



**ROCKFORD BOARD OF EDUCATION  
INVITATION FOR BID ON SUPPLIES, MATERIALS, EQUIPMENT OR SERVICES  
FOR SCHOOL DISTRICT NO. 205  
ROCKFORD, ILLINOIS**

**IFB No. 17-26 Eisenhower Middle School HVAC and Roof Access Renovations**

**DATE: Thursday, February 2, 2017**

**RE: ADDENDUM NO. 1**

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To All Bidders:

Attached are modifications, clarifications and/or corrections for the Project Manual and are hereby made a part of the contract documents. Please attach this addendum to the Project Manual(s) in your possession. Please note the receipt of this addendum on the bid form. Bidders shall review changes to all portions of this work as changes to one portion may affect the work of another.

**If you plan to hand deliver your IFB submission on the due date, please note you must check in on the 3rd floor prior to coming to the bid opening. Please allow time for this as late submission will not be accepted.**

Refer all questions relative to the business aspect, Instructions to Bidders, Special Conditions, and questions concerning the technical aspect of the documents to the Purchasing Manager by email at [tamara.pugh@rps205.com](mailto:tamara.pugh@rps205.com).



EISENHOWER MIDDLE SCHOOL  
HVAC AND ROOF ACCESS RENOVATIONS  
ROCKFORD PUBLIC SCHOOLS 205  
ROCKFORD, ILLINOIS

**LARSON & DARBY GROUP**

4949 Harrison Avenue, Suite 100  
815/484-0739

**ARCHITECTS-ENGINEERS-PLANNERS**

P. O. Box 5207, Rockford, IL 61125-0207  
FAX 815.229.9867

TO: ALL BIDDERS

RE: ADDENDUM #1

Changes to Bidding Documents Dated January 13, 2017

PROJECT: EISENHOWER MIDDLE SCHOOL  
HVAC AND ROOF ACCESS RENOVATIONS  
ROCKFORD PUBLIC SCHOOLS 205  
ROCKFORD, ILLINOIS

PROJECT NO.: 25108

DATE: February 1, 2017

Please attach this Addendum to the Project Manual and Drawings for the referenced project. Take the changes to the Project Manual and Drawings into consideration in preparing your Bid.

Bidders shall make note in writing on Bid Form that this Addendum has been taken into consideration. Failure to do so may be sufficient cause to reject the Bid.

LARSON & DARBY GROUP

By \_\_\_\_\_  
Stephen M. Nelson

This Addendum consists of 2 pages, plus materials itemized herein.

I. PRE-BID MEETING

- A. Minutes of the Pre-Bid Meeting (2 pages) are issued herewith.
- B. Pre-Bid Meeting Sign-in Sheet (2 pages) is issued herewith.

II. GENERAL CLARIFICATIONS

- A. The following is clarified, added or modified:

- a. Clarification: The following questions were raised:

- 1. On Sheet M-1 states on Key Note 1 to provide additional structure as required (assume simple adding an angle across existing bar joists, etc.) for new ACCU's and Sheet MD1.1 indicates the existing condensing units to be removed. Are the existing curbs to be utilized and curb adapters used or are the existing curbs to be removed and new curbs installed?

***Existing units set on spring isolators and rubber pads. New units shall set on I-beams with angle channel bracing similar to recently replaced units. Refer to attached pictures.***



2. Please add a specification section that further clarifies the two (2) alternates, "Roof Access Renovations" and "Pool Renovations". EG. Does roof access renovations include only the ladders shown on Sheet A1.2, detailed on Sheet A4.1 (details 1 – 4) and associated painting and the seven (7) ladders to the Mezzanine shown on Sheet A1.1, detailed on Sheets A4.1 & A4.2 are not part of an access way toward the roof?  
**No added specification section. Clarification for roof access renovation alternate A1. Base Bid: Exclude roof access renovations including all interior roof ladders. Alternate Bid: Include roof access renovations including all interior roof ladders.**
3. Which H.V.A.C. units are part of the pool ventilation, electrical, controls, roof patching, etc.?  
**Refer to attached sheet re-issued sheets M1.3 & E1.0.**
4. Is there roof patching required? Is there a roofing specification? If patching, what is the type/brand of existing roof? Are there warranties that are needed to be maintained?  
**Pipe roof penetration curb for refrigerant piping is specified and thus roof patching around the curb is required. There is no roofing specification. Existing roof type is adhered Tan TPO. No warranties are needed to be maintained.**
5. There is steel stud framing and drywall work shown for ladder number 6. Please provide specification for required materials. Is there patching required for the other six access ladders? If so, what is the existing construction (steel studs, drywall, acoustical, steel joists, concrete, etc).? Are structural member cut, shoring, etc. required?  
**Refer to attached re-issued sheet A4.2. Some patching may be required for the access ladders. No structural members are to be cut, some shoring may be required for existing ceiling.**
6. Are all the metal fabrications (Section 055000, metal ladders, safety cages, and steel handrails) to receive a galvanized finish? The specification suggest it, but no specific schedule is listed. Bar Grating (Section 055313 states all exterior frames and supports are to receive galvanizing, paragraph 2.6.B.1).  
**Yes, all steel ladders, safety cages, steel handrails and bar grating are all to receive galvanized finish. They are also to be field painted.**
7. Painting Specification (099100) states to paint steel ladders, cages, and handrails (paragraph 1.1.A.1 & 2). The schedule only indicates paint for exterior (paragraph 3.3.A.1), but there is also interior handrails. Do the painted items not require galvanizing? There is not paint specification for new drywall.  
**Yes, all steel ladders, safety cages and steel handrails are to be painted. They are also to be shop galvanized. See note on re-issued sheet A4.2 on paint for new drywall.**
8. Supplemental Conditions Item No. 12 indicates contractor to be responsible for site security, including temporary fences. Please confirm that no fences, other than protection of excavations, and that the District will secure building at end of construction each day.  
**Yes, no fences other than those for the protection of excavations. Owner's response: "The contractor is responsible to secure access to the AHU platforms and leave their work areas in a safe condition when leaving the site. Buildings will be secured by RPS at the end of each work day. Access to areas affected by creane lifts must be restricted for safety."**
9. Confirm that no temporary moisture control or air conditioning will be required during outages of h.v.a.c. equipment.  
**Temporary cooling is not required during the construction of this project.**
10. The 13'-6" floor to ceiling height requires a "deep box" vs. the "deep angle" stair that is detailed. The deep box (vertical section of stairway "inside the box") is what you show for the other six(6). The 13'-6" floor to ceiling height requires that the stairway be made 22" wide in lieu of the standard 30". This should be clarified or the other option may be to extend the framing down to "lower" the ceiling height. The "end" of the stairway is perpendicular to the doorway and ends into only what is probably open



ceiling framing. This looks like a safety concern. Should a platform/railing or other modification be looked at?

***Refer to drawings A4.1 and A4.2.***

11. The 10'-0" floor to ceiling height could allow a "deep angle" stair installed vs. the "deep box" shown. This would allow the stair to continue on an angle in lieu of having a vertical section at the top. Please clarify.

***Refer to drawings A4.1 and A4.2.***

12. The stair box is shown to abut the mezzanine only at the top width (30") of the stair. There is no support for the stair box at the other three (3) sides. Will this arrangement support the stair? Is the deep box vertical section of the stair aligned with the beam placed this way to allow the box to be supported only along that edge?

***Refer to drawings A4.1 and A4.2***

13. Are there any optional stair safety railings required not indicated on the drawings?

***No.***

14. During the pre-construction the contractors were not allowed to see where the stairways are going to be placed. Can a time be provided where we can verify existing conditions?

***Yes, a time can be set up with RPS to see the site and verify existing conditions.***

15. Do any parts of the retractable stairways required field painting? If so, where?

***No field painting is required.***

### III. ADDITIONS OR CHANGES TO THE PROJECT MANUAL

#### TABLE OF CONTENTS

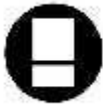
- A. Revised the heading shown on the table of contents to read: "Eisenhower Middle School" in lieu of "Auburn High School".

### IV. ADDITIONS OR CHANGES TO THE DRAWINGS

- A. Sheets A4.1, A4.2, M1.3 & E1.0 are reissued.
- B. Sheet M1.1:
- a. Revise Keyed Note #2 to read: "Cut existing roof as required to provide new piping curb per detail #2 on this sheet. Coordinate location with existing roof penetration. Patch curb and roof as required to match existing."

END OF ADDENDUM #1





## PRE-BID MEETING MINUTES

**January 27, 2017**

### Rockford Public School District #205

#### Eisenhower Middle School HVAC and Roof Access Renovations

LDG Project No.: 25108

Phase: Bidding

Meeting #	Meeting Location	Time	Next Mtg.	Next Time	Next Location	Preparer
1	Eisenhower Middle School Cafeteria	3:00 pm	N/A	N/A	N/A	SAT

Luke Butz	RPS205 - Project Manager	X
Raed Salem	Larson & Darby Group - Mechanical Engineer	X

See attached Sign -In Sheet for all other meeting participants.

<b>Purpose of Meeting:</b>	Mandatory Pre-Bid Submission Meeting
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Item	Topic/ Description	Responsible Firm/ Person	Initial Date	Due Date	Status
1.0	<b>Introductions/Brief Review</b>	RPS/LDG	1.27.17	N/A	Complete
a.	Mr. Luke Butz welcomed everyone and then proceeded to read the Pre-Bid Conference Opening Statement provided by the District in its entirety.				
b.	Mr. Raed Salem, from Larson & Darby Group introduced himself and briefly went over the scope of work for the project which include selective demolition, HVAC and associated electrical work, retractable stairs, concrete work, and painting.				

Item	Topic/ Description	Responsible Firm/ Person	Initial Date	Due Date	Status
2.0	<b>Questions/Discussion/Tour</b>	RPS/LDG	1.27.17	N/A	Complete
a.	Mr. Salem went over some questions that had been asked before the meeting which will be added in an addendum. This included an equipment mounting rail option, additional specification information, and that no temporary air condition would be required during outages of HVAC equipment.				
b.	Mr. Butz emphasized that coordination would be required as there will be summer classes from June 7 <sup>th</sup> until July 12 <sup>th</sup> and that two thirds of the classrooms will be used. He mentioned that it might be required to mobilize twice to install the condensing units.				



- c. Mr. Salem stated that the alternates in this project will be more clearly defined in an addendum. He also talked about the difficulty of installing the coils to replace the condensing units.
- d. Mr. Butz pointed out that after today's meeting, the bidders are not allowed to speak to any of the architects or engineers, or other district personnel. All questions must be sent in writing directly to Tamara Pugh per the opening statement.
- e. Mr. Butz then asked for any questions and eventually began a brief tour of an example of roof access in the kitchen. Since areas were not able to be accessed, the owner will provide any necessary information or allow another visit if requested.

The foregoing constitutes our understanding of matters discussed and conclusions reached. Other participants are requested to review and advise the undersigned, in writing, of any omissions or different understanding that they may have.

By: Stephen Tenney  
Intern Architect  
Larson & Darby Group





PRE-BID MEETING SIGN-IN SHEET

IFB # 17-26 Eisenhower Middle School HVAC and Roof Access Renovations

Friday, January 27, 2017 3:00 pm (CST)

	Printed Name	Company Name	Company Address	Telephone	E-mail
1	Luke Butz	RPS 205	1907 Kishwaukee St.	779-268-0673	luke.butz@rps205.com
2	JASON WISEMAN	CMI	50 1st St. Dunlap IL	309-243-7968	JASON@CMI.BZ
3	BILL GORMAN	STOSTROM	1129 Harrison Ave, RFD, IL	815-509-1719	bgorman@ststromconstruction.com
4	Paul Nelson	Nelson Carlson mech.	1417 22nd St. Rockford IL 61109	815-398-1910	PNelson@NelsonPiping.com
5	TODD BYXBE	Miller Eng. Co	1616 So. Main St, Rockford, IL	815-963-4878	TByxbe@Mecogroup.com
6	Jen Hopkins	mechanical Inc	2279 Yellow Creek Rd Freeport, IL 61032	815-235-1955	jhopkins@mechinc.com
7	STEPHEN TENNEY	Larson & Darby	4949 Harrison Rockford IL Rockford, IL	815-484-0739	stanney@larsondarby.com
8	Todd Grinnell	Distinctive Roofing	1555 New Milford School Rd	815 703 1173	Disttodd@aol.com



ROCKFORD PUBLIC SCHOOLS  
 17-26 Eisenhower Middle School HVAC and Roof Access Renovations  
 Pre-Bid Meeting Sign-In Sheet  
 Friday, January 27, 2017 at 3:00 p.m.

	Printed Name	Company Name	Company Address	Telephone	E-mail
9	Raed Salem	LDG	46149 Harrison Ave	815-848-0739	rsalem@lumsdixby.com
10	Greg Hill	Nelson Carlson Mech.	1417 22nd St. Rockford IL 61108	815 398-1910	G Hill @ NelsonPiping@aol.com
11					
12					
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20					











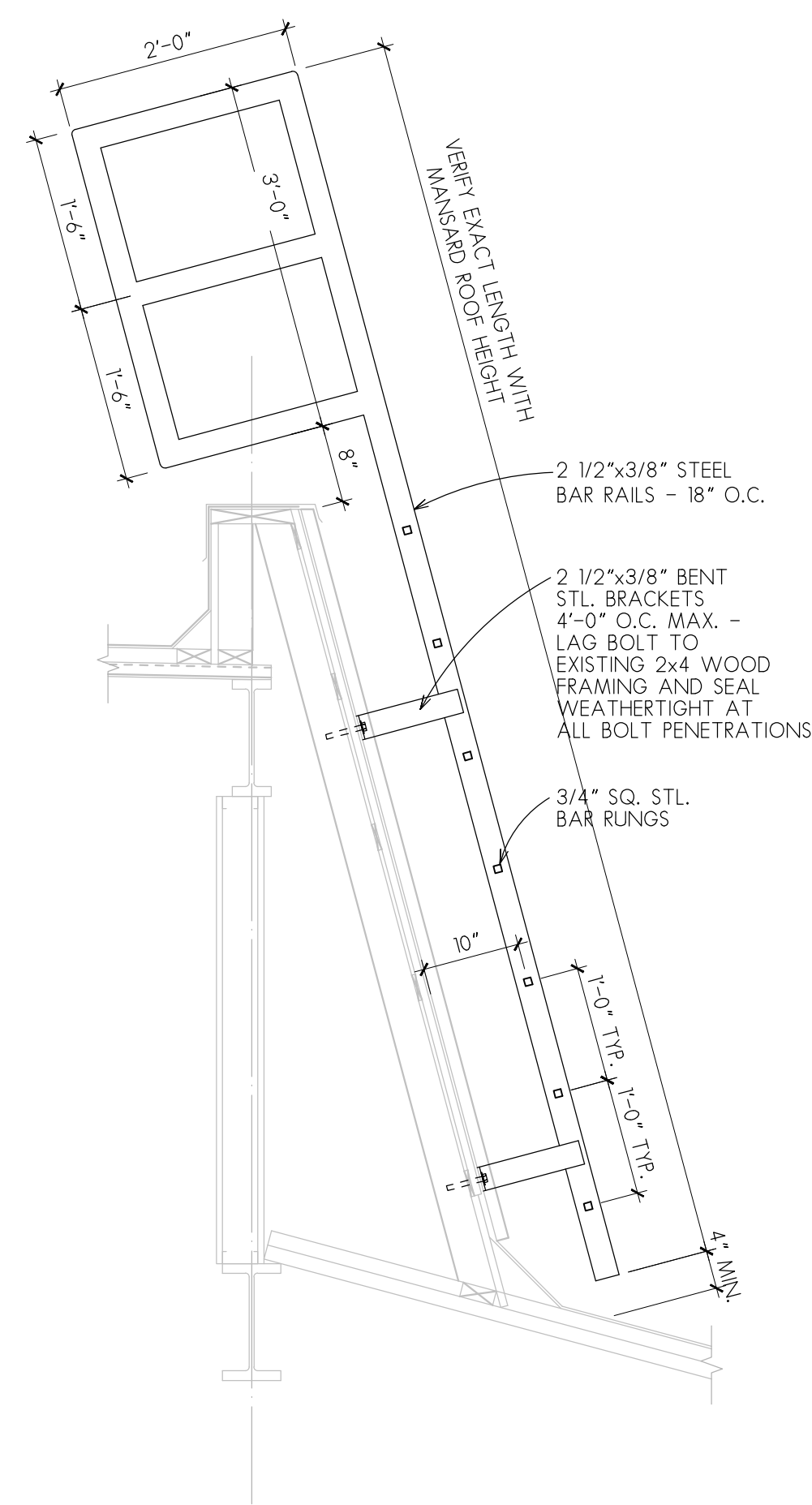




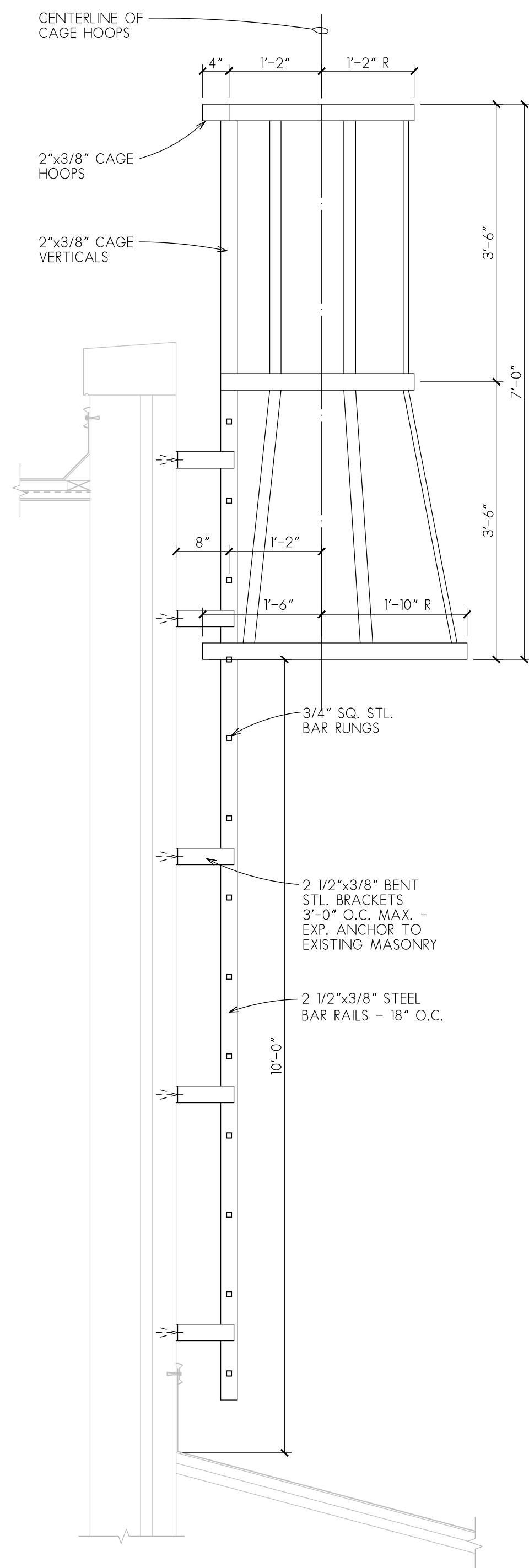


ACCU-3

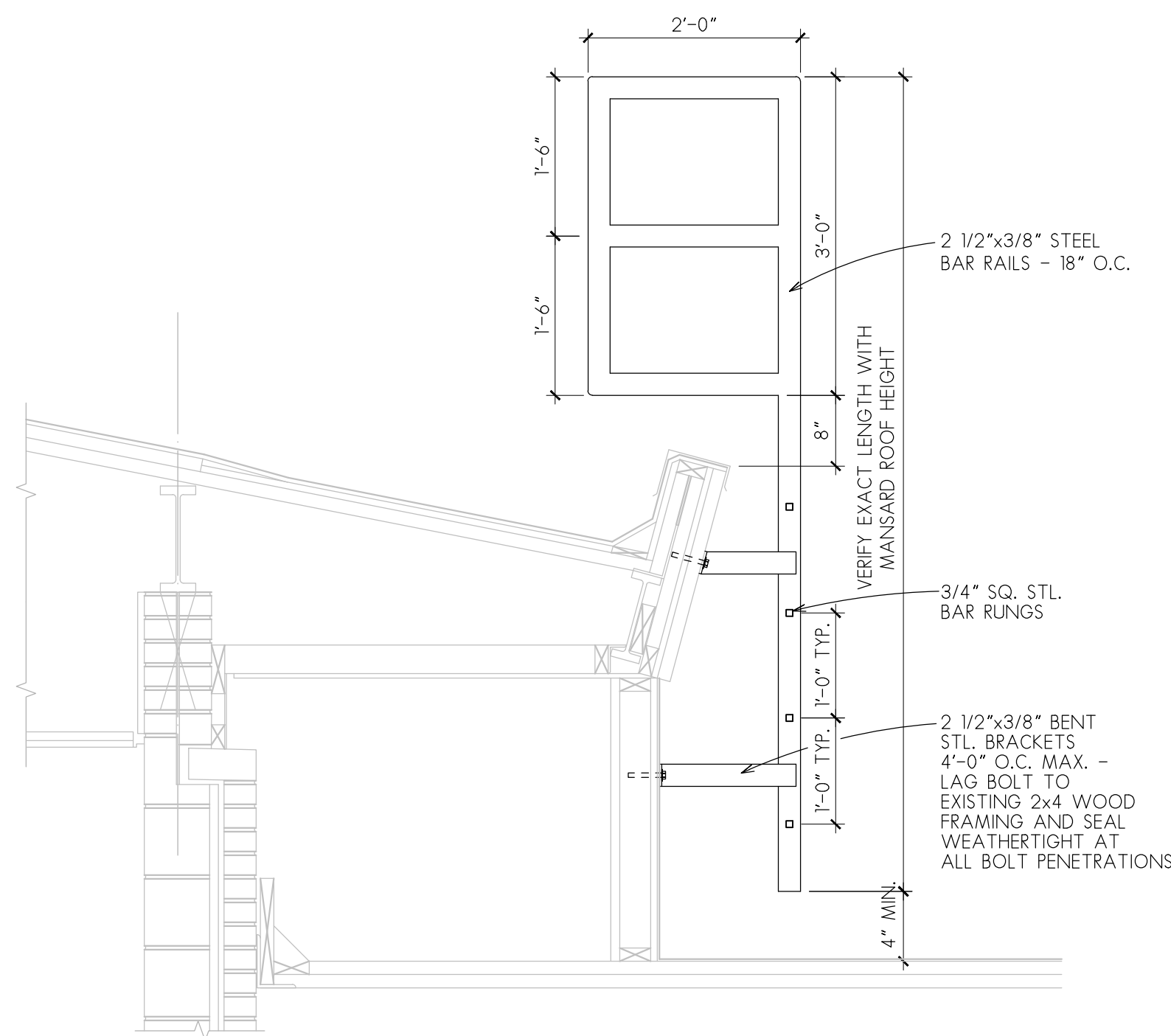




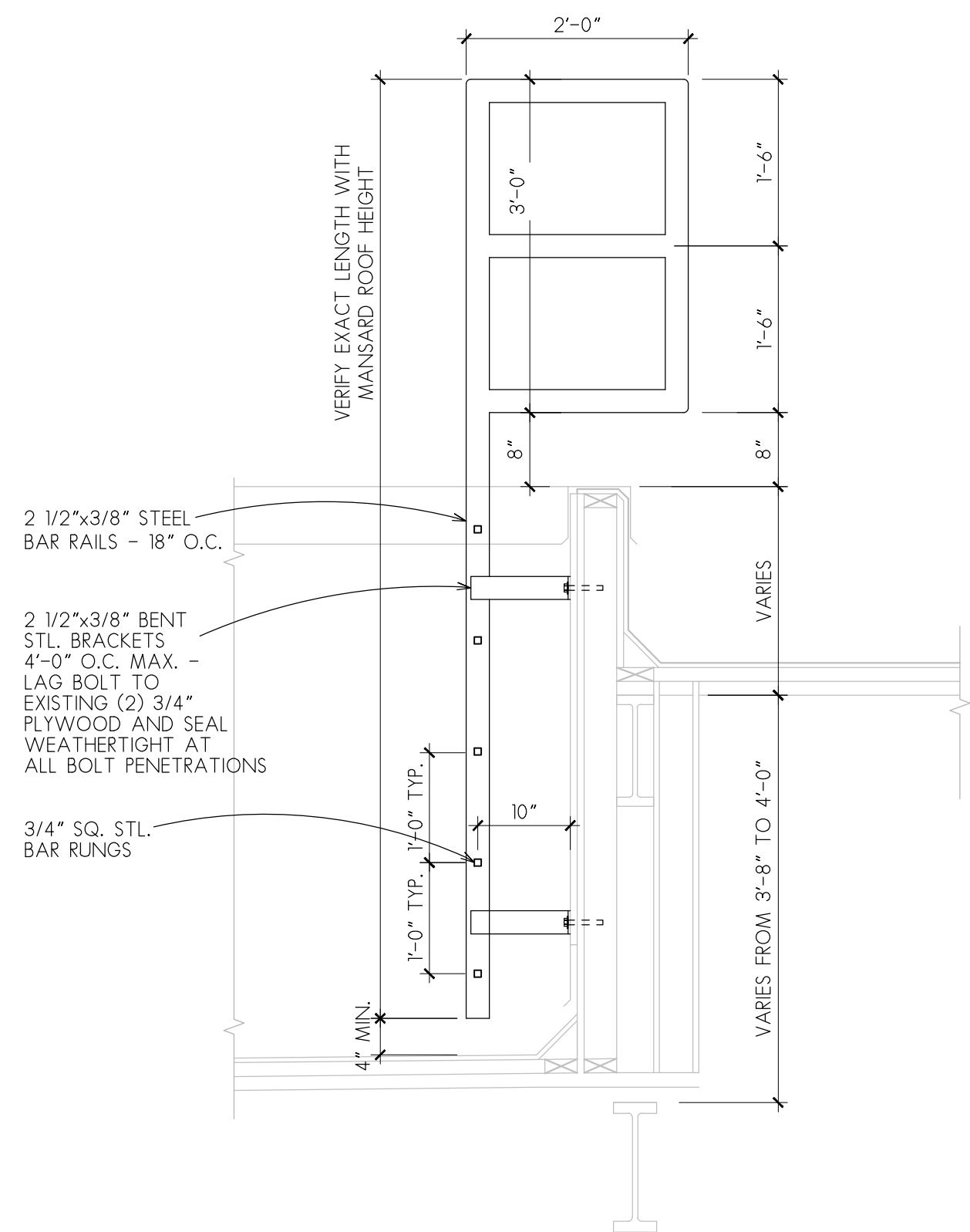
1 LADDER SECTION  
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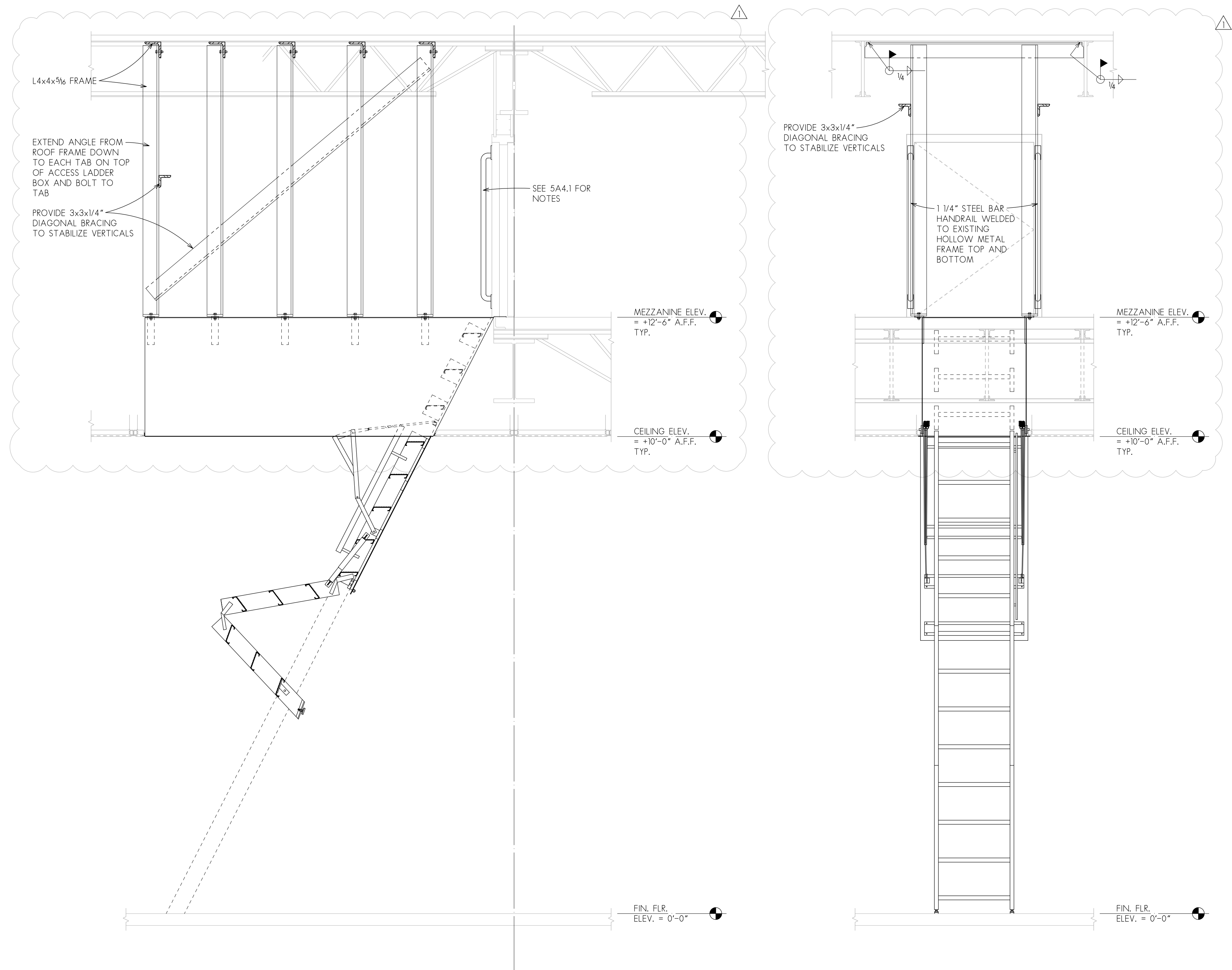
2 LADDER SECTION  
SCALE: 3/4" = 1'-0"



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



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



5 LADDER SECTION  
(IN OPEN POSITION)  
SCALE: 3/4" = 1'-0"

6 LADDER ELEVATION  
(IN OPEN POSITION)  
SCALE: 3/4" = 1'-0"

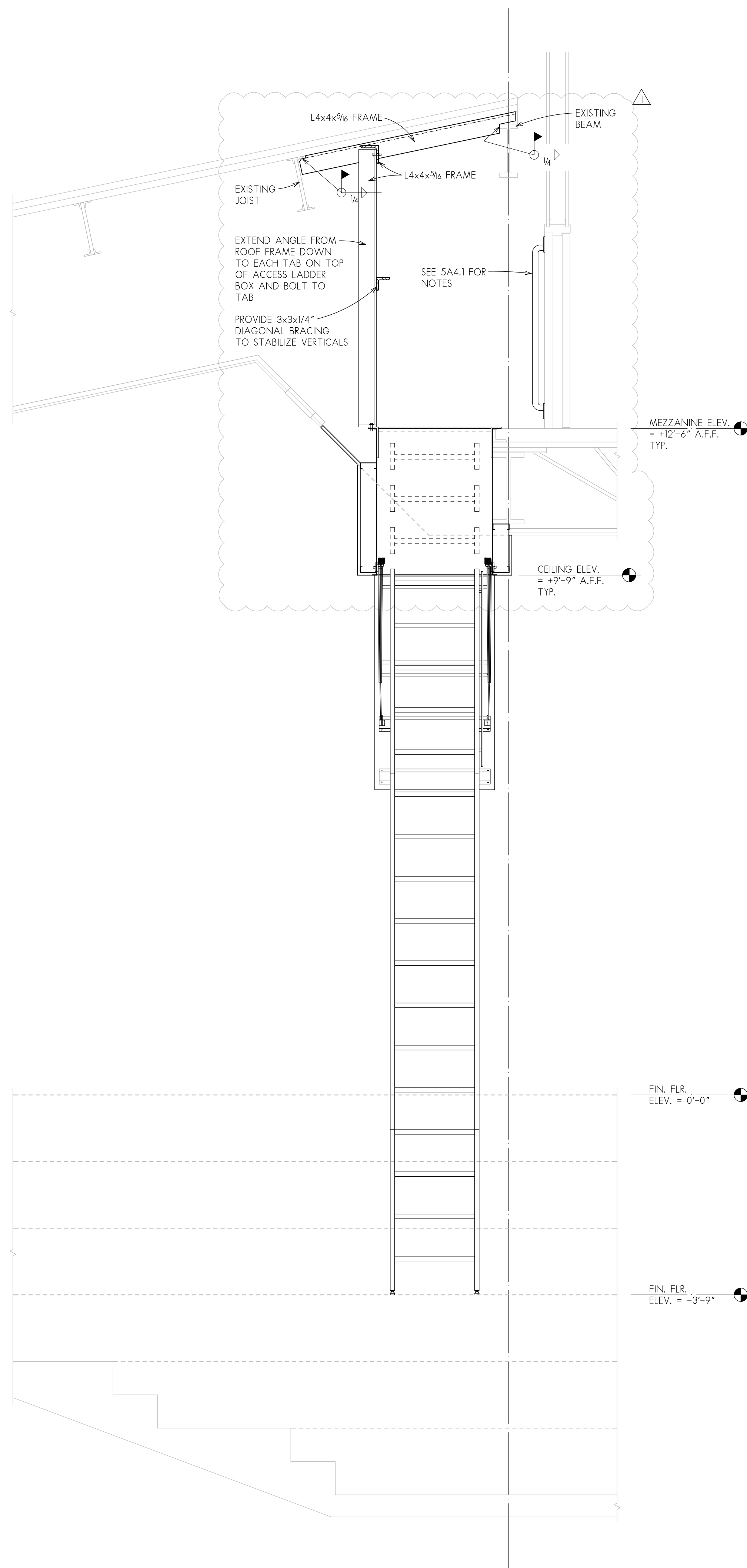
WALL SECTIONS  
SCALE: 3/4" = 1'-0"

EISENHOWER MIDDLE SCHOOL  
HVAC AND ROOF ACCESS RENOVATIONS - ROCKFORD IL  
ROCKFORD PUBLIC SCHOOLS 205

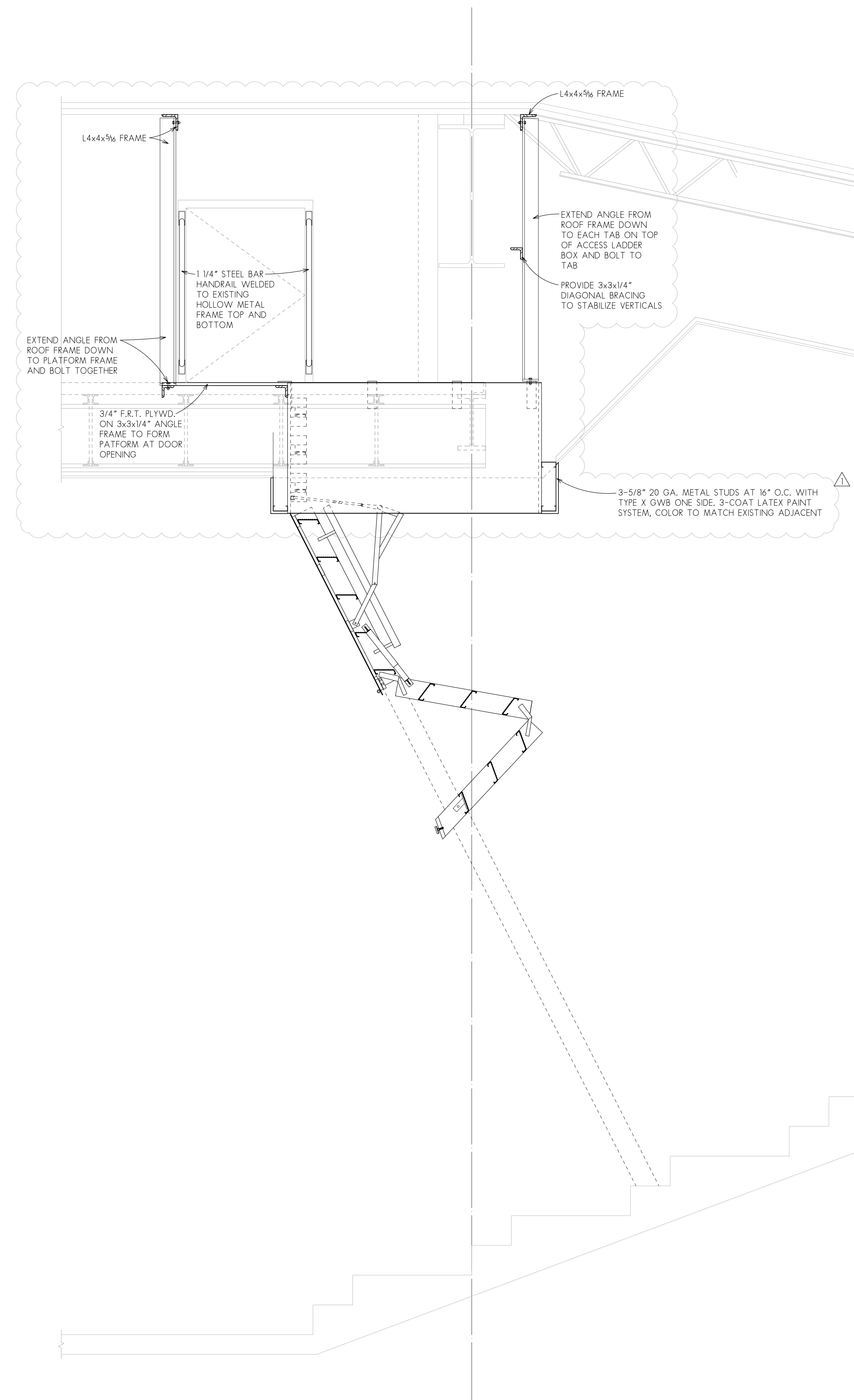
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Larson & Darby Group

ISSUED FOR:	DATE
PROJECT NUMBER	25108
SHEET NUMBER	A4.1
DRAWN	APPROVED





1 MEZZANINE ACCESS STAIR SECTION  
SCALE: 3/4" = 1'-0"



2 MEZZANINE ACCESS STAIR SECTION  
SCALE: 3/4" = 1'-0"

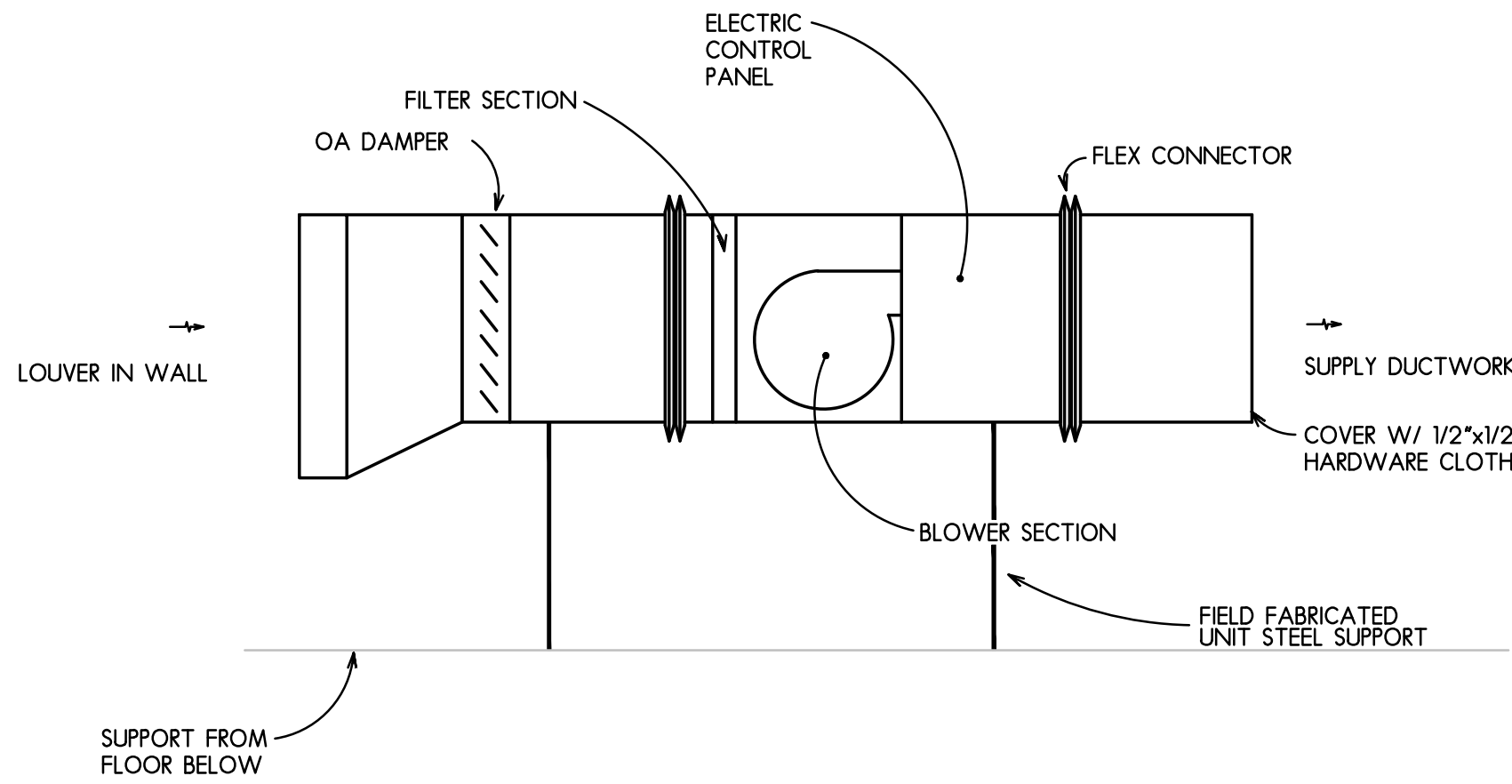
WALL SECTIONS  
SCALE: 3/4" = 1'-0"

EISENHOWER MIDDLE SCHOOL  
HVAC AND ROOF ACCESS RENOVATIONS – ROCKFORD IL  
ROCKFORD PUBLIC SCHOOLS 205

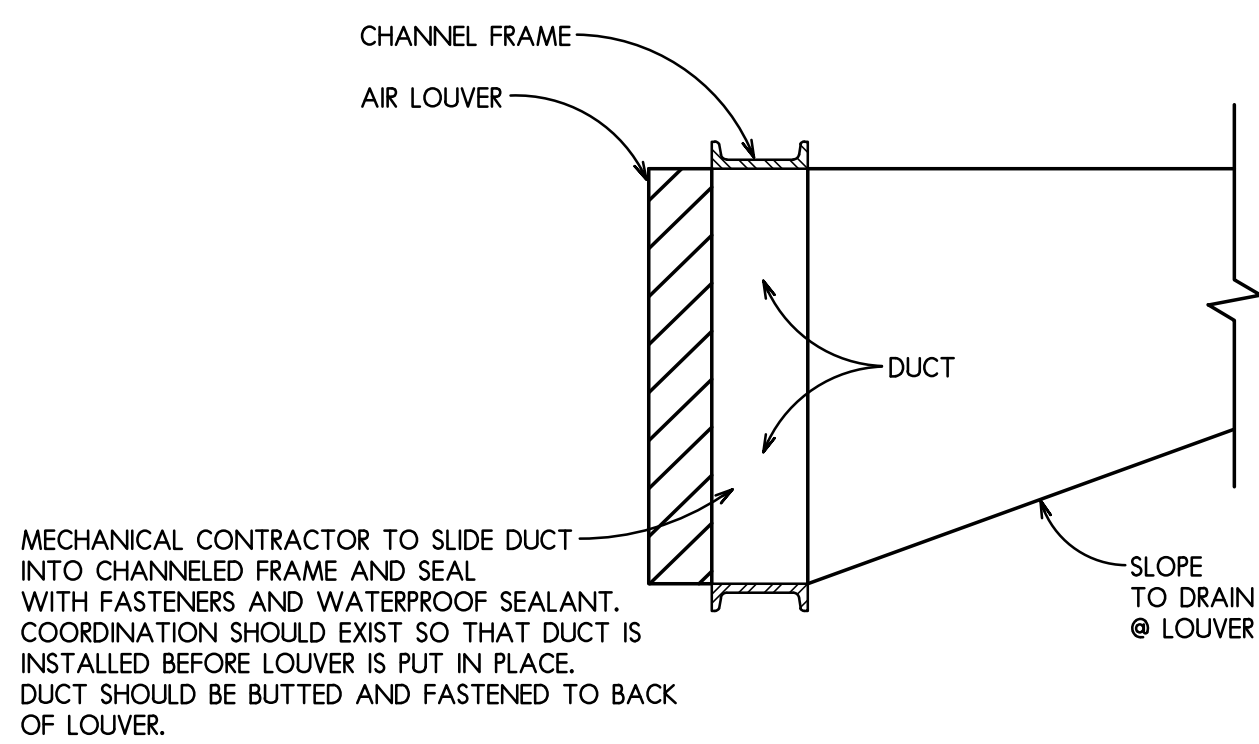
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ISSUED FOR:	DATE:
PROJECT NUMBER	25108
SHEET NUMBER	A4.2
DRAWN	APPROVED





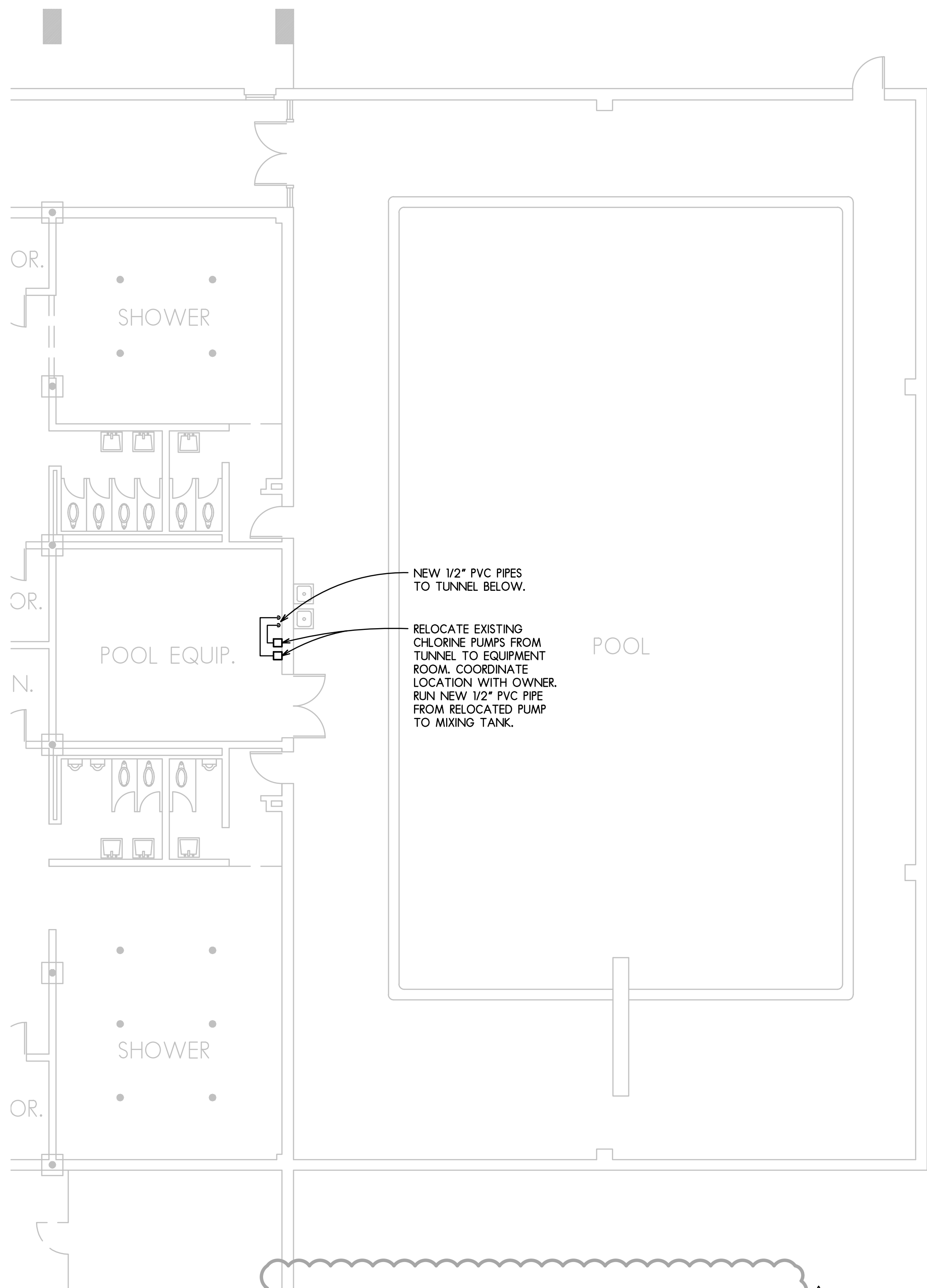
4 MAKE-UP AIR UNIT DETAIL  
NTS



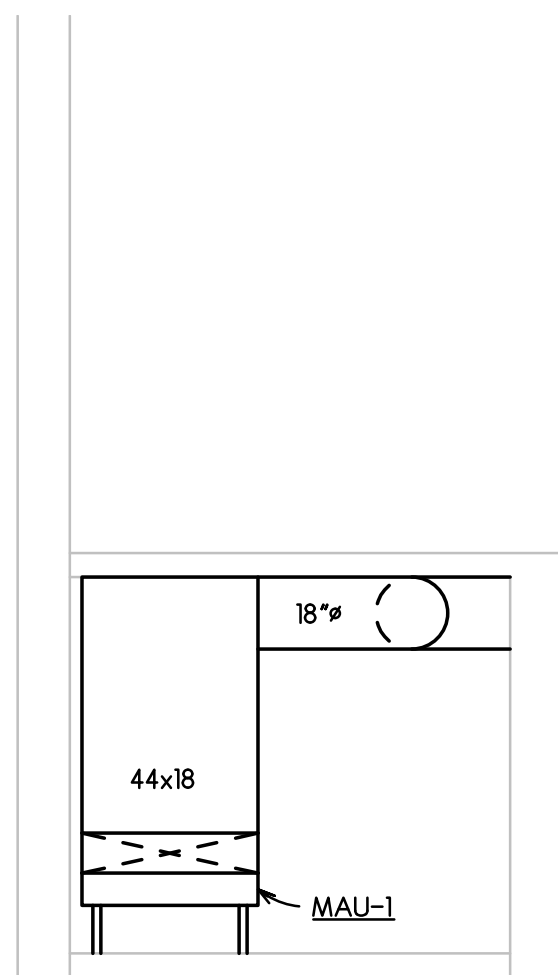
5 DUCT CONNECTION TO WLS  
NTS

MAU ELECTRIC HEAT	
PLAN NO.	MAU-1
SERVICE	POOL TUNNEL
MANUFACTURER	MARKEL
MODEL	P3P7235-2
CFM	1,800
MIN. OA	1,800
EAT (°F)	-10
LAT (°F)	51.4
HP	2 @ 1/2
ESP (IN WC)	0.5"
VOLTS/PH	480/3
HEATING KW	35.0
TOTAL AMPS	48.4
FILTERS	2" THROWAWAY
WEIGHT (LBS)	278
NOTES	1, 2

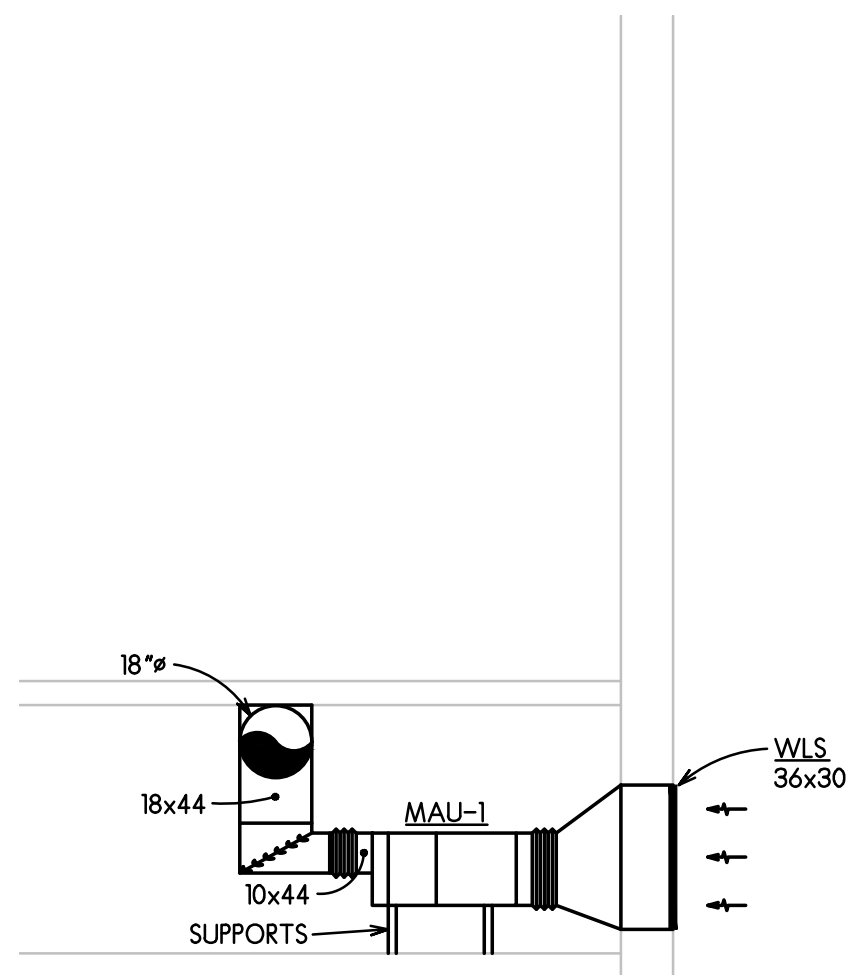
NOTES: SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.  
1. PROVIDE WITH SCR CONTROLLER.  
2. PROVIDE WITH SPRING ISOLATORS.



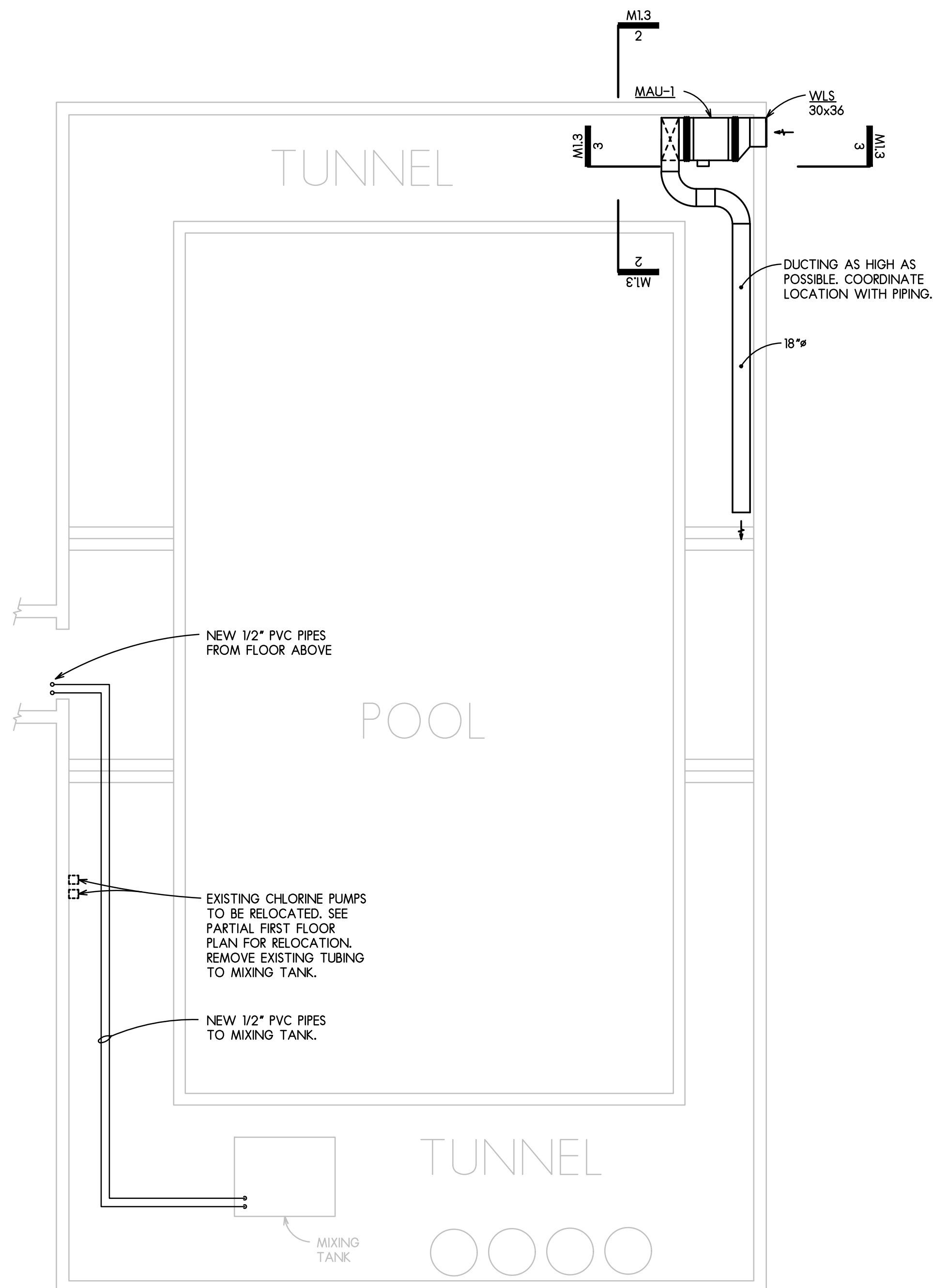
4 ALT. M1: PARTIAL FIRST FLOOR HVAC PLAN  
SCALE: 1/8" = 1'-0"



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

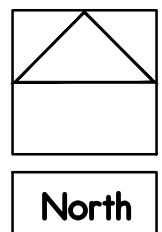


3 HVAC SECTION  
SCALE: 1/4" = 1'-0"



1 ALT. M1: POOL TUNNEL HVAC PLAN  
SCALE: 1/8" = 1'-0"

1 ALT. M1: HVAC POOL TUNNEL PLAN  
SCALE: AS NOTED



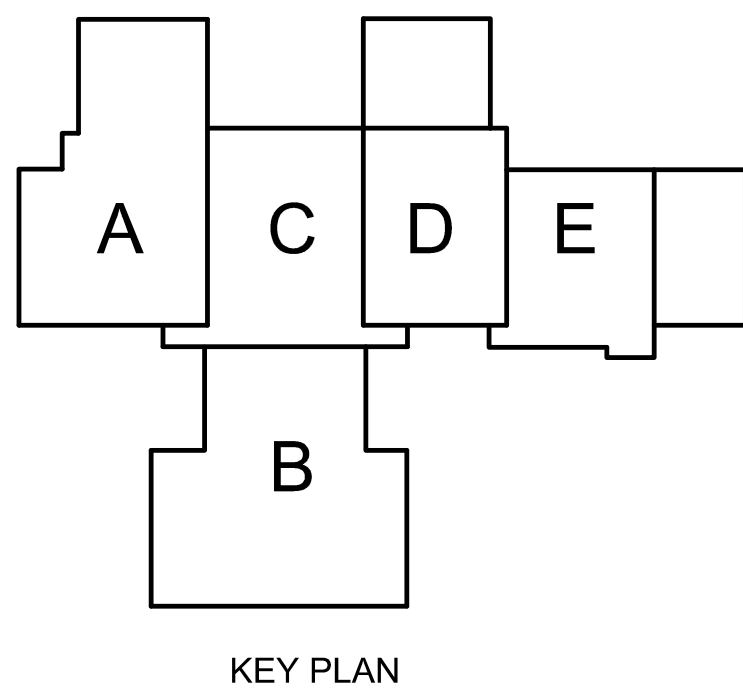
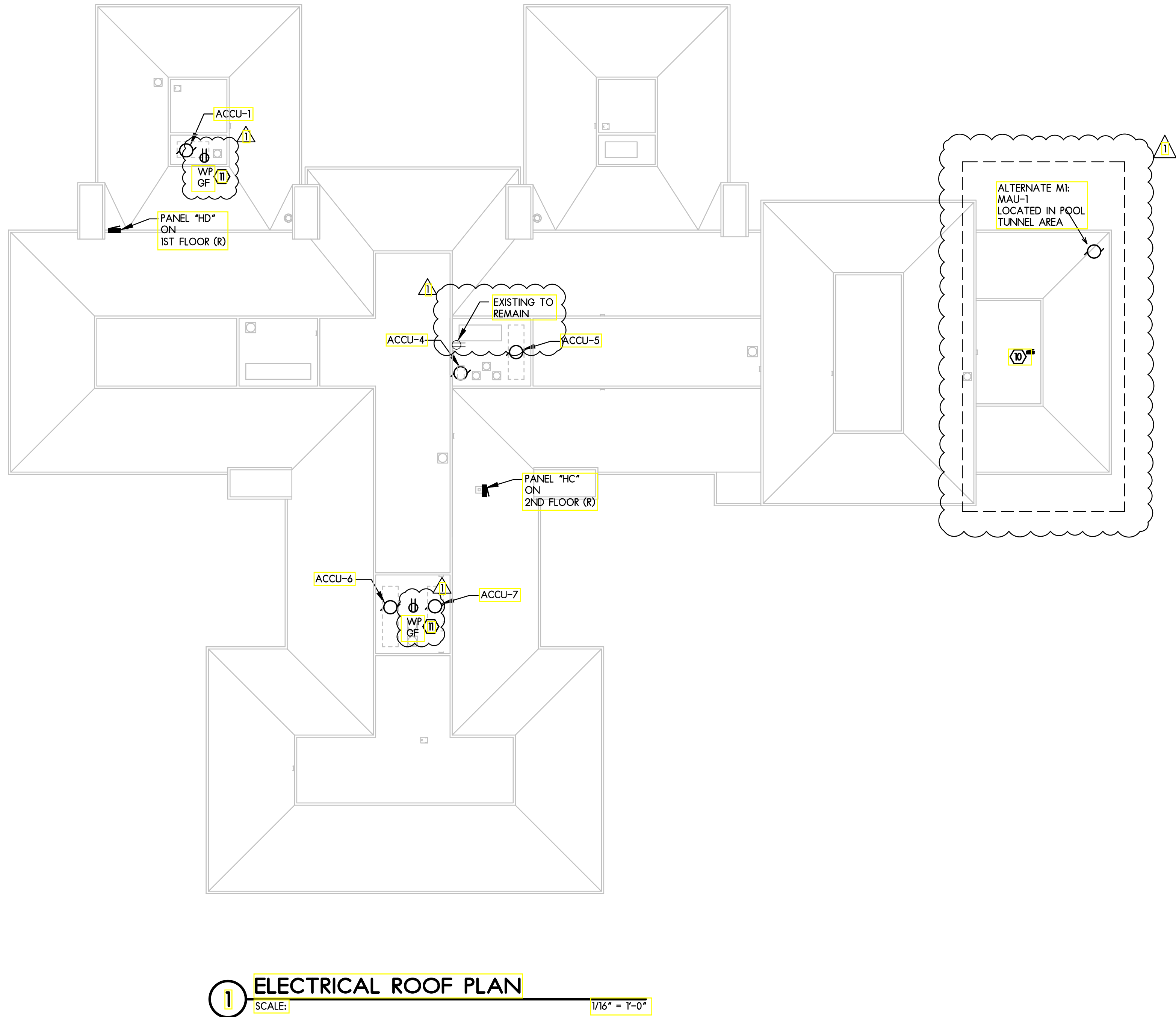


MOTOR AND EQUIPMENT SCHEDULE																
EQUIP. TAG	DESIGNATED TAG	LOCATIONS	LOAD					CONDUIT AND WIRE SIZE	SOURCE OF POWER		PROTECT (AMPERES)	STARTER		DISCONNECT		NOTES
			VOLTS	PHASE	H.P.	AMP	KVA		PANEL	CCT. NO.		SIZE	TYPE	SIZE	TYPE	
ACCU-1	AIR COOLED CONDENSING UNIT		460	3		87		①	HD	31	100-3P (5)			100-3P	SAFETY	
ACCU-4	AIR COOLED CONDENSING UNIT		460	3		27		②	HC	38	35-3P (6)			60-3P	SAFETY	
ACCU-5	AIR COOLED CONDENSING UNIT		460	3		102		③	HC	48	110-3P (7)			200-3P	SAFETY	
ACCU-6	AIR COOLED CONDENSING UNIT		460	3		102		④	HC	39	110-3P (8)			200-3P	SAFETY	
ACCU-7	AIR COOLED CONDENSING UNIT		460	3		63		⑤	HC	40	80-3P (9)			100-3P	SAFETY	
MAU-1	MAU ELECTRIC HEAT		480	3		48.4		3 #4 & 1 #8G IN 1" C	HJ	XX	70-3P			100-3P	SAFETY	

KEYED NOTES:

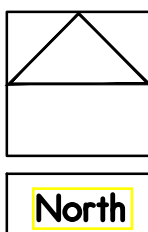
- USE EXISTING 3 #3 THW WIRING. REROUTE AND EXTEND IT AS REQUIRED.
- REPLACE EXISTING WIRING WITH 3 #8 AND 1 #10 G IN 3/4" CONDUIT. EXISTING CONDUIT CAN BE REUSED.
- USE EXISTING 3 #10 THW WIRING. REROUTE AND EXTEND IT AS REQUIRED.
- REPLACE EXISTING CONDUIT AND WIRING WITH 3 #1 AND 1 #6 G IN A 1.25" CONDUIT.
- REUSE EXISTING 100A-3P CIRCUIT BREAKER.
- REPLACE EXISTING 30A-3P CIRCUIT BREAKER WITH NEW 35A-3P CIRCUIT BREAKER.
- REPLACE EXISTING 150A-3P CIRCUIT BREAKER WITH NEW 10A-3P CIRCUIT BREAKER.
- REPLACE EXISTING 100A-3P CIRCUIT BREAKER WITH NEW 10A-3P CIRCUIT BREAKER.
- REPLACE EXISTING 150A-3P CIRCUIT BREAKER WITH NEW 50A-3P CIRCUIT BREAKER.
- ALTERNATE ML EXISTING PANEL HJ IN POOL EQUIPMENT ROOM ON FIRST FLOOR. PROVIDE 1-70A-3P CIRCUIT BREAKER IN EXISTING SPACE IN PANEL HJ.
- CONNECT RECEPTACLE TO NEAREST 120V CIRCUIT.

GENERAL ELECTRICAL NOTES	
1. NOTES ON DRAWINGS SHALL APPLY TO ALL SIMILAR CONDITIONS WHETHER THEY ARE REPEATED OR NOT.	17. DUE TO THE SMALL SCALE AND INTERFERENCE OF EXISTING EQUIPMENT, EACH AND EVERY ITEM IS NOT SHOWN. SHOWN INFORMATION IS INTENDED AS A GUIDE. CONTRACTOR SHALL VERIFY INFORMATION AND CONDITIONS IN THE FIELD.
2. THE CONTRACTOR MUST VISIT THE SITE TO FAMILIARIZE HIMSELF WITH THE EXISTING SITE AND BUILDING CONDITIONS WHICH WILL BE AFFECTED DURING CONSTRUCTION PRIOR TO SUBMITTING HIS BID PROPOSAL. CONTRACTOR IS CAUTIONED THAT THE PROJECT IS A REMODELING JOB AND IT IS ASSUMED THAT HE HAS INCLUDED FUNDS IN HIS BID TO COVER UNFORESEEN ITEMS WHICH MUST BE MOVED, RELOCATED OR ADJUSTED TO FIT HIS WORK. NO EXTRA COMPENSATION WILL BE ALLOWED FOR ANY EXTRA WORK CAUSED BY FAILURE TO VISIT, EXAMINE OR VERIFY.	18. IN ORDER TO FACILITATE THE REPLACEMENT OF EXISTING OR INSTALLATION OF NEW DUCTWORK AND/OR PIPING, REMOVE EXISTING LIGHTING FIXTURE AND/OR SMOKE /HEAT DETECTORS AS REQUIRED. THIS WORK IS NOT SHOWN ON DRAWINGS. ONCE THE INSTALLATION OF DUCTWORK, PIPING ETC IS COMPLETED, REINSTALL ELECTRICAL EQUIPMENT/DEVICES. PROVIDE ADEQUATE ALLOWANCE IN THE BID FOR THIS WORK.
3. ALL EXISTING EQUIPMENT IS TO REMAIN OPERATIONAL DURING CONSTRUCTION PERIOD. ALL TEMPORARY WIRING OR REROUTING OF CIRCUITRY TO ACHIEVE THIS IS BY THE ELECTRICAL CONTRACTOR. SHUTDOWN OF EXISTING SERVICES SHALL ONLY BE PERMITTED UPON WRITTEN APPROVAL FROM THE OWNER AND THEN ONLY FOR THAT DATE AND DURATION AGREED UPON. INCLUDE ALL PREMIUM TIME CHARGES IN THE BASE BID.	19. PROVIDE EXPANSION FITTINGS FOR ALL ELECTRICAL RACEWAYS AT EVERY EXPANSION JOINT. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR LOCATION OF EXPANSION JOINTS.
4. EXISTING CONDUIT IN SAME PLACE MAY BE REUSED WHERE POSSIBLE, PULL NEW WIRE AS REQUIRED. ALL UNUSED CONDUIT, WIRE, JUNCTION BOXES, ETC. WILL BE REMOVED. RELOCATED EXISTING CONDUIT SHALL NOT BE ALLOWED.	20. COORDINATE THE INSTALLATION OF ELECTRICAL EQUIPMENT SUCH AS PANELS, SWITCHBOARD, MOTOR CONTROL, CENTER, TRANSFORMER ETC. WITH OTHER TRADES SUCH THAT NO DUCTWORK, PIPING ETC. IS LOCATED ABOVE THEM.
5. ELECTRICAL CONTRACTOR SHALL VERIFY TOTAL CONNECTED LOAD/HP WITH ALL OTHER TRADES PRIOR TO WIRING OF ALL OTHER TRADES' EQUIPMENT. MAKE ANY CHANGES TO OVERCURRENT DEVICES AND FEEDER SIZE PER ELECTRICAL CODE AS REQUIRED.	21. VERIFY QUANTITY AND SIZE OF LUGS PROVIDED IN OTHER TRADE'S EQUIPMENT (FOR EXAMPLE, ACCU, RTU, ETC.) BEFORE STARTING ANY WORK ASSOCIATED WITH SUCH EQUIPMENT. IF THEIR LUGS CANNOT ACCOMMODATE THE CABLES INDICATED IN ELECTRICAL DOCUMENT, PROVIDE LUG FITTINGS TO ACCOMMODATE CHANGE IN THE CABLES. PROVIDE SUCH FITTINGS IN A JUNCTION BOX AS CLOSE AS POSSIBLE TO THEIR EQUIPMENT. IF ALLOWED BY THE EQUIPMENT MANUFACTURER, SUCH FITTINGS MAY BE INSTALLED IN THEIR EQUIPMENT RATHER THAN IN A SEPARATE JUNCTION BOX.
6. ALL EXPOSED CABLES IN PLENUM CEILING SHALL BE APPROVED FOR PLENUM APPLICATION.	22. PROVIDE SEPARATE DEDICATED GROUNDING CONDUCTOR IN EACH FEEDER AND BRANCH CIRCUIT WIRING CIRCUIT.
7. UNLESS NOTED OTHERWISE, THE CONDUITS AND BACK BOXES SHALL BE CONCEALED WITHIN ALL DRY WALLS AND NEW MASONRY WALLS. SURFACE METAL RACEWAY SHALL BE USED FOR DEVICES ON EXISTING MASONRY WALLS. AS MUCH AS PRACTICAL, WHEREVER FEASIBLE, INSTALL CONDUITS BEHIND A WALL IN AN UNFINISHED ROOM AND PENETRATE INTO AN ELECTRICAL DEVICE TO BE INSTALLED IN FINISHED AREA. IF THIS IS NOT FEASIBLE, PROVIDE SURFACE METAL RACEWAY. IN THE ROOM WHERE ELECTRICAL DEVICE NEEDS TO BE INSTALLED, THE SURFACE METAL RACEWAY SHALL BE ROUTED IN THE CORNER AND/OR ADJACENT TO WINDOW, DOOR FRAMEWORK ETC. SO IT IS AS INCONSPICUOUS AS POSSIBLE. FOR SAKE OF SIMPLICITY ONLY THE TERM "CONDUIT" IS USED IN MOST CASES IN THIS DOCUMENT. HOWEVER, BASED UPON ABOVE, THE SURFACE METAL RACEWAY AND CONDUIT SHALL BE USED, AS APPLICABLE. WHERE SURFACE METAL RACEWAY IS USED ONE TWO CHANNEL RACEWAY WITH DIVIDER CAN BE USED (FOR POWER & LOW VOLTAGE) WHERE APPLICABLE.	23. THE ELECTRICAL DRAWINGS SHOW DIRECT PRINCIPLE WORK WHICH MUST BE ACCOMPLISHED UNDER THIS CONTRACT. INDIRECT AND INCIDENTAL WORK WILL ALSO BE NECESSARY DUE TO CHANGES AFFECTING EXISTING ARCHITECTURAL, MECHANICAL, PLUMBING OR OTHER SYSTEMS. SUCH INCIDENTAL WORK IS ALSO PART OF THIS CONTRACT. INSPECT THOSE AREA, AND ASCERTAIN WORK NEEDED AND DO THAT WORK IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS, AT NO ADDITIONAL COST.
8. SOME DEVICES SHALL BE FLUSH MOUNTED (IN DRY WALLS AND EXISTING MASONRY WALLS CONSTRUCTION) AND SOME SHALL BE SURFACE MOUNTED (ON EXISTING MASONRY WALLS). VERIFY REQUIREMENT BEFORE ORDERING ANY MATERIAL.	24. PROVIDE REMOTE TEST AND INDICATING STATION IN A READILY ACCESSIBLE AND VISIBLE SPACE FOR EACH DUCT SMOKE DETECTOR. VERIFY ITS EXACT LOCATION WITH OWNER.
9. THE EXISTING EQUIPMENT IS SHOWN BASED UPON THE INFORMATION OBTAINED THROUGH BRIEF SURVEY OF THE FACILITY. CONTRACTOR IS TO SURVEY THE EXISTING FACILITY IN ORDER TO DETERMINE THE FULL EXTENT OF WORK AND BE COMPLETELY FAMILIAR WITH ALL THE EXISTING CONDITIONS INCLUDING PLUMBING, HVAC, ELECTRICAL, ETC. THE ARCHITECT/ENGINEER AND OWNER ASSUME NO RESPONSIBILITY IN RESPECT TO THE ACCURACY OF SUCH INFORMATION SHOWN ON THE DRAWINGS. CONTRACTOR SHALL MAKE ADEQUATE ALLOWANCE IN HIS BID FOR SOME DEVIATIONS TO SUCH INFORMATION.	25. WHERE "VF" IS INDICATED NEXT TO A DEVICE, CONTRACTOR SHALL VERIFY ITS REQUIREMENT IN FIELD. THIS INCLUDES VERIFICATION OF DEVICE TYPE, LOCATION, WIRING CONDUIT AND CIRCUIT BREAKER ETC. PROVIDE APPROPRIATE DEVICE, WIRING, CONDUIT, CIRCUIT BREAKER ETC. AS REQUIRED.
10. WHERE EXISTING CONDITIONS PREVENT PROPER INSTALLATION OF PROPOSED WORK, REROUTE, EXTEND OR ALTER EXISTING WORK SO AS TO ACCOMMODATE PROPOSED WORK REQUIREMENTS.	26. WHERE EQUIPMENT DEVICES ARE INDICATED TO BE REMOVED, REMOVE ACCESSIBLE, UNSERVICEABLE CONDUITS & WIRING. IF CONDUITS ARE NOT ACCESSIBLE THEY MAY BE ABANDONED. MAINTAIN CONTINUITY TO THE LOAD WHICH IS TO REMAIN.
11. CIRCUIT NUMBERS SHOWN FOR EXISTING PANELS ARE FOR REFERENCE ONLY. USE NEXT AVAILABLE CIRCUITS AND PROVIDE APPROPRIATE SIZE BREAKERS.	27. WHERE EXISTING HVAC EQUIPMENT IS SHOWN TO BE REMOVED, REMOVE ITS ASSOCIATED STARTER, DISCONNECT SWITCH, CONDUIT WIRING ETC. FIELD VERIFY LOCATION OF STARTER, DISCONNECT, ETC.
12. IN GENERAL, DASHED LINES INDICATE EXISTING ITEMS TO BE REMOVED, LIGHT SOLID LINES INDICATE ITEMS TO REMAIN AND DARK SOLID LINES INDICATE NEW ITEMS.	
13. THE SYSTEMS PROVIDED BY THIS CONTRACTOR SHALL BE COMPLETELY OPERATIONAL REGARDLESS OF OMISSION OF MINOR ITEMS, SUCH AS CIRCUIT NUMBER FOR RELAY, A CIRCUIT NUMBER NEXT TO A LIGHTING FIXTURE, ETC.	
14. ALL OUTDOOR DEVICES SUCH AS RECEPTACLES, DISCONNECTS, JUNCTION BOXES, ETC. SHALL BE OUTDOOR TYPE.	
15. IN CERTAIN CASES LARGER SIZE CABLES ARE SPECIFIED IN ORDER TO COMPENSATE FOR VOLTAGE DROP. PROVIDE OVERSIZE AND/OR MULTIPLE LUGS AT THE LINE AND LOAD SIDE OF EQUIPMENT TO INCORPORATE LARGER AND ADDITIONAL CABLES. IF REQUIRED, PROVIDE SPLICE BOXES AT EITHER END OF CABLE TO INTERCEPT CHANGE IN THE CABLES.	
16. PROVIDE TYPED PANEL DIRECTORY INDICATING LOAD SERVED.	



ELECTRICAL PLANS

SCALE: AS NOTED



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