



LOCUS PLAN

Code Summary

Use Classification: A-3
Construction Type VB

Occupancy - 100 (40 Campers and 60 Staff)

Existing Enclosed Area: 2,067 SF
Proposed Enclosed Area: 2,067 SF

Existing Height: 17' +/-
Proposed Height: 17' +/-

Note: Structure is for "seasonal use".

Camp Arrowhead
Restoration

Town of Natick
13 East Central Street
Natick, MA 01760

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Fire Alarm Legend

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Consultants

Mechanical:

AKAL Engineering, Inc.
44 Central Street
Berlin, MA 01503

(508) 869-0403

Structural:

M2 Structural Engineering PC
23 Thornbury Way
Windham, ME 04062

(207) 892-0983

Electrical:

VGNA Inc.
541 Main Street #420
South Weymouth, MA 02190

(781) 335-4200

BID SET

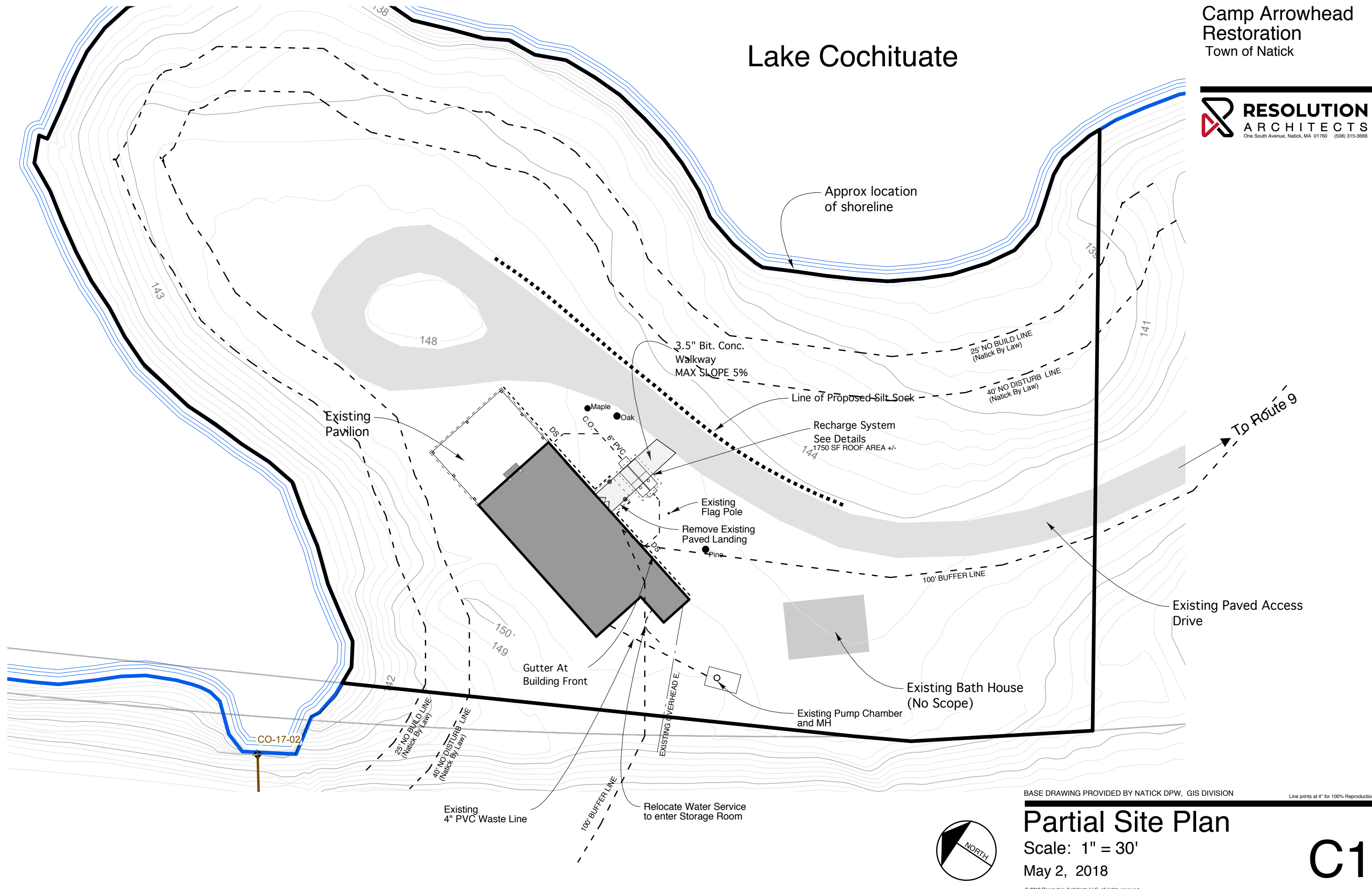
Cover

No Scale
May 2, 2018

G1

Lake Cochituate

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BASE DRAWING PROVIDED BY NATICK DPW, GIS DIVISION
Line prints at 4" for 100% reproduction

Partial Site Plan
Scale: 1" = 30'
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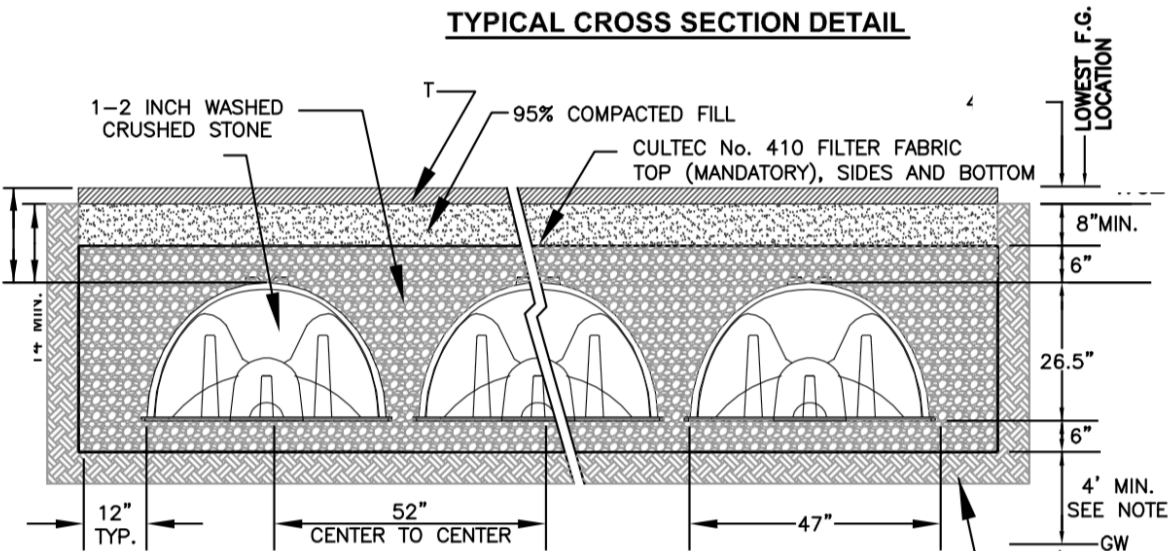


C1

UNDERGROUND DRAINAGE SYSTEM DETAIL

CULTEC RECHARGER 280HD CHAMBER SYSTEM

TYPICAL CROSS SECTION DETAIL



GENERAL NOTES

RECHARGER 280HD BY CULTEC, INC. OF BROOKFIELD, CT.
ALL RECHARGER 280HD CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

REFER TO CULTEC, INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.
ALL RECHARGER 280HD HEAVY DUTY UNITS ARE MARKED WITH A COLOR STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER.

INSTALL INSPECTIONS PORTS AT ENDS OF ROW AND EVERY OTHER CHAMBER.
INSPECTION PORT SHALL BE SET AT FINISH GRADE.

NOTE

ALL EXISTING FILL MATERIAL BELOW THE PROPOSED BOTTOM OF EACH SYSTEM SHALL BE REMOVED AND REPLACED WITH CLEAN GRAVEL FILL OR SAND TO THE DEPTH OF NATURALLY OCCURRING SOILS. BOTTOM OF EXCAVATED HOLE SHALL BE SCARIFIED PRIOR TO BACKFILLING WITH CLEAN FILL MATERIAL.

NOTE

CONTRACTOR SHALL VERIFY FOUR FOOT MINIMUM SEPERATION FROM BOTTOM OF SYSTEM (ELEV 0) TO THE SEASONAL HIGH GROUND WATER.

Storage Volume Calculation

Roof Area: 1750 SF
 $R_v = 1'' \text{ rainfall} \times \text{Roof Area}$
 $R_v = 1'' \times 1750 \text{ SF}$
 $R_v = 145.8 \text{ CF}$

Static Storage Recharge Volume Provided

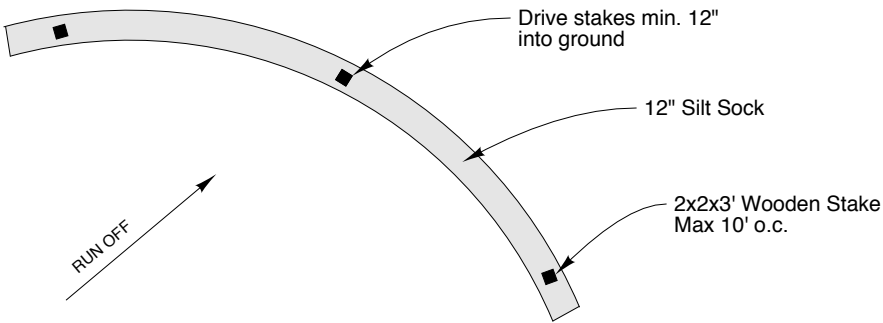
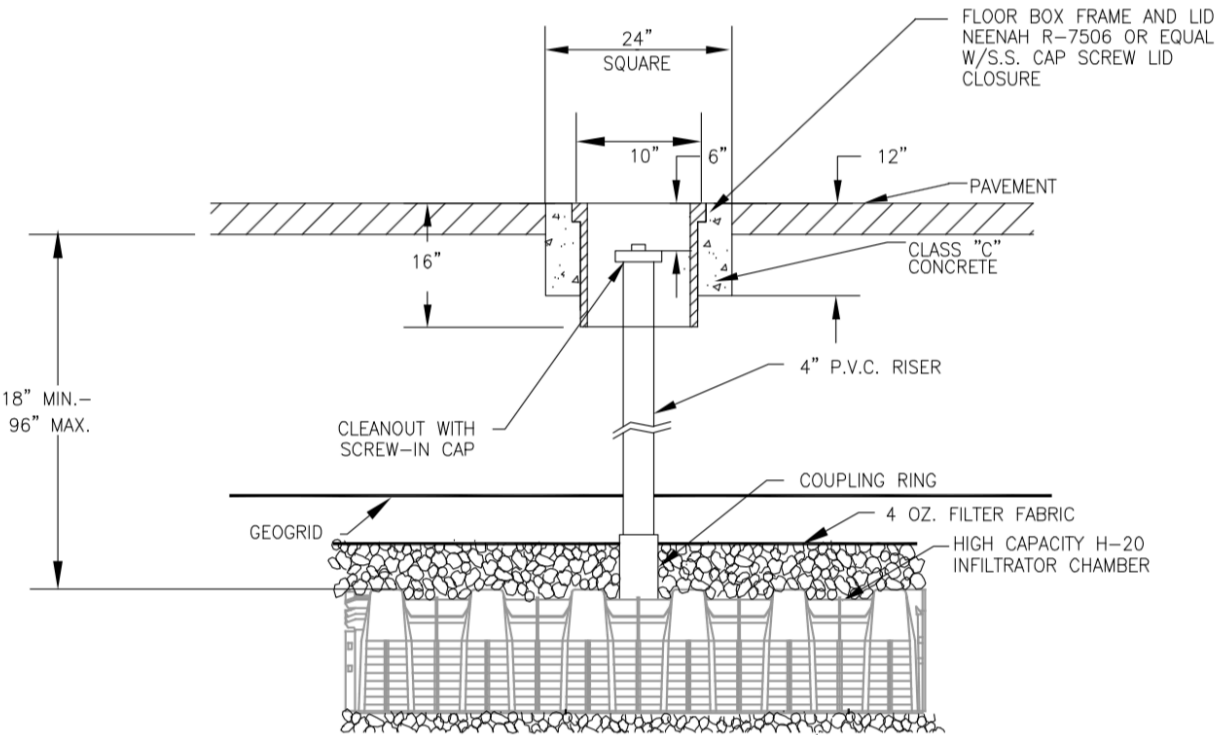
Provide 4 Units of Clutec Rechargers 280 imbedded in 3/4" Washed Crushed Stone

Storage Capacity of Recharger 280 at 24 inch depth:
Unit Capacity at 24 inch = 6.01 CF / FT
Stone Capacity (40% voids) = 0.73 CF / FT
Total Capacity: 6.74 CF / FT

Provide 2 Rows, 2 Units each per row = total of 4 Units
 $R_v \text{ Provided} = 4 \text{ Units} \times 7 \text{ feet / unit} \times 6.74 \text{ CF/Ft} = 188.7$

INSPECTION PORT DETAIL

NOT TO SCALE



Silt Sock Intstallation

NOT TO SCALE

Notes:

1. By Filtrexx or approved equal.
2. Inspect and repair within 24 hours of each rainfall.
3. Contractor shall remove sediment when depth reaches 1/2 of the effective height of the silk sock.
4. Maintain Silt Sock until the end of construction activity.

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RESOLUTION
ARCHITECTS
One South Avenue, Natick, MA 01760 (508) 315-3666

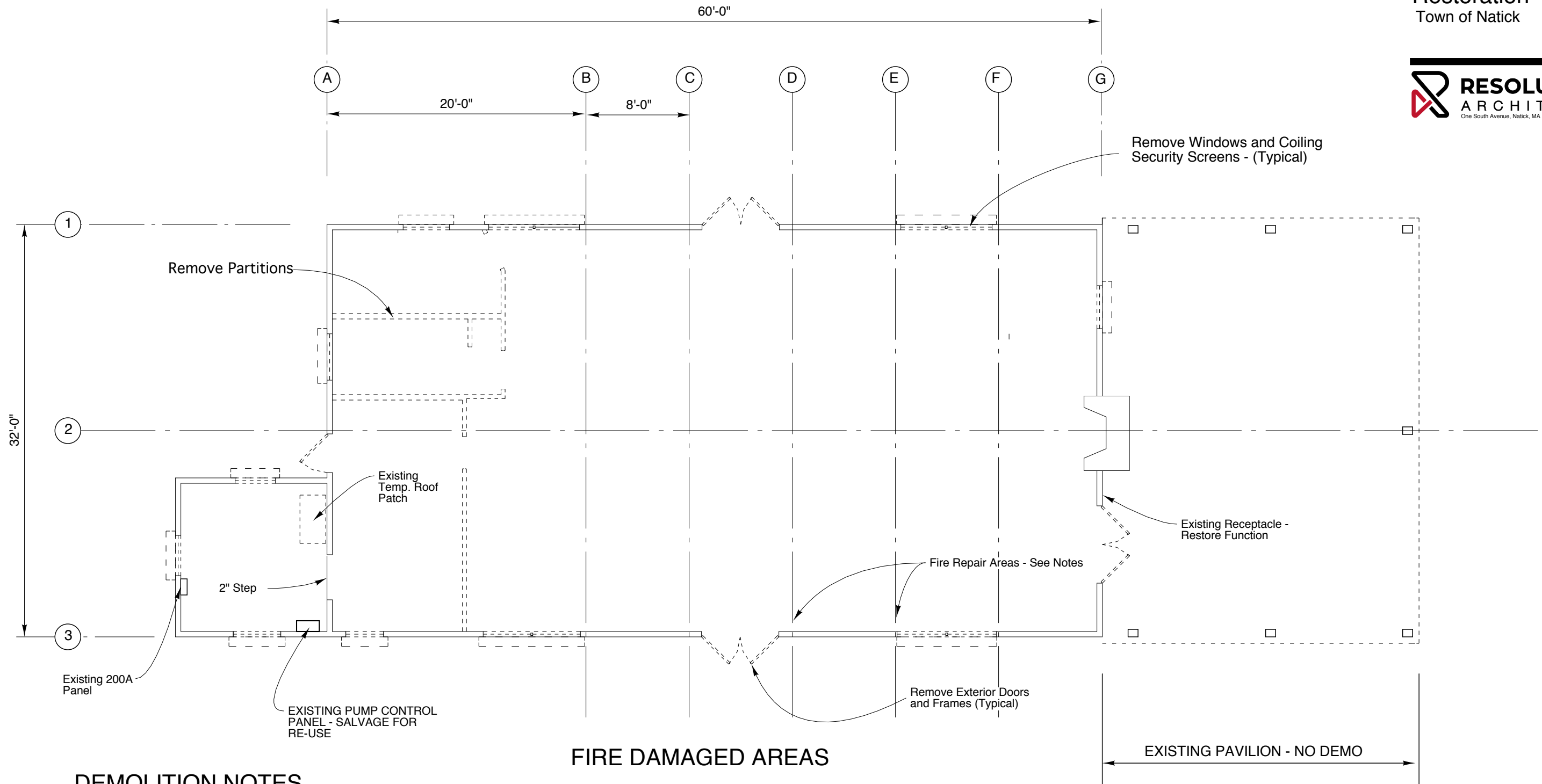
Site Details

Scale: None

May 2, 2018

C2

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DEMOLITION NOTES

1. See Spec Section 02070 for description of Demolition Scope. General intent is for the removal of all existing construction as needed to allow installation of proposed Work,
2. Exterior Demo includes removal of siding.
3. Provide all necessary temporary shoring.
4. Coordinate slab demo with Plumbing.
5. Existing Ceiling Height is 8' 1" +/-.

FIRE DAMAGED AREAS

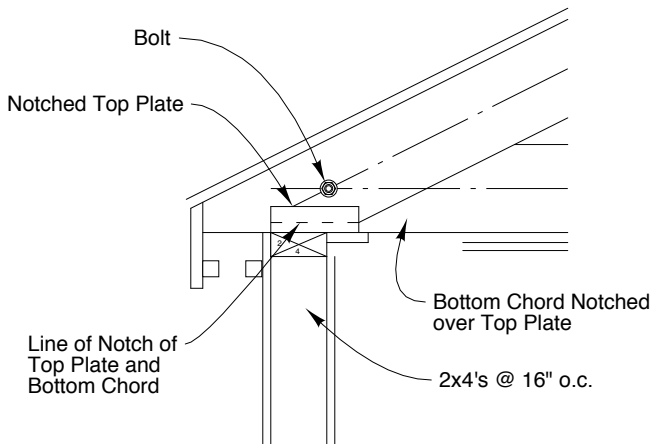
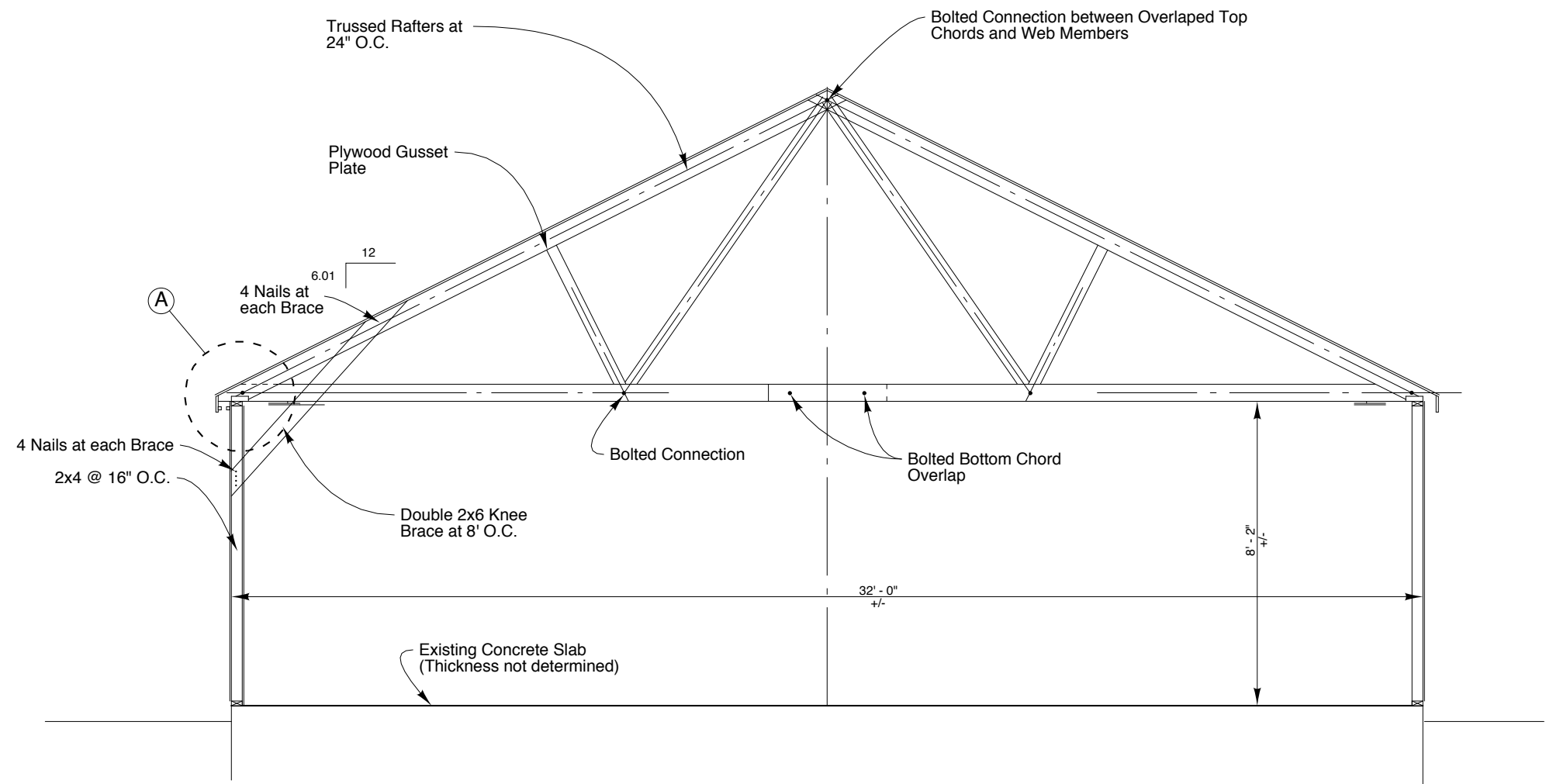
1. Coat all charred wood that remains with "Kilz" Sealant. Total surface area of treatment shall be assumed to be 30 SF, with an average width of application of 6"
2. At Gridlines 3-D and 3-E, existing structural components shall be modified as follows:
 - a. Remove all charring from the truss bottom chord and the truss top chord. sister 4' long 2x6 No 1 SYP reinforcement over top and bottom chords, preserving existing bolted connection at the plate. Remove the existing spacer at the bottom chord. Locate reinforcement on the side of the existing spacer.
 - b. Replace the diagonal braces in their entirety, extending from the wall studs to the top chord, repeating existing nailing pattern. (Four nails each wall stud, bottom chord and top chord)
3. Remove fire damaged roof sheathing, and replace and infill other damaged areas with three - 4x8 panels, thickness to match existing.
4. Shore to support remaining framing during structural repairs.

Existing First Floor Plan

Scale: 1/8" = 1' - 0"

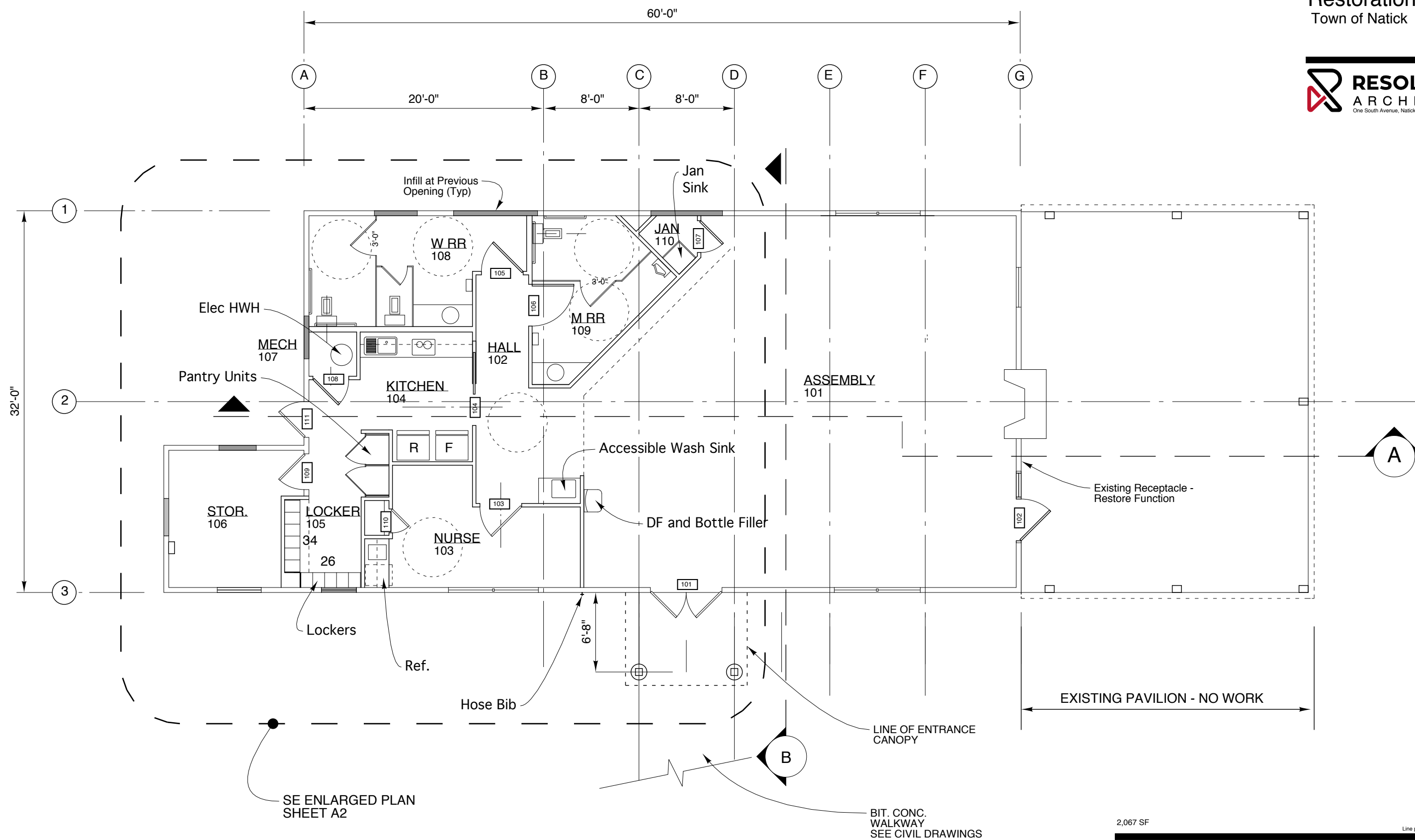
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X1



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

Existing Structural Section
SCALE: 1/4" = 1' - 0"



2,067 SF

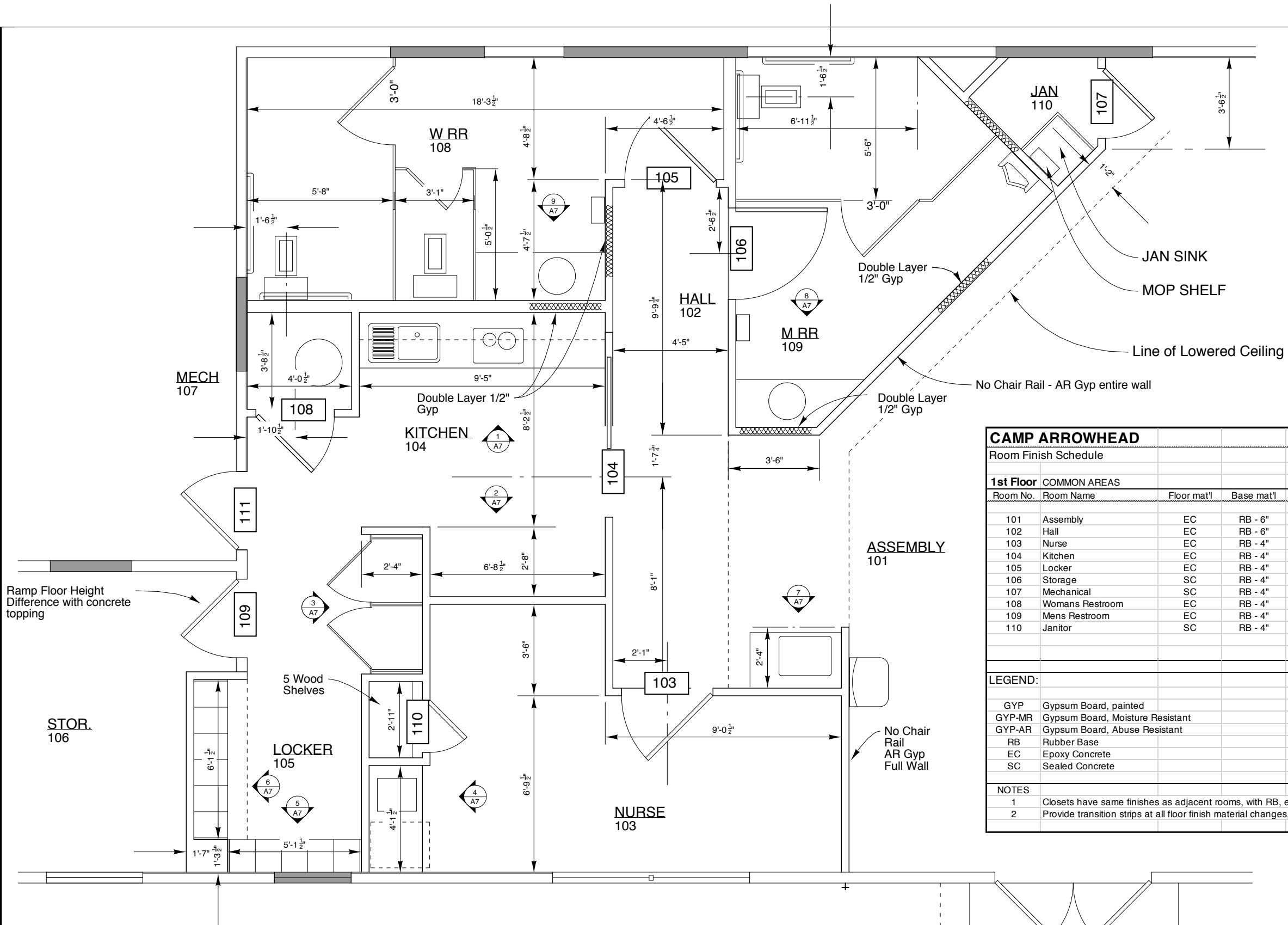
Line prints at 4" for 100% Reproduction

Proposed First Floor Plan

Scale: $1/8'' = 1' - 0''$

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A1



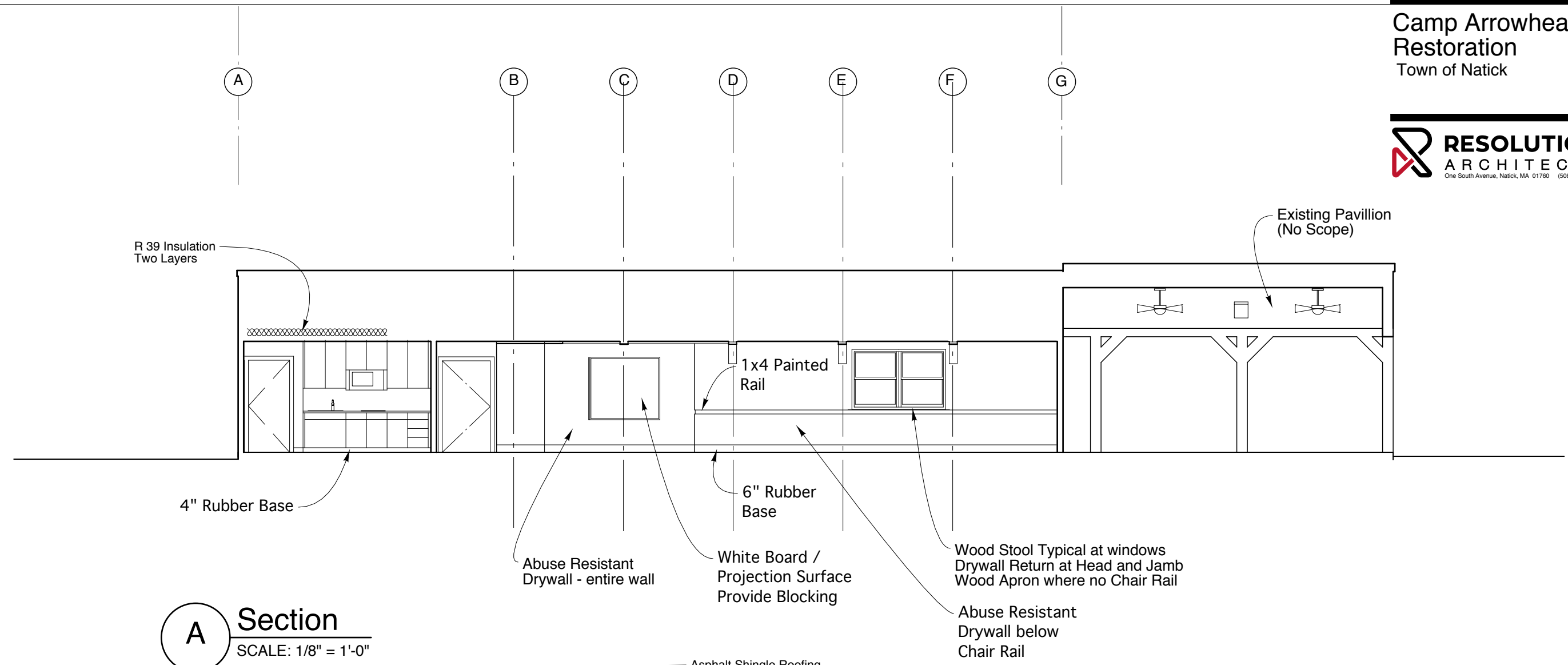
CAMP ARROWHEAD						
Room Finish Schedule						
1st Floor COMMON AREAS						
Room No.	Room Name	Floor mat'l	Base mat'l	Wall mat'l	Ceiling mat'l	Remarks
101	Assembly	EC	RB - 6"	GYP / GYP AR	GYP	Partial Chair Rail / See RCP for Ceiling Layout
102	Hall	EC	RB - 6"	GYP AR	GYP	
103	Nurse	EC	RB - 4"	GYP	GYP	
104	Kitchen	EC	RB - 4"	GYP	GYP	
105	Locker	EC	RB - 4"	GYP	GYP	
106	Storage	SC	RB - 4"	GYP	GYP	
107	Mechanical	SC	RB - 4"	GYP-MR	GYP	
108	Womans Restroom	EC	RB - 4"	GYP AR	GYP-MR	
109	Mens Restroom	EC	RB - 4"	GYP AR	GYP-MR	
110	Janitor	SC	RB - 4"	GYP-MR	GYP-MR	
LEGEND:						
GYP	Gypsum Board, painted					
GYP-MR	Gypsum Board, Moisture Resistant					
GYP-AR	Gypsum Board, Abuse Resistant					
RB	Rubber Base					
EC	Epoxy Concrete					
SC	Sealed Concrete					
NOTES						
1	Closets have same finishes as adjacent rooms, with RB, except Unit Mech Closets, which have sealed cement underlayment					
2	Provide transition strips at all floor finish material changes, unless otherwise noted					

NOTE: ALL DIMENSIONS ARE TO FACE OF STUD

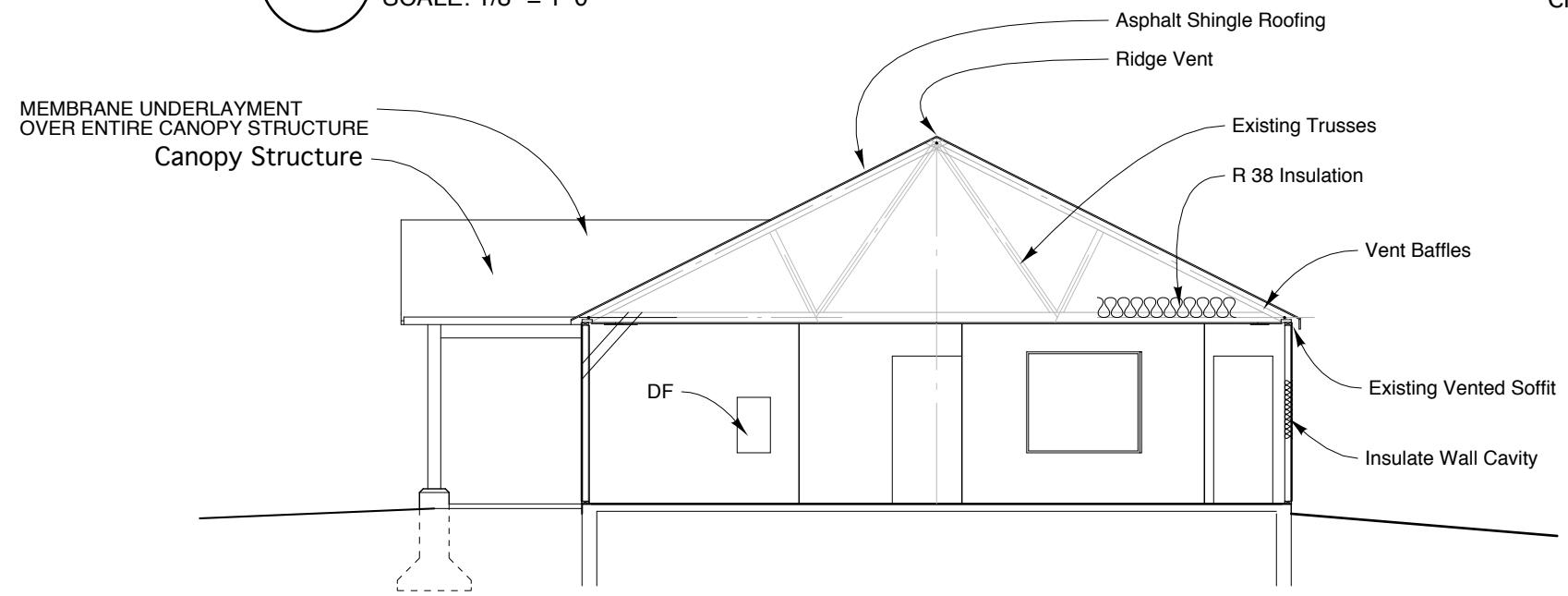
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Partial Enlarged Floor Plan
Scale: 1/4" = 1' - 0"
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A2



A Section
SCALE: 1/8" = 1'-0"

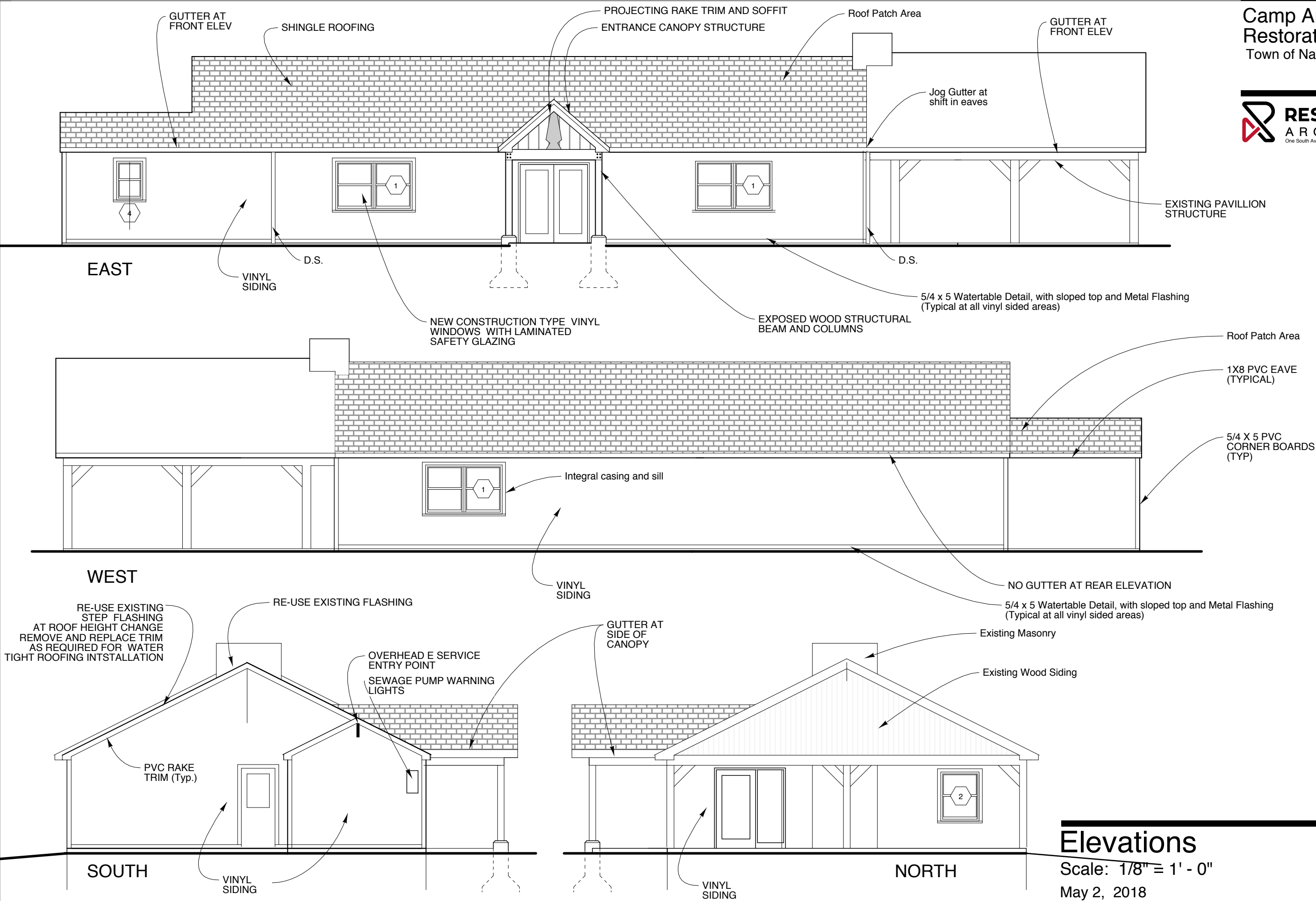


B Section
SCALE: 1/8" = 1'-0"

Proposed Section
Scale: 1/8" = 1' - 0"
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A3

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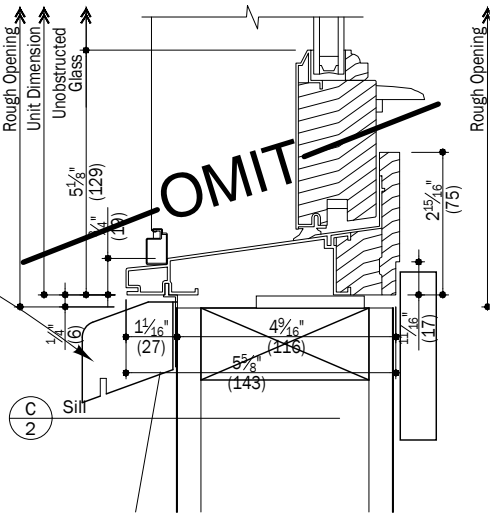
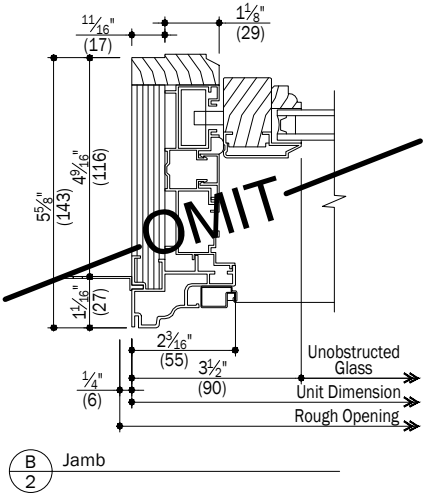
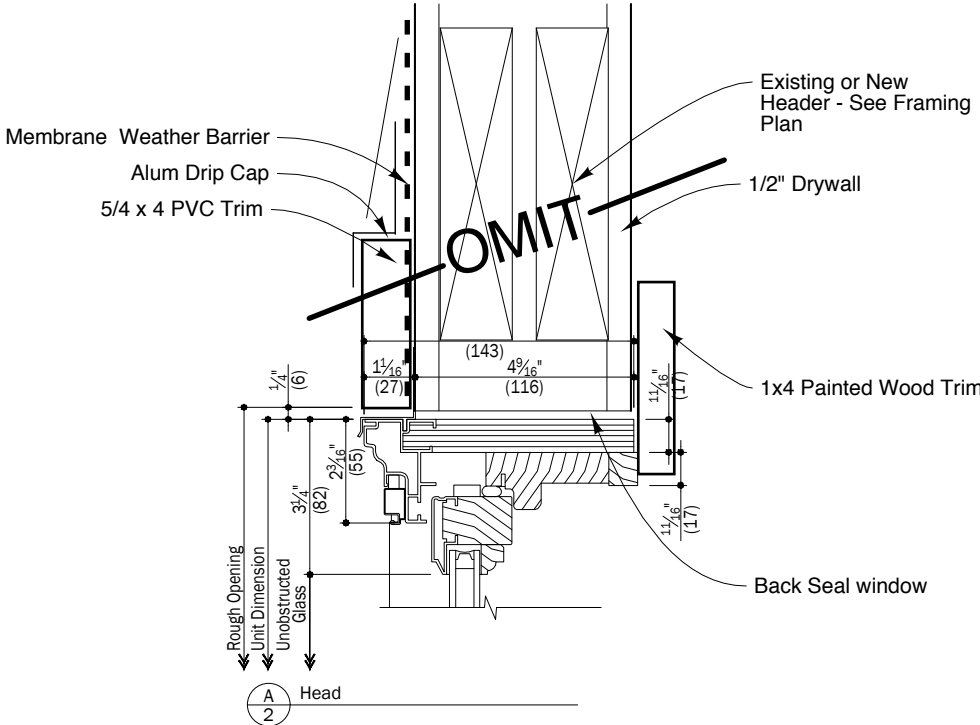


Elevations

Scale: 1/8" = 1' - 0"

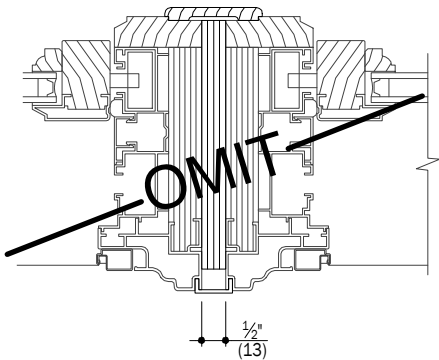
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A4

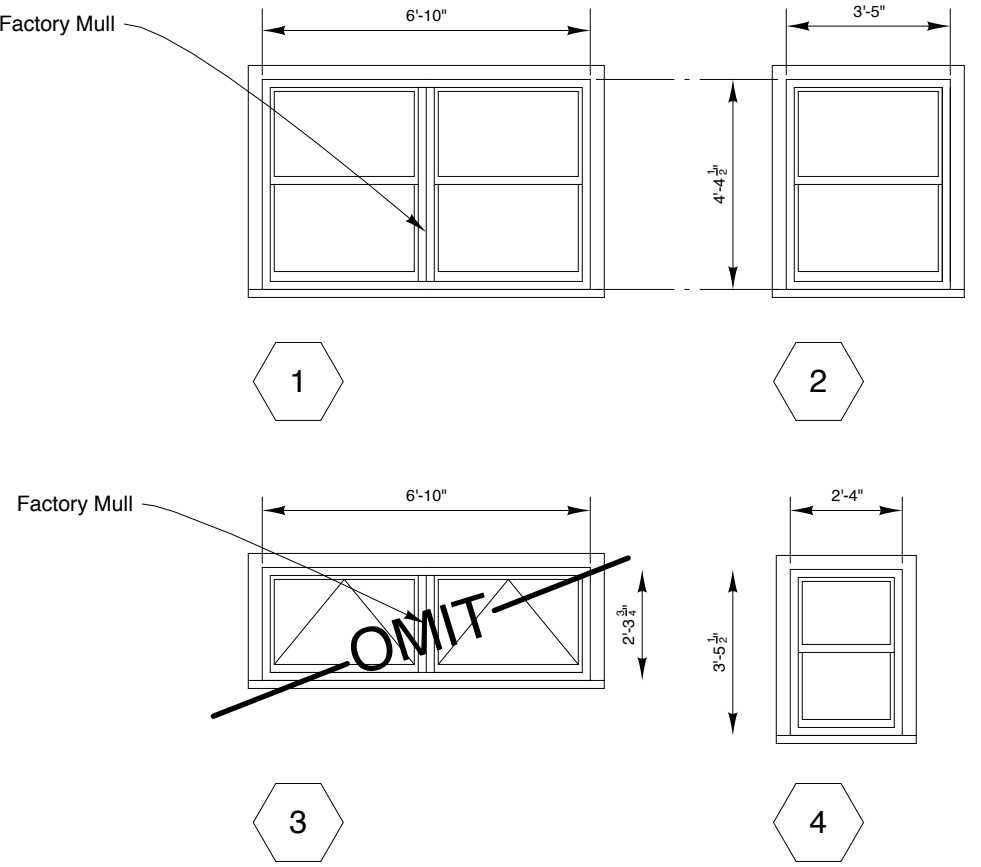


WINDOW DETAILS
3" = 1'-0"

NOTE:
WINDOWS SHALL BE VINYL NEW CONSTRUCTION TYPE WITH DRYWALL RETURNS AT JAMB AND HEAD AND PAINTED WOOD STOOL AND APRON AT INTERIOR.
EXTERIOR SHALL HAVE INTEGRAL CASING AND SILL, WITH RECEPTORS FOR VINYL SIDING
INSTALL WITH PERMIETER FLASHING AND SEALING AS PER MANUFACTURER'S RECOMMENDATIONS



FACTORY MULLED DETAIL - 1/2" x 5-3/16" LVL JOIN



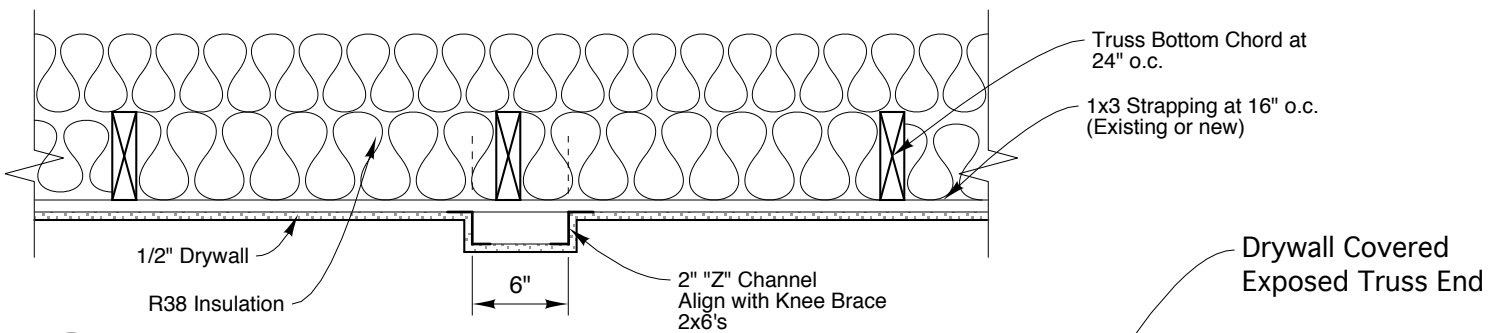
WINDOW TYPES
1/4" = 1'-0"

Notes:
Flash all openings with flexible membrane flashing, as per manufacturer's recommendations.
Seal Air Barrier to membrane flashing.
Field Verify all existing and new R.O. dimensions

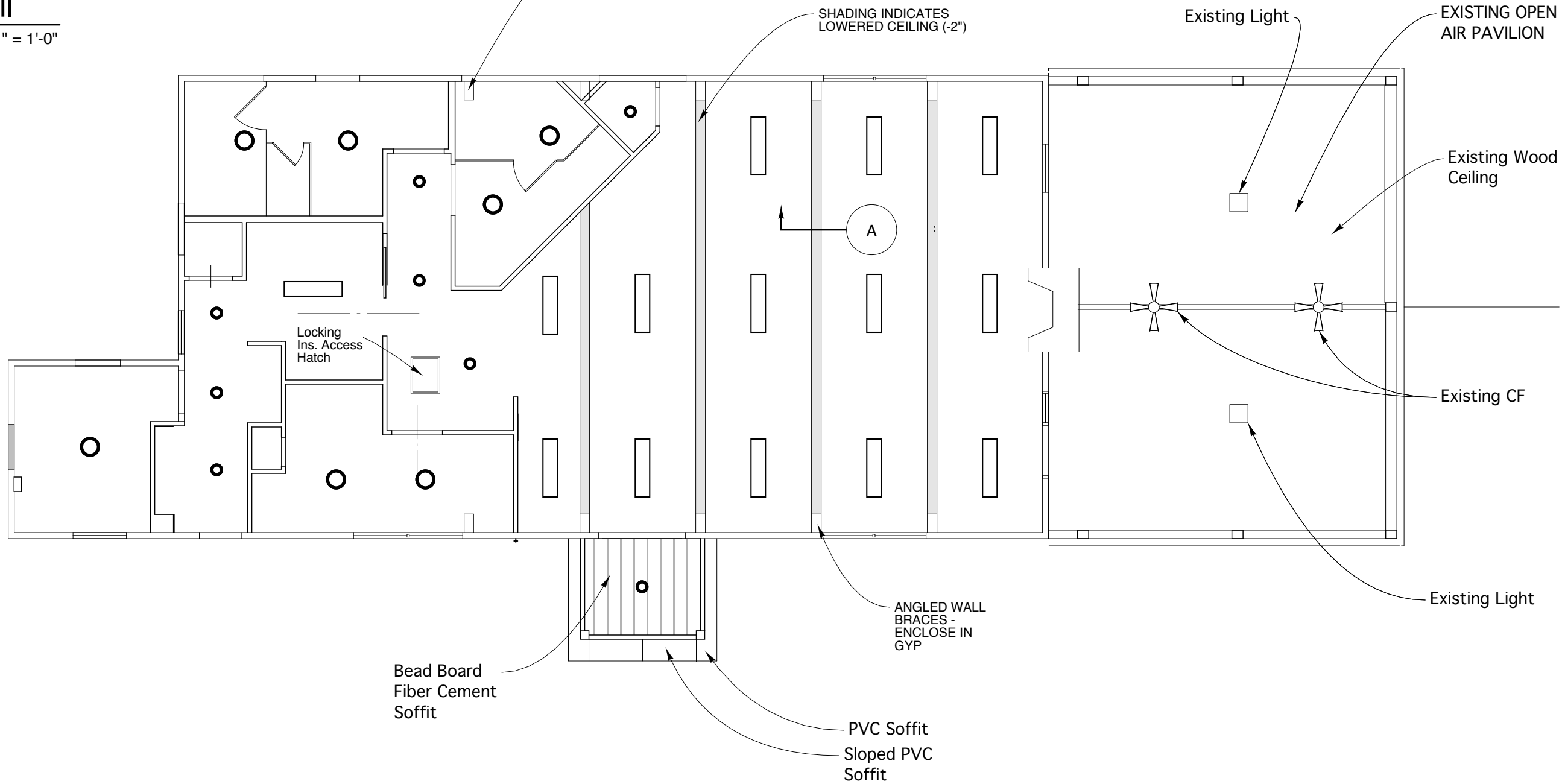
Windows
Scale: As Noted
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Line prints at 4" for 100% Reproduction

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



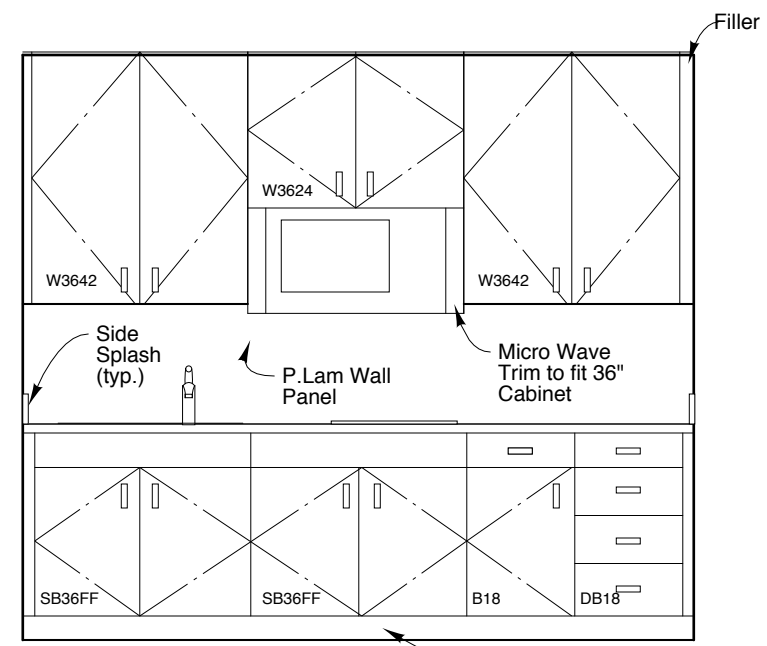
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Reflected Ceiling Plan

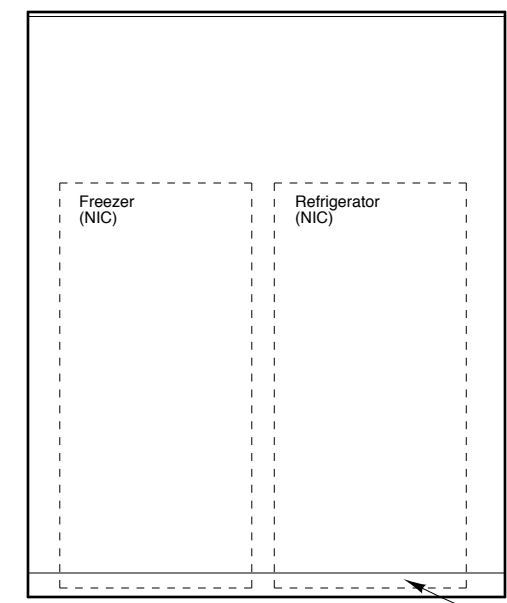
Scale: 1/8" = 1' - 0"

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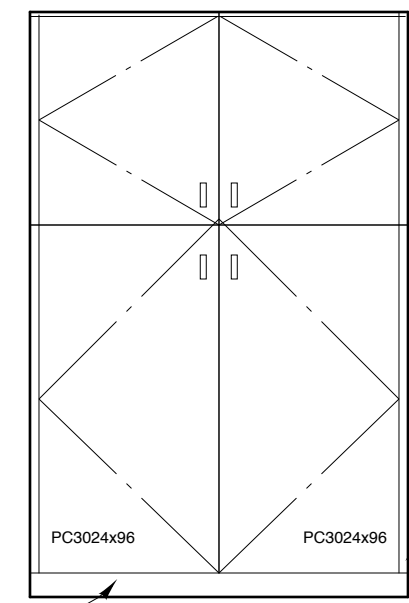
A6



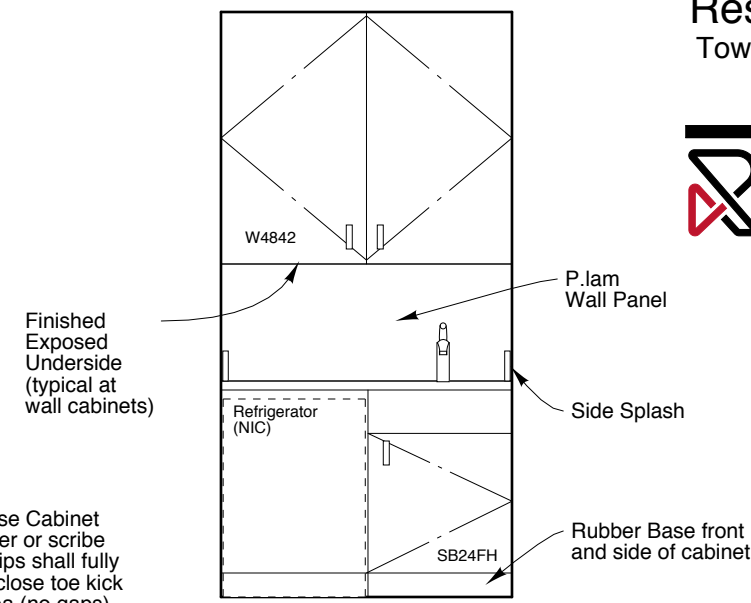
1 KITCHEN



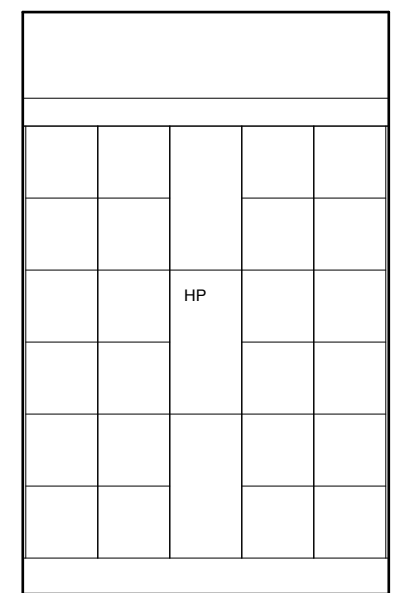
2 KITCHEN



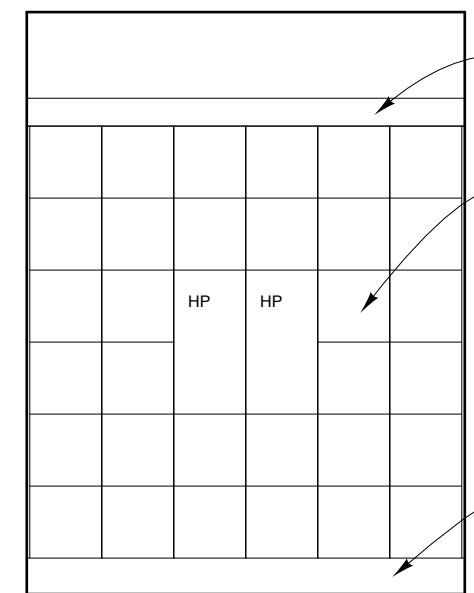
3 HALL



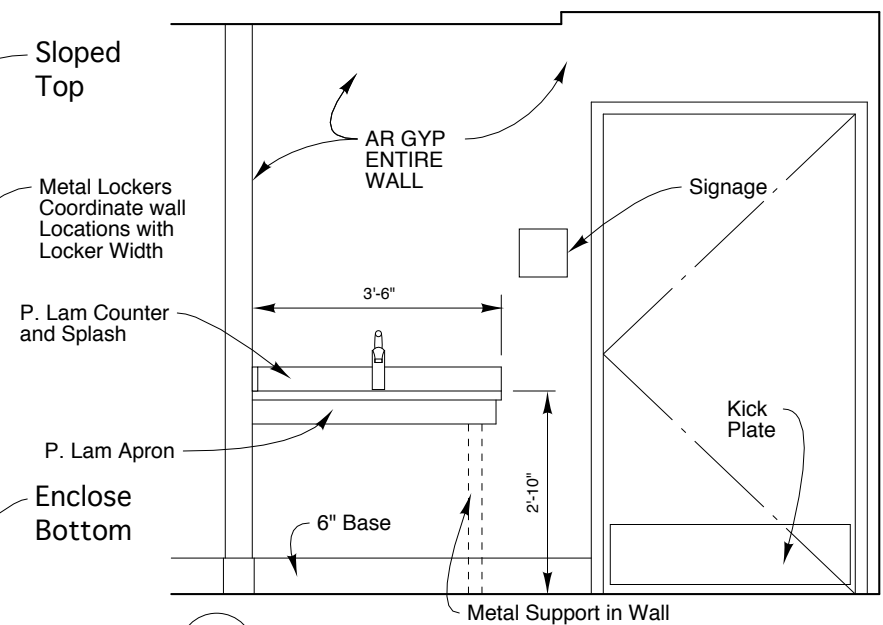
4 NURSE



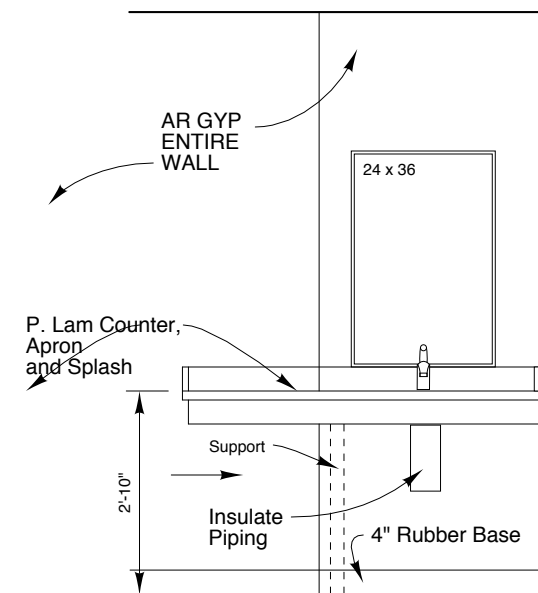
5 LOCKER



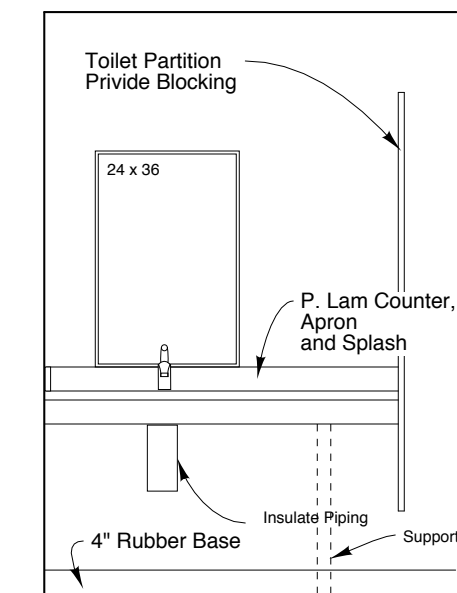
6 LOCKER



7 WASH SINK



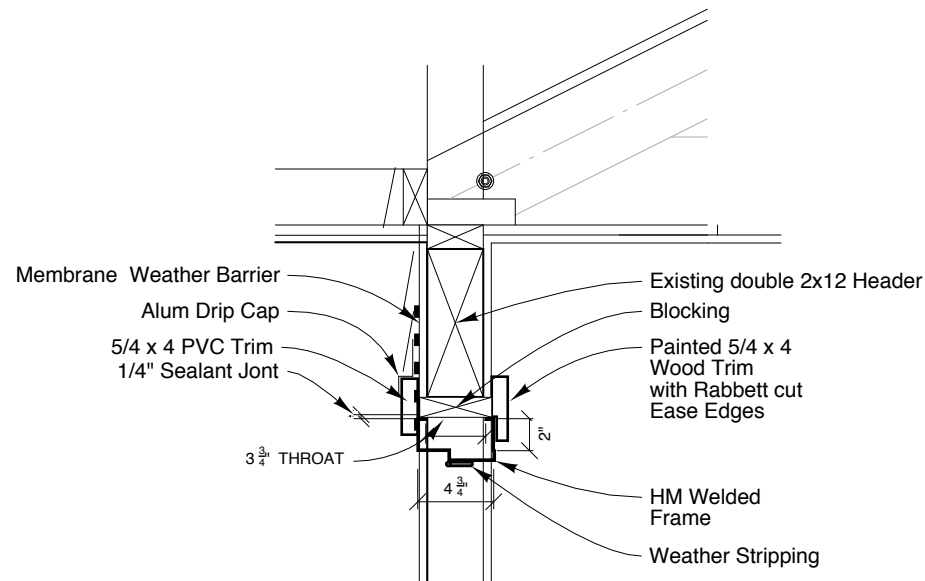
8 RESTROOM COUNTER



9 RESTROOM COUNTER

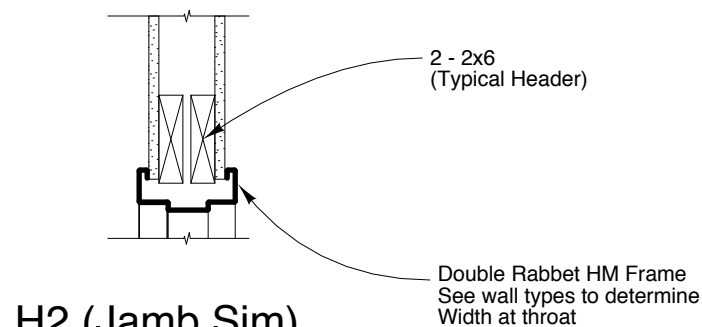
NOTE:
Conform to all accessibility mounting height requirements
Provide Blocking for all equipment and accessories

Interior Elevations
Scale: 3/8" = 1' - 0"
May 2, 2018



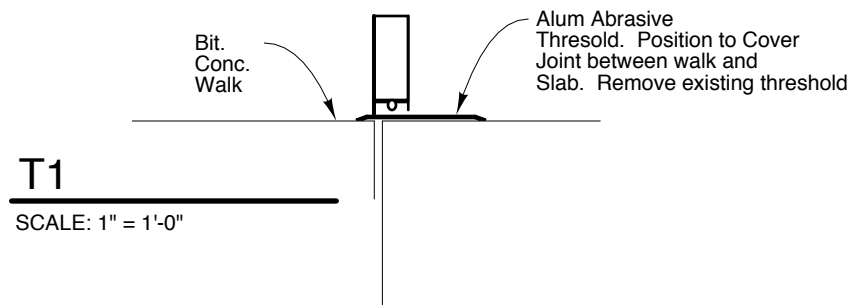
H1 (Jamb Sim)

SCALE: 1" = 1'-0"



H2 (Jamb Sim)

SCALE: 1" = 1'-0"



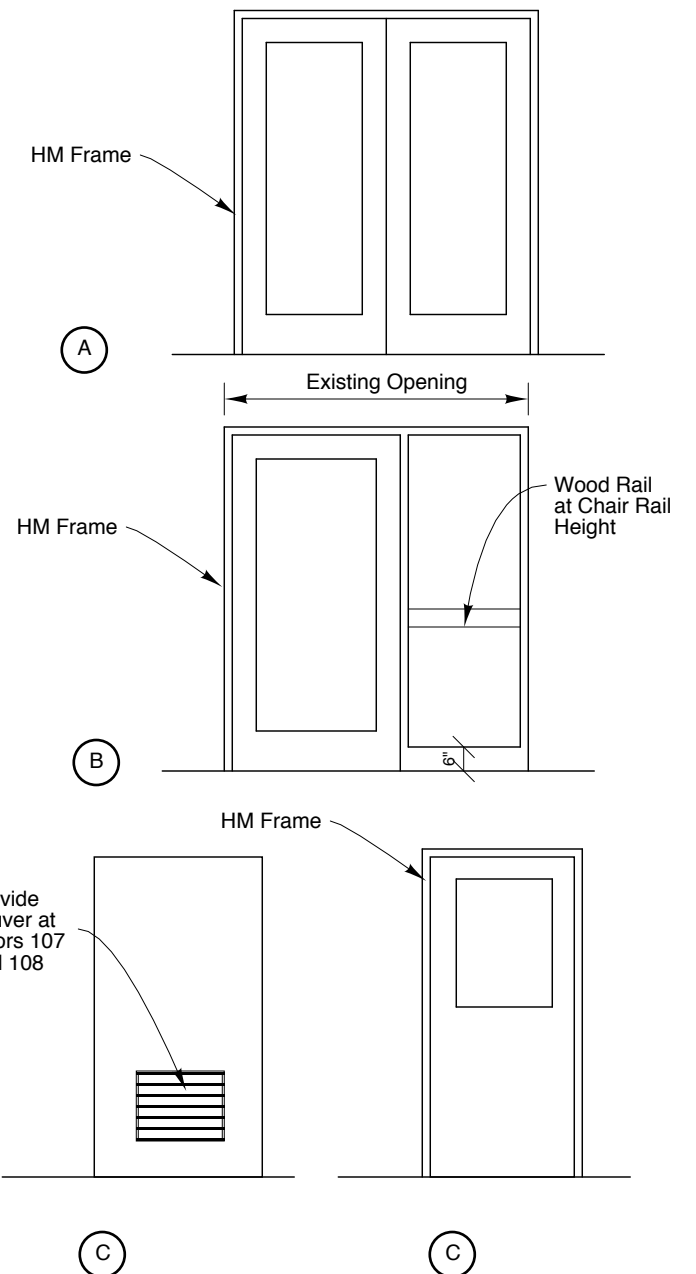
T1

SCALE: 1" = 1'-0"

Door Schedule

Door #	Location / Type	Door Size			Material					Label (Min)	Glazing	Elevation	Details	Frame Type		Hdw.		Comments
		Width	Height	Thickness	Metal	Wood Panel	Solid-Core Wood Flush	Hollow-Core Flush Wood	Reserved				Head, Jamb, Sill	Metal	Wood	Keying	Group #	
101	Main Entry - Paired	6'-0"	7'-0"	1-3/4"	X						X	A	H1 / T1	X			1A	
102	Side Entry	3'-6"	7'-0"	1-3/4"	X						X	B	H1 / T1	X			1B	
103	Nurse	3'-6"	6'-8"	1-3/4"			X					C	H2	X			2	
104	Kitchen - Pocket	3'-6"	6'-8"	1-3/4"			X					C	H2	X			3	Pocket Door Frame with ADA compliant lockset
105	Girls Restroom	3'-6"	6'-8"	1-3/4"			X					C	H2	X			5	
106	Boys Restroom	3'-6"	6'-8"	1-3/4"			X					C	H2	X			5	
107	Janitor	2'-8"	6'-8"	1-3/4"			X					C	H2	X			4	Knurled Lever Handle
108	Mechanical	3'-0"	6'-8"	1-3/8"			X					C	H2	X			4	Knurled Lever Handle
109	Storage	3'-0"	6'-8"	1-3/4"			X					C	H2	X			6	Knurled Lever Handle
110	Closet	2'-6"	6'-8"	1-3/4"			X					C	H2	X			6	
111	Side Entrance	3'-0"	7'-0"	1-3/4"	X						X	D	H1 / T1	X			1B	

Camp Arrowhead Restoration Town of Natick



Door Elevations

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

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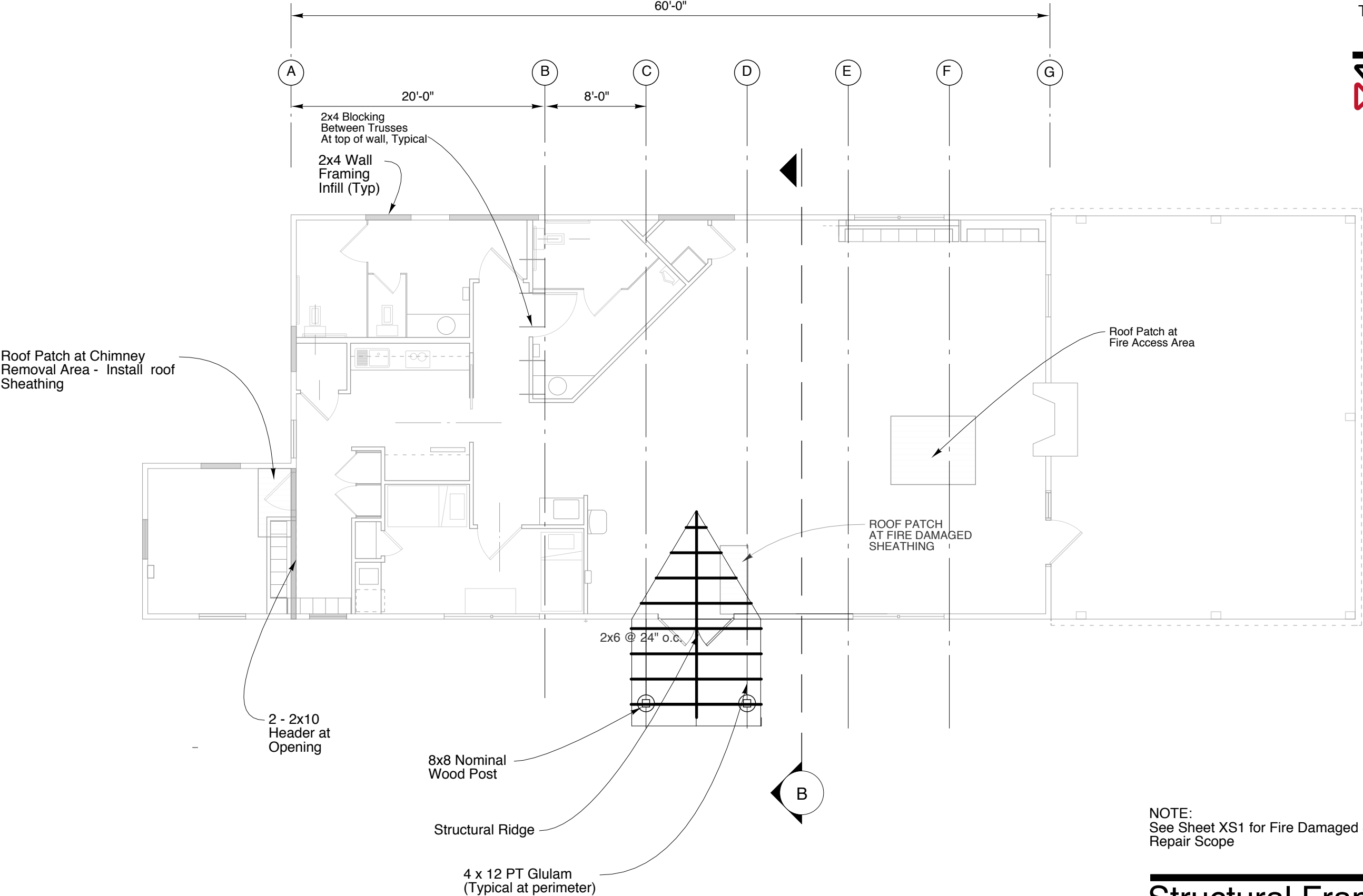
Doors

Scale: As Noted

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A8



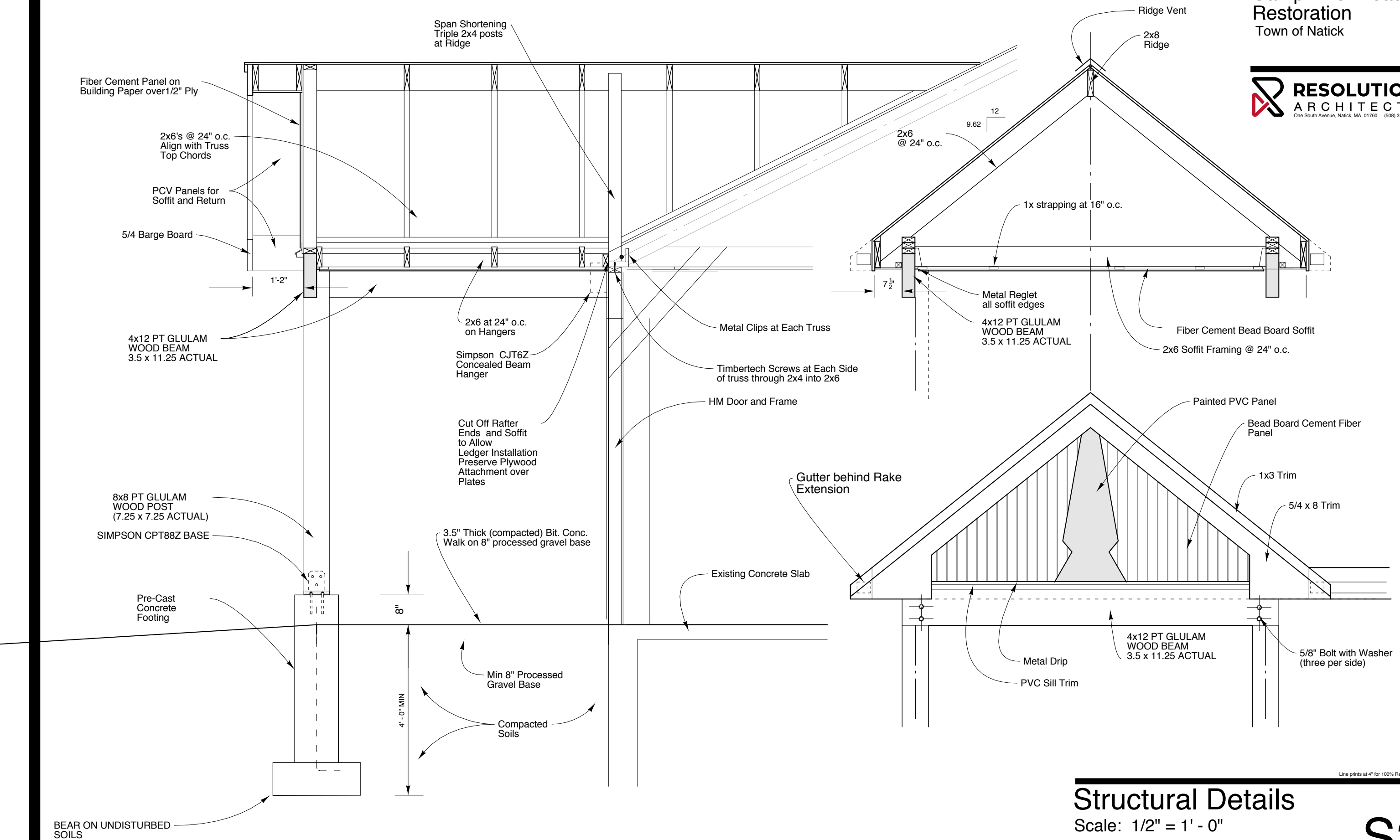
NOTE:
See Sheet XS1 for Fire Damaged Structure
Repair Scope

Structural Framing Plan

Scale: 1/8" = 1' - 0"

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S1













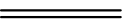




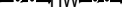








Structural Details

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

May 2, 2018

S2

PLUMBING FIXTURE SCHEDULE							
FIXTURE NUMBER	SYMBOL		WASTE	VENT	COLD	HOT	REMARKS
P-1 P-1A		WATER CLOSET	4"	2"	1/2"		P-1 IS ADA COMPLIANT
P-2		LAVATORY	4"	2"	1/2"	1/2"	P-2 IS ADA COMPLIANT
P-3		URINAL	2"	1 1/2"	3/4"		P-3 IS ADA COMPLIANT
P-4 P-4A		SINK COUNTER TOP	1 1/2"	1 1/2"	1/2"	1/2"	
P-5		MOP SINK	3"	1 1/2"	1/2"	1/2"	
P-6		COUNTERTOP SINK	2"	1 1/2"	1/2"	1/2"	
P-7		DRINKING WATER COOLER	1 1/2"	1 1/2"	1/2"		

LEGEND	
	- DOUBLE LINE INDICATES BELOW GRADE
	SAN SANITARY OR WASTE ABOVE GRADE
	V VENT PIPNG BELOW GRADE
	V VENT PIPING ABOVE GRADE
	CW COLD WATER
	HW HOT WATER
	HWR HOT WATER RETURN
	FCO FLUSH FLOOR CLEANOUT
	CO CLEANOUT
	TP TRAP PRIMER
	SA SHOCK ABSORBER (WATER HAMMER ARRESTOR (W/ BALL VALVE SHUT OFF VALVE)
	FD FLOOR DRAIN
	- SHUT-OFF VALVE
	RPF REDUCED BACKFLOW PREVENTER

Camp Arrowhead
Restoration

Town of Natick



44 Central St. Unit 4
Berlin, MA. 01503
Telephone - (508) 869-0403
Fax - (508) 869-2891
www.akalengineering.com

GENERAL PLUMBING NOTES

1. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH THE GENERAL CONTRACTOR.

2. REFER TO ARCHITECTURAL PLANS FOR HEIGHT OF CEILING AND COORDINATE ALL WORK WITH ALL OTHER CONTRACTORS PRIOR TO START.

3. COORDINATE WITH ARCHITECT FOR PLUMBING FIXTURES LOCATION.

4. GENERAL NOTES, SYMBOLS LIST AND DETAILS ARE APPLICABLE TO ALL DRAWINGS.

5. DRAWINGS ARE DIAGRAMMATIC: THIS CONTRACTOR SHALL DETERMINE EXACT LOCATIONS AND SIZES OF SYSTEMS AND COMPONENTS IN FIELD.

6. ALL PLUMBING WORK SHALL BE IN ACCORDANCE WITH THE LATEST PLUMBING CODE AND ALL APPLICABLE LOCAL CODES. ALL WORK SHALL CONFORM TO THE AMERICANS WITH DISABILITIES ACT (ADA)

7. ANY INTERFERENCE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER, AND SHALL BE RESOLVED PRIOR TO THE INSTALLATION OF WORK.

9. NO WORK SHALL BE INSTALLED IN VIOLATION OF ANY GOVERNING CODES. ANY WORK SHOWN ON THE DRAWINGS WHICH IS IN VIOLATION OF SUCH CODES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND SHALL BE RESOLVED PRIOR TO THE INSTALLATION OF THE WORK.

10. ALL PIPING PENETRATING CEILINGS AND WALLS SHALL BE INSTALLED WITH ESCUTCHEONS AT THE PENETRATION. ALL PIPING PENETRATING EXTERIOR WALLS AND ROOFS SHALL BE FLASHED IN AN APPROVED MANNER AND SHALL BE SEALED WEATHER TIGHT.

11. MANUFACTURERS' MODEL NUMBERS ARE SPECIFIED SOLELY TO ESTABLISH STANDARDS OF QUALITY FOR PERFORMANCE AND MATERIALS. INSTALLATION SHALL ADHERE TO MANUFACTURERS' RECOMMENDATIONS.
12. TOP OF ALL FLOOR DRAINS SHALL BE SET FLUSH WITH FINISHED FLOOR. ALL PIPING ABOVE GRADE SHALL BE PROPERLY SUPPORTED BY THE BUILDING STRUCTURE AND SHALL NOT REST ON CEILING STRUCTURE OR COMPONENTS.

13. ALL PLUMBING EQUIPMENT, PIPING, INSULATION, ETC., INSTALLED IN HVAC PLENUM SPACES SHALL MEET CODE REQUIREMENTS FOR SMOKE AND COMBUSTIBILITY.

14. PROVIDE SHUTOFF VALVES ON ALL BRANCH PIPING AND ON ALL SUPPLIES TO INDIVIDUAL FIXTURES AND EQUIPMENT. PROVIDE BALL VALVES ON ALL WATER MAIN BRANCHES IN CORRIDORS AND WHERE INDICATED ON DRAWINGS.

15. PROVIDE BALANCING VALVES, BALL VALVES AND CHECK VALVES ON ALL HOT WATER RETURN BRANCHES, AS REQUIRED, TO BALANCE RETURN SYSTEM.

16. PROVIDE CLAMPS, OFFSETS, EXPANSION JOINTS, ANCHORS AND GUIDES AS NECESSARY TO PREVENT STRESS ON PIPING.

17. PROVIDE VENTS AT HIGH POINTS IN PIPING SYSTEMS AND DRAIN VALVES AT LOW POINTS. INSTALL SUPPLY PIPING SO AS TO ALLOW SEASONAL DRAINING.

19. PROVIDE GAUGE FITTINGS AND THERMOMETER WELL AT HOT WATER SUPPLY AND RETURN BRANCHES AND AT PUMP INLETS AND OUTLETS.

20. RELOCATE EXISTING WATER SERVICE ENTRY POINT

21. EACH POTABLE WATER SYSTEM (COLD AND HOT WATER) SHALL BE CLEANED AND DISINFECTED BY THIS CONTRACTOR. PROVIDE TESTING AT 6 LOCATIONS, THREE TEST AT EACH LOCATION.(TOTAL 18 TESTS)

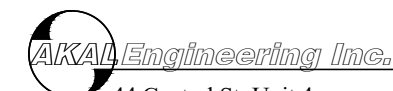
Plumbing Notes and Schedule

Scale : None

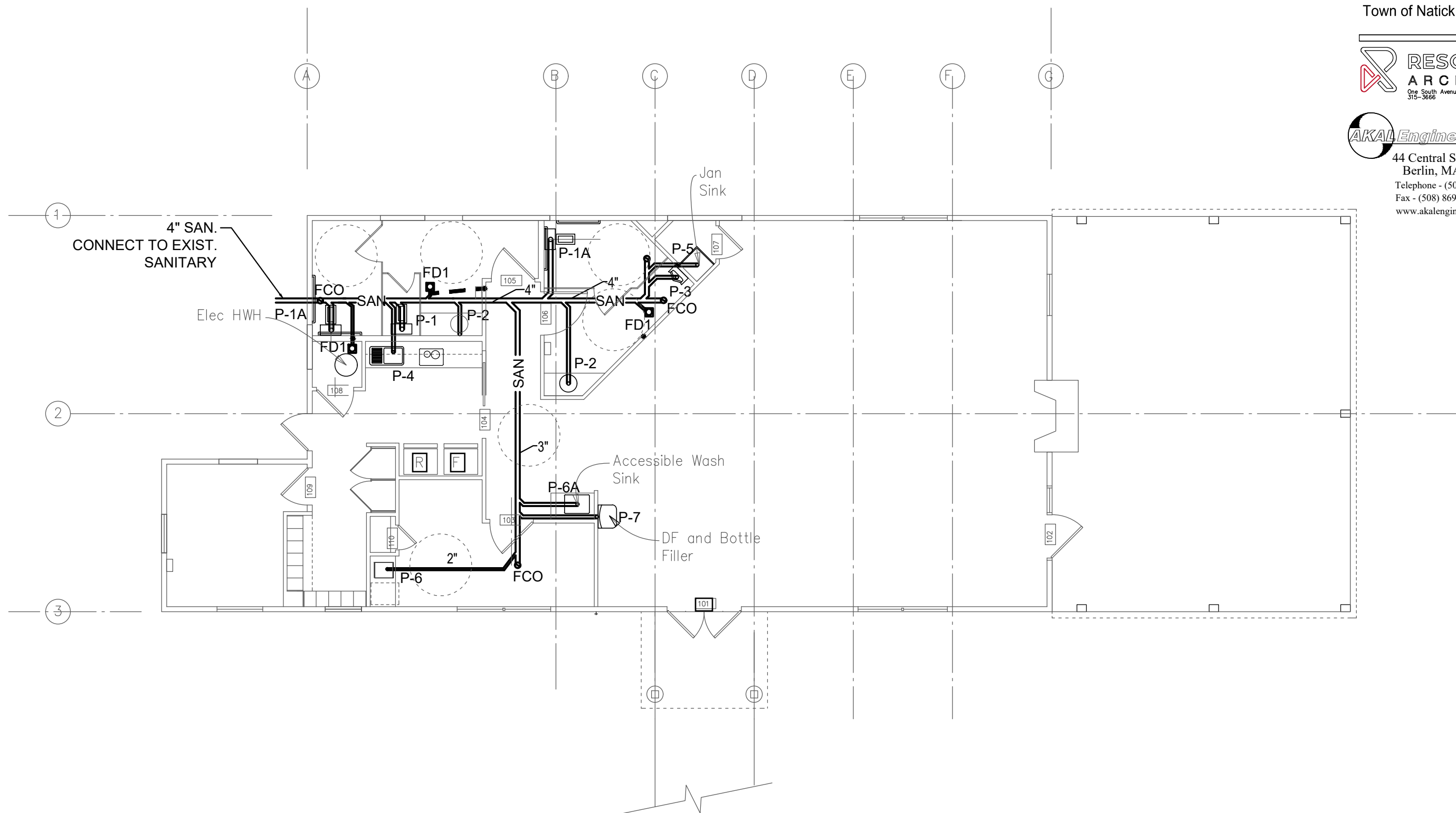
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P0.1

Town of Natick



4" SAN.
CONNECT TO EXIST.
SANITARY



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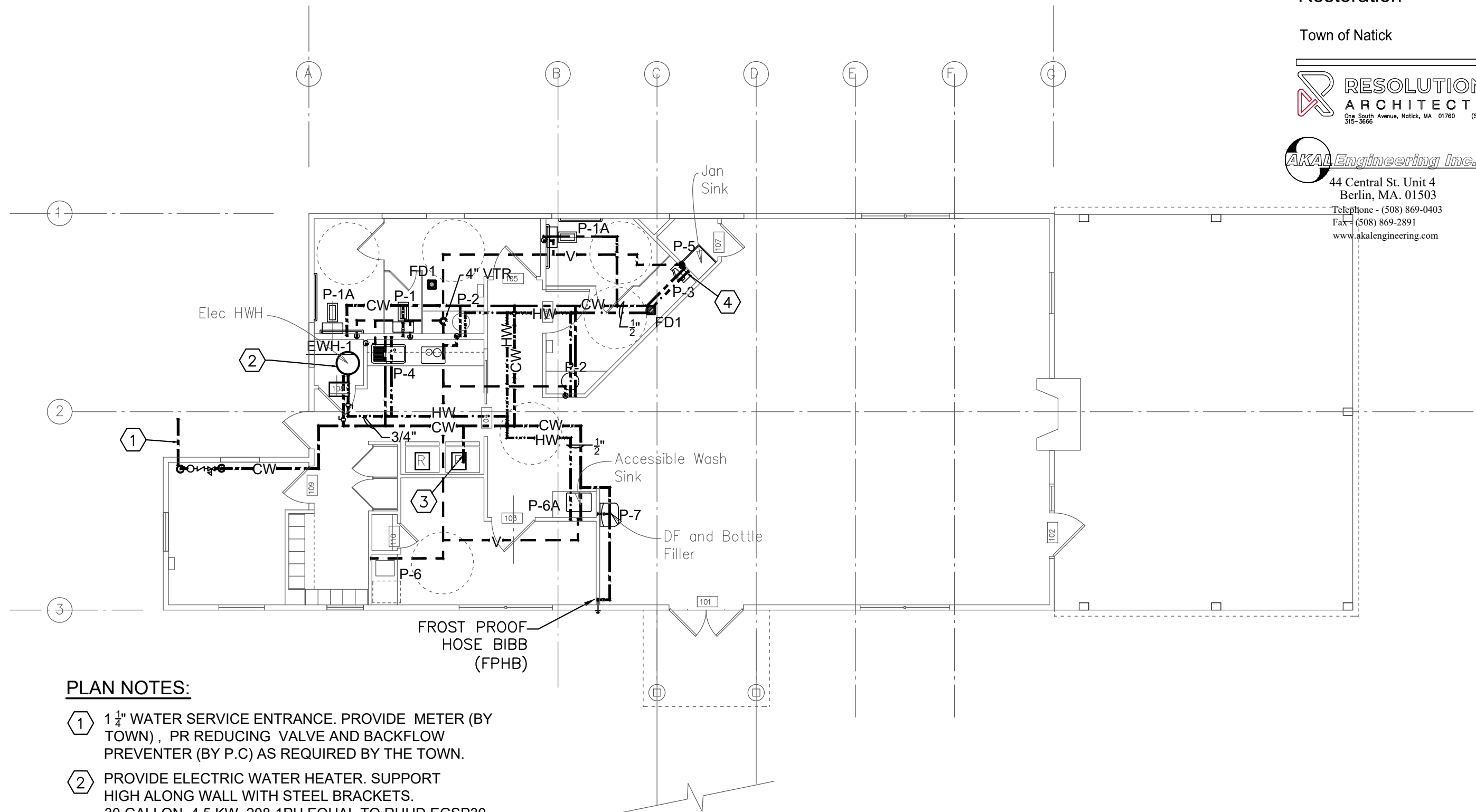
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Camp Arrowhead Restoration

Town of Natick



44 Central St. Unit 4
Berlin, MA. 01503
Telephone - (508) 869-0403
Fax - (508) 869-2891
www.akalengineering.com



PLAN NOTES:

- ① 1 1/4" WATER SERVICE ENTRANCE. PROVIDE METER (BY TOWN), PR REDUCING VALVE AND BACKFLOW PREVENTER (BY P.C) AS REQUIRED BY THE TOWN.
- ② PROVIDE ELECTRIC WATER HEATER. SUPPORT HIGH ALONG WALL WITH STEEL BRACKETS. 30 GALLON, 4.5 KW, 208-1PH EQUAL TO RUUD EGSP30
- ③ 3/8" COPPER TUBE TO FREEZER. PROVIDE DUAL CHECK VALVE
- ④ PROVIDE 1/2" REDUCED PRESSURE BACKFLOW PREVENTER FOR COLD AND HOT WATER LINE

Above Ground- Plumbing

Scale 1/8" =1'-0"

May 2, 2018

P1.1

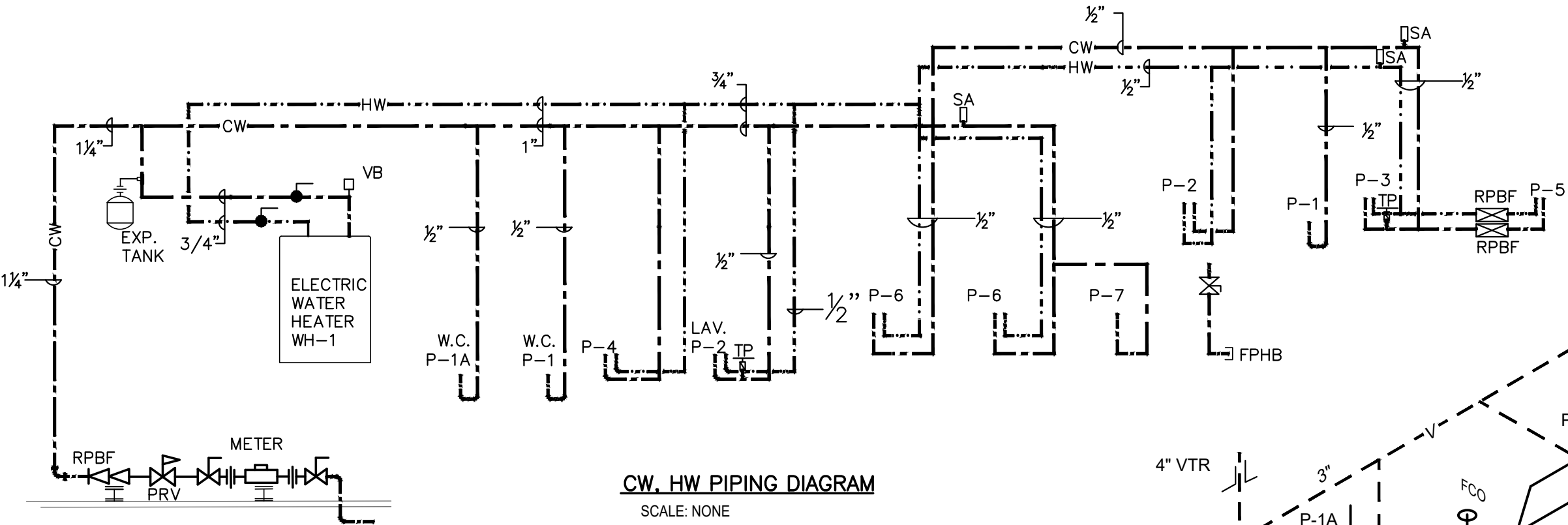
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Camp Arrowhead
Restoration

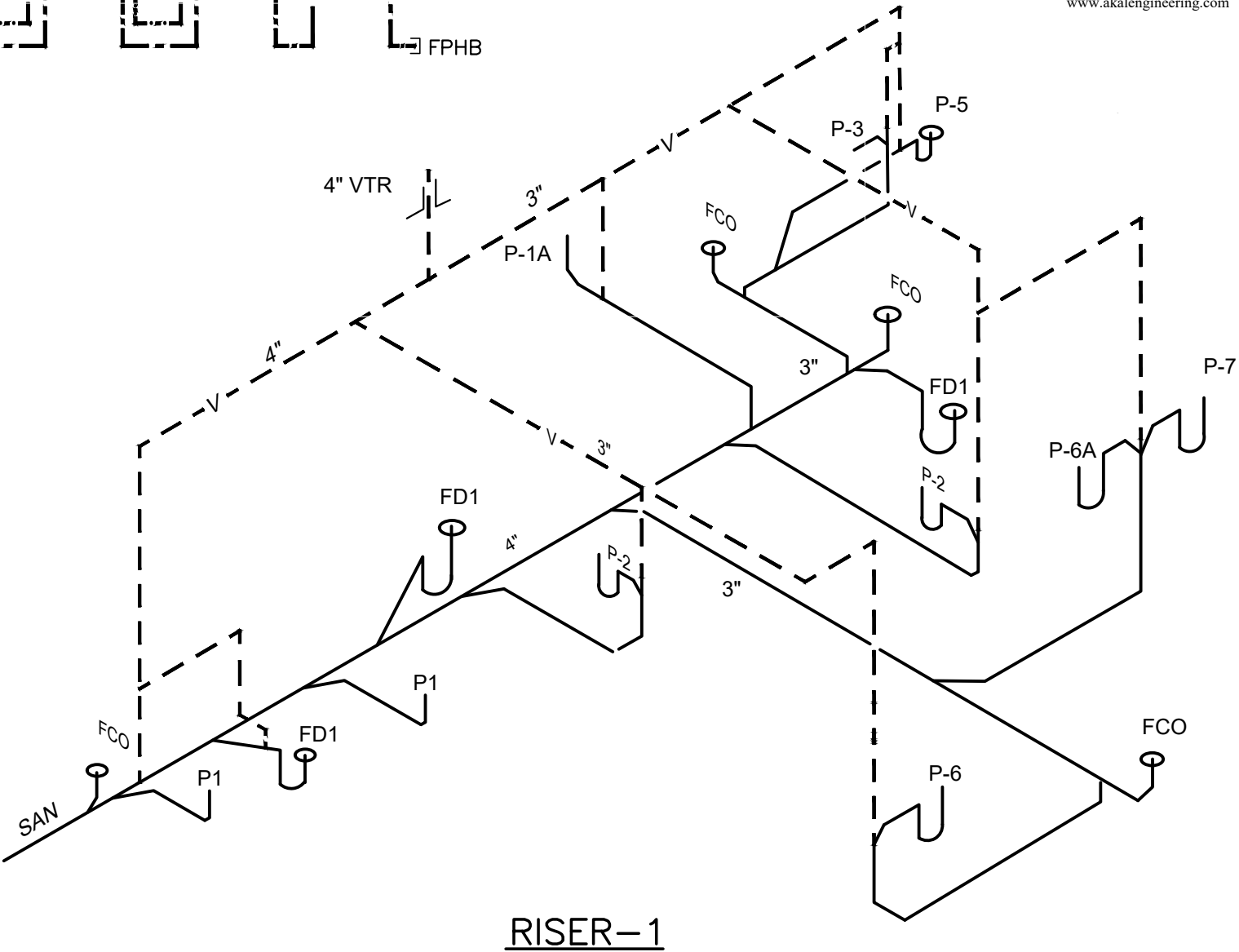
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CW, HW PIPING DIAGRAM
SCALE: NONE



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Plumbing Riser Diagram

Scale - None

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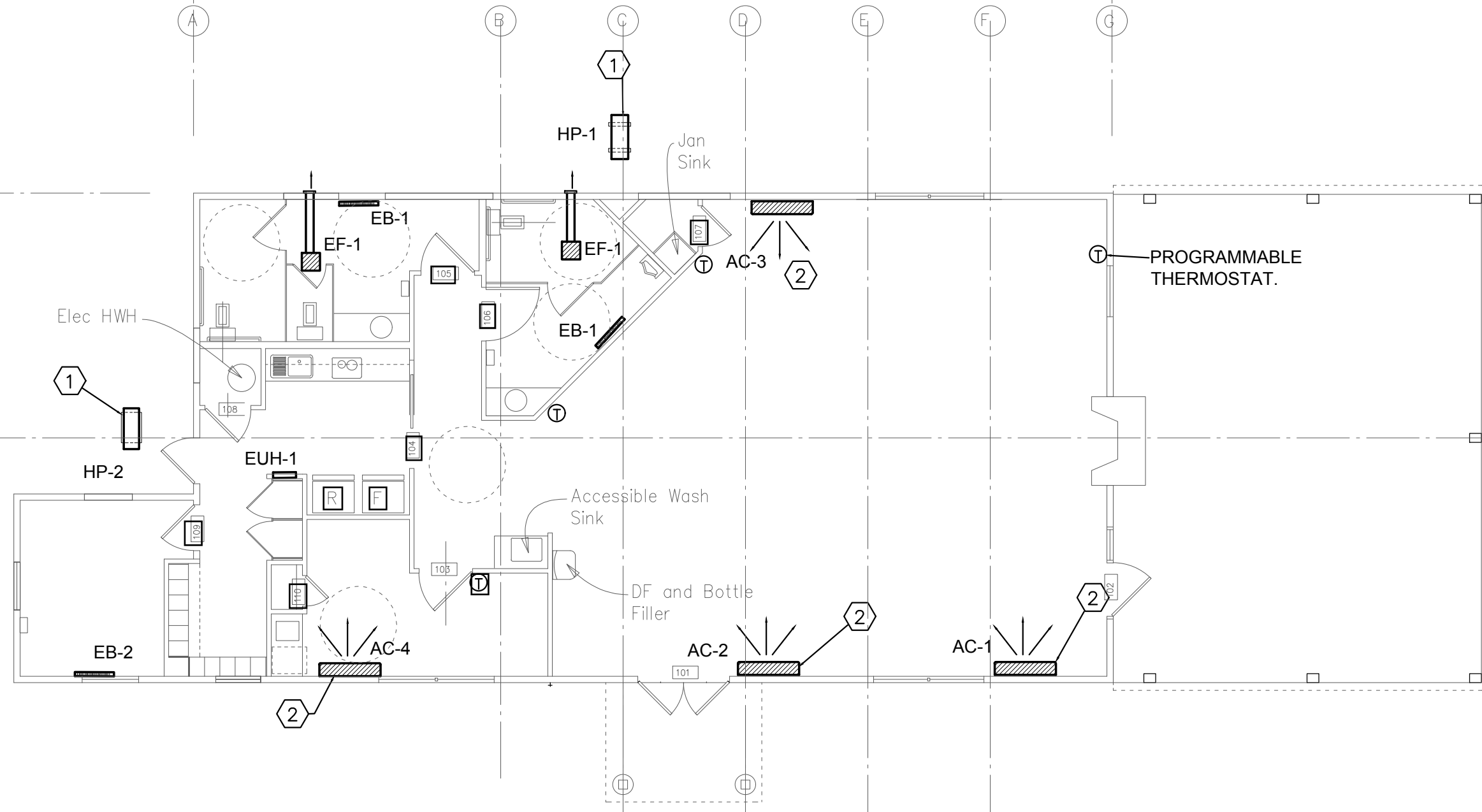
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PLAN NOTES:

- ① SUPPORT OUTDOOR HEAT PUMP UNIT . SUPPORT ON PREFAB STEEL SUPPORT EQUAL TO QUICK-SLING . RUN REFRIGERANT LINE SET TO INDIVIDUAL INDOOR UNIT AS PER THE MANUFACTURER'S RECOMMENDATION.
- ② INDOOR WALL HUNG UNIT. PROVIDE CONDENSATE PUMP AND EXTEND CONDENSATE OUTDOOR.

HVAC PLAN

Scale 1/8" = 1'-0"

May 2, 2018

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H1.1

DUCTLESS A/C UNIT SCHEDULE										
INDOOR UNIT (TAG)	OUTDOOR UNIT (TAG)	# OF ZONES	COOLING (MBH)	HEATING (MBH)	INDOOR TYPE	MANUFACTURER		ELECTRICAL		REMARKS
						INDOOR FUJITSU	OUTDOOR FUJITSU	VOLTAGE	MCA	
AC-1	HP-1	3	12		WALL MTD	ASU12RLF1	AOU36RLF	208V-1PH	30	①
AC-2			12		WALL MTD	ASU12RLF1		208V-1PH		①
AC-3			12		WALL MTD	ASU12RLF1		208V-1PH		①
AC-4	HP-2	1	12		WALL MTD	ASU12RL2	AOU12RL2	208V-1PH	9	①

① PROVIDE WIRED REMOTE THERMOSTAT CONTROLLER.

NOTE:

CONTRACTOR SHALL INSTALL AND PRESSURE TEST REFRIGERANT PIPING AS PER THE MANUFACTURERS INSTRUCTION. PROVIDE CONNECTION JOINT FOR TWO UNIT CONNECTION.
PROVIDE REFRIGERANT LINESET AS REQUIRED.
PROVIDE CONDENSATE PUMP AND EXTEND DRAIN TO OUTDOOR.

OTHER ACCEPTABLE MANUFACTURER ARE DAIKIN, PANASONIC OR EQUAL

EXHAUST FAN SCHEDULE								
MARK	SERVING	C.F.M.	S.P. (INCHES)	MOTOR POWER	V-PH-HZ	MANUFACTURER	MODEL	NOTES
EF-1 EF-2	BATHROOM FAN	190	0.150	45 WATTS	120-1-60	PANASONIC WHISPER GREEN	FV-20VQ3	① ②

NOTES: ① INTERLOCK WITH LIGHT SWITCH AND DELAY TIMER

② PROVIDE EXTERIOR WALL CAP

OTHER ACCEPTABLE MANUFACTURER ARE GREENHECK, COOK OR EQUAL

ELECTRIC BASEBOARD HEATER								
MARK	LENGTH	WATTS	BTU	V-PH-HZ	AMPS	MANUFACTURER	MODEL	NOTES
EB-1	34"	750	2560	208-1-60	3.6	MARLEY	CBD 758	①
EB-2	28"	500	1700	208-1-60	2.4	MARLEY	CBD 500	①

1 UNIT MOUNT THERMOSTAT ASSEMBLY

OTHER ACCEPTABLE MANUFACTURER ARE Q'MARK, CADET OR EQUAL

ELECTRIC UNIT HEATER								
MARK	TYPE	WATTS	BTU	V-PH-HZ	AMPS	MANUFACTURER	MODEL	NOTES
EUH-1	WALL HEATER	2000	6800	208-1-60	9.6	MARLEY	AWH4408F	①

1 UNIT MOUNT THERMOSTAT ASSEMBLY

OTHER ACCEPTABLE MANUFACTURER ARE Q'MARK, CADET OR EQUAL

Camp Arrowhead Restoration

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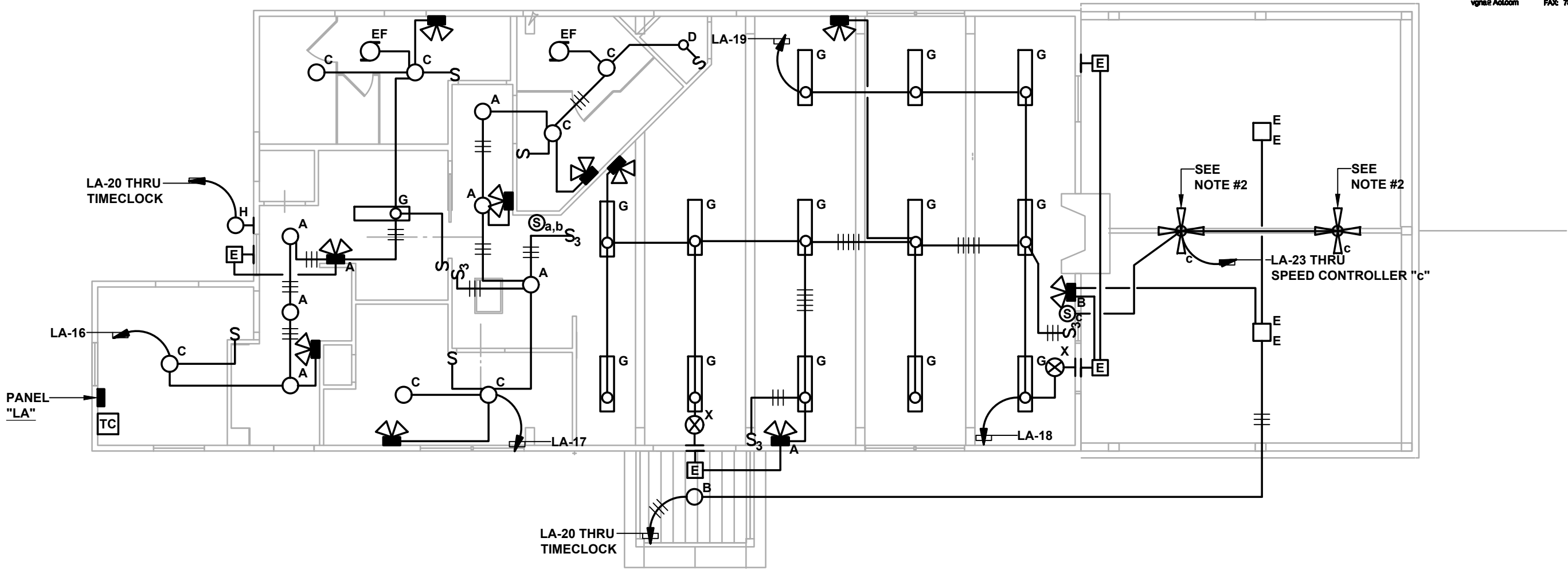
HVAC SCHEDULE

Scale : None
May 2, 2018

H1.2

NOTES:

1. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN FOR THE EXACT LOCATION OF ALL LIGHTING FIXTURES.
2. EXISTING PADDLE FANS SHALL BE REWIRED TO NEW PANEL "LA".
3. THE ELECTRICAL CONTRACTOR SHALL FURNISH, INSTALL AND WIRE THREE TYPE "F" LIGHTING FIXTURES IN THE ATTIC AND WIRE TO SWITCH LOCATED AT ATTIC HATCH. LIGHTING FIXTURES SHALL BE WIRED TO CIRCUIT LA-21.



FIRST FLOOR LIGHTING PLAN

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

2,067 SF

Line prints at 4" for 100% Reproduction

First Floor Lighting Plan

Scale: 1/8" = 1' - 0"

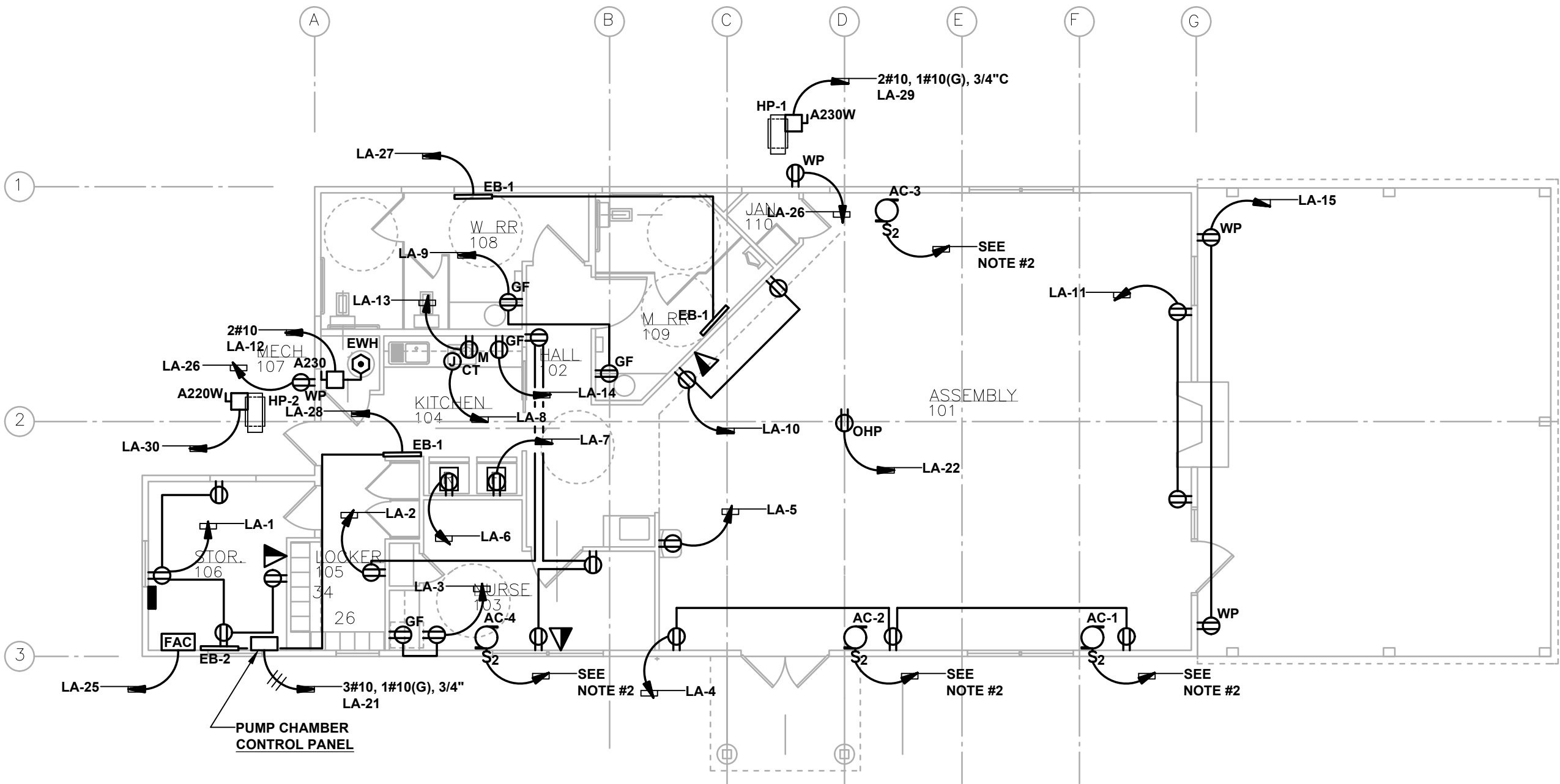
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E1

NOTES:

1. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE MECHANICAL AND PLUMBING DRAWING FOR THE EXACT LOCATION OF MECHANICAL AND PLUMBING EQUIPMENT.
2. THE ELECTRICAL CONTRACTOR SHALL WIRE TO RESPECTIVE HEAT PUMP CONDENSING UNIT.



FIRST FLOOR ELECTRICAL PLAN

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

2,067 SF

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First Floor Electrical Plan

Scale: 1/8" = 1' - 0"

May 2, 2018

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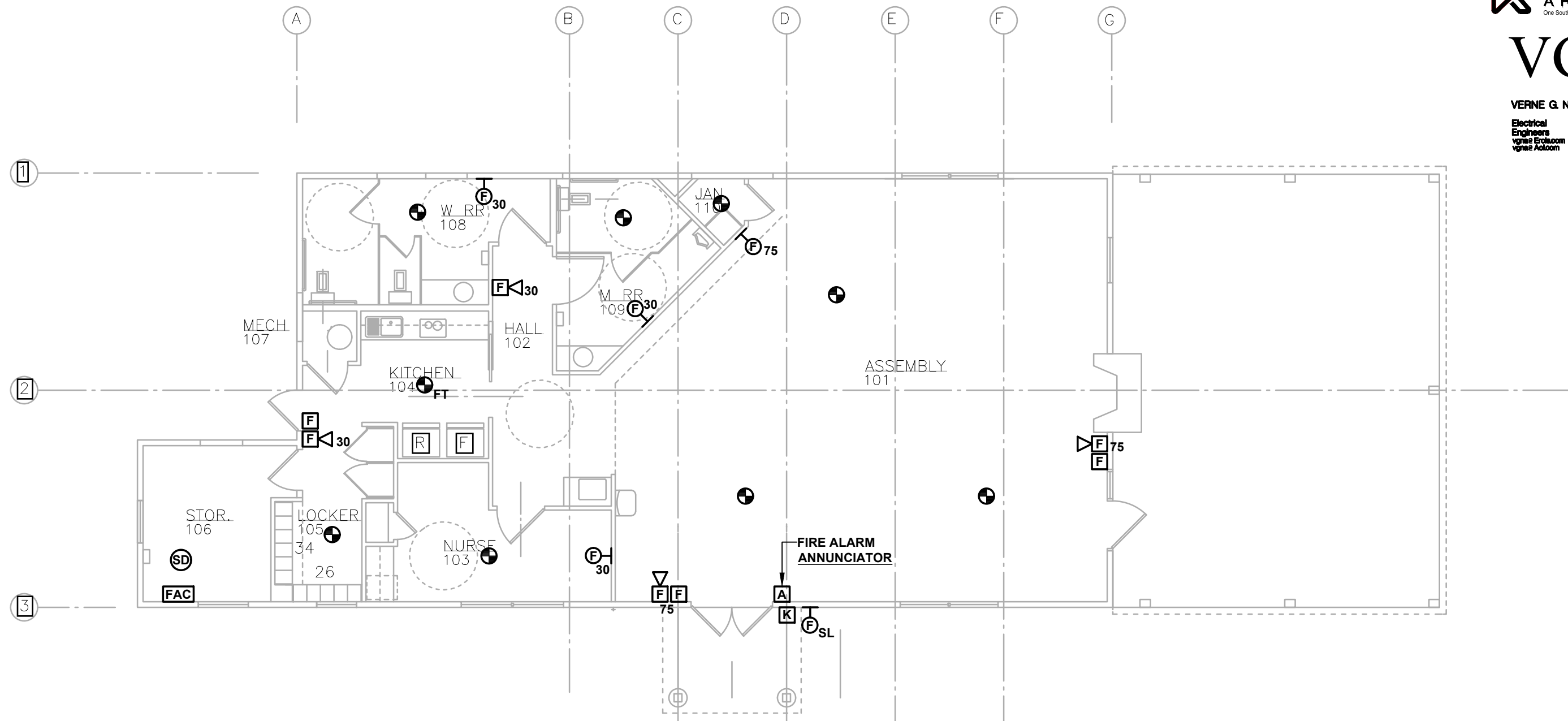
E2

Electrical Engineers
vgn@aErol.com
vgn@aAol.com

**210 Winter Street
Weymouth, MA 02188
TEL: 781-935-4200
FAX: 781-335-5737**

NOTES:

1. ALL FIRE ALARM SYSTEM DETECTORS SHALL BE CONVENTIONAL FIRE ALARM SYSTEM DEVICES.
2. FIRE ALARM ANNUNCIATOR SHALL BE PROVIDED WITH STRIP HEATER.



FIRST FLOOR FIRE ALARM PLAN

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

2,067 SF

Line prints at 4" for 100% Reproduction

First Floor Fire Alarm Plan

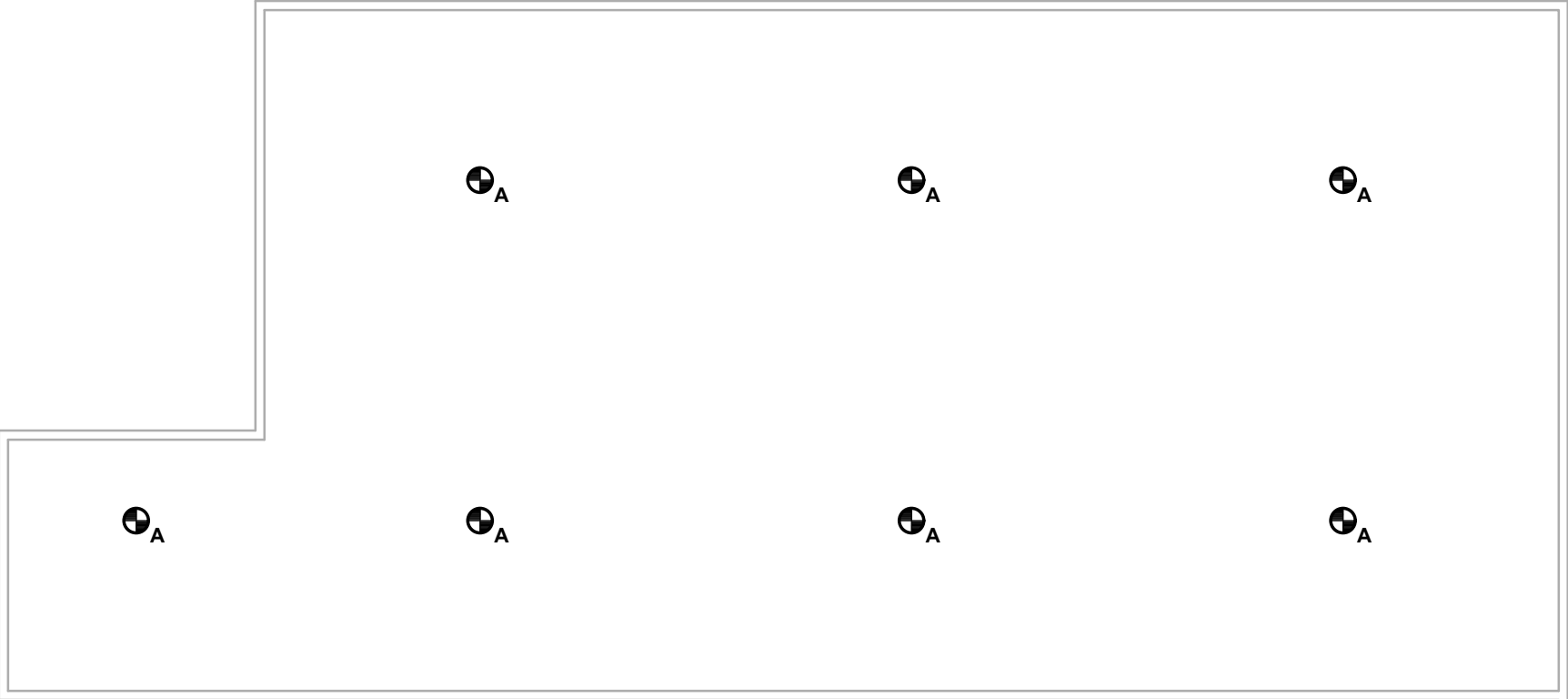
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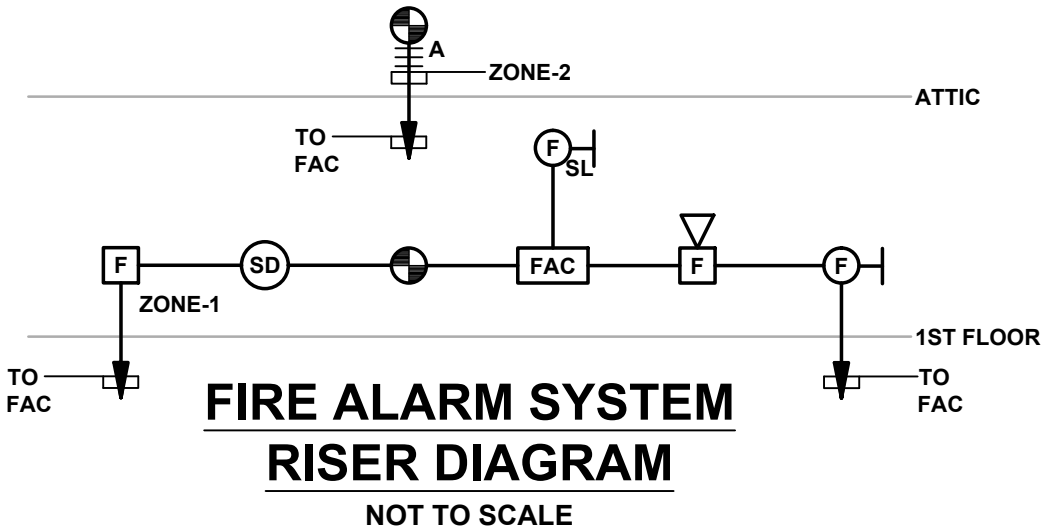
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





- NOTES:**
1. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE FIRE ALARM FLOOR PLANS FOR THE EXACT QUANTITY OF FIRE ALARM SYSTEM DEVICES.
 2. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL TWO(2) CAT 5E CABLES BETWEEN THE FIRE ALARM SYSTEM CONTROL PANEL COMMUNICATIONS AND THE BUILDING TELEPHONE PLYWOOD BACKBOARD. EACH CAT 5E CABLE SHALL BE INSTALLED IN A 3/4" CONDUIT
 3. THE EXACT LOCATION OF THE EXTERIOR FIRE ALARM SYSTEM STROBE LIGHT SHALL BE DETERMINED BY THE ARCHITECT, FIRE DEPARTMENT AND THE ELECTRICAL CONTRACTOR IN THE FIELD.



ATTIC FIRE ALARM PLAN
SCALE: 1/8" = 1'-0"



FIRE ALARM LEGEND

	FIXED TEMPERATURE FIRE ALARM DETECTOR. (135°).
	FIXED TEMPERATURE FIRE ALARM DETECTOR. (190°).
	FIRE ALARM DETECTOR LOCATED IN ATTIC 190° FIXED TEMPERATURE.
	FIRE ALARM SYSTEM SMOKE DETECTOR.
	MANUAL FIRE ALARM PULL STATION MOUNTED 48" A.F.F.
	COMBINATION FIRE ALARM HORN & STROBE LIGHT MOUNTED 80". SUBSCRIPT "15" DENOTES THE CANDELA RATING OF THE FIRE ALARM STROBE.
	FIRE ALARM CONTROL PANEL MOUNTED 6'-6" TO TOP WITH SUPPLEMENTED ELECTRIC HEATER.
	FIRE ALARM STROBE LIGHT. SUBSCRIPT "15" DENOTES THE CANDELA RATING. MOUNTED 80" A.F.F.
	FIRE ALARM STROBE LIGHT (EXTERIOR).
	KNOX BOX.
	FIRE ALARM ANNUNCIATOR.

NOTES:

- ALL FIRE ALARM DEVICES SHALL BE CONVENTIONAL FIRE ALARM DEVICES.

SYSTEM OUTPUTS		SYSTEM OUTPUTS								
		CONTROL UNIT ANNUNCIATOR					NOTIFICATION			
		ACTUATE COMMON ALARM SIGNAL INDICATOR	ACTIVATE AUDIBLE SIGNAL AT PANEL	ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR	ACTIVATE COMMON TROUBLE INDICATOR	ANNUNCIATE ORIGIN AND DESCRIPTION OF SIGNAL ON LCD DISPLAY	ACTUATE HORN / STROBE DEVICES	TRANSMIT DISTINCT ALARM SIGNAL TO MONITORING STATION	TRANSMIT DISTINCT SUPERVISORY SIGNAL TO MONITORING STATION	TRANSMIT DISTINCT TROUBLE SIGNAL TO MONITORING STATION
		A	B	C	D	E	F	G	H	I
1	SPRINKLER WATERFLOW	●	●			●	●	●		
2	SMOKE/HEAT DETECTOR (FACP)	●	●			●	●	●		
3	MANUAL STATION	●	●			●	●	●		
4										
5	DUCT SMOKE DETECTOR		●	●		●			●	
6	VALVE TAMPER		●	●		●			●	
7	FIRE ALARM SYSTEM AC POWER FAILURE		●		●	●				●
8	FIRE ALARM SYSTEM LOW BATTERY		●		●	●				●
9	OPEN CIRCUIT		●		●	●				●
10	GROUND FAULT		●		●	●				●
11	WIRE-TO-WIRE SHORT (SLC & NAC)		●		●	●				●
12	WIRE-TO-WIRE SHORT (IDC)	●	●			●	●	●		
13	LOSS OF CARRIER		●		●	●				●
14	SMOKE DETECTOR 1ST FLOOR ELEVATOR LOBBY	●	●			●	●	●		
15	SMOKE DETECTOR 2ND, 6TH FLOOR ELEVATOR LOBBY	●	●			●	●	●		

FIRE ALARM SYSTEM SEQUENCE OF OPERATION MATRIX

2,067 SF

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Fire Alarm Legend
N.T.S.

May 2, 2018

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FA3