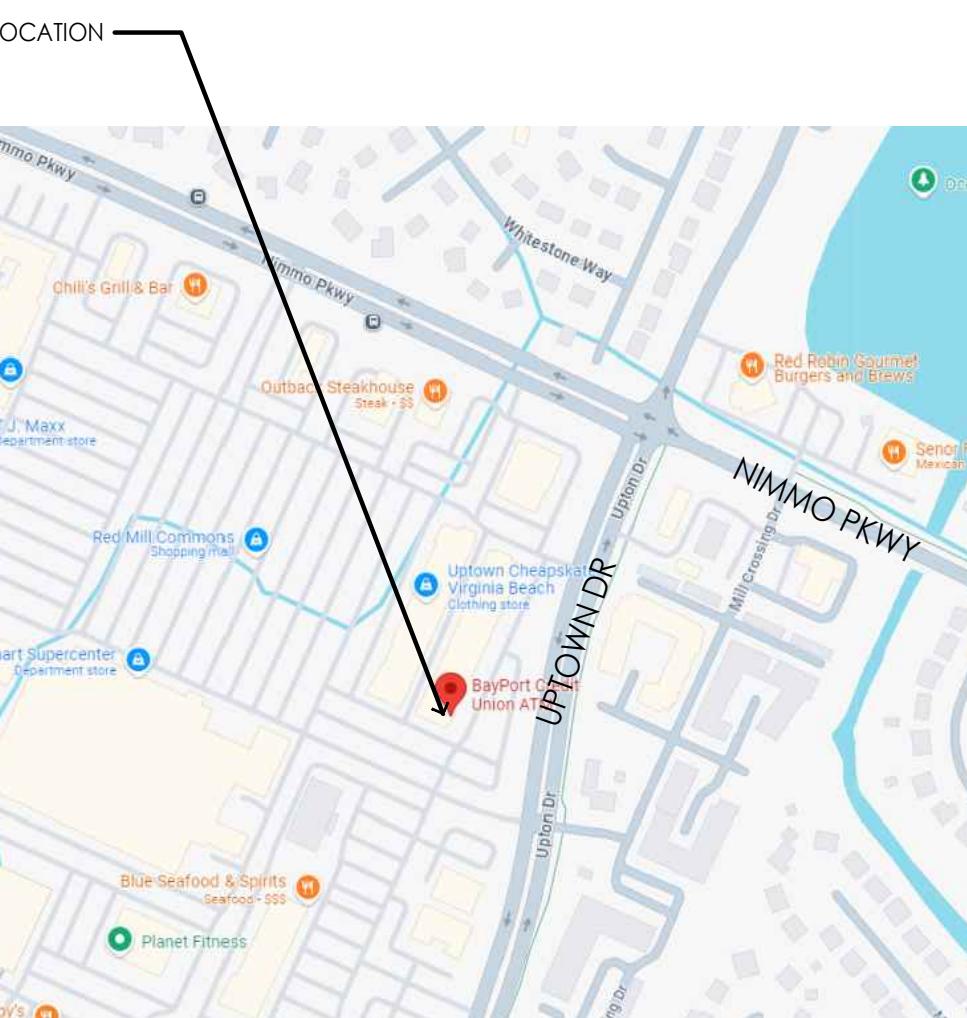


GENERAL NOTES

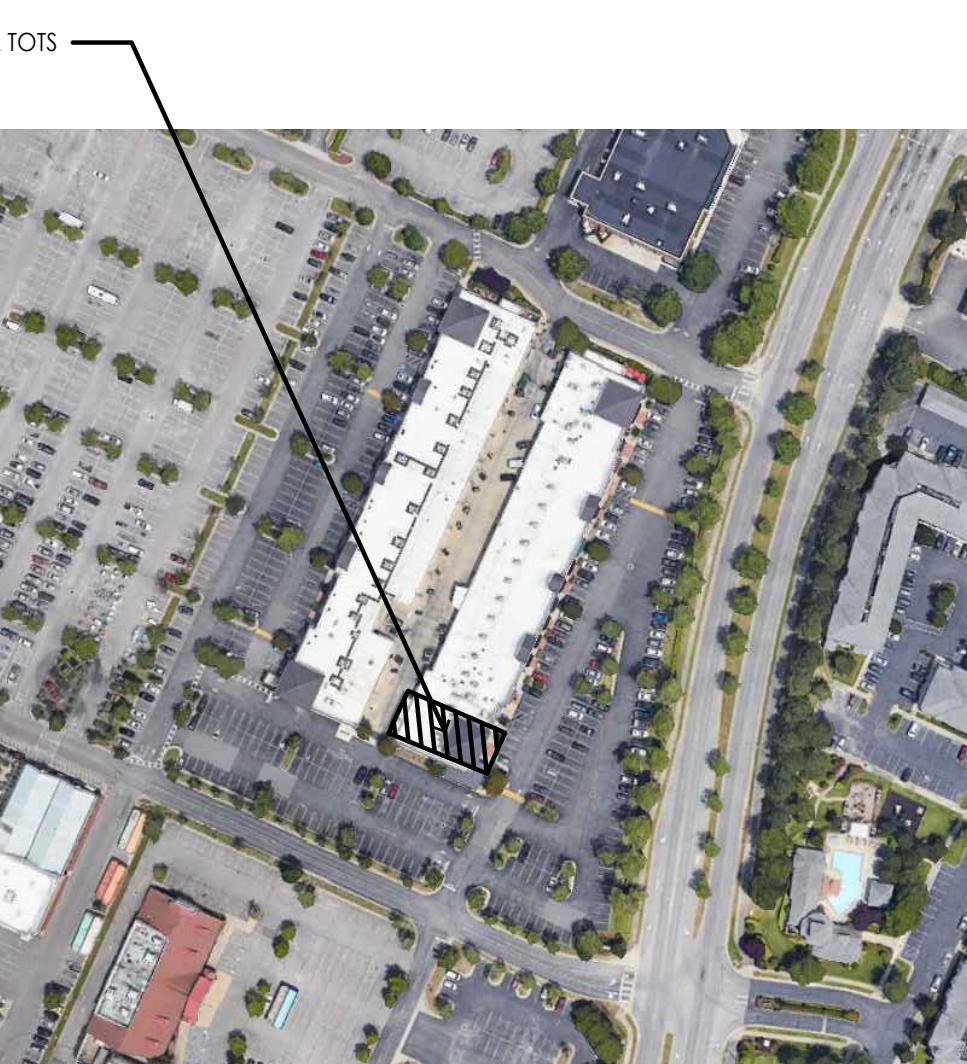
1. BY THE USE OF THE DRAWINGS FOR CONSTRUCTION OF THE PROJECT, THE OWNER REPRESENTS THAT HE HAS REVIEWED & APPROVED THE DRAWINGS, AND THAT THE CONSTRUCTION DOCUMENT PHASE OF THE PROJECT IS COMPLETE.
2. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS & INSPECTIONS REQUIRED FOR CERTIFICATE OF OCCUPANCY.
3. PRIOR TO COMMENCEMENT OF CONSTRUCTION, CONTRACTOR IS TO PROVIDE THE OWNER WITH A COPY OF ALL REQUIRED PERMITS.
4. ALL WORK SHALL COMPLY TO THE REQUIREMENTS OF FEDERAL, STATE, AND LOCAL CODES, LAWS, RULES, & REGULATIONS OF ALL LEGALLY CONSTITUTED PUBLIC AUTHORITIES HAVING JURISDICTION. IN CASE OF CONFLICT BETWEEN REQUIREMENTS, THE MOST RESTRICTIVE SHALL APPLY.
5. THE CONTRACTOR IS REQUIRED TO HAVE A SUPERVISOR IDENTIFIED TO THE OWNER ON SITE AT ALL TIMES WHEN WORK IS BEING DONE.
6. ALL SPECIFIED MATERIALS SHALL BE NEW AND UNDAMAGED. SUBSTANDARD MATERIALS SHALL BE REJECTED.
7. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY SHORING AND BRACING FOR ALL STRUCTURAL ELEMENTS AS REQUIRED UNTIL NEW STRUCTURAL MEMBERS ARE PERMANENTLY INSTALLED. WHETHER INDICATED ON THE DRAWINGS OR NOT, IF THE CONTRACTOR IS UNSURE WHETHER OR NOT TO PROVIDE TEMPORARY SHORING AND BRACING HE SHALL ASK THE ARCHITECT OR STRUCTURAL ENGINEER, IN WRITING, PRIOR TO COMMENCEMENT OF WORK. DESIGN OF SHORING & BRACING FOR ALL STRUCTURAL MEMBERS SHALL BE BY THE CONTRACTOR'S STATE LICENSED STRUCTURAL ENGINEER.
8. NO STRUCTURAL MEMBER OR COMPONENT SHALL BE NOTCHED, CUT, ALTERED, OR MOVED IN ANY WAY WITHOUT PREVIOUS WRITTEN AUTHORIZATION FROM THE ARCHITECT & THE STRUCTURAL ENGINEER. THERE SHALL BE NO PENETRATIONS IN PRE-STRESSED BEAMS OR JOISTS & NO DRILLING OR SHOOTING HANGERS OR PINS INTO PRE-STRESSED BEAMS OR PRE-CAST JOISTS.
9. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID AND EXAMINE ALL AREAS IN WHICH WORK IS TO OCCUR, AND SHALL REPORT ANY SUCH EXISTING CONDITIONS THAT ARE DEEMED UNSUITABLE TO RECEIVE THE WORK AS DESCRIBED IN THESE CONTRACT DOCUMENTS. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE CONDITION OF ALL FINISHED WORK WITHIN THE PROJECT SPACE AFTER WORK UNDER THIS CONTRACT IS STARTED.
10. CONTRACTOR SHALL VISIT THE SITE AND FIELD VERIFY ALL EXISTING CONDITIONS AND ALL CONTRACT DOCUMENT DIMENSIONS AND DETAILS PRIOR TO INITIAL BID SUBMITTAL. CONTRACTOR SHALL NOTIFY OWNER & ARCHITECT OF ANY DISCREPANCIES OR OMISSIONS THAT MAY INTERFERE WITH COMPLETION OF THE WORK, OR WHICH MAY AFFECT THE BID PRICE, PRIOR TO SUBMITTING THE INITIAL BID. ALL DISCREPANCIES NOT BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO BID SUBMITTAL SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.
11. THE CONTRACTOR SHALL OBTAIN CONSTRUCTION DOCUMENTS FOR THE BASE BUILDING FROM THE OWNER PRIOR TO BID. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME FAMILIAR WITH THE BASE BUILDING DESIGN AND ENGINEERING, INCLUDING SAFETY AND RELATED SYSTEMS, STRUCTURAL SYSTEMS, FIRE AND SMOKE SEPARATIONS, FIRE PROTECTION SYSTEMS, ELECTRICAL SYSTEMS, AND COMMUNICATIONS AND CONTROL SYSTEMS. THE CONTRACTOR IS TO BE FAMILIAR WITH THESE SYSTEMS WITHIN THE PROJECT SPACE, AS WELL AS OUTSIDE OF THE PROJECT SPACE AS THOSE AREAS RELATE TO THE CONSTRUCTION OF THE PROJECT.
12. FOR INFORMATION RELATING TO THE CONSTRUCTION OF THE BASE BUILDING INCLUDING STRUCTURE, COLUMNS, EXTERIOR WALLS & WINDOWS, CORE SERVICE AREAS, ETC, REFER TO THE BASE BUILDING CONSTRUCTION DOCUMENTS.
13. THE CONTRACTOR MUST RECEIVE PERMISSION IN WRITING FROM THE REPRESENTATIVE OF THE BASE BUILDING PRIOR TO TYING INTO, CUTTING AND PATCHING, OR OTHERWISE AFFECTING THE SYSTEMS OF THE BASE BUILDING.
14. THE CONTRACTOR SHALL RECEIVE FROM THE BASE BUILDING REPRESENTATIVE, A COPY OF THE BUILDING'S RULES AND REGULATIONS AS THEY PERTAIN TO ALL ACTIVITIES RELATED TO OR AFFECTED BY THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR IS RESPONSIBLE FOR ENFORCING ALL BASE BUILDING RULES AND REGULATIONS ON ALL PERSONS DOING WORK IN OR OTHERWISE INVOLVED IN THE PROJECT.
15. THE CONTRACTOR SHALL MAKE ARRANGEMENTS TO AVOID UTILIZING THE BASE BUILDING RESTROOMS BY ANY CONSTRUCTION PERSONNEL. THESE SERVICES SHALL BE PROVIDED BY THE CONTRACTOR IN SUFFICIENT QUANTITY AND SHALL BE INCLUDED IN THE GENERAL CONDITIONS OF THE BID. CONTRACTOR SHALL COORDINATE THIS REQUIREMENT WITH THE BASE BUILDING RULES & REGULATIONS.
16. WORKERS SHALL COME AND GO FROM THE PROJECT SPACE AND FROM THE BASE BUILDING PROPERTY IN COMPLIANCE WITH BASE BUILDING RULES & REGULATIONS. RESTRICTIONS ON DELIVERY TIMES, LOCATIONS, PARKING, AND ACCESS TO THE PROJECT SPACE FROM THE AGREED UPON DELIVERY AREA SHALL BE DETERMINED BY THE RULES & REGULATIONS.
17. CONTRACTOR SHALL SUBMIT A COMPLETE CONSTRUCTION SCHEDULE TO THE OWNER WHICH COORDINATES ALL WORK WITH SUPPLIERS, SUB-CONTRACTORS, AND SPECIALTY CONTRACTORS, WITHIN THE FINAL BID. THIS SCHEDULE SHALL INCLUDE IDENTIFICATION OF "LONG LEAD" ITEMS ALONG WITH THEIR ANTICIPATED LEAD TIMES. EXPEDITED DELIVERY OF LONG LEAD ITEMS SHOULD BE IDENTIFIED AND INCLUDED IN THE BID. THE SCHEDULE SHOULD INCORPORATE ANY RESTRICTIONS ON CERTAIN TYPES OF WORK SUCH AS SHOOTING HILTI GUNS, OR SIMILAR NOISE PRODUCING ACTIVITIES, AS IDENTIFIED BY THE BASE BUILDING REPRESENTATIVE AND THE RULES & REGULATIONS.
18. CONTRACTOR TO VERIFY FINISH & FINISH REQUIREMENTS FOR ALL PROJECT COMPONENTS, WITH OWNER, PRIOR TO ORDERING MATERIALS. REPORT CONFLICTING INFORMATION TO OWNER PRIOR TO PROCEEDING WITH WORK.
19. CONTRACTOR SHALL DISPOSE OF ALL DEMOLITION & CONSTRUCTION DEBRIS AS REQUIRED BY FEDERAL, STATE AND LOCAL ORDINANCES. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE PROJECT SPACE DAILY. CONTRACTOR SHALL INSPECT AND CLEAN ALL BASE BUILDING AREAS AFFECTED BY THE CONSTRUCTION WORK ON A DAILY BASIS, AND AS SPECIFIED BY THE BASE BUILDING RULES AND REGULATIONS.
20. AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL COMPLETE A FINAL CLEANING OF THE ENTIRE PROJECT SPACE TO INCLUDE CLEANING & POLISHING OF HARDWARE, FIXTURES, GLASS, AND CABINETRY. CONTRACTOR TO REMOVE ALL CONSTRUCTION DEBRIS AND PACKAGING AND REMOVE ALL STAINS, MARKS, DIRT, TAPE, AND PAINT SPATTERS. CONTRACTOR SHALL REMOVE ALL PRICE/SCAN STICKERS FROM ALL CONSTRUCTION MATERIALS PRIOR TO PROJECT COMPLETION. CONTRACTOR TO PROFESSIONALLY POLISH & CLEAN ALL FLOOR MATERIALS. ALL BASE BUILDING AREAS AFFECTED BY THE PROJECT AND BY THE CONTRACTOR'S ACTIVITIES SHALL BE LIKEWISE CLEANED AND POLISHED, AND RETURNED TO THEIR ORIGINAL CONDITION.
21. CONTRACTOR SHALL STENCIL/LABEL ON ALL RATED WALLS IN CONCEALED AREAS THE FOLLOWING: "FIRE AND SMOKE BARRIER -- PROTECT ALL OPENINGS." CONTRACTOR SHALL STENCIL/LABEL ON ALL RATED WALLS IN CONCEALED AREAS THE HOURLY RATING OF THE PARTITION ALONG WITH THE UL DESIGNATION OF THE PARTITION.
22. CONTRACTOR SHALL COORDINATE WITH ALL OTHER CONTRACTORS FURNISHING THE LABOR, MATERIALS, AND ALL WORK, SO THAT THE WORK AS A WHOLE SHALL BE EXECUTED AND COMPLETED WITHOUT CONFLICT OR DELAY.
23. CONTRACTOR SHALL COORDINATE THE REQUIREMENTS OF ANY AND ALL DRAWINGS INCLUDING ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER & ARCHITECT PRIOR TO ANY WORK.
24. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ACQUAINT HIMSELF WITH THE DIMENSIONS OF ALL EQUIPMENT INCLUDED IN THIS PROJECT SO THAT PREPARATIONS CAN BE MADE TO PROVIDE ENTRY INTO THE FACILITY WITH SUFFICIENT CLEARANCE, AND TO ENSURE THAT ADEQUATE FLOOR SPACE IS AVAILABLE. THE CONTRACTOR SHALL COMPLY WITH ALL OF THE RULES AND REGULATIONS OF THE BASE BUILDING WITH RESPECT TO DELIVERIES AND STORAGE OF PROJECT MATERIALS. RESTRICTIONS IMPOSED BY THE RULES AND REGULATIONS MUST BE INCLUDED IN THE CONTRACTOR'S BID AND THEIR SUBMITTED PROJECT SCHEDULE.
25. THE CONTRACTOR SHALL OBTAIN A CURRENT EQUIPMENT MANUAL FROM THE OWNER PRIOR TO BID.
26. CONTRACTOR SHALL NEVER SCALE DRAWINGS. LOCATIONS FOR ALL PARTITIONS, WALLS, CEILINGS, ETC. WILL BE DETERMINED BY DIMENSIONS ON DRAWINGS. ANY SUCH DIMENSIONS MISSING FROM THE PLANS MUST BE BROUGHT TO THE ATTENTION OF THE OWNER & ARCHITECT IMMEDIATELY.
27. THE CONTRACTOR SHALL ADHERE TO THE DRAWINGS AND SPECIFICATIONS. SHOULD ANY ERROR OR INCONSISTENCY APPEAR REGARDING THE TRUE MEANING AND/OR INTENT OF THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR SHALL IMMEDIATELY REPORT SAME TO THE ARCHITECT WHO WILL MAKE ANY NECESSARY CLARIFICATION, INTERPRETATION, OR REVISION AS REQUIRED.
28. IF THE INTENT OF THE DRAWINGS & SPECIFICATIONS ARE UNCLEAR, THE CONTRACTOR SHALL ASK THE ARCHITECT FOR CLARIFICATION. PRIOR TO PROCEEDING WITH WORK, IN THE FORM OF A WRITTEN R.F.I. (REQUEST FOR INFORMATION), THE ARCHITECT SHALL THEN RESPOND IN WRITING TO ALL APPROPRIATE PARTIES.
29. IF THE CONTRACTOR DISCOVERS AN ERROR OR INCONSISTENCY AND PROCEEDS WITH WORK WITHOUT NOTIFYING THE OWNER & ARCHITECT OF ANY SUCH DISCREPANCIES, HE SHALL ASSUME ALL CHARGES AND MAKE ANY CHANGES TO HIS WORK MADE NECESSARY BY HIS FAILURE TO OBSERVE AND/OR REPORT THE CONDITION.
30. CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION WORK, MATERIALS, FIXTURES, ETC. IN LEASED SPACE FROM LOSS, DAMAGE, FIRE, THEFT, ETC INCLUDING BOTH PARTIAL AND COMPLETED WORK AS WELL AS ALL STORED MATERIALS WHETHER ON SITE OR OFF SITE, ANY WORK OR MATERIALS, COMPONENTS, OR EQUIPMENT LOST OR DAMAGED DUE TO FAILURE TO PROVIDE ADEQUATE PROTECTION SHALL BE REMOVED AND REPLACED AS THE CONTRACTOR'S SOLE EXPENSE, AND WITH NO AFFECT TO THE PROJECT SCHEDULE.
31. WHEREVER THE TERM "OR EQUAL" IS USED, IT SHALL MEAN EQUAL PRODUCT AS SUBMITTED TO AND REVIEWED BY ARCHITECT.
32. IF THE CONTRACTOR PROPOSES AN EQUAL OR ANY OTHER MATERIAL OR EQUIPMENT SUBSTITUTION, HE SHALL PROVIDE ALL APPROPRIATE DOCUMENTATION AND INFORMATION REQUIRED FOR THE ARCHITECT TO DETERMINE WHETHER OR NOT THE SUBSTITUTION IS EQUAL TO THE SPECIFICATION. THE CONTRACTOR MUST PROVIDE A REASON FOR THE SUBSTITUTION AS WELL AS THE PROPOSED COST OR CREDIT TO BE PRESENTED TO THE OWNER FOR THEIR APPROVAL.
33. ALL CHANGE ORDERS MUST BE REVIEWED AND APPROVED IN WRITING BY THE OWNER.
34. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EQUIPMENT AND COORDINATE LOCATION OF FLOOR SINKS, FLOOR DRAINS, SLOPES/SLAB DEPRESSIONS AND RAISED CURBS, ELECTRICAL, AND PLUMBING STUB OUTS, AND ALL OTHER WORK UNDER THIS SCOPE OF RESPONSIBILITY RELATED TO THIS EQUIPMENT SUPPLIER FOR SPECIFIC REQUIREMENTS & REFERENCES.
35. CONTRACTOR IS RESPONSIBLE FOR RECEIVING, UNLOADING, UNCRATING, INSTALLATION AND HOOK-UP OF ALL EQUIPMENT AND OTHER OWNER FURNISHED ITEMS.
36. CONTRACTOR SHALL REFER TO THESE DOCUMENTS, AS WELL AS SPECIFICATIONS, FOR IDENTIFICATION OF ALL OWNER SUPPLIED ITEMS. CONTRACTOR SHALL VERIFY WITH OWNER, PRIOR TO ORDERING, WHICH ITEMS THE OWNER SHALL SUPPLY. ALL ITEMS NOT MARKED AS "OWNER SUPPLIED" ARE TO BE SUPPLIED BY THE CONTRACTOR. UNLESS NOTED OTHERWISE ALL ITEMS ARE TO BE INSTALLED BY GENERAL CONTRACTOR.
37. FOR CONSTRUCTION DETAILS NOT SHOWN, USE THE MANUFACTURER'S RECOMMENDED DETAILS. SPECIFICATIONS, & INSTALLATION INFORMATION PROVIDED BY MANUFACTURERS SHALL BE STRICTLY ADHERED TO AND ARE HEREWITHE MADE PART OF THESE DOCUMENTS.
38. CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF WORK TO VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES. NOTIFY ARCHITECT IMMEDIATELY IF CONFLICTS EXIST BETWEEN EXISTING UTILITIES AND NEW CONSTRUCTION, PATCH, REPAIR, AND/OR REPLACE ALL ADVERSELY AFFECTED FINISHES AND SURFACES AS REQUIRED. UPON COMPLETION OF CONSTRUCTION, ALL PARKING AREA PAVEMENT AND NEW CONCRETE PADS SHALL TRANSITION SMOOTHLY.
39. CONTRACTOR SHALL KEEP AN ORGANIZED RECORD OF ALL SIGNED & SEALED DOCUMENTS, REVIEWED SUBMITTALS, ADDENDUMS, REVISIONS, SKETCHES, AND SUPPLEMENTAL INFORMATION. THESE DOCUMENTS ARE TO BE KEPT ON SITE & READILY ACCESSIBLE FOR REFERENCE WHILE WORK IS BEING DONE.
40. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS SIGNED & SEALED BY A STATE LICENSED ENGINEER FOR ALL ELEMENTS WHICH HAVE NOT BEEN DESIGNED OR ENGINEERED IN THESE DRAWINGS. THE COST OF THIS ENGINEERING AND DOCUMENTATION SHALL BE PART OF THE BASE BID FOR THIS PROJECT.
41. PRIOR TO SUBMITTING SHOP DRAWINGS OR SUBMITTALS THE CONTRACTOR SHALL COMPLETE A FULL REVIEW OF EACH SUBMISSION FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND OPERATIONS OF CONSTRUCTION AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO, ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL APPROVE AND STAMP EACH SUCH SUBMISSION PRIOR TO SUBMITTING TO THE ARCHITECT. THE DESIGN PROFESSIONAL SHALL ASSUME THAT NO SUBMITTAL OR SHOP DRAWING COMPRIMES A VARIATION FROM THE CONTRACT DOCUMENTS UNLESS THE CONTRACTOR HAS EXPRESSLY ADVISED THE ARCHITECT IN WRITING OF SUCH A VARIATION.
42. THE CONTRACTOR SHALL, UPON COMPLETION OF THE PROJECT, PROVIDE THE OWNER WITH A BOUND PAPER COPY OF ALL ELECTRICAL, MECHANICAL, AND EQUIPMENT AND SYSTEMS MAINTENANCE AND INSTRUCTION MANUALS ALONG WITH A PDF COPY OF THE SAME.
43. THE CONTRACTOR SHALL, UPON COMPLETION OF THE PROJECT, PROVIDE A BOUND FULL SIZE COMPLETE SET OF AS-BUILD DRAWINGS, ALONG WITH A PDF COPY OF THE SAME.
44. ALL WORK PERFORMED BY OR UNDER THE CONTRACTOR AS WELL AS MATERIALS & LABOR SHALL BE GUARANTEED IN WRITING FOR ONE FULL YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER. ALL MOVEABLE AND ADJUSTABLE WORK SHALL REMAIN IN PERFECT WORKING ORDER WITHIN THIS WARRANTED TIME. OWNER ACCEPTANCE CANNOT OCCUR UNTIL THIS WRITTEN WARRANTY IS DELIVERED.
45. THE CONTRACTOR IS RESPONSIBLE FOR RE-DOING ANY WORK THAT FAILS TO CONFORM TO THE DRAWINGS AND SPECIFICATIONS AS SHOWN IN THESE DOCUMENTS, AND CORRECT ANY DEFECTS DUE TO FAULTY MATERIALS OR WORKMANSHIP WHICH APPEAR WITHIN THE ONE YEAR FROM THE DATE OF OWNER ACCEPTANCE. THIS APPLIES TO ALL WORK DONE BY THE CONTRACTOR AS WELL AS ALL THOSE PERFORMING WORK DIRECTLY UNDER OR OTHERWISE SUPERVISED BY THE CONTRACTOR INCLUDING VENDORS. NOTHING IN THE WARRANTY INTENDS OR IMPLIES THAT THIS GUARANTY SHALL APPLY TO WORK WHICH HAS BEEN ABUSED OR NEGLECTED BY THE OWNER OR HIS SUCCESSOR.
46. CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE FULL AND COMPLETE SET OF CONSTRUCTION DOCUMENTS TO ALL SUB CONTRACTORS. THE CONTRACTOR TAKES FULL RESPONSIBILITY FOR ENSURING ALL SUBCONTRACTORS HAVE REVIEWED THE FULL SET OF THE MOST CURRENT CONSTRUCTION DOCUMENTS



**RED MILL COMMONS SHOPPING CENTER
2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA 23454**



VICINITY MAP



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**RED MILL COMMONS
SHOPPING CENTER**
2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454

PROJECT NO: 2024.0397
DATE: 08.29.24

T101
TITLE SHEET

CHECKED: AM DRAWN: FV

INTERPLAN
INTERPLAN LLC
AR99238
CA 8660

ARCHITECTURE
I SOUTH 280 SUMMIT AVE, STE D
OAKBROOK TERRACE, IL 60181
630.932.2336

ENGINEERING
PERMITTING
220 E. CENTRAL PKWY, STE 4000
ALTAMONTE SPRINGS, FL 32701
407.645.5008

SEAL:

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10.17.24 LANDLORD REVIEW
09.27.24 OWNER REVIEW
NO DATE REMARKS
REVISIONS

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ACCESSIBILITY GENERAL NOTES

REFERENCE STANDARD: 2017 VAC/A117.7

- ALL INDICATED NOTES AND DIAGRAMS ILLUSTRATE COMMON CONDITIONS WITHIN THE REFERENCE STANDARD. FOR CONDITION NOT DESCRIBED, THE CONTRACTOR SHOULD REFER TO SITE SPECIFIC DETAILS WITHIN THE BALANCE OF THIS DRAWING SET OR CONTACT ARCHITECT FOR MORE INFORMATION.
- ALL DIMENSIONS ARE FROM FINISH FACE TO FINISH FACE AND ARE FOR NEW CONSTRUCTION.
- ENTRANCES / DOORS:
- PROVIDE METALLIC SIGN AT EACH STOREFRONT DOOR STATING: "THIS DOOR MUST REMAIN UNLOCKED DURING BUSINESS HOURS". LETTERS SHALL NOT BE LESS THAN 1" HIGH ON A CONTRASTING BACKGROUND. THE SIGN SHALL BE INSTALLED BY THE GENERAL CONTRACTOR ON THE STOREFRONT ALUMINUM HEADER FRAME. IF PLACED ABOVE 70" AFF NEEDS TO BE 2" HIGH.
- WHEN NOT ALL ENTRANCES ARE ACCESSIBLE, ALL ACCESSIBLE ENTRANCES SHALL BE IDENTIFIED WITH AT LEAST ONE STANDARD SIGN AND WITH ADDITIONAL DIRECTIONAL SIGNS, AS REQUIRED, VISIBLE FROM APPROACHING PEDESTRIAN WAYS.
- EVERY REQUIRED ENTRANCE OR PASSAGE DOORWAY SHALL BE OF A SIZE AS TO PERMIT THE INSTALLATION OF A DOOR NOT LESS THAN 3 FEET IN WIDTH AND NOT LESS THAN 6 FEET-8 INCHES IN HEIGHT. DOORS SHALL BE CAPABLE OF OPENING AT LEAST 90 DEGREES AND SHALL BE SO MOUNTED THAT THE CLEAR WIDTH OF DOORWAY IS NOT LESS THAN 32". IF DOORS HAVE CLOSERS, BOTTOM OF CLOSER OR STOP MUST BE 6"-6" ABOVE FLOOR.
- WHERE PAIR OF DOORS IS UTILIZED AT LEAST ONE OF THE DOORS SHALL PROVIDE A CLEAR UNOBSTRUCTED OPENING WIDTH OF 32" WITH THE LEAF POSITIONED AT AN ANGLE OF 90 DEGREES FROM ITS CLOSED POSITION.
- LATCHING AND LOCKING DOORS THAT ARE HAND ACTIVATED AND WHICH ARE IN PATH OF TRAVEL SHALL BE OPENABLE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE, THAT DOES NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF WRIST TO OPERATE. PANIC BARS, PUSH-PULL ACTUATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE ARE ALLOWABLE. OPERATIONAL FORCE TO RETRACT LATCHES OR DISengage DEVICES THAT HOLD THE DOOR OR GATE IN A CLOSE POSITION MUST BE OPERABLE BY 15LBS OR LESS FOR FORWARD, PUSHING OR PULLING MOTIONS AND 28INCH-POUNDS OR LESS FOR ROTATIONAL HARDWARE.
- HAND ACTIVATED DOOR OPENING HARDWARE SHALL BE BETWEEN 34" MIN. AND 48" MAX ABOVE THE FLOOR.
- THE FLOOR AND LANDING ON EACH SIDE OF AN ENTRANCE OR PASSAGE DOOR SHALL BE LEVEL AND CLEAR. SEE DIAGRAM 2 MANEUVERING CLEARANCE AT SWINGING DOORS. FOR DEPTH AND WIDTH REQUIREMENTS OF LEVEL LANDING,
- THE FLOOR OR LANDING SHALL BE NOT MORE THAN 1/2-INCH LOWER THAN THE THRESHOLD OF THE DOORWAY. CHANGE IN LEVEL BETWEEN 1/4- INCH AND 1/2-INCH SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2.

THE BOTTOM 10" OF ALL DOORS EXCEPT AUTOMATIC AND SLIDING DOORS SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION. WHERE NARROW FRAME DOORS ARE USED, A 10-INCH HIGH SMOOTH PANEL SHALL BE INSTALLED ON THE PUSH SIDE OF THE DOOR, WHICH WILL ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION. KICKPLATES MAY NOT EXCEED 1/16" IN DEPTH - CAVITIES CREATED BY KICKPLATES SHALL BE CAPPED.

- A NARROW FRAME WITH A BEVELED TOP (30 DEGREES MAX. BEVEL TO VERTICAL PLANE) INSTALLED AT THE BOTTOM OF THE GLASS DOOR (WITH NO SIDE FRAMES) MAY BE USED IN LIEU OF PROVIDING THE REQUIRED 10 INCH UNINTERRUPTED SURFACE AT THE BOTTOM OF THE DOOR.
- MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 LBS. FOR INTERIOR SWING DOORS AND ALL SLIDING AND FOLDING DOORS, SUCH PULL OR PUSH EFFORT BEING APPLIED AT RIGHT ANGLES TO HINGED DOORS AND AT THE CENTER PLANE OF SLIDING OR FOLDING DOORS. COMPENSATING DEVICES OR AUTOMATIC DOOR OPERATORS MAY BE UTILIZED TO MEET THE ABOVE STANDARDS. WHEN FIRE DOORS ARE REQUIRED, THE EFFORT TO OPERATE THE DOOR MAY BE MODIFIED PER AUTHORITY HAVING JURISDICTION.
- DOOR CLOSERS SHALL BE ADJUSTED SO THAT THE CLOSING TIME FROM 90DEGREES TO 12DEGREES (APPROXIMATELY 6") FROM THE LATCH IS 5 SECONDS MINIMUM. SPRING HINGES SHALL BE ADJUSTED SO THAT THE TIME FROM THE OPEN POSITION OF 70DEGREES FROM THE LATCH TO CLOSED POSITION IS 1.5SECONDS MINIMUM.

- ACCESSIBLE SIGN CONTAINING TACTILE CHARACTERS SHALL BE PROVIDED AT DOORS TO PERMANENT SPACES. THE SIGN SHALL BE ALONGSIDE THE DOOR ON LATCH SIDE AND AT DOUBLE DOORS, THE SIGN SHALL BE RIGHT OF THE RIGHT HANDED DOOR. THE SIGN CONTAINING TACTILE CHARACTERS SHALL HAVE 18" MIN. BY 18" MIN. SPACE ON THE FLOOR CENTERED ON SIGN. THE SIGN TACTILE CHARACTER SHALL BE 48" MIN. AND 60" MAX ABOVE FLOOR.

CORRIDORS AND AISLE:

- FLOOR SURFACES SHALL BE SLIP-RESISTANT.
- EVERY PORTION OF EVERY BUILDING IN WHICH ARE INSTALLED SEATS, TABLES, MERCHANDISE, EQUIPMENT OR SIMILAR MATERIALS SHALL BE PROVIDED WITH AISLES LEADING TO AN EXIT.
- AISLE WIDTH SHALL BE NOT LESS THAN 3 FEET PER ACCESSIBILITY REQUIREMENTS. LIFE SAFETY REQUIREMENTS MAY DICTATE INCREASED AISLE WIDTH DEPENDENT UPON OCCUPANCY CLASSIFICATION, OCCUPANT LOAD AND PLAN LAYOUT. REFER TO LIFE SAFETY PLAN FOR ADDITIONAL INFORMATION.

SANITARY FACILITIES:

- CLEARANCE AROUND THE WATER CLOSET SHALL BE 60" MIN. MEASURED PERPENDICULAR FROM THE SIDEWALL, AND 56" MIN. MEASURED PERPENDICULAR FROM REAR WALL. NO OTHER FIXTURES OR OBSTRUCTION SHALL BE WITHIN WATER CLOSET CLEARANCE.
- WATER CLOSET COMPARTMENTS SHALL BE EQUIPPED WITH A DOOR THAT HAS AN AUTOMATIC CLOSING DEVICE, AND SHALL HAVE A CLEAR UNOBSTRUCTED OPENING WIDTH OF 32" WITH THE DOOR POSITIONED AT AN ANGLE OF 90 DEGREES FROM ITS CLOSED POSITION.
- MINIMUM ACCESSIBLE WATER COMPARTMENT SIZE IS 60" PERPENDICULAR TO THE SIDE WALL AND 56" DEEP FROM THE REAR WALL FOR WALL MOUNTED WATER CLOSETS AND 59" DEEP FOR FLOOR MOUNTED WATER CLOSETS. COMPARTMENT DOORS CANNOT SWING INTO THE MINIMUM COMPARTMENT SIZE AND THE FRONT AND SIDE OF THE COMPARTMENT MUST PROVIDE A TOE CLEARANCE OF 6" HIGH FOR A DEPTH OF 9". CLEAR OF SUPPORTS, UNLESS THE COMPARTMENT IS GREATER THAN 64" DEEP FOR A WALL HUNG WATER CLOSET, 67" DEEP FOR A FLOOR-MOUNTED WATER CLOSET AND THE SIDE PARTITION IS GREATER THAN 68" FROM THE SIDE WALL.
- THE HEIGHT OF ACCESSIBLE WATER CLOSETS SHALL BE A MINIMUM OF 17 INCHES AND A MAXIMUM OF 19 INCHES MEASURED TO THE TOP OF TOILET SEAT.
- TOILET FLUSH CONTROLS SHALL BE OPERABLE WITH ONE HAND, AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. CONTROLS FOR THE FLUSH VALVES SHALL BE MOUNTED ON THE WIDE SIDE OF THE TOILET AREAS, NO MORE THAN 48" ABOVE THE FLOOR. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 POUNDS.
- WHERE TWO OR MORE URINALS ARE PROVIDED, AT LEAST ONE SHALL HAVE A CLEAR SPACE 30" WIDE X 52" LONG IN FRONT OF THE URINAL.
- WHERE TWO OR MORE URINALS ARE PROVIDED, AT LEAST ONE WITH A RIM PROJECTION A MINIMUM OF 13-1/2" FROM THE WALL AND 17" MAX. ABOVE THE FLOOR SHALL BE PROVIDED.
- A CLEAR FLOOR SPACE 30" WIDE X 52" LONG SHALL BE PROVIDED IN FRONT OF A LAVATORY TO ALLOW A FORWARD APPROACH. SUCH CLEAR FLOOR SPACE SHALL ADJOIN OR OVERLAP AN ACCESSIBLE ROUTE AND SHALL EXTEND INTO KNEE AND TOE SPACE UNDERNEATH THE LAVATORY.
- LAVATORIES SHALL BE MOUNTED TO MAXIMUM 34" TO THE TOP, WITH A CLEARANCE OF AT LEAST 27" FROM THE FLOOR TO THE BOTTOM OF THE APRON/BOWL WITH KNEE CLEARANCE UNDER THE FRONT LIP EXTENDING A MINIMUM OF 30" IN WIDTH WITH 8" MINIMUM DEPTH AT THE 27" AND 11" MINIMUM DEPTH AT 9" FROM THE FLOOR. TOE CLEARANCE SHALL BE THE SAME WIDTH AND SHALL BE A MINIMUM OF 9" HIGH FROM THE FLOOR AND A MINIMUM OF 17" DEEP FROM THE FRONT OF THE LAVATORY. SEE FIGURE 14.

- SUPPLY AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE COVERED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.
- FAUCET CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBS. LEVER-OPERATED, PUSH-TYPE AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGN. SELF-CLOSING VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.

- MIRRORS SHALL BE MOUNTED WITH THE BOTTOM REFLECTIVE EDGE NOT MORE THAN 40" FROM THE FLOOR.
- LOCATE TOWEL, SANITARY NAPKIN, AND WASTE RECEPTECLES WITH ALL OPERABLE PARTS NOT MORE THAN 48" FROM THE FLOOR.

- LOCATE TOILET TISSUE DISPENSERS ON THE SIDE WALL WITHIN 7-9 INCHES IN FRONT OF THE WATER CLOSET MEASURED TO THE CENTERLINE OF THE DISPENSER. THE OUTLET SHALL BE 15 INCHES MINIMUM AND 48" MAXIMUM ABOVE THE FLOOR, AND SHALL NOT BE LOCATED BEHIND THE GRAB BARS. DISPENSERS SHALL NOT BE OF A TYPE THAT CONTROL DELIVERY, OR DO NOT ALLOW CONTINUOUS PAPER FLOW.

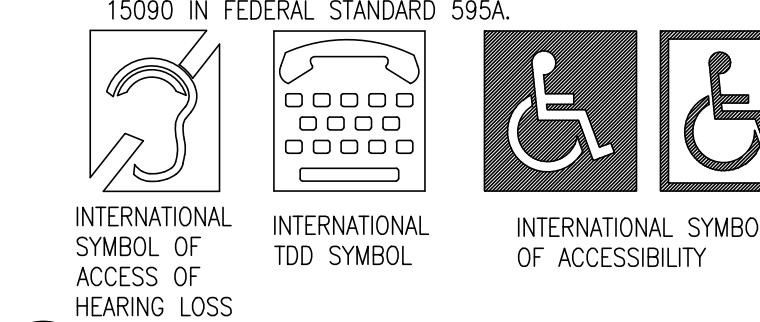
GRAB BARS:

- GRAB BARS, FASTENERS AND MOUNTING DEVICES SHALL BE DESIGNED FOR 250 LBS. APPLIED IN ANY DIRECTION.
- GRAB BARS SHALL BE LOCATED ON EACH SIDE (AMBULATORY STALLS), OR ON THE SIDE AND THE BACK OF THE ACCESSIBLE TOILET ROOM OR COMPARTMENT. THEY SHALL BE SECURELY ATTACHED 33" MIN. AND 36" MAXIMUM ABOVE AND PARALLEL TO THE FLOOR FROM THE TOP OF THE GRIPPING SURFACE WITH A MINIMUM 1 1/2" CLEAR BELOW THE GRAB BAR AND 12" CLEAR ABOVE.
- GRAB BARS AT THE SIDE SHALL BE AT LEAST 42" LONG MOUNTED AT A MAX. 12" FROM THE REAR WALL EXTENDING A MINIMUM OF 54" FROM THE REAR WALL.
- GRAB BARS AT THE BACK SHALL BE NOT LESS THAN 36" LONG, AND EXTEND 12" MIN. TO ONE SIDE & 24" TO THE OTHER FROM THE CENTERLINE OF THE WATER CLOSET.
- THE VERTICAL GRAB BAR SHALL BE AT LEAST 18" HIGH AND BE MOUNTED ON THE SIDE WALL 39" MIN. AND 41" MAXIMUM FROM THE REAR WALL AND FROM THE FLOOR.
- THE DIAMETER OR WIDTH OF THE GRIPPING SURFACES OF A GRAB BAR SHALL BE 1-1/4 INCHES TO 2 INCHES OR THE SHAPE SHALL PROVIDE AN EQUIVALENT GRIPPING SURFACE.
- THE GAP BETWEEN THE WALL AND THE GRAB BAR SHALL BE 1-1/2 INCHES.
- GRAB BAR AND ANY WALL OR OTHER SURFACE ADJACENT SHALL BE FREE OF ANY SHARP OR ABRASIVE ELEMENTS.
- GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS AND EDGES SHALL HAVE MINIMUM RADIUS OF 1/8-INCH.

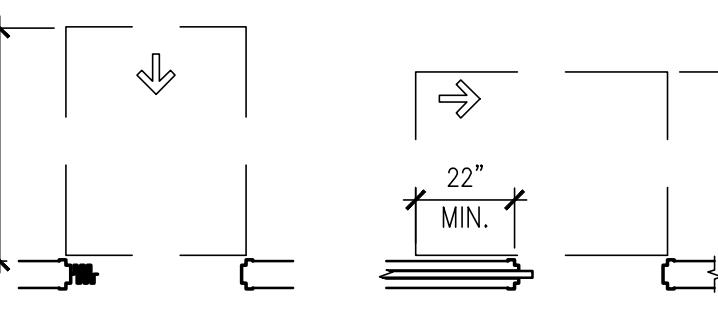
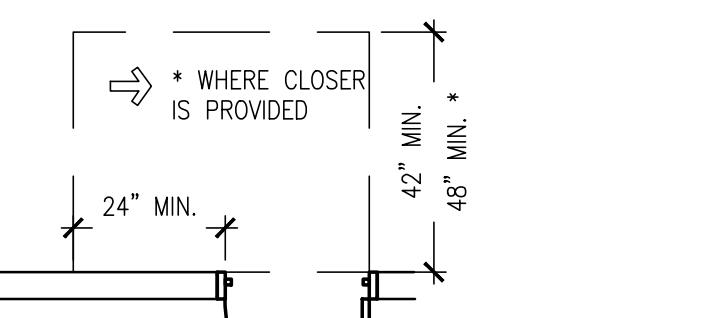
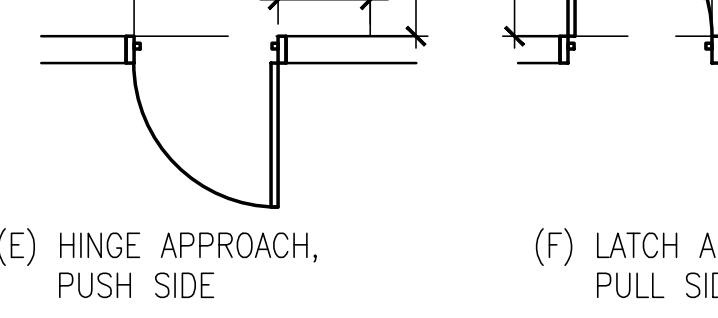
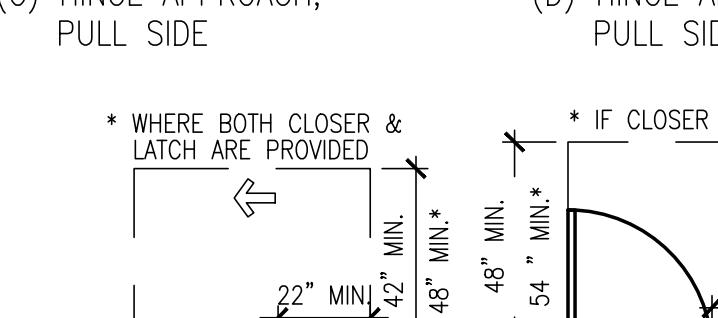
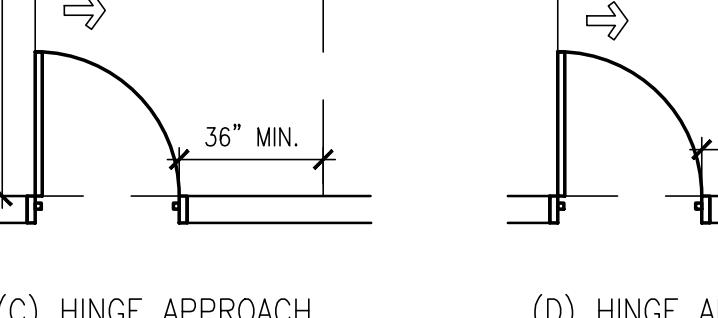
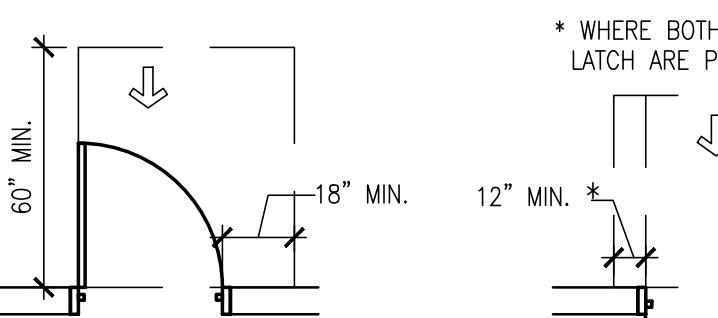
ADDITIONAL REQUIREMENTS:

- THE CENTER OF RECEPTACLE OUTLETS SHALL BE NOT LESS THAN 15" ABOVE THE FLOOR OR WORKING PLATFORMS.
- THE CENTER OF ANY OPERATING HANDLE/ SWITCH INTENDED TO CONTROL OR DISPENSE, SHALL BE PER DETAIL 10 THIS SHEET.

- THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE THE STANDARD USED TO IDENTIFY FACILITIES THAT ARE ACCESSIBLE TO AND USABLE BY PHYSICALLY DISABLED PERSONS. THE SYMBOL SPECIFIED PER DIAGRAM 1 SHALL CONSIST OF A WHITE FIGURE ON A BLUE BACKGROUND OR THE REVERSE. THE BLUE SHALL BE EQUAL TO COLOR NO. 15090 IN FEDERAL STANDARD 595A.

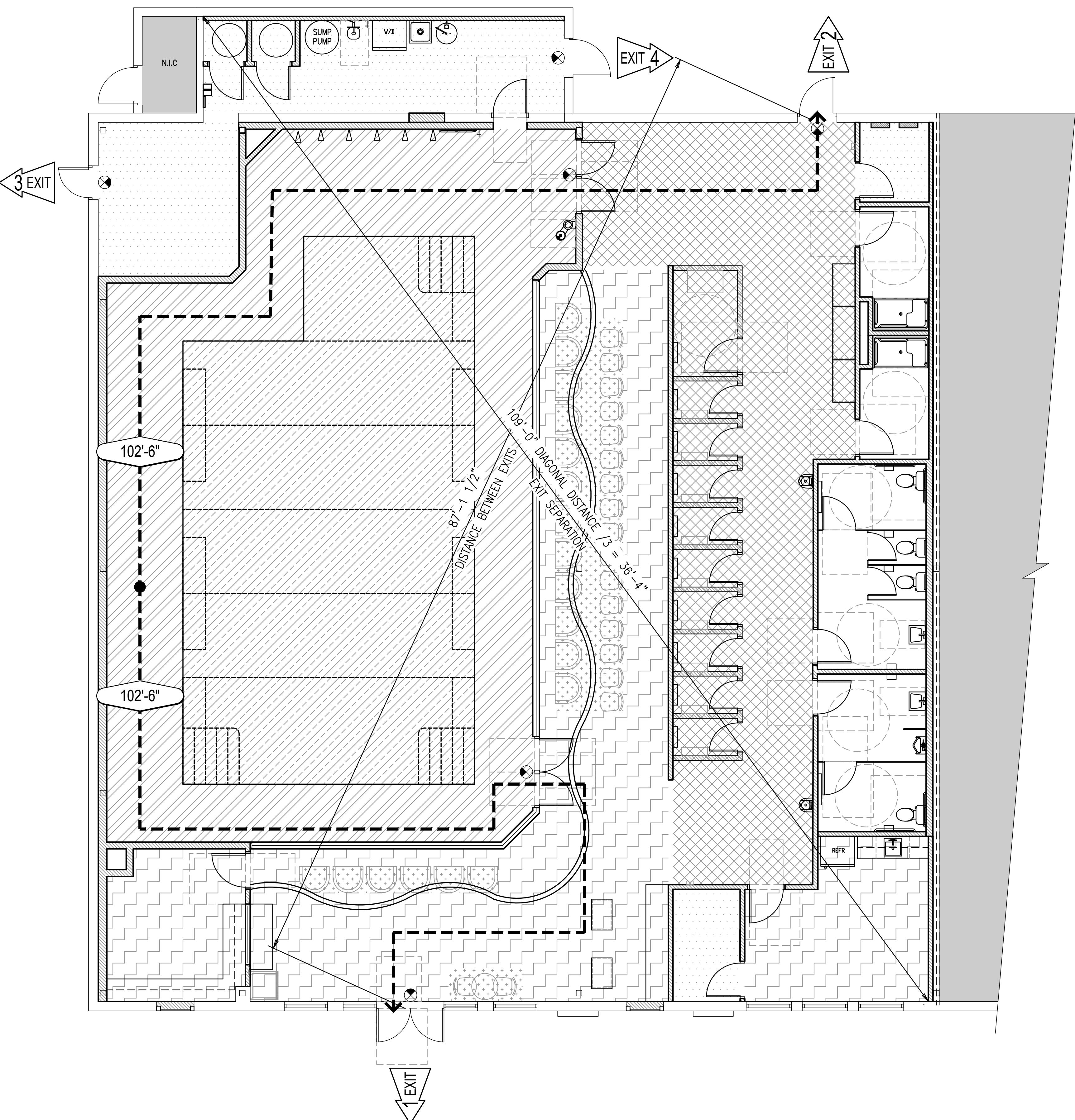


1 DISPLAY CONDITIONS



2 MANEUVERING CLEARANCES AT SWINGING DOORS

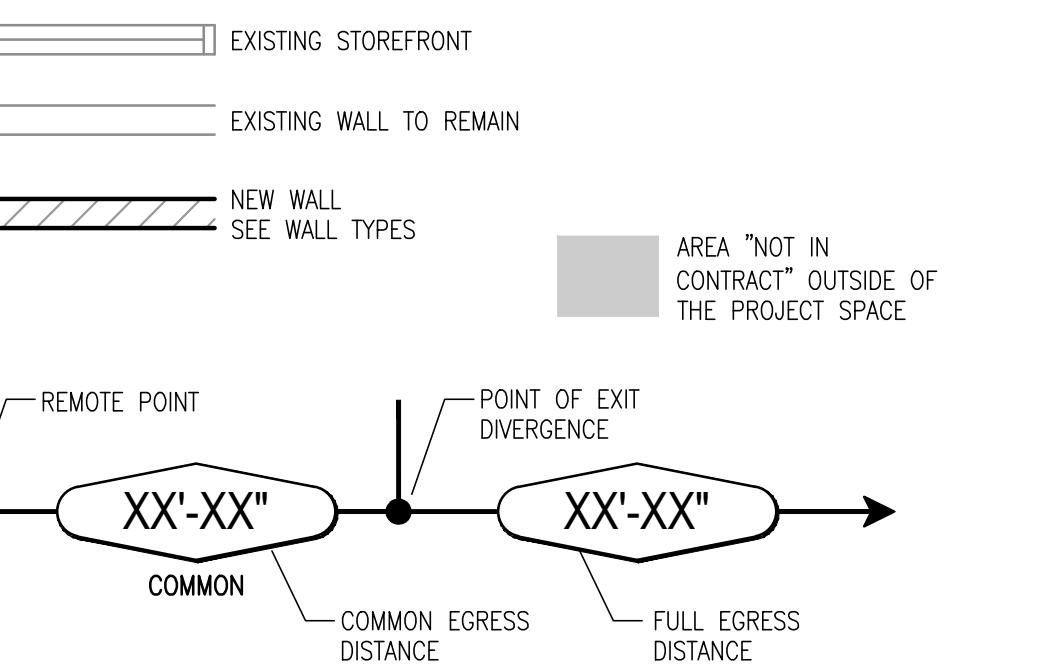




PLUMBING FIXTURE COUNT:

TOTAL OCCUPANCY LOAD			172			
PLUMBING FIXTURE	MEN (86)			WOMEN (86)		
	RATIO	REQ.	PROVIDED	RATIO	REQ.	PROVIDED
WATER CLOSET	1:75	2	2	1:40	3	3
LAVATORY	1:200	1	1	1:150	1	1
URINAL	N/A	N/A	1	N/A	N/A	N/A
SHOWER	1 PER SINGLE RR	1	1	1 PER SINGLE RR	1	1
SERVICE SINK	1 REQUIRED			1 PROVIDED		
DRINKING FOUNTAIN	1: 100 - 1 REQUIRED			2 PROVIDED		

LEGEND



GENERAL NOTES

- Provide fire extinguisher(s) per local code requirements. All fire extinguishers shall be state certified and be properly mounted so all operable parts are no higher than 48" A.F.F. Properly mounted fire extinguishers shall not exceed 75' of travel distance apart. Fire extinguishers shall be conspicuously located where they are readily accessible and immediately available in the event of a fire. Fire extinguishers shall be located along normal paths of travel, including exits from areas. Fire extinguishers shall not be obstructed or obscured from view. Final locations & count as approved by the fire inspector on site.
- Provide wall backer board, furring, plywood or 20 ga. metal backing in wall for support of recessed fire extinguisher cabinets.
- Accessible signs stating "EXIT" and containing tactile character shall be provided at all exit doors in compliance with WAC/ANSI A11.17. American National Standard for Accessible & Usable Buildings and Facilities. See T102 for sign mounting requirements.

CODE COMPLIANCE SUMMARY

APPLICABLE CODES:

2021 VIRGINIA CONSTRUCTION CODE
2021 VIRGINIA PLUMBING CODE
2020 NATIONAL ELECTRICAL CODE
2021 VIRGINIA STATEWIDE FIRE PREVENTION CODE
2017 VIRGINIA ACCESSIBILITY CODE
2021 VIRGINIA ENERGY CONSERVATION CODE
2021 VIRGINIA MECHANICAL CODE
2021 VIRGINIA SWIMMING POOL & SPA CODE

PREVIOUS TENANT OCCUPANCY

A-2

TYPE OF CONSTRUCTION

2B

OCCUPANCY AND GROUP CLASSIFICATION

A-4

NUMBER OF STORIES

PROJECT SPACE IS ON THE 1ST FLOOR OF A 1-STORY BUILDING

FIRE RESISTANCE

BUILDING ELEMENT	TYPE (IN. HOURS)
STRUCTURAL FRAME	0 RATING
BEARING WALL-EXTERIOR	0 RATING
NON-BEARING WALLS AND PARTITIONS	0 RATING
EXTERIOR	0 RATING
INTERIOR	0 RATING
FLOOR CONSTRUCTION	0 RATING
ROOF CONSTRUCTION	0 RATING

FINISH REQUIREMENTS

EXIT ACCESS CORRIDORS & OTHER EXITWAYS:
ASSEMBLY STORAGE CLASS B
CLASS B

ROOMS & ENCLOSED SPACES
ASSEMBLY STORAGE CLASS C
CLASS C

FIRE PROTECTION
FIRE SPRINKLER: YES
FIRE ALARM: YES

OCCUPANCY CALCULATIONS

SWIMMING POOL @ 50 OCC/SQFT	1,169 SQFT/50 = 24
POOL DECK @ 15 OCC/SQFT	1,111 SQFT/15 = 75
CHANGING AREA @ 50 OCC/SQFT	1,062 SQFT/50 = 22
BUSINESS @ 150 OCC/SQFT	1,473 SQFT/150 = 10
CHAIRS @ 7 OCC/SQFT	255 SQFT/7 = 37
TABLES @ 15 OCC/SQFT	18 SQFT/15 = 2
ACCESSORY STORAGE @ 300 OCC/SQFT	535 SQFT/300 = 2
TOTAL OCCUPANT LOAD	= 172

EXIT REQUIREMENTS

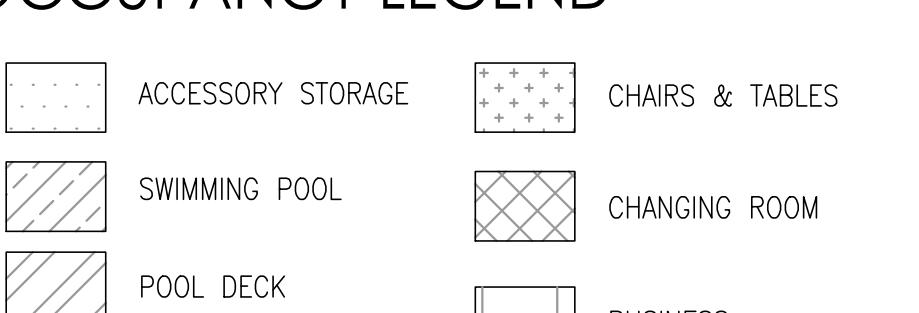
EGRESS WIDTH: (VCC SECTION 1005.3.2)
EGRESS WIDTH PER OCCUPANT SERVED
BUSINESS
0.2 INCHES PER OCCUPANT
 $172 \times 0.2" = 34.4"$ MINIMUM
EGRESS WIDTH REQUIRED: (136" MINIMUM
EGRESS WIDTH PROVIDED: (1)72" + (1)36" = 108"

EXIT ACCESS TRAVEL DISTANCE:
TOTAL TRAVEL DISTANCE (VCC TABLE 1017.2)
WITH SPRINKLER 250'
WITHOUT SPRINKLER 200'

COMMON EGRESS PATH (VCC TABLE 1006.2.1)
WITH SPRINKLER 75'
WITHOUT SPRINKLER 75'

DEAD END (VCC 1020.5)
WITH SPRINKLER 20'

SEE PLAN FOR ACTUAL TRAVEL DISTANCES
OCCUPANCY LEGEND



10.17.24 LANDLORD REVIEW
09.27.24 OWNER REVIEW
NO DATE
REMARKS

REVISIONS



RED MILL COMMONS
SHOPPING CENTER

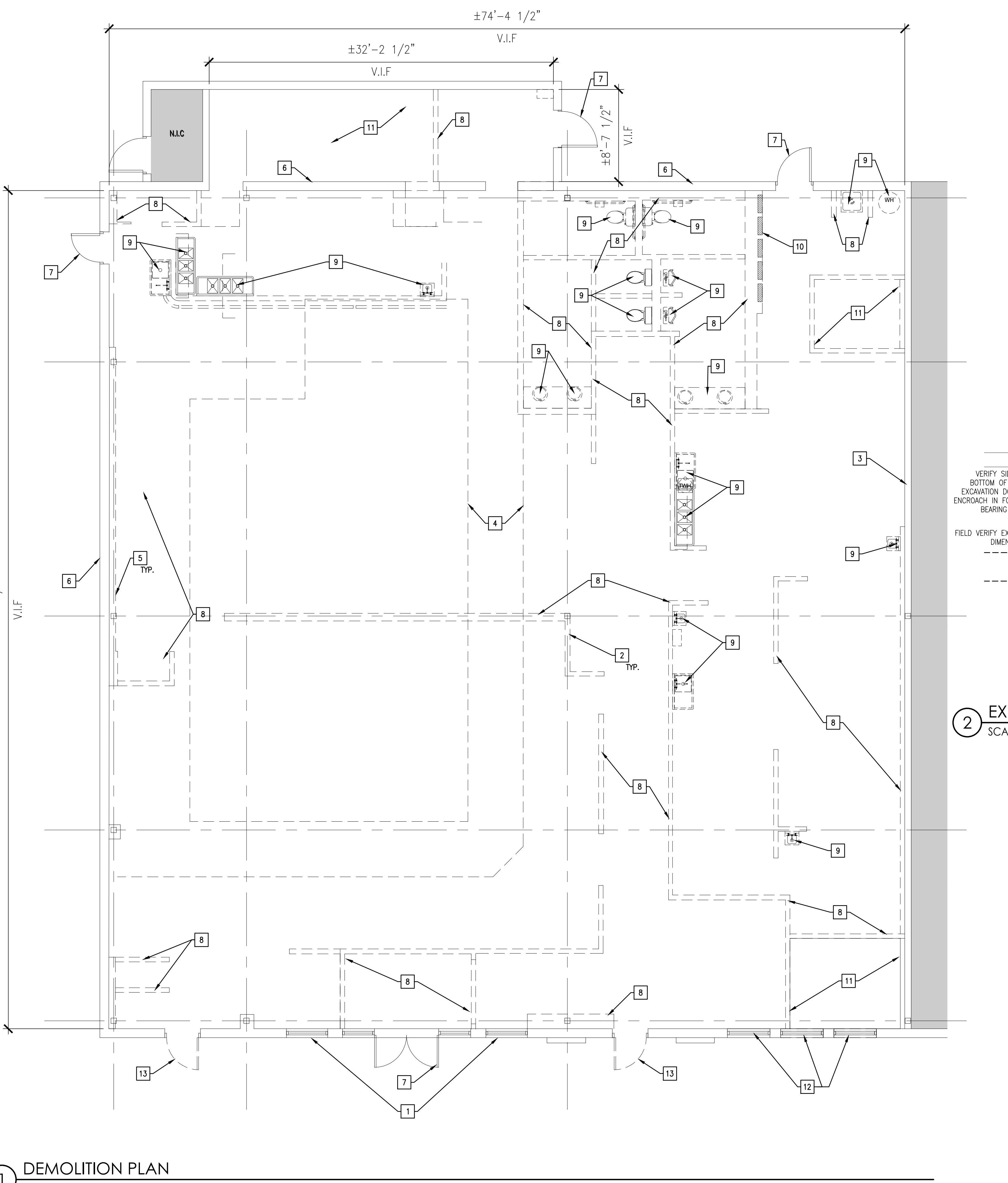
2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454

PROJECT NO: 2024.0397
DATE: 08.22.24

T103
LIFE SAFETY AND CODE INFORMATION

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DEMOLITION KEYNOTES



GENERAL DEMOLITION NOTES

1. EXISTING STOREFRONT WINDOWS TO REMAIN AND GC TO PROTECT DURING DEMO AND CONSTRUCTION.
 2. EXISTING STRUCTURAL COLUMN TO REMAIN, REMOVE FURRING WHERE APPLICABLE.
 3. EXISTING DEMISING WALL TO MAINTAIN ANY EXISTING FIRE RATINGS.
 4. REMOVE EXISTING CONCRETE SLAB CONSTRUCTION AND EXCAVATE AS REQUIRED FOR POOL, DECK, AND ALL RELATED CONSTRUCTION. COORDINATE WITH OWNER, LANDLORD, AND POOL DESIGNER.
 5. GC TO FIELD VERIFY EXISTING FOOTING SIZE, TOP OF FOOTING ELEVATION, AND BOTTOM OF FOOTING ELEVATION PRIOR TO POOL EXCAVATION. EDGE OF POOL MAY BE REQUIRED TO BE RELOCATED TO AVOID FOOTING INFLUENCE ZONE. DO NOT DAMAGE OR DISTURB EXISTING FOOTING OR BEARING ZONE SOIL BELOW. SEE EXISTING FOOTING AT POOL EXCAVATION DIAGRAM.
 6. PRESERVE EXISTING EXTERIOR WALL CONSTRUCTION DURING ALL PHASES OF DEMO AND CONSTRUCTION.
 7. EXISTING DOOR TO REMAIN.
 8. EXISTING WALLS AND ASSOCIATED DOORS TO BE DEMO'D. PATCH CONCRETE SLAB WHERE NEEDED. REMOVE ALL ELECTRICAL AND PLUMBING CONNECTIONS IF ANY FOUND WITHIN THE DEMO'D PART AND RETURN TO SOURCE.
 9. EXISTING PLUMBING FIXTURES, PIPES, AND CONNECTION TO BE DEMO'D AND RETURNED TO SOURCE. CUT PIPE DOWN TO BELOW FUTURE FLOOR FINISH AND CAP OFF, KEEP FLUSH WITH SLAB.
 10. GC TO REMOVE ELECTRICAL PANELS AND PREP FOR NEW PANELS. REFER TO ELECTRICAL DRAWINGS.
 11. GC TO REMOVE FREEZER/COOLER WALLS, ASSOCIATED DOORS, OUTLET, AND WIRING. PATCH AND REPAIR SLAB FLOORING AS REQUIRED.
 12. GC TO REMOVE INFILL WALL CONSTRUCTION AND PROTECT EXISTING WINDOWS DURING ALL PHASES OF DEMO.
 13. EXISTING DOOR TO REMAIN TO BE LOCKED PERMANENTLY.
- NOTES:**
1. EXISTING FOOTING SIZE AND ELEVATION ARE UNKNOWN. THE FOOTING SIZE SHOWN ABOVE IS DRAWN FOR SCHEMATIC PURPOSES ONLY. GC FIELD VERIFY PRIOR TO POOL EXCAVATION.
 2. DO NOT DAMAGE OR DISTURB EXISTING FOOTING OR BEARING ZONE SOIL BELOW.
 3. GC IS RESPONSIBLE FOR ENGINEERING OF SHORING DESIGN WHEN DISTURBING BEARING ZONE.
- 2 EXISTING FOOTING AT POOL EXCAVATION DIAGRAM**
- SCALE: 1/2" = 1'-0"
-
- FIELD VERIFY EXISTING DIMENSIONS
EXISTING COLUMN OR LOAD-BEARING ELEMENT
EXISTING FOOTING
VERIFY SIDES & BOTTOM OF POOL EXCAVATION DO NOT ENROACH IN FOOTING BEARING ZONE
FIELD VERIFY EXISTING ELEVATION
FOOTING BEARING ZONE IN HATCHED AREA
FIELD VERIFY EXISTING DIMENSIONS
1 MIN.
C
D
A
B



RED MILL COMMONS
SHOPPING CENTER

2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454

PROJECT NO: 2024.0397
DATE: 08.29.24

GENERAL DEMOLITION NOTES

1. SEE D001 FOR GENERAL DEMOLITION NOTES

INTERPLAN
INTERPLAN LLC

AR99238
CA 8660

ARCHITECTURE
I SOUTH 280 SUMMIT AVE, STE D
OAKBROOK TERRACE, IL 60181
630.932.2336

ENGINEERING
PERMITTING
220 E. CENTRAL PKWY, STE 4000
ALTAMONTE SPRINGS, FL 32701
407.645.5008

SEAL:

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DEMOLITION KEYNOTES

1. GC TO PREP FOR NEW ROOF OPENING. COORDINATE WITH STRUCTURAL AND MECHANICAL DRAWINGS.
2. EXISTING ROOF TOP UNIT TO REMAIN. SEE MECHANICAL DRAWINGS.
3. EXISTING ROOF TOP UNIT AND ALL ASSOCIATED DUCTWORK TO BE REMOVED. GC TO PREP OPENING FOR RELOCATED UNIT. REFER TO MECHANICAL AND STRUCTURAL DRAWINGS.
4. EXISTING ROOF TOP UNIT TO BE RELOCATED. SEE ROOF PLAN FOR NEW LOCATION. REFER TO MECHANICAL AND STRUCTURAL DRAWINGS.
5. EXISTING ROOF TOP UNIT TO BE ABANDONED IN PLACE. ALL ASSOCIATED DUCTWORK TO BE REMOVED.

LEGEND

- EXISTING STOREFRONT
- EXISTING WALL TO REMAIN
- EXISTING WALL TO BE DEMOLISHED
- AREA "NOT IN CONTRACT" OUTSIDE OF THE PROJECT SPACE

18.17.24 LANDLORD REVIEW
09.27.24 OWNER REVIEW
NO DATE REMARKS

REVISIONS



SWIM SCHOOLS

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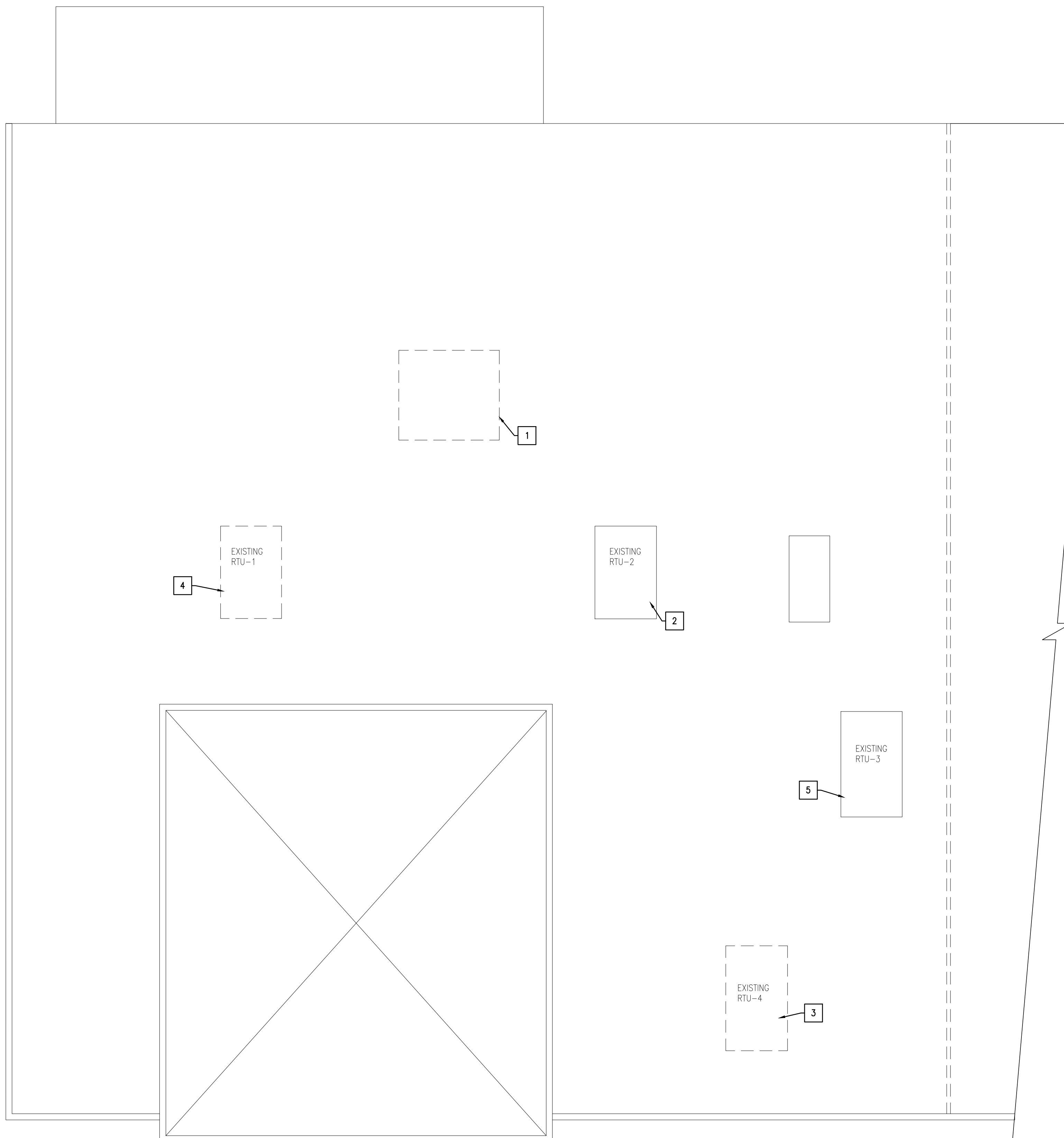
PROJECT NO: 2024.0397
DATE: 08.29.24

D002
DEMOLITION ROOF PLAN

NORTH
CHECKED: AM DRAWN: FV

DEMOLITION ROOF PLAN

SCALE: 3/16" = 1'-0"



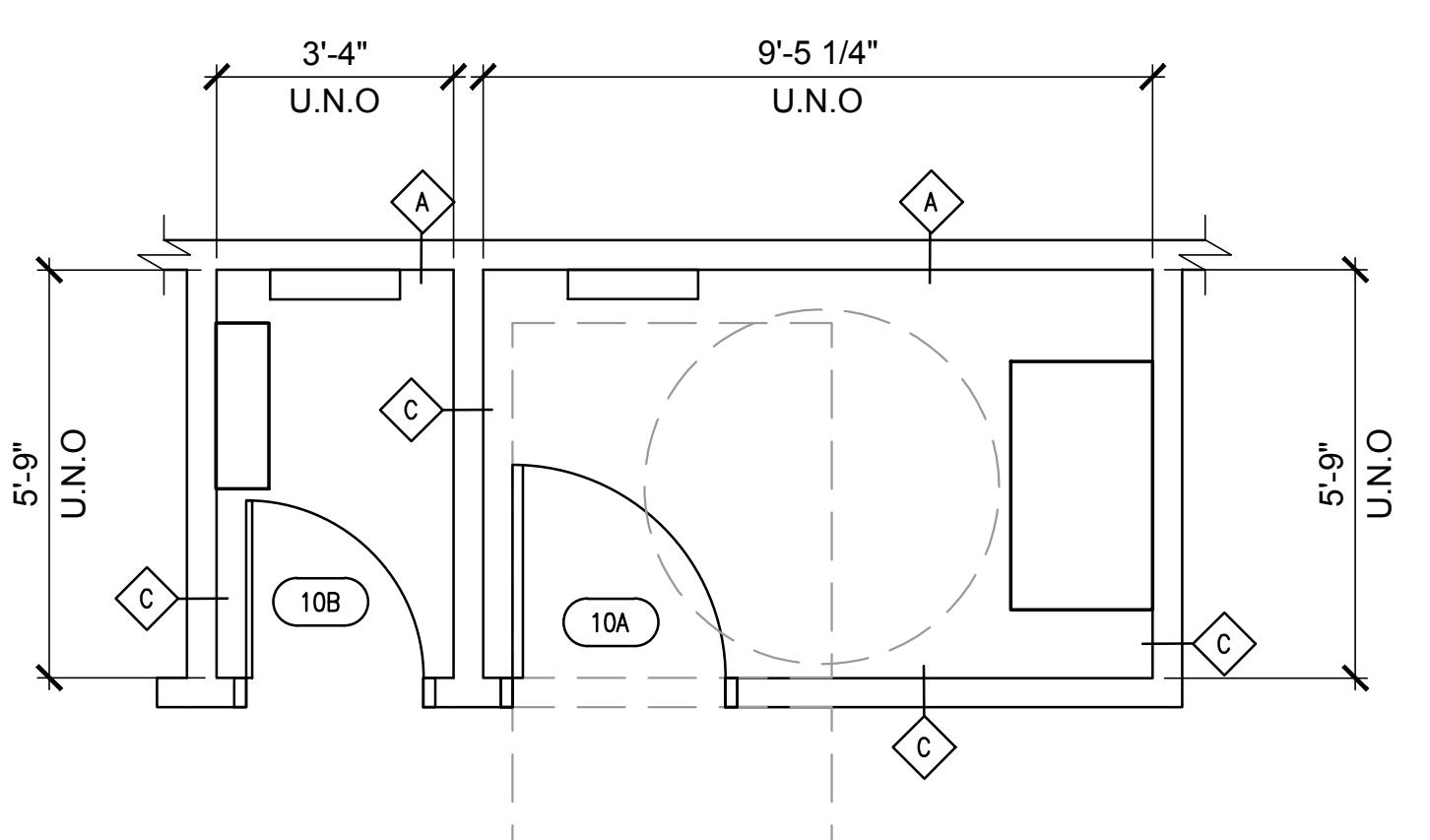
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GENERAL NOTES

- CLEAN, REPAIR, TAPE, AND SAND SMOOTH ALL EXISTING GYPSUM BOARD WALLS AS NECESSARY TO ENSURE PROPER PREPARATION FOR NEW FINISHES. ALL OUTSIDE CORNERS SHALL BE ROUNDED (UTILIZE TRIM-TEX 1 1/2" RADIUS BULLNOSE CORNER BEAD OR SIMILAR) AND SHALL BE PREPARED FOR THE SPECIFIED FINISH. REFER TO FINISH SCHEDULE.
- BUTTED, UNTAPED GYP BOARD JOINTS OR BULGING AND UNLEVEL WALLS WILL NOT BE ACCEPTED. FULL HEIGHT GYP BOARD SHEETS SHALL BE UTILIZED FOR FULL HEIGHT CONSTRUCTION. PURPLE BOARD SHALL BE PROVIDED IN ALL WET AREAS. WET AREAS SHALL INCLUDE ALL RESTROOMS AND ON ALL WALLS WITH A SINK OR WITH MILLWORK INCLUDING A SINK.
- ALL EXISTING-TO-REMAIN GYP BOARD MUST SATISFY THE REQUIREMENTS FOR NEW GYP BOARD CONSTRUCTION. REMEDIAL WORK NECESSARY TO UPGRADE EXISTING SURFACES SHALL BE INCLUDED IN THE BASE BID.
- ALL NON-BEARING INTERIOR PARTITIONS TO BE DESIGNED BY FRAMING CONTRACTOR FOR A LATERAL LIVE LOAD OF 5 PSF AND A DEFLECTION OF L/240. GYP BOARD PARTITIONS TO BE INSTALLED PER GYPSUM ASSOCIATION STANDARDS.
- PARTITION DIMENSIONS ARE NOMINAL AND ARE TAKEN FROM THE FACE OF GYP BOARD.
- PARTITIONS SHOWN PERPENDICULAR TO EXTERIOR WINDOW MULLION IS ASSUMED TO BE CENTERED ON THE EXTERIOR MULLION UNO.
- NEW SWING DOORS LOCATED ADJACENT TO A WALL SHALL BE INSTALLED SO AS TO LEAVE 3" OF GYP BOARD ON THE HINGE SIDE UNO.
- ALL JUNCTURES BETWEEN WALLS AND FLOORS SHALL BE COVED AND SEALED.
- CONTRACTOR SHALL PROVIDE SILICONE SEALANT AT ALL JOINTS AND INTERFACES OF ALL COUNTERTOPS, EQUIPMENT, & WALLS. EXPOSED SCREW HEADS AND BOLTS ARE NOT PERMITTED.
- PROVIDE WALL BACKER BOARD, FRT PLYWOOD OR 20 GA. METAL BACKING IN WALL FOR SUPPORT OF WALL RACKS, MILLWORK, EQUIPMENT, SHELVING, RAILINGS, WINDOW TREATMENTS, ETC. - COORDINATE LOCATIONS OF WALL MOUNTED SCREENS WITH OWNER - REFERENCE DETAIL FOR WALL BACKING INFORMATION.
- ALL WOOD IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE TREATED.
- UNDERCUT DOORS AS REQUIRED BY THE MECHANICAL PLANS.
- FRAMING DETAILING SHOWN ON THESE DRAWINGS ARE TO BE CONSIDERED MINIMUM TYPICAL STANDARDS FOR THE PROJECT. ACTUAL FRAMING DETAILING IS TO BE DETERMINED BY THE FRAMING CONTRACTOR IN COMPLIANCE WITH ALL APPLICABLE LOCAL & NATIONAL STANDARDS. SPANS REQUIRED TO ACCOMMODATE THE DESIGN SHALL BE INCLUDED WITHIN THE BASE BID FOR THE PROJECT.
- ACCESSIBLE SIGNS CONTAINING TACTILE CHARACTER SHALL BE PROVIDED AT DOOR WHERE APPLICABLE. THE SIGN SHALL BE ALONGSIDE THE DOOR ON LATCH SIDE AND AT DOUBLE DOORS, THE SIGN SHALL BE RIGHT OF THE RIGHT HAND DOOR. THE SIGN CONTAINING TACTILE CHARACTERS SHALL HAVE 18" MIN BY 18" MIN. SPACE ON THE FLOOR CENTERED ON SIGN. THE SIGN TACTILE CHARACTER SHALL BE 48" MIN AND 60" MAX ABOVE FLOOR.
- G.C. SHALL PLACE ORDERS FOR ALL FINISHES, MATERIALS, EQUIPMENT, ETC. AT THE START OF THE PROJECT. SUBSTITUTIONS ARE NOT ACCEPTED FOR ANY ITEMS, UNLESS NOTED OTHERWISE. OWNER AND CONSTRUCTION MANAGER MUST BE INFORMED OF LEAD TIME PROBLEMS WITHIN THE FIRST TWO WEEKS OF PROJECT.
- INSTALLATION OF LIGHT GAUGE METAL FRAMING ASSEMBLIES TO COMPLY WITH ASTM C645.
- TENANT IS RESPONSIBLE FOR THE INSTALLATION OF ITS OWN VOICE/DATA EQUIPMENT BY TENANT'S CHOSEN CABLING COMPANY.
- TELEPHONE INSTALLATION FROM THE MAIN BUILDING PHONE ROOM TO SPECIFIC TENANT SUITE IS AT TENANT'S EXPENSE.
- ALL CABLING REQUIRED FOR THE INSTALLATION OF TENANT TELEPHONE AND VOICE/DATA EQUIPMENT WILL BE INSTALLED AT TENANT'S EXPENSE AND MUST BE PLUMED RATED.
- ALL CABLING MUST BE HELD OFF CEILING GRID, DUCT WORK AND LIGHTING.
- VERIFY ALL DIMENSIONS IN FIELD PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT OF ANY DISCREPANCIES.
- DIMENSIONS ARE FROM FACE OF EXISTING CONSTRUCTION TO FINISH FACE OF NEW CONSTRUCTION UNLESS NOTED OTHERWISE.
- PERFORM MOISTURE TEST AT SEVERAL LOCATIONS OF CONCRETE SLAB TO CONFIRM MOISTURE CONTENT IS BELOW 85%. IF GREATER THAN 85%, GC MUST PROVIDE A MOISTURE BARRIER BETWEEN THE SLAB AND THE NEW FLOORING.
- POOL CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UNDERGROUND UTILITIES. ANY UTILITIES DAMAGED DURING POOL CONSTRUCTION ARE TO BE REPAIRED.
- VINYL WALLPAPER TO BE INSTALLED FROM FLOOR TO CEILING. PROVIDED BY OWNER, COORDINATE WITH AQUA-TOTS BRANDING LAYOUT FOR FINAL LOCATION AND INSTALLATION PROCEDURE.
- GC TO VERIFY GLAZING CONDITIONS AND PROVIDE PRIVACY GLAZING OR BLINDS AS REQUIRED BY OWNER/LT. IN AREA OF MILLWORK. GC TO REMOVE ANY EXISTING TINTING COVERAGE ON STOREFRONT WINDOWS.
- GC TO PROVIDE ADDRESS SIGNAGE. COORDINATED WITH BUILDING OWNER AND FIRE MARSHALL FOR REQUIREMENTS TO MATCH EXISTING.
- IT IS THE SOLE RESPONSIBILITY OF THE GC TO ENSURE THE POOL AREA IS SEALED TO ELIMINATE INTRUSION OF MOISTURE/CHEMICALS INTO ADJACENT AREAS. GC TO NOTIFY TENANT/ARCHITECT IF EXISTING CONDITIONS ARE IN CONFLICT WITH ANY MOISTURE PROOFING INSTALLATION REQUIREMENTS.
- SWIMMING POOL AND POOL EQUIPMENT, BY OTHERS, SHOWN FOR DESIGN INTENT ONLY. POOL DRAWINGS SHALL BE SUBMITTED FOR SEPARATE REVIEW AND PERMIT.

LEGEND

- EXISTING STOREFRONT
- EXISTING WALL TO REMAIN
- NEW WALL CONSTRUCTION-REFER TO WALL TYPE SECTIONS
- AREA "NOT IN CONTRACT" OUTSIDE OF THE PROJECT SPACE
- WALL TYPE - SEE TYPICAL DETAIL SHEET
- DOOR NUMBER - SEE TYPICAL DETAIL SHEET
- WINDOW TYPE - SEE TYPICAL DETAIL SHEET



TYPICAL CHANGING ROOM DIAGRAM

SCALE: 3/8" = 1'-0"

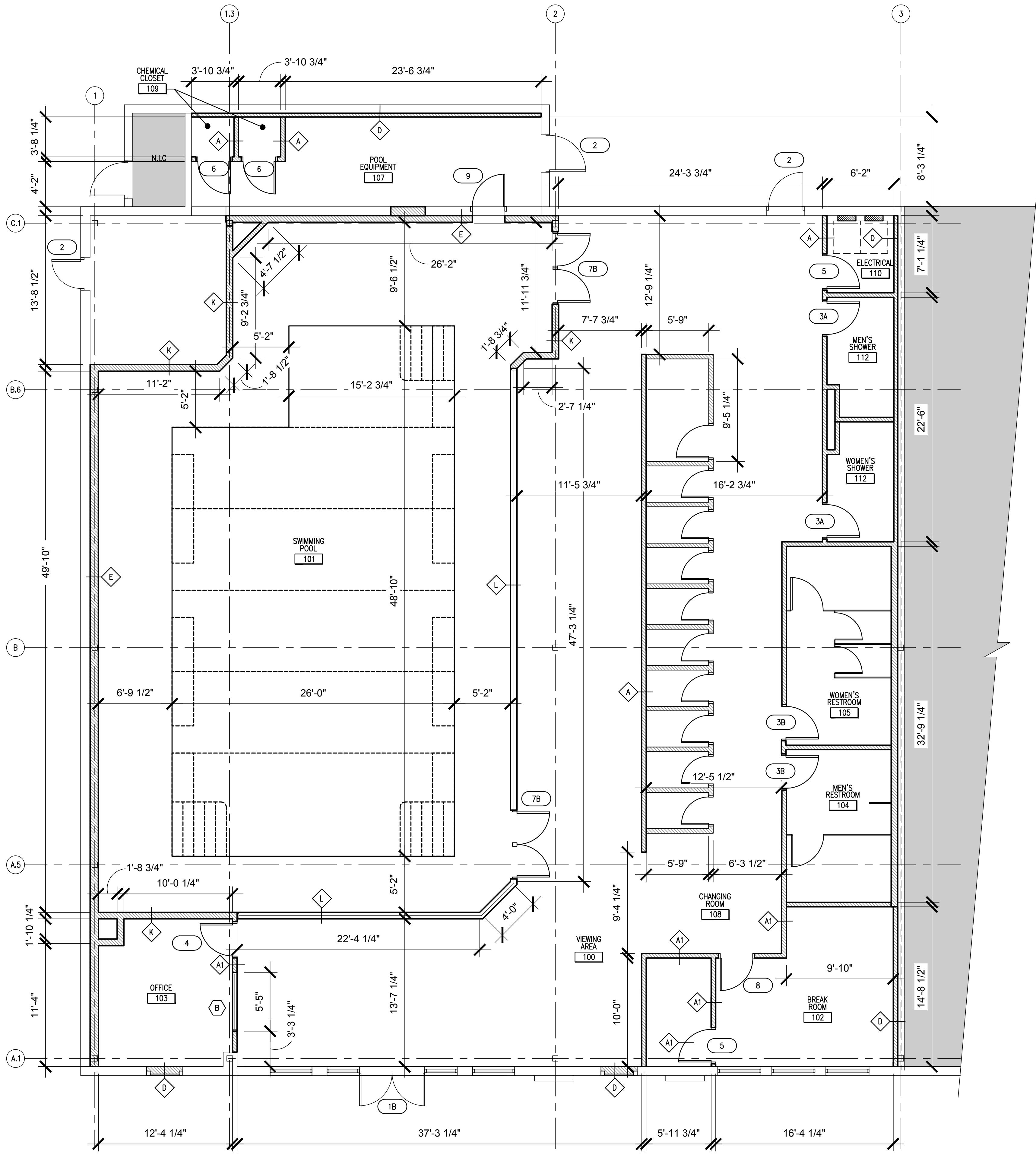
RED MILL COMMONS
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VIRGINIA BEACH, VIRGINIA
23454

PROJECT NO: 2024.0397

DATE: 08.29.24

A101
DIMENSIONS PLAN

CHECKED: AM DRAWN: FV



1 DIMENSION & WALL TYPES PLAN

SCALE: 3/16" = 1'-0"

NORTH

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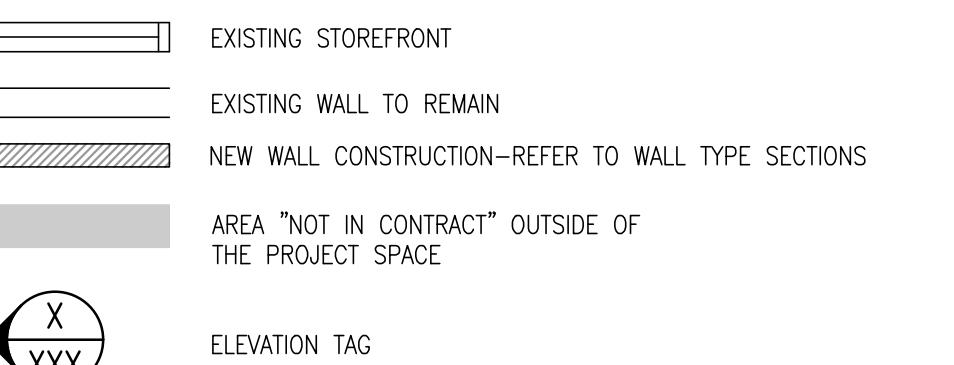
GENERAL NOTES

1. REFER TO A101 FOR GENERAL NOTES

KEYNOTES 

1. EXISTING STRUCTURAL COLUMN. SEE TYPICAL DETAIL SHEET FOR WALL FURRING INFORMATION.
2. FURNITURE, BY OWNER.
3. MILLWORK, FIXTURES, AND EQUIPMENT PER AQUA TOTS STANDARDS. REFERENCE EQUIPMENT & MILLWORK SCHEDULE.
4. DASHED LINE INDICATES SOFFIT, ABOVE. REFER TO THE REFLECTED CEILING PLAN.
5. REFER TO ENLARGE PLANS.
6. DRAIN MAT SYSTEM TO BE RIBTRAX TILES IN ROYAL BLUE COLOR, MANUFACTURED BY SWISTRAX. TOP OF TILES TO BE FLUSH WITH ADJACENT FLOOR ON ALL SIDES. SEE DETAIL FOR ADDITIONAL INFORMATION.
7. SEMI-RECESSED FIRE EXTINGUISHER CABINET. REFER TO TYPICAL DETAIL SHEET. QUANTITY & LOCATION TO BE APPROVED BY FIRE MARSHAL.
8. DECK SHALL SLOPE 0.008% MIN (1:10 FT) TO THE DECK DRAINS. THE MAXIMUM SLOPE TO THE POOL DECK SHALL NOT EXCEED 0.08% MAX (1":FT). REFER TO TYPICAL DETAIL SHEET FOR MORE INFORMATION.
9. LINEAR DECK DRAIN WITH LOCKING TYPE COVER FLUSH WITH THE DECK/FLOOR. REFER TO TYPICAL DETAIL SHEET AND PLUMBING DRAWINGS.
10. DESIGNATED EMERGENCY TELEPHONE LOCATION. PROVIDE VISIBLE SIGN FACING CUSTOMERS (LOCATION PER SITE SPECIFIC) - GC TO COORDINATE WITH LOCAL JURISDICTION FOR EMERGENCY TELEPHONE REQUIREMENTS - REFER TO ELECTRICAL DRAWINGS.
11. GYP. BD. ENCLOSURE FOR EXHAUST DUCT, SEE EXHAUST ENCLOSURE DIAGRAM.
12. GC TO PERMANENTLY LOCK DOOR. GC TO PROVIDE SEALANT AROUND ENTIRE PERIMETER OF DOOR.

LEGEND

10.17.24 LANDLORD REVIEW
09.27.24 OWNER REVIEW
NO DATE
REMARKS

REVISIONS

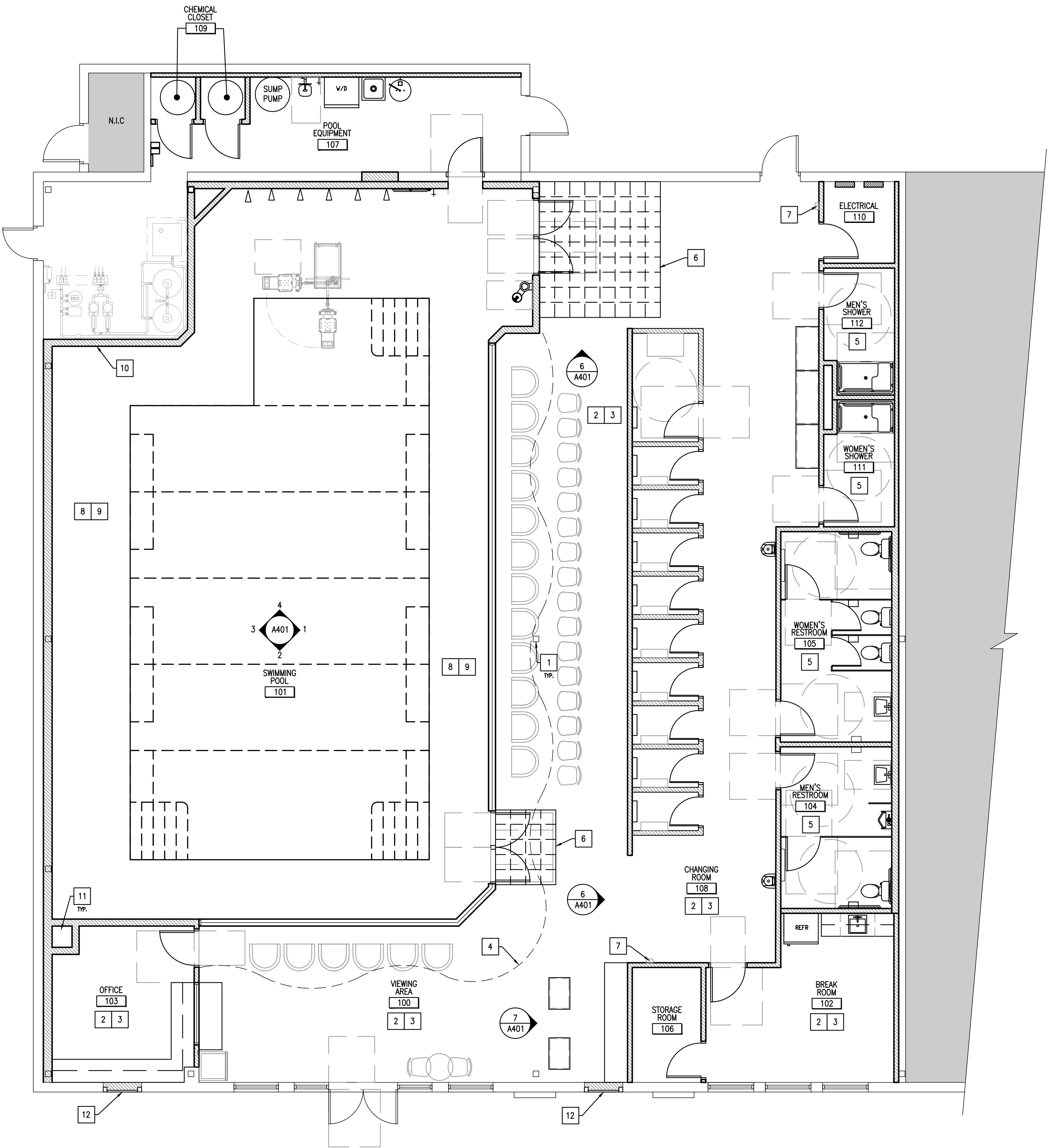
RED MILL COMMONS
SHOPPING CENTER2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454PROJECT NO: 2024.0397
DATE: 08.29.24A102
FLOOR PLAN

NORTH

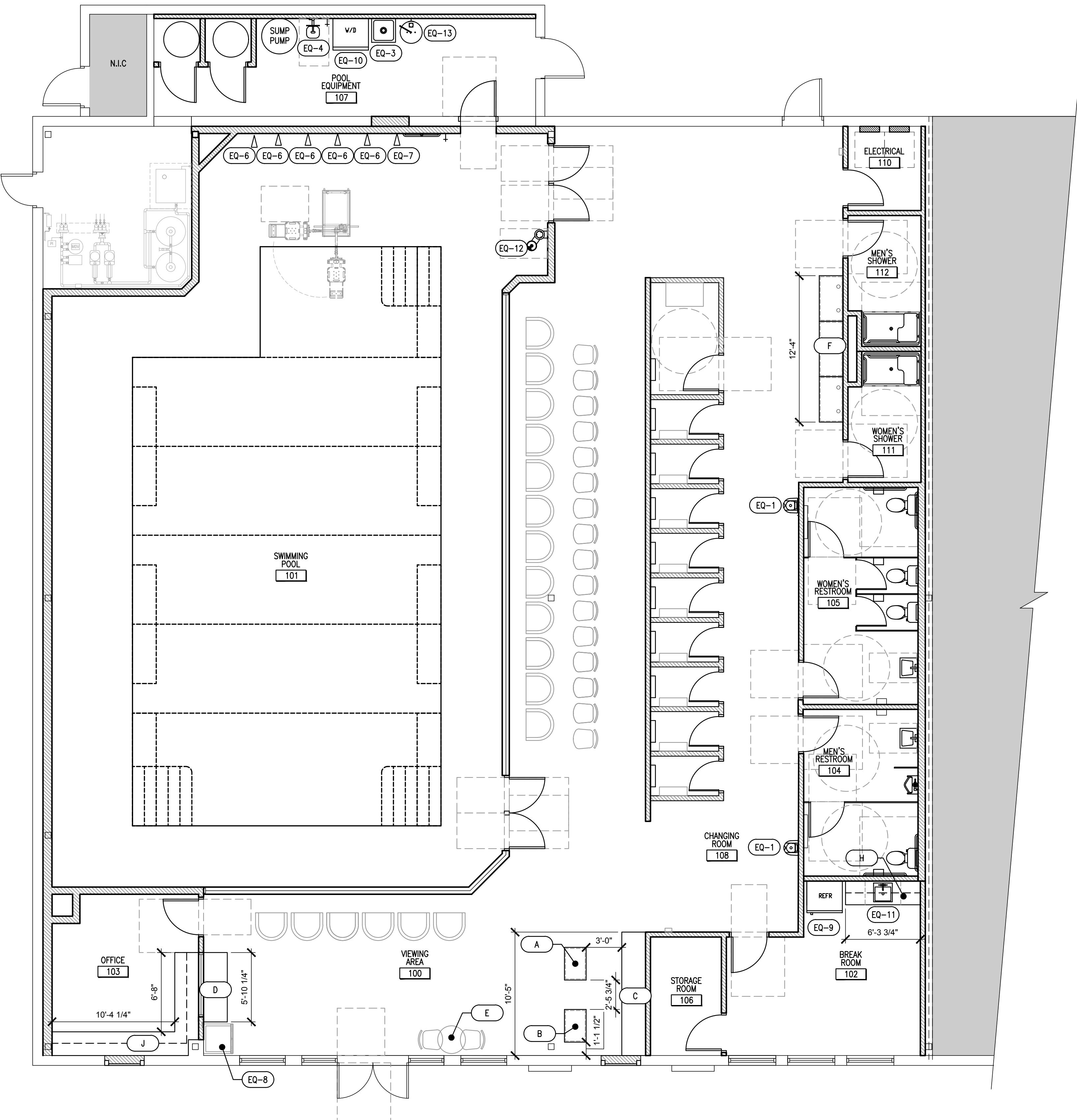
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1 FLOOR PLAN

SCALE: 3/16" = 1'-0"



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1 EQUIPMENT PLAN

SCALE: 3/16" = 1'-0"

EQUIPMENT SCHEDULE X

TAG	ITEM	DESCRIPTION
EQ-1	SWIMSUIT EXTRACTOR	THE SWIMSUIT DRYER. MODEL: NEXT GENERATION - WALL MOUNTED, CODE: SSDWM, COLOR: RED
EQ-2	DRINKING FOUNTAIN WITH BOTTLE FILLER	NOT USED
EQ-3	MOP SINK	FIAT(SINK) MSBID2424
EQ-4	EMERGENCY EYE WASH	BRADLEY S19224
EQ-5	INSTANT HOT WATER HEATER	RIANNAI CU1991
EQ-6	SHOWER HEAD AND CONTROL	MOEN T8375
EQ-7	ADA SHOWER HEAD AND CONTROL	MOEN T8346EP15
EQ-8	RETAIL FRIDGE	PROVIDED BY OWNER
EQ-9	BREAK ROOM FRIDGE	FRIGIDAIRE FGH2368TF OR EQUIVALENT
EQ-10	WASHER/DRYER	PROVIDED BY OWNER
EQ-11	BREAK ROOM SINK	ADVANCE TABCO DI-1-168 SUPPLIED WITH K-52 FAUCET
EQ-12	BOTTLE FILLING STATION WITH SINGLE FOUNTAIN	ELKAY : LK4408BF, COLOR: RED
EQ-13	TANK WATER HEATER	A.O SMITH BTH-120

NOTE: EQUIPMENT INSTALLED BY CONTRACTOR. CONFIRM QUANTITY PER PLAN.

MILLWORK SCHEDULE X

TAG	ITEM
A	FIXED KIOSK
B	MOBIL KIOSK
C	RECEPTION BACK COUNTER
D	COFFEE STATION
E	TABLE TOP
F	CHANGING ROOM VANITY
G	FREESTANDING BENCH
H	BREAK ROOM MILLWORK W/ UPPER CABINETS
J	OFFICE MILLWORK

NOTE: SEE MILLWORK PLANS, ELEVATIONS, AND DETAILS.

LEGEND

- EXISTING STOREFRONT
- EXISTING WALL TO REMAIN
- NEW WALL CONSTRUCTION—REFER TO WALL TYPE SECTIONS
- AREA "NOT IN CONTRACT" OUTSIDE OF THE PROJECT SPACE

10.17.24 LANDLORD REVIEW
NO DATE OWNER REVIEW
REMARKS

REVISIONS



RED MILL COMMONS
SHOPPING CENTER

2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454

PROJECT NO: 2024.0397
DATE: 08.29.24

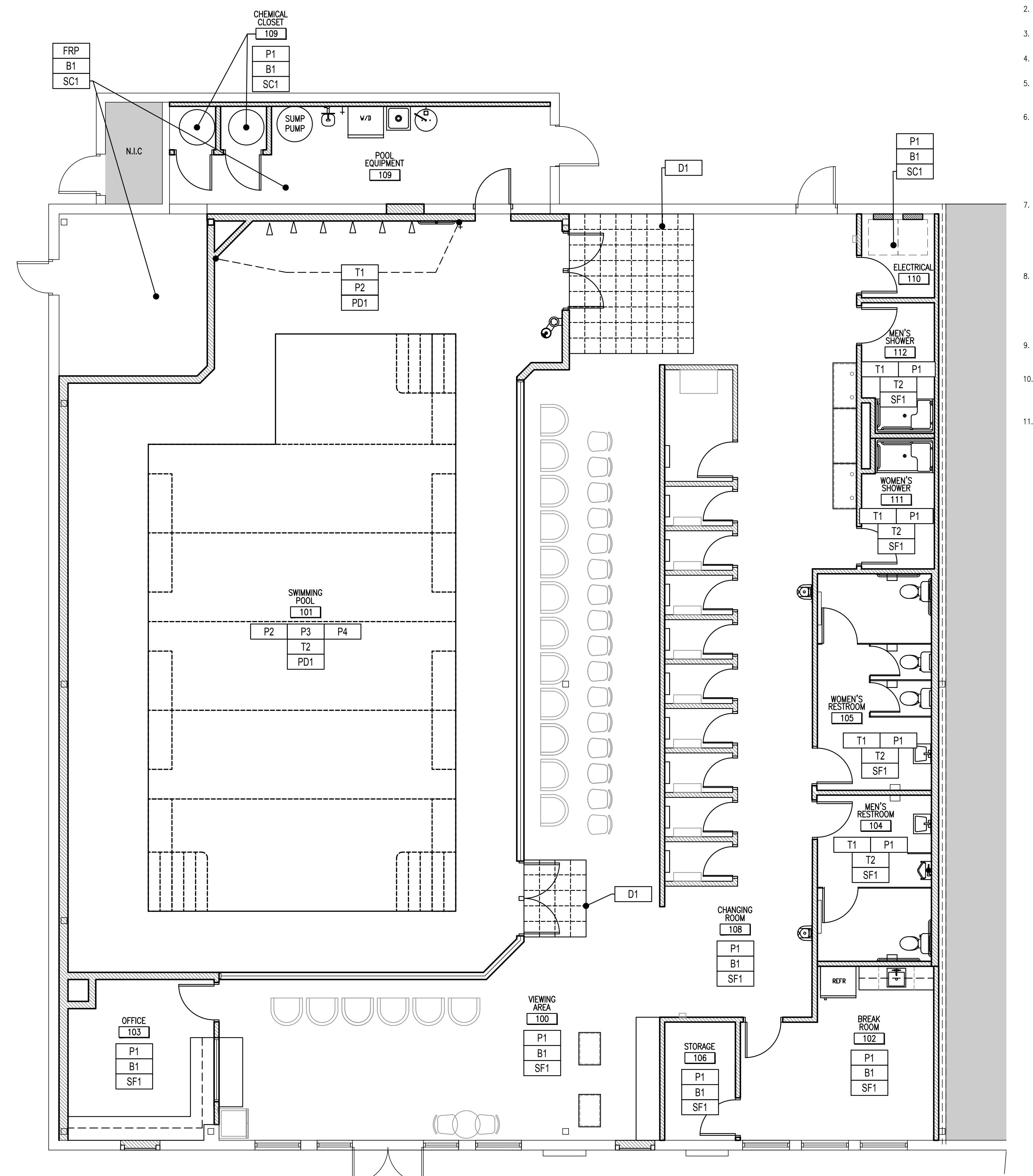
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A103
EQUIPMENT PLAN &
SCHEDULE

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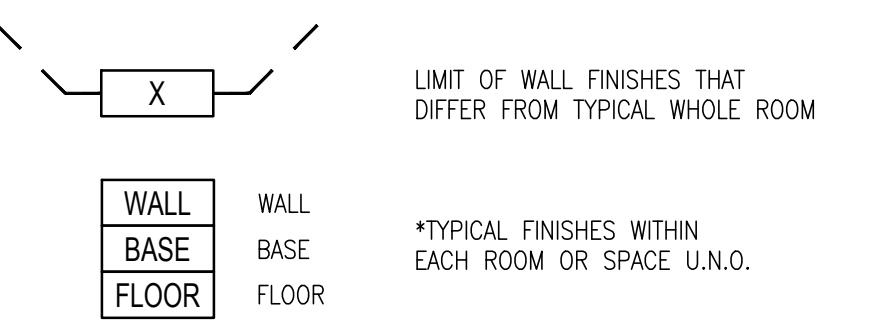
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GENERAL FINISH PLAN NOTES

1. INTERIOR WALL AND CEILING FINISH MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES.
2. ALL FINISHES SHALL MEET FLAME SPREAD AND SMOKE DEVELOPMENT RATINGS FOR THEIR USE, AS REQUIRED BY LOCAL CODES.
3. ALL FINISH WORK SHALL BE SMOOTH & FREE FROM ABRASIONS, TOOL MARKS, RAISED GRAINS, ETC.
4. ALL FASTENINGS & ATTACHMENTS ARE TO BE FULLY HIDDEN FROM VIEW.
5. ALL FINISH MATERIALS OF THE SAME SPECIFICATION MUST BE FROM THE SAME DYE LOT & MUST MEET INDUSTRY STANDARD TOLERANCE FOR SIDE TO SIDE MATCH.
6. INSTALL THRESHOLD AT EXTERIOR DOOR LOCATIONS TO DEVELOP A FLUSH CONDITION WITH SCHEDULED FLOOR FINISH. INSTALL FLOOR LEVELER TO EXISTING FLOOR SLAB TO DEVELOP FLUSH CONDITION WHERE DIFFERENT FLOORING MATERIALS ADJUT. PROVIDE A TRANSITION STRIP BETWEEN DIFFERENT FLOOR MATERIALS AS REQUIRED. TRANSITION BETWEEN INTERIOR AND EXTERIOR SURFACES SHALL COMPLY WITH ADA REGULATIONS. WHEN MATERIAL OR PATERN TRANSITIONS OCCUR BETWEEN ROOMS, CENTER THE TRANSITION UNDER THE CLOSED DOOR.
7. CHANGES IN LEVEL UP TO 1/4" BETWEEN DIFFERENT FLOOR FINISHES CAN BE MADE VERTICALLY OR WITHOUT EDGE TREATMENT. CHANGES IN LEVEL OF 1/4" - 1/2" SHALL BE MADE WITH A BEVELLED TRANSITION OR OTHER MATERIAL WITH A SLOPE NO GREATER THAN 1:2. CHANGES IN LEVEL GREATER THAN 1/2" SHALL BE ACCOMPLISHED BY MEANS OF A RAMP. VERIFY FINISH OF TRANSITION STRIP MATERIAL WITH OWNER.
8. WHEN MATCHING EXISTING MATERIALS, CONTRACTOR MUST PROVIDE AN EXACT VISUAL MATCH. EXACT MATCH TO BE INCLUDED IN THE BID. IF AN EXACT MATCH IS NOT POSSIBLE, CONTRACTOR TO SUBMIT A SAMPLE FOR THE CLOSEST POSSIBLE MATCH FOR REVIEW BY THE OWNER. THE INSTALLED PERFORMANCE OF ALL NEW MATCHING MATERIALS MUST BE EQUAL OF BETTER THAN EXISTING TO REMAIN MATERIALS.
9. GYP BOARD TO RECEIVE WALL COVERING TO BE PREPPED WITH ONE COAT OF ULTRA-HIDE PVA PRIMER SEALER, COLOR TO BLEND WALL COVERING COLOR.
10. ALL SURFACES TO BE PAINTED SHALL BE PERFECTLY DRY & SMOOTH PRIOR TO APPLICATIONS OF COVERINGS. ALL WALL MARKINGS MUST BE SEALED BEFORE APPLICATION OF FINISH MATERIAL TO PREVENT BLEED-THRU.
11. ALL SURFACES TO BE PAINTED MUST RECEIVE ONE PRIMER COAT TINTED ONE SHADE OFF OF THE FINAL WALL COLOR. PRIME ALL SURFACES PER MANUFACTURER'S SPECIFICATIONS PRIOR TO FINISH APPLICATION. PROVIDE SUFFICIENT FINISH COATS TO PROPERLY COVER SURFACE, MIN TWO COATS.
12. CONTRACTOR TO INCLUDE ONE VISIT IN BASE BID AFTER FURNITURE INSTALLATION IS COMPLETE TO PERFORM TOUCH-UP PAINTING THROUGHOUT ENTIRE PROJECT SPACE.
13. CONTRACTOR TO CAULK ALL WINDOWS & STOREFRONTS PRIOR TO PAINTING.
14. SCHEDULED BASE TO BE PURCHASED & INSTALLED IN THE LONGEST LENGTHS AVAILABLE SO AS TO ELIMINATE JOINTS ON CONTINUOUS WALL SURFACES.
15. ALL UNDERCOUNTER SURFACES MUST BE FINISHED AND SEALED TO PROVIDE A SMOOTH AND EASILY CLEANABLE SURFACE.
16. G.C. SHALL PROVIDE WOOD BACKING FOR ALL WALL MOUNTED / RECESSED ITEMS (U.N.O.). ANY AND ALL WOOD USED WITHIN WALLS OR ABOVE FINISH CEILINGS SHALL BE FIRE-RETARDANT, TREATED WOOD WHEN FIRE RATING IS IDENTIFIED.
17. ALL ELECTRICAL & DATA ELEMENTS (OUTLETS, SWITCHES, FACEPLATES, ETC) SHALL MATCH ADJACENT FINISH. GC TO SUBMIT PHYSICAL SAMPLE FOR CONSTRUCTION MANAGER REVIEW.
18. OWNERS G.C. SHALL PROVIDE SERVICES FOR FINAL CLEAN UP, PRIOR TO TURNING STORE OVER, TO INCLUDE, MOPPING AND BROOM CLEAN UP.
19. RETURN GRILLES TO BE POWDER COATED TO MATCH ADJACENT FINISH. GC TO SUBMIT PHYSICAL SAMPLE FOR CONSTRUCTION MANAGER REVIEW.
20. GC TO PROVIDE VINYL SUITE NUMBERS AT FRONT AND BACK OF SPACE PER LOCAL STANDARDS. GC TO COORDINATE FINAL LOCATION AND STYLE WITH OWNER & LANDLORD.

LEGEND



INTERIOR - FINISH SCHEDULE		
	KEY	MANUFACTURER/PRODUCT
WALL BASE	B1	JOHNSONITE
	T2	DALTILE
FLOORING	PD1	INTEGRAL COLOR CONCRETE
	SF1	PENNTEK INDUSTRIAL COATINGS
	SC1	SEALED CONCRETE
	D1	SWISSTRAX
PAINT	P1	SHERWIN WILLIAMS
	P2	SHERWIN WILLIAMS
	P3	SHERWIN WILLIAMS
	P4	SHERWIN WILLIAMS
	P5	AMEROAD
	P6	PPG
	P7	WALL PAINT (EXTERIOR)
	P8	NO-BURN PLUS TIO INTUMESCENT COATING OR EQUAL
WALL FINISH	T1	DALTILE
	FRP	

NOTE: GC TO COORDINATE WITH AQUA-TOTS BRANDING LAYOUT FOR PAINT FINISHES.

10.17.24 LANDLORD REVIEW
NO DATE OWNER REVIEW
REMARKSRED MILL COMMONS
SHOPPING CENTER2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454PROJECT NO: 2024.0397
DATE: 08.29.24

NORTH

A104
FINISH PLAN

CHECKED: AM DRAWN: FV

1 FINISH PLAN
SCALE: 3/16" = 1'-0"

1

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LEGEND

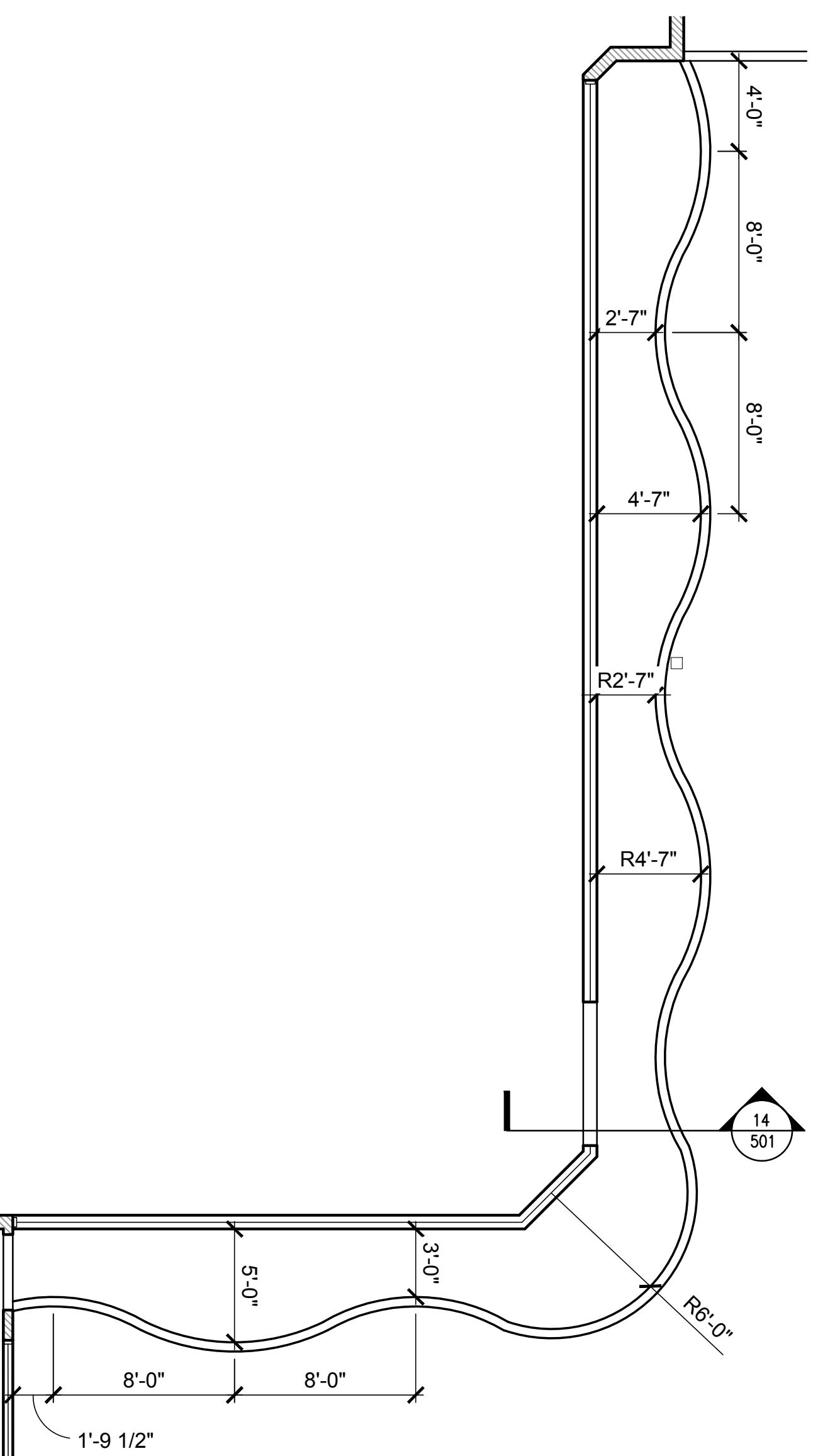
	LED 2X2 EDGEFLAT PANEL
	1 X 4 LED LIGHT FIXTURE (SURFACE MOUNTED)
	POOL LIGHT FIXTURE 6" X 4" LED LIGHT FIXTURE (WALL MOUNTED @ 10'-6" TO BOTTOM OF FIXTURE)
	ADJUSTABLE LED CAN LIGHT FIXTURE.
	DECORATIVE PENDANT LIGHT FIXTURE. BOTTOM OF FIXTURE TO BE @ 6'-2" A.F.F.
	VAPOR TIGHT LED LIGHT FIXTURE, WALL MOUNTED
	NEW EXIT LIGHT
	LED BATHROOM VANITY LIGHT FIXTURE, WALL MOUNTED
	LED VANITY LIGHT FIXTURE, WALL MOUNTED
	SUPPLY AIR DEVICE
	RETURN AIR DEVICE
	EXHAUST AIR DEVICE
	SECTION TAG
	EXPOSED DUCTWORK
	- CEILING FINISH - SEE SCHEDULE
	- CEILING HEIGHT ABOVE FINISHED FLOOR

REFLECTED CEILING
KEYNOTES

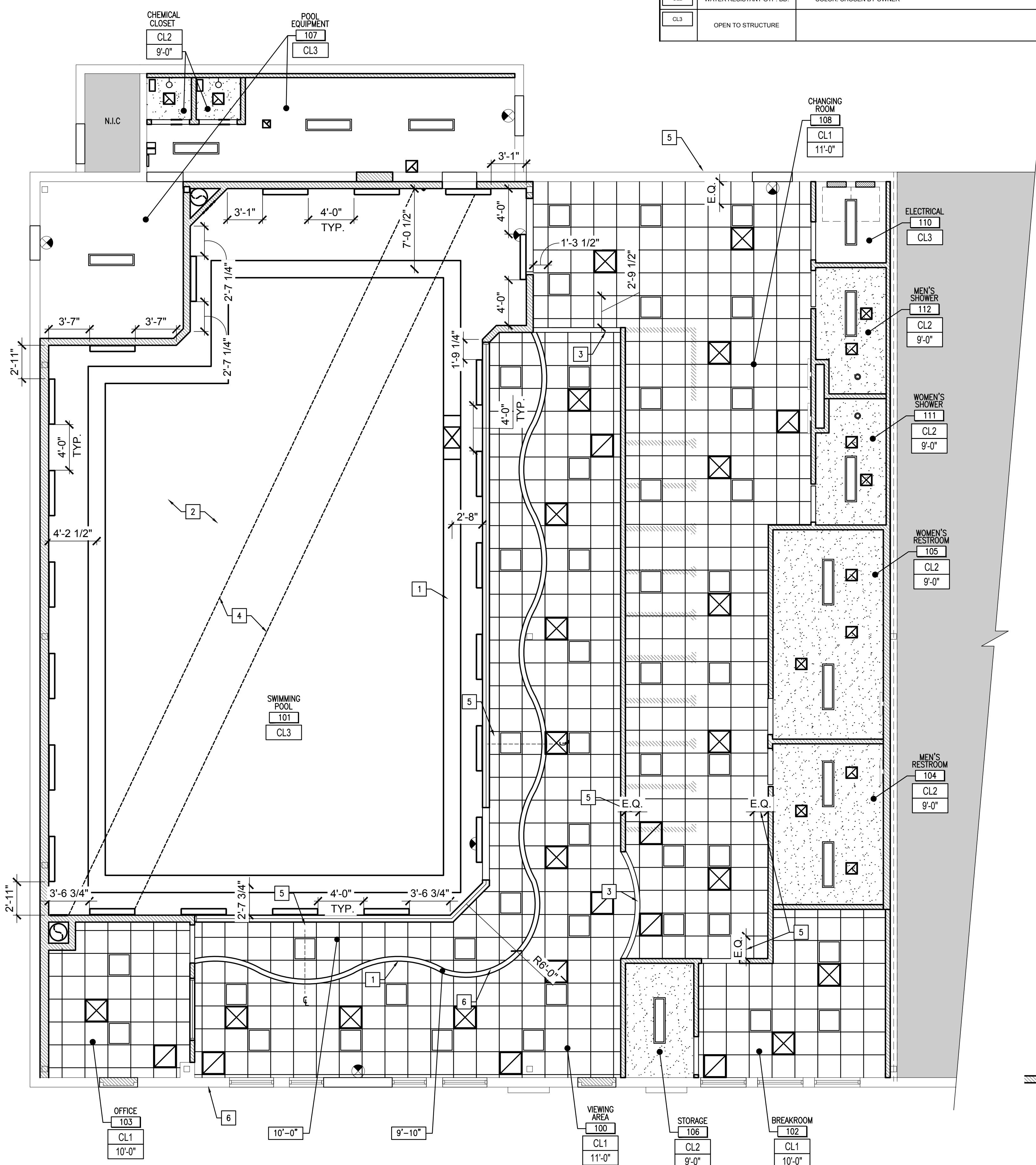
- DUCT SOCK SHOWN FOR REFERENCE. INTENT IS TO HOLD DUCT TO
UNDERSIDE OF EXISTING ROOF STRUCTURE(V.J.F) SEE MECHANICAL
DRAWINGS FOR FURTHER INFORMATION.
- APPLY P6 (MOISTURE RESISTANT PAINT FINISH) OVER PB (FIRE PROOFING)
OVER CLOSE-CELL FOAM SPRAY INSULATION DIRECTLY APPLIED TO
UNDERSIDE OF ROOF DECK - CLOSE CELL FOAM TO BE MINIMUM 1 1/2"
THICK ACROSS FULL SPAN OF EXPOSED ROOF DECK FILLING IN ALL
SPACES AND GAPS AROUND STRUCTURE AND AT CONNECTION TO WALLS -
PAINT ALL REMAINING EXPOSED STRUCTURAL MEMBERS, MECHANICAL
DUCTWORK, ELECTRICAL CONDUITS, AND EXPOSED CEILING ELEMENTS WITH
P5 (AMERLOCK). REFER TO FINISH SCHEDULE.
- ARCHED OPENING.
- GC TO PROVIDE MINIMUM 1/4" DIAMETER STAINLESS STEEL CABLE SYSTEM
MOUNTED TO BLOCKING WITHIN WALL WITH 1/4" DIAMETER X 4"
GALVANIZED FORGED EYEBOLTS (ONE PER MOUNTING POINT). CABLE WALL
CONNECTION TO BE MOUNTED AT 12'-5" AFF. SEE PLAN FOR ORIENTATION
(CABLES TO BE ORIENTED FROM CENTER OF POOL WITH A MINIMUM OF
5'-0" BETWEEN CABLES. CABLE SIGNAGE PROVIDED BY OTHERS.
COORDINATE WITH MECHANICAL CONTRACTOR TO VERIFY DUCT SOCKS ARE
PLACED ABOVE CABLES AND DO NOT BLOCK VIEWS OF BANNERS.
- START CEILING GRID WHERE DIMENSIONED.
- SEE WAVE SOFFIT AND CEILING DETAILS FOR SOFFIT DIMENSIONS.

GENERAL NOTES

- FINISH CEILING HEIGHT SHALL BE AS NOTED.
- UNLESS OTHERWISE NOTED OR CODED, ALL FIXTURES SHOWN ARE NEW.
- ANY EXISTING CEILING SYSTEMS TO BE REMAIN MUST BE CLEANED &
REFURBISHED TO LIKE-NEW CONDITION. NEW AND EXISTING-TO-REMAIN
CEILING TILES MAY NOT BE USED WITHIN THE SAME ROOM OR AREA, OR
WITHIN THE SAME UNBROKEN CEILING SPACE.
- THE CONTRACTOR SHALL CAREFULLY REVIEW ALL ATTACHMENT CONDITIONS
FOR NEW FURRED OR SUSPENDED CEILING TO ASSURE PROPER
CLEARANCES.
- THE CONTRACTOR SHALL INSTALL SUSPENDED CEILING GRID SO THAT IT IS
CENTERED IN THE SPACE IN EACH DIRECTION UNLESS OTHERWISE NOTED.
- LIGHT FIXTURES, SPRINKLER HEADS, ETC SHALL BE CENTERED ON THE
CEILING TILE IN WHICH THEY PENETRATE, UNLESS THE LOCATION IS
DETERMINED BY ANOTHER FACTOR AS IDENTIFIED ON THE DRAWINGS, OR
OTHERWISE NOTED.
- LIGHTING TO BE CENTERED WITHIN THE ROOM OR SPACE AS SHOWN ON THE
PLAN UNLESS DIMENSIONED OTHERWISE - TYPICAL.
- THE CONTRACTOR SHALL REVIEW ATTACHMENT DETAILS TO THE EXISTING
BUILDING STRUCTURE WITH THE LANDLORD PRIOR TO CONSTRUCTION.
- SEE ELECTRICAL PLAN FOR FIXTURES CIRCUITED TO EMERGENCY POWER.
- SEE HVAC PLAN TO COORDINATE CEILING DIFFUSERS, GRILLES, AND FAN
LOCATIONS (SHOWN ON THIS DRAWING FOR LOCATION ONLY).
- CONTRACTOR TO COORDINATE WORK OF ALL TRADES INVOLVED IN THE
CEILING AND PLenum CONSTRUCTION TO ENSURE ALL CLEARANCES ARE
MAINTAINED INCLUDING BUT NOT LIMITED TO FIXTURES, DuctWORK, PIPING,
SUSPENSION SYSTEMS, FIRE SUPPRESSION, AND MECHANICAL UNITS, SO AS
TO MAINTAIN THE CEILING HEIGHTS AS IDENTIFIED ON THE ARCHITECTURAL
DRAWINGS.
- CONTRACTOR TO IDENTIFY & CONFIRM ALL ACCESS REQUIREMENT & SERVICE
POINTS FOR EQUIPMENT LOCATED ABOVE THE CEILING (IN-UNIT AS WELL AS
BASE BUILDING SYSTEMS) - PROVIDE REMOVABLE GRID/ ACCESS PANELS
SUFFICIENT TO ALLOW ALL REQUIRED ACCESS.
- G.C. SHALL PLACE ORDERS FOR ALL FINISHES, MATERIALS, EQUIPMENT, ETC.
AT THE START OF THE PROJECT. SUBSTITUTIONS ARE NOT ACCEPTED FOR
ANY ITEMS, UNLESS NOTED OTHERWISE. OWNER AND ARCHITECT MUST BE
INFORMED OF LEAD TIME PROBLEMS WITHIN THE FIRST TWO WEEKS OF
PROJECT.
- CONTRACTOR TO PROVIDE UMLSTRUT SUPPORT AS REQUIRED TO INSTALL
FIXTURES BELOW MECHANICAL EQUIPMENT.
- OPEN CEILING AREAS:
- GC TO ORGANIZE ALL WIRES, CABLES, ETC - GC TO PROVIDE CABLE
TRAYS AND RE-RUTE EXISTING WIRING AS REQUIRED TO CREATE A
NEAT & TIDY APPEARANCE.
- GC TO PAINT ALL ELEMENTS OF THE OPEN CEILING AS PERMITTED BY
CODE - ALL ELEMENTS TO BE PAINTED ALIKE PER SCHEDULE.
- ALL EXISTING CONSTRUCTION ELEMENTS SHALL BE CLEANED &
ORGANIZED AS POSSIBLE IN ORDER TO CREATE THE MOST ORGANIZED
APPEARANCE
- TENANT IS RESPONSIBLE FOR THE INSTALLATION OF ITS OWN VOICE/DATA
EQUIPMENT BY TENANT'S CHOSEN CABLING COMPANY.
- TELEPHONE INSTALLATION FROM THE MAIN BUILDING PHONE ROOM TO
SPECIFIC TENANT SUITE IS AT TENANT'S EXPENSE.
- ALL CABLING REQUIRED FOR THE INSTALLATION OF TENANT TELEPHONE AND
VOICE/DATA EQUIPMENT WILL BE INSTALLED AT TENANT'S EXPENSE AND
MUST BE PLenum RATED.
- ALL CABLING MUST BE HELD OFF CEILING GRID, Duct WORK AND LIGHTING.
- VERIFY ALL DIMENSIONS IN FIELD PRIOR TO CONSTRUCTION AND NOTIFY
ARCHITECT OF ANY DISCREPANCIES.
- NO ITEMS MAY BE HUNG FROM THE BOTTOM CHORD OF THE ROOF
STRUCTURE. TYPICAL.



5 SOFFIT DETAIL
SCALE: 3/16"=1'-0"



1 REFLECTIVE CEILING PLAN
SCALE: 3/16" = 1'-0"

10.17.24 LANDLORD REVIEW
09.27.24 OWNER REVIEW
NO DATE
REMARKS



RED MILL COMMONS
SHOPPING CENTER

2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454

PROJECT NO: 2024.0397
DATE: 08.29.24

A105
REFLECTED CEILING PLAN
NORTH

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GENERAL ROOF PLAN NOTES

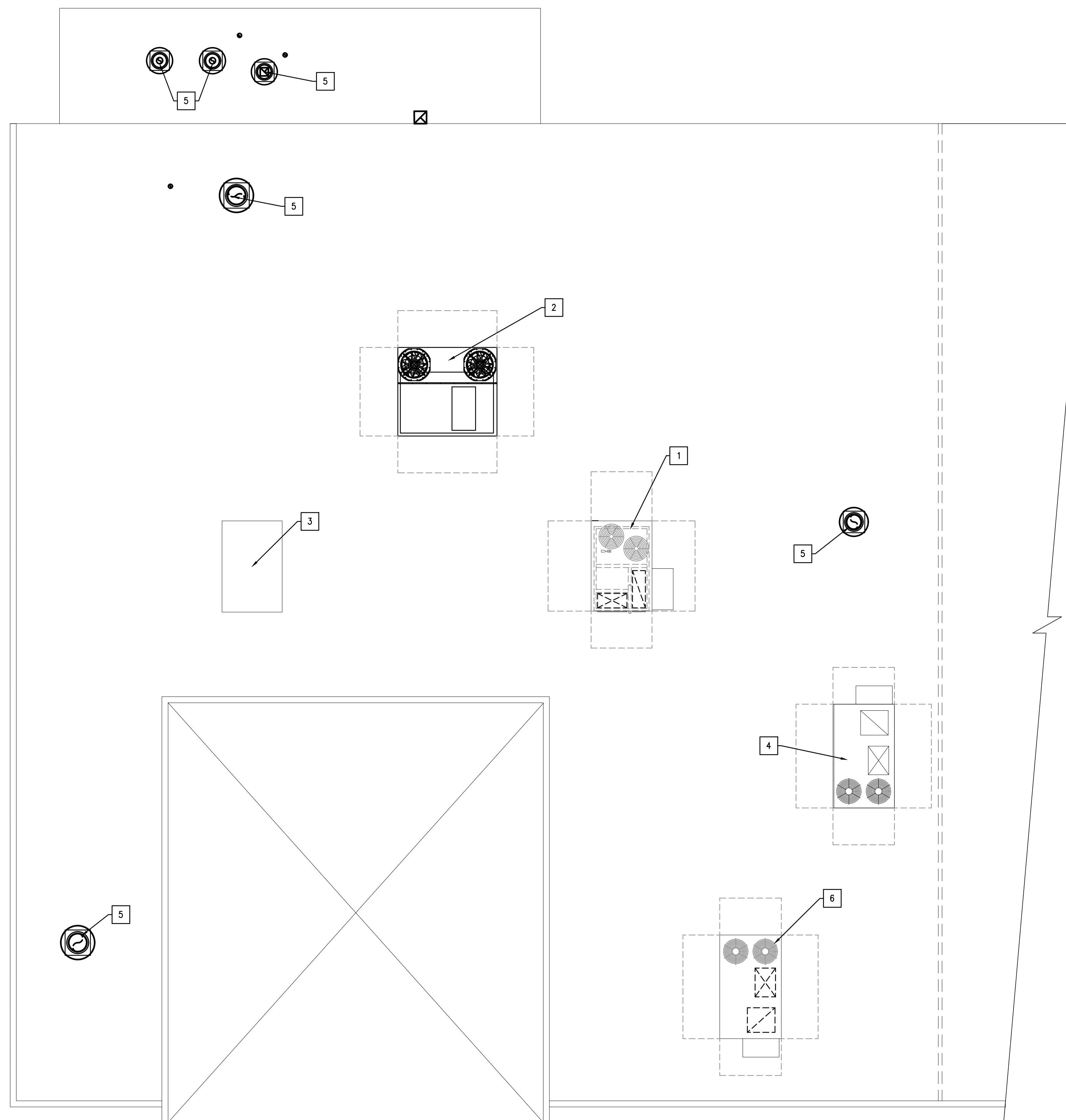
- A. ROOFING TRAFFIC PADS TO BE LOCATED SURROUNDING ALL ROOFTOP EQUIPMENT
- INCLUDING PATH FROM ROOF ACCESS POINT TO ROOF TOP EQUIPMENT -
PROVIDE SURFACE - ADHERED TEXTURED WALKWAY MATERIAL PER BASE
BUILDING ROOFING STANDARD - COORDINATE WITH ENGINEERING DRAWINGS

ROOF PLAN KEYNOTES

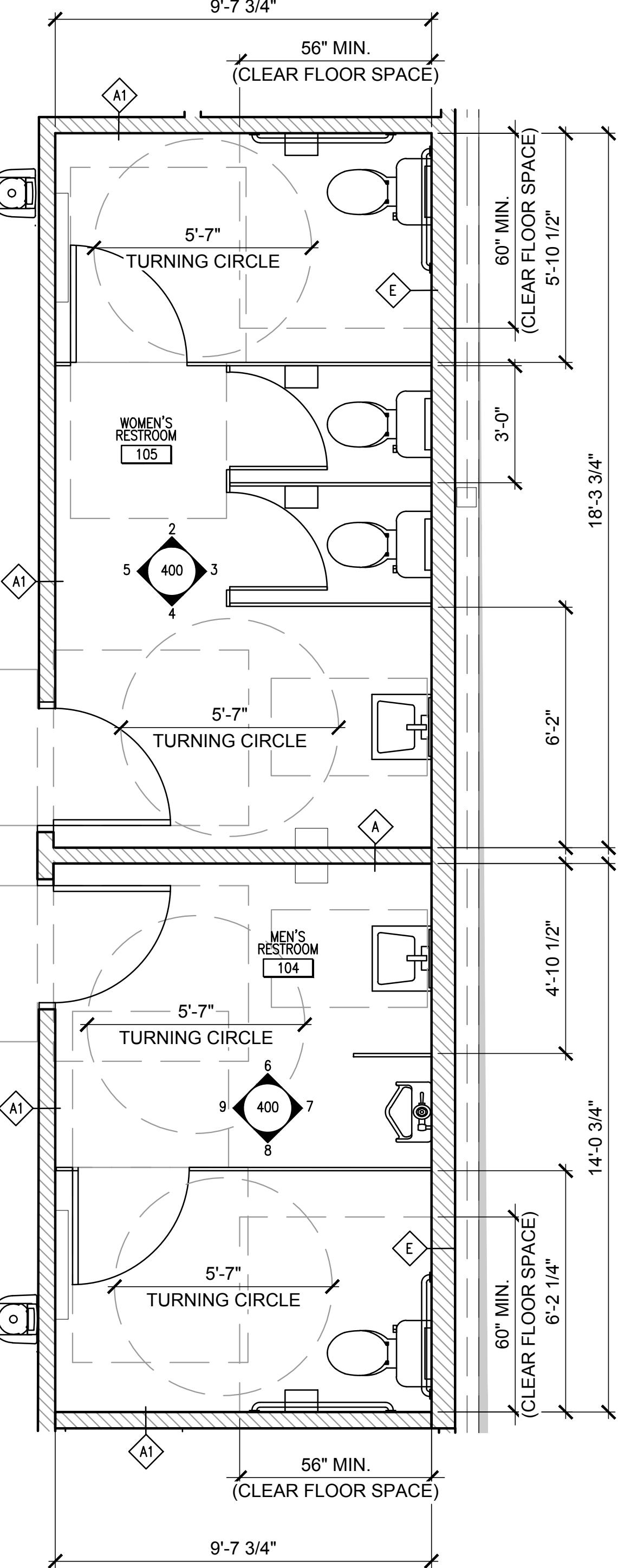
1. EXISTING RTU TO REMAIN - SEE MECHANICAL
2. NEW RTU - SEE MECHANICAL
3. EXISTING CURB TO BE CAPPED
4. EXISTING RTU ABANDON IN PLACE
5. NEW EXHAUST FANS. SEE MECHANICAL
6. EXISTING RELOCATED RTU. SEE MECHANICAL

LEGEND

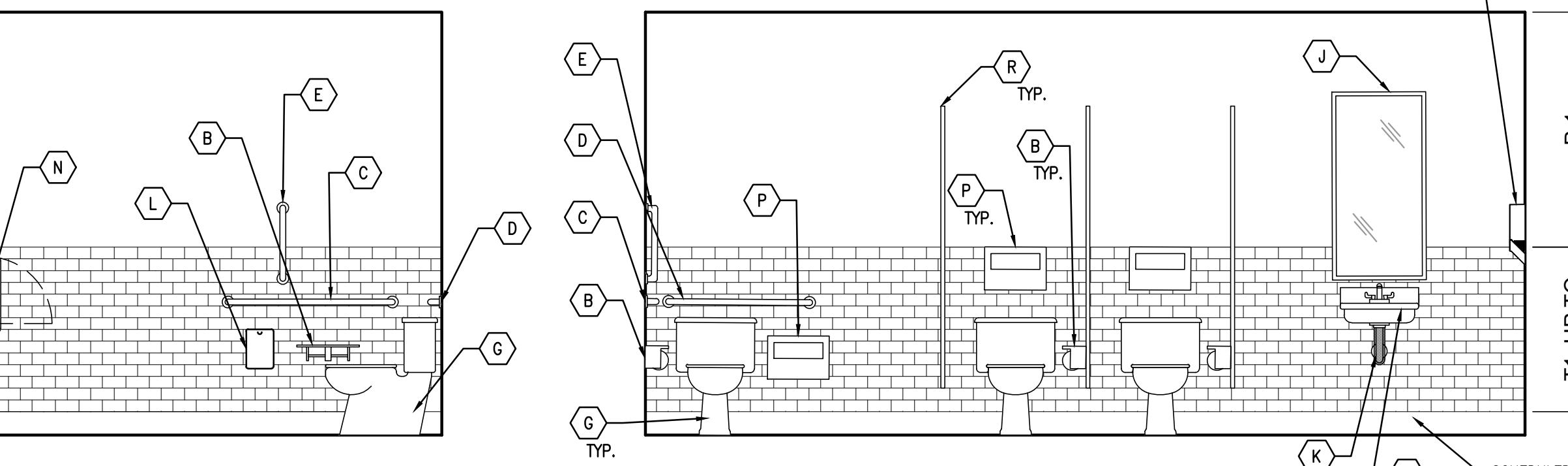
- EXISTING STOREFRONT
- EXISTING WALL TO REMAIN
- EXISTING WALL TO BE DEMOLISHED
- AREA "NOT IN CONTRACT" OUTSIDE OF THE PROJECT SPACE



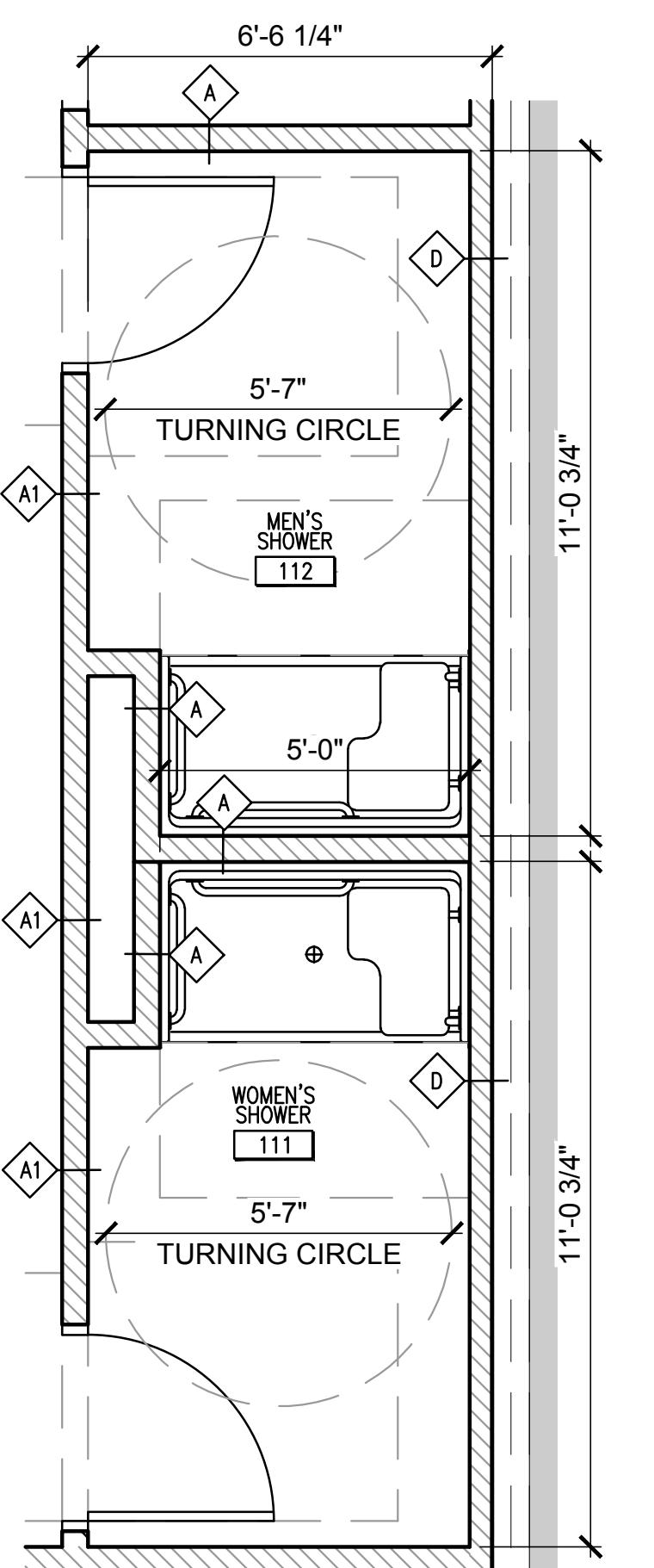
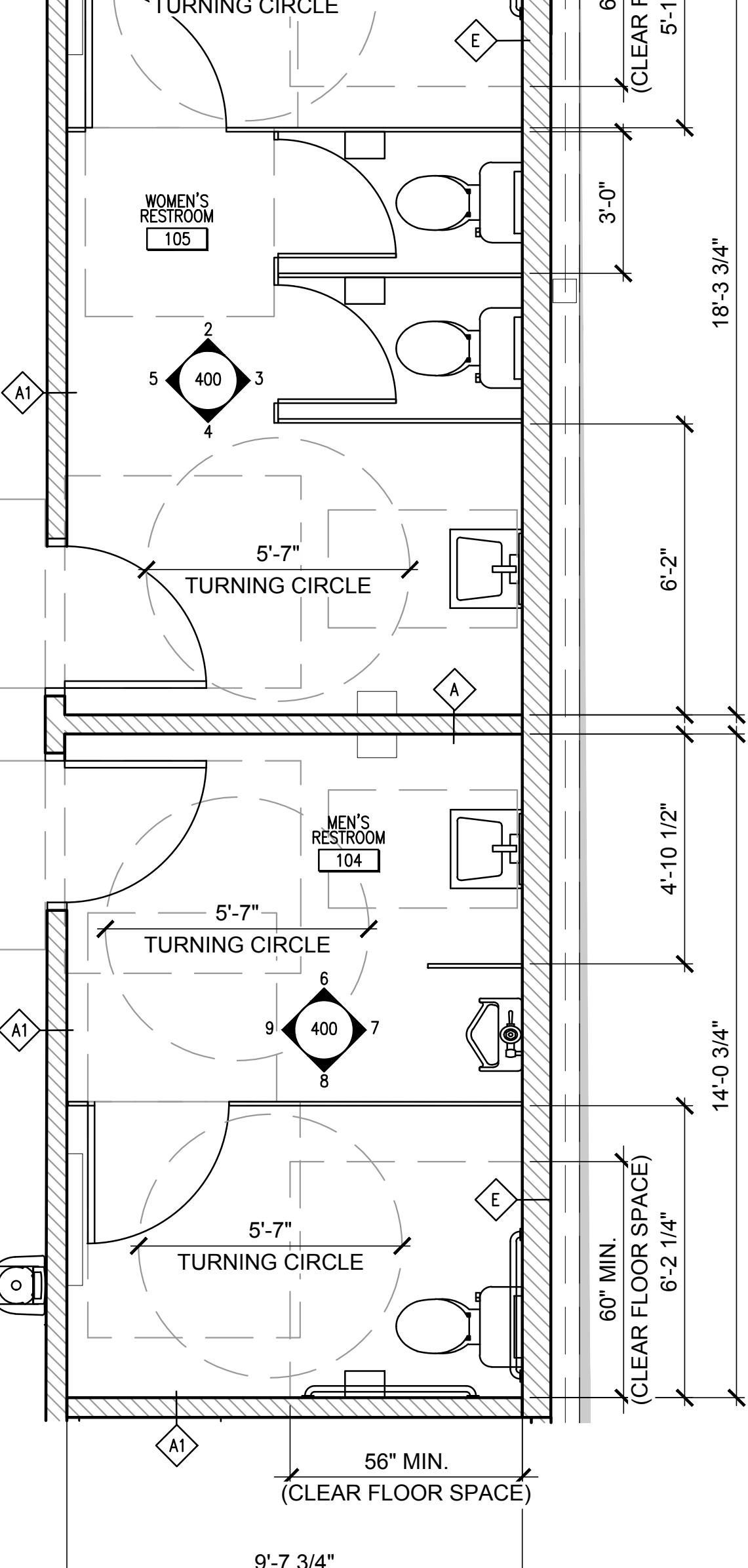
ACCESSORY SCHEDULE		
TAG	ITEM	DESCRIPTION
A	HAND DRYER	DYSON AIRBLADE V W/ HEPA FILTER, COLOR NICKLE
B	TOILET PAPER DISPENSER	TOILET PAPER DISPENSER TO BE PROVIDED BY OWNER AND INSTALLED BY GENERAL CONTRACTOR PER MANUFACTURER'S SPECIFICATIONS
C, D, E	GRAB BARS	SURFACE MOUNTED, BARRIER-FREE GRAB BARS(BOBRICK O.E) 42" (C), 36" (D), & 18" (E)
F	LIQUID SOAP DISPENSER	LIQUID SOAP DISPENSER TO BE PROVIDED BY OWNER AND INSTALLED BY GENERAL CONTRACTOR PER MANUFACTURER'S SPECIFICATIONS.
G	WATER CLOSET	WATER CLOSET- AMERICAN STANDARD: 2467.100 CADET
H	LAVATORY	AMERICAN STANDARD(SINK): 0195.0753 ROXALYN AMERICAN STANDARD(FAUCET): 5502.175.002
J	MIRROR	PROVIDE MIRROR WITH SHATTER RESISTANT BACKING. BOBRICK #B-165 SERIES OR EQUAL. INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
K	PIPE INSULATION	PIPE INSULATION SLEEVE (ADA)
L	SANITARY NAPKIN DISPENSER	SANITARY NAPKIN DISPENSER TO BE PROVIDED BY OWNER AND INSTALLED BY GENERAL CONTRACTOR PER MANUFACTURER'S SPECIFICATIONS.
M	URNIAL	AMERICAN STANDARD: 6400.001 AMERICAN STANDARD: 6063.051.002 (FLUSH VALVE)
N	HORIZONTAL DIAPER CHANGE STATION	KOALA KB301-05 HORIZONTAL SURFACE-MOUNTED. COLOR WHITE GC TO PROVIDE BACKING
P	SEAT COVER DISPENSER	SEAT COVER DISPENSER TO BE PROVIDED BY OWNER AND INSTALLED BY GENERAL CONTRACTOR PER MANUFACTURER'S SPECIFICATIONS.
R	PARTITIONS	SCRANTON PRODUCTS- HINY HINDERS- CLASSIC COLLECTION-BLUEBERRY O.E. FLOOR MOUNTED- OVERHAND BRACED. PROVIDE COAT HOOK STOP. COLOR: BURGUNDY PRIVACY STRIKE @ EACH DOOR. GC TO VERIFY SELECTION AND INSTALLATION WITH OWNER PRIOR TO ORDER/INSTALL PER MANUFACTURER SPECS. GC TO VERIFY DESIGN INTENT WITH MANUFACTURER SPECIFIED CONFIGURATION.
S	ADA SHOWER	AQUATIC 1363BFSCLST W/ CURTAIN ROD AND SHOWER CURTAIN. GC TO INSTALL PER MANUFACTURER'S SPECIFICATIONS
T	ADA CHANGING ROOM BENCH	SCRANTON PRODUCT PRE-FABRICATED TUFFTEC BENCHES-CLASSIC COLOR COLLECTION-BLUEBERRY BENCH TOP, STEEL PEDESTAL. GC TO INSTALL BENCH PER ADA REQUIREMENTS.
U	CHANGING ROOM BENCH	SCRANTON PRODUCT PRE-FABRICATED TUFFTEC BENCHES-CLASSIC COLOR COLLECTION-BLUEBERRY BENCH TOP, STEEL PEDESTAL.
W	VERTICAL DIAPER CHANGE STATION	KB301-05 VERTICAL SURFACE MOUNTED, COLOR WHITE. COORDINATED WITH OWNER FINAL QUANTITY PRIOR TO ORDER

NOTE: SEE GENERAL ACCESSIBILITY SHEET FOR ADA MOUNTING HEIGHT REQUIREMENTS.
GC TO PROVIDE BACKING AS REQUIRED.

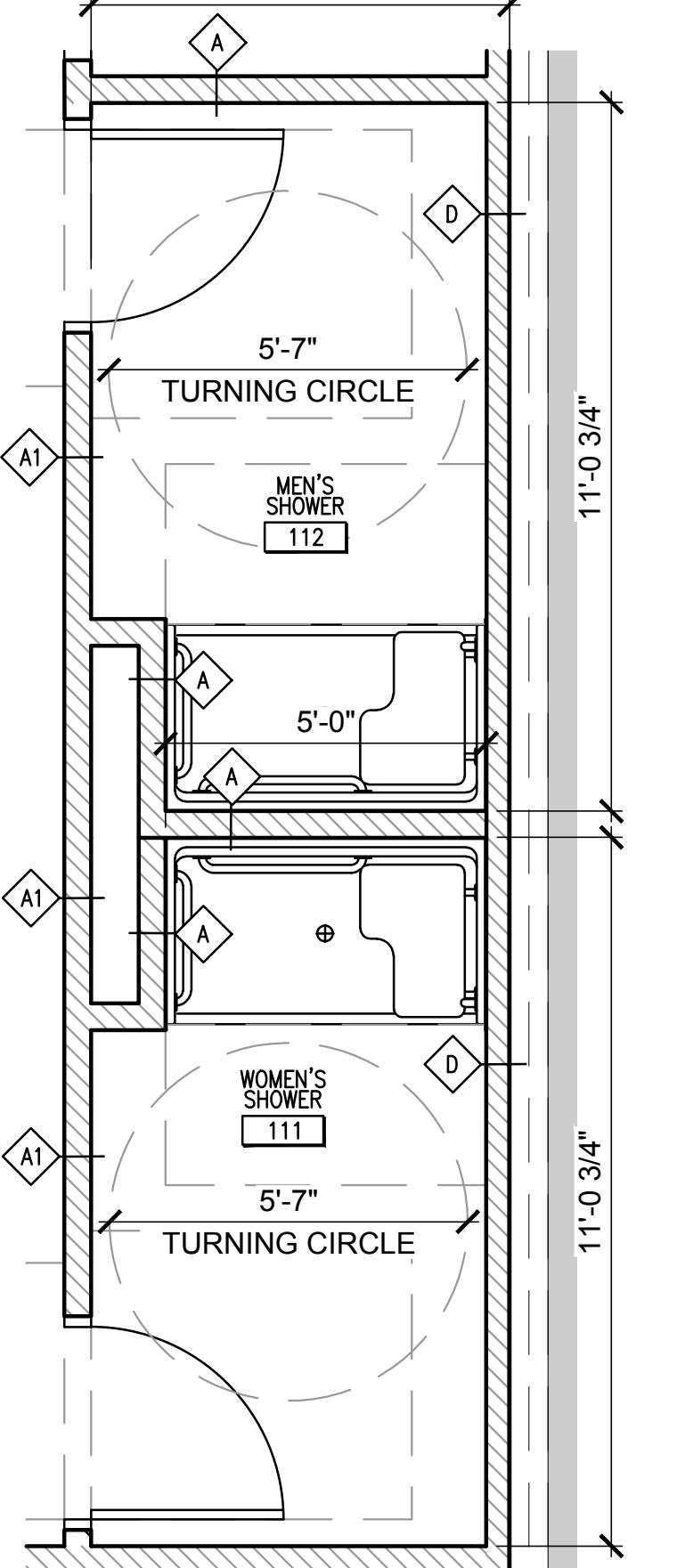
1 RESTROOM PLAN / SHOWER PLANS
SCALE: 3/8"=1'-0"



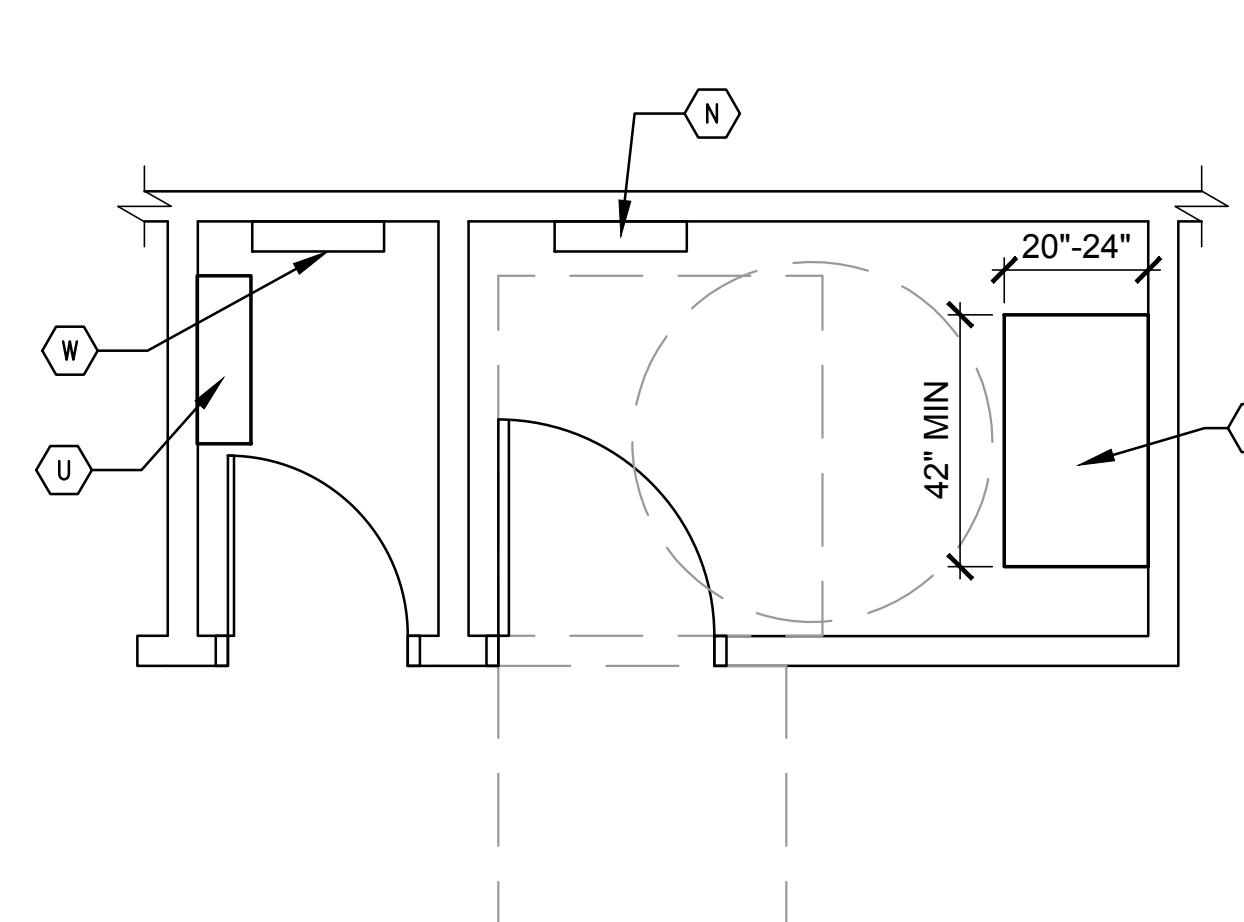
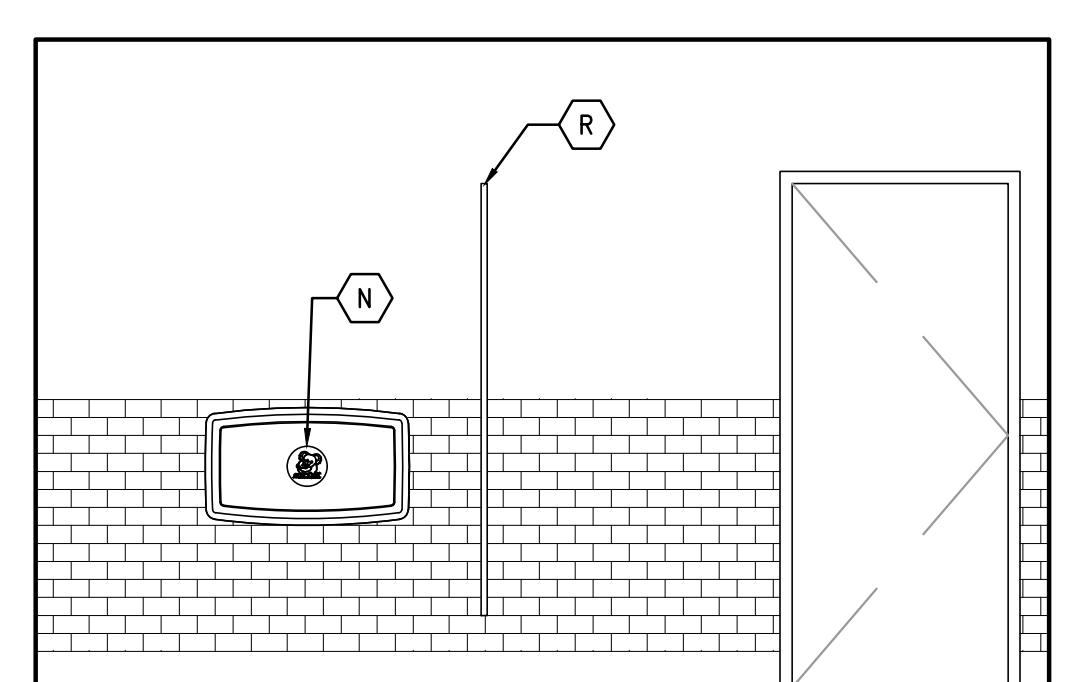
3 WOMEN'S RESTROOM ELEVATIONS
SCALE: 3/8"=1'-0"



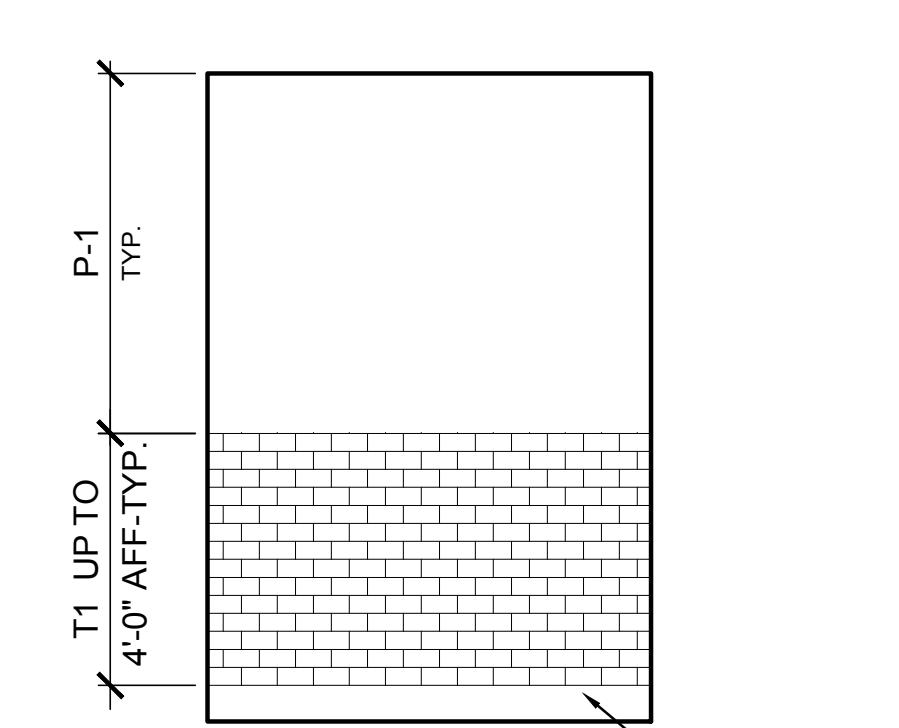
5 WOMEN'S RESTROOM ELEVATIONS
SCALE: 3/8"=1'-0"



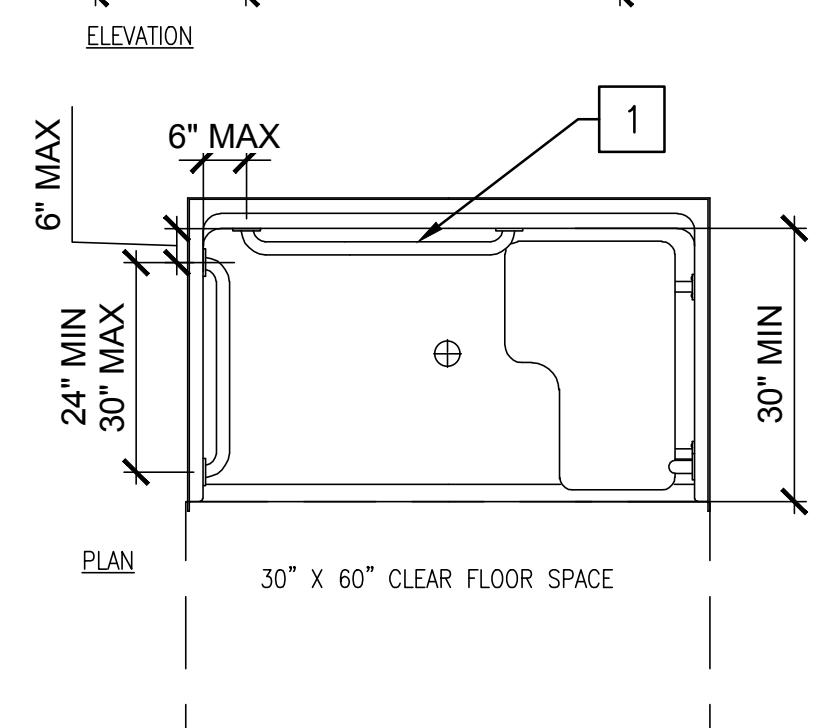
7 MEN'S RESTROOM ELEVATIONS
SCALE: 3/8"=1'-0"



10 TYPICAL CHANGING ROOM DIAGRAM
SCALE: 3/8"=1'-0"



11 TYPICAL SHOWER ELEVATION
SCALE: 3/8"=1'-0"

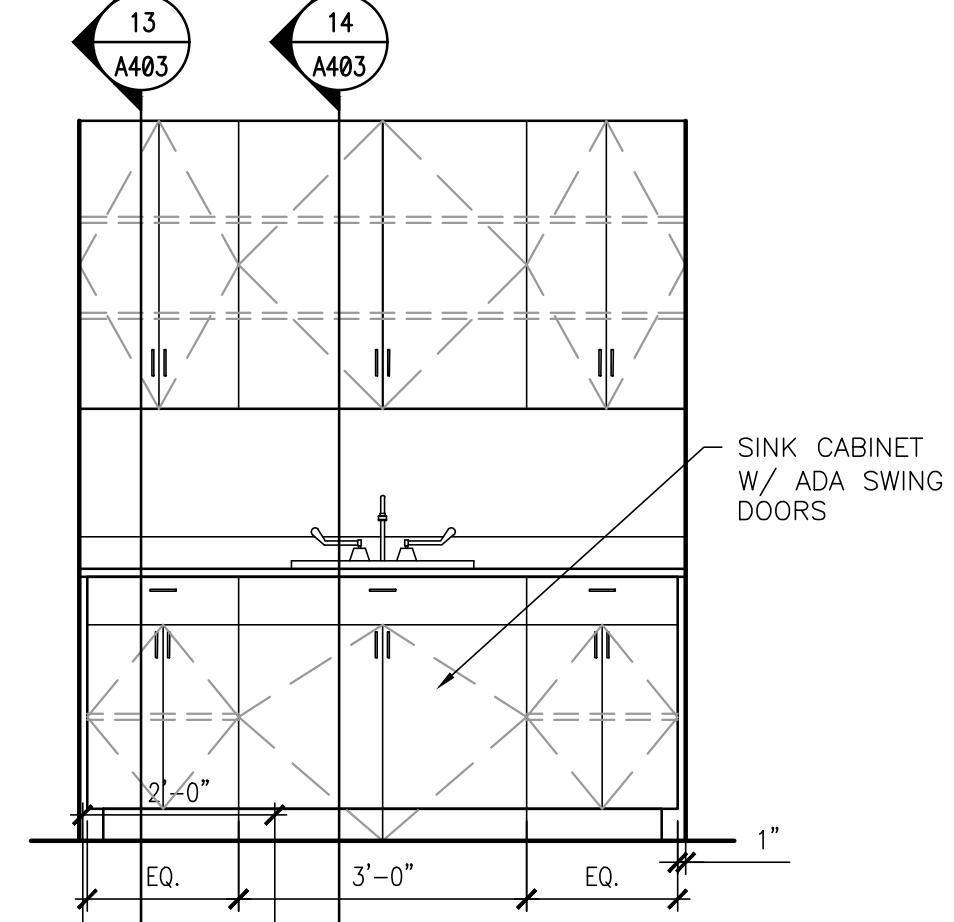
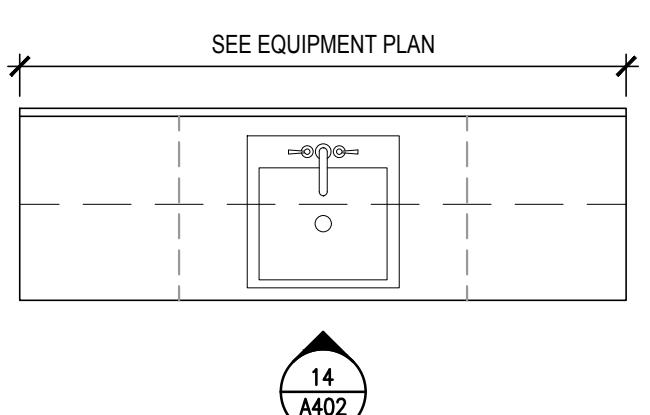
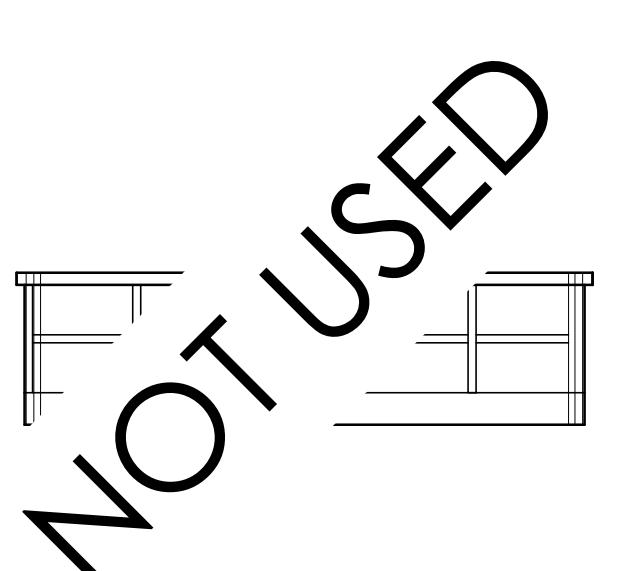
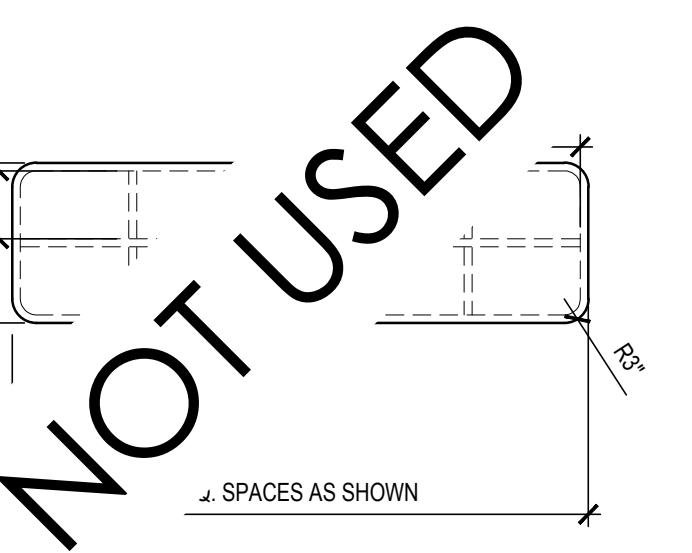
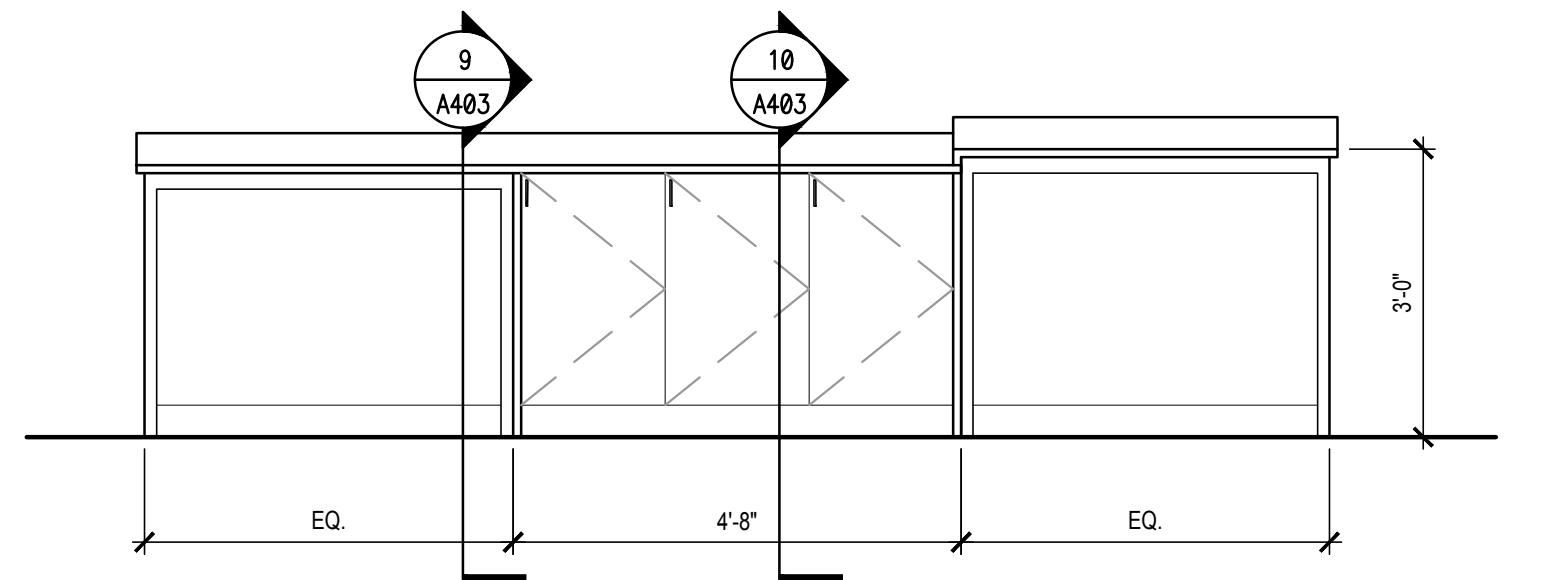
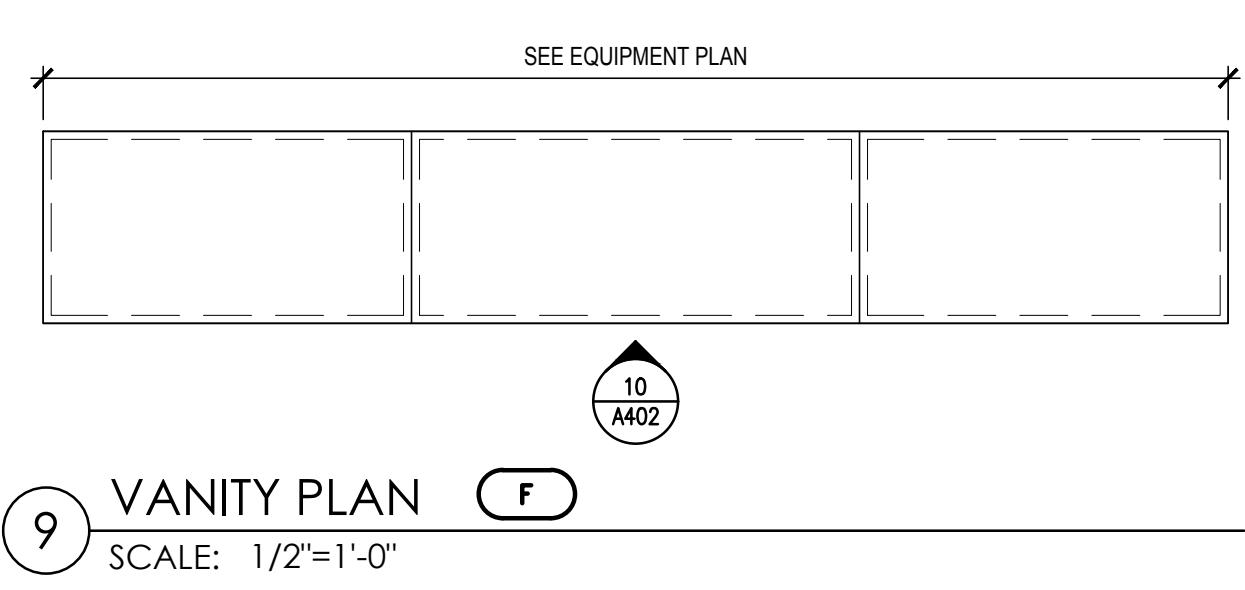
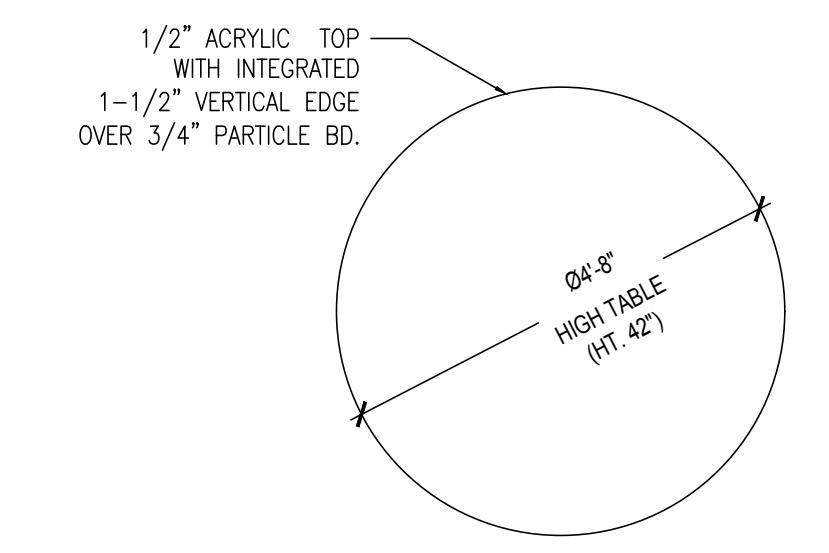
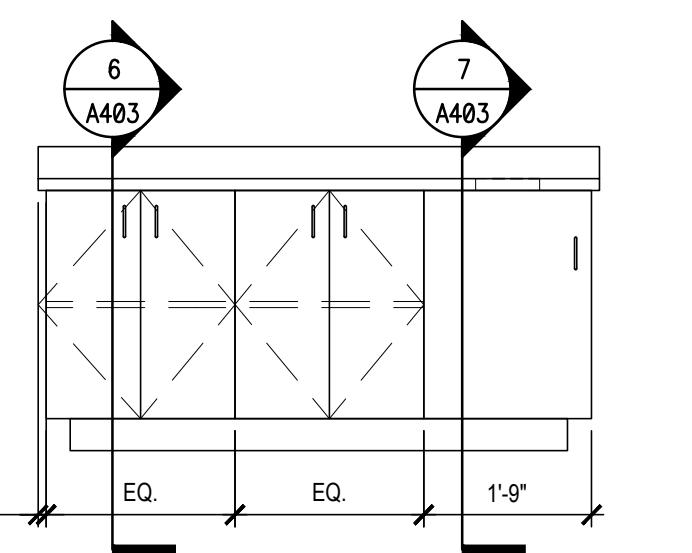
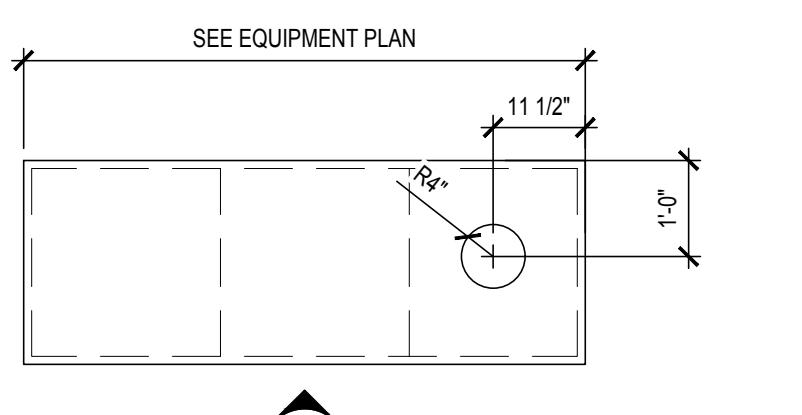
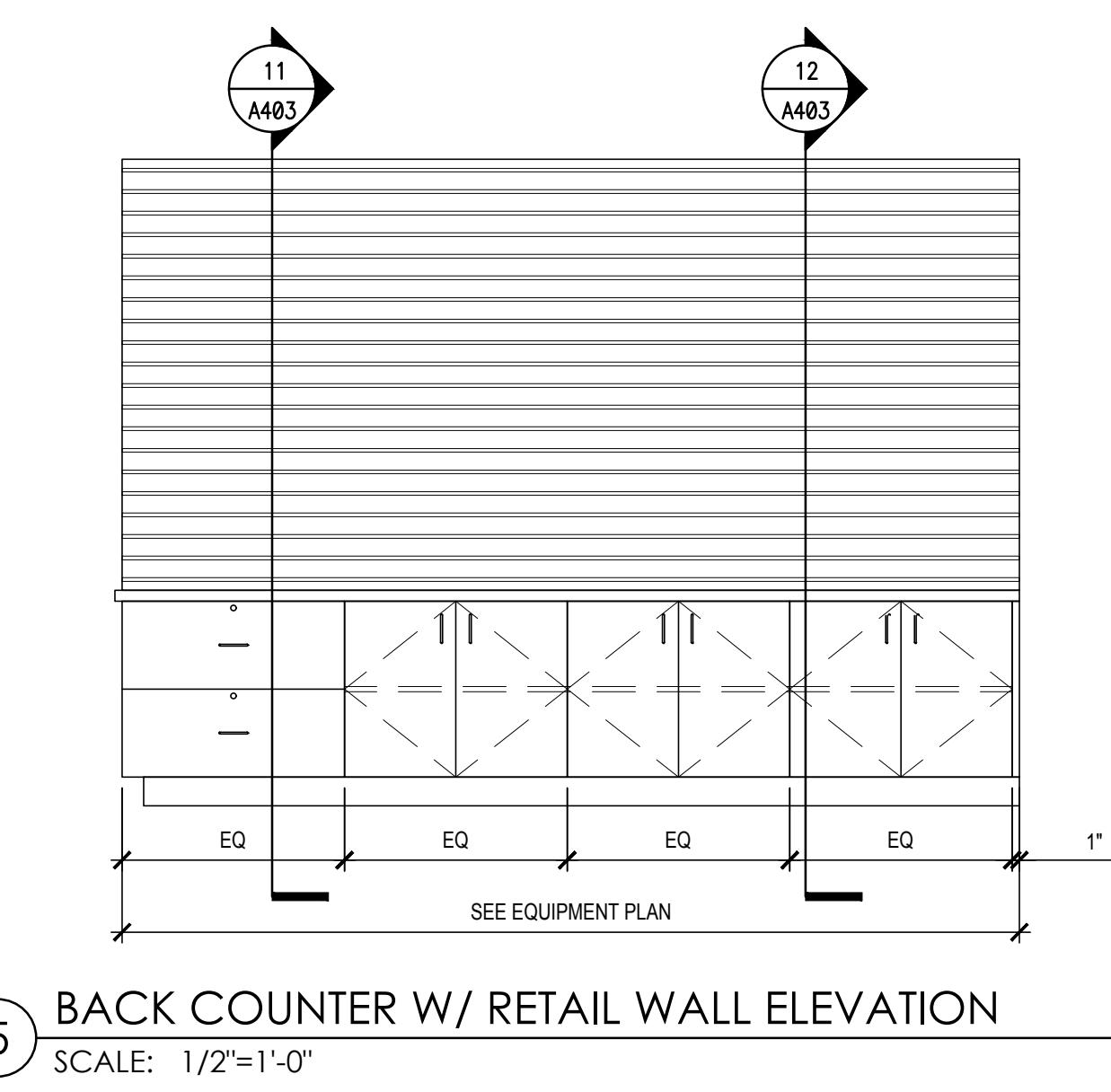
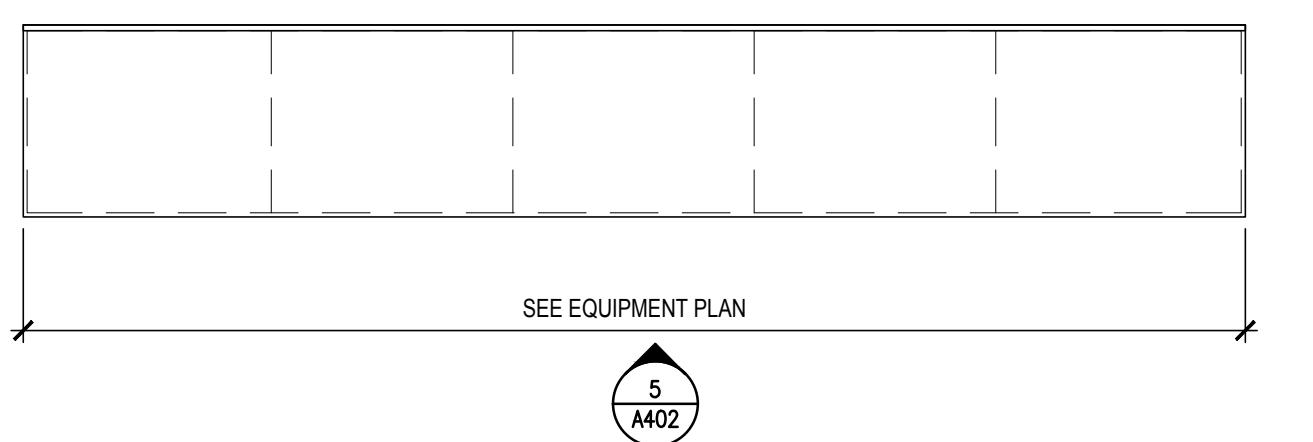
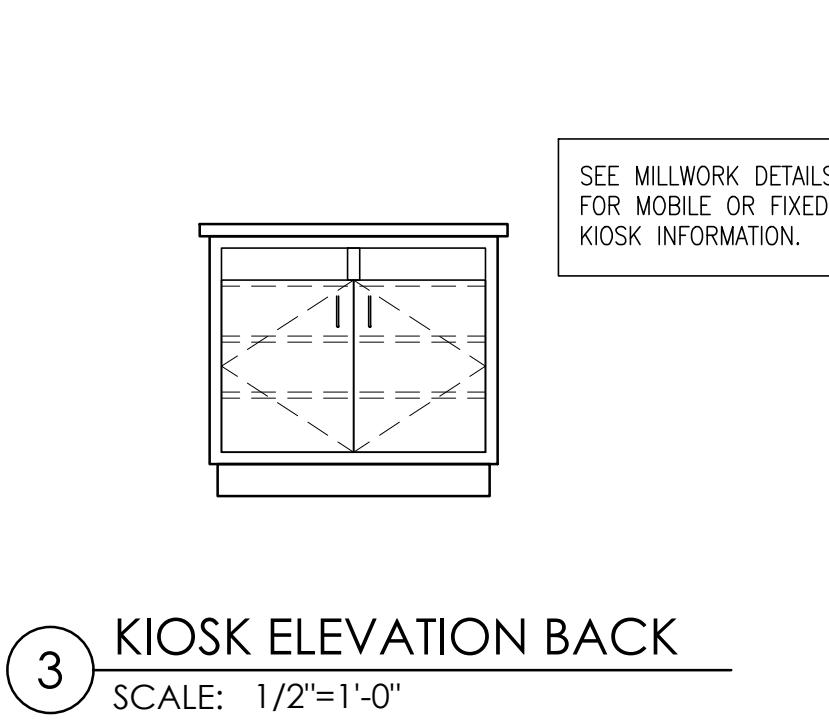
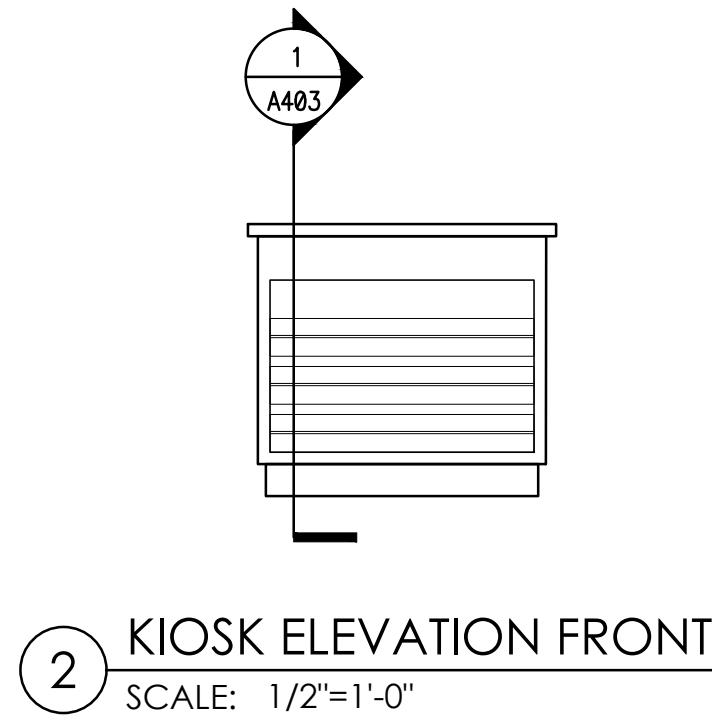
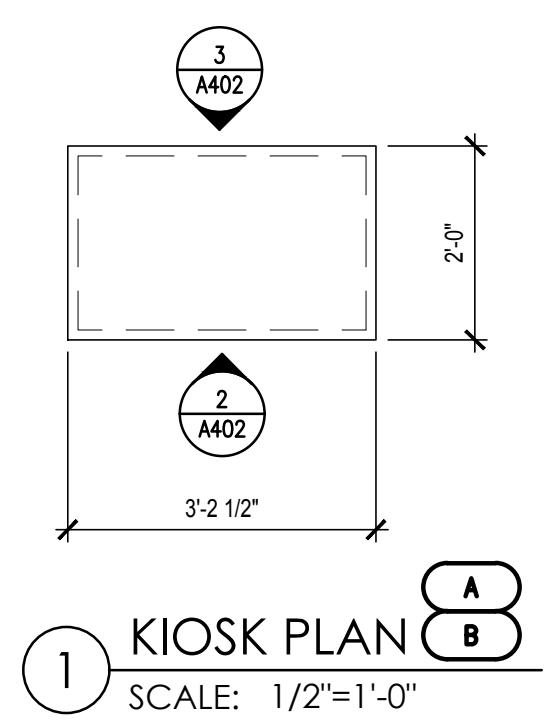


MILLWORK HARDWARE:

DRAWER PULLS: 4" BRUSHED CHROME
HARDWARE: A.W.I. CUSTOM GRADE STD.
HINGES: GRASS 110 DEGREE SELF-CLOSING
DRAWER GLIDES: WM-1000 BALL GEARING FULL EXTENSION,
100 LB. RATING
ADJ. SHELVES: 5MM HOLES AT $\frac{1}{4}$ " OC. WITH KV#345
CASTERS: NICKEL FINISHED METAL PINS
3" SWIVEL CASTERS W/BRAKE

MILLWORK FINISH SCHEDULE

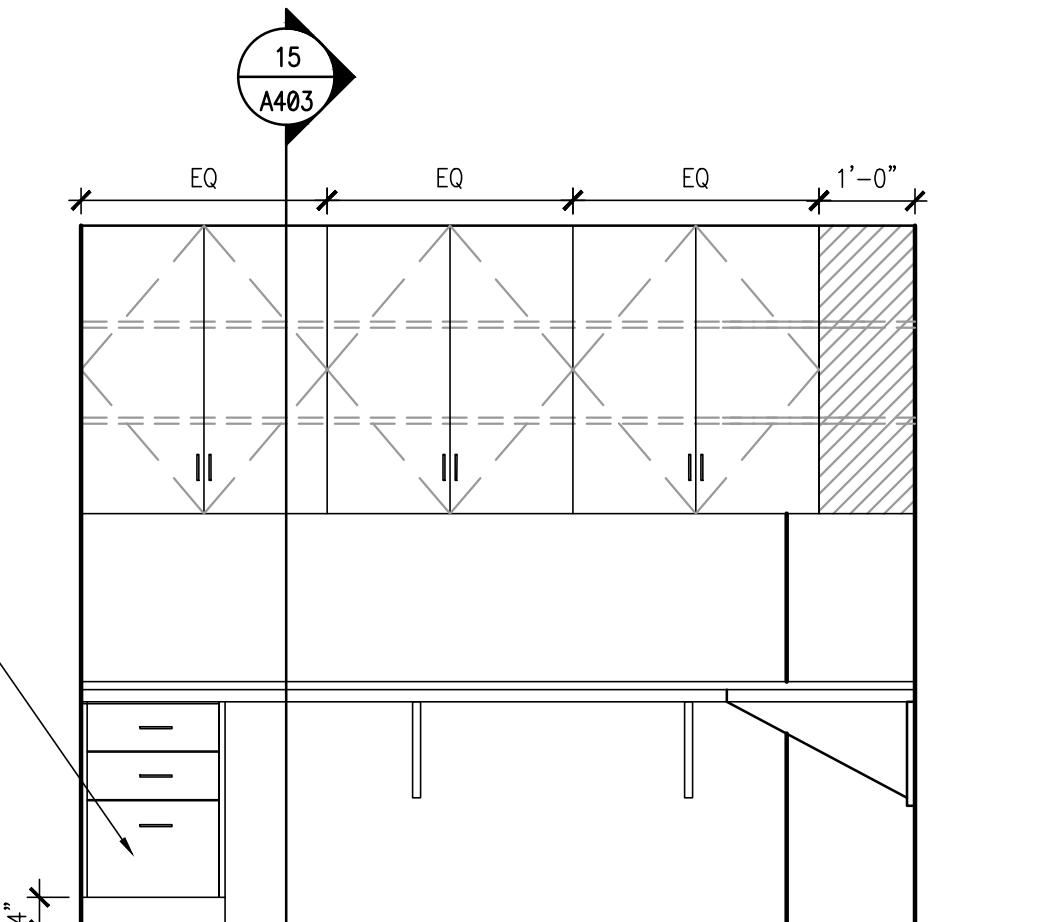
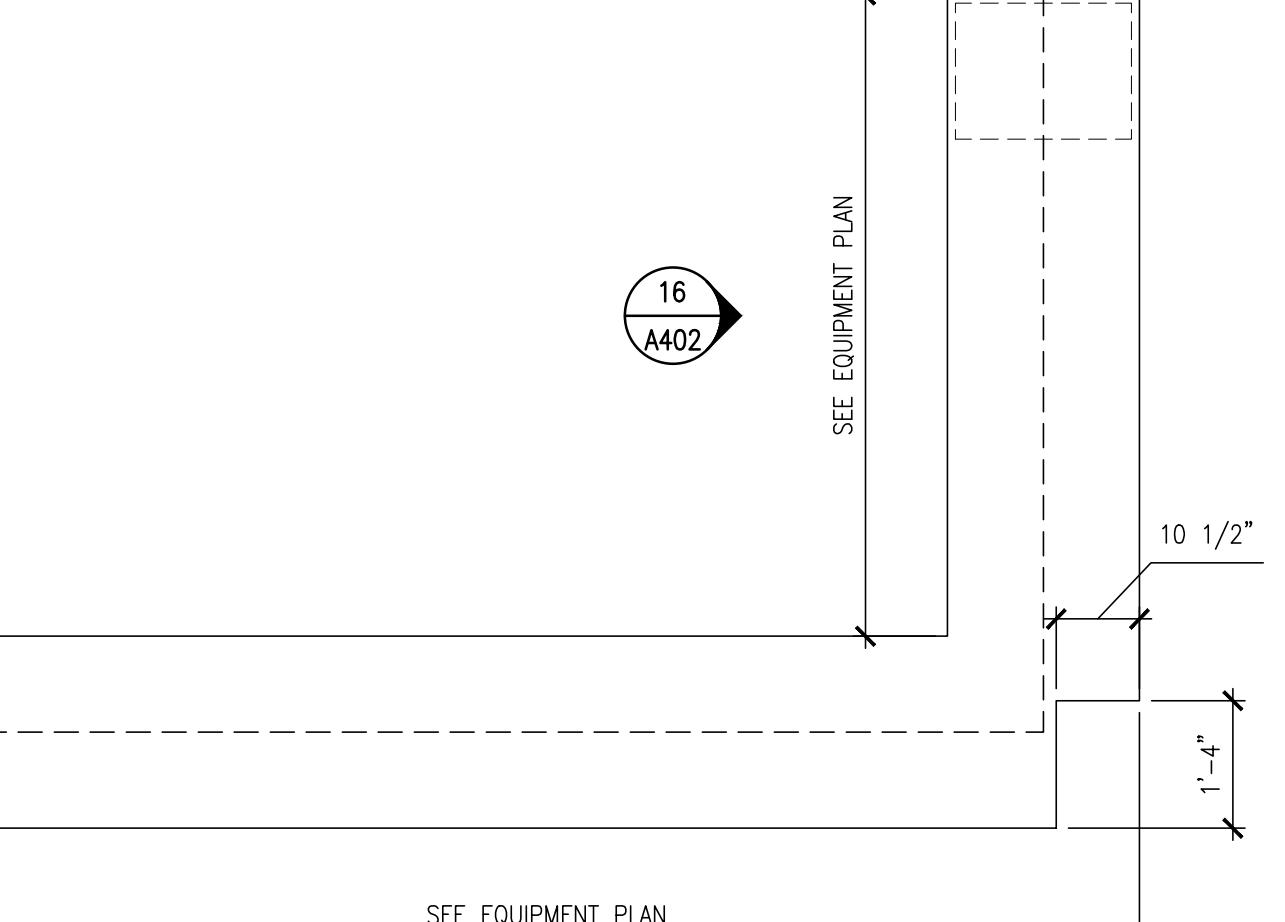
CT-1	ACRYLIC SOLID SURFACE
	MANUFACTURER: LG HI-MACS
	COLOR: M607 AURORA CREAM
WD-1	LAMINATE
	MANUFACTURER: FORMICA CORPORATION
	COLOR: 9312-58 PLANKED URBAN OAK MATTE FINISH
PL-1	LAMINATE
	MANUFACTURER: NEVAMAR
	COLOR: MXT003 SILVER ALU METALX TEXTURED FINISH
PL-2	LAMINATE
	MANUFACTURER: NEVAMAR
	COLOR: MR3008-T NAVY MATRIX II TEXTURED FINISH
WM-1	WHITE MELAMINE AT CABINET INTERIORS (TYP)



13 BREAKROOM PLAN H
SCALE: 1/2"=1'-0"

14 BREAKROOM ELEVATION
SCALE: 1/2"=1'-0"

15 OFFICE DESK PLAN
SCALE: 1/2"=1'-0"



16 OFFICE DESK ELEVATION
SCALE: 1/2"=1'-0"

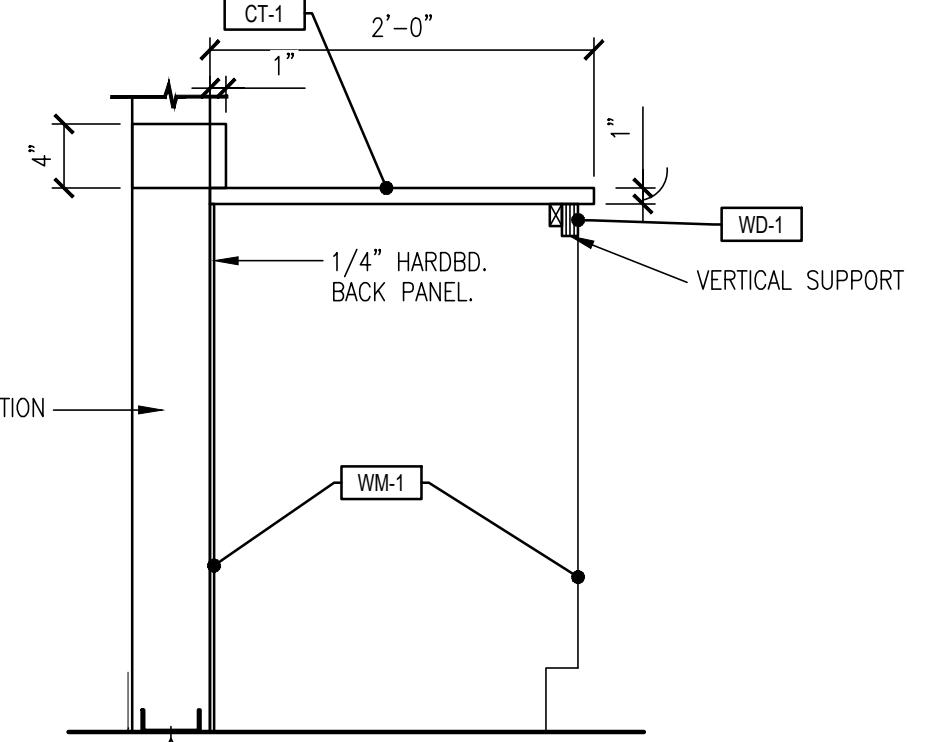
MILLWORK HARDWARE:

DRAWER PULLS: 4" BRUSHED CHROME
HARDWARE: A.W.I. CUSTOM GRADE STD.
HINGES: GRASS 110 DEGREE SELF-CLOSING
DRAWER GLIDES: WM-1000 BALL GEARING FULL EXTENSION, 100 LB.
RATING
ADJ. SHELVES: 5MM HOLES AT 1/4" O.C. WITH KV#345 NICKEL
FINISHED METAL PINS
CASTERS: 3" SWIVEL CASTERS W/ BRAKE

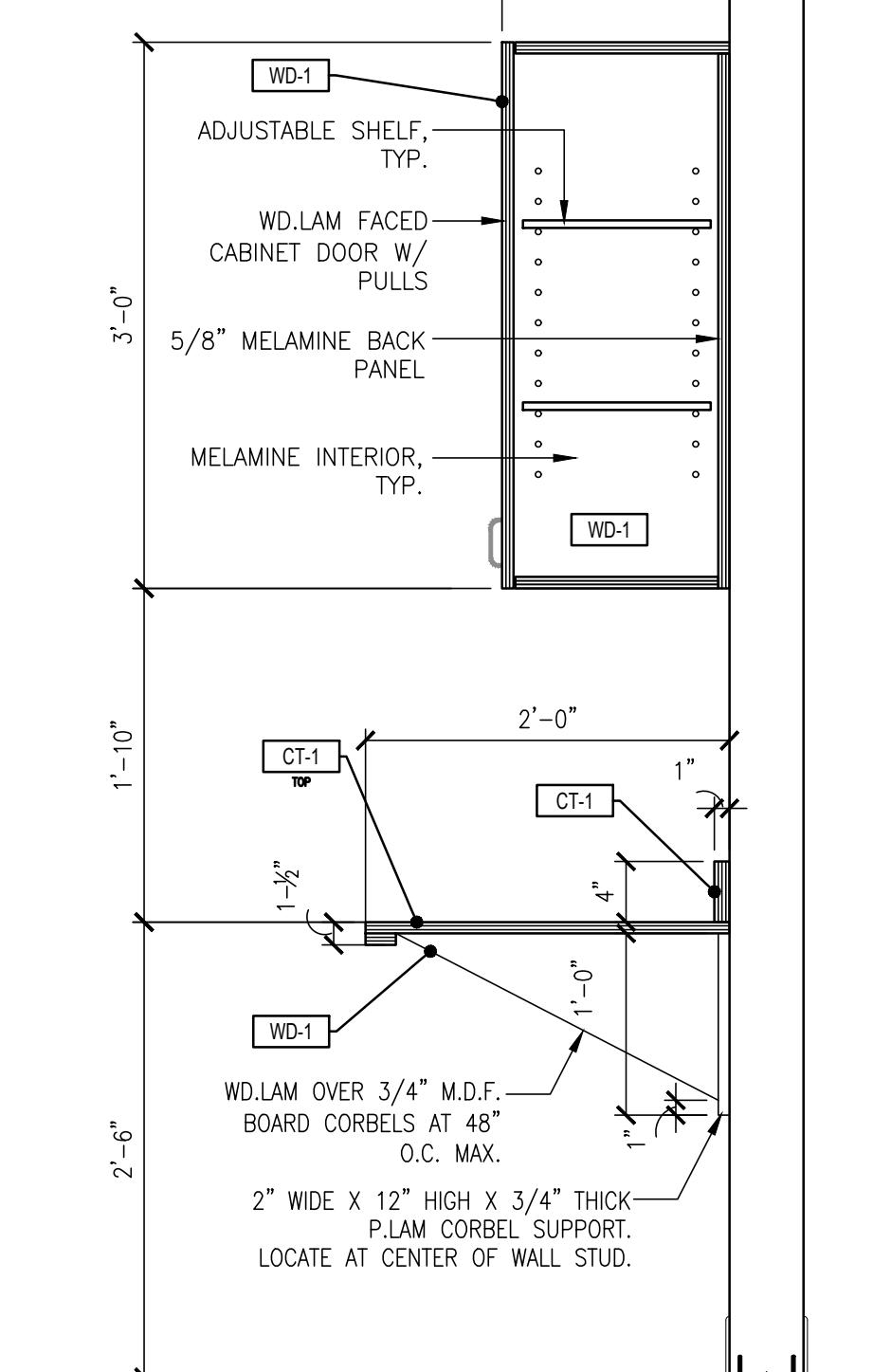
GENERAL NOTES
1. G.C. TO VERIFY WITH OWNER IF CABINET DOORS AND LOCKS ARE DESIRED.
2. SCHEDULE FINISH APPLIES TO PARTS OF VISUALLY ACCESSIBLE MILLWORK
- SEE EQUIPMENT PLAN FOR PROJECT SPECIFIC LAYOUT.

MILLWORK FINISH SCHEDULE

CT-1 ACRYLIC SOLID SURFACE
MANUFACTURER: LG HI-MACS
COLOR: M607 AURORA CREAM
WD-1 LAMINATE
MANUFACTURER: FORMICA CORPORATION
COLOR: 9312-58 PLANKED URBAN OAK MATTE FINISH
PL-1 LAMINATE
MANUFACTURER: NEVAMAR
COLOR: MXT003 SILVER ALU METALX TEXTURED FINISH
PL-2 LAMINATE
MANUFACTURER: NEVAMAR
COLOR: MR3008-T NAVY MATRIX II TEXTURED FINISH
WM-1 WHITE MELAMINE AT CABINET INTERIORS (TYP.)



CHANGING ROOM VANITY



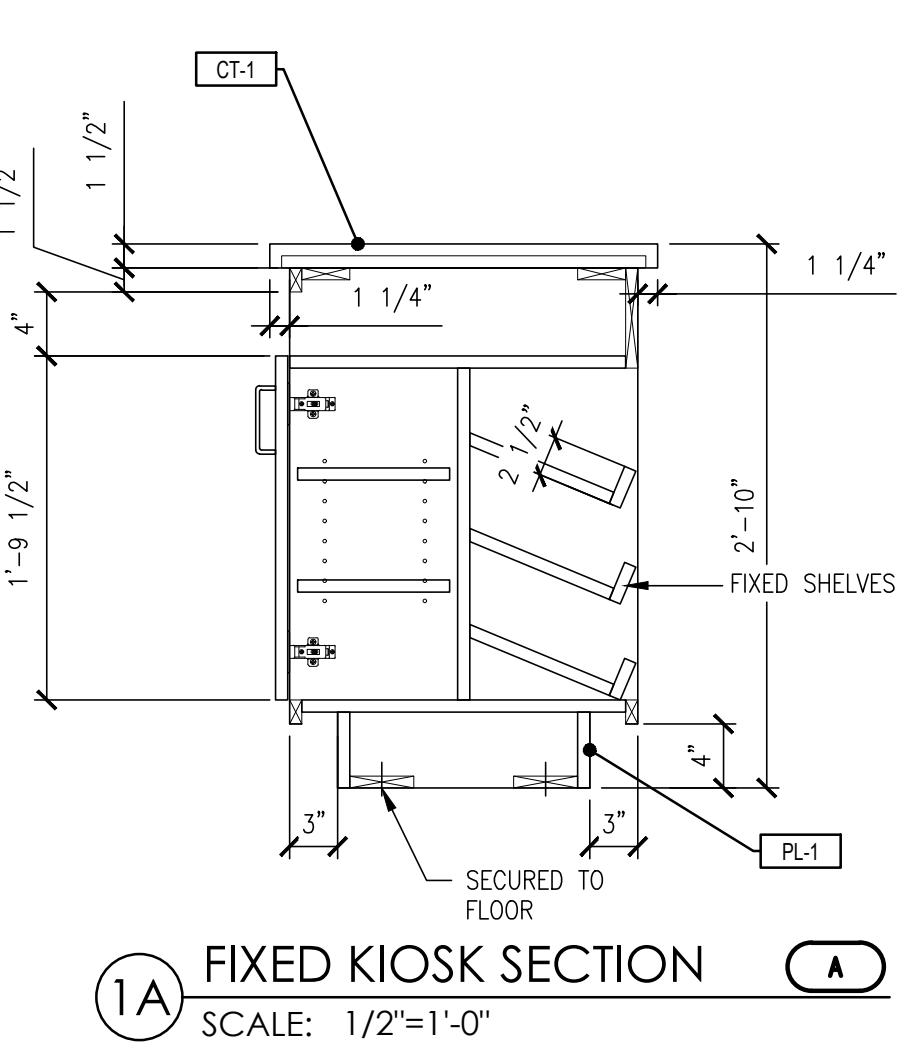
RED MILL COMMONS
SHOPPING CENTER

2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454

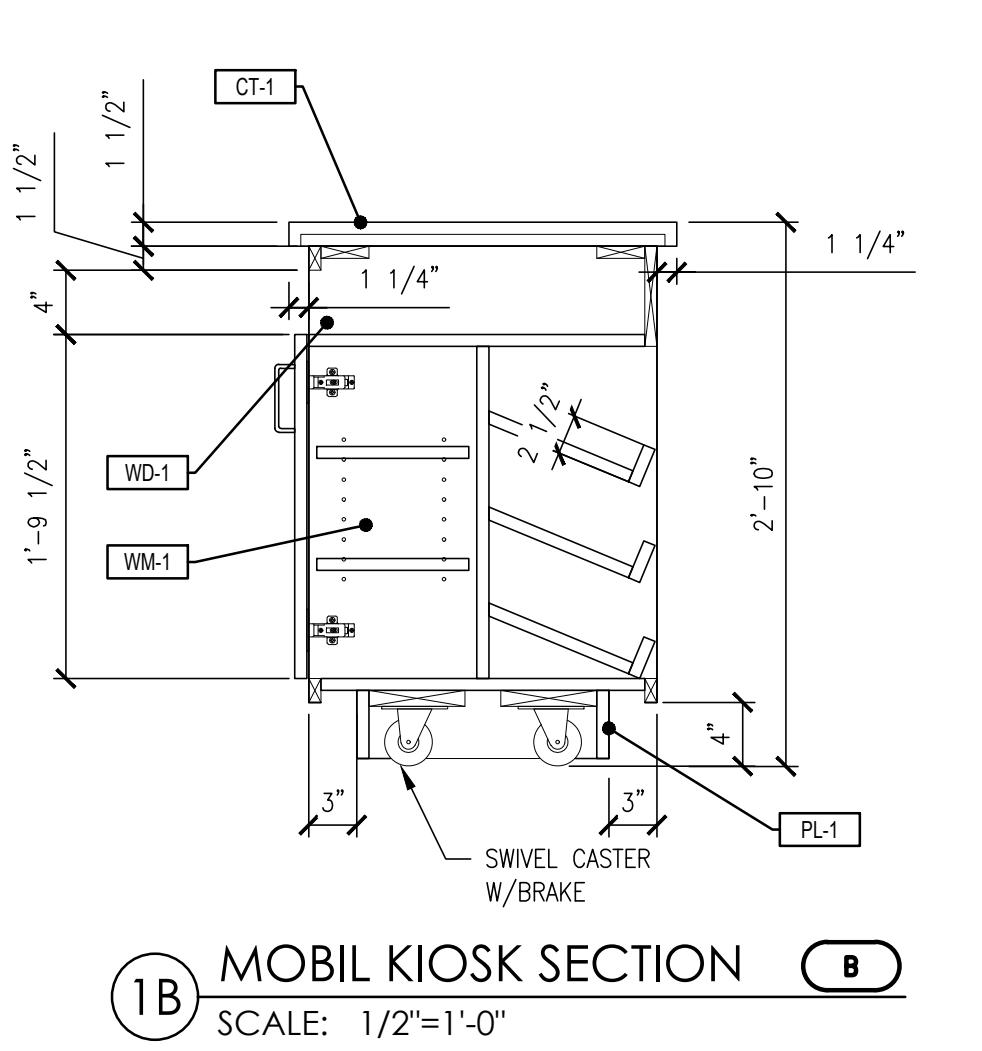
PROJECT NO: 2024.0397
DATE: 08.29.24

A403
MILLWORK SECTIONS &
DETAILS

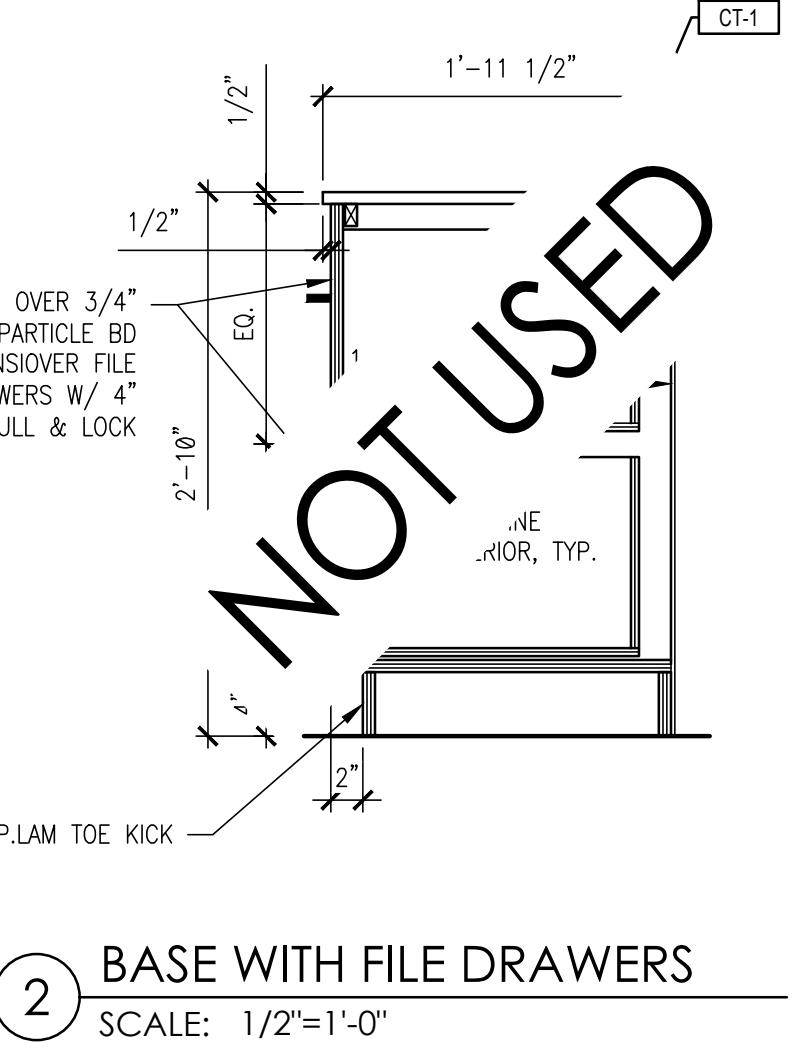
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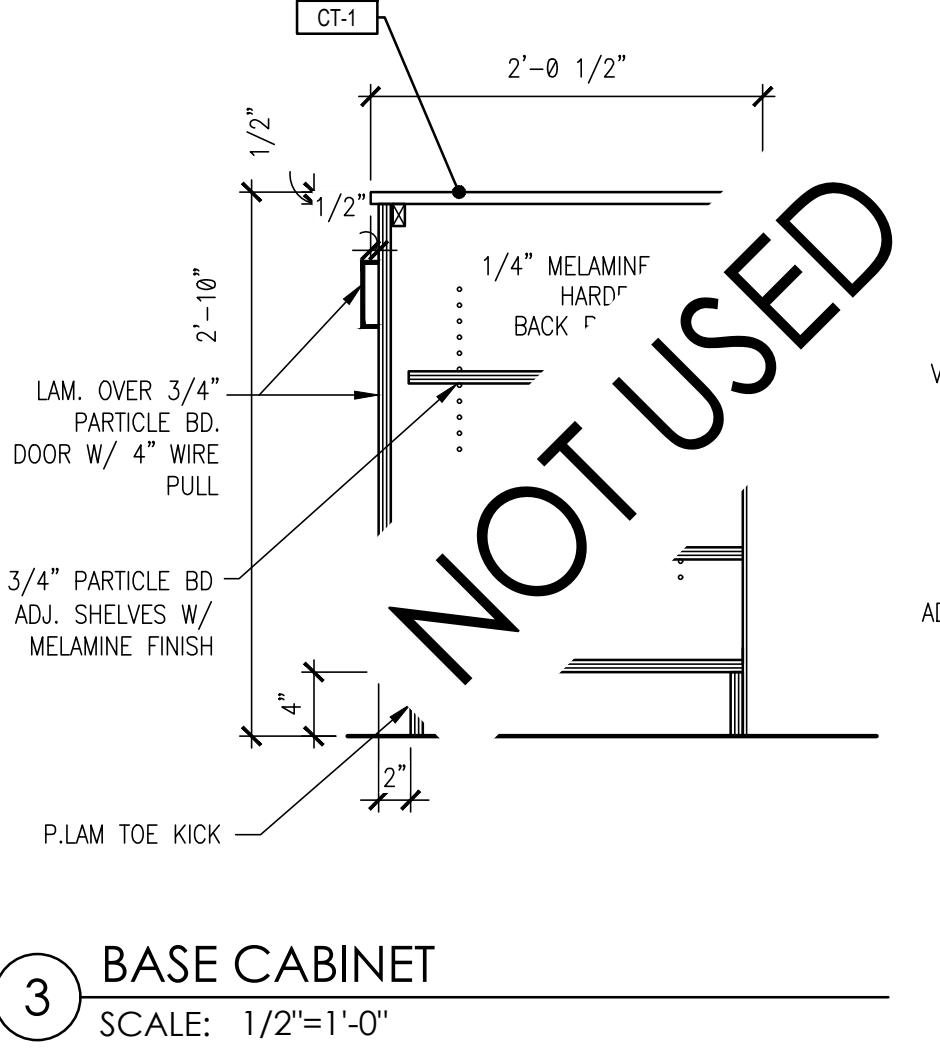
1A FIXED KIOSK SECTION
SCALE: 1/2"=1'-0"



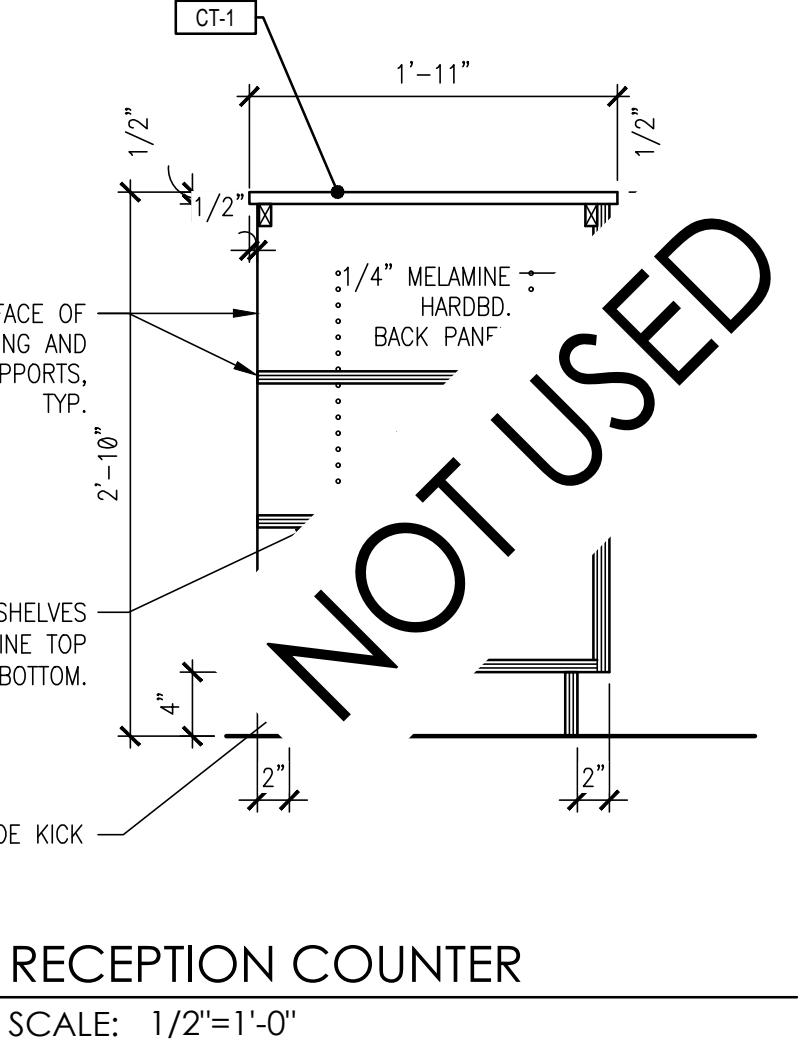
1B MOBIL KIOSK SECTION
SCALE: 1/2"=1'-0"



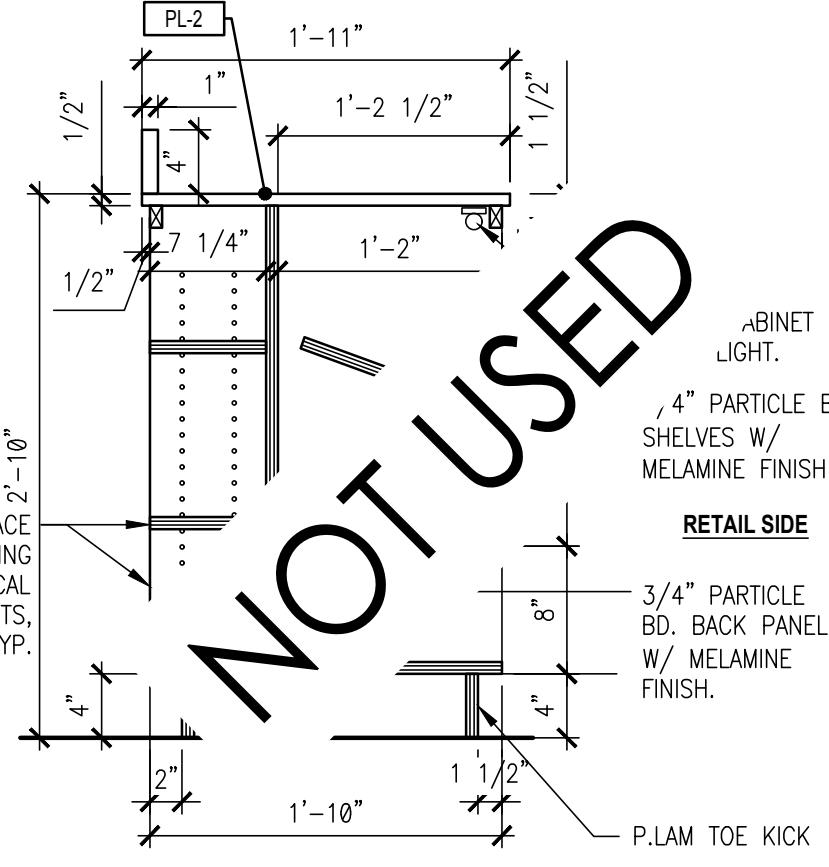
2 BASE WITH FILE DRAWERS
SCALE: 1/2"=1'-0"



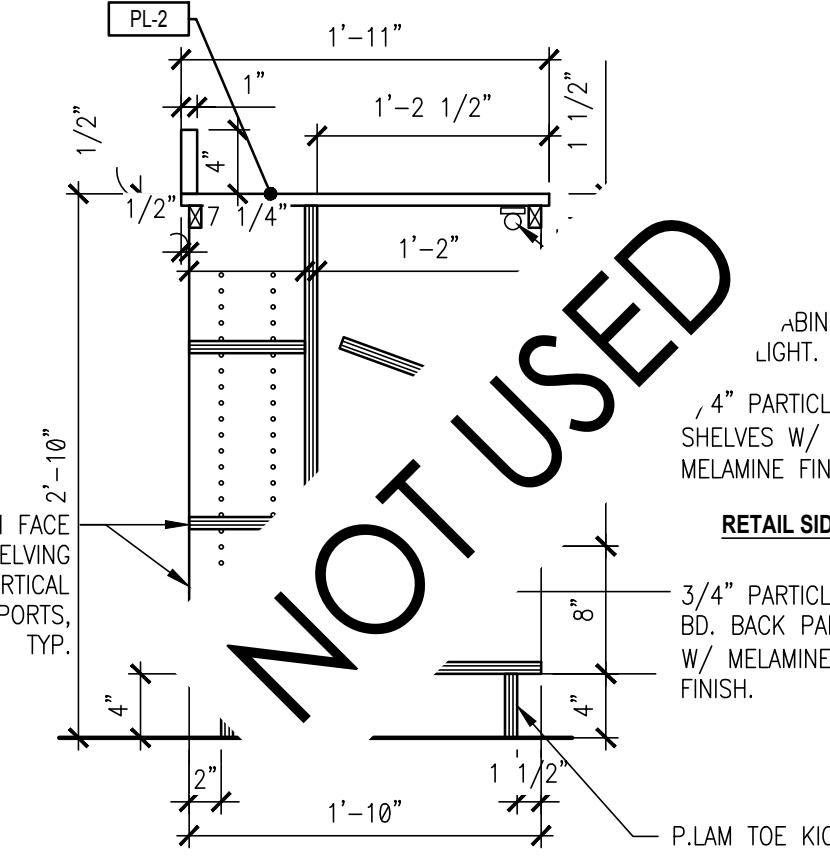
3 BASE CABINET
SCALE: 1/2"=1'-0"



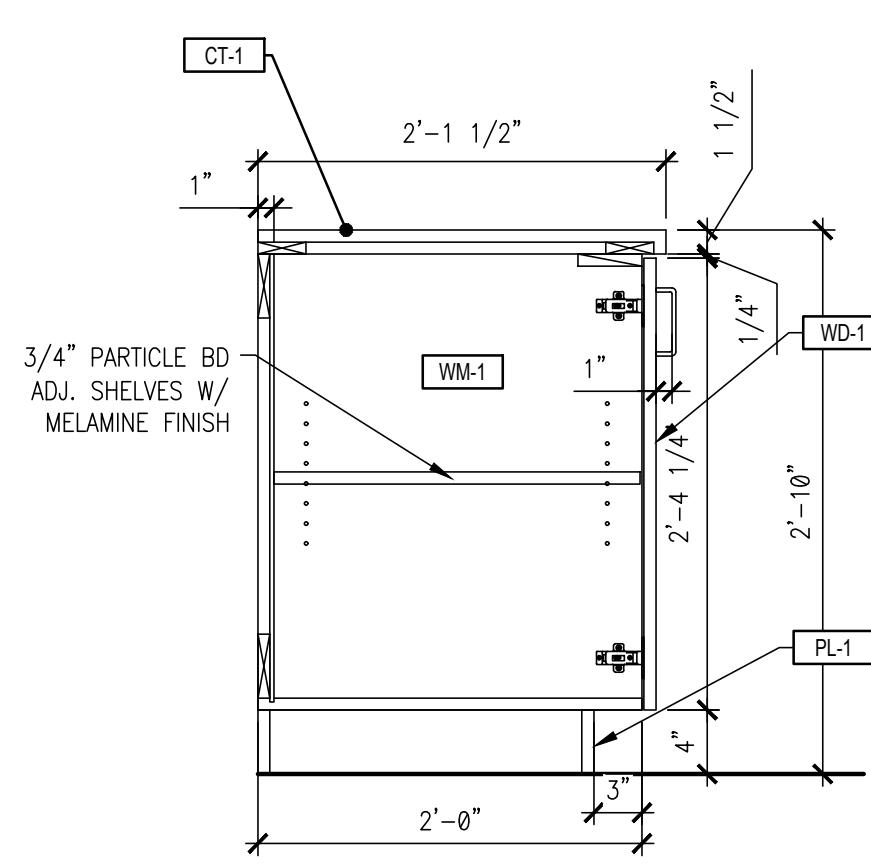
4 RECEPTION COUNTER
SCALE: 1/2"=1'-0"



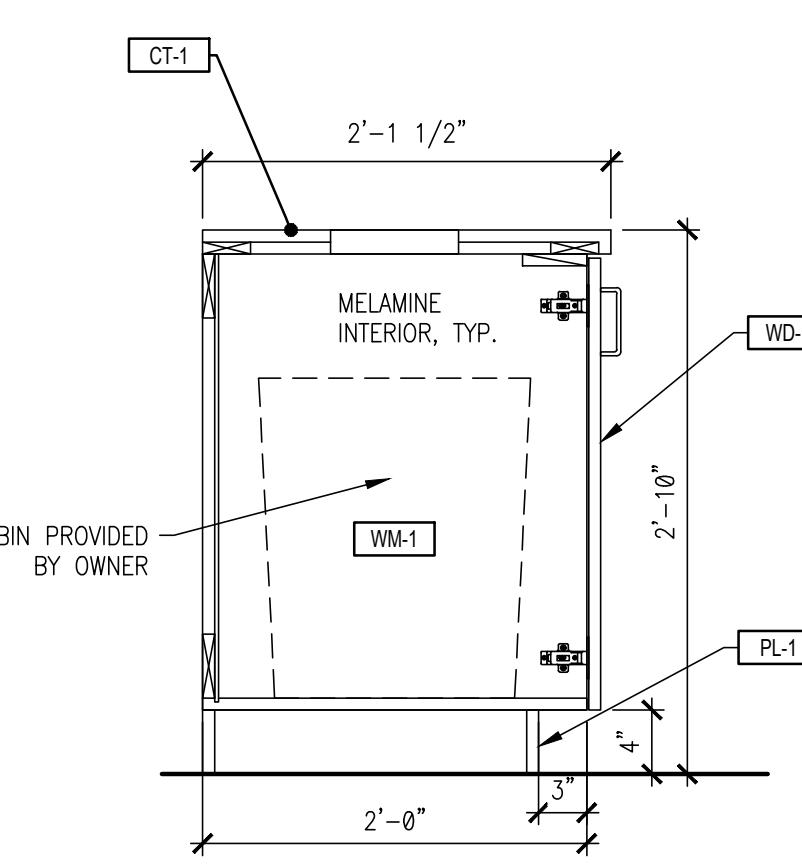
5 CANDY DISPLAY
SCALE: 1/2"=1'-0"



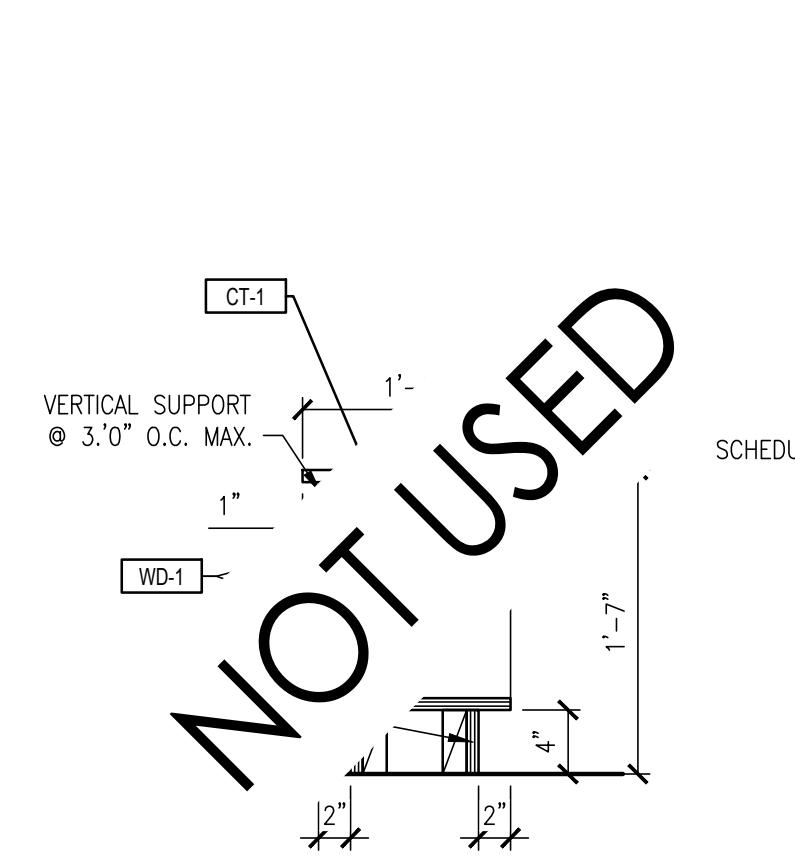
5 CANDY DISPLAY
SCALE: 1/2"=1'-0"



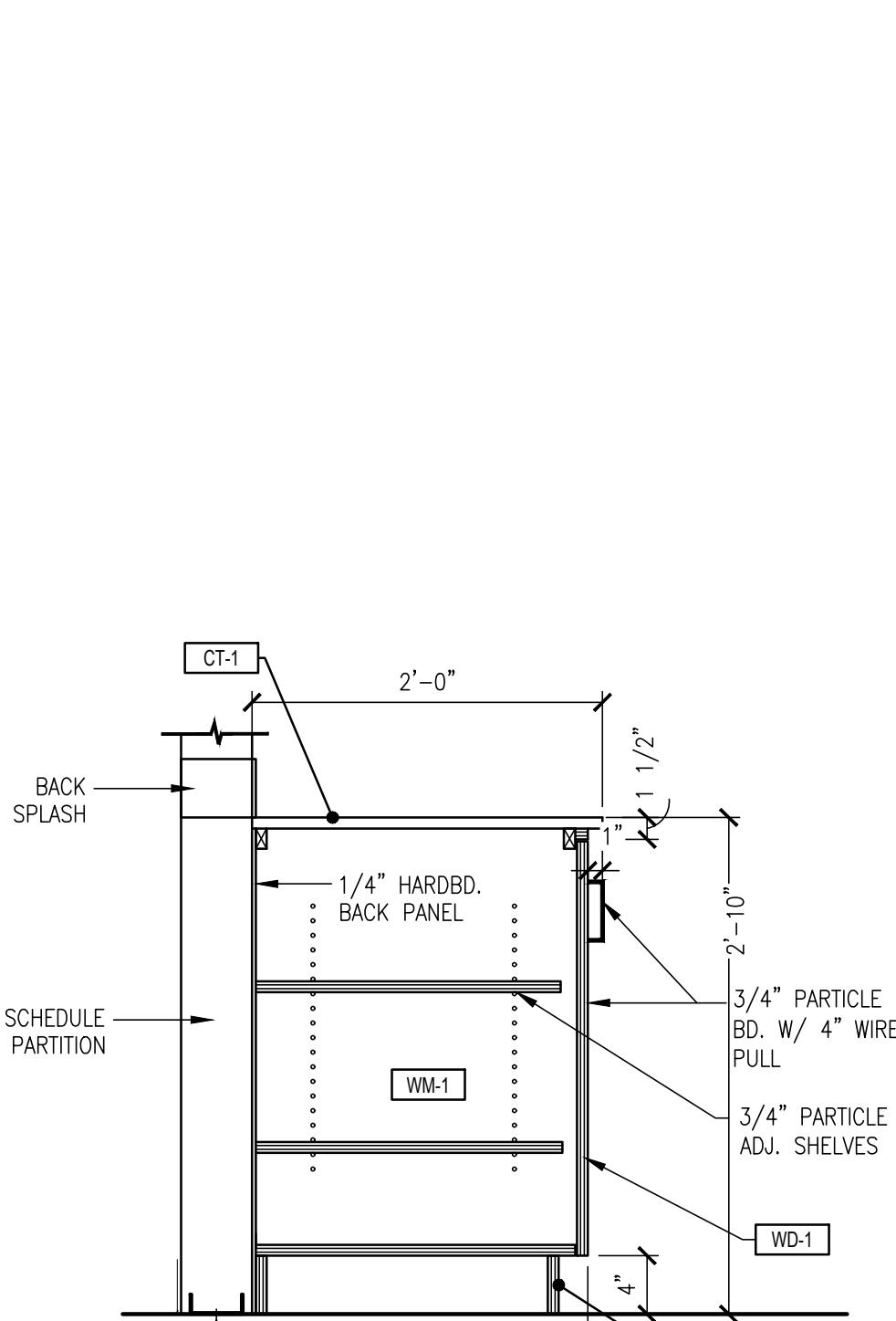
6 COFFEE STATION BASE CAB.
SCALE: 1/2"=1'-0"



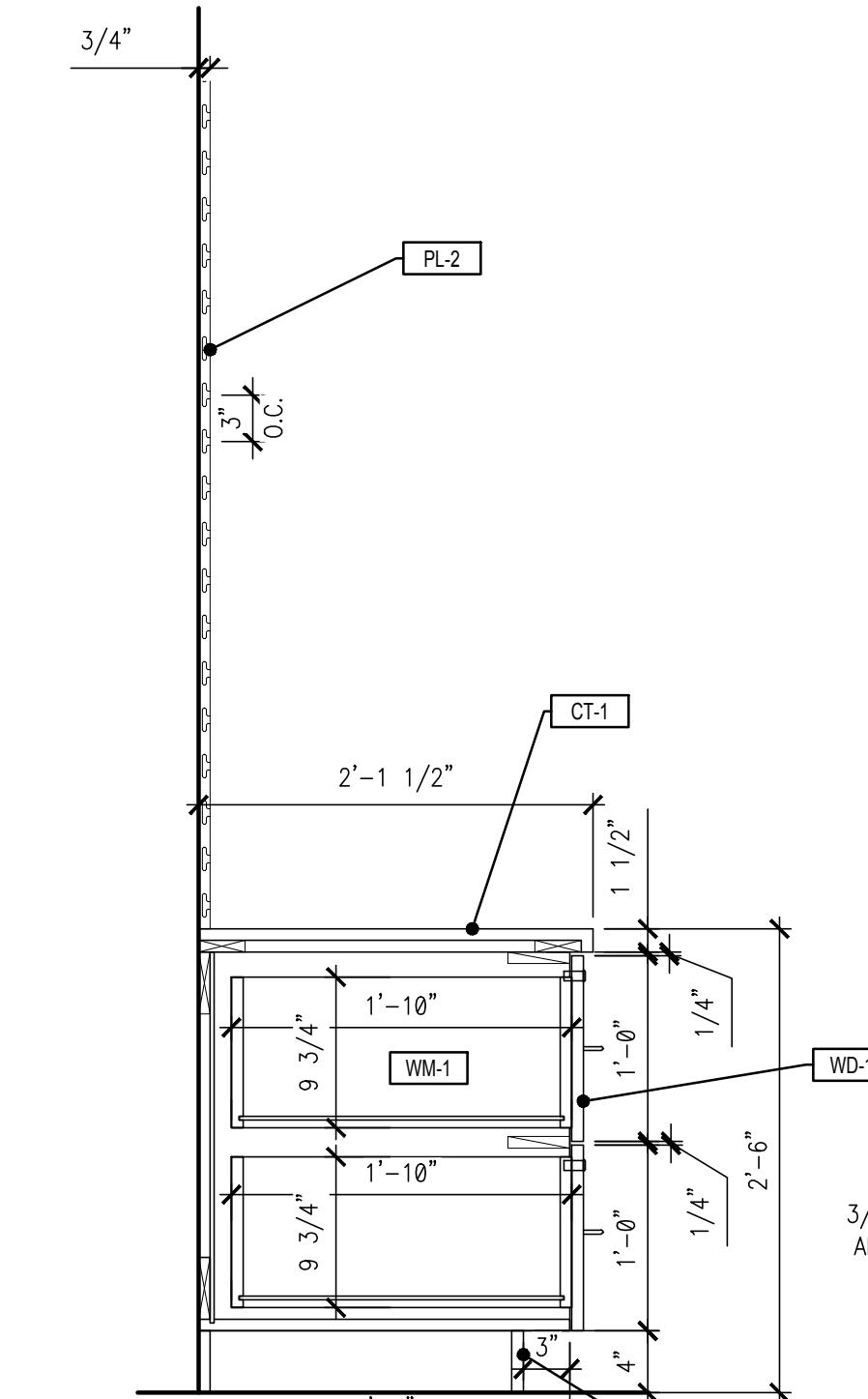
7 COFFEE STATION BASE CAB.
SCALE: 1/2"=1'-0"



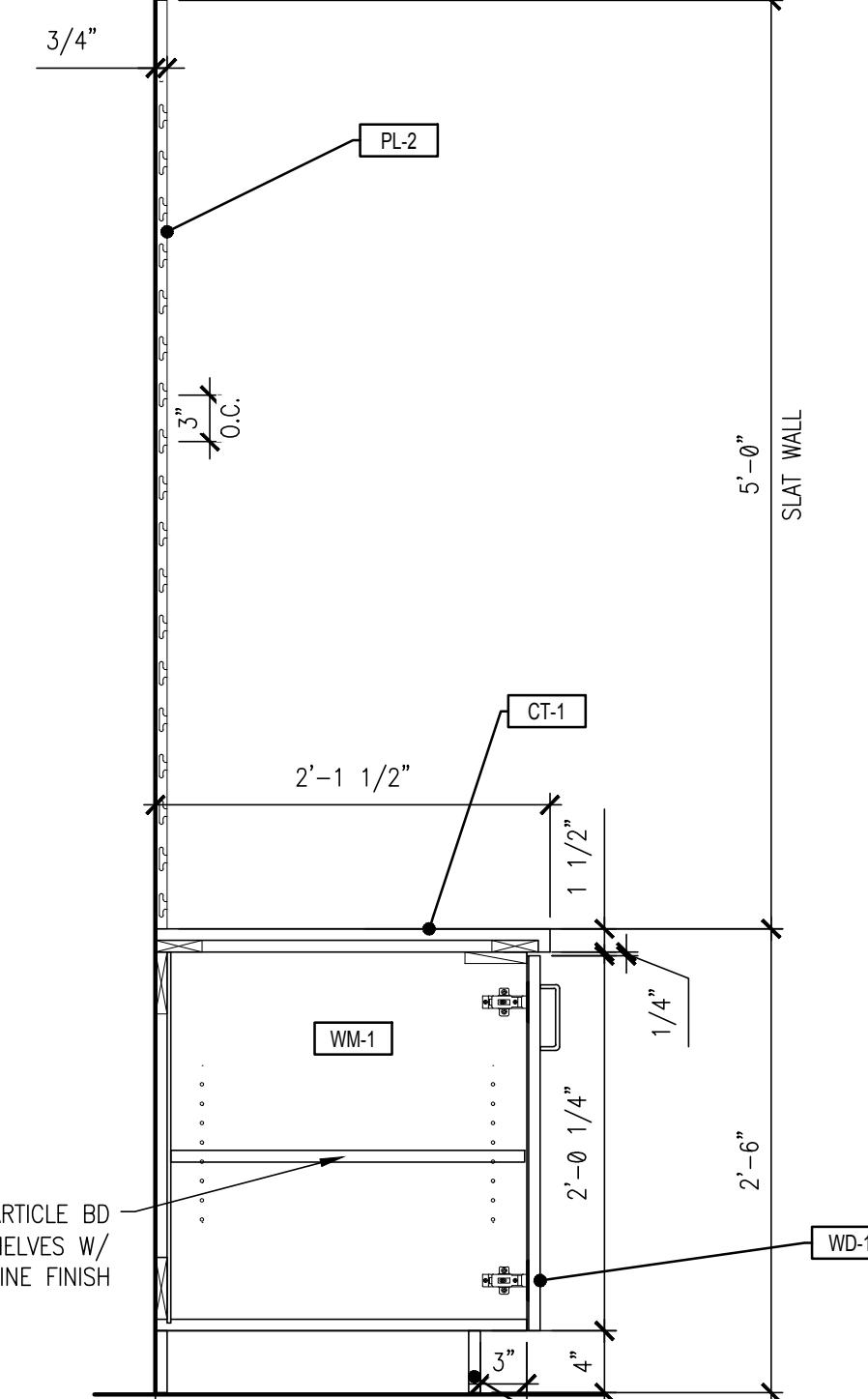
8 FREE STANDING BENCH
SCALE: 1/2"=1'-0"



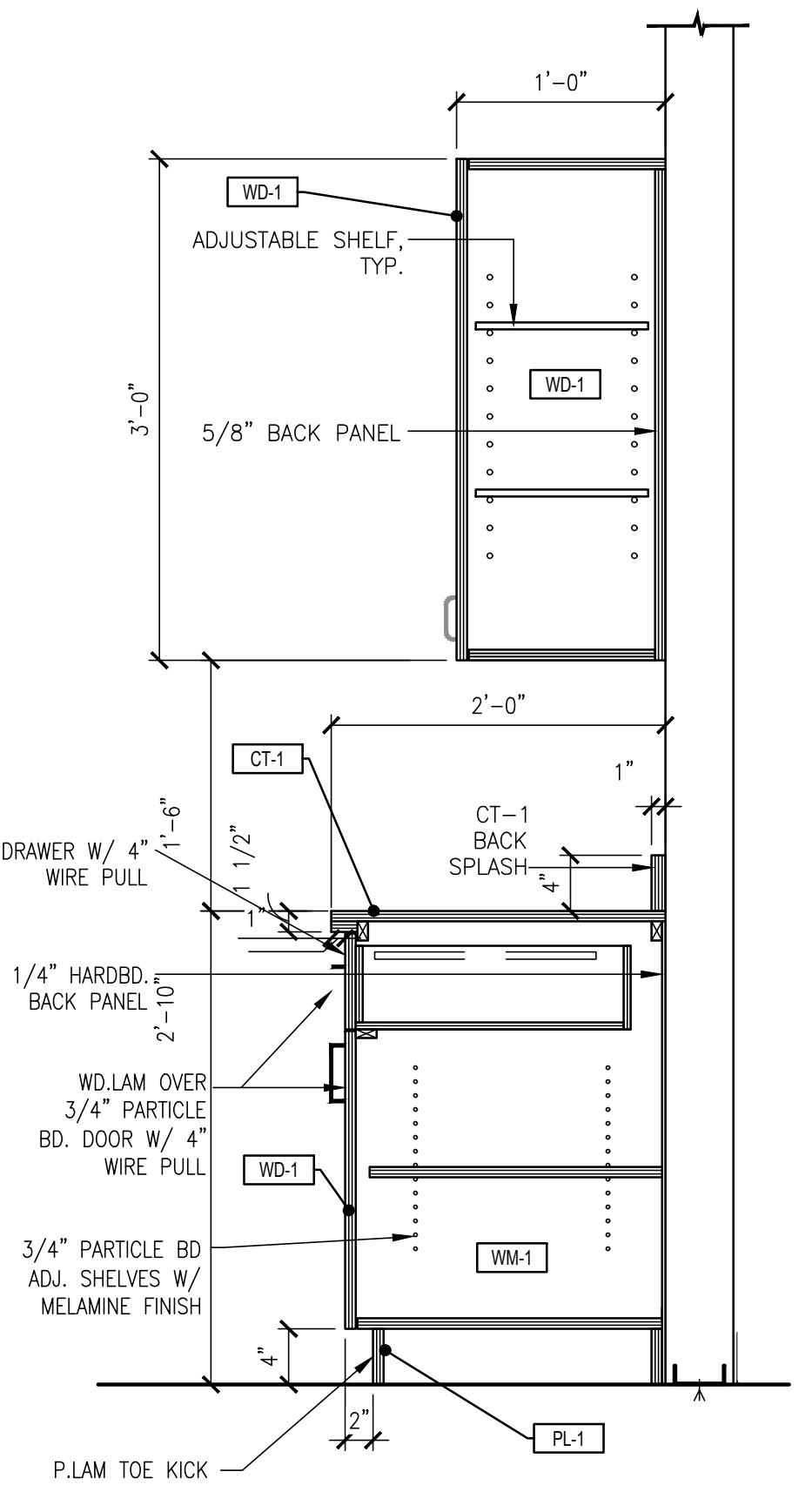
10 CHANGING ROOM VANITY
SCALE: 1/2"=1'-0"



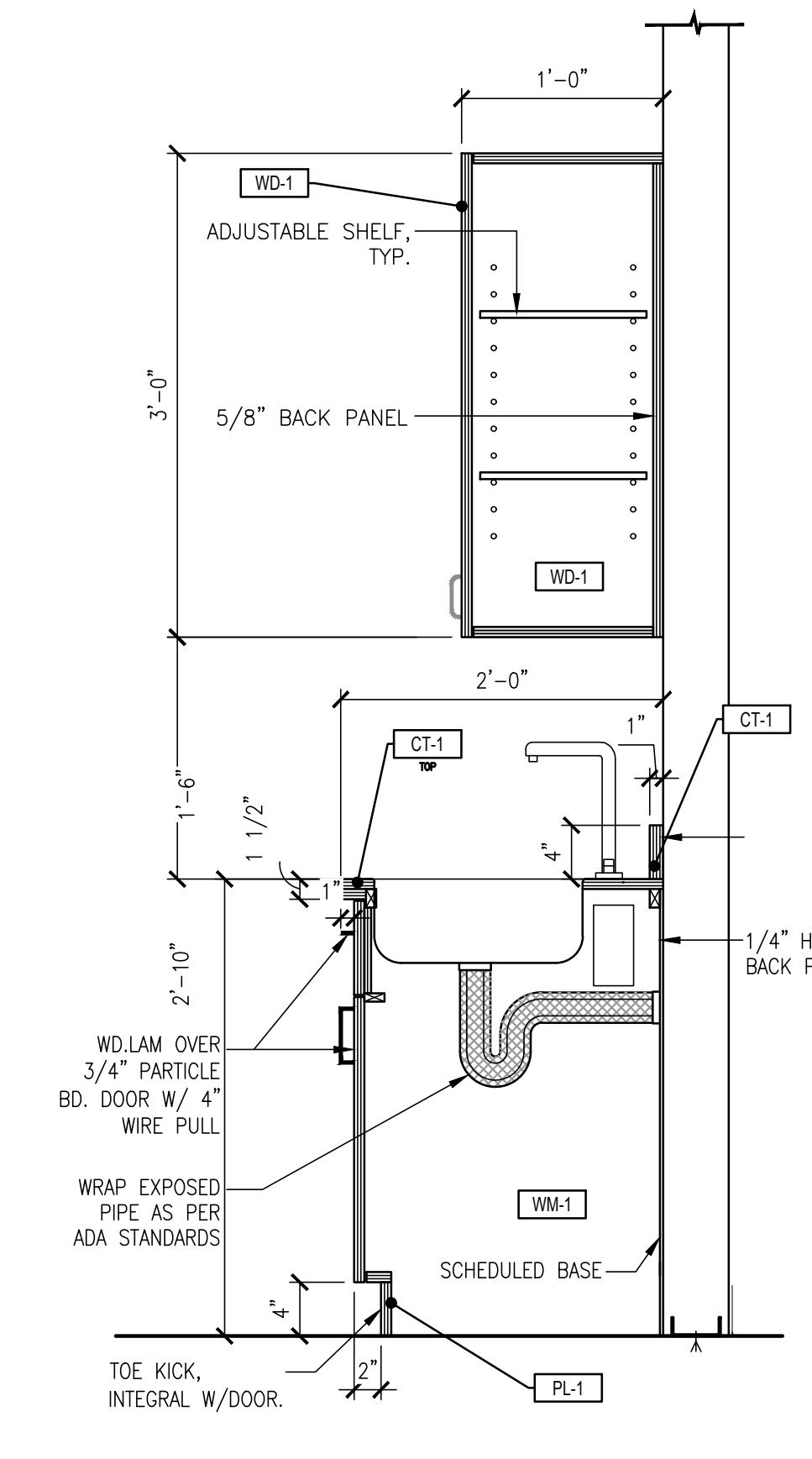
11 DRAWER BASE W/ RETAIL
SCALE: 1/2"=1'-0"



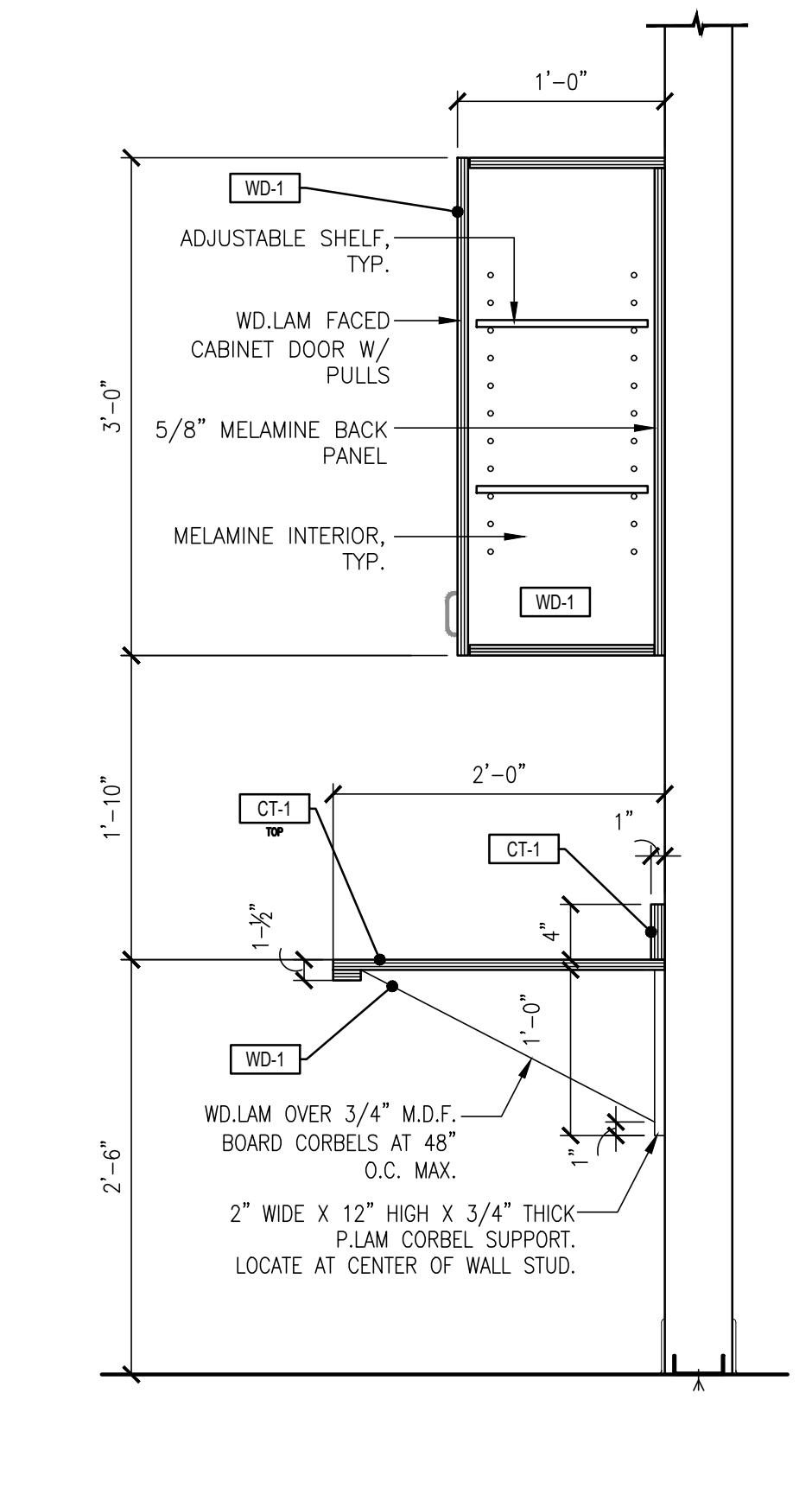
12 BASE CABINET W/ RETAIL
SCALE: 1/2"=1'-0"



13 BREAKROOM SECTION
SCALE: 1/2"=1'-0"

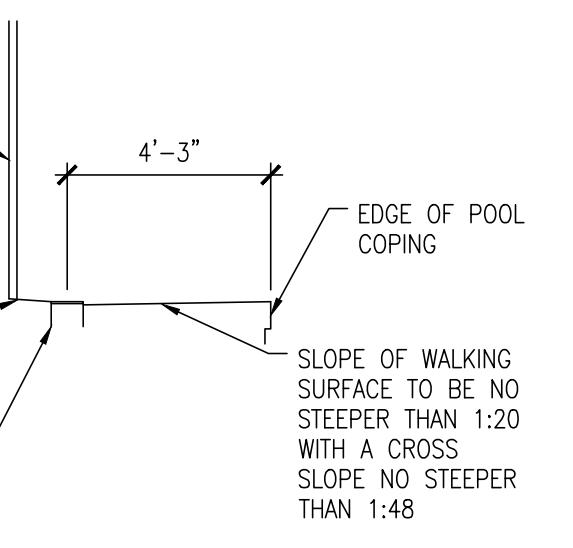
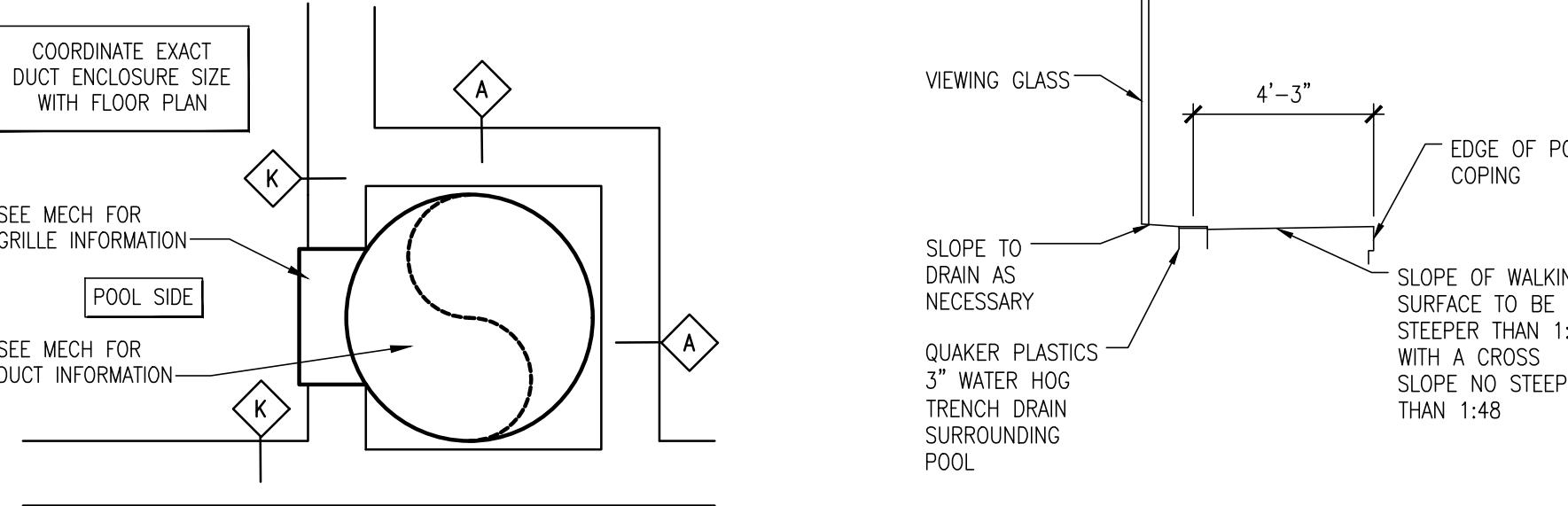
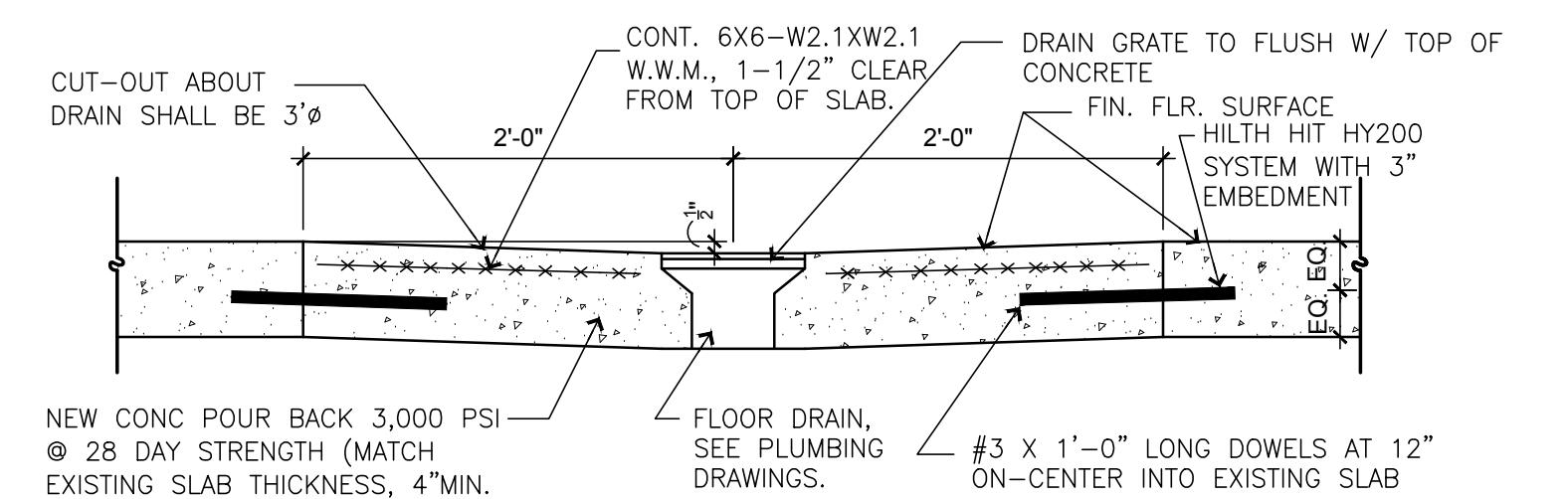


14 BREAKROOM SECTION
SCALE: 1/2"=1'-0"

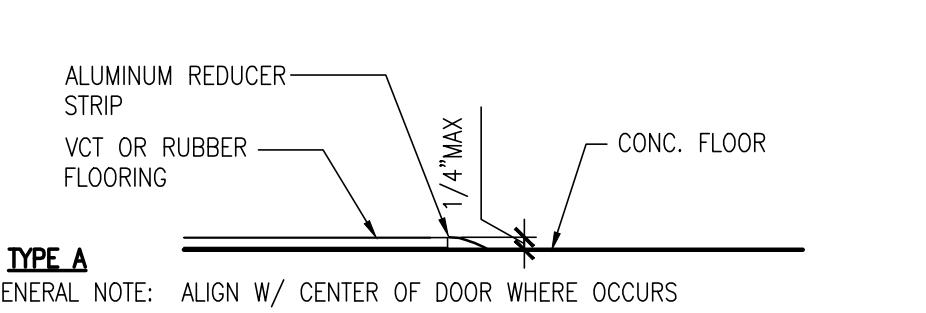
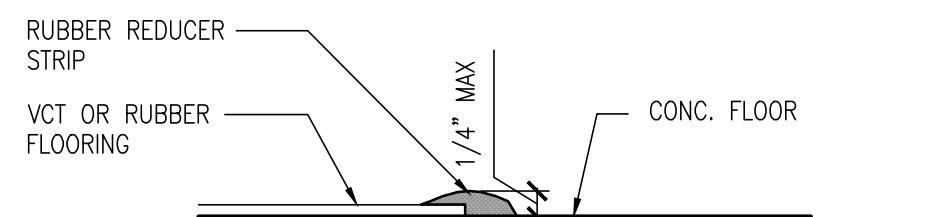
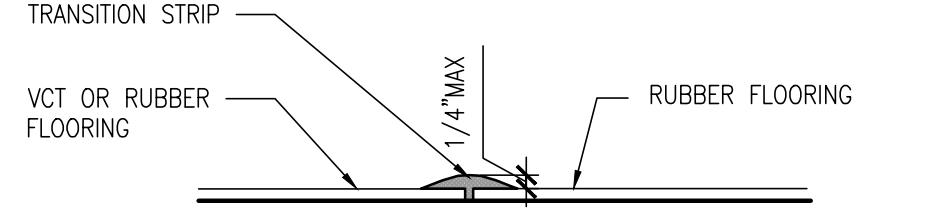


15 OFFICE SECTION DETAIL
SCALE: 1/2"=1'-0"

CHECKED: AM DRAWN: FV

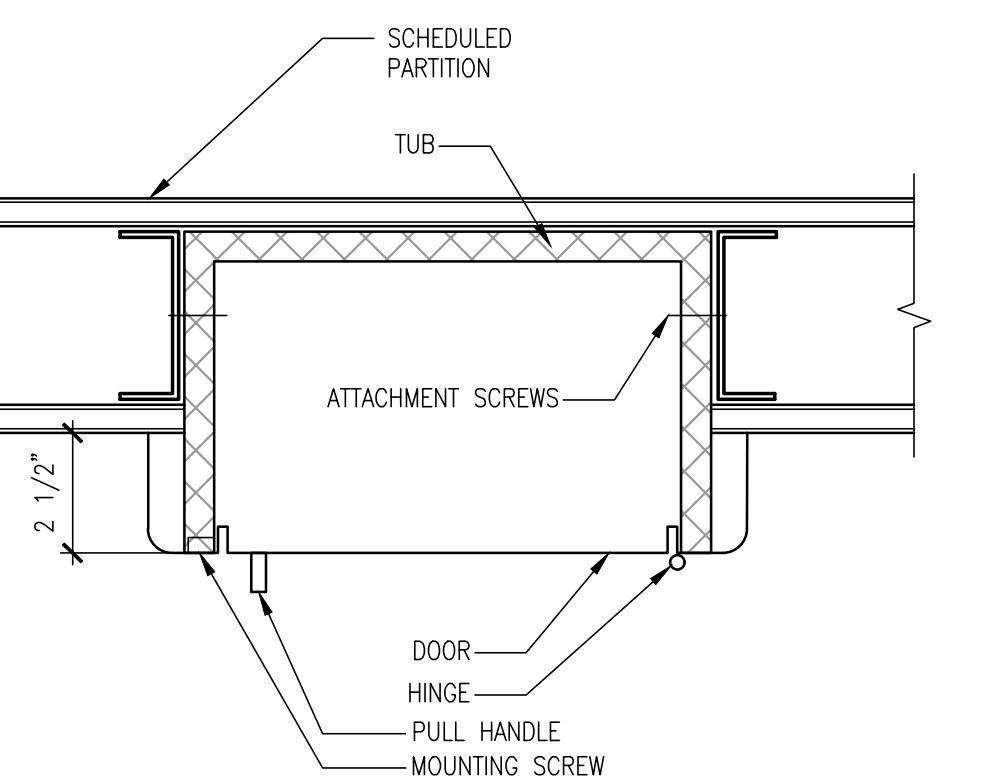


A. DECK SECTION



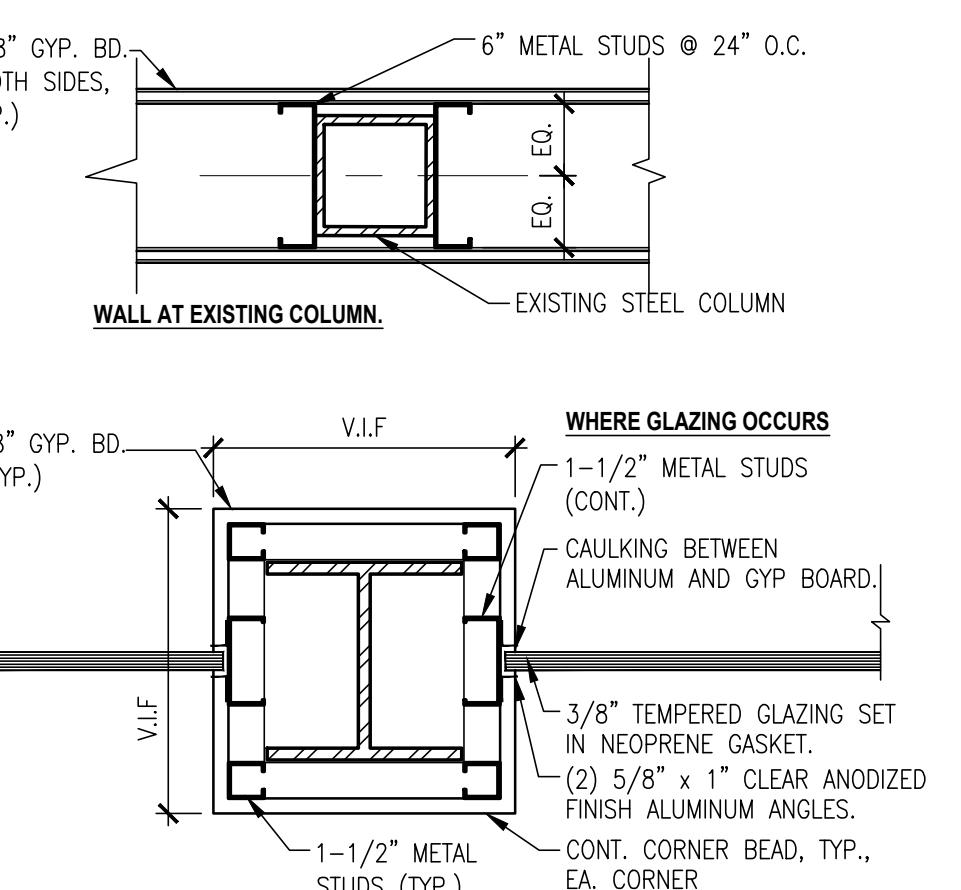
④ EXHAUST ENCLOSURE DIAGRAM

SCALE: NTS



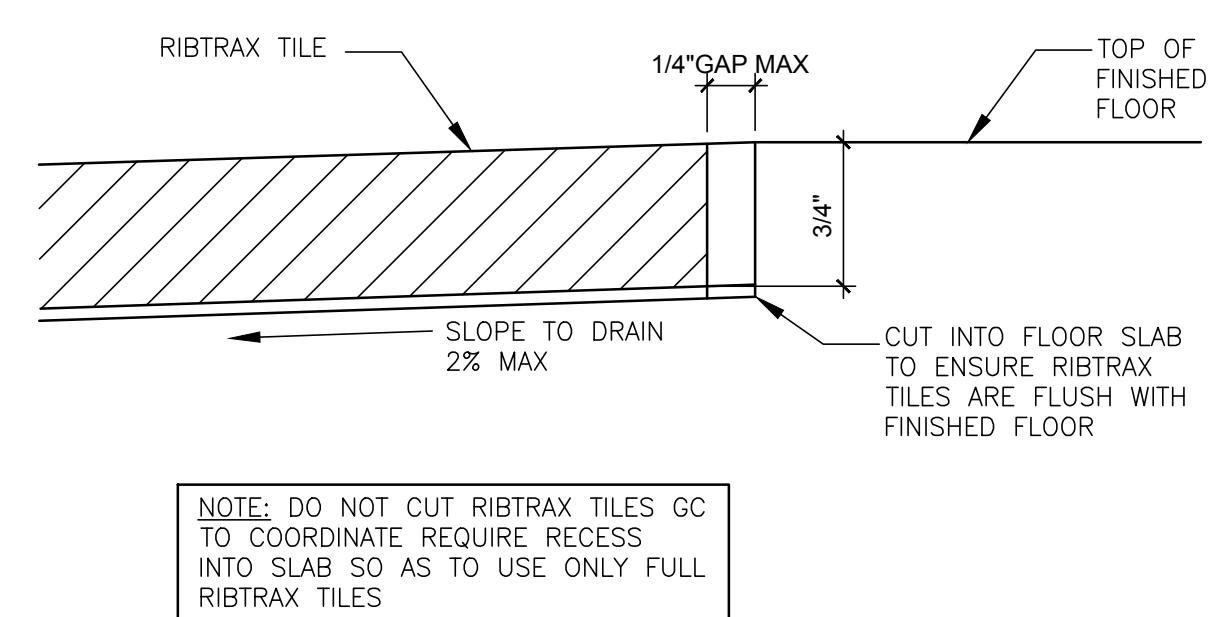
⑥ DECK DRAIN(TYPICAL)

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



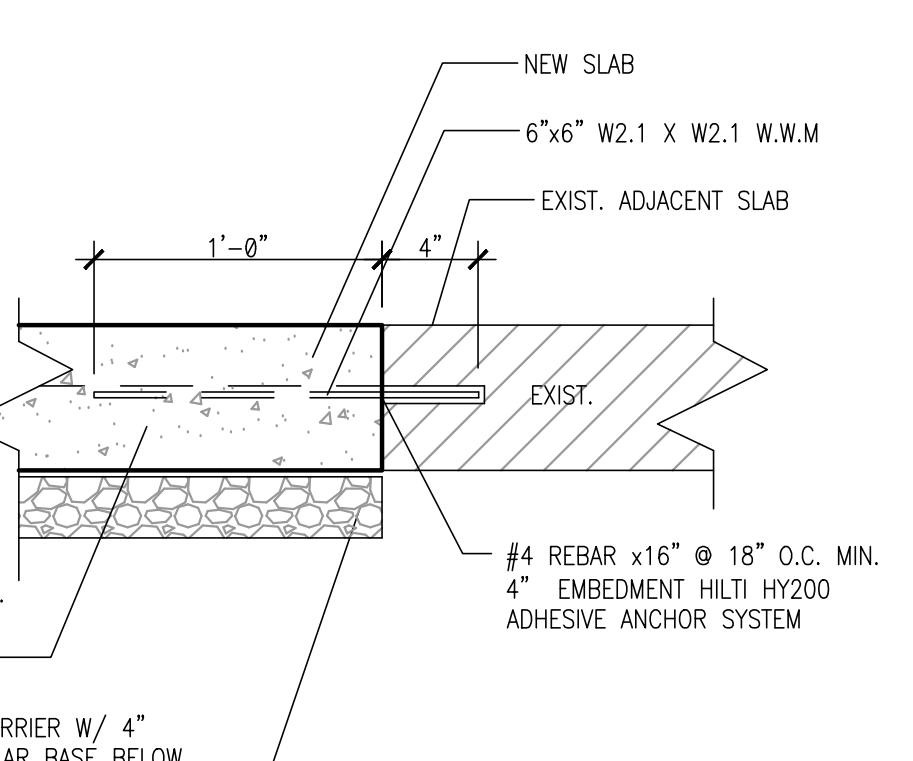
② FLOOR DRAIN SLOPE DETAIL

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



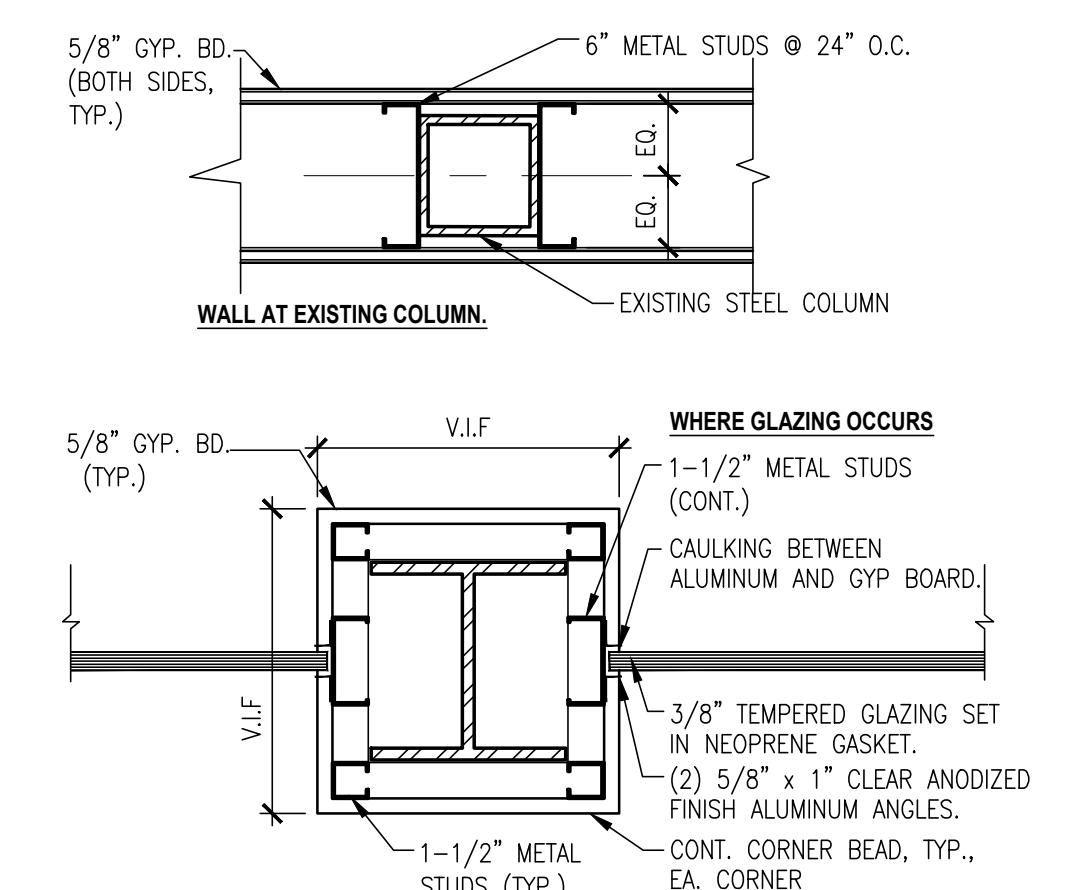
⑤ FIRE EXTINGUISHER CABINET

SCALE: 3" = 1'-0"



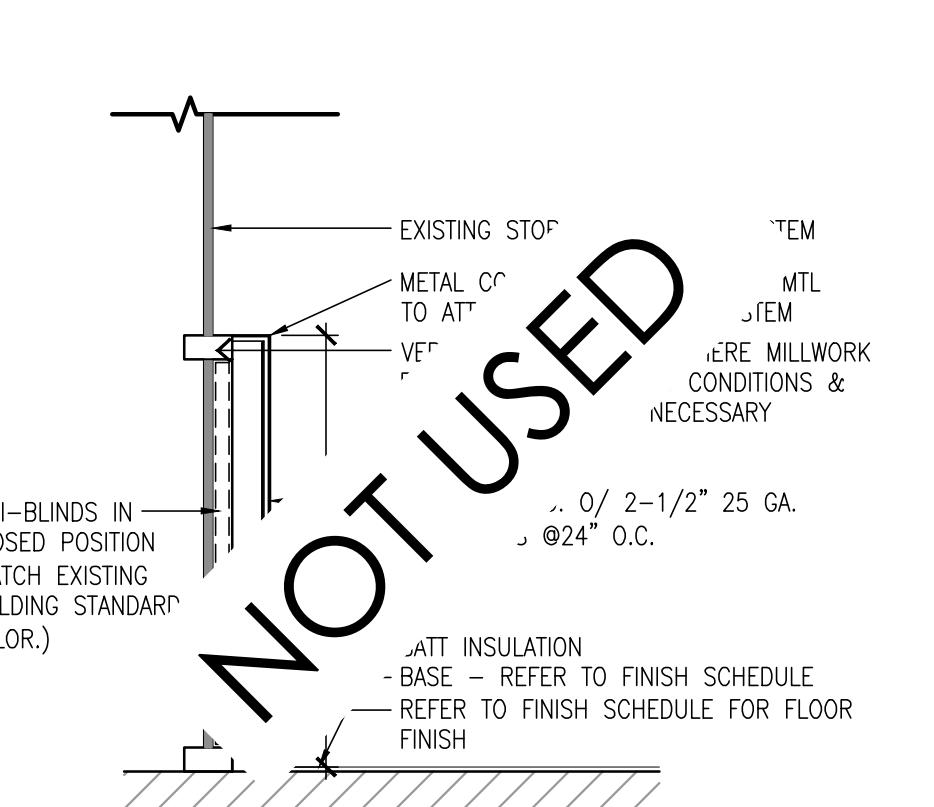
⑥ DECK DRAIN(TYPICAL)

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



⑦ FLOORING TRANSITION

SCALE: NTS



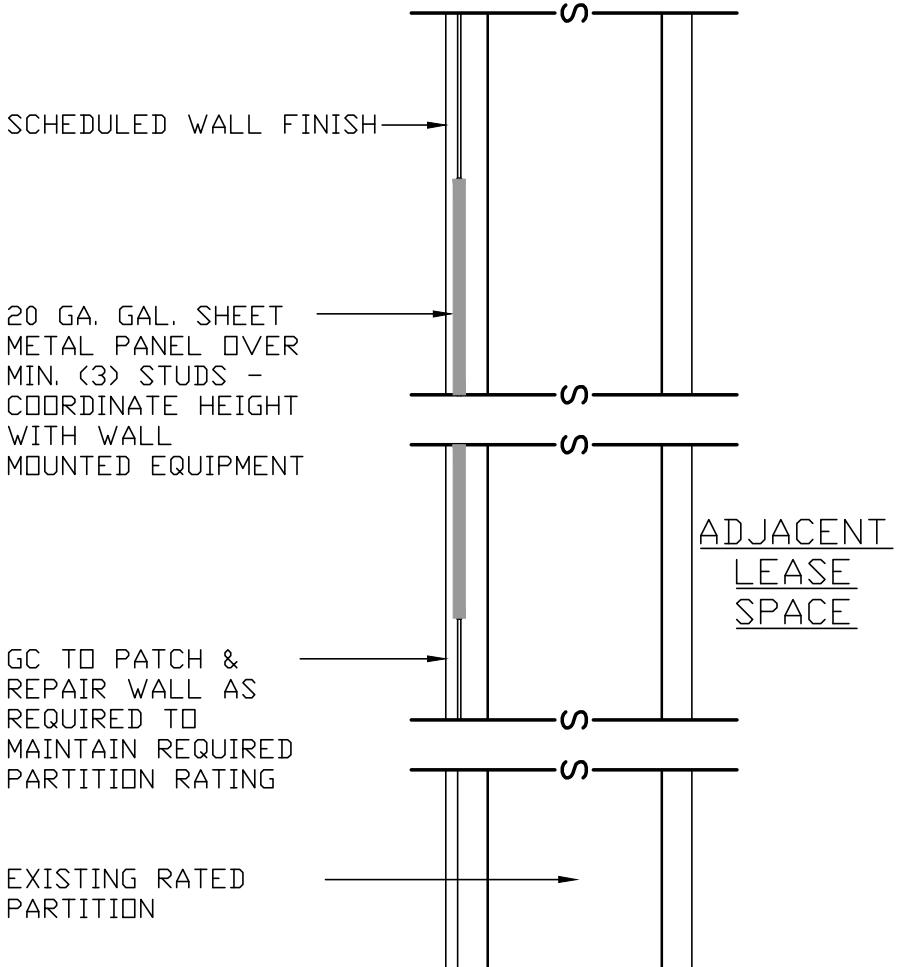
① RECESSED RIBTRAX DRAIN MAT DIAGRAM

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



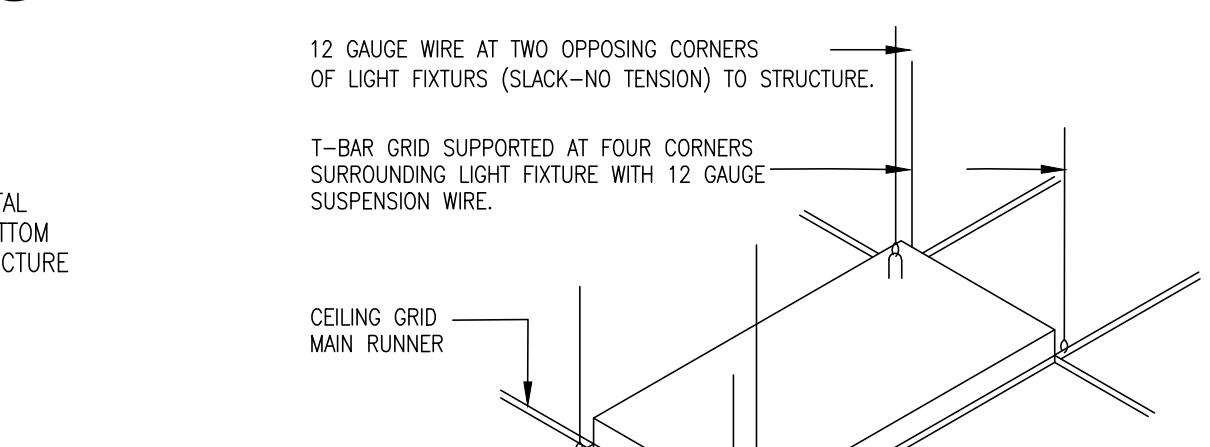
③ DRAIN MAT TRANSITION DETAIL

SCALE: 1'-0" = 1'-0"



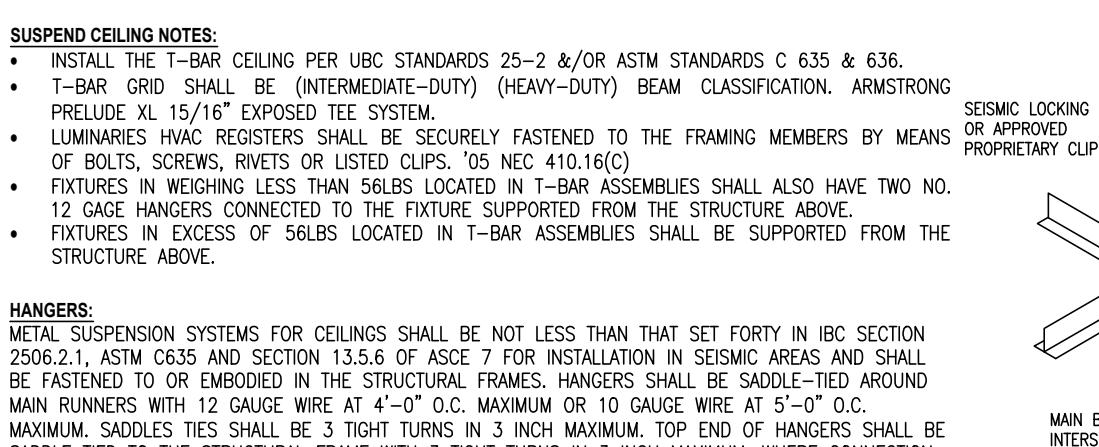
⑨ SLAB REPAIR DETAIL

SCALE: NTS



⑩ WALL AT EXISTING COLUMN

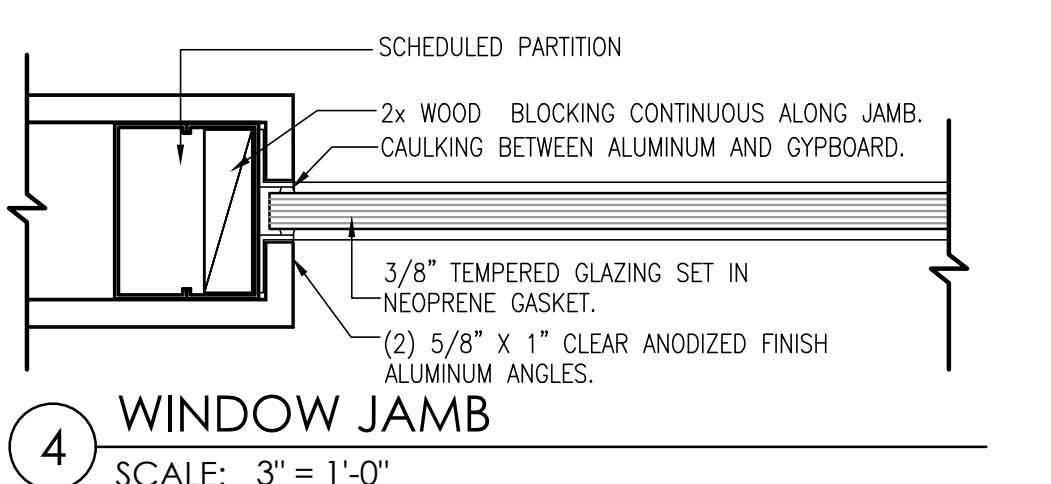
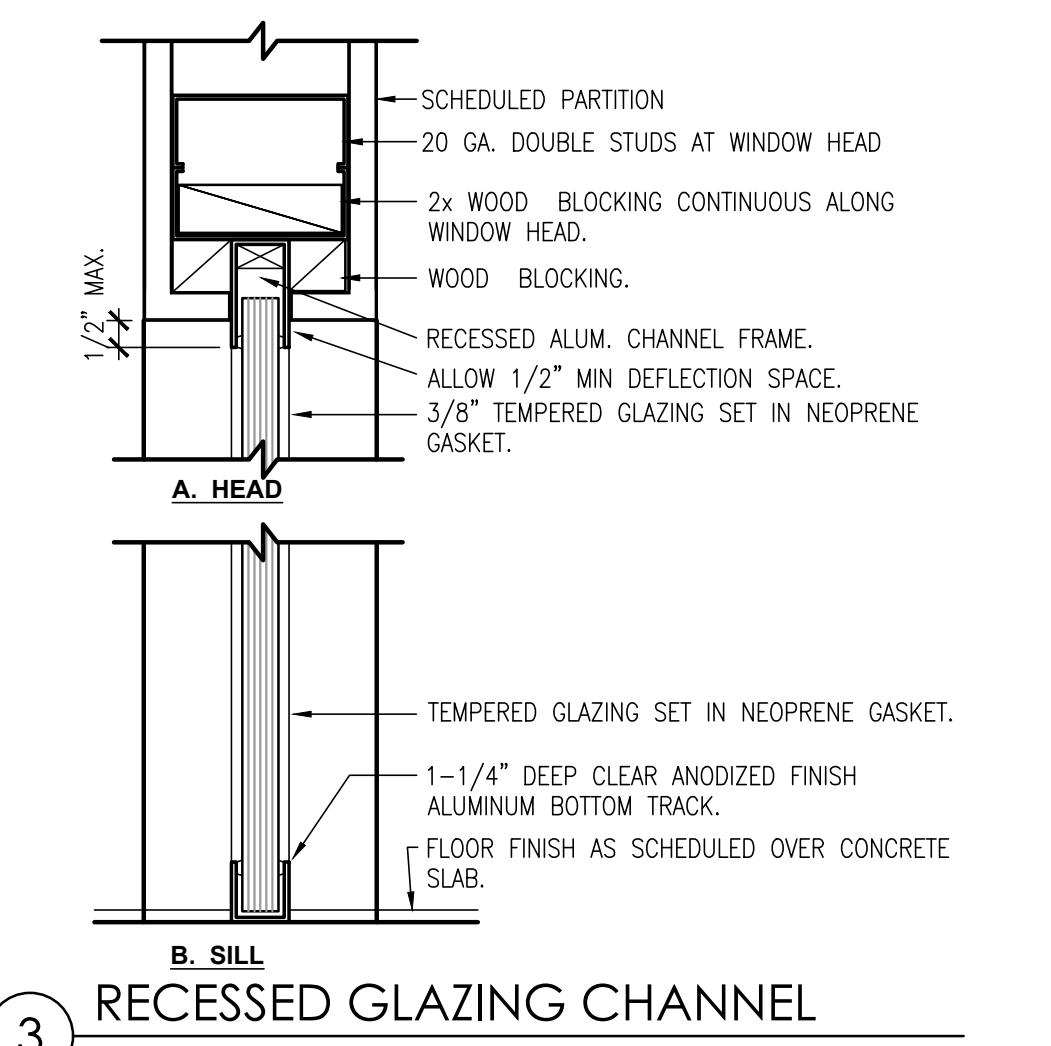
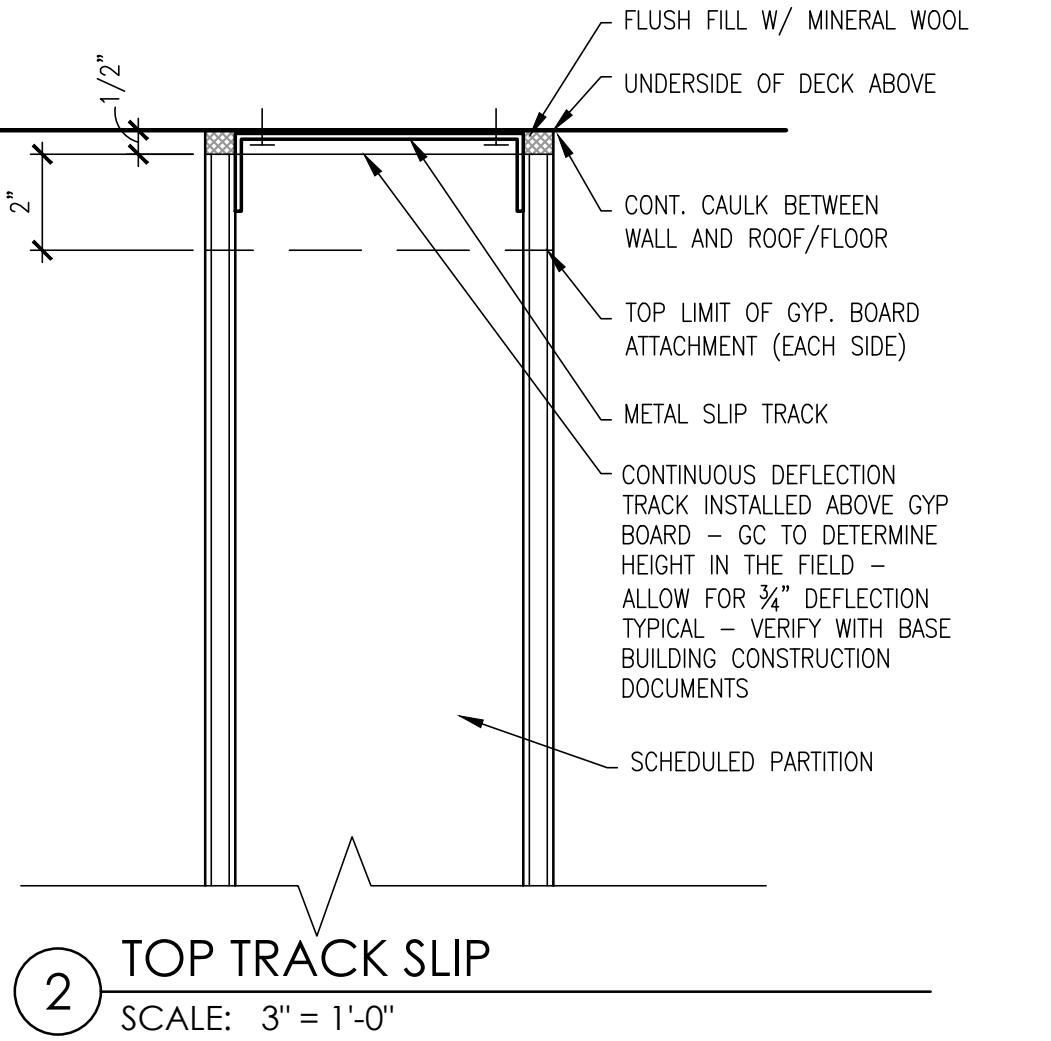
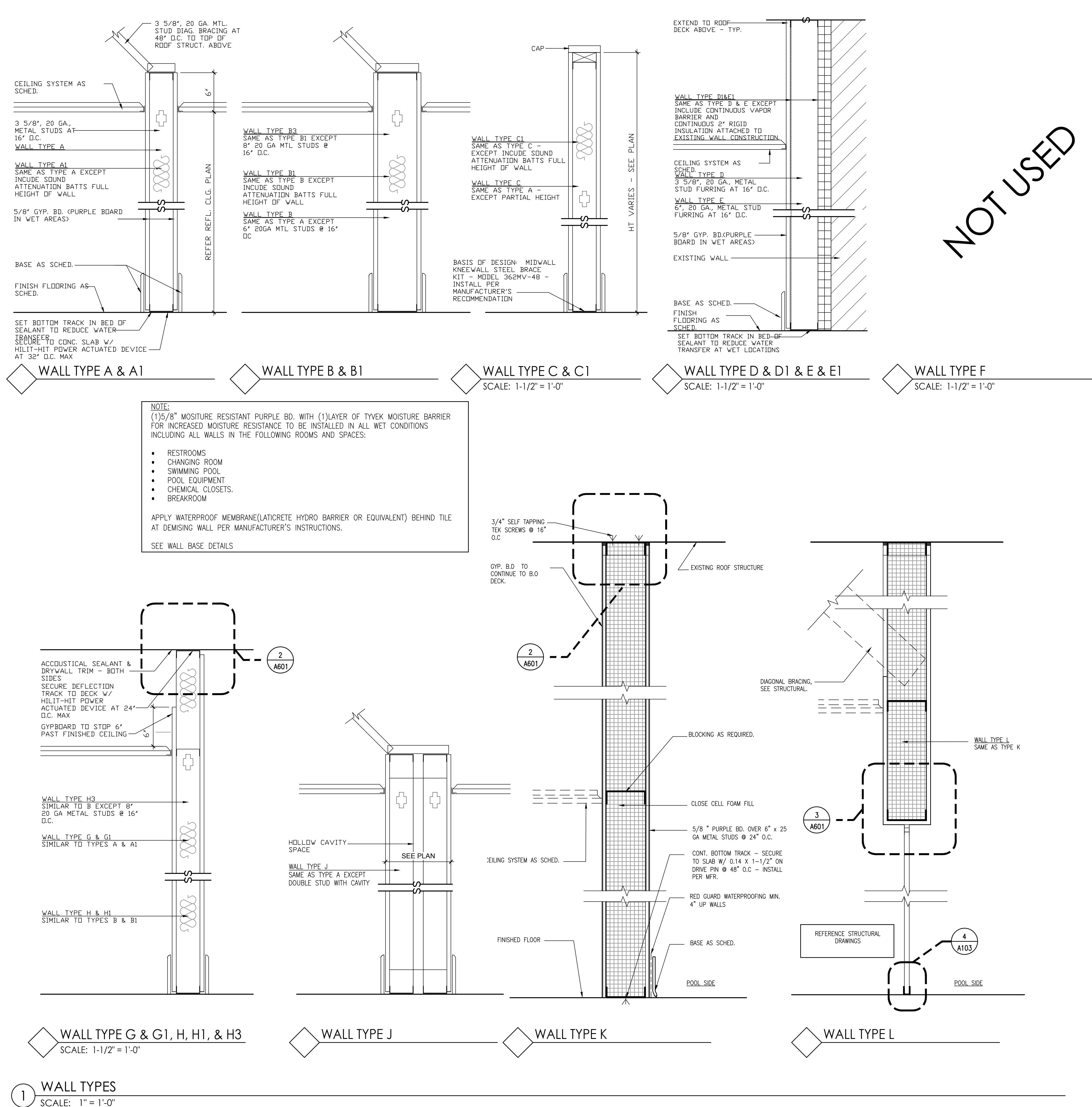
SCALE: 1-1/2" = 1'-0"



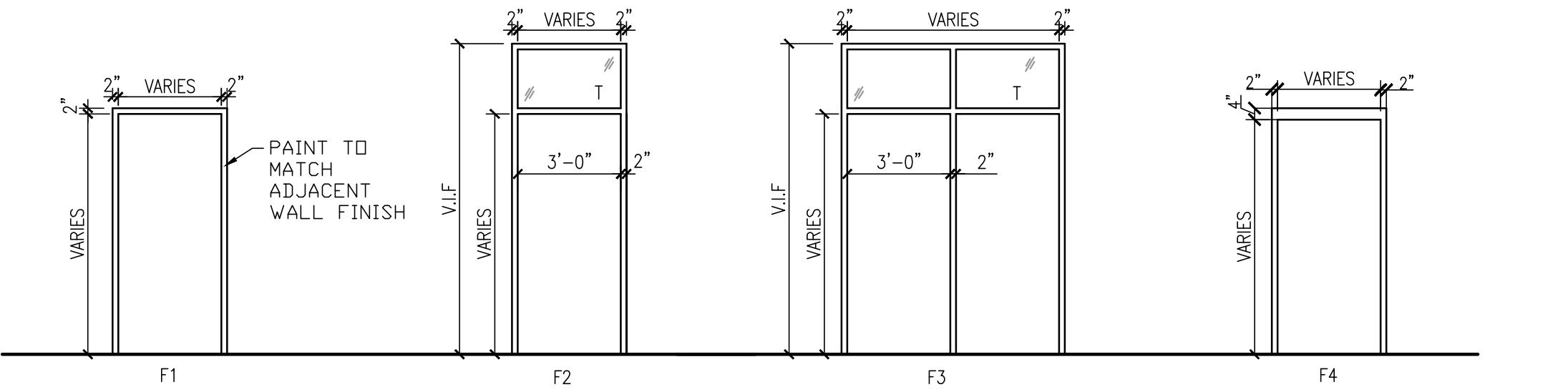
⑯ SUSPENDED CEILING SPECIFICATION

SCALE: NTS



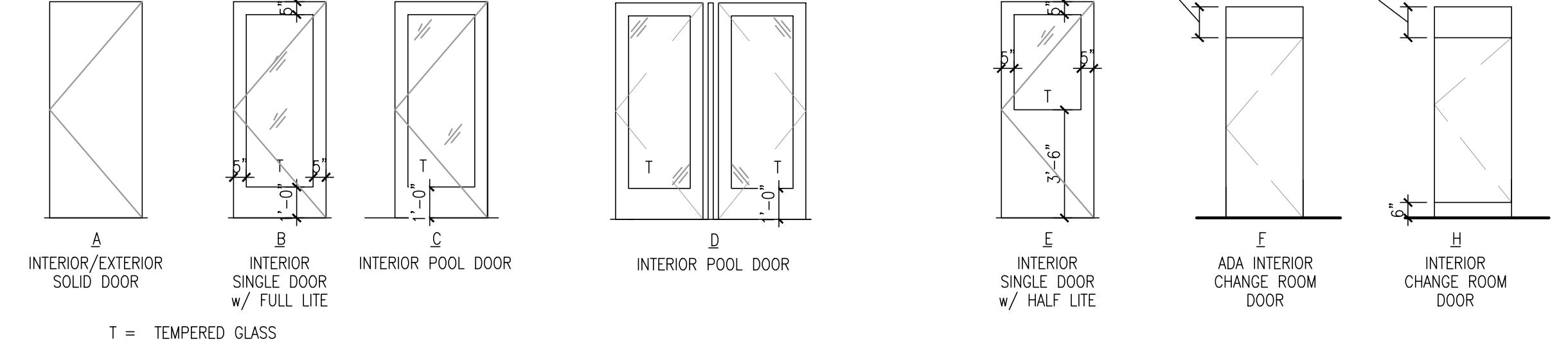


DOOR SCHEDULE		LOCATION	DOOR	FRAME	
NUMBERS	SIZE	DOOR TYPE	HOLLOW ALUMINUM METAL INSULATED GLASS SOLID CORE WOOD CASED DOOR GLASS ALUMINUM DOOR HOLLOW METAL FRAMELESS HARDWARE SET FRAME TYPE	REMARKS	
1A	(2) 3'-0" x 7'-0" x 1 3/4"	ENTRY	-		1B
1B-V	(2) 3'-0" x 7'-0" x 1 3/4"	SECONDARY EXIT	-	2	3,4,7
1A-Y	(2) 3'-0" x 7'-0" x 1 3/4"	SINGLE-USER	A	3A F1	6
3A	3'-0" x 7'-0" x 1 3/4"	MULTI-USER	A	3B F1	6
3B	3'-0" x 7'-0" x 1 3/4"	OFFICE	A	4 F1	-
4	3'-0" x 7'-0" x 1 3/4"	UTILITY/STORAGE	A	5 F1	-
5	3'-0" x 7'-0" x 1 3/4"	CHEMICAL CLOSET	A	6 F1	1
7A	3'-0" x 7'-0" x 1 3/4"	POOL ENTRANCE	D	7B F3	1
7B	3'-0" x 7'-0" x 1 3/4"	BREAKROOM	A	8 F1	-
8	3'-0" x 7'-0" x 1 3/4"	POOL EQUIPMENT	A	9 F1	-
9	3'-0" x 5'-0" x 1 3/4"	CHANGING ROOM	F	10 F1	9
10A	3'-0" x 5'-0" x 1 3/4"	CHANGING ROOM	H	10 F1	9
10B	2'-6" x 5'-4" x 1 3/4"	CHANGING ROOM	H		



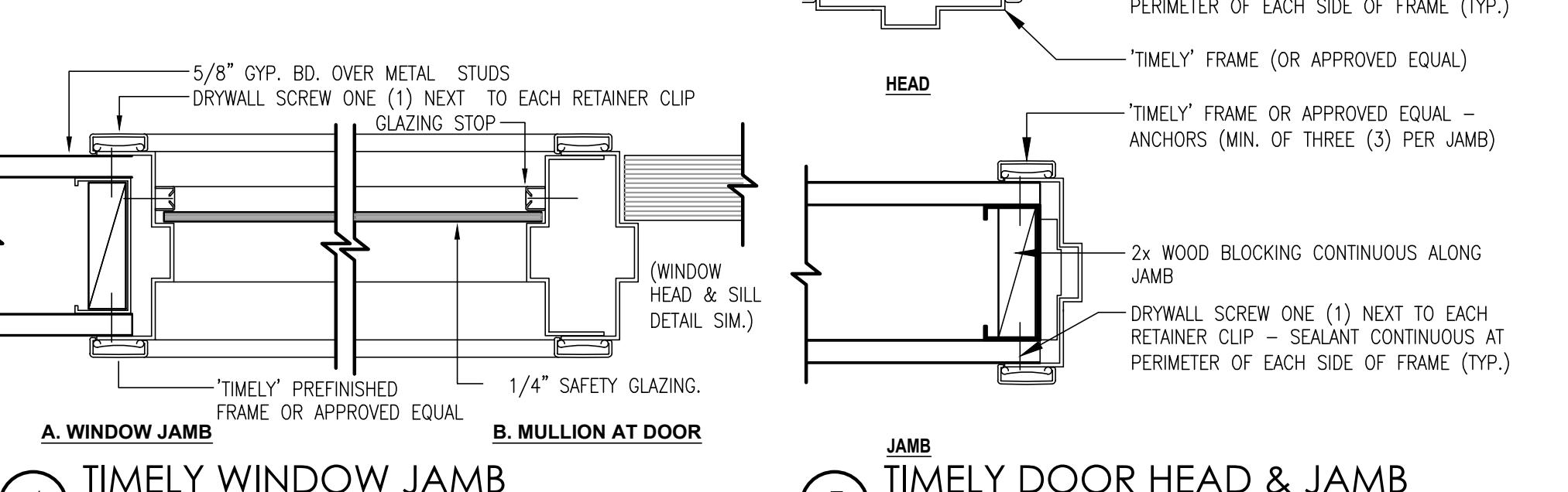
1 FRAME TYPES ELEVATIONS

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



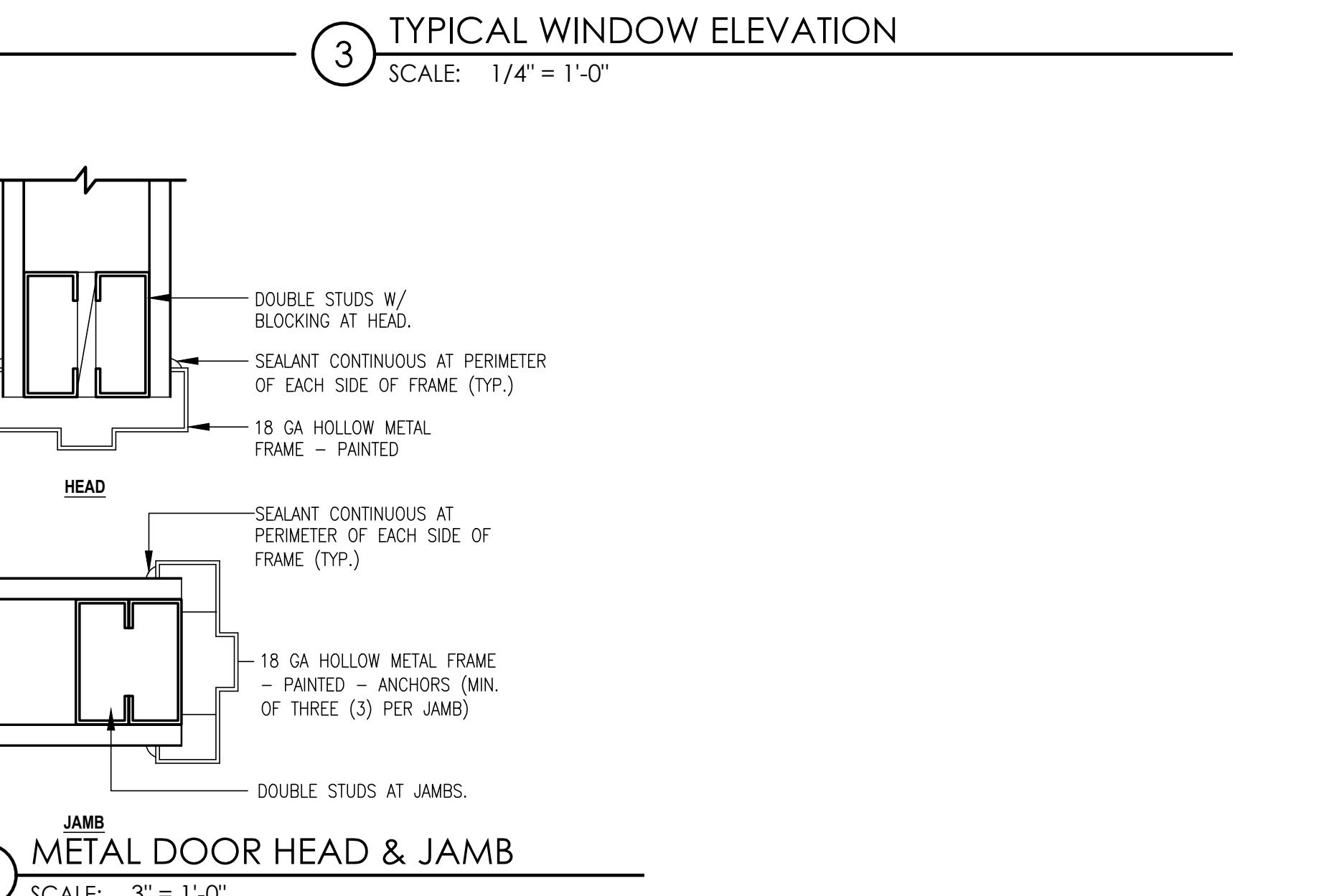
2 DOOR TYPES ELEVATIONS

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



4 TIMELY WINDOW JAMB

SCALE: 3" = 1'-0"

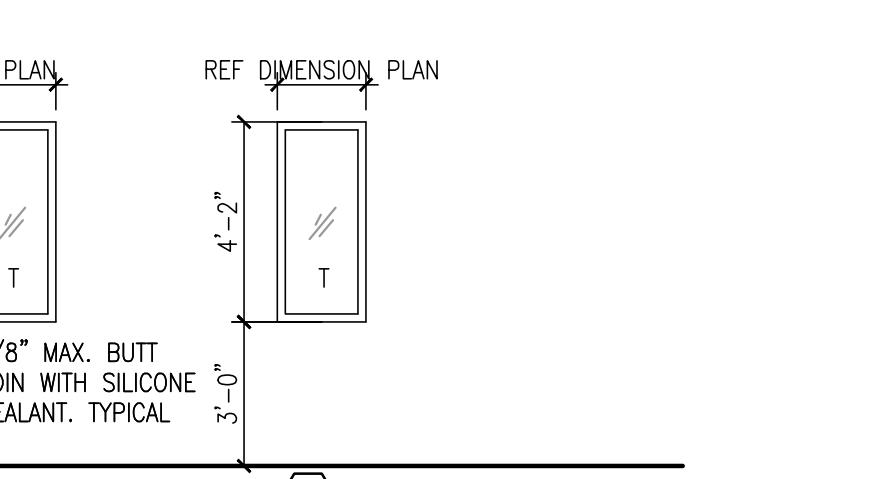


5 TIMELY DOOR HEAD & JAMB

SCALE: 3" = 1'-0"

DOOR HARDWARE SETS

- 1A: (SINGLE ENTRY DOOR)
 (3) HINGES
 (1) OVERHEAD CLOSER - SURFACE MOUNTED - POWER ACTIVATED - LNC 4640 (OR EQUAL)
 (1) EXTERIOR PULL
 (1) TOUCHBAR EXIT DEVICE
 (1) EXTERIOR THRESHOLD
 (1) SWEEP WEATHER SEALS
 (1) INTERIOR DOOR PUSHPLATE - LNC 8310 - 818T
 (1) EXTERIOR DOOR PUSHPLATE - LNC 8310 - 818T
- 1A-V: (SINGLE VESTIBULE DOOR)
 (3) HINGES
 (1) OVERHEAD CLOSER - SURFACE MOUNTED - POWER ACTIVATED - LNC 4640 (OR EQUAL)
 (1) EXTERIOR PULL
 (1) TOUCHBAR EXIT DEVICE
 (1) INTERIOR DOOR PUSHPLATE - LNC 8310 - 818T
 (1) EXTERIOR DOOR PUSHPLATE - LNC 8310 - 818T
- 1B: (DOUBLE ENTRY DOOR)
 (6) HINGES
 OVERHEAD CLOSER - POWER COAT ALUM
 (1) SURFACE MOUNTED - LCN 4000 SERIES (OR EQUAL)
 (1) SURFACE MOUNTED - POWER ACTIVATED - LNC 4640 (OR EQUAL)
 (2) EXTERIOR PULL
 (2) TOUCHBAR EXIT DEVICE
 (1) EXTERIOR THRESHOLD
 (2) SWEEP WEATHER SEALS
 (2) INTERIOR DOOR PUSHPLATE - LNC 8310 - 818T
 (2) EXTERIOR DOOR PUSHPLATE - LNC 8310 - 818T
- 2: (EXTERIOR DOOR)
 (3) HINGES
 (1) OVERHEAD CLOSER
 (1) LOCKSET
 (1) TOUCHBAR EXIT DEVICE
 (1) SWEEP WEATHER SEALS
 (1) DOOR SCOPE
- 3A: (SINGLE USER RESTROOM)
 (3) HINGES
 (2) SILENCERS
 (1) LOCKSET - PRIVACY FUNCTION W/ INDICATOR
 (1) CLOSER
 (1) PUSH PLATE 4"x24"
 (1) PULL
 (1) WALL STOP
 (1) ADA/ BRAILLE TOILET ROOM SIGNAGE
 MANUF: COMPLIANCE SIGNS (OR EQUAL)
 WEB: WWW.COMPLIANCESIGNS.COM
 TELE: 800.578.1245
 TYPE: WHITE ON BLACK
- 3B: (MULTI-USER RESTROOM)
 (3) HINGES
 (2) SILENCERS
 (1) LOCKSET - PASSAGE FUNCTION
 (1) CLOSER
 (1) PUSH PLATE 4"x24"
 (1) PULL
 (1) WALL STOP
 (1) ADA/ BRAILLE TOILET ROOM SIGNAGE
 MANUF: COMPLIANCE SIGNS (OR EQUAL)
 WEB: WWW.COMPLIANCESIGNS.COM
 TELE: 800.578.1245
 TYPE: WHITE ON BLACK
- 7A: (SINGLE POOL DOOR)
 (1) SET ROTON (OR EQUAL) CONTINUOUS HINGE WITH HEAVY DUTY HARDWARE
 (2) SILENCERS
 LOCKSET - INSIDE POOL
 (1) TOUCH BAR EXIT DEVICE - VON DUPRIN 98 SERIES (OR EQUAL) 34" AFF OUTSIDE POOL
 (1) EXTERIOR THRESHOLD
 (2) SWEEP WEATHER SEALS
 (1) LEVER ARCADIA (OR EQUAL) ANODIZED ALUM - 54" AFF
 (1) WEATHER SEALS
 (1) OVERHEAD CLOSER (LCN 4000 SERIES WITH HEAVY DUTY HARDWARE)
 (1) OVERHEAD STOP
- 7B: (DOUBLE POOL DOOR)
 (2) SET ROTON (OR EQUAL) CONTINUOUS HINGE WITH HEAVY DUTY HARDWARE
 (4) SILENCERS
 LOCKSET - INSIDE POOL
 (2) TOUCH BAR EXIT DEVICE - VON DUPRIN 98 SERIES (OR EQUAL) 34" AFF OUTSIDE POOL
 (2) LEVER ARCADIA (OR EQUAL) ANODIZED ALUM - 54" AFF
 (2) WEATHER SEALS
 (2) OVERHEAD CLOSER (LCN 4000 SERIES WITH HEAVY DUTY HARDWARE)
- 8: (BREAKROOM)
 (3) HINGES
 (2) SILENCERS
 (1) OFFICE LOCKSET - BUTTON LOCK
 (1) WALL STOP
- 9: (POOL EQUIPMENT ROOM)
 (3) HINGES
 (1) OVER HEAD CLOSER
 (1) LOCKSET - STORAGE
 (1) HOLD - OPEN
- 10: (CHANGING ROOM PARTITION)
 (3) HINGES
 (2) SILENCERS
 (1) LOCKSET - PRIVACY FUNCTION W/ INDICATOR
 (1) PUSH PLATE 4"x24"
 (1) PULL
 (1) WALL STOP



3 TYPICAL WINDOW ELEVATION

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

GENERAL NOTES

- ALL DOOR HARDWARE (UND.) TO BE LEVER TYPE ADA-COMPLIANT.
- CC SHALL REVIEW ALL HARDWARE WITH TENANT BEFORE ORDERING.
- DOOR OPENING FORCE SHALL NOT EXCEED 5 LBS. FOR INTERIOR DOORS AND 8.5 LBS. FOR EXTERIOR DOORS.
- LATCHING AND LOCKING DOORS THAT ARE HAND ACTIVATED AND WHICH ARE IN A PATH OF TRAVEL SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE, PANIC BARS, PUSH-PULL ACTUATING BARS OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITH OUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE. LOCKED EXIT DOORS SHALL OPERATE AS ABOVE IN EGRESS DIRECTION.
- HAND ACTIVATED DOOR OPENING HARDWARE SHALL BE CENTERED BETWEEN 34" AND 48" ABOVE THE FLOOR.
- HARDWARE MANUFACTURER TO BE SCHLAGE OR EQUAL.
- G.C. SHALL COORDINATE ALL KEYING WITH TENANT PRIOR TO ORDERING OF DOOR HARDWARE.
- ALL DOORS TO HAVE SOLID 2X FIRE RETARDANT BLOCKING ALONG ENTIRE LENGTH OF HEAD AND JAMB.
- FOR EXISTING DOORS TO REMAIN, VERIFY ALL HARDWARE IS IN PROPER WORKING ORDER, REPAIR OR REPLACE HARDWARE AS NEEDED.
- ALL EXIT DOORS SHALL BE OPERABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE.
- G.C. TO CONFIRM LOCK/SET IS THE SAME FOR ALL KEYED DOORS.
- WHERE POSSIBLE, RELOCATE EXISTING DOORS AND FRAMES THAT HAVE BEEN REMOVED DURING DEMOLITION.

INTERIOR FINISH NOTES

- NO SUBSTITUTIONS OF MATERIALS OR FINISHES WILL BE ALLOWED UNLESS NOTED ON CONSTRUCTION DOCUMENTS AND/OR APPROVED IN WRITING BY ARCHITECT AND/OR OWNER/ TENANT PRIOR TO INSTALLATION.
- ALL MATERIAL AND FINISH SELECTIONS (INCLUDING BUT NOT LIMITED TO STAINS & PAINT) ARE TO BE APPROVED BY OWNER/ TENANT PRIOR TO INSTALLATION. ANY ALTERATIONS OF MATERIALS, FINISHES OR INSTALLATION IN THE FIELD BY OWNER/ TENANT SHALL BE THE RESPONSIBILITY OF THE OWNER/ TENANT UNLESS THE ARCHITECT IS NOTIFIED IN WRITING BY THE GENERAL CONTRACTOR AND/ OR OWNER/ TENANT PRIOR TO INSTALLATION.
- PROVIDE LEVEL 4 FINISH ON ALL GYPSUM BOARD WALLS WITH (1) COAT PRIMER, (2) COATS OF PAINT. PROVIDE FLAT (LEVEL 5) FINISH AT ALL GYPSUM BOARD SOFFITS, CEILINGS AND WALLS TO RECEIVE WALL COVERINGS. REFER TO GENERAL BUILDING STANDARDS.
- PAINT ALL SUPPLY, RETURNS, VENTS AND ACCESS PANELS TO MATCH ADJACENT SURFACE - TYPICAL THROUGHOUT.
- ALL SWITCH, OUTLET, AND DATA LINE FACE PLATES TO MATCH EXISTING.
- GENERAL CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ANY/ ALL MILLWORK, FINISHES AND FIXTURES FOR ARCHITECT AND OWNER/ TENANT REVIEW AND APPROVAL PRIOR TO ORDERING AND INSTALLATION. MILLWORK TO BE CONSTRUCTED PER AWI STANDARDS WITH PREMIUM GRADE MATERIALS.
- GENERAL CONTRACTOR TO PROVIDE 1/2" PLYWOOD OR BLOCKING IN WALLS FOR EQUIPMENT/ ACCESSORIES.
- PROVIDE TRANSITION STRIPS AS REQUIRED BETWEEN DIFFERENT FLOORING MATERIALS. VERIFY AND APPROVE PRIOR TO ORDERING AND INSTALLING. REFER TO TRANSITION DETAILS IN "A" SHEETS.
- ALL FLOORING TRANSITION LINES TO BE LOCATED AT CENTERLINE OF DOOR (WHEN CLOSED) OR OPENING.
- GENERAL CONTRACTOR SHALL LEVEL EXISTING FLOORS AS REQUIRED FOR PROPER INSTALLATION OF NEW FLOORING, TO PREVENT PEAKS OR DEPRESSIONS WHICH MAY CAUSE UNUSUAL WEAR TO NEW MATERIALS. GENERAL CONTRACTOR TO FLOAT CONCRETE SLAB AS REQUIRED FOR CODE COMPLIANT TRANSITION BETWEEN FLOORING MATERIALS.
- GENERAL CONTRACTOR AND SUBCONTRACTORS TO INSTALL ANY/ ALL FINISHES, MATERIALS AND EQUIPMENT PER MANUFACTURER'S SPECIFICATIONS.
- ANY AND ALL INTERIOR FLOOR, WALL AND CEILING FINISHES TO COMPLY WITH CLASS I AND/ OR CLASS II REQUIREMENTS. FLAME SPREAD RATING 0 TO 25 SMOKE DEVELOPED 200.
- CARPET SEAMING DIAGRAM TO BE PROVIDED FOR ARCHITECT'S REVIEW AND APPROVAL AT ALL BROADLOOM AREAS PRIOR TO ORDERING AND INSTALLATION.
- GENERAL CONTRACTOR SHALL EXAMINE ALL FINISHED SURFACES AFTER COMPLETION OF WORK (INCLUDING BUT NOT LIMITED TO TELEPHONE/ DATA INSTALLATION, CARPET, AND MOVE INS) AND PROCEED WITH "TOUCH UPS" AS REQUIRED.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR INCORPORATING DELIVERY LEAD TIMES FOR ANY/ ALL FINISHES, LIGHTING AND ACCESSORIES IN THE CONSTRUCTION SCHEDULE. ALL DELIVERY TIMES MUST BE CONFIRMED AND NO EXCESSIVE LEAD TIMES MUST BE DELIVERED UNLESS IMMEDIATELY.
- ELECTRIC COVER PLATES, SURFACE HARDWARE ETC. SHALL BE INSTALLED AFTER PAINTING AND/ OR APPLICATION OF WALL COVERINGS. NO PAINT OR INTERIOR FINISHING SHALL BE DONE UNDER CONDITIONS WHICH JEOPARDIZE THE QUALITY OF APPEARANCE OF SUCH WORK. ALL WORKMANSHIP WHICH IS JUDGED TO BE LESS THAN FIRST QUALITY BY ARCHITECT WILL BE REJECTED.
- ALL PAINT AND MASTICS INSTALLED TO BE LOW VOC.
- GENERAL CONTRACTOR, UPON COMPLETION, SHALL REMOVE ALL PAINT FROM WHERE IT HAS SPILLED, SPLASHED OR SPLATTERED ON EXPOSED ADJACENT SURFACES. WOOD SAMPLES TO BE SUBMITTED WITH SPECIFIED SPECIES, STAIN AND FINISH.

REMARKS

- INTERIOR SIDE/ POOL SIDE OF DOOR AND FRAME, TO BE COATED WITH (2) COATS OF AQUAPON PER MFG. AND (1) COAT OF COLOR P-4.
- PAINT EXTERIOR SIDE OF DOOR AND FRAME TO MATCH ADJACENT EXISTING EXTERIOR WALL SURFACE. VERIFY WITH BUILDING OWNER OR TENANT.
- PROVIDE SIGN ABOVE DOOR THAT READS: "THIS DOOR TO REMAIN UNLOCKED DURING NORMAL BUSINESS HOURS."
- EXISTING DOOR TO REMAIN OR BE RELOCATED. VERIFY PANIC HARDWARE COMPLIES WITH ALL LOCAL AND FEDERAL CODES. VERIFY THAT EXISTING HARDWARE IS IN GOOD, OPERABLE CONDITION. REPLACE IF NECESSARY.
- MATCH EXISTING STOREFRONT ON SITE - TO BE APPROVED BY LANDLORD AND TENANT PRIOR TO ORDERING.
- UNDER CUT DOOR 1".
- PROVIDE TACTILE EXIT SIGN.
- RE-USE / RELOCATE STOREFRONT COMPONENTS IF COST SAVINGS CAN BE ACHIEVED.
- PROVIDE COAT HOOKS ON INSIDE OF CHANGE ROOM DOORS.

ABBREVIATIONS

ST	STAIN
TIMELY	TIMELY MANUFACTURED FRAME
MFR	MATERIAL MANUFACTURER
SF	STORE FRONT SYSTEM
ALUM	ALUMINUM FINISH
PT	PAINT
CD	COLD DOOR
SCWD	SOLID CORE WOOD
HCDW	HOLLOW CORE WOOD
MTL	METAL
HM	HOLLOW METAL

WOOD DOORS (SCWD/HCDW)	HOLLOW METAL DOORS (HM)
FACTORY FINISHED DOORS	COLOR: PAINT TO MATCH ADJACENT WALL
SPECIES: WHITE BIRCH	
STAIN: CLEAR	HOLLOW METAL DOOR FRAMES (HM)
PREFINISHED DOOR FRAMES	COLOR: PAINT TO MATCH ADJACENT WALL
MANUF: TIMELY	STANDARD DOOR HARDWARE
MODEL: STANDARD	FINISH: CHOOSEN BY OWNER

RED MILL COMMONS
SHOPPING CENTER2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454PROJECT NO: 2024.0397
DATE: 08.29.24A602
SCHEDULES

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CHECKED: AM DRAWN: FV

SPECIFICATIONS

A. DIVISION 1 – GENERAL REQUIREMENTS:

- THE GENERAL CONTRACTOR SHALL INSPECT THE PROJECT SITE IMMEDIATELY TO CHECK THE EXISTING CONDITIONS, ANY DISCREPANCIES OR CONFLICTS FOUND IN THE GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING FAILURE TO DO SO WILL CONSTITUTE NOTICE THAT THE GENERAL CONTRACTOR IS FULLY SATISFIED WITH THE EXISTING CONDITIONS AND THAT HE INTENDS TO PERFORM HIS OBLIGATIONS WITH NO ALLOCATION EITHER IN TIME OR COSTS FOR ANY IMPEDIMENT TO THE WORK.
- ALL CONTRACTORS SHALL EXIT THE SITE AND SHALL FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS AND THE REQUIREMENTS OF THE WORK PRIOR TO SUBMITTING THEIR BID. MATERIAL QUANTITIES SHALL BE BASED ON ACTUAL FIELD CONDITIONS AND MEASUREMENTS.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN FIELD. IF DIMENSIONAL CONFLICTS OCCUR OR CONDITIONS NOT COVERED IN THE DRAWINGS ARE ENCOUNTERED, THEN CONTRACTOR SHALL NOTIFY THE ARCHITECT BEFORE COMMENCING THE WORK. DIMENSIONS TAKE PRECEDENCE OVER SCALE ON CONSTRUCTION DOCUMENTS.
- ALL CONTRACTORS SHALL TAKE CARE TO PROTECT ADJACENT AREAS FROM DUST AND DAMAGE DURING THE CONSTRUCTION PROCESS AND SHALL CLEAN UP AFTER THEMSELVES AT THE END OF EACH WORKING DAY. ADJACENT AREAS NOT INCLUDED IN THE SCOPE OF WORK SHALL BE PROTECTED AND SEPARATED FROM THE WORK. THE GENERAL CONTRACTOR SHALL PROVIDE BARRIERS TO ELIMINATE DUST & DAMAGE TO ADJACENT AREAS. PROJECT SITE SHALL BE KEPT CLEAN DURING CONSTRUCTION AND BE SECURED & CLEANED DURING OFF HOURS. ALL WORK SHALL TAKE PLACE DURING NORMAL BUSINESS HOURS UNLESS WORK REQUIRES AFTER HOURS AND SHALL BE APPROVED BY OWNER & AUTHORITIES HAVING JURISDICTION.
- ALL WORK SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES INCLUDING LOCAL AMENDMENTS.
- UNLESS OTHERWISE SPECIFICALLY NOTED, THE CONTRACTOR SHALL PROVIDE AND PAY FOR ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, CONSTRUCTION EQUIPMENT AND MACHINERY, TRANSPORTATION AND OTHER FACILITIES, AND SERVICES NECESSARY FOR PROPER EXECUTION AND COMPLETION OF THE WORK.
- THE OWNER/TENANT SHALL BE RESPONSIBLE TO ENSURE PAYMENT FOR ALL FEES FOR PERMITTING, ETC. NECESSARY FOR PROPER COMPLETION OF THE WORK UNLESS OTHERWISE STATED.
- THE CONTRACTOR WARRANTS TO THE OWNER AND THE ARCHITECT THAT ALL MATERIALS AND EQUIPMENT FURNISHED UNDER THIS CONTRACT WILL BE NEW UNLESS OTHERWISE SPECIFIED AND THAT ALL WORK WILL BE BEST QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS. ALL WORK NOT IN CONFORMANCE WITH THESE STANDARDS MAY BE CONSIDERED DEFECTIVE. IT IS UNDERSTOOD THAT NO INFERIOR OR NON-COMFORMING WORK OR MATERIALS WILL BE ACCEPTED WHETHER DISCOVERED AT THE TIME THEY ARE INCORPORATED IN THE WORK OR AT ANY TIME BEFORE OR AFTER THE FINAL ACCEPTANCE, IF REQUIRED BY THE ARCHITECT, THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF MATERIAL AND EQUIPMENT.
- THE WARRANTIES AND GUARANTEES PROVIDED IN THE CONSTRUCTION DOCUMENTS SHALL BE IN ADDITION TO, AND NOT IN LIMITATION OF, ANY OTHER WARRANTY OR GUARANTEE OR REMEDY REQUIRED BY LAW.
- ALL DRAWINGS HEREIN CREATE AN ENTIRE PACKAGE. ALL TRADES SHALL BE RESPONSIBLE FOR REVIEWING THEIR RESPECTIVE REQUIREMENTS AND COORDINATE THEM WITHIN EXPLODED WORKS AND OTHER RELATED TRADES.
- GENERAL CONTRACTOR SHALL COORDINATE ALL WORK OF THE VARIOUS TRADES AND SUBCONTRACTORS TO ASSURE EFFICIENT AND ORDERLY INSTALLATION. PROVIDE ACCOMMODATIONS FOR ITEMS INSTALLED AT A LATER DATE. VERIFY THAT CHARACTERISTICS OF ELEMENTS OR INTERRELATED OPERATING EQUIPMENT ARE COMPATIBLE. COORDINATE WORK OF VARIOUS SECTIONS WHICH HAVE INTERDEPENDENT RESPONSIBILITIES FOR INSTALLING, CONNECTION TO, AND PLACING IN SERVICE SUCH EQUIPMENT. COORDINATE SPACE REQUIREMENTS AND INSTALLATION OF MECHANICAL WORK, ELECTRICAL WORK, AND FIRE SPRINKLER SYSTEMS WHICH ARE INDICATED, DETAILED OR IMPLIQUED DIAGRAMMATICALLY ON DRAWINGS.
- THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING HIS BEST SKILL AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION AND INSTALLATION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- GENERAL CONTRACTOR SHALL PURCHASE AND MAINTAIN INSURANCE COVERAGE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LANDLORD AND THE TENANT. VERIFY AND COORDINATE WITH THE TENANT AND LANDLORD FOR ANY ADDITIONAL REQUIREMENTS.
- GENERAL CONTRACTOR SHALL FURNISH ALL REQUIRED TEMPORARY FACILITIES AND ALL TEMPORARY UTILITIES IMMEDIATELY AFTER RECEIPT OF NOTICE TO PROCEED FOR USE AND CONVENIENCE OF ALL THOSE ENGAGED IN THE PROJECT WORK.
- WHEN CONSTRUCTION BARRIERS ARE REQUIRED AS PART OF THE WORK, ALL CONTRACTORS MUST STAY BEHIND THE CONSTRUCTION BARRIERS AND MAINTAIN ACCESS TO SUCH AREAS CLEAN AND FREE OF CONSTRUCTION MATERIALS AND DEBRIS. FAILURE TO MAINTAIN CLEAN STOREFRONT WILL RESULT IN BUILDING MANAGEMENT HAVING SUCH MATERIAL AND DEBRIS REMOVED AND ALL CHARGES FOR MAINTENANCE WILL BE BILLED TO GENERAL CONTRACTOR.
- COORDINATE ALL CONSTRUCTION, SCHEDULING, STORAGE/STAGING AREAS, USE OF BUILDING UTILITIES, PARKING AREAS & DISPOSAL OF CONSTRUCTION REFUSE WITH BUILDING MANAGER. REVIEWING ALL SCHEDULED ACTIVITIES PRIOR TO AND THROUGHOUT CONSTRUCTION.
- ALLOWABLE TOLERANCES – UNLESS OTHERWISE NOTED OR INDICATED, THE FOLLOWING TOLERANCES SHALL APPLY TO ALL WORK:
 - ALL VERTICAL SURFACES SHALL BE PLUMB OR CONSTRUCTED TO THE EXACT SLOPES OR ANGLES INDICATED.
 - THE MAXIMUM DEVIATION FROM THE TRUE PLANE FOR VERTICAL AND HORIZONTAL SURFACES SHALL NOT BE GREATER THAN 1/8" IN 10'-0" AS MEASURED BY A STRAIGHT EDGE PLACED ANYWHERE ON THE SURFACE.
 - ALL HORIZONTAL SURFACES SHALL BE LEVEL OR CONSTRUCTED TO THE EXACT ANGLE INDICATED OR REQUIRED.
 - WALL AND SOFFIT INTERSECTIONS SHALL BE 90 DEGREES OR THE EXACT ANGLE INDICATED OR REQUIRED.
 - ALL SURFACE CORNERS AND EDGES SHALL BE STRAIGHT AND TRUE WITHOUT DENTS, WELLS OR BUSES, OR OTHER BLEMISHES.
 - ALL JOINTS SHALL BE TIGHT, STRAIGHT, EVEN, AND SMOOTH.
 - ALL OPERABLE ITEMS SHALL OPERATE SMOOTHLY WITHOUT STICKING OR BINDING AND WITHOUT EXCESSIVE "PLAY" OR LOOSENESS.
- THE FOLLOWING MATERIALS SHALL BE LEFT AT THE JOBSITE. THEY SHALL BE TAKEN FROM THE SAME MATERIAL LOT, OR RUN, USED TO FINISH THE PROJECT:
 - SIX (6) YARDS OF CARPET (IF USED)
 - FOUR (4) FULL LENGTH STRIPS OR RUBBER BASE (IF USED)
 - TEN (10) FULL CEILING TILES OF EACH TYPE (IF USED)
 - ONE (1) GALLON OF EACH COLOR PAINT IN A TIGHTLY SEALED AND MARKED CONTAINER.
 - MATERIAL SHALL BE LEFT IN ONE (1) LOCATION PER OWNERS DIRECTION.
 - TEN (10) YARDS OF VINYL COMPOSITION FLOORING TILE
 - TWENTY (20) CERAMIC TILES OF EACH TYPE AND COLOR USED
- THE OWNER OR THE OWNER'S OWN FORCES, SUBCONTRACTORS, INSTALLERS MAY OCCUPY PORTIONS OF THE PROJECT FOR THE PURPOSES OF INSTALLING OWNER PROVIDED ITEMS. THE GENERAL CONTRACTOR SHALL MAKE ACCESS AS REQUIRED FOR COORDINATION OF OWNER WORK & GENERAL CONTRACTOR'S WORK DURING THE FINAL STAGE OF CONSTRUCTION.
- GENERAL CONTRACTOR SHALL PROVIDE PROPER SHORING OF ALL NEW WORK AND DEMOLITION WORK, ANY UTILITY DISRUPTION OR DISCONNECTIONS SHALL BE APPROVED & COORDINATED WITH BUILDING OWNER.
- COORDINATE BLOCKING REQUIREMENTS WITH ADJACENT OR RELATED TRADES, ACCESSORIES, EQUIPMENT AND FIXTURES. INSTALL REQUIRED BLOCKING AT NO ADDITIONAL COST TO THE CONTRACT.
- GENERAL CONTRACTORS SHALL PATCH, REPAIR, REPLACE AND FINISH ANY FLOOR, WALL, OR CEILING TO MATCH ADJACENT EXISTING CONSTRUCTION DUE TO ANY DAMAGE CAUSED BY DEMOLITION, REPAIR PROPERTY DAMAGE BY THE INSTALLERS TO A LIKE NEW CONDITION OR REPLACE DAMAGED SURFACES AND MATERIALS OF THE PREVIOUSLY INSTALLED WORK BY OTHER TRADES, INSTALLERS AND SUB-CONTRACTORS.
- WHERE REQUESTED BY THE OWNER TO CERTIFY CONFORMANCE TO TRADE STANDARDS OF THE PROJECT REQUIREMENTS, THE CONTRACTOR SHALL ENLIST A TESTING LABORATORY AT THE OWNER'S COST. IF THE REQUESTED TEST SHOWS NON-COMFORMANCE TO GENERALLY ACCEPTED TRADE STANDARDS OR THE PROJECT REQUIREMENTS, THE CONTRACTOR SHALL CORRECT THE DEFICIENCY AT NO ADDITIONAL COST TO THE OWNER AND REIMBURSE ALL COSTS OF THE TESTING TO THE OWNER UNLESS THE CONTRACTOR HAS USED PRODUCTS INCORRECTLY LABELED BY THE MANUFACTURER OR HAS MADE PREVIOUSLY APPROVED CHANGES.
- PROVIDE SECURITY OF THE WORK, INCLUDING TOOLS AND UNINSTALLED MATERIALS. PROTECT THE WORK, STORED PRODUCTS, CONSTRUCTION EQUIPMENT

- AND OWNER'S PROPERTY FROM THEFT AND VANDALISM AND THE PREMISES FROM ENTRY BY UNAUTHORIZED PERSONNEL UNTIL FINAL ACCEPTANCE BY THE OWNER.
- MAINTAIN ACTIVE FIRE EXTINGUISHERS AT THE PROJECT AS REQUIRED BY LOCAL GOVERNING AGENCIES.
- MANUFACTURED ARTICLES, MATERIALS AND EQUIPMENT SHALL BE APPLIED, INSTALLED, CONNECTED, ERECTED, USED, CLEANED AND CONDITIONED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN SPECIFICATIONS OR INSTRUCTIONS UNLESS HEREINAFTER SPECIFIED TO THE CONTRACT.
- ALL PRODUCTS SHALL BE DELIVERED IN UNDAMAGED CONDITION AND STORED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS SUCH AS TEMPERATURE & HUMIDITY TO AVOID DISRUPTION OF THE WORK OR DAMAGE TO THE ITEMS. REPLACE DAMAGED OR UNFIT MATERIALS AT NO COST TO THE OWNER.
- NOTIFY THE OWNER WHEN THE WORK IS SUBSTANTIALLY COMPLETE AND READY FOR INSPECTION. UPON INSPECTION, PROVIDE WRITTEN OPERATION AND MAINTENANCE INSTRUCTIONS AND GUARANTEES FOR ALL EQUIPMENT AND MATERIALS INSTALLED. PROVIDE WRITTEN GUARANTEES FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE OF THE WORK FOR ALL WORKSHIPS AND MATERIALS.
- PROVIDE CLEAN-UP AND DAMAGE REPAIR AT THE PROJECT CONCLUSION. LEAVE THE PREMISES CLEAN AND CLEAR OF TOOLS, EQUIPMENT AND SURPLUS MATERIALS UNLESS REQUESTED BY THE OWNER. CLEAN-UP SHALL INCLUDE AND NOT BE LIMITED TO:
 - POWER VACUUMING THE ENTIRE SPACE.
 - HAND DUSTING AND CLEANING OF ALL SHELVING, CABINETRY, CASEWORK, GLASS AND MIRRORS BOTH INSTALLED UNDER THIS CONTRACT OR EXISTING, WALLS, CEILINGS, FIXTURES, ETC.
 - REPAIR OR REPLACEMENT OF PROPERTY DAMAGED DURING FINAL COMPLETION OF THE PROJECT.
- GENERAL CONTRACTOR SHALL COORDINATE ALL WORK WITH BUILDING OWNER/PROPERTY MANAGER.
- GENERAL CONTRACTOR SHALL COORDINATE WITH POOL CONTRACTOR DURING THE PROJECT TO SCHEDULE INTERFACES OF THEIR RESPECTIVE WORK ACTIVITIES AND ENSURE THE PROJECT TIMELINE IS ADHERED TO.

DIVISION 2 – SITE – NOT USED

DIVISION 3 – CONCRETE REPAIR AND REPLACEMENT

- WORK INCLUDES FILLING AND LEVELING JOINTS AND CRACKS, SAWCUTS, PATCHES AND LEAVE-OUT SLAB INSTALL, ABANDONED ELECTRICAL BOXES AND ANY HOLES.
- USE "RAECO" LEVEL FLATEX™ AS UNDERLAYMENT FOR PATCHING OR APPROVED EQUAL. MIX SHALL BE TWO COMPONENTS. MIX AND INSTALL PER MANUFACTURER'S LATEST WRITTEN AND RECOMMENDED DIRECTIONS.

DIVISION 4 – MASONRY – NOT USED

DIVISION 5 – METAL FABRICATIONS

- PROVIDE ALL MISCELLANEOUS METAL ITEMS INCLUDING MATERIALS, FABRICATIONS, FASTENINGS AND ACCESSORIES REQUIRED FOR FINISHED INSTALLATION AS INDICATED OR SPECIFIED.
- STEEL SHALL BE ASTM A1008/A1008M STANDARD SPECIFICATION FOR STEEL, FREE FROM SCALE, RUST AND PITTING AND OTHER DEFECTS AFFECTING APPEARANCE.
- TUBING SHALL CONFORM TO REQUIREMENTS OF ASTM A500 OR A501 AS APPROVED.
- WHERE METAL ITEMS ARE TO BE ERECTED AND IN CONTACT WITH DISSIMILAR MATERIALS, PROVIDE CONTACT SURFACES WITH COATING OF APPROVED ZINC CHROMATE PRIMER IN MANNER TO OBTAIN NOT LESS THAN 1.0 MIL DRY FILM THICKNESS.
- STEEL SHEET SHALL CONFORM TO REQUIREMENTS OF ASTM A606.
- CARBON STEEL BARS SHALL CONFORM TO REQUIREMENTS OF ASTM A29/A29M.
- ALUMINUM EXTRUSIONS SHALL CONFORM TO ASTM B221-08. REVEALS TO BE BLACK ANODIZED FINISH (UNLESS OTHERWISE INDICATED).
- FASTENERS SHALL BE AS REQUIRED FOR ASSEMBLY AND INSTALLATION OF FABRICATED ITEMS, INSTALL PER MANUFACTURER'S & CURRENT ICB/ICC REQUIREMENTS.
- BOLTS SHALL BE LOW CARBON STEEL EXTERNALLY AND INTERNALLY THREADED FASTENERS CONFORMING WITH REQUIREMENTS OF ASTM A307, INCLUDE NECESSARY NUTS AND PLAIN HARDENED WASHERS. FOR MEMBERS SUPPORT OF STRUCTURAL MEMBERS OR CONNECTION THERETO, USE FASTENERS CONFORMING WITH ASTM A325, FOR STAINLESS STEEL AND NON-FERROUS ITEMS, USE TYPE 302 AND 304 STAINLESS STEEL FASTENERS.
- MISCELLANEOUS MATERIALS: PROVIDE ALL INCIDENTAL ACCESSORY MATERIALS, TOOLS, EQUIPMENT AND EQUIPMENT REQUIRED FOR FABRICATION AND INSTALLATION OF MISCELLANEOUS METAL ITEMS AS INDICATED ON DRAWINGS.

- VERIFY DIMENSIONS PRIOR TO FABRICATION OR CASTING FOR METAL ITEMS TO ACCURATE SIZES AND CONFIGURATIONS AS INDICATED ON DRAWINGS AND OTHERWISE REQUIRED FOR PROPER INSTALLATION & FIT. FABRICATE WITH ALL LINES STRAIGHT AND ANGLES SHARP, CLEAN AND TRUE, DRILL, COUNTERSINK, TAP AND OTHERWISE PREPARE ITEMS FOR CONNECTION WITH WORK OF OTHER TRADES. MAKE PERMANENT CONNECTIONS BY WELDING AND GRIND ALL EXPOSED WELDS SMOOTH & DRESS TO MATCH ADJACENT SURFACES. ROUGH JOINT SURFACES NOT PERMITTED. AVOID USING BOLTS AND SCREWS UNLESS SPECIFICALLY INDICATED OR APPROVED. WHEN USED, DRAW UP TIGHT AND TIE THREADS TO PREVENT LOOSENING.
- ALL FERRERO METAL ITEMS SHALL BE SHOP FINISHED, TOUCH-UP OR REPAIR DAMAGED AREAS PRIOR TO INSTALLATION WITH SAME MATERIAL.
- PROVIDE CONTACT SURFACES WITH CONCRETE MASONRY OR OTHER DISSIMILAR MATERIALS WITH A MINIMUM ONE POINT ZERO (1.0) MIL DRY THICKNESS OF AN APPROVED ZINC CHROMATE PRIMER.
- PROVIDE ALL STEEL BLOCKING AND BRACING IN METAL STUD FRAME PARTITIONS NECESSARY FOR A COMPLETE INSTALLATION. INCLUDE AS REQUIRED, FOR SUPPORT OF ALL WALL-MOUNTED EQUIPMENT AND FABRICATIONS AS INDICATED ON DRAWINGS. PROVIDE SUPPORTS AT JAMS OF DOORS, DOOR STOPS AND ELSEWHERE, AS REQUIRED.
- FABRICATE AND SECUREOUS FRAMING AND BRACING ITEMS TO DETAIL OF STRAIGHT SHAPES, PLATES, AND BARS. WELD JOINTS WHERE PRACTICAL AND PROVIDE ALL OTHER CONNECTION DEVICES AS REQUIRED. INCLUDE ANCHORAGES, CLIP ANGLES, SLEEVES, ANCHOR PLATE, AND SIMILAR DEVICES. WHETHER IMBEDDED OR INDICATED, SET ACCURATELY IN POSITION AS REQUIRED AND ANCHOR SECURELY TO BUILDING CONSTRUCTION WITH FASTENERS APPROPRIATE TO THE INSTALLATION.

DIVISION 6 – WOOD AND PLASTICS

- PROVIDE ROUGH LUMBER AND PLYWOOD IN STANDARD DIMENSIONS. MOISTURE CONTENT NOT MORE THAN 13%.
- PROVIDE ALL NECESSARY ROUGH HARDWARE IN SIZES AND QUANTITIES REQUIRED BY LOCAL CODE.
- USE FINISH OR CASING NAILS FOR EXPOSED WORK. USE TYPE "S" TRIM HEAD SCREWS FOR ATTACHMENT OF WOOD TRIM TO METAL STUDS, RUNNERS, OR FURNITURE.
- RELIEVE BACKS OF WOOD TRIM; KERF BACKS OF MEMBERS MORE THAN 5" WIDE AND 1" NOMINAL THICKNESS, EASE ALL EXTERNAL CORNERS.
- INSTALL LAMINATES ONLY WHEN RECEIVING SURFACES ARE IN A SATISFACTORY CONDITION FOR INSTALLATION INCLUDING TEMPERATURE.
- USE ADHESIVES RECOMMENDED BY THE MANUFACTURER FOR THE PARTICULAR APPLICATION. INSTALL IN ACCORDANCE WITH MANUFACTURER'S MOST CURRENT PRINTED APPLICATION INSTRUCTIONS.
- WHEN COMPLETE PROVIDE PROTECTION COVERING TO LIMIT DAMAGE BY OTHER TRADES WORKING ADJACENT TO THE INSTALLATION. REPLACE DAMAGED SURFACES.
- REMOVE EXCESS ADHESIVE AND CLEAN SURFACES USING MANUFACTURER'S RECOMMENDED SOLVENT AND CLEANING PROCEDURES.
- FILL IN ALL SEAMS WITH MANUFACTURER'S APPROPRIATE COLOR SEALANT COMPOUND.
- INSTALL WOODS AND PLASTICS IN CONFORMANCE WITH DETAILS, WITH THE FOLLOWING CONSIDERATIONS AND REQUIREMENTS:
 - INSTALL ALL MATERIALS WITH TIGHT JOINTS
 - MITER CASINGS MOLDINGS
 - ALL RUNNING TRIM TO BE ONE (1) PIECE UP TO 10'-0". MATCH GRAIN AND COLOR PIECE TO PIECE.
 - USE UPHOLSH NAILS EXCEPT WHERE SCREWS ARE SPECIFICALLY CALLED FOR OR WHERE SCREWS ARE NOT VISIBLE.
 - SIMPLY FINISH FOR PUTTYING.
 - WHERE SCREW ATTACHMENT IS REQUIRED, SPACE SCREWS AT EQUAL INTERVALS, SINK AND PUTTY IN FINISH WOOD SURFACES.
 - ALL MEMBERS AND LINES SHALL BE LEVEL AND PLUMB.
 - SELECT AND CUT MATERIAL TO EXCLUDE DAMAGED, MARKED OR DEFECTIVE AREAS.

- FINISH EXPOSED SURFACES SMOOTH, FREE FROM TOOL AND MACHINE MARKS.
- ALL EXPOSED WOOD EDGES 1/8" MINIMUM RADIUS.
- INSTALL FIRE RETARDANT DOORS IN ACCORDANCE WITH NFPA RECOMMENDATIONS.
- FIRES TREATED CLASS "A" (FLAME SPREAD INDEX 25 OR LESS) WOOD SHALL BE USED IN THE ROUGH FRAMING OR CONSTRUCTION OF THIS FACILITY INCLUDING BACKING AND BLOCKING WHERE REQUIRED BY CODE. m. ALL WOOD DOORS SHALL MEET AIA STANDARDS FOR "CUSTOM" GRADE FLUSH DOORS; SEE FINISH SPECIFICATION FOR DOOR TYPE, SPECIES & FINISHES.
- UPON COMPLETION, REMOVE ALL EXCESS SEALANT AND MATERIALS FROM SURFACES; WASH AND CLEAN ALL GLASS FRAMING MEMBERS AND GLASS.

- RESILIENT BASE**
- INSTALL COVE BASE IN AREAS AS CALLED FOR IN PLANS AND/OR ELEVATIONS.
- PROVIDE PREMOLDED INSIDE AND OUTSIDE CORNERS FOR ALL CONDITIONS AT WHICH CORNERS ARE TO BE USED. JOB MITERING SHALL BE PERMITTED ONLY UPON OWNER'S APPROVAL.
- USE ADHESIVES ONLY AS RECOMMENDED BY THE MANUFACTURER OF THE MATERIAL TO WHICH IT IS APPLIED.
- CAREFULLY INSPECT ALL SURFACES TO RECEIVE BASE PRIOR TO INSTALLATION. REPAIR DAMAGED SURFACES PRIOR TO INSTALLATION.
- UPON COMPLETION, IMMEDIATELY REMOVE ALL SURPLUS ADHESIVE FROM ADJACENT SURFACE, IN ACCORDANCE WITH THE TIMING RECOMMENDED BY THE MANUFACTURER.

DIVISION 7 – THERMAL AND MOISTURE PROTECTION SEALANTS AND CAULKING

- PROVIDE NON-SAG SEALANT COMPLYING WITH REQUIREMENTS OF FEDERAL SPECIFICATION FS TT-S-00230 TYPE "II", CLASS "A". PROVIDE ACOUSTICAL SEALANT WHICH SHALL BE NON-HARDENING, NON-DRYING SYNTHETIC RUBBER SEALING COMPOUND WITH MINIMUM 90% SOLIDS. USE AT ALL INTERIOR JOINTS AND INTERSECTIONS BETWEEN PLANES AND AROUND DOOR AND WINDOW FRAMES. PRIMER SHALL BE RECOMMENDED BY SEALANT MANUFACTURER FOR SPECIFIC CONDITIONS AND SUBSTRATES.
- PROVIDE BACKING MATERIAL BY DOW "ETHAFORM" OR APPROVED EQUAL. APPLY SEALANT OVER BACKING TO UNIFORM THICKNESS IN CONTINUOUS BEADS FILLING ALL JOINTS AND HEDS SOLID. SUPERFICIAL POINTING WITH THE SKIM BEAD WILL NOT BE ACCEPTED.
- ALL SURFACES SHALL BE ADEQUATELY CLEANED AND PREPARED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS PRIOR TO INSTALLATION.

DIVISION 8 – DOORS AND WINDOWS WOOD AND HOLLOW METAL DOORS AND FRAMES

- PROVIDE METAL DOORS OF SIZES AND TYPES INDICATED ON DRAWINGS, FULLY WELDED SEAMLESS CONSTRUCTION WITH NO VISIBLE SEAMS OR JOINTS ON FACES OR VERTICAL EDGES, THICKNESS AS SCHEDULED ON DRAWINGS.
- FACE STIFFENERS, EDGES AND HARDWARE REINFORCEMENT SHALL BE THE HIGHEST QUALITY WORKMANSHIP AND MATERIALS. PROVIDE IN ACCORDANCE WITH BEST TRADE PRACTICE AND MANUFACTURER'S WRITTEN RECOMMENDATIONS FOR THE USE INTENDED.
- PROVIDE CUSTOM MADE WELDED HOLLOW METAL UNITS WITH INTEGRAL TRIM, SIZES AND SHAPES AS INDICATED ON DRAWINGS, FABRICATE UNITS SQUARE, TRUE AND FREE FROM DEFECTS.
- HARDWARE REINFORCEMENT AND ANCHORS (ERCTION, FLOOR, AND JAMB) SHALL BE AS REQUIRED FOR A SECURE INSTALLATION AND SHALL BE IN ACCORDANCE WITH TRADE REQUIREMENTS FOR THE SPECIFIED HARDWARE AND INTENDED USE.
- AFTER FABRICATION, DRESS, FILL AND SANDBLAST EXPOSED SURFACES, BODYPUTTY HOLES AND IMPERFECTIONS. APPLY UNIFORM COAT OF MANUFACTURER'S STANDARD PRIME COAT TO ALL EXPOSED SURFACES. LEAVE READY TO RECEIVE FINISH PAINTING.

DIVISION 9 – FINISHES METAL SUPPORT SYSTEMS

- PROVIDE CHANNEL-SHAPE ROLL FORMED SHEET STEEL MEMBERS CONFORMING WITH ASTM A1031, HOT DIPPED FINISH WHERE EXPOSED TO MOISTURE, NOT LESS THAN 20 GA, UNLESS NOTED OTHERWISE ON PLANS. PROVIDE 16 GA. AT DOOR JAMBS.

DIVISION 10 – SPECIALTIES / ACCESSORIES

PARTITION

- PROVIDE DRYWALL PANELS MANUFACTURED IN ACCORDANCE WITH REQUIREMENTS OF ASTM C1396.
- PROVIDE DRYWALL PANELS 5/8" THICK WITH TAPE EDGES/CORNERS.
- PROVIDE 5/8" TYPE "X" FIRE RETARDANT DRYWALL PANELS TESTED AND QUALIFIED FOR 1-HOUR RATING AS INDICATED ON DRAWINGS.
- PROVIDE METAL EDGE AND CORNER BEADS AT ENDS, EDGES AND CORNERS.
- WATER RESISTANT DRYWALL PANELS SHALL BE 5/8" THICK, QUALIFIED FOR 1-HOUR RATING (WHERE REQUIRED), AND SHALL BE INSTALLED IN ALL WET AREAS AS INDICATED ON DRAWINGS.
- PROVIDE FASTENERS IN ACCORDANCE WITH ASTM C840, UNLESS OTHERWISE NOTED OR INDICATED. PROVIDE TYPE "S" BUGLE HEAD SCREWS FOR ATTACHMENT OF DRYWALL PANELS TO METAL FRAMING, AND TYPE "S" PAN HEAD SCREWS FOR ATTACHMENT OF FRAMING TO DOOR FRAMES.
- PROVIDE ALL INCIDENTAL AND ACCESSORY MATERIALS, TOOLS, EQUIPMENT AND METHODS REQUIRED FOR SATISFACTORY COMPLETION OF DRYWALL PANEL CONSTRUCTION INCLUDING ACCESS DOORS AND PANELS.

HARDWARE

- ALL FINISH HARDWARE FOR COMPLETE WORK SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS. QUANTITIES LISTED IN ANY INSTANCE ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY AND ARE NOT GUARANTEED. ITEMS NOT SPECIFICALLY MENTIONED BUT NECESSARY TO COMPLETE THE WORK SHALL BE PROVIDED BY THE GENERAL CONTRACTOR.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER OPERATION AND FITTING OF HARDWARE IN LOCATIONS SPECIFIED. THE GENERAL CONTRACTOR MUST PROVIDE A SECURE LOCATION TO STORE ALL FINISH HARDWARE UNTIL INSTALLATION IS MADE. THE SUPPLIER MUST MARK EACH ITEM OF HARDWARE AS TO DESCRIPTION AND LOCATION OF INSTALLATION IN ACCORDANCE WITH APPROVED HARDWARE SCHEDULE. EXPOSED SURFACES OF HARDWARE SHALL BE COVERED AND WELL PROTECTED DURING INSTALLATION, SO AS TO AVOID DAMAGE TO FINISHES.

PAINTING

- PROVIDE PAINT FINISHES FOR BUILDING AND OTHER SURFACES AS SCHEDULED ON DRAWINGS OR AS SPECIFIED HERINAFTER. NO PAINT FINISH IS REQUIRED ON ITEMS HAVING COMPLETE FACTORY FINISH, EXCEPT AS MAY BE SPECIFIED HERINAFTER. PUTTY AND/OR SEALANT AT ALUMINUM WINDOWS, NON-FERROUS METAL UNLESS SPECIFICALLY MENTIONED IN THE PAINTING SCHEDULE, STAINLESS STEEL, INTERIOR OR EXTERIOR OF EXISTING BUILDING, EXCEPT WHERE ALTERATIONS OCCUR OR WHERE SCHEDULED. PAINT GRILLES AND DIFFUSERS, NO PAINTING IS REQUIRED FOR INSULATING PIPING, EXCEPT WHERE EXPOSED IN FINISHED, NON-MECHANICAL ROOM SPACES.
- PROTECT WORK OF OTHER TRADES FROM DAMAGE AND DEFACEMENT CAUSED BY THIS WORK. REPAIR ANY DAMAGE CAUSED BY THE WORK OF THE SECTION. REMOVE ELECTRICAL OUTLETS AND SWITCH PLATES, MECHANICAL DIFFUSERS, GRILLE, ESTABLISHERS, REGISTERS, SURFACE HARDWARE, FITTINGS, AND FASTENERS PRIOR TO COMMENCING THE WORK. STORE CLEAN, AND REPLACE UPON COMPLETION.

PAINT CONTRACTOR

- NOTIFY THE GENERAL CONTRACTOR IF ANY SURFACE TO BE PAINTED OR STAINED IS FOUND TO BE UNSUITABLE TO PRODUCE PROPER FINISH. APPLY NO FINISH MATERIAL UNTIL THE UNSUITABLE SURFACES HAVE BEEN MADE SATISFACTORY.
- FINISH WORK SHALL BE UNIFORM, OF APPROVED COLOR, SMOOTH AND FREE FROM RUNS. MAKE EDGES OF PAINT ADJOINING OTHER MATERIALS OR COLORS SHARP AND CLEAN WHERE HIGH GLOSS ENAMEL IS USED, LIGHTLY SAND UNDERCOAT TO OBTAIN A SMOOTH FINISH COAT.

PAINT

- PROVIDE ALL NEWLY PAINTED SURFACES WITH ONE

GENERAL

- A. USE THE STRUCTURAL DRAWINGS WITH THE ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL, AND SHOP DRAWINGS.
- B. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL CONTRACT DOCUMENTS AND LATEST ADDENDA, AS WELL AS, SUBMITTING TO ALL SUBCONTRACTORS AND SUPPLIERS PRIOR TO SUBMITTING SHOP DRAWINGS.
- C. DO NOT SCALE DRAWINGS OR AUTO-DIMENSION ELECTRONIC FILES. NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES IN WRITING PRIOR TO FABRICATION OR CONSTRUCTION.
- D. COMPARE ALL CONTRACT DRAWINGS AND REPORT ANY DISCREPANCIES BETWEEN DISCIPLINES, AND WITHIN A GIVEN DISCIPLINE, TO THE ARCHITECT AND ENGINEER PRIOR TO FABRICATION OR ERECTION.
- E. IF A CONFLICT EXISTS AMONG THE STRUCTURAL DRAWINGS OR GENERAL NOTES, THE STRICTEST REQUIREMENT AS SHOWN ON THE DRAWINGS GOVERN.
- F. COORDINATE ALL ELEVATIONS AND DIMENSIONS, INCLUDING BUT NOT LIMITED TO OPENINGS IN WALLS AND IN ROOF AND FLOOR SYSTEMS, WITH THE ARCHITECTURAL, PLUMBING, ELECTRICAL, AND MECHANICAL PLANS.
- G. VERIFY ALL DIMENSIONS, ELEVATIONS, AND ANY OTHER EXISTING CONDITIONS, NOTIFY THE ARCHITECT AND ENGINEER OF DISCREPANCIES BEFORE PROCEEDING WITH THE AFFECTION PART OF THE WORK. DURING THE CONSTRUCTION PROCESS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE INTEGRITY OF THE EXISTING STRUCTURE AND TO PROTECT FROM DAMAGE ANY PORTIONS THAT REMAIN. THE SHORING AND BRACING SHOWN (IF ANY) IS A PARTIAL AND SCHEMATIC REPRESENTATION.
- H. UNLESS NOTED OTHERWISE, DETAILS SHOWN ARE TYPICAL FOR ALL SIMILAR CONDITIONS.
- I. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS AND METHODS, AS WELL AS SAFETY PRECAUTIONS AND PROGRAMS.
- J. BRITT, PETERS & ASSOCIATES, INC. IS NOT RESPONSIBLE FOR ACTS OR OMISSION OF THE CONTRACTOR, NOR FAILURE TO PERFORM WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- K. PERIODIC SITE OBSERVATION BY BRITT, PETERS & ASSOCIATES, INC. IS FOR DETERMINING IF THE WORK IS PROCEEDING IN ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. STRUCTURAL OBSERVATIONS ARE NOT INTENDED AS QUALITY CONTROL (CONTRACTOR'S RESPONSIBILITY), QUALITY ASSURANCE (SPECIAL INSPECTOR'S RESPONSIBILITY), NOR TO CONFIRM THE QUALITY OR QUANTITY OF THE WORK.

DESIGN CRITERIA

- A. STRUCTURAL DRAWINGS ARE BASED ON THE REQUIREMENTS OF THE 2021 INTERNATIONAL BUILDING CODE, THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE, AND THE REFERENCED SECTIONS WITHIN.
- B. DEAD LOADS:
 - 1. EXISTING ROOF: 20 PSF TOTAL
 - C. LIVE LOADS:
 - 1. LIVE LOADS ARE BASED ON THE MORE RESTRICTIVE OF THE UNIFORM LOAD OR THE CONCENTRATED LOAD LISTED ACTING OVER A 6.25 SQUARE FOOT AREA.

LIVE LOADS

CATEGORY	UNIFORM LOAD (PSF)	CONCENTRATED LOAD (LBS)
ROOFS: ALL ROOF SURFACES SUBJECT TO WORKERS		300
ROOFS: ORDINARY ROOF	20	
D. DESIGN SNOW LOADS:		
1. GROUND SNOW LOAD: P_g	10 PSF	
2. FLAT ROOF SNOW LOAD: P_f	12 PSF	
3. SNOW EXPOSURE FACTOR: C_E	1.0	
4. SNOW THERMAL FACTOR: C_T	1.0	
5. SLOPE FACTOR: C_S	1.0	
6. SNOW IMPORTANCE FACTOR: I_s	1.0	
E. DESIGN WIND LOADS:		
1. BASIC WIND SPEED: V_{ULT}	123 MPH (3-SEC GUST)	
2. BASIC WIND SPEED: V_{ASD}	96 MPH (3-SEC GUST)	
3. RISK CATEGORY:	II	
4. WIND EXPOSURE:	B	
5. INTERNAL PRESSURE COEFF: GC_p	± 0.18	
6. COMPONENTS & CLADDING WIND PRESSURES (ULTIMATE):		

Ultimate Design Wind Pressure (psf): Effective Wind Area (sq ft)						
Walls:	10	20	50	100	200	500
Interior Zone 4	+	21.3	20.4	19.1	18.2	17.2
	-	-23.1	-22.2	-20.9	-20.0	-19.0
Edge Zone 5	+	21.3	20.4	19.1	18.2	17.2
	-	-28.4	-26.5	-24.0	-22.2	-20.3
Roof:	10	20	50	100	200	500
Interior Zone 1	+	16.0	16.0	16.0	16.0	16.0
	-	-37.1	-34.7	-31.4	-29.0	-26.5
Interior Zone 1'	+	16.0	16.0	16.0	16.0	16.0
	-	-21.3	-21.3	-21.3	-21.3	-18.3
Edge Zone 2	+	21.3	20.4	19.1	18.2	17.2
	-	-49.0	-45.8	-41.6	-38.5	-35.4
Corner Zone 3	+	21.3	20.4	19.1	18.2	17.2
	-	-49.0	-45.8	-41.6	-38.5	-35.4

WIDTH OF ZONE, $a = 7$ FT

- F. SEISMIC LOADS:
 - 1. RISK CATEGORY: II
 - 2. SEISMIC IMPORTANCE FACTOR: I_s 1.0
 - 3. SHORT PERIOD SPECTRAL RESPONSE ACCELERATION: S_g 0.078g
 - 4. 1-SEC PERIOD SPECTRAL RESPONSE ACCELERATION: S_1 0.038g
 - 5. SITE CLASS: D (ASSUMED)
 - 6. SHORT PERIOD DESIGN SPECTRAL RESPONSE ACCELERATION: S_{gd} 0.083g
 - 7. 1-SEC PERIOD DESIGN SPECTRAL RESPONSE ACCELERATION: S_{1d} 0.061g
 - 8. SEISMIC DESIGN CATEGORY: B

G. VERIFY ALL MECHANICAL EQUIPMENT WEIGHTS, LOCATIONS AND ASSOCIATED OPENINGS WITH THE MECHANICAL CONTRACTOR AND SUBMIT INFORMATION PRIOR TO FABRICATION OF THE SUPPORTING STRUCTURE. NOTIFY THE ENGINEER IF THE ACTUAL WEIGHT EXCEEDS THE WEIGHT INDICATED ON THE STRUCTURAL DRAWINGS.

DEMOLITION

- A. REMOVE STRUCTURE FROM TOP DOWN. DO NOT ALLOW DEBRIS TO PILE UP OR FALL ON SLABS TO REMAIN. USE PLYWOOD AND/OR OTHER MEANS TO PROTECT SLABS FROM DAMAGE. REPAIR OR REPLACE DAMAGED SLABS, BEAMS, OR OTHER COMPONENTS AS DIRECTED BY OWNER.
- B. THESE DRAWINGS ARE INTENDED TO DEFINE PRECAUTIONS FOR PREVENTING DAMAGE TO STRUCTURE TO REMAIN. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS FOR ADDITIONAL INFORMATION.
- C. FIELD VERIFY ALL EXISTING CONDITIONS. SUBMIT A WRITTEN REPORT IDENTIFYING DEVIATIONS FROM THE EXISTING STRUCTURE INDICATED.
- D. INSTALL TEMPORARY SHORING AND BRACING OF STRUCTURE AS REQUIRED.
- E. CONTACT THE ENGINEER FOR QUESTIONABLE LOCATIONS OR SPECIAL CONDITIONS NOT INDICATED.

STRUCTURAL STEEL

- A. HOT-ROLLED STEEL BARS, PLATES, SHAPES AND SHEET PILING MUST BE NEW STEEL CONFORMING TO ASTM A6. FABRICATE AND INSTALL STEEL IN ACCORDANCE WITH AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" AND AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS".
- B. STRUCTURAL STEEL IS AS FOLLOWS, UNLESS NOTED OTHERWISE:
 - 1. ALL STRUCTURAL STEEL ASTM A36 $F_y = 36$ ksi
 - 2. WELD CONNECTIONS (UNLESS NOTED OTHERWISE):
 - 1. WELDING IN ACCORDANCE WITH AWS D1.1, "STRUCTURAL WELDING CODE - STEEL".
 - 2. USE E70XX (SMAW), F7XX-EXXX (SAW), ER70S-X (GMAW), OR E7XT-X (FCAW) ELECTRODES FOR WELDING, UNLESS NOTED OTHERWISE.
 - 3. SHOW ALL FIELD WELDS REQUIRED ON ERECTION DRAWINGS.
 - 4. USE CONTINUOUS 1/4" FILLET WELDS UNLESS NOTED OTHERWISE.
- C. CUTS SPECIFIED ON THE DRAWINGS, OR AS REQUIRED FOR OTHER TRADES, MUST BE MADE IN THE SHOP AND SHOWN ON THE SHOP DRAWINGS. FIELD PERFORMED CUTS ARE NOT PERMITTED WITHOUT ENGINEER APPROVAL.
- D. FABRICATE STRUCTURAL STEEL WITH CORROSION SHIELD EXCEPT THE FOLLOWING MEMBERS: GALVANIZED SURFACES SLIP-CRITICAL SURFACES TO RECEIVE FIREPROOFING OR UNLESS NOTED OTHERWISE. COORDINATE AREAS TO BE FIELD WELDED SURFACES TO RECEIVE FIREPROOFING WITH ARCHITECTURAL DRAWINGS PRIOR TO FABRICATION.
- E. GALVANIZED STRUCTURAL STEEL: ASTM A123 OR ASTM A153. GALVANIZE AFTER FABRICATION. GALVANIZE ALL EXTERIOR EXPOSED STEEL, UNLESS NOTED OTHERWISE. REPAIR DAMAGED GALVANIZED COATINGS IN ACCORDANCE WITH ASTM A780.
- F. UNLESS NOTED OTHERWISE, THE TOP OF ALL STEEL COLUMNS ARE FABRICATED WITH A STEEL CAP PLATE - MINIMUM CAP PLATE DIMENSIONS MATCH COLUMN WIDTH AND DEPTH, AND MINIMUM THICKNESS OF CAP PLATE EQUALS COLUMN WEB THICKNESS (1/2" MIN).
- G. COORDINATE THE EXACT LOCATION AND SIZE OF ALL OPENINGS FOR MECHANICAL EQUIPMENT WITH THE MECHANICAL CONTRACTOR PRIOR TO FABRICATION.
- H. REFERENCE THE ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR ADDITIONAL STEEL (IF ANY) NOT INDICATED ON THE STRUCTURAL DRAWINGS.

COLD-FORMED METAL FRAMING

- A. COLD-FORMED STEEL FRAMING FOR THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" (AISI S100).
- B. DETAIL MEMBERS AND CONNECTIONS FOR ALL FRAMING CONDITIONS, INCLUDING WALLS, CORNERS, HEADERS, AND JAMBES. SOME CONDITIONS MAY REQUIRE MODIFICATION OF COLD-FORMED FRAMING MEMBERS (SUCH AS NOTCHING OR REVISING SIZES) OR MULTIPLE STUDS TO SUPPORT INCREASED LOADS. CONTRACTOR COORDINATE ALL CONDITIONS, CONNECTIONS AND DETAILS.
- C. FABRICATION AND INSTALLATION MUST BE IN ACCORDANCE WITH AISI "SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" AND MANUFACTURER INSTRUCTIONS. INSTALL MANUFACTURER'S RECOMMENDED STANDARDS, TRACK, CLIP ANGLES, BRACINGS, REINFORCEMENTS, FASTENERS, AND ACCESSORIES FOR THE APPLICATIONS INDICATED AND AS NEEDED FOR A COMPLETE FRAMING SYSTEM. TEMPORARY (CONSTRUCTION) BRACING OF FRAMING MEMBERS (PRIOR TO SHEATHING INSTALLATION) IS BY THE CONTRACTOR PER AISI AND MANUFACTURER RECOMMENDATION.
- D. COLD-FORMED STEEL MATERIAL: ASTM A100 STEEL SHEET WITH G60 GALV COATING CONFORMING TO ASTM A653, WITH A MINIMUM YIELD STRENGTH OF 33 KSI (USE 50 KSI FOR 54 MILS AND THICKER) UNLESS NOTED OTHERWISE.
- E. MEMBER SIZES INDICATED ARE PER THE "STEEL STUD MANUFACTURERS ASSOCIATION" (SSMA). COMPONENTS SHOWN ARE STRUCTURAL MEMBERS (33 MIL OR THICKER), UNLESS NOTED OTHERWISE. NON-STRUCTURAL MEMBERS AND DRYWALL GAGES ARE NOT PERMITTED.
- F. SCREWS ARE NON-CORROSIVE NO. 8-18 (DIA=0.125") OR LARGER, UNLESS NOTED OTHERWISE. DO NOT USE STAINLESS STEEL OR COPPER-COATED FASTENERS.
- G. WELDING: AWS D1.3 "STRUCTURAL WELDING CODE-SHEET STEEL". CONSULT MANUFACTURER FOR EQUIPMENT RECOMMENDATIONS AND PROPER ELECTRODE SELECTION.
- H. INSTALL MINIMUM OF THREE (3) WALL STUDS AT CORNERS AND INTERSECTING STUD WALLS (UNLESS OTHERWISE INDICATED).
- I. PREPUNCHED HOLES CANNOT BE LOCATED WITHIN 10 INCHES FROM WALL STUD ENDS.
- J. TRACKS ARE THE SAME DEPTH AS STUDS OR JOISTS, UNLESS NOTED OTHERWISE. CONNECT TRACKS TO STUD AND/OR JOIST SUPPORTS AT 16" OC MAXIMUM, ON EACH SIDE. ALIGN WALL STUD FRAMING WITH SUPPORTED STUD/JOIST MEMBERS ABOVE.
- K. DO NOT SPICE MEMBERS UNLESS OTHERWISE INDICATED. FASTEN MULTI-PLY MEMBERS TOGETHER USING TACK WELDS OR #10 SCREWS AT 12" OC MAXIMUM SPACING, UNLESS NOTED OTHERWISE.
- L. CROSS BRIDGING OR FULL-DEPTH BLOCKING IS REQUIRED AT WALL STUDS NOT RECEIVING SHEATHING ON BOTH FACES. UNLESS NOTED OTHERWISE, MAXIMUM BRIDGING/BLOCKING SPACING IS 6'-0" OR AT 1/3 POINTS OF MEMBER SPAN, WHICHEVER IS LESS. COORDINATE EXTENTS OF WALL AND CEILING SHEATHING WITH THE ARCHITECTURAL DRAWINGS.
- M. CLADDING AND PARTITION FRAMING, AND CONNECTIONS MUST ACCOMMODATE VERTICAL AND LATERAL DISPLACEMENT OF THE PRIMARY STRUCTURE. COMPLY WITH SSMA TECHNICAL NOTE NO. 1 DATED JANUARY 2000 FOR SLIP TRACK DESIGN.
- N. REPAIR DAMAGED GALVANIZED COATINGS AND WELDED AREAS IN ACCORDANCE WITH ASTM A780.

SPECIAL INSPECTIONS AND TESTING

- A. SPECIAL INSPECTIONS AND TESTING ARE PERFORMED IN ACCORDANCE WITH IBC CHAPTER 17 AND LOCAL JURISDICTION PROVISIONS. SPECIAL INSPECTION IS PROVIDED BY THE ENGINEER.
- B. THE SPECIAL INSPECTOR MUST FURNISH AN INSPECTION REPORT TO THE BUILDING OFFICIAL, THE ENGINEER OR ARCHITECT OF RECORD, AND ALL OTHER DESIGNATED INDIVIDUALS. ALL DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF NOT CORRECTED, TO THE PROPER DESIGN AUTHORITY AND THE BUILDING OFFICIAL.
- C. THE SPECIAL INSPECTOR MUST SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK IS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE CONTRACT DOCUMENTS, SOILS REPORT AND APPLICABLE WORKMANSHIP OF THE BUILDING CODE.

SUBMITTALS

- A. CONTRACTOR MUST REVIEW AND STAMP ALL SHOP DRAWINGS BEFORE SUBMITTING FOR REVIEW. SUBMIT SHOP DRAWINGS TO THE ARCHITECT AND/OR ENGINEER FOR REVIEW. FABRICATE AND CONSTRUCT FROM THE REVIEWED SUBMITTALS. ALLOW 10 BUSINESS DAYS FOR EACH SUBMITTAL REVIEW UNLESS AN ALTERNATE REVIEW TIME IS AGREED UPON BY ALL PARTIES. IN THE EVENT MULTIPLE SUBMITTALS ARE SUBMITTED AT THE SAME TIME, THE CONTRACTOR MUST INDICATE WHICH SUBMITTALS HAVE PRIORITY.
- B. MAINTAIN A RECORD SET OF APPROVED SHOP DRAWINGS IN THE FIELD.
- C. SUBMIT IN WRITING ANY DEVIATION FROM, ADDITION OR SUBSTITUTION FOR, OR MODIFICATION TO, THE STRUCTURE OR ANY PART OF THE STRUCTURE DETAILED, TO THE ENGINEER FOR REVIEW. SHOP DRAWINGS SUBMITTED FOR REVIEW DO NOT CONSTRAIN THE DESIGNER TO USE THEM, UNLESS THEY ARE SPECIFICALLY REQUESTED.
- D. PREPARE A LIST AND SCHEDULE OF ALL STRUCTURAL SUBMITTALS PRIOR TO CONSTRUCTION.
- E. SUBMIT THE FOLLOWING SHOP DRAWINGS FOR THE ENGINEER'S REVIEW:
 - 1. STRUCTURAL STEEL, SHOP AND FRETION DRAWINGS.
- F. SUBMIT ITEMS MARKED (1) SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED. SUBMIT ITEMS MARKED (2) FOR OWNER'S RECORD ONLY AND WILL NOT HAVE THE ENGINEER'S SHOP DRAWING STAMP AFFIXED. SUBMIT ITEMS MARKED (3) WITH DESIGN CALCULATIONS SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED.
 - 1. THE OMISSION FROM THE SHOP DRAWINGS OF ANY MATERIALS REQUIRED BY THE CONTRACT DOCUMENTS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF FURNISHING AND INSTALLING SUCH MATERIALS, REGARDLESS OF WHETHER THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED.
- G. THE USE OF ELECTRONIC FILES OR REPRODUCTIONS OF CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES THEM TO ANY JOB EXPENSE, REAR OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREON.

RED MILL COMMONS
SHOPPING CENTER2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454

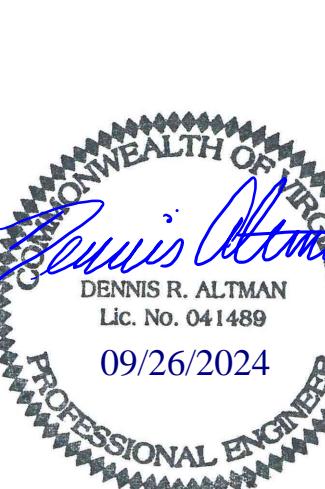
PROJECT NO: 2024.0397

DATE: 09.27.2024

\$1.0
GENERAL NOTES

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BRITT PETERS
AND
ASSOCIATES
INC.
consulting engineers
999 Waterside Drive
Suite 2202
Norfolk, VA 23510
(757) 965-5710
www.brittpeeters.com
BPA Job No. 240403



09.27.24 OWNER REVIEW
NO DATE REMARKS
REVISIONS



RED MILL COMMONS
SHOPPING CENTER

2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454

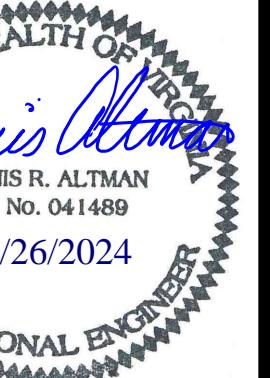
PROJECT NO: 2024.0397

DATE: 09.27.2024

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S O C I A T E S
I N C .
sulting engineers
Waterside Drive
e 2202
blk, VA 23510
) 965-5710
.brittpeters.com
Job No. 240403

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ROOF FRAMING PLAN

SCALE: 3/16" = 1'-0"

PLAN NOTES:

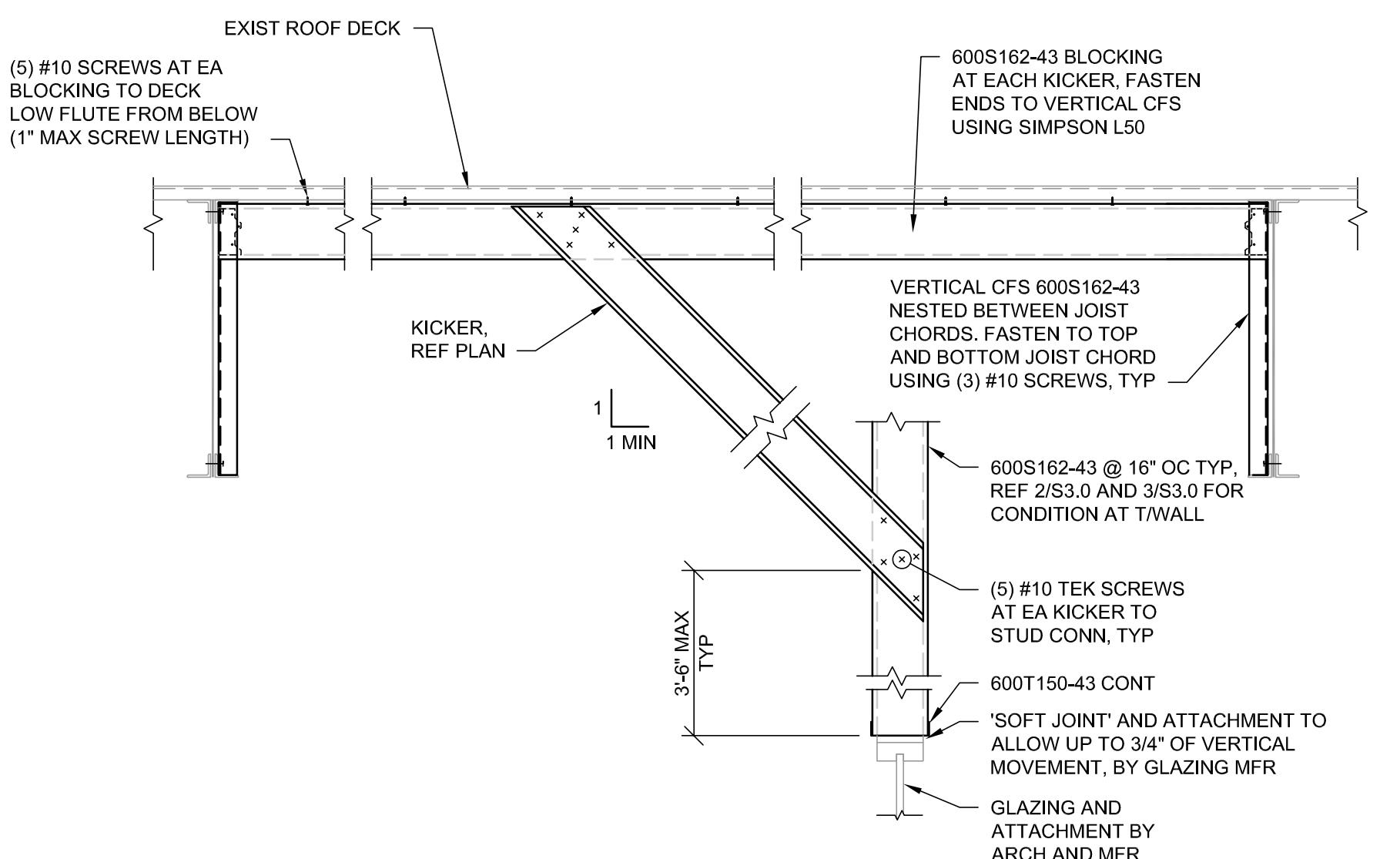
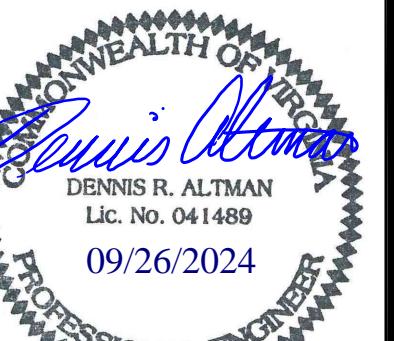
1. RECORD DRAWINGS ARE NOT AVAILABLE. EXISTING STRUCTURAL INFORMATION SHOWN IS BASED UPON A SITE VISIT PERFORMED BY BRITT, PETERS & ASSOCIATES, INC ON JUNE 5, 2024. FIELD VERIFY ALL EXISTING STRUCTURAL MEMBERS, CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION OF NEW MATERIAL. CONTACT ENGINEER WITH DISCREPANCIES PRIOR TO FABRICATION OF NEW MATERIAL.
 2. SHORE EXISTING STRUCTURE AS REQUIRED TO INSTALL NEW UNITS.
 3. MECHANICAL UNIT SUPPORT FRAMING, REF 4/S3.0.
 4. JOIST SHEAR REINFORCING, REF 6/S3.0 AND 7/S3.0.
 5. JOIST MOMENT REINFORCING, REF 6/S3.0 AND 7/S3.0.
 6. JOIST GIRDER SHEAR REINFORCING, REF 10/S3.0.
 7. GLAZING/VIEWING WALL BELOW, REF ARCH.
 8. MECHANICAL UNIT SUPPORT FRAMING, REF 9/S3.0.
 9. FIELD VERIFY THAT RELOCATED RTU WEIGHS LESS THAN IN-PLACE RTU. CONTACT THE ENGINEER WITH WEIGHTS PRIOR TO FABRICATION OF NEW MATERIAL.
 10. APPLY REINFORCING ONLY TO INTERIOR FACE OF JOIST GIRDER.

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VIRGINIA BEACH, VIRGINIA
23454

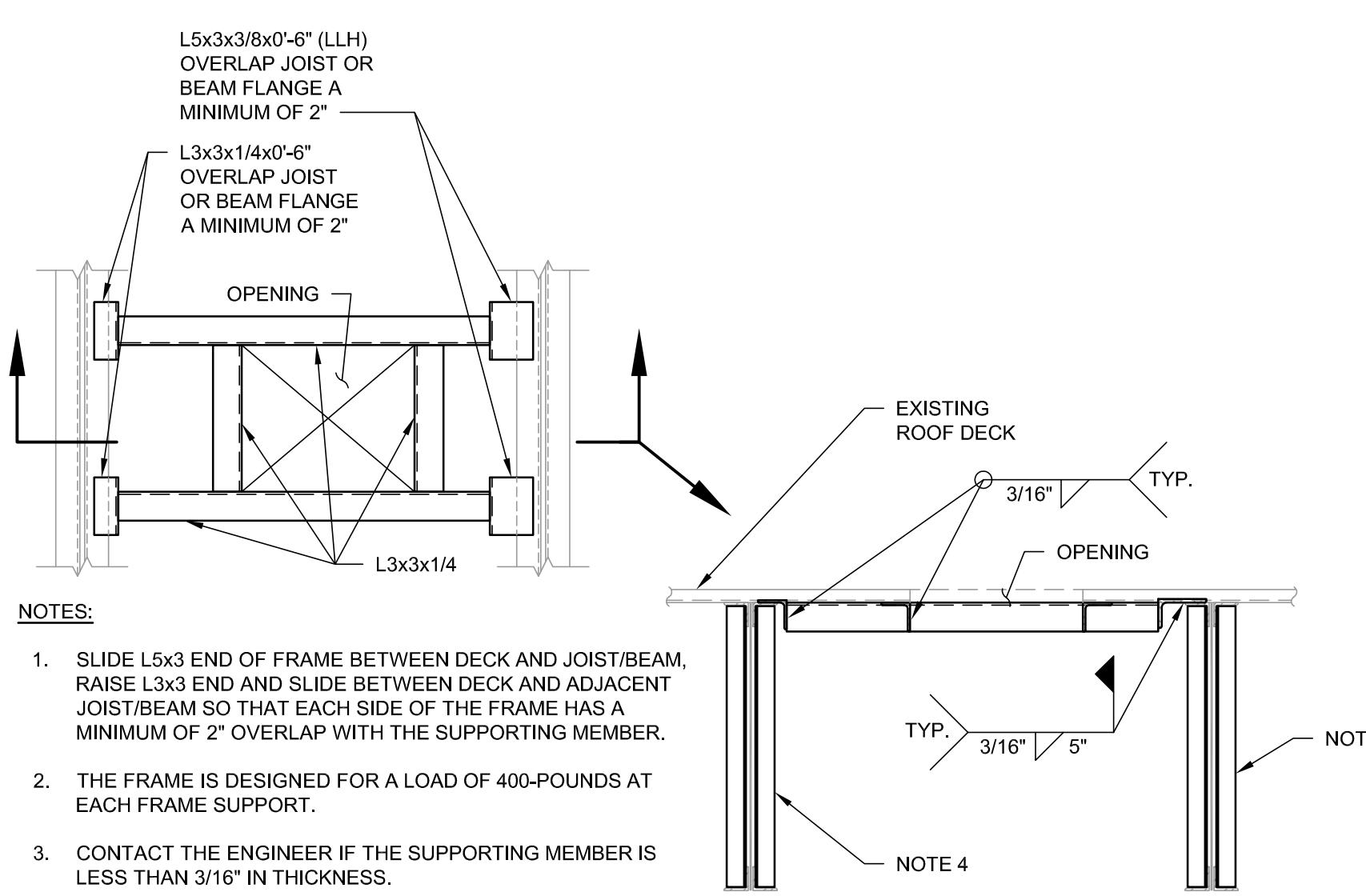
PROJECT NO: 2024.0397
DATE: 09.27.2024

S2.0
OOF FRAMING PLAN



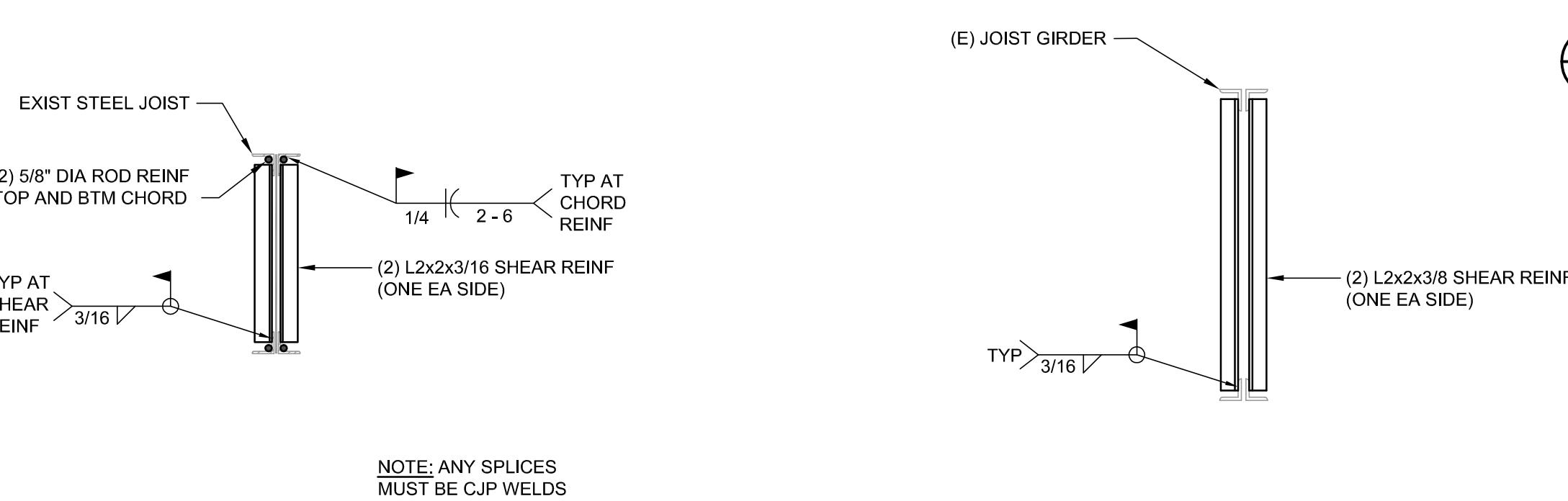
TYP KICKER TO DECK
ATTACHMENT DETAIL

1 S3.0 3/4" = 1'-0"



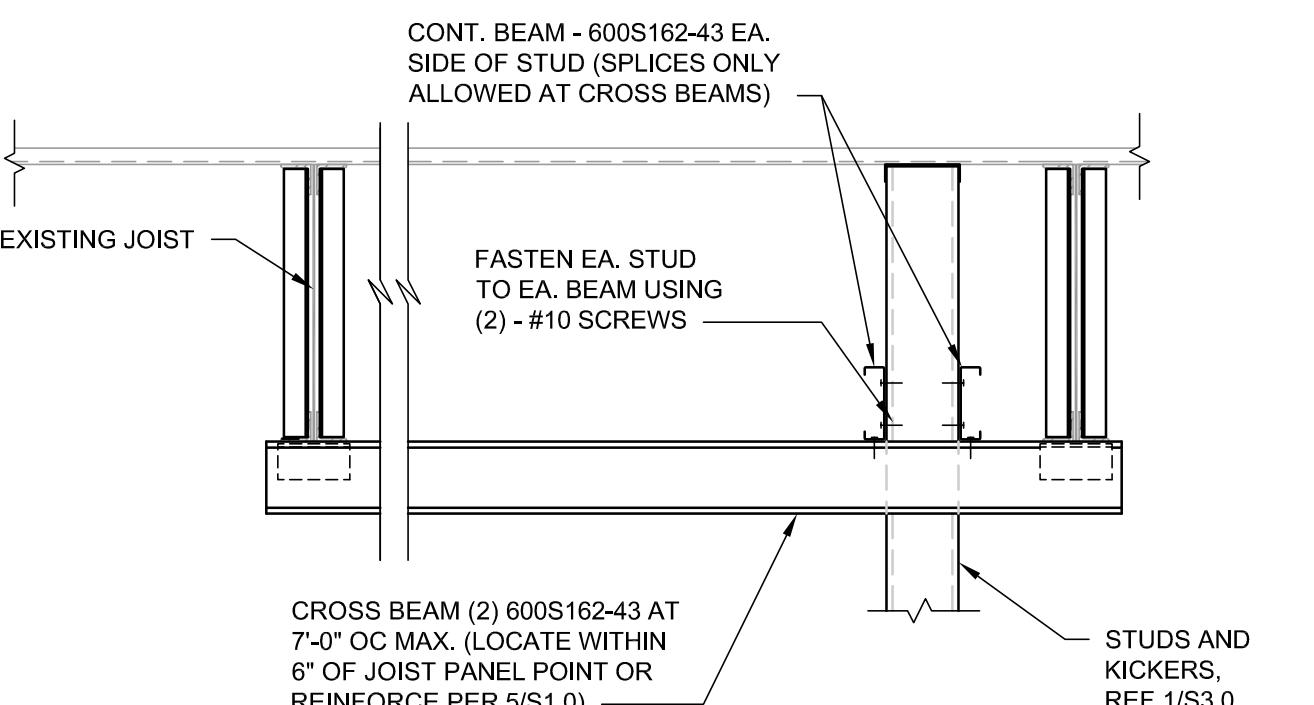
SLIDE-IN ANGLE
FRAME DETAIL

4 S3.0 NTS



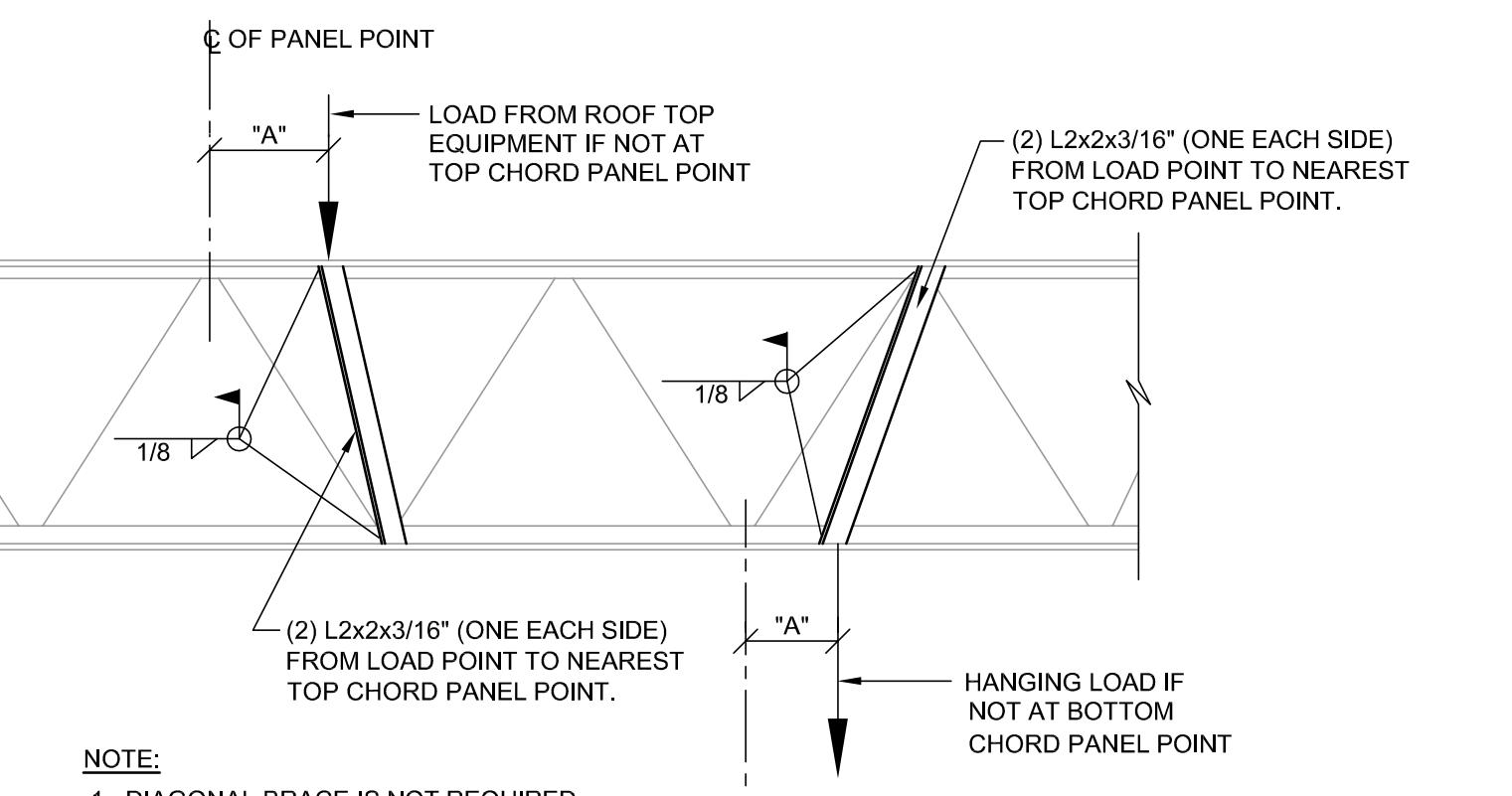
JOIST SECTION

7 S3.0 NTS



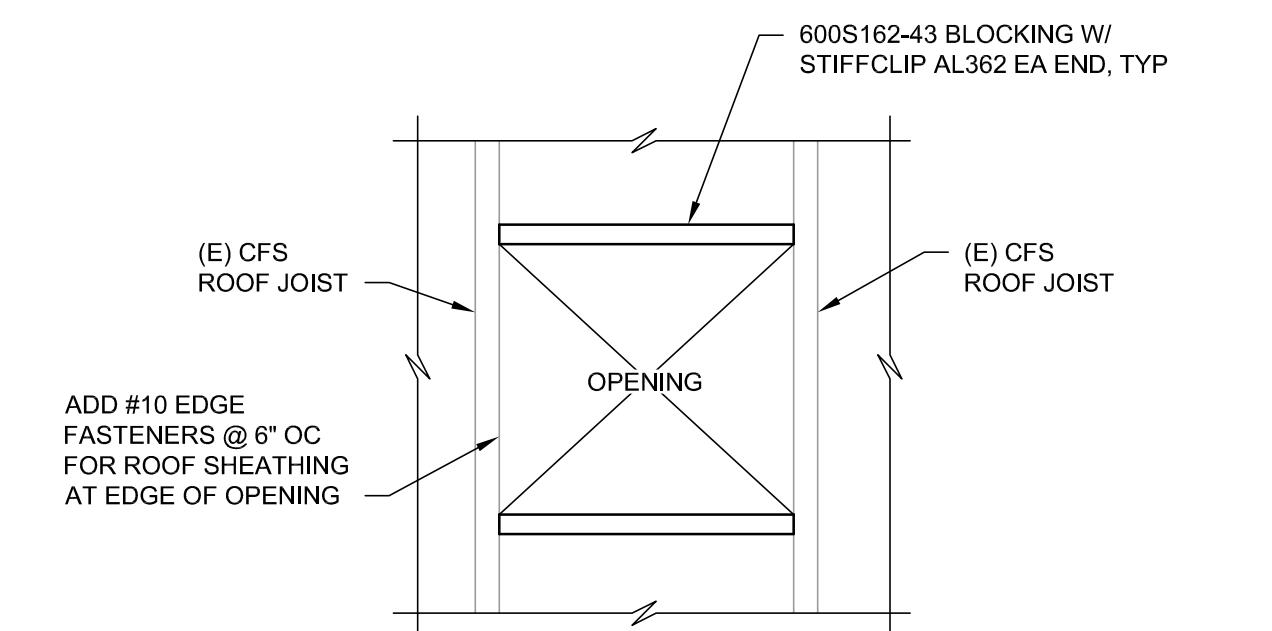
SECTION

2 S3.0 3/4" = 1'-0"



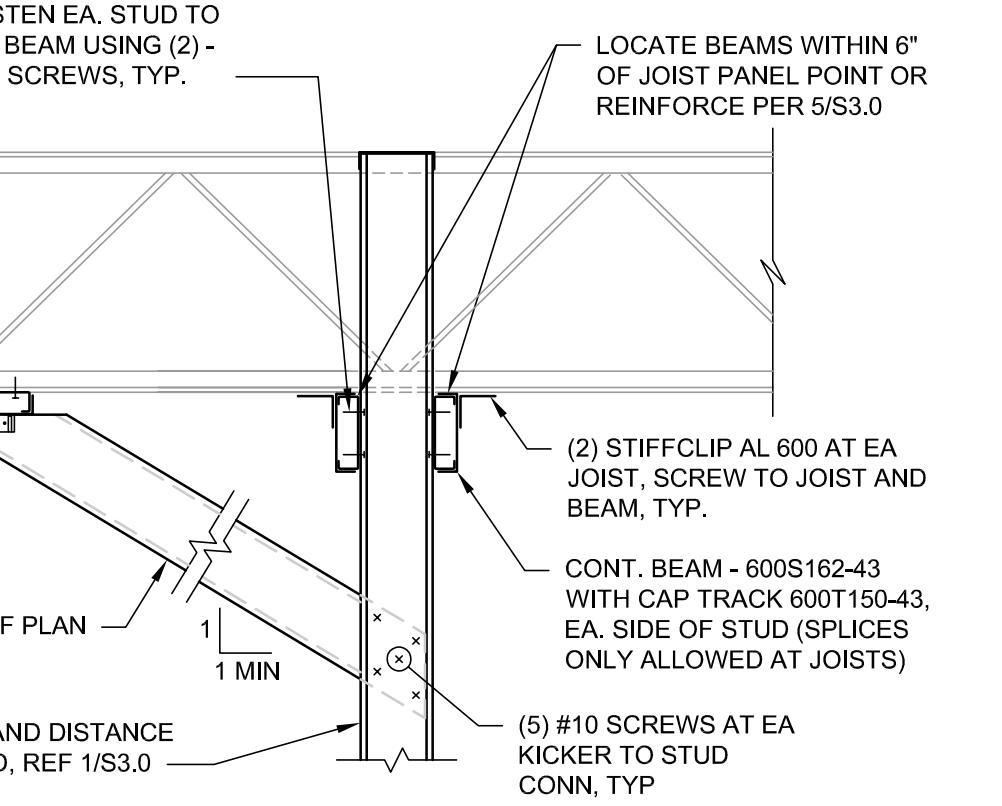
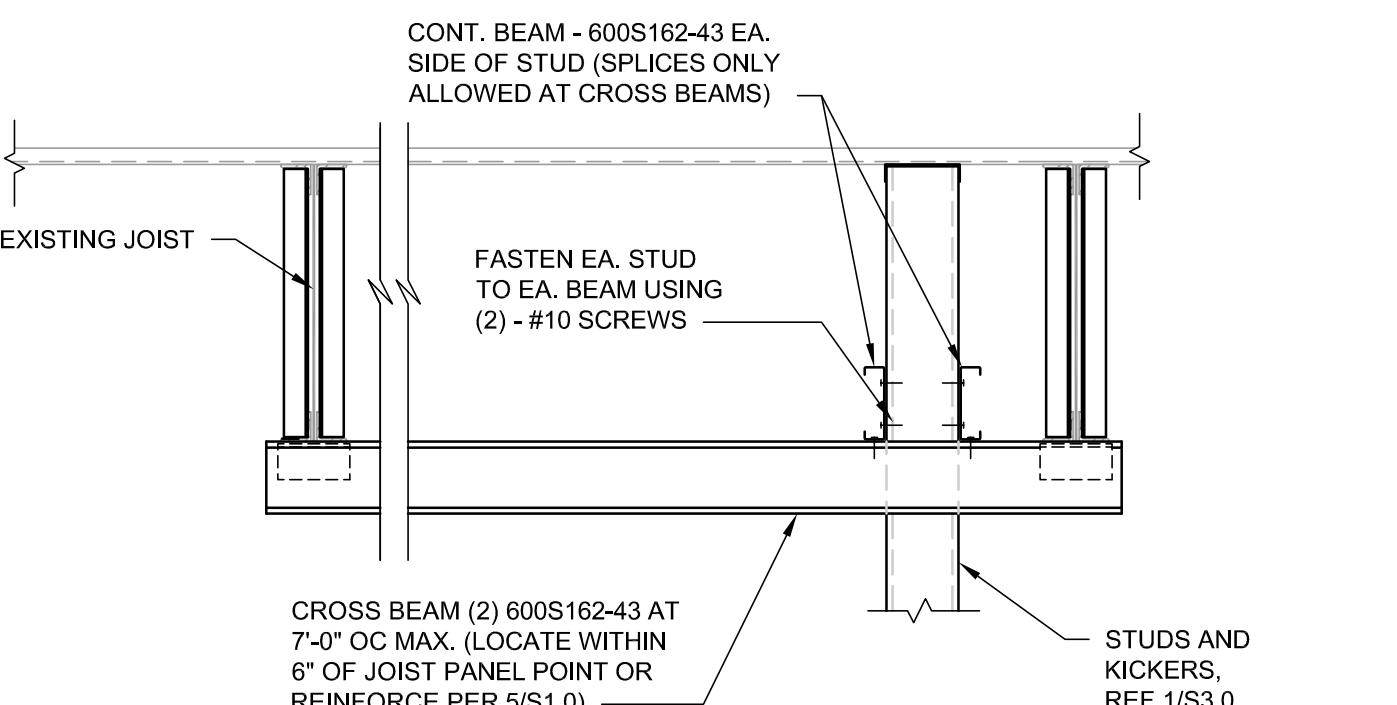
TYPICAL STEEL JOIST REINFORCEMENT
FOR CONCENTRATED LOADS DETAIL

5 S3.0 NTS



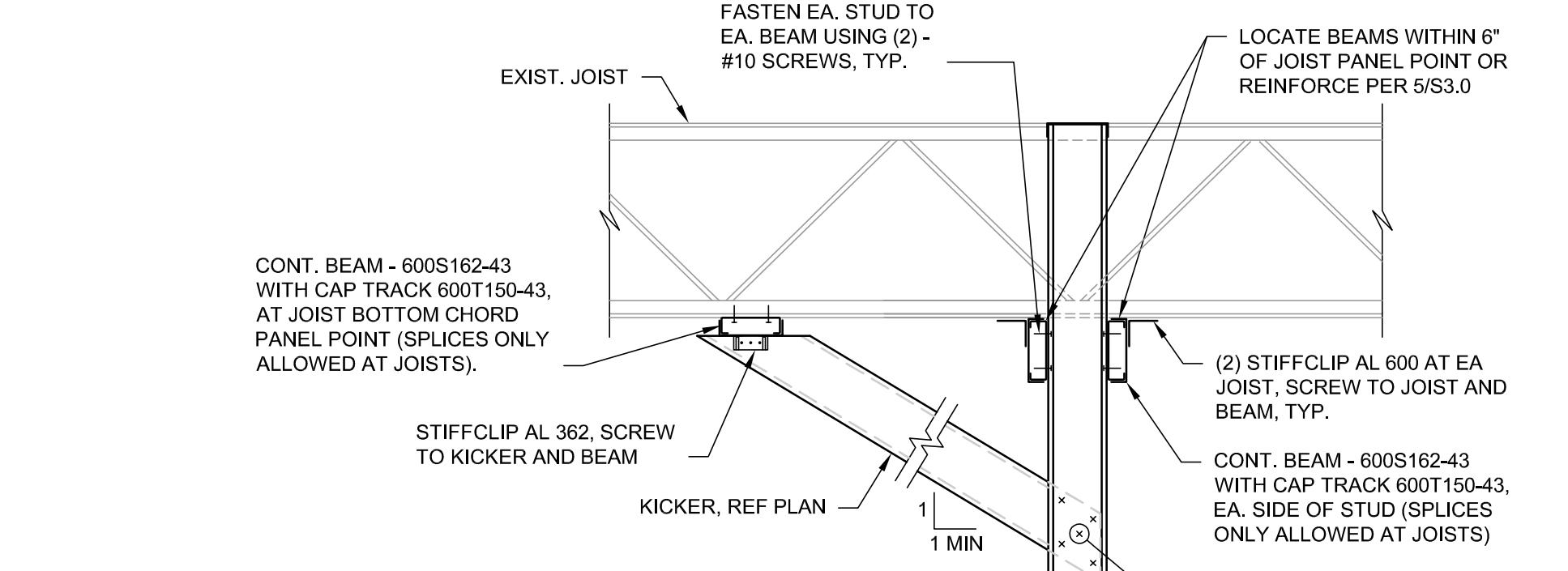
CFS RTU SUPPORT DETAIL

9 S3.0 NTS



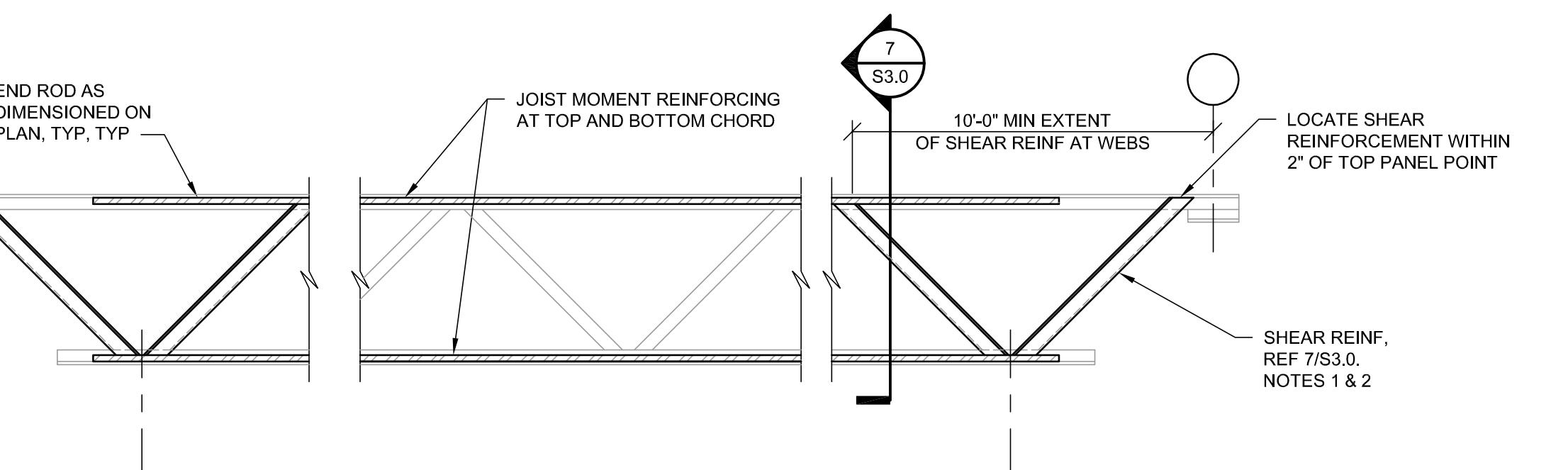
SECTION

3 S3.0 3/4" = 1'-0"



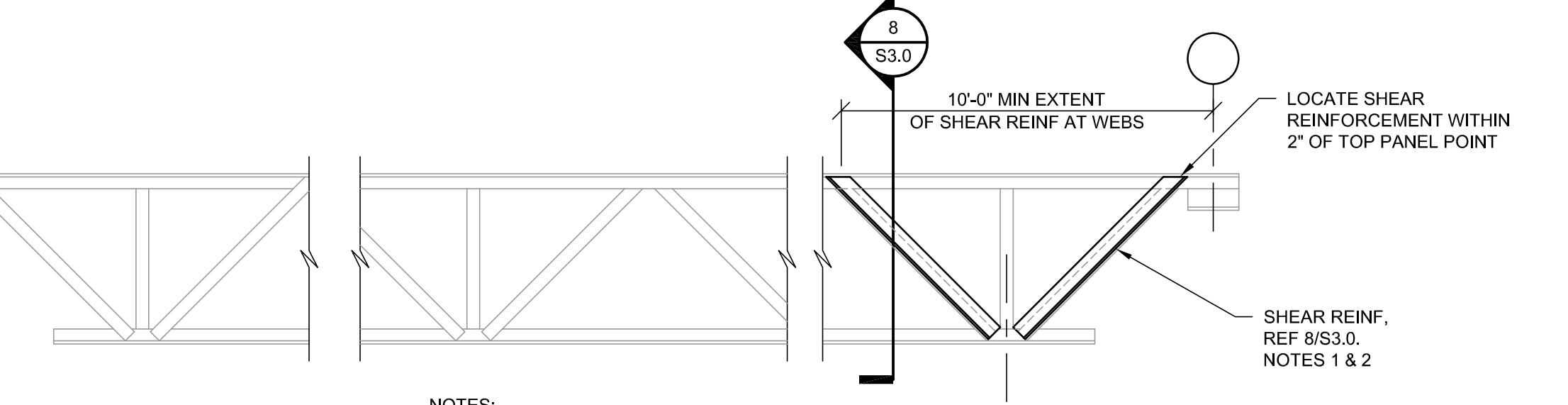
SECTION

4 S3.0 3/4" = 1'-0"



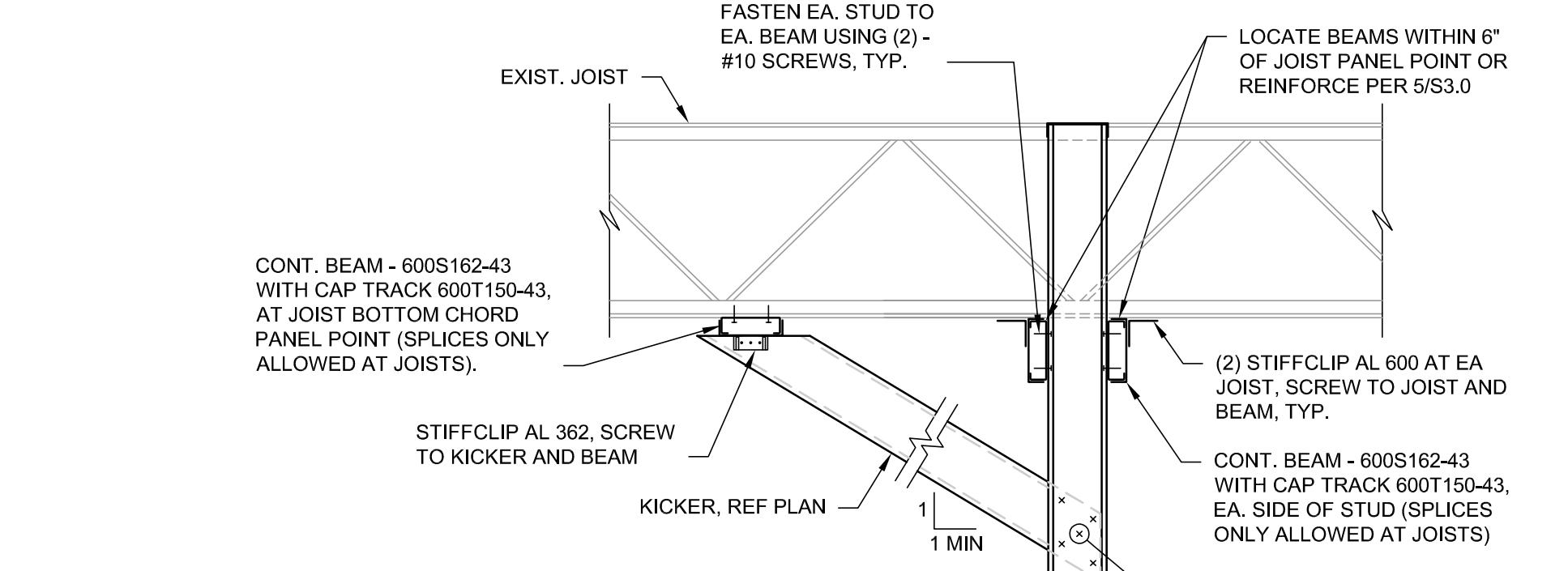
TYP. JOIST REINFORCEMENT ELEVATION

6 S3.0 NTS



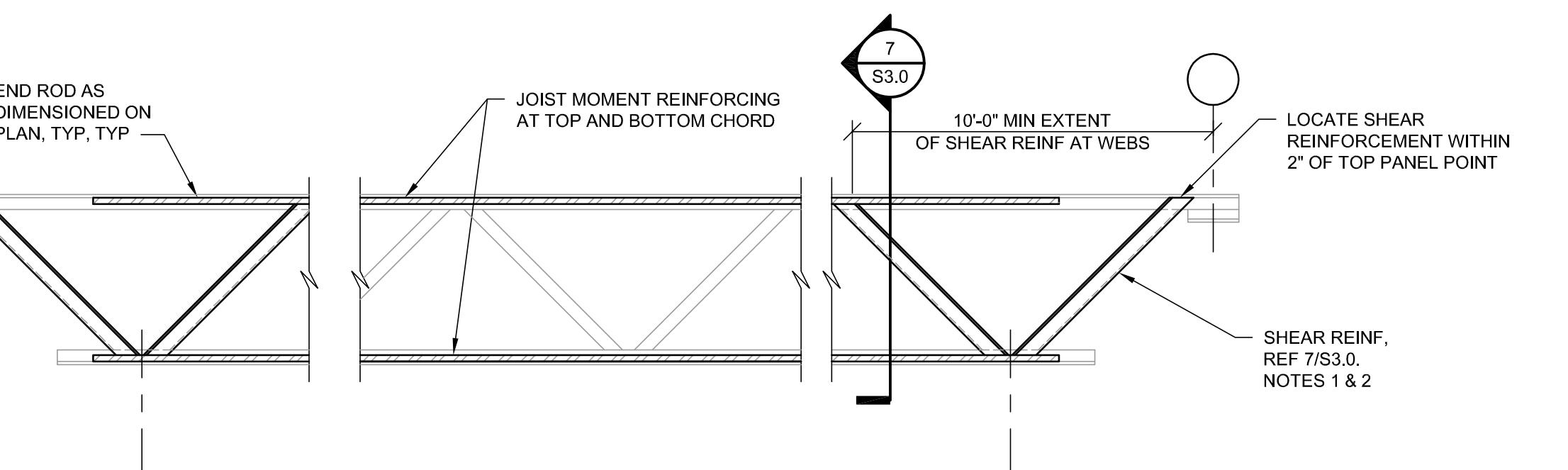
TYP. JOIST GIRD
REINFORCEMENT ELEVATION

10 S3.0 NTS



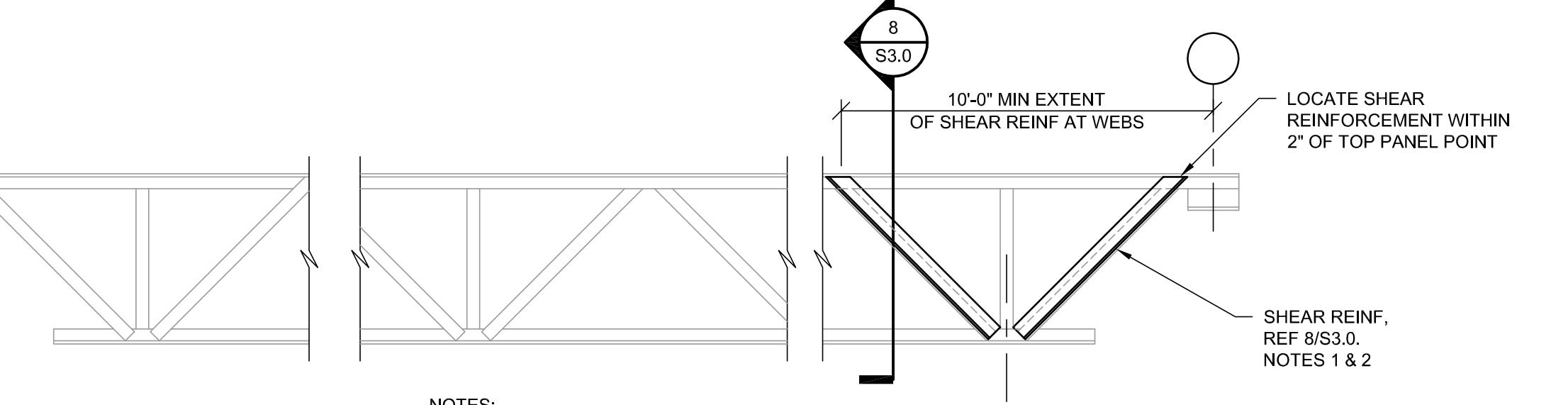
SECTION

5 S3.0 3/4" = 1'-0"



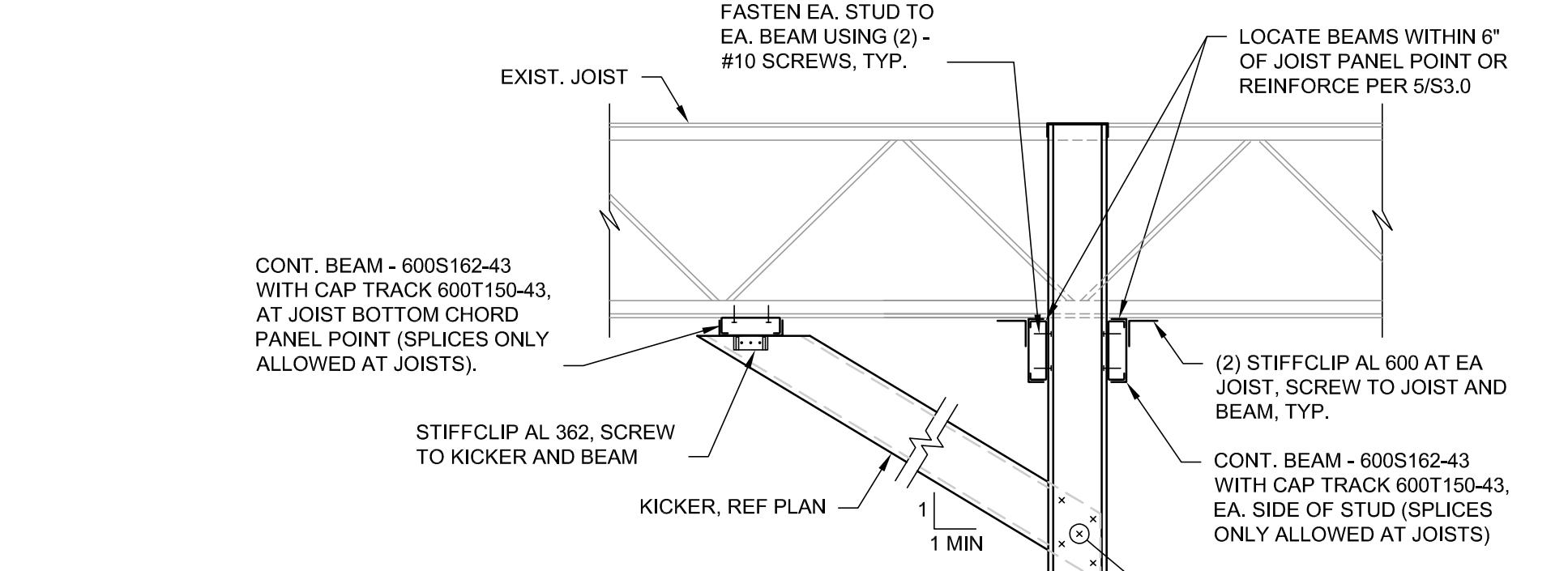
TYP. JOIST REINFORCEMENT ELEVATION

7 S3.0 NTS



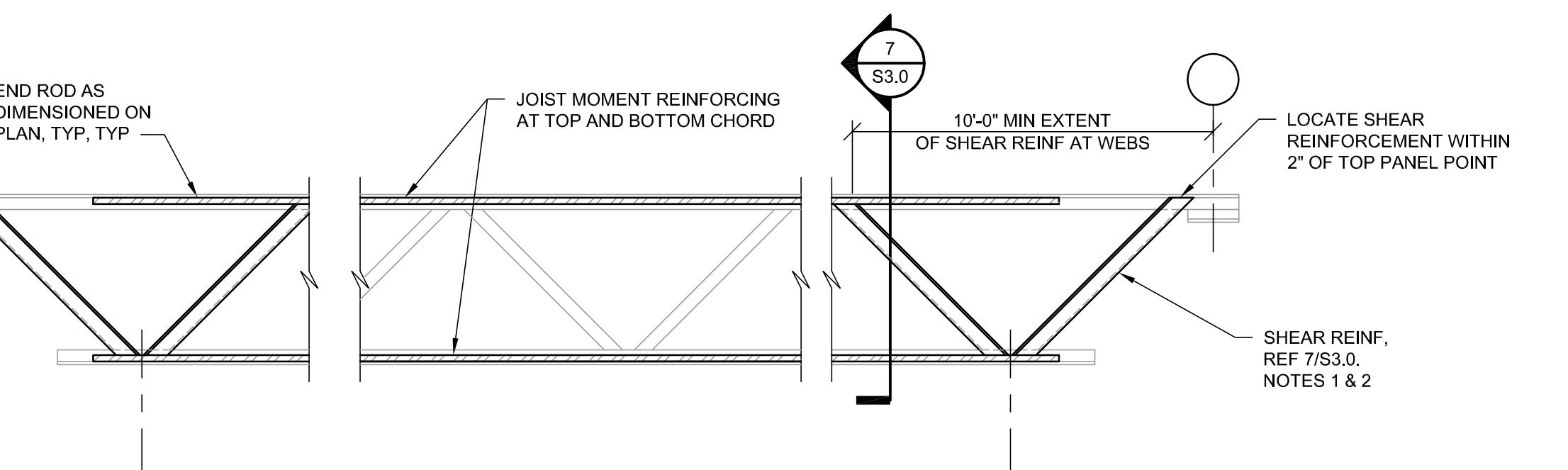
TYP. JOIST GIRD
REINFORCEMENT ELEVATION

8 S3.0 NTS



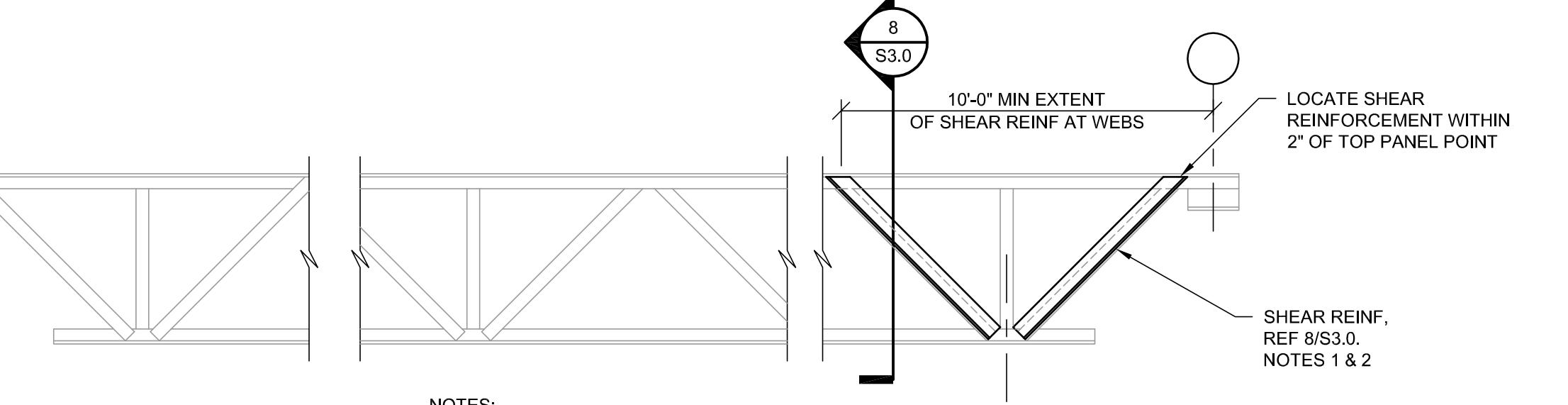
SECTION

6 S3.0 3/4" = 1'-0"



TYP. JOIST REINFORCEMENT ELEVATION

9 S3.0 NTS



TYP. JOIST GIRD
REINFORCEMENT ELEVATION

10 S3.0 NTS

SECTION 15500 - HEATING, VENTILATION AND AIR CONDITIONING

GENERAL

I. DESCRIPTION OF THE WORK:

A. THE EXTENT OF THE MECHANICAL WORK IS INDICATED ON THE DRAWINGS OR IN THE BID MANUAL.

B. RELATED WORK NOT INCLUDED IN THIS SECTION: TEST AND BALANCE, ELECTRICAL WIRING, CONTROL WIRING, ETC., EXCEPT CONTROL WIRING AS SPECIFICALLY DEFINED ABOVE. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPERVISION OF ALL WIRING OF EQUIPMENT AND SHALL FURNISH ALL NECESSARY DIAGRAMS, INCLUDING CONTROL WIRING DIAGRAMS. MOUNT ALL CONTROL DEVICES.

II. SUBMITTALS:

A. MAINTENANCE MANUALS AND INSTRUCTIONS: FURNISH THREE (3) SETS OF COMPLETE OPERATING INSTRUCTIONS COVERING ENTIRE HEATING, VENTILATING AND AIR CONDITIONING SYSTEM. INCLUDE A COPY OF THE CONTROL DIAGRAMS AND A COMPLETE DESCRIPTION OF THE OPERATION OF THE CONTROL SYSTEM. INSTRUCT OWNER'S DESIGNATED REPRESENTATIVE AS TO PROPER OPERATION AND CARE OF SYSTEM.

III. REQUIREMENTS:

A. NOISE AND VIBRATION: EQUIPMENT SHALL OPERATE QUIETLY AND THE DESIGN OF THE SUPPORTS SHALL BE SUCH THAT THE OPERATION OF THE EQUIPMENT SHALL CAUSE NO PERCEPTIVE VIBRATION IN THE FLOORING ADJACENT TO THE EQUIPMENT, NOR CAUSE, DIRECTLY OR INDIRECTLY, VIBRATION OR OBJECTIONABLE NOISE IN ANY OTHER PORTION OF THE BUILDING AND/OR IN THE BUILDING STRUCTURE ITSELF.

B. FOUNDATIONS: FURNISH ALL FOUNDATIONS FOR EQUIPMENT COVERED IN THE SPECIFICATIONS, AS A PART OF THIS SECTION, UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

IV. WARRANTY:

A. FURNISH A FIVE (5) YEAR WARRANTY ON ALL COMPRESSORS AND A ONE (1) YEAR SERVICE AND GUARANTEE ON ALL CONTROLS, EQUIPMENT AND MATERIALS.

PRODUCTS

I. LOW PRESSURE DUCTWORK:

A. SUPPLY & RETURN AIR DUCTWORK AS INDICATED ON PLAN SHALL BE EXTERNALLY INSULATED GALVANIZED SHEET METAL (FIBERGLASS NOT PERMITTED), GAUGES, REINFORCING AND JOINING CONNECTIONS SHALL BE IN STRICT ACCORDANCE WITH SMACNA LOW VELOCITY DUCT STANDARDS LATEST EDITION. ALL DUCTS WIDER THAN 18" SHALL BE CROSS BROKEN. PROVIDE ANGLE STIFFENERS AS REQUIRED TO AVOID DUCT VIBRATION. EXTERNAL INSULATION SHALL BE 2" THICK, 3/4 LB. DENSITY DUCT WRAP.

B. ALL DUCT SIZES INDICATED ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS.

C. ALL DUCTWORK TO BE HUNG WITH GALVANIZED STRAP HANGERS 24 GAUGE x 2" WITH A MAXIMUM SPACING OF 8'-0" O.C.

D. ALL ELBOWS WILL BE SQUARE TURNS WITH DOUBLE VANE TURNING VANES EXCEPT WHERE SHOWN ON THE DRAWINGS.

E. WHERE SHOWN ON THE DRAWINGS, PROVIDE VOLUME DAMPERS WITH LOCKING QUADRANTS OR SPLITTERS WITH HINGE AND ROD THROUGH SIDE OF DUCT WITH SET SCREW. VOLUME DAMPER HANDLES SHALL BE INSTALLED ON THE BOTTOM OF THE SPIN-IN FITTING AND SHALL HAVE RING SET IN FULL OPEN POSITION.

F. ALL FLEXIBLE DUCTS SHALL BE SUPPORTED EVERY 4'-0" WITH 2" WIDE GALV. STEEL BANDS. MINIMUM ONE PER EACH SECTION OF FLEXIBLE DUCT.

II. MANUAL DAMPERS:

A. PROVIDE MANUAL LOUVER DAMPERS WHERE SHOWN ON THE PLANS AND WHERE NECESSARY FOR THE PROPER REGULATION OF THE AIR HANDLING SYSTEM, AND SO LOCATE AS TO BE ACCESSIBLE AFTER THE BUILDING IS COMPLETED, I.E. BY REMOVING A MARKED TILE, ACCESS PANEL OR OTHER APPROVED METHOD. DAMPERS SHALL BE AIR BALANCE NO. AC116.

III. EXHAUST FANS:

A. THIS CONTRACTOR SHALL INSTALL ALL SUPPLY OR EXHAUST FANS AS SCHEDULED ON THE CONTRACT DOCUMENTS.

IV. CONTROLS:

A. PROVIDE ADJUSTABLE HEATING AND COOLING THERMOSTATS LOCATED IN THE MANAGERS OFFICE AND PROVIDE REMOTE TEMPERATURE SENSORS LOCATED WITHIN THE RESPECTIVE SPACE.

V. PIPING:

A. CONDENSATE DRAIN LINES SHALL BE COPPER WITH WROUGHT FITTINGS. CONDENSATE LINES SHALL BE INSULATED WITH MINIMUM ONE-HALF INCH (1/2") THICK POLYISOCYANURATE INSULATION WITH A CLASS I FLAME SPREAD RATING AND A SMOKE DEVELOPED RATING OF 50 OR LESS, AND WITH A NON COMBUSTIBLE UL LISTED VAPOR BARRIER.

VI. SMOKE DETECTORS:

A. PITOT TUBE TRAVERSE SHALL BE PERFORMED TO DETERMINE THE TOTAL FLOW OF ALL HVAC SYSTEMS AND HOOD MAKE UP AIR FANS.

B. ALL DIFFUSERS, REGISTERS AND GRILLES WITH A FACE DIMENSION OF 24" OR LESS SHALL BE MEASURED BY UTILIZING A HOOD AXIAL VANE VELOMETER.

C. USE VOLUME DAMPERS LOCATED IN DUCTS AND BALANCE DIFFUSERS.

D. DUCT SMOKE DETECTORS SHALL ACTIVATE A VISIBLE AND AUDIBLE SIGNAL AT A NORMALLY OCCUPIED LOCATION AND SHALL BE MONITORED BY THE FACP AND REPORT AS A SUPERVISORY SIGNAL PER NFPA 72 AND THE 2006 FMC.

E. DUCT SMOKE DETECTORS REQUIRE A REMOTE LED INDICATOR THRU THE CEILING LEVEL. NFPA 72 3-8.3 AND 5-10.6.8.

F. DUCT SMOKE DETECTORS TO PROVIDE SHUT DOWN IN 30 SECONDS OR LESS.

VIII. SUBMITTALS:

A. IT SHALL BE THE RESPONSIBILITY OF THIS T&B AGENCY TO PROVIDE THE LOCAL BLDG. DEPT. AND OWNER WITH PROPER TEST & BALANCE DATA ON ABC OR NEBB FORMS.

IX. ROOFTOP AIR HANDLER:

A. SPECIFICALLY DESIGNED FOR OUTDOOR ROOFTOP INSTALLATION ON A FULL ROOF CURB. COMPLETELY FACTORY ASSEMBLED AND TESTED, PIPED, INTERNALLY WIRED, FULLY CHARGED WITH REFRIGERANT, COMPRESSOR OIL AND SHIPPED IN ONE PIECE. UNITS AVAILABLE FOR DIRECT EXPANSION COOLING WITH ELECTRIC HEATING, FILTERS, OUTSIDE AIR SYSTEM, EXHAUST AIR SYSTEM, OPTIONAL NON-FUSED DISCONNECT SWITCHES AND ALL OPERATING AND SAFETY CONTROLS. FURNISHED FACTORY INSTALLED. ALL UNITS FACTORY RUN TESTED. COOLING CAPACITY RATED IN ACCORDANCE WITH ARI STANDARD 360. UNITS AVAILABLE WITH UL APPROVAL. ALL UNITS HAVE DECALS AND TAGS TO AID IN SERVICE AND INDICATE CAUTION AREA'S. ELECTRICAL DIAGRAMS ON LONG LIFE WATER RESISTANT MATERIAL SHIP ATTACHED TO CONTROL PANEL DOOR.

X. CASING:

A. EXTERIOR PANELS HAVE A MINIMUM OF 1.25 OZ. ZINC COATING PER SQUARE FOOT OF STEEL, PHOSPHATIZED, AND FINISHED WITH SLATE GRAY WATER-BORN FINISH. SCREWS ARE COATED WITH ZINC-PLUS-ZINC CHROMATE. 18 GAUGE STEEL HINGED ACCESS PANELS WITH TIEBACKS TO SECURE DOOR IN OPEN POSITION PROVIDE ACCESS TO FILTERS AND HEATING SECTIONS.

B. REFRIGERATION COMPONENTS, SUPPLY AIR FAN, AND COMPRESSOR ACCESSIBLE THROUGH REMOVABLE PANELS AS STANDARD. UNIT CONTROL PANEL ACCESSIBLE THROUGH HINGED ACCESS PANEL WITH QUICK RELEASE LATCHES. OPTIONAL HINGED ACCESS DOORS PROVIDE ACCESS TO FILTERS, RETURN/ EXHAUST AIR, HEATING AND SUPPLY FAN SECTION. ALL ACCESS PANELS AND DOORS HAVE NEOPRENE GASKETS, INTERIOR SURFACES OR EXTERIOR CASING MEMBERS HAVE 1/2" TUF-SKIN FIBERGLASS INSULATION. DRAINS PROVIDED ON EACH SIDE OF THE CONDENSER SECTION. UNITS BASE IS WATERTIGHT WITH 14 GAUGE FORMED LOAD BEARING MEMBERS, FORMED RECESS AND CURB OVERHANG, UNIT LIFTING LUGS ACCEPT CHAINS OR CABLES FOR RIGGING. LIFTING LUGS CAN ALSO SERVE AS TIE DOWN POINTS.

XI. COMPRESSOR:

A. ENTIRE INSTALLATION SHALL BE IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS AND APPLICABLE REQUIREMENTS OF THE MANUFACTURERS OF THE EQUIPMENT AND SHALL PERFORM SATISFACTORILY AT THE COMPLETION OF THE WORK.

III. PAINTING:

A. EXCEPT AS SPECIFIED HEREIN, ALL PAINTING WILL BE DONE BY OTHERS. LEAVE WORK FREE FROM RUST, DIRT, GREASE AND PLASTER.

B. EQUIPMENT WITH A FACTORY APPLIED FINISH SHALL HAVE SCRATCHES, CHIPS, ETC. PRIMED AND TOUCHED UP WITH MATERIALS WHICH WILL PROTECT THE SURFACE AND MATCH THE ADJACENT AREAS.

C. ALL FLEXIBLE DUCTS SHALL BE SUPPORTED EVERY 4'-0" WITH 2" WIDE GALV. STEEL BANDS. MINIMUM ONE PER EACH SECTION OF FLEXIBLE DUCT.

IV. CLEANING AND ADJUSTMENTS:

A. UPON COMPLETION OF WORK, CLEAN, OIL AND GREASE ALL FANS, MOTORS, OTHER RUNNING EQUIPMENT AND APPARATUS AND MAKE CERTAIN THAT ALL SUCH APPARATUS AND MECHANISMS ARE IN PROPER WORKING ORDER AND MADE READY FOR TEST.

V. TEST AND BALANCE:

A. BUILDING AIR SYSTEMS SHALL BE BALANCED PER DATA INCLUDED ON THE DRAWINGS TO ACHIEVE RELATIVE AIR VOLUMES AS INDICATED ON THE DRAWINGS AND SCHEDULED HEREIN.

XIII. CONDENSER COIL:

A. CONFIGURED ALUMINUM FIN SECONDARY SURFACE MECHANICALLY BONDED TO PRIMARY SURFACE OF 3/8" O.D. SEAMLESS COPPER TUBING, SUB COOLING CIRCUIT(S) WITH LIQUID ACCUMULATOR(S) STANDARD. FACTORY TESTED AT 450 PSIG AIR PRESSURE. VACUUM DEHYDRATED. CONFIGURED COPPER FINS OPTIONAL AS SECONDARY SURFACE FOR EXTRA CORROSION RESISTANCE.

XIV. CONDENSER FANS AND MOTORS:

A. VERTICAL DISCHARGE, DIRECT DRIVE FANS, STATICALLY BALANCED, WITH STEEL BLADES AND ZINC PLATED STEEL HUBS. THREE-PHASE MOTORS WITH PERMANENTLY LUBRICATED BALL BEARINGS, BUILT-IN CURRENT AND THERMAL OVERLOAD PROTECTION, AND WEATHER TIGHT SLINGERS OVER BEARINGS. OPTIONAL TOTALLY ENCLOSED CONDENSER FAN MOTORS ARE ALSO AVAILABLE.

XV. KITCHEN HOODS / HOOD AIR SYSTEMS:

A. FABRICATION AND DESIGN OF THE HOODS AND ASSOCIATED EQUIPMENT DESIGN SHALL BE BY CAPTIVEAIRE SYSTEMS. PROVIDED BY OWNER.

C. USE VOLUME DAMPERS LOCATED IN DUCTS AND BALANCE DIFFUSERS.

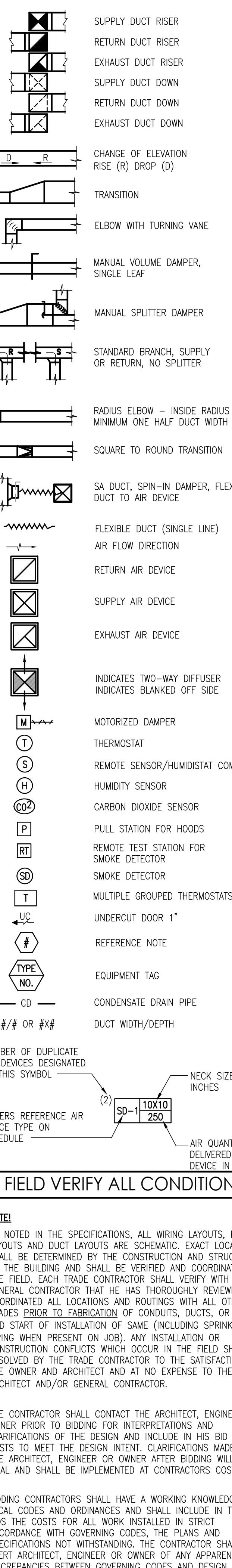
HVAC ABBREVIATIONS

A	AMPS
AFF	ABOVE FINISHED FLOOR
AMB	AMBIENT
BTU	BRITISH THERMAL UNIT
CFM	CUBIC FEET PER MINUTE
C.O.	CLEAN OUT
DIA	DIAMETER
(E)	EXISTING
EAT	ENTERING AIR TEMPERATURE
EDB	ENTERING DRY BULB TEMPERATURE
EF	EXHAUST FAN
(E)RTU	EXISTING ROOF TOP UNIT FAN
ESP	EXTERNAL STATIC PRESSURE
EWB	ENTERING WET BULB TEMPERATURE
'F	DEGREE FAHRENHEIT
FLA	FULL LOAD AMPS
FPM	FEET PER MINUTE
FT	FOOT OR FEET
HP	HORSEPOWER
KW	KILOWATT
Hz	HERTZ
IN	INCH
LAT	LEAVING AIR TEMPERATURE
LDB	LEAVING DRY BULB TEMPERATURE
LRA	LOCKED ROTOR AMPS
LWB	LEAVING WET BULB TEMPERATURE
MAX	MAXIMUM
MBH	1,000 BTU'S PER HOUR
MCA	MAXIMUM CIRCUIT AMPACITY
MIN	MINIMUM
MOPC	MEDIUM OVERCURRENT PROTECTION
(N)	NEW
N/T S	NOT TO SCALE
OA	OUTSIDE AIR
PH	PHASE
RLA	RUNNING LOAD AMPS
RPM	REVOLUTIONS PER MINUTE
RTU	NEW ROOF TOP UNIT
SA	SUPPLY AIR
SD	SPLITTER DAMPER
SHC	SENSIBLE HEAT CAPACITY
SQ. FT.	SQUARE FEET
T	THERMOSTAT
TA	TRANSFER AIR
UC	UNDERCUT

HVAC GENERAL NOTES

1. ALL DRAWINGS ARE CONCEPTUAL AND SCHEMATIC AND ARE INTENDED FOR USE AS A DESIGN/BUILD GUIDELINE. THE CONTRACTORS ARE RESPONSIBLE FOR VERIFYING ALL FIELD CONDITIONS AND ADJUSTING OR MODIFYING THE SPECIFIC ELEMENTS OF THEIR WORK AS REQUIRED TO MEET THE DESIGN INTENT. THE CONTRACTORS ARE RESPONSIBLE FOR THE FOLLOWING:
2. ALL THE BARE METAL SURFACES SHALL BE PRIMED AND PAINTED TO PREVENT ANY RUST, INCLUDING, BUT NOT LIMITED TO, ANGLE FRAMING, UPLIGHTS, MOUNTING HARDWARE, ETC. ANY PAINTING OF DUCTWORK SHALL BE VERIFIED WITH ARCHITECT.
3. CONTRACTOR TO PROVIDE TENANT WITH AS-BUILT DRAWINGS OF ALL CHANGES OR MODIFICATIONS MADE IN THE FIELD, TO THE ORIGINAL SET OF CONSTRUCTION DOCUMENTS, FOR TURN-OVER TO THE ARCHITECT/ ENGINEER UPON COMPLETION OF THE PROJECT. PROVIDE ALL EQUIPMENT SHOP DRAWINGS, INFORMATION ON CONTROL DEVICES, CONTROL WIRING DIAGRAMS AND OTHER PERTINENT INFORMATION AT COMPLETION OF PROJECT.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE MECHANICAL EQUIPMENT COMPONENTS ARE INSTALLED AT LOCATIONS AND ELEVATIONS WHICH MAKE THEM READILY ACCESSIBLE FOR ROUTINE MAINTENANCE WITHOUT REQUIRING ANY EXTRAORDINARY MEASURES.
5. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ADMINISTERING ALL WARRANTIES ON EQUIPMENT WHICH HE INSTALS; THIS INCLUDES ALL CONDENSERS, REFRIGERANT PIPES, AND OTHER ITEMS FURNISHED BY OTHERS AS WELL AS THOSE FURNISHED BY HIM.
6. CONTRACTOR TO INCLUDE IN BID ALL COSTS TO MAKE FIELD COORDINATION AND ADJUSTMENT TO DUCTWORK FOR FIT INTO EXISTING STRUCTURE. CONTRACTOR SHALL VERIFY AND FIELD COORDINATE FINAL LOCATION OF MECHANICAL EQUIPMENT.
7. FURNISH ALL LABOR, MATERIALS, TOOLS, INCIDENTALS AND DETAILS NECESSARY TO PROVIDE A COMPLETE HEATING, VENTILATING, AND AIR CONDITIONING SYSTEM. INCLUDE ANY LABOR AND MATERIALS NOT SPECIFICALLY MENTIONED, BUT NECESSARY TO PROVIDE A COMPLETE AND OPERATING SYSTEM. ALL WORK SHALL BE INSTALLED IN A PROFESSIONAL MANNER AND SHALL MEET ALL THE REQUIREMENTS OF THE STATE BUILDING CODE, CITY BUILDING CODE, SAFETY AND HEALTH CODES, NFPA CODES AND ALL OTHER APPLICABLE CODES AND REQUIREMENTS. ALL COSTS FOR SAID REQUIREMENTS SHALL BE INCLUDED IN THIS CONTRACTOR'S BID PRICE.
8. CONTRACTOR SHALL SECURE AND PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS AND PERFORM ALL TESTS CALLED FOR OR REQUIRED AS A PART OF HIS WORK, FURNISHED APPROVED CERTIFICATE OF FINAL INSPECTION, AND TURN OVER TO OWNER AT COMPLETION OF PROJECT.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL TRADES, LANDLORD REQUIREMENTS, CEILING HEIGHTS AND EXISTING STRUCTURAL CONDITIONS PRIOR TO FABRICATION OF ANY DUCTWORK OR ORDERING OF ANY EQUIPMENT.
10. CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE TEMPERATURE CONTROL SYSTEM TO INCLUDE: PANELS, MODULES, RELAYS, WIRING, THERMOSTATS, SENSORS, DAMPERS, ACTUATORS AND ALL MISCELLANEOUS ITEMS AS REQUIRED TO FULFILL THE DESIGN INTENT AS INDICATED ON THE PLANS AND IN THE CODED NOTES. THERMOSTATS AND SENSORS SHALL BE LOCATED GENERALLY AS SHOWN BUT THEIR EXACT LOCATION SHALL BE FURNISHED COORDINATED TO AVOID INTERFERENCE WITH WALL MOUNTED WORK.
11. DURING THE BIDDING PERIOD, EACH CONTRACTOR SHALL VISIT THE SITE TO DETERMINE CONDITIONS AFFECTING THE WORK. BIDS SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS AND ANY MODIFICATIONS WHICH ARE REQUIRED TO MEET THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. FAILURE TO VISIT THE SITE DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY IN PERFORMANCE OF WORK REQUIRED CONDITIONS IN EVIDENCE THEREBY SHALL NOT BE JUSTIFICATION FOR ADDITIONAL COMPENSATION.
12. THE EQUIPMENT SHALL BE LOCATED TO ALLOW FOR EASY ACCESS FOR SERVICING, ADJUSTING OR MAINTENANCE AND SPACE FOR REMOVAL OF INTERNAL ASSEMBLIES. PROVIDE MINIMUM CLEARANCES FOR ALL EQUIPMENT PER THE MANUFACTURERS RECOMMENDATIONS.
13. PROVIDE ALL CONTROL EQUIPMENT, MOTOR STARTERS, RELAYS, LINE VOLTAGE CONTROLS, TRANSFORMERS, LOW VOLTAGE CONTROLS, AND DEVICES NECESSARY FOR THE COMPLETE OPERATION OF THE HEATING AND AIR CONDITIONING AND VENTILATING SYSTEM.
14. ALL LOW VOLTAGE WIRING AND CONDUIT REQUIRED FOR MECHANICAL EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR.
15. SEE ELECTRICAL SPECIFICATIONS FOR SMOKE DETECTOR WIRING.
16. PROVIDE ALL FANS AND ROOFTOP UNITS WITH RELAYS TO SHUT DOWN WHEN FIRE ALARM IS INITIATED. COORDINATE LOCATION WITH THE ELECTRICAL CONTRACTOR FOR THE FIRE ALARM WIRING.
17. IN THE EVENT OF FAN SHUT DOWN, ALL DUCT MOUNTED DETECTORS SHALL REMAIN IN OPERATION.
18. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH STATE AND LOCAL CODES AND ORDINANCES AND THE NATIONAL ELECTRIC CODE.
19. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS PRIOR TO PURCHASING OR INSTALLING EQUIPMENT AND SYSTEMS INDICATED ON THE CONTRACT DOCUMENTS. PRIOR TO THE SUBMITTAL, THE CONTRACTOR SHALL VERIFY THAT ADEQUATE SPACE EXISTS FOR THE SUBMITTED EQUIPMENT. SHOP DRAWINGS MUST BE REVIEWED BY THE ENGINEER AND ARCHITECT.
20. IT SHALL BE THE RESPONSIBILITY OF THIS T&B AGENCY TO PROVIDE THE LOCAL BUILDING DEPARTMENT AND OWNER WITH PROPER TEST & BALANCE DATA ON ABC OR NEBB FORMS.
21. BUILDING AIR SYSTEMS SHALL BE BALANCED PER DATA INCLUDED ON THE DRAWINGS TO ACHIEVE RELATIVE AIR VOLUMES AS INDICATED ON THE DRAWINGS AND SCHEDULED HEREIN. REFER TO AIR FLOW DIAGRAM DETAIL.
22. ALL ROOFTOP EQUIPMENT TO BE SET LEVEL AND PLUMB.
23. THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BE IMPLEMENTED AT CONTRACTORS COST.
24. BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNMENT CODES, THE PLANS AND SPECIFICATIONS NOTWITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

HVAC SYMBOLS LEGEND





AR99238
CA 8660

ARCHITECTURE
SUMMIT AVE, STE D
K TERRACE, IL 60181
630.932.2336

**ENGINEERING
PERMITTING**
RAL PKWY, STE 4000
E SPRINGS, FL 32701
407.645.5008

SEA

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〉 PLAN KEYED NOTES

1. SUPPLY AND RETURN DUCT UP TO EXISTING RTU ON ROOF TRANSITION AS REQUIRED. FIELD VERIFY ALL DUCT ROUTING PRIOR TO FABRICATION. PROVIDE FLEX CONNECTION FOR VIBRATION ISOLATION.
 2. CONTRACTOR SHALL PROVIDE CAPTIVEAIRE SMART CONTROLS DCV CONTROL SYSTEM TO CONTROL OAU-1 IN LOCATION SHOWN MOUNTED 48" AFF TO TOP OF DEVICE. MOUNT AT 46" IF ADA REQUIREMENTS APPLY. COORDINATE EXACT LOCATION WITH TENANT CONSTRUCTION MANAGER AND WITH WALL SIGNAGE. THE ENTIRE CONTROL SYSTEM SHALL BE PROVIDED COMPLETE IN EVERY RESPECT BY THE MECHANICAL CONTRACTOR. COORDINATE EXACT REQUIREMENTS WITH CAPTIVEAIRE SUPPLIER PRIOR TO BID.
 3. PROVIDE NEW 7-DAY DIGITAL PROGRAMMABLE THERMOSTAT AT LOCATION SHOWN MOUNTED 48" AFF TO TOP OF DEVICE. MOUNT THERMOSTAT AT 46" IF ADA REQUIREMENTS APPLY. THE ENTIRE CONTROL SYSTEM SHALL BE PROVIDED COMPLETE IN EVERY RESPECT BY THE MECHANICAL CONTRACTOR. THERMOSTAT SHALL NOT BE MOUNTED ON AN EXTERIOR WALL OR IN DIRECT SUNLIGHT.
 4. ROUTE DUCT FROM EF-2 MOUNTED ON ROOF TO FIXTURES AS SHOWN. EXHAUST FAN SHALL INTERLOCK WITH CHANGING ROOM LIGHTS.
 5. UNDERCUT DOOR 1" FOR AIR PASSAGE.
 6. FIRE ALARM CONTRACTOR TO PROVIDE DUCT MOUNTED SMOKE DETECTORS AND WALL REMOTE TEST STATION FOR THE SUPPLY DUCT OF OAU-1 WITH ALL WIRING CONNECTIONS. THE DUCT SMOKE DETECTORS SHALL BE COMPATIBLE WITH THE FIRE ALARM SYSTEM. THE MECHANICAL CONTRACTOR SHALL INSTALL THE SMOKE DETECTORS AND REMOTE TEST STATION. FIRE ALARM CONTRACTOR SHALL CONNECT TO A FIRE ALARM SYSTEM. THE ACTIVATION OF THE DUCT SMOKE DETECTOR SHALL ACTIVATE AN AUDIBLE/VISUAL ALARM AT A CONSTANTLY ATTENDED LOCATION. MECHANICAL AND ELECTRICAL CONTRACTOR SHALL TEST AND VERIFY THE SMOKE DETECTION SYSTEM WORKS PROPERLY AND MEETS ALL LOCAL AND STATE CODES. EXACT LOCATION OF REMOTE STATION SHALL BE FIELD VERIFIED. REMOTE TEST IS NOT REQUIRED WHERE THE SMOKE DETECTORS CAN BE TESTED FROM THE FIRE ALARM PANEL.
 7. PROVIDE REMOTE TEST STATION FOR SMOKE DETECTORS WITH AUDIBLE AND VISUAL ALARM WITH KEYED RESET. MOUNT TEST STATION 48 INCHES AFF. MOUNT AUDIBLE AND VISUAL ALARM IN CONSTANTLY ATTENDED LOCATION. CONSTANTLY ATTENDED LOCATION IS NOT REQUIRED WHERE DUCT SMOKE DETECTOR ACTIVATES THE BUILDING'S ALARM SYSTEM.
 8. PROVIDE SMOKE DETECTORS IN THE RETURN OF THE ROOFTOP UNIT. FIRE ALARM CONTRACTOR TO PROVIDE ALL WIRING CONNECTIONS. CONTRACTOR SHALL CONNECT TO A FIRE ALARM SYSTEM. THE ACTIVATION OF THE SMOKE DETECTOR SHALL ACTIVATE AN AUDIBLE/VISUAL ALARM AT A CONSTANTLY ATTENDED LOCATION. SMOKE DETECTOR SHALL BE COMPLIANT WITH LOCAL CODES. FIELD VERIFY EXACT LOCATION AND REQUIREMENTS PRIOR TO BID.
 9. FABRIC AIRE SUPPLY DUCTSOX SEDONA LINE SYSTEM. COORDINATE FINAL DUCT SOCK SIZE AND MATERIAL WITH MANUFACTURER BASED ON CFM AND LENGTH. COORDINATE EXACT DUCT MOUNTING HEIGHT WITH TENANT/ARCHITECT. PROVIDE WITH SKELETAL SYSTEM. COORDINATE FINAL COLOR WITH TENANT PRIOR TO BID. REFER TO AQUATOTS CONSTRUCTION GUIDE FOR ADDITIONAL DETAILS.
 10. 18"Ø DUCT UP TO EF-1A & EF-1B MOUNTED ON ROOF 36" ABOVE SNOW LINE. PROVIDE WITH BACKDRAFT DAMPER AND PRICE 600 ALUMINUM 24X16 RETURN GRILL ON POOL WALL AT 6" AFF. ENSURE DUCT CHASE IS SEALED AGAINST INFILTRATION FROM POOL AREA.
 11. PROVIDE 8/8 EXHAUST DUCT UP TO EF-3 MOUNTED ON ROOF. PROVIDE WITH TIME CLOCK AND SET FAN TO OPERATE DURING OPERATIONAL HOURS.
 12. MOUNT REMOTE TEMPERATURE/HUMIDITY SENSOR PROVIDED WITH OAU-1 IN AREA SHOWN AT 66" AFF. COORDINATE EXACT LOCATION WITH TENANT CONSTRUCTION MANAGER. TEMPERATURE/ HUMIDITY SENSOR INSTALLED BY MECHANICAL CONTRACTOR COORDINATE EXACT REQUIREMENTS PRIOR TO BID. SENSOR SHALL NOT BE MOUNTED ON AN EXTERIOR WALL OR IN DIRECT SUNLIGHT. PROVIDE SECOND ADJACENT SENSOR WIRED BACK TO POOL SYSTEM CONTROL PANEL. COORDINATE REQUIREMENTS WITH CAPTIVEAIRE.
 13. PROVIDE POOL HEATER CONCENTRIC VENT EXHAUST FLUE AND INTAKE TO ROOF ABOVE. COORDINATE EXACT ROUTING WITH OTHER TRADES PRIOR TO CONSTRUCTION. COORDINATE EXACT ROUTING WITH POOL DRAWINGS AND FINAL LOCATION OF POOL HEATER. COORDINATE EXACT REQUIREMENTS WITH MANUFACTURER PRIOR TO BID.
 14. CONCENTRIC VENT FROM NEW WATER HEATER TO ROOF ABOVE.
 15. COORDINATE EXACT LOCATION OF THERMOSTATS AND SENSORS WITH TENANT CONSTRUCTION MANAGER AND WITH WALL SIGNAGE.
 16. DISPLAY FOR OAU-1 IN OFFICE. COORDINATE EXACT LOCATION WITH CONSTRUCTION MANAGER. PROVIDE CAT5 CABLE FROM UNIT TO OFFICE DISPLAY.
 17. MOUNT REMOTE TEMPERATURE/HUMIDITY SENSOR IN AREA SHOWN AT 66" AFF. COORDINATE EXACT LOCATION WITH TENANT CONSTRUCTION MANAGER. TEMPERATURE/ HUMIDITY SENSORS FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR COORDINATE EXACT REQUIREMENTS PRIOR TO BID. SENSOR SHALL NOT BE MOUNTED ON AN EXTERIOR WALL OR IN DIRECT SUNLIGHT.
 18. EXHAUST FAN TO RUN CONTINUOUSLY. PROVIDE WITH 8"Ø EXHAUST DUCT TO ROOF. EXHAUST DUCT SHALL BE MINIMUM 26 GA GALVANIZED STEEL. PROVIDE RAIN CAP WITH INTEGRAL BIRD SCREEN, BACKDRAFT DAMPER, AND ACCESSORIES AS REQUIRED INCLUDING SPEED CONTROLLER CONCEALED AND ACCESSIBLE.
 19. PROVIDE Q-MARK SERIES #MUH05-81, UNIT HEATER, UNIT SHALL BE A HORIZONTAL PROJECTION, 208V, 1 PHASE WITH A CAPACITY OF 5 KW. UNIT TO BE COMPLETE WITH HANGERS AND INTEGRAL THERMOSTAT SET AT 45°F. FIELD COORDINATE EXACT LOCATION IN UTILITIES ROOM PRIOR TO INSTALLATION.
 20. ALL EXPOSED DUCTWORK IN POOL AREA TO BE CONSTRUCTED OF ALUMINUM WITH HIGH BUILD EPOXY COATING.
 21. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO SUBMITTING HIS BID. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR ANY EXTRAS DUE TO THE CONTRACTOR'S FAILURE TO VISIT THE PROJECT SITE PRIOR TO SUBMITTING THE BID. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER FOR RESOLUTION.
 22. ALL EQUIPMENT FURNISHED SHALL FIT THE SPACE AVAILABLE WITH CONNECTIONS IN THE REQUIRED LOCATIONS AND WITH ADEQUATE SPACE FOR OPERATING AND SERVICING. THE DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATE THE INTENT OF THE INSTALLATION WHILE THE SPECIFICATIONS AND EQUIPMENT LIST DENOTE THE TYPE AND QUALITY OF MATERIAL AND WORKMANSHIP TO BE USED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENTS. WHERE A CONFLICT EXISTS BETWEEN THE DRAWINGS AND THE SPECIFICATIONS, THE HIGHER AND/OR MORE COSTLY STANDARD WILL APPLY. THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER WHOSE DECISION SHALL BE FINAL. NO ALLOWANCE WILL BE MADE SUBSEQUENTLY IN THIS REGARD ON BEHALF OF THE CONTRACTOR AFTER AWARD OF THE CONTRACT.
 23. INSTALLATION OF EQUIPMENT SHALL COMPLY WITH EQUIPMENT MANUFACTURER'S INSTALLATION AND CLEARANCE REQUIREMENTS TO ALLOW FOR INSPECTION, SERVICE, REPAIR OR REPLACEMENT.
 24. THE BUILDING OR STRUCTURE SHALL NOT BE WEAKENED BY THE INSTALLATION OF MECHANICAL SYSTEMS. THE CONTRACTOR SHALL VERIFY WITH STRUCTURAL THAT WEIGHT OF FAN SUPPORTED ON THE BOTTOM CORD OF THE ROOF TRUSSES CAN SUPPORT THE LOADS (14LBS) OF THE CEILING FANS.
 25. ALL NEW SUPPLY AND RETURN DUCTWORK SHALL BE GALVANIZED STEEL, EXTERNALLY INSULATED WITH 2 INCH THICK, 1 POUND DENSITY FIBERGLASS DUCTWRAP. INSTALLED R VALUE SHALL BE A MINIMUM OF 6. SEAL ALL JOINTS AND SEAMS PRIOR TO ADDING DUCTWRAP. SEAL WRAP WITH GLASS FABRIC AND MASTIC MEETING UL 181.
 26. DUCT SIZES SERVING DIFFUSERS AND GRILLES ARE SAME SIZE AS DIFFUSER OR GRILLE NECK UNLESS NOTED OTHERWISE. TOTAL LENGTH OF FLEXIBLE DUCT RUN SHALL NOT EXCEED 5'-0" LONG AND SHALL MEET INSTALLATION AND MATERIAL REQUIREMENTS OF LOCAL CODES. EXTEND SHEETMETAL DUCT WITHIN 5'-0" OF THE AIR DEVICE FOR COMPLIANCE. FLEXIBLE DUCTWORK IS NOT PERMITTED FOR USE IN ANY PARTS OF THE RETURN OR EXHAUST AIR SYSTEMS. FLEXIBLE DUCTWORK SHALL NOT PASS THROUGH FIRE RATED CONSTRUCTION.
 27. PROVIDE VOLUME BALANCING DAMPER AT ALL NINETY-DEGREE DUCT TAKE-OFFS. THIS ALSO APPLIES TO TAKE-OFFS TO DIFFUSERS OR REGISTERS LOCATED DIRECTLY UNDER DUCTS.
 28. ALL RESTROOM MAKE-UP AIR SHALL BE GALVANIZED STEEL TRANSFER DUCTS WITH ZERO LEAKAGE BACKDRAFT DAMPERS AND DOOR UNDERCUTS.
 29. CONTRACTOR SHALL PERFORM A COMPLETE CERTIFIED TEST AND BALANCE OF EACH MECHANICAL SYSTEM INCLUSIVE OF EXHAUST FANS, SPLIT SYSTEM AIR HANDLING UNITS, ROOFTOP UNITS, VARIABLE AIR VOLUME BOXES, FAN COIL UNITS AND CEILING DEVICES. SEE SPECIFICATIONS FOR DETAILS AND PROVIDE THREE (3) WRITTEN COPIES OF THE COMPLETED TEST AND BALANCE REPORT TO THE OWNER FOR REVIEW.
 30. MECHANICAL CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF ALL ROOF TOP EQUIPMENT PRIOR TO CUTTING ROOF OPENINGS. ALL OPENING SHOULD FALL BETWEEN JOIST.
 31. PROVIDE ACCESS TO ALL COMPONENTS REQUIRING PERIODIC INSPECTION AND SERVICE THAT ARE LOCATED WITHIN THE SPACE OR REQUIRE ACCESS THROUGH THE SPACE. LABEL ACCESS DOORS AND PANELS OR CEILING TILES UTILIZED FOR ACCESS WITH THE NAME OF THE HIDDEN COMPONENT(S). DEMONSTRATE ACCESS TO ALL HIDDEN COMPONENTS FOR THE FIELD REPRESENTATIVE PRIOR TO OCCUPANCY.
 32. CONTRACTOR SHALL COMPLY WITH ALL LANDLORD'S TENANT CRITERIA. COORDINATE AND SCHEDULE ALL WORK WITH LANDLORD' FIELD REPRESENTATIVE.
 33. IDENTIFY ALL ROOF MOUNTED EQUIPMENT WITH STORE NAME AND UNIT NUMBER USING PERMANENT WEATHER PROOF 2" HIGH DIE-CUT LETTERS.
 34. WIRE SMOKE DETECTORS TO BUILDING FIRE ALARM CONTROL PANEL, IF EXISTING, OR ELSE FURNISH AND INSTALL A COMPATIBLE REMOTE AUDIBLE/VISUAL ALARM DEVICE. FIELD VERIFY EXACT REQUIREMENTS. PER SIGNAL FROM SMOKE DETECTOR, UNIT SHALL SHUT DOWN AND ALL DAMPER SHALL CLOSE. CONTRACTOR SHALL TEXT SYSTEM, PRIOR TO TURNOVER, TO INSURE PROPER FUNCTION.
 35. PROVIDE ALL NECESSARY TRANSITIONS AND OFFSETS IN SUPPLY AND RETURN AIR DUCTWORK TO AVOID EXISTING STRUCTURE, WATER, GAS, SPRINKLER PIPING, OTHER DUCTWORK, OTHER TRADES, ETC. DUCTWORK SHALL BE INSTALLED AS HIGH AS CONDITIONS WILL ALLOW.
 36. WHERE CEILING SPACE IS NOT SUFFICIENT TO PERMIT TOP CONNECTION TO CEILING DIFFUSER WITH PROPER BEND RADIUS FOR FLEXIBLE DUCTS, CONTRACTOR SHALL FABRICATE AND/OR PROVIDE AN ADAPTER BOX FOR DIFFUSER TO PERMIT SIDE CONNECTION TO FLEXIBLE DUCT.
 37. DUCT DIMENSIONS SHOWN ARE INSIDE NET DIMENSIONS, ADD TO SHEET METAL SIZE FOR INSULATION THICKNESS. HOLD DUCTWORK TIGHT TO UNDERSIDE OF STRUCTURE UNLESS OTHERWISE NOTED OR REQUIRED BY FIELD CONDITIONS. IT IS REQUIRED TO COORDINATE EXACT MOUNTING HEIGHT IN FIELD WITH SITE INVESTIGATION. SUPPLY, RETURN, OUTSIDE AIR AND RELIEF AIR DUCTS SHALL BE SHEET METAL AND BE EXTERNALLY INSULATED WITH OWENS CORNING TYPE 150 2" THICK, FOIL FACED FLEXIBLE FIBROUS GLASS BLANKET INSULATION WITH A MIN R-6.4 VALUE, EQUAL IS APPROVED. INSULATION WRAP SHALL BE SEALED WITH FAB AND MASTIC.
 38. PROVIDE SUPPLY ELBOWS OR TEES WITH TURNING VANES FOR ALL CHANGES OF DUCT DIRECTION. PROVIDE SPLITTER DAMPERS WITH LOCKING QUADRANTS IN ALL TEES.
 39. DUCT SIZES MUST BE VERIFIED FOR CLEARANCES AT THE JOB SITE PRIOR TO FABRICATION. DIMENSIONS MAY BE CHANGED TO ACCOMMODATE CONSTRUCTION AS LONG AS EFFECTIVE CROSS-SECTIONAL AREA IS MAINTAINED. DUCT TRANSITIONS SHALL BE CONSTRUCTED WITH A SLOPE OF 1" TO 4". ALL DEVIATIONS FROM ORIGINAL CONTRACT DRAWINGS SHALL BE REVIEWED BY ENGINEER DURING THE SHOP DRAWING PROCESS.
 40. RESTROOM EXHAUST DUCT SHALL BE MINIMUM 26 GA. GALVANIZED STEEL. PROVIDE RAIN CAP WITH INTEGRAL BIRD SCREEN, BACKDRAFT DAMPER, AND ACCESSORIES AS REQUIRED INCLUDING SPEED CONTROLLER CONCEALED AND ACCESSIBLE. EXHAUST FAN SHALL MAINTAIN 10' CLEARANCE FOR ANY OUTSIDE AIR INTAKE. ALL ROOF WORK SHALL BE DONE BY LANDLORD'S ROOFING CONTRACTOR AT TENANT'S EXPENSE UNLESS NOTED OTHERWISE.
 41. DUCT-TO-EXHAUST FAN CONNECTIONS SHALL BE FLANGED AND GASKETED AND BOLTED TO THE INLET OF THE FAN FOR SIDE-INLET UTILITY FANS; AND SHALL BE FLANGED, GASKETED AND BOLTED TO THE INLET AND OUTLET OF THE FAN FOR IN-LINE FANS. GASKET AND SEALING MATERIALS SHALL BE RATED FOR CONTINUOUS DUTY AT A TEMPERATURE OF NOT LESS THAN 1500°F (816°C).
 42. ACCESS SHALL BE PROVIDED FOR INSPECTION AND MAINTENANCE. MECHANICAL CONTRACTOR SHALL VERIFY CODE REQUIREMENTS FOR APPLICABLE CONFIGURATION. PROVIDE AUDIBLE/VISUAL ALARM DEVICES IN APPROVED LOCATION TO SIGNAL DUCT SMOKE DETECTOR ACTIVATION. MECHANICAL AND ELECTRICAL CONTRACTOR SHALL TEST AND VERIFY THE SMOKE DETECTION SYSTEM WORKS PROPERLY AND MEETS ALL LOCAL AND STATE CODES.
 43. INSTALL FLEX FULLY EXTENDED, DO NOT INSTALL IN THE COMPRESSED STATE OR USE EXCESS LENGTHS" (USING MORE THAN NECESSARY TO GET FROM POINT A TO POINT B, AND LEAVING THE EXCESS CURLING AROUND). "THIS WILL NOTICEABLY INCREASE FRICTION LOSSES". AVOID BENDING DUCTS ACROSS SHARP CORNERS OR INCIDENTAL CONTACT WITH METAL FIXTURES PIPES OR CONDUITS. RADIUS AT CENTERLINE SHALL BE NO LESS THAN ONE DUCT DIAMETER. FLEX DUCT SUPPORT AT NO MORE THAN FOUR FOOT INTERVALS AND CLARIFIES THAT CONNECTIONS TO A MAIN DUCT OR AIR OUTLET ARE SUPPORTS. HANGER OR SADDLE MATERIAL IN CONTACT WITH THE FLEXIBLE DUCT SHALL BE OF SUFFICIENT WIDTH TO PREVENT ANY RESTRICTION OF THE INTERNAL DIAMETER OF THE DUCT WHEN THE WEIGHT OF THE SUPPORTED SECTION RESTS ON THE HANGER OR SADDLE MATERIAL.

GENERAL PLAN NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO SUBMITTING HIS BID. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR ANY EXTRAS DUE TO THE CONTRACTOR'S FAILURE TO VISIT THE PROJECT SITE PRIOR TO SUBMITTING THE BID. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER FOR RESOLUTION.

ALL EQUIPMENT FURNISHED SHALL FIT THE SPACE AVAILABLE WITH CONNECTIONS IN THE REQUIRED LOCATIONS AND WITH ADEQUATE SPACE FOR OPERATING AND SERVICING. THE DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATE THE INTENT OF THE INSTALLATION WHILE THE SPECIFICATIONS AND EQUIPMENT LIST DENOTE THE TYPE AND QUALITY OF MATERIAL AND WORKMANSHIP TO BE USED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENTS. WHERE A CONFLICT EXISTS BETWEEN THE DRAWINGS AND THE SPECIFICATIONS, THE HIGHER AND/OR MORE COSTLY STANDARD WILL APPLY. THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER WHOSE DECISION SHALL BE FINAL. NO ALLOWANCE WILL BE MADE SUBSEQUENTLY IN THIS REGARD ON BEHALF OF THE CONTRACTOR AFTER AWARD OF THE CONTRACT.

INSTALLATION OF EQUIPMENT SHALL COMPLY WITH EQUIPMENT MANUFACTURER'S INSTALLATION AND CLEARANCE REQUIREMENTS TO ALLOW FOR INSPECTION, SERVICE, REPAIR OR REPLACEMENT.

THE BUILDING OR STRUCTURE SHALL NOT BE WEAKENED BY THE INSTALLATION OF MECHANICAL SYSTEMS. THE CONTRACTOR SHALL VERIFY WITH STRUCTURAL THAT WEIGHT OF FAN SUPPORTED ON THE BOTTOM CORD OF THE ROOF TRUSSES CAN SUPPORT THE LOADS (14LBS) OF THE CEILING FANS.

ALL NEW SUPPLY AND RETURN DUCTWORK SHALL BE GALVANIZED STEEL, EXTERNALLY INSULATED WITH 2 INCH THICK, 1 POUND DENSITY FIBERGLASS DUCTWRAP. INSTALLED R VALUE SHALL BE A MINIMUM OF 6. SEAL ALL JOINTS AND SEAMS PRIOR TO ADDING DUCTWRAP. SEAL WRAP WITH GLASS FABRIC AND MASTIC MEETING UL 181.

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PROVIDE VOLUME BALANCING DAMPER AT ALL NINETY-DEGREE DUCT TAKE-OFFS. THIS ALSO APPLIES TO TAKE-OFFS TO DIFFUSERS OR REGISTERS LOCATED DIRECTLY UNDER DUCTS.

ALL RESTROOM MAKE-UP AIR SHALL BE GALVANIZED STEEL TRANSFER DUCTS WITH ZERO LEAKAGE BACKDRAFT DAMPERS AND DOOR UNDERCUTS.

CONTRACTOR SHALL PERFORM A COMPLETE CERTIFIED TEST AND BALANCE OF EACH MECHANICAL SYSTEM INCLUSIVE OF EXHAUST FANS, SPLIT SYSTEM AIR HANDLING UNITS, ROOFTOP UNITS, VARIABLE AIR VOLUME BOXES, FAN COIL UNITS AND CEILING DEVICES. SEE SPECIFICATIONS FOR DETAILS AND PROVIDE THREE (3) WRITTEN COPIES OF THE COMPLETED TEST AND BALANCE REPORT TO THE OWNER FOR REVIEW.

MECHANICAL CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF ALL ROOF TOP EQUIPMENT PRIOR TO CUTTING ROOF OPENINGS. ALL OPENING SHOULD FALL BETWEEN JOIST.

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CONTRACTOR SHALL COMPLY WITH ALL LANDLORD'S TENANT CRITERIA. COORDINATE AND SCHEDULE ALL WORK WITH LANDLORD' FIELD REPRESENTATIVE.

IDENTIFY ALL ROOF MOUNTED EQUIPMENT WITH STORE NAME AND UNIT NUMBER USING PERMANENT WEATHER PROOF 2" HIGH DIE-CUT LETTERS.

WIRE SMOKE DETECTORS TO BUILDING FIRE ALARM CONTROL PANEL, IF EXISTING, OR ELSE FURNISH AND INSTALL A COMPATIBLE REMOTE AUDIBLE/VISUAL ALARM DEVICE. FIELD VERIFY EXACT REQUIREMENTS. PER SIGNAL FROM SMOKE DETECTOR, UNIT SHALL SHUT DOWN AND ALL DAMPER SHALL CLOSE. CONTRACTOR SHALL TEXT SYSTEM, PRIOR TO TURNOVER, TO INSURE PROPER FUNCTION.

PROVIDE ALL NECESSARY TRANSITIONS AND OFFSETS IN SUPPLY AND RETURN AIR DUCTWORK TO AVOID EXISTING STRUCTURE, WATER, GAS, SPRINKLER PIPING, OTHER DUCTWORK, OTHER TRADES, ETC. DUCTWORK SHALL BE INSTALLED AS HIGH AS CONDITIONS WILL ALLOW.

WHERE CEILING SPACE IS NOT SUFFICIENT TO PERMIT TOP CONNECTION TO CEILING DIFFUSER WITH PROPER BEND RADIUS FOR FLEXIBLE DUCTS, CONTRACTOR SHALL FABRICATE AND/OR PROVIDE AN ADAPTER BOX FOR DIFFUSER TO PERMIT SIDE CONNECTION TO FLEXIBLE DUCT.

DUCT DIMENSIONS SHOWN ARE INSIDE NET DIMENSIONS, ADD TO SHEET METAL SIZE FOR INSULATION THICKNESS. HOLD DUCTWORK TIGHT TO UNDERSIDE OF STRUCTURE UNLESS OTHERWISE NOTED OR REQUIRED BY FIELD CONDITIONS. IT IS REQUIRED TO COORDINATE EXACT MOUNTING HEIGHT IN FIELD WITH SITE INVESTIGATION. SUPPLY, RETURN, OUTSIDE AIR AND RELIEF AIR DUCTS SHALL BE SHEET METAL AND BE EXTERNALLY INSULATED WITH OWENS CORNING TYPE 150 2" THICK, FOIL FACED FLEXIBLE FIBROUS GLASS BLANKET INSULATION WITH A MIN R-6.4 VALUE, EQUAL IS APPROVED. INSULATION WRAP SHALL BE SEALED WITH FAB AND MASTIC.

PROVIDE SUPPLY ELBOWS OR TEES WITH TURNING VANES FOR ALL CHANGES OF DUCT DIRECTION. PROVIDE SPLITTER DAMPERS WITH LOCKING QUADRANTS IN ALL TEES.

DUCT SIZES MUST BE VERIFIED FOR CLEARANCES AT THE JOB SITE PRIOR TO FABRICATION. DIMENSIONS MAY BE CHANGED TO ACCOMMODATE CONSTRUCTION AS LONG AS EFFECTIVE CROSS-SECTIONAL AREA IS MAINTAINED. DUCT TRANSITIONS SHALL BE CONSTRUCTED WITH A SLOPE OF 1" TO 4". ALL DEVIATIONS FROM ORIGINAL CONTRACT DRAWINGS SHALL BE REVIEWED BY ENGINEER DURING THE SHOP DRAWING PROCESS.

RESTROOM EXHAUST DUCT SHALL BE MINIMUM 26 GA. GALVANIZED STEEL. PROVIDE RAIN CAP WITH INTEGRAL BIRD SCREEN, BACKDRAFT DAMPER, AND ACCESSORIES AS REQUIRED INCLUDING SPEED CONTROLLER CONCEALED AND ACCESSIBLE. EXHAUST FAN SHALL MAINTAIN 10' CLEARANCE FOR ANY OUTSIDE AIR INTAKE. ALL ROOF WORK SHALL BE DONE BY LANDLORD'S ROOFING CONTRACTOR AT TENANT'S EXPENSE UNLESS NOTED OTHERWISE.

DUCT-TO-EXHAUST FAN CONNECTIONS SHALL BE FLANGED AND GASKETED AND BOLTED TO THE INLET OF THE FAN FOR SIDE-INLET UTILITY FANS; AND SHALL BE FLANGED, GASKETED AND BOLTED TO THE INLET AND OUTLET OF THE FAN FOR IN-IN FANS. GASKET AND SEALING MATERIALS SHALL BE RATED FOR

09.27.24	OWNER REVIEW
NO DATE	REMARKS
REVISIONS	

RED MILL COMMONS SHOPPING CENTER

2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454

PROJECT NO: 2024.0397
DATE: 08.29.24

M1.0

CHECKED: DAK DRAWN: AE



CHANICAL FLOOR PLAN

' = 1'-0"

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OR CONSTRUCTION.

PLAN KEYED NOTES

- CONTRACTOR SHALL REVIEW ELECTRICAL POWER REQUIREMENTS FOR MECHANICAL EQUIPMENT THAT ARE SCHEDULED ON THE ELECTRICAL DRAWINGS AND VERIFY THAT THEY MATCH PRIOR TO ORDERING EQUIPMENT. DO NOT PURCHASE MOTORS OR ELECTRICAL EQUIPMENT UNTIL POWER CHARACTERISTICS AVAILABLE AT BUILDING HAVE BEEN CONFIRMED BY CONTRACTOR.
- PROVIDE NEW OUTSIDE AIR UNIT WITH PRE-FABRICATED MINIMUM 14 INCH HIGH INSULATED ROOF CURB. MAINTAIN MINIMUM HEIGHT OF 8" FROM ROOF SURFACE. FIELD COORDINATE SIZE WITH MANUFACTURER REQUIREMENTS PRIOR TO BID. MOUNT NEW OAU-1 AT EXISTING ROOF OPENING FORMERLY SERVING ERTU-1. EXPAND OPENING AS REQUIRED. FIELD VERIFY AND COORDINATE EXACT LOCATION WITH FIELD CONDITIONS AND STRUCTURAL MEMBERS PRIOR TO BID. COORDINATE EXACT REQUIREMENTS PRIOR TO BID.
- RELOCATED (RTU-1) EXISTING ROOFTOP UNIT TO LOCATION OF THE REMOVED (RTU-4) ROOF TOP UNIT. IF EXISTING ROOF CURB IS NOT REUSABLE, PROVIDE PRE-FABRICATED MINIMUM 14 INCH HIGH INSULATED ROOF CURB. MAINTAIN MINIMUM HEIGHT OF 8" FROM ROOF SURFACE. CONTRACTOR SHALL PROVIDE CURB ADAPTER AS REQUIRED. FIELD COORDINATE SIZE WITH MANUFACTURER REQUIREMENTS PRIOR TO BID.
- EXISTING ROOF TOP HVAC UNIT(S) TO BE REUSED. FIELD VERIFY EXACT SIZE. MECHANICAL CONTRACTOR TO CLEAN AND ADJUST UNIT, CHEMICALLY CLEAN COILS, PERFORM AN OIL SAMPLE TEST ON COMPRESSORS TO VERIFY CONDITION, REPLACE BELTS, VERIFY ALL CONTROLS ARE FUNCTIONAL AND MAKE SURE ALL EQUIPMENT IS IN PROPER OPERATING CONDITION. REPLACE ANY DEFECTIVE PARTS OR EQUIPMENT. GREASE AND/OR REPLACE IF REQUIRED. FAN BEARINGS, CHECK SHAFT FOR SCORING AND CHECK MOTORS FOR PROPER AMPERAGE DRAW. CLEAN OR REPLACE CONDENSATE DRAIN LINE AS REQUIRED. REBALANCE FANS TO CFM SHOWN ON PLANS. FURNISH UNIT WITH THREE SETS OF STANDARD FILTERS. CONTRACTOR TO REPLACE FILTERS JUST PRIOR TO AIR BALANCE AND ONCE AGAIN AFTER FINAL STORE CLEANING IS COMPLETE. REPORT IN WRITING ANY PROBLEMS WHICH WOULD REQUIRE REPLACEMENT OF RTU INSTEAD OF REUSE TO THE TENANT'S CONSTRUCTION MANAGER.
- CONTRACTOR TO VERIFY STRUCTURAL CONDITION PRIOR TO SETTING NEW ROOFTOP UNITS. PROVIDE ADDITIONAL BRACING AND STRUCTURE AS REQUIRED TO MEET DUNNAGE OF NEW UNITS, (TYPICAL ALL UNITS). CONSULT TENANT'S CONSTRUCTION MANAGER IF THERE ARE ANY STRUCTURAL CONCERN.
- MECHANICAL CONTRACTOR TO INSTALL AQUAGUARD AG-3180E MICRO PAN SENSOR (OVERFLOW SWITCH) INSIDE ROOFTOP UNIT DRAIN PAN. A SECONDARY DRAIN LINE DO NOT HAVE A MEAN TO INSTILL AN AUXILIARY DRAIN PAN, A WATER-LEVEL MONITORING DEVICE SHALL BE INSTALLED INSIDE THE PRIMARY DRAIN PAN. THIS DEVICE SHALL SHUT OFF THE EQUIPMENT SERVED IN THE EVENT THAT THE PRIMARY DRAIN BECOMES RESTRICTED. EXTERNALLY INSTALLED DEVICES AND DEVICES INSTALLED IN THE DRAIN LINE SHALL NOT BE PERMITTED. AQUAGUARD PH 888-708-6622.
- COORDINATE ROOFTOP EQUIPMENT LOCATION AND OPENING IN THE ROOF WITH THE STRUCTURAL MEMBERS PRIOR TO CUTTING DECK.
- INSTALLATION OF EQUIPMENT SHALL COMPLY WITH EQUIPMENT MANUFACTURER'S INSTALLATION AND CLEARANCE REQUIREMENTS TO ALLOW FOR INSPECTION, SERVICE, REPAIR OR REPLACEMENT.
- CONDENSATE IS LOCATED ON ROOF. CONTRACTOR MUST VERIFY EXACT ROUTING OF CONDENSATE PRIOR TO BIDDING. INSTALL PER LANDLORD AND LOCAL CODE REQUIREMENTS. CONDENSATE SHALL BE ATTACHED TO ROOF PER LOCAL CODE REQUIREMENTS. PROVIDE THE PIPE SUPPORTS FOR ALL PVC CONDENSATE PIPING SPACING AT A MINIMUM 4'-0" ON CENTER. SUPPORT ROOFTOP UNIT CONDENSATE PIPING ON THE ROOF UTILIZING MAPA PRODUCTS MODEL MT-IV SUPPORT. MAPA PRODUCTS (TEL 877-897-2371).
- ALL NEW ROOF WORK SHALL BE DONE BY LANDLORD'S ROOFING CONTRACTOR AT TENANT'S EXPENSE. CONTRACTOR SHALL COORDINATE ALL NEW AND EXISTING ROOF WORK TO CONFORM TO LANDLORD'S ROOFING STANDARDS AND PER LOCAL CODE REQUIREMENTS. FIELD VERIFY ALL ROOF WORK PRIOR TO BID.
- PROVIDE HINGED BASE KIT, LOCKABLE, HINGED CONNECTION BETWEEN THE FAN AND CURB. THIS ALLOWS EASY ACCESS TO THE FAN AS WELL AS THE INTERIOR DUCTWORK. THE KIT INCLUDES TWO HINGE PLATES, TWO LATCH PLATES, HINGE BOLTS, AIRCRAFT CABLE AND CLAMPS.
- Maintain 10 foot clearance from any fresh air intake. Field verify exact requirements prior to bid and installation. If exhaust fan falls within 10 foot of any fresh air intake, the exhaust discharge opening shall be extended by means of a shroud on round fans and ductwork on utility fans, to meet the 3'-0" vertical clearance requirements. Shroud can be provided by CAPTIVEAIR. Field verify exact requirements prior to ordering, installation and bid. G.C. to coordinate with CAPTIVEAIR.
- Concentric vent / combustion piping down to water heater. Contractor to verify exact size and routing. Slope 1/4 inch per foot back toward water heater. Install per manufacturer's recommendations. Verify all requirements prior to bid. Mount opening 36" above snow line.
- Provide Greenheck intake hood model FGI 12X12 combustion air intake hood. Route ductwork to room below, see sheet M1.0 for continuation. Mount bottom of hood 36" above snow line.
- Pool exhaust flues shall terminate with a rain cap and shall utilize a flashing cone penetration, offset the flue below roof, so the flashing can be installed on a flat portion of roof and sufficiently away from the edge. Mount opening 36" above snow line.

NOTE:
TENANT'S CONTRACTOR SHALL USE LANDLORD'S ROOFING CONTRACTOR FOR ALL RE-ROOFING, FLASHING, WEATHER PROOFING AND PATCHING PROCEDURES. LOCATION OF ROOF PENETRATIONS SHALL BE REVIEWED AND APPROVED BY LANDLORD IN WRITING.

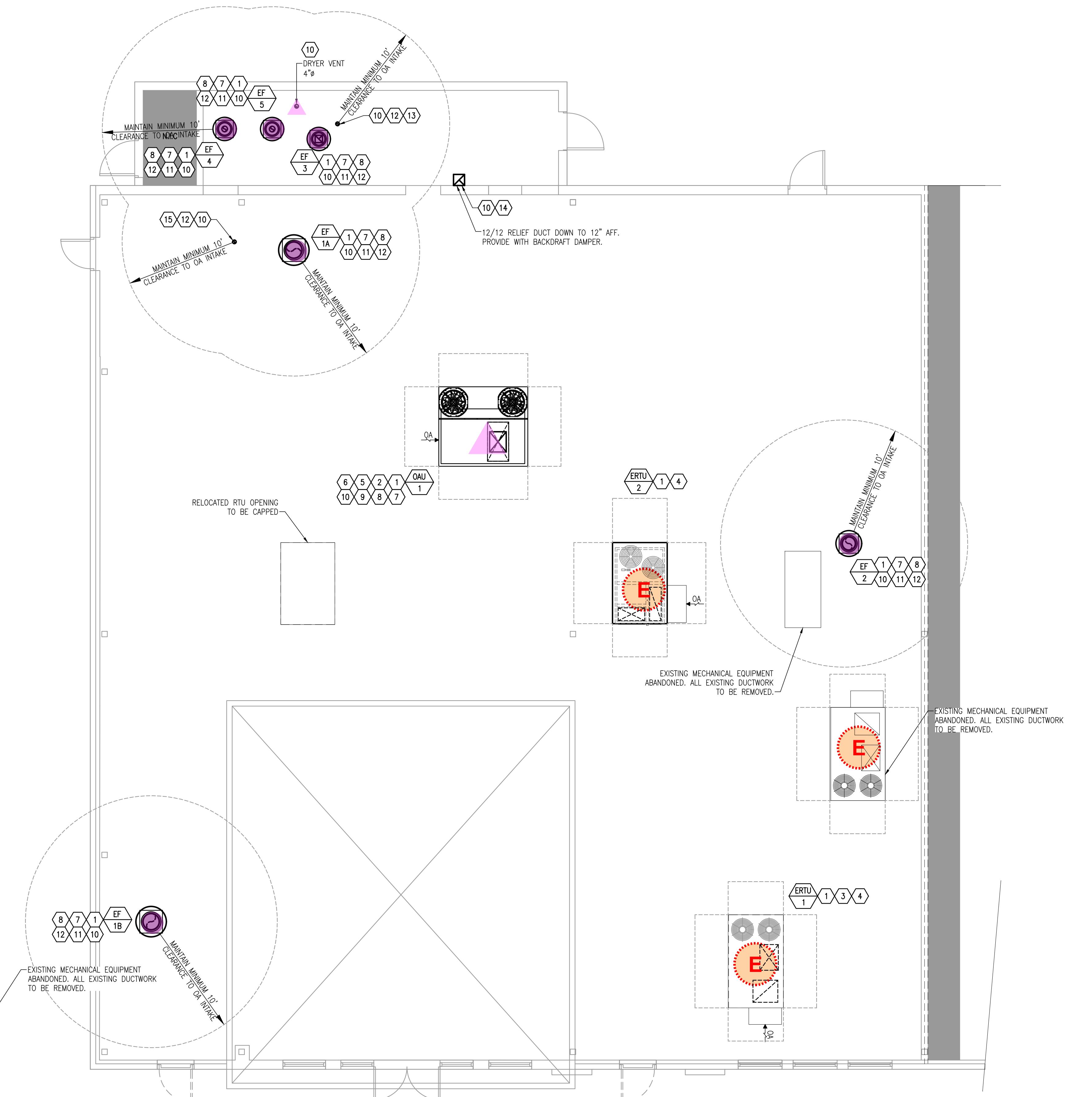
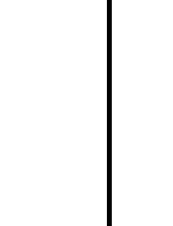
09.27.24 OWNER REVIEW
NO DATE REMARKS

REVISIONS

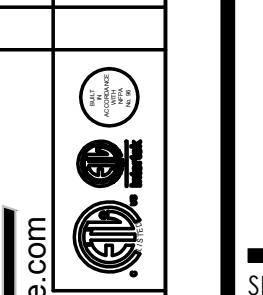
RED MILL COMMONS
SHOPPING CENTER
2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454PROJECT NO: 2024.0397
DATE: 08.29.24M2.0
MECHANICAL ROOF PLAN

CHECKED: DAK DRAWN: AE

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MECHANICAL ROOF PLAN
3/16" = 1'-0"

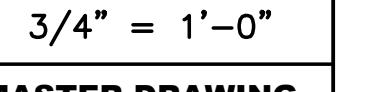
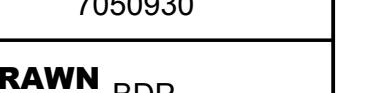
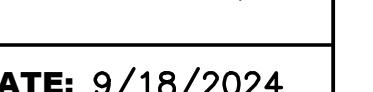
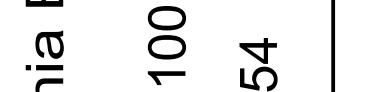
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ONLY**Captiveair**West HVAC Directwww.captiveair.com
www.captiveair.com

7300 S. Alton Way., Building 5, Suite E, Centennial, CO 80111 PHONE: (303) 226 - 6735 EMAIL: reg8@captureair.com

R1 Aqua Tots - Virginia Beach - VA
2133 Upton Drive, Suite 100
Virginia Beach, VA, 23454



REVISIONS
DATE:
NO DATE OWNER REVIEW
REMARKS
REVISIONS

DATE: 9/18/2024
DWG.#: 7050930
DRAWN BY: BDP
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
7

M3.6

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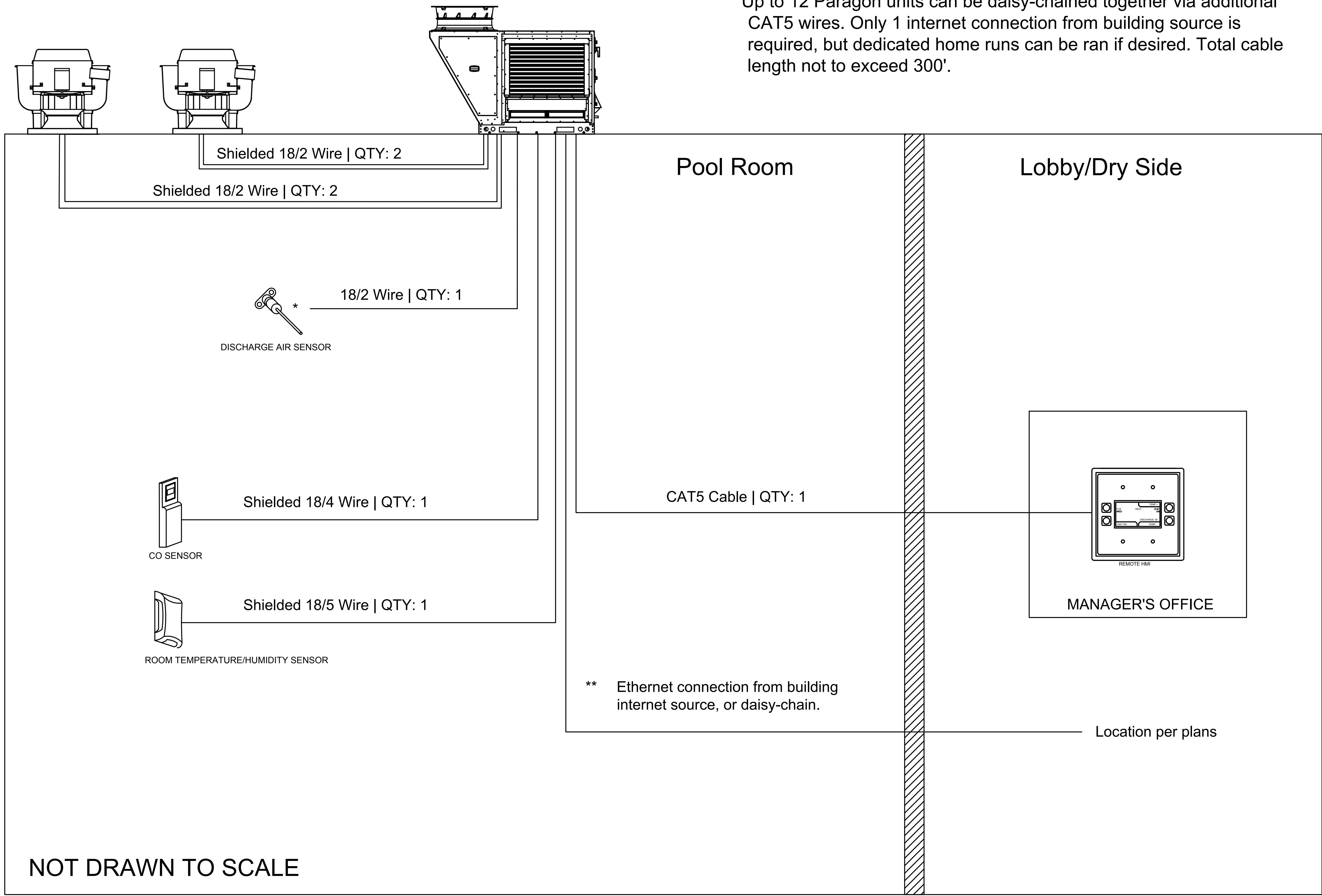


Supplemental Pool System Controls Wiring Only - 1 Pool Unit, 2 Exhaust Fans

Please Note - Refer to site specific plans for exact location of sensors shown below. This diagrammatical representation of the control wiring, it is NOT all-inclusive, and should be used in conjunction with the job specific wiring diagrams for this project.

- * To be installed at least 6 feet from unit discharge in straight portion of the duct.

- ** Up to 12 Paragon units can be daisy-chained together via additional CAT5 wires. Only 1 internet connection from building source is required, but dedicated home runs can be ran if desired. Total cable length not to exceed 300'.



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CAPTIVEAIRE
West HVAC Direct
7300 S. Alton Way., Building 5, Suite E, Centennial, CO, 80111-2288, 6735 EMAIL: reg830@captiveaire.com

R1 Aqua Tots - Virginia Beach - VA
2133 Upton Drive, Suite 100
Virginia Beach, VA, 23454

DATE: 9/18/2024
DWG.#: 7050930
DRAWN BY: BDP
SCALE: 1/2" = 1'-0"
MASTER DRAWING

SHEET NO.
8

CONTROL SEQUENCE OF OPERATIONS: RTU (ELECTRIC/GAS HEAT)									
GAS HEATING ELECTRIC COOLING RTU SEQUENCE OF OPERATION									
DAY CYCLE - COOLING									
1. SUPPLY AIR FAN SHALL RUN CONTINUOUSLY. 2. OUTSIDE AIR DAMPER SHALL BE IN MINIMUM POSITION. 3. THERMOSTAT SHALL CYCLE COMPRESSOR(S) TO MAINTAIN ROOM SET TEMPERATURE.									
DAY CYCLE - HEATING									
1. SUPPLY AIR FAN SHALL RUN CONTINUOUSLY. 2. OUTSIDE AIR DAMPER SHALL BE IN MINIMUM POSITION. 3. THERMOSTAT SHALL CYCLE NATURAL GAS HEATER TO ACHIEVE ROOM SET TEMPERATURE.									
DAY CYCLE - DEHUMIDIFICATION									
1. SUPPLY AIR FANS SHALL RUN CONTINUOUSLY. 2. MECHANICAL OUTSIDE AIR DAMPERS SHALL BE IN OPEN POSITION. 3. RESTROOM EXHAUST FANS SHALL BE ENERGIZED. 4. HUMIDISTAT SHALL CYCLE COOLING COIL STAGES TO MAINTAIN SET POINT HUMIDITY.									
ECONOMIZER									
1. SUPPLY AIR FAN SHALL RUN CONTINUOUSLY. 2. OUTSIDE AIR DAMPER SHALL MODULATE FROM MINIMUM TO 100% OUTSIDE AIR TO MAINTAIN ROOM SET TEMPERATURE.									
MORNING WARM-UP									
1. SUPPLY AIR FAN SHALL RUN CONTINUOUSLY. 2. OUTSIDE AIR DAMPER SHALL BE IN CLOSED POSITION. 3. THERMOSTAT SHALL CYCLE RTU TO REACH ROOM SET TEMPERATURE. 4. WHEN SET TEMPERATURE IS REACHED COOLING OR HEATING CYCLE SHALL COMMENCE.									
NIGHT SETBACK									
1. ALL HOODS AND EXHAUST FANS SHALL BE DE-ENERGIZED. 2. OUTSIDE AIR DAMPER SHALL BE IN CLOSED POSITION. 3. THERMOSTAT SHALL CYCLE EITHER COOLING OR HEATING AND SUPPLY AIR FAN TO MAINTAIN ROOM SET TEMPERATURE.									
SMOKE DETECTOR									
1. WHEN SMOKE DETECTOR IS ACTIVATED SUPPLY AIR FAN SHALL SHUTDOWN. 2. FIRE ALARM SHALL BE SIGNALLED. 3. SUPPLY AIR FAN SHALL BE MANUALLY RESET.									

CONTROL SEQUENCE OF OPERATIONS: OAU-1 (ELECTRIC COOLING/GAS HEAT)									
GAS HEATING ELECTRIC COOLING RTU SEQUENCE OF OPERATION									
DAY CYCLE - COOLING									
1. SUPPLY AIR FAN SHALL RUN CONTINUOUSLY. 2. OUTSIDE AIR DAMPER SHALL BE FULLY OPEN. 3. THERMOSTAT SHALL MODULATE COMPRESSOR(S) TO MAINTAIN ROOM SET TEMPERATURE.									
DAY CYCLE - HEATING									
1. SUPPLY AIR FAN SHALL RUN CONTINUOUSLY. 2. OUTSIDE AIR DAMPER SHALL BE FULLY OPEN. 3. THERMOSTAT SHALL MODULATE NATURAL GAS HEATER TO ACHIEVE ROOM SET TEMPERATURE.									
DAY CYCLE - DEHUMIDIFICATION									
1. SUPPLY AIR FANS SHALL RUN CONTINUOUSLY. 2. MECHANICAL OUTSIDE AIR DAMPERS SHALL BE FULLY OPEN. 3. HUMIDISTAT SHALL MODULATE COOLING COIL STAGES TO MAINTAIN SET POINT HUMIDITY. FULLY MODULATING HOT GAS REHEAT SHALL ENGAGE AS NEEDED TO MAINTAIN DESIRED DB TEMPERATURE.									
ECONOMIZER									
1. SUPPLY AIR FAN SHALL RUN CONTINUOUSLY.									
SMOKE DETECTOR									
1. WHEN SMOKE DETECTOR IS ACTIVATED SUPPLY AIR FAN SHALL SHUTDOWN. 2. FIRE ALARM SHALL BE SIGNALLED. 3. SUPPLY AIR FAN SHALL BE MANUALLY RESET.									

THERMOSTAT SCHEDULE									
MARK									
OCCUPIED									
Cooling									
Heating									
ERTU-1,2									
VIEWING/OFFICE/BREAK ROOM/RR/CHANGING/ RETAIL/POOL EQUIP.									
78									
68									
78									
60									
NOTES:									
1. CONTRACTOR SHALL COORDINATE EXACT OPERATIONAL TIMES WITH OWNER/MANAGER PRIOR TO PROGRAMMING.									

COMBUSTION AIR CALCULATION									
ITEM NUMBER									
QUANTITY									
DESCRIPTION									
TOTAL GAS BTUH									
400,000									
REQUIRED COMBUSTION AIR (CFM)									
140									
TOTAL CFM REQUIRED									
140									
TOTAL CFM PROVIDED									
200									
BUILDING POSITIVE AIR BALANCE									
313									
NOTES:									
1. REQUIRED COMBUSTION AIR PROVIDED BY MECHANICAL SYSTEM AT MINIMUM RATE OF .35 CFM PER 1000 BTUH.									
2. COMBUSTION AIR PROVIDED THROUGH AIR INTAKE DUCTWORK FROM ROOF CAP.									


COMcheck Software Version COMcheckWeb
Mechanical Compliance Certificate
Project Information

Energy Code: 2021 IECC
 Project Title: 2024.0397 Aqua-Tots Virginia Beach, VA
 Location: Virginia Beach, Virginia
 Climate Zone: 3a
 Project Type: Alteration

Construction Site: Owner/Agent: Jessica Stevenson
 Lasting Legacy LLC, P.O. Box 899, Louisburg, North Carolina 27549
 252.767.8858 jessica.stevenson@Aqua-Tots.com

Designer/Contractor: INTERPLAN LLC
 220 E. Central Pkwy, Ste 4000 Altamonte Springs, Florida 32701
 407.645.5008

Mechanical Systems List**Quantity System Type & Description**

- 1 OA1.1 (Single Zone):
 - Heating: 1 each - Duct Furnace, Gas, Capacity = 358 kBtu/h
 Proposed Efficiency = 81.00% Et, Required Efficiency = 80.00 % Et
 - Cooling: 1 each - Single Package DX Unit, Capacity = 211 kBtu/h, Air-Cooled Condenser, Air Economizer
 Proposed Efficiency = 14.10 EER, Required Efficiency = 10.80 EER
 Proposed Part Load Efficiency = 18.80 EER, Required Part Load Efficiency = 14.00 EER
- 1 Water Heater:
 - Gas Storage Water Heater, Capacity: 119 gallons, Input Rating: 120 kBtu/h w/ Circulation Pump
 Proposed Efficiency = 81.00 % Et, Required Efficiency: 80.00 % Et

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2021 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Arzu Emiroglu  09.17.2024
 Name - Title Signature Date


COMcheck Software Version COMcheckWeb
Inspection Checklist

Energy Code: 2021 IECC

Requirements: 100.0% were addressed directly in the COMcheck software.
 Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C102.2 [PR2] ¹	Plans, specifications, and/or calculations provide all information with which compliance can be demonstrated for the mechanical and service water heating systems and document where exceptions to the standard are claimed. Load calculations are acceptable engineering standards and handbook. Hot water system sized per manufacturer's sizing guide.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C403.12 Snowice melting system and freeze protection systems have sensors and controls configured to limit service for pavement temperature above 50F and outdoor temperature above 40F.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.	
C403.13			

Additional Comments/Assumptions:

Project Title: 2024.0397 Aqua-Tots Virginia Beach, VA
 Report date: 09/18/24
 Data filename: Page 1 of 10

Project Title: 2024.0397 Aqua-Tots Virginia Beach, VA
 Report date: 09/18/24
 Data filename: Page 2 of 10

Project Title: 2024.0397 Aqua-Tots Virginia Beach, VA
 Report date: 09/18/24
 Data filename: Page 3 of 10

Section & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/Assumptions
C404.5, C404.5.1, C404.5.2 [PL6] ¹	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C404.6.1, C404.6.2 [PL3] ¹	Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C404.6.3 [PL7] ¹	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C404.6.1, C404.6.1.1 [PL8] ¹	Demand recirculation water systems have controls that start the pump upon receiving a signal from the active user of a fixture or appliance or limits the temperature of the water entering the cold-water piping to 104°F.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

Section & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.2.6 [ME41] ¹	Thermally ineffective panel surfaces of sensible heating panels have insulation > R-3.5.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.8.1 [ME65] ¹	HVAC fan systems at design condition do not exceed allowable fan system motor nameplate hp or fan system bhp.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.8.3 [ME117] ¹	Fans have a fan energy index (FEI) >= 1.00. Variable volume fans will have an FEI >= 0.95.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.9 [ME144] ¹	Large diameter fans where installed shall be tested and labeled in accordance with AMCA 230.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.3 [ME55] ¹	HVAC equipment efficiency verified.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Mechanical Systems list for values.
C403.5.5 [ME113] ¹	Fault detection and diagnostics installed with air-cooled unitary DX units with integral heating include economizers.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.2 [ME59] ¹	Natural or mechanical ventilation is provided in accordance with International Mechanical Code Chapter 4. Mechanical ventilation has capacity to reduce outdoor air supply to minimum per IMC Chapter 4.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.7.1 [ME59] ¹	Demand control ventilation provided for spaces >500 ft² and > 1 person/100 ft² occupied, and air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.7.2 [ME115] ¹	Enclosed parking garage ventilation and automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.7.6 [ME141] ¹	HVAC systems serving guestrooms in Group R-1 buildings with > 50 guestrooms: Each guestroom is programmed with a setpoint and automatic change temperature setpoint and ventilation (see sections C403.7.6.1 and C403.7.6.2).	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.7.4 [ME57] ¹	Exhaust air energy recovery on systems meeting Table C403.7.4(1) and C403.7.4(2).	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.7.5 [ME116] ¹	Kitchen exhaust systems comply with replacement air, and satisfy hood rating requirements and maximum exhaust rate criteria.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: 2024.0397 Aqua-Tots Virginia Beach, VA
 Report date: 09/18/24
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Section & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.5, C403.5.1 [ME62] ¹	Air economizers provided where required, meet the requirements for design capacity, control signal, and integrated economizer shutdown-off.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.5.3 [ME124] ¹	Air economizers automatically reduce outdoor air intake to relieve excess outside air during operation.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.5.4 [ME125] ¹	System capable of relieving excess outdoor air during air economizer operation to prevent over pressurizing the building. The return air outlet is located to avoid recirculation into the device zones and climate zones.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.5.5 [ME126] ¹	Return, exhaust/relief and outdoor air required by the building shall not be used when not in use, unless maximum leakage rates are specified.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.4.1 [ME63] ¹	Heating for vestibules and air curtains with integral heating include controls that shut off the heating system when outdoor air temperatures > 45°F. Vestibule heating and air curtains shall be controlled by a thermostat in the vestibule with heating setpoint <= 60°F and cooling setpoint >= 80°F.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.3.3 [ME35] ¹	Hot gas bypass limited to: <= 240 kBtu/h - 50% > 240 kBtu/h - 25%	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C404.2.1 [ME111] ¹	Gas-fired water-heating equipment installed in new buildings: where a singular piece of water-heating equipment > 1,000 kBtu/h serves the building, the thermal efficiency shall be 92 Et. Where multiple pieces of water-heating equipment serve the building with combined rating >= 1,000 kBtu/h, the combined average thermal efficiency >= 90 Et. Exclude input rating of equipment in individual dwelling units and equipment <= 100 kBtu/h.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C408.2.2 [ME53] ¹	Air outlets and zone terminal devices have means for air balancing.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: 2024.0397 Aqua-Tots Virginia Beach, VA
 Report date: 09/18/24
 Data filename: Page 5 of 10



RED MILL COMMONS
SHOPPING CENTER

2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454

PROJECT NO: 2024.0397
DATE: 08.29.24

M7.0
ENERGY COMPLIANCE
FORMS

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Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.11.3	Refrigerated display cases, walk-in coolers or walk-in freezers served by remote compressors must be remote condensers located in a condenser unit, have fan-powered condensers that comply with Sections [ME123] ³	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.11.3	C403.11.3.1 and refrigeration compressor systems that comply with C403.11.3.2.		
	Additional Comments/Assumptions:		

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.7 [EL28] ³	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.8 [EL27] ³	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency certified by equipment verification program or the equipment efficiency ratings shall be provided by motor manufacturers where certification programs do not exist).	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.9.1 [EL29] ³	Escalators and moving walks comply with ASME A17.1/CSA B44 and have reduced speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.9.2 [EL29] ³	Total voltage drop across the combination of feeders and branch circuits <= 5%.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.10 [EL29] ³	At least 90% of dwelling unit permanently installed lighting shall have lamp efficiency >= 65 lm/W or luminaire efficiency >= 55 lm/W or comply with C405.2.4 or C405.3.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C405.11 [EL31] ³	50% of 15/20 amp receptacles installed in enclosed offices, conference rooms, copy rooms, break rooms, classrooms, and laboratories and > 25% of branch circuit feeders for modular furniture will have automatic receptacle control in accordance with C405.11.1.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
	Additional Comments/Assumptions:		

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5, 3 [F18] ³	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.3.1 [F127] ³	HVAC systems and equipment capacity does not exceed calculated loads.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.4.1 [F147] ³	Heating and cooling to each zone is controlled by a thermostatic control device per installed humidification/dehumidification system.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.4.1.2 [F138] ³	Thermostatic controls have a 5 °F deadband.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.4.1.3 [F120] ³	Temperature controls have setpoint overlap restrictions.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.4.2 [F139] ³	Each zone equipped with setback controls using automatic time clock or programmable control system.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C403.4.2.1 [F140] ³	Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C404.3 [F111] ³	Heat traps installed on supply and discharge piping of non-circulating systems.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C404.4 [F125] ²	All piping insulated in accordance with section details and Table C403.12.3.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C404.6.1 [F112] ³	Controls are installed that limit the operation of a recirculation pump installed to maintain temperature of a storage tank. System return pipe is a dedicated return pipe or a cold water	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C408.1.1 [F157] ¹	Building operations and maintenance documents will be provided to the owner. Documents will cover commissioning, start-up, specifications, programming, procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

[1] High Impact (Tier 1) [2] Medium Impact (Tier 2) [3] Low Impact (Tier 3)

Project Title: 2024.0397 Aqua-Tots Virginia Beach, VA
Data filename:Report date: 09/18/24
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[1] High Impact (Tier 1) [2] Medium Impact (Tier 2) [3] Low Impact (Tier 3)

Project Title: 2024.0397 Aqua-Tots Virginia Beach, VA
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[1] High Impact (Tier 1) [2] Medium Impact (Tier 2) [3] Low Impact (Tier 3)

Project Title: 2024.0397 Aqua-Tots Virginia Beach, VA
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Air System Sizing Summary for HAP 2

Project Name: 2024.0397 Aqua-Tots Virginia Beach, VA
Prepared by: Interplan LLC 09/11/2024 10:45AM

Air System Information		Sizing Calculation Information	
System Name	HAP 2	Number of zones	1
Equipment Class	UNDEF	Floor Area	3540.0 ft ²
Air System Type	SZCAV	Location	Norfolk, Virginia
Central Cooling Coil Sizing Data		Zone CFM Sizing	
Calculation Month	Jan to Dec	Zone CFM Sizing	Sum of space airflow rates
Sizing Data	User-Modified	Space CFM Sizing	Individual peak space loads
Total coil load	18.6 Tons	Load occurs at	Jul 1400
Total coil load	223.0 MBH	OA DB / WB	92.5 / 76.9 °F
Sensible coil load	152.7 MBH	Entering DB / WB	79.1 / 68.0 °F
Coil CFM at Jul 1400	7000 CFM	Leaving DB / WB	58.9 / 57.9 °F
Max coil load	18.6 Tons	Ent. DB / Lvg DB	60.6 / 56.6 °F
Sum of peak zone CFM	7000 CFM	Bypass Factor	0.10
Sensible heat ratio	0.685	Resulting RH	58 %
CFM/Ton	376.7	Design supply temp	58.0 °F
BTU(hr) ⁻¹	35.5	Zone T-stat Check	1 off OK
Water flow @ 20.0 °F rise	63.0 gpm	Max zone temperature deviation	0.0 °F

Central Heating Coil Sizing Data			
Max coil load	127.3 MBH	Load occurs at	Des Htg
Coil CFM at Des Htg	7000 CFM	BTU(hr) ⁻¹	36.0
Max coil CFM	7000 CFM	Ent. DB / Lvg DB	61.0 / 77.8 °F
Water flow @ 20.0 °F drop	12.73 gpm		

Humidifier Sizing Data			
Max steam flow at Des Htg	18.85 lb/hr	Air mass flow	31465.87 lb/hr
Airflow Rate	7000 CFM	Moisture gain	00060 lb/hr

Supply Fan Sizing Data			
Actual max CFM	7000 CFM	Fan motor BHP	0.00 BHP
Standard CFM	6992 CFM	Fan motor kW	0.00 kW
Actual max CFM/ ²	1.98 CFM/ ²	Fan static	0.00 in wg

Outdoor Ventilation Air Data			
Design airflow CFM	1200 CFM	CFM/person	15.19 CFM/person

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C408.2.1 [F128] ¹	Commissioning plan developed by registered design professional or approved agency.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C408.2.3 [F131] ¹	HVAC equipment, systems and subsystem-to-system relationships have been tested to ensure proper operation.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C408.2.3.2 [F110] ¹	HVAC and service water heating control systems have been tested to ensure proper operation, calibration and adjustment of controls.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C408.2.3.3 [F132] ¹	Economizers have been tested to ensure proper operation.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C408.2.4 [F129] ¹	Preliminary commissioning report completed and certified by registered design professional or approved agency.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C408.2.5 [F17] ¹	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C408.2.5.1 [F143] ¹	An air and/or hydronic system balancing report is provided for HVAC systems.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C408.2.5.2 [F130] ¹	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

Additional Comments/Assumptions:



ARCHITECTURE
I SOUTH 280 SUMMIT AVE, STE D
OAKBROOK TERRACE, IL 60181
630.932.2336

ENGINEERING
PERMITTING
220 E. CENTRAL PKWY, STE 4000
ALTAMONTE SPRINGS, FL 32701
407.645.5008

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GENERAL NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY FITTINGS AS REQUIRED BY ALL APPLICABLE CODES AND GOVERNING AUTHORITIES.
- CONTRACTOR SHALL VERIFY AND CORRECT AS REQUIRED TO MEET ALL CODES AND REGULATIONS ANY POSSIBLE DISCREPANCIES BETWEEN TYPE AND SIZE OF CONNECTION SPECIFIED IN PLUMBING FIXTURE SCHEDULE AND FIXTURES ACTUALLY INSTALLED ON THE SITE.
- ALL INSTALLATIONS AND EQUIPMENT SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE STATUTES, CODES AND REGULATIONS OF THE GOVERNMENTAL BODIES HAVING JURISDICTION.
- CONTRACTOR SHALL GIVE 72 HOUR NOTICE IN WRITING TO, AND RECEIVE WRITTEN APPROVAL, FROM THE BUILDING ADMINISTRATOR (OR HIS REPRESENTATIVE) PRIOR TO SHUT DOWN OF ANY SYSTEM OR DISRUPTION OF SERVICE TO ANY AREA. CONTRACTOR SHALL ALSO COORDINATE THE EXACT LOCATION AND TIMING OF SYSTEM(S) SHUTDOWN POINTS WITH THE OWNER REPRESENTATIVE (IE: ENGINEERING DEPARTMENT). CONTRACTOR SHALL MAKE EVERY EFFORT POSSIBLE TO MINIMIZE THE DURATION OF ANY DOWNTIME OR DISRUPTION PERIOD.
- THE CONTRACTOR IS EXPECTED TO ORDER ALL MATERIALS IN SUFFICIENT TIME TO AVOID DELAYING THE COMPLETION OF THE PROJECT. DELAY IN DELIVERIES WILL NOT BE CONSIDERED A JUSTIFIABLE REASON FOR SUBMISSION OF SUBSTITUTE MATERIALS.
- CLEAN THE JOB SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSE BY THE PERFORMANCE OF THE WORK INCLUDED IN THIS CONTRACT. BEFORE SUBSTANTIAL COMPLETION, CLEAN EQUIPMENT, FIXTURES, EXPOSED DUCTS, PIPING AND SIMILAR ITEMS.
- PLUMBING CONTRACTOR TO ARRANGE AND PAY FOR ALL REQUIRED FEES, PERMITS, AND MISCELLANEOUS COSTS ASSOCIATED WITH THE PLUMBING WORK PER LOCAL PLUMBING CODES.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS (INCLUDING PIPE ROUTING AND EQUIPMENT LOCATIONS) TO ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE INSTALLATION OR PURCHASING OF ANY PIPING AND/OR EQUIPMENT.
- CONTRACTOR SHALL VERIFY INVERT ELEVATIONS OF SEWERS TO WHICH NEW SEWER LINES ARE TO BE CONNECTED BEFORE COMMENCING ANY WORK.
- EXISTING CONDITIONS AS SHOWN ON THE DRAWINGS ARE TAKEN FROM ORIGINAL AND AS-BUILT DRAWINGS OF THE BUILDING AND IN PART ARE UNVERIFIED. FIELD CONDITIONS SHALL GOVERN. ALL EXISTING CONDITIONS MUST BE VERIFIED PRIOR TO INITIATION OF WORK.
- SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF PLUMBING FIXTURE MOUNTING HEIGHTS, AND DIMENSIONS.
- COORDINATE ATTACHMENTS TO STRUCTURE TO VERIFY THAT ATTACHMENT POINTS ON EQUIPMENT AND STRUCTURE CAN ACCEPT SEISMIC, WEIGHT, AND OTHER LOADS IMPOSED.
- THE INSTALLATION OF THE PLUMBING SYSTEMS SHALL BE COORDINATED WITH ALL ELECTRICAL AND MECHANICAL EQUIPMENT, AND STRUCTURAL SLAB AND FRAMING.
- WHERE EXISTING SURFACES ARE DISRUPTED DUE TO THE REMOVAL OF EXISTING EQUIPMENT OR PIPING, THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF DISRUPTED SURFACES TO MATCH EXISTING ADJACENT SURFACES.
- ALL EXISTING PIPING, NOT REMAINING IN SERVICE AFTER NEW CONSTRUCTION, SHALL BE REMOVED.
- PIPING WHICH IS TO REMAIN IN SERVICE SHALL NOT BE DISTURBED. EXISTING PIPING DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW PIPING OF THE SAME SIZE AND MATERIAL.
- EXISTING BUILDING SEWERS THAT ARE USED WITH NEW BUILDING SANITARY SEWERS SHALL BE EXAMINED AND TESTED TO CONFORM IN ALL RESPECTS TO ALL THE REQUIREMENTS OF PLUMBING AUTHORITY HAVING JURISDICTION AND APPLICABLE PLUMBING CODES.
- ALL OPENINGS IN DWV SYSTEMS RESULTING FROM INSTALLATION ROUGH-IN SHALL BE PROTECTED WITH A TEST PLUG THAT IS SECURELY LOCKED IN PLACE UNTIL FINAL FINISHED CONNECTIONS ARE INSTALLED.
- VALVES AND FITTINGS SHALL BE OF SAME SIZE OF LINE ON WHICH THEY ARE LOCATED, UNLESS OTHERWISE INDICATED ON DRAWINGS.
- AIR CHAMBERS SHALL NOT BE CONSIDERED AN EQUAL TO WATER ARRESTORS AS SPECIFIED.
- PROVIDE ACCESS PANELS TO ALL VALVES WITHIN CHASES OR ABOVE NON-ACCESSIBLE CEILINGS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
- CONTRACTOR SHALL INSTALL DIELECTRIC UNIONS AT CONNECTIONS OF DISSIMILAR METALS.
- CONDENSATE PIPING FOR RTU'S TO BE PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR.
- CHANGES IN THE DIRECTION OF SANITARY PIPING SHALL NOT BE MADE WITH FITTINGS WHICH WILL CAUSE EXCESSIVE REDUCTION IN THE VELOCITY OF FLOW OR CREATE ANY OTHER ADVERSE EFFECT UNLESS PHYSICALLY IMPOSSIBLE (IE: USE OF SANITARY TEE IN A HORIZONTAL CONNECTION, USE OF A DOUBLE SANITARY TEE IN A VERTICAL STACK, IN GENERAL, USE OF SHORT-RADIUS FITTINGS FOR BRANCH TO HOUSE DRAIN OR STACK CONNECTION).
- ALL DRAINAGE PIPING SHALL BE MARKED WITH THE SEAL OF APPROVAL OF THE NATIONAL SANITATION FOUNDATION.
- ALL SANITARY PIPING OVER 2" IN DIAMETER SHALL HAVE A 1/8" PER FOOT AND ALL SANITARY PIPING 2" OR LESS IN DIAMETER SHALL HAVE A 1/4" PER FOOT SLOPE UNLESS OTHERWISE NOTED.
- ALL FLOOR DRAINS SHALL BE PROVIDED WITH TRAP PRIMER VALVE AND FITTINGS UNLESS NOTED OTHERWISE.
- VENT PIPING SHOWN ON FLOOR PLANS IS ONLY INDICATIVE EXCEPT FOR VTR LOCATIONS.
- ALL VENTS THROUGH ROOF SHALL BE MIN. 10'-0" FROM ANY AIR INTAKES.
- EXPOSED GAS PIPING SHALL BE PAINTED BLACK. WILL INCLUDE FITTINGS AND ELBOWS.
- GAS PIPING EXPOSED ON ROOF MUST BE PAINTED WITH RUST - INHIBITING PAINT BLACK.
- CONCEALED GAS PIPING IS NOT PERMITTED. ALL GAS PIPING IN TENANT SPACES MUST BE EXPOSED.
- ROUTE ALL PIPING CONCEALED ABOVE CEILINGS, WITHIN WALLS, OR IN CHASES. PIPING EXPOSED SHALL BE SLOPED AND PAINTED TO MATCH ARCHITECTURAL FINISHES. PIPING IN MECHANICAL ROOMS MAY BE EXPOSED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING FIRE RATING AND WEATHERPROOFING INTEGRITY OF ALL PIPING AND PENETRATIONS. ALL PENETRATION FOR ALL PIPING THRU FLOOR SLAB SHALL BE WATERPROOFED.
- PIPING TO BE SUPPORTED EVERY 10' OR AS REQUIRED BY LOCAL CODE.
- ALL HANDICAPPED ACCESSIBLE WATER CLOSETS SHALL HAVE THE FLUSHING HANDLE ON THE WIDE SIDE OF THE HANDICAPPED ACCESSIBLE STALL AS REQUIRED BY ADA REQUIREMENTS.
- PLUMBING CONTRACTOR TO DO A SMOKE TEST AND SEAL ALL VENT PIPE LEAKING IN EXISTING WALLS, CEILING, AND CHASES. P.C. TO PERFORM SMOKE TEST WITH GENERAL CONTRACTOR PRESENT.
- CONTRACTOR TO PROVIDE ALL SLAB CUTTING FOR INSTALLATION OF ALL UNDERGROUND PLUMBING AND EQUIPMENT. FIELD VERIFY ALL EXISTING PLUMBING CONNECTIONS, INVERTS, ETC., PRIOR TO BID. PROVIDE COST FOR REPATCH OF FLOOR TO "LIKE NEW" CONDITION. X-RAY ALL FLOOR CUTS PRIOR TO CUTTING AND DEMOLITION. FAILURE TO X-RAY WILL BE AT NO "EXTRA" COST TO OWNER, ARCHITECT OR ENGINEER.

PLUMBING LEGEND

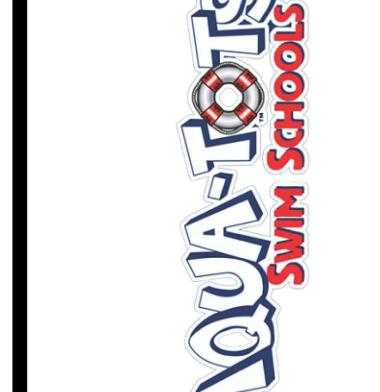
→	DIRECTION OF FLOW IN PIPE
○—○	PIPE UP THROUGH FLOOR
○—○	PIPE DOWN
○—○	GATE/BALL VALVE
○—○	BALANCING VALVE
○—○	GAS COCK VALVE
○—○	UNION
○—○	PRESSURE REDUCING VALVE
○—○	CHECK VALVE
—	HOSE END VALVE
—	SAN— SANITARY SEWER (BELOW GRADE)
—	— DOMESTIC COLD WATER (CWS)
—	— DOMESTIC HOT WATER (HWS)
—	— DOMESTIC HOT WATER RETURN (HWR)
—	TW— DOMESTIC TEMPERED HOT WATER
—	CD— CONDENSATE DRAIN (BELOW GRADE)
—	CD— CONDENSATE DRAIN (ABOVE GRADE)
—	GW— GREASE SEWER (BELOW GRADE)
—	SW— SOFT COLD WATER
—	VENT
—	G— GAS LINE
●	POINT OF CONNECTION NEW TO EXISTING
●	POINT OF DISCONNECTION TO EXISTING
HB ←	HOSE BIB
—	FLOOR SINK 1/2 GRATE
FD ○	FLOOR DRAIN
HD ○	HUB DRAIN
TD ━━	TRENCH DRAIN
—	FLOOR CLEANOUT
—	HORIZONTAL CLEANOUT

ABBREVIATIONS

AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
APPROX	APPROXIMATELY
ARCH	ARCHITECTURAL
AUTO	AUTOMATIC
BLDG	BUILDING
CD	CONDENSATE DRAIN
CLG	CEILING
CO	CLEAN-OUT
COND	CONDENSATE OR CONDENSER
CONT	CONTINUATION
CMU	CONCRETE MASONRY UNIT
CW	COLD WATER (CITY)
EL	ELEVATION
ELEC	ELECTRIC
°F	DEGREES FAHRENHEIT
ECO	EXTERIOR CLEANOUT
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
GAL	GALLONS
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HB	HOSE BIB
HD	HEAD
HW	HOT WATER
HR	HOUR
INV	INVERT ELEVATION
LBS	POUNDS
MIN	MINIMUM
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
R	RISE
REQ'D	REQUIRED
RM	ROOM
SAN	SANITARY
SPEC	SPECIFICATION
TEMP	TEMPERATURE
TYP	TYPICAL
V	VENT LINE
VTR	VENT THRU ROOF
W/	WITH
WCO	WALL CLEANOUT

99.27.24 OWNER REVIEW
NO DATE REMARKS

REVISIONS



RED MILL COMMONS
SHOPPING CENTER
2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454

PROJECT NO: 2024.0397
DATE: 08.29.24

P0.0

PLUMBING LEGEND
GENERAL NOTES &
SPECIFICATIONS

CHECKED: DAK DRAWN: ROH

Sheet List Table

Sheet Number	Sheet Title
P0.0	PLUMBING LEGEND GENERAL NOTES & SPECIFICATIONS
P1.0	UNDERGROUND PLUMBING PLAN
P2.0	ABOVE GROUND PLUMBING PLAN
P2.1	GAS PLUMBING PLAN
P4.0	PLUMBING DETAILS
P4.1	PLUMBING DETAILS
P5.0	PLUMBING LEGEND GENERAL NOTES & SPECIFICATIONS
P6.0	PLUMBING RISERS
P6.1	PLUMBING RISERS

FIELD VERIFY ALL CONDITIONS

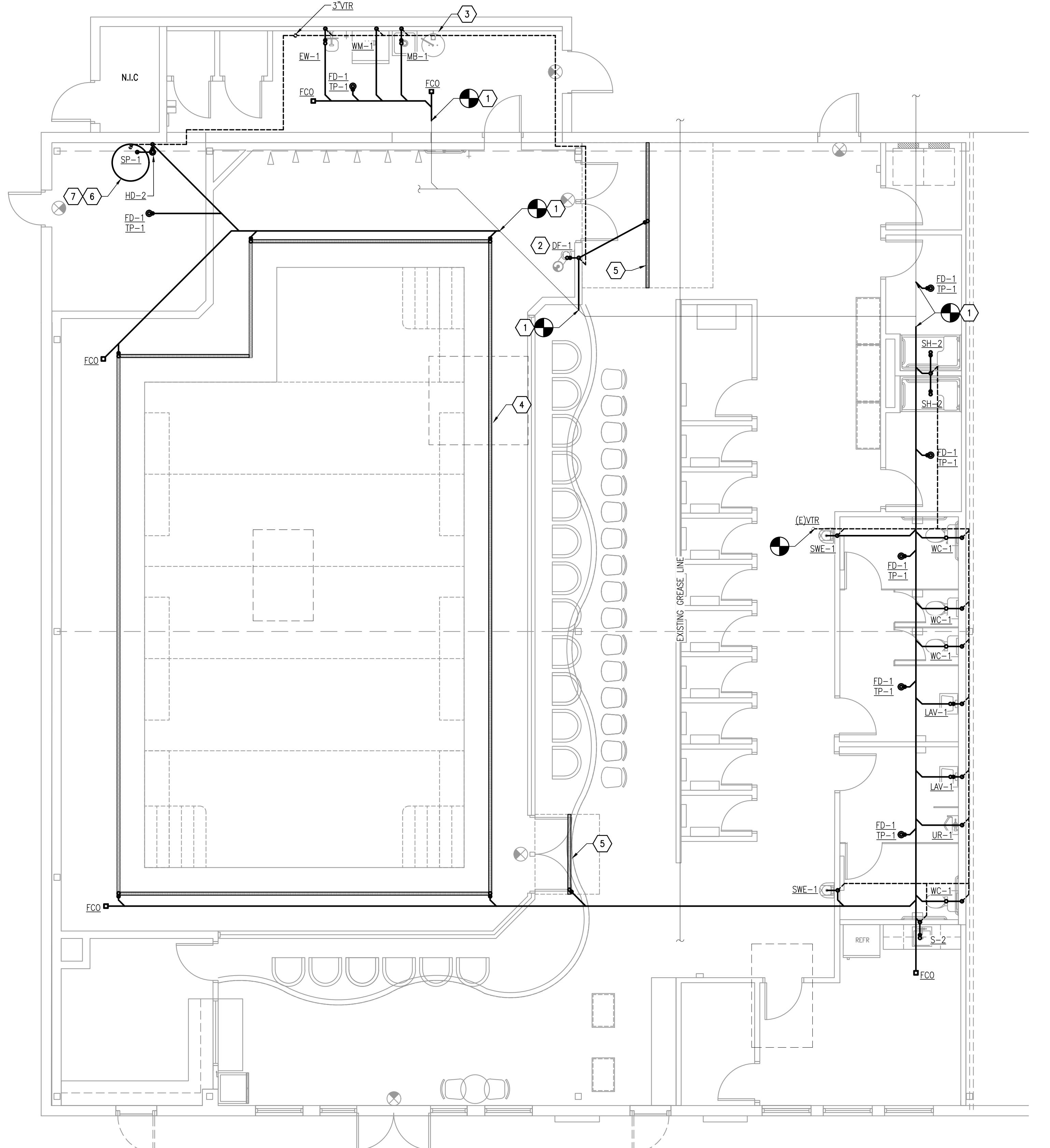
NOTE! AS NOTED IN THE SPECIFICATIONS, ALL WIRING LAYOUTS, PIPING LAYOUTS AND DUCT LAYOUTS ARE SCHEMATIC. EXACT LOCATIONS SHALL BE DETERMINED BY THE CONSTRUCTION AND STRUCTURE OF THE BUILDING AND SHALL BE VERIFIED AND COORDINATED IN THE FIELD. EACH TRADE CONTRACTOR SHALL VERIFY WITH THE GENERAL CONTRACTOR THAT HE HAS THOROUGHLY REVIEWED AND COORDINATED ALL LOCATIONS AND ROUTINGS WITH ALL OTHER TRADES PRIOR TO FABRICATION OF CONDUITS, DUCTS, OR PIPING, AND STAGE OF INSTALLATION OF SAME (INCLUDING SPRINKLER PIPING WHEN PRESENT ON JOB). ANY INSTALLATION OR CONSTRUCTION CONFLICTS WHICH OCCUR IN THE FIELD SHALL BE RESOLVED BY THE TRADE CONTRACTOR TO THE SATISFACTION OF THE OWNER AND ARCHITECT AND AT NO EXPENSE TO THE OWNER, ARCHITECT AND/OR GENERAL CONTRACTOR.

THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BE IMPLEMENTED AT CONTRACTORS COST.

BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

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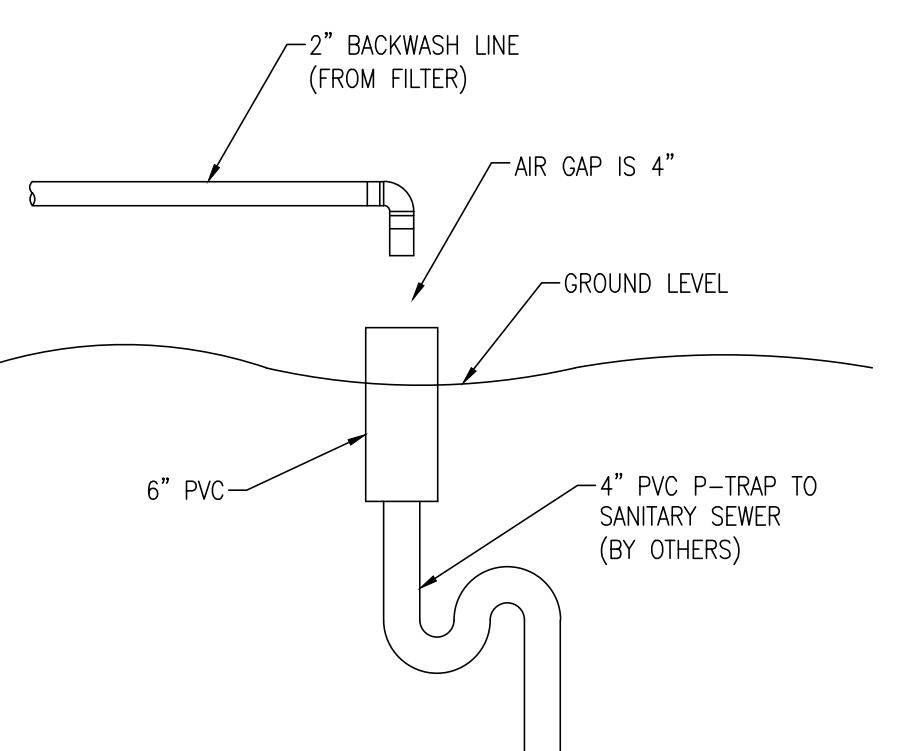
UNDERGROUND PLUMBING PLAN
3/16" = 1'-0"



PLAN KEY NOTES:

- FIELD LOCATE AND TIE INTO EXISTING WASTE PIPING SERVING SPACE IN THIS AREA. VERIFY INVERT, SIZE AND FLOW DIRECTION PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER IF INVERT CANNOT BE MET.
- PROVIDE NEW DRINKING FOUNTAIN AT LOCATION SHOWN. CONSULT ARCHITECTURAL DRAWINGS FOR DRINKING FOUNTAIN MOUNTING HEIGHTS PRIOR TO CONSTRUCTION FOR ADA ACCESSIBILITY.
- ROUTE WATER HEATER PTV AND DRAIN PAN TO MOP BASIN IN ROOM.
- PVC PERIMETER POOL TRENCH DRAIN WITH PVC TAN COLOR COVER. DRAIN TO BE EQUAL TO 3" WATER HOG DECK DRAIN BY QUAKER PLASTICS. DRAIN TO HAVE EASILY REMOVABLE COVER IN LENGTHS NOT MORE THAN 10'. VERIFY INVERT WITH EXISTING PLUMBING CONNECTION POINT PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER IF INVERT CANNOT BE MET.
- PROVIDE LINEAR TRENCH DRAIN FOR DRIP DRY MAT (STEIMEIER FLOWMASTER 3 COMMERCIAL DECK DRAIN). SEE ARCHITECTURAL DRAWINGS FOR MAT AND FLOORING DETAILS.
- PROVIDE 3" DIAMETER EJECTOR PIT WITH PUMP FOR POOL SAND FILTER BACKWASH DISCHARGE AND POOL DRAINS. COORDINATE EXACT LOCATION WITH OTHER TRADES AND VERIFY SANITARY HAS SUFFICIENT DEPTH TO MEET INVERT REQUIREMENTS. COORDINATE EXACT REQUIREMENTS OF ORIFICE BASIN WITH AHU PRIOR TO BID.
- PROVIDE PACKAGED DUPLEX SUMP PUMP PACKAGE TO INCLUDE PUMP, CONTROLS, ALARMS, WELL, ETC FOR COMPLETE OPERATING SYSTEM. SEE DETAIL. COORDINATE EXACT ROUTING OF INLET AND DISCHARGE WASTE PIPING WITH EXISTING CONDITIONS AND OTHER TRADES PRIOR TO CONSTRUCTION. ENSURE DISCHARGE IS OF SUFFICIENT DEPTH TO DRAIN TO EXISTING WASTE TIE IN DOWNSTREAM.

PROVIDE ALL NEW FLOOR DRAINS WITH TRAP PRIMERS. TRAP PRIMER TO BE EQUAL TO ZURN Z1022-XL LEAD FREE SANI-GUARD TRAP PRIMER WITH INTEGRAL VACUUM BREAKER.



2 P-TRAP DETAIL FOR POOL BACKWASH
NTS



1 SIDE DRAINOUT FITTING FOR
3" WATER HOG
NTS



RED MILL COMMONS
SHOPPING CENTER

2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454

PROJECT NO: 2024.0397
DATE: 08.29.24

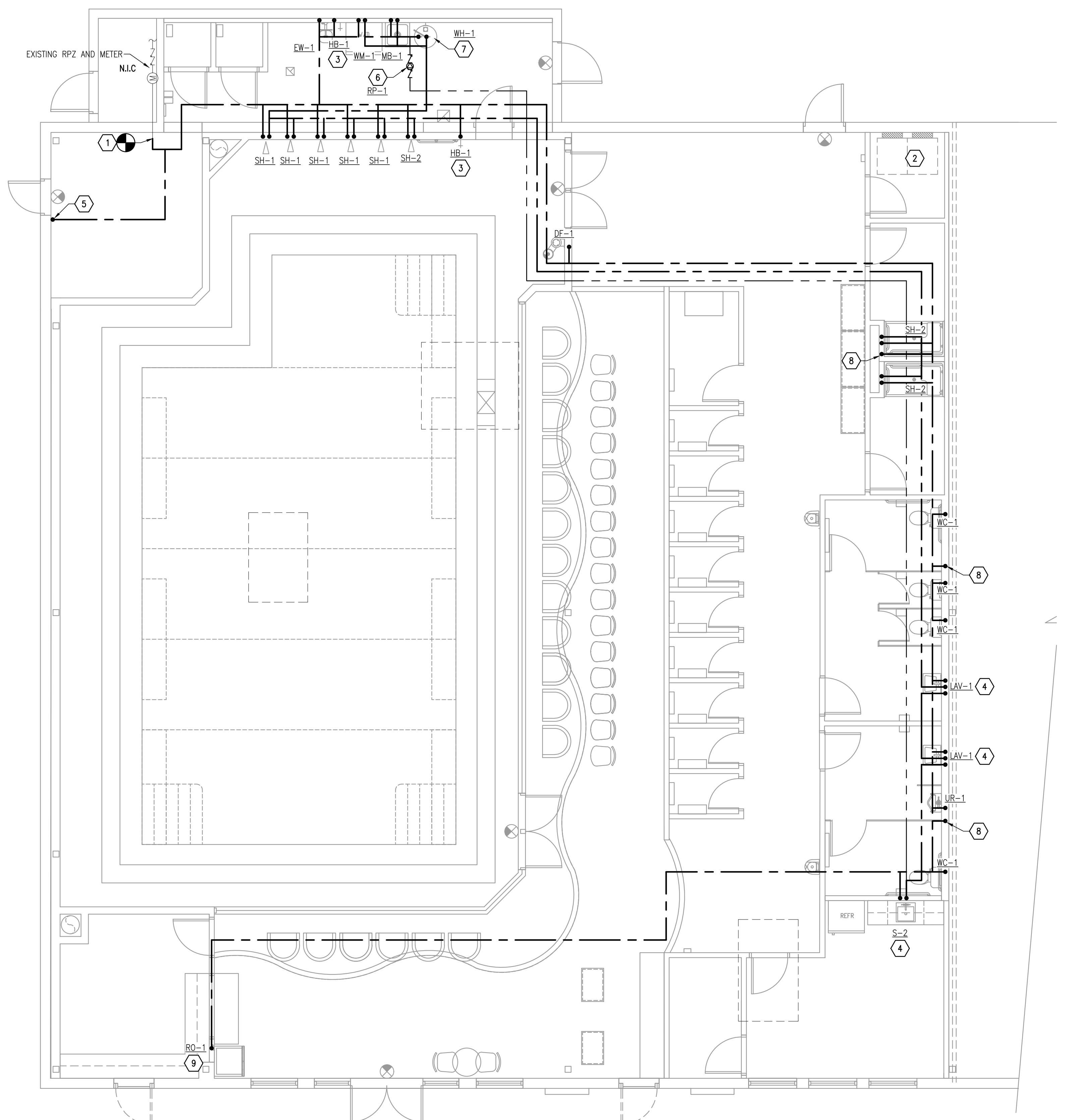
P1.0
UNDERGROUND
PLUMBING PLAN

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ABOVE GROUND PLUMBING PLAN
3/16" = 1'-0"



PLAN KEY NOTES:

1. FIELD LOCATE AND CONNECT NEW 2" DOMESTIC WATER SERVICE TO EXISTING 2" VALVED AND CAPPED WATER PIPING BY LANDLORD. FIELD VERIFY LOCATION, VERIFY EXISTING METER, RPZ, AND SHUT-OFF VALVE PROVIDED BY LANDLORD.
2. DO NOT RUN PIPE ABOVE ELECTRIC PANELS.
3. 3/4" CW DOWN IN WALL TO WALL HYDRANT WHY. MOUNT WALL HYDRANT AT 24" A.F.F.
4. PROVIDE MIXING VALVES AT LAVATORIES, SET MIXING VALVE TO TEMPER HOT WATER FROM (140°F) TO (110°F) SUPPLYING ALL LAVATORIES.
5. PROVIDE 1" CW SUPPLY PIPE TO POOL EQUIPMENT. COORDINATE EXACT CONNECTION REQUIREMENTS WITH POOL DRAWINGS AND POOL CONTRACTOR PRIOR TO BID. PROVIDE RPZ BACKFLOW PREVENTER AS REQUIRED. COORDINATE LOCATION WITH POOL DRAWINGS.
6. PROVIDE RECIRCULATION PUMP IN ACCESSIBLE LOCATION.
7. PROVIDE NEW WATER HEATER IN LOCATION SHOWN. ROUTE PTV DRAIN LINE TO MOP SINK. SEE DETAIL FOR PIPING SCHEMATIC.
8. RUN 1/2" CW LINE TO FLOOR DRAIN FROM TRAP PRIMER.
9. CONTRACTOR TO PROVIDE REVERSE OSMOSIS FILTRATION FOR COFFEE STATION AND REFRIGERATOR. COORDINATE EXACT MAKE AND MODEL WITH TENANT PRIOR TO BID.

09.27.24 OWNER REVIEW
NO DATE REMARKS
REVISIONS



RED MILL COMMONS
SHOPPING CENTER

2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454

PROJECT NO: 2024.0397
DATE: 08.29.24

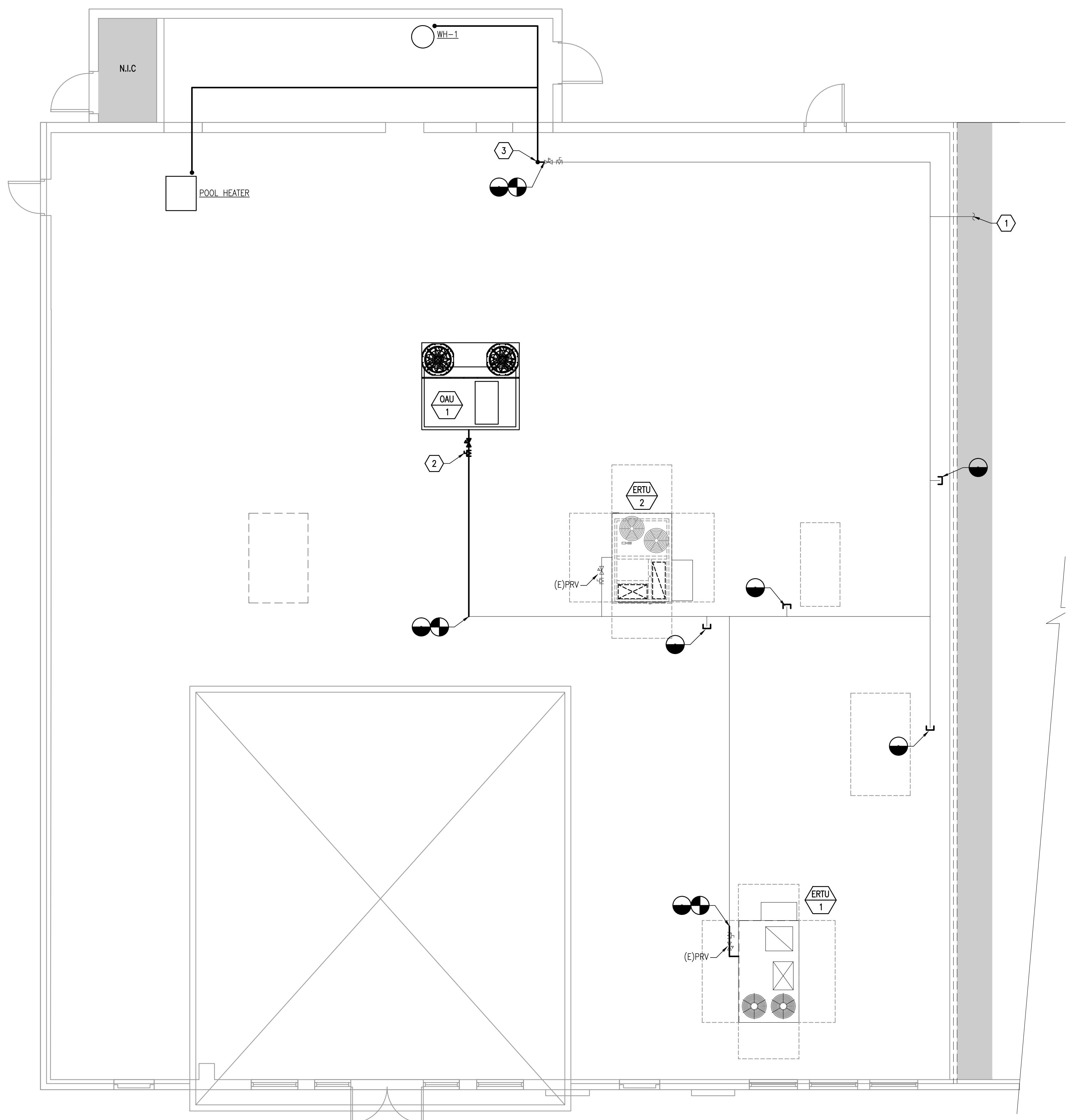
P2.0
ABOVE GROUND
PLUMBING PLAN

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PLAN KEY NOTES:

- CC TO VERIFY GAS METER SIZE, PRESSURE AND REPLACE IF REQUIRED. VERIFY EXISTING GAS PIPING SIZES AND REPLACE WITH NEW AS REQUIRED. METER TO BE SIZED FOR 1,307 MBH TOTAL LOAD, 150 FEET DEVELOPED LENGTH, AND SYSTEM PRESSURE: 5PSI.
- NEW GAS LINE TO ROOFTOP EQUIPMENT. INSTALL NEW UL AND CSA APPROVED GAS SHUT OFF VALVE, DIRT LEG AND REDUCER.
- ROUTE GAS PIPING THROUGH EXISTING ROOF PENETRATION TO WATER HEATERS AND POOL HEATER BELOW. COORDINATE EXACT LOCATION OF ROOF PENETRATION WITH ROOF STRUCTURE PRIOR TO CONSTRUCTION.



GAS PLUMBING PLAN
3/16" = 1'-0"

NORTH

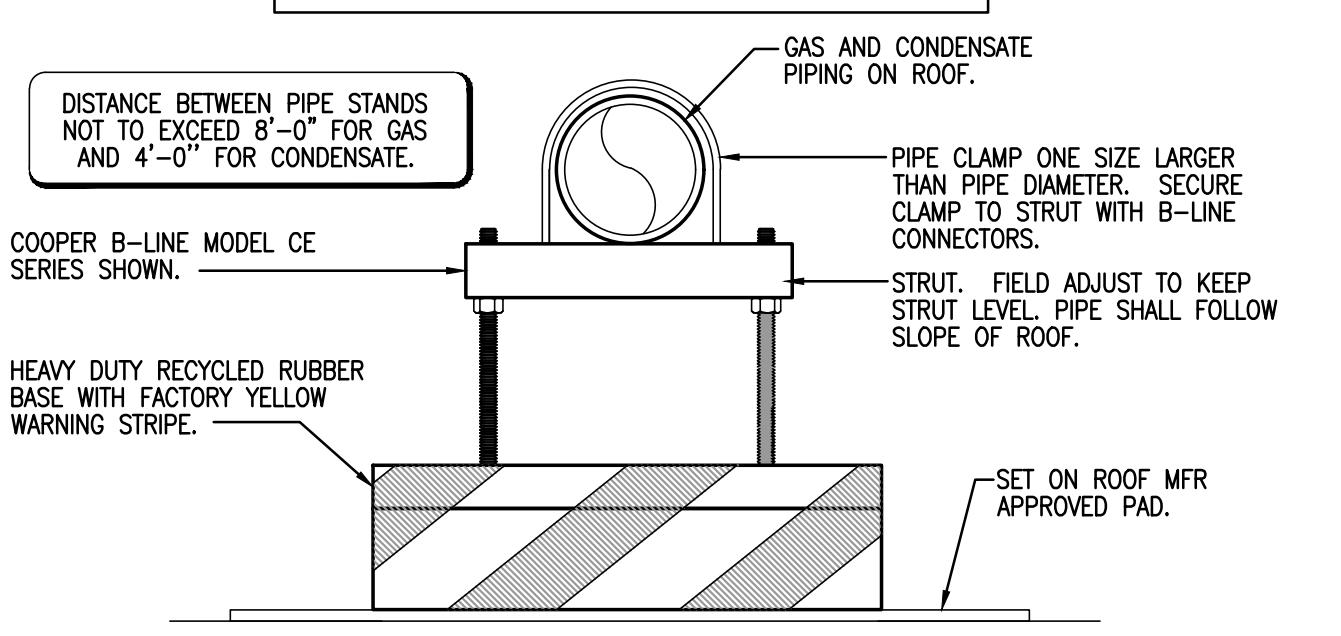
ARCHITECTURE
I SOUTH 280 SUMMIT AVE, SITE D
OAKBROOK TERRACE, IL 60181
630.932.2336

ENGINEERING
PERMITTING
220 E. CENTRAL PKWY, STE 4000
ALTAMONTE SPRINGS, FL 32701
407.645.5008

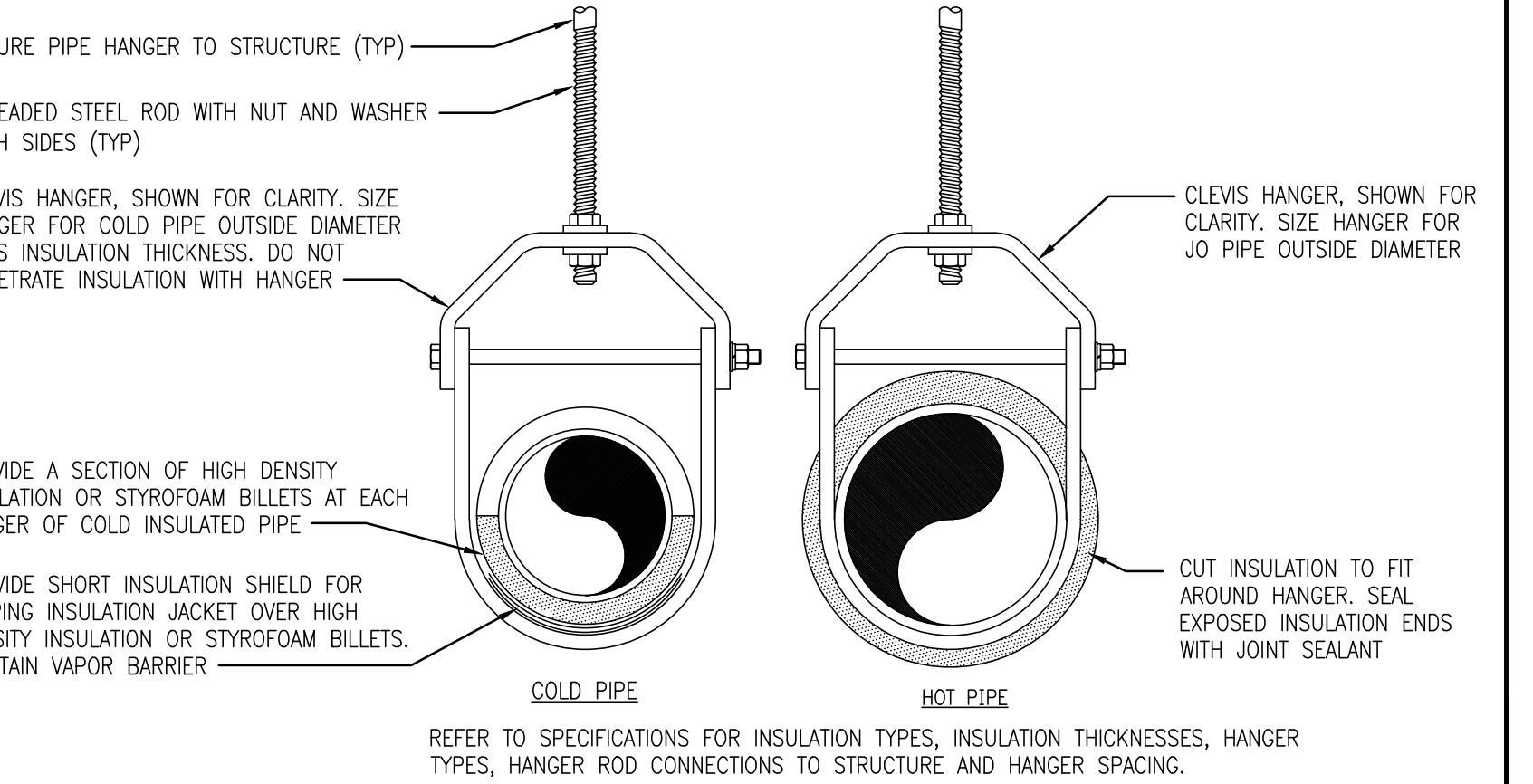
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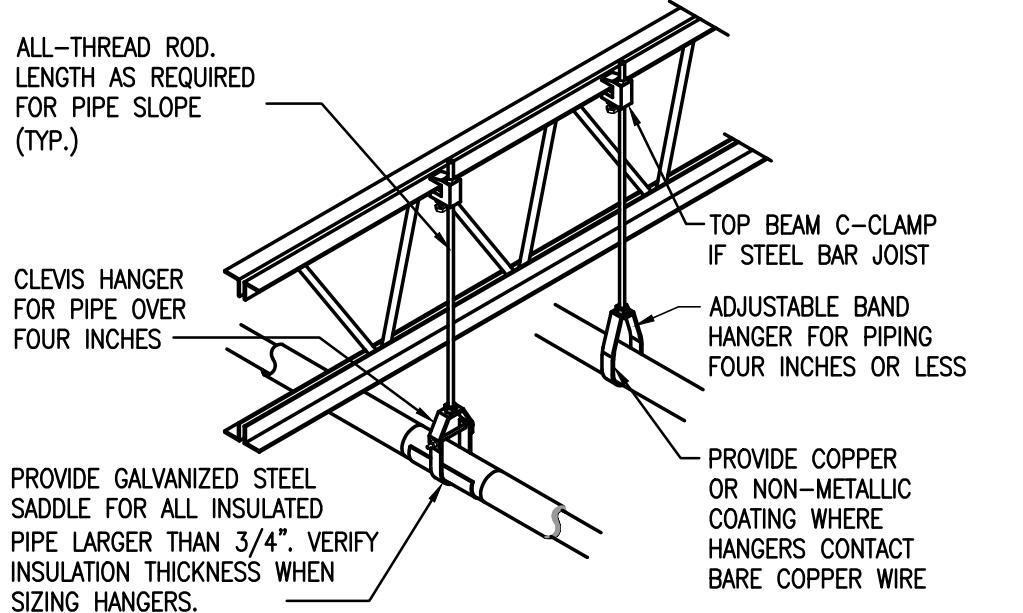
- NOTES:**
- NON ADJUSTABLE MODEL C10 PIPE STAND TO BE USED FOR NON-ELEVATED PIPING INSTALLED FLAT ON ROOF DECK.
 - PROVIDE MODEL CE-8 OR CE-12 OR CE-16 AS NEEDED FOR ELEVATING CONDENSATE PIPING TO MAINTAIN PROPER SLOPE AND FOR GAS PIPING CROSSING OVER CONDENSATE PIPING.



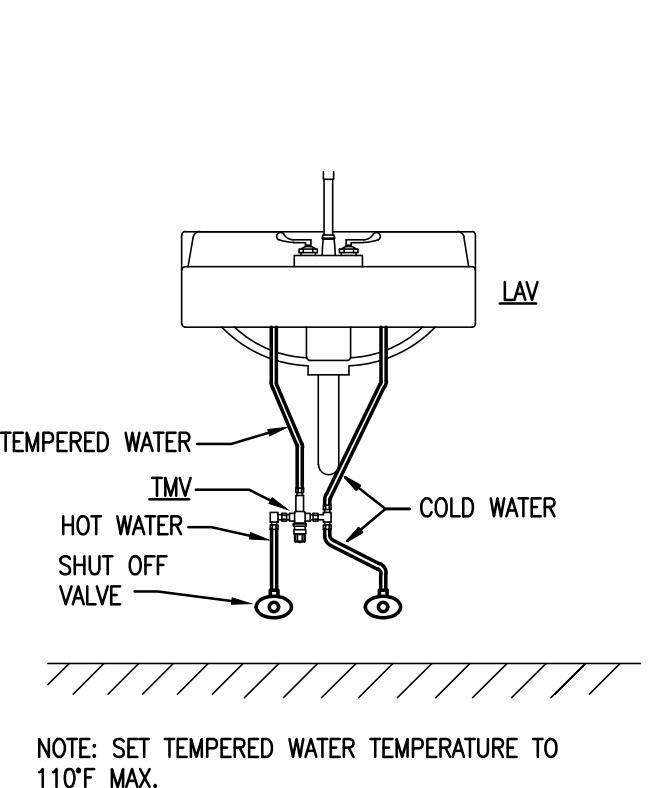
PIPING SUPPORT DETAIL
NTS



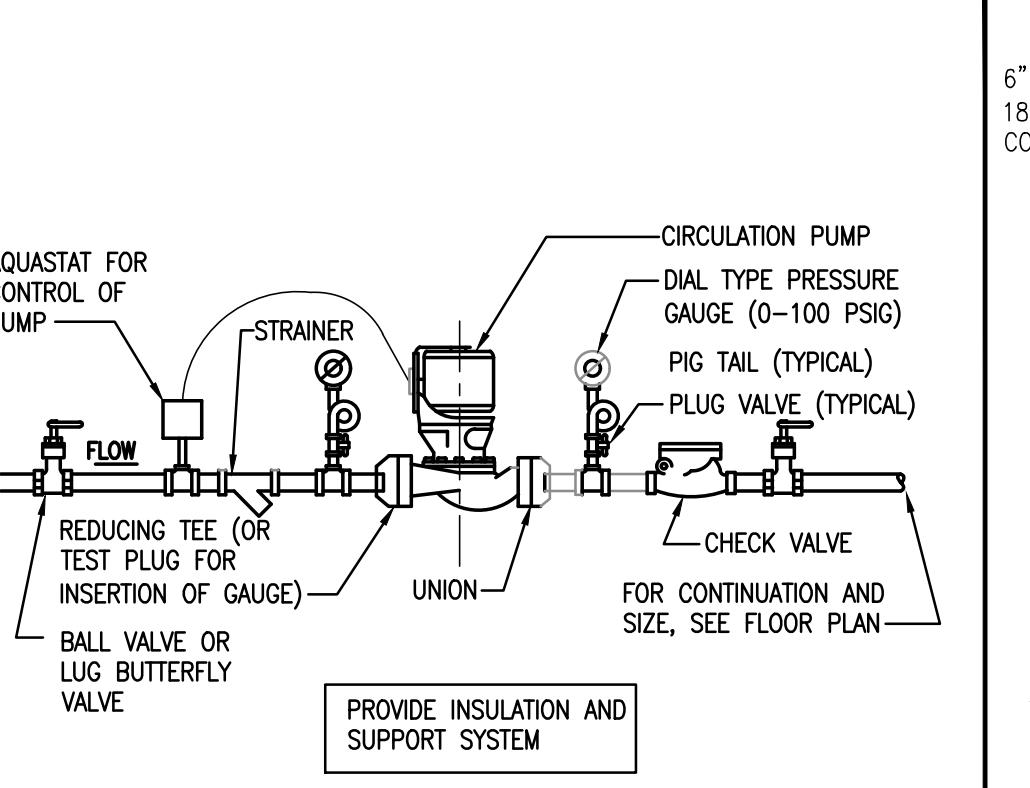
INSULATED PIPE HANGER DETAIL
NTS



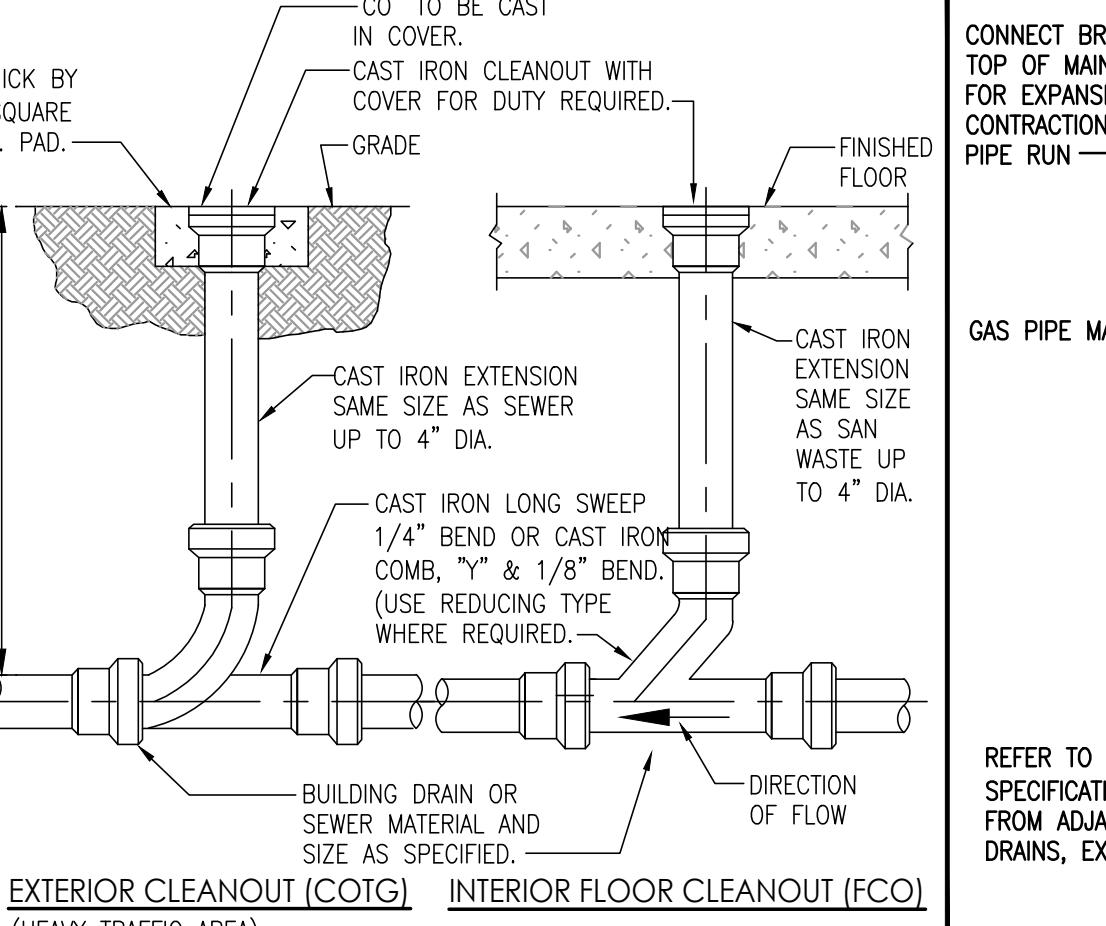
PIPE HANGER DETAIL
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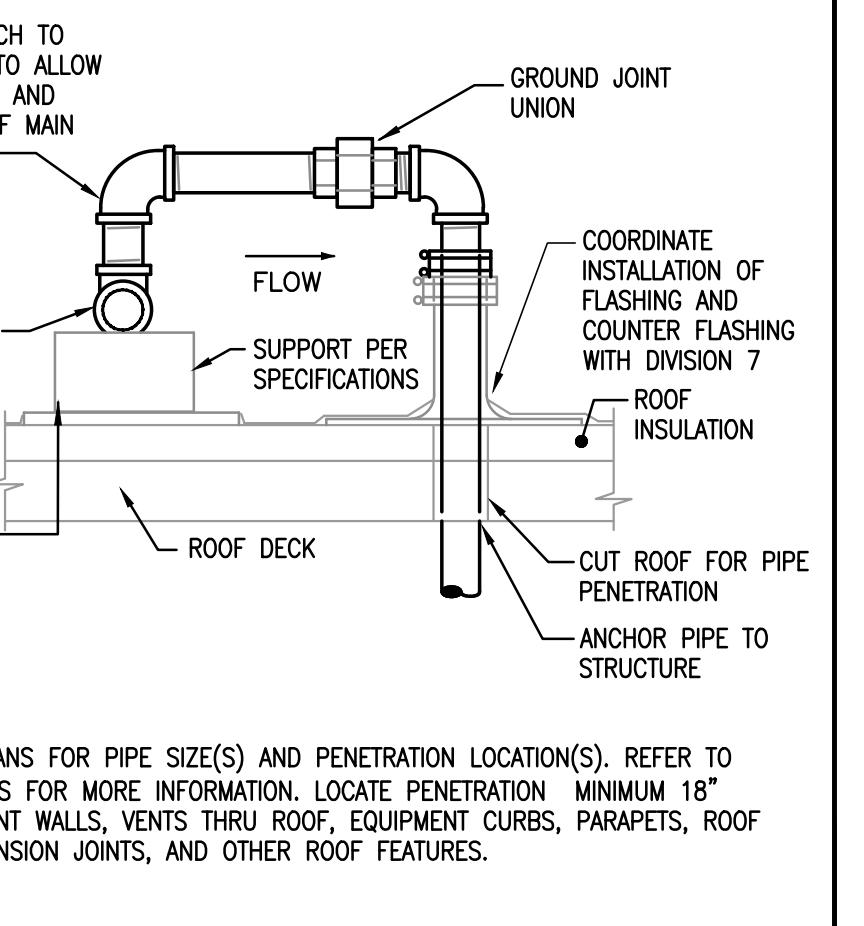
THERMAL MIXING VALVE DETAIL
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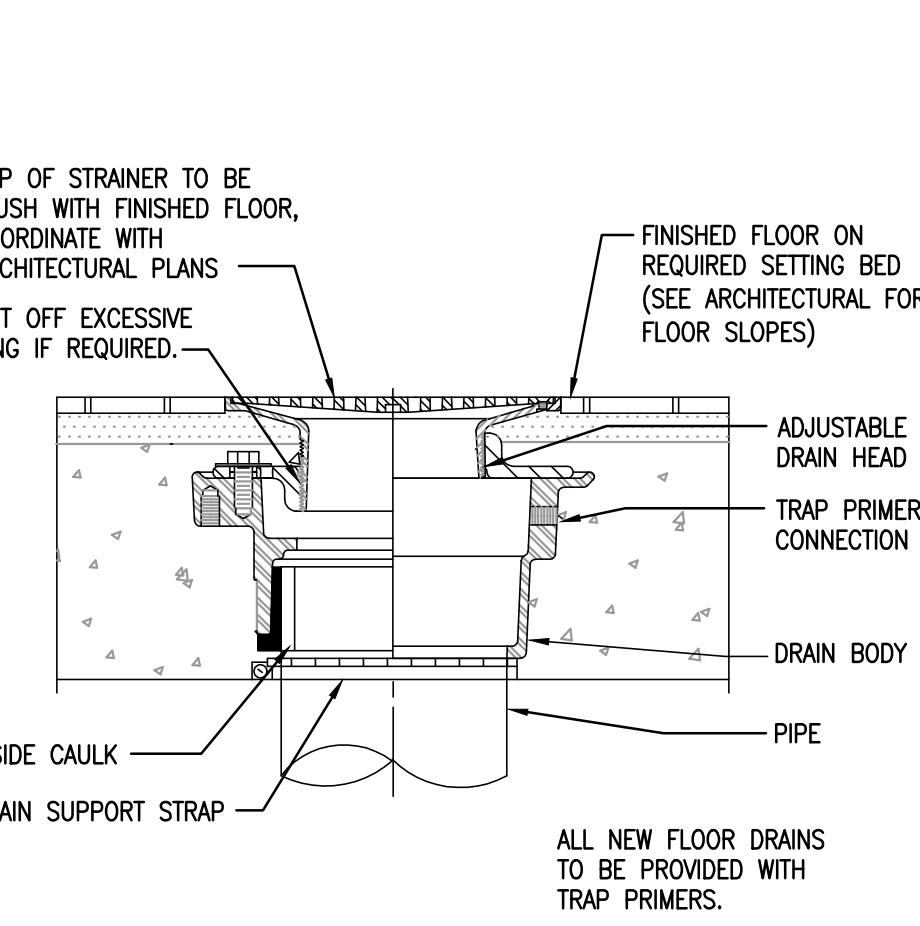
IN-LINE CIRCULATING PUMP DETAIL
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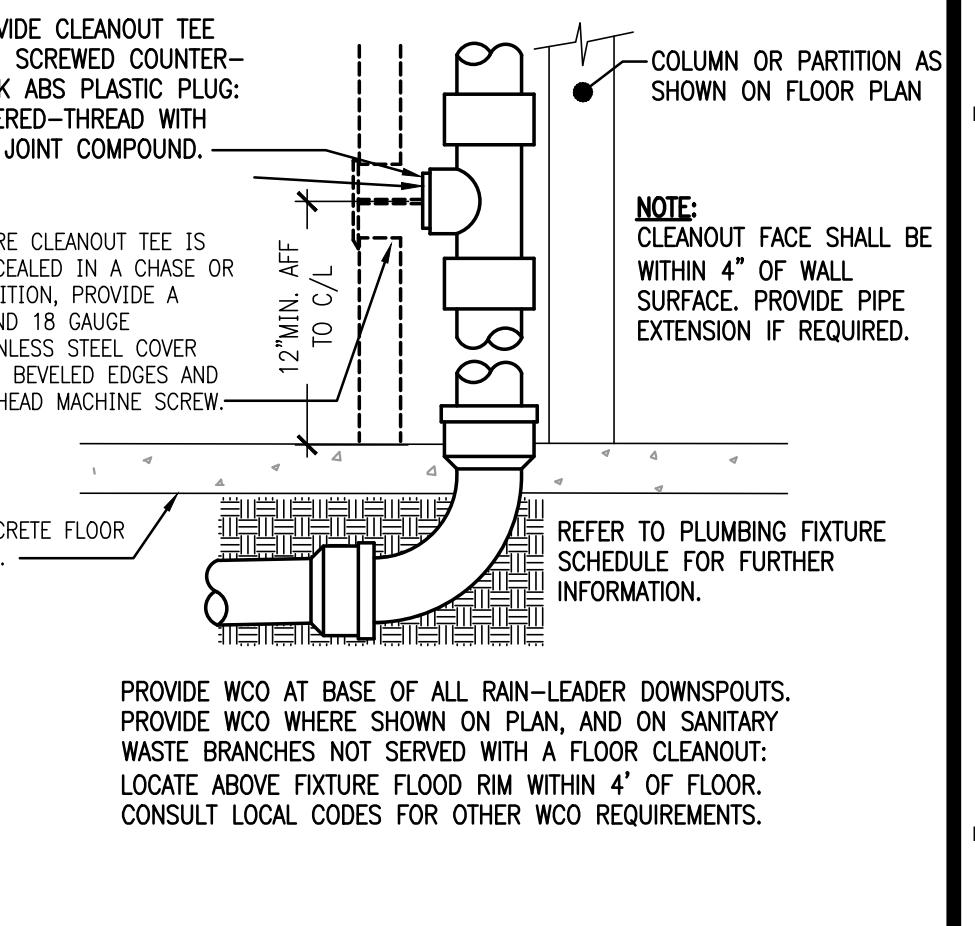
CLEANOUT DETAILS
NTS



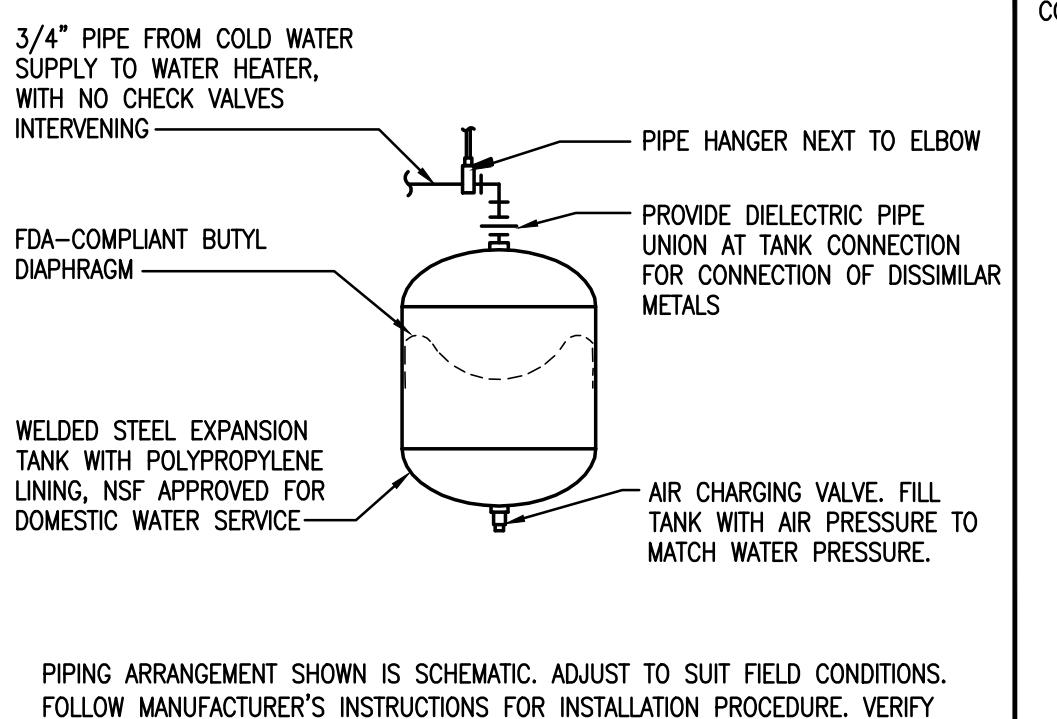
GAS PIPE ROOF PENETRATION
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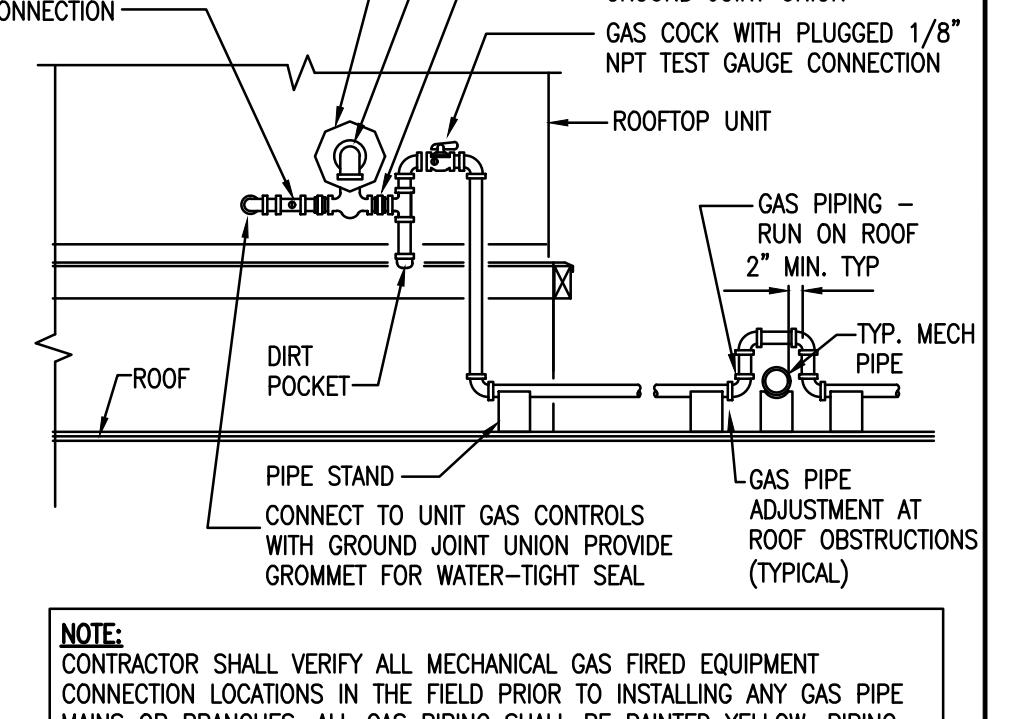
FLOOR DRAIN DETAIL
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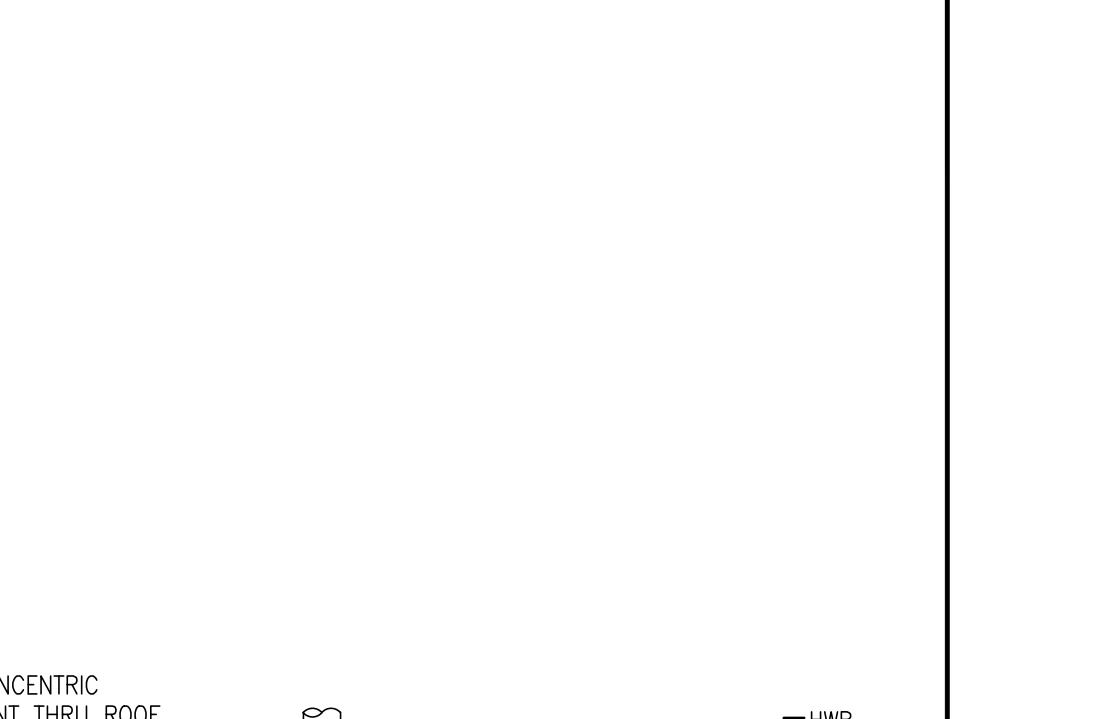
WALL CLEAN OUT DETAIL
NTS



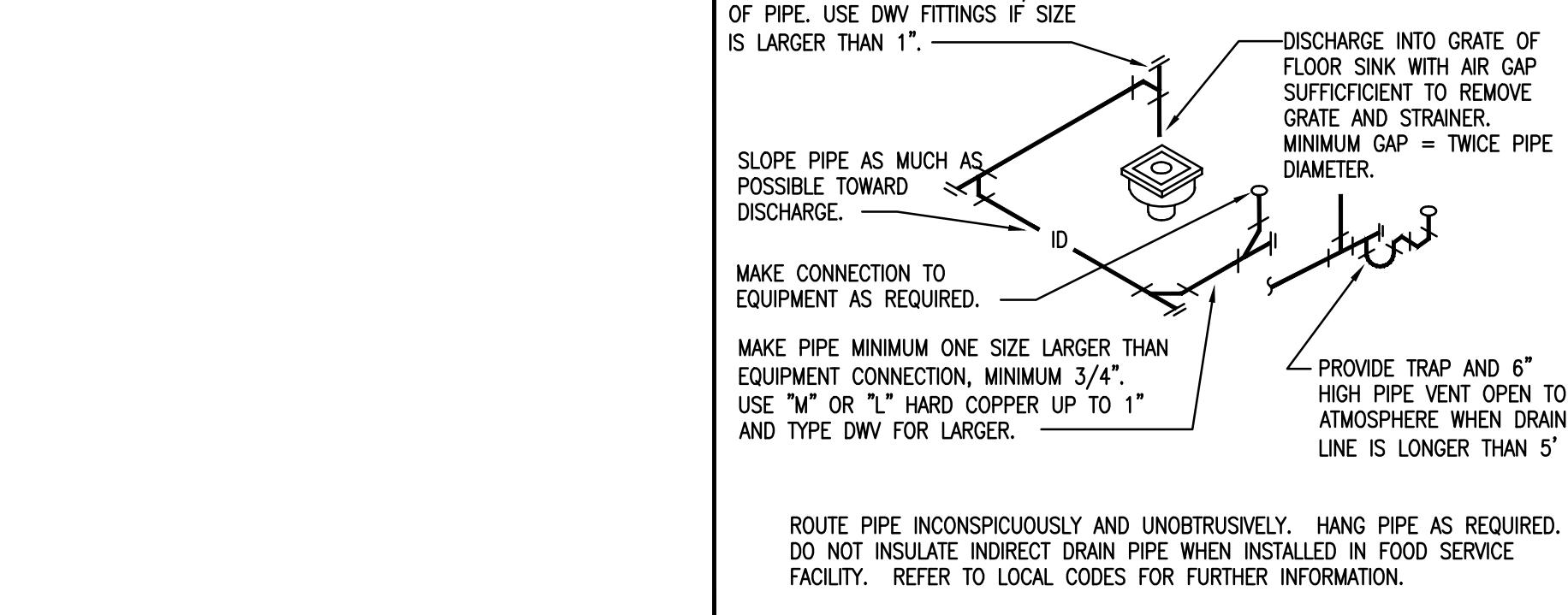
SMALL EXPANSION TANK DETAIL
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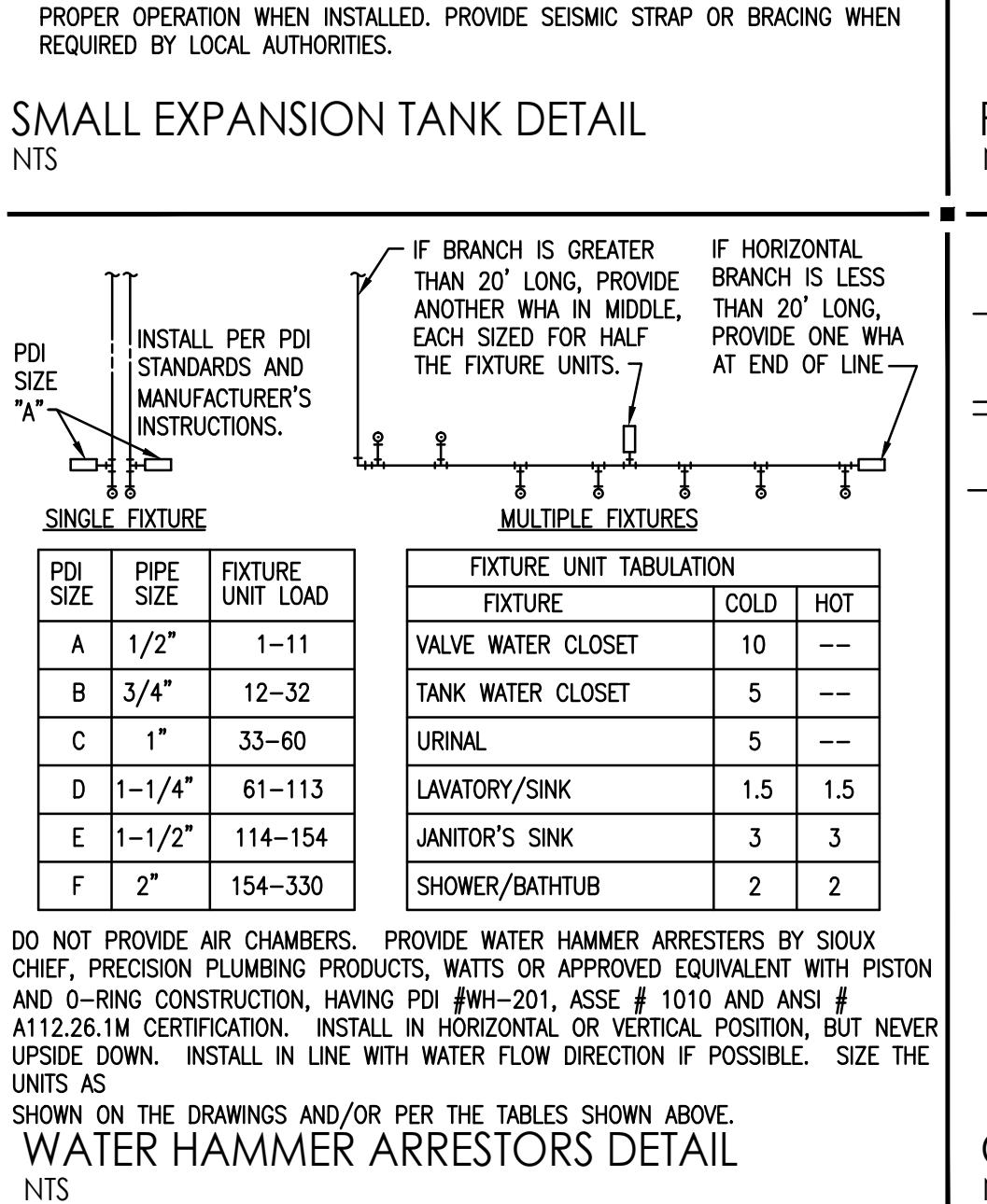
RTU GAS PIPE CONNECTION DETAIL
NTS



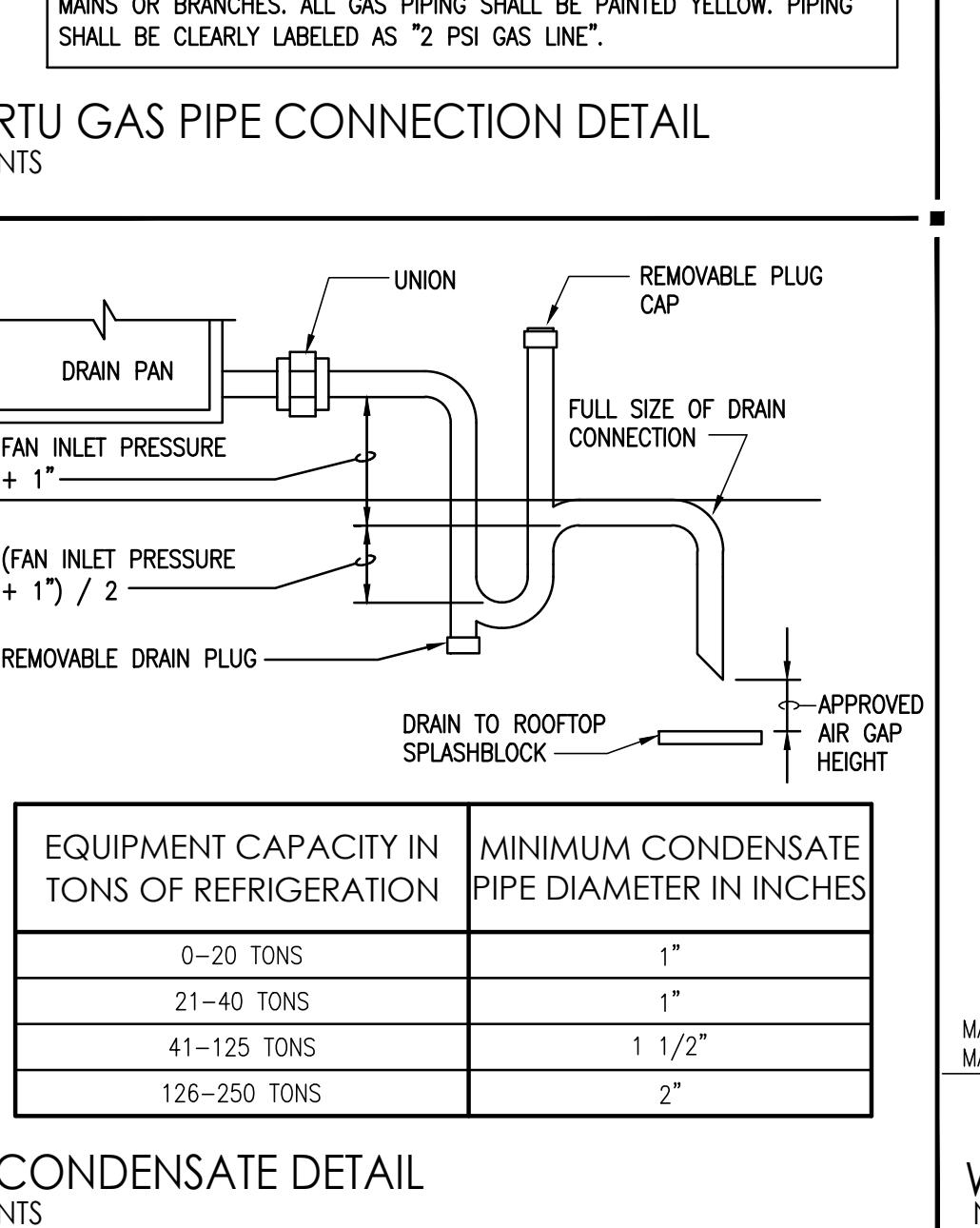
INDIRECT DRAIN DETAIL
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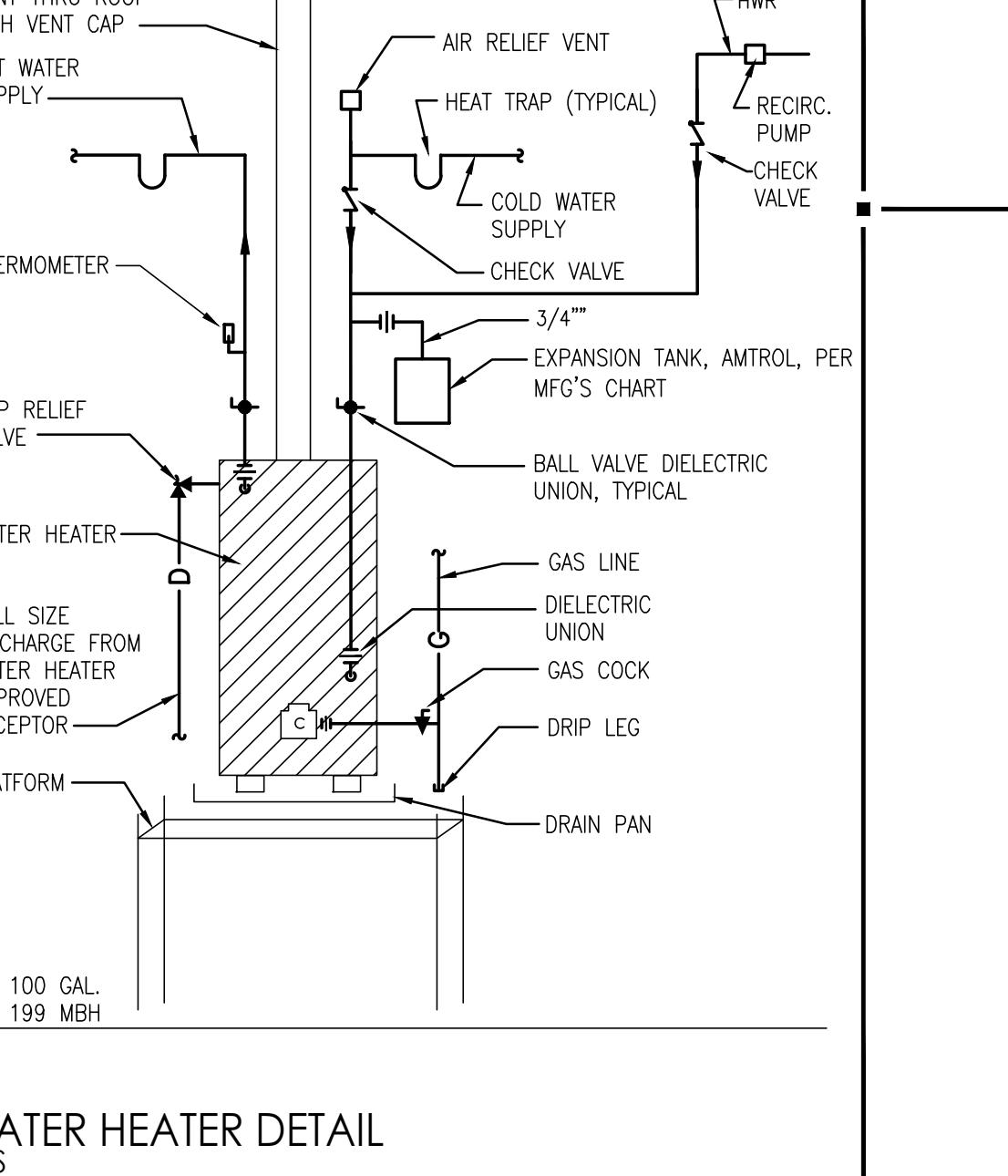
SLAB REPAIR DETAIL
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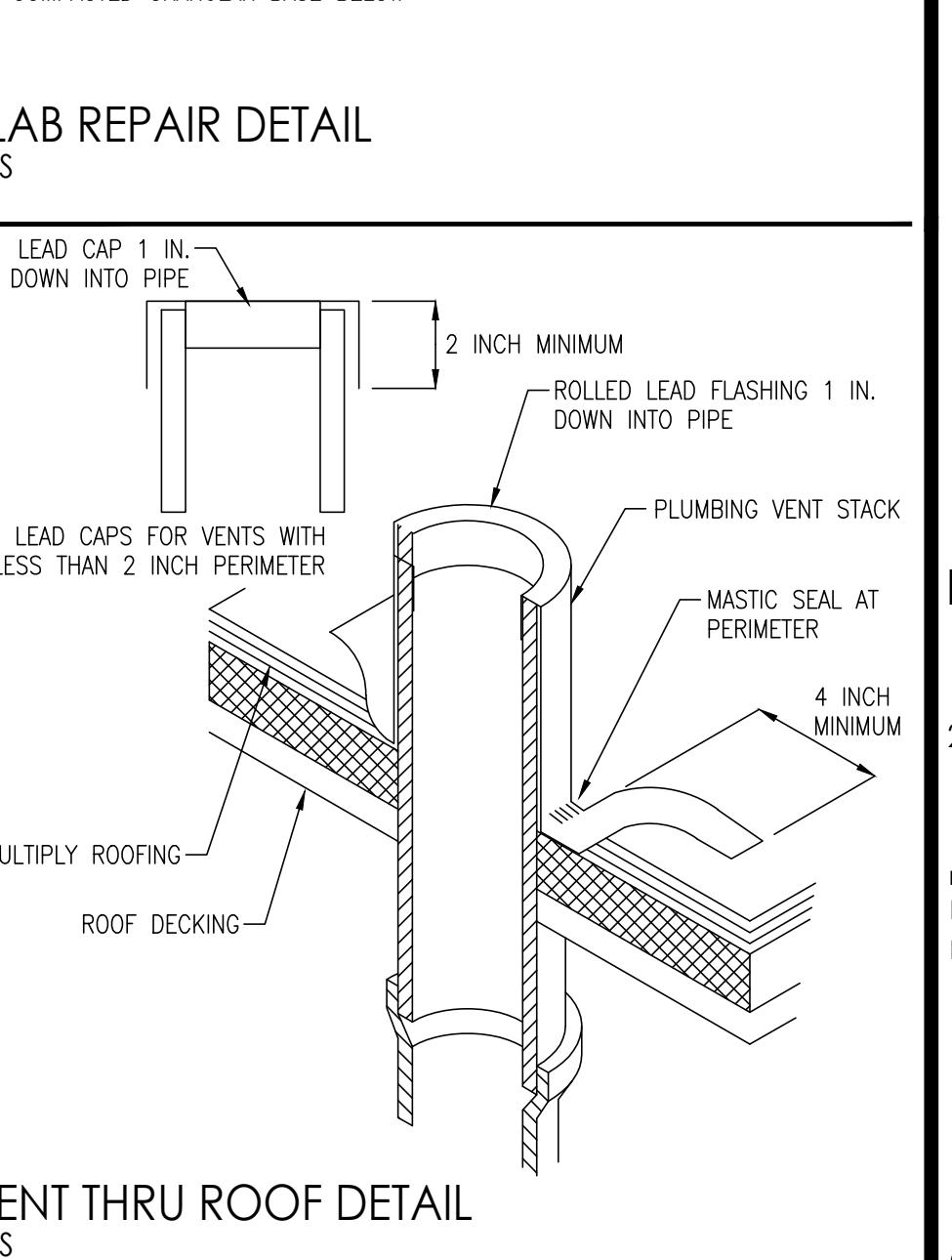
WATER HAMMER ARRESTORS DETAIL
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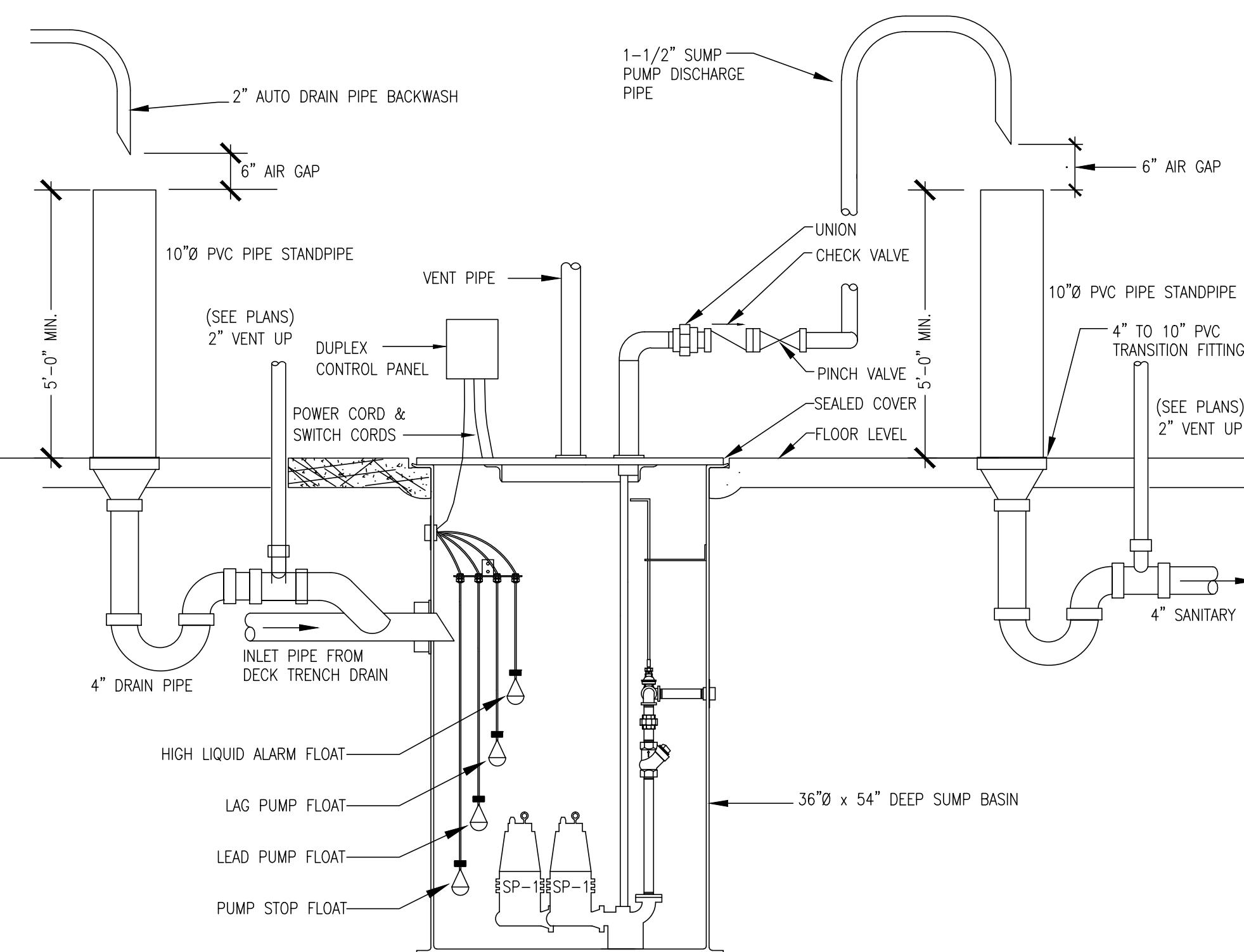
CONDENSATE DETAIL
NTS



WATER HEATER DETAIL
NTS



VENT THRU ROOF DETAIL
NTS



BACKWASH PIPING DETAIL
NTS

BASIN DETAILS

CONTROL PANEL

BASIN DIAMETER (A)	36"
BASIN DEPTH (B)	54"
PHASE	3 PHASE
VOLTAGE	208V
PUMP MODEL	BC50
FLOW (GPM)	30 GPM
TDH (FEET)	20 FT
HP	1/2 HP
RPM	3450 RPM
DISCHARGE	2"

GENERAL NOTES

Standard components:
 1- 16 x 14 x 7 NEMA 4X polycarbonate enclosure.
 2- IEC motor contactor.
 3- MCC B for shorcut.
 4- Alternator.
 5- Green Pump run indicator lights.
 6- Alarm/Control CB.
 7- Float switch terminal block angled for ease of field installation.
 8- Input power terminal block angled for ease of field installation.
 9- Ground lugs.
 10- HOA(Hand/Off/Auto) switches.

Standard Alarm Package:
 11- High alarm relay for dry contacts.
 12- Indicator light for visual check.
 13- Sonalert audible alarm.
 14- Exterior alarm test with silence.
 15- Horn silence relay.

NOTES:

PLEASE CONTACT:
 BOESCH PUMPS LLC
 Art Chibl
 (305) 999-1769
 sales@boeschpumps.com
 BoeschPumps.com

DUPLEX EJECTOR SYSTEM
FIBERGLASS BASIN

Revision notes:
 Rev. Date: 08/06/19 Notes: PROJECT

Drawn by: C.Gregoire Project: WASTEWATER
 Client: Drawing Title: IWS DUPLEX EJECTOR
 Date: 08/06/2019 Scale @ A: XXXXX
 Revision: A

BOESCH

BACKWASH PIT DETAIL
NTS

09.27.24 OWNER REVIEW
NO DATE REMARKS
REVISIONS



RED MILL COMMONS
SHOPPING CENTER
2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454

PROJECT NO: 2024.0397
DATE: 08.29.24

P4.1

PLUMBING DETAILS

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WATER HEATER SIZING CALCULATION					
Fixture	Fixture Designation	Qty.	GPH		Total
MOP SINK	-	1	15		15.0
CLOTHES WASHER	-	1	5		5.0
SHOWER HEAD	-	8	10		80.0
BREAK ROOM SINK	-	1	5		5.0
LAVATORY	-	2	5		10.0
				TOTAL	115.0
	GPH		USAGE FACTOR		
	115.0		75%	TOTAL	86.3

Mark	Fixture Type	Description	Fixture Connections				Manufacturer: Model Number
			CW	HW	W	V	
WC-1	ADA WATER CLOSET (TANK)	1.1 GPF, PRESSURE ASSIST, EVERCLEAN SURFACE, AMERICAN STANDARD 5901.110 WHITE OPEN FRONT ELONGATED BOWL SEAT, WATTS BV894012K LOOSE KEY ANGLE STOP & SUPPLY	3/4"	-	3"	2"	AMERICAN STANDARD: 2467.100 CADET
UR-1	URINAL	VITREOUS CHINA, 0.5 GPF, WASHDOWN TYPE, FLOOR MOUNTED	3/4"	-	3"	2"	AMERICAN STANDARD: 6400.001 AMERICAN STANDARD: 6063.051.002 (FLUSH VALVE)
LAV-1	LAVATORY	WALL HUNG, VITREOUS CHINA, 0.5 GPM AERATOR, WRIST BLADE HANDLES & GRID DRAIN ASSY., WATTS LFVB94016K LEAD FREE STOPS & SUPPLIES, WATTS 519-173R "P" TRAP, PLUMBERX 2003W ADA PROTECTIVE PIPE COVERS.	1/2"	1/2"	2"	1-1/2"	AMERICAN STANDARD (SINK): 0195.073 ROXALYN AMERICAN STANDARD (FAUCET): 5502.175.002
S-2	BREAK ROOM SINK	DROP-IN SINK, 1-COMPARTMENT, 16"W X 14"D FRONT-TO-BACK, 8" DEEP BOWL, 18 GAUGE 304 STAINLESS STEEL, INCLUDES: DECK MOUNTED GOOSENECK FAUCET (K-52), & BASKET DRAIN, NSF	1/2"	1/2"	2"	1-1/2"	ADVANCE TABCO (KITCHEN SINK) : DI-1-168 FAUCET : K-52
MB-1	MOP BASIN	MOLDED STONE, SERVICE FAUCET W/ VACUUM BREAKER, PAIL HOOK, 3/4" HOSE THREAD.	3/4"	3/4"	3"	2"	FIAT (SINK): MSBD2424 AMERICAN STANDARD (FAUCET): 8354.112
SWE-1	SWIMSUIT WATER EXTRACTOR	SWIMSUIT WATER EXTRACTION SYSTEM	-	-	2"	1-1/2"	SEE ARCHITECTURE DRAWINGS
SH-1	SHOWER HEAD	CHROME PLATED, LEVER HANDLE STYLE, ADJUSTABLE TEMPERATURE LIMIT STOP, 2.5 GPM MAX	1/2"	1/2"	-	-	MOEN: TB375
SH-2	ADA SHOWER HEAD	CHROME PLATED, LEVER HANDLE STYLE, ADJUSTABLE TEMPERATURE LIMIT STOP, HAND-HELD SHOWER HEAD, VACUUM BREAKER, 2.5 GPM MAX	1/2"	1/2"	-	-	MOEN: T8346EP15
RP-1	RECIRCULATING PUMP	1/15 HP, 120V/1PH, 37GPM @ 32 FT. HEAD	1"	-	-	-	BELL&GOSSETT: MODEL NBF-36
FD-1	FLOOR DRAIN	TYPE "N" STRAINER. PROVIDE WITH COMPLETE BODY ASSEMBLY WITH TRAP PRIMER CONNECTION.	-	-	3"	2"	ZURN: MODEL #Z-415
HD-1	HUB DRAIN	HUB DRAIN	-	-	3"	1-1/2"	-
HD-2	HUB DRAIN	10" POOL DISCHARGE STANDPIPE	-	-	4"	2"	SEE DETAIL
TMV-1	MIXING VALVE	THERMOSTATIC MIXING VALVE, MOUNT VALVE BELOW FIXTURE, SET TEMPERATURE TO 110°F	-	-	-	-	POWERS: LFE480
IP-1	TRAP PRIMER	TRAP PRIMER	1/2"	-	-	-	ZURN: MODEL NO. Z1022-XL
HB-1	HOSE BIBB	RECESSED BOX TYPE HOSE BIBB W/ INTEGRAL VACUUM BREAKER AND "T" HANDLE.	3/4"	-	-	-	J.R.SMITH: 5509QT
DF-1	DRINKING FOUNTAIN	WALL MOUNTED HANDICAP ACCESSIBLE SINGLE DRINKING FOUNTAIN WITH BOTTLE FILLING STATION	1/2"	-	2"	1-1/2"	ELKAY: LK4408BFRED
EW-1	EYE WASH STATION	WALL MOUNT HALO EYWASH, INTEGRAL BACKFLOW PREVENTOR	1/2"	-	-	-	BRADLEY: S19224
FQO	FLOOR CLEANOUT	SIZE PER PIPING LATERAL, 4" MAX.	-	-	-	-	ZURN: MODEL #1454
WCQ	WALL CLEANOUT	RAISED HEADPLUG POLISH S.S. COVER & VANDAL PROOF SCREW	-	-	4"	-	ZURN MODEL #Z-1446 C/W
WH-1	TANK WATER HEATER	119 GALLONS, 120 MBH, 138 GPH RECOVERY @ 100°F	1"	1"	-	-	A.O. SMITH: BTH-120
WM-1	WASHING MACHINE OUTLET BOX	WASHING MACHINE OUTLET BOX WITH 1/2" CW AND HW SUPPLY CONNECTIONS, 2" DRAIN OUTLET AND WATER HAMMER ARRESTORS.	1/2"	1/2"	2"	1-1/2"	WASHING MACHINE OUTLET BOX: WATER-TITE W4700 HA
RO-1	REVERSE OSMOSIS DRINKING SYSTEM	CONTRACTOR SUPPLIED REVERSE OSMOSIS DRINKING SYSTEM	-	-	-	-	-

CLEANOUT NOTE:
CLEANOUTS SHALL BE PROVIDED AT THE LOCATIONS INDICATED AND A MINIMUM WHERE REQUIRED BY CODE. FLOOR CLEANOUTS SHALL BE A MINIMUM OF 4" AND SHALL BE COMPLETE WITH A FLUSH PLUG AND REMOVABLE SCORIATED BRONZE FLOOR PLATE, PROVIDE CARPET BUTTONS IN CARPETED AREAS.

09.27.24 OWNER REVIEW
NO DATE REMARKS
REVISIONS

BACKFLOW DEVICE SCHEDULE (BASED ON WATTS)					
Tag	Series	Size	Type	Usage	Approval
BFP-1	909	4"	DOUBLE CHECK VALVE ASSEMBLY	FIRE RISERS	ASSE 1015, AWWA 1013
BFP-2	009QT	2"	REDUCED PRESSURE BACKFLOW PREVENTER	DOMESTIC WATER CONNECTION	ASSE 1015, AWWA 1013
BFP-6	8	3/4"	VACUUM BREAKER	WALL HYDRANT CONNECT VACUUM BREAKER	ASSE 1011
BFP-7	N9-CD	3/4"	DUAL CHECK VACUUM BREAKER	HOSE BIBB	ASSE 1052
CONTRACTOR TO VERIFY EXACT REQUIREMENTS OF ALL REQUIRED BACKFLOW DEVICES AND FIXTURES WITH AUTHORITIES HAVING JURISDICTION PRIOR TO BID.					

GAS CONNECTION SCHEDULE	
Equipment	Gas Load
ERTU-1	224,000 BTUH
ERTU-2	224,000 BTUH
OAU-1	339,000 BTUH
POOL HEATER	400,000 BTUH
WATER HEATER	120,000 BTUH
TOTAL CONNECTED LOAD	1,307,000 BTUH

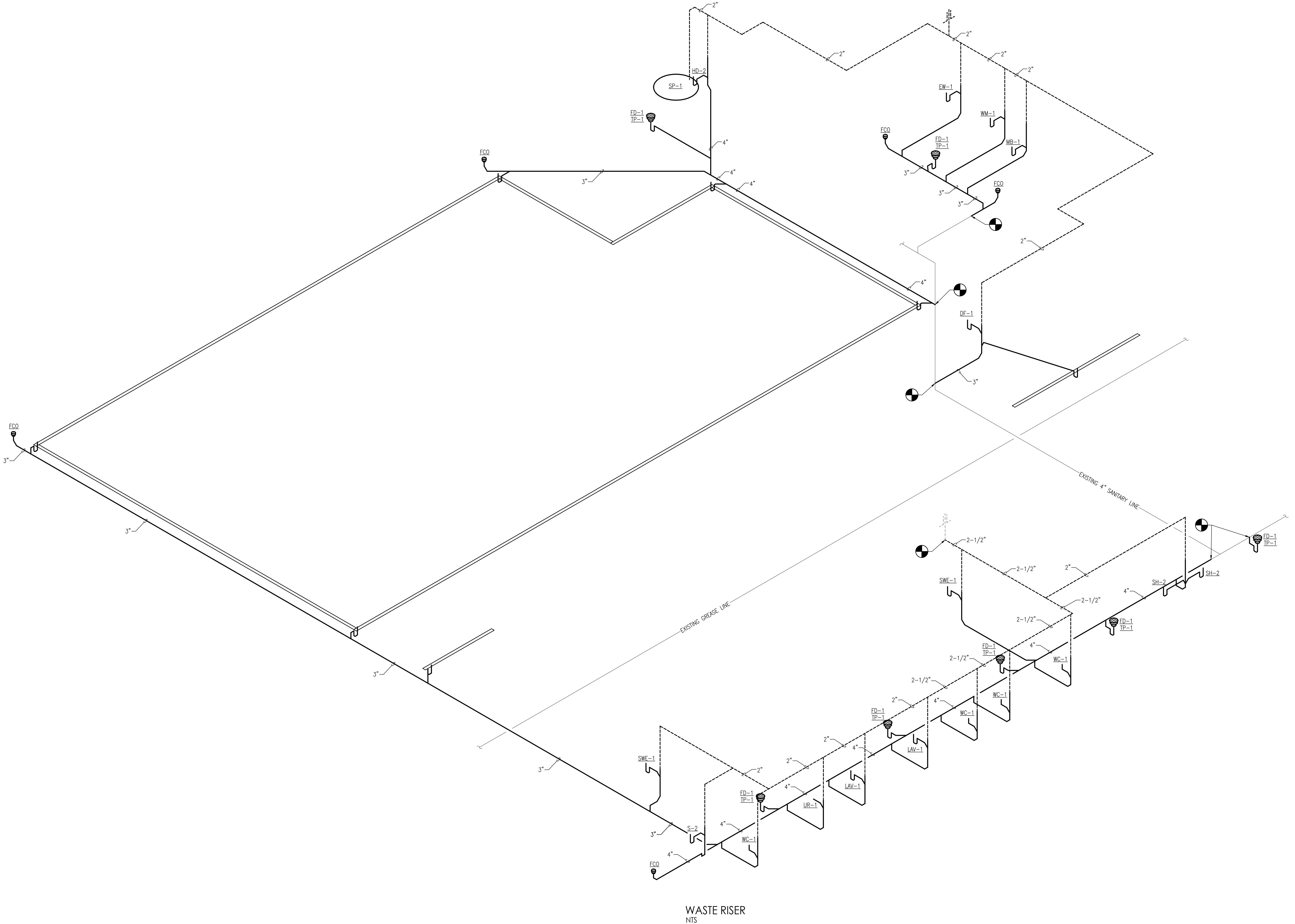
REMARKS:
1. EQUIVALENT TO 1,307.0 CFH
2. 5 PSI DELIVERY PRESSURE
3. DEVELOPED LENGTH IS 150'
4. TABLE 402.4(7)

RED MILL COMMONS
SHOPPING CENTER
2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454

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P5.0
PLUMBING SCHEDULES

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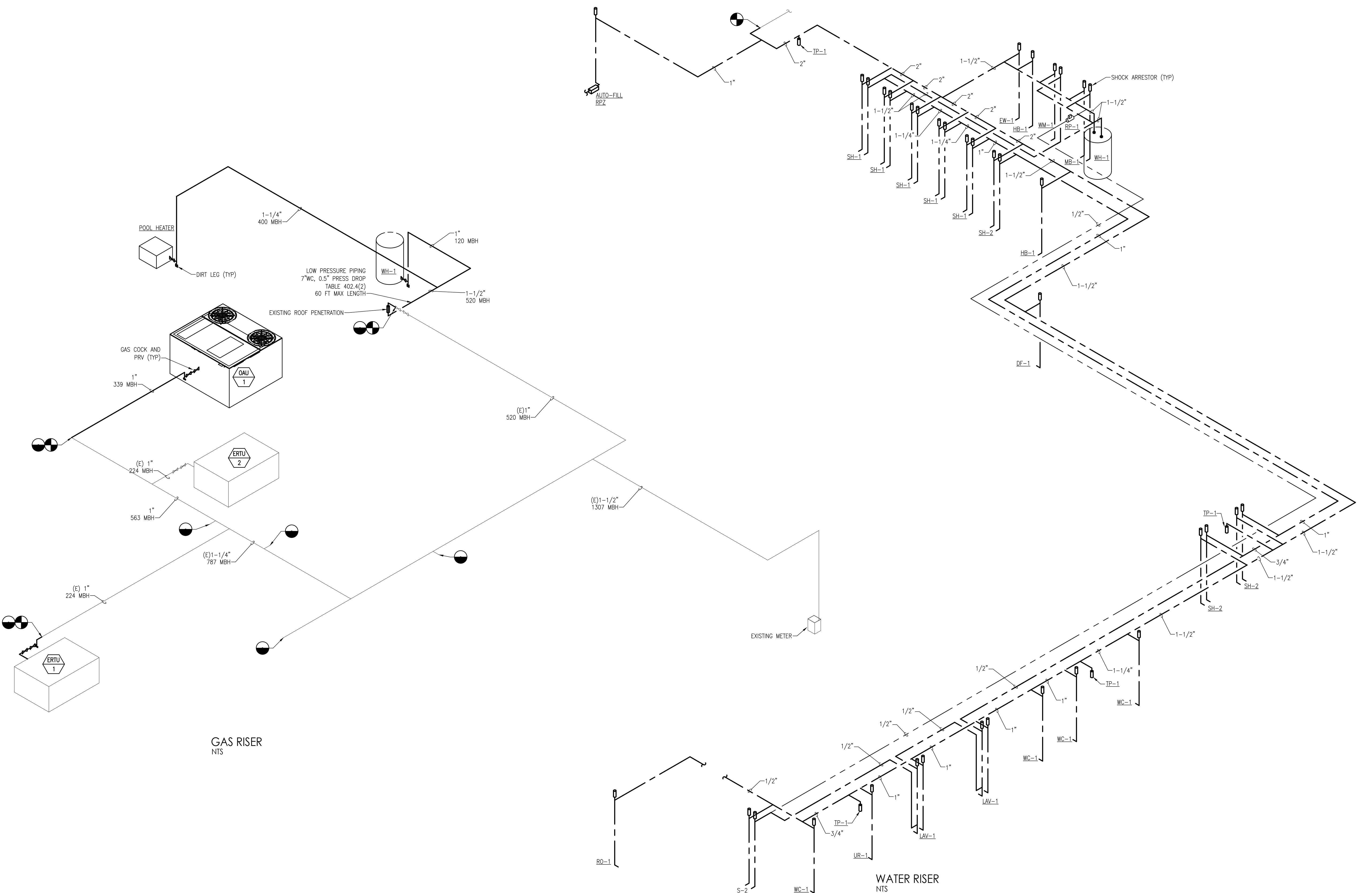
The logo for Aqua-Tots Swimming Schools. The word "AQUA-TOTS" is written vertically in large, blue, block letters. A red life preserver is positioned between the "T" and the "S". To the right of "AQUA-TOTS", the word "SWIMMING SCHOOLS" is written in red, slanted letters. A small registered trademark symbol (®) is located above the "S" in "SCHOOLS".

**RED MILL COMMONS
SHOPPING CENTER**

PROJECT NO: 2024.0397
DATE: 08.29.24

P6.0
UMBING RISERS

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7.24	OWNER REVIEW
E	REMARKS
NS	
	
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UPTON DRIVE SUITE 100 NIA BEACH, VIRGINIA 23454	
<hr/> CTC NO: 2024.0397 08.29.24	
<hr/> <p>P6.1</p> <p>PLUMBING RISERS</p>	
<hr/> ED: DAK DRAWN: ROH	
N - 10/15/2024 8:40:12 PM	



MILL COMMONS SHOPPING CENTER

UPTON DRIVE SUITE 100
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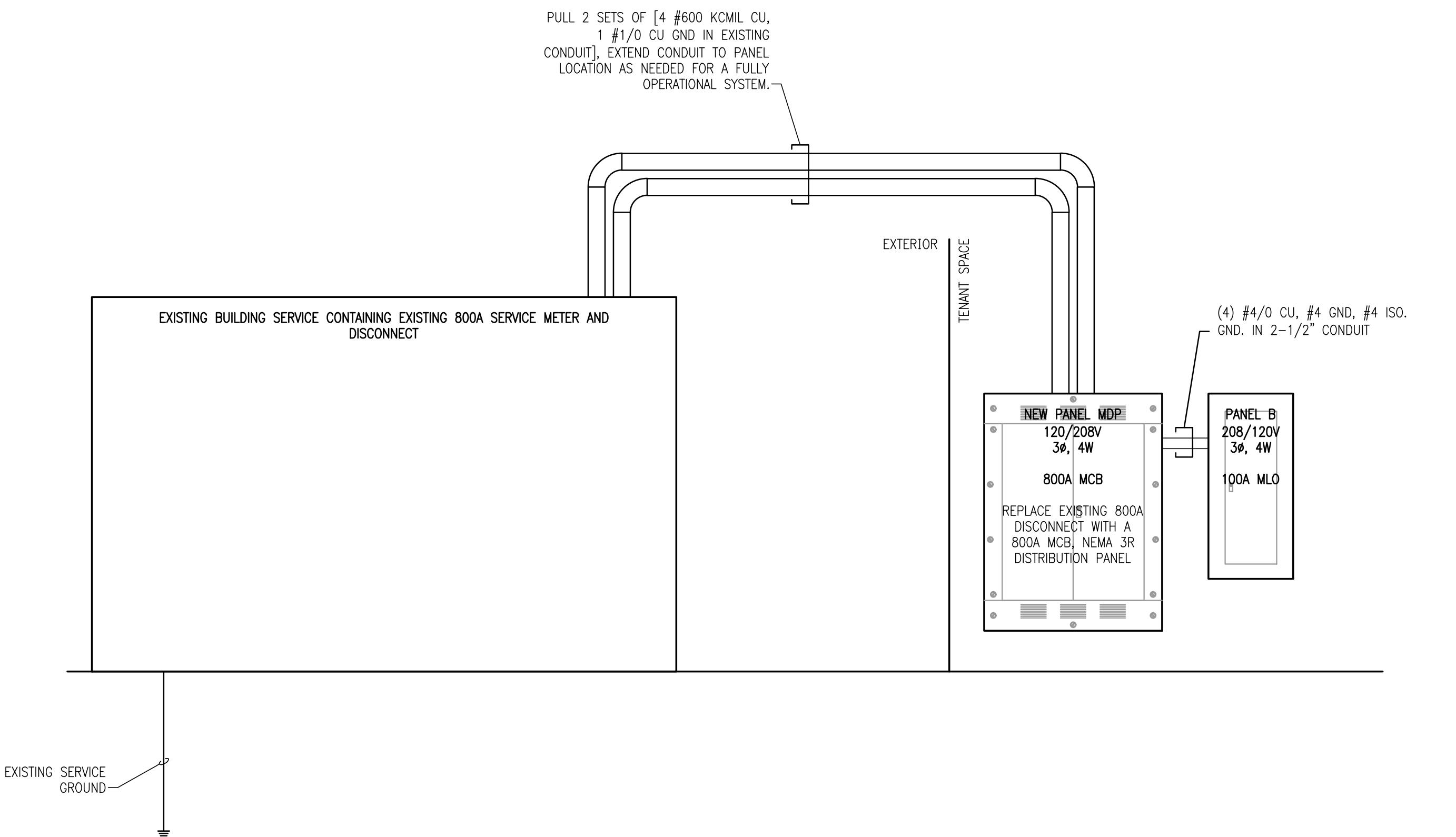
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ARCHITECTURE
I SOUTH 280 SUMMIT AVE, STE D
OAKBROOK TERRACE, IL 60181
630.932.2336

ENGINEERING
PERMITTING
220 E. CENTRAL PKWY, STE 4000
ALTAMONTE SPRINGS, FL 32701
407.645.5008

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1 EXISTING ELECTRICAL RISER DIAGRAM
NTS

LEGEND (NOT ALL SYMBOLS ARE USED WITHIN THIS SET OF DRAWINGS)

- LIGHTING**
 - EXIT LIGHT (HATCHING DENOTES FACE)
 - SURFACE MOUNTED OR RECESSED EMERGENCY LIGHTING FIXTURE
- POWER**
 - SWITCH (P) PILOT LIGHT (R) ROTARY SWITCH
 - MOTOR RATED SWITCH
 - TOGGLE SWITCH (x) DENOTES CONTROL LABEL
 - OCCUPANCY SENSOR
 - PHOTOCELL OR DAYLIGHT SENSOR
 - TIMECLOCK
 - SINGLE RECEPTACLE
 - DUPLEX RECEPTACLE
 - QUADRUPLEX RECEPTACLE
 - CEILING MOUNTED RECEPTACLE
 - LINE THRU CENTER OF RECEPTACLE DENOTES ABOVE COUNTER
 - CENTER SHADING IN RECEPTACLE DENOTES ISOLATED GROUND
 - TOP SHADING IN RECEPTACLE DENOTES GFCI PROTECTED
 - SPECIAL PURPOSE RECEPTACLE (AS NOTED)
 - TELEPHONE OUTLET
 - DATA OUTLET
 - VOICE/DATA COMBINATION OUTLET
 - JUNCTION BOX
 - SYMBOL IN SQUARE DENOTES FLOORMOUNTED
 - MOTOR, FAN, PUMP OR AIR CONDITIONING UNIT
 - PANELBOARD
 - FUSED DISCONNECT SWITCH, RATING AS NOTED.
 - NON-FUSED DISCONNECT SWITCH, RATING AS NOTED.
- FIRE ALARM**
 - FIRE ALARM PULL STATION NOM. 42" A.F.F. PER ADA
 - FIRE ALARM AUDIO/VISUAL STATION 80" A.F.F. PER ADA
 - FIRE ALARM VISUAL STATION 80" A.F.F. PER ADA
 - FIRE ALARM AUDIO STATION 80" A.F.F. PER ADA
 - REMOTE INDICATOR LIGHT/TEST SWITCH FOR DUCT SMOKE DETECTORS
 - DUCT SMOKE DETECTOR WITH REMOTE INDICATOR LIGHTS AND TEST SWITCH
 - SMOKE DETECTOR
 - FLOW SWITCH
 - TAMPER SWITCH
 - FACP FIRE ALARM CONTROL PANEL
 - ANNI FIRE ALARM ANNUNCIATOR PANEL

CC IS TO INSTALL OWNER PROVIDED SPEAKER AND CAMERAS AND PROVIDE AND INSTALL LOW VOLTAGE WIRING FOR SPEAKERS WITH SOUND SYSTEM AND CAMERA SYSTEMS. COORDINATE LOCATION OF ALL SPEAKERS AND CAMERAS WITH OWNER PRIOR TO ROUGH-IN.

CC IS TO INSTALL OWNER PROVIDED DIGITAL MONITORS (4 OF THEM) AND PROVIDE APPROPRIATE BACKING IN THE WALLS FOR THEM.

FIELD VERIFY ALL CONDITIONS

NOTE: ALL WIRING LAYOUTS, PIPING LAYOUTS, AND DUCT LAYOUTS ARE SCHEMATIC. EXACT LOCATIONS SHALL BE DETERMINED BY THE CONSTRUCTION AND STRUCTURE OF THE BUILDING AND SHALL BE VERIFIED AND COORDINATED IN THE FIELD. EACH TRADE CONTRACTOR SHALL VERIFY WITH THE GENERAL CONTRACTOR THAT A THOROUGHLY REVIEWED AND COORDINATED LIST OF LOCATIONS AND ROUTINGS WITH ALL OTHER TRADES PRIOR TO FABRICATION OF CONDUITS, DUCTS, OR PIPING, AND START OF INSTALLATION OF SAME (INCLUDING SPRINKLER PIPING WHEN PRESENT ON JOB). ANY INSTALLATION OR CONSTRUCTION CONFLICTS WHICH OCCUR IN THE FIELD SHALL BE RESOLVED BY THE TRADE PROVIDER TO THE SATISFACTION OF THE OWNER AND/OR ARCHITECT AND AT NO EXPENSE TO THE OWNER, ARCHITECT AND/OR GENERAL CONTRACTOR.

THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN THE BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BE IMPLEMENTED AT CONTRACTORS COST.

BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF ALL CODES, REGULATIONS, UTILITY REQUIREMENTS, LAWS AND ORDINANCES APPLICABLE TO THIS SITE AND SHALL INCLUDE IN THE BID THE COSTS FOR ALL WORK PROVIDED IN STRICT ACCORDANCE WITH THESE GOVERNING ITEMS, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER AND/OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT FOR DIRECTIONS.

SHEET LIST TABLE

Sheet Number	Sheet Title
E0.0	LEGEND GENERAL NOTES AND RISER DIAGRAM
E1.0	ELECTRICAL PLAN - LIGHTING
E2.0	ELECTRICAL PLAN - POWER
E2.1	ELECTRICAL PLAN - ROOF
E3.0	ELECTRICAL DETAILS
E4.0	PANEL SCHEDULES
E7.0	ENERGY CALCULATIONS
E8.0	ELECTRICAL SPECIFICATIONS 1 OF 3
E8.1	ELECTRICAL SPECIFICATIONS 2 OF 3
E8.2	ELECTRICAL SPECIFICATIONS 3 OF 3

PROJECT NO: 2024.0397
DATE: 08.29.24

E0.0
LEGEND GENERAL NOTES
AND RISER DIAGRAM

DMS
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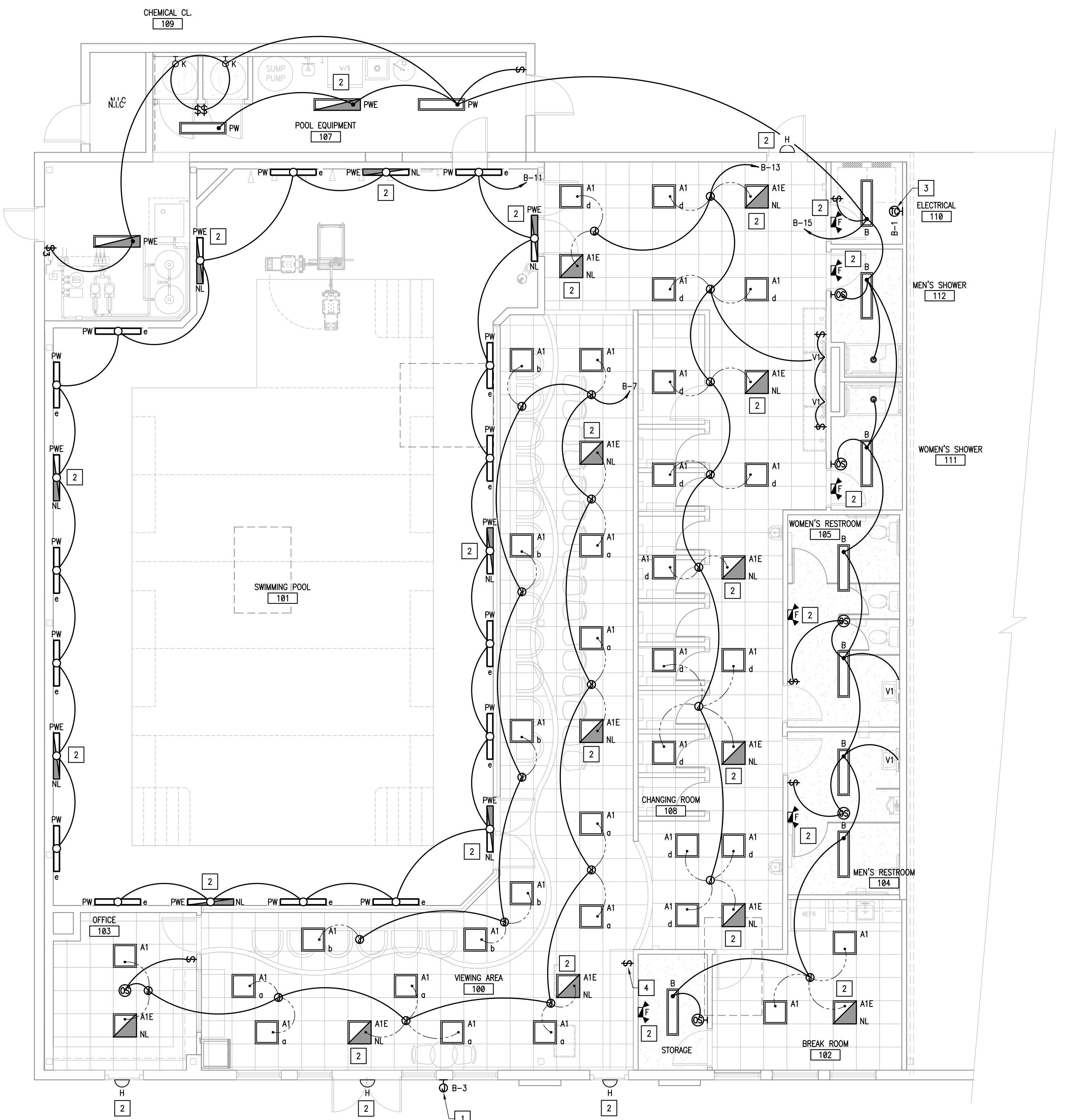
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SEAL:

THIS DOCUMENT IS NOT
FOR REGULATORY
APPROVAL, PERMITTING,
OR CONSTRUCTION.CONFIRM PLACEMENT OF LIGHT SWITCHES WITH OWNER IN VIEW AREA, RECEPTION AREA AND
CHANGING ROOM SO AS TO NOT INTERFERE WITH SIGNAGE PLACEMENT

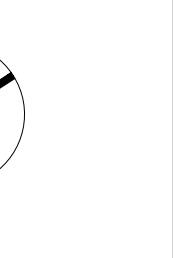
KEYED NOTES X

- WEATHERPROOF J-BOX AND CIRCUIT TO BE USED FOR NEW TENANT SIGN. TENANT SIGN TO BE INSTALLED BY ELECTRICAL CONTRACTOR UNDER SEPARATE PERMIT. COORDINATE EXACT LOCATION WITH SIGNAGE CONTRACTOR AND EXTEND WIRE AND CONDUIT AS NEEDED.
- PROVIDE NON-CONTROLLED LEG OF LOCAL LIGHTING CIRCUIT FOR CIRCUITING EMERGENCY AND NIGHT LIGHTS.
- LOCATION OF TIME CLOCKS, PROVIDE (1) INTERMATIC TIMECLOCK MODEL #ET1700 FOR INTERIOR LIGHTING AUTOMATIC CONTROL. REFER TO DETAIL #5 ON SHEET E3.0.
- PROVIDE SWITCHBANK. SEE DETAIL 6/E3.0.



ELECTRICAL PLAN - LIGHTING

3/16" = 1'-0"



NORTH

Fixture Type	Manufacturer and Catalog Information	Catalog Number	Lamp Data		Total Watts	Description	Qty.
			Qty.	Type			
A1	SAYLITE	FPELP22LED40DMVWH50	1	LED	40	40	2X2 SLIM FLAT PANEL LAY-IN
A1E	SAYLITE	FPELP22LED40DMVWH50EM	1	LED	40	40	2X2 SLIM FLAT PANEL LAY-IN WITH 90 MIN BATTERY BACK UP
A2	SAYLITE	FPELP24LED50DMVWH50	1	LED	50	50	2X4 SLIM FLAT PANEL LAY-IN
A2E	SAYLITE	FPELP24LED50DMVWH50EM	1	LED	50	50	2X4 SLIM FLAT PANEL LAY-IN WITH 90 MIN BATTERY BACK UP
B	MAXLITE	LSU4U30W50	1	LED	30	30	4' LED WRAP AROUND LIGHT
E	LITHONIA	LQM-3-W-1-R-120/277-EL-N-SD	-	-	-	-	EXI LIGHT WITH BATTERY
F	LITHONIA	ELMLT W LP06VS LTP	-	-	-	-	EMERGENCY LIGHT WITH BATTERY
H	LITHONIA	OLVTWM	2	XENON	6	12.0	EXTERIOR EMERGENCY LIGHT
K	LITHONIA	VAPORTIGHT LED	1	LED	15	15.0	WALL MOUNTED VAPORTIGHT LED LIGHT
PW	CERTO LUX	CRV48-LED835K050LUNV-C16P69	1	LED	41	41.0	4' VAPORTIGHT LED LIGHT
PWE	CERTO LUX	CRV48-LED835K050LUNV-B39C16P69	1	LED	41	41.0	4' VAPORTIGHT LED LIGHT WITH 90 MIN BATTERY BACKUP
V1	SOLFART	6180	1	LED	12	12.0	LED BATHROOM VANITY LIGHTING FIXTURE LONG SHADE STAINLESS STEEL BATH MIRROR LAMPS WALL LIGHTS - 600mm (23.62 in.), WHITE LIGHT 4500K
V2	SOLFART	6180	2	LED	16	32.0	LED BATHROOM VANITY LIGHTING FIXTURE LONG SHADE STAINLESS STEEL BATH MIRROR LAMPS WALL LIGHTS - 800mm (31.5 in.) WHITE LIGHT 4500K

SEE ENERGY CALCULATIONS ON E7.0 FOR QUANTITY.

09.27.24 OWNER REVIEW
NO DATE REMARKS
REVISIONSRED MILL COMMONS
SHOPPING CENTER2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454PROJECT NO: 2024.0397
DATE: 08.29.24

E1.0

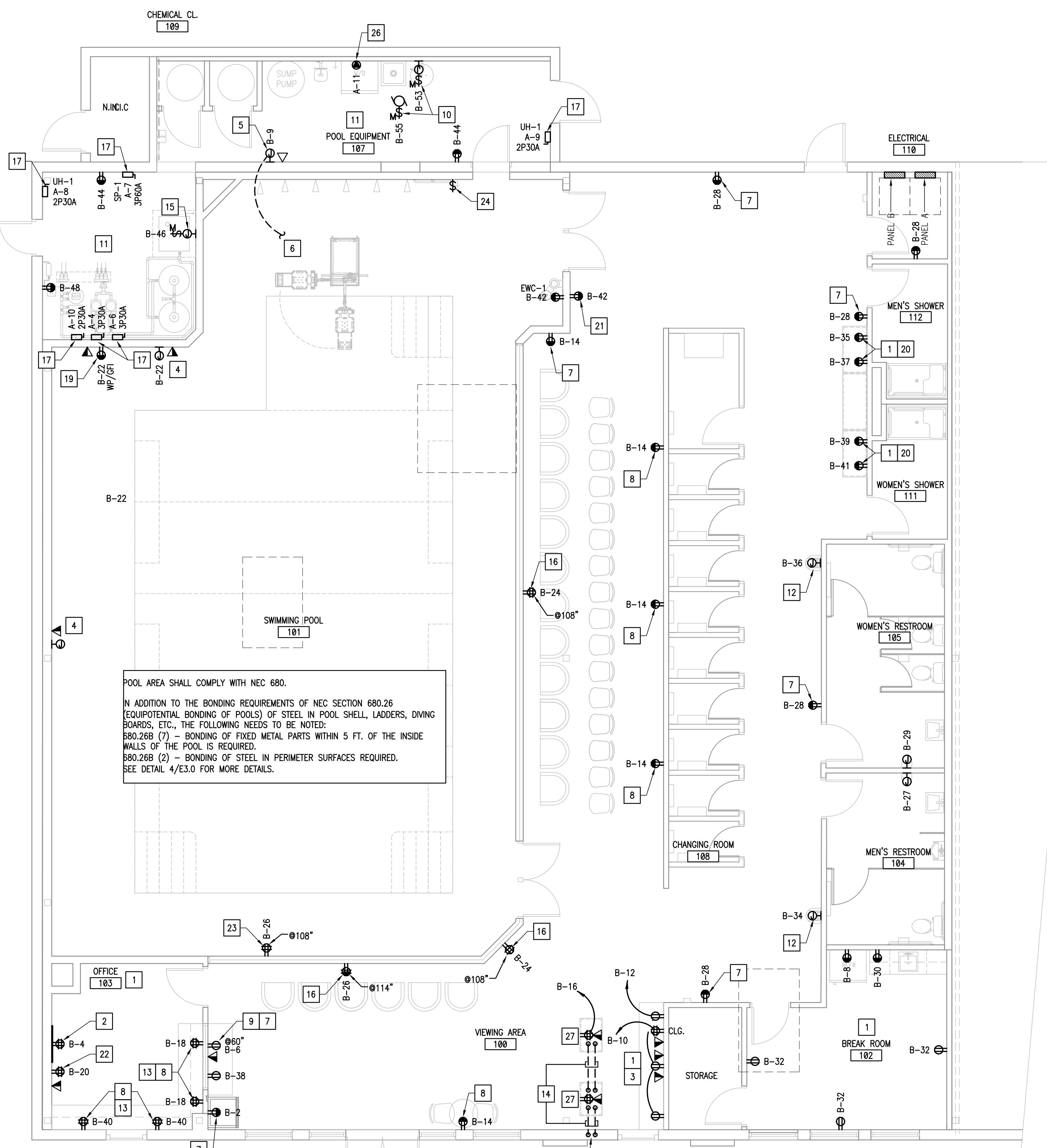
ELECTRICAL PLAN -
LIGHTING
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ARCHITECTURE
I SOUTH 280 SUMMIT AVE, STE D
OAKBROOK TERRACE, IL 60181
630.932.2336

ENGINEERING
PERMITTING
220 E. CENTRAL PKWY, STE 4000
ALTAMONTE SPRINGS, FL 32701
407.645.5008

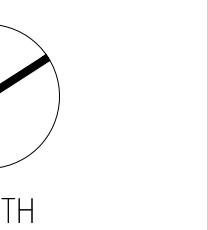
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ELECTRICAL PLAN - POWER

3/16" = 1'-0"

KEYED NOTES

- COORDINATE RECEPTACLE LOCATION AND MOUNTING HEIGHT WITH OWNER PRIOR TO ROUGH-IN.
- TELEPHONE TERMINAL BACKBOARD: 4"X4"X3/4" PLYWOOD PER UTILITY CO. REQUIREMENTS. MOUNT RECEPTACLE ADJACENT TO OR ABOVE TELEPHONE BOARD, DO NOT MOUNT BELOW.
- COORDINATE RECEPTACLE LOCATION AND MOUNTING HEIGHT WITH MILLWORK PROVIDER. PROVIDE 1-1/4" CONDUIT FOR DATA TO ABOVE OFFICE CEILING.
- PROVIDE LOW VOLTAGE WIRING FOR HUMIDITY AND TEMPERATURE SENSOR. MOUNT SENSOR 4' A.F.F. TO COMPLY WITH NEC 680.22(5)(D).
- PROVIDE NEMA 4X J-BOX AND 120V CIRCUIT TO POOL LIGHTS. VERIFY CONDUIT SIZE AND ROUTING WITH POOL EQUIPMENT INSTALLER. COORDINATE WITH POOL EQUIPMENT SUPPLIER FOR COMPLIANCE WITH NEC 680.23(B)(2)(c) OR (b) FOR WET-NICHE OR 680.25(O) FOR DRY-NICHE CONDUIT RUN.
- PROVIDE 3/4" CONDUIT TO POOL LIGHTS. VERIFY CONDUIT SIZE AND ROUTING WITH POOL EQUIPMENT INSTALLER. COORDINATE WITH POOL EQUIPMENT SUPPLIER FOR COMPLIANCE WITH NEC 680.23(B)(2)(c) OR (b) FOR WET-NICHE OR 680.25(O) FOR DRY-NICHE CONDUIT RUN.
- PROVIDE TAMPER PROOF ("CHILD PROOF") RECEPTACLE.
- PROVIDE RECEPTACLE WITH USB-C AND USB-A CONNECTIONS.
- PROVIDE POWER FOR TELEVISION AT LOCATION SHOWN. VERIFY EXACT REQUIREMENTS PRIOR TO BID. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH ARCHITECT AND INTERIOR DESIGN DRAWINGS PRIOR TO BID, ROUGH-IN AND INSTALLATION.
- PROVIDE 1P20A SWITCH FOR WATER HEATER CONTROL AND RECIRCULATING PUMP LOCATED ABOVE CEILING, COORDINATE LOCATION WITH CONTRACTOR PRIOR TO ROUGH IN.
- ALL ELECTRICAL EQUIPMENT IN POOL EQUIPMENT AREA SHALL BE WATERPROOF, NEMA 4X. COORDINATE EXACT EQUIPMENT LAYOUT AND POWER REQUIREMENTS WITH POOL PLANS, EQUIPMENT INSTALLER AND G.C. PRIOR TO BID AND ROUGH-IN.
- WATER EXTRACTOR, CONNECT POWER PER MANUFACTURERS SPECIFICATIONS.
- PROVIDE RECEPTACLES WITH TOP HALF TO BE CONTROLLED AND LABELED AS SUCH. PROVIDE LOCAL OCCUPANCY SENSOR ABOVE DESK FOR CONTROLLED PORTION.
- ELECTRICAL CONTRACTOR SHALL SAWCUT FLOOR SLAB FOR THE INSTALLATION OF CONDUITS TO SERVE MILLWORK. ELECTRICAL CONTRACTOR SHALL PATCH SLAB BACK TO MATCH EXISTING CONDITIONS. ROUTE CONDUITS UNDERGROUND. VERIFY NO STRUCTURAL ELEMENTS ARE BELOW GRADE PRIOR TO SAWCUTTING. ANY DAMAGE TO STRUCTURAL ELEMENTS MADE DURING CONSTRUCTION SHALL BE REPAIRED AT CONTRACTOR'S SOLE EXPENSE.
- PROVIDE 1P20A MOTOR SWITCH
- PROVIDE RECEPTACLE FOR TELEVISION, COORDINATE EXACT REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN.
- PROVIDE NEMA 4X NON FUSED SHUNT TRIP DISCONNECT SWITCH. COORDINATE REQUIREMENTS WITH EQUIPMENT INSTALLER.
- ELECTRICAL CONTRACTOR SHALL RUN THRU WALL FOR THE INSTALLATION OF CONDUITS TO SERVE MILLWORK.
- DEDICATED PHONE FOR EMERGENCY.
- MOUNT RECEPTACLES AT 42" AFF. VERIFY MOUNTING HEIGHTS WITH AQUA-TOTS PM.
- PROVIDE RECEPTACLE AT 108" AFF FOR NEW AIR FRESHENER POWER. COORDINATE EXACT LOCATION WITH OWNER BEFORE ROUGH-IN.
- RECEPTACLE TO BE MOUNTED 12" BELOW CEILING. COORDINATE WITH OWNER PRIOR TO ROUGH-IN.
- PROVIDE RECEPTACLE FOR CLOCK, COORDINATE EXACT REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN.
- PROVIDE NEMA 4X BREAK GLASS TYPE EMERGENCY SHUT OFF FOR POOL PUMPS. INTERLOCK WITH POOL PUMP SHUNT TRIP DISCONNECT SWITCH. PROVIDE ALL CONTROL WIRES AND POWER SUPPLIES FOR A FULLY OPERATIONAL SYSTEM.
- PROVIDE RECEPTACLE FOR WASHER AND DRYER COMBO UNIT. PROVIDE MATCHING CORD AND PLUG, COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH EQUIPMENT WITH OWNER PRIOR TO BID.
- SHOW WINDOW RECEPTACLES ARE NOT REQUIRED PER NEC 210.62, AS THE FENESTRATION IS SMALLER THAN THE MAJOR FRACTION OF 12'.
- PROVIDE FLOOR BOX SYSTEM EQUAL TO HUBBELL #RAFB4BRZ FOR MOBILE KIOSK. PROVIDE DATA AND RECEPTACLE AS SHOWN.

EQUIPMENT SCHEDULE					
TAG	QTY	FUNCTION	DESCRIPTION	VOLTAGE	PHASE
PA	2	RECIRCULATING PUMP	PENTAIR WHISPERFLO XF (SHP) VARIABLE SPEED PUMP	208	3
PB	1	CHEMICAL CONTROLLER	DCM 3 SERIES - PROMINENT	120	1
PC	1	CHLORINE FEEDER	STENNER 45-M5 (CAPACITY 50 GAL/DAY) - INTERLOCKED WITH CHEMICAL CONTROLLER	120	1
PD	1	ACID FEEDER	STENNER 45-M2 (CAPACITY 10 GAL/DAY) - INTERLOCKED WITH CHEMICAL CONTROLLER	120	1
PE	1	HEATER CO DETECTOR	PENTAIR ET1400 HEATER - UNIT WILL NOT OPERATE AT 208V, ELECTRICAL CONTRACTOR IS TO WIRE UNIT FOR 120V OPERATION PER MANUFACTURERS SPECIFICATIONS	120	1
PH	1	FLOW METER	FLOWVIS, FV-3, 70-240 GPM RANGE		
PI	1	TEMPERATURE	2" FACE THERMOMETER 32° - 248° FAHRENHEIT		
PJ	1	CHLORINE CHEMICAL	CHEM-TAINER TC1851C / 45 GAL CAPACITY		
PK	1	ACID CHEMICAL	AMERICAN TANK CHEM TANK 15 GAL CARBOY		
PL	1	OZONE + UV-C SYSTEM*	DEL AOP-PRO - 200 GPM (AOP-PRO-200D-02), INCLUDE MDV-XL	240	1
EC	1	SHUNT TRIP	SHUNT TRIP DISCONNECT FOR PUMPS		

PROJECT NO: 2024.0397
DATE: 08.29.24

E2.0

ELECTRICAL PLAN - POWER
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ARCHITECTURE
I SOUTH 280 SUMMIT AVE, STE D
OAKBROOK TERRACE, IL 60181
630.932.2336

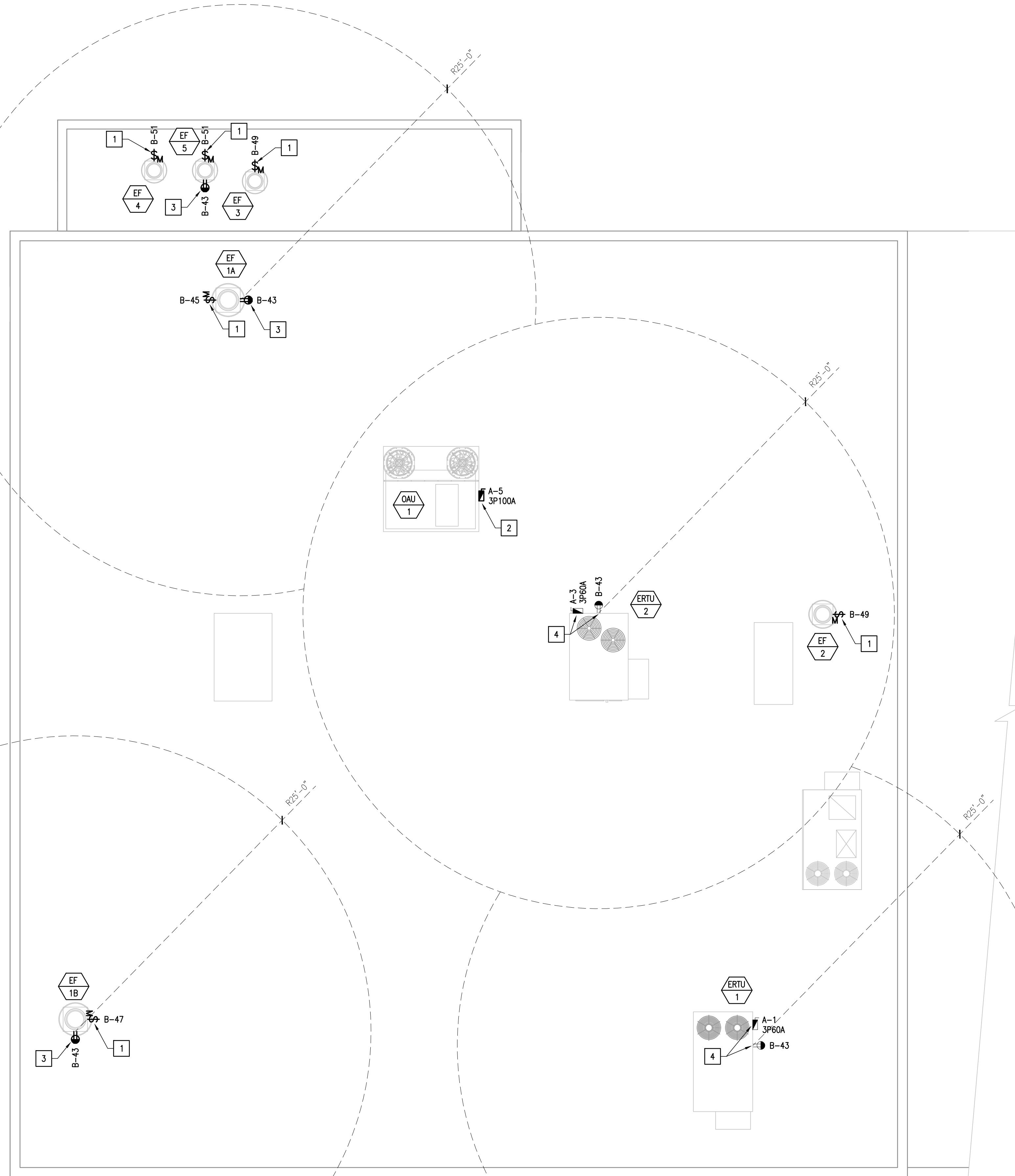
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PERMITTING
220 E. CENTRAL PKWY, STE 4000
ALTAMONTE SPRINGS, FL 32701
407.645.5008

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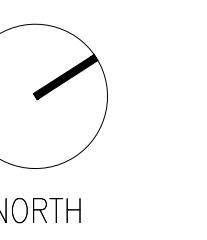
KEYED NOTES

- WEATHERPROOF IP20A MOTOR RATED SWITCH, COORDINATE CONTROLS WITH MECHANICAL CONTRACTOR. PROVIDE ALL REQUIRED CONDUIT AND JUNCTION BOXES FOR A FULLY OPERATIONAL SYSTEM.
- PROVIDE NEMA 3R FUSED DISCONNECT (SIZE AS NOTED) IF HVAC UNIT IS NOT EQUIPPED WITH A FACTORY INSTALLED DISCONNECT. COORDINATE WORK WITH MECHANICAL DRAWINGS AND HVAC EQUIPMENT SPECIFICATIONS PRIOR TO BID.
- PROVIDE CONVENIENCE RECEPTACLE AT HVAC EQUIPMENT, IF UNIT IS NOT EQUIPPED WITH A FACTORY INSTALLED NON-POWERED RECEPTACLE. COORDINATE WORK WITH MECHANICAL DRAWINGS AND HVAC EQUIPMENT SPECIFICATIONS PRIOR TO BID. CONNECT TO CIRCUIT NOTED.
- EXISTING ELECTRICAL EQUIPMENT TO REMAIN. FIELD VERIFY CONDITION OF EXISTING EQUIPMENT, CONDUCTORS AND CONNECTIONS. REPAIR/REPLACE EXISTING AS NEEDED FOR A FULLY OPERATIONAL SYSTEM. CONNECT TO CIRCUIT SPECIFIED.



ELECTRICAL PLAN - ROOF

3/16" = 1'-0"



09.27.24 OWNER REVIEW
NO DATE
REMARKS
REVISIONS



RED MILL COMMONS
SHOPPING CENTER
2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454

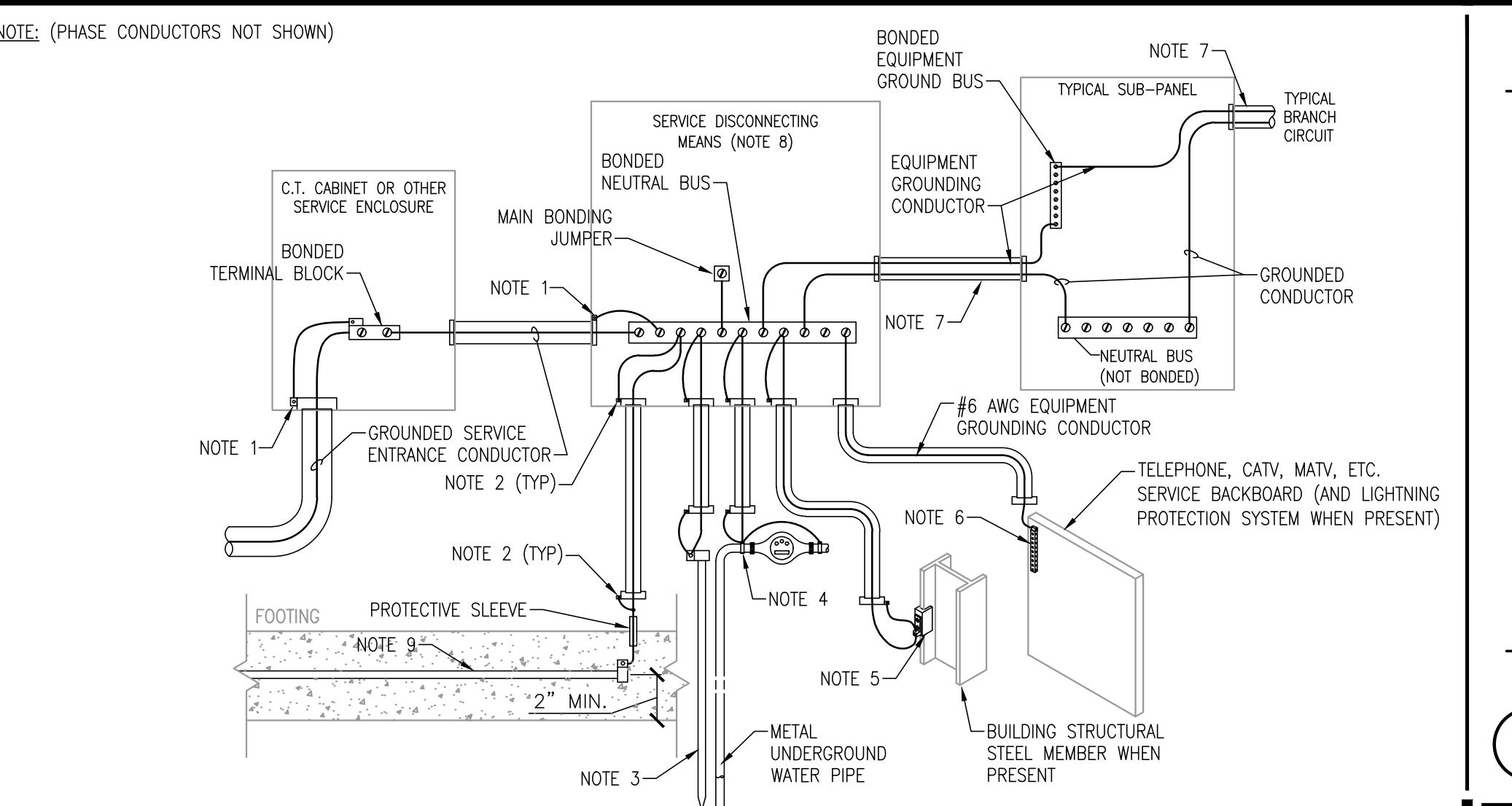
PROJECT NO: 2024.0397
DATE: 08.29.24

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ELECTRICAL PLAN - ROOF

DMS
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PANEL MDP												
LOCATION: OUTSIDE				MAIN: 800A MCB				CONN. LOAD: 125.9 KVA				
VOLTAGE: 208Y/120V				SYSTEM: 3Ø, 4W				FEED: BOTTOM GROUND BUS: YES				
CKT	LOAD SERVED	COND	PHASE	NEUT	GND	BKR	DMD	L1	L2	L3	REMARKS	
1	ERTU-1	1"	(3) #6	-	#10	60/3	A	5088	5088	5088	-	
2	PANEL B		SEE RISER DIAGRAM	225/3	SF	11024	12180	12142	-	-	-	
3	ERTU-2	1"	(3) #6	-	#10	60/3	A	5088	5088	5088	-	
4	POOL EQUIPMENT - POOL PUMP	3/4"	(3) #10	-	#10	30/3	M	2004	2004	2004	PROVIDE SHUNT TRIP BREAKER SEE KEYED NOTE 24/E2.0	
5	OAU-1	1-1/4"	(3) #4	-	#8	70/3	A	6086	6086	6086	-	
6	POOL EQUIPMENT - POOL PUMP	3/4"	(3) #10	-	#10	30/3	M	2004	2004	2004	PROVIDE SHUNT TRIP BREAKER SEE KEYED NOTE 24/E2.0	
7	SP-1	1/2"	(3) #12	-	#12	20/3	M	552	552	552	-	
8	UNIT HEATER	1/2"	(2) #10	-	#10	25/2	H	2500	2500	2500	-	
9	UNIT HEATER	1/2"	(2) #10	-	#10	25/2	H	2500	2500	2500	-	
10	POOL EQUIPMENT - OZONE SYSTEM	3/4"	(3) #12	#12	#12	20/3	N	1476	1476	1476	-	
11	WASHER AND DRYER	3/4"	(3) #10	-	#10	25/3	N	2880	2880	2880	-	
12	SPARE	-	-	-	-	20/3	-	-	-	-	-	
INTERRUPT RATING: 42,000 AIC				FROM: UTILITY TRANSFORMER				41202	42358	42320		
LOADS (IN VA) CONNECTED DEMAND MINIMUM FEEDER				LOADS CONNECTED DEMAND MINIMUM FEEDER				REMAINING CONTINUOUS LOADS				
LIGHTING	5050	1.25	6313	NON-SEASONAL MOTORS	22064	1.0	22064	0	1.25	0		
RECEPTS TO 10 KVA	10000	1.0	10000	LARGEST MOTOR	18259	0.25	4565	REMAINING NON-CONTINUOUS LOADS	19020	1.0	19020	
RECEPTS REMAINING	5960	0.5	2980	SUB FEED LOADS	0	1.0	0					
SPACE HEATING	15000	0.0	0	TOTAL CONNECTED LOAD	125.9	KVA	349.7	AMPS				
AIR CONDITIONING	48786	1.0	48786	MIN. FEEDER/PANEL CAP.	113.7	KVA	315.9	AMPS				
				OVERALL DEMAND FACTOR	0.90							

NEW PANEL B												
LOCATION: SEE PLANS				MAIN: 125A MCB				CONN. LOAD: 35.3 KVA				
VOLTAGE: 208Y/120V				SYSTEM: 3Ø, 4W				FEED: TOP GROUND BUS: YES				
NOTES	CKT	LOAD SERVED	COND	PHASE	NEUT	GND	BKR	DMD	L1	L2	L3	REMARKS
-	1	LIGHTING - CONTROLS	3/4"	#12	#12	#12	20/1	L	180	-	-	RECEPTACLE - COOLER
9	3	LIGHTING - EXTERIOR SIGN	3/4"	#12	#12	#12	20/1	L	360	-	-	RECEPTACLE - T.T.B.
-	5	SPARE	-	-	-	-	20/1	-	180	-	-	RECEPTACLE - RETAIL TV
9	7	LIGHTING - VIEWING/RETAIL GENERAL	3/4"	#12	#12	#12	20/1	L	660	-	-	RECEPTACLE - REF.
9	9	LIGHTING - POOL	3/4"	#12	#12	#12	20/1	L	300	-	-	RECEPTACLE - DIGITAL MENUBOARD
9	11	LIGHTING - POOL ROOM	3/4"	#12	#12	#12	20/1	L	1080	-	-	RECEPTACLE - SERVICE COUNTER
9	13	LIGHTING - CHANGING ROOM	3/4"	#12	#12	#12	20/1	L	1066	-	-	RECEPTACLE - GENERAL
-	15	LIGHTING - REST ROOM	3/4"	#12	#12	#12	20/1	L	158	-	-	RECEPTACLE - SERVICE COUNTER
9	17	SPARE	-	-	-	-	20/1	-	1080	-	-	RECEPTACLE - OFFICE
9	19	SPARE	-	-	-	-	20/1	-	1080	-	-	RECEPTACLE - OFFICE
9	21	SPARE	-	-	-	-	20/1	-	900	-	-	RECEPTACLE - POOL ROOM TELEPHONE
9	23	SPARE	-	-	-	-	20/1	-	720	-	-	RECEPTACLE - VIEWING AREA TELEVISION
9	25	SPARE	-	-	-	-	20/1	-	360	-	-	RECEPTACLE - TELEVISION AND CLOCK
4	27	HAND DRYER	3/4"	#12	#12	#12	20/1	M	1450	-	-	RECEPTACLE - GENERAL
4	29	HAND DRYER	3/4"	#12	#12	#12	20/1	M	360	-	-	RECEPTACLE - STAFF ROOM
-	31	SPARE	-	-	-	-	20/1	-	360	-	-	RECEPTACLE - STAFF ROOM
-	33	SPARE	-	-	-	-	20/1	-	600	-	-	POWER - WATER EXTRACTOR
-	35	RECEPTACLE - VANITY COUNTER	3/4"	#12	#12	#12	20/1	R	360	-	-	POWER - WATER EXTRACTOR
-	37	RECEPTACLE - VANITY COUNTER	3/4"	#12	#12	#12	20/1	R	180	-	-	RECEPTACLE - COFFEE STATION
-	39	RECEPTACLE - VANITY COUNTER	3/4"	#12	#12	#12	20/1	R	360	-	-	RECEPTACLE - STAFF ROOM
-	41	RECEPTACLE - VANITY COUNTER	3/4"	#12	#12	#12	20/1	R	360	-	-	RECEPTACLE - EWC & AIR FRESHENER
-	43	RECEPTACLE - ROOFTOP	3/4"	#12	#12	#12	20/1	R	180	-	-	RECEPTACLE - POOL EQ. ROOM
-	45	EF-1A	3/4"	#12	#12	#12	20/1	M	900	-	-	POOL EQUIPMENT - HEATER
-	47	EF-1B	3/4"	#12	#12	#12	20/1	M	1656	-	-	POOL EQUIPMENT - CHEMICAL CONT.
-	49	EF-2 & EF-3	3/4"	#12	#12	#12	20/1	M	1872	-	-	SPARE
-	51	EF-4 & EF-5	3/4"	#12	#12	#12	20/1	M	1056	-	-	SPARE
-	53	WATER HEATER	3/4"	#12	#12	#12	20/1	N	1200	-	-	SPARE
-	55	RECIRC. PUMP	3/4"	#12	#12	#12	20/1	N	1440	-	-	SPARE
-	57	SPARE	-	-	-	-	20/1	-	-	-	-	SPARE
-	59	SPARE	-	-	-	-	20/1	-	-	-	-	SPARE

INTERRUPT RATING: MATCH EXISTING												
11024 12180 12142				FROM: PANEL A VIA 100A BREAKER				11024 12180 12142				FROM: PANEL B
LOADS (IN VA) CONNECTED DEMAND MINIMUM FEEDER												

DIVISION 26 – ELECTRICAL SPECIFICATIONS

1. GENERAL INFORMATION

1.1. PROVIDE ALL SUPPLIES, MATERIAL, LABOR, EQUIPMENT, AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION AND FULL OPERATION OF ALL ELECTRICAL AND ELECTRICAL RELATED WORK, INDICATED HEREINAFTER ON DRAWINGS AND SPECIFICATIONS, FOR A SAFE AND FULLY OPERATIONAL SYSTEM.

1.1.1. THE INSTALLED SYSTEM SHALL BE COMPLETE IN EVERY WAY AND FUNCTIONING ACCORDING TO THE DESIGN INTENT, WHETHER OR NOT ALL SUCH MATERIALS AND APPURTENANCES ARE SHOWN ON THE DRAWINGS OR DESCRIBED IN THE SPECIFICATIONS.

1.2. PERFORM ALL OPERATIONS INCLUDING EXCAVATION & BACKFILLING, SHORING, CUTTING, CHANNELING & CHASING, DE-WATERING, ETC. NECESSARY FOR INSTALLATION OF FULLY OPERATIONAL SYSTEM, WHETHER OR NOT SHOWN ON THE DRAWINGS.

1.3. DEFINITION OF TERMS

1.3.1. FURNISH – SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS.

1.3.2. INSTALL – OPERATIONS AT THE PROJECT SITE INCLUDING THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS.

1.3.3. PROVIDE – FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.

1.3.4. U.N.O. – UNLESS NOTED OTHERWISE.

1.3.5. M.S.D.S. – MATERIAL SAFETY DATA SHEET

1.3.6. CONTRACTOR – APPEARANCE ON DRAWINGS OR IN SPECIFICATIONS FOR ELECTRICAL WORK SHALL REFER TO ELECTRICAL SUB-CONTRACTOR.

1.3.7. RELOCATE – DISCONNECT ELECTRICAL FEEDER, MAKE SAFE (INCLUDING LOCK OUT/TAG OUT), STORE AND PROTECT DEVICE, REINSTALL, RENOVATE AND EXTEND CONDUIT & WIRE TO NEW LOCATION, RE-ENERGIZE AND TEST.

1.3.8. EQUAL AND EQUIVALENT – TO MEAN OF THE SAME QUALITY, SIZE, NUMBER, VALUE, DEGREE, INTENSITY AND THE ITEMS ARE SIMILAR IN ALL RESPECTS.

1.3.8.1. THE FINAL DECISION OF ACCEPTANCE OF THESE ITEMS WILL BE MADE BY THE ENGINEER.

1.3.8.2. IT SHALL BE UNDERSTOOD THAT FOR ANY SPECIFIED ITEM ON THE DRAWINGS AND/OR IN THE SPECIFICATION, THIS TERM SHALL APPLY.

1.4. ALL WORK SHALL BE PERFORMED UNDER THE PERSONAL SUPERVISION OF A PROJECT SUPERINTENDENT ON-SITE, MAINTAIN A COMPLETE SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES DURING THE PROJECT.

1.5. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SUITABLE FOR THE CONDITIONS AND DUTIES IMPOSED ON THEM AFTER INSTALLATION.

1.5.1. ALL MATERIALS, APPARATUS AND EQUIPMENT SHALL BEAR THE SEAL OF UNDERWRITERS LABORATORIES INC. (UL), OR A SIMILAR CREDIBLE TESTING AGENCY, LABEL WHERE REGULARLY SUPPLIED.

1.5.2. CERTAIN MANUFACTURERS OF MATERIAL AND EQUIPMENT ARE SPECIFIED AND PLANS ARE DETAILED ACCORDING TO THIS MATERIAL. CONTRACTOR SHALL BASE BID ON FURNISHING AND INSTALLING THIS MAKE OF MATERIAL AND EQUIPMENT.

1.6. ALL MATERIALS SHALL BE FABRICATED AND INSTALLED IN A NEAT AND WORKMANLIKE MANNER.

1.6.1. THE OWNER AND ENGINEER SHALL DETERMINE WHETHER WORKMANSHIP IS ACCEPTABLE. NO ALLOWANCES WILL BE MADE FOR REWORK OR DELAY DUE TO POOR WORKMANSHIP, COORDINATION DIFFICULTIES, OR INTERFERENCES BETWEEN INVOLVED TRADES.

1.6.2. PERFORM ALL WORK NECESSARY TO PREPARE THE STRUCTURE FOR THE INSTALLATION OF THE WORK. ALL HOLES, OPENINGS AND DAMAGED MATERIALS CREATED DURING CONSTRUCTION SHALL BE REPAIRED AND FINISHED BY EXPERIENCED WORKMEN.

1.6.3. COORDINATE AND SCHEDULE THE WORK WITH THE OWNER TO MINIMIZE DISRUPTIONS TO THE NORMAL OPERATIONS AT THE BUILDING.

1.6.3.1. INCLUDE IN THE CONTRACT PRICE THE COST OF AFTER-HOURS WORK AND TEMPORARY PROVISIONS TO MINIMIZE DOWN TIME AND TO MAINTAIN FACILITY IN OPERATING CONDITION. COORDINATE WITH THE OWNER TO DETERMINE THE EXTENT OF THESE REQUIREMENTS PRIOR TO BID.

1.7. RELATED WORK SPECIFIED ELSEWHERE:

1.7.1. ALL DIVISION 1 REQUIREMENT, AND ALL TERMS AND CONDITIONS OF CONTRACT.

1.7.2. REFER TO MECHANICAL SPECIFICATION FOR MECHANICAL WORK TO BE DONE IN CONJUNCTION WITH THE ELECTRICAL WORK. CONTRACTOR IS RESPONSIBLE FOR ALL CONDUIT, WIRING, JUNCTION BOXES, ETC., REQUIRED FOR HVAC CONTROLS, UNLESS SPECIFICALLY NOTED OTHERWISE.

1.7.3. ALL ELECTRICAL EQUIPMENT AND WIRING PROVIDED UNDER DIVISION 23 SHALL COMPLY WITH THE ELECTRICAL SYSTEM CHARACTERISTICS INDICATED ON THE ELECTRICAL DRAWINGS AND SPECIFIED DIVISION 26.

1.7.4. ELECTRIC CONTROLS, CONTACTORS, STARTERS, PILOT LIGHTS, PUSH BUTTONS, ETC., SHALL BE PROVIDED COMPLETE AS PART OF THE MOTOR, HEATER OR OTHER EQUIPMENT WHICH IT OPERATES. ALL ELECTRICAL COMPONENTS SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND DIVISION 26.

1.8. WHERE EQUIPMENT SPECIFICATIONS INDICATE THAT A FACTORY-AUTHORIZED SERVICE ENGINEER OR TECHNICAL SHALL OBSERVE INSTALLATION, TEST & ADJUST, OR START-UP OF EQUIPMENT, ETC., SUCH SERVICES WILL BE CONTRACTED BY OWNER AS PART OF THE EQUIPMENT PURCHASE.

1.8.1. CONTRACTOR SHALL ARRANGE FOR, SCHEDULE, AND COORDINATE SUCH FIELD SERVICES AS WORK INCLUDED IN THE CONTRACT.

1.8.2. CONTRACTOR SHALL FURNISH ALL LABOR AND MATERIALS NECESSARY TO SUPPORT ALL SUCH FACTORY REPRESENTATIVE'S FIELD SERVICES.

1.9. REGULARLY DURING EACH WORKING DAY, REMOVE REFUSE AND DEBRIS ACCUMULATING FROM ELECTRICAL CONSTRUCTION AND LEAVE AREA CLEAN AT END OF THE WORK DAY.

1.9.1. PRIOR TO ACCEPTANCE OF THIS WORK, LEAVE THE PREMISES "BROOM CLEAN" INsofar AS affected by electrical work.

1.9.2. CLEAN ALL LIGHT FIXTURES, LAMPS AND LENSES PRIOR TO FINAL ACCEPTANCE.

1.9.3. CLEAN THE INTERIOR OF EACH ELECTRICAL COMPONENT OF DIRT AND CONSTRUCTION DUST INCLUDING BUT NOT LIMITED TO OUTLET/JUNCTION/PULL BOXES, PANEL BOARDS, CONTROLLERS, AND SWITCHES BEFORE ENERGIZING.

1.9.4. EXPOSED FINISHED MATERIALS AND EQUIPMENT SHALL BE CAREFULLY CLEANED AND WIPE TO REMOVE GREASE, SMUDGES, FINGERPRINTS, DUST AND OTHER SPOTS AND LEFT SMOOTH AND CLEAN.

1.9.5. CLEAN THE EXTERIOR OF ELECTRICAL COMPONENTS PRIOR TO ACCEPTANCE OF WORK.

1.9.6. FOR ALL MATERIALS AND DEVICES REMOVED, THE CONTRACTOR SHALL DISPOSE OFF-SITE IN AN APPROVED MANNER. PROVIDE WRITTEN DOCUMENTATION FOR DISPOSAL OF ALL ITEMS.

1.10. PROVIDE ALL LABOR, INSTRUMENTS, AND OTHER SERVICES REQUIRED FOR COMPLETE AND SATISFACTORY TEST AND ADJUSTMENT OF ELECTRICAL SYSTEMS AND RELATED WORK.

1.10.1. CHECK ALL MOTORS AND ROTATING EQUIPMENT FOR PROPER ROTATION.

1.10.2. TEST ALL FEEDERS WITH MEGGER PRIOR TO ENERGIZING TO ASSURE CODE RESISTANCE IS MET, (AND WITHOUT "SHORTS" OR "OPEN CIRCUITS").

1.10.3. CHECK ALL FUSES AND OVERLOADS FOR PROPER SIZING. VERIFY FUSE LABELS ARE VISIBLE.

1.10.4. CHECK ALL ELECTRICAL POWER AND CONTROL WIRING, INTERLOCKS, ETC., RELATED TO MECHANICAL EQUIPMENT TO DETERMINE THAT ALL WIRING IS CORRECT.

1.10.5. IMMEDIATELY REMEDIATE ALL EQUIPMENT PROVIDED UNDER THIS DIVISION THAT TESTS PROVE TO BE DEFECTIVE OR OPERATING IMPROPERLY AS A PART OF THIS CONTRACT.

1.11. CONTRACTOR AND VENDOR SHALL INSTRUCT THE OWNER'S TECHNICAL PERSONNEL ON ALL OWNER FURNISHED EQUIPMENT IN ACCORDANCE WITH SPECIFICATIONS.

1.11.1. CONTRACTOR SHALL PROVIDE OWNER WITH SUFFICIENT SETS OF OPERATIONS AND MAINTENANCE MANUALS OF CONTRACTOR FURNISHED EQUIPMENT FOR INCLUSION INTO THE OWNER'S OPERATIONS AND MAINTENANCE MANUALS AS REQUIRED BY THE SPECIFICATIONS.

1.11.2. PROJECT WILL NOT BE COMPLETE UNTIL ACCURATE O/M MANUALS ARE DELIVERED.

1.11.3. O/M MANUALS SHALL INCLUDE CATALOG TECHNICAL DATA, RECOMMENDED SERVICE PROCEDURES, RECOMMENDED SERVICE INTERVALS, CALIBRATION INFORMATION, FACTORY TRAINING MANUALS, MAGNETIC MEDIA FOR SOFTWARE PROVIDED, AND RECOMMENDED SPARE PARTS.

1.12. GUARANTEE ALL ELECTRICAL SYSTEM EQUIPMENT, MATERIALS, AND WORKMANSHIP TO BE FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE AND PROPERLY CORRECT LATENT DEFECTS ARISING DURING THIS PERIOD UPON NOTIFICATION BY THE OWNER'S REPRESENTATIVE WITHOUT ADDITIONAL COMPENSATION AND TO THE SATISFACTION OF THE ENGINEER AND OWNER'S REPRESENTATIVE.

1.13. ALL EQUIPMENT, ETC., SHALL BE NEW UNLESS OTHERWISE NOTED, AND AS SPECIFIED FREE OF DEFECTS. ALL ELECTRICAL EQUIPMENT SHALL BE U.L. OR E.T.L. LISTED.

2. CODES & PERMITS

2.1. ENTIRE INSTALLATION (INCLUDING EQUIPMENT, DEVICES, AND WIRING) SHALL BE IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF THE NATIONAL ELECTRICAL CODE (NEC), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA 70 & NFPA 101), OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), INTERNATIONAL BUILDING CODE (IBC), INTERNATIONAL ENERGY CONSERVATION CODE (IECC), AND ALL LAWS & ORDINANCES APPLICABLE TO WORK AT THIS SITE, IN ADDITION, INSTALLATION SHALL MEET APPROVAL OF LOCAL INSPECTION AUTHORITY HAVING JURISDICTION. REFER TO COVER SHEET FOR LIST OF CURRENT APPLICABLE CODE EDITIONS.

2.2. SECURE AND PAY ALL FEES ASSOCIATED WITH ALL PERMITS AND LICENSES REQUIRED FOR EXECUTION OF THE CONTRACT. ARRANGE FOR ALL INSPECTIONS REQUIRED BY CITY, COUNTY, STATE AND OTHER AUTHORITIES HAVING JURISDICTION, AND DELIVER CERTIFICATES OF APPROVAL TO THE ARCHITECT.

2.3. A CERTIFICATE OF APPROVAL FOR WORK FROM INSPECTION AUTHORITY SHALL BE GIVEN TO THE OWNER BEFORE FINAL ACCEPTANCE WILL BE GIVEN BY OWNERS REPRESENTATIVE.

2.4. THE CODE REQUIREMENTS ARE STRICTLY A MINIMUM AND SHALL BE MET WITHOUT INCURRING ADDITIONS TO THE CONTRACT. WHERE REQUIREMENTS OF THE DRAWINGS OR SPECIFICATIONS EXCEED THE CODE REQUIREMENTS, THE WORK SHALL BE PROVIDED IN ACCORDANCE WITH THESE DRAWINGS OR SPECIFICATIONS. IN THE EVENT OF CONFLICT OR AMBIGUITY BETWEEN THE VARIOUS CODES, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN.

3. SAFETY

3.1. THE CONTRACTOR SHALL MAINTAIN A SAFE WORK ENVIRONMENT AT ALL TIMES.

3.1.1. COMPLY WITH ALL O.S.H.A., N.I.O.S.H., D.O.T., STATE & LOCAL REQUIREMENTS REGARDING SAFE HANDLING, STORING, TRANSPORTING, AND DISPENSING OF CHEMICALS.

3.1.2. MAINTAIN AND DISPLAY M.S.D.S. INFORMATION FOR ALL CHEMICAL PRODUCTS.

3.1.3. PROVIDE ALL NECESSARY MEANS TO MAINTAIN SAFE WORKING CONDITIONS, INCLUDING VENTILATION FANS, FIRE EXTINGUISHERS, EYE PROTECTION, RESPIRATORS, PROTECTIVE CLOTHING, VENTILATION, ETC.

3.1.4. ALL EQUIPMENT AND MATERIALS USED TO IMPLEMENT THE WORK SHALL BE USED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS, INCLUDING ALL RECOMMENDED SAFETY PRECAUTIONS.

3.1.5. MAINTAIN A PROPER FIRE WATCH FOR ALL OPERATIONS WHERE SPARKS, FLAMES, OR OTHER SOURCES OF FIRE ARE PRODUCED.

3.1.6. FOR ALL MATERIALS CONTAINING SOLVENTS, MAINTAIN THE RECOMMENDED VENTILATION OF THE AREA TO PREVENT THE ACCUMULATION OF VAPORS WHICH POSE A HEALTH OR FIRE HAZARD.

4. INTENT OF DRAWINGS AND SPECIFICATIONS

4.1. THE IMPLIED AND STATED INTENT OF THE DRAWINGS & SPECIFICATIONS ARE TO ESTABLISH MINIMUM ACCEPTABLE STANDARDS FOR MATERIALS, EQUIPMENT, WORKMANSHIP, AND TO PROVIDE OPERABLE SYSTEMS THAT ARE COMPLETE IN EVERY RESPECT.

4.2. ENGINEERING DRAWINGS ARE DIAGRAMMATIC, INTENDED TO SHOW GENERAL ARRANGEMENT AND SIZES OF SYSTEM COMPONENTS, AND SHALL NOT BE SCALDED.

4.2.1. ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL GOVERN SPACE CONSTRAINTS, DIMENSIONS AND FINISHES.

4.2.2. ALL OFFSETS AND FITTINGS THAT SHALL BE NECESSARY TO ACCOMPLISH A FINISHED INSTALLATION SHALL BE PROVIDED AT NO ADDITIONAL COST OR INCREASE THE CONTRACT.

4.2.3. WORK INTENDED, BUT HAVING MINOR DETAILS OBVIOUSLY OMITTED, SHALL BE PROVIDED COMPLETE AS A REQUIREMENT OF THIS CONTRACT. LOCATIONS OF EQUIPMENT INDICATED ON PLANS SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE TO THE PLANS SUBJECT TO BUILDING CONSTRUCTION AND INTERFERENCES WITH OTHER TRADES.

4.2.4. SHOP DRAWINGS FOR EQUIPMENT REQUIRING ELECTRIC POWER OR CONTROL WIRING CONNECTIONS SHALL INCLUDE COMPLETE WIRING DIAGRAMS.

4.2.5. MAINTAIN MINIMUM SERVICE CLEARANCE AS REQUIRED BY THE EQUIPMENT MANUFACTURER AND N.E.C.

4.3. PROVIDE THE OWNER A COMPLETE SET OF RECORD DRAWINGS AT THE END OF THE PROJECT. PROJECT WILL NOT BE COMPLETED UNTIL ACCURATE RECORD DRAWINGS ARE DELIVERED.

4.4. LOCATIONS OF ALL UNDERGROUND PIPING AND UTILITIES SHALL BE CLEARLY SHOWN AND DIMENSIONED FROM PERMANENT REFERENCE POINTS SUCH AS BUILDING COLUMN LINES.

4.5. ALL ITEMS MOUNTED IN OR BELOW THE CEILING, AND ALL ITEMS PENETRATING THE CEILING, SHALL BE COORDINATED WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. IF ANY ITEMS ARE NOT SHOWN ON THESE PLANS, OR ANY ITEMS NEED TO BE RELOCATED FOR COORDINATION PURPOSES, PREPARE A REFLECTED CEILING PLAN AND SUBMIT IT TO THE ARCHITECT FOR APPROVAL.

5. EXISTING CONDITIONS

5.1. ATTENTION IS CALLED TO THE FACT THAT THE WORK IS TO BE PERFORMED WITHIN AN EXISTING, OPERATIONAL FACILITY.

5.2. THE FOLLOWING GENERAL PROVISIONS OF THE CONTRACT, INCLUDING THE GENERAL & SUPPLEMENTAL CONDITIONS AND GENERAL REQUIREMENTS, SHALL APPLY TO THE WORK IN THIS DRAWINGS AND SPECIFICATION SET.

5.2.1. VISIT THE SITE OF THE WORK AND BECOME THOROUGHLY FAMILIAR WITH ALL EXISTING CONDITIONS, AND THOROUGHLY REVIEW ALL DRAWINGS, SPECIFICATIONS AND ADDENDA PRIOR TO BIDDING ON THIS WORK. NO EXTRA PAYMENTS TO THE CONTRACT AMOUNT WILL BE ALLOWED FOR FAILURE TO COMPLY WITH THIS REQUIREMENT.

5.2.2. TAKE MEASUREMENTS AND BE RESPONSIBLE FOR EXACT SIZE AND LOCATIONS OF ALL OPENINGS REQUIRED FOR THE INSTALLATION OF WORK.

5.2.3. FIELD DIMENSIONS ARE REASONABLY ACCURATE AND SHOULD GOVERN IN SETTING OUT WORK.

5.2.4. WHERE DETAILED METHOD OF INSTALLATION IS NOT INDICATED OR WHERE VARIATIONS EXIST BETWEEN DESCRIBED WORK AND APPROVED PRACTICE, DIRECTION OF THE OWNERS REPRESENTATIVE ON JOB SITE SHALL BE FOLLOWED.

5.3. CONTRACTOR SHALL VERIFY PROJECT CONDITIONS TO ENSURE THAT THE WORK WILL FIT INTO THE STRUCTURE IN THE MANNER INTENDED ON THE DRAWINGS.

5.3.1. SHOULD ANY CONDITIONS EXIST THAT ARE CONTRARY TO THOSE SHOWN ON THE DRAWINGS, CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO FABRICATION OR PERFORMING ANY WORK IN THE AREA INVOLVING THE DIFFERENCES.

5.3.2. NOTIFICATION SHALL BE IN THE FORM OF A DRAWING OR SKETCH INDICATING FIELD MEASUREMENTS OR NOTES RELATING TO THE AREA.

5.4. CONNECT NEW WORK TO EXISTING WORK IN A NEAT AND WORKMANLIKE MANNER.

5.4.1. WHERE AN EXISTING STRUCTURE MUST BE CUT OR EXISTING UTILITIES INTERFERE, SUCH OBSTRUCTION SHALL BE BYPASSED, REMOVED, REPLACE OR RELOCATED, PATCH AND REPAIR.

5.4.2. WORK DISTURBED OR DAMAGED SHALL BE REPLACED OR REPAIR TO ITS PRIOR CONDITION.

5.5. PRIOR TO THE START OF ANY DEMOLITION OR CONSTRUCTION, CONTRACTOR SHALL REVIEW THE EXISTING SITE AND SECURE THE SERVICES OF A QUALIFIED, EPA CERTIFIED ASBESTOS ABATEMENT AGENCEY IF NEEDED TO CHECK THE EXISTING INSULATION, ETC. FOR ASBESTOS. SHOULD ASBESTOS BE FOUND, DO NOT PROCEED WITH DEMOLITION OR CONSTRUCTION; NOTIFY THE ARCHITECT IN ANY CASE IN WRITING OF THE AGENCY'S FINDING.

5.6. FOR RENOVATION PROJECTS – PROVIDE ALL DEMOLITION, PATCHING, SAW CUTTING, EXCAVATION, TRENCHING, SHORING, COMPACTING, DE-WATERING, ETC. REQUIRED FOR THE PROJECT, WHETHER OR NOT SHOWN ON THE DRAWINGS.

5.6.1. INFORMATION WAS TAKEN FROM VARIOUS ARCHIVE DRAWINGS AND LIMITED FIELD OBSERVATION. FIELD VERIFICATION OF EXISTING CONDITIONS AND POINTS OF CONNECTIONS ARE REQUIRED.

5.6.2. EXISTING SYSTEMS TO REMAIN – WHERE EXISTING SYSTEMS ARE INDICATED TO REMAIN, THEY SHALL BE ASSUMED TO BE IN GOOD WORKING ORDER REQUIRING NO WORK UNLESS SPECIFICALLY NOTED.

5.7. IF DURING THE CONSTRUCTION DEFICIENCIES ARE NOTED, THEN BRING THESE TO THE ATTENTION OF THE OWNER AND SEEK DIRECTION.

6. SHOP DRAWINGS, SUBMITTALS, AND SUBSTITUTIONS

6.1. ENGINEER OF RECORD SHALL BE PROVIDED WITH SHOP DRAWINGS, COORDINATION DRAWINGS, AND MANUFACTURER'S DATA OF ANY CONTRACTOR FURNISHED MATERIALS AND EQUIPMENT, PRIOR TO PURCHASE AND/OR FABRICATION, AND SHALL VERIFY, BY STAMPING AND SIGNING THE DATA AND DRAWINGS BEFORE RETURNING THEM TO THE CONTRACTOR, THAT THE ITEMS FURNISHED BY THE CONTRACTOR FIT THE SPACES AND DIMENSIONS DESCRIBED IN AND CONFORM TO THE SPIRIT AND INTENT OF THE CONTRACT DOCUMENTS.

6.1.1. ENGINEER SHALL, WITHIN FIVE (5) WORKING DAYS OF RECEIPT OF SHOP DRAWINGS AND PRODUCT DATA, NOTIFY THE CONTRACTOR OF ANY DISCREPANCY OR INCOMPATIBILITY WITH THE CONTRACT DOCUMENTS, AND SHALL RETURN THE SHOP DRAWINGS TO THE CONTRACTOR APPROPRIATELY ANNOTATED.

6.1.2. REVIEW OF SUBMITTALS SHALL NOT BE CONSTRUED AS AUTHORIZING ANY DEVIATIONS FROM THE PLANS AND SPECIFICATIONS UNLESS SUCH DEVIATIONS ARE CLEARLY IDENTIFIED AND SEPARATELY

- WITHIN 10% MAXIMUM AND PROVIDE TYPEWRITTEN PANEL BOARD SCHEDULE WITH CORRECTED LOADS.
- 14.7. PROVIDE PANEL BOARD WITH CIRCUIT BREAKERS HAVING THE SHORT CIRCUIT RATING (SCCR) INDICATED.
- 14.7.1. PROVIDE CIRCUIT BREAKERS HAVING THE AIC RATING INDICATED AND IF THE PANEL BOARD IS "SERIES RATED", MANUFACTURER SHALL PROVIDE LABELING REQUIRED BY N.E.C. RELATIVE TO THIS RATING AND SHALL SUBMIT DATA WITH THE PANEL BOARD AND CIRCUIT BREAKER SUBMITTAL.
- 15. MOTOR LOAD CONNECTIONS**
- 15.1. PROVIDE ALL POWER WIRING AND CONNECTIONS FROM SOURCE TO STARTER, STARTER TO DISCONNECT, AND DISCONNECT TO MOTOR OR DEVICE, EXCEPT WHERE SUCH WIRING IS PROVIDED BY EQUIPMENT MANUFACTURER.
- 15.2. ALL AUTOMATIC TEMPERATURE CONTROL WIRING SHALL BE FURNISHED AND INSTALLED UNDER DIVISION 23 – MECHANICAL, UNLESS INDICATED OR SPECIFIED OTHERWISE. HOWEVER, ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL STARTERS AND MAKE ALL POWER CONNECTIONS.
- 15.3. MANUAL CONTROL SWITCHES SHALL BE FURNISHED AND/OR INSTALLED BY THE ELECTRICAL CONTRACTOR AS INDICATED.
- 15.4. FURNISH AND INSTALL A DISCONNECT FOR EACH MOTOR (UNLESS PROVIDED INTEGRAL BY MANUFACTURER).
- 15.5. DISCONNECTS SHALL BE FUSED OR UNFUSED SAFETY SWITCHES AS REQUIRED.
- 15.6. UPON COMPLETION OF MOTOR INSTALLATION WORK, CONTRACTOR SHALL ENSURE PHASES ARE CORRECTLY CONNECTED BY CHECKING ROTATION OF MOTOR.
- 15.7. PROVIDE INHERENT THERMAL PROTECTION FOR ALL FRACTIONAL HORSEPOWER MOTORS.
- 15.8. DISCONNECT SWITCHES AND SAFETY SWITCHES
- 15.8.1. ACCEPTABLE MANUFACTURERS
- 15.8.1.1. SQUARE D COMPANY
- 15.8.1.2. EATON-CUTLER HAMMER
- 15.8.1.3. SIEMENS
- 15.8.2. FURNISH AND INSTALL SAFETY SWITCHES WHERE INDICATED AND AS REQUIRED FOR MOTOR OUTLETS OR OTHER EQUIPMENT. SWITCHES SHALL BE OF SIZE, NUMBER OF POLES AND FUSED OR NON-FUSED, AS REQUIRED FOR JOB CONDITIONS AND THE NATIONAL ELECTRICAL CODE.
- 15.8.3. PROVIDE SWITCHES WITH ELECTRICAL CHARACTERISTICS INDICATED:
- 15.8.3.1. SWITCHES SHALL BE EQUIPPED WITH FUSE CONTACTS AND JAWS WHICH INSURE POSITIVE FUSE AND JAW CONTACT BY MEANS OF REINFORCING SPRING CLIPS OR OTHER APPROVED MEANS.
- 15.8.3.2. HINGES SHALL BE NON-CURRENT CARRYING.
- 15.8.3.3. SWITCHES SHALL BE SO DESIGNED THAT THEY CAN BE LOCKED IN EITHER OPEN OR CLOSED POSITION.
- 15.8.3.4. SWITCHES SHALL HAVE REJECTION CLIP PROVISIONS SO THAT ONLY CLASS RK-1 CURRENT LIMITING FUSES CAN BE INSTALLED.
- 15.8.3.5. ALL SAFETY SWITCHES SHALL BE QUICK-MAKE, QUICK-BREAK, AND HAVE INTERLOCKING COVER WITH HANDLE THAT MAY EITHER BE FRONT OR SIDE OPERATING.
- 15.8.3.6. SWITCH BLADE SHALL BE VISIBLE IN OFF POSITION WITH THE DOOR OPEN.
- 15.8.3.7. EQUIP WITH OPERATING HANDLE THAT IS AN INTEGRAL PART OF ENCLOSURE BASE AND WHOSE OPERATING POSITION IS CLEARLY INDICATED AND IS PADLOCKABLE IN THE OFF POSITION.
- 15.8.3.8. CONSTRUCT CURRENT CARRYING PARTS OF HIGH-CONDUCTIVITY COPPER AND SILVER-TUNGSTEN TYPE SWITCH CONTACTS.
- 15.8.3.9. PROVIDE NEMA TYPE 1 FOR INTERIOR AND NEMA TYPE 3R FOR EXTERIOR AND PROVIDE TYPE INDICATED FOR SPECIAL CASES.
- 15.8.3.10. PROVIDE FUSIBLE SWITCHES WITH FUSES REQUIRED.
- 15.8.3.10.1. FUSES SHALL BE U.L. LISTED CLASS RK-1 CURRENT LIMITING TYPE. PROVIDE BUSSMAN "LOW PEAK" OR APPROVED EQUAL.
- 15.8.4. HEAVY-DUTY SAFETY SWITCHES – PROVIDE SURFACE MOUNTED, HEAVY DUTY TYPE, SHEET STEEL ENCLOSED SWITCHES THAT ARE PAINTED WITH PRIME COATS AND FINAL ENAMEL COATS THAT IS SUITABLE FOR EXPOSURE TO EXTERIOR ELEMENTS WITHOUT CORROSION.
- 15.9. MOTOR STARTERS**
- 15.9.1. STARTERS AND CONTROL DEVICES FOR MECHANICAL EQUIPMENT SHALL BE PROVIDED UNDER DIVISION 26 – ELECTRICAL WHERE SHOWN ON THE DRAWINGS.
- 15.9.2. UNLESS SPECIFIED OTHERWISE UNDER OTHER DIVISION 23 SPECIFICATIONS, MECHANICAL DRAWINGS, OR INDIVIDUAL EQUIPMENT SECTIONS, MOTOR STARTERS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
- 15.9.2.1. STARTERS FOR MOTORS 1/3 HORSEPOWER OR SMALLER SHALL BE MANUAL UNLESS REMOTE OR AUTOMATIC STARTING IS REQUIRED, IN WHICH CASE THE STARTERS SHALL BE MAGNETIC, FULL VOLTAGE, NON-REVERSING, SINGLE-SPEED, UNLESS OTHERWISE INDICATED. ALL OTHER STARTERS SHALL BE MAGNETIC.
- 15.9.2.2. EACH STARTER FOR A THREE-PHASE MOTOR SHALL BE FURNISHED WITH THREE (3) OVERLOAD RELAYS SIZED FOR THE FULL LOAD RUNNING CURRENT OF THE MOTOR ACTUALLY PROVIDED.
- 15.9.2.2.1. PROVIDE AN EXTERNAL "HAND-OFF-AUTO" SELECTOR SWITCH WITH RED "RUNNING" LIGHT.
- 15.9.2.2.2. PROVIDE A GREEN LIGHT TO INDICATE MOTOR "STOPPED".
- 15.9.2.2.3. EACH PILOT LIGHT SHALL HAVE A LEGEND PLATE INDICATING REASON FOR SIGNAL.
- 15.9.2.3. EACH OVERLOAD RELAY SHALL HAVE A NORMAL OPEN ALARM CONTACT WHICH WILL CLOSE ONLY WHEN ACTUATED BY AN OVERLOAD (NOT TO BE CONFUSED WITH N.O. OR N.C. AUXILIARY CONTACTS). THESE CONTACTS SHALL BE PROPERLY WIRED TO THEIR RESPECTIVE BLUE PILOT LIGHT PROVIDED ON THE STARTER FRONT COVER AND HAVING A 'TRIPPED' LEGEND PLATE.
- 15.9.2.4. INDIVIDUAL MOUNTED MOTOR STARTERS SHALL BE IN A NEMA TYPE 1 GENERAL PURPOSE ENCLOSED IN UNFINISHED AREAS AND SHALL BE FLUSH MOUNTED IN ALL FINISHED AREAS. ALL STARTERS MOUNTED IN EXTERIOR AREAS SHALL HAVE A NEMA 3R ENCLOSURE. EACH STARTER SHALL HAVE A LAMINATED NAMEPLATE TO INDICATE EQUIPMENT UNIT NUMBER, FUNCTION AND CIRCUIT NUMBER.
- 15.9.2.5. ALL MOTORS STARTERS, PUSH BUTTONS AND PILOT LIGHTS SHALL BE OF THE SAME MANUFACTURER AS THE SWITCHBOARD.
- 15.9.3. MOTOR STARTERS FOR THE FOLLOWING EQUIPMENT SHALL BE PROVIDED UNDER DIVISION 23 BY THE MANUFACTURER OF THE EQUIPMENT:
- 15.9.3.1. PACKAGED AIR CONDITION EQUIPMENT
- 15.9.3.2. PACKAGED BOOSTER PUMP SYSTEM
- 15.9.3.3. OTHER EQUIPMENT HEREINAFTER IN OTHER SECTIONS TO BE PROVIDED WITH INTEGRAL STARTERS.
- 15.10. EQUIPMENT CONNECTION COORDINATION
- 15.10.1. COORDINATE EXACT LOCATION OF OUTLETS, EQUIPMENT CONNECTIONS, AND REQUIREMENTS PRIOR TO ROUGH-IN AND INSTALLATION OF DEVICES, AS DETERMINED BY THE ACTUAL EQUIPMENT AND FURNITURE LAY OUT, VERIFY WITH FIXTURE PLAN AND EQUIPMENT INSTALLER.
- 15.10.2. COORDINATE ELECTRICAL REQUIREMENTS OF EQUIPMENT NOT SHOWN ON DETAILS, i.e. ROOF-TOP UNITS, UNIT HEATERS, FANS, ETC., AND EQUIPMENT/DEVICES REQUIRING AN ELECTRICAL CIRCUIT AND CONTROL.
16. LIGHTING FIXTURES
- 16.1. FURNISH AND INSTALL A COMPLETE LIGHTING FIXTURE FOR EACH LIGHTING FIXTURE SYMBOL SHOWN ON THE DRAWINGS, OF THE TYPE AND QUALITY DESCRIBED HEREIN.
- 16.1.1. FIXTURES SHALL BE INSTALLED COMPLETE WITH LAMPS OF THE WATTAGE INDICATED, SOCKETS, HOUSING, BALLAST (IF REQUIRED), SHADES, DIFFUSERS, SUPPORTS, ETC., AND WIRED FOR OPERATION.
- 16.2. CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR THE PROPER AND ACCURATE POSITION OF SOCKETS IN ALL FIXTURES SO THAT THE FILAMENT OF THE SIZE AND TYPE LAMPS SPECIFIED, WHEN INSTALLED IN SUCH SOCKETS, WILL BE IN CORRECT RELATION TO THE CENTER OF THE FIXTURE AS SPECIFIED BY THE MANUFACTURER OF THE VARIOUS LIGHTING FIXTURES AND GLASS UNITS SPECIFIED.
- 16.3. ALL SOCKETS SHALL BE APPROVED BY UNDERWRITERS' LABORATORIES, INC. FLUORESCENT SOCKETS SHALL BE THRU-SLOT TYPE AND INCANDESCENT LAMP SOCKETS SHALL BE 250 VOLT CODE STANDARD, MEDIUM BASE FOR LAMPS UP TO 200 WATTS INCLUSIVE AND MOGUL BASE FOR LAMPS 300 WATTS AND LARGER.
- 16.4. ALL FIXTURES SHALL BE WIRED FOR POLARIZED SYSTEM WITH ONE WIRE IN EACH FIXTURE TO BE DISTINCTLY MARKED FOR ITS ENTIRE LENGTH.
- 16.4.1. WIRE SHALL BEAR THE LABEL OF APPROVAL OF THE UNDERWRITERS LABORATORIES, INC.
- 16.4.2. FIXTURE WIRING FOR FLUORESCENT FIXTURES AND BRANCH CIRCUIT WIRING IN FLUORESCENT FIXTURE CHANNELS SHALL BE TYPE THHN OR THW (90 DEGREE C. RATED).
- 16.4.3. ALL CHANNELS IN FLUORESCENT LIGHTING FIXTURES SHALL BE APPROVED FOR THRU-WIRING.
- 16.4.4. TYPE OF WIRE SHALL ONLY BE USED FOR INTERIOR INCANDESCENT FIXTURE WIRING.
- 16.5. ALL FIXTURES SHALL BE IN ACCORDANCE WITH ALL LOCAL MUNICIPAL AND STATE REQUIREMENTS GOVERNING SAME AND SHALL BE U.L. APPROVED.
- 16.6. EACH FIXTURE SHALL BE COMPLETELY EQUIPPED WITH LAMPS OF THE SIZE, TYPE, WATTAGE AND SHAPE INDICATED AND SPECIFIED.
- 16.6.1. ALL LAMPS SHALL BE OF STANDARD SCHEDULE MAKE.
- 16.6.2. LUMEN OUTPUT AND LIFE OF LAMPS SHALL BE PROPER VOLTAGE FOR THE BUILDING.
- 16.6.3. EXACT VOLTAGE SHALL BE CHECKED BEFORE ORDERING FIXTURES.
- 16.7. ALL FLUORESCENT LIGHTING FIXTURES SHALL HAVE ENERGY SAVING, SOLID STATE ELECTRONIC BALLASTS.
- 16.8. AT THE LOCATION OF OUTLETS INDICATED ON THE VARIOUS DRAWINGS, THE TYPE OF FIXTURE REQUIRED IS DESIGNATED BY A TYPE LETTER. ALL FIXTURES SHALL BE FURNISHED IN THE QUANTITIES, SIZES AND TYPES AS INDICATED ON THE DRAWINGS.
- 16.9. HANDLE LIGHTING FIXTURES CAREFULLY TO PREVENT DAMAGE, BREAKING AND SCORING. DO NOT INSTALL DAMAGED FIXTURES OR COMPONENTS, REPLACE WITH NEW.
- 16.10. STORE LIGHTING FIXTURES IN A CLEAN DRY PLACE. PROTECT FROM WEATHER, DIRT, FUMES, WATER, CONSTRUCTION DEBRIS AND PHYSICAL DAMAGE.
- 16.11. SHIP FIXTURES FACTORY ASSEMBLED, WITH PARTS REQUIRED FOR A COMPLETE INSTALLATION.
- 16.12. AT DATE OF SUBSTANTIAL COMPLETION REPLACE LAMPS IN ALL FIXTURES WHICH ARE OBSERVED TO BE INOPERATIVE OR NOTICEABLY DIMMED AFTER CONSTRUCTION USE AS JUDGED BY THE OWNER'S REPRESENTATIVE.
- 16.13. ALL LUMINAIRES UTILIZED FOR EMERGENCY AND/OR EGRESS LIGHTING SHALL BE CONNECTED AHEAD OF SWITCHING.
- 16.14. ALL BALLASTS OF THE SAME TYPE SHALL BE OF THE SAME MANUFACTURER AND CATALOG.
- 16.15. ALL LAMPS OF THE SAME TYPE SHALL BE OF THE SAME MANUFACTURER AND CATALOG NUMBER.
- 16.16. LED (LIGHT EMITTING DIODE) LIGHT FIXTURES
- 16.16.1. PROVIDE FACTORY INSTALLED LED MODULES THAT ARE SPECIFICALLY DESIGNED FOR, AND MATCHED AND MATED TO, THE RESPECTIVE LUMINAIRE IN WHICH THEY ARE USED.
- 16.16.1.1. PROVIDE LED MODULES THAT CAN EASILY BE REPLACED IN THE FIELD AND ARE READILY ACCESSIBLE FOR REPLACEMENT.
- 16.16.1.2. PROVIDE COLOR TEMPERATURE AS INDICATED IN LUMINAIRE SCHEDULE.
- 16.16.2. PROVIDE FACTORY INSTALLED DRIVER(S) FOR THE LED SOURCE UTILIZED THAT ARE SPECIFICALLY COORDINATED TO THE LED SOURCE AND LUMINAIRE IN WHICH THEY ARE USED.
- 16.16.2.1. PROVIDE DRIVER(S) HAVING SPECIFIC OPERATING CHARACTERISTICS DEFINED IN THE LUMINAIRE SCHEDULE.
- 16.16.2.2. PROVIDE DRIVER(S) THAT CAN EASILY BE REPLACED IN THE FIELD AND ARE READILY ACCESSIBLE FOR REPLACEMENT.
- 16.16.2.3. PROVIDE SPECIFICATION SHEET FOR THE SPECIFIC DRIVER AS PART OF THE LUMINAIRE SUBMITTAL.
- 16.16.3. PROVIDE TOTAL HARMONIC DISTORTION (THD) RATING OF LESS THAN 20 PERCENT.
- 16.16.3.1. PROVIDE FACTORY-INSTALLED INTEGRAL FILTERING SYSTEM TO ENSURE THD DOES NOT EXCEED 20 PERCENT REGARDLESS OF QUANTITIES AND/OR MIXES WITH OTHER MANUFACTURED LED SYSTEMS
- 16.17. FLUORESCENT LIGHT FIXTURES
- 16.17.1. FLUORESCENT BALLAST SHALL BE CLASS P, LOW-ENERGY RAPID START SOUND RATED A.
- 16.17.2. PROVIDE LAMPS IN WATTAGES AND TYPES INDICATED.
- 16.18. INCANDESCENT LIGHT FIXTURES
- 16.18.1. PROVIDE INCANDESCENT LAMPS IN THE SIZES AND RATED AS INDICATED AND 130 VOLT RATED.
- 16.19. MOUNTING
- 16.19.1. ALL SURFACE AND RECESSED CEILING LUMINAIRES INSTALLED ON GRID OR TILE CEILINGS SHALL BE INSTALLED TO AGREE WITH MODULE OF

09.27.24 OWNER REVIEW
NO DATE REMARKS
REVISIONSRED MILL COMMONS
SHOPPING CENTER2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454PROJECT NO: 2024.0397
DATE: 08.29.24E8.2
ELECTRICAL SPECIFICATIONS
3 OF 3
DMS
CHECKED: /GR DRAWN: VLD

APPLICABLE CODES	
• VIRGINIA BEACH, VIRGINIA - CODE OF ORDINANCES	
• CHAPTER 34: SWIMMING POOLS	
• VIRGINIA ADMINISTRATIVE CODE	
• CHAPTER 460: REGULATIONS GOVERNING TOURIST ESTABLISHMENT SWIMMING POOLS AND OTHER PUBLIC POOLS	
• 2021 VIRGINIA UNIFORM STATEWIDE BUILDING CODE, PART I, CONSTRUCTION / VIRGINIA CONSTRUCTION CODE (VCC)	
• 2021 VIRGINIA SWIMMING POOL AND SPA CODE	
• 2017 VIRGINIA ACCESSIBILITY CODE	
• 2021 VIRGINIA MECHANICAL CODE	
• 2021 VIRGINIA PLUMBING CODE	
• 2020 VIRGINIA ELECTRICAL CODE	
• 2021 VIRGINIA STATEWIDE FIRE PREVENTION CODE	

POOL FINISHES	
• POOL PLASTER: PEBBLE TEC, PEBBLESHEEN	
• COLOR: COOL BLUE	
• POOL COPING: AGC COPING BY FEDERAL STONE	
• COLOR: WHITE	
• WATERLINE TILE: 6" X 6" TILE BY DALTILE	
• COLOR: COBALT BLUE	
• TILE AT STEPS AND BENCHES EDGES: 2" X 2" TILE BY DALTILE	
• COLOR: COBALT BLUE	

POOL DATA		
Description	Area (SF)	Depth (FT)
Swimming Pool	1169	4.0
Total Area (SF)		1,169
Total Volume (GAL)		35,070
Total Volume (cubic FT)		4,676
Perimeter (LF)		150

GENERAL NOTES - POOL

STRUCTURE

1. PROVIDE A NON-SLIP FINISH TO THE POOL BOTTOM.
2. THE SLOPE OF THE POOL BOTTOM (LESS THAN 5 FEET DEEP) SHALL BE UNIFORM AND NOT GREATER THAN 1" PER FOOT.
3. PROVIDE COVE RADIUS AT POOL WALLS OF 1" MINIMUM UP TO THE MAXIMUM ALLOWED BY THE APPLICABLE CODES.

PLASTER

1. PROVIDE PEBBLE TEC, PEBBLESHEEN - COOL BLUE
2. INSTALL PLASTER SYSTEM PER MANUFACTURERS REQUIREMENTS BY AN EXPERIENCED INSTALLER

WALKWAYS & DECKS

1. PROVIDE A CLEAR, UNOBSTRUCTED WALK OR DECK AROUND THE ENTIRE PERIMETER OF THE POOL.
2. SLOPE DECK AWAY FROM THE POOL WITH SLOPE NO LESS THAN 1% (1/8" PER FOOT) AND NO MORE THAN 2% (1/4" PER FOOT). DECK MUST HAVE A NON-SLIP FINISH.
3. REFER TO ARCHITECTURAL AND PLUMBING DRAWINGS FOR LOCATION AND TYPES OF DECK DRAINS PROVIDED.

POOL LADDERS AND STAIRS

1. PROVIDE 2 MEANS OF EGRESS LOCATED AT OPPOSITE ENDS OF THE POOL.
2. PROVIDE 4 MEANS OF EGRESS WHERE POOL WIDTHS ARE 30 OR GREATER.
3. THE DISTANCE FROM ANY POINT IN THE SWIMMING POOL TO A MEANS OF EGRESS SHALL NOT EXCEED 50 FEET.
4. STEPS OR LADDER TREADS SHALL BE NON-SLIP.
5. STEPS SHALL HAVE TREADS AND RISERS IN ACCORDANCE WITH SECTION 411.2 OF THE 2021 VIRGINIA SWIMMING POOL AND SPA CODE.
6. PROVIDE HANDRAILS IN ACCORDANCE WITH SECTION 323.2 OF THE 2021 VIRGINIA SWIMMING POOL AND SPA CODE.

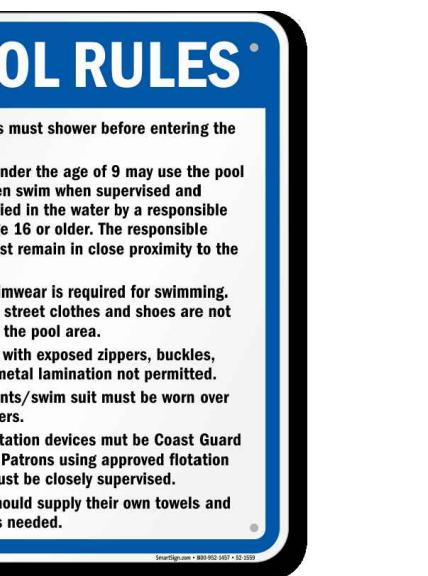
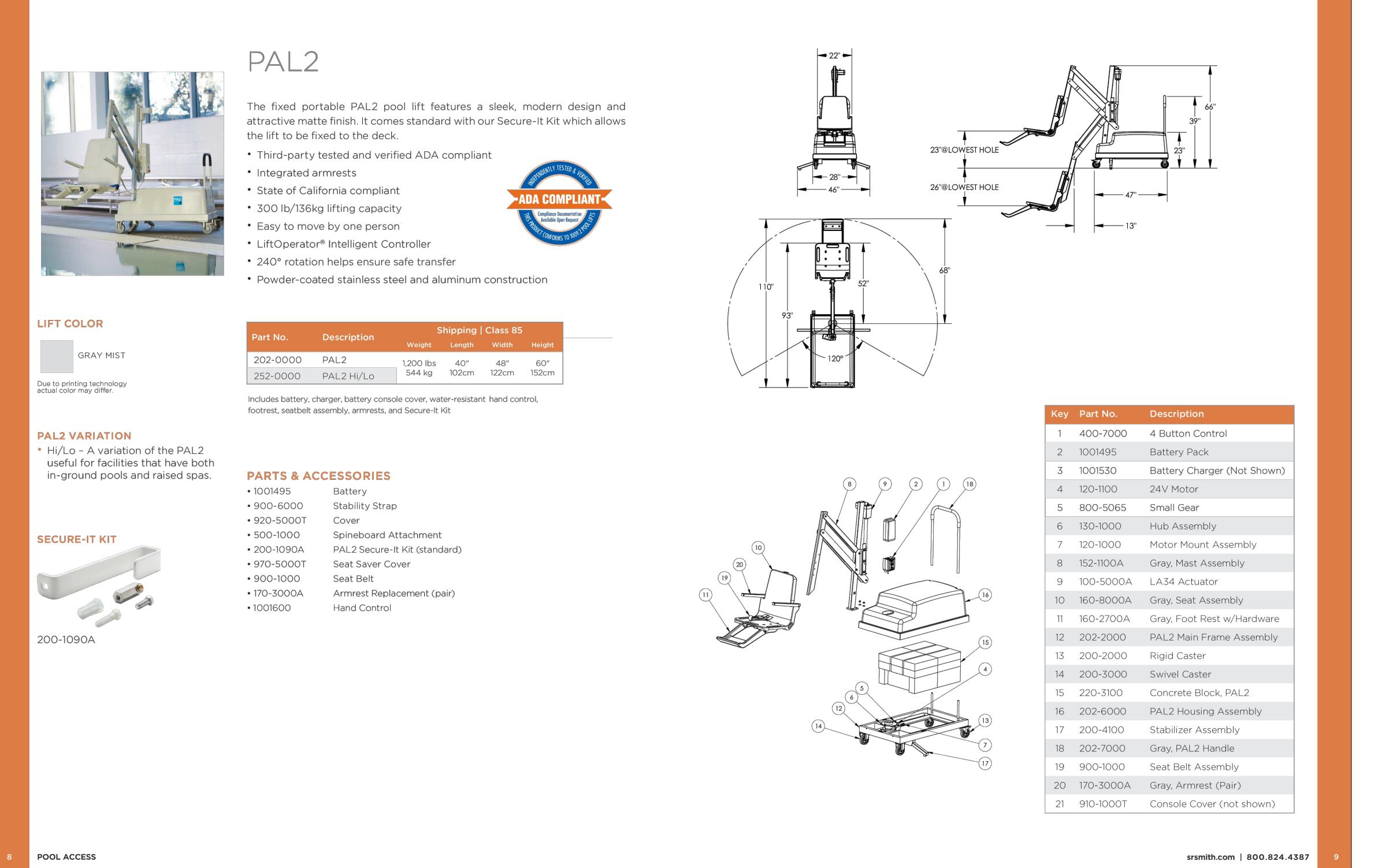
SIGNAGE

1. POOL CONTRACTOR SHALL PROVIDE ALL NECESSARY POOL SIGNAGE AS REQUIRED BY STATE AND COUNTY HEALTH DEPARTMENTS AND AQUA-TOTS CORPORATE STANDARDS. COORDINATE LOCATIONS OF SIGNAGE ON WALLS WITH GENERAL CONTRACTOR AND OWNER.
2. PER THE CITY OF VIRGINIA BEACH, CODE OF ORDINANCES SEC. 34-41 (6), APPROVED SIGNS SHALL BE MAINTAINED AS FOLLOWS:
 - a. OCCUPANT LOAD SIGNS: A SIGN WITH CLEARLY LEGIBLE LETTERS, NOT LESS THAN FOUR (4) INCHES HIGH SHALL BE POSTED IN A CONSPICUOUS PLACE NEAR THE MAIN ENTRANCE TO A POOL WHICH SHALL INDICATE THE NUMBER OF OCCUPANTS PERMITTED FOR EACH POOL.
 - b. SPA/HOT TUB POOL: THE OCCUPANT CAPACITY OF A SPA/HOT TUB POOL SHALL BE BASED ON ONE (1) BATHER FOR EVERY TEN (10) SQUARE FEET OF POOL WATER SURFACE AREA.
 - c. THE OCCUPANT CAPACITY OF ALL OTHER POOLS SHALL BE BASED ON ONE (1) BATHER FOR EVERY TWENTY-SEVEN (27) SQUARE FEET OF POOL WATER SURFACE AREA. EXCEPTION: OCCUPANT CAPACITY REQUIREMENTS DO NOT APPLY TO WADING POOLS.
3. BATHER LOAD - POST A SIGN IN A CONSPICUOUS LOCATION WITHIN THE POOL ENCLOSURE STATING: "BATHER LOAD: XXX", RE: ARCHITECTURE DRAWINGS FOR OCCUPANT LOADS.

ADDITIONAL SIGNS

- WARNING - NO LIFE GUARD ON DUTY - CHILDREN SHOULD NOT USE POOL WITHOUT AN ADULT IN ATTENDANCE.
- NO DIVING (SIGN TO BE POSTED ON WALL AND DECK)
- EMERGENCY USE ONLY (SIGN TO BE POSTED ABOVE SAFETY EQUIPMENT)
- 911 (SIGN POSTED ABOVE EMERGENCY TELEPHONE)
- HOURS OF OPERATION:
- POOL PERMIT
- ADDITIONAL SIGNAGE MAY BE REQUIRED BY THE OWNER OR THE LOCAL GOVERNING AGENCY, COORDINATE ALL SIGNAGE WITH THE OWNER PRIOR TO FABRICATION
- DEPTH MARKERS
 - a. DEPTH MARKERS SHALL BE IN NUMERALS FOLLOWED BY THE LETTERS "FT" TO INDICATE FEET. MARKERS SHALL BE 4" MINIMUM IN HEIGHT AND BE A COLOR CONTRACTING WITH THE BACKGROUND.
 - b. DEPTH MARKERS SHALL BE SET IN INLAID TILE.
 - c. MARKERS SHALL BE LOCATED ON BOTH SIDES AND BOTH ENDS OF THE POOL.
 - d. MARKERS SHALL BE LOCATED AT OR ABOVE THE WATER LINE ON THE POOL WALL AND ON THE COPING.
 - e. MARKERS SHALL BE LOCATED AT MAXIMUM AND MINIMUM DEPTH POINTS OF THE POOL AND AT THE POINTS OF BREAK BETWEEN THE DEEP AND SHALLOW PORTIONS AT INTERMEDIATE INCREMENTS OF DEPTH, SPACE AT NOT MORE THAN 25 FOOT INTERVALS, OR AS NOTED ON PLANS.

SAMPLES OF SIGNAGE

POOL RULES SIGN
18" x 24"NO DIVING ALLOWED SIGN
18" x 24"MAX OCCUPANCY SIGN
18" x 12"

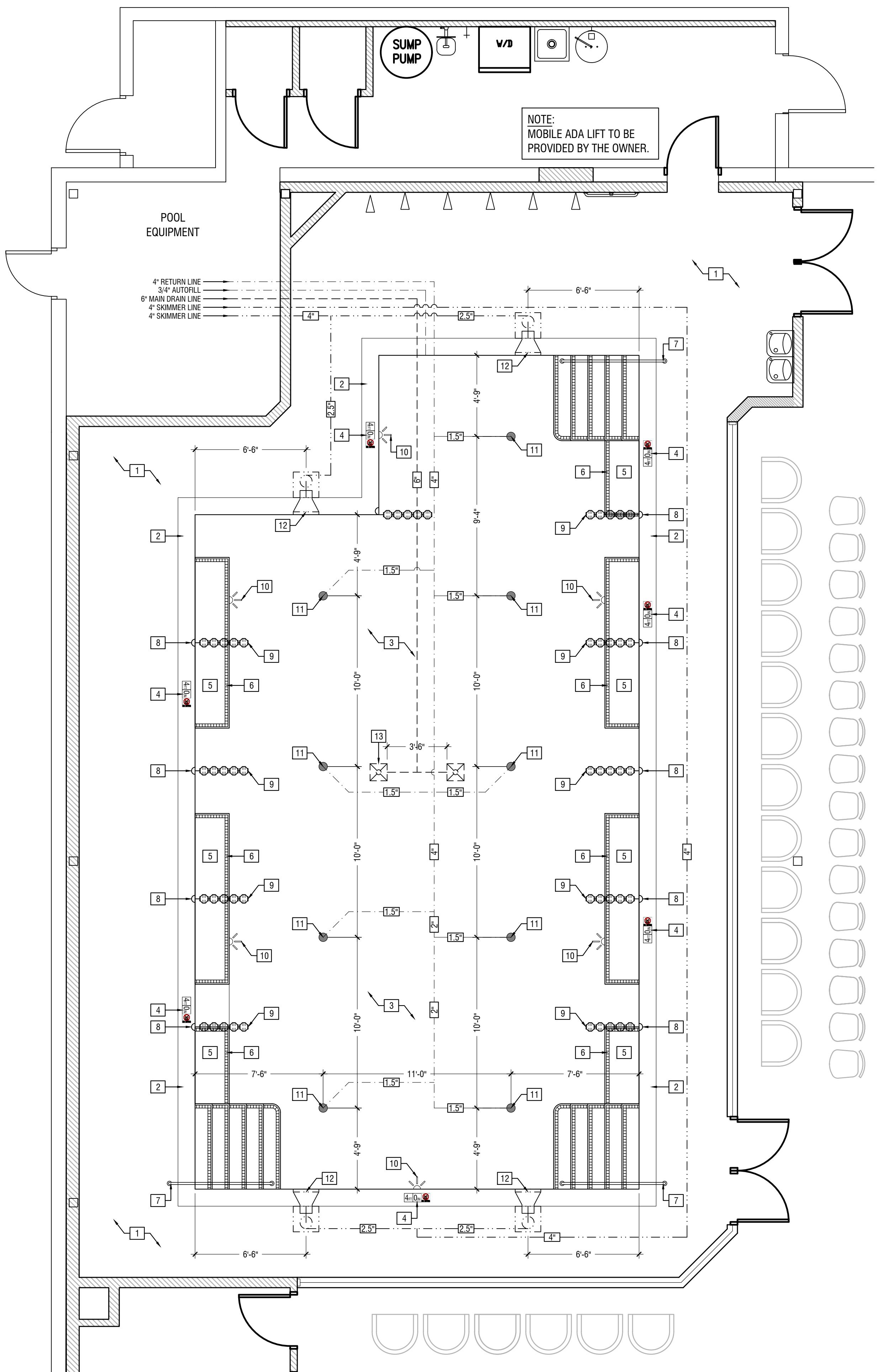
NOTE: MOBILE POOL LIFT TO BE PROVIDED BY THE OWNER.

GENERAL NOTE

POOL DRAWINGS ARE CREATED BY B+A ARCHITECTURE LLC, NOT INTERPLAN LLC. THESE DRAWINGS HAVE BEEN REVIEWED BY THE DESIGN PROFESSIONAL TO MEET THE DESIGN INTENT OF THE BUILDING SYSTEMS. ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION REQUIREMENTS TO MEET ALL STATE AND LOCAL CODES. ALL EQUIPMENT, CONTROLS, ETC. ARE THE RESPONSIBILITY OF B+A ARCHITECTURE LLC AND NOT THE PROFESSIONAL OF RECORD.

POOL PLAN NOTES

- [1] DECK BY OTHERS. SLOPE AWAY FROM POOL
- [2] 13" X 24" PRECAST CONCRETE COPING. AQE BY FEDERAL STONE / COLOR: WHITE
- [3] PLASTER FINISH. PEBBLE-TEC, PEBBLESHEEN - COOL BLUE
- [4] DEPTH MARKER (NUMBERS 4 INCHES HIGH). SET INTO POOL COPING
- [5] POOL BENCH
- [6] 2" X 2" SLIP-RESISTANT CONTRASTING TILE ON FRONT AND EDGES AT STEPS AND UNDERWATER BENCHES. DAL TILE / COLOR: COBALT BLUE
- [7] STAINLESS STEEL HANDRAIL WITH HEAVY DUTY BRONZE RAIL ANCHOR SOCKET INCLUDING A BONDING LUG.
- [8] STAINLESS STEEL CUP ANCHORS. INSTALL IN CENTER OF TILE.
- [9] RACING LANE MARKER LINE
- [10] L.E.D. UNDERWATER LIGHT
- [11] FLOOR RETURN
- [12] SKIMMER
- [13] ANTI-VORTEX DUAL MAIN DRAIN. VGB COMPLIANT



1 DETAILED POOL PLAN
1 SCALE: 1/4" = 1'-0"

GENERAL NOTE

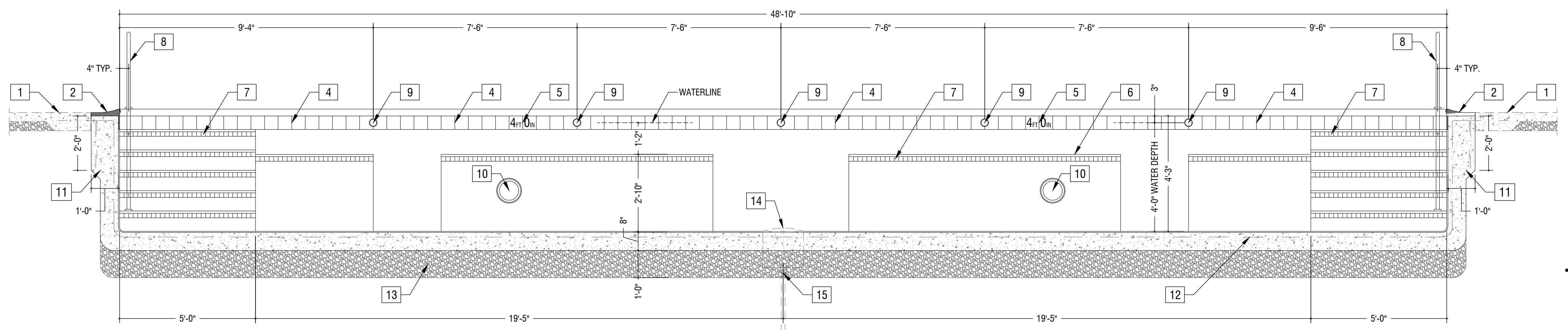
POOL DRAWINGS ARE CREATED BY B+A ARCHITECTURE LLC. NOT INTERPLAN LLC. THESE DRAWINGS HAVE BEEN REVIEWED BY THE DESIGN PROFESSIONAL TO MEET THE DESIGN INTENT OF THE BUILDING SYSTEMS. ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION REQUIREMENTS TO MEET ALL STATE AND LOCAL CODES. ALL EQUIPMENT, CONTROLS, ETC. ARE THE RESPONSIBILITY OF B+A ARCHITECTURE LLC AND NOT THE PROFESSIONAL OF RECORD.

RED MILL COMMONS
SHOPPING CENTER

2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454

PROJECT NO: 2024.0397
DATE:

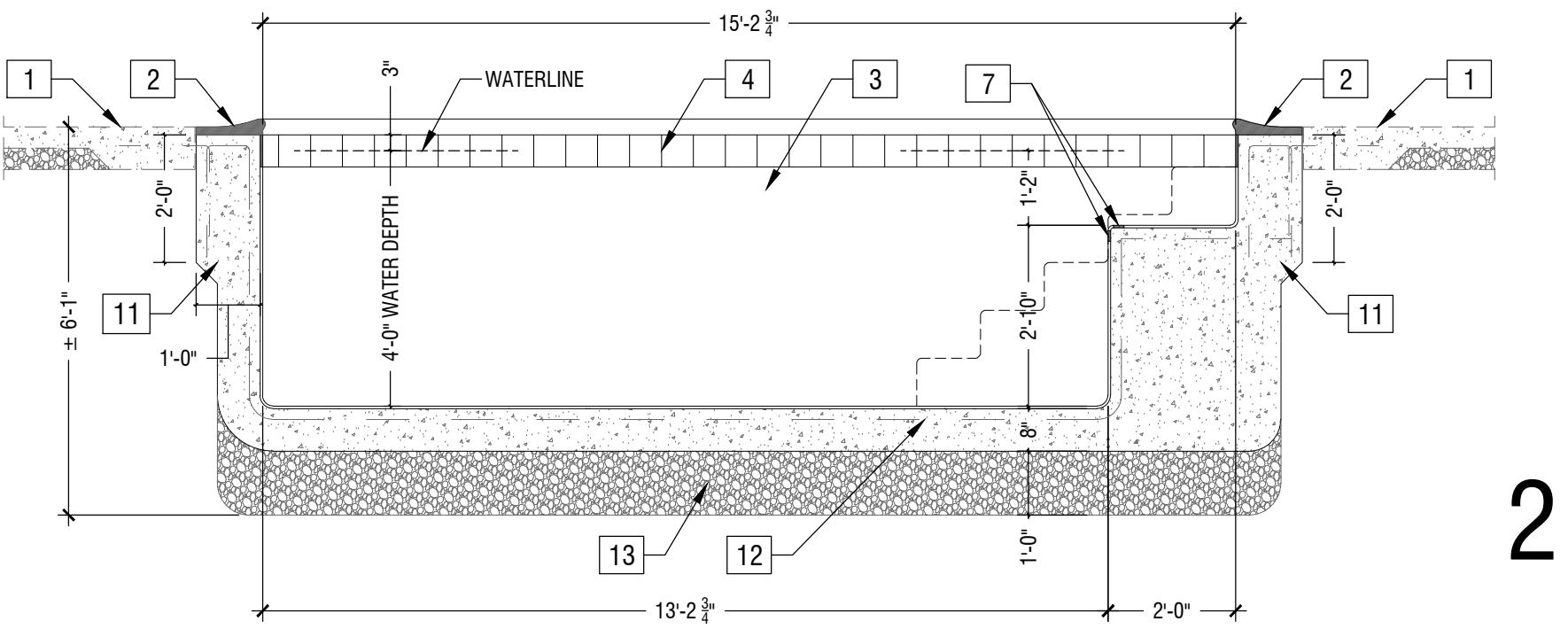
DETAILED POOL PLAN
PL105



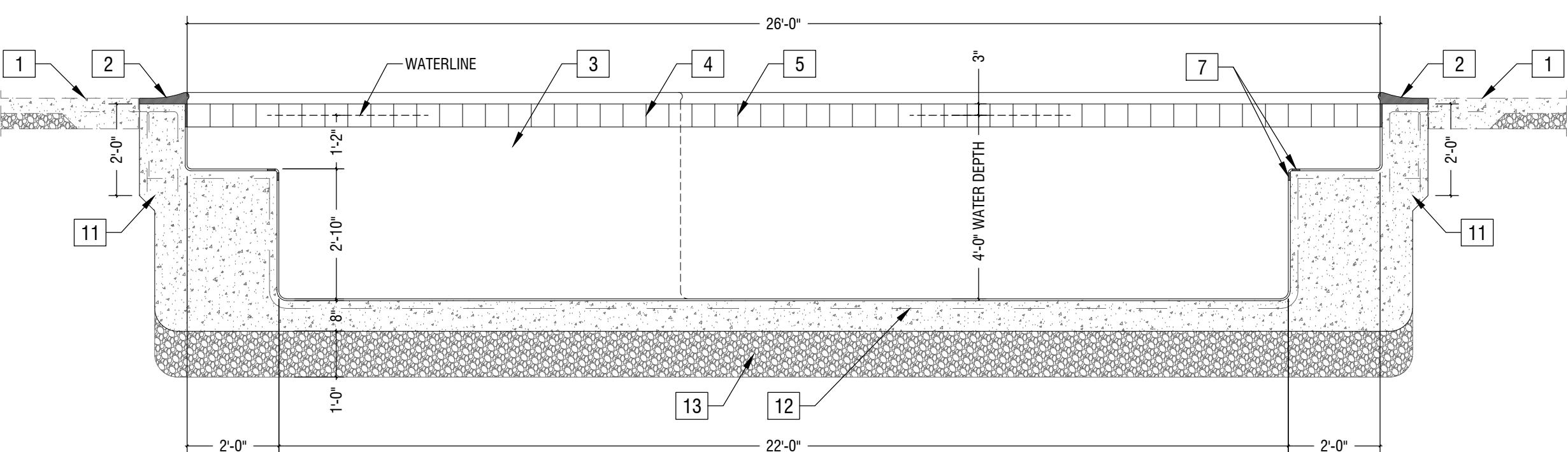
1 POOL SECTION
SCALE: 3/8" = 1'-0"

POOL SECTION NOTES

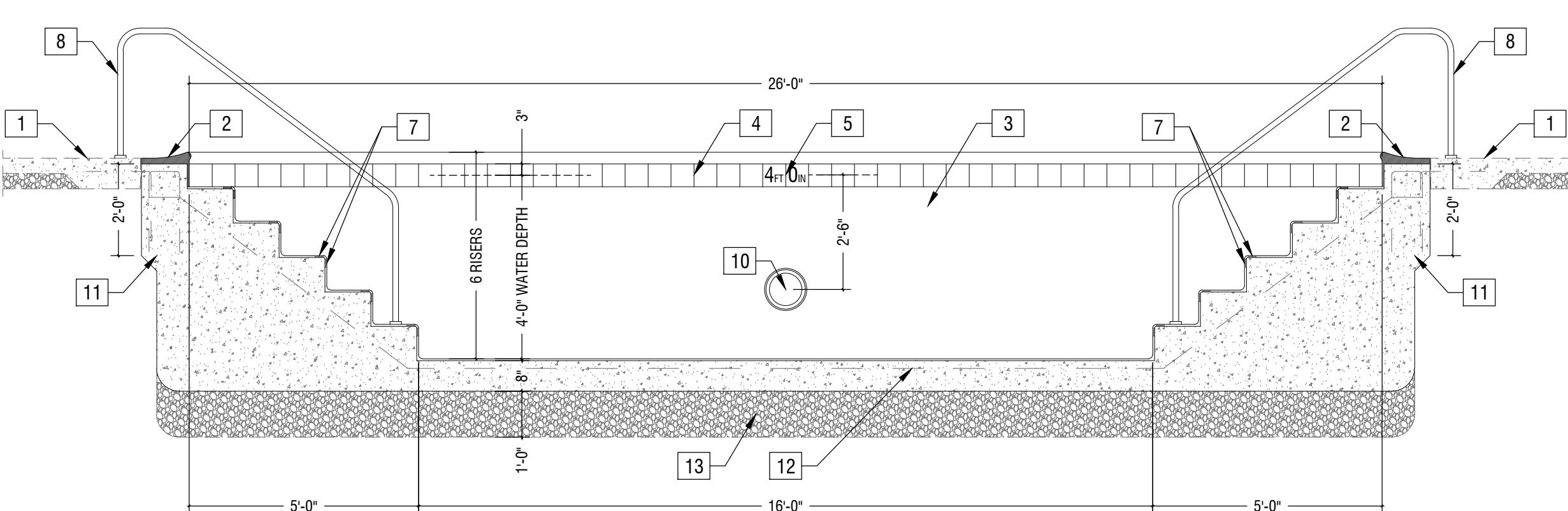
1. DECK BY OTHERS. SLOPE AWAY FROM POOL
2. 13" X 24" PRECAST CONCRETE COPING. AQE BY FEDERAL STONE / COLOR: WHITE
3. PLASTER FINISH. PEBBLE-TEC, PEBBLESHEEN - COOL BLUE
4. 6" X 6" WATERLINE TILE. DAL TILE / COLOR: COBALT BLUE
5. DEPTH MARKER (NUMBERS 4 INCHES HIGH)
6. POOL BENCH
7. 2" X 2" SLIP-RESISTANT CONTRASTING TILE ON FRONT AND EDGES AT STEPS AND UNDERWATER BENCHES. DAL TILE / COLOR: COBALT BLUE
8. STAINLESS STEEL HANDRAIL WITH HEAVY DUTY BRONZE RAIL ANCHOR SOCKET INCLUDING A BONDING LUG
9. STAINLESS STEEL CUP ANCHORS. INSTALL IN CENTER OF TILE
10. L.E.D. UNDERWATER LIGHT
11. BOND BEAM 12" X 24" UNLESS NOTED OTHERWISE. RE: 2/PL103
12. #4 REBAR @ 10" O.C.E.W.
13. 12" OF 1/2" CLEAN GRAVEL
14. ANTI-VORTEX DUAL MAIN DRAIN. VGB COMPLIANT
15. HYDROSTATIC RELIEF VALVE



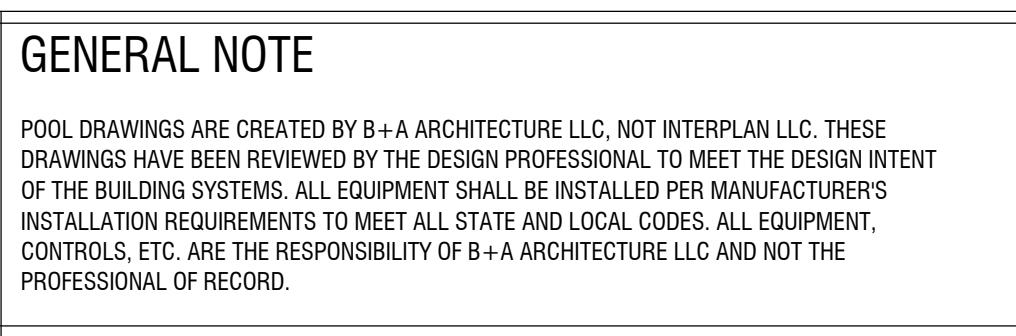
2 POOL SECTION
SCALE: 3/8" = 1'-0"



3 POOL SECTION
SCALE: 3/8" = 1'-0"



4 POOL SECTION
SCALE: 3/8" = 1'-0"



NO DATE REMARKS
REVISIONS

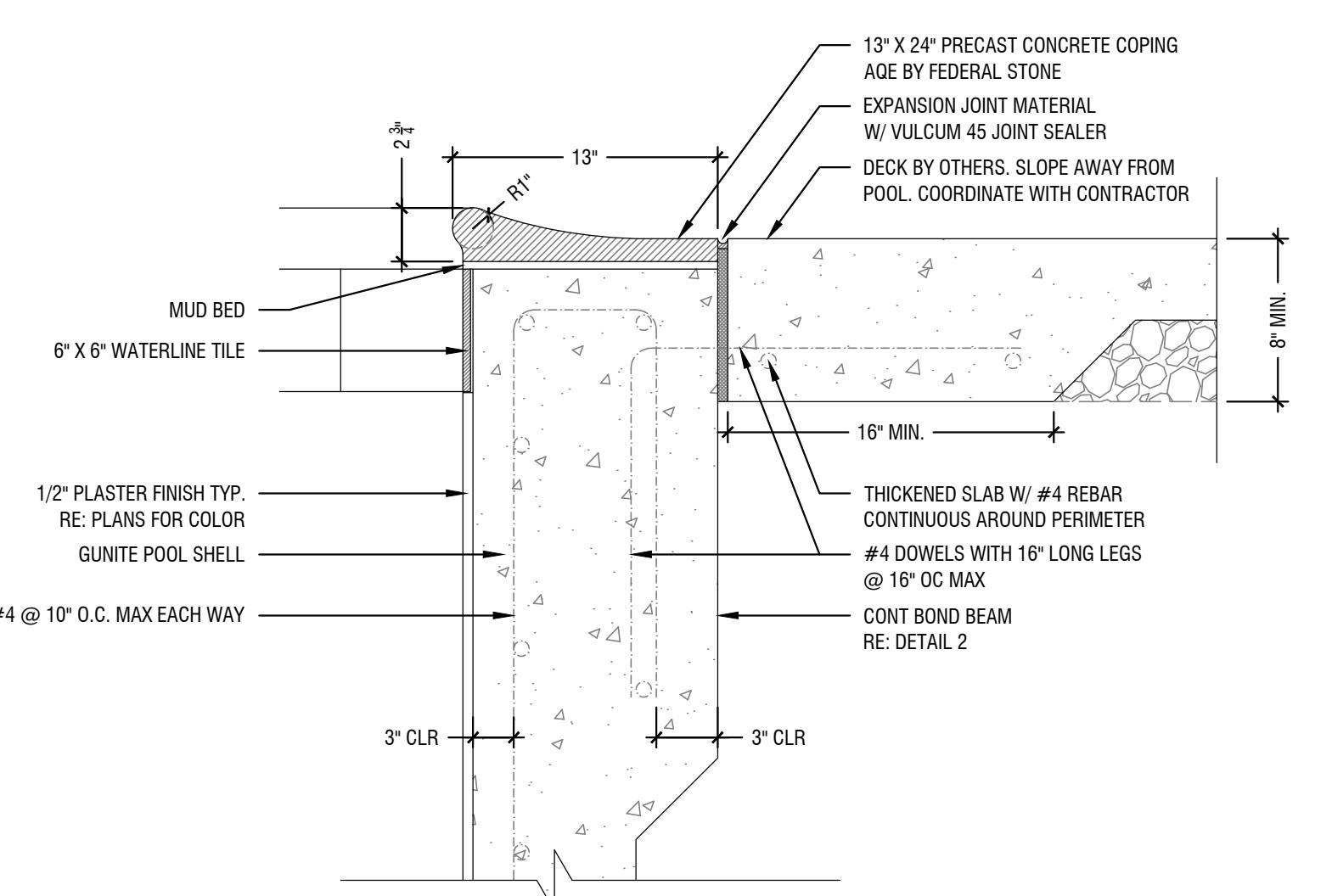


RED MILL COMMONS
SHOPPING CENTER

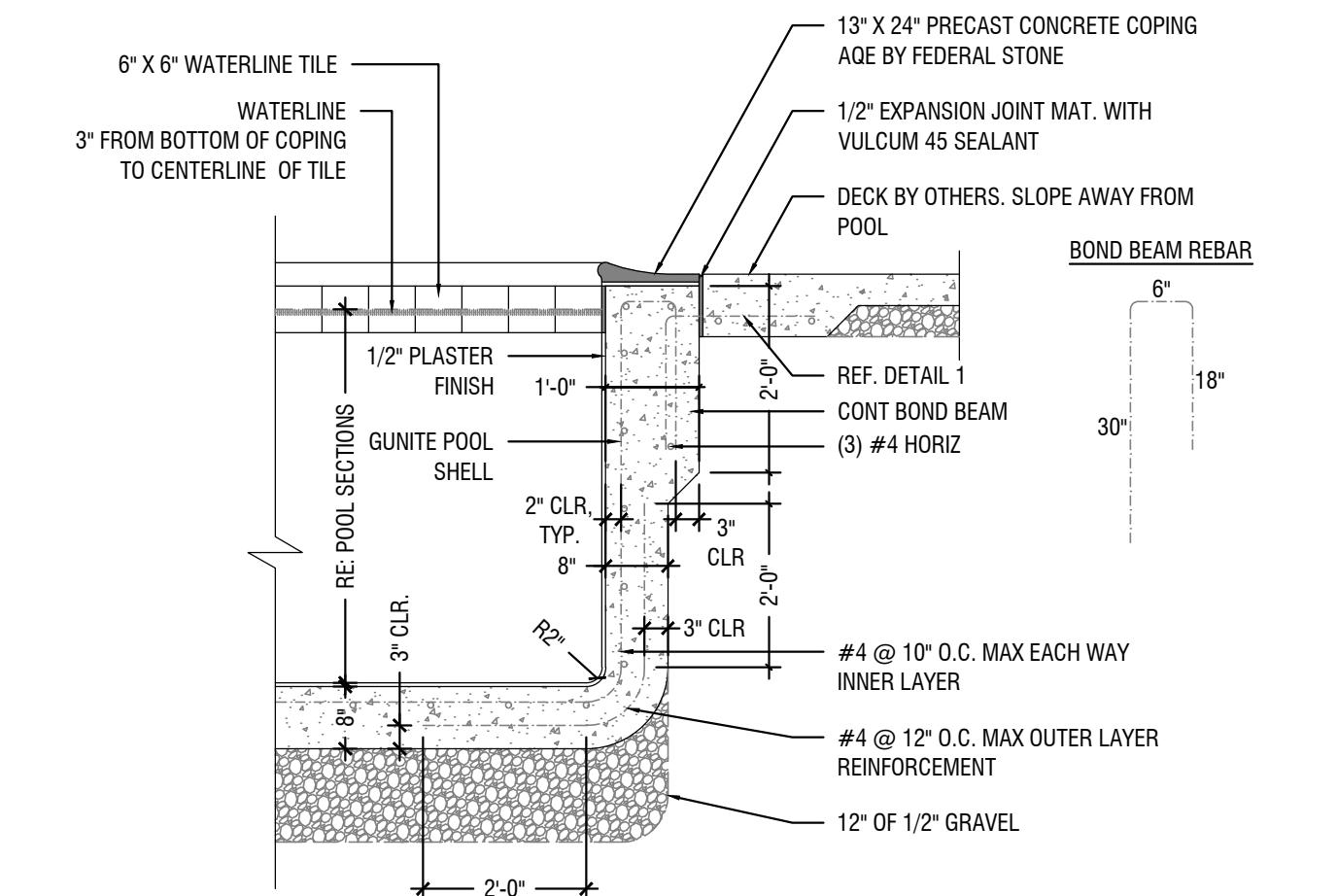
2133 UPTON DRIVE SUITE 100
VIRGINIA BEACH, VIRGINIA
23454

PROJECT NO: 2024.0397
DATE:

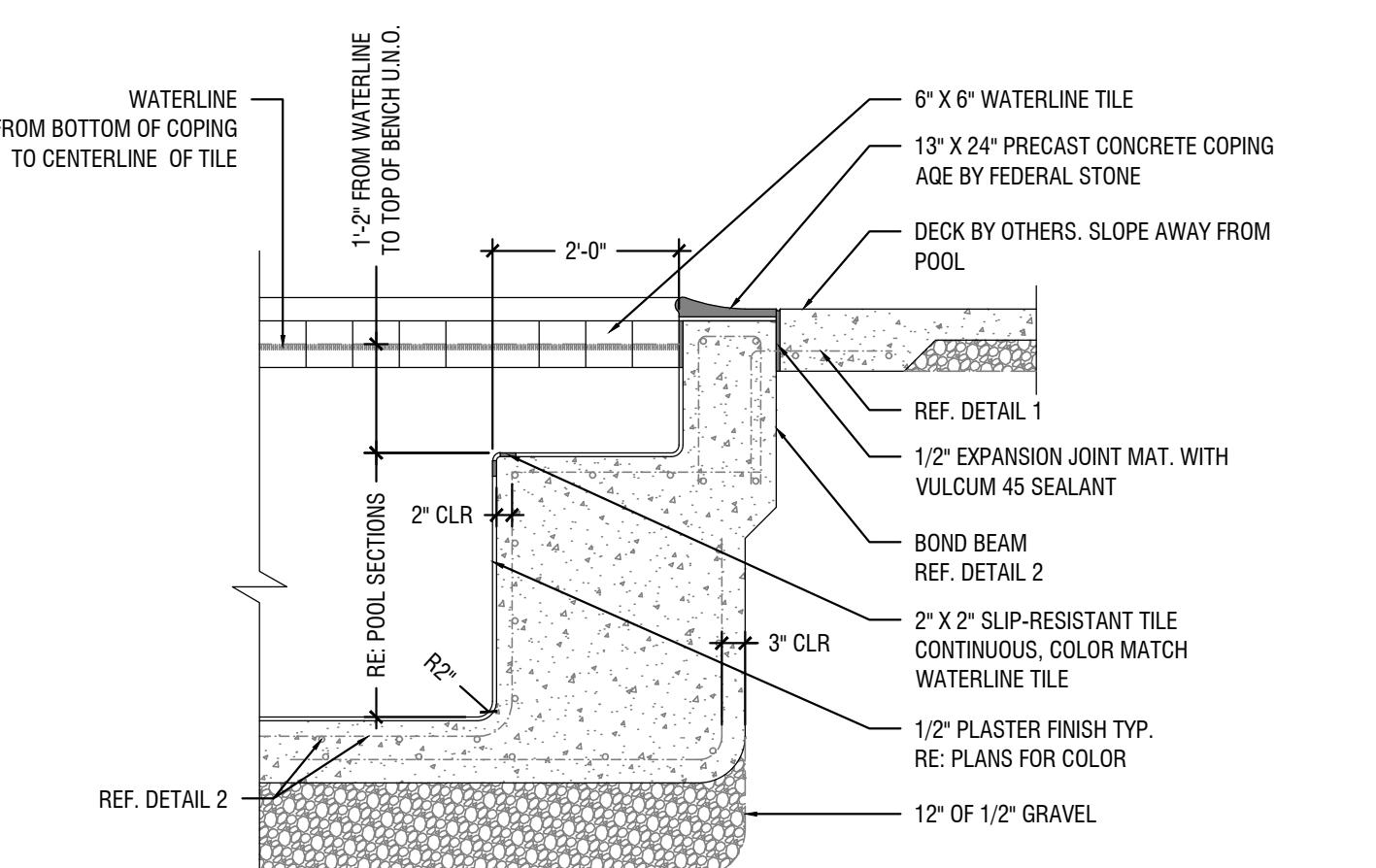
POOL SECTIONS
PL102



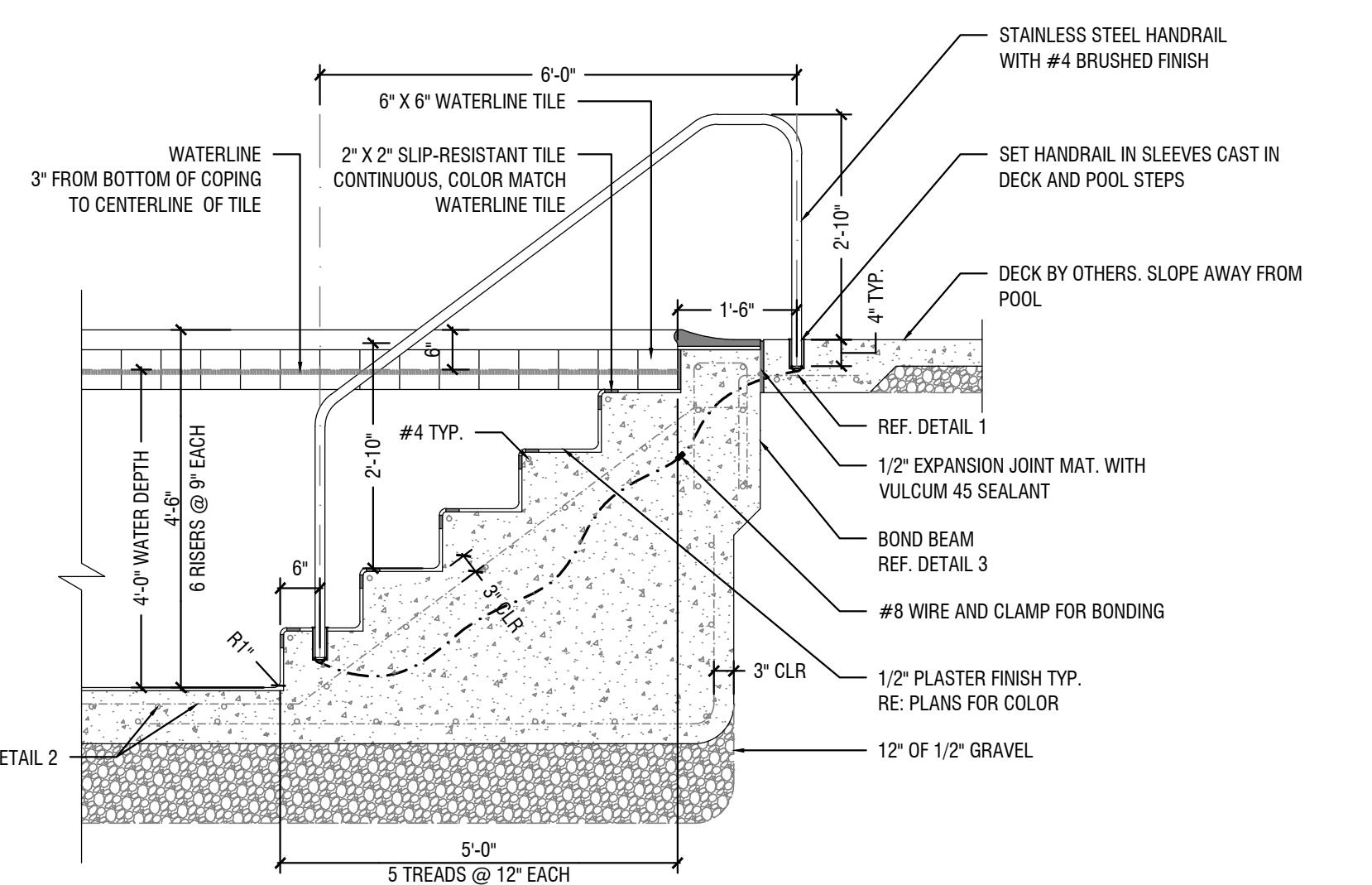
1 COPING DETAIL



2 TYPICAL POOL WALL DETAIL



3 TYPICAL BENCH DETAIL



4 TYPICAL STAIR DETAIL

SOILS

- A. AN ALLOWABLE BEARING CAPACITY OF 2,000 PSF HAS BEEN ASSUMED AND MUST BE CONFIRMED BY A QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF CONCRETE.
- B. ALL SOILS WORK, INCLUDING BACKFILL OF UTILITY TRENCHES AND THE VERIFICATION OF BEARING CAPACITY MUST BE UNDER THE DIRECTION OF A QUALIFIED GEOTECHNICAL ENGINEER. PROXIMITY OF UTILITY TRENCHES TO BUILDING FOUNDATION SYSTEM MUST BE AS APPROVED BY THE GEOTECHNICAL ENGINEER TO ENSURE INTEGRITY OF THE BEARING SOILS.
- C. ALL FOUNDATIONS BEAR ON UNDISTURBED EARTH OR ENGINEERED FILL AT ELEVATIONS SHOWN ON PLANS AND DETAILS. COORDINATE FINAL TOP OF FOOTING ELEVATIONS WITH THE ARCHITECTURAL ELEVATIONS, MEP DRAWINGS AND CIVIL GRADING PLANS PRIOR TO PLACEMENT.
- D. LATENT EARTH PRESSURE DESIGN VALUES:
 - 1. SOIL UNIT WEIGHT: 120 POF
 - 2. ACTIVE LATENT EARTH PRESSURE (EFPa): 42 POF
- E. DETERMINE THE EXTENT OF CONSTRUCTION Dewatering REQUIRED FOR THE EXCAVATIONS. SUBMIT THE PROPOSED CONSTRUCTION Dewatering PLAN TO THE GEOTECHNICAL ENGINEER FOR REVIEW PRIOR TO EXCAVATION.
- F. DO NOT PLACE UNBALANCED BACKFILL, UNLESS OTHERWISE BRACED OR SUPPORTED AGAINST OVERTURNING.
- G. DO NOT ALLOW HEAVY EQUIPMENT WITHIN A DISTANCE TO EARTH RETAINING WALLS EQUAL TO THE HEIGHT OF RETAINED EARTH PLUS TWO FEET. USE ONLY HAND-OPERATED VIBRATORY COMPACTORS FOR COMPACTING BEHIND RETAINING WALLS.

CONCRETE

- A. CONCRETE MUST CONFORM TO THE CONCRETE PROPERTIES SPECIFIED IN THE CONCRETE PROPERTIES TABLE.
- B. CONCRETE MUST HAVE ALLOWABLE UNIT SHRINKAGE OF 0.045% AT 28 DAYS. (SEE ASTM C157)
- C. CONCRETE CONSTRUCTION MUST CONFORM TO THE CURRENT "ACI MANUAL OF CONCRETE PRACTICE".
- D. CONCRETE MATERIALS MUST CONFORM TO THE FOLLOWING SPECIFICATIONS:
 - 1. PORTLAND CEMENT: ASTM C150, TYPE I OR II
 - 2. AGGREGATE (NORMAL WEIGHT): ASTM C33
- E. ALL REINFORCEMENT MUST CONFORM TO THE FOLLOWING SPECIFICATIONS:
 - 1. ALL REINFORCING UNO: ASTM A615 GRADE 60
 - 2. WELDED WIRE REINFORCEMENT (WWR):
 - a. SMOOTH WIRE: ASTM A1064 (65 KSI)
- F. REINFORCEMENT DETAILING:
 - 1. DETERMINE REINFORCEMENT IN ACCORDANCE WITH ACI 315.
 - 2. INSTALL CORNER BARS AT ALL WALL INTERSECTIONS TO MATCH HORIZONTAL REINFORCING SIZE AND SPACING.
 - 3. INSTALL AND SECURE REINFORCEMENT TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT. PROVIDE THE FOLLOWING CONCRETE COVER FOR REINFORCING ACI 318 SECTION 7.7 AND IBC TABLE 720.1, UNLESS SPECIFICALLY NOTED OTHERWISE:
 - a. CAST AGAINST EARTH: 3"
 - b. EXPOSED TO EARTH/WEATHER: #5 & SMALLER 1 1/2"
 - c. SLABS, WALLS, JOISTS: #11 & SMALLER 3/4"
- G. TEMPORARILY BRACE CONCRETE WALLS AGAINST EARTH PRESSURE AND OTHER FORCES UNTIL FLOOR SLABS AND PERMANENT SUPPORTS ARE IN PLACE AND HAVE ATTAINED REQUIRED STRENGTHS.
- H. SLOPE CONCRETE SLABS TO FLOOR DRAINS SHOWN ON MECHANICAL, PLUMBING, CIVIL AND ARCHITECTURAL DRAWINGS.
- I. BOND NEW CONCRETE TO HARDENED CONCRETE WITH A STRUCTURAL ADHESIVE BONDING AGENT PER ASTM C1059. INSTALL PER THE MANUFACTURER'S INSTRUCTIONS.
- J. DO NOT EMBED ALUMINUM IN CONCRETE.

CONCRETE PROPERTIES

USAGE	STRENGTH (PSI)	TYPE	COMMENTS	DURABILITY CLASSIFICATION
ALL CONCRETE NOT OTHERWISE SPECIFIED	4000	NWT		F1, S0, W0, C1
SLAB-ON-GRADE INTERIOR	3500	NWT		F0, S0, W0, C0

CONCRETE PROPERTIES TABLE NOTES:
 1. MINIMUM STRENGTH AND MAXIMUM DENSITY MEASURED AT 28 DAYS.
 2. NWT = NORMAL WEIGHT CONCRETE
 3. DURABILITY CLASSIFICATION INDICATES CONCRETE REQUIREMENTS BY EXPOSURE CLASS, REFER TO TABLE 19.3.2.1 OF ACI 318.

GENERAL NOTE

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SEAL:

THIS DOCUMENT IS NOT
FOR REGULATORY
APPROVAL, PERMITTING,
OR CONSTRUCTION.

ELECTRICAL

- ALL ELECTRICAL WIRING SHALL BE IN ACCORDANCE WITH THE VIRGINIA ELECTRICAL CODE (VEC), 2020 EDITION.
- UNDERWATER LIGHTING SHALL PROVIDE 0.5 WATTS PER SQUARE FOOT OF POOL SURFACE AREA, LIGHTING ALL PORTIONS OF THE POOL LIGHTING CIRCUIT TO BE GFCI.
- ALL ELECTRICAL LIGHTING FIXTURES, RECEPTACLES, SWITCHES, ETC. SHALL COMPLY WITH SECTION 680.5 AND 680.22 OF VEC, 2020.
- UNDERWATER LIGHTING FIXTURES SHALL COMPLY WITH SECTION 680.23 OF VEC, 2020.
- GROUND SHALL COMPLY WITH SECTION 680.6, 680.7, 680.8 (B), 680.23(B), 680.24(F) AND 680.26 OF VEC, 2020.
- A RECEPTACLE THAT PROVIDES POWER FOR POOL OR ASSOCIATED EQUIPMENT SHALL BE PERMITTED BETWEEN 5 FEET AND 10 FEET FROM THE INSIDE WALL OF THE POOL OR HOT TUB, AND WHERE SO LOCATED, SHALL BE OF THE LOCKING (TWIST-LOCK) AND GROUNDING TYPES AND SHALL BE PROTECTED BY A GROUND FAULT CIRCUIT INTERRUPTER (GFCI). ALL OTHER RECEPTACLES SHALL BE AT LEAST 10 FEET FROM THE INSIDE WALL OF THE POOL OR HOT TUB.
- AN ADDITIONAL 125-VOLT GFCI CONVENIENCE RECEPTACLE IS REQUIRED TO BE INSTALLED WITHIN 20 FEET BUT NOT CLOSER THAN 10 FEET TO THE INSIDE WALL OF A POOL OR HOT TUB. CORD LENGTHS FOR PERMANENT POOLS SHALL NOT BE LONGER THAN 3 FEET IN LENGTH.
- A DISCONNECTING MEANS SHALL BE PROVIDED AND BE ACCESSIBLE (LOCATED WITHIN SIGHT FROM ALL POOLS AND HOT TUB EQUIPMENT) AND SHALL NOT BE LOCATED WITHIN 5 FEET FROM THE INSIDE WALL OF THE POOL OR HOT TUB.
- ELECTRICAL INSTALLATIONS OVER THE TOP OF A POOL OR HOT TUB OR OVER THE AREA EXTENDING 5 FEET FROM THE EDGE OF THE POOL OR HOT TUB INCLUDING UTILITIES SHALL BE REVIEWED WITH AN ELECTRICAL INSPECTOR PRIOR TO ISSUANCE OF THE PERMIT. ELECTRICAL INSTALLATIONS (INCLUDING UNDERGROUND) ARE NOT ALLOWED WITHIN 5 FEET OF A POOL.

BONDING

- BONDING OF THE POOL SHALL COMPLY WITH SECTION 680.6, 680.7 AND 680.26 OF VEC, 2020.
- ALL METAL PARTS OF A POOL AND ITS ASSOCIATED METALLIC EQUIPMENT, METAL PIPING, RACEWAYS, FIXED METAL LADDERS, TOWERS, PLATFORMS, DIVING STRUCTURES, DOOR FRAMES, ETC. THAT ARE NOT SEPARATED FROM THE POOL BY A PERMANENT BARRIER AND LOCATED WITHIN 5 FEET OF THE POOL, MUST BE BONDED WITH A #6 SOLID COPPER CONDUCTOR. THIS CONDUCTOR IS NOT REQUIRED TO BE EXTENDED OR ATTACHED TO ANY REMOTE PANEL BOARD, SERVICE EQUIPMENT OR ELECTRODE (GROUND ROD) IT IS ONLY INTENDED TO BOND THESE METALLIC PIECES TOGETHER.

POOL OUTLETS

- POOL OUTLETS OPENINGS MUST BE COVERED BY GRATING THAT CAN ONLY BE REMOVED WITH THE USE OF A TOOL COMPLYING WITH ANSI/NSPS-7-2006 STANDARD FOR SUCTION ENTRAPMENT AVOIDANCE AND THE VIRGINIA GRAEME BAKER POOL AND SPA SAFETY ACT (VGB ACT) AND CURRENT CONSUMER PRODUCT SAFETY COMMISSION (CPSC) INTERPRETATIONS.
- MAIN DRAIN DISCHARGE PIPING SHALL BE SUFFICIENT FOR REMOVAL OF THE WATER THROUGH IT AT A RATE OF 100% OF THE SWIMMING POOL DESIGN RECIRCULATION FLOW RATE.
- PROVIDE VALVES IN THE PIPING SYSTEM TO PERMIT FLOW ADJUSTMENT.
- PROVIDE ADJUSTABLE DIRECTION SKIMMERS.
- PROVIDE A MINIMUM OF 1 SKIMMER FOR EVERY 500 SQUARE FEET OF POOL SURFACE AREA.
- THE VELOCITY OF FLOW THROUGH SKIMMERS SHALL BE IN THE RANGE OF 10-15 FEET/SECOND.
- VACUUM OUTLETS, IF PROVIDED, MUST BE LOCATED AT MAXIMUM 8 INCHES BELOW THE DESIGNED WATER LEVEL. VACUUM LINES MUST BE PROVIDED WITH A SELF-CLOSING, SELF-LATCHING PROTECTIVE COVER TO BE OPENED WITH A TOOL.

POOL INLETS

- PROVIDE ADJUSTABLE FLOW INLETS.
- THE VELOCITY OF FLOW THROUGH ANY INLET ORIFICE SHALL BE IN THE RANGE OF 5-15 FEET/SECOND.
- INLETS MUST BE SUBMERGED AND LOCATED TO PRODUCE UNIFORM WATER AND CHEMICAL CIRCULATION THROUGHOUT THE POOL.
- PROVIDE A MINIMUM OF 1 INLET FOR EVERY 300 SQUARE FEET OF POOL SURFACE AREA.

PUMPING EQUIPMENT

- PUMPS SHALL BE CAPABLE OF SUPPLYING A MINIMUM BACKWASH RATE OF 15 GALLONS PER SQUARE FOOT OF FILTER AREA PER MINUTE.
- THE RECIRCULATING PUMP AND MOTOR SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE THE TURNOVER REQUIRED AGAINST THE MAXIMUM HEAD LOSS WHICH MAY DEVELOP UNDER NORMAL OPERATING CONDITIONS.
- PROVIDE A SELF-PRIMING PUMP WHERE THE PUMP IS LOCATED AT AN ELEVATION HIGHER THAN THE POOL WATER LINE.
- PROVIDE A STRAINER BASKET AT THE PUMP TO FILTER HAIR AND LARGE PARTICLES.

FILTERS

- PROVIDE REMOVABLE FILTER HEADS FOR INSPECTION AND REPLACEMENT OF FILTER MEDIA.
- THE MAXIMUM SHUT-OFF HEAD OF THE PUMP SHALL NOT BE LESS THAN 50 POUNDS PER SQUARE INCH.
- MARK VALVES FOR EASY IDENTIFICATION.
- VALVE FILTER PIPING TO ALLOW FOR REPAIRS WHILE OTHER UNITS ARE IN SERVICE.
- PROVIDE SAND FILTER SYSTEM. USE OF ZEOSAND GLASS MEDIA IS PREFERRED.

PIPING SYSTEM

- ALL POOL PIPING SHALL BE OF MATERIAL APPROVED FOR POTABLE WATER USE BY THE AMERICAN WATER WORKS ASSOCIATION.
- BRANCH WATER UTILITY SERVICE LINES 2" AND SMALLER SHALL CONFORM TO THE LATEST FEDERAL SPECIFICATIONS FOR TYPE "K" FLEXIBLE COPPER TUBING.
- POOL SERVICE LINES LARGER THAN 2" SHALL BE SCHEDULE 80 PVC, 2" OR SMALLER SCHEDULE 40 PVC.
- ALL WATER INSTALLATIONS INCLUDING BACKFLOW DEVICES ARE SUBJECT TO FIELD VERIFICATION AND APPROVAL BY THE WATER DEPARTMENT OR BUILDING INSPECTOR.
- PIPING SHALL HAVE THE ABILITY TO WITHSTAND FOUR TIMES THE OPERATING PRESSURE.
- PIPING SHALL BE PROPERLY SLOPED FOR ADEQUATE DRAINAGE AND SUPPORTED AN INTERVALS TO PREVENT SAGGING BETWEEN SUPPORTS.
- PROVIDE FOR EXPANSION OF PIPES.
- PROVIDE FOR CLEANOUTS IN THE CIRCULATION SYSTEM.
- ALL PLASTIC (PVC) PIPING MUST HAVE THE NATIONAL SANITATION FOUNDATION (NSF) SEAL IMPRINTED ON IT.
- USE FLANGE JOINTS OR UNION FOR EXPOSED PIPING IN THE FILTER ROOM.

11. COLOR CODE PIPING AS FOLLOWS:

- POTABLE WATER LINES: DARK BLUE
- RECIRCULATION: DARK GREEN
- FILTERED: AQUA
- SKIMMER: OLIVE GREEN
- MAIN DRAIN: BLACK
- WASTE LINES: DARK BROWN
- BACKWASH WASTE: DARK BROWN
- SEWER: DARK GRAY

- MAKEUP WATER SHALL BE ADDED TO THE POOL BY FREE-FALL DISCHARGE DIRECT TO THE POOL WITH AN AIR CAP OF TWO TIMES THE PIPE DIAMETER OR 6 INCHES MINIMUM ABOVE THE COPING. THE DISCHARGE SHALL BE THROUGH PIPING WITH AN APPROVED VACUUM BREAKER PROTECTION.

DISINFECTANT SYSTEMS

- PROVIDE A MECHANICAL UNIT FOR FEED OF A CHEMICAL FOR PH CONTROL.
- PROVIDE A POSITIVE DISPLACEMENT TYPE CHEMICAL FEEDER TO MAINTAIN PH OF POOL WATER WITHIN THE RANGE OF 7.2 TO 7.6.

CONDUIT

FOR FLEXIBLE CONNECTIONS TO SWIMMING POOL, SPA, AND HOT TUB MOTORS PER 2020 VEC 680.21 (A)(3) & 680.42 (A)(1).

TITAN TYPE CB IS MANUFACTURED WITH A SPIRAL-WOUND STRIP OF HEAVY GAUGE, CORROSION RESISTANT, HOT-DIPPED GALVANIZED STEEL. FOR 3/8" THROUGH 1-1/4" TRADE SIZES, THE CORE IS CONSTRUCTED WITH A SQUARE-LOCKED STEEL STRIP WITH AN INTEGRAL COPPER-BONDING STRIP ENCLOSED WITHIN THE STEEL CONVOLUTIONS. FOR 1-1/2" THROUGH 4" TRADE SIZES, THE CORE IS CONSTRUCTED WITH A FULLY-INTERLOCKED STEEL STRIP. A RUGGED, FLAME-RETARDANT, FLEXIBLE PVC JACKET IS EXTRUDED OVER THE STEEL CORE. THE BLUE JACKET RESISTS OILS, MILD ACIDS, AND EXPOSURE TO SUNLIGHT. OTHER JACKET COLORS ARE AVAILABLE.

- BLUE COLOR, A PROTECTIVE THERMOPLASTIC OUTER JACKET WHICH SELLS OUT WATER, LIQUIDS, ABRASIVES, ALCOHOL, COOLANTS, CORROSIVE FUMES AND GASES, DIRT, GREASE, MINERAL ACIDS, NON-CONCENTRATED FIXED ALKALINES, PETROLEUM OILS, SALT AIR AND SPRAY, AND WEATHER.
- SMOOTH METAL INTERIOR FOR EASY WIRE PULLING
- UV SUNLIGHT-RESISTANT JACKET
- RATED FOR TEMPERATURE RANGE OF -30°C TO +80°C, 60°C OIL (-22°F TO +176°F, 140°F OIL)
- ACCEPTS STANDARD METALLIC LIQUID TIGHT FITTINGS
- RATED FOR DIRECT BURIAL APPLICATIONS

STANDARDS

- NEC TYPE DESIGNATION - TYPE LFMC (LIQUID TIGHT FLEXIBLE METAL CONDUIT)
- ANSI/NFPA-70, NEC ARTICLE 350
- UL LISTED TO UNDERWRITERS LABORATORIES STANDARD ANS/UL-360 FOR LIQUID TIGHT FLEXIBLE STEEL CONDUIT

PLUMBING / POOL EQUIPMENT (NSF APPROVED)

NOTE: ALL EQUIPMENT WILL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.

INLETS: STA-RITE - 08417-0000

SKIMMERS: STA-RITE - 08650-1403

CHLORINATOR: PUMP FEED CHLORINE SYSTEM

POOL FILTER (SAND): PENTAIR TRITON TR140C

MUTI-PORT VALVE: PENTAIR - 261049

VALVES: (TELEDYNE LAARS - JANDY VALVE - 2 1/2 X 2")

FLOW METER: FLOWVIS, FV-3, 70-240 GPM RANGE

POOL PUMP: PENTAIR WHISPERFLO XF (5HP) VARIABLE SPEED PUMP

CHEMICAL CONTROLLER: PROMINENT, DCM 3 SERIES CONTROLLER

MAIN DRAIN POOL: LAWSON MLD-SG-1212, VGB COMPLIANT

RATINGS PER MANUFACTURER: FLOOR: 365 GPM / WALL: 340 GPM / OPEN AREA: 81.30 SQ-IN

HYDROSTATIC RELIEF VALVE: PENTAIR - 542020

POOL LIGHTS: 120 VOLT, 150FT CORD (PENTAIR - INTELLIBRITE ARCHITECTURAL SERIES POOL &

SPA LIGHTING (COLOR: WHITE)

POOL HEATER: PENTAIR ETI 400 HEATER

HANDRAILS: PARAGON AQUATICS CUSTOM HANDRAIL

316L STAINLESS STEEL / 1 9/16" O.D. TUBING

ESCAPEHEON PLATES: PARAGON AQUATICS - 2830Z / STAINLESS STEEL

ANCHOR SOCKETS: PARAGON AQUATICS - 2810Z / STAINLESS STEEL

LADDER: NOT USED

CUP ANCHORS: KIEFER - 58316 / 4" STAINLESS STEEL CUP ANCHOR

RACING LANE MARKER LINES: COMPETITOR - 200333 / 4" LANES / COLOR BY OWNER

BACKWASH TO: SUMP CONNECTED TO SEWER SYSTEM

FRESHWATER SOURCE: IN-LINE FILT RPF BACKFLOW PREVENTER

POOL AUTOFILL: MP INDUSTRIES MP-1953J AUTO-LEV AUTOMATIC WATER LEVELER

POOL SAFETY* & MAINTENANCE EQUIPMENT:

FIRST AID KIT: (1) SWIFT FIRST AID - 16-UNIT FIRST AID KIT

RING BODY: (1) LINCOLN EQUIPMENT - 44-085 / 24" DIAMETER WITH THROW LINE

LIFE HOOK: (1) PENTAIR R221026, INCLUDE 12 ONE-PIECE ALUMINUM POLE

ADULT SPINE BOARD PACKAGE: (1) WATER SAFETY PRODUCTS - CJ6

CHEMICAL TEST KIT: (1) TAYLOR - K2006-C

VACUUM POLE: (1) PENTAIR R191090

SKIMMER/LEAF RAKE: (1) PENTAIR R121230

WALL BRUSH: (1) PENTAIR R111646

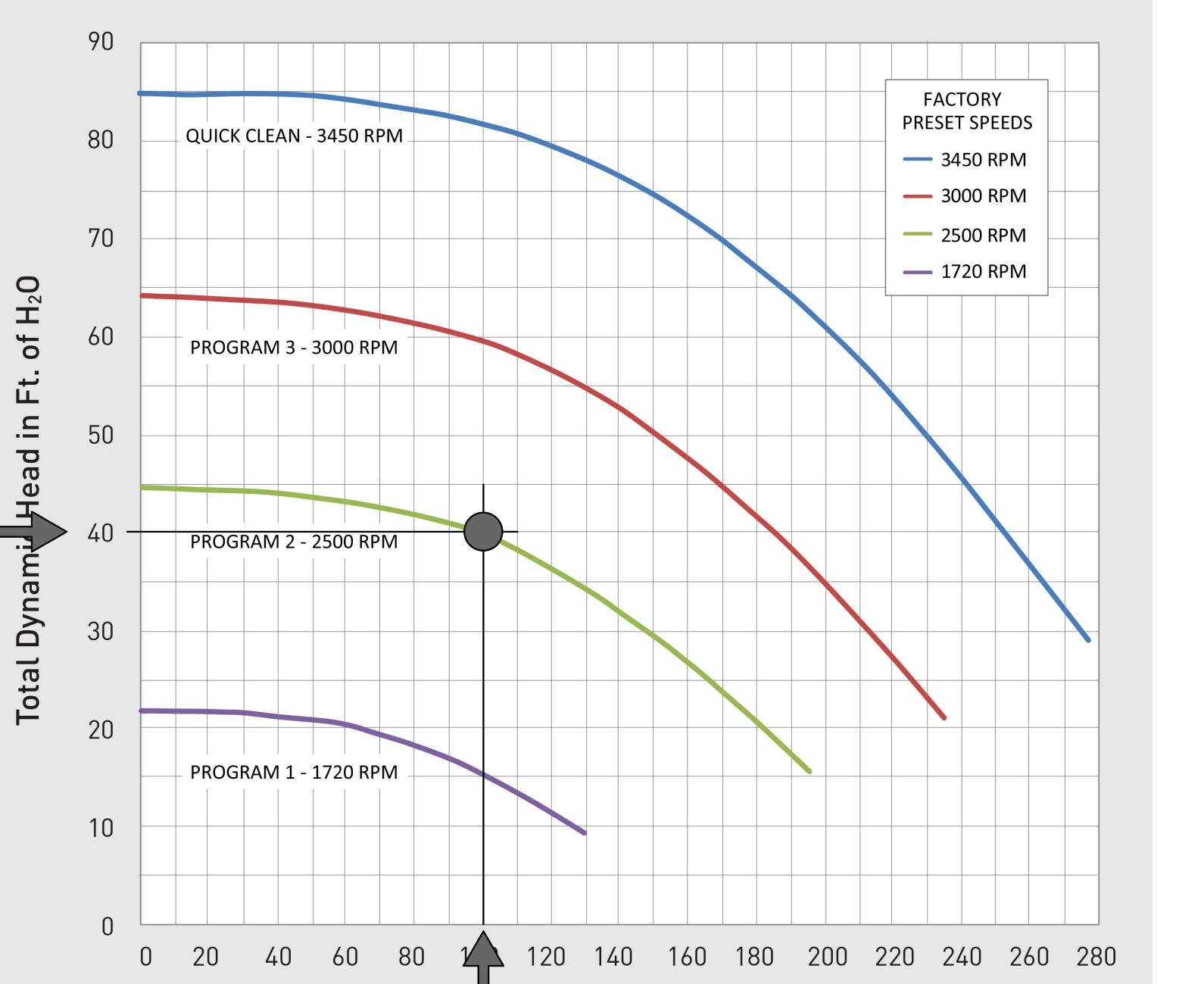
VACUUM HEAD: (1) PENTAIR R201286

VACUUM HOSE: (1) LINCOLN AQUATICS - 29-120 / 2" DIAMETER HOSE, 50'-0" LENGTH

*CONTRACTOR TO VERIFY CITY & STATE'S SAFETY EQUIPMENT REQUIREMENTS

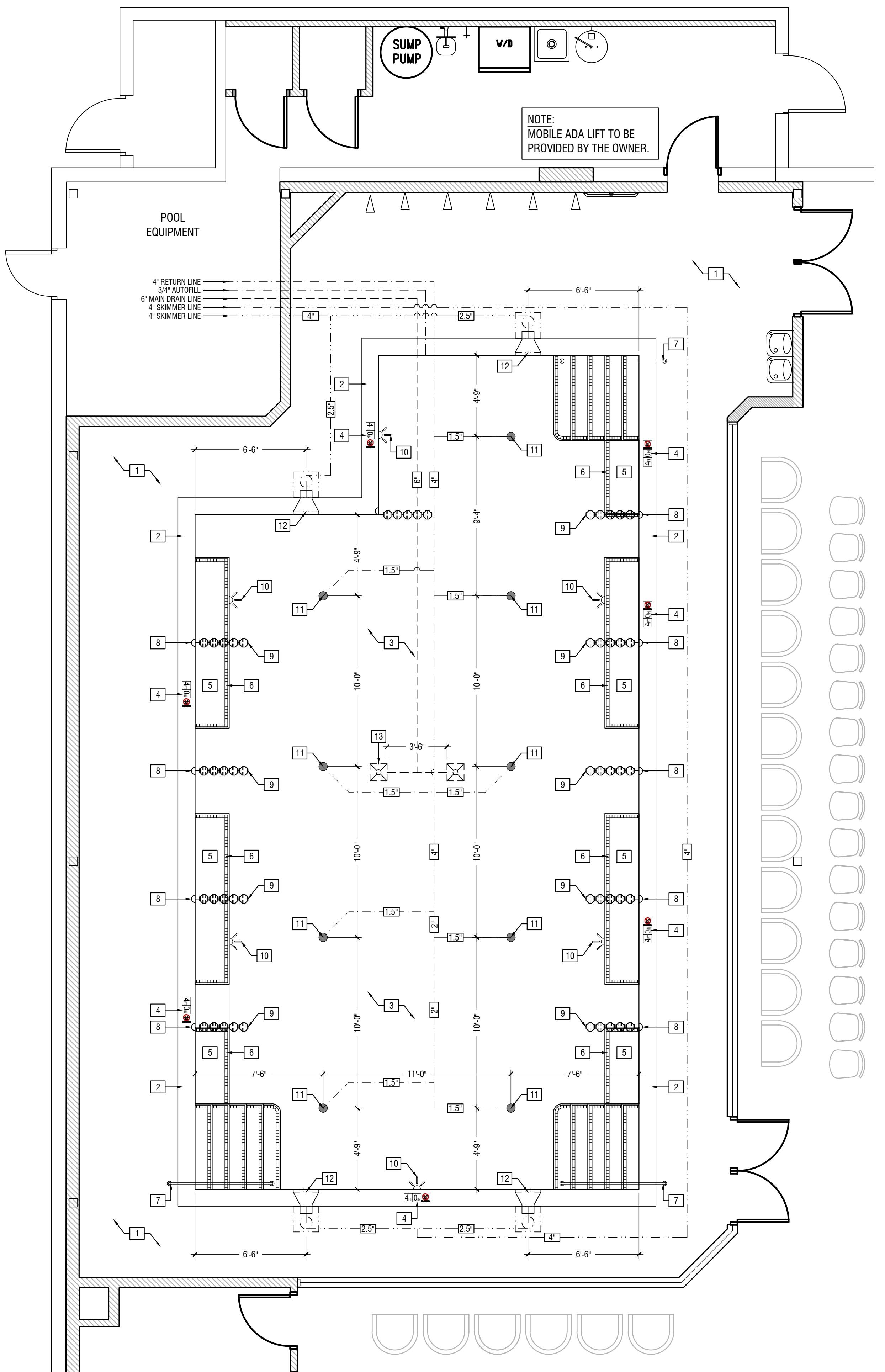
POOL PLUMBING		
Pool Capacity (GAL)		35,070
3-hr Turnover Rate (min)		180
Design Flow Rate (GPM)		195
RETURN INLETS	Inlet Rate (gpm)	No. Inlets
	22	9
SKIMMERS	Area per Skimmer (SF)	No. Skimmers
	350	4
Flow Rate per Skimmer (GPM)		49
MAIN DRAINS	Maximum Flow Rate (GPM)	No. Drains
Lawson Aquatics - 12" x 12"	365	2
Open Area (SQ.IN.)	81.30	

POOL EQUIPMENT		
POOL FILTRATION PUMP	Filtration Rate (GPM)	No. Pumps
Pentair Whisperflo XF VS (5HP)	100	2
Estimated Dynamic Head (FT)	80	
FILTER TYPE	Filtration Rate (GPM/SF)	No. Filters
Sand Filter	13.81	
Pentair Triton TR140C	7.06	SF of Area
	20	GPM/SF
	141.20	Capacity
CHEMICAL CONTROLLER		Qty
IPS M820		1
CHLORINE FEEDER	Capacity (GPD)	Qty
Stenner 45M5	50	1
ACID FEEDER	Capacity (GPD)	Qty
Stenner 45M2	10	1

PERFORMANCE CURVES - WHISPERFLOXF VS COMMERCIAL PUMP

POOL PLAN NOTES

- [1] DECK BY OTHERS. SLOPE AWAY FROM POOL
- [2] 13" X 24" PRECAST CONCRETE COPING. AQE BY FEDERAL STONE / COLOR: WHITE
- [3] PLASTER FINISH. PEBBLE-TEC, PEBBLESHEEN - COOL BLUE
- [4] DEPTH MARKER (NUMBERS 4 INCHES HIGH). SET INTO POOL COPING
- [5] POOL BENCH
- [6] 2" X 2" SLIP-RESISTANT CONTRASTING TILE ON FRONT AND EDGES AT STEPS AND UNDERWATER BENCHES. DAL TILE / COLOR: COBALT BLUE
- [7] STAINLESS STEEL HANDRAIL WITH HEAVY DUTY BRONZE RAIL ANCHOR SOCKET INCLUDING A BONDING LUG.
- [8] STAINLESS STEEL CUP ANCHORS. INSTALL IN CENTER OF TILE.
- [9] RACING LANE MARKER LINE
- [10] L.E.D. UNDERWATER LIGHT
- [11] FLOOR RETURN
- [12] SKIMMER
- [13] ANTI-VORTEX DUAL MAIN DRAIN. VGB COMPLIANT



1 DETAILED POOL PLAN
1 SCALE: 1/4" = 1'-0"

GENERAL NOTE

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NOTES

- RECIRCULATION POOL PUMP MUST PROVIDE A TURNOVER RATE OF WATER IN FOUR (4) HOURS OR LESS
- THE POOL CONTRACTOR WILL FURNISH A MSDS SHEET UPON FINAL INSPECTION.
- RETURN LINES AND SUPPLY LINES TO THE POOL SHALL BE SCHEDULE 80.
- POOL PUMP EQUIPMENT SHALL BE BONDED PER VIRGINIA ELECTRICAL CODE 2020 680.26(6).

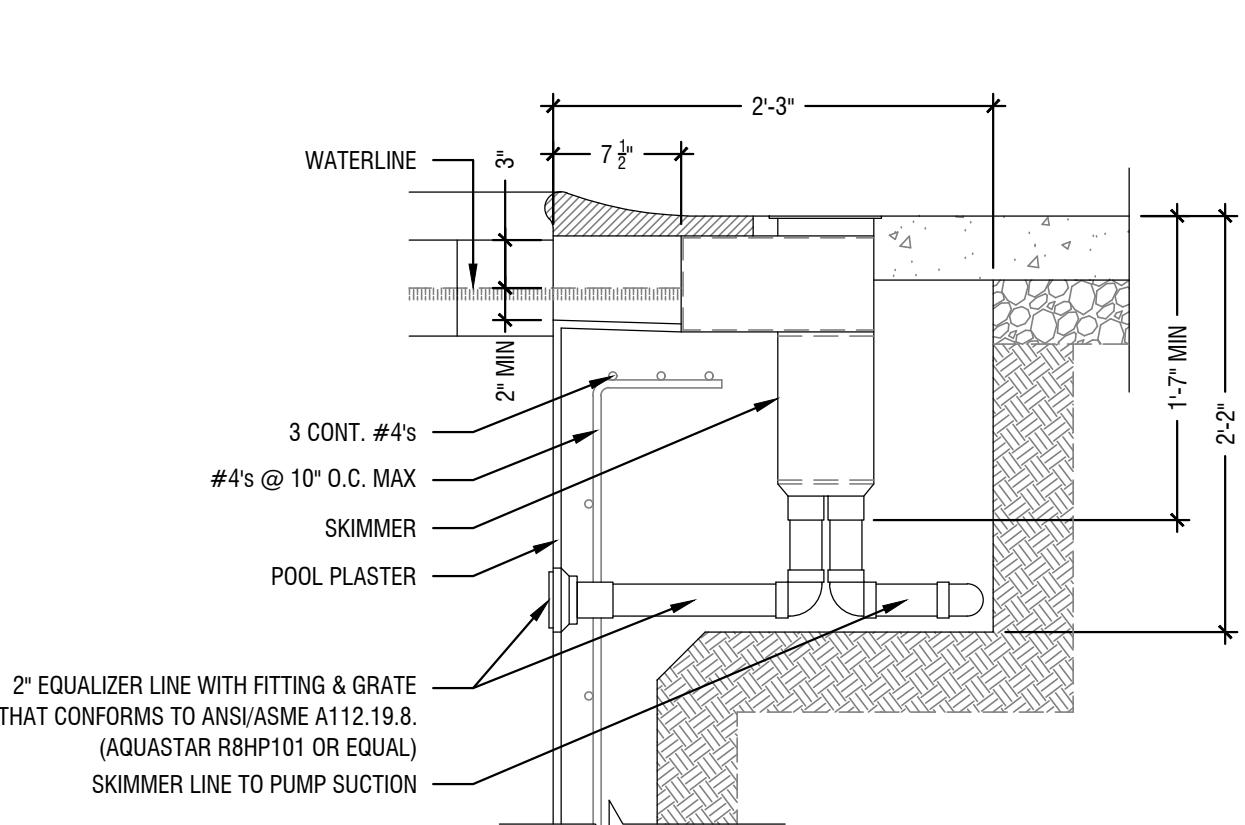
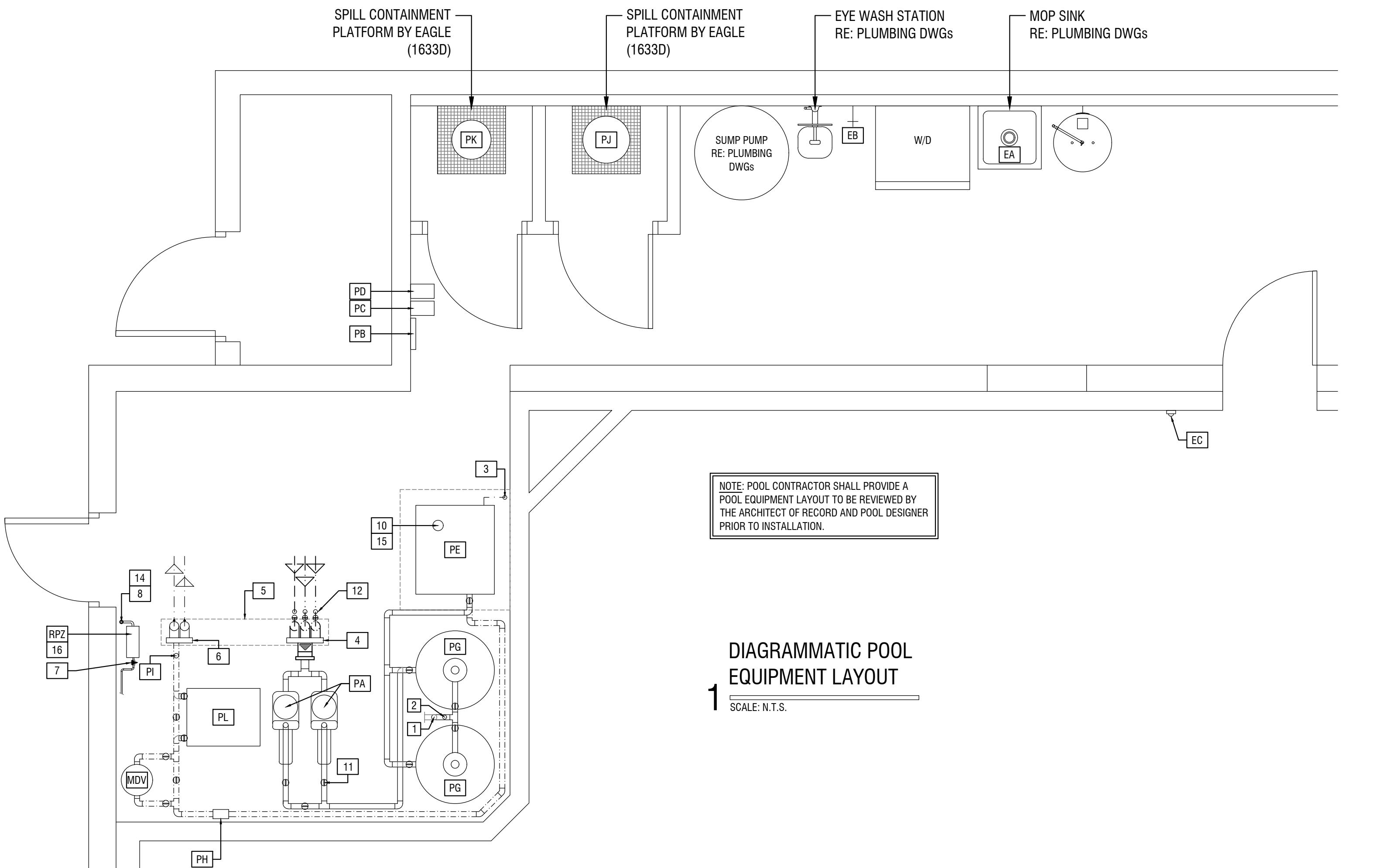
POOL EQUIPMENT ROOM NOTES

- 3" BACKWASH LINE TO SEWER SYSTEM.
RE: BUILDING PLUMBING PLANS FOR CONNECTIONS
- CHECK VALVE FOR WASTE LINE FROM FILTERS
- NATURAL GAS CONNECTION
- SUPPLY MANIFOLD
- BLOCK OUT IN CONCRETE FOR POOL LINES, COORDINATE WITH POOL CONTRACTOR
- RETURN MANIFOLD
- WATER SERVICE LINE
- 3/4" COLD WATER SHUT OFF VALVE
- NOT USED
- PROVIDE VENTILATION DIRECT TO EXTERIOR AND COMBUSTION AIR
RE: MECHANICAL DRAWINGS
- VALVE, TYP.
- VAC ALERT VA-2000
SVRS @ EACH SUCTION LINE
- VERTICAL RISERS (NOT USED)
- RE: PLUMBING DRAWINGS FOR DOMESTIC WATER CONNECTIONS AND WASTE LINES FOR POOL EQUIPMENT.
- THE MECHANICAL CONTRACTOR WILL BE RESPONSIBLE FOR THE INSTALLATION OF THE VENT AND COMBUSTION AIR PIPING FOR THE POOL HEATER. THE INSTALLATION OF THE VENT AND COMBUSTION AIR PIPING SHALL BE PER THE REQUIREMENTS OF THE HEATER MANUFACTURER SO AS TO NOT VOID THE WARRANTY OF THE POOL HEATER. THE VENT TERMINATION MUST BE A MINIMUM OF 4' HORIZONTALLY FROM THE DOOR OR A MINIMUM OF 12" ABOVE THE DOOR. MECHANICAL CONTRACTOR WILL ALSO BE RESPONSIBLE FOR INSTALLATION OF A CARBON MONOXIDE (CO) DETECTOR PER THE REQUIREMENTS OF THE POOL HEATER MANUFACTURER AND APPLICABLE CODES.
- PROVIDE A FLOOR DRAIN AT THE BACKFLOW PREVENTER.

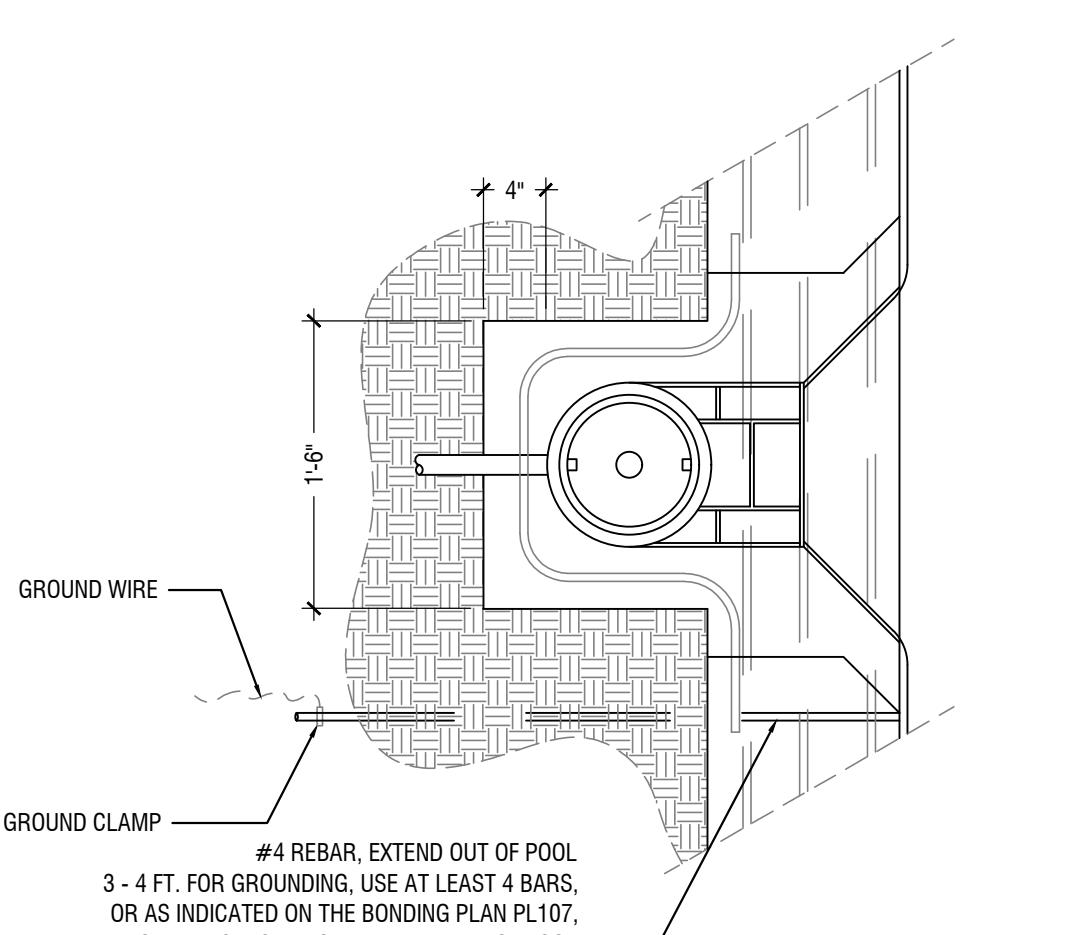
POOL CONTRACTOR SHALL VERIFY THAT ALL PIPING, VALVES, GAUGES, FILTER, CHEMICAL EQUIPMENT, PUMPS, MOTORS AND CONTROLS ARE ACCESSIBLE FOR HEALTH DEPARTMENT INSPECTION AND HAVE THE CLEARANCES RECOMMENDED BY PRODUCTS' MANUFACTURERS.

WATER BODY	LOCATION	TAG QTY	FUNCTION	DESCRIPTION
POOL	EQUIPMENT ROOM	PA 2	RECIRCULATING PUMP	PENTAIR WHISPERLO XE (5HP) VARIABLE SPEED PUMP
		PB 1	CHEMICAL CONTROLLER	PROMINENT DCM 3 SERIES CONTROLLER
		PC 1	CHLORINE FEEDER	STENNER 45-M5 (CAPACITY 50 GAL/DAY)
		PD 1	ACID FEEDER	STENNER 45-M2 (CAPACITY 10 GAL/DAY)
		PE 1	HEATER	PENTAIR ET400 HEATER
			CO DETECTOR	US DRAFT CO. CGM-505 CO MONITOR
		PG 2	FILTER (SAND)	PENTAIR TRITON TR140C (7.06 FILTER AREA, 20 GPM CAPACITY EA). USE OF ZEOSAND GLASS MEDIA IS PREFERRED.
		PH 1	FLOW METER	FLOWVIS, FV-3, 70-240 GPM RANGE
		PI 1	TEMPERATURE	2" FACE THERMOMETER 32°F - 248°F FAHRENHEIT
		PJ 1	CHLORINE CHEMICAL	CHEM-TAINER TC1651C / 45 GAL CAPACITY
		PK 1	ACID CHEMICAL	AMERICAN TANK CHEM TANK 15 GAL CARBOY
		PL 1	OZONE + UV-C SYSTEM*	DELAOP-PRO - 200 GPM (AOP-PRO-200D-02), INCLUDE MDV-XL
		MDV 1	MDV-XL	
		EA	FLOOR SINK	RE: PLUMBING DRAWINGS
		EB	HOSE BIBB	RE: PLUMBING DRAWINGS
		EC 1	ELECTRIC DISCONNECT	ELECTRICAL DISCONNECT FOR PUMPS
		RPZ 1	BACKFLOW PREVENTER	REDUCED PRESSURE BACKFLOW PREVENTER

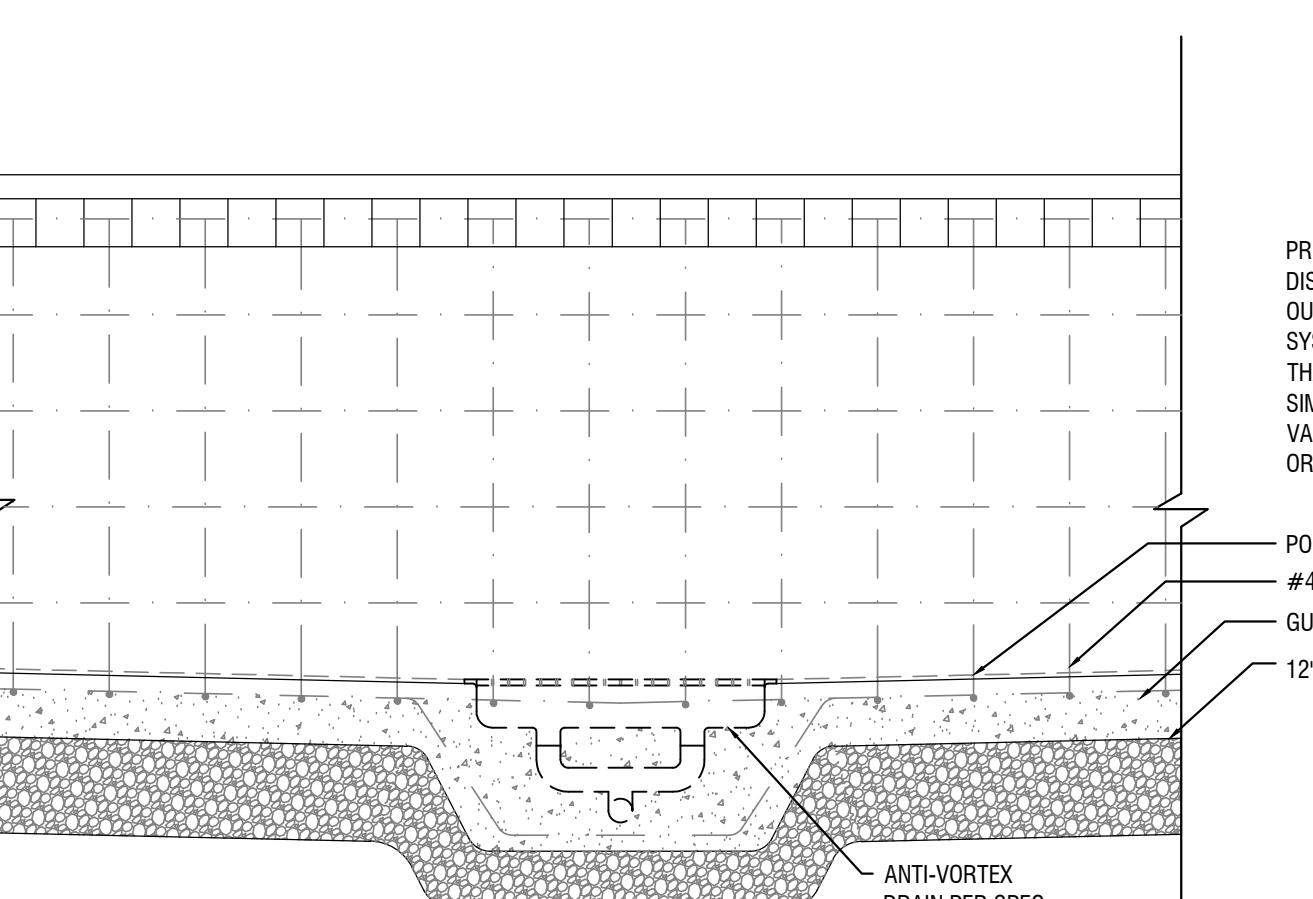
* UV DISINFECTION SYSTEM CHLORKING SAG-480PVC IS ACCEPTABLE ALTERNATE



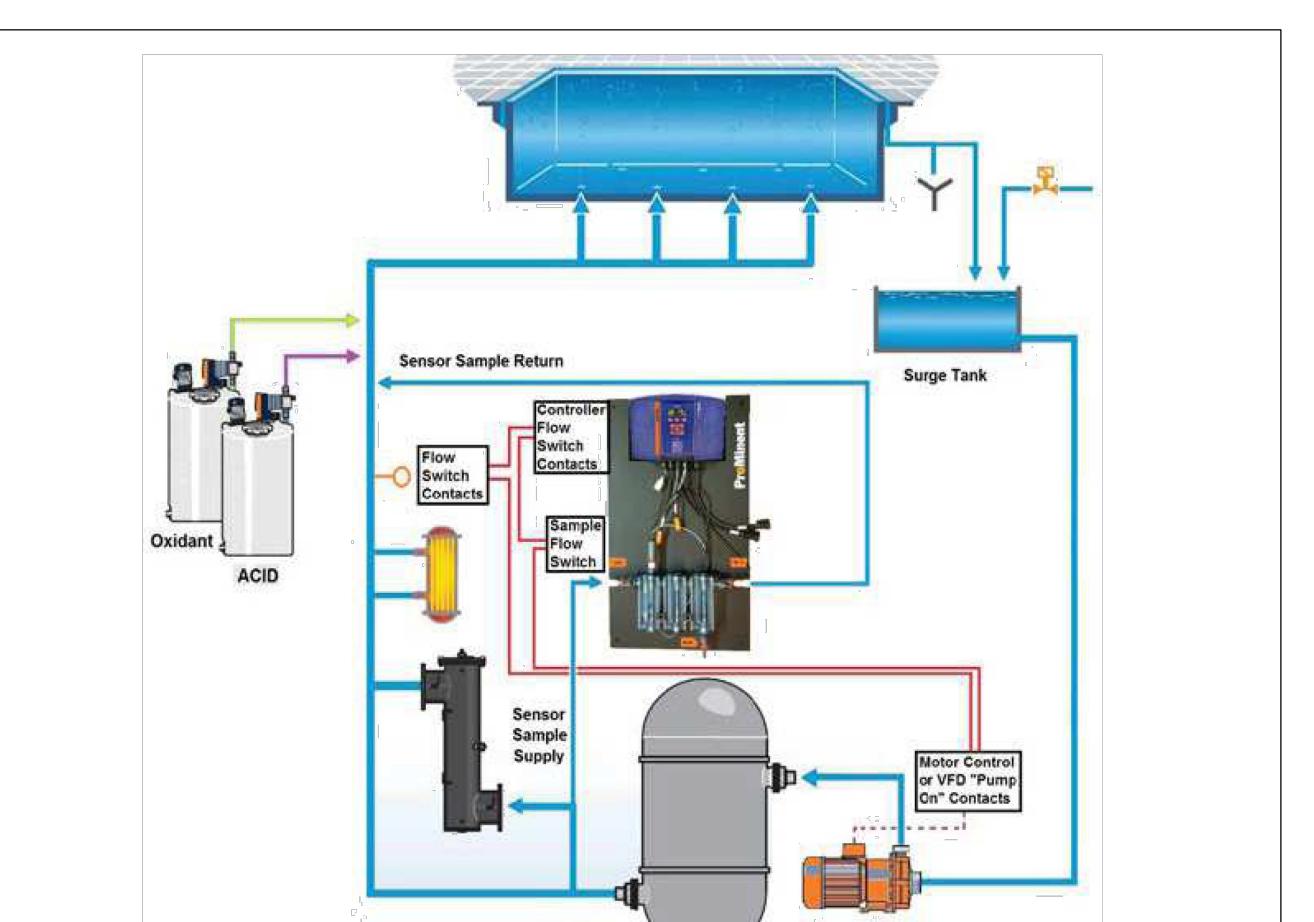
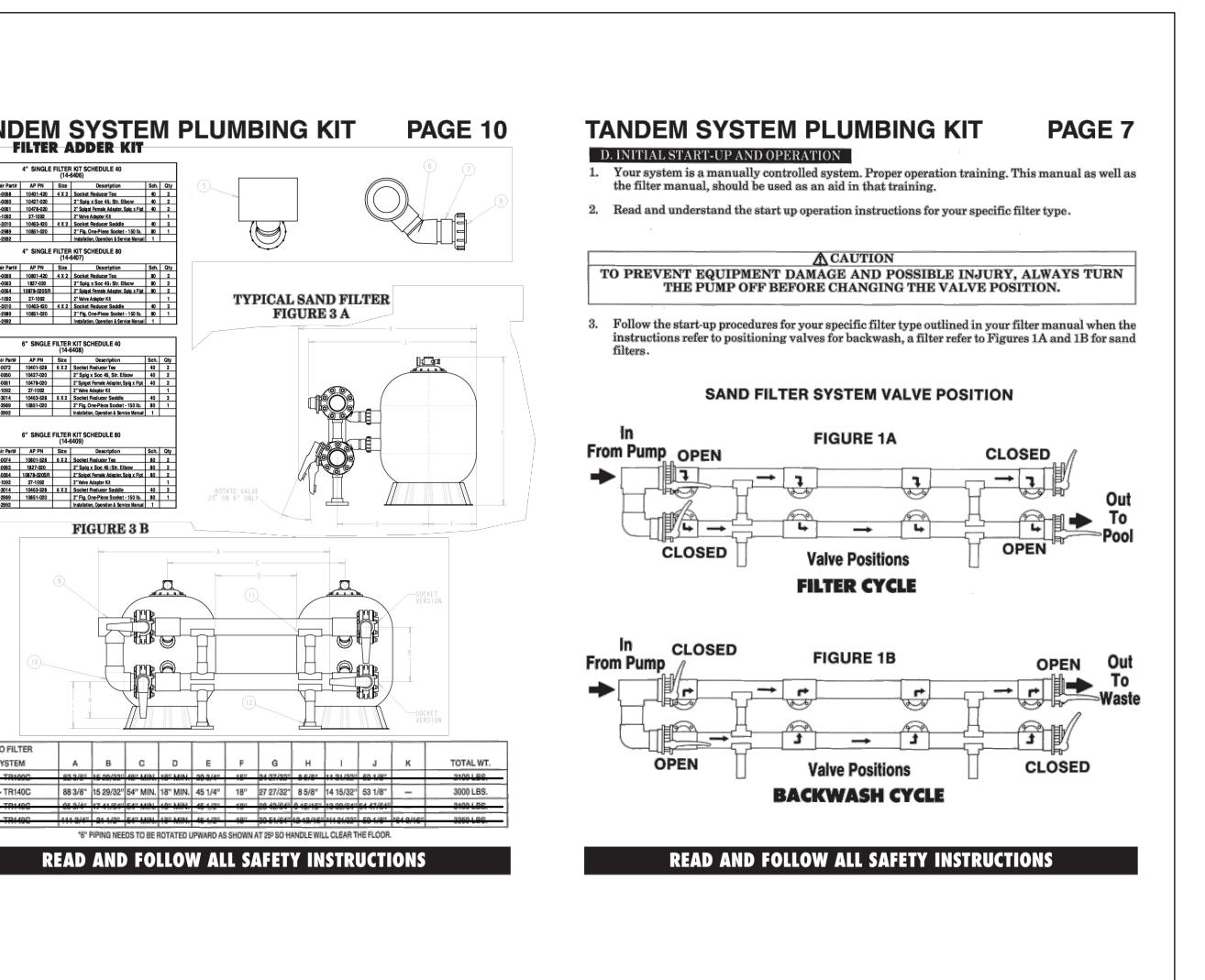
3 SKIMMER DETAIL
1" = 1'-0"



4 SKIMMER PLAN
NOT TO SCALE



5 SECTION AT DRAIN
SCALE: 1/2" = 1'-0"



RED MILL COMMONS
SHOPPING CENTER
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DATE:

ELECTRICAL AND
PLUMBING DETAILS

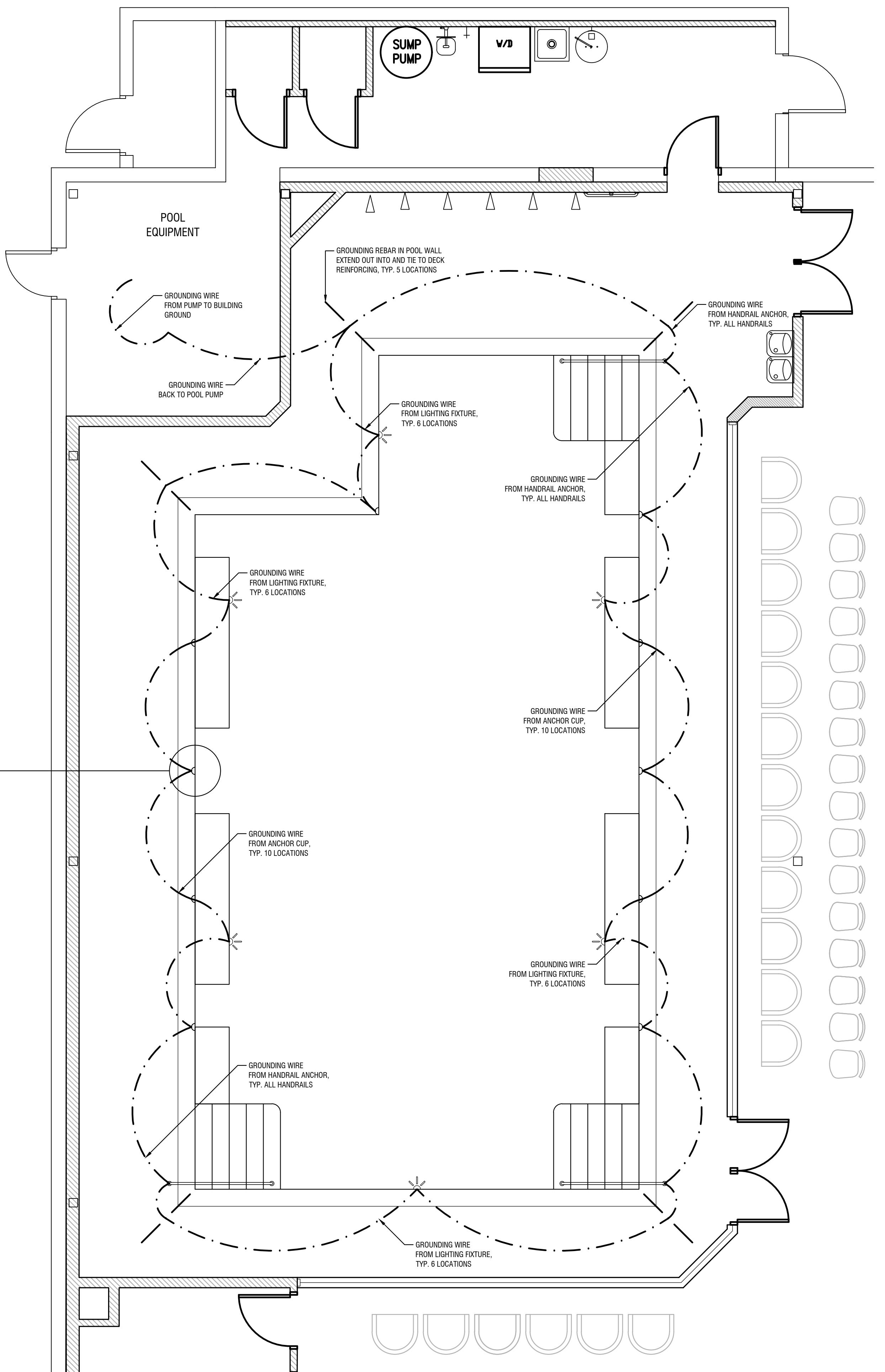
PL106

BONDING METHODS

TWO OPTIONS ARE PROVIDED BELOW FOR EQUIPOTENTIAL BONDING. USE OPTION ONE WHEN STEEL REBAR IS USED THAT IS NON-CONDUCTIVE. USE OPTION TWO WHEN EPOXY-COATED-REBAR IS USED.

1. INSTALL REBAR IN A GRID PATTERN, AS SHOWN, AT EACH POINT WHERE THE REBAR CROSSES, THE REBAR SHALL BE TIED TOGETHER BY STEEL TIE WIRE. THIS STEEL REBAR CAGE PROVIDES AN EQUIPOTENTIAL BONDING GRID TO WHICH ALL METAL PARTS IN THE POOL AND ANY METAL PARTS IN THE AREA SURROUNDING THE POOL SHALL BE ATTACHED USING A SOLID COPPER CONDUCTOR, NOT SMALLER THAN 8 AWG (AMERICAN GAGE WIRE).

2. THIS ALTERNATIVE-BONDING GRID SHALL BE CONSTRUCTED OF MINIMUM 8 AWG BARE SOLID-COPPER CONDUCTORS ARRANGED IN A 12 X 12 INCH NETWORK OF CONDUCTORS WITH A TOLERANCE OF FOUR INCHES AND SHALL BE INSTALLED IN A UNIFORMLY SPACED PERPENDICULAR GRID PATTERN, AND SHALL COVER THE CONTOUR OF THE INSIDE OF THE POOL AND EXTEND HORIZONTALLY INTO THE POOL DECKING BY A MINIMUM OF THREE FEET. THESE CONDUCTORS MUST BOND TO EACH OTHER AT ALL POINTS OF CROSSING AND CONNECTIONS MUST BE MADE IN ACCORDANCE WITH THE REQUIREMENTS IN SECTION 680.26, SUCH AS EXOTHERMIC WELDING, LISTED PRESSURE CONNECTORS, LISTED CLAMPS OR OTHER LISTED MEANS. THE FINAL REQUIREMENT IS TO SECURE THE BELOW-GRADE BONDING GRID WITHIN OR UNDER THE POOL AND DECK.



2 CUP ANCHOR BONDING DETAIL
SCALE: N.T.S.

1 POOL BONDING DIAGRAM
SCALE: 1/4" = 1'-0"

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POOL BONDING DIAGRAM
PL107