

# CAMDEN COUNTY COLLEGE SMOKE TOWER STRUCTURE CAMDEN COUNTY FIRE ACADEMY AT THE REGIONAL EMERGENCY TRAINING CENTER

420 NORTH WOODBURY-TURNERSVILLE ROAD  
BLACKWOOD, NEW JERSEY 08012

**BA** BACH Associates, PC  
ENGINEERS • ARCHITECTS • PLANNERS

304 White Horse Pike  
Haddon Heights, New Jersey 08035  
Tel 856-546-8611  
Fax 856-546-8612  
www.BachDesignGroup.com

## APPLICABLE BUILDING CODES & GUIDELINES

2021 INTERNATIONAL BUILDING CODE — NEW JERSEY EDITION  
2021 INTERNATIONAL MECHANICAL CODE  
2021 INTERNATIONAL FUEL GAS CODE  
2020 NATIONAL ELECTRIC CODE  
2021 NATIONAL STANDARD PLUMBING CODE — NEW JERSEY EDITION  
2017 ICC/ANSI A117.1  
USE GROUP: U (UTILITY AND MISCELLANEOUS)

**NOTE TO ALL BIDDERS:**  
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SEALS:



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NJ PROFESSIONAL ENGINEER No. 246E04150700  
NJ PROFESSIONAL PLANNER No. 33J00555700  
NJ REGISTERED ARCHITECT No. 21A01487200

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

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REVISIONS		
NO.	DESCRIPTION	DATE

DRAWING TITLE:  
**COVER SHEET  
AND INDEX  
OF DRAWINGS**

JOB NO: C022023-01	DESIGNED BY: DM3
DATE: MAY 30, 2024	DRAWN BY: DM3
SCALE: AS NOTED	CHECKED BY: SMB

DRAWING NUMBER:

C-1



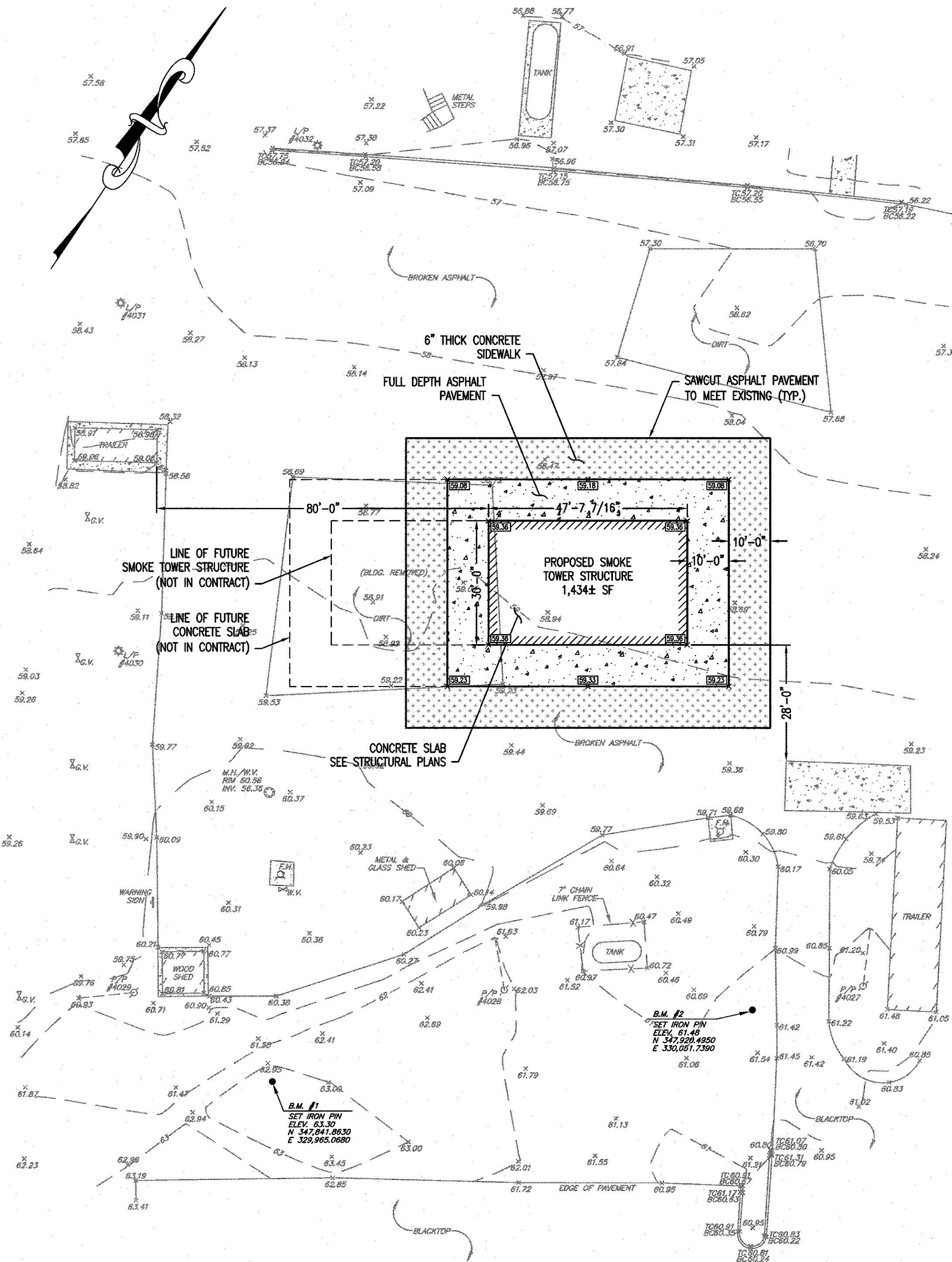


## PROJECT LOCATION

SCALE: 1: 100'

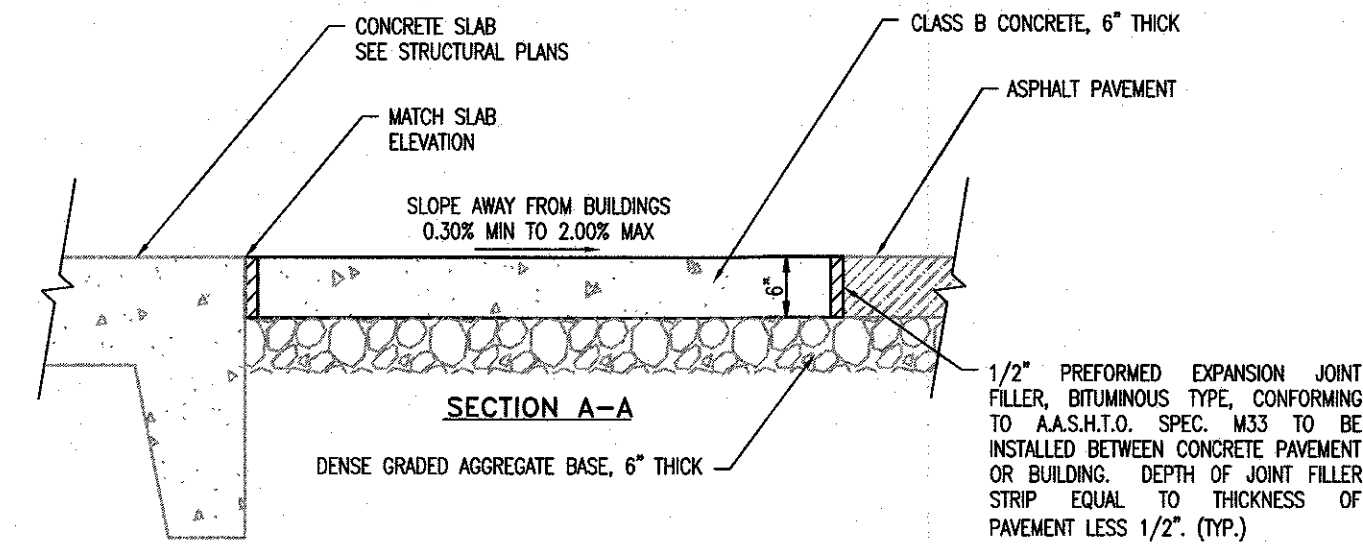
### GENERAL REQUIREMENTS

- EXISTING CONDITIONS BASED UPON A FIELD SURVEY OF THE PROJECT SITE BY BACH ASSOCIATES, PC COMPLETED ON OR AROUND 02/24/24 UNDER THE SUPERVISION OF ANTHONY DIROSA, N.J.P.L.S. LICENSE NO. 42570.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND VERIFYING EXISTING CONDITIONS, CAREFULLY STUDYING AND COMPARING THE CONTRACT DOCUMENTS PRIOR TO THE START OF CONSTRUCTION. ANY ERROR, INCONSISTENCY OR OMISSION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
- LOCATION OF EXISTING UTILITIES ARE APPROXIMATE AND MUST BE VERIFIED IN THE FIELD PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES OPERATING WITHIN THE CONSTRUCTION AREA, AND AT HIS OWN EXPENSE, VERIFY THE LOCATION, SIZE, AND ELEVATIONS OF ANY UTILITIES PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY UNDERGROUND LOCATION SERVICES AT 1-800-272-1000 AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF EXCAVATION WORK. ADDITIONALLY, SEE THE FOLLOWING NOTE FOR MARKOUTS ON PRIVATE PROPERTY, A.K.A. THE PROJECT SITE.
- THE CONTRACTOR SHALL PROVIDE MARKOUTS OF ALL EXISTING UNDERGROUND UTILITIES AT THE PROJECT SITE PRIOR TO THE START OF EXCAVATION. IT SHOULD BE NOTED THE UTILITIES ARE ON PRIVATE PROPERTY AND WILL NOT BE LOCATED BY NJ ONE CALL. THE COST FOR THE MARKOUTS SHALL NOT BE MEASURED FOR PAYMENT BUT SHALL BE INCLUDED IN THE LUMP SUM COST OF THE PROPOSAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF UNDERGROUND AND SURFACE UTILITIES AND STRUCTURES AT OR ADJACENT TO THE SITE OF CONSTRUCTION AND IT SHALL BE AT HIS OWN EXPENSE TO REPAIR OR REPLACE ANYTHING THAT HE DAMAGES.
- CONTRACTOR SHALL COORDINATE ALL UTILITY RELOCATIONS AND INSTALLATIONS AS REQUIRED WITH THE APPLICABLE UTILITY COMPANIES. THE COST OF THIS COORDINATION SHALL BE INCLUDED IN THE LUMP SUM COST OF THE PROPOSAL.
- THE COST FOR THE CONTRACTOR TO CONSULT THE UTILITY COMPANIES AND CAREFULLY FIELD VERIFY THE LOCATION AND DEPTH OF THE UTILITIES SHALL BE INCLUDED IN THE LUMP SUM COST OF THE PROPOSAL.
- DETAILS AND SECTIONS ON THE DRAWINGS ARE SHOWN AT SPECIFIC LOCATIONS AND ARE INTENDED TO SHOW GENERAL REQUIREMENTS THROUGHOUT. DETAILS NOTED "TYPICAL" IMPLY ALL CONDITIONS TREATED SIMILARLY. MODIFICATIONS TO BE MADE BY CONTRACTOR TO ACCOMMODATE SITE VARIATIONS.
- ALL CONSTRUCTION MATERIALS, RESTORATION AND METHODS OF INSTALLATION SHALL CONFORM TO THE 2019 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OR THE CONTRACT SPECIFICATIONS, WHICHEVER REQUIREMENTS ARE THE MOST STRINGENT.
- ALL CONSTRUCTION DETAILS NOT SHOWN SHALL BE IN ACCORDANCE WITH N.J.D.O.T. STANDARDS AS DETAILED IN "STANDARD ROADWAY CONSTRUCTION CONTROL/BRIDGE CONSTRUCTION DETAILS" AND "ELECTRICAL BUREAU STANDARD DETAILS" AS APPLICABLE, INCLUDING ALL APPLICABLE BASELINE DOCUMENT CHANGES AND APPENDICES. THESE DETAILS MAY BE PURCHASED THROUGH THE N.J.D.O.T. PLANS AND SPECIFICATION DISTRIBUTION CENTER AT 1035 PARKWAY AVENUE, TRENTON, NJ 08625, (1-609-530-2098).
- THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE SAFETY AND CONSTRUCTION PROCEDURES, TECHNIQUES, OR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS, OR THE REQUIRED CODES. THE CONTRACTOR SHALL PROTECT THE PUBLIC FROM WORK AREA DURING CONSTRUCTION AND NON-CONSTRUCTION HOURS.
- INSPECTION OF OR FAILURE TO INSPECT ANY MATERIALS OR WORKMANSHIP BY THE OWNER SHALL IN NO WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES TO PERFORM THE WORK IN ACCORDANCE WITH APPLICABLE PLANS, SPECIFICATIONS, AND LAWS.
- ROADWAYS AND PARKING AREAS SHALL BE SWEEPED CLEAN AT THE END OF EACH WORKING DAY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING STONE, PAVING, CURB, SIDEWALK, TOPSOILING, SODDING, FERTILIZING AND SEEDING AT ALL AREAS DISTURBED BY THE CONSTRUCTION ACTIVITIES, TO A CONDITION AT LEAST EQUAL TO THAT WHICH EXISTED PRIOR TO THE START OF CONSTRUCTION.
- SEPARATE PAYMENT WILL NOT BE MADE FOR CONSTRUCTION LAYOUT, DUST CONTROL AND REMOVAL & DISPOSAL OF EXCESS OR UNWANTED MATERIAL OR DEBRIS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE LUMP SUM COST OF THE PROPOSAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL EXCESS MILLING AND EXCAVATED MATERIAL FROM THE PROJECT SITE. THE COST OF THIS WORK SHALL BE INCLUDED IN THE LUMP SUM COST OF THE PROPOSAL.
- PAYMENT WILL NOT BE MADE FOR ANY OBSTRUCTION REMOVAL, SUCH AS CONCRETE CURB, TREES, TREE ROOTS, VEGETATION, GRASS, TIMBER, DEBRIS, BRUSH, ROCK, ETC. WHICH MAY INTERFERE WITH THE PROPOSED CONSTRUCTION. THE COST OF THIS WORK SHALL BE INCLUDED IN THE LUMP SUM COST OF THE PROPOSAL.
- SEPARATE PAYMENT WILL NOT BE MADE FOR SAWCUTTING OF ANY NATURE. THE COST OF THIS WORK SHALL BE INCLUDED IN THE LUMP SUM COST OF THE PROPOSAL.
- THE CONTRACTOR SHALL INSTALL AND MAINTAIN SOIL EROSION & SEDIMENT CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT. THE COST OF THIS WORK SHALL BE INCLUDED IN THE LUMP SUM COST OF THE PROPOSAL.
- PRIOR TO CONSTRUCTION OF ANY SUBBASE, BASE OR PAVEMENT COURSE, ALL SOFT OR YIELDING PORTIONS OF THE SUBGRADE WHICH DO NOT ATTAIN THE REQUIRED STABILITY WILL BE REMOVED AND REPLACED WITH BORROW EXCAVATION, SELECTED MATERIAL, DESIGNATION I-13.
- THE CONTRACTOR SHALL USE EXCAVATED MATERIALS FOR BACKFILL UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- ALL FILL SHALL BE PLACED IN 8" LAYERS AND THOROUGHLY COMPACTED TO THE SATISFACTION OF THE ENGINEER. IF BORROW FILL IS REQUIRED, IT SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
- ANY UNSUITABLE MATERIAL ON THE SITE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT APPROPRIATE PLACES AT NO COST TO THE OWNER.
- ALL GRATING, LIDS, VALVE BOXES, WELL CAPS, SERVICE CAPS, ETC., SHALL BE RAISED BY CONTRACTORS SO THAT AFFECTED ITEMS ARE FLUSH W/ FINAL PAVING.
- ALL VALVE, VENT, ROOF DRAINS OR CURB STOP BOXES DAMAGED BY CONTRACTOR SHALL BE REPAIRED OR REPLACED IN-KIND AS DIRECTED BY THE ENGINEER.
- CONTRACTOR SHALL REMOVE AND/OR RESET ANY EXISTING FEATURES AS REQUIRED FOR THE CONSTRUCTION OF THE IMPROVEMENTS SHOWN ON THESE PLANS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE LUMP SUM COST OF THE PROPOSAL.
- ALL PROPOSED CONCRETE DRIVEWAY, SIDEWALK, AND CURB SHALL BE POURED SEPARATELY WITH THE APPROPRIATE EXPANSION JOINT MATERIAL AND NOT MONOLITHICALLY. PAYMENT FOR JOINT MATERIAL FOR ALL PROPOSED CURB, DRIVEWAY, AND SIDEWALK WILL NOT BE MADE BUT THE COST SHALL BE INCLUDED IN THE LUMP SUM COST OF THE PROPOSAL.
- CONSTRUCTION ACTIVITIES WHICH CREATE OBNOXIOUS AND UNNECESSARY DUST, FUMES, ODORS, SMOKE, VIBRATION OR GLARE NOTICEABLE IN OCCUPIED BUILDINGS ON SITE AND ADJOINING PROPERTIES AND STREETS SHALL NOT BE PERMITTED. IN ADDITION, CONSTRUCTION ACTIVITIES WHICH RESULT IN DAMAGE TO TREES AND LANDSCAPING IN OCCUPIED BUILDING ON SITE OR ADJOINING PROPERTIES SHALL NOT BE PERMITTED.



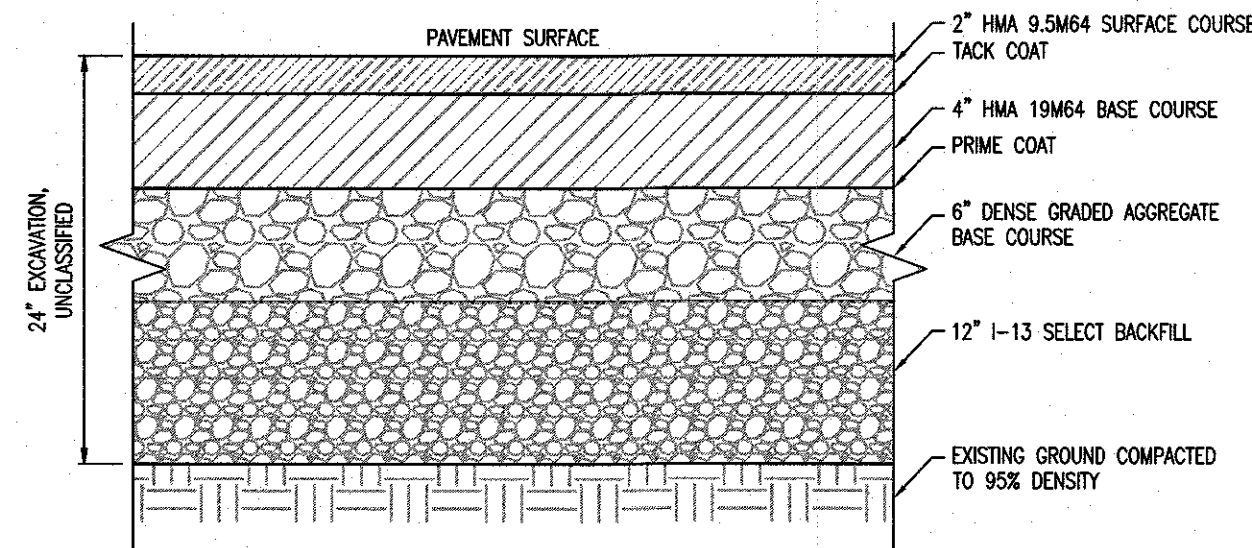
## 1 SITE PLAN

SCALE: 1: 20'



## CONCRETE SIDEWALK AT BUILDING DETAIL

SCALE: NTS



## HOT MIX ASPHALT PAVEMENT DETAIL

SCALE: NTS

NOTE:  
CONTRACTOR REQUIRED TO EXCAVATE TO A DEPTH OF 24" (MINIMUM) AT ALL PROPOSED SITE IMPROVEMENT LOCATIONS. EXCAVATION SHALL NOT BE MEASURED FOR PAYMENT, BUT ALL COSTS ASSOCIATED WITH AND INCIDENTAL TO THE COMPLETION THEREOF SHALL BE INCLUDED UNDER THE LUMP SUM COST OF THE PROPOSAL.

NOTE:  
ALL COSTS ASSOCIATED WITH AND INCIDENTAL TO THE COMPLETION OF SITE IMPROVEMENTS SHALL BE INCLUDED UNDER THE LUMP SUM COST OF THE PROPOSAL.

SITE IMPROVEMENTS SHALL GENERALLY CONSIST OF THE QUANTITIES AND CONTINGENCIES DESCRIBED IN THE "ESTIMATE OF QUANTITIES" TABLE, AND ALL LABOR AND MATERIALS INCIDENTAL TO AND REQUIRED FOR THE COMPLETION THEREOF.

SEE GEOTECHNICAL ENGINEERING REPORT DATED 02/23/24 PREPARED BY DIGNEO ENGINEERING INCLUDED IN THE PROJECT SPECIFICATIONS.

### ESTIMATE OF QUANTITIES

#	DESCRIPTION	UNITS	PLAN QUANTITY	IF & WHERE DIRECTED	CONTRACT QUANTITY
1	CLEARING SITE	LS	1	0	1
2	DEWATERING	LS	1	0	1
3	EXCAVATION, UNCLASSIFIED	CY	508	32	540
4	SOIL AGGREGATE, I-13	CY	254	16	270
5	DENSE GRADED AGGREGATE BASE COURSE, 6" THICK	SY	307	23	330
6	HOT MIX ASPHALT 19M64 BASE COURSE, 4" THICK	SY	307	23	330
7	HOT MIX ASPHALT 19M64 SURFACE COURSE, 2" THICK	SY	307	23	330
8	TACK COAT (IF & WHERE DIRECTED)	GAL	0	70	70
9	PRIME COAT (IF & WHERE DIRECTED)	GAL	0	150	150
10	CONCRETE SIDEWALK, 6" THICK	SY	218	12	230

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NJ PROFESSIONAL PLANNER No. 33J00555700  
NJ REGISTERED ARCHITECT No. 21A01487200

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### REVISIONS

NO.	DESCRIPTION	DATE

DRAWING TITLE:

## SITE PLAN, DETAILS AND QUANTITIES

JOB NO:

0002023-01

DESIGNED BY:

DMS

DATE:

MAY 30, 2024

DRAWN BY:

DMS

SCALE:

AS NOTED

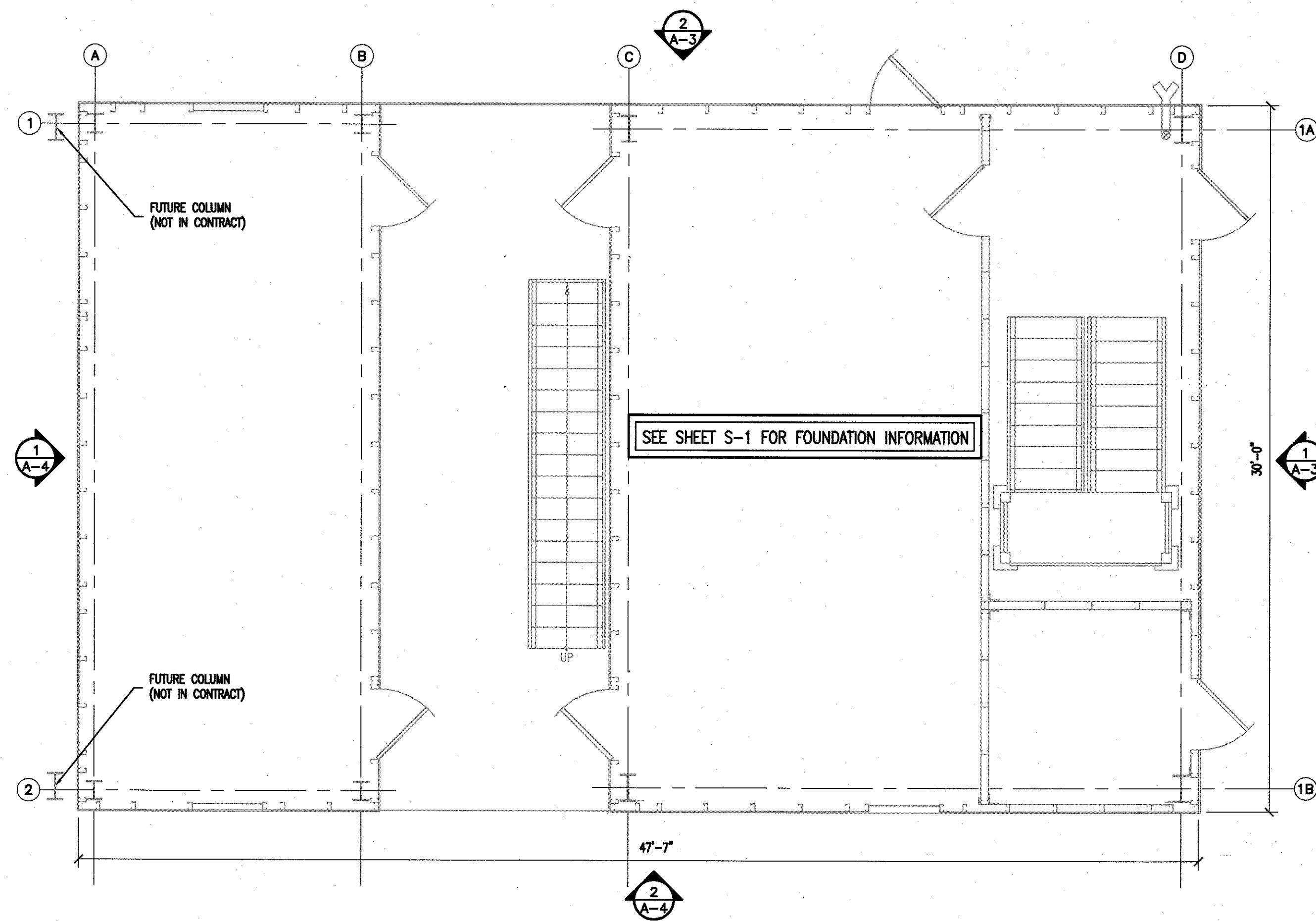
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SMB

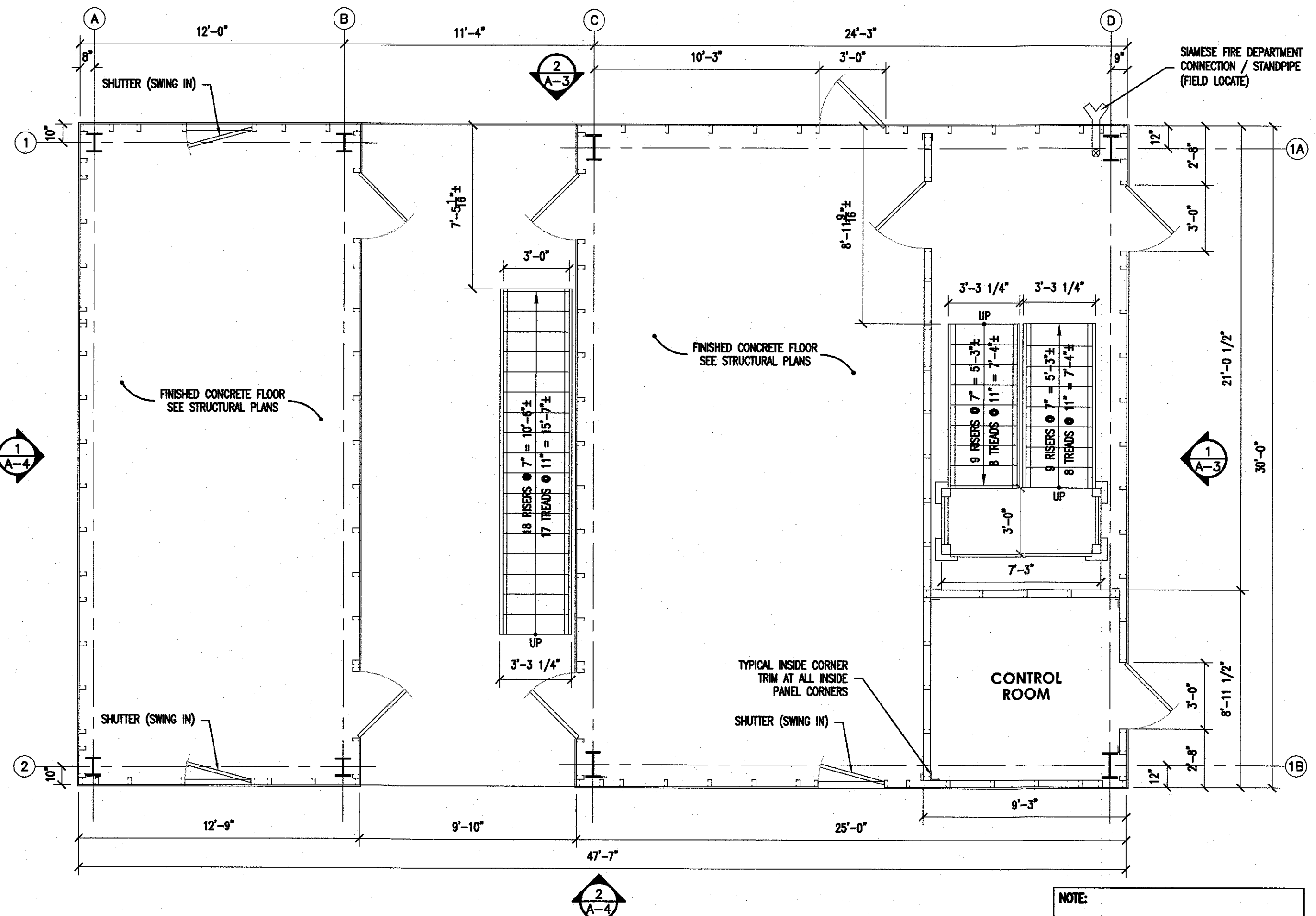
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SP-1

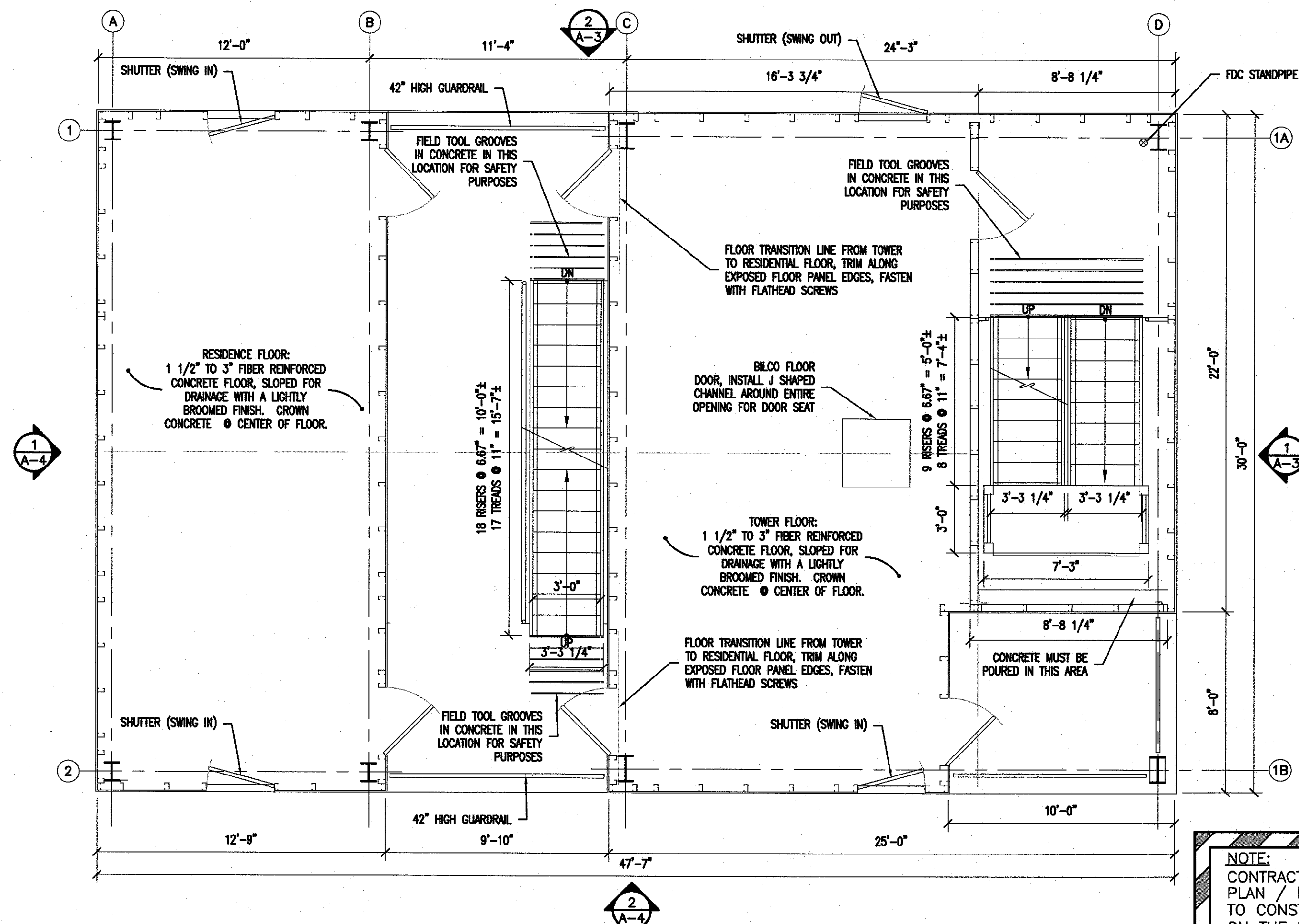




**1 FOUNDATION PLAN**  
SCALE: 1/4" = 1'-0"

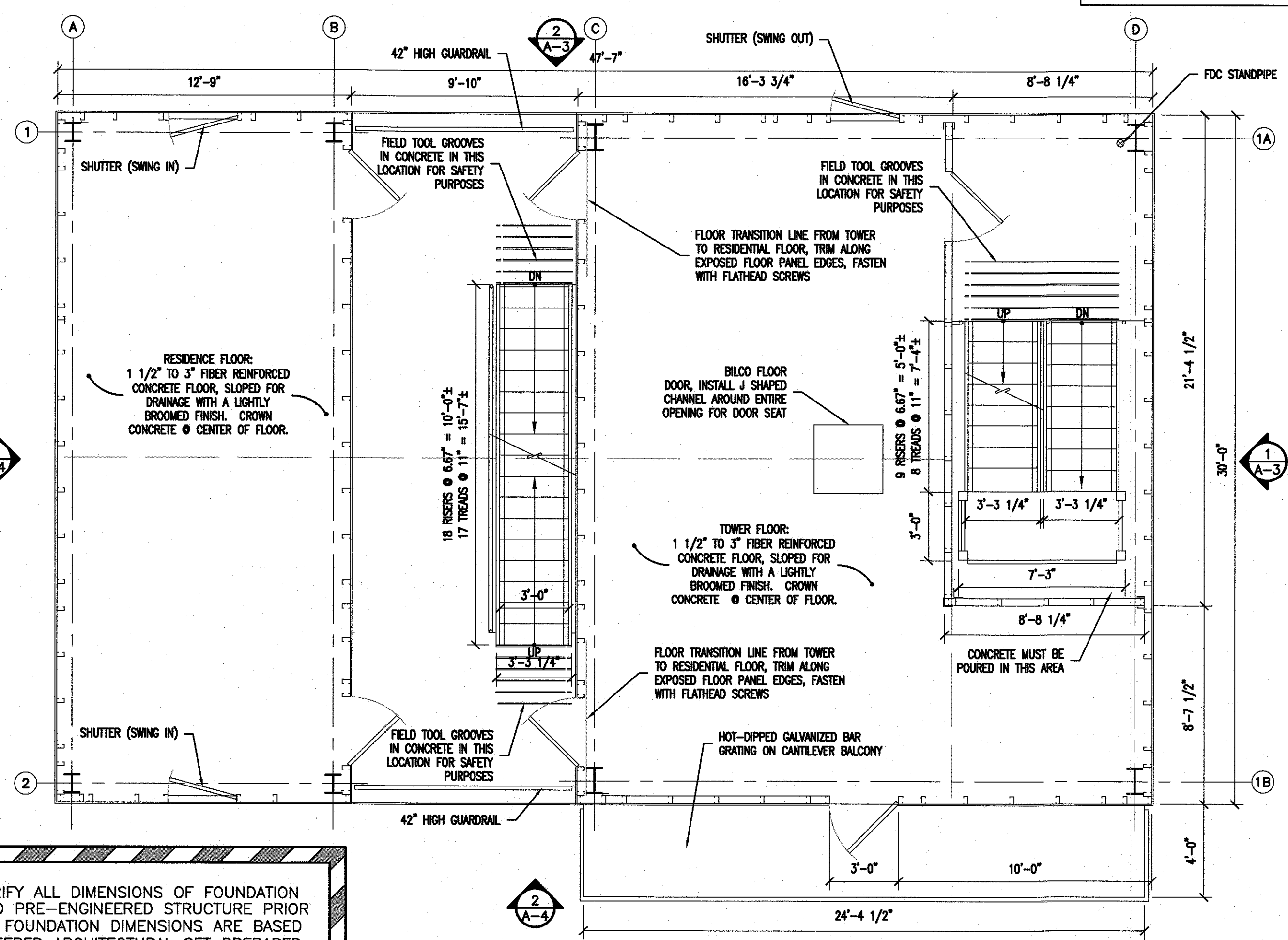


**2 FIRST FLOOR PLAN**  
SCALE: 1/4" = 1'-0"



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

**NOTE:**  
CONTRACTOR TO VERIFY ALL DIMENSIONS OF FOUNDATION PLAN / DETAILS AND PRE-ENGINEERED STRUCTURE PRIOR TO CONSTRUCTION. FOUNDATION DIMENSIONS ARE BASED ON THE PRE-ENGINEERED ARCHITECTURAL SET PREPARED BY FIRE FACILITIES, INC.



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

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REVISIONS		
NO.	DESCRIPTION	DATE

DRAWING TITLE:  
**FLOOR PLANS**

JOB NO: CCC2023-01	DESIGNED BY: DMS
DATE: MAY 30, 2024	DRAWN BY: DMS
SCALE: AS NOTED	CHECKED BY: SMB
DRAWING NUMBER:	

**A-1**



420 NORTH WOODBURY-TURNERSVILLE ROAD  
BLACKWOOD, NEW JERSEY 08012



**A-2**



NOTE:

BURN TRAINING STRUCTURE, TACTICAL TRAINING  
SYSTEMS, A DIVISION OF FIRE FACILITIES, INC.,  
314 WILBURN ROAD, SUN PRAIRIE, WI 53590  
608-327-4100, WESCO MODEL WT-4, DATED  
APRIL 1, 2024 OR APPROVED EQUAL.



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NJ PROFESSIONAL PLANNER No. 33UD0055700  
NJ REGISTERED ARCHITECT No. 21A01487200

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REVISIONS

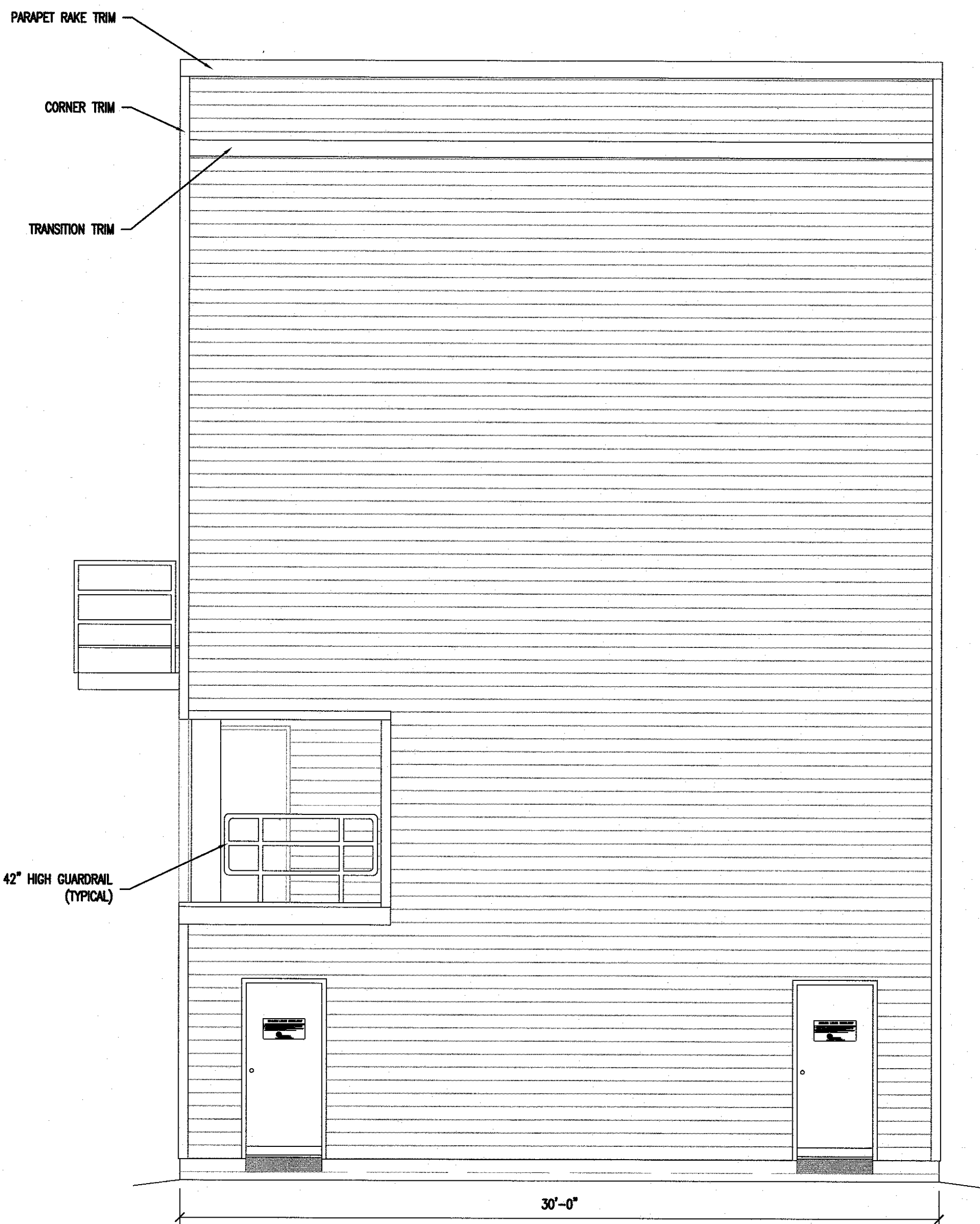
NO.	DESCRIPTION	DATE

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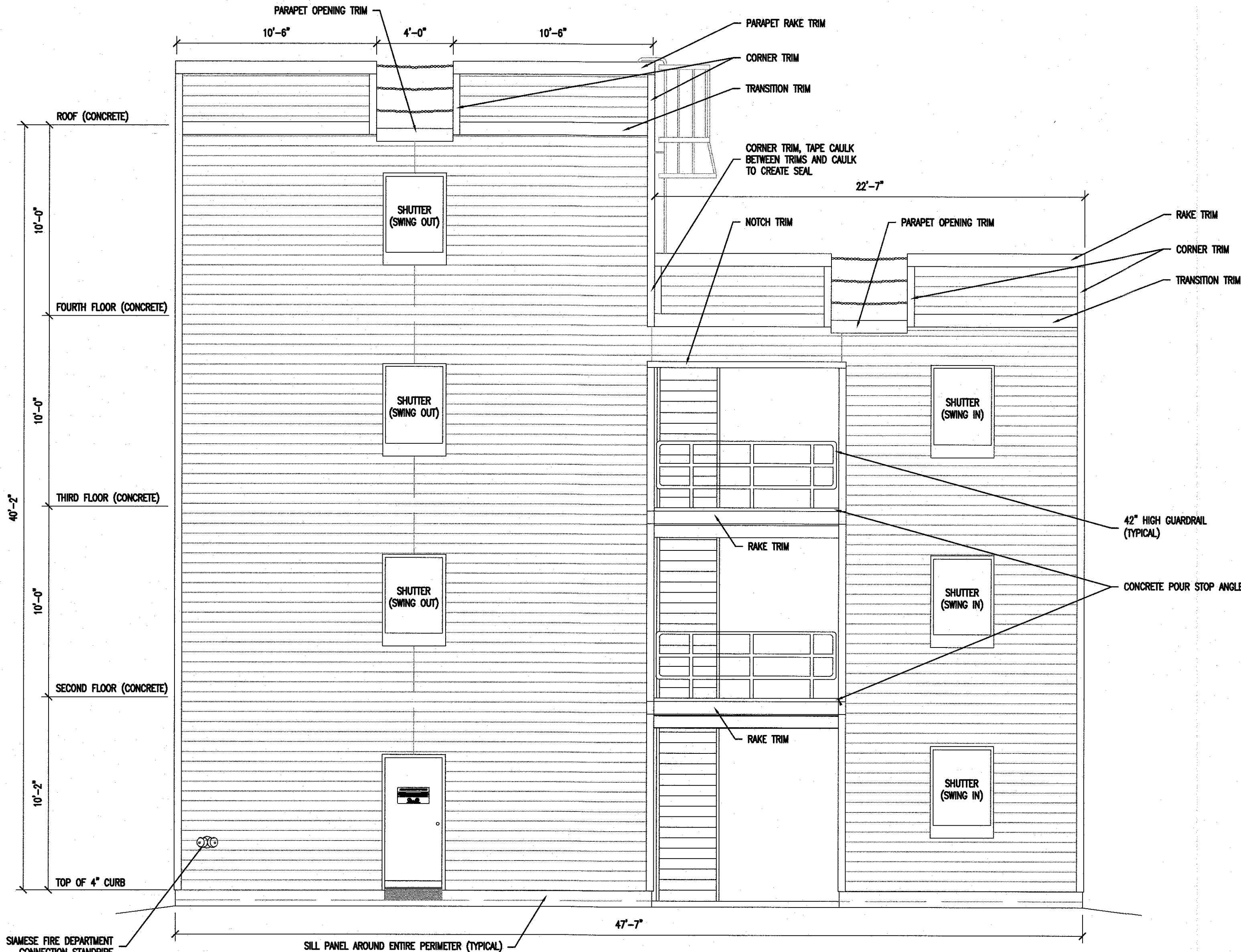
**ELEVATIONS  
AND DETAILS**

JOB NO: CCC2023-01	DESIGNED BY: DM3
DATE: MAY 30, 2024	DRAWN BY: DM3
SCALE: AS NOTED	CHECKED BY: SMB
DRAWING NUMBER:	

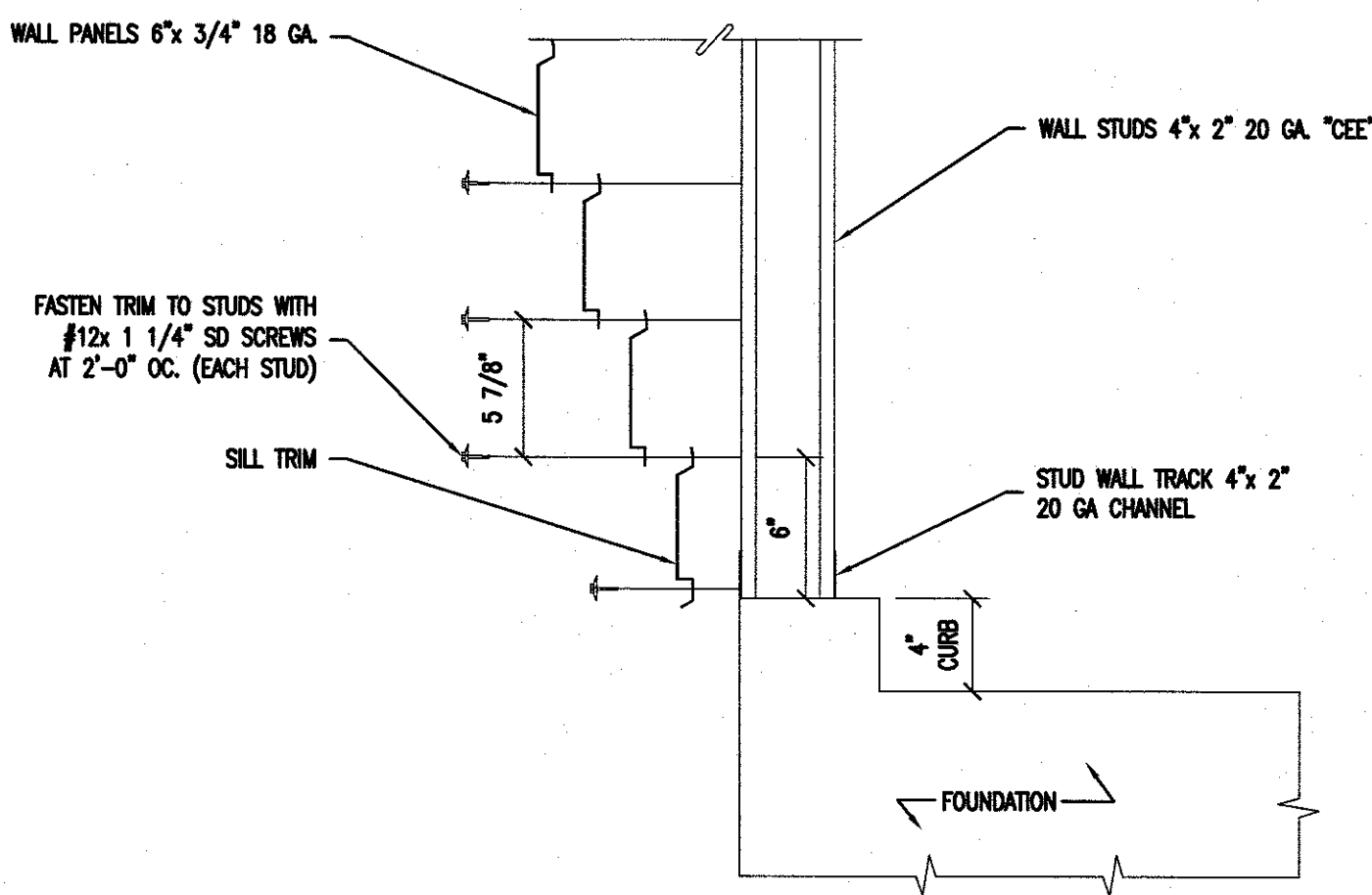
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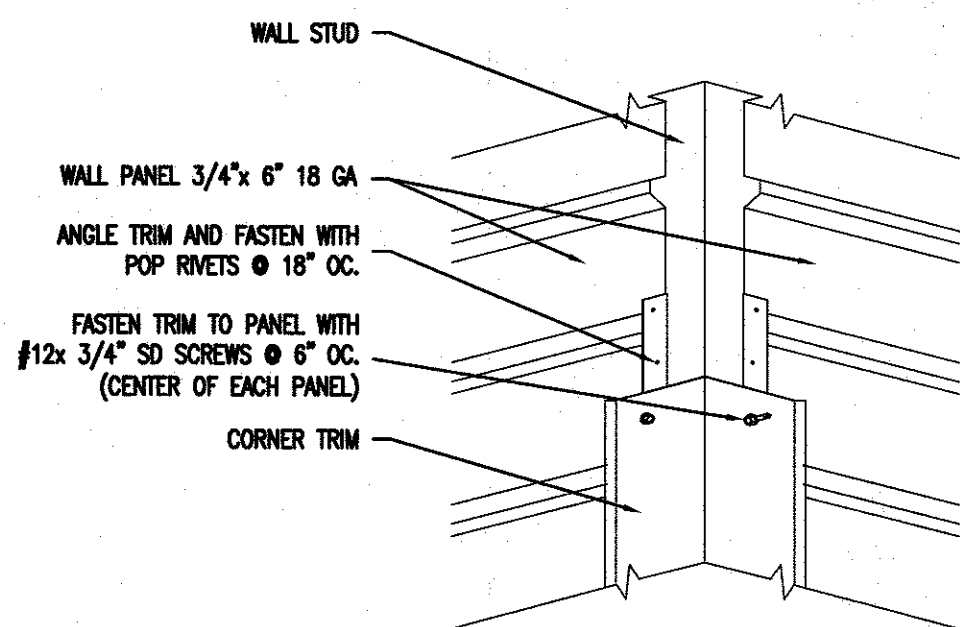
**1 FRONT ELEVATION**  
SCALE: 1/4" = 1'-0"



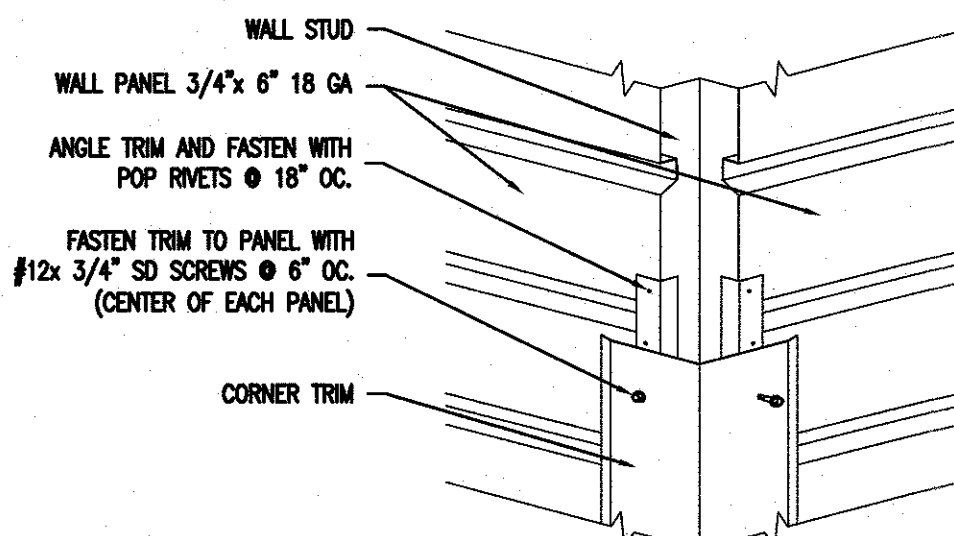
**2 RIGHT ELEVATION**  
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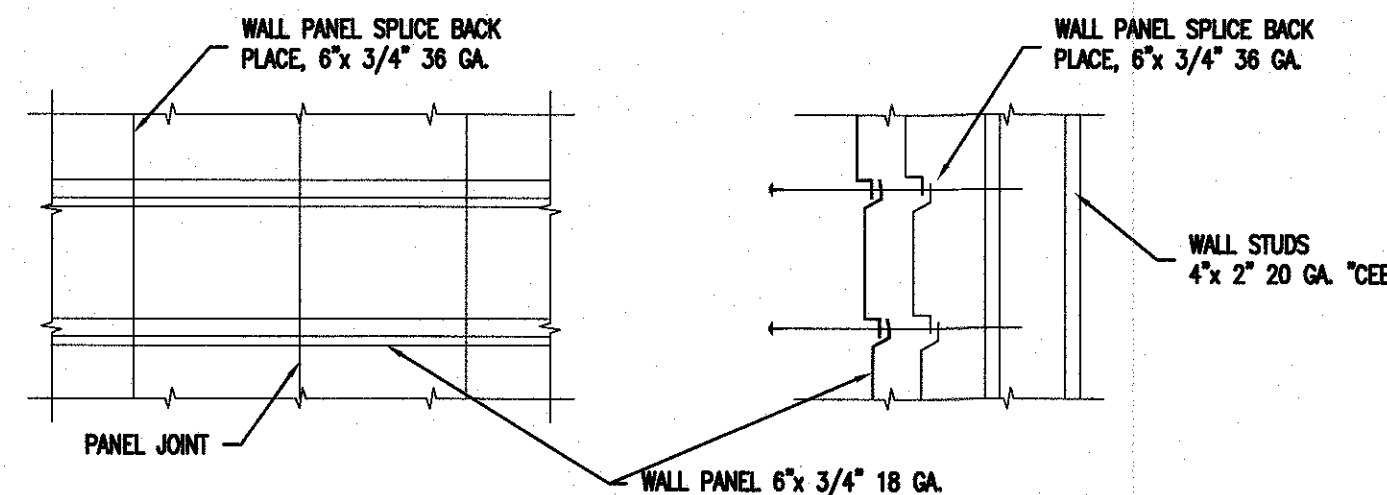
**3 TYPICAL SILL DETAIL**  
SCALE: NOT TO SCALE



**4 TYPICAL INSIDE CORNER TRIM DETAIL**  
SCALE: NOT TO SCALE



**5 TYPICAL EXTERIOR CORNER TRIM DETAIL**  
SCALE: NOT TO SCALE



**6 WALL PANEL SPlice PLATE**  
SCALE: NOT TO SCALE

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REVISIONS

NO.	DESCRIPTION	DATE

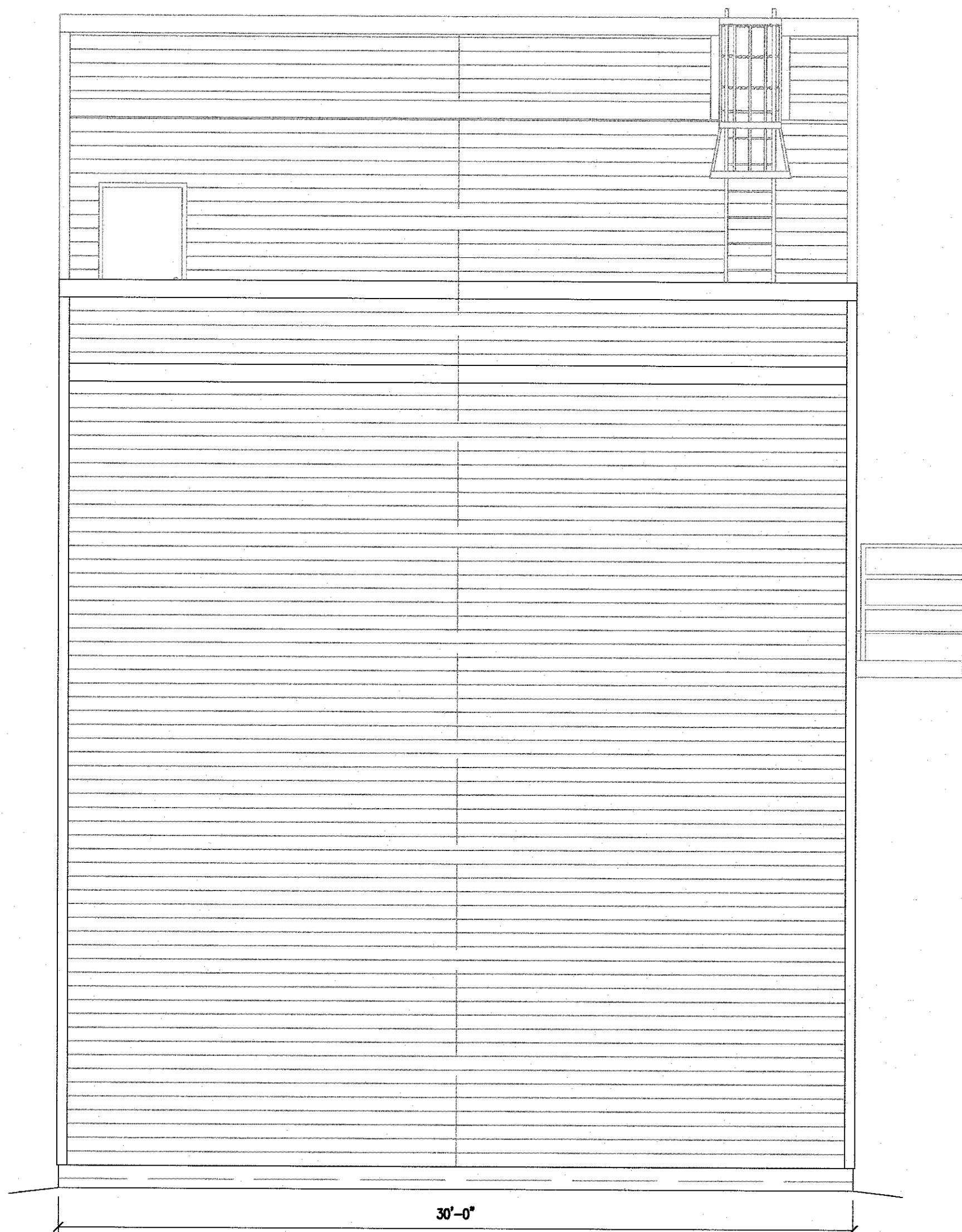
DRAWING TITLE:

ELEVATIONS  
AND DETAILS

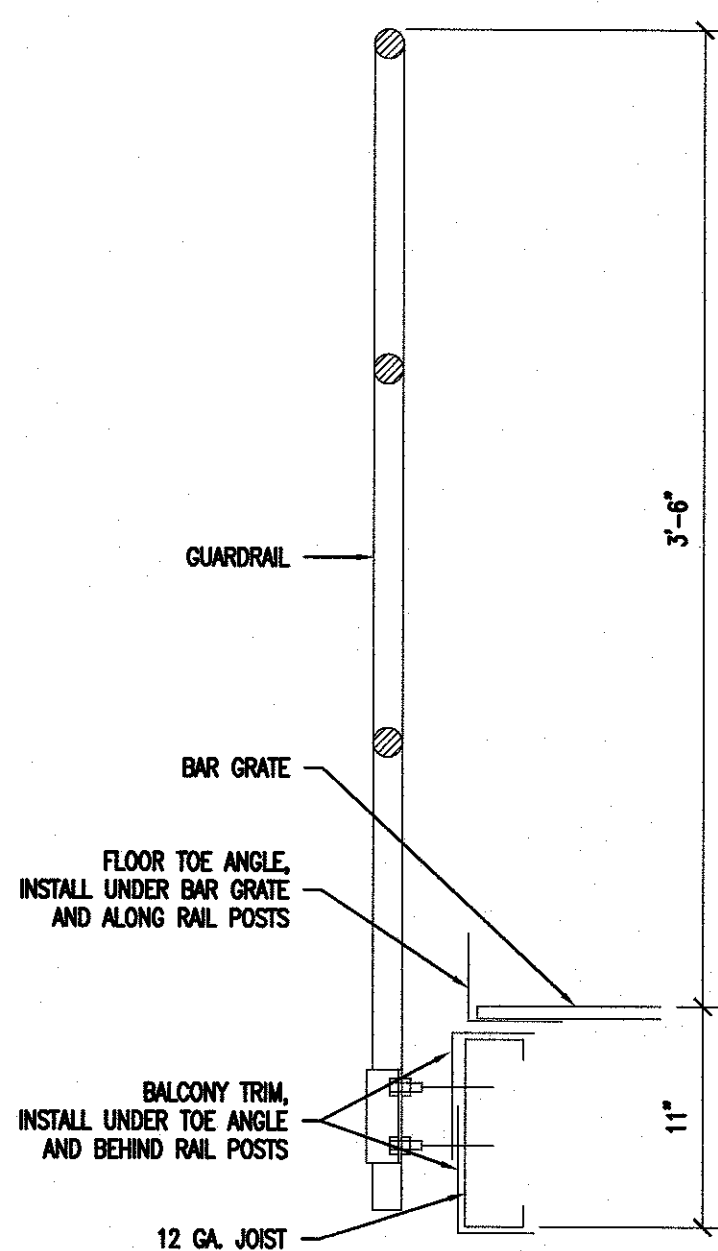
JOB NO: GCC2023-01	DESIGNED BY: DMS
DATE: MAY 30, 2024	DRAWN BY: DMS
SCALE: AS NOTED	CHECKED BY: SMB
DRAWING NUMBER:	

A-4

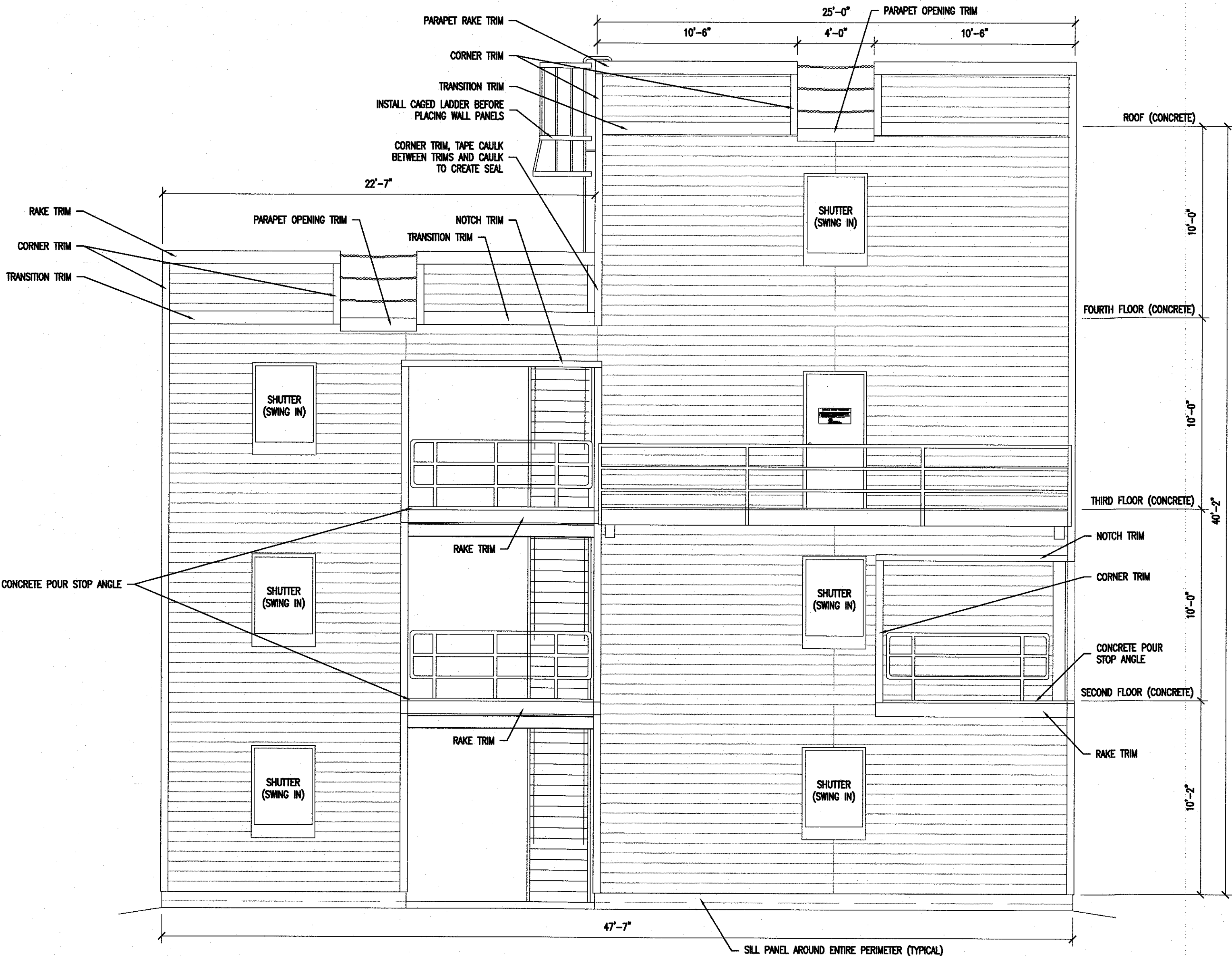
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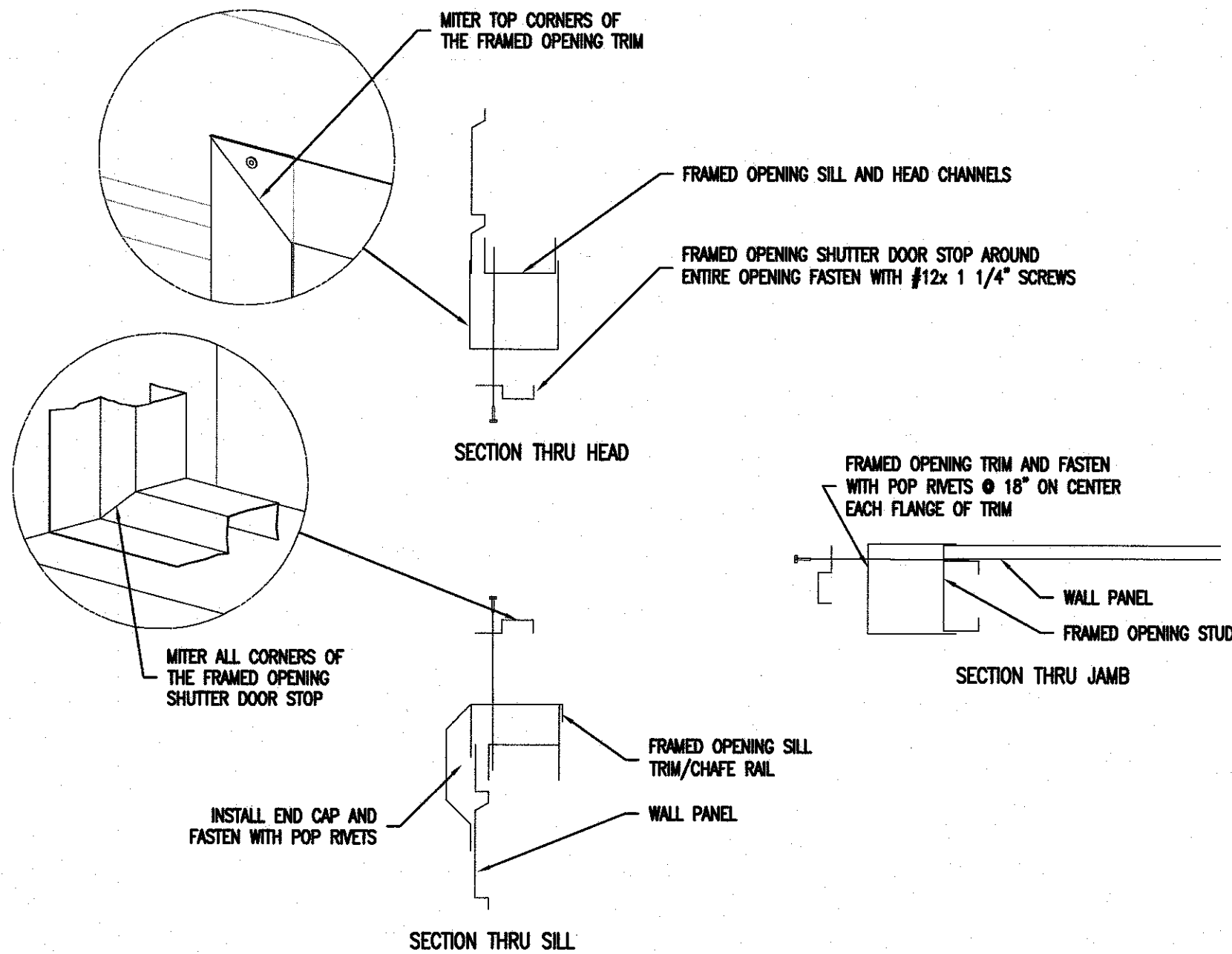
1 REAR ELEVATION  
SCALE: 1/4" = 1'-0"



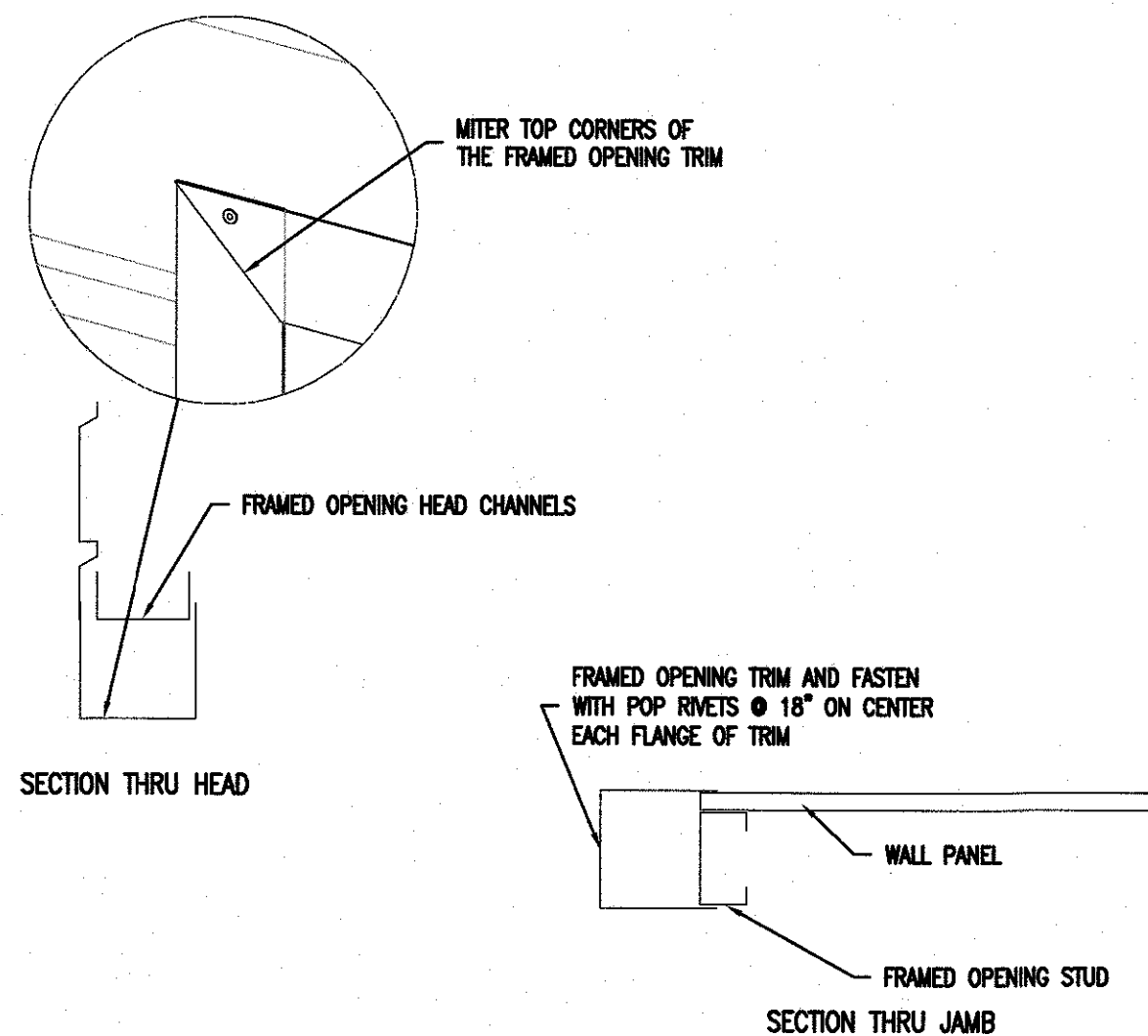
3 SECTION - CANT.  
BALCONY GUARDRAIL  
SCALE: NOT TO SCALE



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



4 STANDARD SHUTTER TRIM DETAILS  
SCALE: NOT TO SCALE



5 TOWER SWING DOOR TRIM DETAILS  
SCALE: NOT TO SCALE



GENERAL

- STRUCTURAL CONSTRUCTION DOCUMENTS SHALL BE USED WITH OTHER CONSTRUCTION DOCUMENTS, INCLUDING ARCHITECTURAL AND SITE DOCUMENTS. COORDINATE WITH THESE DOCUMENTS FOR LOCATIONS AND DIMENSIONS NOT INDICATED ON THE STRUCTURAL DOCUMENTS.
- ALL DIMENSIONS AND CONDITIONS SHALL BE FIELD VERIFIED. THE ENGINEER SHALL BE NOTIFIED OF DISCREPANCIES PRIOR TO PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.
- SECTIONS AND DETAILS SHOWN ON ANY STRUCTURAL DOCUMENTS SHALL BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS THAT DO NOT HAVE A SPECIFIC SECTION INDICATED, AND SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
- APPLICABLE FEDERAL, STATE AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OSHA.
- THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED ON THE STRUCTURE. CONSTRUCTION LOADS SHALL NOT EXCEED THE SPECIFIED DESIGN LOADS. CONCRETE FOUNDATIONS SHALL NOT BE LOADED UNTIL THE CONCRETE HAS REACHED AT LEAST 75% OF THE SPECIFIED DESIGN COMPRESSIVE STRENGTH.
- IN THE ABSENCE OF SPECIFIC INSTRUCTIONS TO THE CONTRARY IN THE CONTRACT DOCUMENTS, THE TRADE PRACTICES THAT ARE DEFINED IN ANY CODE OF STANDARD PRACTICE SHALL GOVERN.

STRUCTURAL DESIGN CRITERIA

- DESIGN LOADS ARE IN ACCORDANCE WITH THE 2021 INTERNATIONAL BUILDING CODE, NEW JERSEY EDITION, ASCE 7-16 AND LOCAL CODE.
- DESIGN DEAD LOADS  
ROOF 50 PSF  
FLOORS 50 PSF
- DESIGN LIVE LOADS  
ROOF 100 PSF  
FLOORS 100 PSF
- OCCUPANCY GROUP = U (UTILITY & MISCELLANEOUS)  
RISK CATEGORY = II
- SNOW LOADING IS BASED ON THE FOLLOWING:  
GROUND SNOW LOAD (Pg) 20 PSF  
FLAT-ROOF SNOW LOAD (Pf) 16.8 PSF  
SNOW EXPOSURE FACTOR (Ce) 1.0  
SNOW LOAD IMPORTANCE FACTOR (I) 1.0  
SNOW THERMAL FACTOR (Ct) 1.2
- WIND LOADING IS BASED ON THE FOLLOWING:  
ULTIMATE WIND SPEED (3 SEC GUST) 115 MPH  
NOMINAL WIND SPEED 89.1 MPH  
WIND IMPORTANCE FACTOR 1.0  
WIND EXPOSURE C
- SEISMIC LOADING IS BASED ON THE FOLLOWING:  
SEISMIC IMPORTANCE FACTOR 1.0  
SPECTRAL RESPONSE ACCEL. (Ss) 0.170g  
SPECTRAL RESPONSE ACCEL. (S1) 0.046g  
SITE CLASS (PRESUMED) D  
SPECTRAL RESPONSE COEFF. (Sds) 0.181  
SPECTRAL RESPONSE COEFF. (Sd1) 0.073  
SEISMIC DESIGN CATEGORY B

FOUNDATIONS

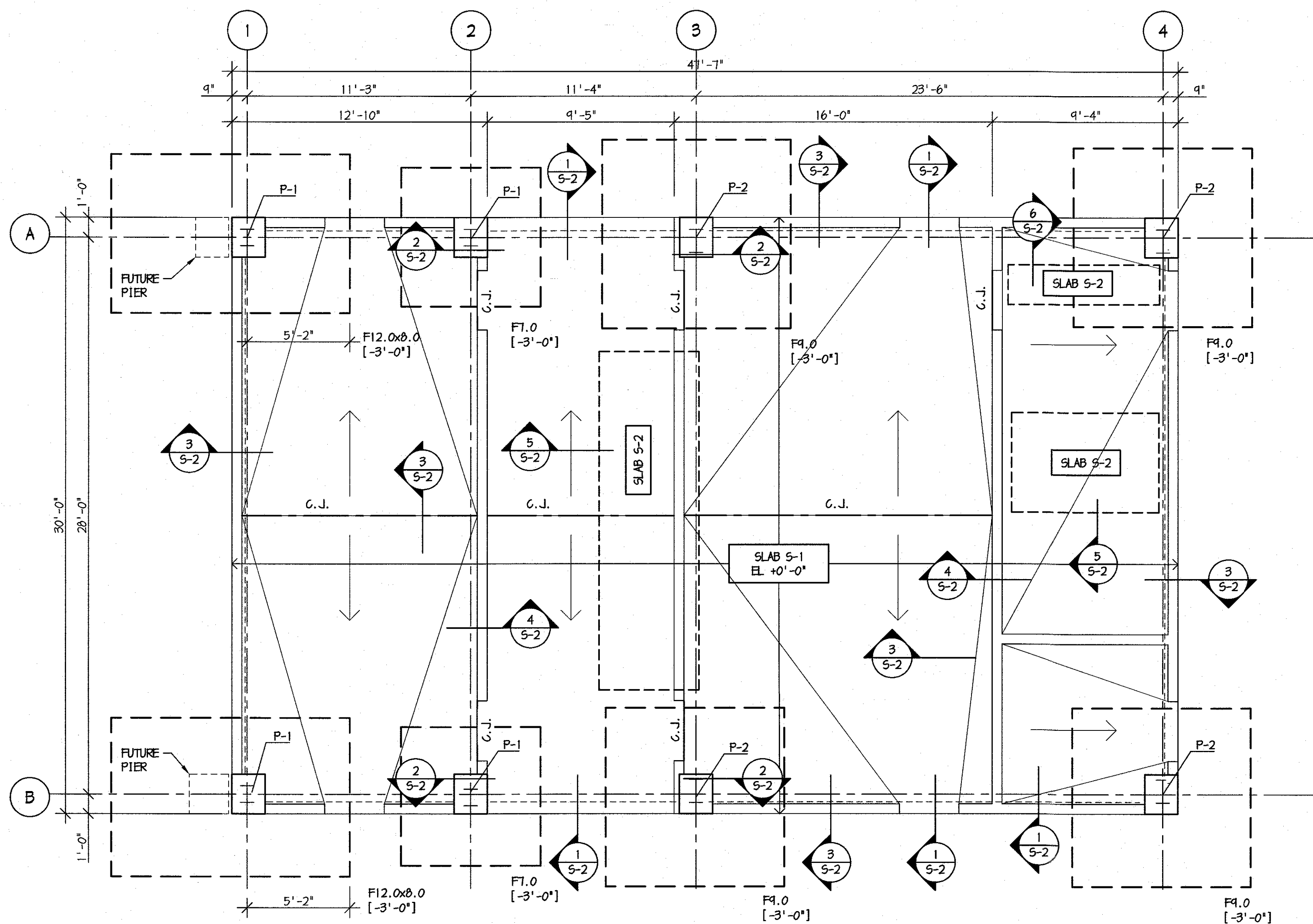
- FOUNDATIONS HAVE BEEN DESIGNED BASED UPON THE GEOTECHNICAL ENGINEERING REPORT PREPARED BY DIGNEO ENGINEERING, DATED FEBRUARY 23, 2024.
- SPREAD FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR COMPACTED STRUCTURAL FILL HAVING A MINIMUM SAFE BEARING CAPACITY OF 3,000 PSF.
- THE BOTTOMS OF EXTERIOR FOOTINGS SHALL BE 36 IN. MINIMUM BELOW FINISHED GRADE.
- EDGES OF FOOTINGS SHALL NOT BE PLACED AT A GREATER THAN 1 (VERTICAL) TO 2 (HORIZONTAL) SLOPE WITH RESPECT TO ANY ADJACENT FOOTING OR EXCAVATION.
- FOUNDATION CONCRETE SHALL BE NORMAL WEIGHT HAVING A MINIMUM 28 DAY DESIGN COMPRESSIVE STRENGTH AS FOLLOWS:  
SPREAD FOOTINGS & PIERS 3000 PSI  
SLAB-ON-GRADE (EXTERIOR) 4500 PSI, 0.45 W/C MAX.  
PROVIDE 6% (±1%) AIR-ENTRAINMENT IN ALL CONCRETE.
- PROVIDE 6% (±1%) AIR-ENTRAINMENT IN ALL CONCRETE.

FOUNDATION SUBGRADE PREPARATION REQUIREMENTS

- THE BUILDING SITE SHALL BE STRIPPED OF ANY TOPSOIL, ORGANIC MATTER, VEGETATION, FILL MATERIALS, AND OTHERWISE UNSUITABLE OR SOFT SUBGRADE MATERIALS.
- EXCAVATION SHALL EXTEND A MINIMUM OF 24 INCHES BELOW GRADE, AS INDICATED IN THE GEOTECHNICAL ENGINEERING REPORT PROVIDED IN THE SPECIFICATIONS BOOK.
- THESE UNSUITABLE MATERIALS SHALL BE EXCAVATED DOWN TO RESIDUAL SOIL ELEVATIONS, UNDER THE DIRECTION OF THE APPROVED INSPECTION AGENCY, AND THE EXCAVATION BACKFILLED WITH COMPACTED STRUCTURAL FILL. SOIL BEARING CAPACITY SHALL BE VERIFIED BY THE APPROVED INSPECTION AGENCY PRIOR TO BACKFILLING EXCAVATIONS.
- COMPACTED STRUCTURAL FILL SHALL CONSIST OF ML OR BETTER MATERIAL (ASTM D2487-11) WITH A MAXIMUM PARTICLE SIZE OF 3 INCHES, AND SHALL BE PLACED ON APPROVED SUBGRADE IN LIFTS NOT EXCEEDING 8 INCHES IN LOOSE THICKNESS, AND SHALL BE COMPACTED TO AT LEAST 90% OF THE MAX. DRY DENSITY ACCORDING TO ASTM D698, STANDARD PROCTOR.
- AT SLAB-ON-GRADE AREAS, FOLLOWING STRIPPING, THE SUBGRADES SHALL BE PROOFROLLED WITH A LOADED TANDEN AXLE DUMP TRUCK OR TEN-TON ROLLER UNDER OBSERVATION OF THE APPROVED INSPECTION AGENCY. AREAS WHICH EXHIBIT EXCESSIVE PUMPING OR HEAVING AS DETERMINED BY THE APPROVED INSPECTION AGENCY SHALL BE REMOVED AND REPLACED WITH NEW COMPACTED STRUCTURAL FILL. COMPACTED FILL SHALL BE USED TO RAISE EXISTING GRADES TO THE PROPOSED NEW ELEVATION, WHERE REQUIRED. A 4 INCH WASHED GRAVEL OR CRUSHED STONE DRAINAGE LAYER CORRESPONDING TO AASHTO SIZE NO. 57 AGGREGATE SHALL BE USED BENEATH THE SLAB-ON-GRADE.

CONCRETE REINFORCING

- REINFORCED CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318-14.
- CONCRETE REINFORCING SHALL CONFORM TO THE FOLLOWING DESIGNATIONS:  
DEFORMED BARS ASTM A615, GRADE 60  
WELDED WIRE FABRIC ASTM A185
- LAP DEFORMED BARS 40 DIA., UNO. PROVIDE CORNER AND L BARS AT CORNERS AND INTERSECTIONS. REINFORCING INDICATED AS CONTINUOUS SHALL BE LAPPED. HOOKS SHALL BE STANDARD HOOKS, UNO. LAP WELDED WIRE FABRIC SUCH THAT THE OVERLAP OF THE OUTERMOST CROSS-WIRES OF EACH ADJOINING SHEET IS NOT LESS THAN THE SPACING OF THE CROSS-WIRES PLUS TWO IN., UNO.
- CONCRETE PROTECTION FOR REINFORCEMENT:  
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3 IN.  
CONCRETE EXPOSED TO EARTH OR WEATHER:  
NO. 6 THROUGH NO. 18 BARS: 2 IN.  
NO. 5 BAR AND SMALLER: 1-1/2 IN.
- REINFORCING FOR SLABS ON GRADE, WHERE NOT OTHERWISE SPECIFIED, SHALL BE AS FOLLOWS:  
REINFORCING BARS: SEE FOUNDATION AND TYPICAL DETAILS. AT SLAB BLOCKOUT AND RE-ENTRANT CORNERS, PROVIDE 2-#4 X 4'-0" DIAGONALS.  
WIRE MESH: 6x6-M2.1 X M2.1 MNF. REINFORCING SHALL BE SUPPORTED AT MID-DEPTH OF SLAB.
- DETAILING OF CONCRETE REINFORCING AND ACCESSORIES SHALL CONFORM TO ACI DETAILING MANUAL SP-66, AND WITH ACI 315, MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES.



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

TYPICAL DETAILS

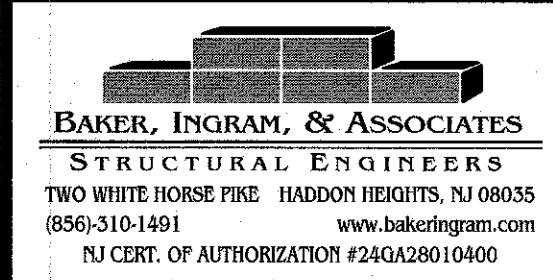
- TYPICAL DETAILS APPLY AT ALL APPROPRIATE LOCATIONS.
- TYPICAL DETAILS ARE GENERALLY NOT CUT ON THE PLANS.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL TYPICAL DETAIL APPLICATIONS.

SUBMITTALS

- CONCRETE FOUNDATIONS & SLABS:  
CONCRETE MIX DESIGNS FOR STRENGTHS INDICATED  
CONCRETE REINFORCING SHOP DRAWINGS
- PRE-ENGINEERED METAL BUILDING:  
DETAILED SHOP DRAWINGS AND STRUCTURAL CALCULATIONS PREPARED BY A PROFESSIONAL ENGINEER LICENSED IN NEW JERSEY

DESIGN COLUMN LOADS FROM METAL BUILDING MANUFACTURER

- 40 FOOT TALL TOWER COLUMNS:  
GRAVITY = 250 KIPS  
UPLIFT = 10 KIPS  
LATERAL = 14 KIPS
- 30 FOOT TALL RESIDENCE COLUMNS:  
GRAVITY = 145 KIPS  
UPLIFT = 4 KIPS  
LATERAL = 12 KIPS
- FOUNDATION DESIGN IS BASED UPON THE LOADS SHOWN ABOVE. FOUNDATION DESIGN WILL BE REVIEWED FOLLOWING SUBMISSION OF METAL BUILDING SHOP DRAWINGS TO DETERMINE IF ANY REVISIONS TO THE DESIGN ARE REQUIRED.



BACH Associates, PC  
ENGINEERS • ARCHITECTS • PLANNERS

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SEALS:

Brian D. McGlade, PE  
NJ PE # 34227

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

PROJECT:

CAMDEN COUNTY COLLEGE  
SMOKE TOWER STRUCTURE  
CAMDEN COUNTY FIRE ACADEMY AT THE  
REGIONAL EMERGENCY TRAINING CENTER  
420 NORTH WOODBURY-TURNERSVILLE ROAD  
BLACKWOOD, NEW JERSEY 08012

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REVISIONS		
NO.	DESCRIPTION	DATE

DRAWING TITLE:  
**FOUNDATION PLAN**

JOB NO: H15461-23	DESIGNED BY: BDM
DATE: APRIL 23, 2024	DRAWN BY: BDM
SCALE: AS NOTED	CHECKED BY: BDM

DRAWING NUMBER:

S-1

FOUNDATION PLAN NOTES

- FLOOR SLAB + 0'-0" IS REFERENCED RELATIVE TO ELEVATION 60.0'.
- ELEVATIONS ARE NOTED FROM REF. EL. 0'-0 AS FOLLOWS:  
(-#')-#) INDICATES TOP OF CONCRETE SLAB  
(-#')-#) INDICATES TOP OF FOOTING
- FOUNDATION MEMBERS SHALL BE AT THE FOLLOWING ELEVATIONS, UNO:  
SLABS = +0'-0"  
FOOTINGS = -3'-0"  
PIERS = +0'-4"  
CURBS = +0'-4"
- FOUNDATION MEMBERS ARE DESIGNATED AS FOLLOWS:  
F#.# FOOTING MARK - SEE SCHEDULE.
- PROVIDE (2) #4 X 4'-0" DIAGONAL BARS AT ALL RE-ENTRANT SLAB-ON-GRADE CORNERS. SEE DETAIL 5/5-2.
- REFER TO DRAWING 5-2 FOR FOUNDATION & SLAB SECTIONS & DETAILS.

SLAB SCHEDULE

SLAB S-1: 6" CONC. SLAB ON GRADE W/ 6x6-M2.1xM2.1 MNF ON 4" COMPACTED GRANULAR BASE
SLAB S-2: 8" CONC. SLAB ON GRADE W/ 6x6-M2.1xM2.1 MNF TOP & #4 @ 12" O/C BOTTOM EA WAY ON 4" COMPACTED GRANULAR BASE

CONCRETE PIER SCHEDULE

MARK	SIZE	REINFORCING
P-1	20"x24"	(6) #6 VERT. #3 TIES @ 12" o/c
P-2	20"x24"	(6) #6 VERT. #3 TIES @ 12" o/c

COLUMN FOOTING SCHEDULE

MARK	SIZE	REINFORCING
F1.0	7'-0" x 7'-0" x 1'-6"	7-#6 BOT. EN
F4.0	9'-0" x 9'-0" x 2'-0"	9-#7 BOT. EN
F12.0x8.0	12'-0" x 8'-0" x 2'-0"	8-#7 BOT. LN 12-#7 BOT. SH

SEALS:

*[Signature]*  
06.10.24  
Brian D. McGlade, PE  
NJ PE # 34227

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CONTRACTOR AND OWNER MUST BE NOTIFIED  
OF ANY DISCREPANCIES BEFORE PROCEEDING  
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PROJECT:

CAMDEN COUNTY COLLEGE  
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PC AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS BACH ASSOCIATES, PC FROM ALL CLAIMS, DAMAGES, LOSSES  
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REVISIONS

NO.	DESCRIPTION	DATE

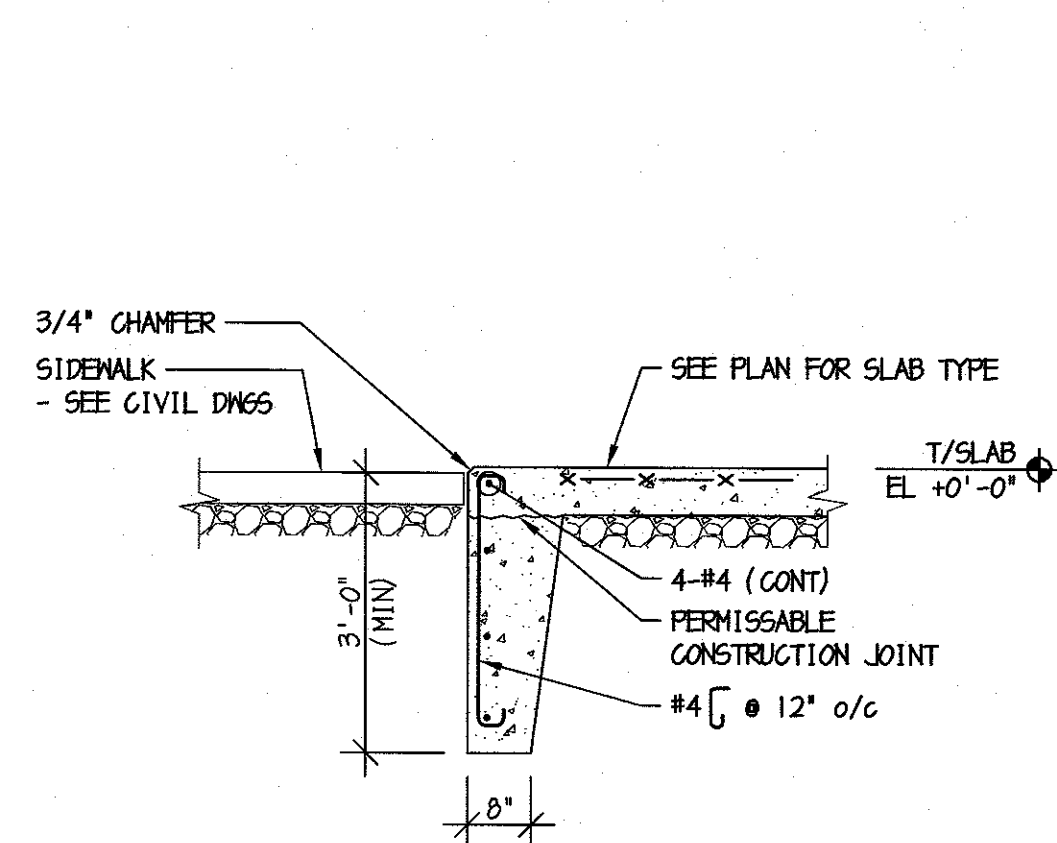
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FOUNDATION  
DETAILS

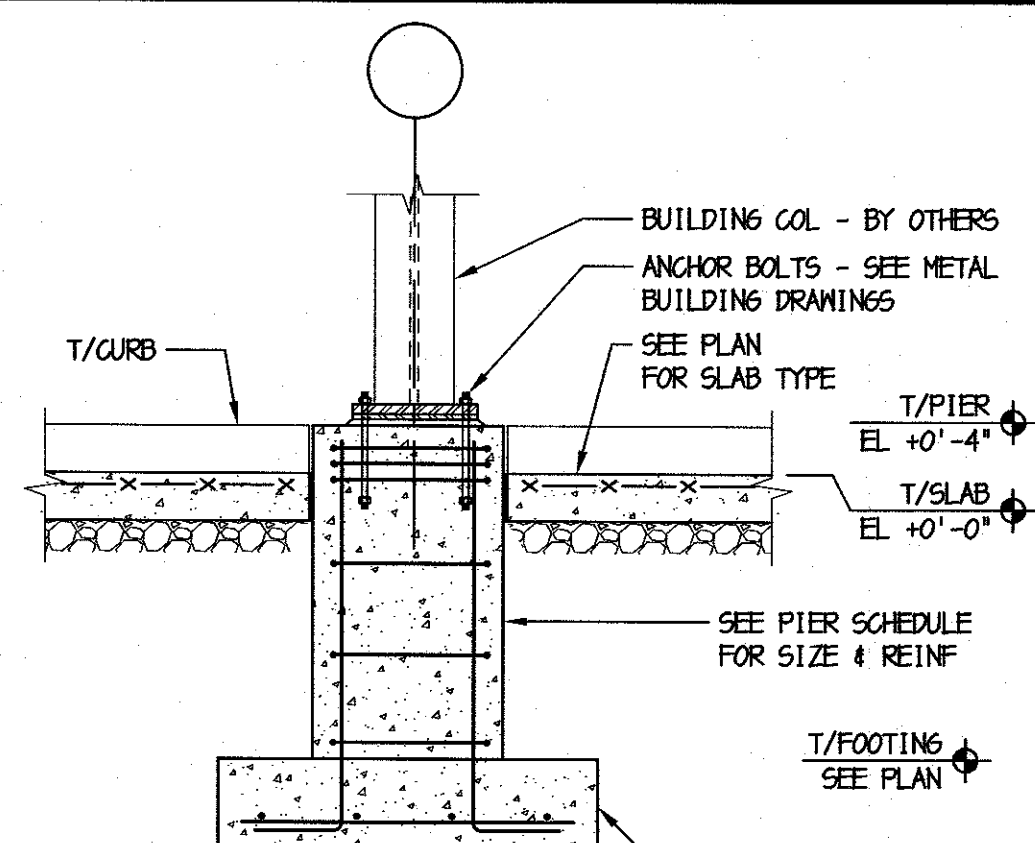
JOB NO: H15461-23	DESIGNED BY: BDM
DATE: APRIL 23, 2024	DRAWN BY: DMH
SCALE: AS NOTED	CHECKED BY: BDM

DRAWING NUMBER:

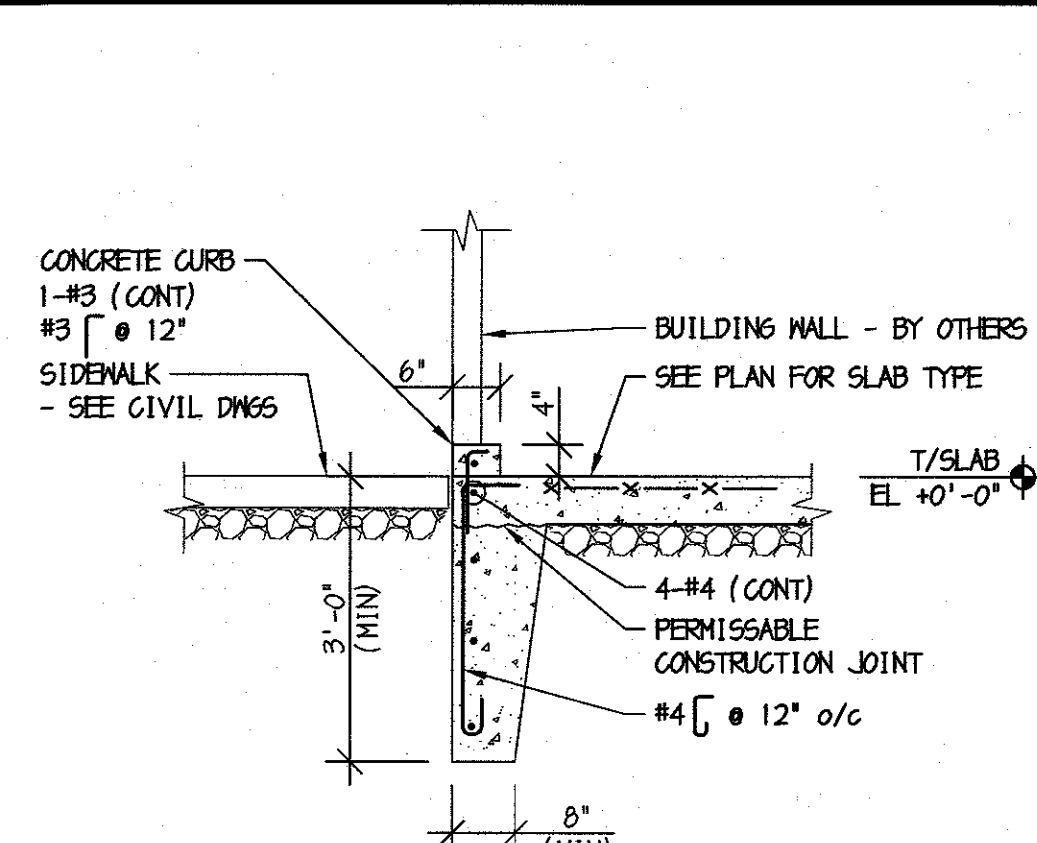
S-2



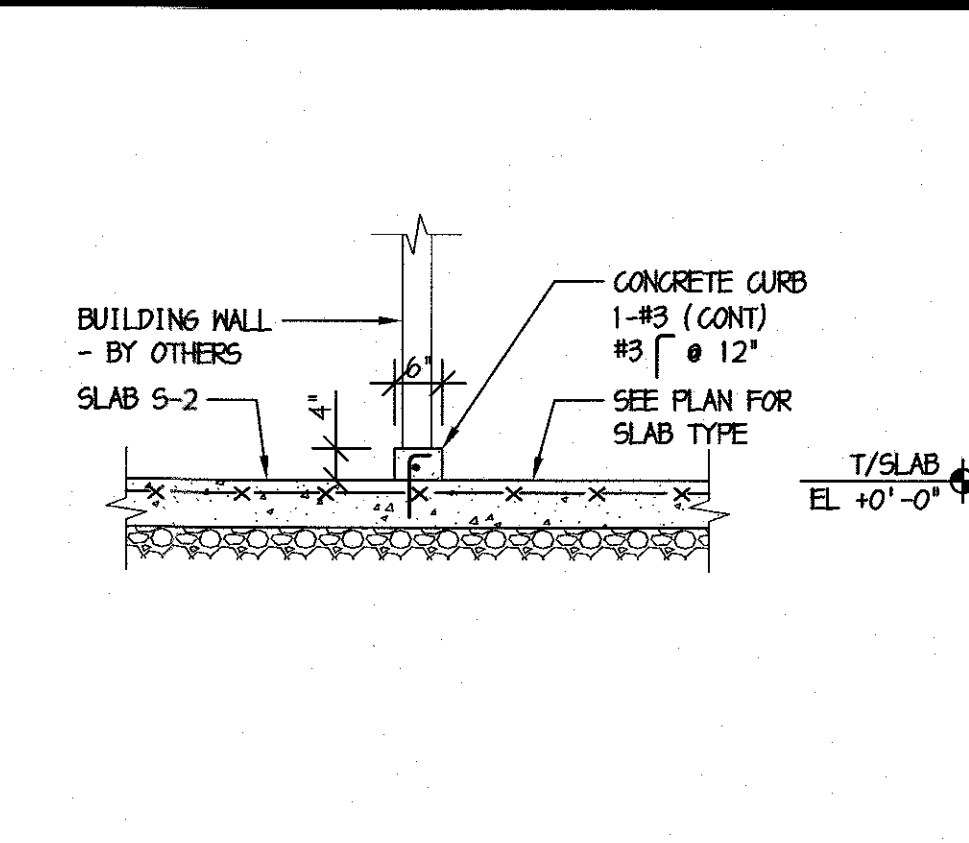
1 SECTION @ SLAB EDGE  
SCALE: 1/2" = 1'-0"



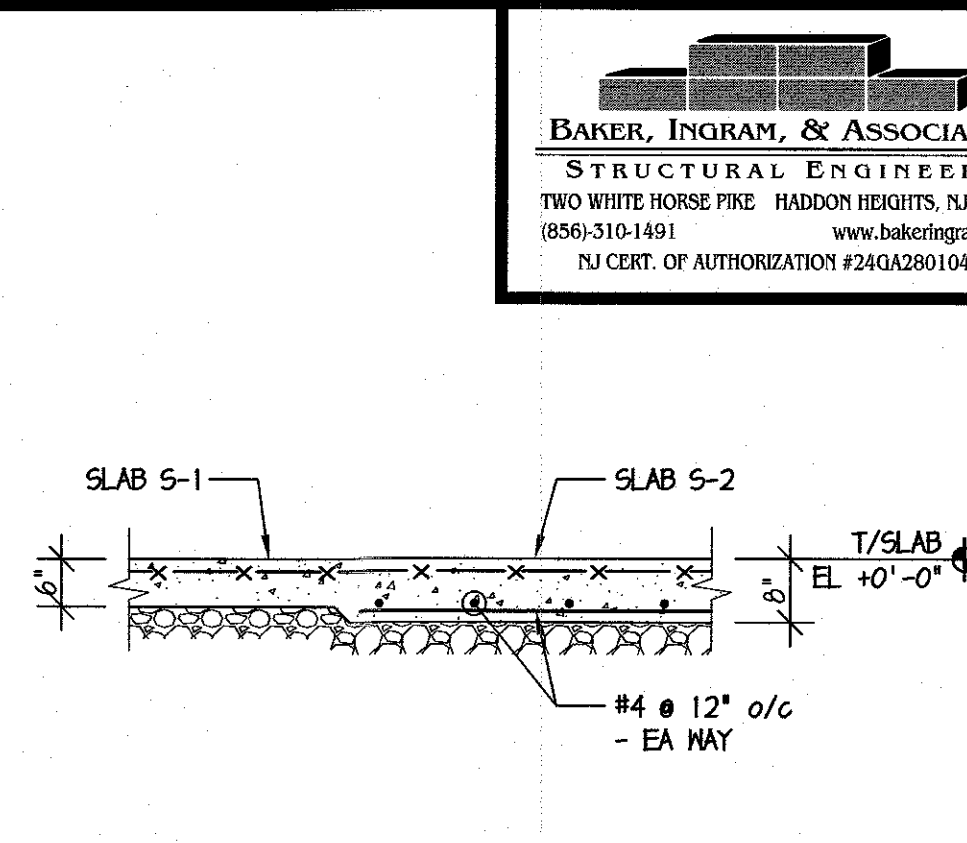
2 SECTION @ COLUMN  
SCALE: 1/2" = 1'-0"



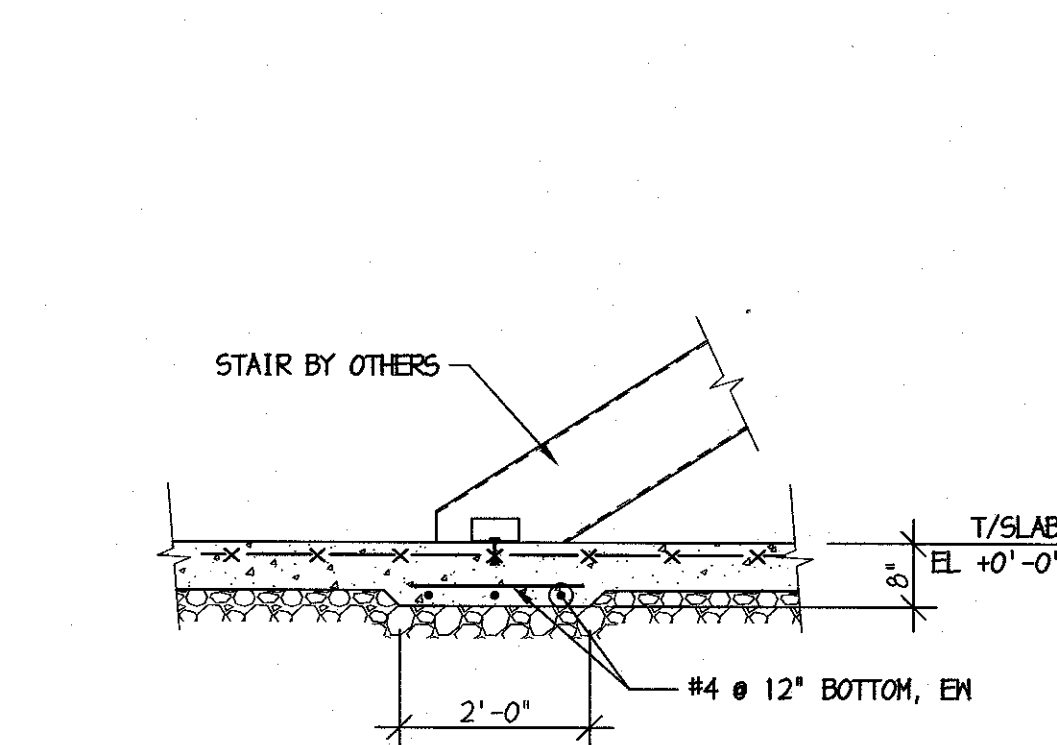
3 SECTION @ SLAB EDGE  
SCALE: 1/2" = 1'-0"



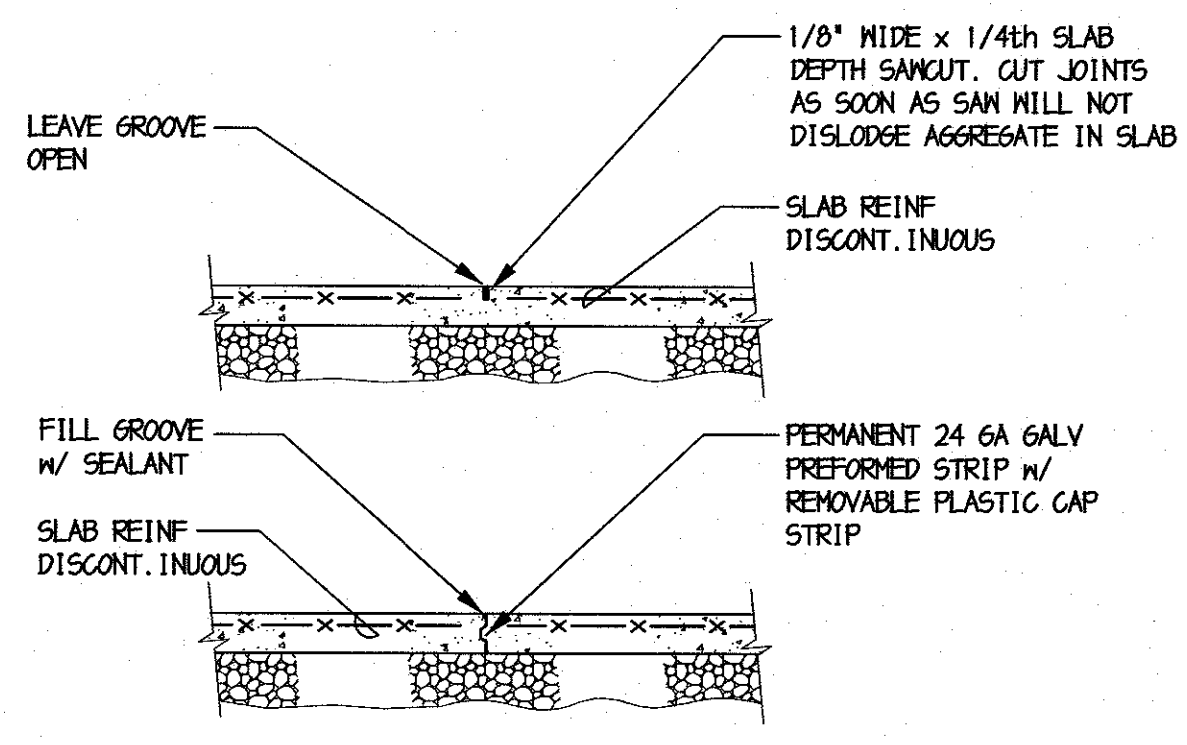
4 SECTION @ CURB  
SCALE: 1/2" = 1'-0"



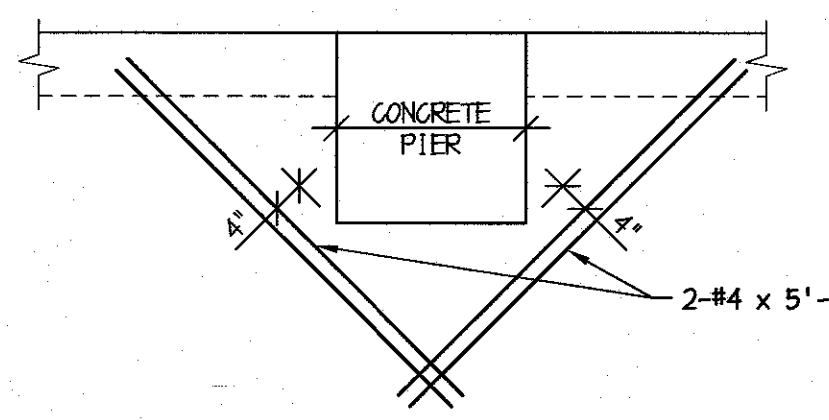
5 THICKENED SLAB DETAIL  
SCALE: 1/2" = 1'-0"



6 SECTION @ STAIRS  
SCALE: 1/2" = 1'-0"



7 SLAB CONTROL JOINT DETAIL  
SCALE: 1/2" = 1'-0"



8 SLAB REINFORCING DETAILS  
SCALE: 1/2" = 1'-0"



# ELECTRICAL SYMBOLS SCHEDULE

THIS IS A COMPLETE LIST OF ELECTRICAL SYMBOLS FOR REFERENCE ONLY. SYMBOLS SHOWN HERE MAY OR MAY NOT BE USED ON THIS PROJECT.

## GENERAL SYMBOLS

- 6 KEY NOTE INDICATOR
- 5 EQUIPMENT INDICATOR
- 2 SCHEDULED ITEM INDICATOR
- 2 DRAWING REVISION INDICATOR

## CONDUIT AND WIRING

- BRANCH CIRCUIT RUN CONCEALED
- BRANCH CIRCUIT RUN UNDER FLOOR
- BRANCH CIRCUIT UP OR DOWN
- 2A-1,3,5 HOME RUN TO PANEL 2A CKTS 1, 3, & 5
- EM EMERGENCY ONLY BRANCH CIRCUIT
- NL NIGHT LIGHT BRANCH CIRCUIT
- LV LOW VOLTAGE CIRCUIT
- SMR SURFACE METAL RACEWAY SIZED FOR NO. OF CONDUCTORS TO BE INSTALLED
- CT CABLE TRAY
- INDICATES CONNECTION TO EXISTING
- PM PLUGMOLD - SEE PLAN FOR LENGTH

## SOUND SYSTEM

- 3 SPEAKER - CEILING MTD FLUSH
- 3s SPEAKER - CEILING MTD SURFACE

## AUTOMATIC DOOR

- MOTION DETECTOR H-HEAD MTD C-CEILING MTD
- PUSH PLATE
- KEY SWITCH
- POWER RESET
- DOOR MOUNTED SAFETY INTERLOCK
- ELECTRIC STRIKE
- PUSH BUTTON

## SECURITY SYSTEM

- CA CARD ACCESS STATION
- DS DOOR ALARM SWITCH W/ ELEC HINGE
- SC SECURITY CHIME
- KBP KEY BY-PASS SW. FOR DOOR POSITION SW.
- MD SECURITY SYSTEM MOTION DETECTOR
- SECURITY TV CAMERA
- SECURITY SYSTEM CONSOLE
- ELECTROMAGNETIC LOCK
- RM REMOTE RELEASE
- EH ELECTRIC HINGE
- ES ELECTRIC STRIKE
- KS KEY SWITCH

## POWER DISTRIB.

- SURFACE MTD PANELBOARD
- FLUSH MTD PANELBOARD
- 277/480V PANEL
- 120/208V PANEL
- MOTOR CONNECTION
- DISCONNECT SWITCH
- MAGNETIC STARTER
- COMBINATION STARTER/DISCONNECT
- POWER COMPANY METER
- C. T. CABINET
- JUNCTION BOX - CEILING MOUNTED
- JUNCTION BOX - FLOOR MOUNTED

## POWER SYSTEMS

- TRANSFORMER
- ATS AUTOMATIC TRANSFER SWITCH
- EM GEN EMERGENCY GENERATOR
- PDU POWER DISTRIBUTION UNIT
- UPS UNINTERRUPTIBLE POWER SOURCE
- TSS TRANSIENT VOLTAGE SURGE SUPPRESSOR
- ATC AUTOMATIC TEMPERATURE CONTROL

## GROUNDING AND LIGHTNING PROTECTION

- GROUND CONDUCTOR RUN CONCEALED
- GROUND CONDUCTOR RUN UNDER FLOOR
- THERMITE WELD TO BLDG OR EQUIP
- THERMITE WELD OF GROUND CONDUCTORS
- BONDING PLATE OR CLAMP CONNECTION TO PIPING OR EQUIP
- CONNECTION TO AIR TERMINAL FOR LIGHTNING PROTECTION
- THERMITE WELD TO GROUND ROD
- GROUND ROD TRIODE

## LIGHTING

- FIXTURE DESIG. "A" FIXTURE TYPE 0 SWITCH NO. "2A-2" PANEL 2A CKT no.2
- 2X4 FIXTURE
- 2X2 FIXTURE
- 1X4 FIXTURE
- FLUORESCENT STRIPLIGHT
- PENDANT TUBE FIXTURE
- RECESSED DOWNLIGHT
- WALL WASHER
- WALL MTD FIXTURE
- POLE MTD FIXTURE
- CEILING MTD EXIT SIGN W/ ARROWS AS INDICATED
- WALL MTD EXIT SIGN W/ ARROWS AS INDICATED
- LIGHTING TRACK - LENGTH OF TRACK AND NO. OF FIXTURES AS INDICATED ON PLAN.
- INDICATES NIGHT LIGHT
- EMERGENCY BATTERY PACK W/ NUMBER OF HEADS AS INDICATED.
- EMERGENCY LIGHTING REMOTE HEADS
- EMERGENCY BATTERY PACK

## COMMUNICATIONS

- TELEPHONE OUTLET
- WALL MTD TELE OUTLET
- DATA OUTLET
- COMBINATION TELE/DATA OUTLET
- COMBINATION TELE/DATA OUTLET AT MOVABLE PARTITION
- TELE/DATA OUTLET FLUSH FLOOR MOUNTED
- COMBINATION POWER & TELE/DATA OUTLET FLUSH FLOOR MOUNTED
- TELE/DATA CONDUIT STUB-UP

## FIRE ALARM SYSTEM

- MANUAL PULL STATION
- HORN AND FLASHING LIGHT
- CHIME AND FLASHING LIGHT
- FIRE ALARM BELL
- FLASHING LIGHT
- FIRE ALARM SPEAKER - CEILING MTD
- FIRE ALARM SPEAKER - WALL MTD
- COMBINATION SPEAKER/FLASHING LIGHT
- IONIZATION TYPE SMOKE DETECTOR
- PHOTOELECTRIC TYPE SMOKE DETECTOR
- THERMAL TYPE DETECTOR
- IONIZATION TYPE MTD TO DUCT
- IONIZATION TYPE MTD IN PLENUM
- THERMAL TYPE MTD TO DUCT
- REMOTE TEST SWITCH
- PHOTOELECTRIC TYPE W/ RELAY
- FLOW SWITCH
- TAMPER SWITCH
- PRESSURE SWITCH FOR DRY TYPE SYSTEM
- REMOTE TROUBLE BELL
- ELECTROMAGNETIC SHUTTER HOLDER
- ELECTROMAGNETIC DOOR HOLDER
- FIRE ALARM SYSTEM ACTIVATED DOOR CLOSER
- FIREMANS TELEPHONE JACK
- CONTROL ZAM
- MONITOR ZAM
- FIRE ALARM CONTROL PANEL
- FIRE ALARM COMMAND CENTER
- FIRE ALARM ANNUNCIATOR
- FIRE ALARM PUNCH TAPE RECORDER
- FIRE ALARM DATA GATHERING PANEL
- FIRE SUPPRESSION CONTROL PANEL
- FIRE, SMOKE OR FIRE/SMOKE DAMPER

## ELECTRICAL DEVICES

- SINGLE-POLE DOUBLE-POLE 3-WAY AND 4-WAY SWITCHES
- SINGLE POLE SWITCH - WEATHERPROOF
- DUAL LEVEL SWITCHING INSIDE/OUTSIDE LAMP CONTROL
- KEY-LOCK SWITCH
- LIGHTED-HANDLE SWITCH
- CENTER-OFF DOUBLE-POLE SWITCH
- EXPLOSION-PROOF SWITCH
- LOCAL WALL DIMMER SWITCH
- LOW-VOLTAGE SWITCH
- MANUAL TOGGLE SWITCH WITH THERMAL OVERLOAD
- EMERGENCY POWER-OFF SWITCH
- TIMECLOCK
- PHOTOCELL
- RELAY W/ NUMBER AND TYPE OF POLES AS INDICATED
- SINGLE RECEPTACLE
- DUPLEX RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE
- DUPLEX SPLIT WIRED WITH BOTTOM OUTLET ON WALL SWITCH
- SAFETY TYPE DUPLEX RECEPTACLE
- ISOLATED GROUND TYPE DUPLEX RECEPTACLE
- ISOLATED GROUND TYPE WITH SURGE SUPPRESSION
- DUPLEX FOR ELECTRIC WATER COOLER COORDINATE LOCATION WITH SUPPLIER
- GFI DUPLEX RECEPTACLE
- RECEPTACLE WITH WEATHERPROOF COVER
- EXPLOSION-PROOF RECEPTACLE
- FLUSH-FLOOR MTD RECEPTACLE
- PEDESTAL-FLOOR MTD RECEPTACLE
- PEDESTAL-COUNTER MTD RECEPTACLE
- CEILING MTD RECEPTACLE
- CLOCK RECEPTACLE
- SPECIAL PURPOSE RECEPTACLE - SIZE & TYPE AS INDICATED OR SCHEDULED
- DROP CORD
- POWER FEED AT MOVABLE PARTITION
- INDICATES OUTLET TO BE MOUNTED 8" ABOVE COUNTER HEIGHT. TYPICAL UNLESS NOTED OTHERWISE
- OCCUPANCY SENSOR
- OCCUPANCY SENSOR-CEILING MOUNTED

## TELEVISION / VIDEO SYSTEM

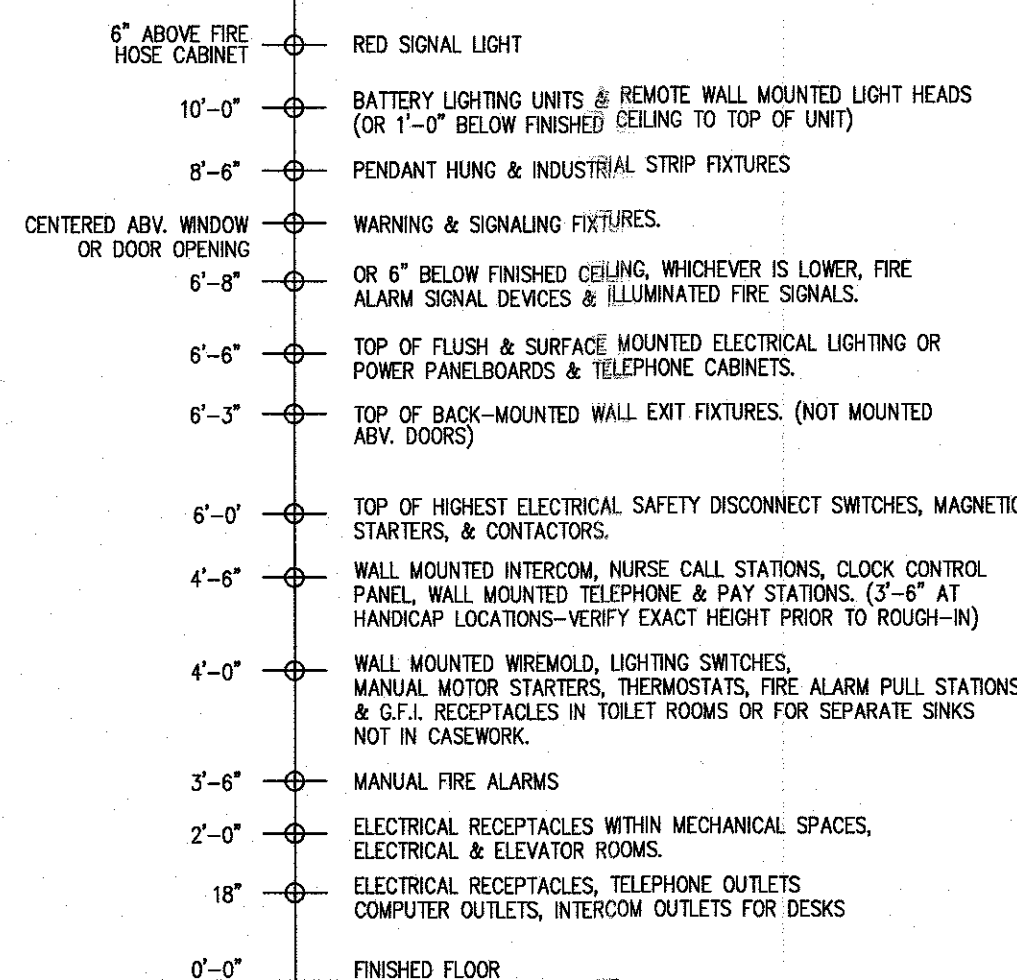
- TELEVISION OUTLET
- TELEVISION OUTLET W/ RECEPTACLE
- TV CAMERA OUTLET W/ RECEPTACLE

## ELECTRICAL ABBREVIATIONS

THIS LIST OF ABBREVIATIONS IS PROVIDED FOR CONVENIENCE ONLY. ITEMS LISTED HERE MAY OR MAY NOT BE USED ON THIS PROJECT.

1/C	SINGLE CONDUCTOR	INCL	INCLUDE
A/C	AIR CONDITIONER	INST	INSTANTANEOUS
ABV	ABOVE	INSUL	INSULATION
AC	ALTERNATING CURRENT	JB	JUNCTION BOX
AFT	ABOVE FINISHED FLOOR	JC	JANITOR'S CLOSET
AFG	ABOVE FINISHED GRADE	JL	JUNCTION
AHU	AIR HANDLING UNIT	KVA	KILOVOLT AMPERE
ATS	AUTOMATIC TRANSFER SWITCH	KW	KILOWATT
ALT	ALTERNATE	LTG	LIGHTING
ARCH	ARCHITECTURAL	LV	LOW VOLTAGE
AUTO	AUTOMATIC	LVR	LOUVER
AVG	AVERAGE	MAX	MAXIMUM
BKR	BREAKER	MC	MECHANICAL
BLDG	BUILDING	MCC	MOTOR CONTROL CENTER
BLW	BELOW	MCH	MECHANICAL
BTM	BOTTOM	MFR	MANUFACTURER
C	CONDUIT	MH	MANHOLE
CT	CURRENT TRANSFORMER	MIN	MINIMUM
CAP	CAPACITY	MISC	MISCELLANEOUS
CFM	CUBIC FEET/MINUTE	MLO	MAIN LUGS ONLY
CIRC	CIRCULATING	MTD	MOUNTED
CKT	CIRCUIT	MTG	MOUNTING
CLG	CEILING	NIC	NOT IN CONTRACT
CONC	CONCRETE	NO	NUMBER
CONN	CONNECTION	NTS	NOT TO SCALE
CONST	CONTINUOUS	OC	ON CENTER
CONT	CONTINUOUS	OPNG	OVERHEAD OPENING
CONTR	CONTRACTOR	PC	PENDING
CU	COPPER	PEND	PENDANT
DED	DEDICATED	PND	PLUMBING
DET	DETAIL	PNL	PANEL
DIM	DIMENSION	PS	PRESSURE SWITCH
DISC	DISCONNECT	PT	POTENTIAL TRANSFORMER
DIV	DIVISION	REC	RECESSED
DN	DOWN	REC'S	RECEPTACLES
DNR	DRAWING	RECEPT	RECEPTACLE
DWG	DRAWING	REDD	REQUIRED
EA	EACH	RM	ROOM
EC	ELECTRICAL	SECT	SECTION
ELEV	ELEVATOR	SM	SQUARE FEET
EM	EMERGENCY ONLY	STD	STANDARD
EM GEN	EMERGENCY GENERATOR	STD	STANDARD
ENCL	ENCLOSURE	STL	STEEL
EQUIP	EQUIPMENT	STOR	STORAGE
EW	ELECTRIC WATER COOLER	STRUC	STRUCTURAL
EXH	EXHAUST	SURF	SURFACE
EXT	EXISTING	SUSP	SUSPENDED
EXT	EXTERIOR	SW	SWITCH
F & I	FURNISHED & INSTALLED	TELE	TELEPHONE
FACP	FIRE ALARM CONTROL PANEL	TEMP	TEMPERATURE
FBO	FURNISHED BY OTHERS	TERM	TERMINAL
FP	FIRE PROTECTION	T-STAT	THERMOSTAT
FPC	FIRE PROTECTION CONTRACTOR	TV	TELEVISION
FIN	FINISH	TYP	TYPICAL
FIXT	FIXTURE	UG	UNDERGROUND
FLR	FLOOR	UH	UNIT HEATER
FLUOR	FLUORESCENT	UV	UNIT VENTILATOR
FU	FUSE	VOL	VOLUME
GA	GAUGE	VOT	VISUAL DISPLAY TERMINAL
GC	GENERAL CONTRACTOR	VERT	VERTICAL
GFI	GROUND FAULT INTERRUPTER	VOL	VOLUME
GRD	GROUND	W/	WITH
HP	HORSEPOWER	WP	WEATHERPROOF
HT	HEIGHT	WT	WEIGHT
HTG	HEATING	XFMR	TRANSFORMER
HV	HIGH VOLTAGE		
HW	HOT WATER		
HZ	HERTZ		

## MOUNTING HEIGHTS ELEVATION



**MOUNTING HEIGHT NOTES:**  
MOUNTING HEIGHTS TO CENTER OF OUTLETS UNLESS OTHERWISE NOTED. IN MASONRY CONSTRUCTION, HEIGHTS SHALL BE USED FOR REFERENCE TO NEAREST BLOCK OR BRICK COURSING.  
THE ABOVE MOUNTING HEIGHTS SHALL BE ADHERED TO UNLESS SPECIFICALLY NOTED OR DETAILED OTHERWISE ON THE DRAWINGS OR SPECIFICATIONS.  
A + BESIDE A DEVICE INDICATES THAT A DEVICE IS MOUNTED ABOVE A COUNTER OR CASEWORK. COORDINATE WITH ARCHITECTURAL DWGS. & CASEWORK CONTRACTOR.

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NJ PROFESSIONAL PLANNER No. 33J00555700  
NJ REGISTERED ARCHITECT No. 21A01487200

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

PROJECT:

**CAMDEN COUNTY COLLEGE  
SMOKE TOWER STRUCTURE  
CAMDEN COUNTY FIRE ACADEMY AT THE  
REGIONAL EMERGENCY TRAINING CENTER**

420 NORTH WOODBURY-TURNERSVILLE ROAD  
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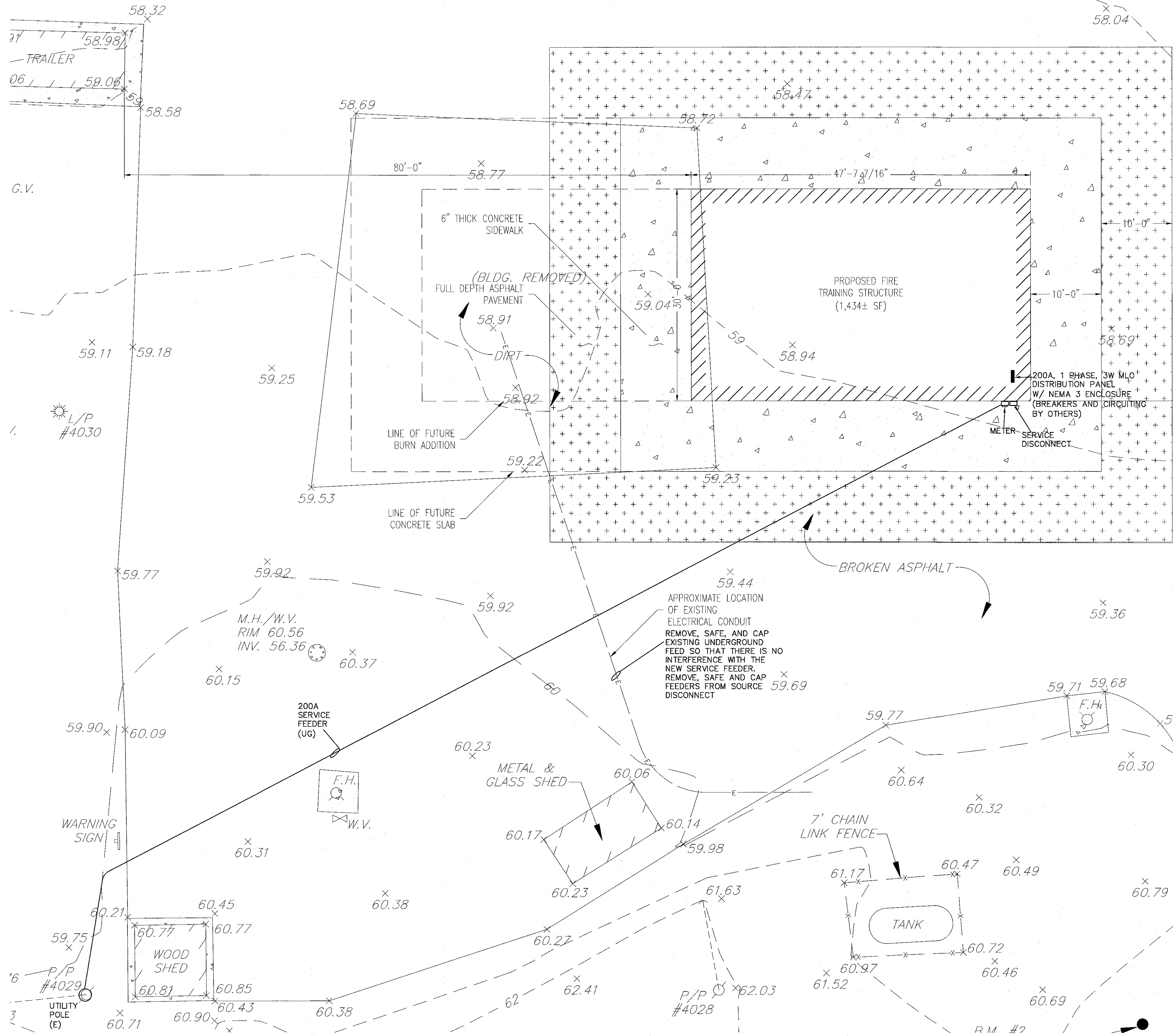
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REVISIONS		
NO.	DESCRIPTION	DATE

DRAWING TITLE:  
**ELECTRICAL  
COVER  
SHEET**

JOB NO: CCC2023-01	DESIGNED BY: DM3
DATE: MAY 30, 2024	DRAWN BY: DM3
SCALE: AS NOTED	CHECKED BY: SMB
DRAWING NUMBER:	

**EC1**



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

**GENERAL REQUIREMENTS FOR ELECTRICAL WORK**

1. CONTRACTOR SHALL PROVIDE LABOR, MATERIAL, EQUIPMENT AND SERVICES FOR THE PROPER INSTALLATION AND OPERATION OF THE ELECTRICAL WORK AS INDICATED ON THE DRAWINGS AND AS SPECIFIED.
2. LABOR, MATERIAL, EQUIPMENT AND SERVICE OBVIOUSLY NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF ELECTRICAL SYSTEMS, ALTHOUGH NOT SPECIFICALLY MENTIONED OR SHOWN, SHALL BE PROVIDED.
3. ELECTRICAL WORK SHALL CONFORM TO THE LATEST EDITIONS OF THE NATIONAL ELECTRIC CODE AND APPLICABLE LAWS, CODES AND REGULATIONS OF MUNICIPAL, COUNTY, STATE, FEDERAL, AUTHORITIES UTILITY COMPANIES, INSURANCE AGENCIES AND OTHER AUTHORITIES HAVING JURISDICTION OVER THE WORK. IN CASE OF CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS AND THE CODES, THE HIGHEST STANDARD SHALL APPLY. ELECTRICAL CONTRACTOR SHALL SATISFY CODE REQUIREMENTS AS A MINIMUM STANDARD WITHOUT ANY EXTRA COST TO OWNER OR THE LICENSEE.
- CONTRACTOR AND ALL EMPLOYEES SHALL FAMILIARIZE THEMSELVES WITH OWNERS, STATE, LOCAL AND FEDERAL CONSTRUCTION SAFETY GUIDELINES PRIOR TO THE COMMENCEMENT OF WORK.
4. OBTAIN, PAY FOR AND DELIVER PERMITS AND CERTIFICATES OF INSPECTION AS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION. DELIVER CERTIFICATES TO THE OWNER PRIOR TO FINAL ACCEPTANCE OF THE WORK. AN ELECTRICAL INSPECTION CERTIFICATE, FOR EACH CLASS OF WORK REQUIRING INSPECTION, MUST BE SUBMITTED PRIOR TO OR WITH THE FINAL PAYMENT INVOICE. CONTRACTOR MUST MAKE APPLICATION FOR THE INSPECTION, COORDINATE SAME, AND PAY THE REQUIRED INSPECTION FEE.
5. BEFORE SUBMITTING HIS BID, TRADE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN THE FIELD. FAILURE TO DO SO SHALL NOT RELIEVE TRADE CONTRACTOR OF HIS OBLIGATION TO PAY FOR COSTS THAT MAY BE INCURRED DUE TO CONDITIONS THAT MAY AFFECT THE COST OF INSTALLING HIS WORK. THE ELECTRICAL CONTRACTOR SHALL THOROUGHLY EXAMINE ALL AREAS WHERE EQUIPMENT, CONDUIT, AND WIRING WILL BE INSTALLED AND WILL REPORT ANY CONDITION THAT, IN HIS OPINION, PREVENTS THE PROPER INSTALLATION OF THE ELECTRICAL WORK.
6. DRAWINGS ARE DIAGNOSTIC, SMALL SCALE AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED. HOWEVER, CERTAIN RACEWAYS, BOXES, FITTINGS, BOXES, SYSTEM COMPONENTS, APPURTENANCES AND RELATED SPECIALTIES ARE NOT SHOWN, BUT SHALL BE PROVIDED TO INSURE A COMPLETE INSTALLATION.
7. CONSULT THE DRAWINGS FOR EXACT LOCATION OF FIXTURES AND EQUIPMENT. WHERE SAME ARE NOT DEFINITELY LOCATED, OBTAIN THIS INFORMATION FROM THE ARCHITECT/ENGINEER.
8. INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE WORK COMPLETE AND READY FOR OPERATION, EVEN IF NOT PARTICULARLY SPECIFIED OR SHOWN, SHALL BE PROVIDED WITHOUT ADDITIONAL CHARGE. MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED, BUT MANIFESTLY NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE VARIOUS SYSTEMS, SHALL BE INCLUDED IN THE WORK. THE SAME AS IF SPECIFIED OR SHOWN ON THE DRAWINGS. NO SUCH DEPARTURES SHALL BE MADE WITHOUT PRIOR WRITTEN REVIEW.
9. NO CONSIDERATION OR ALLOWANCE SHALL BE GRANTED FOR ALLEGED MISUNDERSTANDING OF MATERIALS AND EQUIPMENT TO BE FURNISHED FOR WORK TO BE ACCOMPLISHED.
10. THE ELECTRICAL CONTRACTOR SHALL UNCONDITIONALLY WARRANT ALL WORK TO BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE BY OWNER. WILL REPAIR OR REPLACE ANY DEFECTIVE WORK PROMPTLY AND WITHOUT CHARGE AND RESTORE ANY OTHER EXISTING WORK DAMAGED IN THE COURSE OF REPAIRING DEFECTIVE MATERIALS AND WORKMANSHIP.
11. MATERIAL AND EQUIPMENT IN THE WORK SHALL BE NEW, FIRST GRADE, FIRST CLASS, THE BEST OF THEIR RESPECTIVE KINDS, APPROPRIATE FOR THE APPLICATION AND ENVIRONMENT. EQUIPMENT AND MATERIALS SHALL CONFORM WITH APPROPRIATE PROVISIONS OF CSA, UL, NEC, ASTM, UL, ETL, NEMA, ANSI, AS APPLICABLE TO EACH INDIVIDUAL UNIT OR ASSEMBLY.
12. EQUIPMENT OR APPARATUS FOR ANY ONE SYSTEM SHALL BE THE PRODUCT OF ONE MANUFACTURER. THE TERM "MANUFACTURER" SHALL BE UNDERSTOOD AS APPLYING TO A COMPANY OF ESTABLISHED REPUTATION IN THE MANUFACTURE OF A PARTICULAR PIECE OF EQUIPMENT OR APPARATUS FROM PRODUCTS OF HIS OWN MAKE OR OTHERS, AND WHO ASSUMES FULL RESPONSIBILITY FOR PRODUCTS USED IN SUCH EQUIPMENT OR APPARATUS. THE MANUFACTURER MUST SUBMIT EVIDENCE OF FIVE (5) YEARS OR MORE MANUFACTURING EXPERIENCE IN THE PRODUCTION OF THESE PRODUCTS.
13. MATERIAL OR EQUIPMENT SPECIFIED BY MANUFACTURER, BRAND NAME, TYPE, OR CATALOG NUMBER ARE DESIGNED TO ESTABLISH STANDARDS OF DESIRED QUALITY, STYLE, PERFORMANCE, ELECTRICAL, MECHANICAL AND PHYSICAL CHARACTERISTICS, AND DIMENSIONS.
14. WHERE CABLE PASSES THROUGH FIRE RATED STRUCTURES PROVIDE FIREPROOF FITTINGS.
15. RACEWAYS SHALL BE CONCEALED IN THE CONSTRUCTION EXCEPT AS OTHERWISE SPECIFIED OR SHOWN.
16. WHERE CONDUIT TERMINATES IN A CABINET, BOX OR AUXILIARY GUTTER, THE CONDUCTORS SHALL BE PROTECTED BY AN INSULATING BUSHING. LOCKNUTS SHALL BE PROVIDED BOTH INSIDE AND OUTSIDE THE ENCLOSURE.
17. A PULL WIRE SHALL BE INSTALLED IN EMPTY RACEWAYS. PULL WIRE SHALL BE 200 POUND TEST NYLON. BOTH ENDS SHALL BE IDENTIFIED BY MEANS OF LABELS OR TAGS, READING "PULL WIRE" AND GIVING THE ORIGIN AND TERMINATION POINTS.
18. GENERALLY, WIRING (OTHER THAN EMERGENCY) SHALL BE DONE WITH INSULATED COPPER CONDUCTORS IN CONTINUOUSLY GROUNDED METAL CONDUIT (EMT), CONDUCTORS AND RACEWAYS SHALL BE FIRST GRADE, INSTALLED CONCEALED IN THE CONSTRUCTION EXCEPT IN MECHANICAL OR ELECTRICAL SPACES, OPEN CONSTRUCTION AREAS OR WHERE SHOWN ON THE DRAWINGS. EMERGENCY WIRING SHALL BE DONE WITH INSULATED COPPER CONDUCTORS IN CONTINUOUSLY GROUNDED METAL CONDUIT (EMT), SEPARATE FROM ALL OTHER WIRING AND RACEWAYS. CONDUCTORS AND RACEWAYS SHALL BE FIRST GRADE, INSTALLED CONCEALED IN THE CONSTRUCTION EXCEPT IN MECHANICAL OR ELECTRICAL SPACES, OPEN CONSTRUCTION AREAS OR WHERE SHOWN ON THE DRAWINGS.
19. MC CABLEING MAY BE USED FOR CONCEALED BRANCH CIRCUIT WIRING ABOVE SUSPENDED CEILING AND INSIDE INTERIOR HOLLOW WALLS AND PARTITIONS. ALL HOME RUNS SHALL BE INSTALLED IN METAL CONDUIT (EMT) FROM CIRCUIT BREAKER PANELS TO EACH AREA.
20. RACEWAYS SHALL BE SUPPORTED TO COMPLY WITH NEC.
21. WHERE TELE/DATA OUTLETS ARE SHOWN, PROVIDE A SINGLE GANG BOX WITH BLANK PLATE AND CONDUIT (1" DIA. MINIMUM) WITH PULL STRING UP TO CEILING SPACE ABOVE.
22. NO "THROUGH-WALL" BOXES SHALL BE PERMITTED. WHERE DRAWINGS INDICATE BOXES BACK-TO-BACK, OR SIMILAR LOCATIONS, SUCH BOXES SHALL BE INSTALLED SEPARATELY, SPACED MINIMUM SIX INCHES APART HORIZONTALLY.
23. FOR CONDUITS OR CABLES THAT PENETRATE FIRE RATED WALLS, FLOORS, PARTITIONS, OR SLABS, FILL AND SEAL SPACES BETWEEN THE CONDUITS OR CABLES AND THE SLEEVE WITH 2-PART INTUMESCENT FOAM SEALANT CREATING A FIRE STOP EQUAL TO OR EXCEEDING FIRE RATING OF CONSTRUCTION MATERIAL BEING PENETRATED. FIRE SEALANT SHALL PREVENT SPREAD OF FLAME, SMOKE, AIR AND WATER THROUGH THE SLEEVE AND SHALL PASS 3 HOUR TEST PER ASTM E814 AND UL 1479. FIRE SEALANT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
24. ALL CONDUITS AND FLEXIBLE METAL CONDUIT SHALL CONTAIN A GROUNDING CONDUCTOR. CONDUITS ARE NOT TO BE USED AS A GROUNDING CONDUCTOR.
25. ALL BRANCH CIRCUIT WIRING SUPPLYING NEW RECEPTACLES AND LIGHTING BEING INSTALLED SHALL BE #12 COPPER CONDUCTORS MINIMUM.
26. ALL NEW DEVICES AND RACEWAYS SHALL BE SPECIFICATION GRADE. NEW RECEPTACLE, SWITCH AND OTHER DEVICES AND COVER PLATES COLORS SHALL BE DETERMINED BY ARCHITECT. EMERGENCY RECEPTACLES SHALL BE RED WITH RED COVER PLATE. PERMANENTLY LABELED WITH PANEL BOARD AND BRANCH CIRCUIT NUMBER SUPPLYING RECEPTACLE.
27. IF REQUIRED, CONTRACTOR SHALL SUPPLY AND INSTALL ADDITIONAL BRANCH CIRCUITS (BREAKERS, RACEWAYS, WIRING, ETC.) AS REQUIRED TO COMPLETE THE PROJECT. CIRCUITS SHALL BE FED FROM EXISTING PANEL.
28. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED TO COMPLY WITH OSHA AND ANSI/ASSE A13.1-2007 STANDARDS FOR THE IDENTIFICATION OF SYSTEMS. THE MARKINGS MUST IDENTIFY THE EQUIPMENT, ITS ORIGIN AND VOLTAGE OF THE CONTENTS. ALL EQUIPMENT SHALL BE IDENTIFIED USING PHENOLIC NAMEPLATES AND LABELED IN ACCORDANCE WITH THE NOMENCLATURE USED ON THE DRAWINGS AND MUST BE COMPATIBLE WITH THE WMS SYSTEM.
29. ALL SYSTEMS WIRING INCLUDING LOW VOLTAGE CONTROLS, FIRE ALARM, NURSE CALL, CCTV AND TELE/DATA SHALL BE INSTALLED IN CONDUIT AND/OR CABLE TRAY/DUCT SYSTEM AND SHALL BE SUPPORTED TO COMPLY WITH THE NEC.
30. CONTRACTOR SHALL PROVIDE AND AFFIX ARC FLASH WARNING LABELS (PER N.E.C. 110.16) AND AVAILABLE FAULT CURRENT LABELS (PER N.E.C. 110.24) TO ALL PANEL BOARDS.
31. CONTRACTOR SHALL PROVIDE TO OWNER A DETAILED DRAWING OF THE WORK PERFORMED. THIS PLAN SHALL INDICATE THE BRANCH CIRCUITS SUPPLYING EACH LIGHT AND DEVICE ASSOCIATED WITH THE WORK PERFORMED ON THIS PROJECT.

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CAMDEN COUNTY FIRE ACADEMY AT THE  
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REVISIONS		
NO.	DESCRIPTION	DATE

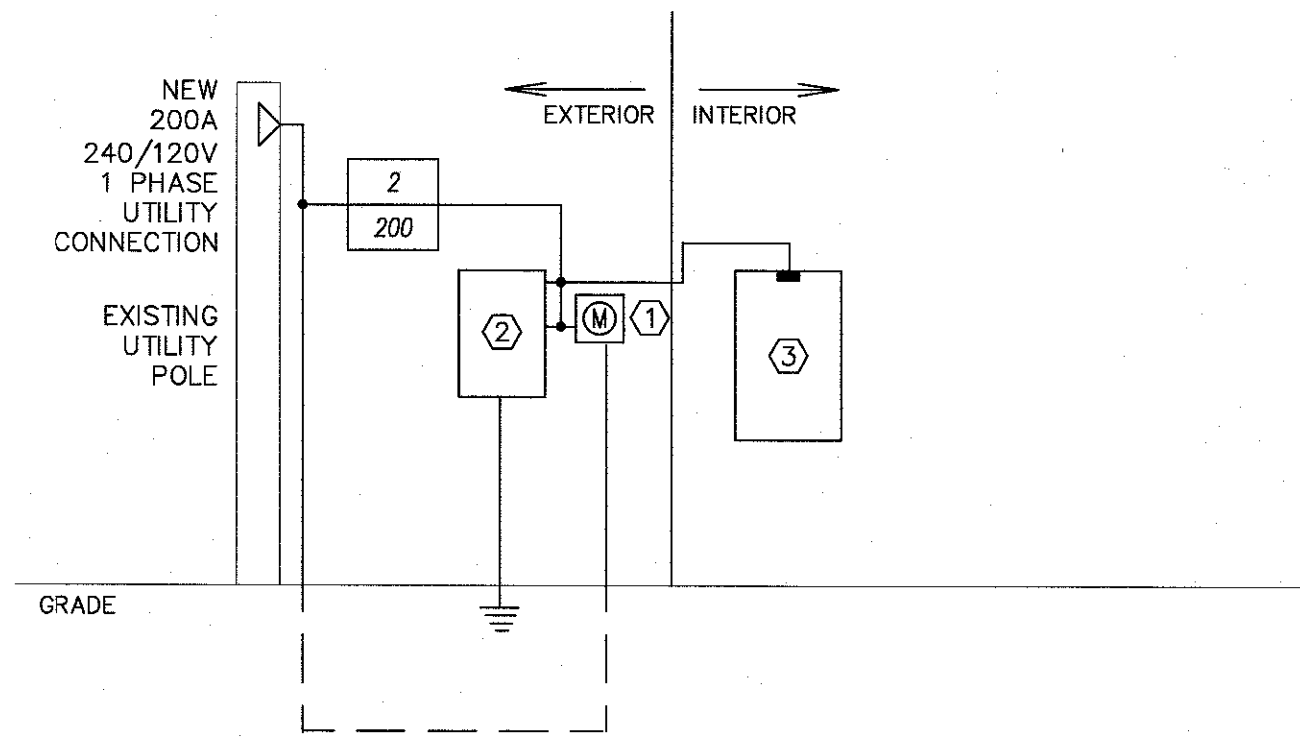
DRAWING TITLE:

**ELECTRICAL  
LOCATION  
PLAN**

JOB NO: CCC2023-01	DESIGNED BY: DM3
DATE: MAY 30, 2024	DRAWN BY: DM3
SCALE: AS NOTED	CHECKED BY: SMB
DRAWING NUMBER:	

**E-1.0**





SINGLE LINE DIAGRAM  
NO SCALE

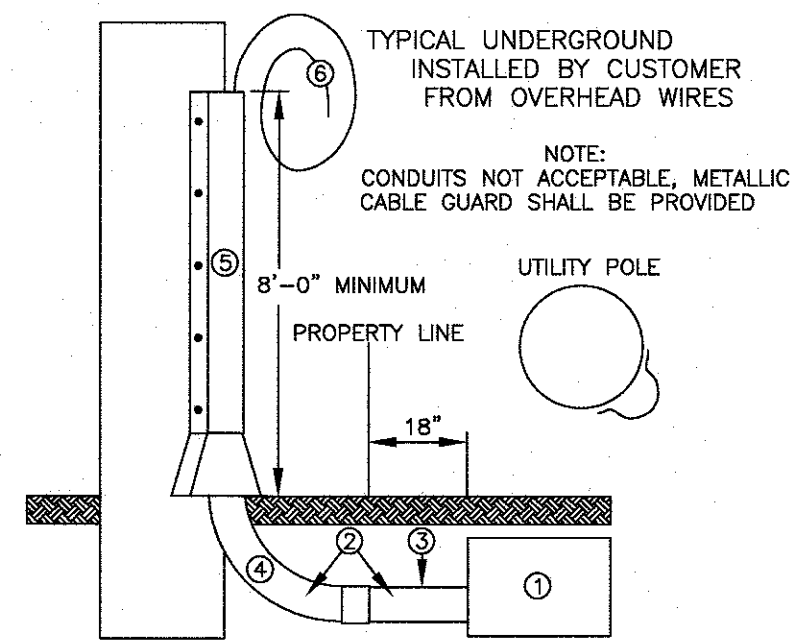
SINGLE LINE DIAGRAM NOTES:

- UTILITY COMPANY METER
- 200A MAIN DISCONNECT
- 200A MAIN PANEL (BY OTHERS)

GENERAL ELECTRICAL NOTES:

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

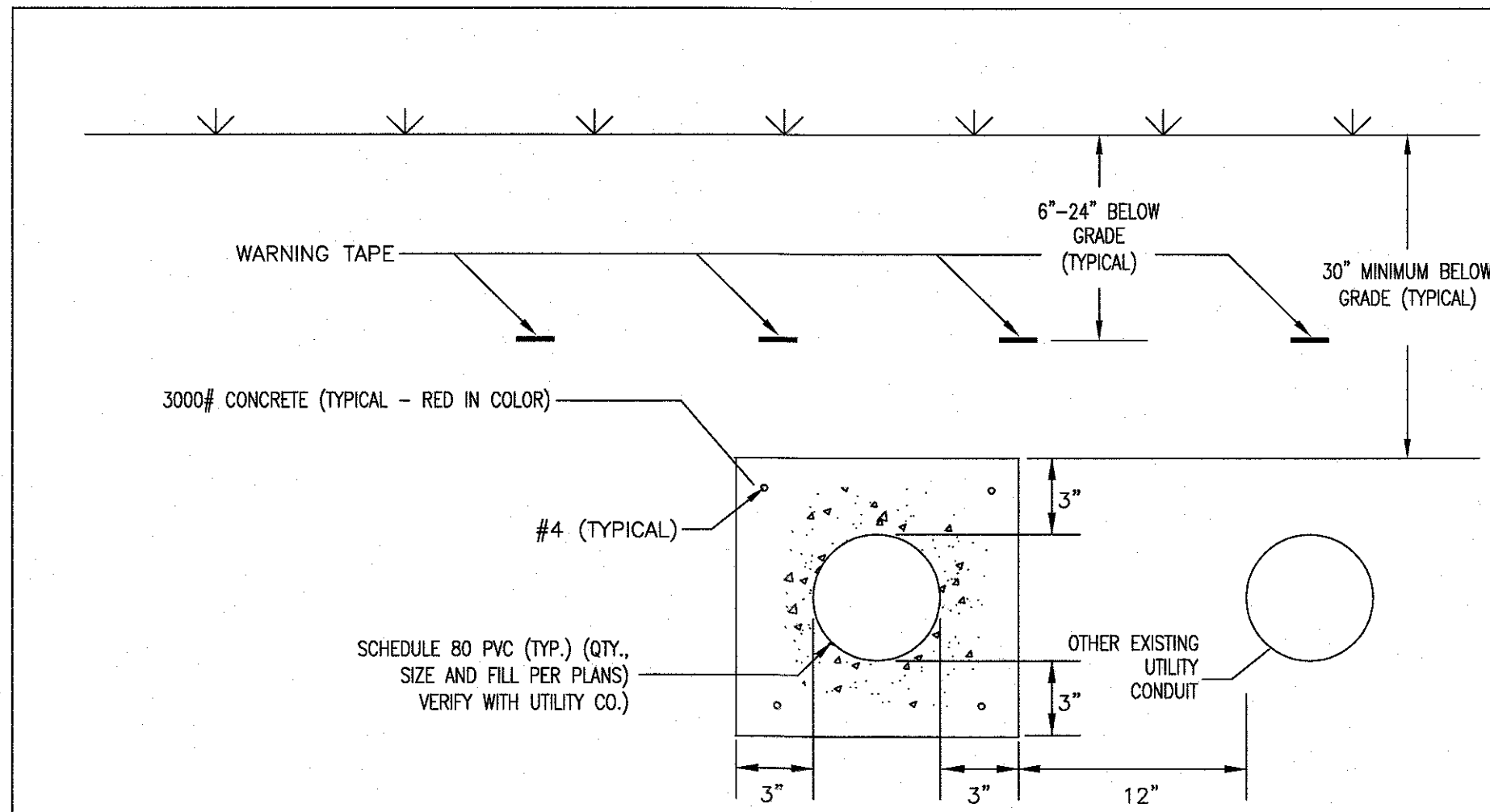
4	FEEDER TYPE
200	FEEDER SIZE
- WHERE SHORT CIRCUIT RATINGS ARE NOT INDICATED, PROVIDE 65 KAIC MINIMUM. AS ACTUAL FEEDER ROUTING MAY VARY, THE SHORT CIRCUIT RATING OF ANY LOAD CENTER MAY BE REDUCED TO 10 KAIC IF THE FEEDER LENGTH FROM THE UTILITY TRANSFORMER TO THE LOAD CENTER EXCEEDS 70 FEET.



- | ITEM             | SECONDARY   | 13KV                           | 34KV                           |
|------------------|---|--------------------------------|--------------------------------|
| 1. SPLICE BOX    | CONSULT UTILITY CO.   | CONSULT UTILITY CO.            | CONSULT UTILITY CO.            |
| 2. CONDUIT       | CONSULT UTILITY CO. 2" MINIMUM  | CONSULT UTILITY CO. 3" MINIMUM | CONSULT UTILITY CO. 5" MINIMUM |
| 3. CONDUIT       | 24" MINIMUM   | 30" MINIMUM                    | 30" MINIMUM                    |
| 4. RADIUS        | 24" MINIMUM   | 30" MINIMUM                    | 30" MINIMUM                    |
| 5. PROTECTION    | METALLIC GUARD  | METALLIC GUARD                 | METALLIC GUARD                 |
| 6. CABLE ON POLE | CABLE SHALL BE SECURELY FASTENED TO POLE AND OF SUFFICIENT LENGTH TO PERMIT THE CONNECTION TO UTILITY COMPANY CONDUCTORS. THE UTILITY COMPANY WILL CONNECT THE CABLE ON THE POLE TO THE UTILITY COMPANY CONDUCTORS AND ASSUME OWNERSHIP OF FACILITIES ON ITS SIDE OF THE SERVICE POINT. |                                |                                |

UTILITY POLE DETAIL

NO SCALE

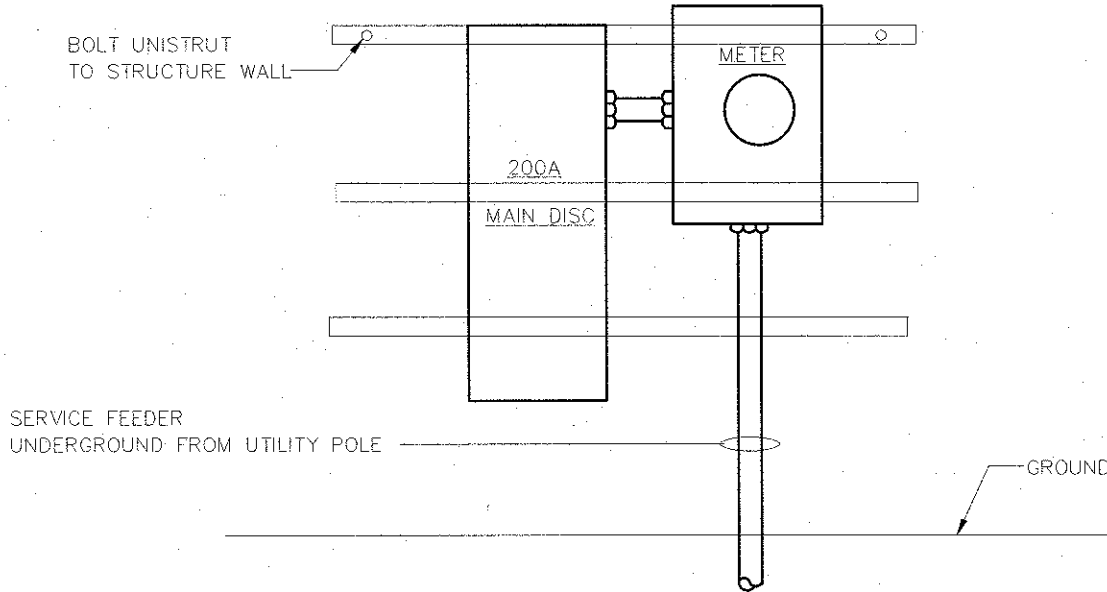


2  
E-1 ELECTRICAL DUCT BANK DETAIL

SCALE  
NONE

DETAIL NOTES:

- DETECTABLE UNDERGROUND TAPE: BURY AS SHOWN BELOW GRADE. USE SETON STYLE 85517 (6" RED TAPE WITH BLACK LETTERS - "CAUTION: BURIED ELECTRICAL LINE BELOW"
- DETECTABLE UNDERGROUND TAPE: BURY AS SHOWN BELOW GRADE. USE SETON (6" YELLOW TAPE WITH BLACK LETTERS - "CAUTION: BURIED UTILITY LINE BELOW"
- MAINTAIN 12" MINIMUM OUTSIDE TO OUTSIDE DIAMETER SEPARATION BETWEEN ELECTRICAL AND OTHER EXISTING UTILITY CONDUITS.
- BACKFILL WITH 1-13 SELECT BACKFILL. COMPACT IN 6" LIFTS. RESTORE SURFACE TO MATCH SURROUNDINGS.
- PVC SCHEDULE 80 CONDUIT. SEE PLAN FOR SIZE, QUANTITY AND FILL.



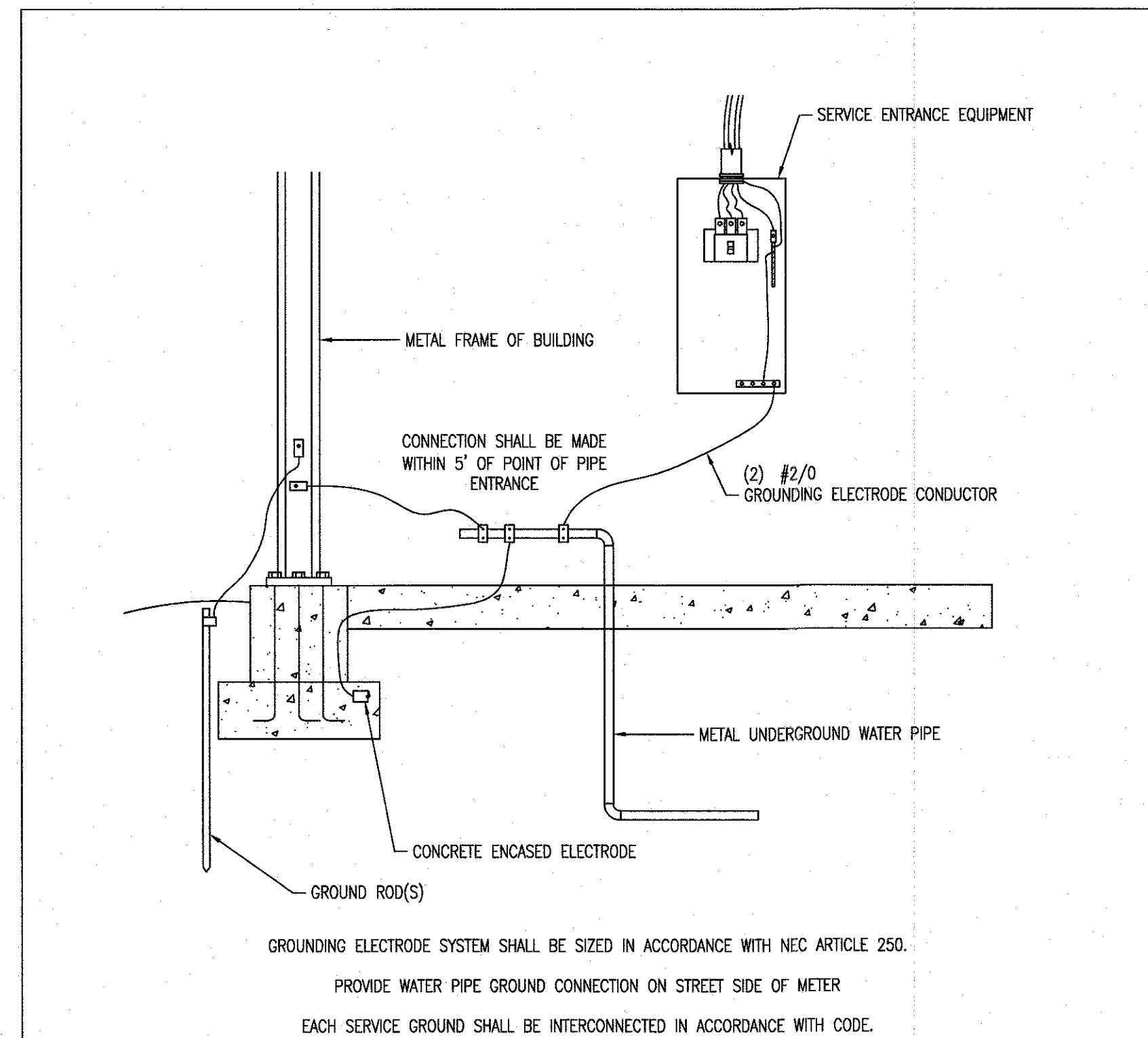
SURFACE MOUNTED METER & DISCONNECT

N.T.S.

ENTRANCE TO AND EGRESS FROM WORKING SPACE:

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

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



2  
E-2.0 GROUNDING DETAIL

SCALE  
NONE

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

PROJECT:

CAMDEN COUNTY COLLEGE  
SMOKE TOWER STRUCTURE  
CAMDEN COUNTY FIRE ACADEMY AT THE  
REGIONAL EMERGENCY TRAINING CENTER  
420 NORTH WOODBURY-TURNERSVILLE ROAD  
BLACKWOOD, NEW JERSEY 08012

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REVISIONS		
NO.	DESCRIPTION	DATE

DRAWING TITLE:

ELECTRICAL  
SINGLE LINE &  
SCHEDULES

JOB NO: CCC2023-01	DESIGNED BY: DM3
DATE: MAY 30, 2024	DRAWN BY: DM3
SCALE: AS NOTED	CHECKED BY: SMB
DRAWING NUMBER:	

E-2.0