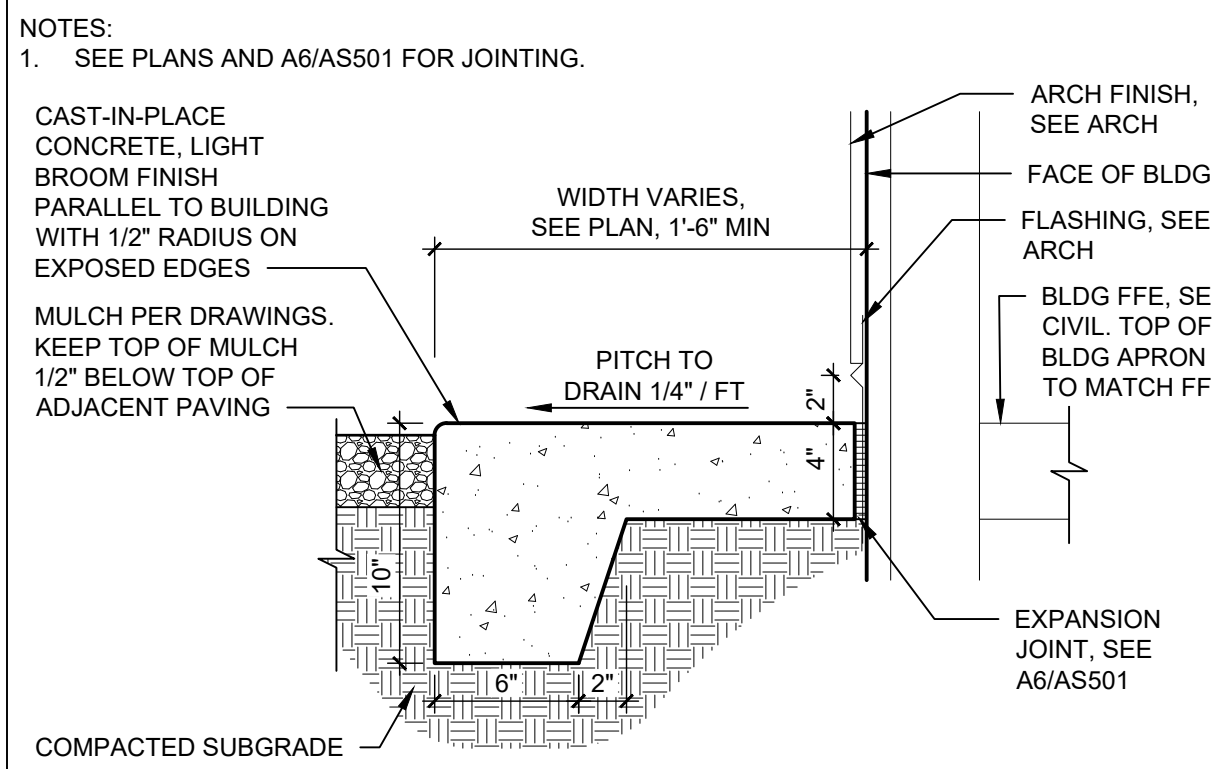
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DRAWN BY: EH
REVIEWED BY: BG
DATE: 04/25/2024
PROJECT NO.: 22-0027

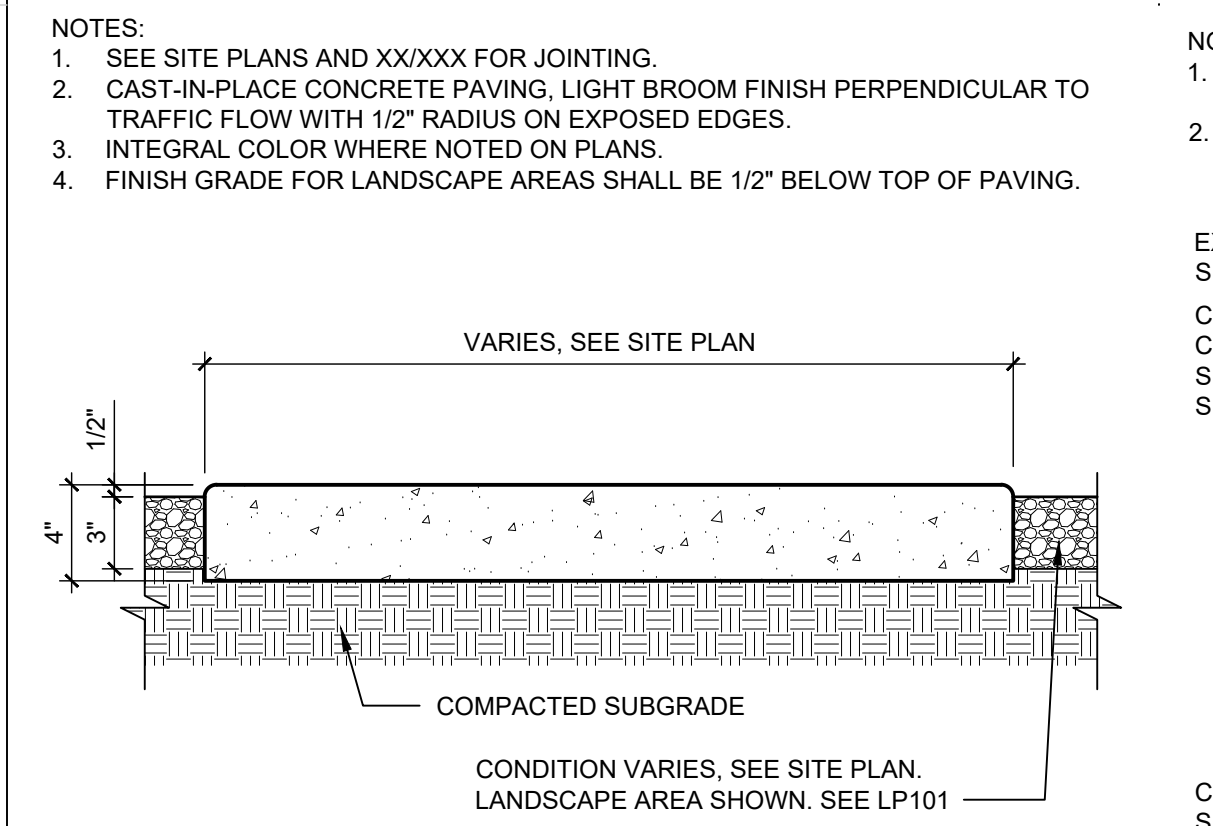
DRAWING NAME
SITE DETAILS

SHEET NO.

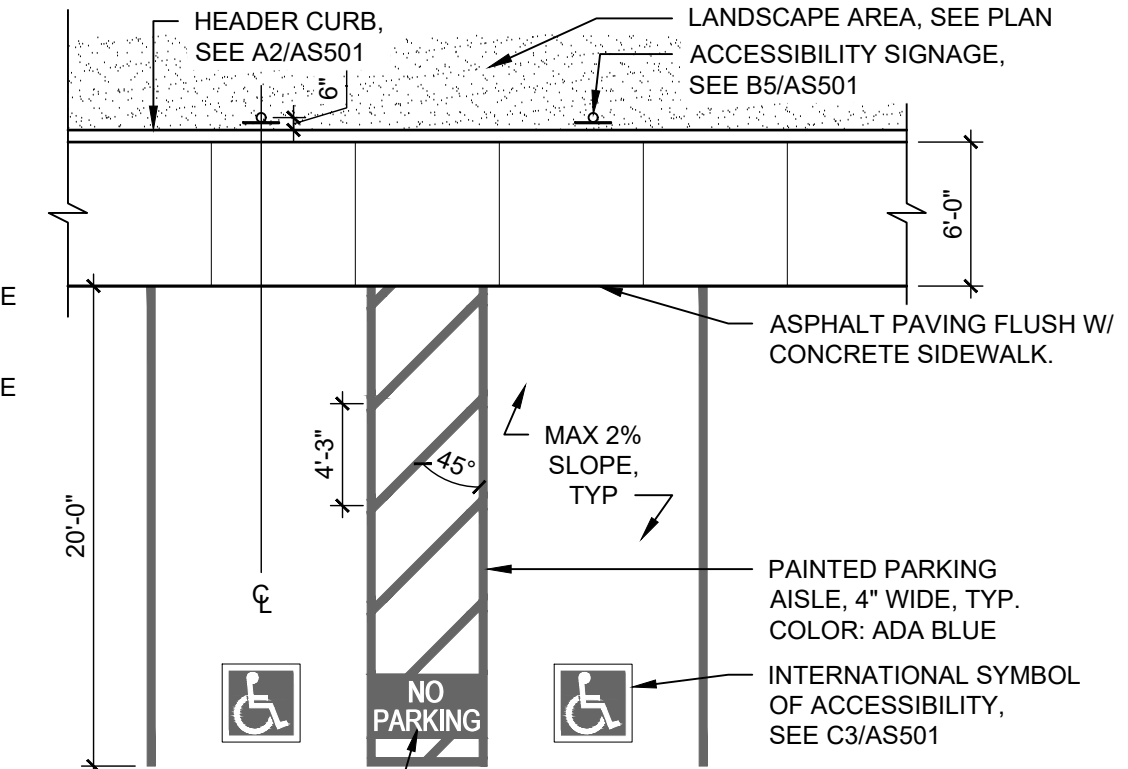
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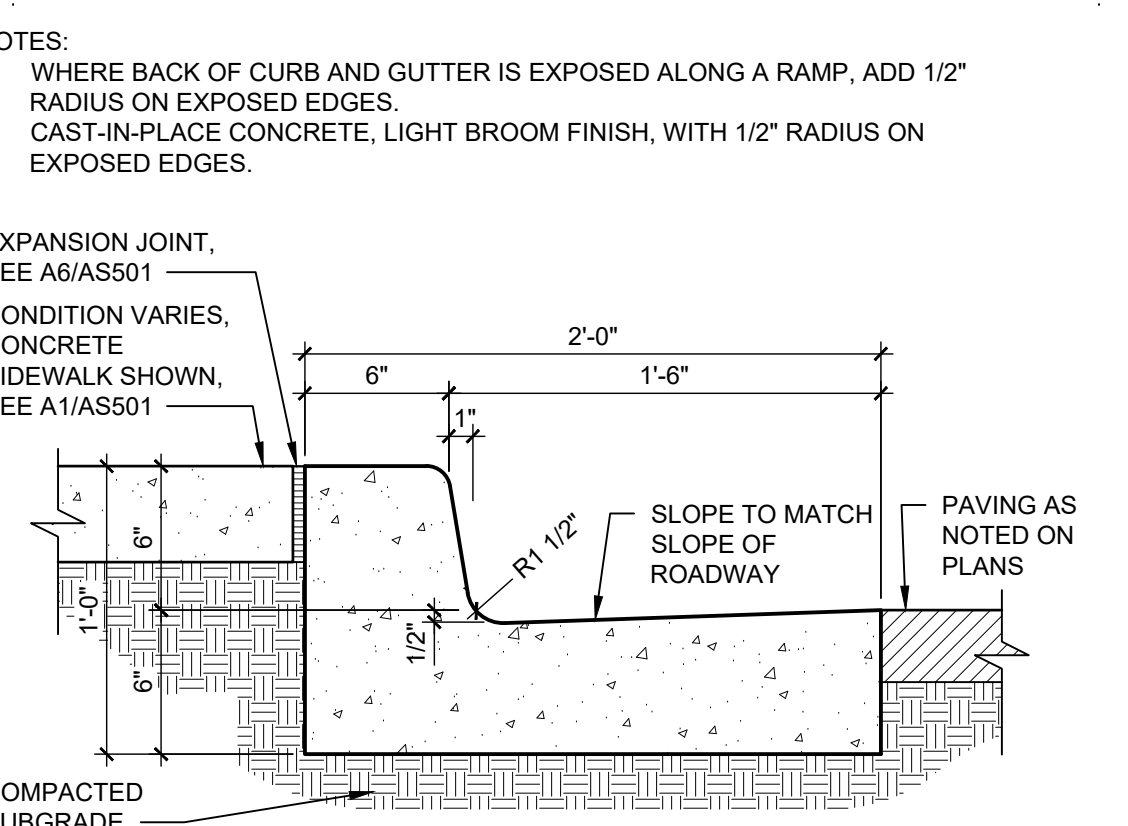
B1 CONCRETE BUILDING APRON
1 1/2" = 1'-0"



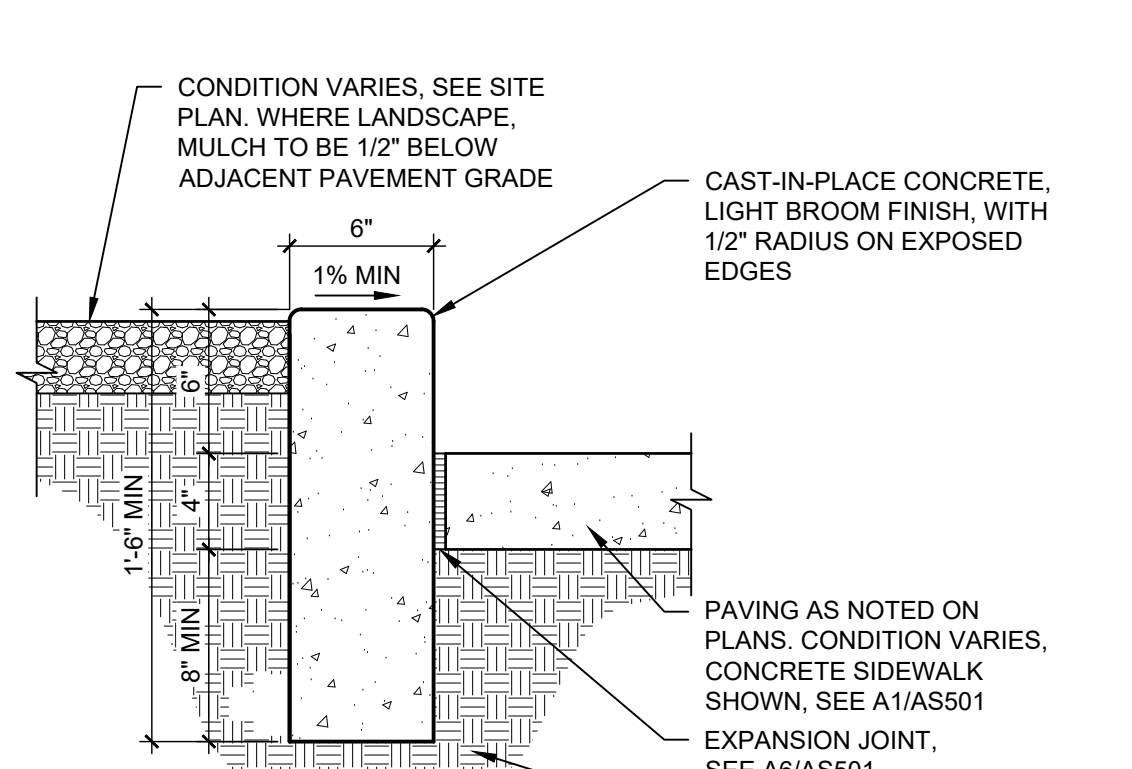
A1 CONCRETE SIDEWALK
1 1/2" = 1'-0"



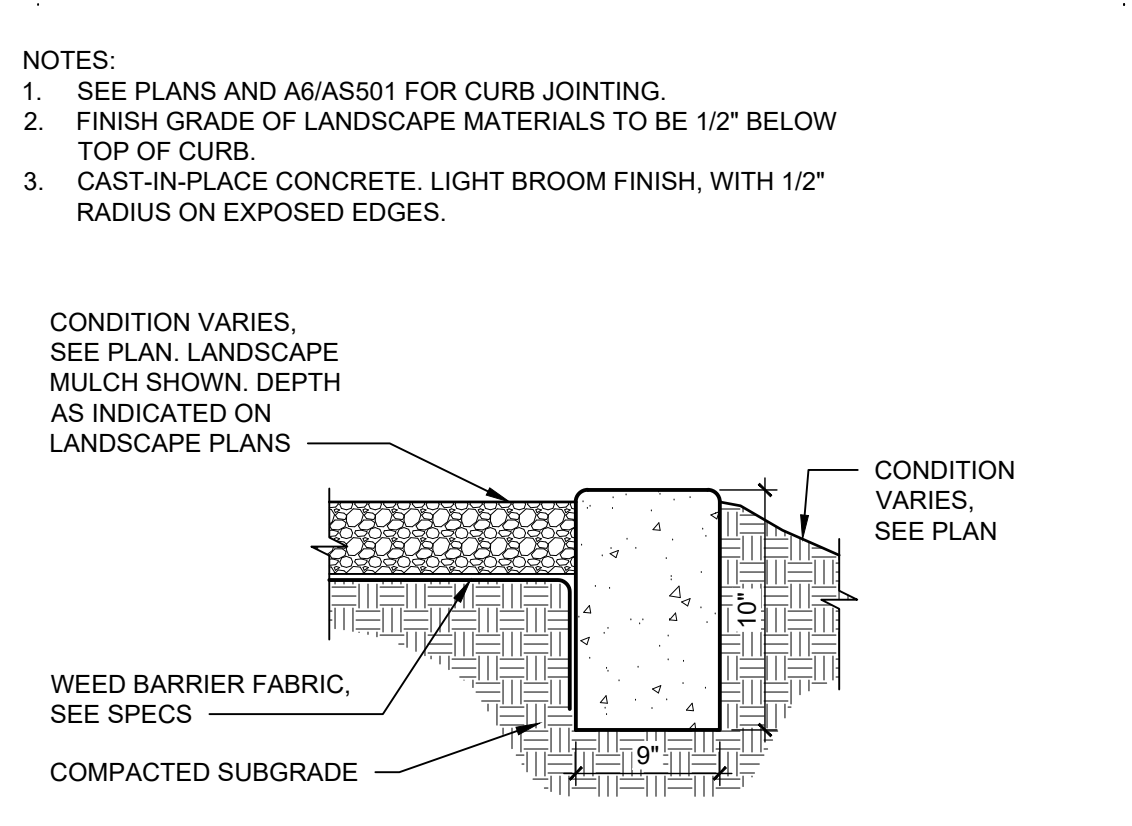
B2 ACCESSIBLE PARKING
1/8" = 1'-0"



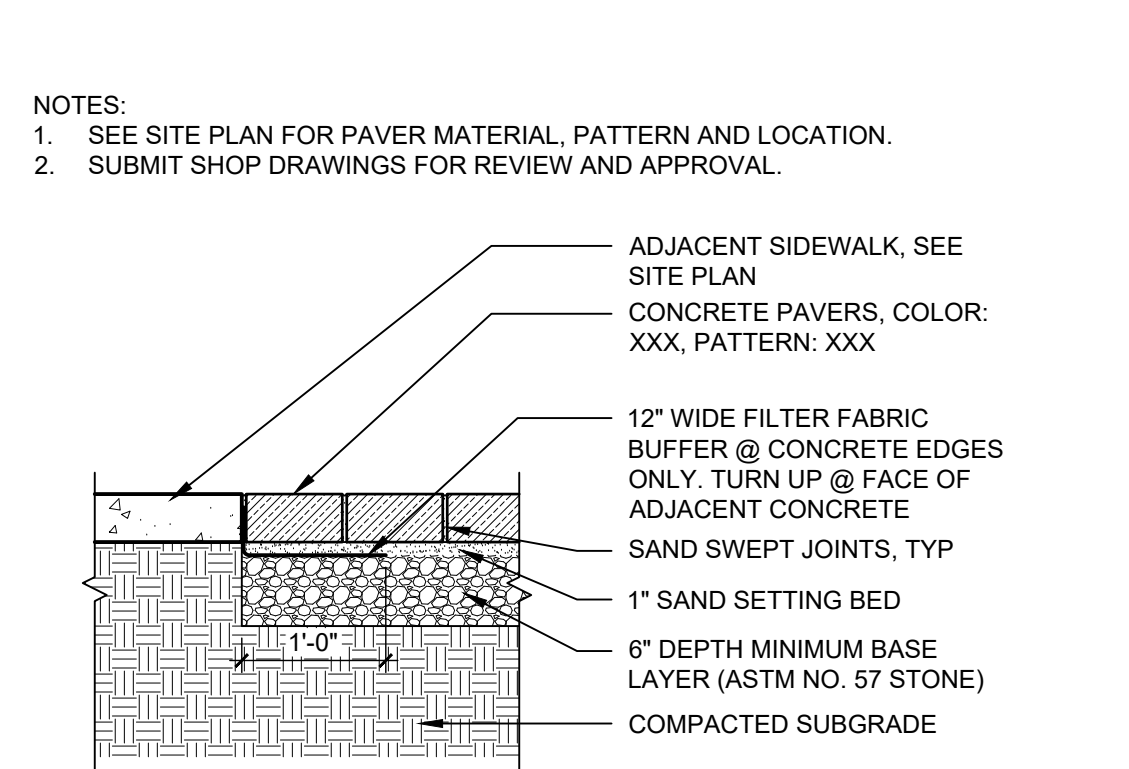
A2 CONCRETE CURB & GUTTER
1 1/2" = 1'-0"



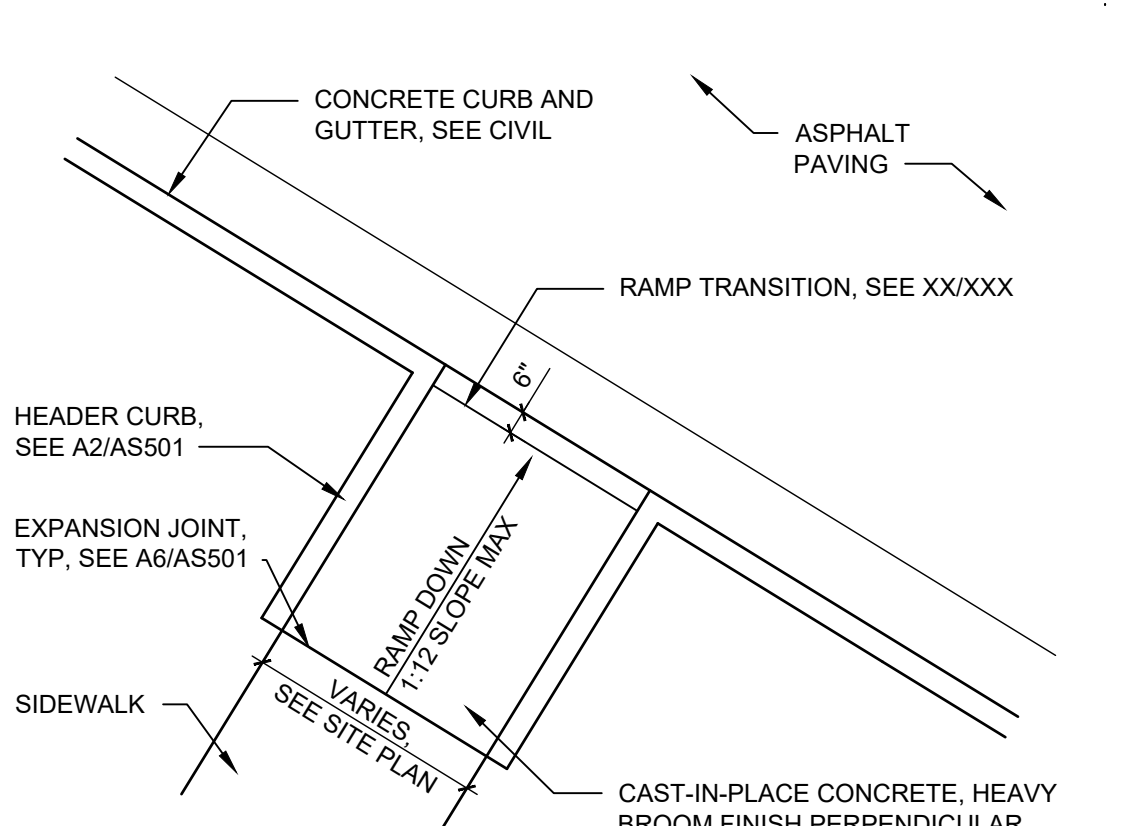
B3 CONCRETE HEADER CURB
1 1/2" = 1'-0"



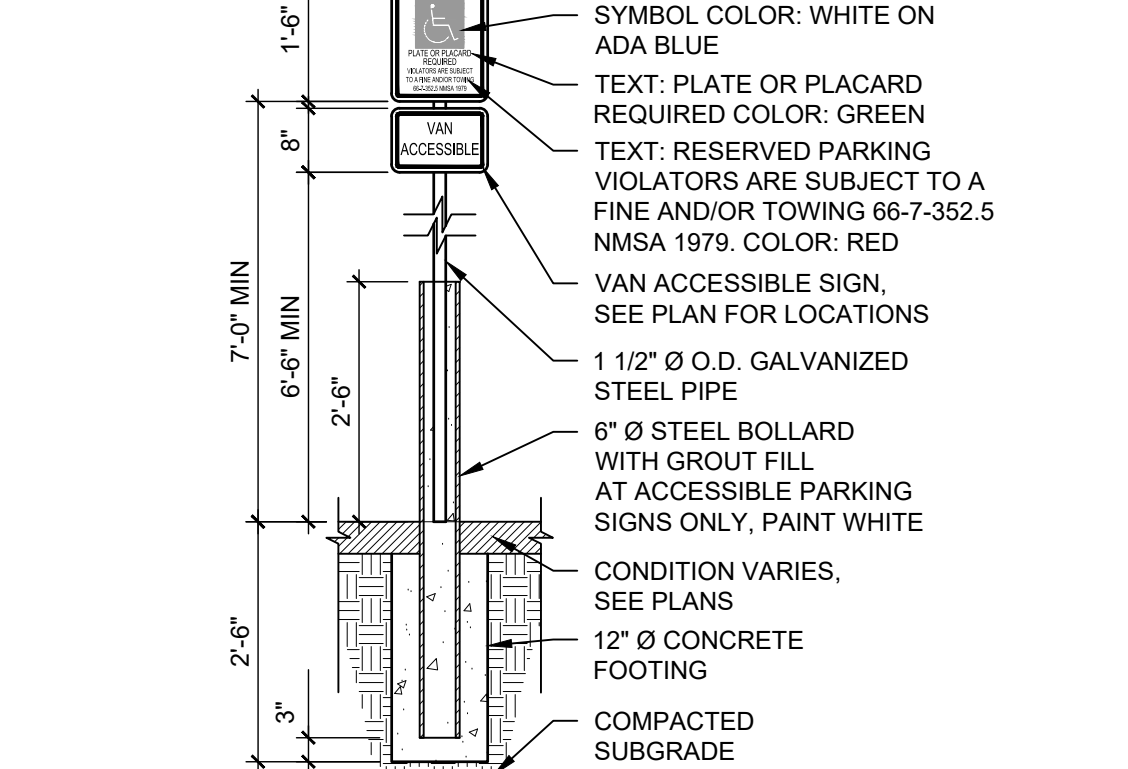
A3 CONCRETE FLUSH CURB
1 1/2" = 1'-0"



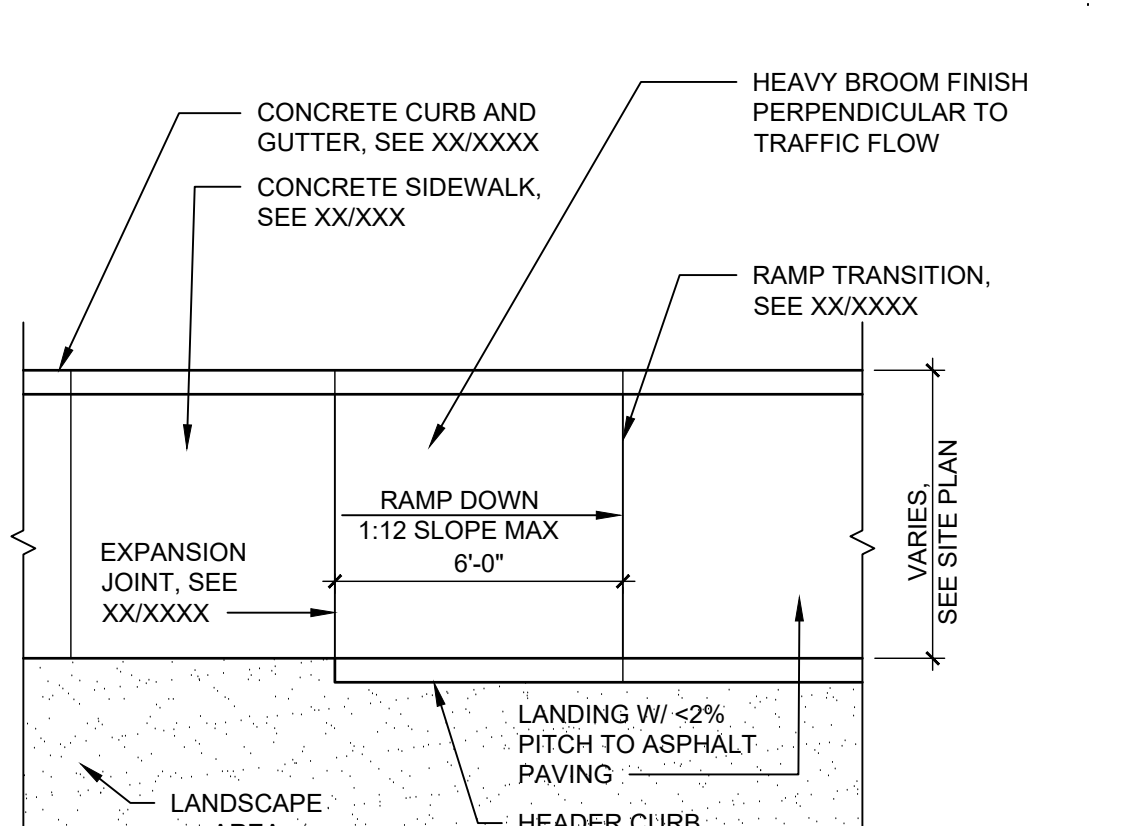
B4 CONCRETE PAVERS
3/4" = 1'-0"



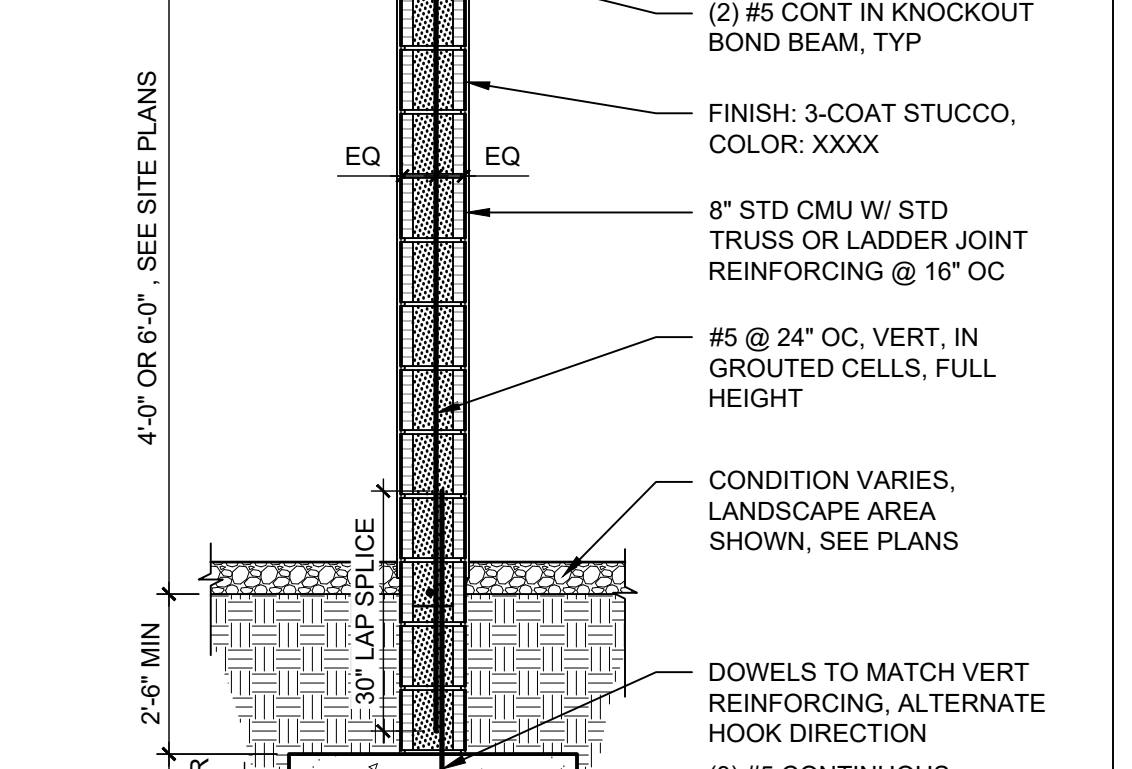
A4 ACCESSIBLE RAMP TYPE A
1/4" = 1'-0"



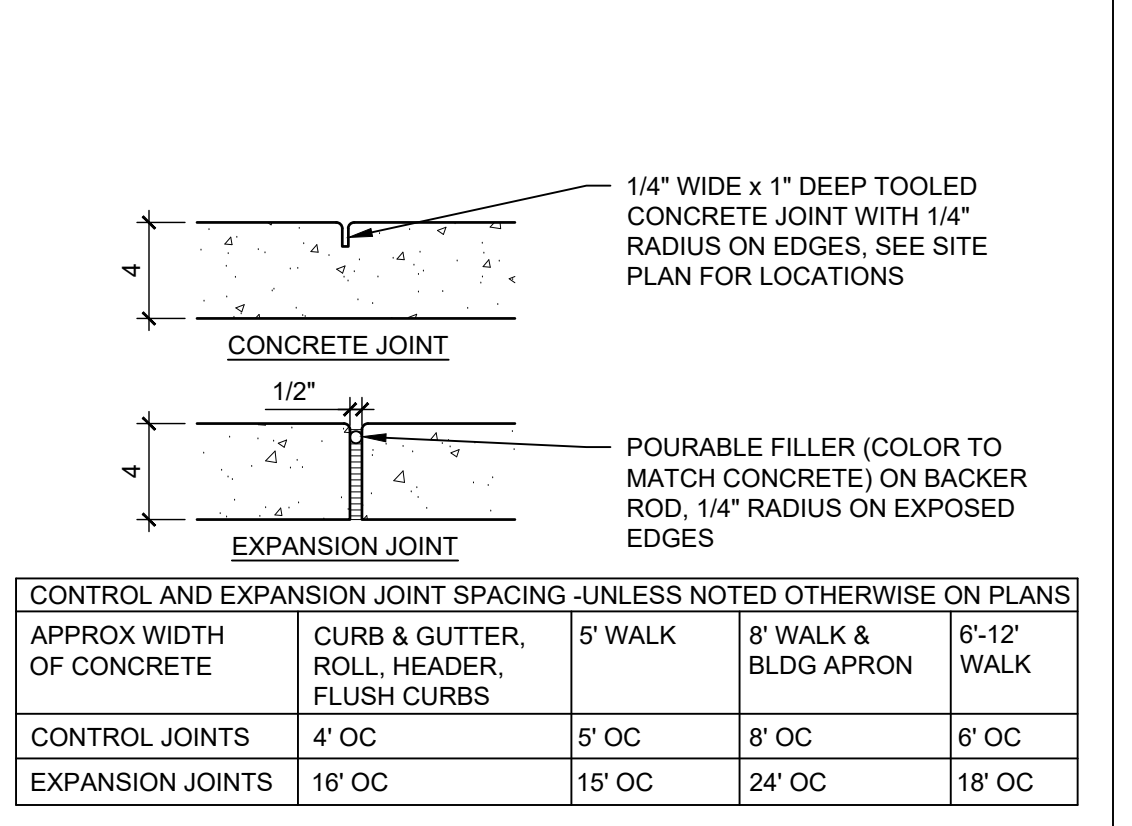
B5 BOLLARD MOUNTED ACCESSIBLE SIGN
1/2" = 1'-0"



A5 ACCESSIBLE RAMP TYPE B
1/4" = 1'-0"



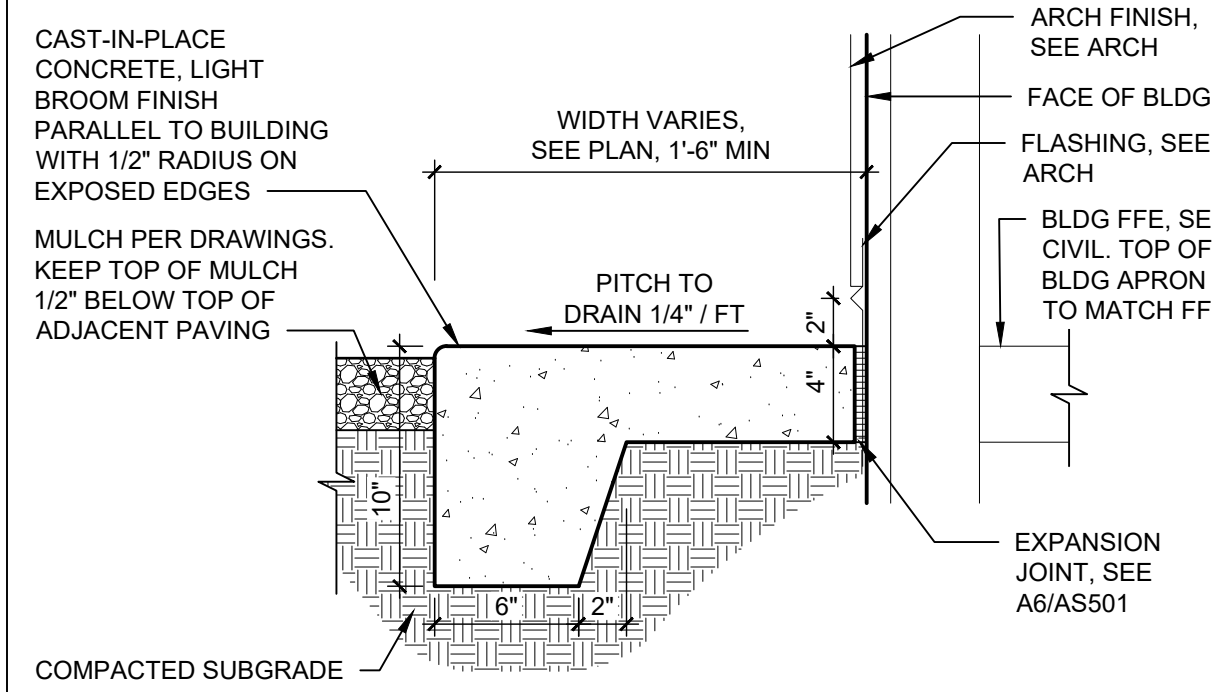
B6 CMU SCREEN WALL
1/2" = 1'-0"



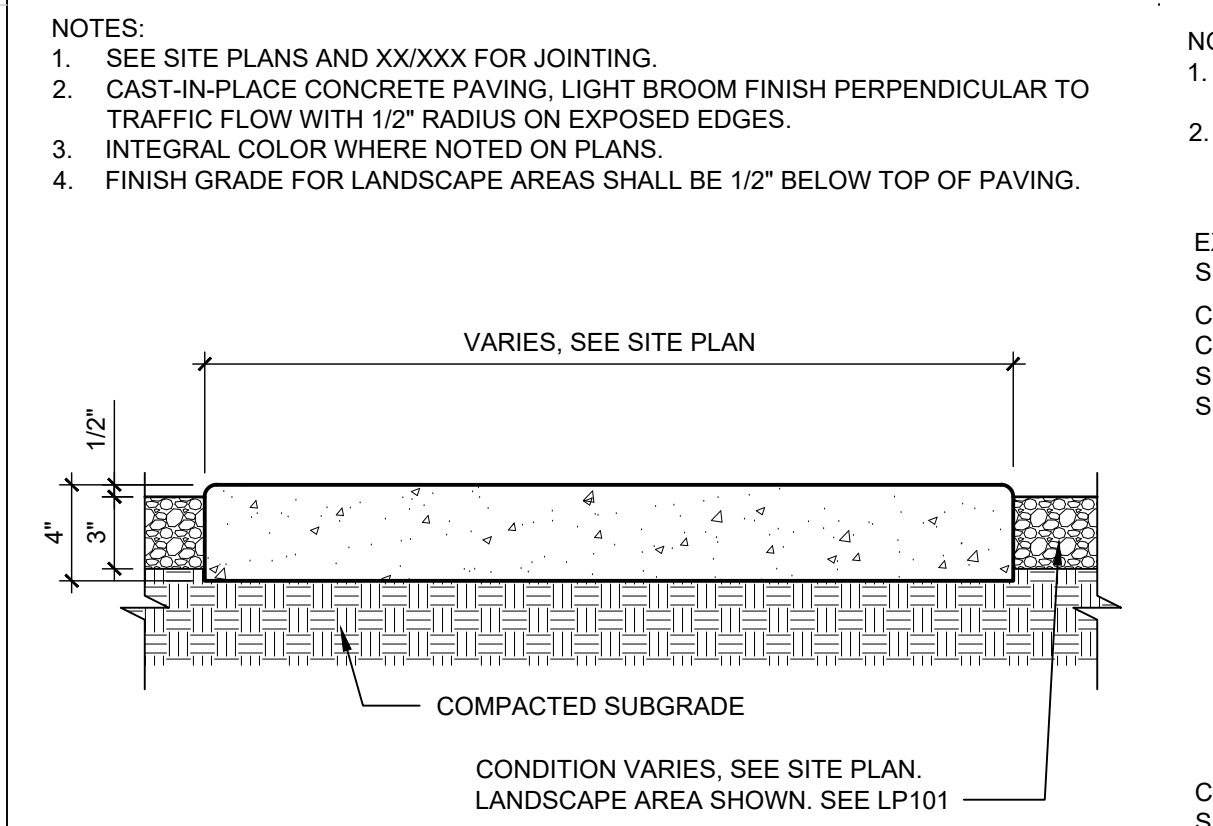
A6 CONCRETE JOINTS & JOINT SPACING
1 1/2" = 1'-0"

CONTROL AND EXPANSION JOINT SPACING - UNLESS NOTED OTHERWISE ON PLANS				
APPROX WIDTH OF CONCRETE	CURB & GUTTER, ROLL, HEADER, FLUSH CURBS	5' WALK	8' WALK & BLDG APRON	6'-12' WALK
CONTROL JOINTS	4' OC	5' OC	8' OC	8' OC
EXPANSION JOINTS	16' OC	15' OC	24' OC	18' OC

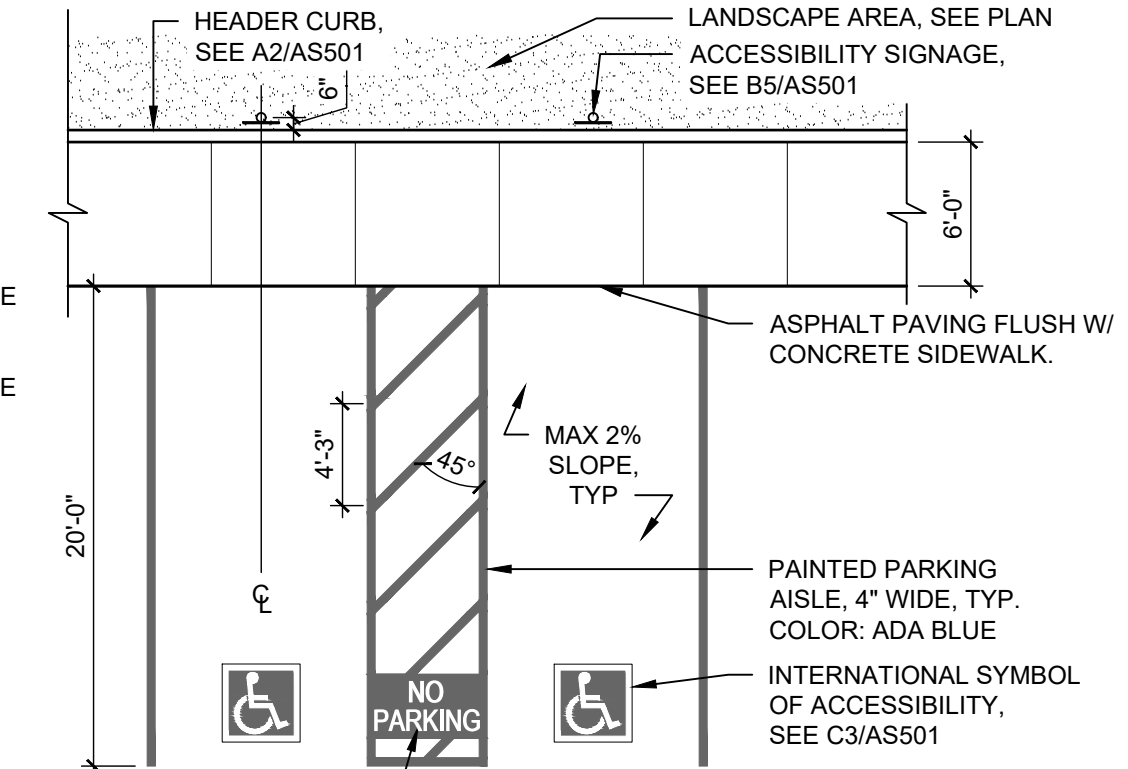
NOTES:
1. SEE PLANS AND A6/ASS01 FOR JOINING.



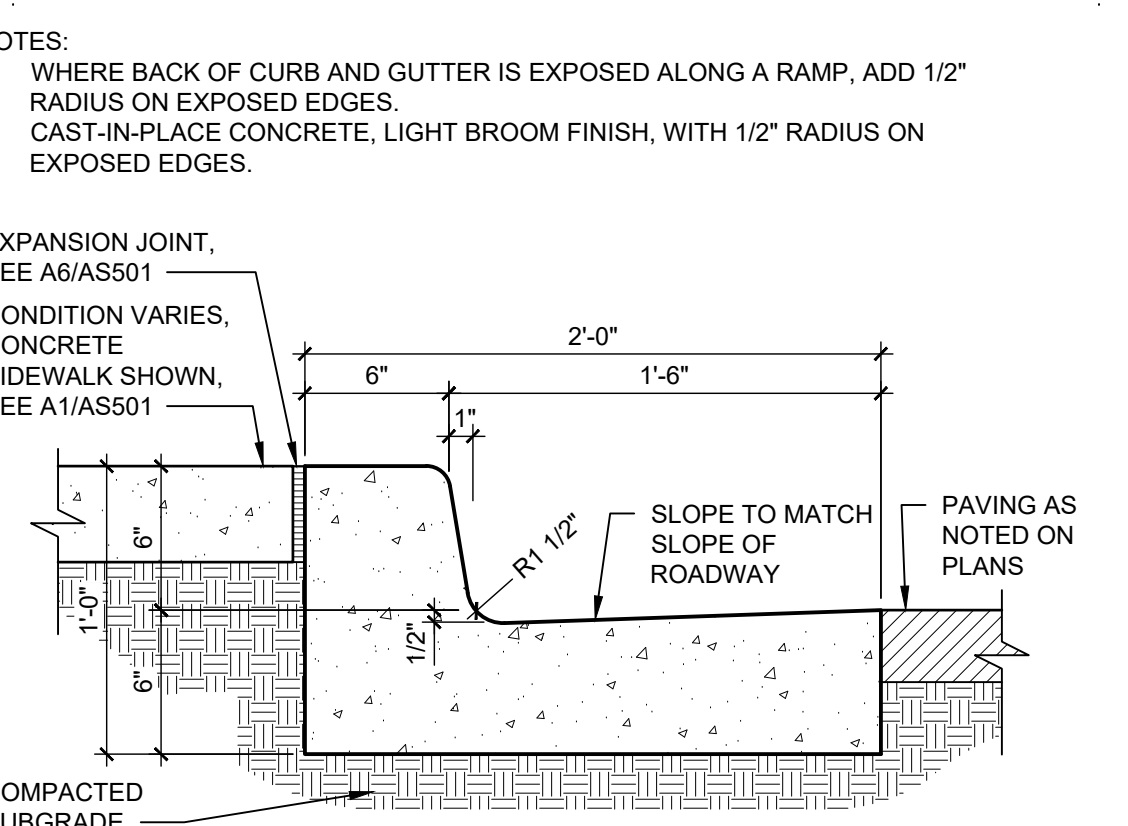
B1 CONCRETE BUILDING APRON
1 1/2" = 1'-0"



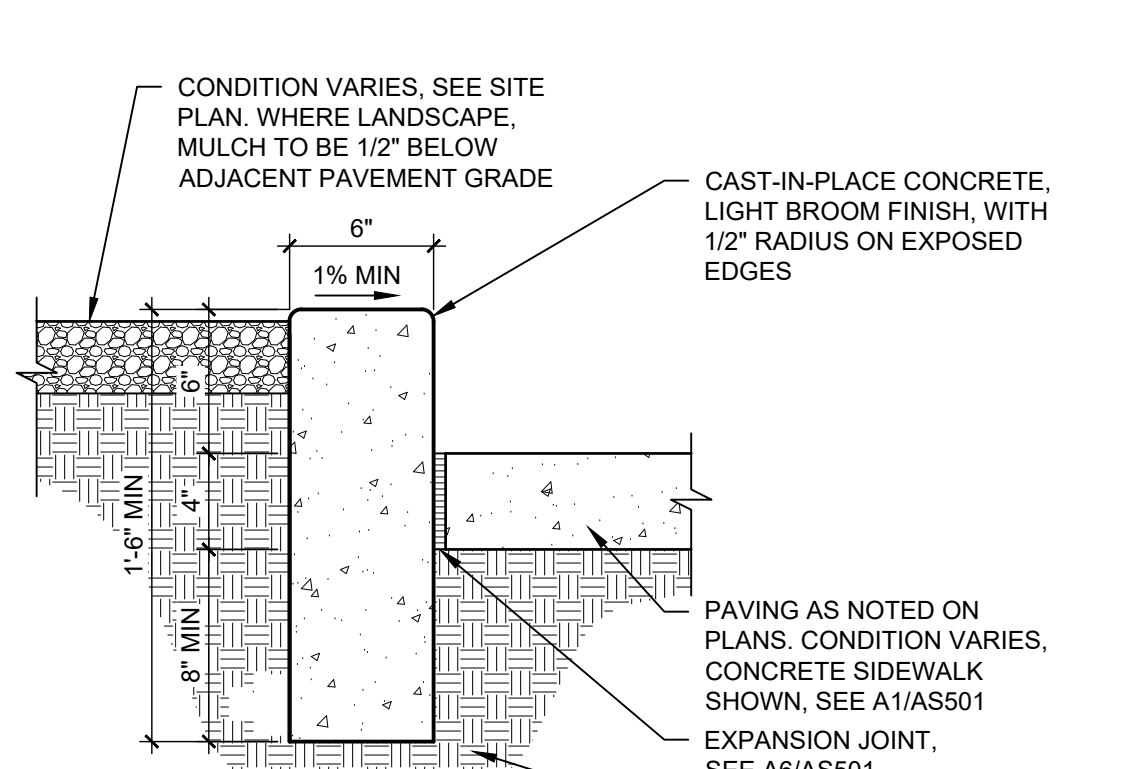
A1 CONCRETE SIDEWALK
1 1/2" = 1'-0"



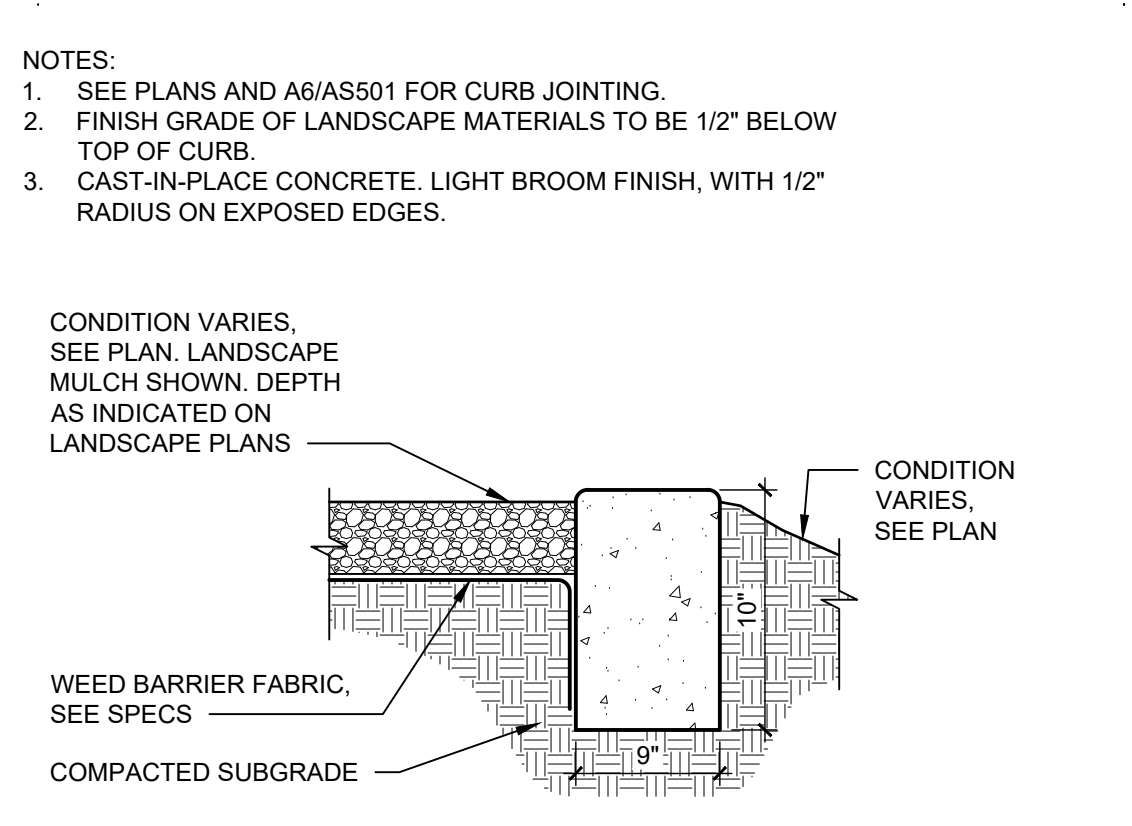
B2 ACCESSIBLE PARKING
1/8" = 1'-0"



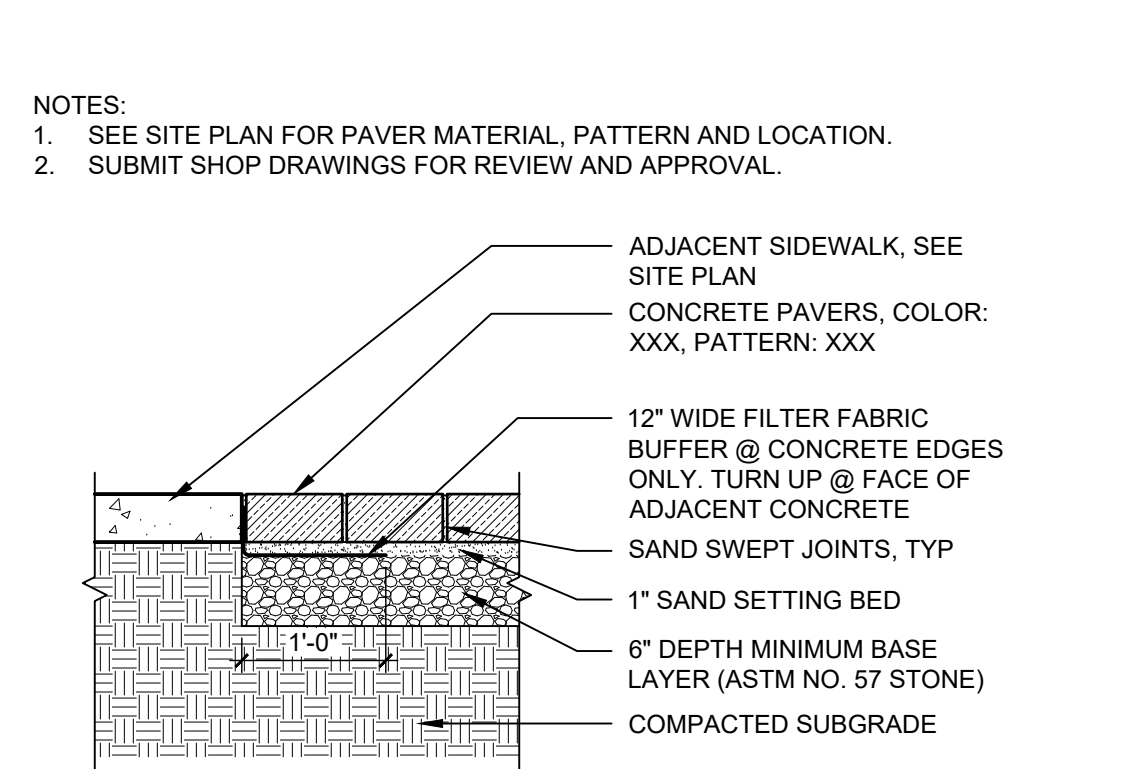
A2 CONCRETE CURB & GUTTER
1 1/2" = 1'-0"



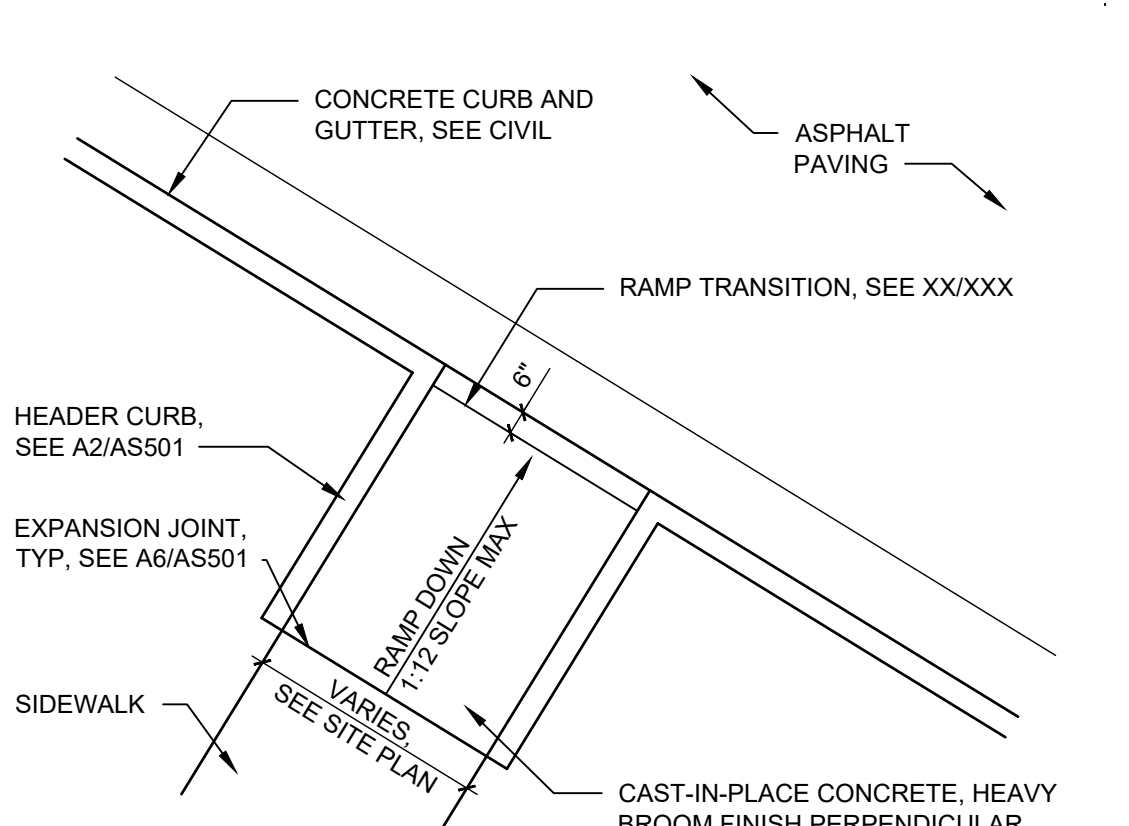
B3 CONCRETE HEADER CURB
1 1/2" = 1'-0"



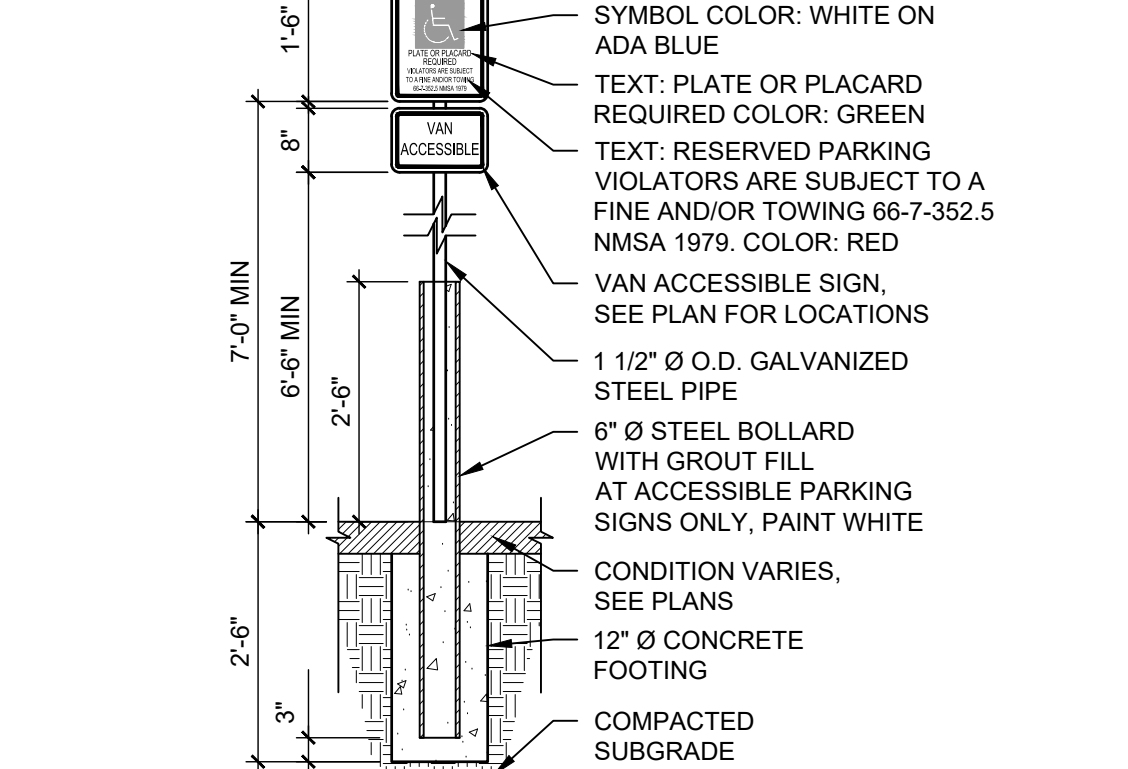
A3 CONCRETE FLUSH CURB
1 1/2" = 1'-0"



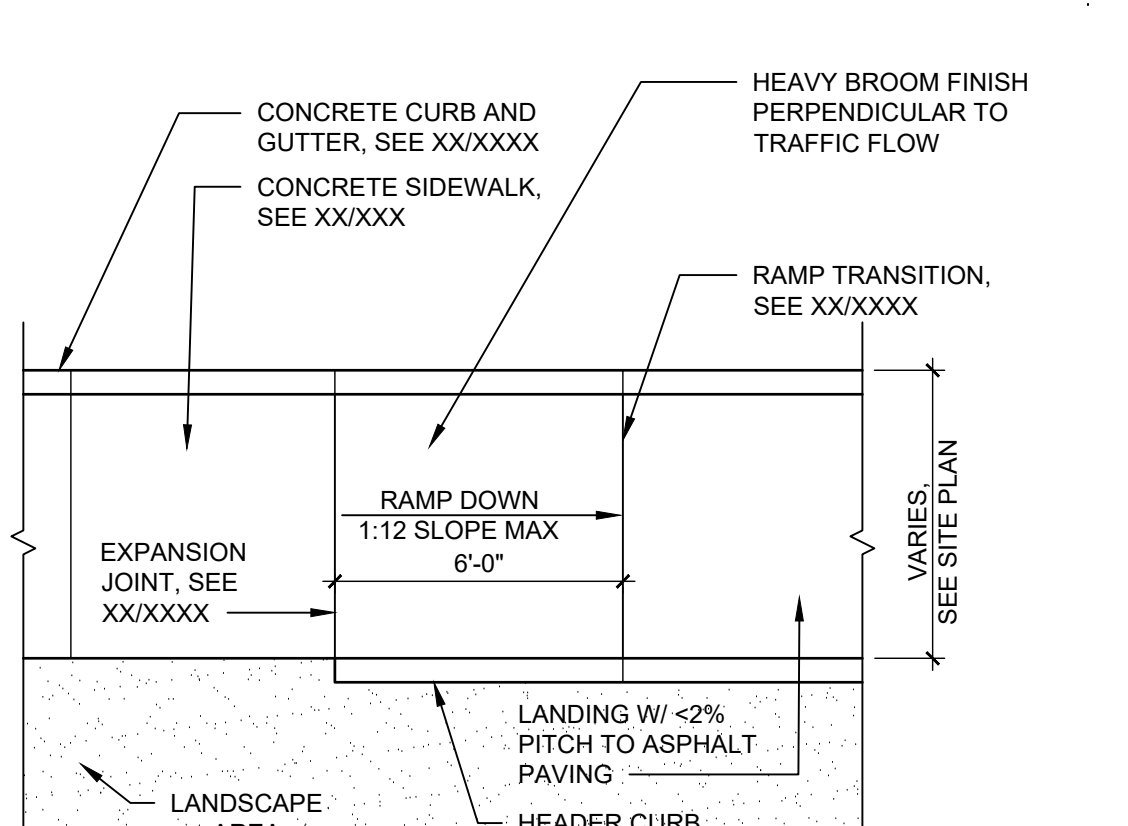
B4 CONCRETE PAVERS
3/4" = 1'-0"



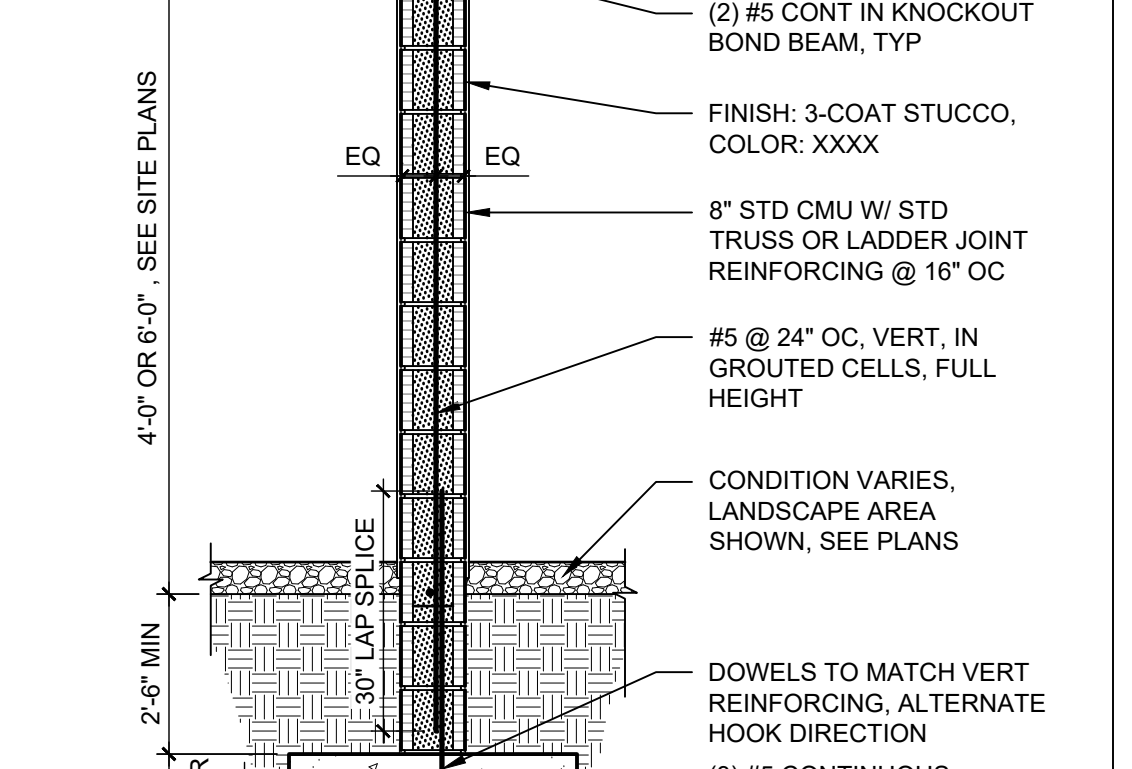
A4 ACCESSIBLE RAMP TYPE A
1/4" = 1'-0"



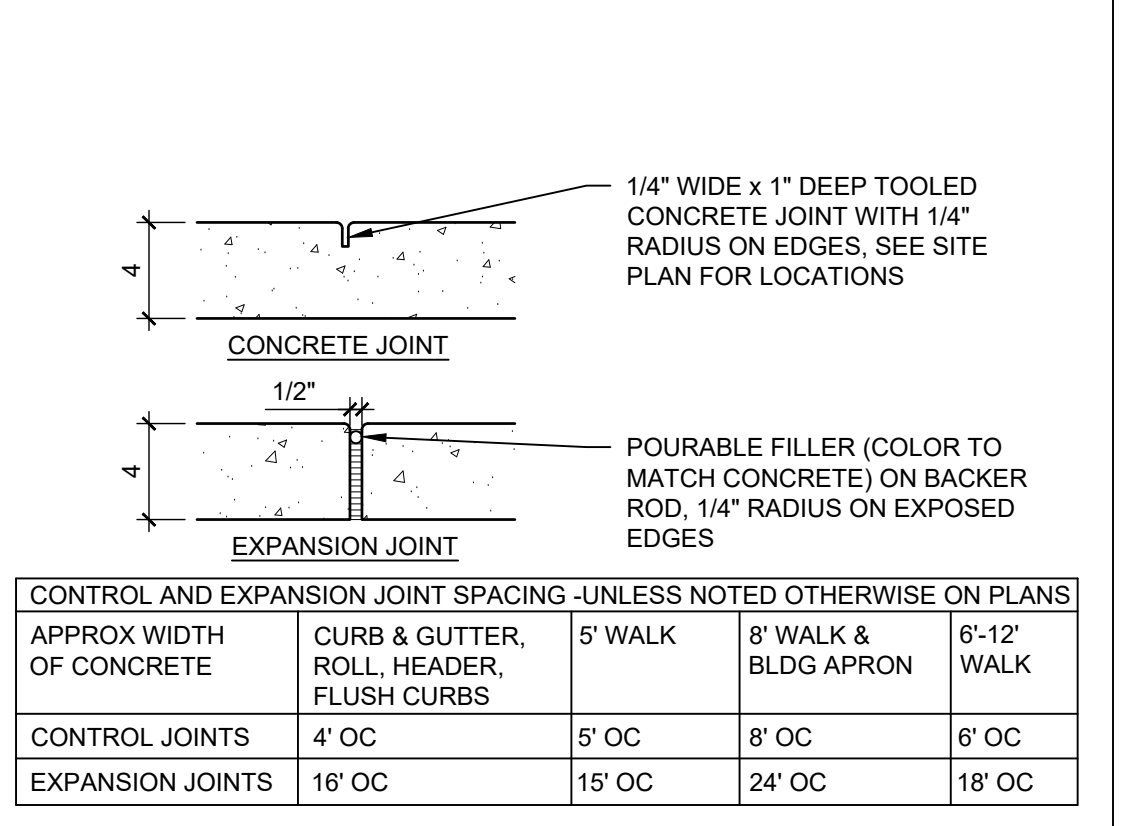
B5 BOLLARD MOUNTED ACCESSIBLE SIGN
1/2" = 1'-0"



A5 ACCESSIBLE RAMP TYPE B
1/4" = 1'-0"

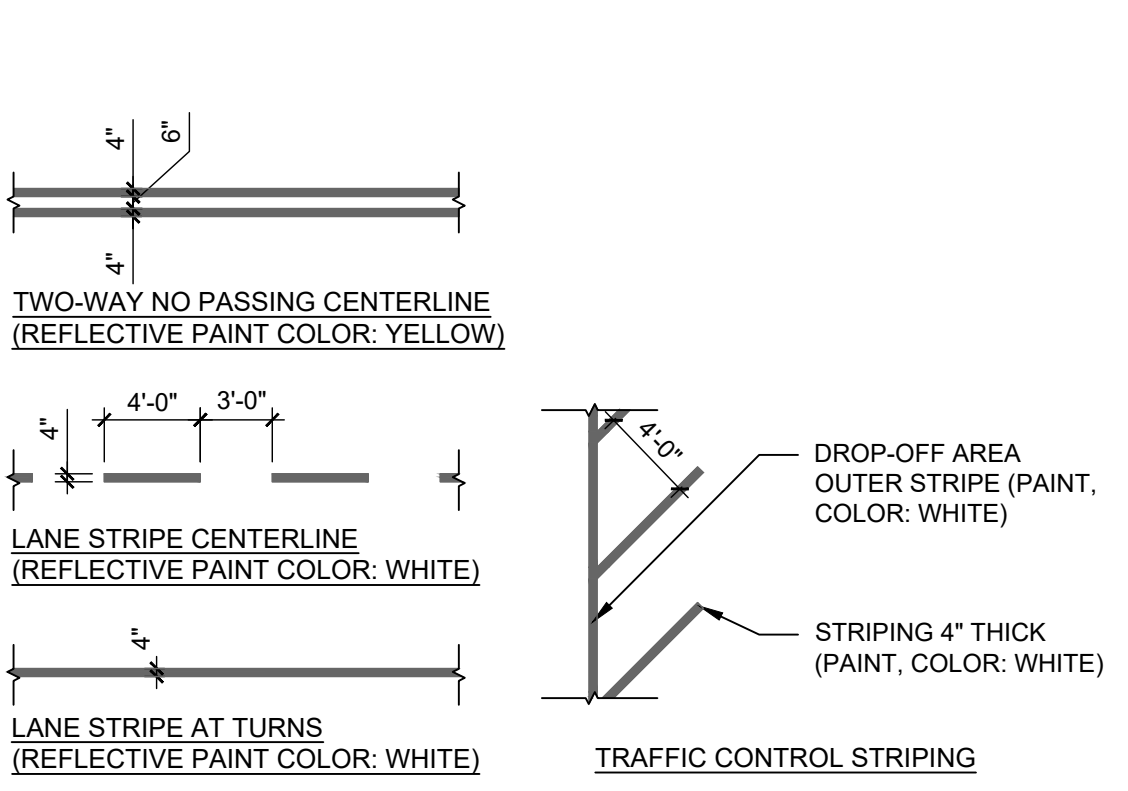


B6 CMU SCREEN WALL
1/2" = 1'-0"

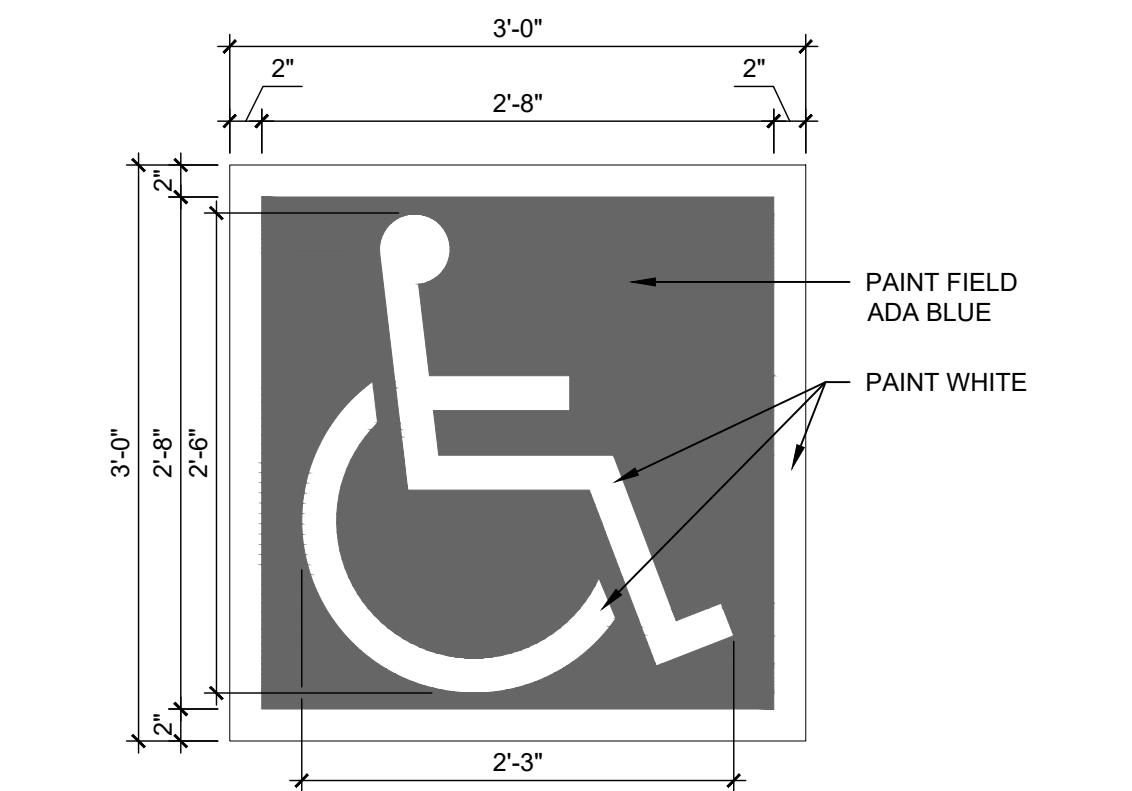


A6 CONCRETE JOINTS & JOINT SPACING
1 1/2" = 1'-0"

CONTROL AND EXPANSION JOINT SPACING - UNLESS NOTED OTHERWISE ON PLANS				
APPROX WIDTH OF CONCRETE	CURB & GUTTER, ROLL, HEADER, FLUSH CURBS	5' WALK	8' WALK & BLDG APRON	6'-12' WALK
CONTROL JOINTS	4' OC	5' OC	8' OC	8' OC
EXPANSION JOINTS	16' OC	15' OC	24' OC	18' OC

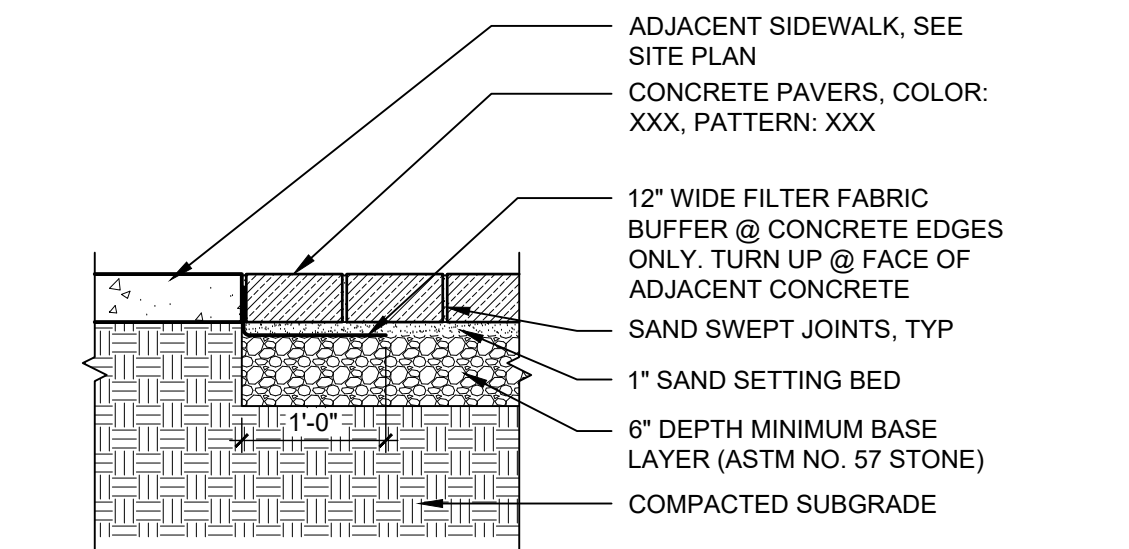


C2 ROADWAY STRIPING
1/8" = 1'-0"

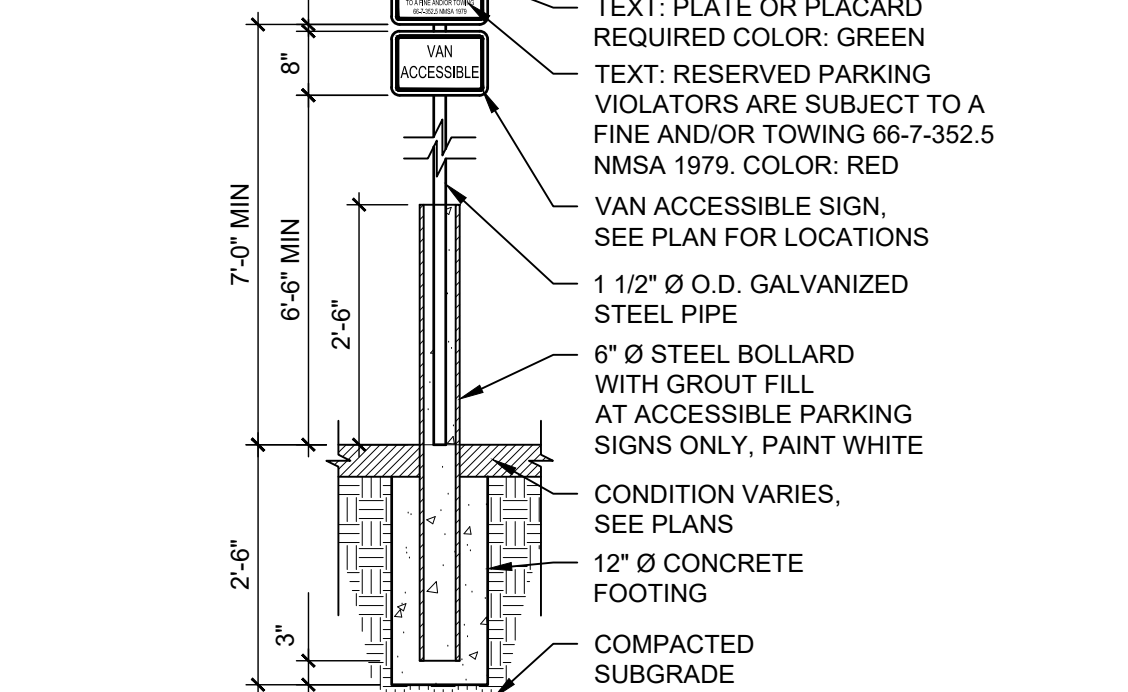


C3 ACCESSIBLE PAVEMENT MARKING
1" = 1'-0"

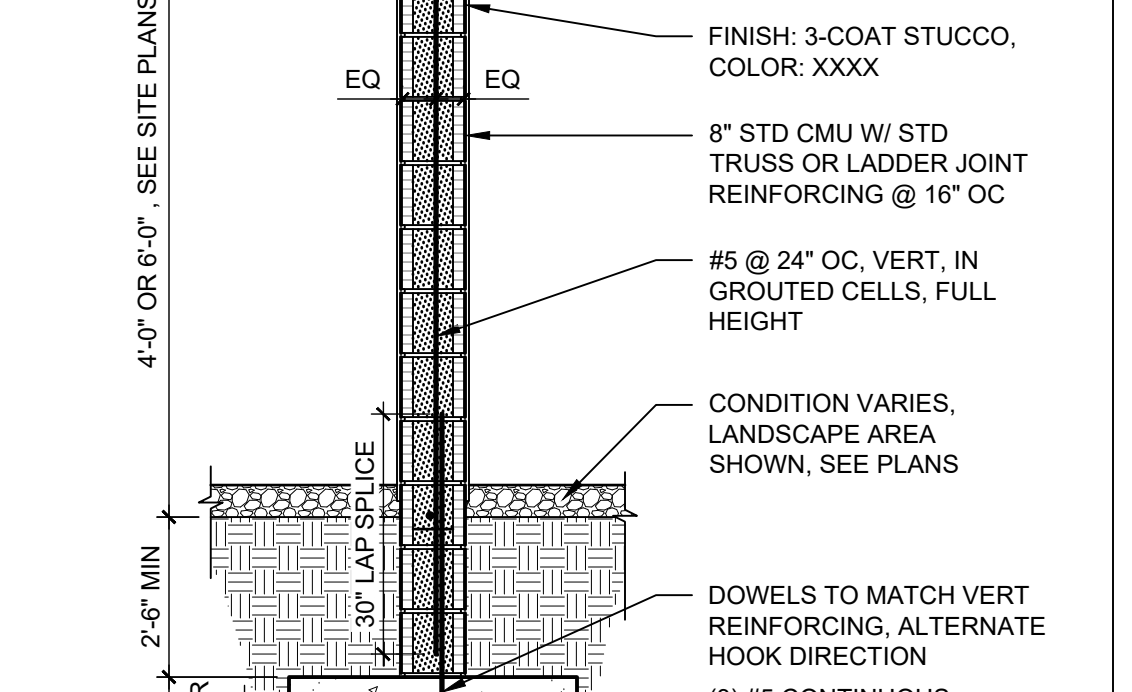
NOTES:
1. SEE SITE PLAN FOR PAVEMENT MATERIAL, PATTERN AND LOCATION.
2. SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL.



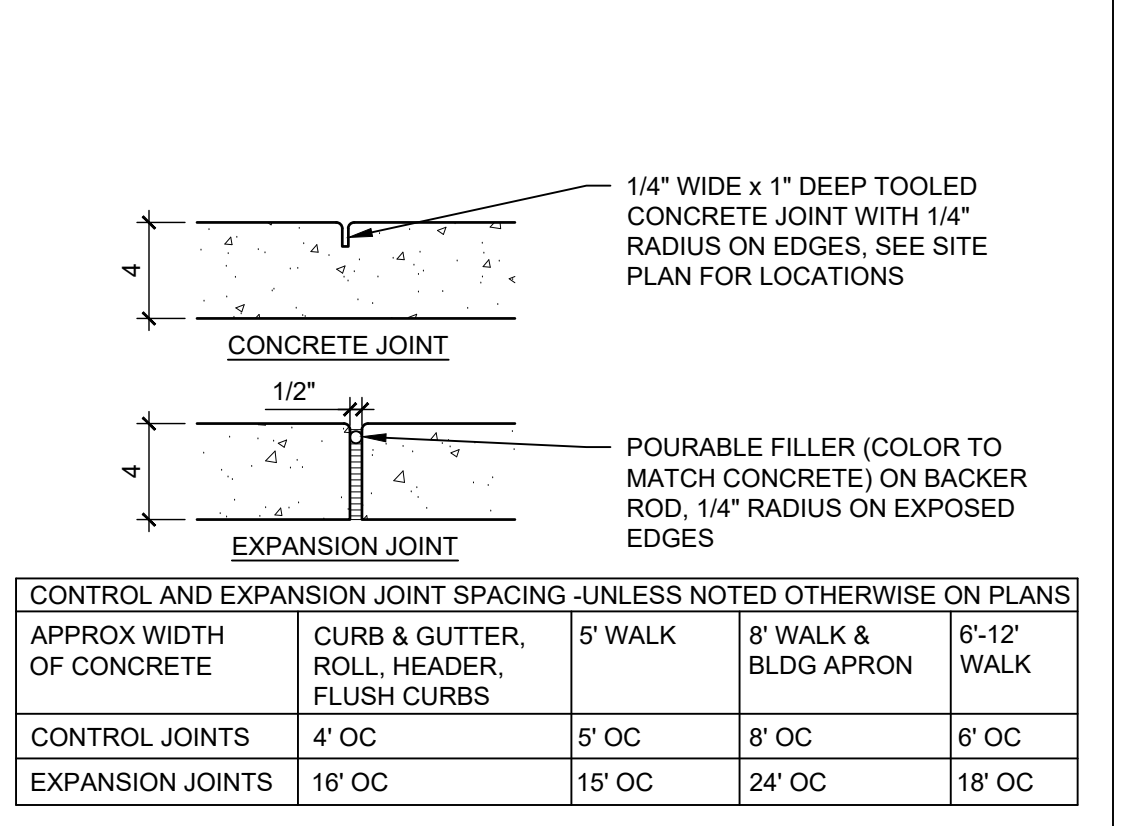
B4 CONCRETE PAVERS
3/4" = 1'-0"



B5 BOLLARD MOUNTED ACCESSIBLE SIGN
1/2" = 1'-0"

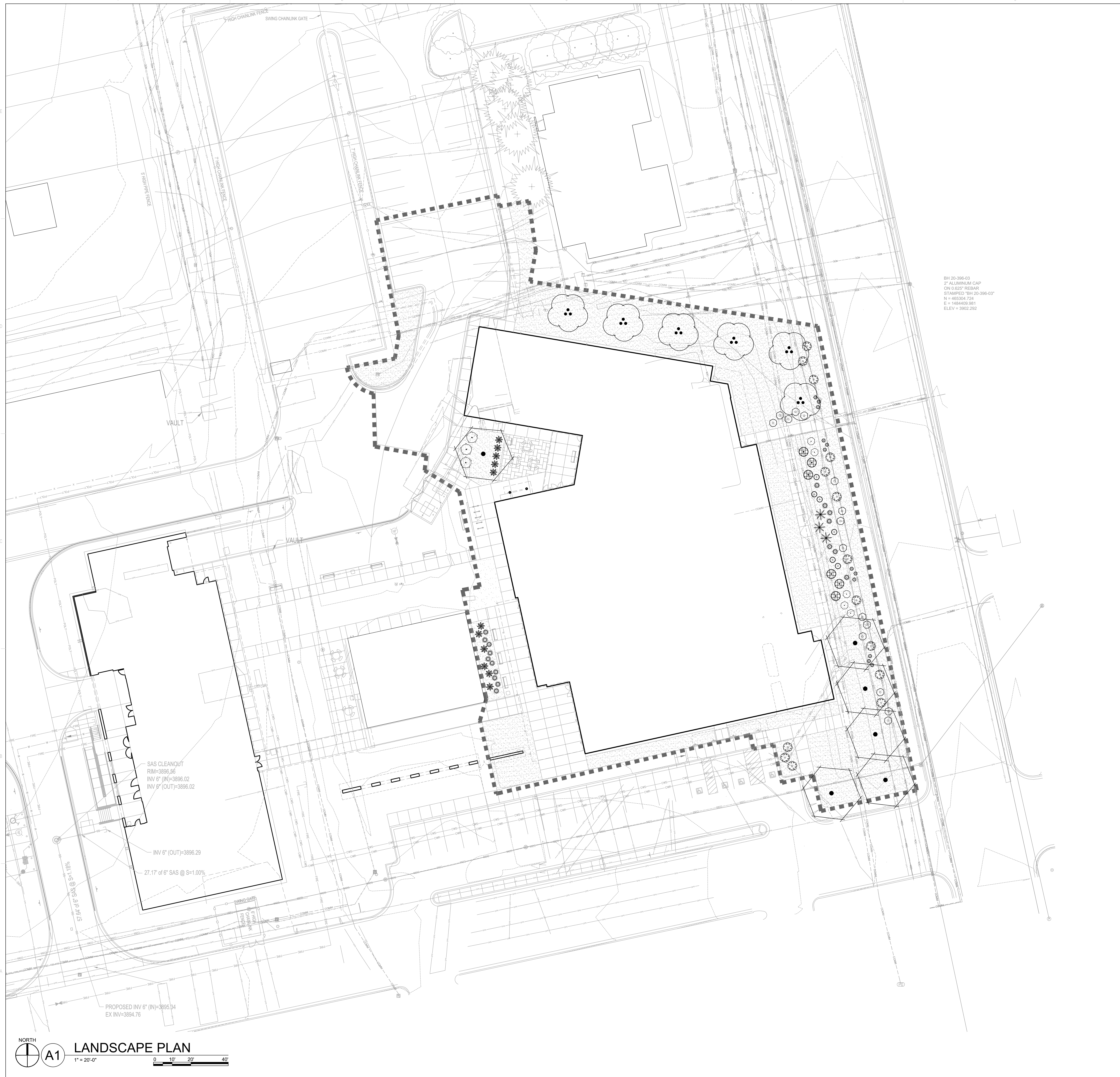


B6 CMU SCREEN WALL
1/2" = 1'-0"



A6 CONCRETE JOINTS & JOINT SPACING
1 1/2" = 1'-0"

CONTROL AND EXPANSION JOINT SPACING - UNLESS NOTED OTHERWISE ON PLANS				
APPROX WIDTH OF CONCRETE	CURB & GUTTER, ROLL, HEADER, FLUSH CURBS	5' WALK	8' WALK & BLDG APRON	6'-12' WALK
CONTROL JOINTS	4' OC	5' OC	8' OC	8' OC
EXPANSION JOINTS	16' OC	15' OC	24' OC	18' OC



BN 20-396-03
 2" ALUMINUM CAP
 ON 0.625" REBAR
 STAMPED "TM 20-396-03"
 N = 455304.724
 E = 1486400.981
 ELEV = 3902.292

SAS CLEANOUT
 RIM=3896.50'
 INV 6" (IN)=3896.02
 INV 6" (OUT)=3896.02

INV 6" (OUT)=3896.29
 -27.17' of 6" SAS @ S=-1.00%

PROPOSED INV 6" (IN)=3896.34
 EX INV=3894.76

GENERAL SHEET NOTES

- A. TIMING OF LANDSCAPE INSTALLATION: INSTALL LANDSCAPING WITHIN 60 DAYS OF THE RELATED BUILDING'S OCCUPANCY
- B. STABILIZE AREAS DISTURBED DURING CONSTRUCTION, INCLUDING AREAS NOT WITHIN THE PROPERTY LINE
- C. PRIOR TO BEGINNING WORK ON THE PROJECT, REVIEW THE PROJECT IN THE FIELD WITH THE OWNER'S REPRESENTATIVE
- D. REFER TO CIVIL DRAWINGS FOR GRADING AND DRAINAGE INFORMATION
- E. LOCATE UNDERGROUND UTILITIES PRIOR TO COMMENCEMENT OF PLANTING AND IRRIGATION OPERATIONS
- F. IF DISCREPANCIES BETWEEN THE DRAWINGS AND THE SITE CONDITIONS OCCUR, NOTIFY THE OWNER'S REPRESENTATIVE FOR CLARIFICATION PRIOR TO PROCEEDING ON THAT PORTION OF THE WORK
- G. PLANT AND MULCH QUANTITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY - VERIFY QUANTITIES PER PLAN
- H. UNLESS OTHERWISE INDICATED, INSTALL MULCH 1/2" BELOW ADJACENT PAVEMENT OR CURBS

KEY NOTES

- 1. XXXX

PLANT LEGEND

SYMBOL	BOTANICAL / COMMON NAME	SIZE/COND.
TREES		
	CHILOPSIS LINEARIS 'BUBBA JONES' BUBBA JONES DESERT WILLOW	24" BOX
	PISTACIA X 'RED PUSH' RED PUSH PISTACHE	2" CAL. B&B
SHRUBS		
	DALEA GREGGII TRAILING INDIGO BUSH	5 GAL
	ERICAMERIA LARICIFOLIA 'AGUIRRE' AGUIRRE TURPENTINE BUSH	5 GAL
	ERICAMERIA NAUSEOSUS CHAMISA	5 GAL
	LANTANA CAMARA 'DALLAS RED' DALLAS RED LANTANA	1 GAL
	LEUCOPHYLLUM FRUTESCENS 'COMPACTA' COMPACT TEXAS RANGER	15 GAL
	SANTOLINA CHAMAECYPARISSUS LAVENDER COTTON	5 GAL
ACCENTS		
	HESPERALOE FUNIFERA GIANT HESPERALOE	15 GAL
	HESPERALOE PARVIFLORA 'STOPLIGHTS' STOPLIGHTS DWARF RED YUCCA	5 GAL
	HESPERALOE X FUNIFERA 'LITTLE GIANT' LITTLE GIANT DWARF HESPERALOE	5 GAL
	YUCCA PALLIDA PALE YUCCA	5 GAL

LEGEND

- LIMITS OF WORK
- 3/4" DIA ROCK MULCH OVER WEED FABRIC,
3" DEPTH. COLOR: GOLDEN BROWN GRAVEL
FROM DESERT ROCK EL PASO

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 3190 S Espina St
 Las Cruces, NM 88001

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DRAWN BY: EH
 REVIEWED BY: BG
 DATE: 04/25/2024
 PROJECT NO.: 22-0027

DRAWING NAME
LANDSCAPE PLAN

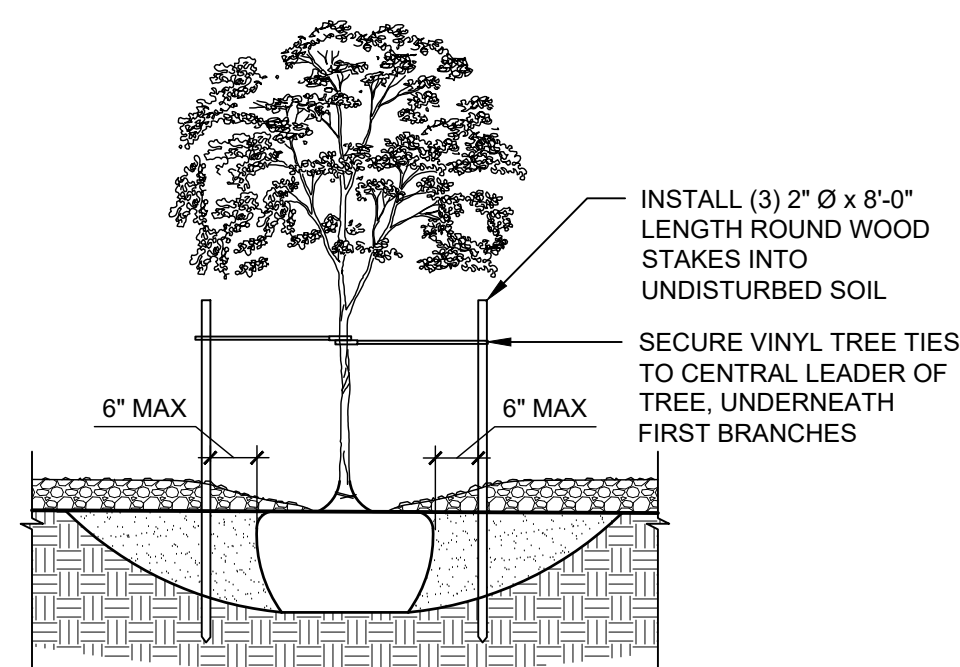
SHEET NO.
LP101

LANDSCAPE PLAN
 1" = 20'-0"
 0 10' 20' 40'

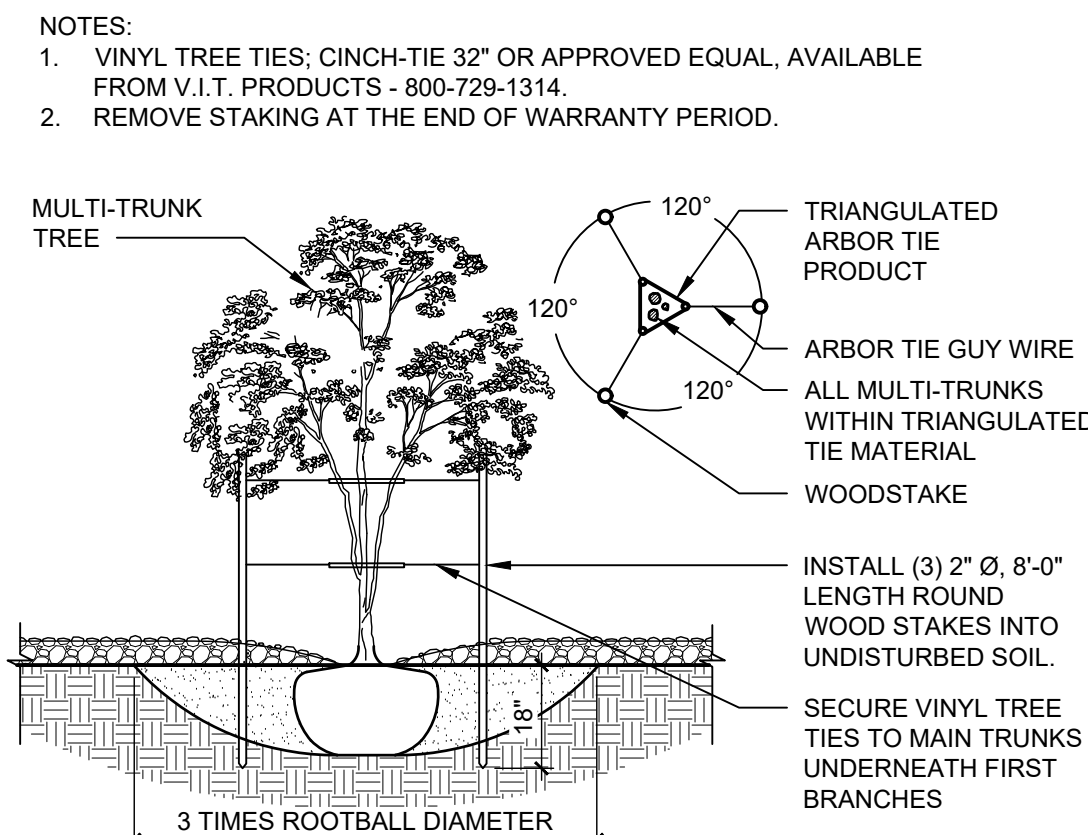
PLANT SCHEDULE

SYMBOL	BOTANICAL / COMMON NAME	SIZE/COND.	MAT. HT.	MAT. DIA.	EST QTY
TREES					
	CHILOPSIS LINEARIS 'BUBBA JONES' BUBBA JONES DESERT WILLOW	24" BOX	25.00	20.00	6
	PISTACIA X 'RED PUSH' RED PUSH PISTACHE	2" CAL, B&B	40.00	40.00	6
SHRUBS					
	DALEA GREGGII TRAILING INDIGO BUSH	5 GAL	2.00	6.00	14
	ERICAMERIA LARICIFOLIA 'AGUIRRE' AGUIRRE TURPENTINE BUSH	5 GAL	3.00	4.00	5
	ERICAMERIA NAUSEOSUS CHAMISA	5 GAL	6.00	6.00	3
	LANTANA CAMARA 'DALLAS RED' DALLAS RED LANTANA	1 GAL	3.00	4.00	15
	LEUCOPHYLLUM FRUTESCENS 'COMPACTA' COMPACT TEXAS RANGER	15 GAL	5.00	5.00	6
	SANTOLINA CHAMAECYPARISSUS LAVENDER COTTON	5 GAL	1.50	3.00	6
ACCENTS					
	HESPERALOE FUNIFERA GIANT HESPERALOE	15 GAL	6.00	6.00	3
	HESPERALOE PARVIFLORA 'STOPLIGHTS' STOPLIGHTS DWARF RED YUCCA	5 GAL	2.00	2.00	12
	HESPERALOE X FUNIFERA 'LITTLE GIANT' LITTLE GIANT DWARF HESPERALOE	5 GAL	4.00	4.00	11
	YUCCA PALLIDA PALE YUCCA	5 GAL	2.00	3.00	17

NOTE: REMOVE STAKING AT THE END OF WARRANTY PERIOD.

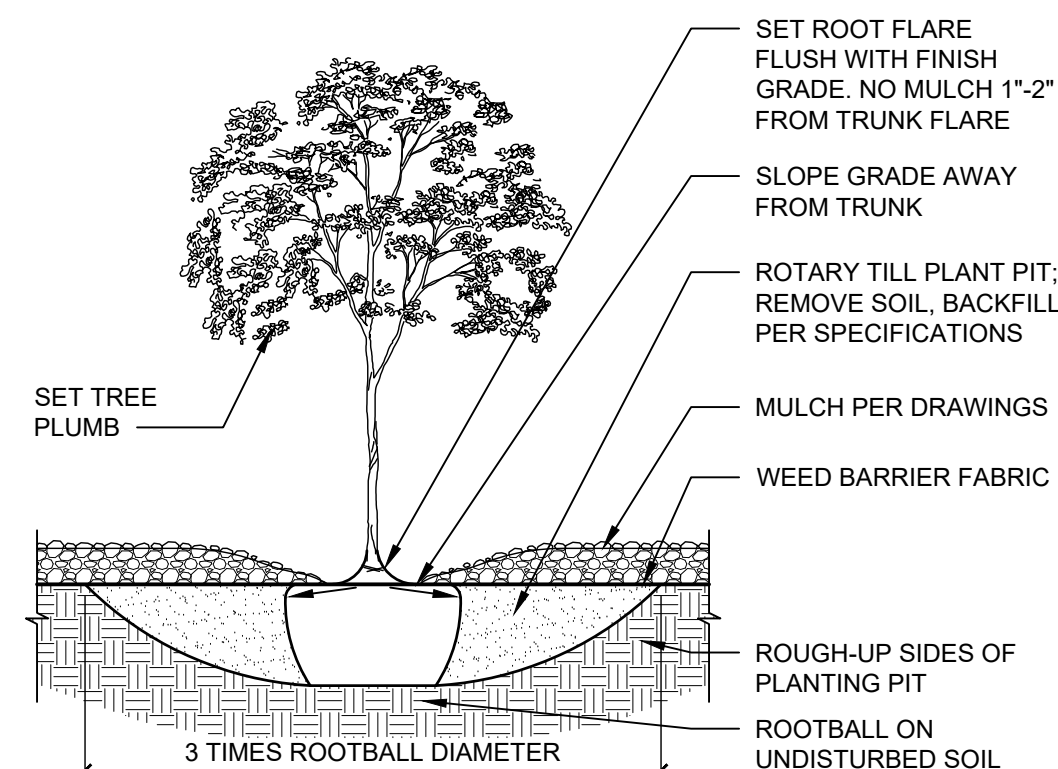


B1 TREE STAKING
3/4" = 1'-0"

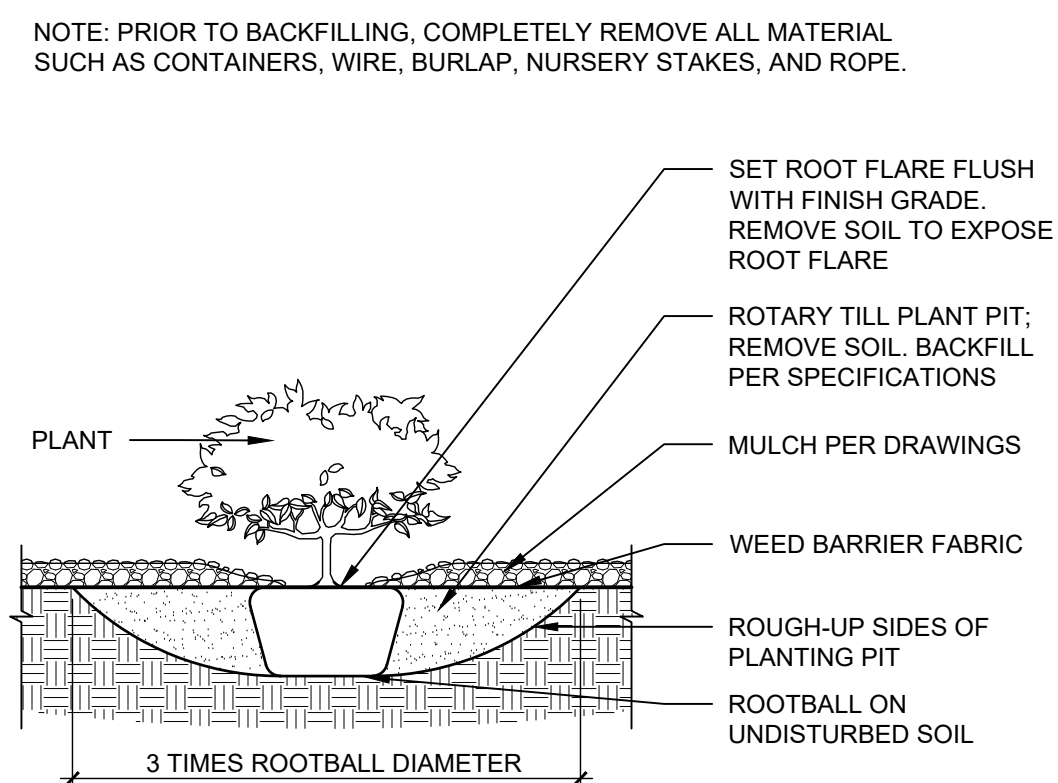


B2 MULTI-TRUNK TREE STAKING DETAIL
1/2" = 1'-0"

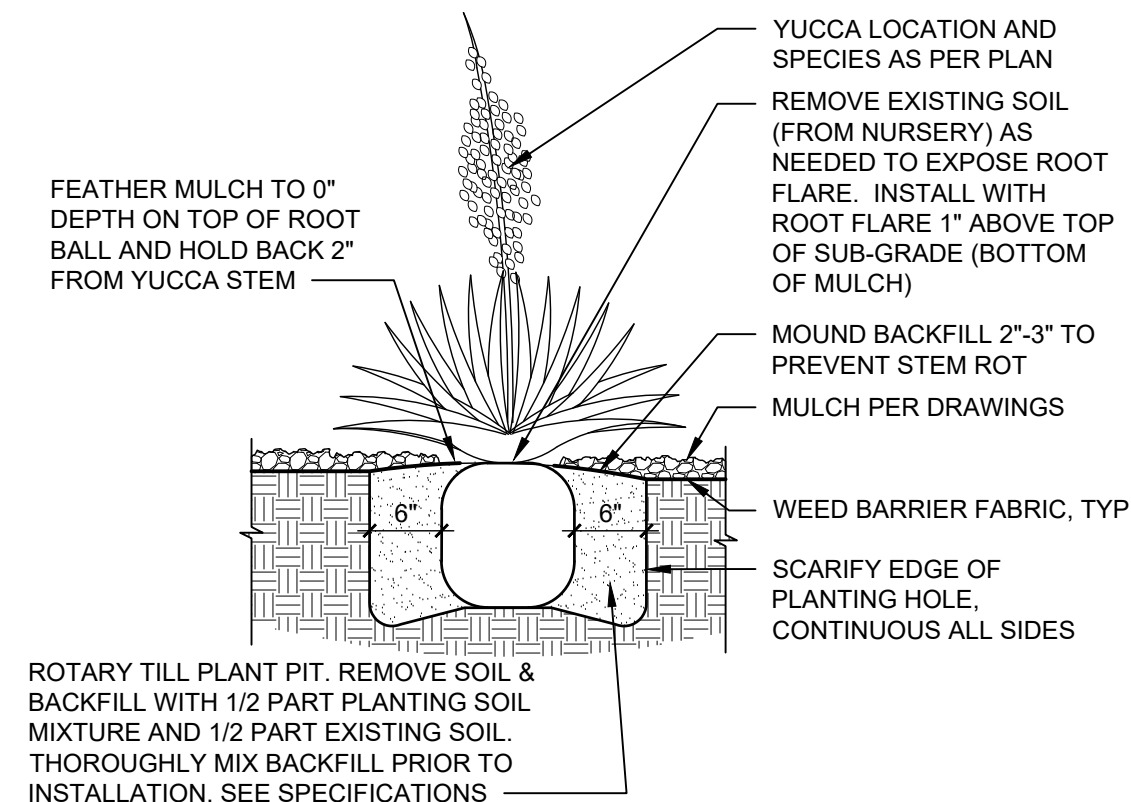
NOTE: PRIOR TO BACKFILLING, COMPLETELY REMOVE ALL MATERIAL SUCH AS CONTAINERS, WIRE, BURLAP, NURSERY STAKES, AND ROPE.



A1 TREE IN PLANTING BED
3/4" = 1'-0"



A2 SHRUB IN BED
3/4" = 1'-0"

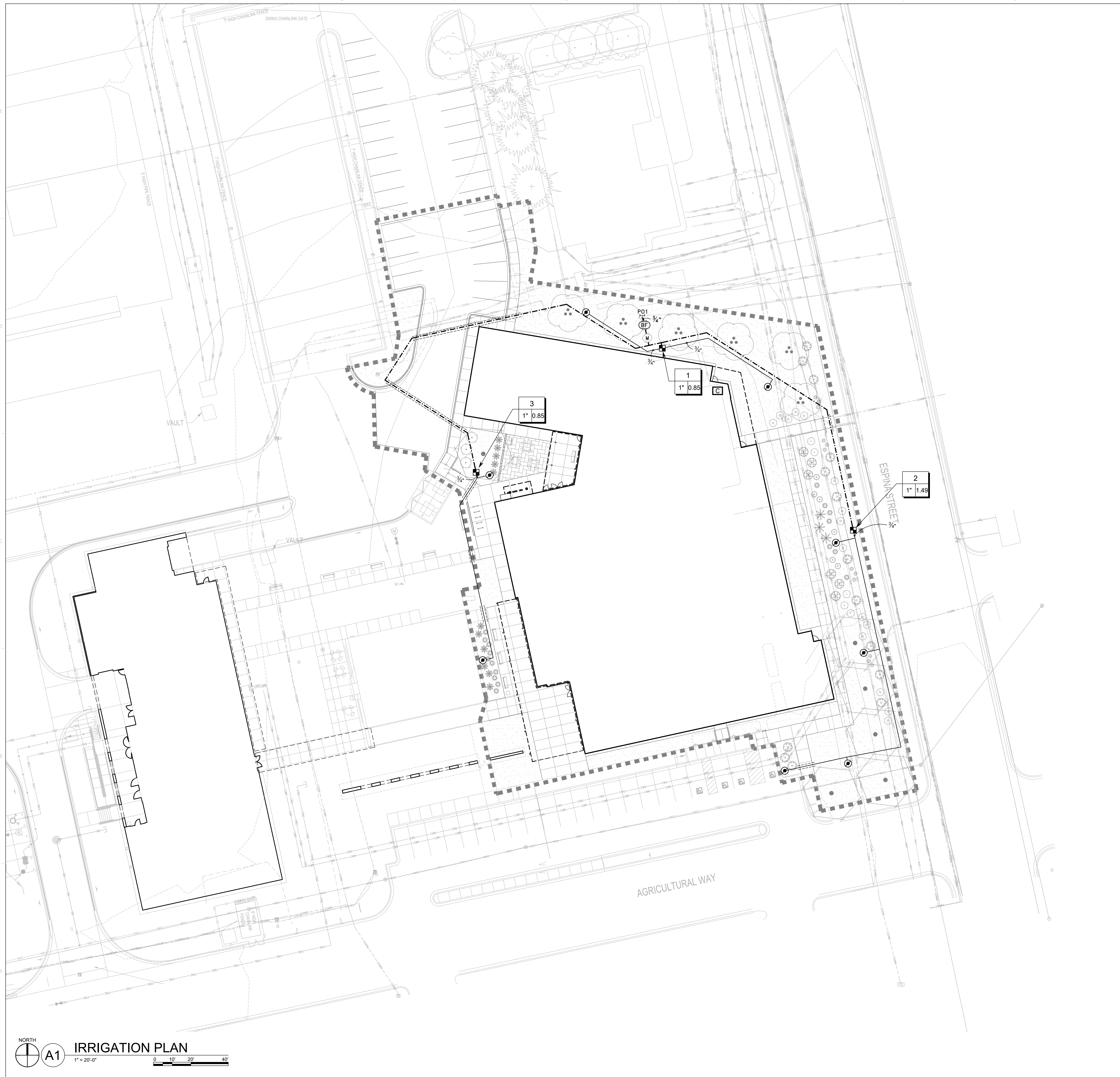


A3 YUCCA PLANTING
3/4" = 1'-0"

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DRAWN BY: EH
REVIEWED BY: BG
DATE: 04/25/2024
PROJECT NO.: 22-0027



GENERAL SHEET NOTES

- A. THE IRRIGATION SYSTEM TO BE INSTALLED IS NEW CONSTRUCTION.
- B. THIS IRRIGATION SYSTEM DESIGN IS DIAGRAMMATIC AND MAY REQUIRE FIELD ADJUSTMENTS.
- C. OBTAIN NECESSARY PERMITS REQUIRED TO PERFORM THE WORK INDICATED HEREIN BEFORE BEGINNING WORK.
- D. THIS IRRIGATION SYSTEM DESIGN IS TO BE OPERATIONAL FOR AN ASSUMED PRESSURE OF 65 PSI AT POINT OF CONNECTION. PROVIDE WATER PRESSURE REPORT TO THE ARCHITECT BEFORE IRRIGATION INSTALLATION.
- E. INITIATE A FLOW (DISCHARGE TO ACCEPTABLE DRAINAGE AREA) EQUAL TO 100 GPM AND RECORD THE DYNAMIC WATER PRESSURE AT THIS FLOW FOR THE POINT OF CONNECTION. PERFORM A DYNAMIC WATER PRESSURE TEST BY INSTALLING A PROPERLY SIZED TEST METER WITH AN ACCURATE WATER PRESSURE GAUGE ATTACHED TO THE UPSTREAM SIDE OF THE TEST METER. REPORT HIS FINDINGS IN WRITING TO THE CITY OF LAS CRUCES PROJECT REPRESENTATIVE. THE REPRESENTATIVE SHALL ISSUE A WRITTEN NOTICE TO PROCEED UPON ACCEPTABLE CONDITIONS OR ISSUE CORRECTIVE MEASURES AND INSTRUCTIONS IF THE TEST YIELDS UNEXPECTED RESULTS.
- F. IRRIGATION CONTROL VALVE WIRING SHALL BE INCIDENTAL TO IRRIGATION WORK.
- G. SEE 8/IL1501 FOR IRRIGATION TRENCHING, ALTERNATIVE LOCATIONS TO BE APPROVED IN FIELD BY THE OWNER'S REPRESENTATIVE.
- H. INSTALL IRRIGATION SLEEVES BEFORE PAVEMENT INSTALLATION. UNDER NO CIRCUMSTANCES SHALL IRRIGATION SLEEVES BE INSTALLED AFTER PAVEMENT INSTALLATION IS COMPLETE.
- I. SLEEVES SHALL EXTEND 24" BEYOND EDGE OF HARD SURFACES. WRAP ENDS WITH FOUR MILLIMETER PLASTIC AND TAPE WITH GOOD QUALITY PLASTIC TAPE. GRAY DUCT TAPE IS NOT ACCEPTABLE.
- T. VALVE LID COLORS SHALL BE TAN AND LOCATED IN MULCH AREAS.

IRRIGATION LEGEND

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD XCZ-100-PRB-COM WIDE FLOW DRIP CONTROL KIT FOR COMMERCIAL APPLICATIONS. 1IN. BALL VALVE WITH 1IN. PESB VALVE AND 1IN. PRESSURE REGULATING 40PSI QUICK-CHECK BASKET FILTER. 5 GPM-20 GPM.
	PIPE TRANSITION POINT IN DRIP BOX PIPE TRANSITION POINT FROM PVC LATERAL TO DRIP TUBING WITH RISER IN 6" DRIP BOX. SEE A6/IL1501
	AREA TO RECEIVE DRIP EMITTERS RAIN BIRD XBVC-PC SINGLE OUTLET. PRESSURE COMPENSATING DRIP EMITTERS. FLOW RATE 2.0 GPM - RED. COMES WITH A SELF-PIERCING BARB INLET X BARB OUTLET. WITH CHECK VALVE. Emitter Notes: 05PC emitters (6 assigned to each 2" CAL. B&B plant) 05PC emitters (6 assigned to each 2.5" BOX plant) 05PC emitters (2 assigned to each 1 gal plant) 05PC emitters (6 assigned to each 15 gal plant) 05PC emitters (2 assigned to each 5 gal plant)
	RAIN BIRD EFB-CP 2" 2" BRASS MASTER VALVE. THAT IS CONTAMINATION PROOF W/SELF-FLUSHING FILTER SCREEN. GLOBE CONFIGURATION
	FEBCO 825Y 2" REDUCED PRESSURE BACKFLOW PREVENTER WITH HEATED ENCLOSURE. MODEL HB2S
	RAIN BIRD ESFLXME2-LXMM 12 STATION TRADITIONALLY WIRED. COMMERCIAL CONTROLLER. INDOOR/OUTDOOR. PLASTIC WALL-MOUNT ENCLOSURE. INSTALL IN LXMM POWDER COATED, METAL WALL-MOUNTED CABINET.
	POINT OF CONNECTION 2"
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40
	IRRIGATION MAINLINE: PVC SCHEDULE 40
	PIPE SLEEVE: PVC SCHEDULE 40
	Valve Callout Valve Number Valve Flow Valve Size

VALVE SCHEDULE

NUMBER	MODEL	SIZE	GPM	PSI
1	RAIN BIRD XCZ-100-PRB-COM	1"	0.85	27.0
2	RAIN BIRD XCZ-100-PRB-COM	1"	1.49	27.2
3	RAIN BIRD XCZ-100-PRB-COM	1"	0.85	27.0

LEGEND

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NMSU NMDA New Office Building
3190 S Espina St
Las Cruces, NM 88001

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DRAWN BY: BG
REVIEWED BY: CM
DATE: 04/25/2024
PROJECT NO.: 22-0027

DRAWING NAME
IRRIGATION PLAN

SHEET NO.
LI101

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PROJECT

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Las Cruces, NM 88001

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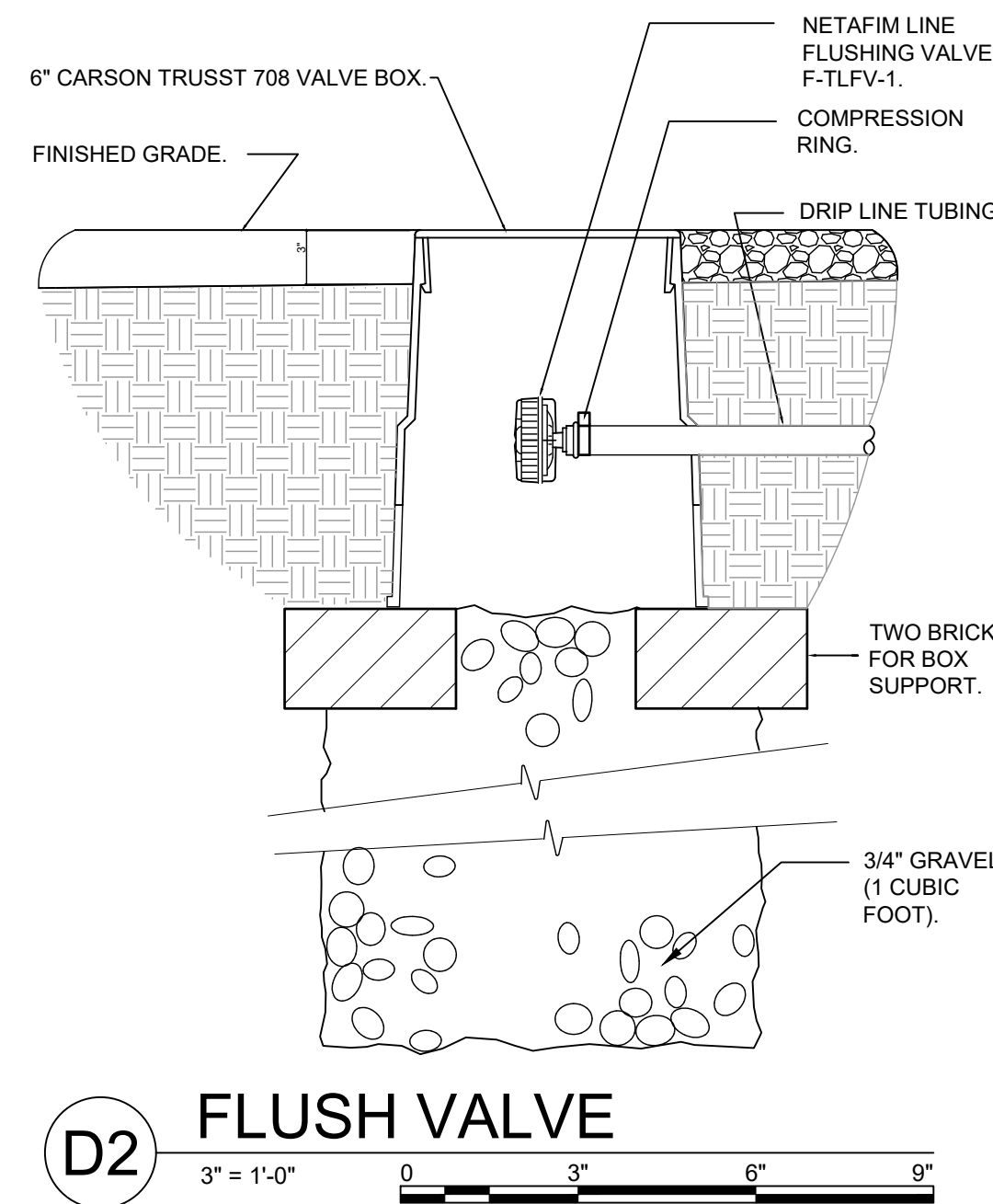
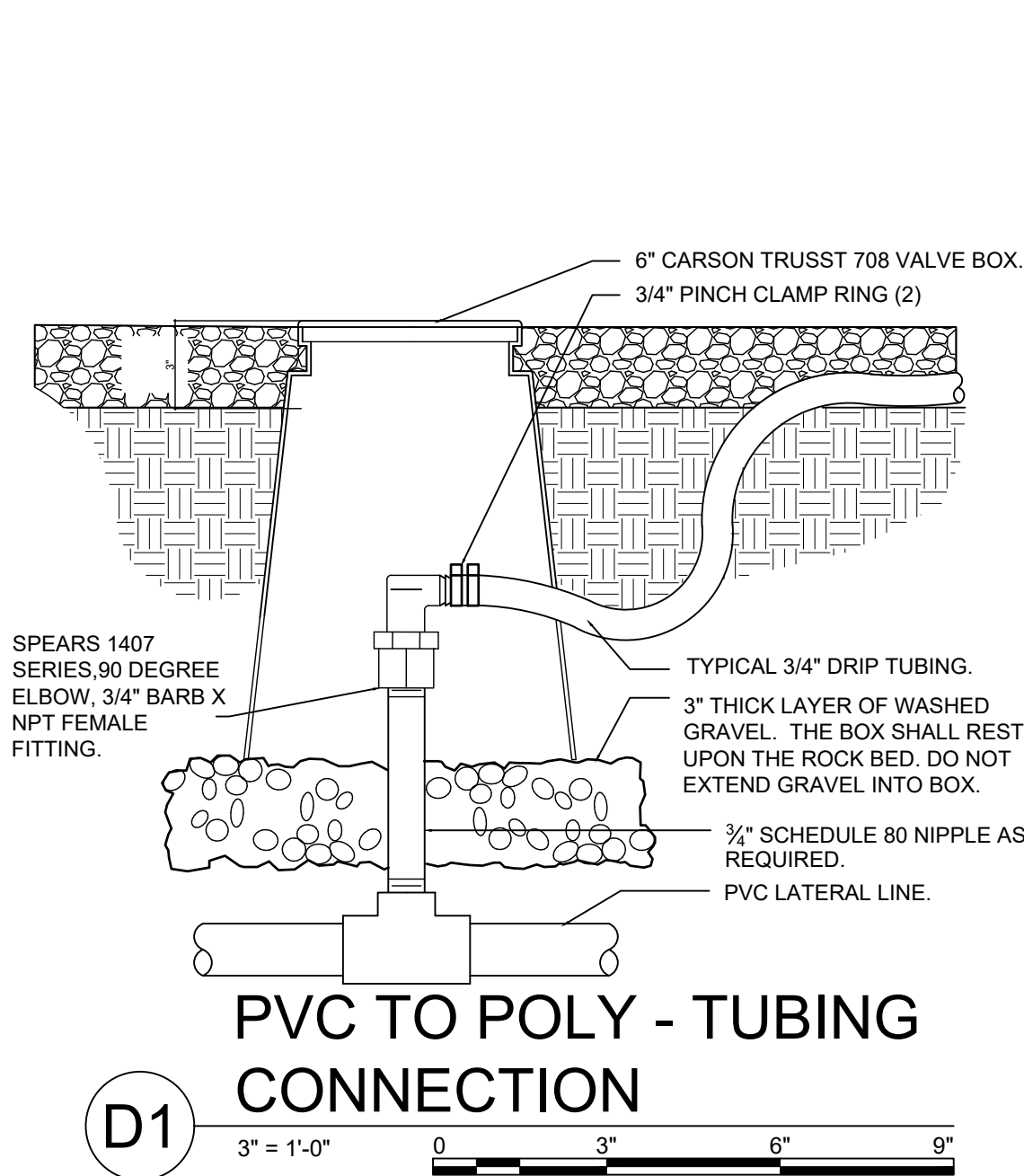
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DRAWN BY BG
REVIEWED BY CM
DATE 04/25/2024
PROJECT NO. 22-0027

DRAWING NAME
**IRRIGATION
DETAILS**

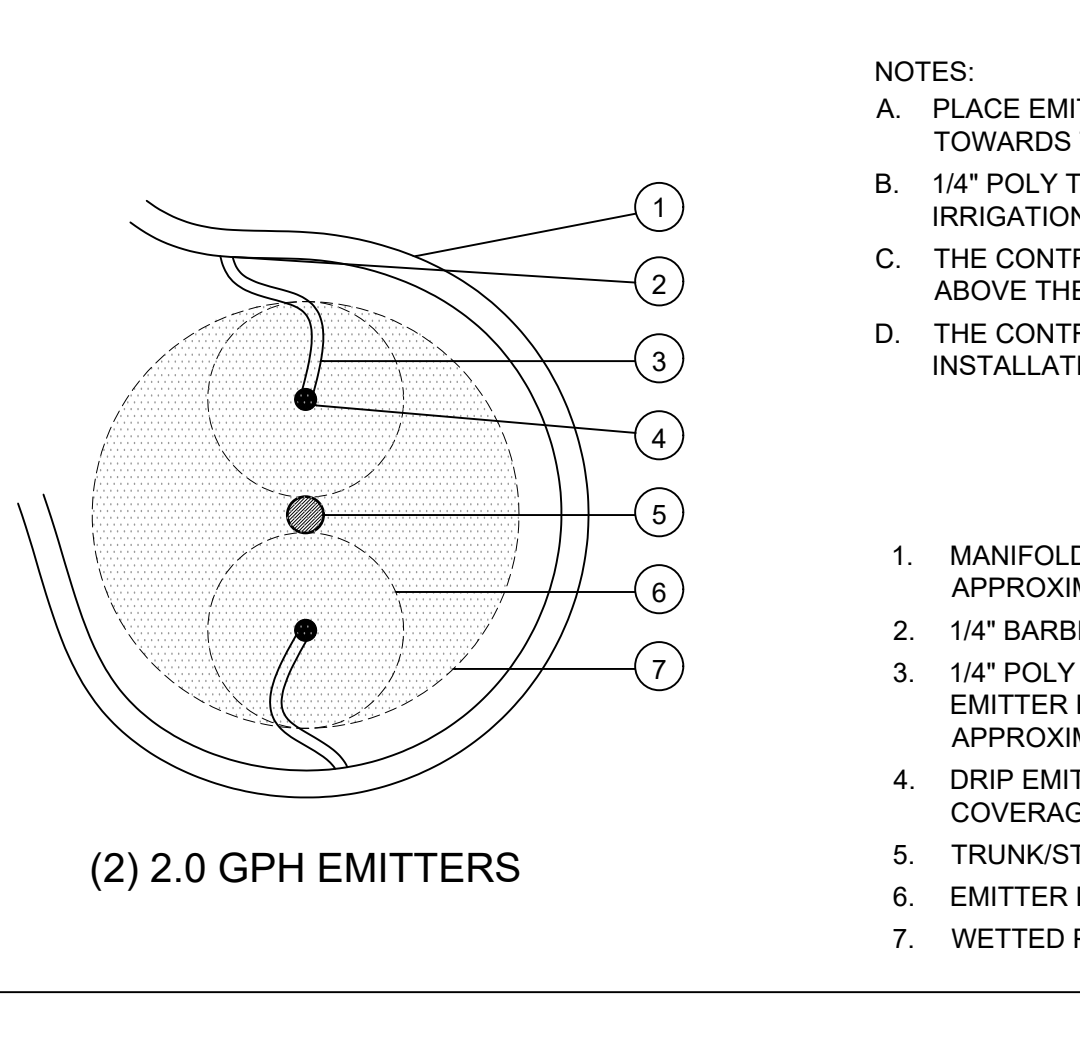
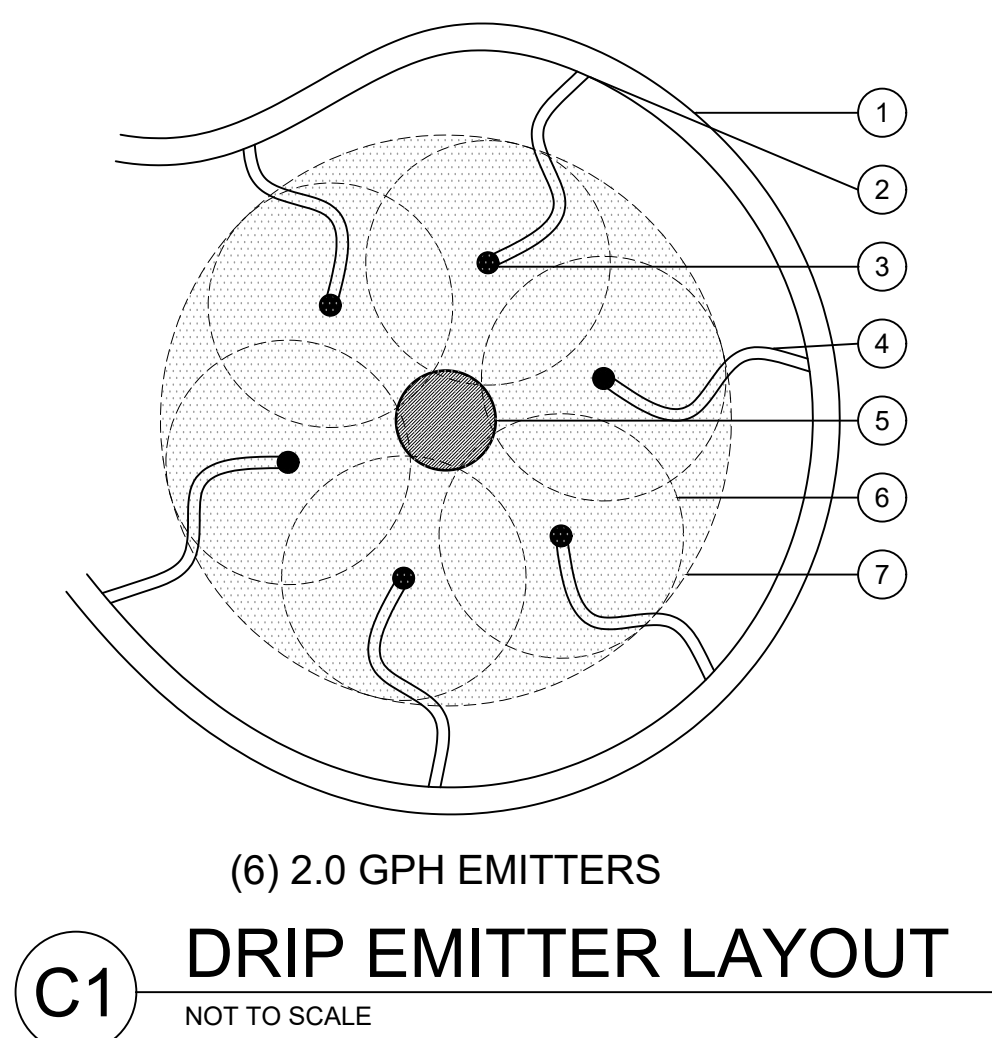
SHEET NO.

LI501

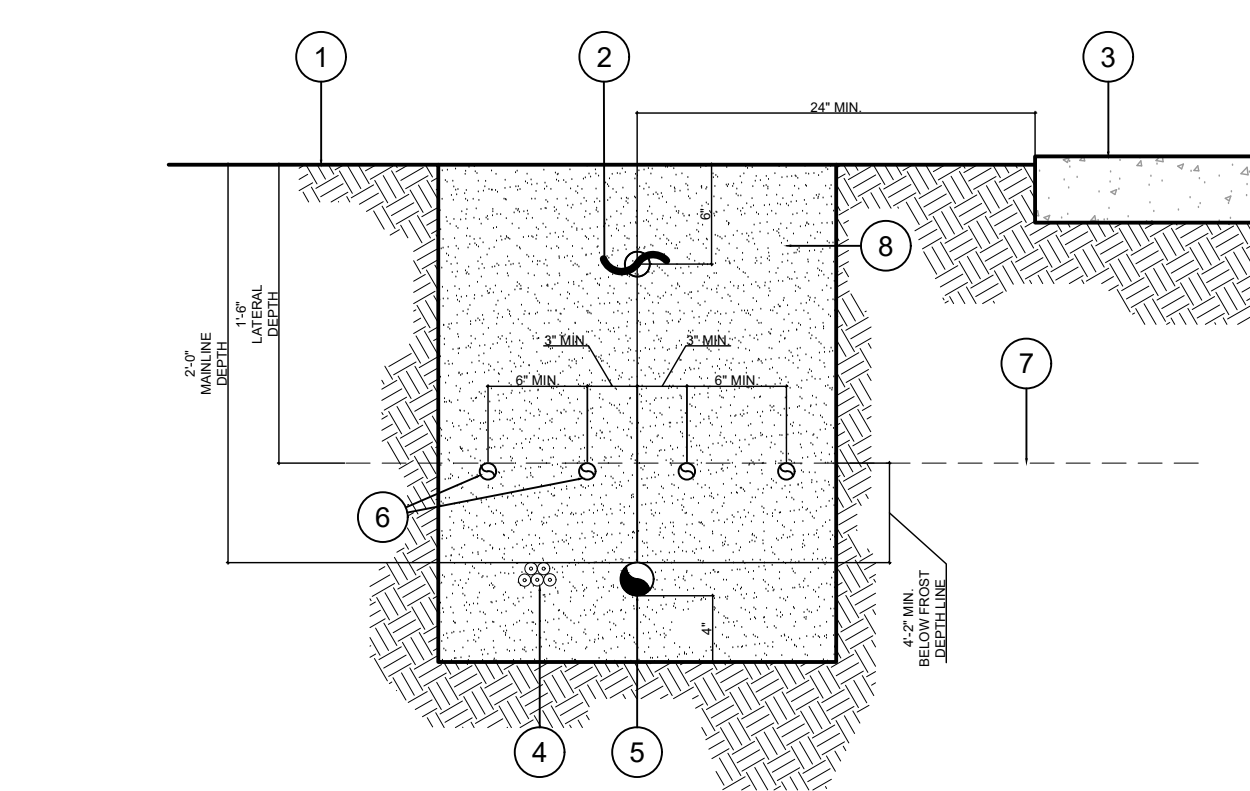


D1 3" = 1'-0" 0 3" 6" 9"

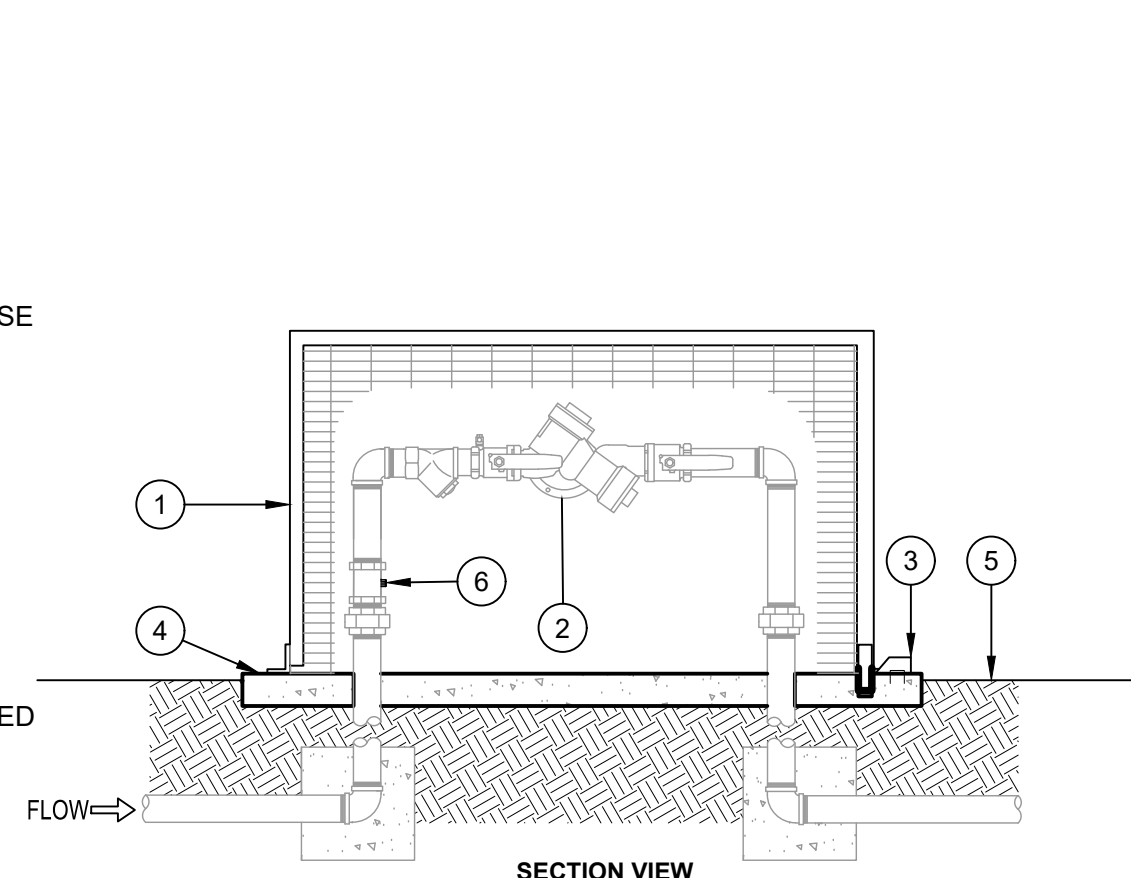
D2 3" = 1'-0" 0 3" 6" 9"



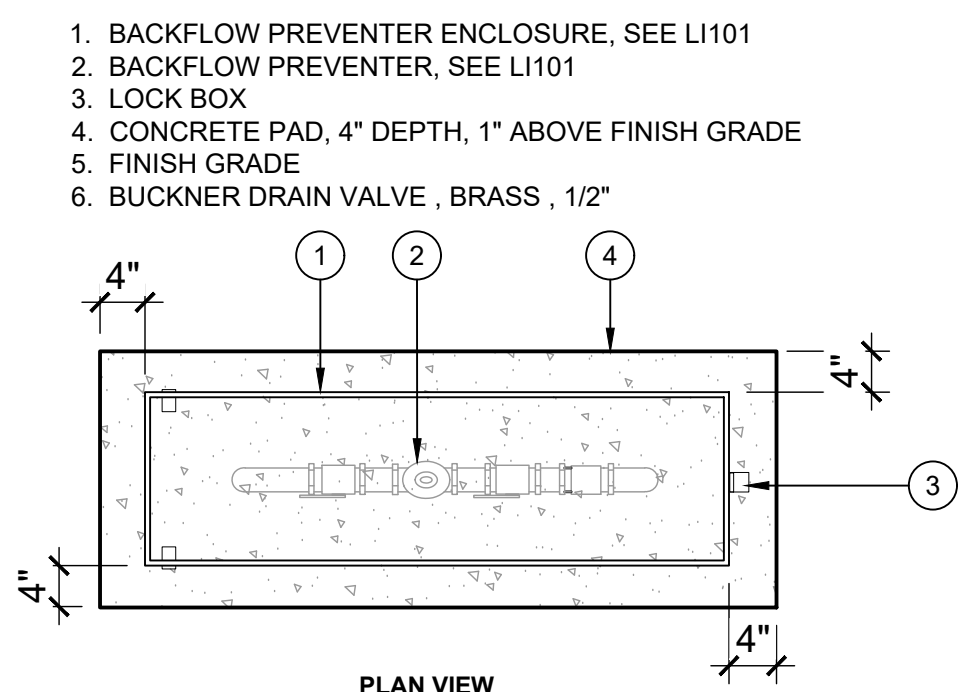
- NOTES:
- PLACE EMITTERS ON SLOPES BY ADJUSTING THE SPACING OF THE EMITTERS TOWARDS THE HIGH SIDE OF THE SLOPE.
 - 1/4" POLY TUBING CAN BE LONGER THAN 10' FOR EXISTING PLANT MATERIAL IRRIGATION.
 - THE CONTRACTOR SHALL ENSURE THAT ONLY THE DRIP EMITTER IS VISIBLE ABOVE THE MULCH MATERIAL.
 - THE CONTRACTOR SHALL SEE SPECS FOR ADDITIONAL PRODUCT AND INSTALLATION INFORMATION.
- MANIFOLD BUBBLER (TYPICAL). KEEP SPACING OF MANIFOLDS TO APPROXIMATELY 15' OR LESS
 - 1/4" BARBED CONNECTOR AT MANIFOLD BUBBLER (TYPICAL)
 - 1/4" POLY (OR VINYL) DISTRIBUTION TUBING (TYPICAL). NOTES: USE ONLY ONE EMITTER PER RUN OF TUBING. KEEP POLY TUBING'S LENGTH OF RUN TO APPROXIMATELY 10' OR LESS
 - DRIP EMITTER (TYPICAL). SPACE EQUALLY WITHIN WETTED PATTERN COVERAGE/ROOT ZONE
 - TRUNK/STEM
 - EMITTER DRIP COVERAGE
 - WETTED PATTERN COVERAGE/ ROOT ZONE



- FINISH GRADE
- DETECTABLE LOCATOR TAPE & DISTRIBUTION HOSE
- PAVEMENT, SEE PLANS
- DIRECT BURIAL LOW VOLTAGE CONTROL WIRES
- PVC MAIN LINE
- LATERAL LINE
- FROST DEPTH LINE
- EXCAVATED MATERIAL SHALL BE FINELY SCREENED WITH NO ROCKS LARGER THAN 1/2"

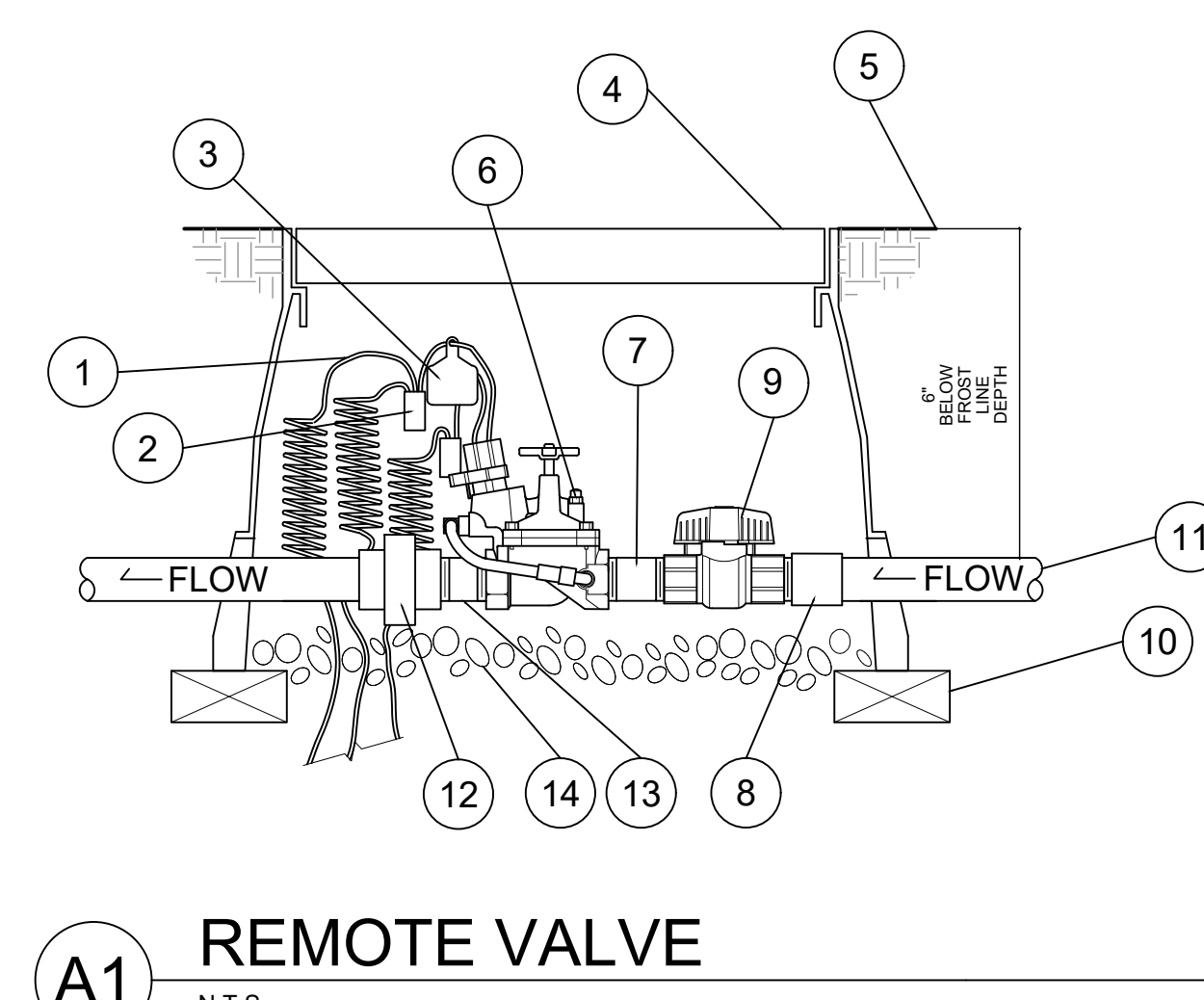


- NOTES:
- INSTALL ENCLOSURE PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
 - LOCK BOX SHALL BE LOCATED ABOVE CONCRETE FOOTING.
 - PROVIDE A LOCK AS APPROVED BY THE OWNER'S REPRESENTATIVE.



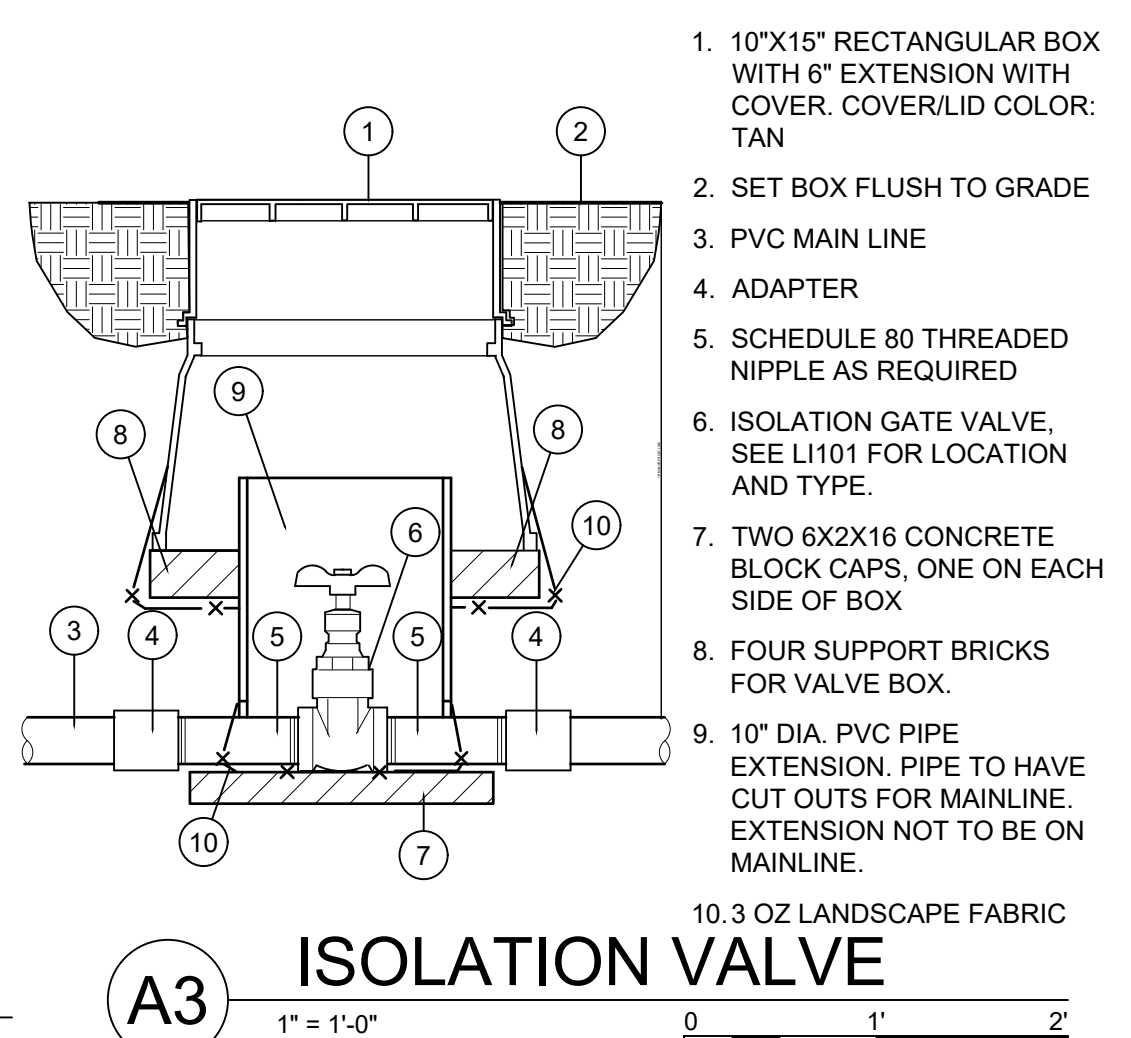
B1 IRRIGATION TRENCHING
N.T.S.

B3 BACKFLOW PREVENTER ENCLOSURE
NOT TO SCALE



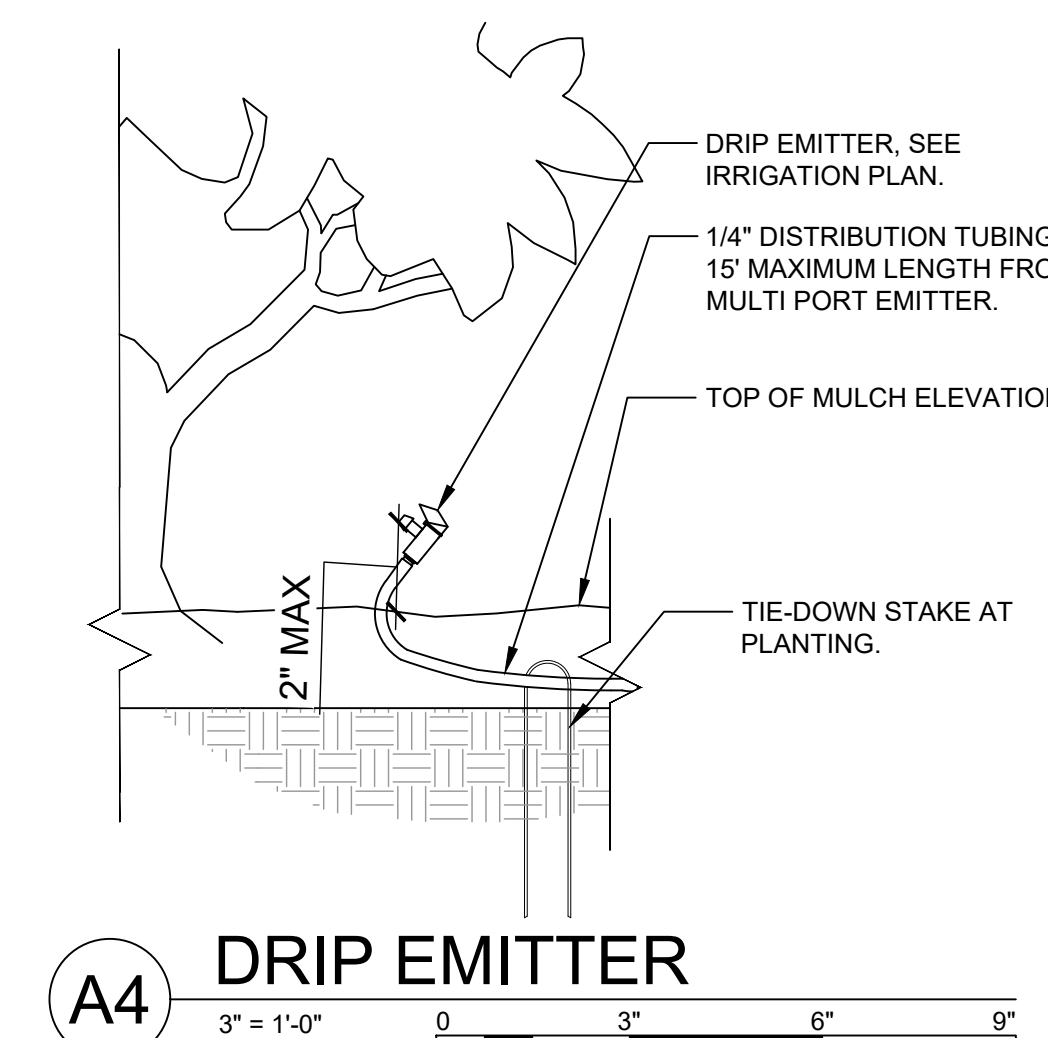
- 30-INCH LINEAR LENGTH OF WIRE COILED
- WATERPROOF CONNECTION RAIN BIRD SPLICE-1 (1 OF 2)
- ID TAG: RAIN BIRD VID SERIES
- VALVE BOX WITH COVER: CARSON 1730
- FINISH GRADE/TOP OF MULCH
- REMOTE CONTROL VALVE: RAIN BIRD EFB-CP
- PVC SCH 80 NIPPLE (CLOSE)
- PVC SCH 40 MALE ADAPTER
- PVC SCH 80 BALL VALVE (MATCH MAIN LINE)
- BRICK (1 OF 4)
- PVC MAINLINE PIPE
- PVC SCH 80 UNION
- PVC SCH 80 NIPPLE (CLOSE)
- 3.0-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL

A1 REMOTE VALVE
N.T.S.

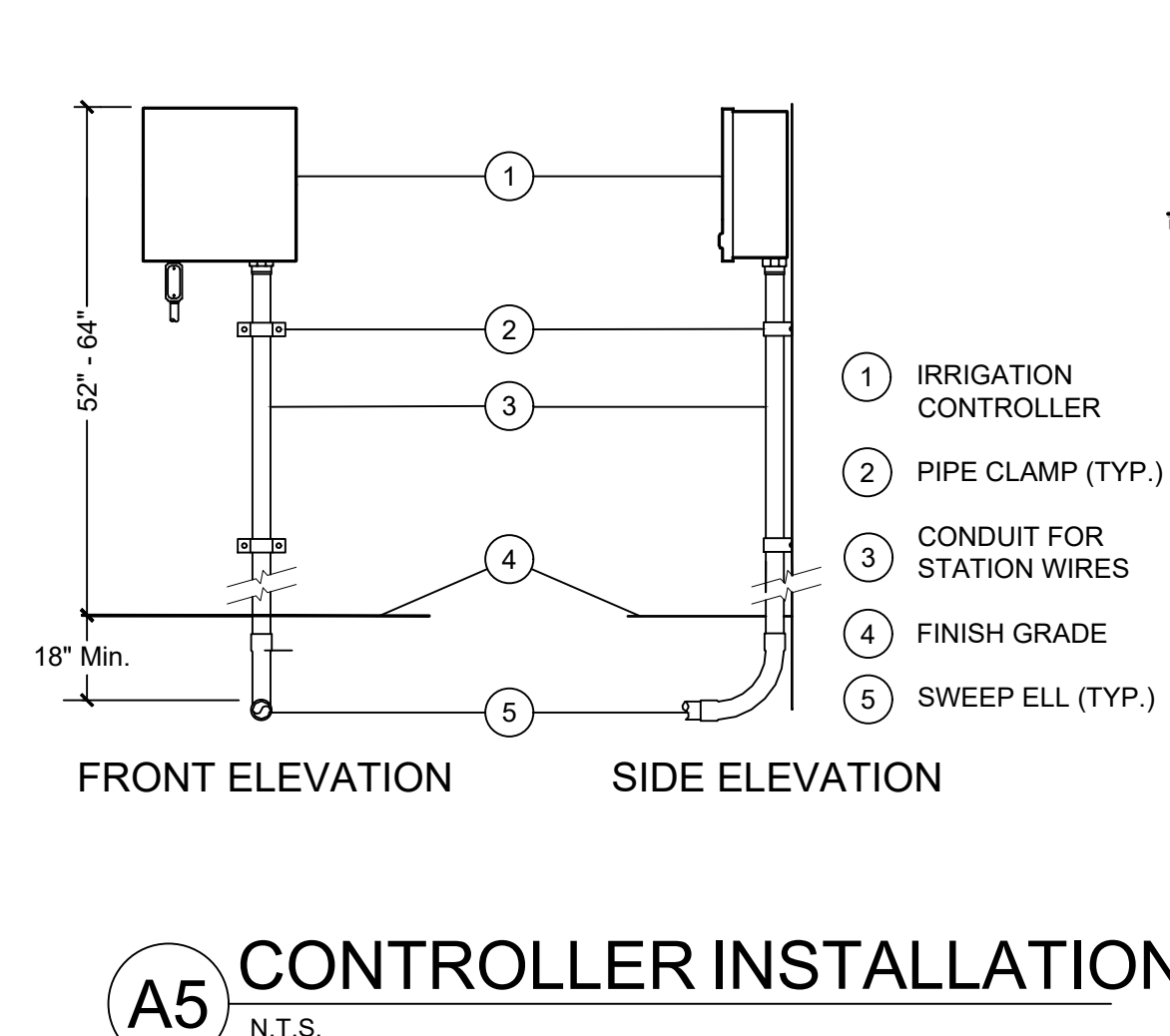


- 10"x15" RECTANGULAR BOX WITH 6" EXTENSION WITH COVER. COVER/LID COLOR: TAN
- SET BOX FLUSH TO GRADE
- PVC MAIN LINE
- ADAPTER
- SCHEDULE 80 THREADED NIPPLE AS REQUIRED
- ISOLATION GATE VALVE, SEE LI101 FOR LOCATION AND TYPE.
- TWO 6X2X16 CONCRETE BLOCK CAPS, ONE ON EACH SIDE OF BOX
- FOUR SUPPORT BRICKS FOR VALVE BOX.
- 10" DIA. PVC PIPE EXTENSION. PIPE TO HAVE CUT OUTS FOR MAINLINE. EXTENSION NOT TO BE ON MAINLINE.
- 10.3 OZ LANDSCAPE FABRIC

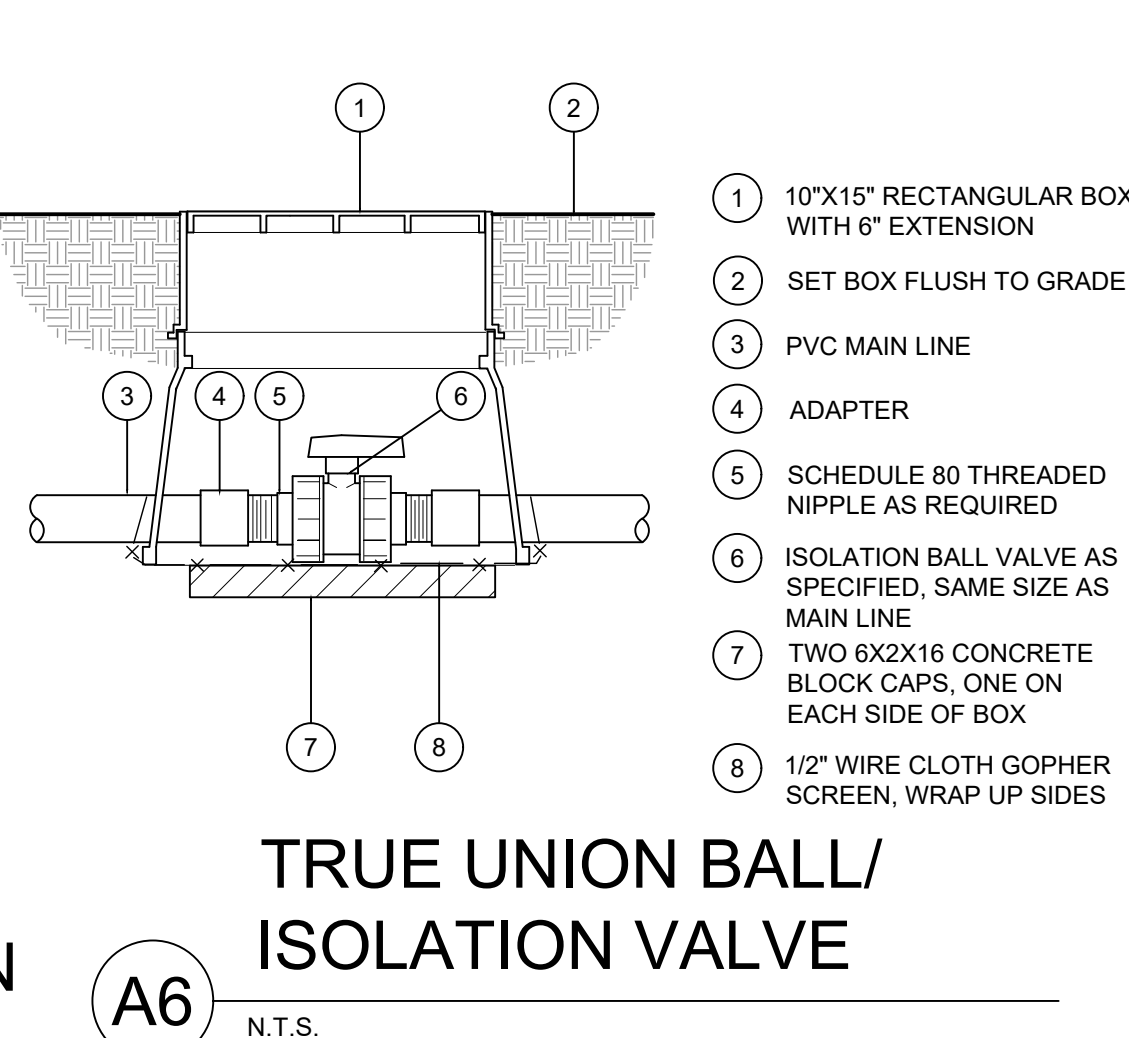
A3 ISOLATION VALVE
1" = 1'-0" 0 1" 2"



A4 DRIP EMITTER
3" = 1'-0" 0 3" 6" 9"



A5 CONTROLLER INSTALLATION
N.T.S.



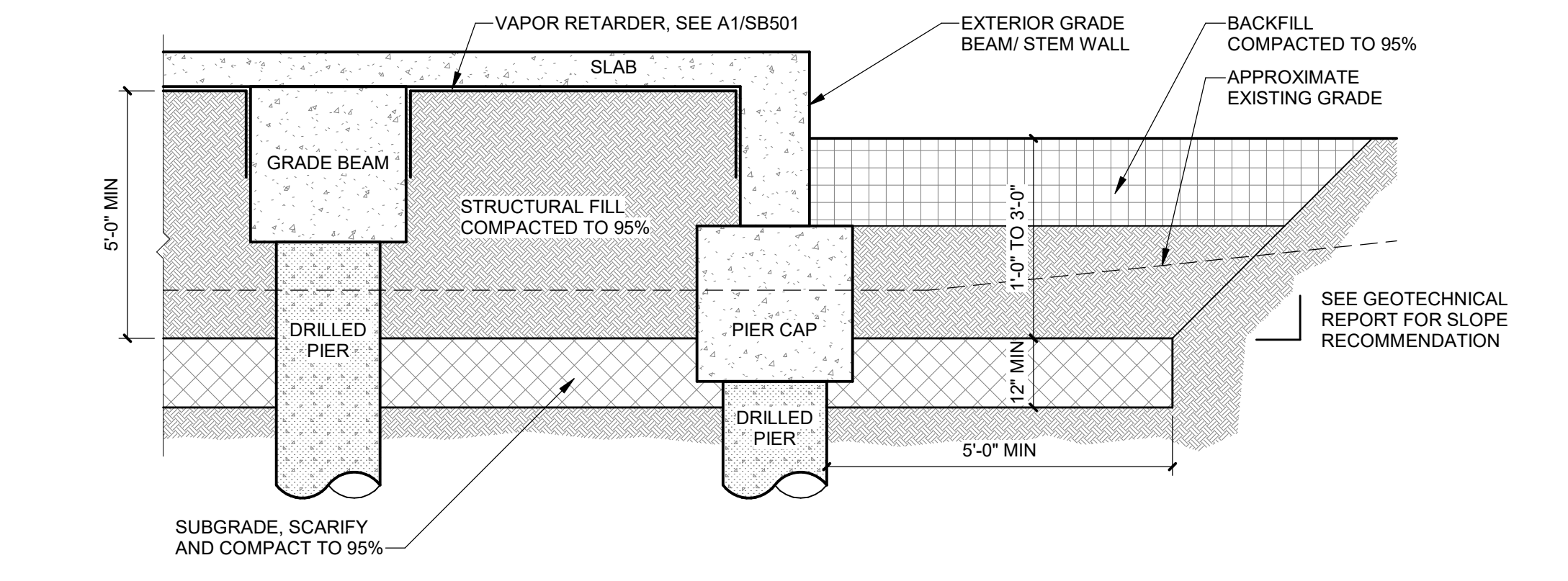
A6 TRUE UNION BALL/
ISOLATION VALVE
N.T.S.

FOUNDATION NOTES

- A. A SUBSURFACE GEOTECHNICAL INVESTIGATION HAS BEEN PERFORMED BY ?????????????????? A REPORT OF THIS INVESTIGATION DATED ?????????? AND NUMBERED ?????????? IS AVAILABLE.
- B. IMPORTANT ADDITIONAL INFORMATION CONCERNING SPECIFIC SOIL CONDITIONS IS CONTAINED IN THIS REPORT AND SHALL BE REVIEWED PRIOR TO START OF CONSTRUCTION.
- C. THE GEOTECHNICAL INVESTIGATION REPORT CONTAINS SPECIFIC REQUIREMENTS CONCERNING CLEARING AND GRUBBING, SITE, SUBFLOOR AND BEARING SURFACE PREPARATION, STRUCTURAL FILL REQUIREMENTS, AND COMPACTION REQUIREMENTS NOT NECESSARILY SHOWN ON THESE DRAWINGS. REFER ANY CONFLICTS BETWEEN THESE DRAWINGS AND THE REPORT TO THE ARCHITECT FOR DIRECTION PRIOR TO BEGINNING ANY WORK.
2. BASIS FOR DESIGN:
- A. ALLOWABLE SOIL BEARING PRESSURE = ????? PSF
3. FIELD OBSERVATION AND TESTING REQUIREMENTS:
- A. EMPLOY THE SERVICES OF A REGISTERED, LICENSED GEOTECHNICAL ENGINEER TO OBSERVE ALL CONTROLLED EARTHWORK. THE GEOTECHNICAL ENGINEER SHALL PROVIDE CONTINUOUS ON-SITE OBSERVATION BY EXPERIENCED PERSONNEL DURING CONSTRUCTION OF CONTROLLED EARTHWORK. NOTIFY THE GEOTECHNICAL ENGINEER AT LEAST TWO WORKING DAYS IN ADVANCE OF ANY FIELD OPERATIONS OF THE CONTROLLED EARTHWORK. A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER SHALL BE PRESENT TO CONFIRM THE COMPLETE EXECUTION OF ANY UNCONTROLLED FILL.
- B. TESTS OF MATERIALS SHALL BE MADE AT THE FOLLOWING RATES:
- a. ONE FIELD DENSITY TEST PER EACH ??? SQUARE YARDS OF COMPACTED SUBGRADE PRIOR TO EACH STRUCTURAL FILL OR FLOOR SLAB CONSTRUCTION WITH A MINIMUM OF 7 TESTS.
- b. ONE FIELD DENSITY TEST PER EACH ??? CUBIC YARDS OF STRUCTURAL FILL PLACED.
- c. [TWO FIELD DENSITY TEST PER EACH LIFT OF STRUCTURAL FILL UP TO ??? SQUARE FEET] AND [FOUR SMALL AREAS, EACH AREA OF FILL SHALL BE TESTED AT EACH LIFT OF STRUCTURAL FILL]
- d. ONE MOISTURE-DENSITY CURVE FOR EACH TYPE OF MATERIAL USED, AS INDICATED BY SIEVE ANALYSIS AND PLASTICITY INDEX.
- e. FOLLOWING FINISH GRADING, THE FINAL SURFACE SHALL BE TESTED.
- f. [ONE FIELD DENSITY TEST PER EACH LIFT OF FILL BEYOND THE FOOTING EXCAVATIONS SHALL BE TESTED.]
- g. THE GEOTECHNICAL ENGINEER SHALL SUBMIT THE RESULTS OF ALL REQUIRED TESTS TO THE ARCHITECT WITHIN 2 WORKING DAYS AFTER THE TEST.
4. SPECIFIC SOIL PREPARATION REQUIREMENTS:
- A. CLEARING AND GRUBBING:
- a. REMOVE ALL BRUSH, RUBBISH, GRASS AND OTHER PLANTS, AND GRASS AND OTHER PLANT ROOTS FROM THE CONSTRUCTION AREA.
- b. REMOVE STUMPS, MATTED ROOTS AND ROOTS LARGER THAN 2 INCHES IN DIAMETER WITHIN 6 INCHES OF THE SURFACE OF AREAS ON WHICH FILL AND/OR FOOTINGS ARE TO BE CONSTRUCTED.
- c. REMOVE ALL TOPSOIL FROM THE CONSTRUCTION AREA. THIS MATERIAL SHALL NOT BE USED AS FILL MATERIAL, BUT MAY BE STOCKPILED AND LATER USED IN THE TOP 6 INCHES OF FILL OUTSIDE THE BUILDING PAD.
- B. SITE AND SUBSURFACE PREPARATION:
- a. OVEREXCAVATE ALL SOILS UNDERLYING FOOTINGS AND FLOOR SLAB AND ALL UNCONTROLLED FILL TO A MINIMUM DEPTH OF 7? FEET.
- b. REMOVE ALL EXPOSED SUBGRADE SOILS TO A DEPTH OF 7? INCHES, MOISTEN TO OPTIMUM MOISTURE CONTENT +/-2% AND COMPACT TO THE DENSITY SPECIFIED IN THESE REQUIREMENTS.
- c. STRUCTURAL FILL IN APPROXIMATELY HORIZONTAL LAYERS NOT GREATER THAN 7? INCHES IN LOOSE THICKNESS, MOISTEN TO OPTIMUM MOISTURE CONTENT +/-2% AND COMPACT TO DENSITY SPECIFIED IN THESE REQUIREMENTS.
- d. ALL AREAS OF EXCAVATION SHALL BE PROTECTED AGAINST FLOODING TO A MINIMUM OF 7? FEET BEYOND THE PERIMETER FOOTINGS.
- e. MAINTAIN SUBGRADE AND FILL MOISTURE CONTENT UNTIL FOUNDATIONS ARE PLACED.
- f. DO NOT PLACE FOOTING OR FOUNDATION ELEMENTS AGAINST FRESH WATER, FROST, OR ICE.
- g. MAINTAIN PROPOSED SITE DRAINAGE DURING CONSTRUCTION TO ENSURE SURFACE RUNOFF FROM STRUCTURES AND TO PREVENT PONDING OF SURFACE RUNOFF NEAR THE STRUCTURES.
- h. KEEP OPEN EXCAVATIONS AND EXCAVATIONS FOR FOOTINGS AROUND AND WITHIN THE BUILDING PERIMETER DRY. BACKFILL AGAINST FOUNDATIONS AND GRADE BEAMS AS SOON AS PRACTICAL. PUMP WATER OUT OF OPEN EXCAVATIONS, IF FLOODED PRIOR TO BACKFILLING.
- i. BUILDING PERIMETER FILL SHALL NOT BE PLACED WHEN THE ATMOSPHERIC TEMPERATURE IS BELOW 35 DEGREES FAHRENHEIT. WHEN THE TEMPERATURE FALLS BELOW 35 DEGREES, ALL AREAS OF COMPACTED WORK SHALL BE PROTECTED AGAINST DETRIMENTAL EFFECTS OF GROUND FREEZING, AND ANY AREAS AFFECTED BY FREEZING SHALL BE RECONDITIONED AND COMPACTED IN CONFORMANCE WITH THE ABOVE REQUIREMENTS.
- j. ANY SOILS DISTURBED DUE TO WETTING, DRYING OR OTHER CAUSES SHALL ALSO BE RECONDITIONED PRIOR TO PLACEMENT OF AN ADDITIONAL FILL OR CONSTRUCTION OF FOUNDATIONS, FLOOR SLABS, OR OTHER STRUCTURAL ELEMENTS. RECONDITIONING SHALL INCLUDE SCARIFICATION, MOISTURE CONDITIONING, AND RECOMPACTION IN ACCORDANCE WITH THE REQUIREMENTS PRESENTED IN THESE NOTES.
- C. FOOTINGS MAY BE CAST DIRECTLY AGAINST THE VERTICAL SIDES OF THE EXCAVATIONS PROVIDED ALL OF THE FOLLOWING CRITERIA ARE SATISFIED:
- a. SIDE WALLS OF EXCAVATION SHALL BE BATTERED A MINIMUM OF ONE INCH HORIZONTAL TO TWELVE INCHES VERTICAL. THIS CUT SHALL BE ABLE TO REMAIN VERTICAL WITHOUT ANY SLOUGHAGE.
- b. BOTTOM WIDTH OF EXCAVATIONS SHALL BE ONE INCH WIDER AT EACH SIDE THAN IS SHOWN ON DRAWINGS.
- c. IF ANY SANDY OR LOOSE SOIL MATERIALS ARE ENCOUNTERED, FOOTINGS MAY NOT BE EARTH FORMED.
- d. ALL REINFORCING STEEL SHALL BE CORRECTLY ALIGNED AND MAINTAINED, AND SHALL HAVE A MINIMUM OF THREE INCHES OF CONCRETE COVER WHERE CAST AGAINST EARTH.
- e. DURING CASTING, ANY SOIL SLOUGHAGE SHALL BE REMOVED FROM THE WET CONCRETE.
- f. FOOTINGS NOT MEETING THE ABOVE CONDITIONS SHALL BE REMOVED AND RECAST.
- D. STRUCTURAL FILL REQUIREMENTS:
- a. GRADATION (PER ASTM D422):
- | SIZE | PERCENT PASSING BY WEIGHT |
|---------|---------------------------|
| 3" | 100 |
| NO. 4 | 90-100 |
| NO. 200 | 10-50 |
- b. PLASTICITY INDEX (ASTM D4318): 10 MAXIMUM
- c. MATERIAL LARGER THAN 6 INCHES SHALL NOT BE PLACED IN THE STRUCTURAL FILL, AND MATERIAL LARGER THAN 4 INCHES SHALL NOT BE PLACED WITHIN TWELVE INCHES OF THE BEARING SURFACES OF SLABS OR FOUNDATIONS.
- d. NO BRUSH, SOIL, FROZEN MATERIAL OR OTHER UNSUITABLE MATERIAL SHALL BE PLACED IN THE STRUCTURAL FILL. MATERIAL SHALL BE PLACED IN SUCH A MANNER AS TO RESULT IN UNIFORMLY COMPACTED FILL.
- E. GRANULAR BASE REQUIREMENTS
- a. GRADATION (CONSULT SOILS REPORT)
- F. COMPACTION REQUIREMENTS
- a. SUBGRADE SOILS AND STRUCTURAL FILL MATERIALS SHALL BE COMPACTED TO THE FOLLOWING MINIMUM PERCENTAGES OF THE ASTM D1557 MAXIMUM DRY DENSITY AT +/-2% OPTIMUM MOISTURE CONTENT:
- | MATERIAL | PERCENT COMPACTION |
|--------------------------------|--------------------|
| STRUCTURAL FILL | 95 |
| SUBGRADE FOR SLAB SUPPORT | 95 |
| SUBGRADE BELOW STRUCTURAL FILL | 95 |
| MISCELLANEOUS BACKFILL | 90 |

STRUCTURAL STEEL

- A. ASTM A992 GRADE 50 FOR ALL WIDE FLANGE STEEL SHAPES.
- B. ASTM A36 FOR ALL STRUCTURAL AND MISCELLANEOUS STEEL CHANNELS, ANGLES, BARS, PLATES, AND CONNECTIONS UNLESS NOTED OTHERWISE.
- C. ASTM A500 GRADE B (F_y = 46 KSI) FOR ALL STRUCTURAL SQUARE AND RECTANGULAR HSS.
- D. ASTM A500 GRADE B (F_y = 42 KSI) FOR ALL STRUCTURAL ROUND HSS.
- E. ASTM A53, TYPE E OR S, GRADE B (F_y = 35 KSI) FOR ALL STRUCTURAL PIPE.
- F. EXCAVATION TYPICAL SURFACE TENSION CONTROL BOLTS: USE ASTM F1325, TYPE 1, GRADE A325 OR A490 BOLTS, TIGHTENED AND INSPECTED IN ACCORDANCE WITH THE AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS". UNLESS SPECIFICALLY NOTED OTHERWISE, WITH SIZES AND GRADE AS SHOWN ON DRAWINGS. ALL BOLTS SHALL BE TIGHTENED 50 AS TO SHEAR THE SPLINE OFF THE BOLT. WHERE CLEARANCES DO NOT PERMIT THE USE OF TWIST-OFF STYLE BOLTS, USE ASTM F1325, TYPE 1, GRADE A325 OR A490 BOLTS, TIGHTENED AND INSPECTED IN ACCORDANCE WITH THE AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS".
- G. ASTM F1554 GRADE 36 FOR ALL ANCHOR RODS EMBEDDED IN CONCRETE, UNLESS NOTED OTHERWISE IN DRAWINGS. PROVIDE PLATE WASHERS BETWEEN ALL NUTS AND BASEPLATES WITH SIZES AND GRADE AS SHOWN ON DRAWINGS.
- H. F_y = 800 PSI AT 20 DAYS FOR NON-SHEAR GROUT FOR PLACEMENT UNDER COLUMN BASE PLATES. GROUT TO COMPLY WITH ASTM C 1107.
- I. ALL WELDING SHALL COMPLY WITH THE LATEST EDITION OF THE AWS STRUCTURAL WELDING CODE.
- J. ALL FIELD DRILLING SHALL BE DONE WITH A MAG DRILL. FLAME CUTTING OF HOLES OR ENLARGING OF UNFAIR HOLES WILL NOT BE PERMITTED.
- K. HEADED ANCHOR STUDS AND SHEAR STUDS SHALL BE TYPE B, IN CONFORMANCE WITH AWS D1.1 STRUCTURAL WELDING CODE.
- L. STRUCTURAL STEEL TO RECEIVE SHEAR CONNECTORS SHALL BE CLEAN AND FREE OF PAINT, WELDING PREQUALIFICATION REQUIRED.
- M. STRUCTURAL STEEL TO BE FABRICATED AND ERRECTED IN ACCORDANCE WITH LATEST OSHA REGULATIONS.
- N. MECHANICAL PROPERTIES OF HEADED STEEL STUDS SHALL COMPLY WITH ASTM A108 AND AWS D1.1 WELD STUDS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. MANUAL ARC WELDING OF HEADED STEEL STUDS IS NOT ALLOWED, EXCEPT AS REQUIRED BY AWS D1.1 FOR REPAIR OF HEADED STUDS. FIELD WELDING OF HEADED STUDS HAS NOT BEEN OBTAINED. THE FOLLOWING MECHANICAL PROPERTIES ARE REQUIRED:
- F_y = 51 ksi @ 0.2% OFFSET
- F_t = 65 ksi
- GEOMETRIC PROPERTIES OF HEADED STUDS SHALL COMPLY WITH NELSON STUD WELDING HSL FOR 1/2" DIAMETER STUDS AND NELSON STUD WELDING S3L FOR 3/4" DIAMETER STUDS.
- O. SPLICING OF STRUCTURAL STEEL MEMBERS IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE ARCHITECT.
- P. CONFORM TO THE AISC CODE OF STANDARD PRACTICE FOR ERECTION TOLERANCES. FIELD WELDING ON STRUCTURAL STEEL IS PROHIBITED WITHOUT PRIOR APPROVAL FROM THE ARCHITECT.
7. STEEL JOISTS:
- A. STEEL JOISTS SHALL BE MANUFACTURED BY A MEMBER OF THE STEEL JOIST INSTITUTE.
- B. STEEL JOISTS SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST STEEL JOIST INSTITUTE SPECIFICATIONS AND OSHA REGULATIONS.
- C. NO CONSTRUCTION LOADS SHALL BE PLACED ON UNBRIDGED JOISTS.
- D. WHERE COLUMNS ARE NOT FRAMED IN AT LEAST TWO DIRECTIONS WITH STRUCTURAL STEEL MEMBERS, JOISTS AT OR CLOSEST TO COLUMN LINES SHALL BE FIELD BOLTED TO PROVIDE LATERAL STABILITY DURING CONSTRUCTION.
- E. ALL JOISTS SHALL BE DESIGNED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF SJI STANDARD SPECIFICATIONS.
- F. FOR CONCENTRATED LOADS NOT SHOWN ON FRAMING PLANS, SEE DETAIL E2/SF501.
- G. LAP WIRE FABRIC SHALL BE FULL MESH PANELS AND BE SECURELY TIED TO SUPPORTS.
- a. JOISTS SUPPORTED ON STEEL
1. 2" FOR K-SERIES JOISTS
2. 4" FOR DLH-SERIES JOISTS
3. 6" FOR DLH-SERIES JOISTS
- H. IN THE INSTANCES WHERE A SUPPORT BEAM FLANGE IS NOT WIDE ENOUGH TO ACCOMMODATE ALL JOISTS, JOISTS SHALL BE SECURELY TIED TO SUPPORTS.
- I. JOIST SIZES SHOWN ON DRAWINGS ARE BASED ON GRAVITY LOAD CAPACITIES. DESIGN TO PROVIDE TIGHT FITTING CLOSURE AT OPEN ENDS AND SIDES OF DECKING.
- J. JOISTS FOR GRAVITY LOAD CAPACITIES IN ADDITION TO OTHER LOADS (UPLIFT, AXIAL LOADS, CONCENTRATED LOADS, MOMENTS, ETC.) INDICATED ON DRAWINGS.
8. STEEL DECK:
- A. ALL STEEL DECK SHALL BE FABRICATED AND ERRECTED IN ACCORDANCE WITH THE LATEST STEEL DECK INSTITUTE SPECIFICATIONS.
- B. SEE PLANS FOR STEEL DECK TYPE, GAGE, FINISH AND CONNECTIONS.
- C. PROVIDE 1/2" MINIMUM BEARING AT ALL STEEL DECK SUPPORT CONDITIONS.
- D. SPLICES IN STEEL DECK SHALL BE LAP OR CLIPPED COLD-ROLLED CHANNEL 1/2" x 16 GA (54 MILS). SHALL BE CENTERED OVER SUPPORTS.
- E. ALL STEEL DECK SHALL BE CONTINUOUS OVER THREE SPANS WHEREVER FRAMING ALLOWS. OPENINGS THROUGH STEEL DECK ROOFS ON FRAMING PLANS ARE NOT COMPLETE AS TO NUMBER, SIZE AND LOCATION. FOR COMPLETE INFORMATION, REFER TO DRAWINGS OTHER THAN STRUCTURAL.
- F. PROVIDE STANDARD ACCESSORY MATERIALS, INCLUDING BUT NOT LIMITED TO, CLOSURE STRIPS; POUR STOPS, GIRDER FILERS, ETC. ACCORDING TO SJI RECOMMENDATIONS, TO PROVIDE TIGHT FITTING CLOSURE AT OPEN ENDS AND SIDES OF DECKING.
- G. AT ENDS OF DECKS OR WHERE CHANGES OF DECK DIRECTION OCCUR FASTEN TO SUPPORTS AT EACH FLUTE. PROVIDE ADEQUATE CLOSURES AND FASTENERS TO SIDES AT 18 INCHES ON CENTER, UNLESS STRICTER REQUIREMENTS EXIST ON PLANS.
- H. NOTHING WEIGHING MORE THAN 20 POUNDS IS TO BE SUPPORTED FROM THE METAL ROOF DECK UNLESS SPECIFICALLY DETAILED IN THESE PLANS.
- I. DESIGN OF HANGERS AND THEIR ANCHORAGES SHALL BE BY THE GENERAL CONTRACTOR. ITEMS WEIGHING 20 POUNDS AT ROOF SHALL HAVE THEIR OWN SUPPORT FRAMING OR THEY SHALL BE HUNG DIRECTLY FROM THE MAIN FRAMING MEMBERS. IT SHALL BE THE RESPONSIBILITY OF EACH TRADE TO DESIGN A SUPPORT SYSTEM FOR THEIR EQUIPMENT WHICH WILL CONFORM TO THIS CRITERION.
9. COLD-FORMED STEEL FRAMING (20 GAGE (33 MILS) AND HEAVIER):
- A. TYPICAL CONSTRUCTION DETAILS FOR COLD-FORMED FRAMING ARE SHOWN ON SHEET SF52. REFER TO ARCHITECTURAL DRAWINGS FOR SPECIFIC CONFIGURATION AND DIMENSIONS OF ALL COLD-FORMED STEEL FRAMING NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- B. ALL COLD-FORMED STEEL FRAMING SHALL CONFORM TO AISI "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS".
- C. WALLS SHALL BE PROVIDED WITH MANUFACTURER'S STANDARD BRIDGING (EITHER WELDED 2 1/2" x 16 GA (43 MILS) STUD OR CLIPPED COLD-ROLLED CHANNEL 1 1/2" x 16 GA (54 MILS)). PROVIDE BRIDGING @ 4'-0" OC MAXIMUM.
- D. PROVIDE ALL MISCELLANEOUS ACCESSORIES AND FOLLOW ERECTION PROCEDURES PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
- E. ALL PROPERTIES OF THE COLD-FORMED STEEL SHALL MEET OR EXCEED SSMA PROPERTIES.
- F. ALL TRACK SHALL BE 1 1/4" LEG, 18 GA (43 MILS) MINIMUM. TRACK SHALL BE ANCHORED TO FOUNDATION WITH 1/2" DIAMETER x 3 1/2" (MINIMUM EMBEDMENT) SCREW ANCHORS @ 4'-0" OC UNLESS SHOWN OTHERWISE ON PLANS. PROVIDE A MINIMUM OF 2 ANCHORS FOR TRACK RUNS SHORTER THAN 4'-0". PROVIDE ONE ANCHOR AT 12" MAXIMUM FROM ALL CORNERS AND ENDS OF WALLS.
- G. COLD-FORMED STUDS AND TRACK SHALL BE CONNECTED WITH EITHER WELDS OR #10 SCREWS UNLESS NOTED OTHERWISE.
- H. ALL 16 GA (54 MILS) AND HEAVIER MEMBERS SHALL BE FORMED FROM STEEL CORRESPONDING TO WHAT IS LISTED IN THE AISI "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" WITH A MINIMUM YIELD STRENGTH OF 50 KSI UNLESS SPECIFICALLY NOTED OTHERWISE.
- I. ALL 18 GA (43 MILS) AND LIGHTER MEMBERS SHALL BE FORMED FROM STEEL CORRESPONDING TO WHAT IS LISTED IN THE AISI "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" WITH A MINIMUM YIELD STRENGTH OF 33 KSI UNLESS SPECIFICALLY NOTED OTHERWISE.



A5 TYPICAL EARTHWORK DETAIL
NOT TO SCALE

MATERIAL CRITERIA:

1. CAST-IN-PLACE CONCRETE:
- A. ALL CONCRETE WORK SHALL CONFORM TO "SPECIFICATIONS FOR STRUCTURAL CONCRETE," ACI 301.
- B. SEE SCHEDULE ON 8/15001 FOR CONCRETE MIX DESIGN AND 28 DAY STRENGTH REQUIREMENTS.
- C. ALL CONCRETE SHALL BE REINFORCED UNLESS SPECIFICALLY NOTED "NOT REINFORCED."
- D. STEM WALLS, GRADE BEAMS, AND RETAINING WALLS SHALL NOT BE CAST AGAINST EXISTING EARTHWORK.
- E. CONTROL JOINTS IN SLABS ON GRADE SHALL BE PROVIDED WHERE NOT ON PLANS, BUT SHALL NOT EXCEED 12 FOOT SPACING.
- F. LIMIT SITE AND RETAINING WALL JOINTS TO A MAXIMUM OF 40 FEET BETWEEN CONSTRUCTION JOINTS. CONTROL JOINT SPACING IN WALLS SHALL NOT EXCEED HALF OF THE SPACING BETWEEN CONSTRUCTION JOINTS OR 20 FEET. ONE HALF-INCH EXPANSION JOINTS IN RETAINING WALLS SHALL BE PLACED AT SPACING NOT EXCEEDING 40 FEET. COORDINATE LOCATIONS OF JOINTS WITH ARCHITECTURAL PLANS.
- G. ALL CAST-IN ANCHORS FOR COLUMNS AND WALL ELEMENTS SHOWN ON THE STRUCTURAL DRAWINGS MUST BE SECURELY SUPPORTED IN POSITION PRIOR TO PLACEMENT OF CONCRETE. INSERTING THESE BOLTS INTO WET CONCRETE IS NOT ALLOWED UNLESS SPECIFICALLY NOTED ON THE DRAWINGS OR APPROVED IN WRITING.
- H. PIPE AND CONDUIT WILL NOT BE PERMITTED TO BE INSTALLED HORIZONTALLY IN SLABS WITHOUT PRIOR APPROVAL OF THE ARCHITECT. SEE C/358501 FOR CONDUIT TO BE RUN BENEATH SLAB-ON GRADE.
- I. CONCRETE SHALL BE OBTAINED FROM VAPOR RETARDER COMPLY WITH THE FOLLOWING:
- a. MOIST CURING OF SLABS ON GROUND IS REQUIRED. SEE SPECIFICATIONS FOR MORE INFORMATION.
- b. CARE SHALL BE TAKEN TO PREVENT WATER INTRUSION INTO THE SUBGRADE BOTH PRIOR TO AND AFTER SLAB POURS.
- c. TIMING OF SLAB SAWCUT JOINTS IS CRITICAL TO SLAB CURING PERFORMANCE. SAWCUT JOINTS FOR CONTROL JOINTS SHALL BE MADE AT THE EARLIEST POSSIBLE TIME THAT THE CONCRETE WILL SUPPORT THE WEIGHT OF EQUIPMENT AND OPERATORS. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- J. NOTES ON CRACKING OF CONCRETE STRUCTURES:
- a. CRACKING IS INHERENT TO THE MATERIAL PROPERTIES OF CONCRETE CONSTRUCTION. WHILE EVERY EFFORT HAS BEEN MADE TO MINIMIZE THE EFFECTS OF UNSIGHTLY CRACKING, THE PRESENCE OF CRACKS ARE NORMAL AND UNAVOIDABLE. THE DESIGN OF CONCRETE STRUCTURAL ITEMS HAVE BEEN ANALYZED USING A "CRACKED SECTION," THE PRESENCE OF CRACKING SHOULD NOT BE CONSIDERED DETRIMENTAL TO THE STRUCTURE.
- b. CRACKS LARGER THAN 10 MILS SHALL BE FILLED AND SEALED WITH AN APPROVED CRACK FILLER TO PREVENT FUTURE DETERIORATION. ALLOWANCE SHALL BE MADE IN THE CONSTRUCTION BUDGET FOR SEALING SUCH CRACKS.
- c. IN SOME CASES, CRACKS DO NOT APPEAR UNTIL WELL AFTER CONSTRUCTION HAS BEEN COMPLETED. IT IS THE RESPONSIBILITY OF THE OWNER TO MAINTAIN THE STRUCTURE PROPERLY OVER THE LIFE OF THE STRUCTURE.
- d. CONCRETE CRACKS, SHOULD THEY OCCUR, SHALL BE FILLED AND SEALED TO PREVENT PREMATURE DETERIORATION OF THE STRUCTURE.
2. REINFORCING STEEL:
- A. ALL REINFORCING STEEL SHALL BE FABRICATED AND PLACED IN ACCORDANCE WITH THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318) AND THE STANDARD MANUAL (ACI 315).
- B. USE ASTM A615 GRADE 60 FOR ALL REINFORCING STEEL, TYPICALLY, UNLESS NOTED OTHERWISE. SEE DETAILS FOR LOCATIONS WHERE ASTM A706 REINFORCING IS REQUIRED.
- C. USE ASTM A1064 FOR ALL WELDED WIRE FABRIC, PROVIDE IN FLAT SHEETS ONLY.
- D. LAP WIRE FABRIC SHALL BE FULL MESH PANELS AND BE SECURELY TIED TO SUPPORTS.
- e. ALL REINFORCING SHALL BE CONTINUOUS. STAGGER SPLICES WHERE POSSIBLE. LAPS FOR SPLICES SHALL BE AS INDICATED ON SHEET SB801, UNLESS OTHERWISE SHOWN OR NOTED OTHERWISE.
- F. BAR SUPPORTS AND SPACERS FOR REINFORCING SHALL BE PROVIDED IN ACCORDANCE WITH ACI 315. CHAIRS WITH 22 GA SAND PLATES OR PRECAST BLOCKS SHALL BE PROVIDED WITH ALL REINFORCING OF CONCRETE IN CONTACT WITH GRADE. REINFORCING SHALL BE SECURELY TIED TO SUPPORTS.
- G. REINFORCING SHALL NOT BE TACK WELDED OR WELDED IN ANY MANNER UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL PLANS.
- H. MINIMUM CONCRETE PROTECTION FOR REINFORCEMENT (CLEAR DISTANCE):
- a. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3" (6 AND LARGER)
- b. CONCRETE EXPOSED TO EARTH OR WEATHER:
- 1 1/2" (6 AND SMALLER)
- c. COLUMNS AND BEAMS: 1 1/2"
- d. STRUCTURAL SLABS AND WALLS: 3/4"
- I. TYPICAL REINFORCEMENT UNLESS OTHERWISE SHOWN:
- a. UP TO 8" CONCRETE WALLS: #4 @ 9" OC EACH WAY AT CENTER OF WALL
- b. OVER 8" TO 12" CONCRETE WALLS: #4 @ 12" OC EACH WAY, EACH FACE
- c. OVER 12" THICK: #6 @ 12" OC EACH WAY, EACH FACE
- D. ALL HORIZONTAL REINFORCING IN FOOTINGS, WALLS AND BEAMS SHALL BE CONTINUOUS AROUND CORNERS OR HAVE CORNER BARS OF THE SAME SIZE AND SPACING AS THE HORIZONTAL BARS AND LAP SPLICES PER SCHEDULE.
- E. ALL POST-INSTALLED REINFORCING SHALL BE INSTALLED WITH PRODUCTS LISTED ON TABLE A1/5001 IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS AND ES-REPORT. THESE SHALL BE INSPECTED PER SPECIAL INSPECTION REQUIREMENTS.
3. AUGER CAST PILES:
- A. COMPLY WITH PROVISIONS OF AMERICAN CONCRETE INSTITUTE (ACI) "STANDARD SPECIFICATION FOR CONSTRUCTION OF DRILLED PIERS" (ACI 338.1).
- B. DESIGN CONCRETE TO BE CAST IN ACCORDANCE WITH CHAPTER 3 OF ACI 301 TO PRODUCE CONCRETE FOR DRILLED PILES WITH MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI.
- C. REINFORCING STEEL AND DOWELS SHALL BE FABRICATED AND ERRECTED AS ONE CONTINUOUS UNIT AND REINFORCEMENT ACCURATELY AND SYMMETRICALLY ABOUT AXIS OF HOLE AND HOLD SECURELY IN POSITION DURING CONCRETE PLACEMENT.
- D. EXCAVATE HOLES FOR AUGER CAST PILES TO DEPTH AS SHOWN ON DRAWINGS. AUGER SHALL BE DESIGNED TO MAINTAIN MINIMUM 1/2" CLEARANCE.
- E. THE OWNER SHALL EMPLOY THE SERVICES OF A REGISTERED, LICENSED GEOTECHNICAL ENGINEER UNDER WHOSE SUPERVISION FULL-TIME INSPECTION OF THE DRILLING AND CASTING OF THE PILES WILL BE PERFORMED.
- F. THE CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER AT LEAST 24 HOURS PRIOR TO THE TIME EXCAVATIONS WILL BE DRILLED.
- G. WHERE CONCRETE IS PLACED BY PUMPING THROUGH A HOLLOW-STEM AUGER, THE AUGER SHALL BE PERMITTED TO ROTATE IN A CLOCKWISE DIRECTION DURING WITHDRAWAL. THE AUGER SHALL BE WITHDRAWN IN CONTINUOUS INCREMENTS, CONCRETE PUMPING PRESSURES SHALL BE MEASURED AND MAINTAINED HIGH ENOUGH AT ALL TIMES TO OFFSET HYDROSTATIC AND LATERAL EARTH PRESSURES.
- H. STOP CONCRETE PLACEMENT AT CUT-OFF ELEVATION SHOWN, SCREEN LEVEL, AND APPLY A SCOURED, ROUGH FINISH.
- I. THE GROUT INJECTION PRESSURE SHOULD BE MAINTAINED WITHIN THE LIMITS OF 160 TO 280 POUNDS PER SQUARE INCH. THE PRESSURE SHOULD BE CHECKED BY OBSERVING A PRESSURE GAUGE AT 1' PLUMB AND THE PUMPING RATE.
- J. GROUT FLOW SHOULD BE MAINTAINED IN THE RANGE OF 13 TO 17 SECONDS, AS TESTED IN GENERAL ACCORDANCE WITH THE CORPS OF ENGINEERS TEST METHOD CRD-C-79-77. PROVIDED A 3/4 INCH OPENING IS SUBSTITUTED FOR THE 1/2 INCH OPENING.
- K. A COMPARISON SHOULD BE MADE OF THE VOLUME OF GROUT ACTUALLY INJECTED AND THE THEORETICAL VOLUME OF EACH PILE. FOR ACCEPTANCE, THE INJECTED GROUT VOLUME SHOULD EXCEED THE THEORETICAL VOLUME BY AT LEAST 15 PERCENT.
- L. AUGERED CUTTINGS SHOULD BE CONTINUOUSLY EXAMINED FOR VERIFICATION OF SOIL CONDITIONS.
4. VAPOR RETARDER:
- A. PLACE VAPOR RETARDER DIRECTLY BENEATH INTERIOR SLABS-ON-GRADE, BETWEEN SLAB AND BASE.
- B. LAP AND SEAL ALL EDGES, PUNCTURES, AND PENETRATIONS.
- C. MEET THE REQUIREMENTS OF ASTM E1745 WITH A WATER VAPOR PERMEANCE LESS THAN 0.030 PERMS.
- D. BASIS OF DESIGN: STEGO WRAP, 10 MIL MINIMUM.
- E. SEE DETAIL A1/SB8501 FOR TYPICAL VAPOR RETARDER SYSTEM.
- F. SEE SPECIFICATIONS AND MANUFACTURER'S INSTRUCTIONS FOR ADDITIONAL REQUIREMENTS.
5. POST INSTALLED ANCHORS AND REINFORCING BARS:
- A. CONTRACTOR SHALL SUBMIT TECHNICAL LITERATURE FOR PROPOSED ANCHORING SYSTEM TO ARCHITECT FOR REVIEW PRIOR TO INSTALLATION. REFER TO SPECIFICATION DIVISION 01 FOR REQUIREMENTS.
- B. ANCHORS AND REINFORCING BARS SHALL BE INSTALLED PER THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPI) AND ICC-ES ESR-4065 TEST REPORTS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
- a. HOLE DRILLING AND CLEANING
- b. CARTRIDGE PREPARATION AND DISPENSING (ADHESIVE ANCHORS)
- c. ANCHOR INSERTION
- d. ANCHOR CURING TIME (ADHESIVE ANCHORS)
- e. ANCHOR TORQUE (MECHANICAL ANCHORS)
- F. ADDITIONAL REQUIREMENTS FOR ADHESIVE ANCHORS AND REINFORCING BARS INSTALLED INTO CONCRETE:
- a. ANCHORS SHALL NOT BE INSTALLED INTO CONCRETE UNTIL IT REACHES THE FOLLOWING CRITERIA:
1. MINIMUM 21 DAYS OF CURING
 2. MEETS MINIMUM DESIGN STRENGTH
- b. AT TIMES OF INSTALLATION, CONCRETE TEMPERATURE RANGE SHALL BE BETWEEN 40 AND 100 DEGREES FAHRENHEIT. REFER TO MPI FOR CONDITIONING REQUIREMENTS OF ADHESIVES AT LOW TEMPERATURES.
- c. CONCRETE SUBSTRATE SHALL BE DRY AT TIME OF ANCHOR INSTALLATION AND THROUGHOUT THE ADHESIVE CURING PROCESS (SEE MPI FOR CURE TIMES)
- d. HOLES FOR ANCHORING SHALL BE ACHIEVED WITH ROTARY HAMMER AND CARBIDE-TIPPED DRILL BIT. CORED HOLES ARE NOT ALLOWED.
- E. INSTALLATION OF ANCHORS INTO HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS SUBJECT TO SUSTAINED TENSION LOADS ARE SUBJECT TO THE FOLLOWING:
1. ANCHORS REQUIRE CONTINUOUS SPECIAL INSPECTION.
 2. INSTALLATION OF ANCHORS SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY AN APPLICABLE CERTIFICATION PROGRAM IN ACCORDANCE WITH ACI 318.
- D. ANCHORS AND REINFORCING BARS SHALL BE INSTALLED AT NOT LESS THAN MINIMUM EDGE DISTANCES, EMBEDMENTS AND SPACING AS LISTED IN THE MPI AND ICC-ES/ARMO-UES TEST REPORTS, OR AS INDICATED, WHICHEVER IS GREATER.
- E. ANCHORS AND REINFORCING BARS SHALL BE INSTALLED IN APPROPRIATE AND PROPERLY CURED SUBSTRATES AS REQUIRED BY MPI AND ICC-ES/ARMO-UES TEST REPORTS.
- F. ANCHOR AND REINFORCING BAR LENGTHS SHOWN IN THESE PLANS ARE THE REQUIRED MINIMUM EMBEDMENT DEPTHS. CONTRACTOR SHALL PROVIDE ANCHORS WITH SUFFICIENT PROJECTION LENGTH FOR PROPER INSTALLATION OF SUPPORTED EQUIPMENT AND/OR STRUCTURE.
- G. POST-INSTALLED ANCHORS AND REINFORCING BARS SHALL ONLY BE USED WHERE SPECIFIED ON THE STRUCTURAL DRAWINGS. CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE ARCHITECT PRIOR TO USING POST-INSTALLED ANCHORS AND REINFORCING BARS IN LIEU OF CAST-IN-PLACE ANCHORS.
- H. CARE SHALL BE GIVEN TO AVOID CONFLICTS WITH EXISTING REBAR.
- I. PRE-APPROVED POST-INSTALLED ANCHORS AND REINFORCING BARS AND SUBSTRATES ARE LISTED IN SCHEDULE A1/5001.

DESIGN CRITERIA:

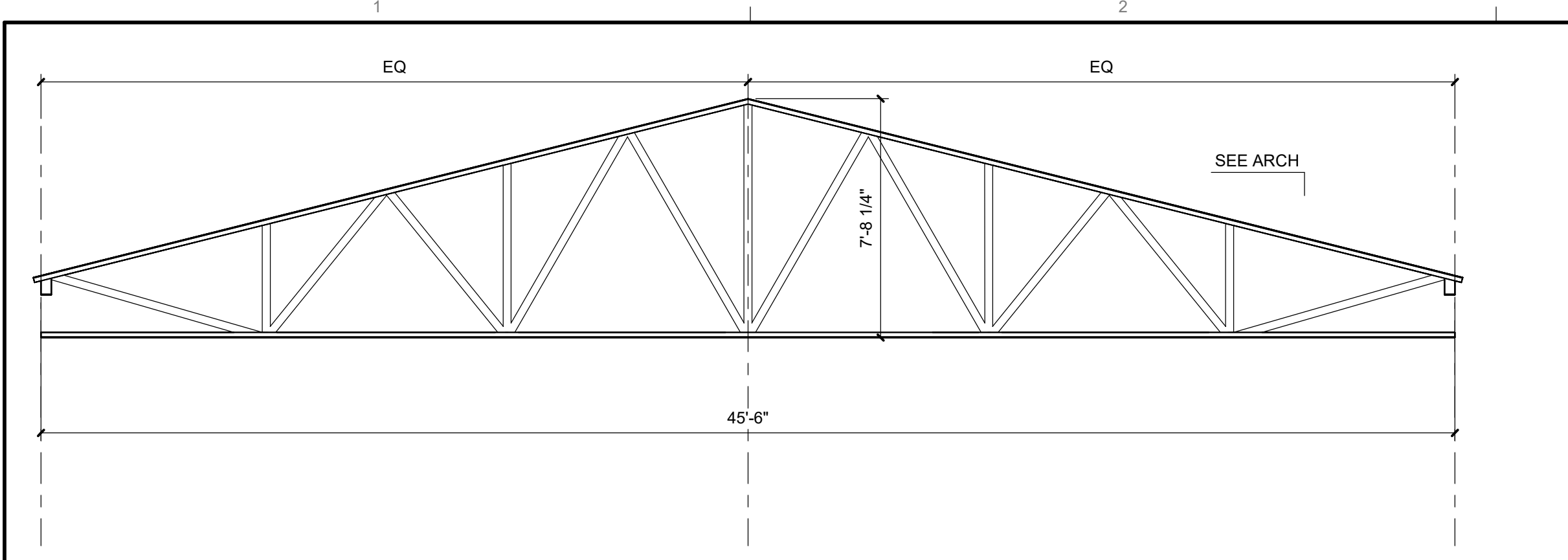
- THE FOLLOWING CRITERIA COVERS THE STRUCTURAL DESIGN OF THIS BUILDING STRUCTURE.
1. DESIGN CODE:
- A. 2021 INTERNATIONAL BUILDING CODE AND ALL APPLICABLE REFERENCES.
2. RISK CATEGORY: II
3. DESIGN LOADS:
- VERTICAL:
- A. DEAD LOADS - BUILDING IS DESIGNED FOR THE ACTUAL IN-PLACE WEIGHTS OF ALL MATERIALS SHOWN ON THE CONSTRUCTION DOCUMENTS.
- DESIGN LIVE LOADS, LIVE
- FLOOR 100 PSF
- ROOF (NON-REDUCIBLE) 20 PSF
- LIGHT STORAGE 125 PSF
- HEAVY STORAGE 250 PSF
- CONCENTRATED 2000 PSF
- REDUCTION FACTOR, R PER IBC 2021
- C. ADDITIONAL SUPERIMPOSED LOADS:
- SUSPENDED EQUIPMENT DEAD LOAD = 5 PSF (PLUS INDICATED WEIGHT OF MAJOR UNITS)
- D. ROOF SNOW LOAD:
- GROUND SNOW LOAD, P_s 9 PSF
- FLAT ROOF SNOW LOAD, P_f 9 PSF
- SNOW EXPOSURE FACTOR, C_e 1.0
- SNOW IMPORTANCE FACTOR, I_s 1.0
- THERMAL FACTOR, C_t 1.0
- HORIZONTAL:
- A. WIND DESIGN DATA:
- ANALYSIS PROCEDURE: DIRECTIONAL PROCEDURE
- ULTIMATE DESIGN WIND SPEED (3 SEC. GUST), V_{ult} = 105 MPH
- NOMINAL DESIGN WIND SPEED, V_{nom} = 81 MPH
- WIND EXPOSURE CATEGORY: C
- INTERNAL PRESSURE COEFFICIENT: +0.180
- DESIGN ULTIMATE WIND PRESSURE FOR COMPONENTS AND CLADDING AT WALL ELEMENTS WITH 10 SQUARE FEET TRIBUTARY AREA:
- TYPICAL 0-15 FEET = 25 PSF
- WITHIN 5 FEET OF CORNERS 15-20 FEET = 31 PSF
- B. EARTHQUAKE DESIGN DATA:
- ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
- SOIL SITE CLASSIFICATION: TBD
- SPECTRAL RESPONSE ACCELERATIONS: S₁ = 0.279
- S₂ = 0.093
- SITE COEFFICIENTS: F_a = 1.577
- F_v = 2.400
- EARTHQUAKE SPECTRAL RESPONSE ACCELERATION PARAMETERS: S_{DS} = 0.440
- S₁ = 0.220
- S₂ = 0.293
- S₃ = 0.148
- SEISMIC IMPORTANCE FACTOR: I_b = 1.000
- SEISMIC DESIGN CATEGORY: TBD
- SEISMIC FORCE-RESISTING SYSTEM: STRUCTURAL STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
- RESPONSE MODIFICATION COEFFICIENT, R = 3.000
- SEISMIC RESPONSE COEFFICIENT: C_s = TBD
- DESIGN BASE SHEAR: V_E = TBD
4. FOR DETAILS, LOCATIONS AND NUMBER OF INSERTS, EMBEDDED ITEMS, EQUIPMENT SUPPORT RADS, EQUIPMENT ANCHOR RODS AND SIMILAR ITEMS, REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS.
5. NO OPENINGS, MODIFICATIONS OR REVISIONS SHALL BE MADE TO ANY MEMBERS OF THE STRUCTURAL SYSTEM WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ARCHITECT AND ENGINEER OF RECORD.
6. EXISTING CONDITIONS:
- A. NEW CONSTRUCTION MUST BE COORDINATED WITH EXISTING SITE CONDITIONS.
- B. LOCATE AND PROTECT ALL EXISTING UNDERGROUND FACILITIES AND UTILITIES.
- C. REMOVE ALL MATERIAL THAT WILL INTERFERE WITH NEW BUILDING FOUNDATIONS AS PER GEOTECHNICAL CONSULTANT'S RECOMMENDATIONS.
- D. DO NOT CUT OR DRILL THROUGH EXISTING REINFORCING OR CABLE TENDONS. X-RAY TO LOCATE REINFORCING OR CABLE TENDONS AT LOCATIONS REQUIRING CUTTING OR CORING PRIOR TO START OF CONSTRUCTION. SUBMIT REINFORCEMENT LOCATION IN CONFLICT WITH DRAWINGS TO ARCHITECT FOR REVIEW.
- E. ALL DIMENSIONS OF EXISTING CONSTRUCTION ARE APPROXIMATE. CONTRACTOR SHALL MAKE ALL NECESSARY FIELD MEASUREMENTS OF EXISTING STRUCTURES, TO VERIFY DIMENSIONS SHOWN ON DRAWINGS AND TO PROVIDE DIMENSIONS NOT SHOWN. PRIOR TO FABRICATION, COSTS FOR MODIFICATIONS OF NEW CONSTRUCTION, DUE TO LACK OF CONFIRMATION OF DIMENSIONS BY FIELD MEASUREMENTS SHALL BE BORNE BY THE CONTRACTOR.
- F. CONTRACTOR'S STRUCTURAL STEEL DETAILER SHALL MAKE NECESSARY FIELD MEASUREMENTS OF EXISTING STRUCTURAL STEEL TO ENSURE NEW CONSTRUCTION DETAILS SHOWN ARE COMPATIBLE WITH EXISTING CONNECTIONS AND ARE CONSTRUCTIBLE AS DETAILED.
7. STRUCTURAL STABILITY:
- A. THE STRUCTURE SHOWN ON THESE DRAWINGS HAS BEEN DESIGNED FOR STABILITY UNDER FINAL, FULLY CONSTRUCTED CONDITIONS.
- B. PROVIDE SAFE AND ADEQUATE SHORING FOR ALL PARTS OF THE STRUCTURE DURING CONSTRUCTION.
- C. WHERE BACKFILL IS PLACED AGAINST WALLS, THE WALLS SHALL BE BRACED OR OTHERWISE ADEQUATELY SHORED UNTIL PERMANENT BRACING ELEMENTS OR SLABS HAVE BEEN ERRECTED AND HAVE ATTAINED DESIGN STRENGTH.

GENERAL CRITERIA:

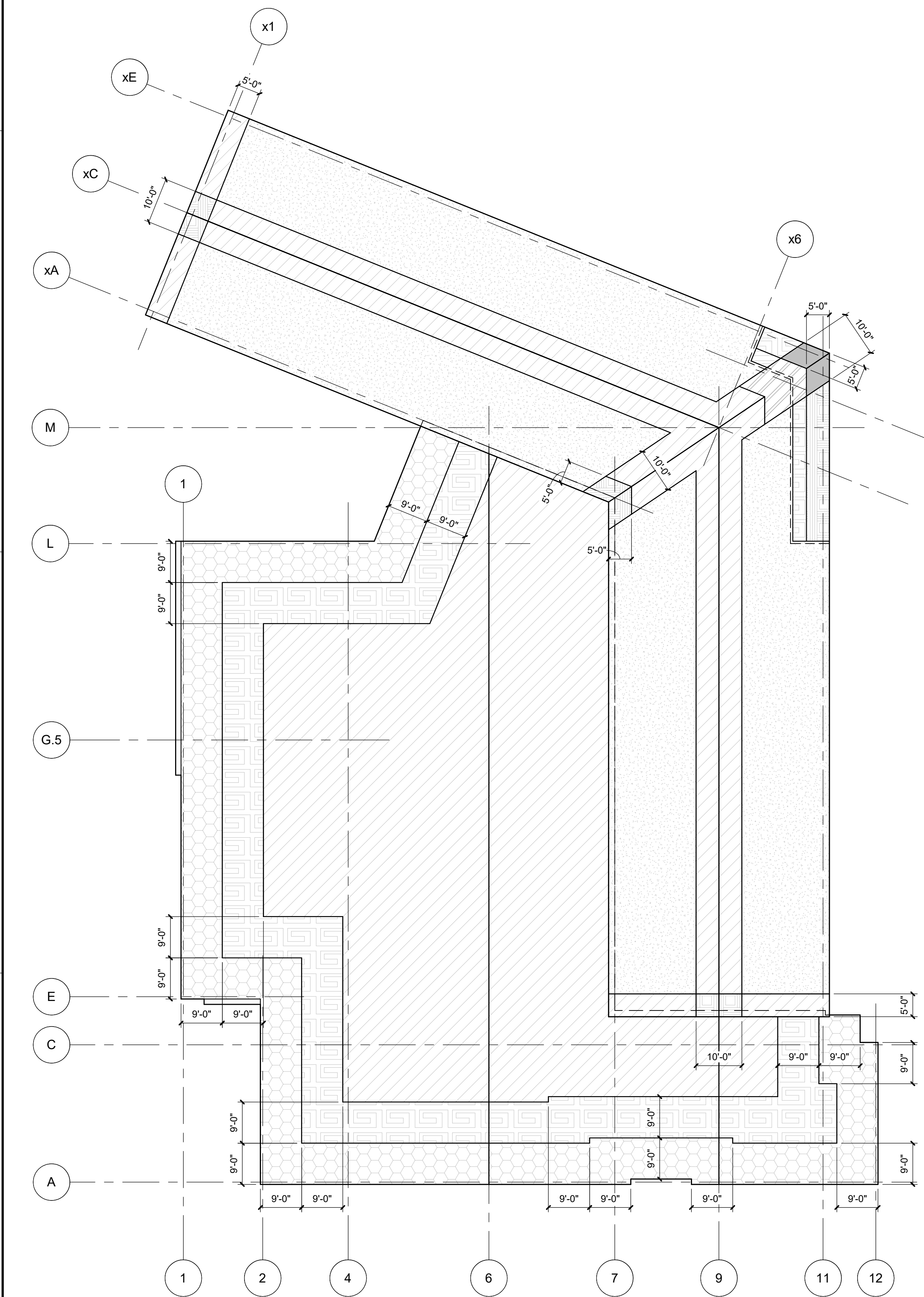
1. COORDINATION WITH OTHER DRAWINGS:
- A. SEE DRAWINGS OTHER THAN STRUCTURAL FOR KINDS OF FLOOR FINISH AND THEIR LOCATION, DEPRESSIONS IN FLOOR SLABS, OPENINGS IN WALLS AND FLOORS REQUIRED BY ARCHITECTURAL FEATURES, WALKS, RAMPS, STAIRS, CURBS, ETC.
- B. HOLES AND OPENINGS THROUGH WALLS, BEAMS, AND FLOORS FOR DUCTS, PIPING AND VENTILATION SHALL BE CHECKED BY THE CONTRACTOR, WHO SHALL VERIFY SIZES AND LOCATIONS OF SUCH HOLES OR OPENINGS WITH THE PLUMBING, HVAC, ELECTRICAL DRAWINGS AND THE SUB CONTRACTORS.
- C. SEE ARCHITECTURAL DRAWINGS FOR WALLS NOT SHOWN ON STRUCTURAL DRAWINGS.
- D. DISCREPANCIES: COORDINATE STRUCTURAL DRAWINGS WITH OTHER DRAWINGS FOR INDIVIDUAL ITEMS. ITEMS UNCOVERED, IF ANY, SHALL BE REPORTED TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
- E. TYPICAL EDGE OF STRUCTURE / SLAB IS SHOWN ON THE STRUCTURAL DRAWINGS. COORDINATE TO COORDINATE LOCATIONS, DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL EXTERIOR WALL SECTIONS.
- F. TYPICAL CURB DETAILS ARE SHOWN ON STRUCTURAL DRAWINGS. CONTRACTOR TO COORDINATE LOCATIONS WITH ARCHITECTURAL DRAWINGS.
- G. DO NOT SCALE DRAWINGS FOR THE PURPOSE OF DETERMINING DIMENSIONS.
2. INTENT: IF CERTAIN CONDITIONS ARE NOT SPECIFICALLY CUT OR DETAILED IN THE CONTRACT DOCUMENTS, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS FOR SIMILAR CONDITIONS CUT AND DETAILED ELSEWHERE IN THE CONTRACT DOCUMENTS.
3. TYPICAL DETAILS, SECTIONS, AND SCHEDULES ARE SHOWN ON SHEETS SB301 THROUGH SB601 AND SF301 THROUGH SF521 AND APPLY TO ALL CONSTRUCTION EXCEPT WHERE SHOWN DIFFERENTLY ON THE PLANS AND DETAILS.
4. FOR DETAILS, LOCATIONS AND NUMBER OF INSERTS, EMBEDDED ITEMS, EQUIPMENT SUPPORT RADS, EQUIPMENT ANCHOR RODS AND SIMILAR ITEMS, REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS.
5. NO OPENINGS, MODIFICATIONS OR REVISIONS SHALL BE MADE TO ANY MEMBERS OF THE STRUCTURAL SYSTEM WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ARCHITECT AND ENGINEER OF RECORD.
6. EXISTING CONDITIONS:
- A. NEW CONSTRUCTION MUST BE COORDINATED WITH EXISTING SITE CONDITIONS.
- B. LOCATE AND PROTECT ALL EXISTING UNDERGROUND FACILITIES AND UTILITIES.
- C. REMOVE ALL MATERIAL THAT WILL INTERFERE WITH NEW BUILDING FOUNDATIONS AS PER GEOTECHNICAL CONSULTANT'S RECOMMENDATIONS.
- D. DO NOT CUT OR DRILL THROUGH EXISTING REINFORCING OR CABLE TENDONS. X-RAY TO LOCATE REINFORCING OR CABLE TENDONS AT LOCATIONS REQUIRING CUTTING OR CORING PRIOR TO START OF CONSTRUCTION. SUBMIT REINFORCEMENT LOCATION IN CONFLICT WITH DRAWINGS TO ARCHITECT FOR REVIEW.
- E. ALL DIMENSIONS OF EXISTING CONSTRUCTION ARE APPROXIMATE. CONTRACTOR SHALL MAKE ALL NECESSARY FIELD MEASUREMENTS OF EXISTING STRUCTURES, TO VERIFY DIMENSIONS SHOWN ON DRAWINGS AND TO PROVIDE DIMENSIONS NOT SHOWN. PRIOR TO FABRICATION, COSTS FOR MODIFICATIONS OF NEW CONSTRUCTION, DUE TO LACK OF CONFIRMATION OF DIMENSIONS BY FIELD MEASUREMENTS SHALL BE BORNE BY THE CONTRACTOR.
- F. CONTRACTOR'S STRUCTURAL STEEL DETAILER SHALL MAKE NECESSARY FIELD MEASUREMENTS OF EXISTING STRUCTURAL STEEL TO ENSURE NEW CONSTRUCTION DETAILS SHOWN ARE COMPATIBLE WITH EXISTING CONNECTIONS AND ARE CONSTRUCTIBLE AS DETAILED.
7. STRUCTURAL STABILITY:
- A. THE STRUCTURE SHOWN ON THESE DRAWINGS HAS BEEN DESIGNED FOR STABILITY UNDER FINAL, FULLY CONSTRUCTED CONDITIONS.
- B. PROVIDE SAFE AND ADEQUATE SHORING FOR ALL PARTS OF THE STRUCTURE DURING CONSTRUCTION.
- C. WHERE BACKFILL IS PLACED AGAINST WALLS, THE WALLS SHALL BE BRACED OR OTHERWISE ADEQUATELY SHORED UNTIL PERMANENT BRACING ELEMENTS OR SLABS HAVE BEEN ERRECTED AND HAVE ATTAINED DESIGN STRENGTH.

CONCRETE MIX DESIGN CRITERIA

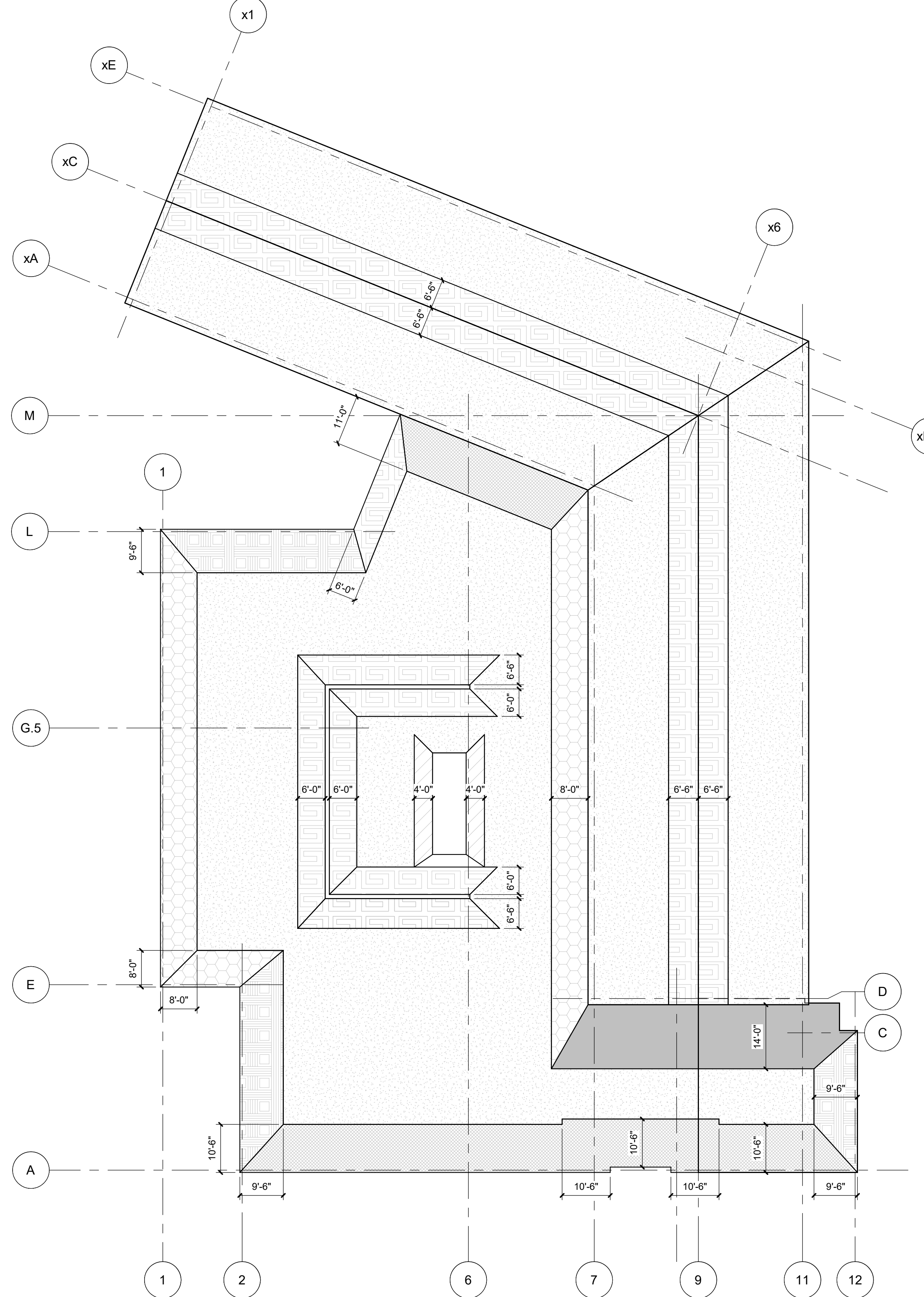
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E1 FRAMING ELEVATION
1/4" = 1'-0"



A1 JOIST WIND UPLIFT DIAGRAM
1/16" = 1'-0"



A4 SNOW DRIFT LOAD DIAGRAM
1/16" = 1'-0"

OPEN-WEB JOIST DESIGN GENERAL NOTES

A. REFER TO THE "STEEL JOISTS" SECTION ON SHEET S001 FOR GENERAL JOIST REQUIREMENTS.

B. JOIST DESIGNER SHALL DESIGN JOISTS FOR ALL SPECIAL LOADINGS (POINT LOADS, AXIAL LOADS, MOMENTS, ETC.) SHOWN ON THE STRUCTURAL DRAWINGS.

C. JOIST DESIGNATIONS SHOWN ON THE FRAMING PLANS HAVE BEEN SELECTED BASED ON LOAD COMBINATIONS INCLUDING DEAD LOAD, ROOF LIVE LOAD, AND MINIMUM FLAT ROOF SNOW LOAD ONLY. LOAD CASES FOR SNOW DRIFT AND WIND UPLIFT HAVE NOT BEEN TAKEN INTO ACCOUNT. THE JOIST DESIGNER SHALL DESIGN JOISTS TAKING INTO ACCOUNT THESE ADDITIONAL LOAD CASES.

D. THE "JOIST WIND UPLIFT LOAD DIAGRAM" AND THE "JOIST SNOW DRIFT LOAD DIAGRAM" SHOWN ON THIS SHEET REFLECT BASIC LOAD CASE VALUES (1.0'S AND 1.0'W RESPECTIVELY). THE JOIST DESIGNER SHALL INCORPORATE THESE LOAD CASES INTO THE APPROPRIATE LOAD COMBINATIONS AS SET FORTH IN ASCE 7-10.

E. FOR SNOW LOADS, TWO INDEPENDENT CASES SHALL BE CONSIDERED:
 a. "CASE A" SHALL ACCOUNT FOR THE MINIMUM FLAT ROOF SNOW LOAD AS LISTED BELOW (ps), APPLIED OVER THE ENTIRE ROOF.
 b. "CASE B" SHALL ACCOUNT FOR THE BALANCED ROOF SNOW LOAD AS LISTED BELOW, PLUS DRIFT LOADS AS SHOWN ON THE "JOIST SNOW DRIFT LOAD DIAGRAM" (ps + pd).

F. BASIC LOAD CASES FOR JOIST DESIGN ARE AS FOLLOWS:
 a. DEAD LOAD 20 PSF
 b. ROOF LIVE LOAD 20 PSF
 c. MINIMUM FLAT ROOF SNOW LOAD (ps) 9 PSF
 d. BALANCED ROOF SNOW LOAD (ps) 9 PSF
 e. SNOW DRIFT LOADS (ps) PER A4/SF402
 f. WIND UPLIFT LOADS PER A1/SF402

JOIST WIND UPLIFT LOADING LEGEND

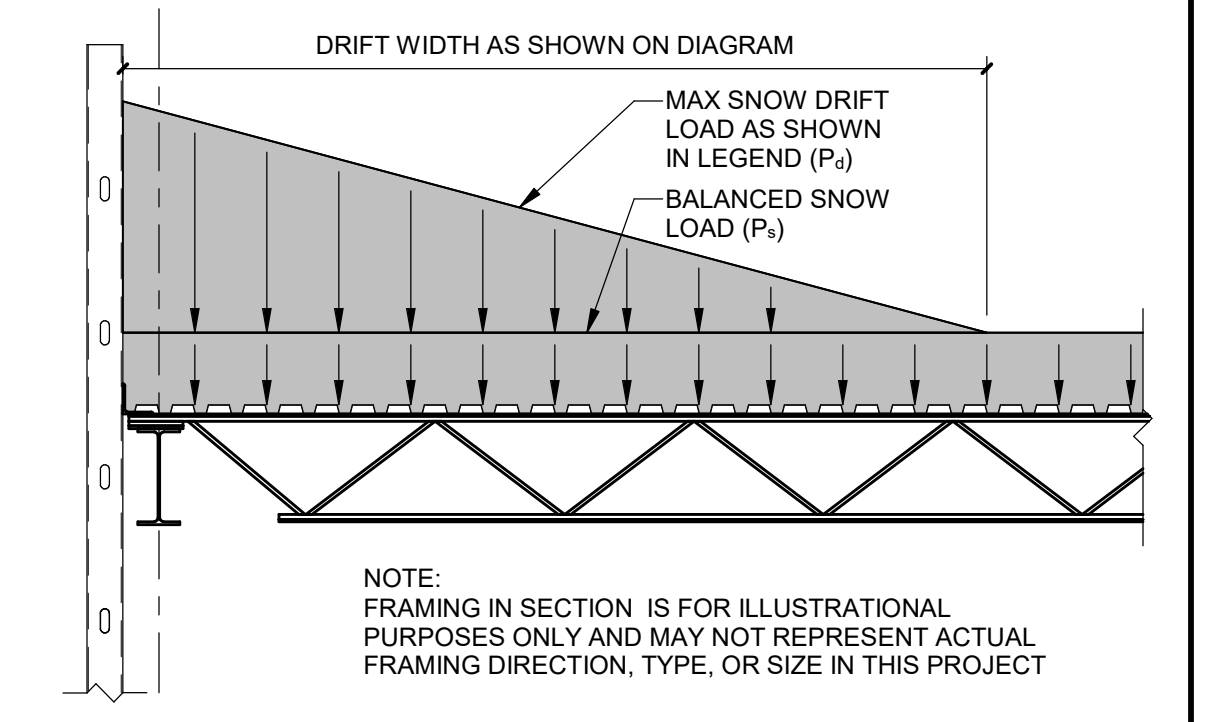
NOTE: ALL WIND UPLIFT LOADS ARE SHOWN AS ULTIMATE UNFACTORED LOADS.

	INDICATES 16 PSF LOAD
	INDICATES 23 PSF LOAD
	INDICATES 30 PSF LOAD
	INDICATES 36 PSF LOAD
	INDICATES 40 PSF LOAD
	INDICATES 45 PSF LOAD

JOIST SNOW DRIFT LOADING LEGEND

NOTE: ALL SNOW DRIFT LOADS ARE SHOWN AS ULTIMATE UNFACTORED LOADS

	INDICATES 9 PSF LOAD (BALANCED - ps)
	INDICATES 25 PSF LOAD (DRIFT - ps+pd)
	INDICATES 35 PSF LOAD (DRIFT - ps+pd)
	INDICATES 40 PSF LOAD (DRIFT - ps+pd)
	INDICATES 45 PSF LOAD (DRIFT - ps+pd)
	INDICATES 50 PSF LOAD (DRIFT - ps+pd)
	INDICATES 61 PSF LOAD (DRIFT - ps+pd)



A6 TYPICAL SNOW DRIFT SECTION
3/8" = 1'-0"

DEKKER PERICH SABATINI
Architecture in Progress

NOT FOR CONSTRUCTION
SEAL PROJECT

NMSU NM DEPT OF AGRICULTURE OFFICE BUILDING
3910 SOUTH ESPINA STREET LAS CRUCES, NEW MEXICO 88003

50% CONSTRUCTION DOCUMENTS

REVISIONS

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△	
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△	
△	

DRAWN BY CHM
REVIEWED BY CM, AG
DATE 4/29/2024
PROJECT NO 22-0227.001

DRAWING NAME
ROOF JOIST LOAD DIAGRAMS AND DETAILS

SHEET NO **S002**

QUALITY ASSURANCE PROGRAM

- STRUCTURAL OBSERVATIONS - STRUCTURAL OBSERVATIONS SHALL BE COMPLETED AT THE FOLLOWING STAGES OF CONSTRUCTION:
 - FOUNDATION SYSTEM PRIOR TO PLACING CONCRETE.
 - STRUCTURE AND ELEVATED DECK PRIOR TO PLACING CONCRETE.
 - ROOF DECK PRIOR TO COVERING WITH MEMBRANE.
 - EXTERIOR CLADDING / VENER SUPERIOR PRIOR TO COVERING WITH FINISHES. STRUCTURAL OBSERVATIONS REPORTS SHALL BE DISTRIBUTED TO THE FOLLOWING: CONTRACTOR, OWNER, ARCHITECT, BUILDING OFFICIAL, AND SPECIAL INSPECTOR.

SCHEDULE OF STRUCTURAL SPECIAL INSPECTIONS PER IBC 2021

- SPECIAL INSPECTIONS / TESTING - "SPECIAL STRUCTURAL INSPECTION" SHALL NOT RELIEVE THE OWNER OR THEIR AGENT FROM REQUESTING THE JURISDICTION BUILDING DEPARTMENT INSPECTIONS REQUIRED BY SECTION 110 OF THE IBC.
 - REPORTING FOR SPECIAL INSPECTION - SPECIAL INSPECTION AND TESTING REPORTS SHALL BE COMPLETED AND DISTRIBUTED AT THE COMPLETION OF EACH TASK. IF A TASK IS TO TAKE LONGER THAN 30 DAYS, PROVIDE REPORTS FOR EACH DAY. PROVIDE COPIES OF REPORTS TO: CONTRACTOR, OWNER, ARCHITECT AND STRUCTURAL ENGINEER OF RECORD. SPECIAL INSPECTOR TO KEEP A NON-COMPLIANCE LIST DOCUMENTING ITEMS INSPECTED NOT MEETING APPROVED CONSTRUCTION DOCUMENTS AND WHEN / HOW RESOLVED.
 - SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING CONSTRUCTION DOCUMENTS FOR ADDITIONAL NON-STRUCTURAL SPECIAL INSPECTION ITEMS.
- IN ACCORDANCE WITH IBC CHAPTER 17, THE FOLLOWING TYPES OF WORK REQUIRE SPECIAL INSPECTIONS AND TESTING:

SPECIAL INSPECTIONS AND TESTS OF SOILS

SPECIAL INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION TASK	FREQUENCY OF INSPECTION		REFERENCE FOR CRITERIA	IBC SECTION
		CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED		
Y	1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	---	X	1705.6	
Y	2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	---	X	1705.6	
Y	3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	---	X	1705.6	
Y	4. DURING FILL PLACEMENT, VERIFY USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	---	1705.6	
Y	5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT THE SITE HAS BEEN PREPARED PROPERLY.	---	X	1705.6	

SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

SPECIAL INSPECTION REQUIRED Y/N	TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCE STANDARD	IBC REFERENCE
N	2. REINFORCING BAR WELDING: <ol style="list-style-type: none"> VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16" INSPECT ALL OTHER WELDS. PERFORM ALL ITEMS LISTED IN CHAPTER 4.5 OF AWS D1.4 	---	X	AWSD1.4 CH. 9.5	1705.3.1
Y	3. INSPECT ANCHORS CAST IN CONCRETE	---	X	ACI 318: 17.8.2	---
Y	4. INSPECTION OF ANCHORS AND REINFORCING BARS POST-INSTALLED IN HARDENED CONCRETE MEMBERS: (a) <ol style="list-style-type: none"> ADHESIVE ANCHORS AND REINFORCING BARS INSTALLED IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS. MECHANICAL ANCHORS, REINFORCING BARS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a. 	X	---	ACI 318: 17.8.2	---
Y	5. VERIFY USE OF REQUIRED DESIGN MIX.	---	X	ACI 318: CH. 19, 25.4.3, 26.4.4	1904.1, 1904.2
Y	6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	---	ASTM C 172 ASTM C 311 ACI 318: 26.5, 26.12	---
Y	7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	---	ACI 318: 26.5	---
Y	8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	---	X	ACI 318: 26.5.3-26.5.5	---
N	9. INSPECT PRESTRESSED CONCRETE FOR: <ol style="list-style-type: none"> APPLICATION OF PRESTRESSING FORCES. GROUTING OF BONDED PRESTRESSING TENDONS. 	X	---	ACI 318: 26.10	---
N	10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	---	X	ACI 318: CH. 26.9	---
Y	11. FOR PRECAST CONCRETE DIAPHRAGM CONNECTIONS OR REINFORCEMENT AT JOINTS CLASSIFIED AS MODERATE OR HIGH DEFORMABILITY ELEMENTS (MDE OR HDE) IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E, OR F, INSPECT SUCH CONNECTIONS AND REINFORCEMENT IN THE FIELD FOR: <ol style="list-style-type: none"> INSTALLATION OF THE EMBEDDED PARTS COMPLETION OF THE CONTINUITY OF REINFORCEMENT ACROSS JOINTS COMPLETION OF CONNECTIONS IN THE FIELD 	X	---	ACI 318: 26.13.1.3 ACI 550.5	---
Y	12. INSPECT INSTALLATION TOLERANCES OF PRECAST CONCRETE DIAPHRAGM CONNECTIONS FOR COMPLIANCE WITH ACI 550.5	---	X	ACI 318: 26.13.1.3 ACI 550.5	---
N	13. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	---	X	ACI 318: 26.11.2	---
Y	14. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	---	X	ACI 318: 26.11.1.2(b)	---

(a) PROVIDE ADDITIONAL SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTIONS AS REQUIRED BY EACH MANUFACTURER'S SPECIFIC ICC-ES OR IAMPO REPORT

SPECIAL INSPECTIONS AND TESTS OF CAST-IN-PLACE DEEP FOUNDATION ELEMENTS

SPECIAL INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION TASK	FREQUENCY OF INSPECTION		REFERENCE FOR CRITERIA	IBC SECTION
		CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED		
Y	1. INSPECT DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH ELEMENT.	X	---	1705.8	
Y	2. VERIFY PLACEMENT LOCATIONS AND PLUMBNESS. CONFIRM ELEMENT DIAMETERS, BELL DIAMETERS (IF APPLICABLE), LENGTHS, EMBEDMENT INTO BEDROCK (IF APPLICABLE) AND ADEQUATE END-BEARING STRATA CAPACITY. RECORD CONCRETE OR GROUT VOLUMES.	X	---	1705.8	
Y	3. FOR CONCRETE ELEMENTS, PERFORM TEST AND ADDITIONAL SPECIAL INSPECTIONS IN ACCORDANCE WITH SECTION 1705.3.	---	---	1705.3	

SPECIAL INSPECTION AND VERIFICATION OF STEEL CONSTRUCTION - WELDING

SPECIAL INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION TASK	TYPE OF INSPECTION		REFERENCED STANDARD
		QUALITY CONTROL TASK	QUALITY ASSURANCE TASK	
Y	1. INSPECTION TASKS PRIOR TO WELDING: <ol style="list-style-type: none"> WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE MATERIAL IDENTIFICATION (TYPE/GRADE) WELDER IDENTIFICATION SYSTEM (a) FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY): <ol style="list-style-type: none"> JOINT PREPARATIONS DIMENSIONS (ALIGNMENT, ROOT FACE, ROOT OPENING, BEVEL) CLEANLINESS (CONDITION OF STEEL SURFACES) TACKLING (TACK WELD QUALITY AND LOCATION) BACKING TYPE AND FIT (IF APPLICABLE) FIT-UP OF CJP GROOVE WELDS OF HSS T-Y, AND K-JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY): <ol style="list-style-type: none"> JOINT PREPARATIONS DIMENSIONS (ALIGNMENT, ROOT FACE, ROOT OPENING, BEVEL) CLEANLINESS (CONDITION OF STEEL SURFACES) TACKLING (TACK WELD QUALITY AND LOCATION) 	P	O	AISC 360 TABLE NS-4.1
Y	2. INSPECTION TASKS DURING WELDING: <ol style="list-style-type: none"> CONTROL AND HANDLING OF WELDING CONSUMABLES: <ol style="list-style-type: none"> PACKAGING EXPOSURE CONTROL NO WELDING OVER CRACKED TACK WELDS. ENVIRONMENTAL CONDITIONS: <ol style="list-style-type: none"> WIND SPEED WITHIN LIMITS PRECIPITATION AND TEMPERATURE WPS FOLLOWED WELDING TECHNIQUES: <ol style="list-style-type: none"> INTERPASS AND FINAL CLEANING EACH PASS WITHIN PROFILE LIMITATIONS EACH PASS MEETS QUALITY REQUIREMENTS PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS 	O	O	
Y	3. INSPECTION TASKS AFTER WELDING: <ol style="list-style-type: none"> WELDS CLEANED SIZE, LENGTH, AND LOCATION OF WELDS. WELDS MEET VISUAL ACCEPTANCE CRITERIA: <ol style="list-style-type: none"> CRACK PROHIBITION WELD/BASE-METAL FUSION CRATER CROSS SECTION WELD PROFILES WELD SIZE UNDERCUT POROSITY ARC STRIKES K-AREA (b) WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILD-UP HEAVY SHAPES. (c) BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED) REPAIR ACTIVITIES. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER. NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR. 	O	O	AISC 360 TABLE NS-4.3
Y	4. ITEMS NEED TO BE OBSERVED ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS. P: ITEMS NEED TO BE PERFORMED FOR EACH WELDED JOINT OR MEMBER. (a) THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED, SHALL BE THE LOW-STRESS TYPE. (b) WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WEB K-AREA FOR CRACKS WITHIN 3 IN. OF THE WELD. (c) AFTER ROLLED HEAVY SHAPES (SEE SECTION A3.1c) AND BUILT-UP HEAVY SHAPES (SEE SECTION A3.1d) ARE WELDED, VISUALLY INSPECT THE WELD ACCESS HOLE FOR CRACKS.			

SPECIAL INSPECTION AND VERIFICATION OF STEEL CONSTRUCTION - BOLTING AND OTHER TASKS

SPECIAL INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION TASK	TYPE OF INSPECTION		REFERENCED STANDARD
		QUALITY CONTROL TASK	QUALITY ASSURANCE TASK	
Y	1. INSPECTION TASKS PRIOR TO BOLTING: <ol style="list-style-type: none"> MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS. CORRECT FASTENERS SELECTED FOR THE JOINT DETAIL: <ol style="list-style-type: none"> GRADE TYPE BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS. PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED PROTECTED STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS, AND OTHER FASTENER COMPONENTS. 	O	P	AISC 360 TABLE NS-6.1
Y	2. INSPECTION TASKS DURING BOLTING: <ol style="list-style-type: none"> FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS AND NUTS ARE POSITIONED AS REQUIRED. JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRE-TENSIONING OPERATION FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING FASTENERS ARE PRE-TENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES. 	O	O	
Y	3. INSPECTION TASKS AFTER BOLTING: <ol style="list-style-type: none"> DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS. 	P	P	AISC 360 TABLE NS-6.3
Y	4. INSPECTION OF ANCHOR ROD PLACEMENT AND PLACEMENT OF EMBEDDED ITEMS: <ol style="list-style-type: none"> DIAMETER, GRADE, TYPE, AND LENGTH OF ANCHOR ROD OR EMBEDDED ITEM. EXTENT OR DEPTH OF EMBEDMENT INTO CONCRETE. 	P	P	
Y	5. INSPECTION OF THE FABRICATED STEEL OR ERECTED STEEL FRAME TO VERIFY COMPLIANCE WITH THE DETAILS SHOWN ON THE CONSTRUCTION DOCUMENTS.	P	P	AISC 360 SECTION NS-8

O: ITEMS NEED TO BE OBSERVED ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.
P: ITEMS NEED TO BE PERFORMED FOR EACH BOLTED CONNECTION.

SPECIAL INSPECTION AND VERIFICATION OF COLD-FORMED STEEL DECK

SPECIAL INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION TASK	TYPE OF INSPECTION		REFERENCED STANDARD
		QUALITY CONTROL TASK	QUALITY ASSURANCE TASK	
Y	1. INSPECTION OR EXECUTION TASKS PRIOR TO DECK PLACEMENT: <ol style="list-style-type: none"> VERIFY COMPLIANCE OF MATERIALS (DECK AND ALL DECK ACCESSORIES) WITH CONSTRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL PROPERTIES, AND BASE MATERIAL THICKNESS. DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES. 	P	P	ANSI/SI/QA/QC-2017 TABLE 1.1
Y	2. INSPECTION OR EXECUTION TASKS AFTER DECK PLACEMENT: <ol style="list-style-type: none"> VERIFY COMPLIANCE OF DECK AND ALL DECK ACCESSORIES INSTALLATION WITH CONSTRUCTION DOCUMENTS. VERIFY DECK MATERIALS ARE REPRESENTED BY MILL CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCTION DOCUMENTS. DOCUMENT ACCEPTANCE OR REJECTION OF INSTALLATION OF DECK AND DECK ACCESSORIES. 	P	P	
Y	3. INSPECTION OR EXECUTION TASKS PRIOR TO WELDING: <ol style="list-style-type: none"> WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE MATERIAL IDENTIFICATION (TYPE/GRADE) CHECK WELDING EQUIPMENT. 	O	O	ANSI/SI/QA/QC-2017 TABLE 1.2
Y	4. INSPECTION OR EXECUTION TASKS DURING WELDING: <ol style="list-style-type: none"> USE OF QUALIFIED WELDERS CONTROL AND HANDLING OF WELDING CONSUMABLES ENVIRONMENT CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE) WPS FOLLOWED. 	O	O	
Y	5. INSPECTION OR EXECUTION TASKS AFTER WELDING: <ol style="list-style-type: none"> VERIFY SIZE AND LOCATION OF WELDS, INCLUDING SUPPORT, SIDELAP, AND PERMETER WELDS. WELDS MEET VISUAL ACCEPTANCE CRITERIA VERIFY REPAIR ACTIVITIES. DOCUMENT ACCEPTANCE OR REJECTION OF WELDS. 	P	P	ANSI/SI/QA/QC-2017 TABLE 1.3
Y	6. INSPECTION OR EXECUTION TASKS PRIOR TO MECHANICAL FASTENING: <ol style="list-style-type: none"> MANUFACTURER INSTALLATION INSTRUCTIONS AVAILABLE FOR MECHANICAL FASTENERS. PROPER TOOLS AVAILABLE FOR FASTENER INSTALLATION PROPER STORAGE FOR MECHANICAL FASTENERS. 	O	O	
Y	7. INSPECTION OR EXECUTION TASKS DURING MECHANICAL FASTENING: <ol style="list-style-type: none"> FASTENERS ARE POSITIONED AS REQUIRED FASTENERS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. 	O	O	ANSI/SI/QA/QC-2017 TABLE 1.4
Y	8. INSPECTION OR EXECUTION TASKS AFTER MECHANICAL FASTENING: <ol style="list-style-type: none"> CHECK SPACING, TYPE AND INSTALLATION OF SUPPORT FASTENERS. CHECK SPACING, TYPE AND INSTALLATION OF SIDELAP FASTENERS CHECK SPACING, TYPE AND INSTALLATION OF PERIMETER FASTENERS. VERIFY REPAIR ACTIVITIES. DOCUMENT ACCEPTANCE OR REJECTION OF MECHANICAL FASTENERS. 	P	P	

O: ITEMS NEED TO BE OBSERVED ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS. FREQUENCY OF OBSERVATIONS SHALL BE ADEQUATE TO CONFIRM THAT WORK WAS PERFORMED IN ACCORDANCE WITH THE APPLICABLE DOCUMENTS.
P: ITEMS NEED TO BE PERFORMED PRIOR TO FINAL ACCEPTANCE FOR EACH ITEM OR ELEMENT. WITHIN THE LISTED TASKS, "DOCUMENT" SHALL MEAN THE INSPECTOR SHALL PREPARE, REPORTS OR OTHER APPROPRIATE WRITTEN DOCUMENTATION INDICATING THAT WORK HAS OR HAS NOT BEEN PERFORMED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.

SPECIAL INSPECTIONS OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS

SPECIAL INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION TASK	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD

SPECIAL INSPECTION AND VERIFICATION OF COLD-FORMED STEEL LIGHT FRAME CONSTRUCTION

SPECIAL INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION TASK	TYPE OF INSPECTION			REFERENCED STANDARD
		QUALITY CONTROL TASK	BASIC FRAME INSPECTION	QUALITY ASSURANCE TASK	
Y	1. MATERIAL VERIFICATION TASKS PRIOR TO ASSEMBLY OR INSTALLATION: <ol style="list-style-type: none"> VERIFY COMPLIANCE OF COLD-FORMED STEEL STRUCTURAL MEMBERS: <ol style="list-style-type: none"> PRODUCT IDENTIFICATION VERIFY COMPLIANCE OF CONNECTORS. DOCUMENT ACCEPTANCE OR REJECTION OF COLD-FORMED STEEL STRUCTURAL MEMBERS AND CONNECTORS. 	P	---	---	ANSI A5.5, TABLE D6.6-1
Y	2. MATERIAL VERIFICATION TASKS AFTER ASSEMBLY OR INSTALLATION: <ol style="list-style-type: none"> VERIFY COMPLIANCE OF COLD-FORMED STEEL STRUCTURAL MEMBERS: <ol style="list-style-type: none"> PRODUCT IDENTIFICATION VERIFY COMPLIANCE OF CONNECTORS. DOCUMENT ACCEPTANCE OR REJECTION OF COLD-FORMED STEEL STRUCTURAL MEMBERS AND CONNECTORS. 	P	O	---	
Y	3. INSPECTION OR EXECUTION TASKS PRIOR TO WELDING: <ol style="list-style-type: none"> WELDING PROCEDURE SPECIFICATIONS AVAILABLE MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE MATERIAL IDENTIFICATION (TYPE/GRADE) CHECK WELDING EQUIPMENT. 	O	---	---	ANSI TABLE D6.7-1
Y	4. INSPECTION OR EXECUTION TASKS DURING WELDING: <ol style="list-style-type: none"> USE OF QUALIFIED WELDERS CONTROL AND HANDLING OF WELDING CONSUMABLES ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE) WELDING PROCEDURE SPECIFICATIONS FOLLOWED 	O	---	---	
Y	5. INSPECTION OF EXECUTION TASKS AFTER WELDING: <ol style="list-style-type: none"> VERIFY COMPLIANCE OF WELDS. WELDS MEET VISUAL ACCEPTANCE CRITERIA VERIFY REPAIR ACTIVITIES. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED CONNECTIONS. 	P	O	P	ANSI TABLE D6.7-3
Y	6. INSPECTION OR EXECUTION TASKS PRIOR TO MECHANICAL FASTENING: <ol style="list-style-type: none"> MECHANICAL FASTENER MANUFACTURER INSTALLATION INSTRUCTIONS AVAILABLE FOR MECHANICAL FASTENERS PROPER TOOLS AVAILABLE FOR MECHANICAL FASTENER INSTALLATION PROPER STORAGE FOR MECHANICAL FASTENERS. 	O	---	---	
Y	7. INSPECTION OR EXECUTION TASKS DURING MECHANICAL FASTENING: <ol style="list-style-type: none"> MECHANICAL FASTENERS ARE POSITIONED AS REQUIRED MECHANICAL FASTENERS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. 	O	---	---	ANSI TABLE D6.8-1
Y	8. INSPECTION OR EXECUTION TASKS AFTER MECHANICAL FASTENING: <ol style="list-style-type: none"> VERIFY COMPLIANCE OF MECHANICAL FASTENERS. REPAIR ACTIVITIES. DOCUMENT ACCEPTANCE OR REJECTION OF MECHANICALLY FASTENED CONNECTIONS. 	P	O	---	
Y	9. INSPECTION OR EXECUTION TASKS AFTER INSTALLATION OF COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION: <ol style="list-style-type: none"> VERIFY COMPLIANCE OF COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION. DOCUMENT ACCEPTANCE OR REJECTION OF COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION. 	P	O	---	ANSI TABLE D6.8-2
Y	10. COLD-FORMED STEEL TRUSSES SPANNING 60 FEET OR GREATER: <ol style="list-style-type: none"> VERIFY THAT THE TEMPORARY INSTALLATION RESTRAINT/BRACING AND THE PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING ARE INSTALLED IN ACCORDANCE WITH THE APPROVED TRUSS SUBMITTAL PACKAGE. 	---	D	---	

O: ITEMS NEED TO BE OBSERVED ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.
P: ITEMS NEED TO BE PERFORMED FOR EACH WELD JOINT OR MEMBER.
D: PREPARE REPORTS OR OTHER WRITTEN DOCUMENTATION INDICATING THAT THE WORK HAS OR HAS NOT BEEN PERFORMED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.
(1) DOCUMENTATION TASKS FOR QUALITY CONTROL ARE AS DEFINED BY THE APPLICABLE QUALITY CONTROL PROGRAM OF THE COMPONENT MANUFACTURER OR INSTALLER.

QUALITY ASSURANCE OF MASONRY

SPECIAL INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION TASK	REFERENCE STANDARD
Y	PRIOR TO CONSTRUCTION, VERIFICATION OF f'm AND f'AC, EXCEPT WHERE SPECIFICALLY EXEMPTED BY CODE	ART. 1.4B
Y	DURING CONSTRUCTION, VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX (VSI) WHEN SELF-CONSOLIDATING GROUT IS DELIVERED TO THE PROJECT SITE	ART. 1.5 & 1.6.3
Y	PRIOR TO POURING CONCRETE FOOTINGS, VERIFY PLACEMENT OF REINFORCING DOWELS	ART. 3.4, 3.6 A
Y	PRIOR TO GROUTING, VERIFY PLACEMENT OF REINFORCEMENT	ART. 3.2 E & 3.4

DEKKER PERICH SABATINI
Architecture in Progress

NOT FOR CONSTRUCTION

NMSU NM DEPT OF AGRICULTURE OFFICE BUILDING
3910 SOUTH ESPINA STREET LAS CRUCES, NEW MEXICO 88003

50% CONSTRUCTION DOCUMENTS

REVISIONS

DRAWN BY CHM
REVIEWED BY CM, AG
DATE 4/29/2024
PROJECT NO 22-0227.001

DRAWING NAME
SPECIAL INSPECTION TABLES

SHEET NO
S003

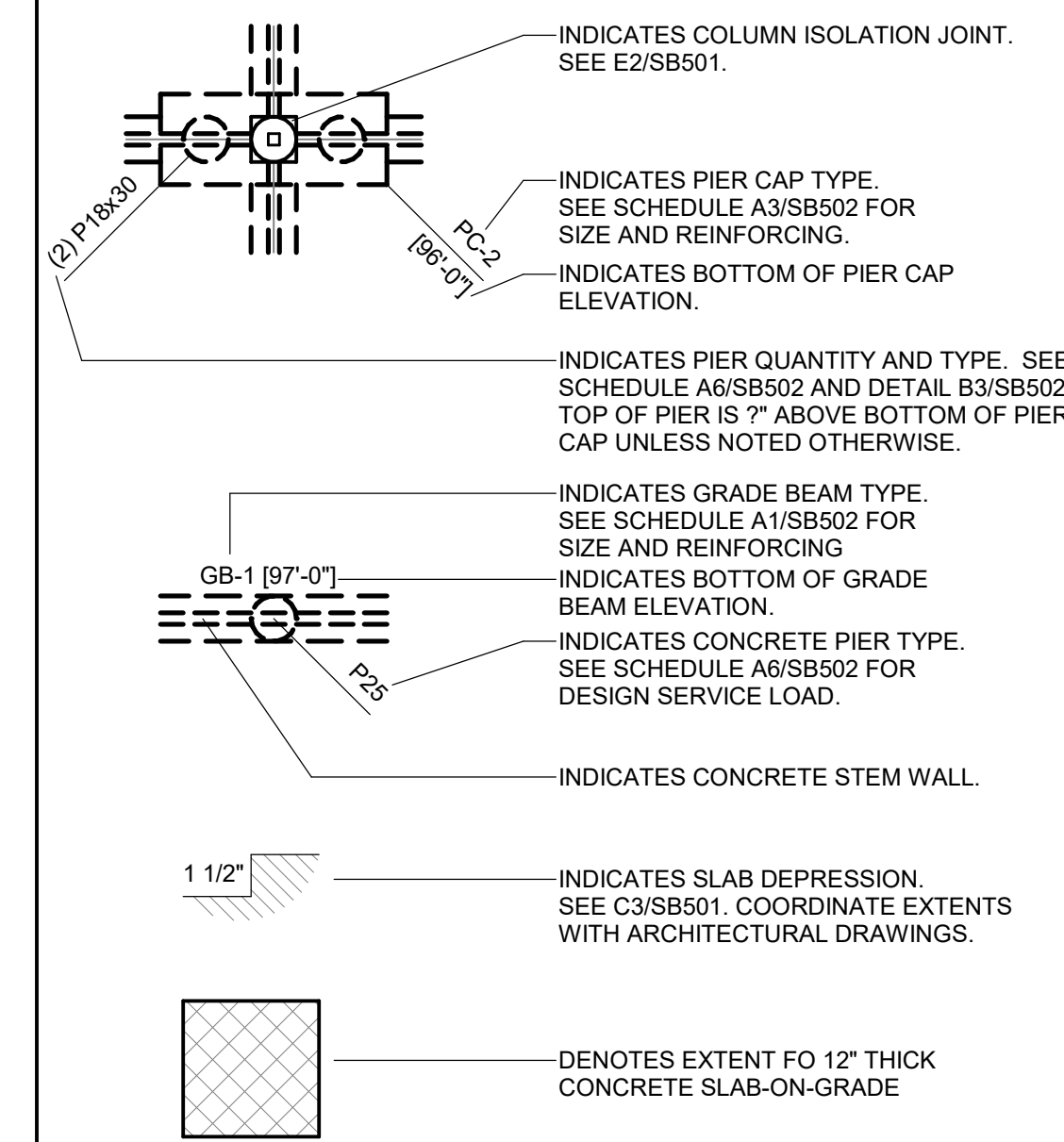
GENERAL SHEET NOTES

- A. REFERENCE FINISHED FLOOR ELEVATION = 100'-0" UNLESS NOTED OTHERWISE. SEE CIVIL FOR MSLE.
- B. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
- C. SEE SHEETS SB301 THROUGH SB307 FOR FOUNDATION SECTIONS, DETAILS, AND SCHEDULES.
- D. DIMENSIONS ARE TO FACE OF CONCRETE STEM WALLS OR CENTERLINE OF GRADE BEAM/PIERS, UNLESS NOTED OTHERWISE.
- E. FOR CONCRETE LAP SPLICE AND EMBEDMENT SCHEDULE, SEE E6/SB601.
- F. SEE A6/SB501 FOR TYPICAL REINFORCING AT GRADE BEAM CORNERS AND INTERSECTIONS. SEE A6/SB501 FOR TYPICAL REINFORCING AT CONCRETE WALL CORNERS AND INTERSECTIONS. SEE B5/SB501 FOR TYPICAL REINFORCING AT TOPS AND ENDS OF CONCRETE WALLS.
- G. CONTRACTOR SHALL COORDINATE OPENINGS AND TOP OF STEM WALL WITH ARCHITECTURAL DRAWINGS. ALL DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT FOR RESOLUTION.
- H. SEE ARCHITECTURAL DRAWINGS FOR PERIMETER INSULATION.
- I. SEE D6/SB501 FOR PIPES WHICH PASS UNDER GRADE BEAM. UNDER NO CIRCUMSTANCES SHALL PIPES PASS THROUGH PILASTERS, PIERS, AND PIER COLUMNS.
- J. SEE D5/SB501 FOR PIPES WHICH PASS THROUGH CONCRETE STEM WALLS. LOCATIONS, SIZES, AND QUANTITIES OF FLOOR DRAINS, FLOOR SINKS, AND PLUMBING PENETRATIONS, AND SLOPED TO DRAIN FLOOR AREAS ARE APPROXIMATE. COORDINATE WITH PLUMBING AND ARCHITECTURAL DRAWINGS.
- L. COORDINATE AND LOCATE ALL DATA, POWER, AND OTHER FLOOR BOXES WITH THEIR RESPECTIVE TRADES AND DISCIPLINES.
- M. NO CONDUIT SHALL BE PERMITTED TO BE RUN HORIZONTALLY IN THE FIRST FLOOR SLAB, UNLESS AUTHORIZED BY THE ARCHITECT. SEE C3/SB501 FOR CONDUIT TO BE RUN BELOW THE FIRST FLOOR SLAB.
- N. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR HOUSEKEEPING PADS AND CURBS NOT SHOWN ON PLAN. SEE DETAILS C2/SB501 AND C1/SB501.

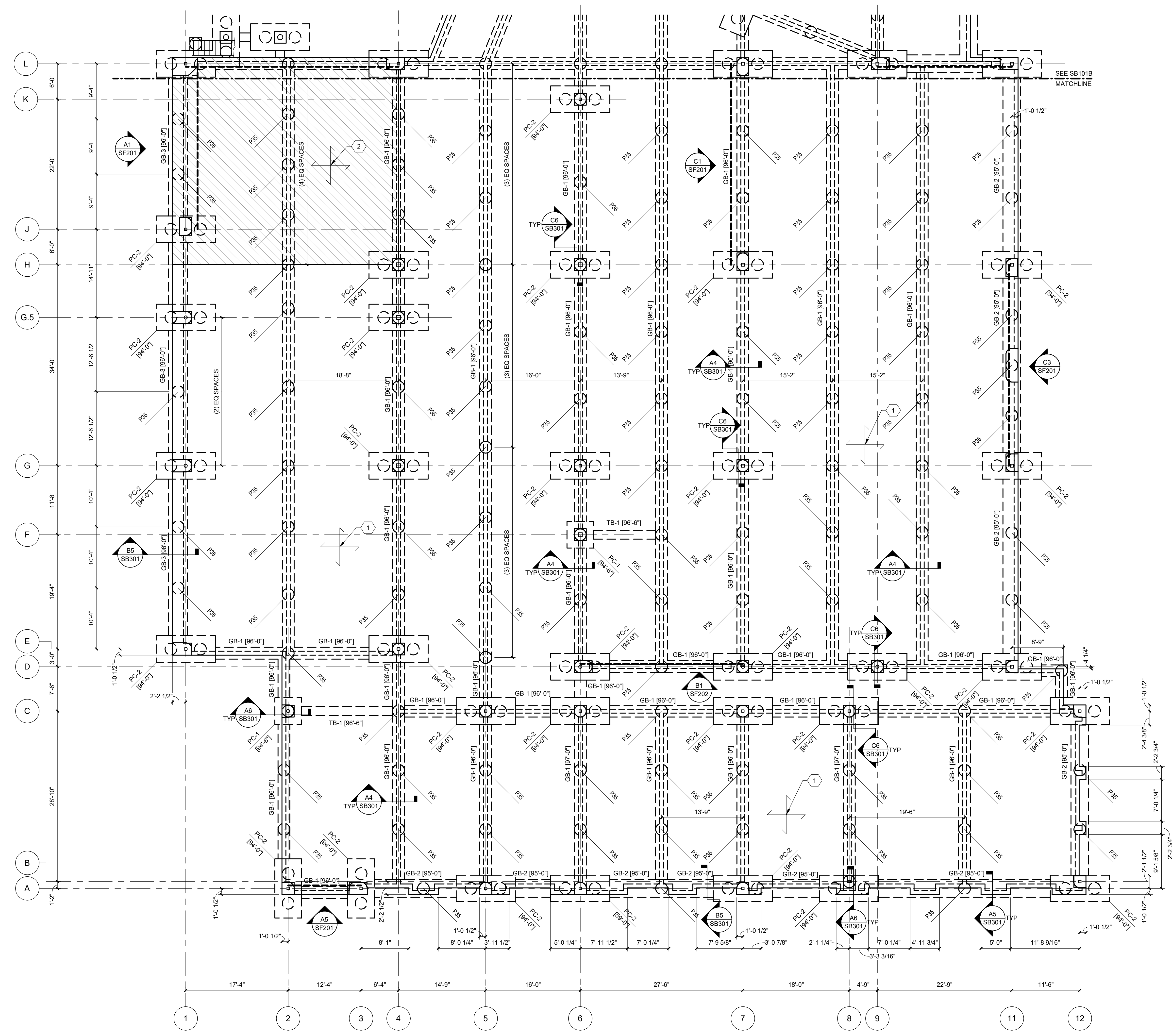
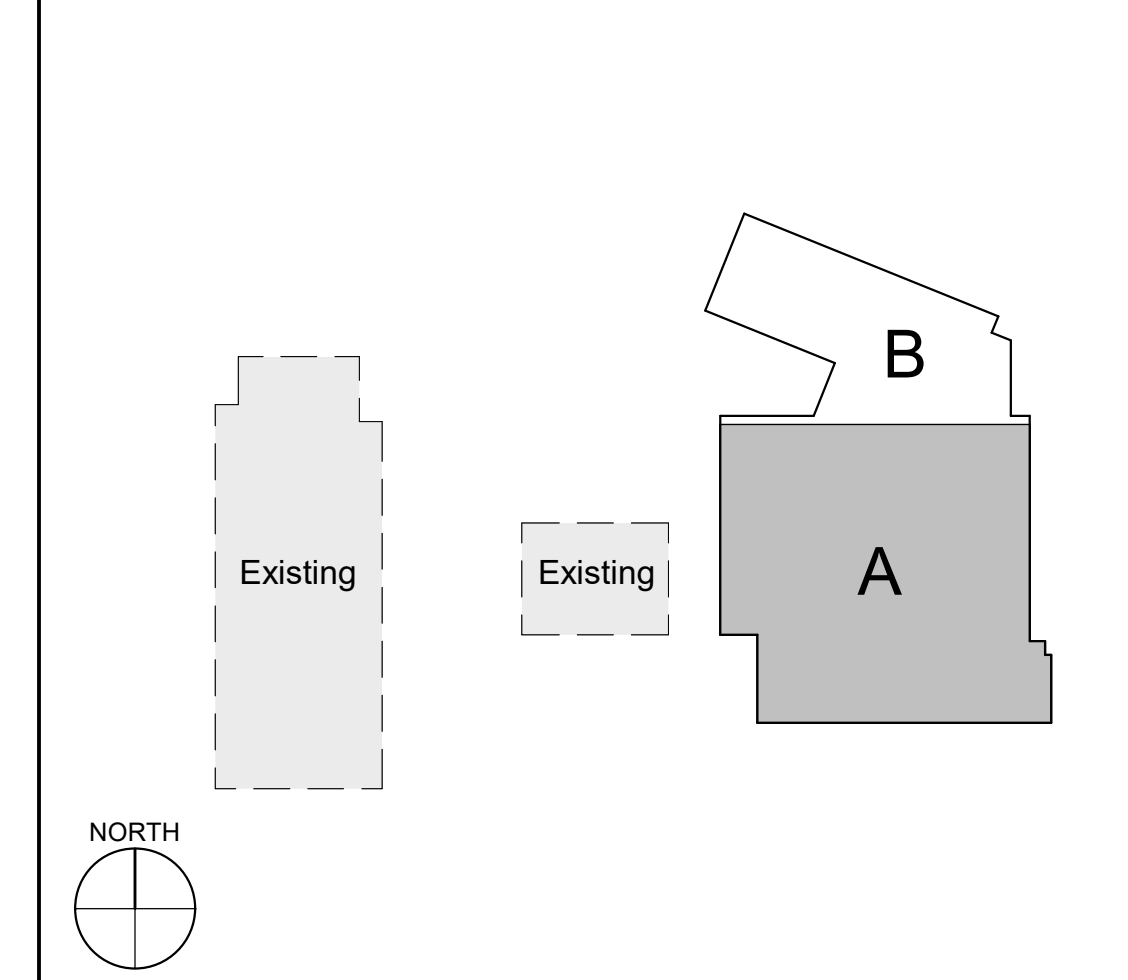
SHEET KEYNOTES

- NOTE: SOME KEYNOTES MAY NOT APPLY TO THIS SHEET.
- 10" THICK CONCRETE SLAB-ON-GRADE WITH #5 AT 12" OC TOP AND BOTTOM EACH WAY. SEE A3/SB501.
 - 12" THICK CONCRETE SLAB-ON-GRADE WITH #5 AT 12" OC TOP AND BOTTOM EACH WAY. SEE A3/SB501.
 - SLAB CONTROL JOINT. SEE B3/SB501.
 - ELONGATED BLOCK-OUT TO FACILITATE BRACED FRAME.
 - (2) #4 x 5'-0" CENTERED IN SLAB-ON-GRADE AT INTERIOR SLAB CORNERS. SEE D4/SB501.
 - 7" HOUSEKEEPING PAD. SEE C2/SB501. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, OR PLUMBING DRAWINGS FOR EXACT SIZE AND LOCATION.

FOUNDATION LEGEND



KEYPLAN



A1 FOUNDATION PLAN - AREA A
1/8" = 1'-0"

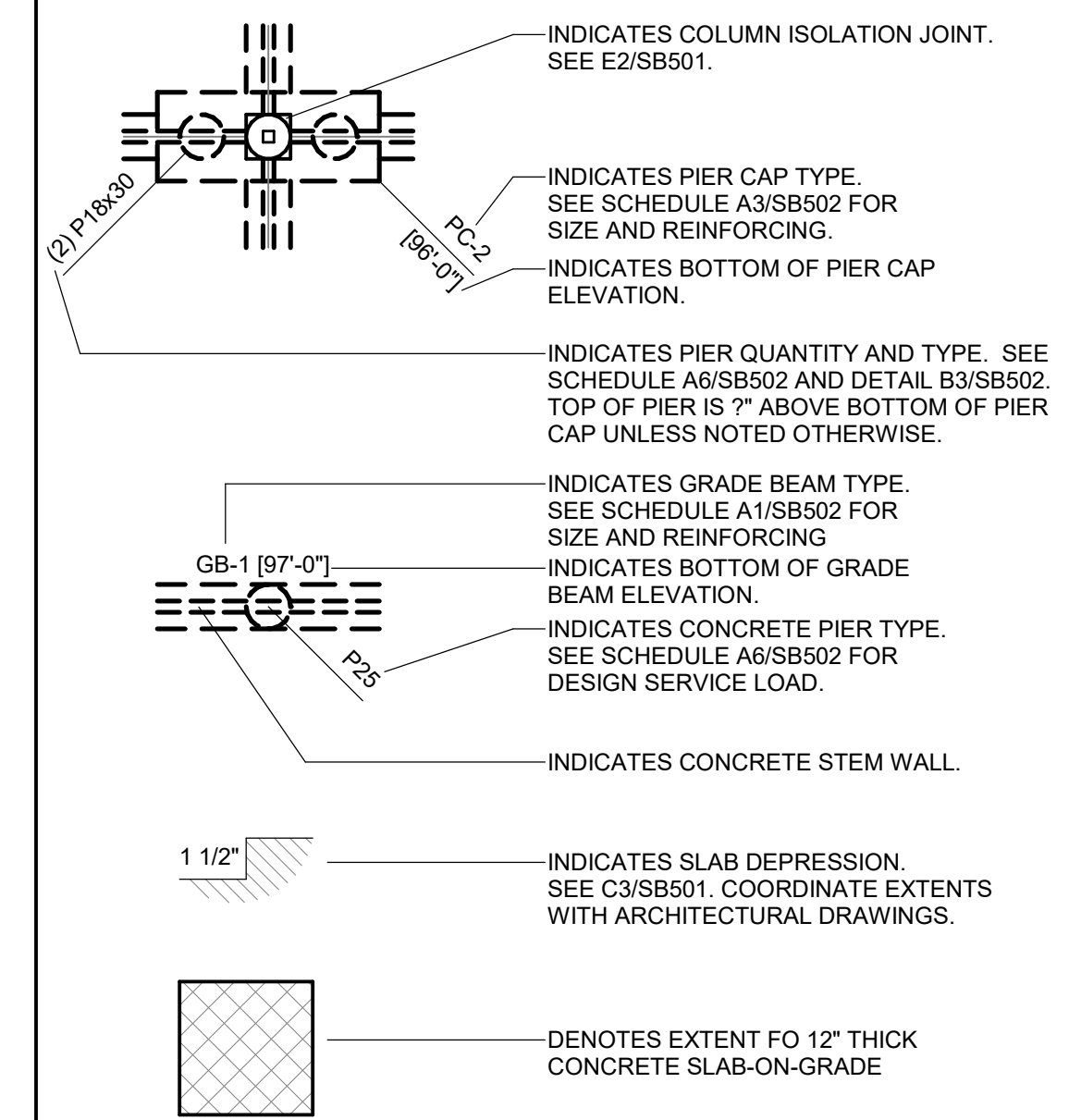
GENERAL SHEET NOTES

- A. REFERENCE FINISHED FLOOR ELEVATION = 100'-0" UNLESS NOTED OTHERWISE. SEE CIVIL FOR MSLE.
- B. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
- C. SEE SHEETS SB301 THROUGH SB301 FOR FOUNDATION SECTIONS, DETAILS, AND SCHEDULES.
- D. DIMENSIONS ARE TO FACE OF CONCRETE STEM WALLS OR CENTERLINE OF GRADE BEAM/PIERS, UNLESS NOTED OTHERWISE.
- E. FOR CONCRETE LAP SPLICE AND EMBEDMENT SCHEDULE, SEE E6/SB601.
- F. SEE A6/SB501 FOR TYPICAL REINFORCING AT GRADE BEAM CORNERS AND INTERSECTIONS. SEE A5/SB501 FOR TYPICAL REINFORCING AT CONCRETE WALL CORNERS AND INTERSECTIONS. SEE B5/SB501 FOR TYPICAL REINFORCING AT TOPS AND ENDS OF CONCRETE WALLS.
- G. CONTRACTOR SHALL COORDINATE OPENINGS AND TOP OF STEM WALL WITH ARCHITECTURAL DRAWINGS. ALL DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT FOR RESOLUTION.
- H. SEE ARCHITECTURAL DRAWINGS FOR PERIMETER INSULATION.
- I. SEE D6/SB501 FOR PIPES WHICH PASS UNDER GRADE BEAM, UNDER NO CIRCUMSTANCES SHALL PIPES PASS THROUGH PILASTERS, PIERS, AND PIER COLUMNS.
- J. SEE D5/SB501 FOR PIPES WHICH PASS THROUGH CONCRETE STEM WALLS.
- K. LOCATIONS, SIZES, AND QUANTITIES OF FLOOR DRAINS, FLOOR SINKS, AND PLUMBING PENETRATIONS, AND SLOPED TO DRAIN FLOOR AREAS ARE APPROXIMATE. COORDINATE WITH PLUMBING AND ARCHITECTURAL DRAWINGS.
- L. COORDINATE AND LOCATE ALL DATA, POWER, AND OTHER FLOOR BOXES WITH THEIR RESPECTIVE TRADES AND DISCIPLINES.
- M. NO CONDUIT SHALL BE PERMITTED TO BE RUN HORIZONTALLY IN THE FIRST FLOOR SLAB, UNLESS AUTHORIZED BY THE ARCHITECT. SEE C3/SB501 FOR CONDUIT TO BE RUN BELOW THE FIRST FLOOR SLAB.
- N. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR HOUSEKEEPING PADS AND CURBS NOT SHOWN ON PLAN. SEE DETAILS C2/SB501 AND C1/SB501.

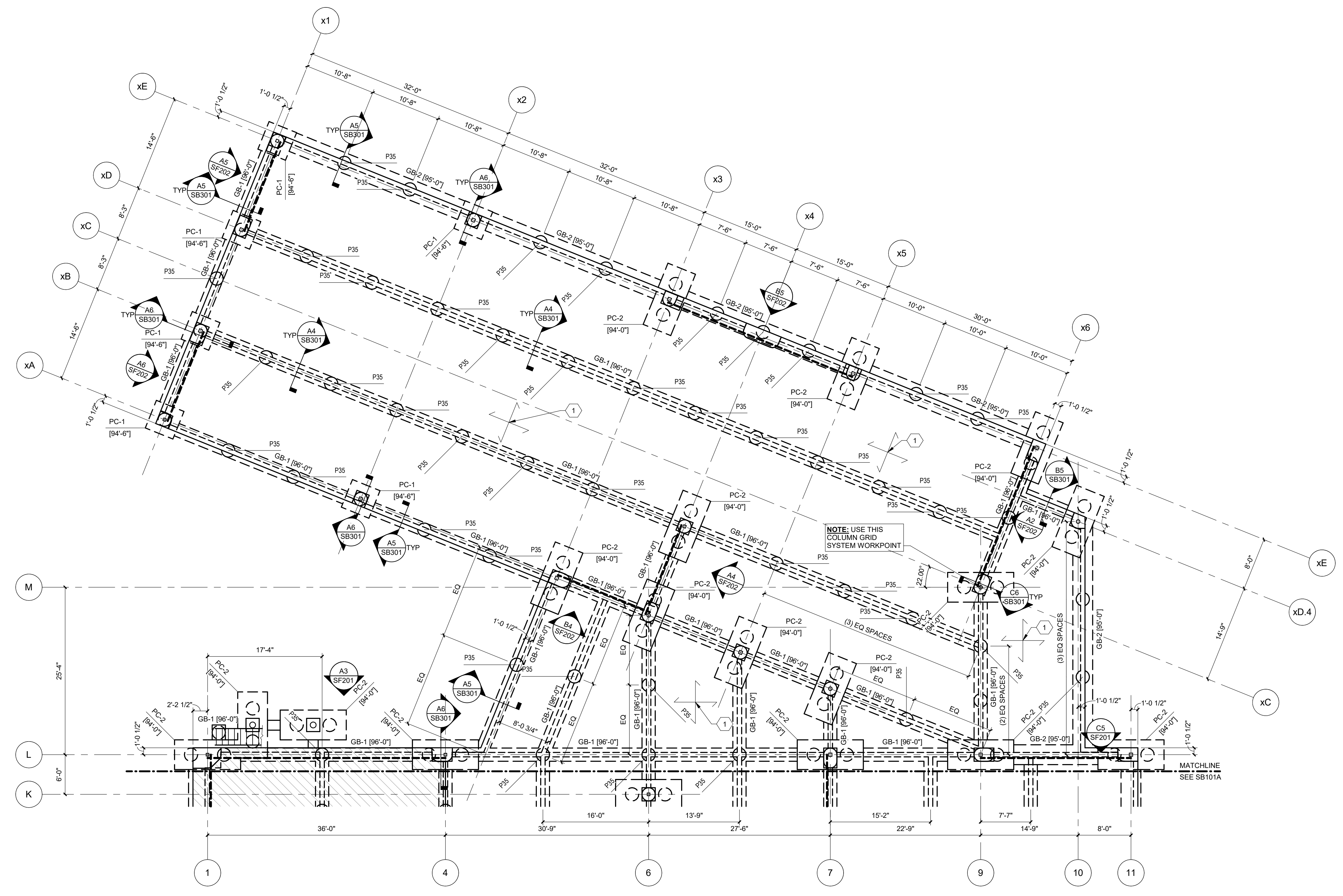
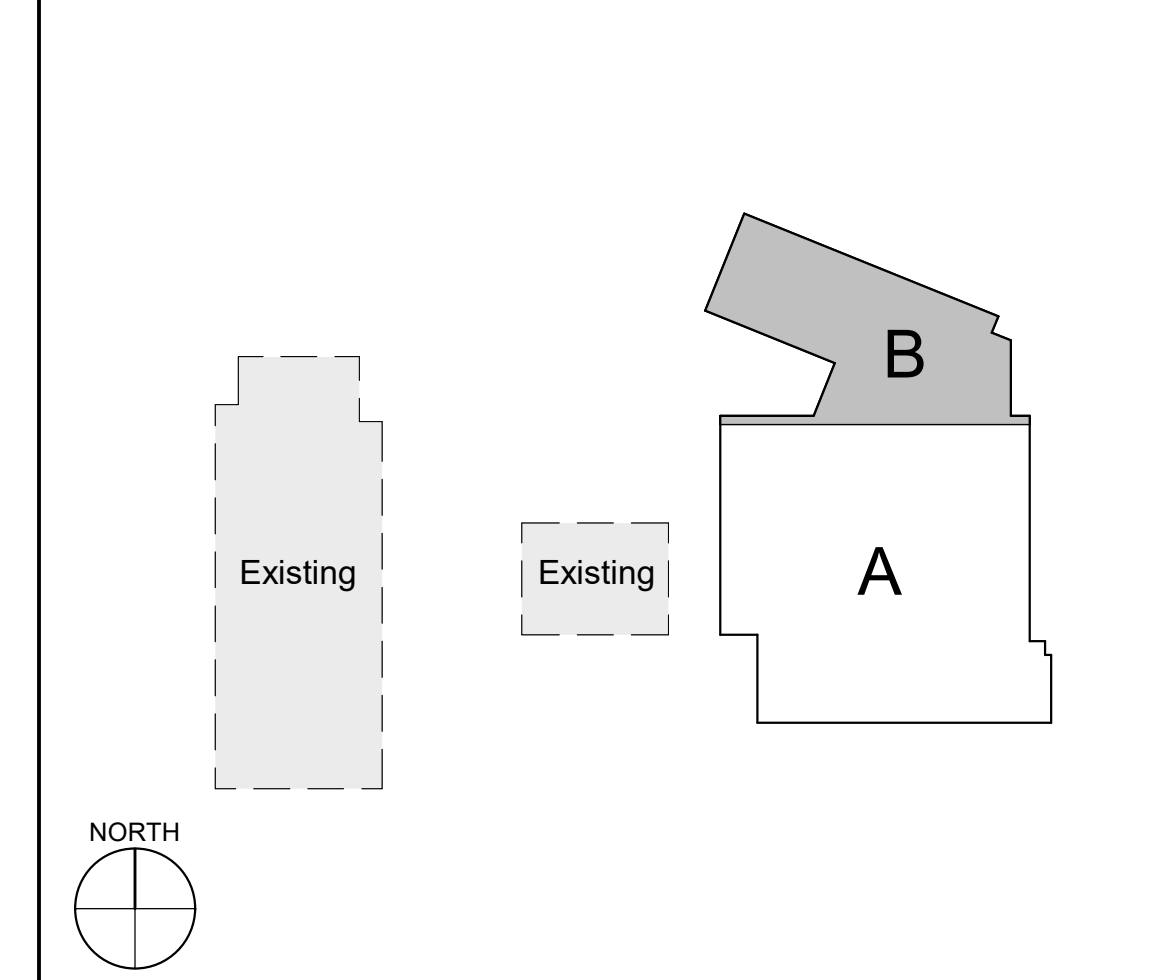
SHEET KEYNOTES

- NOTE: SOME KEYNOTES MAY NOT APPLY TO THIS SHEET.
1. 10" THICK CONCRETE SLAB-ON-GRADE WITH #5 AT 12" OC TOP AND BOTTOM EACH WAY. SEE A3/SB501.
 2. 12" THICK CONCRETE SLAB-ON-GRADE WITH #5 AT 12" OC TOP AND BOTTOM EACH WAY. SEE A3/SB501.
 3. SLAB CONTROL JOINT. SEE B3/SB501.
 4. ELONGATED BLOCK-OUT TO FACILITATE BRACED FRAME.
 5. (2) #4 x 5'-0" CENTERED IN SLAB-ON-GRADE AT INTERIOR SLAB CORNERS. SEE D4/SB501.
 6. 7" HOUSEKEEPING PAD. SEE C2/SB501. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, OR PLUMBING DRAWINGS FOR EXACT SIZE AND LOCATION.

FOUNDATION LEGEND



KEYPLAN



A1 FOUNDATION PLAN - AREA B
1/8" = 1'-0"

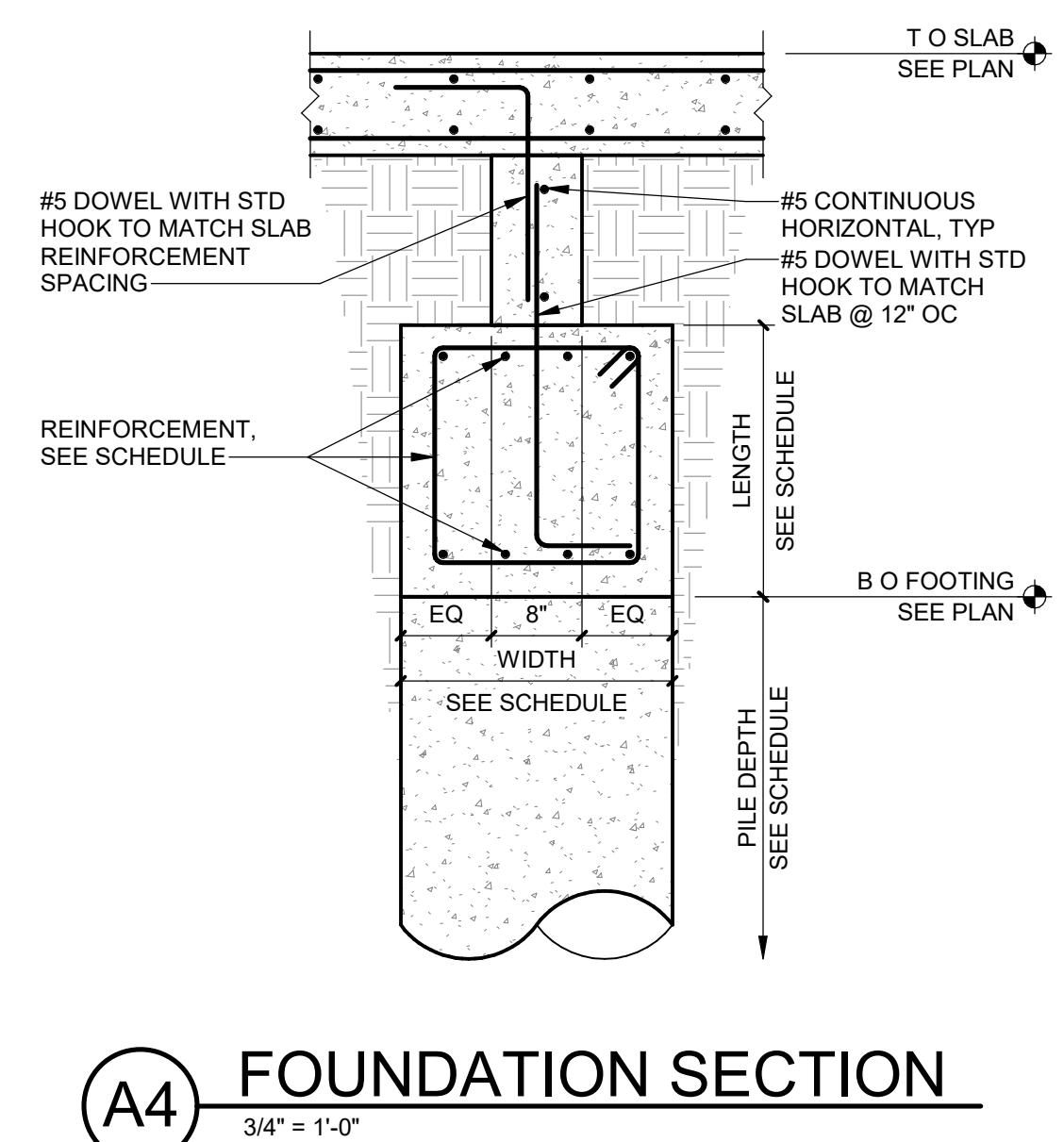
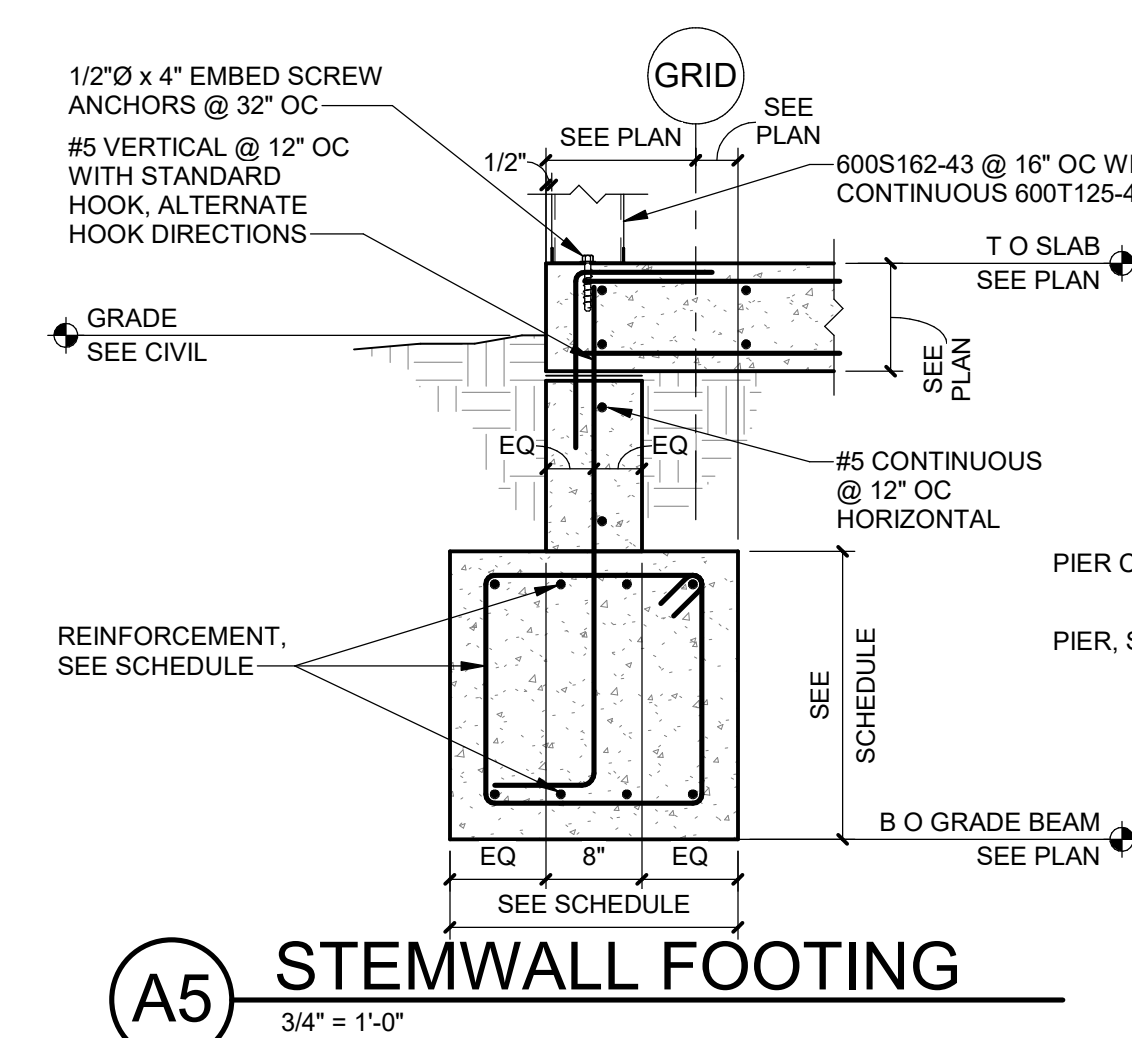
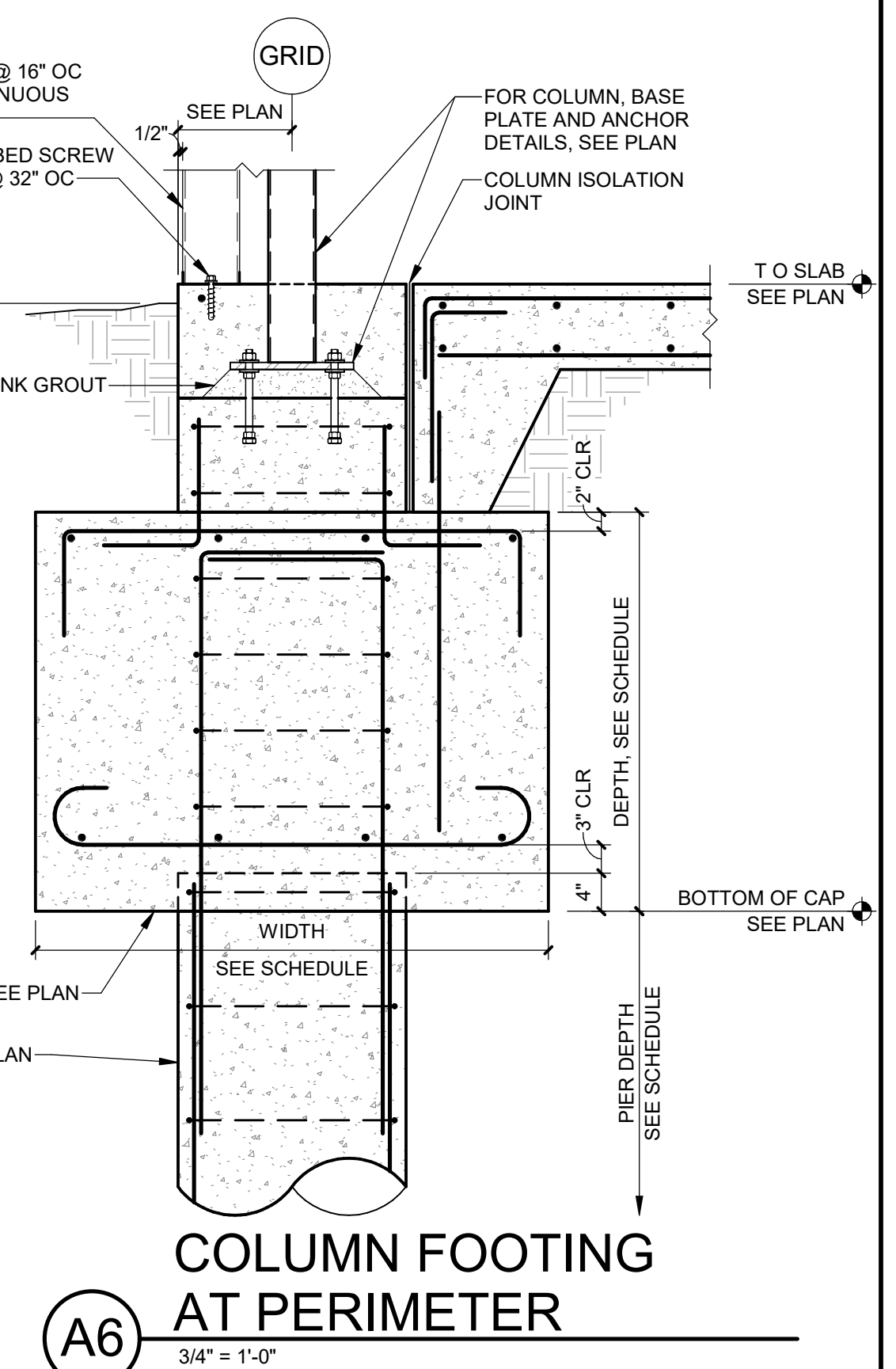
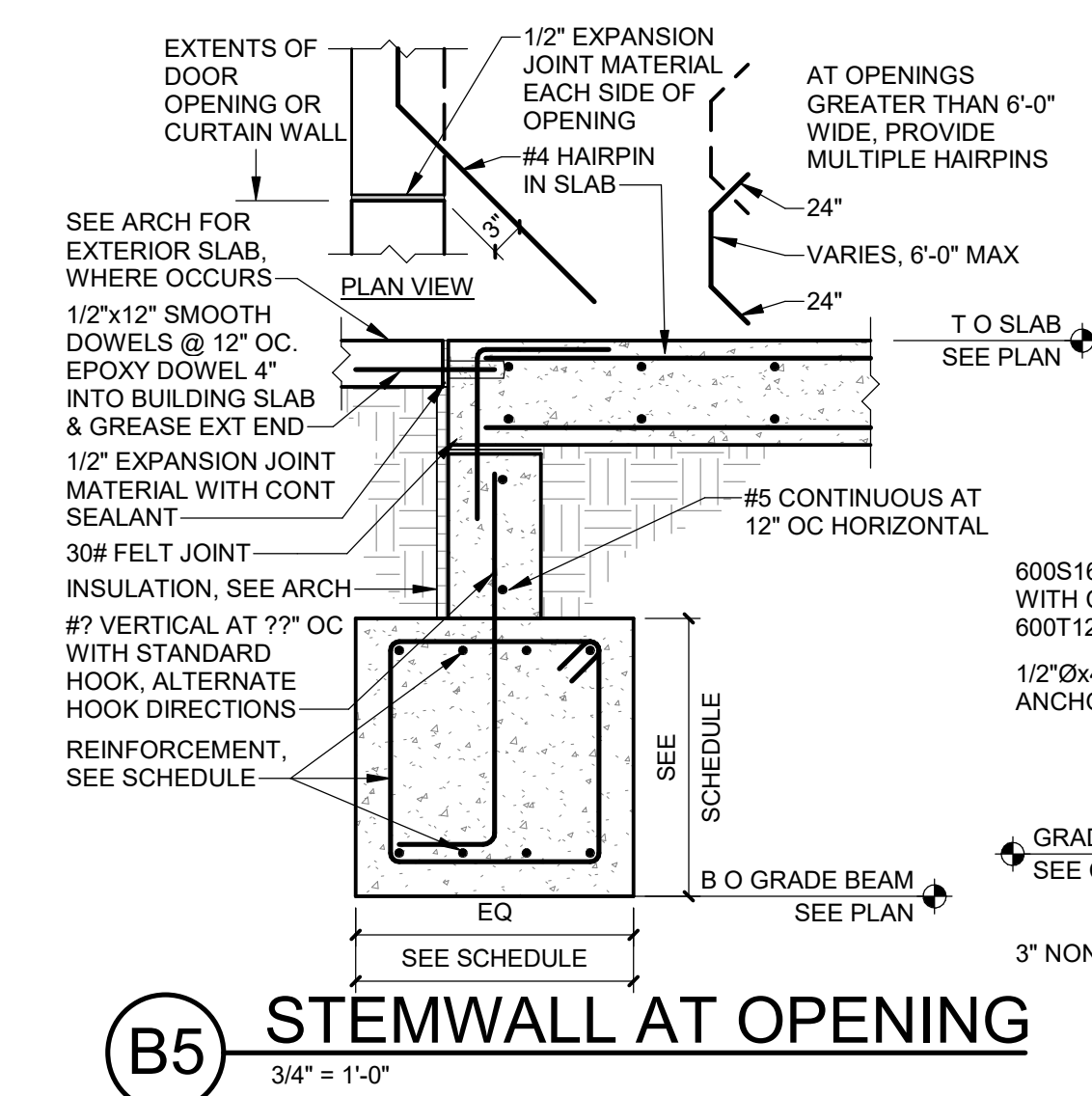
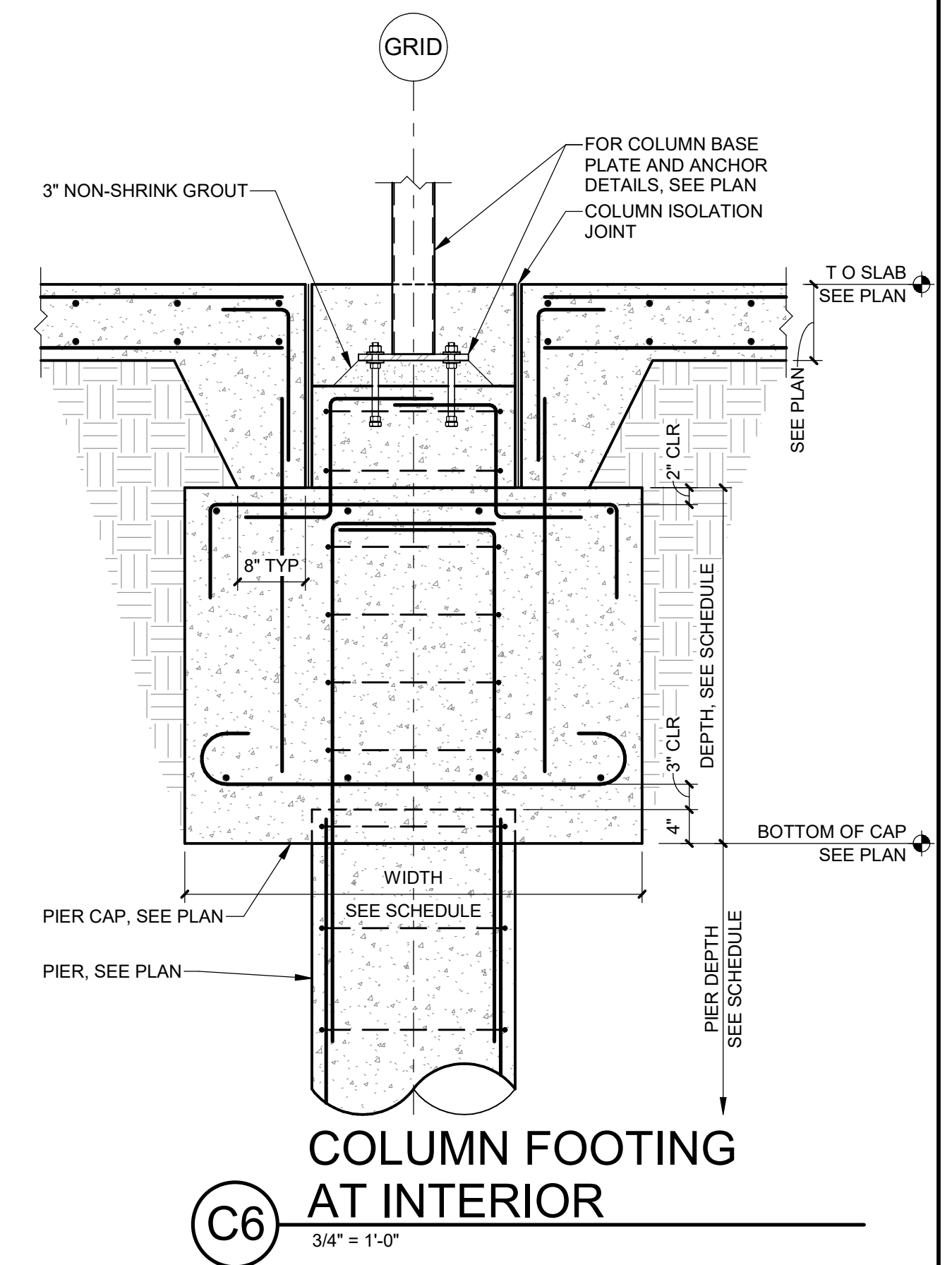
REVISIONS

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DRAWN BY CHM
REVIEWED BY CM, AG
DATE 4/29/2024
PROJECT NO 22-0227.001

DRAWING NAME
FOUNDATION
SECTIONS

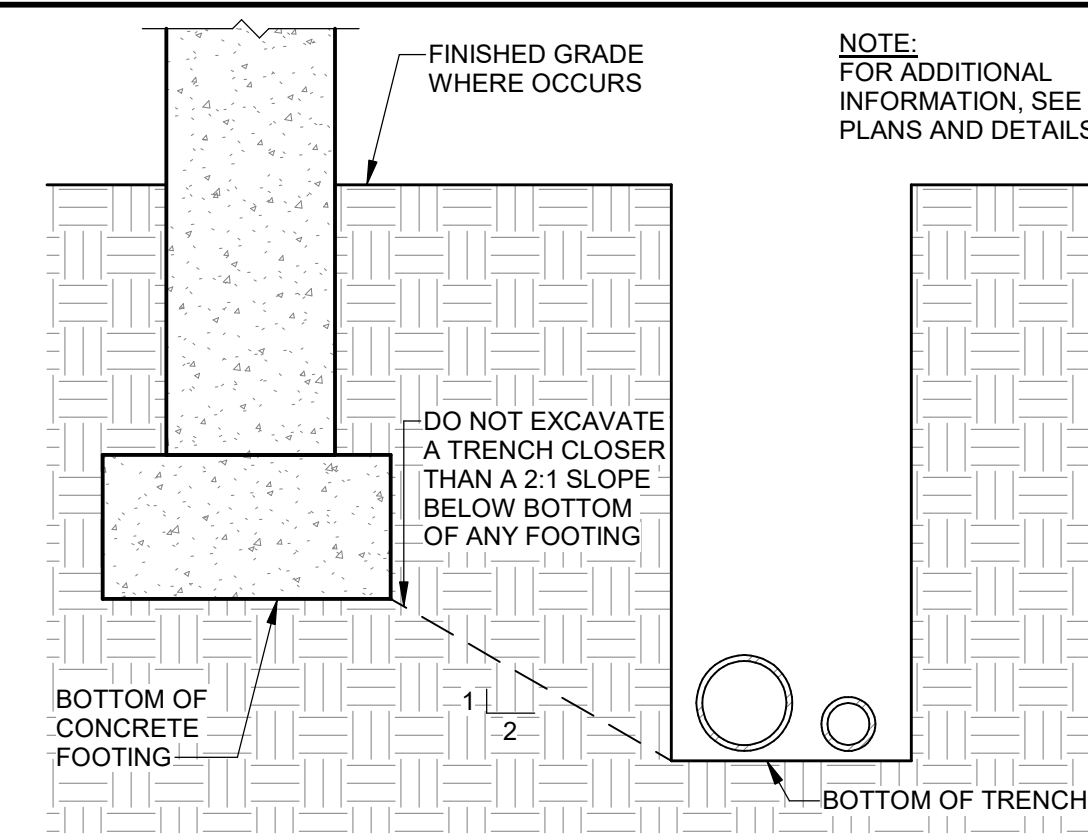
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SB301



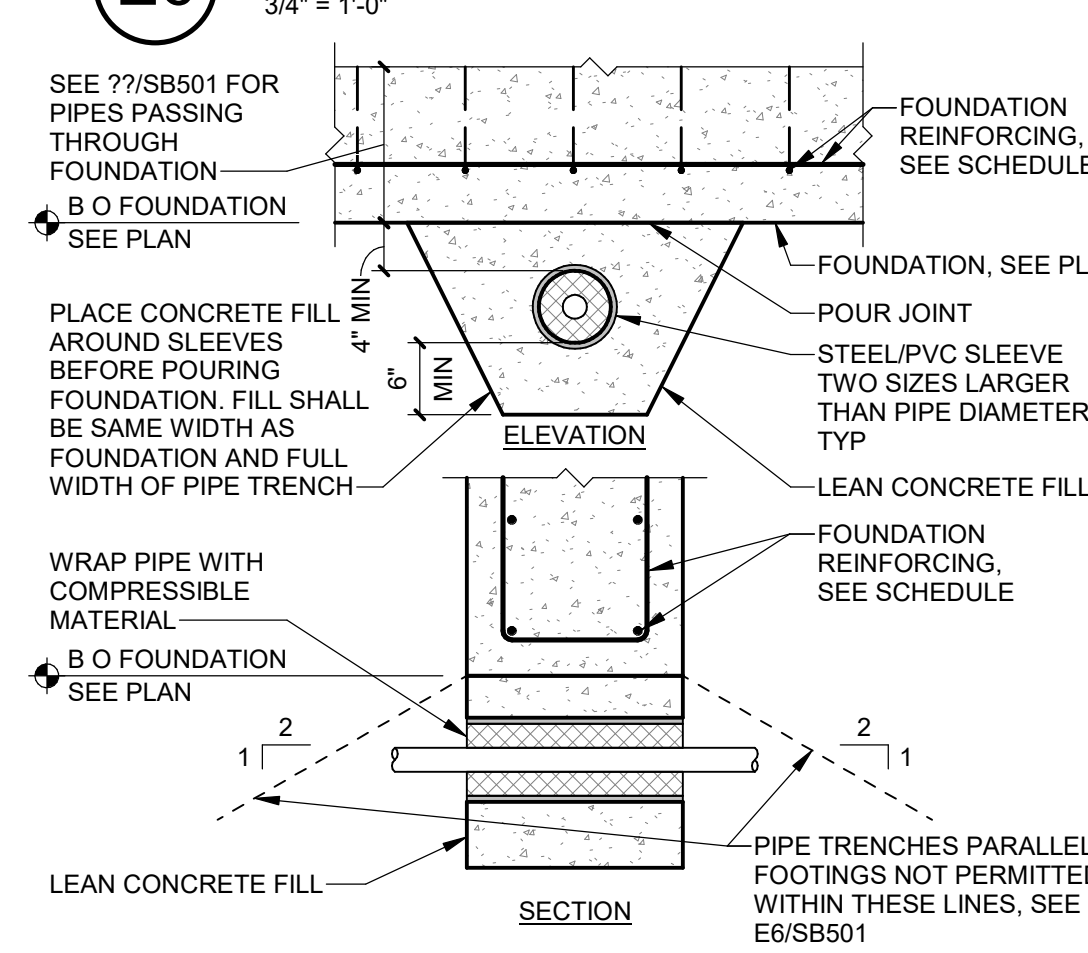
REVISIONS

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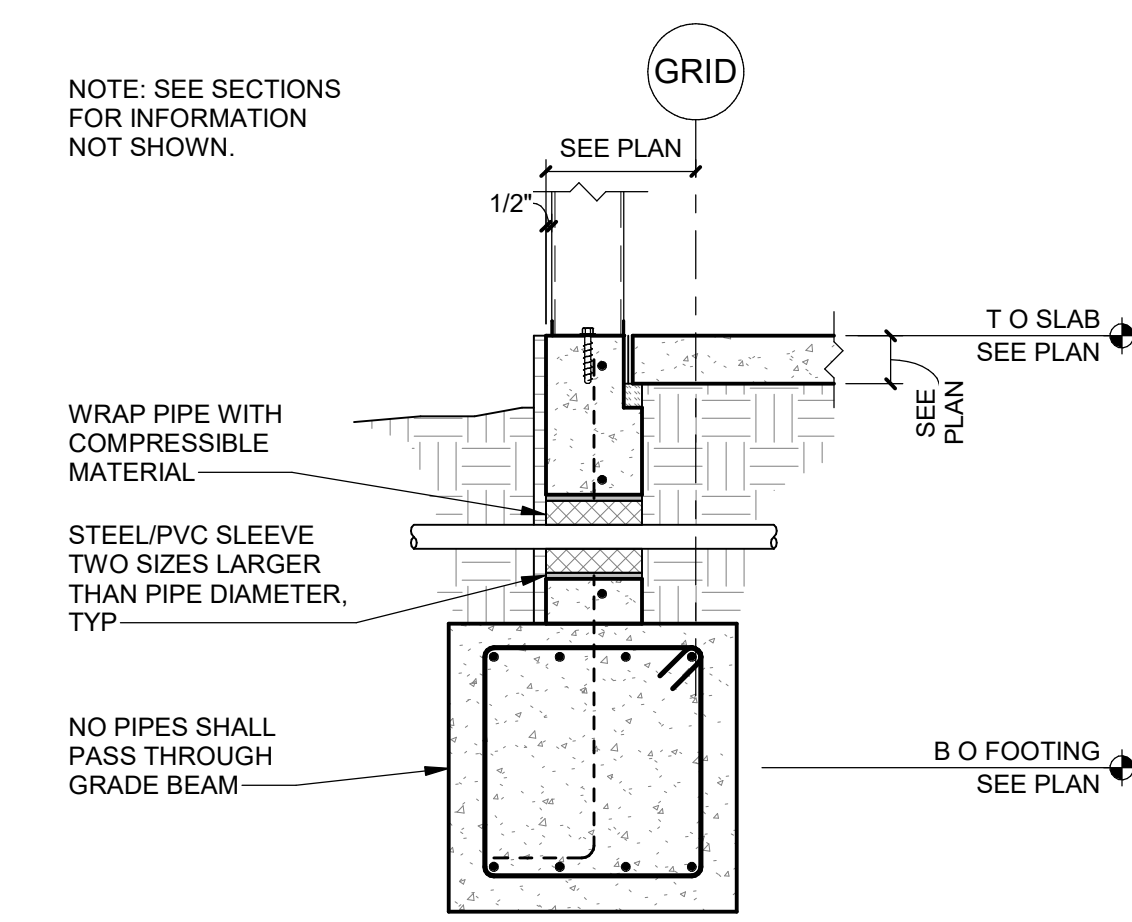
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**FOUNDATION
DETAILS**



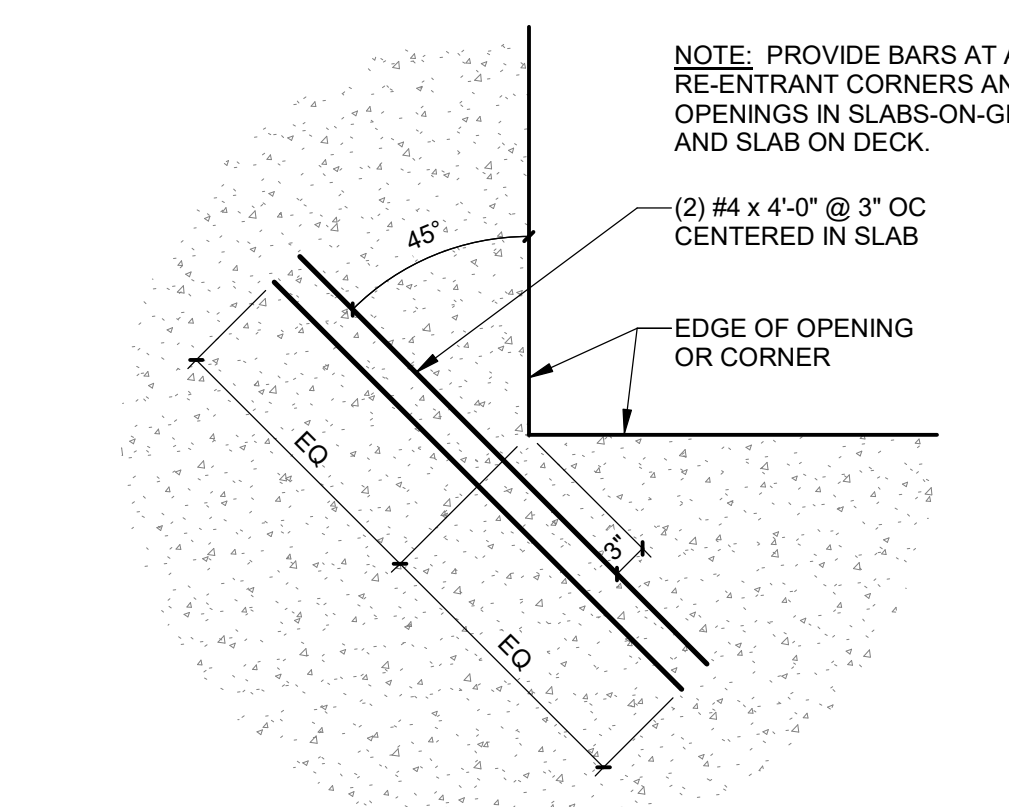
E6 TRENCH PARALLEL TO FOUNDATION
3/4" = 1'-0"



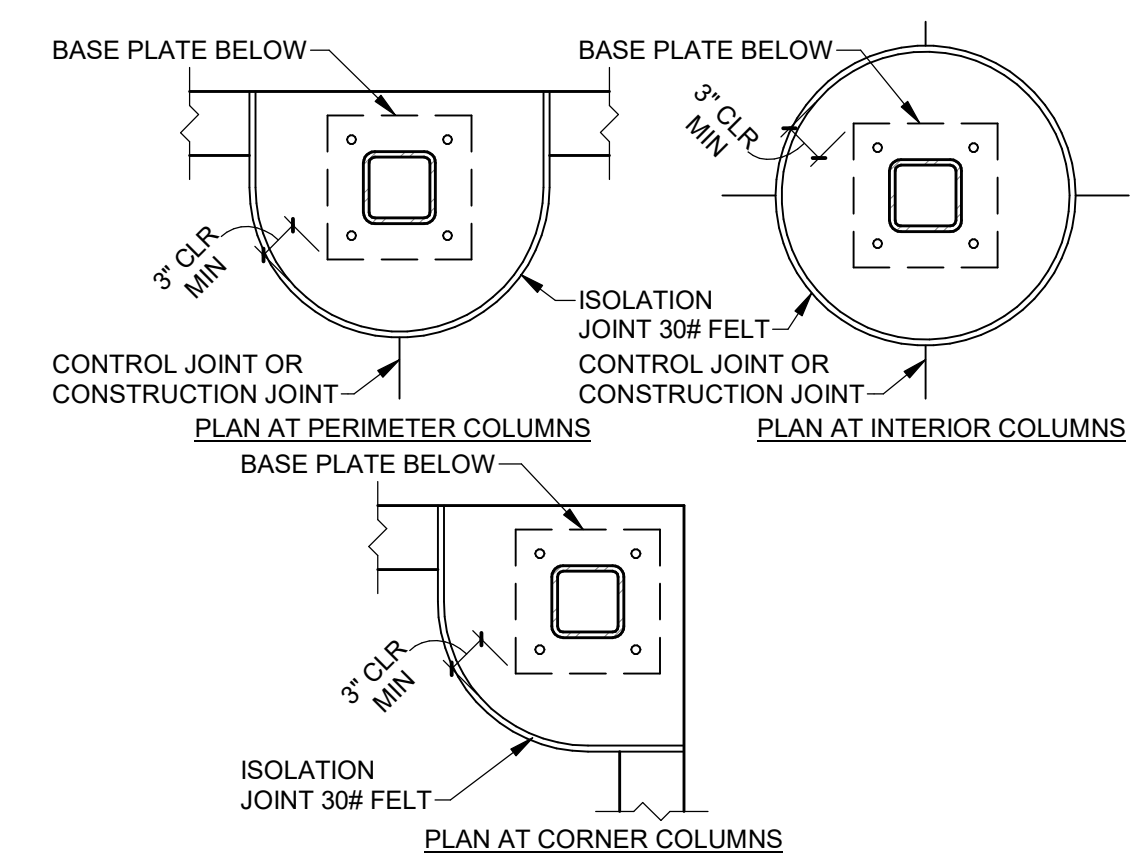
D6 PIPE UNDER FOUNDATION
3/4" = 1'-0"



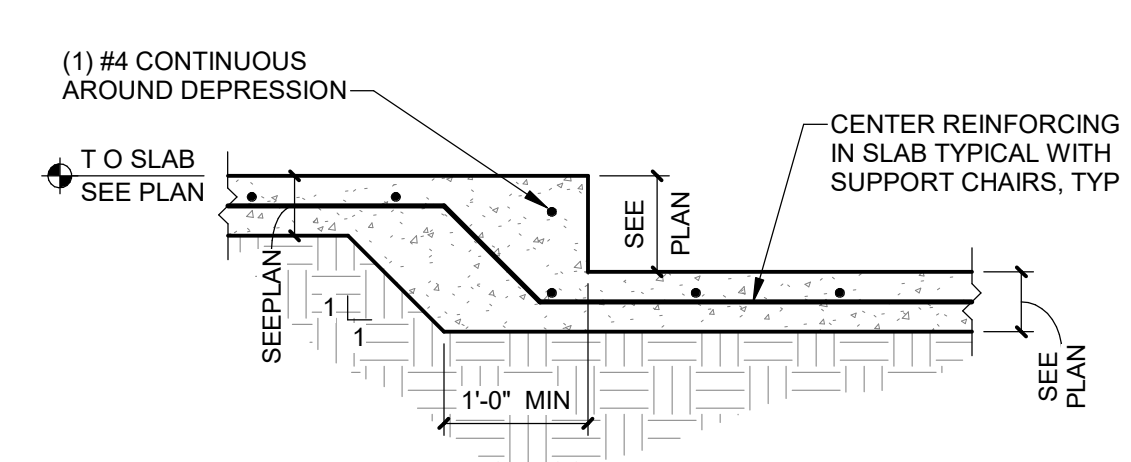
D5 PIPE THROUGH CONCRETE STEMWALL
3/4" = 1'-0"



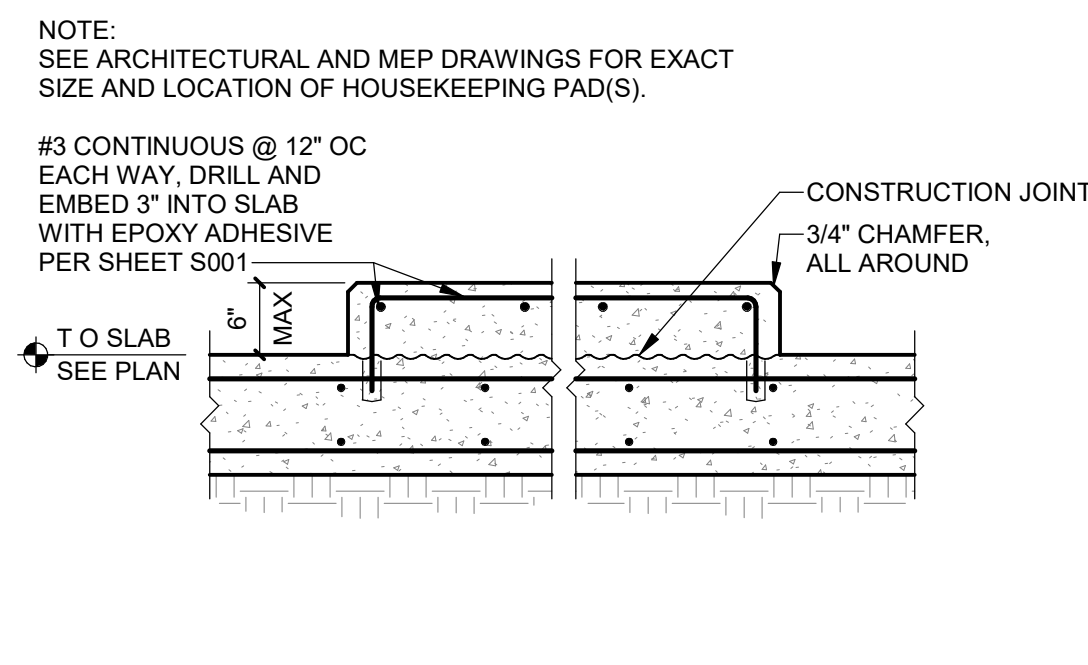
D4 TYP SLAB REINFORCING AT INTERIOR CORNERS
3/4" = 1'-0"



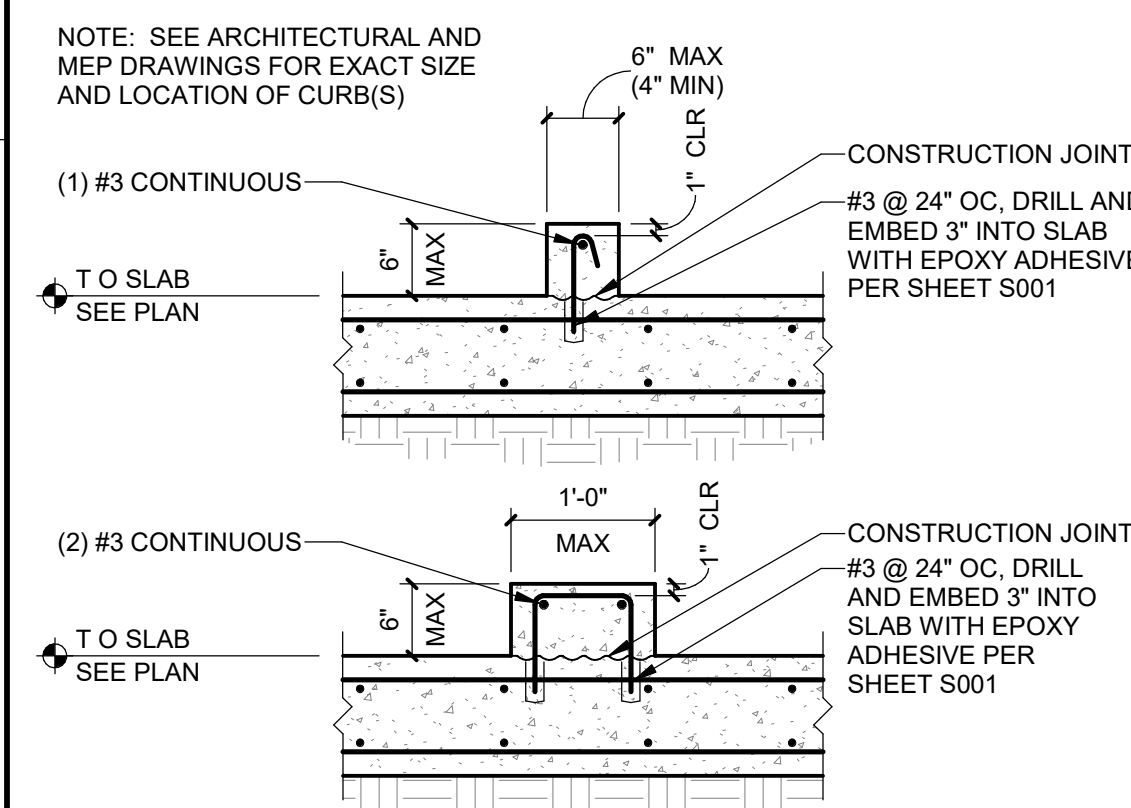
D2 TYP COLUMN ISOLATION JOINTS
3/4" = 1'-0"



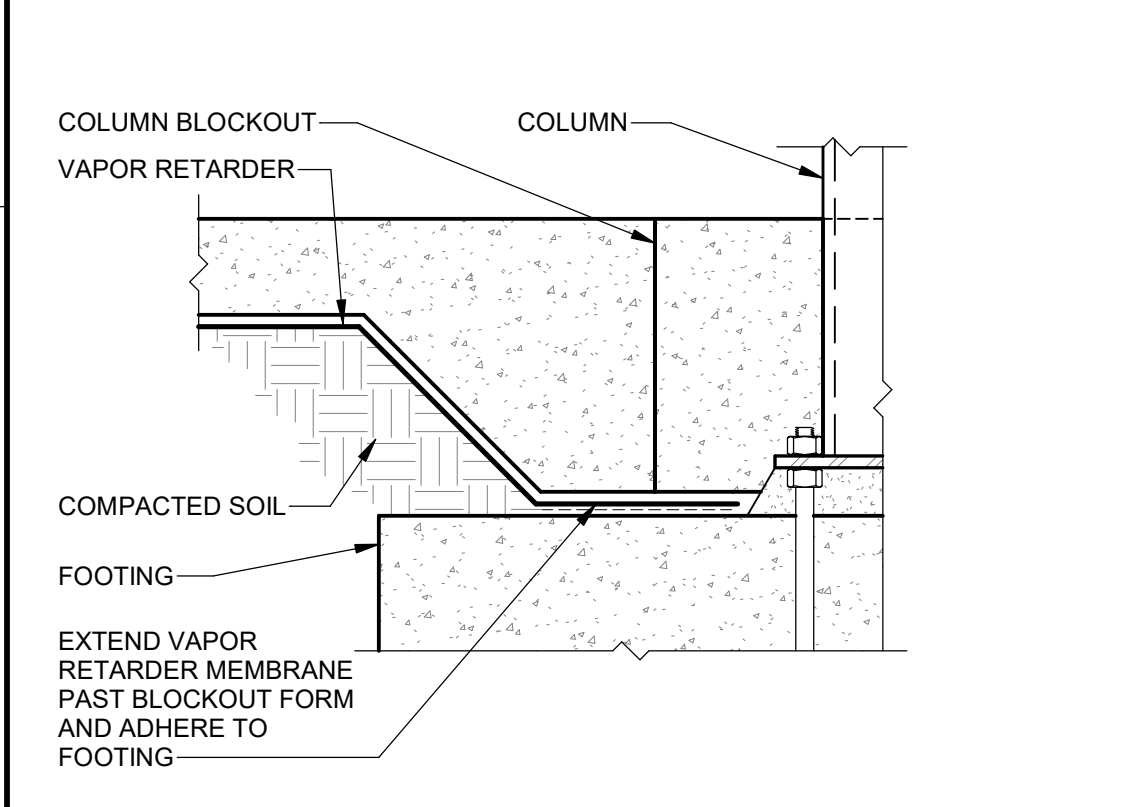
C3 TYP SLAB DEPRESSION (1\"/>



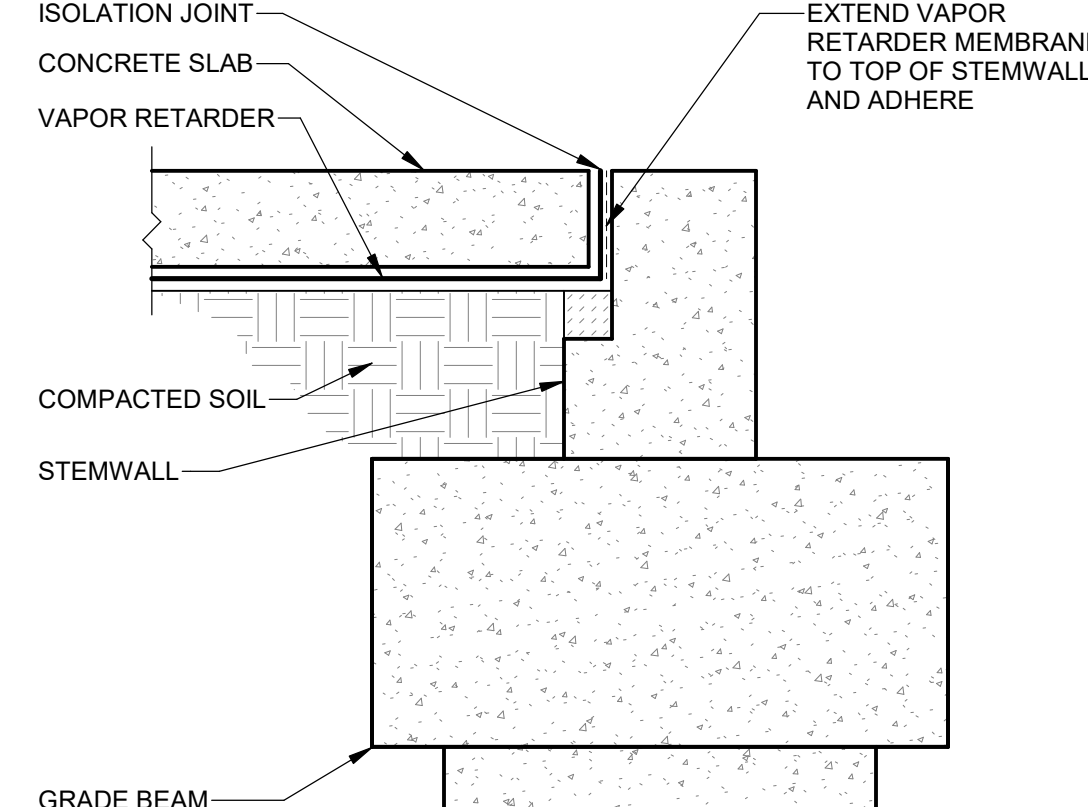
C2 TYP HOUSEKEEPING PAD
3/4" = 1'-0"



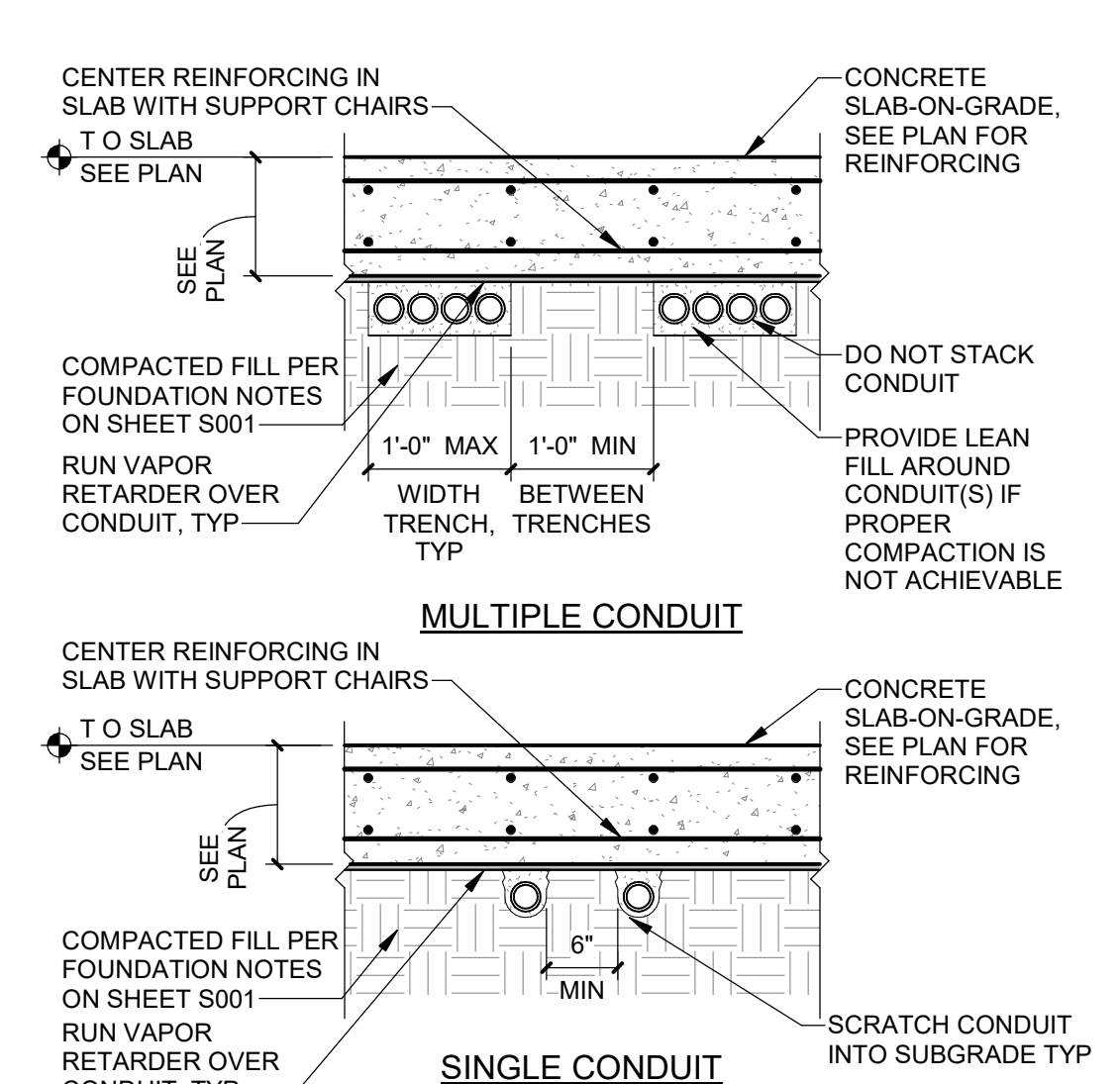
C1 TYP CURB DETAILS
3/4" = 1'-0"



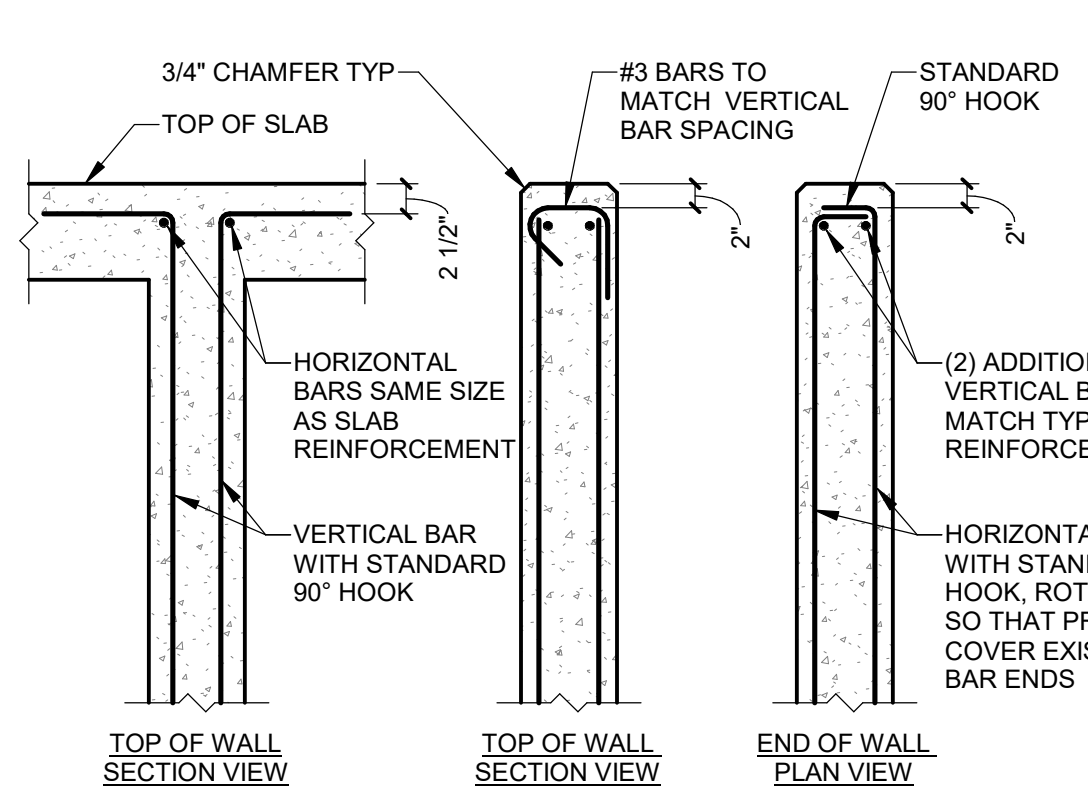
B1 VAPOR RETARDER AT COLUMN BLOCKOUT
1 1/2" = 1'-0"



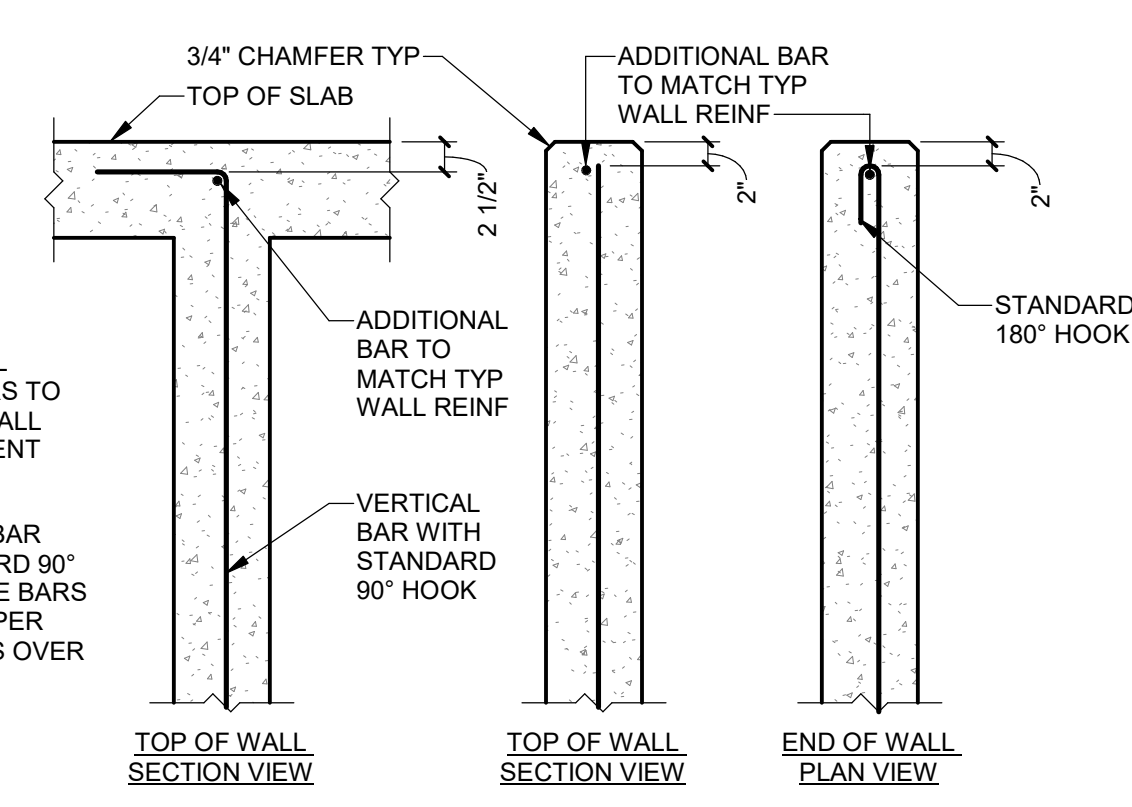
B2 VAPOR RETARDER AT STEMWALL
1 1/2" = 1'-0"



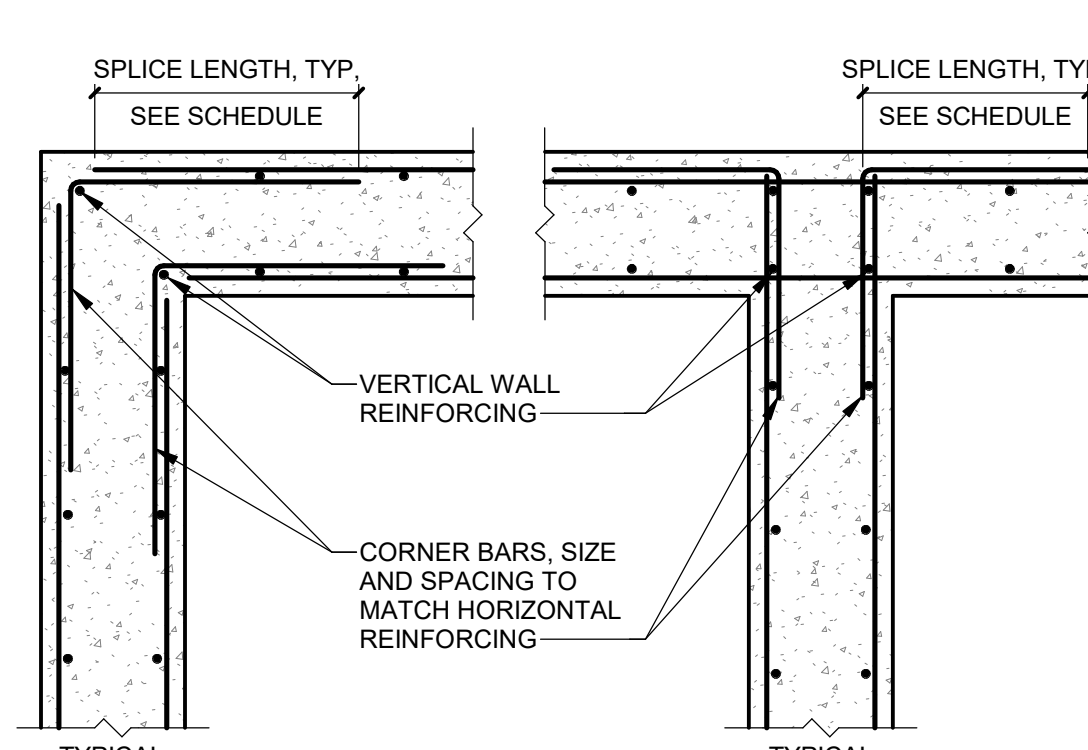
B3 TYP CONDUIT BELOW SLAB
3/4" = 1'-0"



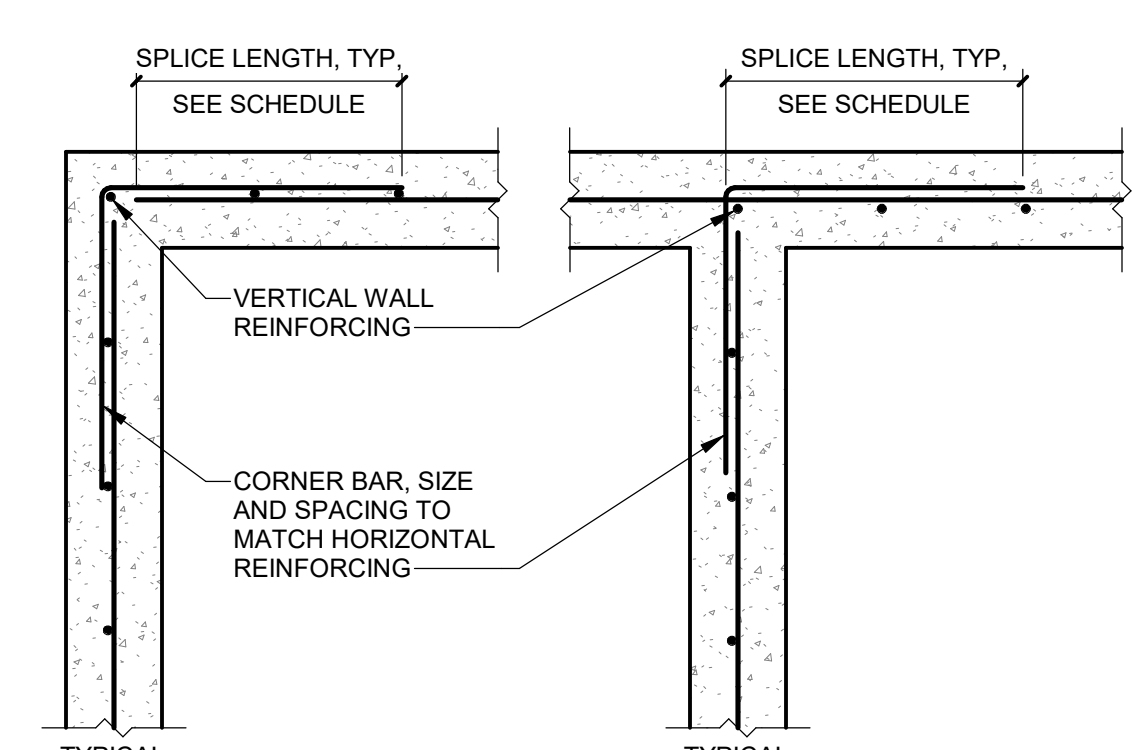
B4 TYP TOP AND END OF WALL REINFORCING - DOUBLE LAYER
3/4" = 1'-0"



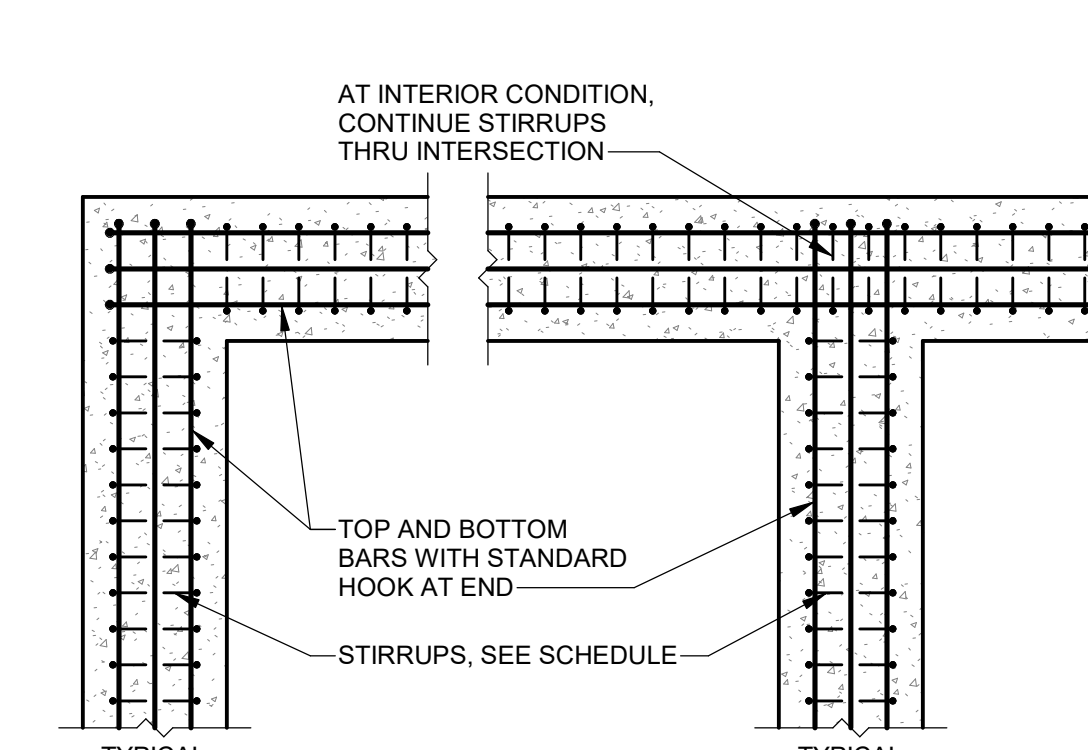
B5 TYP TOP AND END OF WALL REINFORCING - SINGLE LAYER
3/4" = 1'-0"



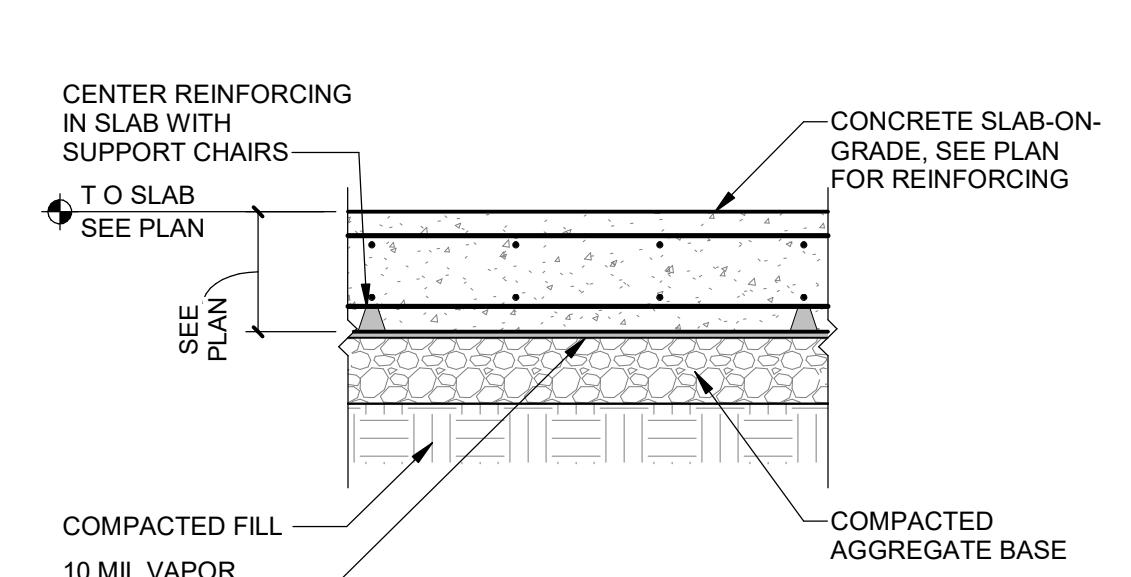
A4 TYP WALL INTERSECTION REINFORCING - DOUBLE LAYER
3/4" = 1'-0"



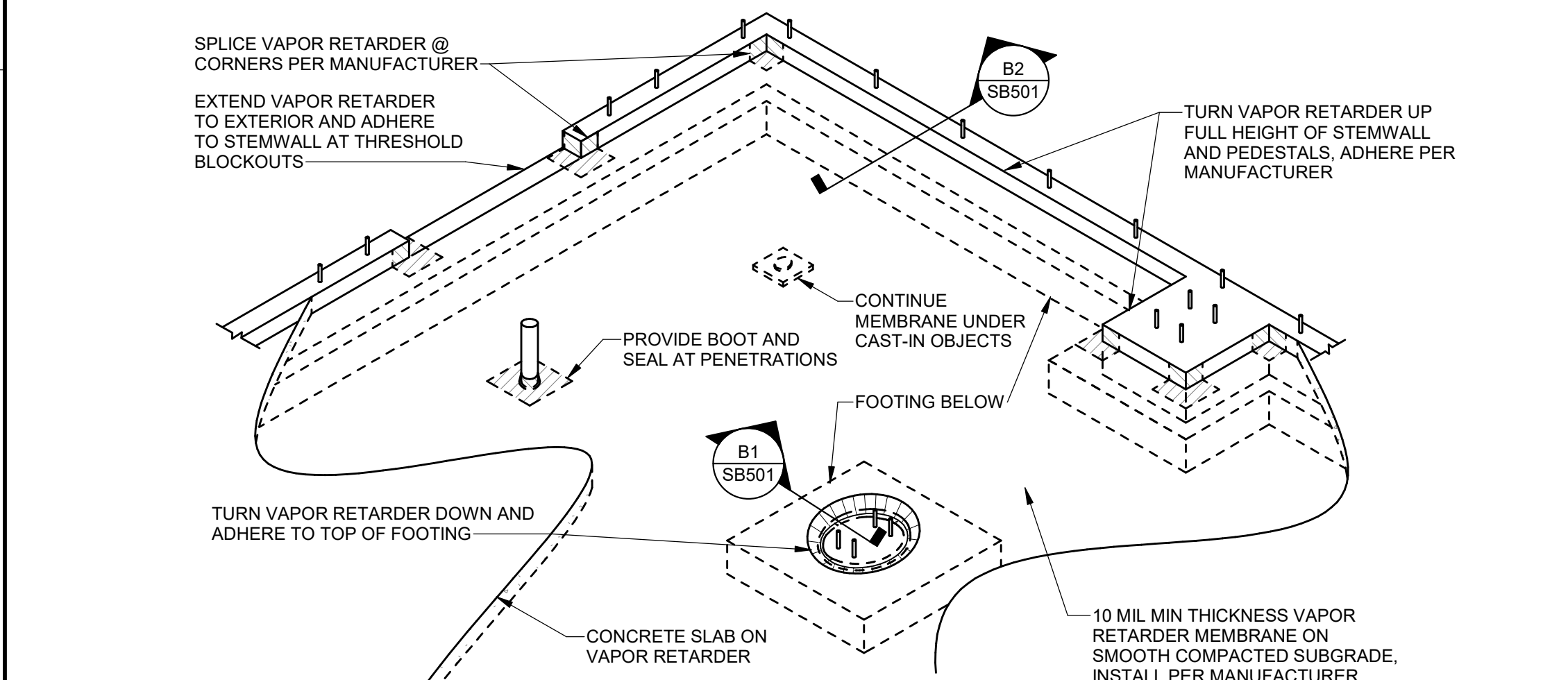
A5 TYP WALL INTERSECTION REINFORCING - SINGLE LAYER
3/4" = 1'-0"



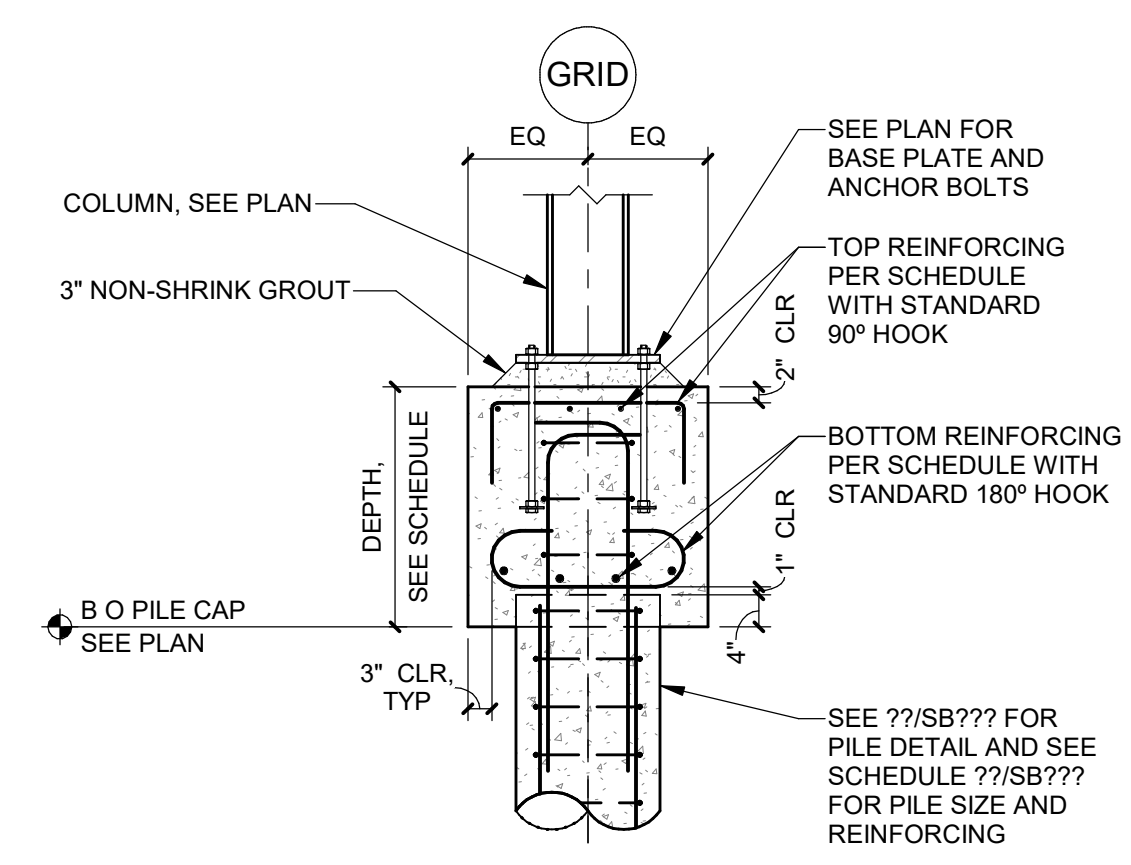
A6 TYP GRADE BEAM INTERSECTION REINF
3/4" = 1'-0"



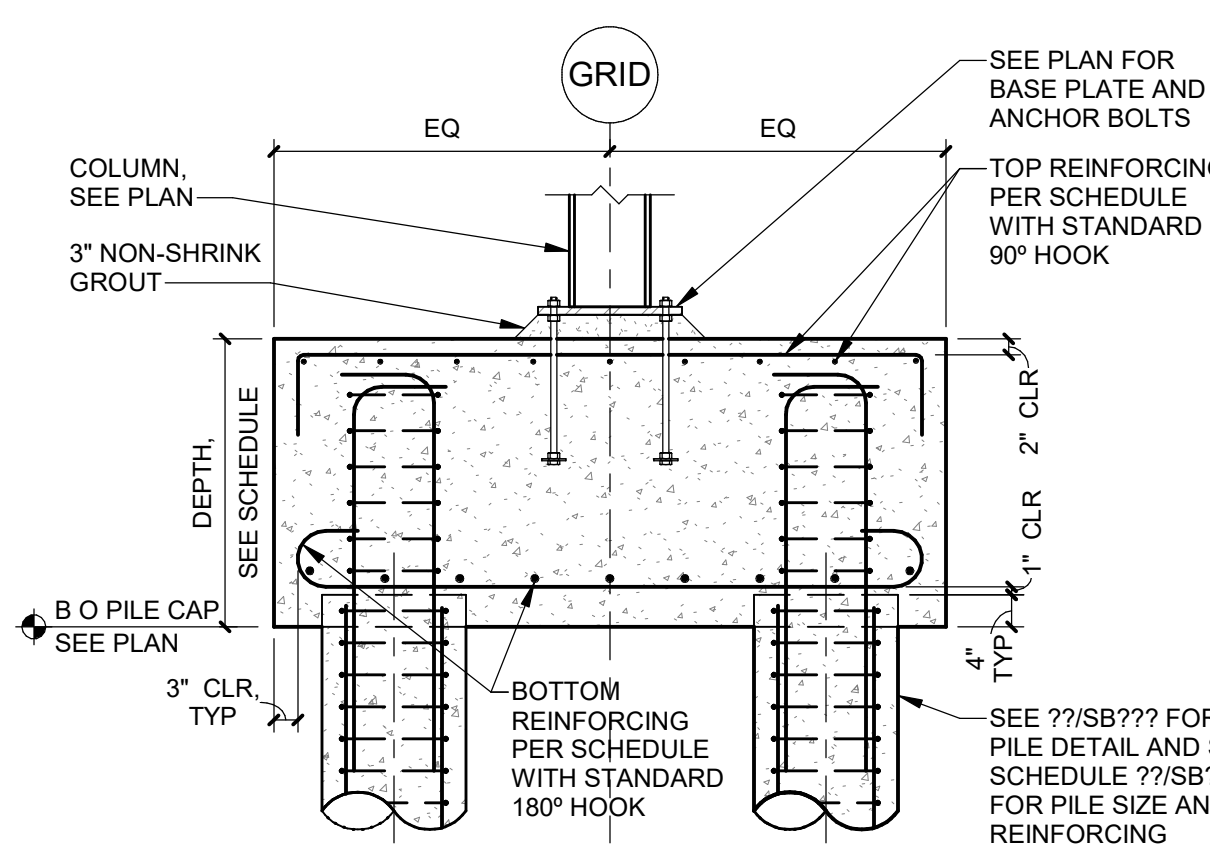
A3 TYP SLAB-ON-GRADE
3/4" = 1'-0"



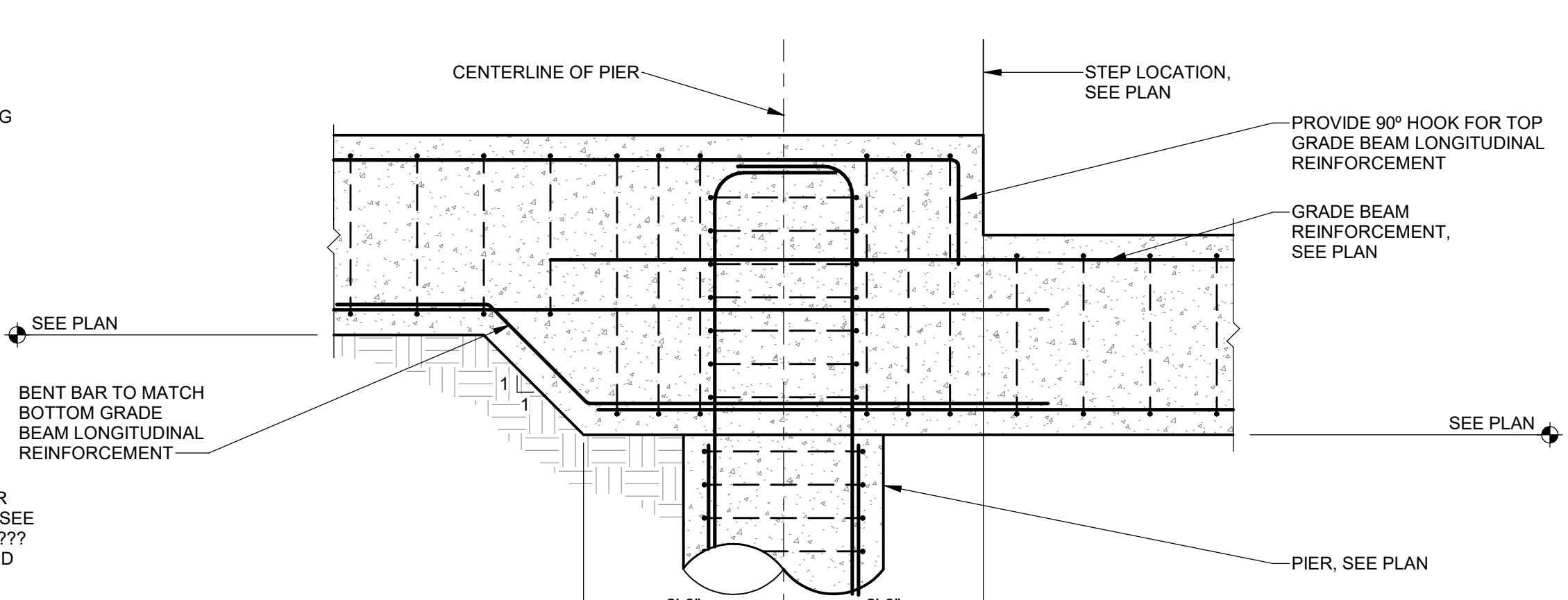
A1 VAPOR RETARDER MEMBRANE UNDER SLAB
3/16" = 1'-0"



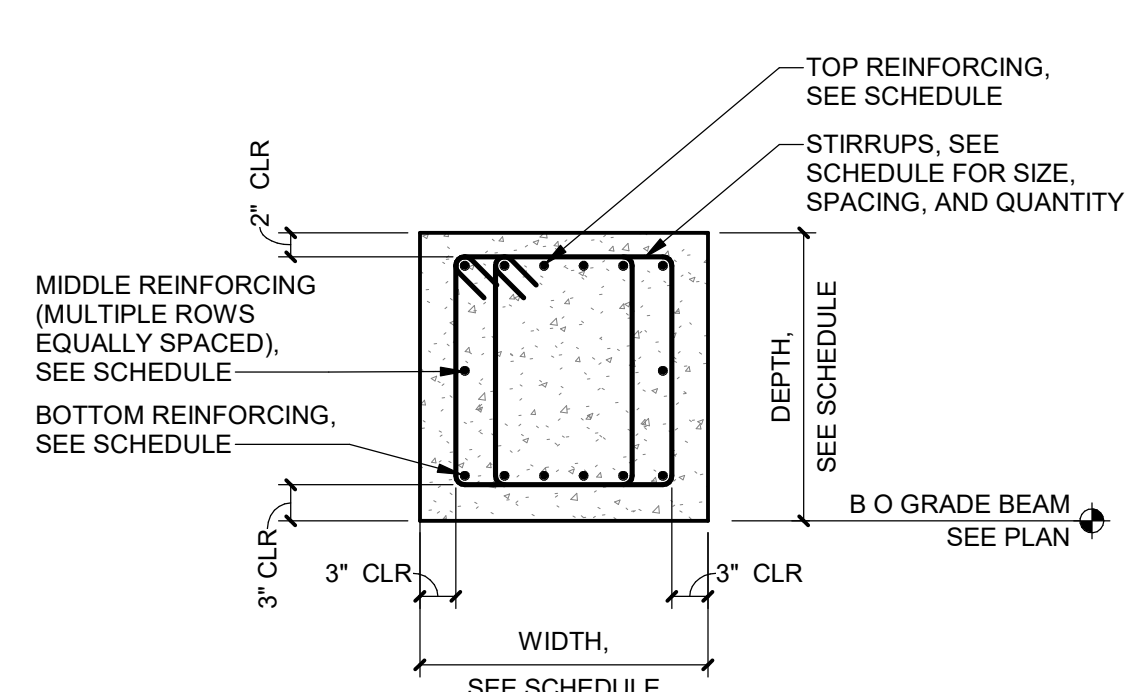
D3 PC-1 SECTION
NOT TO SCALE



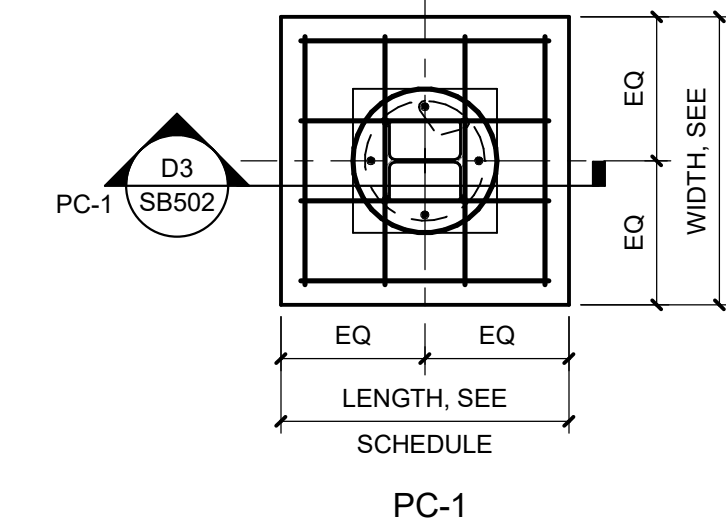
D4 PC-2, PC-3, PC-4 SECTION
NOT TO SCALE



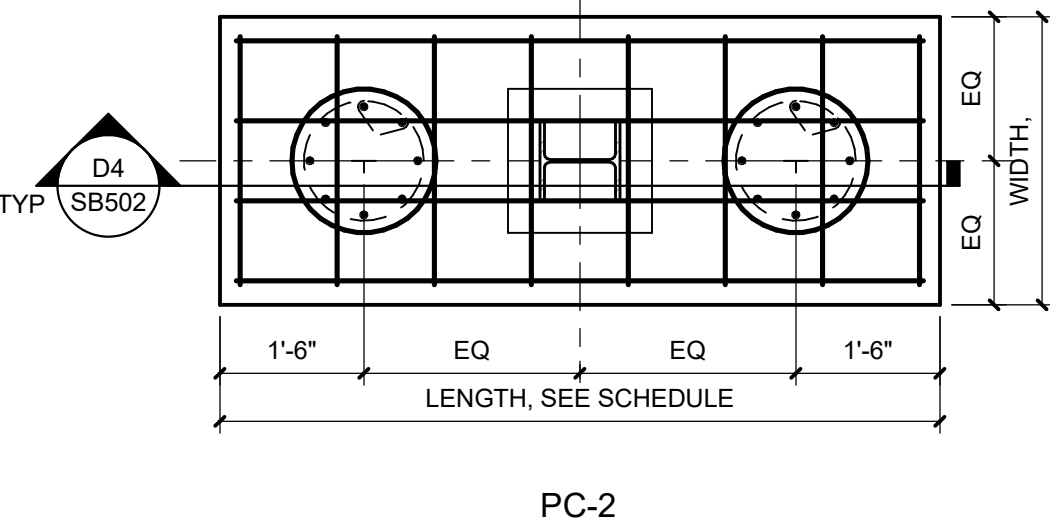
D5 GRADE BEAM STEP DETAIL
NOT TO SCALE



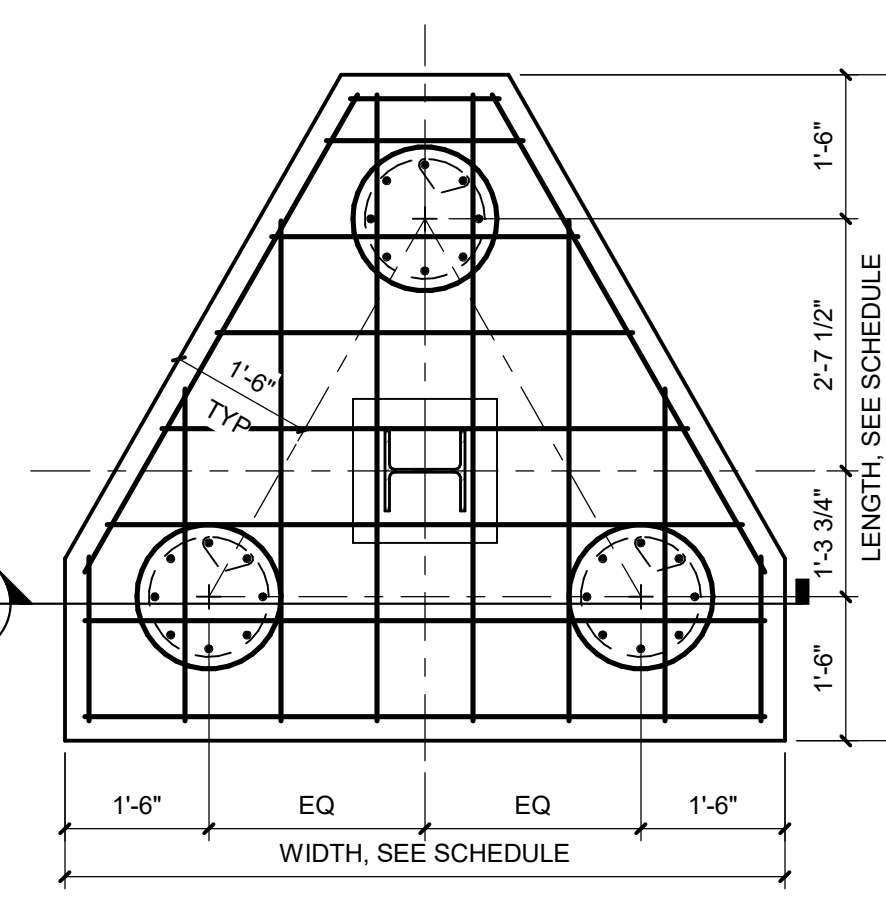
C2 TYPICAL GRADE BEAM
NOT TO SCALE



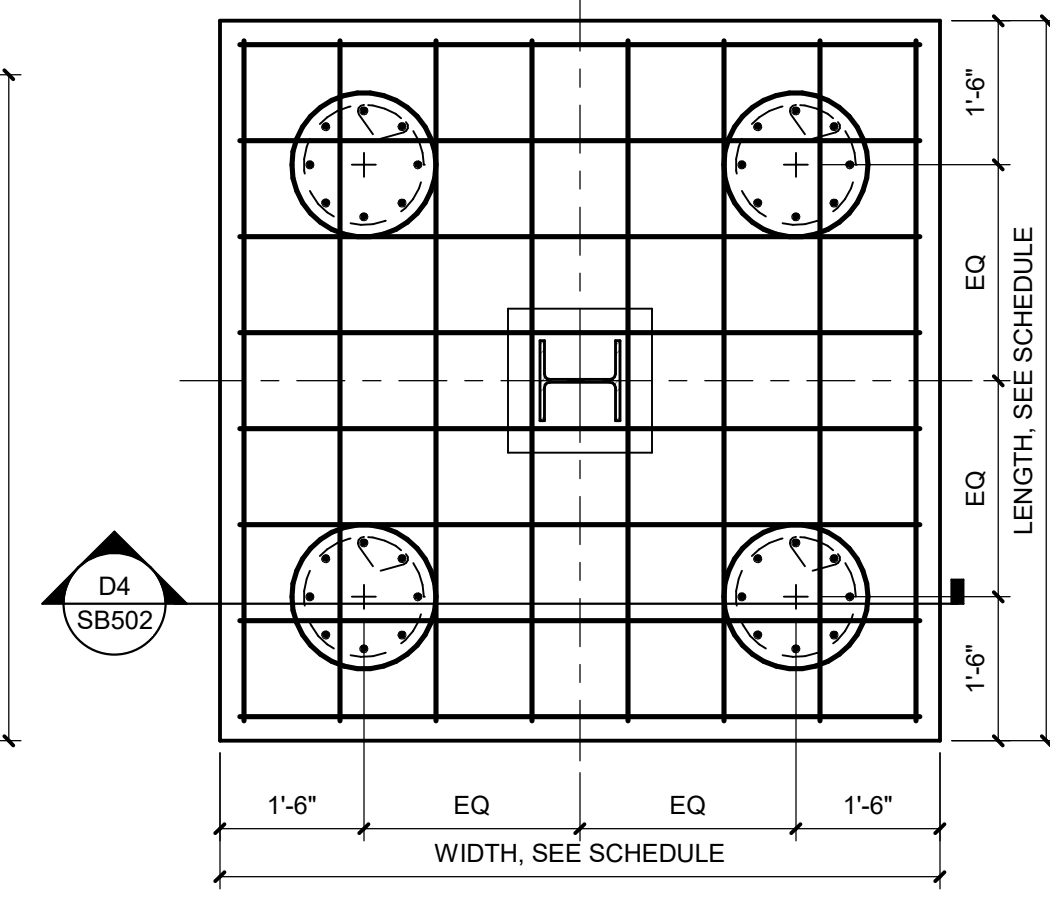
PC-1



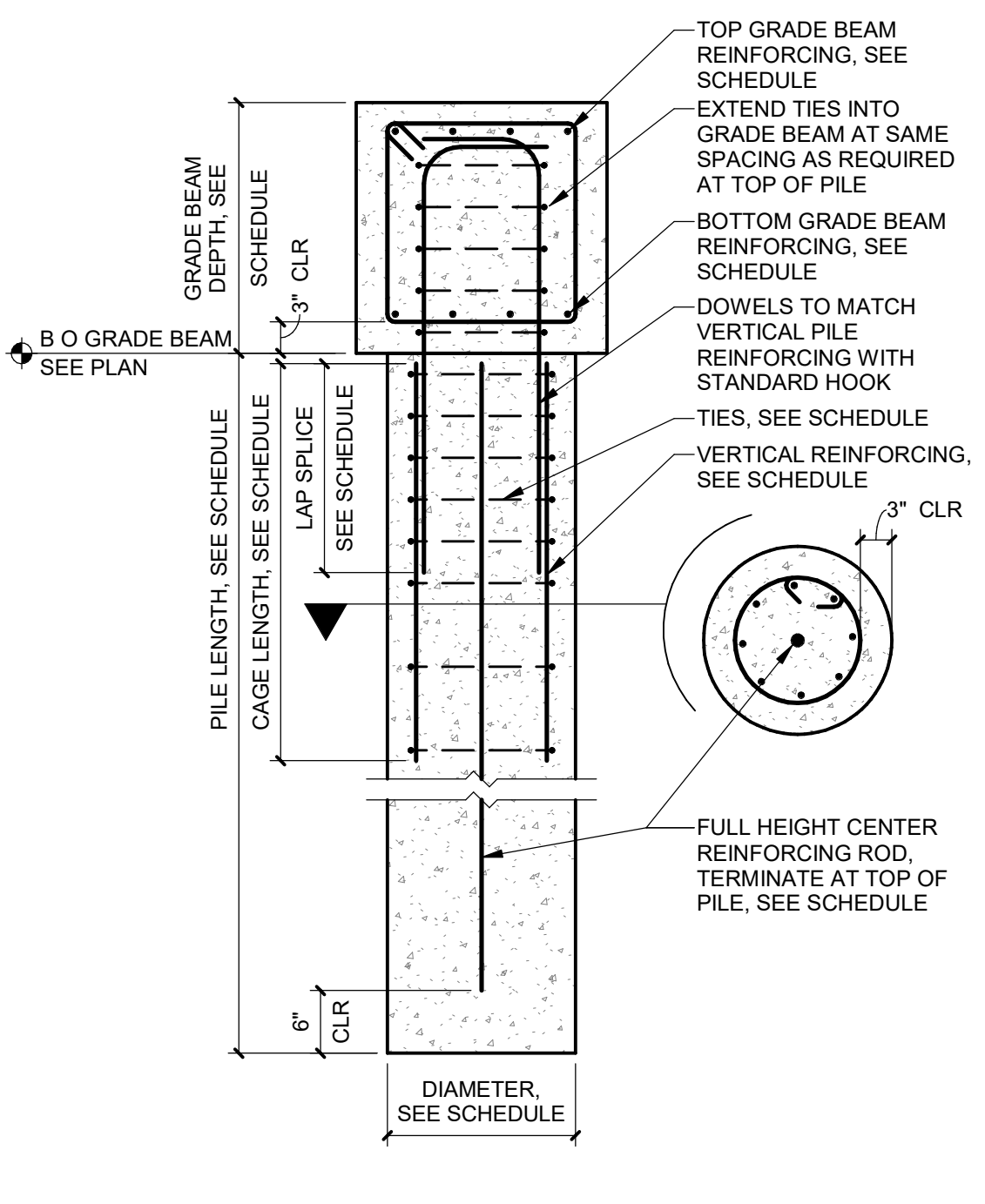
PC-2



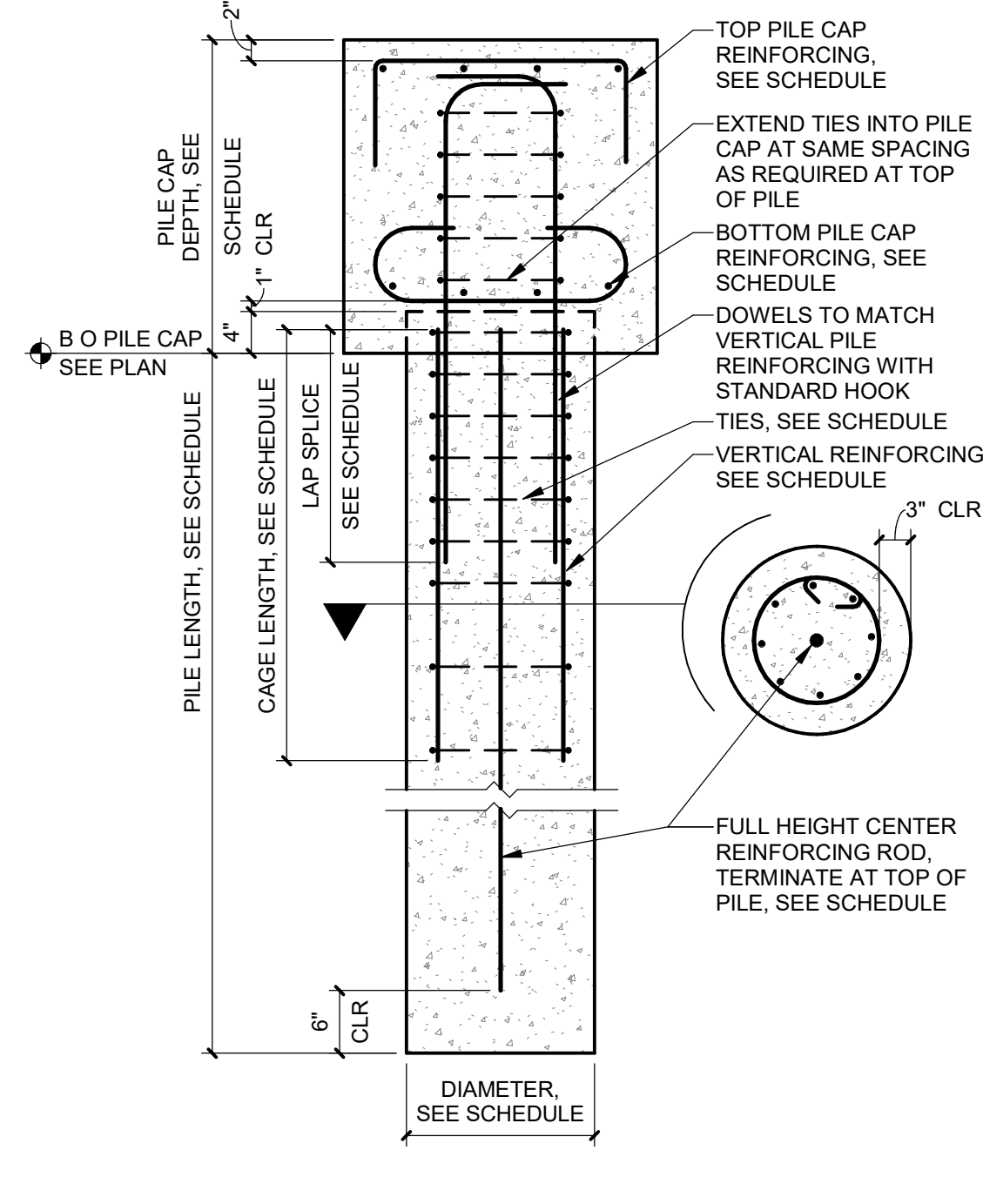
PC-3



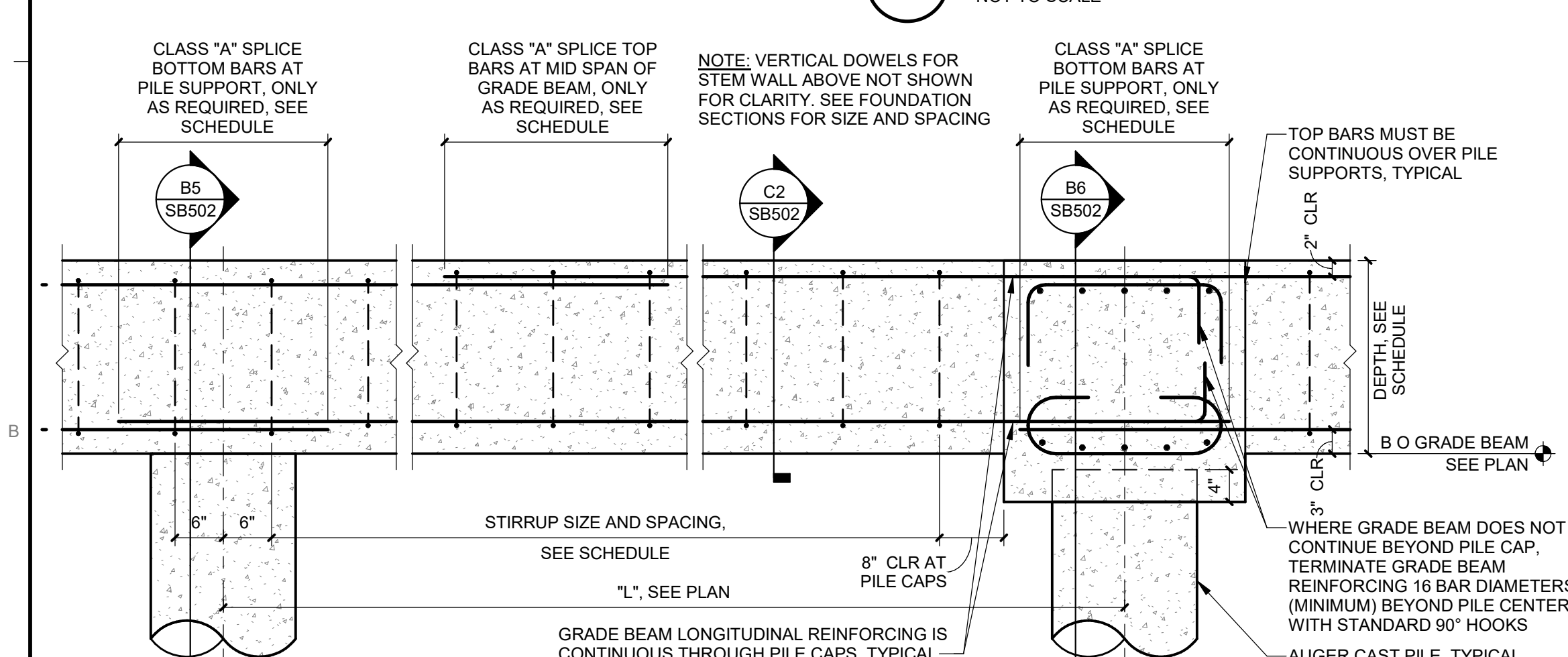
PC-4



B5 TYP AUGER CAST PILE AT GRADE BEAM
NOT TO SCALE



B6 TYP AUGER CAST PILE AT PILE CAP
NOT TO SCALE



B1 TYP GRADE BEAM ELEVATION
NOT TO SCALE

GRADE BEAM AND TIE BEAM SCHEDULE						
TYPE	WIDTH	DEPTH	LONGITUDINAL REINFORCING			SHEAR REINFORCING (STIRRUPS)
			BOTTOM	TOP	MIDDLE	TYPE SIZE SPACING
GB-1	2'-0"	2'-0"	(4) #8	(2) #8	(2) #8	1 (2) #4 6" OC
GB-2	3'-0"	3'-0"	(5) #8	(5) #8	(2) #8	1 (2) #4 6" OC
GB-3	3'-2"	2'-0"	(4) #8	(4) #8	(2) #8	1 (2) #4 12" OC
TB-1	1'-6"	1'-6"	(4) #8	(4) #8	(2) #8	1 (2) #4 12" OC

A1 GRADE BEAM AND TIE BEAM SCHEDULE
NOT TO SCALE

PIER CAP AND DRILLED PIERS SCHEDULE										
TYPE	PIER CAP			MINIMUM DEPTH				AUGERCAST PIERS		
	WIDTH	LENGTH	THICKNESS	BOTTOM REINFORCING LONGITUDINAL	TRANSVERSE	TOP REINFORCING LONGITUDINAL	TRANSVERSE	TOTAL INTO BEDROCK	DIAMETER REINFORCING	VERTICAL TIES
PC-1	4'-6"	4'-6"	4'-0"	(5) #8	(5) #8	(5) #8	(5) #4	35'-0"	2'-0"	(5) #8 #3 @ 12" OC
PC-2	4'-6"	10'-0"	4'-0"	(5) #8	(13) #8	(5) #8	(13) #4	35'-0"	2'-0"	(8) #9 #3 @ 12" OC

A3 PIER CAP AND DRILLED PIERS SCHEDULE
NOT TO SCALE

DRILLED PIERS SCHEDULE				
TYPE	MINIMUM DEPTH		DRILLED PIERS	
	TOTAL	INTO BEDROCK	DIAMETER	REINFORCING
P35	35'-0"		2'-0"	(8) #9 x 34'-0" #3 @ 12" OC

A6 DRILLED PIER SCHEDULE
NOT TO SCALE

NOTES:
1. SEE ??/SB??? AND ??/SB??? FOR TYPICAL GRADE BEAM ELEVATION AND SECTION.
2. SEE ??/SB??? FOR TYPICAL REINFORCING AT GRADE BEAM INTERSECTIONS AND CORNERS.

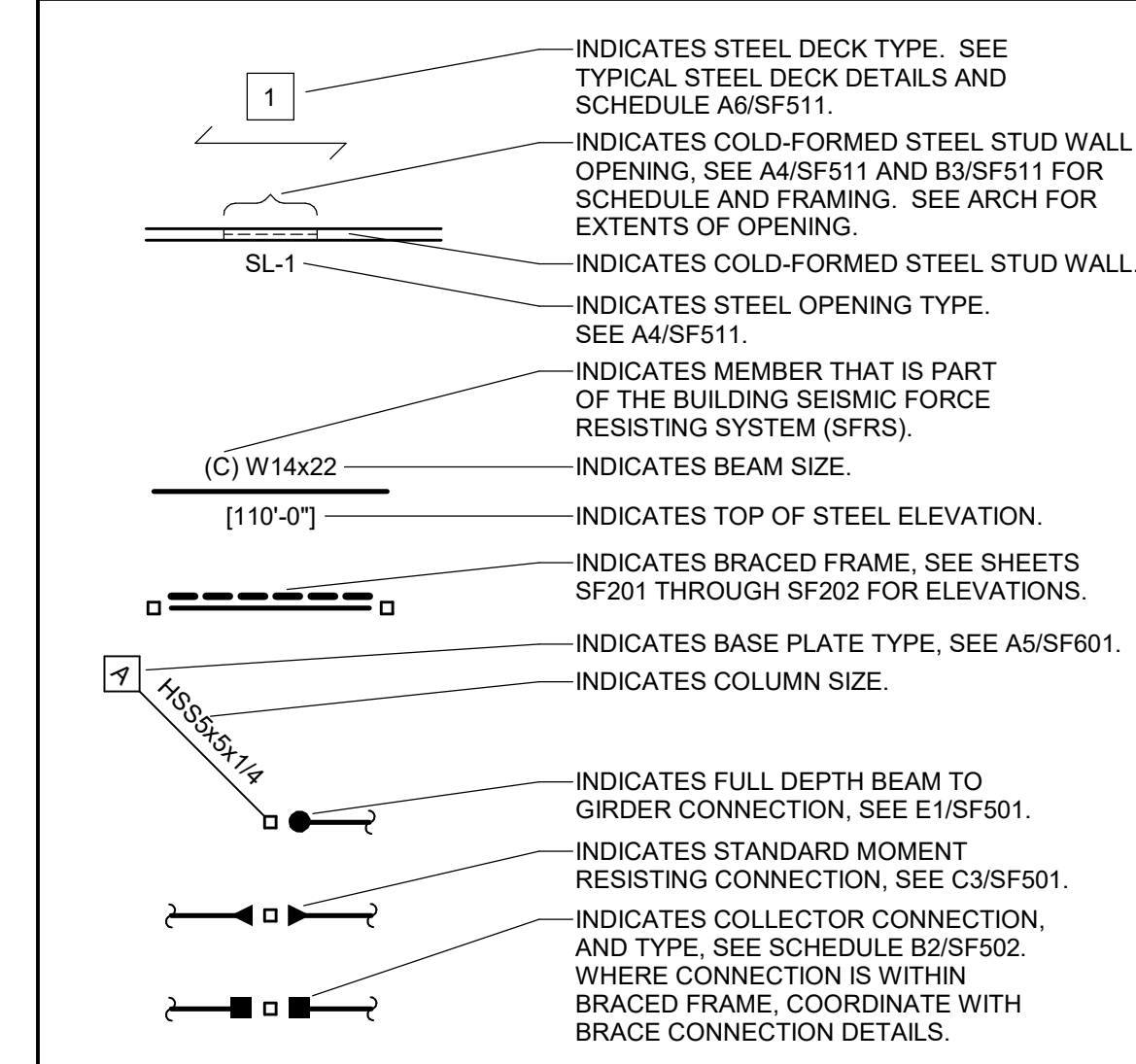
GENERAL SHEET NOTES

- A. STRUCTURE AT ROOF SLOPES TYPICALLY. SEE PLAN FOR JOIST BEARING AND TOP OF STEEL ELEVATIONS.
- B. ROOF JOIST SEATS SHALL BE 3 1/2" DEEP FOR K-SERIES JOISTS AND 7 1/2" FOR LH AND DLH SERIES JOISTS. UNLESS NOTED OTHERWISE, TOP OF STEEL BEAMS WHICH ARE PARALLEL TO JOISTS SHALL BE 3 1/2" HIGHER AT K-SERIES JOISTS AND 7 1/2" AT LH AND DLH SERIES JOISTS. UNLESS NOTED OTHERWISE.
- C. PROVIDE JOIST BRIDGING IN ACCORDANCE WITH THE LATEST EDITION OF THE SJI STANDARD SPECIFICATIONS.
- D. WHERE JOISTS SUPPORT CONCENTRATED LOADS, SEE E2/SF601.
- E. PERIMETER DIMENSIONS ARE TO OUTSIDE FACE OF EDGE ANGLE, OR TO INSIDE FACE OF METAL STUD WHERE THERE IS NO DECK, UNLESS NOTED OTHERWISE. SEE FRAMING SECTIONS FOR FURTHER INFORMATION.
- F. SEE A4/SF511 FOR MISCELLANEOUS OPENINGS IN ROOF DECK. SEE C6/SF511 FOR TYPICAL SUPPORT FRAMING AT ROOF DRAINS.
- G. THE SUPPORT STRUCTURE SHOWN UNDER THE MECHANICAL UNITS HAS BEEN DESIGNED FOR THE BASIS OF DESIGN UNITS. CONTRACTOR SHALL COORDINATE ANY MODIFICATIONS REQUIRED TO THIS STRUCTURE FOR THE ACTUAL UNITS PROVIDED, AS WELL AS THEIR EXACT LOCATIONS AND OPENING REQUIREMENTS.
- H. QUANTITY AND LOCATIONS OF ROOF TOP EQUIPMENT ARE NOT COMPLETE ON THE STRUCTURAL PLANS; REFER TO M/E/P DRAWINGS. FOR UNITS NOT SHOWN WHICH WEIGH LESS THAN 400 POUNDS, PROVIDE SUPPORT FRAMING SIMILAR TO ANGLE FRAME SHOWN IN A4/SF511. FOR HEAVIER UNITS, PROVIDE SUPPORT FRAMING PER E5/SF511.
- I. REFER TO ARCHITECTURAL OR MECHANICAL DRAWINGS FOR SIZES AND LOCATIONS OF WALL OPENINGS. SEE B3/SF511 FOR OPENING FRAMING AND A4/SF511 FOR SCHEDULE.

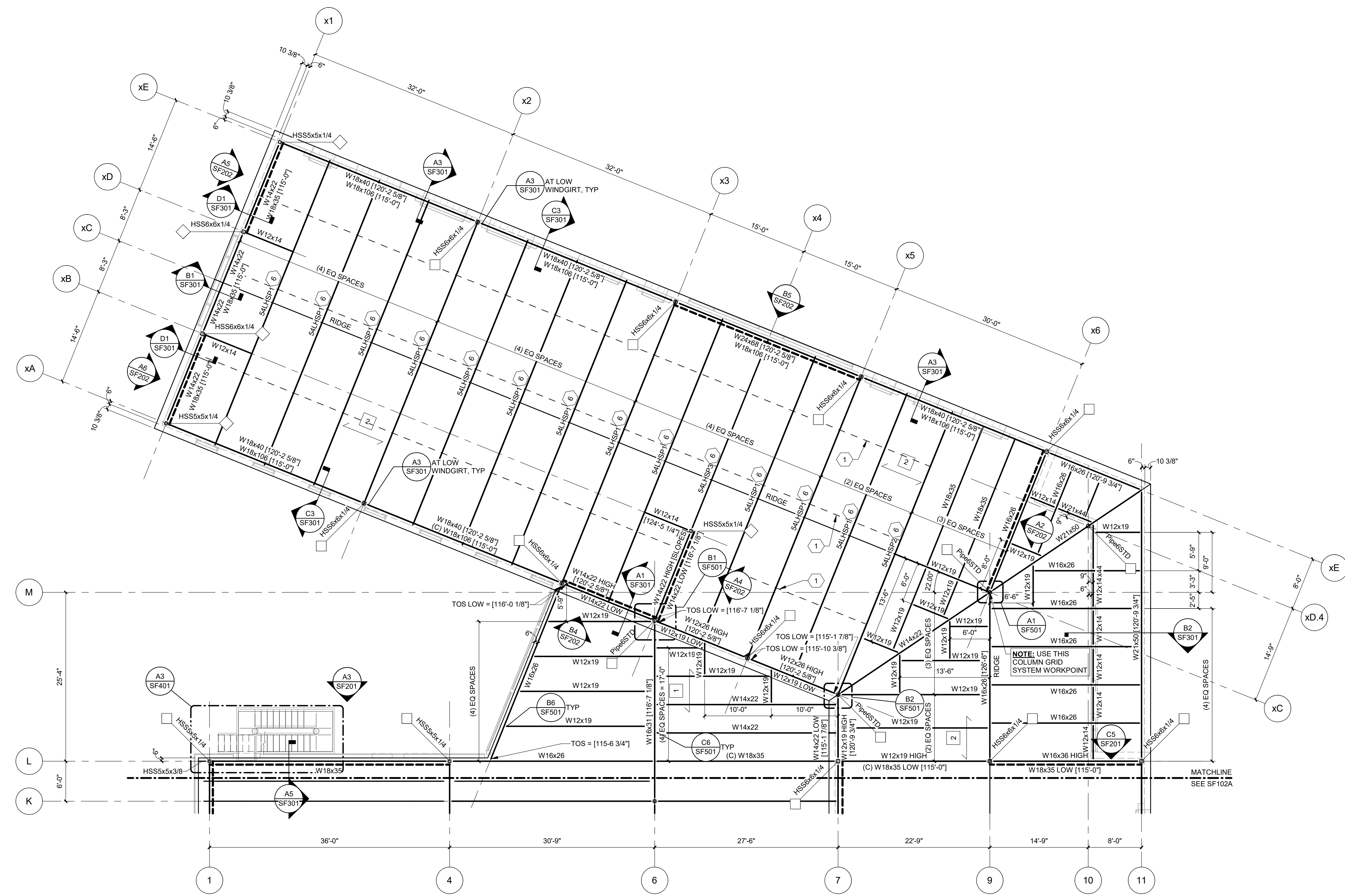
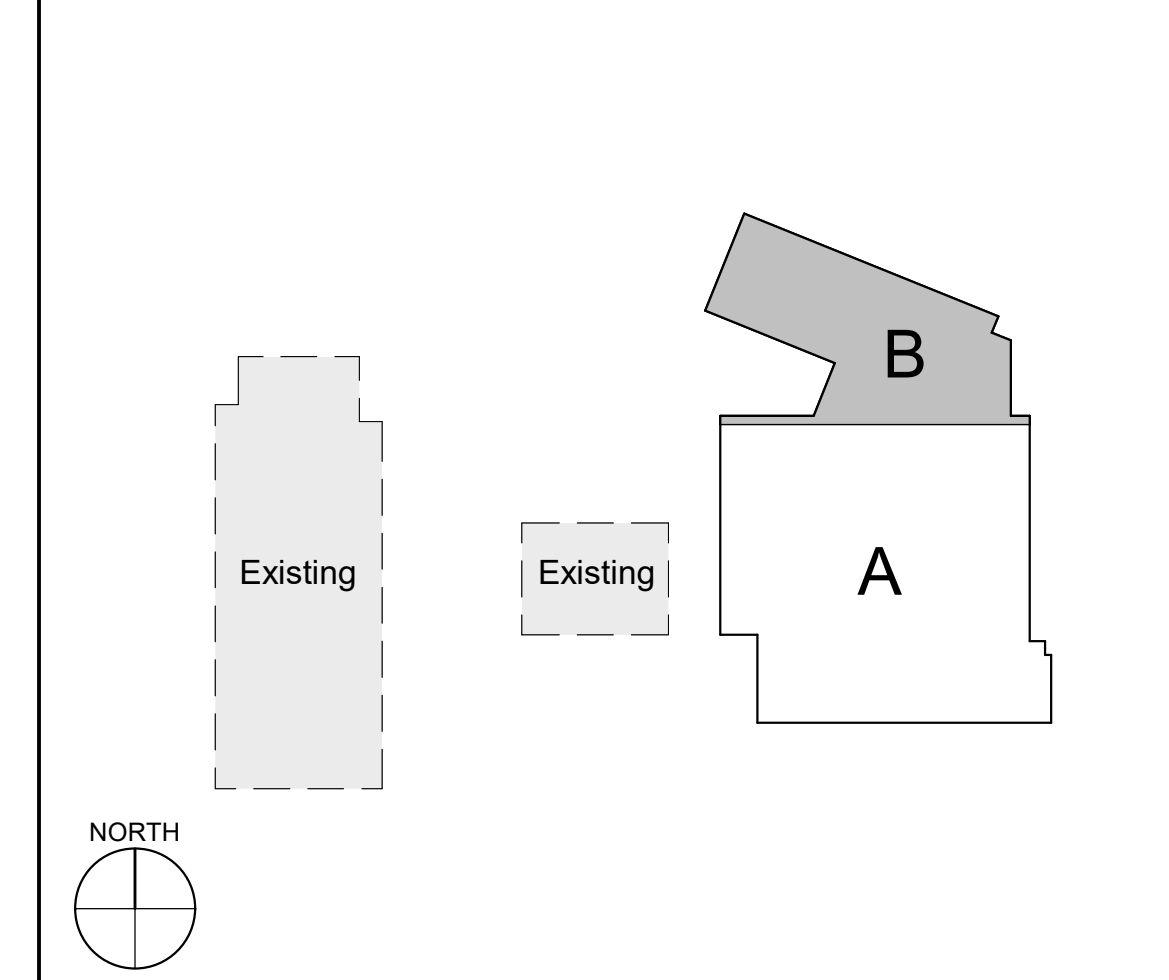
SHEET KEYNOTES

- NOTE: SOME KEYNOTES MAY NOT APPLY TO THIS SHEET.
1. HORIZONTAL BRIDGING: PER SJI MANUAL, EQUALLY SPACED AS SHOWN. WELD TO TOP AND BOTTOM CHORD OF JOIST.
 2. NOT USED
 3. NOT USED
 4. NOT USED
 5. MECHANICAL UNIT. SEE PLAN FOR ALLOWABLE WEIGHT. PROVIDE SUPPORT FRAMING UNDER UNIT CURB PER E5/SF511. FOR FRAMING OF DECK PENETRATIONS, SEE A5/SF511.
 6. SEE SHEET S003 FOR SPECIAL JOIST GEOMETRIES AND LOADING.

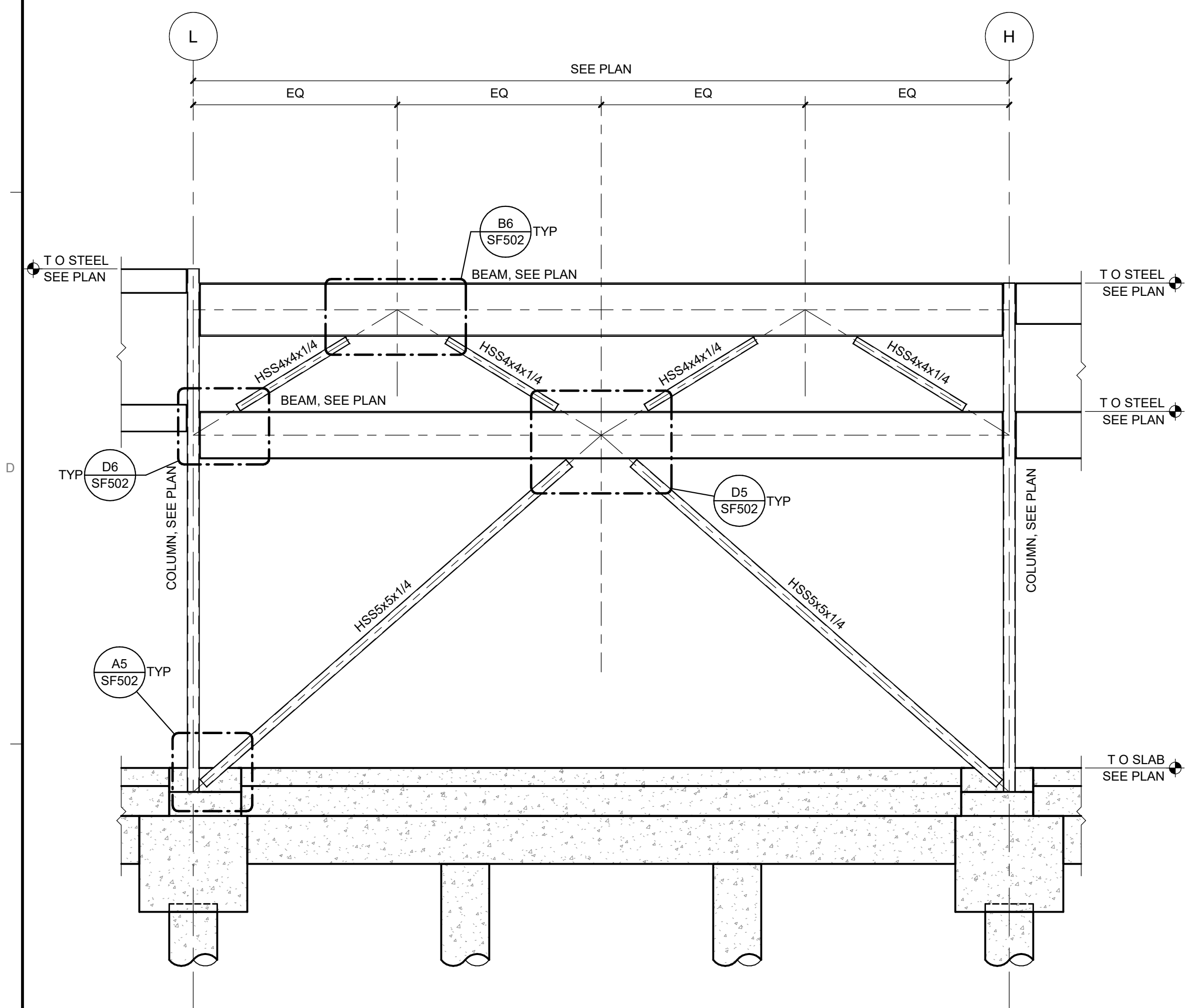
FRAMING LEGEND



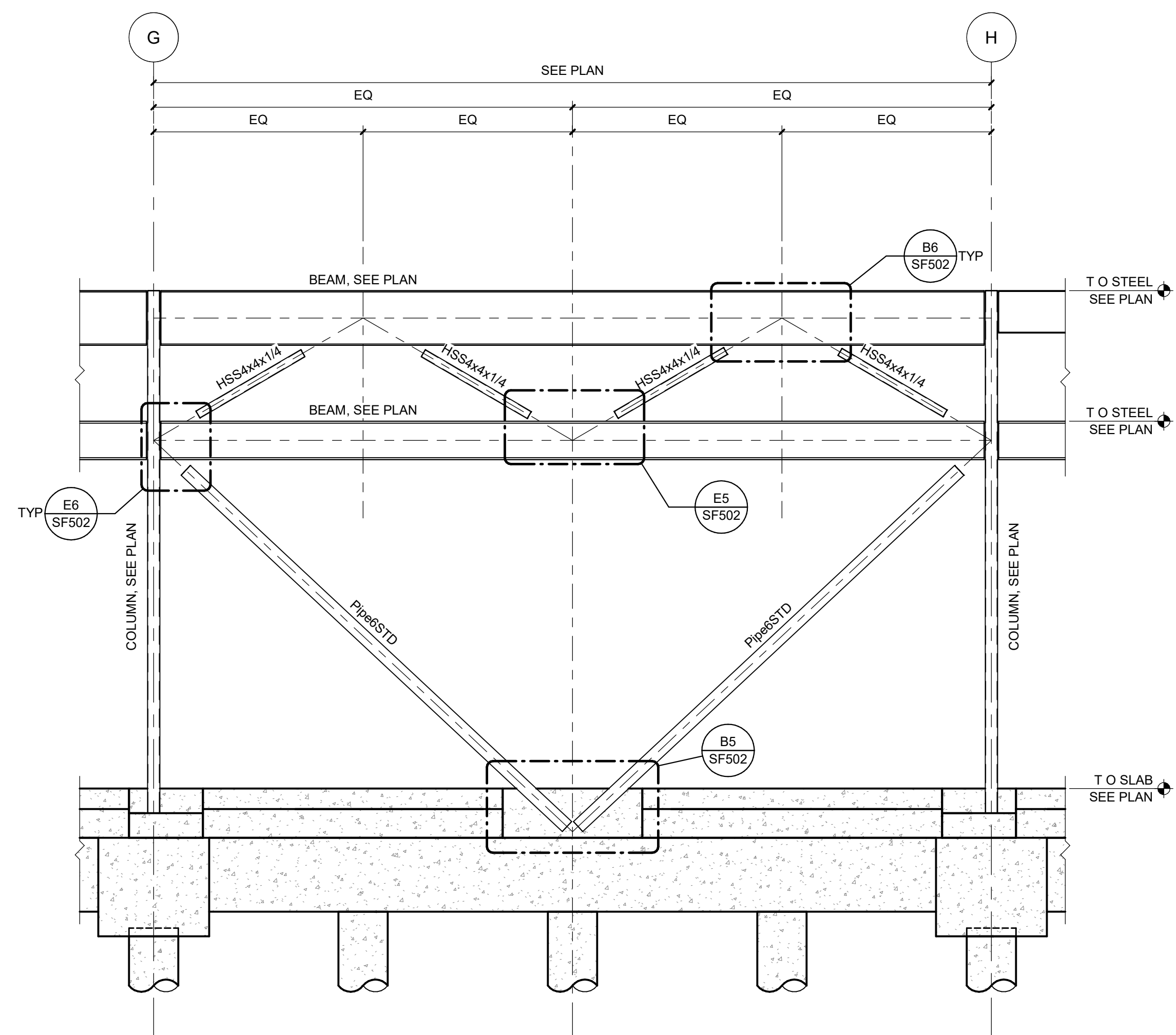
KEYPLAN



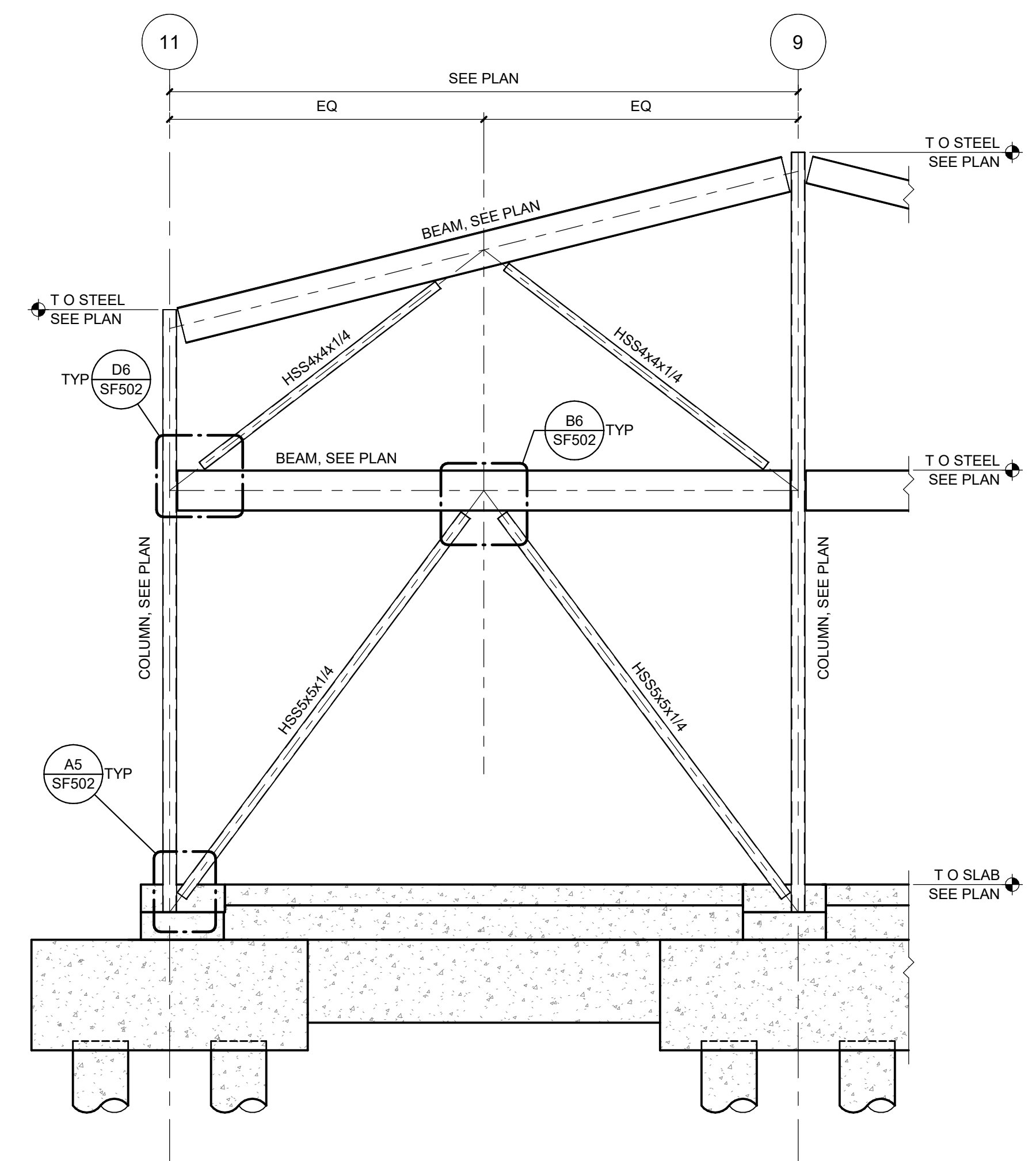
A1 ROOF FRAMING PLAN - AREA B
1/8" = 1'-0"



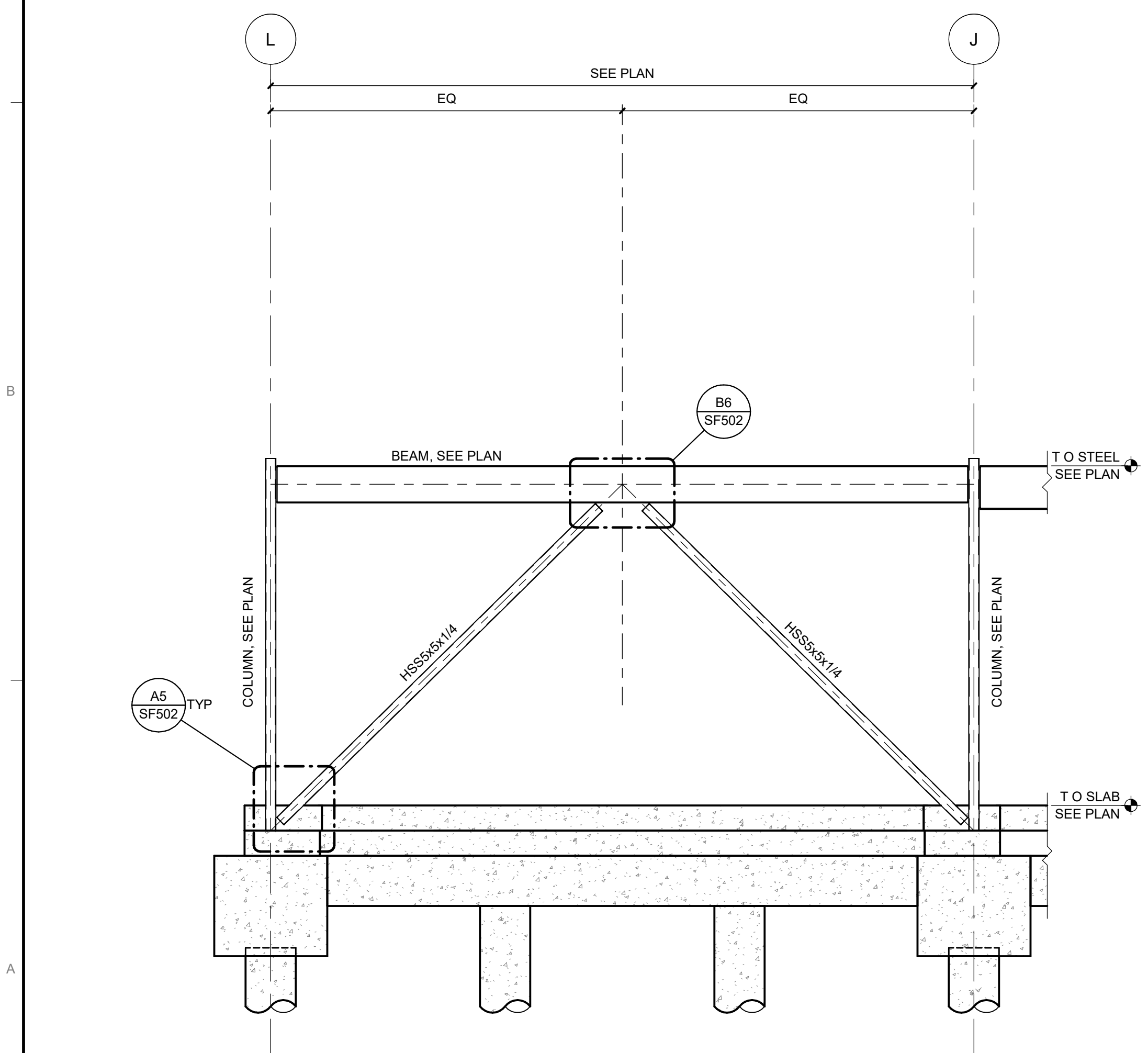
C1 BRACE FRAME ELEVATION
1/4" = 1'-0"



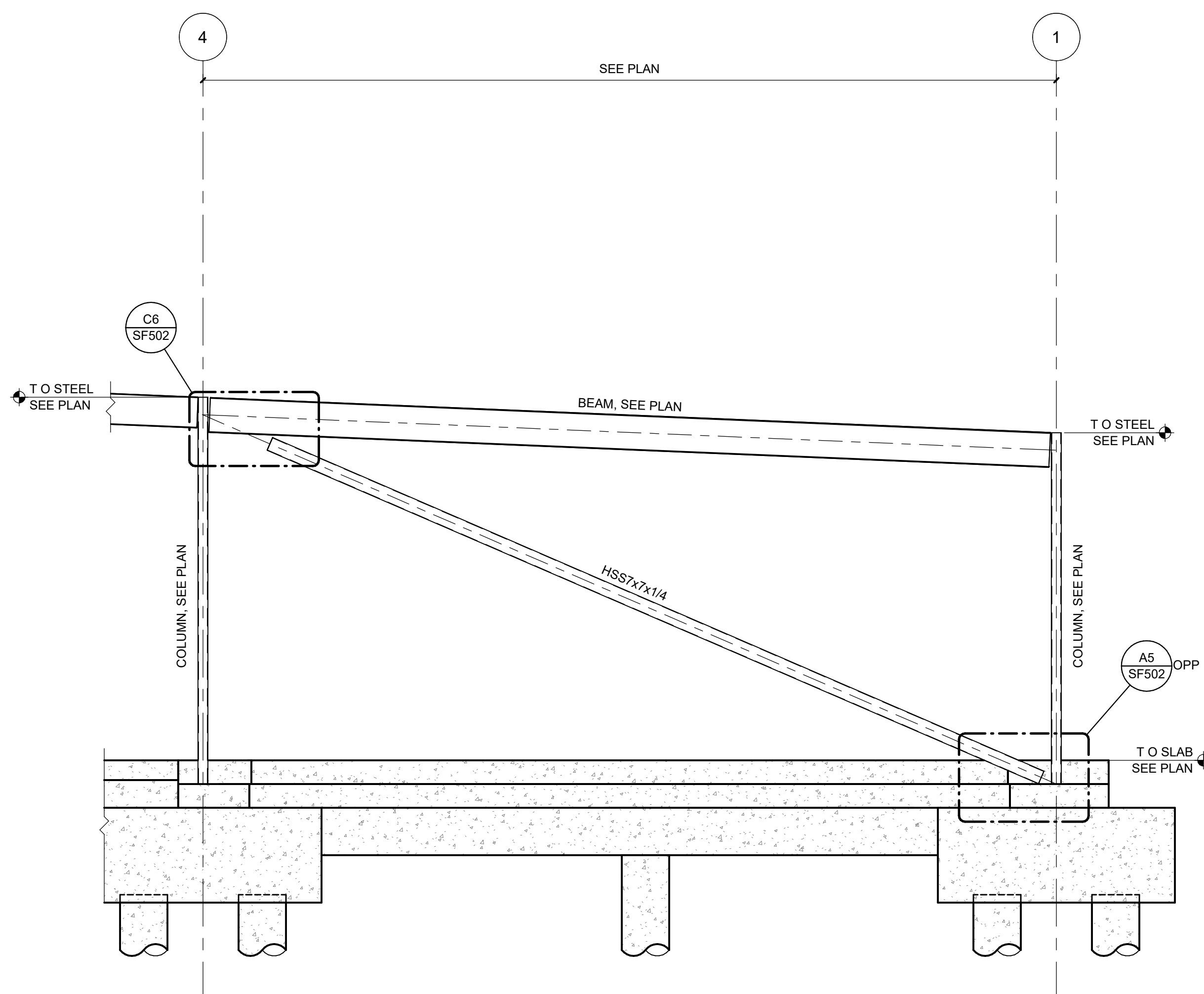
C3 BRACE FRAME ELEVATION
1/4" = 1'-0"



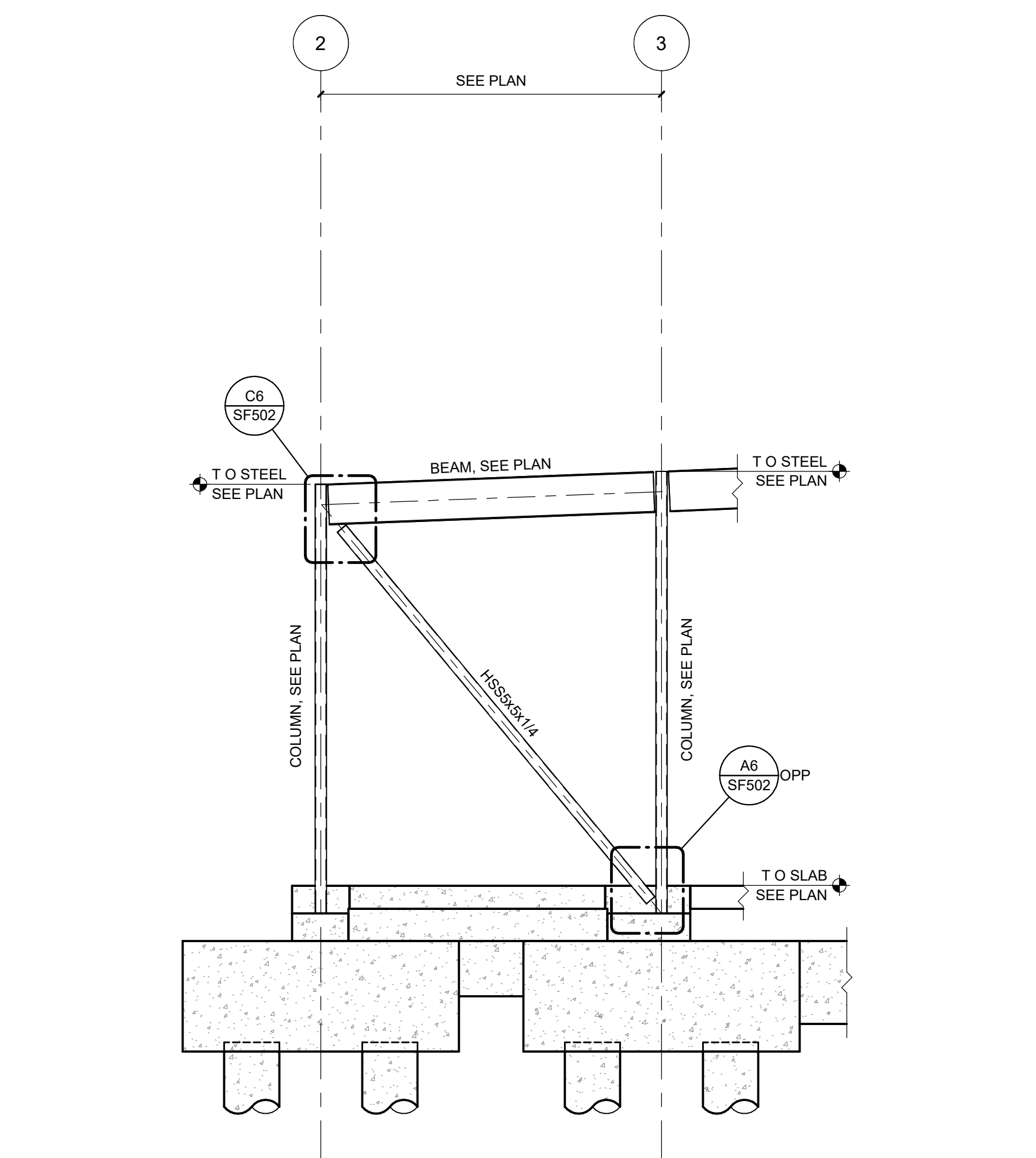
C5 BRACE FRAME ELEVATION
1/4" = 1'-0"



A1 BRACE FRAME ELEVATION
1/4" = 1'-0"



A3 BRACE FRAME ELEVATION
1/4" = 1'-0"



A5 BRACE FRAME ELEVATION
1/4" = 1'-0"

NOT FOR CONSTRUCTION

NMSU NM DEPT OF AGRICULTURE
OFFICE BUILDING

3910 SOUTH ESPINA STREET LAS
CRUCES, NEW MEXICO 88003

50%
CONSTRUCTION
DOCUMENTS

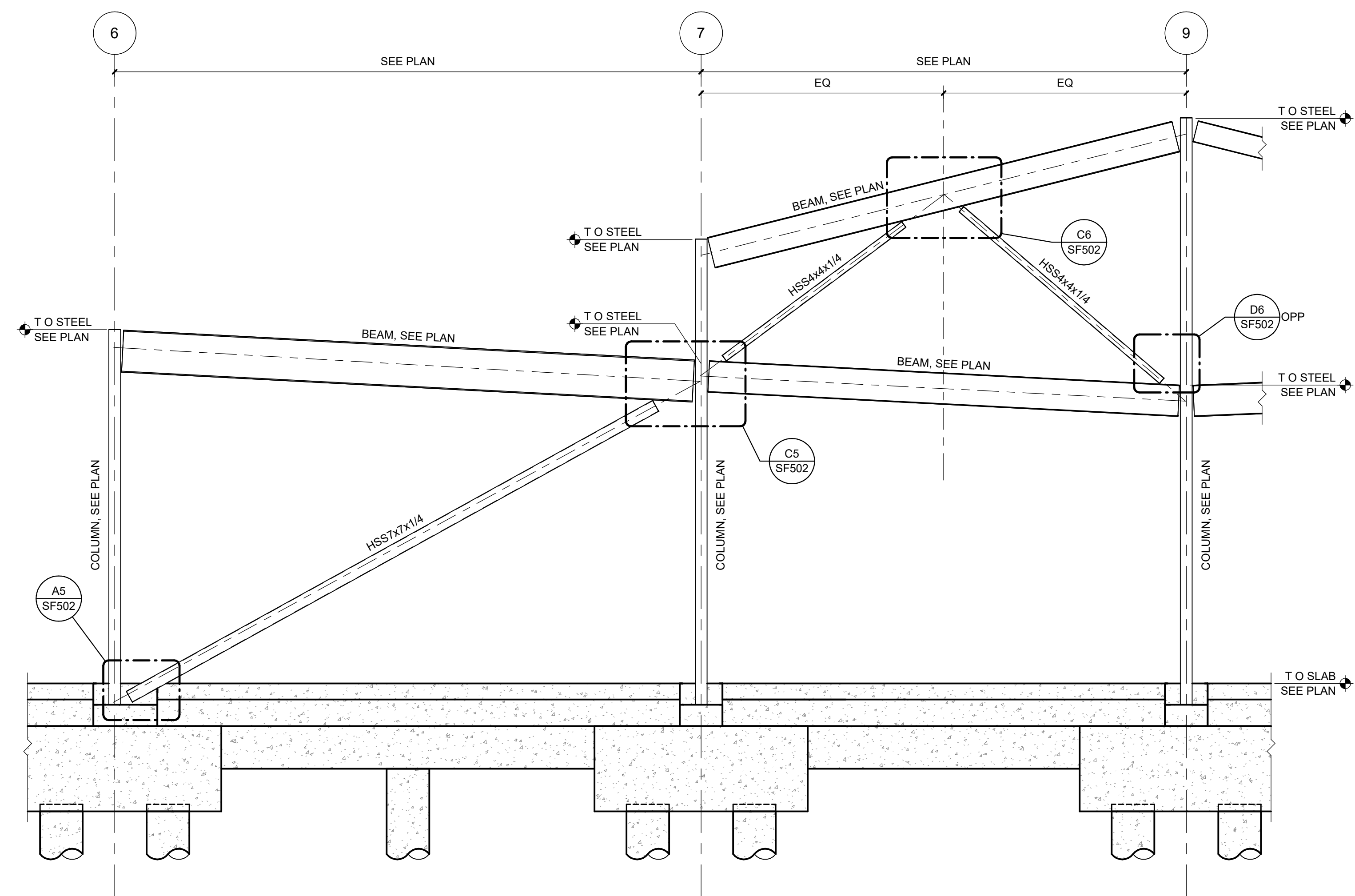
REVISIONS

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- △
- △
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- △

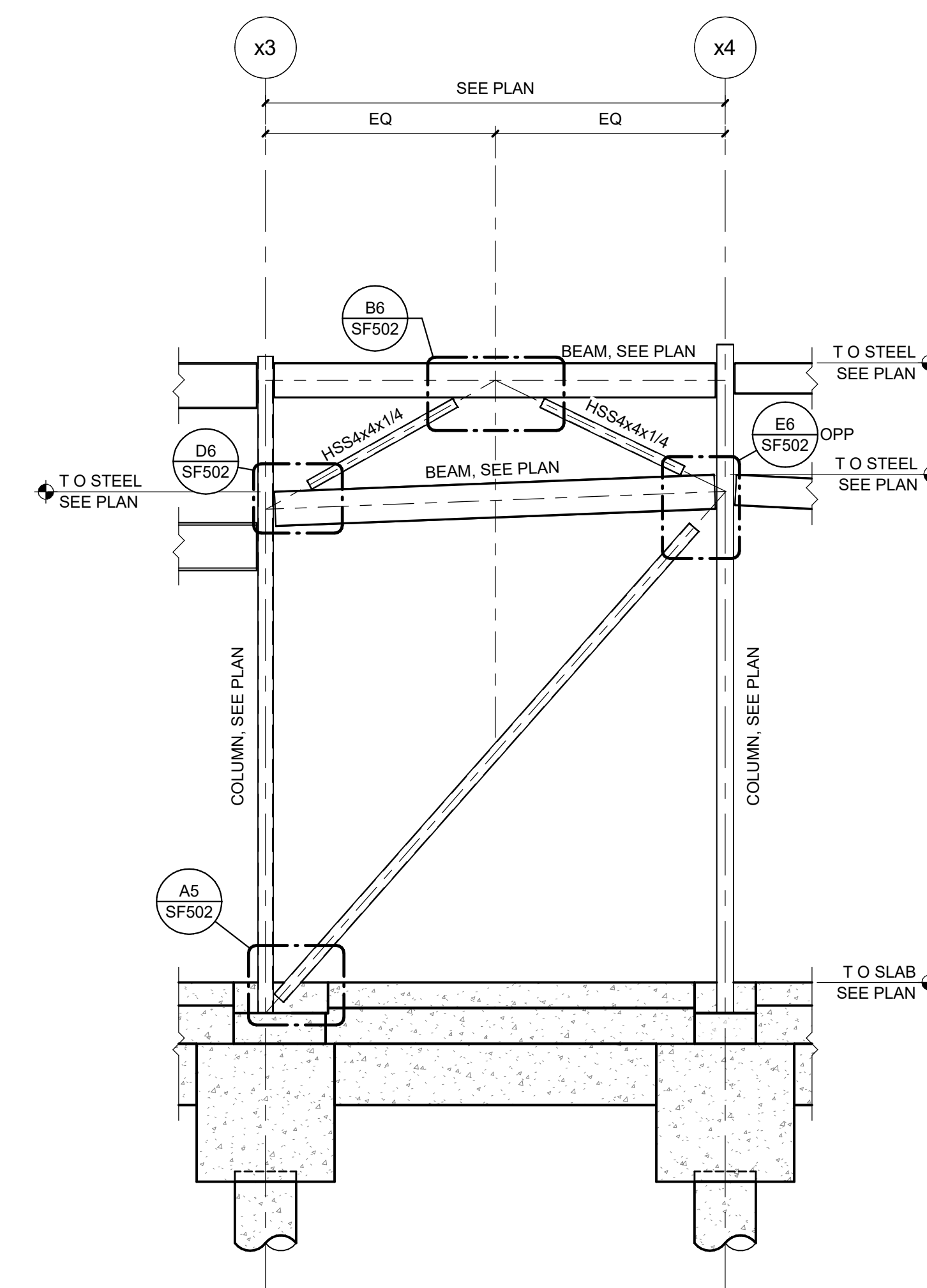
DRAWN BY	CHM
REVIEWED BY	CM, AG
DATE	4/29/2024
PROJECT NO	22-0227.001

DRAWING NAME
BRACED FRAME ELEVATIONS

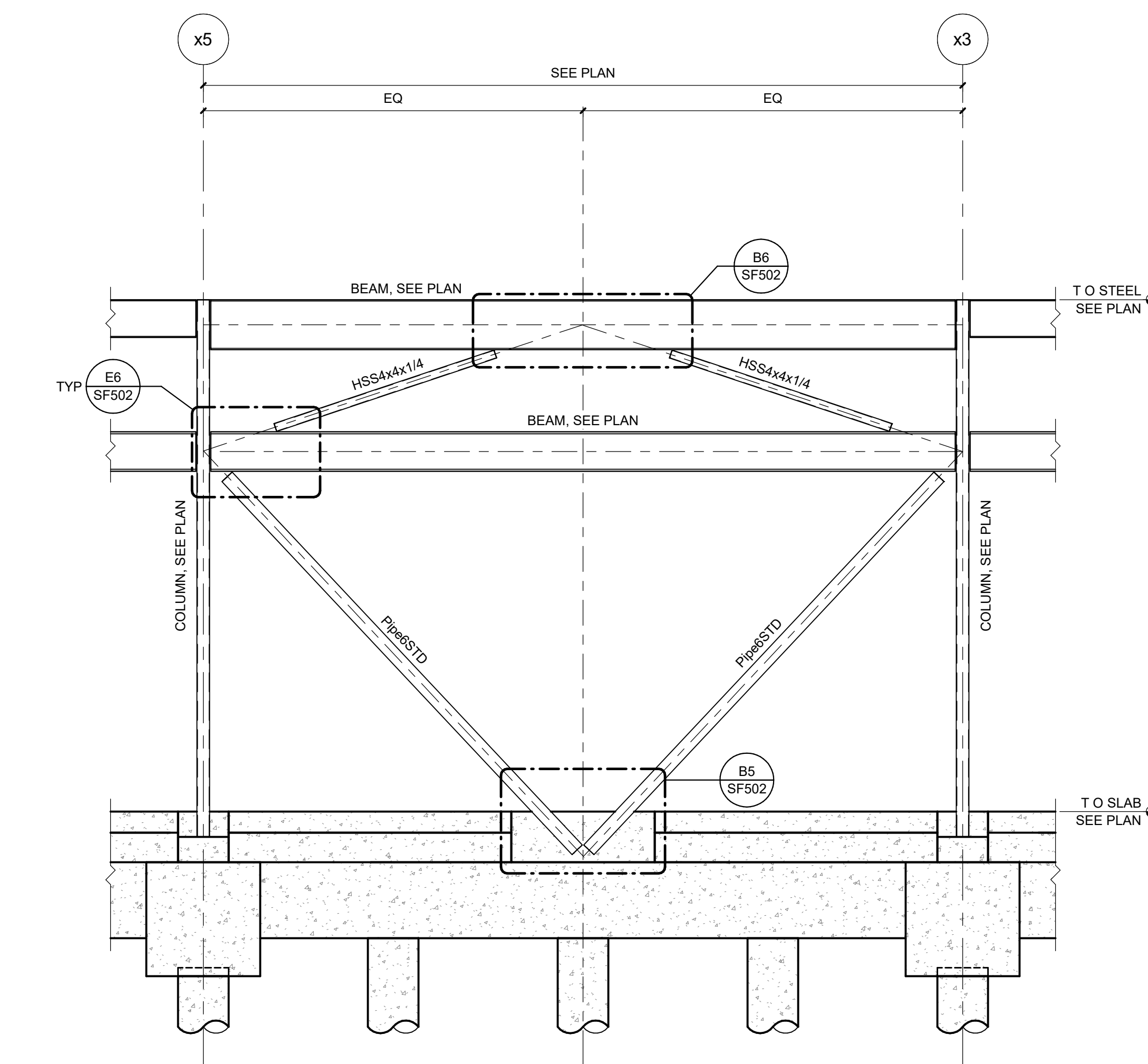
SHEET NO
SF202



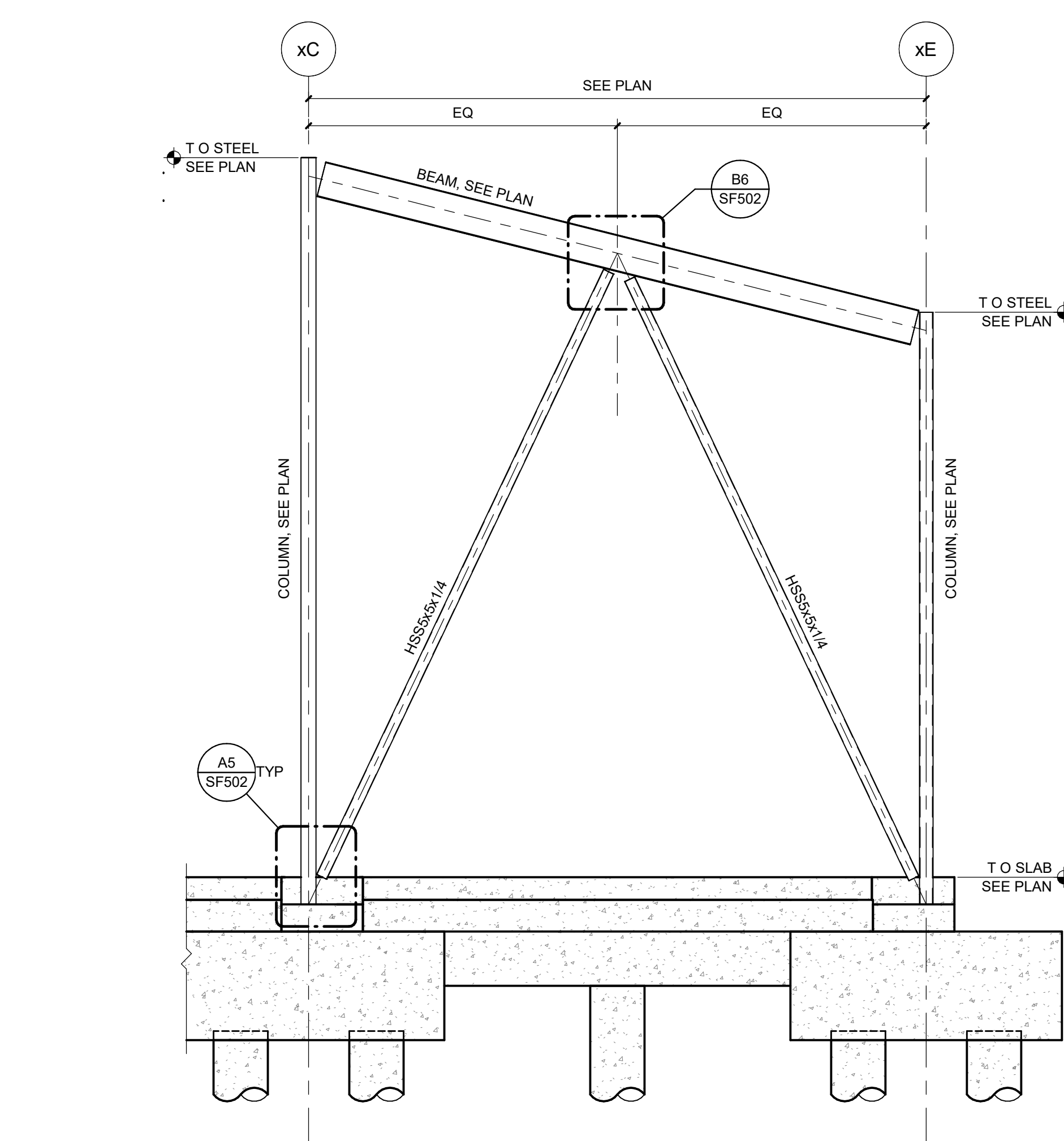
B1 BRACE FRAME ELEVATION
1/4" = 1'-0"



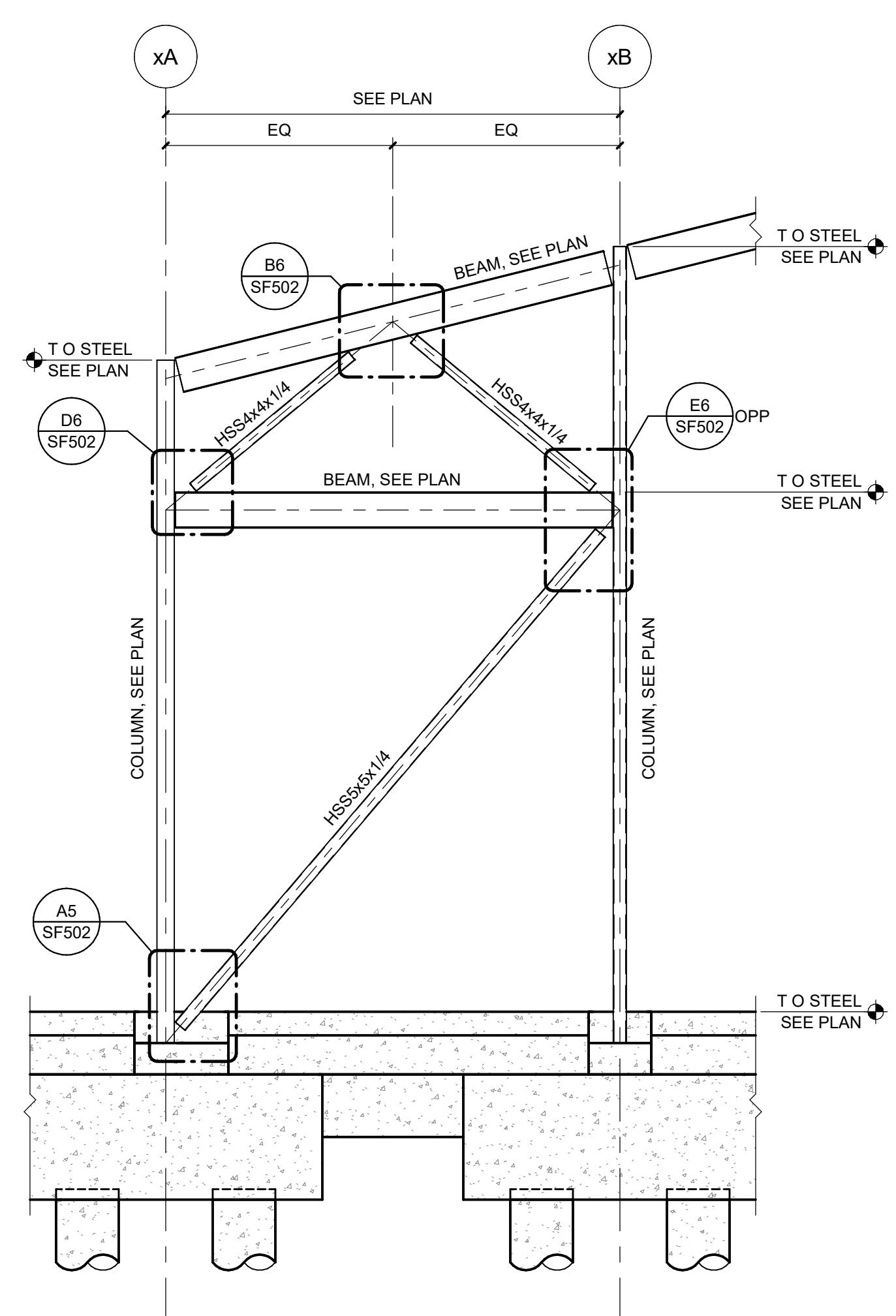
B4 BRACE FRAME ELEVATION
1/4" = 1'-0"



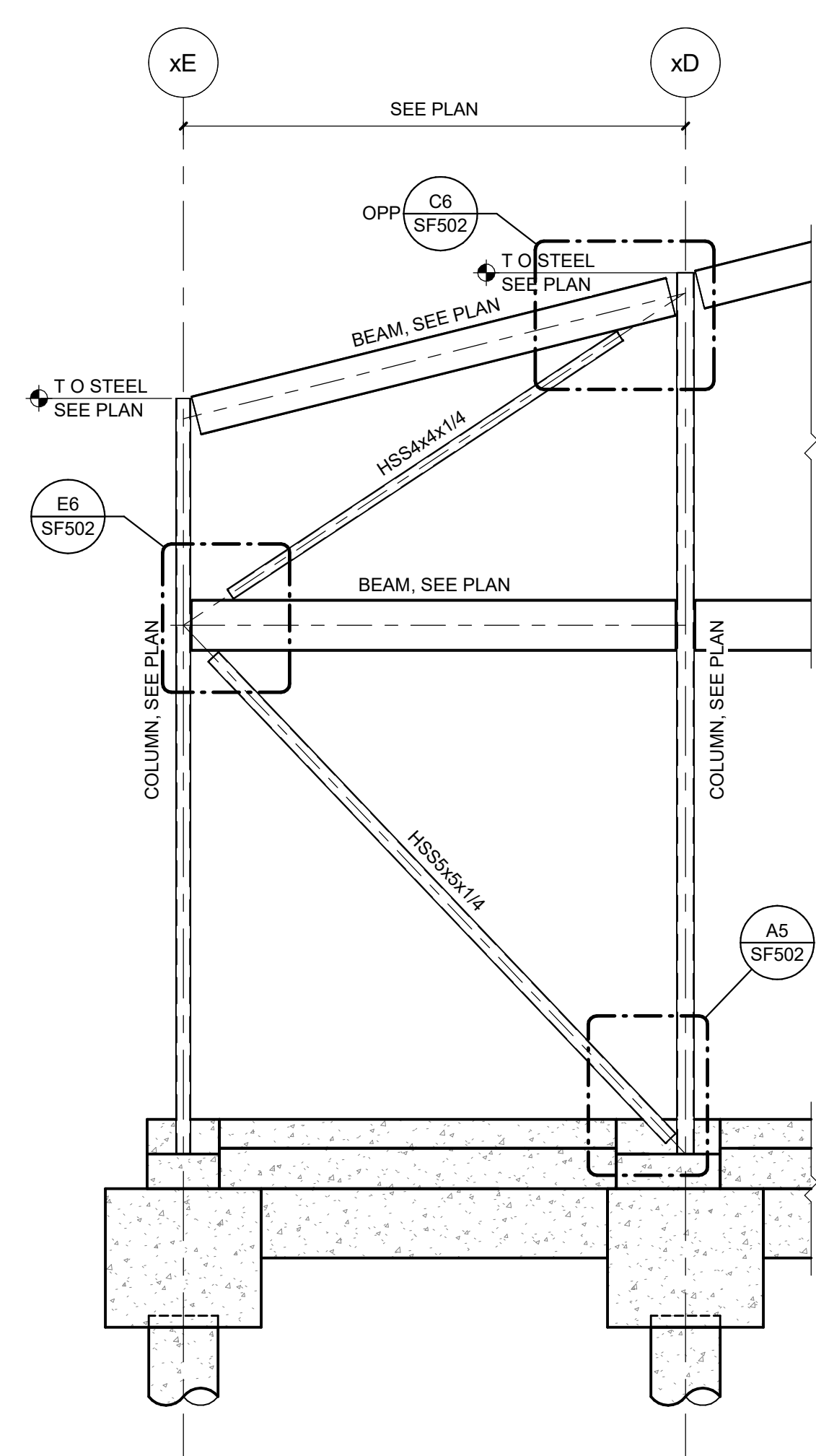
B5 BRACE FRAME ELEVATION
1/4" = 1'-0"



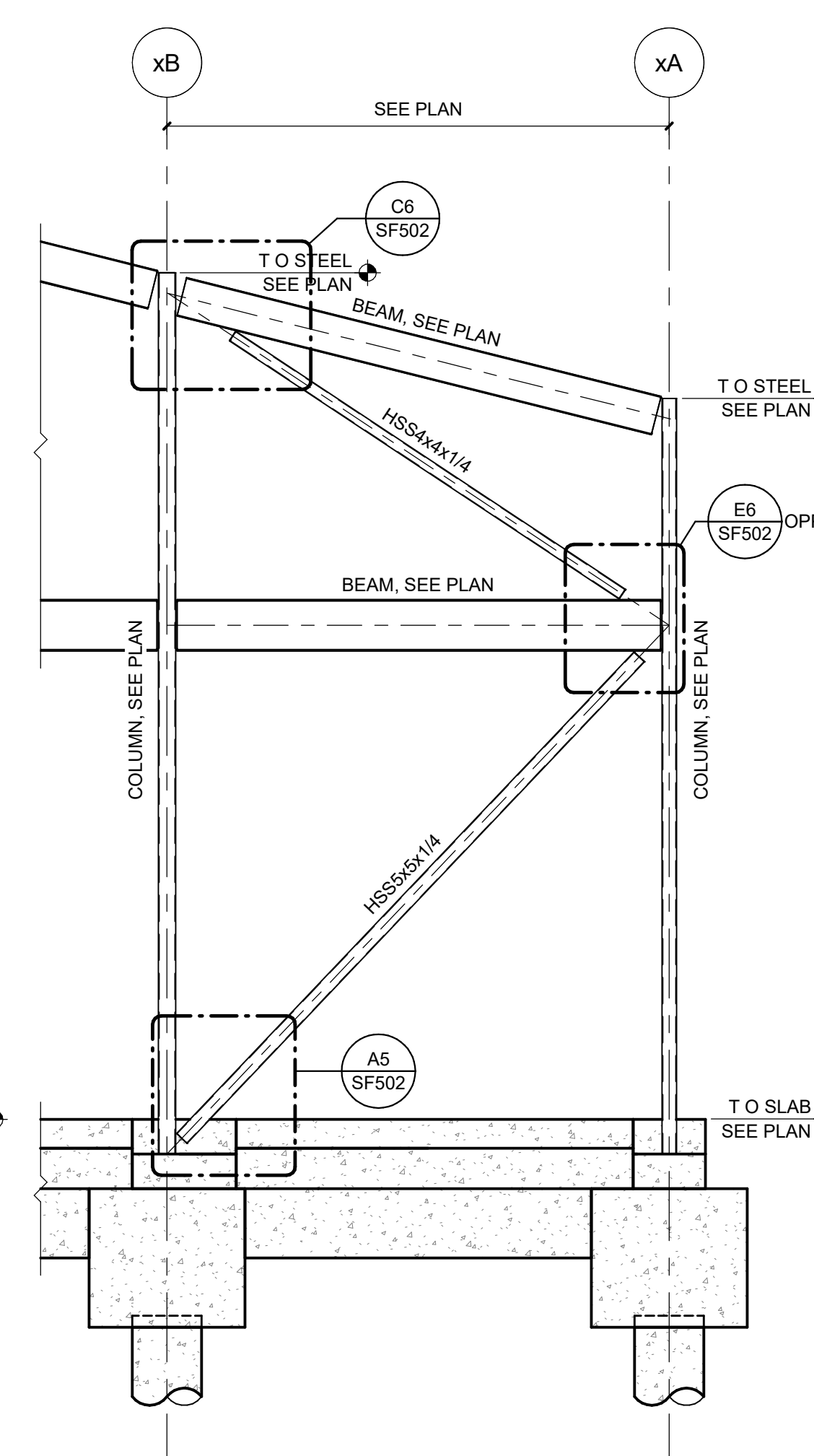
A2 BRACE FRAME ELEVATION
1/4" = 1'-0"



A4 BRACE FRAME ELEVATION
1/4" = 1'-0"



A5 BRACE FRAME ELEVATION
1/4" = 1'-0"



A6 BRACE FRAME ELEVATION
1/4" = 1'-0"

NOT FOR CONSTRUCTION

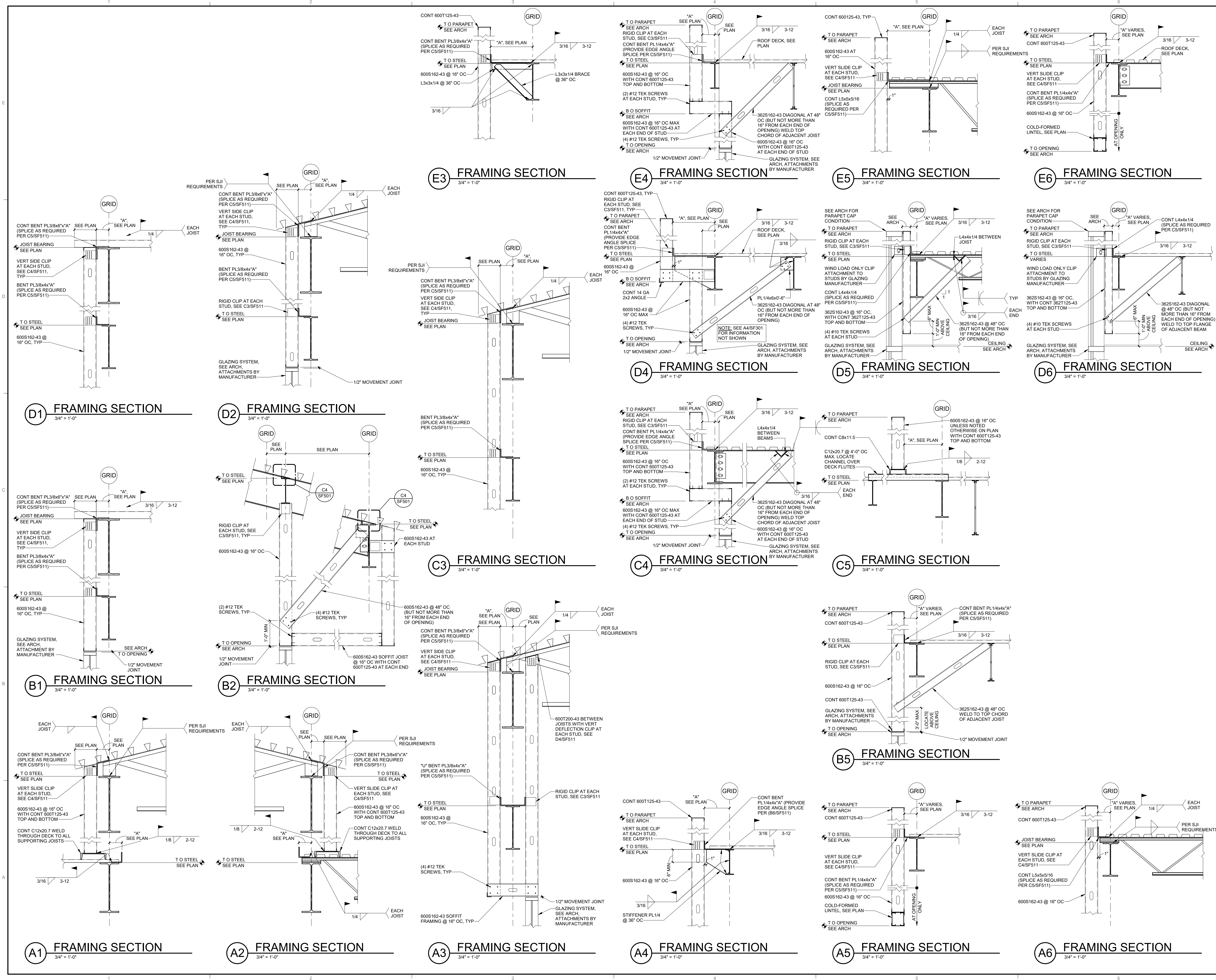
NMSU NM DEPT OF AGRICULTURE OFFICE BUILDING
 3910 SOUTH ESPINA STREET LAS CRUCES, NEW MEXICO 88003

50% CONSTRUCTION DOCUMENTS

REVISIONS	DATE	BY
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DRAWN BY	CHM
REVIEWED BY	CM, AG
DATE	4/29/2024
PROJECT NO	22-0227.001

DRAWING NAME
FRAMING SECTIONS

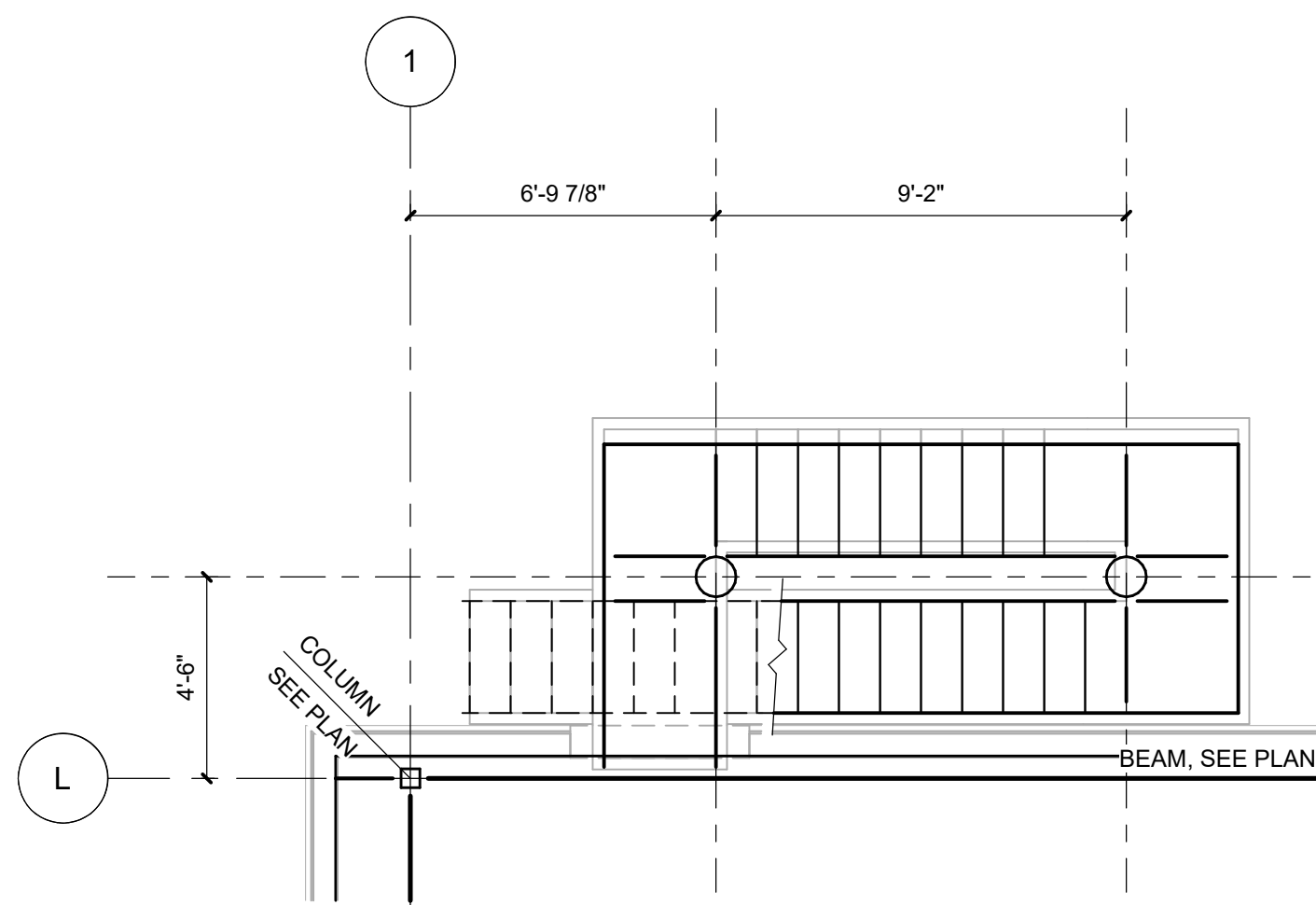


4/25/2024 4:21:44 PM

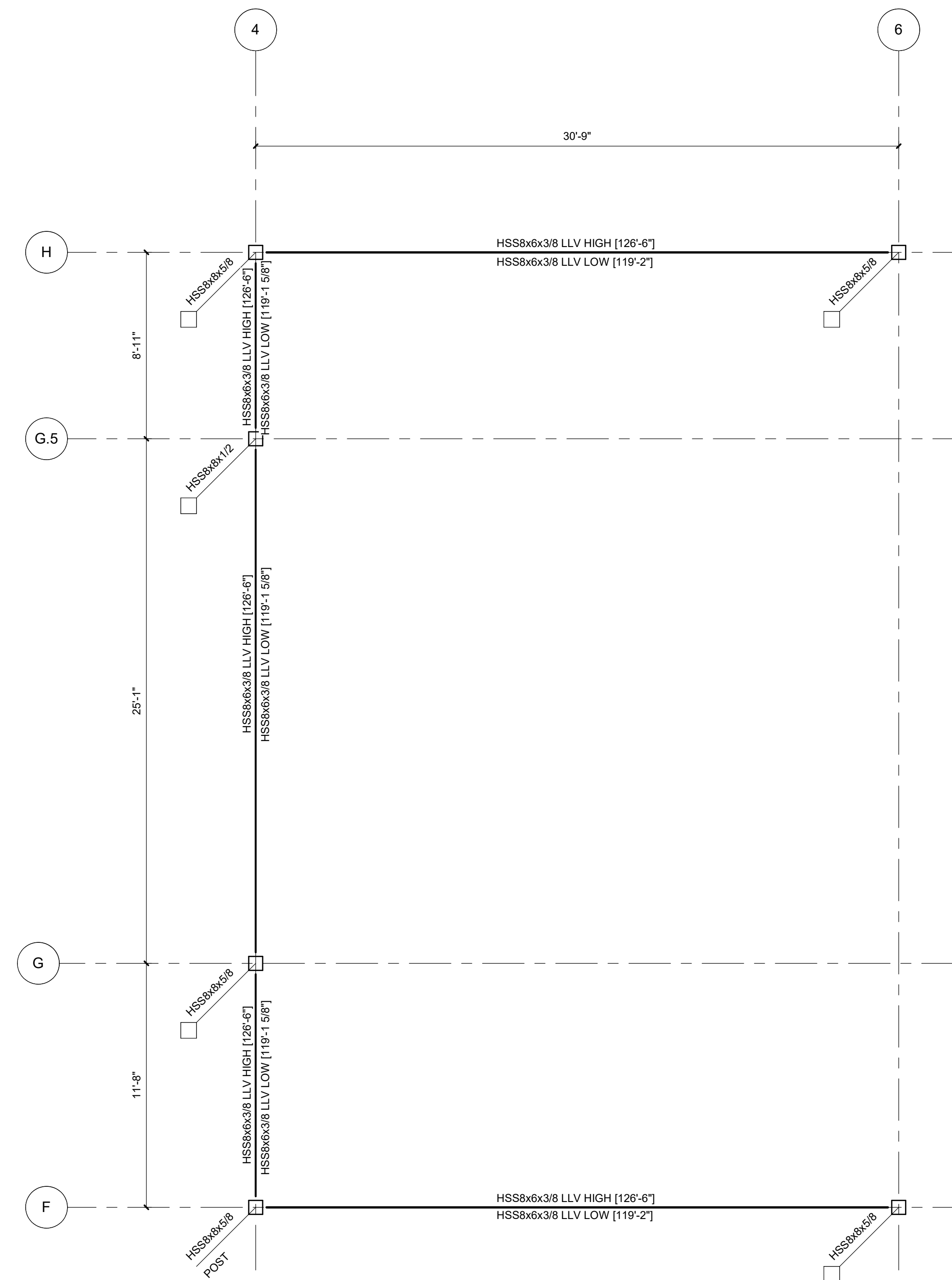
REVISIONS

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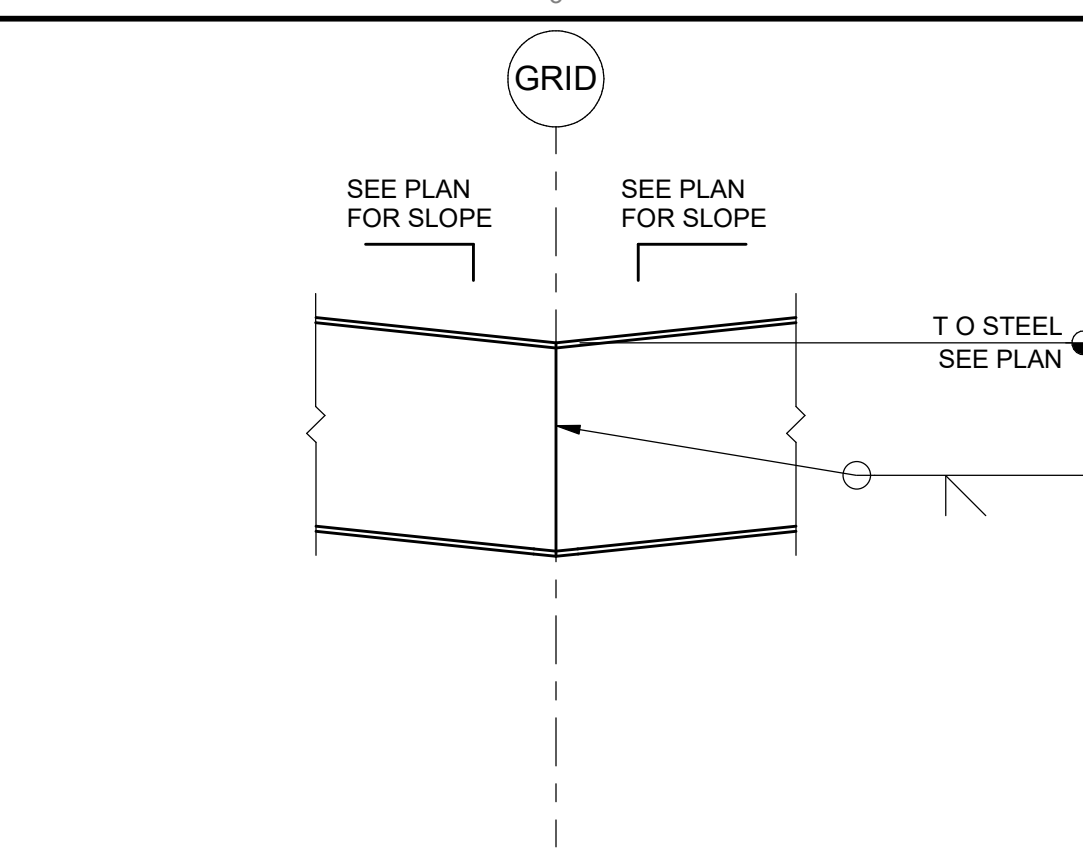
DRAWN BY CHM
REVIEWED BY CM, AG
DATE 4/29/2024
PROJECT NO 22-0227.001



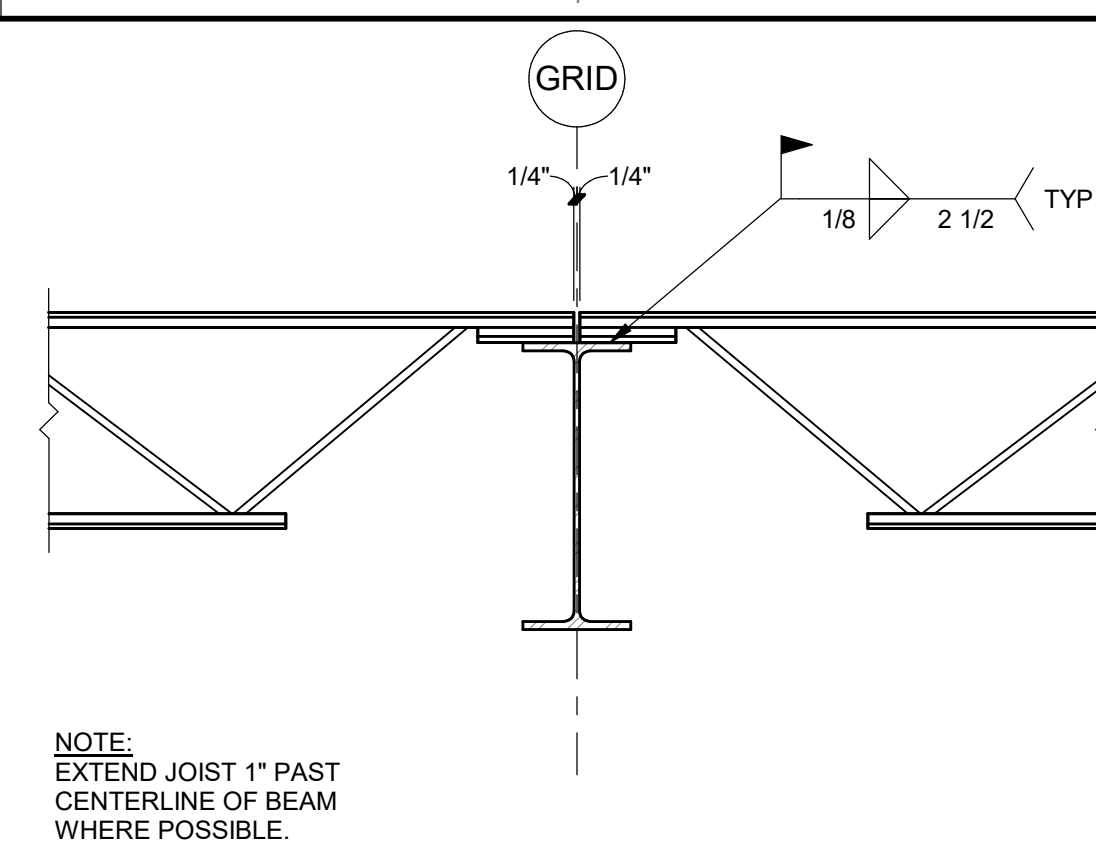
A3 LEVEL 2 ENLARGED STAIR FRAMING PLAN
1/4" = 1'-0"



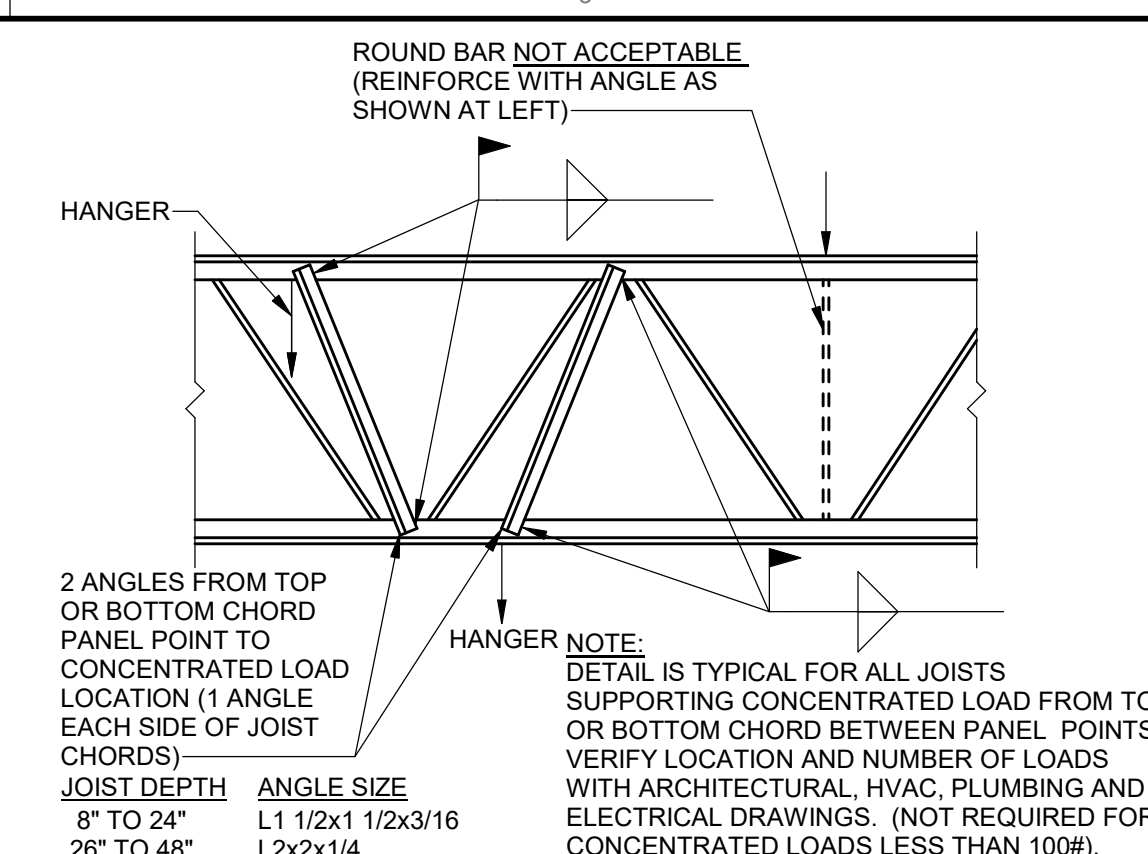
A5 SCREENWALL FRAMING PLAN
1/4" = 1'-0"



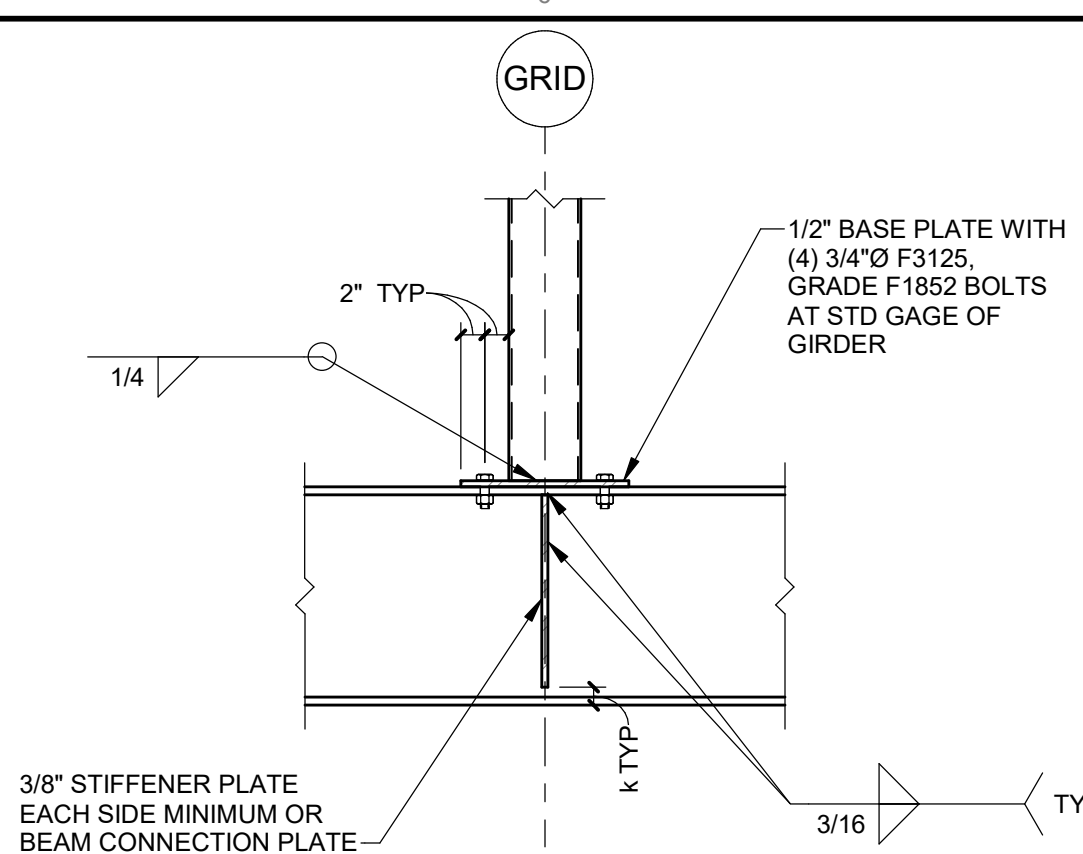
E2 FRAMING DETAIL
 3/4" = 1'-0"



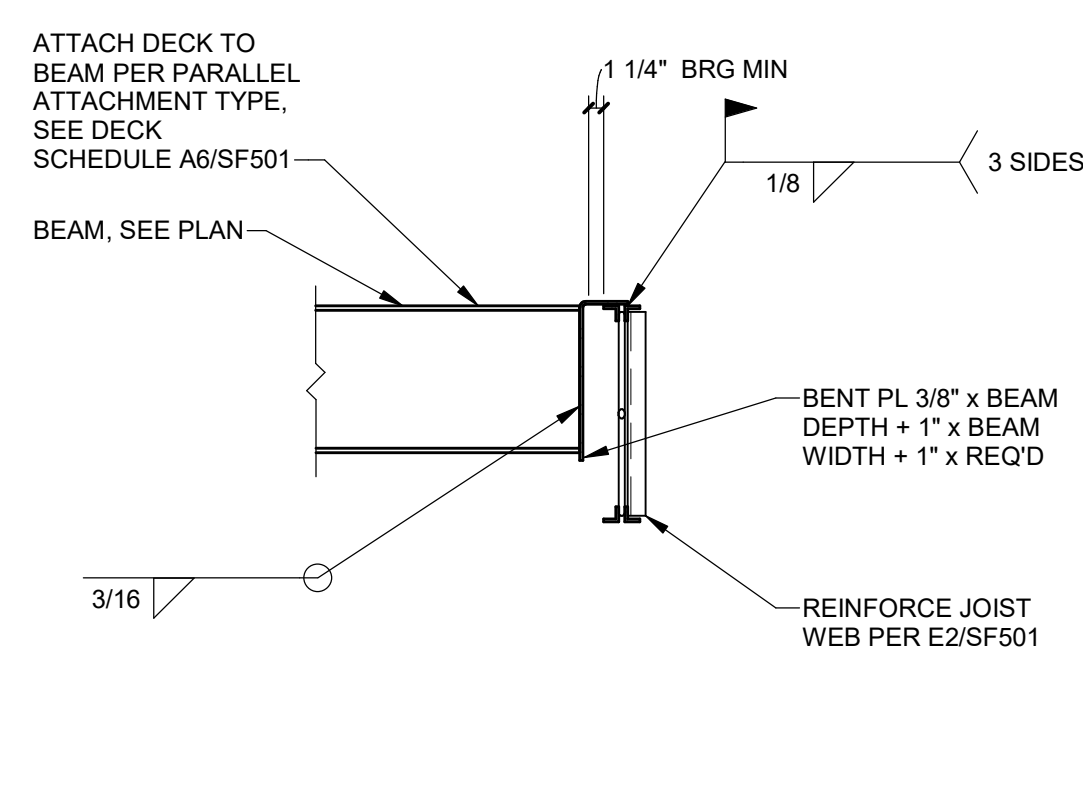
E4 JOIST BEARING ON GIRDER
 3/4" = 1'-0"



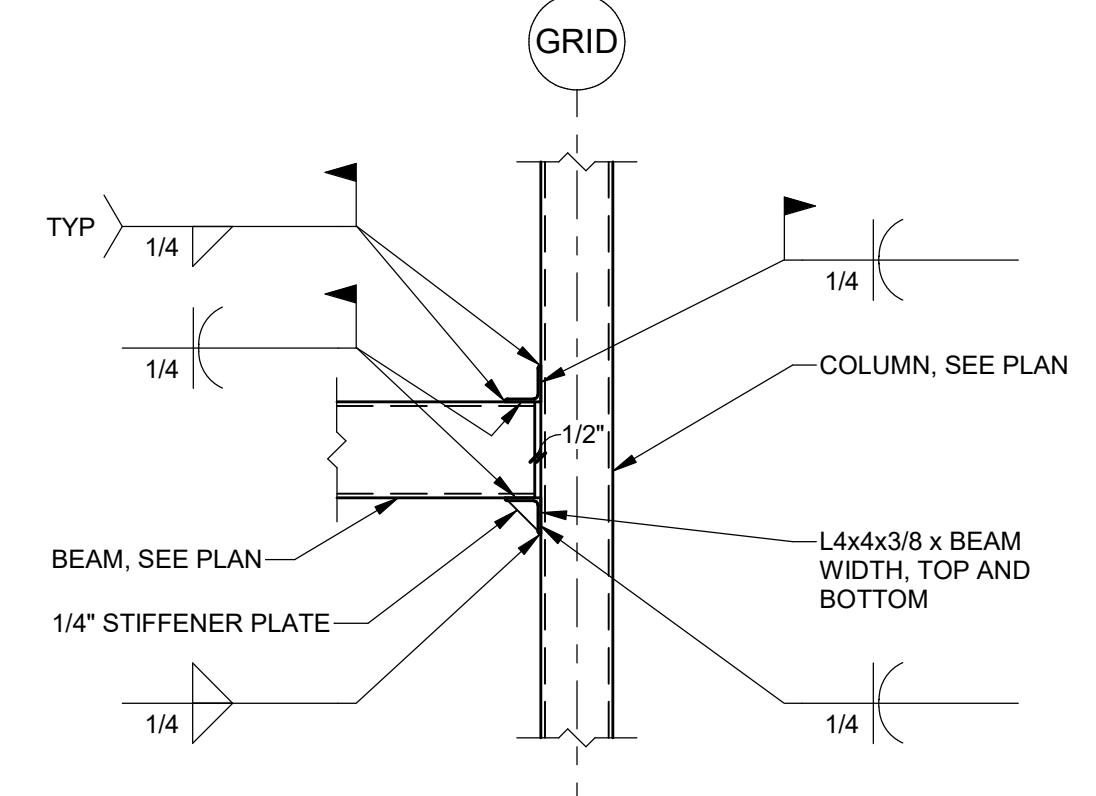
E5 TYPICAL JOIST AT CONCENTRATED LOADS
 3/4" = 1'-0"



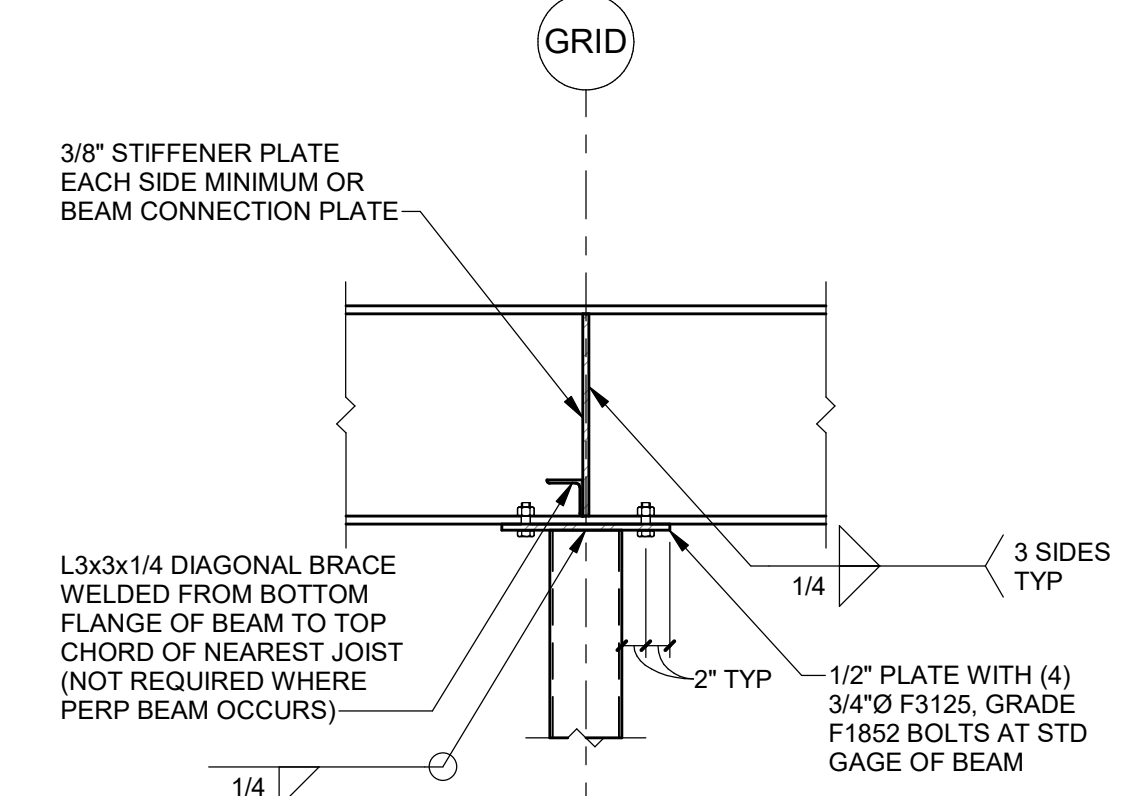
E6 HSS POST ON GIRDER
 3/4" = 1'-0"



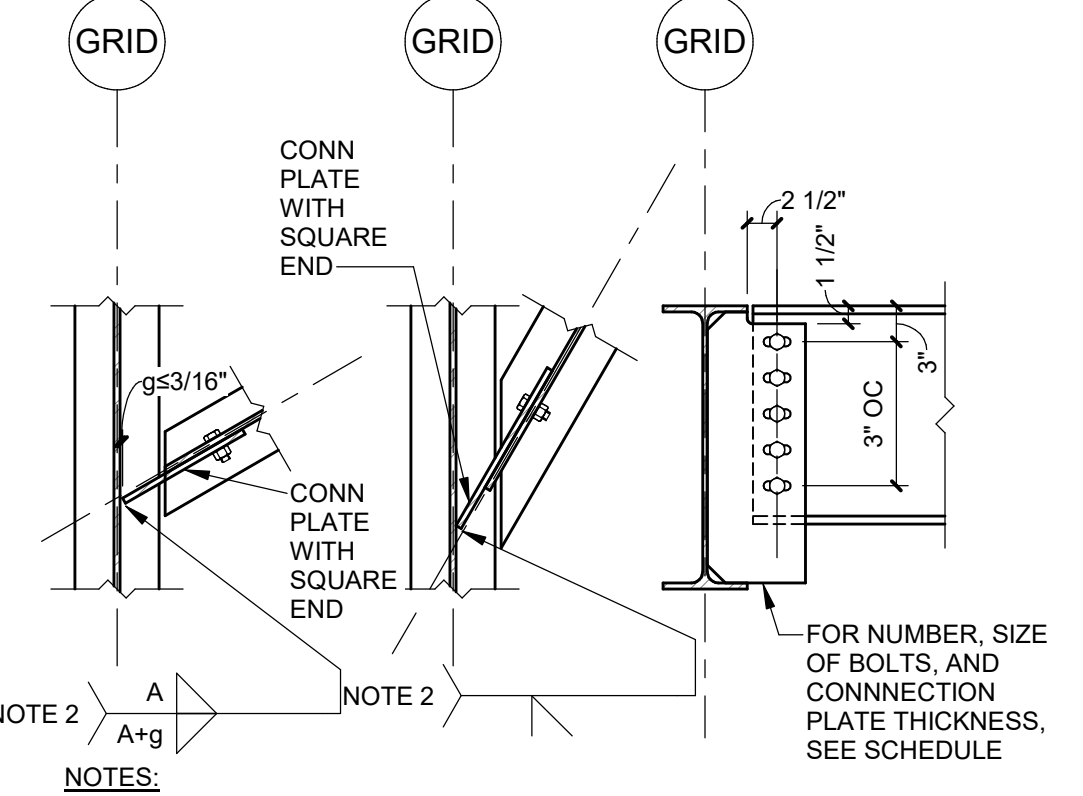
D3 BEAM TO JOIST
 3/4" = 1'-0"



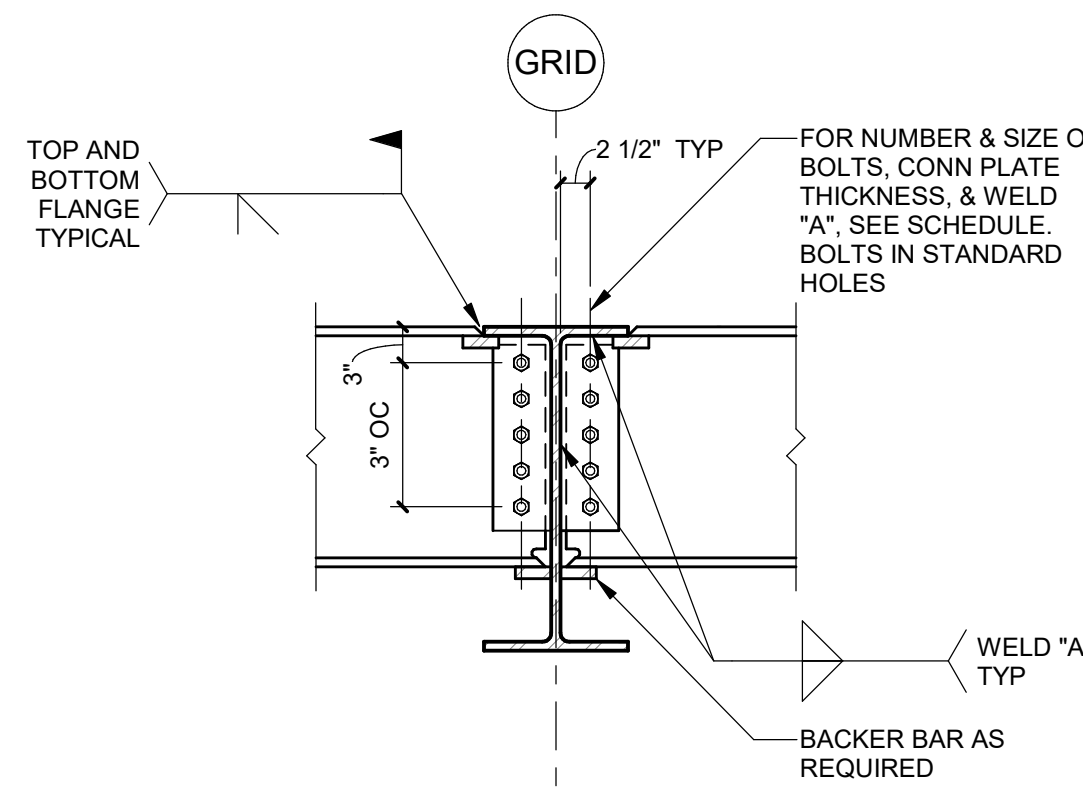
D4 HSS BEAM TO HSS COLUMN
 3/4" = 1'-0"



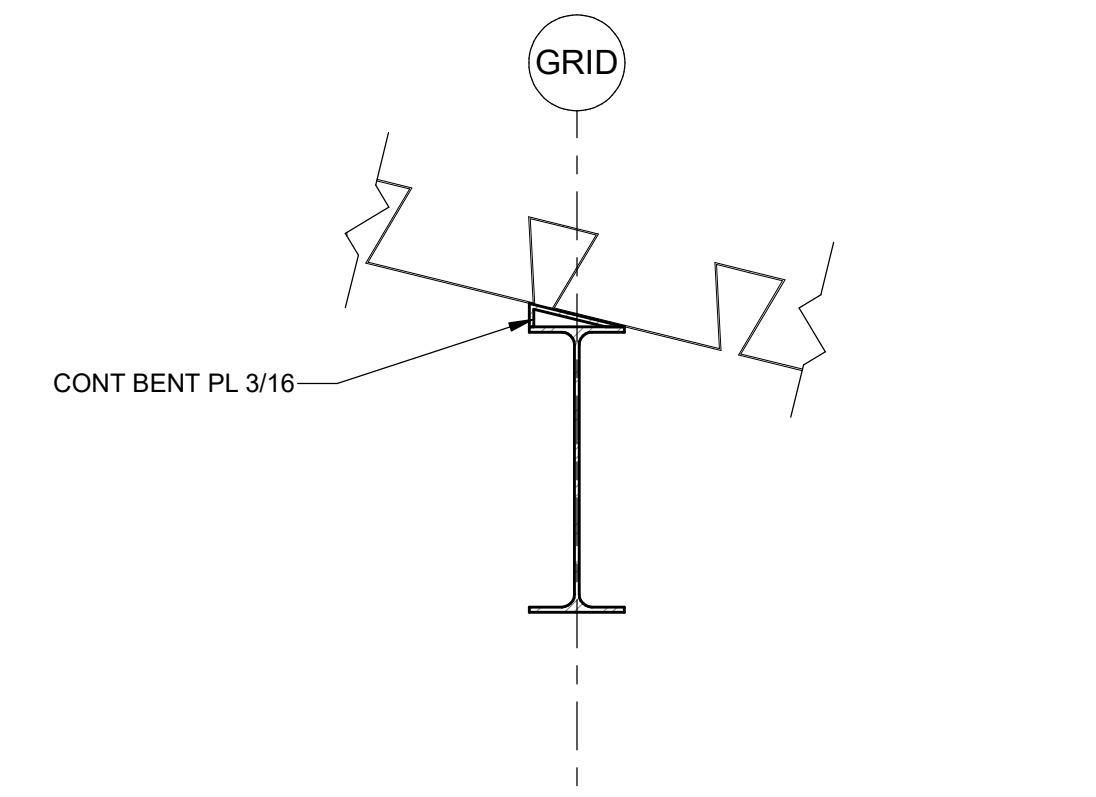
D5 BEAM ON TOP OF HSS COLUMN
 3/4" = 1'-0"



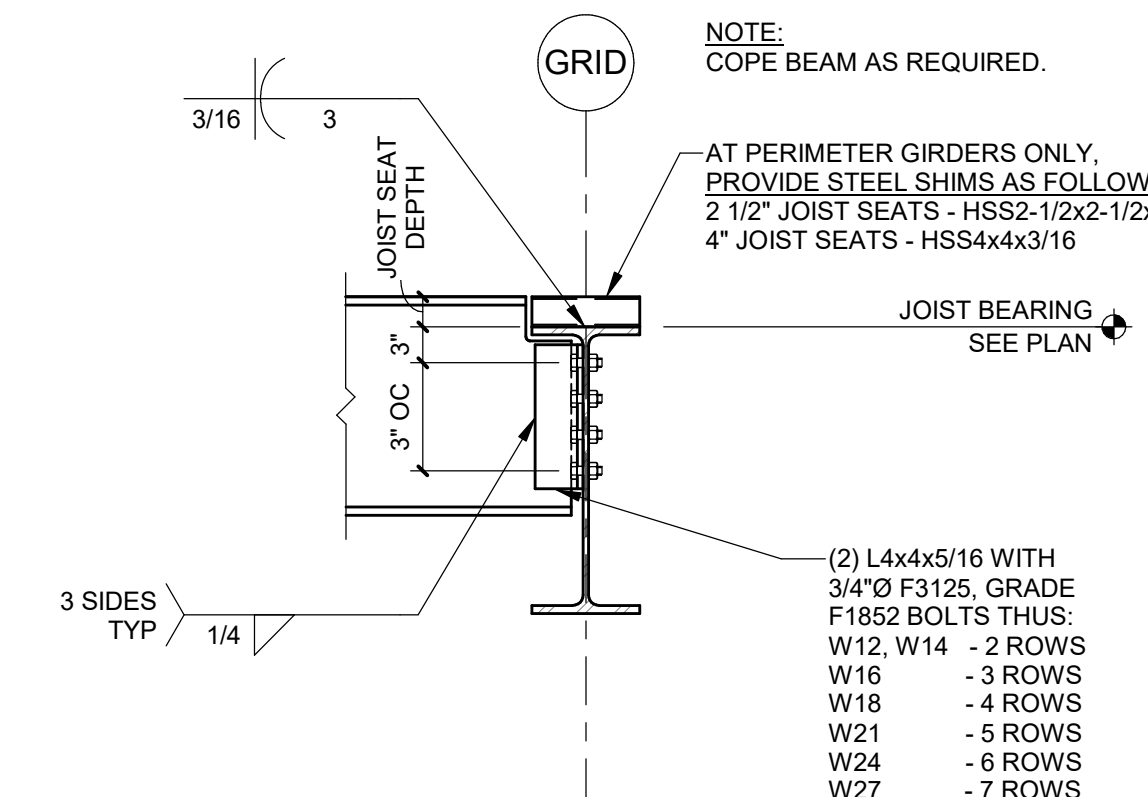
D6 SKEWED BEAM TO GIRDER
 3/4" = 1'-0"



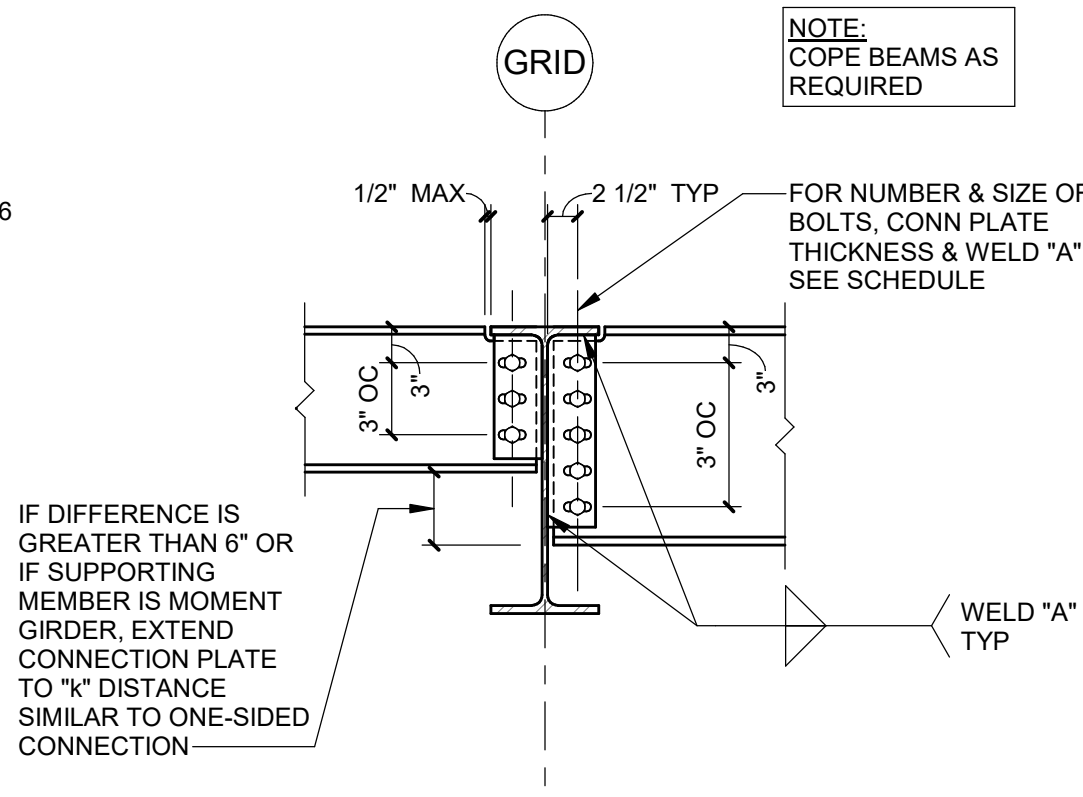
C3 BEAM TO GIRDER MOMENT CONNECTION
 3/4" = 1'-0"



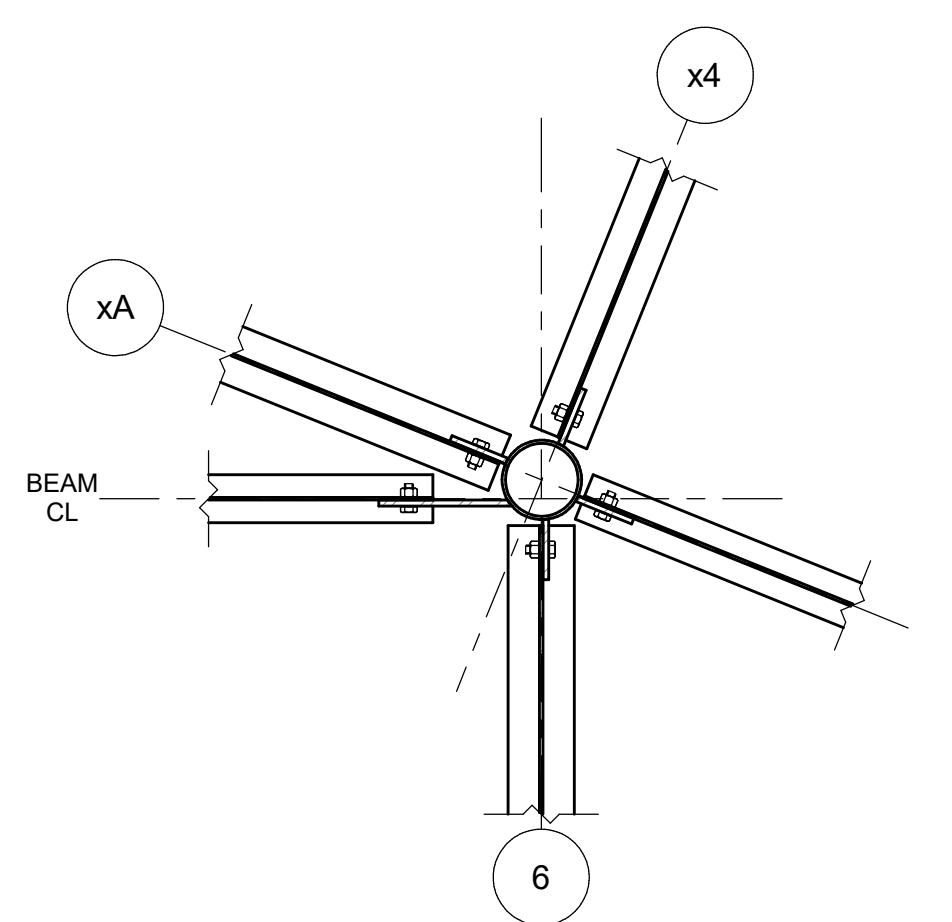
C4 FRAMING DETAIL
 1 1/2" = 1'-0"



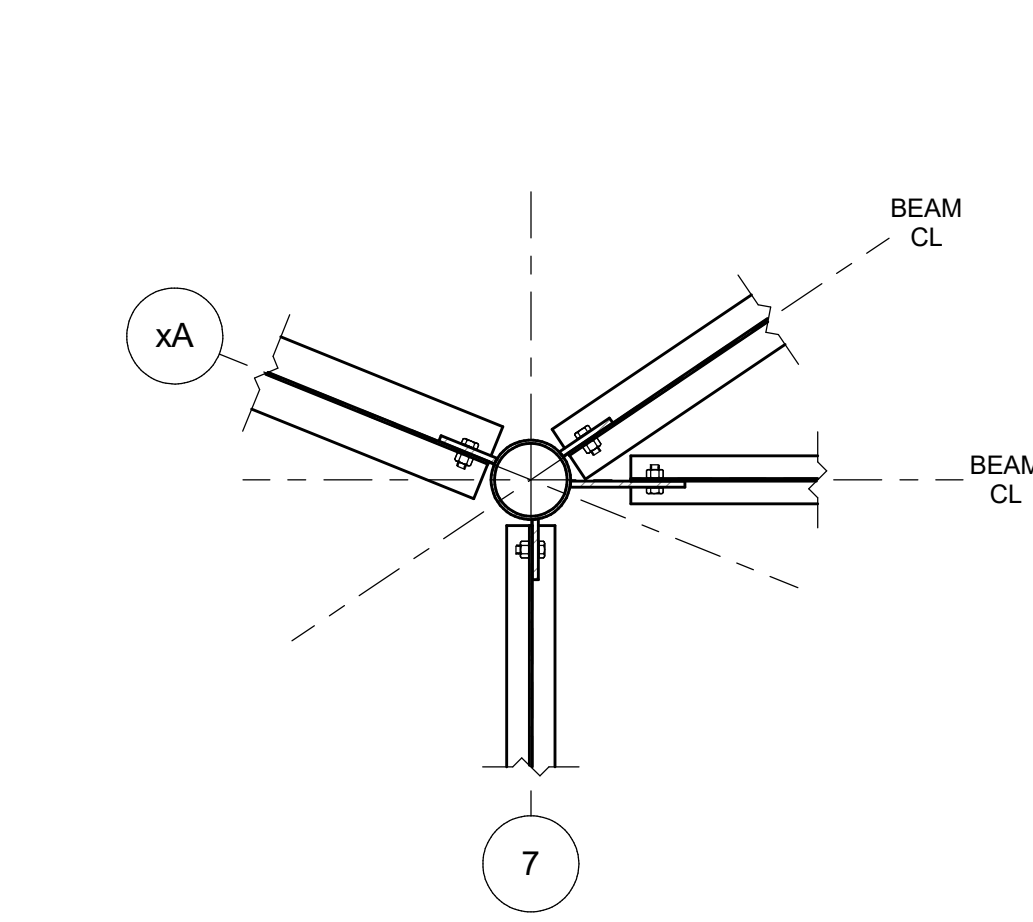
C5 BEAM TO JOIST BEARING GIRDER
 3/4" = 1'-0"



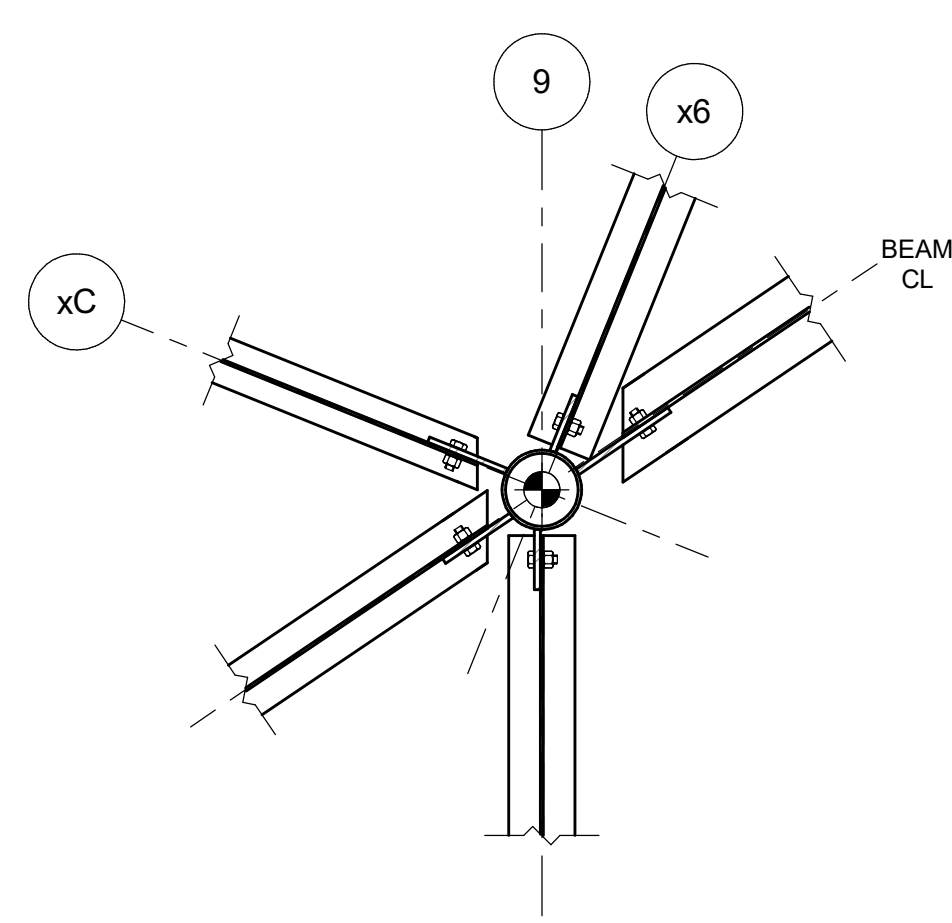
C6 BEAM TO GIRDER - TWO SIDED
 3/4" = 1'-0"



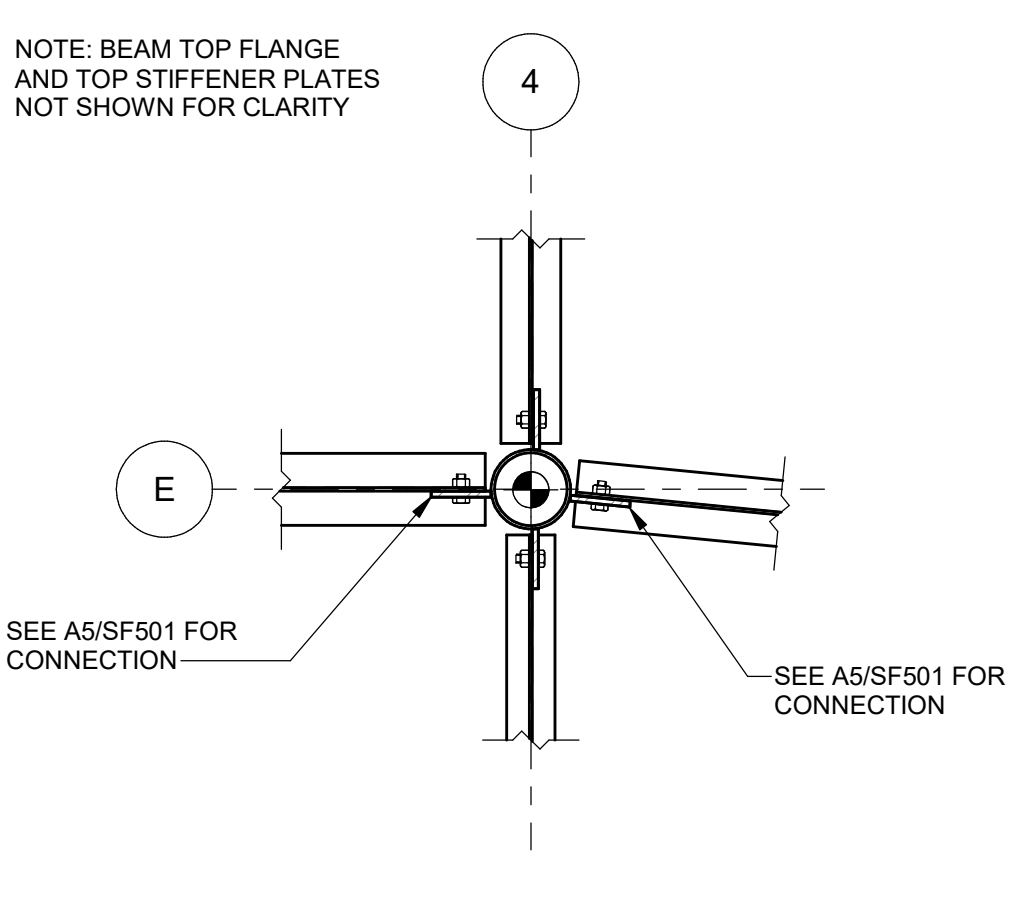
B1 PLAN VIEW
 3/4" = 1'-0"



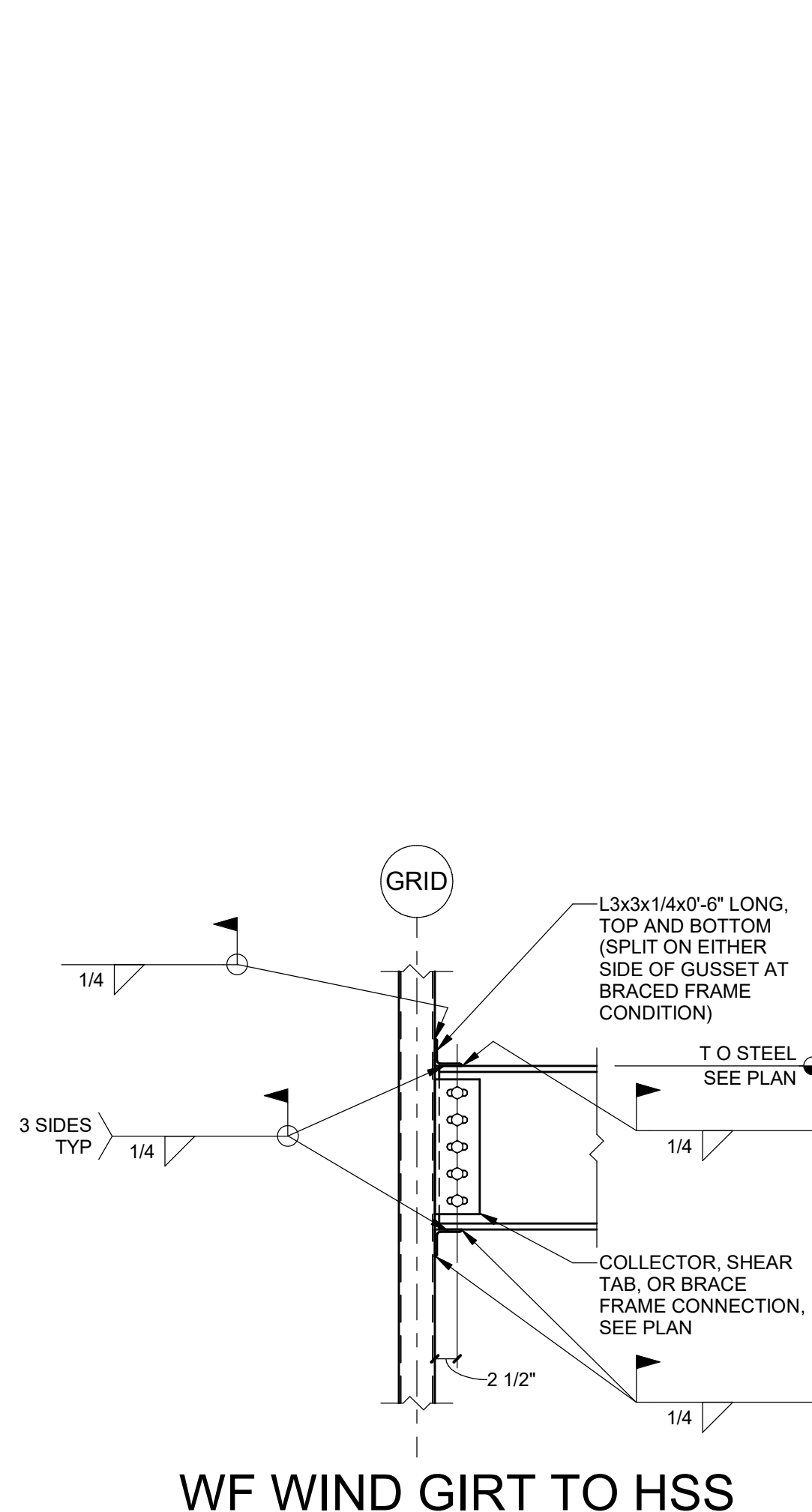
B2 PLAN VIEW
 3/4" = 1'-0"



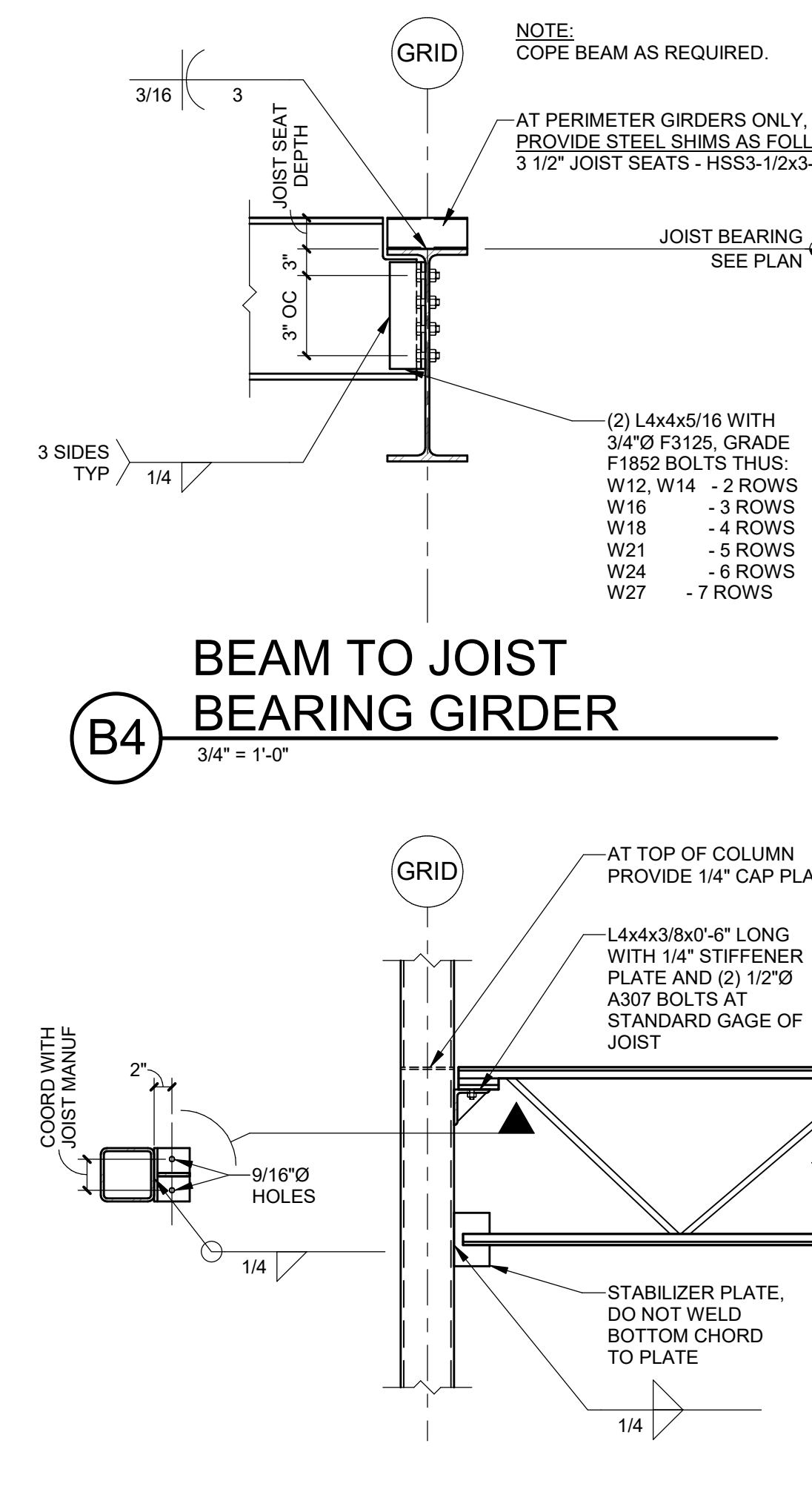
A1 PLAN VIEW
 3/4" = 1'-0"



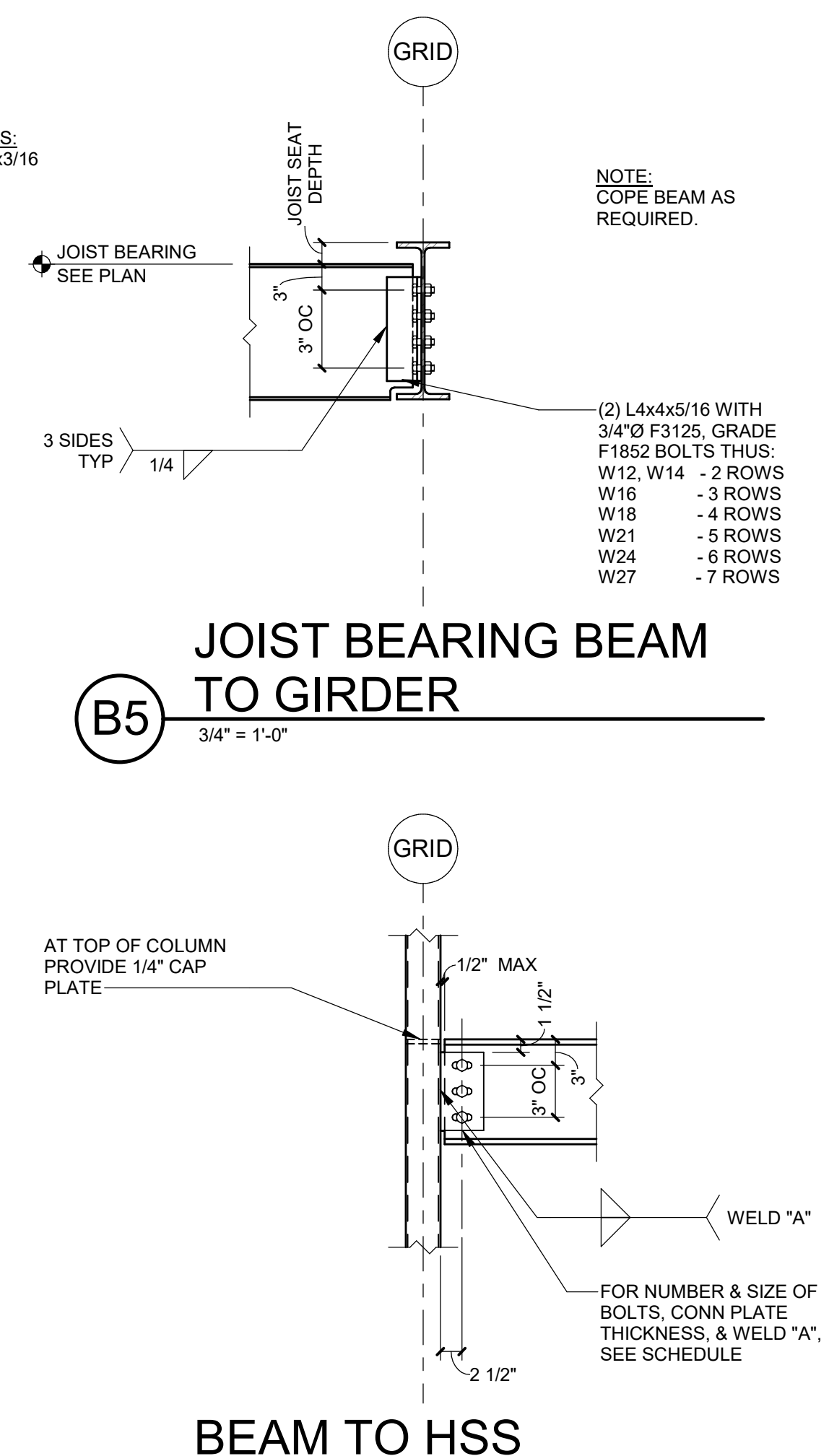
A2 PLAN VIEW
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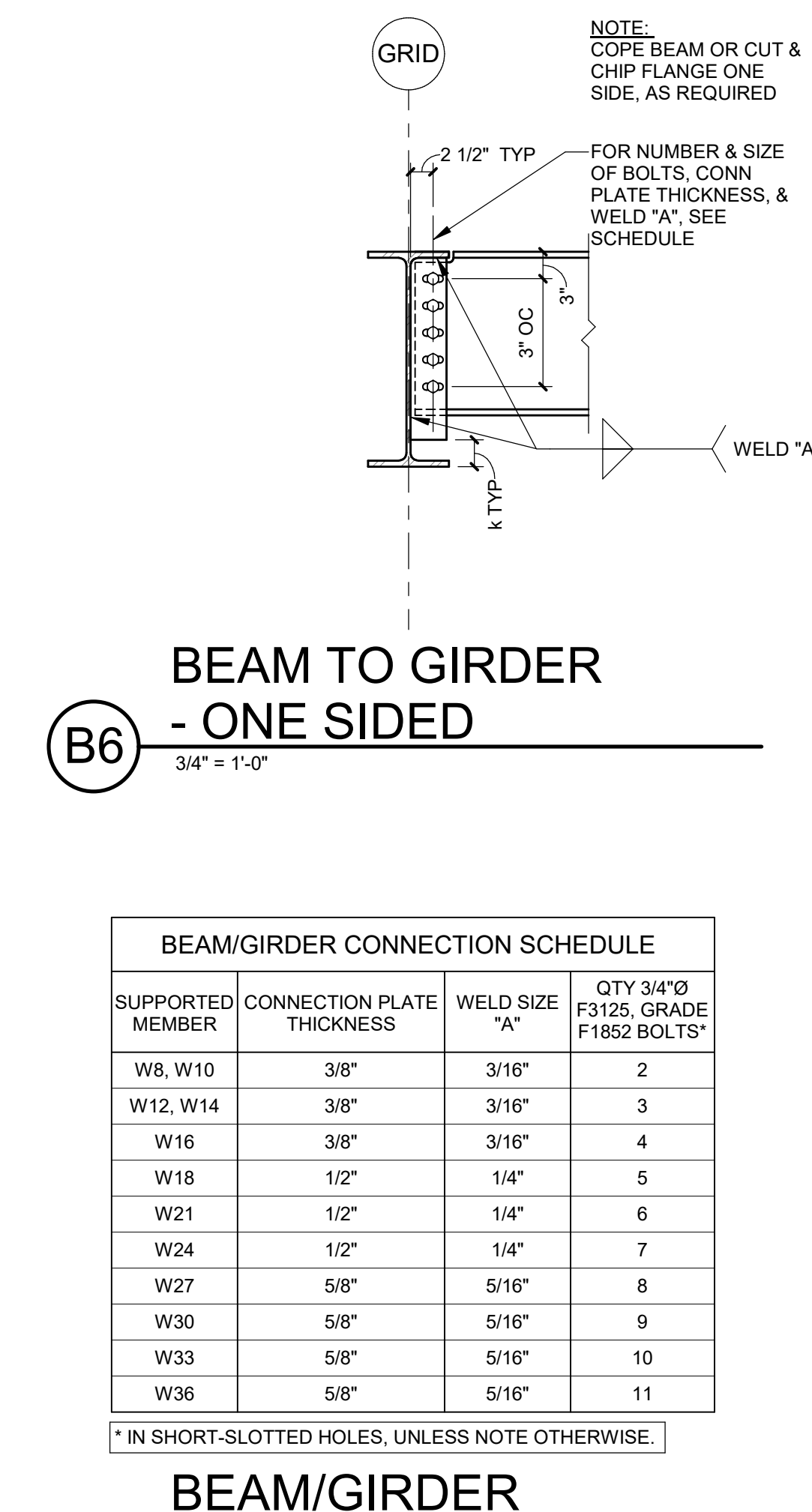
A3 WF WIND GIRT TO HSS COLUMN
 3/4" = 1'-0"



A4 JOIST TO HSS COLUMN
 3/4" = 1'-0"



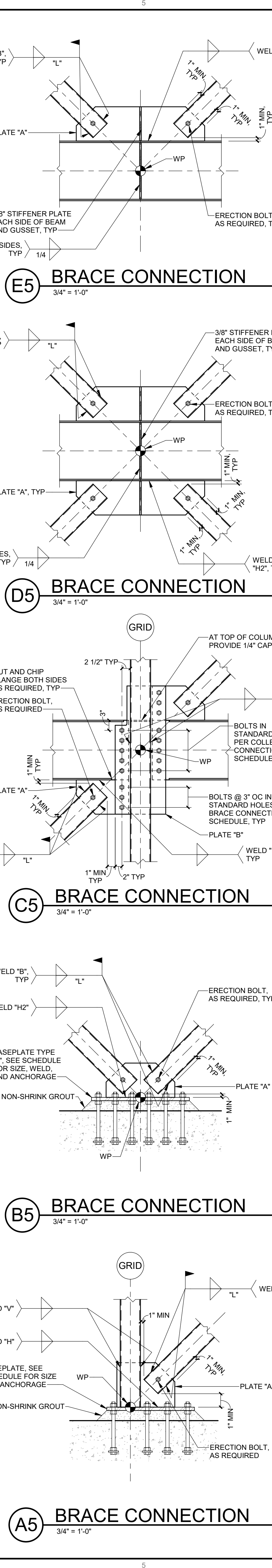
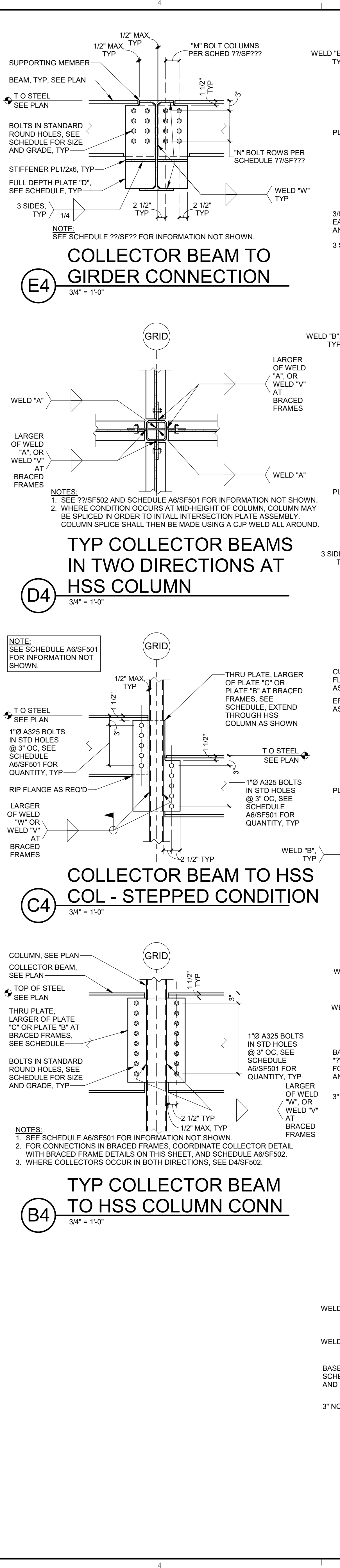
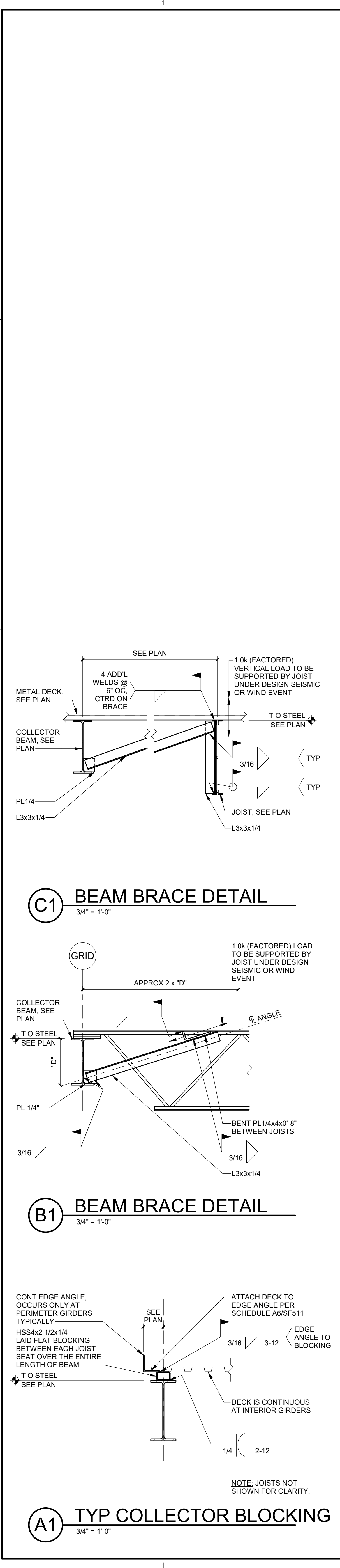
A5 BEAM TO HSS OR PIPE COLUMN
 3/4" = 1'-0"



A6 BEAM/GIRDER CONNECTION SCHEDULE
 3/4" = 1'-0"

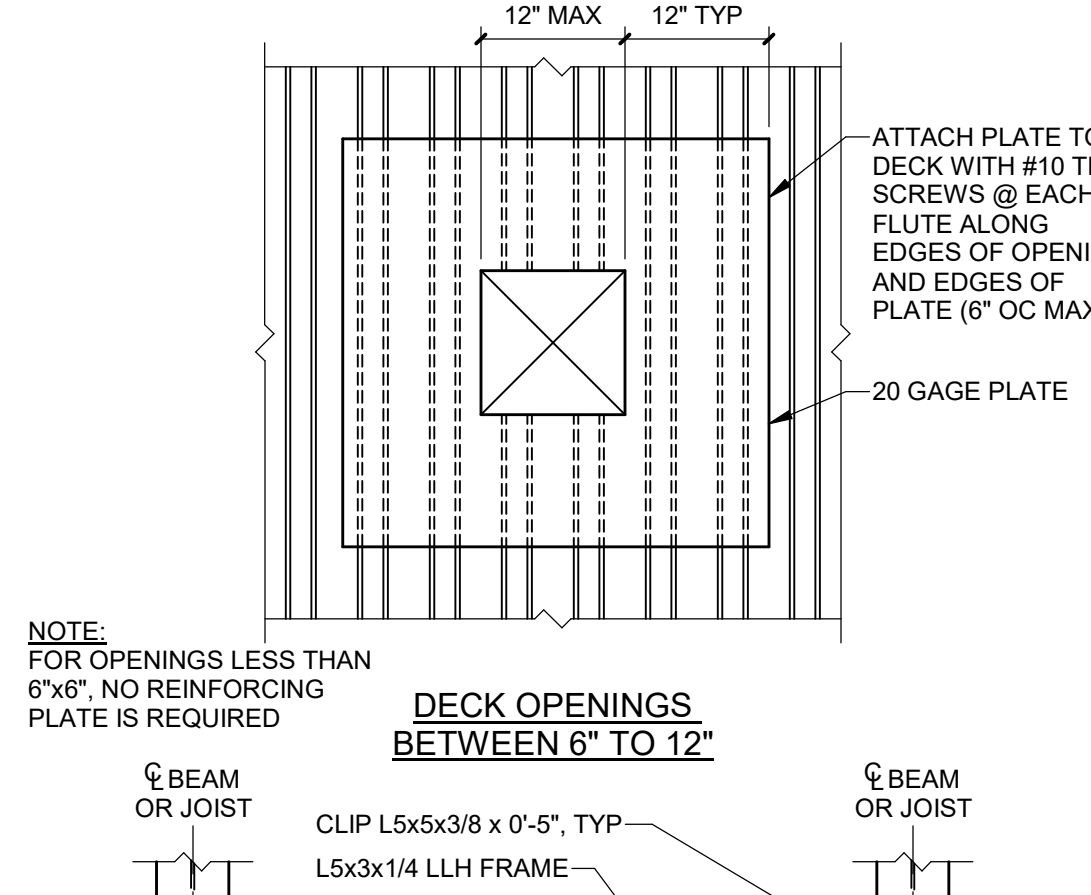
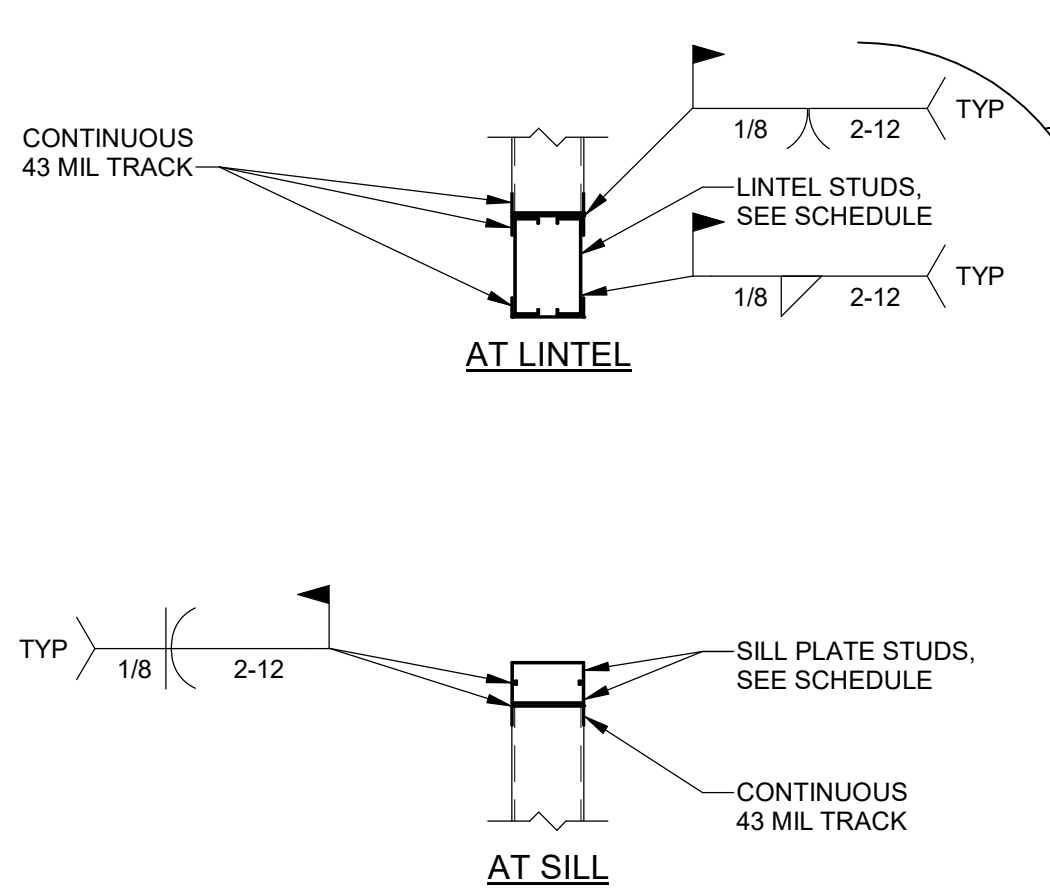
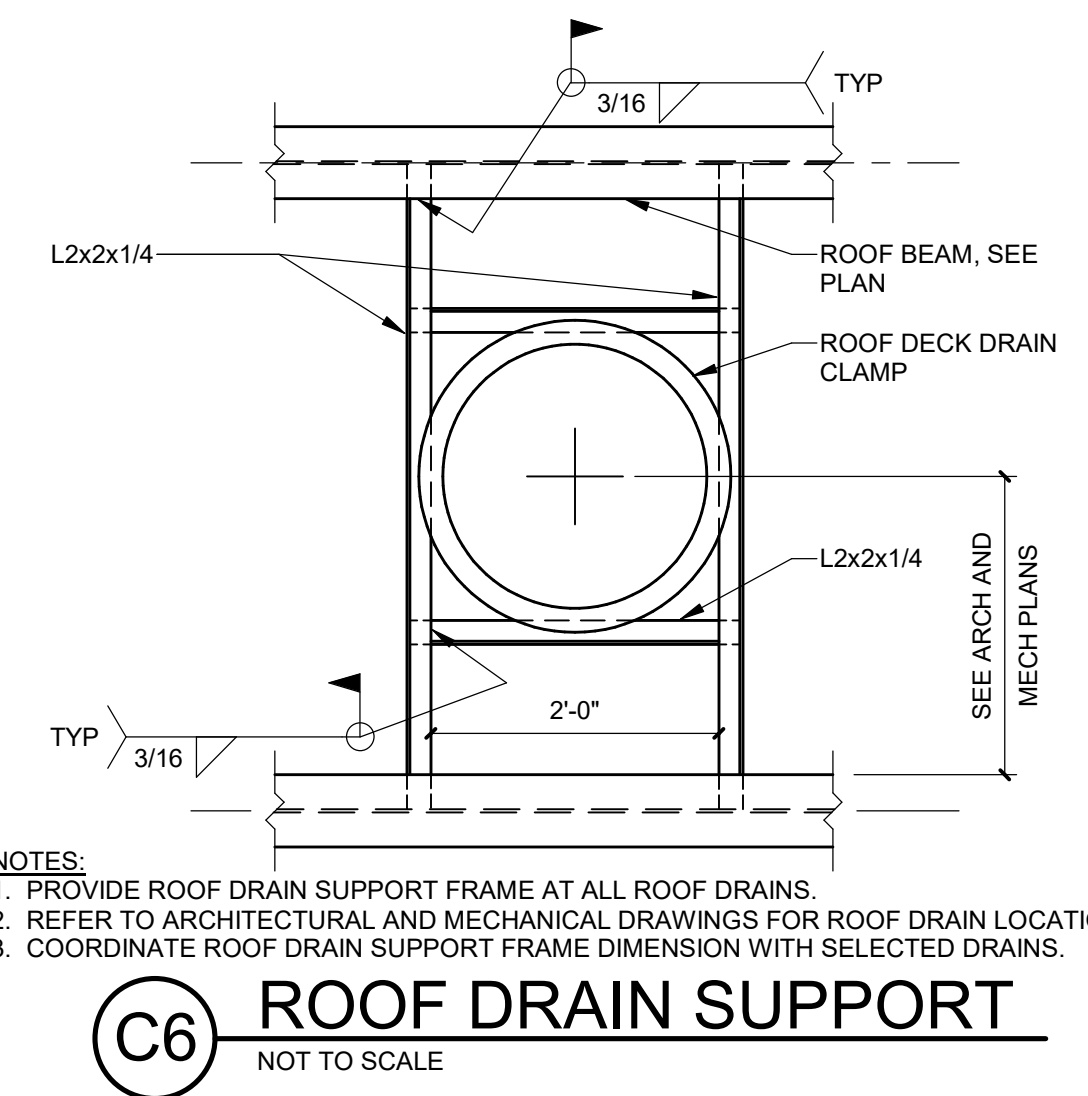
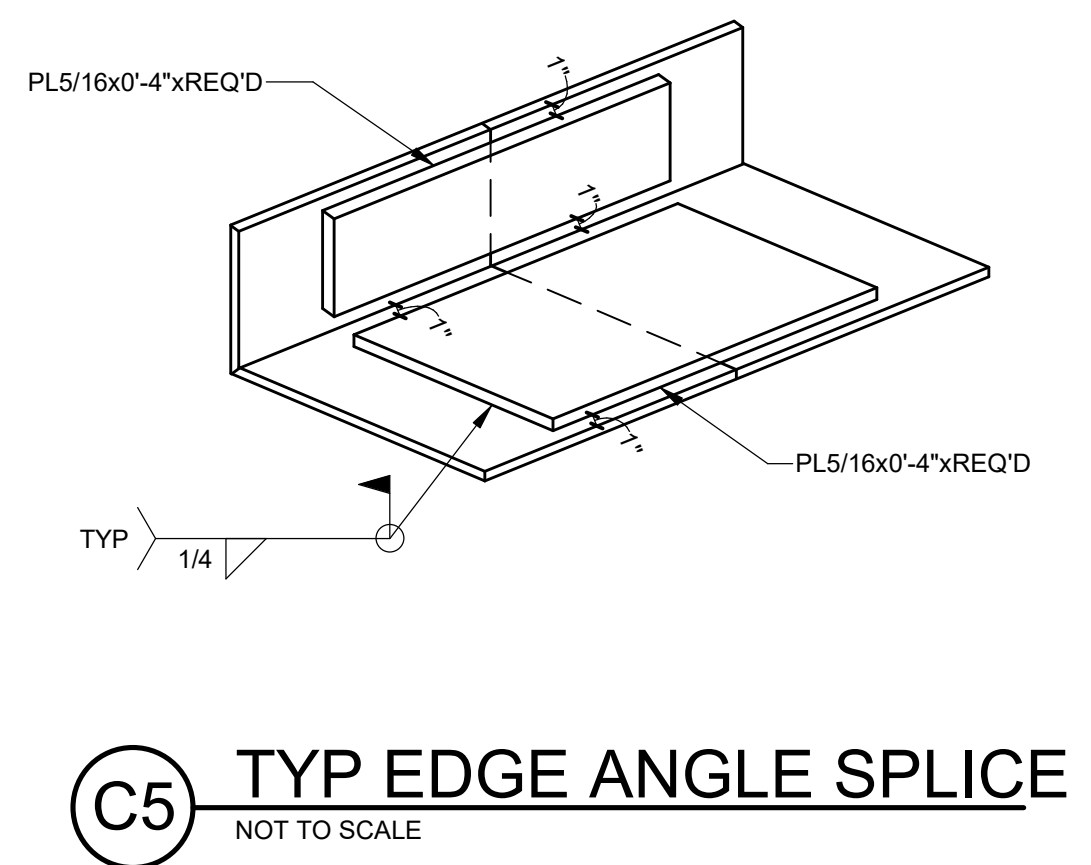
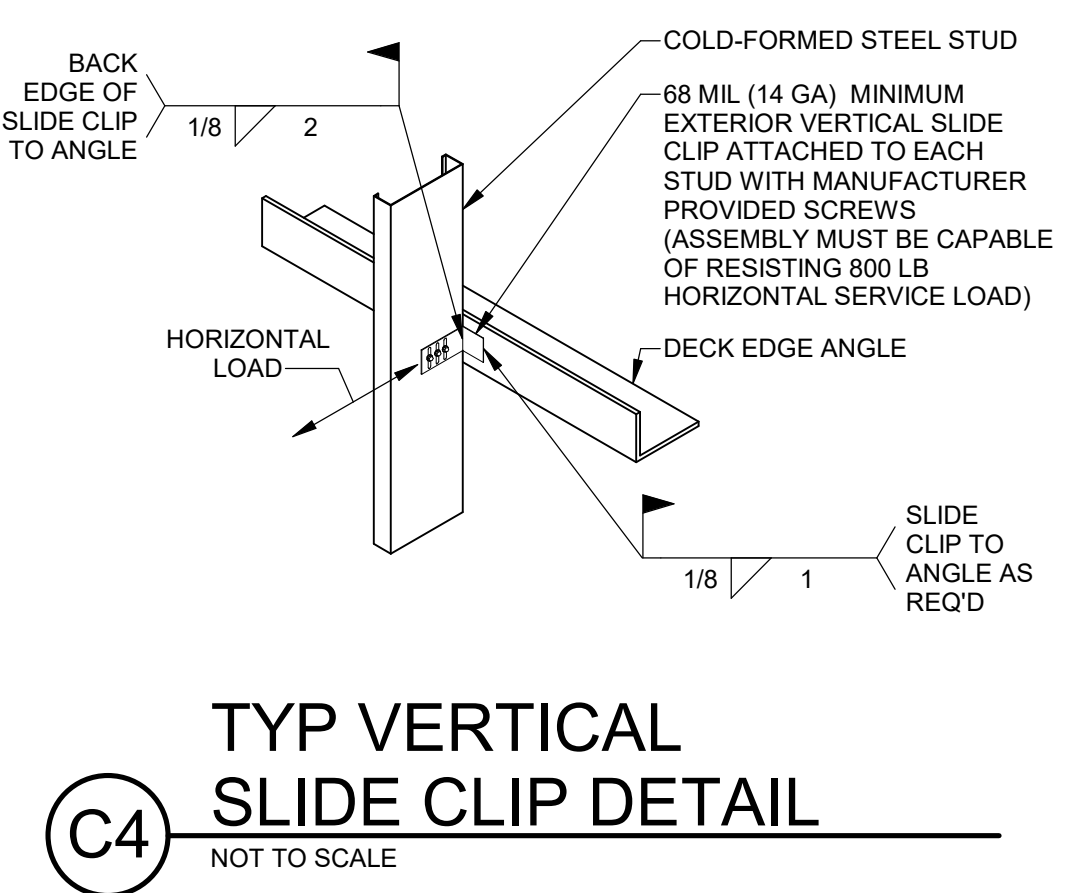
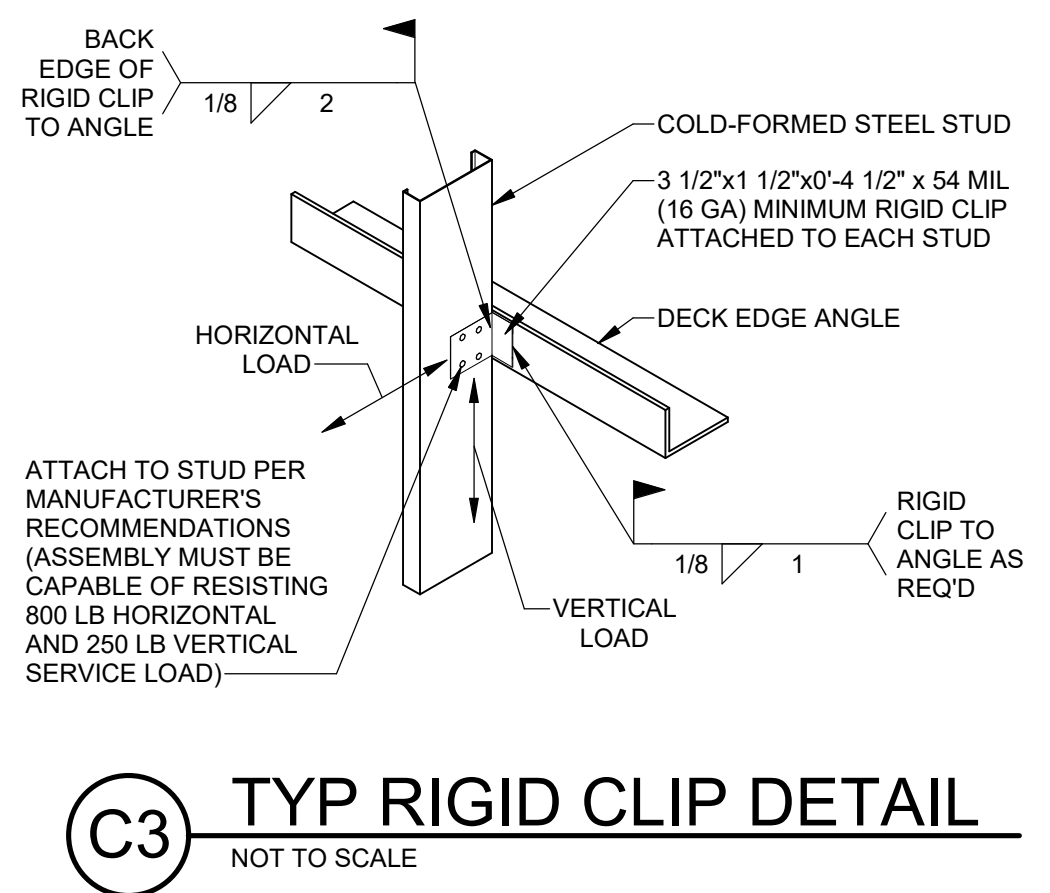
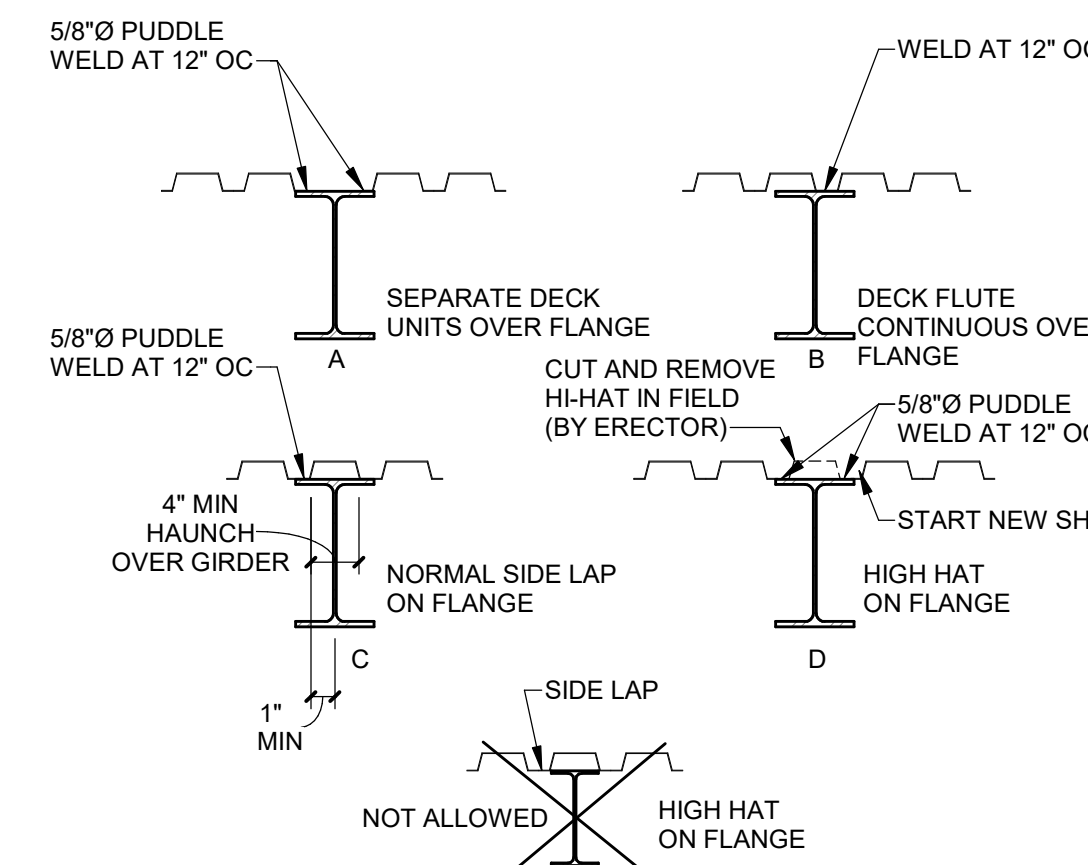
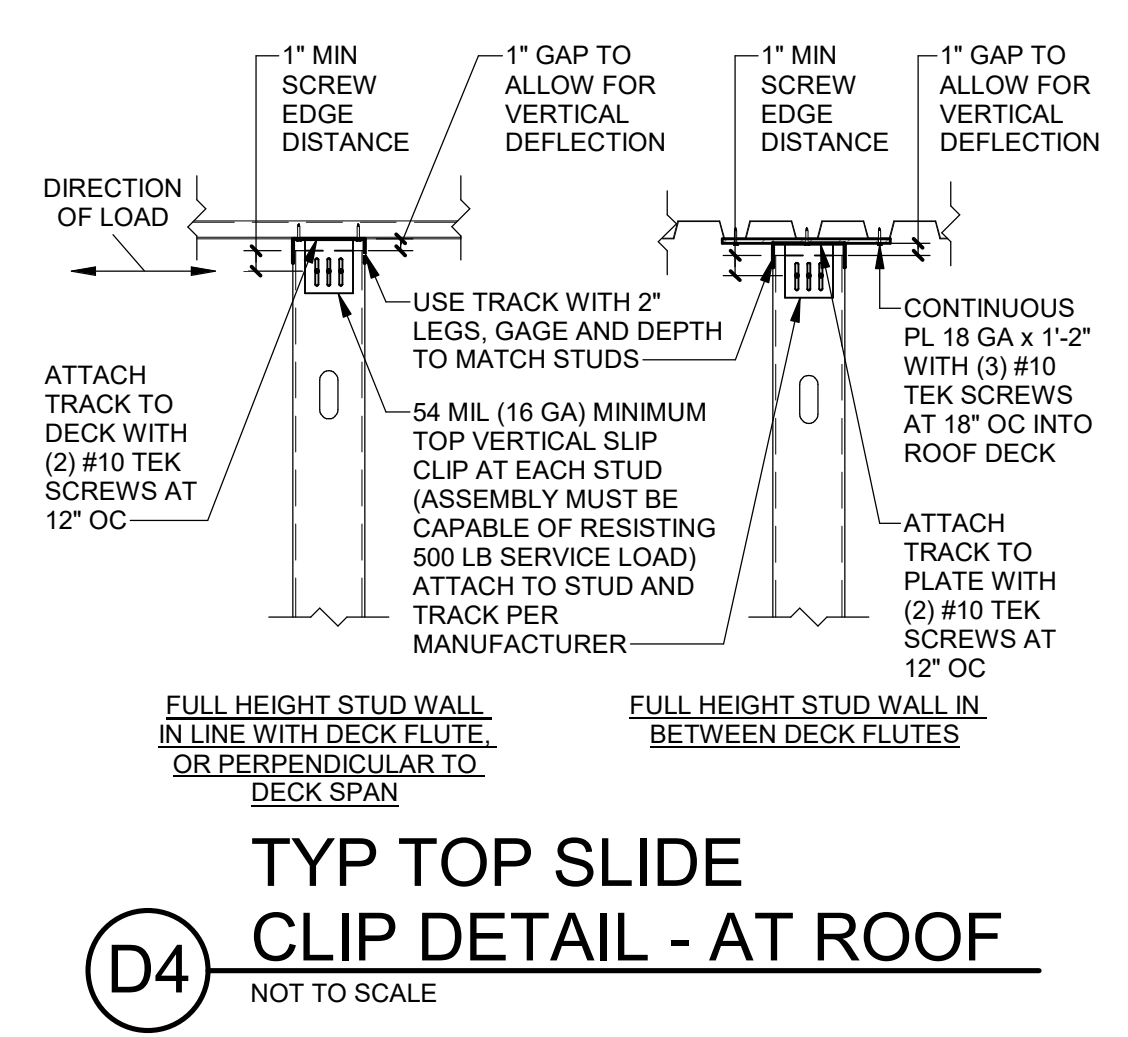
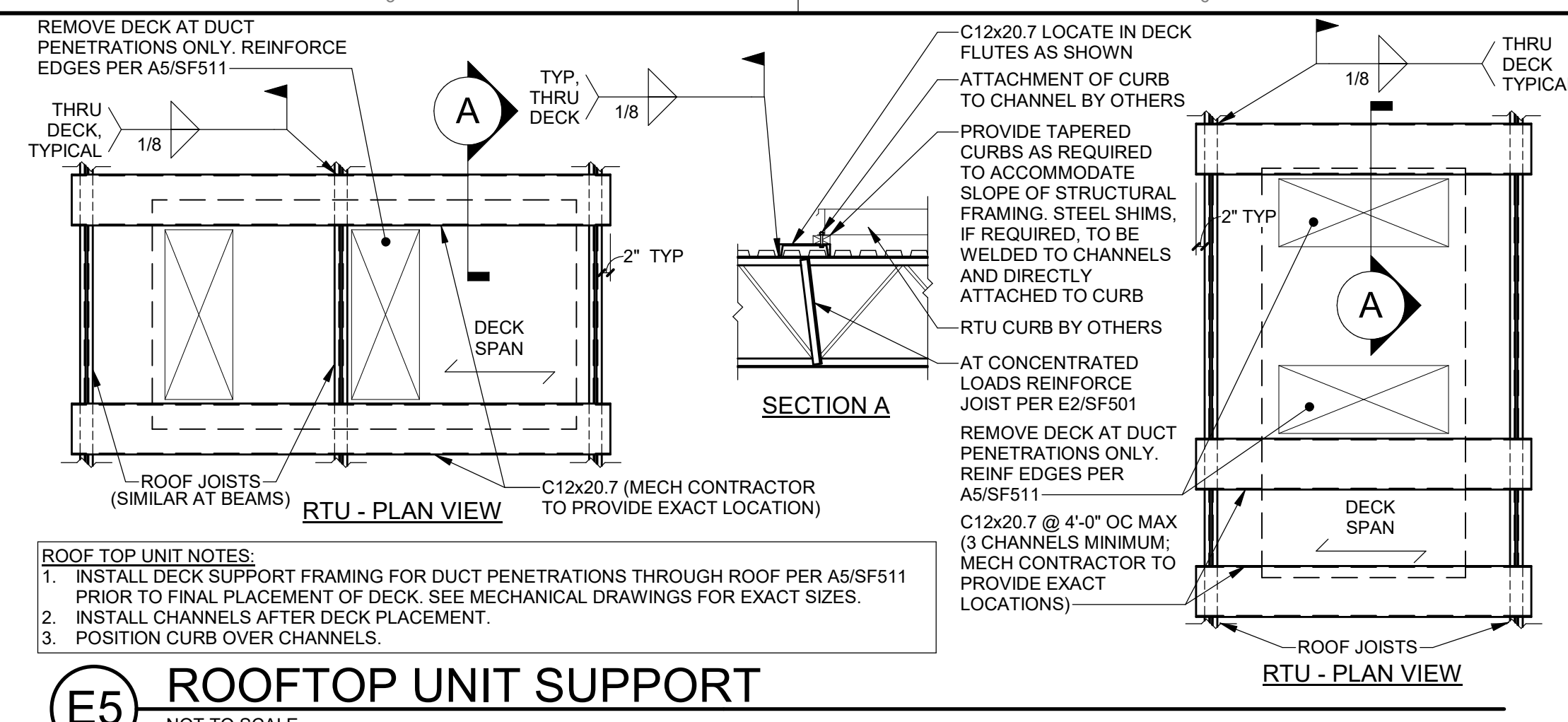
SUPPORTED MEMBER	CONNECTION PLATE THICKNESS	WELD SIZE "A"	QTY 3/4" F3125 GRADE F1852 BOLTS*
W8, W10	3/8"	3/16"	2
W12, W14	3/8"	3/16"	3
W16	3/8"	3/16"	4
W18	1/2"	1/4"	5
W21	1/2"	1/4"	6
W24	1/2"	1/4"	7
W27	5/8"	5/16"	8
W30	5/8"	5/16"	9
W33	5/8"	5/16"	10
W36	5/8"	5/16"	11

* IN SHORT-SLOTTED HOLES, UNLESS NOTE OTHERWISE.



A6 BRACE CONNECTION SCHEDULE
 3/4" = 1'-0"

BRACE SIZE	WELDS				PLATE THICKNESS		QTY F3125 GRADE BOLTS	QTY F1852 GRADE BOLTS
	WELD "V"	WELD "H"	WELD "B"	WELD "H2"	PLATE "A"	PLATE "B"		
HSS5x5x1/4	0"0" x 0"	0"0" x 0"	0"0" x 0"	0"0" x 0"	0"0"	0"0"	(0) 0"0"	-
HSS6x6x1/4	0"0" x 0"	0"0" x 0"	0"0" x 0"	0"0" x 0"	0"0"	0"0"	(0) 0"0"	-
HSS6x6x3/8	0"0" x 0"	0"0" x 0"	0"0" x 0"	0"0" x 0"	0"0"	0"0"	(0) 0"0"	-
HSS8x8x3/8	0"0" x 0"	0"0" x 0"	0"0" x 0"	0"0" x 0"	0"0"	0"0"	(0) 0"0"	-
HSS10x10x1/2	0"0" x 0"	0"0" x 0"	0"0" x 0"	0"0" x 0"	0"0"	0"0"	(0) 0"0"	-
HSS12x12x1/4	0"0" x 0"	0"0" x 0"	0"0" x 0"	0"0" x 0"	0"0"	0"0"	(0) 0"0"	-



**WELD SCHEDULE
COLD-FORMED STEEL FRAMING**

LOCATION	FILLET WELD SIZE & SPACING
STUD TO TRACK	1/8" AT EACH FLANGE
STUD TO STUD	1/8"x2" @ 12" OC AT EACH FLANGE
BUILT-UP LINTEL	1/8"x2" @ 12" OC AT EACH FLANGE OF TRACK
LINTEL TO SUPPORT STUDS	1/8" FOR FULL LENGTH OF BEARING, EA SIDE OF BEAM
TRACK TO TRACK	1/8"x2" @ 12" OC EACH SIDE
TRACK TO STUD AT JAMB	1/8"x3" MINIMUM
LEDGER TO STUD	1/8" TOP & BOTTOM EACH STUD
DIAGONAL KICKER	1/8"x3" TOP & BOTTOM EACH STUD EACH SIDE

COLD-FORMED FRAMING OPENING SCHEDULE

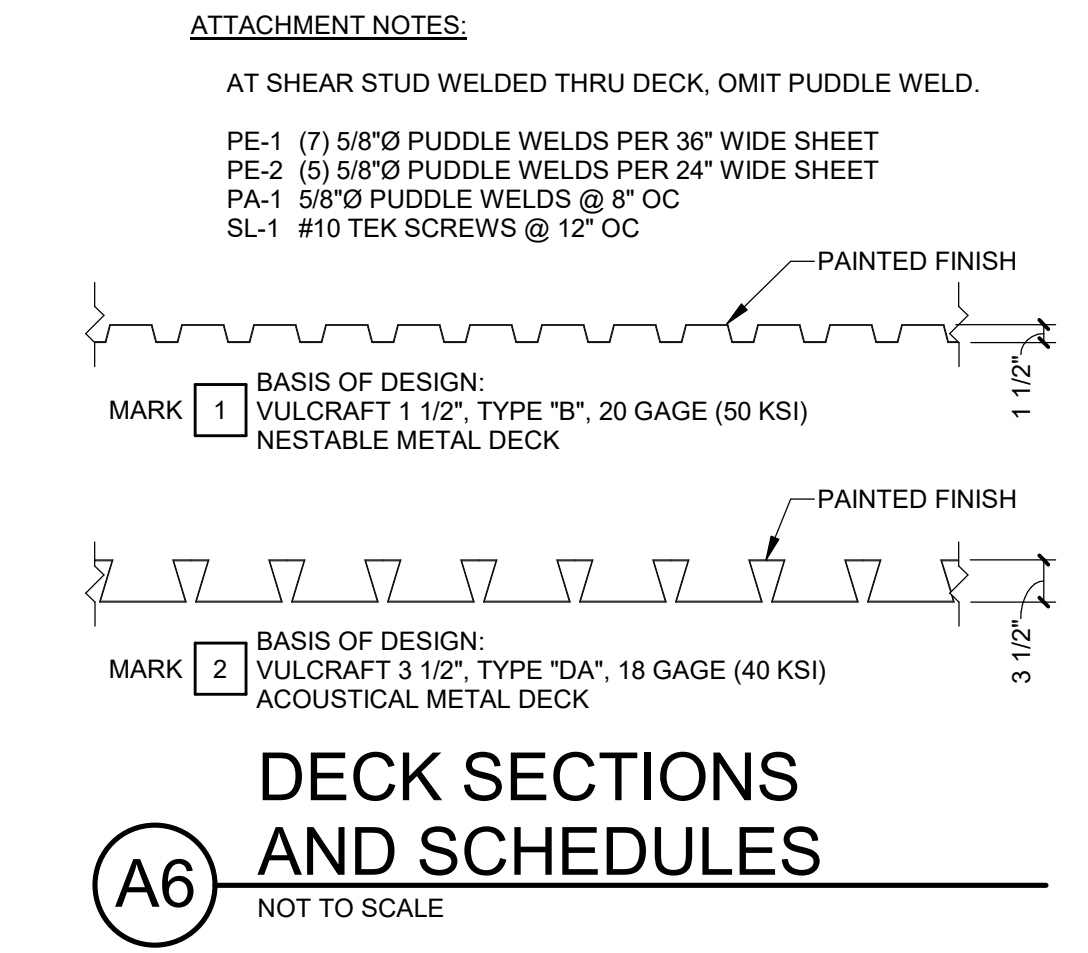
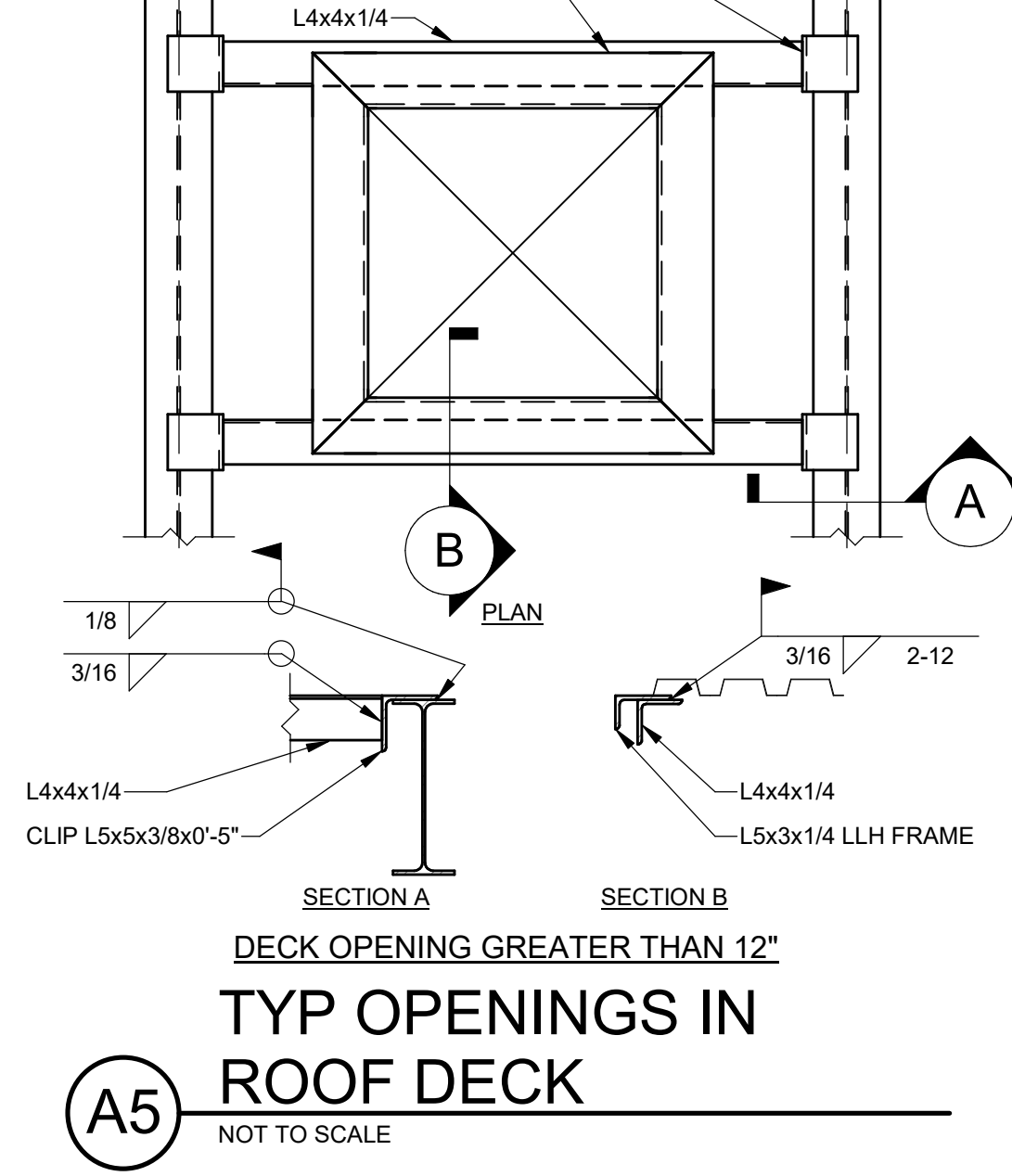
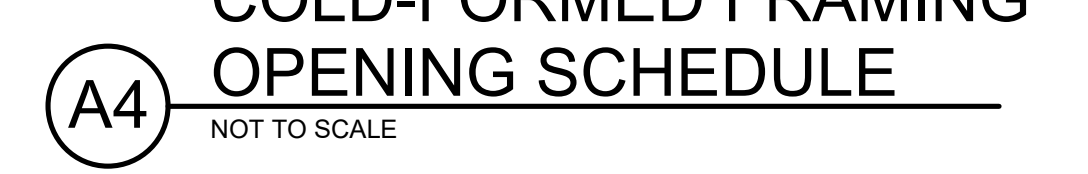
OPENING WIDTH OR MARK	SIZE	STUDS AT BEARING	FULL HEIGHT STUDS	SILL PLATE STUDS
≤ 4'-0"	(1) 600T125-43	1	1	0
≤ 6'-0"	(2) 400S162-33	1	2	0
≤ 8'-0"	(2) 600S162-43	1	2	1
≤ 10'-0"	(3) 600S162-43	1	2	1

NOTES:
1. SEE B3/SF511 FOR TYPICAL OPENING FRAMING CONFIGURATION.
2. ALL STUDS USED FOR BUILT-UP LINTELS AND SILLS SHALL BE UN-PUNCHED.

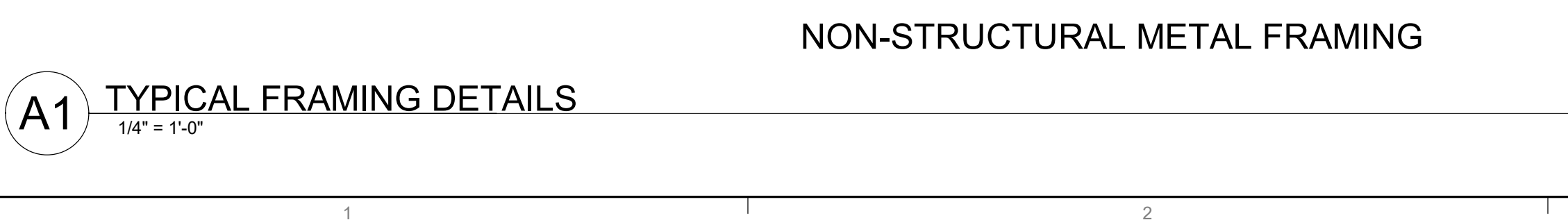
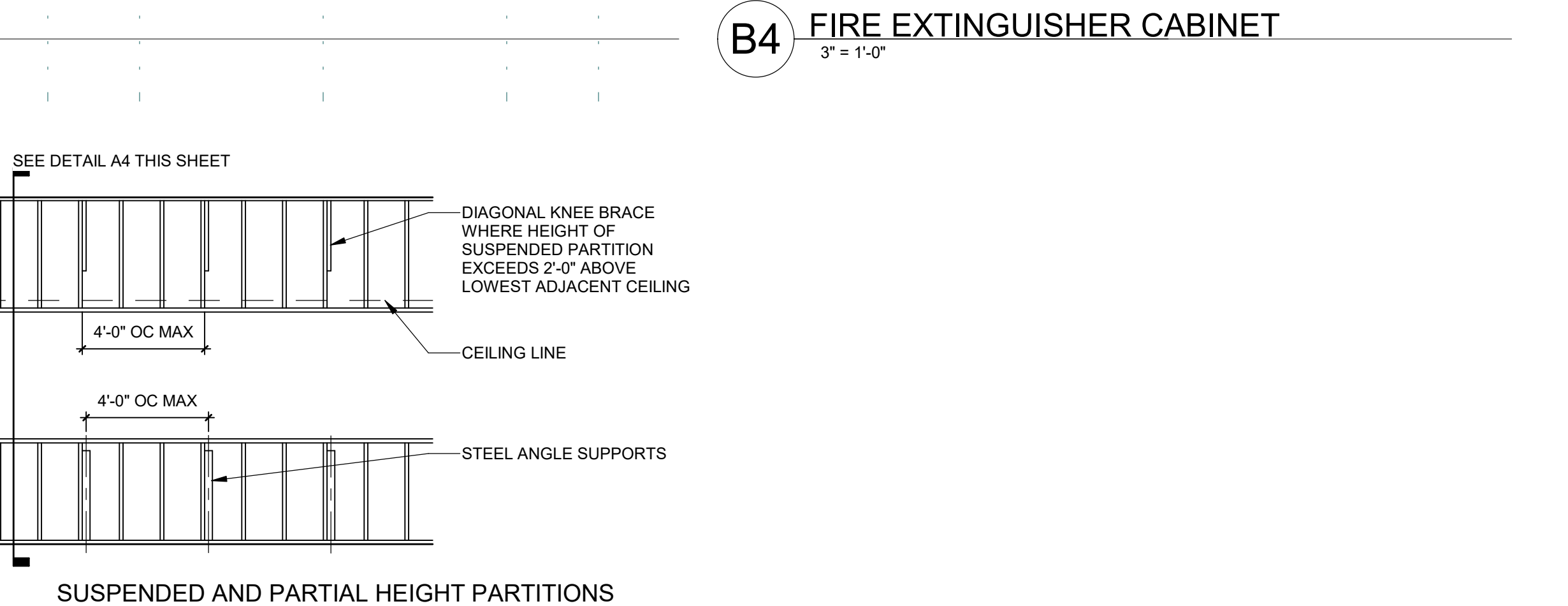
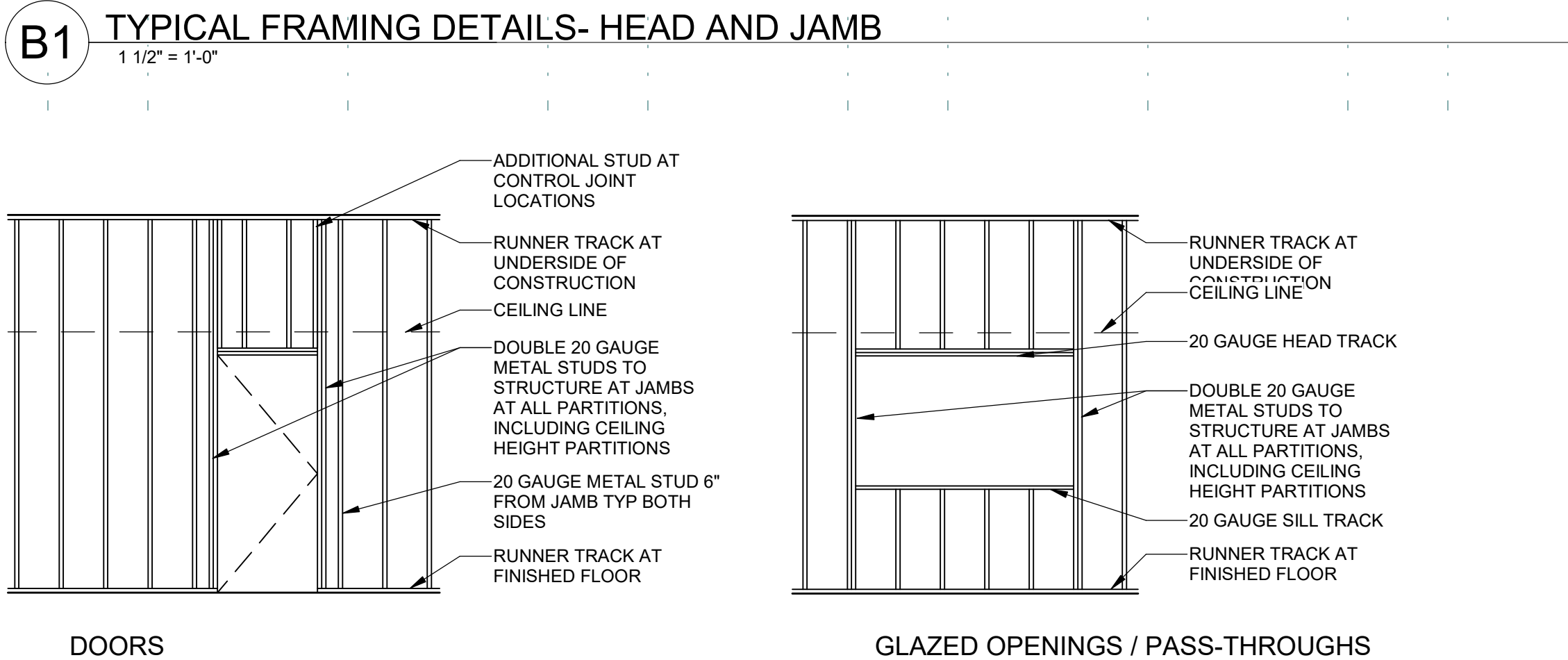
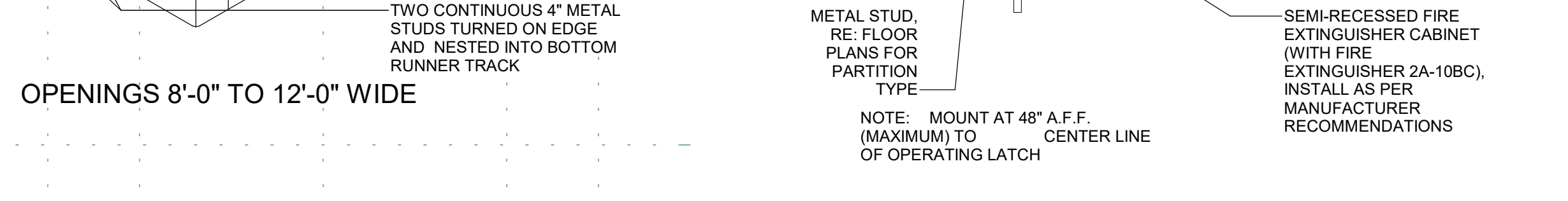
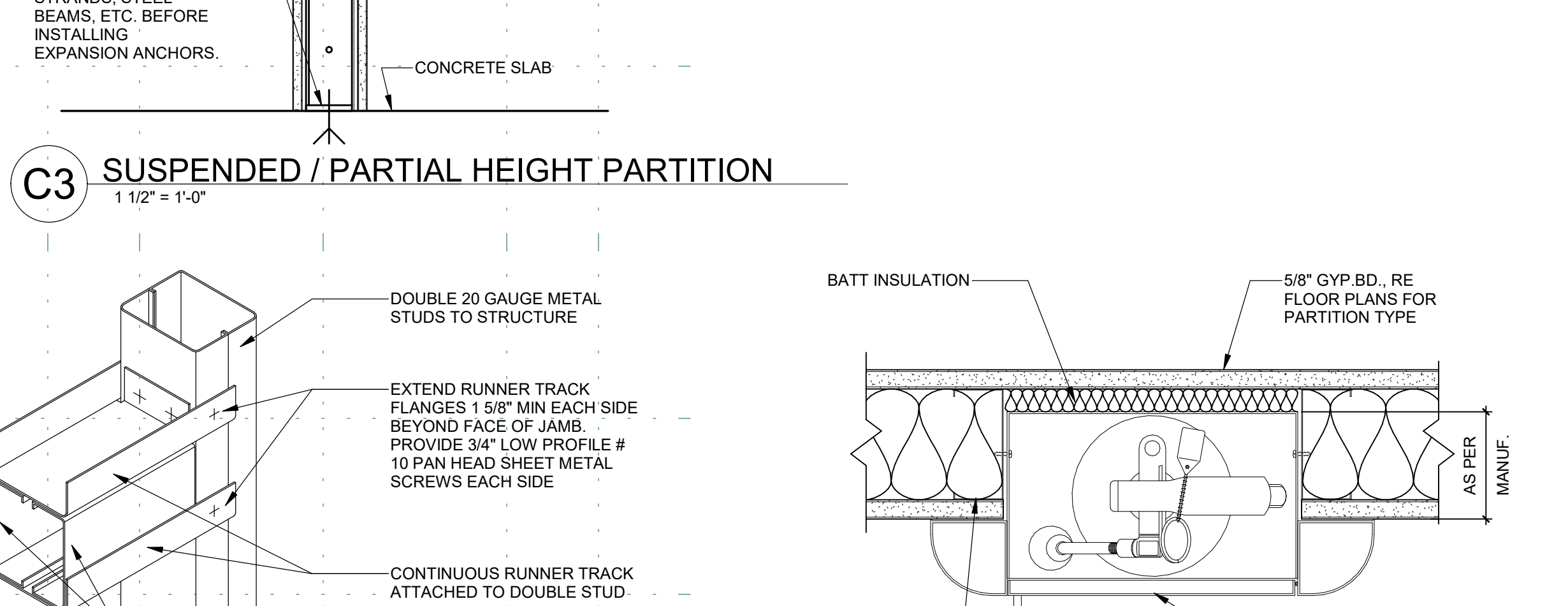
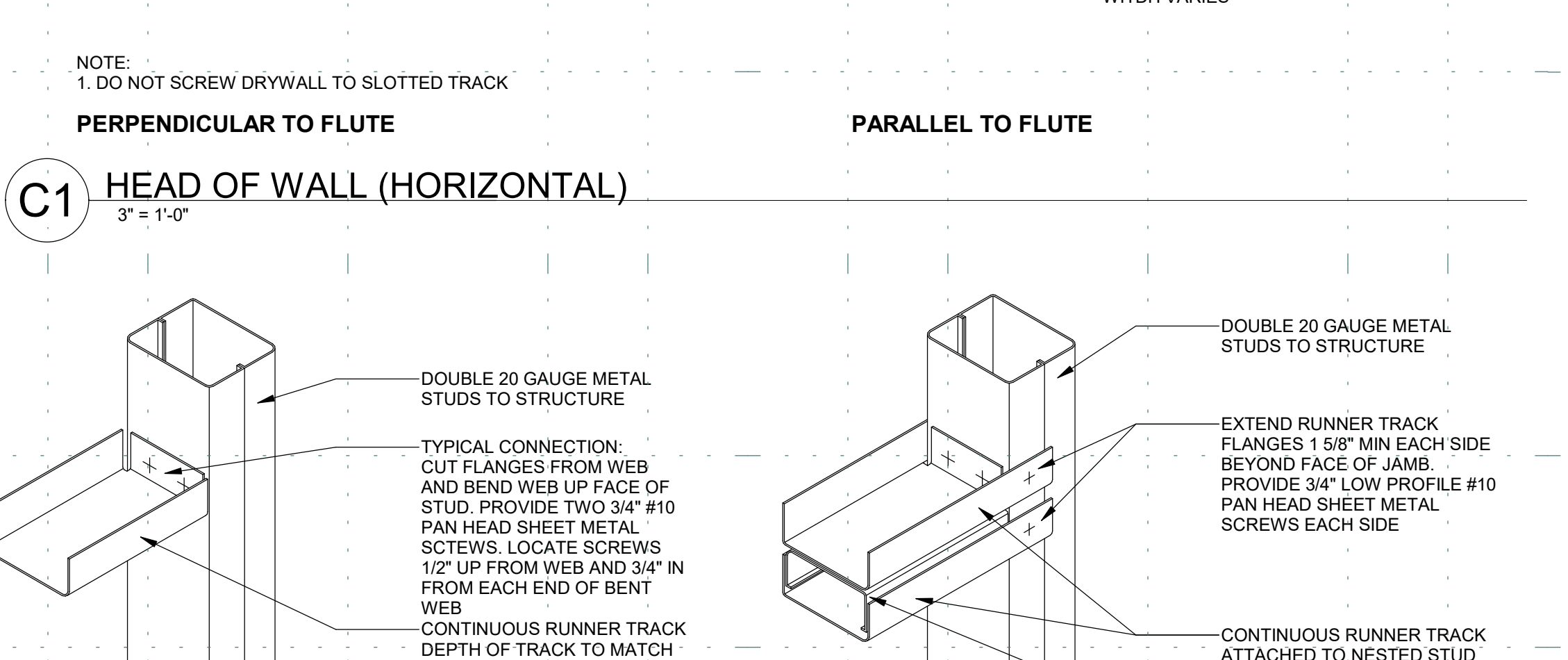
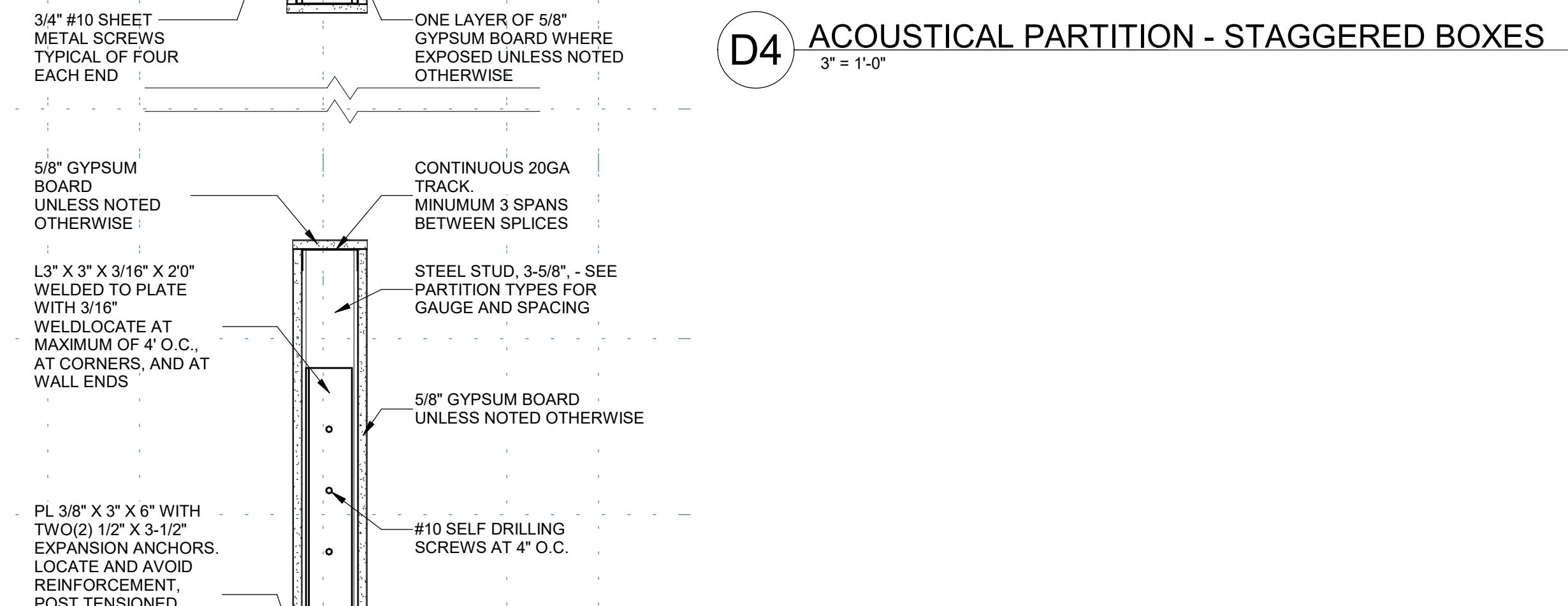
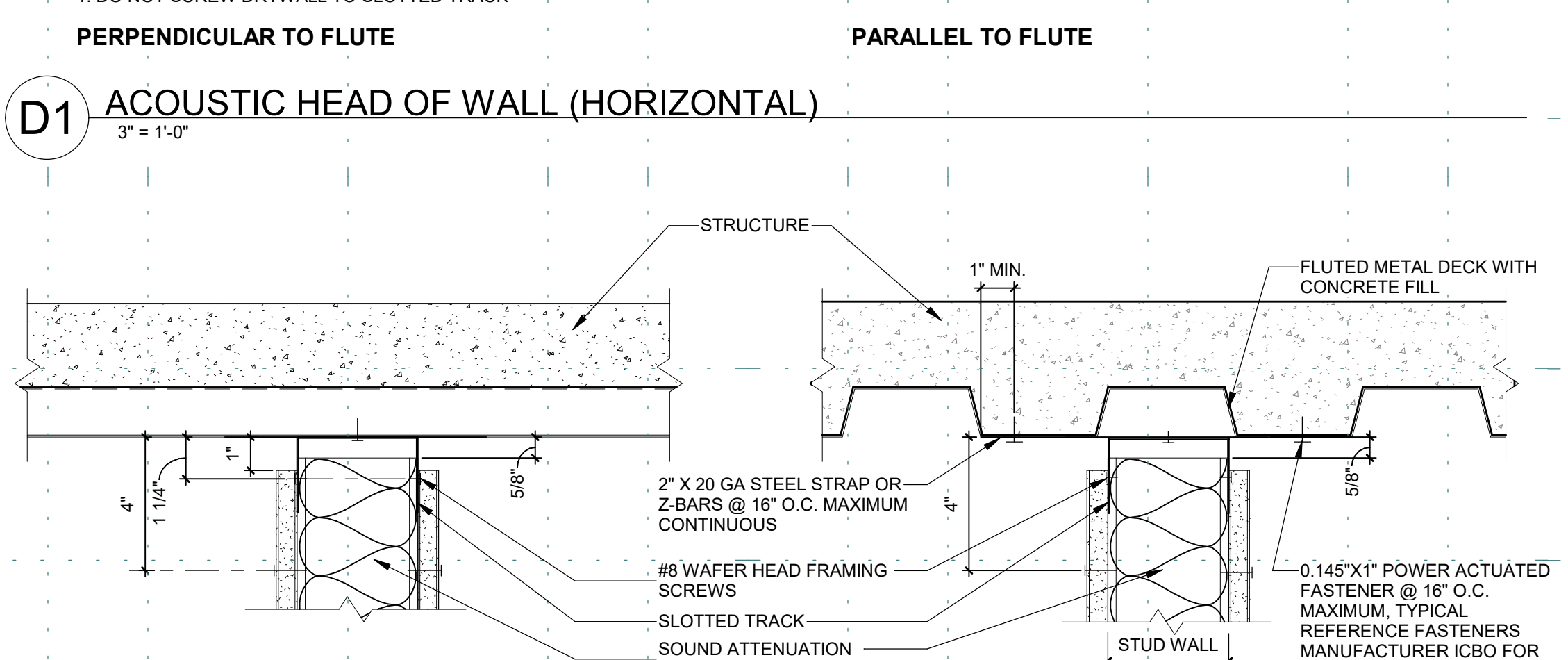
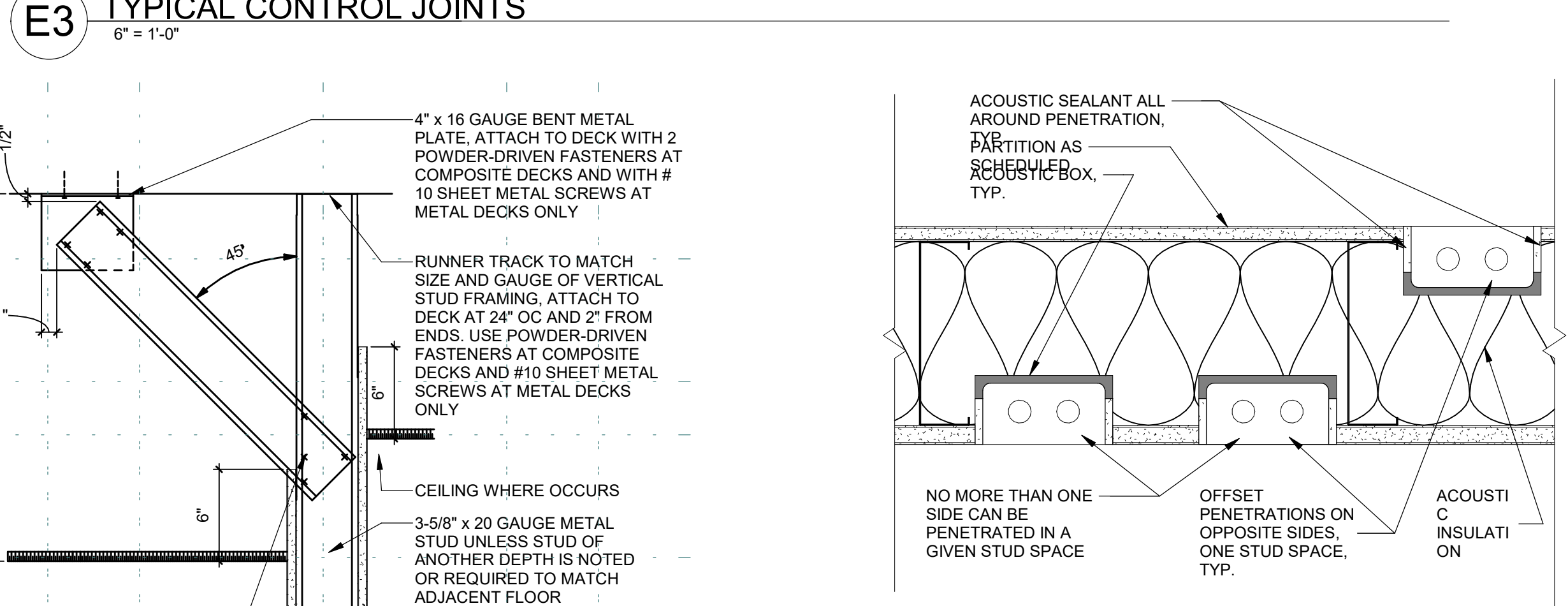
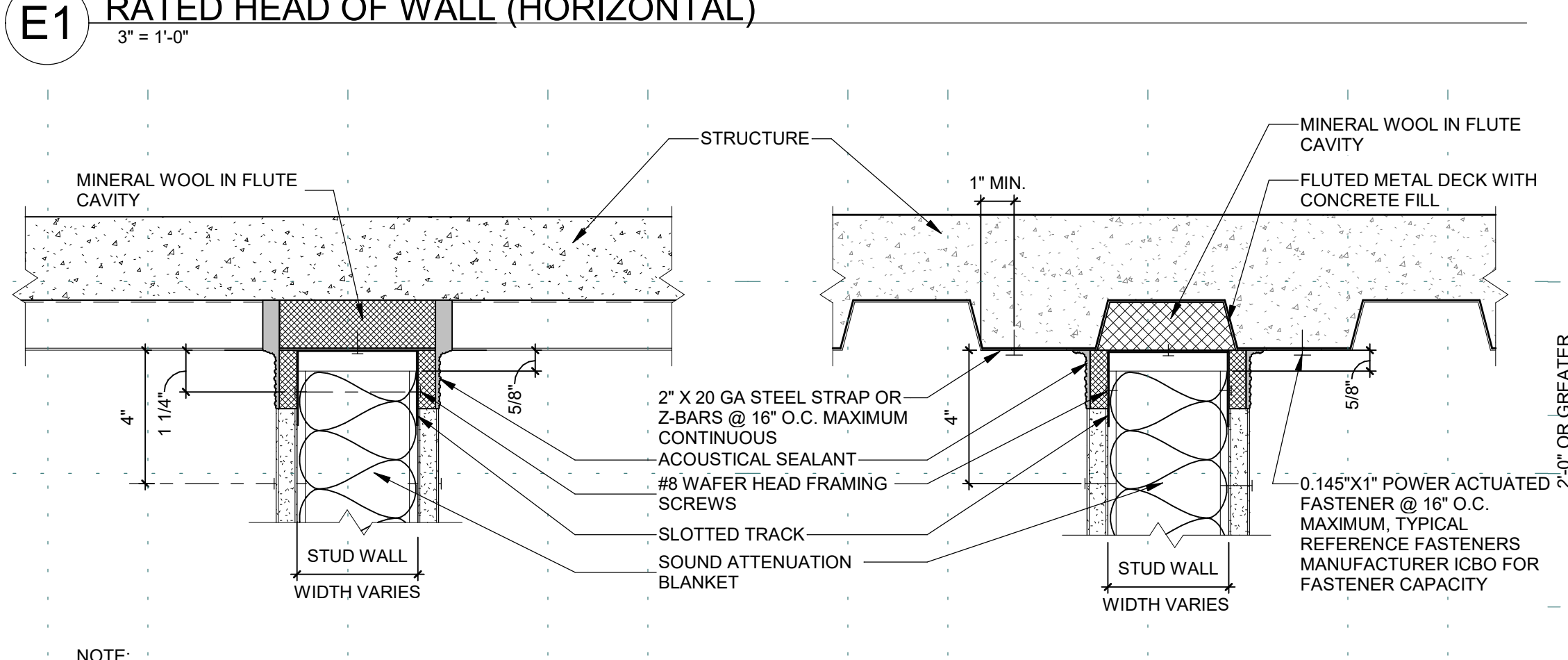
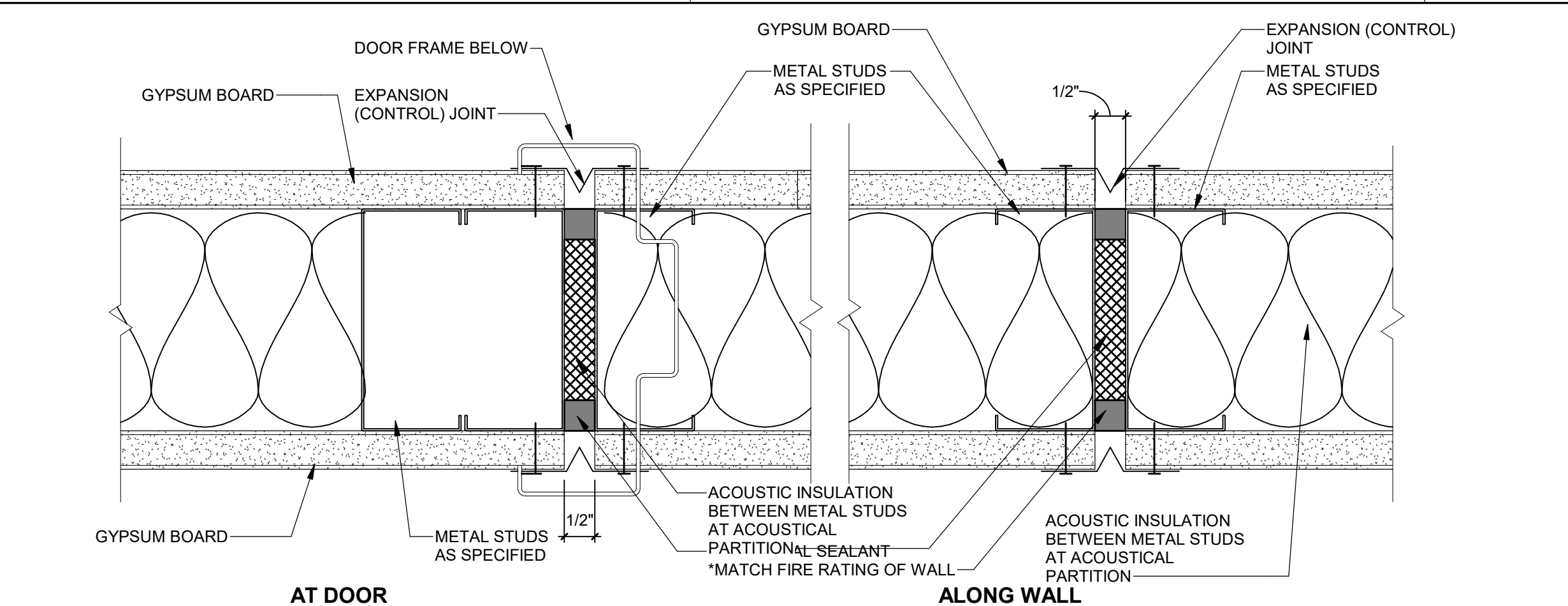
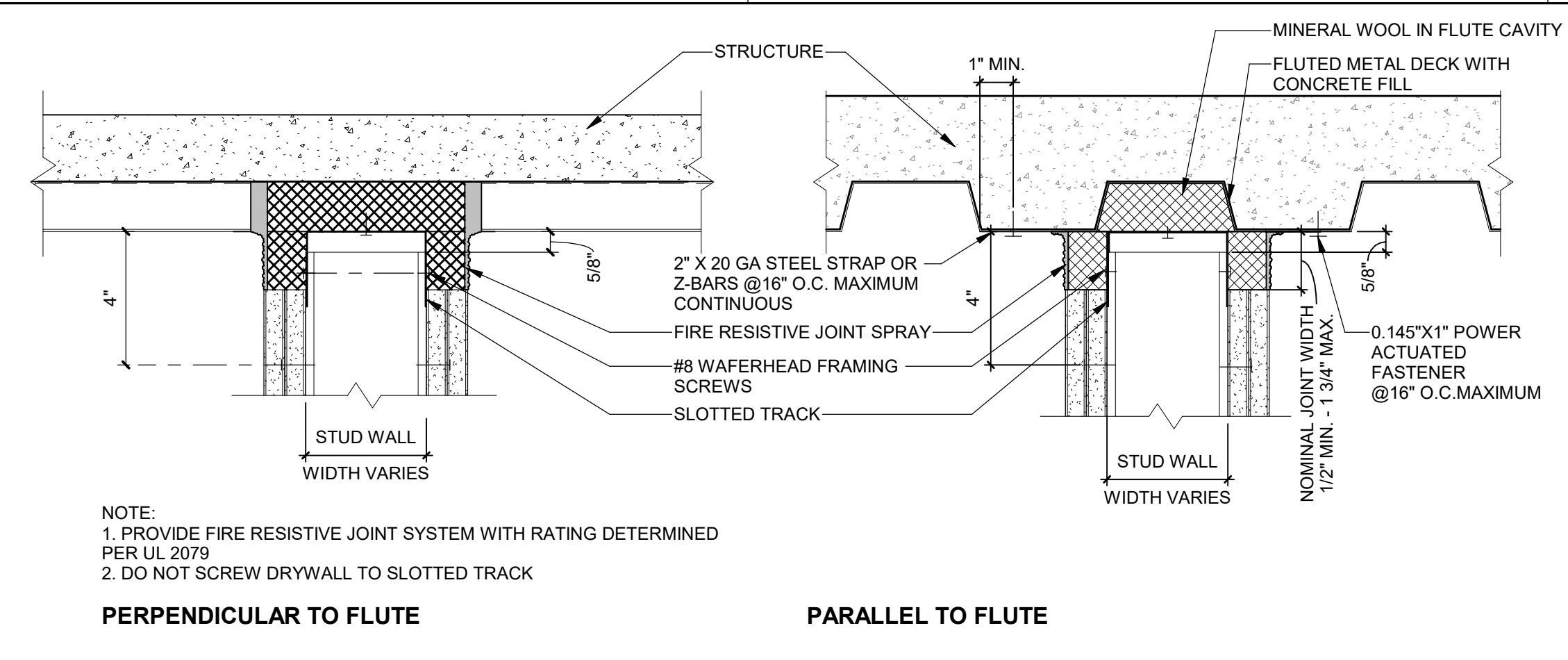
STEEL DECK SCHEDULE

DECK MARK	MINIMUM DECK PROPERTIES				ATTACHMENT (SEE NOTES BELOW)		
	I_x (in ⁴)	S_x (in ³)	I_y (in ⁴)	S_y (in ³)	PERP SUPPORTS	PARALLEL SUPPORTS	SIDELAPS
1	0.155	0.169	0.178	0.179	PE-1	PA-1	SL-1
2	2.098	0.934	1.950	0.928	PE-2	PA-1	SL-1

ATTACHMENT NOTES:
AT SHEAR STUD WELDED THRU DECK, OMIT PUDDLE WELD.
PE-1 (7) 5/8" PUDDLE WELDS PER 36" WIDE SHEET
PE-2 (5) 5/8" PUDDLE WELDS PER 24" WIDE SHEET
PA-1 5/8" PUDDLE WELDS @ 8" OC
SL-1 #10 TEK SCREWS @ 12" OC



PARTITION TYPE LEGEND		
PARTITION NUMBER (UNO):		
METAL FRAMING		
0%	= FULL HEIGHT TO STRUCTURE	
10%	= PARTIAL HEIGHT (6" ABOVE CEILING UNO)	
20%	= FIRE RATED	
30%	= FIRE RATED (CT STUDS)	
40%	= ACOUSTIC RATED	
WOOD FRAMING		
50%	= FULL/PARTIAL HEIGHT	
60%	= FIRE RATED	
70%	= ACOUSTIC RATED	
80%	= DEMISING	
90%	= CUSTOM	
NOTE: SEE PARTITION TYPES THIS SHEET FOR MORE DETAILED ASSEMBLY INFORMATION		
PARTITION TYPE SCHEDULE		
TYPE MARK	TYPE IMAGE	WALL ASSEMBLY
02A		FULL HEIGHT • 5/8" GYPSUM BOARD • 3 5/8" METAL STUDS • 5/8" GYPSUM BOARD TOTAL WIDTH 7 1/8" COMMENTS: EXTEND TO UNDERSIDE OF DECK ABOVE
02B		FULL HEIGHT • 5/8" GYPSUM BOARD • 6" METAL STUDS • 5/8" GYPSUM BOARD TOTAL WIDTH 7 1/4" COMMENTS: EXTEND TO UNDERSIDE OF DECK ABOVE
02C		FULL HEIGHT • 5/8" GYPSUM BOARD • 6" METAL STUDS, 6" METAL STUDS • 5/8" GYPSUM BOARD TOTAL WIDTH 1-1 1/4" COMMENTS: EXTEND TO UNDERSIDE OF DECK ABOVE
03A		FULL HEIGHT • 5/8" QUIET ROCK • 6" METAL STUDS • 5/8" QUIET ROCK TOTAL WIDTH 7 1/8" COMMENTS: EXTEND TO UNDERSIDE OF DECK ABOVE
03B		FULL HEIGHT • 5/8" QUIET ROCK • 6" METAL STUDS • 5/8" QUIET ROCK TOTAL WIDTH 7 1/4" COMMENTS: EXTEND TO UNDERSIDE OF DECK ABOVE
04A		FULL HEIGHT • 5/8" GYPSUM BOARD • 3 5/8" METAL STUDS • 5/8" GYPSUM BOARD TOTAL WIDTH 4 1/4" COMMENTS: EXTEND TO UNDERSIDE OF DECK ABOVE
04A		FULL HEIGHT • 5/8" GYPSUM BOARD • 3 5/8" METAL STUDS • 5/8" GYPSUM BOARD TOTAL WIDTH 4 1/4" COMMENTS: EXTEND TO UNDERSIDE OF DECK ABOVE
04B		FULL HEIGHT • 5/8" GYPSUM BOARD • 6" METAL STUDS • 5/8" QUIET ROCK TOTAL WIDTH 6 5/8" COMMENTS: EXTEND TO UNDERSIDE OF DECK ABOVE
5A		FULL HEIGHT • 5/8" QUIET ROCK • 3 5/8" METAL STUDS • 5/8" QUIET ROCK TOTAL WIDTH 4 1/4" COMMENTS: EXTEND TO UNDERSIDE OF DECK ABOVE
04B		FULL HEIGHT • 5/8" GYPSUM BOARD • 6" METAL STUDS • 5/8" QUIET ROCK TOTAL WIDTH 6 5/8" COMMENTS: EXTEND TO UNDERSIDE OF DECK ABOVE

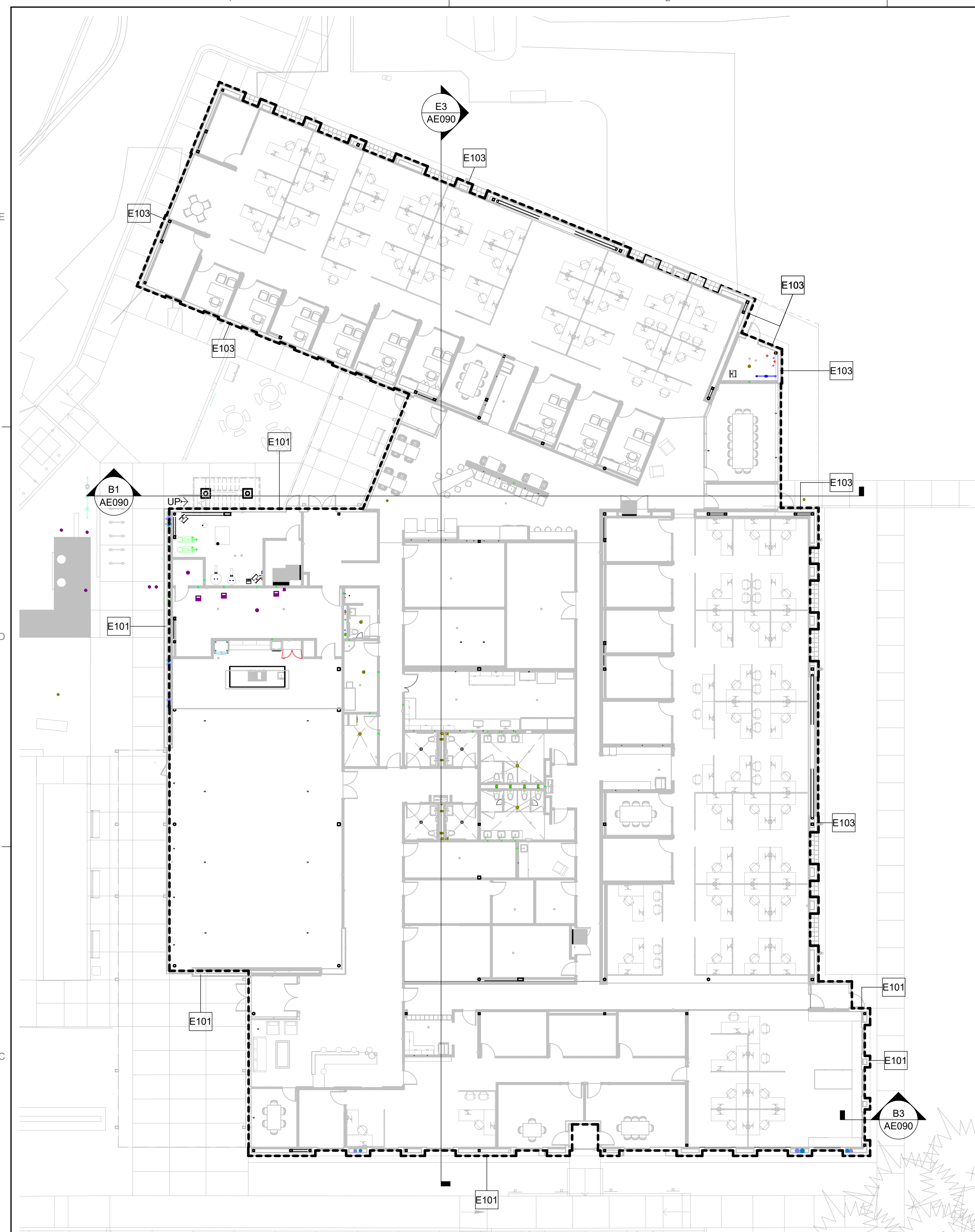


GENERAL SHEET NOTES

A. EXTEND GYPSUM WALL BOARD ON THE INTERIOR SIDE OF EXTERIOR WALLS TO BOTTOM OF ROOF DECK ABOVE UNLESS NOTED OTHERWISE.

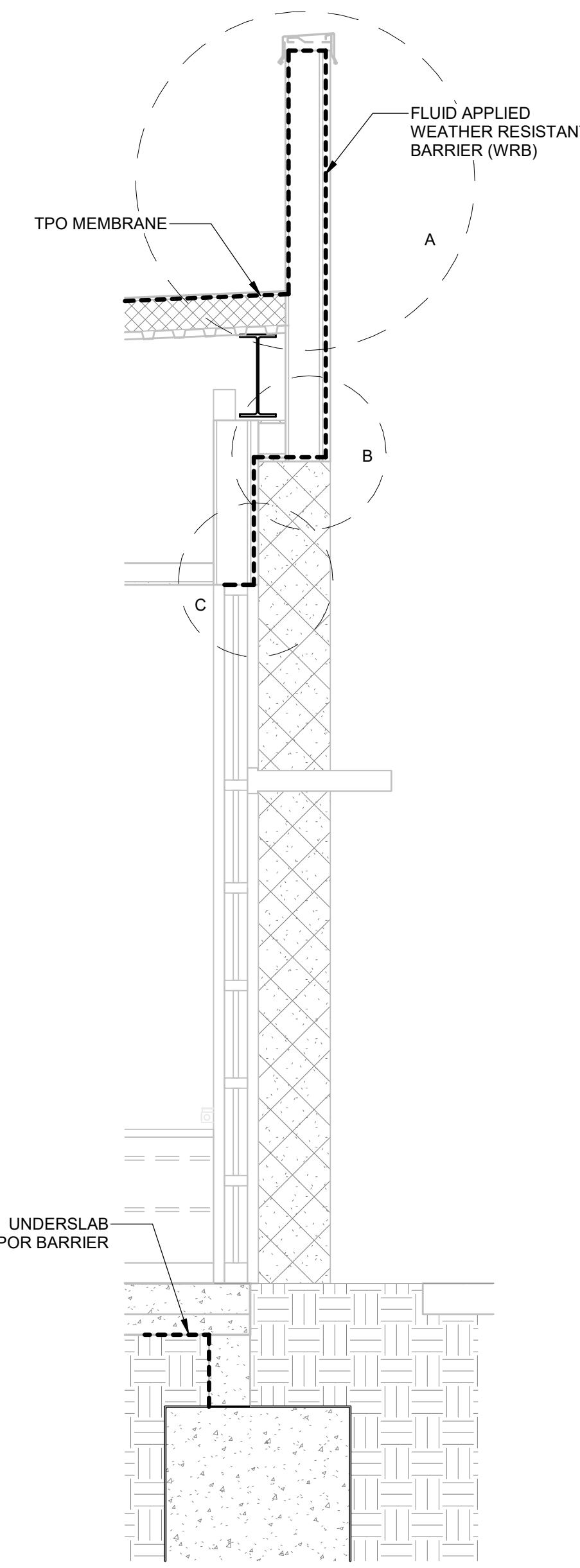
LEGEND

EXTENT OF BUILDING ENVELOPE, EXTERIOR FINISH ASSEMBLIES AND THEIR TRANSITIONS ALONG THE EXTENT OF THE BUILDING ENVELOPE LINE TO HAVE CONTINUOUS WEATHER BARRIER AND THERMAL CONTROL. CONFIRM COMPATIBILITY OF ANY OVERLAPPING PRODUCTS WITH MANUFACTURERS IN ORDER TO MAINTAIN PROPER WARRANTIES AND ENCLOSURE CONTINUITY.

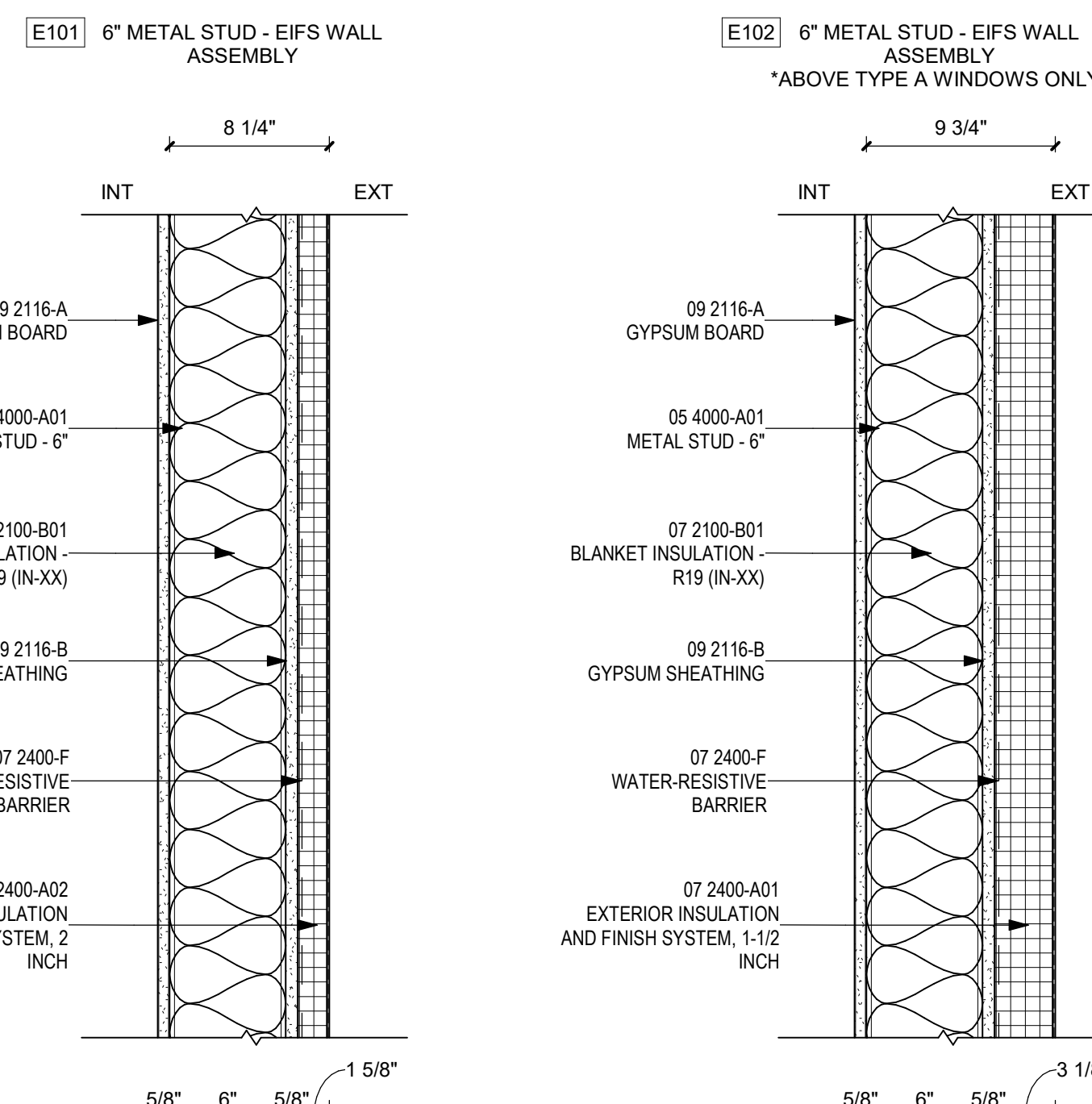


C1 OVERALL FLOOR PLAN
1/16" = 1'-0"

E3 BUILDING SECTION
1/16" = 1'-0"

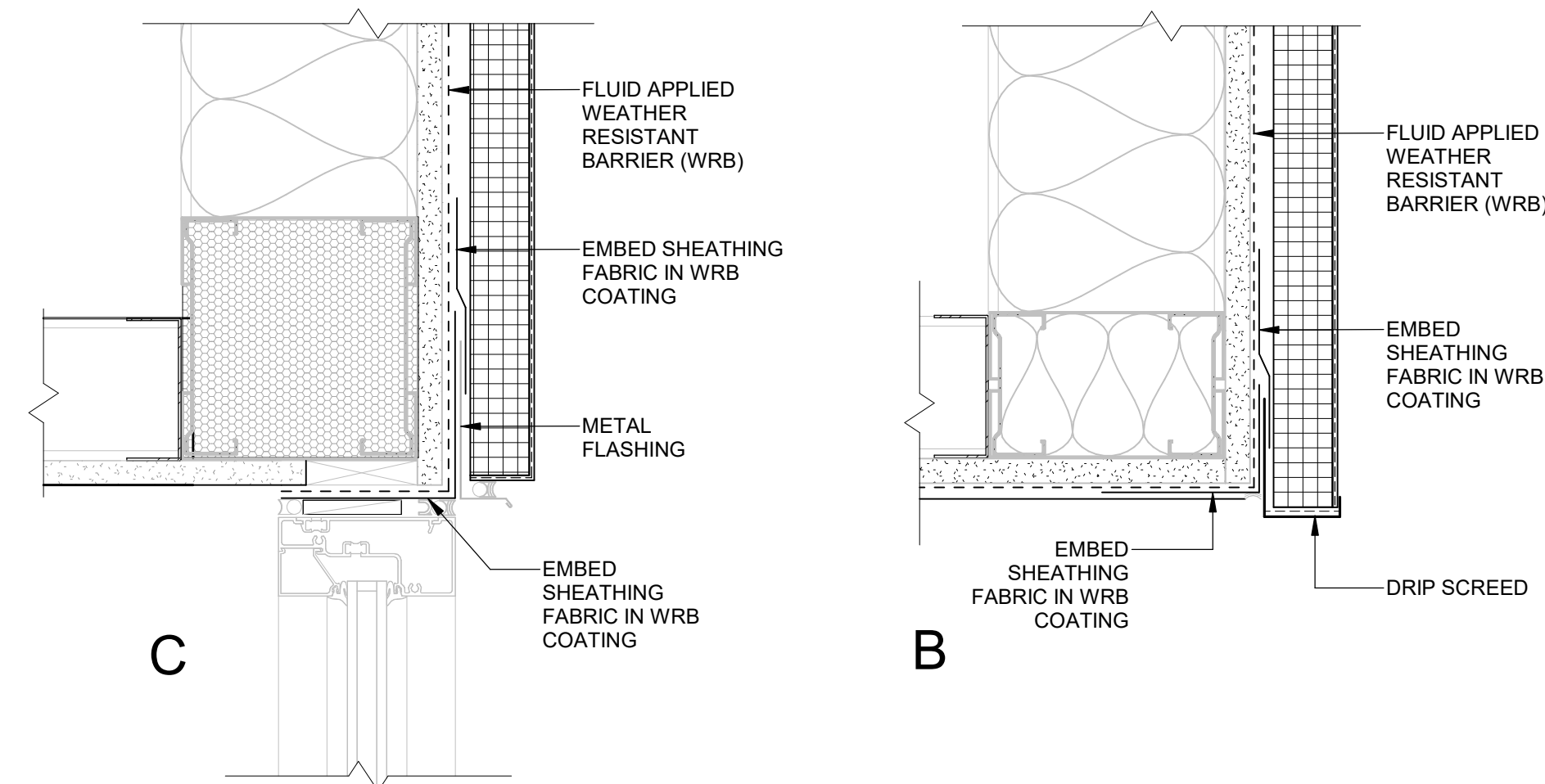


B3 WALL SECTION
1/2" = 1'-0"

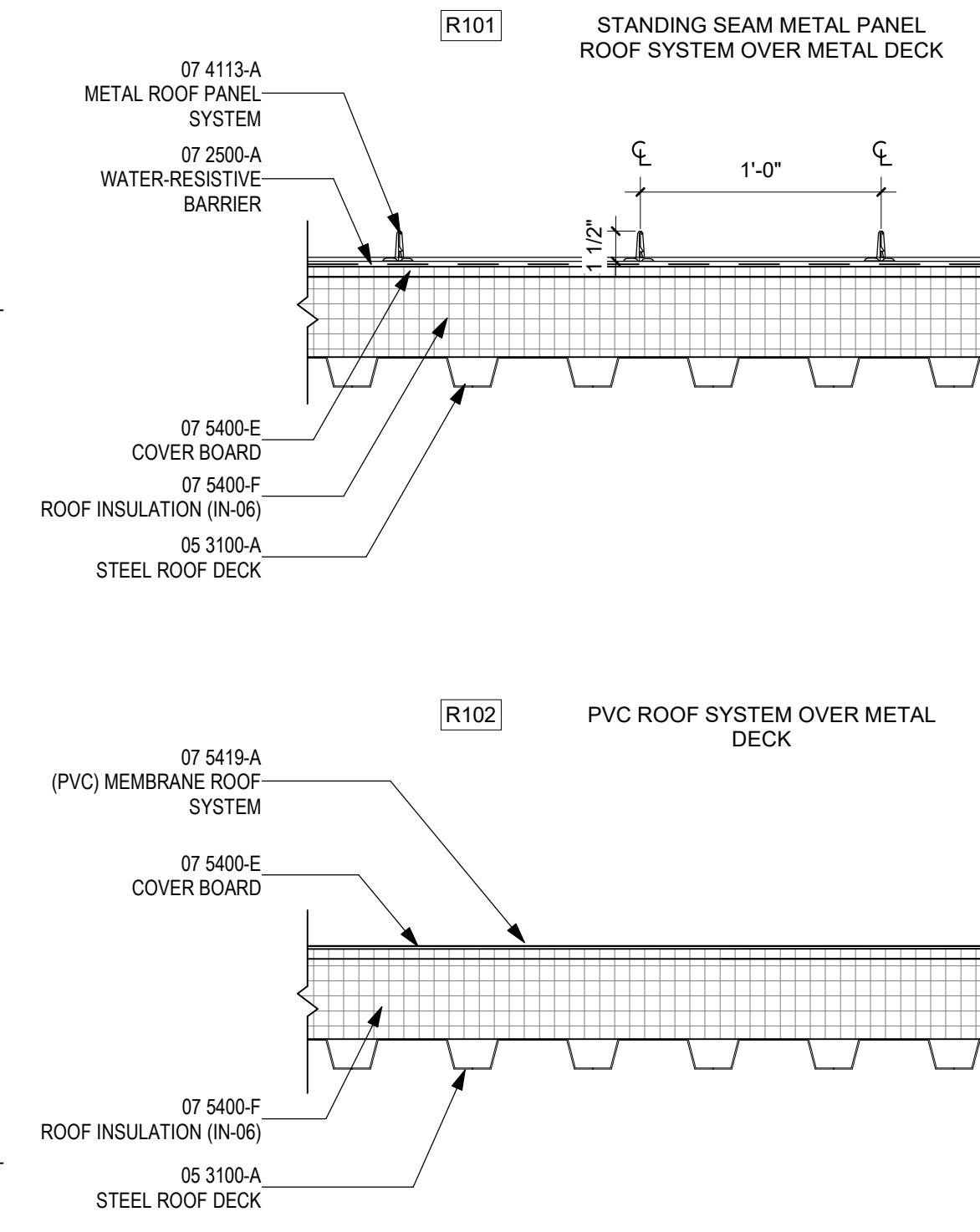


A3 EXTERIOR WALL TYPES
1 1/2" = 1'-0"

B4 TYPICAL ENCLOSURE CONTROL LAYERS
3" = 1'-0"

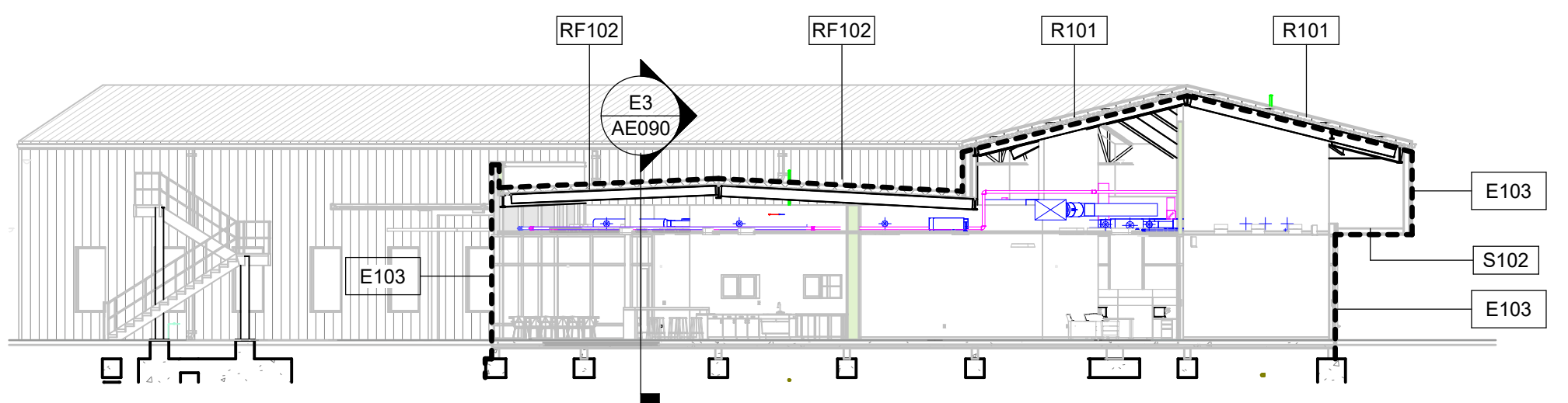


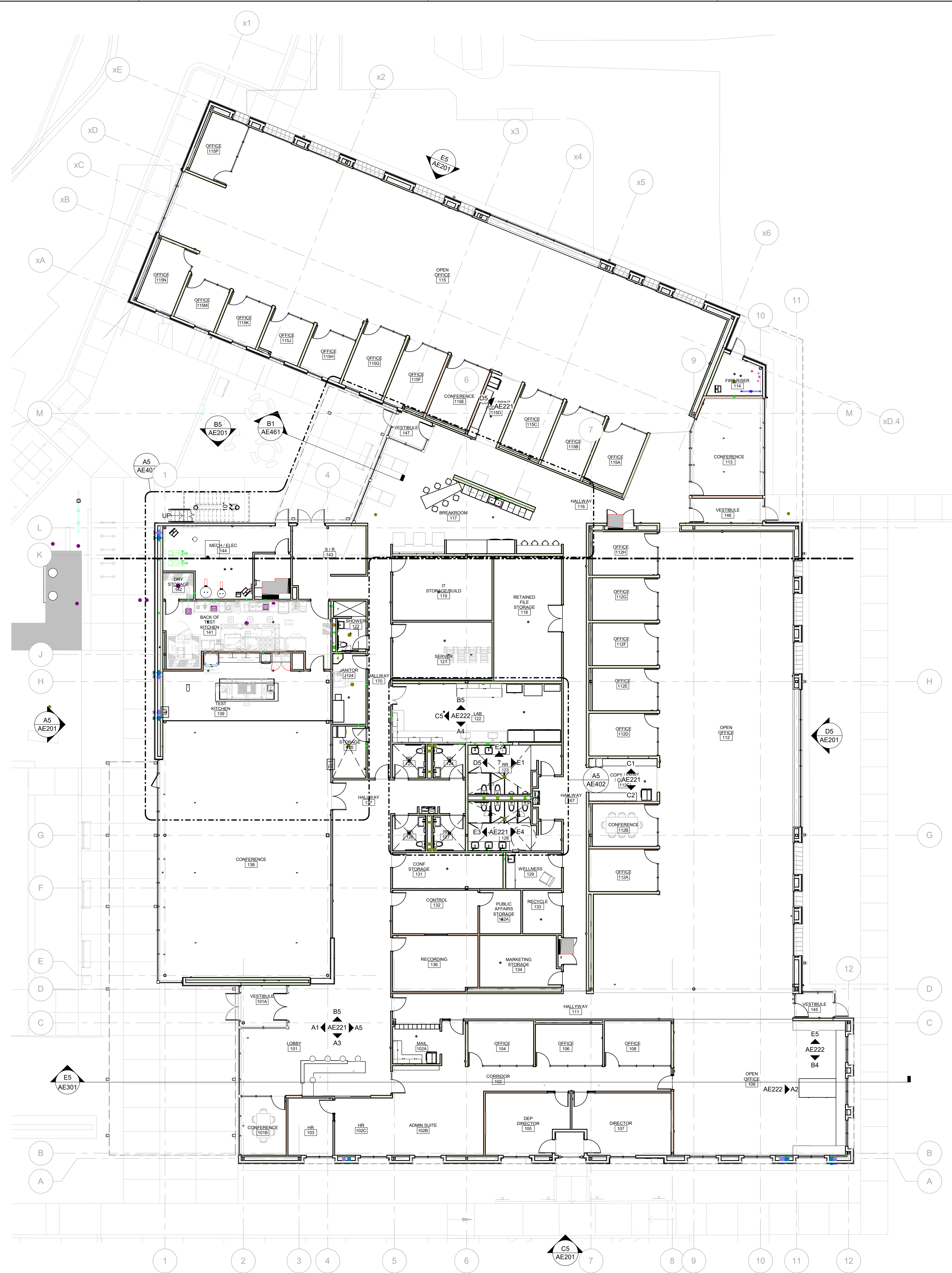
D5 EXTERIOR SOFFIT TYPES
1 1/2" = 1'-0"



A5 EXTERIOR ROOF TYPES
1 1/2" = 1'-0"

B1 BUILDING SECTION
1/16" = 1'-0"





GENERAL SHEET NOTES

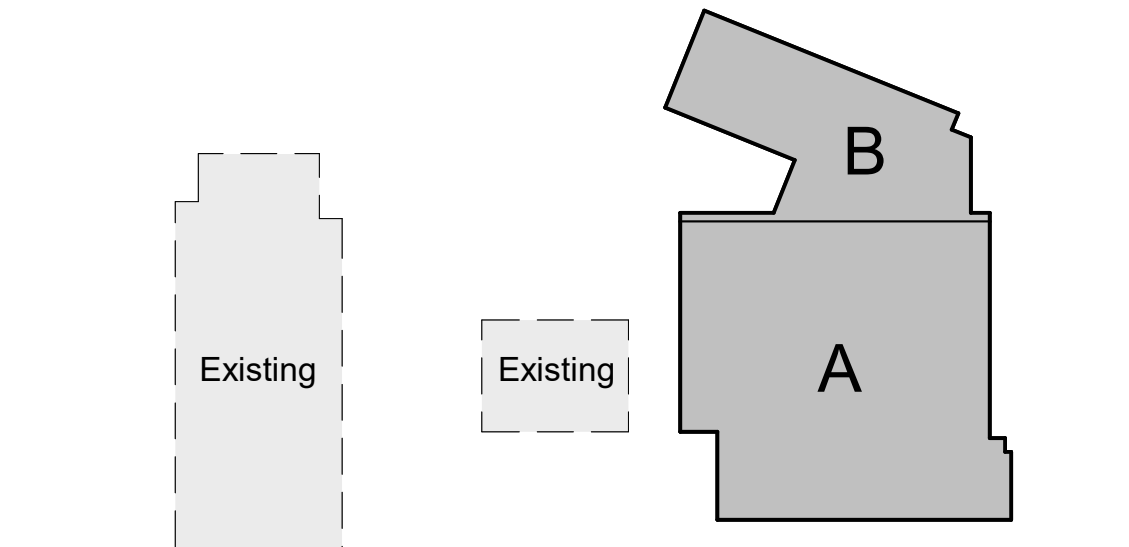
- A. ALL PLAN DIMENSIONS ARE TO FINISHED FACE OF STUD OR CENTER OF COLUMN UNLESS NOTED OTHERWISE.
- B. REFER TO CIVIL FOR REFERENCE M.S.L.E.
- C. REFER TO AF SHEETS FOR INTERIOR FINISH INFORMATION.
- D. ALL WOOD BLOCKING, SHIMS AND PLYWOOD INSTALLED WITHIN WALL ENCLOSURES TO BE FIRE RETARDANT.
- E. REFER TO SHEET AE10 FOR PARTITION TYPES.
- F. REFER TO SHEET AE121 FOR REFLECTED CEILING PLANS.
- G. REFER TO BUILDING ELEVATIONS FOR LOCATIONS, TYPE, AND FINISH FOR ALL EXTERIOR WALLS.
- H. ALL MARKER BOARDS TO BE MOUNTED AT 3'-0" AFF. UNO.
- I. PROVIDE FIRE TREATED BLOCKING IN WALLS FOR ALL WALL-MOUNTED ITEMS.
- J. ALL STUDS ARE 6" OFF GRIDLINE, UNLESS OTHERWISE NOTED.
- K. LOCATE DOOR FRAMES / DOORS ACCORDING TO DETAILS.
- L. PROVIDE BRACING AT DOOR FRAME LOCATIONS ON STRIKE SIDE AND PROVIDE 0.0312" THICK STEEL STUD AT DOOR STRIKE LOCATIONS.
- M. PROVIDE VERTICAL CONTROL JOINTS IN GYPSUM BOARD PARTITIONS EVERY 30" MAXIMUM. ALIGN WITH DOOR FRAMES WHERE POSSIBLE.
- N. COORDINATE LOCATION OF DATA AND ELECTRICAL ACCESS TO MODULAR FURNITURE WITH OWNER.
- O. PROVIDE TILE BACKING SUBSTRATE AT ALL LOCATIONS TO RECEIVE WALL TILE, TYPICAL.

SHEET KEYNOTES

REFERENCE KEYNOTES

LEGEND

KEY PLAN



DEKKER PERICH SABATINI

Architecture in Progress

NMSU NM DEPT OF AGRICULTURE OFFICE BUILDING
3910 SOUTH ESPINA STREET LAS CRUCES, NEW MEXICO 88003

50% CONSTRUCTION DOCUMENTS

REVISIONS

DRAWN BY _____ CS
 REVIEWED BY _____ SL
 DATE 04/29/2024
 PROJECT NO 22-0227.001

DRAWING NAME
OVERALL FLOOR PLAN

SHEET NO
AE101

A5 OVERALL FLOOR PLAN
3/32" = 1'-0"

REVISIONS

△	
△	
△	
△	
△	

DRAWN BY CS
REVIEWED BY SL
DATE 04/29/2024
PROJECT NO 22-0227.001

GENERAL SHEET NOTES

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- E. REFER TO SHEET AE010 FOR PARTITION TYPES.
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- G. REFER TO BUILDING ELEVATIONS FOR LOCATIONS, TYPE, AND FINISH FOR ALL EXTERIOR WALLS.
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- M. PROVIDE VERTICAL CONTROL JOINTS IN GYPSUM BOARD PARTITIONS EVERY 30'-0" MAXIMUM. ALIGN WITH DOOR FRAMES WHERE POSSIBLE.
- N. COORDINATE LOCATION OF DATA AND ELECTRICAL ACCESS TO MODULAR FURNITURE WITH OWNER.
- O. PROVIDE TILE BACKING SUBSTRATE AT ALL LOCATIONS TO RECEIVE WALL TILE, TYPICAL.

SHEET KEYNOTES

- 08 3313-C CURTAIN
- 12 2400-A ROLLER WINDOW SHADE

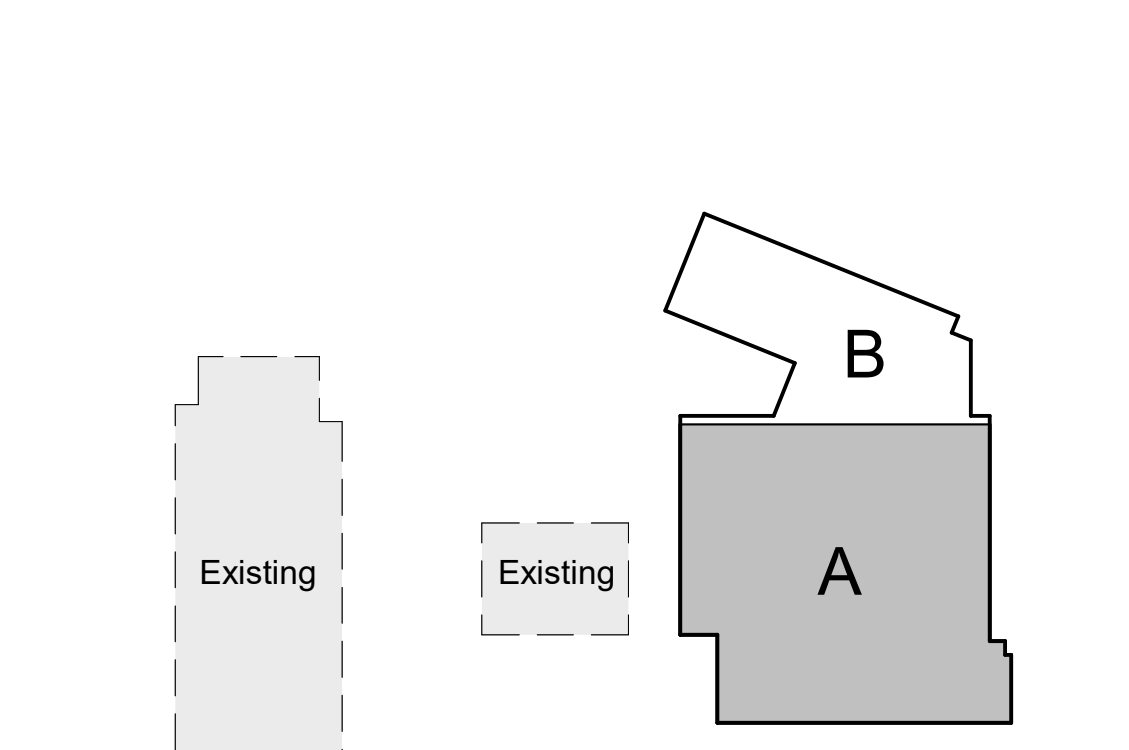
REFERENCE KEYNOTES

- 08 3313-C CURTAIN
- 12 2400-A ROLLER WINDOW SHADE

LEGEND

- △
- △
- △
- △
- △

KEY PLAN



A5 FLOOR PLAN AREA A
1/8" = 1'-0"



GENERAL SHEET NOTES

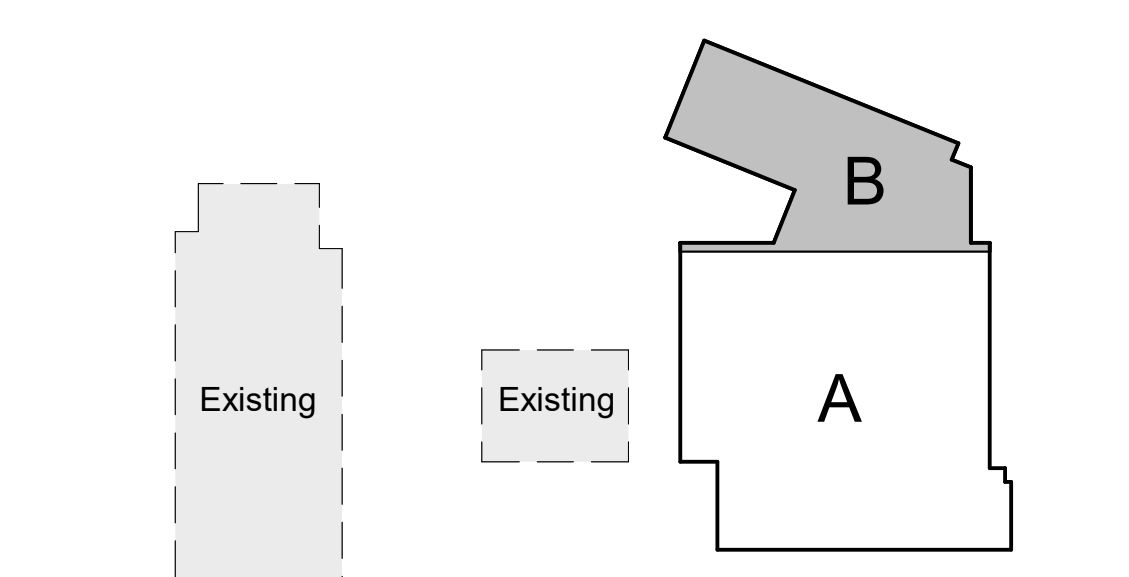
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SHEET KEYNOTES ○

REFERENCE KEYNOTES

LEGEND

KEY PLAN



NORTH
A5 FLOOR PLAN AREA B
 1/8" = 1'-0"

NORTH

**DEKKER
 PERICH
 SABATINI**

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SEAL

PROJECT

**NMSU NM DEPT OF AGRICULTURE
 OFFICE BUILDING**
 3910 SOUTH ESPINA STREET LAS
 CRUCES, NEW MEXICO 88003

**50%
 CONSTRUCTION
 DOCUMENTS**

REVISIONS

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DRAWN BY CS
 REVIEWED BY SL
 DATE 04/29/2024
 PROJECT NO 22-0227.001

DRAWING NAME
**FLOOR PLAN -
 AREA B**

SHEET NO
AE101B

GENERAL SHEET NOTES

- A. CEILINGS TO BE AT 10'-0" ABOVE FINISHED FLOOR, UNLESS NOTED OTHERWISE.
- B. CENTER ALL SUSPENDED LAY-IN ACOUSTICAL TILE GRIDS IN ROOMS, UNLESS NOTED OTHERWISE.
- C. SPRINKLER HEADS TO BE CENTERED IN TILE OR SOFFIT.
- D. GYPSUM BOARD CEILINGS TO BE PAINTED P-X, UNLESS NOTED OTHERWISE.
- E. PAINT VERTICAL FACE(S) OF SOFFITS TO MATCH UNDERSIDE, UNLESS NOTED OTHERWISE.
- F. SOFFITS TO ALIGN WITH FACE OF ADJACENT WALL, UNLESS NOTED OTHERWISE.
- G. AREAS NOTED OPEN TO STRUCTURE(S) TO BE PAINTED P-X. THIS INCLUDES EXPOSED STRUCTURE, MECHANICAL DUCTWORK, AND ELECTRICAL CONDUIT, UNLESS NOTED OTHERWISE.
- H. DIMENSIONS ARE TO FINISHED FACE OR GRID LINE, UNLESS NOTED OTHERWISE.
- I. GYPSUM BOARD ON VERTICAL FACE OF SOFFITS IN OPEN TO STRUCTURE LOCATIONS TO EXTEND TO BOTTOM OF DECK ABOVE.
- J. LIGHT FIXTURES AND OTHER CEILING MOUNTED EQUIPMENT ARE DIMENSIONED TO CENTERLINE, UNLESS NOTED OTHERWISE.
- K. ACCESS PANELS TO BE PAINTED TO MATCH ADJACENT FINISH.
- L. REFLECTED CEILING PLANS SHOW LOCATIONS OF MECHANICAL DIFFUSERS AND GRILLES, LIGHTING AND PLUMBING ITEMS FOR ARCHITECTURAL COORDINATION. ALL ITEMS MAY NOT BE SHOWN. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.

SHEET KEYNOTES

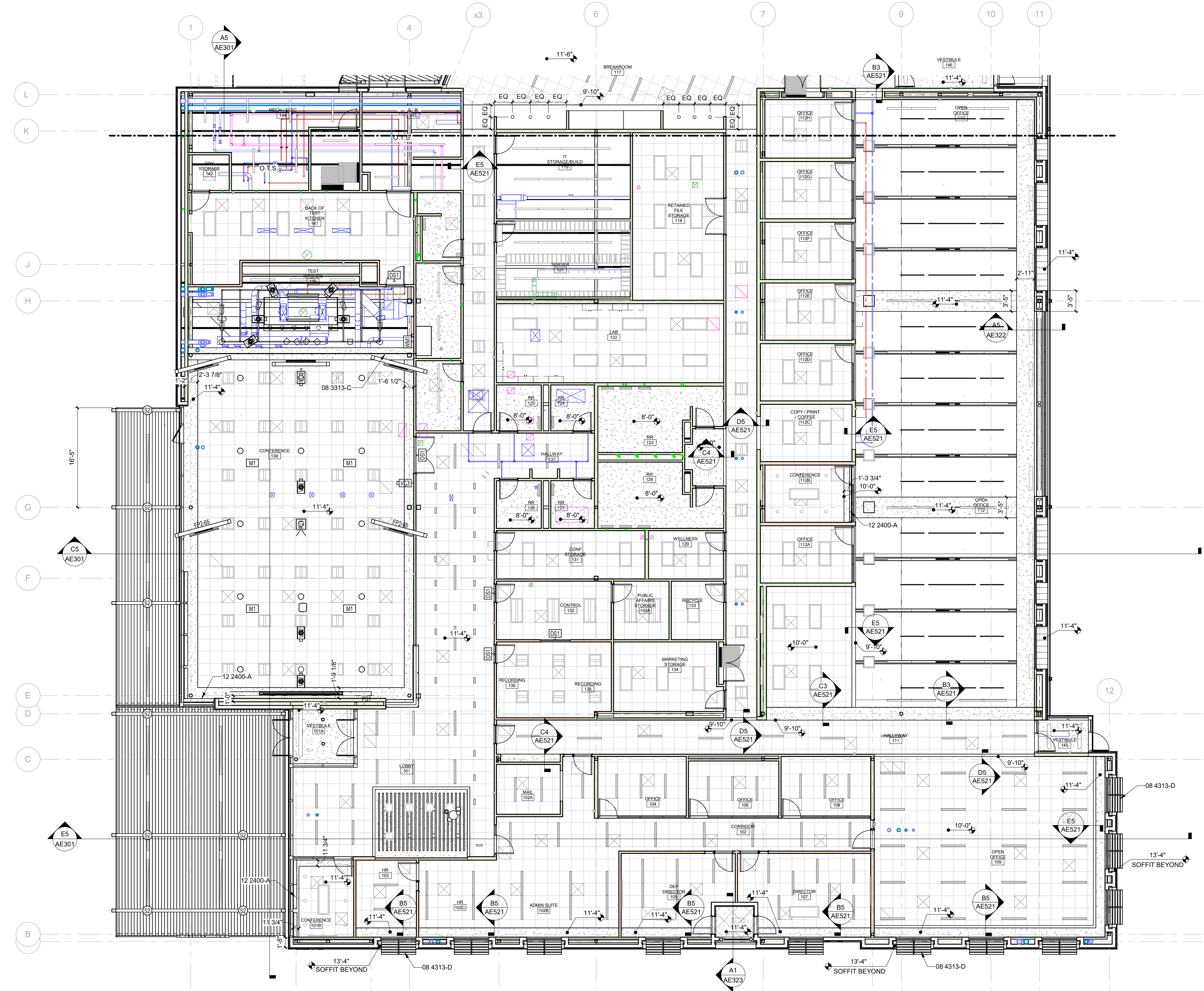
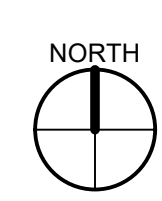
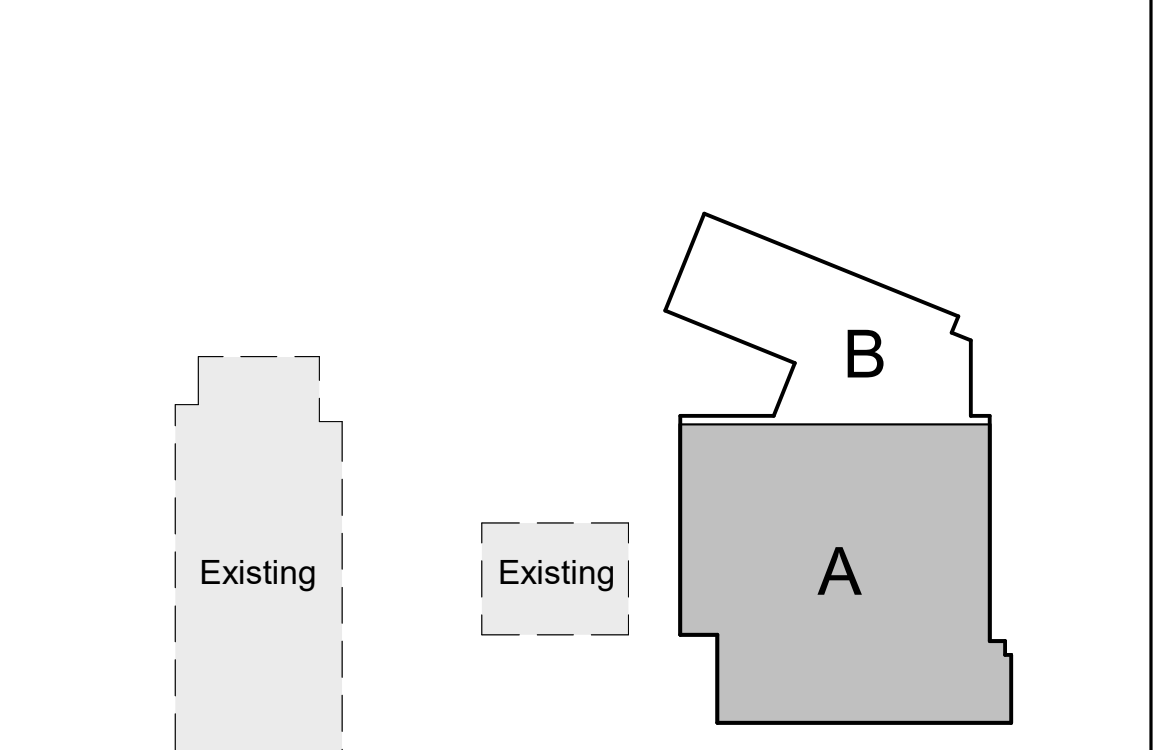
REFERENCE KEYNOTES

- 08 3313-C CURTAIN
- 08 4313-D SUN SHADE
- 12 2400-A ROLLER WINDOW SHADE

LEGEND

- GYPSUM BOARD CEILING SYSTEM
- STUCCO SOFFIT
- METAL PANEL SOFFIT
- 2x2 ACOUSTICAL CEILING SYSTEM
- 2x4 ACOUSTICAL CEILING SYSTEM
- SOUND ABSORBING UNITS (SA-1)
- ACOUSTICAL BAFFLE LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
- ACOUSTICAL NON-LIT BAFFLE (SA-2)
- 2x4 LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
- DOWN LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
- DECORATIVE PENDANT LIGHT, REFER TO ELECTRICAL DRAWINGS
- 2x2 RETURN AIR DIFFUSER, REFER TO MECHANICAL DRAWINGS
- 2x2 SUPPLY AIR DIFFUSER, REFER TO MECHANICAL DRAWINGS

KEY PLAN



A5 RCP - AREA A
 1/8" = 1'-0"

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DRAWING NAME
REFLECTED CEILING PLAN - AREA A
 SHEET NO
AE121A



A5 RCP - AREA B
1/8" = 1'-0"

GENERAL SHEET NOTES

- A. CEILINGS TO BE AT 10'-0" ABOVE FINISHED FLOOR, UNLESS NOTED OTHERWISE.
- B. CENTER ALL SUSPENDED LAY-IN ACOUSTICAL TILE GRIDS IN ROOMS, UNLESS NOTED OTHERWISE.
- C. SPRINKLER HEADS TO BE CENTERED IN TILE OR SOFFIT.
- D. GYPSUM BOARD CEILINGS TO BE PAINTED P-X, UNLESS NOTED OTHERWISE.
- E. PAINT VERTICAL FACE(S) OF SOFFITS TO MATCH UNDERSIDE, UNLESS NOTED OTHERWISE.
- F. SOFFITS TO ALIGN WITH FACE OF ADJACENT WALL, UNLESS NOTED OTHERWISE.
- G. AREAS NOTED OPEN TO STRUCTURE(S) TO BE PAINTED P-X. THIS INCLUDES EXPOSED STRUCTURE, MECHANICAL DUCTWORK, AND ELECTRICAL CONDUIT, UNLESS NOTED OTHERWISE.
- H. DIMENSIONS ARE TO FINISHED FACE OR GRID LINE, UNLESS NOTED OTHERWISE.
- I. GYPSUM BOARD ON VERTICAL FACE OF SOFFITS IN OPEN TO STRUCTURE LOCATIONS TO EXTEND TO BOTTOM OF DECK ABOVE.
- J. LIGHT FIXTURES AND OTHER CEILING MOUNTED EQUIPMENT ARE DIMENSIONED TO CENTERLINE, UNLESS NOTED OTHERWISE.
- K. ACCESS PANELS TO BE PAINTED TO MATCH ADJACENT FINISH.
- L. REFLECTED CEILING PLANS SHOW LOCATIONS OF MECHANICAL DIFFUSERS AND GRILLES, LIGHTING AND PLUMBING ITEMS FOR ARCHITECTURAL COORDINATION. ALL ITEMS MAY NOT BE SHOWN. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION.

SHEET KEYNOTES

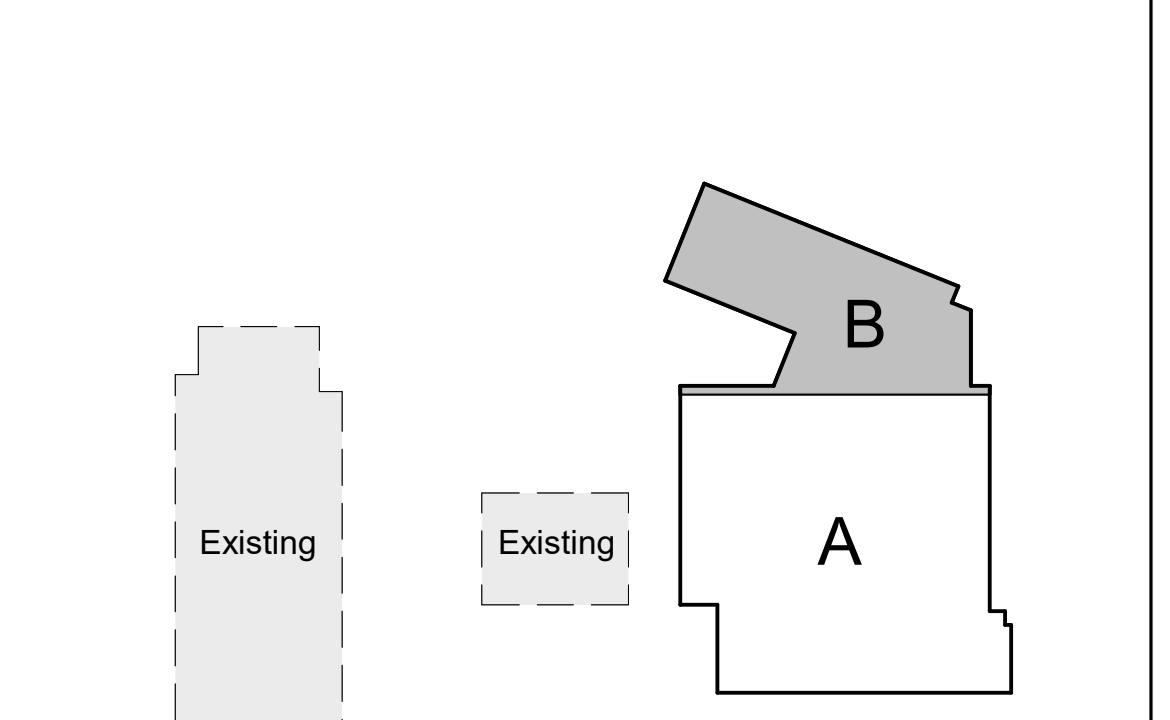
REFERENCE KEYNOTES

12 2400-A ROLLER WINDOW SHADE

LEGEND

- GYPSUM BOARD CEILING SYSTEM
- STUCCO SOFFIT
- METAL PANEL SOFFIT
- 2x2 ACOUSTICAL CEILING SYSTEM
- 2x4 ACOUSTICAL CEILING SYSTEM
- SOUND ABSORBING UNITS (SA-1)
- ACOUSTICAL BAFFLE LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
- ACOUSTICAL NON-LIT BAFFLE (SA-2)
- 2x4 LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
- DOWN LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
- DECORATIVE PENDANT LIGHT, REFER TO ELECTRICAL DRAWINGS
- 2x2 RETURN AIR DIFFUSER, REFER TO MECHANICAL DRAWINGS
- 2x2 SUPPLY AIR DIFFUSER, REFER TO MECHANICAL DRAWINGS

KEY PLAN



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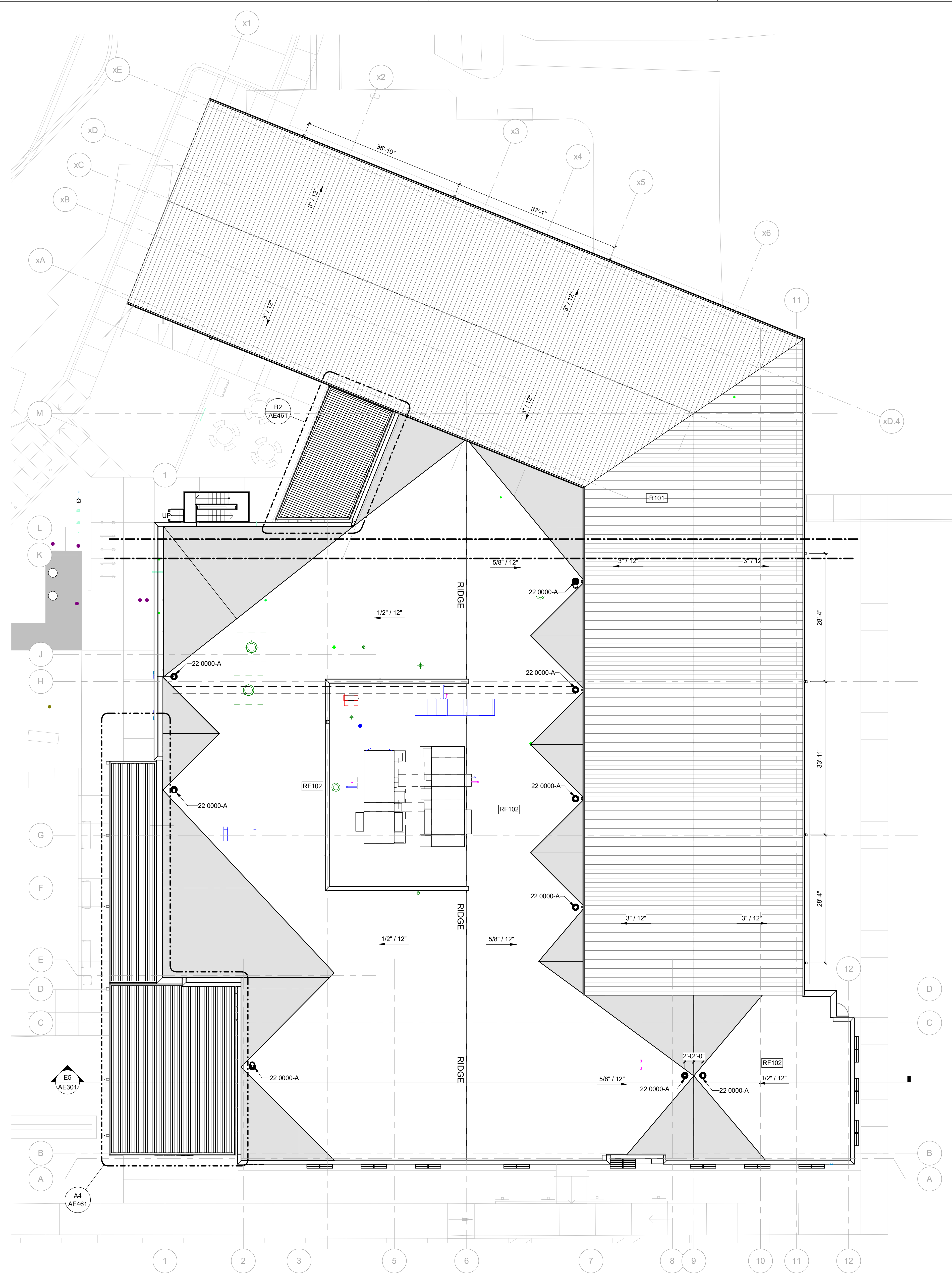
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REVISIONS

DRAWN BY CS
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DATE 04/29/2024
PROJECT NO 22-0227.001

DRAWING NAME
REFLECTED CEILING PLAN - AREA B

SHEET NO
AE121B



GENERAL SHEET NOTES

- A. ROOF CRICKET SLOPE IS 1/2 INCH PER FOOT, UNLESS NOTED OTHERWISE.
- B. FORM DRAIN SUMP WITH TAPERED RIGID INSULATION AT ROOF DRAINS.

SHEET KEYNOTES

REFERENCE KEYNOTES

22 0000-A ROOF AND OVERFLOW DRAIN ASSEMBLY

LEGEND

KEY PLAN

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DRAWING NAME
ROOF PLAN

SHEET NO
AE141

NORTH
A4 ROOF PLAN
3/32" = 1'-0"

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REVISIONS

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DRAWN BY: CS
REVIEWED BY: SL
DATE: 04/29/2024
PROJECT NO: 22-0227.001

DRAWING NAME
EXTERIOR ELEVATIONS

SHEET NO
AE201

GENERAL SHEET NOTES

- A. PAINT WALL AND ROOF MOUNTED EQUIPMENT/ITEMS THAT ARE NOT PRE-FINISHED TO MATCH COLOR OF ADJACENT SURFACE, UNLESS NOTED OTHERWISE.
- B. SEE REFLECTED CEILING PLANS FOR EXTERIOR SOFFIT HEIGHTS.
- C. MAKE CHANGES IN FINISH COLOR AT INSIDE CORNERS, UNLESS NOTED OTHERWISE.

SHEET KEYNOTES

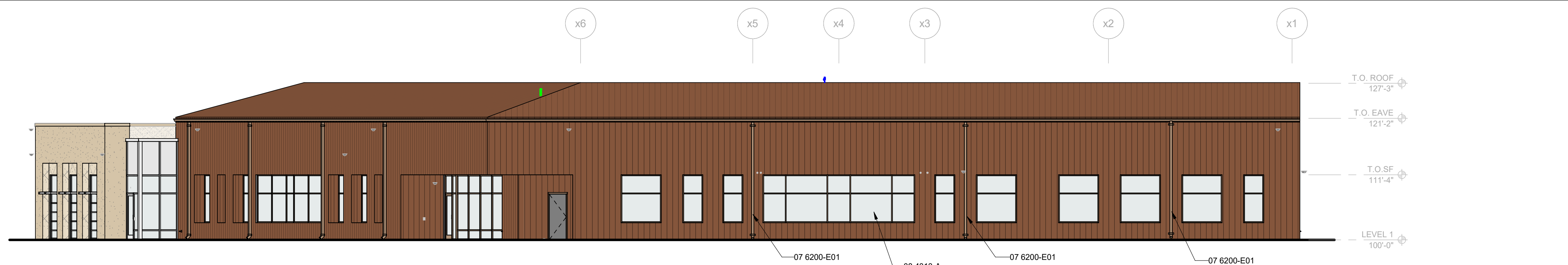
REFERENCE KEYNOTES

07 6200-E01	DOWNSPOUT HANGER
07 7100-A	MANUFACTURED COPING
08 4313-A	ALUMINUM-FRAMED STOREFRONT SYSTEM
08 4313-D	SUN SHADE
08 4413-A	GLAZED ALUMINUM CURTAIN WALL SYSTEM
10 7316.13-A	ALUMINUM WALKWAY CANOPY
DIVISION 08	OPENINGS

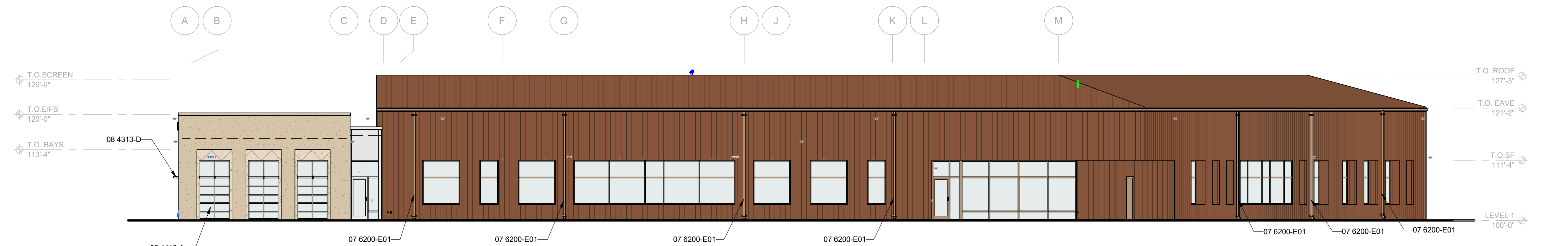
LEGEND

	EIFS / COLOR 1
	EIFS / COLOR 2
	METAL PANEL

KEY PLAN



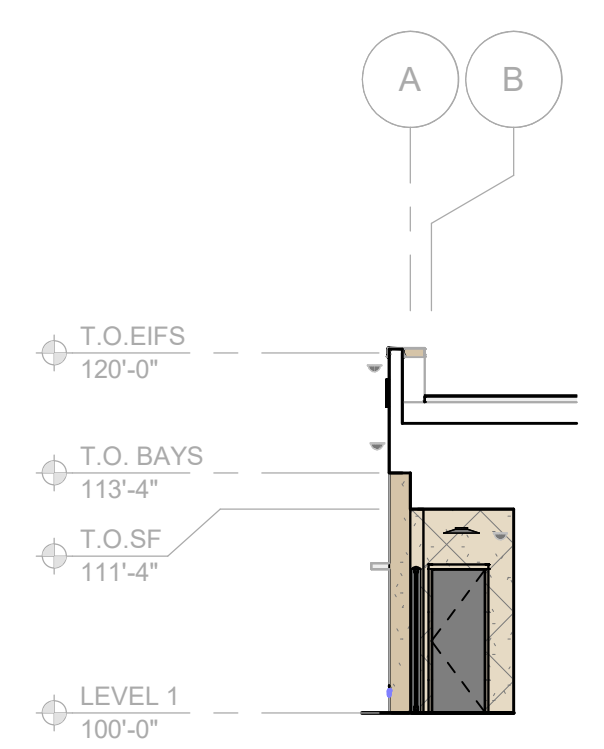
E5 NORTH ELEVATION
3/32" = 1'-0"



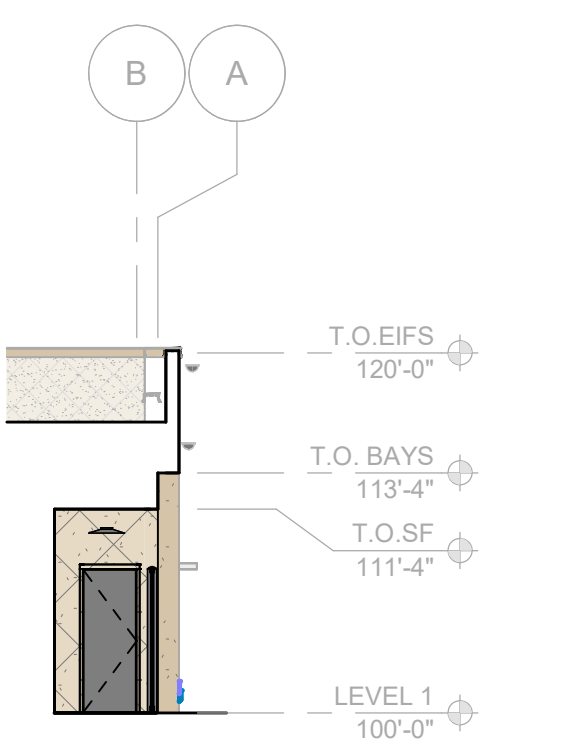
D5 EAST ELEVATION
3/32" = 1'-0"



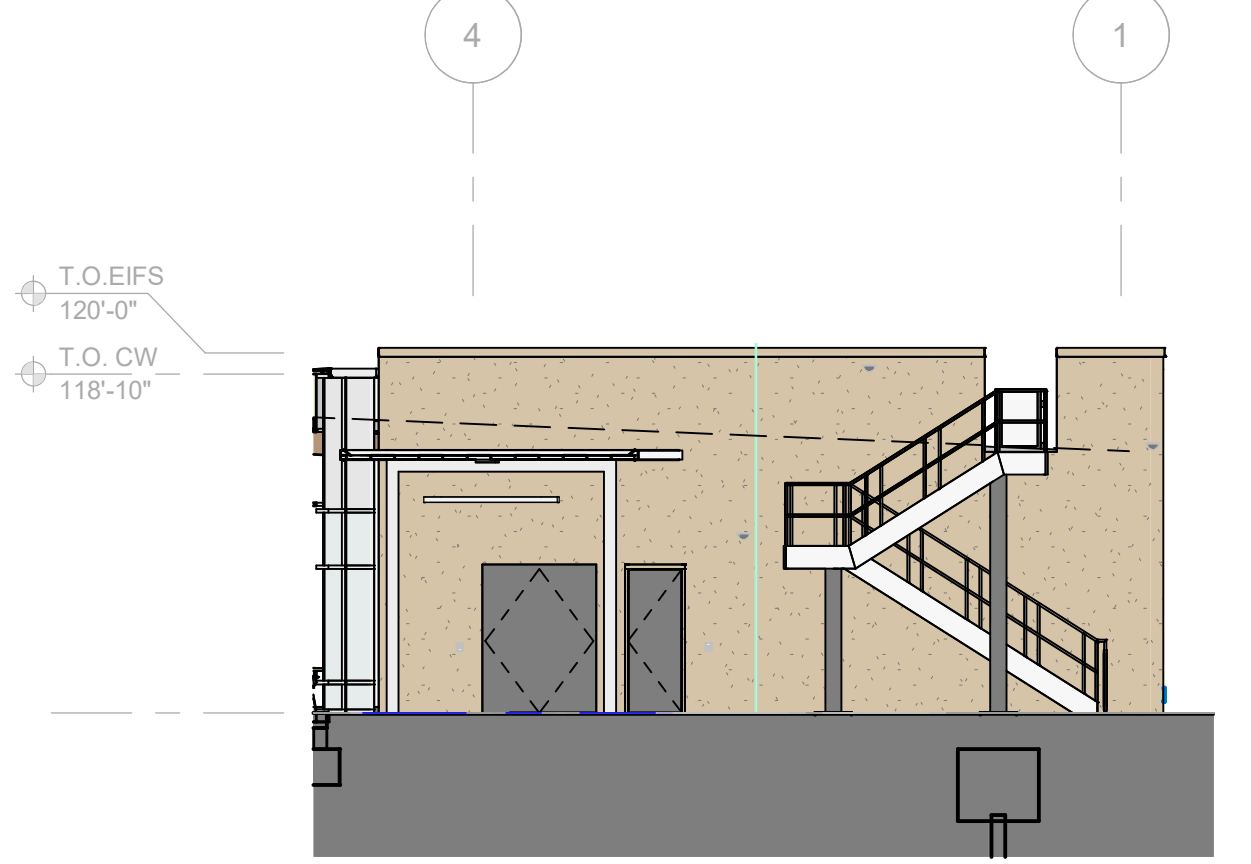
C5 SOUTH ELEVATION
3/32" = 1'-0"



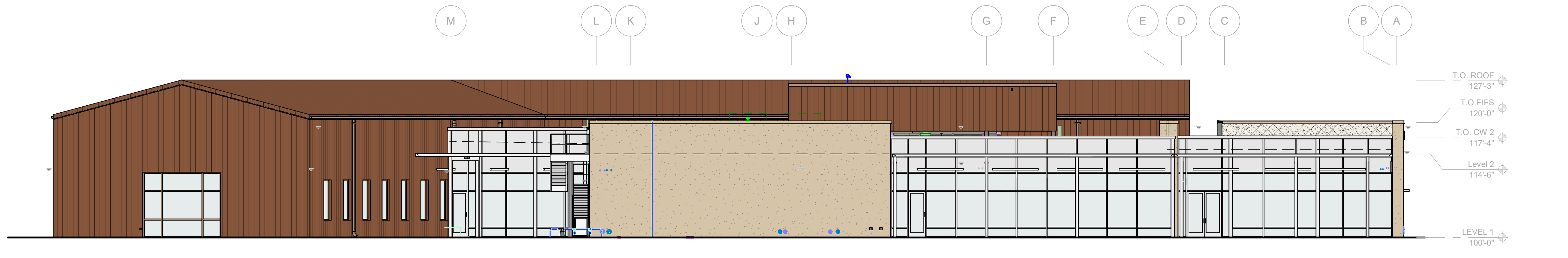
B3 ELEVATION
3/32" = 1'-0"



B4 ELEVATION
3/32" = 1'-0"



B5 ELEVATION
3/32" = 1'-0"



A5 WEST ELEVATION
3/32" = 1'-0"

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REVIEWED BY	SL
DATE	04/22/2024
PROJECT NO	22-0227.001

DRAWING NAME
INTERIOR ELEVATIONS

SHEET NO
AE221

GENERAL SHEET NOTES

- A. DIMENSIONS ARE TO FINISHED FACE, UNLESS NOTED OTHERWISE.
- B. SEE G1010 FOR TYPICAL ACCESSORY MOUNTING HEIGHTS.
- C. PROVIDE BACKING FOR ATTACHING WALL MOUNTED ITEMS.
- D. CENTER CASEWORK BETWEEN WALLS WITH NO MORE THAN 2" FILLER PANELS.
- E. COORDINATE WALL ACCESS PANEL LOCATIONS AS TO NOT OVERLAP CHANGES IN FINISHES.
- F. ALIGN WALL TILE JOINTS WITH JOINTS IN FLOOR. AVOID USING LESS THAN HALF THE WIDTH OF STANDARD TILES.

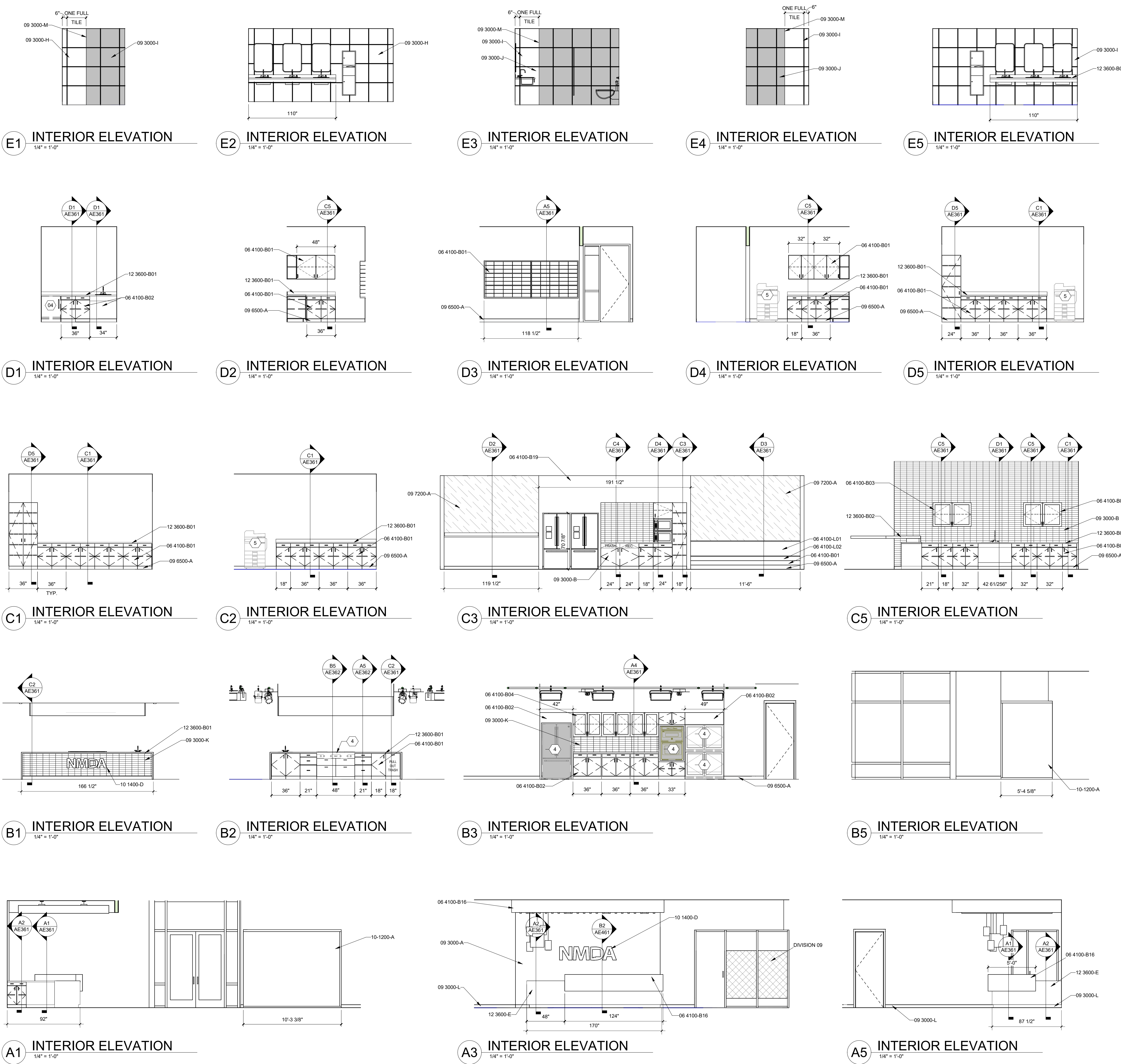
SHEET KEYNOTES

04 APPLIANCE, NIC

REFERENCE KEYNOTES

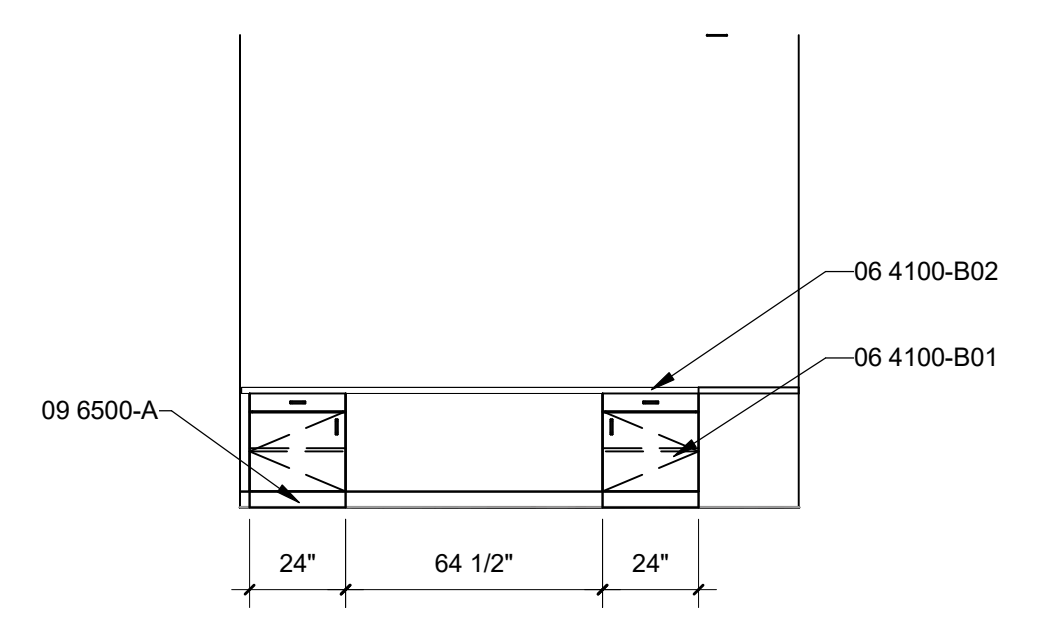
- 06 4100-B01 PLASTIC LAMINATE, PL-1
- 06 4100-B02 PLASTIC LAMINATE, PL-2
- 06 4100-B03 2" PLASTIC LAMINATE FRAME AND 1/4" GLASS PANEL, PL-1
- 06 4100-B04 2" PLASTIC LAMINATE FRAME AND 1/4" GLASS PANEL, PL-2
- 06 4100-B16 PLASTIC LAMINATE, PL-3. MITER FOLD LAMINATE OVER SUBSTRATE PER MANUFACTURER'S INSTRUCTIONS
- 06 4100-B19 PLASTIC LAMINATE PANEL TO WRAP CORNERS TO BACK WALLS
- 06 4100-L01 UPHOLSTERED CUSHION
- 06 4100-L02 UPHOLSTERED CUSHION WITH VELCRO STRIP FASTENERS, F-2
- 09 3000-A WALL TILE, T-2
- 09 3000-B WALL TILE, T-3
- 09 3000-H WALL TILE, T-8
- 09 3000-I WALL TILE, T-9
- 09 3000-J WALL TILE, T-10
- 09 3000-K WALL TILE, T-11
- 09 3000-L WALL TILE BASE, TA-2
- 09 3000-M 1/2" REVEAL, TA-3. ALIGN WITH REVEAL AT CEILING ABOVE
- 09 5500-A RESILIENT BASE
- 09 7200-A WALL COVERING, WC-1
- 10 1400-D DIMENSIONAL LETTER, SIGNAGE
- 10-1200-A
- 12 3600-B01 SOLID SURFACE, SS-1
- 12 3600-B02 SOLID SURFACE, SS-2
- 12 3600-E QUARTZ COUNTERTOP, QZ-1
- DIVISION 09 FINISHES

LEGEND

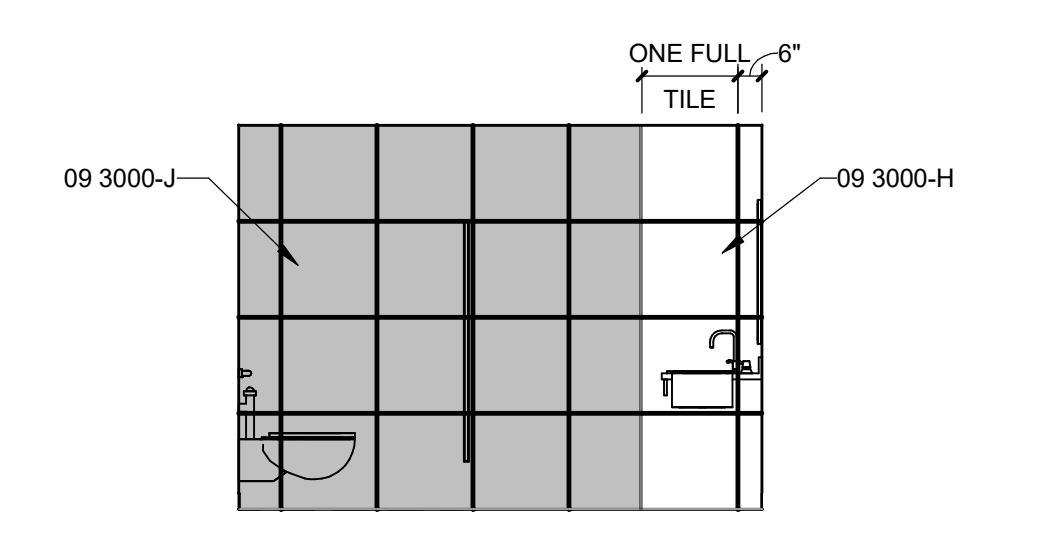


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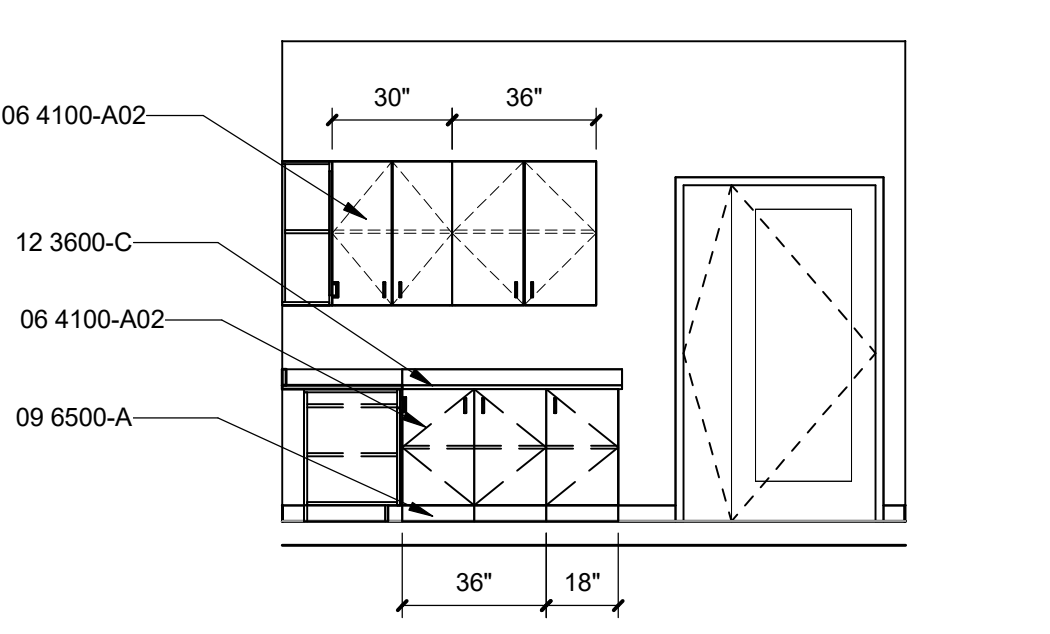
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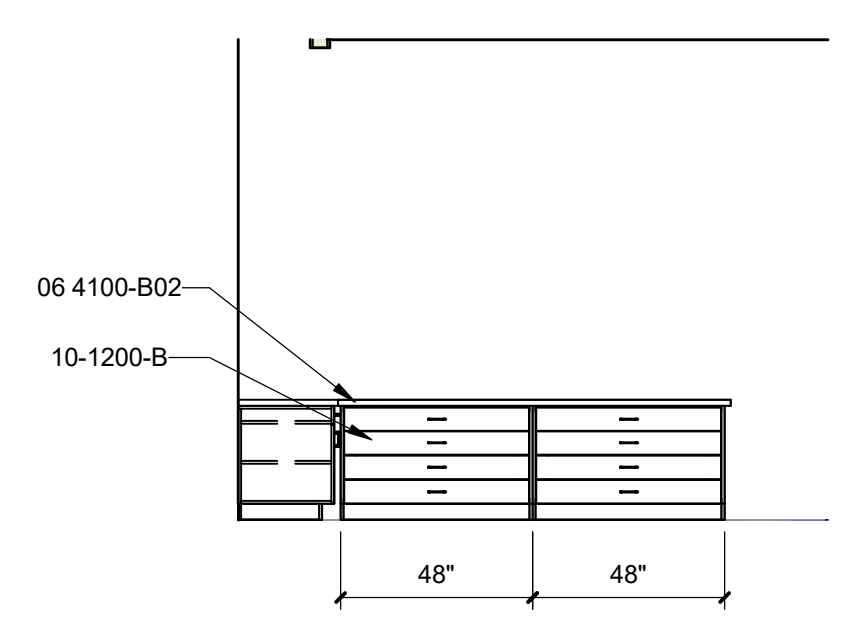
E5 INTERIOR ELEVATION
1/4" = 1'-0"



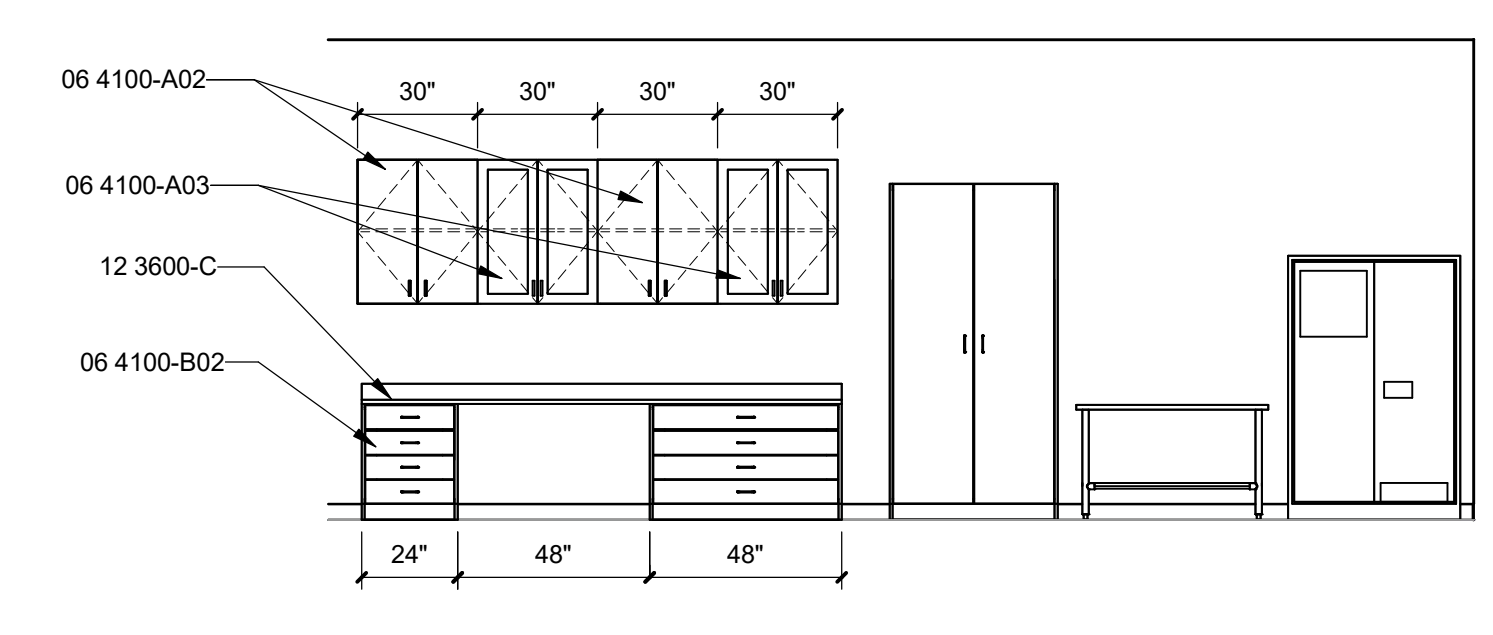
D5 INTERIOR ELEVATION
1/4" = 1'-0"



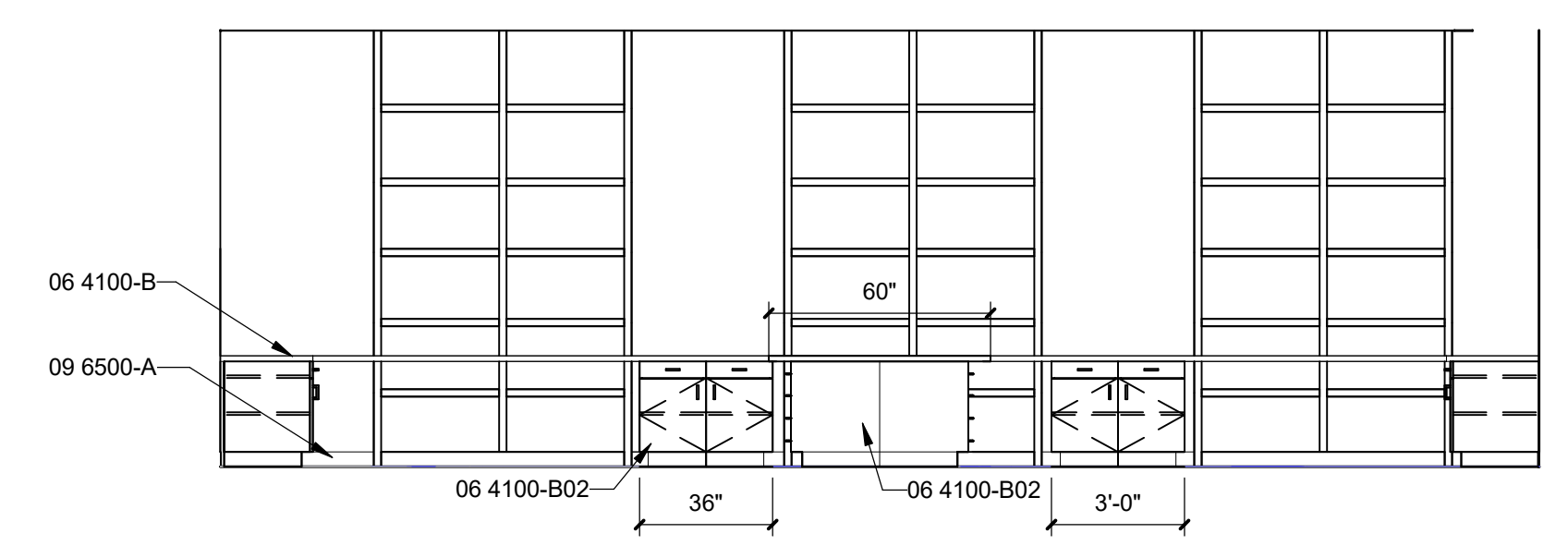
C5 INTERIOR ELEVATION
1/4" = 1'-0"



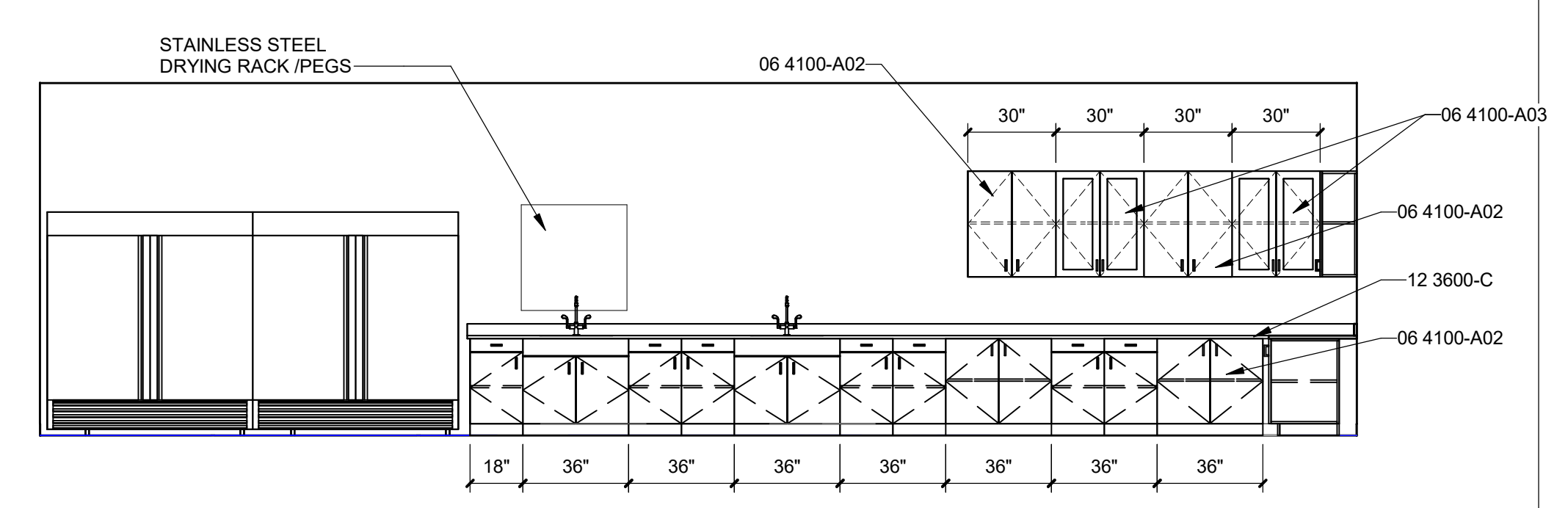
B4 INTERIOR ELEVATION
1/4" = 1'-0"



B5 INTERIOR ELEVATION
1/4" = 1'-0"



A2 INTERIOR ELEVATION
1/4" = 1'-0"



A4 INTERIOR ELEVATION
1/4" = 1'-0"

GENERAL SHEET NOTES

- A. DIMENSIONS ARE TO FINISHED FACE, UNLESS NOTED OTHERWISE.
- B. SEE G1010 FOR TYPICAL ACCESSORY MOUNTING HEIGHTS.
- C. PROVIDE BACKING FOR ATTACHING WALL MOUNTED ITEMS.
- D. CENTER CASEWORK BETWEEN WALLS WITH NO MORE THAN 2" FILLER PANELS.
- E. COORDINATE WALL ACCESS PANEL LOCATIONS AS TO NOT OVERLAP CHANGES IN FINISHES.
- F. ALIGN WALL TILE JOINTS WITH JOINTS IN FLOOR. AVOID USING LESS THAN HALF THE WIDTH OF STANDARD TILES.

SHEET KEYNOTES

REFERENCE KEYNOTES

- 06 4100-A02 STEEL CABINETS
- 06 4100-A03 STEEL CABINETS, SOLID HINGED FRAME AND GLASS DOORS
- 06 4100-B PLASTIC LAMINATE
- 06 4100-B01 PLASTIC LAMINATE, PL-1
- 06 4100-B02 PLASTIC LAMINATE, PL-2
- 09 3000-H WALL TILE, T-8
- 09 3000-J WALL TILE, T-10
- 09 6500-A RESILIENT BASE
- 12 3600-C STAINLESS STEEL COUNTERTOP

LEGEND

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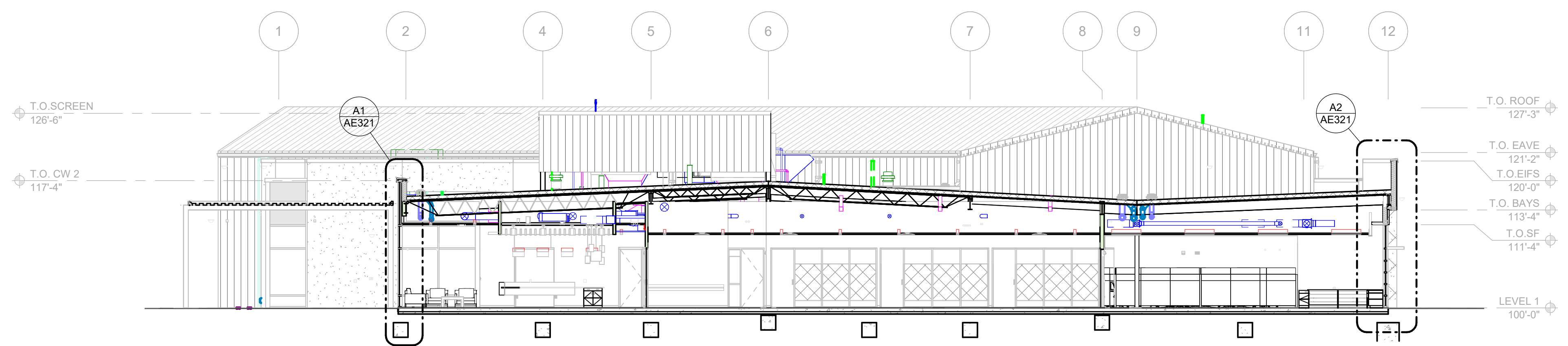
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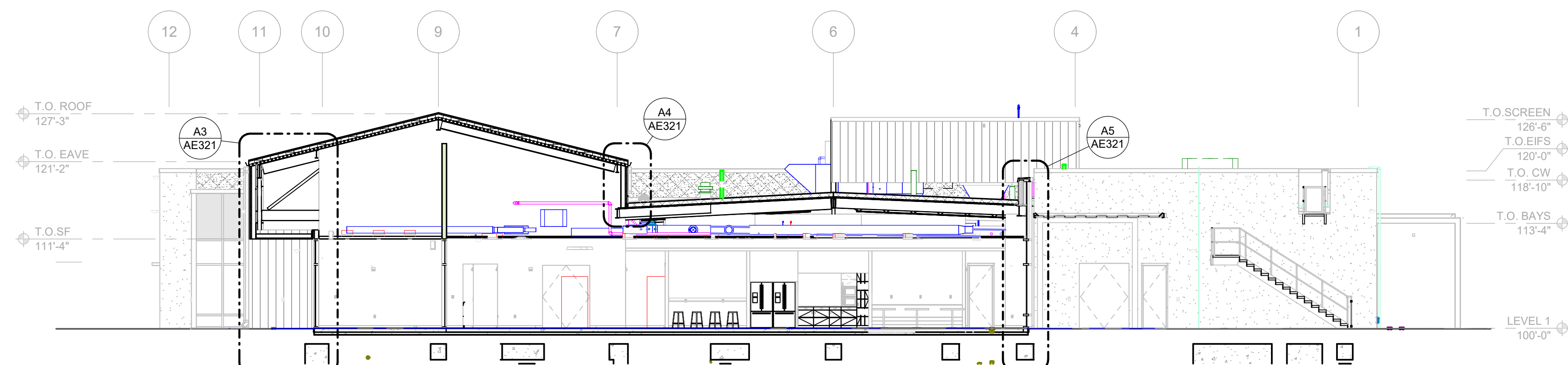
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PROJECT NO 22-0227.001

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INTERIOR ELEVATIONS

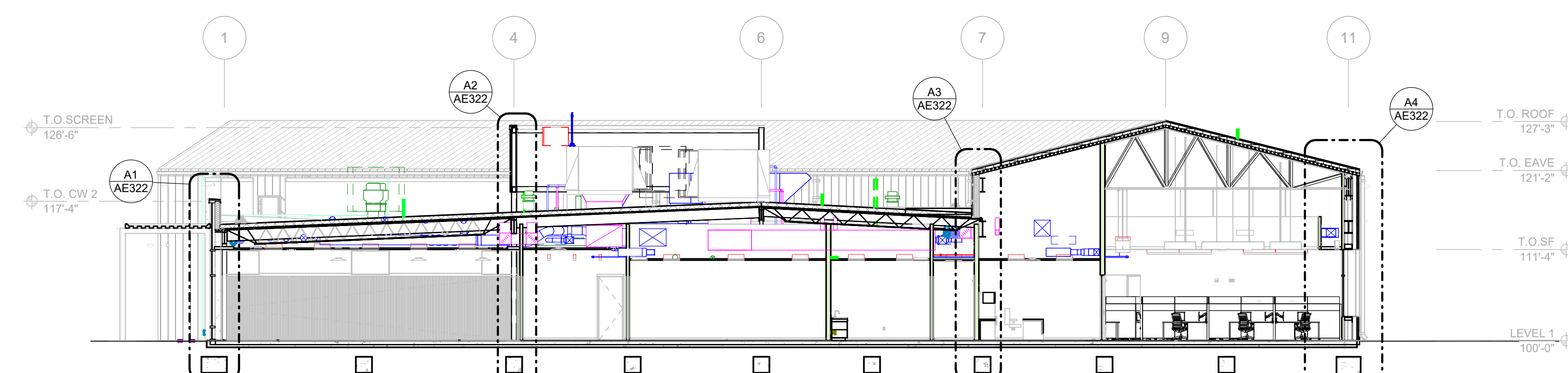
SHEET NO
AE222



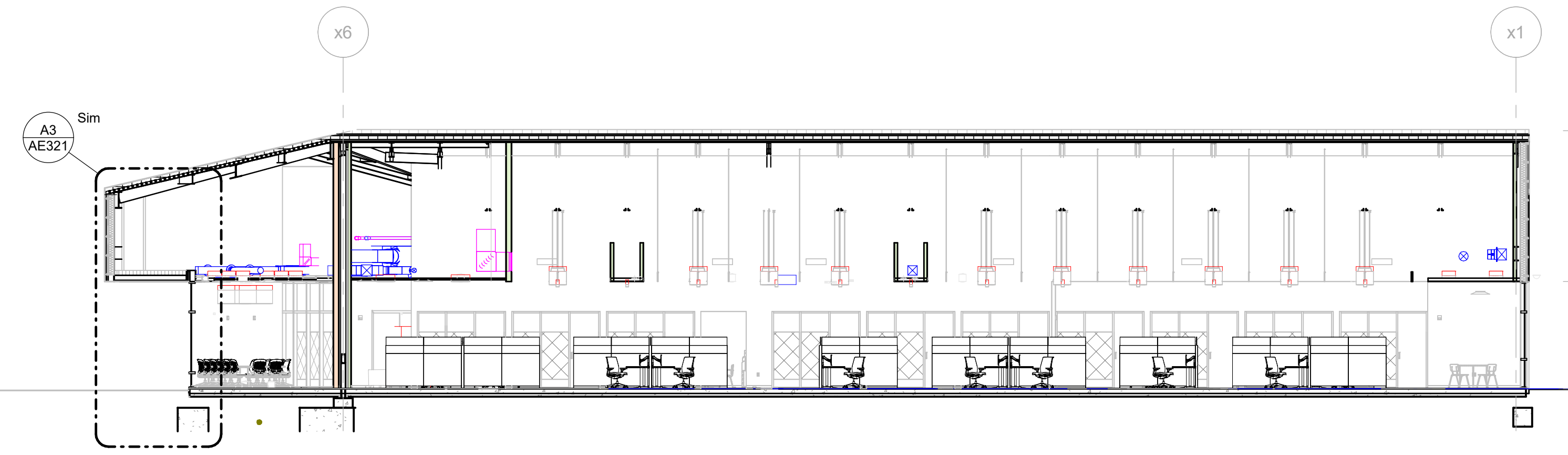
E5 BUILDING SECTION
3/32" = 1'-0"



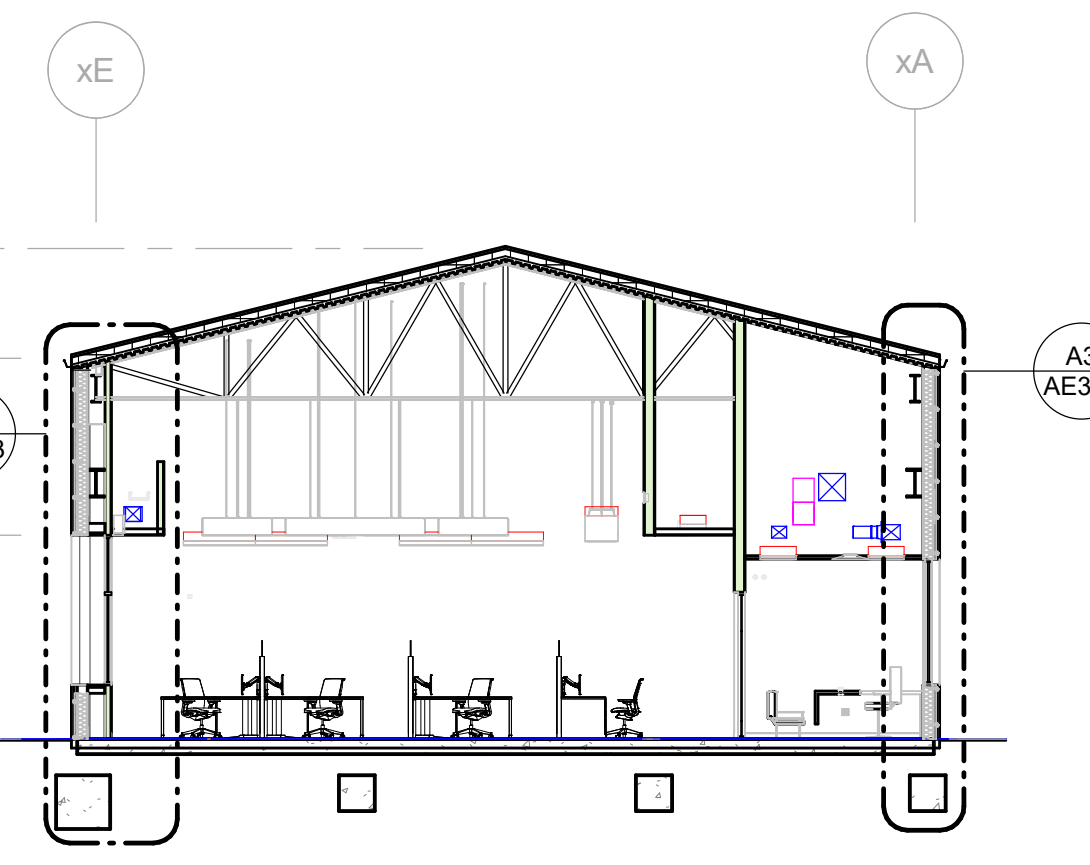
D5 BUILDING SECTION
3/32" = 1'-0"



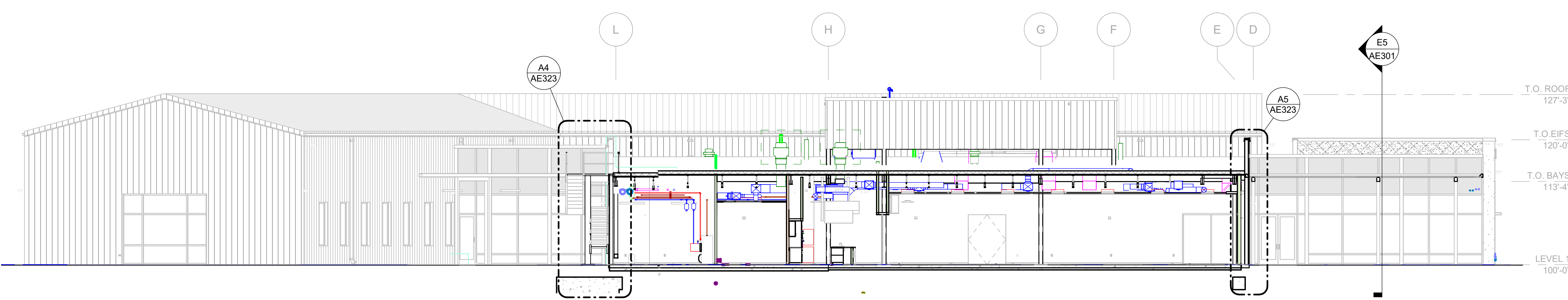
C5 BUILDING SECTION
3/32" = 1'-0"



B4 BUILDING SECTION
3/32" = 1'-0"



B5 BUILDING SECTION
3/32" = 1'-0"



A5 BUILDING SECTION
3/32" = 1'-0"

GENERAL SHEET NOTES

A. MECHANICAL, ELECTRICAL AND PLUMBING RELATED ITEMS ARE SHOWN FOR REFERENCE ONLY.

SHEET KEYNOTES

REFERENCE KEYNOTES

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DRAWING NAME
BUILDING SECTIONS

SHEET NO
AE301

GENERAL SHEET NOTES

A. MECHANICAL, ELECTRICAL AND PLUMBING RELATED ITEMS ARE SHOWN FOR REFERENCE ONLY.

SHEET KEYNOTES ◻

REFERENCE KEYNOTES

08 4313-D SUN SHADE
12 2400-A ROLLER WINDOW SHADE

SEAL

PROJECT

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3910 SOUTH ESPINA STREET LAS
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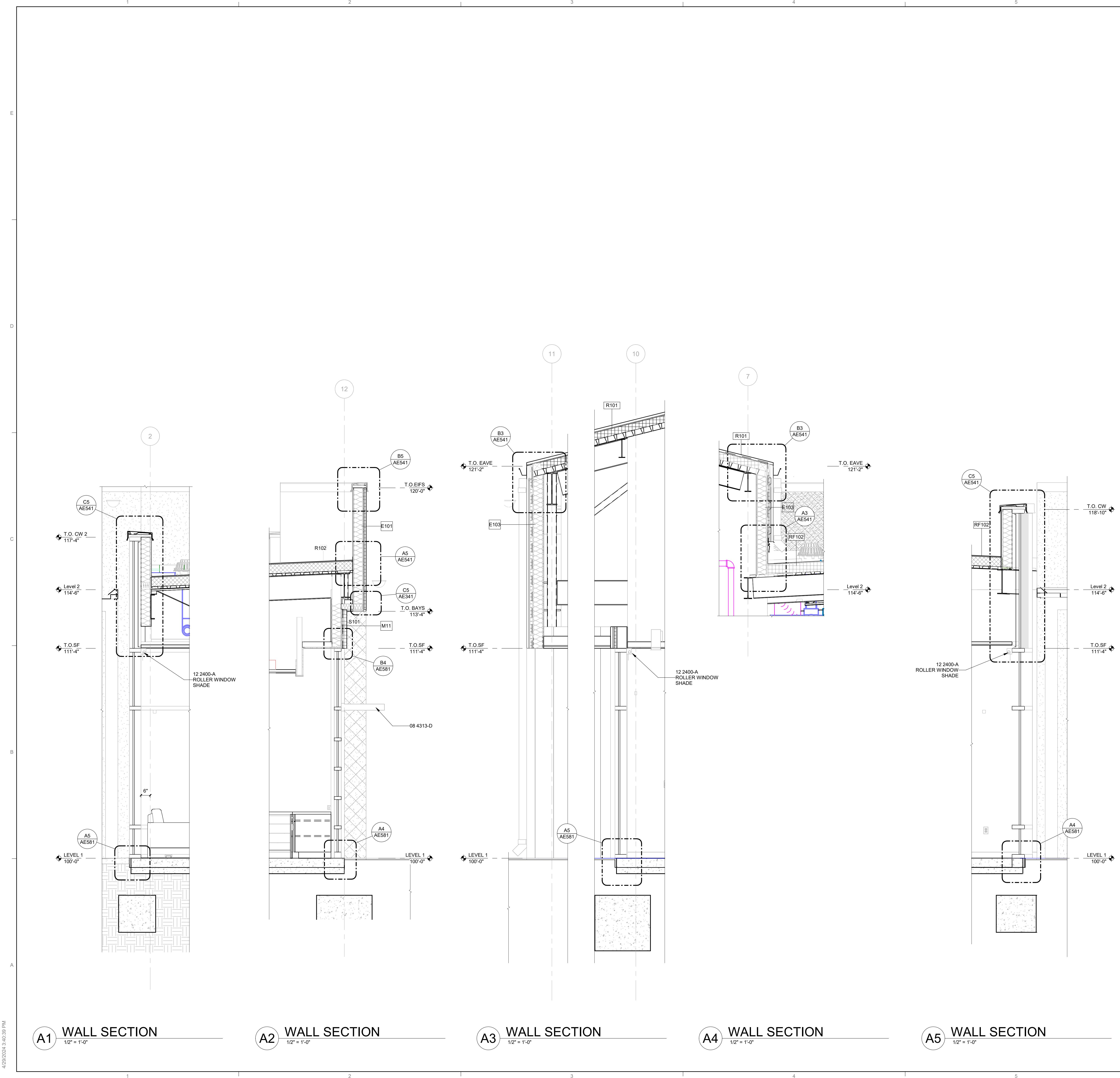
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DATE 04/29/2024
PROJECT NO 22-0227.001

DRAWING NAME
WALL SECTIONS

SHEET NO
AE321



A1 WALL SECTION
1/2" = 1'-0"

A2 WALL SECTION
1/2" = 1'-0"

A3 WALL SECTION
1/2" = 1'-0"

A4 WALL SECTION
1/2" = 1'-0"

A5 WALL SECTION
1/2" = 1'-0"

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GENERAL SHEET NOTES

A. MECHANICAL, ELECTRICAL AND PLUMBING RELATED ITEMS ARE SHOWN FOR REFERENCE ONLY.

SHEET KEYNOTES

REFERENCE KEYNOTES

12 2400-A ROLLER WINDOW SHADE

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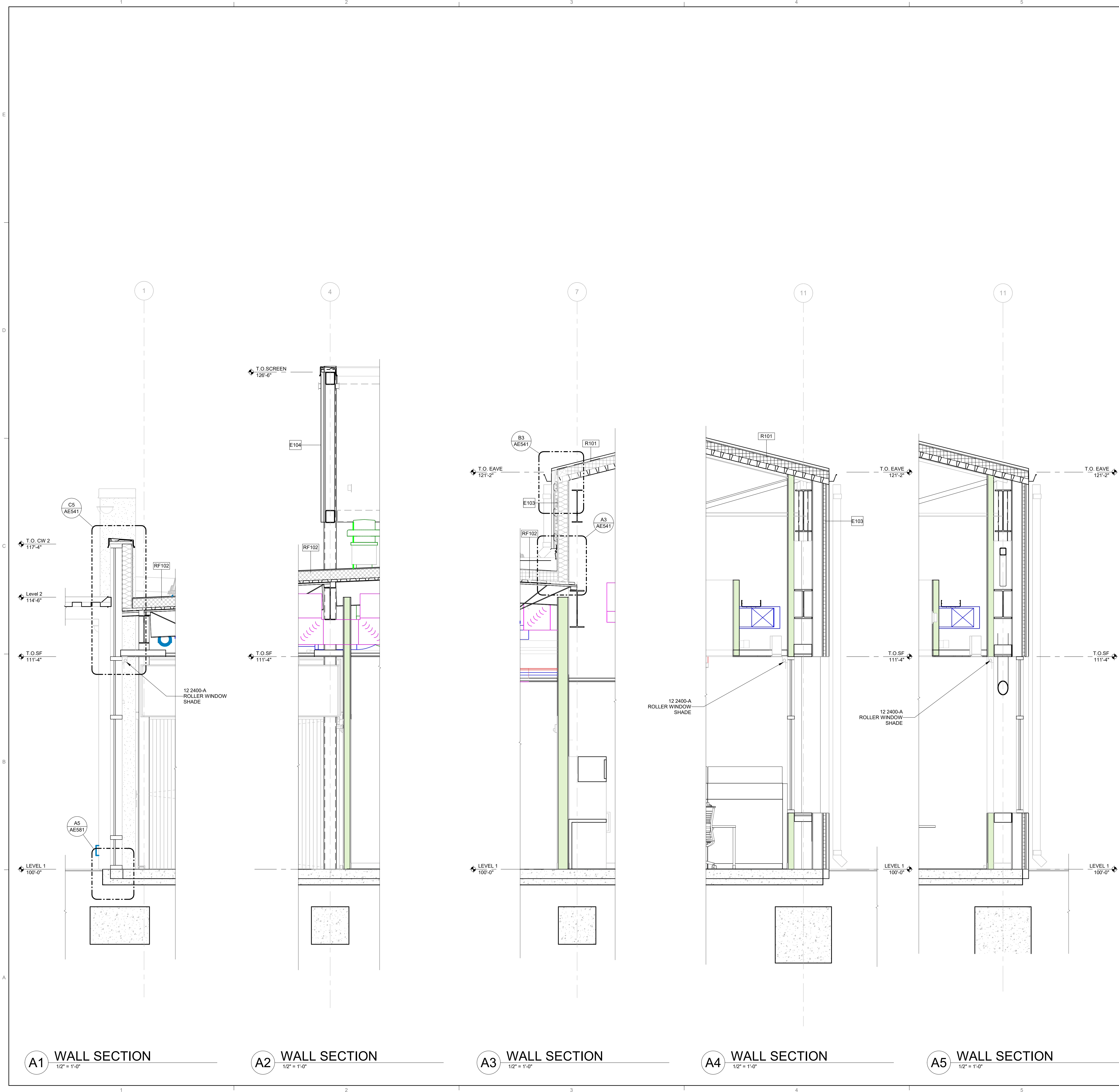
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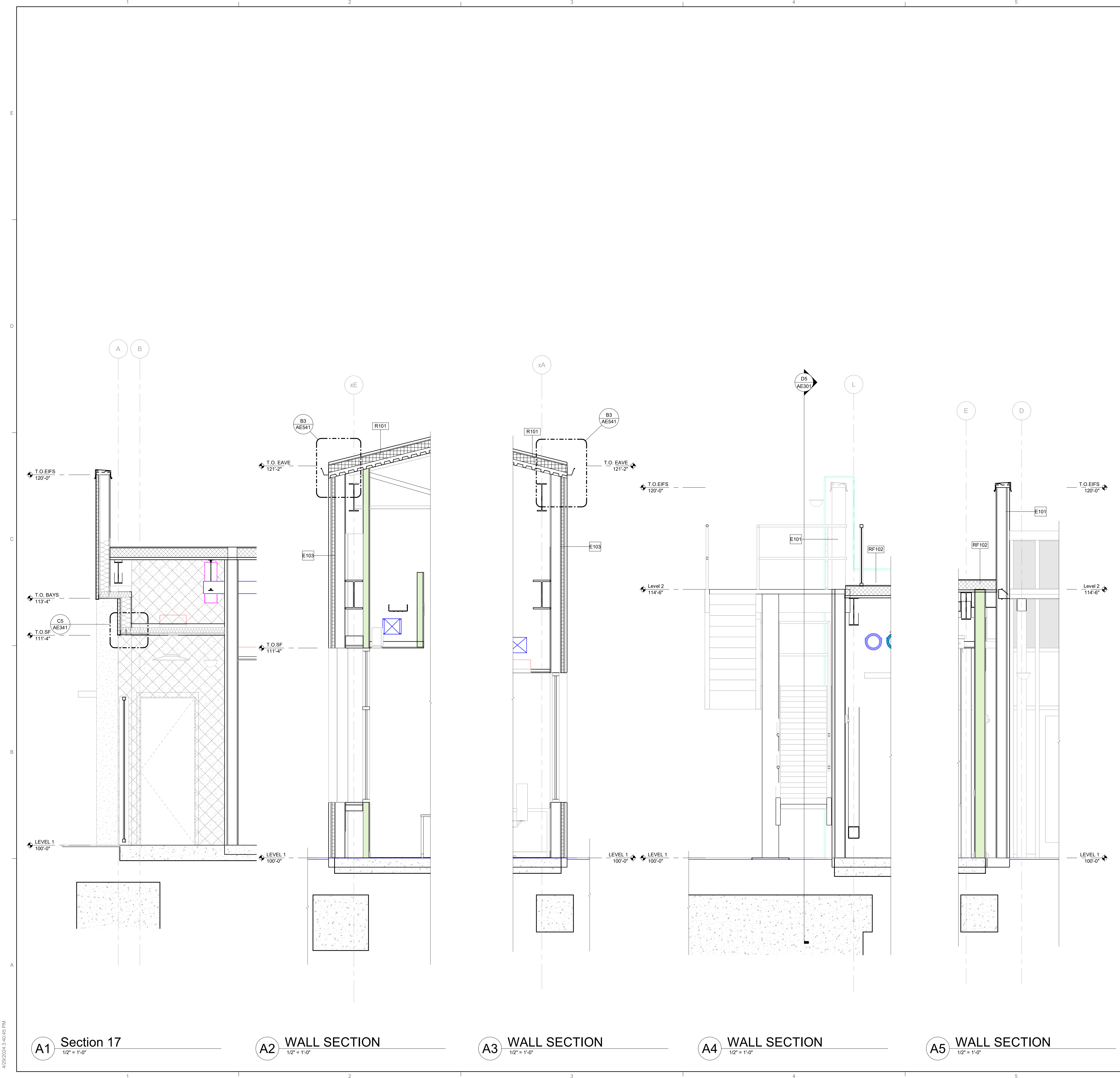
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DRAWING NAME
WALL SECTIONS

SHEET NO
AE322



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GENERAL SHEET NOTES

A. MECHANICAL, ELECTRICAL AND PLUMBING RELATED ITEMS ARE SHOWN FOR REFERENCE ONLY.

SHEET KEYNOTES

REFERENCE KEYNOTES

**DEKKER
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SABATINI**

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PROJECT NO 22-0227.001

DRAWING NAME
WALL SECTIONS

SHEET NO
AE323

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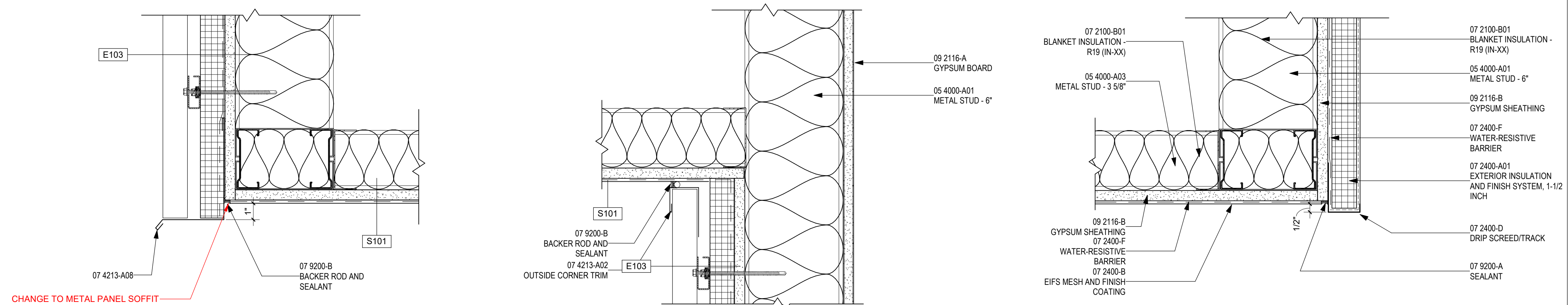
GENERAL SHEET NOTES

A. XX

SHEET KEYNOTES ◻

REFERENCE KEYNOTES

- 05 4000-A01 METAL STUD - 6"
- 05 4000-A03 METAL STUD - 3 5/8"
- 07 2100-B01 BLANKET INSULATION - R19 (IN-XX)
- 07 2400-A01 EXTERIOR INSULATION AND FINISH SYSTEM, 1-1/2 INCH
- 07 2400-B EIFS MESH AND FINISH COATING
- 07 2400-D DRIP SCREED/TRACK
- 07 2400-F WATER-RESISTIVE BARRIER
- 07 4213-A02 OUTSIDE CORNER TRIM
- 07 4213-A08
- 07 9200-A SEALANT
- 07 9200-B BACKER ROD AND SEALANT
- 09 2116-A GYPSUM BOARD
- 09 2116-B GYPSUM SHEATHING



C2 METAL PANEL WALL DETAIL @ DEFS SOFFIT
3" = 1'-0"

C3 METAL PANEL WALL @ DEFS SOFFIT
3" = 1'-0"

C5 EIFS @ SOFFIT
3" = 1'-0"

LEGEND

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DRAWING NAME
**WALL SECTION
DETAILS**

SHEET NO
AE341

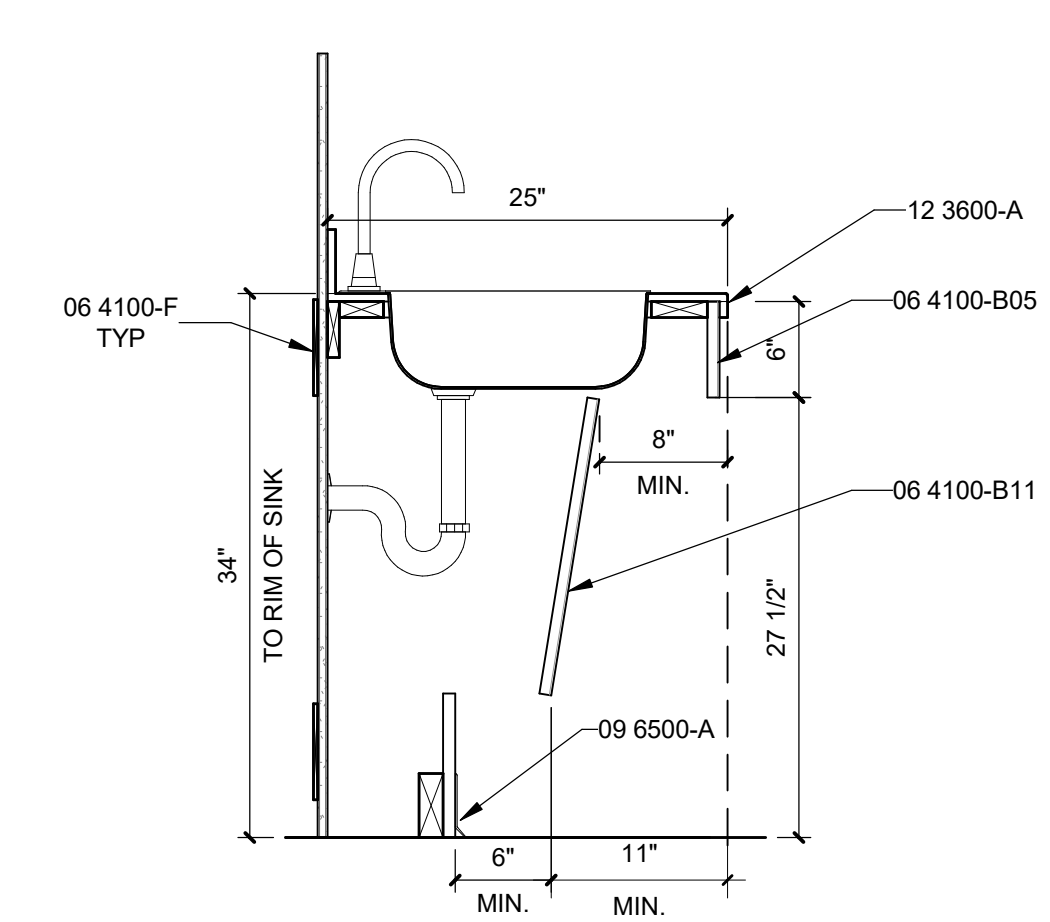
GENERAL SHEET NOTES

- A. DIMENSIONS ARE TO FINISHED FACE, UNLESS NOTED OTHERWISE.
- B. PROVIDE BACKING FOR ATTACHING WALL MOUNTED ITEMS.
- C. SEE REFLECTED CEILING PLANS FOR SOFFIT LOCATIONS. AT CASEWORK UNDER 7'-2" AFF SOFFITS TO RECEIVE SCRIBE MOLDING WITH CONTINUOUS LAMINATE.
- D. SEE INTERIOR ELEVATIONS FOR CASEWORK FINISH INFORMATION.
- E. CABINETS WITH SHELVES OVER 36 INCHES WIDE REQUIRE A MIDDLE VERTICAL SUPPORT.
- F. PROVIDE COUNTER SUPPORTS EVERY 36 INCHES MINIMUM.
- G. COUNTERTOPS TO OVERHANG FACE OF BASE CABINET 1 INCH, UNLESS NOTED OTHERWISE.
- H. PROVIDE CONTINUOUS SUPPORT LEDGER ALONG WALL UNDER COUNTERTOP.

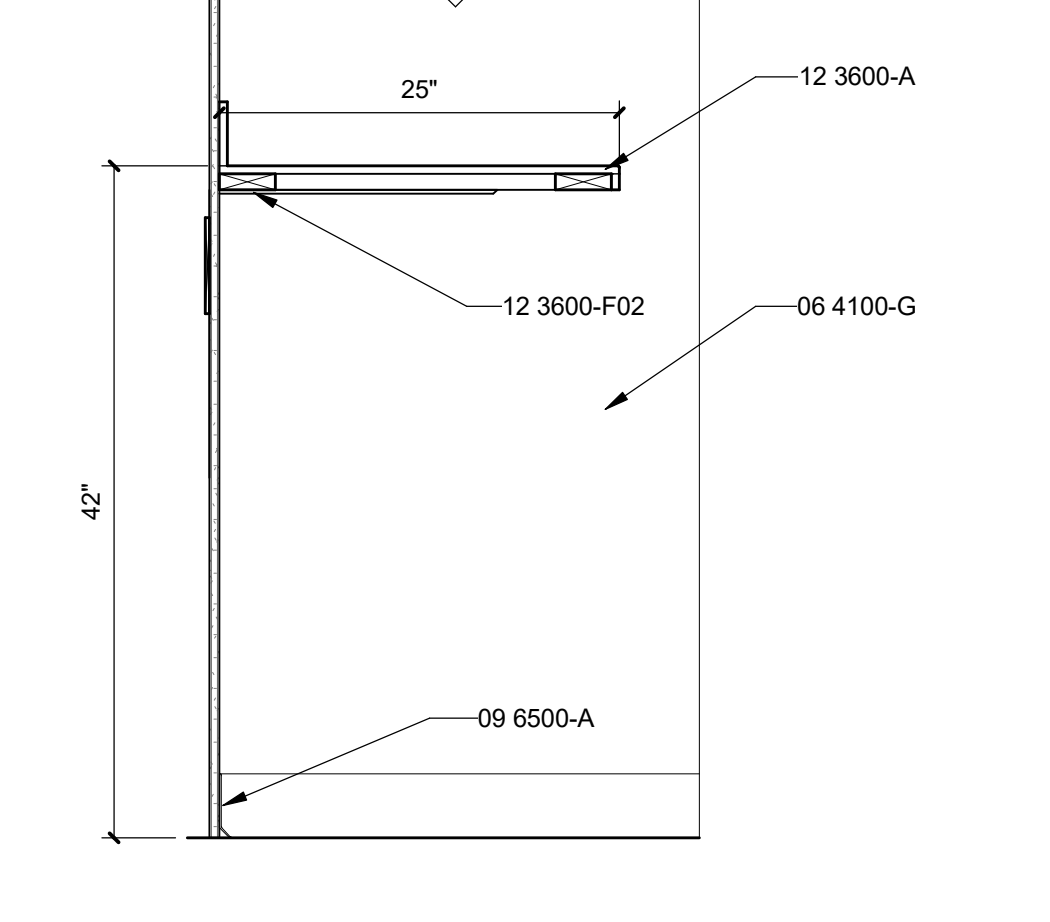
SHEET KEYNOTES

REFERENCE KEYNOTES

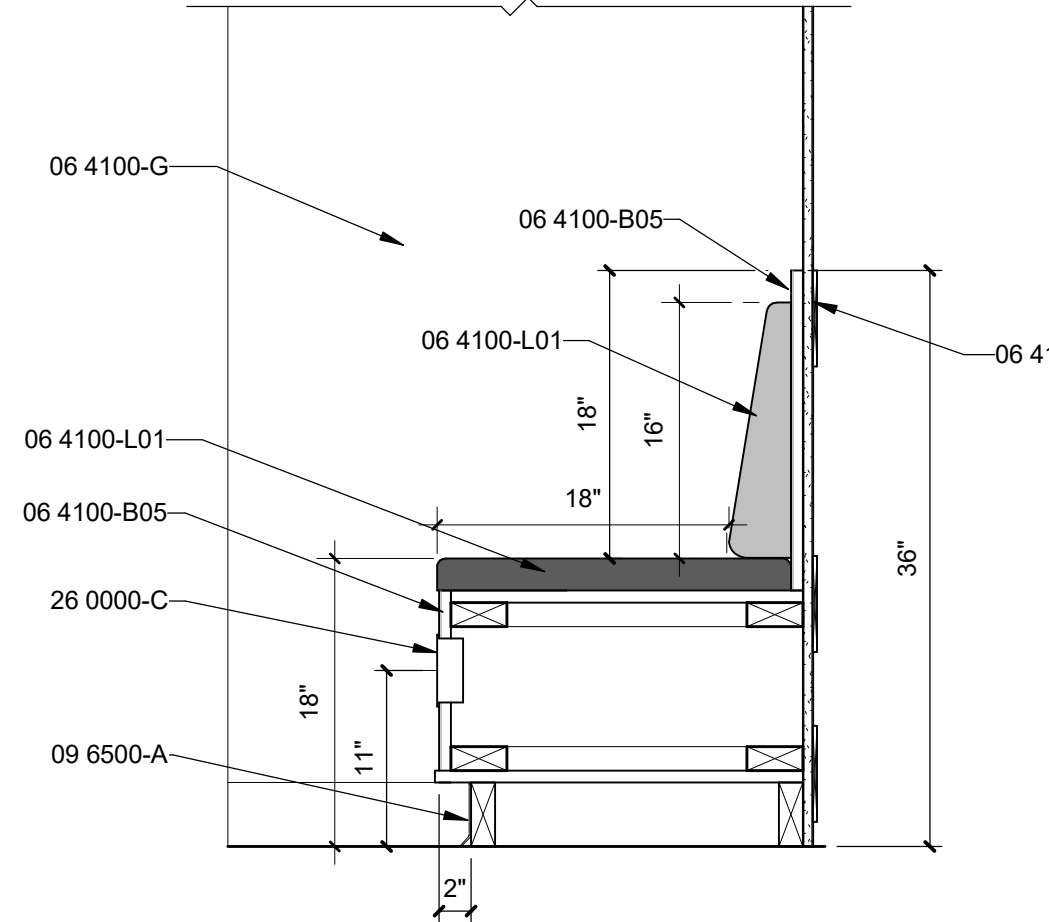
- 06 4100-B05 PLASTIC LAMINATE ON 3/4" SUBSTRATE
- 06 4100-B07 PLASTIC LAMINATE FINISH, BACK AND SIDES
- 06 4100-B08 PLASTIC LAMINATE DOOR
- 06 4100-B09 PLASTIC LAMINATE DRAWER
- 06 4100-B11 PLASTIC LAMINATE REMOVABLE PANEL. ALL FASTENERS TO BE CONCEALED
- 06 4100-B12 ADJUSTABLE SHELF, PLASTIC LAMINATE FINISH
- 06 4100-B13 FIXED SHELF, PLASTIC LAMINATE FINISH
- 06 4100-B15 DOOR WITH 2" PLASTIC LAMINATE FRAME AND 1/4" GLASS PANEL
- 06 4100-B16 PLASTIC LAMINATE, PL-3 MITER FOLD LAMINATE OVER SUBSTRATE PER MANUFACTURES INSTRUCTIONS
- 06 4100-B17 PLASTIC LAMINATE PANEL TO EXTEND TO SOFFIT ABOVE
- 06 4100-B18 PLASTIC LAMINATE DOOR W/HORIZONTAL HINGE
- 06 4100-D MELAMINE FINISH
- 06 4100-D01 ADJUSTABLE SHELF, MELAMINE FINISH
- 06 4100-E03 WIRE PULL, 4"
- 06 4100-E04 WIRE PULL, 12"
- 06 4100-F BACKING AS REQUIRED
- 06 4100-G CASEWORK BEYOND
- 06 4100-L01 UPHOLSTERED CUSHION
- 09 3000-K WALL TILE, T-11
- 09 6500-A RESILIENT BASE
- 12 3600-A COUNTERTOP, 1 1/2" THICK EDGE, 4" CONTINUOUS BACKSPLASH WHERE SHOWN, PROVIDE SIDE SPLASH WHERE APPLICABLE AGAINST GYP, FINISH VARIES, SEE INTERIOR ELEVATIONS
- 12 3600-A03 SOLID SURFACE COUNTERTOP, 2" THICK EDGE W/ WATERFALL ENDS
- 12 3600-E QUARTZ COUNTERTOP, QZ-1
- 12 3600-F01 COUNTER SUPPORT, 36" OC MAX
- 12 3600-F02 CONCEALED COUNTER SUPPORT, 36" OC MAX
- 26 0000-C ELECTRICAL/DATA BOX



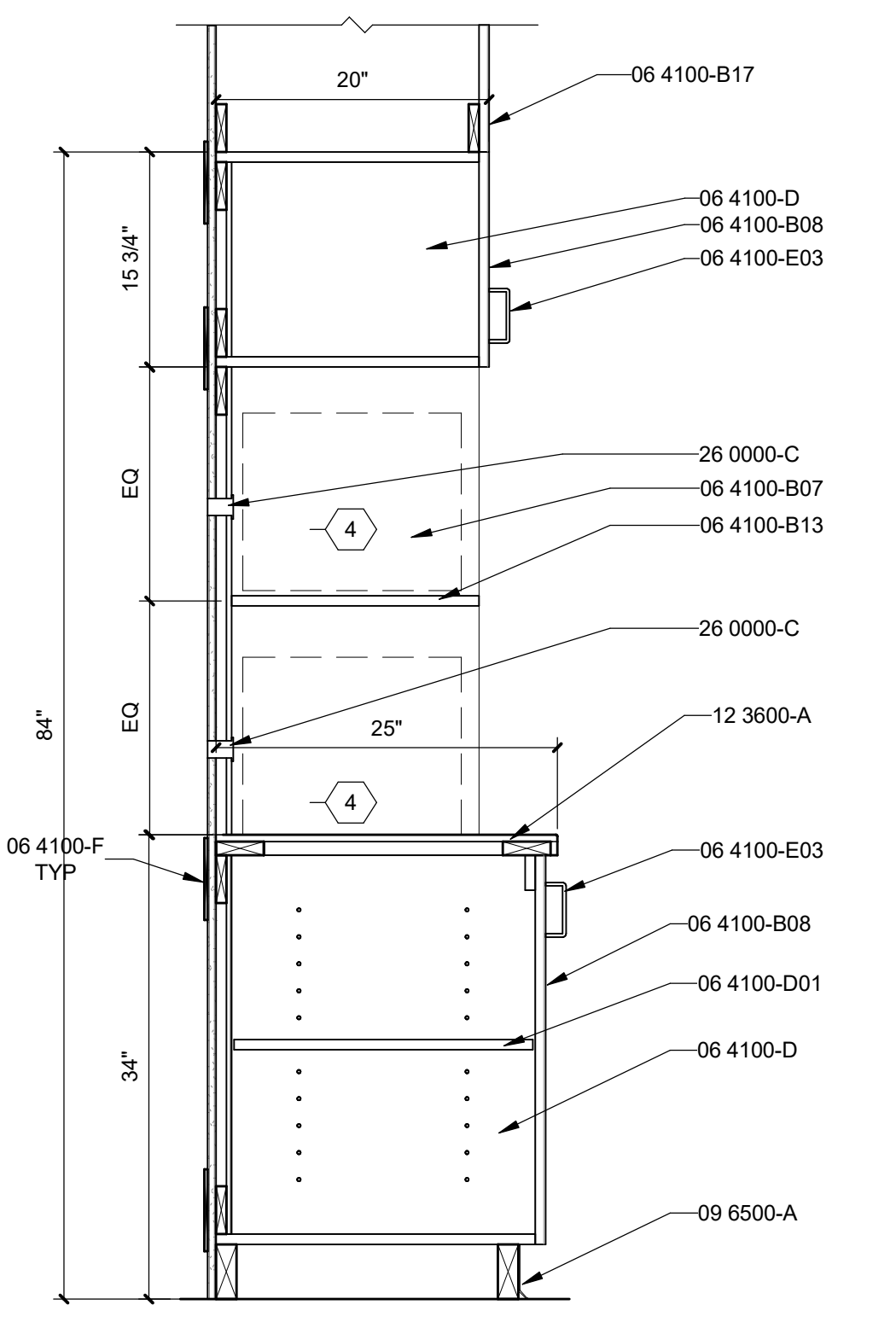
D1 CASEWORK SECTION
1" = 1'-0"



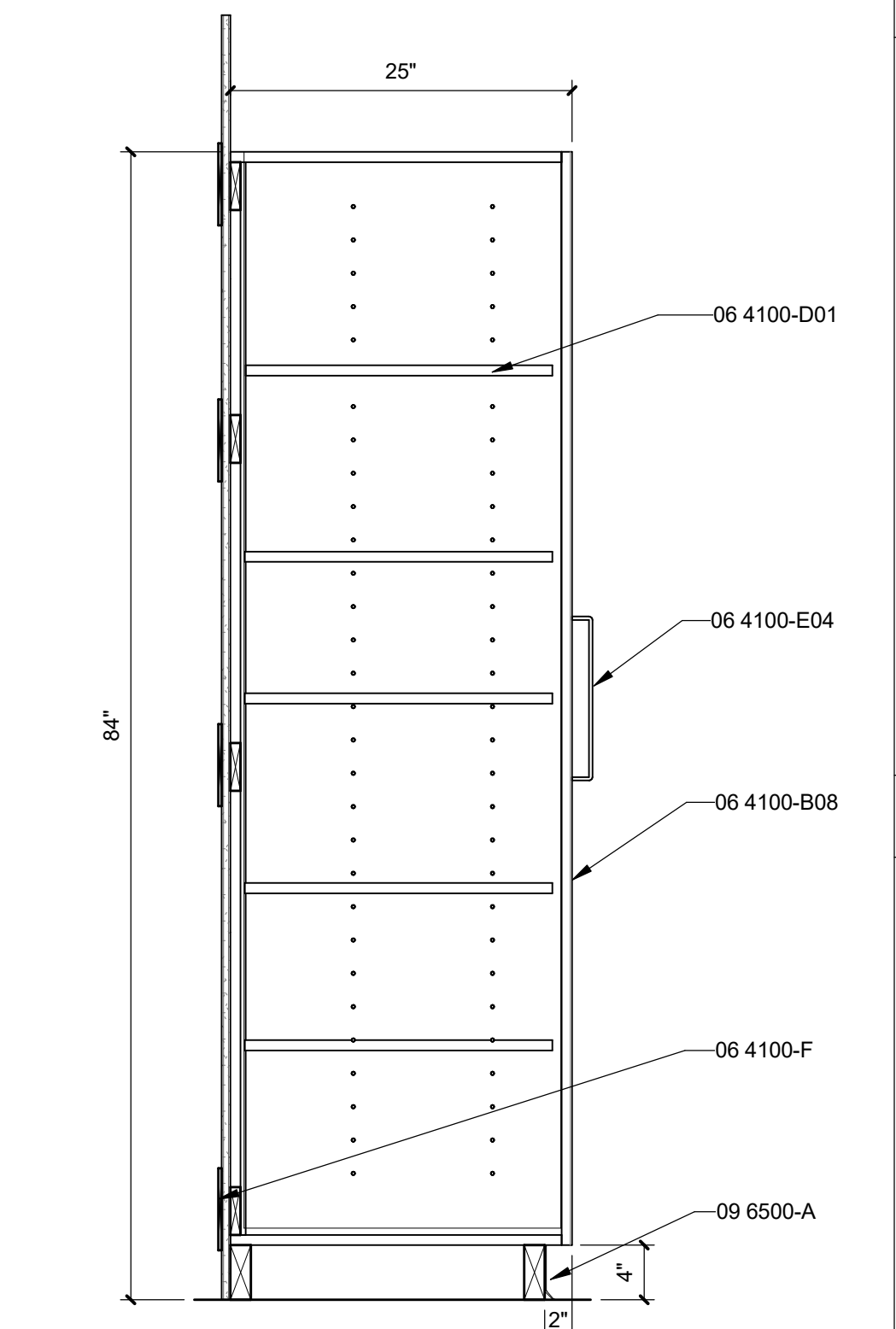
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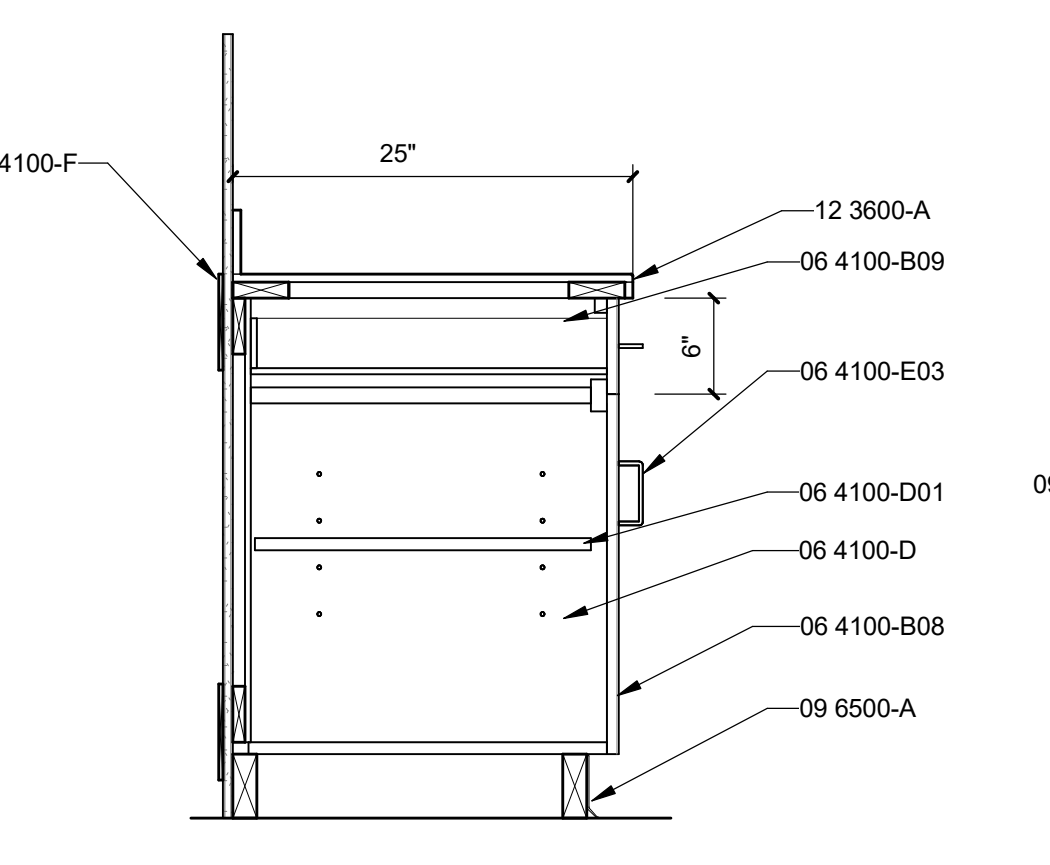
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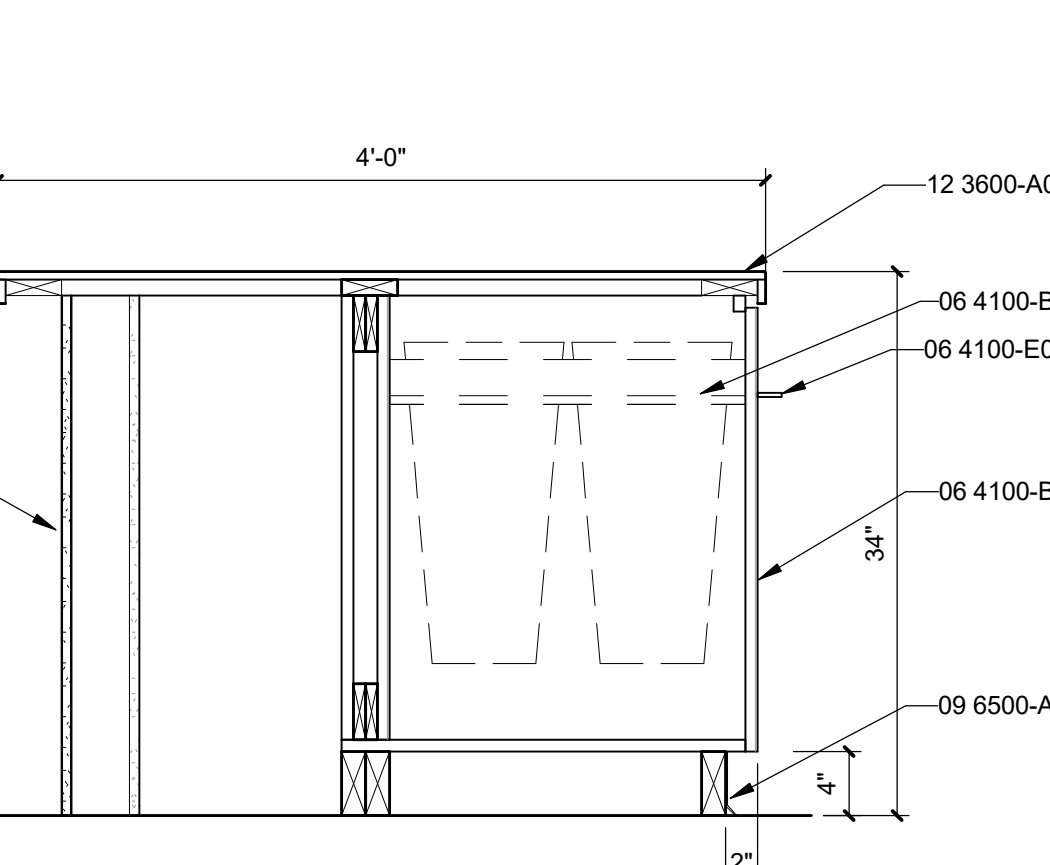
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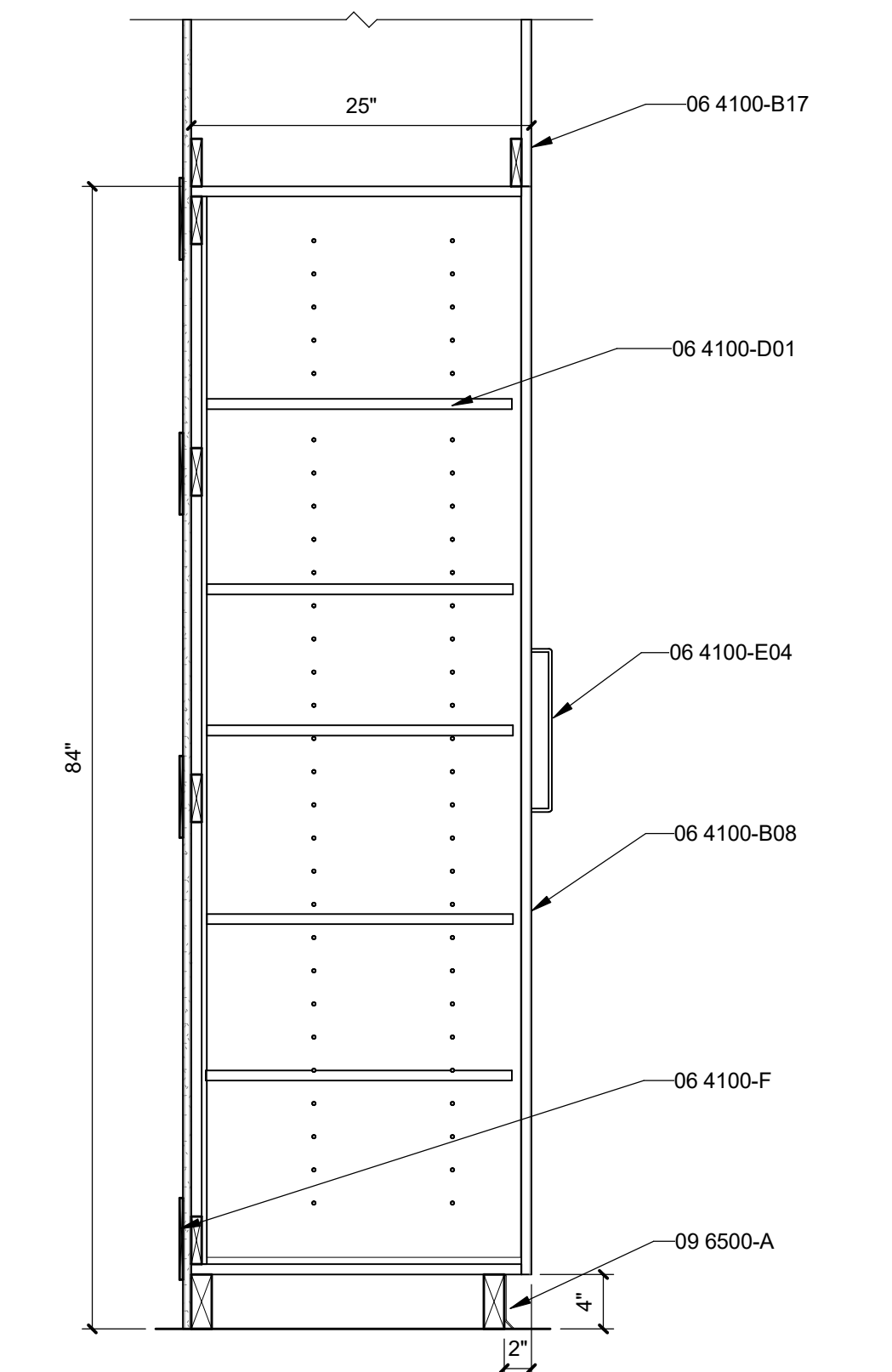
D5 CASEWORK SECTION
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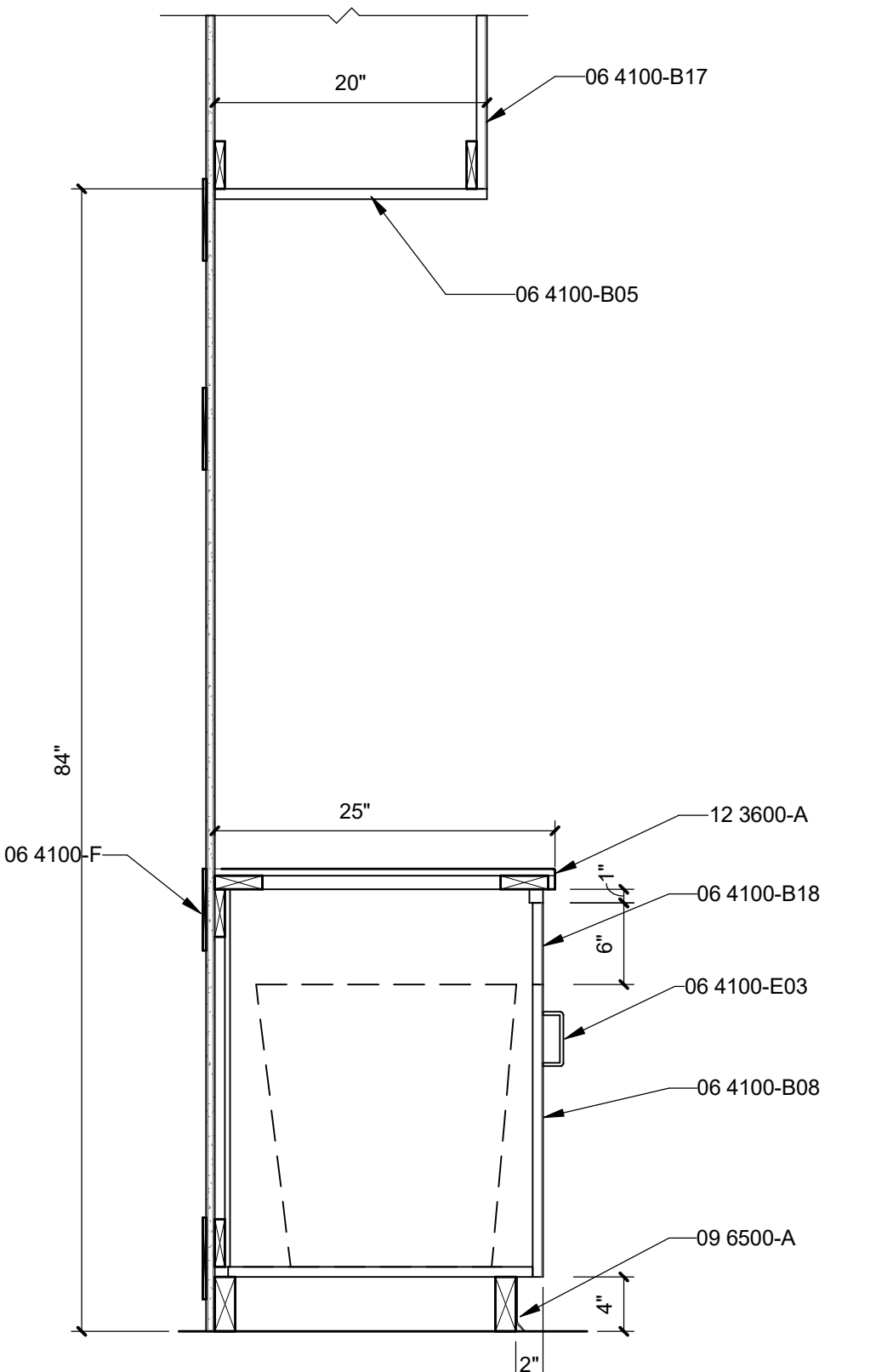
C1 CASEWORK SECTION
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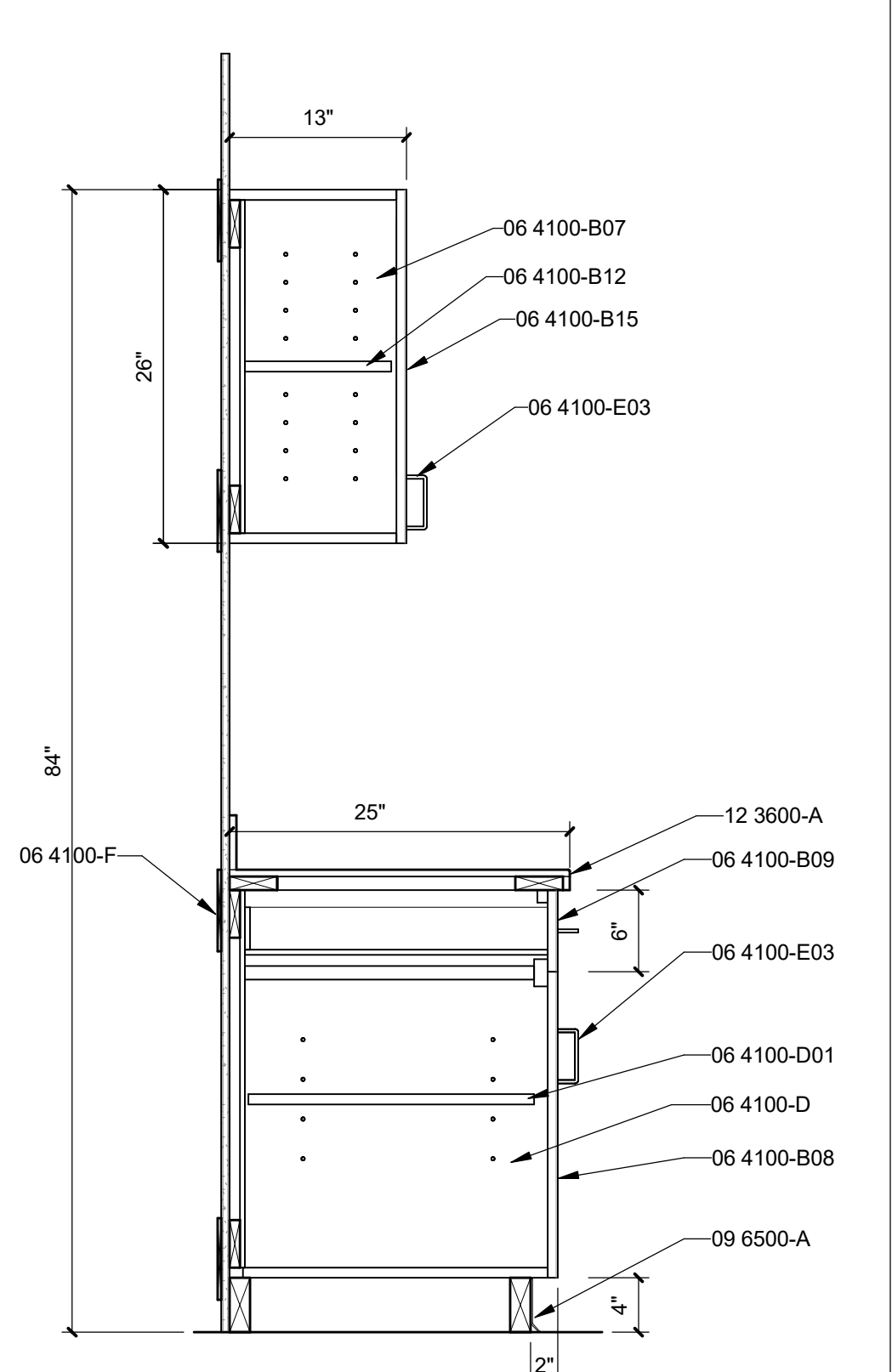
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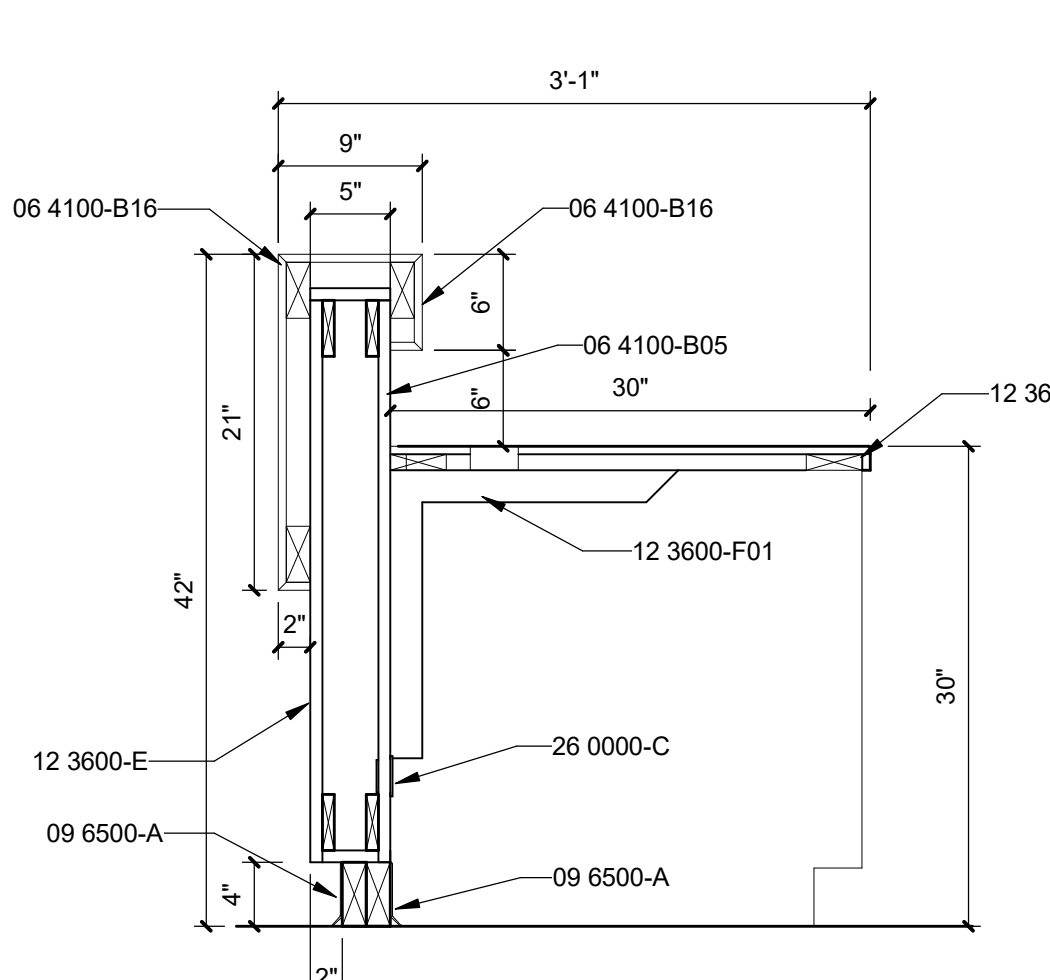
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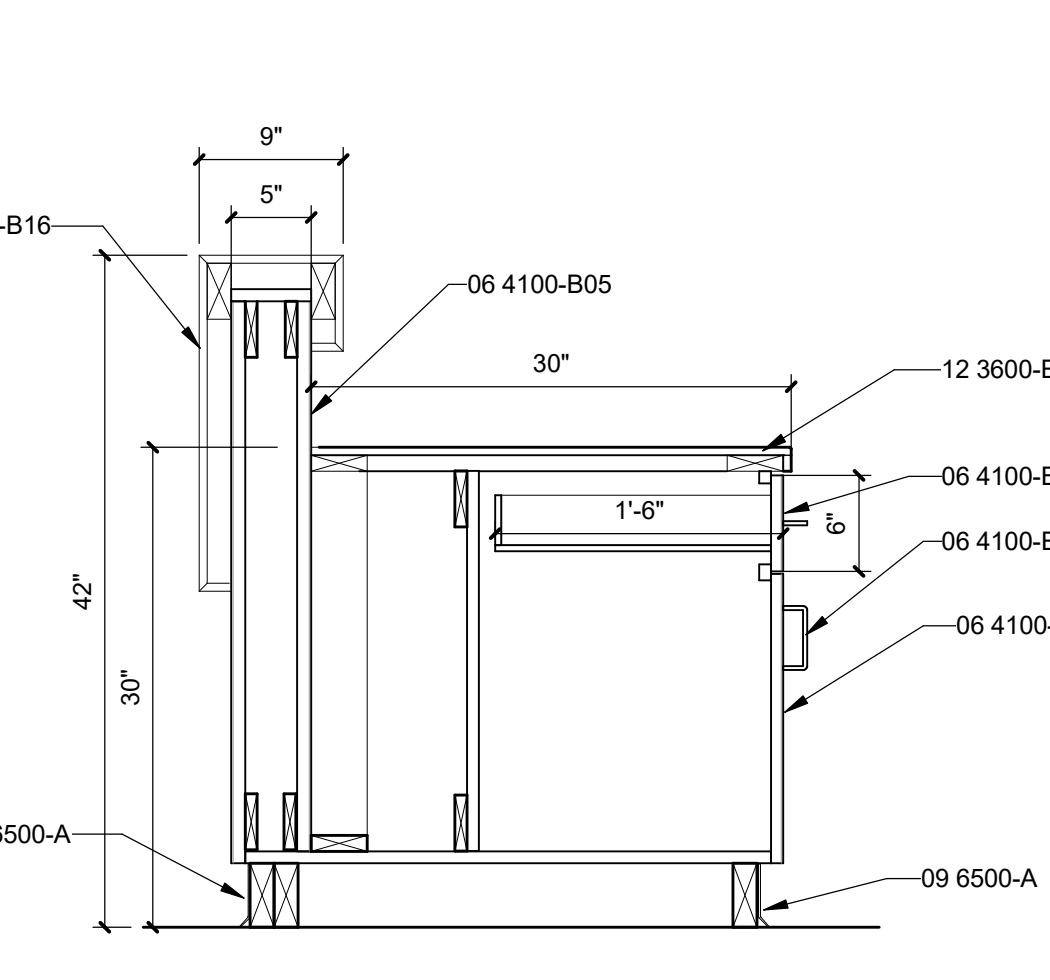
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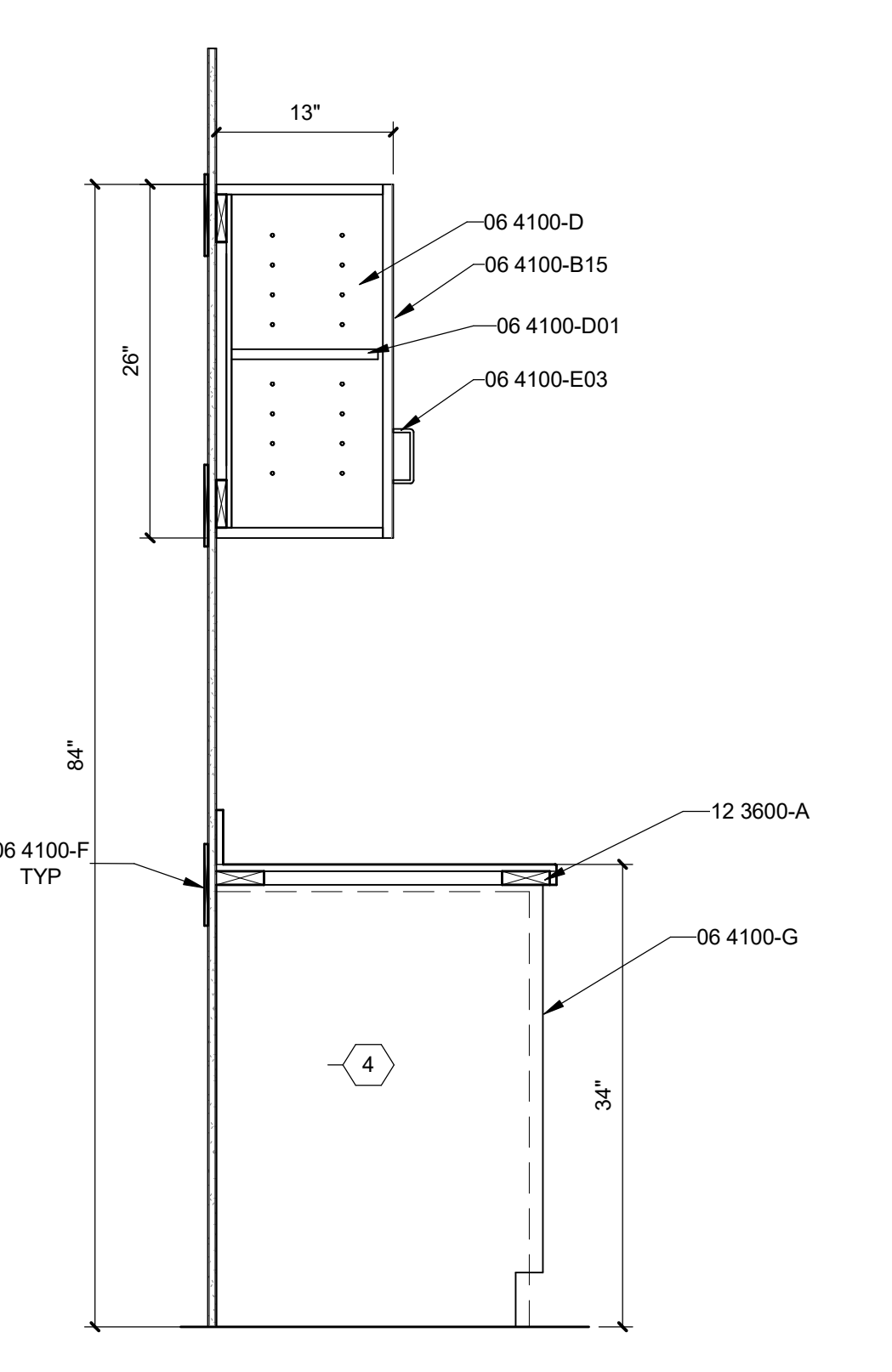
C5 CASEWORK SECTION
1" = 1'-0"



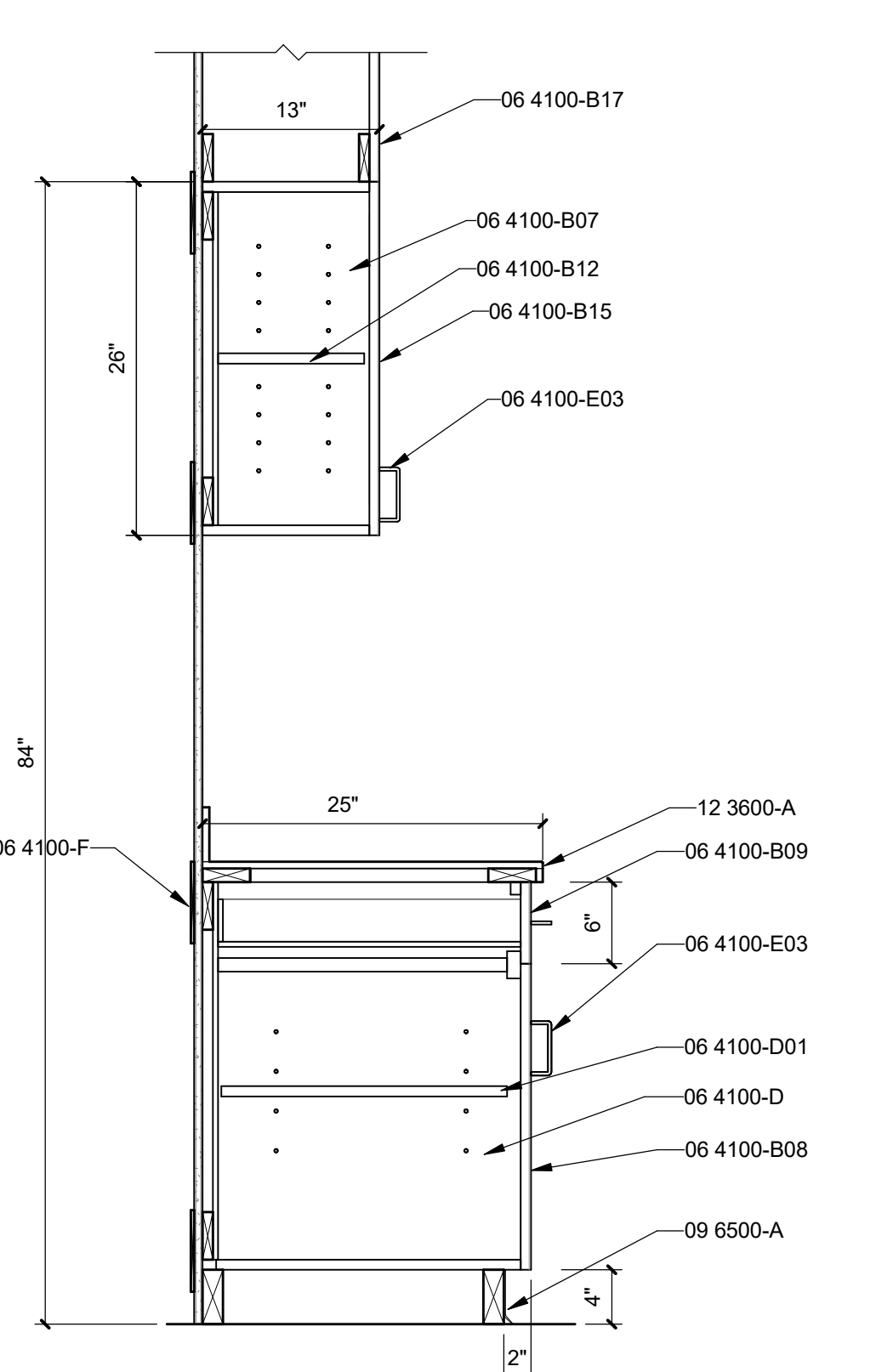
A1 CASEWORK SECTION
1" = 1'-0"



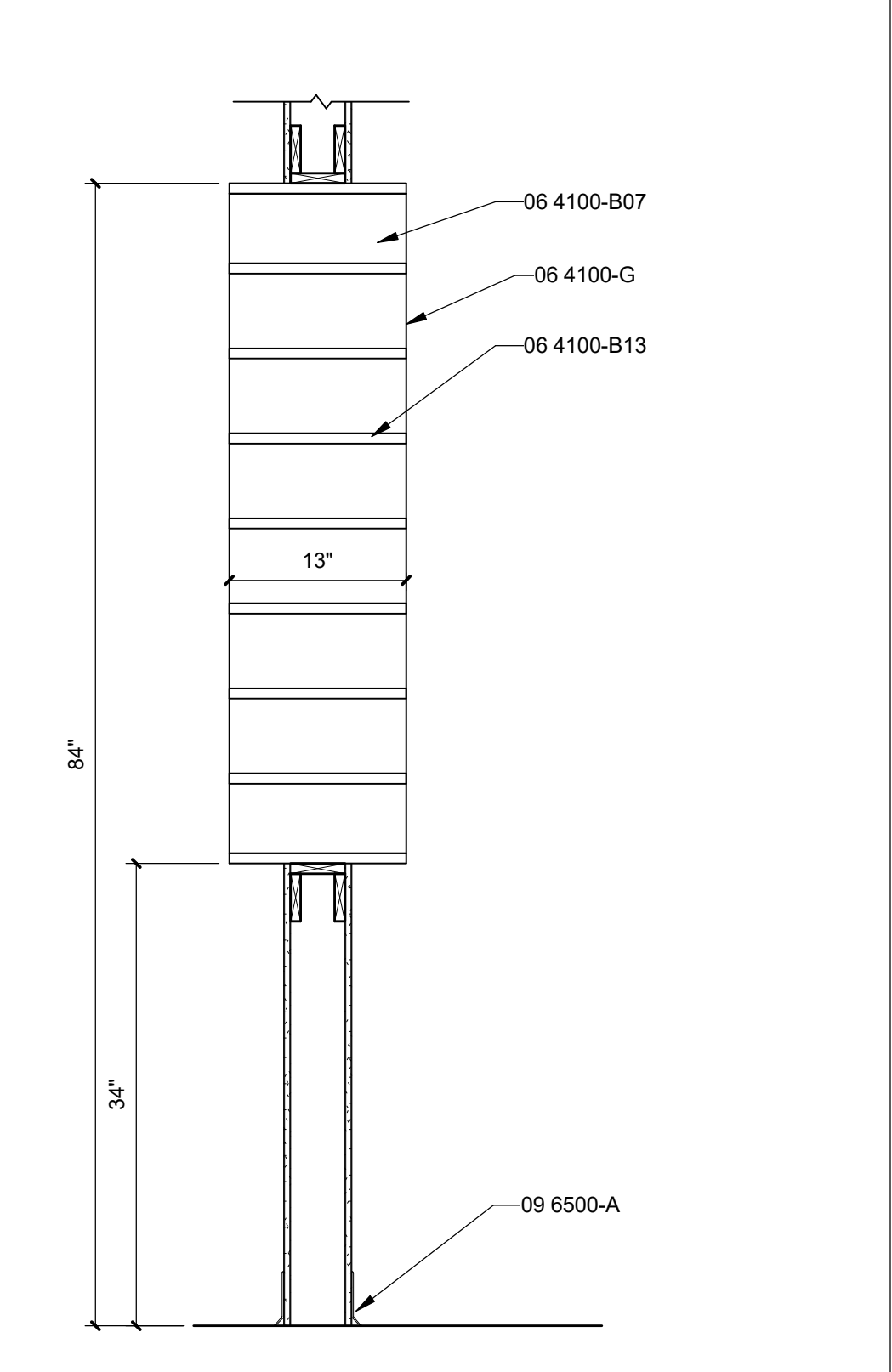
A2 CASEWORK SECTION
1" = 1'-0"



A3 CASEWORK SECTION
1" = 1'-0"

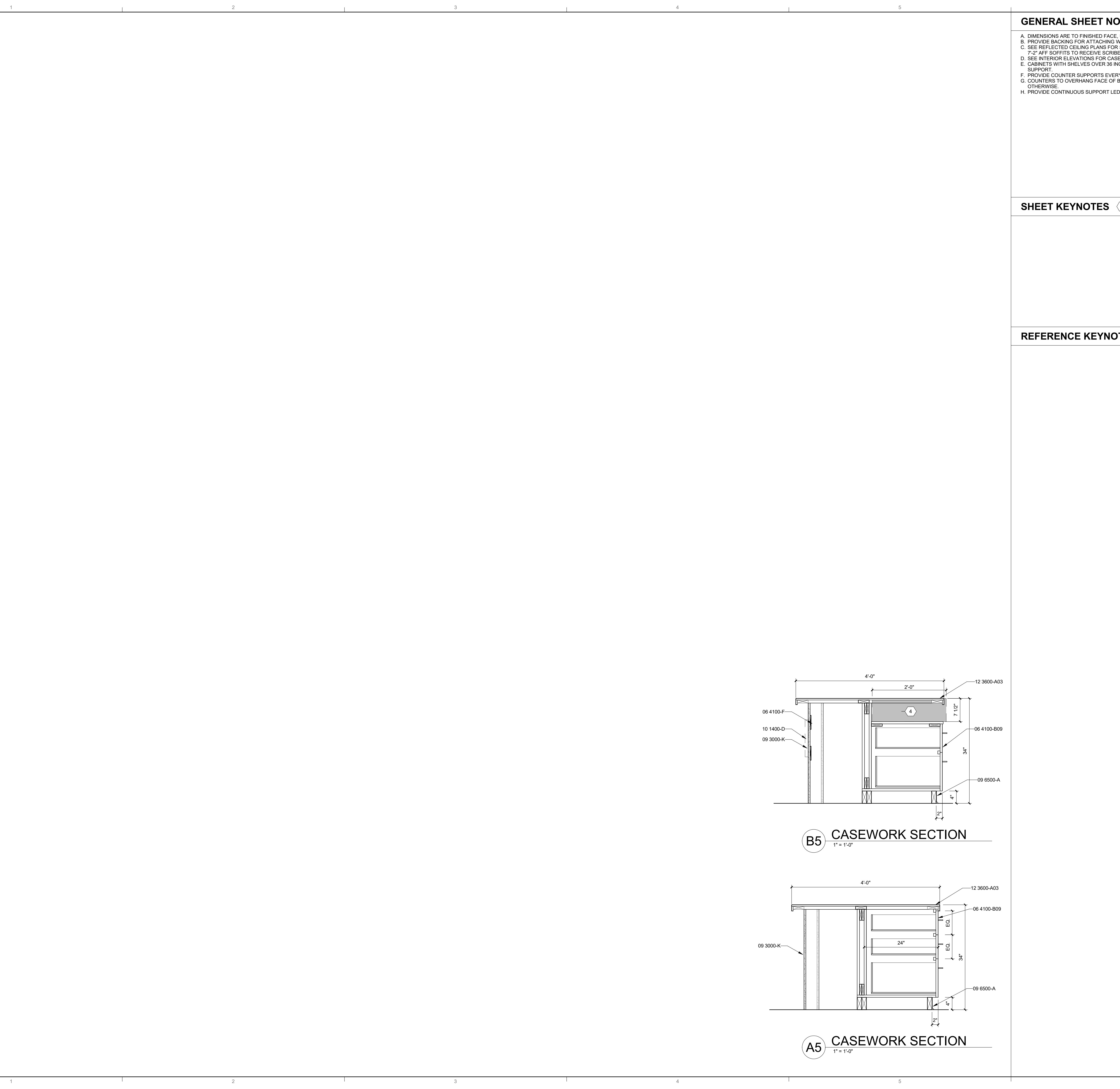


A4 CASEWORK SECTION
1" = 1'-0"



A5 CASEWORK SECTION
1" = 1'-0"

E
D
C
B
A



GENERAL SHEET NOTES

- A. DIMENSIONS ARE TO FINISHED FACE, UNLESS NOTED OTHERWISE.
- B. PROVIDE BACKING FOR ATTACHING WALL MOUNTED ITEMS.
- C. SEE REFLECTED CEILING PLANS FOR SOFFIT LOCATIONS. AT CASEWORK UNDER 7'-2" AFF SOFFITS TO RECEIVE SCRIBE MOLDING WITH CONTINUOUS LAMINATE.
- D. SEE INTERIOR ELEVATIONS FOR CASEWORK FINISH INFORMATION.
- E. CABINETS WITH SHELVES OVER 36 INCHES WIDE REQUIRE A MIDDLE VERTICAL SUPPORT.
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- G. COUNTERTOPS TO OVERHANG FACE OF BASE CABINET 1 INCH, UNLESS NOTED OTHERWISE.
- H. PROVIDE CONTINUOUS SUPPORT LEDGER ALONG WALL UNDER COUNTERTOP.

SHEET KEYNOTES

REFERENCE KEYNOTES

**DEKKER
PERICH
SABATINI**

**Architecture
in Progress**

SEAL

PROJECT

**NMSU NM DEPT OF AGRICULTURE
OFFICE BUILDING**

3910 SOUTH ESPINA STREET LAS
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50%
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DOCUMENTS

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REVIEWED BY _____ Approver

DATE _____

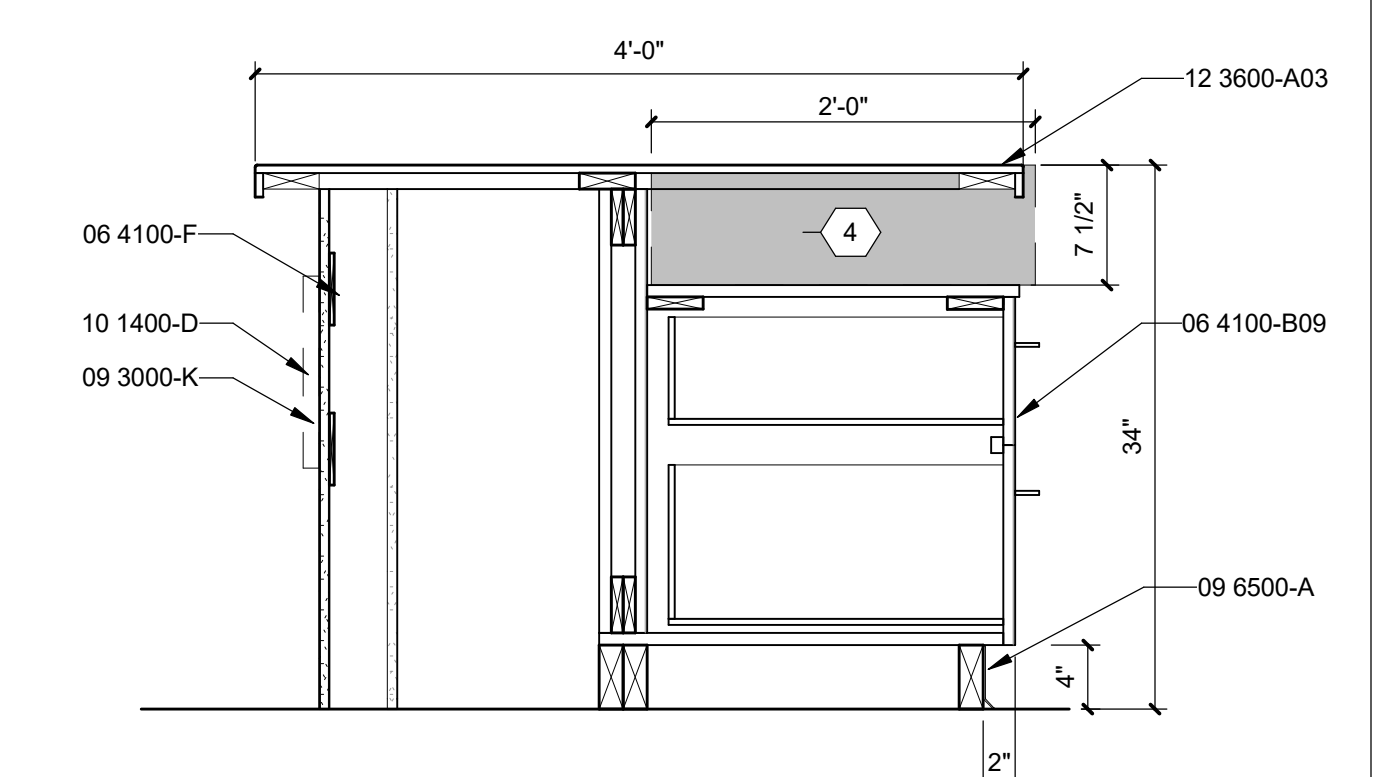
PROJECT NO 22-0227.001

DRAWING NAME

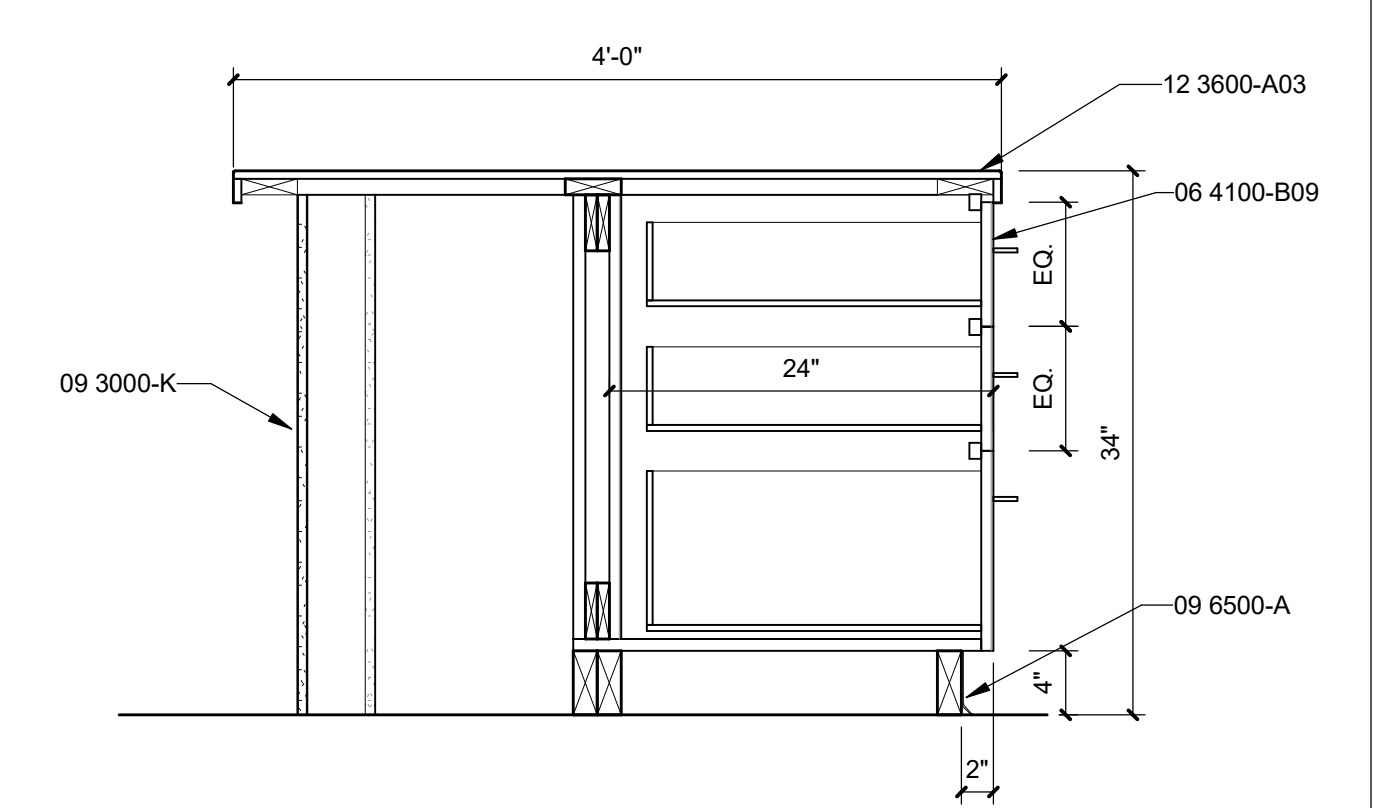
**CASEWORK
SECTIONS**

SHEET NO

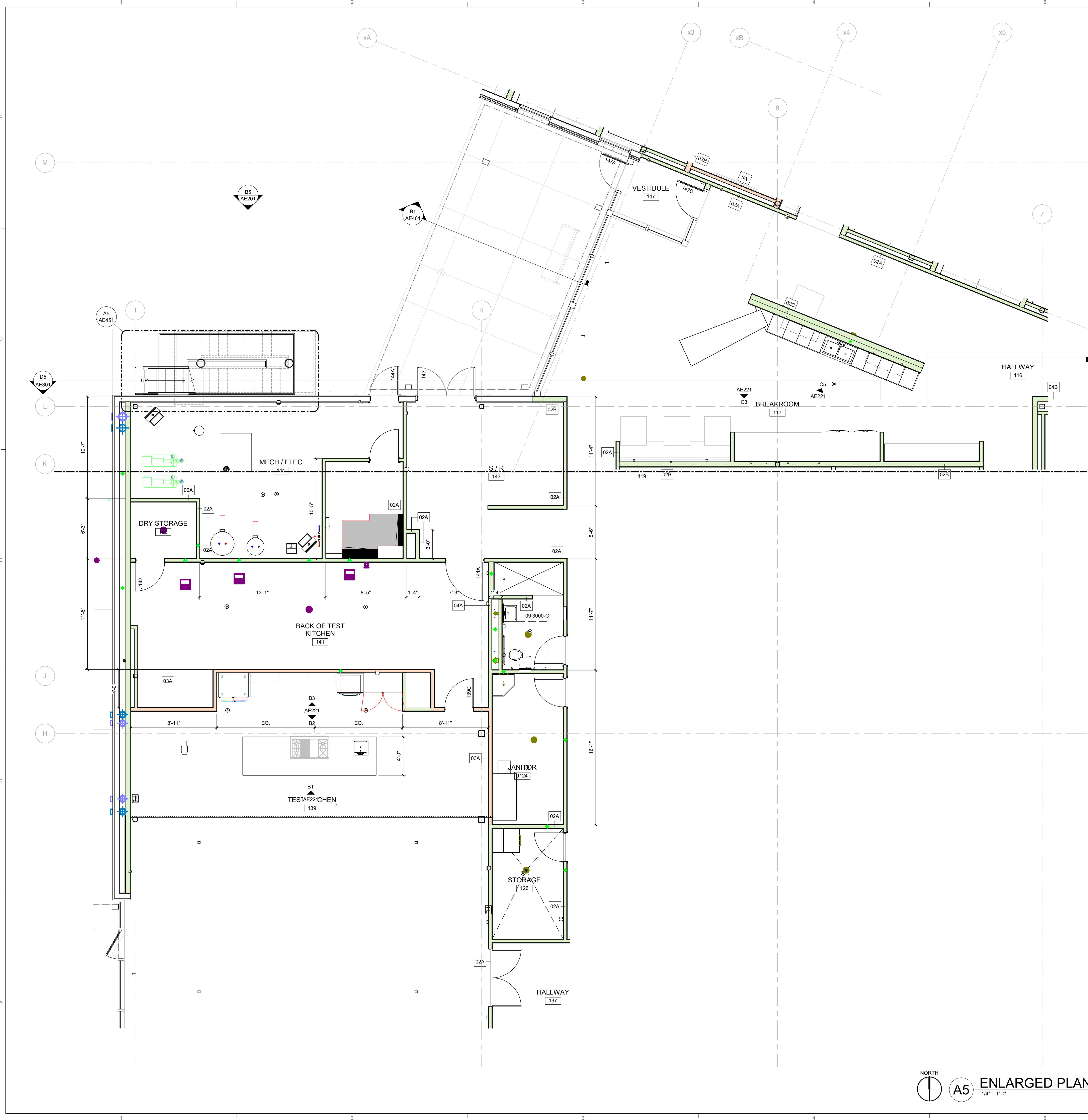
AE362



B5 CASEWORK SECTION
1" = 1'-0"



A5 CASEWORK SECTION
1" = 1'-0"



GENERAL SHEET NOTES

- A. DOOR FRAMES TO BE 4-1/2 INCHES FROM ADJACENT STUD TO INSIDE FACE OF FRAME, UNLESS NOTED OTHERWISE.
- B. CLEAR DIMENSIONS ARE FROM FACE OF FINISHED WALL.

SHEET KEYNOTES

REFERENCE KEYNOTES

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DRAWN BY CS
REVIEWED BY SL
DATE 04/29/2024
PROJECT NO 22-0227.001

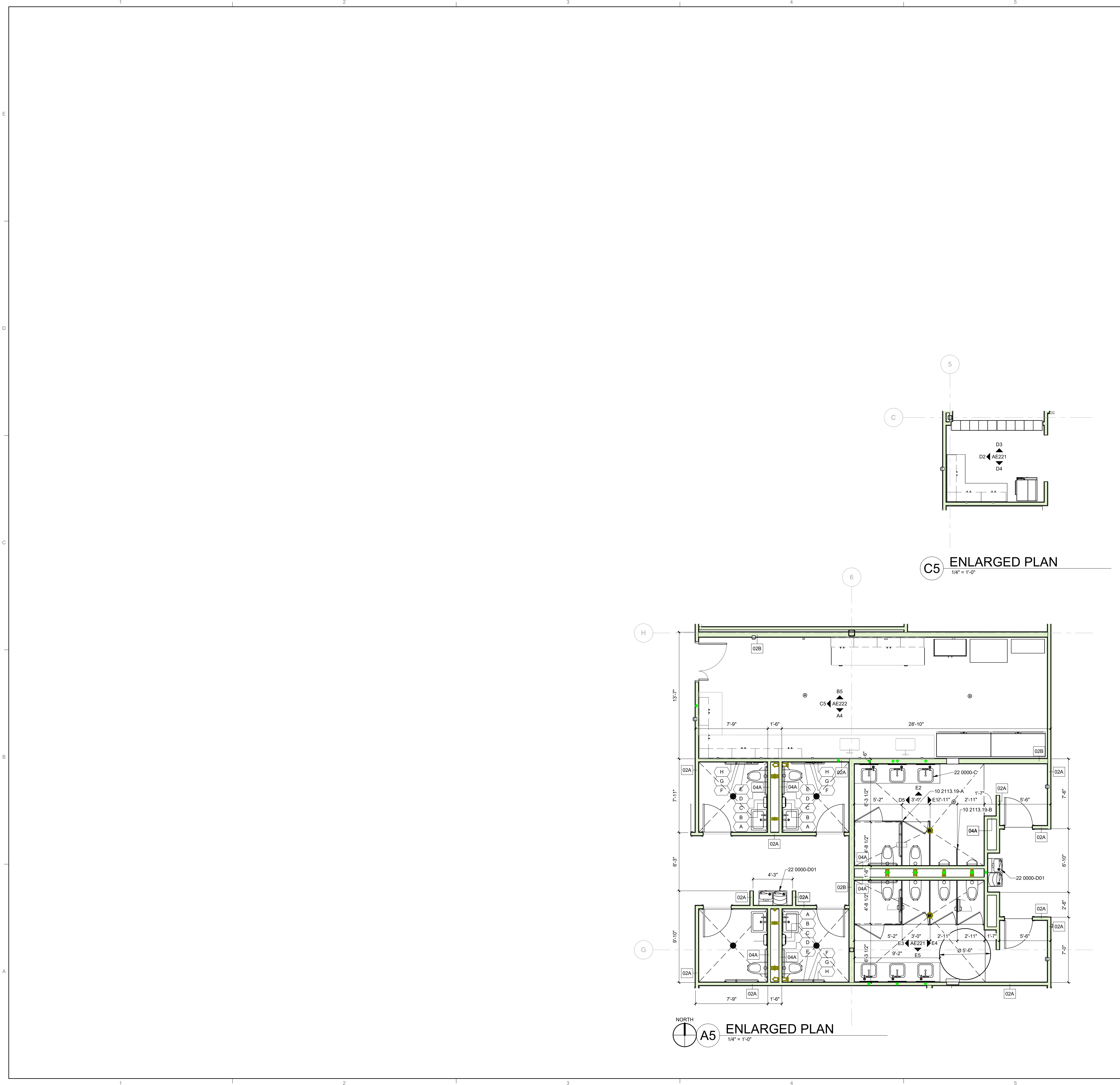
DRAWING NAME
**ENLARGED
PLANS**

SHEET NO
AE401

NORTH
A5 ENLARGED PLAN
1/4" = 1'-0"

4/29/2024 3:40:51 PM

4/29/2024 3:40:53 PM



C5 ENLARGED PLAN
1/4" = 1'-0"

NORTH
A5 ENLARGED PLAN
1/4" = 1'-0"

GENERAL SHEET NOTES

- A. DOOR FRAMES TO BE 4-1/2 INCHES FROM ADJACENT STUD TO INSIDE FACE OF FRAME, UNLESS NOTED OTHERWISE.
- B. CLEAR DIMENSIONS ARE FROM FACE OF FINISHED WALL.

SHEET KEYNOTES

REFERENCE KEYNOTES

ACCESSORY SCHEDULE

MARK	ACCESSORY TYPE / DESCRIPTION	MFG - MODEL	FINISH / ADDITIONAL COMMENTS
<varies>	<varies>	<varies>	<varies>
A	Framed Mirror, 24 x 36 No Shelf	Bradley Corporation	Brushed Bronze
B	ELVARI SURFACE-MOUNTED TOWEL DISPENSER, SMALL CAPACITY	Bradley Corporation	Brushed Bronze
C	Waste Receptacle - Semi-Recessed	Bradley Corporation	Brushed Bronze
D	36" GRAB BAR	Bradley Corporation	Brushed Bronze
E	Napkin Disposal - Recessed	Bradley Corporation	Brushed Bronze
F	Toilet Tissue Dispenser - Recessed	Bradley Corporation	Brushed Bronze
G	18" VERTICAL GRAB BAR	Bradley Corporation	Brushed Bronze
H	42" GRAB BAR	Bradley Corporation	Brushed Bronze

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DATE 04/29/2024

PROJECT NO 22-0227.001

DRAWING NAME

**ENLARGED
PLANS**

SHEET NO

AE402

GENERAL SHEET NOTES

- A. VERIFY DIMENSIONS IN FIELD.
- B. CANOPY FOOTINGS TO BE DESIGNED BY MANUFACTURER.

SHEET KEYNOTES

REFERENCE KEYNOTES

10 7316.13-A ALUMINUM WALKWAY CANOPY

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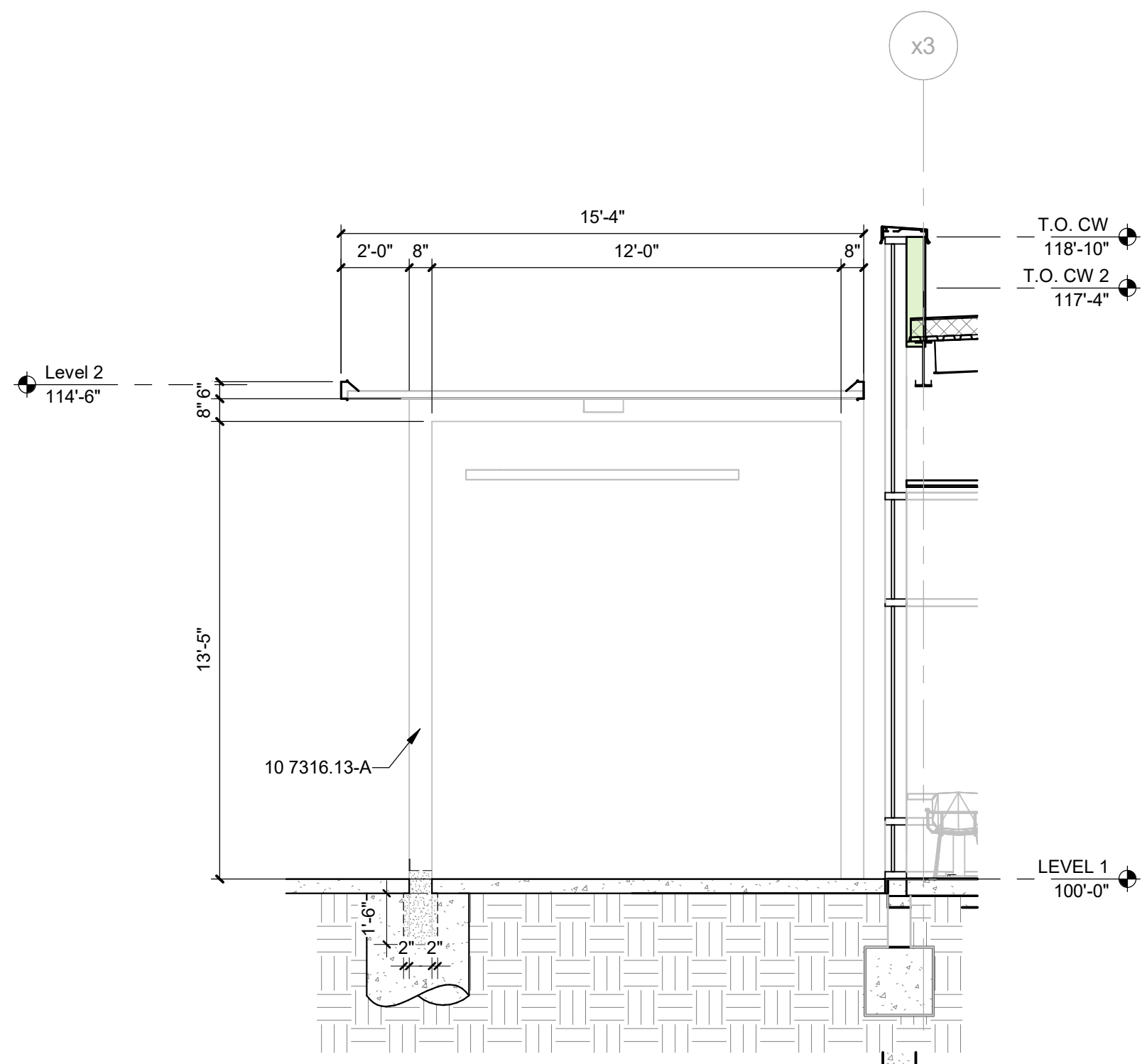
REVISIONS

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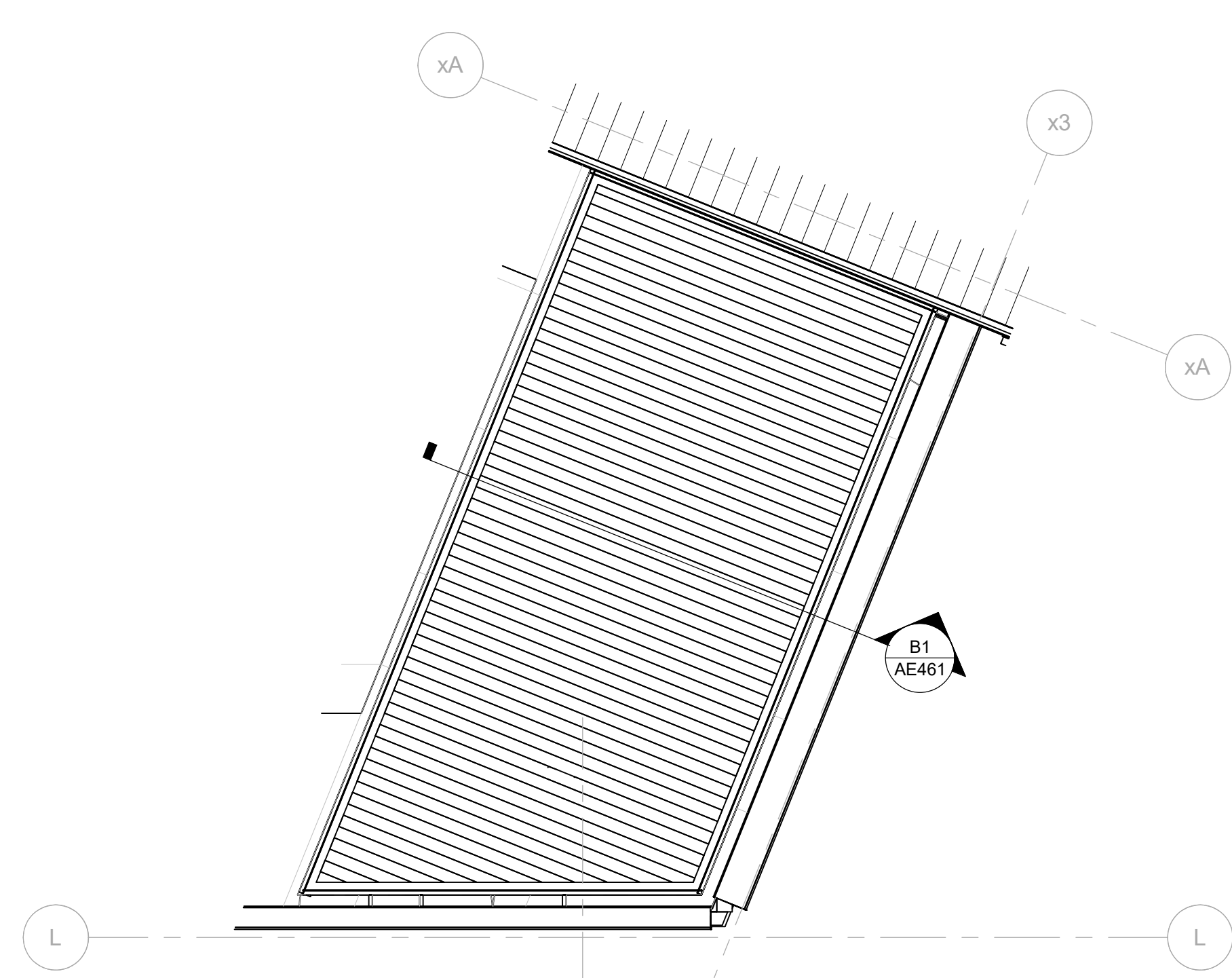
DRAWN BY _____ CS
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DATE 04/29/2024
PROJECT NO 22-0227.001

DRAWING NAME
**ENLARGED
CANOPY PLANS,
DETAILS**

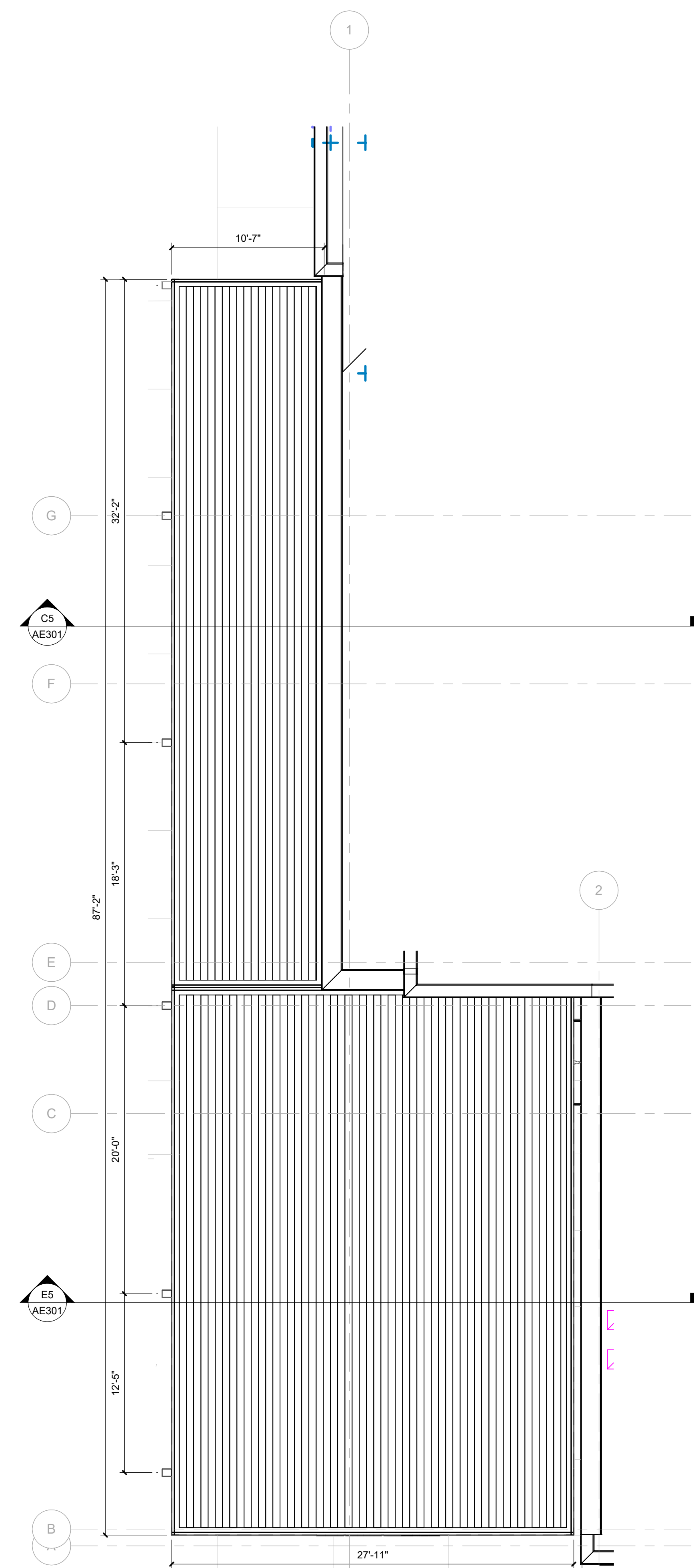
SHEET NO
AE461



B1 SECTION
1/4" = 1'-0"



B2 CANOPY PLAN - CANOPY 2
3/16" = 1'-0"



A4 CANOPY PLAN - CANOPY 1
3/16" = 1'-0"

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DATE 04/29/2024

PROJECT NO 22-0227.001

DRAWING NAME

**FLOOR PLAN
DETAILS**

SHEET NO

AE501

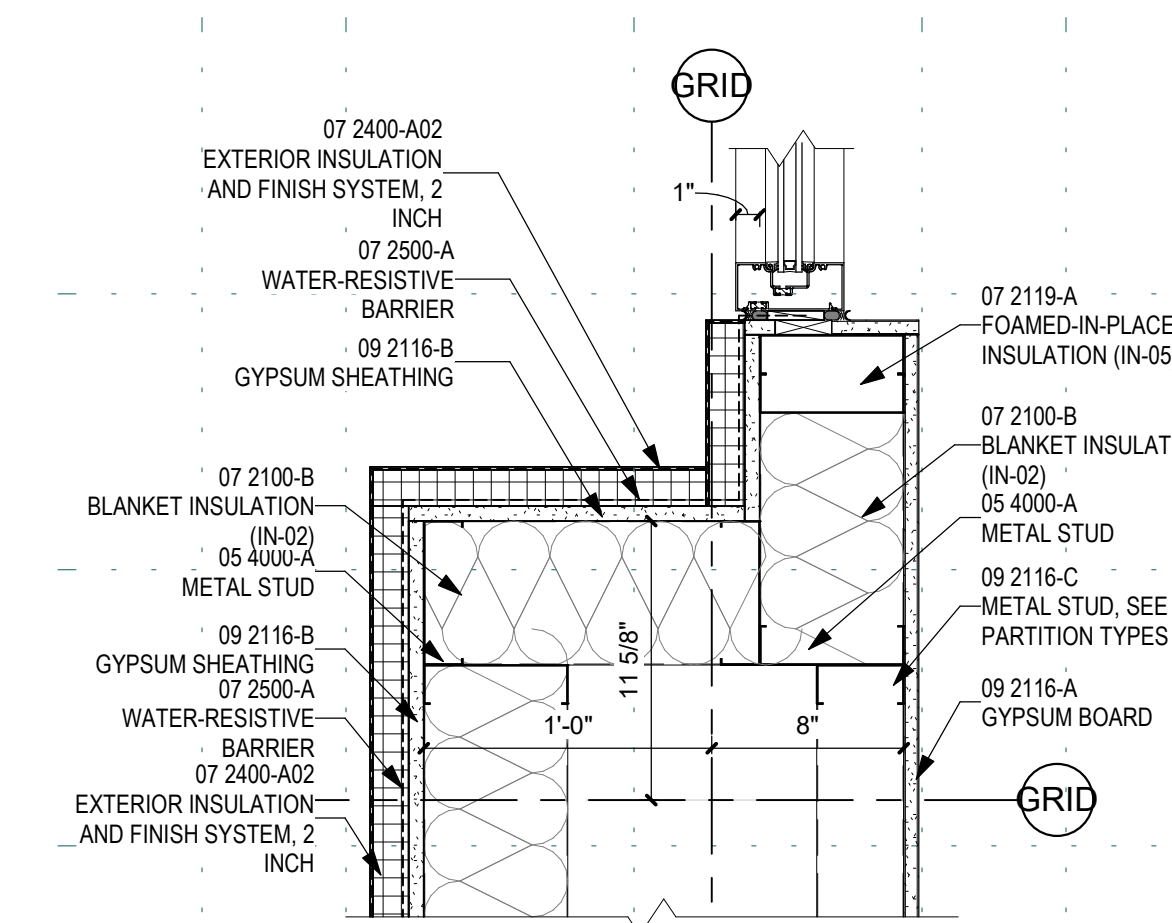
GENERAL SHEET NOTES

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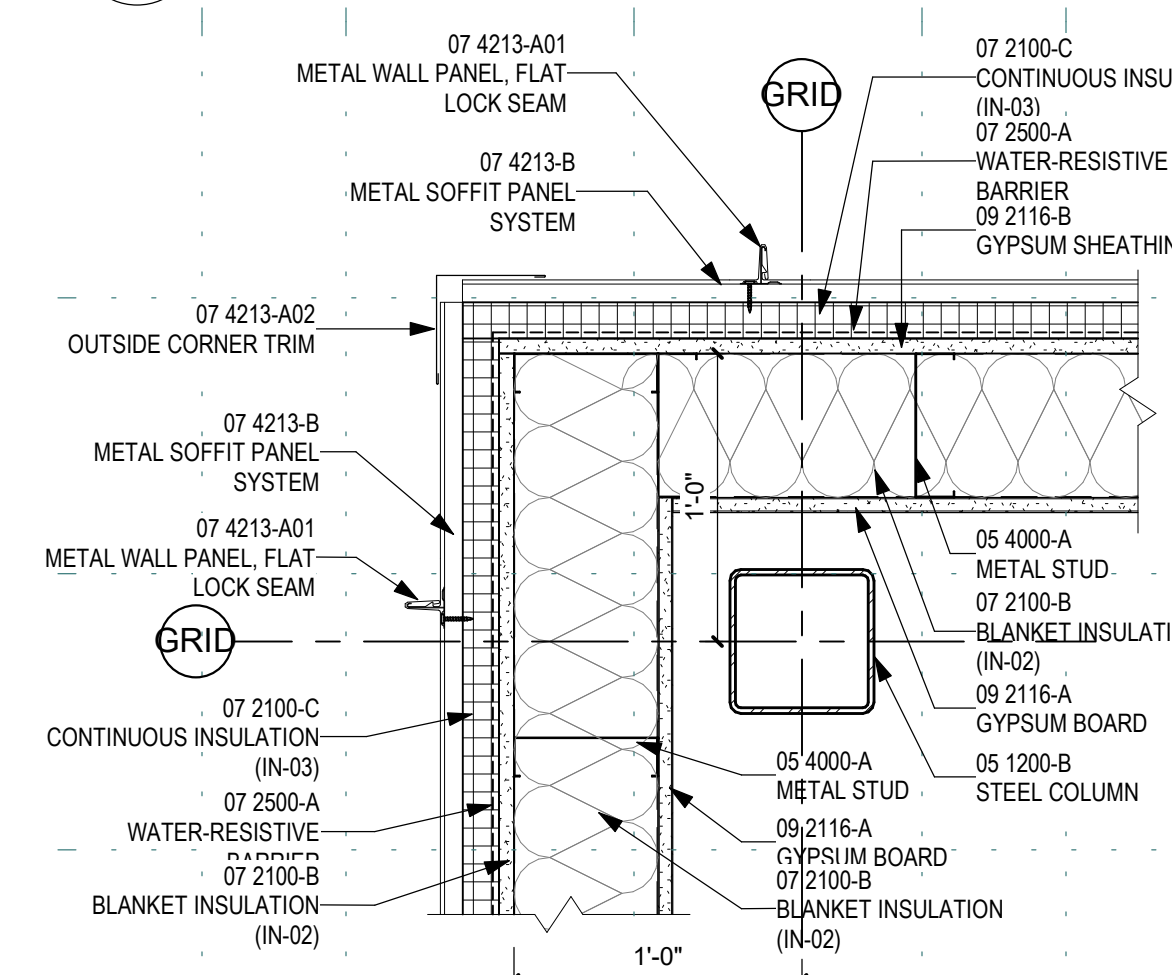
SHEET KEYNOTES ○

REFERENCE KEYNOTES

- 05 1200-B STEEL COLUMN
- 05 4000-A METAL STUD
- 07 2100-B BLANKET INSULATION (IN-02)
- 07 2100-C CONTINUOUS INSULATION (IN-03)
- 07 2119-A FOAMED-IN-PLACE INSULATION (IN-05)
- 07 2400-A02 EXTERIOR INSULATION AND FINISH SYSTEM, 2 INCH
- 07 2500-A WATER-RESISTIVE BARRIER
- 07 4213-A01 METAL WALL PANEL, FLAT LOCK SEAM
- 07 4213-A02 OUTSIDE CORNER TRIM
- 07 4213-B METAL SOFFIT PANEL SYSTEM
- 09 2116-A GYPSUM BOARD
- 09 2116-B GYPSUM SHEATHING
- 09 2116-C METAL STUD, SEE PARTITION TYPES



B5 DETAIL @ STOREFRONT JAMB
1 1/2" = 1'-0"



A5 METAL WALL PANEL OUTSIDE CORNER
1 1/2" = 1'-0"

LEGEND

REVISIONS

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 REVIEWED BY: SL
 DATE: 04/29/2024
 PROJECT NO: 22-0227-001

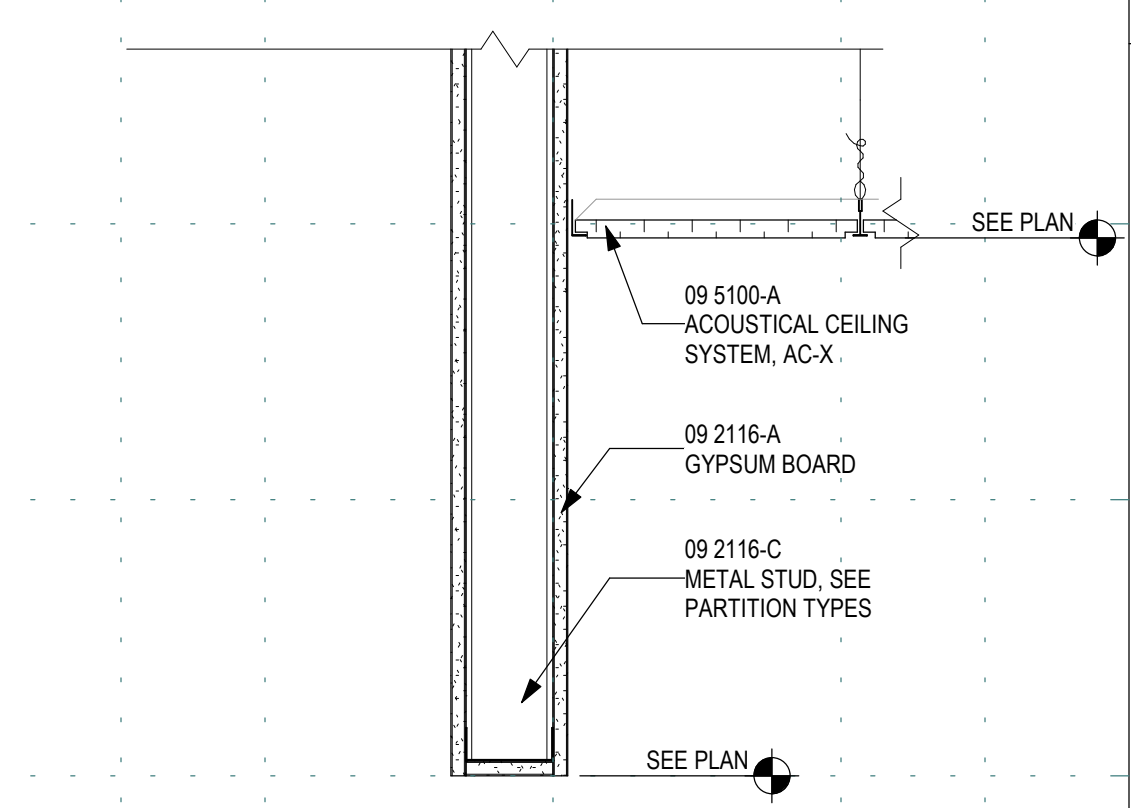
GENERAL SHEET NOTES

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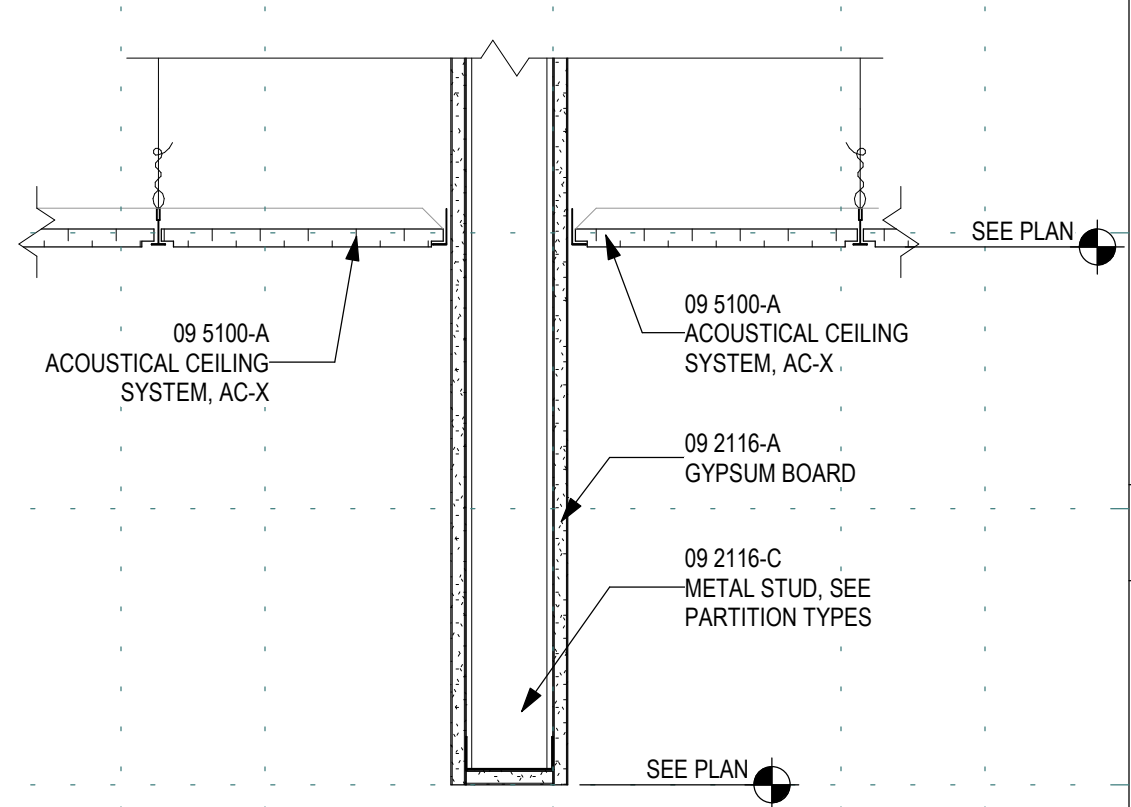
SHEET KEYNOTES

REFERENCE KEYNOTES

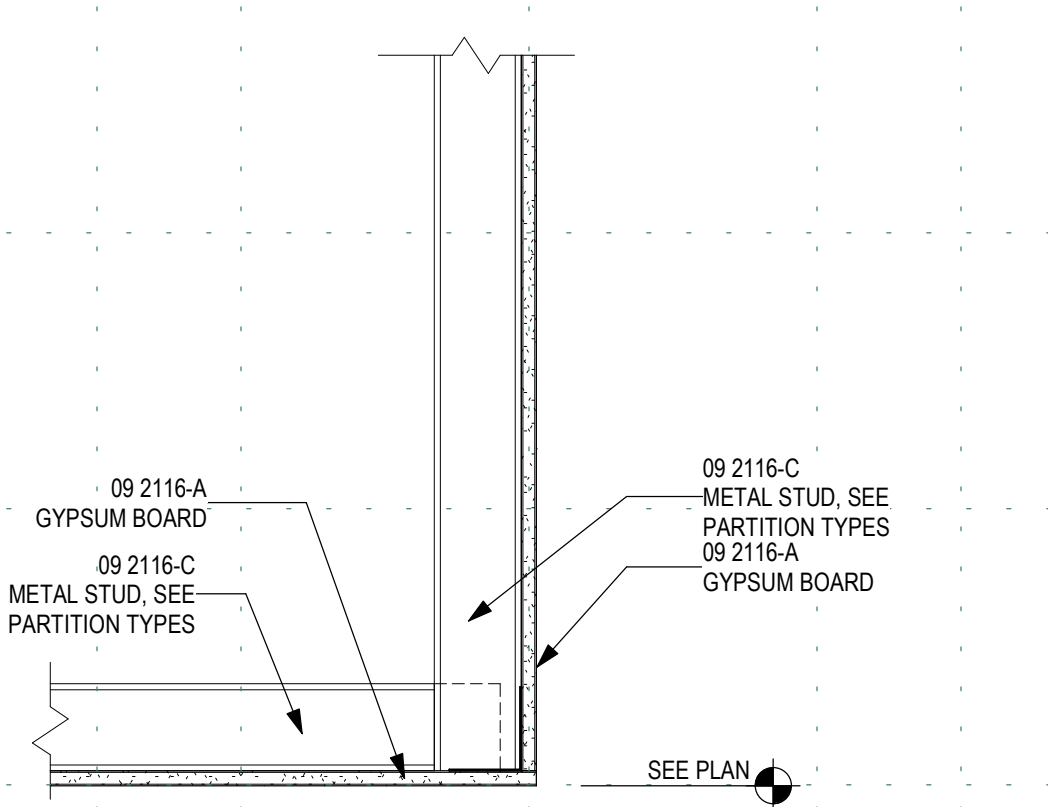
05 4000-A01	METAL STUD - 6"
05 4000-A03	METAL STUD - 3.5/8"
05 4000-D	METAL STUD BUILT-UP LINTEL
07 2100-B	BLANKET INSULATION (IN-02)
07 2119-A	FOAMED-IN-PLACE INSULATION (IN-05)
07 2400-A01	EXTERIOR INSULATION AND FINISH SYSTEM, 1-1/2 INCH
07 2400-B	EFS MESH AND FINISH COATING
07 2400-D	DRIP SCREED/TRACK
07 2500-A	WATER-RESISTIVE BARRIER
07 9200-A	SEALANT
07 9200-B	BACKER ROD AND SEALANT
09 2116-A	GYPSUM BOARD
09 2116-C	METAL STUD, SEE PARTITION TYPES
09 5100-A	ACOUSTICAL CEILING SYSTEM, AC-X
09 5100-B	EXTRUDED ALUMINUM EDGE TRIM



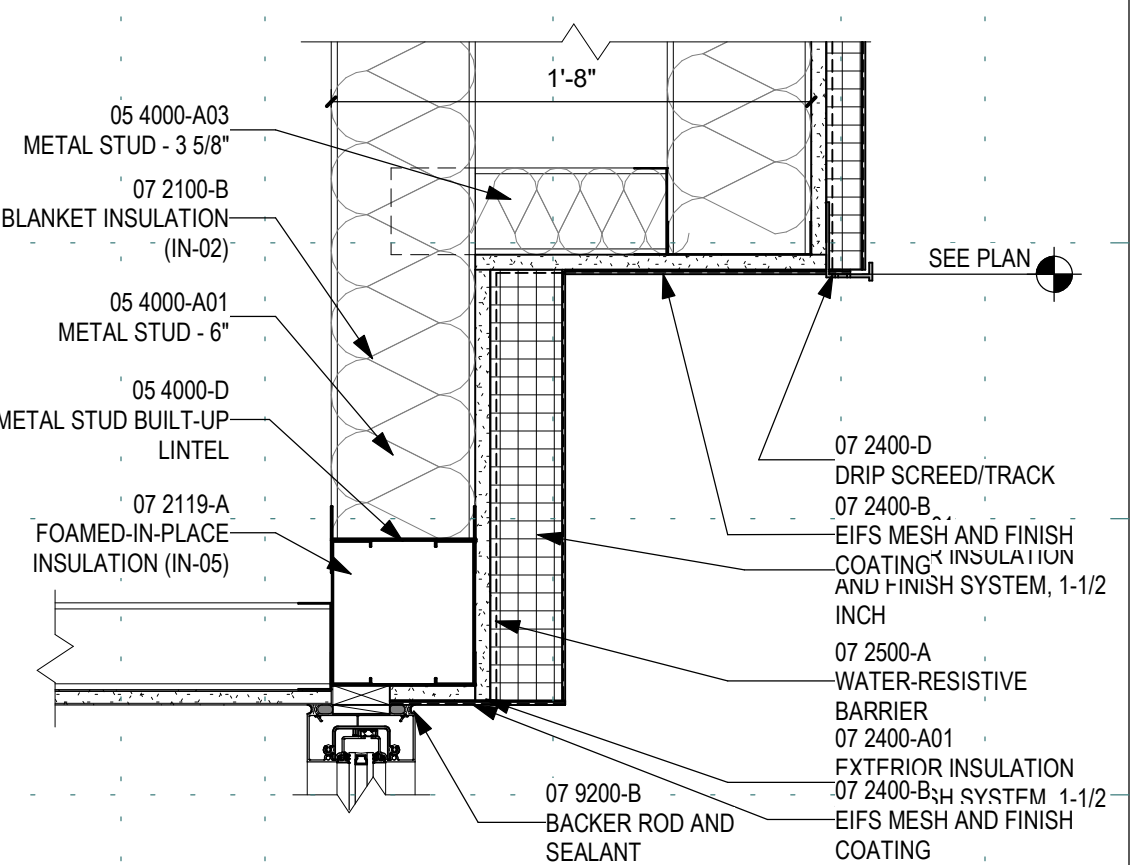
E5 CEILING DETAIL
 1 1/2" = 1'-0"



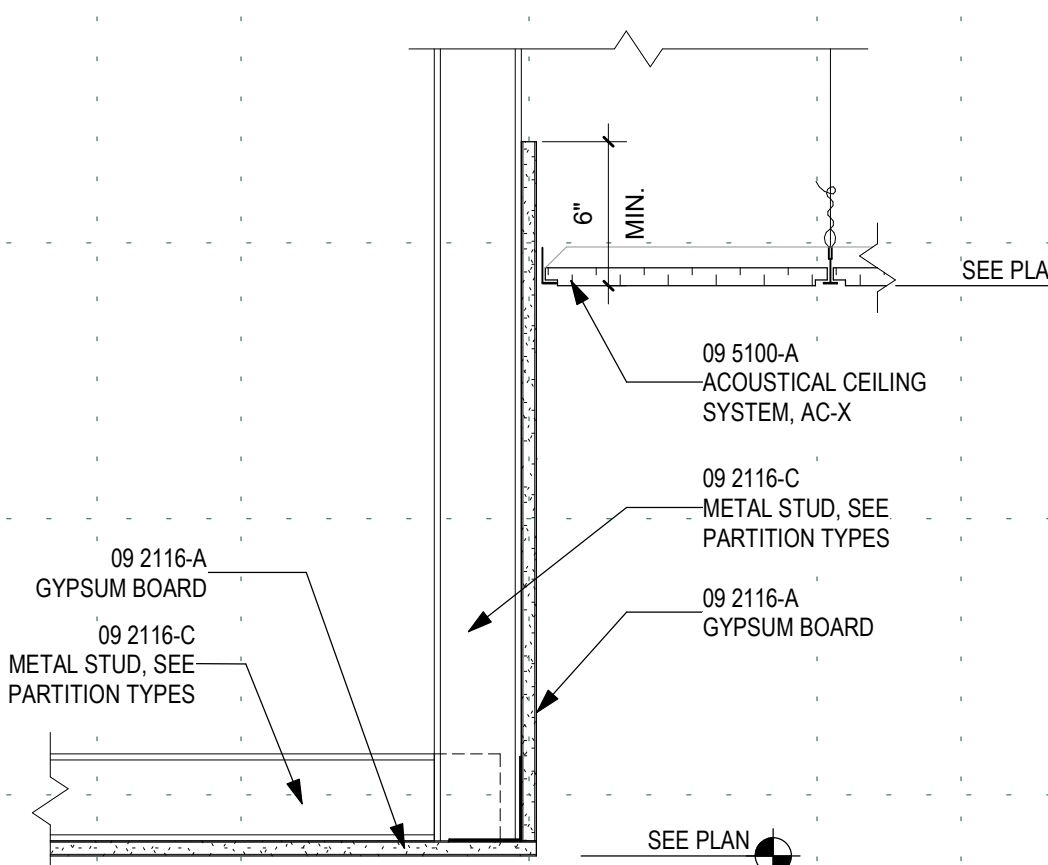
D5 CEILING DETAIL
 1 1/2" = 1'-0"



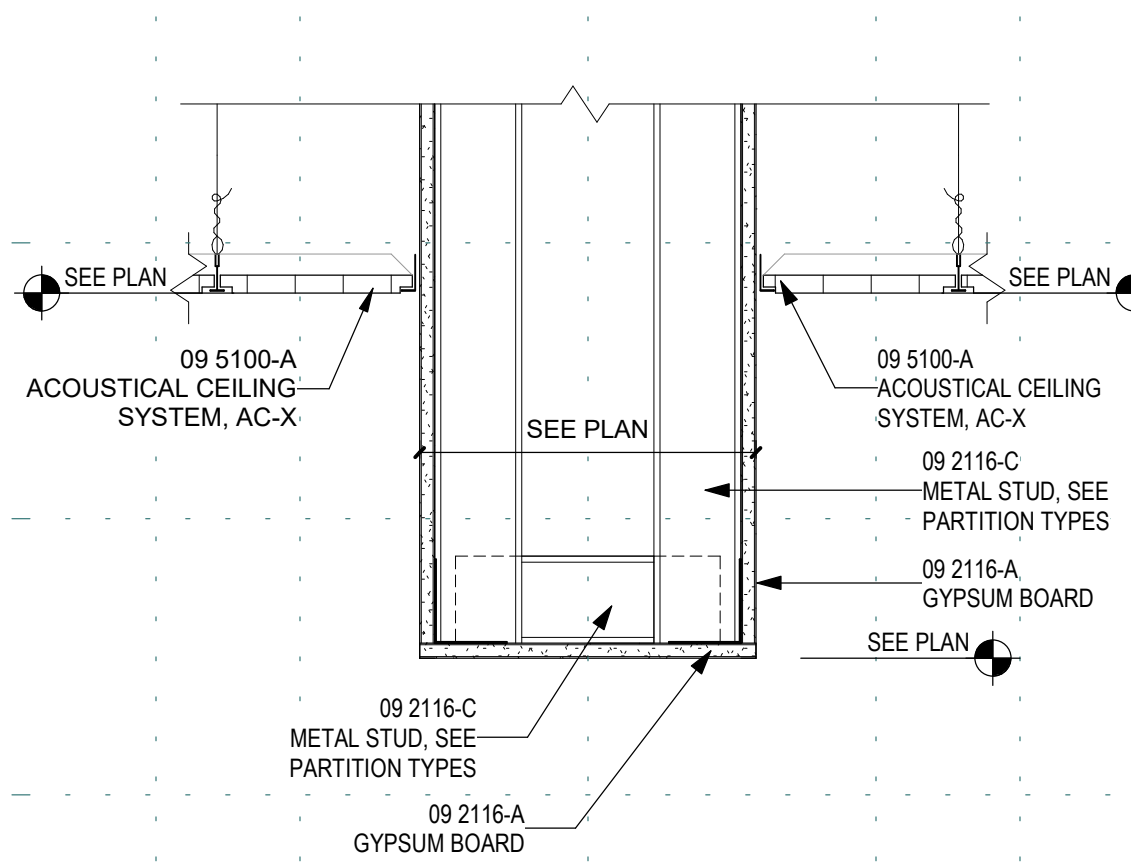
D4 CEILING DETAIL
 1 1/2" = 1'-0"



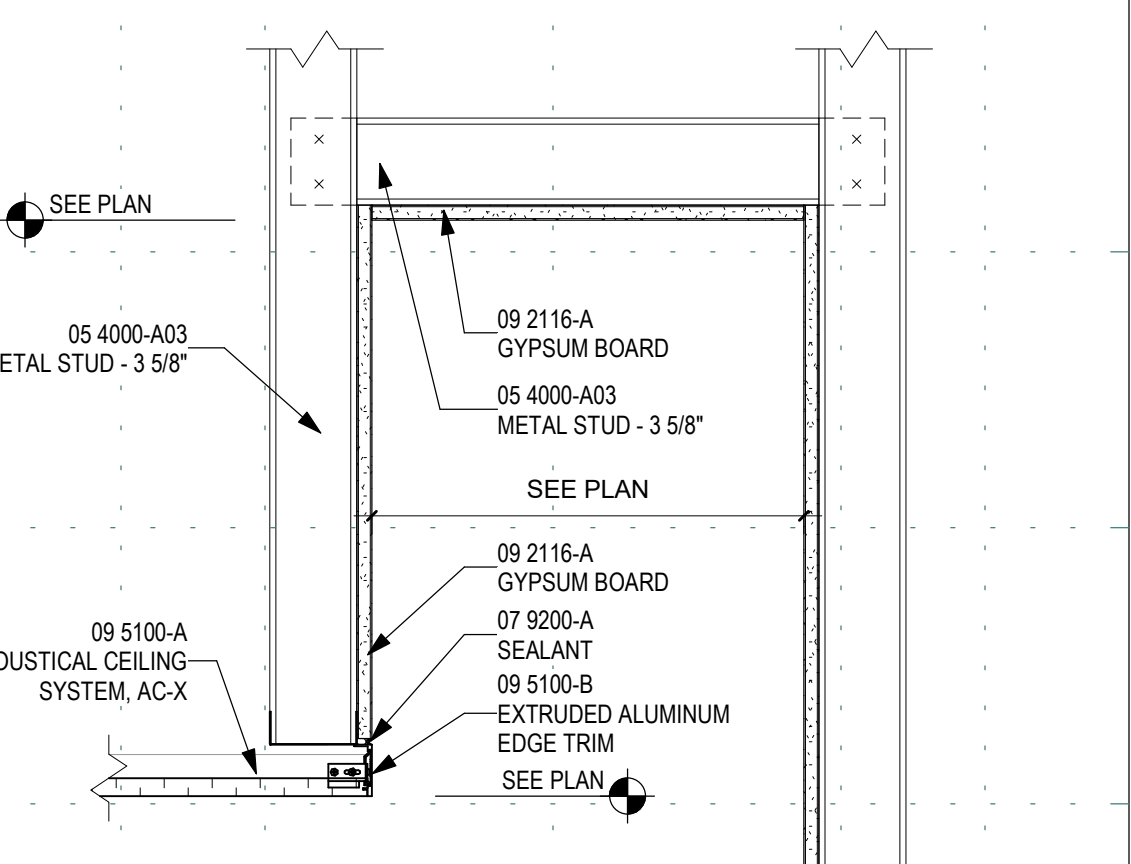
C5 CEILING DETAIL
 1 1/2" = 1'-0"



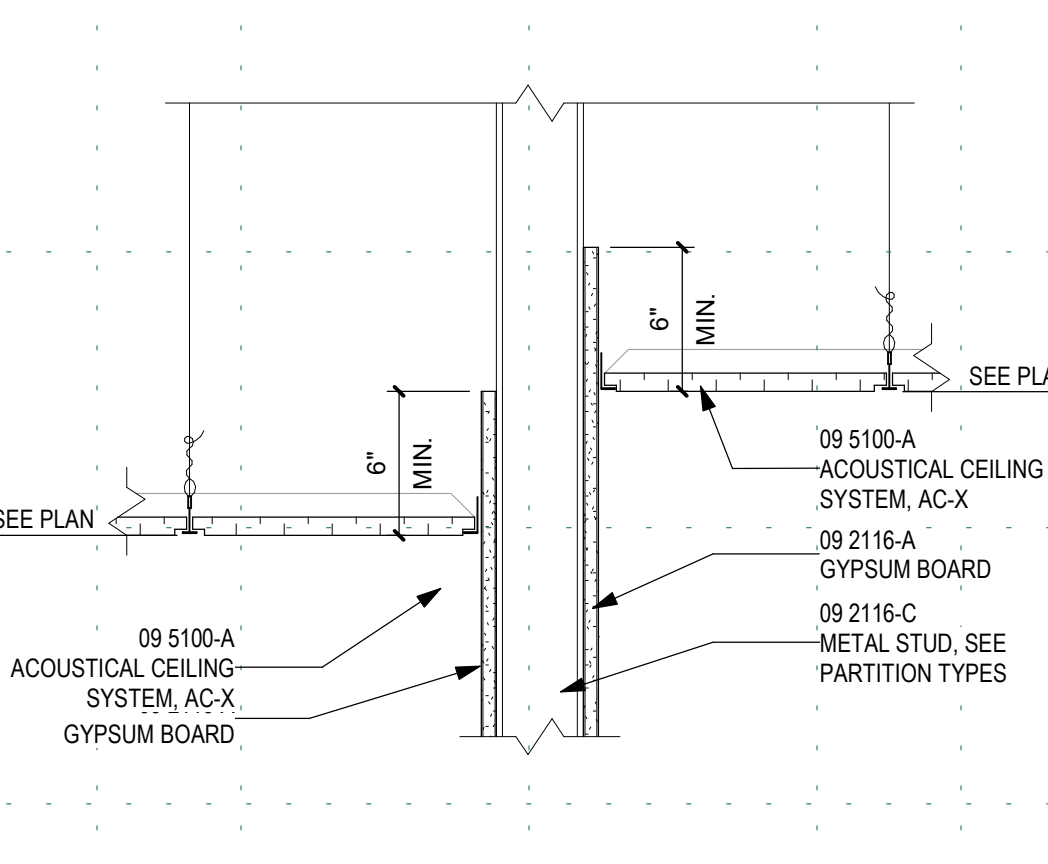
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 1 1/2" = 1'-0"



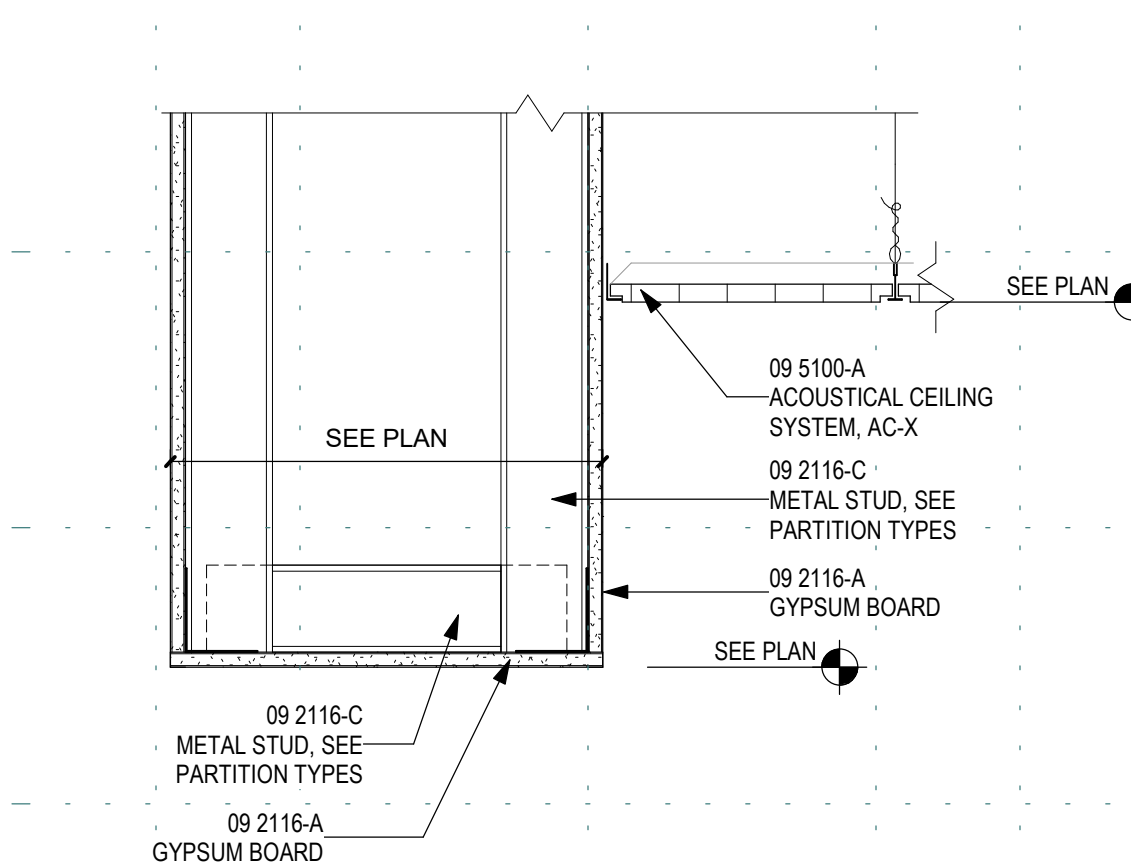
C3 CEILING DETAIL
 1 1/2" = 1'-0"



B5 CEILING DETAIL
 1 1/2" = 1'-0"

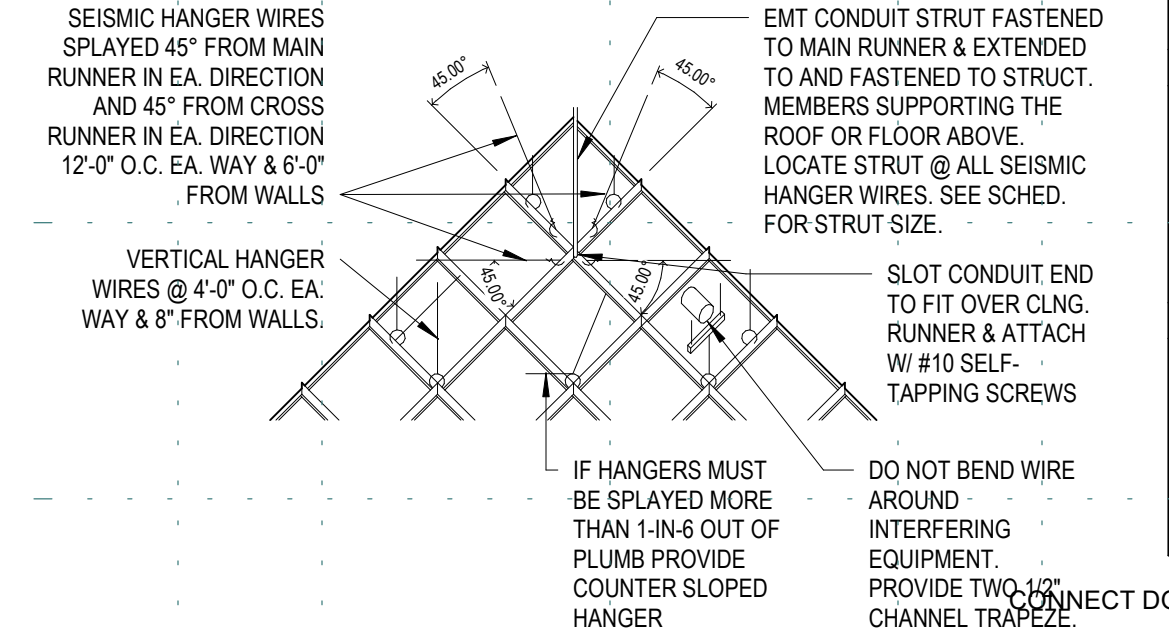


B4 CEILING DETAIL
 1 1/2" = 1'-0"



B3 CEILING DETAIL
 1 1/2" = 1'-0"

- HANGER WIRES MUST BE 12 GA. MIN. SOFT-ANNEALED, MILD STEEL WIRE. WIRES SHALL BE WRAPPED TIGHTLY @ RUNNERS & SUPPORTS AND TIED W/ A MIN. OF 3 TURNS.
- CLIPS SHALL HOLD RUNNERS TIGHTLY TOGETHER. SPLICE CHIPS SHALL BE CAPABLE OF RESISTING AT LEAST 50 LBS. IN TENSION OR COMPRESSION.
- FOR MANUFACTURED SYSTEMS, SUBMIT SUBSTANTIATION IN ACCORDANCE WITH STANDARD.
- RUNNERS SHALL BE CAPABLE OF SUPPORTING CEILING SYSTEMS WITH DEFLECTIONS LESS THAN 0.1333 INCH.
- LOCAL KINKS AND BENDS SHALL NOT BE MADE IN HANGER WIRES FOR LEVELING.



A4 SUSPENSION SYSTEM
 1/4" = 1'-0"

EMT SIZE	AREA (in ²)	R (in)	MAX HEIGHT
1/2"	0.088	0.238	48" OR 4' - 0"
3/4"	0.134	0.309	62" OR 5' - 2"
1"	0.198	0.392	78" OR 6' - 6"
1 1/4"	0.295	0.511	102" OR 8' - 6"
1 1/2"	0.342	0.593	119" OR 9' - 11"

SINGLE STUD	AREA (in ²)	R (in)	MAX HEIGHT
25 GA X 2 1/2"	0.094	0.421	84" OR 7' - 0"
25 GA X 3 1/2"	0.113	0.464	81" OR 6' - 9"
20 GA X 1 5/8"	0.185	0.603	121" OR 10' - 1"
20 GA X 2 1/2"	0.215	0.605	121" OR 10' - 1"
20 GA X 3 1/2"	0.250	0.596	119" OR 9' - 11"

DOUBLE STUD	AREA (in ²)	R (in)	MAX HEIGHT
25 GA X 2 1/2"	0.094	1.011	202" OR 16' - 10"
25 GA X 3 1/2"	0.113	1.359	272" OR 18' - 0"
20 GA X 1 5/8"	0.185	0.689	138" OR 11' - 6"
20 GA X 2 1/2"	0.215	1.035	207" OR 17' - 3"
20 GA X 3 1/2"	0.250	1.409	282" OR 23' - 6"

LEGEND

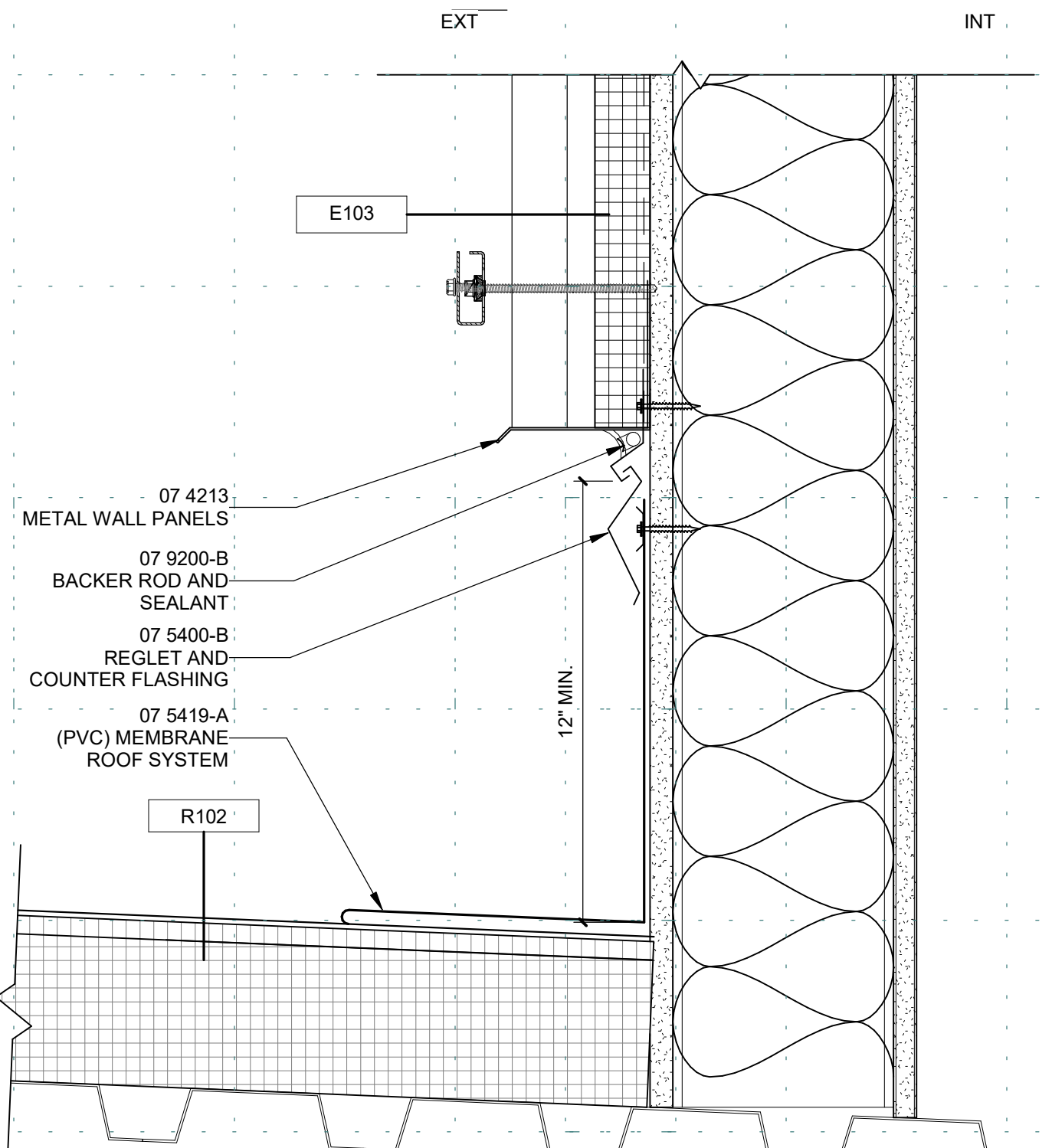
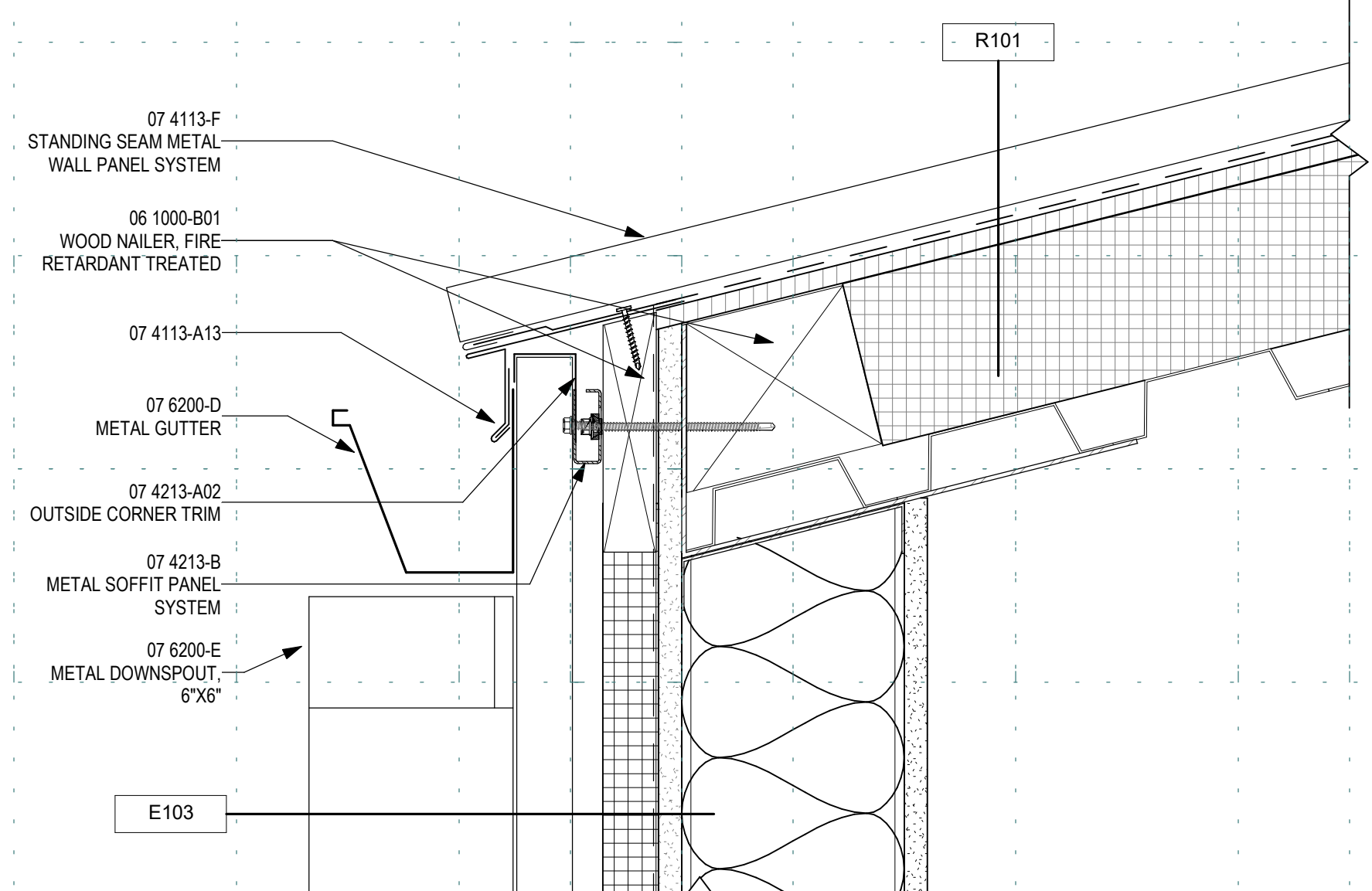
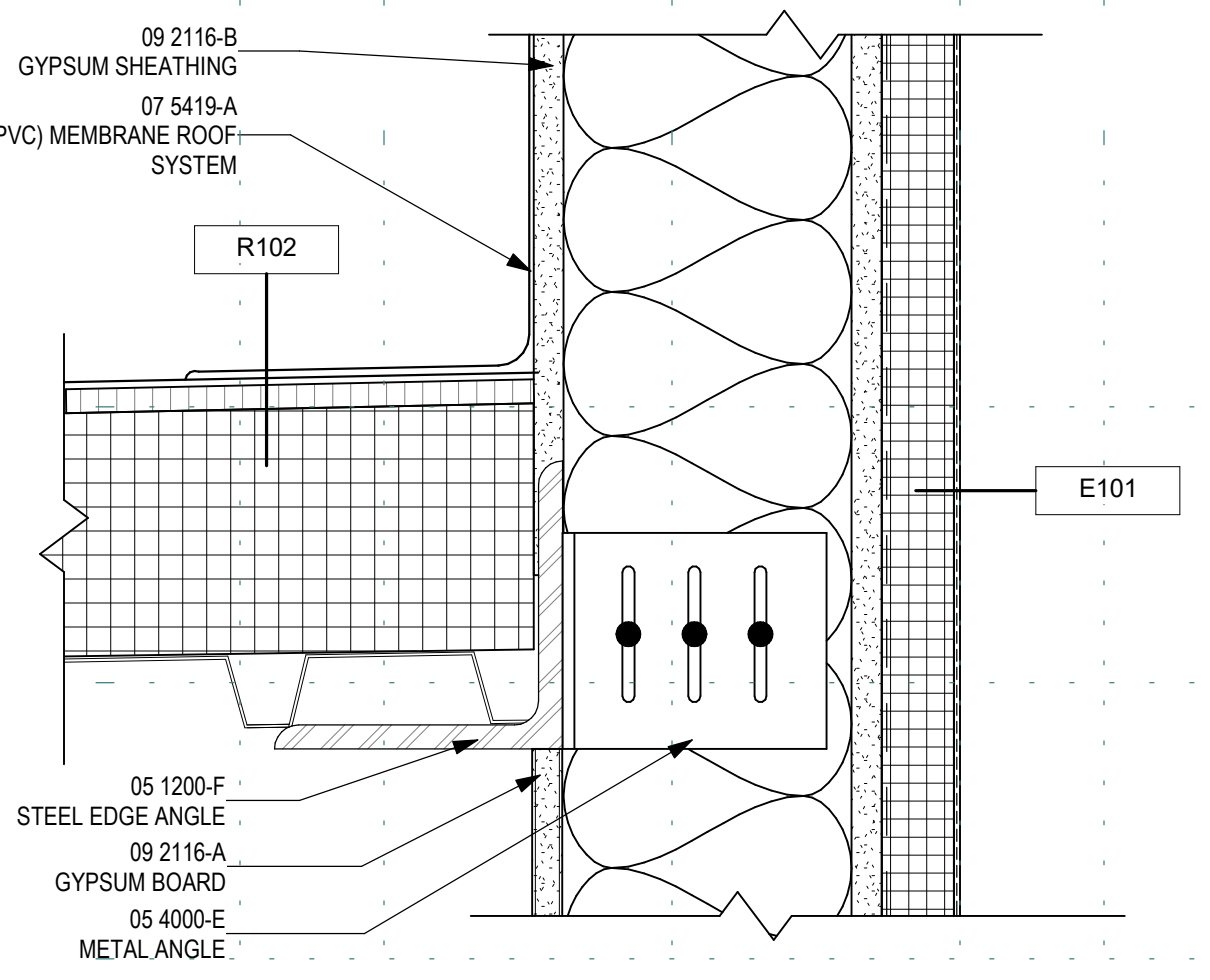
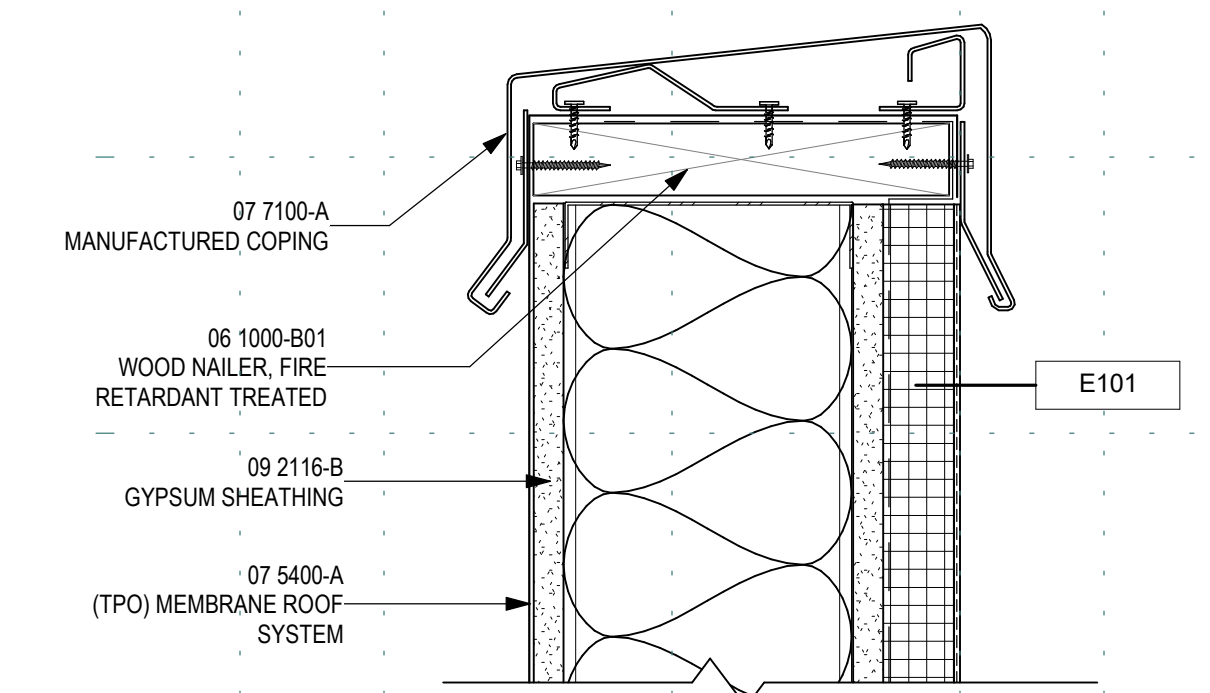
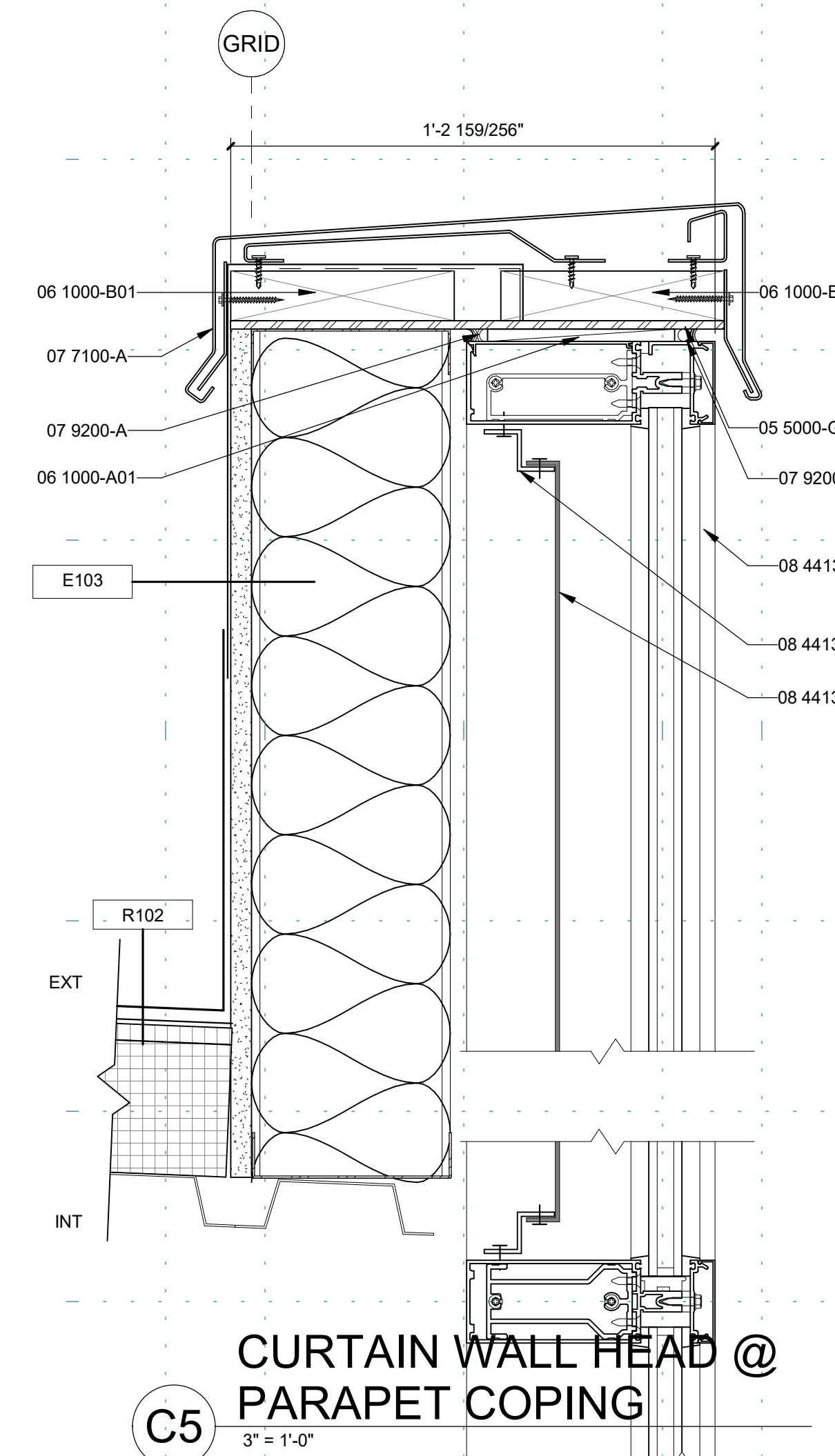
GENERAL SHEET NOTES

A. SEE AE090 FOR EXTERIOR WALL, SOFFIT AND ROOF ASSEMBLIES.

SHEET KEYNOTES ☐

REFERENCE KEYNOTES

- 05 1200-F STEEL EDGE ANGLE
- 05 4000-E METAL ANGLE
- 05 5000-G CAST IRON TRENCH CASTINGS
- 06 1000-A01 WOOD SHIM, FIRE RETARDANT TREATED
- 06 1000-B01 WOOD NAILER, FIRE RETARDANT TREATED
- 07 4113-A13 STANDING SEAM METAL WALL PANEL SYSTEM
- 07 4113-F METAL WALL PANELS
- 07 4213 OUTSIDE CORNER TRIM
- 07 4213-A02 METAL SOFFIT PANEL SYSTEM
- 07 5400-A (TPO) MEMBRANE ROOF SYSTEM
- 07 5400-B REGLET AND COUNTER FLASHING
- 07 5419-A (PVC) MEMBRANE ROOF SYSTEM
- 07 6200-D METAL GUTTER
- 07 6200-E METAL DOWNSPOUT, 6"X6"
- 07 7100-A MANUFACTURED COPING
- 07 9200-A SEALANT
- 07 9200-B BACKER ROD AND SEALANT
- 08 4413 GLAZED ALUMINUM CURTAIN WALLS
- 08 4413-A GLAZED ALUMINUM CURTAIN WALL SYSTEM
- 09 2116-A GYPSUM BOARD
- 09 2116-B GYPSUM SHEATHING



REVISIONS

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DRAWN BY _____ CS
REVIEWED BY _____ SL
DATE _____ 04/29/2024
PROJECT NO _____ 22-0227.001

DRAWING NAME
DOOR DETAILS

SHEET NO
AE561

GENERAL SHEET NOTES

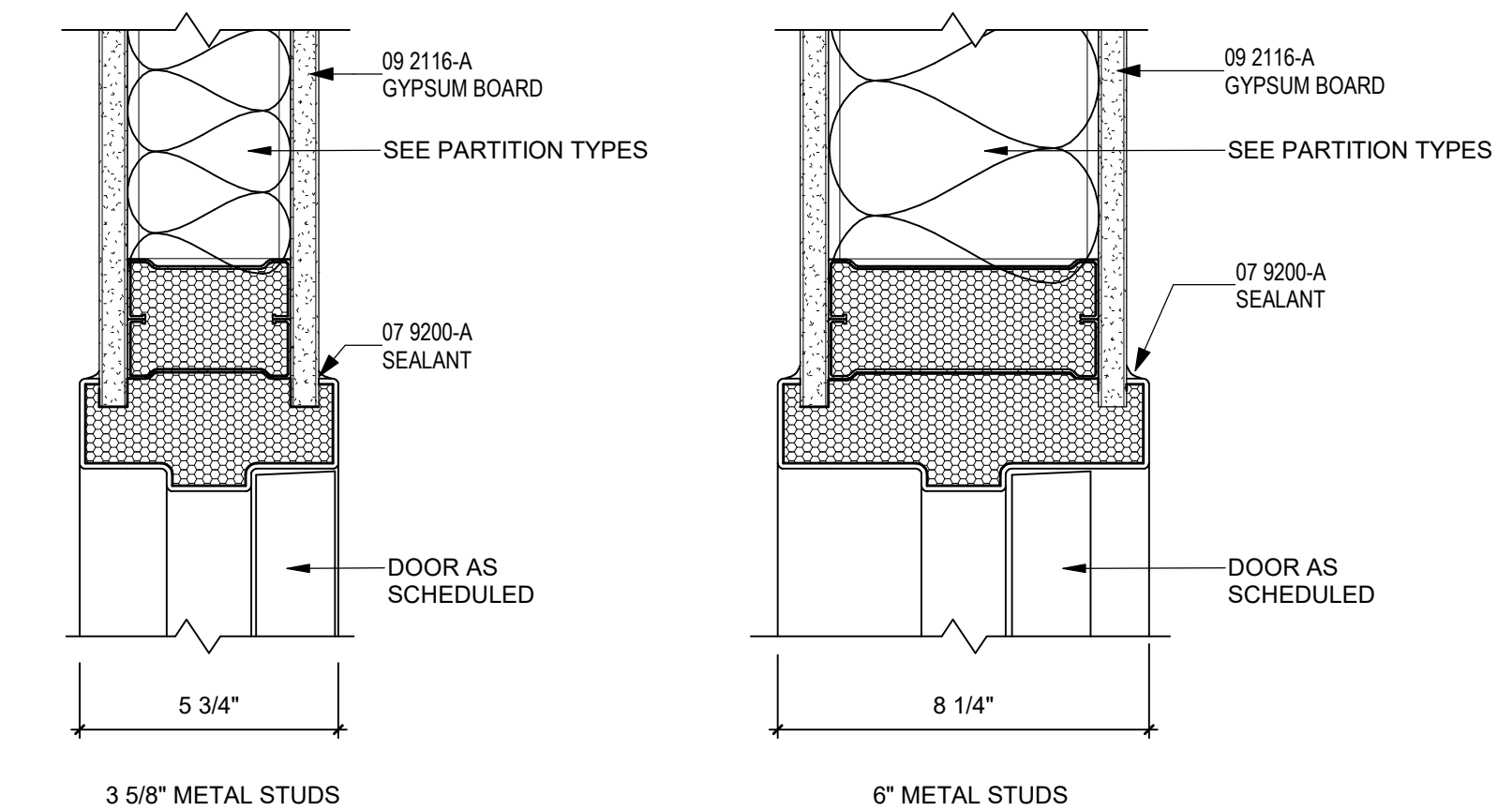
A. XX.

SHEET KEYNOTES ◻

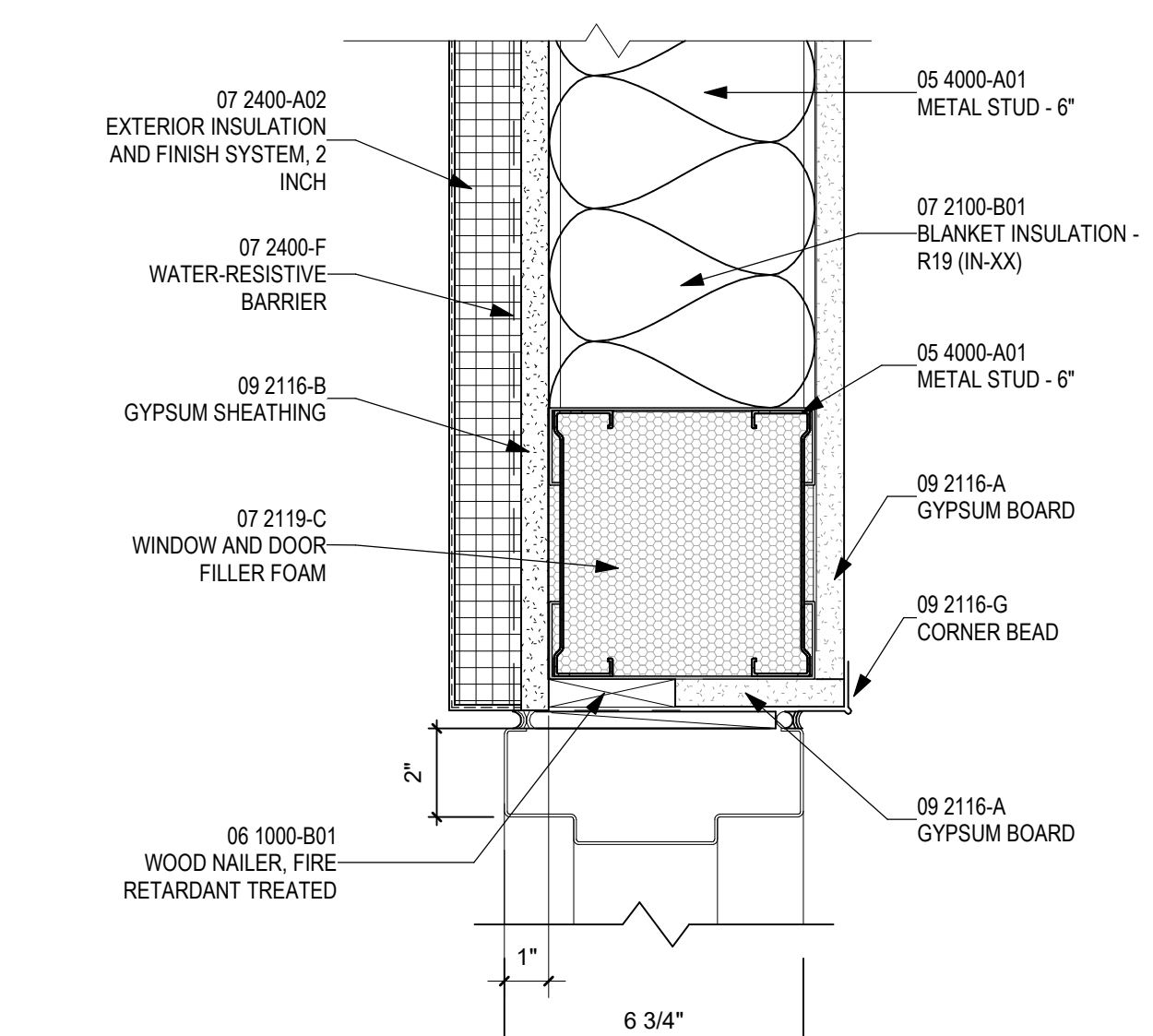
SEAL

REFERENCE KEYNOTES

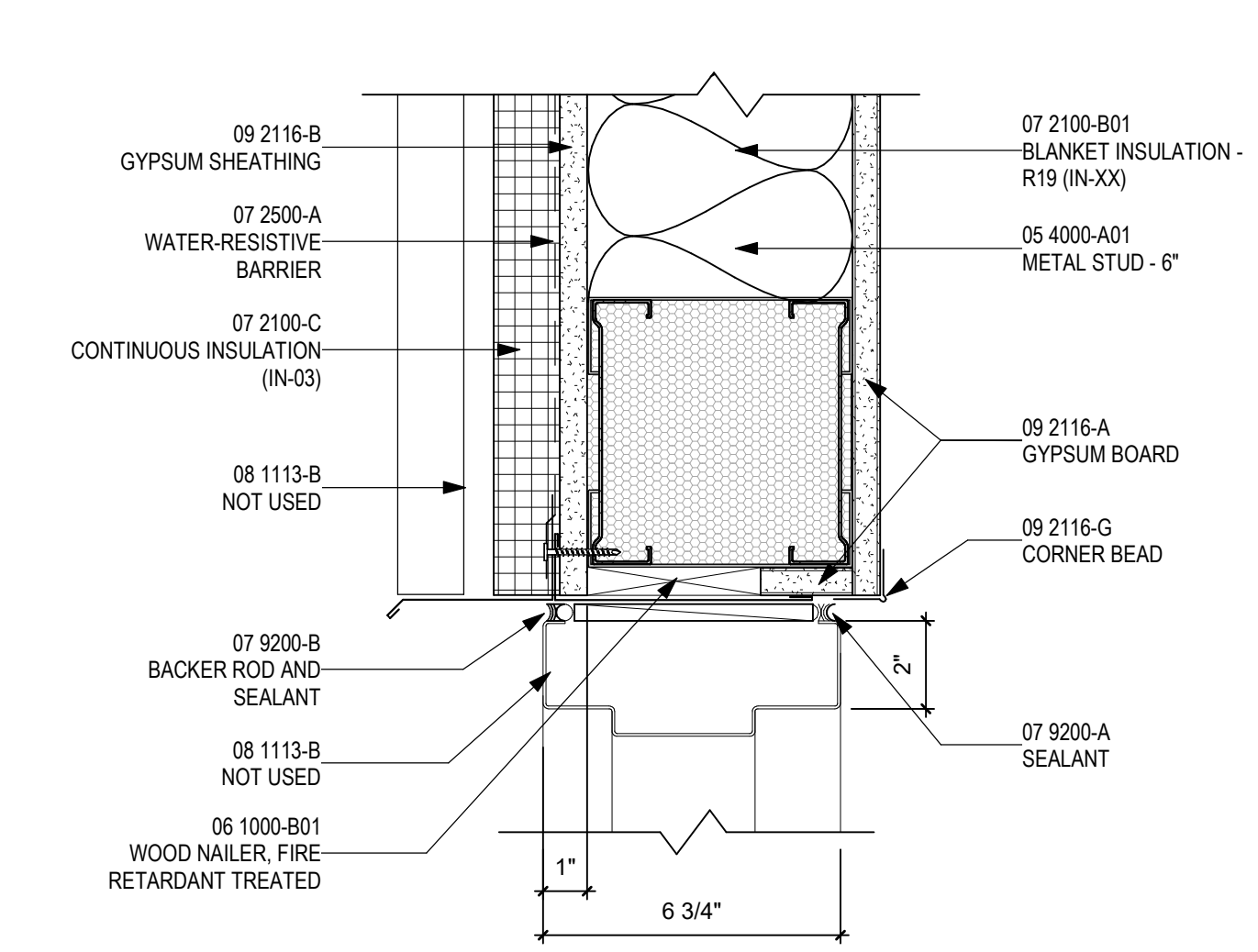
03 3000-G	EXPANSION/ISOLATION JOINT
03 3000-H	WATERSTOP
05 4000-A01	METAL STUD - 6"
06 1000-B01	WOOD NAILER, FIRE RETARDANT TREATED
07 2100-B	BLANKET INSULATION (N-02)
07 2100-B01	BLANKET INSULATION - R19 (N-XX)
07 2100-C	CONTINUOUS INSULATION (N-03)
07 2119-A	FOAMED-IN-PLACE INSULATION (N-05)
07 2119-C	WINDOW AND DOOR FILLER FOAM
07 2400-A02	EXTERIOR INSULATION AND FINISH SYSTEM, 2 INCH
07 2400-F	WATER-RESISTIVE BARRIER
07 2500-A	WATER-RESISTIVE BARRIER
07 4213-A01	METAL WALL PANEL, FLAT LOCK SEAM
07 4213-B	METAL SOFFIT PANEL SYSTEM
07 9200-A	SEALANT
07 9200-B	BACKER ROD AND SEALANT
08 1113-A	HOLLOW METAL DOOR
08 1113-B	NOT USED
09 2116-A	GYPSON BOARD
09 2116-B	GYPSON SHEATHING
09 2116-G	CORNER BEAD



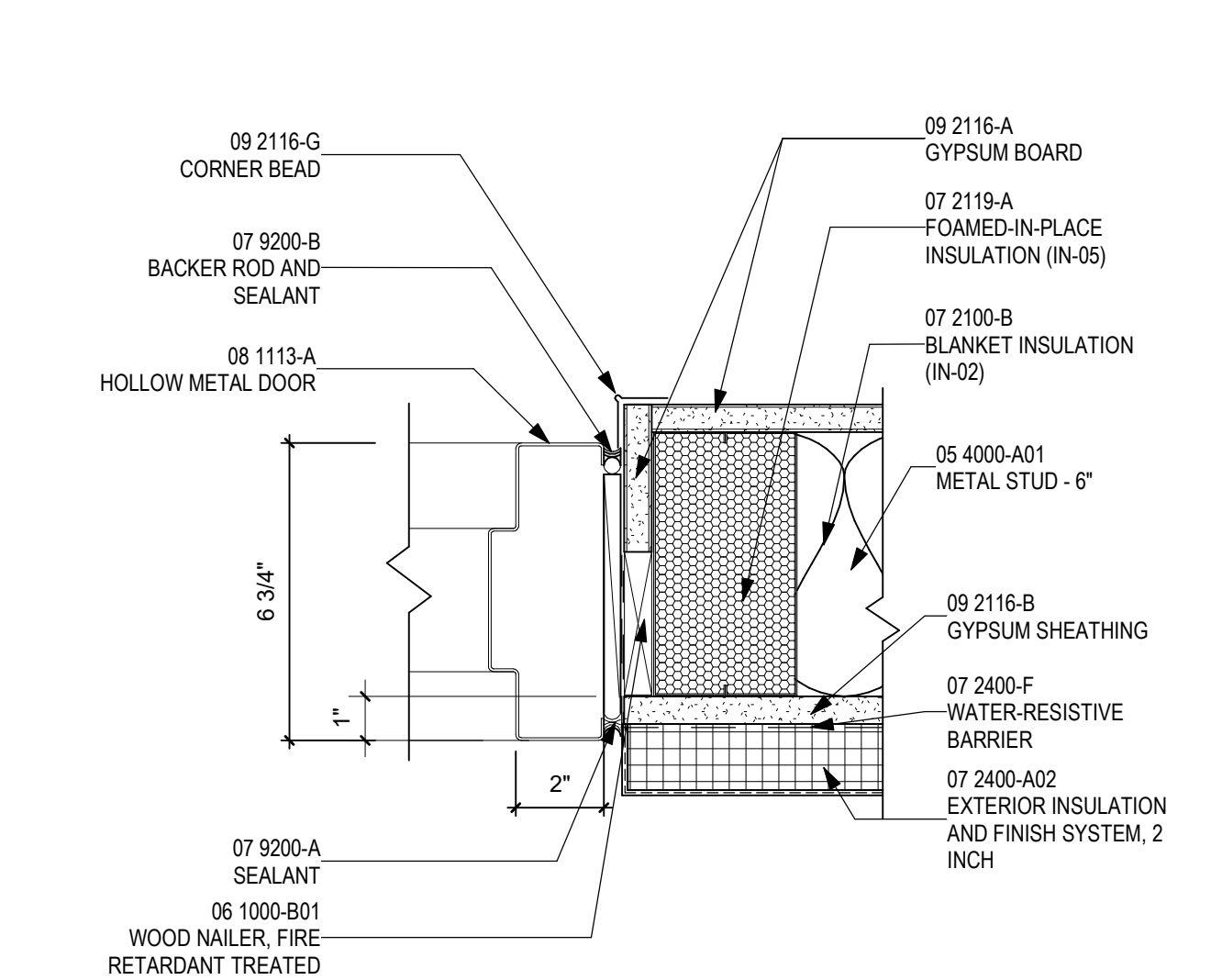
C3 HOLLOW METAL HEAD / JAMB DETAIL
3" = 1'-0"



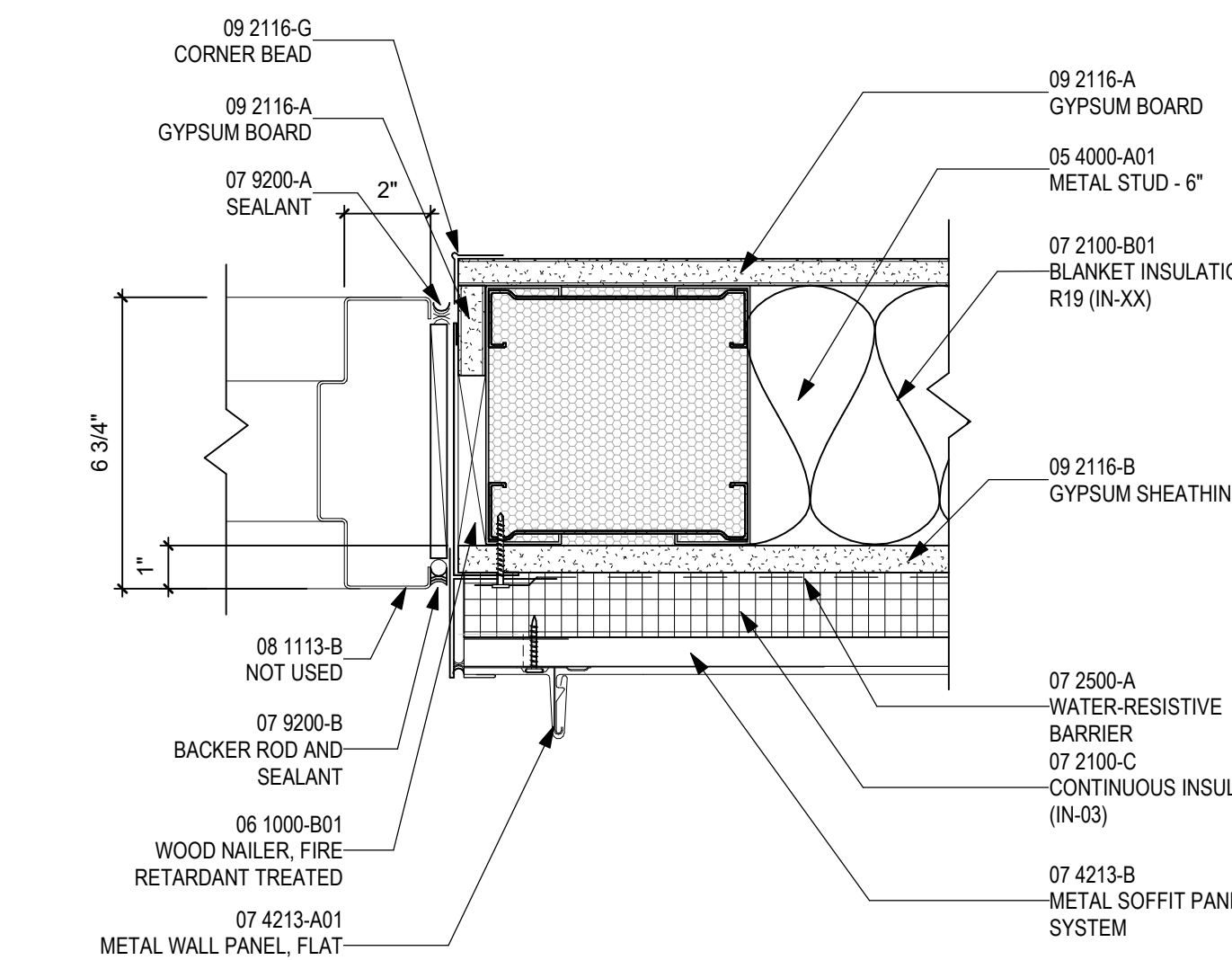
B2 HOLLOW METAL HEAD DETAIL
3" = 1'-0"



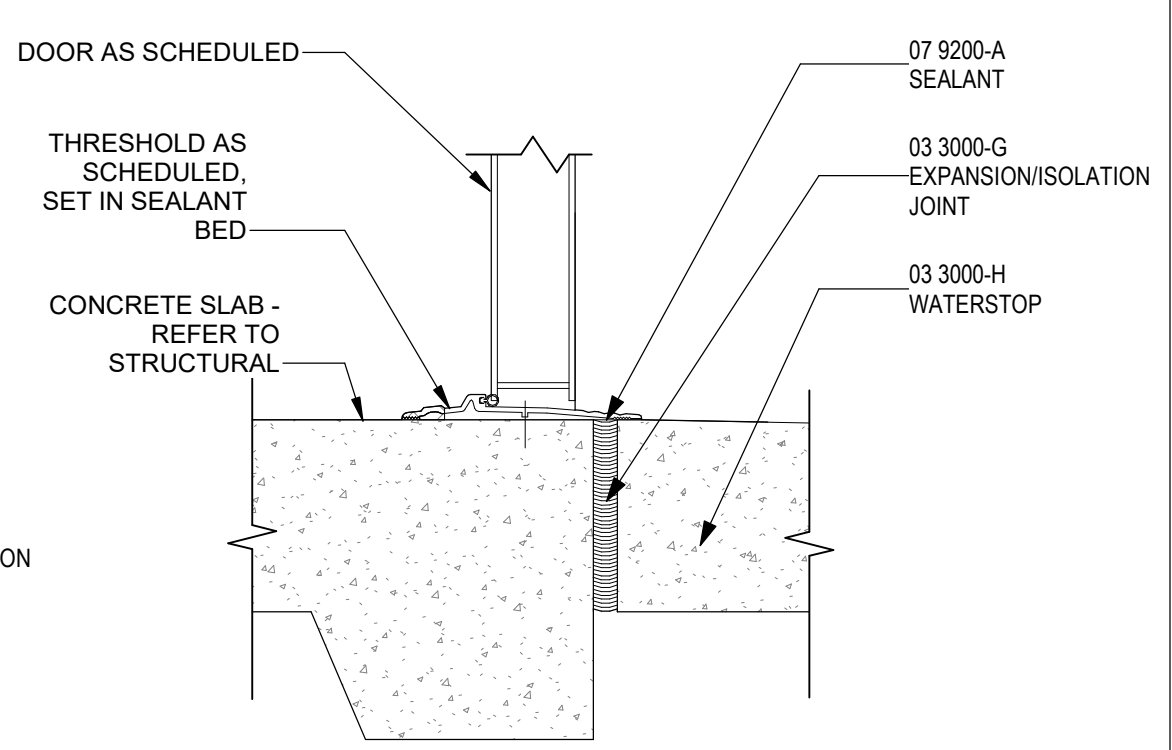
B3 HOLLOW METAL HEAD DETAIL
3" = 1'-0"



A2 HOLLOW METAL JAMB DETAIL
3" = 1'-0"



A3 HOLLOW METAL JAMB DETAIL
3" = 1'-0"



A5 DOOR THRESHOLD DETAIL
3" = 1'-0"

LEGEND

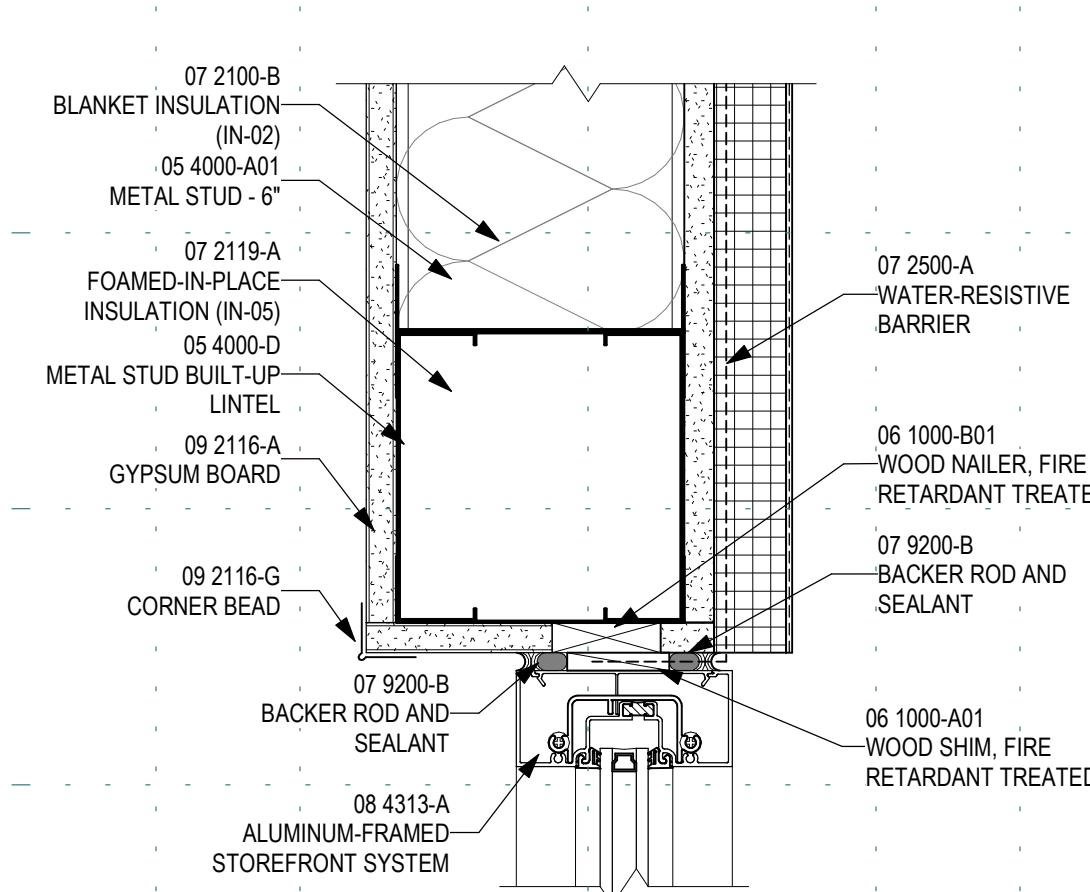
GENERAL SHEET NOTES

A. XX.

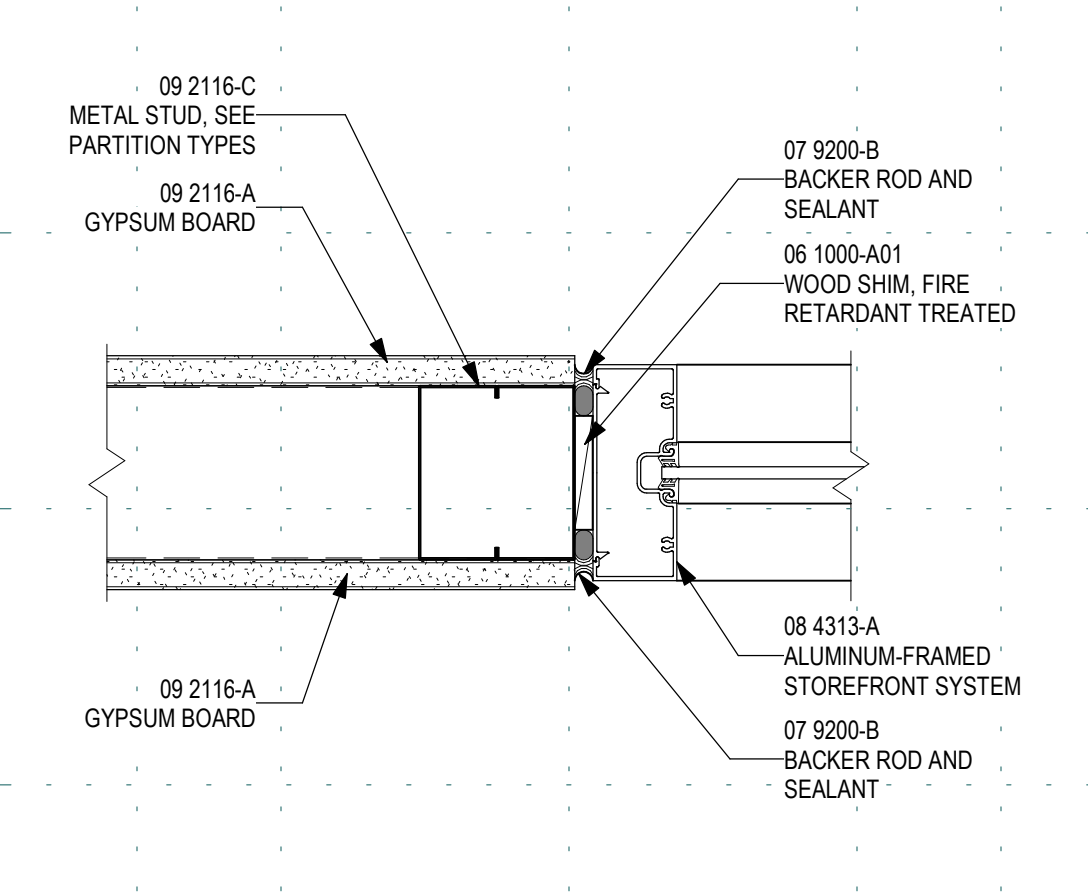
SHEET KEYNOTES ☐

REFERENCE KEYNOTES

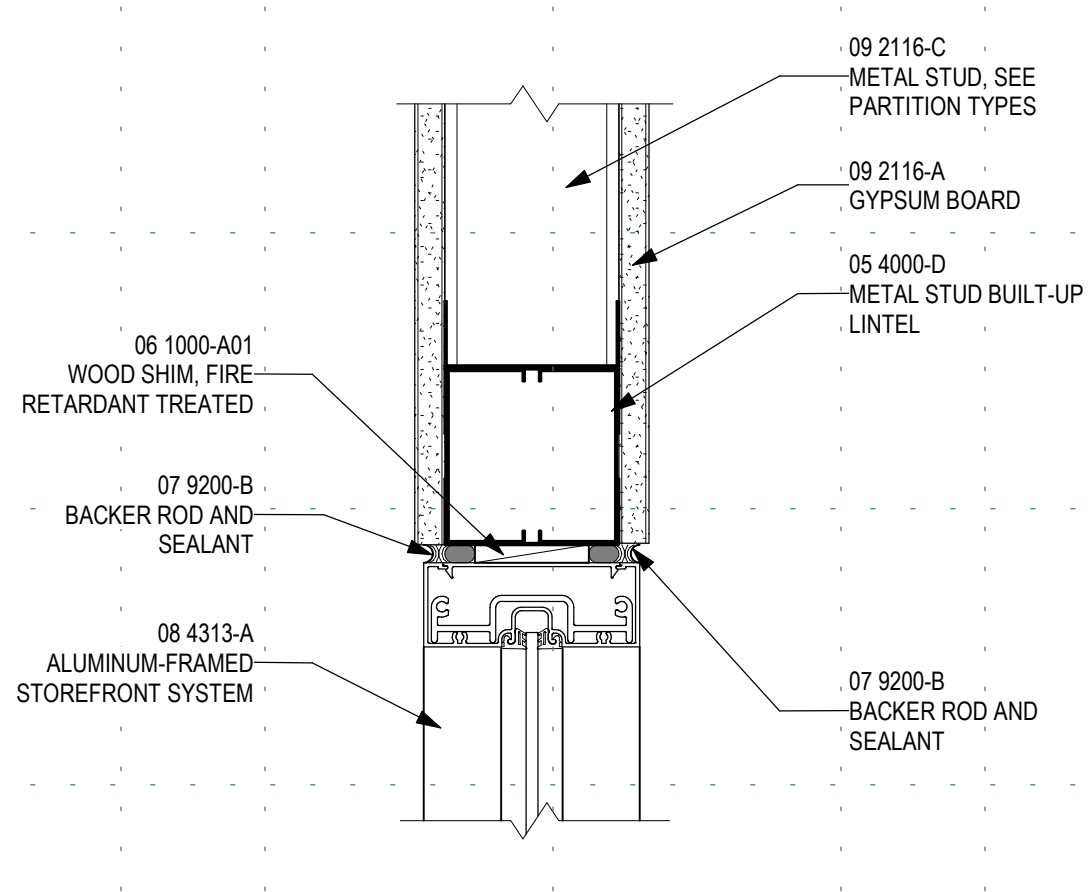
03 3000-C	CONCRETE FOUNDATION
03 3000-G	EXPANSION/ISOLATION JOINT
03 3000-H	WATERSTOP
05 1200-B	STEEL COLUMN
05 4000-A	METAL STUD
05 4000-A01	METAL STUD - 6"
05 4000-A03	METAL STUD - 3 5/8"
05 4000-D	METAL STUD BUILT-UP LINTEL
06 1000-A01	WOOD SHIM, FIRE RETARDANT TREATED
06 1000-B01	WOOD NAILER, FIRE RETARDANT TREATED
07 2100-B	BLANKET INSULATION (IN-02)
07 2100-B01	BLANKET INSULATION - R19 (IN-XX)
07 2119-A	FOAMED-IN-PLACE INSULATION (IN-05)
07 2119-C	WINDOW AND DOOR FILLER FOAM
07 2400-A01	EXTERIOR INSULATION AND FINISH SYSTEM, 1-1/2 INCH
07 2400-A02	EXTERIOR INSULATION AND FINISH SYSTEM, 2 INCH
07 2400-D	DRIP SCREED/TRACK
07 2400-F	WATER-RESISTIVE BARRIER
07 2500-A	WATER-RESISTIVE BARRIER
07 9200-A	SEALANT
07 9200-B	BACKER ROD AND SEALANT
08 4313-A	ALUMINUM-FRAMED STOREFRONT SYSTEM
08 4413-A	GLAZED ALUMINUM CURTAIN WALL SYSTEM
09 2116-A	GYPSUM BOARD
09 2116-B	GYPSUM SHEATHING
09 2116-C	METAL STUD, SEE PARTITION TYPES
09 2116-G	CORNER BEAD



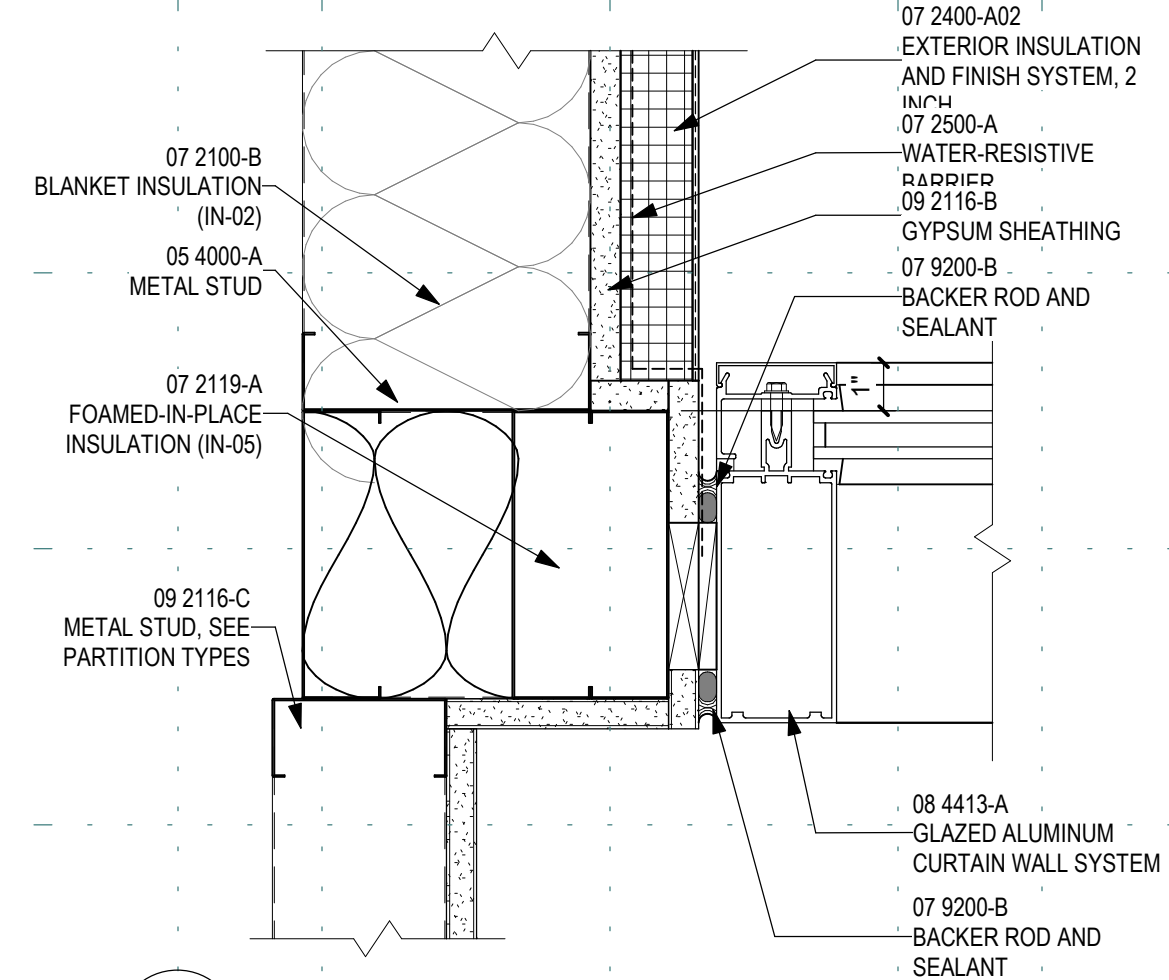
D3 STOREFRONT HEAD @ EIFS
3" = 1'-0"



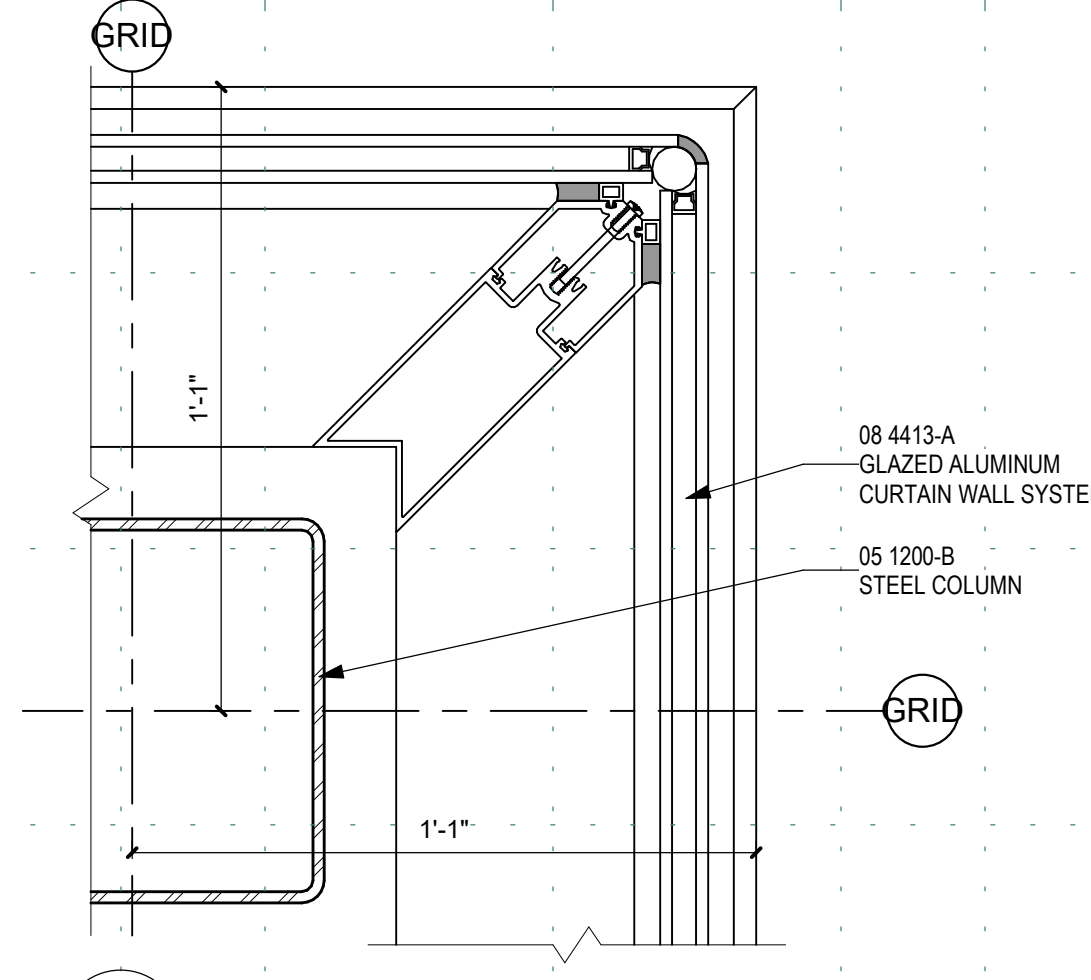
D4 STOREFRONT JAMB @ PARTITION
3" = 1'-0"



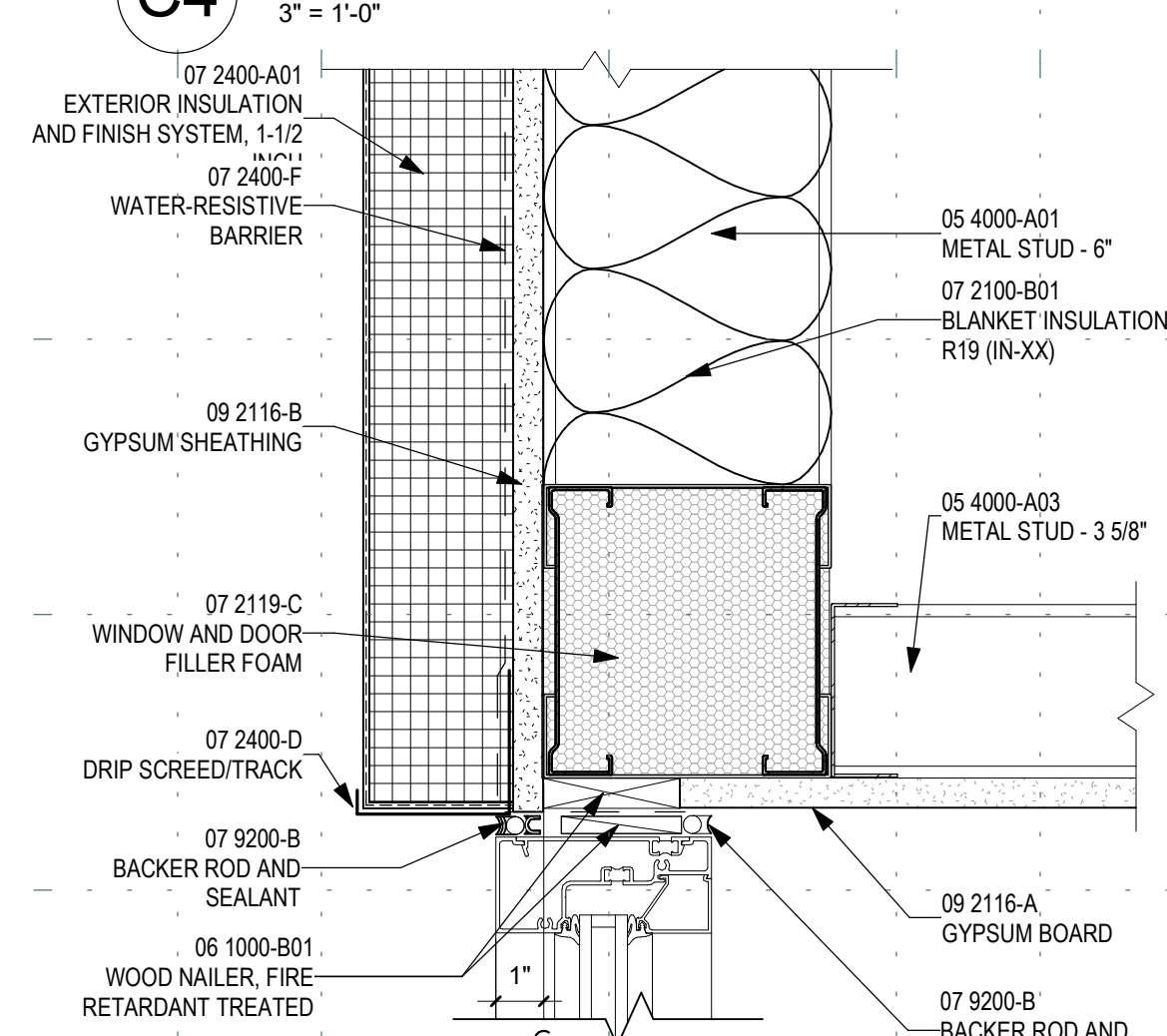
D5 STOREFRONT HEAD @ PARTITION
3" = 1'-0"



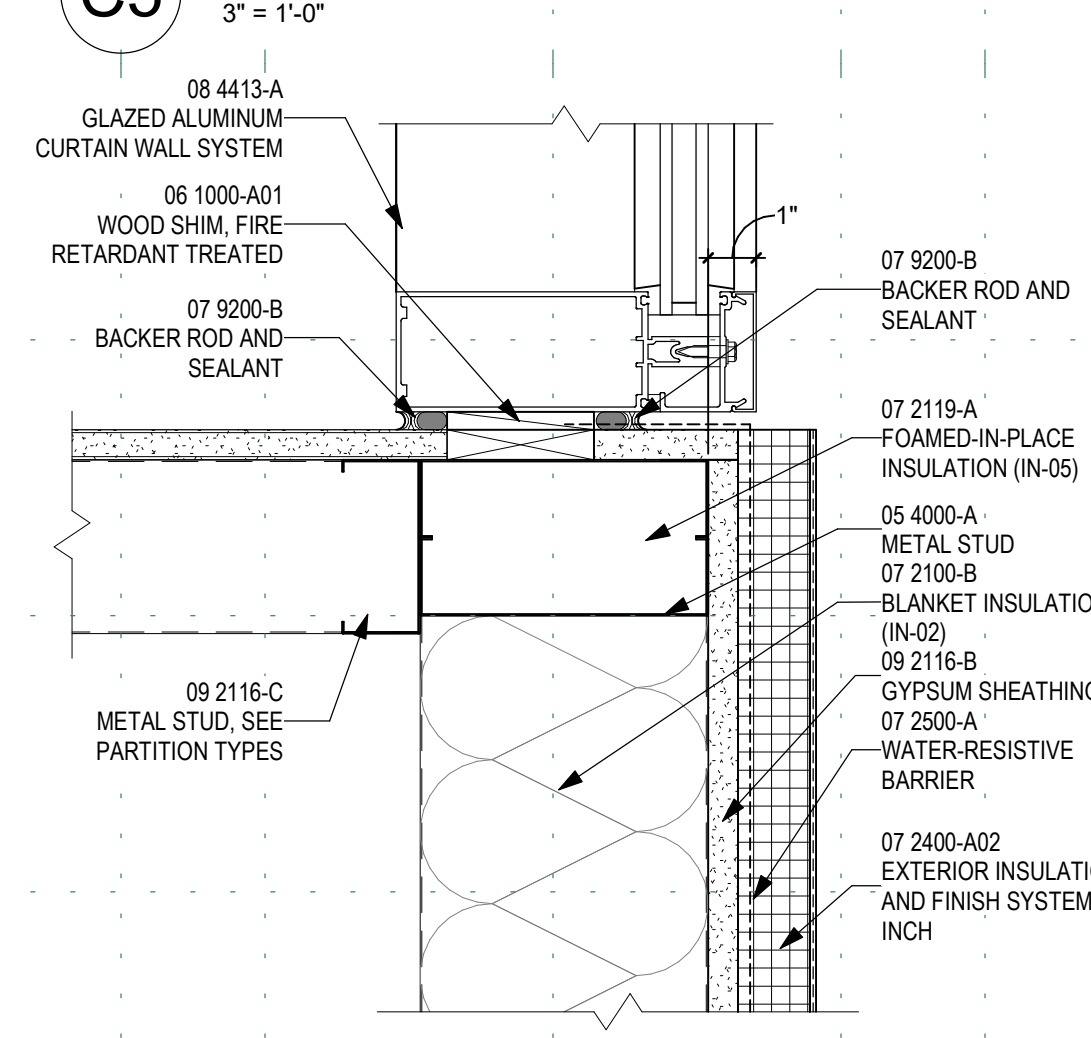
C4 CURTAIN WALL JAMB @ EIFS
3" = 1'-0"



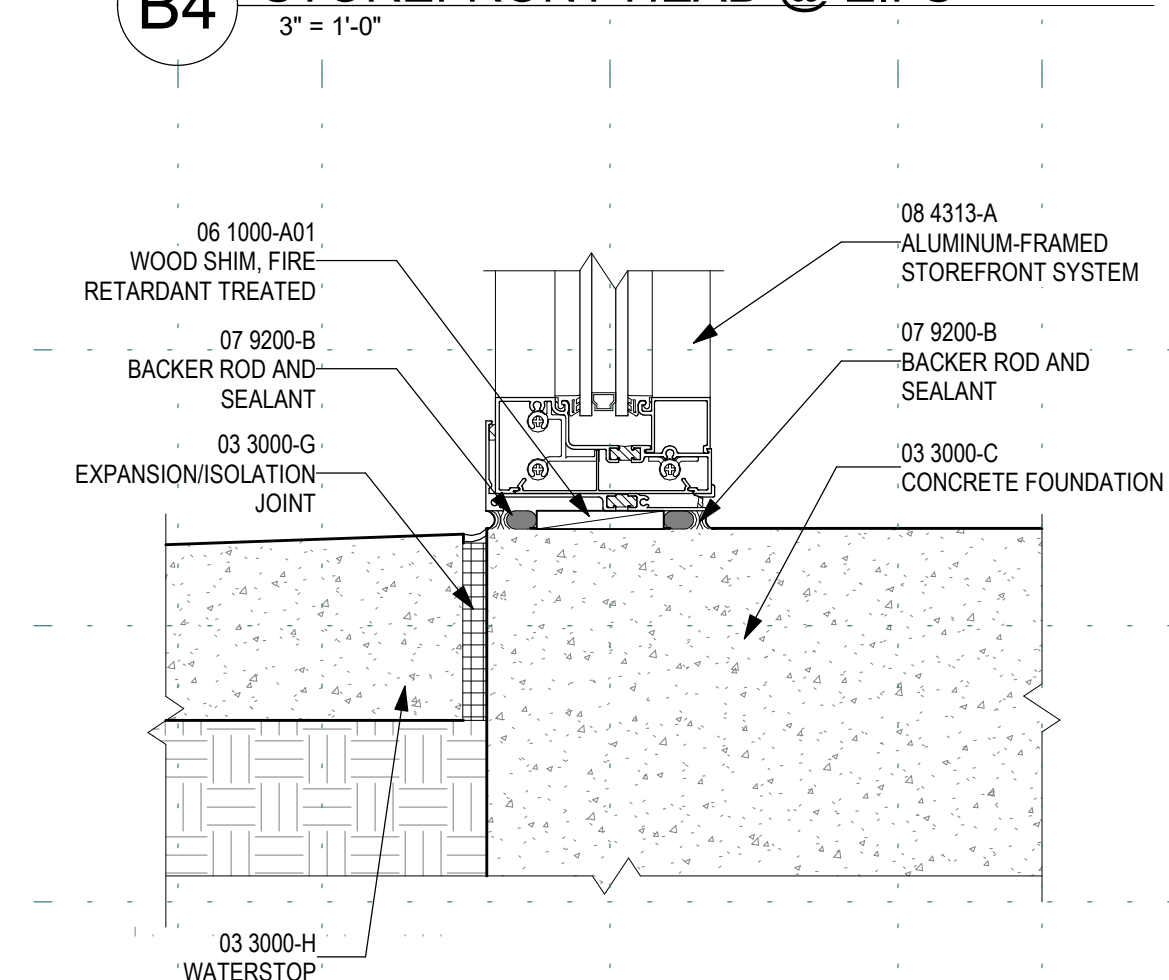
C5 CURTAIN WALL JAMB @ CORNER
3" = 1'-0"



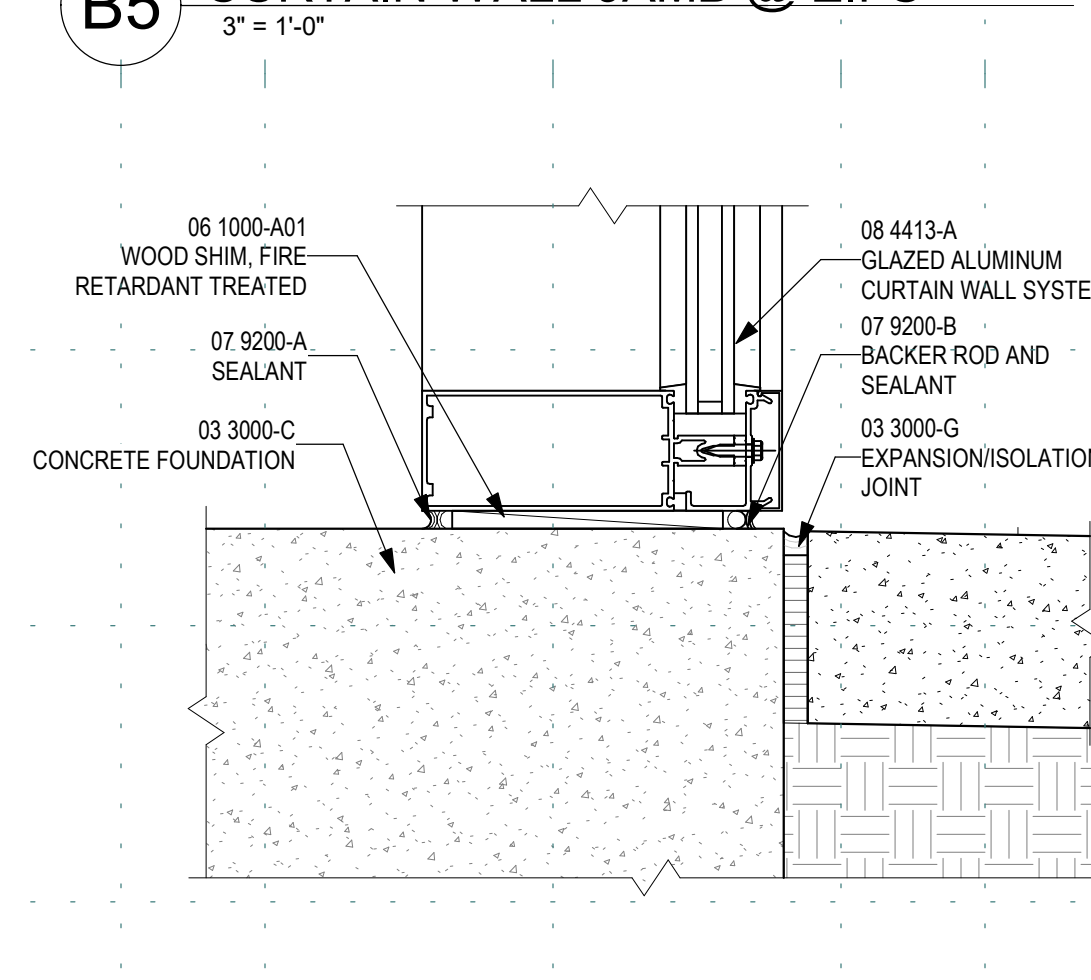
B4 STOREFRONT HEAD @ EIFS
3" = 1'-0"



B5 CURTAIN WALL JAMB @ EIFS
3" = 1'-0"



A4 STOREFRONT SILL @ FINISH FLOOR
3" = 1'-0"



A5 CURTAIN WALL SILL @ SLAB
3" = 1'-0"

LEGEND

NUMBER	DOOR & FRAME SCHEDULE										REMARKS
	DOOR					FRAME					
	WIDTH	HEIGHT	THK	TYPE	MAT	TYPE	MAT	TYPE	MAT		
101AA	6'-0"	8'-0"	1 3/4"	D	AL	B	AL				PAIR OF 3'-0" DOORS, CARD READER
101AB	6'-0"	8'-0"	1 3/4"	E	AL	BB	AL				PAIR OF 3'-0" DOORS
101B	3'-0"	8'-0"	1 3/4"	B	WD	DD	AL				
102A	3'-0"	8'-0"	1 3/4"	B	WD	2	HM				
102B	3'-0"	8'-0"	1 3/4"	B	WD	2	HM				
102C	3'-0"	8'-0"	1 3/4"	B	WD	2	HM				
103	3'-0"	8'-0"	1 3/4"	B	WD	2	HM				
104	3'-0"	8'-0"	1 3/4"	B	WD	EE	AL				
105A	3'-0"	8'-0"	1 3/4"	B	WD	2	HM				
105B	3'-0"	8'-0"	1 3/4"	A	HM	1	HM				CARD READER
106	3'-0"	8'-0"	1 3/4"	B	WD	FF	AL				
107A	3'-0"	8'-0"	1 3/4"	B	WD	2	HM				
107B	3'-0"	8'-0"	1 3/4"	A	HM	1	HM				CARD READER
108	3'-0"	8'-0"	1 3/4"	B	WD	GG	AL				
111	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
112A	3'-0"	8'-0"	1 3/4"	B	WD	LL	AL				
112B	3'-0"	8'-0"	1 3/4"	B	WD	LL	AL				
112D	3'-0"	8'-0"	1 3/4"	B	WD	LL	AL				
112E	3'-0"	8'-0"	1 3/4"	B	WD	LL	AL				
112F	3'-0"	8'-0"	1 3/4"	B	WD	LL	AL				
112G	3'-0"	8'-0"	1 3/4"	B	WD	LL	AL				
112H	3'-0"	8'-0"	1 3/4"	B	WD	LL	AL				
113	3'-0"	8'-0"	1 3/4"	B	WD	MM	AL				
114	3'-0"	8'-0"	1 3/4"	A	HM	1	HM				
115A	3'-0"	8'-0"	1 3/4"	B	WD	LL	AL				
115B	3'-0"	8'-0"	1 3/4"	B	WD	LL	AL				
115C	3'-0"	8'-0"	1 3/4"	B	WD	LL	AL				
115E	3'-0"	8'-0"	1 3/4"	B	WD	RR	AL				
115F	3'-0"	8'-0"	1 3/4"	B	WD	LL	AL				
115G	3'-0"	8'-0"	1 3/4"	B	WD	LL	AL				
115H	3'-0"	8'-0"	1 3/4"	B	WD	LL	AL				
115J	3'-0"	8'-0"	1 3/4"	B	WD	LL	AL				
115K	3'-0"	8'-0"	1 3/4"	B	WD	LL	AL				
115M	3'-0"	8'-0"	1 3/4"	B	WD	LL	AL				
115N	2'-11"	8'-0"	1 3/4"	B	WD	SS	AL				
115P	3'-0"	8'-0"	1 3/4"	B	WD	TT	AL				
116	4'-0"	7'-0"	1 3/4"	C	WD	1	HM				
118	5'-0"	8'-0"	1 3/4"	B	WD	1	HM				PAIR OF 3'-0" DOORS
119	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
121	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
122	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
123	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				

NUMBER	DOOR & FRAME SCHEDULE										REMARKS
	DOOR					FRAME					
	WIDTH	HEIGHT	THK	TYPE	MAT	TYPE	MAT	TYPE	MAT		
124	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
124	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
125	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
126	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
126	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
127	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
128	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
131	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
132	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
132A	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
133	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
134	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
136	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
136A	6'-0"	8'-0"	1 3/4"	B	WD	1	HM				PAIR OF 3'-0" DOORS
136B	3'-0"	8'-0"	1 3/4"	D	AL	DD	AL				
139C	3'-0"	8'-0"	1 3/4"								DUAL SWING DOOR, TEST KITCHEN TO BACK OF TEST KITCHEN
139D	37'-1 5/8"	8'-0"		F	AL		AL				SIDE ACTING COILING DOOR CEILING HUNG TRACK
141A	4'-0"	8'-0"	1 3/4"	B	WD	1	HM				
143	6'-0"	8'-0"	1 3/4"	A	HM	1	HM				
144A	3'-0"	8'-0"	1 3/4"	A	HM	1	HM				PAIR OF 3'-0" DOORS
144B	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
145A	3'-0"	8'-0"	1 3/4"	D	AL	Q	AL				
146B	2'-11 1/2"	8'-0"	1 3/4"	E	AL	KK	AL				
146A	3'-0"	8'-0"	1 3/4"	D	AL	M	AL				CARD READER
146B	3'-0"	8'-0"	1 3/4"	E	AL	MM	AL				
147A	3'-0"	8'-0"	1 3/4"	D	AL	F	AL				CARD READER
147B	3'-0"	8'-0"	1 3/4"	E	AL	PP	AL				
110	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
J129	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				
J142	3'-0"	8'-0"	1 3/4"	B	HM	1	HM				

GENERAL SHEET NOTES

- A. REFERENCE HEAD, JAMB, AND SILL DETAILS TO DETERMINE ROUGH WINDOW OR DOOR OPENING AND EXACT FRAME SIZE.
- B. REFER TO BUILDING ELEVATIONS AND ENLARGED ELEVATIONS FOR SHADING SYSTEM LOCATION AND DETAILS.
- C. SOME WINDOWS OR DOOR TYPES ARE DRAWN OPPOSITE HAND.

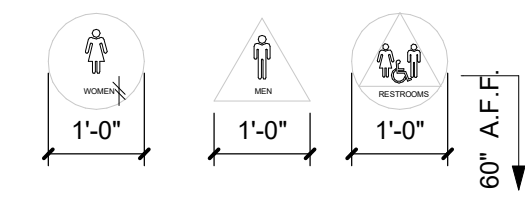
GLAZING SCHEDULE

TYPE MARK	DESCRIPTION	SPECIFICATION SECTION
GL-01	1" INSULATING GLASS UNIT	08 8000
GL-02	1" INSULATING GLASS UNIT - TEMPERED (SAFETY GLASS)	08 8000
GL-03	1" INSULATING GLASS UNIT - SPANDREL	08 8000
GL-09	3/8" MONOLITHIC TEMPERED (SAFETY GLASS)	08 8000

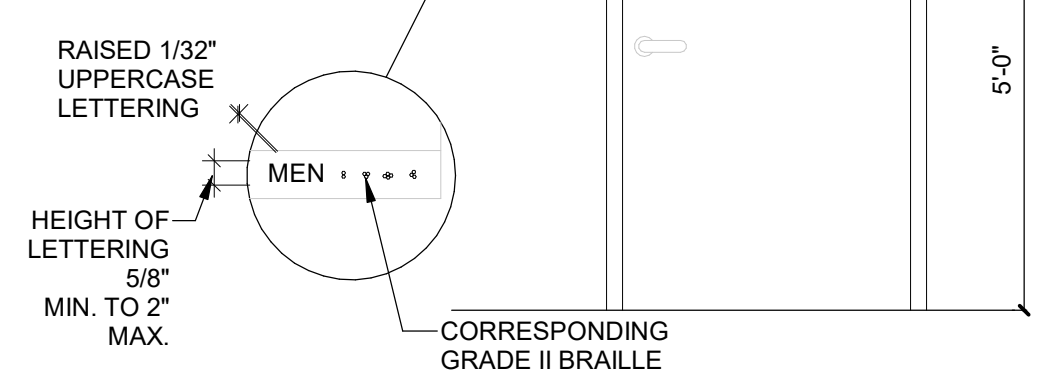
RESTROOM DOOR SYMBOLS

SYMBOL DESCRIPTION

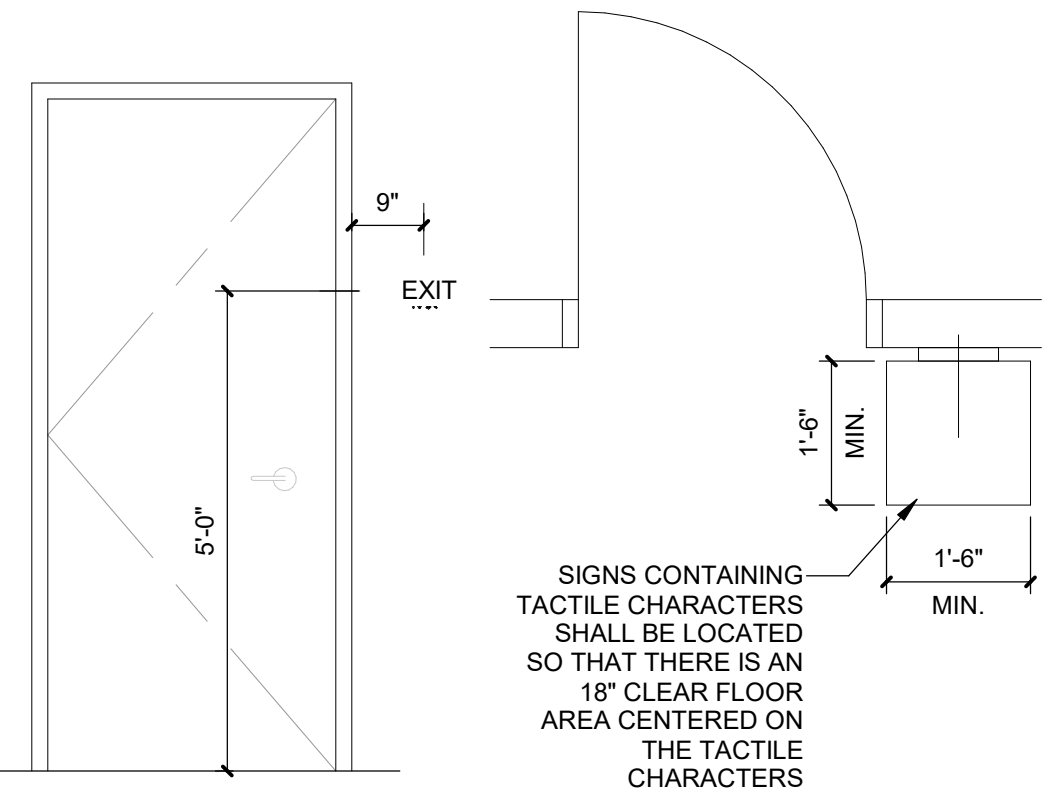
ON DOORWAYS LEADING TO MEN'S SANITARY FACILITIES, AN EQUILATERAL TRIANGLE 1/4 INCH THICK WITH EDGES 12 INCHES LONG AND A VERTEX POINTING UPWARD AND AT THE WOMEN'S FACILITIES A CIRCLE 1/4 INCH THICK AND 12 INCHES IN DIAMETER, WHERE A UNISEX RESTROOM IS PROVIDED A COMBINED CIRCLE AND TRIANGLE SIGN SHALL BE USED AS SHOWN ABOVE. THESE GEOMETRIC SYMBOLS SHALL BE CENTERED ON THE DOOR AT A HEIGHT OF 60 INCHES FROM THE FINISH FLOOR AND THEIR COLOR AND CONTRAST SHALL BE DISTINCTLY DIFFERENT FROM THE COLOR AND CONTRAST OF THE WALL, ALSO ON THE WALL ADJACENT TO STRIKE SIDE OF DOOR, MOUNT A GRADE 2 BRAILLE SIGN WITH LETTERING/BRAILLE SYMBOLS RAISED 1/32" - 5/8" - 2" HIGH AT HEIGHT OF 60 INCHES.



WALL MOUNTED SIGNAGE TO BE LOCATED ON LATCH SIDE OF DOOR CLEAR OF DOOR-SWING (LOCATE ON CORRESPONDING SIDE WALL AT DOORLESS CONDITION), MOUNT AT 60" TO CENTERLINE OF SIGN FROM FLOOR

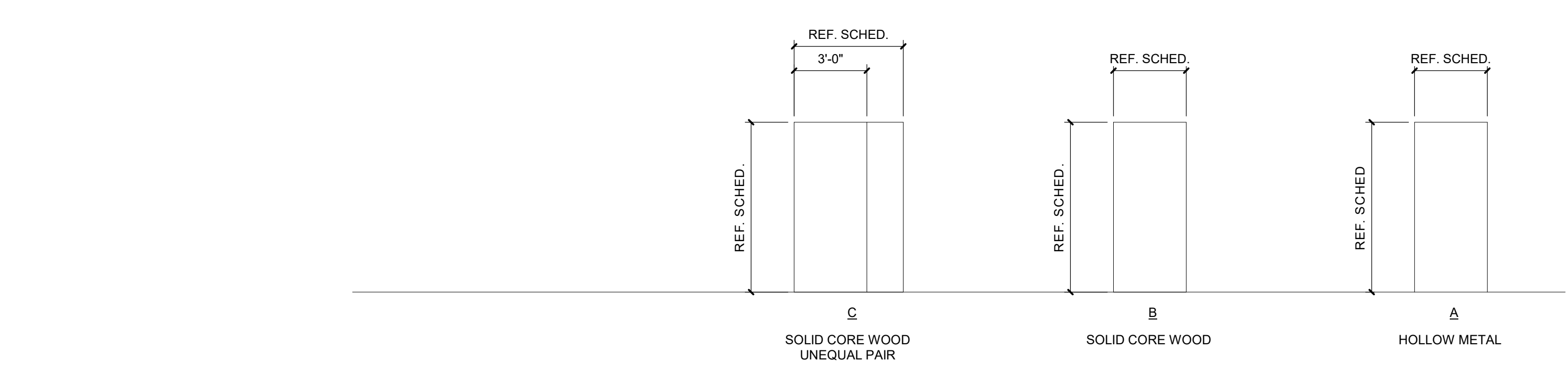
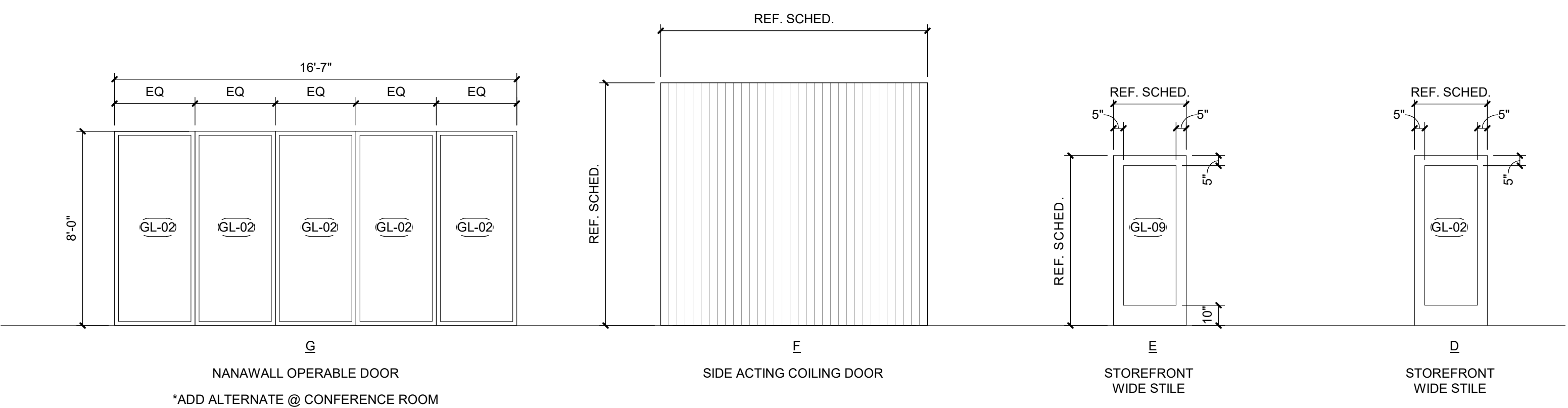


TACTILE EXIT SIGN

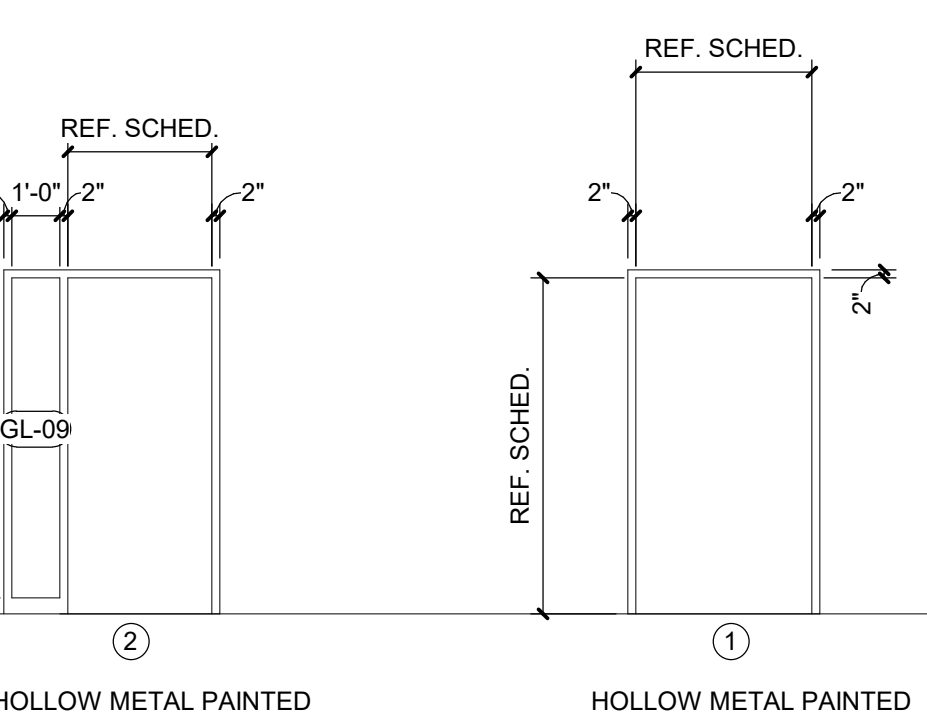


TACTILE SIGN REQUIREMENTS

- A TACTILE SIGN STATING "EXIT" AND COMPLYING WITH ANSI A117.1 SHALL BE PROVIDED ADJACENT TO EACH DOOR TO AN EXIT PASSAGEWAY AND THE EXIT DISCHARGE. REF DOOR SCHEDULE FOR LOCATIONS.
- LETTERS AND NUMBERS ON SIGNS SHALL HAVE A WIDTH-TO-HEIGHT RATIO OF BETWEEN 3.5 AND 1:1 AND A STROKE WIDTH-TO-HEIGHT RATIO BETWEEN 1:5 AND 1:10
- CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND
- CHARACTERS SHALL CONFORM TO THE FOLLOWING:
 - LETTERS AND NUMBERS ON SIGNS SHALL BE RAISED 1/32" MINIMUM AND SHALL BE SANS-SERIF UPPERCASE CHARACTERS ACCOMPANIED BY GRADE 2 BRAILLE.
 - RAISED CHARACTERS OR SYMBOLS SHALL BE A MINIMUM OF 5/8" HIGH.
 - PICTORIAL SYMBOL SIGNS (PICTOGRAMS) SHALL BE ACCOMPANIED BY THE EQUIVALENT VERBAL DESCRIPTION PLACED DIRECTLY BELOW THE PICTOGRAM. THE BORDER DIMENSION OF THE PICTOGRAM SHALL BE A MINIMUM OF 6" IN HEIGHT.
- CONTRACTED GRADE 2 BRAILLE SHALL BE USED WHEREVER BRAILLE SYMBOLS ARE SPECIFICALLY REQUIRED IN OTHER PORTIONS OF THESE REGULATIONS. DOTS SHALL BE 1/10" ON CENTER IN EACH CELL WITH 2/10" SPACE BETWEEN CELLS. DOTS SHALL BE RAISED A MINIMUM OF 1/40" ABOVE THE BACKGROUND.
- WHEN PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS AND SPACES, RAISED LETTERS SHALL BE ACCOMPANIED BY BRAILLE. SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR WHERE THERE IS NO WALL SPACE ON THE LATCH SIDE, INCLUDING DOUBLE LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL, PREFERABLY ON THE RIGHT. MOUNTING HEIGHT SHALL BE 60" ABOVE THE FINISHED FLOOR TO THE CENTERLINE OF THE SIGN. MOUNTING LOCATION SHALL BE DETERMINED SO THAT A PERSON MAY APPROACH WITHIN 3' OF THE SIGN WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR.



B5 DOOR TYPES



A5 FRAME TYPES

A1 SIGNAGE

1/2" = 1'-0"

DEKKER PERICH SABATINI
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NMSU NM DEPT OF AGRICULTURE OFFICE BUILDING
3910 SOUTH ESPINA STREET LAS CRUCES, NEW MEXICO 88003

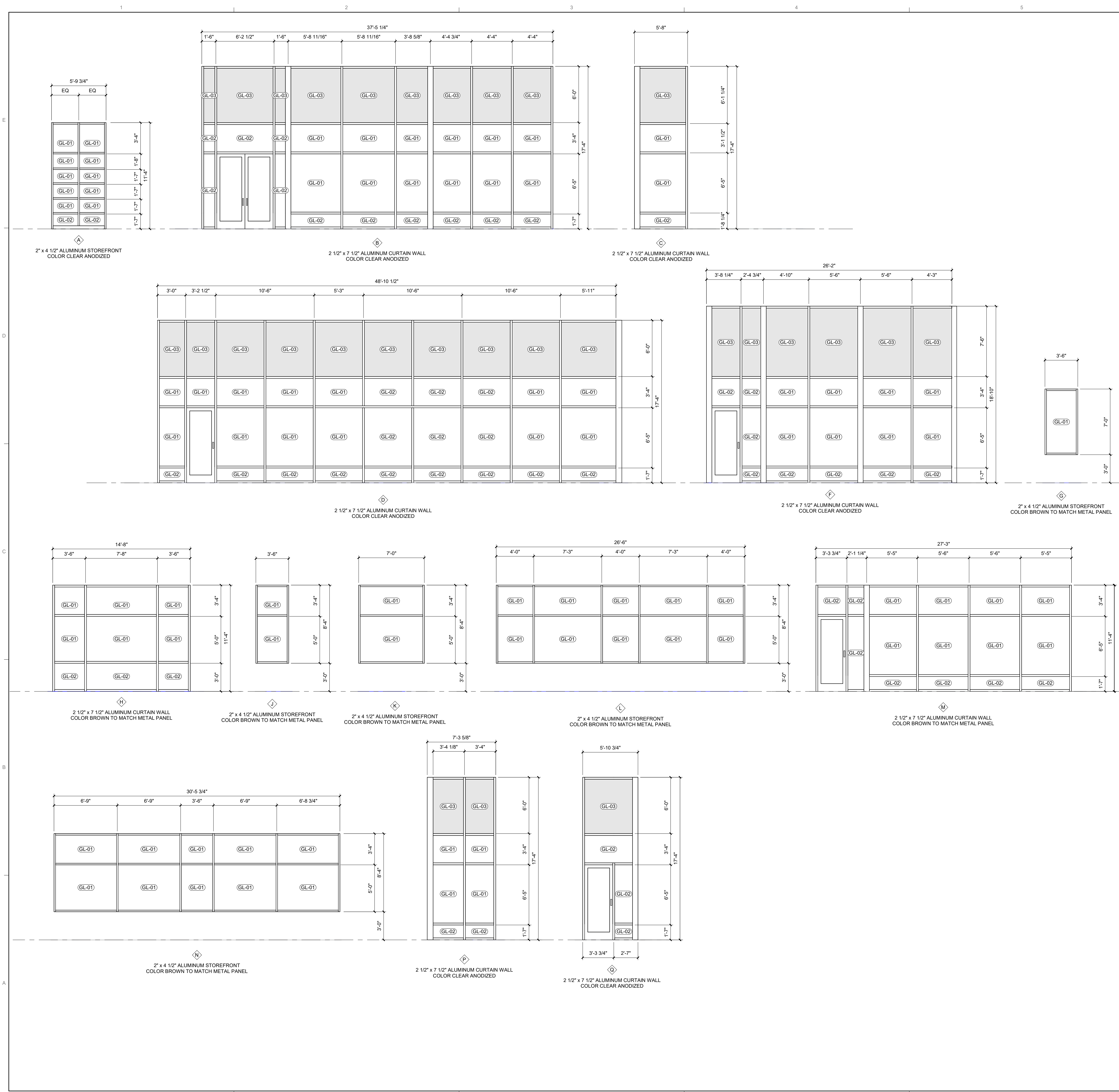
50% CONSTRUCTION DOCUMENTS

REVISIONS

DRAWN BY CS
REVIEWED BY SL
DATE 04/29/2024
PROJECT NO 22-0227.001

SCHEDULES

SHEET NO **AE621**



GENERAL SHEET NOTES

A. GLAZING TO BE GL-XX, UNLESS NOTED OTHERWISE.

SHEET KEYNOTES

REFERENCE KEYNOTES

LEGEND

- INSULATING GLASS UNIT - 1 INCH SHADOWBOX REFER TO DETAIL XX-XX
- DECORATIVE WINDOW FILM (CG-1)

GLAZING SCHEDULE

TYPE MARK	DESCRIPTION	SPECIFICATION SECTION
GL-01	1" INSULATING GLASS UNIT	08 8000
GL-02	1" INSULATING GLASS UNIT - TEMPERED (SAFETY GLASS)	08 8000
GL-03	1" INSULATING GLASS UNIT - SPANDREL	08 8000
GL-06	3/8" MONOLITHIC TEMPERED (SAFETY GLASS)	08 8000

DEKKER PERICH SABATINI

Architecture in Progress

SEAL

PROJECT

NMSU NM DEPT OF AGRICULTURE OFFICE BUILDING
 3910 SOUTH ESPINA STREET LAS CRUCES, NEW MEXICO 88003

50% CONSTRUCTION DOCUMENTS

REVISIONS

NO.	DESCRIPTION

DRAWN BY CS

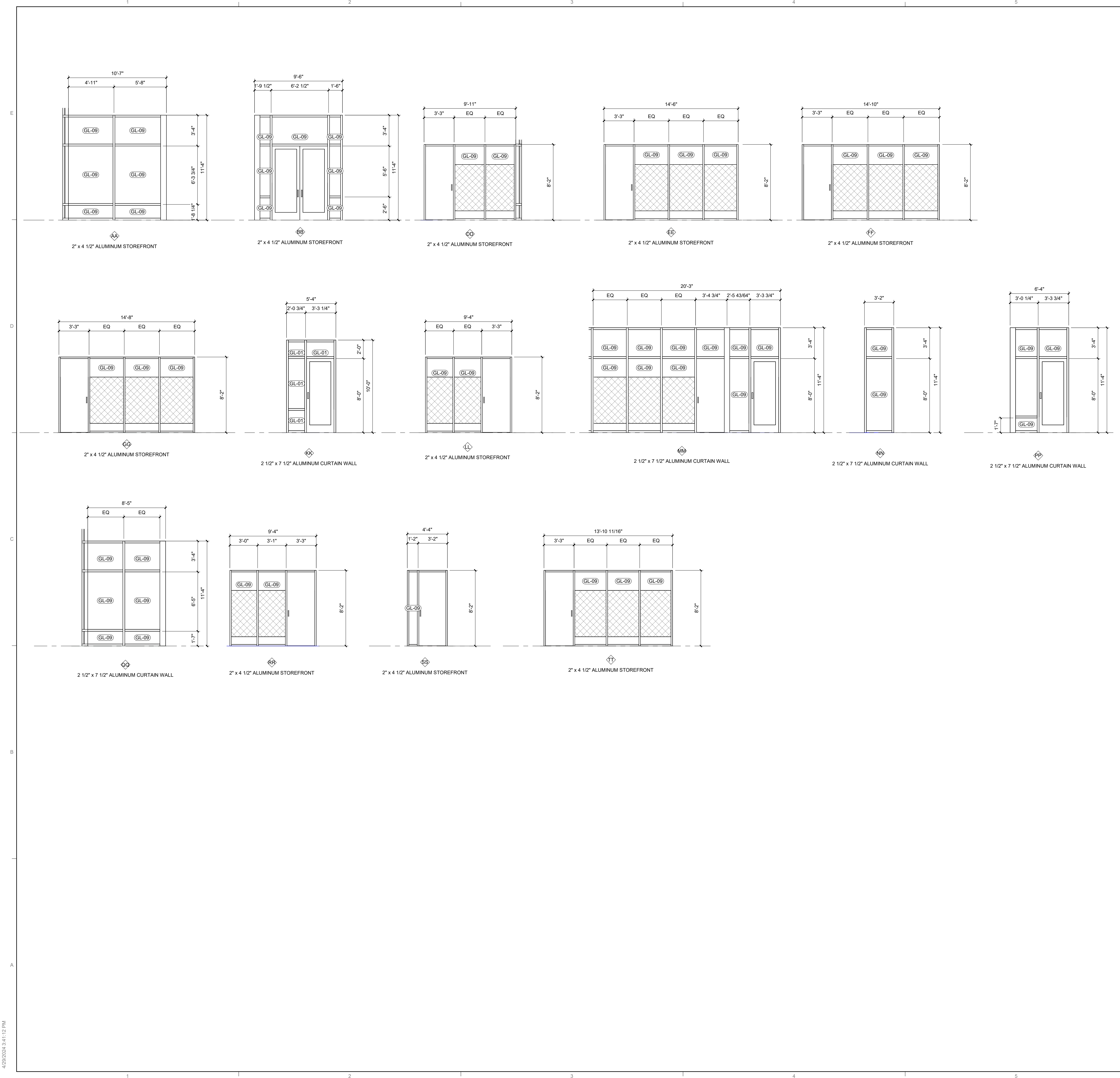
REVIEWED BY SL

DATE 04/29/2024

PROJECT NO 22-0227.001

DRAWING NAME WINDOW AND FRAME TYPES

SHEET NO AE681



GENERAL SHEET NOTES

A. GLAZING TO BE GL-XX, UNLESS NOTED OTHERWISE.

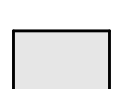

SHEET KEYNOTES

PROJECT

REFERENCE KEYNOTES

PROJECT

LEGEND

-  INSULATING GLASS UNIT - 1 INCH SHADOWBOX
REFER TO DETAIL XX-XX
-  DECORATIVE WINDOW FILM (CG-1)

GLAZING SCHEDULE

TYPE MARK	DESCRIPTION	SPECIFICATION SECTION
GL-01	1" INSULATING GLASS UNIT	08 8000
GL-02	1" INSULATING GLASS UNIT - TEMPERED (SAFETY GLASS)	08 8000
GL-03	1" INSULATING GLASS UNIT - SPANDREL	08 8000
GL-09	3/8" MONOLITHIC TEMPERED (SAFETY GLASS)	08 8000

REVISIONS

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DRAWN BY CS

REVIEWED BY SL

DATE 04/29/2024

PROJECT NO 22-0227.001

DRAWING NAME

WINDOW AND FRAME TYPES

SHEET NO

AE682

DEKKER PERICH SABATINI

Architecture in Progress

SEAL

PROJECT

NMSU NM DEPT OF AGRICULTURE OFFICE BUILDING

3910 SOUTH ESPINA STREET LAS CRUCES, NEW MEXICO 88003

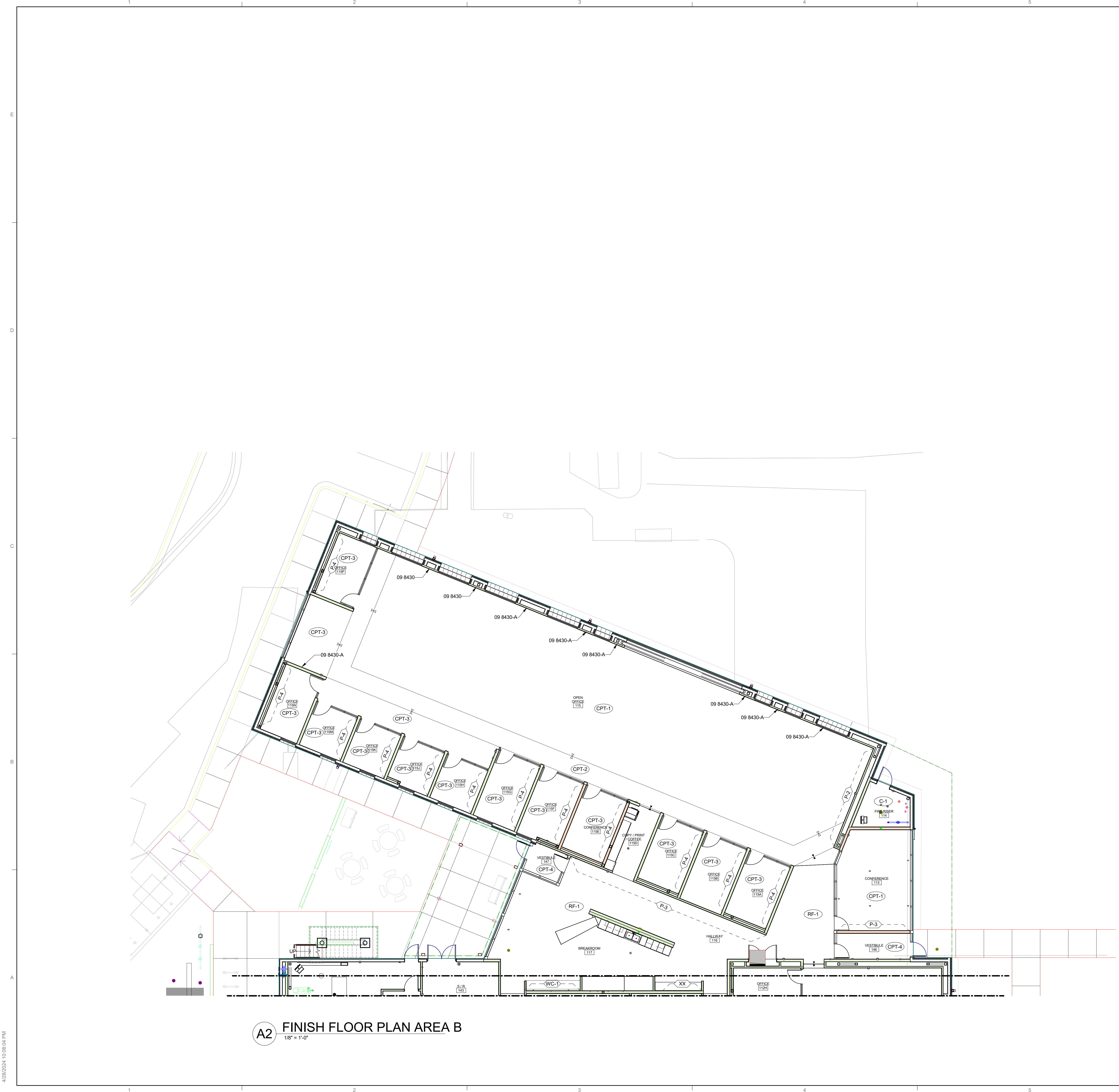
50% CONSTRUCTION DOCUMENTS

DRAWING NAME

WINDOW AND FRAME TYPES

SHEET NO

AE682



GENERAL SHEET NOTES

- A. PLAN DIMENSIONS ARE TO FINISHED FACE OF WALL OR GRID LINE, UNLESS NOTED OTHERWISE.
- B. SEE AF21 FOR FINISH LEGEND.
- C. SEE REFLECTED CEILING PLANS FOR CEILING FINISH INFORMATION.
- D. SEE AF20 FOR FINISH TRANSITIONS THAT OCCUR AT DOORWAYS.
- E. GYPSUM BOARD WALLS TO BE PAINTED P-1, UNLESS NOTED OTHERWISE.
- F. GYPSUM BOARD WALLS WITHOUT TILE AND CASEWORK TOEKICKS TO RECEIVE RA-1, UNLESS NOTED OTHERWISE.
- G. CERAMIC TILE TO BE CENTERED IN ROOM, UNLESS NOTED OTHERWISE. AVOID USING LESS THAN HALF THE WIDTH OF STANDARD TILES.
- H. EXPOSED INTERIOR STEEL TO BE PAINTED P-X, UNLESS NOTED OTHERWISE.
- I. HOLLOW METAL DOORS AND FRAMES TO BE PAINTED P-5, UNLESS NOTED OTHERWISE.
- J. OUTSIDE GYPSUM BOARD CORNERS TO RECEIVE CORNER GUARDS CG-1; CORNERS WITH WALL TILE TO RECEIVE INTEGRAL CORNER GUARDS, SEE AF21.

SHEET KEYNOTES

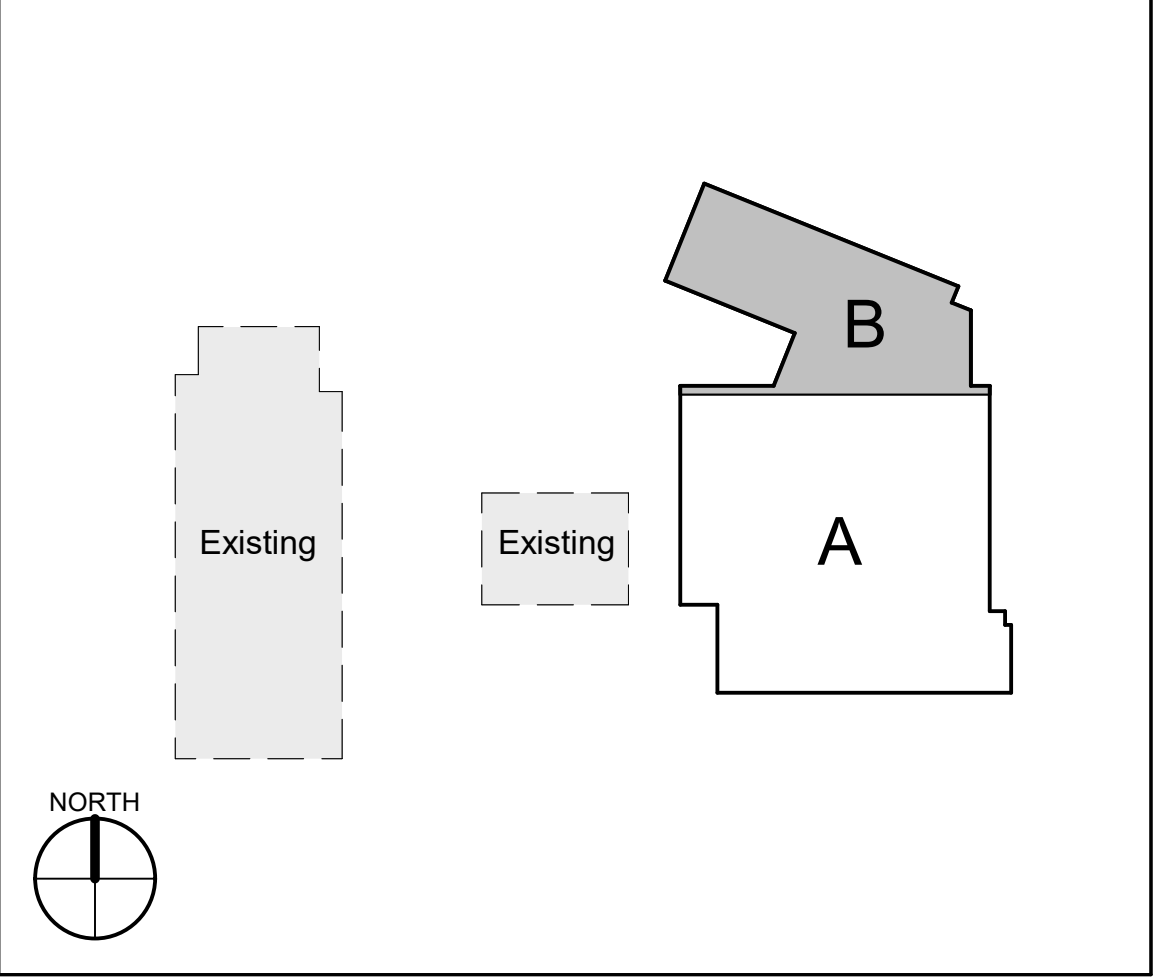
REFERENCE KEYNOTES

- 09 8430 SOUND-ABSORBING WALL AND CEILING UNITS
- 09 8430-A SOUND-ABSORBING UNITS, SEE FINISH LEGEND

LEGEND

- X-X FLOOR FINISH
- XX WALL FINISH
- FLOOR FINISH TRANSITION
- NO TRANSITION REQUIRED

KEY PLAN



DEKKER PERICH SABATINI

Architecture in Progress

NMSU NM DEPT OF AGRICULTURE OFFICE BUILDING
3910 SOUTH ESPINA STREET LAS CRUCES, NEW MEXICO 88003

50% CONSTRUCTION DOCUMENTS

REVISIONS

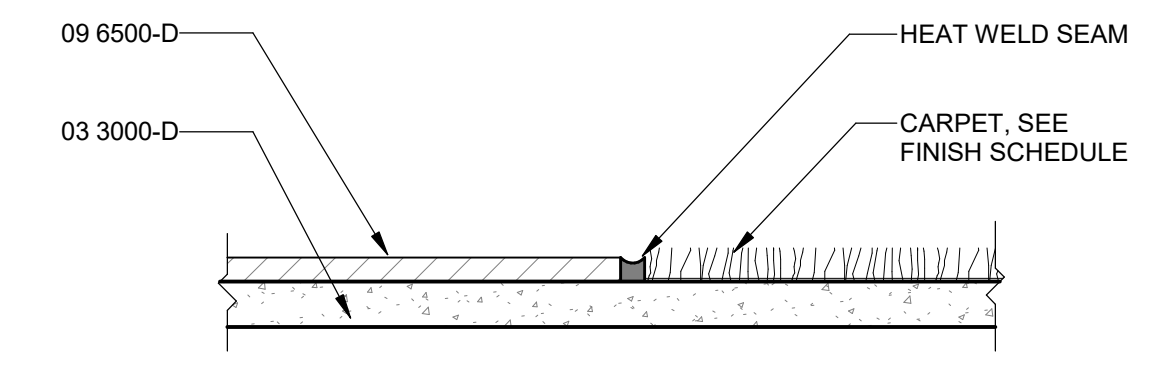
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 REVIEWED BY _____ Approver
 DATE _____
 PROJECT NO 22-0227.001

DRAWING NAME
LEVEL 1 FINISH FLOOR PLAN - AREA B

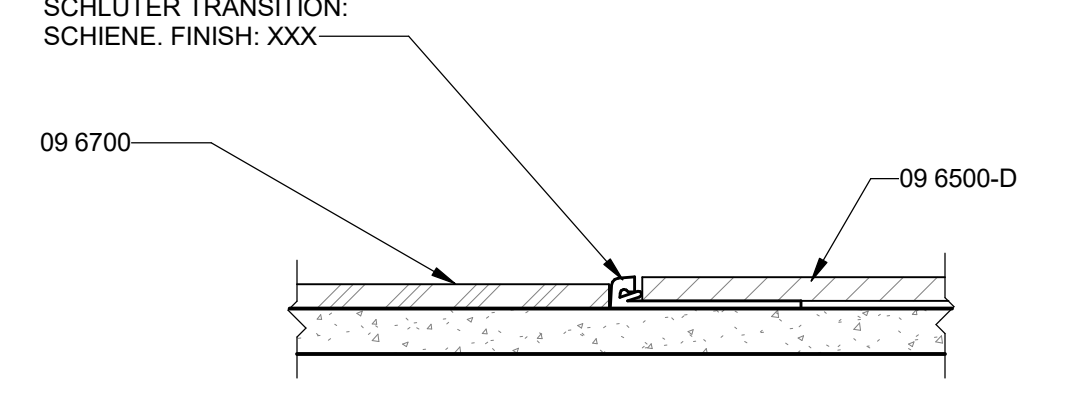
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AF101B

FINISH LEGEND

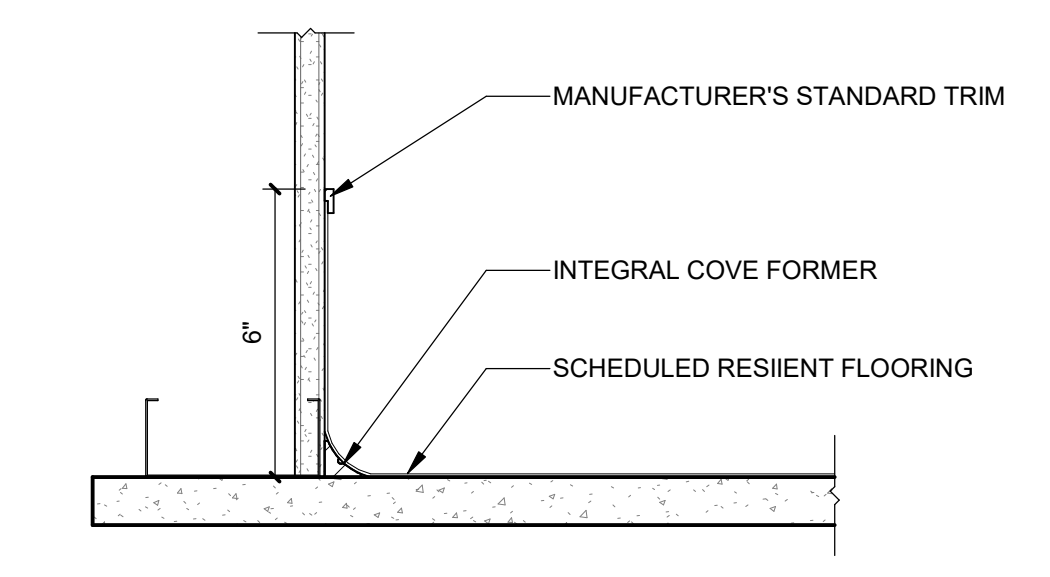
03 3511 CONCRETE FINISHES (C-X)	09 3000 TILE (T-X)	09 6700 FLUID APPLIED FLOORING (FF-X)
C-1 MFG LUCRETE PRODUCT L&M SEAL HARD COLOR CLEAR NOTES CONCRETE FLOOR SEALER	T-8 MFG CREATIVE MATERIAL CORP. STYLE EMBRACE COLOR TERRACOTTA FINISH MATTE SIZE 24" X 24" THICKNESS 3/8" GROUT TBD INSTALL HORIZONTAL STACKED NOTES WALL & FLOOR TILE	FF-1 MFG TBD STYLE COLLECTION COLOR SEE FINISH PLAN SIZE KITCHEN INSTALL KITCHEN
06 4100 UPHOLSTERY FABRIC (F-X)	T-9 MFG CREATIVE MATERIAL CORP. STYLE EMBRACE COLOR BLUE FINISH MATTE SIZE 24" X 48" THICKNESS 3/8" GROUT TBD INSTALL HORIZONTAL STACKED NOTES FLOOR TILE	09 6813 TILE CARPETING (TCP-X)
F-1 MFG ARCHITEX STYLE PENDESOME PLANS PLANS COLOR 55" WIDTH NOTES BANQUETTE BACK FABRIC	T-10 MFG CREATIVE MATERIAL CORP. STYLE IVORY COLOR GREIGE FINISH MATTE SIZE 24" X 48" THICKNESS 3/8" GROUT TBD INSTALL HORIZONTAL STACKED NOTES FLOOR TILE	TCP-1 MFG INTERFACE STYLE WG100 COLLECTION WOVEN GRADIENCE COLOR 108049 GRIEGE SIZE 20" X 20" INSTALL SEE FINISH PLAN NOTES
F-2 MFG STINSON STYLE MODENA 2.0 COLOR MOD 252 CAFFE SIZE 54" WIDTH NOTES BANQUETTE SEAT FABRIC	T-11 MFG TILEBAR STYLE JAMESPORT COLOR BEIGE FINISH POLISHED SIZE 6" X 12" GROUT HORIZONTAL STACK INSTALL ACCENT WALL TILE NOTES	TCP-2 MFG INTERFACE STYLE 107668 GREIGE/CARIBBEAN COLLECTION 108055 CLAY COLOR 20" X 20" INSTALL SEE FINISH PLAN NOTES
06 4100 PLASTIC LAMINATE (PL-X)	09 3000 TILE ACCESSORIES (TA-X)	TCP-3 MFG INTERFACE STYLE WG100 COLLECTION WOVEN GRADIENCE COLOR 108059 CARIBBEAN SIZE 20" X 20" INSTALL SEE FINISH PLAN NOTES
PL-1 MFG WILSONART COLOR NEOWALNUT FINISH MATTE EDGE BAND TO MATCH NOTES CABINETS	TA-1 MFG SCHLUTER STYLE JOLLY MATERIAL ALUMINUM COLOR BRUSHED CHROME ANODIZED SIZE 10mm INSTALL OUTSIDE WALL & TILE EDGE	TCP-4 MFG PATCRAFT STYLE 10316 COLLECTION PASEO COLOR GARNET 00875 SIZE 24" X 24" INSTALL STACK NOTES WALK-OFF CARPET
PL-2 MFG FORMICA COLOR NEUTRAL TWILL FINISH MATTE EDGE BAND TO MATCH NOTES	TA-2 MFG ATLAS CONCORD STYLE COVE TERRA COLOR ASH SIZE 6" X 12" INSTALL T-2 WALL BASE	09 8430 SOUND ABSORBING UNITS (SA-X)
PL-3 MFG CHEMETAL STYLE 603 SERIES COLOR WEATHERED ALUMINUM PATTERN TRINITY SIZE 4'X8 SHEET SIZE NOTES LAMINATE BACKER .055" THICK RECEPTION DESK	TA-3 MFG FRY REGLET STYLE 1/2" REVEAL MWR5050 MATERIAL ALUMINUM COLOR CLEAR ANODIZED SIZE 1/2" INSTALL ALIGN WITH REVEAL ON CEILING	SA-1 MFG FRASCH COLLECTION BARL CONTINUOUS COLOR 09P RICH SOIL SIZE 95" X 10" H X 2.75" D INSTALL SEE REFLECTED CEILING PLAN NOTES LOBBY CEILING FEATURE
06 8316 FIBERGLASS REINFORCED PLASTIC PANELS (FRP-X)	09 5100 ACOUSTICAL CEILINGS (ACT-X)	SA-2 MFG FRASCH COLLECTION BARL CLASSIC COLOR TBD SIZE 12" H X 2.75" D -LENGTHS VARY INSTALL SEE REFLECTED CEILING PLAN NOTES OPEN OFFICES
FRP-1 MFG CRANE PRODUCT KEMILITE GLASBOARD FINISH PEBBLED EMBOSSED SIZE 48" H COLOR WHITE 85 NOTES BACK OF TEST KITCHEN, JANITOR, RECYCLE	AC-1 MFG ARMSTRONG STYLE CALLA SIZE 24" X 24" X 1" NRC/CAC 0.85/35 GRID 9/16" SQUARE REGULAR LAY-IN NOTES GENERAL CEILINGS	09 7200 WALL COVERINGS (WC-X)
09 3000 TILE (T-X)	AC-2 MFG ARMSTRONG STYLE KITCHEN ZONE VINYL SIZE 24" X 24" X 1" NRC/CAC 0.85/35 GRID 15/16" SQUARE LAY-IN NOTES KITCHEN & LAB	WC-1 MFG SPOONFLOWER COLLECTION TYPE II PATTERN JUST CATTLE #11578947 COLOR NATURAL LIGHT SIZE 2' WIDTH 27 FT. ROLL LENGTH MATCH STRAIGHT MATCH, NON REVERSE HANG
T-1 MFG DAL TILE STYLE STARE KINTSUGI COLOR METAL GROOVE IVORY 281D FINISH MATTE SIZE 48" X 110" GROUT TBD INSTALL STRAIGHT STACK NOTES LARGE FORMAT WALL TILE	09 6500 RESILIENT BASE (RA-X)	WC-2 MFG KOROSEAL STYLE DIGITAL WALLCOVERING COLOR IMAGE INSTALL PROVIDED BY OWNER NOTES PREPARE GYPSUM SUBSTRATE PER MANUFACTURE'S INSTRUCTIONS LOBBY BRANDING WALL
T-2 MFG ATLAS CONCORD STYLE COVE TERRA COLOR ASH FINISH STANDARD SIZE 24" X 48" GROUT TBD INSTALL STRAIGHT STACK NOTES WALL TILE	RA-1 MFG JOHNSONITE STYLE 4.5" MANDALAY COLOR TBD NOTES RECEPTION & CONFERENCE ROOM	09 9123 PAINTING (P-X)
T-3 MFG FIRECLAY TILE STYLE THIN BRICK COLOR ALLEGHENY V4 FINISH SATIN SIZE 2.5" X 8" GROUT TBD INSTALL HORIZONTAL STACK NOTES ACCENT WALL TILE	RA-1 MFG JOHNSONITE STYLE 4" TRADITIONAL VINYL BASE COLOR TBD NOTES GENERAL WALL BASE	P-1 MFG SHERWIN WILLIAMS COLOR SW 7010 WHITE DUCK FINISH EGGSHELL NOTES GENERAL WALL
T-5 MFG CONCEPT SURFACES STYLE DIVINE COLOR COPPER CHEVRON FINISH MATTE SIZE 13" X 36" GROUT TBD INSTALL HORIZONTAL STACKED NOTES ACCENT WALL TILE	09 6500 RESILIENT FLOORING (RF-X)	P-2 MFG SHERWIN WILLIAMS COLOR SW 6072 VERSATILE GRAY FINISH EGGSHELL NOTES ACCENT
T-6 MFG CONCEPT SURFACES STYLE PUEBLO COLOR AVORIO FINISH MATTE SIZE 24" X 48" THICKNESS 3/8" GROUT TBD INSTALL HORIZONTAL STACKED NOTES WALL TILE	RF-1 MFG KARRIDEAN STYLE VAN GOGH COLOR COUNTRY OAK SIZE 7" X 48" WEAR 20 MIL INSTALL 1/3 STAGGER UNIT FLOORING NOTES	P-3 MFG SHERWIN WILLIAMS COLOR SW 6501 MANITOU BLUE FINISH EGGSHELL NOTES ACCENT
T-7 MFG CONCEPT SURFACES STYLE PUEBLO COLOR AVORIO FINISH ANTI-SLIP SIZE 24" X 48" THICKNESS 3/8" GROUT TBD INSTALL HORIZONTAL STACKED NOTES FLOOR TILE	10 1400 DECORATIVE WINDOW FILM	P-4 MFG SHERWIN WILLIAMS COLOR SW6340 BAKED CLAY FINISH EGGSHELL NOTES ACCENT
	CG-1 MFG CREATIVEX PRODUCT CUSTOM GRADIENT WINDOW FILM COLOR FROSTED NOTES GRAPHIC PROVIDED BY ARCHITECT	P-5 MFG SHERWIN WILLIAMS COLOR TBD FINISH GLOSS NOTES HALLOW METAL DOORS & FRAMES
	10 2600 CORNER GUARDS (CG-X)	10 1400 DECORATIVE WINDOW FILM
	CG-1 MFG INPRO PRODUCT ALUMINUM COLOR LIGHT BRONZE NOTES 3/4" WING	CG-1 MFG CREATIVEX PRODUCT CUSTOM GRADIENT WINDOW FILM COLOR FROSTED NOTES GRAPHIC PROVIDED BY ARCHITECT
	12 3600 COUNTERTOPS (QZ-X)	10 2600 CORNER GUARDS (CG-X)
	QZ-1 MFG WILSONART COLOR DESERT WIND Q4031 THICKNESS 2CM NOTES LOBBY COUNTERTOP	CG-1 MFG INPRO PRODUCT ALUMINUM COLOR LIGHT BRONZE NOTES 3/4" WING
	12 2400 ROLLER WINDOW SHADES	12 3600 COUNTERTOPS (SS-X)
	RS-1 MFG MECHOSHADE SYSTEMS ROLLER SINGLE SHADE, MOTORIZED SHADE THERMOVOL COLLECTION TYPE 1500 SRIES (3% OPEN) COLOR NON-RAILROADDED FASCIA SILVER BIRCH NOTES TO BE SELECTED FROM MANUFACTURERS FULL RANGE TO MATCH MULLIONS	SS-1 MFG HI-MACS COLOR NOBLE CANE W011 THICKNESS 2CM NOTES GENERAL COUNTERTOPS
	12 3600 COUNTERTOPS (SS-X)	SS-2 MFG HI-MACS COLOR PORTLAND GT945 THICKNESS 2CM NOTES ACCENT COUNTERTOP



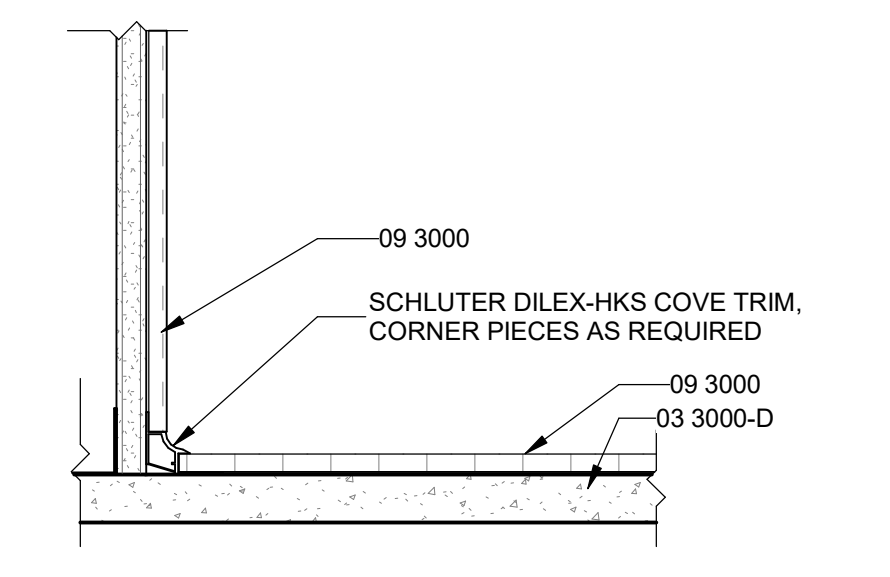
E1 RESILIENT TO CARPET
12" = 1'-0"



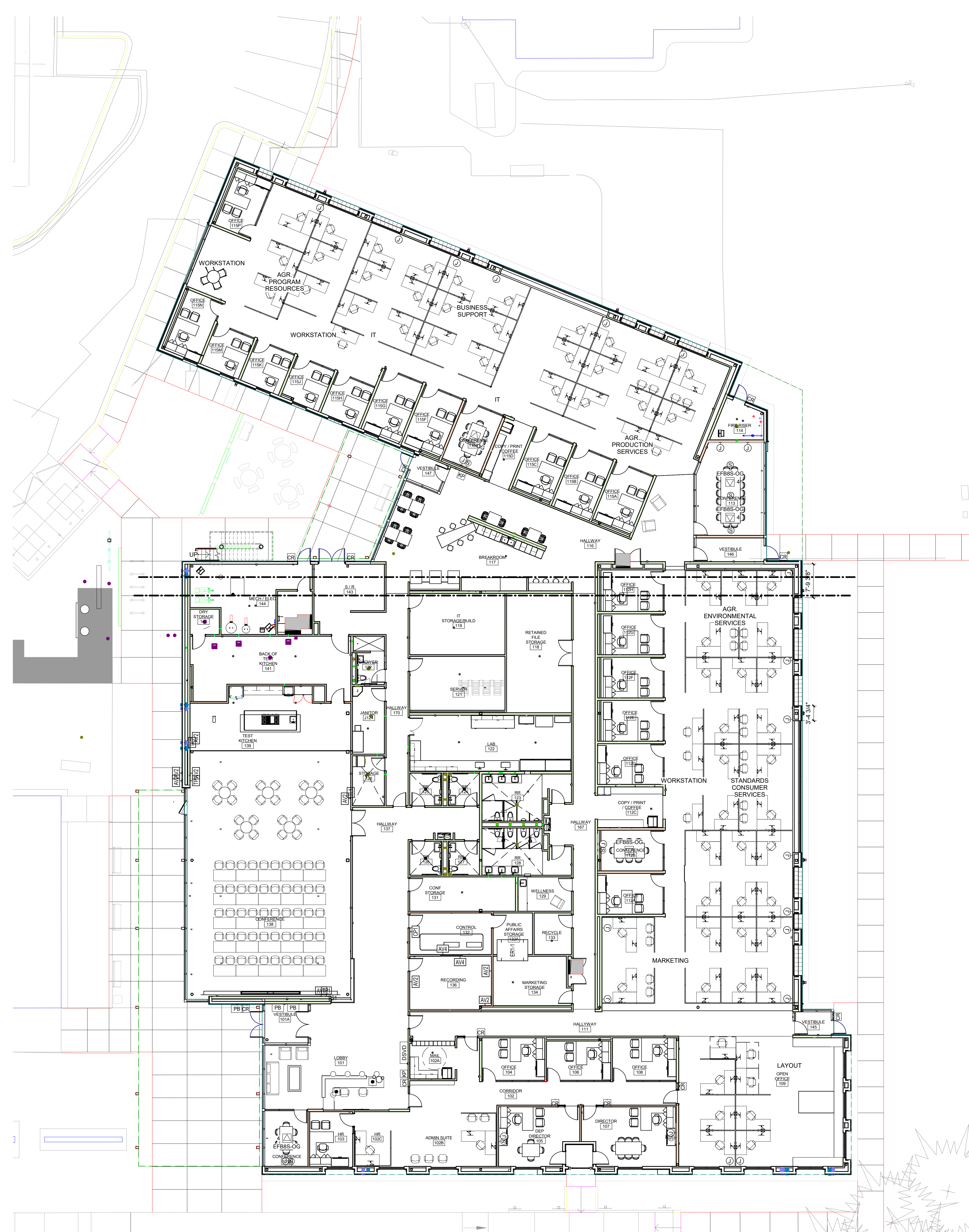
E2 RESILIENT TO RESINOUS
12" = 1'-0"



D1 INTEGRAL COVE BASE
3" = 1'-0"



2 TILE COVE BASE
3" = 1'-0"



A1 LEVEL 1 FURNITURE PLAN
3/32" = 1'-0"

GENERAL SHEET NOTES

- A. PLAN DIMENSIONS ARE TO FINISHED FACE OF WALL OR GRID LINE, UNLESS NOTED OTHERWISE.
- B. SEE AF21 FOR FINISH LEGEND.
- C. SEE REFLECTED CEILING PLANS FOR CEILING FINISH INFORMATION.
- D. SEE AF20 FOR FINISH TRANSITIONS THAT OCCUR AT DOORWAYS.
- E. GYPSUM BOARD WALLS TO BE PAINTED P-X, UNLESS NOTED OTHERWISE.
- F. GYPSUM BOARD WALLS WITHOUT TILE AND CASEWORK TOEKICKS TO RECEIVE RA-X, UNLESS NOTED OTHERWISE.
- G. CERAMIC TILE TO BE CENTERED IN ROOM, UNLESS NOTED OTHERWISE. AVOID USING LESS THAN HALF THE WIDTH OF STANDARD TILES.
- H. EXPOSED INTERIOR STEEL TO BE PAINTED P-X, UNLESS NOTED OTHERWISE.
- I. HOLLOW METAL DOORS AND FRAMES TO BE PAINTED P-X, UNLESS NOTED OTHERWISE.
- J. OUTSIDE GYPSUM BOARD CORNERS TO RECEIVE CORNER GUARDS CG-X; CORNERS WITH WALL TILE TO RECEIVE INTEGRAL CORNER GUARDS, SEE AF21.

SHEET KEYNOTES

REFERENCE KEYNOTES

LEGEND

- (X-X) FLOOR FINISH
- (P-X) WALL FINISH
- +— FLOOR FINISH TRANSITION
- /— NO TRANSITION REQUIRED

KEY PLAN

**DEKKER
PERICH
SABATINI**

**Architecture
in Progress**

**NMSU NM DEPT OF AGRICULTURE
OFFICE BUILDING**
3910 SOUTH ESPINA STREET LAS
CRUCES, NEW MEXICO 88003

**50%
CONSTRUCTION
DOCUMENTS**

REVISIONS

DRAWN BY _____
REVIEWED BY Approver
DATE _____
PROJECT NO 22-0227-001

DRAWING NAME
**LEVEL 1
FURNITURE PLAN**

SHEET NO
IF101



4343 Pan American Fwy NE
Albuquerque NM 87107 USA
505.877.4499 main
www.eea.com

EEA Project No. 20220466
State of registration TX
Firm Registration No. F-2497

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Serial No.
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PROJECT

**NMSU NM DEPT OF AGRICULTURE NEW
OFFICE BUILDING**
3910 SOUTH ESPINA STREET
LAS CRUCES, NEW MEXICO 88003

50%
CONSTRUCTION
DOCUMENTS

REVISIONS

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- △

DRAWN BY CP/PU

REVIEWED BY MM

DATE 04/29/2024

PROJECT NO 22-0227-001

DRAWING NAME

**FIRE
PROTECTION
PLAN**

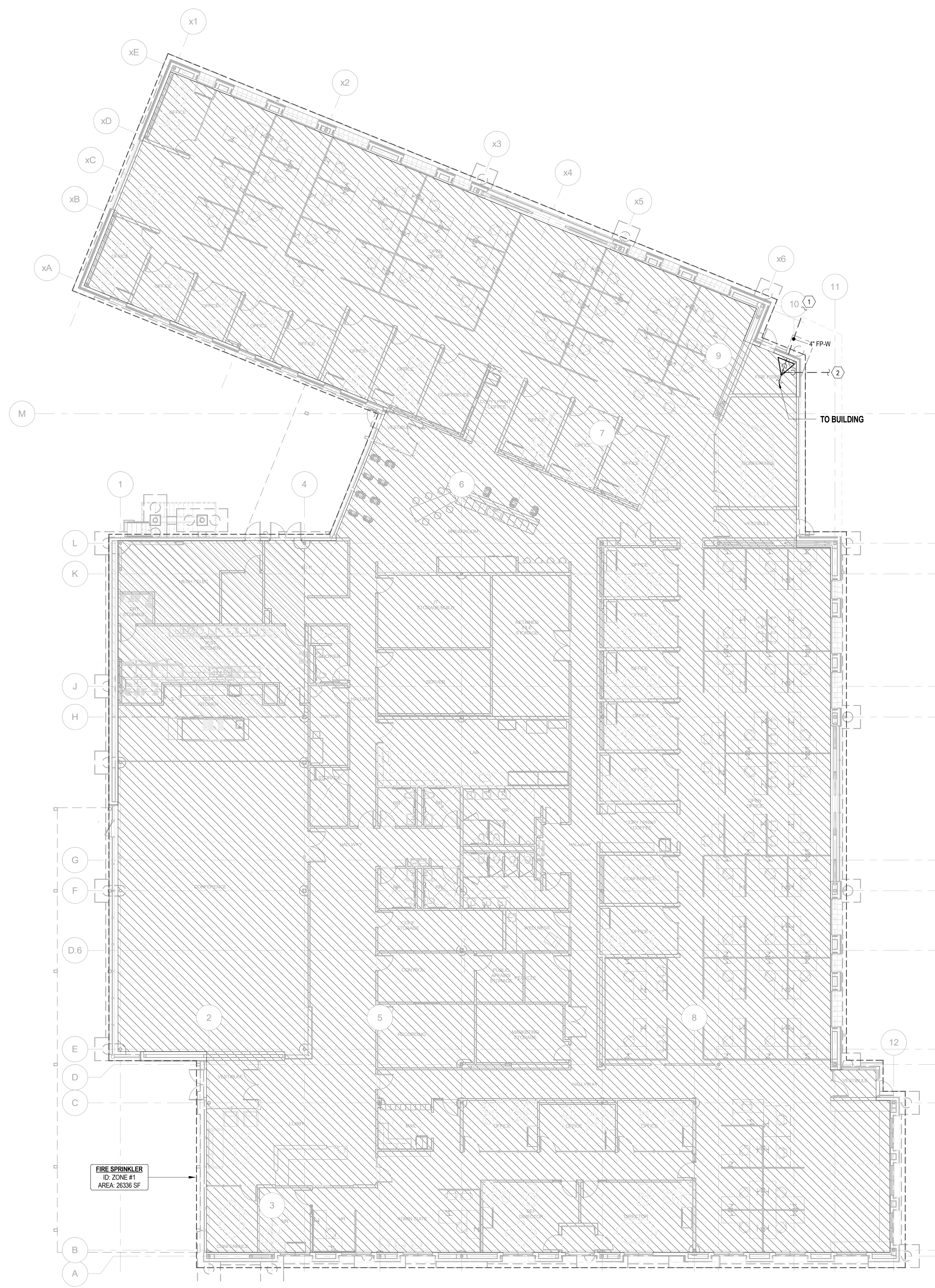
SHEET NO

FP101

SPRINKLER DESIGN DENSITY	
	DESIGN AND INSTALL A NEW WET PIPE FIRE PROTECTION SYSTEM AS REQUIRED TO FULLY SPRINKLER THE AREAS HATCHED AS INDICATED. LIGHT HAZARD: 0.10 GPM/SQ.FT. OVER 1500 SQ.FT., 100 GPM HOSE ALLOWANCE.
	DESIGN AND INSTALL A NEW DRY PIPE FIRE PROTECTION SYSTEM AS REQUIRED TO FULLY SPRINKLER THE AREAS HATCHED AS INDICATED. ORDINARY HAZARD GROUP 2.0.2 GPM/SQFT OVER 1900 SQ.FT., 250 GPM HOSE ALLOWANCE.

FIRE PROTECTION SHEET NOTES	
A	XX

KEYNOTES	
1	FIRE SPRINKLER SERVICE ENTRY. SEE CIVIL FOR BACKFLOW PREVENTER IN HOT BOX LOCATION.
2	TO REMOVE FIRE DEPARTMENT CONNECTION. SEE CIVIL.

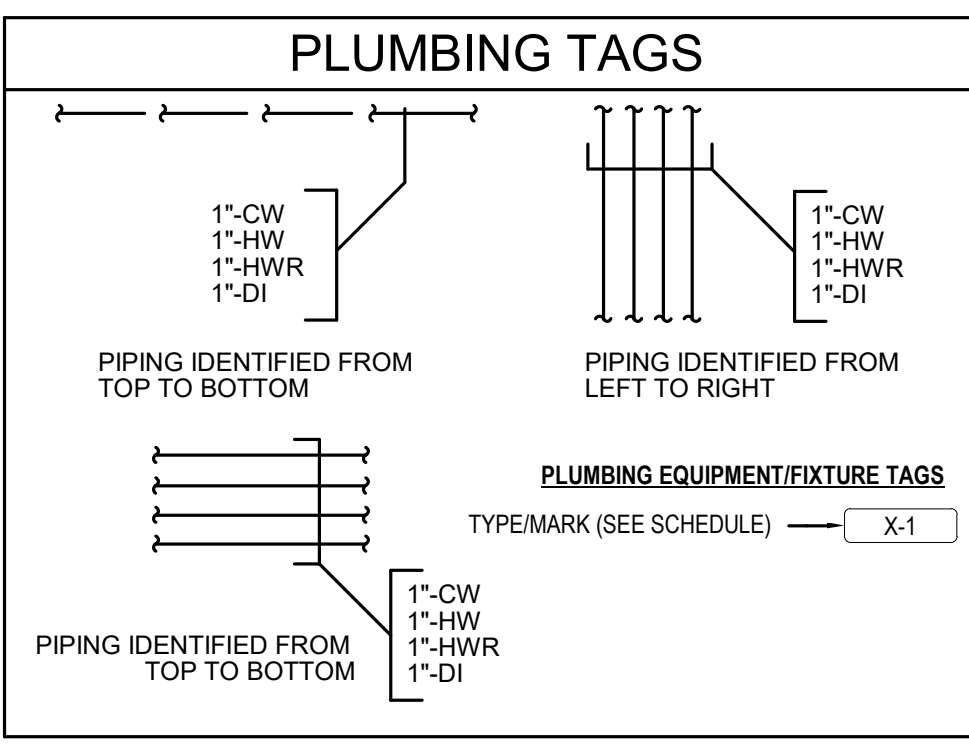


FIRE PROTECTION PLAN
1" = 10'-0"

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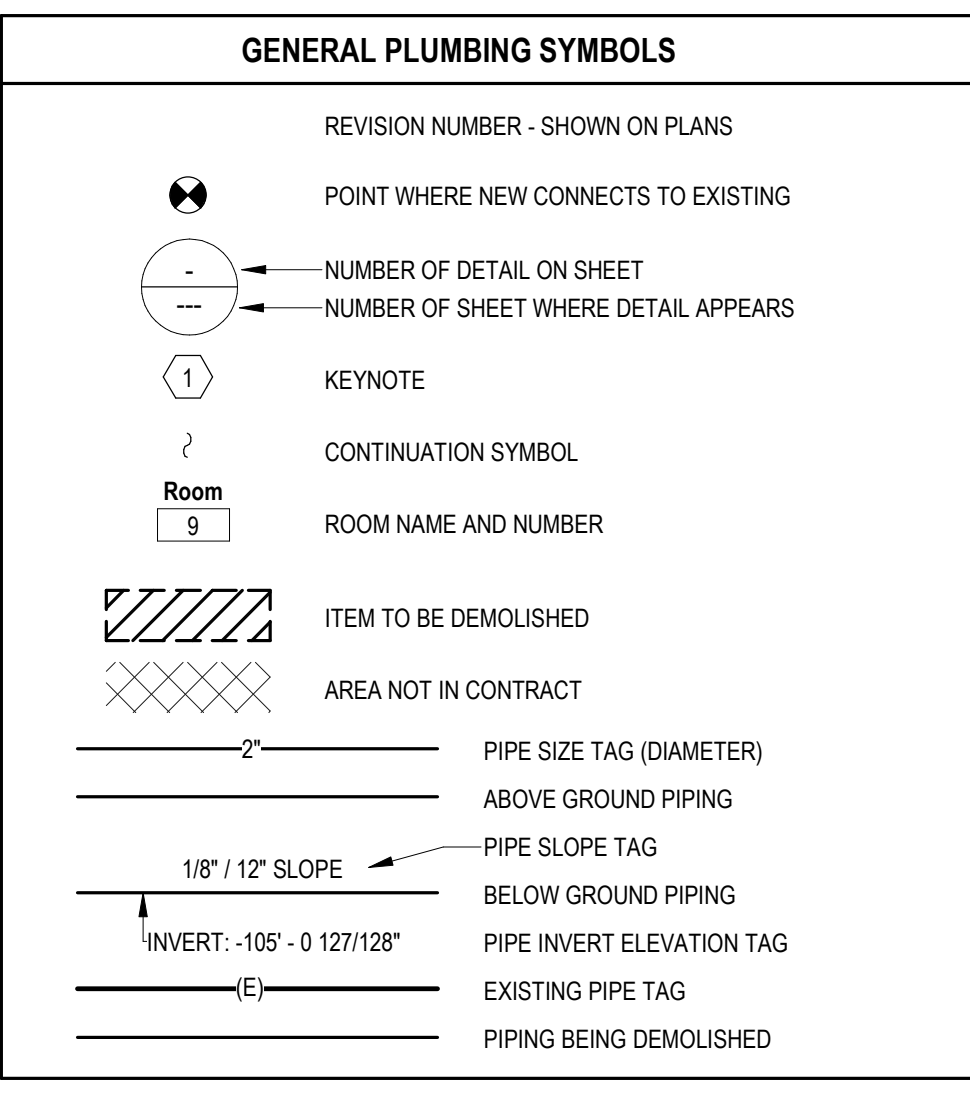
PIPING SPECIALITIES

AIR SEPARATOR	
AIR VENT, AUTOMATIC W/SERVICE VALVE	
AIR VENT, AUTOMATIC W/SERVICE VALVE	
AIR VENT, MANUAL	
ALIGNMENT GUIDE (PIPE SLEEVE)	
AQUASTAT	
ANCHOR	
BACKWATER VALVE	
EXPANSION JOINT	
EXPANSION LOOP	
FILTER	
FLEX CONNECTION	
FLOWMETER, ORIFICE	
FLOW SWITCH	
FLOW METER, INSERTION	
FLOW METER, VENTURI	
HEAT EXCHANGER, LIQUID	
HEAT TRANSFER SURFACE (INDICATE TYPE)	
METER	
PITCH OF PIPE, RISE (R) OR DROP (D)	
PRESSURE GAUGE AND COCK	
PRESSURE SWITCH	
PUMP, CIRCULATING	
PUMP SUCTION DIFFUSER	
STRAINER, WYE	
STRAINER W/ BLOW DOWN	
STRAINER, DUPLEX	
TEST PLUG	
THERMOMETER	
THERMOMETER IN WELL	
THERMOMETER WELL ONLY	
THRUST BLOCK	
WATER HAMMER ARRESTOR	
PNEUMATIC THERMOSTAT	
VACUUM BREAKER	
PURGE PORT	



PLUMBING VALVES

ANGLE GATE	
ANGLE GLOBE	
BALANCING	
BALL	
BELLOWS SEAL GLOBE	
BUTTERFLY	
DIAPHRAGM	
GAS COCK	
GAUGE COCK	
GATE	
GLOBE	
NEEDLE	
PLUG	
PRESSURE REDUCING	
PRESSURE RELIEF	
PRESSURE-TEMPERATURE RELIEF	
QUICK OPENING	
CHECK	
ALARM CHECK	
SPRING CHECK	
SWING CHECK	
BALL CHECK	
BACK FLOW PREVENTER, DOUBLE CHECK TYPE	
BACK FLOW PREVENTER, REDUCED PRESSURE ZONE TYPE	



PLUMBING PIPE TYPES

WATER SYSTEMS	ABBV	LINE TYPE
DOMESTIC COLD WATER	DCW	
DOMESTIC HOT WATER	DHW	
DOMESTIC HOT WATER 140	DHW140	
DOMESTIC HOT WATER RETURN	DHWR	
DOMESTIC HOT WATER RETURN 140	DHWR140	
INDUSTRIAL COLD WATER	IOW	
INDUSTRIAL HOT WATER	IHW	
INDUSTRIAL HOT WATER 140	IHW140	
INDUSTRIAL HOT WATER RETURN	IHWR	
INDUSTRIAL HOT WATER RETURN 140	IHWR140	
INDUSTRIAL SOFT COLD WATER	ISOW	
INDUSTRIAL SOFT HOT WATER	ISHW	
INDUSTRIAL SOFT HOT WATER 140	ISHW140	
INDUSTRIAL SOFT HOT WATER RETURN	ISHWR	
INDUSTRIAL SOFT HOT WATER RETURN 140	ISHWR140	
REVERSE OSMOSIS WATER	RO	
SOFT COLD WATER	DSCW	
SOFT HOT WATER	DSHW	
SOFT HOT WATER 140	DSHW140	
SOFT HOT WATER RETURN	DSHWR	
SOFT HOT WATER RETURN 140	DSHWR140	
TRAP PRIMER	TP	

PLUMBING PIPE TYPES

WASTE SYSTEMS	ABBV	LINE TYPE
ACID WASTE	AW	
CONDENSATE	CD	
CONDENSATE - OVERFLOW	OC	
GREASE WASTE	GW	
INDUSTRIAL WASTE	IW	
LABORATORY WASTE	LW	
SANITARY SEWER	SS	

PLUMBING PIPE TYPES

VENT SYSTEMS	ABBV	LINE TYPE
ACID WASTE VENT	AV	
GREASE WASTE VENT	GV	
INDUSTRIAL WASTE VENT	IV	
LABORATORY WASTE VENT	LV	
SANITARY SEWER VENT	V	

PLUMBING PIPE TYPES

STORM DRAINAGE SYSTEMS	ABBV	LINE TYPE
PRIMARY STORM DRAIN, RAINWATER	SD	
SECONDARY STORM DRAIN, RAINWATER	SSD	
SUB-SURFACE STORM DRAIN	SUB	

PLUMBING PIPE TYPES

NATURAL GAS SYSTEMS	ABBV	LINE TYPE
LOW PRESSURE GAS (LESS THAN 2 PSI)	MG	
MEDIUM PRESSURE GAS (2 PSI - 5 PSI)	MG	
HIGH PRESSURE GAS (GREATER THAN 5 PSI)	G	
LIQUID GAS	LG	

PIPE FITTINGS

CAPPED TEE	
BLIND FLANGE	
PIPE CAP	
INDICATES TIE-IN BETW. EXIST. AND NEW	
ELBOW, TURN-DOWN	
ELBOW, TURN-UP	
FLANGE JOINT	
REDUCER, CONCENTRIC	
REDUCER, ECCENTRIC	
UNION, SCREWED	
UNION, FLANGED	
VCR FITTING WITH CAP	
BALL JOINT	
PLUGGED PIPE	
COUPLING (JOINT)	
CROSSING	
TEE	
TEE, OUTLET DOWN	
TEE, OUTLET UP	
P-TRAP	

PLUMBING DRAINS

FLOOR DRAIN - ROUND TOP	
FLOOR DRAIN - SQUARE TOP	
PRIMARY ROOF DRAIN	
SECONDARY ROOF DRAIN	
FLOOR SINK	
TRENCH DRAIN	
AREA DRAIN	
ROOF RECEPTOR	
HUB DRAIN	
FLOOR CLEAN OUT	
WALL CLEANOUT	
YARD CLEANOUT	
DOUBLE YARD CLEANOUT	

PLUMBING ABBREVIATIONS

DESCRIPTION	AAB	DESCRIPTION	AAB
ABOVE CEILING	A/C	LAVATORY	LAV
ABOVE FINISHED FLOOR	AF	MAN HOLE	MH
ABOVE GRADE, GROUND	AG	MAXIMUM	MAX
ACCESS PANEL	AP	MECHANICAL	MECH
ACRYLONITRILE BUTADIENE STYRENE	ABS	MINIMUM	MIN
AIR ADMITTANCE VALVE	AAV	MIXING VALVE	MV
ARCHITECT	ARCH	MOP SINK	MS
AUTHORITY HAVING JURISDICTION	AHJ	NORMALLY CLOSED	NC
BACKFLOW PREVENTER	BFP	NORMALLY OPEN	NO
BELOW FINISHED FLOOR	BFF	NOT IN CONTRACT	NIC
BELOW FLOOR	B/F	NOT TO SCALE	NTS
BELOW GRADE/ GROUND	BG	EXISTING TO BE PROTECTED IN PLACE	(P)
BELOW SLAB	B/S	POLYETHYLENE	PE
BOTTOM OF PIPE	BOP	POLYETHYLENE CROSS-LINKED	PEX
BRAKE HORSEPOWER	BHP	POLYVINYL CHLORIDE	PVC
BRITISH THERMAL UNIT	BTUH	POLYVINYLIDENE FLUORIDE/ DIOFLUORIDE	PVDF
BTUH (THOUSANDS)	MBH	POUND	LB
CENTER OF PIPE	COP	POUNDS PER SQUARE INCH	PSI
CELSIUS	C	POUNDS PER SQUARE INCH ABSOLUTE	PSIA
CHILLED WATER RETURN	CHWR	POUNDS PER SQUARE INCH GAUGE	PSIG
CHILLED WATER SUPPLY	CHWS	PRESSURE DROP	PD
CHLORINATED POLYVINYL CHLORIDE	CPVC	PRESSURE REDUCING VALVE	PRV
CLEANOUT	CO	PUMP, BOOSTER	BP
CLEANOUT, FLOOR	FCO	PUMP, CHILLED WATER	CHWP
CLEANOUT, GRADE	GCO	PUMP, CIRCULATION	CP
CLEANOUT, GRADE TWO-WAY	DGCO	PUMP, HOT WATER	HWP
CLEANOUT, WALL	WC	REDUCED PRESSURE ZONE	RPZ
CLEANOUT, YARD	YCO	EXISTING TO BE RELOCATED	(R)
CLEANOUT, YARD TWO-WAY	DYCO	REVOLUTION PER MINUTE	RPM
CONDENSER RETURN	CWR	SCHEDULE	SCH
CONDENSER SUPPLY	CWS	SHOWER	SH
COPPER	CU	SINK	SK
CUBIC FEET	CF	SQUARE FEET	SF
CUBIC FEET PER HOUR	CFH	STRUCTURAL	STRUC
CUBIC FEET PER MINUTE	CFM	TEMPERATURE	TEMP
EXISTING TO BE DEMOLISHED/ REMOVED	(D)	TEMPERATURE, ENTERING WATER	EWT
DEGREE	D	TEMPERATURE, LEAVING WATER	LWT
DIAMETER	DIA	THERMOSTATIC MIXING VALVE	TMV
DRAIN, AREA	AD	TOP OF PIPE	TOP
DRAIN, FLOOR	FD	TRAP PRIMER	TP
DRAIN, ROOF PRIMARY	RD	TYPICAL	TYP
DRAIN, ROOF SECONDARY	SRD	ULTRAVIOLET	UV
ELECTRICAL	ELEC	UNDERGROUND	UG
ELEVATION	ELEV	UNIT, AIR HANDLING	AHU
EXISTING	EXIST, (E)	UNIT, FAN COIL	FC
FAHRENHEIT	F	UNLESS NOTED OTHERWISE	UNO
FAT, OIL, AND GAS	FOG	UPI/ DOWN	UP/DN
FOOT/ FEET	FT	VACUUM BREAKER	VB
FEET PER MINUTE	FFM	VALVE FLOW COEFFICIENT	CV
FEET PER SECOND	FFS	VENT THRU ROOF	VTR
FIXTURE UNIT	FU	WATER GAUGE	WG
FLEXIBLE	FLEX	WATER CLOSET	WC
FLOOR	FLR	WATER HAMMER ARRESTOR	WHA
FLOOR SINK	FS	WATER, OIL, AND GAS	WOG
FUTURE	(F)		
GALLON	GAL	ELECTRICAL	
GALLONS PER HOUR	GPH	VOLTAGE	V, VOLT
GALLONS PER MINUTE	GPM	WATTAGE	W, WATT
HEAD IN FEET	FTHD	KILOWATT	KW
HEAD IN INCHES WATER COLUMN	INWC	PHASE	PH
HEATING HOT WATER RETURN	HWR	AMPERE	A, AMP
HEATING HOT WATER SUPPLY	HWS		
HEATING, VENTILATION, AIR CONDITIONING	HVAC		
HORSEPOWER	HP		
HOUR	HR		
HUB DRAIN	HD		
INCHES PER HOUR	IN/HR		
INDIRECT DRAIN/ RECEPTOR	ID		
INDIRECT WASTE	IW		
INVERT ELEVATION	IE		

CODE AND REGULATORY ABBREVIATIONS

DESCRIPTION	AAB	DESCRIPTION	AAB
AMERICAN NATIONAL STANDARDS	ANSI	NATIONAL ELECTRICAL CODE	NEC
AMERICAN SOCIETY OF CIVIL ENGINEERS	ASCE	NATIONAL FIRE PROTECTION ASSOCIATION	NFPA
AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS	ASHRAE	UNIFORM BUILDING CODE	UBC
AMERICAN SOCIETY OF MECHANICAL ENGINEERS	ASME	UNIFORM FIRE CODE	UFC
AMERICAN SOCIETY OF PLUMBING ENGINEERS	ASPE	UNIFORM PLUMBING CODE	UPC
AMERICAN SOCIETY OF SANITARY ENGINEERING	ASSE	UNDERWRITERS LABORATORIES	UL
AMERICAN SOCIETY OF TESTING AND MATERIALS	ASTM		
AMERICAN WATER WORKS ASSOCIATION	AWWA		
CAST IRON SOIL PIPE INSTITUTE	CISPI		
FACTORY MUTAL	FM		
INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS	IEEE		
INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS	IAPMO		
INTERNATIONAL BUILDING CODE	IBC		
INTERNATIONAL ENERGY CONSERVATION CODE	IECC		
INTERNATIONAL FIRE CODE	IFC		
INTERNATIONAL FUEL GAS CODE	IFGC		
INTERNATIONAL MECHANICAL CODE	IMC		
INTERNATIONAL PLUMBING CODE	IPC		
INTERNATIONAL RESIDENTIAL CODE	IRC		

GENERAL PLUMBING NOTES:

- PROVIDE PIPING MATERIALS AND FACTORY-FABRICATED PIPING PRODUCTS OF SIZES, TYPES, PRESSURE RATINGS, AND CAPACITIES AS INDICATED. WHERE NOT INDICATED, PROVIDE PROPER SELECTION AS DETERMINED BY INSTALLER TO COMPLY WITH INSTALLATION REQUIREMENTS. PROVIDE SIZES AND TYPES MATCHING PIPING AND EQUIPMENT CONNECTIONS. PROVIDE FITTINGS OF MATERIALS WHICH MATCH PIPE MATERIALS USED IN SOIL, AND VENT PIPING SYSTEMS.
- NOT ALL PIPE SIZES ARE SHOWN ON PLANS FOR CLARITY. REFER TO RISER DIAGRAMS FOR PIPING SIZES.
- COORDINATE FIRE ALARM CONNECTIONS TO FIRE PROTECTION SYSTEM WITH FIRE PROTECTION CONTRACTOR.
- INSTALL PIPING TO ALLOW FOR EXPANSION AND CONTRACTION WITHOUT STRESSING PIPE, JOINTS, OR CONNECTED EQUIPMENT.
- UPON COMPLETION OF A SECTION OR OF THE ENTIRE WATER SUPPLY SYSTEM, IT SHALL BE TESTED AND PROVED TIGHT UNDER A WATER PRESSURE OF 125 PSIG FOR 2 HRS. THE WATER USED FOR TESTS SHALL BE OBTAINED FROM A POTABLE SOURCE OF SUPPLY.
- SEE FOUNDATION BEAM PENETRATIONS WITH SCH. 40 STEEL PIPE SLEEVE OF 2" LARGER DIAMETER.
- DOMESTIC WATER SYSTEMS:
 - STOP VALVES SHALL BE BRONZE BALL VALVES WITH STAINLESS STEEL BALLS AND TEFLON PACKING AND GASKETS.
 - HANGERS SHALL BE B-LINE MODEL B3104 FOR STEEL PIPE OR B-LINE MODEL B3104CT FOR COPPER TUBE.
 - ALL PLUMBING EQUIPMENT CONNECTIONS SHALL BE MADE WITH UNIONS AND VALVES SO THAT THE CONNECTED EQUIPMENT CAN BE REMOVED WITHOUT OBSTRUCTION.
 - INSTALL SHUT-OFF VALVES AT EACH BRANCH SERVING A RESTROOM OR FIXTURE GROUPING. INSTALL HOT AND COLD WATER SHUT-OFF VALVES AND SHOCK ARRESTORS ACCESSIBLY AT EACH FIXTURE BATTERY. COORDINATE ACCESS PANEL LOCATIONS WITH ARCHITECT.
 - POTABLE WATER SYSTEMS SHALL BE DISINFECTED PRIOR TO USE PER CODE.
 - UPON COMPLETION OF A SECTION OR OF THE ENTIRE WATER SUPPLY SYSTEM, IT SHALL BE TESTED AND PROVED TIGHT UNDER A WATER PRESSURE OF 125 PSIG FOR 2 HOURS. THE WATER USED FOR THE TEST SHALL BE OBTAINED FROM A POTABLE SOURCE OF SUPPLY.
- SANITARY WASTE AND VENT SYSTEMS:
 - HANGERS FOR HORIZONTAL SANITARY PIPING SHALL BE EXPANSION RING OR CLEVIS TYPE SPACED NO MORE THAN 5 FEET APART. VERTICAL PIPE PASSING THROUGH SLABS SHALL BE SUPPORTED WITH B-LINE MODEL B3373 FOR STEEL PIPE OR B-LINE MODEL B3373CT FOR COPPER TUBE. EACH HORIZONTAL JOINT IS ADEQUATELY SUPPORTED ON ONE SIDE OF THE JOINT WITHIN 12" OF THE JOINT. HANGERS ARE INSTALLED ON BOTH SIDES OF EACH JOINT WITHIN 12" OF THE JOINTS AND OFFSETS ARE RESTRAINED IN AN APPROVED MANNER. (ABOVE SLAB ONLY)
 - UNIFORM PLUMBING CODE: BUILDING DRAIN PIPING 4" DIAMETER AND LARGER SHALL BE RUN AT A MINIMUM SLOPE OF 1/8" PER LINEAR FOOT. BUILDING DRAIN PIPING LESS THAN 4" DIAMETER SHALL BE RUN AT A MINIMUM SLOPE OF 1/4" PER LINEAR FOOT.
 - INTERNATIONAL PLUMBING CODE: BUILDING DRAIN PIPING 6" DIAMETER AND LARGER SHALL BE RUN AT A MINIMUM SLOPE OF 1/8" PER LINEAR FOOT. BUILDING DRAIN PIPING 3" THROUGH 5" DIAMETER SHALL BE RUN AT A MINIMUM SLOPE OF 1/8" PER FOOT. BUILDING DRAIN PIPING 2-1/2" DIAMETER AND LESS SHALL BE RUN AT A MINIMUM SLOPE OF 1/4" PER LINEAR FOOT.
 - PROVIDE TRAP PRIMER ON ALL FLOOR DRAINS. LOCATE TRAP PRIMERS EXPOSED IN MECHANICAL ROOMS, OR IN WET WALL OF RESTROOMS. PROVIDE TRAP PRIMER ACCESS PANEL IN WALL OF A COLOR TO MATCH WALL. COORDINATE LOCATION WITH PLUMBING FIXTURES AND TILE PATTERNS.
 - INSULATE EXPOSED LAVATORY P-TRAPS TO MEET ADA REQUIREMENTS.
 - PLUMBING CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR ON FLOOR CONSTRUCTION FOR RECEIVING DRAINS TO REQUIRED INVERT ELEVATIONS AND PROPER FLOOR SLOPE TO DRAIN LOCATIONS.
- GAS PIPING:
 - FURNISH AND INSTALL A GAS COOK, DIRT LEG, AND UNION CONNECTION AT EACH PIECE OF EQUIPMENT.
 - SUPPORT PIPING EVERY 5 FEET, AS REQUIRED BY OWNER, AS DETAILED ON DRAWINGS, OR BY STANDARD INDUSTRY PRACTICE, WHICHEVER IS MORE STRINGENT.
 - TESTING AND PURGING OF GAS PIPING SHALL BE DONE PER THE REQUIREMENTS OF THE LOCAL GAS COMPANY, LOCAL CODES, AND APPLICABLE NFPA 54 CODES.
 - GAS PIPING INSTALLED IN RETURN AIR PLENUMS OR BENT BELOW BUILDING INTERIOR CONCRETE SLABS SHALL BE SLEEVED AND VENTED TO ATMOSPHERE IN ACCORDANCE WITH ALL CODES.
 - GAS PIPING EXPOSED TO EXTERIOR SHALL BE PAINTED WITH 2 COATS OF YELLOW BITUMINOUS BASED RUST-INHIBITING PAINT.

PLUMBING SHEET INDEX

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PL101B	PLUMBING SANITARY PLAN - AREA B
PP101	PLUMBING DOMESTIC PLAN
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PR141	PLUMBING ROOF PLAN
P-401	PLUMBING ENLARGED PLANS
P-402	PLUMBING ENLARGED PLANS
P-601	PLUMBING SCHEDULES
P-602	PLUMBING SCHEDULES
P-701	PLUMBING DETAILS

DEKER PERICH SABATINI

Architecture in Progress

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www.eeaac.com

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P-001

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PLUMBING GENERAL NOTES & LEGENDS

SHEET NO

P-001



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PLUMBING SITE

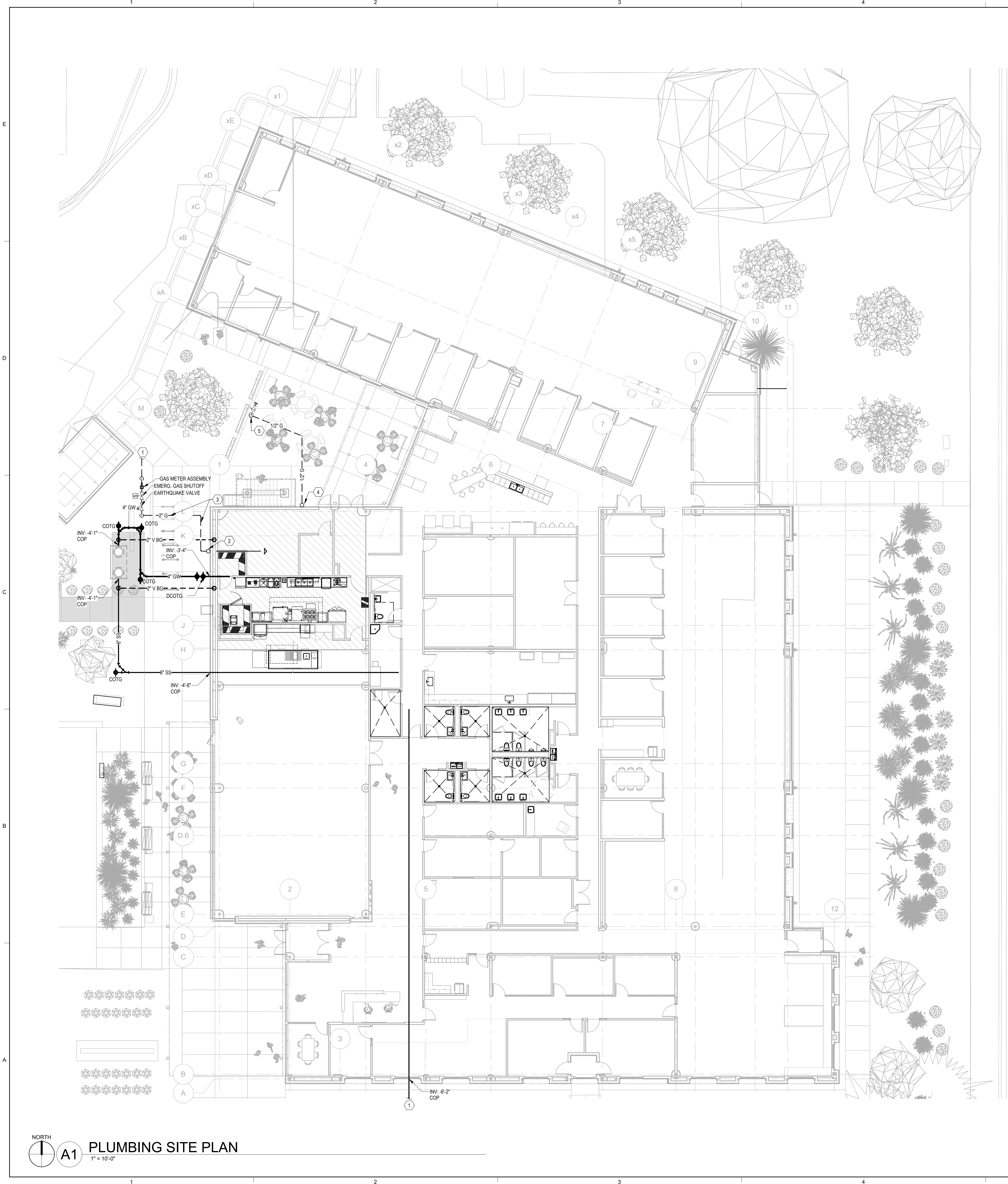
SHEET NO
PS101

PLUMBING SHEET NOTES

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- CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE LOCATION OF EXISTING BELOW GRADE WASTE PIPING AND REFLECT ANY DEVIATION GREATER THAN 1'-0" FROM THIS PLAN ON THE AS-BUILT DRAWINGS.
- REPAIR WALL SURFACE AFTER INSTALLATION AND INSPECTION OF EACH PLUMBING FIXTURES AND PIPING INSTALLED.
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- ABOVE-GRADE WASTE PIPE SHALL BE RUN AT 2% GRADE. BELOW-GRADE WASTE PIPE SHALL BE RUN AT 1% GRADE.
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- FLOORS SHALL SLOPE TO DRAINS AT 1% MINIMUM SLOPE. SEE ARCHITECTURAL PLANS FOR MORE INFORMATION.
- PROVIDE WALL CLEAN OUTS IN ALL VENT RISERS ON BRANCHES LONGER THAN 5'-0" AND ON BRANCHES SERVING SINKS OR URINALS.
- SEE RISER DIAGRAMS FOR PIPE SIZING.

KEYNOTES

- CIVIL COORDINATION IN PROGRESS.
- ROUTE GAS PIPING UP WALL TO ROOF. SUPPORT PIPING AS NEEDED.
- ROUTE PIPING BELOW GRADE. SLEEVE AND VENT AS NEEDED.
- 1/2" G DN FROM ROOF ABOVE. ROUTE TO STUB-OUT WITH SHUT OFF VALVE BY RETAINING WALL. SUPPORT PIPING DN WALL AS NEEDED. SLEEVE AND VENT PIPING BELOW GRADE AS NEEDED.
- 1/2" G UP FROM BELOW GRADE. STUB-OUT AND CAP WITH SHUT OFF VALVE FOR FUTURE GRILL CONNECTION.



PLUMBING SITE PLAN
1" = 10'-0"
A1

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**PLUMBING
SANITARY PLAN**

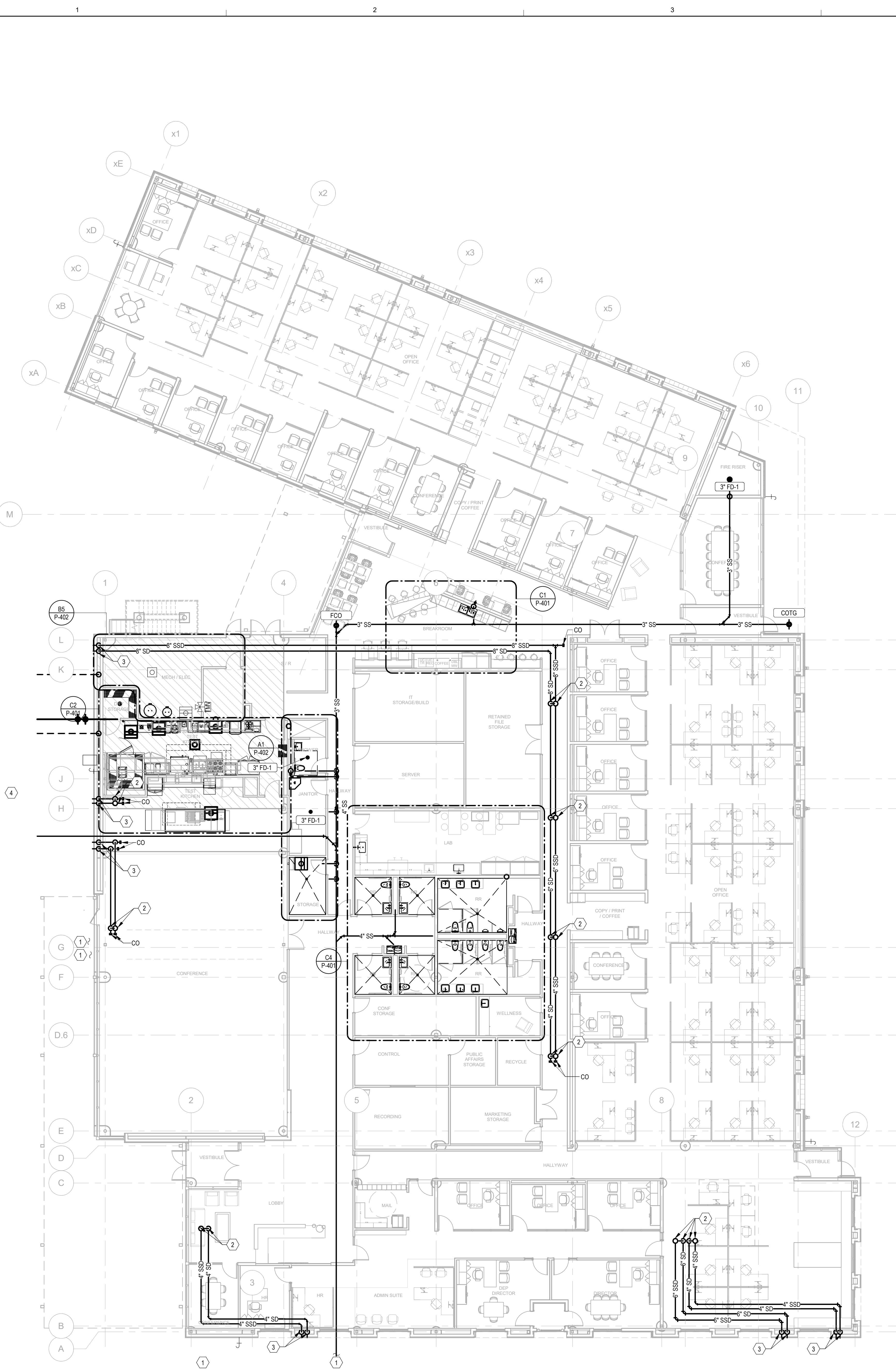
SHEET NO
PL101

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- FLOORS SHALL SLOPE TO DRAINS AT 1% MINIMUM SLOPE. SEE ARCHITECTURAL PLANS FOR MORE INFORMATION.
- PROVIDE WALL CLEAN OUTS IN ALL VENT RISERS ON BRANCHES LONGER THAN 5'-0" AND ON BRANCHES SERVING SINKS OR URINALS.
- SEE RISER DIAGRAMS FOR PIPE SIZING.

KEYNOTES

- SEE CIVIL DRAWINGS FOR CONTINUATION.
- RD & ORD DOWN FROM ROOF DRAIN ABOVE. ROUTE IN CEILING SPACE AT 1/4" PER 1'-0" SLOPE. COORDINATE WITH STRUCTURE AND ALL OTHER DISCIPLINES.
- ROUTE PIPING DOWN IN WALL CHASE WITH ENOUGH ROOM FOR INSULATION. PROVIDE WITH ACCESSIBLE WALL CLEANOUT. TERMINATE BOTH PRIMARY AND OVERFLOW DRAIN 12" ABOVE GRADE WITH COW TOUNGE.
- ROUTE VENT FROM GI-1 BELOW GRADE TO BUILDING. TERMINATE WITH VTR IN BUILDING. TO BE COORDINATED.



A1 PLUMBING SANITARY PLAN
1" = 10'-0"

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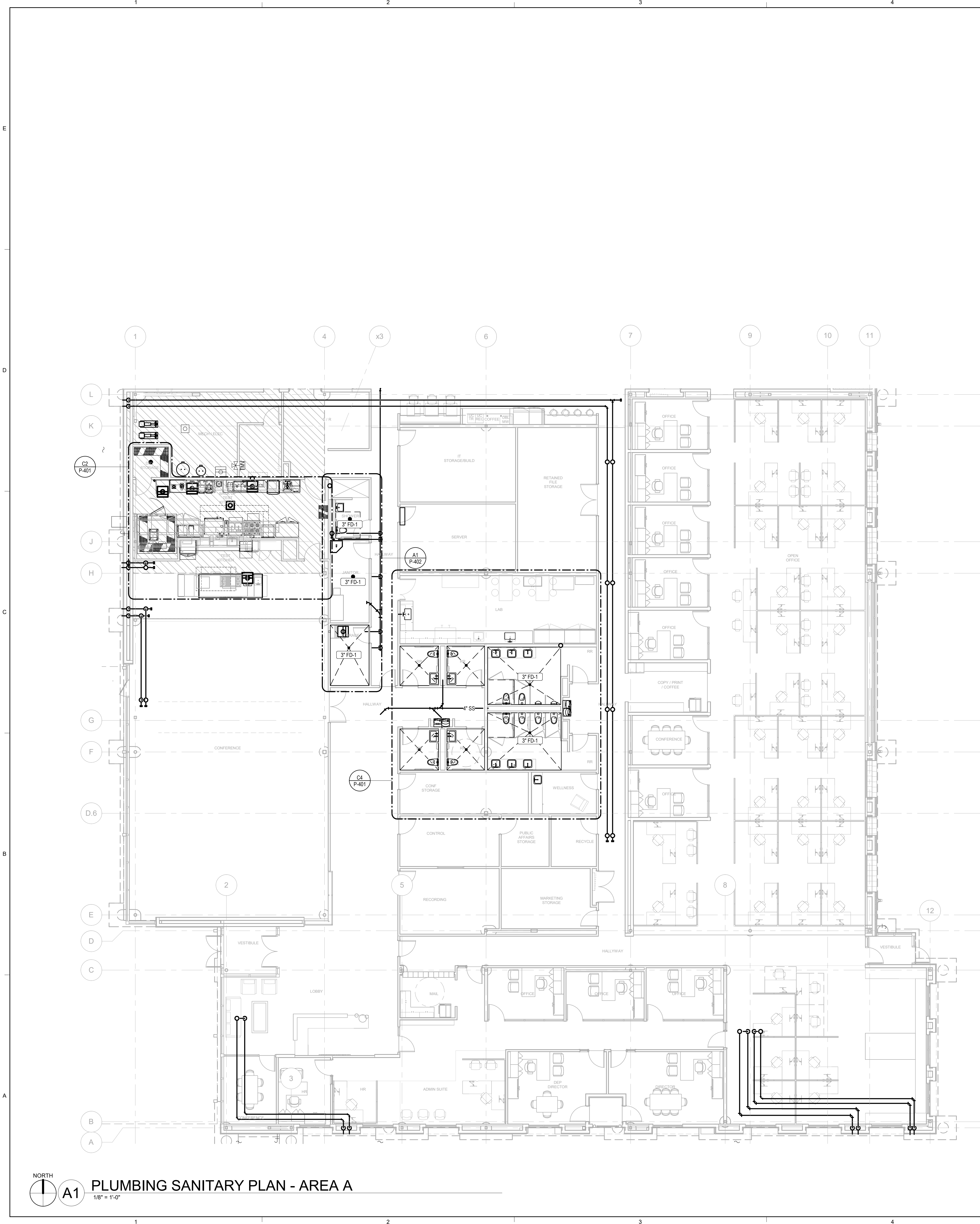
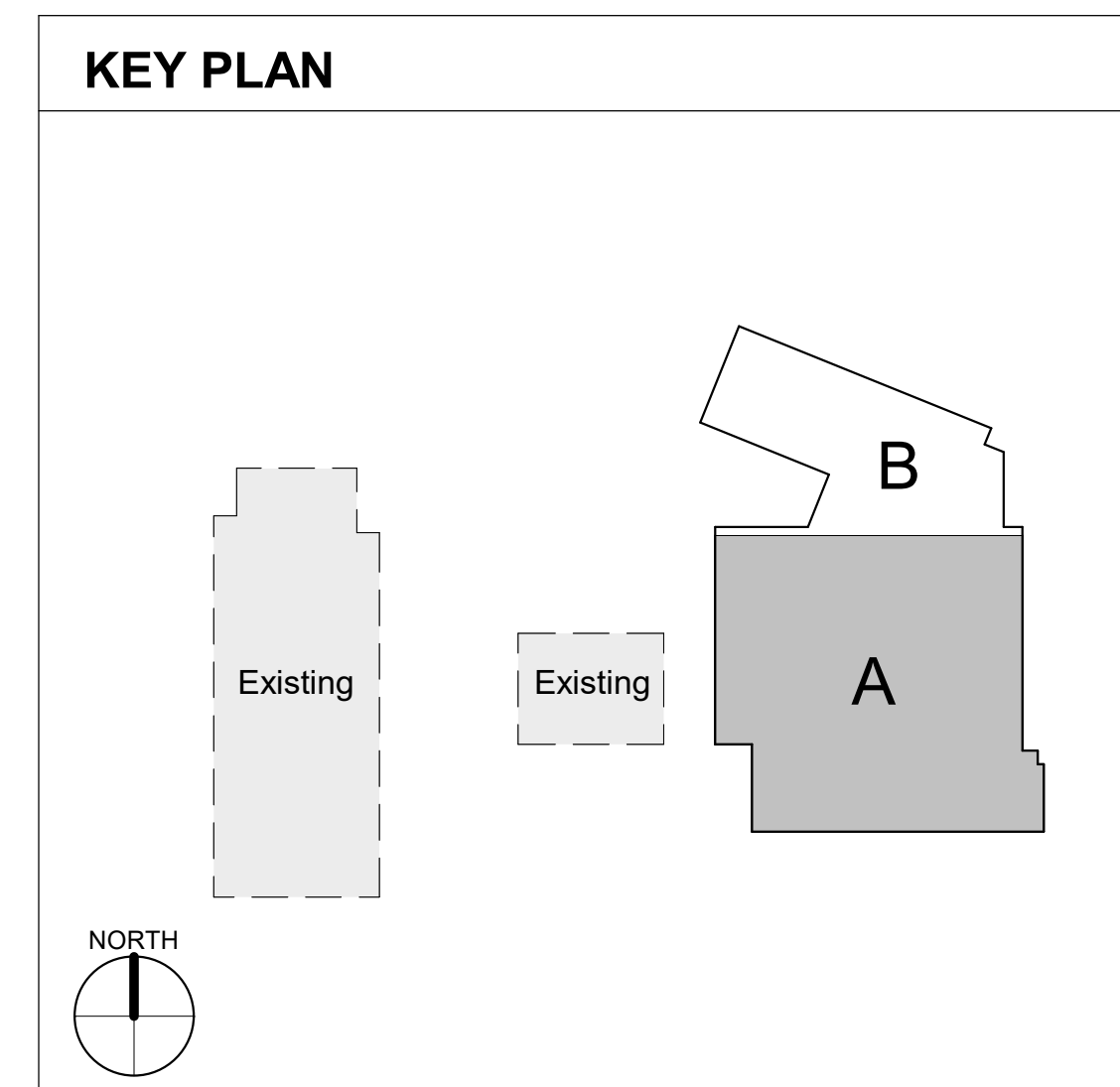
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**PLUMBING
SANITARY PLAN -
AREA A**

SHEET NO
PL101A

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KEYNOTES



A1 PLUMBING SANITARY PLAN - AREA A
1/8" = 1'-0"

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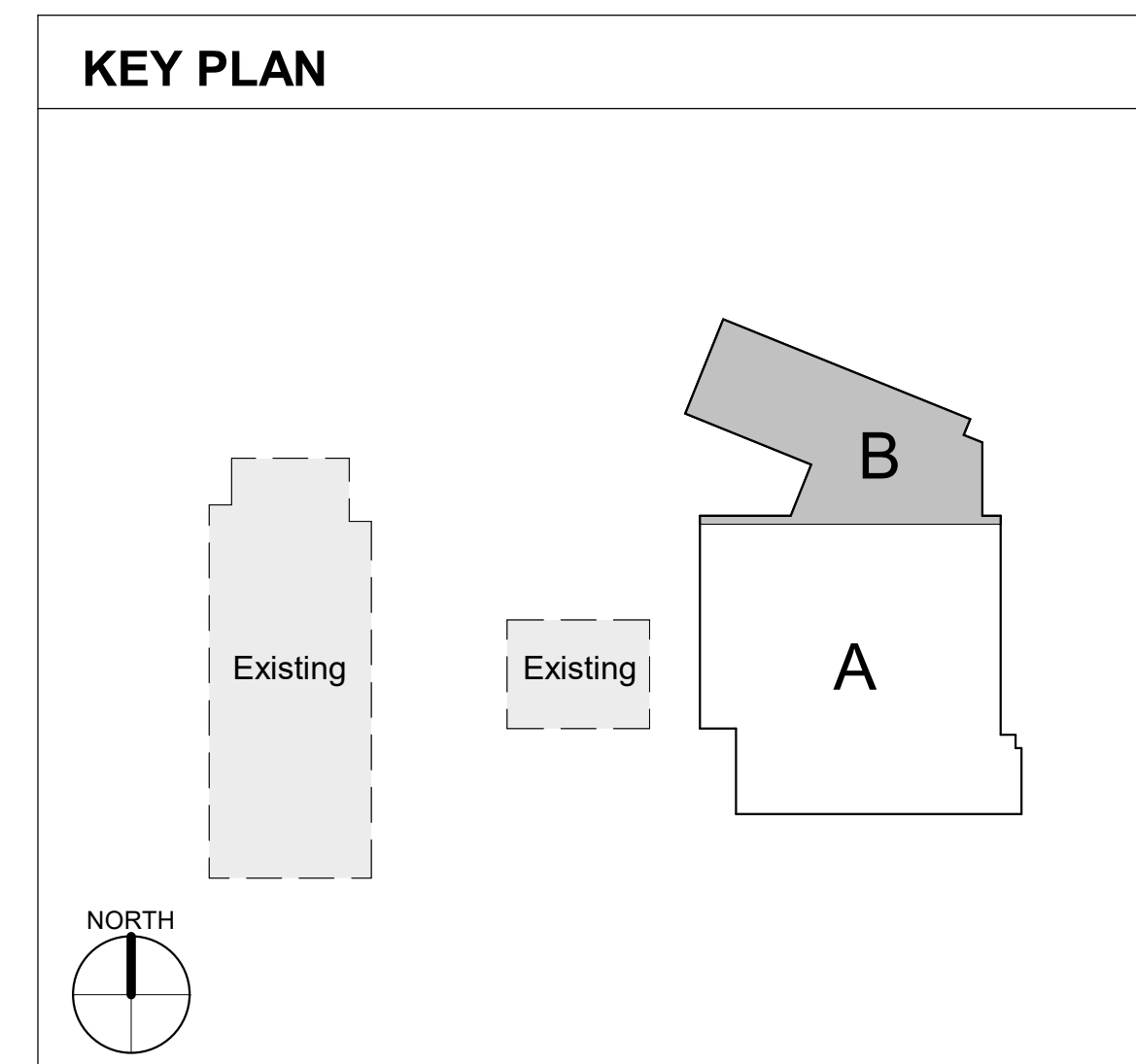
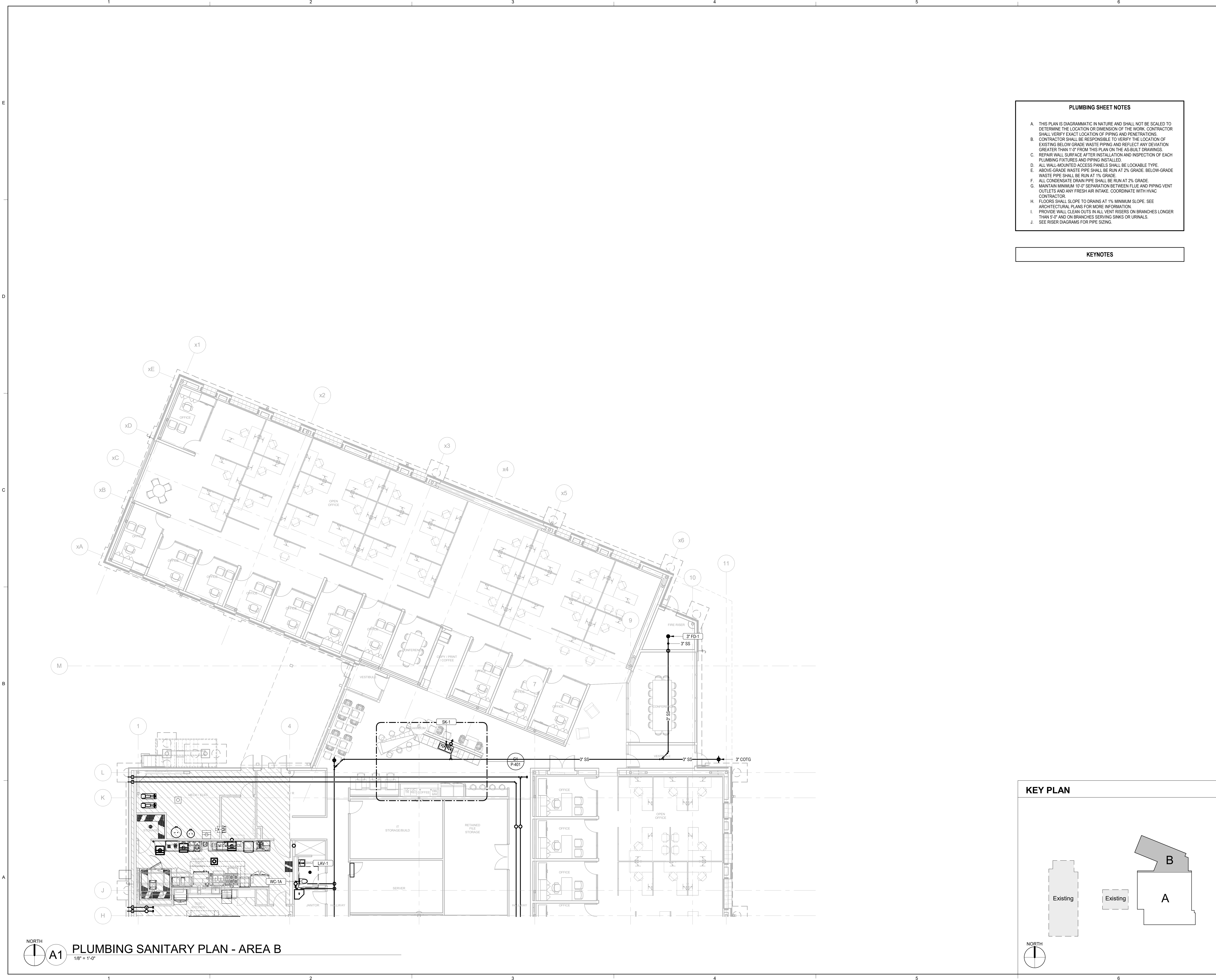
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**PLUMBING
SANITARY PLAN -
AREA B**

SHEET NO
PL101B

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KEYNOTES



PLUMBING SANITARY PLAN - AREA B
1/8" = 1'-0"

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**PLUMBING
DOMESTIC PLAN**

SHEET NO

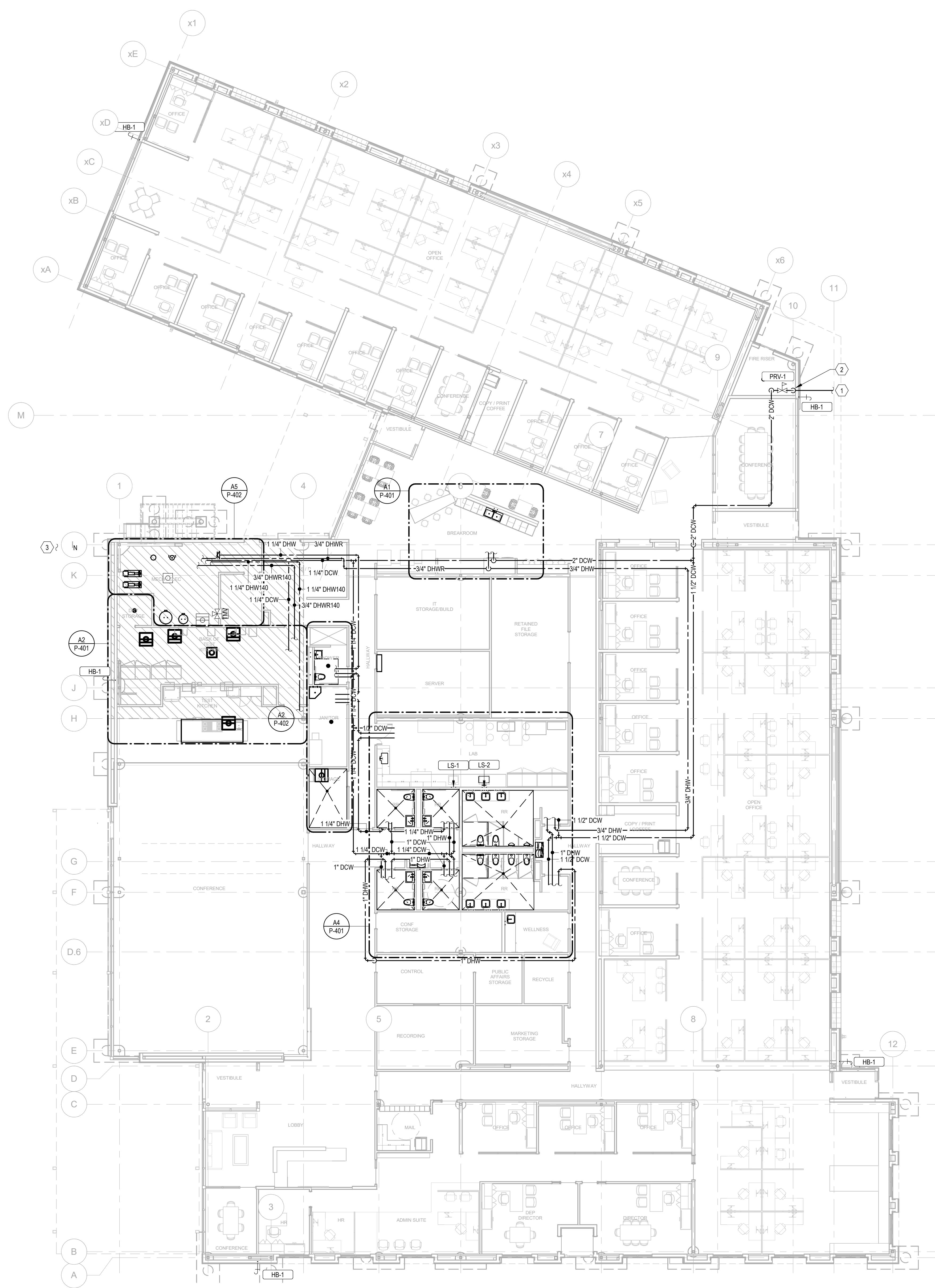
PP101

PLUMBING SHEET NOTES

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- B. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE LOCATION OF EXISTING BELOW GRADE WASTE PIPING AND REFLECT ANY DEVIATION GREATER THAN 1/2" FROM THIS PLAN ON THE AS-BUILT DRAWINGS.
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- D. ALL WALL MOUNTED ACCESS PANELS SHALL BE LOCKABLE TYPE.
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- G. MAINTAIN MINIMUM 10'-0" SEPARATION BETWEEN FLUE AND PIPING VENT OUTLETS AND ANY FRESH AIR INTAKE. COORDINATE WITH HVAC CONTRACTOR.
- H. FLOORS SHALL SLOPE TO DRAINS AT 1% MINIMUM SLOPE. SEE ARCHITECTURAL PLANS FOR MORE INFORMATION.
- I. PROVIDE WALL CLEAN OUTS IN ALL VENT RISERS ON BRANCHES LONGER THAN 8'-0" AND ON BRANCHES SERVING SINKS OR URINALS.
- J. SEE RISER DIAGRAMS FOR PIPE SIZING.

KEYNOTES

- 1 SEE CIVIL PLANS FOR CONTINUATION AND HOT BOX WITH BFP LOCATIONS ON SITE.
- 2 2" CW UP FROM BELOW WITH SHUT OFF VALVE INLINE.
- 3 SEE CIVIL PLANS FOR CONTINUATION.



A1 PLUMBING DOMESTIC PLAN
1" = 10'-0"

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**PLUMBING
DOMESTIC PLAN -
AREA B**

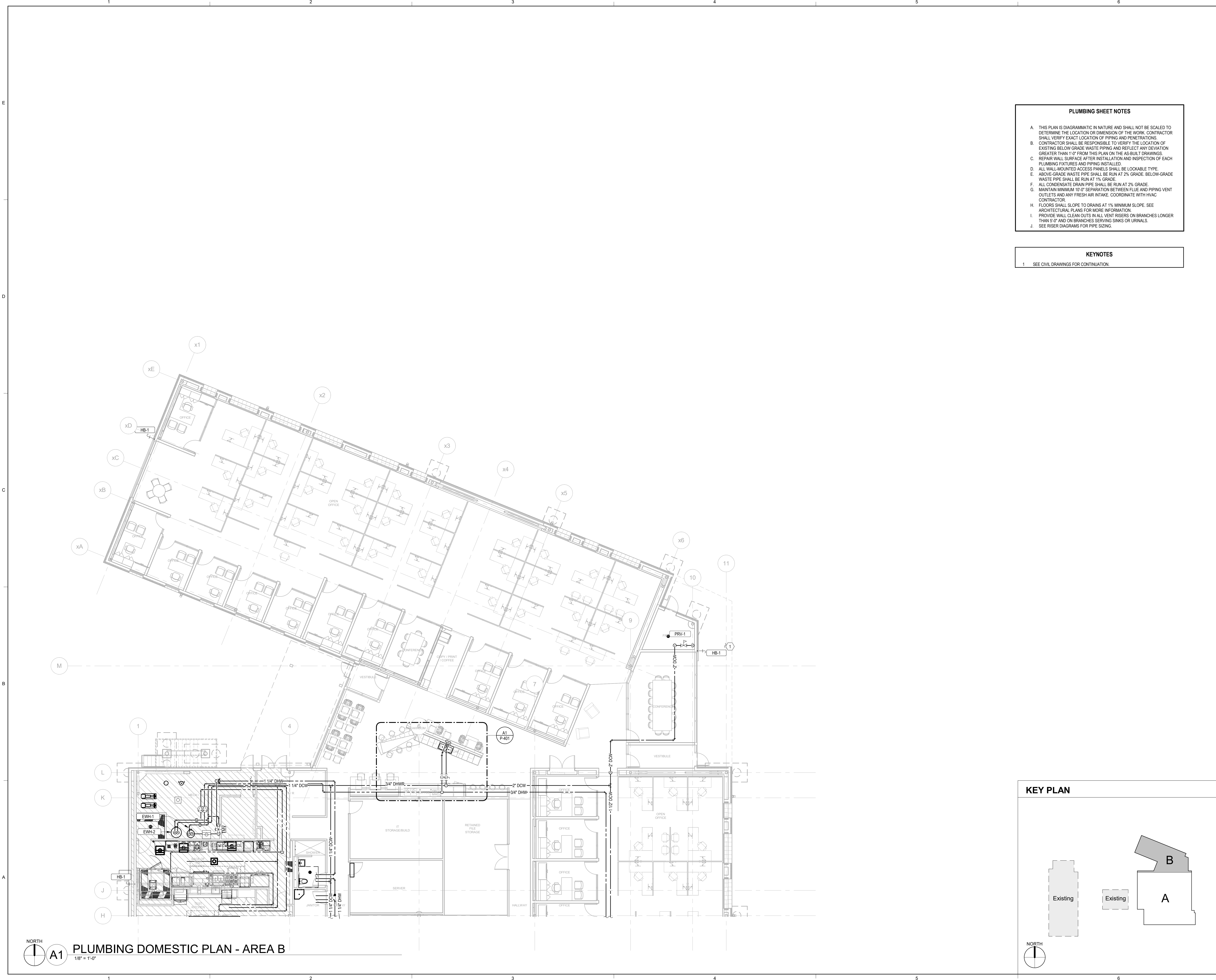
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J. SEE RISER DIAGRAMS FOR PIPE SIZING.

KEYNOTES

1 SEE CIVIL DRAWINGS FOR CONTINUATION.



A1 PLUMBING DOMESTIC PLAN - AREA B
1/8" = 1'-0"

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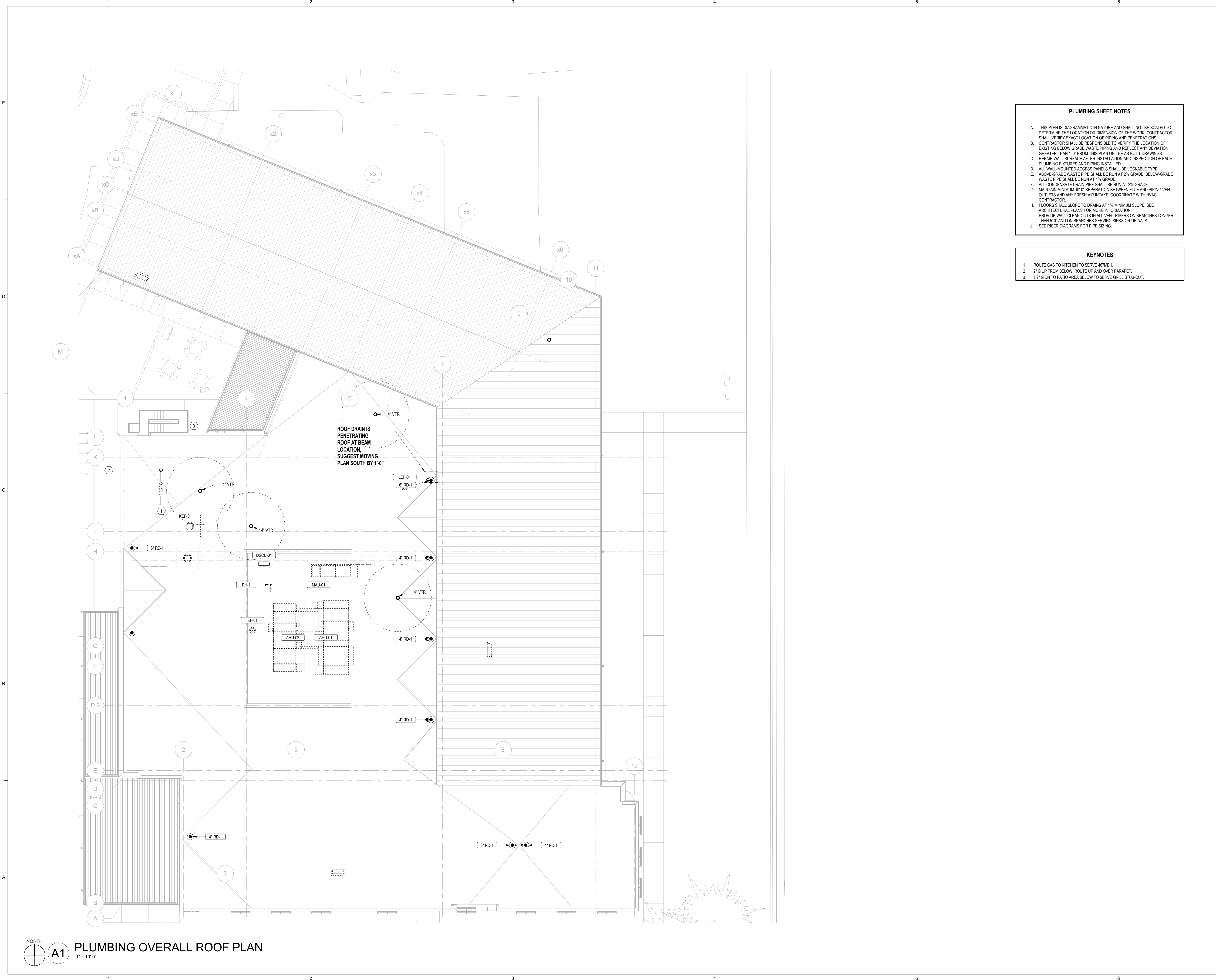
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PLUMBING ROOF PLAN

SHEET NO
PR141

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 - PROVIDE WALL CLEAN OUTS IN ALL VENT RISERS ON BRANCHES LONGER THAN 6'-0" AND ON BRANCHES SERVING SINKS OR URINALS.
 - SEE RISER DIAGRAMS FOR PIPE SIZING.

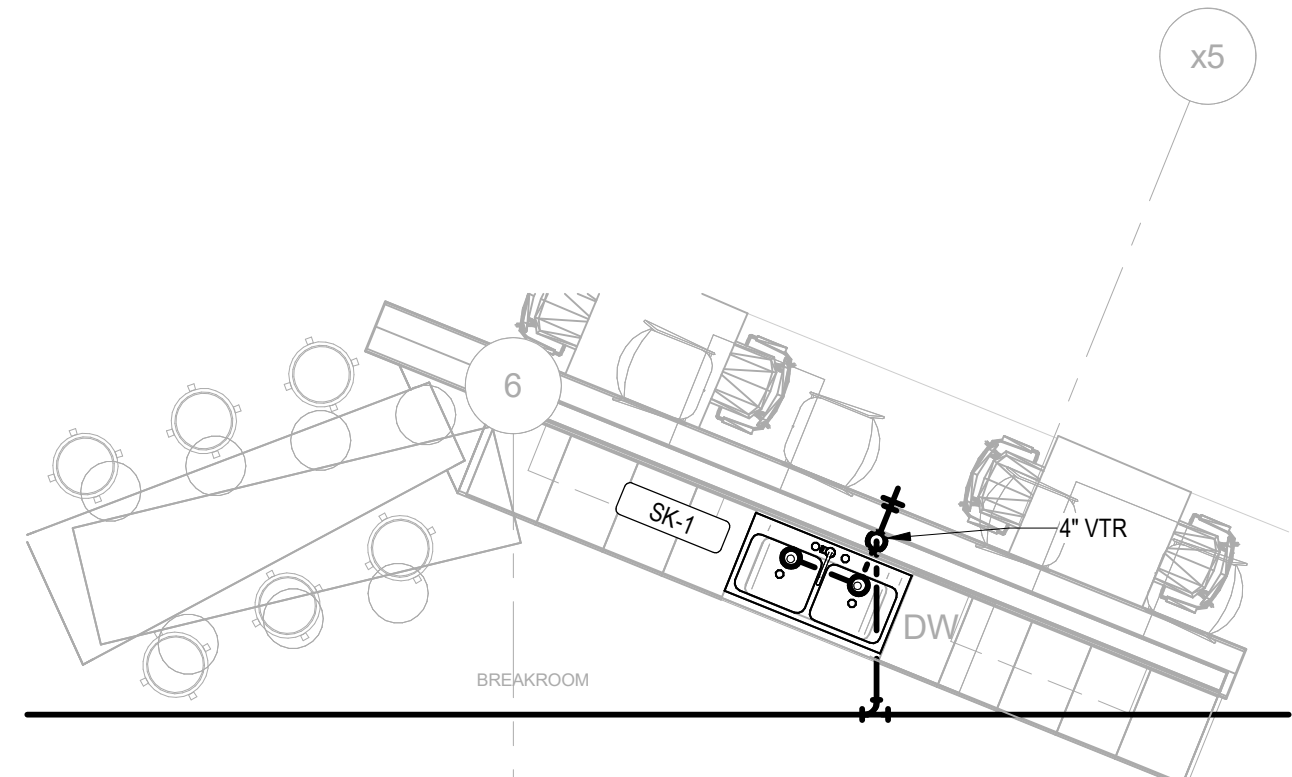
- KEYNOTES**
- ROUTE GAS TO KITCHEN TO SERVE 467MBH.
 - 2" G UP FROM BELOW, ROUTE UP AND OVER PARAPET.
 - 1/2" G DN TO PATIO AREA BELOW TO SERVE GRILL STUB-OUT.



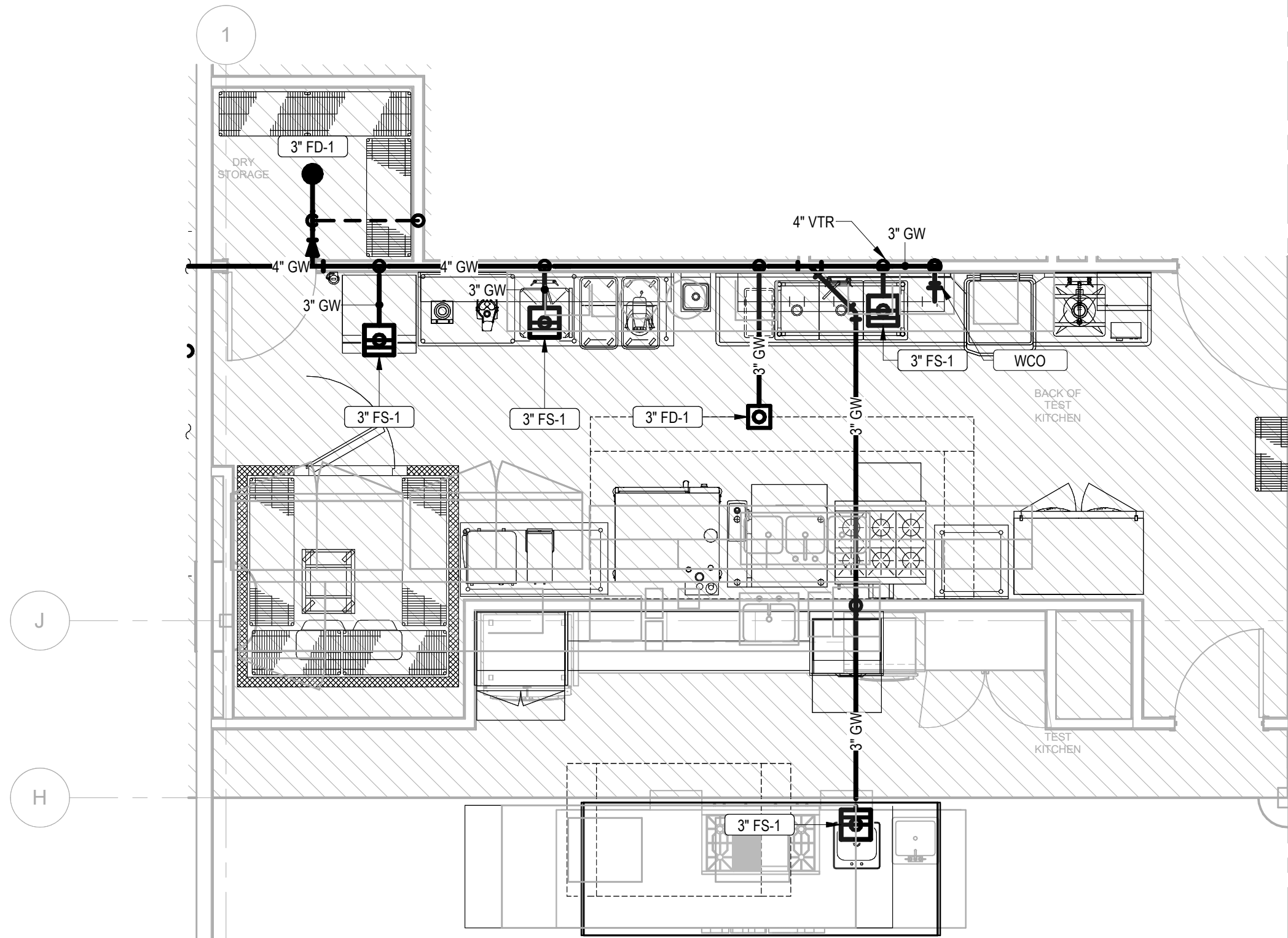
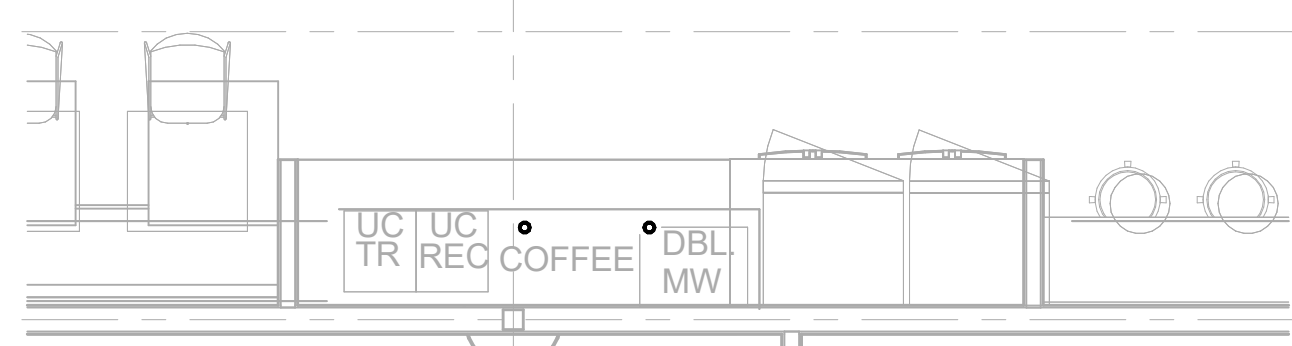
PLUMBING OVERALL ROOF PLAN
 1" = 10'-0"

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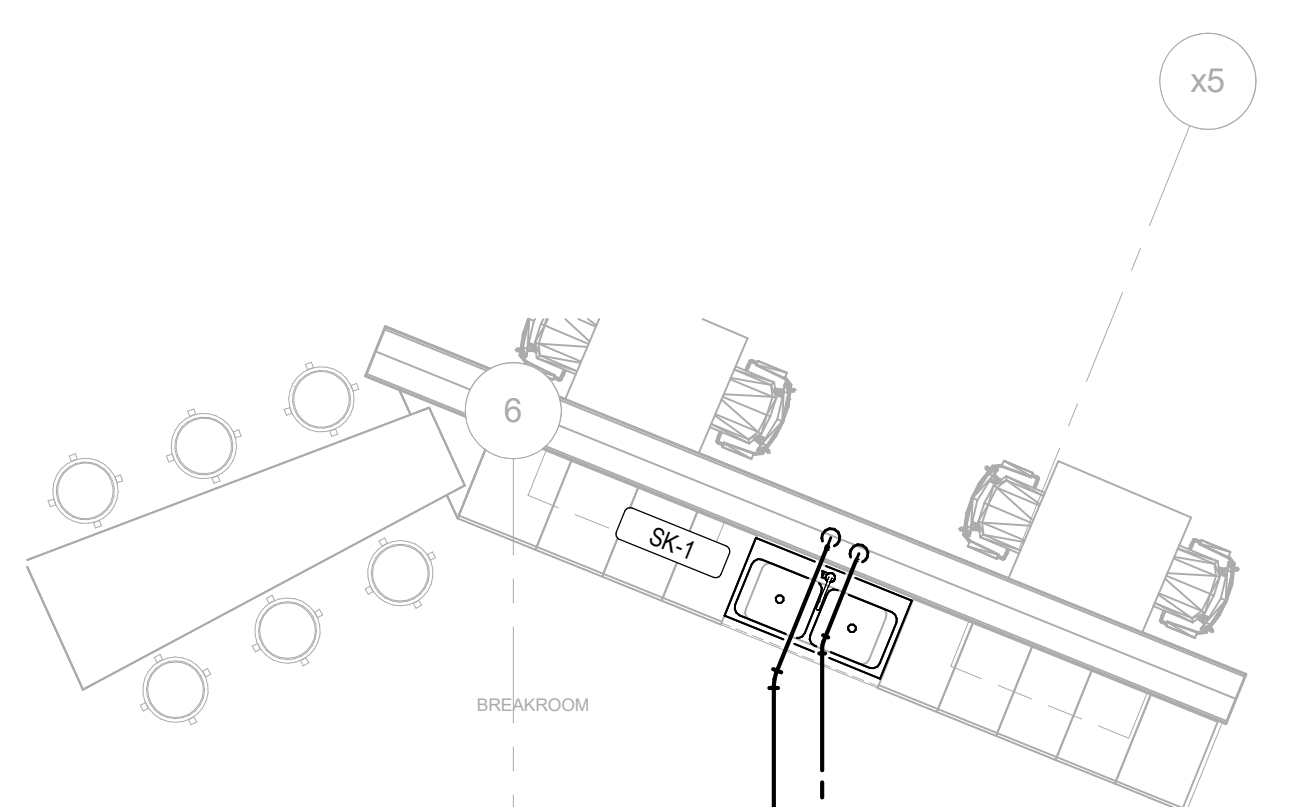
KEYNOTES



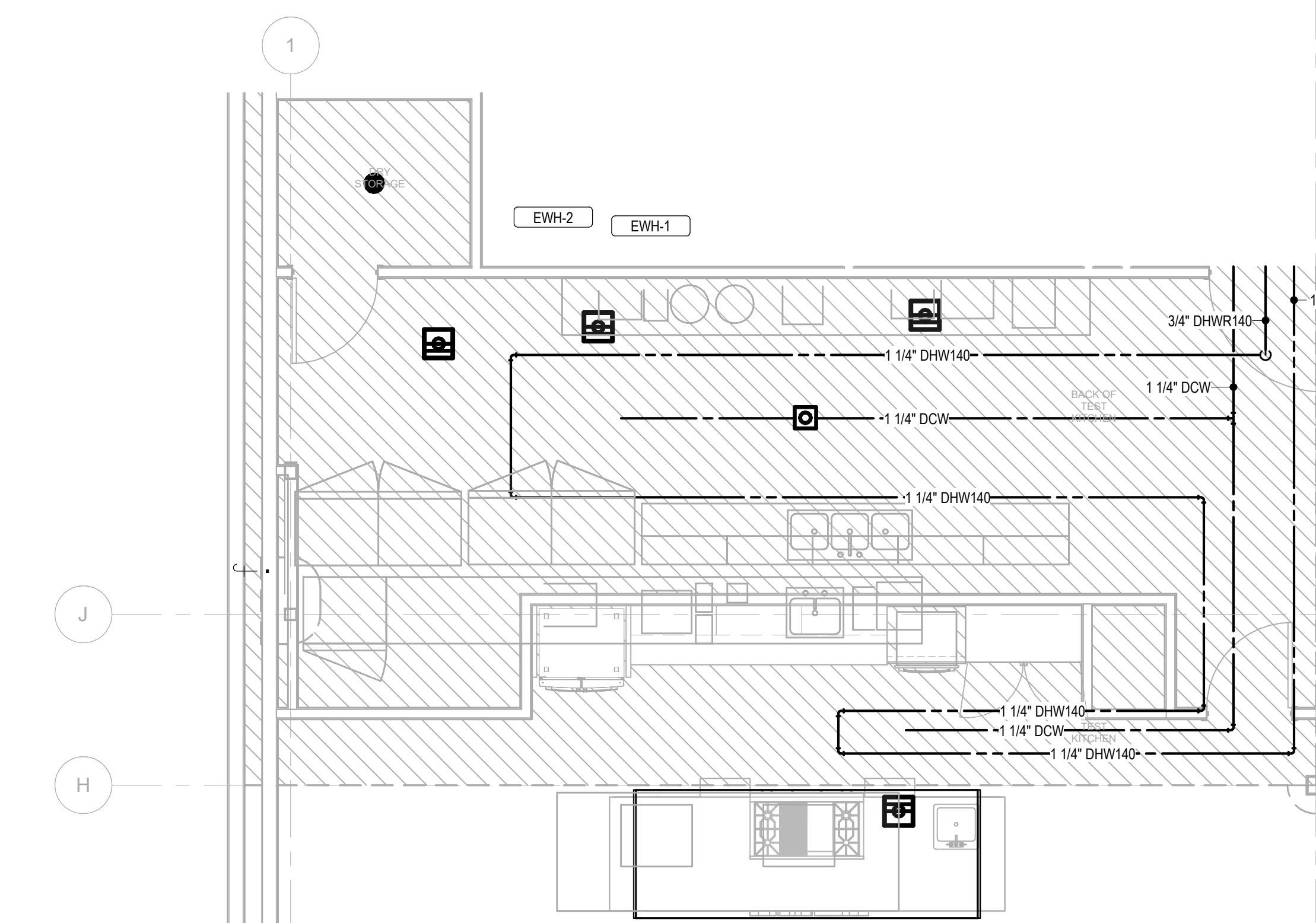
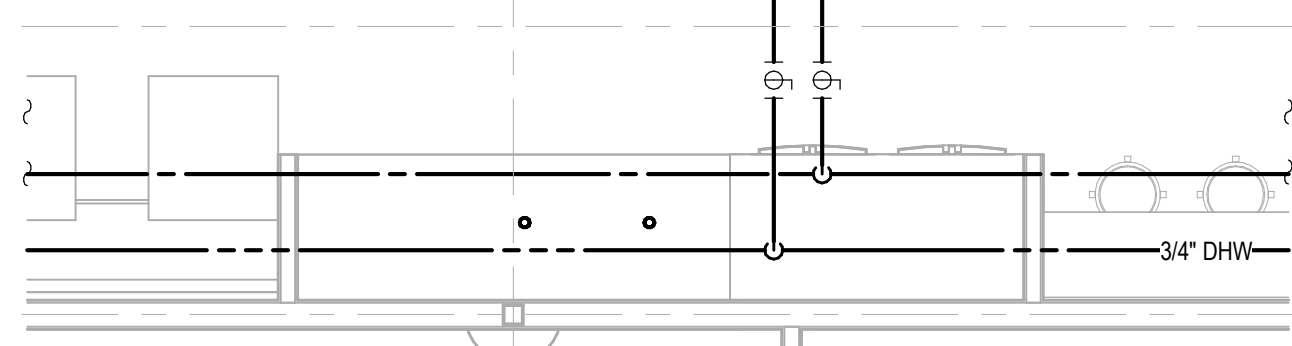
C1 PLUMBING SANITARY ENLARGED PLAN - BREAKROOM
1/4" = 1'-0"



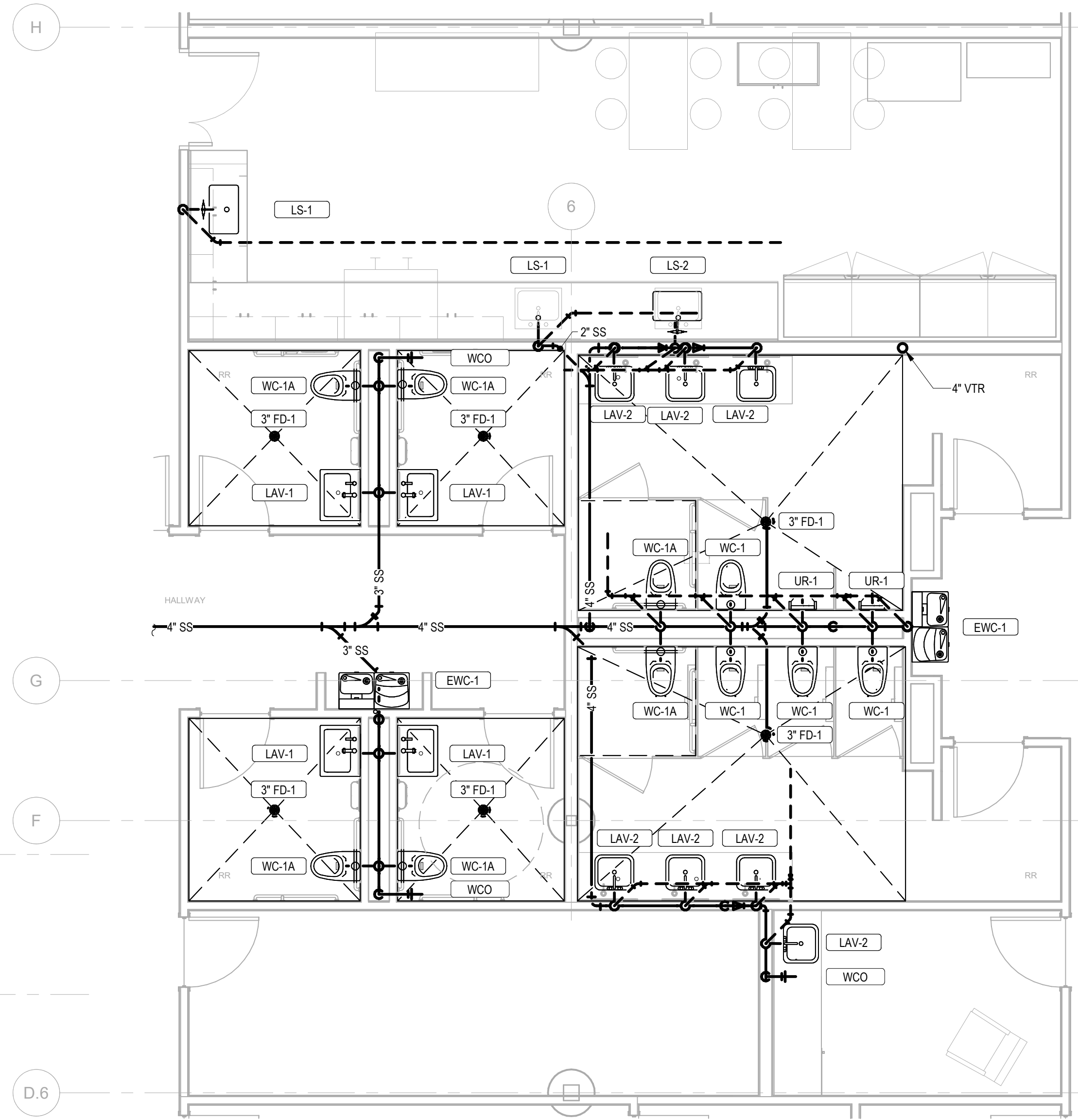
C2 PLUMBING SANITARY ENLARGED PLAN - KITCHEN
1/4" = 1'-0"



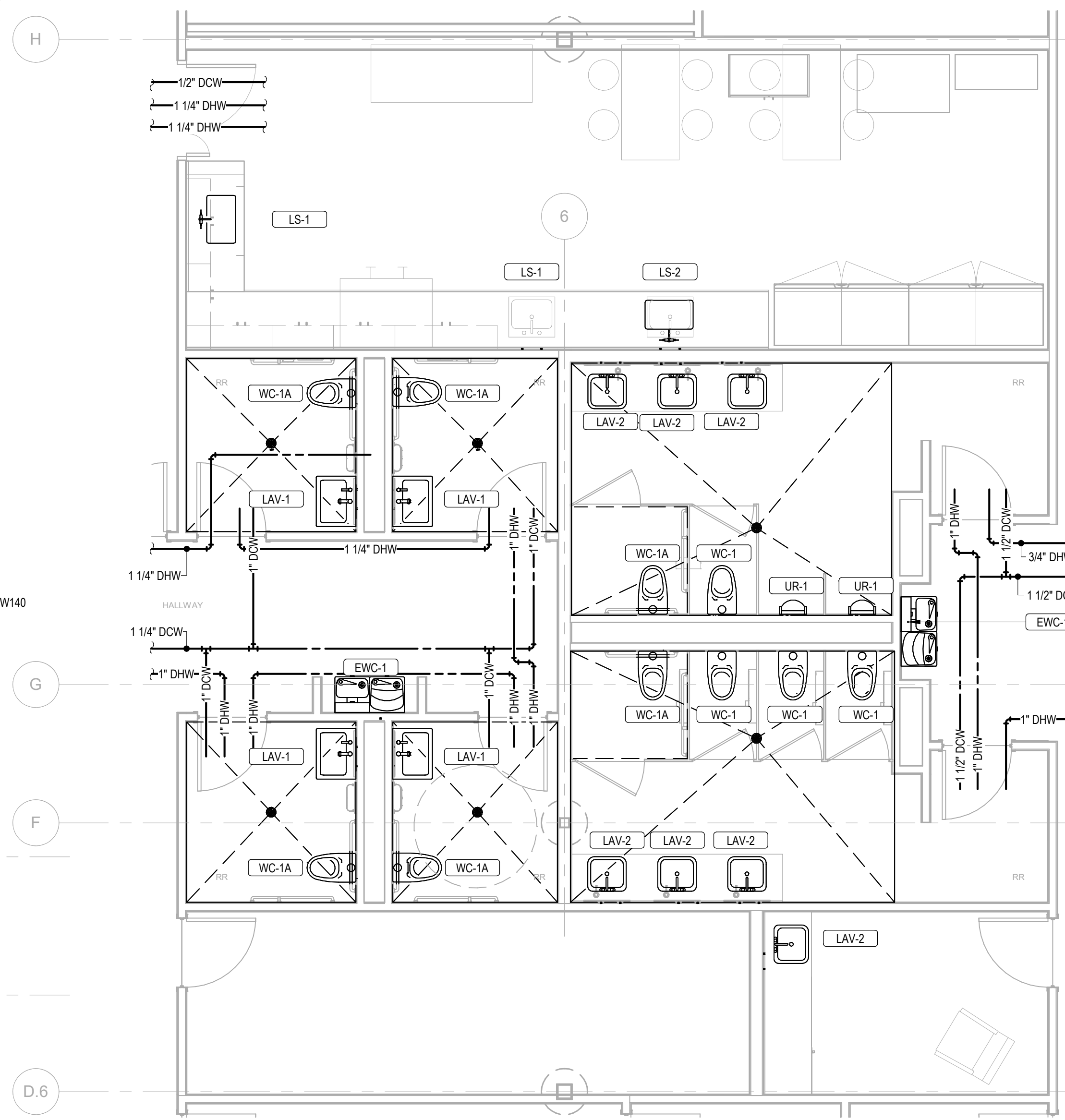
A1 PLUMBING DOMESTIC ENLARGED PLAN - BREAKROOM
1/4" = 1'-0"



A2 PLUMBING DOMESTIC ENLARGED PLAN - KITCHEN
1/4" = 1'-0"



C4 PLUMBING SANITARY ENLARGED PLAN - RR GROUPS
1/4" = 1'-0"



A4 PLUMBING DOMESTIC ENLARGED PLAN - RR GROUPS
1/4" = 1'-0"

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Registrant's Name: Mark E. Mikulin
Serial No. 28780

PROJECT

NMSU NM DEPT OF AGRICULTURE NEW OFFICE BUILDING
3910 SOUTH ESPINA STREET
LAS CRUCES, NEW MEXICO 88003

50%
CONSTRUCTION DOCUMENTS

REVISIONS

DRAWN BY	CP/IPU
REVIEWED BY	MM
DATE	04/29/2024
PROJECT NO	22-0227.001

DRAWING NAME
PLUMBING ENLARGED PLANS

TYPE ID	DESCRIPTION	MANUFACTURER	MODEL	MATERIAL DESCRIPTION	FINISH	TRIM			FLUSH FIXTURE		PIPE CONNECTIONS			SPECIFICATION	
						MANUFACTURER	MODEL	TYPE	MOTION SENSOR CONTROL	VOLUME PER FLUSH	WASTE ROUGH-IN PIPE SIZE	VENT PIPE SIZE	COLD WATER ROUGH-IN PIPE SIZE		HOT WATER ROUGH-IN PIPE SIZE
WC-1	WATER CLOSET - WALL HUNG	AMERICAN STANDARD	AFWALL MILLENIUM 2257.101	WHITE VITREOUS CHINA	WHITE	AMERICAN STANDARD	606B.121	HARDWIRED	Yes	1.3 gal	3"	2"	1"	WHITE VITREOUS CHINA, WALL CARRIER MOUNTED TOILET, 1.28 GPF WITH BATTERY POWERED INFRARED FLUSHOMETER VALVE. PROVIDE WITH OPEN FRONT SEAT LESS COVER.	
WC-1A	WATER CLOSET - WALL HUNG - ADA	AMERICAN STANDARD	AFWALL MILLENIUM 2257.101	WHITE VITREOUS CHINA	WHITE	AMERICAN STANDARD	606B.121	HARDWIRED	Yes	1.3 gal	3"	2"	1"	WHITE VITREOUS CHINA, WALL CARRIER MOUNTED TOILET, 1.28 GPF WITH BATTERY POWERED INFRARED FLUSHOMETER VALVE. PROVIDE WITH OPEN FRONT SEAT LESS COVER. ADA COMPLIANT HEIGHT.	
UR-1	URINAL - ADA	AMERICAN STANDARD	WASHBROOK 6580.001	WHITE VITREOUS CHINA	WHITE	AMERICAN STANDARD	606B.013	HARDWIRED	Yes	0.1 gal	2"	1 1/2"	3/4"	WHITE VITREOUS CHINA, WALL CARRIER MOUNTED URINAL, 0.5 GPF WITH BATTERY POWERED INFRARED FLUSHOMETER VALVE. ADA COMPLIANT 18" RM HEIGHT.	
LAV-1	LAVATORY - WALL HUNG ADA	BRADLEY	EXPRESS LAV SYSTEM GLX-1	TERREON	WHITE	INCLUDED	INCLUDED	HARDWIRED	Yes		1 1/2"	1 1/4"	1/2"	ADA COMPLIANT SEAMLESS, ONE-PIECE LAVATORY, IN TERREON ALPINE WHITE. PROVIDE WITH VERGE ZEN SERIES FAUCET WITH TRIM PLATE, TOUCH-FREE ACTIVATION, INCLUDE THERMOSTATIC MIXING ASSEMBLY, 0.50 GPM IN BRUSHED BRONZE, AC POWER ALSO TO INCLUDE VERGE DECK MOUNTED SOUP DISPENSER - ZEN SERIES IN BRUSHED BRONZE WITH TOUCH-FREE ACTIVATION FOR FOAM SOAP AND SINGLE FILL SYSTEM WITH AC POWER. MOUNT AT ADA COMPLIANT HEIGHT. INCLUDE NECESSARY CARRIER.	
LAV-2	LAVATORY - UNDER COUNTER MOUNT	AMERICAN STANDARD	STUDIO 0614.000	WHITE VITREOUS CHINA	WHITE	BRADLEY	VERGE SSS-3700	HARDWIRED	Yes		2"	1 1/4"	1/2"	1/2"	WHITE VITREOUS CHINA, UNDER COUNTER MOUNT LAVATORY, WITH DECK MOUNTED FAUCET AND SOAP DISPENSER IN BRUSHED BRONZE, TOUCH-FREE SENSOR ACTIVATED, 0.5 GPM, WITH NAVIGATOR THERMOSTATIC MIXING VALVE, INCLUDE BRADLEY ADA DRAIN ASSEMBLY AND TRIM PLATE, WITH AC ADAPTER.
LS-1	LAB SINK	SEE LAB PLANS	SEE LAB PLANS	SEE LAB PLANS	STAINLESS STEEL	T&S BRASS	B-0892-133XCRWS	MANUAL	No		2"	1 1/2"	1/2"	1/2"	SINGLE COMPARTMENT, INTEGRAL WITH COUNTER, WITH STRAINER, P-TRAP, TAILPIECES, SUPPLIES AND STOPS. PROVIDE COUNTER MOUNTED FAUCET, 4" CENTER SET DECK MOUNTED WITH POLISHED CHROME BODY, 5-3/4" SWIVEL GOOSENECK AND 1.5 GPM AERATOR. PROVIDE WITH HAWS MODEL NO. 7620 FAUCET MOUNTED EYEWASH AXION EYEPOD.
LS-2	LAB SINK	SEE LAB PLANS	SEE LAB PLANS	SEE LAB PLANS	STAINLESS STEEL	T&S BRASS	B-0892-133XCRWS	MANUAL	No		2"	1 1/2"	1/2"	1/2"	SINGLE COMPARTMENT, INTEGRAL WITH COUNTER, WITH STRAINER, TAILPIECES, SUPPLIES AND STOPS, IN LIEU OF P-TRAP PROVIDE WITH STREAM SIDEXOX SOLIDS INTERCEPTOR, PROVIDE COUNTER MOUNTED FAUCET, 4" CENTER SET DECK MOUNTED WITH POLISHED CHROME BODY, 5-3/4" SWIVEL GOOSENECK AND 1.5 GPM AERATOR. PROVIDE WITH BELOW COUNTER RO SYSTEM WITH COUNTER MOUNTED SPOUT, TO BE SELECTED.
SK-1	Z-COMPARTMENT SINK	ELKAY	LRAD332165	STAINLESS STEEL	STAINLESS STEEL	T&S BRASS	B-0892-01CR-L22	MANUAL	No				1/2"	1/2"	TWO COMPARTMENT, 16 GAUGE, DUAL LEVER SWIVEL FAUCET WITH 14" SPOUT, TWO AERO MODEL NO. S-17 BASKET ASSEMBLY, P-TRAP, TAILPIECES, SUPPLIES AND STOPS.
JS-1	JANITOR SINK	FIAT	TSB3013	MOLDED STONE		CHICAGO FAUCET	835-369CP	MANUAL	No		3"	2"	1/2"	1/2"	FLOOR MOUNTED MOP SINK, PROVIDE WITH KOHLER K-8906-CP FAUCET WITH VACUUM BREAKER AND INTEGRAL STOPS IN SHANKS.
EW-1	WATER COOLER - DUAL HEIGHT	ELKAY	LZSTL8WSLK	GALVANIZED STEEL	STAINLESS STEEL CABINET			MANUAL	No		2"	1 1/2"	1/2"	1/2"	WALL MOUNTED, BI-LEVEL, DUAL FAUCET WATER COOLER WITH BOTTLE FILLER AND INTEGRAL CHILLER, WITH MCGUIRE STOP VALVE #LFSD109 & 3/8" SUPPLY TUBE, PROVIDE WITH CANE APRON FOR ADA COMPLIANCE. COORDINATE WITH E.C. FOR 115V/1PH DEDICATED GFCI CIRCUIT POWER SUPPLY.
SH-1	SHOWER STALL - ADA	BY OTHERS	BY OTHERS			AMERICAN STANDARD	TU064507	MANUAL	No		2"	1 1/2"	1/2"	1/2"	2.5 GPM SHOWER WITH 30" SLIDE GRAB BAR AND HAND SHOWER METAL HOSE, PRESSURE BALANCE VALVE AND TRIM, 2-WAY DIVERTER, SHOWERHEAD, AND VACUUM BREAKER, SET TEMPERATURE LIMIT TO 110 DEG F, PROVIDE WITH 4" SHOWER DRAIN ZURN MODEL 2415B. (REFER TO ARCHITECTURAL PLANS FOR ENCLOSURES)
IM-1	ICE MAKER OUTLET BOX	SIOUX CHIEF	696-RG1010MF	ABS PLASTIC	WHITE				No				1/2"		FULLY RECESSED FIRE RATED ICE MAKER SUPPLY BOX WITH COVER, PROVIDE 1/4 TURN BALL VALVES AND WATER HAMMER ARRESTORS IN BOX.
HB-1	EXTERIOR WALL HYDRANT	WOODFORD	867					MANUAL	No				3/4"		SURFACE FLANGE, NON-FREEZE, WALL HYDRANT WITH INTEGRAL SELF-DRAINING SIPHON BREAKER, COORDINATE EXACT INSTALLATION DISTANCE REQUIREMENTS FROM WALL SURFACE, CHROME FINISH, PROVIDE WITH 3 SPARE TEE KEYS, STANDARD MOUNTING HT. 24" A.F.F. - LOW LEAD COMPLIANCE REQUIRED.
RH-1	ROOF HYDRANT	WOODFORD	SRH-MS					MANUAL	No				3/4"		ROOF HYDRANT WITH INTEGRAL DUAL CHECK VALVE & 3/4" BRASS HOSE NOZZLE, CAST IRON HYDRANT SUPPORT, UNDER DECK FLANGE, WELL SEALS, EPDM BOOT COVERS, AND 2 DEGREE SHIM, ROUTE 1/8" NPT DRAIN OUTLET TO NEAREST FLOOR DRAIN, SLOPE DRAIN PIPING 1/4" PER FOOT.
GI-1	GREASE INTERCEPTOR	SCHIER	GB-250	MOLDED POLYETHYLENE											
FD-1	FLOOR DRAIN	JR SMITH	2005-B	EPOXY COATED CAST IRON							3"	2"			EPOXY COATED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, REVERSIBLE CLAMPING COLLAR WITH PRIMARY & SECONDARY WEEPHOLES, ADJUSTABLE ROUND HEEL PROOF NICKEL BRONZE STRAINER, AND NO HUB OUTLET.
FS-1	FLOOR SINK	JR SMITH	330	EPOXY COATED CAST IRON							3"	2"			12" SQUARE X 6" DEEP SANITARY FLOOR SINK WITH WHITE PORCELAIN ENAMEL COATED INTERIOR, LOOSE SET PORCELAIN ENAMEL COATED CAST IRON GRATE, ALUMINUM DOME BOTTOM STRAINER, AND NO HUB OUTLET.
FS-4	FLOOR SINK	WATTS	FS-740	EPOXY COATED CAST IRON							3"	2"			12" SQUARE X 6" DEEP SANITARY FLOOR SINK WITH WHITE PORCELAIN ENAMEL COATED INTERIOR, LOOSE SET PORCELAIN ENAMEL COATED CAST IRON GRATE, ALUMINUM DOME BOTTOM STRAINER, AND NO HUB OUTLET.
RD-1	STORM DRAIN	ZURN	100C-CP	LACQUERED CAST IRON							<varies>				DEEP SUMP ROOF DRAIN WITH 15" DIAMETER ANCHOR FLANGE, LARGE CAST IRON WATERPROOFING MEMBRANE CLAMP RING WITH INTEGRAL GRAVEL STOP, AND STANDARD SELF-LOCKING DOME STRAINER WITH A FREE AREA OF 125 SQUARE INCHES.

MASTER MIXING VALVE ASSEMBLY SCHEDULE										
MARK	MANUFACTURER	MODEL	SERVICE	PIPE SIZE (INCHES)		TEMPERATURE (DEG. F)	FLOW (GPM)	NOTES		
				INLET	OUTLET					
TMV-1	LEONARD	TM26-LF	DOM. HOT WATER	3/4"	1"	140 °F	0.5 GPM	ASSE 1017 COMPLIANT		

ELECTRIC WATER HEATER SCHEDULE														
ID	MANUFACTURER	MODEL NO.	TEMPERATURE (F)			RECOVERY (GPH)	STORAGE (GAL)	DIMENSIONS (INCHES)			ELECTRICAL			REMARKS
			CW	HW	DELTA TEMP			HEIGHT	DIAMETER	AMPS	VOLT	PH	HZ	
EW-1	AO SMITH	DRE-62-15	40 °F	140 °F	100 °F	61 gal/hr	50.0 gal	55 3/4"	21 3/4"	0.0 A	480 V	3	60 Hz	PROVIDE ASSE 1017 COMPLIANT MIXING VALVE, POWERS SERIES LF5H OR EQUAL.
EW-2	AO SMITH	DRE-120-54	40 °F	140 °F	100 °F	119 gal/hr	119.0 gal	62 1/4"	29 1/2"	0.0 A	480 V	3	60 Hz	PROVIDE ASSE 1017 COMPLIANT MIXING VALVE, POWERS SERIES LF5H OR EQUAL.

CIRCULATION PUMP SCHEDULE													
MARK	MANUFACTURER	MODEL NO.	LOCATION		SERVICE	PUMP			ELECTRICAL				REMARKS
			NAME	NO.		FLOW (GPM)	HEAD (FT/HD)	SPEED (RPM)	POWER (HP)	V	PH	HZ	
CP-1	GRONDFOS	UP 15-10 B7LC			DOM. HW-R	8.4 GPM	6.2 FT	0	115 V	1	60 Hz		INTEGRAL WATER TEMPERATURE SENSOR, SCHEDULING AND TEMPERATURE CONTROL.
CP-2	GRONDFOS	UP 15-10 B7LC			DOM. HW-R	8.4 GPM	6.2 FT	0	115 V	1	60 Hz		INTEGRAL WATER TEMPERATURE SENSOR, SCHEDULING AND TEMPERATURE CONTROL.

DOMESTIC EXPANSION TANK SCHEDULE									
MARK	MANUFACTURER	MODEL NO.	SYSTEM CONNECTION (INCHES)	TANK				REMARKS	
				NOMINAL VOLUME (GAL)	ACCEPTANCE VOLUME (GAL)	DIAMETER (INCHES)	HEIGHT (INCHES)		
ET-1	AMTROL	ST-SC	3/4"	2.0	0.9	6"	14"		
ET-2	AMTROL	ST-SC	3/4"	2.0	0.9	8"	14"		

DEKKER PERICH SABATINI
Architecture in Progress



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EEA Project No. 20220466
State of registration TX
Firm Registration No. F-2497

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PROJECT

NMSU NM DEPT OF AGRICULTURE NEW OFFICE BUILDING
3910 SOUTH ESPINA STREET
LAS CRUCES, NEW MEXICO 88003

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- REVISIONS
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DRAWN BY CP/IPU
REVIEWED BY MM
DATE 04/29/2024
PROJECT NO 22-0227.001

DRAWING NAME
PLUMBING SCHEDULES

SHEET NO
P-601

PLUMBING PIPE SCHEDULE								
PIPING...	SERVICE	SIZE	MATERIAL TYPE	FITTING TYPE	JOINT TYPE	INSULATION TYPE	VALVES	REMARKS
DCW	DOMESTIC COLD WATER (ABOVE GRADE)	ALL SIZES	TYPE L COPPER HARD DRAWN TUBING ASTM B88	WROUGHT COPPER FITTINGS PER ASME B16.22	SOLDER 95% TIN, 5% SILVER PER ASTM B32, LEAD FREE	1/2" CF TO PREVENT...	2" AND BELOW: BA-1 2-1/2" AND LARGER: BF-1	LEAD-FREE VIEGA PROGRESS OR EQUAL ALLOWED FOR CU PIPING 4" AND BELOW; EPDM O-RINGS
	DOMESTIC COLD WATER (BELOW GRADE WITHIN 8' O...)	ALL SIZES	TYPE L COPPER HARD DRAWN TUBING ASTM B88	WROUGHT COPPER FITTINGS PER ASME B16.22	SOLDER 95% TIN, 5% SILVER PER ASTM B32, LEAD FREE	N/A		WRAP WITH 2", 20 MILL VINYL TAPE, WITH 50% OVERLAP; NO INSULATION REQUIRED.
DHW	DOMESTIC HOT WATER UP TO 140F	ALL SIZES	TYPE L COPPER HARD DRAWN TUBING ASTM B88	WROUGHT COPPER FITTINGS PER ASME B16.22	SOLDER 95% TIN, 5% SILVER PER ASTM B32, LEAD FREE	1.5" GF x 1.1/2" PIPE 2.0" GF 1-1/2" PIPE & LARGER EXTERIOR PIPING: CF INSULATION, SAME THICKNESS		LEAD-FREE VIEGA PROGRESS OR EQUAL ALLOWED FOR CU PIPING 4" AND BELOW; EPDM O-RINGS
COND	CONDENSATE (HVAC)	ALL	TYPE L COPPER HARD DRAWN TUBING ASTM B88	WROUGHT COPPER FITTINGS PER ASME B16.22	SOLDER 95% TIN, 5% SILVER PER ASTM B32 OR VIEGA PROGRESS	1/2" CF TO PREVENT CONDENSATION HEAT TRACE WHERE SHOWN ON PLANS	N/A	VIEGA PROGRESS OR EQUAL ALLOWED FOR CU PIPING 4" AND BELOW; EPDM O-RINGS CONDENSATE PIPING TO BE SLOPED 1/8" PER FOOT TOWARDS DRAIN.
SAN	SANITARY WASTE & VENT (ABOVE GRADE)	8" AND UNDER	HUBLESS CAST-IRON SOIL PIPE MEETING CISPI 301 AND ASTM A 74 SERVICE CLASS	HUBLESS, CAST-IRON SOIL PIPE FITTINGS CISPI 301	HEAVY DUTY, FM APPROVED TYPE 304 STAINLESS STEEL ASTM C 1277 W/ ASTM C564 RUBBER GASKET AND STOP	N/A	N/A	ALL AIR HANDLER MECHANICAL ROOM FLOOR DRAIN PIPING TO BE INSULATED TO NEAREST VERTICAL MAIN TO PREVENT CONDENSATION 1" GF-ASJ CONCEALED 1"GF-PVC EXPOSED
		10" AND LARGER	HUB AND SPIGOT CAST-IRON SOIL PIPE MEETING CISPI 301 AND ASTM A 74 SERVICE CLASS	HUB AND SPIGOT CAST IRON MEETING CISPI 301 AND ASTM A 74 STANDARDS	NEOPRENE GASKETS C-564			
	SANITARY WASTE & VENT (BELOW GRADE WITHIN 5' ...)	ALL	SCHEDULE 40 PVC - ASTM D 1785	SCHEDULE 40 PVC - ASTM D 2466	PRIMER AND SOLVENT CEMENT	N/A		
GAS	NATURAL GAS (5 PSI OR LESS)	2" AND BELOW	STD WT BLACK CARBON STEEL ASTM A53 GRADE B TYPE E OR S	CL 150 MALLEABLE IRON ASTM A197, ASME B16.3	THREADED	N/A	BA-2	EXPOSED EXERIOR GAS PIPING SHALL BE PAINTED WITH RUST-INHIBITING PAINT.
		3" AND ABOVE		BUTTWELD, STD WT CS ASTM A234, ASME B16.9	BUTTWELD PER ASME B31.9 FOR BUILDING SERVICES PIPING		GA-1	
SD/OD	STORM, RAINWATER AND OVERFLOW DRAIN (ABOVE GRADE)	8" AND UNDER	HUBLESS CAST-IRON SOIL PIPE MEETING CISPI 301 AND ASTM A 74 SERVICE CLASS	HUBLESS, CAST-IRON SOIL PIPE FITTINGS CISPI 301	HEAVY DUTY, FM APPROVED TYPE 304 STAINLESS STEEL ASTM C 1277 W/ ASTM C564 RUBBER GASKET AND STOP	1" GF (INTERIOR EXPOSED AND UNCONDITIONED SPACES)		PIPING TO BE SLOPED 1/8" PER FOOT TOWARDS OUTLET.
		10" AND LARGER	HUB AND SPIGOT CAST IRON SOIL PIPE MEETING CISPI 301 AND ASTM A 74 SERVICE CLASS	HUB AND SPIGOT CAST IRON MEETING CISPI 301 AND ASTM A 74 STANDARDS	NEOPRENE GASKETS C-564			
	STORM, RAINWATER AND OVERFLOW DRAIN (BELOW...)	ALL	HUB AND SPIGOT CAST-IRON SOIL PIPE MEETING CISPI 301 AND ASTM A 74...	HUB AND SPIGOT CAST IRON MEETING CISPI 301 AND ASTM A 7...	NEOPRENE GASKETS C-564	N/A		

NOT...

- INSULATION TYPE: GF - GLASS FIBER, CG - CELLULAR GLASS, CF - FLEXIBLE ELASTOMERIC CELLULAR FOAM
- INSULATION JACKET TYPE
 - INTERIOR CONCEALED LOCATIONS: ALL SERVICE JACKET: (ASJ)
 - INTERIOR EXPOSED LOCATIONS: PVC ABOVE 8' AFF, ALUMINUM (AL) BELOW 8' AFF
 - EXTERIOR LOCATIONS: ALUMINUM (AL)
- ALL PLUMBING MATERIALS TO MEET PLUMBING CODE REQUIREMENTS. ALL DOMESTIC WATER SUPPLY PIPING, FITTINGS AND COMPONENTS TO MEET NSF 14 REQUIREMENTS.
- PROVIDE SELF-REGULATING HEAT TRACING SYSTEM AND CONTROLS FOR FREEZE PROTECTION OF PIPING AND ACCESSORIES IN EXTERIOR AND INTERIOR UNCONDITIONED SPACES WHERE SHOWN ON THE PLANS. INSULATE PER MANUFACTURER'S INSTRUCTIONS BUT NOT LESS THAN THICKNESSES SHOWN ON THE SCHEDULE.
- PROVIDE PRODUCT LISTED OR ENGINEER PRE-APPROVED EQUAL, APPLIES TO ALL PRODUCTS LISTED IN SCHEDULE.
- ALL MATERIALS USED IN POTABLE WATER SYSTEMS SHALL MEET THE REQUIREMENTS OF NSF/ANSI 14 AND NSF/ANSI 61 AS APPLICABLE.
- INSTALL ALL PRODUCTS PER THE MANUFACTURERS RECOMMENDATIONS.
- ALL PIPING IS TO BE SUPPORTED PER ANSI B31.9, ASME B31.1, MSS SP-58 AND MSS SP-69 AND MANUFACTURER'S INSTRUCTIONS.
- CLEAN AND FLUSH ALL NEWLY INSTALLED PIPING AND STRAINER / FILTERS WITH SYSTEM APPROPRIATE MATERIAL PRIOR TO PUTTING SYSTEM INTO OPERATION. DISINFECT POTABLE WATER SYSTEMS PER CODE.
- PVC, CPVC AND CAST IRON PIPE AND FITTINGS SHALL BE BY CHARLOTTE PIPE OR EQUAL.
- PVC SHALL NOT TO BE USED IN THE FOLLOWING LOCATIONS:
 - HVAC PLENUMS OR IN EXTERIOR LOCATIONS WHERE EXPOSED TO SUNLIGHT; COATINGS OR WRAPS ARE NOT ALLOWED IN THESE LOCATIONS.
 - DOMESTIC WATER SUPPLY SYSTEMS INSIDE OF THE BUILDING.
- PIPING SYSTEMS SHALL BE TESTED IN ACCORDANCE WITH THE APPLICABLE CODES AND LOCAL AHJ.
- WHEN JOINING DISIMILAR METALS USE DIELECTRIC NIPPLES OR COUPLINGS, OR DIELECTRIC FLANGE KITS ON LARGER PIPING. DIELECTRIC UNIONS ARE NOT ALLOWED.

VALVES:

- BA-1 BALL VALVE: 600 PSI WOG TWO PIECE LEAD-FREE BRASS OR BRONZE, FULL PORT BALL VALVE, ASTM B584, THREADED ENDS, STAINLESS STEEL BALL, TEFLON SEATS AND STUFFING BOX RING, BLOWOUT PROOF STEM (EXTENDED STEM FOR INSULATED LINES). APOLLO 77 SERIES OR EQUAL.
- BA-2 BALL VALVE: 600 PSI WOG TWO PIECE BRONZE FULL PORT BALL VALVE, ASTM B584, THREADED ENDS, STAINLESS STEEL BALL, TEFLON SEATS AND STUFFING BOX RING, BLOWOUT PROOF STEM, UL-RATED FOR NATURAL GAS AND FLAMMABLE LIQUIDS. APOLLO 80-100 SERIES OR EQUAL.
- BF-1 BUTTERFLY VALVE: 200 PSI BI-DIRECTIONAL DEAD-END SERVICE WITHOUT A DOWNSTREAM FLANGE REQUIRED, LEAD-FREE DUCTILE IRON LUG BODY, ALUMINUM BRONZE DISC, EPDM SEAT, 10-POSITION LEVER HANDLE (GEAR OPERATOR FOR VALVES LARGER THAN 8"), EXTENDED NECK FOR INSULATED LINES. NIBCO LD-2000 OR EQUAL.
- GA-1 GATE VALVE: CL 150 CARBON STEEL GATE VALVE, RISING STEM, FLANGE END, ASTM A216 GR. WCB, UL-RATED FOR NATURAL GAS AND FLAMMABLE LIQUIDS SHUT OFF. PROVIDE FULL WAY VALVE IN VALVE BOX AT EXTERIOR BLDG. SUPPLY.



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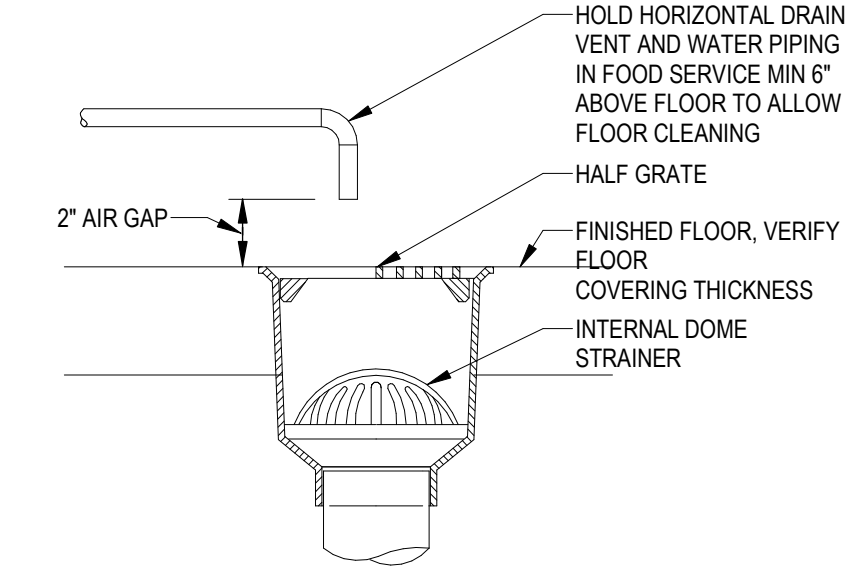
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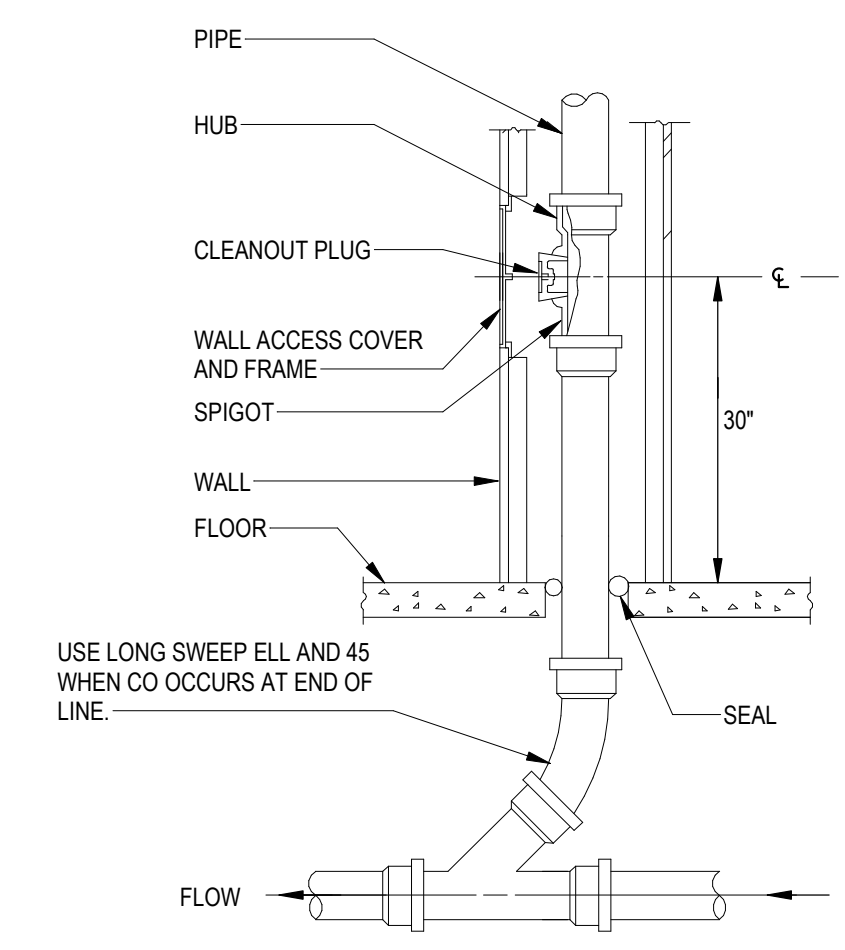
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1 2 3 4 5 6



1 FLOOR SINK
P-701 1/8" = 1'-0"



2 WALL CLEAN OUT DETAIL
P-701 1/8" = 1'-0"

**DEKKER
PERICH
SABATINI**
Architecture
in Progress



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Albuquerque NM 87107 USA
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www.eeace.com
EEA Project No. 20220466
State of registration TX
Firm Registration No. F-2497

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Serial No.
28780

PROJECT

**NMSU NM DEPT OF AGRICULTURE NEW
OFFICE BUILDING**
3910 SOUTH ESPINA STREET
LAS CRUCES, NEW MEXICO 88003

50%
CONSTRUCTION
DOCUMENTS

- REVISIONS
- △
 - △
 - △
 - △
 - △
 - △

DRAWN BY CP/IPU
REVIEWED BY MM
DATE 04/29/2024
PROJECT NO 22-0227.001

DRAWING NAME
**PLUMBING
DETAILS**

SHEET NO
P-701

MEP GENERAL CONDITIONS:

- IT IS THE INTENT OF THE CONTRACT DOCUMENTS TO PROVIDE AN INSTALLATION COMPLETE IN EVERY RESPECT. WORK SHALL BE EXECUTED IN A WORKMANLIKE MANNER AND SHALL INCLUDE ALL LABOR, MATERIALS, AND SUPERVISION ESSENTIAL TO PROVIDE COMPLETE FUNCTIONING SYSTEMS AS DESCRIBED IN THE CONTRACT DOCUMENTS. IN THE EVENT THAT ADDITIONAL DETAILS OR SPECIAL CONSTRUCTION IS REQUIRED FOR WORK INDICATED, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE SAME AS WELL AS TO PROVIDE MATERIAL, AND EQUIPMENT USUALLY FURNISHED WITH SUCH SYSTEMS OR REQUIRED TO COMPLETE THE INSTALLATION AT NO COST TO THE OWNER.
- DEVIATIONS TO THE INTENDED DESIGN OR THE SCOPE OF THE WORK MUST BE APPROVED BY THE ENGINEER PRIOR TO COMMENCING WORK. AND SHALL BE TO DO SO RESULT IN THE WORK TO BE REMOVED AT NO COST TO THE OWNER.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL CODES, STANDARDS, AND AGENCIES AND WHERE AUTHORITY THAT MAY HAVE JURISDICTION PERTAINING TO THE WORK. IN ADDITION, ALL WORK SHALL CONFORM TO THE STANDARDS AND PRACTICES OF THE OWNER.
- ALL EQUIPMENT INSTALLED ON THIS PROJECT SHALL BE NEW AND UNUSED UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL REMOVE ALL SHIPPING LABELS, DIRT, PAINT SPOTS, GREASE, AND STAINS FROM ALL EQUIPMENT. DEBRIS SHALL BE REMOVED AS IT ACCUMULATES UPON COMPLETION OF HIS WORK. THE CONTRACTOR SHALL CLEAN ALL EQUIPMENT. NO LOOSE PARTS OR SCRAPS OF EQUIPMENT SHALL BE LEFT ON THE PREMISES.
- ALL MATERIALS SALVAGED FOR THE OWNER SHALL BE STORED BY CONTRACTOR UNTIL END OF PROJECT THEN RETURNED TO THE OWNER.
- ALL WORK SHALL BE GUARANTEED AGAINST DEFECTIVE MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE AS DEFINED BY THE CONTRACT. THE CONTRACTOR SHALL REPAIR OR REPLACE, AT HIS/HER OWN EXPENSE WHEN ORDERED TO DO SO, ALL WORK THAT MAY DEVELOP DEFECTS IN MATERIAL OR WORKMANSHIP WITHIN SAID PERIOD OF TIME. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED RECOMMENDATIONS FOR SERVICE INTENDED, AS INTERPRETED BY THE ENGINEER. THE INSTALLATION OF ALL EQUIPMENT SHALL BE MADE BY EXPERIENCED CRAFTSMAN IN A NEAT, WORKMANLIKE MANNER. ALL MATERIALS, TOOLS, COSTS, AND SERVICES NECESSARY TO COMPLETELY INSTALL ALL WORK SHALL BE PROVIDED BY THE CONTRACTOR.
- ALL SAFETY EXPOSURES OR VIOLATIONS SHALL BE RECTIFIED IMMEDIATELY BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PROTECTION OF PERSONS AND PROPERTY, PROVIDING SAFE WORKING CONDITIONS THROUGHOUT THE PROJECT, PROVIDING TEMPORARY COVERINGS FOR OPENINGS THROUGH WALLS OR FLOORS, AND PROVIDING TEMPORARY BARRIERS, PARTITIONS AND/OR DUST BARRIERS WHERE REQUIRED TO MAINTAIN OSHA AND THE OWNER'S SAFETY STANDARDS AND TO PREVENT DAMAGE TO PROPERTY. ALL AREAS ADJACENT TO THE CONSTRUCTION AREA OR AFFECTED BY THE CONSTRUCTION MUST BE PROTECTED FROM DAMAGE, CLEANED, AND RESTORED TO THE ORIGINAL CONDITION AT NO ADDITIONAL EXPENSE TO THE OWNER. THE CONTRACTOR SHALL PROVIDE PROTECTIVE CLOTHING AND EYEWEAR FOR ALL PERSONNEL WHO ARE REQUIRED TO HANDLE HAZARDOUS CHEMICAL PRODUCTS OR WORK IN HAZARDOUS LOCATIONS.
- DO NOT DISTURB ASBESTOS CONTAINING MATERIALS (ACM). IF ACM ARE ENCOUNTERED OR SUSPECTED DURING THE COURSE OF WORK, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND OBTAIN NECESSARY ABATEMENT BY THE OWNER. ASBESTOS ABATEMENT SHALL OCCUR PRIOR TO CONTRACTOR COMMENCING OR CONTINUING DEMOLITION OR CONSTRUCTION OPERATIONS.
- CONTRACTOR SHALL DIRECT ALL QUESTIONS TO THE OWNER. THE CONTRACTOR SHALL VERIFY ALL WORKING CONDITIONS SUCH AS STARTING TIME, NOISE AND VIBRATION LIMITATIONS, CONFINED SPACE, ETC. THROUGH THE OWNER AND APPROVAL SHALL BE RECEIVED TO START WORK.
- THE CONTRACTOR SHALL VISIT THE JOBSITE AND VERIFY THE SCOPE OF WORK REQUIRED INCLUDING ALL EXISTING CONDITIONS, LOCATIONS, DIMENSIONS, AND QUANTITIES AS SHOWN AND NOTED ON THE DRAWINGS AND THE INTENT AND EFFECT OF EXISTING SYSTEMS. NOTIFY THE OWNER IF ANY OF THE WORK CANNOT BE SAFELY ACCESSED.
- THE CONTRACTOR SHALL ENSURE FULL COORDINATION WITH OTHER TRADES AND CONTRACTORS TO ACCOMPLISH THE WORK AS SHOWN AND NOTED IN THESE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL COMPARE THE DRAWINGS OF OTHER TRADES AND REPORT ANY DISCREPANCIES TO THE OWNER.
- NOT ALL EXISTING UTILITIES ARE SHOWN FOR CLARITY OF THE DRAWING. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND SHALL PERFORM FIELD MEASUREMENTS PRIOR TO FABRICATION AND/OR PURCHASE OF ANY MATERIAL. CONTACT THE OWNER IMMEDIATELY TO CORRECT THE DRAWING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE WORK AS SHOWN AND NOTED IN THESE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE AND AT THE EXPENSE OF THE CONTRACTOR.
- PRIOR TO ANY CUTTING OR TRENCHING, VERIFY WITH OWNER, UTILITY COMPANIES, AND LANDLORD THAT ALL AVAILABLE INFORMATION IS KNOWN REGARDING UNDERGROUND OBSTRUCTIONS. TAKE CAUTION WHEN TRENCHING NOT TO DISTURB ANY EXISTING UTILITIES. NOTIFY OWNERS REPRESENTATIVE IMMEDIATELY UPON UNCOVERING UNKNOWN UTILITIES FOR FURTHER DIRECTION. REFER TO CIVIL SITE DRAWINGS FOR BURIED PIPE, TRENCHING AND BACKFILL SPECIFICATIONS AND DETAILS.
- CONTRACTOR TO PROVIDE START-UP AND COMMISSIONING SUPPORT SERVICES FOR ALL NEW SYSTEMS AND EQUIPMENT, AS WELL AS TRAINING SERVICES FOR THE OWNER'S MAINTENANCE PERSONNEL IN THE USE OF THESE SYSTEMS AND EQUIPMENT. CONTRACTOR SHALL ALSO ASSIST TEST & BALANCE CONTRACTOR AND THE COMMISSIONING AGENT AS REQUIRED.
- CONTRACTOR TO COORDINATE FINAL INSPECTION OF THE WORK WITH THE OWNER AND ENGINEER, AND DEMONSTRATE PROPER FUNCTIONALITY OF ALL NEW SYSTEMS.
- CONTRACTOR TO COORDINATE ALL SYSTEM OUTAGES WITH THE OWNER. PROVIDE MINIMUM TWO WEEKS NOTICE.
- SUBMITTALS.
 - ALL SUBMITTALS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMITTING TO THE ENGINEER. ALL SUBMITTALS NOT REVIEWED BY THE CONTRACTOR WILL BE RETURNED WITHOUT REVIEW. AFTER REVIEW HAS BEEN COMPLETED, SUBMIT A COPY OF EACH SUBMITTAL TO THE OWNER WITH THE APPROVAL SEAL OF THE ENGINEER AND THE CONTRACTOR'S SIGNATURE. SUBMITTALS NOT REVIEWED BY THE CONTRACTOR WILL BE RETURNED WITHOUT REVIEW.
 - SUBMIT MATERIAL SAFETY DATA SHEETS AND MANUFACTURER'S CURRENT RECOMMENDED METHOD OF INSTALLATION TO THE OWNER FOR ALL MATERIALS USED TO PERFORM THE WORK INDICATED BY THESE CONTRACT DOCUMENTS. ALL CHEMICALS OR CHEMICAL COMPOUNDS PROPOSED FOR USE ON THE PROPERTY, INCLUDING, BUT NOT LIMITED TO PAINT THINNERS, SOLVENTS, ADHESIVES, SEALANTS, CLEANING COMPOUNDS, EPOXIES, ETC. MUST BE APPROVED BY THE OWNER.
 - PROVIDE PRODUCT DATA SUBMITTALS ON ALL MAJOR EQUIPMENT, COMPONENTS, AND MATERIALS SPECIFIED IN THESE PLANS FOR ENGINEERS AND OWNER'S REVIEW AND ACCEPTANCE PRIOR TO INSTALLATION. SUBMIT CATALOG DATA SHOWING MANUFACTURER'S NAME AND CONTACT INFORMATION, ALL STANDARD FEATURES, AMPERAGE, VOLTAGE, A/C RATINGS, DIMENSIONS, WEIGHTS, LISTINGS AND PRODUCT LABELS, MATERIAL TYPES, FINISHES AND CLEARLY INDICATING WHICH OPTIONAL FEATURES WILL BE PROVIDED. EACH SUBMITTAL SHALL INCLUDE A COPY OF THE RELEVANT EQUIPMENT OR MATERIALS SCHEDULE ON THE PLANS AND SPECIFICATION SECTION WITH EACH LINE ITEM MARKED COMPLETE OR DOES NOT COMPLY WITH THE REQUIREMENTS.
 - WHERE MULTIPLE SIZES ARE LISTED, INDICATE SIZES TO BE USED.
 - WHERE MULTIPLE PRODUCTS ARE SHOWN ON THE SAME PAGE, INDICATE WHICH PRODUCTS TO BE USED.
 - INCLUDE ALL RELEVANT ELECTRICAL DIAGRAMS INCLUDING SCHEMATIC AND INTERCONNECTION DIAGRAMS FOR POWER, SIGNAL, AND CONTROL WIRING.
 - PROVIDE SHOP DRAWINGS SHOWING ALL DUCTWORK, PIPING AND CONDUIT 2" AND ABOVE, AND ALL MAJOR EQUIPMENT AND HOUSEKEEPING PADS. THE USE OF REPRODUCTIONS OF THESE CONTRACT DRAWINGS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR OR MATERIAL SUPPLIER, IN LIEU OF THE PREPARATION OF SHOP DRAWINGS IS FORBIDDEN. SHOP DRAWINGS RECEIVED BEARING THE ENGINEER'S TITLE AND SEAL SHALL BE PROMPTLY REJECTED. DO NOT PURCHASE MATERIALS OR BEGIN WORK UNTIL SHOP DRAWINGS ARE SUBMITTED, REVIEWED, AND CORRECTED (IF NECESSARY).
 - ALL SUBMITTALS SHALL BE PROVIDED IN PDF FORMAT.
- SHOULD ANY ERRORS, OMISSIONS, CONFLICTS, OR AMBIGUITIES EXIST IN THE DRAWINGS, THE CONTRACTOR SHALL BRING THESE TO THE ATTENTION OF THE OWNER IMMEDIATELY FOR ADJUSTMENT IN WRITING BEFORE SIGNING THE CONTRACT OR PROCEEDING WITH THE WORK. OTHERWISE, HE/SHE SHALL AT HIS/HER OWN EXPENSE, SUPPLY THE PROPER MATERIALS AND LABOR TO MAKE GOOD ANY DAMAGE OR DEFECT CAUSED BY SUCH UNINTENTIONAL ERROR.

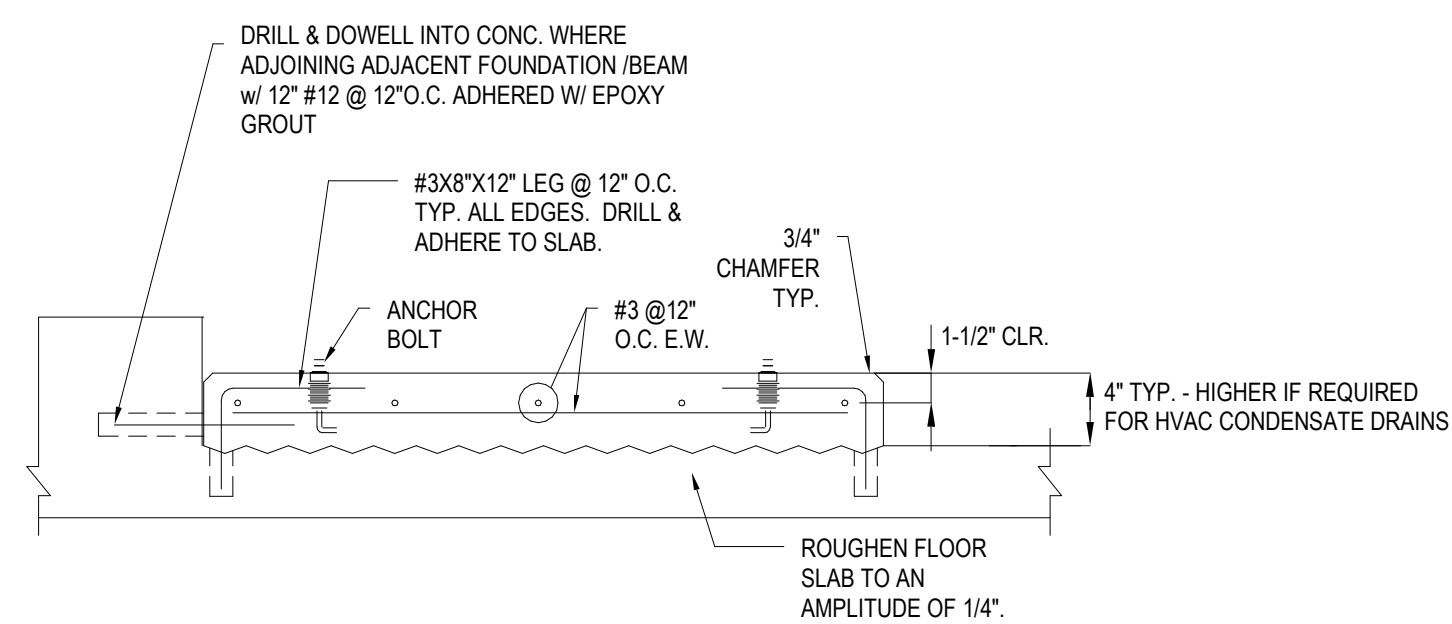
GENERAL NOTES:

- CONTRACTOR SHALL COORDINATE FINAL MECHANICAL PAD SIZE, LOCATION AND EMBEDDED ITEMS WITH MECHANICAL AND FINAL EQUIPMENT SHOP DRAWINGS.
- CAST-IN-PLACE BASES SHALL BE 4" LARGER ON EACH SIDE THAN SUPPORTED EQUIPMENT.
- INSTALL ANCHOR BOLTS WITH HILSON ANCHOR BOLT SLEEVES IN ACCORDANCE WITH EQUIPMENT BASE TEMPLATE AND MANUFACTURER'S INSTRUCTIONS.

CONCRETE NOTES:

- CONCRETE SHALL BE 3000 PSI AT 28 DAYS.
- COMPLY WITH ACI 301, ACI 318, AND ASTM C94.
- PROVIDE BROOM FINISH CONCRETE SURFACE.
- SET TOP OF PAD LEVEL.

HOUSE KEEPING PAD NOT TO SCALE



MEP GENERAL CONDITIONS (CONT.):

- CONTRACTOR SHALL CHECK ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS FOR ACCURACY, AND CONFIRM THAT THE WORK IS BUILDABLE AS SHOWN AND MEETS ALL APPLICABLE CODES BEFORE PROCEEDING WITH CONSTRUCTION. IF THERE ARE ANY QUESTIONS REGARDING THESE OR OTHER COORDINATION ISSUES, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE OWNER BEFORE PROCEEDING WITH THE WORK IN QUESTION OR RELATED WORK.
- THE CONTRACTOR SHALL NOT FABRICATE OR INSTALL ITEMS AS SHOWN ON THE DRAWINGS IF THERE ARE DISCREPANCIES OR CONFLICTS BETWEEN THE EXISTING CONDITIONS AND THE INFORMATION SHOWN ON THE DRAWINGS UNTIL SUCH DISCREPANCIES HAVE BEEN RESOLVED PRIOR TO FABRICATION OR INSTALLATION. THE CONTRACTOR SHALL IMMEDIATELY CALL SUCH DISCREPANCIES OR CONFLICTS TO THE ATTENTION OF THE OWNER AND THE ENGINEER.
- ALL WORK NOTED "NIC" OR "NOT IN CONTRACT" IS TO BE ACCOMPLISHED BY ANOTHER CONTRACTOR AND IS NOT TO BE PART OF THE CONSTRUCTION AGREEMENT.
- IN CASES OF A DIFFERENCE BETWEEN THE MINIMUM REQUIREMENTS OF THE VARIOUS LAWS, CODES, AUTHORITIES, AND THE DOCUMENTS, THE WORK SHALL MEET THE GREATER OR MORE STRINGENT REQUIREMENTS.
- THE SEQUENCE OF CONSTRUCTION AND ANY SERVICE OUTAGES SHALL BE SCHEDULED AND COORDINATED WITH THE OWNER.
- WORK AREAS SHALL BE KEPT CONTINUOUSLY, AT ALL TIMES, FREE OF DEBRIS AND NON-HAZARDOUS MATERIAL TO THE SATISFACTION OF THE OWNER. ALL EXISTING PIPING AND CONDUITS SHALL HAVE TEMPORARY PROTECTION DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE STORAGE OF MATERIALS, PARKING OF VEHICLES, AND RESTRICTIONS TO WORK WITH THE OWNER. AFTER PROJECT COMPLETION, THE SITE SHALL BE CLEANED UP AND RESTORED TO ITS ORIGINAL CONDITION OR BETTER PRIOR TO THE START OF THE PROJECT TO THE SATISFACTION OF THE OWNER.
- THE DRAWINGS ARE DIAGRAMMATIC ONLY AND DO NOT GIVE FULLY DIMENSIONED LOCATIONS OF VARIOUS ELEMENTS OF WORK OR INDICATE ALL OFFSETS THAT MAY BE REQUIRED. DETERMINE EXACT LOCATIONS FROM FIELD MEASUREMENTS. MAKING ADJUSTMENTS TO FIELD CONDITIONS IS CONSIDERED A PART OF THE WORK REQUIRED.
- VERIFY DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE DIMENSIONS.
- CONTRACT CLOSEOUT INCLUDE THE FOLLOWING:
 - RECORD DRAWINGS.
 - THE CONTRACTOR SHALL MAINTAIN TWO SETS OF CONSTRUCTION DRAWINGS ON SITE AT ALL TIMES SO THAT ALL CHANGES TO THE DRAWINGS AND THE ACTUAL CONSTRUCTION CAN BE NOTED ON THE DRAWINGS. THIS INCLUDES ALL DEVIATIONS FROM THE ORIGINAL CONTRACT. THE CONTRACTOR SHALL INDICATE ALL CHANGES FROM THE ORIGINAL PLANS MADE DURING THE INSTALLATION OF THE WORK IN RED INK ON TWO SETS OF PRINTS. AT THE END OF CONSTRUCTION, THE CONTRACTOR SHALL SIGN AND DATE THE DRAWINGS CERTIFYING THAT THEY ARE AN ACCURATE REFLECTION OF THE ACTUAL CONSTRUCTION.
 - DELIVER RECORD DRAWINGS REFLECTING THE FINAL AS-BUILT CONDITION TO THE OWNER IN AUTOCAD OR REVIT FORMAT AFTER PROJECT COMPLETION. NOTE THAT THE FINAL INVOICE FOR THE CONTRACT WILL NOT BE PAID BY THE OWNER UNTIL RECORD DRAWINGS ARE RECEIVED. RECORD DRAWINGS WILL BE NOT BE PAID BY THE OWNER UNTIL AS-BUILT MARKUPS ARE RECEIVED.
 - OPERATIONS AND MAINTENANCE DATA. SUBMIT O&M DATA IN PDF FORMAT WITH COVER PAGE AND INDEX. INCLUDE THE FOLLOWING FOR EACH PIECE OF:
 - TEST & BALANCE REPORTS IN PDF FORMAT.
 - ALL STRUCTURAL ENGINEERING AS IT PERTAINS TO ATTACHING MEP ELEMENTS INCLUDING BUT NOT LIMITED TO EQUIPMENT, PIPE, DUCTWORK AND CONDUIT TO THE BUILDING STRUCTURE AND ROOF SHALL BE PROVIDED BY THE CONTRACTOR'S STRUCTURAL ENGINEER UNLESS NOTED OTHERWISE. DESIGN SHALL INCLUDE SUPPORTS AND WIND-LOADING AND SEISMIC RESTRAINTS FOR ALL MEP ELEMENTS INSTALLED ON THE ROOF. DESIGN SHALL ALSO INCLUDE DESIGN OF SEISMIC RESTRAINTS FOR ALL HANGERS AND SUPPORTS OF MEP ELEMENTS. CONTRACTOR SHALL SUBMIT DESIGN REACTION FORCES TO THE PROJECT STRUCTURAL ENGINEER FOR REVIEW.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING WORK AS REQUIRED TO INSTALL THE SYSTEMS AS SHOWN ON THE DRAWINGS. ANY CUTTING THRU STRUCTURAL MEMBERS OR FLOORS SHALL FIRST BE APPROVED BY THE OWNER AND STRUCTURAL ENGINEER. ALL PATCHING AT WALLS SHALL BE THE SAME MATERIAL AS THE WALL AND TOUCHED UP WITH PAINT. ALL NEW WALL AND FLOOR PENETRATIONS SHALL BE MADE AT 90 DEGREE ANGLES. THERE SHALL BE NO DRILLING INTO THE FLOOR FROM ABOVE OR BELOW WITHOUT FIRST CONTACTING THE OWNER, AND STRUCTURAL ENGINEER.
 - PRIOR TO ANY CUTTING OR TRENCHING, VERIFY WITH OWNER, UTILITY COMPANIES, AND LANDLORD THAT ALL AVAILABLE INFORMATION IS KNOWN REGARDING UNDERGROUND OBSTRUCTIONS. TAKE CAUTION WHEN TRENCHING NOT TO DISTURB ANY EXISTING UTILITIES. NOTIFY OWNERS REPRESENTATIVE IMMEDIATELY UPON UNCOVERING UNKNOWN UTILITIES FOR FURTHER DIRECTION. REFER TO CIVIL SITE DRAWINGS FOR BURIED PIPE, TRENCHING AND BACKFILL SPECIFICATIONS AND DETAILS.
 - CONTRACTOR TO PROVIDE START-UP AND COMMISSIONING SUPPORT SERVICES FOR ALL NEW SYSTEMS AND EQUIPMENT, AS WELL AS TRAINING SERVICES FOR THE OWNER'S MAINTENANCE PERSONNEL IN THE USE OF THESE SYSTEMS AND EQUIPMENT. CONTRACTOR SHALL ALSO ASSIST TEST & BALANCE CONTRACTOR AND THE COMMISSIONING AGENT AS REQUIRED.
 - CONTRACTOR TO COORDINATE FINAL INSPECTION OF THE WORK WITH THE OWNER AND ENGINEER, AND DEMONSTRATE PROPER FUNCTIONALITY OF ALL NEW SYSTEMS.
 - CONTRACTOR TO COORDINATE ALL SYSTEM OUTAGES WITH THE OWNER. PROVIDE MINIMUM TWO WEEKS NOTICE.

MEP GENERAL NOTES:

- ALL NEW OPENINGS THROUGH FLOORS, ROOF, STRUCTURAL WALLS, AND STRUCTURAL MEMBERS (WHERE APPROVED BY THE OWNER) AND INSTALLATION OF ROOF-MOUNTED EQUIPMENT SHALL BE COORDINATED WITH THE ARCHITECT AND DESIGNED BY THE STRUCTURAL ENGINEER. PENETRATIONS THROUGH SHEAR WALLS ARE PROHIBITED.
- DUCT, PIPE AND CONDUIT ROOF PENETRATIONS:
 - ALL DUCT, PIPE, AND CONDUIT ROOF PENETRATIONS SHALL BE THROUGH AN INSULATED, FACTORY-MANUFACTURED FULLY WELDED GALVANIZED STEEL ROOF CURBS. CURBS MUST EXTEND 14" ABOVE THE FINISHED SURFACE OF THE ROOF AND SHALL BE SLOPED TO MATCH ROOF. SHALL MATCH ROOF MANUFACTURER'S REQUIREMENTS, AND SHALL BE INSTALLED TO MAINTAIN ROOF WARRANTY. ATTACH CURBS TO ROOF PER STRUCTURAL ENGINEER'S DESIGN. IF DESIGN IS NOT INCLUDED IN PROJECT STRUCTURAL ENGINEER'S SCOPE, THE DESIGN SHALL BE PERFORMED BY THE CONTRACTOR'S LICENSED STRUCTURAL ENGINEER.
 - ENTIRE ASSEMBLY SHALL BE DESIGNED TO WITHSTAND ALL BLDG AND ASCE-7 WINDLOADING REQUIREMENTS FOR BUILDINGS LESS THAN 60' HIGH (twice if >60' high). THIS SPECIFICALLY APPLIES TO THE ATTACHMENT TO THE ROOF AND THE REQUIRED RESTRAINTS NECESSARY TO COMPLY WITH BDC AND ASCE-7, AS WELL AS ASSOCIATED DUCTWORK, PIPING, AND EQUIPMENT PLATFORMS ABOVE THE ROOF.
 - CONTRACTOR SHALL PROVIDE STAINLESS STEEL FLASHING TO SEAL BETWEEN THE DUCT / PIPE AND THE ROOF CURB.
 - FLUES AND VENT STACKS SHALL MAINTAIN CLEARANCE FROM COMBUSTIBLE CONSTRUCTION AND INSULATED ASSEMBLIES IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. TOP WITH BIRD PROOF FLUE CAP.
 - THE WEIGHT OF ALL DUCTS PENETRATING THE ROOF SHALL BE SUPPORTED FROM BELOW ROOF STRUCTURE, NOT AT THE ROOF CURB.
 - COORDINATE LOCATIONS OF EXISTING AND NEW ROOF PENETRATIONS TO MINIMIZE NUMBER OF OPENINGS. ELECTRICAL AND REFRIGERANT LINES ARE TO USE THE SAME PENETRATIONS WHERE POSSIBLE.
 - COORDINATE ALL ROOF WORK WITH OWNERS ROOFING CONTRACTOR TO MAINTAIN THE WARRANTY.
- PIPE AND CONDUITS PENETRATING FIRE-RATED FLOORS AND WALLS:
 - A UL-RATED FIRESTOP SYSTEM SHALL BE INSTALLED AT ALL PIPE PENETRATIONS THROUGH SMOKE AND/OR FIRE-RATED FLOORS AND WALLS. FIRESTOP SYSTEM SHALL BE SUITABLE FOR THE FLOOR AND WALL TYPE, MATERIALS OF CONSTRUCTION, AND PIPE MATERIALS. RATINGS SHALL MATCH FIRE BARRIER RATINGS. ONLY PRODUCTS BY A SINGLE MANUFACTURER SHALL BE USED ON THE PROJECT. APPROVED MANUFACTURERS ARE: 3M, SM AND HILTI. INSTALLERS SHALL BE CERTIFIED BY THE FIRESTOP SYSTEM MANUFACTURER. CONTRACTOR TO PROVIDE INVENTORY OF ALL PENETRATIONS.
 - PIPE WEIGHT SHALL BE SUPPORTED AT THE FLOOR OR FROM HANGERS TO EITHER SIDE OF THE WALL OR FLOOR. PIPE WEIGHT SHALL NOT BE SUPPORTED BY THE WALL.
 - INSULATION AND VAPOR BARRIER SHALL BE CONTINUOUS THROUGH THE PENETRATION.
 - FLOOR PENETRATIONS SHALL BE SEALED WATER TIGHT AT THE TOP OF THE FLOOR.
- PIPE AND CONDUITS PENETRATING NON-FIRE RATED FLOORS AND WALLS INCLUDING SLAB ON GRADE:
 - WEIGHT SHALL BE SUPPORTED AT THE FLOOR OR FROM HANGERS ABOVE OR BELOW THE FLOOR. PIPE WEIGHT SHALL NOT BE SUPPORTED BY THE WALL.
 - INSULATION AND VAPOR BARRIER SHALL BE CONTINUOUS THROUGH THE FLOOR.
 - FLOOR PENETRATION SHALL BE SLEEVED WITH MINIMUM 1/8 GA. GALVANIZED STEEL EXTENDING 2" ABOVE THE SLAB AND SEALED WATER TIGHT.
 - WHERE FLOOR OR WALL PENETRATIONS ARE EXPOSED IN OCCUPIED SPACES, ESCUTCHEON PLATES SHALL BE INSTALLED TO COVER THE OPENING.
 - PENETRATIONS THROUGH EXTERIOR WALLS TO BE SEALED WATER TIGHT.
- NO ASBESTOS CONTAINING MATERIALS SHALL BE USED IN ANY OF THE NEW CONSTRUCTION.
- ALL INSULATING MATERIALS AND ALL MATERIALS USED IN PLENUMS SHALL BE PLENUM RATED AND SHALL CONFORM TO ASTM E 84, HAVING A MAXIMUM FLAME SPREAD OF <25 AND A MAXIMUM SMOKE DEVELOPED RATING OF <50.
- EQUIPMENT SCHEDULED ON THE DRAWINGS IS BASED UPON EQUIPMENT OF MANUFACTURER NOTED. EQUIPMENT FROM ANOTHER MANUFACTURER WILL BE USED PROVIDED THAT THE CONTRACTOR SUBMIT PROOF THAT THE EQUIPMENT TO BE USED IS EQUAL TO OR BETTER THAN THAT SCHEDULED ON THE DRAWINGS AND IS APPROVED BY THE OWNER AND ENGINEER. PRICE SPECIFIED ITEM AS WELL AS PROPOSED SUBSTITUTION.
- INVERTER READY MOTORS SHALL BE PROVIDED WITH NEG'S SHAFT GROUNDING RING, COOLABLE INDUCTIVE ABSORBERS, OR CERAMIC BEARINGS AND CLASS F 105° C RISE INSULATION. REFERENCE NEMA MG1 PART 31.
- PROVIDE TEFC MOTORS FOR ALL WET LOCATIONS AND ALL OUTDOOR LOCATIONS.
- LOCATION OF NEW EQUIPMENT IS APPROXIMATE WHERE SHOWN. IF THERE IS A CONFLICT WITH AN EQUIPMENT LOCATION SHOWN ON THE PLANS, DO NOT PROCEED UNTIL THE ENGINEER APPROVES A NEW LOCATION.
- INSTALL ALL NEW EQUIPMENT WITH MANUFACTURER RECOMMENDED CLEARANCES ON ALL SIDES FOR SERVICE AND MAINTENANCE AS WELL AS REMOVAL OF INDIVIDUAL COMPONENTS WITHOUT REMOVING THE ENTIRE UNIT. PROVIDE NEC-REQUIRED CLEARANCE IN FRONT OF LINE VOLTAGE CONTROL PANELS MINIMUM 3'.
- DUCTWORK, PIPING, CONDUIT, CABLING, ETC. SHOWN ON EACH PLAN IS RUN ABOVE THE CEILING ON THE FLOOR WHERE IT IS SHOWN UNLESS OTHERWISE NOTED.
- DUCTWORK, PIPING, CONDUIT, CABLING, ETC. SHOWN ON DRAWINGS SHALL BE COORDINATED WITH AIR DISTRIBUTION DEVICES, SPECIAL CEILING, FLOOR, AND STRUCTURE CONSTRUCTION, ETC. PROVIDE ADDITIONAL RISERS AND DRIPS TO THOSE INDICATED ON THE DRAWINGS AS REQUIRED TO COORDINATE WITH ARCHITECTURAL, STRUCTURAL OR MEP ELEMENTS SHOWN ON THE CONTRACT DOCUMENTS. ALL UTILITIES SHALL BE ROUTED IN AN ORDERLY MANNER, GROUPED TOGETHER WHEREVER POSSIBLE, AND LOCATED SO AS TO CONSERVE BUILDING SPACE.
- COORDINATION OF ALL TRADES IN CEILING SPACES TO ALLOW AN 8-INCH CLEAR PLANE FOR LOCATION OF LIGHTS IS OF UTMOST IMPORTANCE TO MAXIMIZE FUTURE FLEXIBILITY. REALIZING THAT THIS IS NOT POSSIBLE IN ALL CASES, DUE TO CEILING ELEVATION AND STRUCTURAL LIMITATIONS, MAXIMUM EFFORT SHALL BE GIVEN TO MAINTAINING THE 8-INCH LIGHTING PLANE UNLESS NOTED OTHERWISE.
- MAINTAIN MINIMUM VERTICAL CLEARANCE OF 7'-6" FROM THE FLOOR TO THE BOTTOM OF DUCTWORK, PIPING, AND ASSOCIATED HANGERS AND SUPPORTS UNLESS NOTED OTHERWISE ON THE PLANS.
- POWDER ACTUATED FASTENERS ARE NOT ALLOWED.
- PROVIDE AND INSTALL MINIMUM 2 1/2" LONG X 3/4" WIDE ENGRAVED PHENOLIC PLASTIC EQUIPMENT TAGS. BLACK LETTERS ON WHITE BACKGROUND. FOR ALL EQUIPMENT TO MATCH TAGS INDICATED ON PLANS. IF EXISTING TAGS ARE PRESENT EITHER FROM THE MANUFACTURER OR EXISTING CONDITIONS, COVER OR PAINT OVER THE OLD TAG AS REQUIRED TO ELIMINATE CONFLICTING TAG NAMES. LABEL THERMOSTATS TO MATCH UNIT DESIGNATION. INDICATE ELECTRICAL PANEL AND CIRCUIT BREAKER NUMBER IDENTIFICATION ON NAMEPLATE IN SMALLER LETTERS IN PARENTHESES.
- UNO, PROVIDE CONCRETE HOUSEKEEPING PADS FOR ALL FLOOR MOUNTED MEP EQUIPMENT, INCLUDING EQUIPMENT MOUNTED ON VIBRATION ISOLATORS, BASE RAILS AND CONCRETE INERTIA BASES. CONTRACTOR TO COORDINATE LOCATIONS AND SIZES. REFER TO DETAIL ON THIS SHEET.
- THE CONTRACTOR SHALL CONSULT THE ARCHITECTURAL, STRUCTURAL, ELECTRICAL, MECHANICAL, AND OTHER DRAWINGS RELATED TO THIS PROJECT FOR ADDITIONAL WORK TO BE PROVIDED.

DEMOLITION NOTES:

EACH CONTRACTOR SHALL VERIFY DEMOLITION SCOPE OF WORK WITH THE GENERAL CONTRACTOR AND OWNER PRIOR TO REMOVAL OF ANY EXISTING MEP ELEMENTS SHOWN ON THE PLANS TO BE REMOVED. ROOF, WALLS, AND FLOORS AFFECTED BY DEMOLITION ARE TO BE PATCHED/REPAIRED TO MATCH EXISTING STRUCTURE. PIPES, DUCTS, OR CONDUIT IN THE FLOOR, EMBEDDED IN CONCRETE, OR OTHERWISE INACCESSIBLE ARE TO BE CUT OFF AND SEALED BELOW OR WITHIN FLOOR OR WALL LEVEL. CONFIRM THE EXTENT OF DEMOLITION WITH THE GENERAL CONTRACTOR PRIOR TO BID AND INCLUDE IN BID PROPOSAL. AS DIRECTED, OWNER WILL DECONTAMINATE ALL EQUIPMENT, DUCTWORK, PIPING AND ASSOCIATED COMPONENTS, WHERE REQUIRED, PRIOR TO CONTRACTOR CUTTING AND REMOVING THESE MATERIALS.

PROJECT CODES

1. THE CODES APPLICABLE TO THE DESIGN ARE AS FOLLOWS:

- 2021 INTERNATIONAL BUILDING CODE (IBC)
- 2021 INTERNATIONAL BUILDING FIRE CODE (IFC)
- 2021 INTERNATIONAL FUEL GAS CODE (IFGC)
- 2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
- 2021 UNIFORM MECHANICAL CODE (UMC)
- 2021 UNIFORM PLUMBING CODE (UPC)

GENERAL M & P PIPING NOTES:

- PIPING IS NOT PERMITTED ABOVE ELECTRICAL AND TELECOMMUNICATIONS ROOMS.
- INSTALL ISOLATION VALVES AT ALL PIPING BRANCH TAPS (WATER, AIR, STEAM, ETC.). INCLUDE A UNION AT ALL THREADED VALVES TO ALLOW REMOVAL OR ADJUSTMENT.
- FLUSH AND CLEAN ALL NEWLY INSTALLED CHILLED WATER, CONDENSER WATER, HEATING WATER, AND STEAM PIPING AND STRAINERS PRIOR TO PUTTING SYSTEMS INTO SERVICE. CONTRACTOR TO SUBMIT FLUSHING PLAN INCLUDING PLAN DRAWINGS, PROPOSED EQUIPMENT AND CHEMICALS. VERIFY MINIMUM 10 FPS FLUSHING VELOCITIES WILL BE ACHIEVED IN ALL PIPE SIZES AND LINES. DO NOT FLUSH THROUGH EQUIPMENT. PROVIDE BYPASSES AND CONNECTIONS AS REQUIRED.
- INSTALL VALVES IN TOP HALF OF HORIZONTAL PIPING WITH VALVE STEMS INCLINED AT A MINIMUM OF 30 DEGREES OR ONE FLANGE BOLT HOLE ABOVE HORIZONTAL TO MINIMIZE DEBRIS COLLECTING AROUND THE VALVE STEM.
- WHEN JOINING DISSIMILAR METALS USE DIELECTRIC NIPPLES OR DIELECTRIC COUPLINGS FOR PIPING 2" AND SMALLER. USE DIELECTRIC FLANGE KITS ON LARGER PIPING. DIELECTRIC UNIONS ARE NOT ALLOWED. FOR PIPING SYSTEMS CONVEYING FLAMMABLE MATERIALS WHICH ARE REQUIRED BY CODE TO BE GROUNDED, INSTALL JUMPERS ACROSS DIELECTRIC FITTINGS AND FLANGES TO ENSURE A CONTINUOUS ELECTRICAL PATH.
- PROVIDE PIPE HANGERS OR SUPPORTS PER THE BUILDING CODE AND ANSISMS SP-58 FOR ROO SIZES AND SPACING, AND IN ACCORDANCE WITH THE VIBRATION ISOLATION SCHEDULE.
 - PROVIDE COATED OR COPPER PLATED HANGERS AND SUPPORTS FOR COPPER PIPING.
 - PLACE HANGER WITHIN TWELVE INCHES OF EACH HORIZONTAL ELBOW.
 - SUPPORTS, HANGERS, AND ASSOCIATED ATTACHMENTS TO STRUCTURAL SHALL BE DESIGNED BY THE CONTRACTOR'S STRUCTURAL ENGINEER. SUBMIT SHOP DRAWINGS AND CALCULATIONS STAMPED BY PROFESSIONAL ENGINEER FOR ALL INDIVIDUAL HANGER LOADS OVER 500 LBS. CALCULATIONS SHALL INCLUDE A 20% SAFETY FACTOR.
 - ALL HANGER ROOFS SHALL HAVE A DOUBLE NUT ABOVE AND BELOW THE CLEVIS HANGER OR TRAPEZE STRUCTURAL MEMBER.
 - ANCHORS TO BE INSTALLED IN EXISTING CONCRETE SHALL BE AN UNDERCUT STYLE, SUITABLE FOR BOTH CRACKED AND NON-CRACKED CONCRETE. ANCHORS SHALL BE TYPE 304 STAINLESS STEEL IN UNCONDITIONED SPACES AND GALVANIZED CARBON STEEL IN CONDITIONED SPACES, HILTI TYPE HDA OR EQUAL.
 - PIPE WEIGHT TO INCLUDE WEIGHT OF WATER AND INSULATION FOR CALCULATIONS.
- INERTIA BASES: INSTALL IN ACCORDANCE WITH THE VIBRATION ISOLATION SCHEDULE.
- APPLY ADHESIVE PLASTIC PIPE MARKERS WITH INFORMATION INDICATING FLOW DIRECTION ARROW AND FLUID IN PIPE. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. APPLY ON NEW PIPING AT 20 FT. INTERVALS AND AT EACH CHANGE IN DIRECTION.
- PROVIDE REDUCERS AT PIPING CONNECTIONS AS REQUIRED.
- PROVIDE AUTOMATIC HIGH POINT AIR VENTS AND LOW POINT MANUAL DRAINS. ROUTE AIR VENT DISCHARGE TO NEAREST FLOOR DRAIN.
- BRANCH PIPING SADDLE TAPS IN NEW PIPE SHALL BE LESS THAN 50% OF THE MAIN LINE SIZE.
- HOT TAPS ARE NOT ALLOWED UNLESS APPROVED BY THE OWNER. HOT TAPS SHALL BE LESS THAN 50% OF THE MAIN LINE SIZE AND SHALL BE MADE IN THE TOP HALF OF HORIZONTAL PIPING. TURN COUPLER OVER TO THE OWNER UPON COMPLETION OF EACH HOT TAP TO CONFIRM THAT IT IS NOT LOST IN THE PIPING SYSTEM.
- EXPANSIVE SOILS: SUPPORT UNDER-SLAB PIPING FROM THE SLAB ABOVE AND ISOLATE FROM MOVEMENT OF THE EXPANSIVE SOIL. USE FLEX JOINT TO CONNECT TO SITE PIPING OUTSIDE OF THE BUILDING.
- PRESSURE TEST ALL PIPING SYSTEMS PER APPLICABLE BUILDING AND ASME CODES.
- PUMPS:
 - USE ECCENTRIC REDUCERS FLAT ON TOP AT ALL HORIZONTAL PUMP SUCTION CONNECTIONS UNLESS NOTED OTHERWISE.
 - INCLUDE FLEX CONNECTORS AT ALL FLANGED PUMP CONNECTIONS EQUAL TO METRIFLEX "CABLESPHERE" WITH CABLE CONTROL UNITS.
 - CONDUIT SUCTION DIFFUSER ON END SECTION PUMP INLETS.
- THERMAL EXPANSION (SYSTEMS 140F AND ABOVE):
 - INSTALL FLEXIBLE U-BENDS EQUAL TO FLEX-HOSE TRI-FLEX LOOP, NO BELLOWS, JOINTS ALLOWED.
 - INSTALL ANCHORS AND GUIDES WHERE SHOWN ON THE PLANS. ATTACHMENT TO BUILDING STRUCTURE TO BE DESIGNED BY THE STRUCTURAL ENGINEER.
 - COMPENSATE FOR VERTICAL PIPE EXPANSION WHERE THE BOTTOM OF THE PIPE IS FIXED. THE FIRST THREE PIPE HANGERS AFTER THE 90 DEG ELB AT THE TOP OF THE RISER SHALL HAVE SPRING ISOLATORS WITH 2" DEFLECTION.
- VALVES:
 - ISOLATION OR OPEN/CLOSE: 2" & BELOW: FULL PORT BALL; >2" - LUG BODY BUTTERFLY.
 - BALANCING: ALL SIZES SHALL OR LUG BODY BUTTERFLY WITH MEMORY STOPS; GLOBE WHERE SPECIFICALLY SHOWN ON THE PLANS.
 - GATE AND GLOBE VALVES TO BE RISING STEM TYPE.
 - INCLUDE VALVES WITH EXTENDED STEM FOR USE IN INSULATED PIPING.
 - CONTROL VALVE BYPASS VALVE; GLOBE VALVE SIZED TO MATCH CONTROL VALVE.
 - ALL VALVES TO BE THREADED, FLANGED OR GROOVED, NO SOLDER ENDS.
 - ALL BUTTERFLY VALVES SHALL BE RATED FOR DEAD END SERVICE.
 - FURNISH CHAIN-WHEEL OPERATORS FOR VALVES 6 INCHES AND LARGER MOUNTED OVER 8 FEET ABOVE FLOOR.
 - LOCATE EQUIPMENT ISOLATION VALVES MINIMUM 7' AFF TO FLOOR ABOVE ADEQUATE ROOM FOR EQUIPMENT SERVICE/REMOVAL/REPLACEMENT.
- CHECK VALVES:
 - INSTALL WAFER CHECK VALVES AT VERTICAL PUMP DISCHARGE.
 - INSTALL SWING CHECK VALVES IN HORIZONTAL PIPING UNO.
 - INSTALL CHECK VALVES WITH 4 DIAMETERS STRAIGHT LENGTH UPSTREAM.
 - SIZE CHECK VALVES FOR 3.8 FPS VELOCITY.
- STRAINERS:
 - INCLUDE A SINGLE PRESSURE GAUGE WITH TAPS ON BOTH SIDES OF THE STRAINER TO INDICATE PRESSURE DROP ACROSS THE STRAINER.
 - INCLUDE BLOWDOWN VALVE WITH PIPE PLUG.
 - WHERE THERE IS A BYPASS AROUND A PUMP, INSTALL THE STRAINER UPSTREAM OF SPLIT. IF A SUCTION DIFFUSER IS USED, ALSO INSTALL A WYE STRAINER IN THE BYPASS.
 - WYE STRAINERS SHALL BE INSTALLED WITH THE WYE BELOW 45 DEG IN HORIZONTAL PIPE OR IN DOWNWARD FLOW IN VERTICAL PIPING.
 - PROVIDE ADEQUATE SPACE FOR REMOVAL OF STRAINER BASKETS.

MEP RESPONSIBILITY MATRIX

	FURNISH	INSTALL	POWER	CONTROL
EQUIPMENT HOUSEKEEPING PADS	ALL	ALL	120V & UP	24V
INERTIA BASES	MC	MC		
HANGERS & SUPPORTS, INCLUDING DESIGN	ALL	ALL		
DUCT SMOKE DETECTORS	MC	MC	EC	CC/FA
VFD'S - FWE	FWE	FWE	EC	CC
VFD'S - NOT FWE	MC	EC	EC	CC
STARTERS, DISCONNECTS - FWE	FWE	FWE	EC	CC
STARTERS, DISCONNECTS - NOT FWE	EC	EC	EC	CC
HEAT TRACE	MC	MC	EC	
HVAC TERMINAL UNITS (120V W/ 24V XFMR)	MC	MC	EC	CC
VALVES WITH ACTUATORS	CC	MC	EC	CC
DAMPERS - FWE - PACKAGED EQUIPMENT	FWE	FWE		FWE
DAMPERS - FWE - AHUS	FWE	FWE		CC
DAMPERS - SEPARATE FROM EQUIPMENT	CC	MC		CC

- NOTES:
- FOLLOW THE RESPONSIBILITIES SHOWN ABOVE UNLESS NOTED OTHERWISE ON THE PLANS.
 - ABBREVIATIONS:
 - FA: FIRE ALARM CONTRACTOR
 - MC: MECHANICAL CONTRACTOR
 - EC: ELECTRICAL CONTRACTOR
 - CC: CONTROLS CONTRACTOR



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DRAWN BY: JA
REVIEWED BY: MM
DATE: 04/29/2024
PROJECT NO: 22-0227.001

DRAWING NAME
MEP GENERAL NOTES

GENERAL MECHANICAL NOTES:

- 1. COORDINATE LOCATION OF AIR DEVICES WITH ARCHITECTURAL REFLECTED CEILING PLANS. TO ACHIEVE THE BEST COMBINATION OF PERFORMANCE AND AESTHETICS, THE FINAL LOCATIONS OF AIR DEVICES SHALL BE DETERMINED FROM THE ARCHITECTURAL REFLECTED CEILING PLANS. NO CHANGES TO AIR DEVICE LOCATIONS SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE ARCHITECT AND ENGINEER. SPRAY PAINT INTERIOR OF DUCTWORK BEHIND OR ABOVE AIR DEVICES TO 1/2" INSIDE DUCTWORK OPENING WITH FLAT BLACK PAINT TO OBSCURE DUCT INTERIOR. LOCATE LOUVERED RETURN GRILLE BLADES SUCH THAT VISION INTO DUCT INTERIOR IS RESTRICTED.
2. ALL DUCT SIZES ARE INSIDE CLEAR DIMENSIONS IN INCHES.
3. BALANCING DAMPERS ARE REQUIRED AT ALL SUPPLY, RETURN, AND EXHAUST BRANCH CONNECTIONS. REMOTE DAMPER OPERATOR FOR ALL DAMPERS LOCATED ABOVE HARD OR INACCESSIBLE CEILINGS.
4. FLEX DUCT AND ROUND CONNECTIONS TO MAIN DUCT OR BRANCH DUCTS SHALL BE MADE VIA SPIN-IN OR DOWE-TAILED CONICAL TAPS WITH DAMPERS. ALL RECTANGULAR DUCT BRANCHES TAP TO BE MADE WITH 45 DEG SMCNA TAP FITTING.
5. ROUTE ALL SUPPLY AIR DUCT TIGHT TO STRUCTURE UNLESS OTHERWISE NOTED. MAKE TRANSITIONS FLAT ON TOP.
6. FURNISH AND INSTALL ALL MITERED ELBOWS WITH TURNING VANES. RADIUS RECTANGULAR ELBOWS SHALL HAVE CENTER LINE RADIUS TO WIDTH RATIO (RW) OF 1.5 UNLESS OTHERWISE SPECIFIED. ALL ROUND ELBOWS SHALL HAVE A CENTERLINE RADIUS TO DIAMETER RATIO (RD) OF 1.5 UNLESS SHORT RADIUS ELBOWS ARE CALLED FOR ON THE PLANS IN WHICH CASE THE RD RATIO SHALL BE 1.0.
7. FLEXIBLE DUCTS SHALL NOT EXCEED 5' IN LENGTH. DUCT SHALL HAVE AN INTERNAL DIMENSION EQUAL TO THE CONNECTING ROUND DUCT DIMENSION.
8. INSULATE EXTERIOR OF ALL SUPPLY AIR DIFFUSERS.
9. FLEXIBLE COLLARS SHALL BE FURNISHED AND INSTALLED AT ALL CONNECTIONS BETWEEN VIBRATING EQUIPMENT (FANS, AIR HANDLERS, ROOFTOP UNITS, ETC.) AND DUCTS OR CASINGS. ALSO FURNISH AND INSTALL FLEXIBLE CONNECTIONS WHERE DUCTS CROSS BUILDING EXPANSION JOINTS.
10. LINED RETURN AIR TRANSFER BOOT SHALL BE INSTALLED THROUGH WALLS AS REQUIRED TO PROVIDE A CONTINUOUS RETURN AIR PATH TO THE AIR HANDLING UNITS.
11. PROVIDE FIRE DAMPERS, SMOKE DAMPERS, AND COMBINATION FIRE/SMOKE DAMPERS WHERE SHOWN ON THE PLANS AND WHERE DUCTWORK PENETRATES FLOORS, FIRE WALLS AND HVAC CHASSES REQUIRING PROTECTION IF NOT OTHERWISE SHOWN. ALL FIRE DAMPERS SHALL HAVE A 1.5 HOUR RATING UNLESS NOTED OTHERWISE. ENDS OF DAMPER SHAFTS SHALL BE SCORED TO INDICATE OPEN/CLOSED POSITION. PROVIDE FSDS WITH OPTIONAL NO-FLOW RATED DUCT SMOKE DETECTOR. INSTALL FDS, SDs AND FSDS IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS IN ORDER TO MAINTAIN THEIR UL LISTING. PROVIDE, INSTALL AND LABEL MINIMUM 1/4" X 1/4" DUCT ACCESS DOORS WITHIN 12" OF ALL FD, SD, AND FSD LOCATIONS.
12. INSTALL WALL LOUVERS AND CONNECTING DUCTWORK PER MANUFACTURERS INSTRUCTIONS. PITCH BOTTOM OF CONNECTING DUCT OR PLENUM TO OUTSIDE WHERE IT CONNECTS TO THE LOUVER SO THAT ANY MOISTURE CARRYOVER WILL DRAIN TO OUTSIDE. INSTALL 12" WIDE ACCESS DOOR HALF THE HEIGHT OF THE DUCT, MINIMUM 12" HIGH, WITHIN 6" OF THE LOUVER UNLESS NOTED OTHERWISE ON THE PLANS.
13. DUCTWORK AND ROOFTOP EQUIPMENT ACCESSORIES SHALL BE SECURED TO STRUCTURE TO WITHSTAND THE SAME WIND LOADING REQUIREMENTS AS THE ROOF CURB AND EQUIPMENT.
14. SUBMIT SAMPLES OF CONTRACTOR-FABRICATED WELDED DUCT SYSTEMS.
15. INSULATE HOT WATER COIL CASING AT EACH VAV TERMINAL UNIT.
16. INSTALL A NEW SET OF AIR FILTERS ON ALL APPLICABLE EQUIPMENT AT COMPLETION OF PROJECT.
17. COORDINATE HOUSEKEEPING PAD HEIGHTS WITH CONDENSATE P-TRAP.
18. PROVIDE SECONDARY CONDENSATE DRAIN PAN AND FLOAT SWITCH FOR EQUIPMENT WITH COOLING COILS SUSPENDED ABOVE CEILING. WITH FLOAT SWITCH WIRED TO SHUT OFF UNIT.
19. A NEBB, TABB, OR ABC CERTIFIED CONTRACTOR SHALL BALANCE ALL AIRSIDE AND WATERSIDE SYSTEMS, INCLUDING ROOM PRESSURE CASCADE DIFFERENTIAL PRESSURES, TO WITHIN +10%/ -9% OF THE QUANTITIES AND FLOW RATES SHOWN ON THE DRAWINGS. FURNISH A CERTIFIED TESTING AND BALANCING REPORT TO THE ENGINEER FOR REVIEW AND APPROVAL.
20. PROVIDE AND INSTALL A LABEL ON THE CEILING GRID OR WALL, DIRECTLY UNDER OR ADJACENT TO ALL CONCEALED MECHANICAL EQUIPMENT, ISOLATION VALVES, AND CONTROL DEVICES. THE LABEL SHALL CONTAIN EQUIPMENT TAG NUMBER AND POWER SOURCE (IF APPLICABLE), ISOLATION VALVE SIZE AND SYSTEM, OR CONTROL ELEMENT IDENTIFICATION NUMBER.

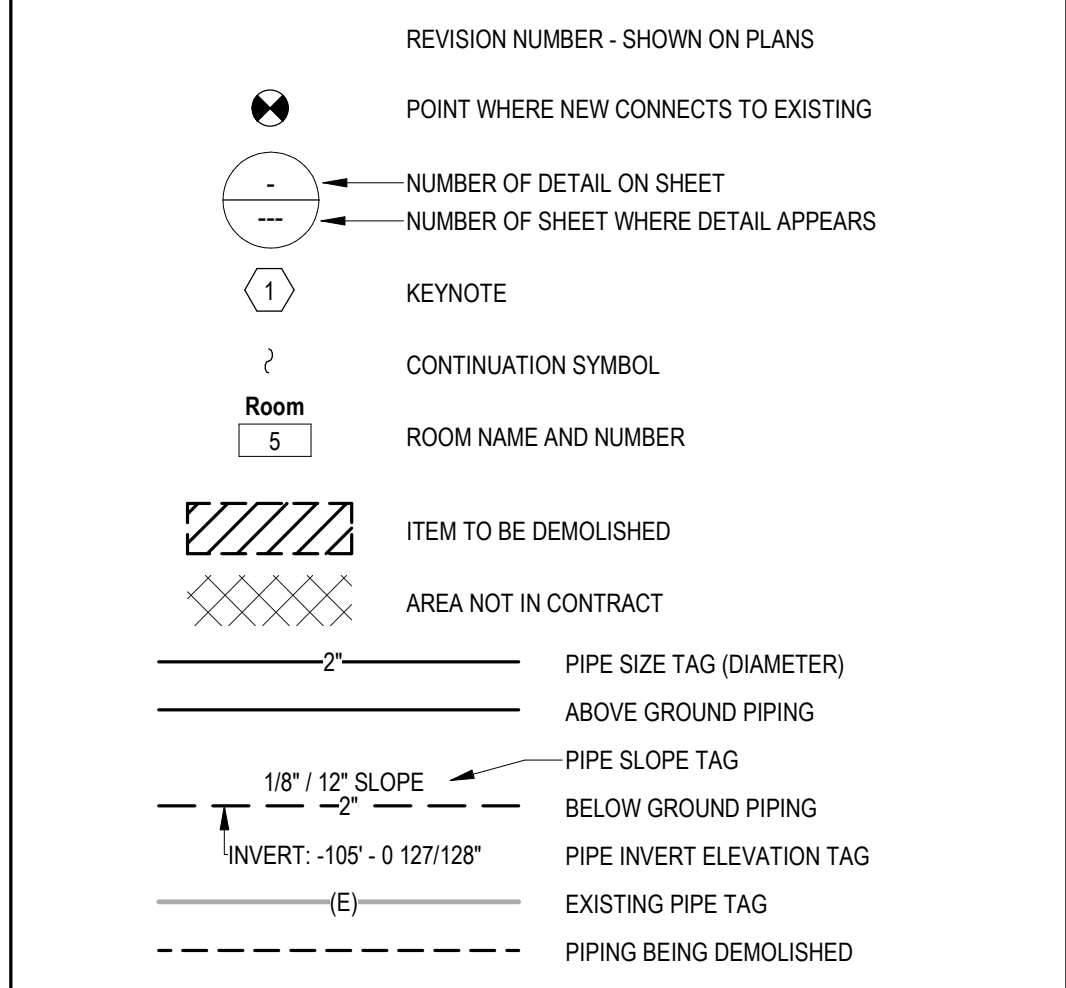
GENERAL CONTROLS NOTES:

- 1. ACTUATOR (UNLESS NOTED OR SHOWN OTHERWISE ON THE PLANS):
A. MODULATING ACTUATORS TO FAIL IN PLACE (AS IS)
B. TWO POSITION ACTUATORS SHALL FAIL AS SHOWN ON PLANS.
C. CONTROL SIGNAL: 4-20mA
2. CONTROL VALVES:
A. SEE COIL SCHEDULES FOR FLOW RATES.
B. PROVIDE 2-WAY MODULATING VALVES UNLESS SHOWN OTHERWISE ON THE PLANS.
C. CONTROL VALVE SIZING CRITERIA
1) HYDRONIC: 4-7 PSIG DP (BASED ON 20 PSI DIFFERENTIAL PRESSURE BETWEEN THE SUPPLY AND RETURN SYSTEM CONNECTIONS)
2) STEAM (PIPLET <= 10 PSIG): PIOUTLET = 0 PSIG
3) STEAM (PIPLET > 10 PSIG): DP = 0.45 PSI PISA
3. CONTROLS CONTRACTOR TO REVIEW ELECTRICAL DRAWINGS FOR ADDITIONAL BAS INTEGRATION REQUIREMENTS INCLUDING PROVISIONS IN DDC PANEL LOCATIONS AND POWER.
4. BAS CONTROL PANELS AND SYSTEM COMPONENTS TO MEET APPROPRIATE UL LISTING.
5. VFD COMMUNICATIONS CARDS SHALL BE COMPATIBLE WITH BAS.
6. PROVIDE DIFFERENTIAL PRESSURE SENSORS IN LIEU OF CTS FOR FAN RUN STATUS UNLESS OTHERWISE NOTED.
7. ALL NEW THERMOSTATS SHOWN SHALL BE ELECTRONIC, PROGRAMMABLE TYPE CAPABLE OF TIME-OF-DAY SCHEDULING WITH MINIMUM OF 7 DAY PROGRAMS AND 4 CYCLES PER DAY, AUTOMATIC HEATING/COOLING CHANGEOVER, AND SETPOINT CONTROL. INCLUDE WFI CAPABILITY WHERE SHOWN ON PLANS.
8. EACH VAV TERMINAL UNIT AND FAN COIL UNIT SHALL BE CONTROLLED BY A SEPARATE TEMPERATURE SENSOR/THERMOSTAT.
9. ALL WALL MOUNTED ROOM THERMOSTATS SHALL BE LOCATED 48" A.F.F. SO LONG AS OBSTRUCTIONS ARE 20" DEEP OR LESS. ALL OTHER CONDITIONS TO BE REVIEWED. THEY SHALL BE CENTERED ADJACENT TO LIGHT SWITCHES WHERE BOTH OCCUR IN THE SAME LOCATION. WHERE LOCATED ON COLUMN, THERMOSTAT SHALL BE CENTERED. TEMPERATURE SENSORS SHALL BE MOUNTED AT 70" A.F.F. SENSORS MOUNTED ON EXTERIOR COLUMNS SHALL BE MOUNTED ON INSULATED BASES. CONFIRM EXACT LOCATIONS OF THERMOSTATS WITH OWNER. THE MECHANICAL CONTRACTOR IS TO COORDINATE WITH THE OWNER AND PROGRAM ALL THERMOSTATS TO OWNER'S SPECIFIC SCHEDULE (IF APPLICABLE).

GENERAL MECHANICAL DEMO NOTES:

- 1. EXISTING EQUIPMENT, DUCTWORK & PIPING LOCATIONS AND SIZES HAVE BEEN OBTAINED FROM ORIGINAL CONSTRUCTION DRAWINGS AND FIELD INVESTIGATIONS AND ARE SCHEMATIC IN NATURE. FIELD VERIFY LOCATIONS AND SIZES.
2. ITEMS SHOWN LIGHT ARE EXISTING TO REMAIN. ITEMS SHOWN BOLD AND DASHED ARE EXISTING TO BE REMOVED.
3. DEMOLITION OF ALL PIPING AND DUCTWORK SHALL INCLUDE ALL SUPPORTS, HANGERS, INSULATION, THERMOSTATS, AND FIRE DAMPERS UNLESS OTHERWISE NOTED.
4. REMOVE ALL HVAC, CHILLED WATER, HEATING WATER, STEAM, AND STEAM CONDENSATE SYSTEMS IN THEIR ENTIRETY, INCLUDING MATERIALS AND APPURTENANCES, UNLESS NOTED OTHERWISE ON THE PLANS. WHERE CONTRACT DRAWINGS INDICATE SPECIFIC MATERIALS OR DEVICES TO BE REMOVED, THIS IS TO BE UNDERSTOOD AS AN AID IN IDENTIFYING MECHANICAL SYSTEMS, NOT A LIMIT TO THE SCOPE.
5. REMOVE MECHANICAL EQUIPMENT AND RETURN TO OWNER FOR RIGHT OF FIRST REFUSAL. DELIVER ACCEPTED ITEMS TO OWNER DESIGNATED LOCATION. ITEMS NOT KEPT BY OWNER SHALL BE STORED AND DISPOSED OF OFF SITE ACCORDING TO LOCAL REGULATIONS.
6. REFER TO ELECTRICAL DRAWINGS FOR INFORMATION ON ELECTRICAL DEMO.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND FINISHES NOT BEING REPLACED OR REMOVED.

GENERAL MECHANICAL SYMBOLS



ABBREVIATIONS

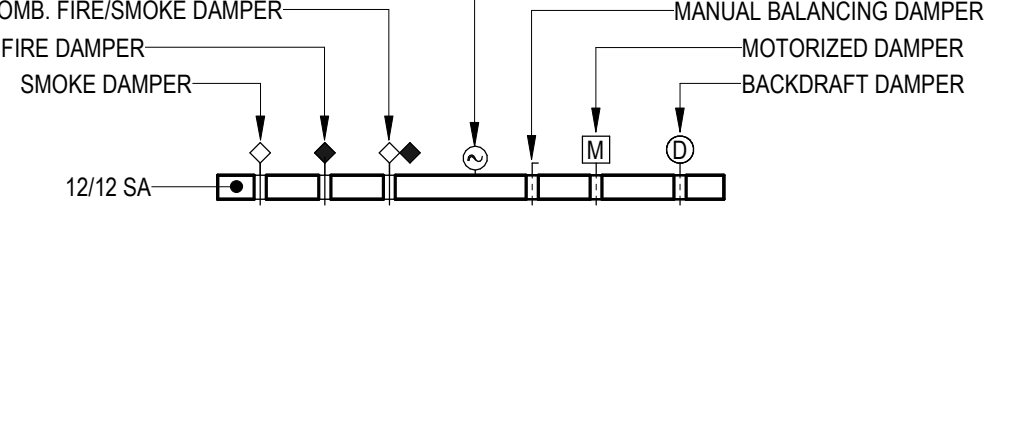
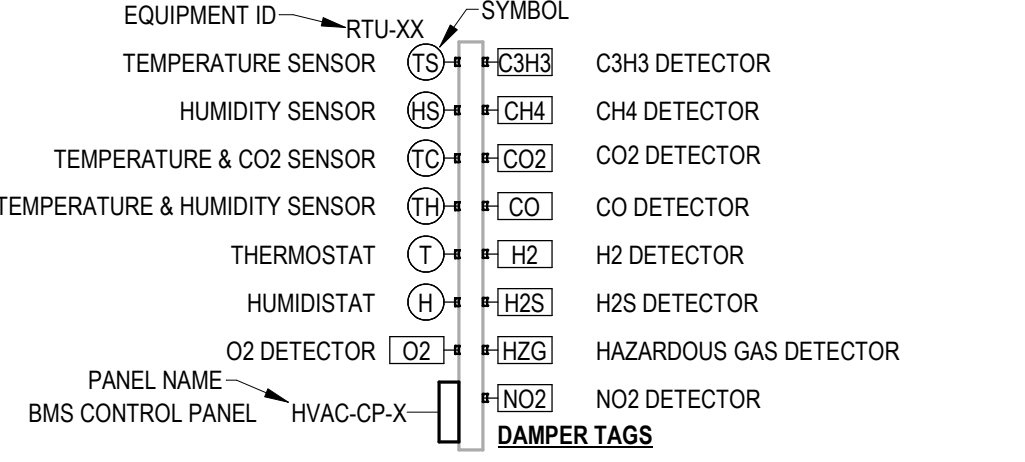
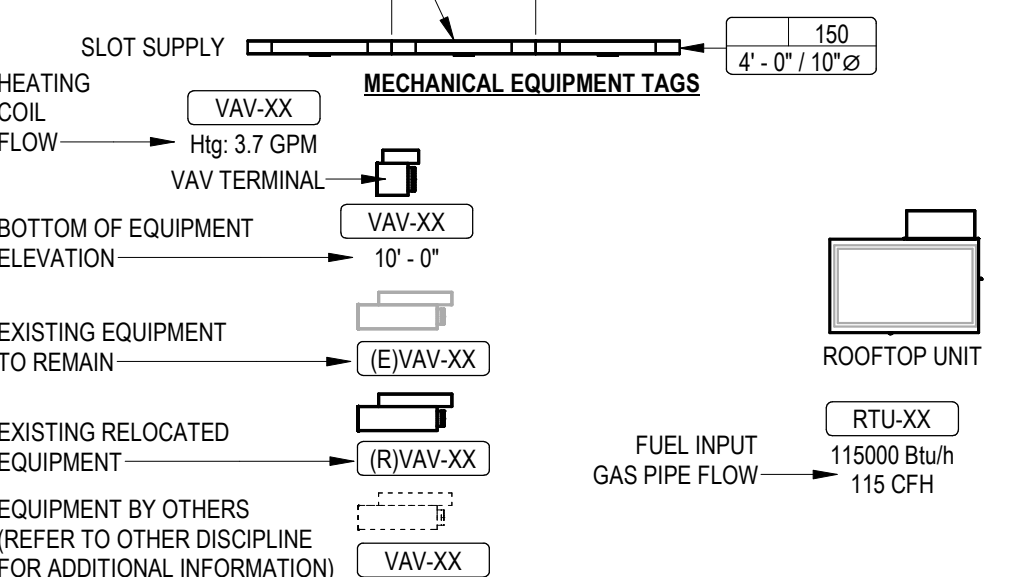
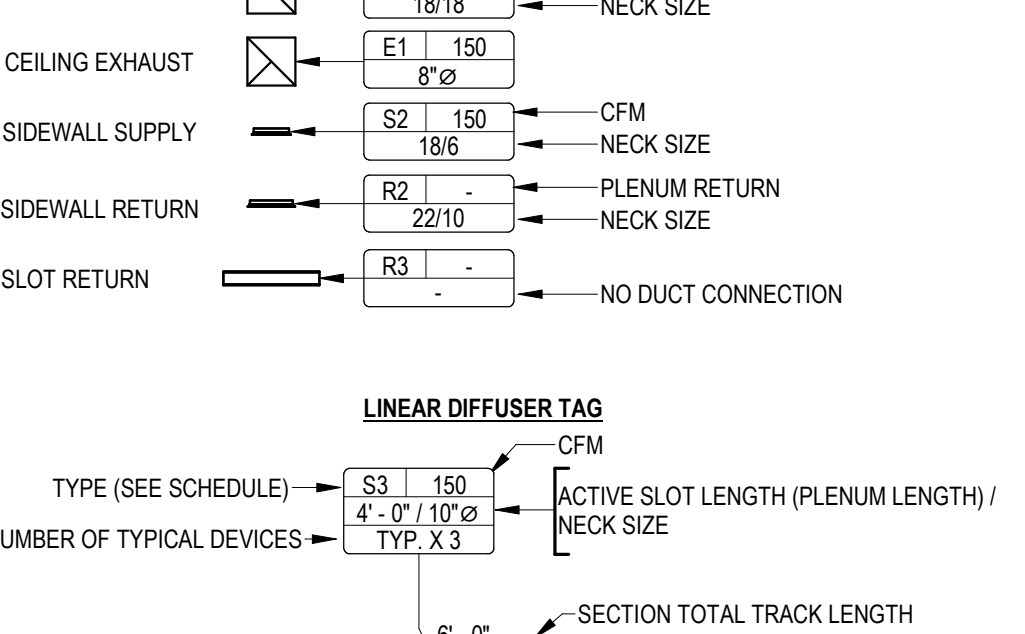
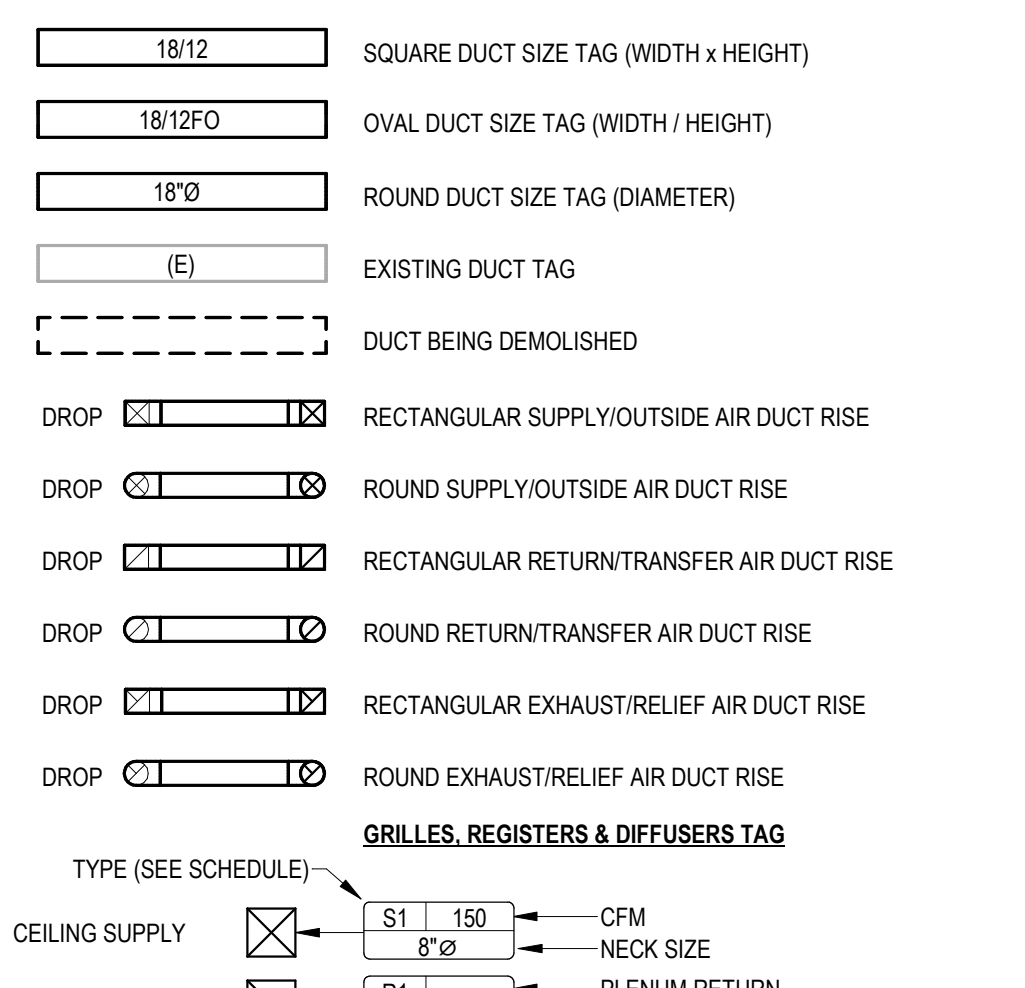
Table with two columns listing abbreviations and their full names. Includes terms like ROUND, AIR CONDITIONING, AREA DRAIN, etc.

EQUIPMENT ABBREVIATIONS

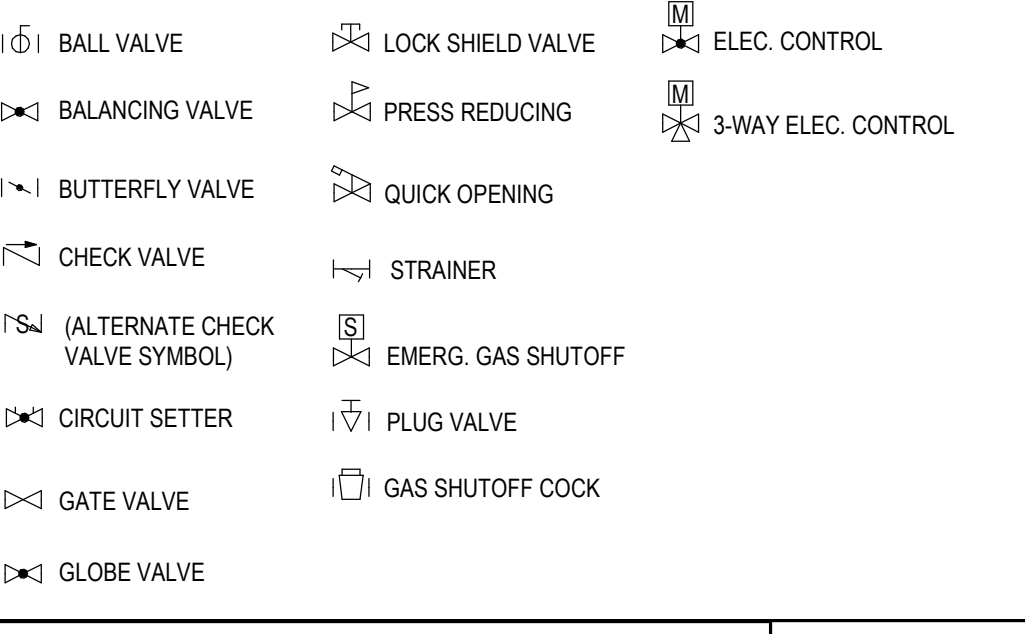
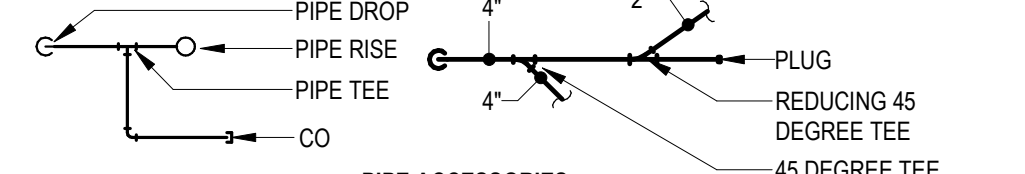
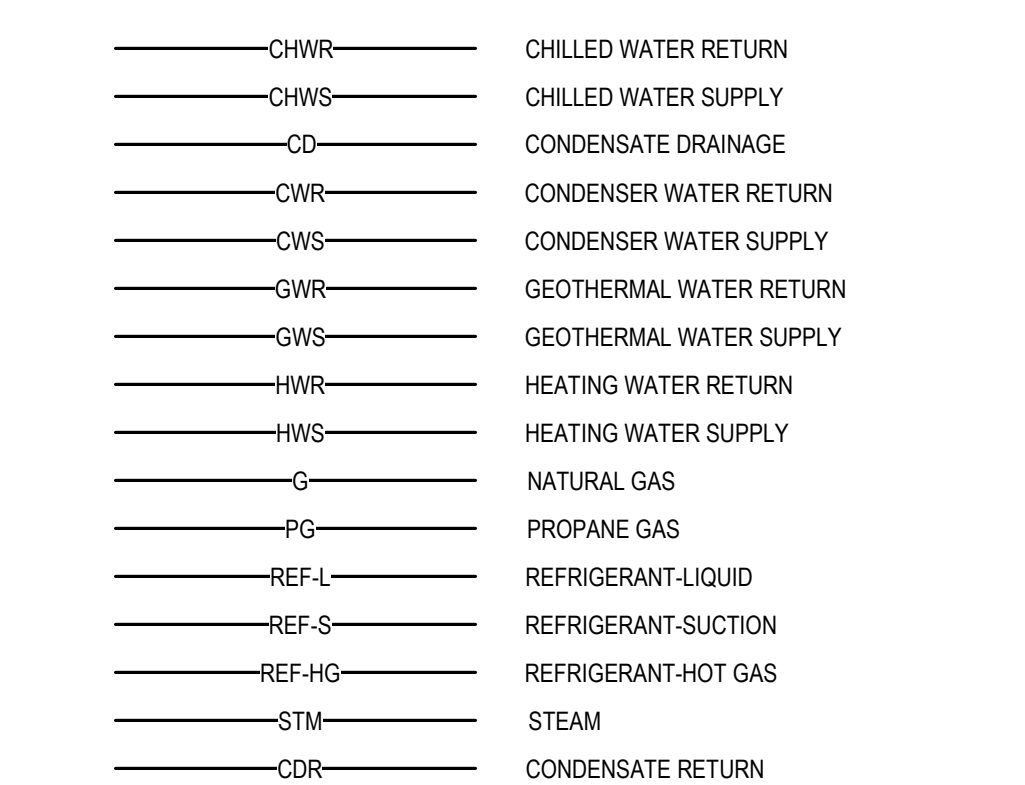
Table with two columns listing equipment abbreviations and their full names. Includes terms like AIR CONDITIONING UNIT, AIR COOLING CONDENSING UNIT, etc.

* NOTE *
ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET. THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

HVAC SYMBOLS



PIPING SYMBOLS



HVAC SHEET INDEX

Table listing HVAC sheet index items such as MEP-000, M-001, M-101, M-101A, M-101B, M-101C, M-101D, M-101E, M-101F, M-101G, M-101H, M-101I, M-101J, M-101K, M-101L, M-101M, M-101N, M-101O, M-101P, M-101Q, M-101R, M-101S, M-101T, M-101U, M-101V, M-101W, M-101X, M-101Y, M-101Z, M-201, M-202, M-203, M-204.

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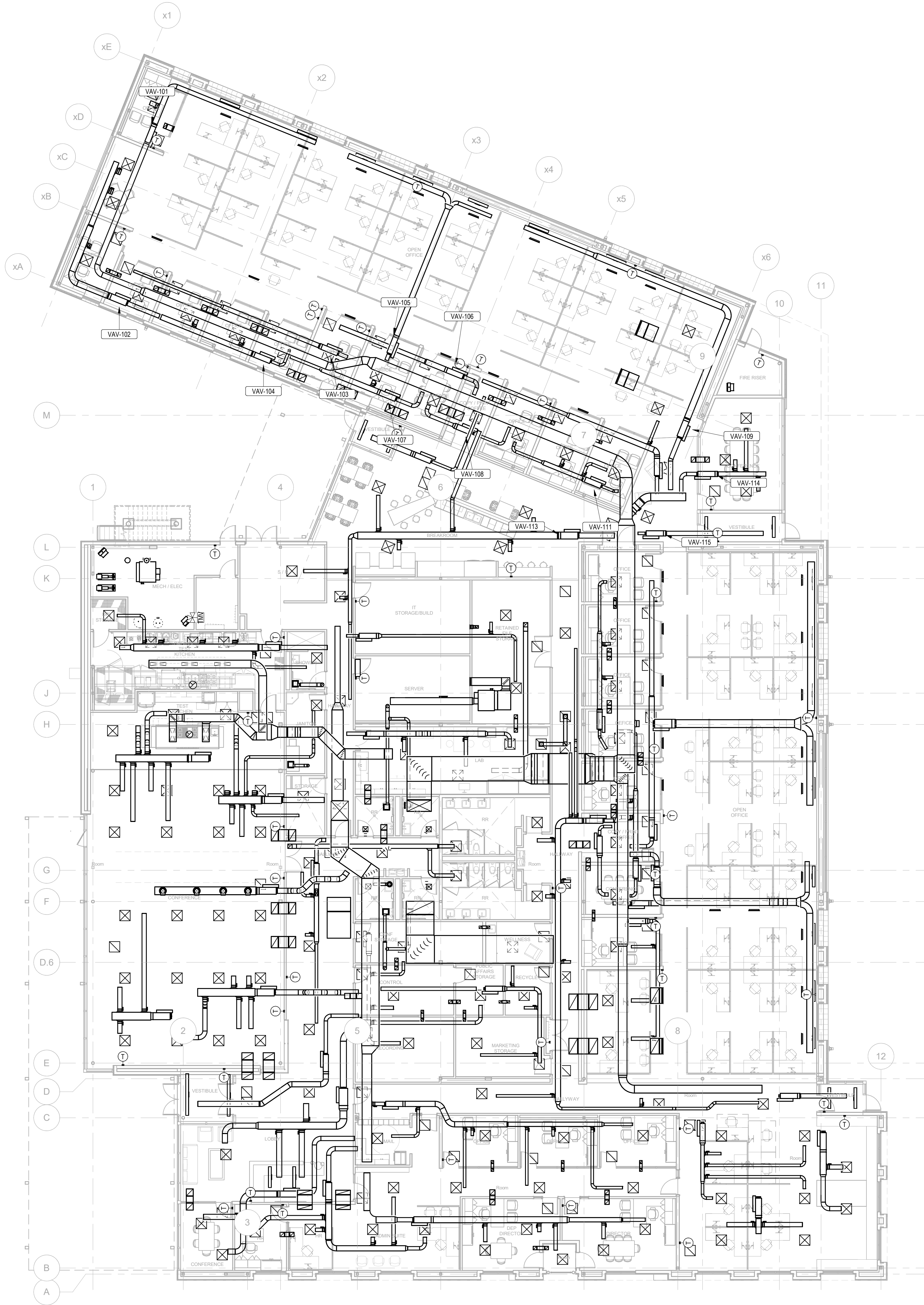
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PROJECT. MEP-000 MEP GENERAL NOTES & LEGENDS. M-001 MECHANICAL HVAC PLAN. M-101 MECHANICAL HVAC PLAN - AREA A. M-101A MECHANICAL HVAC PLAN - AREA A. M-101B MECHANICAL HVAC PLAN - AREA B. M-101C MECHANICAL PIPING PLAN. M-101D MECHANICAL ROOF PLAN. M-101E MECHANICAL DIAGRAMS. M-101F MECHANICAL SCHEDULES. M-101G MECHANICAL SCHEDULES. M-101H MECHANICAL SCHEDULES. M-101I MECHANICAL SCHEDULES. M-101J MECHANICAL SCHEDULES. M-101K MECHANICAL SCHEDULES. M-101L MECHANICAL SCHEDULES. M-101M MECHANICAL SCHEDULES. M-101N MECHANICAL SCHEDULES. M-101O MECHANICAL SCHEDULES. M-101P MECHANICAL SCHEDULES. M-101Q MECHANICAL SCHEDULES. M-101R MECHANICAL SCHEDULES. M-101S MECHANICAL SCHEDULES. M-101T MECHANICAL SCHEDULES. M-101U MECHANICAL SCHEDULES. M-101V MECHANICAL SCHEDULES. M-101W MECHANICAL SCHEDULES. M-101X MECHANICAL SCHEDULES. M-101Y MECHANICAL SCHEDULES. M-101Z MECHANICAL SCHEDULES. M-201 MECHANICAL CONTROLS. M-202 MECHANICAL CONTROLS. M-203 MECHANICAL CONTROLS. M-204 MECHANICAL CONTROLS.

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REVISIONS. DRAWN BY: JA. REVIEWED BY: MM. DATE: 04/29/2024. PROJECT NO: 22-0227-001. DRAWING NAME: MECHANICAL GENERAL NOTES & LEGENDS.

SHEET NO. M-001



MECHANICAL SHEET NOTES

A. REFER TO MEP-000, M-001 AND PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

KEYNOTES

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DRAWN BY JA
 REVIEWED BY MM
 DATE 04/29/2024
 PROJECT NO 22-0227.001

DRAWING NAME
**MECHANICAL
 HVAC PLAN**

SHEET NO
MH101

4/25/2024 4:59:47 PM

NORTH
A1 MECHANICAL HVAC PLAN
 1" = 10'-0"

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DRAWING NAME

**MECHANICAL
HVAC PLAN -
AREA B**

SHEET NO

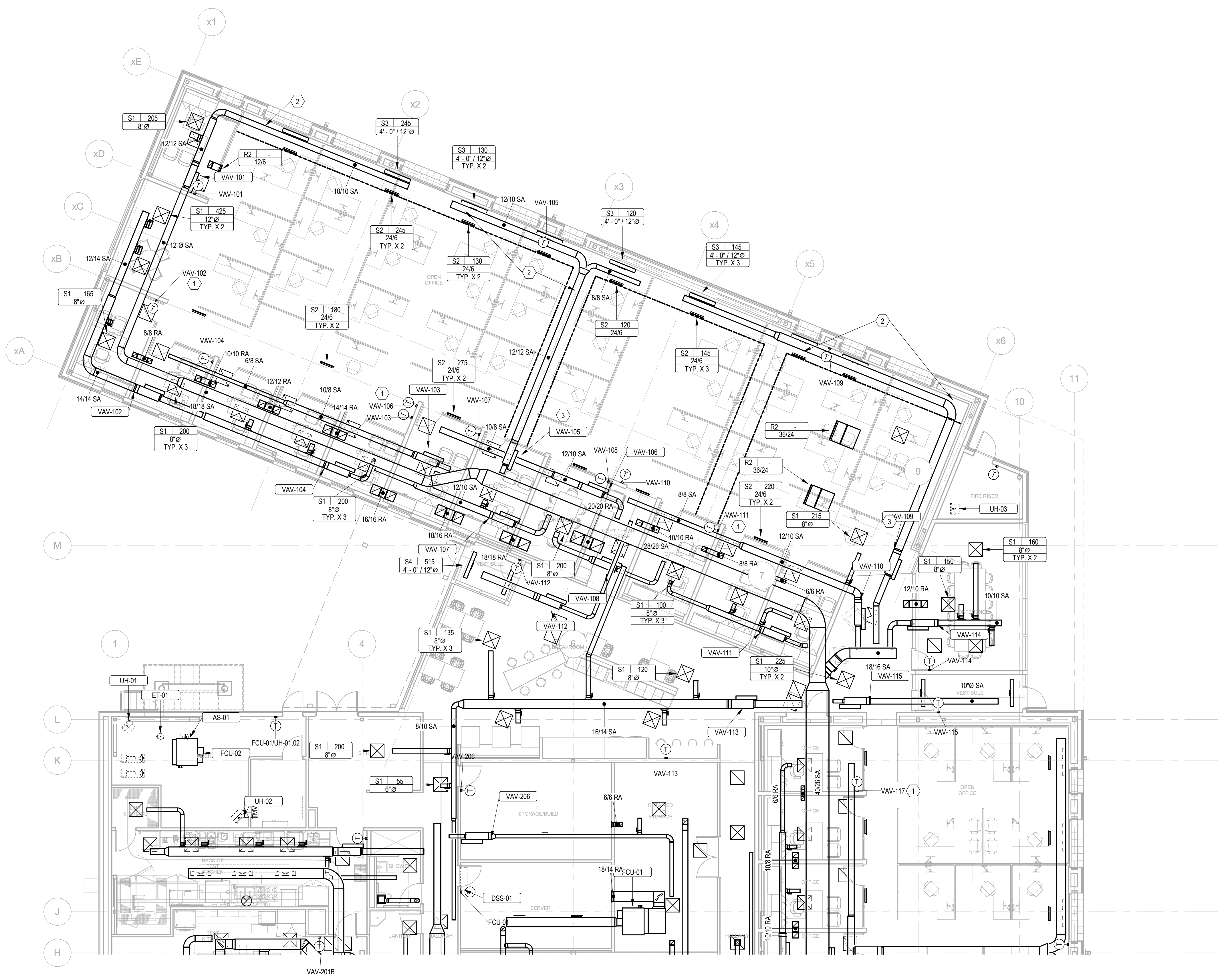
MH101B

MECHANICAL SHEET NOTES

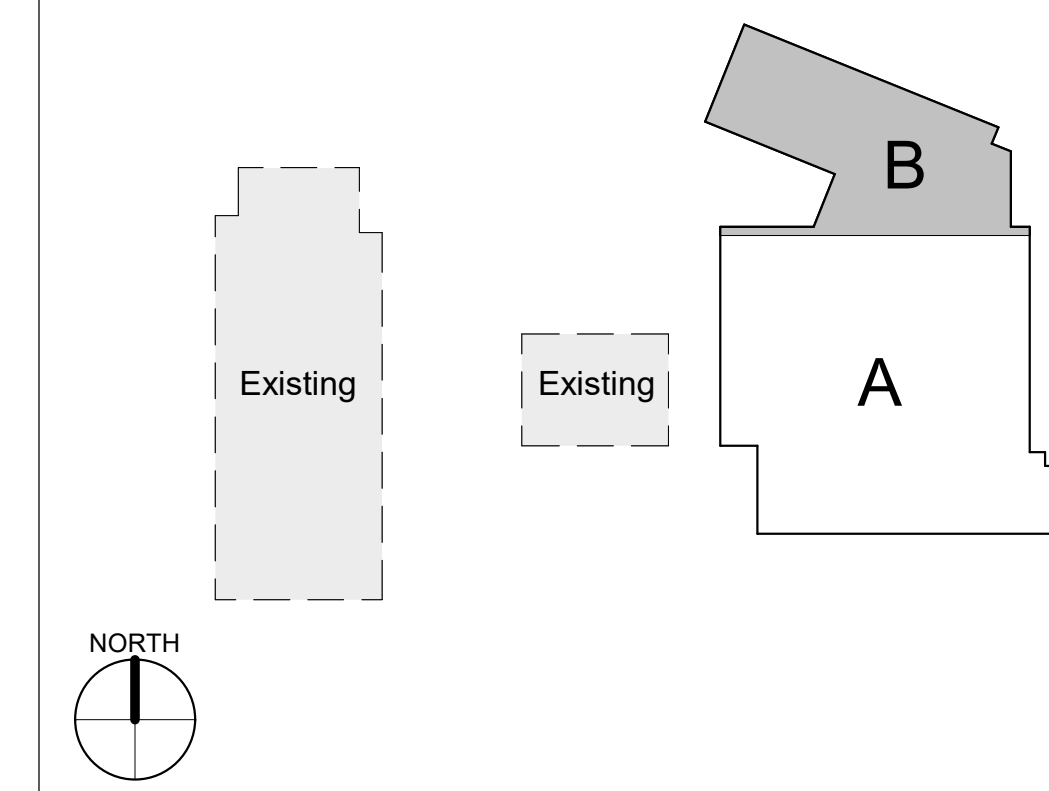
A. REFER TO MEP-000, M-001 AND PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

KEYNOTES

- 1 MOUNT THERMOSTAT IN APPROXIMATE LOCATION. COORDINATE FINAL MOUNTING LOCATION WITH OWNER AND ARCHITECT. MOUNT ACCORDING TO ADA STANDARDS TYPICAL.
- 2 ROUTE SUPPLY AIR DUCT IN SOFFIT.
- 3 MOUNT VAV BOX WITHIN SOFFIT.



KEY PLAN



A1 MECHANICAL HVAC PLAN - AREA B
1/8" = 1'-0"

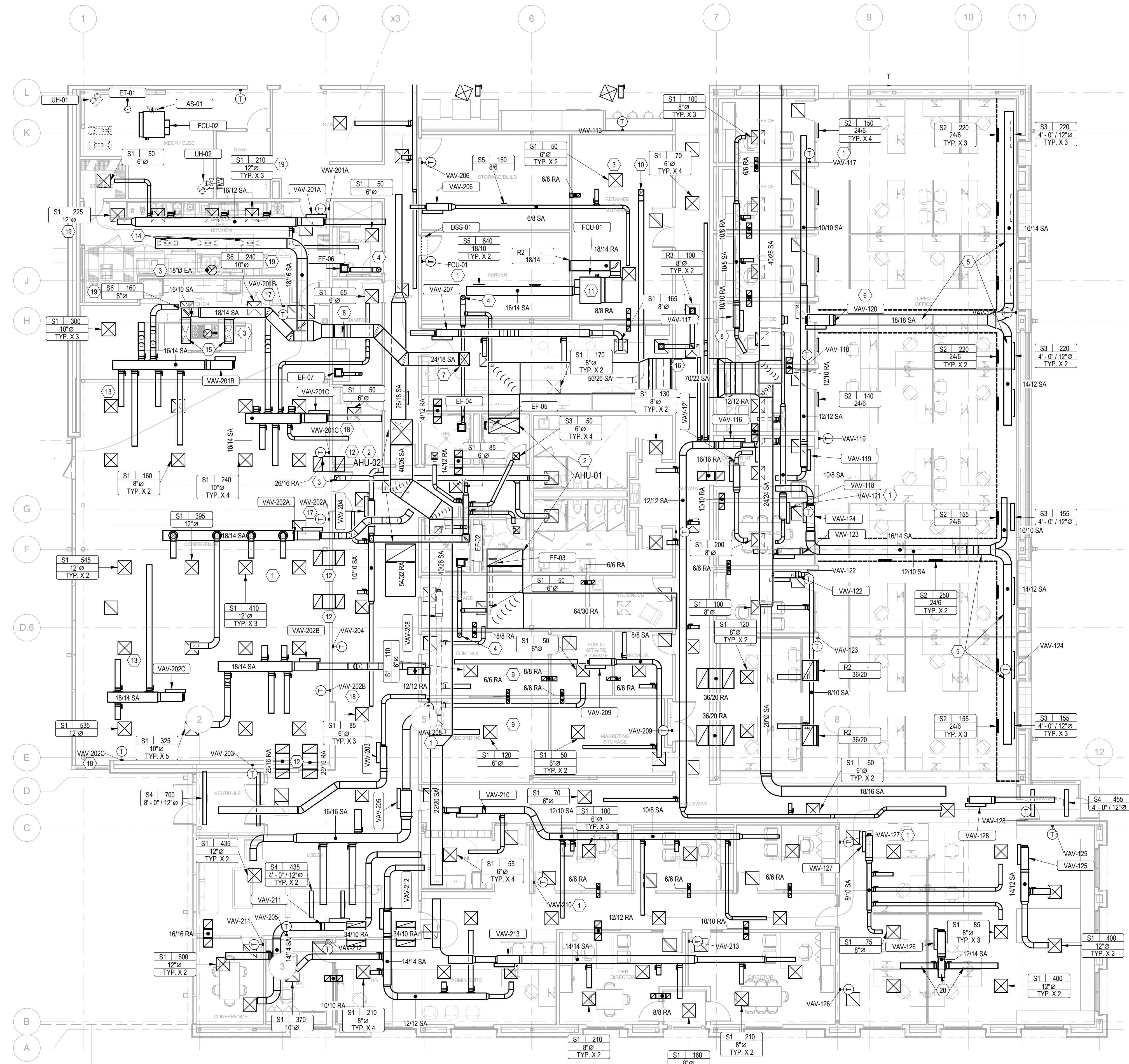
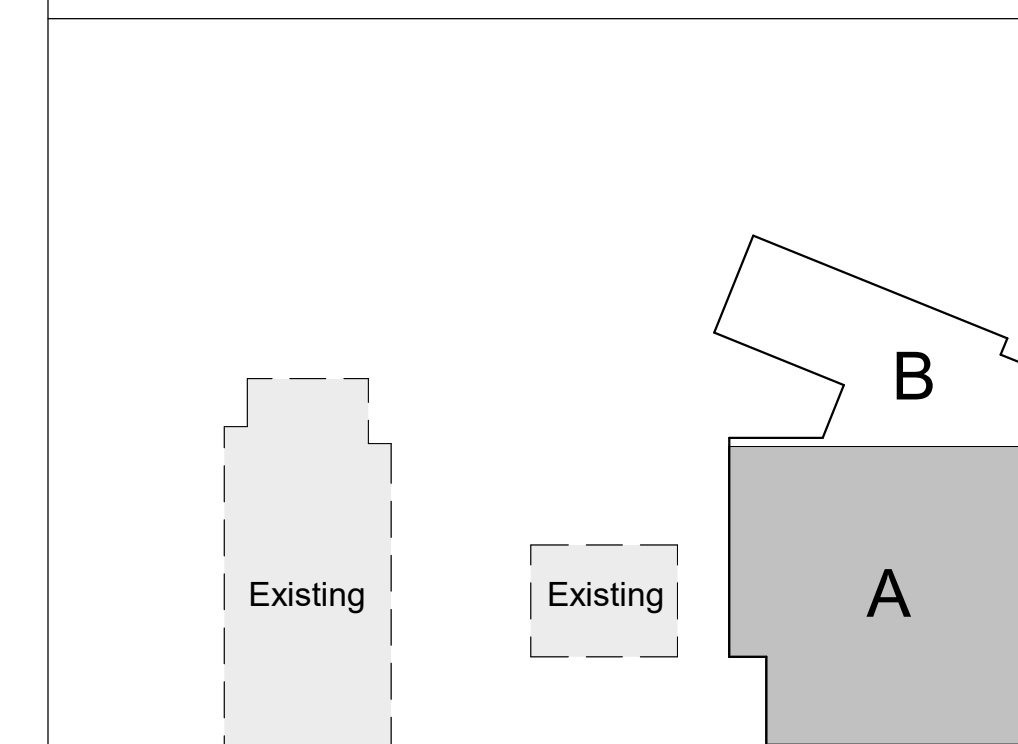
MECHANICAL SHEET NOTES

- A. REFER TO MEP-000, M-001 AND PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

KEYNOTES

- 1 MOUNT THERMOSTAT IN APPROXIMATE LOCATION. COORDINATE FINAL MOUNTING LOCATION WITH ARCHITECT AND OWNER. MOUNT ACCORDING TO ADA STANDARDS.
- 2 ROUTE SUPPLY AND RETURN AIR DUCTS DOWN FROM THE AHU. TRANSITION DUCT AS NEEDED.
- 3 ROUTE EXHAUST AIR DUCT UP TO EXHAUST FAN ON THE ROOF. TRANSITION DUCT AS NEEDED.
- 4 ROUTE EXHAUST AIR DUCT UP TO THE ROOF. PROVIDE A ROOF CAP.
- 5 ROUTE SUPPLY AIR DUCT IN SOFFIT.
- 6 MOUNT VAV BOX WITHIN SOFFIT. PROVIDE ACCESS PANEL IN SOFFIT FOR VAV CONTROL BOX AND HEATER PANEL CLEARANCE.
- 7 ROUTE THE MAKE UP AIR DUCT DOWN FROM APPROXIMATE LOCATION. TRANSITION AS NEEDED.
- 8 ROUTE SUPPLY AIR DUCT UNDER STRUCTURAL BEAM IN APPROXIMATE LOCATION.
- 9 ADDITIONAL ACOUSTIC TREATMENTS REQUIRED FOR HVAC EQUIPMENT ABOVE CONTROL AND RECORDING ROOMS. PROVIDE VAVS SERVING THESE SPACES WITH DISCHARGE SILENCERS. PROVIDE ACOUSTIC BARRIER MATERIAL (TYPE ABM) ON ALL DUCTWORK ABOVE AND WITHIN 5' OF ROOM EXTENTS.
- 10 EXHAUST FAN TO MAINTAIN NEGATIVE PRESSURE IN LAB. FAN TO RUN CONTINUOUSLY DURING OCCUPIED AND UNOCCUPIED HOURS.
- 11 CHILLED WATER FAN COIL UNIT FOR PRIMARY COOLING TO SERVER ROOM. MINSPLIT TO PROVIDE SECONDARY COOLING.
- 12 COORDINATE THE LOCATION OF THE RETURN AIR BOOTS WITH THE STRUCTURE MEMBERS.
- 13 ROUTE THE BRANCH DUCTS THROUGH THE STRUCTURAL MEMBERS IN THE DEMO KITCHEN/CONFERENCE SPACE. TYPICAL.
- 14 PROVIDE CONNECTIONS FROM MAU DUCT TO DITCHEN HOOD. COORDINATE FINAL CONNECTIONS POINTS IN FIELD WITH KITCHEN HOOD APPLIANCES. BALANCE EACH CONNECTION TO APPROXIMATELY 380 CFM.
- 15 PROVIDE CONNECTIONS FROM MAU DUCT TO DITCHEN HOOD. COORDINATE FINAL CONNECTIONS POINTS IN FIELD WITH KITCHEN HOOD APPLIANCES. BALANCE EACH CONNECTION TO APPROXIMATELY 380 CFM.
- 16 ROUTE MAIN SUPPLY DUCT UPDATE ROOF DRAIN PIPING.
- 17 THERMOSTAT WILL CONTROL THE SPACE TEMPERATURE.
- 18 AVERAGE SPACE TEMPERATURE TO MAIN THERMOSTAT IN SPACE.
- 19 PROVIDE 3-WAY SUPPLY DIFFUSER. MOUNT IN A MANNER THAT THE THROW IS NOT IN THE DIRECTION OF THE KITCHEN HOOD.
- 20 COORDINATE DUCTWORK TO AVOID ROOF DRAIN PIPING.

KEY PLAN



A1 MECHANICAL HVAC PLAN - AREA A
1/8" = 1'-0"

4/25/2024 5:00:04 PM



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EEA Project No. 20220466
State of registration TX
Firm Registration No. F-2497

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Mark E. Mikulin

Serial No.
28782

PROJECT

**NMSU NM DEPT OF AGRICULTURE NEW
OFFICE BUILDING**
3910 SOUTH ESPINA STREET
LAS CRUCES, NEW MEXICO 88003

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CONSTRUCTION
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DRAWN BY JA

REVIEWED BY MM

DATE 04/29/2024

PROJECT NO 22-0227.001

DRAWING NAME

**MECHANICAL
PIPING PLAN**

SHEET NO

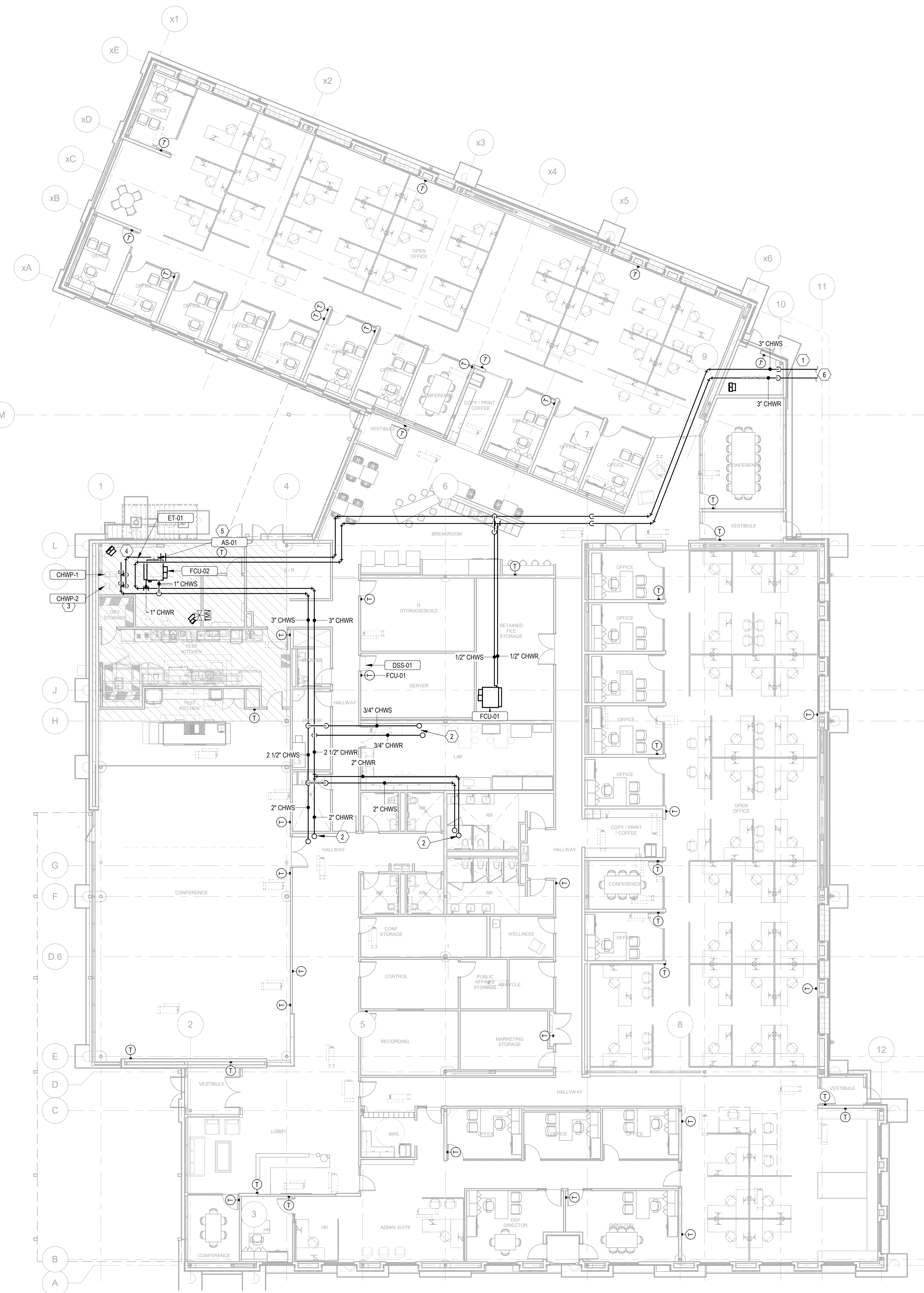
MP101

MECHANICAL SHEET NOTES

A. REFER TO MEP-000, M-001 AND PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

KEYNOTES

- 1 CHILLED WATER PIPING TO ENTER BUILDING FIRE RISER ROOM.
- 2 ROUTED CHILLED WATER SUPPLY AND RETURN UP THROUGH THE ROOF. REFER TO THE ARCHITECTURAL DRAWINGS FOR ROOF PENETRATION DETAILS.
- 3 REDUNDANT CHILLED WATER PUMPS. PROVIDE CAMPUS STANDARD CHILLED WATER BYPASS WITH CONTROL VALVE AROUND PUMPS. REFER TO SEQUENCE OF OPERATION FOR ADDITIONAL INFORMATION.
- 4 CHILLED WATER VFDs MOUNTED ADJACENT TO PUMPS.
- 5 CHILLED WATER AIR SEPARATOR AND EXPANSION TANK LOCATED IN MECHANICAL ROOM.
- 6 EXTEND CHILLED WATER PIPING FROM EXISTING 4" ISOLATION VALVES INTO NEW RISER ROOM. PROVIDE NEW ISOLATION VALVES 16" AFF IN RISER ROOM.



A1 MECHANICAL PIPING PLAN
1" = 10'-0"

4/29/2024 5:00:08 PM



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3910 SOUTH ESPINA STREET
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REVIEWED BY MM

DATE 04/29/2024

PROJECT NO 22-0227.001

DRAWING NAME

**MECHANICAL
ROOF PLAN**

SHEET NO

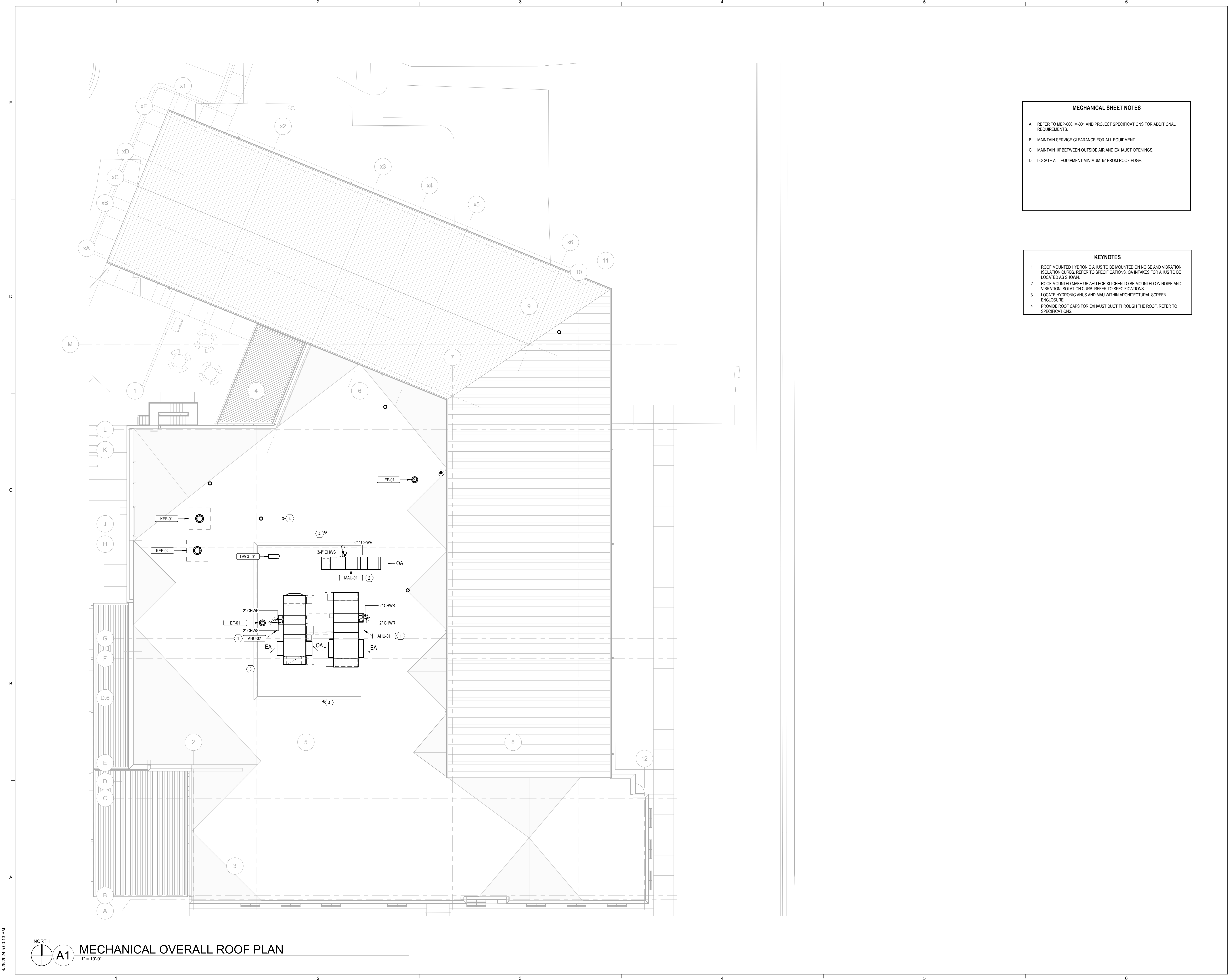
MR141

MECHANICAL SHEET NOTES

- A. REFER TO MEP-000, M-001 AND PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- B. MAINTAIN SERVICE CLEARANCE FOR ALL EQUIPMENT.
- C. MAINTAIN 10' BETWEEN OUTSIDE AIR AND EXHAUST OPENINGS.
- D. LOCATE ALL EQUIPMENT MINIMUM 15' FROM ROOF EDGE.

KEYNOTES

- 1 ROOF MOUNTED HYDRONIC AHUS TO BE MOUNTED ON NOISE AND VIBRATION ISOLATION CURBS. REFER TO SPECIFICATIONS. OA INTAKES FOR AHUS TO BE LOCATED AS SHOWN.
- 2 ROOF MOUNTED MAKE-UP AHU FOR KITCHEN TO BE MOUNTED ON NOISE AND VIBRATION ISOLATION CURBS. REFER TO SPECIFICATIONS.
- 3 LOCATE HYDRONIC AHUS AND MAU WITHIN ARCHITECTURAL SCREEN ENCLOSURE.
- 4 PROVIDE ROOF CAPS FOR EXHAUST DUCT THROUGH THE ROOF. REFER TO SPECIFICATIONS.



A1 MECHANICAL OVERALL ROOF PLAN
1" = 10'-0"

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UNIT HEATER SCHEDULE				
GENERAL	TAG	UH-1	UH-2	UH-3
MANUFACTURER		REZNOR	REZNOR	REZNOR
MODEL		EUH-5	EUH-5	EUH-5
TYPE		INDOOR, HORIZONTAL	INDOOR, HORIZONTAL	INDOOR, HORIZONTAL
SERVICE		MECHANICAL ROOM	MECHANICAL ROOM	FIRE RISER
TOTAL AIRFLOW (ACFM)		475	475	475
PERFORMANCE	GENERAL	ELECTRIC	ELECTRIC	ELECTRIC
AIR SIDE	TYPE	ELECTRIC	ELECTRIC	ELECTRIC
	ENTERING AIR DBWB (F)	19	19	19
	LEAVING AIR DBWB (F)	52.0	52.0	52.0
	SENSIBLE CAPACITY (MBH)	14.9	14.9	14.9
	MAX. PRESSURE DROP (IN. W.C.)	0.50	0.50	0.50
	MAX. VELOCITY (FPM)	-	-	-
	CAPACITY (KW)	1	1	1
	MIN. # OF STAGES	5	5	5
COIL	FLOWRATE	475	475	475
SUPPLY FAN	TYPE	PROPELLER	PROPELLER	PROPELLER
	SIZE (IN.)	10	10	10
	POSITION	DRAW-THROUGH	DRAW-THROUGH	DRAW-THROUGH
	DRIVE	DIRECT	DIRECT	DIRECT
	EXTERNAL STATIC (IN. W.C.)	-	-	-
	TOTAL STATIC (IN. W.C.)	-	-	-
	RATED POWER (HP)	.03	.03	.03
	TYPE	ODP	ODP	ODP
	MOTOR SPEED (RPM)	1,600	1,600	1,600
	VOLTS / PHASE	208/3	208/3	208/3
	MCA	11.8	11.8	11.8
	MOCP	25.0	25.0	25.0
	CONTROL AMPS (24V)	1.6	1.6	1.6
NOTES:	1. PROVIDE MAKE AND MODEL SPECIFIED OR ENGINEER APPROVED EQUAL.			
	2. REFER TO THE DRAWINGS FOR UNIT CONFIGURATION, CONNECTION SIDES, AND ACCESS LOCATIONS.			
	3. PROVIDE FAN WITH ADJUSTABLE SHEAVES.			
	4. SUSPEND UNIT HEATERS WITH VIBRATION ISOLATION IN ACCORDANCE WITH THE VIBRATION ISOLATION SCHEDULE.			

FAN COIL UNIT SCHEDULE				
GENERAL	TAG	FCU-1	FCU-2	
MANUFACTURER		IEC	IEC	
MODEL		HDY12	HDY16	
TYPE		INDOOR, HORIZONTAL	INDOOR, HORIZONTAL	
SERVICE		SERVER ROOM	MECHANICAL	
TOTAL AIRFLOW (ACFM)		1,280	1,600	
PERFORMANCE	GENERAL			
AIR SIDE	TYPE			
	OUTSIDE AIRFLOW (ACFM)	0	0	
	% OUTSIDE AIR	0%	0%	
	ELEVATION (FT ABOVE MSL)	4,454	4,454	
	UNIT WEIGHT (LBS)	220	275	
FILTERS	TYPE	MERV 8	MERV 8	
	MEDIA	2" PLEATED	2" PLEATED	
	LOADING	SIDE LOAD	SIDE LOAD	
	FINAL PRESSURE DROP (IN. W.C.)	0.7	0.7	
	MAX. VELOCITY (FPM)	500	500	
CHW COOLING COIL	GENERAL			
AIR SIDE	ROWS/FINS PER INCH	8/10	8/10	
	ENTERING AIR DB (F)	80.0	80.0	
	ENTERING AIR WB (F)	67.0	67.0	
	LEAVING AIR DB (F)	55.5	55.0	
	LEAVING AIR WB (F)	47.2	54.0	
	TOTAL CAPACITY (MBH)	27.8	64.9	
	SENSIBLE CAPACITY (MBH)	27.8	44.1	
	MAX. PRESSURE DROP (IN. W.C.)	1.0	1.0	
	FACE VELOCITY (FPM)	351	393	
	CHW FLOW (GPM)	3.5	12.9	
	ENTERING WATER TEMP. (F)	44	44	
	LEAVING WATER TEMP. (F)	60	54	
	MIN. VELOCITY (FPS)	2.5	2.5	
	FOULING FACTOR, (f2-F-hr)/BTU	0.00025	0.00025	
	MAX. PRESSURE DROP (FT HEAD)	4.1	14.0	
SUPPLY FAN	FAN			
	TYPE			
	NO. OF FANS	1	1	
	POSITION	DRAW THRU	DRAW THRU	
	DRIVE	DIRECT	DIRECT	
	DISCHARGE CONFIGURATION	HORIZONTAL	HORIZONTAL	
	TOTAL AIRFLOW (CFM)	1,280	1,600	
	EXTERNAL STATIC (IN. WG.)	0.5	0.4	
	TOTAL STATIC (IN. WG.)	-	-	
	FAN RPM	-	-	
	FAN EFFICIENCY GRADE (FEG)	-	-	
	POINTS FROM PEAK TOTAL EFF. (%)	-	-	
	MOTOR HP (EACH FAN)	1	1	
	TYPE	ECM	X	
	ODP	X	X	
	TEFC / TEAO	-	-	
	INVERTER DUTY	-	-	
	MOTOR SPEED (RPM)	-	-	
	MOTOR VOLTS / PH	208/3	208/3	
	MIN. CIRCUIT AMPS	4.6	6.4	
	MAX. OVERCURRENT PROTECTION	15	15	
	VOLTS / PHASE	208/3	208/3	
	AUX. POWER CIRCUIT AMPS/VOLTS	20A / 120V	20A / 120V	
ELECTRICAL				
NOTES:	1. PROVIDE MAKE AND MODEL SPECIFIED OR ENGINEER APPROVED EQUAL.			
	2. REFER TO THE DRAWING FOR UNIT CONFIGURATION.			
	3. ALL FCUS SHALL BE CONSTRUCTED WITH DOUBLE WALL CONSTRUCTION. CASING INSULATION SHALL BE 1 IN. THICK. PROVIDE ACCESS PANELS AT EACH COIL, FAN, FILTER, AND DAMPER / MIXING BOX SECTION.			
	4. COOLING COILS SHALL BE CONSTRUCTED WITH 5/8" DIAMETER COPPER TUBES, 0.008" THICK ALUMINUM FINNS, AND GALVANIZED STEEL CASINGS.			
	5. COOLING COILS SHALL HAVE MAXIMUM 900 FPM FACE VELOCITY UNLESS NOTED OTHERWISE.			
	6. COOLING COIL SECTION SHALL HAVE GALVANIZED STEEL DRAIN PANS SLOPED FOR COMPLETE DRAINAGE WITH NO STANDING WATER (AQ PANS).			
	7. FURNISH AND INSTALL FLEXIBLE DUCT CONNECTION AT THE SUPPLY AIR CONNECTIONS TO THE UNIT. TRANSITION DUCTWORK FROM FULL SIZE UNIT OPENING TO THE DUCTWORK DIMENSIONS SHOWN ON THE PLANS.			
	8. FURNISH RA / OA MIXING SECTION WITH RETURN AIR AND OUTSIDE AIR OPPOSED BLADE DAMPERS, CONFIGURED FOR FIELD INSTALLATION OF ELECTRIC ACTUATORS BY CONTROLS CONTRACTOR.			
	9. PROVIDE STANDARD SIZE (LOCALLY STOCKED) FILTERS ON ALL AIR HANDLERS. FILTERS WITH CUSTOM DIMENSIONS ARE NOT ACCEPTABLE.			
	10. PROVIDE SINGLE POINT ELECTRICAL CONNECTION FOR ALL LOADS OVER 120V.			
	11. MOTORS 1HP AND LESS SHALL BE ECM. ALL MOTORS SHALL HAVE THE MEANS TO ADJUST FAN SPEED FOR BALANCING OR REMOTE CONTROL.			
	12. INSTALL FAN COIL UNITS WITH VIBRATION ISOLATION IN ACCORDANCE WITH THE VIBRATION ISOLATION SCHEDULE.			
	13. FURNISH AND INSTALL DRAIN PAN FAN SAFETY SWITCH, RECTORSEAL, SS810E OR EQUAL. IF A CONDENSATE PUMP IS REQUIRED, FURNISH AND INSTALL SAUERBRANN 9-30 WITH SAFETY SHUT OFF SWITCH.			
	14. INSTALL GALVANIZED SHEETMETAL SECONDARY DRAIN PAN UNDER FAN COIL UNITS INSTALLED ABOVE CEILING. SUPPORT DRAIN PAN INDEPENDENT OF THE FAN COIL UNIT. DRAIN PAN TO INCLUDE A FLOAT SWITCH WIRED TO SHUT DOWN THE FAN COIL UNIT.			

AIR HANDLING UNIT SCHEDULE					
GENERAL	TAG	AHU-01	AHU-02		
MANUFACTURER		DAIKIN	DAIKIN		
MODEL					
TYPE		OUTDOOR ROOF CURB MOUNTED	OUTDOOR ROOF CURB MOUNTED		
SERVICE		RIGHT	RIGHT		
TOTAL AIRFLOW (ACFM)		14,850	15,460		
PERFORMANCE	GENERAL				
AIR SIDE	TYPE				
	OUTSIDE AIRFLOW (ACFM)	1,900	3,805		
	% OUTSIDE AIR	13%	25%		
	ELEVATION (FT ABOVE MSL)	4,454	4,454		
	LAYOUT (HAND IS VIEWED IN DIRECTION OF AIR FLOW)	LEFT	RIGHT		
	ACCESS DOORS				
	PIPING CONNECTIONS	SIDE	SIDE		
	COIL PULL	SIDE	SIDE		
	UNIT WEIGHT (LBS)	7,700	6,600		
FILTERS	PRE-FILTER	TYPE	MERV-8	MERV-8	
	MEDIA	4" PLEATED	4" PLEATED		
	LOADING	SIDE LOAD	SIDE LOAD		
	FINAL PRESSURE DROP (IN. W.C.)	0.7	0.7		
	MAX. VELOCITY (FPM)	500	500		
	FINAL-FILTER	TYPE	MERV-13	MERV-13	
	MEDIA	4" PLEATED	4" PLEATED		
	LOADING	SIDE LOAD	SIDE LOAD		
	FINAL PRESSURE DROP (IN. W.C.)	1.0	1.0		
	FACE VELOCITY (FPM)	500	500		
ELECTRIC PREHEAT COIL	AIR SIDE				
	ENTERING AIR DB (F)	60	23.0	60	23.0
	ENTERING AIR WB (F)	45.0	45.0	45.0	45.0
	SENSIBLE CAPACITY (MBH)	310.5	323.3	310.5	323.3
	CAPACITY (KW)	91.0	94.7	91.0	94.7
	MAX PRESSURE DROP (IN. W.C.)	1.0	1.0	1.0	1.0
	FACE VELOCITY (FPM)	700.0	700.0	700.0	700.0
	KW	91.0	85.0	91.0	85.0
	TYPE	OPEN ELEMENT	OPEN ELEMENT		
	FLA	252.6	235.9	252.6	235.9
	NO. OF STAGES	SCR	SCR		
CHW COOLING COIL	GENERAL				
AIR SIDE	ROWS/FINS PER INCH	CASE 1	CASE 2	CASE 1	CASE 2
	ENTERING AIR DB (F)	78.8	74.9	81.9	74.8
	ENTERING AIR WB (F)	61.3	63.0	51.5	64.1
	LEAVING AIR DB (F)	53.2	52.7	48.7	55.6
	LEAVING AIR WB (F)	51.1	52.5	48.5	54.9
	TOTAL CAPACITY (MBH)	437.2	427.3	478.9	439.0
	SENSIBLE CAPACITY (MBH)	389.7	304.4	409.2	282.5
	MAX. PRESSURE DROP (IN. W.C.)	1.0	1.0	1.0	1.0
	FACE VELOCITY (FPM)	500	500	500	500
	STATIC PRESSURE AT COND. DRAIN	-	-	-	-
	CHW FLOW (GPM)	54.7	54.8	60.0	54.9
	ENTERING WATER TEMP. (F)	44	44	44	44
	LEAVING WATER TEMP. (F)	60	60	60	60
	MIN. VELOCITY (FPS)	2.9	2.8	2.8	2.7
	FOULING FACTOR, (f2-F-hr)/BTU	0.00025	0.00025	0.00025	0.00025
	MAX. PRESSURE DROP (FT HEAD)	9.5	8.5	11.0	7.3
SUPPLY FAN (S)	FAN		PLENUM FAN		PLENUM FAN
	TYPE				
	FAN QUANTITY	2	2	2	2
	POSITION	DRAW THRU	DRAW THRU	DRAW THRU	DRAW THRU
	DRIVE	DIRECT DRIVE	DIRECT DRIVE	DIRECT DRIVE	DIRECT DRIVE
	DISCHARGE CONFIGURATION	VERTICAL	VERTICAL	VERTICAL	VERTICAL
	TOTAL AIRFLOW (CFM)	14,850	15,460	14,850	15,460
	EXTERNAL STATIC (IN. W.C.)	2.25	2.25	2.25	2.25
	TOTAL STATIC (IN. W.C.)	4.06	4.2	4.2	4.2
	FAN RPM	2,328	2,117	2,328	2,117
	FAN EFFICIENCY GRADE (FEG)	-	-	-	-
	POINTS FROM PEAK TOTAL EFF. (%)	-	-	-	-
	SOUND PERFORMANCE (DB)	-	-	-	-
	MOTOR HP (EACH FAN)	15 (7.5)	20 (10)	15 (7.5)	20 (10)
	TYPE	ECM	-	ECM	-
	ODP	-	-	-	-
	TEFC / TEAO	X	X	X	X
	INVERTER DUTY	X	X	X	X
	MOTOR SPEED (RPM)	1,750	3,500	1,750	3,500
	MOTOR VOLTS / PH	208/3	208/3	208/3	208/3
	FULL LOAD AMPS (FLA)	23.3/23.3	27.2/27.2	23.3/23.3	27.2/27.2
	MIN. CIRCUIT AMPS	52.4	61.2	52.4	61.2
	MAX. OVERCURRENT PROTECTION	70	80	70	80
	VOLTS / PHASE	208/3	208/3	208/3	208/3
	AUX. POWER CIRCUIT AMPS/VOLTS	20A / 120V	20A / 120V	20A / 120V	20A / 120V
ELECTRICAL					
NOTES:	1. PROVIDE MAKE AND MODEL SPECIFIED OR ENGINEER APPROVED EQUAL.				
	2. REFER TO THE DRAWING FOR UNIT CONFIGURATION. COIL CONNECTION SHALL BE SAME SIDE UNLESS NOTED OTHERWISE.				
	3. MODULAR CONSTRUCTION: ALL MODULAR AHUS SHALL BE CONSTRUCTED WITH WELDED STRUCTURAL STEEL BASE FRAME. CASINGS SHALL BE DOUBLE WALL GALV. STEEL CONSTRUCTION SUCH THAT DEFLECTION AT DESIGN PRESSURE IS < L/200. INNER WALL SHALL BE SOLID, NOT PERFORATED. UNIT FLOOR SHALL BE DOUBLE WALL GALV. STEEL CONSTRUCTION. CASING INSULATION SHALL BE 2 IN. THICK CLOSED-CELL FOAM. ACCESS SECTIONS (MIN. 24" LONG) SHALL BE PROVIDED BETWEEN EACH COIL WITH MINIMUM ACCESS DOOR SIZE OF 20 IN. PROVIDE DOUBLE WALL ACCESS DOORS AT EACH COIL, FAN, FILTER, DAMPER AND ACCESS SECTION. ROOF TOP UNITS SHALL HAVE ALUMINUM EXTERIOR CONSTRUCTION.				
	4. CUSTOM AIR HANDLER CONSTRUCTION: ALL CUSTOM AHUS SHALL BE CONSTRUCTED WITH WELDED STRUCTURAL STEEL BASE FRAME. CASINGS SHALL BE DOUBLE WALL GALV. STEEL CONSTRUCTION (20 GA. INNER (SSTL IN HUMIDIFIER SECTION), 16 GA. OUTER) SUCH THAT DEFLECTION AT DESIGN PRESSURE IS < L/250. INNER WALL SHALL BE SOLID, NOT PERFORATED. UNIT FLOOR SHALL BE DOUBLE WALL GALV. STEEL CONSTRUCTION (12 GA. INNER, 20 GA. OUTER). CASING INSULATION SHALL BE 3 IN. THICK CLOSED-CELL FOAM. ACCESS SECTIONS (MIN. 24" LONG) SHALL BE PROVIDED BETWEEN EACH COIL WITH MINIMUM ACCESS DOOR SIZE OF 20 IN. PROVIDE DOUBLE WALL ACCESS DOORS AT EACH COIL, FAN, FILTER, DAMPER AND ACCESS SECTION. ROOF TOP UNITS SHALL HAVE ALUMINUM EXTERIOR CONSTRUCTION.				
	5. COOLING COILS SHALL BE CONSTRUCTED WITH 5/8" DIAMETER COPPER TUBES, 0.008" THICK ALUMINUM FINNS, AND STAINLESS STEEL CASINGS.				
	A. COOLING COILS SHALL HAVE MAXIMUM 450 FPM FACE VELOCITY UNLESS NOTED OTHERWISE.				
	B. COOLING COIL SECTION SHALL HAVE DOUBLE WALL INSULATED STAINLESS STEEL DRAIN PANS. MINIMUM SLOPE TO COMPLY WITH ASHRAE 62.1, IN AT LEAST TWO PLANES, TO COLLECT CONDENSATE FROM COOLING COILS (INCLUDING COIL PIPING CONNECTIONS, COIL HEADERS, AND RETURN BENDS), AND TO DIRECT WATER TOWARD DRAIN CONNECTION. INCLUDE DRAIN CONNECTION ON BOTH ENDS OF PAN.				
	6. ELECTRIC HEATING COILS SHALL BE FURNISHED WITH MANUFACTURER'S REQUIRED SAFETIES.				
	7. PROVIDE AIR HANDLING UNITS WITH INTERNAL VIBRATION ISOLATION IN ACCORDANCE WITH THE VIBRATION ISOLATION SCHEDULE.				
	8. PROVIDE ROOFTOP UNITS WITH INSULATED, FACTORY MANUFACTURED FULLY WELDED GALVANIZED STEEL ROOF CURB. CONTRACTOR'S STRUCTURAL ENGINEER SHALL DESIGN THE CURB ATTACHMENT TO ROOF. COORDINATE ROOF CURB INSTALLATION WITH ROOFING CONTRACTOR.				
	A. CURB MUST EXTEND 14" ABOVE THE FINISHED SURFACE OF THE ROOF. CONTRACTOR TO COORDINATE THE ROOF SLOPE AND ADDITIONAL CURB HEIGHT TO ACCOMMODATE THE ROOFING INSULATION THICKNESS.				
	B. ROOFTOP EQUIPMENT BASE RAIL SHALL REST ON CURB SUCH THAT THE BASE OVERHANGS THE CURB. THE OVERHANG IS TO ENHANCE THE WATER PROTECTION AT THE CURB. OTHER METHODS MUST RECEIVE PRIOR APPROVAL.				
	C. ENTIRE ASSEMBLY SHALL BE DESIGNED TO WITHSTAND ALL IBC AND ASCE-7 WINDLOADING AND SEISMIC REQUIREMENTS FOR BUILDINGS LESS THAN 60' HIGH (REVISE # 60' HIGH). THIS SPECIFICALLY APPLIES TO THE EQUIPMENT / CURB INTERFACE AND THE REQUIRED RESTRAINTS NECESSARY TO COMPLY WITH IBC AND ASCE-7, AS WELL AS ASSOCIATED DUCTWORK AND PIPING ABOVE THE ROOF.				
	D. FAN MANUFACTURER AND CURB MANUFACTURER TO COORDINATE AND SUBMIT COMPLIANCE WITH THE ABOVE REQUIREMENTS. CONTRACTOR SHALL STATE ON THE ROOF CURB SUBMITTAL THE SLOPE AND TOTAL ROOF INSULATION THICKNESS AT THE LOCATION OF THE CURB.				
	9. ROOFTOP UNITS SHALL BE VERTICAL DISCHARGE ARRANGEMENT W/ SUPPLY & RETURN AIR ROUTED THRU ROOF CURBS UNLESS NOTED OTHERWISE.				
	10. ROOFTOP UNIT CONDENSATE DRAINS SHALL BE ROUTED THROUGH THE ROOF CURB. THE BASE OF ALL UNITS SHALL HAVE NO PENETRATIONS OTHER THAN THE SUPPLY/RETURN AIR OPENINGS FOR ELECTRICAL SAFETY. SHOULD THE CONDENSATE DRAIN BACK UP.				
	11. FANS > 5HP OR MULTIPLE FAN ASSEMBLIES TOTALING > 5HP, SHALL HAVE AN FEG RATING OF 67 OR HIGHER AND OPERATING TOTAL EFFICIENCY POINT SHALL BE WITHIN 15 POINTS OF PEAK FAN TOTAL EFFICIENCY.				
	12. PROVIDE FANS WITH INTERNAL SPRING VIBRATION ISOLATION IN ACCORDANCE WITH THE VIBRATION ISOLATION SCHEDULE. FAN CLASS SHALL ALLOW 20% INCREASE IN FAN RPM WITHOUT UNSTABLE OPERATION.				
	13. FURNISH AND INSTALL FLEXIBLE DUCT CONNECTIONS AT ALL DUCTWORK CONNECTIONS TO THE UNIT. TRANSITION DUCTWORK FROM FULL SIZE UNIT OPENING TO THE DUCTWORK DIMENSIONS SHOWN ON THE PLANS.				
	14. FURNISH RA / OA MIXING SECTION WITH RETURN AIR AND OUTSIDE AIR OPPOSED BLADE DAMPERS, CONFIGURED FOR FIELD INSTALLATION OF ELECTRIC ACTUATORS BY CONTROLS CONTRACTOR.				
	15. PROVIDE STANDARD SIZE (LOCALLY STOCKED) FILTERS ON ALL AIR HANDLERS. FILTERS WITH CUSTOM DIMENSIONS ARE NOT ACCEPTABLE. COAT MEDIA WITH AN ANTIMICROBIAL AGENT.				
	A. CERTIFICATIONS: 1) AHRI: TOLERANCES IN ACCORDANCE WITH AHRI 850 (I-P) AND AHRI 851 (SI). 2) ASHRAE: TESTED AND RATED IN ACCORDANCE WITH ASHRAE 52.2. 3) UL: UL 900 LISTED. 4) ECI FIVE STAR RATING.				
	B. BAG FILTERS: CONSTRUCTED SO INDIVIDUAL POCKETS ARE MAINTAINED IN TAPERED FORM UNDER RATED-AIRFLOW CONDITIONS BY FLEXIBLE INTERNAL SUPPORTS.				
	16. FURNISH UNIT WITH THE FOLLOWING, ALL WIRED TO A SINGLE POINT OF CONNECTION FOR SEPARATE 120V POWER SOURCE: A. ONE 120V VAPOR PROOF LIGHT FIXTURE WITH GUARD IN EACH ACCESS SECTION, WIRED TO AN EXTERNALLY MOUNTED SWITCH. B. ONE 20A/120V DUPLEX GFCI RECEPTICAL NEXT TO FAN SECTION ACCESS DOOR. C. POWER FOR AHU CONTROLS.				
	17. PROVIDE SINGLE POINT ELECTRICAL CONNECTION FOR ALL LOADS OVER 120V.				
	18. ALL INVERTER DUTY MOTORS SHALL BE EQUIPPED WITH A CONDUCTIVE SHAFT GROUNDING RING.				

PUMP SCHEDULE															
MARK	SERVICE	TYPE	MAKE	MODEL	SIZE	IMPELLER DIA. (IN)	ELEV (FT ABV MSL)	FLOW (GPM)	DESIGN POINT				MOTOR		
									DESIGN	SHUT-OFF	NPSHA	NPSHR	BHP	PUMP EFF (%)	POWER (HP)
CHWP-1	SECONDARY CHILLED WATER	BASE MOUNTED END SUCTION	BELL & GOSSETT	e-1510	1.5AD	5.75	4454	145	110						

DX SPLIT SYSTEM SCHEDULE			
INDOOR UNIT	TAG	DSS-1	
GENERAL	MANUFACTURER	DAIKIN	
	MODEL	FTX36MVJU	
	TYPE	DUCTLESS SPLIT SYSTEM	
	SERVICE	SERVER ROOM	
	ORIENTATION	WALL MOUNTED	
	TOTAL AIRFLOW (CFM)	915	
	OUTSIDE AIRFLOW (CFM)	0	
	% OUTSIDE AIR	0%	
	ELEVATION (FT ABOVE MSL)	4.454	
	UNIT WEIGHT (LBS)	40	
	ENTERING AIR (DB)	80.0	
	LEAVING AIR (DB)	67.0	
	LEAVING AIR (WB)	55.0	
	LEAVING AIR (WB)	54.0	
COOLING CASE 1	TOTAL CAPACITY (MBH)	33.2	
	SENSIBLE CAPACITY (MBH)	33.2	
	POSITION		
	DRIVE		
	DISCHARGE CONFIGURATION		
	EXTERNAL STATIC (IN. WG.)	-	
	TOTAL STATIC (IN. WG.)	-	
	FAN RPM		
	FAN EFFICIENCY GRADE (FEG)		
	POINTS FROM PEAK TOTAL EFF. (%)		
	MOTOR TYPE		
	MOTOR HP (W)		
	VOLTS / PHASE		
	MIN. CIRCUIT AMPS		
MAX. OVERCURRENT PROTECTION			
ELECTRICAL DATA	MIN. CIRCUIT AMPS		
	MAX. OVERCURRENT PROTECTION		
	INDOOR UNIT	TAG	DCSU-1
	GENERAL	MODEL	DAIKIN
		MODEL	RK36VMJU9
		SERVICE	DSS-1
		TYPE	COOLING ONLY
		NOMINAL TONS (ARI STD. COND.)	3.0
		MIN. # OF COMPRESSOR STAGES	1
		MIN. EFFICIENCY RATING: SEER (EER)	19
		CASE 1 COND. ENTERING AIR (DB)	109.0
		UNIT WEIGHT (LBS)	135
		VOLTS / PHASE	208/1
		MIN. CIRCUIT AMPS	16.8
	MAX. OVERCURRENT PROTECTION	20	
N...			
1. PROVIDE THE MAKE AND MODEL SPECIFIED OR AN ENGINEER APPROVED EQUAL.			
2. THE TOTAL AND SENSIBLE COOLING COIL CAPACITIES ARE TO BE BASED UPON THE SCHEDULED EVAPORATOR ENTERING AND LEAVING AIR CONDITIONS AND CONDENSER ENTERING AIR CONDITION.			
3. FANS > 5HP OR MULTIPLE FAN ASSEMBLIES TOTALING > 5HP, SHALL HAVE AN FEG RATING OF 67 OR HIGHER AND OPERATING TOTAL EFFICIENCY POINT SHALL BE WITHIN 15 POINTS OF PEAK FAN TOTAL EFFICIENCY.			
4. PROVIDE DX SPLIT SYSTEMS WITH CONTROLS INCLUDING WALL MOUNTED ELECTRONIC, 7-DAY PROGRAMMABLE THERMOSTATS WITH AUTOMATIC HEAT/COOL SWITCH-OVER CAPABILITY.			
5. COOLING COIL DRAIN PANS SHALL BE SLOPED FOR COMPLETE DRAINAGE WITH NO STANDING WATER (IAQ PANS).			
6. PROVIDE ALL INDOOR AND OUTDOOR UNITS WITH SINGLE POINT ELECTRICAL CONNECTION.			
7. PROVIDE ALL UNITS WITH STANDARD SIZE (LOCALLY STOCKED) PLEATED FILTERS. FILTERS WITH CUSTOM DIMENSIONS ARE NOT ACCEPTABLE.			
8. PROVIDE OUTDOOR CONDENSING UNITS WITH LOW AMBIENT CONTROLS TO ALLOW COOLING OPERATION AT 0 DEG. F AND WITH HAIL GUARDS.			
9. THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL REFRIGERATION PIPING IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND REQUIREMENTS, INCLUDING DISTANCE AND ELEVATION LIMITS. 1" CLOSED-CELL FOAM INSULATION FOR SUCTION LINE (BOTH LINES FOR HEAT PUMP SYSTEMS); 1-1/2" FOR HOT GAS HEAT RECOVERY. ARMACELL APARMAFLEX OR EQUAL.			
10. INSTALL INDOOR UNITS WITH VIBRATION ISOLATION IN ACCORDANCE WITH THE VIBRATION ISOLATION SCHEDULE.			
11. WHEN CONDENSING UNITS ARE INSTALLED ON THE ROOF, PROVIDE ROOFTOP UNITS WITH INSULATED, FACTORY MANUFACTURED FULLY WELDED GALVANIZED STEEL ROOF CURB. CONTRACTOR'S STRUCTURAL ENGINEER SHALL DESIGN THE CURB ATTACHMENT WITH ROOFING CONTRACTOR. A. CURB MUST EXTEND 14" ABOVE THE FINISHED SURFACE OF THE ROOF. CONTRACTOR TO COORDINATE THE ROOF SLOPE AND ADDITIONAL CURB HEIGHT TO ACCOMMODATE THE ROOFING INSULATION THICKNESS. B. ROOFTOP EQUIPMENT BASE RAIL SHALL REST ON CURB SUCH THAT THE BASE OVERHANGS THE CURB. THE OVERHANG IS TO ENHANCE THE WATER PROTECTION AT THE CURB. OTHER METHODS MUST RECEIVE PRIOR APPROVAL. C. ENTIRE ASSEMBLY SHALL BE DESIGNED TO WITHSTAND ALL IBC AND ASCE-7 WINDLOADING REQUIREMENTS. THIS SPECIFICALLY APPLIES TO THE EQUIPMENT / CURB INTERFACE AND THE REQUIRED RESTRAINTS NECESSARY TO COMPLY WITH IBC AND ASCE-7, AS WELL AS ASSOCIATED DUCTWORK ABOVE THE ROOF. D. CONDENSING UNIT MANUFACTURER AND CURB MANUFACTURER TO COORDINATE AND SUBMIT COMPLIANCE WITH THE ABOVE REQUIREMENTS. CONTRACTOR SHALL STATE ON THE ROOF CURB SUBMITTAL THE SLOPE AND TOTAL ROOF INSULATION THICKNESS AT THE LOCATION OF THE CURB.			
12. ALL MOTORS SHALL BE PREMIUM HIGH EFFICIENCY RATINGS.			
13. MOTORS 1HP AND LESS SHALL BE ECM. ALL MOTORS SHALL HAVE THE MEANS TO ADJUST FAN SPEED FOR BALANCING OR REMOTE CONTROL.			
14. CONTROL PANEL SHORT CIRCUIT CAPACITY SHALL MATCH FEEDER KAIC OR PROVIDE WIRING FOR SEPARATE 120V FEED.			

MAKE UP AIR UNIT SCHEDULE		
GENERAL	TAG	MAU-01
GENERAL	MANUFACTURER	GREENHECK
	MODEL	MSX/P124/122-01
	SERVICE	TRAINING / DEMO KITCHEN
	NOMINAL TONS (ARI STD. COND.)	
	NUMBER OF COMPRESSORS	1
	COMPRESSOR STAGES (EACH)	1
	TOTAL AIRFLOW (CFM)	3,460
	OUTSIDE AIRFLOW (CFM)	3,460
	% OUTSIDE AIR	100%
	ELEVATION (FT ABOVE MSL)	4.454
	UNIT WEIGHT (LBS)	1,830
	ROOT CURB WEIGHT (LBS)	61.6
	TYPE	PLEATED
	MEDIA	4" MERV 13
FILTERS	FINAL PRESSURE DROP (IN. W.G.)	0.5
	EVAP. ENTERING AIR (DB)	99.7
	EVAP. ENTERING AIR (WB)	74.5
	EVAP. LEAVING AIR (DB)	53.1
	EVAP. LEAVING AIR (WB)	53.1
	COND. ENTERING AIR (DB)	99.7
	TOTAL CAPACITY (MBH)	78.2
	SENSIBLE CAPACITY (BTUH)	78.2
	FACE VELOCITY (FPM)	-
	STATIC PRESSURE AT CONDENSATE DRAIN	-
	CHW FLOW (GPM)	11.0
	ENTERING WATER TEMP. (F)	44.0
	LEAVING WATER TEMP. (F)	58.2
	MIN. VELOCITY (FPS)	-
COOLING CASE 2	FOULING FACTOR, (1/2" F-h)/BTU	0.5
	MAX. PRESSURE DROP (FT HEAD)	74.3
	EVAP. ENTERING AIR (DB)	70.9
	EVAP. ENTERING AIR (WB)	66.7
	EVAP. LEAVING AIR (DB)	66.2
	COND. ENTERING AIR (DB)	74.3
	TOTAL CAPACITY (MBH)	58.4
	SENSIBLE CAPACITY (BTUH)	24.0
	STATIC PRESSURE AT CONDENSATE DRAIN	-
	CHW FLOW (GPM)	11.0
	ENTERING WATER TEMP. (F)	44.0
	LEAVING WATER TEMP. (F)	54.6
	MIN. VELOCITY (FPS)	-
	FOULING FACTOR, (1/2" F-h)/BTU	-
MAX. PRESSURE DROP (FT HEAD)	0.5	
ELECTRIC HEATER	KW	45.0
	ENTERING AIR (DB)	23.0
	LEAVING AIR (DB)	69.7
	NO. OF STAGES	SCR
	TYPE	FWD CURVED...
	POSITION	DRAW THRU
	DRIVE	DIRECT DRIVE
	DISCHARGE CONFIGURATION	VERTICAL
	EXTERNAL STATIC (IN. WG.)	0.5
	TOTAL STATIC (IN. WG.)	0.7
	FAN RPM	964
	POINTS FROM PEAK TOTAL EFF. (%)	1.5
	MOTOR HP	164.8
	MIN. CIRCUIT AMPS	175.0
MAX. OVERCURRENT PROTECTION	208V/3PH	
VOLTS / PHASE	208/120V	
ALX. POWER CIRCUIT AMPS/VOLTS		
NOTES:		
1. PROVIDE THE MAKE AND MODEL SPECIFIED OR AN ENGINEER APPROVED EQUAL.		
2. REFER TO THE DRAWING FOR UNIT CONFIGURATION.		
3. THE TOTAL AND SENSIBLE COOLING COIL CAPACITIES ARE TO BE BASED UPON THE SCHEDULED...		
4. DRAIN PANS SHALL BE NON-CORROSIVE MATERIAL AND SLOPED FOR COMPLETE DRAINAGE WITH NO STANDING WATER (IAQ PANS).		
5. PROVIDE ROOFTOP UNITS WITH INSULATED, FACTORY MANUFACTURED FULLY WELDED GALVANIZED STEEL ROOF CURB. CONTRACTOR'S STRUCTURAL ENGINEER SHALL DESIGN THE CURB ATTACHMENT... A. CURB MUST EXTEND 14" ABOVE THE FINISHED SURFACE OF THE ROOF. CONTRACTOR TO COORDINATE THE ROOF SLOPE AND ADDITIONAL CURB HEIGHT TO ACCOMMODATE THE ROOFING INSULATION THICKNESS. B. ROOFTOP EQUIPMENT BASE RAIL SHALL REST ON CURB SUCH THAT THE BASE OVERHANGS THE CURB. THE OVERHANG IS TO ENHANCE THE WATER PROTECTION AT THE CURB. OTHER METHODS MUST RECEIVE PRIOR APPROVAL. C. ENTIRE ASSEMBLY SHALL BE DESIGNED TO WITHSTAND ALL IBC AND ASCE-7 WINDLOADING AND SEISMIC REQUIREMENTS. THIS SPECIFICALLY APPLIES TO THE EQUIPMENT / CURB INTERFACE AND THE REQUIRED RESTRAINTS NECESSARY TO COMPLY WITH IBC AND ASCE-7, AS WELL AS ASSOCIATED DUCTWORK ABOVE THE ROOF. D. FAN MANUFACTURER AND CURB MANUFACTURER TO COORDINATE AND SUBMIT COMPLIANCE WITH THE ABOVE REQUIREMENTS. CONTRACTOR SHALL STATE ON THE ROOF CURB SUBMITTAL THE SLOPE AND TOTAL ROOF INSULATION THICKNESS AT THE LOCATION OF THE CURB.		
6. PROVIDE ROOFTOP UNITS WITH THE FOLLOWING: A. ALL DX AND HEATER CONTROLS INCLUDING WALL-MOUNTED ELECTRONIC 7-DAY PROGRAMMABLE... C. LOW AMBIENT CONTROLS TO ALLOW COOLING OPERATION DOWN TO 0°F. D. STANDARD SIZE (LOCALLY STOCKED) FILTERS. FILTERS WITH CUSTOM DIMENSIONS ARE NOT... E. FACTORY MOUNTED 20A, 120V, GFCI DUPLEX CONVENIENCE OUTLET. PROVIDE J-BOX FOR FIELD CONNECTION OF SEPARATE RECEPTACLE POWER CIRCUIT. F. SINGLE POINT ELECTRICAL CONNECTION WITH NEMA 3R DISCONNECT SWITCH FOR ALL LOADS OVER 120V. G. CONDENSATE OVERFLOW SWITCH. H. CONDENSER HAIL GUARDS. 7. ROOFTOP UNITS SHALL BE VERTICAL DISCHARGE ARRANGEMENT WITH SUPPLY AND RETURN AIR... 8. ROOFTOP UNIT CONDENSATE DRAINS SHALL BE ROUTED THROUGH THE ROOF CURB. THE BASE OF ALL UNITS SHALL HAVE NO PENETRATIONS OTHER THAN THE SUPPLY/RETURN AIR OPENINGS FOR ADDED... 9. FURNISH AND INSTALL FLEXIBLE DUCT CONNECTIONS AT THE SUPPLY AND RETURN CONNECTIONS TO THE UNIT. TRANSITION DUCTWORK FROM FULL SIZE UNIT OPENING TO THE DUCTWORK DIMENSIONS SHOWN ON THE PLANS. 10. ALL MOTORS SHALL BE PREMIUM HIGH EFFICIENCY RATING. 11. MOTORS 1HP AND LESS SHALL BE ECM. ALL MOTORS SHALL HAVE THE MEANS TO ADJUST FAN SPEED... 12. CONTROL PANEL SHORT CIRCUIT CAPACITY SHALL MATCH FEEDER KAIC OR PROVIDE WIRING FOR SEPARATE 120V FEED. 13. WARRANTY: INSTALLING CONTRACTOR TO PROVIDE 1 YEAR PARTS & LABOR WARRANTY FOR THE RTUS AND 5 YEAR PARTS WARRANTY FOR THE COMPRESSORS. WARRANTY MUST BE PROVIDED THRU THE...		

SINGLE DUCT VAV BOX SCHEDULE																
MARK	MANUFACTURER	MODEL	PRIMARY AIR				REHEAT COIL		ELECTRIC HEAT			SINGLE POINT ELECTRICAL DATA			OUTLET SIZE (IN. X IN.)	
			INLET SIZE	MIN AIRFLOW (CFM)	DESIGN AIRFLOW (CFM)	INLET VELOCITY (FPM)	DESIGN AIRFLOW (CFM)	MAX A.P.D. (IN. W.C.)	EAT (°F)	LAT (°F)	KW (MIN)	STEPS (MIN)	V/PH	MCA		MCCP
VAV-101	PRICE	SDV	8	210	695	1,991	210	0.1	55.0	85.0	1.8	2	208/3	7.2	15	12 x 10
VAV-102	PRICE	SDV	10	315	1,040	1,907	315	0.1	55.0	85.0	2.0	2	208/3	9.1	15	16 x 15
VAV-103	PRICE	SDV	6	110	355	1,808	110	0.1	55.0	85.0	0.9	2	208/3	3.4	15	12 x 8
VAV-104	PRICE	SDV	8	180	600	1,719	180	0.1	55.0	85.0	1.5	2	208/3	5.7	15	12 x 10
VAV-105	PRICE	SDV	10	230	765	1,403	230	0.1	55.0	85.0	1.9	2	208/3	7.6	15	12 x 10
VAV-106	PRICE	SDV	8	170	555	1,590	170	0.1	55.0	85.0	1.4	2	208/3	5.7	15	12 x 10
VAV-107	PRICE	SDV	8	180	600	1,719	180	0.1	55.0	85.0	1.5	2	208/3	5.7	15	12 x 10
VAV-108	PRICE	SDV	5	90	290	1,407	90	0.1	55.0	85.0	0.5	2	208/3	2.3	15	12 x 8
VAV-109	PRICE	SDV	10	315	1,035	1,898	315	0.1	55.0	85.0	2.6	2	208/3	10.2	15	16 x 15
VAV-110	PRICE	SDV	8	200	655	1,876	200	0.1	55.0	85.0	1.7	2	208/3	6.4	15	12 x 10
VAV-111	PRICE	SDV	6	90	300	1,528	90	0.1	55.0	85.0	0.8	2	208/3	3.0	15	12 x 8
VAV-112	PRICE	SDV	8	155	515	1,475	155	0.1	55.0	85.0	1.3	2	208/3	4.2	15	12 x 10
VAV-113	PRICE	SDV	12	400	1,330	1,893	400	0.1	55.0	85.0	3.3	2	208/3	12.1	15	16 x 15
VAV-114	PRICE	SDV	8	145	470	1,346	145	0.1	55.0	85.0	1.2	2	208/3	4.9	15	12 x 10
VAV-115	PRICE	SDV	6	105	340	1,732	105	0.1	55.0	85.0	0.9	2	208/3	3.0	15	12 x 8
VAV-116	PRICE	SDV	10	225	735	1,348	225	0.1	55.0	85.0	1.9	2	208/3	7.2	15	12 x 10
VAV-117	PRICE	SDV	6	90	300	1,528	90	0.1	55.0	85.0	0.8	2	208/3	3.0	15	12 x 8
VAV-118	PRICE	SDV	6	105	345	1,757	105	0.1	55.0	85.0	0.9	2	208/3	3.4	15	12 x 8
VAV-119	PRICE	SDV	10	225	740	1,357	225	0.1	55.0	85.0	1.9	2	208/3	7.5	15	12 x 10
VAV-120	PRICE	SDV	16	665	2,205	1,579	665	0.1	55.0	85.0	5.6	2	208/3	20.4	25	20 x 18
VAV-121	PRICE	SDV	5	60	200	1,467	60	0.1	55.0	85.0	0.5	2	208/3	2.3	15	12 x 8
VAV-122	PRICE	SDV	6	105	340	1,732	105	0.1	55.0	85.0	0.9	2	208/3	3.4	15	12 x 8
VAV-123	PRICE	SDV	8	150	500	1,432	150	0.1	55.0	85.0	1.3	2	208/3	4.9	15	12 x 10
VAV-124	PRICE	SDV	12	375	1,240	1,579	375	0.1	55.0	85.0	3.1	2	208/3	11.7	15	14 x 12
VAV-125	PRICE	SDV	10	240	800	1,467	240	0.1	55.0	85.0	2.0	2	208/3	7.5	15	12 x 10
VAV-126	PRICE	SDV	10	240	800	1,467	240	0.1	55.0	85.0	2.0	2	208/3	7.5	15	12 x 10
VAV-127	PRICE	SDV	6	100	330	1,681	100	0.1	55.0	85.0	0.8	2	208/3	3.4	15	12 x 8
VAV-128	PRICE	SDV	8	140	455	1,303	140	0.1	55.0	85.0	1.2	2	208/3	4.2	15	12 x 8
VAV-201A	PRICE	SDV	14	630	2,085	1,950	630	0.1	55.0	85.0	5.3	2	208/3	9.1	15	12 x 10
VAV-201B	PRICE	SDV	12	465	1,545	1,967	465	0.1	55.0	85.0	3.9	2	208/3	11.7	15	16 x 15
VAV-201C	PRICE	SDV	14	500	1,665	1,558	500	0.1	55.0	85.0	4.2	2	208/3	12.1	15	16 x 15
VAV-202A	PRICE	SDV	14	490	1,625	1,520	490	0.1	55.0	85.0	4.1	2	208/3	14.4	15	16 x 15
VAV-202B	PRICE	SDV	14	490	1,625	1,520	490	0.1	55.0	85.0	4.1	2	208/3	14.4	15	16 x 15
VAV-202C	PRICE	SDV	14	490	1,625	1,520	490	0.1	55.0	85.0	4.1	2	208/3	14.4	15	16 x 15
VAV-203	PRICE	SDV	10	210	700	1,283	210	0.1	55.0	85.0	1.8	2	208/3	6.4	15	12 x 10
VAV-204	PRICE	SDV	8	165	540	1,547	165	0.1	55.0	85.0	1.4	2	208/3	5.3	25	12 x 8
VAV-205	PRICE	SDV	14	525	1,740	1,628	525	0.1	55.0	85.0	4.4	2	208/3	17.0	25	16 x 15
VAV-206	PRICE	SDV	4	45	150	1,719	45	0.1	55.0	85.0	0.4	2	208/3	1.5	15	12 x 8
VAV-207	PRICE	SDV	8	155	505	1,447	155	0.1	55.0	85.0	1.3	2	208/3	5.3	15	12 x 10
VAV-208	PRICE	SDV	6	100	330	1,681	100	0.1	55.0	85.0	0.8	2	208/3	2.6	15	12 x 8
VAV-209	PRICE	SDV	4	50	165	1,891	50	0.1	55.0	85.0	0.4	2	208/3	2.3	15	12 x 8
VAV-210	PRICE	SDV	8	160	520	1,490	160	0.1	55.0	85.0	1.3	2	208/3	4.9	15	12 x 10
VAV-211	PRICE	SDV	12	360	1,200	1,528	360	0.1	55.0	85.0	3.0	2	208/3	10.2	15	14 x 12
VAV-212	PRICE	SDV	12	365	1,210	1,541	365	0.1	55.0	85.0	3.0	2	208/3	11.0	15	14 x 12
VAV-213	PRICE	SDV	12	330	1,100	1,401	330	0.1	55.0	85.0	2.8	2	208/3	9.8	15	14 x 12
NOTES:																
1. PROVIDE MANUFACTURER AND MODEL INDICATED OR EQUAL.																
2. PRIMARY AIR INLET PRESSURE SHALL REQUIRE MAXIMUM 1" AND DISCHARGE STATIC PRESSURE SHALL BE MINIMUM 0.25".																
3. RADIATED NOISE LEVEL SHALL BE LESS THAN 25 N.C. AND DISCHARGE SHALL BE LESS THAN 25 N.C.																
4. FURNISH AND INSTALL ALL TERMINAL UNITS WITH THE FOLLOWING: A. SINGLE POINT ELECTRICAL CONNECTION INCLUDING CONTROLS TRANSFORMER. B. DDC CONTROLL																

DUCT WORK ID	SERVICE	MATERIAL TYPE, PRESSURE CLASS	JOINT TYPE	SEAL CLASS	INSULATION - JACKET TYPE				REMARKS
					INTERIOR CONCEALED	INTERIOR EXPOSED	INTERIOR UNCOND.	EXTERIOR	
SA (RECT)	SUPPLY AIR RECTANGULAR DUCT	GALVANIZED SHEET METAL PER SMACNA *2" W.G.	PER SMACNA	A	DWF-FSK R ≥ 6.0	NA - ROUND OR LINED DUCT ONLY	DWCCF R ≥ 8.0	SEE DUCT ID P-ERD	
SA (ROUND)	SUPPLY AIR ROUND DUCT	GALVANIZED SHEET METAL PER SMACNA *2" W.G.	PER SMACNA	A	DWF-FSK R ≥ 6.0	DUCT TYPE DWI	DWCCF R ≥ 8.0	SEE DUCT ID P-ERD	
LSA (RECT)	LINED SUPPLY AIR RECTANGULAR DUCT	GALVANIZED SHEET METAL PER SMACNA *2" W.G.	PER SMACNA	A	DLF R ≥ 6.0	DLF R ≥ 6.0	NOT ALLOWED	NOT ALLOWED	SEE NOTES
LSA (ROUND)	LINED SUPPLY AIR ROUND DUCT	GALVANIZED SHEET METAL PER SMACNA *2" W.G.	PER SMACNA	A	DLF R ≥ 6.0	DLF R ≥ 6.0	NOT ALLOWED	NOT ALLOWED	SEE NOTES
LRA (RECT)	LINED RETURN AIR RECTANGULAR DUCT	GALVANIZED SHEET METAL PER SMACNA *3" W.G.	PER SMACNA	A	DLR R ≥ 6.0	INSULATION NOT REQ'D	NOT ALLOWED	NOT ALLOWED	SEE NOTES
LRA (ROUND)	LINED RETURN AIR ROUND DUCT	GALVANIZED SHEET METAL PER SMACNA *3" W.G.	PER SMACNA	A	DLF R ≥ 6.0	INSULATION NOT REQ'D	NOT ALLOWED	NOT ALLOWED	SEE NOTES
SAIRA (RECT FG)	SUPPLY AIR OR RETURN AIR RECTANGULAR	FIBROUS GLASS DUCTBOARD K ≤ 0.23 Specify Pressure Class	PER UL-181, SMACNA OR MIMA	A	R=6.0	R=6.0	R ≥ 8.0	NA	
PSA / PSAC (RECT.)	PRIMARY SUPPLY AIR PRIMARY SA COLD RECTANGULAR	GALVANIZED SHEET METAL PER SMACNA *4" W.G.	PER SMACNA	A	DWF-FSK R ≥ 6.0	NA - ROUND OR LINED DUCT ONLY	DWCCF R ≥ 8.0	SEE DUCT ID P-ERD	PRIMARY SUPPLY AIR IS DUCTWORK UPSTREAM OF TERMINAL UNITS
PSA / PSAC (ROUND)	PRIMARY SUPPLY AIR PRIMARY SA COLD ROUND	GALVANIZED SHEET METAL PER SMACNA *4" W.G.	PER SMACNA	A	DWF-FSK R ≥ 6.0	DUCT TYPE DWI	DWCCF R ≥ 8.0	SEE DUCT ID P-ERD	PRIMARY SUPPLY AIR IS DUCTWORK UPSTREAM OF TERMINAL UNITS
SAIRA (FLEX)	FINAL AIR DEVICE CONNECTIONS	PREINSULATED FLEXIBLE ROUND DUCT	N / A	A	R > 6.0	R > 6.0	N/A	NOT ALLOWED	FLEXIBLE DUCT RUNS SHALL BE A MAXIMUM OF 5 FEET, 12 INCH MAX FOR PRIMARY DUCT CONN. TO TERMINAL UNITS. MATCH PRESSURE RATING OF ASSOCIATED DUCTWORK.
DWI	ROUND INTERIOR EXPOSED CONDITIONED AIR	DOUBLE WALL INSULATED DUCT SMACNA IN. WG TO MATCH ASSOCIATED INTERIOR DUCT	PER SMACNA	A	NA	R > 6.0	NA	NA	UNITED MCGILL ACOUSTI-K27 SPIRAL LOCKSEAM 2" R-7.4 INSULATION
EA	GENERAL EXHAUST DUCT	GALVANIZED SHEET METAL PER SMACNA *3" W.G.	PER SMACNA	A	NONE	NONE	DWCCF R ≥ 4.3	DWCCF-EXT R-4.3	INSULATE EXHAUST DUCT WHERE CALLED FOR ONLY WHEN EXHAUSTING HUMIDIFIED SPACES. EXTEND INSULATION TO 2" INSIDE OF THE CONDITIONED SPACE FROM EXT. WALL OR ROOF.
KE2	KITCHEN HEAT & WET EXHAUST TYPE 2 HOODS	SINGLE WALL 304 STAINLESS STEEL *6" W.G.	WELDED	A	NONE	NONE	NONE	NONE	METAL-FAB PSW SERIES OR JEREMIAS SW SERIES FACTORY-BUILT PRESSURE RATED EXHAUST DUCT OR EQUAL.

- NOTES:**
- ALL DUCT SIZES INDICATE INSIDE CLEAR DIMENSIONS IN INCHES.
 - ALL METAL DUCT SHALL BE CONSTRUCTED PER SMACNA STANDARDS. METAL TAPE SHALL NOT BE ALLOWED AS METAL DUCT SEALANT UNLESS SPECIFICALLY NOTED OTHERWISE. SEAL ALL DUCTS IN ACCORDANCE WITH SMACNA SEAL CLASS A INCLUDING ALL JOINTS, SEAMS, AND ALL APPLICABLE WALL PENETRATIONS UNLESS NOTED OTHERWISE. SEALANT SHALL BE WATER BASED UNLESS SUSCEPTIBLE TO CONDENSATION OR WATER EXPOSURE. SOLVENT BASED SEALANT SHALL BE USED IN THAT CASE.
 - PROVIDE PRODUCTS LISTED OR ENGINEER PRE-APPROVED EQUAL, APPLIES TO ALL PRODUCTS LISTED IN SCHEDULE.
 - INSULATION:
 - INSULATION ABBREVIATIONS: DWF- FLEXIBLE DUCT WRAP, DWR - RIGID DUCT WRAP, DLF - FLEXIBLE DUCT LINER, DWCCF - CLOSED CELL FOAM DUCT WRAP. REFER TO DUCT INSULATION SCHEDULE FOR DETAILED INFORMATION.
 - JACKET ABBREVIATIONS: FSK - FOIL SCRIM KRAFT JACKET. REFER TO DUCT INSULATION SCHEDULE FOR DETAILED INFORMATION.
 - DUCT LINER SHALL BE USED FOR NOISE REDUCTION ONLY, IN DUCTS WITH VELOCITIES < 1500 FPM, AND FOR A MAXIMUM 10' LENGTH UNLESS NOTED OTHERWISE ON THE PLANS. DUCT LINER SHALL NOT BE USED ON DUCT CONNECTED TO FAN DISCHARGE OR DUCTS IN INTERIOR UNCONDITIONED SPACES OR EXTERIOR DUCT.
 - INSULATION R-VALUES ARE INSTALLED R-VALUES.
 - INSULATION PRODUCTS THAT COME IN CONTACT WITH STAINLESS STEEL SHALL HAVE A LEACHABLE CHLORIDE CONTENT OF LESS THAN 50 PPM WHEN TESTED ACCORDING TO ASTM C871. INSULATION MATERIALS FOR USE ON AUSTENITIC STAINLESS STEEL SHALL BE QUALIFIED AS ACCEPTABLE ACCORDING TO ASTM C795.
 - INSTALLATION: ALL DUCT SHALL BE INSTALLED IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS AND MANUFACTURER'S RECOMMENDATIONS. ALL FACTORY-FABRICATED DUCTS MUST BE INSTALLED BY INSTALLERS CERTIFIED BY THE MANUFACTURER TO DO SO.
 - ALL MATERIALS USED IN PLENUMS SHALL CONFORM TO ASTM E84, HAVING A MAXIMUM FLAME SPREAD RATING OF 25 AND A MAXIMUM DEVELOPED SMOKE RATING OF 50.
 - FURNISH AND INSTALL ALL MITERED ELBOWS WITH TURNING VANES. RADIUSED RECTANGULAR ELBOWS SHALL HAVE CENTER LINE RADIUS TO WIDTH RATIO (RW) OF 1.5 UNLESS OTHERWISE SPECIFIED. ALL ROUND ELBOWS SHALL HAVE A CENTERLINE RADIUS TO DIAMETER RATIO (RD) OF 1.5 UNLESS SHORT RADIUS ELBOWS ARE CALLED FOR ON THE PLANS IN WHICH CASE THE RD RATIO SHALL BE 1.0.
 - SPACE CLASSIFICATIONS
 - INTERIOR CONCEALED REFERS TO CONDITIONED UNOCCUPIED SPACES AND RETURN AIR PLENUMS.
 - INTERIOR EXPOSED REFERS TO CONDITIONED OCCUPIED SPACES.
 - INTERIOR UNCONDITIONED SPACES INCLUDES ABOVE CEILING SPACES IN DUCTED RETURN APPLICATIONS, VENTILATED ATTICS, CRAWL SPACES, MECHANICAL AND ELECTRICAL ROOMS, ETC.
 - EXTERIOR REFERS TO EXPOSED TO WEATHER.
 - ALL DUCT SUPPORTS SHALL BE FURNISHED AND INSTALLED PER SMACNA HVAC DUCT CONSTRUCTION STANDARDS. POWDER-ACTUATED FASTENERS ARE NOT ALLOWED.
 - ALL DUCTWORK DESIGNED FOR 3" W.C AND ABOVE AND ALL DUCTWORK LOCATED OUTDOORS SHALL BE LEAK TESTED IN ACCORDANCE WITH THE SMACNA HVAC AIR DUCT LEAKAGE TEST MANUAL. REPRESENTATIVE SECTIONS TOTTALLING NO LESS THAN 25% OF THE TOTAL INSTALLED DUCT AREA FOR THE DESIGNATED PRESSURE CLASS, SELECTED BY THE BUILDING OWNER OR THE ENGINEER, SHALL BE TESTED. POSITIVE PRESSURE LEAKAGE TESTING IS REPRESENTATIVE FOR NEGATIVE PRESSURE DUCTWORK.
 - INSTALLATION REQUIREMENTS FOR TYPE 1 COMMERCIAL KITCHEN GREASE HOOD EXHAUST DUCT:
 - INSTALL FACTORY-FABRICATED TYPE 1 GREASE DUCTS WITHOUT DIPS AND TRAPS THAT MAY COLLECT GREASE AND IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS; MECHANICAL CODE, NFPA 96, "VENTILATION CONTROL AND FIRE PROTECTION OF COMMERCIAL COOKING OPERATIONS"; SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE"; AND SMACNA'S "KITCHEN VENTILATION SYSTEMS AND FOOD SERVICE EQUIPMENT FABRICATION AND INSTALLATION GUIDELINES" UNLESS OTHERWISE INDICATED, INCLUDING SLOPE, JOINT TYPES, ACCESS OPENINGS, WALL PENETRATIONS, ETC.
 - PROVIDE EXPANSION JOINT REQUIREMENTS AS RECOMMENDED BY THE MANUFACTURER BASED ON DUCTWORK LAYOUT.
 - SUBMIT SHOP DRAWINGS BY MANUFACTURER INDICATING ALL NECESSARY INSTALLATION REQUIREMENTS AND DETAILS.
 - INSTALLATION REQUIREMENTS FOR EXHAUST DUCTS SERVING COMMERCIAL DISHWASHERS AND OTHER HIGH-HUMIDITY LOCATIONS:
 - INSTALL FACTORY-FABRICATED TYPE 2 EXHAUST DUCTS FROM WET, HIGH-HUMIDITY LOCATIONS WITHOUT DIPS AND TRAPS THAT MAY HOLD WATER AND IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS; MECHANICAL CODE, SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE"; AND SMACNA'S "KITCHEN VENTILATION SYSTEMS AND FOOD SERVICE EQUIPMENT FABRICATION AND INSTALLATION GUIDELINES" UNLESS OTHERWISE INDICATED, INCLUDING SLOPE, JOINT TYPES, ACCESS OPENINGS, WALL PENETRATIONS, ETC.
 - PROVIDE A DRAIN POCKET AT EACH LOW POINT AND AT THE BASE OF EACH RISER WITH A 1-INCH TRAPPED COPPER DRAIN FROM EACH DRAIN POCKET TO OPEN SITE FLOOR DRAIN; REFER TO HVAC CONDENSATE TRAP DETAIL FOR TRAP DEPTH BASED ON DUCT STATIC PRESSURE.
 - EXTERIOR DUCTWORK TO BE ROUND DUCT UNLESS NOTED OTHERWISE ON THE PLANS. LONGITUDINAL SEAMS TO BE ON BOTTOM OF DUCT. WHERE RECTANGULAR DUCTWORK IS SHOWN, SLOPE TOP OF DUCT TO AVOID STANDING WATER.

AIR DEVICES SCHEDULE

MARK	GROUP	TYPE / PATTERN	BORDER / MOUNT	CONSTRUCTION	MANUFACTURER MODEL	NOTES
S1	24" x 24" CEILING SUPPLY AIR	360 DEGREE HORIZONTAL	LAY-IN CEILING	STEEL, PAINTED WHITE	TITUS OMNI	
S2	SUPPLY AIR REGISTERS	DOUBLE DEFLECTION	SIDEWALL DUCT MOUNTED	STEEL, PAINTED WHITE	TITUS 300RS	FURNISH WITH OPPOSED BLADE DAMPER AND FRONT BLADES PARALLEL TO THE SHORT DIMENSION
S3	12" x 12" CEILING SUPPLY AIR	4-WAY	CEILING (SURFACE MOUNT)	STEEL, PAINTED WHITE	TITUS PSS	
S4	ADJUSTABLE LINEAR SLOT DIFFUSERS	HORIZONTAL & VERTICAL	LAY-IN CEILING	STEEL, PAINTED WHITE W/ BLACK PATTERN CONTROLLER	TITUS T8DI-30	PROVIDE WITH DIFFUSER PATTERN CONTROLLER. ALL ARE TO BE 4' IN LENGTH, 3 SLOT, AND SUPPLIED WITH 10" INLET AND 3/4" SLOT WIDTH (UP TO 290 CFM). T-BAR MOUNTING TYPE.
S5	SUPPLY AIR REGISTERS	CURVED BLADE 1-WAY	SURFACE MOUNT	STEEL, PAINTED WHITE	TITUS S300FS	FURNISH WITH OPPOSED BLADE DAMPER AND FRONT BLADES PARALLEL TO THE SHORT DIMENSION
S6	SUPPLY AIR REGISTERS	24" x 24" PERF SUPPLY (DUCTED)	LAY-IN CEILING	STEEL, PAINTED WHITE	TITUS PAS	PERFORATED FACE SUPPLY PANEL FOR DUCTED APPLICATIONS (UP TO 1700 CFM). PROVIDE WITH 3-WAY DIRECTIONAL CONTROLLER PATTERN.
R1	RETURN EXHAUST REGISTERS	CUBE CORE (NON-DUCTED)	SURFACE MOUNT	ALUMINUM, PAINTED WHITE	TITUS 50F	1/2" x 1/2" x 1" DEEP CUBE CORE PATTERN RETURN GRILLE FOR NON-DUCTED RETURN APPLICATIONS FURNISH WITH OBD.
R2	RETURN EXHAUST GRILLES	SIDEWALL RETURN GRILLE	SURFACE MOUNT	ALUMINUM	TITUS 355ZF-S	SIZES AS SHOWN ON DRAWINGS, WITH 3/4" BLADE SPACING AND 0 DEG. DEFLECTION.
R3	RETURN EXHAUST REGISTERS	CUBE CORE (NON-DUCTED)	SURFACE MOUNT	ALUMINUM, PAINTED WHITE	TITUS 50F	1/2" x 1/2" x 1" DEEP CUBE CORE PATTERN RETURN GRILLE FOR NON-DUCTED RETURN APPLICATIONS FURNISH WITH OBD.
E1	RETURN EXHAUST REGISTERS	CUBE CORE	SURFACE MOUNT	ALUMINUM, PAINTED WHITE	TITUS 50F	1/2" x 1/2" x 1" DEEP CUBE CORE PATTERN RETURN GRILLE FOR DUCTED RETURN APPLICATIONS FURNISH WITH OBD.

- NOTES:**
- PROVIDE MAKE AND MODEL SPECIFIED OR ENGINEER APPROVED SUBSTITUTE.
 - COORDINATE AIR DEVICE COLOR SELECTION WITH ARCHITECT.
 - ALL 24" X 24" CEILING MOUNTED SUPPLY AND RETURNS IN GYP OR PLASTER CEILINGS SHALL BE INSTALLED WITH A LAY-IN PLASTER FRAME EQUAL TO TITUS MODEL TRM OR PRICE MODEL SPF.
 - ALL ADJUSTABLE LINEAR SUPPLY AIR DEVICES IN GYP OR PLASTER CEILING SHALL BE INSTALLED WITH A LAY-IN PLASTER FRAME EQUAL TO TITUS MODEL PF-TBD.

PIPING ID	SERVICE	SIZE	DESIGN PRESSURE	MATERIAL TYPE	FITTING TYPE	JOINT TYPE	INSULATION TYPE	VALVES	REMARKS	
										CHWS/R
		2 1/2" AND LARGER		STD WT CARBON STEEL ASTM A53 GRADE B, TYPE E OR S	CL. 150 MALLEABLE IRON ASTM A197, ASME B16.3	THREADED	1/2" CF x 1-1/2" PIPE, 1" CF 1-1/2" TO 2" PIPE	BF-1	SEE GROOVED JOINT FITTINGS INSTALLATION NOTES BELOW	
				STD WT CARBON STEEL ASTM A53 GRADE B, TYPE E OR S	BUTTWELD: STD WT CS ASTM A234, ASME B16.9	BUTTWELD PER ASME B31.9 FOR BUILDING SERVICES PIPING B31.1 FOR POWER PIPING	1.5" CG 1.0" PH			
				STD WT CARBON STEEL ASTM A53 GRADE B, TYPE E OR S	FLANGE: CL. 150 CS ASTM A105, ASME B16.5	ASTM A-193 GR B7 STUDS WITH ASTM A194 GR 2H NUTS				
				STD WT CARBON STEEL ASTM A53 GRADE B, TYPE E OR S	VITACULIC OR EQUAL STD. WT. CS ASTM A234, ASME B16.9	VITACULIC OR EQUAL GROOVED JOINT DUCTILE IRON COUPLINGS FOR STD. WT. CS PIPE ASTM A-536, GRADE 65-45-12 EPDM GASKETS				
UGCHW UGHWSR	DIRECT-BURIED CHILLED WATER & HEATING WATER SUPPLY/RETURN (UP TO 200F)	ALL		STD WT CARBON STEEL ASTM A53 GRADE B, TYPE E OR S	BUTTWELD: STD WT CS ASTM A234, ASME B16.9	BUTTWELD PER ASME B31.1 FOR POWER PIPING	X" PU UGCHW S/R Y" PU UGHWSR			FACTORY DESIGNED AND PRE-INSULATED PIPING SYSTEM INCLUDING PIPE, FITTINGS, AND EXPANSION / CONTRACTION COMPENSATION THERMACOR FERRO-THERM OR EQUAL.
REF	REFRIGERANT	ALL		TYPE ACR COPPER TUBING ASTM B 280, CLEAN, DRY & CAPPED	WROUGHT COPPER FITTINGS PER ASME B16.22	BRAZE: AWS A5.8 BCuPS SILVER/PHOSPHORUS/CU ALLOY MELTING RANGE 1190-1480 DEG F	1" CF FOR SUCTION LINE (BOTH LINES FOR HEAT PUMPS) 1-1/2" CF FOR HOT GAS HEAT RECOVERY AND VRF 3RD LINE			ARMAFLEX SHIELD PRODUCT TO BE USED FOR DIRECT BURIED REF. PIPING OR PIPING IS EXPOSED TO DIRECT SUNLIGHT.

- NOTES:**
- INSULATION TYPE: GF - GLASS FIBER, CG - CELLULAR GLASS, CF - FLEXIBLE ELASTOMERIC CELLULAR FOAM, PH - PHENOLIC, PU - POLYURETHANE FOAM, PE - POLYETHYLENE FOAM
 - INSULATION JACKET TYPE:
 - INTERIOR CONCEALED LOCATIONS: ALL SERVICE JACKET (ASJ)
 - INTERIOR EXPOSED LOCATIONS, INCLUDING MECHANICAL ROOMS: PVC ABOVE 8' AFF, ALUMINUM (ALJ) BELOW 8' AFF
 - EXTERIOR LOCATIONS: ALUMINUM (ALJ)
 - DIRECT-BURIED PIPING: HDPE
 - INSULATION PRODUCTS THAT COME IN CONTACT WITH STAINLESS STEEL SHALL HAVE A LEACHABLE CHLORIDE CONTENT OF LESS THAN 50 PPM WHEN TESTED ACCORDING TO ASTM C871. INSULATION MATERIALS FOR USE ON AUSTENITIC STAINLESS STEEL SHALL BE QUALIFIED AS ACCEPTABLE ACCORDING TO ASTM C795.
 - PROVIDE SELF-REGULATING HEAT TRACING SYSTEM AND CONTROLS FOR FREEZE PROTECTION OF PIPING AND ACCESSORIES IN EXTERIOR AND INTERIOR UNCONDITIONED SPACES WHERE SHOWN ON THE PLANS. INSULATE PER MANUFACTURER'S INSTRUCTIONS BUT NOT LESS THAN THICKNESSES SHOWN ON THE SCHEDULE. Designer Note: Be sure to note heat trace and insulation in unconditioned attics on the plans.
 - GROOVED JOINT FITTINGS:
 - INSTALL GROOVED FITTINGS IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. USE MANUFACTURER'S PIPE ROLL GROOVE TOOLS.
 - GROOVED JOINT FITTINGS SHALL ONLY BE USED AT EQUIPMENT CONNECTIONS AND FOR FIELD JOINTS FOR SHOP-FABRICATED PIPE SPOOLS. GROOVED JOINT VALVES AND FITTINGS SHALL NOT BE USED UNLESS SHOWN OTHERWISE ON THE PLANS.
 - PROVIDE 30 YEAR WARRANTY ON THE GROOVED JOINT FITTINGS AND INSTALLATION. WARRANTY SHALL INCLUDE CONTRACTOR TRAINING BY THE MANUFACTURER AND FINAL INSPECTION OF EVERY GROOVED JOINT BY A MANUFACTURER'S REPRESENTATIVE.
 - DIRECT-BURIED UNDERGROUND PIPING:
 - JOINTS SHALL BE FIELD-INSULATED PER THE MANUFACTURER'S INSTRUCTIONS, USING POLYURETHANE FOAM POURED IN AN HDPE SLEEVE AND SEALED WITH A HEAT SHRINK SLEEVE. JOINT KITS SHALL INCLUDE A PRESSURE TESTABLE JOINT CLOSURE. ALL JOINT CLOSURES AND INSULATION SHALL OCCUR AT STRAIGHT SECTIONS OF PIPE. ALL INSULATION AND JACKETING MATERIALS SHALL BE FURNISHED BY THERMACOR.
 - FITTINGS SHALL BE PRE-INSULATED AND JACKETED.
 - EXPANSION/CONTRACTION COMPENSATION WILL BE ACCOMPLISHED UTILIZING FACTORY PRE-FABRICATED AND PRE-INSULATED EXPANSION ELBOWS, Z-BENDS, EXPANSION LOOPS, AND ANCHORS SPECIFICALLY DESIGNED FOR THE INTENDED APPLICATION. EXTERNAL EXPANSION COMPENSATION UTILIZING FLEXIBLE EXPANSION PADS (MINIMUM ONE INCH THICKNESS), EXTENDING ON EITHER SIDE, BOTH INSIDE AND OUTSIDE THE RADIUS OF THE FITTINGS ARE USED WITH ALL FITTINGS HAVING EXPANSION IN EXCESS OF 1/2".
 - ENTIRE SYSTEM SHALL BE PRE-FABRICATED AND PRE-ENGINEERED BY THE MANUFACTURER, INCLUDING EXPANSION / CONTRACTION STRESS ANALYSIS AND COMPENSATION DESIGN, AND DESIGN OF THRUST BLOCKS.
 - INSTALL SYSTEM PER MANUFACTURER'S INSTRUCTIONS. TRENCHING, BEDDING AND BURIAL SHALL BE IN ACCORDANCE WITH MANUFACTURER'S MINIMUM REQUIREMENTS.
 - PROVIDE PRODUCT LISTED OR ENGINEER PRE-APPROVED EQUAL, APPLIES TO ALL PRODUCTS LISTED IN SCHEDULE.
 - INSTALL ALL PRODUCTS PER THE MANUFACTURER'S RECOMMENDATIONS.
 - ALL PIPING IS TO BE SUPPORTED PER ANSI B31.9, ASME B31.1, MSS SP-58, AND MSS SP-69 AND MANUFACTURER'S INSTRUCTIONS.
 - LABEL ALL PIPING IN ACCORDANCE WITH ASME A13.1.
 - PIPING SYSTEMS SHALL BE TESTED IN ACCORDANCE WITH THE APPLICABLE CODES AND LOCAL AHJ.
 - WHEN JOINING DISSIMILAR METALS USE DIELECTRIC NIPPLES OR COUPLINGS, OR DIELECTRIC FLANGE KITS ON LARGER PIPING. DIELECTRIC UNIONS ARE NOT ALLOWED.
 - CLEAN AND FLUSH ALL NEWLY INSTALLED PIPING AND STRAINER / FILTERS WITH SYSTEM APPROPRIATE MATERIAL PRIOR TO PUTTING SYSTEM INTO OPERATION.

DUCTWORK INSULATION SCHEDULE

SYSTEM DESIGNATION	DESCRIPTION	PRODUCTS	K	SERVICE TEMPERATURES		NOMINAL THICKNESS	INSTALLED R-VALUE	REMARKS
				MIN (DEG. F)	MAX (DEG. F)			
DWF	FLEXIBLE DUCT WRAP GLASS FIBER ASTM C1295, TYPE III	OWENS CORNING SOFT DUCT WRAP TYPE 75	0.30	0	250	2.2 3.0	6.0 8.3	
DWR	SEMI-RIGID DUCT BOARD GLASS FIBER ASTM C 612 TYPES IA, IB	OWENS CORNING FIBERGLASS TYPE 703 DENSITY = 3.0 PCF	0.23	0	450	1.5 2.0	6.5 8.7	TYPE 705 IN INTERIOR EXPOSED SPACES
DLF	FLEXIBLE DUCT LINER GLASS FIBER ASTM C1071, TYPE I FLEXIBLE	OWENS CORNING QUIET ROTARY FLEXIBLE DUCT LINER	0.23	0	250	1.5 2.0	6.3 8.0	
DLR	DUCT LINER BOARD GLASS FIBER ASTM C1071 TYPE II, RIGID	OWENS CORNING QUIET DUCT LINER BOARD (3.0 PCF)	0.23	0	250	2.0	8.7	
DWCCF	CLOSED-CELL ELASTOMERIC FOAM DUCT WRAP ASTM C534, TYPE II	ARMACELL AP ARMAFLEX FS	0.25	-20	220	2.0	8.0	
DWCCF-EXT	CLOSED-CELL ELASTOMERIC FOAM DUCT WRAP WITH HEAVY DUTY SILVER UV-RESISTANT LAMINATE JACKET ASTM C534, TYPE II	ARMACELL ARMATUFF PLUS II	0.25	-20	180	2.0	8.0	10 YR WARRANTY
ABM	EXTERNAL ACOUSTIC BARRIER MATERIAL ASTM E84-158, LIMP VINYL	KINETICS 200 KMM-AL	-	-40	220	3.0 6.0	- -	2.0 PSF MINIMUM NRC 0.85

DUCTWORK JACKET SCHEDULE

SYSTEM DESIGNATION	DESCRIPTION	MANUFACTURER	REMARKS
FSK	ALUMINUM-FOIL, FIBERGLASS-REINFORCED SCRIM WITH KRAFT-PAPER OR POLYETHYLENE (FSP) BACKING. WATER VAPOR PERMEANCE = 0.02 PERM. MAX PER ASTM E96 AND PUNCTURE RESISTANCE OF 25 UNITS MAX. PER ASTM C 1136. JACKETING SHALL BE FACTORY-APPLIED SHALL MEET ALL REQUIREMENTS UNDER ASTM C 1136, TYPE II AND IV.	OWENS-CORNING FSK-25	

- NOTES:**
- K-FACTOR UNITS ARE BTU*(HR)*FT**2/F TESTED AT MEAN TEMPERATURE 75 °F
 - PROVIDE PRODUCT LISTED OR ENGINEER PRE-APPROVED EQUAL, APPLIES TO ALL PRODUCTS LISTED IN SCHEDULE.
 - ALL PRODUCTS TO BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS
 - ALL INSULATING MATERIALS SHALL CONFORM TO ASTM E 84, HAVING A MAXIMUM FLAME SPREAD RATING OF 25 AND A MAXIMUM SMOKE DEVELOPMENT RATING OF 50.
 - FIBERGLASS NOMINAL THICKNESS IS OUT OF BOX THICKNESS. REQUIRED R-VALUE SHALL BE INSTALLED R-VALUE.
 - INSULATION PRODUCTS THAT COME IN CONTACT WITH STAINLESS STEEL SHALL HAVE A LEACHABLE CHLORIDE CONTENT OF LESS THAN 50 PPM WHEN TESTED ACCORDING TO ASTM C871. INSULATION MATERIALS FOR USE ON AUSTENITIC STAINLESS STEEL SHALL BE QUALIFIED AS ACCEPTABLE ACCORDING TO ASTM C795.

DEKER PERICH SABATINI

Architecture in Progress



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Serial No: 26780

PROJECT

NMSU NM DEPT OF AGRICULTURE NEW OFFICE BUILDING
3910 SOUTH ESPINA STREET
LAS CRUCES, NEW MEXICO 88003

50% CONSTRUCTION DOCUMENTS

- REVISIONS
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DRAWN BY JA
REVIEWED BY MM
DATE 04/29/2024
PROJECT NO 22-0227.001

DRAWING NAME
MECHANICAL SCHEDULES

SHEET NO
M-603

EXPANSION TANK SCHEDULE - BLADDER TYPE									
MARK	SERVICE	MAKE	SERIES	TANK SIZE (GAL)	TANK ACCEPTANCE (GAL)	BLADDER TYPE	MIN/MAX PRESSURE (PSI)	DIMENSIONS (DIA. X HEIGHT)	
ET-1	CHILLED WATER SYSTEM	B&G	B35	10	1.24	HEAVY DUTY REPLACEABLE BUTYL RUBBER	60/80	12"x23-1/2"	

NOTES:

- PROVIDE MAKE AND MODEL SPECIFIED OR ENGINEER APPROVED EQUAL.
- DESCRIPTION: PRIME-PAINTED CARBON STEEL PRESSURE VESSEL RATED FOR 125 PSIG AND 240 DEG F, CONSTRUCTED AND U-STAMPED IN ACCORDANCE WITH ASME BOILER AND PRESSURE VESSEL CODE SECTION VIII DIV. 1.
- FURNISH WITH CHARGING VALVE AND PRESSURE GAUGE.
- CONTRACTOR TO ADJUST TANK PRE-CHARGE PRESSURE TO THE VALUE SHOWN ABOVE IF SHIPPED WITH A LOWER CHARGE PRESSURE.
- INSTALL ACCORDING TO MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES.

AIR / DIRT SEPARATOR SCHEDULE											
MARK	SERVICE	MAKE	SERIES	MODEL NUMBER	DESIGN FLOW (GPM)	DESIGN GP (PSI)	CONNECTION		DIMENSIONS		REMARKS
							SIZE (IN)	TYPE	DIA (IN)	HEIGHT (IN)	
AS-1	CHILLED WATER	B&G	VHN HIGH VELOCITY	SRS 3FB	145		3	FLANGED	10-3/4	26-1/2	

NOTES:

- PROVIDE MAKE AND MODEL SPECIFIED OR ENGINEER APPROVED EQUAL.
- DESCRIPTION: COALESCING AIR AND DIRT SEPARATOR, PAINTED CARBON STEEL PRESSURE VESSEL RATED FOR 150 PSIG AND 270 DEG F, CONSTRUCTED AND U-STAMPED IN ACCORDANCE WITH ASME BOILER AND PRESSURE VESSEL CODE SECTION VIII DIV. 1.
- FURNISH WITH AUTOMATIC AIR VENT, MANUAL BLOWDOWN VALVE, AND REMOVABLE HEAD.
- INSTALL ACCORDING TO MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES.

PIPE INSULATION SCHEDULE						
INSULATION SYSTEM DESIGNATION	DESCRIPTION	PRODUCTS	K	SERVICE TEMPERATURES		REMARKS
				MIN	MAX	
				CG	CELLULAR GLASS ASTM C552, TYPE II PURE GLASS	
CS	CALCIUM SILICATE ASTM C 533, TYPE I	JOHN-MANVILLE THERMO-12 GOLD	0.4	100	1200	
PU	POLYURETHANE FOAM ASTM C-518		0.16	-70	250	
PH	CFC & HCFC-FREE PHENOLIC INSULATION ASTM C 1126 GRADE 1 TYPE II AND III	POLYGUARD POLYPHEN RESOLCO INSUL-PHEN	0.18 @ 2.5 LB DENS.	-290	250	VAPOR BARRIER REQUIRED IN UNCOND. & EXTERIOR AREAS
PE	POLYETHYLENE FOAM ASTM C-1427, TYPE 1	ARMACELL TUBOLIT	0.27	-297	200	
FIRC	FLEXIBLE INSULATION REMOVABLE COVER	FIT TIGHT COVERS OR THERMAX JACKET				

PIPE JACKET SCHEDULE			
JACKET SYSTEM DESIGNATION	DESCRIPTION	MANUFACTURER	REMARKS
ALJ	ALUMINUM JACKET - JACKET IS TO BE 0.016 INCH THICK, TYPE 3003-H14 ALUMINUM WITH A STUCCO EMBOSSED FINISH AND FACTORY APPLIED VAPOR BARRIER. APPLY JACKETING SYSTEM PER MANUFACTURER RECOMMENDATIONS. ALUMINUM JACKETING SYSTEM SHALL MEET ALL REQUIREMENTS UNDER ASTM B309.	CHILDERS / PREMETCO	
PVC	POLYVINYL CHLORIDE JACKET - JACKET IS TO BE HIGH IMPACT, ULTRA-VIOLET RESISTANT, 20-MIL THICK, WHITE PVC. JACKET SHALL BE FACTORY APPLIED OR APPLIED PER THE MANUFACTURER RECOMMENDATIONS. PVC JACKETING SYSTEM SHALL MEET ALL OF THE REQUIREMENTS UNDER ASTM E84.	JOHN MANVILLE ZESTON 300 SERIES	PVC JACKETING IS NOT TO BE USED IN FLENUMS
HDPE	EXTRUDED, BLACK, HIGH DENSITY POLYETHYLENE (HDPE) MIN. THICKNESS: 100 MILS <12"; 125 MILS 12" TO 24"; 150 MILS > 24"	THERMACOR FERRO-THERM	
FAL	FLEXIBLE ALUMINUM JACKET - JACKET IS TO BE PRE-FABRICATED SELF-ADHERING, SHEET TYPE WATERPROOFING MEMBRANE CONSISTING OF STUCCO-EMBOSSED UV-RESISTANT ALUMINUM FACE WITH A DOUBLE LAYER OF HIGH DENSITY POLYETHYLENE BACKING WITH A UNIFORM LAYER OF RUBBERIZED ASPHALT ADHESIVE. JACKETING SYSTEM SHALL BE INSTALLED PER THE MANUFACTURERS RECOMMENDATIONS.	MFH BUILDING PRODUCTS FLEX-CLAD 400	INSULATION SHALL BE SECURED TO THE PIPING PER THE INSULATION MANUFACTURERS INSTRUCTIONS

NOTES:

- K-FACTOR UNITS ARE BTU*IN/HR*FT²*OF TESTED AT 75 OF
- PROVIDE PRODUCT LISTED OR ENGINEER PRE-APPROVED EQUAL, APPLIES TO ALL PRODUCTS LISTED IN SCHEDULE.
- INSTALL ALL PRODUCTS PER THE MANUFACTURER'S RECOMMENDATIONS.
- ALL INSULATING MATERIALS SHALL CONFORM TO ASTM E 84, HAVING A MAXIMUM FLAME SPREAD RATING OF 25 AND A MAXIMUM SMOKE DEVELOPMENT RATING OF 50.
- FURNISH AND INSTALL PIPE LABELS ON ALL PIPING PER ASME AND ANSI A13.1.
- INSULATION PRODUCTS THAT COME IN CONTACT WITH STAINLESS STEEL SHALL HAVE A LEACHABLE CHLORIDE CONTENT OF LESS THAN 50 PPM WHEN TESTED ACCORDING TO ASTM C871. INSULATION MATERIALS FOR USE ON AUSTENITIC STAINLESS STEEL SHALL BE QUALIFIED AS ACCEPTABLE ACCORDING TO ASTM C795.

DEKKER PERICH SABATINI
Architecture
in Progress



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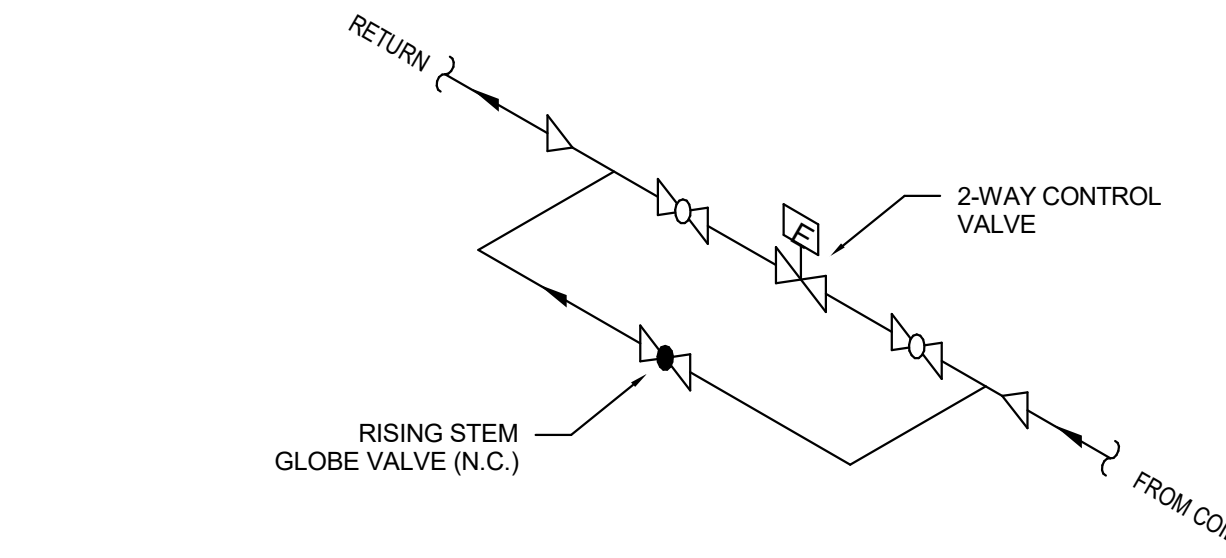
DRAWN BY JA
REVIEWED BY MM
DATE 04/29/2024
PROJECT NO 22-0227.001

DRAWING NAME
**MECHANICAL
SCHEDULES**

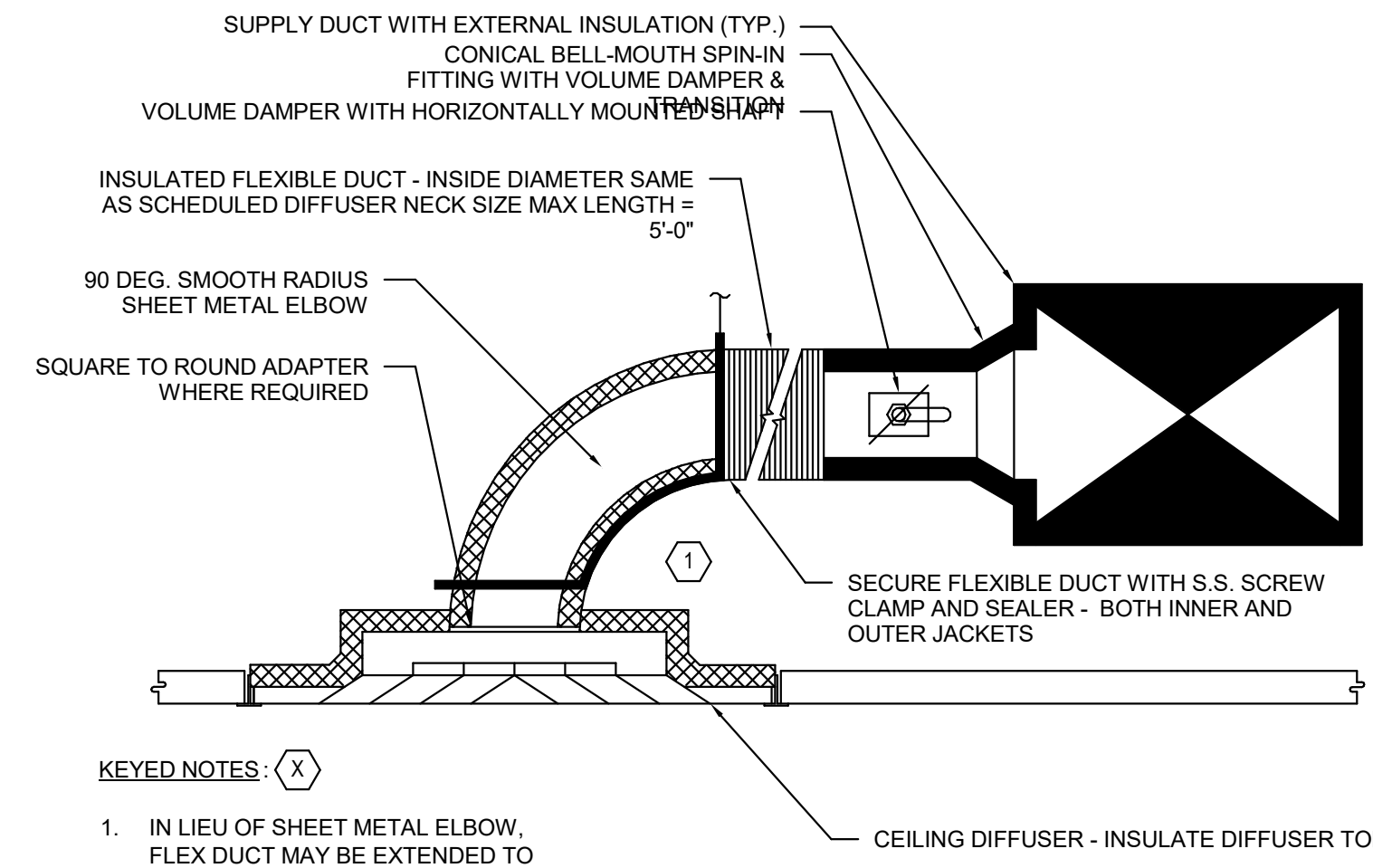
SHEET NO
M-604

GENERAL NOTES:

- REFER TO PLANS FOR PIPE ROUTING AND SIZES. SEE SCHEDULES FOR EQUIPMENT AND MATERIALS.
- SIZE BYPASS VALVE TO MATCH CONTROL VALVE.



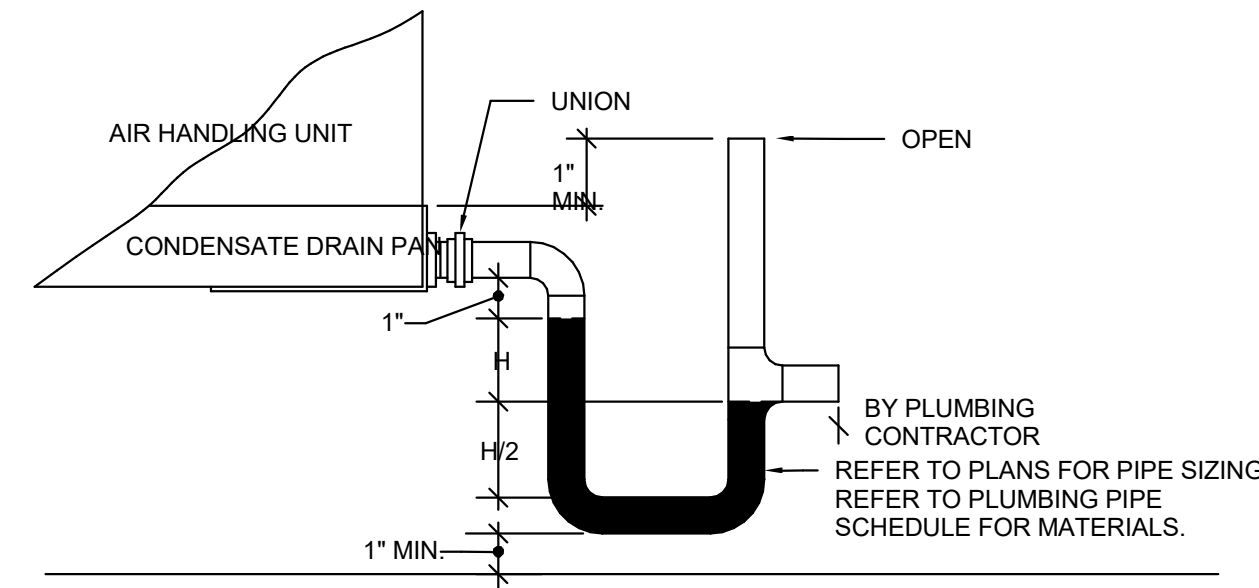
4 M-701 M - Control Valve Bypass Detail
12" = 1'-0"



KEYED NOTES: (X)

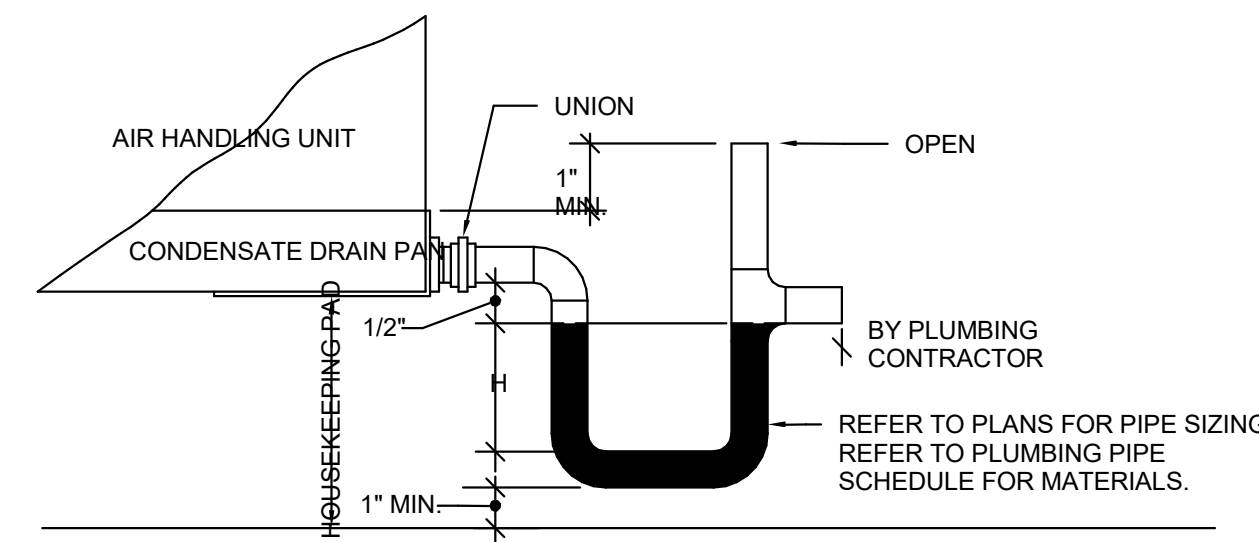
- IN LIEU OF SHEET METAL ELBOW, FLEX DUCT MAY BE EXTENDED TO THE DIFFUSER. USE THERMAFLEX "FLEXFLOW" ELBOW HARNESS, SUSPENDED FROM STRUCTURE.

2 M-701 M - Ceiling Diffuser Connection Detail
12" = 1'-0"

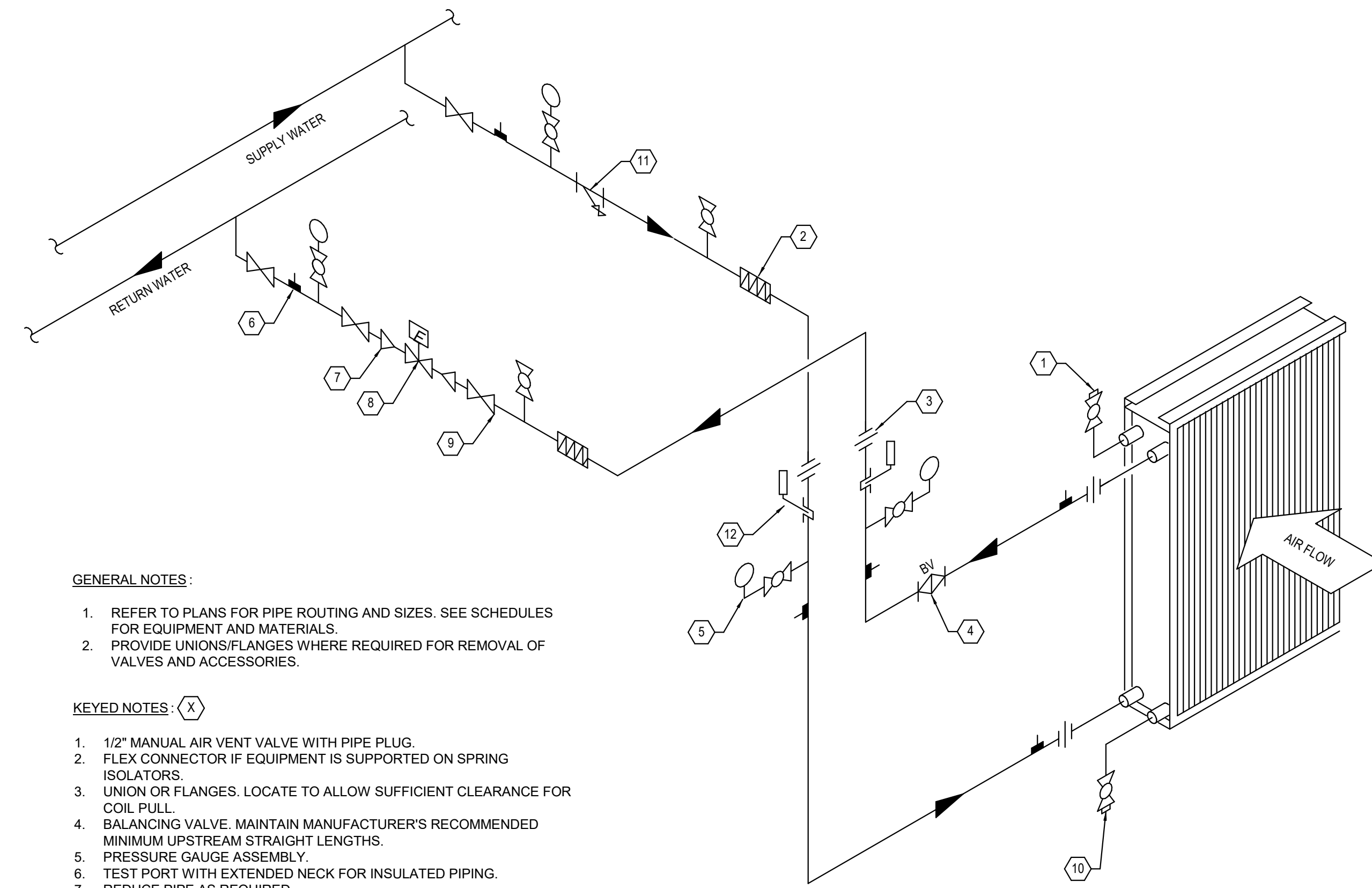


DRAW-TROUGH UNIT DRAIN
NOTE: H = FAN INLET PRESSURE (IN. WC.)

3 M-701 M - Condensate Drain Detail
12" = 1'-0"



BLOW-TROUGH UNIT DRAIN
NOTE: H = FAN OUTLET PRESSURE (IN. WC.)



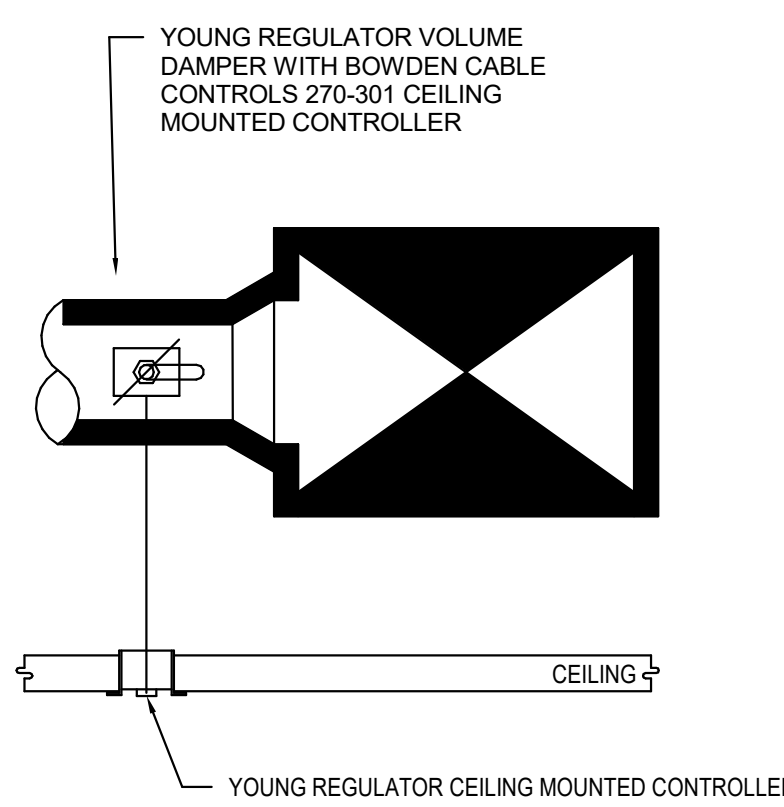
GENERAL NOTES:

- REFER TO PLANS FOR PIPE ROUTING AND SIZES. SEE SCHEDULES FOR EQUIPMENT AND MATERIALS.
- PROVIDE UNIONS/FLANGES WHERE REQUIRED FOR REMOVAL OF VALVES AND ACCESSORIES.

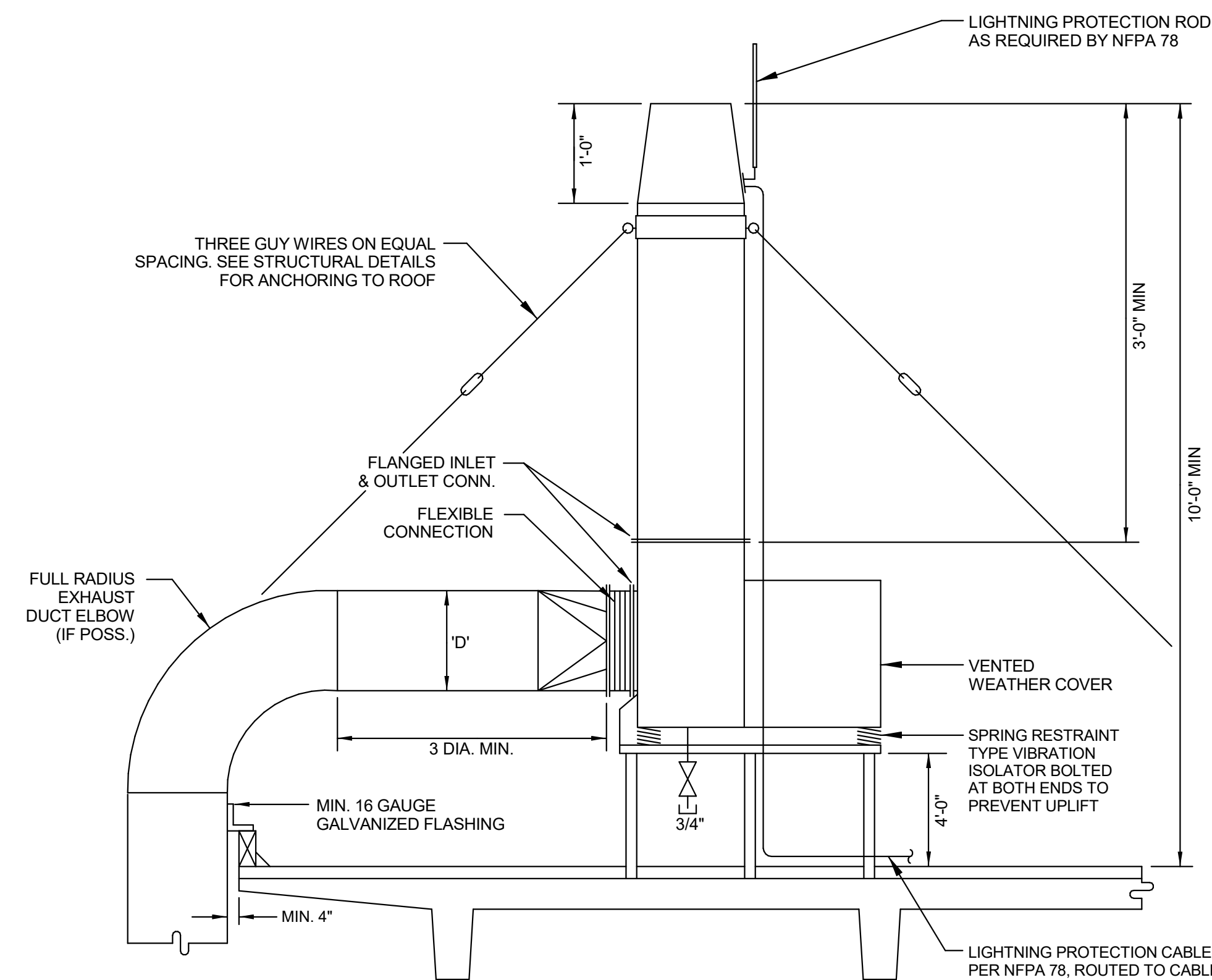
KEYED NOTES: (X)

- 1/2" MANUAL AIR VENT VALVE WITH PIPE PLUG.
- FLEX CONNECTOR IF EQUIPMENT IS SUPPORTED ON SPRING ISOLATORS.
- UNION OR FLANGES. LOCATE TO ALLOW SUFFICIENT CLEARANCE FOR COIL PULL.
- BALANCING VALVE. MAINTAIN MANUFACTURER'S RECOMMENDED MINIMUM UPSTREAM STRAIGHT LENGTHS.
- PRESSURE GAUGE ASSEMBLY.
- TEST PORT WITH EXTENDED NECK FOR INSULATED PIPING.
- REDUCE PIPE AS REQUIRED.
- MODULATING THREE-WAY CONTROL VALVE WITH ELECTRONIC FAIL-IN-PLACE ACTUATOR.
- ISOLATION VALVE.
- 3/4" DRAIN WITH VALVE AND PIPE PLUG.
- LINE SIZE STRAINER WITH BLOW-DOWN VALVE.
- THERMOMETER.

1 M-701 M - 2-Way Water Coil Connection Detail
12" = 1'-0"

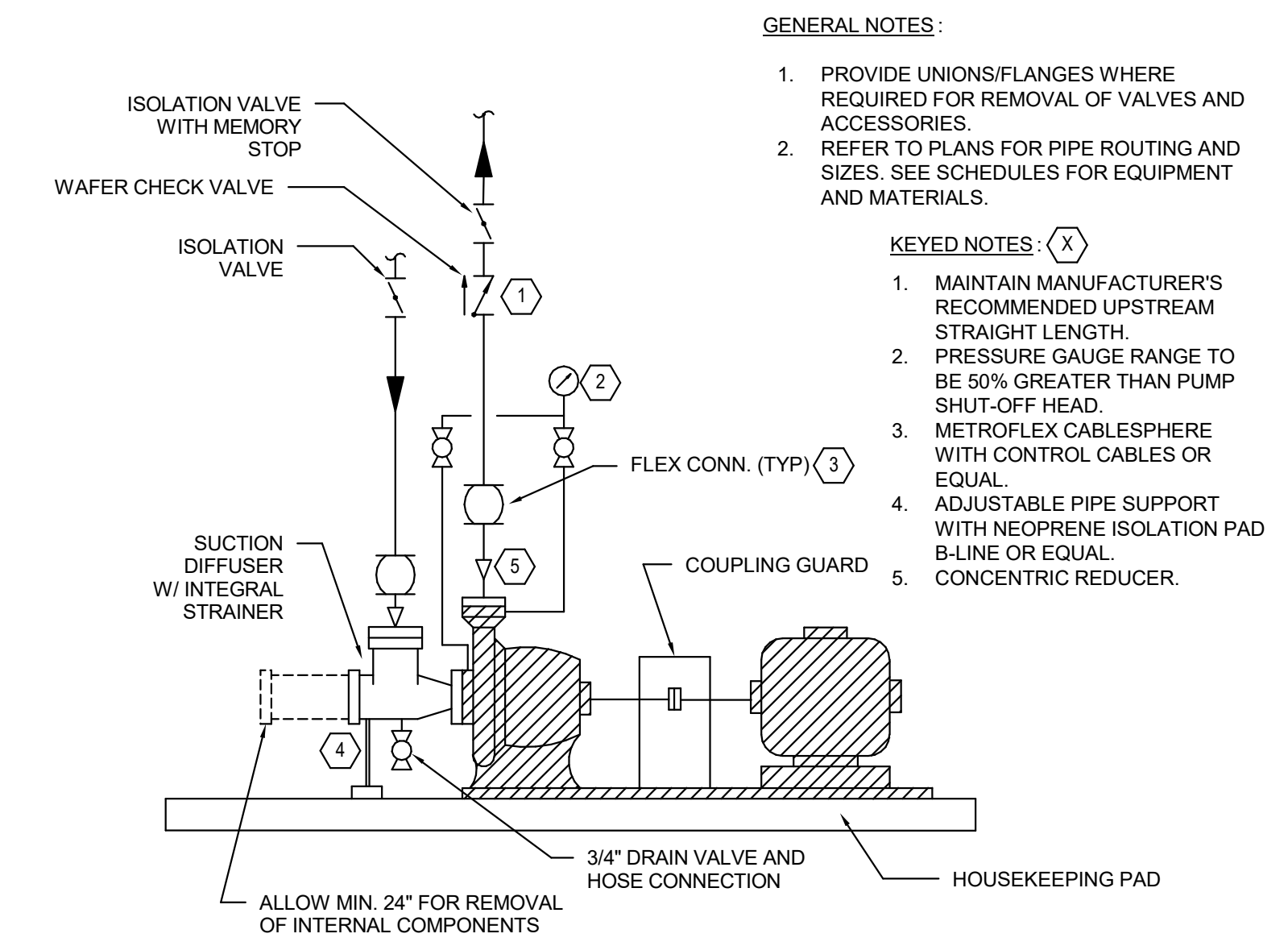


7 M-701 M - Non-Accessible Ceiling Diffuser Connection Detail
12" = 1'-0"



6 M-701 M - Exhaust Fan on Roof Detail
12" = 1'-0"

DESIGNER NOTE: DELETE LIGHTNING PROTECTION IF NOT APPLICABLE TO THE FACILITY.



5 M-701 M - End Suction Pump Detail
12" = 1'-0"

GENERAL NOTES:

- PROVIDE UNIONS/FLANGES WHERE REQUIRED FOR REMOVAL OF VALVES AND ACCESSORIES.
- REFER TO PLANS FOR PIPE ROUTING AND SIZES. SEE SCHEDULES FOR EQUIPMENT AND MATERIALS.

KEYED NOTES: (X)

- MAINTAIN MANUFACTURER'S RECOMMENDED UPSTREAM STRAIGHT LENGTH.
- PRESSURE GAUGE RANGE TO BE 50% GREATER THAN PUMP SHUT-OFF HEAD.
- METROFLEX CABLESPHERE WITH CONTROL CABLES OR EQUAL.
- ADJUSTABLE PIPE SUPPORT WITH NEOPRENE ISOLATION PAD B-LINE OR EQUAL.
- CONCENTRIC REDUCER.

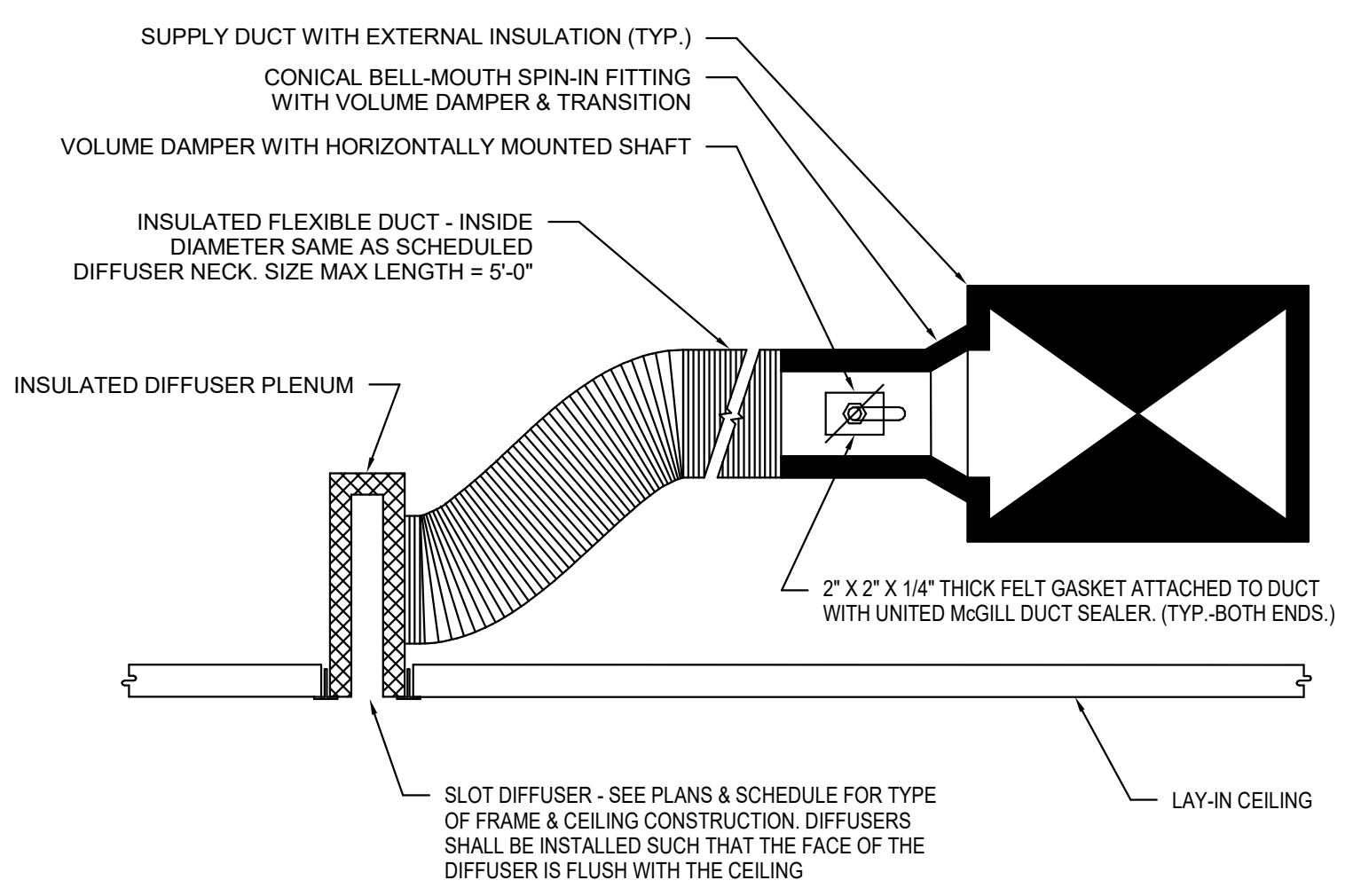
REVISIONS

DRAWN BY	JA
REVIEWED BY	MM
DATE	04/29/2024
PROJECT NO	22-0227.001

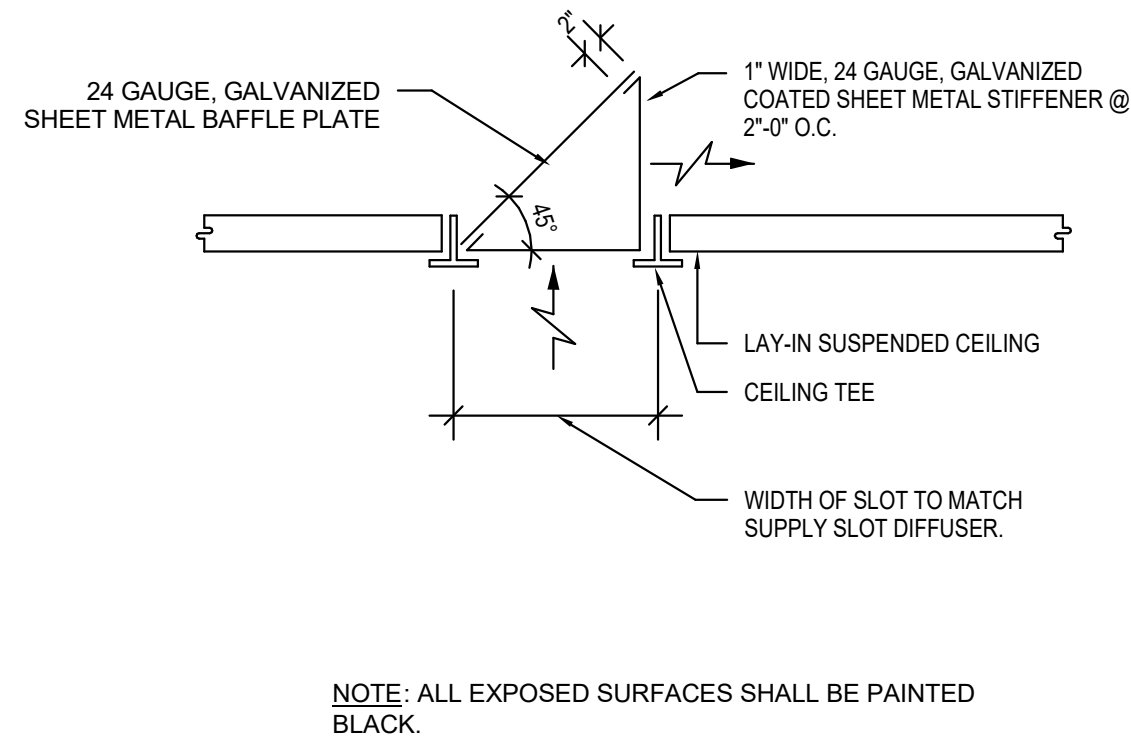
DRAWING NAME
MECHANICAL DETAILS

KEYED NOTES: (X)

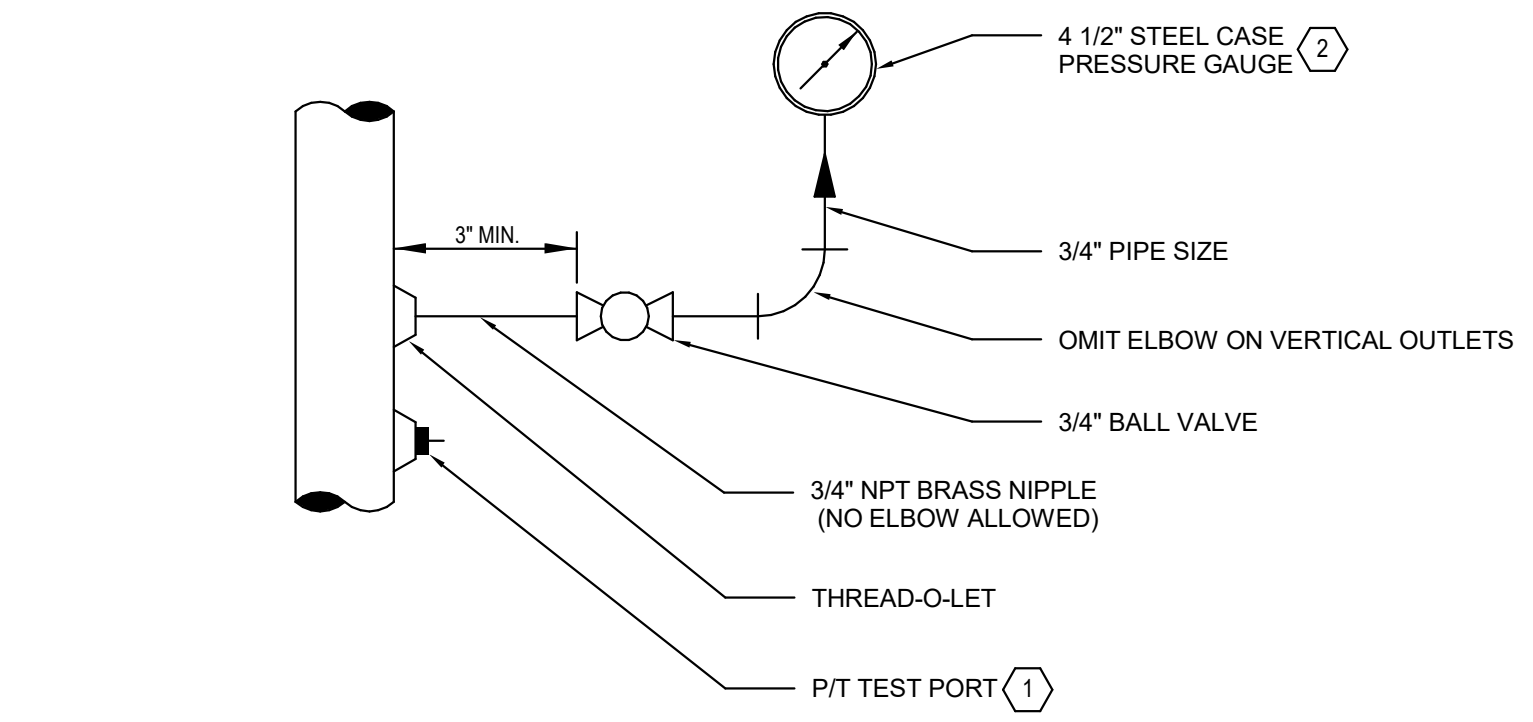
1. INSTALL PIT TEST PORT ADJACENT TO ALL PRESSURE GAUGES. TEST PORT TO INCLUDE EXTENDED NECK IN INSULATED PIPING.
2. ASHCROFT 1000 OR EQUAL. FURNISH WITH FLUTTER GUARD AT PUMP SUCTION AND DISCHARGE.



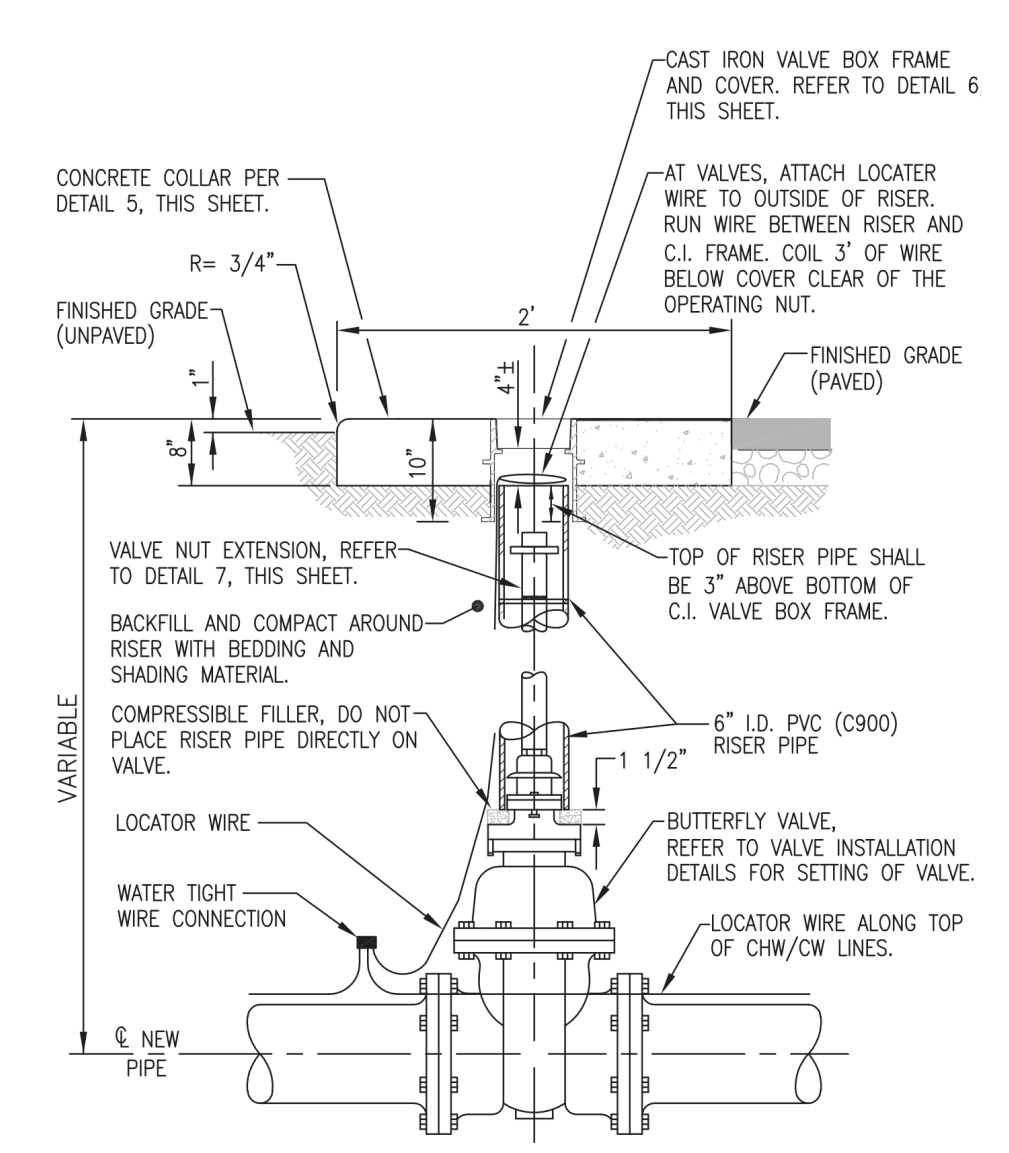
3 M - Supply Air Slot Diffuser Detail
NOT TO SCALE



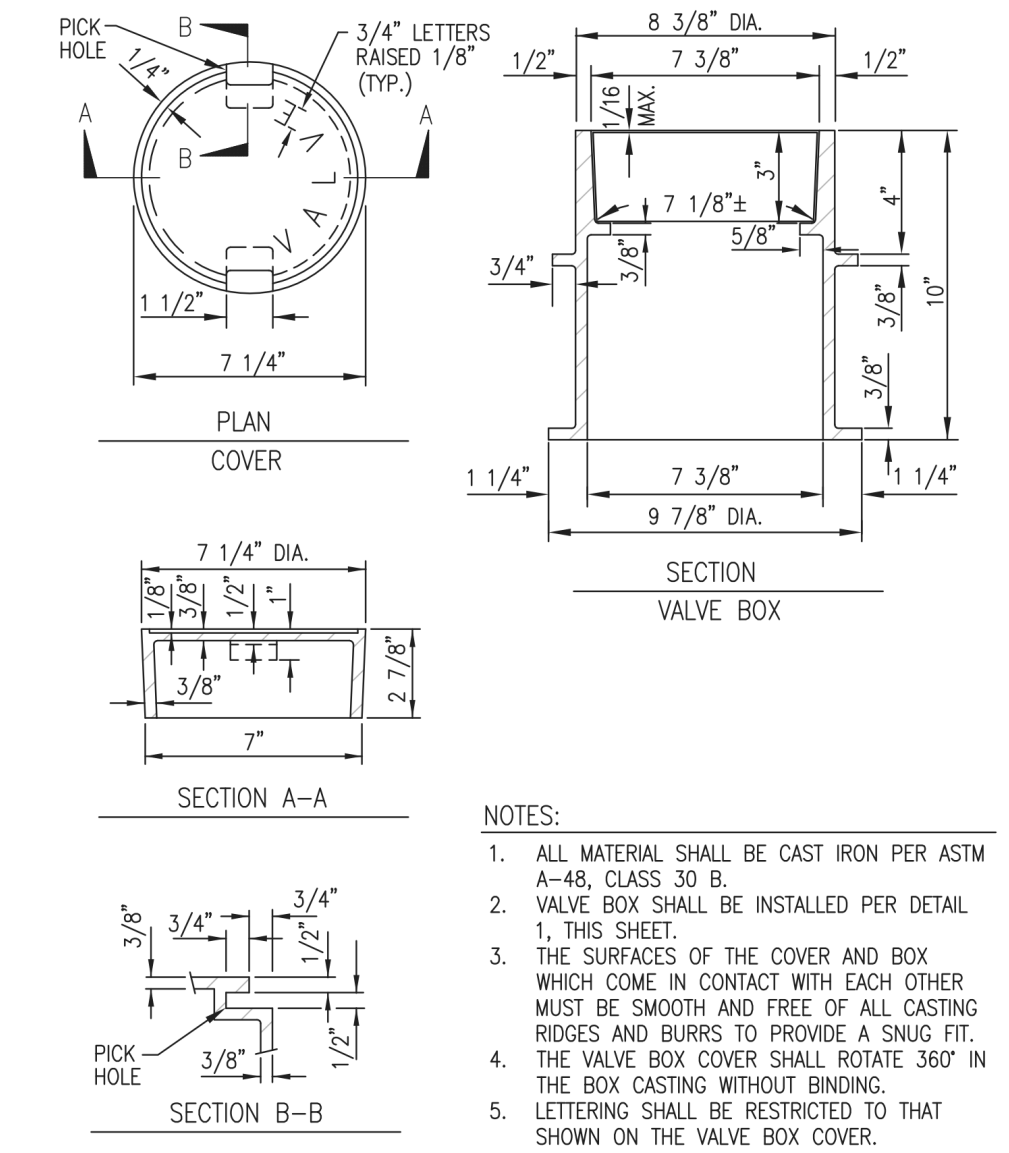
2 M - Return Air Slot Site Baffle Detail
NOT TO SCALE



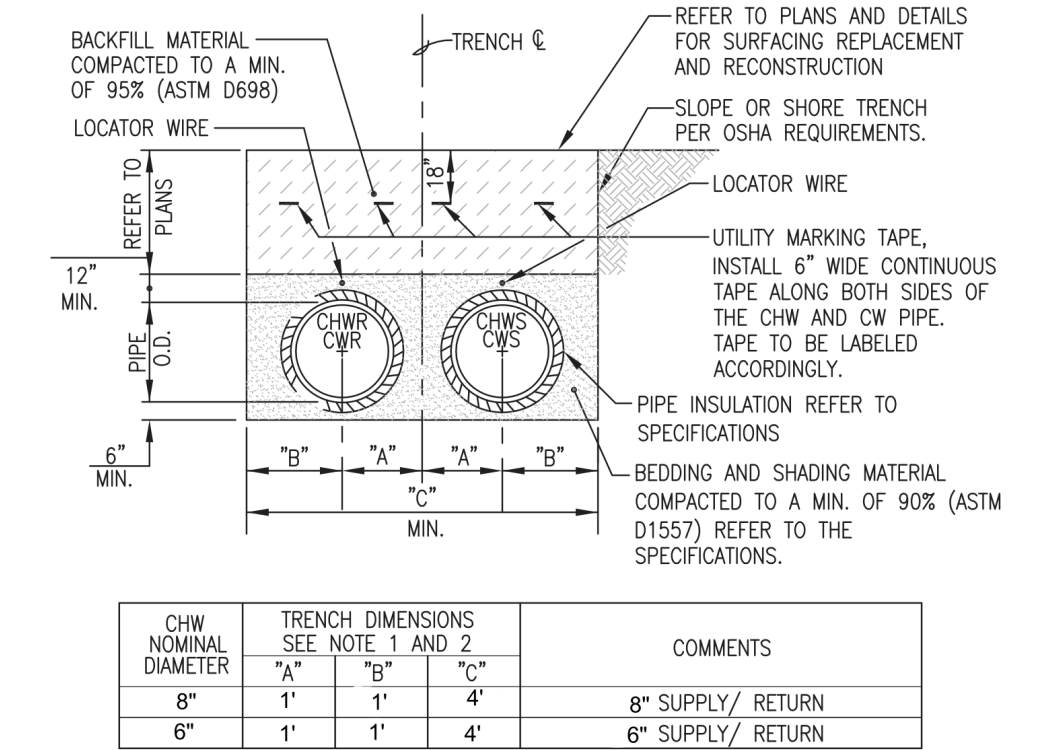
1 M - Pressure Gauge Assembly Detail
NOT TO SCALE



7 TYPICAL VALVE BOX DETAIL
NOT TO SCALE

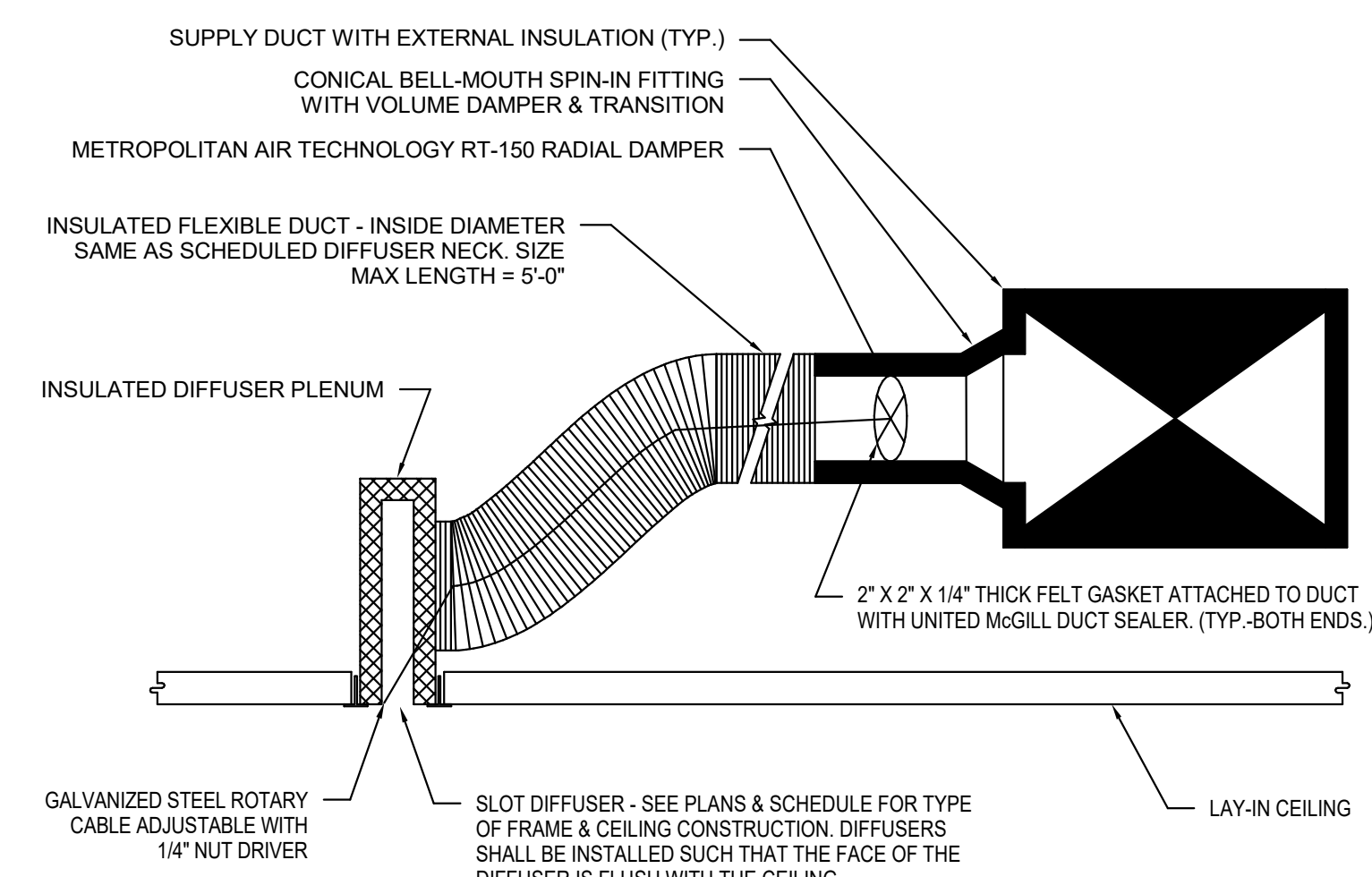


6 CHILLED WATER VALVE BOX FRAME AND COVER
NOT TO SCALE

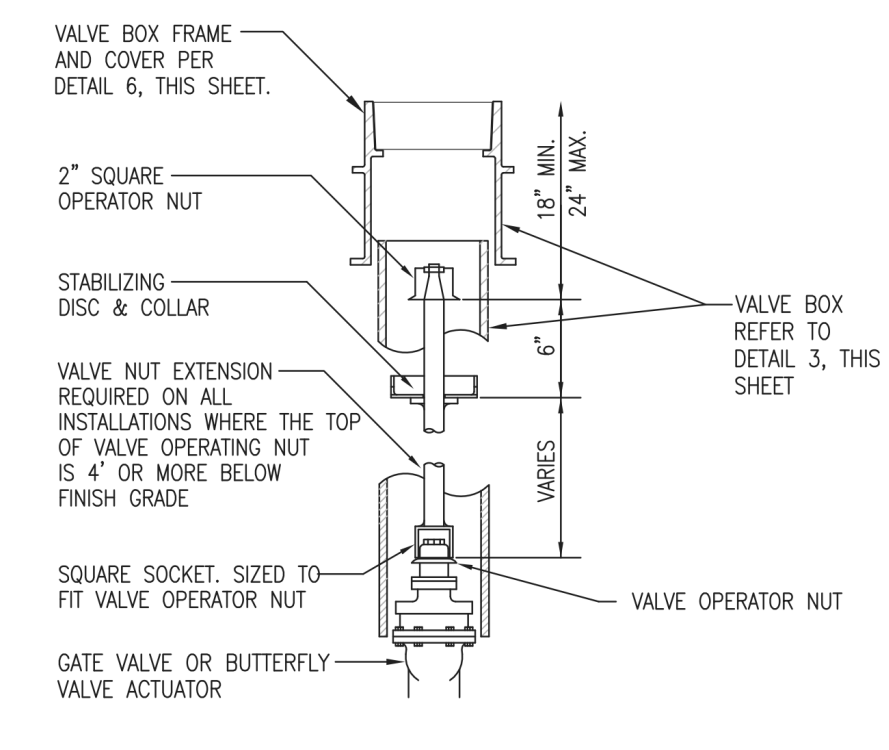


- NOTES:**
1. DIMENSIONS INDICATED ARE THE MINIMUM ALLOWABLE. THE CONTRACTOR SHALL VERIFY THAT ADEQUATE SPACE IS PROVIDED TO INSTALL AND COMPLETE ALL JOINTS AND PIPING INSULATION.
 2. FOR SINGLE PIPE IN TRENCH LOCATIONS, THE GENERAL PARAMETERS INDICATES SUPPLY TO THE TRENCHING REQUIREMENTS.

5 CHILLED WATER TRENCH
NOT TO SCALE

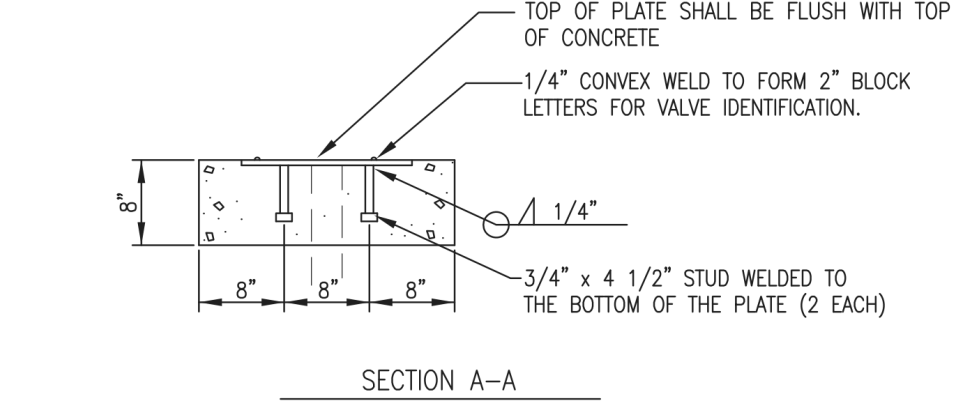
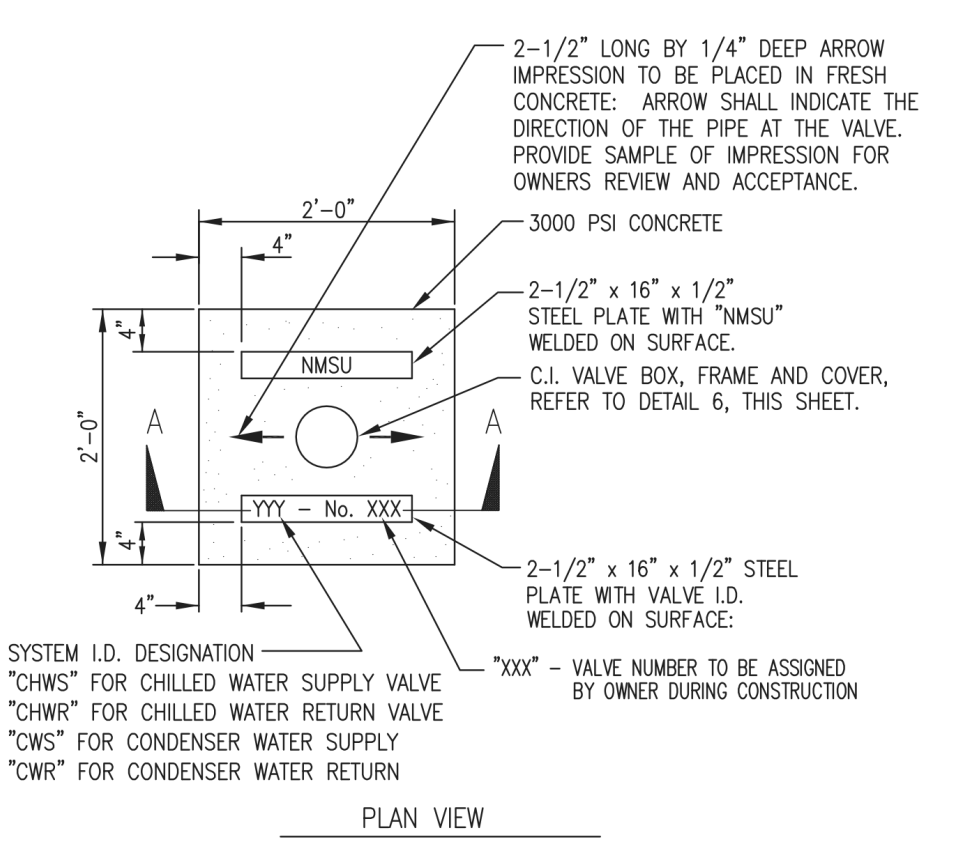


4 M - Supply Air Slot Diffuser With Remote Regulator Detail
NOT TO SCALE

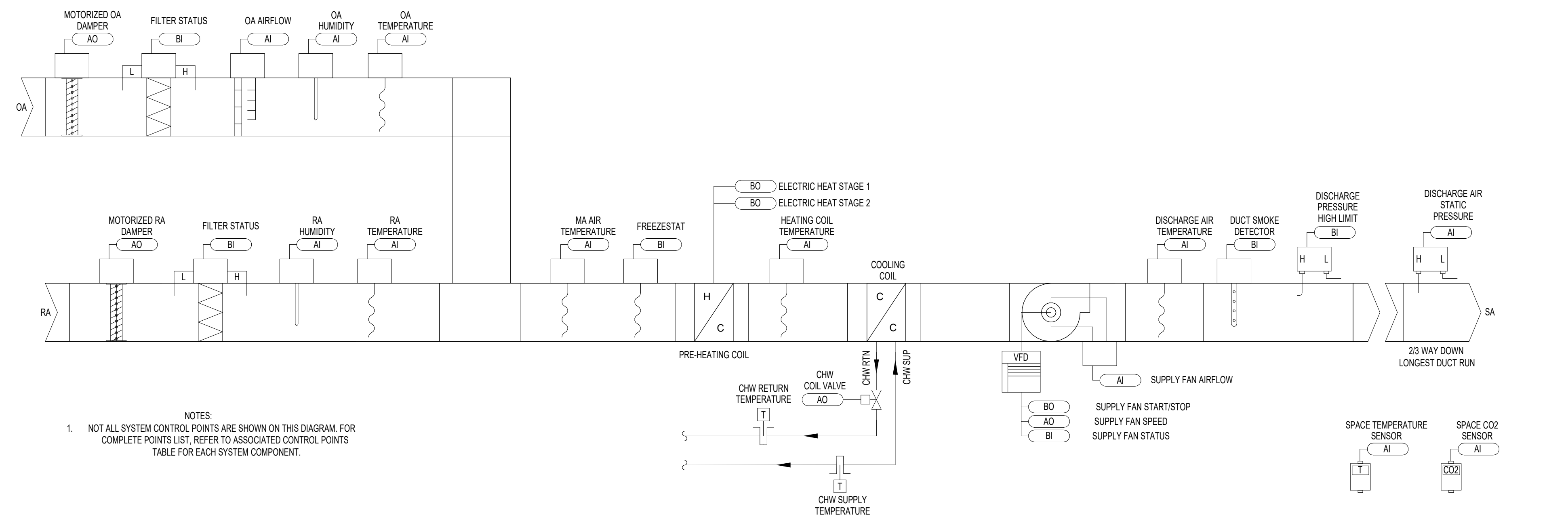


- NOTES:**
- 1) OPERATOR NUT, VALVE NUT EXTENSION, DISC & COLLAR, AND SQUARE SOCKET SHALL ALL BE CENTERED VERTICALLY OVER THE VALVE OPERATOR NUT.
 - 2) INSTALL VALVE NUT EXTENSION AT ALL LOCATIONS WHERE THE TOP OF THE VALVE NUT IS 4" OR GREATER BELOW FINISH GRADE.

9 TYPICAL VALVE BOX DETAIL
NOT TO SCALE



8 VALVE BOX IDENTIFICATION COLLAR
NOT TO SCALE



1 SINGLE AHU VAV WITH ALT RELIEF
 NOT TO SCALE

NOTE: BROWN TEXT WITHIN BRACKETS MEANS TO EDIT.

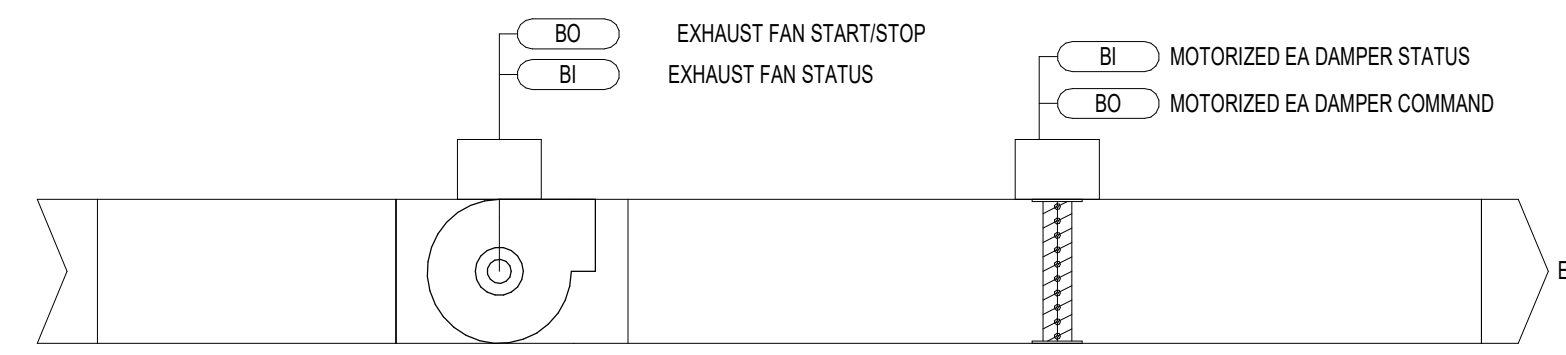
SINGLE-ZONE AIR HANDLER SEQUENCE OF OPERATIONS

- AIR HANDLING UNIT SEQUENCE OF OPERATION**
1. THE UNIT SHALL OPERATE ON A TIME-OF-DAY SCHEDULE PROVIDED BY THE BAS. THIS SCHEDULE SHALL DETERMINE WHEN THE UNIT IS IN OCCUPIED OR UNOCCUPIED MODE.
 2. THE UNIT SHALL OPERATE CONTINUOUSLY DURING OCCUPIED HOURS. THE BAS SHALL MONITOR STATUS AND ALARMS.
 3. DURING UNOCCUPIED HOURS, THE UNIT SHALL BE OFF UNLESS A ZONE CALLS FOR COOLING. IF A ZONE ASSOCIATED WITH THE AHU CALLS FOR COOLING, THE AHU SHALL ENABLE AND RUN FOR A MINIMUM OF 30 MINUTES (ADJUSTABLE) UNTIL THE ZONE IS SATISFIED. THE OUTDOOR AIR DAMPER SHALL REMAIN CLOSED DURING UNOCCUPIED HOURS.
 4. **DISCHARGE AIR TEMPERATURE CONTROL:** THE ELECTRIC HEATER, THE COOLING COIL, AND THE RETURN AIR / OUTSIDE AIR DAMPERS SHALL MODULATE TO MAINTAIN A DISCHARGE AIR TEMPERATURE SETPOINT OF 54 DEGREES F (ADJUSTABLE) OR AS SHOWN ON THE AIR HANDLING UNIT SCHEDULE. THE UNIT SHALL NOT OPERATE THE ELECTRIC HEATER AND COOLING COILS SIMULTANEOUSLY. IF THE DISCHARGE AIR TEMPERATURE DEVIATES BY MORE THAN 2 DEGREES F (ADJUSTABLE), SEND AN ALARM TO THE BAS FRONT-END.
 5. **ELECTRIC HEATER CONTROL:** THE ELECTRIC HEATER SHALL MODULATE TO KEEP THE OUTSIDE AIR PREHEAT TEMPERATURE ABOVE 40 DEGREES F (ADJUSTABLE). THE HEATER SHALL BE DISABLED WHEN THE COOLING COIL IS OPERATING OR WHEN THE OUTSIDE AIR TEMPERATURE IS ABOVE 55 DEGREES F (ADJUSTABLE). IF THE HEATER IS COMMANDED ON, BUT THE OUTSIDE AIR PREHEAT TEMPERATURE IS WITHIN 3 DEGREES F (ADJUSTABLE) OF THE OUTSIDE AIR TEMPERATURE FOR A PERIOD OF 10 MINUTES (ADJUSTABLE), SEND AN ALARM TO THE BAS FRONT-END.
 6. **SUPPLY FAN SPEED CONTROL:** THE SUPPLY FAN SHALL MODULATE IN RESPONSE TO THE DUCT STATIC PRESSURE SENSOR. ONE DUCT STATIC PRESSURE SENSOR SHALL BE PROVIDED FOR EACH AIR HANDLING UNIT. THE SUPPLY FAN VFD SHALL BE CONTROLLED TOGETHER AND SHALL MODULATE TO MAINTAIN A DUCT STATIC PRESSURE SETPOINT OF 0.1 W.G. (ADJUSTABLE). IF THE DUCT STATIC PRESSURE READING DEVIATES FROM THE SETPOINT BY MORE THAN 0.2 W.G. (ADJUSTABLE) FOR A PERIOD OF 10 MINUTES (ADJUSTABLE), SEND AN ALARM TO THE BAS FRONT-END.
 7. **STATIC PRESSURE RESET:** THE BAS SHALL MONITOR ALL VAV TERMINAL UNIT DAMPER POSITIONS AND DETERMINE THE CRITICAL ZONE VAV UNIT. THE CRITICAL ZONE VAV TERMINAL UNIT SHALL BE THE UNIT WITH THE MOST OPEN DAMPER. IF THE CRITICAL ZONE DAMPER IS LESS THAN 50% OPEN (ADJUSTABLE), THEN THE STATIC PRESSURE SETPOINT SHALL BE RESET DOWNWARD BY 0.1" (ADJUSTABLE) EVERY 10 MINUTES (ADJUSTABLE) UNTIL THE CRITICAL ZONE DAMPER IS AT 50% OPEN (ADJUSTABLE) OR UNTIL THE STATIC PRESSURE SETPOINT REACHES THE MINIMUM SETPOINT OF 0.12" (ADJUSTABLE). IF ANY DAMPER OPENS TO 50% OR GREATER, OR IF THE CRITICAL ZONE DAMPER OPENS ABOVE 50%, THEN THE STATIC PRESSURE SETPOINT SHALL BE RESET UPWARD BY 0.1" (ADJUSTABLE) EVERY 10 MINUTES (ADJUSTABLE) UNTIL THE CRITICAL ZONE DAMPER IS AT 50% OPEN (ADJUSTABLE) OR THE STATIC PRESSURE SETPOINT REACHES ITS MAXIMUM VALUE. THE BAS SHALL HAVE A TABLE, AVAILABLE FOR VIEWING FROM THE FRONT-END, THAT CORRELATES ALL OF THE CRITICAL ZONE VAV TERMINAL UNITS AND THEIR DAMPER POSITIONS FOR THE FIRST 100 VAV (ADJUSTABLE).
 8. **ECONOMIZER CONTROL:** THE BAS SHALL MONITOR THE DRY BULB TEMPERATURE OF THE OUTDOOR AIR USING THE OUTDOOR AIR TEMPERATURE SENSOR, AND THE RETURN AIR DRY BULB TEMPERATURE USING THE RETURN AIR TEMPERATURE SENSOR. EACH AIR HANDLING UNIT SHALL HAVE ITS OWN RETURN AIR TEMPERATURE SENSOR. IF THE TEMPERATURE OF THE OUTSIDE AIR IS 3 DEGREES F (ADJUSTABLE) LOWER THAN THE RETURN AIR TEMPERATURE, THEN THE UNIT SHALL GO INTO ECONOMIZER MODE. ECONOMIZER SHALL BE THE FIRST STAGE OF COOLING FOR THE UNIT. IF THE DISCHARGE AIR TEMPERATURE SETPOINT IS 1 DEGREE F (ADJUSTABLE) HIGHER THAN SETPOINT FOR A PERIOD OF 5 MINUTES (ADJUSTABLE), THE COOLING COIL SHALL MODULATE IN ADDITION TO ECONOMIZER MODE TO MEET THE DISCHARGE AIR SETPOINT. THE UNIT SHALL NOT RUN IN ECONOMIZER MODE IF THE OUTSIDE AIR TEMPERATURE IS LESS THAN 40 DEGREES F (ADJUSTABLE) OR GREATER THAN 70 DEGREES F (ADJUSTABLE).
 9. **ECONOMIZER CONTROL:** THE BAS SHALL MONITOR THE ENTHALPY OF THE OUTDOOR AIR USING THE OUTDOOR AIR TEMPERATURE AND HUMIDITY SENSORS, AND THE RETURN AIR ENTHALPY USING THE RETURN AIR TEMPERATURE AND HUMIDITY SENSORS. ONE SET OF SENSORS SHALL BE INSTALLED IN ONE LOCATION AND SHALL BE REFERENCED BY ALL AIR HANDLING UNITS. EACH AIR HANDLING UNIT SHALL HAVE ITS OWN RETURN AIR TEMPERATURE AND HUMIDITY SENSORS. IF THE ENTHALPY OF THE OUTSIDE AIR IS 2 BTU/LB (ADJUSTABLE) LOWER THAN THE RETURN AIR ENTHALPY, THEN THE UNIT SHALL GO INTO ECONOMIZER MODE. ECONOMIZER SHALL BE THE FIRST STAGE OF COOLING FOR THE UNIT. IF THE DISCHARGE AIR TEMPERATURE SETPOINT IS 1 DEGREE F (ADJUSTABLE) HIGHER THAN SETPOINT FOR A PERIOD OF 5 MINUTES (ADJUSTABLE), THE COOLING COIL SHALL MODULATE IN ADDITION TO ECONOMIZER MODE TO MEET THE DISCHARGE AIR SETPOINT. THE UNIT SHALL NOT RUN IN ECONOMIZER MODE IF THE OUTSIDE AIR TEMPERATURE IS LESS THAN 40 DEGREES F (ADJUSTABLE).
 10. **VENTILATION CONTROL:** DURING OCCUPIED HOURS, THE MINIMUM OUTSIDE AIR DAMPER SHALL BE OPEN TO MAINTAIN THE OUTSIDE AIR REQUIREMENT FOR EACH UNIT.
 11. **VENTILATION CONTROL:** DURING OCCUPIED HOURS, THE OUTSIDE AIR DAMPER SHALL OPEN TO ITS MAXIMUM SETPOINT (DETERMINED DURING TEST AND BALANCE) TO MAINTAIN THE OUTSIDE AIR REQUIREMENT. THE DAMPER SHALL MODULATE IN RESPONSE TO THE SPACE CO2 SENSORS. THE DAMPER SHALL OPERATE AS FOLLOWS:
 - A. IF THE CRITICAL ZONE (WORST CASE) CO2 IS AT 700 PPM OR LESS, THE OUTSIDE AIR DAMPER SHALL BE AT ITS MINIMUM POSITION.
 - B. IF THE CRITICAL ZONE (WORST CASE) CO2 IS ABOVE 700 PPM BUT LESS THAN 1000 PPM, THE DAMPER SHALL MODULATE LINEARLY BETWEEN ITS MINIMUM AND MAXIMUM VALUES.
 - C. IF THE CRITICAL ZONE (WORST CASE) CO2 IS ABOVE 1000 PPM, THE DAMPER SHALL OPEN TO ITS SCHEDULE MAXIMUM VALUE.
 12. **VENTILATION CONTROL:** DURING OCCUPIED HOURS, THE OUTSIDE AIR DAMPER SHALL OPEN TO ITS MAXIMUM SETPOINT (DETERMINED DURING TEST AND BALANCE) TO MAINTAIN THE OUTSIDE AIR REQUIREMENT. THE DAMPER SHALL MODULATE IN RESPONSE TO THE CO2 SENSOR IN THE RETURN AIR DUCT. THE DAMPER SHALL OPERATE AS FOLLOWS:
 - A. IF CO2 IS AT 700 PPM OR LESS, THE OUTSIDE AIR DAMPER SHALL BE AT ITS MINIMUM POSITION.
 - B. IF CO2 IS ABOVE 700 PPM BUT LESS THAN 1000 PPM, THE DAMPER SHALL MODULATE LINEARLY BETWEEN ITS MINIMUM AND MAXIMUM VALUES.
 - C. IF CO2 IS ABOVE 1000 PPM, THE DAMPER SHALL OPEN TO ITS SCHEDULE MAXIMUM VALUE.
 13. **LOW TEMPERATURE PROTECTION:** THE AIR HANDLING UNIT CONTROLLER SHALL MONITOR THE MIXED AIR TEMPERATURE. IF THE TEMPERATURE DROPS BELOW 35 DEGREES F, THE FREEZE STAT SHALL TRIP AND THE OUTSIDE AIR DAMPER SHALL CLOSE. THE CHILLED WATER VALVE SHALL OPEN FULLY, THE SUPPLY FAN SHALL BE COMMANDED OFF, AND AN ALARM SHALL BE SENT TO THE BAS FRONT-END. IF THE HOT WATER HEATING COIL (NATURAL GAS HEATER / ELECTRIC HEATER) IS ENABLED, IT SHALL BE COMMANDED OFF WHEN THE FREEZE STAT TRIPS.
 14. **SMOKE / FIRE ALARM:** THE AIR HANDLING UNIT SHALL BE HARDWIRED TO SHUTDOWN WHEN THE DUCT SMOKE DETECTOR DETECTS SMOKE. ALL AIR HANDLING UNITS SHALL HAVE A SMOKE DETECTOR INSTALLED IN THE SUPPLY AIRSTREAM. AN ALARM SHALL BE SENT TO THE BAS FRONT-END IN THE EVENT OF SMOKE SHUTDOWN. THE BAS SHALL SHUTDOWN THE UNIT VIA A SOFTWARE COMMAND WHEN AN ALARM IS RECEIVED FROM THE FIRE ALARM PANEL. IF THE AIR HANDLING UNIT SHUTS DOWN DUE TO THE SMOKE DETECTOR, THE BAS SHALL SHUT DOWN ALL VAV BOXES ASSOCIATED WITH THE AIR HANDLER.
 15. **CONDENSATE DRAIN FAN OVERFLOW:** THE FLOAT SWITCH IN THE DRAIN PAN SHALL BE HARDWIRED TO SHUTDOWN THE UNIT IF THE FLOAT SWITCH IS TRIPPED. IF THIS HAPPENS, SEND AN ALARM TO THE BAS FRONT-END.
 16. **RETURN FAN CONTROL:** THE RETURN FAN VFD SHALL MODULATE TO MATCH THE SPEED OF THE SUPPLY FAN. IF THE RETURN FAN STATUS TRIPS, OR IF THE RETURN FAN VFD CANNOT MEET THE SUPPLY FAN VFD COMMANDED SPEED, SEND AN ALARM TO THE BAS FRONT-END. THE RETURN FAN SHALL OPERATE WHEN THE SUPPLY FAN OPERATES.
 17. **BUILDING PRESSURIZATION:** THE RELIEF AIR DAMPERS AND THE RELIEF FAN VFD SHALL MODULATE TO MAINTAIN A POSITIVE PRESSURIZATION OF 0.10 W.G. (ADJUSTABLE). THE FIRST STAGE OF PRESSURIZATION CONTROL SHALL BE MODULATING THE RELIEF AIR DAMPERS, AND THE SECOND STAGE OF PRESSURIZATION CONTROL SHALL BE MODULATING THE RELIEF FAN VFD SPEED. THE BUILDING PRESSURE SENSOR SHALL BE LOCATED AWAY FROM ANY BUILDING ENTRANCES OR OPENINGS. IF THE BUILDING PRESSURE READING IS GREATER THAN 0.17 W.G. (ADJUSTABLE), OR LESS THAN 0.07 W.G. (ADJUSTABLE), SEND AN ALARM TO THE BAS FRONT-END. THE RELIEF FAN SHALL ONLY OPERATE WHEN THE UNIT IS IN OCCUPIED MODE.
 18. **BUILDING PRESSURIZATION:** THE RELIEF AIR DAMPERS AND THE RELIEF FAN VFD SHALL MODULATE TO MAINTAIN A POSITIVE PRESSURIZATION OF 100 CFM (ADJUSTABLE) PER AIR HANDLING UNIT. THE FIRST STAGE OF PRESSURIZATION CONTROL SHALL BE MODULATING THE RELIEF AIR DAMPERS, AND THE SECOND STAGE OF PRESSURIZATION CONTROL SHALL BE MODULATING THE RELIEF FAN VFD SPEED. IF THE BUILDING PRESSURIZATION AIR FLOW DROPS BELOW 50 CFM PER AIR HANDLING UNIT (ADJUSTABLE), OR IF THE PRESSURIZATION AIR FLOW REELS ABOVE 1500 CFM PER AIR HANDLER (ADJUSTABLE), SEND AN ALARM TO THE BAS FRONT-END. THE RELIEF FAN SHALL ONLY OPERATE WHEN THE UNIT IS IN OCCUPIED MODE.

SINGLE-ZONE AIR HANDLER CONTROL POINTS

POINT DESCRIPTION	INPUTS		OUTPUTS		VIRTUAL		NOTES
	ANALOG	DIGITAL	ANALOG	DIGITAL	ANALOG	DIGITAL	
AIR HANDLER (PER AIR HANDLER)							
MOTORIZED OUTSIDE AIR DAMPER COMMAND			X				
OUTSIDE AIR FILTER STATUS				X			
OUTSIDE AIR AIRFLOW			X				
OUTSIDE AIR TEMPERATURE			X				
OUTSIDE AIR HUMIDITY			X				
MOTORIZED RETURN AIR DAMPER POSITION				X			
RETURN AIR FILTER STATUS				X			
RETURN AIR HUMIDITY				X			
RETURN AIR TEMPERATURE				X			
COOLING COIL CONTROL VALVE COMMAND				X			
COOLING COIL ENTERING WATER TEMPERATURE				X			
COOLING COIL LEAVING WATER TEMPERATURE				X			
COOLING COIL LEAVING AIR TEMPERATURE				X			
MIXED AIR TEMPERATURE				X			
ELECTRIC HEATING COIL CONTROL STAGE 1				X			
ELECTRIC HEATING COIL CONTROL STAGE 2				X			
SUPPLY FAN START/STOP COMMAND				X			
SUPPLY FAN VFD SPEED COMMAND				X			
SUPPLY FAN VFD SPEED FEEDBACK				X			
SUPPLY FAN VFD FAULT				X			
SUPPLY FAN STATUS				X			
DISCHARGE AIR TEMPERATURE				X			
DUCT STATIC PRESSURE SETPOINT				X			
DUCT STATIC PRESSURE				X			
DUCT SMOKE DETECTOR STATUS				X			

- NOTES:**
1. CONTRACTOR TO VERIFY POINT COUNTS.
 2. ALL POINTS AVAILABLE IN EQUIPMENT SHALL BE AVAILABLE AT BAS.
 3. ALL POINTS LISTED SHALL HAVE GRAPHICS INCLUDED.

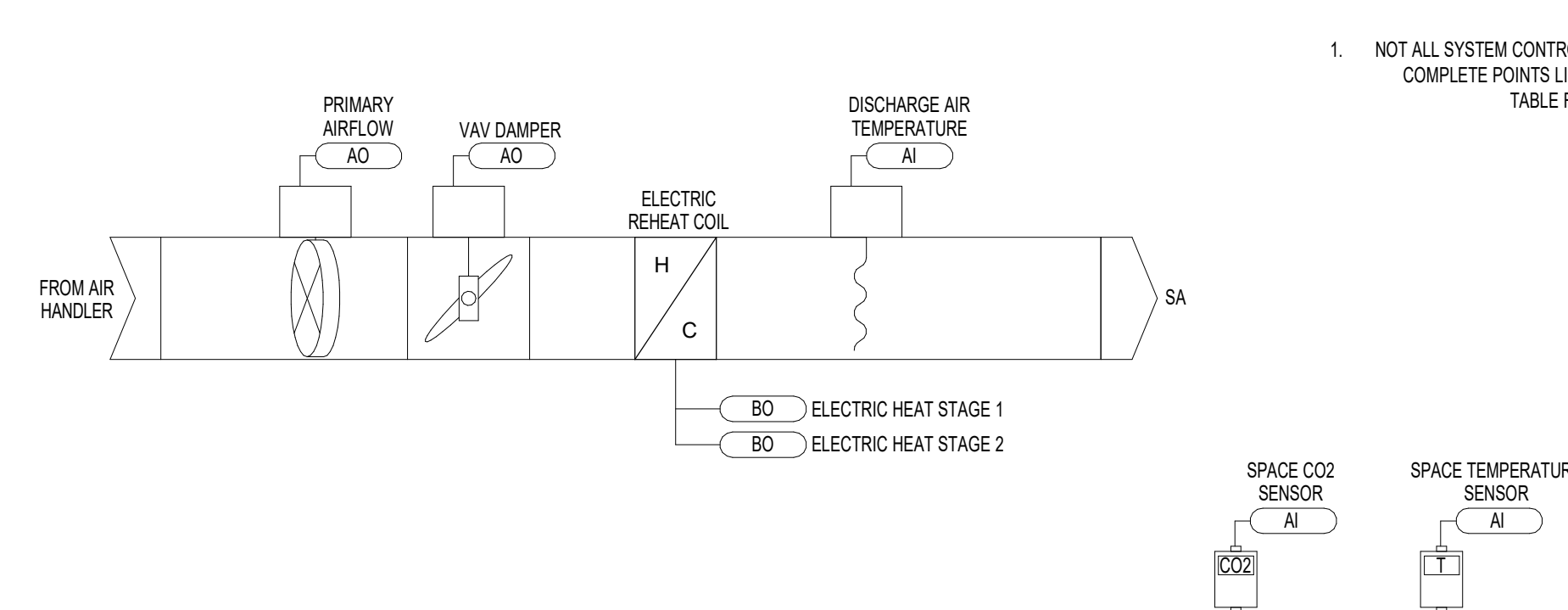


NOTES:
 1. NOT ALL SYSTEM CONTROL POINTS ARE SHOWN ON THIS DIAGRAM. FOR COMPLETE POINTS LIST, REFER TO ASSOCIATED CONTROL POINTS TABLE FOR EACH SYSTEM COMPONENT.
 M-802 / NOT TO SCALE

EXHAUST FAN SEQUENCE OF OPERATIONS	
BUILDING AUTOMATION SYSTEM INTERFACE	
THE BUILDING AUTOMATION SYSTEM (BAS) SHALL SEND THE CONTROLLER OCCUPIED AND UNOCCUPIED COMMANDS. THE BAS MAY ALSO SEND A START/STOP COMMAND. IF COMMUNICATION IS LOST WITH THE BAS, THE FAN CONTROLLER SHALL CONTINUE TO RUN AND SEND AN ALARM TO THE BAS.	
DURING OCCUPIED HOURS, THE EXHAUST AIR DAMPER SHALL BE FULLY OPEN AND EXHAUST FAN SHALL RUN CONTINUOUSLY AT SCHEDULED AIRFLOW.	
DURING UNOCCUPIED HOURS, THE EXHAUST DAMPER SHALL BE FULLY CLOSED AND EXHAUST FAN SHALL REMAIN OFF.	

POINT DESCRIPTION	INPUTS		OUTPUTS		VIRTUAL		NOTES
	ANALOG	DIGITAL	ANALOG	DIGITAL	ANALOG	DIGITAL	
EXHAUST FAN (PER FAN)							
FAN START/STOP				X			
FAN ON/OFF STATUS				X		X	
FAN STATUS				X		X	
MOTORIZED EXHAUST DAMPER STATUS		X					
MOTORIZED EXHAUST DAMPER COMMAND			X				

NOTES:
 1. CONTRACTOR TO VERIFY POINT COUNTS.
 2. ALL POINTS AVAILABLE IN EQUIPMENT SHALL BE AVAILABLE AT BAS.
 3. ALL POINTS LISTED SHALL HAVE GRAPHICS INCLUDED.



NOTES:
 1. NOT ALL SYSTEM CONTROL POINTS ARE SHOWN ON THIS DIAGRAM. FOR COMPLETE POINTS LIST, REFER TO ASSOCIATED CONTROL POINTS TABLE FOR EACH SYSTEM COMPONENT.

2 SINGLE DUCT VAV
 M-802 / NOT TO SCALE

NOTE: BROWN TEXT WITHIN BRACKET MEANS TO EDIT.

SINGLE INLET VAV BOX (W/ ELEC REHEAT) SEQUENCE OF OPERATIONS	
SINGLE INLET VAV BOX SEQUENCE OF OPERATION	
1. THE UNIT SHALL OPERATE ON A TIME-OF-DAY SCHEDULE PROVIDED BY THE BAS. THIS SCHEDULE SHALL DETERMINE WHEN THE UNIT IS IN OCCUPIED OR UNOCCUPIED MODE. EACH TERMINAL UNIT SHALL BE INTERLOCKED WITH ITS ASSOCIATED AIR HANDLING UNIT, SUCH THAT IF THE AIR HANDLING UNIT SHUTS DOWN FOR ANY REASON, THE ASSOCIATED VAVS SHALL ALSO SHUT DOWN.	
2. THE UNIT SHALL OPERATE DURING OCCUPIED HOURS TO MAINTAIN A SPACE TEMPERATURE WITHIN 2 DEGREES F (ADJUSTABLE) OF THE SPACE TEMPERATURE SETPOINT. THE FAN SHALL REMAIN ON WHILE THE SPACE IS OCCUPIED, REGARDLESS OF HEATING OR COOLING STATUS. WHEN THE SPACE TEMPERATURE RISES 2 DEGREES F (ADJUSTABLE) ABOVE THE SPACE TEMPERATURE SETPOINT, THE PRIMARY AIR DAMPER SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE. WHEN THE SPACE IS SATISFIED, THE PRIMARY AIR DAMPER SHALL MODULATE TO ITS MINIMUM PRIMARY AIRFLOW. IF THE SPACE TEMPERATURE DROPS 2 DEGREES F (ADJUSTABLE) BELOW THE SPACE TEMPERATURE SETPOINT, THE ELECTRIC HEATER REHEAT COIL SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE AND THE PRIMARY AIR DAMPER SHALL MAINTAIN ITS MINIMUM PRIMARY AIRFLOW. THE ELECTRIC HEATER REHEAT COIL SHALL BE DISABLED IN COOLING MODE AND WHEN THE SPACE IS SATISFIED. THE BAS SHALL MONITOR STATUS AND ALARMS. IF THE SPACE TEMPERATURE DEVIATES 3 DEGREES F FROM SETPOINT (ADJUSTABLE) FOR A PERIOD OF 10 MINUTES (ADJUSTABLE), SEND AN ALARM TO THE BAS FRONT-END.	
3. DURING UNOCCUPIED HOURS, THE PRIMARY AIR DAMPER SHALL BE CLOSED AND THE SERIES FAN SHALL BE OFF UNLESS ITS ZONE CALLS FOR COOLING. IF A ZONE'S SPACE TEMPERATURE RISES ABOVE 65 DEGREES F (ADJUSTABLE), ITS ASSOCIATED AHU SHALL ENABLE, THE PRIMARY AIR DAMPER SHALL OPEN, AND THE SERIES FAN SHALL ENABLE TO MAINTAIN THE OCCUPIED SPACE TEMPERATURE SETPOINT. ONCE THE SPACE IS SATISFIED (ADJUSTABLE), IT WILL RETURN TO UNOCCUPIED MODE.	
4. ELECTRIC HEAT: UNITS THAT HAVE AN ELECTRIC HEATER SHALL MODULATE THE ELECTRIC HEATER TO MAINTAIN A DISCHARGE AIR TEMPERATURE OF 80 DEGREES F (ADJUSTABLE) WHEN THE SPACE CALLS FOR HEATING. THE ELECTRIC HEATER SHALL ONLY ENERGIZE WHEN THE UNIT GOES INTO HEATING MODE. THE ELECTRIC HEATER SHALL BE DISABLED WHEN THE UNIT IS IN COOLING MODE, THE SPACE IS SATISFIED, OR THE UNIT IS IN UNOCCUPIED MODE.	
5. SMOKE (FIRE) ALARM: IN UNITS THAT CONTAIN A SMOKE DETECTOR, THE UNIT SHALL BE HARDWIRED TO SHUTDOWN WHEN THE SMOKE DETECTOR TRIPS. AN ALARM SHALL BE SENT TO THE BAS FRONT-END IN THE EVENT OF SMOKE SHUTDOWN. THE BAS SHALL SHUTDOWN THE UNIT VIA A SOFTWARE COMMAND WHEN AN ALARM IS RECEIVED FROM THE FIRE ALARM PANEL. UNITS THAT DO NOT CONTAIN A SMOKE DETECTOR SHALL BE SHUT DOWN WHEN AN ALARM IS RECEIVED FROM THE FIRE ALARM PANEL AND/OR THE BAS. IF THE AIR HANDLING UNIT SHUTS DOWN DUE TO SMOKE DETECTOR SHUTDOWN, ITS ASSOCIATED VAVS SHALL BE DISABLED THROUGH AN EMERGENCY STOP SIGNAL FROM THE BAS.	

POINT DESCRIPTION	INPUTS		OUTPUTS		VIRTUAL		NOTES
	ANALOG	DIGITAL	ANALOG	DIGITAL	ANALOG	DIGITAL	
SINGLE DUCT VAV BOX (W/ ELEC REHEAT) (PER BOX)							
SUPPLY AIR HEATING AIRFLOW SETPOINT					X		
SPACE TEMPERATURE SETPOINT					X		
SPACE TEMPERATURE		X					
SUPPLY AIR COOLING MAXIMUM AIRFLOW SETPOINT					X		
SUPPLY AIR COOLING MINIMUM AIRFLOW SETPOINT					X		
SUPPLY AIRFLOW		X					
ELECTRIC REHEAT COIL STAGE 1				X			
ELECTRIC REHEAT COIL STAGE 2				X			
DISCHARGE AIR TEMPERATURE			X				
REHEAT COIL LEAVING AIR TEMPERATURE SETPOINT					X		
DAMPER COMMAND (% OPEN)				X			

NOTES:
 1. CONTRACTOR TO VERIFY POINT COUNTS.
 2. ALL POINTS AVAILABLE IN EQUIPMENT SHALL BE AVAILABLE AT BAS.
 3. ALL POINTS LISTED SHALL HAVE GRAPHICS INCLUDED.

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LAS CRUCES, NEW MEXICO 88003

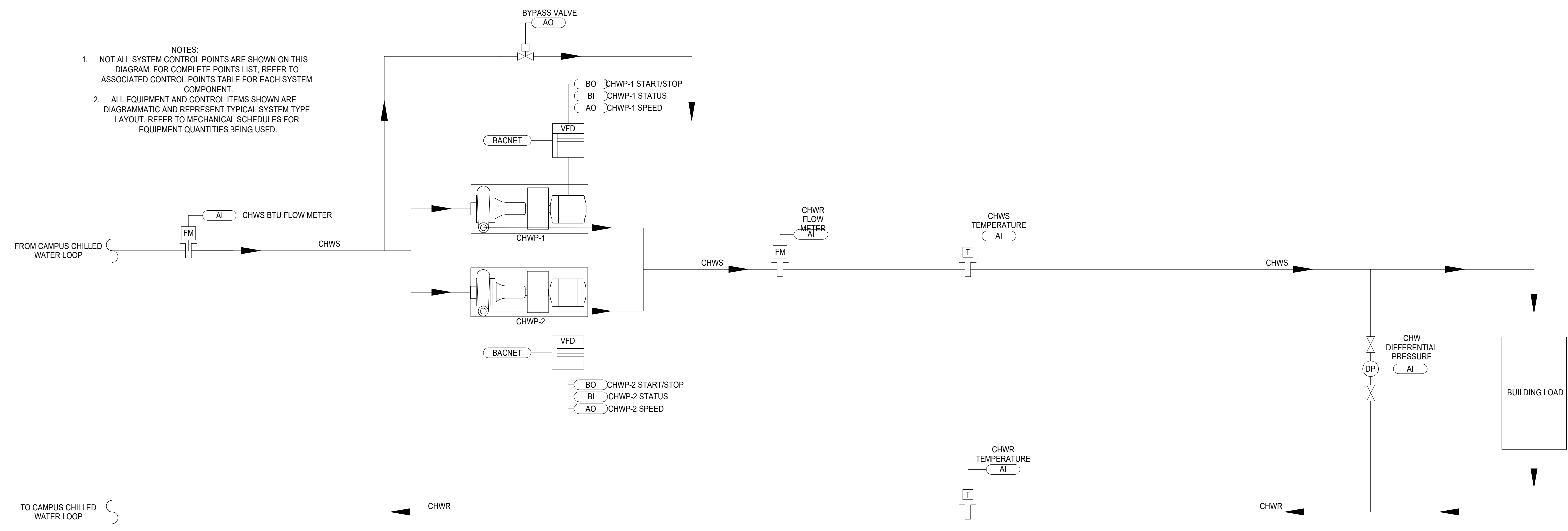
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PROJECT NO 22-0227.001

DRAWING NAME
MECHANICAL CONTROLS

SHEET NO
M-803



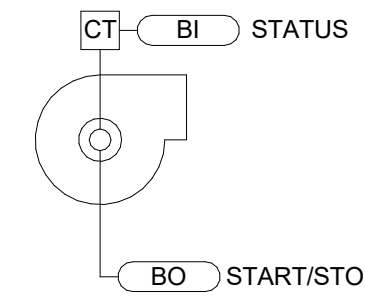
1 CHILLED WATER PIPING DIAGRAM
M-803 NOT TO SCALE

CHILLED WATER SYSTEM SEQUENCE OF OPERATIONS

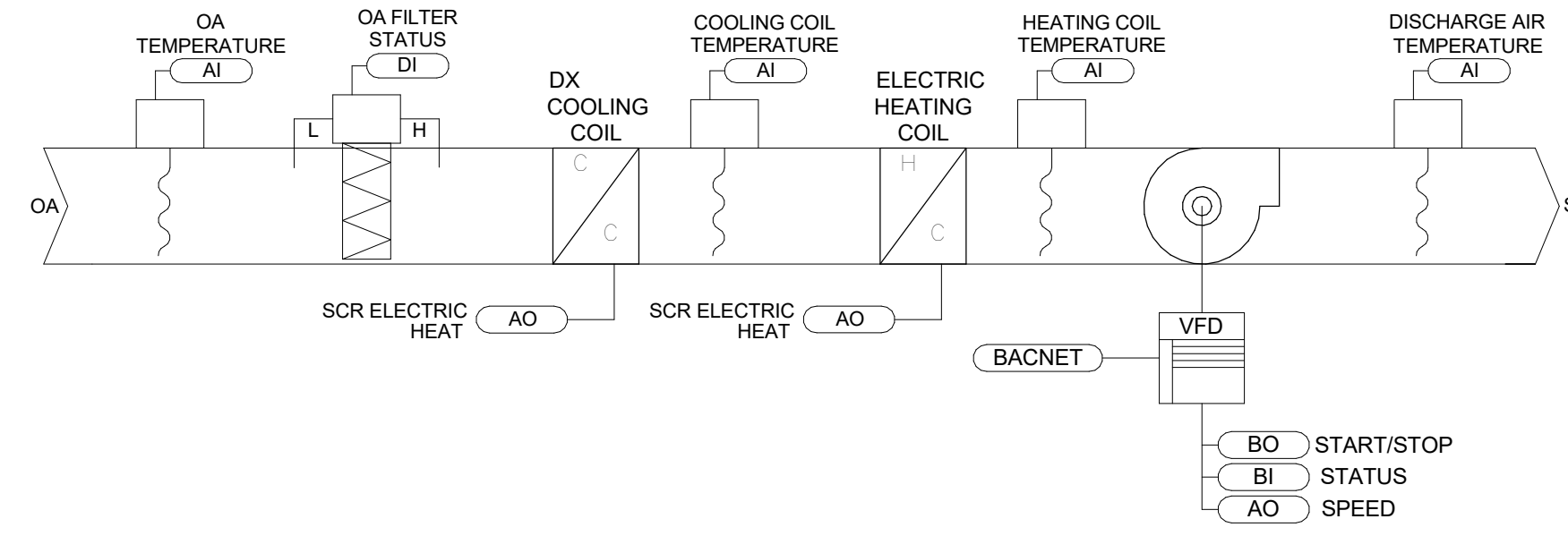
- CHILLED WATER (CHW) SYSTEM SEQUENCE OF OPERATION
- CHILLED WATER SYSTEM DIFFERENTIAL PRESSURE SETPOINT
 - THE BAS SHALL RESET THE SYSTEM DIFFERENTIAL PRESSURE SETPOINT USING A TRIM AND RESPOND LOGIC WITHIN THE RANGE OF 5 PSIG TO 20 PSIG ONCE THE MAXIMUM CHILLED WATER TEMPERATURE SETPOINT IS REACHED. ONCE THE TEMPERATURE SETPOINT IS REACHED, THE DIFFERENTIAL PRESSURE SETPOINT FOR THE CONTROLLING ZONE SHALL BE TRIMMED BY 0.1 PSIG EVERY TWO MINUTES UNTIL A VALVE IN THE SYSTEM IS 50% OPEN. WHEN A VALVE IN THE SYSTEM RISES TO 80% OPEN, THE DIFFERENTIAL PRESSURE SETPOINT FOR THE CONTROLLING ZONE SHALL BE INCREASED BY 0.1 PSIG EVERY TWO MINUTES. ALL SETPOINTS SHALL BE ADJUSTABLE THROUGH THE OPERATOR WORKSTATION FOR EACH DIFFERENTIAL PRESSURE SENSOR. THE CONTROLLING ZONE SHALL BE THE DIFFERENTIAL PRESSURE SENSOR WHICH IS FURTHEST BELOW ITS SETPOINT.
 - CHILLED WATER PUMP CONTROL
 - THE CHILLED WATER PUMPS SHALL OPERATE IN A LEAD/STANDBY CONFIGURATION. THE LEAD PUMP SHALL OPERATE ANYTIME THE CHILLED WATER SYSTEM DIFFERENTIAL PRESSURE FALLS BELOW SETPOINT. THE PUMPS SHALL MODULATE TO MAINTAIN THE SYSTEM DIFFERENTIAL PRESSURE AT SETPOINT FOR THE CONTROLLING ZONE. THE CONTROLLING ZONE SHALL BE THE DIFFERENTIAL PRESSURE SENSOR WHICH IS FURTHEST BELOW ITS SETPOINT. THE BYPASS VALVE SHALL BE CLOSED ANYTIME THE CHILLED WATER PUMPS ARE OPERATING, AND OPEN WHEN THEY ARE OFF.
 - ADD DIFFERENTIAL PRESSURE SENSING AND CONTROLS FOR EXISTING CHILLED WATER PIPING SYSTEM AND PUMPS (CHWP-25 AND CHWP-26) LOCATED IN BUILDING 330. REFERENCE SHEET MH101M.
 - CHILLED WATER PUMP ROTATION
 - MANUAL OR AUTOMATIC ROTATION OF THE PUMPS SHALL BE ALLOWED. ROTATION TIME INTERVAL SHALL BE 30 DAYS (ADJUSTABLE). THE APPLICATION SHALL ALSO PROVIDE A SETTING (OPERATOR SELECTABLE) TO ALLOW A FORCED ROTATION WHICH SHALL CAUSE THE PUMPS TO BE IMMEDIATELY ENABLE/DISABLED.
 - CHILLED WATER PUMP FAILURE DETECTION AND RECOVERY
 - THE BAS SHALL MONITOR THE STATUS OF EACH PUMP THROUGH A SET OF CONTACTS IN THE VFD. UPON SENSING A PUMP FAILURE, THE BAS SHALL LOCKOUT THAT PUMP AND IMMEDIATELY INITIATE THE START OF THE NEXT PUMP IN THE ROTATION SEQUENCE. WHEN A PUMP IS MARKED AS HAVING FAILED, THE FAILED PUMP SHALL BE TAKEN OUT OF THE ROTATION AND AN ALARM SHALL BE INITIATED.
 - CHILLED WATER PUMP FAILURE RESET
 - WHEN AN INDIVIDUAL PUMP'S FAILURE IS RESET AT THE OPERATOR WORKSTATION, THE BAS SHALL RE-INSERT THAT PUMP INTO THE ROTATION SEQUENCE. ALL FAILURES SHALL BE RESET THROUGH THE BAS OPERATOR WORKSTATION.
 - CHILLED WATER BTU FLOWMETER
 - PROVIDE CHILLED WATER BTU FLOWMETER. INSTALL IN INCOMING CAMPUS CHILLED WATER PIPING IN MECH BOILER ROOM IN LOCATION SHOWN ON DRAWINGS. PROVIDE CONNECTIVITY WITH BAS. BAS SHALL PROVIDE MONITORING AND ALARM FUNCTIONS. CALCULATE AND TREND CAMPUS CHILLED WATER ENERGY USED. FLOWMETER SHALL BE ONCON SYSTEM-10-BAC BTU METER, BACNET-IP COMPATIBLE.
 - CHILLED WATER CONTROL VALVES
 - CHILLED WATER CONTROL VALVES SHALL BE BELIMO ENERGY VALVES THAT COMPLY WITH NMSU STANDARDS.
 - CONTROL VALVES SHALL COMPLY WITH NMSU STANDARDS AND PREFERENCES.
 - CHILLED WATER PUMP BYPASS VALVE
 - BYPASS VALVE AROUND CHILLED WATER PUMPS IS INTENDED TO ALLOW BUILDING TO UTILIZE CHILLER WATER LOOP PRESSURE WHEN AVAILABLE.
 - IF THE DIFFERENTIAL PRESSURE IN THE BUILDING IS 2 PSI (ADJ.) ABOVE SET POINT FOR 5 MIN. (ADJ.) WHEN THE PUMP IS COMMANDED AT MINIMUM SPEED, THE PUMP IS TO BE TURNED OFF AND THE BYPASS VALVE IS TO BE OPENED. WHEN THE BUILDING DIFFERENTIAL IS 2 PSI (ADJ.) BELOW SET POINT FOR 5 MINUTES (ADJ.), THE BYPASS VALVE IS TO BE CLOSED AND THE PUMP IS TO BE COMMANDED ON.

CHILLED WATER SYSTEM CONTROL POINTS

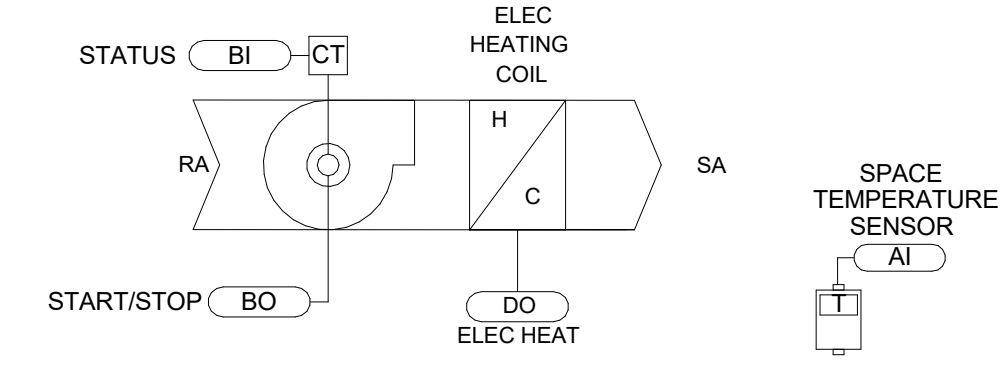
POINT DESCRIPTION	INPUTS		OUTPUTS		VIRTUAL		NOTES
	ANALOG	DIGITAL	ANALOG	DIGITAL	DIGITAL	COMM/LINK	
CHILLED WATER PUMP (PER PUMP)							
PUMP START/STOP COMMAND							
PUMP STATUS							
PUMP HOA STATUS							
PUMP VFD SPEED COMMAND							
PUMP VFD SPEED FEEDBACK							
PUMP VFD FAULT							
CHILLED WATER SYSTEM							
CHILLED WATER DIFFERENTIAL PRESSURE							
CHILLED WATER DIFFERENTIAL PRESSURE SETPOINT							
BYPASS VALVE COMMAND							
CHILLED WATER SYSTEM							
CHILLED WATER WATER SUPPLY FLOW RATE							
CHILLED WATER WATER SUPPLY TEMPERATURE							
CHILLED WATER WATER RETURN TEMPERATURE							
CHILLED WATER BTU METER							
NOTES:							
1. CONTRACTOR TO VERIFY POINT COUNTS. POINTS INTEGRATED TO GRAPHICS TO BE COORDINATED DURING SUBMITTAL PHASE.							
2. ALL POINTS AVAILABLE IN EQUIPMENT SHALL BE AVAILABLE AT BAS.							
3. ALL POINTS LISTED SHALL HAVE GRAPHICS INCLUDED.							
4. COORDINATE WITH EQUIPMENT MANUFACTURERS TO ENSURE ALL EQUIPMENT POINTS ARE INTEGRATED AND FUNCTIONING PROPERLY.							



1 CEILING & KITCHEN EXHAUST FAN CONTROL DIAGRAM
NTS - FOR DIAGRAMMATIC PURPOSES ONLY



3 KITCHEN MAKEUP AIR UNIT CONTROL DIAGRAM
NTS - FOR DIAGRAMMATIC PURPOSES ONLY



2 ELECTRIC UNIT HEATER CONTROL DIAGRAM
NTS - FOR DIAGRAMMATIC PURPOSES ONLY

SEQUENCE OF OPERATIONS

KITCHEN GREASE HOOD EXHAUST FANS
THE SYSTEM SHALL OPERATE THE GREASE HOOD EXHAUST FANS BASED ON THE POSITION OF THE WALL-MOUNTED SWITCH LOCATED IN THE KITCHEN. THE FAN SHALL OPERATE ANY TIME THE ASSOCIATED SWITCH IS ON. THE FMS SHALL MONITOR THE STATUS OF THE EXHAUST FAN THROUGH A CURRENT SWITCH AND SHALL SEND AN ALARM TO THE FMS IF A FAILURE IS DETECTED.

KITCHEN MAKEUP AIR UNIT CONTROL
THE KITCHEN MAKEUP AIR UNIT SHALL COME WITH A FACTORY PROVIDED VFD. THE FMS SHALL COMMAND THE VFD WITH START/STOP, COMMAND SPEED, AND MONITOR STATUS. THE FAN SHALL RUN WITH CONSTANT VOLUME WHEN ACTIVATED, AT A FREQUENCY SPEED SET BY THE TEST AND BALANCE CONTRACTOR THAT PROVIDES THE REQUIRED MAKEUP AIR CFM AIRFLOW AT THE KITCHEN MAKEUP AIR HOOD. COOLING SHALL BE ACTIVATED WHEN THE OUTSIDE AIR TEMPERATURE IS AT 75°F (ADJ.) OR ABOVE. WHEN COOLING IS ACTIVATED, THE FMS SHALL MODULATE THE COMPRESSORS TO ALLOW THE DX COOLING COIL MAINTAIN A DISCHARGE AIR TEMPERATURE OF 75°F (ADJ.). HEATING SHALL BE ACTIVATED WHEN THE OUTSIDE AIR IS AT 65°F (ADJ.) OR BELOW. WHEN HEATING IS ACTIVATED, THE FMS SHALL MODULATE THE ELECTRIC HEATER TO MAINTAIN THE HEATING SUPPLY AIR TEMPERATURE SETPOINT OF 65°F (ADJ.). THE FMS SHALL MONITOR THE SUPPLY AIR TEMPERATURE OF THE KITCHEN MAKE-UP UNIT. IF THE SUPPLY AIR TEMPERATURE IS ABOVE THE HIGH LEVEL SETPOINT OF 80°F (ADJ.) OR BELOW THE LOW LEVEL SETPOINT OF 60°F (ADJ.), THE FMS SHALL INITIATE AN ALARM. THE GREASE HOOD EXHAUST FANS SHALL BE INTERLOCKED WITH THE ASSOCIATED MAKE-UP AIR UNIT TO OPERATE THE EXHAUST AND MAKE-UP AT THE SAME TIME.

ELECTRIC UNIT HEATER CONTROL
WHEN THE SPACE TEMPERATURE SENSOR SENSES THAT THE SPACE TEMPERATURE IS BELOW THE FMS DEFINED TEMPERATURE SETPOINT OF 65°F (ADJ.), THE FMS SHALL COMMAND THE ELECTRIC UNIT HEATER WITH A START/STOP COMMAND. THE ELECTRIC HEAT SHALL ACTIVE AND THE FAN SHALL ACTIVATE. A CURRENT TRANSDUCER SHALL SHOW STATUS OF THE HEATER FAN ON THE FRONT END. IF THE FAN IS COMMANDED START AND THERE IS NO ACTIVE SIGNAL, SEND ALARM TO THE FRONT END.

SPLIT SYSTEMS
EACH UNIT SHALL BE PROVIDED WITH A FACTORY PACKAGED CONTROL SYSTEM WHICH SHALL CONTROL THE UNIT TO MAINTAIN THE SPACE TEMPERATURE AT SETPOINT. THE FMS SHALL MONITOR THE SPACE TEMPERATURE THROUGH A SEPARATE SPACE TEMPERATURE SENSOR AND SHALL INITIATE AN ALARM IF THE SPACE TEMPERATURE RISES ABOVE THE HIGH TEMPERATURE LIMIT OF 80F (ADJ.).

DOMESTIC HOT WATER RECIRCULATION PUMP CONTROL
THE FMS SHALL CONTROL OPERATION OF RECIRCULATION PUMPS BASED ON A BUILDING OCCUPANCY SCHEDULE. FMS CONTRACTOR TO PROVIDE AND INSTALL ALL RELAYS, PROGRAMMING, AND GRAPHICS FOR THIS OPERATION.

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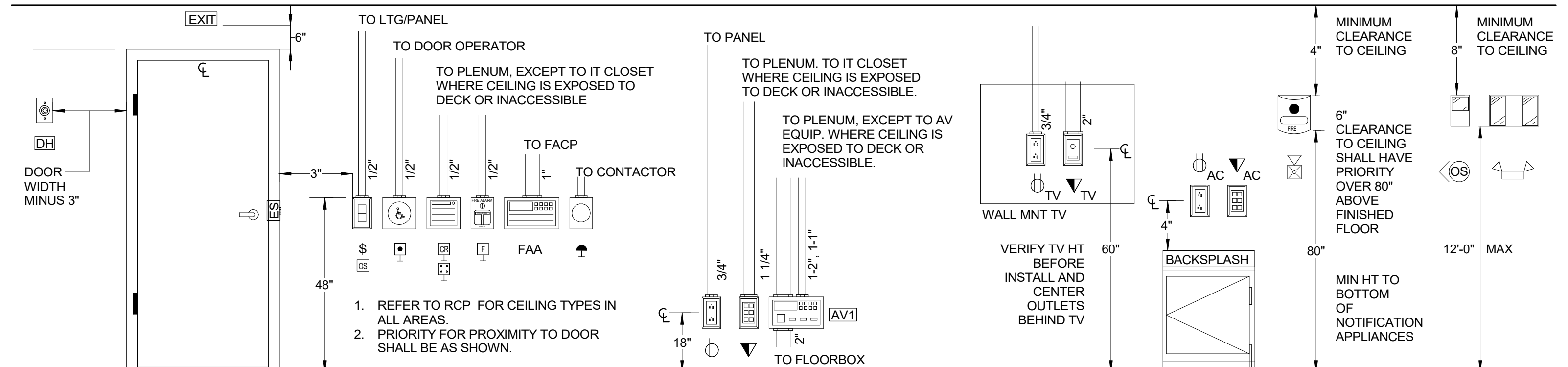
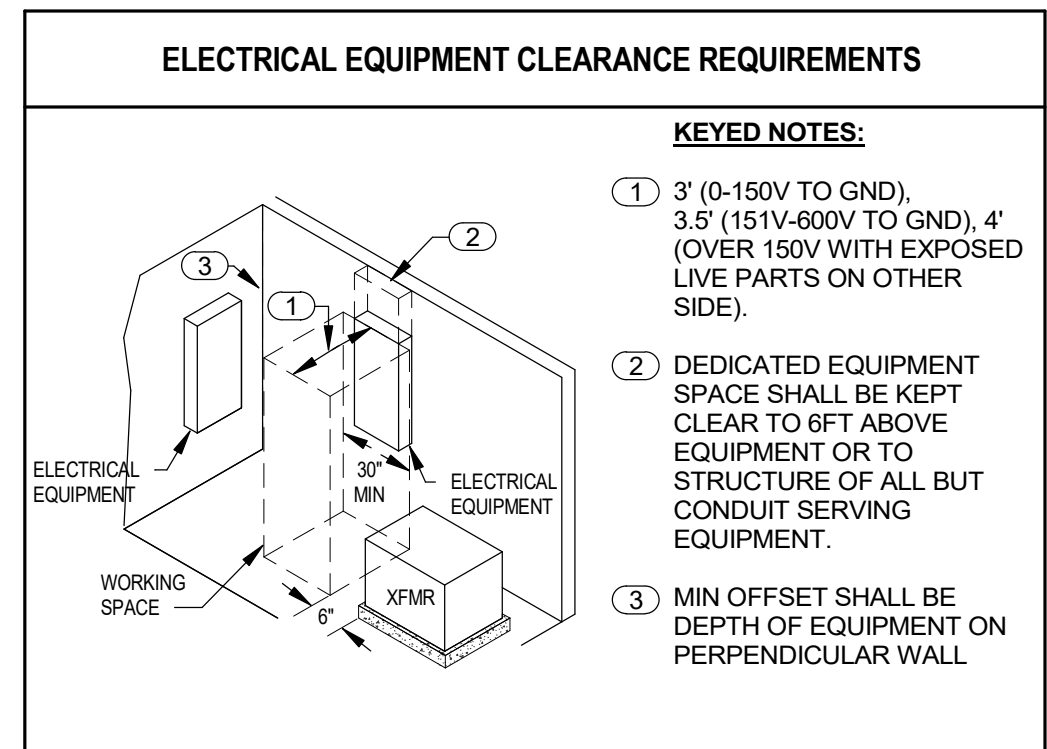
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MECHANICAL CONTROLS

SHEET NO
M-804

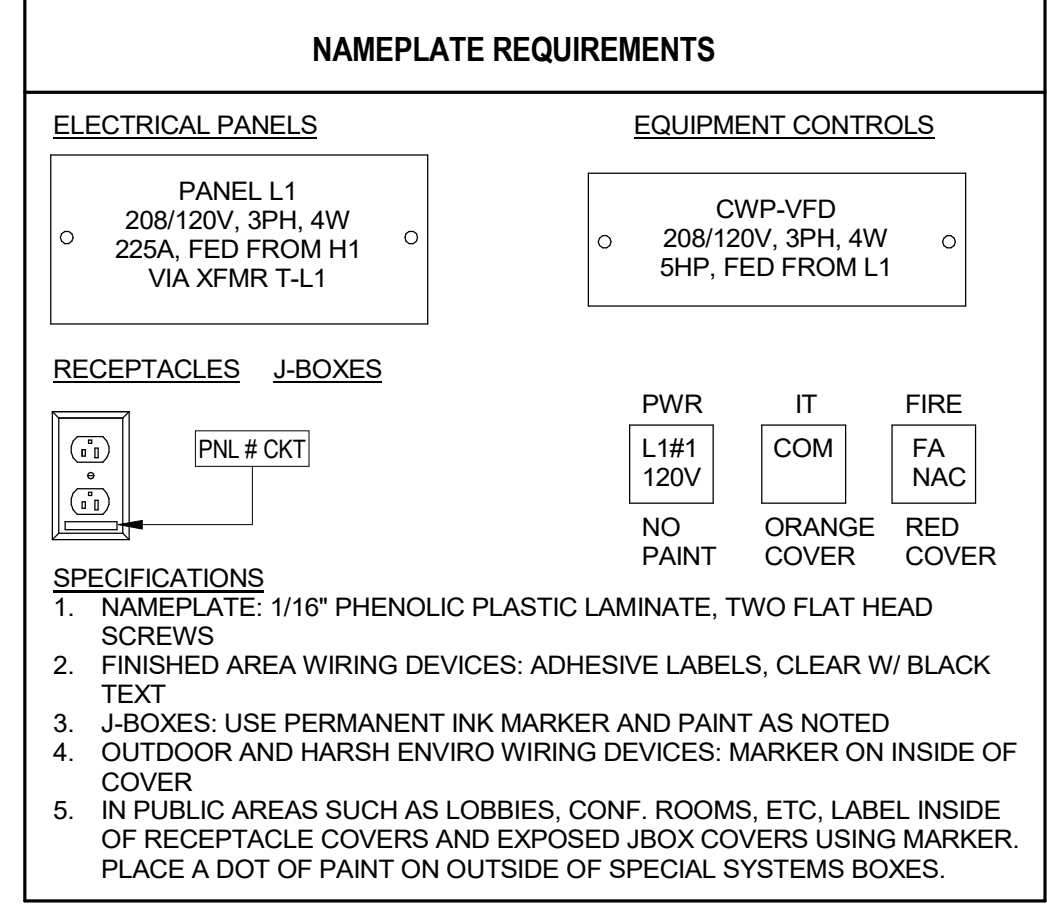


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E-002	ELECTRICAL GENERAL NOTES
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EL101B	ELECTRICAL LIGHTING PLAN - AREA B
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ER141	ELECTRICAL ROOF PLAN
E-501	ELECTRICAL DIAGRAMS

ELECTRICAL ABBREVIATIONS LIST

A	AMPERE	LOTO	LOCK OUT TAG OUT
AC	ABOVE COUNTER	LTG	LIGHT OR LIGHTING
AFF	ABOVE FINISHED FLOOR	MCB	MAIN CIRCUIT BREAKER
AIC	AMP INTERRUPTING CAPACITY	MCC	MOTOR CONTROL CENTER
AV	AUDIO VISUAL	MCP	MOTOR CIRCUIT PROTECTOR
ATS	AUTOMATIC TRANSFER SWITCH	MIN	MINIMUM
BLDG	BUILDING	MH	METAL HALIDE
C	CONDUIT	MLO	MAIN LUGS ONLY
CKT	CIRCUIT	MNS	MASS NOTIFICATION SYSTEM
CM	CONTROL MODULE	MRS	MOTOR RATED SWITCH
CONN	CONNECT OR CONNECTION	MSB	MAIN SWITCH BOARD
CT	CURRENT TRANSFORMER	MTD	MOUNTED
DM	DIMENSION	MTS	MANUAL TRANSFER SWITCH
EA	EACH	MV	MEDIUM VOLTAGE
EC	ELECTRICAL CONTRACTOR	N.I.C.	NOT IN CONTRACT
EF	EXHAUST FAN	NL	NIGHT LIGHT (UNSWITCHED)
ELEC	ELECTRIC, ELECTRICAL	NTS	NOT TO SCALE
EMER	EMERGENCY	Ø	PHASE
EPO	EMERGENCY POWER OFF	OL	OVERLOAD
EWC	ELECTRIC WATER COOLER	OE	OVER HEAD ELECTRIC
FACP	FIRE ALARM CONTROL PANEL	PS	PULL STRING RECEPTACLE
FLA	FULL LOAD AMPS	RCPT	RECEPTACLE
FS	FLOW SWITCH	RGS	RIGID GALVANIZED STEEL
FSD	FIRE SMOKE DAMPER	SPD	SURGE PROTECTION DEVICE
GC	GENERAL CONTRACTOR	TS	TAMPER SWITCH
GFI	GROUND FAULT INTERRUPTER	TYP	TYPICAL
GND	GROUND	UG	UNDERGROUND
HCA	HAND-OFF-AUTO	UNO	UNLESS NOTED OTHERWISE
HP	HORSEPOWER	V	VOLTAGE
HPS	HIGH PRESSURE SODIUM	WH	WATER HEATER
HTR	HEATER	WP	WEATHER PROOF
J-BOX	JUNCTION BOX	WR	WEATHER RATED
KCM	THOUSAND CIRCULAR MILLS	XFMR	TRANSFORMER



POWER DEVICE LEGEND

⊖	SINGLE RECEPTACLE
⊖	DUPLEX RECEPTACLE
⊖	FLOOR MOUNTED DUPLEX RECEPTACLE
⊖	CEILING DUPLEX RECEPTACLE
⊖	QUADPLEX RECEPTACLE
⊖	FLOOR MOUNTED QUADPLEX RECEPTACLE
⊖	SPECIAL RECEPTACLE
⊖	USB RECEPTACLE
⊖	SPLIT CONTROLLED DUPLEX RECEPTACLE
⊖	CONTROLLED DUPLEX RECEPTACLE
⊖	WALL MOUNTED JUNCTION BOX
⊖	CEILING MOUNTED JUNCTION BOX
⊖	MULTIOUTLET ASSEMBLY
⊖	SAFETY DISCONNECT SWITCH (NON-FUSED)
⊖	SAFETY DISCONNECT SWITCH (FUSED)
⊖	COMBINATION MOTOR STARTER (FUSED)
⊖	MOTOR RATED TOGGLE SWITCH
⊖	EMERGENCY POWER OFF BUTTON
⊖	POWER POLE (OPEN OFFICE STYLE)
⊖	UTILITY SERVICE POWER POLE
⊖	FLOORBOX (SEE FLOORBOX SCHEDULE)
⊖	TRANSFORMER, THE TRANSFORMER TYPE IS INDICATED BY A NUMBER INDICATING KV RATING FOLLOWING THE UPPER CASE LETTER "T"
⊖	ELECTRICAL PANELBOARD
⊖	FLOOR CLEARANCE AREA

LIGHTING CONTROLS LEGEND

⊖	LIGHT SWITCH
⊖	LIGHT SWITCH WITH INTEGRAL OCCUPANCY SENSOR
⊖	CEILING MOUNTED OCCUPANCY SENSOR
⊖	WALL MOUNTED OCCUPANCY SENSOR
⊖	CEILING MOUNTED DAYLIGHT SENSOR
⊖	WALL MOUNTED DAYLIGHT SENSOR
⊖	CEILING MOUNTED PHOTOCELL
⊖	WALL MOUNTED PHOTOCELL
⊖	TOUCHSCREEN CONTROL STATION
⊖	LIGHTING CONTROL TAG (SEE LIGHTING CONTROL MATRIX)

SPECIAL SYSTEMS DEVICES

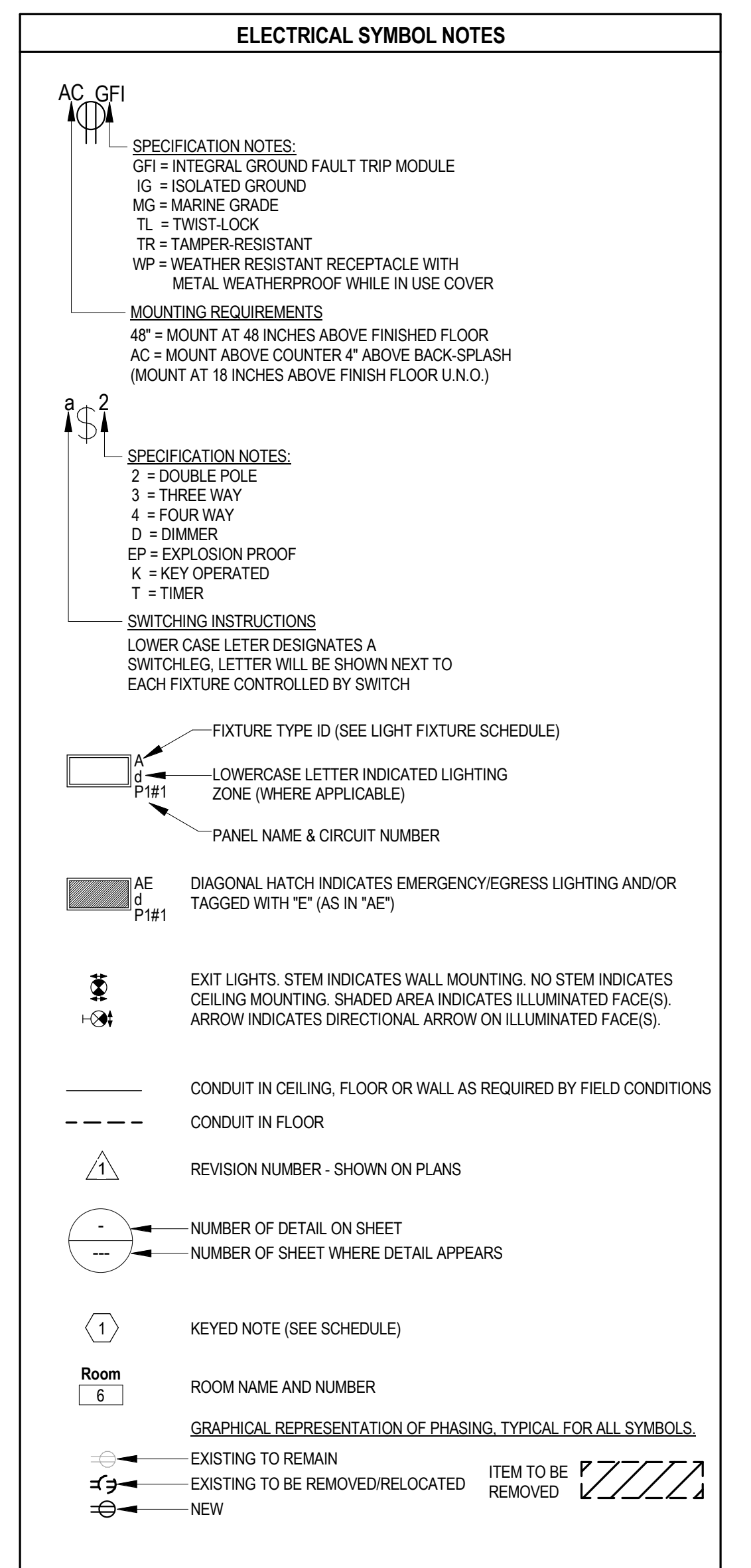
⊖	TELEPHONE OUTLET
⊖	VOICE/DATA OUTLET
⊖	# OF VOICE AND # OF DATA OUTLETS. EXAMPLE: 1V2D = 1 VOICE, 2 DATA
⊖	CEILING VOICE/DATA OUTLET
⊖	DATA OUTLET
⊖	# OF DATA OUTLETS
⊖	CEILING OUTLET
⊖	TV DATA OUTLET
⊖	AUDIO VIDEO INPUT JACK BOX
⊖	WIRELESS ACCESS POINT
⊖	AUTO PUSH DOOR BUTTON
⊖	ELECTRIC STRIKE
⊖	MAGNETIC LOCK
⊖	CARD READER
⊖	SECURITY KEYPAD

FIRE ALARM DEVICES

⊖	FIRE ALARM STROBE
⊖	FIRE ALARM PULL STATION
⊖	FIRE ALARM BELL
⊖	FIRE ALARM HORN W/STROBE
⊖	FIRE ALARM SPEAKER W/STROBE
⊖	SPRINKLER FLOW SWITCH
⊖	SPRINKLER VALVE TAMPER SWITCH
⊖	THERMAL DETECTOR
⊖	CEILING SMOKE DETECTOR
⊖	CEILING CARBON MONOXIDE DETECTOR
⊖	CEILING FIRE ALARM HORN W/STROBE
⊖	CEILING FIRE ALARM SPEAKER W/STROBE
⊖	CEILING FIRE ALARM STROBE
⊖	FIRE ALARM CONTROL PANEL
⊖	FIRE ALARM REMOTE ANNUNCIATOR PANEL

ELECTRICAL ONE LINE SYMBOLS

⊖	MOLDED CASE/THERMAL MAGNETIC CIRCUIT BREAKER
⊖	DRAWOUT CIRCUIT BREAKER, AIR TYPE
⊖	DRAWOUT CIRCUIT BREAKER, VAC TYPE
⊖	THERMAL OVERLOAD
⊖	NON-FUSED DISCONNECT SWITCH
⊖	FUSED DISCONNECT SWITCH
⊖	FUSE, HOLDER & PULLER
⊖	POTENTIAL TRANSFORMER
⊖	CURRENT TRANSFORMER
⊖	UTILITY METER
⊖	SURGE PROTECTION DEVICE
⊖	GROUND
⊖	MOTOR, "X" INDICATING HORSE POWER
⊖	AUTOMATIC TRANSFER SWITCH
⊖	SHUNT TRIP (K-KIRK KEY INTERLOCK, RT-REMOTE TRIP)
⊖	KIRK-KEY



DEKKER PERICH SABATINI
Architecture in Progress

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DRAWING NAME
ELECTRICAL SYMBOLS AND LEGENDS

SHEET NO
E-001

GENERAL ELECTRICAL REQUIREMENTS:

CODE REQUIREMENTS

THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF LAWS, RULES, REGULATIONS, CODES STANDARDS, AND ORDINANCES OF FEDERAL, STATE, AND LOCAL AUTHORITIES HAVING JURISDICTION, AND ALL EQUIPMENT AND MATERIALS SHALL COMPLY WITH SAID AUTHORITIES WHETHER INDICATED ON THE CONTRACT DOCUMENTS OR NOT.

1. ALL WORK SHALL BE PERFORMED PER:

- 1.1. 2021 INTERNATIONAL ENERGY CONSERVATION CODE - IECC WITH NEW MEXICO AMENDMENTS
- 1.2. THE LATEST EDITION OF THE NEW MEXICO ENERGY DESIGN CRITERIA MANUAL AT THE DATE OF PERMITTING.
- 1.3. 2020 NATIONAL ELECTRICAL CODE - NEC WITH NEW MEXICO AMENDMENTS
- 1.4. NATIONAL FIRE PROTECTION ASSOCIATION - NFPA

2. THE PUBLICATIONS AND STANDARDS OF THE FOLLOWING AUTHORITIES, IN ADDITION TO THOSE SPECIFIED IN RELATED SUPPLEMENTARY CONDITIONS, SHALL BE OBSERVED DURING CONSTRUCTION AND ARE REFERENCED IN THE DOCUMENTATION BY THE ABBREVIATIONS NOTED:

- 2.1. UNITED STATES OF AMERICA STANDARDS INSTITUTE - USASI
- 2.2. INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS - IEEE
- 2.3. NATIONAL ELECTRICAL CODE - NEC
- 2.4. NATIONAL FIRE PROTECTION ASSOCIATION - NFPA
- 2.5. UNDERWRITERS LABORATORY - UL
- 2.6. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION - NEMA
- 2.7. CERTIFIED BALLAST MANUFACTURERS - CBM
- 2.8. AMERICAN SOCIETY FOR TESTING AND MATERIALS - ASTM
- 2.9. OCCUPATIONAL SAFETY AND HEALTH ACT - OSHA

3. U.N.O., EQUIPMENT AND DEVICES SHALL BE MOUNTED PER ADA AND TAS REQUIREMENTS.

- 3.1. OPERABLE DEVICES (SWITCHES, CARD READERS, ETC) AT OR BELOW 48" AFF
- 3.2. RECEPTACLES, TELEPHONE AND DATA OUTLETS AT 18" AFF (15" MIN TO BOTTOM OF DEVICE), UNO

SCOPE OF WORK

1. THE SCOPE OF WORK SHALL INCLUDE COMPLETE PROVISIONS FOR ELECTRICAL POWER DISTRIBUTION TO ALL LIGHTING, DEVICES, APPLIANCES, AND EQUIPMENT SHOWN ON THE CONSTRUCTION DOCUMENTS.

- 1.1. PROVISIONS INCLUDE, BUT ARE NOT LIMITED TO, ALL SUPPLIES, MATERIALS, EQUIPMENT, TOOLS AND LABOR.
- 1.2. PROVISIONS ALSO INCLUDE ALL MISCELLANEOUS MATERIALS REQUIRED TO COMPLETE THE WORK SHOWN INCLUDING, BUT NOT LIMITED TO, SUPPORTS, HANGERS, RACEWAYS, BOXES, SLEEVES, SEALS, EQUIPMENT PADS, WIRING CONNECTORS, TERMINALS, LABELS, SIGNS, AND MARKERS.
- 1.3. THE CONSTRUCTION DOCUMENTS INCLUDE ALL PLANS, ELEVATIONS, DETAILS, DIAGRAMS, SCHEDULES, AND NOTES ON THE DRAWINGS AND THE WRITTEN SPECIFICATIONS INCLUDING ANY ITEMS MENTIONED IN EITHER THE SPECIFICATIONS OR ON THE DRAWINGS BUT NOT IN THE OTHER.
- 1.4. WHERE USED ON THE PLANS AND IN THE SPECIFICATIONS AND WHERE NOT SPECIFICALLY NOTED OTHERWISE, THE TERM "PROVIDE" AND THE TERM "INSTALL" SHALL MEAN FURNISH, INSTALL, CONNECT AND TEST.
- 1.5. UNLESS EXPLICITLY NOTED "BY OTHERS" OR "EXISTING", ALL ITEMS SHOWN GRAPHICALLY OR SPECIFIED BY NOTES AND DETAILS ON THE PLANS SHALL BE FURNISHED, INSTALLED, CONNECTED, AND TESTED AS NEEDED.

2. ADDITIONALLY, THE SCOPE OF WORK SHALL INCLUDE:

- 2.1. APPLICATION FOR TEMPORARY AND PERMANENT ELECTRICAL SERVICE, PERMITTING, INSPECTION, AND PAYMENT OF ALL ASSOCIATED FEES.
- 2.2. TESTING AND COMMISSIONING OF ELECTRICAL SYSTEMS.
- 2.3. EQUIPMENT RENTAL.
- 2.4. TEMPORARY CONSTRUCTION POWER AND LIGHTING.
- 2.5. PROVISIONS FOR MAINTAINING THE FUNCTIONALITY OF EXISTING TO REMAIN BUILDING COMMUNICATIONS, FIRE ALARM, SECURITY/ACCESS CONTROL, PUBLIC ADDRESS, AND BELL SYSTEMS THAT WILL BE AFFECTED BY THE WORK.
- 2.6. SHORT CIRCUIT COORDINATION STUDY AND ARC FLASH HAZARD ANALYSIS WITH CALCULATED LABELS PER NFPA 70E.

SUBMITTALS

1. PRODUCT DATA: SUBMIT CATALOG DATA SHOWING MANUFACTURER'S NAME AND CONTACT INFORMATION, ALL STANDARD FEATURES, AMPERAGE, VOLTAGE, AIC RATINGS, DIMENSIONS, WEIGHTS, LISTINGS & PRODUCT LABELS, MATERIAL TYPES, FINISHES AND CLEARLY INDICATING WHICH OPTIONAL FEATURES WILL BE PROVIDED.

- 1.1. WHERE MULTIPLE SIZES ARE LISTED, INDICATE SIZES TO BE USED.
- 1.2. WHERE MULTIPLE PRODUCTS ARE SHOWN ON THE SAME PAGE, INDICATE WHICH PRODUCTS TO BE USED.

2. SHOP DRAWINGS (WHERE APPLICABLE): MANUFACTURER OR CONTRACTOR PREPARED DRAWINGS SHOWING ALL RELEVANT DIMENSIONS, WEIGHTS, ELECTRICAL & MECHANICAL CONNECTION REQUIREMENTS, CONDUIT ENTRY POINTS, ASSEMBLY REQUIREMENTS, LIFTING REQUIREMENTS, LIFTING POINTS, REQUIRED CLEARANCES, INCLUDE PLAN VIEWS & ELEVATIONS.

- 2.1. INCLUDE ALL RELEVANT ELECTRICAL DIAGRAMS INCLUDING SCHEMATIC AND INTERCONNECTION DIAGRAMS FOR POWER, SIGNAL, AND CONTROL WIRING.

COORDINATION

- 1. ALL POWER OUTAGES SHALL BE COORDINATED IN WRITING WITH OWNER SEVEN (7) BUSINESS DAYS (MIN) PRIOR TO THE OUTAGE.
- 2. COOPERATE FULLY WITH THE OWNER OR THEIR REPRESENTATIVE DURING CONSTRUCTION OPERATIONS TO MINIMIZE CONFLICTS AND TO FACILITATE OWNER USAGE SO AS NOT TO INTERFERE WITH THE OWNER'S OPERATIONS.

3. THE DRAWINGS ARE DIAGRAMMATIC. THEY DO NOT SHOW SWITCHES, POWER AND DATA OUTLETS, SPECIAL SYSTEMS COMPONENTS (FA, ACCESS CONTROL, AV, ETC), ELECTRICAL EQUIPMENT, EQUIPMENT CONNECTIONS, RACEWAY, ETC. IN THEIR EXACT DIMENSIONED LOCATIONS. THE CONTRACTOR MUST CAREFULLY REVIEW THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, FIRE PROTECTION, AND SPECIAL SYSTEMS PLANS TO IDENTIFY CONFLICTS AND AREAS THAT REQUIRE COORDINATION.

4. COORDINATE ELECTRICAL AND SPECIAL SYSTEMS EQUIPMENT ROUGH-IN WITH FURNITURE, MILLWORK, SIGNS, MECHANICAL AND PLUMBING SYSTEMS, SPRINKLER SYSTEMS, ARCHITECTURAL AND STRUCTURAL ELEMENTS, AND THE OWNER'S REPRESENTATIVE. MINOR CHANGES IN ELECTRICAL EQUIPMENT LOCATIONS AND LAYOUT THAT ARE REQUIRED BY SITE CONDITIONS OR ORDERED BY THE DESIGN TEAM PRIOR TO PERFORMANCE OF WORK SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL CHARGES TO THE OWNER.

5. MAINTAIN REQUIRED NEC WORKING SPACE AND DEDICATED EQUIPMENT SPACE AROUND ALL ELECTRICAL EQUIPMENT, CONTROLS PANELS, ETC THAT ARE SUBJECT TO MAINTENANCE, TESTING, OR USER INTERFACE. COORDINATE WITH OTHER TRADES. IF CLEARANCE CANNOT BE PROVIDED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO ROUGH-IN.

6. COORDINATE COLOR SELECTIONS FOR LUMINAIRES AND ALL DEVICE PLATES WITH ARCHITECT.

7. COORDINATE POWER REQUIREMENTS FOR HVAC CONTROLS, FIRE ALARM, SECURITY, AND OTHER SPECIAL SYSTEMS TO MAKE SURE THAT ALL WORK IS COVERED IN THE BID.

QUALIFICATIONS

1. MANUFACTURER: COMPANY SPECIALIZING IN MANUFACTURING PRODUCTS SHOWN ON THE CONSTRUCTION DOCUMENTS WITH MINIMUM THREE YEARS DOCUMENTED EXPERIENCE.

2. INSTALLER: A STATE LICENSED ELECTRICIAN WITH DOCUMENTED EXPERIENCE INSTALLING ALL EQUIPMENT SPECIFIED HERE IN SHALL DIRECTLY SUPERVISE ALL WORK WHERE NOTED IN THE SPECIFICATIONS, REQUIRED BY CODE, OR REQUIRED BY THE MANUFACTURER. INSTALLER SHALL BE A MANUFACTURER TRAINED AND/OR CERTIFIED INSTALLER OF THE SPECIFIC PRODUCT TO BE INSTALLED.

3. WHERE TESTING IS REQUIRED BY THE CONSTRUCTION DOCUMENTS, EQUIPMENT MANUFACTURER, OR CODE, TESTING SHALL BE PERFORMED BY AN AGENCY WITH DOCUMENTED EXPERIENCE AND PROPERLY CALIBRATED, FULLY FUNCTIONING EQUIPMENT THAT IS A MEMBER OF THE INTERNATIONAL ELECTRICAL TESTING ASSOCIATION, MANUFACTURER CERTIFIED, OR IS A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL), AND IS ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION.

QUALITY ASSURANCE

1. UNLESS OTHERWISE APPROVED, ALL EQUIPMENT SHALL BE NEW, PROPERLY DESIGNED, FROM A REPUTABLE MANUFACTURER MEETING THE SPECIFICATION QUALIFICATIONS, IN COMPLIANCE WITH THE SPECIFICATION REQUIREMENTS, AND IN FULL WORKING ORDER.

2. WHERE TWO OR MORE ITEMS OF THE SAME CLASS OF EQUIPMENT ARE REQUIRED, THESE ITEMS SHALL BE PRODUCTS OF A SINGLE MANUFACTURER. HOWEVER, THE COMPONENT PARTS OF THE ITEM NEED NOT BE THE PRODUCTS OF THE SAME MANUFACTURER UNLESS STATED IN THE TECHNICAL SECTION.

3. LISTING AND LABELING: WHERE REQUIRED, ALL ELECTRICAL COMPONENTS, DEVICES, AND ACCESSORIES SHALL BE LISTED AND LABELED AS DEFINED IN NFPA 70, ARTICLE 100, BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION AND MARKED FOR THE INTENDED USE. TESTING AGENCY SHALL BE UL UNLESS NOTED OTHERWISE OR PRE-APPROVED BY OWNER AND AHJ.

4. ALL EQUIPMENT USED FOR TESTING SHALL BE IN FULL WORKING ORDER AND CALIBRATED PER THE MANUFACTURER'S RECOMMENDATIONS.

DELIVERY AND STORAGE

1. STORE ALL ELECTRICAL/SPECIAL SYSTEMS EQUIPMENT/MATERIALS IN CLEAN, DRY SPACE LOCATED ABOVE GRADE. PROTECT FROM DIRT, WATER, CONSTRUCTION DEBRIS, TRAFFIC, FREEZE, AND DETERIORATION FROM SUN LIGHT.

2. MAINTAIN FACTORY WRAPPING OR PROVIDE APPROPRIATE COVER FOR ALL LARGE ELECTRICAL EQUIPMENT. FOLLOW ALL MANUFACTURER RECOMMENDATIONS FOR HUMIDITY AND MAXIMUM TEMPERATURES FOR STORING ELECTRICAL EQUIPMENT.

IDENTIFICATION

1. PROVIDE APPROPRIATE LABELS AND WARNING SIGNS FOR ALL EQUIPMENT, WIRING DEVICES, CONDUCTORS, CABLES, BOX, AND ENCLOSURES. PROVIDE BURIED DETECTABLE WARNING TAPE FOR UNDERGROUND CONDUITS.

2. CONDUCTOR TAGGING: TAG ALL CONDUCTORS AT MOTOR CONTROLS, PANELS, TERMINAL CABINETS AND JUNCTION BOXES. TAG CIRCUITS WHICH PASS THROUGH OTHER DEVICES SUCH AS LIGHTING CONTACTORS.

3. PROVIDE A TYPED PANEL DIRECTORY FOR EACH PANEL PROVIDED OR MODIFIED FOR THIS PROJECT. DIRECTORY SHALL IDENTIFY THE CIRCUIT NUMBER, LOADS SERVED, AND LOCATION OF LOADS BY ROOM NUMBER. MOUNT ON INSIDE OF EACH PANEL AND FILE THEM WITH THE OWNER WHEN THE WORK IS COMPLETED.

4. PROVIDE EACH PANEL WITH A MANUFACTURER PREPARED ARC FLASH HAZARD WARNING LABEL.

5. ALL ELECTRICAL EQUIPMENT SHALL BE IDENTIFIED BY MEANS OF 3"x1" (MIN) NAMEPLATES PERMANENTLY ATTACHED TO THE EQUIPMENT. PLATES SHALL BE METAL, PLASTIC, OR SIMILAR, BLACK WITH 1/4" (MIN) ENGRAVED WHITE LETTERS.

6. JUNCTION AND PULL BOXES SHALL BE LABELED WITH PANEL NAME, CIRCUIT #, AND VOLTAGE.

7. RECEPTACLES SHALL BE LABELED WITH THE PANEL NAME AND CIRCUIT #. USE WHITE LABELS WITH BLACK TEXT. RECEPTACLES IN LOBBIES AND OTHER "HIGH END" AREAS SHALL BE LABELED BEHIND THE FACEPLATE.

8. FIRE ALARM, EMERGENCY CRITICAL PWR, LIFE SAFETY LABELS, INCLUDING RECEPTACLES, SHALL BE COLOR CODED & ENGRAVED.

INSTALLATION:

GENERAL REQUIREMENTS

1. THE CONTRACTOR SHALL PROVIDE CONCRETE HOUSEKEEPING PADS FOR ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT. THE CONCRETE SHALL PROTRUDE 3" PAST THE EDGE OF THE ELECTRICAL EQUIPMENT ON ALL SIDES. THE CONCRETE PAD SHALL BE 6" TALL AND CONTAIN A 1/2" CHAMFER ON ALL SIDES. PROVIDE A MINIMUM OF 3000 PSI CONCRETE AND #4 REBAR.

2. ALL TERMINALS, LUGS AND BUS JOINTS SHALL BE TIGHTENED PER THE MANUFACTURER'S TORQUE RECOMMENDATIONS.

3. NO FOREIGN SYSTEMS SUCH AS PIPING, DUCT WORK, ETC SHALL BE INSTALLED ABOVE ELECTRICAL EQUIPMENT.

4. PROVIDE SLEEVES FOR PENETRATIONS THROUGH WALLS/FLOORS. SEAL ALL OPENINGS. USE FIRE-RATED SEALANT FOR OPENINGS IN RATED WALLS.

5. PERFORM GROUND PENETRATING RADAR SCAN BEFORE CUTTING EXISTING STRUCTURES. COORDINATE LOCATIONS WITH STRUCTURAL ENGINEER/ARCHITECT.

CONDUCTORS AND CABLES

1. ALL BUILDING WIRING SHALL BE INSULATED COPPER CONDUCTORS RUN FROM LOAD TO SOURCE INSIDE RACEWAY, CONTINUOUS (WITHOUT SPLICES) BETWEEN JUNCTION AND PULL BOXES, AND EXPOSED INSIDE PANELS ONLY.

2. ALL SINGLE POLE CIRCUITS SHALL HAVE A DEDICATED NEUTRAL CONDUCTOR ROUTED TO THE SOURCE PANEL.

3. FIELD VERIFY WHETHER A NEUTRAL IS REQUIRED FOR ALL TWO AND THREE POLE CIRCUITS. FOR ALL LOADS EXCEPT MOTORS, A NEUTRAL IS ASSUMED TO BE REQUIRED UNLESS FIELD DETERMINED TO BE UNNECESSARY.

4. ALL POWER & CONTROL WIRING ROUTED THROUGH RETURN AIR PLENUMS SHALL BE PLENUM RATED.

5. UP TO 3-20A CIRCUITS MAY SHARE A RACEWAY FOR HOMERUNS WHERE SUITABLE & PER NEC CONDUIT FILL RULES.

6. 120V, 20A, HOME RUNS LONGER THAN 100' AND 277V, 20A, HOME RUNS LONGER THAN 150' SHALL BE #10 MIN.

GROUNDING AND BONDING

1. ALL RACEWAYS AND CIRCUITS SHALL BE PROVIDED WITH A NEC 250 COMPLIANT GREEN GROUND CONDUCTOR.

2. ALL EQUIPMENT SHALL BE PROPERLY BONDED.

3. UPON COMPLETION OF THE WORK, ALL PARTS OF THE ELECTRICAL INSTALLATION SHALL BE MEGGER TESTED AND PROVED TO BE FREE OF UNWANTED GROUNDS AND OTHER DEFECTS.

4. AT A MINIMUM, A GROUNDING ELECTRODE CONDUCTOR, SIZED PER NEC ARTICLE 250, SHALL BE CONNECTED FROM THE GROUND BUS OF THE SERVICE ENTRANCE DISCONNECT TO A 3/4"x10" COPPER CLAD STEEL GROUND ROD, TO THE BUILDING METAL COLD WATER AND GAS PIPING AT THE POINT OF ENTRANCE INTO THE BUILDING, STRUCTURAL STEEL, AND 20' OF BARE COPPER ENCASED IN THE SLAB. ADDITIONAL GROUNDING REQUIREMENTS MAY BE SPECIFIED ON THE PLANS OR IN THE SPECIFICATIONS.

5. ROUTING OF GROUNDING ELECTRODE CONDUCTORS SHALL BE IN METAL CONDUIT IN ALL LOCATIONS THAT ARE SUBJECT TO PHYSICAL ABUSE OR ENVIRONMENTAL DETERIORATION SUCH AS EXTERIOR MOUNTED, EXPOSED BELOW LAY IN CEILING, ETC.

6. PROVIDE A #4 GROUND FROM THE SERVICE ENTRANCE GROUND BUS TO ALL TELEPHONE SERVICE BOARDS AND COMMUNICATIONS EQUIPMENT ROOMS AND TERMINATE AT A GROUND BUS.

HANGERS AND SUPPORTS

1. SUPPORT RACEWAYS USING GALVANIZED STEEL OR MALLEABLE IRON STRAPS, CHANNEL OR PIPE CLAMPS AS APPROPRIATE.

2. PROVIDE SUPPORTS AT ALL BOXES, ELEC. EQUIP., LOADS, & AT CODE REQUIRED INTERVALS ALONG RACEWAYS.

3. GROUP RELATED RACEWAYS AND SUPPORT USING STEEL CHANNEL CONDUIT RACKS WITH 25% SPARE CAPACITY.

4. SUPPORT LTG. ELEC. EQUIP., RACEWAYS/BOXES, ETC. INDEPENDENTLY. DO NOT USE CEILING SUPPORT WIRES, PIPING SYSTEMS, ETC.

RACEWAY AND BOXES

1. PROVIDE COMPLETE RACEWAY SYSTEMS FROM SOURCE TO ALL LOADS WITH DEDICATED SUPPORTS FOR EACH RACEWAY ELEMENT.

2. PROVIDE ALL REQUIRED BOXES & SUPPORTS FOR WIRING DEVICES, TELECOMMUNICATIONS, FIRE ALARM, ACCESS CONTROL, CONTROLS EQUIPMENT, ALARMS, SENSORS, ETC.

3. PROVIDE PULL BOXES AT APPROPRIATE LOCATIONS FOR ALL POWER AND SPECIAL SYSTEMS RACEWAYS WHETHER SHOWN ON PLANS OR NOT. INSTALL IN CONCEALED, ACCESSIBLE LOCATIONS.

4. DO NOT INSTALL RACEWAY WITH MORE THAN THE EQUIVALENT OF THREE NINETY DEGREE BENDS BETWEEN PULL POINTS.

5. THE CONDUIT ROUTING SHOWN ON THESE PLANS IS DIAGRAMMATIC.

6. COORDINATE INTERIOR ROUTING WITH OTHER TRADES; STRUCTURE; NEW AND EXISTING UTILITIES, DUCTWORK, PIPING, AND OTHER EXISTING CONDITIONS AS REQUIRED FOR A COMPLETE, CONFLICT FREE INSTALLATION.

8. ROUTE RACEWAYS PARALLEL AND PERPENDICULAR TO WALLS, FLOORS, AND CEILINGS.

9. ROUTE EXPOSED CONDUIT PARALLEL AND TIGHT TO STRUCTURAL ELEMENTS. FOLLOW ALL SURFACE CONTOURS. DO NOT ROUTE IN FREE AIR FROM POINT TO POINT.

10. INSTALL RACEWAYS SO THAT IT DRAINS TO JUNCTION AND PULL BOXES TO AVOID MOISTURE TRAPS AT LOW POINTS; INSTALL JUNCTION BOX WITH DRAIN FITTING AT LOW POINTS IN CONDUIT SYSTEM.

11. INSTALL FITTINGS TO ACCOMMODATE EXPANSION AND DEFLECTION WHERE RACEWAY CROSSES SEISMIC, CONTROL, AND EXPANSION JOINTS.

12. INSTALL SUITABLE PULL STRING OR CORD IN EACH EMPTY RACEWAY, LABEL, AND CAP.

13. CLOSE ENDS AND UNUSED OPENINGS IN SURFACE RACEWAYS, WIREWAY, BOXES, AND ENCLOSURES.

14. WHERE POSSIBLE, ALL CONDUIT ROUTED THROUGH ROOF STRUCTURE SHALL SHARE COMMON PENETRATIONS AS MECHANICAL DUCTWORK OR PIPING. COORDINATE WITH MECHANICAL CONTRACTOR.

15. ALL ROOF AND WALL PENETRATIONS SHALL BE FLASHED AND SEALED TO MAINTAIN THE FIRE RATING AND WATERPROOFING OF THE STRUCTURE PER THE MANUFACTURER OF THE MATERIAL'S RECOMMENDED PRACTICES.

16. USE MULTI-GANG BOXES IN ALL POSSIBLE LOCATIONS.

17. PAINT EXPOSED RACEWAYS AND BOXES TO MATCH THE SURFACE TO WHICH THEY ARE ATTACHED.

18. ALL CONDUIT SHALL HAVE AN NEC COMPLIANT GROUND AND AN INSULATED THROAT BUSHING IN PLACE FOR PULLING CONDUCTORS.

19. ALL CONNECTIONS TO MOTORS, INSTRUMENTS, MACHINES, AND EQUIPMENT SUBJECT TO MOVEMENT OR VIBRATION SHALL BE MADE USING LIQUID-TIGHT, FLEXIBLE METAL CONDUIT (LMC), (3FT MAX).

WIRING DEVICES

1. DUPLEX RECEPTACLES MOUNTED ON OPPOSITE SIDES OF A COMMON WALLS SHALL BE A MINIMUM OF 12" APART. (NO BACK TO BACK OUTLETS) TO REDUCE NOISE TRANSFER. JUNCTION BOXES IN ADJACENT ROOMS SHALL NOT BE INSTALLED IN THE SAME WALL CAVITY. SEPARATE ALL JUNCTION BOXES BY AT LEAST ONE FRAMING MEMBER.

2. PROVIDE GFI RECEPTACLES & DIMMERS WITH DEDICATED NEUTRALS INDEPENDENT OF OTHER LOADS ON THE CIRCUIT.

ENCLOSED SWITCHES AND CONTACTORS

1. TO FACILITATE SAFE REPAIR AND REPLACEMENT OF EQUIPMENT, PROVIDE ALL STARTERS AND DISCONNECTS WITH LOTO PROVISIONS.

2. MOUNT STARTERS AND DISCONNECTS SERVING HVAC EQUIPMENT TO STRUCTURE ADJACENT TO EQUIPMENT SERVED RATHER THAN MOUNTING DIRECTLY TO THE EQUIPMENT. THIS INCLUDES U-CHANNEL SUPPORT AND 120V MAINTENANCE RECEPTACLE FOR ROOF MOUNTED EQUIPMENT. PROVIDE WORKING SPACE PER NEC REQUIREMENTS.

LIGHTING

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LIGHT FIXTURE LOCATIONS AND QUANTITIES.

2. EXAMINE THE AREA OF INSTALLATION TO VERIFY ADEQUATE SPACE AND MOUNTING PROVISIONS ARE PROVIDED FOR THE SPECIFIED LUMINAIRE PRIOR TO ORDERING LUMINAIRES.

3. VERIFY THAT LUMINAIRES WILL NOT INTERFERE WITH REQUIRED CLEARANCES FOR EQUIPMENT INCLUDING FILTER PULL SPACE, NEC WORKING SPACE IN FRONT OF DISCONNECTS, CONTROL PANELS, ETC.

4. COORDINATE EXIT LIGHT LOCATIONS WITH STRUCTURE AND BUILDING SYSTEMS TO INSURE EXIT SIGNS ARE VISIBLE.

5. PROVIDE GROUND WIRE AND ONE NEUTRAL CONDUCTOR PER CIRCUIT IN ALL LIGHTING CONDUIT.

6. LABEL ALL CIRCUIT BREAKERS SERVING EMERGENCY LIGHTING.

7. UNO, ALL EXIT SIGNS, EMERGENCY EGRESS PATHWAY LIGHT FIXTURES, LIGHTS NOTED "XE", AND LIGHTS SHOWN CROSS HATCHED SHALL BE CONNECTED TO THE SWITCHED AREA LIGHTING CIRCUIT FOR NORMAL OPERATION AND AN UNSWITCHED CIRCUIT FROM THE SAME COPD TO AUTOMATICALLY CONTROL POWER TRANSFER TO AN INTEGRAL BATTERY PACK FOR 30 MINUTES OF EMERGENCY OPERATION WHEN LOSS OF NORMAL POWER IS SENSED ON THE UNSWITCHED CIRCUIT. PROVIDE A BATTERY STATUS INDICATOR MOUNTED IN A VISIBLE LOCATION.

8. INSTALL FIXTURES PLUMB, SQUARE AND LEVEL WITH CEILINGS AND WALLS AND SECURE FIXTURES PER MANUFACTURER'S PRINTED INSTRUCTIONS.

9. ADJUST AMBABLE FIXTURES: CLEAN, AND PROVIDED ALL FIXTURES WITH LAMPS PRIOR TO OWNER OCCUPANCY.

10. U.N.O., LIGHTING SWITCHES IN ROOMS SHALL CONTROL ONLY FIXTURES IN THAT ROOM.

11. WHEN MORE THAN ONE(1) LIGHTING SWITCH IS SHOWN AT A LOCATION THEY SHALL BE GANGED TOGETHER.

12. LUMINAIRE WHIPS MAY BE FMC, 6FT MAX. SECURE TO STRUCTURE USING LISTED SUPPORTS.

LIGHTING CONTROL REQUIREMENTS

1. OCCUPANCY SENSOR OFF DELAY SHALL BE SET BY EC AT END OF PROJECT TO 15 MINUTES. AMBIENT LIGHT OVERRIDE SHALL BE SET SUCH THAT THE LUMINAIRES ARE SWITCHED OFF WHEN APPROPRIATE FC LEVEL IS MEASURED ON THE FLOOR (REGARDLESS OF THE FOOTCANDLES MEASURED AT THE OCCUPANCY SENSOR).

2. INSTALL DIMMER SWITCHES ON THE LOAD SIDE OF OCCUPANCY SENSORS AND OTHER CONTROLS.

3. ALL EXTERIOR LIGHTING SHALL BE CONTROLLED AUTOMATICALLY. PROVIDE LIGHTING CONTRACTOR TO CONTROL ALL EXTERIOR LIGHTING CIRCUITS BY A SINGLE PHOTOCELL AND/OR ASTRONOMICAL TIME CLOCK WITH HOLIDAY PROGRAMMING. PHOTOCELL SHOULD BE ROOF MOUNTED. COORDINATE MOUNTING LOCATION WITH ARCHITECT.

4. ALL LUMINAIRE IN ROOMS WITH BI OR DUAL LEVEL SWITCHING SHALL BE PROVIDED WITH MULTIPLE OR MULTILEVEL BALLASTS AND WIRED TO ALLOW FOR EVENLY REDUCED ILLUMINATION THROUGHOUT THE SPACE. UNO, SWITCH "Y" SHALL CONTROL THE OUTER LAMPS IN THE FIXTURES, SWITCH "Z" SHALL CONTROL THE INNER LAMPS IN THE FIXTURES.

PRODUCT SPECIFICATIONS:

GENERAL REQUIREMENTS

1. COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF PROVIDING EQUIPMENT THAT IS NEW, PROPERLY DESIGNED, FROM A REPUTABLE MANUFACTURER, AND IN FULL WORKING ORDER.

2. IF CONFLICTS BETWEEN THE SPECIFICATIONS AND DRAWINGS OCCUR, THE HIGHER QUALITY OR QUANTITY SHALL BE PROVIDED AND INSTALLED. WHEN CONFLICTS EXIST, CONTRACTOR SHALL PROVIDE A WRITTEN REQUEST FOR CLARIFICATION FROM THE ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL EXPENSES INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO OBTAIN CLARIFICATION.

3. ALL ELECTRICAL EQUIPMENT ENCLOSURES SHALL BE 16 GAUGE SHEET METAL (MIN), PROVIDED WITH MANUFACTURER'S CORROSION RESISTANT PAINT SYSTEM, PROVIDED WITH CONTINUOUSLY HINGED, LATCHING DOORS (UNO).

4. EQUIPMENT TO BE INSTALLED OUTDOORS SHALL HAVE NEMA 3R ENCLOSURES MIN. EQUIPMENT IN CORROSIVE OR HAZARDOUS ENVIRONMENTS SHALL BE RATED FOR THE INTENDED USE.

5. CONDUCTORS AND CABLES SHALL BE THINWALL SOFT DRAWN, STRANDED COPPER, XHHW FOR UG, USE SOLID COPPER FOR #10 & SMALLER, MIN SIZE #12.

6. FULLY ENCLOSED RACEWAYS AND BOXES REQUIRED FOR ALL WIRING. TYPE REQUIRED IS BY LOCATION.

DRY-TYPE DISTRIBUTION TRANSFORMERS

1. 15KVA AND LARGER SHALL CONFORM TO 2016 DEPARTMENT OF ENERGY MINIMUM REQUIREMENTS.

2. PROVIDE CONCRETE PAD AND VIBRATION ISOLATION PADS.

PANELBOARDS

1. PROVIDE ALL PANELS WITH COPPER PHASE, NEUTRAL, GROUND BUSES; 42 PROVISIONS BREAKER MOUNTING SPACES (MIN).

2. ALL BRANCH CIRCUIT BREAKERS SHALL BE BOLT ON TYPE THERMAL MAGNETIC WITH COMMON TRIP HANDLE FOR MULTIPLE POLES, HACR RATED FOR MECHANICAL LOADS.

3. PROVIDE ADJUSTABLE TRIP SETTINGS FOR DISTRIBUTION BREAKERS. UNO: LI 600 TO 900A, LSG 1000A & ABOVE.

4. PROVIDE CONTINUOUSLY HINGED DOOR AND FRONT COVER, LATCH AND KEY LOCK, METAL DIRECTORY FRAME.

SWITCHBOARDS

1. ALL SWITCHBOARDS SHALL BE NEMA 3B2, FREE STANDING, DEAD FRONT, ENCLOSED SWITCHBOARD WITH ELECTRICAL RATINGS SHOWN ON THE DRAWINGS. ALL VERTICAL SECTIONS SHALL BE BOLTED TOGETHER TO FORM ONE ASSEMBLY. MAIN CIRCUIT BREAKER SHALL BE INDIVIDUALLY MOUNTED WITH GROUP MOUNTED DISTRIBUTION. MAIN BUS SHALL HAVE FULL CAPACITY THROUGH EACH SECTION.

2. BUS SHALL BE SILVER PLATED COPPER WITH FULLY INSULATED LOAD SIDE BUS BARS AND FULLY RATED NEUTRAL. GROUND BUS SHALL EXTEND THE LENGTH OF THE SWITCHBOARD.

3. PROVIDE ADJUSTABLE TRIP SETTINGS FOR MAIN AND DISTRIBUTION BREAKERS. UNO: LI 600 TO 1000A, LSG AND ARC REDUCING MAINTENANCE SWITCH FOR 1200A & ABOVE.

WIRING DEVICES

1. WIRING DEVICES SHALL BE COMMERCIAL GRADE (MIN), GROUNDING, AND RATED FOR LOAD (20A MIN). NOTE THAT SOME LOCATIONS REQUIRE WEATHER RATED, INDUSTRIAL, OR HEAVY DUTY, AND HOSPITAL, GRADE DEVICES.

2. SURFACE MOUNTED RACEWAY FOR RECEPTACLES AND DATA OUTLETS SHALL BE DUAL CHANNEL, METAL RACEWAYS, TWO PIECE DESIGN WITH METAL BASE AND SNAP-ON METAL COVER. ASSEMBLED BASE AND COVER SHALL BE A MINIMUM OF 4" WIDE BY 1 1/2" DEEP. DEVICE BRACKETS AND COVER PLATES THAT WILL ACCEPT DUPLEX RECEPTACLES AND STANDARD DATA JACK MOUNTING PLATES WITHOUT FIELD CUTTING MUST BE AVAILABLE FROM THE RACEWAY MANUFACTURER.

ENCLOSED SWITCHES AND CONTACTORS

1. DISCONNECTS SHALL BE QUICK MAKE/BREAK LOAD INTERRUPTING KNIFE SWITCHES WITH EXTERNAL HANDLE LOCKABLE IN ON AND OFF POSITIONS, FULLY HINGED DOOR THAT IS LOCKED WHEN ENERGIZED AND PROVIDED WITH A DEFEATER MECHANISM TO OPEN ENCLOSURE WHEN ENERGIZED.

2. ENCLOSED MOTOR STARTERS SHALL HAVE REMOTE START SIGNAL INPUT, FULL SIZED OVERLOADS, CONTROL XFMR WITH PRIMARY & SECONDARY FUSING, HAND-OFF-AUTO SELECTOR SWITCH, (2) NORMALLY OPEN AND (2) NORMALLY CLOSED AUX. DRY CONTACTS. COORDINATE OPT VOLTAGE WITH CONTRACTOR PROVIDING EQUIPMENT TO BE CONTROLLED.

LIGHTING

1. ALL LIGHT FIXTURES/LAMPS SHALL BE UL LISTED AND CONFORM TO ALL APPLICABLE UL, ANSI AND NFPA STANDARDS.

2. REFER TO LUMINAIRE SCHEDULE FOR FIXTURE, BALLAST, AND LAMP SPECIFICATIONS. SUBSTITUTIONS SHOULD BE APPROVED PRIOR TO BID.

RACEWAY AND BOX SPECIFICATIONS BY LOCATION:

GENERAL REQUIREMENTS

1. PROVIDE RACEWAY AND BOXES AS SPECIFIED BELOW FOR POWER, LIGHTING, COMMUNICATIONS, FIRE ALARM, ACCESS CONTROL/SECURITY, CONTROLS, AND OTHER SPECIAL SYSTEMS.

2. PROVIDE RACEWAY AND BOXES FOR ALL EQUIPMENT, LIGHTING, WIRING DEVICES, COMMUNICATIONS EQUIPMENT AND OUTLETS; FIRE ALARM EQUIPMENT, APPLIANCES, AND DEVICES; ACCESS CONTROL/SECURITY POINTS, CONTROLS POINTS; AND OTHER SPECIAL SYSTEMS SHOWN ON PLANS.

3. PROVIDE RACEWAY BOXES AT OTHER LOCATIONS AS REQUIRED FOR SPLICES, TAPS, WIRE PULLING, EQUIPMENT CONNECTIONS, AND COMPLIANCE WITH REGULATORY REQUIREMENTS, RACEWAY AND BOXES ARE SHOWN IN APPROXIMATE LOCATIONS UNLESS DIMENSIONED. PROVIDE RACEWAY TO COMPLETE WIRING SYSTEM.

4. PROVIDE COMPRESSION CONNECTIONS FOR ALL METAL RACEWAYS.

UNDERGROUND

1. PROVIDE WRAPPED RIGID STEEL CONDUIT WHERE ENTERING/EXITING SLABS OR GRADE; FOR ELBOWS 1" AND LARGER.

2. PROVIDE THICKWALL NONMETALLIC CONDUIT FOR STRAIGHT RUNS THAT ARE BURIED AND/OR IN CONCRETE.

3. PROVIDE CAST METAL BOXES OR POLYMER CONCRETE BOXES. COORDINATE WITH ENGINEER.

4. PROVID



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Firm Registration No. F-2497

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Michael E. Griesel
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PROJECT

**NMSU NM DEPT OF AGRICULTURE NEW
OFFICE BUILDING**
3910 SOUTH ESPINA STREET
LAS CRUCES, NEW MEXICO 88003

50%
CONSTRUCTION
DOCUMENTS

REVISIONS

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- △
- △
- △
- △
- △

DRAWN BY AG

REVIEWED BY MG

DATE 04/29/2024

PROJECT NO 22-0227.001

DRAWING NAME

ELECTRICAL
LIGHTING PLAN

SHEET NO

EL101

◆ LIGHTING CONTROL LEGEND

NUMBER IN DIAMOND TAG SYMBOL REPRESENTS LIGHTING CONTROL TYPE AS DEFINED IN THE LIGHTING CONTROL SCHEDULE ON SHEET E501.

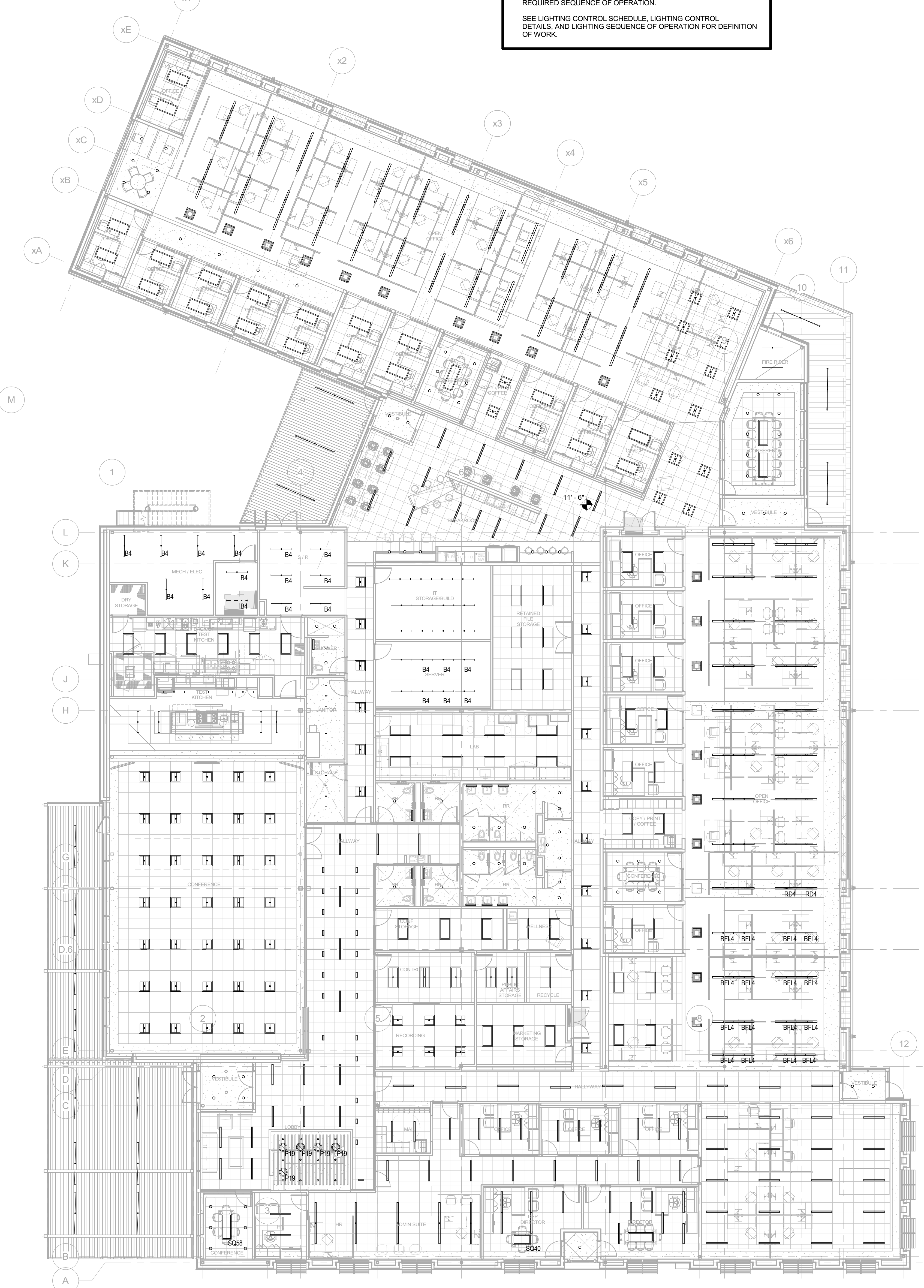
NOTE THAT ALL LIGHTING CONTROL DEVICE SHOWN ON PLANS ARE DIAGRAMATIC AND NOT ALL QUANTITIES ARE SHOWN. SEE LIGHTING CONTROL DIAGRAMS AND PROVIDE DEVICES TO ACCOMPLISH THE REQUIRED SEQUENCE OF OPERATION.

SEE LIGHTING CONTROL SCHEDULE, LIGHTING CONTROL DETAILS, AND LIGHTING SEQUENCE OF OPERATION FOR DEFINITION OF WORK.

GENERAL NOTES

- A. SEE PROJECT GENERAL ELECTRICAL NOTES ON E000'S SHEETS.
- B. CONNECT ALL LUMINAIRES WITHIN DASHED BOUNDARIES TO CIRCUIT INDICATED.
- C. CONNECT ALL BATTERY POWER EMERGENCY LIGHTS TO UNSWITCHED LEG OF LOCAL LIGHTING CIRCUIT TO CHARGE BATTERIES AND SENSE POWER LOSS TO ILLUMINATE LAMPS.
- D. COORDINATE FINAL LOCATION AND CEILING TYPES WITH ARCHITECTURAL CEILING PLANS.
- E. PROVIDE SUPPORTS AT DIAGONAL CORNERS OF EACH LIGHT FIXTURE IN ALL T-GRIDS. EXTEND SUPPORT UP TO STRUCTURE.
- F. ALL RECESSED FIXTURES IN LAY-IN CEILINGS SHALL BE INSTALLED WITH 6' LONG FLEXIBLE METAL CONDUIT.
- G. REFER TO E-500'S FOR LIGHTING CONTROL SCHEDULE AND DIAGRAMS.
- H. REFER TO E-701 FOR LIGHT FIXTURE SCHEDULE.
- I. COORDINATE MOUNTING HEIGHTS AND FINAL LOCATIONS OF EXTERIOR LIGHTING FIXTURES WITH ARCHITECTURAL PLANS AND ELEVATIONS.
- J. ALL EXTERIOR LIGHTS (POLE LIGHTS + WALL LIGHTS) AND INTERIOR COMMON SPACE & CORRIDOR/CORCOURSE LIGHTS ARE CONTROLLED BY CENTRAL LIGHTING CONTROL PANELS. SEE DETAIL ON E000'S SHEETS.
- K. ALL HEIGHTS FOR LIGHTING FIXTURES ARE TO THE BOTTOM OF THE FIXTURES UNLESS INDICATED OTHERWISE.
- L. PROVIDE NUMBER OF CONDUCTORS TO ACHIEVE CIRCUITING AND SWITCHING SHOWN.
- M. BRANCH CIRCUITS SHALL BE SIZED ACCORDING TO THE CIRCUIT BREAKER RATING, UNLESS INDICATED OTHERWISE.
- N. REFER TO SPECIFICATION SECTION 26 0519 FOR MINIMUM CONDUCTOR SIZE ADJUSTMENTS FOR VOLTAGE DROP.

KEYNOTES



A1 ELECTRICAL LIGHTING PLAN
1" = 10'-0"

**SEE EL200' SERIES
SHEETS FOR DD
SUBMITTAL PROPOSED
LIGHT FIXTURE LAYOUT,
CALCULATIONS AND
RENDERINGS**

LIGHTING CONTROL LEGEND

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GENERAL NOTES

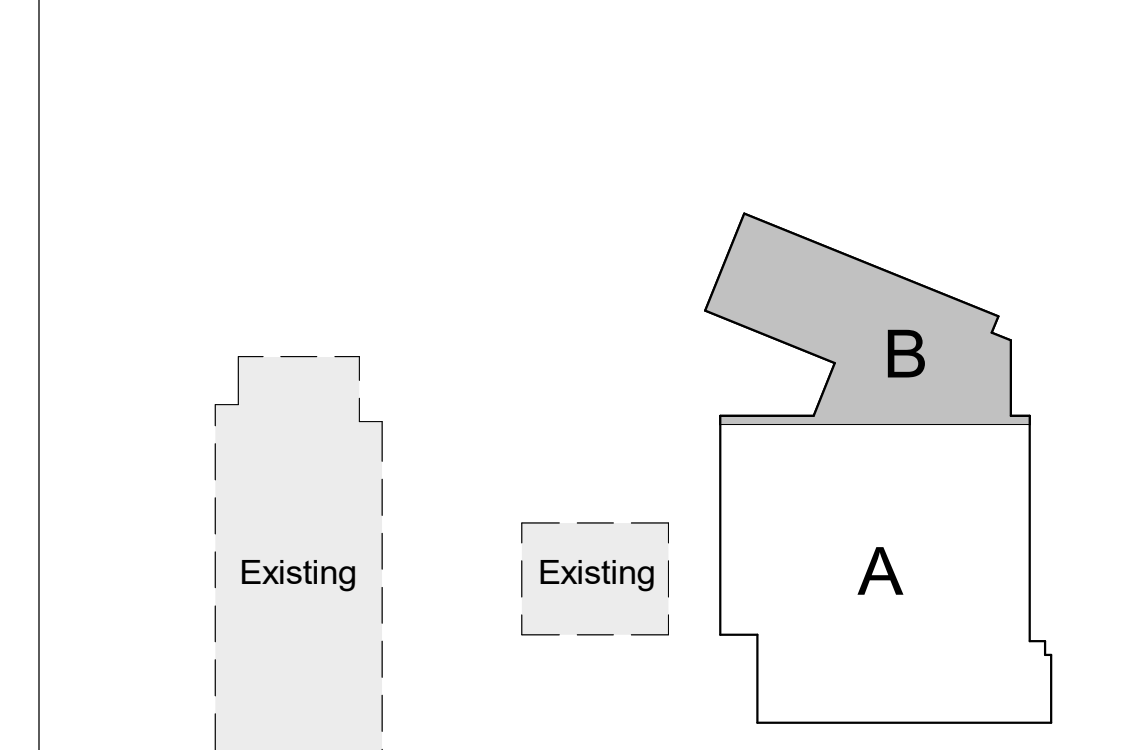
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- B. CONNECT ALL LUMINAIRES WITHIN DASHED BOUNDARIES TO CIRCUIT INDICATED.
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- D. COORDINATE FINAL LOCATION AND CEILING TYPES WITH ARCHITECTURAL CEILING PLANS.
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- K. ALL HEIGHTS FOR LIGHTING FIXTURES ARE TO THE BOTTOM OF THE FIXTURES UNLESS INDICATED OTHERWISE.
- L. PROVIDE NUMBER OF CONDUCTORS TO ACHIEVE CIRCUITING AND SWITCHING SHOWN.
- M. BRANCH CIRCUITS SHALL BE SIZED ACCORDING TO THE CIRCUIT BREAKER RATING, UNLESS INDICATED OTHERWISE.
- N. REFER TO SPECIFICATION SECTION 26 0519 FOR MINIMUM CONDUCTOR SIZE ADJUSTMENTS FOR VOLTAGE DROP.

KEYNOTES



SEE EL200' SERIES SHEETS FOR DD SUBMITTAL PROPOSED LIGHT FIXTURE LAYOUT, CALCULATIONS AND RENDERINGS

KEY PLAN



REVISIONS

DRAWN BY: AG
 REVIEWED BY: MG
 DATE: 04/29/2024
 PROJECT NO: 22-0227.001

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DRAWN BY AG
REVIEWED BY MG
DATE 04/29/2024
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DRAWING NAME
**ELECTRICAL LIGHTING PLAN -
AREA A**

SHEET NO
EL101A

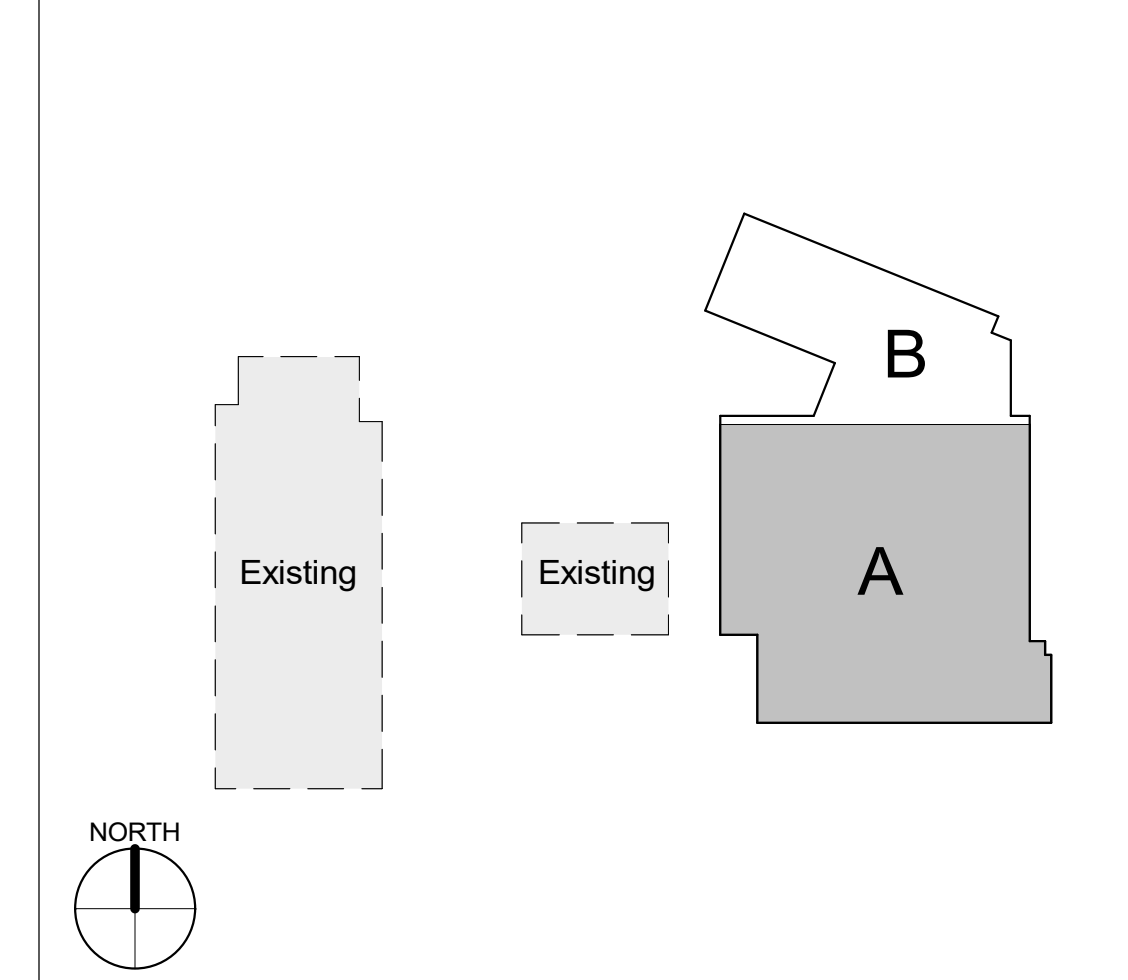
GENERAL NOTES

- A. SEE PROJECT GENERAL ELECTRICAL NOTES ON E000'S SHEETS.
- B. CONNECT ALL LUMINAIRES WITHIN DASHED BOUNDARIES TO CIRCUIT INDICATED.
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- G. REFER TO E-500'S FOR LIGHTING CONTROL SCHEDULE AND DIAGRAMS.
- H. REFER TO E-701 FOR LIGHT FIXTURE SCHEDULE.
- I. COORDINATE MOUNTING HEIGHTS AND FINAL LOCATIONS OF EXTERIOR LIGHTING FIXTURES WITH ARCHITECTURAL PLANS AND ELEVATIONS.
- J. ALL EXTERIOR LIGHTS (POLE LIGHTS + WALL LIGHTS) AND INTERIOR COMMON SPACE & CORRIDOR/CORCOURSE LIGHTS ARE CONTROLLED BY CENTRAL LIGHTING CONTROL PANELS. SEE DETAIL ON E500'S SHEETS.
- K. ALL HEIGHTS FOR LIGHTING FIXTURES ARE TO THE BOTTOM OF THE FIXTURES UNLESS INDICATED OTHERWISE.
- L. PROVIDE NUMBER OF CONDUCTORS TO ACHIEVE CIRCUITING AND SWITCHING SHOWN.
- M. BRANCH CIRCUITS SHALL BE SIZED ACCORDING TO THE CIRCUIT BREAKER RATING, UNLESS INDICATED OTHERWISE.
- N. REFER TO SPECIFICATION SECTION 26 0519 FOR MINIMUM CONDUCTOR SIZE ADJUSTMENTS FOR VOLTAGE DROP.

KEYNOTES

**SEE EL200' SERIES
SHEETS FOR DD
SUBMITTAL PROPOSED
LIGHT FIXTURE LAYOUT,
CALCULATIONS AND
RENDERINGS**

KEY PLAN

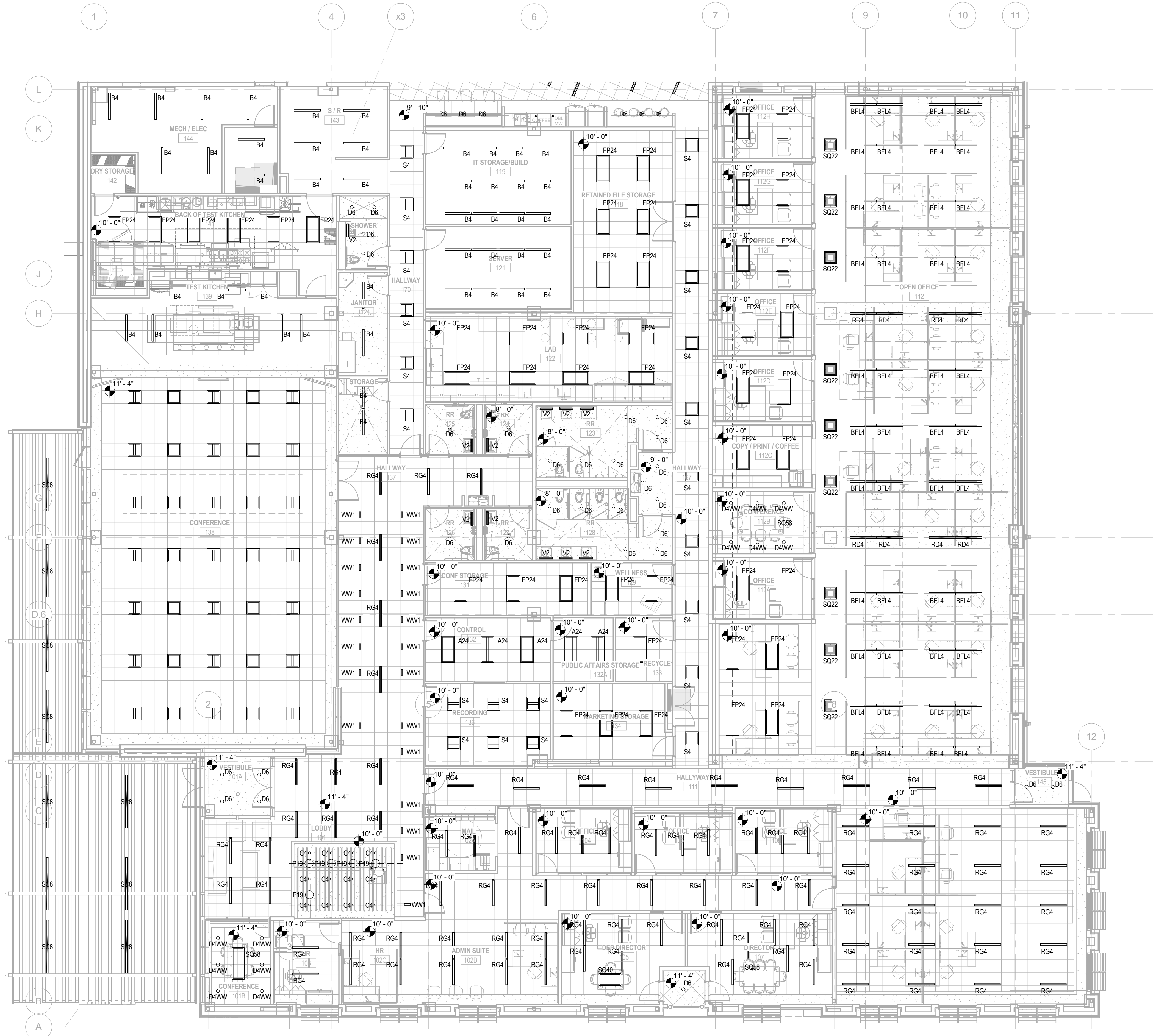


LIGHTING CONTROL LEGEND

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SEE LIGHTING CONTROL SCHEDULE, LIGHTING CONTROL DETAILS, AND LIGHTING SEQUENCE OF OPERATION FOR DEFINITION OF WORK.

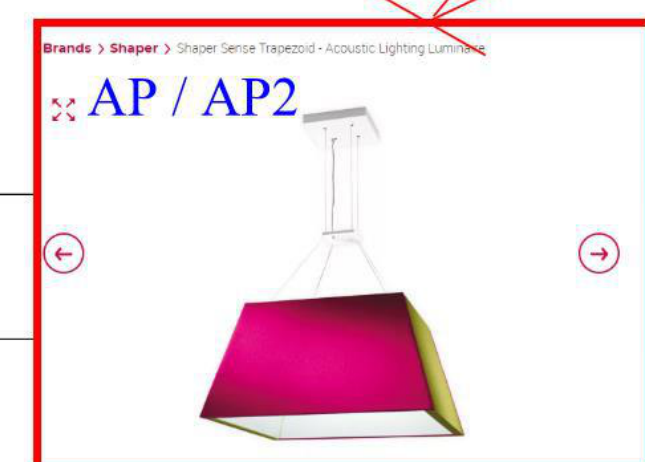
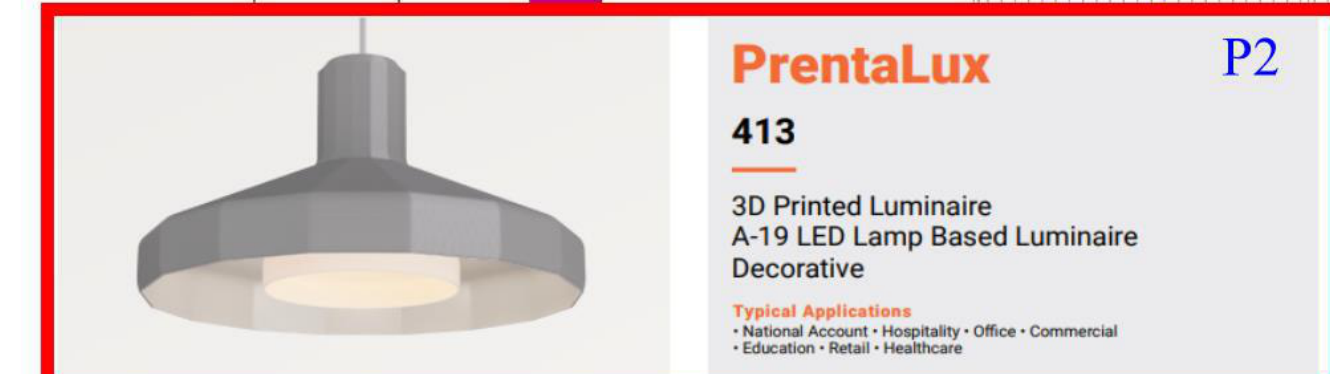
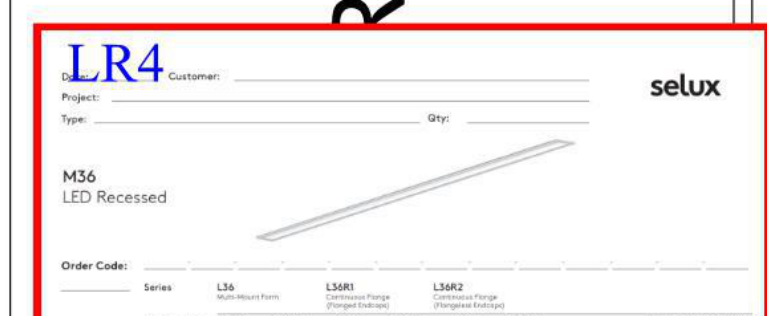
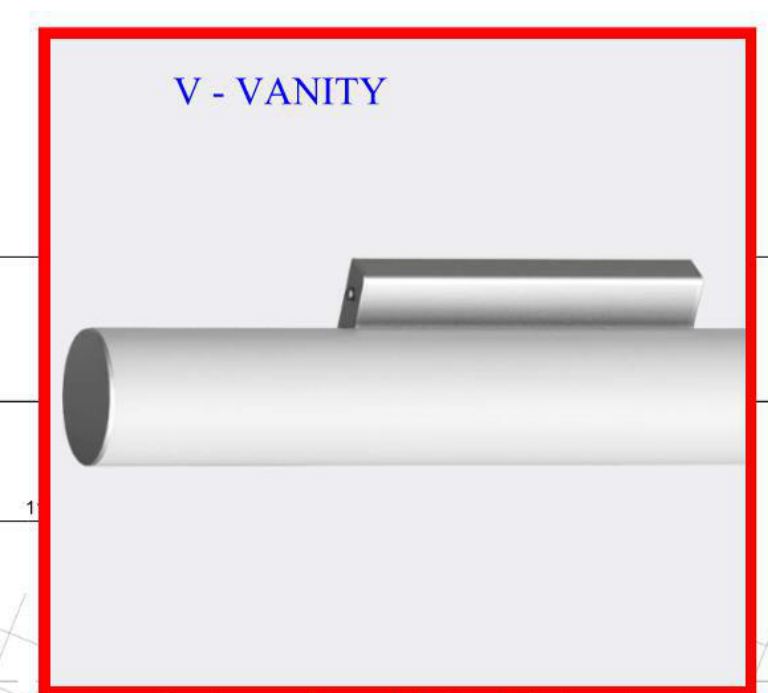


A1 ELECTRICAL LIGHTING PLAN - AREA A
1/8" = 1'-0"

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<Photometric Layout>

Calculation Points Name	Average	Maximum	Minimum	Avg/Min	Max/Min
LOBBY 101 Floor	30 fc	48 fc	0 fc	1032.0	1644.9
All (3) Workplane	38 fc	66 fc	0 fc	0.0	0.0
All (3) Workplane	53 fc	82 fc	0 fc	2742.5	4212.3
OPEN OFFICE 109 Workplane	43 fc	83 fc	0 fc	37157653298.0	54050813192.5
DEP DIRECTOR 105 Workplane	40 fc	71 fc	0 fc	2802242248.1	4965379415.1
VESTIBULE 101A Floor	10 fc	16 fc	0 fc	43753.0	73389.2
OFFICE 104 Workplane	25 fc	44 fc	0 fc	2411.7	4170.4
HALLWAY 167 Floor	27 fc	51 fc	8 fc	3.3	6.2
HALLWAY 137 Floor	30 fc	50 fc	11 fc	2.6	4.4
CONFERENCE 101B Workplane	0 fc	0 fc	0 fc	0.0	0.0
CONFERENCE 138	23 fc	47 fc	1 fc	18.5	37.2
RECORDING 136 Workplane	64 fc	82 fc	37 fc	1.7	2.2
MARKETING STORAGE 134 Work	53 fc	67 fc	31 fc	1.7	2.2
CONTROL 132 Workplane	55 fc	68 fc	38 fc	1.4	1.8
CONF STORAGE 131 Workplane	49 fc	59 fc	36 fc	1.4	1.7
RR 128 Floor	22 fc	41 fc	3 fc	7.6	14.3
RR 123 Floor	24 fc	42 fc	3 fc	9.2	16.0
COPY / PRINT / COFFEE 112C Flo	24 fc	55 fc	0 fc	115771.5	265872.6
ROOM 1134 Workplane	57 fc	73 fc	26 fc	2.2	2.9
OPEN OFFICE 112 Workplane	45 fc	84 fc	0 fc	6846196922.5	1281503268.5
Hall 137 Wall	29 fc	57 fc	5 fc	5.8	11.1
OFFICE 106	45 fc	61 fc	0 fc	839.0	1147.6
OFFICE 108	37 fc	58 fc	0 fc	1256.1	1988.2
CORRIDOR 102 Floor	35 fc	61 fc	15 fc	2.3	4.0
CONFERENCE 112B	37 fc	58 fc	6 fc	5.8	9.1
HR 103 Workplane	30 fc	59 fc	0 fc	153644.4	303838.1
DIRECTOR 107	39 fc	57 fc	0 fc	13600.3	19852.1
CANOPY @ GRADE	3 fc	6 fc	0 fc	30971.6	58209.3



Global Illuminance (fc)
84

ElumTools
Default
Analysis
1 RCP - AREA A
3'x6" x 1'0"

No.	Description	Date

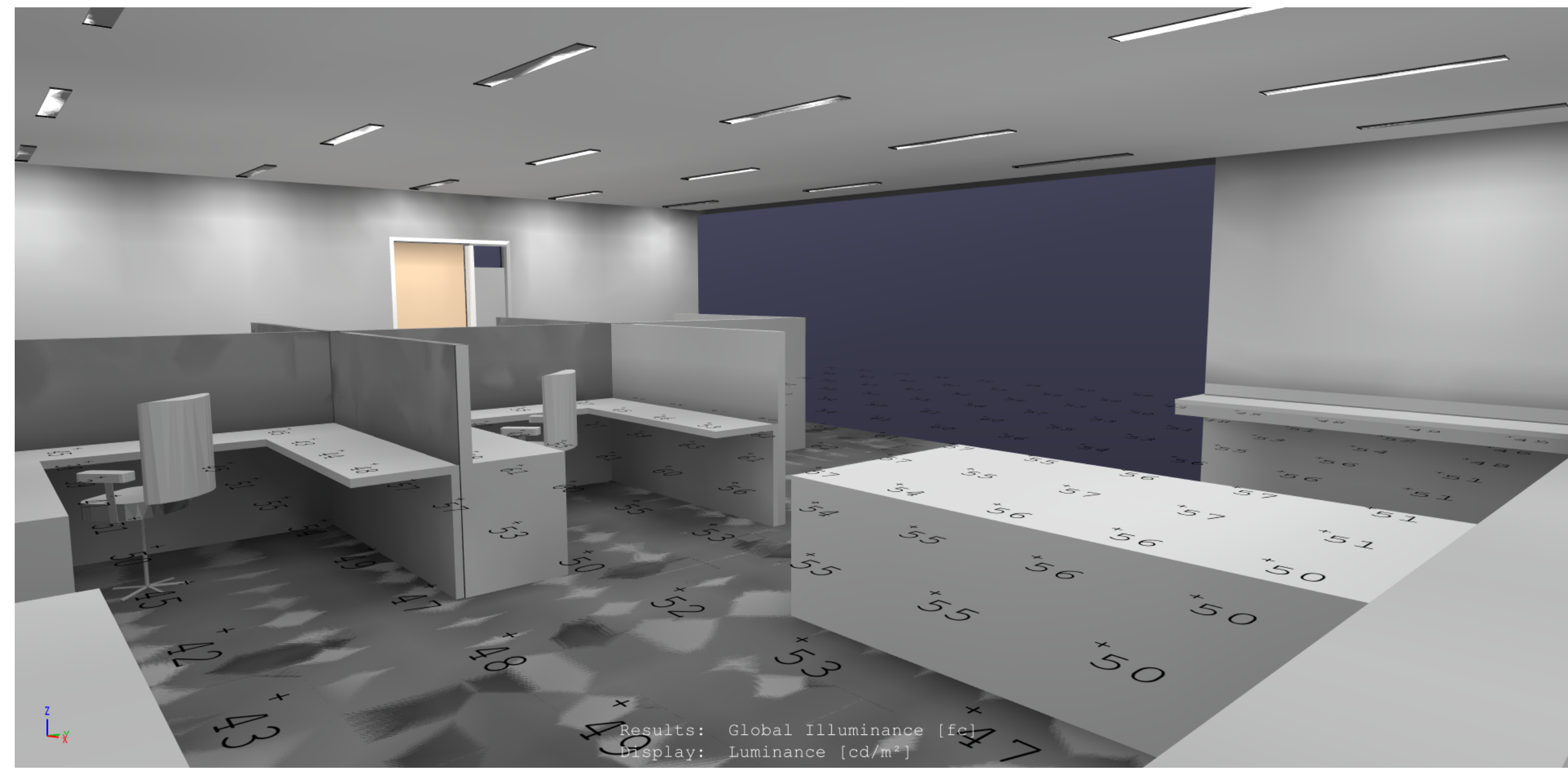
REV 2

LIGHTING

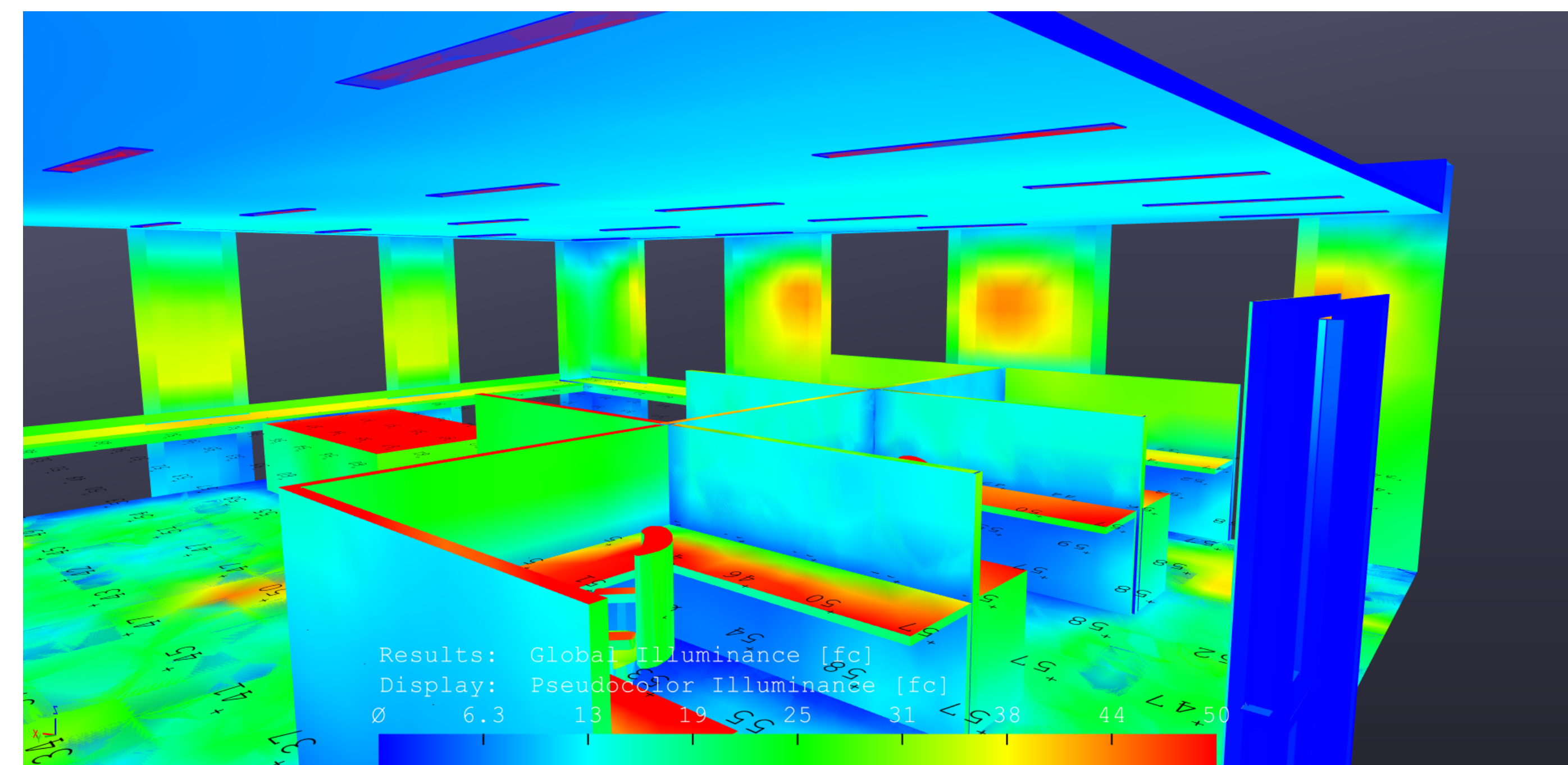
Project Number 22-0227.001
Date / /
Drawn By Author
Checked By Checker

LTG-121A

Scale



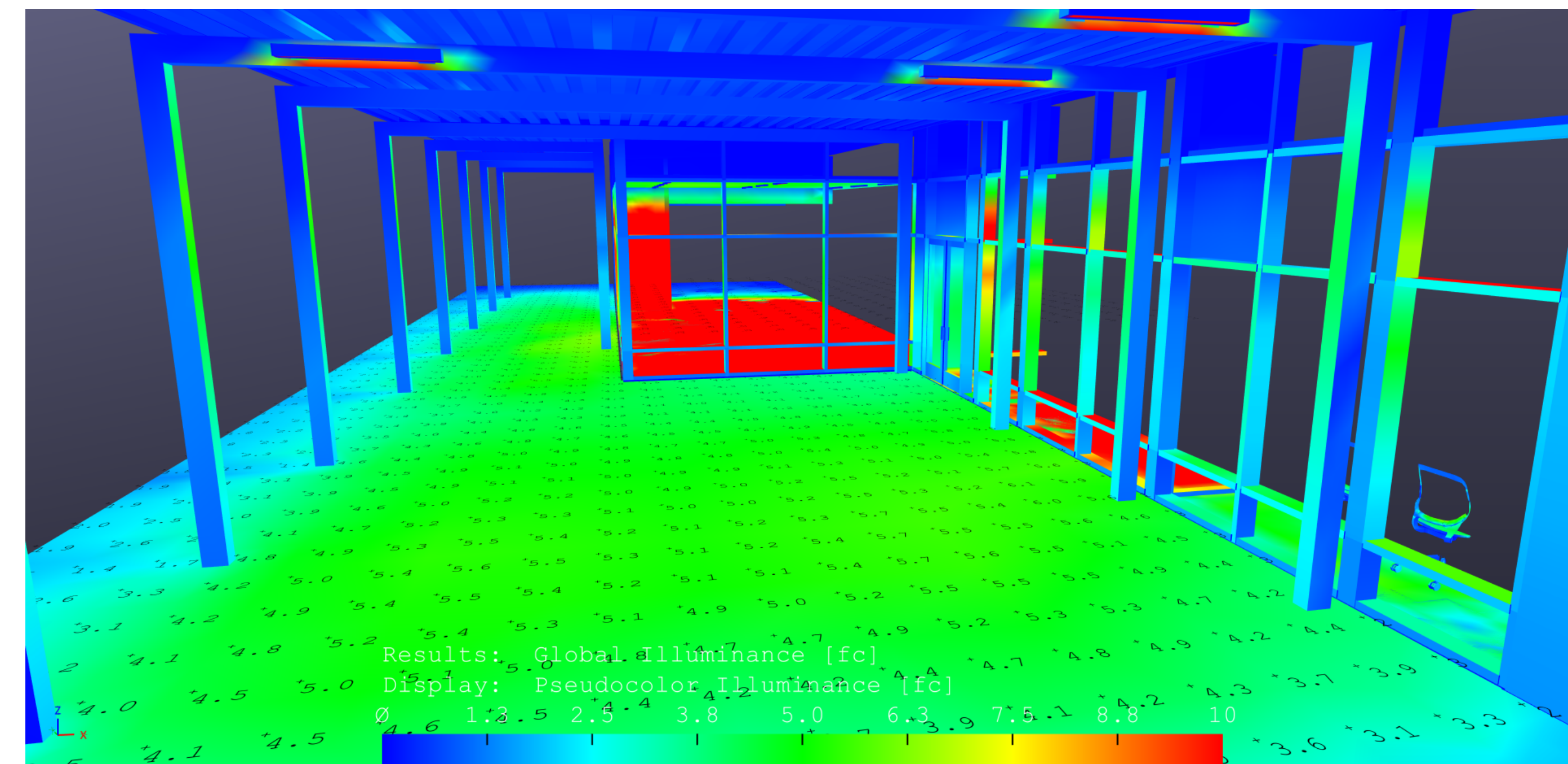
**109 Open Office
Slot lights 6x48**



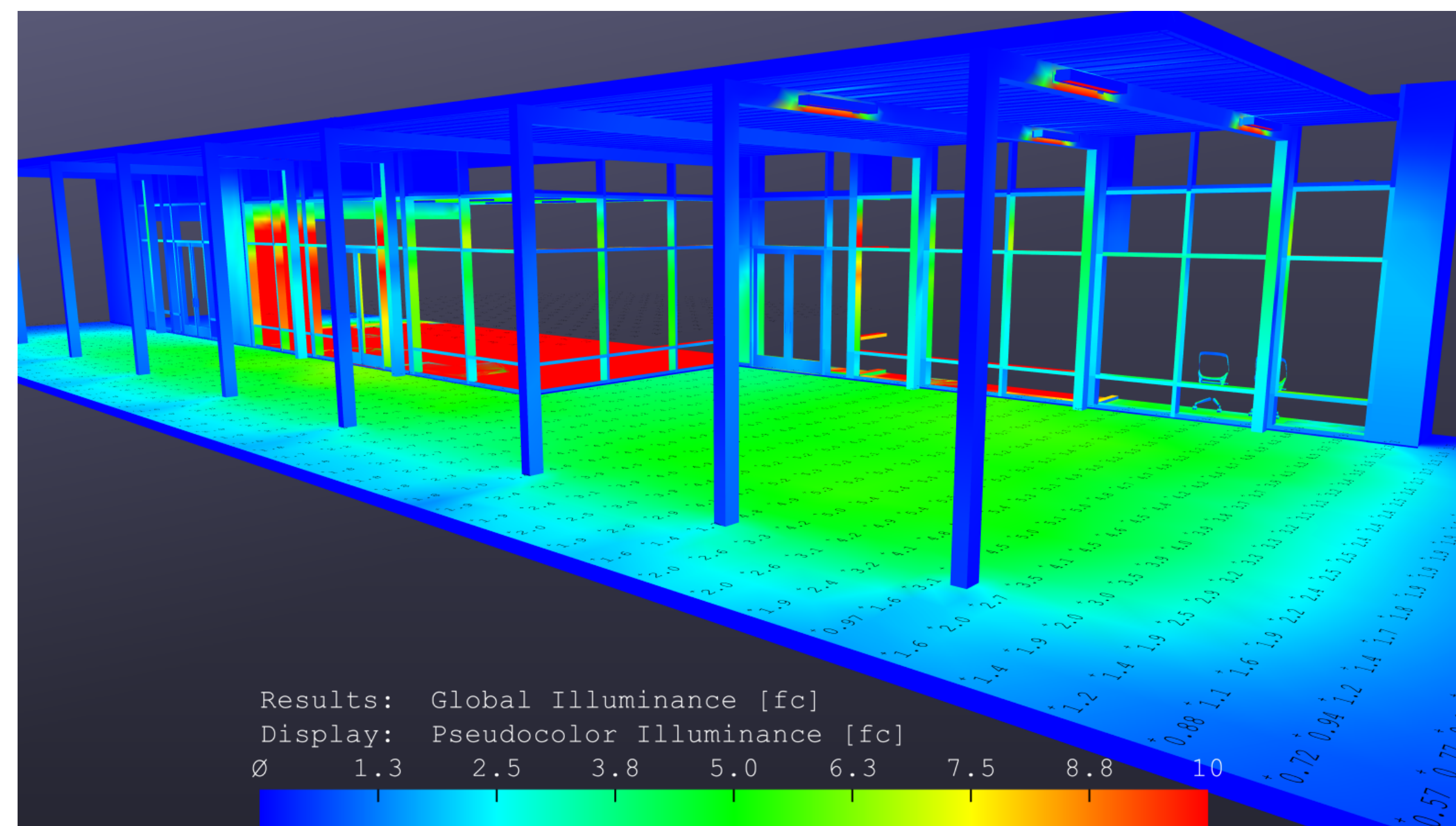
**109 Open Office
Slot lights 6x48**



**109 Open Office
2x2 light option**



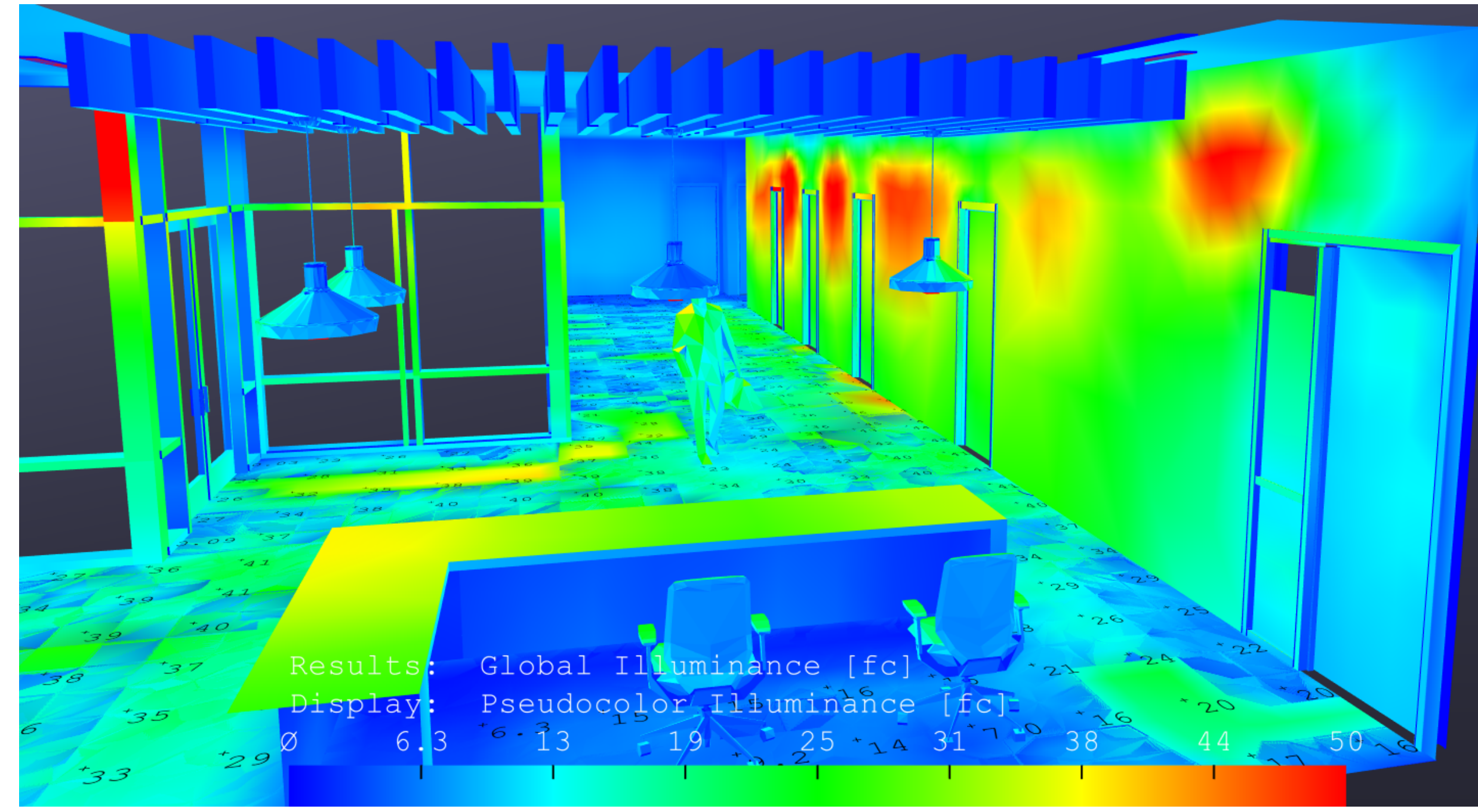
West Canopy



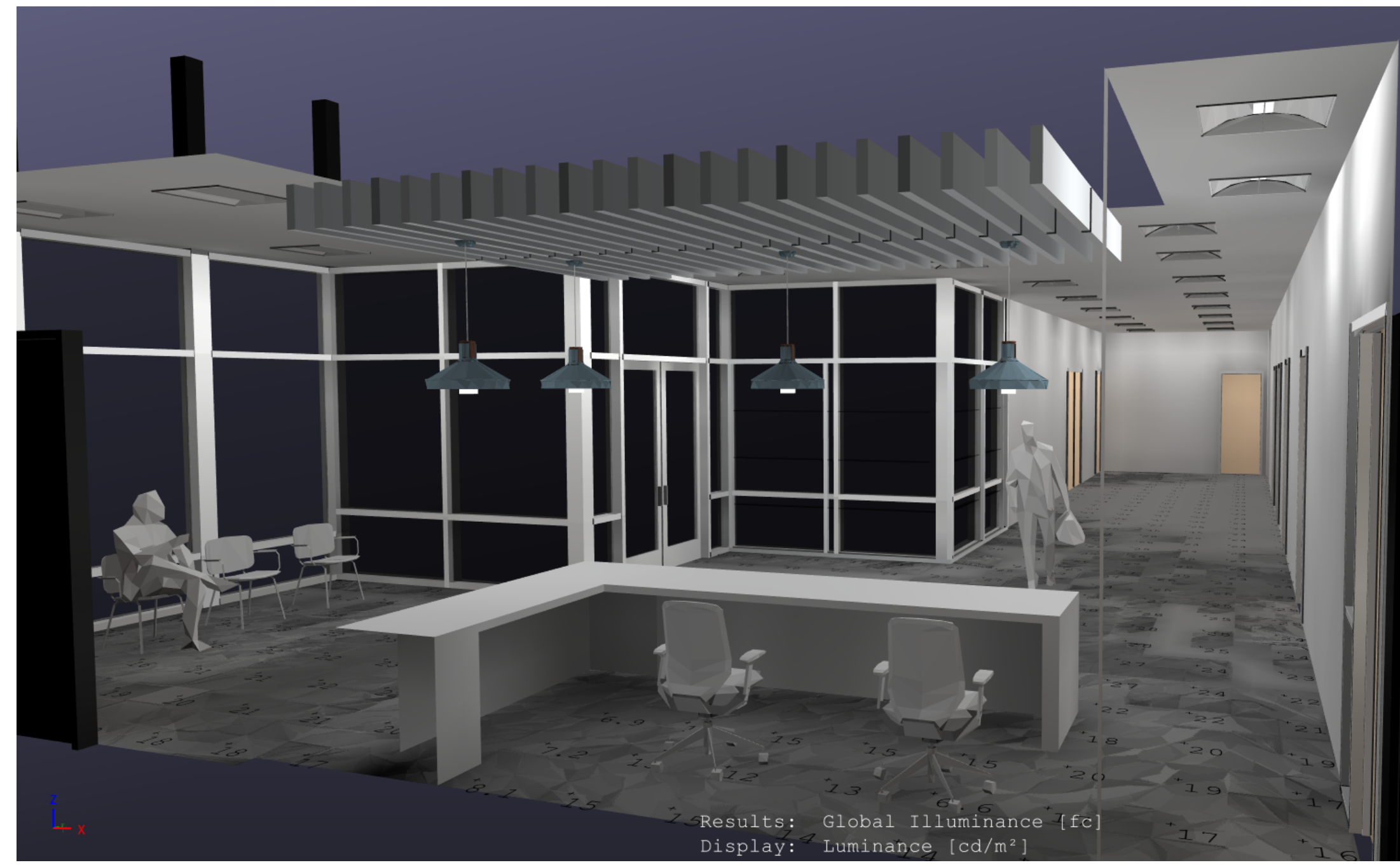
West Canopy



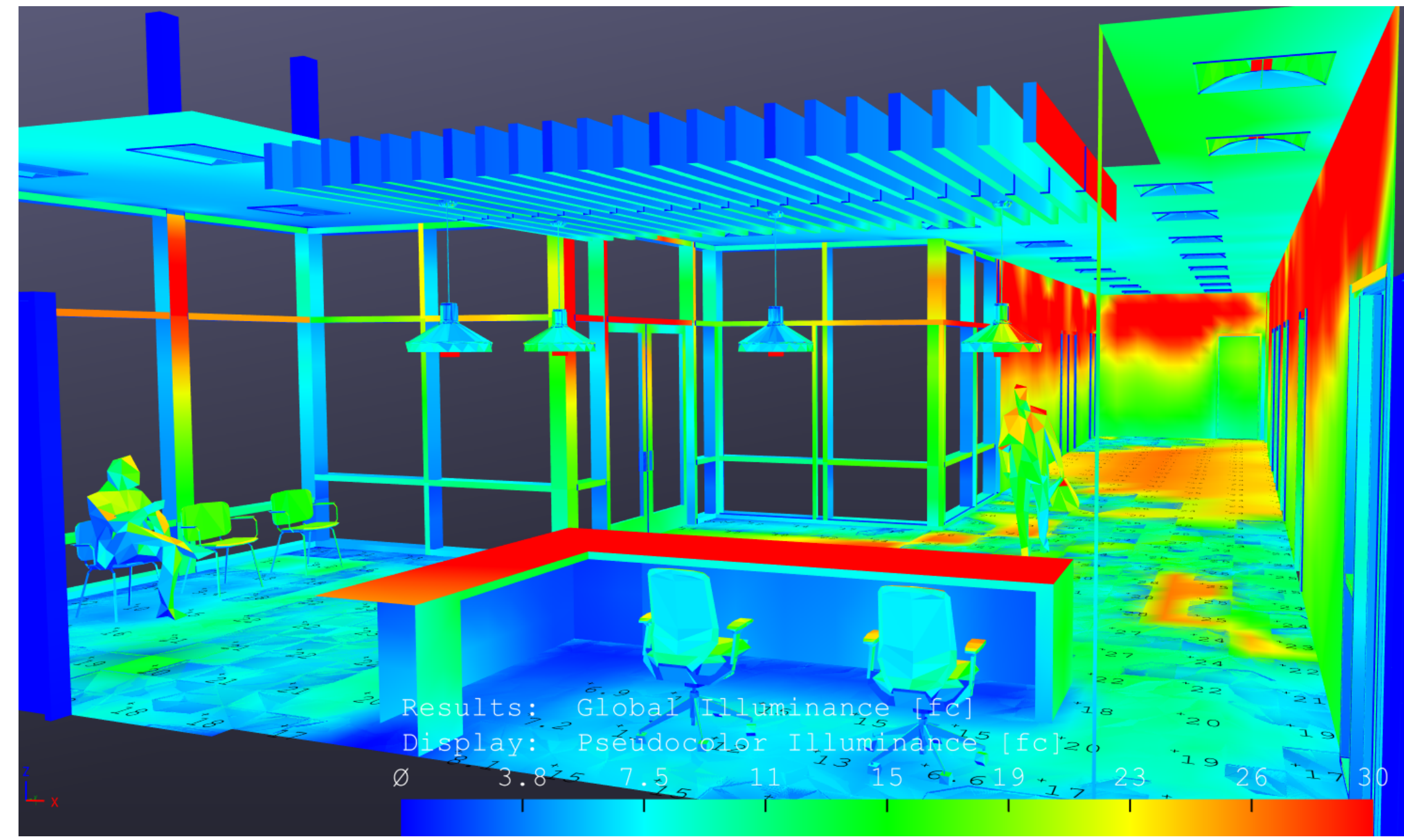
137 Lobby + Hall
6x48 Slot Light



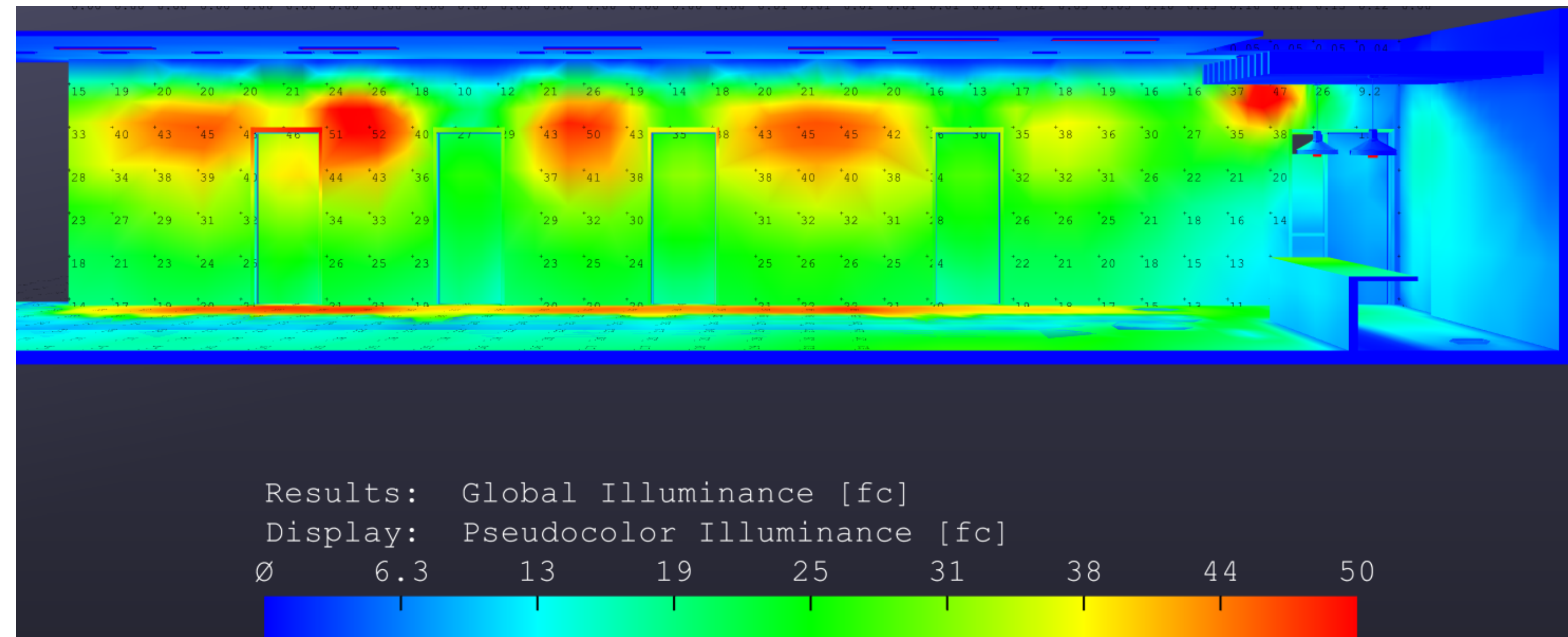
137 Lobby + Hall
6x48 Slot Light



137 Lobby + Hall
2x2 option



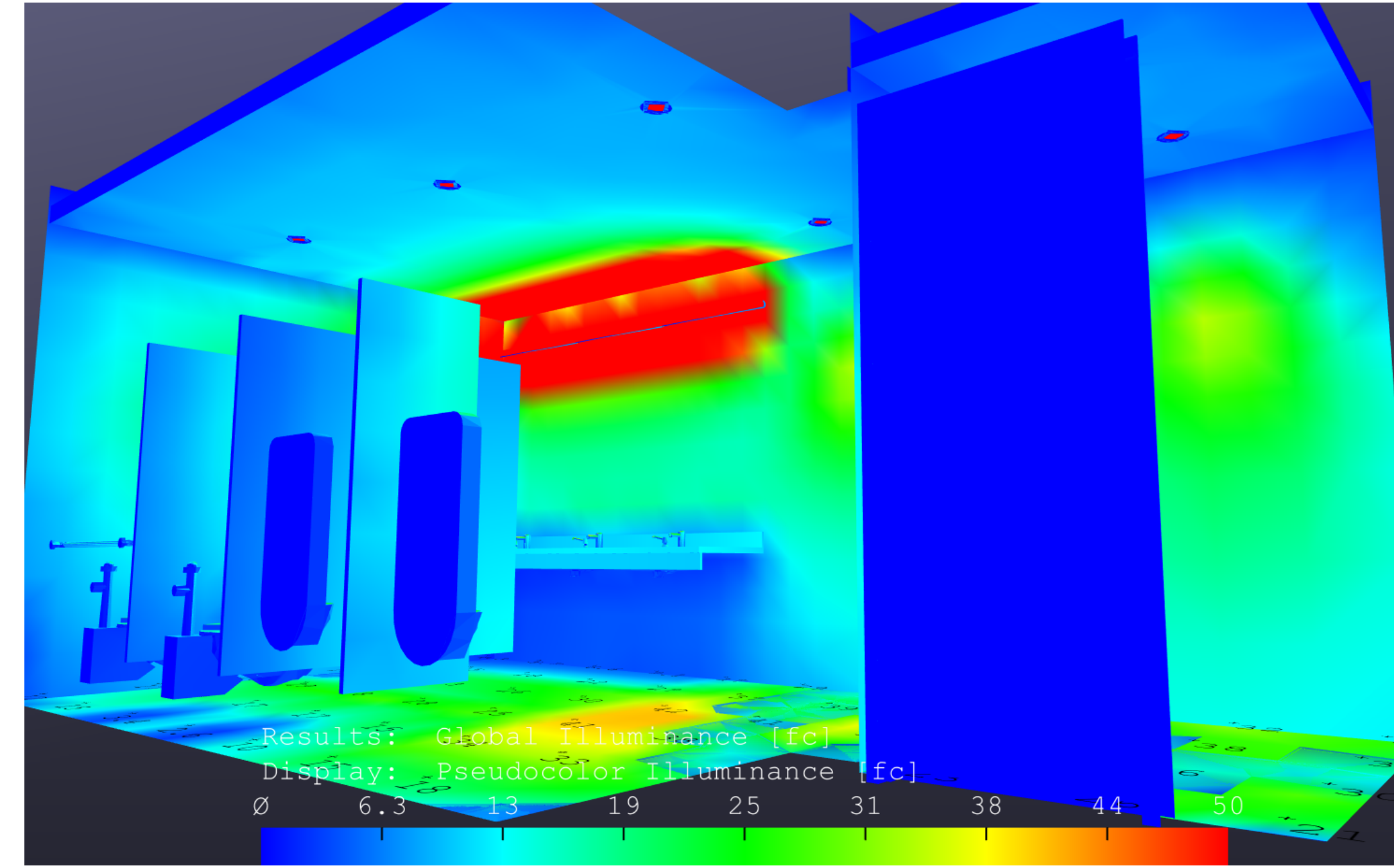
137 Lobby + Hall
2x2 option



137 Lobby + Hall
hallway wall illumination



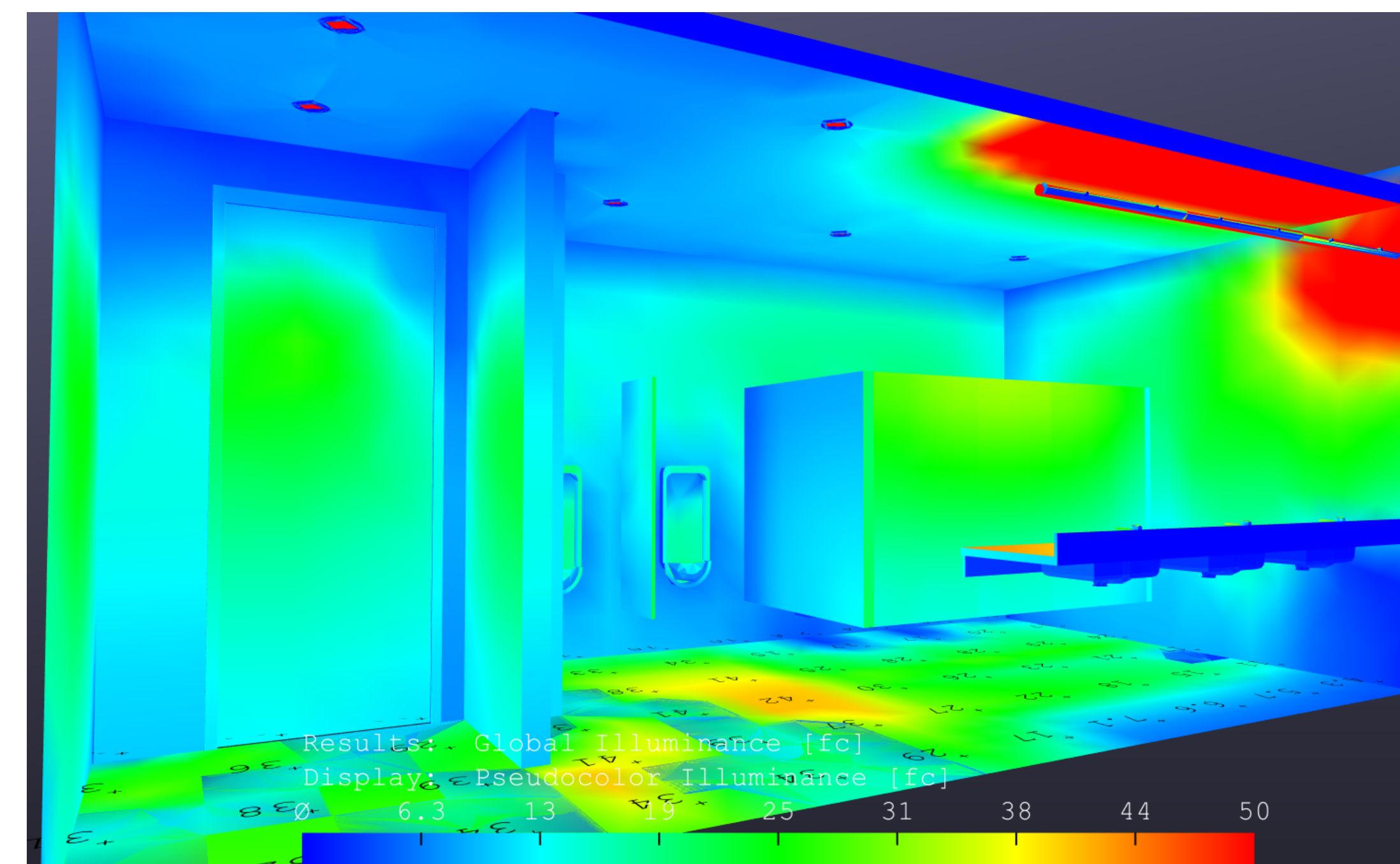
123 Rest Room



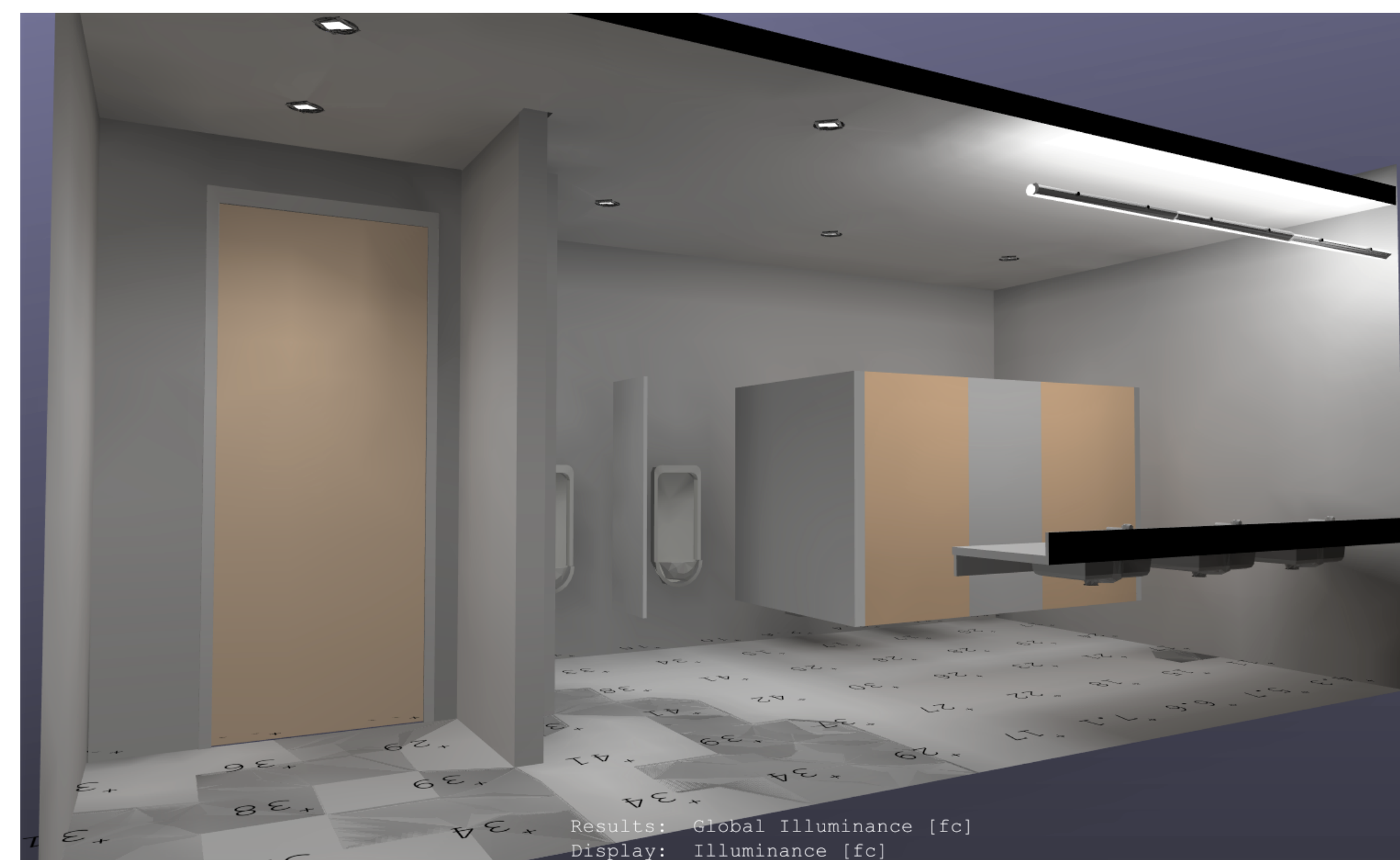
123 Rest Room



123 Rest Room



123 Rest Room



123 Rest Room



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EEA Project No. 20220446
State of registration TX
Firm Registration No. F-2457

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Serial No.
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PROJECT

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3910 SOUTH ESPINA STREET
LAS CRUCES, NEW MEXICO 88003

50%
CONSTRUCTION
DOCUMENTS

REVISIONS

DRAWN BY AG
REVIEWED BY MG
DATE 04/29/2024
PROJECT NO 22-0227.001

DRAWING NAME
**ELECTRICAL
POWER PLAN**

SHEET NO
EP101

GENERAL NOTES

- A. SEE PROJECT GENERAL ELECTRICAL NOTES ON E000'S SHEETS.
- B. COORDINATE FINAL LOCATION OF ALL DEVICES WITH OWNER AND ARCHITECT WITH RESPECT TO MOUNTING HEIGHTS AND LOCATION OF EQUIPMENT, FURNITURE AND WALL FURNISHINGS. COORDINATE FINAL LOCATION SO AS NOT TO INTERFERE WITH FURNISHING OR WALL MOUNTED ITEMS.
- C. ALL ELECTRICAL WIRING DEVICES ARE TO BE RECESSED (FLUSH MOUNTED) UNLESS NOTED OTHERWISE OR OTHERWISE DIRECTED BY OWNER.
- D. COORDINATE LOCATION OF ALL MECHANICAL, PLUMBING AND FIRE PROTECTION EQUIPMENT WITH THEIR TRADE DRAWINGS AND INSTALLING CONTRACTOR.
- E. COORDINATE ALL WIRING, CONNECTION AND CONTROLS FOR MECHANICAL EQUIPMENT WITH MECHANICAL AND ATC CONTRACTORS. COORDINATE LOCATION AND INSTALLATION OF CONTROL DEVICES.
- F. TELECOM OUTLETS (T.O.'S) ARE SHOWN FAINTLY ON THE EP SHEETS FOR REFERENCE OF LOCATION RELATIVE TO RECEPTACLES. SEE ELECTRICAL TECHNOLOGY 'ET' FOR DEFINITION OF WORK FOR T.O.'S.
- G. REFER TO THE ELECTRICAL TECHNOLOGY 'ET' SHEETS PRIOR TO BEGINNING WORK, PREPARE ROUGH-IN COORDINATION DRAWING AND COORDINATE ALL POWER REQUIREMENTS AND FINAL LOCATION OF ALL CONDUIT, RACEWAY AND BOX ROUGH-INS WITH ALL CONTRACTORS AND THE OWNER'S REPRESENTATIVE.
- H. COORDINATE ALL ROOF PENETRATIONS WITH MECHANICAL, PLUMBING AND ARCHITECTURAL DETAILS.
- I. AVOID BACK-TO-BACK ELECTRICAL BOXES (RECEPTACLES, TELECOM OUTLETS, SWITCHES) BETWEEN CLASSROOMS. IF BOXES OCCUR IN THE SAME STUD-SPACE CAVITY, PROVIDE SOUND PUTTY PAD OVER BOXES SERVING ONE ROOM.
- J. WHERE CONNECTED TO A 20A. BRANCH CIRCUIT SUPPLYING AN INDIVIDUAL RECEPTACLE (SIMPLEX OR DUPLEX), THE RECEPTACLE SHALL BE RATED AT 20A.
- K. REFER TO SECTION 26 0519 FOR CONDUCTOR SIZE ADJUSTMENTS FOR VOLTAGE DROP.
- L. PROVIDE NUMBER OF CONDUCTORS TO ACHIEVE CIRCUITING AND SWITCHING SHOWN.
- M. CIRCUIT NUMBERS AT DEVICES CORRESPOND TO BREAKERS (SEE PANELBOARD SCHEDULE). BRANCH CIRCUITS SHALL BE SIZED ACCORDING TO THE CIRCUIT BREAKER RATING, UNLESS INDICATED OTHERWISE ON THE ELECTRICAL EQUIPMENT SCHEDULE.

KEYNOTES



A1 ELECTRICAL POWER PLAN
1" = 10'-0"

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EEA Project No. 20220446
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LAS CRUCES, NEW MEXICO 88003

50%
CONSTRUCTION
DOCUMENTS

REVISIONS

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DRAWN BY AG
REVIEWED BY MG
DATE 04/29/2024
PROJECT NO 22-0227.001

DRAWING NAME
**ELECTRICAL
POWER PLAN -
AREA B**

SHEET NO
EP101B

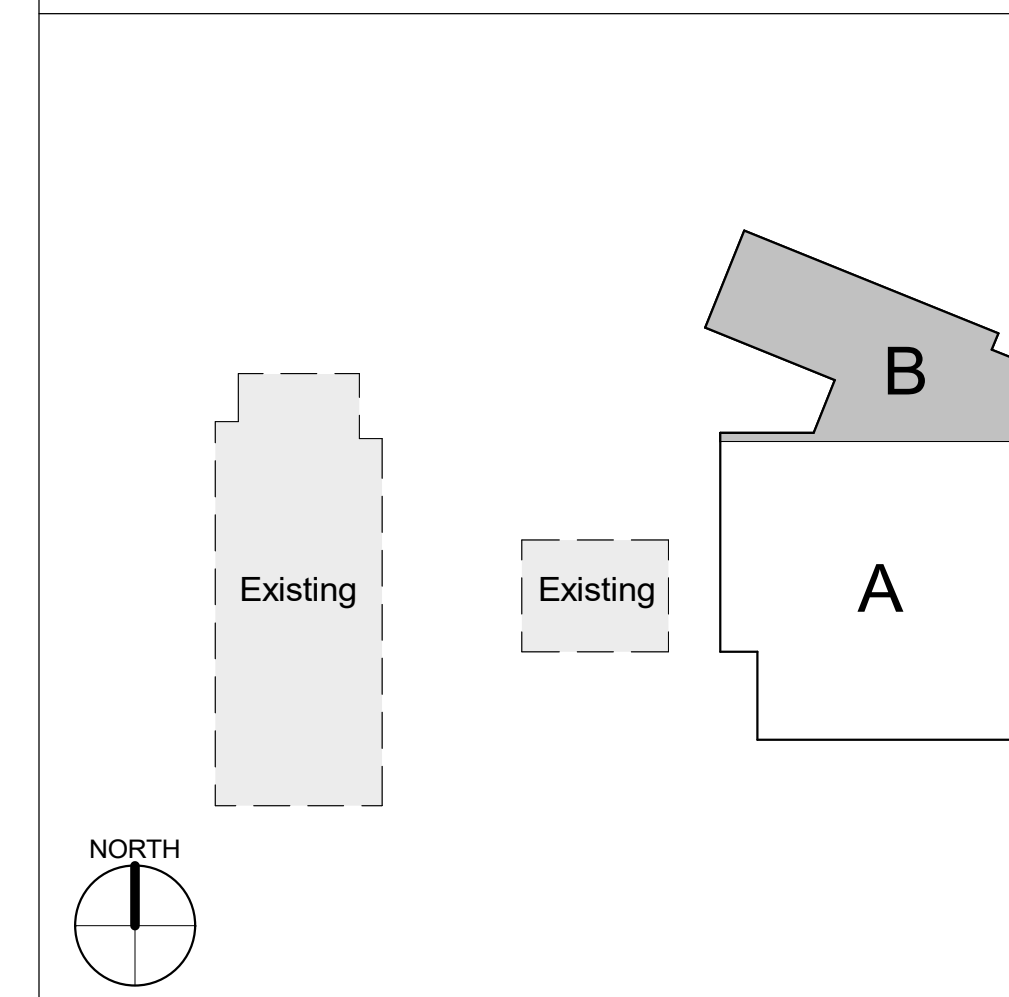
GENERAL NOTES

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- ALL ELECTRICAL WIRING DEVICES ARE TO BE RECESSED (FLUSH MOUNTED) UNLESS NOTED OTHERWISE OR OTHERWISE DIRECTED BY OWNER.
- COORDINATE LOCATION OF ALL MECHANICAL, PLUMBING AND FIRE PROTECTION EQUIPMENT WITH THEIR TRADE DRAWINGS AND INSTALLING CONTRACTOR.
- COORDINATE ALL WIRING, CONNECTION AND CONTROLS FOR MECHANICAL EQUIPMENT WITH MECHANICAL AND ATC CONTRACTORS. COORDINATE LOCATION AND INSTALLATION OF CONTROL DEVICES.
- TELECOM OUTLETS (T.O.'S) ARE SHOWN FAINTLY ON THE EP SHEETS FOR REFERENCE OF LOCATION RELATIVE TO RECEPTACLES. SEE ELECTRICAL TECHNOLOGY 'ET' FOR DEFINITION OF WORK FOR T.O.'S.
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- COORDINATE ALL ROOF PENETRATIONS WITH MECHANICAL, PLUMBING AND ARCHITECTURAL DETAILS.
- AVOID BACK-TO-BACK ELECTRICAL BOXES (RECEPTACLES, TELECOM OUTLETS, SWITCHES) BETWEEN CLASSROOMS. IF BOXES OCCUR IN THE SAME STUD-SPACE CAVITY, PROVIDE SOUND PUTTY PAD OVER BOXES SERVING ONE ROOM.
- WHERE CONNECTED TO A 20A BRANCH CIRCUIT SUPPLYING AN INDIVIDUAL RECEPTACLE (SIMPLEX OR DUPLEX), THE RECEPTACLE SHALL BE RATED AT 20A.
- REFER TO SECTION 26 0519 FOR CONDUCTOR SIZE ADJUSTMENTS FOR VOLTAGE DROP.
- PROVIDE NUMBER OF CONDUCTORS TO ACHIEVE CIRCUITING AND SWITCHING SHOWN.
- CIRCUIT NUMBERS AT DEVICES CORRESPOND TO BREAKERS (SEE PANELBOARD SCHEDULE). BRANCH CIRCUITS SHALL BE SIZED ACCORDING TO THE CIRCUIT BREAKER RATING, UNLESS INDICATED OTHERWISE ON THE ELECTRICAL EQUIPMENT SCHEDULE.

KEYNOTES



KEY PLAN



ELECTRICAL POWER PLAN - AREA B
1/8" = 1'-0"
A1

4/25/2024 5:22:43 PM



4343 Pan American Fwy NE
Albuquerque NM 87107 USA
505.877.4499 main
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EEA Project No. 20220446
State of registration TX
Firm Registration No. F-2457

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PROJECT

**NMSU NM DEPT OF AGRICULTURE NEW
OFFICE BUILDING**
3910 SOUTH ESPINA STREET
LAS CRUCES, NEW MEXICO 88003

50%
CONSTRUCTION
DOCUMENTS

REVISIONS

DRAWN BY AG
REVIEWED BY MG
DATE 04/29/2024
PROJECT NO 22-0227.001

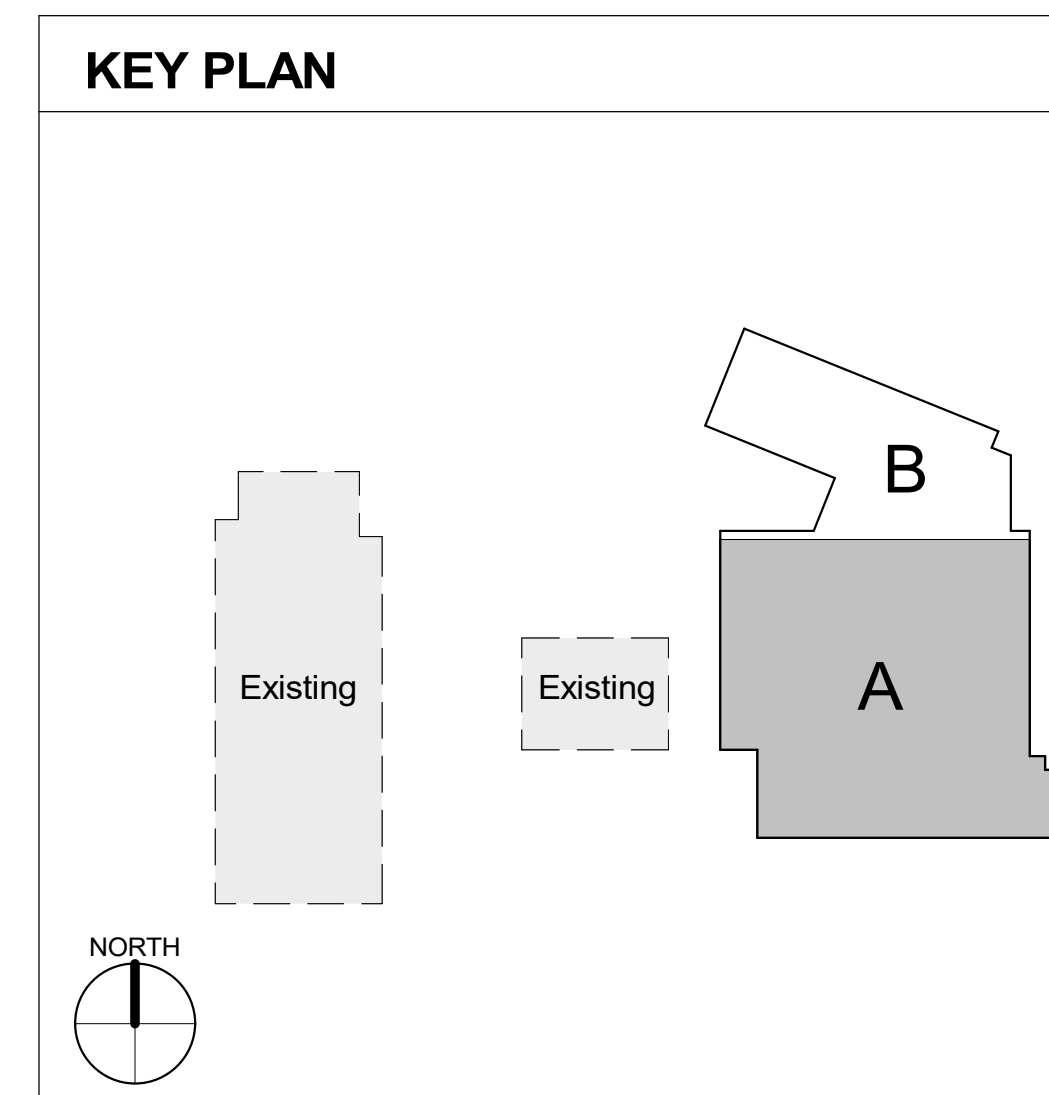
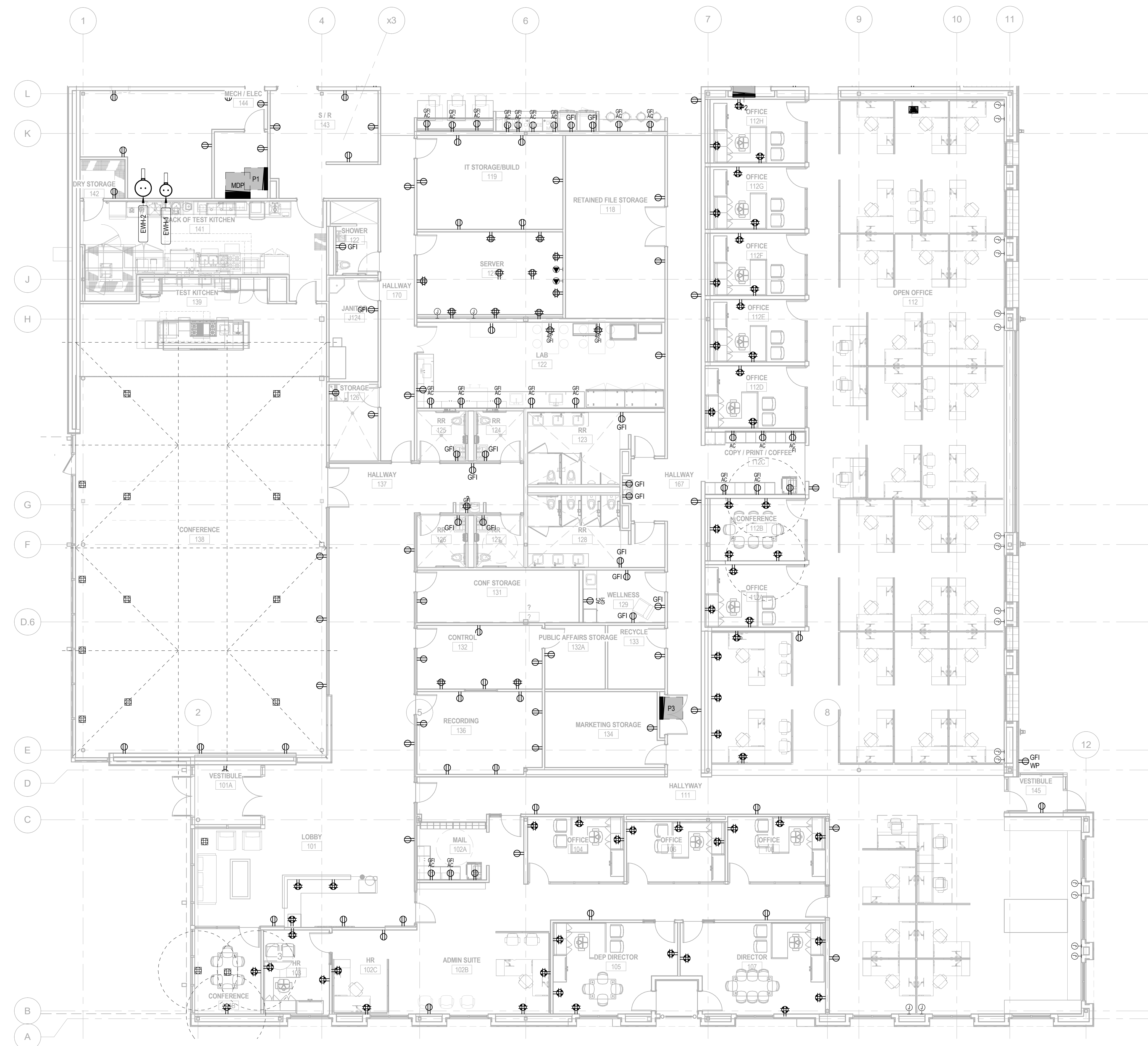
DRAWING NAME
**ELECTRICAL
POWER PLAN -
AREA A**

SHEET NO
EP101A

GENERAL NOTES

- SEE PROJECT GENERAL ELECTRICAL NOTES ON E000'S SHEETS.
- COORDINATE FINAL LOCATION OF ALL DEVICES WITH OWNER AND ARCHITECT WITH RESPECT TO MOUNTING HEIGHTS AND LOCATION OF EQUIPMENT, FURNITURE AND WALL FURNISHINGS. COORDINATE FINAL LOCATION SO AS NOT TO INTERFERE WITH FURNISHING OR WALL MOUNTED ITEMS.
- ALL ELECTRICAL WIRING DEVICES ARE TO BE RECESSED (FLUSH MOUNTED) UNLESS NOTED OTHERWISE OR OTHERWISE DIRECTED BY OWNER.
- COORDINATE LOCATION OF ALL MECHANICAL, PLUMBING AND FIRE PROTECTION EQUIPMENT WITH THEIR TRADE DRAWINGS AND INSTALLING CONTRACTOR.
- COORDINATE ALL WIRING, CONNECTION AND CONTROLS FOR MECHANICAL EQUIPMENT WITH MECHANICAL AND ATC CONTRACTORS. COORDINATE LOCATION AND INSTALLATION OF CONTROL DEVICES.
- TELECOM OUTLETS (T.O.'S) ARE SHOWN FAINTLY ON THE EP SHEETS FOR REFERENCE OF LOCATION RELATIVE TO RECEPTACLES. SEE ELECTRICAL TECHNOLOGY 'ET' FOR DEFINITION OF WORK FOR T.O.'S.
- REFER TO THE ELECTRICAL TECHNOLOGY 'ET' SHEETS PRIOR TO BEGINNING WORK, PREPARE ROUGH-IN COORDINATION DRAWING AND COORDINATE ALL POWER REQUIREMENTS AND FINAL LOCATION OF ALL CONDUIT, RACEWAY AND BOX ROUGH-INS WITH ALL CONTRACTORS AND THE OWNER'S REPRESENTATIVE.
- COORDINATE ALL ROOF PENETRATIONS WITH MECHANICAL, PLUMBING AND ARCHITECTURAL DETAILS.
- AVOID BACK-TO-BACK ELECTRICAL BOXES (RECEPTACLES, TELECOM OUTLETS, SWITCHES) BETWEEN CLASSROOMS. IF BOXES OCCUR IN THE SAME STUD-SPACE CAVITY, PROVIDE SOUND PUTTY PAD OVER BOXES SERVING ONE ROOM.
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- PROVIDE NUMBER OF CONDUCTORS TO ACHIEVE CIRCUITING AND SWITCHING SHOWN.
- CIRCUIT NUMBERS AT DEVICES CORRESPOND TO BREAKERS (SEE PANELBOARD SCHEDULE). BRANCH CIRCUITS SHALL BE SIZED ACCORDING TO THE CIRCUIT BREAKER RATING, UNLESS INDICATED OTHERWISE ON THE ELECTRICAL EQUIPMENT SCHEDULE.

KEYNOTES



A1 NORTH
ELECTRICAL POWER PLAN - AREA A
1/8" = 1'-0"

4/25/2024 5:22:48 PM



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PROJECT

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3910 SOUTH ESPINA STREET
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DOCUMENTS

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DRAWING NAME
FIRE ALARM PLAN

SHEET NO
EF101

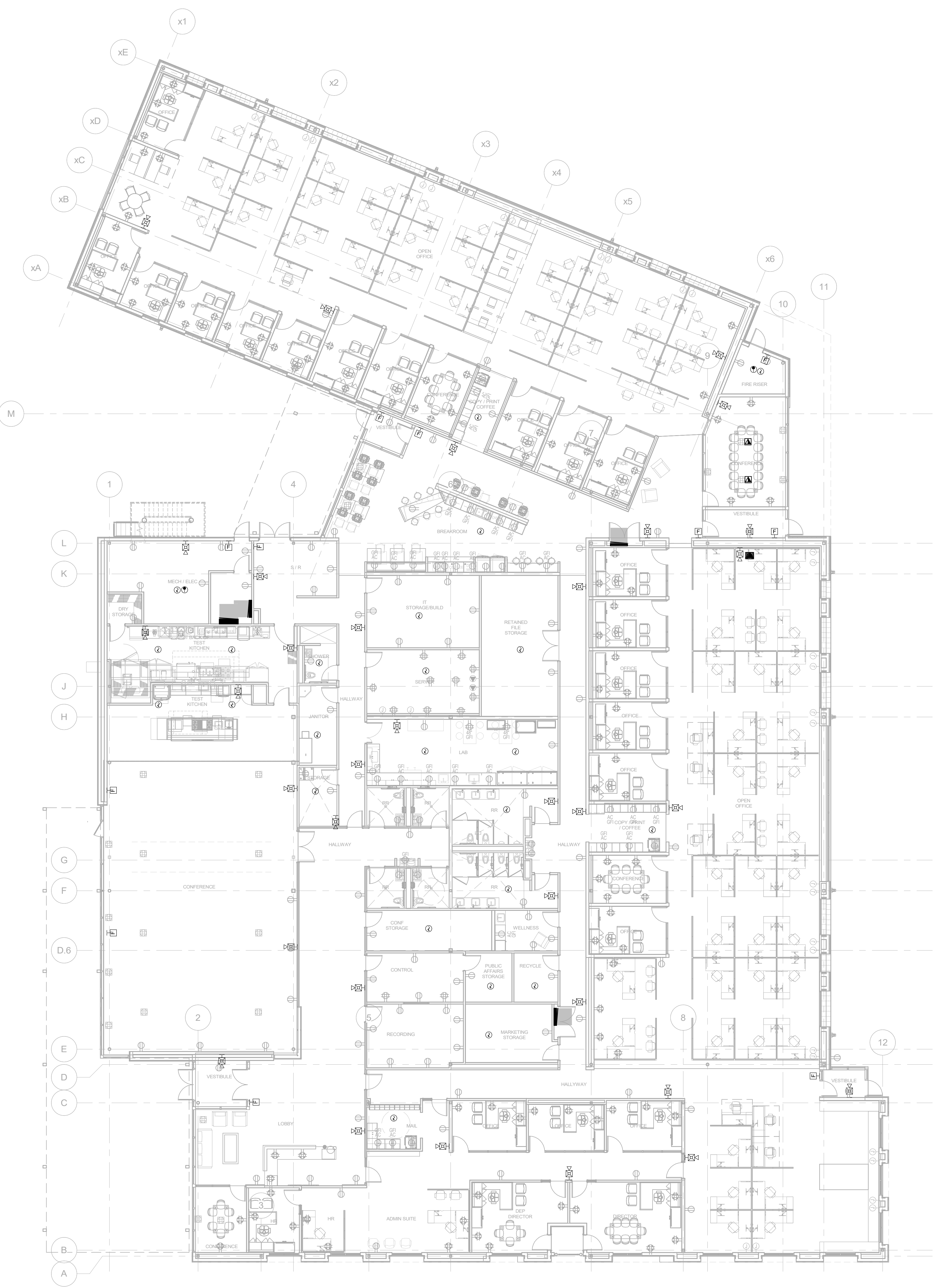
GENERAL SHEET NOTES

- A. PROVIDE A COMPLETE NEW NETWORKED FIRE ALARM SYSTEM IN ALL THE BUILDINGS OF THE NEW CAMPUS. SEE FIRE ALARM GENERAL PROJECT NOTES ON THIS DRAWING AND FIRE ALARM SPECIFICATIONS.
- B. COORDINATE WITH ALL OTHER TRADES.
- C. COORDINATE FINAL LOCATION OF ALL DEVICES WITH OWNER AND ARCHITECT WITH RESPECT TO MOUNTING HEIGHTS AND LOCATION OF EQUIPMENT. FURNITURE AND WALL FURNISHINGS. COORDINATE FINAL LOCATION SO AS NOT TO INTERFERE WITH FURNISHING OR WALL MOUNTED ITEMS.

KEYNOTES

FIRE ALARM GENERAL PROJECT NOTES

- A. SCOPE OF WORK IS TO PROVIDE A NETWORKED FIRE ALARM SYSTEM IN ALL THE BUILDINGS OF THE NEW CAMPUS. SYSTEM TO USE SPEAKER BASED AUDIBLE NOTIFICATION FOR VOICE TRANSMISSION.
- B. THIS IS A TURN-KEY PERFORMANCE-BASED SCOPE TO PROVIDE A COMPLETE SYSTEM TO MEET CODE REQUIREMENTS AND OWNER REQUIRED ADDITIONAL DETECTION (ABOVE CODE MINIMUM). THE DEVICES SHOWN ON THE PLANS REPRESENT SOME OF THE MINIMUM ITEMS REQUIRED FOR THIS PROJECT. PROVIDE ADDITIONAL DEVICES AS NEEDED TO PROVIDE A CODE COMPLIANT SYSTEM. PROVIDE A NICET LEVEL II DESIGN TO BE APPROVED BY THE FIRE MARSHAL. PROVIDE DEVICES AS REQUIRED TO MEET ALL NATIONAL AND LOCAL CODE REQUIREMENTS.
- C. FIRE ALARM SYSTEM DESIGN, INSTALLATION AND MATERIALS SHALL BE IN ACCORDANCE WITH NFPA 70, NFPA 72 AND IFC. SYSTEM IS TO MEET ALL APPLICABLE BUILDING CODES, FIRE CODES AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND INSURANCE CARRIER. VERIFY REQUIREMENTS PRIOR TO SHOP DRAWING SUBMITTAL.
- D. INFORMATION ON CONTRACT DOCUMENTS IS FOR GENERAL INFORMATION AND BID PURPOSES ONLY. PERFORM REQUIRED CALCULATIONS AND FIELD COORDINATION AND PROVIDE ADDITIONAL DEVICES AS REQUIRED.
- E. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- F. ADDITIONAL MATERIALS AND LABOR REQUIRED TO SUPPORT CHANGES REQUESTED BY THE AUTHORITY HAVING JURISDICTION SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
- G. FLUSH MOUNT ALL NOTIFICATION AND SIGNALING DEVICES TO WALLS IN ALL AREAS UNLESS NOTED OTHERWISE.
- H. DUCT SMOKE DETECTORS ON NEW MECHANICAL EQUIPMENT SYSTEMS IN THE BUILDING EXPANSION: FURNISHED BY DIVISION 28. INSTALLED IN DUCT BY DIVISION 21. CONNECTED, WIRED AND TESTED BY DIVISION 28. PROVIDE DUCT DETECTORS IN NEW AND EXISTING.
- I. UNITS WITH AIR MOVEMENT GREATER THAN 2000-CFM. INSTALL PER CODE. DO NOT INSTALL SMOKE DETECTORS IN A DIRECT AIR FLOW OR CLOSER THAN 3 FEET FROM AN AIR SUPPLY DIFFUSOR OR RETURN AIR OPENING.
- J. COVER AND PROTECT ALL INSTALLED DEVICES FROM DAMAGE/CONTAMINATION WHILE CONSTRUCTION IS IN PROCESS UNTIL THAT AREA IS READY TO BE TURNED OVER TO THE OWNER.
- K. INSTALL WALL MOUNTED VISUAL NOTIFICATION DEVICES PER NFPA-72 REQUIREMENTS WITH THEIR BOTTOMS MOUNTED AT 80" MINIMUM AND 96" MAXIMUM FROM FINISHED FLOOR.
- L. INSTALL WALL MOUNTED AUDIBLE NOTIFICATION DEVICES PER NFPA-72 REQUIREMENTS WITH THEIR TOPS MOUNTED AT 8" MINIMUM AND 100" MAXIMUM FROM FINISHED FLOOR AND NO CLOSER THEN 6" TO A HORIZONTAL STRUCTURE.
- M. THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.
- N. ALL FIRE ALARM WIRING SHALL BE INSTALLED IN CONDUIT THROUGHOUT THE PROJECT. FIRE ALARM RATED MC CABLE IS PERMITTED IN CONCEALED LOCATIONS ONLY. BARE PLASTIC CABLES INSTALLED IN PLENUM SPACES ARE NOT ACCEPTABLE. ALL RACEWAYS TO BE A MINIMUM SIZE OF 3/4" OR LARGER AS REQUIRED BY THE FIRE ALARM MANUFACTURER.
- O. CONCEAL ALL RACEWAYS UNLESS NOTED OTHERWISE. ALL EXPOSED RACEWAYS IN FINISHED SPACES ARE TO BE PAINTED TO MATCH ADJACENT SURFACES PER ARCHITECTURAL DIRECTION.
- P. SMOKE DETECTORS SHALL BE INSTALLED AT LEAST 1' FROM FIRE SPRINKLERS.
- Q. PROVIDE A DEDICATED BRANCH CIRCUITS FOR EACH FIRE ALARM EQUIPMENT. PROVIDE ADDITIONAL POWER CIRCUITS AS NEEDED TO SUPPORT THE FINAL SYSTEM LAYOUT. PROVIDE A RED LOCKING DEVICE ON THE BREAKER. TO BLOCK THE HANDLE IN THE "ON" POSITION. LABEL THE CIRCUIT BREAKER AS "FIRE ALARM CIRCUIT CONTROL". PROVIDE A CIRCUIT IDENTIFICATION LABEL ON FIRE PANEL/EXTENDERS. PROVIDE SURGE PROTECTION FOR CIRCUIT TO FIRE ALARM PANEL.
- R. THE INSTALLING CONTRACTOR SHALL PROVIDE A RECORD OF COMPLETION PER NFPA 72, (FIGURE 10.18.2.1.1, 22).
- S. CONTROL PANELS, REMOTE ANNUNCIATORS SHALL BE INSTALLED WITH THEIR TOP MOUNTED AT 48".
- T. OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.
- U. ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND IOR TESTING.
- V. UPON COMPLETION OF THE INSTALLATION OF THE SYSTEMS, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS.
- W. SYSTEM DESIGN IS TO INCLUDE THE FOLLOWING MINIMUM REQUIREMENTS IN ADDITION TO ANY SPECIFIC LOCATION NOTED ON FLOOR PLANS.
 - a. MANUAL PULL STATIONS PER NFPA 72. PROVIDE SOUNDER COVERS IN AREAS ACCESSIBLE TO STUDENTS.
 - b. SMOKE DETECTION IN ALL CORRIDORS, ELECTRICAL ROOMS, MECHANICAL ROOMS, JANITOR CLOSETS, STORAGE ROOMS.
 - c. SMOKE DETECTORS FOR ELEVATOR EMERGENCY POWER OFF & FIREMAN'S RECALL ELEVATOR SYSTEM INTERLOCKS.
 - d. SMOKE DETECTORS AT ALL FIRE ALARM EQUIPMENT/PANEL LOCATIONS.
 - e. FLOW AND TAMPER DEVICES FOR ALL FIRE SUPPRESSION DEVICES (WET AND DRY SYSTEMS).
 - f. MONITORING CONNECTION TO FIRE SUPPRESSION SITE POST INDICATING VALVE.
 - g. AUDIBLE AND VISUAL NOTIFICATION DEVICES THROUGHOUT THE INSIDE OF THE BUILDING.
 - h. AUDIBLE AND VISUAL NOTIFICATION DEVICES FOR THE EXTERIOR TEACHING SPACES, ALL SECOND FLOOR EXTERIOR WALKWAYS, ALL EXTERIOR PATIOS.
 - i. SMOKE DETECTORS IN THE SUPPLY AND RETURNS FOR ALL AIR HANDLING EQUIPMENT RATED 2,000-CFM OR GREATER.
 - j. PROVIDE DUCT SMOKE DETECTOR FOR ALL EQUIPMENT WITH AIR FLOW >2000-CFM AND DUCTS PASSING THROUGH RATED WALLS WITH DAMPERS. SEE MECHANICAL SCHEDULES.
 - k. SUBMIT AUDIO INTELLIGIBILITY CALCULATION FOR ALL SPACES AND USE RESULTS TO COORDINATE FINAL NOTIFICATION DEVICE QUANTITIES AND LOCATIONS.



FIRE ALARM PLAN
1" = 10'-0"

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GENERAL SHEET NOTES

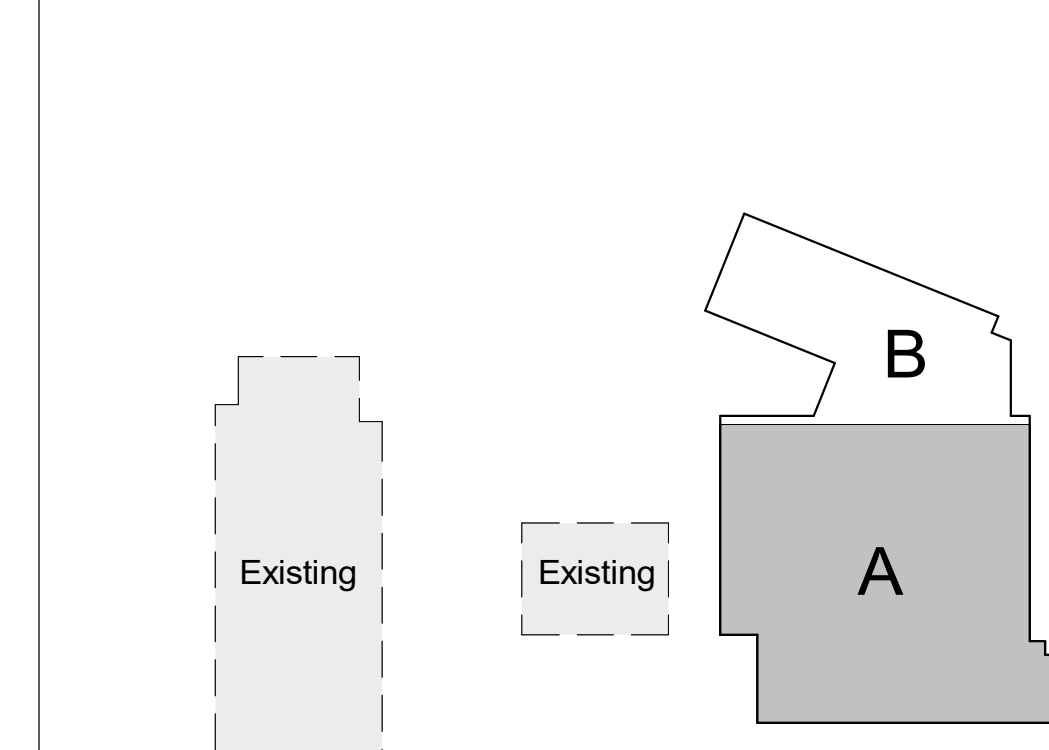
- A. PROVIDE A COMPLETE NEW NETWORKED FIRE ALARM SYSTEM IN ALL THE BUILDINGS OF THE NEW CAMPUS. SEE FIRE ALARM GENERAL PROJECT NOTES ON THIS DRAWING AND FIRE ALARM SPECIFICATIONS.
- B. COORDINATE WITH ALL OTHER TRADES.
- C. COORDINATE FINAL LOCATION OF ALL DEVICES WITH OWNER AND ARCHITECT WITH RESPECT TO MOUNTING HEIGHTS AND LOCATION OF EQUIPMENT. FURNITURE AND WALL FURNISHINGS. COORDINATE FINAL LOCATION SO AS NOT TO INTERFERE WITH FURNISHING OR WALL MOUNTED ITEMS.

KEYNOTES

FIRE ALARM GENERAL PROJECT NOTES

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- C. FIRE ALARM SYSTEM DESIGN, INSTALLATION AND MATERIALS SHALL BE IN ACCORDANCE WITH NFPA 70, NFPA 72 AND IFC. SYSTEM IS TO MEET ALL APPLICABLE BUILDING CODES, FIRE CODES AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND INSURANCE CARRIER. VERIFY REQUIREMENTS PRIOR TO SHOP DRAWING SUBMITTAL.
- D. INFORMATION ON CONTRACT DOCUMENTS IS FOR GENERAL INFORMATION AND BID PURPOSES ONLY. PERFORM REQUIRED CALCULATIONS AND FIELD COORDINATION AND PROVIDE ADDITIONAL DEVICES AS REQUIRED.
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- M. THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.
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- Q. PROVIDE A DEDICATED BRANCH CIRCUITS FOR EACH FIRE ALARM EQUIPMENT. PROVIDE ADDITIONAL POWER CIRCUITS AS NEEDED TO SUPPORT THE FINAL SYSTEM LAYOUT. PROVIDE A RED LOCKING DEVICE ON THE BREAKER. TO LOCK THE HANDLE IN THE "ON" POSITION. LABEL THE CIRCUIT BREAKER AS "FIRE ALARM CIRCUIT CONTROL". PROVIDE A CIRCUIT IDENTIFICATION LABEL ON FIRE PANEL/EXTENDERS. PROVIDE SURGE PROTECTION FOR CIRCUIT TO FIRE ALARM PANEL.
- R. THE INSTALLING CONTRACTOR SHALL PROVIDE A RECORD OF COMPLETION PER NFPA 72, (FIGURE 10.18.2.1.1.22).
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 - c. SMOKE DETECTORS FOR ELEVATOR EMERGENCY POWER OFF & FIREMAN'S RIG ALL ELEVATOR SYSTEM INTERLOCKS.
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 - e. FLOW AND TAMPER DEVICES FOR ALL FIRE SUPPRESSION DEVICES (WET AND DRY SYSTEMS).
 - f. MONITORING CONNECTION TO FIRE SUPPRESSION SITE POST INDICATING VALVE.
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 - j. PROVIDE DUCT SMOKE DETECTOR FOR ALL EQUIPMENT WITH AIR FLOW >2000-CFM AND DUCTS PASSING THROUGH RATED WALLS WITH DAMPERS. SEE MECHANICAL SCHEDULES.
 - k. SUBMIT AUDIO INTELLIGIBILITY CALCULATION FOR ALL SPACES AND USE RESULTS TO COORDINATE FINAL NOTIFICATION DEVICE QUANTITIES AND LOCATIONS.

KEY PLAN

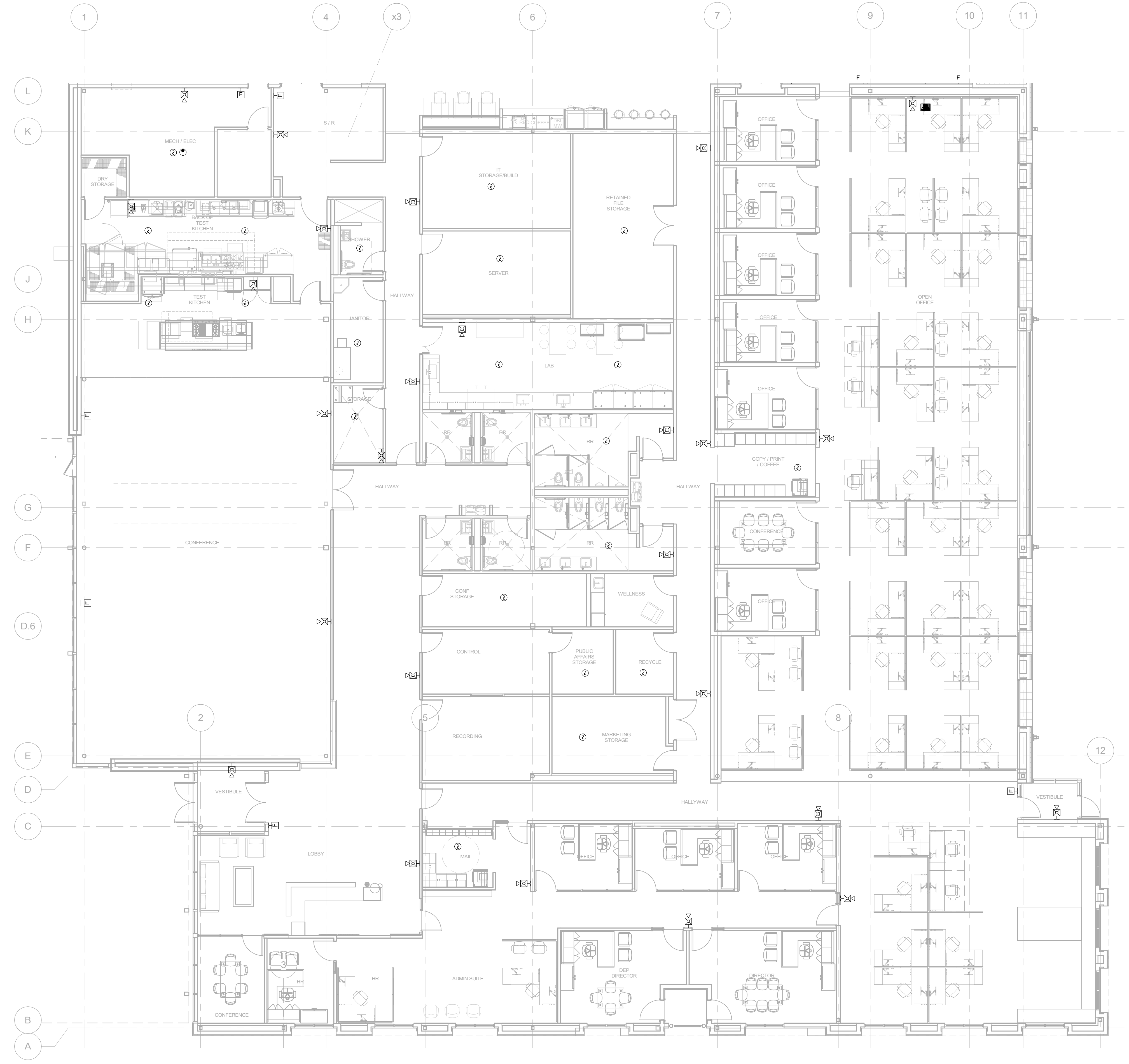


REVISIONS

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 REVIEWED BY MG
 DATE 04/29/2024
 PROJECT NO 22-0227.001

DRAWING NAME
FIRE ALARM PLAN - AREA A

SHEET NO
EF101A



FIRE ALARM PLAN - AREA A
 1/8" = 1'-0"
 NORTH

4/25/2024 5:22:58 PM



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Albuquerque NM 87107 USA
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PROJECT

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3910 SOUTH ESPINA STREET
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50%
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DOCUMENTS

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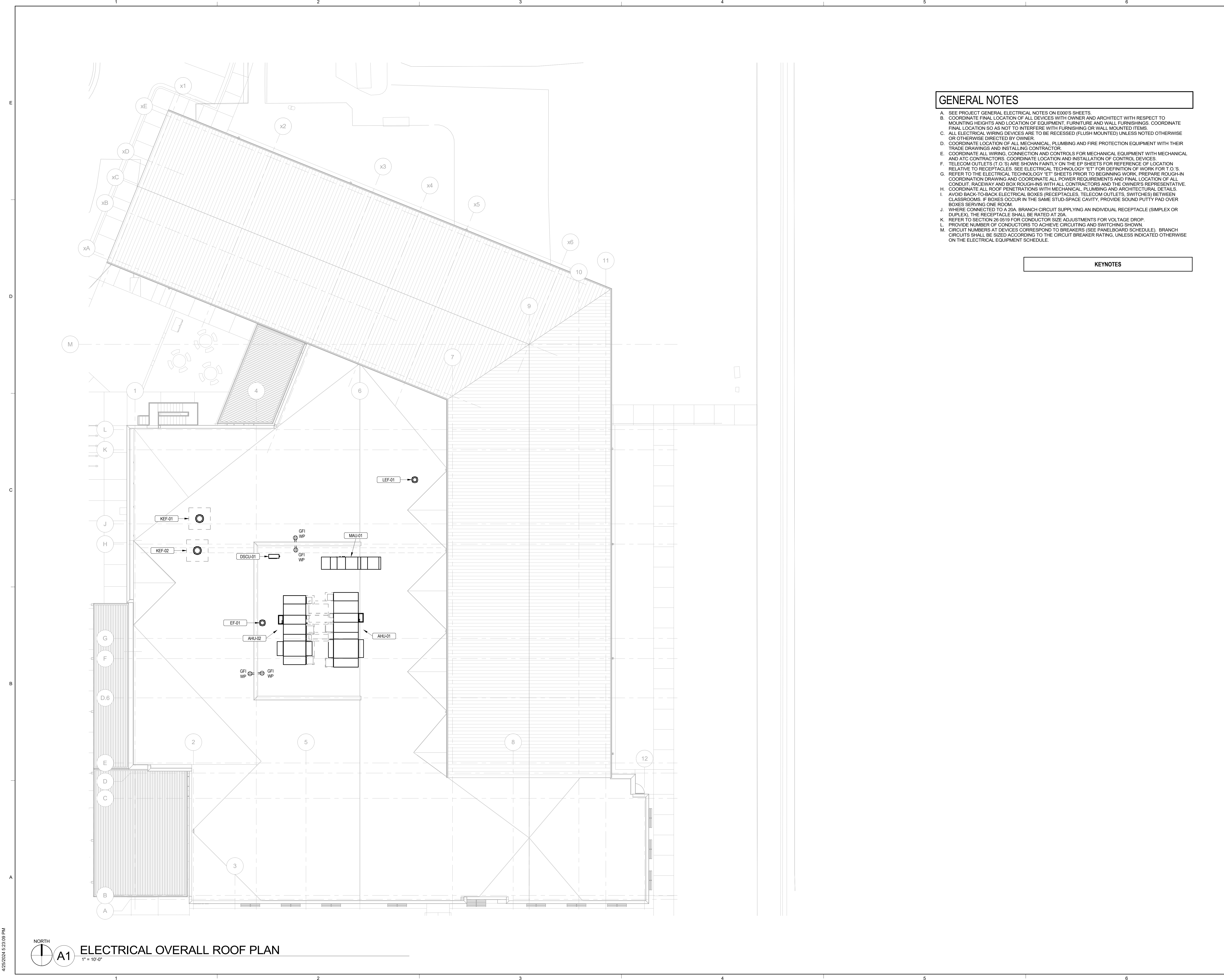
DRAWING NAME
**ELECTRICAL
ROOF PLAN**

SHEET NO
ER141

GENERAL NOTES

- SEE PROJECT GENERAL ELECTRICAL NOTES ON E000'S SHEETS.
- COORDINATE FINAL LOCATION OF ALL DEVICES WITH OWNER AND ARCHITECT WITH RESPECT TO MOUNTING HEIGHTS AND LOCATION OF EQUIPMENT, FURNITURE AND WALL FURNISHINGS. COORDINATE FINAL LOCATION SO AS NOT TO INTERFERE WITH FURNISHING OR WALL MOUNTED ITEMS.
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- WHERE CONNECTED TO A 20A BRANCH CIRCUIT SUPPLYING AN INDIVIDUAL RECEPTACLE (SIMPLEX OR DUPLEX), THE RECEPTACLE SHALL BE RATED AT 20A.
- REFER TO SECTION 26 0519 FOR CONDUCTOR SIZE ADJUSTMENTS FOR VOLTAGE DROP.
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KEYNOTES



A1 ELECTRICAL OVERALL ROOF PLAN
1" = 10'-0"

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 Registrant's Name: Michael E. Griesel
 Serial No. 20488

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 3910 SOUTH ESPINA STREET
 LAS CRUCES, NEW MEXICO 88003

50% CONSTRUCTION DOCUMENTS

REVISIONS
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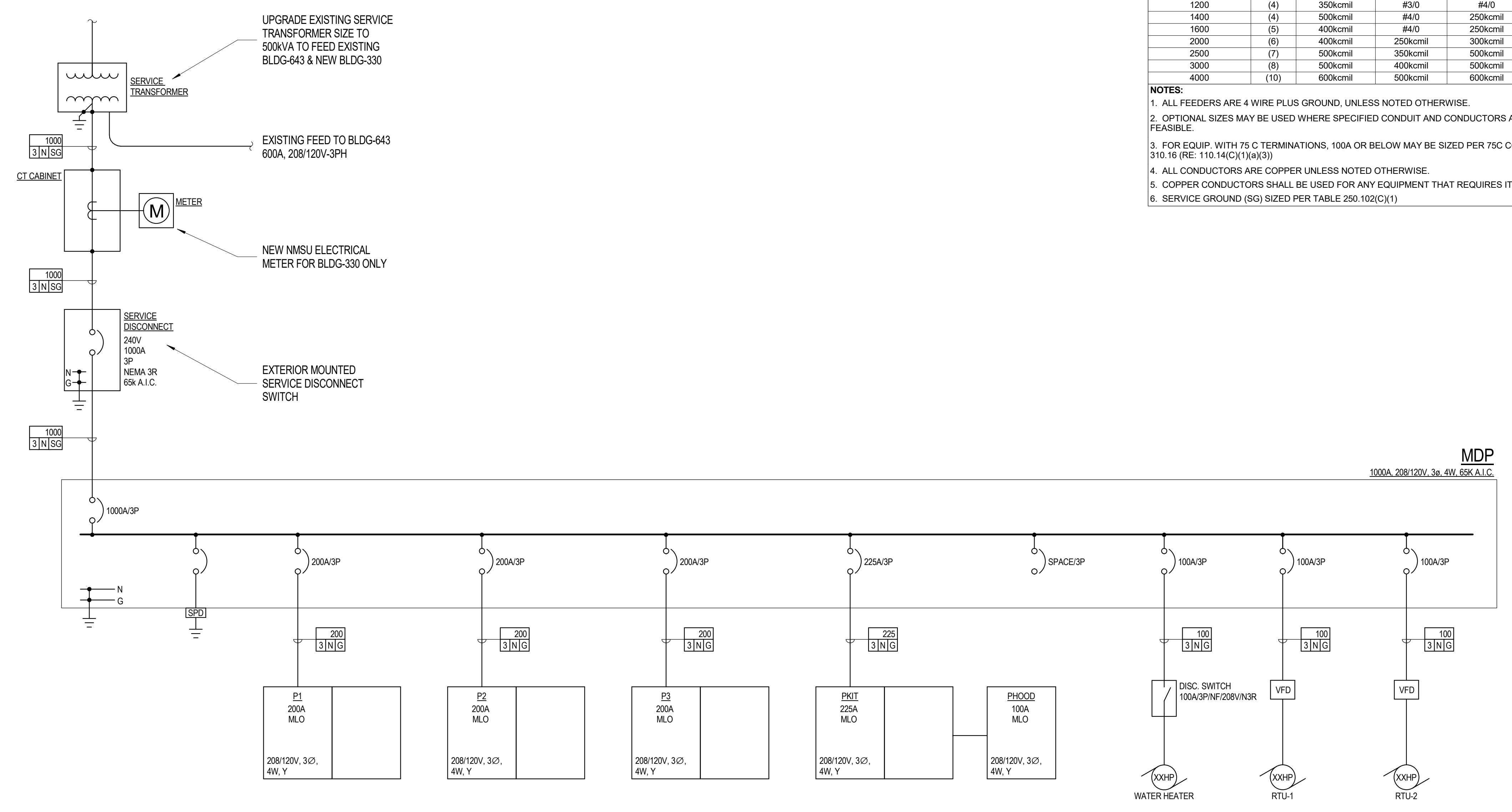
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 PROJECT NO 22-0227.001

DRAWING NAME
ELECTRICAL DIAGRAMS

SHEET NO
E-501

CONDUIT & CONDUCTOR SCHEDULE					
COPPER					
ONE LINE TAG	NO. OF SETS	SIZE OF CONDUCTORS	SIZE OF GROUND (G)	SIZE OF SERVICE GROUND (SG)	CONDUIT SIZE
20		#12	#12	#8	3/4"
30		#10	#10	#8	3/4"
40		#8	#10	#8	1"
50		#6	#10	#8	1"
60		#4	#10	#8	1-1/4"
70		#4	#8	#8	1-1/4"
80		#3	#8	#8	1-1/4"
90		#2	#8	#8	1-1/2"
100 (SEE NOTE 3)		#1	#8	#8	1-1/2"
110		#1	#6	#6	1-1/2"
125		#1/0	#6	#6	2"
150		#1/0	#6	#6	2"
175		#2/0	#6	#4	2"
200		#3/0	#6	#4	3"
225		#4/0	#4	#2	3"
250		250kcmil	#4	#2	3"
300		350kcmil	#4	#2	3"
350		500kcmil	#3	#1/0	4"
400	(2)	#3/0	#3	#1/0	3"
500	(2)	250kcmil	#2	#1/0	3"
600	(2)	350kcmil	#1	#2/0	3"
700	(2)	500kcmil	#1/0	#2/0	4"
800	(4)	#3/0	#1/0	#2/0	3"
1000	(3)	400kcmil	#2/0	#3/0	4"
1200	(4)	350kcmil	#3/0	#4/0	3"
1400	(4)	500kcmil	#4/0	250kcmil	4"
1600	(5)	400kcmil	#4/0	250kcmil	4"
2000	(6)	400kcmil	250kcmil	300kcmil	4"
2500	(7)	500kcmil	350kcmil	500kcmil	4"
3000	(8)	500kcmil	400kcmil	500kcmil	4"
4000	(10)	600kcmil	500kcmil	600kcmil	4"

- NOTES:**
- ALL FEEDERS ARE 4 WIRE PLUS GROUND, UNLESS NOTED OTHERWISE.
 - OPTIONAL SIZES MAY BE USED WHERE SPECIFIED CONDUIT AND CONDUCTORS ARE NOT FEASIBLE.
 - FOR EQUIP. WITH 75 C TERMINATIONS, 100A OR BELOW MAY BE SIZED PER 75C COLUMN IN TABLE 310.16 (RE: 110.14(C)(1)(a)(3)).
 - ALL CONDUCTORS ARE COPPER UNLESS NOTED OTHERWISE.
 - COPPER CONDUCTORS SHALL BE USED FOR ANY EQUIPMENT THAT REQUIRES IT.
 - SERVICE GROUND (SG) SIZED PER TABLE 250.102(C)(1).



1 ONE-LINE DIAGRAM
 NTS

TECHNOLOGY SYMBOL LEGEND

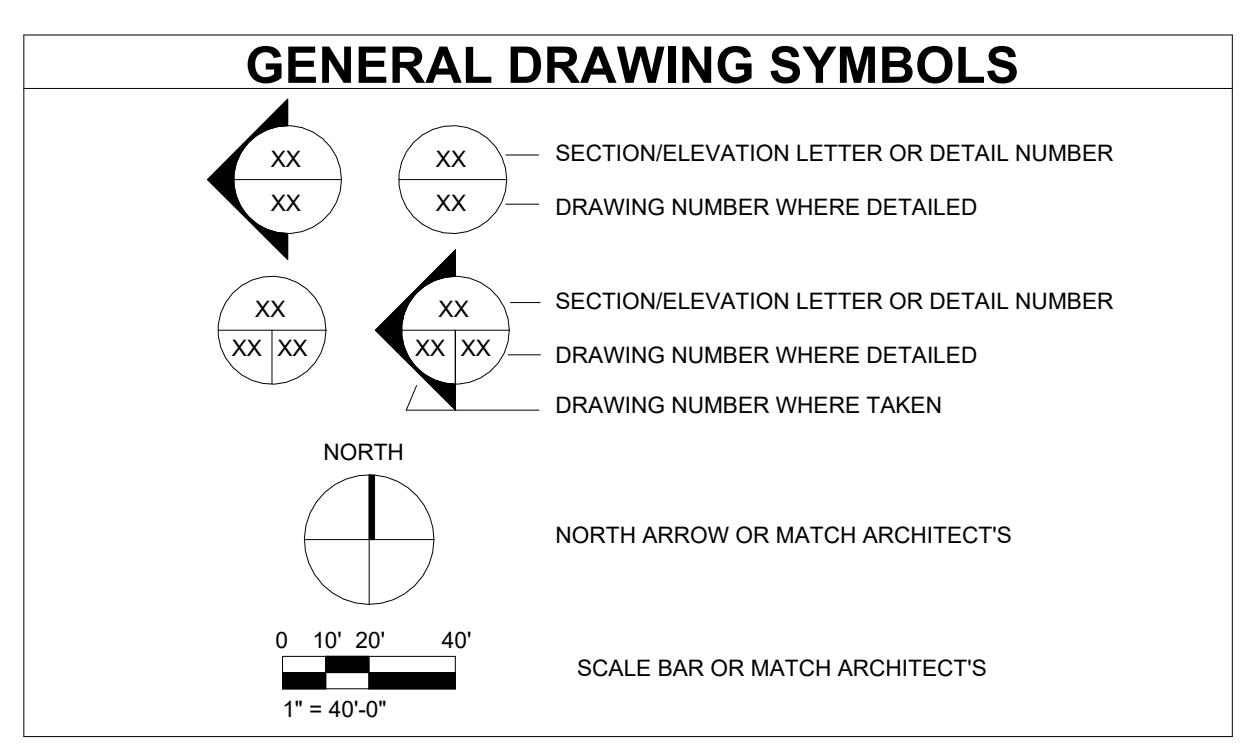
ABBREVIATIONS	
ABBREV.	DEFINITION
A	AMPS, AMPERE
AMP	AMPLIFIER
AC	ABOVE COUNTER
ADA	AMERICANS WITH DISABILITIES ACT
AF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AV, AV	AUDIO-VISUAL OR AUDIO-VIDEO
AWG	AMERICAN WIRE GAUGE
BFG	BELOW FINISHED GRADE
C	CONDUIT
CCTV	CLOSED CIRCUIT TELEVISION
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CL	CLOCK
CO	CONDUIT ONLY
CU	COPPER
D	DIMMING
DC	DIRECT CURRENT
DIA	DIAMETER
DVID	DIGITAL SIGNAGE VIDEO DISPLAY
EMT	ELECTRICAL METALLIC TUBING
EWC	ELECTRIC WATER COOLER
EX	EXISTING
FUT	FUTURE
FDU	FIBER DISTRIBUTION UNIT
GND	GROUND
HH	HANDHOLE
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
IC	INTERCOM
ICM	INTERCOM MASTER
KO	KNOCK-OUT
LIU	LIGHT INTERFACE UNIT
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MH	MANHOLE
MC	MICROPHONE
MM	MINIMUM
MM	MIXED MEDIA
N	NEW
NA	NOT APPLICABLE
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NI	NORMAL
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
OH (DH)	OVERHEAD
PA	PUBLIC ADDRESS
PMCS	POWER MONITORING AND CONTROL SYSTEM
POE	POWER OVER ETHERNET
RSC	RIGID STEEL CONDUIT
SEC	SECURITY
SPD	SURGE PROTECTIVE DEVICE
SW	SWITCH
TEMP	TEMPORARY
TMBG	TELECOMMUNICATIONS MAIN GROUNDING BUS BAR
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TYP	TYPICAL
UC	UNDER COUNTER
UG	UNDERGROUND
UL	UNDERWRITERS' LABORATORIES
UCN	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS, VOLTAGE
VR	VANDAL RESISTANT
WG	WEATHERPROOF AND GFCI
WP	WEATHERPROOF

REFERENCE TAGS	
SYMBOL	DEFINITION
○	KEYED NOTE REFERENCE
-XX"	DENOTES MOUNTING HEIGHT AFF

SPECIAL SYSTEMS			
SYMBOL	DESCRIPTION	MOUNTING	
		LOC.	HT.
	FLOOR BOX WITH POWER AND DATA	FLOOR	VARIES SEE PLANS
	DATA OUTLET	WALL	+18" UON
	DATA OUTLET ABOVE COUNTER TOP	WALL	+44" UON
	TELEPHONE OUTLET WALL MOUNTED	WALL	+44" UON
	VIDEO INTERCOM CALL STATION	WALL	+44" UON
	VIDEO INTERCOM MASTER STATION	WALL	SEE PLANS
	WALL MOUNTED WIRELESS ACCESS POINT	WALL	SEE PLANS
	WALL MOUNTED CODE SIZE J-BOX	WALL	SEE PLANS
	FLAT PANEL OR PROJECTION SCREEN	REFER TO PLANS	
	MULTI-OUTLET ASSEMBLY (SURFACE MOUNTED RACEWAY)	REFER TO PLANS	
	COMBINATION POWER/COMMUNICATION POLE. CONFIGURATION AS NOTED ON PLANS	REFER TO PLANS	
	VIDEO PROJECTOR	REFER TO PLANS	
	CEILING SPEAKER, LOCAL SOUND SYSTEM	CEILING	FLUSH
	CABLE TRAY FOR COMMUNICATIONS	REFER TO PLANS	
	J-HOOK ROUTING PATH	ABOVE CEILING	SEE PLANS
	CEILING DATA	ABOVE CEILING	SEE PLANS
	CEILING WIRELESS ACCESS POINT	ABOVE CEILING	SEE PLANS
	CODE SIZE JUNCTION BOX	ABOVE CEILING	SEE PLANS

RACEWAY & CONDUCTORS	
SYMBOL	DESCRIPTION
	CONCEALED RACEWAY BETWEEN DEVICES AND OR EQUIPMENT IN WALLS OR IN CEILING SPACE
	UNDERGROUND RACEWAY BETWEEN DEVICES AND OR EQUIPMENT
	EXPOSED RACEWAY BETWEEN DEVICES AND OR EQUIPMENT ON WALLS OR CEILINGS
	CONDUIT TURNS
	CONDUIT STUBBED AND CAPPED
	CABLE TRAY - TELECOMMUNICATIONS
	TELECOMMUNICATIONS RACEWAY

SECURITY			
SYMBOL	DESCRIPTION	MOUNTING	
		LOC.	HT.
	CARD READER	WALL	+44" UON
	CARD READER KEY PAD	WALL	+44" UON
	CARD READER MULLION MOUNT	WALL	+44" UON
	SECURITY CAMERA 90°	VARIES	SEE PLANS
	SECURITY CAMERA 180°	VARIES	SEE PLANS
	SECURITY CAMERA 270°	VARIES	SEE PLANS
	SECURITY CAMERA 360°	VARIES	SEE PLANS
	GLASS BREAK	WINDOW	SEE PLANS
	KEY PAD	WALL / CEILING	SEE PLANS
	MOTION DETECTOR	WALL / CEILING	SEE PLANS
	360° MOTION DETECTOR	WALL / CEILING	SEE PLANS
	DOOR CONTACT	DOOR	SEE PLANS
	GATE CONTACT	DOOR	SEE PLANS
	OVERHEAD CONTACT	DOOR	SEE PLANS
	LOCK DOWN BUTTON	DOOR	SEE PLANS
	ELECTRIC STRIKE	DOOR	SEE PLANS
	LOCK DOWN	DOOR	SEE PLANS
	MAGNETIC LOCK	DOOR	SEE PLANS
	PUSH TO ENTER/EXIST	DOOR	SEE PLANS



TELECOM, ACCESS CONTROL, AND SECURITY SYSTEMS DIVISION OF RESPONSIBILITY			
GROUP	ITEM OR TASK	FURNISH	INSTALL
GENERAL (TELECOM, ACCESS CONTROL, & SECURITY) - ALL SPACES: UNLESS OTHERWISE NOTED ON DRAWINGS			
	JUNCTION / PULL BOXES AND CONDUITS FOR LOW VOLTAGE CABLING PURPOSES	CONTRACTOR	CONTRACTOR
	BLANK COVERS FOR LOW VOLTAGE JUNCTION / PULL BOXES	CONTRACTOR	CONTRACTOR
	STRUCTURAL SUPPORT, BACKBOXES, AND CONDUIT FOR SYSTEMS	CONTRACTOR	CONTRACTOR
	SEALING / FIRESTOPPING OF WALL / FLOOR PENETRATIONS FOR PATHWAYS AND CABLES	CONTRACTOR	CONTRACTOR
	GROUNDING AND BONDING FOR LOW VOLTAGE PATHWAYS AND EQUIPMENT	CONTRACTOR	CONTRACTOR
	AREA OF REFUGE (WHERE APPLICABLE)	CONTRACTOR	CONTRACTOR

TELECOM - ALL SPACES: UNLESS OTHERWISE NOTED ON DRAWINGS			
	DATA CABLING	CONTRACTOR	CONTRACTOR
	DATA CABLE TERMINATIONS, DEVICE PLATES, AND TESTING	CONTRACTOR	CONTRACTOR
	WIRE-BASKET CABLE TRAY	CONTRACTOR	CONTRACTOR
	LADDER-STYLE CABLE TRAY (DATA ROOMS)	CONTRACTOR	CONTRACTOR
	DATA RACKS AND CABINETS	CONTRACTOR	CONTRACTOR
	WIRELESS ACCESS POINTS AND MOUNTING HARDWARE	OWNER	OWNER

ACCESS CONTROL - ALL SPACES: UNLESS OTHERWISE NOTED ON DRAWINGS			
	ACCESS CONTROL CABLING	CONTRACTOR	CONTRACTOR
	ACCESS CONTROL CABLE TERMINATIONS AND TESTING	CONTRACTOR	CONTRACTOR
	J-HOOKS FOR ACCESS CONTROL CABLING ATTACHED TO CABLE TRAY SUPPORTS	CONTRACTOR	CONTRACTOR
	ACCESS CONTROL DEVICES AND MOUNTING HARDWARE	CONTRACTOR	CONTRACTOR

SECURITY - ALL SPACES: UNLESS OTHERWISE NOTED ON DRAWINGS			
	VIDEO SURVEILLANCE CAMERA SYSTEM CABLING	CONTRACTOR	CONTRACTOR
	CAMERA CABLE TERMINATIONS AND TESTING	CONTRACTOR	CONTRACTOR
	PATHWAYS FOR ALL SYSTEMS	CONTRACTOR	CONTRACTOR
	CAMERAS, SOFTWARE, STORAGE	OWNER	OWNER
	SECURITY HEAD-END DEVICES AND MOUNTING HARDWARE	OWNER	OWNER

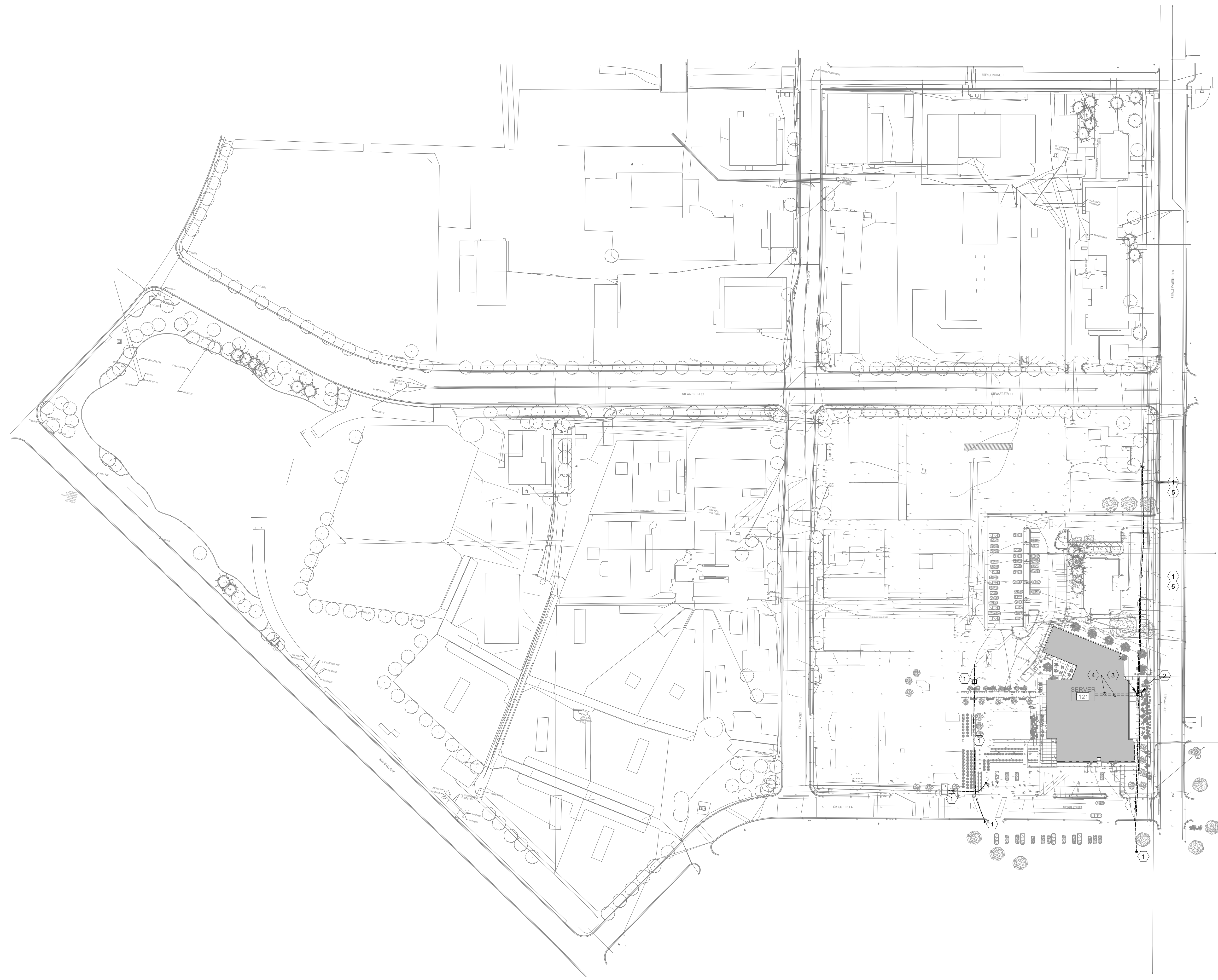
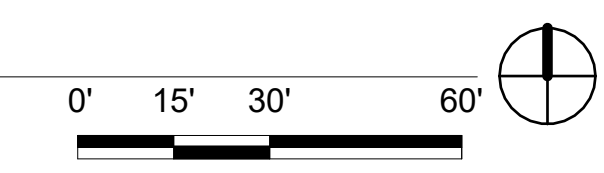
CONFERENCE (#108, 112B, 113, 115E) AND LOBBY AUDIO-VISUAL SYSTEMS DIVISION OF RESPONSIBILITY			
GROUP	ITEM OR TASK	FURNISH	INSTALL
LARGE VIDEO DISPLAYS - ALL SPACES: UNLESS OTHERWISE NOTED ON DRAWINGS			
	STRUCTURAL SUPPORT, BACKBOXES, AND CONDUIT FOR SYSTEMS	CONTRACTOR	CONTRACTOR
	DEVICES, SCREENS & MOUNTING HARDWARE	CONTRACTOR	CONTRACTOR
	SYSTEM CABLING, TERMINATIONS AND PROGRAMMING	CONTRACTOR	CONTRACTOR
	JUNCTION BOXES / PATHWAYS FOR SCREENS, INPUT PANELS & CONTROL SWITCHES	CONTRACTOR	CONTRACTOR
	POWER CONNECTIONS TO SCREENS	CONTRACTOR	CONTRACTOR

ROUGH-IN* INFRASTRUCTURE AND AUDIOVISUAL EQUIPMENT - ALL SPACES: UNLESS OTHERWISE NOTED ON DRAWINGS			
	JUNCTION / PULL BOXES FOR AUDIOVISUAL CABLING PURPOSES	CONTRACTOR	CONTRACTOR
	BLANK COVERS FOR AV JUNCTION / PULL BOXES	CONTRACTOR	CONTRACTOR
	AUDIOVISUAL CABLING	CONTRACTOR	CONTRACTOR
	AUDIOVISUAL CABLE TERMINATIONS / CONNECTORS	CONTRACTOR	CONTRACTOR
	AUDIOVISUAL SPEAKERS AND SPEAKER CABLING	CONTRACTOR	CONTRACTOR
	ALL OTHER AUDIOVISUAL EQUIPMENT AND MOUNTING HARDWARE	CONTRACTOR	CONTRACTOR

TEST KITCHEN, CONFERENCE 138, CONTROL AND RECORDING AUDIO-VISUAL SYSTEMS DIVISION OF RESPONSIBILITY			
GROUP	ITEM OR TASK	FURNISH	INSTALL
REFER TO AV CONSULTANT DRAWINGS FOR INFORMATION PERTAINING TO THOSE AUDIO-VISUAL SYSTEMS			

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A1 TECHNOLOGY SYSTEMS SITE PLAN
 SCALE: 1" = 80'-0"



GENERAL SHEET NOTES

- A. THE CONDUIT RUNS, AS SHOWN ON PLANS, INDICATE APPROXIMATE ROUTING. EXACT LOCATION OF CONDUIT RUNS SHALL BE AS FIELD CONDITIONS DICTATE. COORDINATE IN FIELD WITH EXISTING CONDITIONS. COORDINATE WITH EXISTING UNDERGROUND CONDUITS.
- B. ALL LOW VOLTAGE CONDUCTORS SHALL BE RUN IN SEPARATE RACEWAYS FROM POWER CONDUCTORS (120VAC OR HIGHER PHASE TO NEUTRAL). NO EXCEPTIONS.
- C. ALL UNDERGROUND CONDUITS LOCATED UNDER ROADWAYS AND PARKING LOTS SHALL BE CONCRETE ENCASED PATHWAYS TRAFFIC RATED TIER 22.
- D. ALL HANDHOLES AND MANHOLES LOCATED IN ROADWAYS AND PARKING LOTS SHALL BE TRAFFIC RATED H20.
- E. ALL UNDERGROUND CABLING TO BE OSP RATED.
- F. ALL CONDUIT TURNS SHALL BE "SWEEP" TYPE. NO BEND FITTINGS ARE PERMITTED.

SHEET KEYNOTES

- 1. EXISTING SITE COMMUNICATION CABLING AND PATHWAYS. PROTECT FROM DAMAGE DURING CONSTRUCTION.
- 2. EXISTING ABOVE GROUND COMMUNICATIONS ENCLOSURE. OPTICAL FIBER AND COPPER SERVICES PRESENT. ALL EQUIPMENT, PATHWAYS AND CABLING TO BE PROTECTED FROM DAMAGE THROUGHOUT ALL PHASES OF CONSTRUCTION.
- 3. EXISTING IN-GROUND COMMUNICATIONS VAULT. OPTICAL FIBER AND COPPER SERVICES PRESENT. ALL EQUIPMENT, PATHWAYS AND CABLING TO BE PROTECTED FROM DAMAGE THROUGHOUT ALL PHASES OF CONSTRUCTION.
- 4. EXTEND TWO" (2) - 4" PVC, SCH 80, CONDUITS FROM EXISTING IN-GROUND VAULT INTO NEW TELECOM ROOM LOCATION. BURY CONDUITS AT LEAST 36" BELOW FINISHED GRADE. STUB CONDUITS ABOVE FINISHED FLOOR, NO MORE THAN 3" AFF. PROVIDE DETECTABLE PULL ROPE IN CONDUITS TO SPAN END-TO-END. REFER TO SHEET T-401 FOR STUB UP LOCATION.
- 5. EXTEND NEW OPTICAL FIBER AND COPPER CABLING FROM KNOX HALL TO NEW BUILDING SITE. UTILIZE EXISTING 4" EMPTY CONDUIT TO EXTEND CABLING FROM KNOX HALL. COPPER CABLING TO ROUTE TO THE BASEMENT OF KNOX HALL AND FIBER TO ROUTE TO CAMPUS FIBER DISTRIBUTION LOCATED IN KNOX HALL. REFER TO SHEET T-401 FOR CABLING INFORMATION.

KEYPLAN

**DEKKER
 PERICH
 SABATINI**
 Architecture
 in Progress



**NMSU NM DEPT OF AGRICULTURE
 OFFICE BUILDING**
 3910 SOUTH ESPINA STREET
 LAS CRUCES, NEW MEXICO 88003

50%
 CONSTRUCTION
 DOCUMENTS

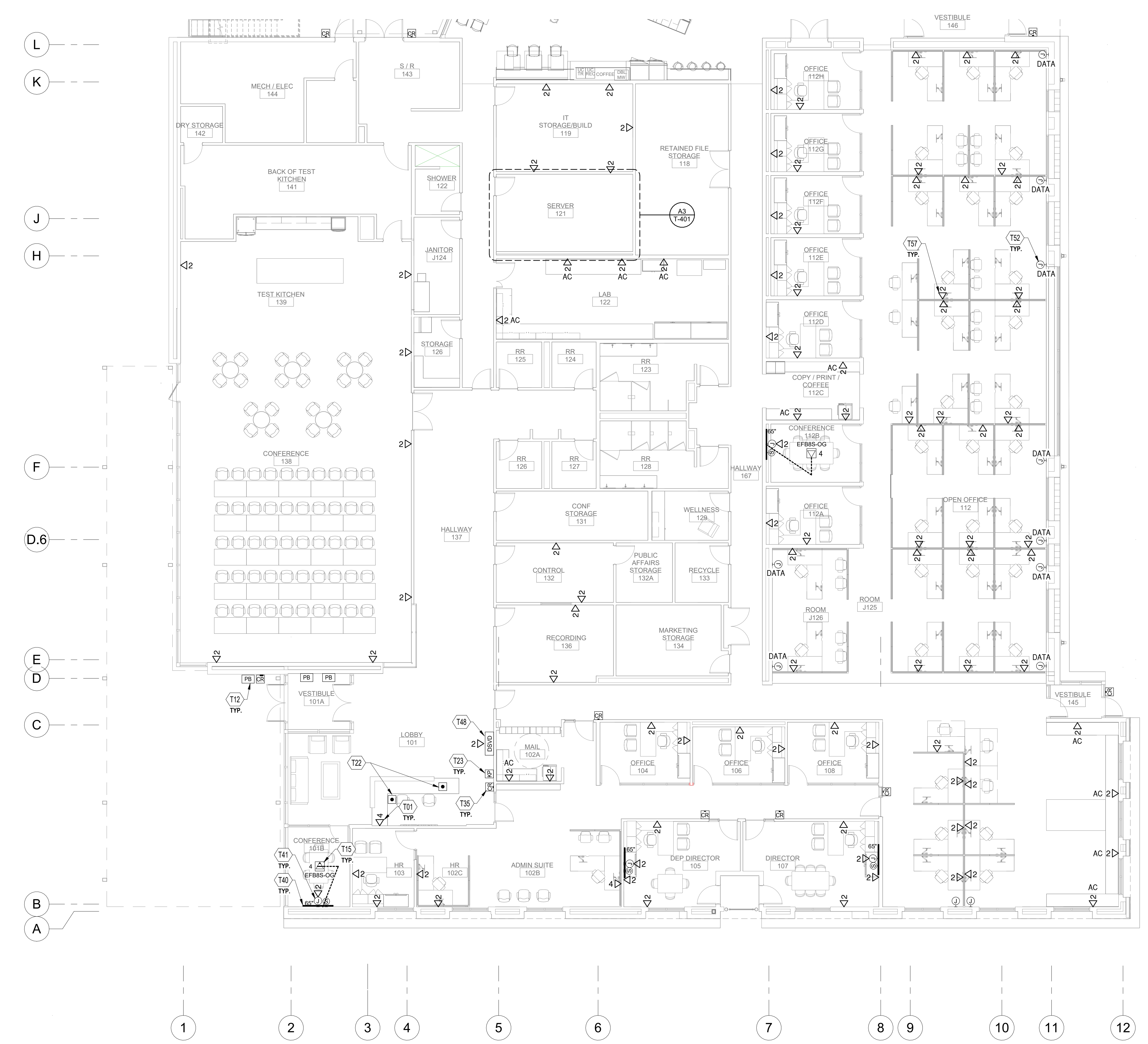
REVISIONS

DRAWN BY	Author
REVIEWED BY	Approver
DATE	04/24/2024
PROJECT NO	22-0227.001

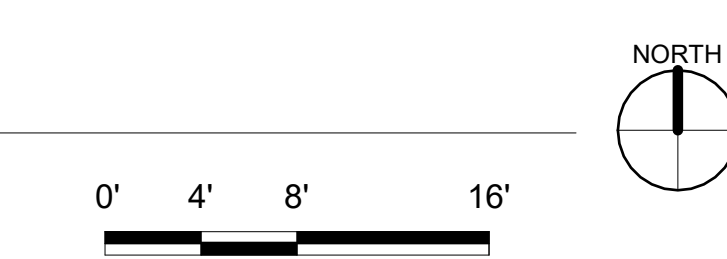
DRAWING NAME
**TECHNOLOGY
 SITE PLAN**

SHEET NO
TS101

A1 / T-101B



A1 TECHNOLOGY SYSTEMS FLOOR PLAN AREA A
1/8" = 1'-0"



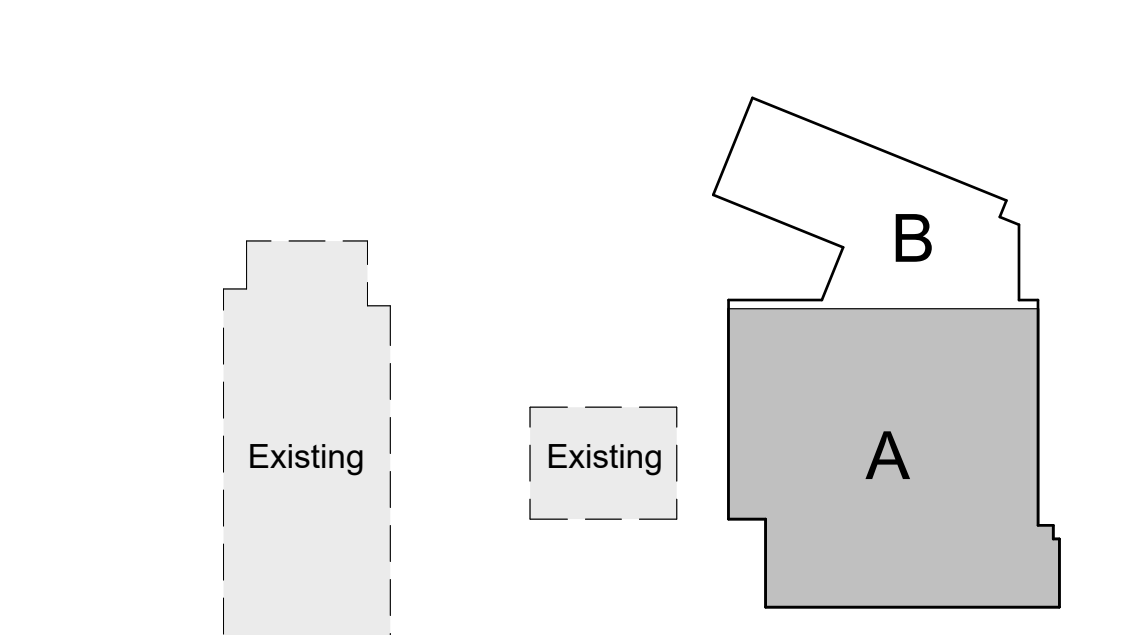
GENERAL SHEET NOTES

- A. PROPERLY FIRE STOP AND SEAL ALL PENETRATIONS THROUGH WALLS, FLOORS, CEILING, AND ROOF AS PER OWNER, CODE, AND AHJ.
- B. PRIOR TO INSTALLATION OF CABLE TRAY COORDINATE LOCATIONS WITH ALL OTHER TRADES.
- C. NOT ALL PARTS AND PIECES ARE SHOWN FOR A COMPLETE SYSTEM. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE END-TO-END WARRANTED SOLUTION FOR THE HORIZONTAL CABLING.
- D. ALL CABLING TO BE PLENUM RATED THROUGHOUT THE BUILDING.
- E. ALL COMMUNICATIONS CABLING TO MEET OR EXCEED CATEGORY 6 STANDARDS.
- F. TELECOMMUNICATIONS OUTLETS TO BE MOUNTED AT +18" A.F.F. (BOTTOM OF BOX) UNLESS OTHERWISE NOTED. FOR EXAMPLE, DEVICES SPECIFIED AT +18" A.F.F. SHALL MATCH THE STANDARD MOUNTING HEIGHT FOR POWER RECEPTACLES AND TELECOMMUNICATIONS OUTLETS. DEVICES SPECIFIED AT +48" A.F.F. SHALL MATCH THE STANDARD MOUNTING HEIGHT FOR LIGHT SWITCHES ETC.
- G. ALL CONDUITS FOR TELECOMMUNICATIONS OUTLETS SHALL BE STEEL THINWALL ELECTRICAL METALLIC TUBING (TYPE EMT) UNLESS OTHERWISE NOTED. UNDER NO CIRCUMSTANCES SHALL FLEXIBLE CONDUIT BE USED FOR PATHWAYS INDICATED ON THIS SHEET. ALL CONDUITS ARE TO BE AT A MINIMUM, 1" TRADE SIZE, UNLESS OTHERWISE NOTED. ALL CONDUITS FOR TELECOMMUNICATIONS OUTLETS ARE TO BE STUBBED TO NEAREST CABLE TRAY. CONTRACTOR IS TO ENSURE THAT NO CONDUIT EXCEEDS 40% FULL.
- H. CABLE TRAY SYSTEMS SHOWN ON THIS SHEET SHALL BE USED FOR VOICE AND DATA CABLING ONLY. ALL OTHER SYSTEMS INCLUDING, BUT NOT LIMITED TO, FIRE ALARM, SECURITY, HVAC CONTROL, ETC. SHALL BE SUPPORTED BY OTHER MEANS. J-HOOKS ATTACHED TO THE CABLE TRAY SUPPORTS WILL BE PERMITTED. LIKEWISE, ANY CONDUITS PROVIDED FOR VOICE AND DATA CABLING IS NOT TO BE USED BY ANY OTHER SYSTEM. HENCE, SEPARATE CONDUITS MAY NEED TO BE PROVIDED FOR THE SUPPORT OF THESE SYSTEMS.
- I. NUMBER ADJACENT TO TELECOMMUNICATIONS OUTLET SYMBOL REPRESENTS NUMBER OF CATEGORY 6 CABLES TO BE INSTALLED AND TERMINATED AT THAT LOCATION. A "B" ADJACENT TO AN OUTLET LOCATION REPRESENTS A ROUGH-IN ONLY LOCATION. PROVIDE BOX, CONDUIT, AND BLANK FACEPLATE.
- J. ALL CONDUIT TURNS FOR ANY AND IT CONDUITS SHALL BE "SWEEP" TYPE. NO BEND FITTINGS ARE PERMITTED.
- K. ALL CONDUIT PATHWAYS SHALL BE PROVIDED WITH NYLON BUSHINGS TO PROTECT CABLES, REGARDLESS OF WHETHER THEY TERMINATE IN A DEVICE OF JUNCTION BOX.
- L. CONTRACTOR TO VERIFY ALL CABLE COUNTS AND NUMBER OF PATCH PANELS REQUIRED.
- M. GROUP DATA OUTLETS TOGETHER WITH POWER OUTLETS (WHERE APPLICABLE). REFER TO "EP" SERIES SHEETS FOR POWER OUTLET LOCATIONS.
- N. COORDINATE WITH FLOOR AND IT CONDUITS FOR PATHWAYS FOR VOICE/DATA OUTLETS FOR MODULAR FURNITURE SYSTEMS.
- O. DURING VOICE/DATA CABLE INSTALLATION, PROPER COORDINATION AND CARE SHALL BE TAKEN TO PREVENT CABLES FROM BEING PAINTED, TEXTURED OR OTHERWISE CONTAMINATED. PER MANUFACTURERS INSTALLATION GUIDELINES.
- P. ANY ON-GRADE FLOOR BOX APPLICATIONS, CONTRACTOR SHALL INSTALL "WET-RATED" CABLE AS PER NEC 2014 ARTICLE 100. CONTRACTOR TO TRANSITION FROM "WET-RATED" CABLE TO "PLENUM" RATED.

SHEET KEYNOTES

- T01 STANDARD TELECOMMUNICATIONS OUTLET. PROVIDE STANDARD 4-11/16" SQ. BOX AND MUD RING WITH 1" EMT TO ACCESSIBLE CEILING SPACE OR CABLE TRAY. PROVIDE CATEGORY 6 CABLES. TERMINATED ON FACEPLATE. QUANTITY AS SHOWN. REFER TO TECHNOLOGY DETAILS ON T01 FOR MORE INFORMATION.
- T12 AUTOMATIC DOOR ACTUATOR PUSH-BUTTON ROUGH-IN LOCATION. REFER TO DOOR HARDWARE DETAILS AND ARCHITECTURAL FOR ADDITIONAL REQUIREMENTS AND FINAL LOCATION. REFER TO ELECTRICAL DRAWINGS FOR CIRCUITING INFORMATION.
- T15 COMBINATION POWER, DATA AND AUDIO-VISUAL ON-GRADE FLOOR BOX. DO NOT DAISY CHAIN FLOOR BOXES FOR DATA. PROVIDE A SEPARATE CONDUIT HOME RUN FOR EACH BOX AND SYSTEM. REFER TO DETAILS ON SHEET T502 FOR MAKE/MODEL INFORMATION. COORDINATE WITH ARCHITECTURAL DOOR SCHEDULE AND DOOR HARDWARE SPECIFICATION.
- T22 PANIC ALARM LOCATED UNDER DESK. COORDINATE FINAL LOCATION WITH FURNITURE LAYOUTS. REFER TO SECTION 28 1300 FOR DEVICE REQUIREMENTS. COORDINATE CALL-OUT FUNCTION/LOCATION WITH OWNER.
- T23 INTRUSION ALARM KEYPAD
- T35 ACCESS CONTROL DEVICE. NEW LOCATION AS PART OF PHASE 3 WORK. REFER TO DETAILS ON SHEET T-303 FOR ROUGH-IN AND CABLING REQUIREMENTS AS WELL AS SECTION 28 1300. COORDINATE WITH ARCHITECTURAL DOOR SCHEDULE AND DOOR HARDWARE SPECIFICATION.
- T40 WALL MOUNTED FLAT PANEL DISPLAY. REFER TO DISPLAY MOUNTING DETAILS ON SHEET T-504 AND SECTION 274100 FOR DEVICE REQUIREMENTS.
- T41 AUDIO-VISUAL EQUIPMENT BACK BOX. MOUNT BOX BEHIND DISPLAY. REFER TO MOUNTING DETAILS ON SHEET T-504. SECTION 274100 FOR DEVICE REQUIREMENTS AND ELECTRICAL DRAWINGS FOR CIRCUITING INFORMATION.
- T48 WALL MOUNTED DIGITAL SIGNAGE VIDEO DISPLAY LOCATION. PROVIDE STRUCTURAL BACKING, BACK BOXES, AND POWER / VOICEDATA OUTLETS AS SHOWN ON DETAILS ON SHEET T-504. REFER TO SPECIFICATION 27 4100 FOR EQUIPMENT REQUIREMENTS.
- T52 PULL BOX FOR SYSTEMS FURNITURE DATA CABLING. PROVIDE A 4-11/16" X 7-3/4" X 5-1/4" D LARGE CAPACITY BOX. EXTEND TWO 1-1/4" CONDUITS STUBBED TO CABLE TRAY LOCATED IN FAUX SOFFIT. PROVIDE A DEVICE COVER THAT ACCEPTS MULTIPLE FURNITURE CABLING WHIPS. SIZE WHIPS FOR AMOUNT OF CABLING GOING TO EACH SECTION OF THE SYSTEMS FURNITURE. EXTEND WHIP INTO SYSTEMS FURNITURE.
- T57 DATA LOCATION IN SYSTEMS FURNITURE. TERMINATE DATA CABLING ONTO SYSTEMS FURNITURE DATA FACE PLATE WITH COMPATIBLE FEMALE RJ-45 JACKS. COORDINATE FINAL LOCATION OF FACEPLATE WITH SYSTEMS FURNITURE.

KEY PLAN



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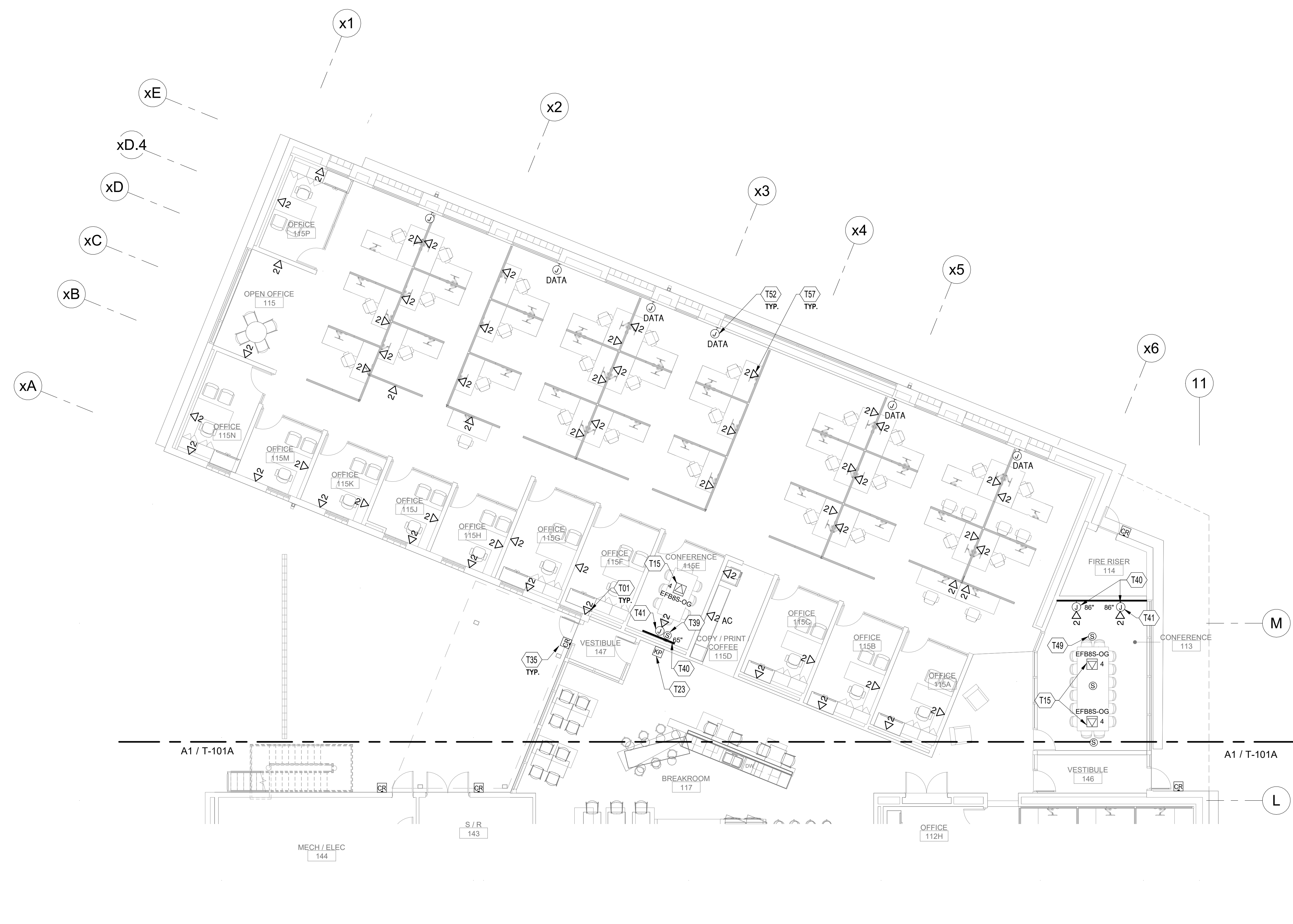
REVISIONS

DRAWN BY: Author
REVIEWED BY: Approver
DATE: 04/24/2024
PROJECT NO: 22-0227.001

DRAWING NAME
TECHNOLOGY SYSTEMS FLOOR PLAN - AREA A

SHEET NO
T-101A

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 Bridgers & Paxton Project No. 8892



A1 TECHNOLOGY SYSTEMS FLOOR PLAN AREA B
1/8" = 1'-0"



GENERAL SHEET NOTES

- A. PROPERLY FIRE STOP AND SEAL ALL PENETRATIONS THROUGH WALLS, FLOORS, CEILING, AND ROOF AS PER OWNER, CODE, AND AHJ.
- B. PRIOR TO INSTALLATION OF CABLE TRAY COORDINATE LOCATIONS WITH ALL OTHER TRADES.
- C. NOT ALL PARTS AND PIECES ARE SHOWN FOR A COMPLETE SYSTEM. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE END-TO-END WARRANTED SOLUTION FOR THE HORIZONTAL CABLING.
- D. ALL CABLING TO BE PLENUM RATED THROUGHOUT THE BUILDING.
- E. ALL COMMUNICATIONS CABLING TO MEET OR EXCEED CATEGORY 6 STANDARDS.
- F. TELECOMMUNICATIONS OUTLETS TO BE MOUNTED AT +18" A.F.F. (BOTTOM OF BOX) UNLESS OTHERWISE NOTED. FOR EXAMPLE, DEVICES SPECIFIED AT +18" A.F.F. SHALL MATCH THE STANDARD MOUNTING HEIGHT FOR POWER RECEPTACLES AND TELECOMMUNICATIONS OUTLETS. DEVICES SPECIFIED AT +48" A.F.F. SHALL MATCH THE STANDARD MOUNTING HEIGHT FOR LIGHT SWITCHES ETC.
- G. ALL CONDUITS FOR TELECOMMUNICATIONS OUTLETS SHALL BE STEEL THINWALL ELECTRICAL METALLIC TUBING (TYPE EMT) UNLESS OTHERWISE NOTED. UNDER NO CIRCUMSTANCES SHALL FLEXIBLE CONDUIT BE USED FOR PATHWAYS INDICATED ON THIS SHEET. ALL CONDUITS ARE TO BE AT A MINIMUM 1" TRADE SIZE UNLESS OTHERWISE NOTED. ALL CONDUITS FOR TELECOMMUNICATIONS OUTLETS ARE TO BE STUBBED TO NEAREST CABLE TRAY. CONTRACTOR IS TO ENSURE THAT NO CONDUIT EXCEEDS 40% FULL.
- H. CABLE TRAY SYSTEMS SHOWN ON THIS SHEET SHALL BE USED FOR VOICE AND DATA CABLING ONLY. ALL OTHER SYSTEMS INCLUDING, BUT NOT LIMITED TO, FIRE ALARM, SECURITY, HVAC CONTROL, ETC. SHALL BE SUPPORTED BY OTHER MEANS. HOOKS ATTACHED TO THE CABLE TRAY SUPPORTS WILL BE PERMITTED. LIKEWISE, ANY CONDUITS PROVIDED FOR VOICE AND DATA CABLING IS NOT TO BE USED BY ANY OTHER SYSTEM. HENCE, SEPARATE CONDUITS MAY NEED TO BE PROVIDED FOR THE SUPPORT OF THESE SYSTEMS.
- I. NUMBER ADJACENT TO TELECOMMUNICATIONS OUTLET SYMBOL REPRESENTS NUMBER OF CATEGORY 6 CABLES TO BE INSTALLED AND TERMINATED AT THAT LOCATION. A "B" ADJACENT TO AN OUTLET LOCATION REPRESENTS A ROUGH-IN ONLY LOCATION. PROVIDE BOX, CONDUIT, AND BLANK FACEPLATE.
- J. ALL CONDUIT TURNS FOR RAY AND IT CONDUITS SHALL BE "SWEEP" TYPE. NO BEND FITTINGS ARE PERMITTED.
- K. ALL CONDUIT PATHWAYS SHALL BE PROVIDED WITH NYLON BUSHINGS TO PROTECT CABLES, REGARDLESS OF WHETHER THEY TERMINATE IN A DEVICE OR JUNCTION BOX.
- L. CONTRACTOR TO VERIFY ALL CABLE COUNTS AND NUMBER OF PATCH PANELS REQUIRED.
- M. GROUP DATA OUTLETS TOGETHER WITH POWER OUTLETS (WHERE APPLICABLE). REFER TO "EP" SERIES SHEETS FOR POWER OUTLET LOCATIONS.
- N. COORDINATE WITH FLOOR AND FURNITURE CONTRACTORS FOR PATHWAYS FOR VOICE/DATA OUTLETS FOR MODULAR FURNITURE SYSTEMS.
- O. DURING VOICE/DATA CABLE INSTALLATION, PROPER COORDINATION AND CARE SHALL BE TAKEN TO ENSURE CABLING DOES NOT GET PAINTED, TEXTURED OR OTHERWISE CONTAMINATED.

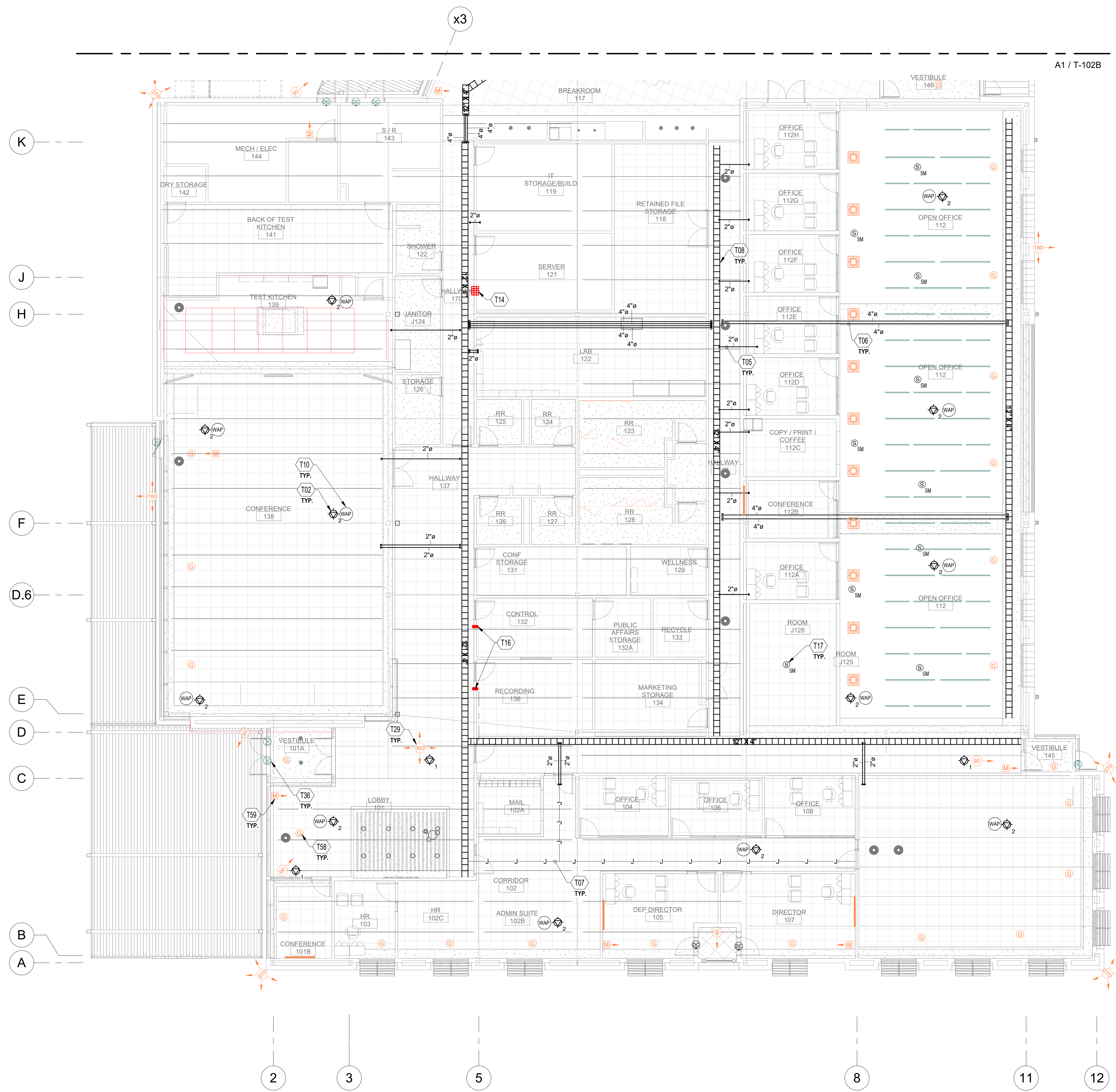
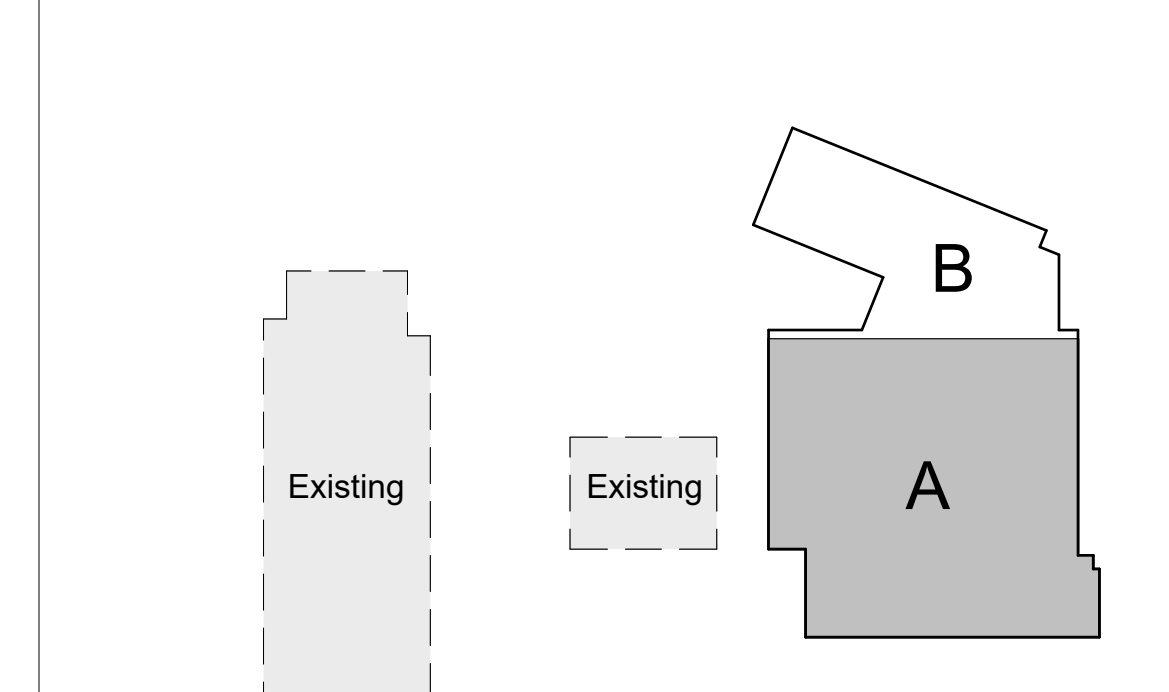
GENERAL SHEET NOTES

- A. PROPERLY FIRE STOP AND SEAL ALL PENETRATIONS THROUGH WALLS, FLOORS, CEILING, AND ROOF AS PER OWNER, CODE, AND AHJ.
- B. PRIOR TO INSTALLATION OF CABLE TRAY COORDINATE LOCATIONS WITH ALL OTHER TRADES.
- C. NOT ALL PARTS AND PIECES ARE SHOWN FOR A COMPLETE SYSTEM. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE END-TO-END WARRANTED SOLUTION FOR THE HORIZONTAL CABLING.
- D. ALL CABLING TO BE PLENUM RATED THROUGHOUT THE BUILDING.
- E. ALL COMMUNICATIONS CABLING TO MEET OR EXCEED CATEGORY 6 STANDARDS.
- F. TELECOMMUNICATIONS OUTLETS TO BE MOUNTED AT +18" A.F.F. (BOTTOM OF BOX) UNLESS OTHERWISE NOTED. FOR EXAMPLE, DEVICES SPECIFIED AT +18" A.F.F. SHALL MATCH THE STANDARD MOUNTING HEIGHT FOR POWER RECEPTACLES AND TELECOMMUNICATIONS OUTLETS. DEVICES SPECIFIED AT +48" A.F.F. SHALL MATCH THE STANDARD MOUNTING HEIGHT FOR LIGHT SWITCHES ETC.
- G. ALL CONDUITS FOR TELECOMMUNICATIONS OUTLETS SHALL BE STEEL THINWALL ELECTRICAL METALLIC TUBING (TYPE EMT) UNLESS OTHERWISE NOTED. UNDER NO CIRCUMSTANCES SHALL FLEXIBLE CONDUIT BE USED FOR PATHWAYS INDICATED ON THIS SHEET. ALL CONDUITS ARE TO BE AT A MINIMUM 1" TRADE SIZE UNLESS OTHERWISE NOTED. ALL CONDUITS FOR TELECOMMUNICATIONS OUTLETS ARE TO BE STUBBED TO NEAREST CABLE TRAY. CONTRACTOR IS TO ENSURE THAT NO CONDUIT EXCEEDS 40% FULL.
- H. CABLE TRAY SYSTEMS SHOWN ON THIS SHEET SHALL BE USED FOR VOICE AND DATA CABLING ONLY. ALL OTHER SYSTEMS INCLUDING, BUT NOT LIMITED TO, FIRE ALARM, SECURITY, HVAC CONTROL, ETC. SHALL BE SUPPORTED BY OTHER MEANS. J-HOOKS ATTACHED TO THE CABLE TRAY SUPPORTS WILL BE PERMITTED. LIKEWISE, ANY CONDUITS PROVIDED FOR VOICE AND DATA CABLING IS NOT TO BE USED BY ANY OTHER SYSTEM. HENCE, SEPARATE CONDUITS MAY NEED TO BE PROVIDED FOR THE SUPPORT OF THESE SYSTEMS.
- I. NUMBER ADJACENT TO TELECOMMUNICATIONS OUTLET SYMBOL REPRESENTS NUMBER OF CATEGORY 6 CABLES TO BE INSTALLED AND TERMINATED AT THAT LOCATION. A "B" ADJACENT TO AN OUTLET LOCATION REPRESENTS A ROUGH-IN ONLY LOCATION. PROVIDE BOX, CONDUIT, AND BLANK FACEPLATE.
- J. ALL CONDUIT TURNS FOR ANY AND IT CONDUITS SHALL BE "SWEEP" TYPE. NO BEND FITTINGS ARE PERMITTED.
- K. ALL CONDUIT PATHWAYS SHALL BE PROVIDED WITH NYLON BUSHINGS TO PROTECT CABLES. RECORD WHETHER THEY TERMINATE IN A DEVICE OR JUNCTION BOX.
- L. CONTRACTOR TO VERIFY ALL CABLE COUNTS AND NUMBER OF PATCH PANELS REQUIRED.
- M. GROUP DATA OUTLETS TOGETHER WITH POWER OUTLETS (WHERE APPLICABLE). REFER TO "EP" SERIES SHEETS FOR POWER OUTLET LOCATIONS.
- N. COORDINATE WITH FLOOR AND FURNITURE CONTRACTORS FOR PATHWAYS FOR VOICE/DATA OUTLETS FOR MODULAR FURNITURE SYSTEMS.
- O. DURING VOICE/DATA CABLE INSTALLATION, PROPER COORDINATION AND CARE SHALL BE TAKEN TO EXISTING CABLING TO GET PAINTED, TEXTURED OR OTHERWISE CONTAMINATED. PER MANUFACTURERS INSTALLATION GUIDELINES.
- P. ANY ON-GRADE FLOOR BOX APPLICATIONS, CONTRACTOR SHALL INSTALL "WET-RATED" CABLE AS PER NEC ARTICLE 100. CONTRACTOR TO TRANSITION FROM "WET-RATED" CABLE TO "PLENUM" RATED.

SHEET KEYNOTES

- T02 TELECOMMUNICATIONS OUTLET LOCATED ABOVE CEILING. PROVIDE A TYPICAL PLENUM RATED "BUCKET" STYLE SURFACE MOUNT BOX. PROVIDE WITH NUMBER OF KEYSTONE PORTS AS CALLED OUT ON DRAWINGS. FOR WIRELESS ACCESS POINT LOCATIONS PROVIDE CATEGORY 6A CABLING AND ALL OTHER LOCATIONS TO RECEIVE CATEGORY 6 CABLING.
- T05 2" EMT CONDUIT THROUGH WALL ABOVE CEILING GRID FOR HORIZONTAL VOICE/DATA CABLING. QUANTITY AS SHOWN. PROVIDE PULL STRING THAT SPANS ENTIRE LENGTH AND PROVIDE PLASTIC BUSHINGS ON BOTH ENDS TO PROTECT CABLES.
- T06 4" EMT CONDUIT ABOVE CEILING FOR HORIZONTAL VOICE/DATA CABLING. QUANTITY AS SHOWN. PROVIDE PULL STRING THAT SPANS ENTIRE LENGTH AND PROVIDE PLASTIC BUSHINGS ON BOTH ENDS TO PROTECT CABLES.
- T07 J-HOOK PATH. PROVIDE PROPERLY SIZED AND QUANTITY TO SPAN DISTANCE WITH 4'-0" SPANS. PLENUM RATED. REFER TO SPECIFICATIONS SECTION 27 0528 FOR ADDITIONAL REQUIREMENTS. PROVIDE AS NEEDED.
- T08 WIRE BASKET STYLE CABLE TRAY FOR HORIZONTAL TELECOMMUNICATIONS CABLING. MOUNT CABLE TRAY 4" MINIMUM ABOVE LAY-IN CEILING AND MAINTAIN AT LEAST 12" CLEAR AROUND SIDES AND TOP OF TRAY. SIZE AS INDICATED ON DRAWINGS. COORDINATE WITH ALL OTHER TRADES PRIOR TO COMMENCEMENT OF WORK. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- T10 CEILING MOUNTED WIRELESS ACCESS POINT LOCATION. PROVIDE A CLEAR LABEL FOR LOCATION OF WIRELESS ACCESS POINT ON ACCESSIBLE CEILING TILE OR WALL NEAR ACCESSIBLE CEILING TILE. WIRELESS ACCESS POINT HARDWARE PROVIDED AND INSTALLED BY OWNER.
- T14 FIRE RATED PATHWAY. STI E2 PATH 44-4-CELL DEVICE OR 4" HILT SPEED SLEEVES. REFER TO SPECIFICATIONS IN DIVISION 27 AND T-400 SERIES SHEETS FOR ADDITIONAL REQUIREMENTS AND QUANTITIES AT EACH LOCATION.
- T16 ACOUSTIC RATED PATHWAY. STI E2 PATH 22 3-CELL DEVICE. REFER TO SPECIFICATIONS IN DIVISION 27 FOR ADDITIONAL REQUIREMENTS AND QUANTITIES AT EACH LOCATION.
- T17 SOUND MASKING SPEAKER. SPEAKER TO BE AFFIXED TO STRUCTURE AND FINAL ELEVATION TO BE IN LINE WITH LIGHTING. COORDINATE FINAL PLACEMENT IN THE FIELD. WITHIN THE RECOMMENDED SPACING ALLOWANCE. REFER TO SPEAKER MOUNTING DETAILS ON SHEET T-504 AND SPECIFICATION 27 5119 FOR ADDITIONAL REQUIREMENTS.
- T29 ROUGH-IN FOR INTERIOR SECURITY CAMERA. PROVIDE (1) CATEGORY 6 CABLE FROM ADJACENT TELECOM OUTLET. TERMINATED WITH MALE RJ-45 MODULAR CONNECTORS. WITH MINIMUM 10' SLACK. REFER TO DETAILS ON SHEET T-503 FOR ROUGH-IN REQUIREMENTS. CAMERA AND MOUNT BY OWNER. REFER TO DIVISION 28 SPECIFICATION FOR ADDITIONAL ROUGH-IN REQUIREMENTS. HEIGHT AS INDICATED ON SHEET WHERE APPLICABLE. COORDINATE FINAL LOCATION WITH ELECTRICAL FOR LIGHTING INTERFERENCE. REFER TO DIVISION 28 SPECIFICATIONS FOR ADDITIONAL ROUGH-IN REQUIREMENTS.
- T36 DOOR CONTACT SENSOR LOCATED AT TOP OF DOOR FRAME. REFER TO DOOR DETAILS ON SHEET T-503 AND ARCHITECTURAL DOOR HARDWARE SCHEDULE FOR ROUGH-IN REQUIREMENTS. REFER TO SPECIFICATION 28 1300 AND DOOR HARDWARE SPECIFICATIONS FOR MAKE/MODEL INFORMATION AND ADDITIONAL REQUIREMENTS.
- T58 GLASS BREAK SENSOR LOCATION. REFER TO SPECIFICATION SECTION 281600 FOR REQUIREMENTS.
- T59 MOTION DETECTOR LOCATION. REFER TO SPECIFICATION SECTION 281XXX FOR REQUIREMENTS.

KEY PLAN



A1 TECHNOLOGY SYSTEMS RCP - AREA B
 1/8" = 1'-0"

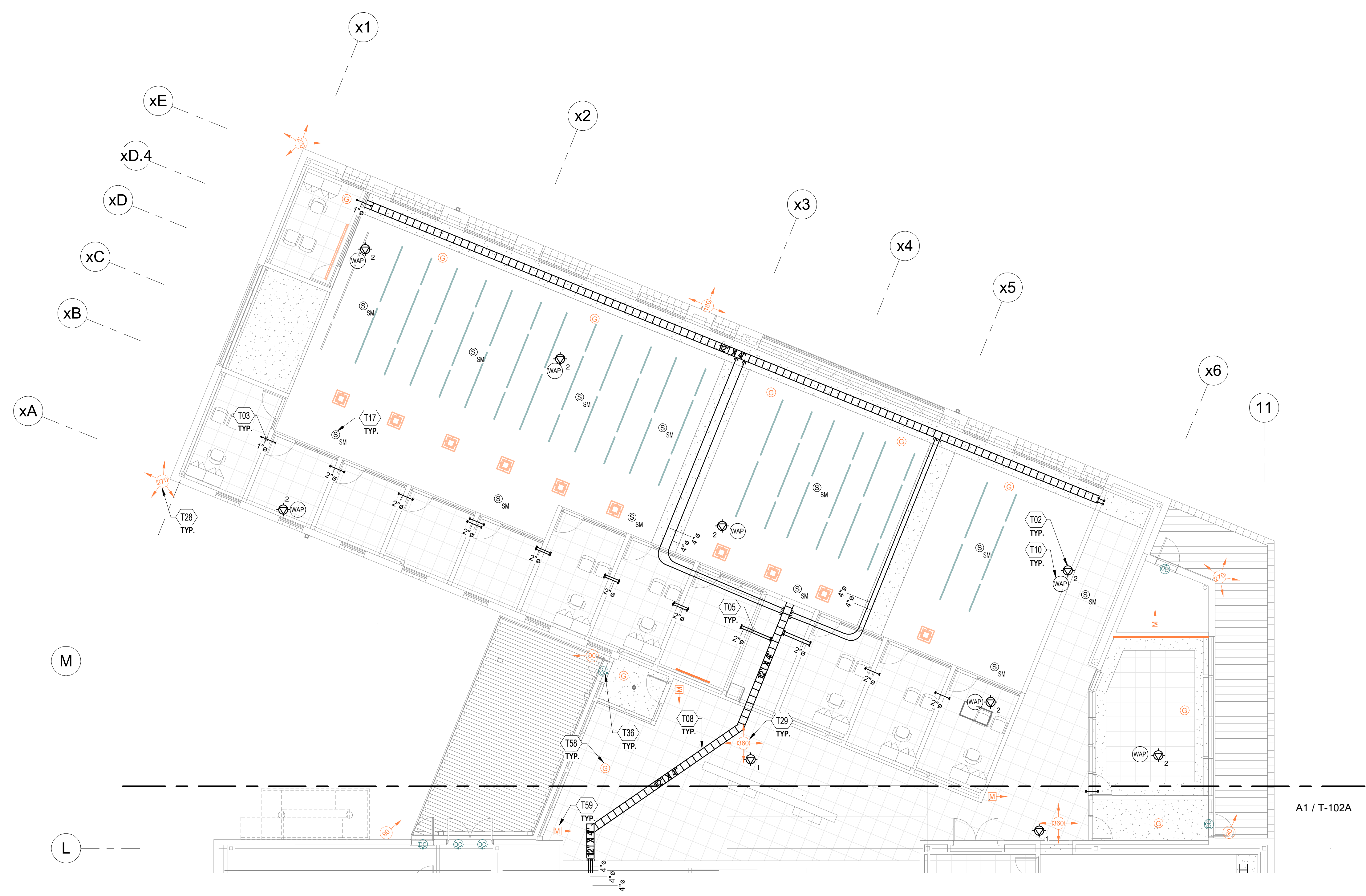
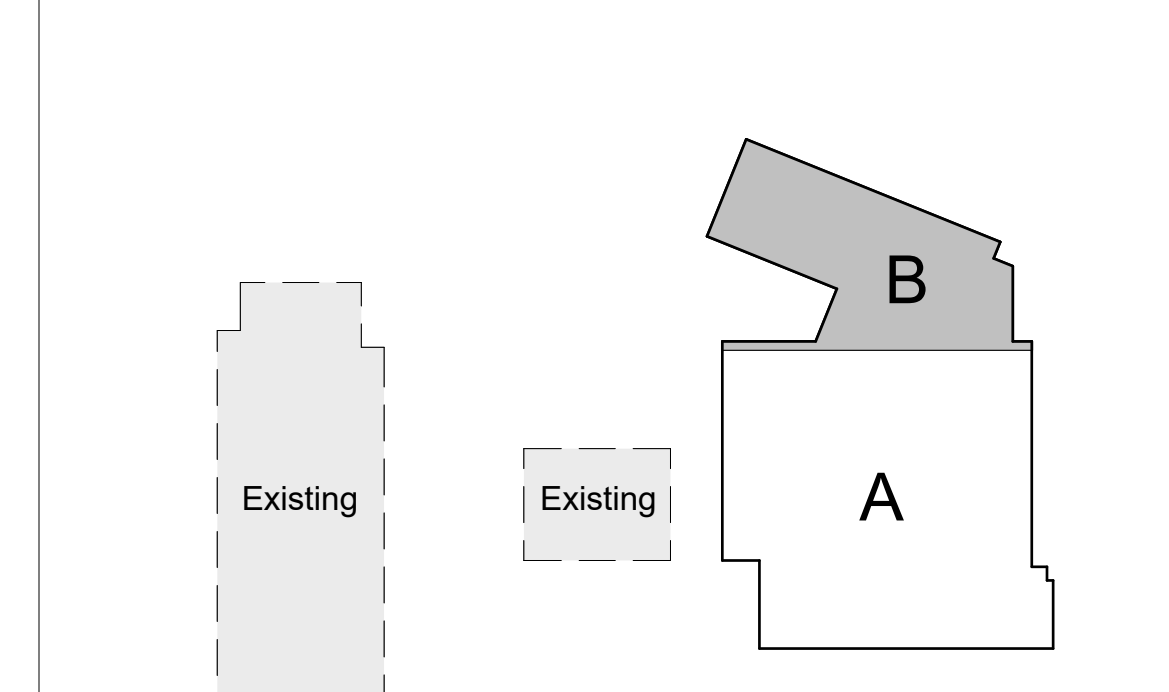
GENERAL SHEET NOTES

- A. PROPERLY FIRE STOP AND SEAL ALL PENETRATIONS THROUGH WALLS, FLOORS, CEILINGS AND ROOF AS PER OWNER, CODE, AND AHJ.
- B. PRIOR TO INSTALLATION OF CABLE TRAY COORDINATE LOCATIONS WITH ALL OTHER TRADES.
- C. NOT ALL PARTS AND PIECES ARE SHOWN FOR A COMPLETE SYSTEM. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE END-TO-END WARRANTED SOLUTION FOR THE HORIZONTAL CABLING.
- D. ALL CABLING TO BE PLENUM RATED THROUGHOUT THE BUILDING.
- E. ALL COMMUNICATIONS CABLING TO MEET OR EXCEED CATEGORY 6 STANDARDS.
- F. TELECOMMUNICATIONS OUTLETS TO BE MOUNTED AT +18" A.F.F. (BOTTOM OF BOX) UNLESS OTHERWISE NOTED. FOR EXAMPLE, DEVICES SPECIFIED AT +18" A.F.F. SHALL MATCH THE STANDARD MOUNTING HEIGHT FOR POWER RECEPTACLES AND TELECOMMUNICATIONS OUTLETS. DEVICES SPECIFIED AT +48" A.F.F. SHALL MATCH THE STANDARD MOUNTING HEIGHT FOR LIGHT SWITCHES ETC.
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- H. CABLE TRAY SYSTEMS SHOWN ON THIS SHEET SHALL BE USED FOR VOICE AND DATA CABLING ONLY. ALL OTHER SYSTEMS INCLUDING, BUT NOT LIMITED TO, FIRE ALARM, SECURITY, HVAC CONTROL, ETC. SHALL BE SUPPORTED BY OTHER MEANS. J-HOOKS ATTACHED TO THE CABLE TRAY SUPPORTS WILL BE PERMITTED. LIKEWISE, ANY CONDUITS PROVIDED FOR VOICE AND DATA CABLING IS NOT TO BE USED BY ANY OTHER SYSTEM. HENCE, SEPARATE CONDUITS MAY NEED TO BE PROVIDED FOR THE SUPPORT OF THESE SYSTEMS.
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- J. ALL CONDUIT TURNS FOR RAY AND IT CONDUITS SHALL BE "SWEEP" TYPE. NO BEND FITTINGS ARE PERMITTED.
- K. ALL CONDUIT PATHWAYS SHALL BE PROVIDED WITH NYLON BUSHINGS TO PROTECT CABLES, REGARDLESS OF WHETHER THEY TERMINATE IN A DEVICE OR JUNCTION BOX.
- L. CONTRACTOR TO VERIFY ALL CABLE COUNTS AND NUMBER OF PATCH PANELS REQUIRED.
- M. GROUP DATA OUTLETS TOGETHER WITH POWER OUTLETS (WHERE APPLICABLE). REFER TO "EP" SERIES SHEETS FOR POWER OUTLET LOCATIONS.
- N. COORDINATE WITH FLOOR AND FURNITURE CONTRACTORS FOR PATHWAYS FOR VOICE/DATA OUTLETS FOR MODULAR FURNITURE SYSTEMS.
- O. DURING VOICE/DATA CABLE INSTALLATION, PROPER COORDINATION AND CARE SHALL BE TAKEN TO ENSURE CABLING DOES NOT GET PAINTED, TEXTURED OR OTHERWISE CONTAMINATED. PER MANUFACTURERS INSTALLATION GUIDELINES.
- P. ANY ON-GRADE FLOOR BOX APPLICATIONS, CONTRACTOR SHALL INSTALL "WET-RATED" CABLE AS PER NEC 2014 ARTICLE 100. CONTRACTOR TO TRANSITION FROM "WET-RATED" CABLE TO "PLENUM" RATED.

SHEET KEYNOTES

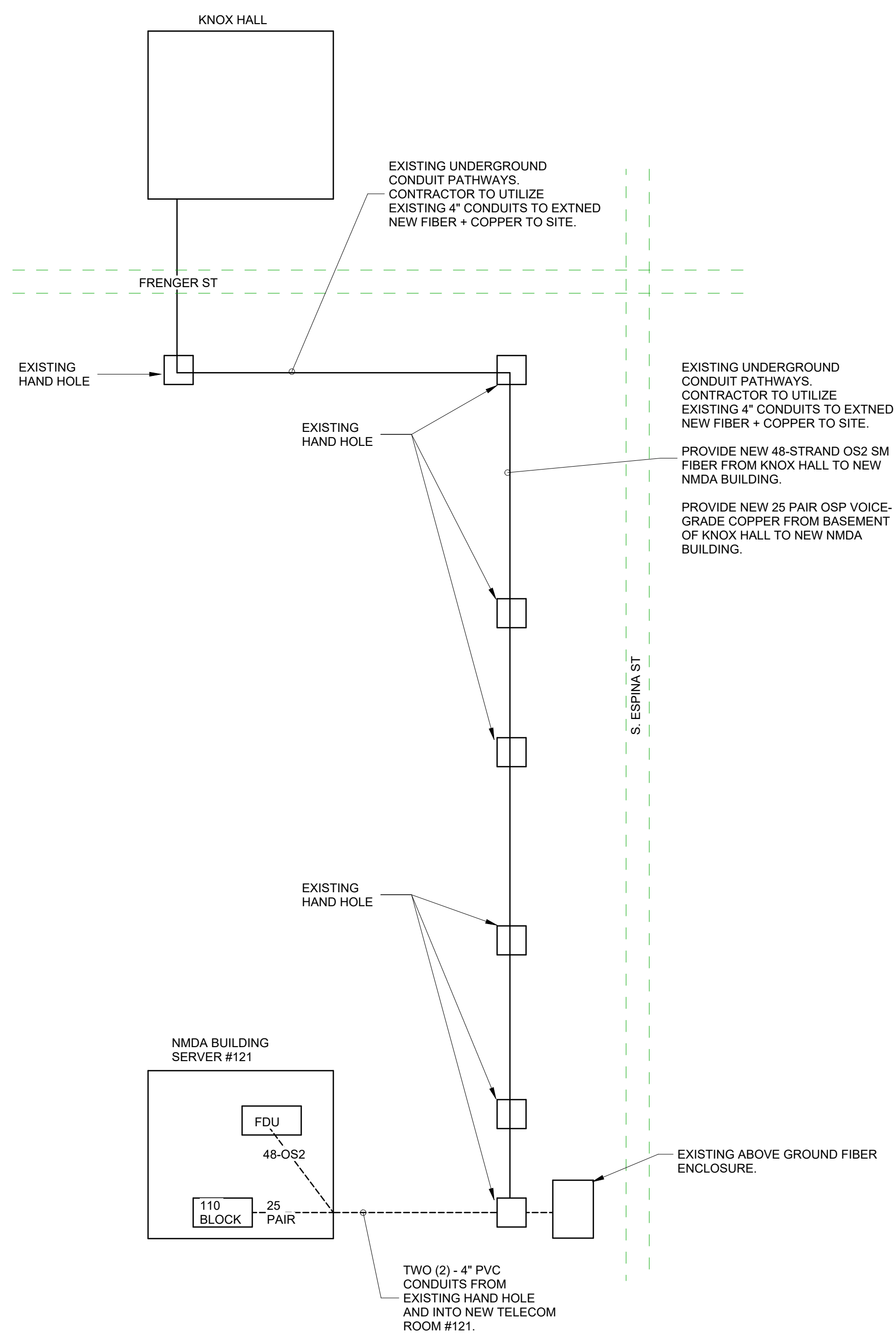
- T02 TELECOMMUNICATIONS OUTLET LOCATED ABOVE CEILING. PROVIDE A TYPICAL PLENUM RATED "BISCUIT" STYLE SURFACE MOUNT BOX. PROVIDE WITH NUMBER OF KEYSTONE PORTS AS CALLED OUT ON DRAWINGS. FOR WIRELESS ACCESS POINT LOCATIONS PROVIDE CATEGORY 6A CABLING AND ALL OTHER LOCATIONS TO RECEIVE CATEGORY 6 CABLING.
- T03 1" EMT CONDUIT ABOVE CEILING GRID FOR HORIZONTAL VOICE/DATA CABLING. QUANTITY AS SHOWN. PROVIDE PULL STRING THAT SPANS ENTIRE LENGTH AND PROVIDE PLASTIC BUSHINGS ON BOTH ENDS TO PROTECT CABLES.
- T05 2" EMT CONDUIT THROUGH WALL ABOVE CEILING GRID FOR HORIZONTAL VOICE/DATA CABLING. QUANTITY AS SHOWN. PROVIDE PULL STRING THAT SPANS ENTIRE LENGTH AND PROVIDE PLASTIC BUSHINGS ON BOTH ENDS TO PROTECT CABLES.
- T08 WIRE BASKET STYLE CABLE TRAY FOR HORIZONTAL TELECOMMUNICATIONS CABLING. MOUNT CABLE TRAY 4" MINIMUM ABOVE LAY-IN CEILING AND MAINTAIN AT LEAST 12" CLEAR AROUND SIDES AND TOP OF TRAY. SIZE AS INDICATED ON DRAWINGS. COORDINATE WITH ALL OTHER TRADES PRIOR TO COMMENCEMENT OF WORK. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- T10 CEILING MOUNTED WIRELESS ACCESS POINT LOCATION. PROVIDE A CLEAR LABEL FOR LOCATION OF WIRELESS ACCESS POINT ON ACCESSIBLE CEILING TILE OR WALL NEAR ACCESSIBLE CEILING TILE. WIRELESS ACCESS POINT HARDWARE PROVIDED AND INSTALLED BY OWNER.
- T17 SOUND MASKING SPEAKER. SPEAKER TO BE AFFIXED TO STRUCTURE AND FINAL ELEVATION TO BE IN LINE WITH LIGHTING. COORDINATE FINAL PLACEMENT IN THE FIELD, WITHIN THE RECOMMENDED SPACING ALLOWANCE. REFER TO SPEAKER MOUNTING DETAILS ON SHEET T-504 AND SPECIFICATION 27.5119 FOR ADDITIONAL REQUIREMENTS.
- T28 ROUGH-IN FOR EXTERIOR SURVEILLANCE CAMERA. PROVIDE (1) CATEGORY 6 CABLE FROM ADJACENT TELECOM OUTLET. TERMINATED WITH MALE RJ-45 MODULAR CONNECTORS, WITH MINIMUM 10' SLACK. REFER TO DETAILS ON SHEET T-503 FOR ROUGH-IN REQUIREMENTS. CAMERA AND MOUNT BY OWNER. REFER TO DIVISION 28 SPECIFICATION FOR ADDITIONAL ROUGH-IN REQUIREMENTS. HEIGHT AS INDICATED ON SHEET.
- T29 ROUGH-IN FOR INTERIOR SECURITY CAMERA. PROVIDE (1) CATEGORY 6 CABLE FROM ADJACENT TELECOM OUTLET. TERMINATED WITH MALE RJ-45 MODULAR CONNECTORS, WITH MINIMUM 10' SLACK. REFER TO DETAILS ON SHEET T-503 FOR ROUGH-IN REQUIREMENTS. CAMERA AND MOUNT BY OWNER. REFER TO DIVISION 28 SPECIFICATION FOR ADDITIONAL ROUGH-IN REQUIREMENTS. HEIGHT AS INDICATED ON SHEET WHERE APPLICABLE. COORDINATE FINAL LOCATION WITH ELECTRICAL FOR LIGHTING INTERFERENCE. REFER TO DIVISION 28 SPECIFICATIONS FOR ADDITIONAL ROUGH-IN REQUIREMENTS.
- T36 DOOR CONTACT SENSOR LOCATED AT TOP OF DOOR FRAME. REFER TO DOOR DETAILS ON SHEET T-503 AND ARCHITECTURAL DOOR HARDWARE SCHEDULE FOR ROUGH-IN REQUIREMENTS. REFER TO SPECIFICATION 28.1300 AND DOOR HARDWARE SPECIFICATIONS FOR MAKE/MODEL INFORMATION AND ADDITIONAL REQUIREMENTS.
- T58 GLASS BREAK SENSOR LOCATION. REFER TO SPECIFICATION SECTION 281600 FOR REQUIREMENTS.
- T59 MOTION DETECTOR LOCATION. REFER TO SPECIFICATION SECTION 281XXX FOR REQUIREMENTS.

KEY PLAN

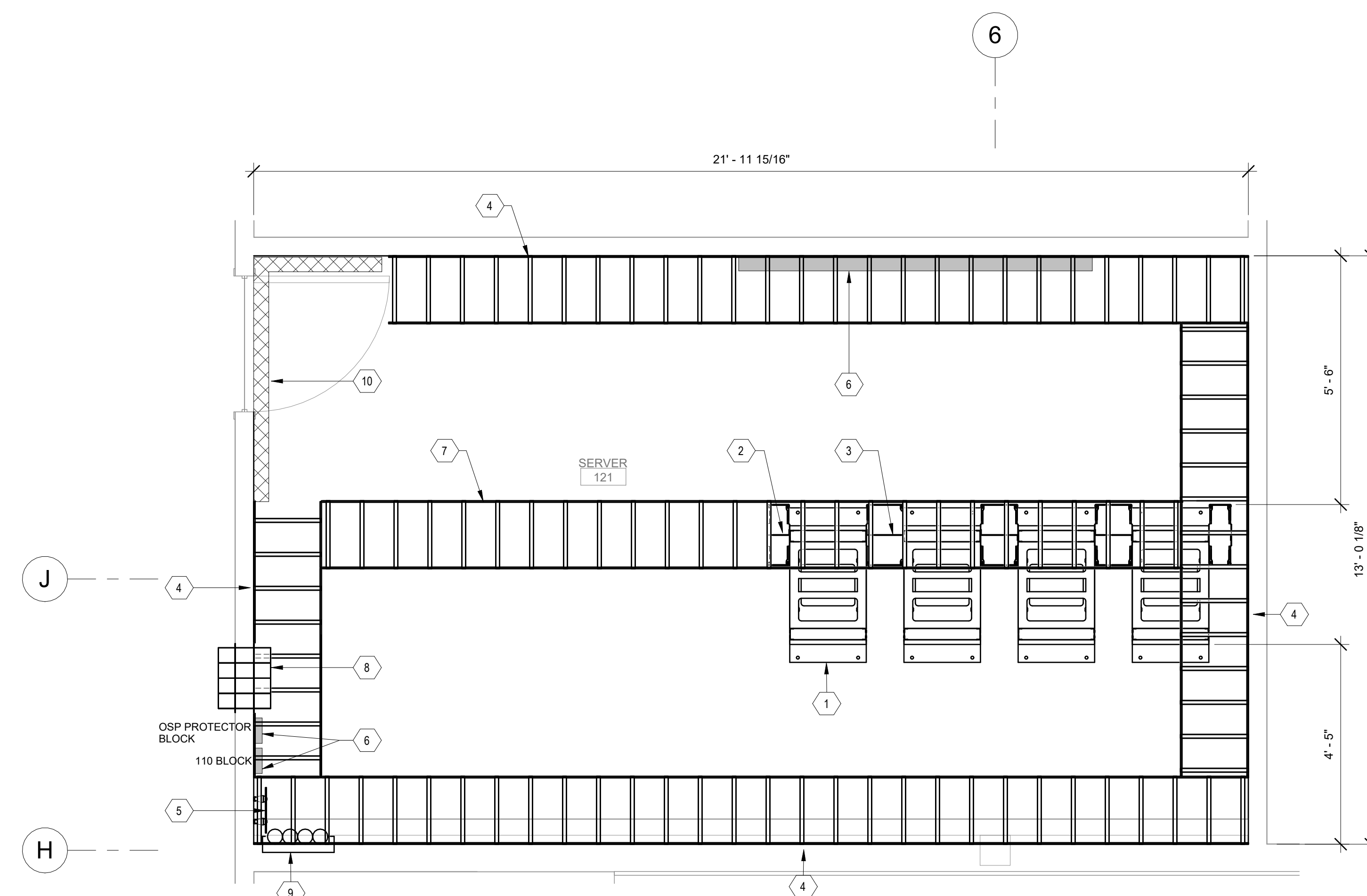


A1 TECHNOLOGY SYSTEMS RCP - AREA A
1/8" = 1'-0"

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A1 COMMUNICATIONS BACKBONE DIAGRAM
SCALE: NOT TO SCALE



A3 ENLARGED TECHNOLOGY FLOOR PLAN - SERVER 121
1/2\"/>

GENERAL SHEET NOTES

- A. PROPERLY FIRE STOP AND SEAL ALL PENETRATIONS THROUGH WALLS, FLOORS, CEILING, AND ROOF AS PER OWNER, CODE, AND AHJ.
- B. PRIOR TO INSTALLATION OF CABLE TRAY COORDINATE LOCATIONS WITH ALL OTHER TRADES.
- C. NOT ALL PARTS AND PIECES ARE SHOWN FOR A COMPLETE SYSTEM. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE END-TO-END WARRANTED SOLUTION FOR THE HORIZONTAL CABLING.
- D. ALL CABLING TO BE PLENUM RATED THROUGHOUT THE BUILDING.
- E. ALL COMMUNICATIONS CABLING TO MEET OR EXCEED CATEGORY 6 STANDARDS.
- F. TELECOMMUNICATIONS OUTLETS TO BE MOUNTED AT +18\"/>

SHEET KEYNOTES

- 1. 4 POST 84\"/>

KEYPLAN

DEKKER PERICH SABATINI
 Architecture
 in Progress



NMSU NM DEPT OF AGRICULTURE OFFICE BUILDING
 3910 SOUTH ESPINA STREET
 LAS CRUCES, NEW MEXICO 88003

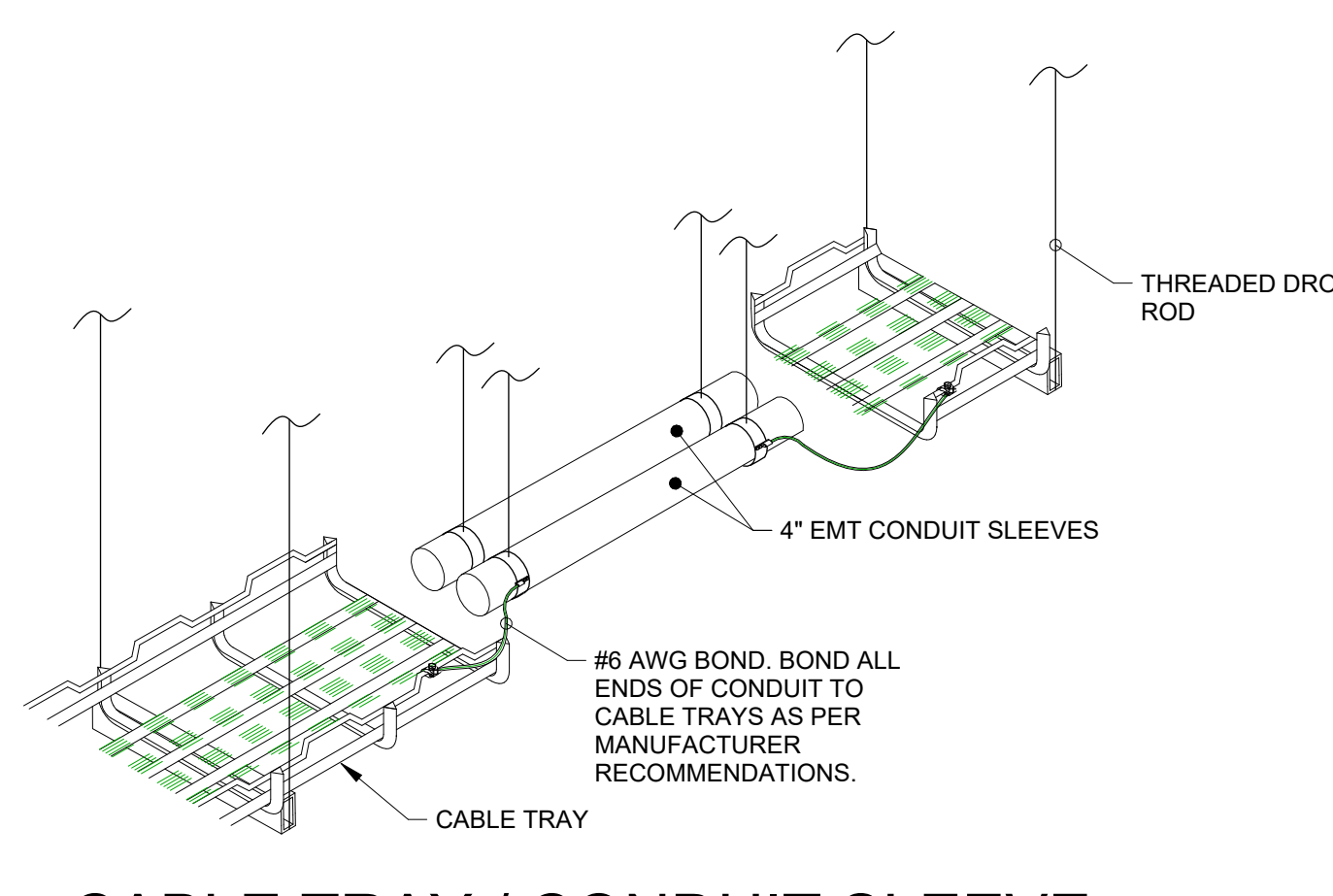
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REVISIONS

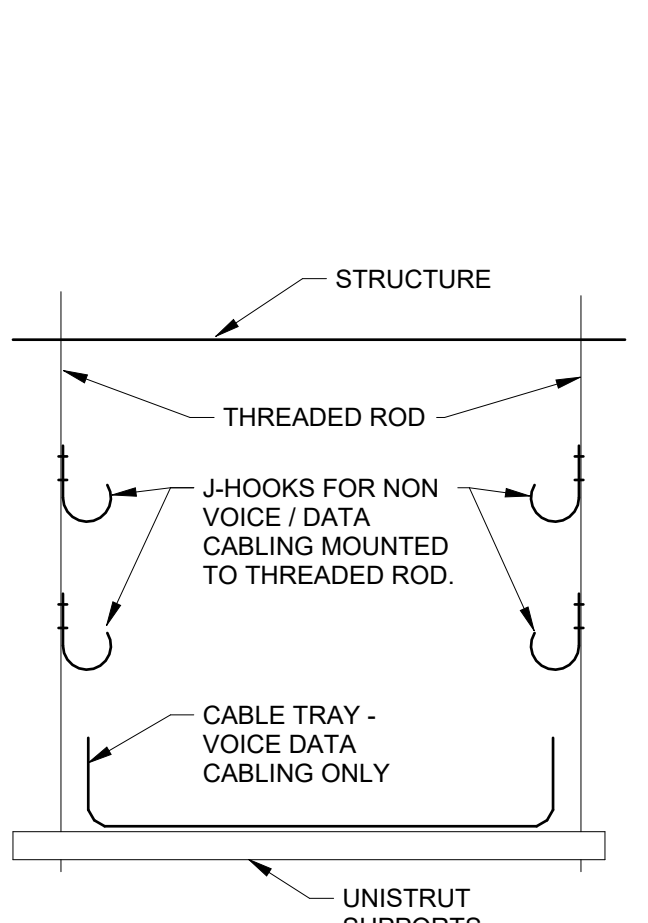
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 REVIEWED BY _____ Approver
 DATE 04/24/2024
 PROJECT NO 22-0227-001

DRAWING NAME
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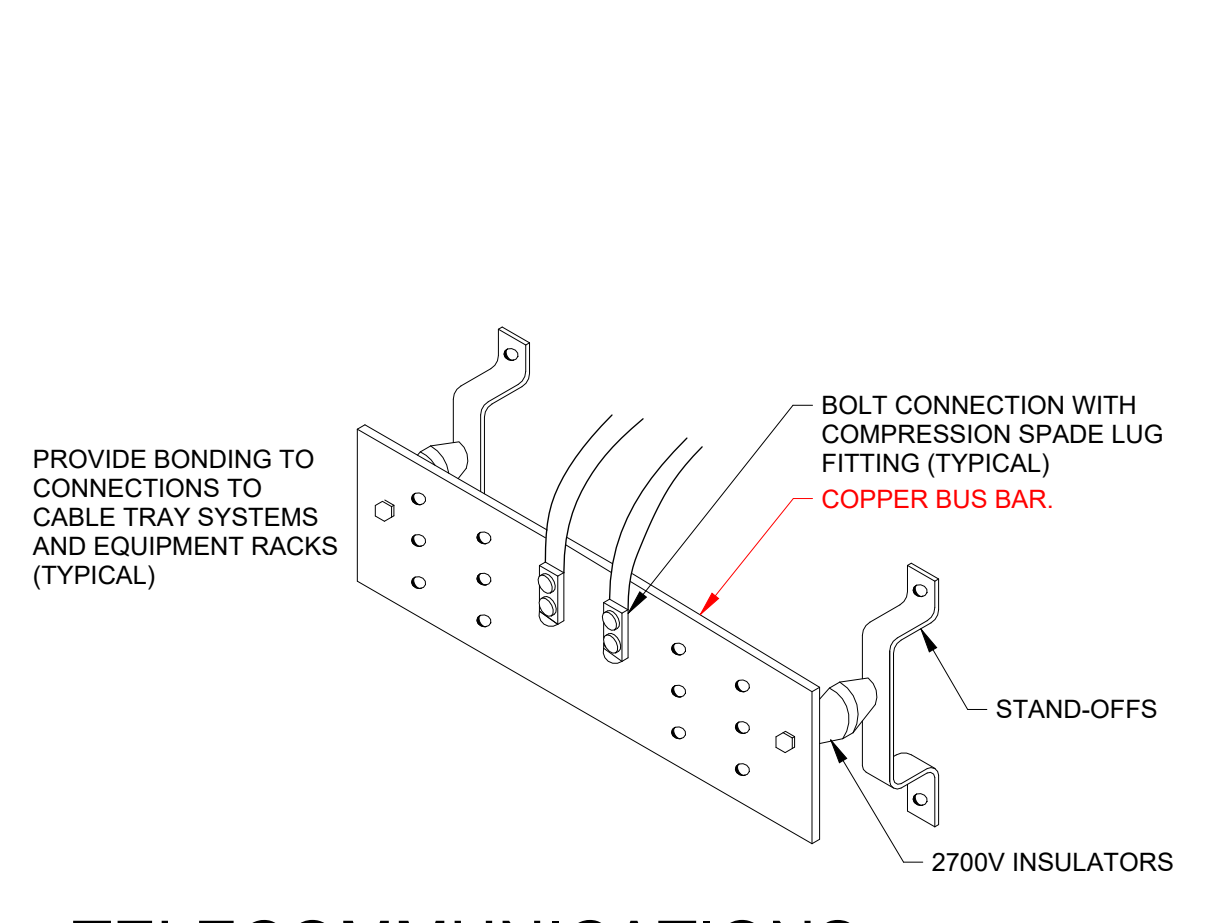
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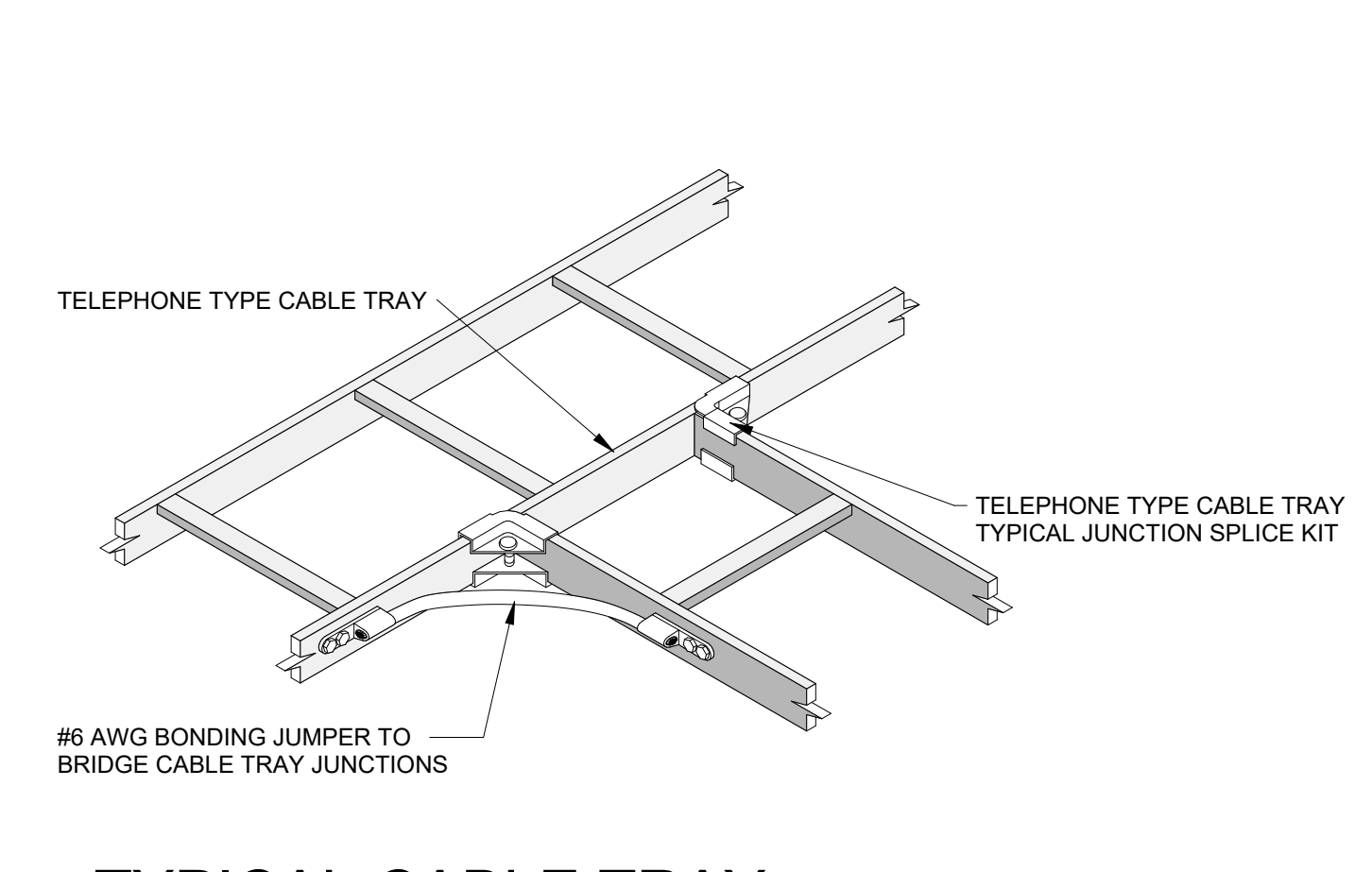
E1 CABLE TRAY / CONDUIT SLEEVE BONDING AND GROUNDING
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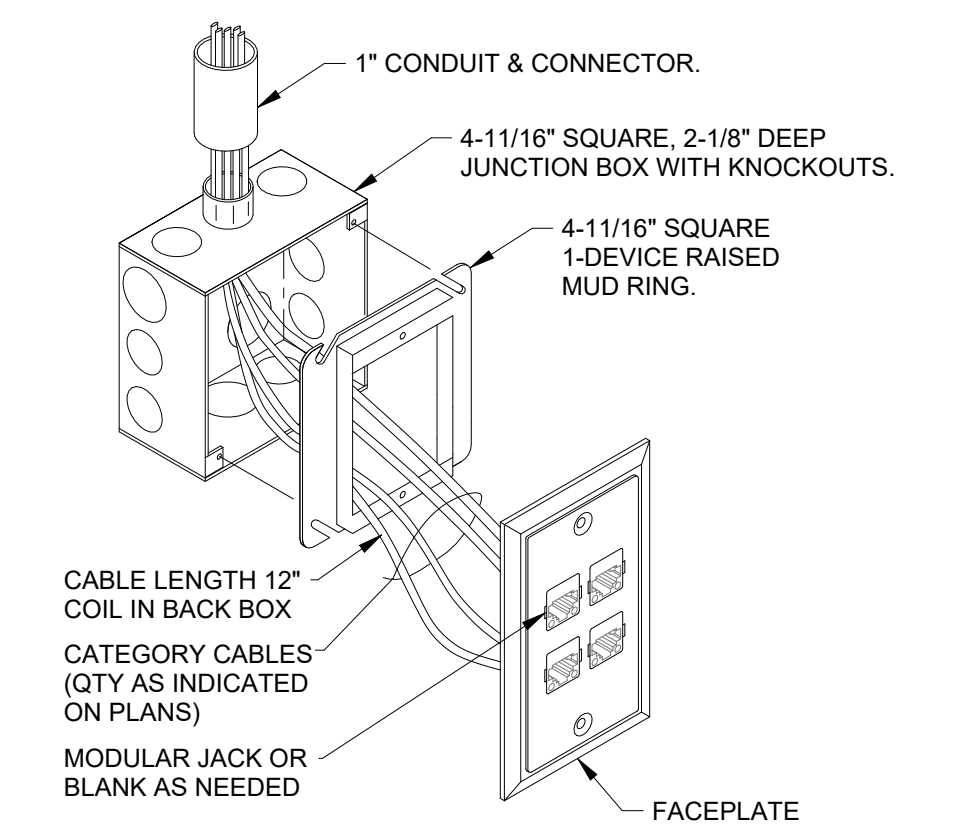
E2 CABLE TRAY DETAIL
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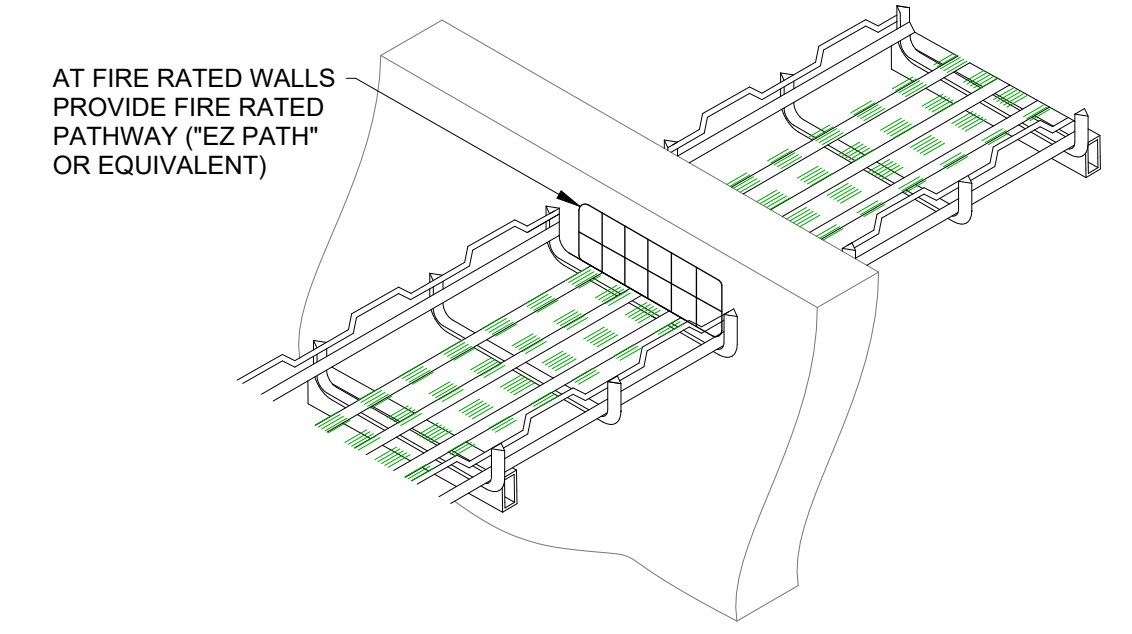
E3 TELECOMMUNICATIONS GROUNDING BUS BAR (TYPICAL)
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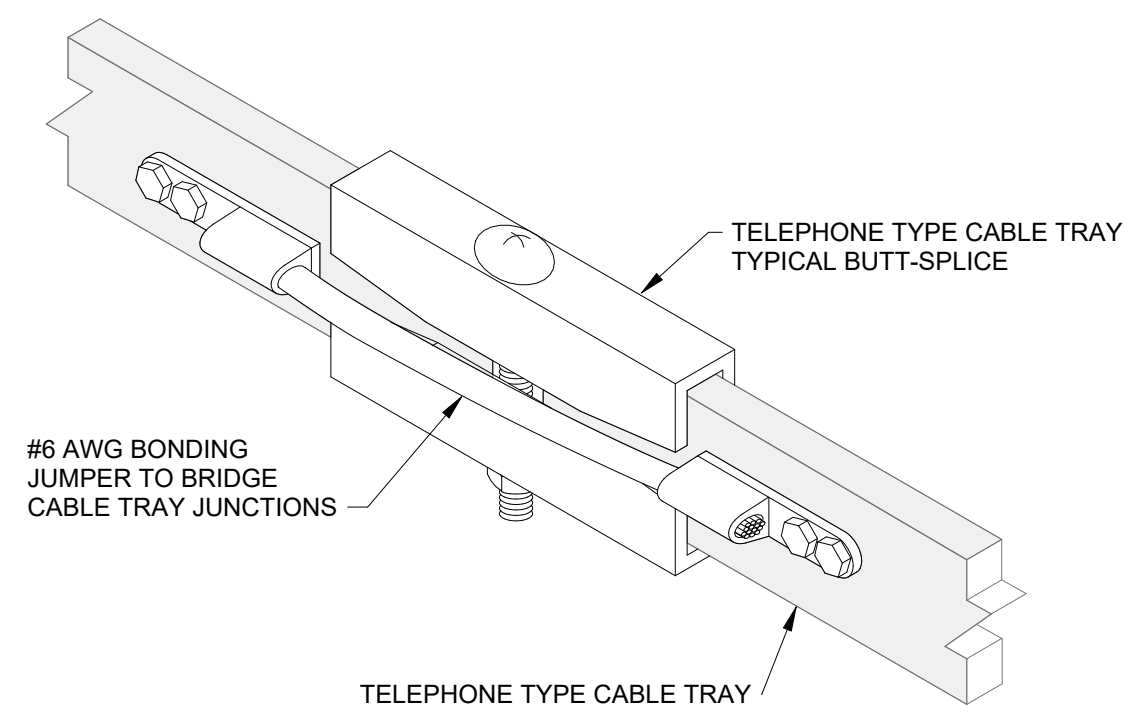
E4 TYPICAL CABLE TRAY JUNCTION GROUNDING DETAILS
SCALE: NOT TO SCALE



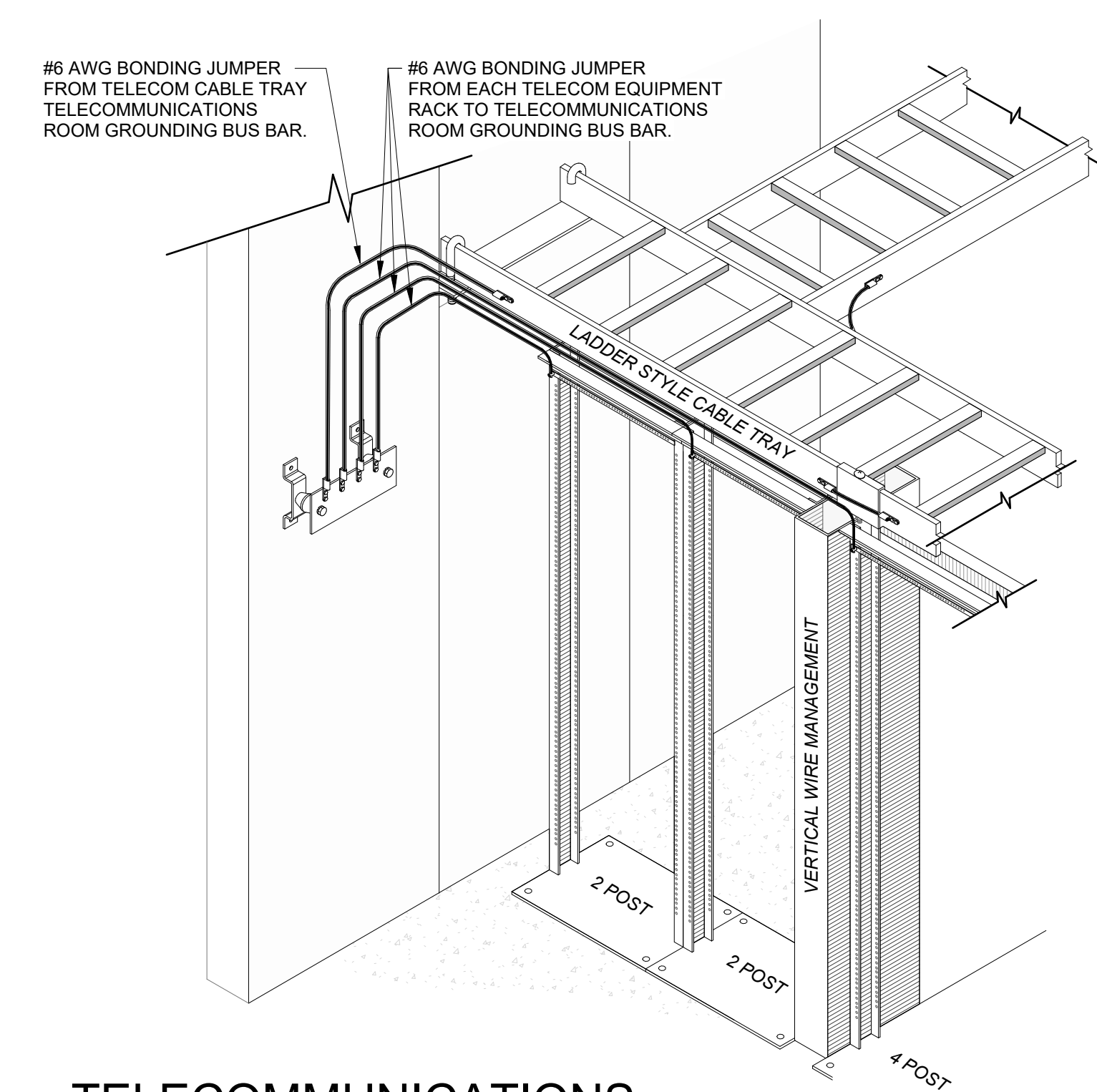
D1 TELECOMMUNICATIONS OUTLET BOX DETAILS (TYPICAL)
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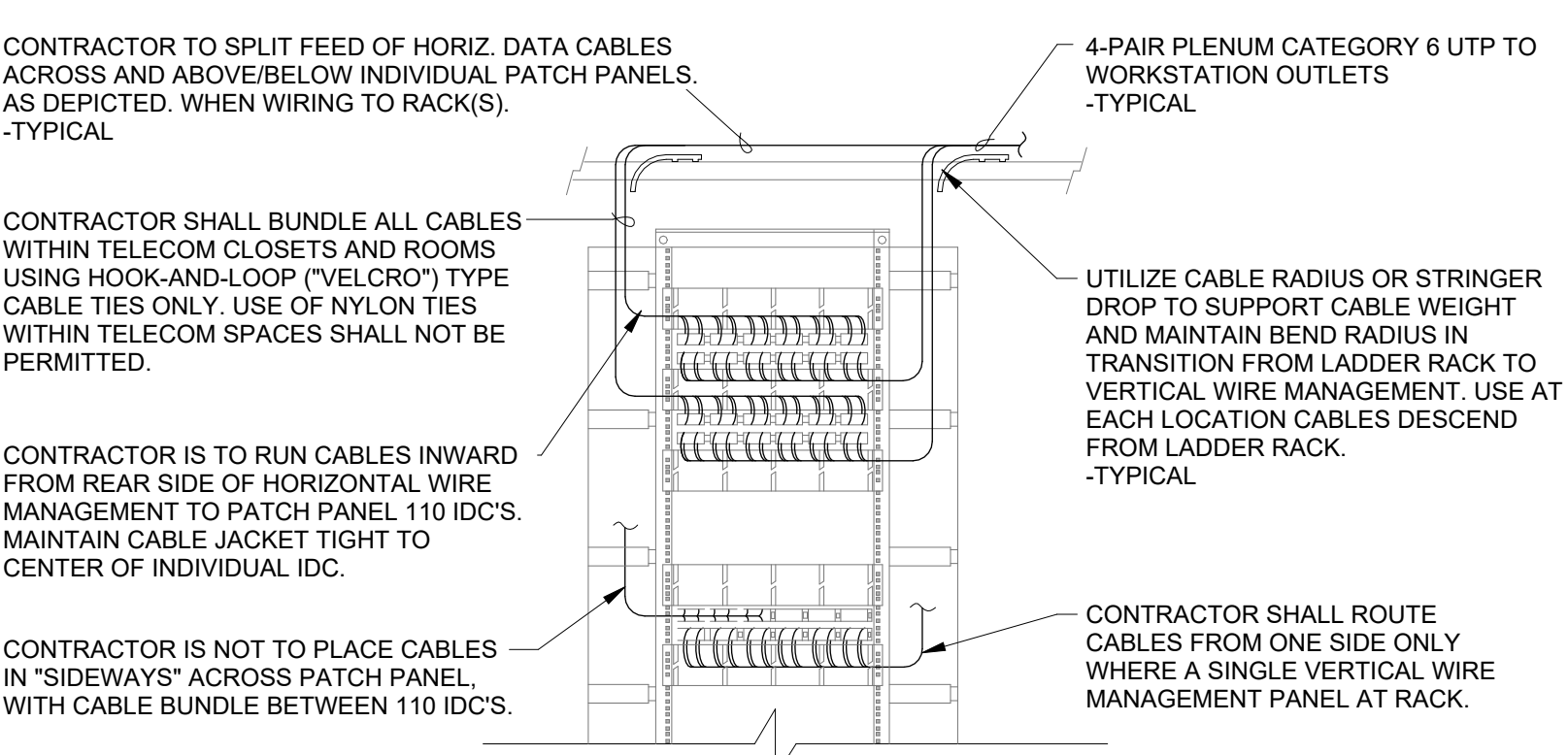
D2 CABLE TRAY / FIRE STOPPING
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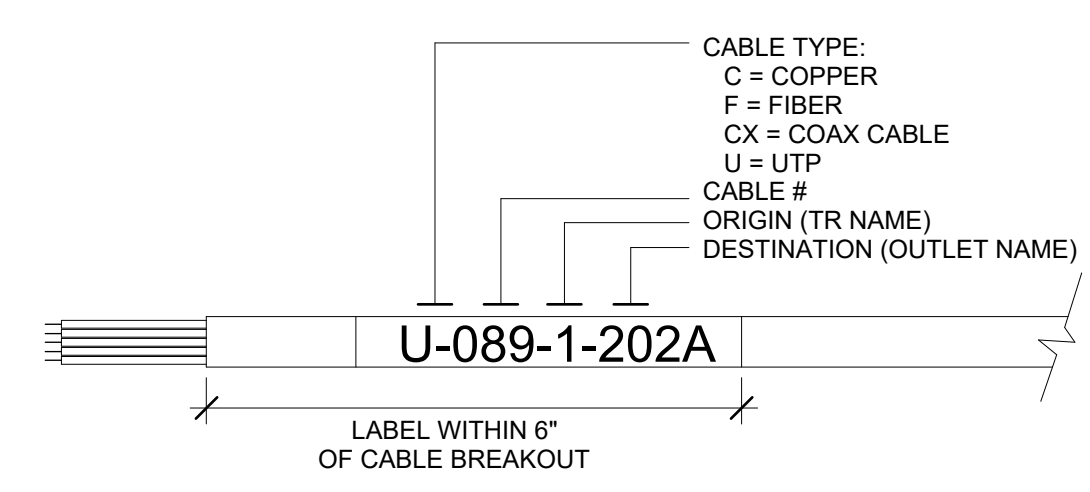
D3 TYPICAL CABLE TRAY GROUNDING DETAILS
SCALE: NOT TO SCALE



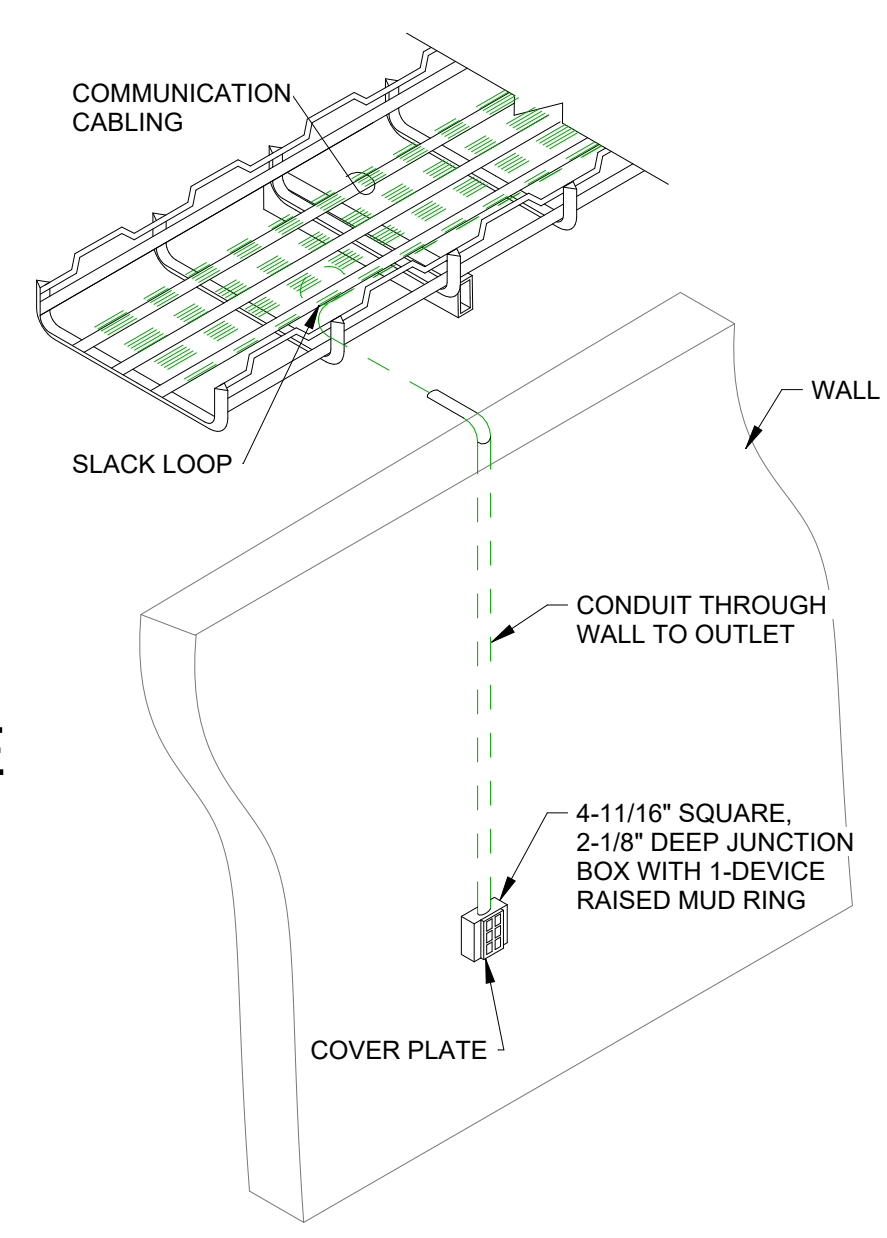
C4 TELECOMMUNICATIONS GROUNDING SYSTEM OVERVIEW
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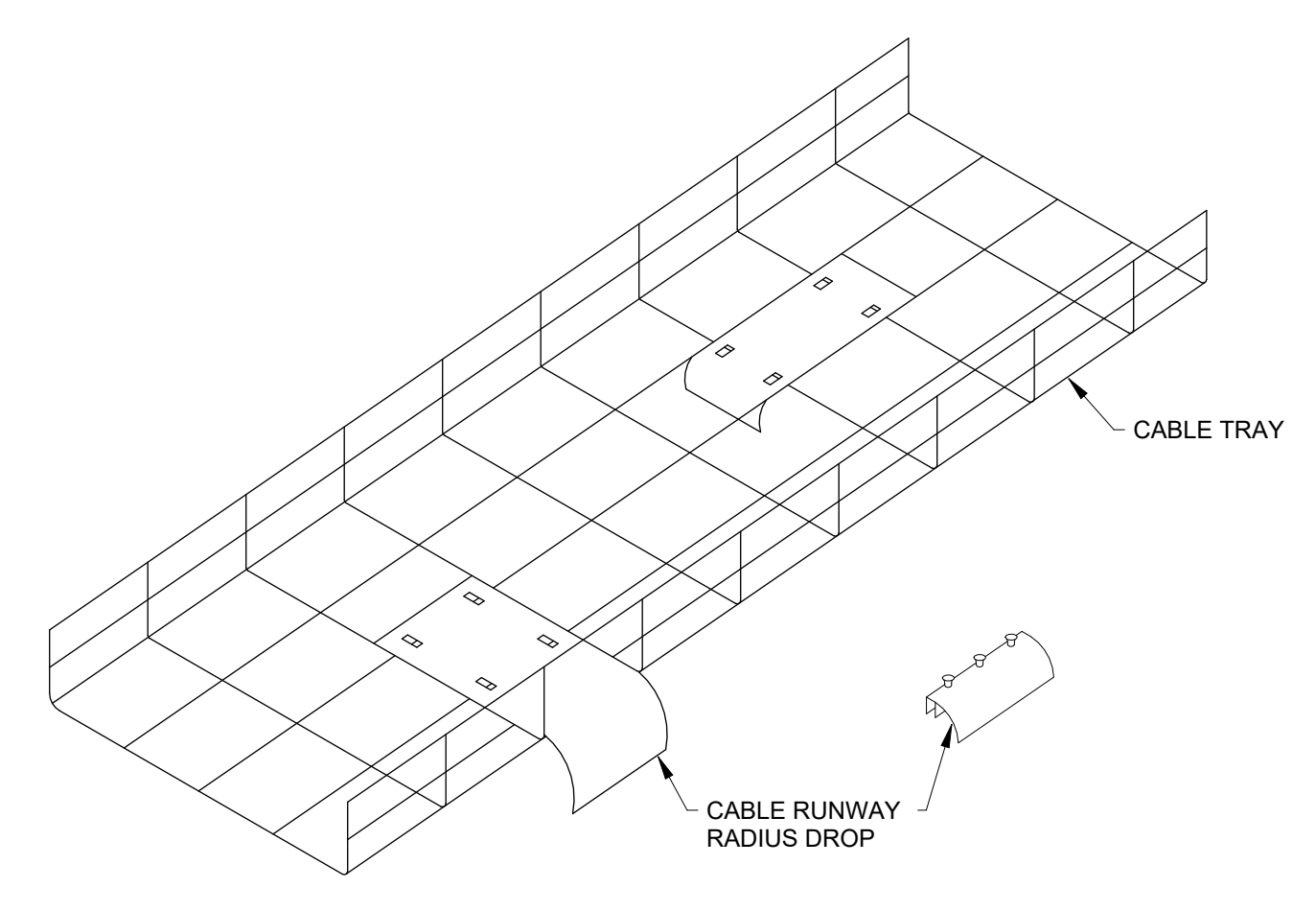
C1 TYPICAL TELECOMMUNICATION RACK WIRING METHODOLOGY REAR ELEV.
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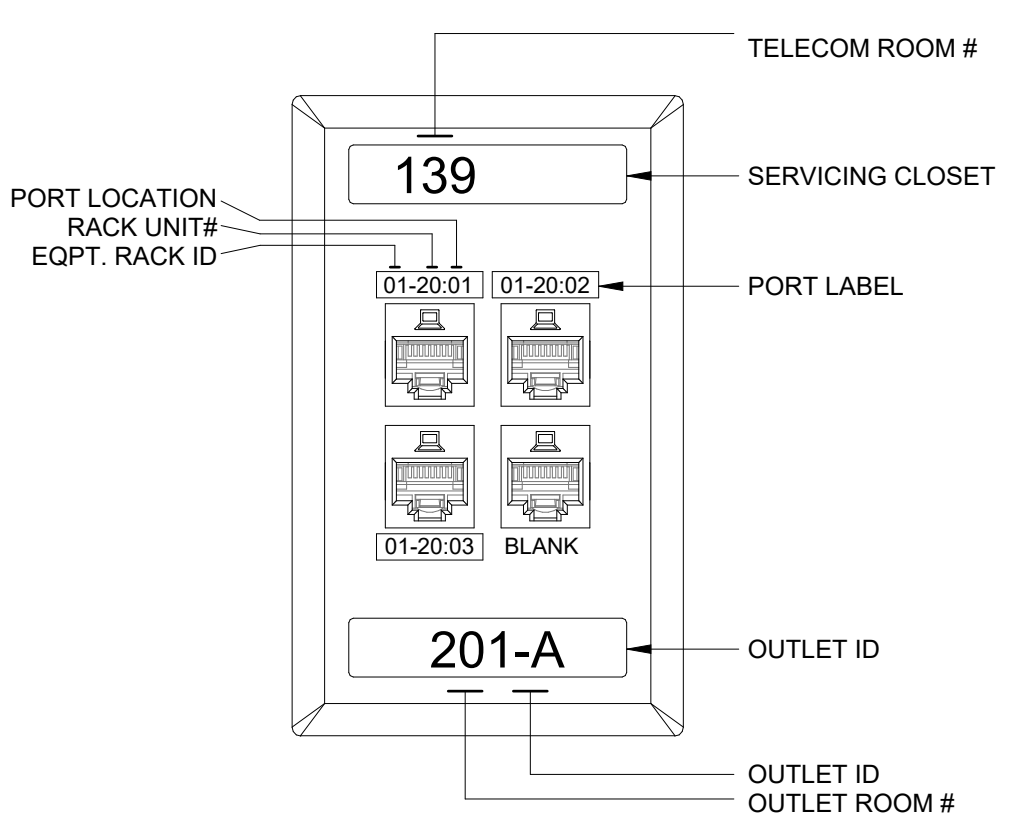
C2 TYPICAL CABLE IDENTIFICATION SCHEME
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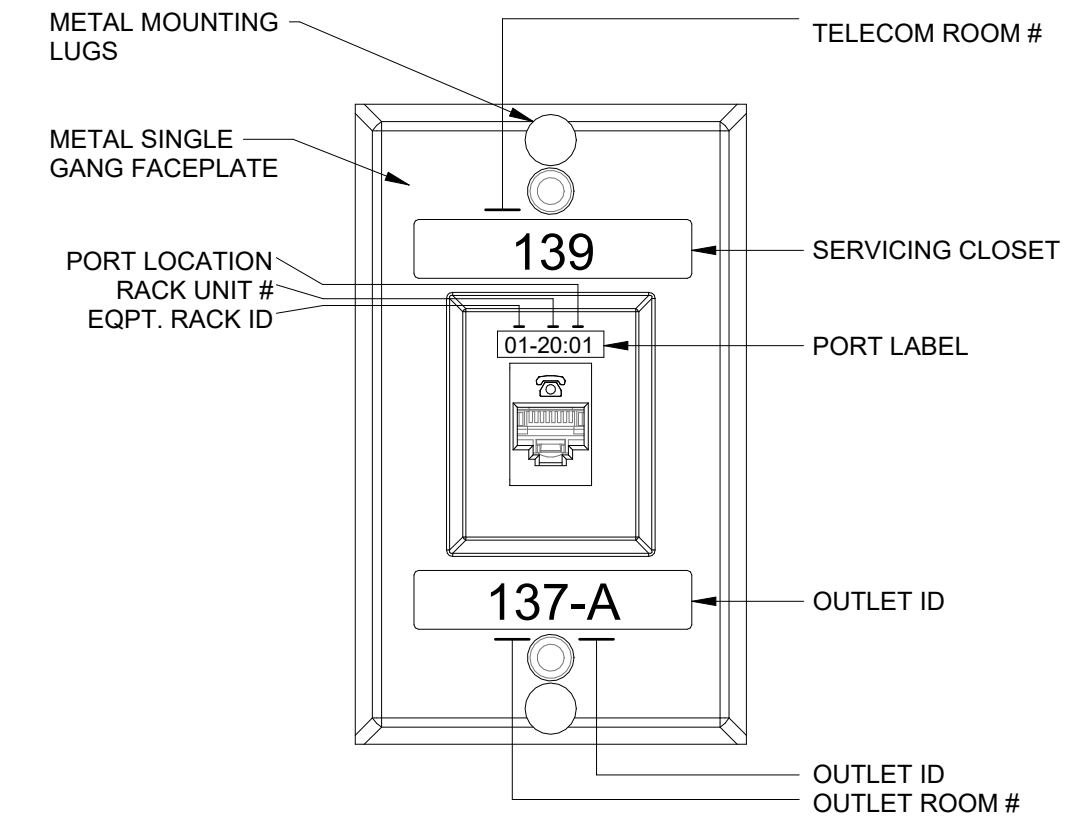
B3 TELECOMMUNICATIONS OUTLET CONDUIT ROUTING
SCALE: NOT TO SCALE



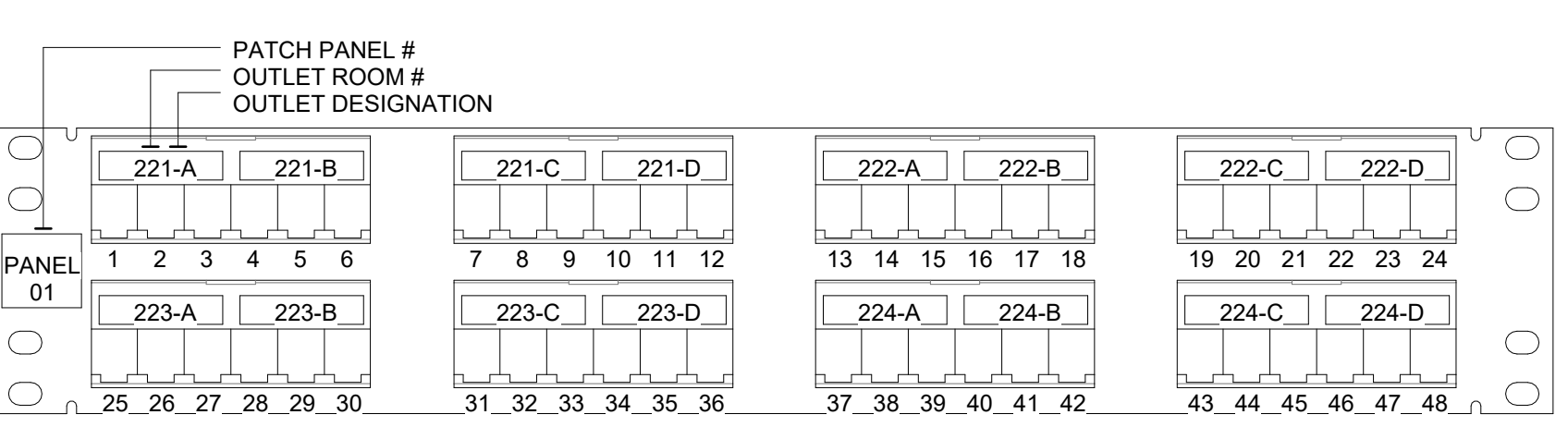
B4 TELECOMMUNICATIONS CABLE TRAY RUNWAY RADIUS DROP
SCALE: NOT TO SCALE



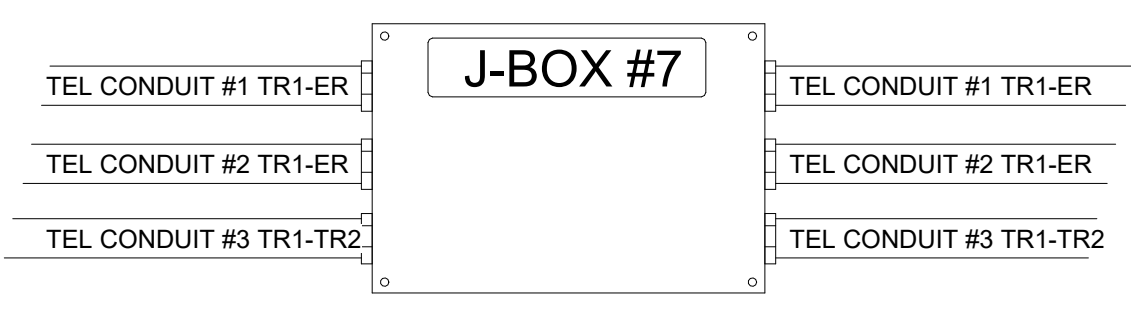
B1 STANDARD TELECOM OUTLET IDENTIFICATION SCHEME (TYPICAL)
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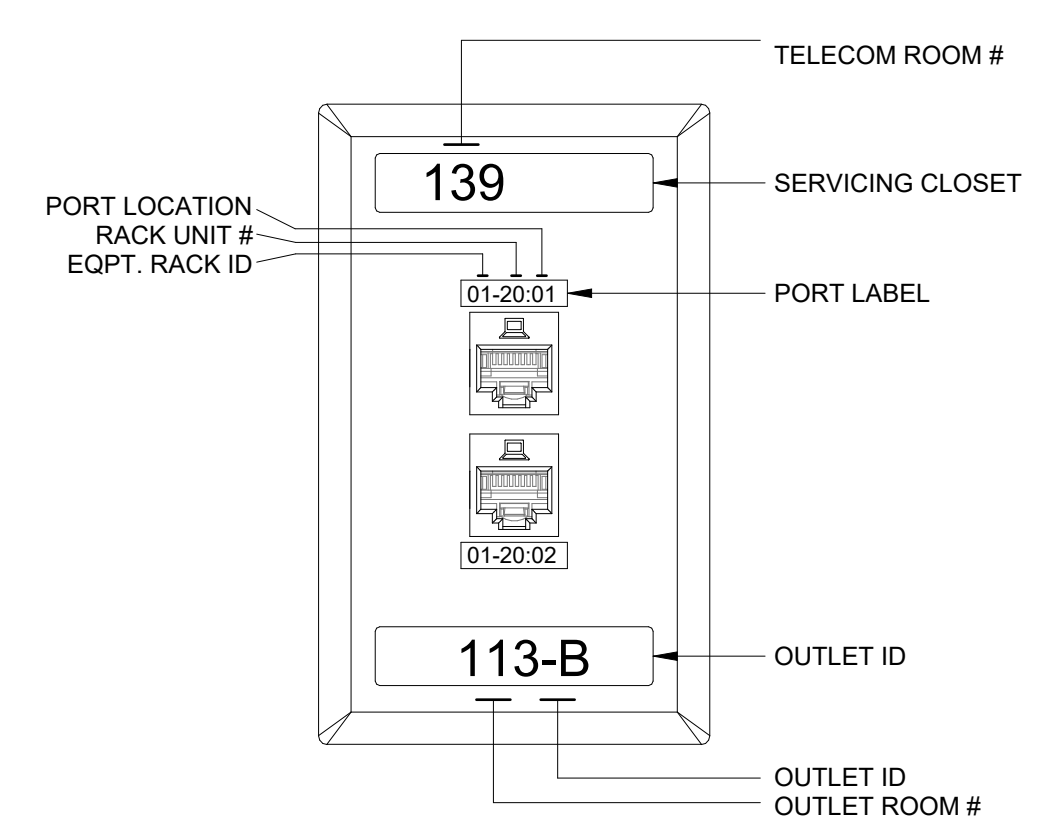
B2 STANDARD WALL PHONE OUTLET IDENTIFICATION SCHEME (TYPICAL)
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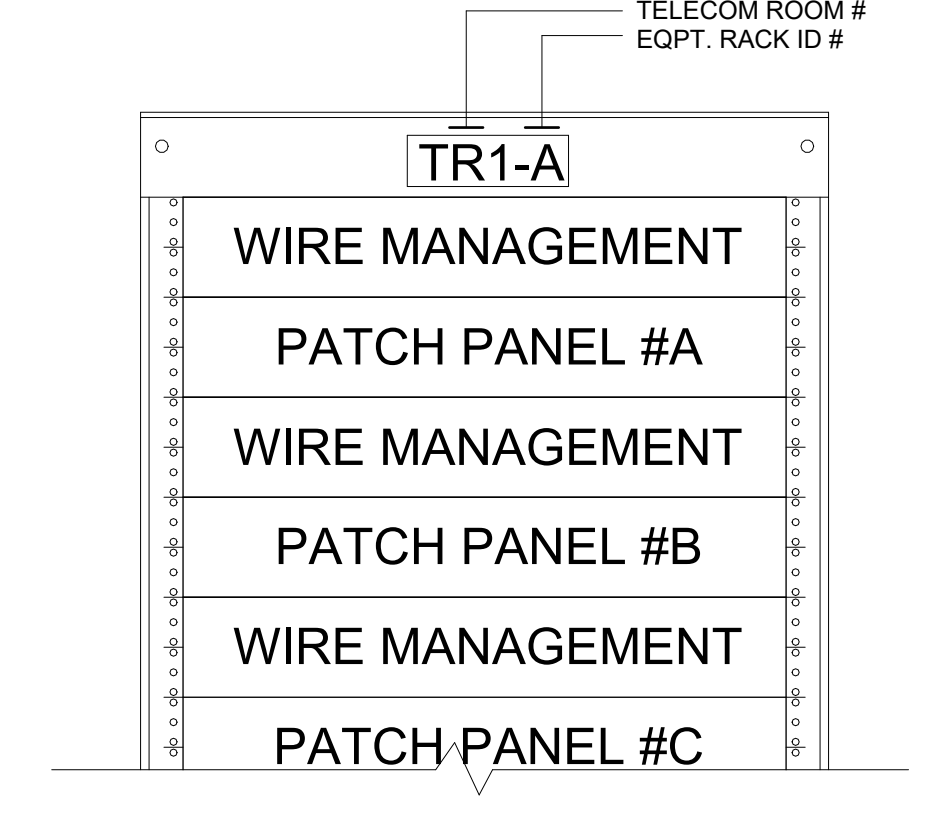
A1 PATCH PANEL LABELING (TYPICAL)
SCALE: NOT TO SCALE



A2 TELECOMMUNICATIONS CONDUIT IDENTIFICATION SCHEME
SCALE: NOT TO SCALE

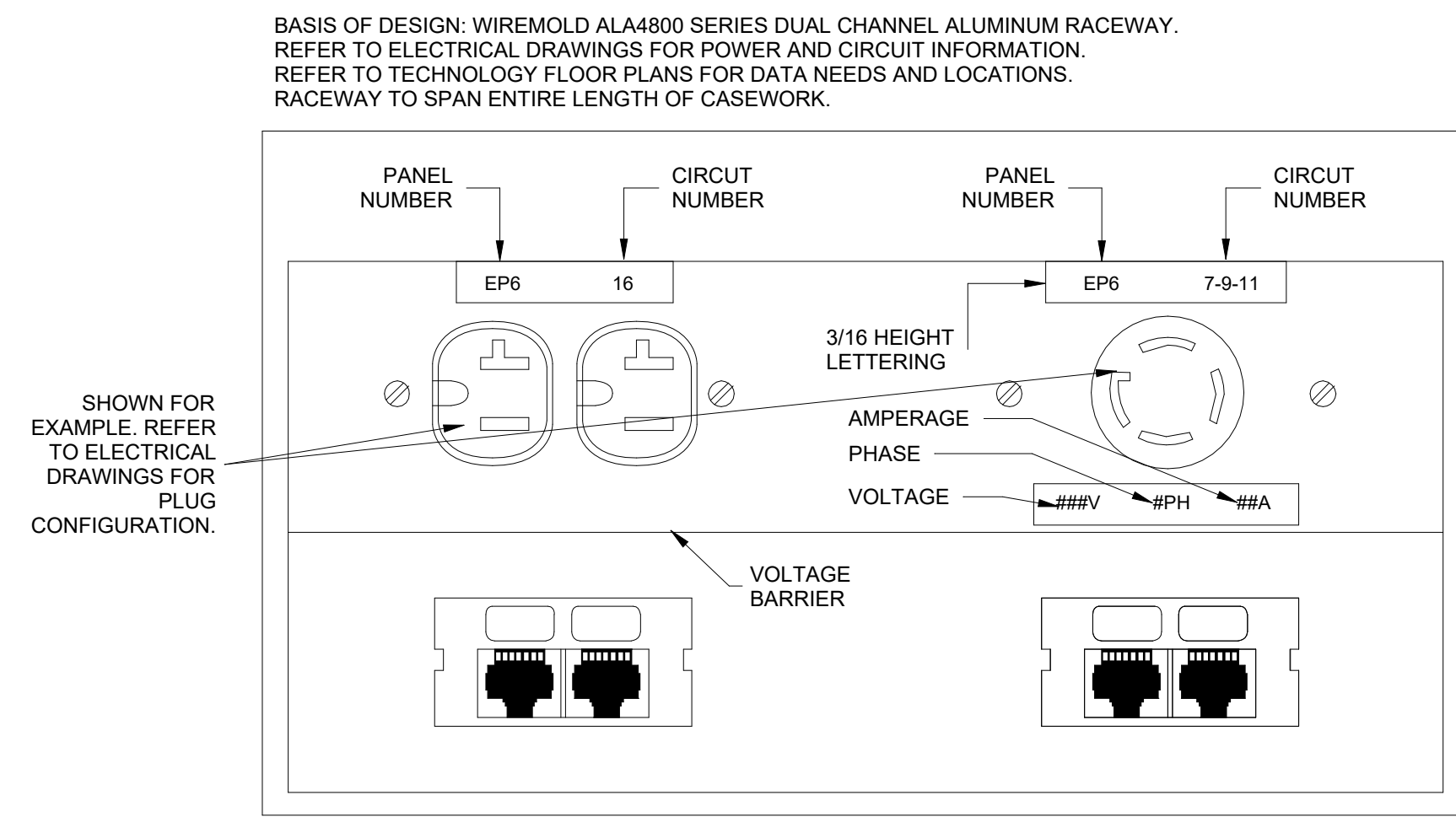


A3 CEILING TELECOM OUTLET IDENTIFICATION SCHEME (TYPICAL)
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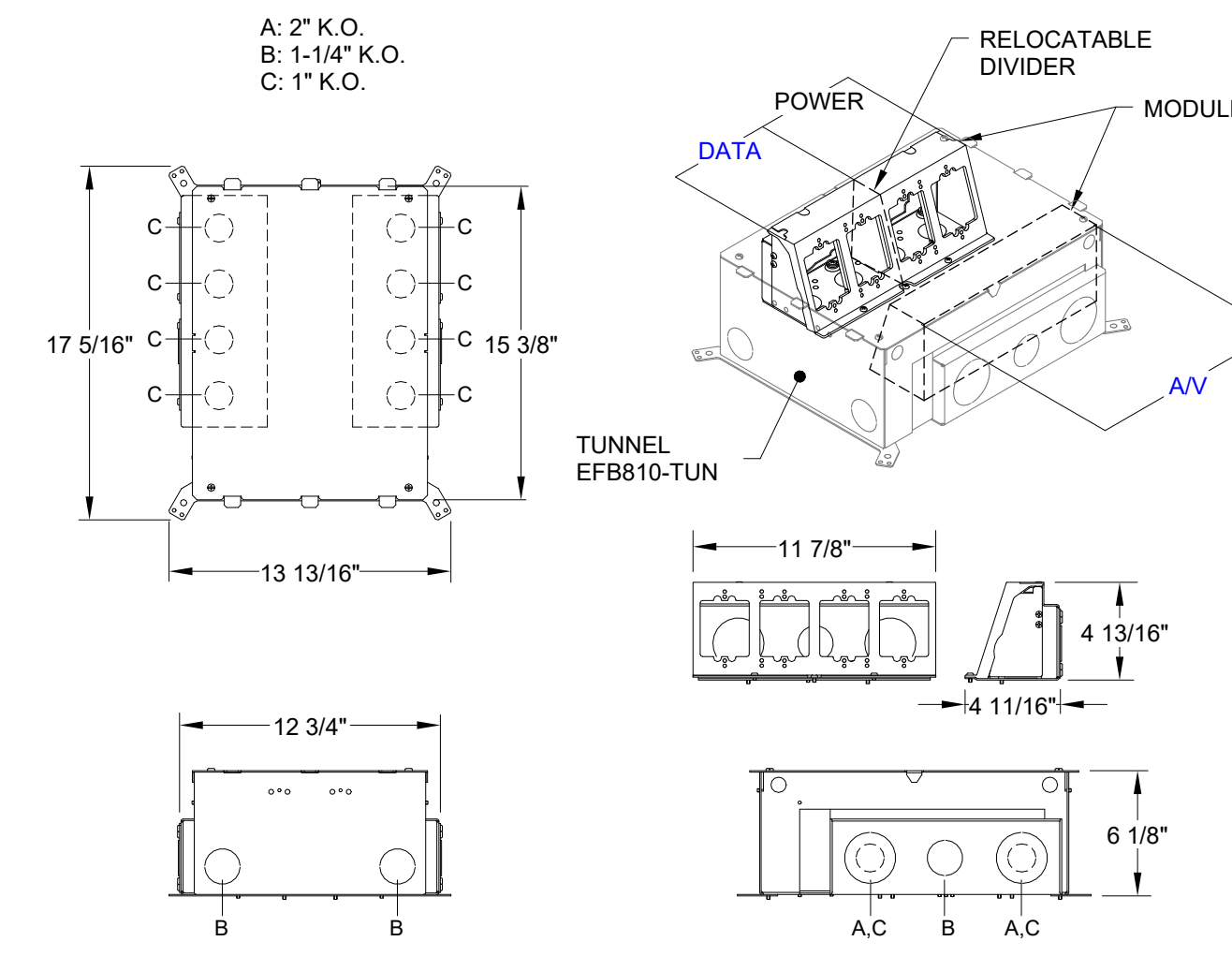


A4 TELECOMMUNICATIONS EQUIPMENT RACK IDENTIFICATION SCHEME
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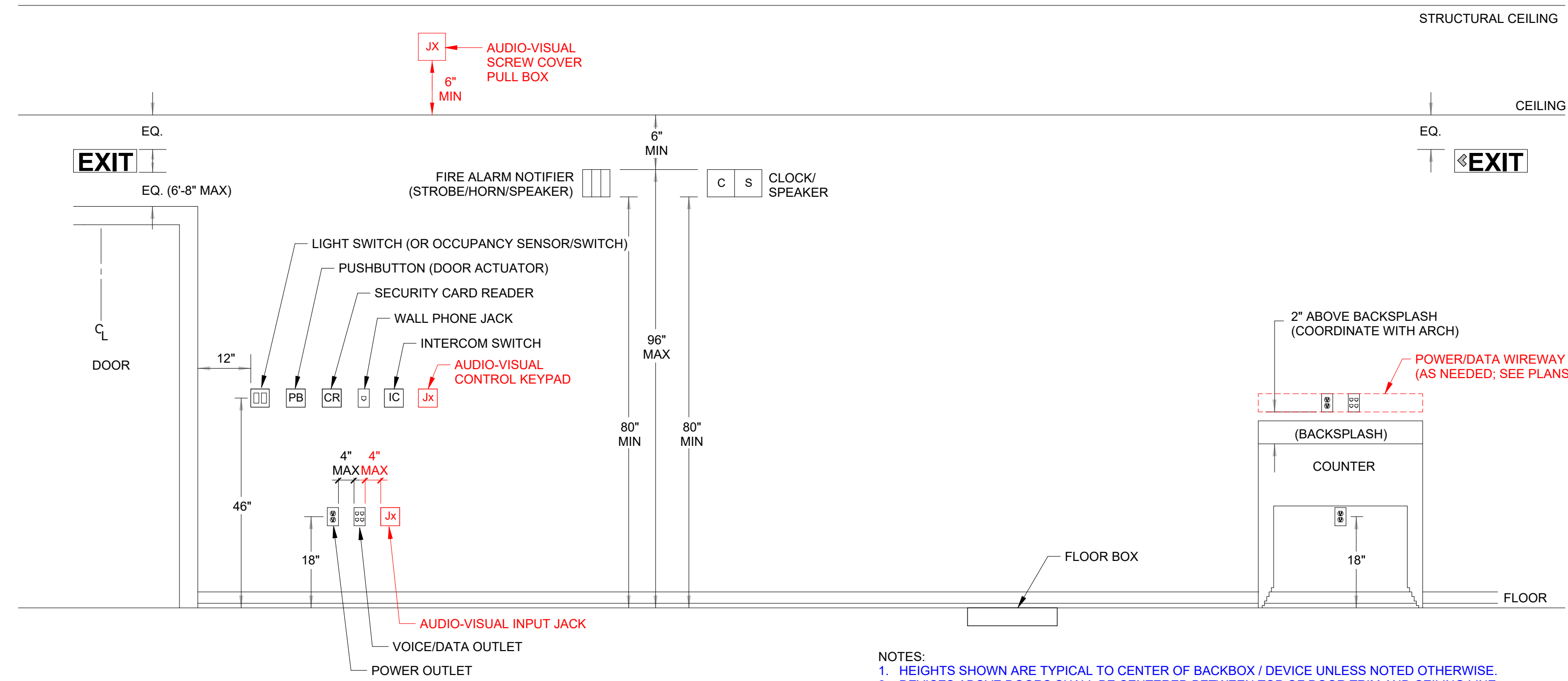
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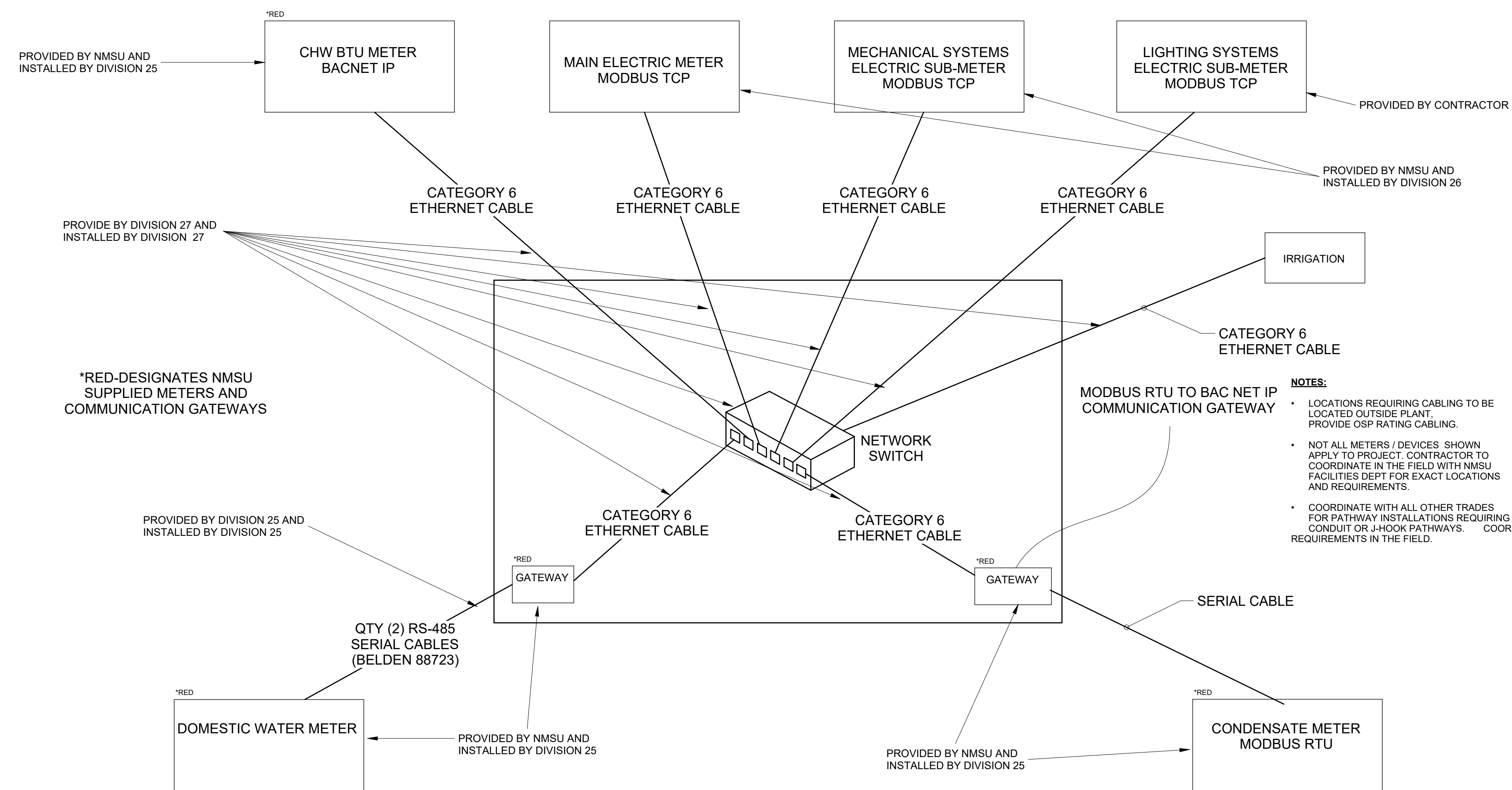
D1 DUAL CHANNEL RACEWAY
SCALE: NOT TO SCALE



D5 WIREMOLD EFB8S-OG
SCALE: NOT TO SCALE



C1 ELECTRICAL COMPONENT MOUNTING HEIGHTS
SCALE: NOT TO SCALE



A1 DATA METERING DETAIL
SCALE: NOT TO SCALE

REVISIONS	Author
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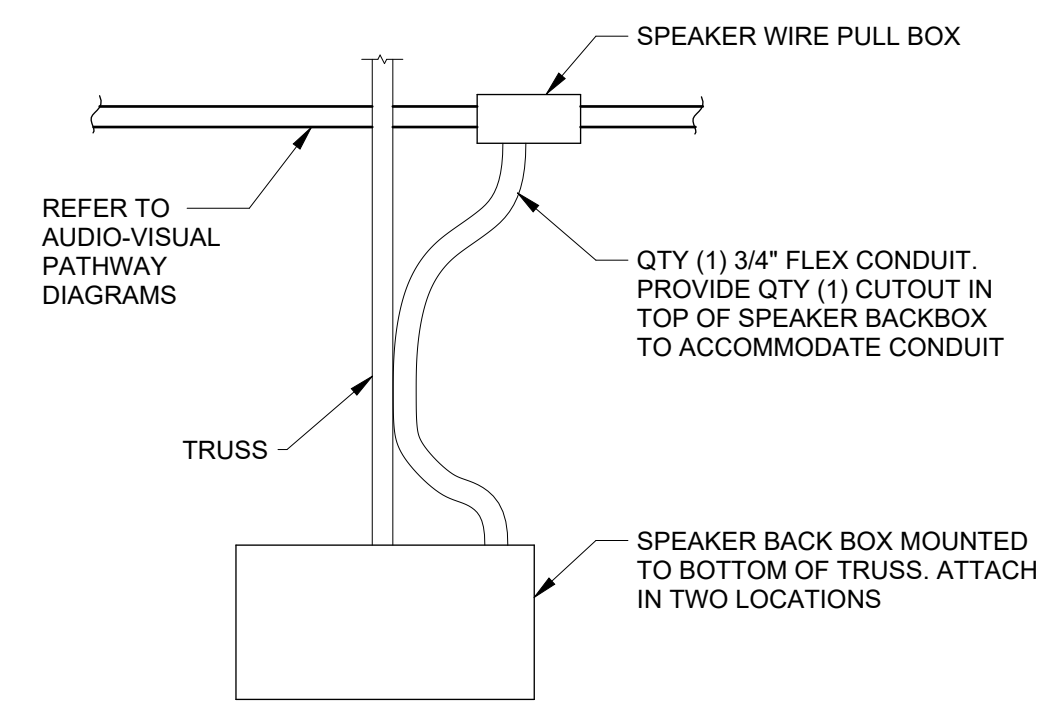
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REVIEWED BY: Approver
DATE: 04/24/2024
PROJECT NO: 22-0227.001

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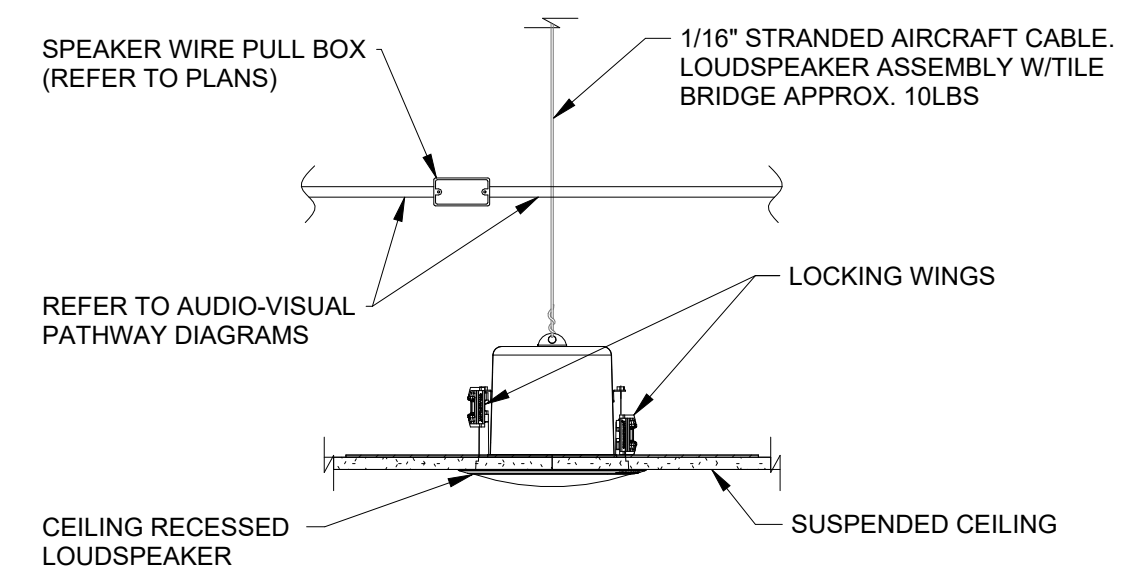
REVISIONS

DRAWN BY	Author
REVIEWED BY	Approver
DATE	04/24/2024
PROJECT NO	22-0227.001

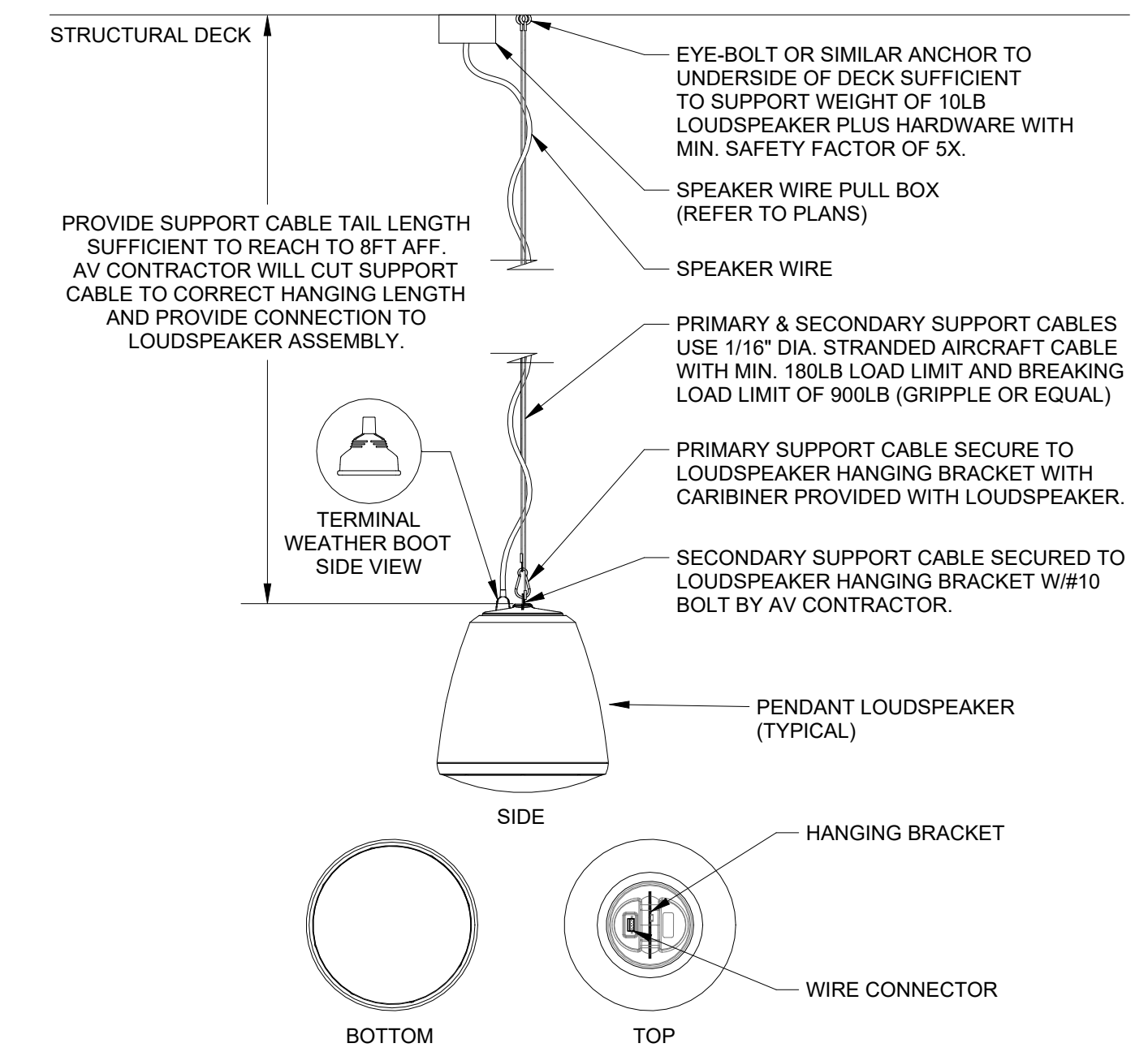
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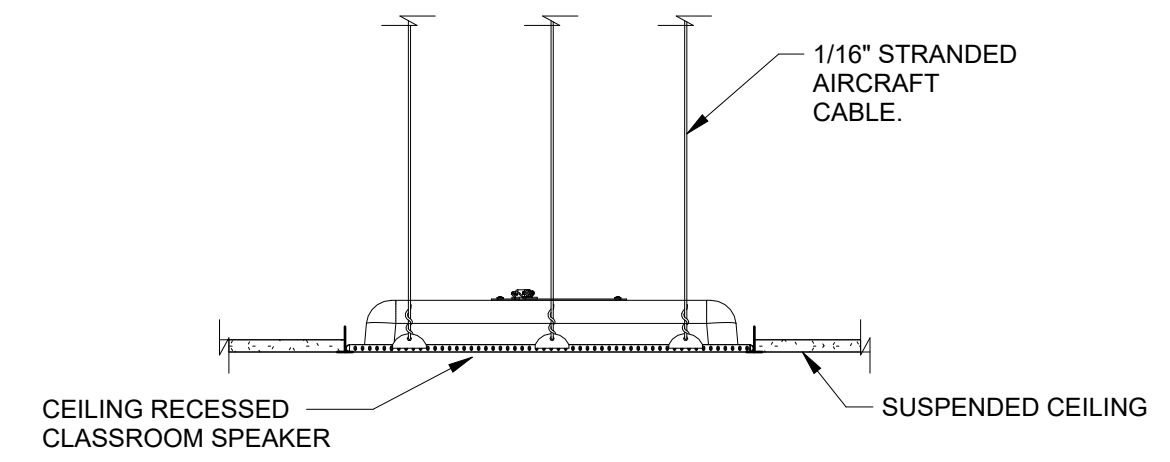
D4 SURFACE MOUNTED LOUDSPEAKER
SCALE: NOT TO SCALE



C3 RECESSED CEILING LOUDSPEAKER
SCALE: NOT TO SCALE

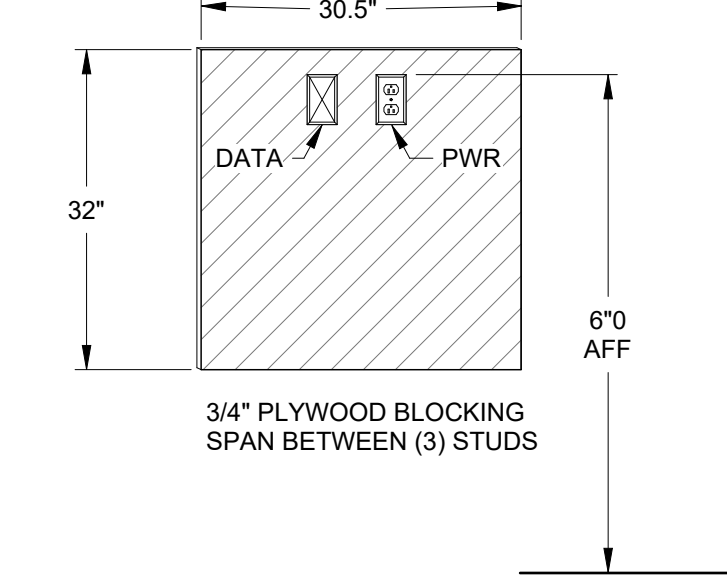


B3 PENDANT MOUNTED LOUDSPEAKER
SCALE: NOT TO SCALE

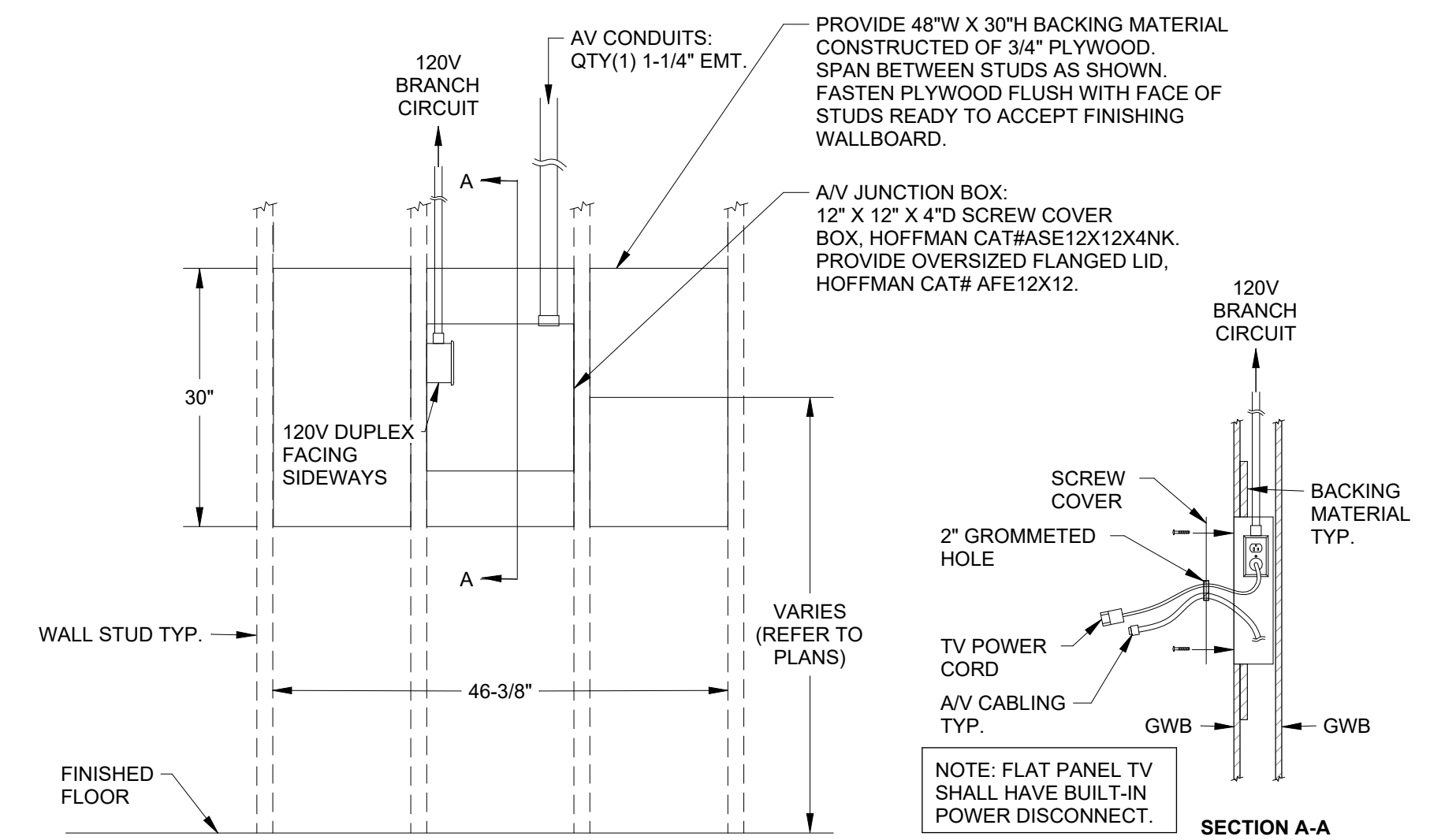


A3 FLAT FIELD CEILING SPEAKER
SCALE: NOT TO SCALE

- NOTES:**
- TELEVISION NOT IN CONTRACT (N.I.C.)
 - SPAN BACKIGN SEGMENTS BETWEEN STUDS. VERIFY LOCATIONS OF BACKING MATERIAL WITH ARCHITECT/OWNER PRIOR TO ROUGH-IN
 - FASTEN MATERIAL FLUSH TO FACE OF STUDS READY TO ACCEPT FINISH WALLBOARD.
 - TELECOM OUTLET (T.O.) FURNISHED WITH QTY(1) CAT6 DATA DROP AND QTY(1) RG-6 COAX DROP.



A4 BACKING FOR WALL MOUNTED DSVD
SCALE: NOT TO SCALE



A5 ROUGH-IN AND STRUCTURAL BACKING FOR WALL MOUNTED FLAT PANEL DISPLAY MONITOR
SCALE: NOT TO SCALE

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AUDIO-VIDEO SYSTEMS ABBREVIATIONS	
A	AMPERE
AFC	ABOVE FINISHED CEILING
AFB	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AL	ALUMINUM
ALS	ASSISTIVE LISTENING SYSTEM
AMP	AMPLIFIER
ANT	ANTENNA
AP	ACCESS POINT
AUD	AUDIO TELECONFERENCING
AUC	LINE-LEVEL AUDIO
AUX	AUXILIARY
AV	AUDIO-VIDEO, AUDIO-VISUAL, AUDIOVISUAL
AVOP	AUDIO-VIDEO OVER INTERNET PROTOCOL
AWG	AMERICAN WIRE GAUGE
BB	BACK BOX
BFC	BELOW FINISHED CEILING
BFF	BELOW FINISHED FLOOR
BO	BY OTHERS
BT	BLUETOOTH
C	CONDUIT
CAM.VC	CAMERA
CATV	CABLE TELEVISION
CC	CONTACT CLOSURE
CCCTV	CLOSED CIRCUIT TELEVISION
CH	CHANNEL
CKT	CIRCUIT
CLG	CEILING
CLK	CLOCK
CMX	COAXIAL
CODEC	ENCODER / DECODER
CPU	CENTRAL PROCESSING UNIT
CP	CONTROL PANEL
CT	CABLE TRAY
CTRL	CONTROL
CU	COPPER
DB	DECIBEL
DED	DEDICATED
DISP	DISPLAY
DSP	DIGITAL SIGNAL PROCESSOR
DWG	DRAWING
(E)	EXISTING TO REMAIN
EC	ELECTRICAL CONTRACTOR
EMT	ELECTRICAL MAGNETIC TUBING
ENCL	ENCLOSURE
ER	EQUIPMENT RACK / CABINET
F, FU	FUSE
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FB	FLOOR BOX
FDB	FIBER DISTRIBUTION UNIT
FLR	FLOOR
FLO	FIBER OPTIC
FOC	FIBER OPTIC CABLE
FOPP	FIBER OPTIC PATCH PANEL
FP	FLAT PANEL VIDEO MONITOR
FT	FOOT, FEET
G, GND	GROUND
GA	GAUGE
GC	GENERAL CONTRACTOR
GUI	GRAPHICAL USER INTERFACE
HBT	HD-BASE-T
HDMI	HIGH-DEFINITION MULTIMEDIA INTERFACE
HF	HIGH FREQUENCY
HORIZ	HORIZONTAL
IC	INTERCOM
ID	INSIDE DIAMETER
IDF	INTERMEDIATE DISTRIBUTION FRAME
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
IN	INCH, INCHES
IO	INPUT / OUTPUT
IP	INTERNET PROTOCOL
IR	INFRARED
J, JB, J-BOX	JUNCTION BOX
L/C/R	LEFT/CENTER/RIGHT AUDIO
L/R	LEFT/RIGHT AUDIO
LAN	LOCAL AREA NETWORK
LB	POUNDS
LCD	LIQUID CRYSTAL DISPLAY
LED	LIGHT EMITTING DIODE
LF	LOW FREQUENCY
LV	LOW-VOLTAGE
M, MIC	MICROPHONE, MIC-LEVEL AUDIO
MDF	MAIN DISTRIBUTION FRAME
MFR	MANUFACTURER
MM	MODEM
MTD	MOUNTED
MT	MAIN TELECOM ROOM
NIC	NOT IN CONTRACT
NCS	NOT TO SCALE
OCC	OCCUPANCY
OC	ON CENTER
OD	OUTSIDE DIAMETER
ODE	OPTICAL DISTRIBUTION ENCLOSURE
ODF	OPTICAL DISTRIBUTION FRAME
OFCI	OWNER-FURNISHED, CONTRACTOR-INSTALLED
OFE	OWNER-FURNISHED EQUIPMENT
OFI	OWNER-FURNISHED, OWNER-INSTALLED
PA	PUBLIC ADDRESS
PB	PULL BOX
PBB	PRIMARY BONDING BUS BAR
PBO	PROVIDED BY OTHERS
PC	PERSONAL COMPUTER
PJ, PROJ	PROJECTOR
PLYWD	PLYWOOD
PNL	PANEL
POE	POWER OVER ETHERNET
PTZ	PAN-TILT-ZOOM
PVC	POLYVINYL CHLORIDE
PWR	POWER
R	RACEWAY
RBB	RACK BONDING BUS BAR
RBC	RACK BONDING CONDUCTOR
RCPT	RECEPTACLE
RF	RADIO FREQUENCY
RGB	RED-GREEN-BLUE
RGBHV	RED-GREEN-BLUE HORIZONTAL-VERTICAL SYNC
RIG	ROUGH-IN ONLY
RMC, GRG, RGS	GALVANIZED RIGID METAL CONDUIT
RSD	ROOM STATUS DISPLAY / INDICATOR LIGHT
RU	RACK UNIT(S)
RX	RECEIVER
S, SPKR	SPEAKER, LOUDSPEAKER
SBB	SECONDARY BONDING BUS BAR
SCRN	SCREEN
SCC	STRUCTURED CABLING CONTRACTOR
SCS	STRUCTURED CABLING SYSTEMS
SM	SINGLEMODE
SS, SST	STAINLESS STEEL
ST	STEREO
STP	SHIELDED TWISTED PAIR
STR	STRAND
TBD	TO BE DETERMINED
TCP/IP	TRANSMISSION CONTROL PROTOCOL / INTERNET PROTOCOL
TP	TOUCH PANEL
TR	TRANSCIVER
TV	TELEVISION
TX	TRANSMITTER
TYP	TYPICAL
UN	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
USB	UNIVERSAL SERIAL BUS
UTP	UNSHIELDED TWISTED PAIR
V	VOLT(S)
VA	VOLT-AMPS
VAC	VOLTS (ALTERNATING CURRENT)
VDC	VOLTS (DIRECT CURRENT)
VERT	VERTICAL
VOL	VOLUME
VTC	VIDEO TELECONFERENCING
W	WATT(S)
WP	WEATHERPROOF

GENERAL NOTES	
1. DEFINITIONS: A. "FURNISH" MEANS TO "SUPPLY" AND USUALLY REFERS TO AN ITEM OF EQUIPMENT. B. "INSTALL" MEANS TO "SET IN PLACE, CONNECT AND PLACE IN FULL OPERATIONAL ORDER". C. "PROVIDE" MEANS TO "FURNISH AND INSTALL". D. "EQUIVALENT" MEANS "MEET THE SPECIFICATIONS OF THE REFERENCE PRODUCT OR ITEM IN ALL SIGNIFICANT ASPECTS". SIGNIFICANT ASPECTS SHALL BE DETERMINED BY THE ENGINEER.	
E. "WORK BY OTHER(S) (CONTRACTOR)" "RE: DIVISION XX" AND SIMILAR EXPRESSIONS MEANS WORK TO BE PERFORMED UNDER THE CONTRACT DOCUMENTS, BUT NOT NECESSARILY UNDER THE DIVISION OR SECTION OF THE WORK ON WHICH THE NOTE APPEARS. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COORDINATE THE WORK OF THE CONTRACT BETWEEN THEIR SUPPLIERS, SUBCONTRACTORS, AND EMPLOYEES. IF CLARIFICATION IS REQUIRED, CONSULT ARCHITECT/ENGINEER BEFORE SUBMITTING BID.	
2. THE DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY AND WHAT IS CALLED FOR (OR SHOWN) IN EITHER IS REQUIRED TO BE PROVIDED AS IF CALLED FOR IN BOTH. IN CASE OF CONFLICT BETWEEN THESE DRAWINGS AND THE SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT WILL BE ENFORCED. UNLESS THE CONTRACTOR REQUESTS CLARIFICATION FROM THE CONSTRUCTION MANAGER AND RECEIVES WRITTEN CONFIRMATION STATING OTHERWISE.	
3. ADHERE TO ALL BUILDING OWNER RULES AND REGULATIONS, DIVISION 27 AND 28 SPECIFICATION SECTIONS, AND DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01 SPECIFICATION SECTIONS. ADDITIONALLY, THE CONTRACT DOCUMENTS MAY REQUIRE ADDITIONAL COMPLIANCE EXCEEDING THOSE IDENTIFIED IN THIS SUBSET OF DRAWINGS. NO PART OF THIS SUBSET OF CONTRACT DOCUMENTS MAY BE CONSTRUED TO REQUIRE OR PERMIT WORK CONTRARY TO GOVERNING LAW, ORDINANCE, OR REGULATION.	
4. COORDINATE WITH OTHER TRADES AND ADJUST AND ADAPT WORK AS REQUIRED BY ACTUAL PROJECT CONDITIONS SO FINAL INSTALLATION IS COMPATIBLE WITH MATERIALS, EQUIPMENT, ROUTING AND CLEARANCES OF ALL TRADES. A. EXAMINE THE CONTRACT DOCUMENTS OF ALL TRADES (DRAWINGS FOR THE ARCHITECTURAL, REFLECTED CEILING, MECHANICAL HVAC, ELECTRICAL POWER AND LIGHTING, FIRE PROTECTION, PLUMBING, ETC.). B. ASSIST OTHER CONTRACTORS IN PREPARING SHOP DRAWINGS FOR COORDINATING INSTALLATION OF ALL WORK (LOCATION, CEILING CLEARANCES, CABLE TRAY ACCESSIBILITY AND PATHWAY CLEARANCES THROUGHOUT, ETC.). C. REFER TO ARCHITECTURAL DRAWINGS FOR MINIMUM CLEARANCE REQUIREMENTS FROM FINISHED FLOOR TO BOTTOM OF DUCTWORK, CONDUIT, CABLE TRAY, LIGHTING, ETC.	
5. MAINTAIN A RUNNING UPDATE OF ALL FIELD OR CONTRACT DOCUMENT CHANGES AND UPDATE "AS-BUILT" DRAWINGS AS AN ONGOING PROCESS	
6. DATA GIVEN ON THE DRAWINGS IS AS EXACT AS COULD BE SECURED. ABSOLUTE ACCURACY IS NOT GUARANTEED. THE DRAWINGS ARE DIAGRAMMATICAL IN NATURE AND SHALL NOT BE SCALED.	
7. WHERE EXACT DIMENSIONS ARE NOT CALLED FOR, THE SCALE OF THESE DRAWINGS IS SUFFICIENTLY ACCURATE TO DETERMINE THE LOCATION OF EQUIPMENT, JUNCTION BOXES, OUTLET BOXES, WIREWAYS, PANELS, ETC. WHERE EXACT DIMENSIONS ARE CALLED FOR, THE REFERENCE SURFACE WILL BE THE FINAL FINISHED SURFACE.	
8. THE ROOM DIMENSIONS ON THESE DRAWINGS HAVE BEEN TAKEN FROM THE ARCHITECTURAL DRAWINGS. ALL DIMENSIONS MUST BE VERIFIED AND DEVIATIONS CAUSING CHANGES EXCEEDING 3 IN. SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER.	
9. RESTORE CEILINGS, WALLS AND ANY OTHER SURFACES AFFECTED BY THEIR WORK PRIOR TO COMPLETION OF WORK WITH LIKE MATERIALS TO MATCH EXISTING CONSTRUCTION.	
10. NOT ALL PARTS AND PIECES ARE NECESSARILY SHOWN FOR A COMPLETE SYSTEM. PROVIDE A COMPLETE END-TO-END, WARRANTED FUNCTIONAL SYSTEM.	
11. ENSURE ALL CABLING IS RATED FOR ENVIRONMENTAL CONDITIONS (E.G. PLENUM, OUTDOOR, OR INDOOR/OUTDOOR RATED), INCLUDING, BUT NOT LIMITED TO, CABLING IN CONDUIT UNDER FLOORS OR IN SPACES THAT MAY BE EXPOSED TO WATER INGRESS.	
12. ALL CABLE FOR A GIVEN WIRING CATEGORY SHALL BE CONSISTENT UNLESS SPECIFIED OTHERWISE.	
13. CABLES WITH WIRE SHIELDS, GRAID OR WOUND, MUST USE ALL THE WIRE CONDUCTORS FOR SHIELD TERMINATION, AND NOT JUST A DRAIN WIRE OR SOME OF THE SHIELD STRANDS.	
14. FOIL-SHIELDED CABLES ONLY PROVIDED WITH A DRAIN WIRE MUST USE THE DRAIN WIRE FOR SHIELD TERMINATION.	
15. DO NOT PAINT CABLES AND/OR SPRAY CABLES WITH FIREPROOFING MATERIAL AS IT CAN AFFECT CABLE PERFORMANCE AND VOID THE CABLE WARRANTY.	
16. PROVIDE LABELS WITH TEXT AT BOTH ENDS OF ALL CABLING IN PROJECT IN COMPLIANCE WITH DIVISION 27 STANDARDS.	
17. ELEVATIONS ARE TO THE MID-HEIGHT OF THE EQUIPMENT IN QUESTION UNLESS OTHERWISE NOTED.	
18. SEAL PENETRATIONS THROUGH RATED ASSEMBLIES (WALLS, FLOORS, ETC.) AS INDICATED ON ARCHITECTURAL DRAWINGS TO MAINTAIN THE ASSEMBLY RATING AROUND AND WITHIN THE PATHWAY.	
19. FOR ALL BACK BOXES INSTALLED IN SOUND-RATED PARTITIONS (AS INDICATED ON THE ARCHITECTURAL DRAWINGS), MAINTAIN A MINIMUM OF 12 IN. SEPARATION BETWEEN BOXES ON OPPOSITE SIDES OF THE PARTITION. PROVIDE ACOUSTICAL OUTLET BACKER PUTTY. PUTTY PADS SHALL MAINTAIN ACOUSTICAL RATINGS PER ASTM C 919 AND ASTM E 497, AND BE TESTED TO UL 263 (ASTM E 119) AND UL 1479 (ASTM E 814) STANDARDS.	
20. REFER TO DETAILS FOR ADDITIONAL CABLING, TERMINATION, PATHWAY, AND DEVICE INFORMATION.	

AUDIO-VIDEO SYSTEMS NOTES	
1. THE AV SYSTEMS SHOWN IN THESE DOCUMENTS WILL BE PROVIDED AND INSTALLED BY AN AV TRADE CONTRACTOR SPECIALIZING IN THESE SYSTEMS AND SHALL BE REFERRED TO THROUGHOUT THESE DOCUMENTS AS THE "AV CONTRACTOR". THE AV CONTRACTOR SHALL PROVIDE ALL CABLING, HARDWARE AND EQUIPMENT SHOWN ON THESE DRAWINGS AND AS SPECIFIED WITHIN THE [DIVISION 11 / DIVISION 27] SPECIFICATIONS, EXCEPT WHERE OTHERWISE NOTED.	
2. ALL CABLING, INCLUDING LOOSE / PORTABLE CABLING AND CABLING TO / FROM OFE EQUIPMENT, SHALL BE PROVIDED BY THE AV CONTRACTOR, UNLESS OTHERWISE NOTED.	
3. FOR ANY WALL/CEILING-MOUNTED AV EQUIPMENT, PROVIDE STRUCTURAL SUPPORT THAT HAS A 5X SAFETY FACTOR, DEFINED AS BEING CAPABLE OF SUPPORTING 5X THE WEIGHT OF THE EQUIPMENT BEING SUPPORTED.	
4. THE AV CONTRACTOR SHALL COORDINATE WITH THE FIRE ALARM CONTRACTOR TO PROVIDE A DRY CONTACT CLOSURE TO THE AV SYSTEM FOR ACTIVATION DURING AN "ALARM" EVENT. THIS INCLUDES ALL NECESSARY CABLING FOR THE FIRE ALARM CONTROL PANEL AND ADDRESSABLE RELAY MODULE WITH CONNECTION TO THE AV SYSTEM, AS REQUIRED TO PROVIDE AN OPERATIONAL SYSTEM.	

GROUNDING / BONDING NOTES	
1. THE TELECOM BONDING AND GROUNDING SYSTEM SPECIFIED IN DIVISION 27 SHALL BE PROVIDED AND CONNECTED TO THE BUILDING BONDING AND GROUNDING SYSTEM BY THE [DIVISION 26 / 18] ELECTRICAL CONTRACTOR. THIS INCLUDES, BUT IS NOT LIMITED TO, TELECOM BONDING BUSBARS, TELECOM BONDING BACKBONE, GROUNDING EQUALIZER AND BONDING CONDUCTORS TO BUILDING STEEL, POWER PANELS, AND CONDUITS.	

ELECTRICAL POWER NOTES	
1. POWER RECEPTACLES AND WIRING SHALL BE PROVIDED AS SHOWN ON ELECTRICAL DRAWINGS INCLUDING RECEPTACLES INSTALLED WITHIN RECESSED IN-WALL BACKBOXES FOR TECHNOLOGY SYSTEMS INCLUDING AV AND VIDEO DISPLAYS.	
2. POWER BREAKER PANELS ARE SIZED AND SPECIFIED BY THE ELECTRICAL ENGINEER. REFER TO THE ELECTRICAL DRAWINGS. ALL CIRCUITS MUST BE PROTECTED BY APPROPRIATELY SIZED BREAKERS AND SURGE PROTECTIVE DEVICES (SPDs) UNLESS OTHERWISE NOTED.	
3. POWER OUTLETS SHOWN ON THESE DRAWINGS ARE DEDICATED TO THE TECHNOLOGY SYSTEM(S) AND EQUIPMENT, AND ARE SHOWN FOR REFERENCE ONLY TO REFLECT THE TECHNOLOGY SYSTEM NEEDS. REFER TO THE ELECTRICAL DRAWINGS FOR ADDITIONAL VOLTAGE REQUIREMENTS.	
4. ALL EQUIPMENT, CABLING, PATHWAYS, ETC. SHALL BE BONDED TO THE TELECOM BONDING AND GROUNDING SYSTEM FOR CONNECTION TO BUILDING GROUND IN ACCORDANCE WITH THE SPECIFICATIONS AND ANSI / STD-607-D. PROVIDE GROUND CONDUCTORS, GROUND CLAMPS, COMPRESSION TAPS, LUGS, ETC. AS REQUIRED FOR CONNECTION TO THE BONDING AND GROUNDING SYSTEM.	

PATHWAY / INFRASTRUCTURE NOTES	
1. THE [DIVISION 26 / 16] ELECTRICAL CONTRACTOR SHALL PROVIDE ALL PATHWAYS / RACEWAYS FOR TECHNOLOGY CABLING SYSTEMS. THIS INCLUDES, BUT IS NOT LIMITED TO, CONDUIT, SLEEVES, STUB-UPS, CABLE TRAY, WIREWAYS, AND PERMANENTLY INSTALLED JUNCTION BOXES IN FLOOR, WALLS, AND CEILINGS. POWER RECEPTACLES AND WIRING SHALL BE PROVIDED AS SHOWN ON ELECTRICAL DRAWINGS INCLUDING RECEPTACLES INSTALLED WITHIN RECESSED IN-WALL BACKBOXES FOR TECHNOLOGY SYSTEMS INCLUDING AV AND VIDEO DISPLAYS.	
2. ALL PATHWAYS FOR AV CABLING SHALL COMPLY WITH APPLICABLE REQUIREMENTS IN [DIVISION 26 / 16] SECTIONS AND ELECTRICAL DRAWINGS SHEETS.	
3. ANY PROPOSED OR REQUIRED EXCEPTIONS TO THE TECHNOLOGY PATHWAY ROUTING REQUIREMENTS IN THESE DRAWINGS AND ASSOCIATED SPECIFICATIONS SHALL BE DETAILED IN CONTRACTOR SHOP DRAWINGS AND SUBMITTALS AND APPROVED PRIOR TO INSTALLATION. ANY REMEDIATION TO TECHNOLOGY PATHWAY AND ROUTING TO MEET REQUIREMENTS SHALL BE THE TOTAL RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.	
4. PATHWAY ROUTING ON THESE DRAWINGS PRIMARILY SHOWS INTERCONNECTIONS BETWEEN TERMINAL POINTS. THE DIVISION 26 ELECTRICAL CONTRACTOR SHALL COORDINATE THE EXACT ROUTING OF PATHWAYS BASED ON FIELD CONDITIONS AND SHALL COORDINATE PROPOSED ROUTES WITH THE TECHNOLOGY SYSTEMS CONTRACTOR(S) TO ENSURE BOTH PARTIES ARE IN AGREEMENT PRIOR TO SUBMITTING SHOP DRAWINGS OR INITIATING WORK IN THE FIELD. SHOP DRAWINGS SHOWING ROUTING OF THESE PATHWAYS SHALL BE SUBMITTED AS SPECIFIED IN DIVISION 27 AND APPROVED BY THE CONSTRUCTION MANAGER PRIOR TO INSTALLATION.	
5. ALL TECHNOLOGY CABLING SHALL BE FULLY SUPPORTED BY DEDICATED PATHWAYS / RACEWAYS SPECIFICALLY PROVIDED FOR THAT PURPOSE FOR THE ENTIRE DISTANCE. NO CABLING SHALL BE RUN UNSUPPORTED OR LAD OVER CEILING TILES, ELECTRICAL CONDUITS, HVAC DUCTS, PIPING, OR OTHER SUPPORTS OR CEILING MEMBERS NOT INTENDED FOR THAT PURPOSE.	
6. J-HOOKS MAY ONLY BE USED IN ACCESSIBLE CEILING SPACES WHERE CABLING IS NOT VISIBLE. PROVIDE DEDICATED J-HOOKSPACED NO GREATER THAN 48" ON-CENTER.	
7. INSTALL PATHWAYS PARALLEL OR PERPENDICULAR TO WALL OR STRUCTURAL MEMBERS TO FOLLOW STRUCTURAL SURFACE CONTOURS AND DO NOT OBSTRUCT PASSAGEWAYS. INSTALL MULTIPLE RACEWAYS GROUPED TOGETHER.	
8. ALL CONDUITS FOR TECHNOLOGY SYSTEMS SHALL BE A MINIMUM 1" TRADE SIZE AND SHALL BE STEEL, THIN-WALL ELECTRICAL METALLIC TUBING (TYPE EMT), UNLESS OTHERWISE NOTED.	
9. PROVIDE PATHWAY INFRASTRUCTURE WITH NO LESS THAN 25% SPARE CAPACITY ABOVE THE NEC MINIMUM FILL RATIOS.	
10. INSTALL CONDUIT WITH LARGE RADIUS BENDS. THE RATIOS FOR MINIMUM BEND RADIUS TO CONDUIT DIAMETER ARE: A. 6:1 BEND RADIUS OF THE INSIDE CONDUIT DIAMETER FOR CONDUIT SIZES LESS THAN 2 IN. B. 10:1 BEND RADIUS OF THE INSIDE CONDUIT DIAMETER FOR CONDUIT SIZES EQUAL TO OR GREATER THAN 2 IN.	
11. CONDUIT ROUTING SHALL NOT EXCEED 180 DEGREES FOR THE SUM OF ALL ELBOWS, SWEEPS AND BENDS FOR ANY PARTICULAR CONDUIT RUN WITHOUT AN APPROVED PULL-BOX. THE MAXIMUM BEND FOR ANY LOCATION SHALL NOT EXCEED 90 DEGREES.	
12. PROVIDE PULL-BOXES AND HAND HOLES IN STRAIGHT SECTIONS OF CONDUIT ONLY. DO NOT USE PULL-BOXES OR HAND HOLES TO CHANGE PATHWAY DIRECTION, UNLESS SPECIFICALLY SHOWN WITH A CHANGE IN DIRECTION ON THE DRAWINGS.	
13. CONDUIT OUTLET BODIES (I.E., CONDULET, C. LB, LL, LR, T), SHALL NOT BE USED AS CABLE PULL POINTS OR TO CHANGE PATHWAY DIRECTION IN ANY LOCATIONS. THESE DEVICES ARE COMMONLY USED FOR ELECTRICAL/POWER PATHWAYS AND ARE NOT APPROVED FOR LOW VOLTAGE CABLING.	
14. PROVIDE EXPANSION CAPABILITY IN CONDUIT OR RACEWAY CROSSING BUILDING EXPANSION JOINTS. REFERENCE ARCHITECTURAL DRAWINGS FOR EXPANSION JOINT LOCATIONS.	
15. TECHNOLOGY PATHWAY SYSTEMS SHALL BE DEDICATED FOR TECHNOLOGY SYSTEMS CABLING ONLY. ALL OTHER SYSTEMS INCLUDING, BUT NOT LIMITED TO, FIRE ALARM, HVAC CONTROLS, LIGHTING CONTROLS, ETC. SHALL BE SUPPORTED BY OTHER MEANS AND SHALL NOT BE ROUTED WITHIN THE TECHNOLOGY SYSTEMS PATHWAYS.	
16. DO NOT RUN ELECTRICAL POWER CIRCUITS PARALLEL WITH LOW VOLTAGE/DATA LINES OR RACEWAYS UNLESS NECESSARY. WHERE NECESSARY, MAINTAIN A MINIMUM OF FOUR (4) FEET OF SEPARATION BETWEEN POWER CIRCUITS AND AV RACEWAYS.	
17. CABLES FOR DIFFERENT LOW VOLTAGE SYSTEMS (70V SPEAKER, BMS, ETC.) SHALL NOT BE RUN IN THE SAME CONDUIT WITH HORIZONTAL OR BACKBONE COPPER UTP CABLING, UNLESS SPECIFICALLY NOTED ON THESE DRAWINGS.	
18. ENCLOSE ANY CABLE TRAY ROUTED THROUGH ELECTRICAL ROOMS OR WITHIN PROXIMITY OF INTERFERING ELECTRICAL SOURCES, USING SOLID BOTTOM TROUGH WITH REMOVABLE COVERS.	
19. TECHNOLOGY PATHWAYS ROUTED THROUGH ELECTRICAL ROOMS SHALL BE PHYSICALLY CONTINUOUS AND BONDED TO TELECOM BONDING AND GROUNDING SYSTEM.	
20. FOR WALL-MOUNTED TECHNOLOGY DEVICES, PROVIDE FLUSH MOUNTED BACKBOXES AND EXTENSION RINGS WITH TOTAL DEPTH AS REQUIRED TO MATCH THICKNESS OF COMPLETE WALL AND INSULATION ASSEMBLY. PROVIDE CONDUIT FROM THE BACKBOX STUBBED TO NEAREST ACCESSIBLE CEILING SPACE UNLESS OTHERWISE NOTED.	
21. PROVIDE CONDUIT QUANTITIES AND SIZES AS SHOWN. DO NOT COMBINE CONDUIT RUNS WITHOUT THE WRITTEN PERMISSION OF THE CONSTRUCTION MANAGER.	
22. DASHY CHAINING CONDUIT THROUGH BACKBOXES IS NOT PERMITTED UNLESS SPECIFICALLY NOTED ON THESE DRAWINGS OR WITHOUT WRITTEN PERMISSION FROM THE CONSTRUCTION MANAGER. EACH BACKBOX SHALL BE INSTALLED WITH DEDICATED PATHWAYS(S).	
23. NO SPLICES OR INTERMEDIATE CONNECTION POINTS ARE PERMITTED UNLESS SPECIFICALLY CALLED FOR IN THE SPECIFICATIONS OR DRAWINGS.	
24. PATHWAY MOUNTING HEIGHTS INDICATED ON PLANS ARE TO THE BOTTOM OF THE PATHWAY SUPPORTS (UNI-STRUT).	
25. DEVICE BACKBOXES SHALL BE MOUNTED VERTICALLY UNLESS OTHERWISE NOTED.	
26. COORDINATE WITH THE CONSTRUCTION MANAGER FOR MOUNTING HEIGHTS OF ALL TECHNOLOGY DEVICE OUTLETS. WALL MOUNTED TECHNOLOGY BACKBOXES SHALL TYPICALLY BE MOUNTED AT +18 IN. AND SHALL MATCH THE STANDARD MOUNTING HEIGHT FOR POWER RECEPTACLES. DEVICES SHOWN AT +44 IN. AFF SHALL MATCH THE STANDARD MOUNTING HEIGHT FOR LIGHT SWITCHES, ETC. MOUNTING HEIGHTS SHOWN ON ARCHITECTURAL ELEVATIONS SHALL GOVERN OVER THOSE SHOWN HEREIN.	
27. CONFIRM ALL LOCATIONS OF EXPOSED JUNCTION BOXES AND PULL BOXES WITH THE CONSTRUCTION MANGER.	
28. COORDINATE WITH THE CONSTRUCTION MANAGER AND OTHER TRADES PRIOR TO CONSTRUCTION FOR CONDUIT AND BACKBOX LOCATIONS IN PRECAST WALLS, POURED CONCRETE, MASONRY, ETC.	
29. DEVICES INDICATED TO BE INSTALLED AT DIFFERENT MOUNTING HEIGHTS AND LOCATED WITHIN ONE STUD SPACE FROM EACH OTHER SHALL ALIGN VERTICALLY, ON THE SAME SIDE OF THE STUD. WHERE WALL MOUNTED DEVICES OCCUR OVER LIGHT SWITCHES, OFFSET ONE STUD SPACE.	
30. PROVIDE SEISMIC BRACING FOR ALL TECHNOLOGY PATHWAYS AND EQUIPMENT AS REQUIRED BY CODE, LOCAL GOVERNING JURISDICTIONS, AND MANUFACTURERS SPECIFICATIONS.	
31. PROVIDE EMPTY RACEWAY SYSTEMS WITH A PULL LINE OR TAPE INSTALLED WITH 3 FT. EXTENDING FROM EACH END, KNOTTED AND SECURED TO REMAIN IN PLACE. FOR INDOOR APPLICATIONS, USE PULL LINE HAVING NOT LESS THAN 200 LB. TENSILE STRENGTH. FOR OUTDOOR APPLICATIONS, USE PULL TAPE OR WIRE HAVING NOT LESS THAN 1200 LB. TENSILE STRENGTH.	
32. PROVIDE PROTECTIVE BUSHINGS ON CONDUIT ENDS INCLUDING RISER CONDUITS / SLEEVES, HORIZONTAL CONDUITS, DEVICE CONDUITS, AND SLEEVES. ALL CONDUIT PATHWAYS SMALLER THAN 2 IN. DIAMETER SHALL BE PROVIDED WITH NYLON BUSHINGS TO PROTECT CABLES, REGARDLESS OF WHETHER THEY TERMINATE IN A DEVICE OR JUNCTION BOX.	

AUDIO/VIDEO SYSTEMS SYMBOL LEGEND	
	VIDEO CAMERA - FLOOR/CEILING
	VIDEO CAMERA - WALL
	FLAT PANEL VIDEO MONITOR - FLOOR/CEILING
	FLAT PANEL VIDEO MONITOR - WALL
	AUDIO/VIDEO DEVICE - FLOOR
	AUDIO/VIDEO DEVICE - WALL
	AUDIO/VIDEO DEVICE - CEILING
	EQUIPMENT RACK
	LOUDSPEAKER - 7" DENOTES SPEAKER ZONE
	LOUDSPEAKER - WALL
	CEILING MICROPHONE
	VIDEO PROJECTOR
	VIDEO PROJECTION SCREEN
	AV NETWORK FACEPLATE

DEKKER PERICH SABATINI
 Architecture
 in Progress



PROJECT

NMSU NM DEPT OF AGRICULTURE OFFICE BUILDING
 3910 SOUTH ESPINA STREET LAS CRUCES, NEW MEXICO 88003

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CONSTRUCTION DOCUMENTS

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REVIEWED BY	PD
DATE	04/25/2024
PROJECT NO	22-0227.001

DRAWING NAME
AV SYSTEMS GENERAL NOTES AND ABBREVIATIONS

SHEET NO
X-001

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3910 SOUTH ESPINA STREET LAS
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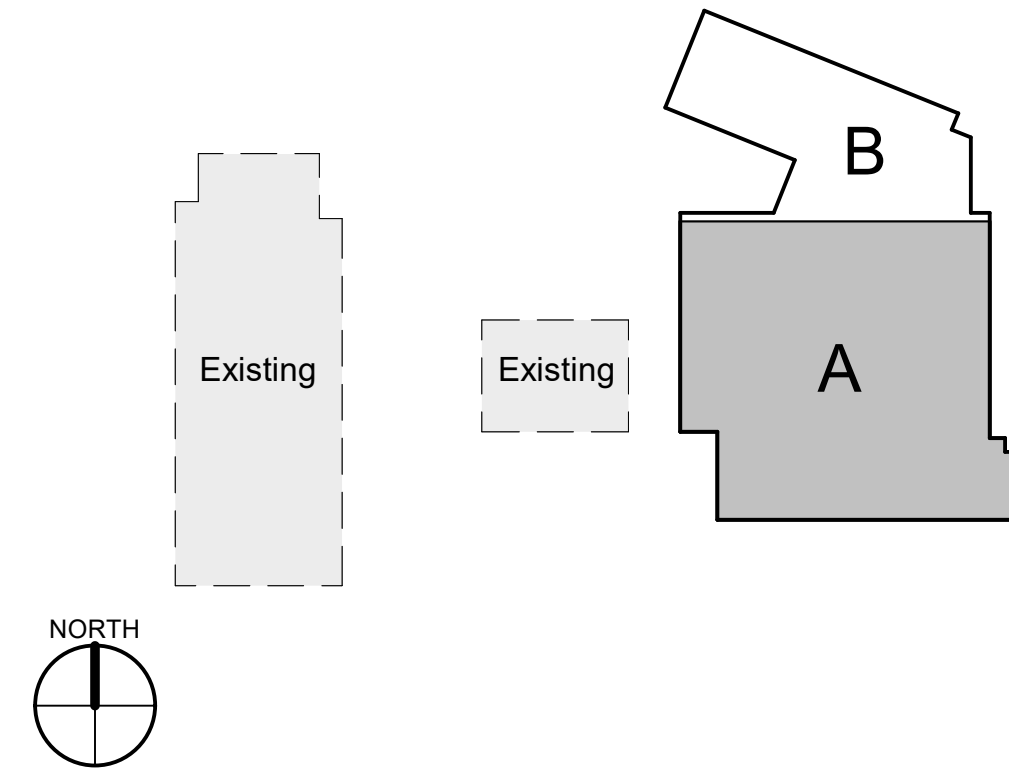
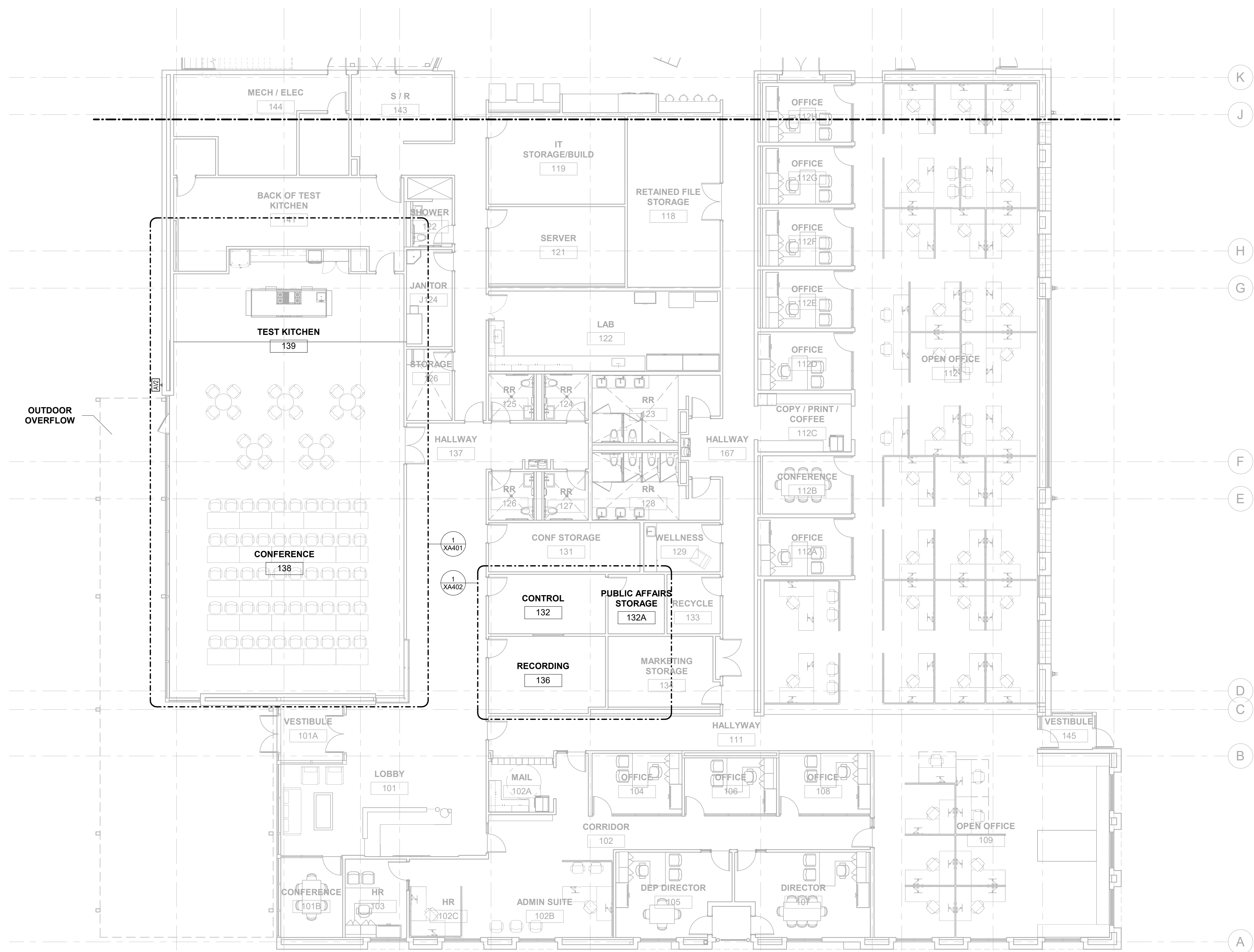
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DATE 04/25/2024
PROJECT NO 22-0227.001

DRAWING NAME
**AV FLOOR PLAN -
AREA A**

SHEET NO
XA101A



1 AV FLOOR PLAN - AREA A
1/8" = 1'-0"

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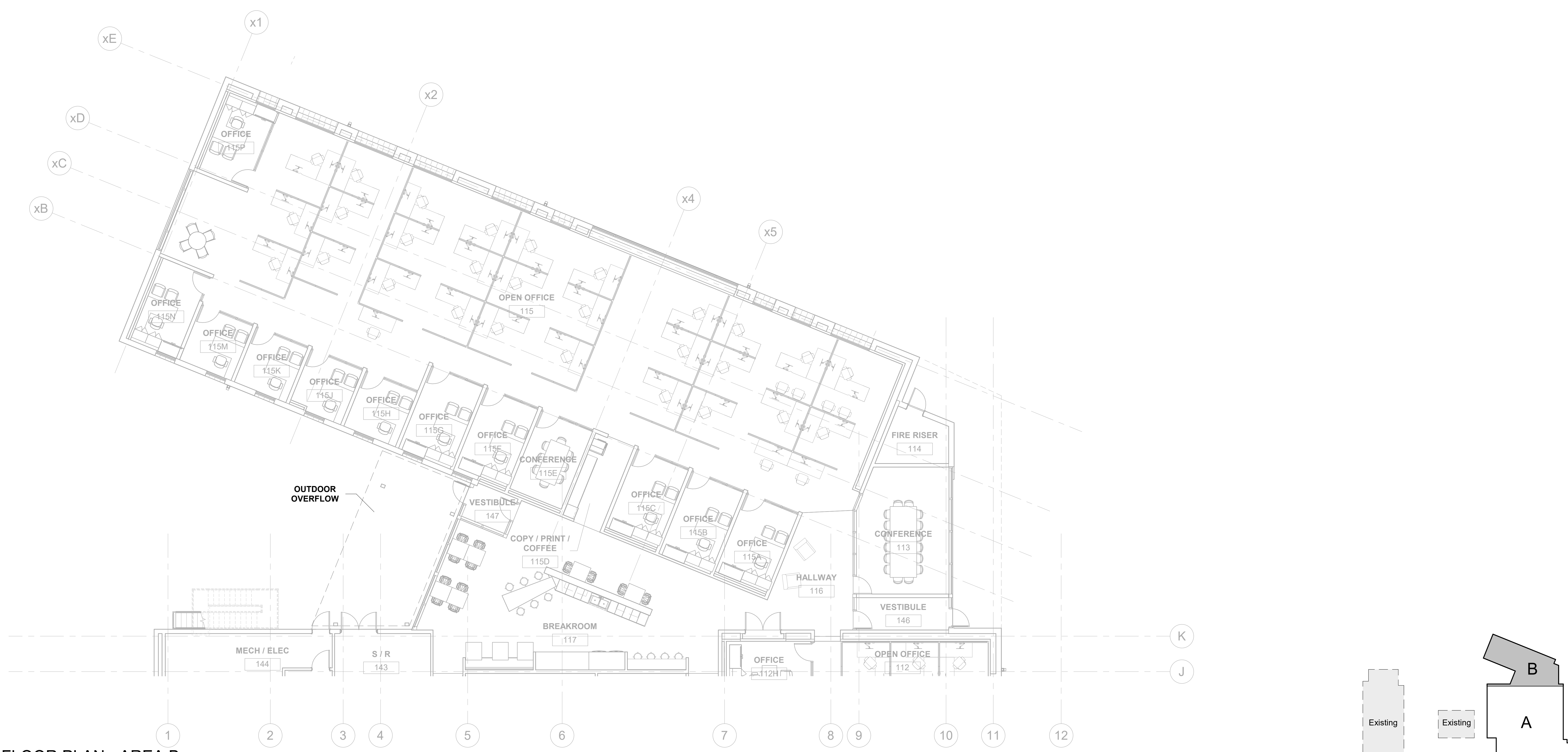
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PROJECT NO	22-0227.001

DRAWING NAME
**AV FLOOR PLAN -
AREA B**

SHEET NO
XA101B



1 AV FLOOR PLAN - AREA B
1/8" = 1'-0"

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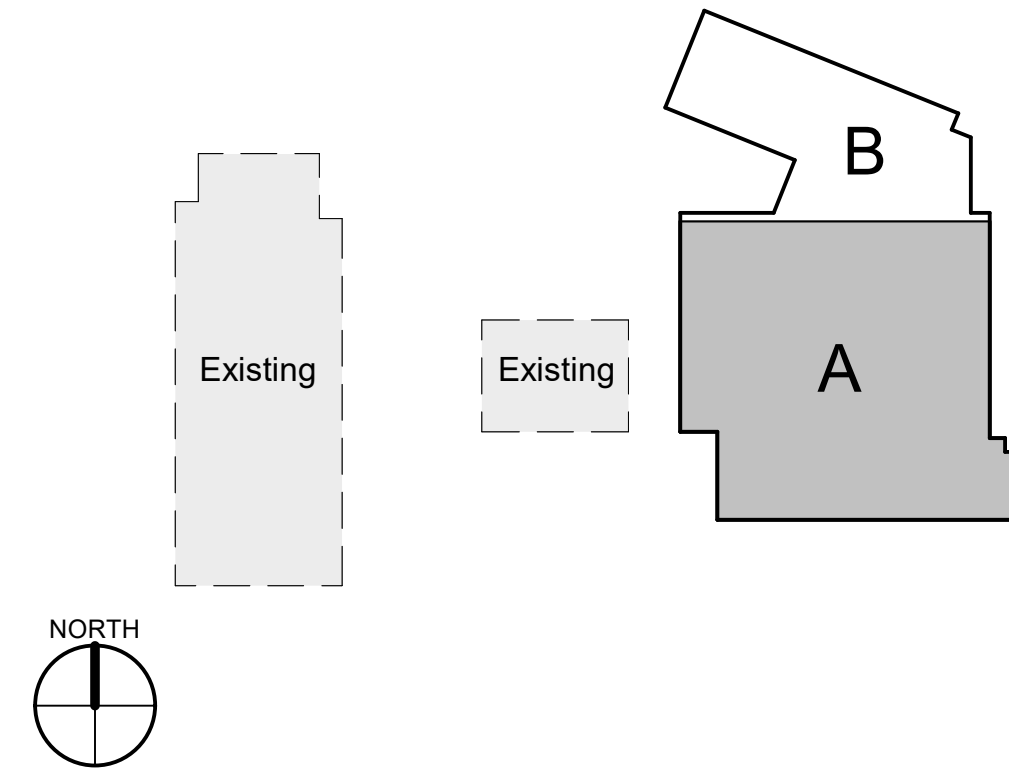
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DATE 04/25/2024
PROJECT NO 22-0227.001

DRAWING NAME
**AV REFLECTED
CEILING PLAN -
AREA A**

SHEET NO
XA121A



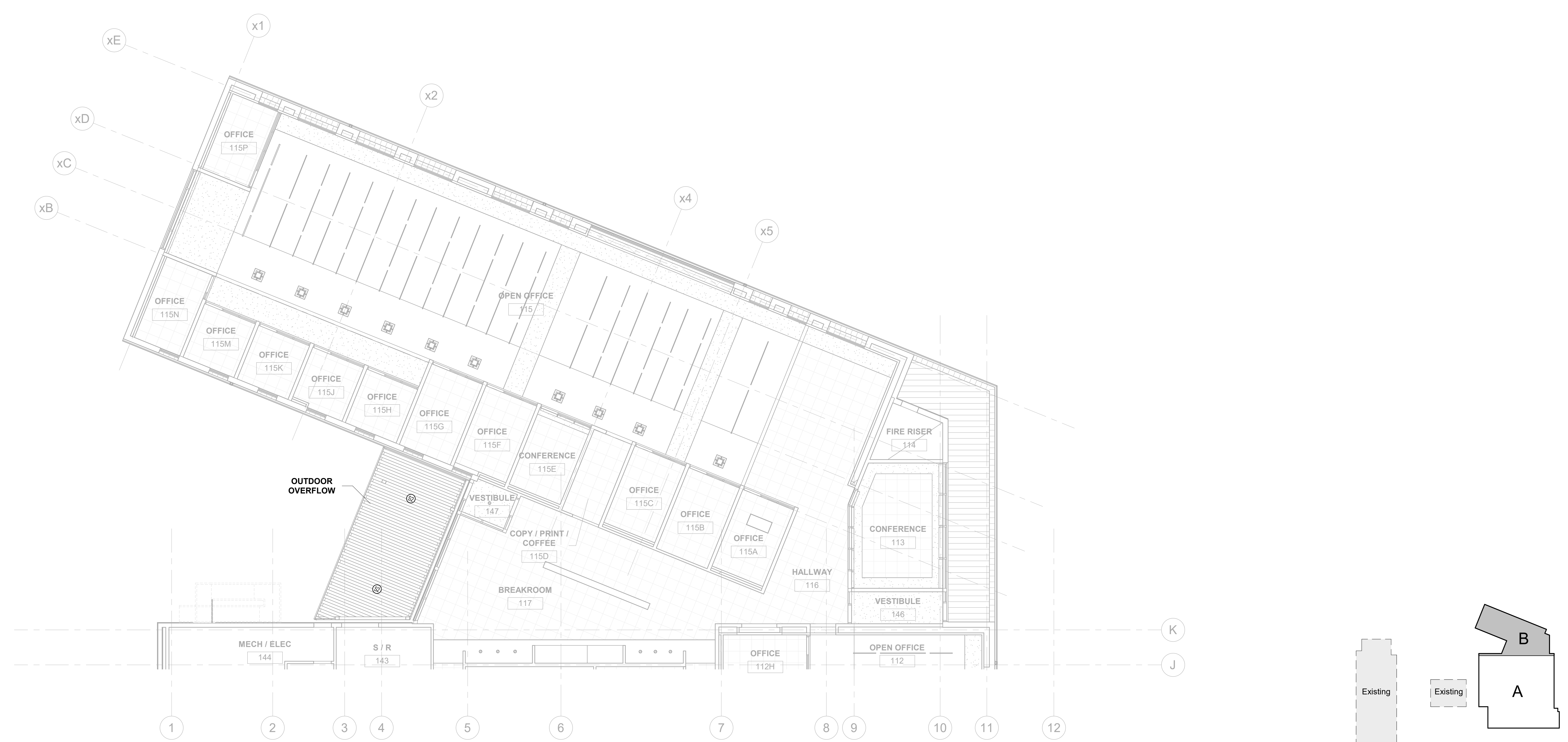
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REVISIONS

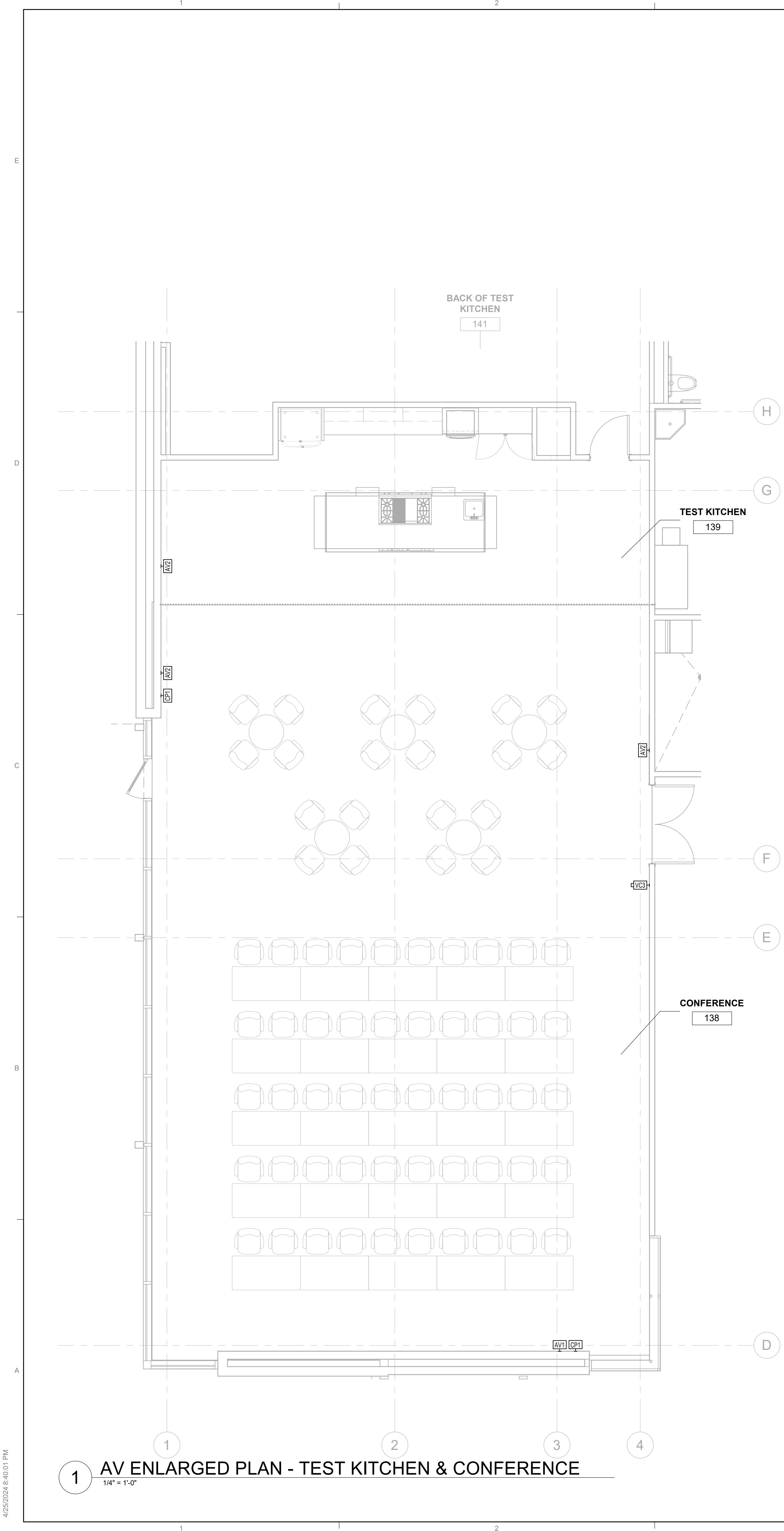
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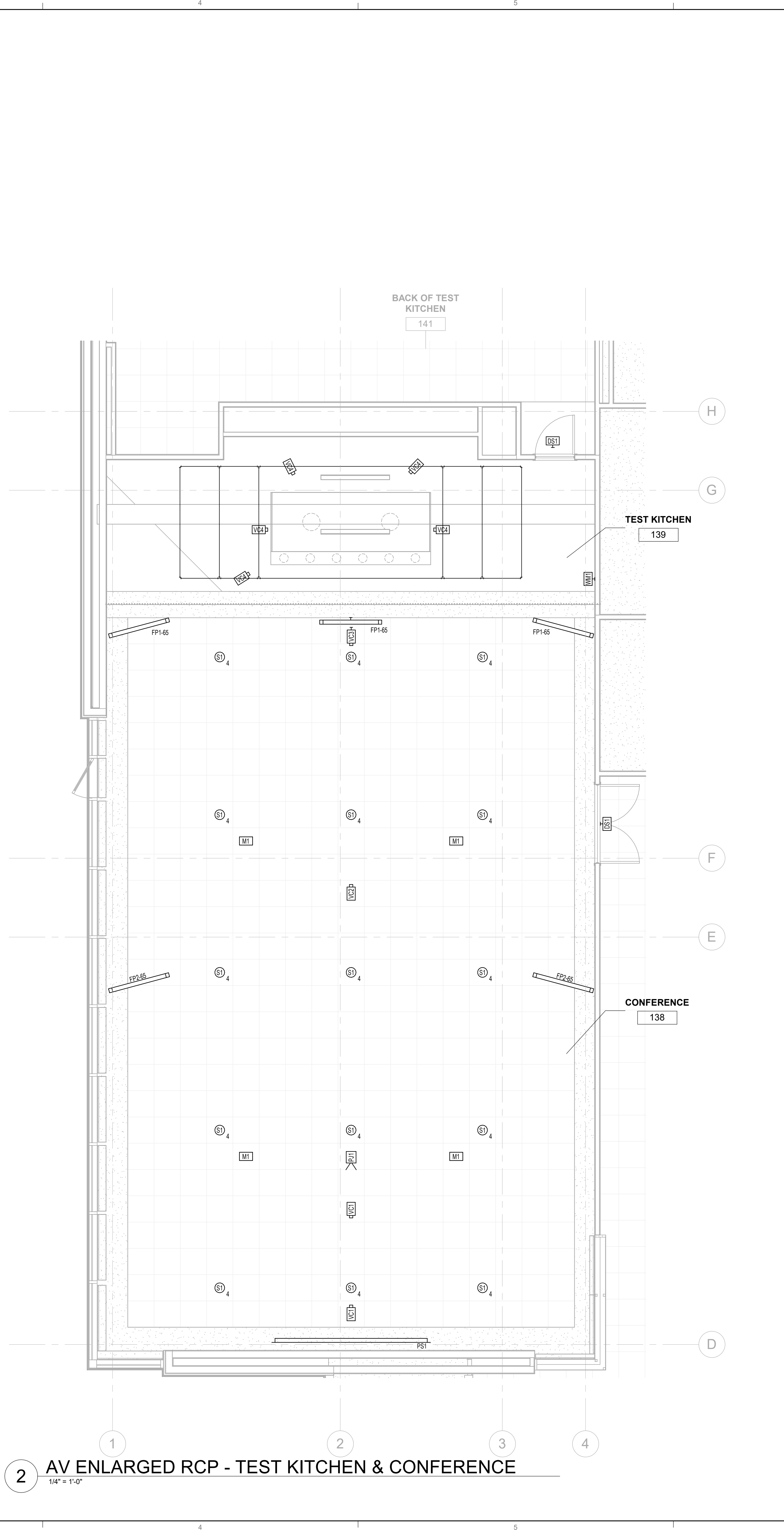


1 AV REFLECTED CEILING PLAN - AREA A
 1/8" = 1'-0"

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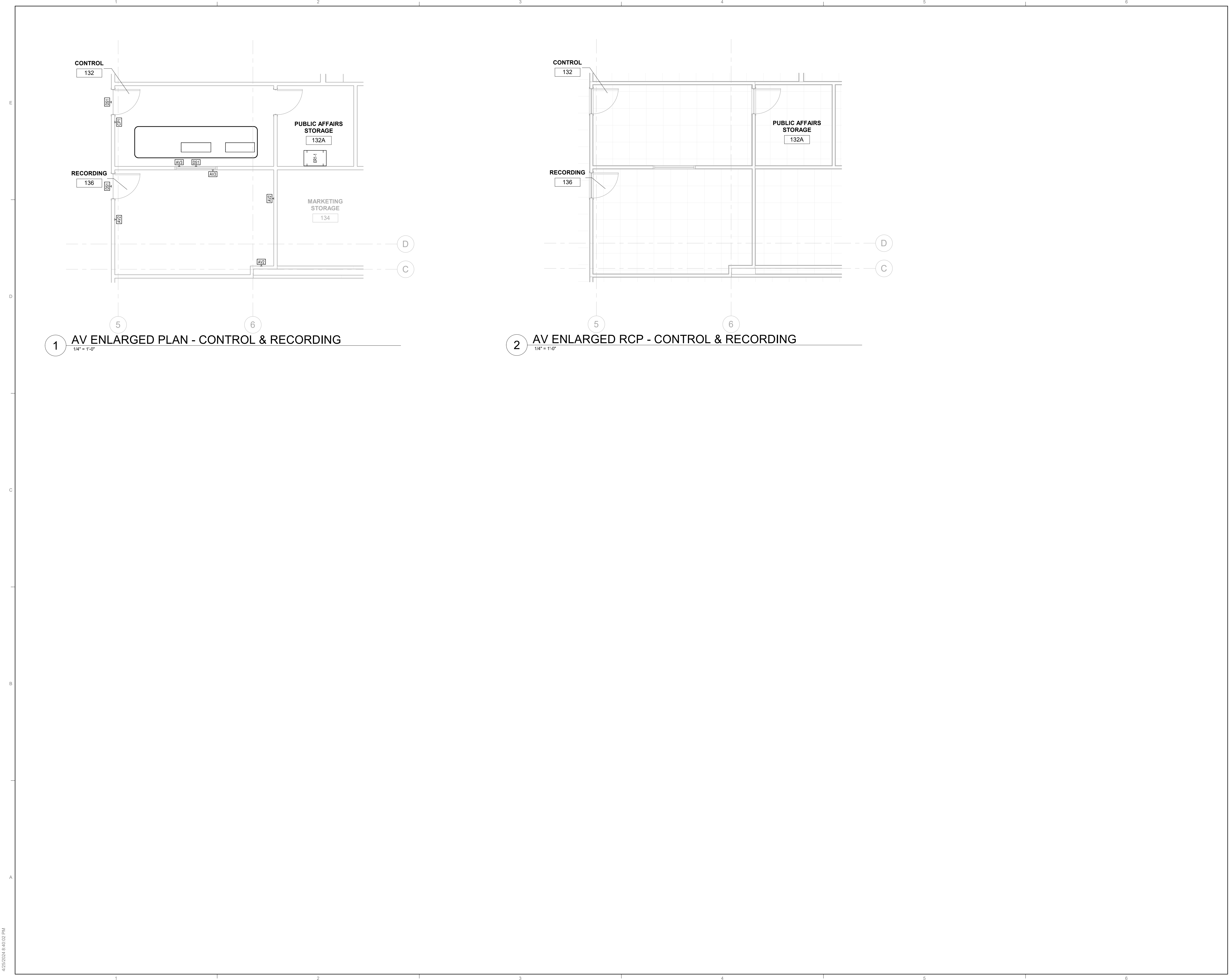


1 AV ENLARGED PLAN - TEST KITCHEN & CONFERENCE
1/4" = 1'-0"

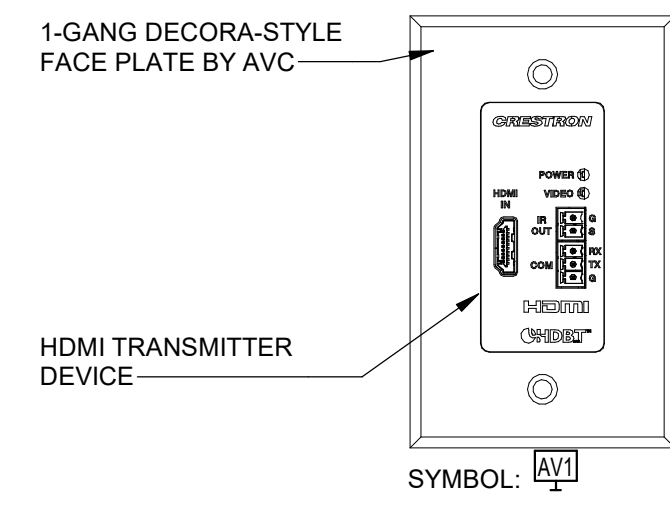


2 AV ENLARGED RCP - TEST KITCHEN & CONFERENCE
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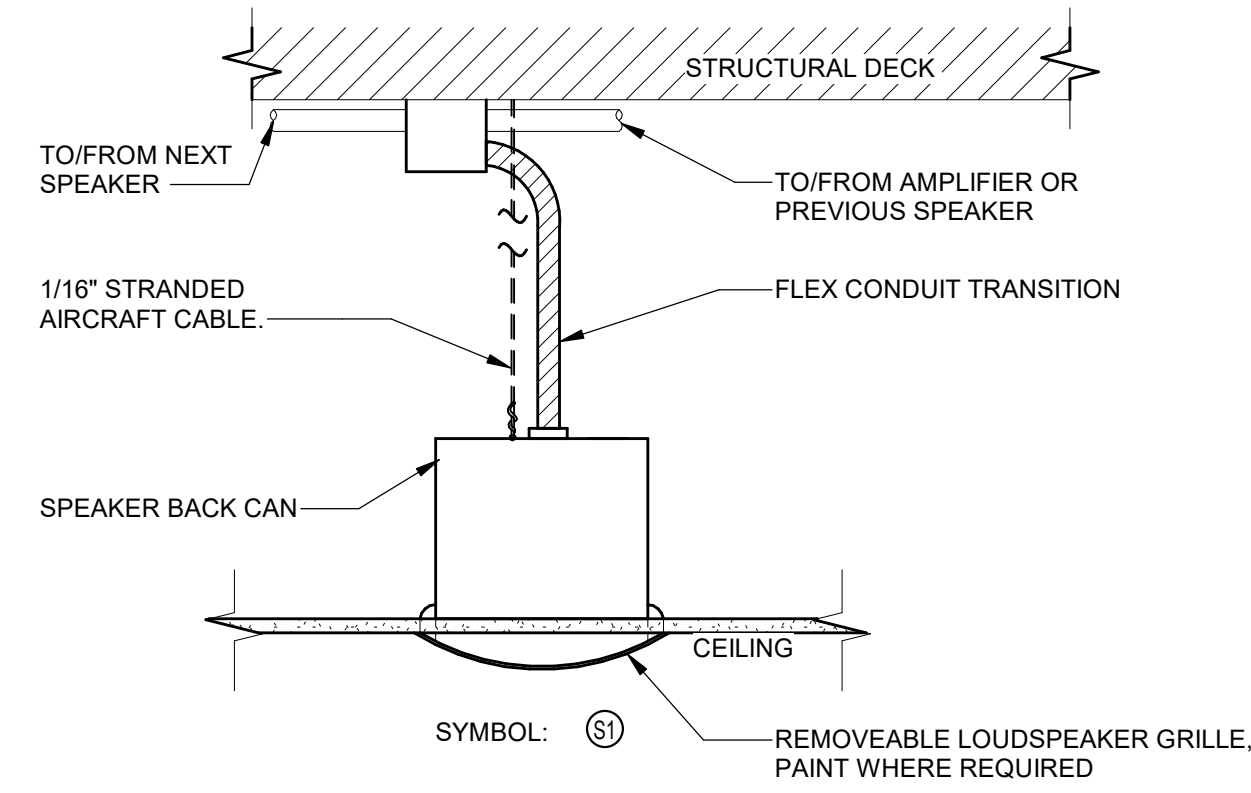
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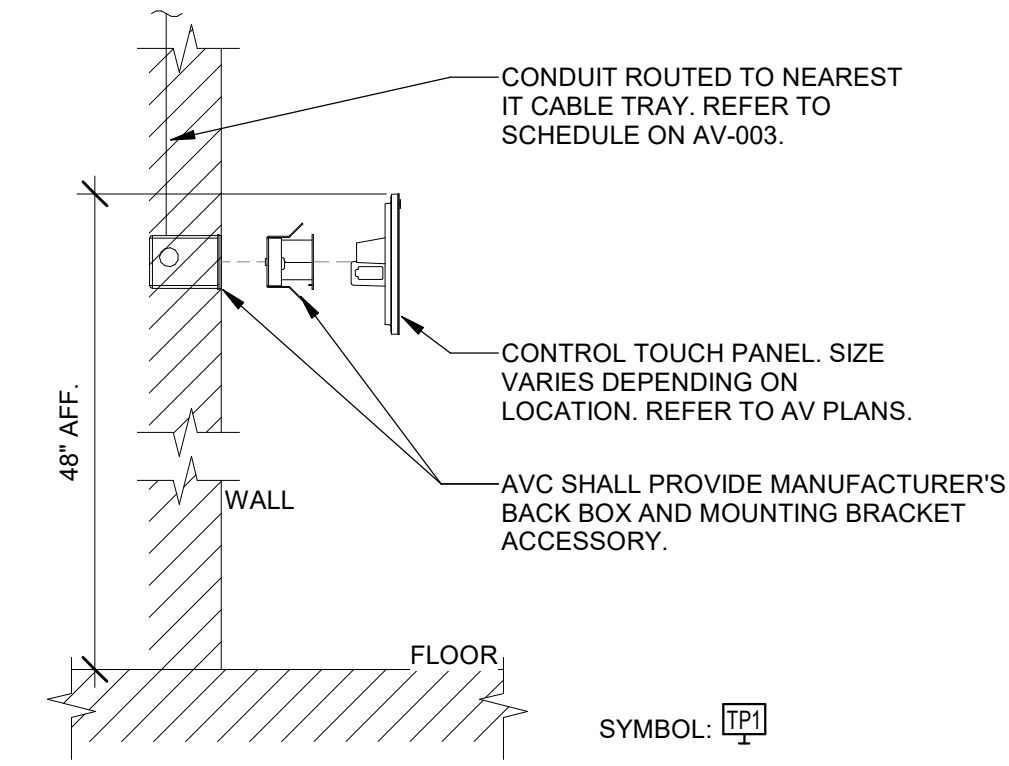
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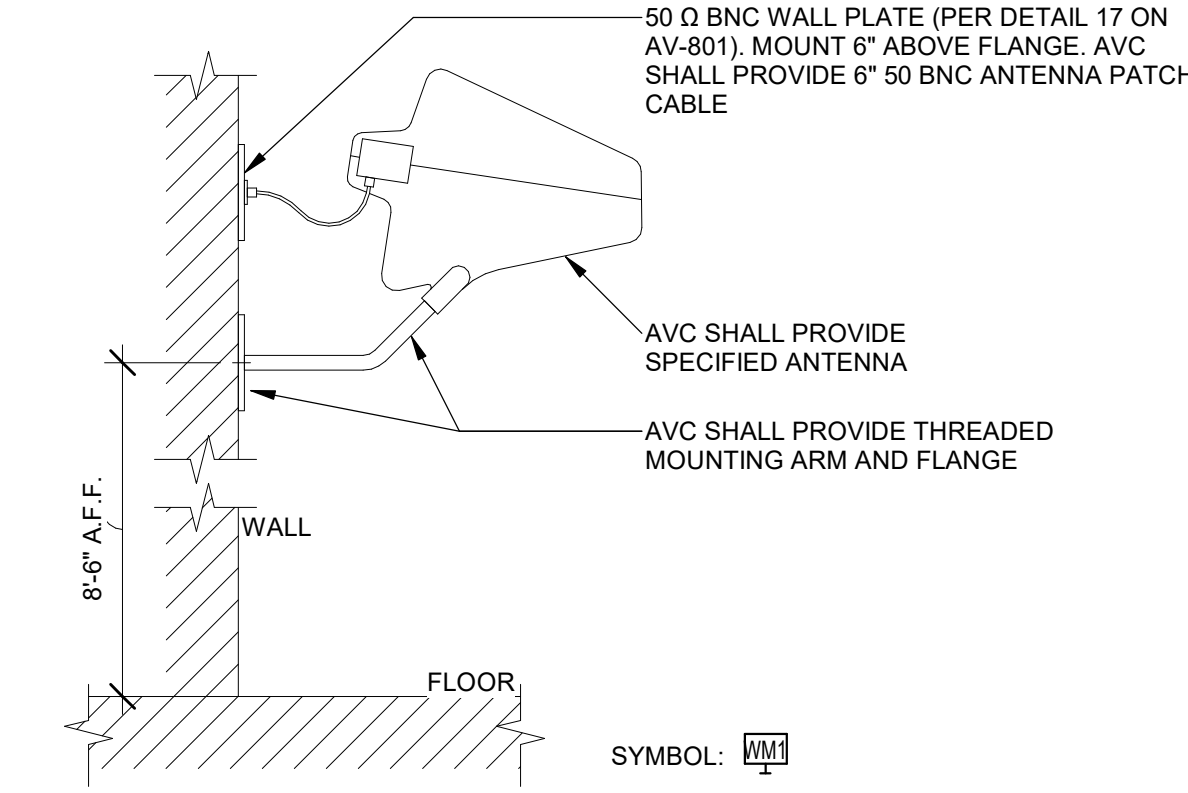
1 "AV1" WALL PLATE
NTS



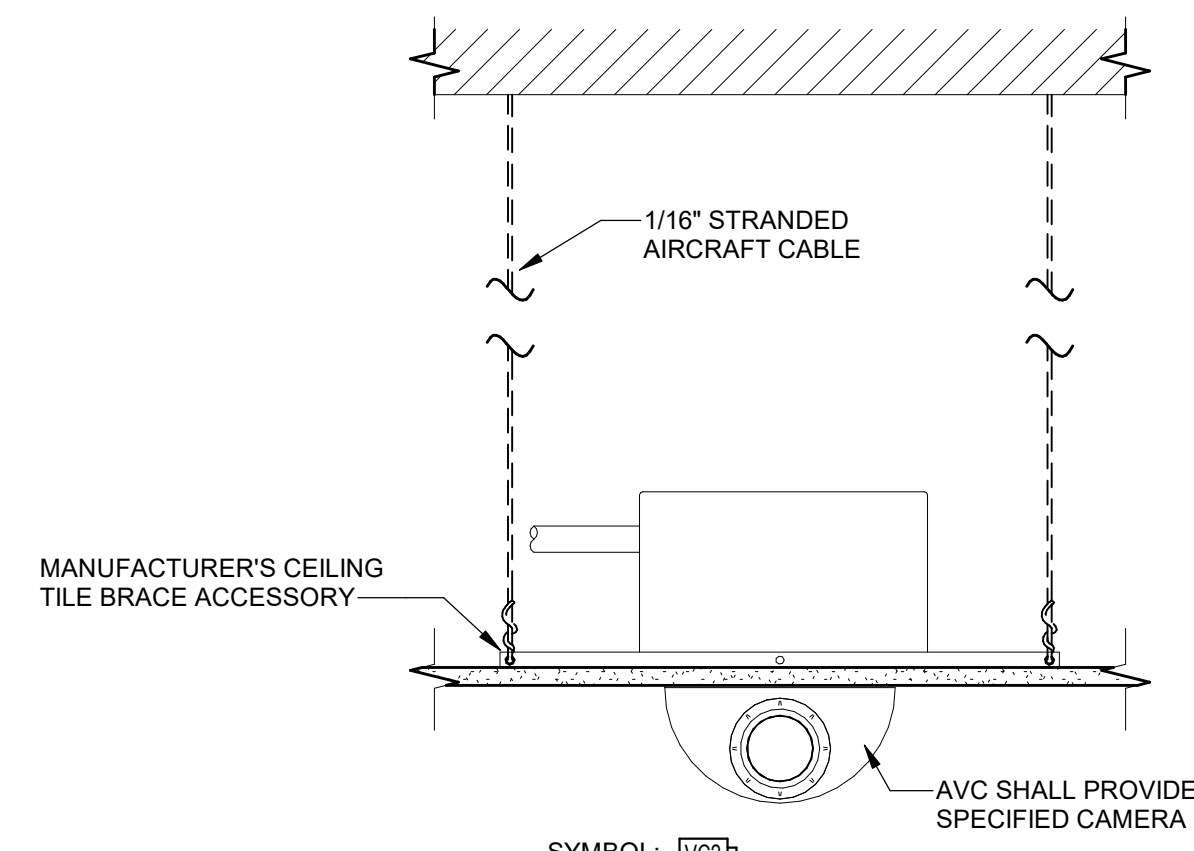
2 "S1" LOUDSPEAKER
NTS



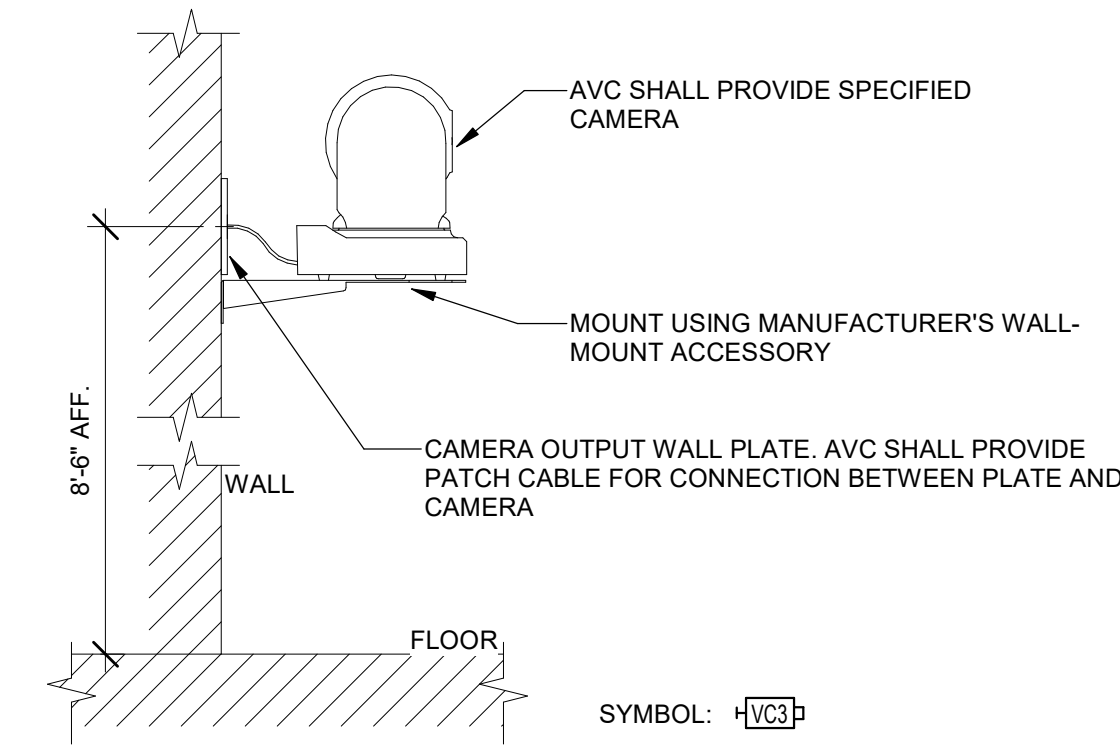
5 CONTROL TOUCH PANEL MOUNTING
NTS



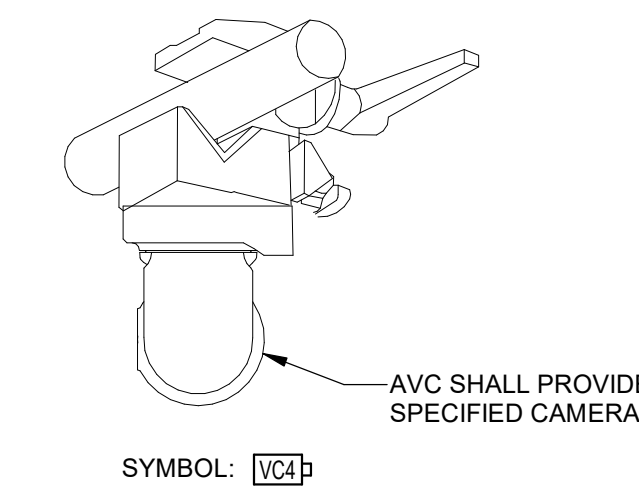
8 WIRELESS MIC PADDLE ANTENNA
NTS



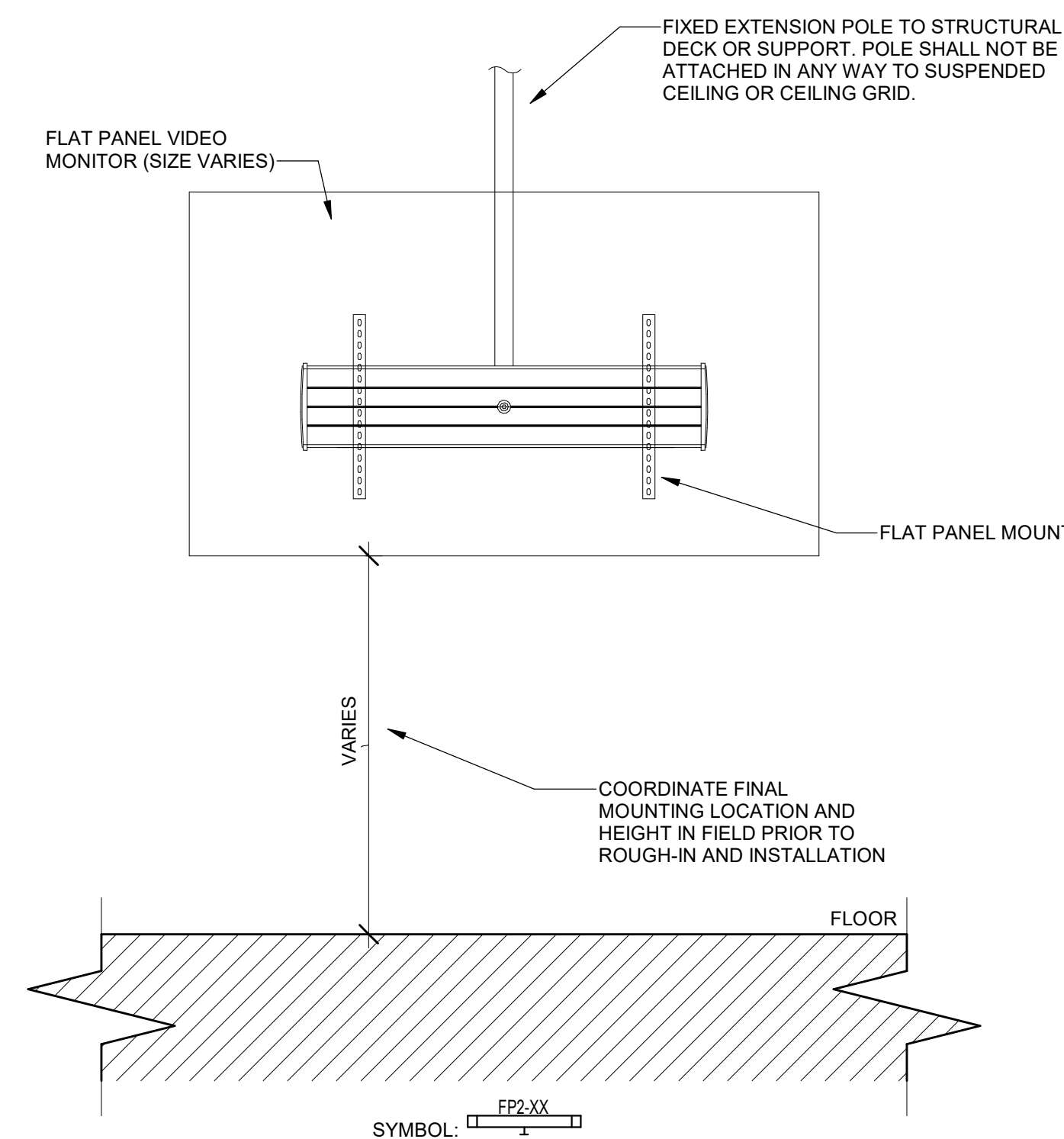
3 CEILING SEMI-RECESSED VIDEO
CAMERA
NTS



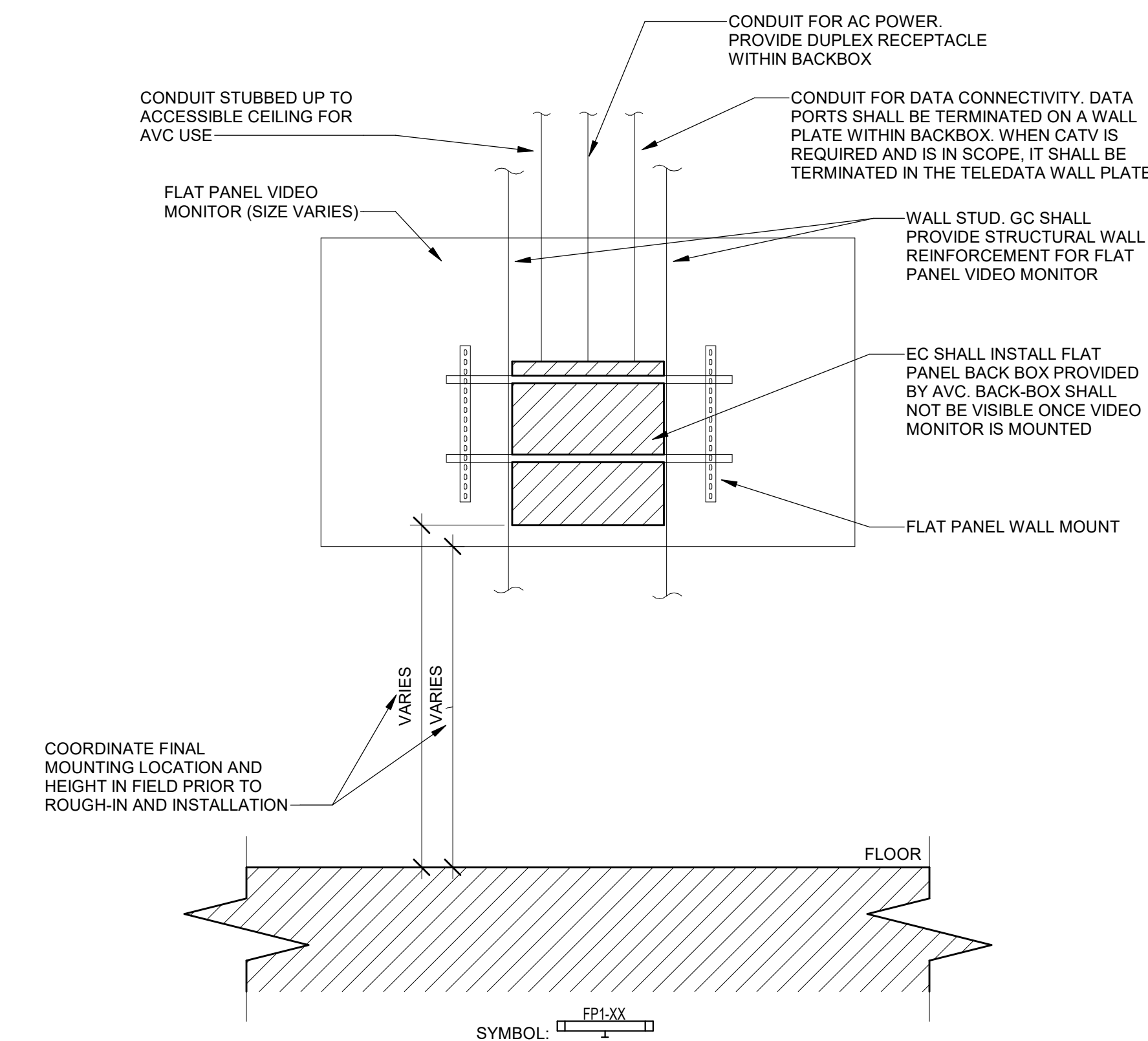
6 WALL-MOUNTED VIDEO CAMERA
NTS



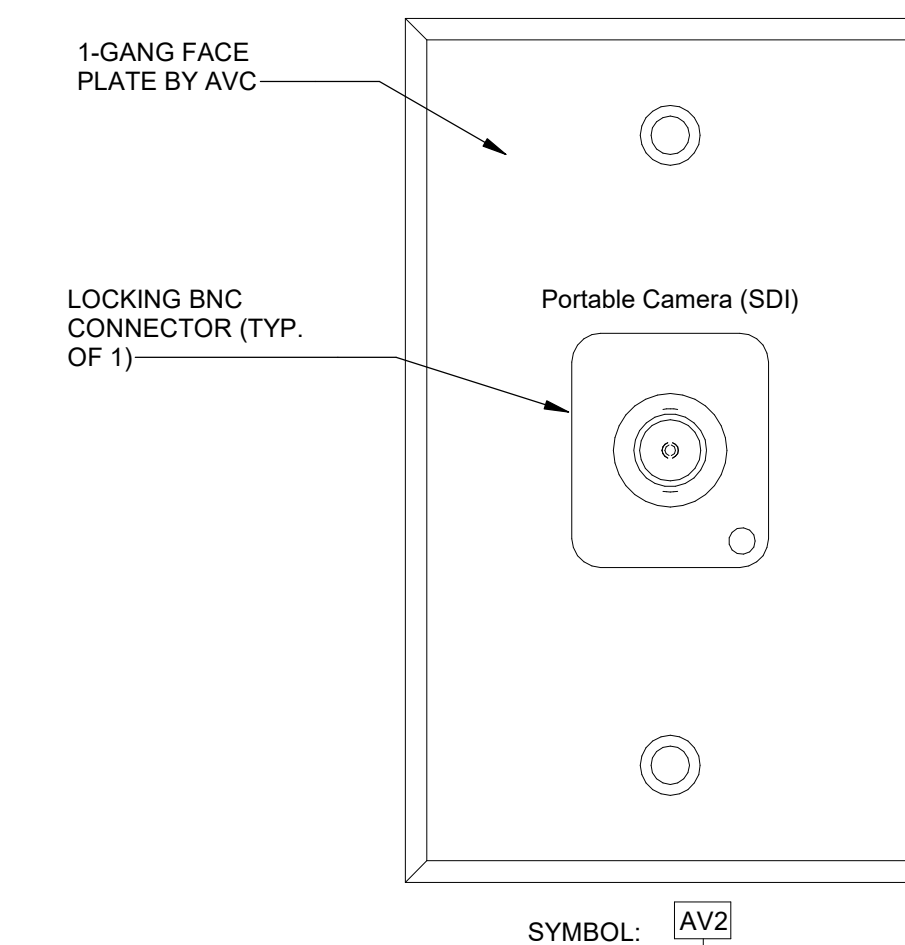
9 GRID-MOUNTED VIDEO CAMERA
NTS



4 CEILING-MOUNTED FLAT PANEL DETAIL
NTS



7 WALL-MOUNTED FLAT PANEL DETAIL
NTS



10 "AV2" WALL PLATE
NTS

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AUDIO-VIDEO SYSTEMS EQUIPMENT AND INFRASTRUCTURE SCHEDULE						
Equipment Tag	Equipment Description	Mounting	Rough-In	Electrical Requirements	Data Requirements	Notes
AV1	VIDEO INPUT PLATE	WALL-MOUNTED AT STANDARD OUTLET HEIGHT.				
AV2	CAMERA I/O PANEL	WALL-MOUNTED AT STANDARD OUTLET HEIGHT.				
AV3	AUDIO I/O PANEL	WALL-MOUNTED AT STANDARD OUTLET HEIGHT.				
CP1	CONTROL PANEL	WALL-MOUNTED AT STANDARD LIGHT SWITCH HEIGHT.				
DS1	ROOM INDICATOR DIGITAL SIGNAGE ("RECORDING" OR "ON-AIR" LIGHT)	WALL-MOUNTED OVER DOOR.				
ER1	AV HEAD-END EQUIPMENT RACK	FLOOR-STANDING.				
FP1	FLAT PANEL VIDEO MONITOR	WALL-MOUNTED.				
FP2	FLAT PANEL VIDEO MONITOR	POLE-MOUNTED FROM STRUCTURAL CEILING.				
M1	MICROPHONE ARRAY	MOUNTED WITHIN SUSPENDED CEILING GRID.				
PJ1	VIDEO PROJECTOR	SUSPENDED FROM STRUCTURAL CEILING.				
PS1	MOTORIZED PROJECTION SCREEN	RECESSED WITHIN SUSPENDED CEILING GRID AND SUPPORTED FROM STRUCTURAL CEILING.				
S1	CEILING-RECESSED LOUDSPEAKER	CEILING RECESSED.				
S2	OUTDOOR-RATED LOUDSPEAKER	MOUNTED TO OUTDOOR CANOPY.				
VC1	CEILING-RECESSED PTZ CONFERENCING CAMERA	RECESSED IN SUSPENDED CEILING GRID.				
VC2	CEILING-MOUNTED PTZ BROADCAST CAMERA	RECESSED IN SUSPENDED CEILING GRID.				
VC3	WALL-MOUNTED PTZ BROADCAST CAMERA	WALL-MOUNTED AT 7'-6" AFF.				
VC4	GRID-MOUNTED BROADCAST VIDEO CAMERA	MOUNTED TO SUSPENDED PIPE GRID.				
WM1	WIRELESS MICROPHONE ANTENNA	WALL-MOUNTED AT 7'-6" AFF.				

AV EQUIPMENT RACK SCHEDULE				
RACK NUMBER	RACK ELECTRICAL REQUIREMENTS	RACK DATA REQUIREMENTS	RACK HEAT LOAD (BTU/HR)	RACK WEIGHT (LB)

**DEKKER
PERICH
SABATINI**

**Architecture
in Progress**



SEAL

PROJECT

**NMSU NM DEPT OF AGRICULTURE
OFFICE BUILDING**
3910 SOUTH ESPINA STREET LAS
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DRAWN BY	LD/MR/DC
REVIEWED BY	PD
DATE	04/25/2024
PROJECT NO	22-0227.001

DRAWING NAME
**AV SYSTEMS
ONE-LINE
DIAGRAMS**

SHEET NO
X-701

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GENERAL NOTES

- THE XL DRAWINGS DESCRIBE BASE-BUILDING ACCOMMODATIONS FOR BROADCAST LIGHTING SYSTEMS, INCLUDING POWER, DATA, RACEWAY, AND MOUNTING REQUIREMENTS. THESE DRAWINGS PROVIDE COORDINATION INFORMATION BETWEEN THE ARCHITECT, ELECTRICAL, MECHANICAL, AND STRUCTURAL TRADES.
- REFER TO SPECIFICATION SECTION 26 55 83 "BROADCAST LIGHTING" FOR ADDITIONAL REQUIREMENTS.
- THE BROADCAST LIGHTING SYSTEMS SHOWN IN THESE DOCUMENTS WILL BE PROVIDED AND INSTALLED BY A THEATRICAL SYSTEMS TRADE CONTRACTOR SPECIALIZING IN THESE SYSTEMS. IT IS THE RESPONSIBILITY OF THE BROADCAST LIGHTING SYSTEMS CONTRACTOR TO COORDINATE THEIR INSTALLATION WORK WITH THE OTHER TRADES WORKING ON THIS PROJECT.
- ELEVATIONS ARE TO THE MID-HEIGHT OF THE EQUIPMENT IN QUESTION UNLESS OTHERWISE NOTED.
- SEISMIC ZONE CONSIDERATIONS: PROVIDE SEISMIC BRACING OF RIGGED AND MOUNTED COMPONENTS IN COMPLIANCE WITH APPLICABLE CODES. REFER TO ARCHITECTURAL DRAWINGS.

LIGHTING SYSTEMS NOTES

- THE DRAWINGS DO NOT SHOW ALL REQUIREMENTS OF THE SYSTEMS. THE DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY AND WHAT IS CALLED FOR (OR SHOWN) IN EITHER IS REQUIRED TO BE PROVIDED AS IF CALLED FOR IN BOTH. IN CASE OF CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT WILL BE ENFORCED. UNLESS THE CONTRACTOR REQUESTS CLARIFICATION FROM THE OWNER OR BROADCAST LIGHTING SYSTEMS CONSULTANT AND RECEIVES CLARIFICATION STATING OTHERWISE.
- COORDINATE ROUTING OF ALL CONDUIT AND RACEWAY PATHWAYS SHOWN ON THESE DRAWINGS WITH OTHER RACEWAYS INDICATED ON THE E-SERIES (ELECTRICAL), T-SERIES (TELECOMSECURITY), AND TA-SERIES (AV) SYSTEMS DRAWINGS.
- BROADCAST LIGHTING CONTRACTOR MUST CLOSELY COORDINATE WITH OTHER TRADE CONTRACTORS REGARDING THEIR INSTALLATION.
- ALL RIGGING MUST BE PERFORMED BY AN ETCP CERTIFIED THEATRE RIGGER. REFER TO SPECIFICATIONS.
- ALL ESTIMATED RIGGING LOADS FOR THE BASIS-OF-DESIGN SYSTEMS DOCUMENTED HEREIN HAVE BEEN COORDINATED WITH THE PROJECT'S STRUCTURAL ENGINEER OF RECORD. FOR ANY DEVIATIONS OR CHANGES TO THE PROPOSED DESIGN THAT INVOLVE MODIFIED WEIGHT LOADS OR DISTRIBUTION, THE BROADCAST LIGHTING CONTRACTOR IS RESPONSIBLE FOR OBTAINING WRITTEN APPROVAL BY THE PROJECT'S STRUCTURAL ENGINEER OF RECORD, PRIOR TO PROCEEDING WITH WORK.

ARCHITECTURAL NOTES

- ROOM DIMENSIONS ON THESE DRAWINGS HAVE BEEN TAKEN FROM THE ARCHITECTURAL DRAWINGS. ALL DIMENSIONS MUST BE VERIFIED, AND DEVIATIONS CAUSING CHANGES EXCEEDING 3 INCHES IN THE LOCATION OF GRID PIPES, TRACKS, MOUNTS, LIGHTING FIXTURES, OR DISTRIBUTION/CONTROL EQUIPMENT MUST BE COORDINATED WITH THE OWNER AND/OR BROADCAST LIGHTING SYSTEMS CONSULTANT.
- WHERE EXACT DIMENSIONS ARE NOT CALLED FOR, THE SCALE OF THESE DRAWINGS IS SUFFICIENTLY ACCURATE TO DETERMINE THE LOCATION OF EQUIPMENT, JUNCTION BOXES, OUTLET BOXES, WIREWAYS, PANELS, ETC. WHERE EXACT DIMENSIONS ARE CALLED FOR, THE REFERENCE SURFACE WILL BE THE FINAL FINISHED SURFACE INCLUDING ANY ACOUSTICAL TREATMENT.
- ALL RIGGING LOADS MUST BE PROVIDED WITH HARDWARE FULLY RATED FOR A MINIMUM OF TEN TIMES (10X) THE WEIGHT OF THE EQUIPMENT SUPPORTED (SAFETY FACTOR).

DATA SYSTEMS NOTES

- ANY DATA OUTLETS SHOWN ON THESE XL SHEETS ARE DEDICATED TO THE THEATER SYSTEMS AND EQUIPMENT, AND ARE SHOWN FOR REFERENCE ONLY. REFER TO THE TN SERIES DRAWINGS FOR ADDITIONAL DATA OUTLETS AND CONDUIT REQUIREMENTS.

ELECTRICAL AND RACEWAY SYSTEMS NOTES

- THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CONDUIT, WIREWAYS AND PERMANENTLY INSTALLED JUNCTION BOXES IN FLOORS, WALLS, AND CEILINGS. THE EC SHALL PROVIDE ALL POWER FEEDERS AND BRANCH CIRCUITS. THE EC SHALL PROVIDE ALL POWER WIRING (LINE-VOLTAGE CURRENT-CARRYING, UNGROUNDED CURRENT-CARRYING, AND GROUNDED CONDUCTORS) ASSOCIATED WITH BROADCAST LIGHTING SYSTEMS RELAY PANELS, EMERGENCY LIGHTING AUTOMATIC LOAD CONTROL RELAYS (ALCRS), BRANCH CIRCUIT POWER SUPPLIES FOR MISC. CONTROL EQUIPMENT/COMPONENTS, BRANCH CIRCUIT POWER SUPPLIES TO LIGHTING DISTRIBUTION OUTLETS AND/OR FIXTURES, AND CONTROLS.
- WHERE ACOUSTICAL TREATMENT IS PRESENT THE CONTRACTOR MUST CUT ACOUSTICAL TREATMENT OUT TO ACCOMMODATE XL DEVICES. THE ACOUSTICAL TREATMENT MUST BE CUT TO THE REDUCED BOX SIZE AFTER ANY MUD RINGS OR BOX EXTRUDERS ARE INSTALLED.
- COORDINATE ALL ELECTRICAL DEVICES AND LOCATIONS WITH THE ARCHITECTURAL DRAWINGS. THE LOCATIONS OF ELECTRICAL DEVICES OR LIGHTING FIXTURES INDICATED ON ARCHITECTURAL PLANS, ELEVATIONS, OR SECTIONS TAKE PRECEDENCE OVER LOCATIONS INDICATED ON THE XL-SERIES DRAWINGS.
- ALL RACEWAY REQUIREMENTS ARE SHOWN FOR REFERENCE ONLY AND ARE RESTRICTED TO BROADCAST LIGHTING SYSTEMS USE. ADDITIONAL RACEWAY REQUIREMENTS FOR POWER ARE SHOWN ON THE E-SERIES DRAWINGS. RACEWAY REQUIREMENTS FOR BROADCAST LIGHTING ARE SHOWN ON THE XL-SERIES DRAWINGS.
- ALL CONDUIT IS 3/4-INCH TRADE-SIZE MINIMUM. UON CONDUITS MUST BE METALLIC; NON-METALLIC CONDUITS ARE NOT PERMITTED. (BELOW-GRADE CONDUITS MUST BE PVC-COATED RGS CONDUIT.) ALL CONDUITS MUST BE DE-BURRED, CLEANED, CAPPED, TAGGED, AND FURNISHED WITH PULL WIRES.
- PROVIDE CONDUIT QUANTITIES AND SIZES AS SHOWN. DO NOT COMBINE CONDUIT RUNS WITHOUT THE WRITTEN PERMISSION OF THE BROADCAST LIGHTING SYSTEMS DESIGN ENGINEER.
- CONDUIT RUNS ON THESE DRAWINGS SHOW ONLY INTERCONNECTION BETWEEN TERMINAL POINTS. THE ELECTRICAL CONTRACTOR WILL DETERMINE THE EXACT PATHS OF CONDUITS BASED ON FIELD CONDITIONS.
- PROVIDE A MINIMUM OF ONE PULL BOX FOR EVERY 100 FT. OF STRAIGHT CONDUIT AND A PULL BOX FOR MORE THAN TWO 90 DEGREE BENDS IN A CONDUIT RUN.
- COORDINATE THE METHOD OF INSTALLATION OF BOXES IN WALLS AND THE METHOD OF PASSAGE OF CONDUITS AND WIREWAYS THROUGH ACOUSTICALLY SENSITIVE WALLS WITH THE ACOUSTICAL CONSULTANT.
- BROADCAST LIGHTING SYSTEM POWER REQUIREMENTS ARE SHOWN FOR REFERENCE ONLY AND REFLECT THE BROADCAST LIGHTING SYSTEM NEEDS. REFER TO THE E-SERIES DRAWINGS FOR ADDITIONAL OUTLET LOCATIONS AND CONDUIT AND WIRING REQUIREMENTS.
- CONFIRM ALL LOCATIONS OF EXPOSED JUNCTION BOXES AND PULL BOXES WITH THE ARCHITECT.
- REFER TO THE ELECTRICAL DRAWINGS FOR ADDITIONAL UTILITY POWER RECEPTACLES.
- ALL POWER CONDUIT, POWER RACEWAYS, AND POWER JUNCTION BOXES ARE TO BE REVIEWED BY THE ELECTRICAL ENGINEER FOR CODE COMPLIANCE.
- POWER BREAKER PANELS ARE SIZED AND SPECIFIED BY THE ELECTRICAL ENGINEER. REFER TO THE ELECTRICAL DRAWINGS. ALL CIRCUITS MUST BE PROTECTED BY APPROPRIATELY SIZED BREAKERS AND SURGE PROTECTIVE DEVICES (SPD'S) UNLESS OTHERWISE NOTED.
- WHERE POWER CIRCUITS ARE SHOWN TERMINATING IN JUNCTION BOXES WITHOUT RECEPTACLES, THE WIRES MUST BE SUITABLY CAPPED AND LABELED, AND THE BOXES COVERED. THESE CIRCUITS WILL BE CONNECTED BY OTHERS DURING INSTALLATION OF THE BROADCAST LIGHTING SYSTEM EQUIPMENT.
- DO NOT RUN ELECTRICAL POWER CIRCUITS PARALLEL WITH LOW VOLTAGE/DATA LINES OR RACEWAYS UNLESS NECESSARY. WHERE NECESSARY, MAINTAIN A MINIMUM OF FOUR (4) FEET OF SEPARATION BETWEEN POWER CIRCUITS AND THEATRICAL CONTROL/SIGNAL RACEWAYS.
- ALL DEDICATED BROADCAST LIGHTING SYSTEM BACKBOXES FOR FUTURE USE MUST BE FITTED WITH A PAINTED BLANK PLATE. SEE ARCHITECT FOR COLOR REQUIREMENTS WHICH WILL DEPEND ON LOCATION.

BROADCAST LIGHTING SYSTEMS SYMBOL LEGEND:

SYMBOL	TAG TYPE	DESCRIPTION	NOTES
	PL1x	PARABOLIC REFLECTOR SPOTLIGHT (PAR)	
	PL2x	FRESNEL	
	PL3x	DIFFUSE PANEL LIGHT	
	PL4x	FRAMING PROJECTOR	
	PLC1	BROADCAST LIGHTING CONTROL DEVICE	
	PLP1	BROADCAST LIGHTING RELAY AND DIMMER PANEL	

BROADCAST LIGHTING SYSTEMS ABBREVIATIONS

A	AMPERE	LV	LOW-VOLTAGE
AC	ABOVE COUNTER	M/MIC	MICROPHONE, MIC-LEVEL AUDIO
ACS	ACCESS CONTROL SYSTEM	MAX	MAXIMUM
AF	ABOVE FINISHED CEILING	MDF	MAIN DISTRIBUTION FRAME (MAIN TELECOM ROOM)
AFB	ABOVE FINISHED FLOOR	MECH	MECHANICAL
AFG	ABOVE FINISHED GRADE	MFG,MFR	MANUFACTURER
AHJ	AUTHORITY HAVING JURISDICTION	MIC	MICROPHONE (OR MICROPHONE-LEVEL AUDIO)
AL	ALUMINUM	MIN	MINIMUM
ALS	ASSISTIVE LISTENING SYSTEM	MM	MULTI-MODE OPTICAL FIBER
AMP	AMPLIFIER	MON	MONITOR
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	MTD	MOUNTED
ANT	ANTENNA	MTG	MOUNTING
AP, WAP	(WIRELESS) ACCESS POINT	MTR	MAIN TELECOM ROOM
APPROX	APPROXIMATELY	N	NEW
ATC	AUDIO TELECONFERENCING	NC	NORMALLY CLOSED
AUDIO	LINE-LEVEL AUDIO	NIC	NOT IN CONTRACT
AUX	AUXILIARY	NO	NORMALLY OPEN
AV	AUDIO-VIDEO, AUDIO-VISUAL, AUDIOVISUAL	NTS	NOT TO SCALE
AVC	AUDIO-VIDEO CONTRACTOR	OAE	OR APPROVED EQUAL
AVOIP	AUDIO-VIDEO OVER INTERNET PROTOCOL	OC	ON CENTER
AWG	AMERICAN WIRE GAUGE	OCC	OCCUPANCY
BB	BACK BOX	OD	OUTSIDE DIAMETER
BFC	BELOW FINISHED CEILING	ODE	OPTICAL DISTRIBUTION ENCLOSURE
BFF	BELOW FINISHED FLOOR	ODF	OPTICAL DISTRIBUTION FRAME
BO	BY OTHERS	OFCI	OWNER-FURNISHED, CONTRACTOR-INSTALLED
BT	BLUETOOTH	OFE	OWNER-FURNISHED EQUIPMENT
C	CONDUIT RACEWAY	OFI	OWNER-FURNISHED, OWNER-INSTALLED
CAB	CABINET	OH	OVERHEAD
CAM,VC	CAMERA	OIS	OPTICALLY-ISOLATED "OPTO" DMX SIGNAL SPLITTER
CATV	CABLE TELEVISION	OSP	OUTSIDE PLANT
CC	CONTACT CLOSURE	PA	PUBLIC ADDRESS
CCTV	CLOSED CIRCUIT TELEVISION	PB	PULL BOX
CH	CHANNEL	PBB	PRIMARY BONDING BUS BAR
CKT	CIRCUIT	PBO	PROVIDED BY OTHERS
CLG	CEILING	PC	PERSONAL COMPUTER (DESKTOP/TOWER)
CLK	CLOCK	PET	PROTECTION ENTRANCE TERMINAL
CO	CONDUIT ONLY	PJ,PROJ	PROJECTOR
COAX	COAXIAL	PLYWD	PLYWOOD
CODEC	ENCODER / DECODER	PNL	PANEL
CONTD	CONTD	POE	POWER OVER ETHERNET
COMM	COMMUNICATIONS	PR	PAIR
CP	CONTROL PANEL	PS	PROJECTION SCREEN
CPU	CENTRAL PROCESSING UNIT	PTZ	PAN-TILT-ZOOM
CT	CABLE TRAY	PVC	POLYVINYL CHLORIDE
CTRL	CONTROL	PWR	POWER
CU	COPPER	QTY	QUANTITY
DB	DECIBEL	R	REMOVE
DC	DOOR CONTACT	RACK	EQUIPMENT RACK/CABINET
DED	DEDICATED	RBB	RACK BONDING BUS BAR
DEMARC	SERVICE PROVIDER DEMARCATION POINT	RBC	RACK BONDING CONDUCTOR
DIA	DIAMETER	RCPT	RECEPTACLE
DISP	DISPLAY	RF	RADIO FREQUENCY
DIST	DISTRIBUTION	RGB	RACK GROUND BUS BAR
DMX	LIGHTING CTRL STD ANSI E1.11 (R2008) USITT DMX512-A	RGBHV	RED-GREEN-BLUE HORIZONTAL-VERTICAL SYNC
DSP	DIGITAL SIGNAL PROCESSOR	RGS	RIGID GALVANIZED STEEL (SAME AS "RMC")
DWG	DRAWING	RIO	ROUGH-IN ONLY
E,EX,EXIST	EXISTING TO REMAIN	RL	RELOCATE/RELOCATED
EC	ELECTRICAL CONTRACTOR	RMC,GRG,RGS	RIGID METAL CONDUIT
EEOB	ELECTRICAL ENGINEER OF RECORD	RSD	ROOM STATUS DISPLAY / INDICATOR LIGHT
EF	SERVICE PROVIDER ENTRANCE FACILITY	RU	RACK UNIT(S)
ELEC,ELECT	ELECTRICAL	RX	RECEIVER
EM	EMERGENCY	S,SPKR	SPEAKER, LOUDSPEAKER
EMT	ELECTRICAL METALLIC TUBING	SU/TP	OVERALL BRAID SCREEN WITH UNSCREENED TWISTED PAIRS
ENCL	ENCLOSURE	SBB	SECONDARY BONDING BUS BAR
EOR	ENGINEER OF RECORD	SC	SC CONNECTOR (FIBER-OPTIC TERMINATION)
ER	EQUIPMENT RACK/CABINET	SCC	STRUCTURED CABLING CONTRACTOR
ESS	ELECTRONIC SAFETY AND SECURITY	SCRN	SCREEN
F, FU	FUSE	SCS	STRUCTURED CABLING SYSTEMS
F,U	FUSE	SF,FTP	OVERALL BRAID SCREEN AND FOIL SHIELD WITH FOIL-SCREENED TWISTED PAIRS
F,U/TP	OVERALL FOIL SHIELD WITH UNSHIELDED TWISTED PAIRS	SF,U/TP	OVERALL BRAID SCREEN AND FOIL SHIELD WITH UNSCREENED TWISTED PAIRS
FA	FIRE ALARM	SF,TP,S/FTP	OVERALL BRAID SCREEN WITH FOIL-SCREENED TWISTED PAIRS
FACP	FIRE ALARM CONTROL PANEL	SM	SINGLE-MODE OPTICAL FIBER
FB	FLOOR BOX	SPD	SURGE PROTECTIVE DEVICE
FDU	FIBER DISTRIBUTION UNIT	SPECS	SPECIFICATIONS
FFTP,F,FTP	OVERALL FOIL SHIELD WITH FOIL-SCREENED TWISTED PAIRS	SS,SST	STAINLESS STEEL
FLR	FLOOR	ST	STEREO
FO	FIBER OPTIC	STD	STANDARD
FOC	FIBER OPTIC CABLE	STP	SHIELDED TWISTED PAIR, SAME AS "SU/TP"
FOPP	FIBER OPTIC PATCH PANEL	STR	STRAND
FP	FLAT PANEL VIDEO MONITOR	TBB	TELECOMMUNICATIONS BONDING BACKBONE
FT	FEET	TBC	TELECOMMUNICATIONS BONDING CONDUCTOR
FTP,F,UTP,F,UTP	OVERALL FOIL SHIELD WITH UNSCREENED TWISTED PAIRS	TBD	TO BE DETERMINED
G,GND	GROUND	TCPIP	TRANSMISSION CONTROL PROTOCOL / INTERNET PROTOCOL
GA	GAUGE	TBC	TELECOMMUNICATIONS EQUIPMENT BONDING CONDUCTOR
GC	GENERAL CONTRACTOR	TGB	TELECOMMUNICATIONS GROUND BAR
GRC	GALVANIZED RIGID CONDUIT (SAME AS "RMC")	TIA	TELECOMMUNICATIONS INDUSTRY ASSOCIATION
GUI	GRAPHICAL USER INTERFACE	TP	TOUCH PANEL
HDBT	HD-BASE-T	TR	TELECOMMUNICATIONS ROOM
HDMI	HIGH-DEFINITION MULTIMEDIA INTERFACE	TV	TELEVISION MONITOR, FLAT-PANEL VIDEO MONITOR
HF	HIGH FREQUENCY	TX	TRANSMITTER
HH	HAND HOLE (IN-GRADE PULL BOX)	TYP	TYPICAL
HORIZ	HORIZONTAL	U/FTP	UNSHIELDED, FOIL-SCREENED TWISTED PAIRS
I/O	INPUT / OUTPUT	UC	UNDER COUNTER
IC	INTERCOM	UG	UNDERGROUND
ID	INSIDE DIAMETER	UON	UNLESS OTHERWISE NOTED
IDF	INTERMEDIATE DISTRIBUTION FRAME	UPS	UNINTERRUPTIBLE POWER SUPPLY
IDS	INTRUSION DETECTION / PANIC ALARM SYSTEM	USB	UNIVERSAL SERIAL BUS
IG	ISOLATED GROUND	UTP	UNSHIELDED TWISTED PAIR
IMC	INTERMEDIATE METAL CONDUIT	V	VOLT(S)
IN	INCHES	VA	VOLT-AMP(S)
IP	INTERNET PROTOCOL	VAC	VOLTS - ALTERNATING CURRENT
IR	INFRARED	VDC	VOLTS - DIRECT CURRENT
J,B,J-BOX	JUNCTION BOX	VERT	VERTICAL
KP	KEYPAD	VOL	VOLUME
KTR	CONTRACTOR	VR	VANDAL RESISTANT
KVM	KEYBOARD-VIDEO-MOUSE	VSS	VIDEO SURVEILLANCE SYSTEM
L/C/R	LEFT/CENTER/RIGHT AUDIO	VTC	VIDEO TELECONFERENCING
L/R	LEFT/RIGHT AUDIO	W	WATT(S)
LAN	LOCAL AREA NETWORK	WAO	WORK AREA OUTLET
LB, LBS	POUNDS	WP	WEATHERPROOF
LC	LC CONNECTOR (FIBER-OPTIC TERMINATION)		
LCD	LIQUID CRYSTAL DISPLAY		
LED	LIGHT EMITTING DIODE		
LF	LOW FREQUENCY		
LT	LIQUID TIGHT		

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DATE 04/25/2024
PROJECT NO 22-0227.001

DRAWING NAME
**BROADCAST
LIGHTING
GENERAL NOTES
AND
ABBREVIATIONS**

SHEET NO
XL001

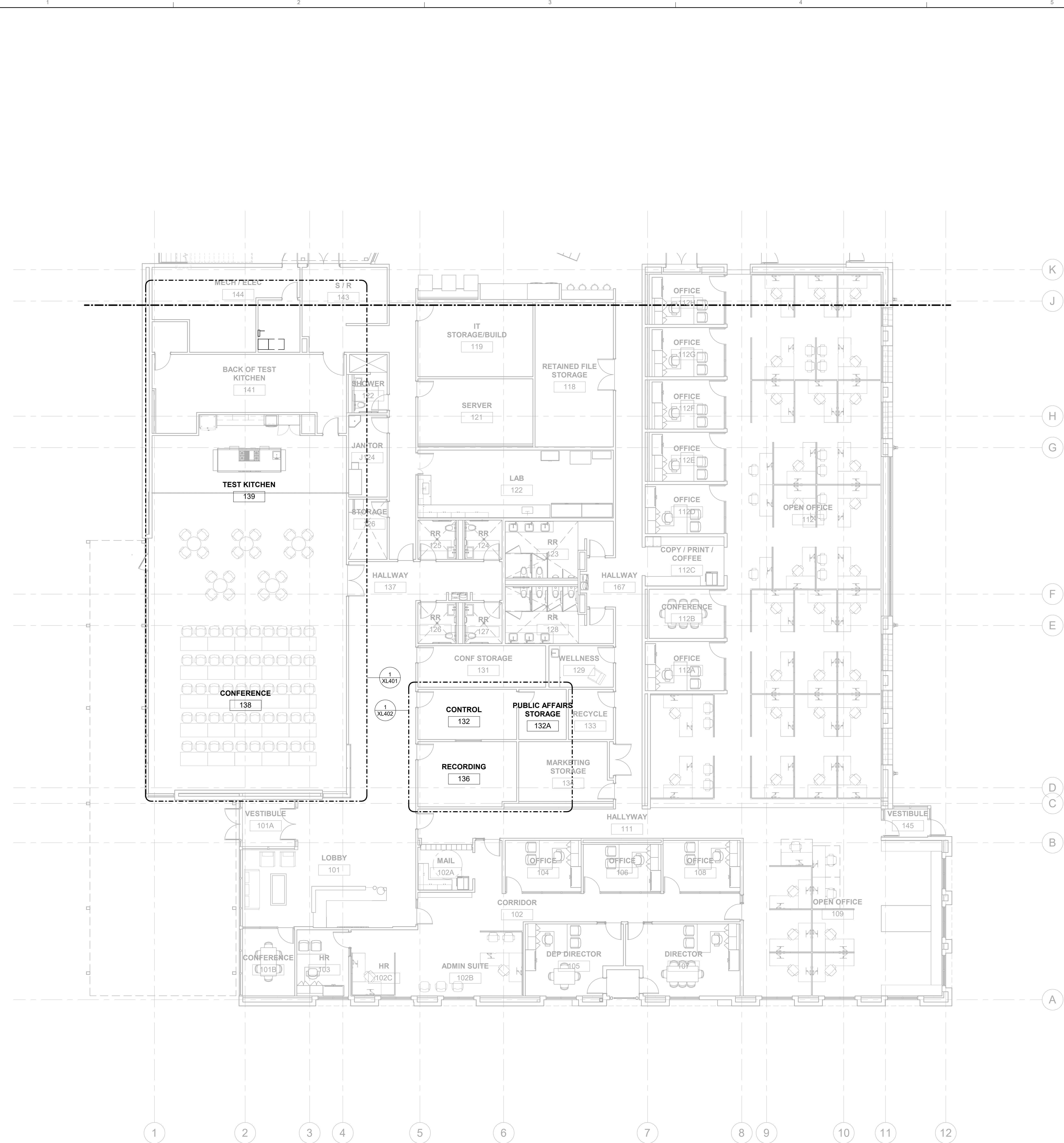
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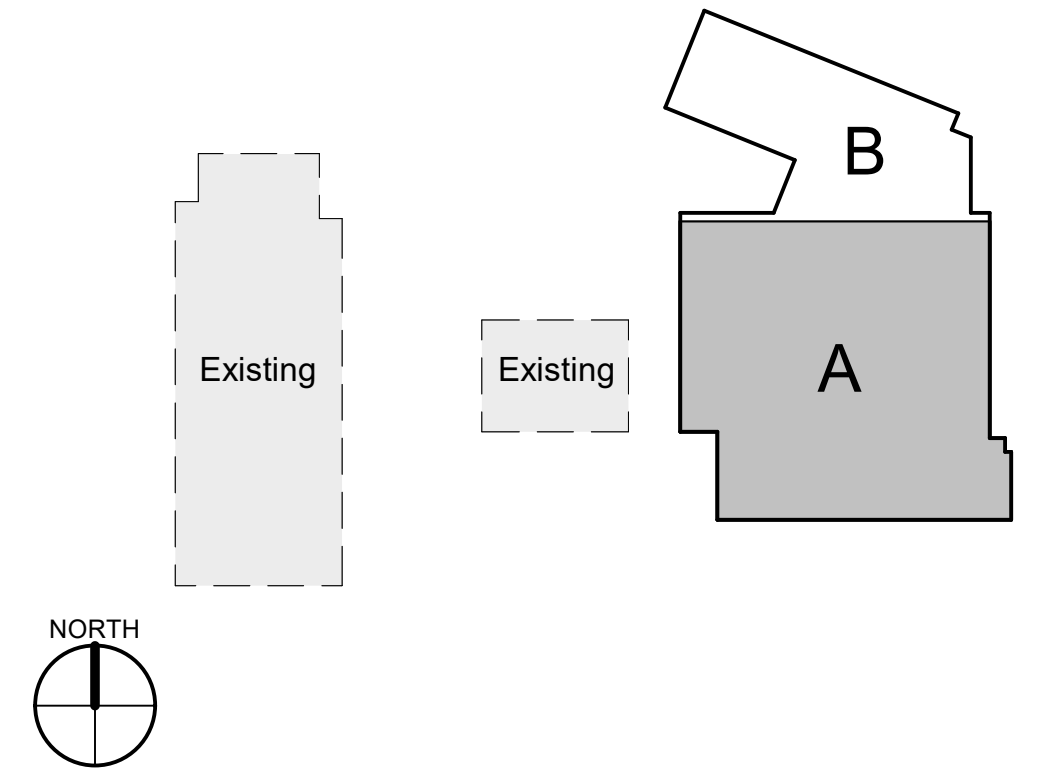
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DATE	04/25/2024
PROJECT NO	22-0227.001

DRAWING NAME
**BROADCAST
LIGHTING FLOOR
PLAN - AREA A**

SHEET NO
XL101A



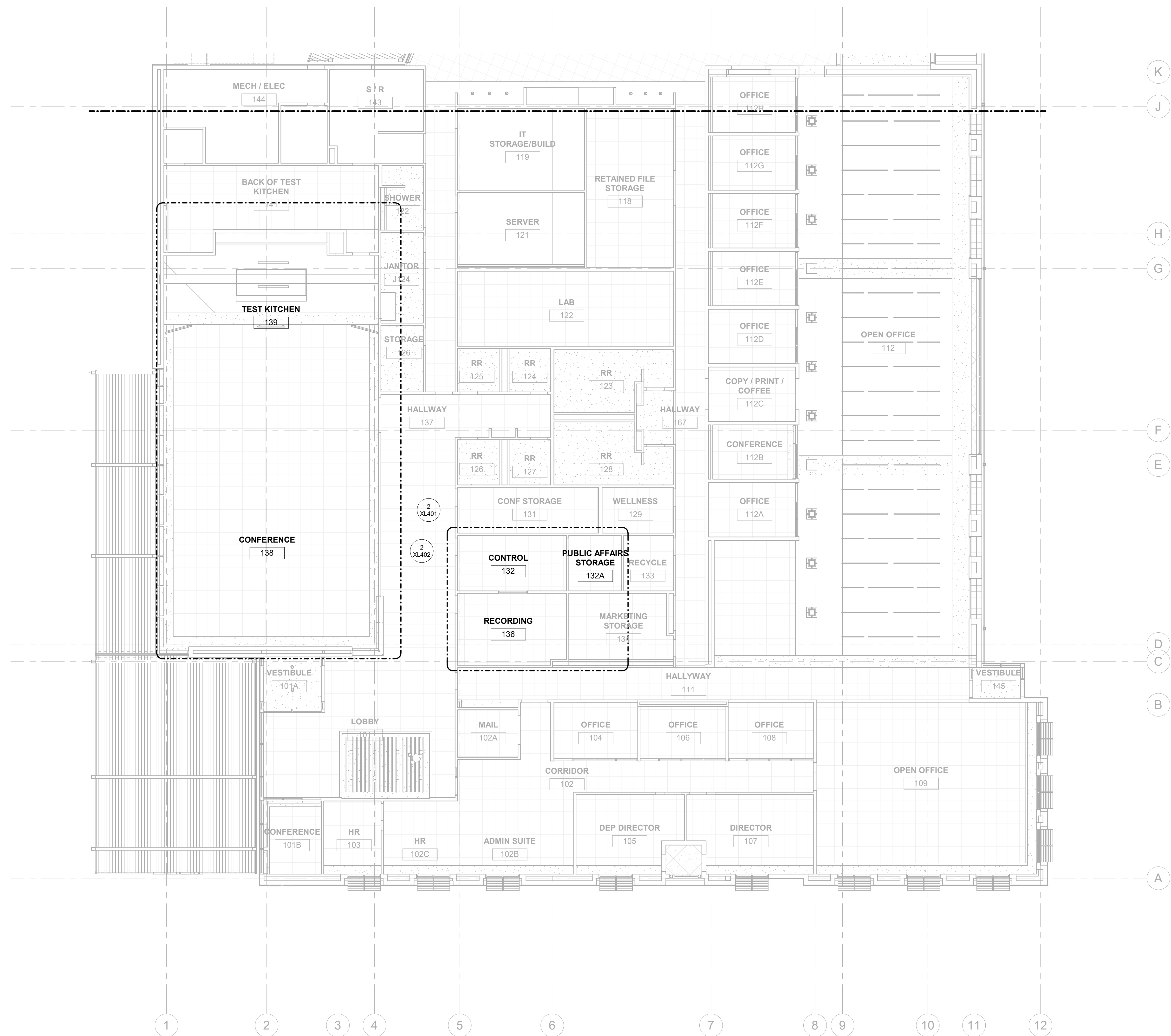
1 BROADCAST LIGHTING FLOOR PLAN - AREA A
1/8" = 1'-0"



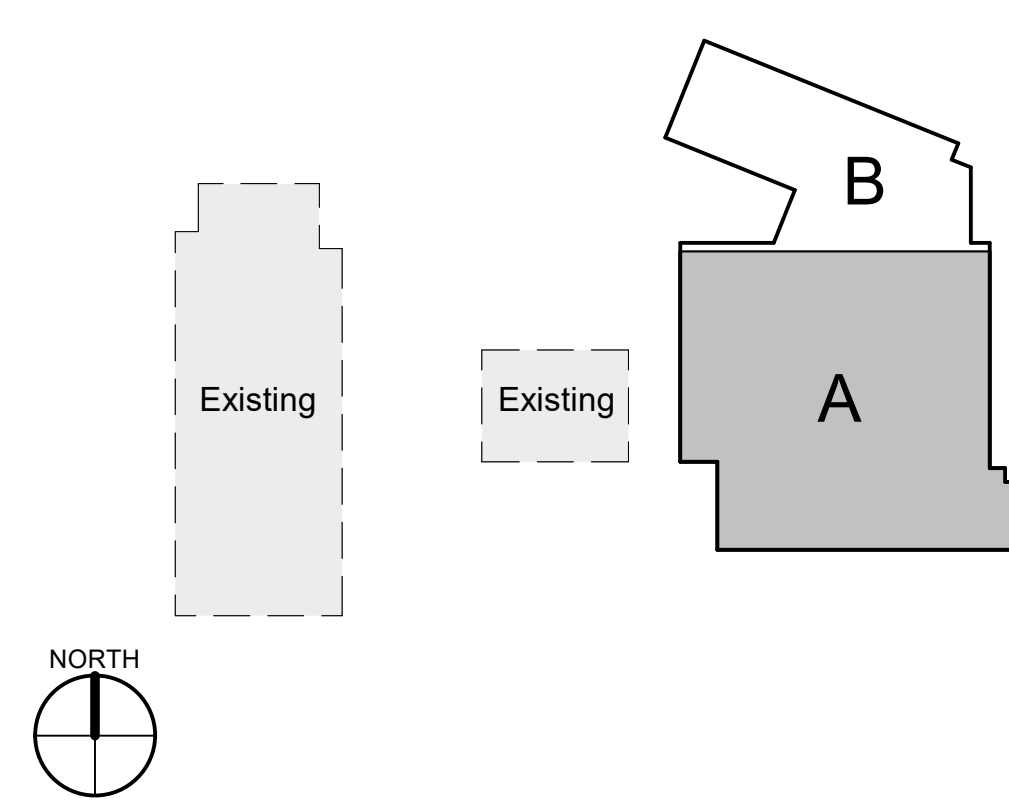
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1 BROADCAST LIGHTING REFLECTED CEILING PLAN - AREA A
1/8" = 1'-0"



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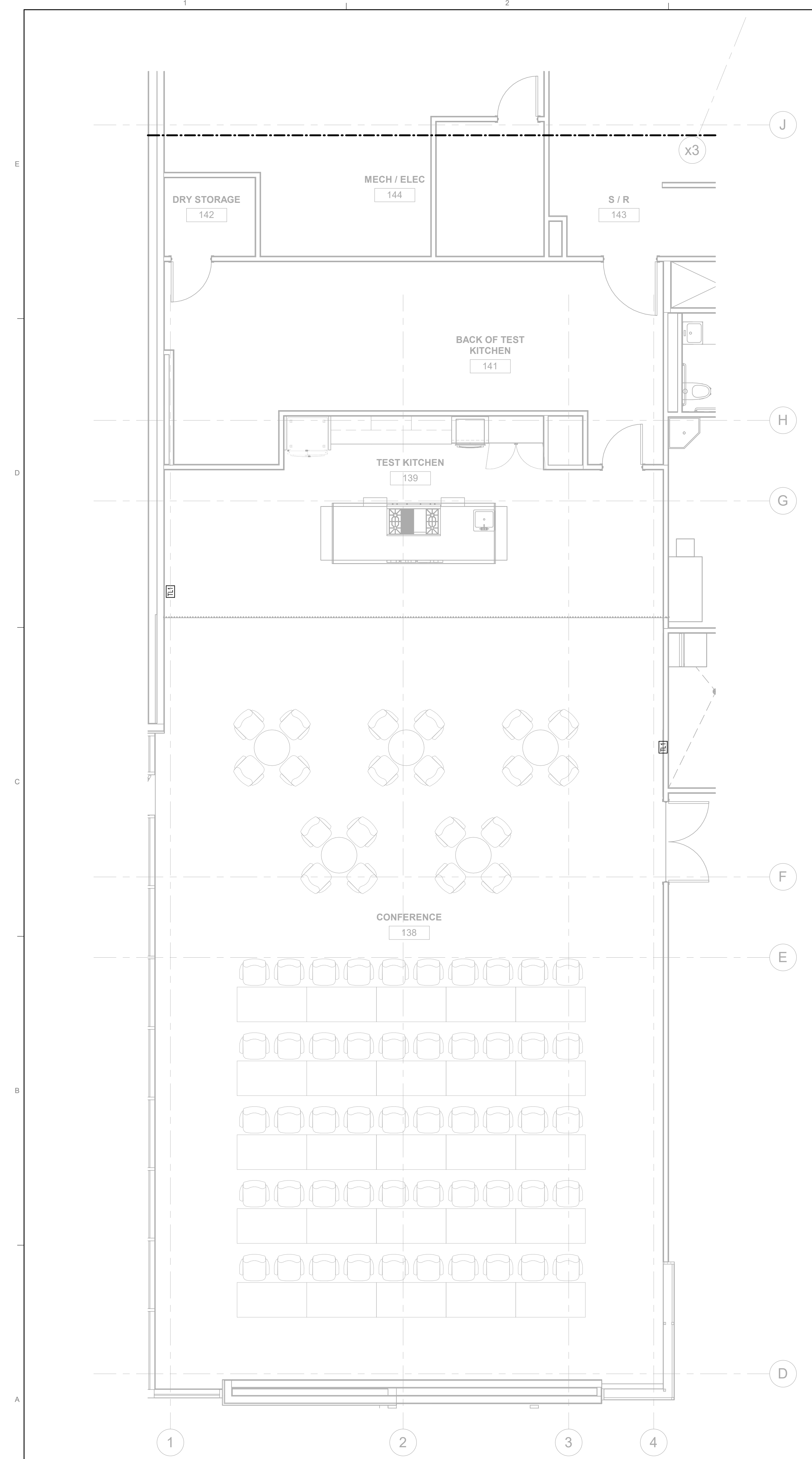
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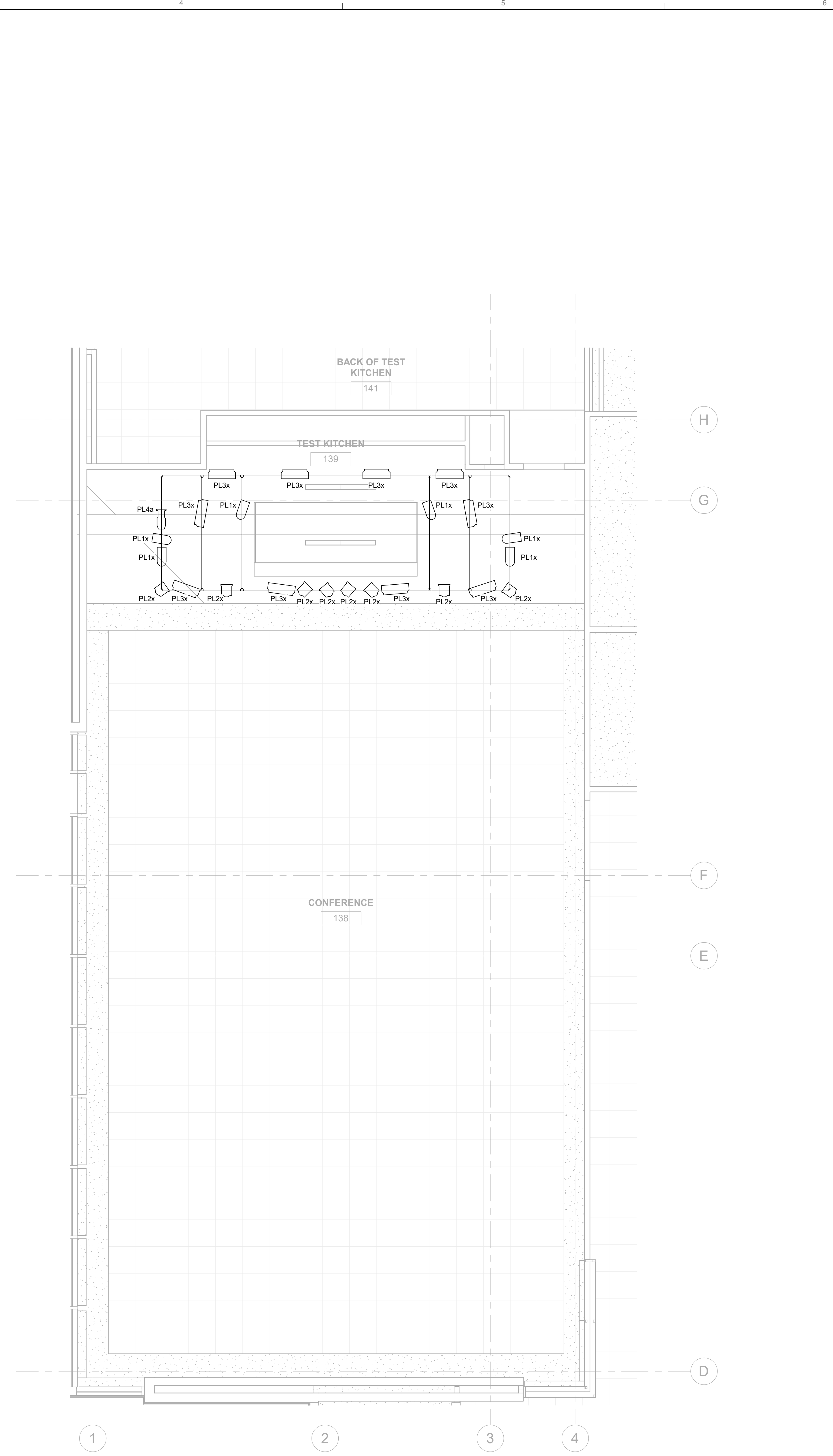
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DATE	04/25/2024
PROJECT NO	22-0227.001

DRAWING NAME
**BROADCAST
 LIGHTING
 ENLARGED
 PLANS**

SHEET NO
XL401

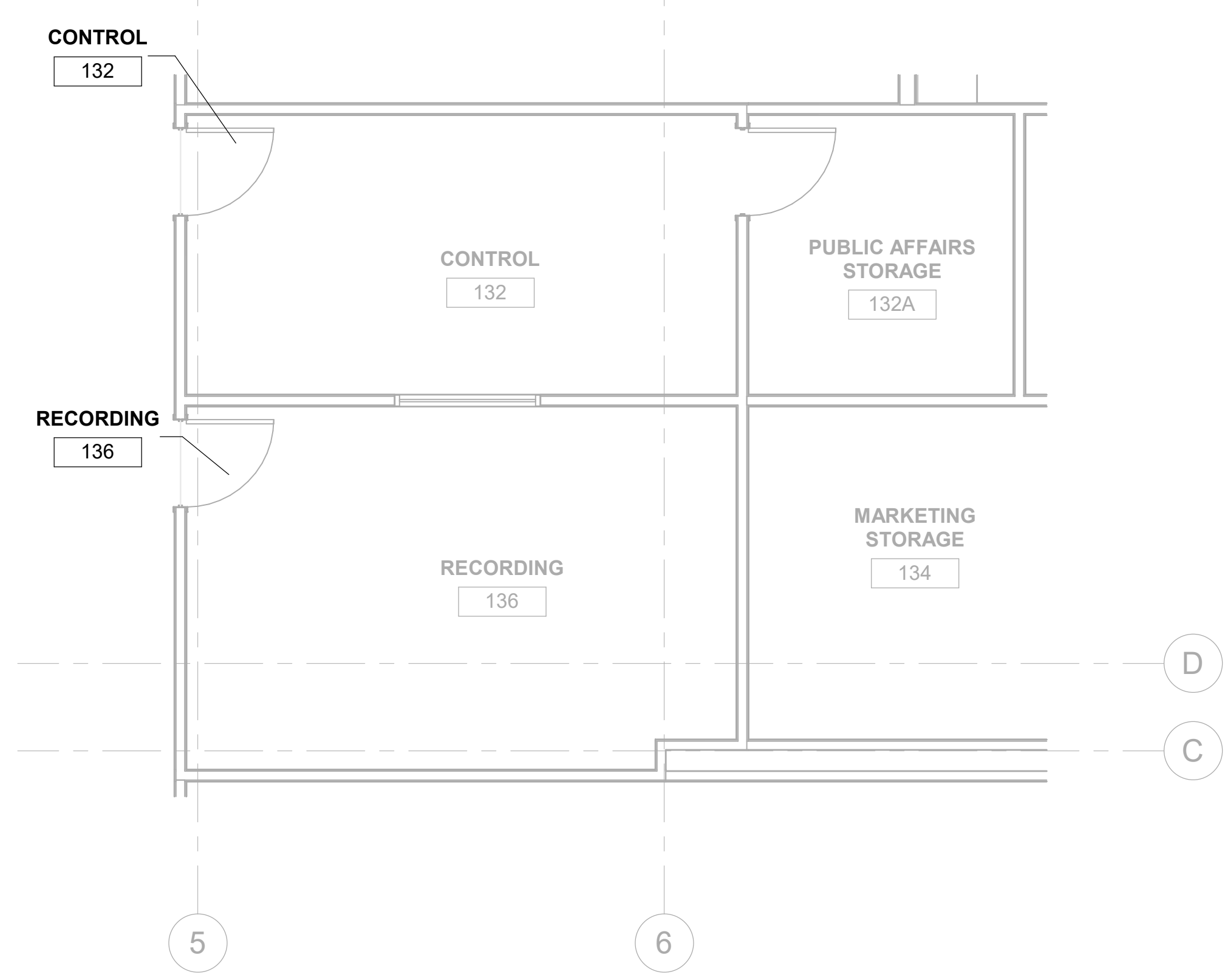


1
 BROADCAST LIGHTING ENLARGED PLAN - TEST KITCHEN &
 CONFERENCE
 1/4" = 1'-0"

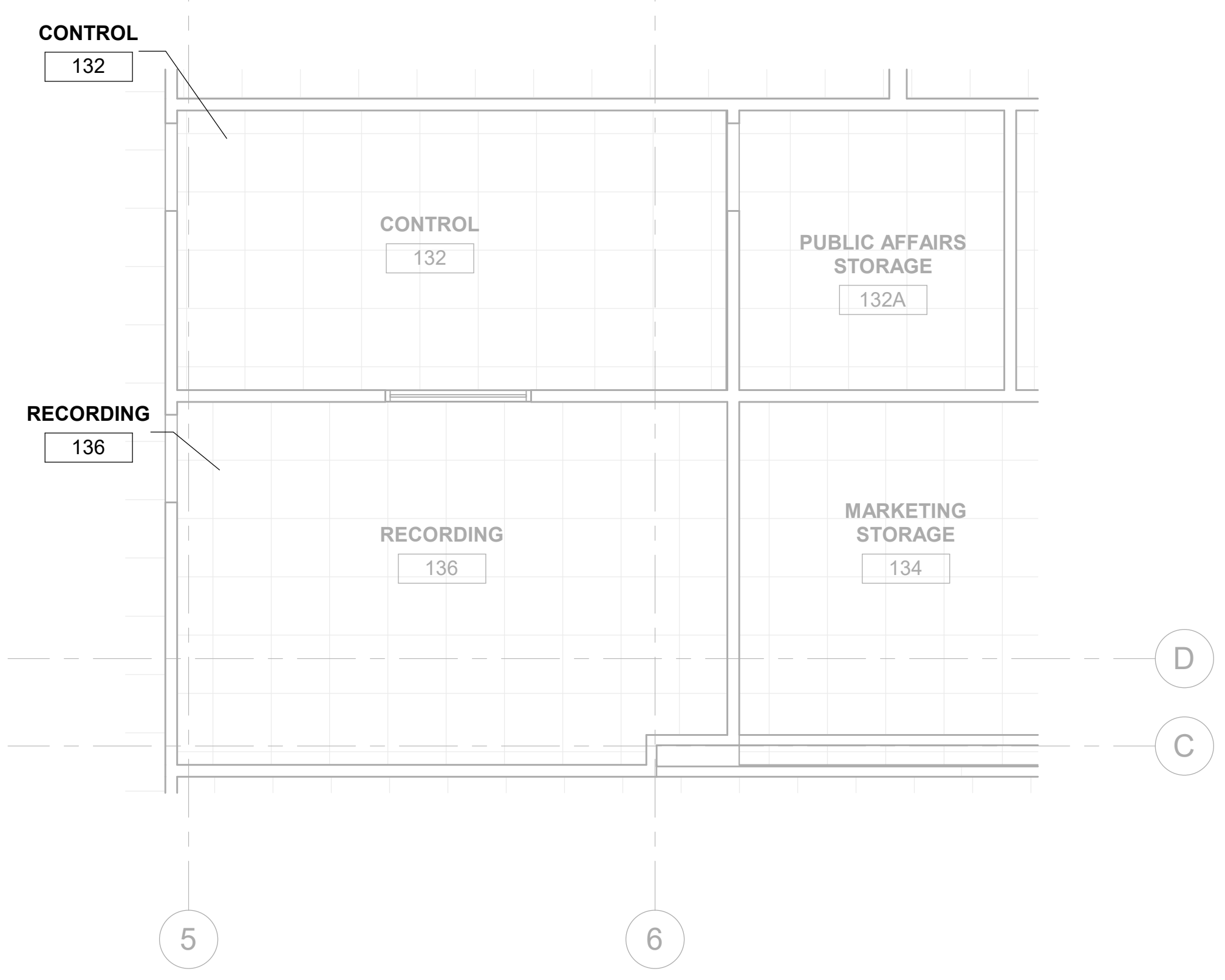


2
 BROADCAST LIGHTING ENLARGED RCP - TEST KITCHEN &
 CONFERENCE
 1/4" = 1'-0"

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1 BROADCAST LIGHTING ENLARGED PLAN - CONTROL & RECORDING
1/4" = 1'-0"



2 BROADCAST LIGHTING ENLARGED RCP - CONTROL & RECORDING
1/4" = 1'-0"

FOODSERVICE EQUIPMENT SCHEDULE											
ITEM NUMBER	QUANTITY	BUY OUT	FABRICATED	MILLWORK	N.I.K.E.C.	PROVIDED BY	INSTALLED BY	EQUIPMENT DESCRIPTION	EQUIP MANUFACTURER	EQUIP MODEL NUMBER	EQUIPMENT REMARKS
1	1	X					KEC	KEC REACH-IN FREEZER	TRUE	STG2F-25-HC	
2	1	X					KEC	KEC WORK TABLE	ADVANCE TABCO	KSS-305	MODIFIED LENGTH TO 42"
3	1	X					KEC	KEC COFFEE BREWER - TWIN	FETCO	CB9-2142XTS	
4	1	X					KEC	KEC ICE TEA BREWER - SINGLE	FETCO	TBS-1221XTS	
5	1	X					KEC	KEC ICE MACHINE	MANITOWOC	YT0620A	w/ FILTER
6	1	X					KEC	KEC ICE MACHINE BIN	FOLLETT	425-30	
7	1	X					KEC	KEC ICE MACHINE WATER FILTER	3M PURIFICATION	ICE145-S	
8	1	X					KEC	KEC WALK-IN COOLER	AMERICAN PANEL	CUSTOM	
9	1	X					KEC	KEC COOLER EVAP COIL	AMERICAN PANEL	BELO060B5BAM	
10	1	X					KEC	KEC COOLER CONDENSING UNIT	AMERICAN PANEL	FFAM-A082-CFY-075	
11	4	X					KEC	KEC WALK-IN STORAGE SHELVING UNITS	METRO	EPOXY	SEE FS PLANS FOR SIZE & CONFIGURATION
12	2	X					KEC	KEC SHEET PAN RACK	NEW AGE	1331	
13	3	X					KEC	KEC DRY STORAGE SHELVING UNITS	METRO	CHROME	SEE FS PLANS FOR SIZE & CONFIGURATION
14	1	X					KEC	KEC MICROWAVE SHELF	ADVANCE TABCO	MS-18-24	WALL BACKING BY G.C. REQ'D
15	1	X					KEC	KEC MICROWAVE OVEN	ACP	RCS10TS	
16	1	X					KEC	KEC HEATED CABINET	ALTO SHAAM	750-S	
17	-	-						SPARE NUMBER			
18	1		X				KEC	KEC TABLE - PREP W/ SINK	FABRICATOR	STAINLESS STEEL	
19	2	X					KEC	KEC WALL SHELVING UNITS	ADVANCE TABCO	WS-12-102-16	WALL BACKING BY G.C. REQ'D
20	1	X					KEC	KEC BLENDER, COUNTER TOP	VITAMIX	036019-ABAB	
21	1	X					KEC	KEC COMBINATION PROCESSOR	ROBOT COUPE	R301UDICE	
22	2	X					KEC	KEC INGREDIENT BIN	CAMBRO	IBS2014B	
23	1	X					KEC	KEC 8 QT MIXER	GLOBE	SP08	
24	1	X					KEC	KEC HAND SINK	ADVANCE TABCO	7-PS-5B	w/ SIDE SPLASHES
25	-	-						SPARE NUMBER			w/ CASTERS, OVERSHELF & UTENSIL BAR
26	-	-	X				KEC	KEC WORK TABLE	ADVANCE TABCO	TKSS-363	
27	-	-						SPARE NUMBER			
28	-	-						SPARE NUMBER			
29	1		X				KEC	KEC SOILED DISH TABLE w/ SCRAP SINK	FABRICATOR	STAINLESS STEEL	w/ PERFORATED BASKET & RACK SLIDES
30	1	X					KEC	KEC DISH RACK SORTING SHELF	ADVANCE TABCO	DT-6R-11	WALL BACKING BY G.C. REQ'D
31	1	X					KEC	KEC TRASH RECEPTACLE	RUBBERMAID	F026320DGRAY	w/ DOLLY & SILVER SAVER LID
32	1	X					KEC	KEC PRE-RINSE FAUCET	FISHER	22100	
33	1	X					KEC	KEC DISPOSER	SALVAJOR	200-SA-6-ARSS	
34	1	X					KEC	KEC VENTLESS DISH MACHINE	HOBART	AM16VLT	w/ INTEGRAL BOOSTER HEATER
35	LOT	X					KEC	KEC S/S WALL FLASHING	FABRICATOR	STAINLESS STEEL	
36	-	-	X				KEC	KEC CLEAN DISH TABLE w/ 3 COMP SINK	FABRICATOR	STAINLESS STEEL	
37	-	-						SPARE NUMBER			
38	-	-						SPARE NUMBER			
39	1	X					KEC	KEC WALL MOUNT UTENSIL RACK	ADVANCE TABCO	SW-84	WALL BACKING BY G.C. REQ'D
40	1	X					KEC	KEC POT/PAN STORAGE SHELVING UNITS	METRO	CHROME	SEE FS PLANS FOR SIZE & CONFIGURATION
41	-	-						SPARE NUMBER			
42	-	-						SPARE NUMBER			
43	-	-						SPARE NUMBER			
44	1	X					KEC	KEC EXHAUST HOOD - TYPE I	CAPTIVE AIRE	6030ND-2-PSP-F	
45	1	X					KEC	KEC FIRE SUPPRESSION SYSTEM	CAPTIVE AIRE	TANK	
46	1	X					KEC	KEC ELECTRICAL CONTROL PACKAGE	CAPTIVE AIRE	DCV-21111	
47	1	X					KEC	KEC S/S WALL FLASHING	FABRICATOR	STAINLESS STEEL	
48	1	X					KEC	KEC 6 O.B. RANGE w/ OVEN	IMPERIAL	IR-6-C	w/ CASTERS
49	1	X					KEC	KEC BRAISING PAN	RATIONAL	WARIO PRO L	
50	1	X					KEC	KEC COMBI OVEN	RATIONAL	ICP 10-FULL NG	w/ STAND & FILTER
51	1	X					KEC	KEC ICE MACHINE	MANITOWOC	YT1830C	w/ REMOTE CONDENSER
52	1	X					KEC	KEC ICE MACHINE BIN	FOLLETT	SG1000S-36	
53	1	X					KEC	KEC ICE MACHINE WATER FILTER	3M PURIFICATION	ICE195-S	
54	1	X		X	X		GC	GC BACK SERVICE COUNTER	MILLWORK	CUSTOM	SEE ARCHITECTURAL PLANS FOR SPECIFICATION & DETAIL
55	1	X		X	X		GC	GC WALL CABINETS	MILLWORK	CUSTOM	SEE ARCHITECTURAL PLANS FOR SPECIFICATION & DETAIL
56	1	X		X	X		GC	GC RESIDENTIAL REFRIGERATOR/FREEZER	G.E.	GNE27JYMF5	
57	1	X		X	X		GC	GC RESIDENTIAL WALL OVEN/MICROWAVE	G.E.	PK7800EK/SK	
58	1	X					KEC	KEC DROP-IN SINK	ADVANCE TABCO	DI-1-168	
59	1	X					GC	GC RESIDENTIAL RANGE TOP	WOLF	SR1484CG	
60	1	X					KEC	KEC EXHAUST HOOD - TYPE I	CAPTIVE AIRE	6030ND1-PSP-F	
61	1	X					KEC	KEC FRONT SERVICE COUNTER	MILLWORK	CUSTOM	SEE ARCHITECTURAL PLANS FOR SPECIFICATION & DETAIL
62	1	X					KEC	KEC DUAL TEMP WINE CABINET	PERLUCK	CC240	
63	1	X					KEC	KEC BEER DISPLAY COOLER	PERLUCK	CC24W	
64	1	X					KEC	KEC BUTCHER BLOCK CUTTING BOARD	JOHN BOOS	RA06	w/ DISPLAY SHELVES AND BEER TEMP
65	-	-						SPARE NUMBER			

NOTES:

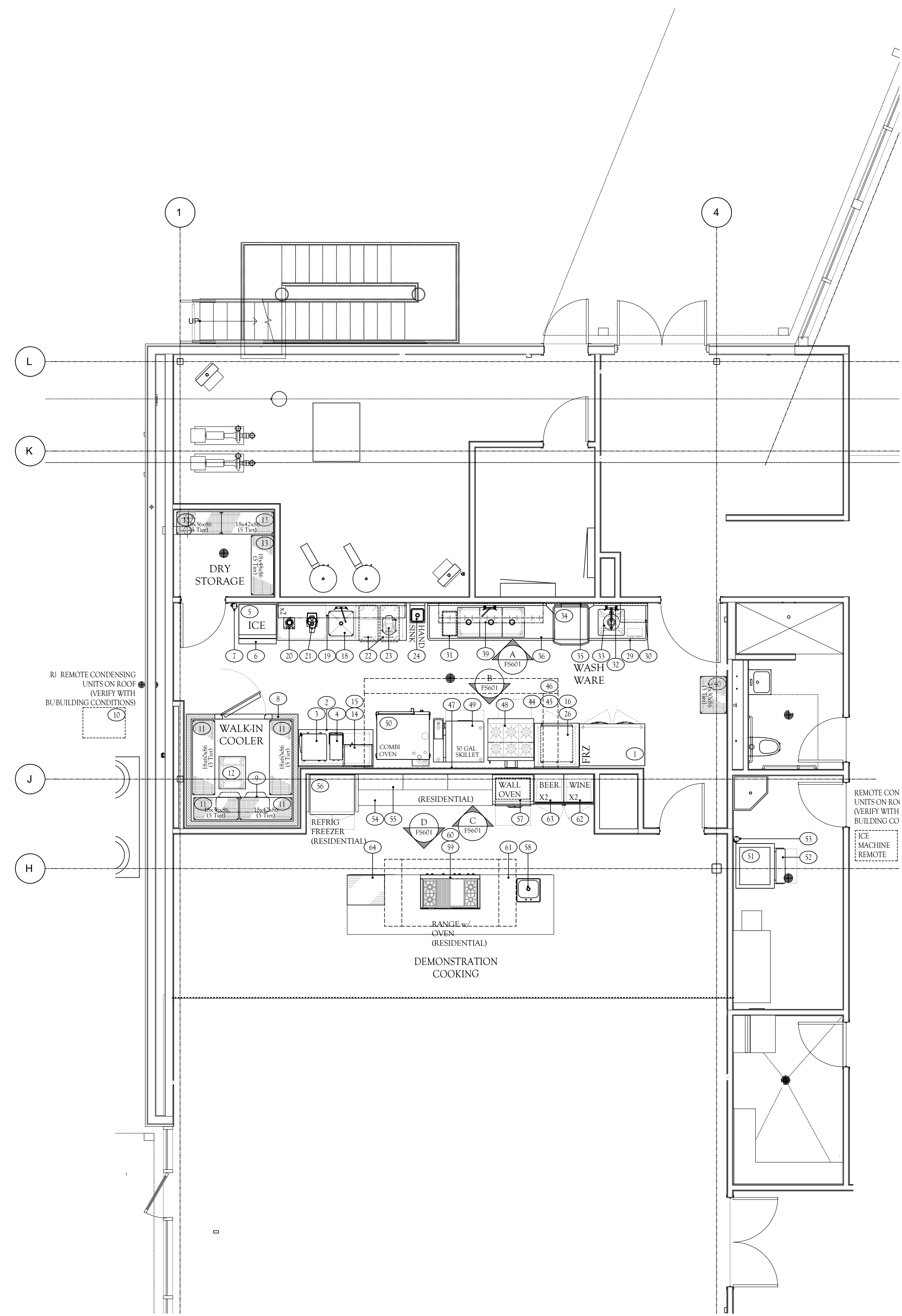
- ALL CONNECTIONS SHOWN IN THE SCHEDULE ARE SIZED AS THEY ACTUALLY OCCUR ON THE EQUIPMENT.
- CONNECTIONS SHOWN ARE FOR ONE UNIT. TO DETERMINE TOTAL REQUIREMENTS, MULTIPLY BY NUMBER IN QUANTITY COLUMN.
- WHEN EQUIPMENT IS NOTED AS EXISTING, UTILITY REQUIREMENTS SHOULD MATCH EXISTING AS INDICATED ON THE MANUFACTURER'S DATA PLATE.
- WHERE INDICATED TO CONNECT IN OR THROUGH A VALVE COMPARTMENT, CONTRACTOR SHALL STUB UP INTO VALVE COMPARTMENT AT HEIGHT INDICATED ON ROUGH-IN PLAN, CAP HIS WORK AND MAKE FINAL CONNECTIONS AFTER EQUIPMENT IS IN PLACE.
- THE INTENT OF THE DRAWINGS AND SPECIFICATIONS REGARDING ELECTRICAL PREWIRING AND PLUMBING PRE-PIPING IS TO HAVE THE K.E.C. EXTEND TO AND TERMINATE ALL CONNECTIONS FOR THE EQUIPMENT IN THE LOCATIONS INDICATED IN THE EQUIPMENT SCHEDULE AND SPOT PLANS.
- ALL ITEMS SHOWN WITH P.I. CONNECTIONS PLUG INTO RECEPTACLES FURNISHED BY THE K.E.C. AS PART OF THE EQUIPMENT.
- ELECTRICAL, PLUMBING AND MECHANICAL CONTRACTORS TO PROVIDE ALL ROUGH-IN BUILDING SERVICES AND FINAL CONNECTION TO ALL FOOD SERVICE EQUIPMENT.

CONTRACT CODE:

GC - GENERAL CONTRACTOR FURNISHED	E - EXISTING	P - PURCHASE
O - OWNER FURNISHED	F - FABRICATE	V - VENDOR FURNISHED
GC - GENERAL CONTRACTOR FURNISHED	OT - BY OTHERS	

NOTE:

- ALL S/S CUSTOM FABRICATION TO BE MANUFACTURED TO NSF STANDARDS BY APPROVED FABRICATOR.
- CUSTOM REFRIGERATION TO BE FABRICATED TO NSF STANDARDS BY CERTIFIED NSF FABRICATORS.



DEMONSTRATION KITCHEN & SERVERY AREA PLAN
SCALE: 1/4" = 1'-0"

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EQUIPMENT FLOOR
PLAN

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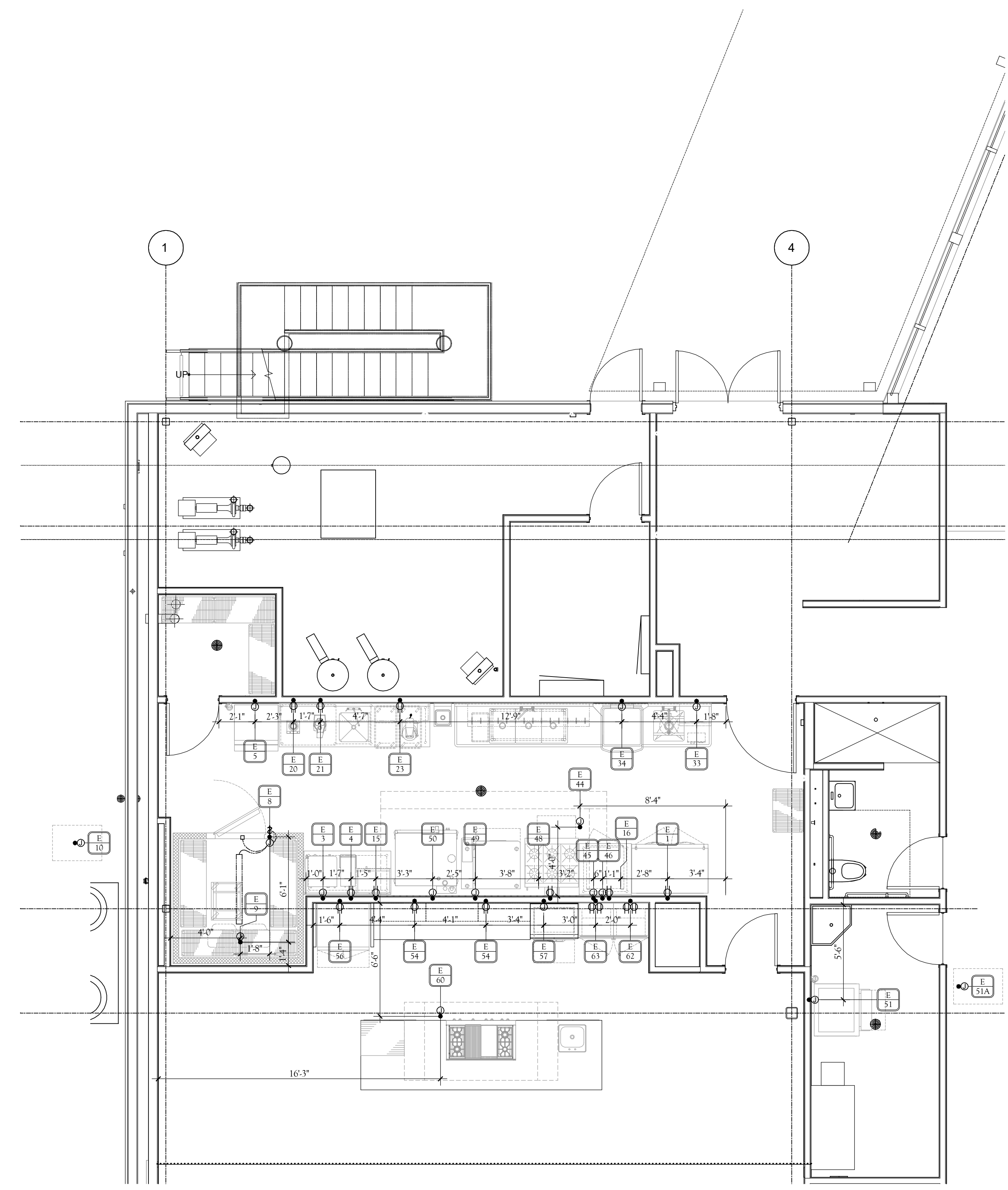
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DRAWING NAME
**FOODSERVICE
EQUIPMENT
ELECTRICAL
ROUGH-IN PLAN**

SHEET NO
FS201



DEMONSTRATION KITCHEN & SERVERY AREA PLAN
SCALE: 1/4" = 1'-0"

ELECTRICAL ROUGH-IN SCHEDULE						
TAG	QUA	ELECTRICAL ROUGH-IN	ELEC CONN TYPE	AMP LOAD	SERVICE TO	ELECTRICAL REMARK
E 1	1	120V 1PH DR + 86"	NEMA 5-20P	9.4A	REACH-IN FREEZER	
E 3	1	208V 1PH JB + 48"	HARD WIRED	21.3A	COFFEE BREWER - TWIN	
E 4	1	120V 1PH DR + 48"	NEMA 5-15P	14.0A	ICE TEA BREWER - SINGLE	
E 5	1	208V 1PH JB + 68"	HARD WIRED	5.9A	ICE MACHINE	
E 8	1	120V 1PH JB DN + 108"	HARD WIRED	5.0A	WALK-IN COOLER	
E 9	1	208V 1PH JB DN + 108"	HARD WIRED	0.6A	COOLER EVAP COIL	
E 10	1	208V 1PH JB	HARD WIRED	8.9A	COOLER CONDENSING UNIT	
E 15	1	120V 1PH DR + 66"	NEMA 5-20P	15.0A	MICROWAVE OVEN	
E 16	1	120V 1PH DR + 12"	NEMA 5-15P	9.0A	HEATED CABINET - UNDERCOUNTER	
E 20	1	120V 1PH DR + 48"	NEMA 5-15P	15.0A	BLENDER, COUNTER TOP	
E 21	1	120V 1PH DR + 48"	NEMA 5-15P	12.0A	COMBINATION PROCESSOR	
E 23	1	120V 1PH DR + 48"	NEMA 5-15P	5.0A	B QT. MIXER	
E 33	1	208V 1PH JB + 28"	HARD WIRED	12.1A	DISPOSER	
E 34	1	208V 3PH JB + 12"	HARD WIRED	53.5A	VENTLESS DISH MACHINE	CONN THRU CONTROLS
E 44	1	120V 1PH JB DN + 108"	HARD WIRED	5.0A	EXHAUST HOOD - TYPE I	
E 45	1	120V 1PH JB + 96"	HARD WIRED	15.0A	FIRE SUPPRESSION SYSTEM	
E 46	1	120V/208V 3PH JB + 96"	HARD WIRED	-	ELECTRICAL CONTROL PACKAGE	COORD. WITH MECH FAN SELECTIONS
E 48	1	120V 1PH DR + 16"	NEMA 5-15P	6.0A	6 O.S. RANGE w/ OVEN	
E 49	1	208V 3PH JB + 24"	HARD WIRED	64.0A	BRAISING PAN	
E 50	1	208V 1PH JB + 42"	NEMA 6-15P	7.3A	COMBI OVEN	
E 51	1	120V 1PH JB + 86"	HARD WIRED	1.1A	ICE MACHINE	
E 51A	1	208V 3PH JB (ON ROOF)	HARD WIRED	20.0A	ICE MACHINE REMOTE	
E 54	2	120V 1PH DR + 48"	NEMA 5-15P	15.0A	BACK SERVICE COUNTER	CONVENIENCE OUTLETS
E 56	1	120V 1PH DR + 24"	NEMA 5-15P	15.0A	RESIDENTIAL REFRIGERATOR/FREEZER	
E 57	1	208V 1PH JB + 54"	HARD WIRED	26.0A	RESIDENTIAL WALL OVEN/MICROWAVE	
E 60	1	120V 1PH JB DN + 108"	HARD WIRED	5.0A	EXHAUST HOOD - TYPE I	
E 61	2	120V 1PH DR + 48"	NEMA 5-15P	15.0A	FRONT SERVICE COUNTER	CONVENIENCE OUTLETS
E 62	1	120V 1PH DR + 167" & + 48"	NEMA 5-15P	2.4A (EA)	WINE CABINETS	
E 63	1	120V 1PH DR + 167" & + 48"	NEMA 5-15P	2.4A (EA)	BEER DISPLAY COOLER	

CLARIFICATIONS

- ROUGH-IN ELECTRICAL PERFORMED BY THE ELECTRICAL CONTRACTOR SHALL INCLUDE ALL MATERIAL, WIRE, SWITCHES, JUNCTION BOXES, CONVENIENCE OUTLETS, DISCONNECTS, HEAT TAPE, STARTERS, CONTACTORS, SHUNT BREAKERS, MICROSWITCHES, RECEPTACLES AND PULL BOXES NOT BUILT INTO THE FOOD SERVICE EQUIPMENT.
- FINAL CONNECTIONS USUALLY PERFORMED BY THE ELECTRICAL CONTRACTOR SHALL INCLUDE ALL MATERIALS, MOUNTING ALL SWITCHES OR CONTROL PANELS, COOLER/FREEZER LIGHTS AND INTERCONNECTING WIRING BETWEEN SWITCHES, PANELS, LIGHTS, SOLENOID VALVES, COMPRESSORS, CONDENSERS, EVAPORATORS, DOOR HEATERS, HEATED VENTS, DEFROST HEATERS, HEAT TAPE AND DISCONNECTS AS REQUIRED.
- SEE HOOD DRAWINGS FOR ELECTRICAL SPECIFICATIONS REQUIRED FOR EXHAUST HOODS, FAN PACKAGE AND FIRE SUPPRESSION SYSTEM.
- ALL ELECTRICAL RECEPTACLES IN FOOD SERVICE AREA TO BE MOUNTED HORIZONTALLY.

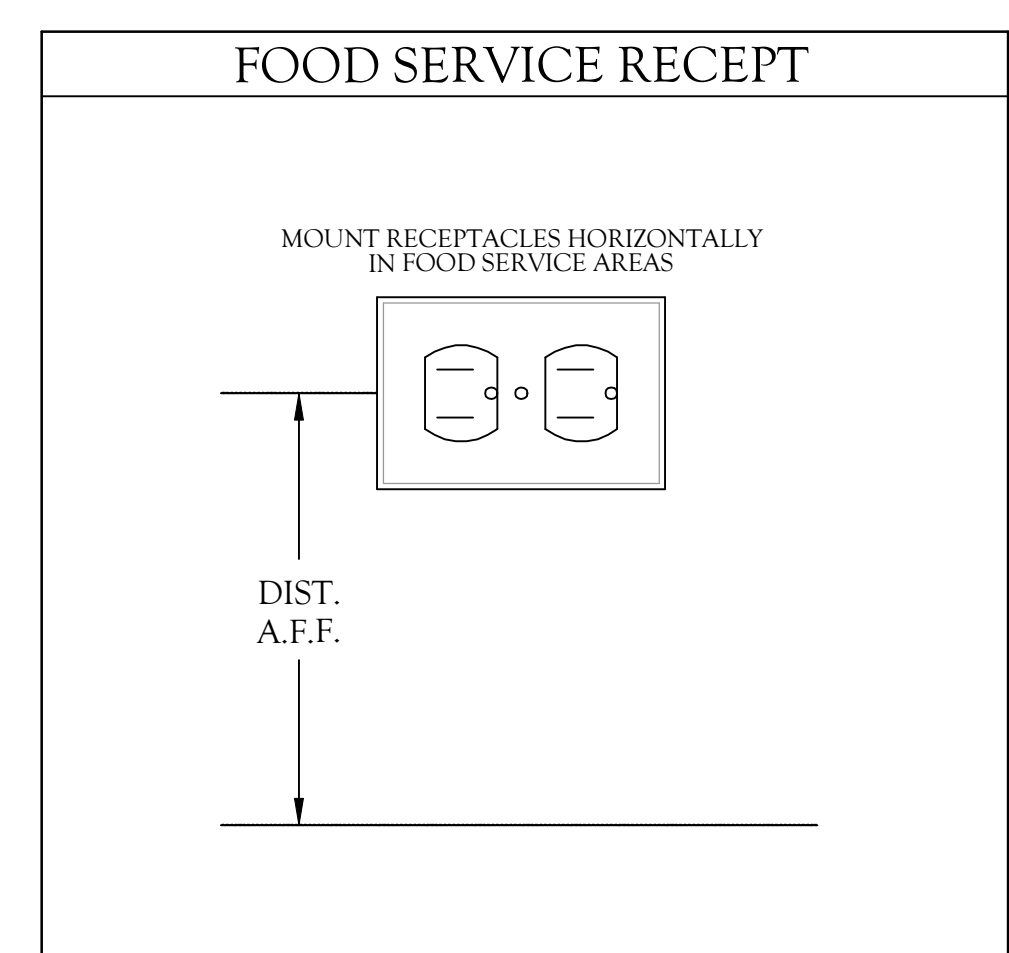
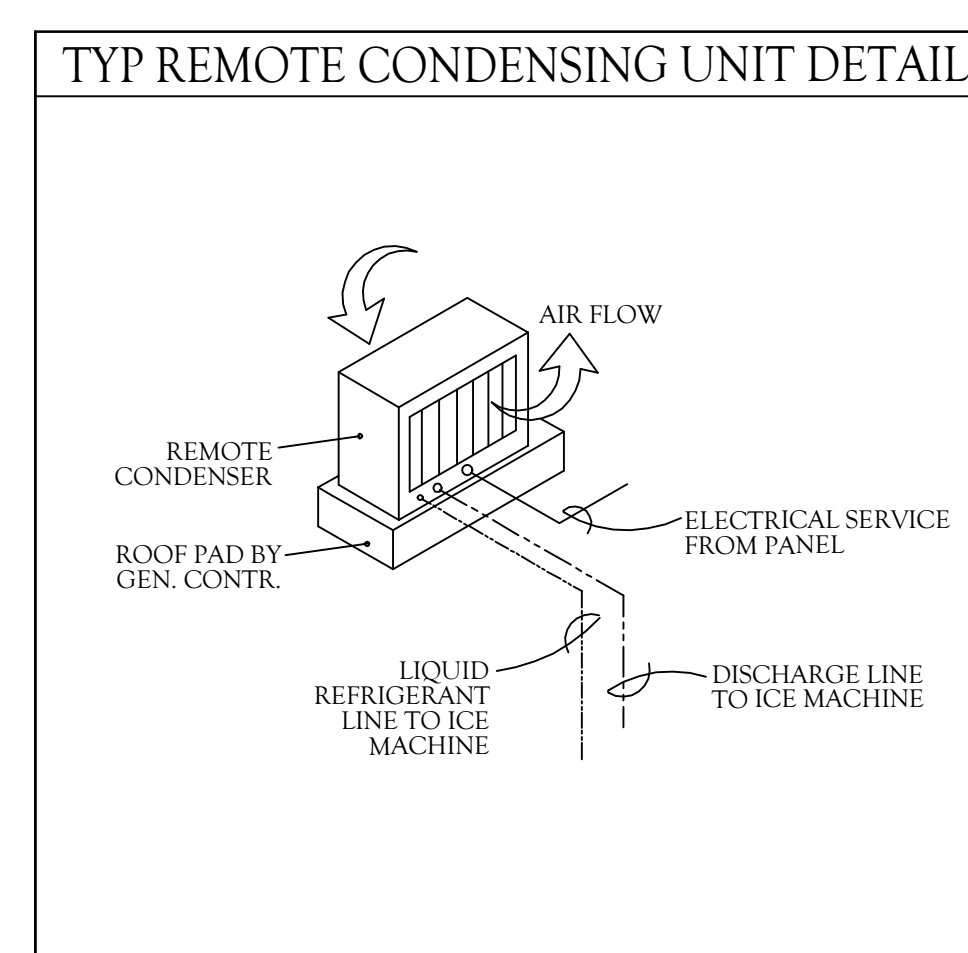
ELECTRICAL LEGEND

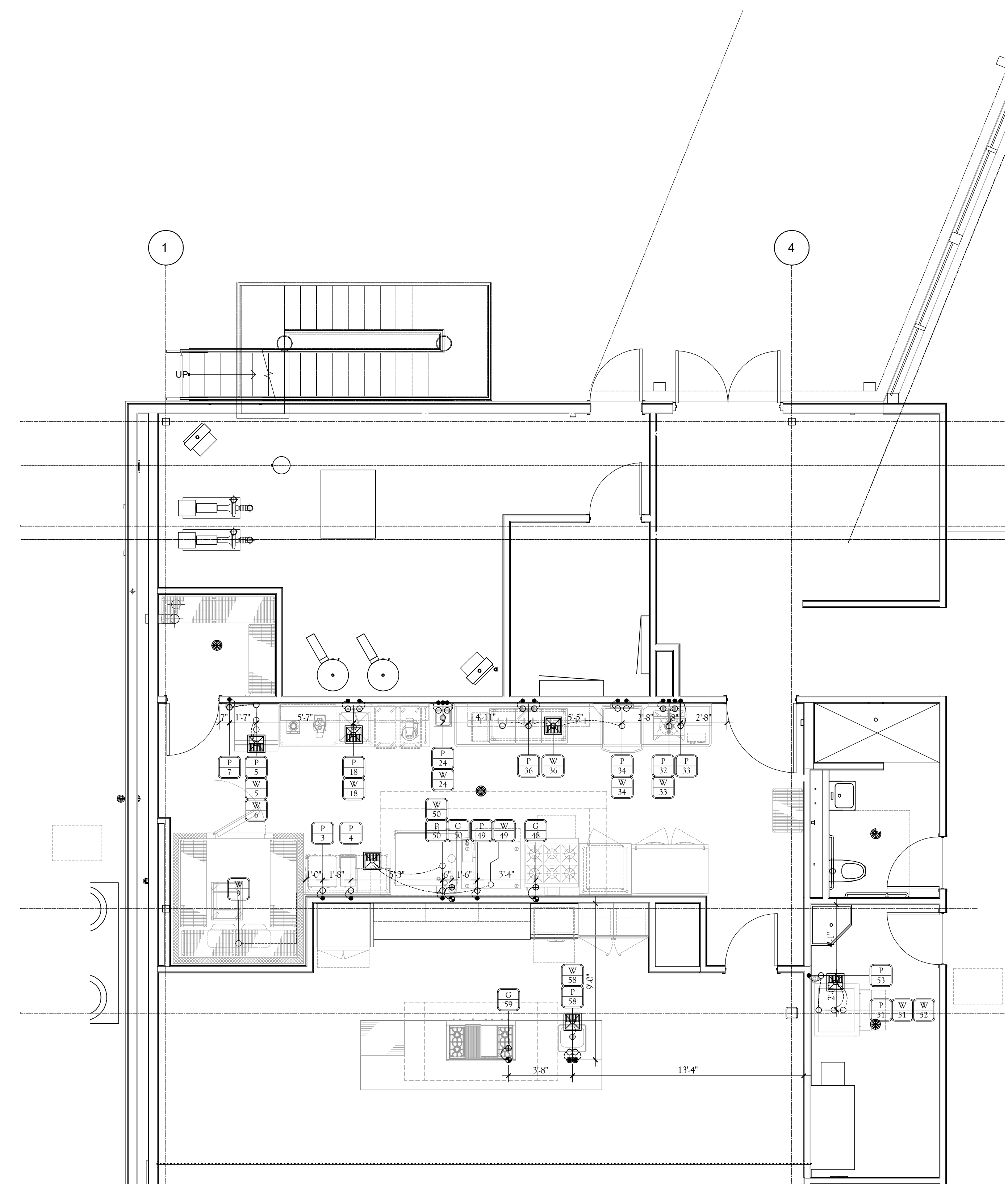
SYMBOLS	ABBREVIATIONS
○	JUNCTION BOX (JB)
●	ELECTRICAL ROUGH-IN
○	STUB-UP
○	DROP CORD
□	EQUIPMENT CONNECTION
□	FLUORESCENT LIGHT FIXTURE
□	INCANDESCENT LIGHT INDICATION
□	BREAKER PANEL BOARD
□	SWITCH AS NOTED
○	FLOOR RAMP (R00)
○	TELEPHONE OUTLET
○	FOR REFRIGERATOR CONVENIENCE OUTLET (RCO)
○	DUPLEX CONVENIENCE OUTLET (CO)
○	SINGLE CONVENIENCE OUTLET (SCO)

ABBREVIATIONS	SYMBOLS
A	AMPERES
V	VOLTS
W	WATTS
PH	PHASE
AFF	ABOVE FINISHED FLOOR
DN	DOWN FROM ABOVE
BTC	BRANCH TO CONNECTION POINT AND CONNECT EQUIPMENT
HP	HORSE POWER
KW	KILOWATTS
DC	DIRECT CONNECTION
K.E.C.	KITCHEN EQUIPMENT CONTRACTOR
E.C.	ELECTRICAL CONTRACTOR

ELECTRICAL NOTES

- ALL ELECTRICAL OUTLETS SHOWN ON THIS PLAN ARE FOR FIXTURES FURNISHED BY THE KITCHEN EQUIPMENT CONTRACTOR OR VENDOR. FOR FURTHER BLDG ELECTRICAL REQUIREMENTS (TELEPHONES, CLOCKS, SIGNS, EXHAUST HOOD SWITCHING, ETC.) SEE OTHER PLANS.
- ALL DIMENSIONS GIVEN ARE FROM CENTERLINES AND/OR FINISHED WALLS. ELEVATIONS GIVEN ARE FROM FINISHED FLOOR TO CENTERLINE OF OUTLET. ALL REQUISITIONS SHOWN ARE TO BE RUN INSIDE WALLS EXCEPT STUB-UPS. LOCATION INDICATES POINT OF EXIT FROM WALLS, CEILING OR FLOOR. ALL CONVENIENCE OUTLETS ARE TO BE SET HORIZONTALLY. ALL 120V VOLT OUTLETS NOT DESIGNATED WITH SPECIFIC LOADS TO BE RATED AT 20.0 AMPS.
- ELECTRICIAN TO CONNECT ALL ELECTRICAL EQUIPMENT AND FIXTURES AND DO ANY INTERNAL WIRING REQUIRED IN THE FIXTURES AS REQUIRED BY THE SPECIFICATIONS. ALL ELECTRICAL OUTLET COVER PLATES ARE TO BE STAINLESS STEEL AND ARE TO BE FINISHED BY THE ELECTRICIAN, AS WELL AS THE RECEPTACLE, UNLESS OTHERWISE SPECIFIED IN THE ITEM SPECIFICATIONS. KITCHEN EQUIPMENT CONTRACTOR TO FURNISH A GALLVANIZED JUNCTION BOX IN THE FIXTURE TO RECEIVE THE RECEPTACLE, UNLESS OTHERWISE NOTED. ALL DISCONNECT SWITCHES REQUIRED ARE TO BE FURNISHED AND INSTALLED BY THE ELECTRICIAN AT TIME OF INSTALLATION.
- ALL WORK TO BE PERFORMED IN FULL ACCORDANCE WITH ALL APPLICABLE CODES RELATING TO HOOKUP, INSTALLATION & WIRING OF EQUIPMENT. OMISSIONS OR ERRORS ON THE SCHEDULE DO NOT RELIEVE THE ELECTRICIAN FROM COMPLETE FINAL CONNECTION RESPONSIBILITY.
- REQUIREMENTS SHOWN ARE FOR FOOD SERVICE EQUIPMENT ONLY. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
- CONTROL CIRCUIT FROM ELECTRICIAN FURNISHED AND INSTALL SHUNT TRIP BREAKERS TO FIRE CONTROL SYSTEM CONTROL MICRO-SWITCH. SHUNT TRIP BREAKERS TO BE UNDER EXHAUST HOOD. IN CASE OF FIRE, ALL POWER TO EQUIPMENT UNDER HOOD WILL BE SHUT OFF. ALL GAS EQUIPMENT LOCATED UNDER HOOD WILL ALSO BE SHUT OFF IN CASE OF FIRE. MUST BE WIRED THAT IN THE EVENT OF POWER FAILURE, FIRE CONTROL SYSTEM WILL NOT BE ACTIVATED AND WHEN POWER IS RESTORED, FIRE SYSTEM WILL NOT DISCHARGE.
- ELECTRICIAN TO MAKE MINIMUM PENETRATIONS IN VAULT CEILING TO ACCESS LIGHT FIXTURE CONNECTIONS INSIDE WALK-IN VAULTS. CONDUIT TO BE RATED ABOVE THE WALK-IN VAULT CEILING.
- E.C. TO PROVIDE ANY INTERCONNECTIONS BETWEEN KITCHEN FIRE SUPPRESSION SYSTEM AND MAIN BUILDING FIRE SYSTEM AS REQUIRED.
- ALL HORIZONTAL WIRING ON WALK-IN COOLERS AND FREEZERS TO BE DONE ON EXTERIOR OF WALK-IN. WIRING BY E.C.
- ALL KITCHEN OUTLETS ARE TO BE OFF RECEPTACLES.



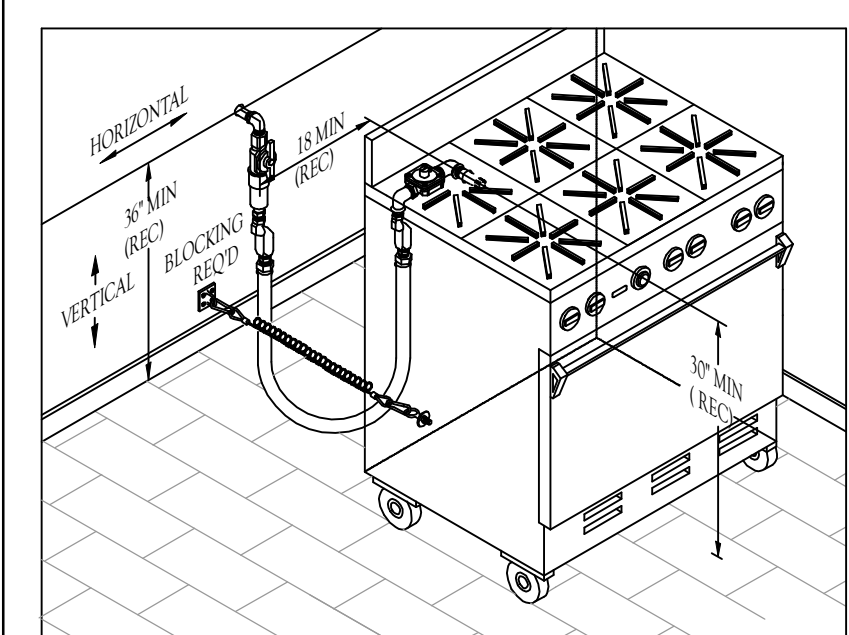


DEMONSTRATION KITCHEN & SERVERY AREA PLAN
SCALE: 1/4" = 1'-0"

WATER ROUGH-IN SCHEDULE					
TAG	QUA	WATER ROUGH-IN	WATER CONN	SERVICE TO	WATER REMARKS
P 3	1	1/2" CW + 52"	3/8" CW	COFFEE BREWER - TWIN	
P 4	1	1/2" CW + 52"	3/8" CW	ICE TEA BREWER - SINGLE	
P 5	1	1/2" CW (USE P7)	1/2" CW	ICE MACHINE	CONN THRU FILTER
P 7	1	1/2" CW + 72"	1/2" CW	ICE MACHINE WATER FILTER	
P 18	1	1/2" HW & CW + 16"	1/2" HW & CW	TABLE - PREP W/ SINK	
P 24	1	1/2" HW & CW + 16"	1/2" HW & CW	HAND SINK	
P 32	1	1/2" HW & CW + 16"	1/2" HW & CW	PRE-RINSE FAUCET	
P 33	1	1/2" CW + 16"	1/2" CW	DISPOSER	
P 34	1	3/4" HW & CW + 10"	3/4" HW & CW	VENTLESS DISH MACHINE	
P 36	1	1/2" HW & CW + 16"	1/2" HW & CW	CLEAN DISH TABLE w/ 3 COMP SINK	
P 49	1	3/4" CW + 16"	3/4" CW	BRAISING PAN	
P 50	1	3/4" CW + 24"	3/4" CW	COMBI OVEN	CONN THRU FILTER
P 51	1	1/2" CW (USE P53)	1/2" CW	ICE MACHINE	CONN THRU FILTER
P 53	1	1/2" CW + 72"	1/2" CW	ICE MACHINE WATER FILTER	
P 58	1	1/2" HW & CW + 16"	1/2" HW & CW	DROP-IN SINK	

WASTE ROUGH-IN SCHEDULE					
TAG	QUA	WASTE ROUGH-IN	WASTE CONNECTION	SERVICE TO	WASTE REMARKS
W 5	1	FLOOR SINK	3/4" I.W.	ICE MACHINE	
W 6	1	FLOOR SINK	3/4" I.W.	ICE MACHINE BIN	
W 9	1	FLOOR SINK	1" I.W.	COOLER EVAP COIL	
W 18	1	FLOOR SINK	2" I.W.	TABLE - PREP W/ SINK	
W 24	2	1-1/2" W + 14"	1-1/2" W	HAND SINK	
W 33	1	2" W + 10"	2" W	DISPOSER	
W 34	1	FLOOR SINK	1-1/2" I.W.	VENTLESS DISH MACHINE	
W 36	1	FLOOR SINK	(3) 2" I.W.	CLEAN DISH TABLE w/ 3 COMP SINK	
W 49	1	FLOOR SINK	2" I.W.	BRAISING PAN	
W 50	1	FLOOR SINK	1-1/2" I.W.	COMBI OVEN	
W 51	1	FLOOR SINK	3/4" I.W.	ICE MACHINE	
W 52	1	FLOOR SINK	3/4" I.W.	ICE MACHINE BIN	
W 58	1	FLOOR SINK	1-1/2" I.W.	DROP-IN SINK	

GAS ROUGH-IN SCHEDULE					
TAG	QUA	GAS ROUGH-IN	GAS LOAD	SERVICE TO	GAS REMARKS
G 48	1	3/4" G + 30"	222 MBTU	6 O.B. RANGE w/ OVEN	w/ Q.D. HOSE & RESTRAINING DEVICE
G 50	1	3/4" G + 36"	152 MBTU	COMBI OVEN	w/ Q.D. HOSE & RESTRAINING DEVICE
G 59	1	3/4" G + 12"	93 MBTU	RESIDENTIAL RANGE TOP	w/ Q.D. HOSE



REFER TO SPECIAL CONDITIONS PLAN SHEET FOR FLOOR SINK, FLOOR TROUGH & SLAB PENETRATION DIMENSIONS

NOTE: ALL GAS EQUIPMENT ON LEGS OR CASTERS SHALL HAVE RESTRAINT CABLES & QUICK DISCONNECT HOSES

PLUMBING LEGEND	
SYMBOLS	ABBREVIATIONS
●	HW HOT WATER
○	CW COLD WATER
●	DR DRAIN
○	CONNECTION AFF ABOVE FINISHED FLOOR
○	FLOOR DRAIN FD FLOOR DRAIN
○	FLOOR SINK FS FLOOR SINK
○	FLOOR SINK w/ DRAIN FT FLOOR TROUGH
○	GAS LINE HD HUB DRAIN
○	GAS CONNECTION GPHI GALLONS PER HOUR
○	GPM GALLONS PER MINUTE
○	INDIRECT WASTE LINE BTC BRANCH TO CONNECT
○	PLUMBING INTERCONNECTION PSI POUNDS PER SQUARE INCH
○	STEAM SUPPLY DEFA DOWN FROM ABOVE
○	STEAM RETURN SS STEAM SUPPLY
○	STEAM CONNECTION SR STEAM RETURN

PLUMBING GENERAL NOTES

- SEE EQUIPMENT PLAN AND SCHEDULE OF EQUIPMENT FOR ADDITIONAL INFORMATION.
- P.C. TO PROVIDE ALL ROUGH-IN AND FINAL CONNECTIONS TO ALL EQUIPMENT SHOWN HEREIN.
- SOLID DOT REPRESENTS ROUGH-IN LOCATION (FURNISHED BY P.C.)
DOTTED LINE REPRESENTS FINAL CONNECTION (FURNISHED BY P.C.)
CIRCLE REPRESENTS CONNECTION TO EQUIPMENT (FURNISHED BY P.C.)
- PLUMBING CONTRACTOR (P.C.) TO KEEP ALL PLUMBING LINES CLEAR OF WALLBACKING AREAS.
- P.C. TO PROVIDE AND INSTALL REGULATORS AS REQUIRED.

CLARIFICATIONS	
A	PLUMBER TO SPECIFY AND LOCATE EQUIPMENT AND UTILITIES FOR MOP SINKS, SINKS FURNISHED BY PLUMBER.
B	ROUGH-IN PLUMBING PERFORMED BY THE PLUMBING CONTRACTOR SHALL INCLUDE ALL MATERIAL, PIPES, VALVES, FITTINGS, UNDERGROUND TRAPS, FLOOR SINKS, FLOOR DRAINS, VENTS, FLOOR DRAIN AND FLOOR SINK COVERS AND STOPS AT THE ENDS OF WATER AND STEAM LINES.
C	FINAL CONNECTIONS USUALLY PERFORMED BY THE PLUMBING CONTRACTOR SHALL INCLUDE ALL MATERIALS, PIPING, VALVES, FITTINGS, TRAPS, EXTENDED WASTES AND WHATEVER IS NECESSARY TO PROPERLY CONNECT THE EQUIPMENT ITEM TO THE ROUGH-IN OUTLET. THIS INCLUDES STOPS ON ALL WATER LINES, CLEANOUTS ON ALL DIRECT CONNECTED DRAIN LINES AND HARD COPPER DRAINS TO FLOOR SINKS FROM EQUIPMENT.
D	ALL WORK TO BE PERFORMED IN FULL ACCORDANCE WITH THE APPLICABLE CODES RELATING TO INSTALLATION AND HOOKUP OF EQUIPMENT. OMISSIONS OR ERRORS ON THE SCHEDULE DO NOT RELIEVE THE PLUMBING CONTRACTOR FROM COMPLETE FINAL PLUMBING RESPONSIBILITY.
E	ALL CONNECTIONS SHOWN RELATE TO KITCHEN EQUIPMENT ONLY. REFER TO ARCHITECTURAL/ENGINEERING PLANS FOR ADDITIONAL REQUIREMENTS.
F	ALL DIMENSIONS GIVEN ARE FROM COLUMN CENTERLINES AND/OR FINISHED WALLS AND ARE IN INCHES TO 40" ELEVATIONS GIVEN ARE FROM FINISHED FLOORS. ALL ROUGH-INS SHOWN ARE TO BE RUN INSIDE WALLS (EXCEPT STUB UPS LOCATIONS INDICATE POINT OF EXIT FROM WALLS, CEILING OR FLOORS).
G	ALL FLOOR DRAINS TO SET 1/2" BELOW FINISHED FLOOR UNLESS OTHERWISE NOTED. DO NOT SLOPE FLOORS SO CLOSE TO DRAINS AS TO CREATE "TIPS" OR "DIPS" IN FLOOR. MINIMUM RADIUS OF SLOPE TO BE 24" FROM CENTERLINE OF DRAIN.
H	MECHANICAL GAS VALVE FURNISHED WITH FIRE SUPPRESSION AND IS TO BE INSTALLED BY THE PLUMBING CONTRACTOR

NOTE:

IT IS THE INTENTION OF THIS PLAN TO SHOW UTILITY REQUIREMENTS AND CONNECTION POINTS. DO NOT USE FOR ROUGH-IN LOCATIONS. FOR ACTUAL ROUGH-IN LOCATIONS REFER TO THE SHOP DRAWINGS PROVIDED BY THE KITCHEN EQUIPMENT CONTRACTOR.

INDIRECT WASTE LINES REQUIRED FOR STANDARD AND/OR FABRICATED ITEMS OF KITCHEN EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE KITCHEN EQUIPMENT CONTRACTOR, EXCEPT FOR SINKS.

WATER INLET FITTINGS AND VALVE FOR THE SOILED DISHABLE TROUGH SHALL BE FURNISHED AND INSTALLED BY THE KITCHEN EQUIPMENT CONTRACTOR. PLUMBING CONTRACTOR SHALL PROVIDE COLD WATER SERVICE. ALL INTERCONNECTING PIPING, VACUUM BREAKERS AND MAKE FINAL CONNECTIONS.

THE KITCHEN EQUIPMENT CONTRACTOR TO PROVIDE ALL EQUIPMENT TRIM, INCLUDING FAUCETS, SINK WASTES AND SWING FAUCETS AT KETTLES AND RANGERS. ALL TO BE INSTALLED BY THE PLUMBING CONTRACTOR.

ALL HORIZONTAL PIPING LINES CONNECTED AND EXTENDED FROM EQUIPMENT SHALL BE RUN AT THE HIGHEST POSSIBLE ELEVATION AND NOT LESS THAN 6" ABOVE THE FINISHED FLOOR TO PROVIDE AMPLE CLEARANCE FOR CLEANING. AT WALL OR COLUMN LOCATIONS, PIPING ROUGH-INS SHALL BE STUBBED UP IN WALLS WHEREVER POSSIBLE.

ALL PLUMBING LINES SHALL BE FURNISHED AND INSTALLED WITH COPPER PIPING. NO SOFT PLASTIC, PVC OR ALTERNATE MATERIAL WILL BE APPROVED OR ALLOWED, EXCEPT AS REQUIRED BY LOCAL CODES.

PLUMBER SHALL INSTALL AUTOMATIC SHUT-OFF VALVE FOR FUEL GAS. VALVE SHALL BE SOLENOID TYPE WIRED TO FIRE EXTINGUISHER.

SEAL

PROJECT

**NMSU NM DEPT OF AGRICULTURE
OFFICE BUILDING**
3910 SOUTH ESPINA STREET LAS
CRUCES, NEW MEXICO 88003

50%
CONSTRUCTION
DOCUMENTS

- REVISIONS
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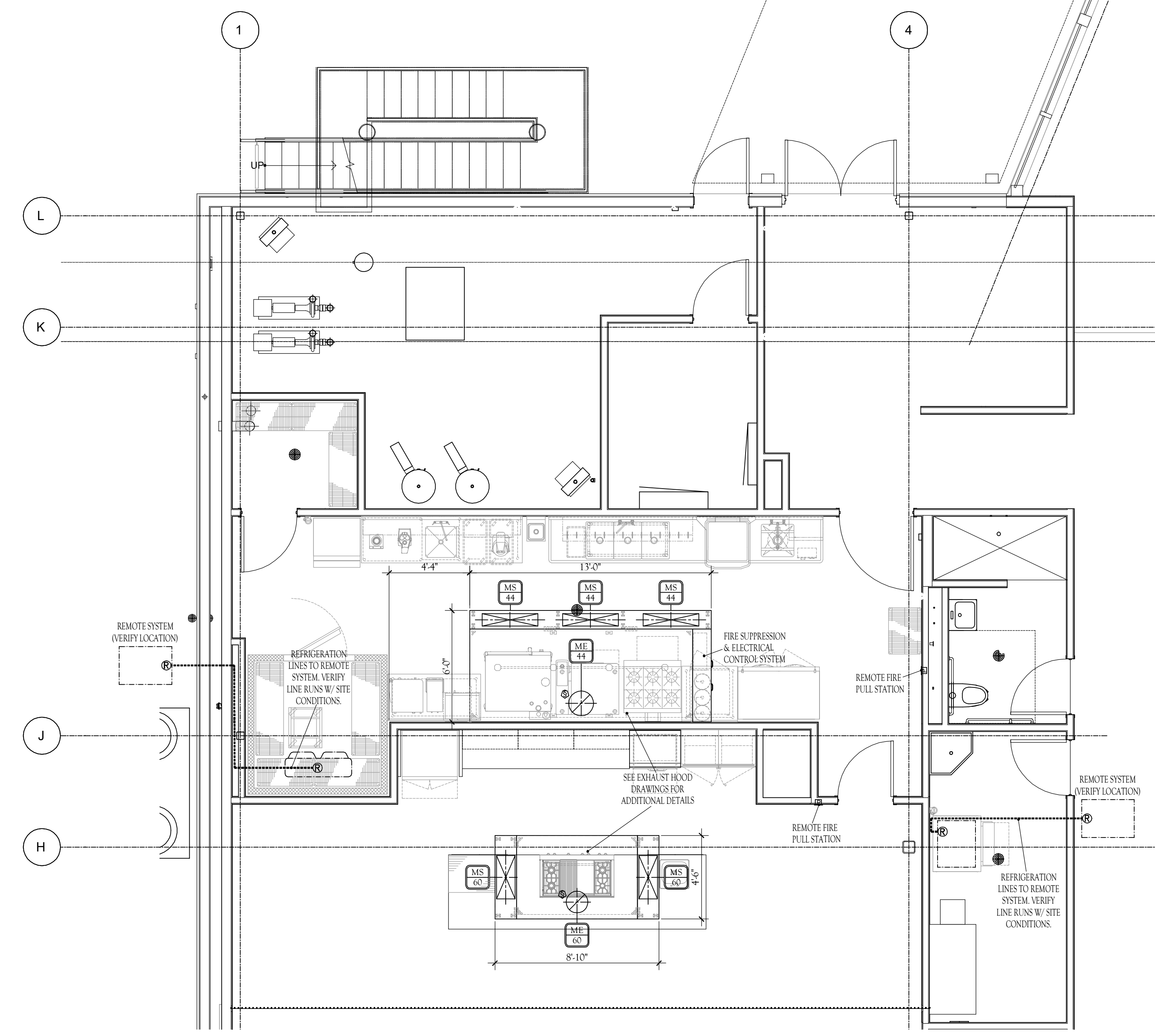
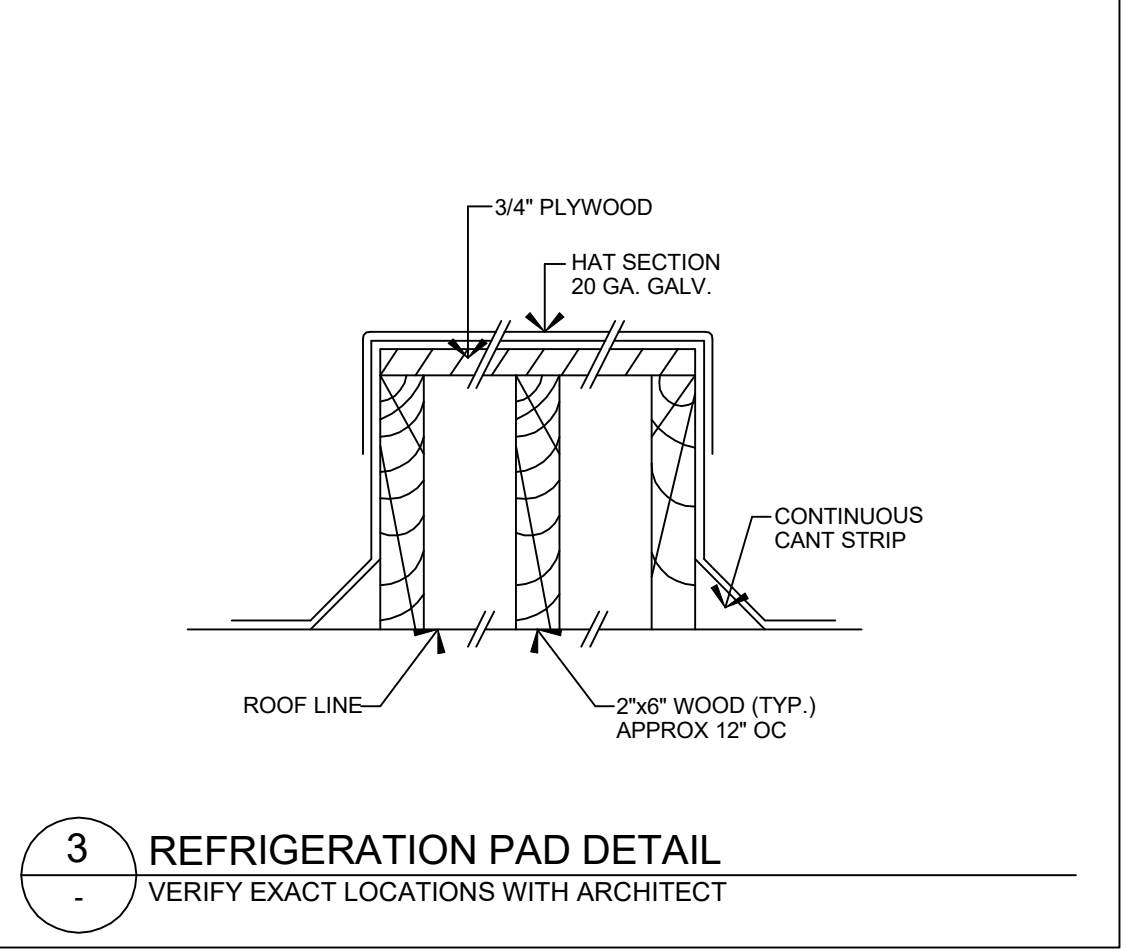
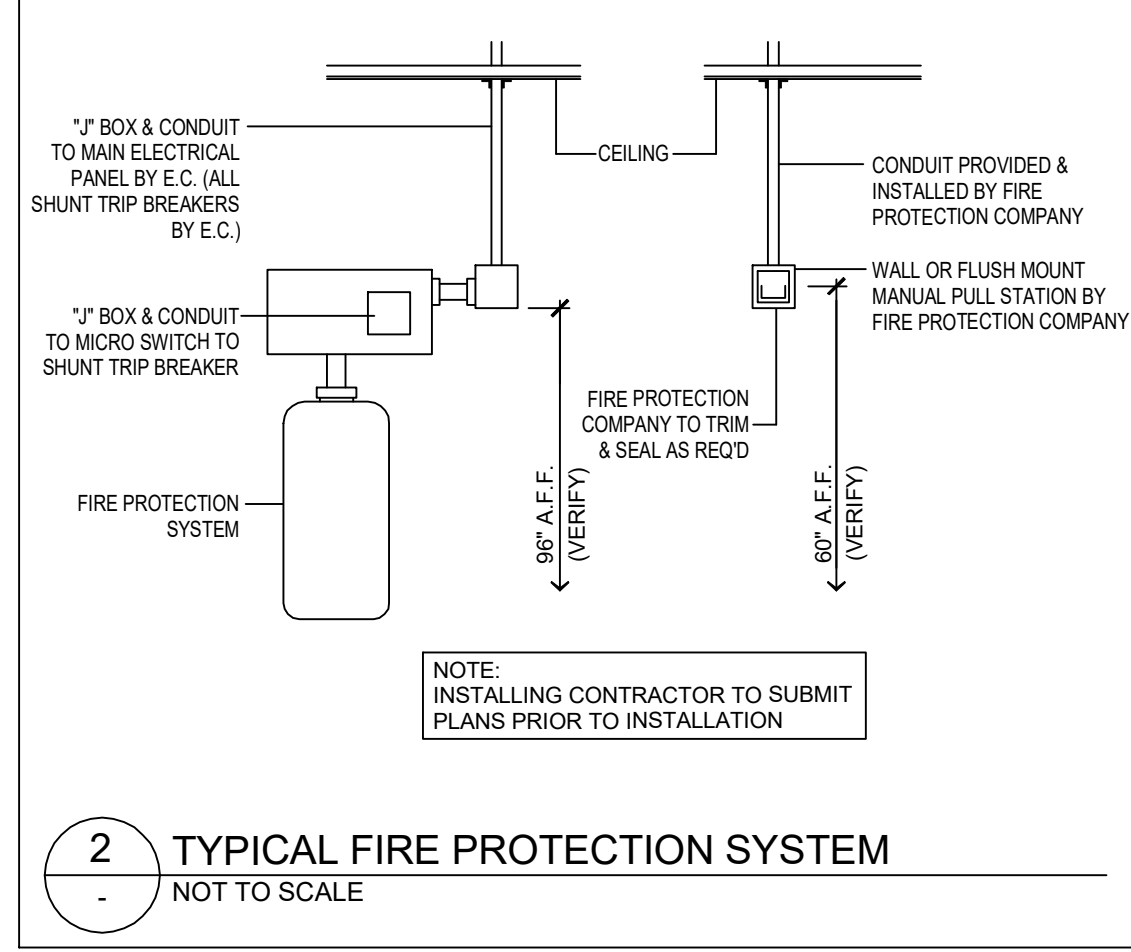
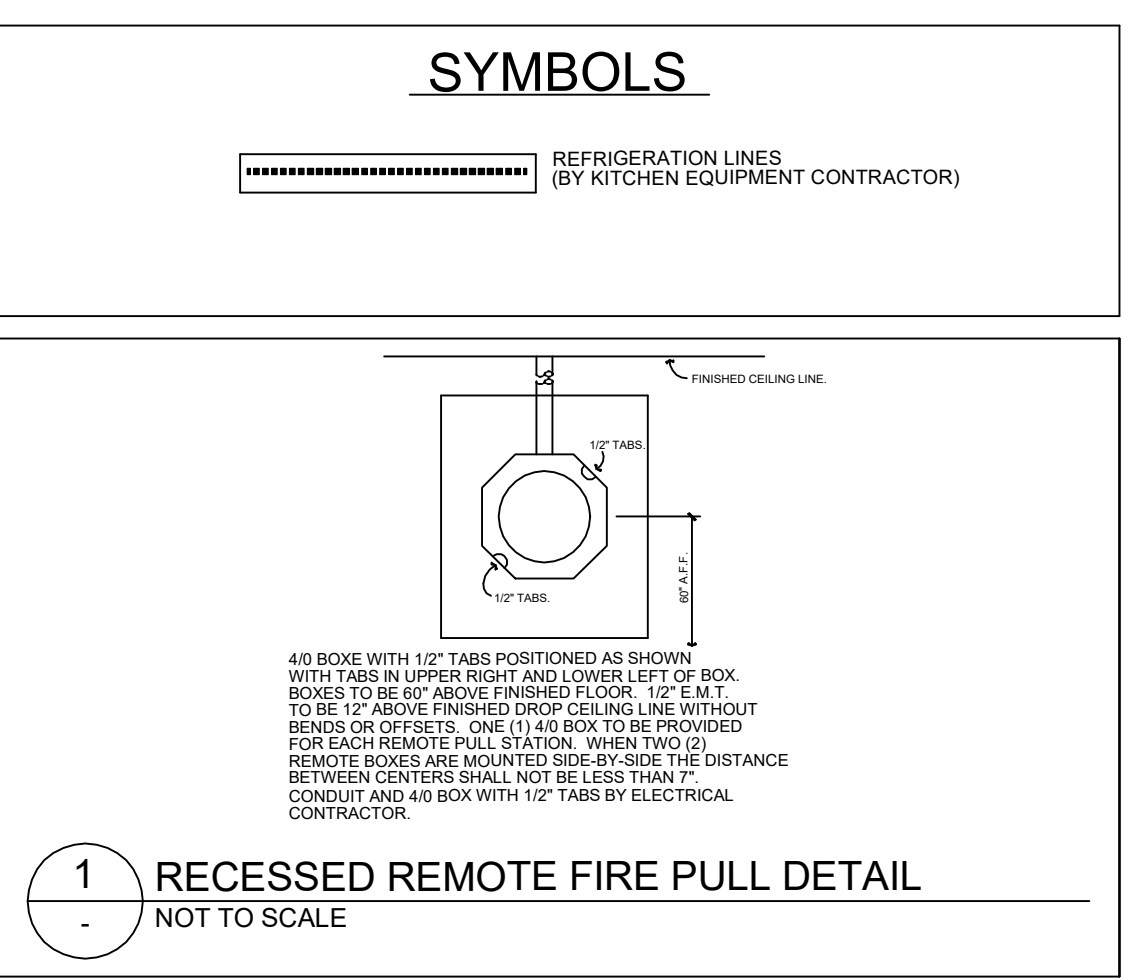
DRAWN BY SK
REVIEWED BY SA
DATE 04/17/2024
PROJECT NO 22-0227.001

DRAWING NAME
**FOODSERVICE
EQUIPMENT
MECHANICAL PLAN**

SHEET NO
FS401

ITEM	QUA	TAG	HOOD SIZE			AIR FLOW REQUIREMENTS				HOOD WEIGHT (LBS.)	
			L	W	H	EXHAUST C.F.M.	SUPPLY C.F.M.	EXHAUST SIZE	SUPPLY SIZE		TOTAL HOOD INCHES W.C.
44	1	ME44	144"	60"	30"	2400 (EA)		16"DIA		-0.797"	1179
44	3	MS44	156"	12"	6"		633(EA)		36" x 8"	0.179"	-
60	1	ME60	67"	54"	30"	1950		14"DIA		-1.002"	487
60	2	MS60	54"	14"	6"		780(EA)		28" x 12"	0.196"	-

- MECHANICAL SYSTEM NOTES**
- EXHAUST HOOD REQUIREMENTS AND DUCT COLLAR SIZES SHALL BE COORDINATED WITH FINAL SHOP DRAWINGS PRIOR TO FABRICATION.
 - ALL FINAL DUCT WELDING AND CONNECTIONS TO BE INCLUDED IN THE GC CONTRACT.
 - DUCTWORK, EXHAUST AND MUA FANS TO BE PROVIDED AND INSTALLED BY THE GC'S MECHANICAL CONTRACTOR.
 - PROVIDE DISCONNECT ON ROOF FOR EXHAUST AND M.U.A. FANS.
 - ELECTRICAL EQUIPMENT UNDER EXHAUST HOOD MUST HAVE SHUNT TRIP BREAKERS AT ELECTRICAL PANEL CONNECTED TO MICROSWITCHES IN THE FIRE SYSTEM.
 - K.E.C. IS TO PROVIDE CLOSURE TRIM PANELS FROM TOP OF HOOD TO CEILING & S/S WALL PANELS.
 - REFER TO ENGINEERING HOOD DATA SHEETS FOR COMPLETE CFM REQ'S
 - REFRIGERATION LINES ARE FOR SCHEMATIC PURPOSE ONLY.
 - K.E.C. & G.C. TO VERIFY EXACT LOCATION OF REFRIGERATION UNITS ON THE ROOF WITH ARCHITECT PRIOR TO INSTALLATION.



DEMONSTRATION KITCHEN & SERVERY AREA PLAN
SCALE: 1/4" = 1'-0"

HOOD INFORMATION - JOB#6705483

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM (RISER(S))					TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG	
										WIDTH	LENG	HEIGHT	DIA	CFM			VEL	SP
1	44	6030 ND-2-PSP-F	CAPTIVEAIRE	12' 0"	600 DEG	I	HEAVY	200	2400	4"	16"	2400	1719	-0.79"	1900	430 SS WHERE EXPOSED	ALONE	ALONE
2	60	5430 ND-2W-PSP-SS	CAPTIVEAIRE	6' 6"	600 DEG	I	HEAVY	300	1950	4"	14"	1950	1824	-1.002"	1560	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S)				LIGHT(S)				UTILITY CABINET(S)				FIRE HOOD SYSTEM PIPING	HOOD WEIGHT		
		TYPE	QTY	HEIGHT	EFFICIENCY @ 7 MICRONS	TYPE	QTY	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM	SIZE	ELECTRICAL MODEL #			SWITCHES QUANTITY	
1	44	CAPTRATE SOLO FILTER	9	20"	16"	85% SEE FILTER SPEC	4	L55 SERIES E26	NO	LEFT	12"x60"x30"	TANK FS	4.0/4.0/4.0	SC-32110MA	1 LIGHT 1 FAN	YES	1719 LBS
2	60	CAPTRATE SOLO FILTER	4	20"	16"	85% SEE FILTER SPEC	2	L55 SERIES E26	NO							YES	487 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	44	FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT. BACKSPLASH 128.00" HIGH X 162.00" LONG 430 SS VERTICAL. LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. STRUCTURAL FRONT PANEL.
2	60	FIELD WRAPPER 18.00" HIGH LEFT, RIGHT, BACK. FINISHED BACK ISL-REV INSTALL 78.00" LONG. (FILTERS TO THE BACK).

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	RISER(S)				
						TYPE	WIDTH	LENG	DIA	CFM
1	44	Front	156"	12"	6"	MJJA	8"	36"	633	0.179"
						MJJA	8"	36"	633	0.179"
						MJJA	8"	36"	633	0.179"
2	60	Left	54"	14"	6"	MJJA	12"	28"	780	0.196"
		Right	54"	14"	6"	MJJA	12"	28"	780	0.196"

PATENT NUMBERS

AC-PSP (UNITED STATES) - US PATENT 7963830 B2.
AC-PSP WALL (CANADA) - CA PATENT 2820508.
AC-PSP ISLAND (CANADA) - CA PATENT 2820330.

FOR QUESTIONS, CONTACT THE
Arizona Office
REGION 93
PHONE: (480) 926-6810
EMAIL: reg93@captivaire.com

SPECIFICATION: CAPTRATE GREASE-STOP SOLO FILTER

THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

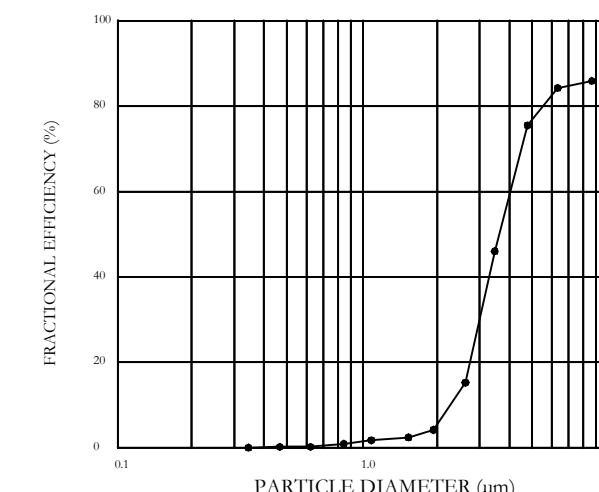
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

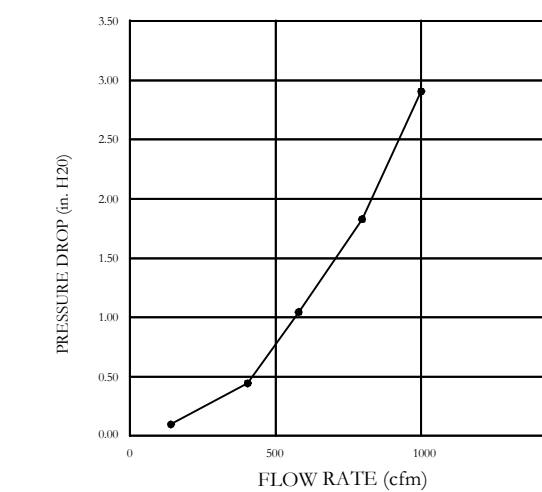
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05.

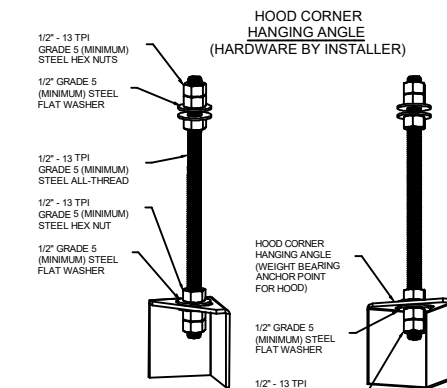
EFFICIENCY VS. PARTICLE DIAMETER



PRESSURE DROP VS. FLOW RATE

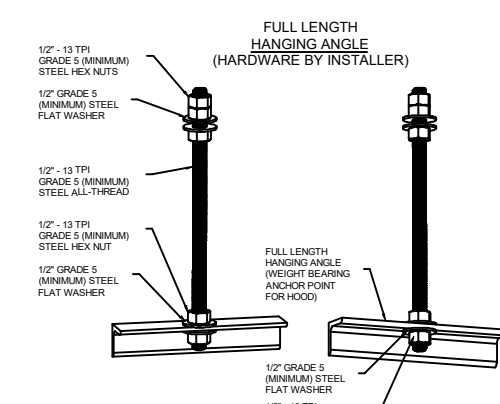


CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA 496
NFPA STANDARD #2
UL STANDARD #1646
INT. MECH. CODE (IMC)
ULC-S649



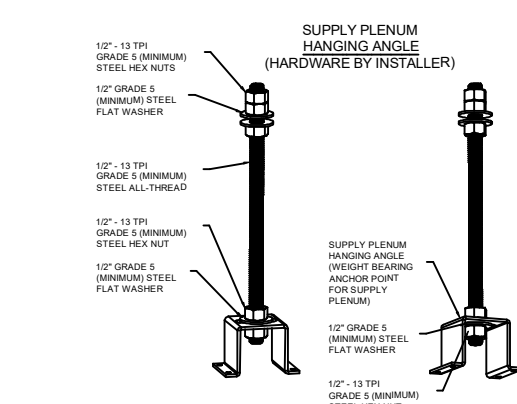
ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TR GRAD 5 (MINIMUM ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 BIRMINGHAM STEEL FLAT BRASSERS AND 1/2" - 13 TR GRAD 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 33 FT.LBS.



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TR GRAD 5 (MINIMUM ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 BIRMINGHAM STEEL FLAT BRASSERS AND 1/2" - 13 TR GRAD 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HOOD HANGING ANGLE IS ACCEPTABLE FOR FULL LENGTH HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 33 FT.LBS.



ASSEMBLY INSTRUCTIONS

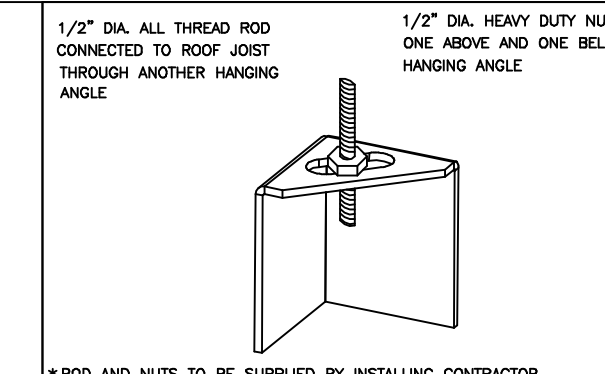
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CAPTIVEAIRE SYSTEMS RECOMMENDS THE USE OF LISTED, PRE-FABRICATED ROUND GREASE EXHAUST DUCT TO REDUCE STATIC PRESSURE IN THE SYSTEM, MINIMIZE INSTALLATION AND INSPECTION TIMES, AND ENSURE DUCT IS LIQUID TIGHT

HVAC DISTRIBUTION NOTE
IT IS RECOMMENDED NOT TO INSTALL HIGH VELOCITY DIFFUSERS OR HVAC RETURNS WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.

VERIFY CEILING HEIGHT
HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

CUSTOMER APPROVAL TO MANUFACTURE:
Approved as Noted
Approved with NO Exception Taken
Revise and Resubmit
SIGNATURE _____ DATE _____
Your Title _____ Date _____



ND-2 HANGING ANGLE DETAIL

HOOD STYLE	DIM FROM REAR	DIM FROM FRONT (24")	DIM FROM FRONT (30")
ND2	4.166"	2.246"	2.246"
ND2-PSP-F	4.166"	2.246"	2.246"
BACKSHELF 28"X16"	2.00"	14.25"	-
VHB/VHB-G 36"x36"	42"x42"	48"x48"	
FRONT/BACK DIMS BY SIZE	2.246"	2.246"	2.246"

HANGING ANGLE LOCATIONS

EXHAUST CAPACITY OF HOOD X (DRY/AIR) LOAD
SUPPLY CFM=DESIGN CFM X PERFORMANCE REQUIRED
TOTAL DUCT AREA=144 X (FM)2
DUCT LENGTH= TOTAL DUCT AREA
DUCT DEPTH
*CAPTRATE VENTILATOR DUCT SIZES ARE BASED ON 1000 FPM IN EXHAUST VELOCITY OF 1500-1800 FPM AND A SUPPLY VELOCITY OF 1000 FPM.

CALCULATIONS UTILIZED

CAPTIVE-AIR HOODS ARE BUILT IN COMPLIANCE WITH:
UL LISTED LISTED ETL File number 3054804-001/002
UL LISTED LISTED ETL File number 3054804-001/002

BUILDING CODES

CAPTIVE-AIR HOODS HAVE OPTIONAL CLEARANCE REDUCTION SYSTEMS AVAILABLE AS FOLLOWS:
MATERIAL CLEARANCE REDUCTION SYSTEM
NON-COMBUSTIBLE NONE REQUIRED
LIMITED-COMBUSTIBLE 3" UNINSULATED STANDOFF
COMBUSTIBLE 1" UNINSULATED STANDOFF

CLEARANCE TO COMBUSTIBLES

INSTALLATION

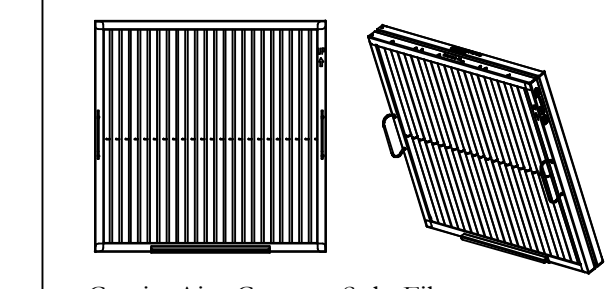
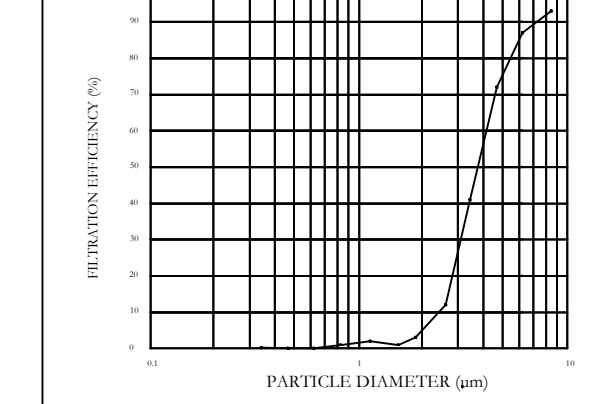
1. ALL ELECTRICAL "TIE" CONNECTIONS AND RELATED INTERCONNECTIONS BY ELECTRICAL CONTRACTORS.
2. ALL PLUMBING "TIE" CONNECTIONS AND RELATED INTERCONNECTIONS BY PLUMBING CONTRACTORS.
3. HANGING BRACKETS LOCATED AND WELDED AS SHOWN ON PLANS. ALL OTHER HANGING MATERIALS PROVIDED BY INSTALLING CONTRACTOR.
4. ALL DIMENSIONS FROM CAPTRATE-ARE DUCT PERI-METER/CONTRACTOR'S PLACE.
5. COOKING EQUIPMENT TO SHUTOFF IN EVENT OF FIRE.
6. EXHAUST FANS TO TURN ON IN EVENT OF FIRE.
7. ALL LIGHTS/FIXTURES SHOWN INSTALLED BY CAPTRATE-ARE AND/OR PROVIDED BY ELECTRICAL CONTRACTORS.
8. LAMPS FOR LIGHT FIXTURES BY INSTALLING CONTRACTORS.
9. GENERAL RESERVES ARE RESPONSIBILITY OF INSTALLING CONTRACTOR.
10. INSTALLING CONTRACTORS ASSUME ALL RELATED RESPONSIBILITY FOR VERIFICATION OF DIMENSIONAL DATA CONTAINED ON THESE DOCUMENTS FOR ACCURACY, INTERPRETATION AND ADHERENCE TO CODE REQUIREMENTS IN EFFECT PRIOR TO ANY RELEASE FOR PRODUCTION OF EQUIPMENT SHOWN.

ADDITIONAL:

11. KITCHEN HOODS MUST BE BALANCED WITH KITCHEN TO TRAP AREA.
12. RESTROOM SHALL BE POSITIVE WITH RESPECT TO AMBIENT PRESSURE.
13. RESTROOM SHALL BE POSITIVE WITH RESPECT TO AMBIENT PRESSURE.

GENERAL NOTES

14. WRITEUP HOOD DIMENSIONS HAVE PRECEDENCE OVER SCALE.
15. SIGNED AND "APPROVED" COPIES OF THIS DOCUMENT MUST BE PROVIDED TO THE ARCHITECT PRIOR TO COMMENCEMENT OF FABRICATION.



CaptiveAire Captrate Solo Filter
ETL Listed Grease Extracting Filters
Made From 430 Stainless Steel

FILTER DETAIL

REVISIONS

NO.	DESCRIPTION	DATE

SEAL

PROJECT

Arizona Office
www.captiveair.com
18206 N. 19th Ave. Ste A-1B, Phoenix, AZ 85033 PHONE: (480) 926-6810 FAX: 8777162227 EMAIL: reg93@captivaire.com

MNSU Demonstration Kitchen - Las Cruces, NM
3910 South Espina Street,
Las Cruces, NM, 88003

DATE: 3/27/2024
DWG.#: 6705483
DRAWN BY: tim.mathis
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
1

DEKKER PERICH SABATINI
Architecture in Progress



PROJECT

NMSU NM DEPT OF AGRICULTURE OFFICE BUILDING
3910 SOUTH ESPINA STREET LAS CRUCES, NEW MEXICO 88003

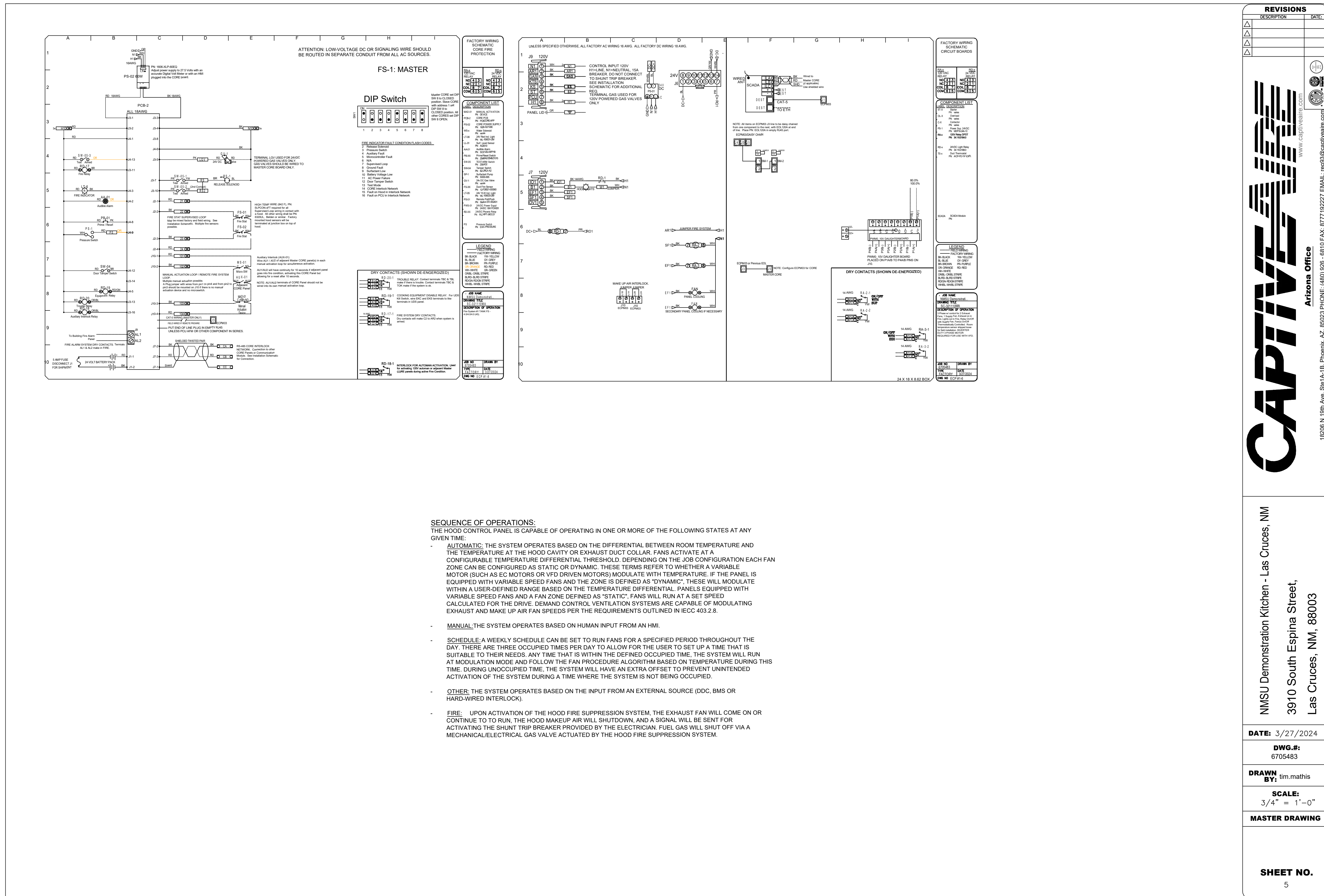
50% CONSTRUCTION DOCUMENTS

REVISIONS

DRAWN BY: SK
REVIEWED BY: SA
DATE: 04/17/2024
PROJECT NO: 22-0227.001

DRAWING NAME
FOODSERVICE EQUIPMENT EXHAUST HOOD DRAWINGS

SHEET NO
FS402



CAPTIVE
 Arizona Office
 18206 N. 19th Ave., Ste A-18, Phoenix, AZ 85023 PHONE: (480) 928-6810 FAX: 6810-6810 FAX: 8777192227 EMAIL: reg@captivewire.com

MMSU Demonstration Kitchen - Las Cruces, NM
 3910 South Espina Street,
 Las Cruces, NM, 88003

DATE: 3/27/2024
DWG.#: 6705483
DRAWN BY: tm.mathis
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
 5



SEAL
 PROJECT

NMSU NM DEPT OF AGRICULTURE OFFICE BUILDING
 3910 SOUTH ESPINA STREET LAS CRUCES, NEW MEXICO 88003

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REVISIONS

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DRAWN BY: SK
 REVIEWED BY: SA
 DATE: 04/17/2024
 PROJECT NO: 22-0227-001

DRAWING NAME
FOODSERVICE EQUIPMENT EXHAUST HOOD DRAWINGS

SHEET NO
FS406

SEAL

PROJECT

**NMSU NM DEPT OF AGRICULTURE
OFFICE BUILDING**
3910 SOUTH ESPINA STREET LAS
CRUCES, NEW MEXICO 88003

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CONSTRUCTION
DOCUMENTS

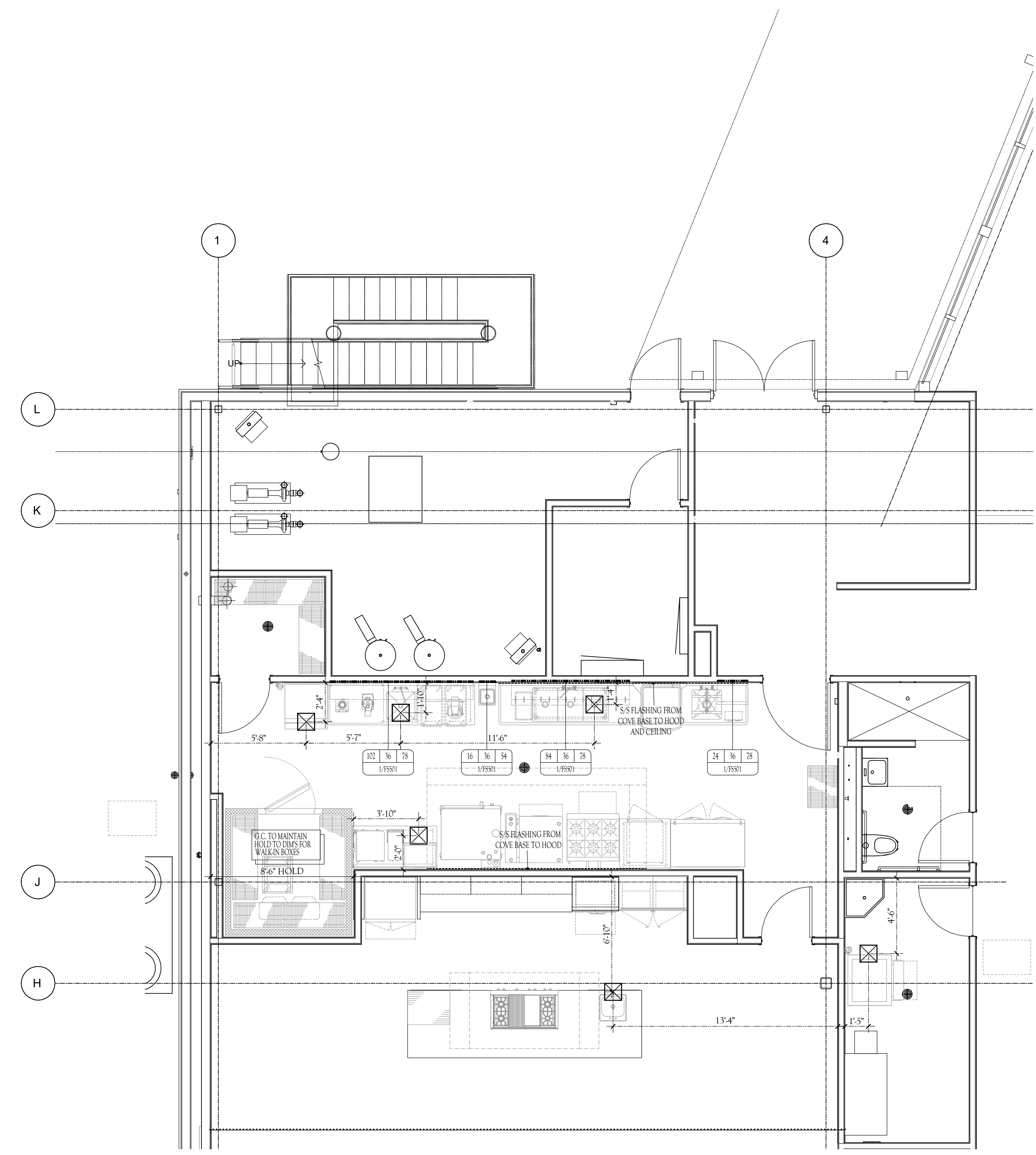
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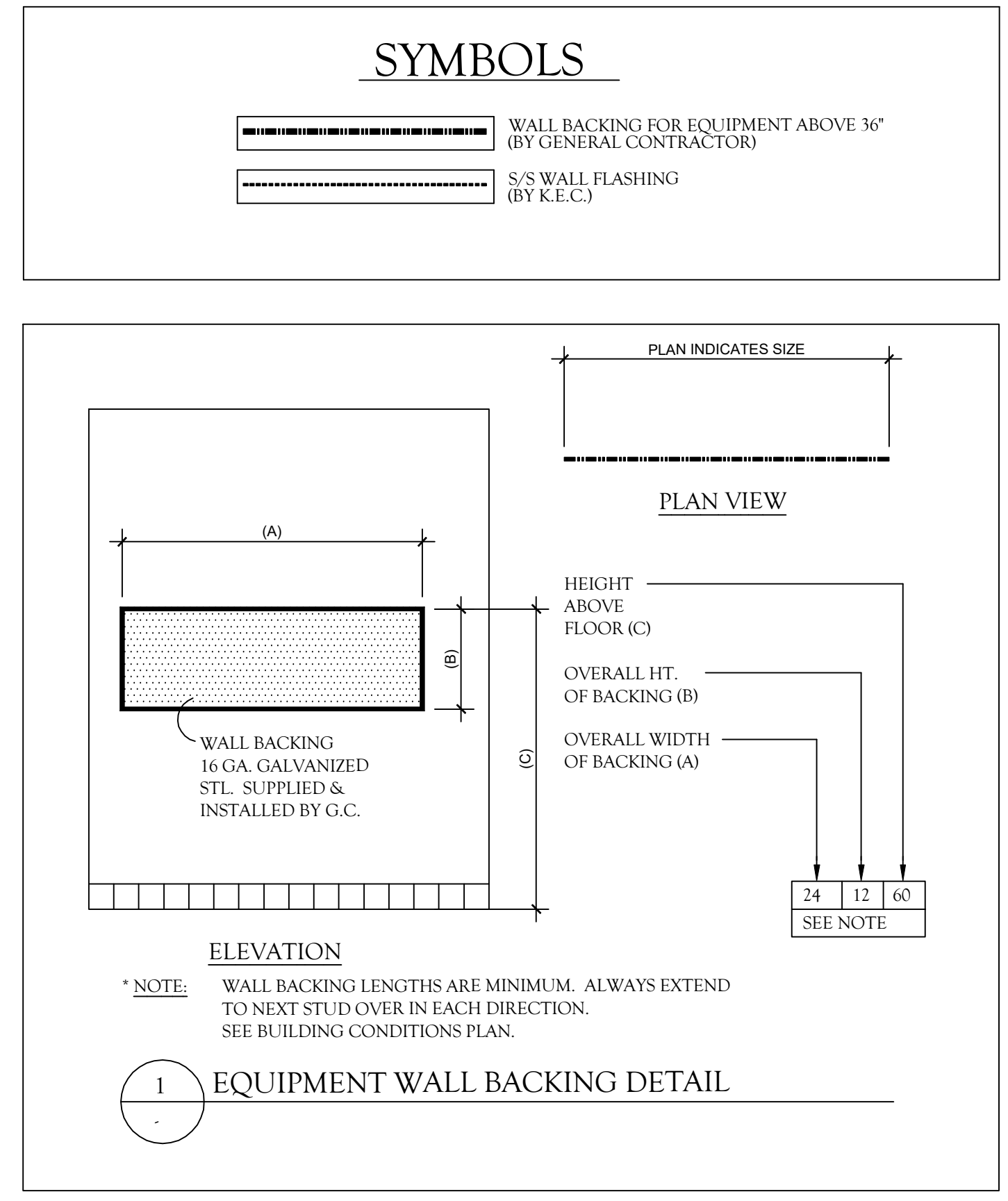
DRAWN BY SK
REVIEWED BY SA
DATE 04/17/2024
PROJECT NO 22-0227.001

DRAWING NAME
**FOODSERVICE
EQUIPMENT
SPECIAL
CONDITIONS PLAN**

SHEET NO
FS501



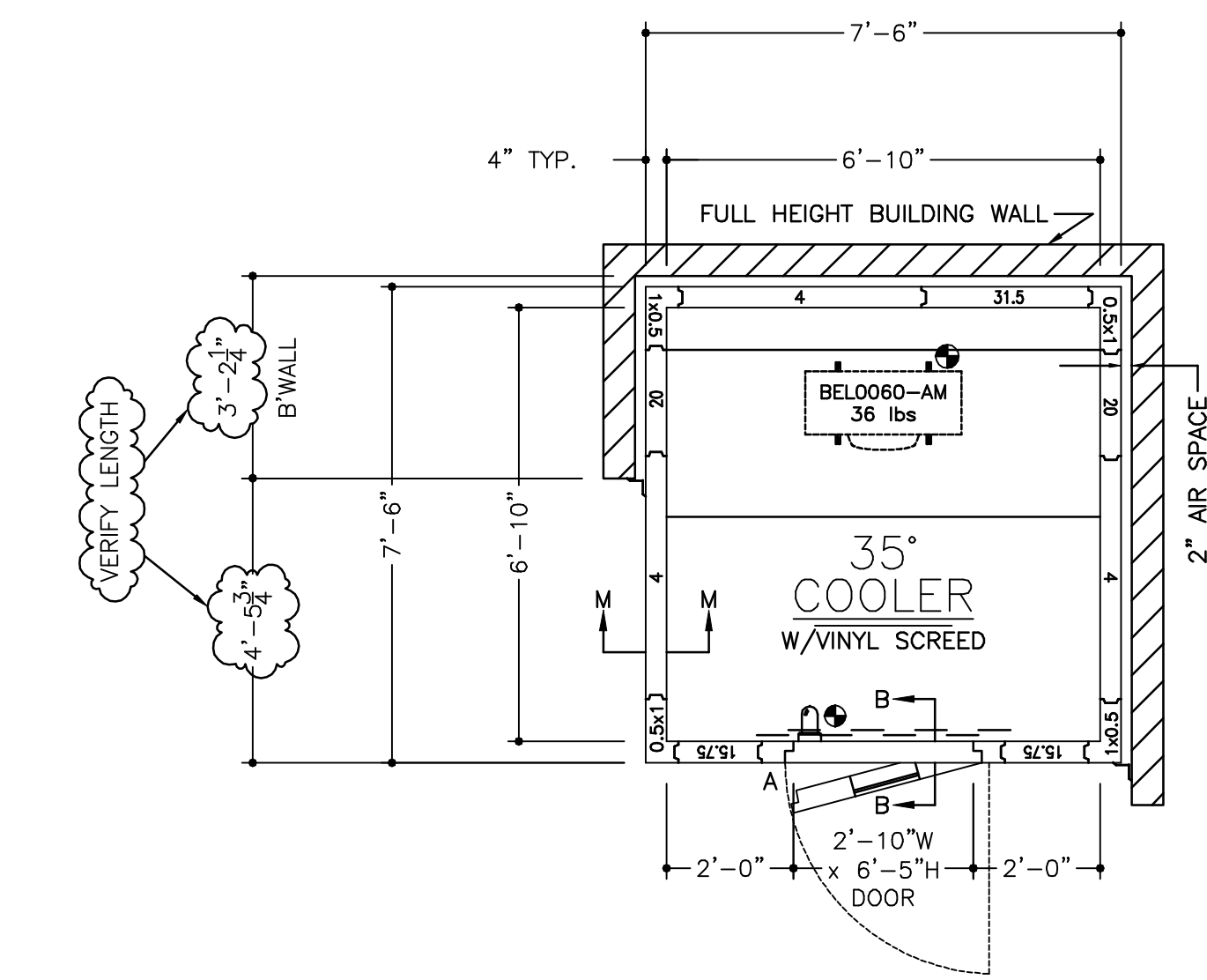
DEMONSTRATION KITCHEN & SERVERY AREA PLAN
SCALE: 1/4" = 1'-0"





SEAL

PROJECT



WALK-IN PANEL		
BUILDING UNITS	R-89B7	R-89B7
USA		
SURFACE FINISH CHARACTERISTICS		
MATERIAL DETAILS	"FRAME SPREAD"	"FRAME DEVELOPED"
ALUMINUM PANELS, PAINTED OR UNPAINTED, 5" OR LESS	15	350
GALVANNEED STEEL OR STAINLESS STEEL PANELS, PAINTED OR UNPAINTED, 5" OR LESS	10	400 TO 500
CORE MATERIAL, 6" THICK	20	250

INSULATION R-VALUES		
PANEL TYPE	COOLER	FREEZER
4" WALLS, ROOFS	R-29	R-32
5" WALLS, ROOFS	R-36	R-40
FLOORS	R-25	R-28
DOORS	R-32	R-32

COOLER	
DOOR FRAME KWH/DAY	0.312
CONDENSING UNIT AWEF VALUE	7.6
EVAP AWEF VALUE	9.0

AMERICAN PANEL WALK-IN COOLERS AND FREEZERS COMPLY WITH THE 2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC), SECTION C403.11

THIS AMERICAN PANEL WALK-IN WILL BE MANUFACTURED TO UL & NSF REQUIREMENTS. AMERICAN PANEL ACCEPTS NO LIABILITY FOR LOCAL CODE REQUIREMENTS OF WHICH AMERICAN PANEL HAS NOT BEEN MADE AWARE OF IN WRITING PRIOR TO FABRICATION.

APPROVED SIGNATURE _____

APPROVED AS NOTED PRINT NAME _____

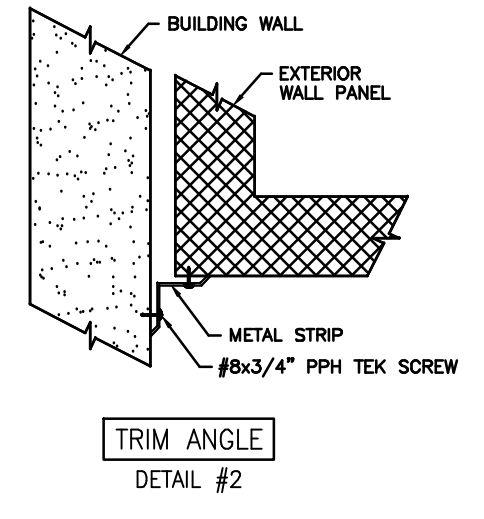
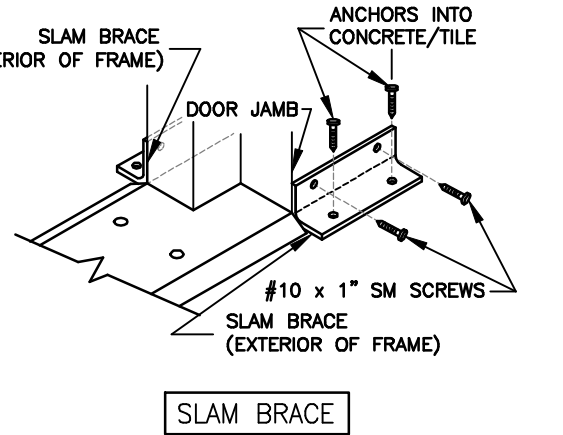
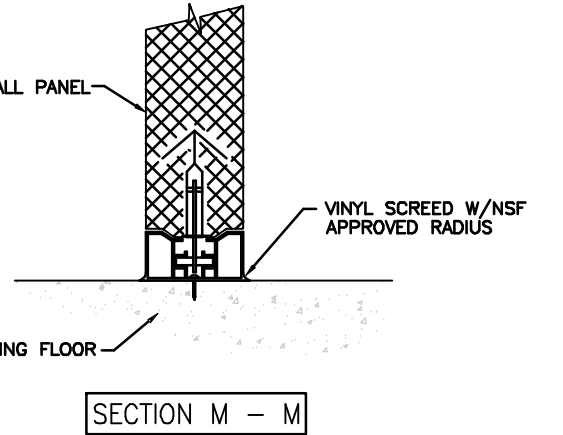
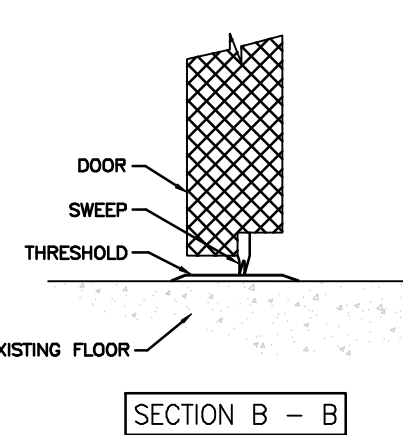
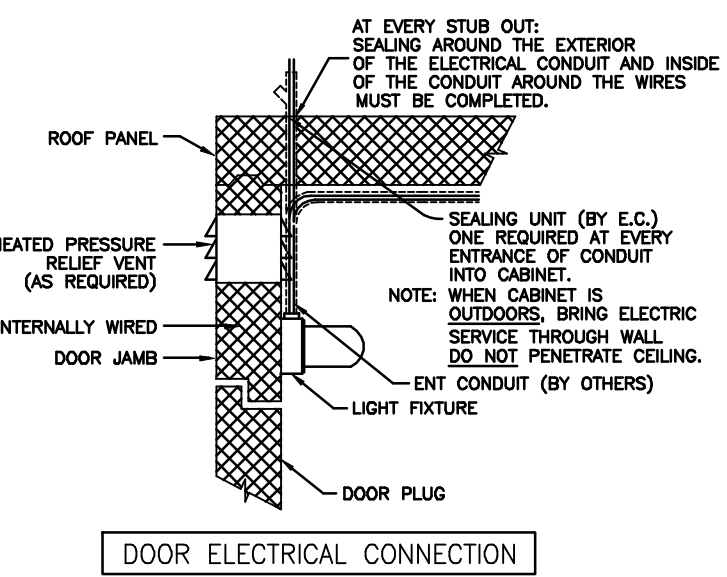
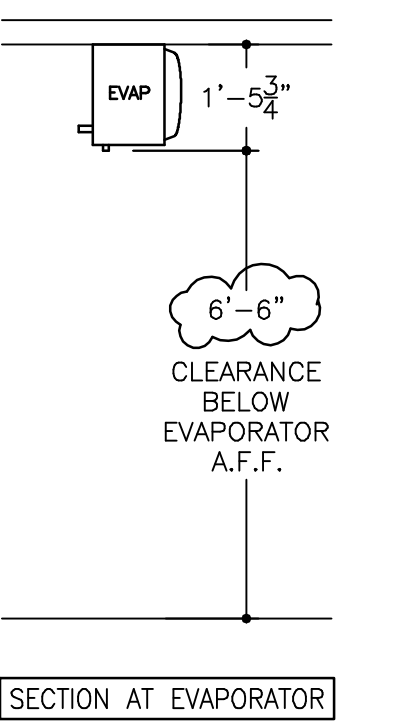
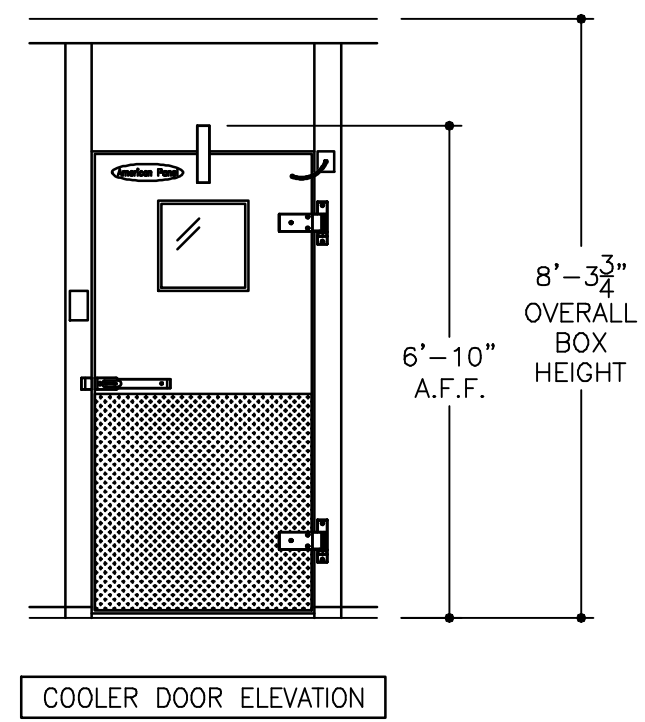
REVISE & RESUBMIT DATE _____

- Please verify that door swing and location are correct.
- If this walk-in is to be installed in a depression, or quarry tile is to be applied to the interior, depression depths or tile thickness must be specified to insure proper door height.
- All site preparation, floor or slab construction, plumbing, electrical connections (including control wiring) by others.
- Electrical: 115-60-1 required above latch side of each door, through ceiling, to operate frame heater and light.
- Special note to General Contractor and His Sub Contractor for quarry tile or concrete wearing floors: the sheet metal panel rainings may be susceptible to staining due to excessive moisture created by hydration of concrete type materials. Therefore, it is absolutely necessary that each room be properly ventilated. Also note that special precautions must be taken when using muriatic acid due to effects hydrochloric acid fumes have on aluminum and stainless steel.
- This drawing and information contained herein are the exclusive property of American Panel Corporation. It shall be returned to American Panel Corporation upon demand and shall not be reproduced in whole or part, disclosed to anyone else, or used without the written consent of American Panel Corporation.

~SPECIFICATIONS~
 BOX HEIGHT: 6'-3 3/4" OVERALL (7'-11 3/4" INTERIOR)
 CONSTRUCTION: FOAMED IN PLACE
 NSF LISTED, STANDARD NO. 7
 INSULATION: 4" URETHANE, FINISHED PANEL
 UL CLASSIFIED FLAME SPREAD 20
 CORE SMOKE DEVELOPED 250
 INSTALLATION: INDOOR
 FLOOR: FLOORLESS (VINYL SCREED PROVIDED)
 DOOR HARDWARE & ACCESSORIES: DEADBOLT HANDLE W/KEYED CYLINDER LOCK, PADLOCK PROVISION & QUARTER TURN INSIDE RELEASE
 FRAME HEATER WIRE
 HYDRAULIC DOOR CLOSER
 IC WALK-IN DOOR CONTROLLER AND ALARM SYSTEM INCLUDING:
 DIGITAL THERMOMETER WITH 3 DIGIT LED DISPLAY
 HIGH AND LOW TEMPERATURE ALARM WITH INTEGRATED BUZZER
 AIR TEMPERATURE PROBE
 INTERMEDIATE LIGHT SWITCH WITH AUTOMATIC LIGHT OFF CONNECTION TO REMOTE LIGHT SWITCH
 DOOR AND WINDOW HEATER CONTROL
 ALARMINE SETTINGS
 KASON SCREW-IN VAPOR PROOF LIGHT FIXTURE
 W/2.5 WATT SILVANIA LED BULBS & GLOBE
 STRIP CURTAIN
 2 - STD. DAM RISE HINGES
 HEATED VISION WINDOW (14" x 14")
 1/10" DIAMOND ALUMINUM TREAD PLATE KICKPLATES 36" HIGH 1/5" & 0/5
 SLAM BRACES
 2 - PCS. TRIM ANGLE (SHIPPED LOOSE)
 ACCESSORIES: INTERIOR WALLS & CEILING - 28 GA STUCCO ACRYLUME
 EXPOSED EXTERIOR - 28 GA STUCCO ACRYLUME
 UNDEPOSED EXTERIOR - 28 GA STUCCO ACRYLUME
 EXTERIOR CEILING - 28 GA STUCCO ACRYLUME
 REFRIGERATION: ULL LISTED, AIR COOLED, OUTDOORS
 CONDENSING UNIT: 1 - STD. PRE-ASSEMBLED REMOTE - HERMETIC SCROLL
 0.75 HP, MODEL NO. FFAM-40BZ-CVY-075 (R-448A)
 EVAPORATOR: 1 - MODEL NO. BELDOR08B56M W/E.C. MOTORS & I.R.C.
 REFRIGERATION ACCESSORIES: 1 - INTERVENTION CONTROLS/ASA
 1 - ULL LISTED COMPRESSOR COVER(S) (HINGED)
 1 - STANDS FOR ULL COVER (18" HIGH)
 NOTE: THE LARGEST WALK-IN PANEL ON THIS JOB IS 46" x 95.75".
 NOTE: THE LARGEST ROOF/FLOOR PANEL ON THIS JOB IS 46.5" x 90".
 CUSTOMER IS TO VERIFY THAT THIS PANEL SIZE WILL NOT CONFLICT WITH ANY JOB SITE RESTRICTIONS.
 NOTE: CUSTOMER IS TO VERIFY ALL DIMENSIONS.
 SECTIONS, DETAILS AND SPECIFICATIONS
 NOTE: MAXIMUM LIGHT CIRCUIT LOAD IS 1200W 120VAC TUNGSTEN, 5A 120VAC ELECTRONIC BALLAST. FOR HIGHER LOADS ADDITIONAL LIGHT FIXTURES MUST BE CONTROLLED VIA RELAY (BY OTHERS).
 ELECTRICAL DATA
 * = POINT OF ELECTRICAL CONNECTIONS.
 COOLER
 CONDENSING UNIT: 208-230V/60/1φ 6.0/8.9/15.0 (RLA/MCA/MOP)
 EVAPORATOR: 208-230V/60/1φ 0.8 AMPS
 WALK-IN DOORS: 115v/1φ - 350w*
 NOTE: ADD WATTAGE FOR EACH ADDITIONAL LIGHT FIXTURE IN ACCESSORIES.

American Panel AMERICAN PANEL CORPORATION
 5800 S.E. 78th St. Davie, Florida 34472
 Ph. (352) 245-7055 Fax (352) 245-0726

CUSTOMER: LANDMARK KITCHEN DESIGN, L.L.C.
 PROJECT: NMSU NM DEPT OF AGRICULTURE - LAS CRUCES, NM
 DATE: 04/01/24 DRAWN BY: DMW/DMM P.D.F.:
 SCALE: 3/8"=1'-0" PROPOSAL # P0210576 JOB#: SHEET 1 of 2



APPROVED SIGNATURE _____

APPROVED AS NOTED PRINT NAME _____

REVISE & RESUBMIT DATE _____

American Panel AMERICAN PANEL CORPORATION
 5800 S.E. 78th St. Davie, Florida 34472
 Ph. (352) 245-7055 Fax (352) 245-0726

CUSTOMER: LANDMARK KITCHEN DESIGN, L.L.C.
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 DATE: 04/01/24 DRAWN BY: DMW/DMM P.D.F.:
 SCALE: 3/8"=1'-0" PROPOSAL # P0210576 JOB#: SHEET 2 of 2

NMSU NM DEPT OF AGRICULTURE
OFFICE BUILDING
3910 SOUTH ESPINA STREET LAS
CRUCES, NEW MEXICO 88003

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DOCUMENTS

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DRAWN BY: SK
 REVIEWED BY: SA
 DATE: 04/17/2024
 PROJECT NO: 22-0227.001

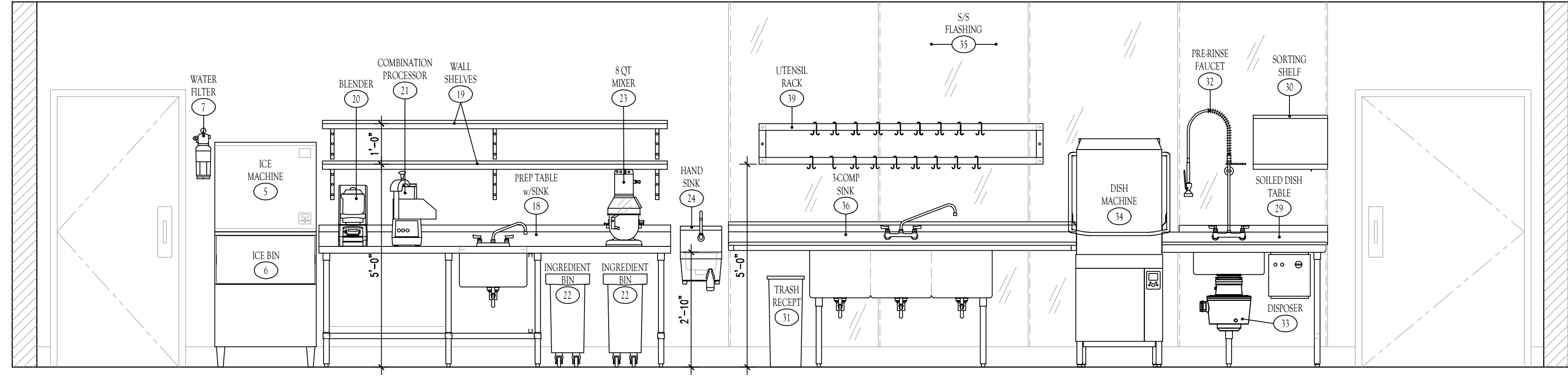
DRAWING NAME
 FOODSERVICE
EQUIPMENT
WALK-IN COOLER
DRAWINGS

SHEET NO
FS502

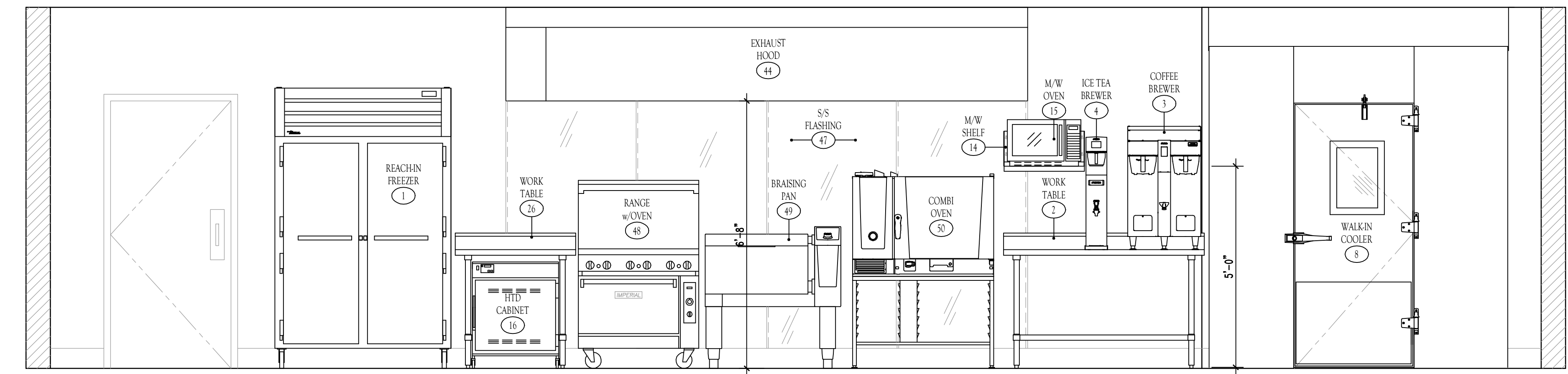


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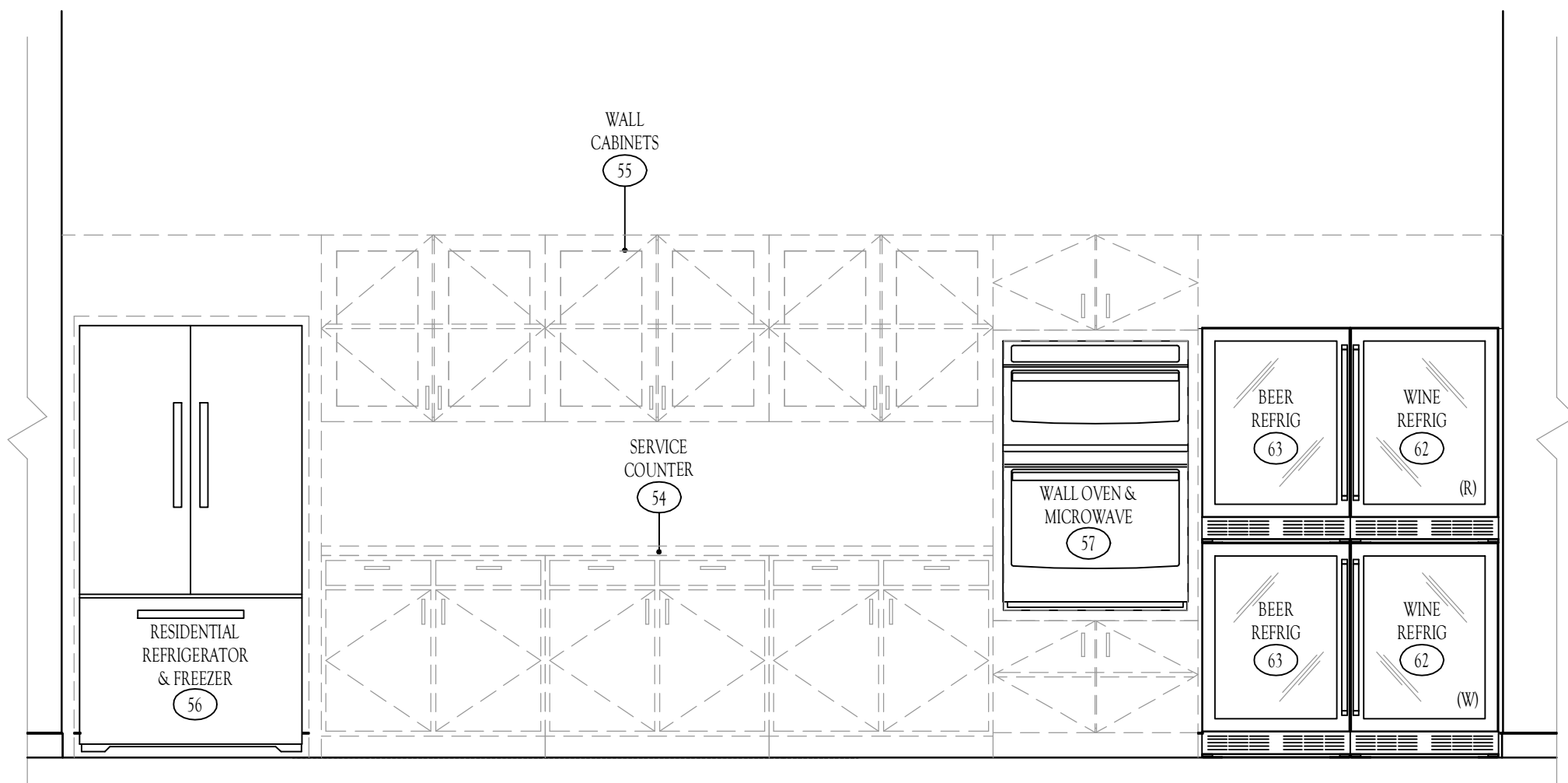
PROJECT



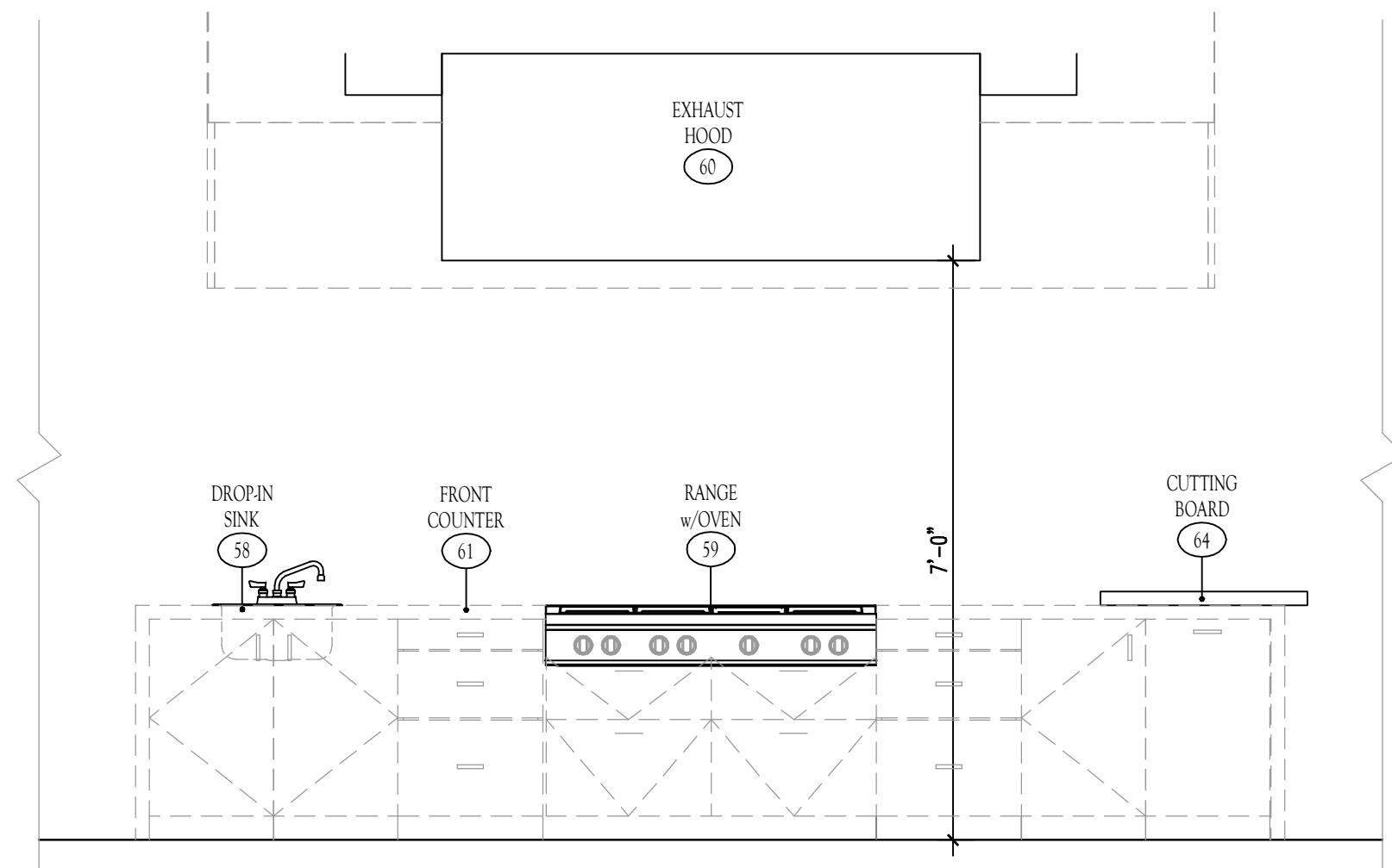
A PREP AREA & WARE WASH
FS101 1/2"-1'-0"



B COOK LINE
FS101 1/2"-1'-0"



C RESIDENTIAL STYLE PREP COUNTER
FS101 1/2"-1'-0"



D RESIDENTIAL COOK COUNTER
FS101 1/2"-1'-0"

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REVIEWED BY SA
DATE 04/17/2024
PROJECT NO 22-0227.001

DRAWING NAME
FOODSERVICE
EQUIPMENT
ELEVATIONS

SHEET NO
FS601

GENERAL CONTRACTOR NOTES:

- 1. General Contractor to cut and provide holes through ceiling, roofs, walls and floors for ducts, refri. lines etc. in accordance with local fire and building codes and in accordance with duct sizes specified. General Contractor to provide the resealing of all holes (including the "moping-in" of fan curbs and roof jacks.) General Contractor to provide all duct fire separation enclosures, wrappings, etc. as may be required by local building and fire codes.
2. Where noise or vibration producing equipment (dish machine, disposer, etc. is located adjacent to dining areas and/or any public areas. Provisions should be made by the General Contractor to "double stud" and sound proof common walls.
3. All roof curb and roof jacks to be provided, located and installed by G.C. including resealing of roof and roof penetrations.
4. "FS" Drawings are provided for the sole purpose of indicating outlet locations and equipment requirements only and do not relieve the General Contractor or subcontractor of the responsibility of complying with all applicable codes. Please see architect's drawings for all other requirements and codes.
5. It is the responsibility of the Owner, Architect and/or General Contractor to inform the K.E.C. in writing, any and all changes and all addendums to plans which are made prior to and during construction. K.E.C. assumes no responsibility for equipment deviations of size and/or utilities from lack of this information. The Owner will be responsible for all cost incurred by failure to give K.E.C. notice of changes.
6. Last dated revisions void all previous plans.
7. General Contractor to provide floor recesses (flat and level). Vapor Barriers and build in insulated floors (as shown on plans). If applicable.
8. Floor finish, cove base and interior cove in walk-in boxes to be provided by General Contractor unless otherwise specified by K.E.C.
9. Sleeves & Conduits to be provided by General Contractor in walls, floors & ceiling for lines (drains, refrigeration, etc.) to pass through and G.C. to reseal after lines are run. All conduit to be round metal, transite, P.V.C. or equal diameter as indicated on plan, minimum bending radius to be 24", factory "L's" will not be permitted. Conduit to meet local codes.
10. General Contractor to provide access to hoods at area above hoods for mounting of hood supports. If access is not provided, General Contractor to provide hood supports. All roof curb & jacks to be provided, located & installed by G.C., including resealing of roof & roof penetrations.
11. General Contractor to provide sprinkler heads in walk-in boxes and adequately protected against freezing.
12. Removal of window glass, window frames, doors, door frames and center post for entry of equipment shall be the responsibility of the General Contractor and at no expense to K.E.C. if necessary.
13. General Contractor to provide all wall backing per location and specification by K.E.C.
14. All dimensions shown are measured from finished walls, floors, ceilings and/or column to center lines of stubs or outlets. Allowances shall be made for miscellaneous obstructions, structures, venting, electrical, plumbing and thickness of finishes when framing and/or roughing-in as required.
15. When equipment is noted as existing or by vendor, utility requirements should match as indicated on the manufacturer's data plate. If existing equipment is not relocated, reconnect as required by code.
16. Where indicated to connect in or through valve compartment, contractor shall stub-up into valve compartment at height indicated on rough-in plan, cap their work and make final connections after equipment is in place.
17. General Contractor to provide all duct chases from hood thru roof, sized & constructed, conforming to codes.
18. General Contractor to provide waste container at job site for K.E.C.
19. Slope floors to floor drains.
20. Provide door wall openings and or passages to assure access for all kitchen equipment and front end items. Coordinate sizes with K.E.C.
21. Provide walk-in refrigerator/freezer depressions, to detail.
22. G.C. to provide enclosures from top of walk-in to ceiling (if required).
23. G.C. to provide enclosures from top of exhaust hood to ceiling (if required).
24. Provide coved base-molding or coved integral floor materials as required at all vertical surfaces for kitchen floors.

VENTILATION NOTES

- 1. Mechanical Contractor to provide fans, duct work, (all welding of hood and duct required) controls, duct collar, final connection, hanging of hoods, permits and make-up air equipment. The above furnished by H.V.A.C. contractor unless noted on drawing or contracted with K.E.C.
2. Mechanical contractor (H.V.A.C.) to balance exhaust system.
3. All duct collars, cutouts and penetrations in hoods to be located and provided by Mechanical Contractor in field.

REFRIGERATION CONTRACTORS NOTES

- 1. Refrigeration line to be installed and protected from damage. Refrigeration lines for walk-in refrigerators & freezers, to run overhead and drop down from compressors to evaporators.
2. All built-in walk-in refrigeration boxes shall be complete with insulation with proper vapor barrier and interior lights and switches outside. Electrical connection and mounting by E.C.
3. Do Not Scale. Use written dimensions shown on "K" plans.

FIRE PROTECTION SYSTEM NOTES

- 1. Where indicated on drawings a dry or liquid chemical system shall be provided to protect all cooking exhaust hoods, ducts, and cooking appliances against fire and re-flash by a fire control system. The size and number of systems shall be in conformance with N.F.P.A. Pamphlet 96, and local and state codes. The system shall be installed by authorized installers.
2. The system shall be of the cartridge operated type, automatic actuated or be manually operable at the nozzle release and a remote manual pull operator shall be located as shown on the drawing. Actuation of the system shall provide automatic gas and/or electric fuel line cut-off.
3. Electrically controlled or manually controlled gas solenoid valve shall be installed by the plumbing contractor. The electrical contractor shall furnish and install line voltage wiring and conduit from cut-off relay to solenoid valve and connect cut-off relay and solenoid valve as required.
4. Electrical cooking equipment shall be shutoff at the electrical panel by means of shunt trips. Electrical contractor shall furnish and install shunt trips, line voltage wiring and conduit from fire protection micro-switch, or equivalent, to panels, to meet all local codes.
5. All hand held fire extinguishers to be provided by General Contractor.

MASONRY CONTRACTORS NOTES

- 1. All curbs & or recessed mat area dimensions are finished dimensions. Verify face and top finishes (where curb is exposed) with Architect, General Contractor or Owner.
2. All curb heights to be taken from finished floor to top of finished curb.
3. All curb dimensions are taken from finished wall to face of finished curb, or from finished face of curb to finished face of curb.
4. Provide a 3" - 4" radius cove where finished face of curb intersects the finished floor.
5. See Plumbing plan(s) for exact location of floor sinks and floor drains. Verify with P.C.
6. Do Not Scale. Use written dimensions shown on "K" plans.
7. Provide masonry curbs with trowel-smooth and level finish as required.

PLUMBING CONTRACTOR NOTES

- 1. All rough-ins related to foodservice equipment only. Please see architectural/engineering plans for additional plumbing requirements and codes.
2. Final connections to all equipment to be by plumbing contractor, ALL required materials, such as stops, valves, filters, check valves, pressure reducing valves, gate valves, solenoid valves, syphon breakers, piping, tubing, misc. fittings, traps, etc. shall be supplied by the Plumbing Contractor unless otherwise specified.
3. Water quality requirement. The recommended minimum water quality standards whether untreated or pre-treated, based upon 10 hours of use per day, and a daily blow-down, are as follows:
A. Total dissolved solids less than 300 parts per million
B. Total alkalinity less than 85 parts per million
C. Silica less than 13 parts per million
D. pH Factor greater than 7.5
4. Verify all plumbing rough-ins and location with owner, vendor or G.C. on existing equipment or other equipment not provided by K.E.C.
5. Plumbing Contractor to Furnish and Install the following as per code:
A. All water, waste, gas, and steam service to point of rough-in as shown on plan. Rough-in outlets to stub 4" out of walls at height indicated from finished floor to center line of outlet.
B. Pressure reducing and/or regulating valves for dishwashers, booster heaters, and as otherwise noted, in kitchen areas.
C. All floor sinks, complete with top grates, and removable sediment buckets set flush with finished floor, unless noted or as per local code.
D. All waste lines, direct or indirect, except as noted, shall be pitched downward. All waste lines shall have adequate clean-out provisions.
E. Indirect waste lines for walk-in refrigerators/freezers, pitched 4"/12" (minimum) and with a "P" trap at end over floor sink as required by local code.
F. Heater tape, with 35 watts per lineal foot of drain line, and insulation of all drain lines inside freezer compartments.
G. Install in an accessible location the fire control gas shutoff valve as supplied by Fire Protection System Supplier. (If gas cooking equipment is used).
H. Vacuum breakers as required.
I. Insulation of all steam, hot water and condensate lines in kitchen.
J. Clean-out valves for steam condensate, and air lines.
K. All piping condensate & drain lines, to and from equipment must be kept a minimum of (6") above finished floor to allow for cleaning, & or prevailing local code.
L. In line water filters are recommended for the following equipment: (Water filter by P.C. unless otherwise noted)

- Water Heaters
Booster Heaters
Sink Heaters
Dish Washers
Glass Washers
Soda Systems
Ice Machines
Steam Equipment

- 6. Plumbing Contractor to interconnect dish machine with booster heater and water-type ventilators with control panels as per manufacturer's instruction, when applicable and noted.
7. All lines routed through equipment shall not interfere with intended use of, or servicing of equipment.
8. All vent pipes are to be concealed in walls or column chases.
9. Interconnection between steam equipment and steam generator.
10. Grease trap to be specified and located by mechanical engineer and provided and installed by mechanical or plumbing contractor.
11. Where equipment is noted as existing, utility requirements should be verified and match as indicated on manufacturer's data plate. If equipment is not relocated, reconnect as required by code. Plumbing Contractor to verify existing utilities and equipment requirements and re-use if possible.
12. All plumbing locations are shown at optimum spots. Utilize all existing services where applicable.
13. All plumbing to be concealed within walls where possible.
14. Hot water heater to provide a minimum of 140 degree water to all kitchen equipment.
15. All dimensions shown are measured from finished walls, floors ceilings and/or column to center lines of stubs or outlets. The plumbing contractor shall make allowances for miscellaneous obstructions such as piping mains, electrical components, structures, venting and thickness of finishes when roughing-in as required.
16. All faucets and/or disposers located on Food Service Plan shall be provided by K.E.C. and installed by Plumbing Contractor, unless otherwise noted.
17. Hand sinks are to be mounted and installed by Plumbing Contractor.

ELECTRICAL CONTRACTOR NOTES

- 1. The electrical specifications and connections shown on these plans are for food service equipment requirements only. It is the responsibility of the ELECTRICAL CONTRACTOR to consult the architect's, mechanical engineers and/or general contractor's plans and the owner for further building electrical requirements.
2. Access areas and cut-ins on custom and buyout equipment and fixtures shall be provided by the Electrical Contractor for proper installation of electrical outlets, junction boxes, home runs, etc. The electrical contractor shall provide and install shields and extension boxes as required.
3. The Electrical Contractor shall connect all compressors and provide fused disconnects, magnetic starters and thermo overload protection as required.
4. Vapor proof light fixtures for exhaust hoods shall be furnished by the HOOD SUPPLIER. The Electrical Contractor shall supply and install pull boxes, conduit, wire, bulbs, etc. Provide and connect to a wall mounted switch (with pilot light) located per plans.
5. Vapor proof light fixtures for walk-in coolers and freezers shall be furnished with an exterior pilot light switch by the Walk-in Supplier. It shall be the responsibility of the Electrical Contractor to interconnect and install these items as required. Electrical Contractor shall connect door heaters, relief ports. E.C. to supply install, & connect all drain line heater tape.
6. Electrical Contractor to interconnect the Remote Refrigerations' Compressor, Evaporator, T-stat, Solenoid and Defrost Timer (All Controls) where required.
7. All electrical materials including wiring, flex, conduit, switches, disconnects, magnetic starters, thermo-overload protectors, transformers, electrical panels, cords, plugs, receptacles, bulbs, etc. shall be supplied by the electrical contractor unless specified in these plans or in writing by the Food Service Equipment Contractor.
8. It shall be the responsibility of the Electrical Contractor to provide water proof power outlet(s) on the roof for exhaust system fan(s) make-up air fan(s) and refrigeration system(s) as required. Low voltage (or common voltage) wiring shall also be supplied and installed by the electrical contractor when necessary to control and interconnect the above systems.
9. The electrical contractor shall furnish and install any and all electrical contractors as required by applicable codes and ordinances.
10. All dimensions shown on these plans are measured from finished walls, floors, ceilings and/or column center lines or grid lines to enter lines of outlets and pull boxes. The Electrical Contractor shall make allowances for finishes when roughing-in as required.
11. The Electrical Contractor shall provide and install element contractor (relay) shutoffs (shunt trip) and/or solenoid shutoff valve and interconnect with the fire suppression system for the cooking equipment, to shut off all equipment automatically in case of fire. Verify with local codes for shutdown of exhaust fan(s) and or make-up air fan(s) requirements.
12. All 115 volt convenience outlets not designated with specific loads are to be rated 20.0 amps. Electrical Contractor is to provide any additional outlets as called for by architect, owner and/or general contractor.
13. Electrical Contractor to provide caps and cords for all equipment where caps and cords are not standard with manufacture. Electrician to also shorten any cords supplied with equipment if requested to do so by owner or Food Service Equipment Contractors' representative.
14. Electrical Contractor to provide all rough-in building services and make final connections to all food service equipment provided by K.E.C. This shall include the installation mounting of the Air Curtain(s),/Microswitch(s).
15. Electrical Contractor to provide temporary power to Food Service Equipment Contractors' installers, as required.
16. All rough-ins are shown in optimum spots, utilize all existing services when applicable.
17. All receptacles and junction boxes to be flushed mounted in walls with stainless steel cover plate.
18. Verify all electrical rough-ins and locations with owner, vendor, or General Contractor on existing equipment or other equipment not provided by K.E.C.
19. Where applicable, Electrical Contractor to provide conduit wiring, install electrical components, and interwire, between the following:
A. Control panels to ventilators and exhaust/supply fans per manufacturer's instructions.
B. Kitchen exhaust hood/ventilators to fire control system and hood controls.
C. Call lights and waitress control systems.
D. Light fixture, chandeliers, etc. Lamps for any light fixtures are to be provided and installed by the Electrical Contractor unless indicated on the lighting schedules or drawings.
E. Module counters and components or equipment mounted on counters.
F. Heat Lamps are to be connected thru remote controls, pilot lights, etc.
20. Electrical Contractor to provide and install all light bulbs for fixtures, where applicable.
21. All items shown with P.I. connections, plug into receptacles furnished by the K.E.C. as part of the equipment.
22. Where connection is shown as J.B., Electrical Contractor shall connect to J.B. furnished as part of the equipment.
23. All horizontal dimensions are from face of finished wall to center-line of outlet or from center-line of outlet to center-line of outlet unless otherwise noted.
24. All symbols for outlet on walls are indicated at a specific height. Height of outlet is given from finished floor TO CENTERLINE OF OUTLET.

DEKKER PERICH SABATINI Architecture in Progress



SEAL

PROJECT

NMSU NM DEPT OF AGRICULTURE OFFICE BUILDING

3910 SOUTH ESPINA STREET LAS CRUCES, NEW MEXICO 88003

50% CONSTRUCTION DOCUMENTS

REVISIONS

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DRAWN BY SK

REVIEWED BY SA

DATE 04/17/2024

PROJECT NO 22-0227-001

DRAWING NAME

FOODSERVICE EQUIPMENT GENERAL NOTES

SHEET NO

FS701