ENFIELD PUBLIC SAFETY FACILITY

ENFIELD, NEW HAMPSHIRE

OWNER

TOWN OF ENFIELD
23 MAIN STREET
ENFIELD, NH 03748
(603) 632-5026
ED MORRIS, TOWN MANAGER
townmanager@enfield.nh.us

ARCHITECT

BLACK RIVER DESIGN, ARCHITECTS
73 MAIN STREET
MONTPELIER, VT 05602
(802)223-2044
MARK MONTMINY markm@blackriverdesign.com
POLLY WHEELER pollyw@blackriverdesign.com

CONSTRUCTION MANAGER

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SOUTH BURLINGTON, VERMONT 05403
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ANDREW MARTIN amartin@neagleychase.com

CIVIL ENGINEER

ENGINEERING VENTURES
85 MECHANIC STREET, SUITE E2-3
(603) 442-9333
NIK FIORE nikf@engineeringventures.com

STRUCTURAL ENGINEER

ENGINEERING VENTURES
208 FLYNN AVE. SUITE 2A
BURLINGTON, VERMONT 05401
(802) 863-6225
BILL NOURSE billn@engineeringventures.com

MECHANICAL ENGINEER

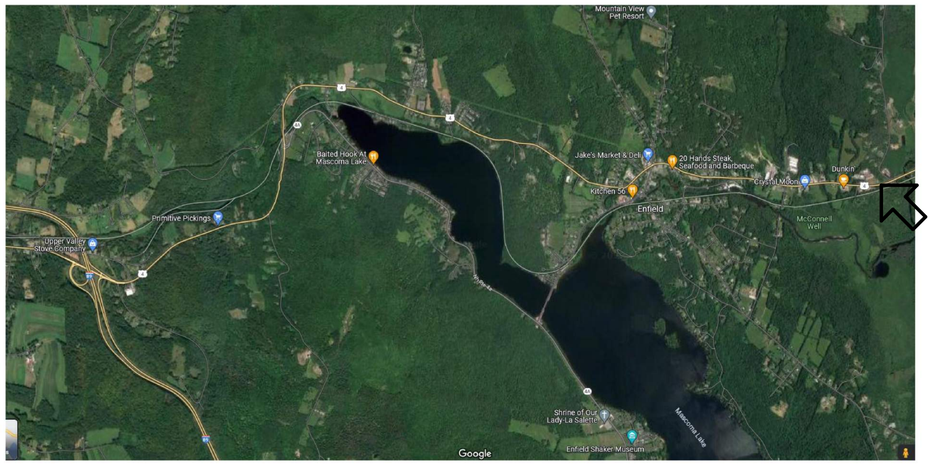
TBD

ELECTRICAL ENGINEER

TBD

FIRE PROTECTION ENGINEER

TBD



LOCATION MAP

DRAWING INDEX

ESTIMATING SET

ENFIELD PUBLIC SAFETY
ENFIELD, NEW HAMPSHIRE

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

COVER

SCALE

DATE
05/16/2023

DRAWN BY
PKW

CHECKED BY
Checker

2023-10-18 12:17:25

EPSF1222

GENERAL NOTES

CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS. BEFORE START OF WORK,
FIELD VERIFY EXISTING HEIGHTS. CONTACT ARCHITECT IF DIMENSIONS, RELATIONSHIPS, OR ELEVATIONS ARE DIFFERENT THAN INDICATED.

ALL PLAN ANGLES ARE 90 DEGREES UNLESS OTHERWISE INDICATED.

DOORS LOCATED ADJACENT TO PERPENDICULAR WALL TO BE 4" FROM WALL TO EDGE OF FRAME U.O.N.

CONCRETE
PROVIDE CONCRETE PADS FOR ALL FLOOR MOUNTED MECH. EQUIPMENT

MASONRY
USE BULLNOSE BLOCK AT ALL OUTSIDE CORNERS, END WING WALLS AND MASONRY OPENINGS NOT COMPLETELY ENCASED BY DOOR OR WINDOW FRAMES.

MISC. METAL FABRICATIONS
PROVIDE MISC. METAL ANGLES, BARS, TUBES AND PIPES AS INDICATED ON ARCHITECTURAL DRAWINGS AND NOT INDICATED ON STRUCTURAL DRAWINGS.

WHERE NO SIZE IS INDICATED, ASSUME THE FOLLOWING:
- ANGLES, BARS AND BENT PLATES: 1/4" THICK BY SIZE SHOWN
- CHANNELS, TUBES, PIPES AND WIDE FLANGES 20 LBS./LF

MISC CARPENTRY
PROVIDE BLOCKING AT ALL WALL MOUNTED ACCESSORIES, INCLUDING BUT NOT LIMITED TO:
SHELVING
TOILET ACCESSORIES,
WALL STOPS
CABINETRY
ARCHITECTURAL WOODWORK

CABINETRY
TEXT SHOWN AT A 45 DEGREE ANGLE INDICATES ARCHITECTURAL WOODWORK. ALL OTHER CABINETRY IS PREMANUFACTURED KITCHEN CASEWORK, SEE INTERIOR ELEVATIONS FOR CABINET TYPE AND CONFIGURATION.

PRE-MANUFACTURED CASEWORK: SEE CASEWORK ELEVATIONS FOR CONFIGURATION. CABINETS TO BE MERILLAT CLASSIC WITH FUSION DOOR STYLE OR EQUAL. PROVIDE 4-INCH STAINLESS STEEL D-PULLS AT ALL DOORS AND DRAWERS. PROVIDE POST-FORM PLASTIC LAMINATE COUNTERTOPS WITH D-90 EDGE & INTEGRAL 4" BACKSPLASH, U.O.N.

SEALANT
PROVIDE SEALANT AT ALL JOINTS, TRANSITIONS, CORNERS, AND CHANGES IN MATERIALS AND AS REQUIRED TO COMPLETE AN INSTALLATION.

WINDOW/DOORS
DOOR TAG - SEE DOOR SCHEDULE

WINDOW TAG - SEE WINDOW SCHEDULE

WT WT - WINDOW TO RECEIVE WINDOW TREATMENT

FINISHES
ROOMS THAT ARE NOT LABELED WITH A ROOM NAME AND NUMBER ARE TO RECEIVE SIMILAR FINISHES AS ADJOINING ROOM.

SPECIALTIES

DISPLAY BOARDS -

MARK MARKER BOARD 8' WIDE X 4' HIGH U.O.N.

TACK TACK BOARD 4' WIDE X 4' HIGH U.O.N.

TOILET & BATH ACCESSORIES
SEE ENLARGED BATHROOM PLANS AND SPECIFICATIONS FOR SCOPE OF ACCESSORIES

STRUCTURAL
ALL COLUMNS MAY NOT BE INDICATED ON ARCHITECTURAL FLOOR PLANS. SEE STRUCTURAL FOR COMPLETE SCOPE OF STEEL COLUMNS.

PLUMBING
DF = DRINKING FOUNTAIN

MECHANICAL

UV = UNIT VENTILATOR - SEE MECHANICAL

CUH = CABINET UNIT HEATER - SEE MECHANICAL

FIRESTOPPING -
ROOMS SHALL BE CONSTRUCTED WITH ENCLOSURE TO PROVIDE FIRE RESISTANT RATING INDICATED. PROVIDE THROUGH PENETRATION FIRE STOP SYSTEM AND FIRE RESISTIVE JOINT SEALANT SYSTEMS AS REQUIRED TO ENSURE RATING.

FIRE RESISTANCE RATING KEY

1 HR FOLLOWING THE ROOM NAME INDICATES THE ENTIRE ROOM IS TO BE SEPARATED BY ONE HOUR RATED CONSTRUCTION

2 HR FOLLOWING THE ROOM NAME INDICATES THE ENTIRE ROOM IS TO BE SEPARATED BY TWO HOUR RATED CONSTRUCTION

ST FOLLOWING THE ROOM NAME INDICATES THE ENTIRE ROOM IS TO BE SEPARATED WITH SMOKE TIGHT CONSTRUCTION

1 HR INDICATES THAT A PARTICULAR WALL, FLOOR OR ROOF ASSEMBLY REQUIRES A ONE HOUR RATING

2 HR INDICATES THAT A PARTICULAR WALL, FLOOR OR ROOF ASSEMBLY REQUIRES A TWO HOUR RATING

ESTIMATING SET

2023-10-18 12:17:25

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ENFIELD PUBLIC SAFETY

ENFIELD, NEW HAMPSHIRE

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

GENERAL NOTES

SCALE
1/4" = 1'-0"

DATE
05/16/2023

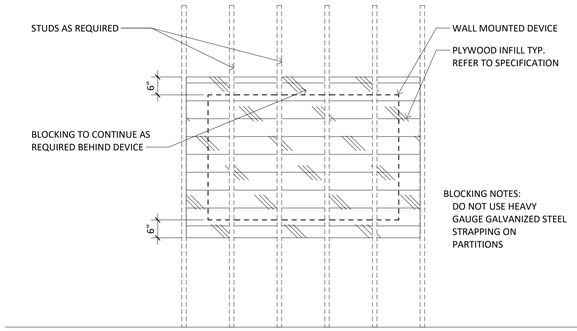
DRAWN BY
Author

CHECKED BY
Checker

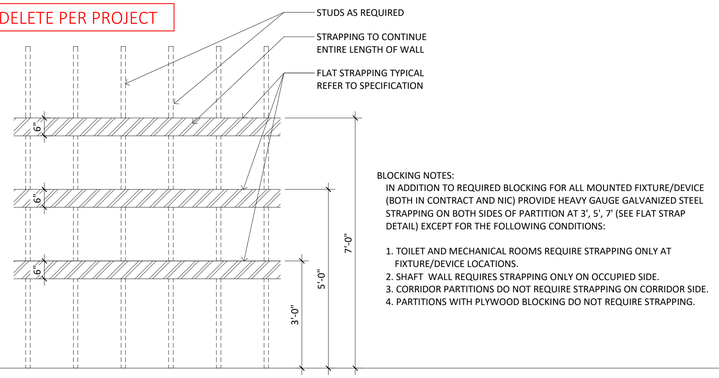
A001

MOUNTING INFORMATION

UVM LAB SPECIFIC - USER TO REVISE OR DELETE PER PROJECT



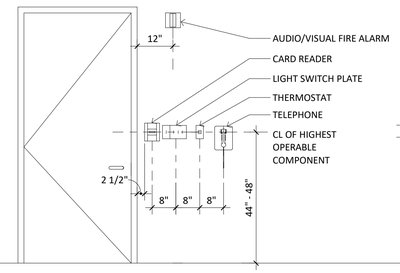
BLOCKING - PLYWOOD INFILL



BLOCKING - FLAT STRAP

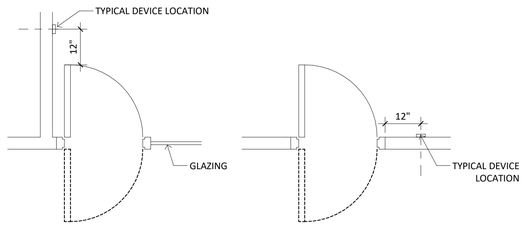
BLOCKING NOTES:
IN ADDITION TO REQUIRED BLOCKING FOR ALL MOUNTED FIXTURE/DEVICE (BOTH IN CONTRACT AND NIC) PROVIDE HEAVY GAUGE GALVANIZED STEEL STRAPPING ON BOTH SIDES OF PARTITION AT 3', 5', 7' (SEE FLAT STRAP DETAIL) EXCEPT FOR THE FOLLOWING CONDITIONS:

1. TOILET AND MECHANICAL ROOMS REQUIRE STRAPPING ONLY AT FIXTURE/DEVICE LOCATIONS.
2. SHAFT WALL REQUIRES STRAPPING ONLY ON OCCUPIED SIDE.
3. CORRIDOR PARTITIONS DO NOT REQUIRE STRAPPING ON CORRIDOR SIDE.
4. PARTITIONS WITH PLYWOOD BLOCKING DO NOT REQUIRE STRAPPING.



DEVICE LOCATION MOUNTING HIERARCHY

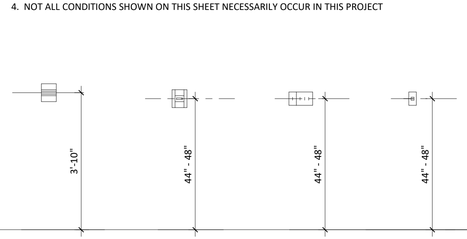
PLAN DEVICE LOCATION DIAGRAM NOTES:
TYPICAL DEVICE LOCATIONS UNLESS OTHERWISE NOTED IN ELEVATIONS



PLAN DEVICE LOCATION DIAGRAMS

MOUNTING HEIGHTS

MOUNTING HEIGHT NOTES:
1. MOUNTING HEIGHTS TYPICAL UNLESS OTHERWISE NOTED IN ELEVATIONS
2. INTENT IS TO ALIGN DEVICES WERE APPLICABLE
3. FOR DEVICES MOUNTED IN CEILINGS REFER TO CEILING DETAILS
4. NOT ALL CONDITIONS SHOWN ON THIS SHEET NECESSARILY OCCUR IN THIS PROJECT

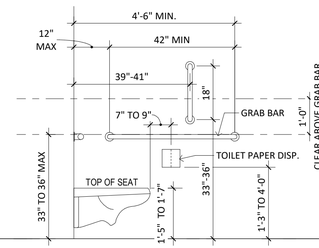


FIRE ALARM PULL STATION

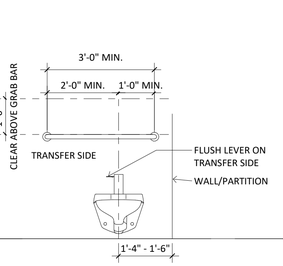
CARD READER

LIGHT SWITCH

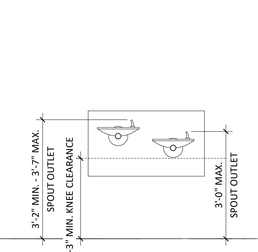
THERMOSTAT



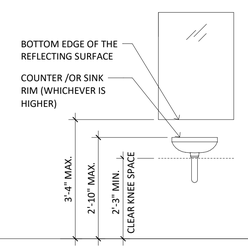
TOILET SIDE ELEVATION



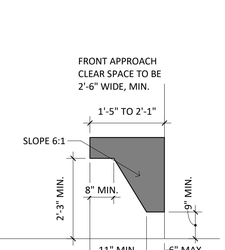
TOILET FRONT ELEVATION



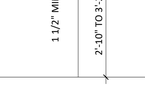
WATER FOUNTAIN



LAVATORY / SINK / MIRROR ELEVATION

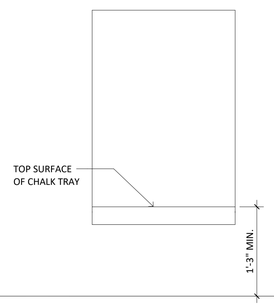


TOE AND KNEE CLEARANCE

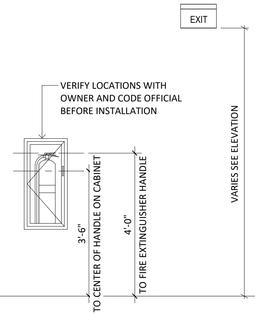


HANDRAIL

TYP OUTLET HEIGHTS



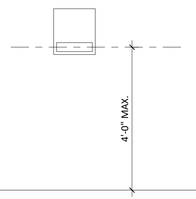
CHALKBOARD / MARKER BOARD



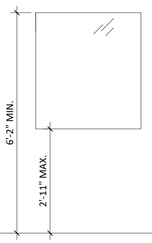
FIRE EXTINGUISHER CABINET

LIGHTED EXIT SIGN

AUDIO / VISUAL FIRE ALARM



PAPER TOWEL DISPENSER



MIRROR (STAND-ALONE)

ESTIMATING SET

2023.10.18 12:17:26

ENFIELD PUBLIC SAFETY

ENFIELD, NEW HAMPSHIRE

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

TYPICAL MOUNTING HEIGHTS

SCALE 1/2" = 1'-0"

DATE 05/16/2023

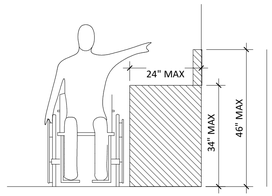
DRAWN BY Author

CHECKED BY Checker

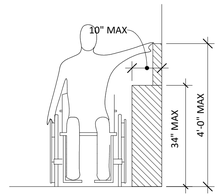
A002

EPSF1222

ACCESSIBILITY REQUIREMENTS



OBSTRUCTED SIDE REACH



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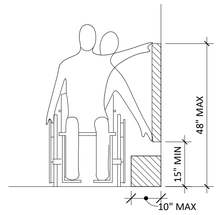

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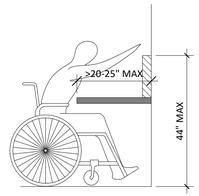

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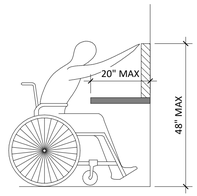

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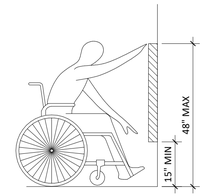

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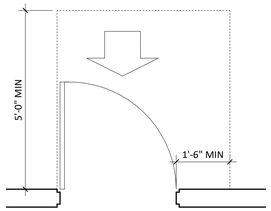
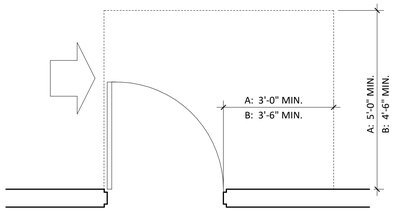
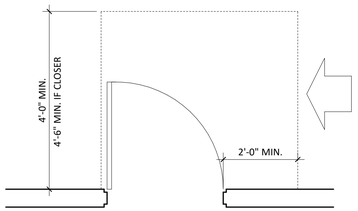


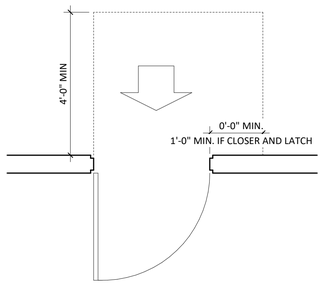
FRONT APPROACH - PULL SIDE



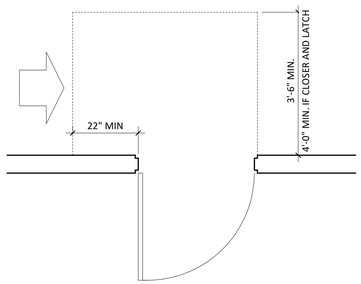
HINGE SIDE APPROACH - PULL SIDE



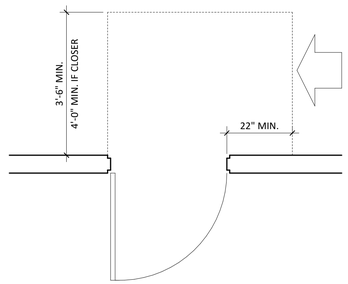
LATCH SIDE APPROACH - PULL SIDE



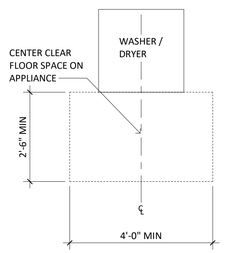
FRONT APPROACH - PUSH SIDE



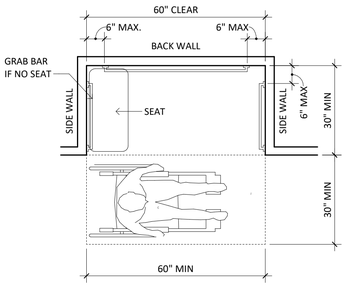
HINGE SIDE APPROACH - PUSH SIDE



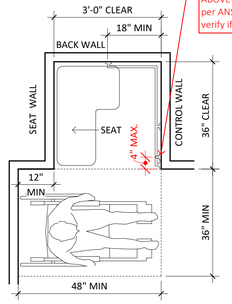
LATCH SIDE APPROACH - PUSH SIDE



WASHER / DRYER

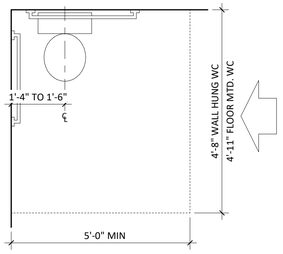


ROLL-IN TYPE SHOWER

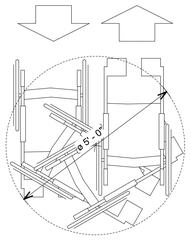


18" MIN. LENGTH GRAB BAR, 3" MIN. 6" MAX ABOVE HORIZONTAL GRAB BAR vertical grab bar per ANSI A117.1-2003
verify if project requires it. (not Vermont, but NH)

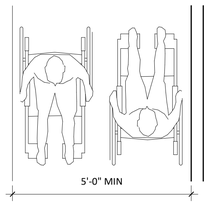
TRANSFER TYPE SHOWER



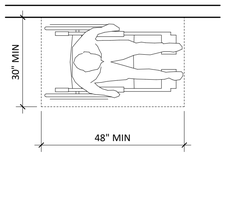
CLEAR FLOOR SPACE AT TOILET STALL (WITH TOILET PARTITIONS, NOT FULL WALLS)



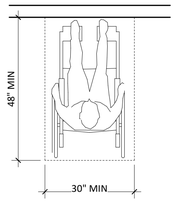
WHEELCHAIR TURNING SPACE



MINIMUM CLEAR WIDTH FOR TWO WHEELCHAIRS



PARALLEL APPROACH



FORWARD APPROACH

ESTIMATING SET

2023-10-18 12:17:26

EPSF1222

ENFIELD PUBLIC SAFETY

ENFIELD, NEW HAMPSHIRE

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

ACCESSIBILITY REQUIREMENTS

SCALE 1/2" = 1'-0"

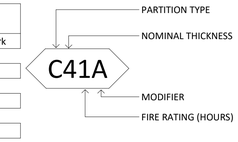
DATE 05/16/2023

DRAWN BY Author

CHECKED BY Checker

A003

WALL SCHEDULE - USED	
Family and Type	Type Mark
Basic Wall: A10 - 1 3/8"	A10
A10: 1	
Basic Wall: B40 - 4 1/8" Partition	B40
B40: 7	
Basic Wall: C40 - 4 3/4" Partition	C40
C40: 53	
Basic Wall: C60 - 6 3/4" Partition	C60
C60: 5	
Basic Wall: CMU 8 - EXT WALL CORRUGATED METAL SIDING - light grey 2	
: 3	
Basic Wall: epsf apparatus bay	
: 4	
Basic Wall: Foundation - 8" Concrete	
: 1	
Basic Wall: Foundation - 8" Concrete 3" xps	
: 13	
Basic Wall: Foundation - 12" Concrete 3" xps	
: 1	
Basic Wall: H60 - 8 1/2" Partition WOOD	
: 1	
Basic Wall: K80 - 7 5/8" Partition	K80
K80: 13	
Basic Wall: LGMF1 - Exterior Wall	LGMF1
LGMF1: 9	
Basic Wall: LGMF2 - EXTERIOR - 6" HORIZONTAL WOOD SIDING	
: 4	
Basic Wall: LGMF6 - EXT WALL CORRUGATED METAL SIDING - light grey	
: 6	
Basic Wall: LGMF7 - EXT WALL VERSASEAM	
: 1	
Curtain Wall: Storefront - Dark Bronze	
: 8	



PARTITION TYPES

A - GYP. BD. ON WOOD STRAPPING

B - CHASE WALL - GYP. BD. ON WOOD STUDS

C - WOOD STUD WALL, GYP. BD. BOTH SIDES

D - WOOD STUD WALL, DOUBLE LAYER GYP. BD. BOTH SIDES

E - GYP. BD. ON METAL FURRING

NOMINAL THICKNESS

WOOD STUDS
1 = 3/4" STRAPPING
2 = 1 1/2" STUDS, ON FLAT
4 = 3 1/2" STUDS
6 = 5 1/2" STUDS
8 = 7 1/4" STUDS

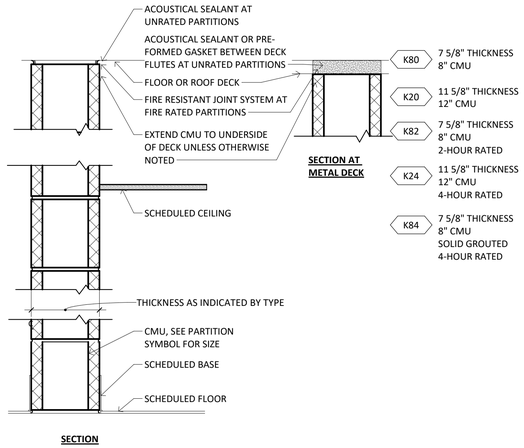
METAL STUDS
1 = 7/8" HAT CHANNEL
4 = 3 5/8" STUDS
6 = 6" STUDS

CMU
8 = 7 5/8" CMU
12 = 11 5/8" CMU

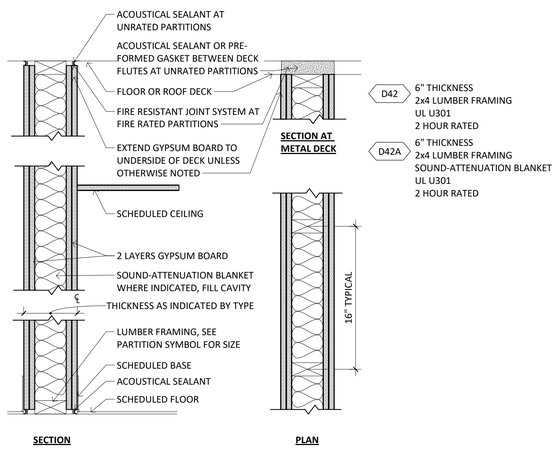
MODIFIERS

A - ACOUSTICAL INSULATION IN CAVITY

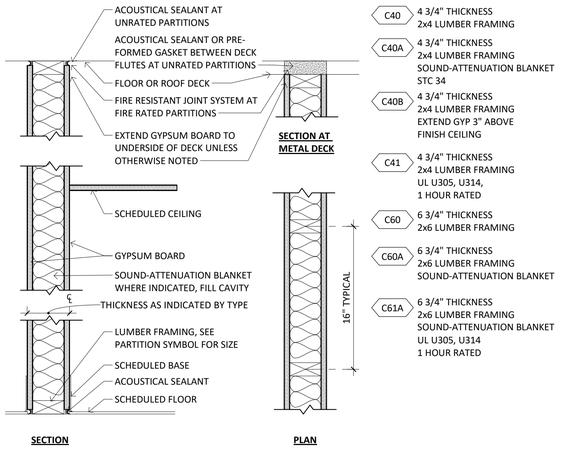
B - GYP. BOARD TO EXTEND 3" MINIMUM ABOVE CEILING



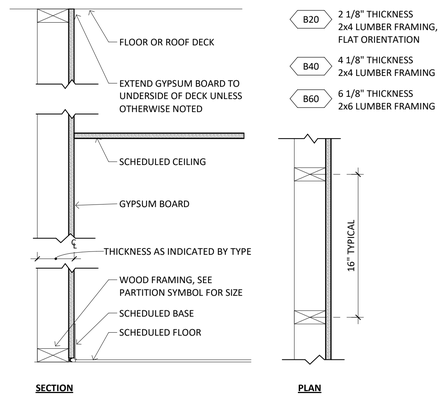
5 PARTITION TYPE K
SCALE: 1 1/2" = 1'-0"



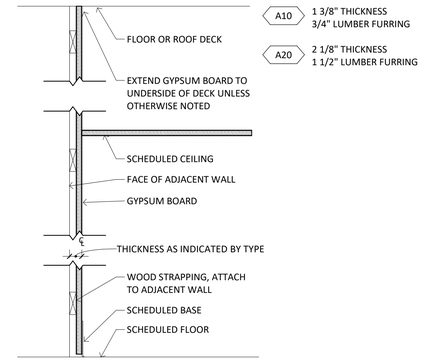
4 PARTITION TYPE D
SCALE: 1 1/2" = 1'-0"



3 PARTITION TYPE C - TYPICAL
SCALE: 1 1/2" = 1'-0"



2 PARTITION TYPE B
SCALE: 1 1/2" = 1'-0"



1 PARTITION TYPE A
SCALE: 1 1/2" = 1'-0"

ESTIMATING SET

ENFIELD PUBLIC SAFETY

ENFIELD, NEW HAMPSHIRE

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER, VERMONT 05602

REVISIONS

INTERIOR PARTITION TYPES

SCALE As indicated

DATE 05/16/2023

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A004

2023-10-18 12:17:26

EPSF1222

CODE SUMMARY

PROJECT DESCRIPTION						
	ENFIELD PUBLIC SAFETY FACILITY ENFIELD, NEW HAMPSHIRE					
	PROJECT DESCRIPTION	PROJECT CONSISTS OF NEW OFFICES AND APPARTUS STORAGE FOR THE ENFIELD POLICE, FIRE, AND EMS DEPARTMENTS.				
PROJECT TYPE						
	NEW CONSTRUCTION					LS 43
	CHANGE OF USE OR HAZARD GROUP	no	HISTORIC BUILDING	no		LS 43
APPLICABLE CODES						
	2018 INTERNATIONAL BUILDING CODE		2018 INTERNATIONAL PLUMBING CODE			
	2018 INTERNATIONAL ENERGY CONSERVATION CODE		2020 NATIONAL ELECTRICAL CODE			
	2018 INTERNATIONAL MECHANICAL CODE		2018 NFPA 101			
SPRINKLER / USE GROUP / CONSTRUCTION TYPE						
	CHAPTER 13 NFPA 1 SPRINKLER SYSTEM		yes			
	OCCUPANCY CLASSIFICATION		BUSINESS (WITH ACCESSORY ASSEMBLY SPACE) AND STORAGE S2			
	MIXED USE	yes	SEPARATED		SUM OF RATIOS	
	CONSTRUCTION TYPE	5B				
HEIGHT AND AREA CALCULATIONS			FOOTPRINT	STORIES	HEIGHT	IBC Table 503
	PERIMETER		610 LF.			
	FRONTAGE		xx LF.			
	ALLOWABLE SQ. FT.		36,000 SQ FT.	x	xx	
	ALLOWABLE SQ. FT. INCREASE		xx %	x	xx	
	TOTAL ALLOWABLE SQ. FT		xx SQ. FT.	x	xx	
	TOTAL PROPOSED		15,156 SQ. FT.	1	xx	
BUILDING HEIGHT AND AREA			ALLOWABLE	PROPOSED		
	STORIES ABOVE GRADE		3	1		
	BUILDING HEIGHT		60	x		
	LARGEST FLOOR AREA		36,000 SQ FT.	15,156 SQ FT.		
OCCUPANT LOAD: Section 7.3 101, Table 7.3.1.2						
	COMMUNITY ROOM		square feet / load factor (LS p.74)		79 occupants	
	OFFICES		square feet / load factor (LS p.74)		48 occupants?	
	TOTAL		square feet / load factor (LS p.74)		xx occupants	
FIRE RESISTANCE RATINGS - BUILDING			**RATING**	IBC Table 601 - when applicable or LS p.386		
	PRIMARY STRUCTURAL FRAME		x HR.			
	BEARING WALLS					
	EXTERIOR		x HR.			
	INTERIOR		x HR.			
	NONBEARING EXTERIOR WALLS		x HR.			
	FLOOR		x HR.			
	ROOF		x HR.			
MEANS OF EGRESS						
			ALLOWABLE B	PROPOSED	ALLOWABLE S	
	MINIMUM CORRIDOR WIDTH		qty. / floor	qty. / floor	XX	
	NUMBER OF EXITS		x'-x"	5	XX	
	DEAD END CORRIDOR LENGTH		50'	26'	100'	
	COMMON PATH OF TRAVEL		100'	x'-x"	100'	
	MAXIMUM TRAVEL DISTANCE TO EXITS		300'	72'	200' PER TABLE 42.8.2.6.1	
FIRE RESISTANCE RATINGS - SPACES				Identify code & section		
	VERTICAL OPENINGS		NA			
	EXITS		NA			
	STAIRS		NA			
	EXIT ACCESS CORRIDORS (NEW)		0 HOUR			
	EXIT ACCESS CORRIDORS (EXISTING)		NA			
	INCIDENTAL SPACES					
	MECHANICAL ROOMS		XHR. or SPRINKLED			
	JANITOR CLOSET		XHR. or SPRINKLED			
	STORAGE ROOMS		XHR. or SPRINKLED			
DETECTION AND ALARM (confirm with Electrical Engineer)						
	INTIATION		(confirm with Electrical Engineer)			
	NOTIFICATION		(confirm with Electrical Engineer)			
	DETECTION		(confirm with Electrical Engineer)			

PLUMBING FIXTURE COUNT	Water Closets	Lavatories	Tubs / Showers	Drinking Fountains	Other
Male	X	X	X	X	X
Female	X	X	X	X	X

SPECIAL CONDITIONS	
	X
	X

ENERGY CODE NOTES

ENERGY CODE: 2018 IECC
CLIMATE ZONE 6
INSULATION LEVELS (MINIMUM)
- ROOF (CONTINUOUS) R-30
- WALLS, WOOD FRAMED R-13+R-7.5 CONTINUOUS OR R-20 + R-3.8 CONTINUOUS
- WALLS, MASS R-13.3 CONTINUOUS
- WALLS, METAL FRAMED R-13+R-7.5 CONTINUOUS
- BELOW-GRADE WALL R-7.5
- SLAB, HEATED R-15 FOR 36" + R-5 FULL SLAB
- SLAB, UNHEATED R-10 FOR 24"
- OVERHEAD DOORS R-4.75
- OPERABLE WINDOWS MAXIMUM U-0.43
- FIXED WINDOWS MAXIMUM U-0.36
- DOORS MAX U-0.77

AIR LEAKAGE: MAXIMUM 0.40 CFM/SF AT 75 Pa.

PER C402.4.2, APPARATUS BAY OVER 2500 SF IS REQUIRED TO HAVE SKYLIGHTS, EXCEPTION FOR ZONE 6 AND COLDER.

LIFE SAFETY LEGEND

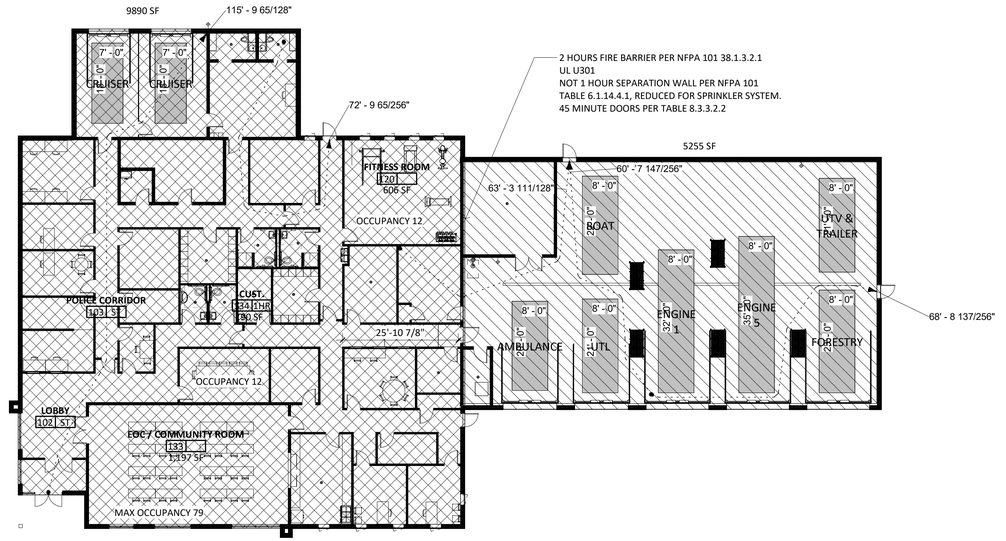
- TYPICAL NON-FIRE RATED WALL
- TYPICAL SMOKE TIGHT WALL
- TYPICAL 1HR RATED WALL
- TYPICAL 2HR RATED WALL
- EGRESS PATH
  - DEC - DEAD END CORRIDOR
  - MRP - MOST REMOTE POINT
  - CPT - COMMON PATH OF TRAVEL
- STORAGE OCCUPANCY
- BUSINESS OCCUPANCY

SFEC - FIRE EXTINGUISHER IN SEMI-RECESSED CABINET

RFEC - FIRE EXTINGUISHER IN FULLY RECESSED CABINET

FEC - FIRE EXTINGUISHER IN SURFACE MOUNTED CABINET

FE - WALL HUNG FIRE EXTINGUISHER



1 LEVEL 1 CODE PLAN
SCALE: 1/16" = 1'-0"

ESTIMATING SET

ENFIELD PUBLIC SAFETY
ENFIELD, NEW HAMPSHIRE

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER, VERMONT 05602

REVISIONS

CODE PLANS & SUMMARY

SCALE As indicated

DATE 05/16/2023

DRAWN BY PKW

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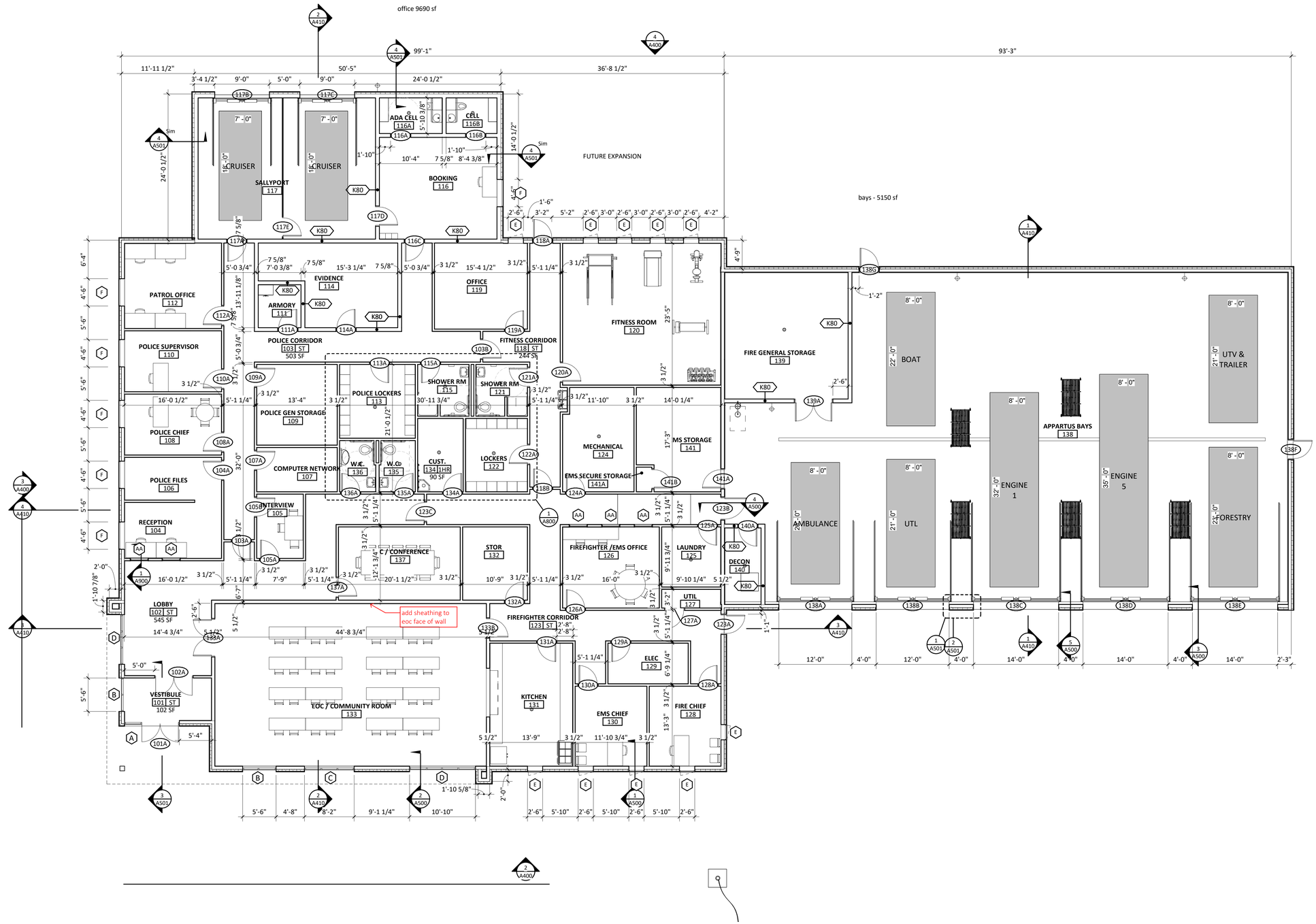

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

ENFIELD PUBLIC SAFETY

ENFIELD, NEW HAMPSHIRE

REVISIONS

FLOOR PLAN

SCALE 1/8" = 1'-0"

DATE 05/16/2023

DRAWN BY AM/PKW

CHECKED BY

A101

ESTIMATING SET

2023-10-18 12:17:31

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RCP NOTES AND ABBREVIATIONS

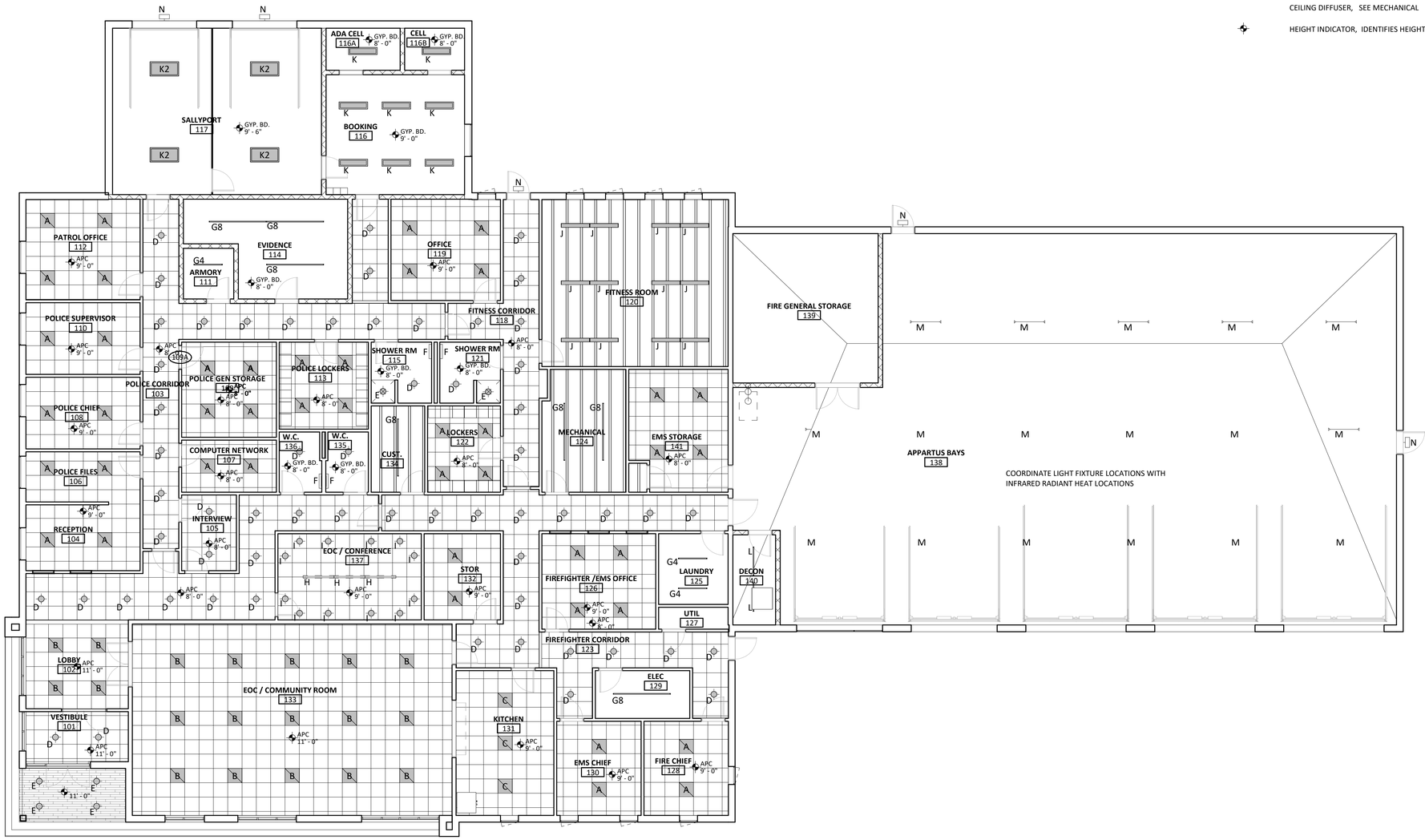
2'X2' SUSPENDED ACOUSTICAL PANEL CEILING

SURFACE LIGHT FIXTURE, SEE ELECTRICAL

PENDANT LIGHT FIXTURE, SEE ELECTRICAL

CEILING DIFFUSER, SEE MECHANICAL

HEIGHT INDICATOR, IDENTIFIES HEIGHT OF CEILING OR SOFFIT ABOVE FINISH FLR.



1 LEVEL 1 REFLECTED CEILING PLAN

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

ESTIMATING SET

2023-10-18 12:17:33

ENFIELD PUBLIC SAFETY

ENFIELD, NEW HAMPSHIRE

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

REFLECTED CEILING PLAN

SCALE 1/8" = 1'-0"

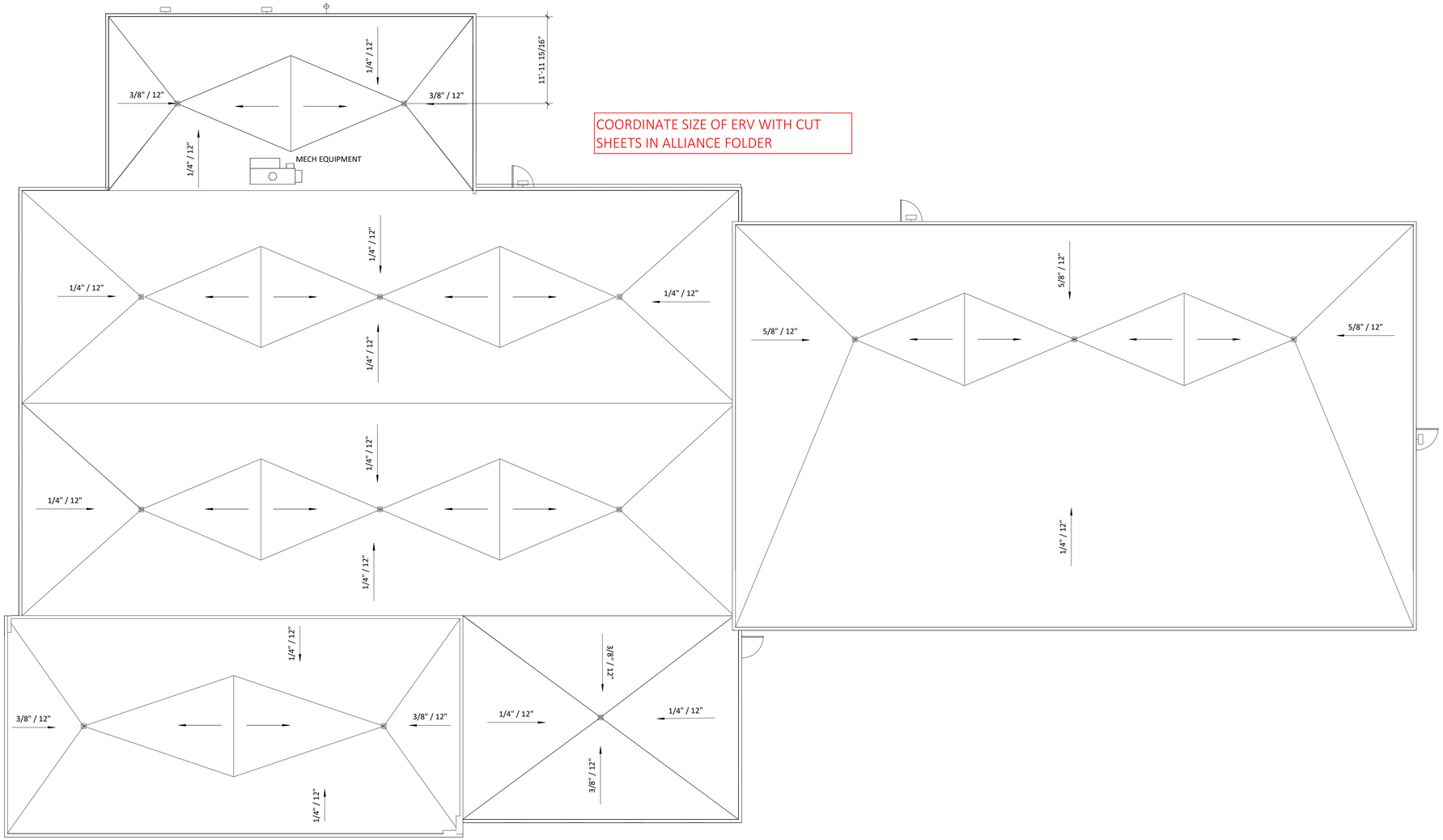
DATE 05/16/2023

DRAWN BY PKW

CHECKED BY Checker

A201

EPSF1222



COORDINATE SIZE OF ERV WITH CUT SHEETS IN ALLIANCE FOLDER

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

2023-10-18 12:17:33

ENFIELD PUBLIC SAFETY

ENFIELD, NEW HAMPSHIRE

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

ROOF PLAN

SCALE
1/8" = 1'-0"

DATE
05/16/2023

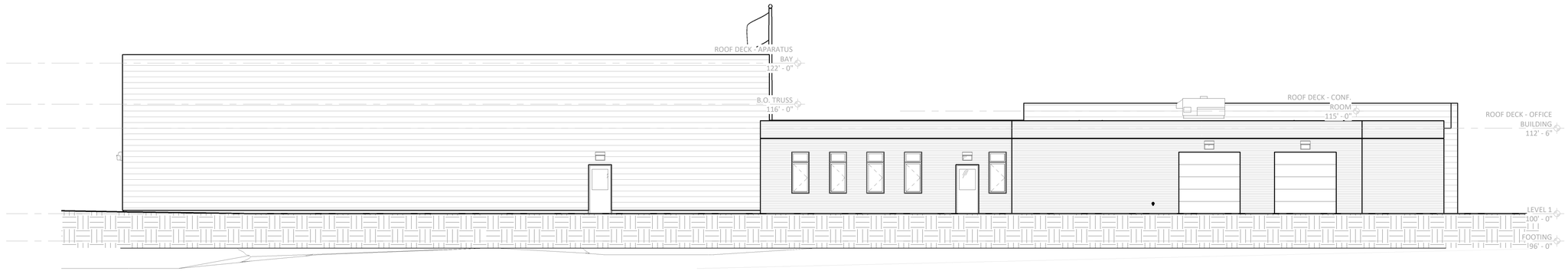
DRAWN BY
PKW

CHECKED BY
Checker

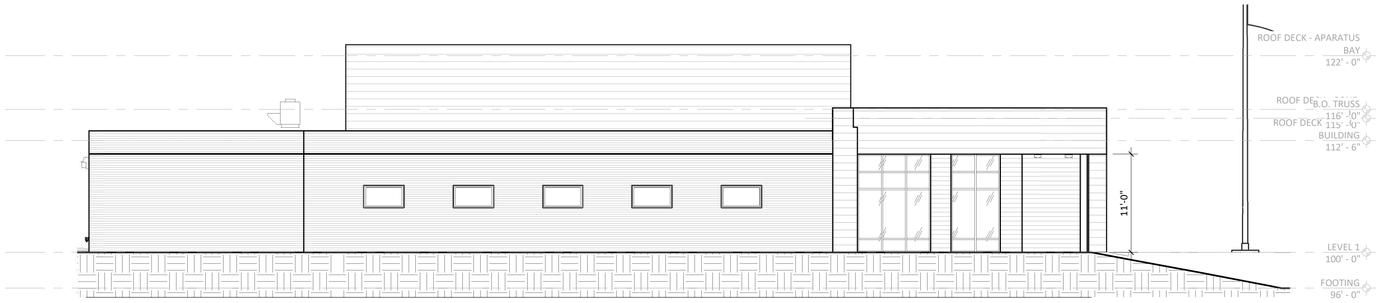
A300

ESTIMATING SET

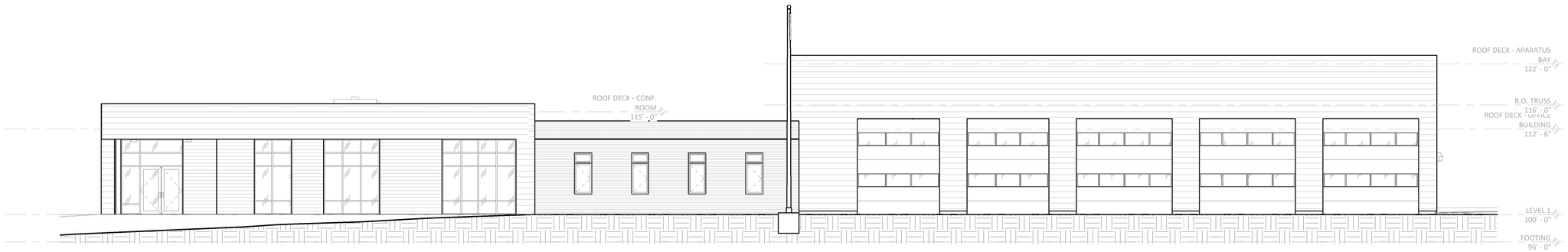
EPSF1222



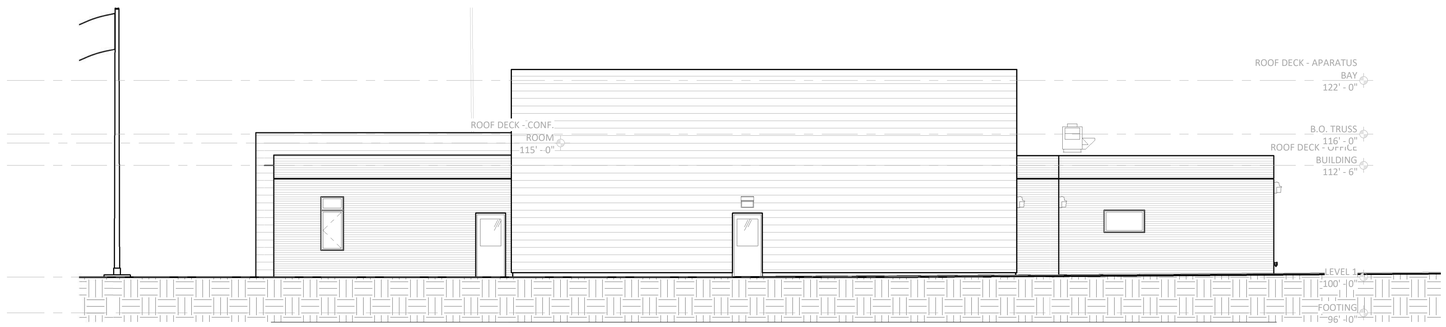
4 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



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



2 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



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

ESTIMATING SET

ENFIELD PUBLIC SAFETY

ENFIELD, NEW HAMPSHIRE

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

BUILDING ELEVATIONS

SCALE
1/8" = 1'-0"

DATE
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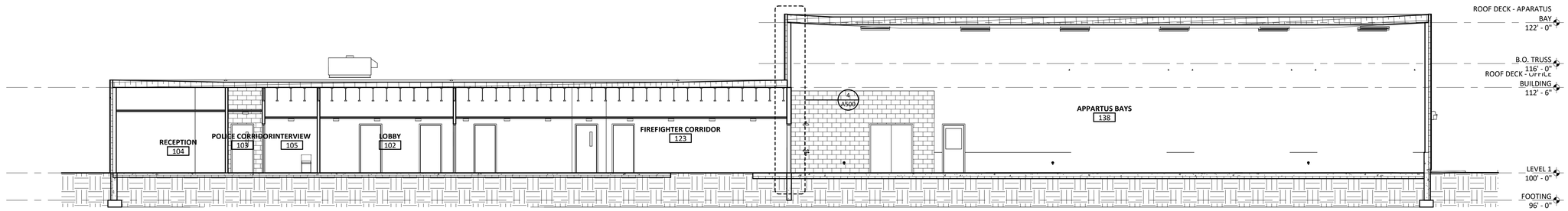
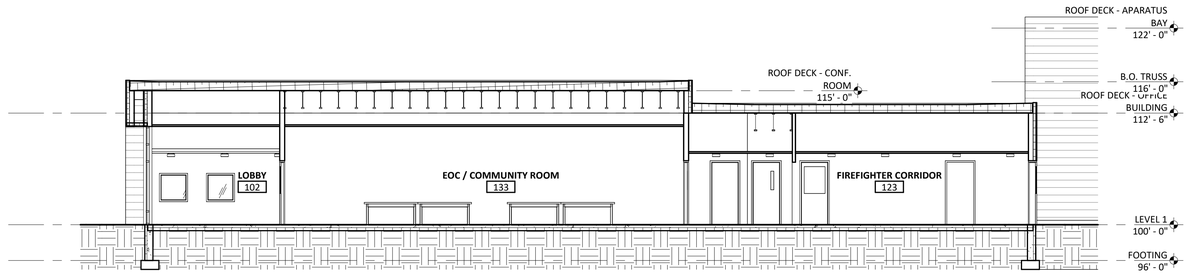
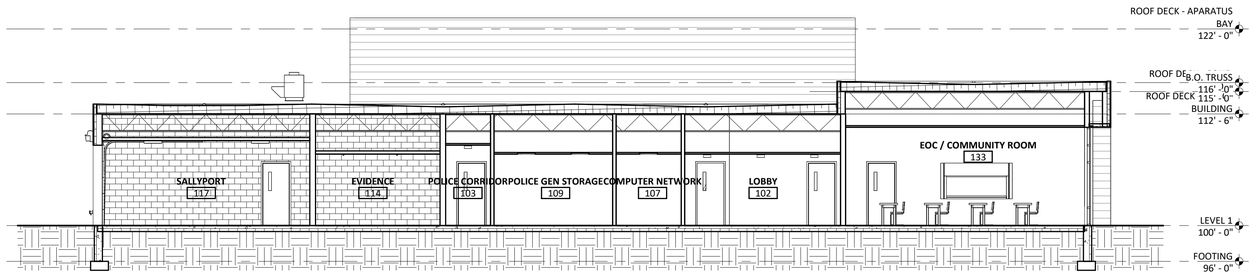


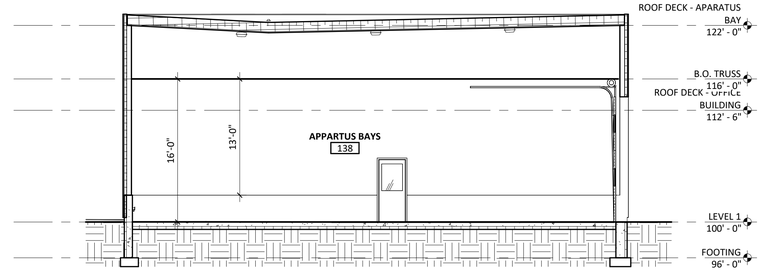
4 LONGITUDINAL SECTION
SCALE: 1/8" = 1'-0"



3 SECTION AT COMMUNITY ROOM
SCALE: 1/8" = 1'-0"



2 SECTION AT OFFICES
SCALE: 1/8" = 1'-0"



1 SECTION AT APPARATUS BAYS
SCALE: 1/8" = 1'-0"

ESTIMATING SET

ENFIELD PUBLIC SAFETY

ENFIELD, NEW HAMPSHIRE

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

BUILDING SECTIONS

SCALE
1/8" = 1'-0"

DATE
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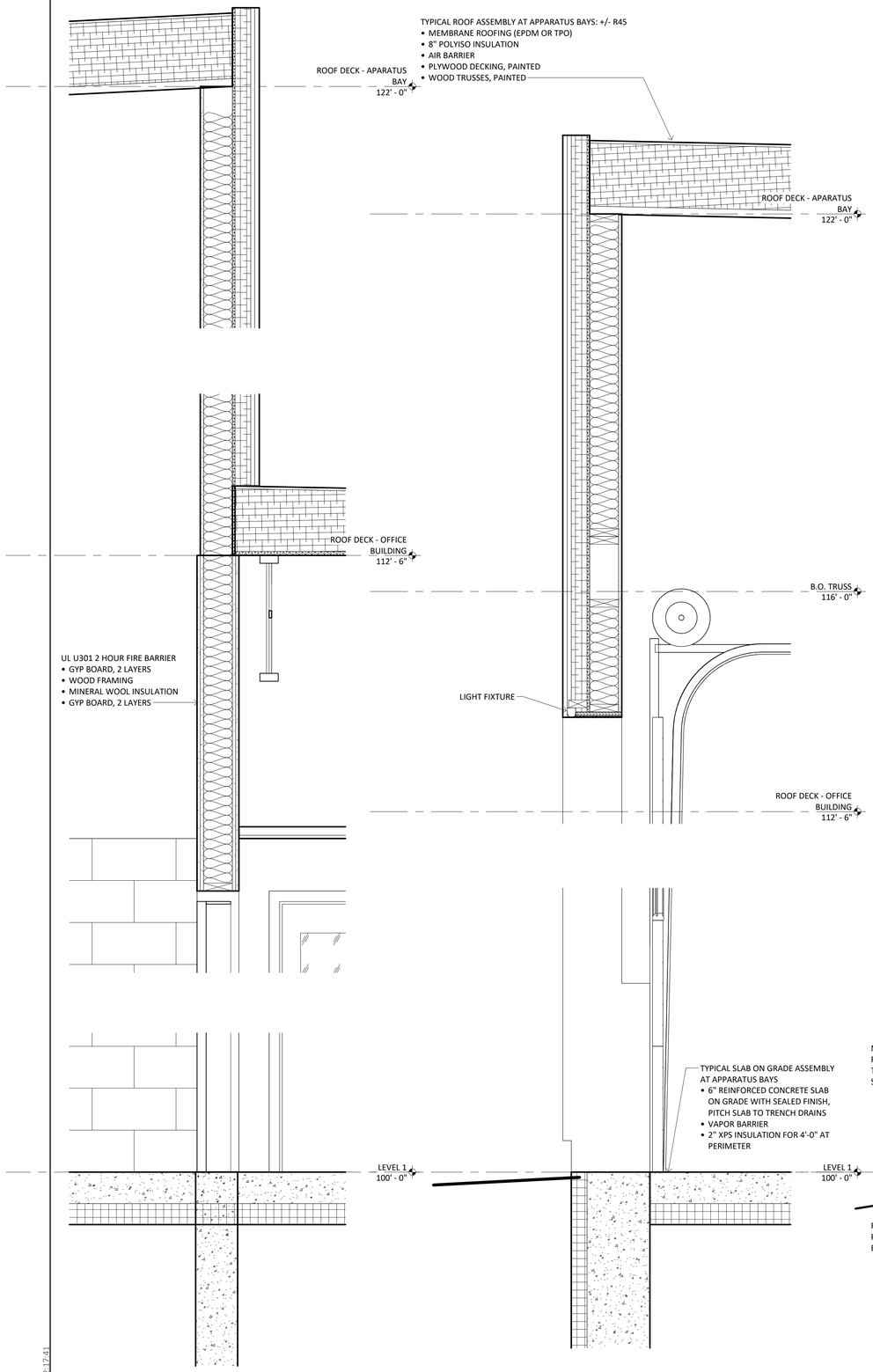
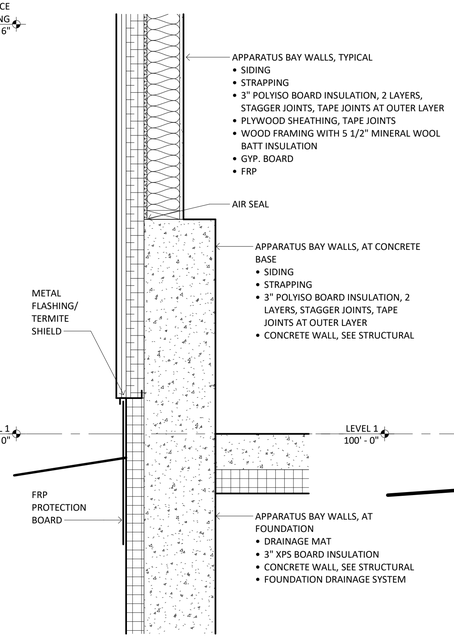
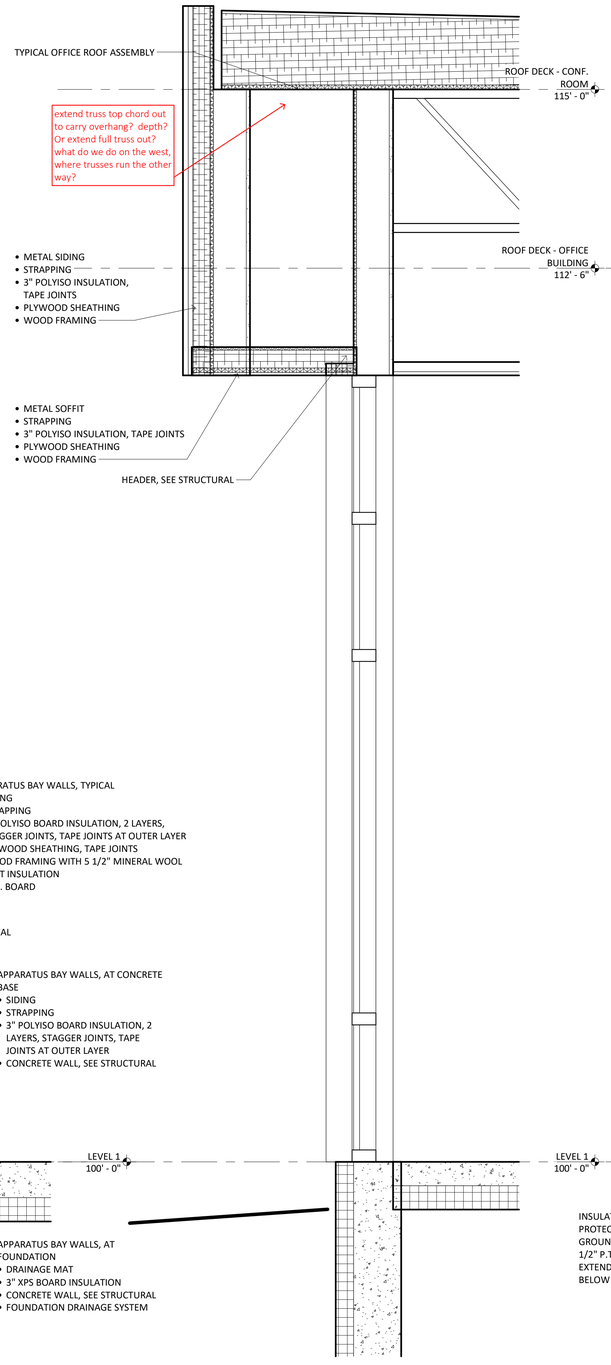


4 SECTION AT FIRE BARRIER
SCALE: 1" = 1'-0"

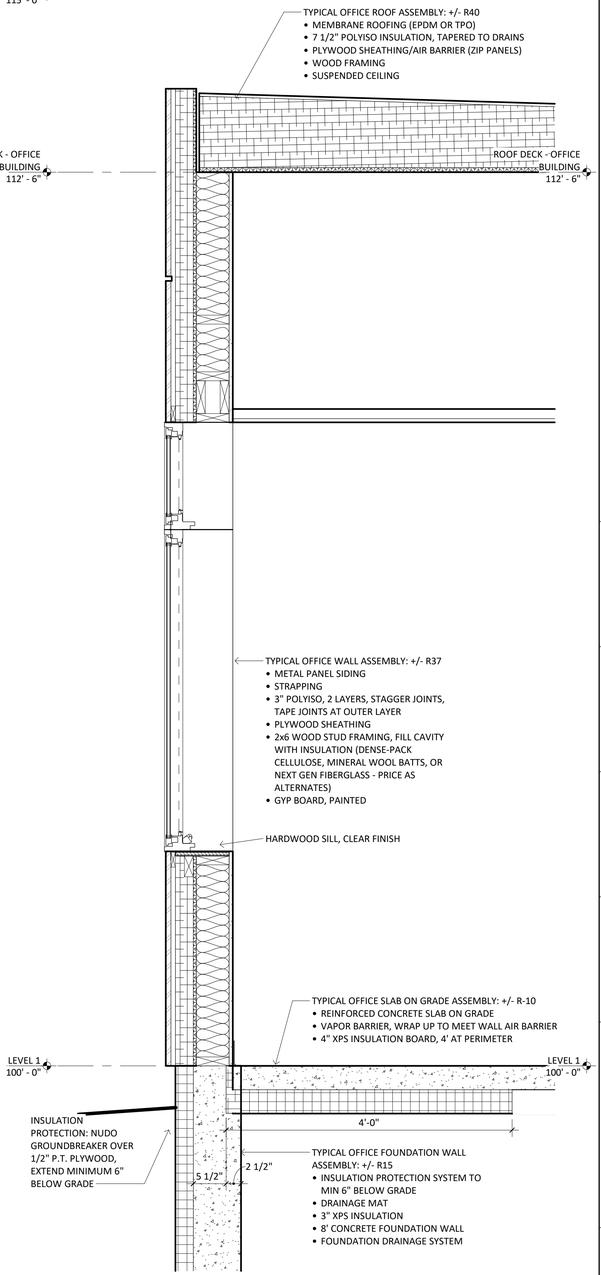
3 WALL SECTION AT APPARATUS BAYS
SCALE: 1" = 1'-0"



5 SECTION AT STUB WALL
SCALE: 1" = 1'-0"



2 WALL SECTION AT COMMUNITY ROOM
SCALE: 1" = 1'-0"



1 WALL SECTION AT OFFICE
SCALE: 1" = 1'-0"

ESTIMATING SET

ENFIELD PUBLIC SAFETY

ENFIELD, NEW HAMPSHIRE

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

WALL SECTIONS

SCALE 1" = 1'-0"

DATE 05/16/2023

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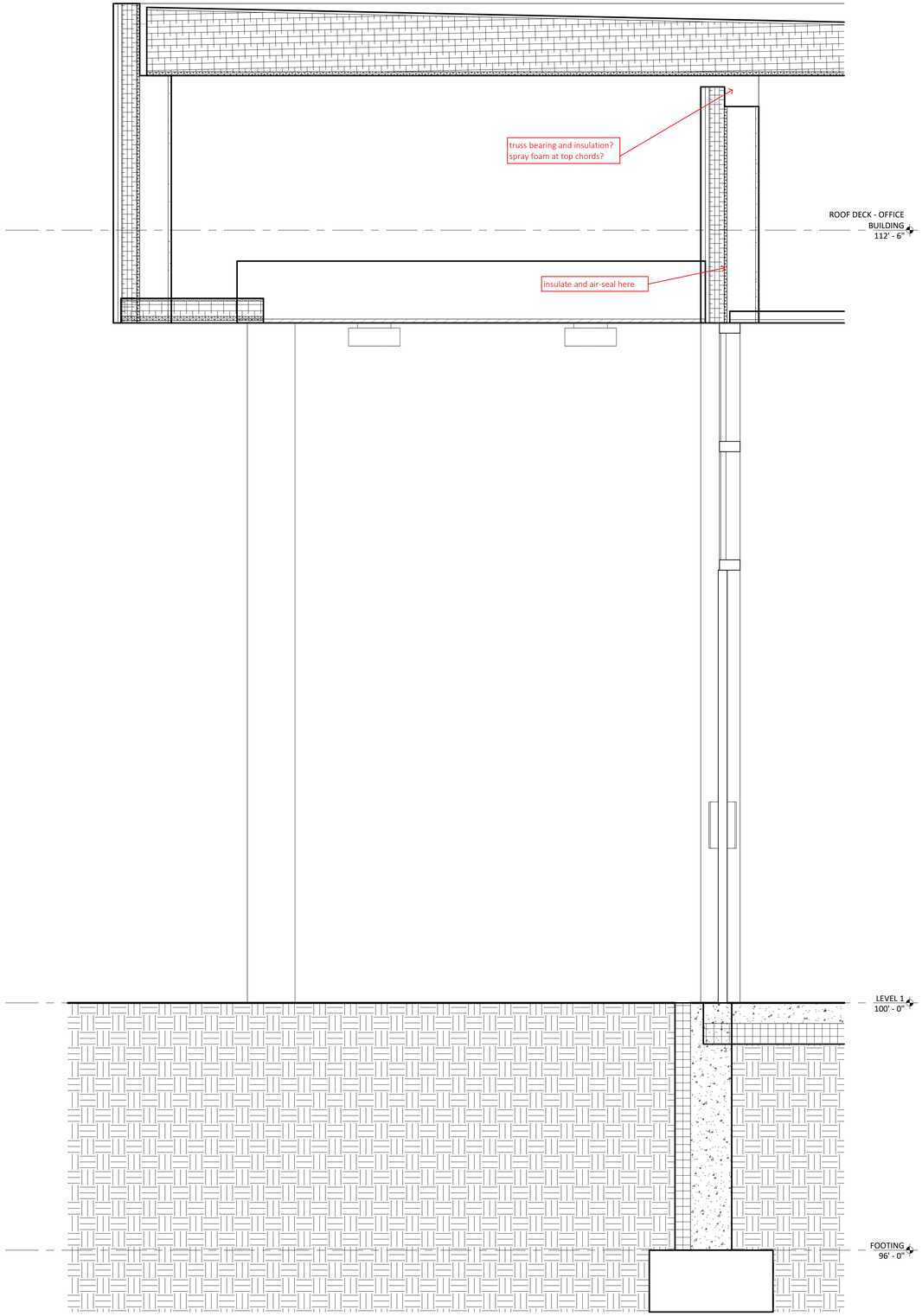
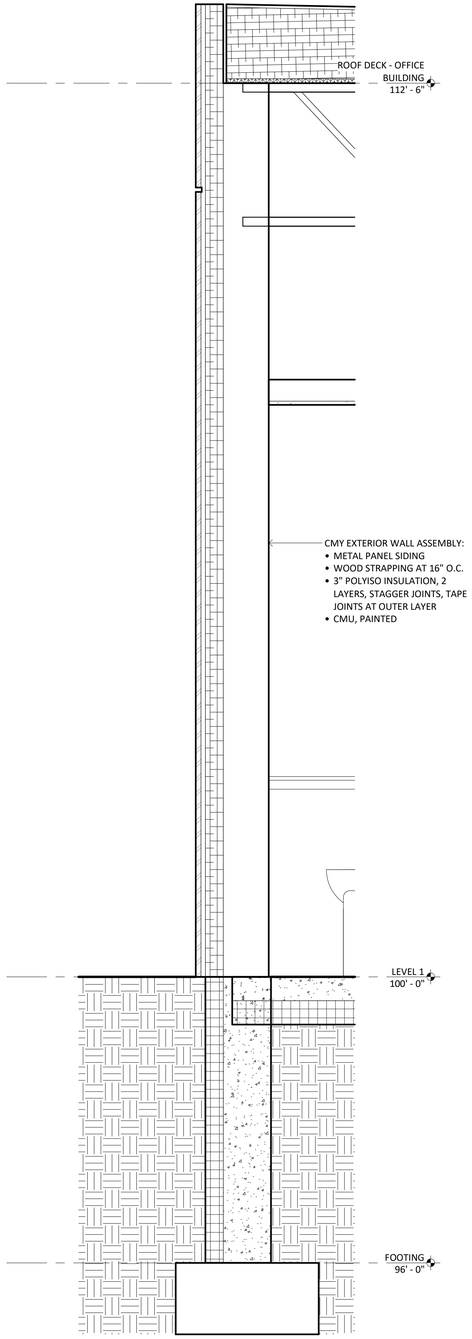
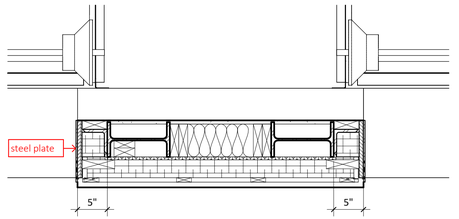


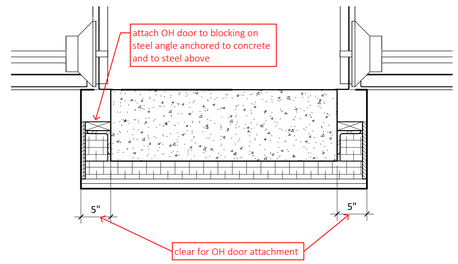
3 SECTION AT MAIN ENTRANCE
SCALE: 1" = 1'-0"



4 SECTION AT CMU EXTERIOR WALL
SCALE: 1" = 1'-0"



1 DETAIL AT OVERHEAD DOOR JAMBS - HIGH
SCALE: 1" = 1'-0"



2 DETAIL AT OVERHEAD DOOR JAMBS - LOW
SCALE: 1" = 1'-0"

ESTIMATING SET

ENFIELD PUBLIC SAFETY

ENFIELD, NEW HAMPSHIRE

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

DETAILS

SCALE
1" = 1'-0"

DATE
05/16/2023

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EPSF1222

CONFIRM IF THEY WANT GLASS WITH BLINDS @ OFFICES

	LOCATION																												
											SIZE																		
pp	FROM ROOM NUMBER	FROM ROOM NAME	TO ROOM NUMBER	TO ROOM NAME	PANEL TYPE	FIRE RATING	MATERIAL	FINISH	LEAF(S)	WIDTH x HEIGHT	THICK.	GLAZING	1" DOOR UNDERCUT	ELEV	SECTION	MATERIAL	FINISH	BUTTS	LATCH SET TYPE	HANDLE	FUNCTION	CLOSER	KICK PLATES	DOOR STOPS	THRESHOLD	WEATHERSTRIP	DOOR LOUVER	COMMENTS	NUMBER
101A		EXTERIOR	101	VESTIBULE	FG		ALUM	ANODIZED	2	6' - 0" x 7' - 0"						ALUM	ANODIZED	CONTINUOUS	MORTISE	PULL	PULL	BF	---		EXTERIOR, TB	COMPRESSION		PROVIDE ADA DOOR OPENER	101A
102A	101	VESTIBULE	102	LOBBY	FG		ALUM	ANODIZED	2	6' - 0" x 7' - 0"						ALUM	ANODIZED	CONTINUOUS	MORTISE	PULL	PULL	BF	---		EXTERIOR, TB	COMPRESSION		PROVIDE ADA DOOR OPENER	102A
103A	103	POLICE CORRIDOR	102	LOBBY	NG		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	ENTRY	BF	8" PUSH	WALL				PROVIDE ELECTRIC STRIKE AND KEY CARD ACCESS	103A
103B	103	POLICE CORRIDOR	118	FITNESS CORRIDOR	NG		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	ENTRY	BF	8" PUSH	WALL				PROVIDE ELECTRIC STRIKE AND KEY CARD ACCESS	103B
104A	103	POLICE CORRIDOR	106	POLICE FILES	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	OFFICE	BF	---	WALL	---	---			104A
105A	102	LOBBY	105	INTERVIEW	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	OFFICE	BF	---	WALL	---	SOUND			105A
105B	103	POLICE CORRIDOR	105	INTERVIEW	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	OFFICE	BF	---	WALL	---	SOUND		PROVIDE ELECTRIC STRIKE AND KEY CARD ACCESS	105B
107A	103	POLICE CORRIDOR	107	COMPUTER NETWORK	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	STD	MORTISE	LEVER	STOREROOM	BF	---	WALL	---	---			107A
108A	103	POLICE CORRIDOR	108	POLICE CHIEF	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	STD	MORTISE	LEVER	OFFICE	BF	---	WALL	---	---		CONFIRM CLOSERS WANTED/NEEDED ON OFFICES	108A
109A	103	POLICE CORRIDOR	109	POLICE GEN STORAGE	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	STOREROOM	BF	---	WALL					109A
110A	103	POLICE CORRIDOR	110	POLICE SUPERVISOR	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	OFFICE	BF	---	WALL	---	---		CONFIRM CARD ACCESS WANTED/NEEDED	110A
111A	103	POLICE CORRIDOR	111	ARMORY	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	STOREROOM	BF	PUSH	WALL	---	---		CONFIRM CARD ACCESS WANTED/NEEDED	111A
112A	103	POLICE CORRIDOR	112	PATROL OFFICE	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	PASSAGE	BF	---	WALL	---	---		CONFIRM CARD ACCESS WANTED/NEEDED	112A
113A	103	POLICE CORRIDOR	113	POLICE LOCKERS	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	PRIVACY	BF	---	FLOOR	---	---	???	INDICATOR LOCKSET	113A
114A	103	POLICE CORRIDOR	114	EVIDENCE	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	---	LEVER	STOREROOM	BF	42" PUSH	WALL				CONFIRM CARD ACCESS WANTED/NEEDED	114A
115A	103	POLICE CORRIDOR	115	SHOWER RM	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	PRIVACY	BF	---	WALL	---	---		INDICATOR LOCKSET	115A
116A	116	BOOKING	116A	ADA CELL	FLUSH		METAL	PAINT	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	---	PULL	PULL	---	---	WALL				PROVIDE KEYED DEADBOLT	116A
116B	116	BOOKING	116B	CELL	FLUSH		METAL	PAINT	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	---	PULL	PULL	---	---	WALL				PROVIDE KEYED DEADBOLT	116B
116C	116	BOOKING	103	POLICE CORRIDOR	NG		METAL	PAINT	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	OFFICE	BF	42" PUSH	WALL	---	---		PROVIDE ELECTRIC STRIKE AND KEY CARD ACCESS	116C
117A	117	SALLYPORT	103	POLICE CORRIDOR	NG		METAL	PAINT	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	CLASSROOM	BF	42" PUSH	WALL		SOUND		PROVIDE ELECTRIC STRIKE AND KEY CARD ACCESS	117A
117B	117	SALLYPORT		EXTERIOR	OH		METAL INSULATED	PAINT		9' - 0" x 9' - 0"	2"					---	---		MORTISE										117B
117C	117	SALLYPORT		EXTERIOR	OH		METAL INSULATED	PAINT		9' - 0" x 9' - 0"	2"					---	---		MORTISE										117C
117D	116	BOOKING	117	SALLYPORT	NG		METAL	PAINT	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	OFFICE	BF	42" PUSH	FLOOR	---	BRUSH			117D
117E	117	SALLYPORT	117	SALLYPORT	GATE		METAL GATE	GALV	1	3' - 0" x 7' - 0"	1 3/4"					METAL	GALV	SPRING	---	PUSH/PULL	PUSH/PULL	---	---	WALL		BRUSH		CONFIRM CARD ACCESS WANTED/NEEDED	117E
118A	118	FITNESS CORRIDOR		EXTERIOR	HG		METAL INSULATED	PAINT	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB-NRP	PANIC	LEVER	PULL	BF	8" PUSH	---	EXTERIOR, TB	BRUSH		PROVIDE ADA DOOR OPENER, ELECTRIC STRIKE AND CARD READER	118A
118B	123	FIREFIGHTER CORRIDOR	118	FITNESS CORRIDOR	NG		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	---	LEVER	CLASSROOM	BF	8" PUSH	WALL	---	---		CONFIRM CARD ACCESS WANTED/NEEDED	118B
119A	118	FITNESS CORRIDOR	119	OFFICE	NG		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	OFFICE	BF	---	WALL	---	---			119A
120A	118	FITNESS CORRIDOR	120	FITNESS ROOM	HG		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	CLASSROOM	BF	8" PUSH	WALL	---	---			120A
121A	118	FITNESS CORRIDOR	121	SHOWER RM	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	PRIVACY	BF	8" PUSH	WALL	---	---		INDICATOR LOCKSET	121A
122A	118	FITNESS CORRIDOR	122	LOCKERS	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	PRIVACY	BF	---	FLOOR	---	---	???	INDICATOR LOCKSET	122A
123A	123	FIREFIGHTER CORRIDOR		EXTERIOR	HG		METAL INSULATED	PAINT	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB-NRP	MORTISE	LEVER	ENTRY	BF	---	---	EXTERIOR	EXTERIOR	---		123A
123B	138	APPARTUS BAYS	123	FIREFIGHTER CORRIDOR	FLUSH	1.5HR	METAL INSULATED	PAINT	1	3' - 6" x 7' - 0"	1 3/4"					METAL	PAINT	BB-NRP	PANIC	LEVER	ENTRY	BF	42" PUSH	WALL		EXTERIOR			123B
123C	123	FIREFIGHTER CORRIDOR	102	LOBBY	NG		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	CLASSROOM	BF	8" PUSH	WALL				CONFIRM CARD ACCESS WANTED/NEEDED	123C
124A	123	FIREFIGHTER CORRIDOR	124	MECHANICAL	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	STOREROOM	BF	---	WALL	---	---			124A
125A	123	FIREFIGHTER CORRIDOR	125	LAUNDRY	HG		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	CLASSROOM	BF	42" PUSH	WALL					125A
126A	123	FIREFIGHTER CORRIDOR	126	FIREFIGHTER /EMS OFFICE	HG		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	CLASSROOM	BF	8" PUSH	WALL	---	---			126A
127A	127	UTIL	123	FIREFIGHTER CORRIDOR	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	STOREROOM	STD	---	---	---	---			127A
128A	123	FIREFIGHTER CORRIDOR	128	FIRE CHIEF	NG		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	OFFICE	BF	8" PUSH	WALL	---	---			128A
129A	123	FIREFIGHTER CORRIDOR	129	ELEC	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	STOREROOM	BF	---	WALL	---	---			129A
130A	123	FIREFIGHTER CORRIDOR	130	EMS CHIEF	HG		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	OFFICE	BF	---	WALL	---	---			130A
131A	123	FIREFIGHTER CORRIDOR	131	KITCHEN	HG		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	CLASSROOM	BF	42" PUSH	FLOOR					131A
132A	123	FIREFIGHTER CORRIDOR	132	STOR	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	CLASSROOM	BF	42" PUSH	WALL	---	---			132A
133A	133	EOC / COMMUNITY ROOM	102	LOBBY	NG		SCW	CLEAR	2	6' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	VR PANIC	LEVER	PASSAGE	BF	8" PUSH	WALL	---	---			133A
133B	133	EOC / COMMUNITY ROOM	123	FIREFIGHTER CORRIDOR	NG		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	VR PANIC	LEVER	PASSAGE	BF	8" PUSH	WALL	---	---			133B
134A	123	FIREFIGHTER CORRIDOR	134	CUST.	FLUSH	45 MIN	SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	STOREROOM	BF	8" PUSH	WALL	---	---			134A
135A	102	LOBBY	135	W.C.	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	PRIVACY	BF	8" PUSH	WALL	---	---		INDICATOR LOCKSET	135A
136A	102	LOBBY	136	W.C.	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	PRIVACY	BF	8" PUSH	WALL	---	---		INDICATOR LOCKSET	136A
137A	102	LOBBY	137	EOC / CONFERENCE	NG		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	OFFICE	BF	8" PUSH	WALL	---	---			137A
138A	138	APPARTUS BAYS		EXTERIOR			METAL INSULATED	PREFIN		12' - 0" x 14' - 0"	2"					---	---		MORTISE										138A
138B	138	APPARTUS BAYS		EXTERIOR			METAL INSULATED	PREFIN		12' - 0" x 14' - 0"	2"					---	---		MORTISE										138B
138C	138	APPARTUS BAYS		EXTERIOR			METAL INSULATED	PREFIN		14' - 0" x 14' - 0"	2"					---	---		MORTISE										138C
138D	138	APPARTUS BAYS		EXTERIOR			METAL INSULATED	PREFIN		14' - 0" x 14' - 0"	2"					---	---		MORTISE										138D
138E	138	APPARTUS BAYS		EXTERIOR			METAL INSULATED	PREFIN		14' - 0" x 14' - 0"	2"					---	---		MORTISE										138E
138F	138	APPARTUS BAYS		EXTERIOR	HG		METAL INSULATED	PAINT	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB-NRP	MORTISE	LEVER	ENTRY	BF	---	---	EXTERIOR	BRUSH	???		138F
138G	138	APPARTUS BAYS		EXTERIOR	HG		METAL INSULATED	PAINT	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB-NRP	MORTISE	LEVER	ENTRY	BF	---	---	EXTERIOR	BRUSH			138G
139A	138	APPARTUS BAYS	139	FIRE GENERAL STORAGE	FLUSH		METAL	PAINT	2	6' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	CLASSROOM	---	---	WALL	---	---		PROVIDE DOOR COORDINATOR AND AUTO FLUSHBOLTS	139A
140A	138	APPARTUS BAYS	140	DECON	FLUSH		METAL	PAINT	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	CLASSROOM	BF	42" PUSH	WALL					140A
141A	138	APPARTUS BAYS	141	EMS STORAGE	FLUSH	1.5HR	METAL INSULATED	PAINT	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	BB	MORTISE	LEVER	OFFICE	BF	42" PUSH			EXTERIOR	---		141A
141B	141	EMS STORAGE	141A	EMS SECURE STORAGE	FLUSH		SCW	CLEAR	1	3' - 0" x 7' - 0"	1 3/4"					METAL	PAINT	STD	MORTISE	LEVER	STOREROOM	---	---	WALL	---	---			141B
W131B	131	KITCHEN	133	EOC / COMMUNITY ROOM	OH COILING		METAL	PAINT		8' - 0" x 4' - 0"	1 3/4"					METAL	PAINT		MORTISE										W131B

WILL NEED TO COORDINATE ALL KEY CARD ACCESS LOCATIONS WITH LOW VOLTAGE DRAWINGS BY TRAVIS

DOOR NOTES AND ABBREVIATIONS

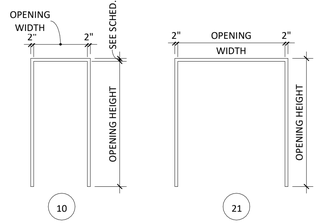
1. BOTH LEAVES OF DOUBLE DOORS TO HAVE MATCHING VENEER COLOR
2. PROVIDE SCHEDULED HARDWARE FOR BOTH LEAVES OF DOUBLE DOORS EXCEPT FLUSH BOLTS
3. EXTERIOR THRESHOLDS TO EXTEND BEYOND EDGE OF FOUNDATION
4. SECOND NUMBER IN FRAME ELEVATION COLUMN INDICATES FRAME HEAD DEPTH
5. PUSH, PULL OR BOTH IN KICKPLATE COLUMN INDICATES SIDE(S) OF DOOR FOR KICKPLATE TO BE INSTALLED
6. ALL GLAZING IN FIRE RATED DOORS TO BE WIRED GLASS
7. ALL GLAZING IN EXTERIOR DOORS TO BE 1" INSULATING GLASS FULLY TEMPERED (IG-FT)
8. ALL OTHER GLAZING TO BE HEAT TREATED OR LAMINATED GLASS UNLESS OTHERWISE INDICATED
9. SIGNAGE SHALL CONSIST OF BOTH DIRECT APPLIED LETTERS AND ROOM SIGNS, VERIFY FINAL SIGNAGE LIST WITH ARCHITECT BEFORE ORDERING
10. ALL PANIC HARDWARE TO BE KEYED
11. COORDINATE DOOR PULL AND KEY CYLINDER LOCATIONS TO ALLOW FULL KEY ACCESS TO KEY CYLINDER
12. PROVIDE KEY CONTROL SYSTEM
13. "XXX" IN SIGNAGE COLUMN REPRESENTS ROOM NUMBER. THREE (3) NUMBER CONTENT TO BE DETERMINED

ACW - ALUMINUM CLAD WOOD
ALUM - ALUMINUM
BB - BALL BEARING
BF - BARRIER FREE
CLASSRM - CLASSROOM
CRSEC - CLASSROOM SECURITY
ELEV - ELEVATION
EXIST - EXISTING
EXT - EXTERIOR
FG - FULL GLASS
FL - FUSIBLE LINK
FLR - FLOOR
FNCTN - FUNCTION
FT - FEET
HC - HOLLOW CORE
HD - HEAVY DUTY
HG - HALF GLASS
HGHT - HEIGHT
HNDL - HANDLE
HM - HOLLOW METAL
HW - HARDWOOD
IN - INCHES
INT - INTERIOR
MAT'L - MATERIAL
MI - METAL INSULATED
MHO - MAGNETIC HOLD OPEN
MIN - MINIMUM
MMC - MOLDED MINERAL CORE
NL - NON-LOCKING
NG - NARROW GLASS
NRP - NON REMOVABLE PIN
PH - PRE-HUNG
PREFIN - PRE-FINISHED
SCTN - SECTION
SCW - SOLID CORE WOOD
SIM - SIMILAR
STD - STANDARD
STORERM - STOREROOM
TB - THERMALLY BROKEN
TBD - TO BE DETERMINED
THK - THICKNESS
UC - UNDERCUT
VR - VERTICAL ROD

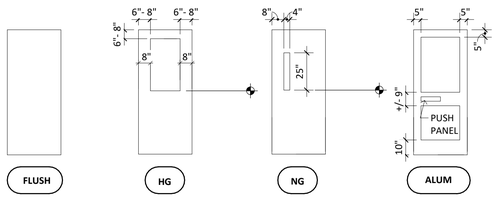
LATCH SET FUNCTION / ANSI FUNCTION CONVERSION

LATCH SET FUNCTION NAME	MORTISE FUNCTION	CYLINDER FUNCTION	PANIC FUNCTION
CLASSROOM	F05	F84	---
ENTRY	F12	F81	---
CLASSROOM SECURITY	F32	F110	---
OFFICE	F04	F81	---
STOREROOM	F07	F86	---
PASSAGE (NL)	F01	F75	---
CLOSET	F05 (NO INSIDE TRIM)	F84 (NO INSIDE TRIM)	---
COMMUNICATING	F14	F91	---
PRIVACY	F19	F76	---
HOSPITAL PRIVACY	F44 W/COIN TURN	LL/68	---
EXIT	F01 (NO OUTSIDE TRIM)	F75 (NO OUTSIDE TRIM)	F01
PULL	---	---	F03
LEVER	---	---	F08
ELECTRIC	F72 (FAIL SAFE)	---	F08
DORMITORY	F13	---	---
AUXILLIARY DEADBOLTS TO HAVE ANSI FUNCTION E0170			

DOOR AND FRAME ELEVATIONS

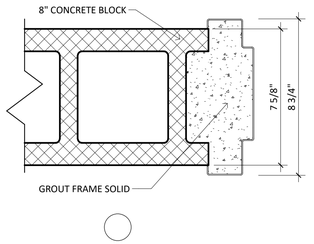


DOOR TYPES

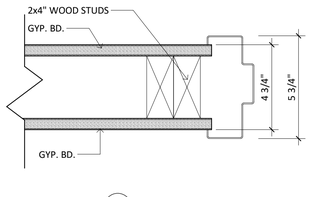


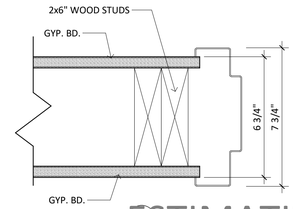
TYPICAL DOOR JAMB DETAILS

1. FRAME ANCHORS ARE TO BE PROVIDED FOR THE APPROPRIATE WALL CONSTRUCTION. FRAME ANCHORS ARE SPECIFIED IN PROJECT MANUAL AND SPECIFICATIONS.
2. WALL ASSEMBLIES SHOWN ARE GENERIC. REFER TO THE PARTITION TYPES DETAILS FOR ACTUAL WALL ASSEMBLIES, MATERIALS, INSULATION AND OTHER COMPONENTS.



IMPORT REVIT 2023 DOOR SCHEDULE MASTER





ESTIMATING SET

2023-10-18 12:17:42

EPSF1222

ENFIELD PUBLIC SAFETY

ENFIELD, NEW HAMPSHIRE

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

DOOR SCHEDULE

SCALE
As indicated

DATE
05/16/2023

DRAWN BY
Author

CHECKED BY
Checker

A700

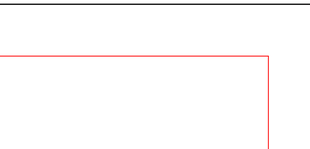
SCHEDULE TO COME

We want to focus on these larger units (These are all of them). The smaller units will be the included in focus later.

1 ELEVATION SOUTH FACADE - WINDOWS
SCALE: 1/4" = 1'-0"

2 ELEVATION WEST FACADE - WINDOWS
SCALE: 1/4" = 1'-0"

3 ELEVATION NORTH FACADE - WINDOWS
SCALE: 1/4" = 1'-0"



4 ELEVATION EAST FACADE - WINDOWS
SCALE: 1/4" = 1'-0"

ESTIMATING SET

2023-10-18 12:17:43

ENFIELD PUBLIC SAFETY
ENFIELD, NEW HAMPSHIRE

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

WINDOW SCHEDULE AND ELEVATIONS

SCALE
1/4" = 1'-0"

DATE
05/16/2023

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Author

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Checker

A711

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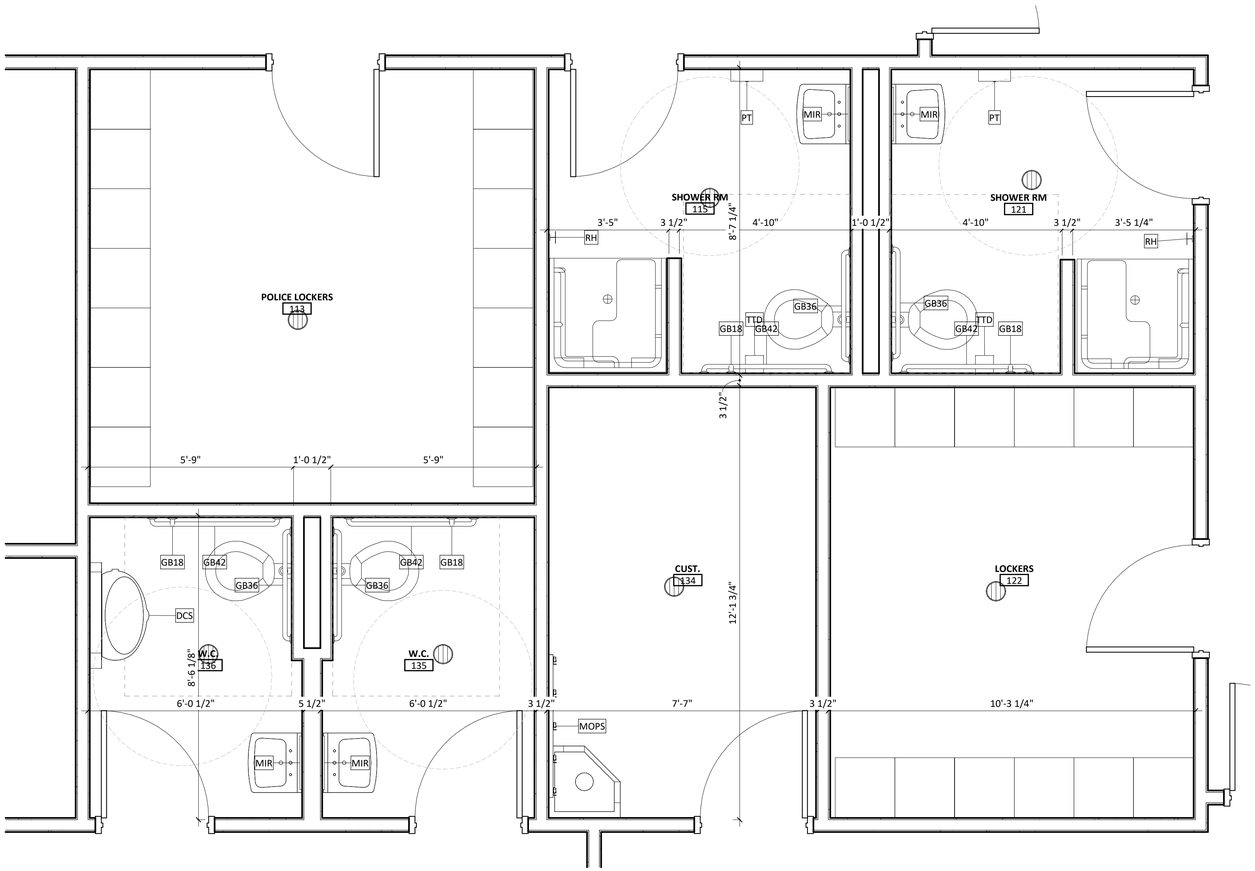
RESTROOM ACCESSORIES LEGEND

GBXX	GRAB BAR (PRECEDED BY LENGTH)
MIR	18"x 36" MIRROR
PT	PAPER TOWEL DISPENSER (OWNER FURNISHED, CONTRACTOR INSTALLED)
SD	SOAP DISPENSER (OWNER FURNISHED, CONTRACTOR INSTALLED)
TTD	TOILET TISSUE DISPENSER (OWNER FURNISHED, CONTRACTOR INSTALLED)
DCS	DIAPER CHANGING STATION
RH	ROBE HOOK, MOUNT ON BACK SIDE OF ALL EACH SHOWER AND SINGLE OCCUPANCY BATHROOM DOORS
SCR	SHOWER CURTAIN ROD, CURTAIN BY OWNER
FD	FLOOR DRAIN
MOPS	MOP & BROOM HOLDER, PROVIDE AT EACH JANITOR CLOSET, JANITOR/ELECTRIC CLOSET, AND FACILITIES ROOM



1 ENLARGED BATHROOM PLAN
SCALE: 1/2" = 1'-0"

ESTIMATING SET

ENFIELD PUBLIC SAFETY

ENFIELD, NEW HAMPSHIRE

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER, VERMONT 05602

REVISIONS

ENLARGED PLANS

SCALE As indicated

DATE 05/16/2023

DRAWN BY Author

CHECKED BY Checker

A800

2023-10-18 12:17:43

EPSF1222

FINISH SCHEDULE

ROOM		FLOOR		WALL		BASE		COMMENTS	NUM.
NUM.	NAME	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH		
101	VESTIBULE	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER	---		101
102	LOBBY	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER	---		102
103	POLICE CORRIDOR	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER	---		103
104	RECEPTION	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			104
105	INTERVIEW	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			105
106	POLICE FILES	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			106
107	COMPUTER NETWORK	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			107
108	POLICE CHIEF	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			108
109	POLICE GEN STORAGE	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			109
110	POLICE SUPERVISOR	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			110
111	ARMORY	CONCRETE	SEAL	CMU / GYP. BD.	PAINT	RUBBER			111
112	PATROL OFFICE	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			112
113	POLICE LOCKERS	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			113
114	EVIDENCE	CONCRETE	SEAL	CMU	PAINT	---			114
115	SHOWER RM	LINOLEUM	---	GYP. BD.	PAINT	INTEGRAL LINO			115
116	BOOKING	CONCRETE	SEAL	CMU	PAINT	---			116
116A	ADA CELL	CONCRETE	SEAL	CMU	PAINT	---			116A
116B	CELL	CONCRETE	SEAL	CMU	PAINT	---			116B
117	SALLYPORT	CONCRETE	SEAL	CMU	PAINT	---			117
118	FITNESS CORRIDOR	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			118
119	OFFICE	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			119
120	FITNESS ROOM	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER		OWNER TO PROVIDE FLOOR MATS	120
121	SHOWER RM	LINOLEUM	---	GYP. BD.	PAINT	INTEGRAL LINO			121
122	LOCKERS	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			122
123	FIREFIGHTER CORRIDOR	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			123
124	MECHANICAL	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			124
125	LAUNDRY	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			125
126	FIREFIGHTER /EMS OFFICE	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			126
127	UTIL	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			127
128	FIRE CHIEF	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			128
129	ELEC	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			129
130	EMS CHIEF	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			130
131	KITCHEN	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			131
132	STOR	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			132
133	EOC / COMMUNITY ROOM	FLOCKED	---	GYP. BD.	PAINT	RUBBER			133
134	CUST.	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			134
135	W.C.	LINOLEUM	---	GYP. BD.	PAINT	INTEGRAL LINO			135
136	W.C.	LINOLEUM	---	GYP. BD.	PAINT	INTEGRAL LINO			136
137	EOC / CONFERENCE	FLOCKED	---	GYP. BD.	PAINT	RUBBER			137
138	APPARTUS BAYS	CONCRETE	SEAL	GYP. BD/FRP	PAINT/---	RUBBER			138
139	FIRE GENERAL STORAGE	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			139
140	DECON	CONCRETE	SEAL	GYP. BD/FRP	PAINT/---	RUBBER			140
141	EMS STORAGE	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			141
141A	EMS SECURE STORAGE	CONCRETE	SEAL	GYP. BD.	PAINT	RUBBER			141A

FINISH NOTES AND ABBREVIATIONS

APC - ACOUSTICAL PANEL CEILING
GYP OR GYP BD - GYPSUM BOARD
SUSP - SUSPENDED

SEE REFLECTED CEILING PLAN(S) FOR SUSPENDED ACOUSTICAL PANEL CEILING SIZES AND LAYOUT.

SEE REFLECTED CEILING PLAN(S) FOR LOCATION AND HEIGHT OF DROP GYP. BD. SOFFITS.

SEE FLOOR PLAN(S) FOR LOCATION OF CHANGES IN FLOORING MATERIAL

PROVIDE ACCESS PANELS IN CEILING CONSTRUCTION AS NECESSARY TO ACCESS MECHANICAL EQUIPMENT. SEE MECHANICAL DRAWINGS AND SPECIFICATIONS.

CASEWORK NOTES AND ABBREVIATIONS

WOOD - WOOD-VENEER-FACED ARCHITECTURAL CABINETS
P-LAM - PLASTIC-LAMINATE-CLAD ARCHITECTURAL CABINETS
RESID - RESIDENTIAL CASEWORK

ARCHITECTURAL CASEWORK UNITS ARE INDICATED WITH TEXT AT A 45° ANGLE ON PLANS.

REFERENCE PLANS AND ELEVATIONS FOR COUNTERTOP MATERIAL, BACKSPLASH, WIDTH, DEPTH AND HEIGHT.

WHERE SIDE OF COUNTERTOPS WITH BACKSPLASH TERMINATE AT A WALL, PROVIDE WRAPPING END SPLASH.

COORDINATE COUNTERTOP FIXTURES AND FITTINGS, INCLUDING BUT NOT LIMITED TO GROMMETS, PLUMBING FIXTURES, ETC.

REFERENCE PLANS AND ELEVATIONS FOR WALL CABINET MOUNTING HEIGHTS AND LOCATIONS.

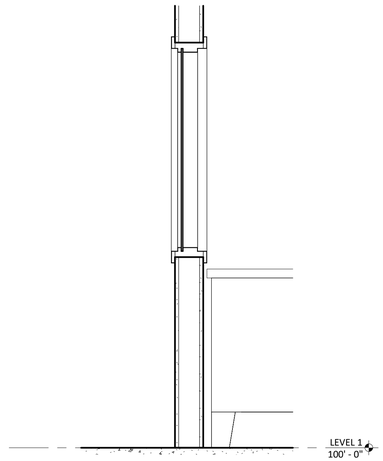
ALL BASE CABINETS TO BE PROVIDED WITH 4" TOE KICK AS SHOWN ON DRAWINGS. TOE KICK FINISH TO MATCH BASE MATERIAL INDICATED IN FINISH SCHEDULE. IF NO MATERIAL INDICATED IN FINISH SCHEDULE, PROVIDE 4" RUBBER BASE.

ALL CABINETS TO HAVE ADJUSTABLE SHELVING AS SHOWN ON DRAWINGS.

WHERE CABINETS DO NOT FILL TO AN END WALL, PROVIDE FILLER PANELS TO COMPLETE A CABINETRY RUN, UNLESS NOTED OTHERWISE.

PROVIDE DOOR SILENCERS FOR EVERY 24 INCHES OF DOOR JAMB HEIGHT BUT NOT LESS THAN TWO PER DOOR.

ARCHITECTURAL CABINET SCHEDULE						
TYPE MARK	WIDTH	HEIGHT	DEPTH	MATERIAL	LOCKS	COMMENTS



1 SECTION AT RECEPTION WINDOW
SCALE: 1" = 1'-0"

ESTIMATING SET

ENFIELD PUBLIC SAFETY
ENFIELD, NEW HAMPSHIRE

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

FINISH SCHEDULE

SCALE
As indicated

DATE
05/16/2023

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Author

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Checker

A900

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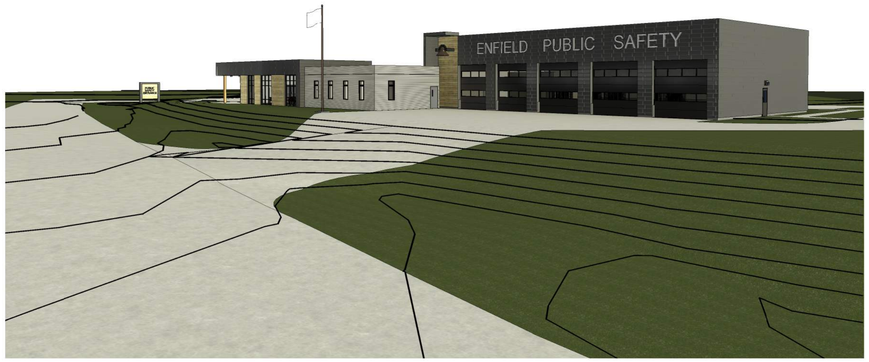
OPTION 0 FROM SOUTHEAST

OPTION 0 FROM SOUTHWEST



OPTION 1 FROM SOUTHEAST

OPTION 1 FROM SOUTHWEST

OPTION 1 FROM SOUTHEAST ZOOMED

OPTION 2 FROM SOUTHEAST

OPTION 2 FROM SOUTHWEST

OPTION 2 FROM SOUTHWEST ZOOMED

DESIGN OPTIONS

ENFIELD PUBLIC SAFETY

ENFIELD, NEW HAMPSHIRE

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

3D OPTIONS, EXTERIOR VIEW

SCALE

DATE
05/16/2023

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PW/MM

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OPTION 3 FROM SOUTHEAST

OPTION 3 FROM SOUTHWEST

OPTION 3 FROM SOUTHWEST ZOOMED

OPTION 4 FROM SOUTHEAST

OPTION 4 FROM SOUTHWEST

OPTION 4 FROM SOUTHWEST ZOOMED

ENFIELD PUBLIC SAFETY

ENFIELD, NEW HAMPSHIRE

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

3D OPTIONS, EXTERIOR VIEW

SCALE

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A20.b

DESIGN OPTIONS

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CB
RIM: 852.0

CB
RIM: 852.5

BITUMINOUS CONCRETE PARKING AREA

GRAVEL DRIVE

151.50'
N02°47'00"E

376.00'
N02°47'00"E

20'

50' R.O.W.

BUILDING SETBACK LINE (TYP.)

GRANITE PLACE

153.24'
S22°47'00"W

SHAKER HILL GRANITE SIGN

BUILDING SETBACK LINE (TYP.)

30'

17'±

438'±

30'

HDPE CULVERT
INV. IN: 848.7
INV. OUT: 848.4

HYDRANT

20.05'
S69°46'40"E

300'±

APPROXIMATE BOUNDARY LINE (TYP.)

8" D.I. WATER

ROUTE 4

SMH
RIM: 851.4
8" PVC INV. IN: 841.6 (N)
8" PVC INV. IN: 841.8 (E)
8" PVC INV. OUT: 841.4

SMH
RIM: 852.8

N

LEGEND:

RIGHT-OF-WAY LINE	
EXISTING CONTOUR	600
CATCH BASIN	
SEWER MANHOLE	S
SEWER LINE	S
FIRE HYDRANT	
WATER GATE VALVE	
WATER LINE	W
UTILITY POLE W/GUY	
OVERHEAD UTILITY LINE	OHW
SIGN	
EVERGREEN TREE	
DECIDUOUS TREE	
TREE	

GENERAL SURVEY NOTES:

1. EXISTING PHYSICAL FEATURES, PROPERTY LINES AND TOPOGRAPHIC INFORMATION DEPICTED HERE HAS BEEN TAKEN FROM A SURVEY PLAN TITLED "TOPOGRAPHIC PLAN FOR TOWN OF ENFIELD", AS PREPARED BY PATHWAYS CONSULTING, LLC OF LEBANON, NEW HAMPSHIRE, DATED DECEMBER OF 2022.
2. HORIZONTAL DATUM: NH STATE PLANE GRID NAD83 (SURVEY FEET) FROM GPS OBSERVATION.
3. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88) FROM GPS OBSERVATION.
4. STRUCTURES FOR UNDERGROUND UTILITIES ARE SHOWN AS OBSERVED. THE SURVEYOR DOES NOT CERTIFY THAT OTHER UNDERGROUND UTILITIES DO NOT EXIST. UNDERGROUND UTILITIES ARE NOT WARRANTED TO BE EXACT OR COMPLETE AND ARE TO BE FIELD VERIFIED PRIOR TO ANY EXCAVATION OR SITE MODIFICATIONS.
5. PATHWAYS CONSULTING, LLC COLLECTED DATA FOR THIS PLAN IN NOVEMBER, 2022.
6. REFERENCE IS MADE TO A PLAN FOR BOUNDARY INFORMATION ENTITLED: "OVERALL SITE PLAN FOR SHAKER HILL GRANITE, INC. PREPARED BY PATHWAYS CONSULTING, LLC.
7. REFERENCE IS MADE TO PLAN FOR UTILITY NFORMATION ENTITLED: "ROUTE 4 SEWER AND WATER EXTENSION – TOWN OF ENFIELD RECORD DRAWING SET." PREPARED BY CLD CONSULTING ENGINEERS, INC.

GRAPHIC SCALE

20 0 10 20 40 80

1 inch = 20 ft.
for sheet size 24" x 36"

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85 Mechanic Street, Suite E2-3, Lebanon, NH 03766 • 603-442-9333
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TOWN OF ENFIELD
PO BOX 373
23 MAIN STREET
ENFIELD, NEW HAMPSHIRE 03748

Sheet Title: EXISTING CONDITIONS PLANS

Project Title: PUBLIC SAFETY FACILITY
TOWN OF ENFIELD
ENFIELD, GRAFTON COUNTY, NEW HAMPSHIRE

EV Project #	22450
Drawn By:	JWF
Checked By:	NAF
Scale:	1" = 20'
Date:	10/17/2022

C1.1

S:\PROJECTS\0-2022\22450 NH ENFIELD MUNICIPAL BUILDING\DWG\SHEET FILES\22450 C1.1 - EXISTING CONDITIONS PLAN.DWG

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SITE SCHEDULE

1. ALL EXISTING BITUMINOUS ASPHALT PAVING TO BE REMOVED FROM SITE BY OWNER.
2. ALL EXCESS TOPSOIL TO BE REMOVED FROM SITE BY OWNER OR OTHERWISE REDISTRIBUTED ACROSS PROPERTY BY OWNER

C1	ASPHALT PAVING CONSISTING OF 2–1/2" BINDER COURSE, 1–1/2" WEARING COURSE, 6" FINE CRUSHED GRAVEL BASE, AND 24" BANK–RUN GRAVEL SUB–BASE
C2	GRAVEL PARKING/DRIVE SURFACE CONSISTING OF 12" OF FINE CRUSHED GRAVEL SURFACE AND 24" OF BANK–RUN GRAVEL BASE
C3	6" DIA., CONCRETE FILLED, SCH. 40, STEEL PIPE BOLLARD WITH 18" DIA, CONCRETE SONO–TUBE FOUNDATION AND YELLOW THERMOPLASTIC BOLLARD COVER
C4	PRECAST WHEEL STOP (TYP)
C5	4" THICK, CAST–IN–PLACE, CONCRETE SIDEWALK, 4,000 PSI CONCRETE, MEDIUM BROOM FINISH, WELDED WIRE MESH, 6" FINE CRUSHED GRAVEL BASE, AND 12" CRUSHED GRAVEL SUB–BASE
C6	NOT USED
C7	IMPOUND YARD WITH 8' HIGH, CHAIN LINK, SECURITY FENCING WITH 18' WIDE CHAIN LINK SWING GATES
C8	STORMWATER TREATMENT AREA – RAIN GARDEN / INFILTRATION BASIN 1,000 SF EACH

PROPANE SCHEDULE

P1	UNDERGROUND PROPANE TANK. SIZE AND FINAL LOCATION TO BE DETERMINED
P2	UNDERGROUND PROPANE LINES

ELECTRICAL SCHEDULE

E1	PRIMARY ELECTRIC FEED, (2) 5" DIA., SCHEDULE 80, PVC CONDUITS. WIRING/CONDUCTORS BY OTHERS
E2	20' TALL, LIGHT POLE, WITH FULL CUT–OFF, LED FIXTURE, 24" DIA. CONCRETE SONO–TUBE FOUNDATION WITH 3' EXPOSED HEIGHT
E3	TRANSFORMER ON CONCRETE PAD WITH OIL CONTAINMENT FOUNDATION PER LIBERTY UTILITIES REQUIREMENTS
E4	EMERGENCY ELECTRICAL GENERATOR AND ELECTRICAL SWITCH PANEL ON 6" THICK CONCRETE PAD
E5	SECONDARY ELECTRIC FEED, (2) 4" DIA., SCHEDULE 80, PVC CONDUITS. WIRING/CONDUCTORS BY OTHERS
E6	SECONDARY ELECTRIC FEED (EMERGENCY), (2) 4" DIA., SCHEDULE 80, PVC CONDUITS. WIRING/CONDUCTORS BY OTHERS
E7	SITE LIGHTING CONDUITS, NUMBER AND SIZE TO BE DETERMINED. WIRING/CONDUCTORS BY OTHERS

WATER SCHEDULE

W1	8" DIA., M.J.XM.J., GATE VALVE, WITH CAST IRON VALVE BOX (ASSUME 6' MIN. BURY DEPTH)
W2	8" DIA., D.I., STUB AND CAP FOR FUTURE CONNECTION
W3	6" DIA., M.J.XM.J., GATE VALVE, WITH CAST IRON VALVE BOX (ASSUME 6' MIN. BURY DEPTH)
W4	MUELLER CENTURION 250, MODEL A–423 FIRE HYDRANT OR APPROVED EQUAL WITH (1) 4–1/2" PUMPER NOZZLE, (2) 1–1/2" HOSE NOZZLES, AND THE VALVE SHALL OPEN LEFT (COUNTERCLOCKWISE)
W5	CONNECT TO EXISTING 8" DIA. D.I. WATER MAIN

SEWER SCHEDULE

S1	4' I.D., PRECAST CONCRETE SEWER MANHOLE, ASSUME 6' DEPTH, CAST–IN–PLACE CONCRETE INVERT SHELF, AND NEOPRENE BOOT PIPE CONNECTIONS.
S2	8" DIA., SDR–35 PVC, STUB AND CAP FOR FUTURE CONNECTION
S3	1,500 GAL OIL/WATER SEPARATOR (TO SERVE APPARATUS BAYS) WITH NEOPRENE BOOT PIPE CONNECTIONS AND CAST IRON MANHOLE COVERS FOR ACCESS

STORMWATER SCHEDULE

ACTUAL STORMWATER MEASURES WILL DEPEND ON GRADING AND AVAILBALE SPACE ON SITE WHICH IS YET TO BE DETERMINED. AS SUCH IT IS ANTICIPATED THAT THE STORMWATER SYSTEM WILL CONSIST OF, BUT NOT LIMITED TO, THE FOLLOWING ITEMS:

(6 TO 8)	– 4' I.D., PRECAST CONCRETE, CATCH BASINS
(2)	– 4' I.D., PRECAST CONCRETE, OUTLET CONTROL STRUCTURES WITH INTERNAL CONCRETE WEIR
(1)	– 3,000 GAL., PRECAST CONCRETE, FOREBAY TANK
(1)	– CHAMBER DETENTION SYSTEM, 3 ROWS OF 10 CULTEC R–902–HD (OR APPROVED EQUAL) CHAMBERS.
(2)	– EARTH POND, FOREBAY
(2)	– TWO BAY, GRAVEL WETLAND
(800LF)	– 12" DIA., HDPE, PIPE
(4)	– PRECAST CONCRETE HEADWALLS

GRAPHIC SCALE

20 0 10 20 40 80

1 inch = 20 ft.
for sheet size 24" x 36"

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TOWN OF ENFIELD
PO BOX 373
23 MAIN STREET
ENFIELD, NEW HAMPSHIRE 03748

Sheet Title:
SCHEMATIC SITE PLAN

Project Title:
PUBLIC SAFETY FACILITY
TOWN OF ENFIELD
ENFIELD, GRAFTON COUNTY, NEW HAMPSHIRE

EV Project #	22450
Drawn By:	JWF
Checked By:	NAF
Scale:	1" = 20'
Date:	10/17/2023

C2.1

S:\PROJECTS\0-2022\22450 NH ENFIELD MUNICIPAL BUILDING\DWG\SHEET FILES\22450 C2.1 - SCHEMATIC SITE PLAN.DWG

A. GENERAL NOTES

1. ALL STRUCTURAL WORK SHALL CONFORM TO THE PROJECT SPECIFICATIONS, DRAWINGS, AND THE ----- CURRENT STATE BUILDING CODE ------.

2. CONTRACTOR SHALL COORDINATE STRUCTURAL WORK WITH RELATED TRADES AND WITH OTHER DESIGN DISCIPLINE REQUIREMENTS PRIOR TO MAKING SUBMITTALS. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO PERFORMING WORK.

3. REFER TO OTHER DESIGN DISCIPLINE DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION REQUIRED FOR THE SUBMITTALS AND INSTALLATION OF STRUCTURES, INCLUDING BUT NOT LIMITED TO DIMENSIONS, ELEVATIONS, SLOPES, LOCATIONS OF OTHER SYSTEMS AND EQUIPMENT, OPENINGS, WALLS, STAIRS, FINISHES, COATINGS, AND OTHER NON-STRUCTURAL ITEMS. NOTES PROVIDED ON THE DRAWINGS ARE INTENDED FOR USE IN CONJUNCTION WITH PROJECT SPECIFICATIONS

4. DETAILS LABELED AS TYPICAL DETAILS ON THE DRAWINGS SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SUCH TYPICAL DETAILS SHALL APPLY WHETHER OR NOT THEY ARE DEMARKED AT EACH LOCATION IN THE DRAWINGS. FOR CONDITIONS NOT SPECIFICALLY SHOWN, PROVIDE DETAILS OF A SIMILAR NATURE. VERIFY APPLICABILITY BY SUBMITTALS.

5. CONTRACTOR IS RESPONSIBLE FOR COORDINATION DETAILS AND ACCURACY OF THE WORK; FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS; FOR SELECTING FABRICATION PROCESSES, FOR TECHNIQUES OF ASSEMBLY IN ACCORDANCE WITH GENERAL CONDITIONS AND DIVISION 1 SPECIFICATION REQUIREMENTS; AND FOR PERFORMING ALL WORK IN A SAFE AND SECURE MANNER IN ACCORDANCE WITH GOVERNING JOB SAFETY STANDARDS.

6. CONTRACTOR SHALL VERIFY ALL CONDITIONS AT THE SITE, INCLUDING LOCATIONS OF ALL EXISTING STRUCTURES AND EXISTING UTILITIES ABOVE AND BELOW GROUND (AS ANY INFORMATION SHOWN IS APPROXIMATE AND NOT NECESSARILY COMPLETE.) CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO PERFORMING WORK.

7. LOADS APPLIED DURING CONSTRUCTION SHALL NOT EXCEED THE DESIGN LOADS NOTED ON THE DRAWINGS OR THE CAPACITY OF PARTIALLY COMPLETED CONSTRUCTIONS AS DETERMINED BY THE CONTRACTOR. THE STRUCTURAL ELEMENTS OF THE PROJECT AS SHOWN IN THE CONSTRUCTION DOCUMENTS HAVE BEEN DESIGNED FOR THE SPECIFIED VERTICAL AND LATERAL FORCES ACTING ON THE COMPLETED BUILDING. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN AND PROVIDE ALL REQUIRED SHORING AND BRACING NEEDED DURING CONSTRUCTION TO MAINTAIN THE STABILITY AND SAFETY OF THE PARTIALLY-COMPLETED STRUCTURE AND FOR CONSTRUCTION LOADINGS THAT EXCEED THE SPECIFIED DESIGN LOADS

8. SHORING, BRACING, PROTECTING, AND MAINTAINING THE INTEGRITY OF ANY EXISTING, ADJACENT, AND/OR ONGOING PARTIALLY COMPLETED STRUCTURES IS THE RESPONSIBILITY OF THE CONTRACTOR.

D. FOUNDATION RELATED EARTHWORK

1. RECOMMENDATIONS AND DESIGNS CONTAINED IN GEOTECHNICAL REPORTING AS FOLLOWS: ---- COORDINATE WITH GEOTECHNICAL REPORT----.

2. THE GEOTECHNICAL REPORTING CONTAINS SPECIFIC REQUIREMENTS PERTAINING TO GRUBBING, SITE, SUBFLOOR AND BEARING SURFACE PREPARATION AND PROTECTION; STRUCTURAL FILL AND COMPACTION REQUIREMENTS; GROUND WATER MANAGEMENT; ETC. THAT ARE NOT NECESSARILY SHOWN BY THE DRAWINGS AND SPECIFICATIONS. ALSO, IBC CHAPTER 18 "SOILS AND FOUNDATION" REQUIREMENTS APPLY, UNLESS SPECIFICALLY NOTED OTHERWISE BY THE GEOTECHNICAL REPORTING, DRAWINGS OR SPECIFICATIONS. REPORT CONFLICTS BETWEEN THE REPORTING AND THE DRAWINGS AND SPECIFICATIONS TO THE ARCHITECT PRIOR TO COMMENCING ANY AFFECTED WORK.

3. A LICENSED GEOTECHNICAL ENGINEER SHALL INSPECT AND REPORT ON ALL NATIVE SUB-GRADES FOR SLABS-ON-GRADE AND FOUNDATION PREPARED SOIL SURFACES PRIOR TO THE PLACEMENT OF ANY BACKFILL, FILL, AND FOUNDATION STRUCTURAL ELEMENTS. FOUNDATIONS AND FOOTING SHALL BEAR ON COMPETENT NATIVE SOILS OR COMPACTED STRUCTURAL FILLS IN ACCORDANCE WITH THE GEOTECHNICAL REPORTING.

4. FOOTINGS, PILE CAPS, AND SLABS CAST DIRECTLY AGAINST THE EARTH SHALL BE SIDE-FORMED AS REQUIRED TO KEEP EARTH OUT OF THE CONCRETE. COMPACT DISTURBED LOAD BEARING SOIL IN DIRECT CONTACT WITH FOUNDATIONS TO ORIGINAL BEARING CAPACITY. AS WET WEATHER OR GROUND CONDITIONS WARRANT, PLACE A MINIMUM OF 6 INCHES OF CRUSHED STONE OR 12 INCHES OF SAND-GRAVEL WRAPPED IN GEOTEXTILE FABRIC FOR SUBGRADE PROTECTION BENEATH FOUNDATIONS, DO NOT ALLOW FOR STANDING WATER ON EARTH. IF OVER-EXCAVATION OCCURS, REPLACE MATERIAL WITH BACKFILL MEASURES SPECIFIED FOR USE UNDER FOUNDATIONS, AFTER ACCEPTANCE BY GEOTECHNICAL ENGINEER.

5. UNLESS NOTED OTHERWISE, PLACE AND COMPACT BACKFILL IN EQUAL CONTINUOUS LAYERS NOT EXCEEDING A MAXIMUM OF 8" OF COMPACTED DEPTH FOR HAND-HELD COMPACTION EQUIPMENT AND A MAXIMUM OF 12" INCHES COMPACTED DEPTH FOR VIBRATORY ROLLERS. MAINTAIN OPTIMUM MOISTURE CONTENT OF BACKFILL MATERIALS TO ATTAIN COMPACTION DENSITY.

6. AT EARTH RETAINING AND FOUNDATION WALLS, BACKFILL LIFTS TO NOT EXCEED 12 INCH DIFFERENCE IN ELEVATION UNTIL FINAL ELEVATION ARE REACHED ON BOTH SIDES OF THE WALL. AT BASEMENT WALLS, DO NOT BACKFILL UNTIL GROUND FLOOR AND CONNECTED ELEVATED FRAMED LEVELS SLABS HAVE BEEN COMPLETED AND THE CONCRETE AT WALLS AND FLOORS HAS ACHIEVED FULL DESIGN STRENGTH.

7. THE CONSTRUCTION CONSIDERATIONS IN THE GEOTECHNICAL REPORTING AND PROJECT SPECIFICATIONS SHALL APPLY TO THIS PROJECT, INCLUDING BUT NOT LIMITED TO PROOFROLLING SUBGRADES AT THE EXCAVATION AND/OR BEARING ELEVATIONS; REMOVING AND REPLACING LOOSE OR SOFT POCKETS, FILL SLOPE CONSTRUCTIONS, ETC.

8. BACKFILL REQUIREMENTS:
   A. FILL WITHIN BUILDING ENVELOPE AND EXTENDING OUTWARD AT 1:1 SLOPE TO ACCEPTABLE NATIVE SOIL CONDITIONS:
      MATERIAL: "SAND-GRAVEL"; "GRANULAR"; "CRUSHED STONE" WITH GEOTEXTILE WRAP (SEE SECTIONS)
      COMPACTION: 95% MODIFIED PROCTOR
   B. BACKFILL DIRECTLY BELOW INTERIOR SLABS-ON-GRADE ASSEMBLIES (12 INCHES UNLESS NOTED OTHERWISE): "CRUSHED STONE" WITHOUT GEOTEXTILE
      COMPACTION: 95% MODIFIED PROCTOR
   C. BACKFILL BELOW PAVEMENT, WALKS, ENTRY SLABS IN VICINITY OF BUILDING:
      MATERIAL: "SAND-GRAVEL" "GRANULAR" "CRUSHED STONE" (SEE SECTIONS, LAND ARCH AND CIVIL)
      COMPACTION: 95% MODIFIED PROCTOR
   D. BACKFILL BEHIND RETAINING WALLS AND BASEMENT WALLS, OUTSIDE BUILDING ENVELOPE AND UNDER PAVEMENT, WALKS, ENTRY SLABS:
      MATERIAL: "GRANULAR BACKFILL"
      COMPACTION: 95% MODIFIED PROCTOR
   E. BACKFILL ALONG EXTERIOR OF BUILDING AGAINST WALLS AND NOT UNDER PAVEMENT, WALKS, ENTRY SLABS:
      MATERIAL: "SUITABLE NATIVE SOIL" COVERED BY 2 FEET DEEP BY 4 FEET WIDTH OF "LESS PERMEABLE FILL
      COMPACTION: 92% MODIFIED PROCTOR

9. BACKFILL MATERIALS: RECYCLED CONCRETE AGGREGATE TO BE USED IN WHOLE OR BLENDED WITH OTHER AGGREGATES TO ACHIEVE GRADATIONS BELOW. ONSITE MATERIALS MEETING THE FOLLOWING CLASSIFICATIONS MAY BE USED:
   A. "SAND-GRAVEL":

SIEVE DESIGNATION	% BY WEIGHT PASSING SIEVES
4 INCH	100
1/2 INCH	50-85
No. 4	45-75
No. 100	10-35
No. 200	0-6

   B. "GRANULAR":

SIEVE DESIGNATION	% BY WEIGHT PASSING SIEVES
No. 4	100
No. 10	30-95
No. 40	10-60
No. 200	0-8

   C. "CRUSHED STONE" WITH GEOTEXTILE FABRIC:

SIEVE DESIGNATION	% WEIGHT BY PASSING SIEVES
1 INCH	100
3/4 INCH	90-100
3/8 INCH	0-55
No. 4	0-10
No. 8	0-5

   D. "SUITABLE NATIVE SOIL": ON SITE SAND OR GRAVEL REASONABLY FREE OF LOAM, SILT, CLAY, OR ORGANIC MATTER.
   E. "LESS PERMEABLE FILL" GLACIAL TILL (SEE GEOTECHNICAL REPORT)
   F. "RECYCLED CONCRETE AGGREGATE" STOCKPILED ON SITE FROM DECONSTRUCTION PROJECT. SUBMIT GRADATIONS PRIOR TO ANY REQUIRED BLENDING; AS WELL AS FOR BLENDED AGGREGATES. MUST BE USED AS IS OR INTEGRAL WITH "SAND-GRAVEL"; "GRANULAR"; "CRUSHED STONE" FILLS OR BACKFILLS ABOVE.

10. GEOTEXTILE FABRIC: NON-WOVEN WITH 12 LAPPED SEAMS SEE GEOTECHNICAL REPORTING FOR USE AND MEETING:
    - GRAB STRENGTH OF 80 POUNDS MINIMUM MEETING ASTM D4632
    - PUNCTURE STRENGTH OF 25 POUNDS MINIMUM MEETING ASTM D4833
    - TRAPEZOID TEAR OF 25 POUNDS MINIMUM MEETING ASTM D4533
    - APPARENT OPENING SIZE OF NO. 70-100 (US SIEVE) MEETING ASTM D4751

11. INSULATION AT EXTERIOR SLABS AND WALKS (NOT PAVEMENTS): EXTRUDED POLYSTYRENE, STRENGTH OF 40 PSI (UNO) AND RATED FOR UNDERSLAB/UNDERGROUND USE. STAGGER AND DO NOT TAPE BOARD JOINTS.

TABLE 1. CONCRETE MIXTURES

CONCRETE USAGE	MIN. COMPRESSIVE STRENGTH (f'_c)	CONCRETE TYPE	EXPOSURE CLASSES	MAX. W/CM RATIO	PERMISSIBLE AIR CONTENT	REQUIRED CEMENT REPLACEMENT	MAX. AGGREGATE SIZE	ADDITIONAL REMARKS
COMBINED FOOTINGS, CONTINUOUS FOOTINGS, SPREAD FOOTINGS	3,000 psi AT 56 DAYS	NWC	C0, F0	N/A	N/A	0 - 70%	1-1/2"	
FOUNDATION WALLS, COLUMNS AND PIERS	4,000 psi AT 28 DAYS	NWC	C1, F1	0.45	4.5% ±1.5%	0 - 50%	1-1/2"	
INTERIOR SLAB-ON-GRADE	4,000 psi AT 28 DAYS	NWC	C0, F0	0.50	N/A	0 - 50%	1"	
EXTERIOR SLAB-ON-GRADE	5,000 psi AT 56 DAYS	NWC	C2, F2	0.40	5.5% ±1.5%	15 - 25%	1-1/2"	
SLABS-ON-METAL DECK	4,000 psi AT 28 DAYS	NWC	C0, F0	0.50	N/A	0 - 50%	3/4"	

NOTES:
1. ALL CONCRETE SHALL BE CONSIDERED TO BE IN EXPOSURE CLASS F0, S0, P0 AND C0 ACCORDING TO ACI 318-08 UNLESS NOTED OTHERWISE IN TABLE ABOVE, IN NOTES BELOW OR ELSEWHERE ON THE STRUCTURAL DRAWINGS.
2. CONCRETE NOTED ABOVE OR ON PLAN AS EXPOSURE CLASS F1, F2, S1, S2, S3, P1, C1 OR C2 SHALL BE PROPORTIONED TO COMPLY WITH ACI 318-08 TABLES 4.3.1, 4.4.1 AND 4.4.2 IN ADDITION TO THE NOTATIONS IN THE REQUIREMENTS FOR VARIOUS EXPOSURE CLASSES RELATIVE TO CEMENT TYPE, AIR ENTRAINMENT REQUIREMENTS, CHLORIDE ION LIMITS AND POZZOLAN LIMITS.
3. FOR SLAB, COORDINATE AND PROVIDE MIX DESIGNS MEETING MAXIMUM CEMENT CONTENT FOR AGGREGATE SIZE TO COMPLY WITH TABLE 8.4.1B OF ACI 302-15.
4. WHERE INDICATED IN THE "ADDITIONAL REMARKS" ABOVE, CONCRETE SHALL BE PROPORTIONED FOR A MAXIMUM ALLOWABLE UNIT SHRINKAGE OF 0.035% MEASURED 28 DAYS AFTER CURING IN LIME WAS AS DETERMINED BY ASTM C157, USING AIR STORAGE
5. WALLS AND PIERS THAT ARE LOCATED EXTERIOR TO THE BUILDING FOOTPRINT AND EXTEND ABOVE THE FROST LINE ARE EXPOSURE CLASS C1 AND F1 AND SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4,500 psi AT 28 DAYS, HAVE A MAXIMUM WATER/CEMENT RATIO OF 0.45 AND HAVE A MINIMUM 4.5% AIR ENTRAINMENT.

E. CAST-IN-PLACE CONCRETE

1. CODES AND STANDARDS: COMPLY WITH THE PROVISIONS OF THE LATEST EDITIONS OF:
   A. ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"
   B. ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE"
   C. ACI 304 "GUIDE FOR MIXING, TRANSPORTING AND PLACING CONCRETE"
   D. ACI 305 "HOT WEATHER CONCRETING"
   E. ACI 306 "STANDARD SPECIFICATION FOR COLD WEATHER CONCRETING"
   F. ACI 308 "STANDARD PRACTICE FOR CURING CONCRETE".

2. CONCRETE TESTING: THE CONTRACTOR SHALL PREPARE A SET OF 4 CYLINDERS/TEST SET TO BE TESTED AT AN INDEPENDENT LABORATORY. THE CYLINDERS SHALL BE TAKEN FROM ONE CONCRETE TRUCK AND LABELED WITH DATE, TRUCK NUMBER, AND LOCATION OF CONCRETE PLACEMENT. EACH SAMPLE SHALL ALSO BE TESTED FOR SLUMP, AIR CONTENT, AND TEMPERATURE. THE CYLINDERS SHALL BE TESTED AS FOLLOWS: 1 AT 7 DAYS; 2 AT 28 DAYS; AND A THIRD HELD FOR A 56 DAY BREAK IF REQUIRED. TEST CYLINDERS SHALL BE TAKEN AT LEAST ONCE PER PLACEMENT OR AT THE FOLLOWING INCREMENTS:
   A. WALLS AND FOOTINGS: 50 CUBIC YARDS
   B. ISOLATED FOOTINGS: 25 CUBIC YARDS
   C. SLABS: 50 CUBIC YARDS

   FIELD TESTING SHALL BE PERFORMED BY A GRADE I ACI (MINIMUM)FIELD TESTING TECHNICIAN.

3. SUBMIT MIX DESIGN AND EITHER TRIAL MIX DESIGNS OR HISTORIC FIELD DATA FOR APPROVAL IN ACCORDANCE WITH ACI 318, CHAPTER 5. INCLUDE TECHNICAL DATA SHEETS, GRADATIONS, AND MATERIAL VERIFICATIONS ON ALL COMPONENTS. SUBMIT MIX DESIGNS, PRIOR TO PLACEMENT OF CONCRETE, TRANSIT MIX SHALL CONFORM TO ASTM C94.

4. COMPRESSIVE MIXTURES AS DELINEATED IN TABLE BELOW; SEE 03 3000 & NOTES BELOW FOR ADDITIONAL INFORMATION.
   A. SLUMP: 3"-5" BEFORE ADDITION OF WATER REDUCER, 6"-8" AFTER ADDITION OF WATER REDUCER
   B. ALL CONCRETE NORMALWEIGHT, UNLESS NOTED OTHERWISE.

5. MAXIMUM AGGREGATE SIZE IN ACCORDANCE WITH ACI 301; CLEARLY NOTE LOCATION WHERE AGGREGATES GREATER THAT 3/4" MAXIMUM SIZE ARE PROPOSED FOR USE.

6. NO CHLORIDE OR OTHER UNAUTHORIZED ADMIXTURES SHALL BE USED. MAINTAIN MAXIMUM WATER SOLUBLE CHLORIDE ION (CL-) IN CONCRETE, BY WEIGHT OF CEMENT AT LESS THAN 1.00 FOR NON-EXPOSED CONCRETES AND 0.30 FOR EXTERIOR EXPOSED CONCRETES

7. WHEN AMBIENT TEMPERATURE IS BELOW 40º FAHRENHEIT OR MORE THAN 90º FAHRENHEIT PLACE AND PROTECT CONCRETE IN ACCORDANCE WITH ACI STANDARDS LISTED ABOVE.

8. CONCRETE PLACEMENT MAY REQUIRE ADJUSTMENT OF REINFORCEMENT, EMBEDDED ITEMS OR ANCHOR BOLTS. REVIEW DRAWINGS IDENTIFY THESE LOCATIONS TO ARCHITECT PRIOR TO SUBMITTALS. PROVIDE ADDITIONAL SUPERVISION AT ALL STEEL TO CONCRETE CONNECTION LOCATIONS AND MODIFY PLACEMENT MEASURES TO ACCOUNT FOR CONGESTIONS.

9. COMPLY WITH ACI CODES AND PLACE CONCRETE IN A CONTINUOUS OPERATION WITHIN PLANNED JOINTS OR SECTIONS. DO NOT PERMIT COLD JOINTS TO OCCUR.

10. CURING: COVER OR WET CURE ALL ELEMENTS. BEGIN INITIAL CURING AS SOON AS FREE WATER HAS DISAPPEARED FROM EXPOSED SURFACES. WHERE POSSIBLE, KEEP CONTINUOUSLY WET FOR 72 HOURS. CONTINUE CURING BY USE OF MOISTURE RETAINING COVER. USE OF MEMBRANE-FORMING CURING COMPOUNDS IS PROHIBITED.

11. SEE 03 3000 FOR SURFACE FINISHES. NOTE EXPOSED WALL REQUIREMENTS IN SPECIFICATIONS.

12. PROVIDE CONTROL AND CONSTRUCTION JOINTS BY DETAIL AND SPECIFICATION REQUIREMENTS. SHOW LOCATION ON REINFORCING SUBMITTAL FOR COORDINATION WITH FLOORING, EQUIPMENT AND OTHER CONTRACTOR REQUIREMENTS.
   A. SLABS SAW-CUT CONTROL JOINTS AS SOON AS CONCRETE HAS HARDENED ENOUGH TO WALK ON SURFACE WITHOUT DAMAGING CONCRETE AND NO MORE THAN 4 HOURS AFTER FINAL TROWEL. JOINT SPACING SHALL, UNLESS NOTED OTHERWISE, NOT EXCEED 36 TIMES THE SLAB THICKNESS OR 18 FEET
   B. WALLS CONTROL JOINTS: NOT EXCEEDING 20 FEET AND AT EACH INTEGRAL PILASTER; CONSTRUCTION JOINTS AT 80 FEET OF MAXIMUM SPACING.

F. CONCRETE REINFORCEMENT

1. SHOP DRAWINGS SHALL BE PROVIDED PRIOR TO START OF CONCRETE PLACING AND BE IN ACCORDANCE WITH:
   A. ACI 301
   B. ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT"
   C. ACI SP-66 "ACI DETAILING MANUAL"
   D. CRSI MSP "MANUAL OF STANDARD PRACTICE"

   SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. SHOW ALL SLABS IN PLAN AND ALL WALLS IN ELEVATION WITH OPENINGS AND PENETRATIONS SHOWN BASED ON MEP COORDINATION SUBMITTALS AND ARCHITECTURAL REQUIREMENTS. SUBMIT PROPOSED CONTROL AND CONSTRUCTION JOINTS FOR REVIEW ON REINFORCING SUBMITTALS

2. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 GRADE 60, STEEL BARS PER ASTM A305, UNLESS NOTED OTHERWISE.

3. PROVIDE EPOXY-COATED BARS WHERE SHOWN MEETING ASTM A775 AND USING EPOXY COATED SUPPORTS, COATED WIRE, AND EPOXY COATING FOR REPAIR OF SURFACE PRIOR TO POURING.

4. WHERE SPECIFICALLY SHOWN ON THE DRAWINGS, WELD REINFORCING BARS IN ACCORDANCE WITH AWSD1.4 PRE-QUALIFIED JOINT, ELECTRODE 9E90 LOW HYDROGEN) AND PROCESS REQUIREMENTS INCLUDING COORDINATED WITH MILL CERTIFIED CARBON EQUIVALENT. ALTERNATIVELY, ASTM A706, GRADE 60 MAY BE SUBSTITUTED, INDICATE MATERIAL AND WELDING REQUIREMENTS ON SUBMITTAL. DO NOT WELD AT LOCATIONS NOT DETAILED, UNLESS SUBMITTED AND REVIEWED BY ARCHITECT.

5. FIELD BENDING OR REINFORCEMENT SHALL CONFORM TO ACI 301, INCLUDING PRE-HEAT REQUIREMENTS.

6. WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185 WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 70,000 PSI. LAP ONE CROSS WIRE SPACING PLUS 2". SUPPORT MESH ON CHAIRS PER CRSI WITH #4 AT 4'-0"oc, EACH WAY.

7. PROVIDE MINIMUM CONCRETE COVER TO REINFORCEMENT AS FOLLOWS, UNLESS OTHERWISE NOTED:
   A. BOTTOM OF FOOTINGS, GRADE BEAMS, AND SLABS-ON-GRADE: 3"
   B. SIDES OF FOOTINGS AND GRADE BEAMS: 2"
   C. FOUNDATION WALLS, FROST WALLS; RETAINING WALLS, PIT WALLS: 2"
   D. EXTERIOR WALLS (EXPOSED TO WEATHER): 2"
   E. FACES OF WALLS OTHER THAN THOSE NOTED ABOVE: 3/4"
   F. FOUNDATION PIERS: 2" TO TIES
   G. ALL FACES OF BEAMS AND COLUMNS: 1-1/2" TO TIES
   H. TOP AND BOTTOM OF ELEVATED SLABS: 3/4"
   I. TOPPING SLAB: 3/4"
   J. SLAB-ON-DECK: 3/4" FROM DECK, 3/4" FROM TOP SURFACE

8. ALL LAPS SHALL BE FULL TENSION LAPS (CLASS B SPLICE) UNLESS SPECIFICALLY NOTED OTHERWISE. DOWELS SHALL MATCH SIZE AND SPACING OF MAIN REINFORCEMENT, UNLESS OTHERWISE NOTED.

9. HEADED STUD ANCHORS, DEFORMED BAR ANCHORS (DBA'S), AND OTHER EMBEDDED ITEMS AS SPECIFIED FOR STRUCTURAL STEEL. ALL WELDS FOR STUDS AND DBA'S SHALL BE AUTOMATICALLY WELDED WITH MANUFACTURER'S EQUIPMENT AND RECOMMENDATIONS FOR FLUX FILLED HEADS.

10. CHAIRS AND SPACERS SHALL BE PLACED TO ADEQUATELY SUPPORT REINFORCING DURING PLACEMENT. FOREIGN MATERIALS SUCH AS WOOD, CLAY BRICK OR OTHER UNSUITABLE SUPPORTS SHALL NOT BE USED TO SUPPORT REINFORCING. SET WIRE TIES SO ENDS ARE DIRECTED INTO CONCRETE WHERE CONCRETE WILL BE EXPOSED. DO NOT USE CONCRETE SUPPORTS OR PUDDLING FOR SLABS UNLESS SUBMITTED AND ACCEPTABLY REVIEWED.

G. CONCRETE FORMWORK

1. CONCRETE FORMS SHALL BE CLEAN AND FREE FROM DEBRIS. IF FORMS ARE COATED WITH A VEGETABLE BASED (SOY) RELEASE AGENT, WHICH SHALL NOT STAIN CONCRETE OR ABSORB MOISTURE OR IMPAIR NATURAL BONDING OF CONCRETE.

2. COORDINATE WITH REINFORCING SUBMITTAL FOR OPENING AND ADDITIONAL REQUIREMENTS. SUBMIT, BEFORE FRAMING OPENINGS IN STRUCTURAL ELEMENTS WHICH ARE NOT INDICATED ON DRAWINGS.

3. PROVIDE BRACING TO ENSURE STABILITY OF FORMWORK. FOR PLACEMENT OPERATIONS. DO NOT REMOVE FORMS OR BRACING UNTIL CONCRETE HAS GAINED SUFFICIENT STRENGTH TO CARRY ITS OWN WEIGHT AND IMPOSED LOADS.

4. ALL WALL SIDES AND SLAB EDGES EXPOSED TO VIEW TO HAVE CLASS A – CLASS OF SURFACE. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

BASIS OF DESIGN

1. Building Code: IBC 2018

2. Dead Loads:
   a. Roof Dead Load: 25 psf

3. Live Loads:
   a. Roof Live Load: Snow Load Govens

4. Roof Snow Load:
   a. Ground Snow Load, P_g: 85 psf
   b. Flat Roof Snow Load, P_f: 71 psf
   c. Snow Exposure Factor, C_e: 1.0
   d. Snow Load Importance Factor, I: 1.2
   e. Thermal Factor, C_t: 1.0

1. Wind Design Data:
   a. Basic Wind Speed (3-second gust), V: 122 mph
   b. Wind Exposure: C
   c. Internal Pressure Coefficients: +/- 0.18
   d. Components and Cladding Wind Pressure: per ASCE 7

2. Earthquake Design Data:
   a. Seismic Importance Factor, I: 1.5
   b. Risk Category: IV
   c. Mapped Spectral Response Acceleration, S_S: 0.267
   d. Mapped Spectral Response Acceleration S_1: 0.073
   e. Site Class: D
   f. Spectral Response Coefficient, S_{DS}: 0.282
   g. Spectral Response Coefficient, S_{D1}: 0.116
   h. Seismic Design Category: C
   i. Basic Seismic-Force-Resisting System: XXXXXXX
   j. Design Base Shear: XXk
   k. Seismic Response Coefficient, C_S: X.XX
   l. Response Modification Factor, R: X.X
   m. Analysis Procedure Used: Equivalent Lateral Force Procedure

3. Allowable Soil Bearing Pressure: To be determined

ABBREVIATIONS

AB	ANCHOR BOLT	MC	MOMENT CONNECTION
AFF	ABOVE FINISH FLOOR	N.S.	NEAR SIDE
AL	ALUMINUM	oc	ON CENTER
B.O.F.	BOTTOM OF FOOTING	P#	PIER DESIGNATION
DWG	DRAWING	PL	PLATE
E.F.	EACH FACE	SS	STAINLESS STEEL
ELEV.	ELEVATION	STD	STANDARD
EP	EMBED PLATE	T.O.C.	TOP OF CONCRETE
EQ	EQUAL	T.O.S.	TOP OF STEEL
E.S.	EACH SIDE	T.O.SHELF	TOP OF SHELF
E.W.	EACH WAY	T.O.W.	TOP OF WALL
EX.	EXISTING	TYP.	TYPICAL
F#	FOOTING DESIGNATION	U.N.O.	UNLESS NOTED OTHERWISE
FND	FOUNDATION	V.I.F.	VERIFY IN FIELD
F.S.	FAR SIDE		
H.T.	HEAVY TIMBER		

DRAWING LEGEND

NOTE: NOT ALL SYMBOLS AND NOTATIONS USED

NORTH ARROW
ELEVATION
[XX' - XX"] TOP OF FOOTING ELEV.
1 / S2.1 SECTION NUMBER / DRAWING WHERE SHOWN
DECK / SPAN DECK SPAN DIRECTION OR GRATING DIRECTION
1/8" / FT SLOPE DIRECTION, and MAGNITUDE
BEAM/COLUMN SPLICE
12 / 6 ROOF PITCH
FC FOOTING STEP
OPENING
MOMENT CONNECTION
GUARDRAIL/RAILING
BEAM PENETRATION

CONCRETE
GROUT or FINE CRUSHED GRAVEL
GRATING
LEDGE/ROCK
3/4" CRUSHED STONE
COMPACTED GRANULAR FILL
RIGID INSULATION
WOOD
UNDISTURBED SUBGRADE
CMU BLOCK
BRICK

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BLACK RIVER DESIGN
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MONTPELIER VERMONT 05602

ENFIELD PUBLIC SAFETY
ENFIELD, NEW HAMPSHIRE

REVISIONS

GENERAL NOTES, BASIS OF DESIGN

SCALE As indicated
DATE 03/22/2023
DRAWN BY KG
CHECKED BY BN

S001

SCHEMATIC DESIGN - NOT FOR CONSTUCTION

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H. POST-INSTALLED ANCHORS INTO CONCRETE AND MASONRY

1. WHERE A MANUFACTURER'S ANCHORS IS SPECIFICALLY CALLED OUT ON THE DRAWINGS, IT SHALL BE CONSIDERED THE DESIGN BASIS FOR THE REQUIRED ANCHOR. ALTERNATES MEETING OR EXCEEDING ANCHOR SYSTEM DEMANDS, INCLUDING, BUT NOT LIMITED TO CAPACITY LOADING, EDGE DISTANCE, SUBSTRATE THICKNESS FOR CONNECTION ELEMENTS AND BASE MATERIAL SHALL BE SUBMITTED FOR PROPOSED USE PENDING ACCEPTABLE REVIEW. SUBMIT ICC-ES CODE REPORTS.

2. ADHESIVE ANCHORS, WHERE NOT SPECIFICALLY DETAILED, SHALL BE:
   A. FOR CONCRETE AND CONCRETE MASONRY: HILTI HIT HY-200
   B. FOR EXISTING BRICK MASONRY: HILTI HIT-HY 270

   INSTALL IN ACCORDANCE WITH MANUFACTURERS' SPECIFICATIONS. USE 3/4 INCH DIAMETER AT MINIMUM EMBEDMENT UNLESS OTHERWISE INDICATED BY DETAIL. SEE NOTE 1.

3. EXPANSION ANCHORS, WHERE NOT SPECIFICALLY DETAILED, SHALL BE:
   A. FOR CONCRETE: HILTI KWIK BOLT TZ
   B. FOR MASONRY: HILTI KWIK BOLT 3.

   INSTALL IN ACCORDANCE WITH MANUFACTURERS' SPECIFICATIONS. USE 3/4 INCH DIAMETER AT MINIMUM EMBEDMENT UNLESS OTHERWISE INDICATED BY DETAIL. SEE NOTE 1.

4. SCREW TYPE ANCHORS: WHERE NOT SPECIFICALLY DETAILED, SHALL, FOR CONCRETE AND MASONRY: SIMPSON TITEN-HD INSTALL IN ACCORDANCE WITH MANUFACTURERS' SPECIFICATIONS. USE 3/4 INCH DIAMETER AT MINIMUM EMBEDMENT UNLESS OTHERWISE INDICATED BY DETAIL. SEE NOTE 1.

I. STRUCTURAL STEEL

1. UNLESS OTHERWISE NOTED, STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:
   A. WIDE FLANGE SECTIONS: ASTM A572 GRADE 50 OR ASTM A992 (FY = 50 KSI)
   B. ANGLES, CHANNELS, PLATE AND OTHER HOT-ROLLED SHAPES: ASTM A36 (FY = 36 KSI)
   C. TUBES: ASTM A500 GRADE C. RECTANGULAR: 50 KSI; ROUND: 46 KSI.
   D. PIPES: ASTM A53 GRADE B TYPE E OR S (FY = 35 KSI)
   E. BASEPLATES, CONNECTION PLATES, STIFFENER PLATES: ASTM A572 GRADE 50 OR ASTM A992 (FY = 50 KSI)
   F. THREADED RODS: ASTM A572 GRADE 50
   G. STAINLESS STEEL (SS) BARS & PLATES: ASTM A304, FY = 30 KSI
   H. ANCHOR BOLTS: ASTM F1554 GRADE 55, UNLESS NOTED OTHERWISE, WITH SUPPLEMENTARY REQUIREMENT S1 FOR WELDABILITY.

2. BOLTS, NUTS AND WASHERS: ASTM A325 TYPE 1 BOLTS (3/4" MINIMUM DIAMETER), ASTM A563 DH HEAVY HEX NUTS WITH ASTM F436 HARDENED WASHERS. PROVIDE BOLT ASSEMBLIES GALVANIZED TO ASTM A153 AT GALVANIZED STRUCTURAL MEMBERS. PROVIDE ASTM A490 BOLTS WHERE NOTED ON DRAWINGS OR WHERE NEEDED FOR SPECIFIED LOADS. DO NOT MIX BOLT SIZES BETWEEN A325 AND A490 BOLTS. HIGH STRENGTH LOAD INDICATOR BOLTS MAY BE USED AT THE CONTRACTOR'S OPTION.

3. DESIGN OF STEEL CONNECTIONS: CONTRACTOR IS RESPONSIBLE FOR DESIGN OF ALL STEEL CONNECTIONS OR PORTIONS OF CONNECTIONS NOT FULLY DETAILED IN THE CONTRACT DOCUMENTS, FOR THE SPECIFIED CONNECTION FORCES. SEE SPECIFICATIONS FOR DESIGN REQUIREMENTS. IN NO CASE SHALL LOADS BE LESS THAN 12 KIPS (WORKING).

4. SUBMITTALS FOR REVIEW
   A. SHOP DRAWINGS: INDICATE PROFILES, SIZES, SPACING, AND LOCATIONS OF STRUCTURAL MEMBERS, DECKING, OPENINGS, ATTACHMENTS, AND FASTENERS. SHOW ALL CONNECTION DETAILS. PROVIDE DESIGN OF CONNECTIONS NOT DETAILED ON DRAWINGS. INDICATE WELDED CONNECTIONS WITH AWS A2.0 WELDING SYMBOLS. INDICATE NET WELD LENGTHS
   B. EACH SHOP DRAWING SHALL BE DATED AND IDENTIFIED WITH A UNIQUE DRAWING NUMBER AND REVISION NUMBER. RESUBMITTED SHOP DRAWINGS SHALL BE GIVEN A NEW REVISION NUMBER, AND ALL CHANGES/ADDITIONS/DELETIONS FROM THE PREVIOUS SUBMISSION SHALL BE CLEARLY IDENTIFIED.
   C. ERECTION DRAWINGS SHALL INCLUDE DETAILS OF ALL FIELD WELDING AND ANY OTHER SPECIAL FIELD INSTRUCTIONS SEE SPECIFICATION SECTION 05120 AND NOTES BELOW FOR ADDITIONAL REQUIREMENTS

5. SUBMITTALS FOR INFORMATION
   A. MANUFACTURER'S MILL CERTIFICATE: CERTIFY THAT PRODUCTS MEET OR EXCEED SPECIFIED REQUIREMENTS.
   B. MILL TEST REPORTS: SUBMIT INDICATING STRUCTURAL STRENGTH, DESTRUCTIVE AND NON-DESTRUCTIVE TEST ANALYSIS.
   C. WELDERS CERTIFICATES: CERTIFY WELDERS EMPLOYED ON THE WORK, VERIFYING AWS QUALIFICATION WITHIN THE PREVIOUS 12 MONTHS.

6. DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE "MANUAL OF STEEL CONSTRUCTION," 14TH EDITION, BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, AND THE STRUCTURAL WELDING CODE (AWS D1.1) LATEST EDITION, BY THE AMERICAN WELDING SOCIETY.

7. STRUCTURAL STEEL CONNECTIONS SHALL BE AS FOLLOWS:
   A. ALL CONNECTIONS UNLESS INDICATED OTHERWISE SHALL BE MADE WITH 3/4 INCH DIAMETER A325 BOLTS. AT MOMENT CONNECTIONS, 3/4" DIAMETER A325 BOLTS, DESIGNED AS TYPE "SC" SLIP CRITICAL CONNECTIONS, SHALL BE USED; AND THE USE OF FULLY-TENSIONED SLIP-CRITICAL BOLTS INSTALLED IN ACCORDANCE WITH THE AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" IS REQUIRED AT THE FOLLOWING LOCATIONS:
      - BRACING CONNECTIONS
      - CONNECTIONS CARRYING SPECIFIED AXIAL LOADS
      - COLUMN SPLICES FOR BRACING COLUMNS
      - FLANGE AND WEB BOLTS AT MOMENT CONNECTIONS AND MOMENT SPLICES

      ALL OTHER BOLTS MAY BE BEARING BOLTS (THREADS INCLUDED) TIGHTENED TO THE SNUG-TIGHT CONDITION, UNLESS NOTED OTHERWISE.
   B. THE MINIMUM NUMBER OF BOLTS IN ANY CONNECTION SHALL BE TWO 3/4 INCH DIAMETER A325 BOLTS UNLESS INDICTED OTHERWISE.
   C. IN CONNECTIONS OF BEAMS AND GIRDERS, THE MINIMUM NUMBER OF BOLTS SHALL BE REQUIRED TO DEVELOP THE BEAM SHEAR "V" NOTED ON THE CONTRACT DRAWINGS -. THE PLAN NOTES SHALL ALSO BE APPLIED. IF THE BEAM SHEAR IS NOT NOTED, THE CONNECTIONS SHALL DEVELOP THE BEAM SHEAR (V=2W/3) WHERE W = THE TOTAL ALLOWABLE BEAM UNIFORM LOAD BASED ON SIMPLE SPAN MOMENTS AND BRACED COMPRESSION FLANGES. (SEE AISC MANUAL OF STEEL CONSTRUCTION, BEAMS); LOADS SHOWN ARE THE SERVICE (UNFACTORED) DESIGN FORCES INDICATED ON THE DRAWINGS. ANY 1/3 ALLOWABLE STRESS INCREASE MAY NOT BE TAKEN WITH THE SPECIFIED DESIGN FORCES.
   D. CONNECTIONS OF BEAM AND GIRDERS SHALL DEVELOP THE BEAM SHEAR DESCRIBED ABOVE IN ADDITION TO AXIAL FORCES LISTED ON THE STRUCTURAL DRAWINGS. (COMPRESSION OR TENSION) DO NOT USE SINGLE PLATE CONNECTIONS FOR FRAMING WITH AXIAL LOADS.
   E. ALL MOMENT CONNECTIONS SHALL DEVELOP THE FULL MOMENT CAPACITY OF THE BEAM OR GIRDER, UNLESS INDICATED OTHERWISE.
   F. THE CONNECTION FOR DIAGONAL BRACING, VERTICAL AND HORIZONTAL, SHALL DEVELOP THE FORCE INDICATED ON THE DRAWINGS BUT NOT LESS THAN 50% OF THE AXIAL CAPACITY OF THE BRACE IN TENSION.
   G. DESIGN CALCULATIONS, SIGNED AND SEALED BY CONTRACTOR'S PROFESSIONAL ENGINEER SHALL BE SUBMITTED FOR ALL CONNECTIONS NOT FULLY DETAILED IN THE STRUCTURAL DRAWINGS.
   H. CALCULATIONS FOR STANDARD, REPETITIVE BEAM CONNECTIONS ARE TO BE SUBMITTED IN THE FORM OF SUMMARIZED CAPACITY TABLES FOR EACH TYPE OF CONNECTION USED (DOUBLE ANGLE, SHEAR PLATE, ETC.). THE TABLES ARE TO BE ACCOMPANIED BY A DETAIL CLEARLY SHOWING THE CONNECTION GEOMETRY, INCLUDING THE NUMBER, SIZE, GRADE AND TYPE (BEARING OR SLIP-CRITICAL) OF BOLTS; SIZE OF BOLT HOLES; SIZE, GRADE, AND GEOMETRY OF CONNECTION ANGLES OR PLATES; SIZE AND LENGTH OF WELDS; AND MINIMUM WEB THICKNESS FOR FULL CAPACITY. COMPUTER PRINTOUTS OF DETAILED CONNECTION CHECKS FOR EACH INDIVIDUAL PIECE (AS GENERATED BY SOME DETAILING SOFTWARE) ARE NOT ACCEPTABLE FOR THE STANDARD, REPETITIVE BEAM CONNECTIONS.
   I. CALCULATIONS FOR BRACING AND OTHER NON-STANDARD CONNECTIONS SHALL INCLUDE A DETAIL SHOWING THE CONNECTION GEOMETRY AND DESIGN FORCES, AND FULL CALCULATIONS DEMONSTRATING THE ADEQUACY OF THE CONNECTION.
   J. CONTRACTOR TO SUBMIT CONNECTION DETAILS AND CALCULATIONS IN ADVANCE OF PREPARING PIECE DRAWINGS SO AS TO STREAMLINE THE SHOP DRAWING PREPARATION AND REVIEW PROCESS. SEE SPECIFICATION SECTION 05120 FOR ADDITIONAL REQUIREMENTS
   K. DESIGN OF STEEL CONNECTIONS FOR SHEAR SHALL INCLUDE THE EFFECTS OF ECCENTRICITY.
   L. CONTRACTOR SHALL PROVIDE STIFFENERS, WEB DOUBLER PLATES, AND OTHER REINFORCEMENT AS NECESSARY TO RESIST LOCAL EFFECTS DUE TO THE SPECIFIED CONNECTION LOADS.
   M. MOMENT CONNECTIONS SHALL BE DESIGNED TO DEVELOP THE FULL MOMENT CAPACITY OF THE MEMBER UNLESS NOTED OTHERWISE.
   N. SINGLE-ANGLE CONNECTIONS MAY NOT BE USED FOR BEAM CONNECTIONS.

8. ALL STRUCTURAL SHOP AND FIELD WELDING SHALL BE MADE WITH ELECTRODES DESIGNED BY E70XX LOW HYDROGEN, IN ACCORDANCE WITH AWS D1.1, PERFORMED BY CERTIFIED WELDERS.

9. PROVIDE 3/8" WEB STIFFENERS IN BEAMS OVER OR UNDER ALL COLUMNS OR POSTS. TWO ON EACH SIDE IN LINE WITH COLUMN FLANGES.

10. THE MINIMUM THICKNESS OF GUSSET AND FIN PLATES SHALL BE 3/8".

11. PROVIDE 3/4" DIAMETER SOLID FLUXED SHEAR CONNECTIONS STUDS AUTOMATICALLY END WELDED THROUGH THE METAL DECK AS INDICATED AND IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. STUDS SHALL BE 5 INCHES LONG AFTER WELDING.

12. GROUT: NON-SHRINK TYPE, PRE-MIXED COMPOUND CONSISTING OF NON-METALLIC AGGREGATE CEMENT, WATER REDUCING AND PLASTICIZING ADDITIVES, CAPABLE OF DEVELOPING A MINIMUM COMPRESSIVE STRENGTH OF 7,000 PSI AT 28 DAYS AS MANUFACTURED BY FIVE STAR PRODUCTS, INC., FAIRFIELD, CT, OR APPROVED EQUIVALENT.

13. SHOP AND TOUCH-UP PRIMER (DESIGN BASIS): TNEMEC SERIES 88HS. COORDINATE WITH ARCHITECTURAL COATINGS AND FINISHES.

14. TOUCH-UP PRIMER FOR GALVANIZED SURFACES (DESIGN BASIS): TNEMEC SERIES 90G-1K97. COORDINATE WITH ARCHITECTURAL COATINGS AND FINISHES.

15. FINISH
   A. COORDINATE ALL COATINGS WITH DIVISION 9 SPECIFICATION REQUIREMENTS
   B. WHERE INDICATED, STRUCTURAL STEEL MEMBERS ARE TO BE GALVANIZED IN ACCORDANCE WITH ASTM A123. PROVIDE MINIMUM 1.25 OZ/SQ FT GALVANIZED COATING. ALL MEMBERS EXPOSED TO THE EXTERIOR OR EXTENDING THROUGH AND BEYOND BUILDING ELEMENT SHALL BE GALVANIZED

16. ERECTION
   A. ALLOW FOR ERECTION LOADS, AND FOR SUFFICIENT TEMPORARY BRACING TO MAINTAIN STRUCTURE SAFE, PLUMB, AND IN TRUE ALIGNMENT UNTIL COMPLETION OF ERECTION AND INSTALLATION OF PERMANENT BRACING.
   B. FIELD WELD COMPONENTS INDICATED ON DRAWINGS AND SHOP DRAWINGS.
   C. DO NOT FIELD CUT OR ALTER STRUCTURAL MEMBERS WITHOUT APPROVAL OF ARCHITECT/ENGINEER.
   D. AFTER ERECTION, PRIME WELDS, ABRASIONS, AND SURFACES NOT SHOP PRIMED, EXCEPT SURFACES TO BE IN CONTACT WITH CONCRETE.
   E. GROUT UNDER BASE PLATES WITH PRE-MIXED NON-SHRINK GROUT WITH MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 7,000 PSI

Q. WOOD FRAMING NOTES

1. UNLESS OTHERWISE SPECIFIED, EACH PIECE OF LUMBER SHALL BEAR THE GRADE MARK, STAMP, OR OTHER IDENTIFYING MARKS INDICATING GRADES OF MATERIAL, AND RULES OR STANDARDS UNDER WHICH PRODUCED. SUCH IDENTIFYING MARKS ON A MATERIAL SHALL BE IN ACCORDANCE WITH THE RULE OR STANDARD UNDER WHICH MATERIAL IS PRODUCED, INCLUDING REQUIREMENTS FOR QUALIFICATIONS AND AUTHORITY OF THE INSPECTION ORGANIZATION, USAGE OF AUTHORIZED IDENTIFICATION, AND INFORMATION INCLUDED IN THE IDENTIFICATION. THE INSPECTION AGENCY FOR LUMBER SHALL BE APPROVED BY THE BOARD OF REVIEW, AMERICAN LUMBER STANDARDS COMMITTEE, TO GRADE SPECIES USED.

2. PROTECT LUMBER AND OTHER PRODUCTS FROM DAMPNESS BOTH DURING AND AFTER DELIVERY AT THE SITE. PILE PLYWOOD AND LUMBER IN STACKS IN SUCH A MANNER AS TO PROVIDE ADEQUATE AIR CIRCULATION AND TO PREVENT WARPING. LOCATE STACKS IN WELL DRAINED AREAS, SUPPORTED AT LEAST SIX INCHES ABOVE GRADE AND COVER WITH WELL VENTILATED SHEDS HAVING A FIRMLY CONSTRUCTED OVERHANGING ROOF AS WELL AS SUFFICIENT END WALL TO PROTECT LUMBER FROM DRIVING RAIN.

3. STORE SEASONED MATERIALS IN DRY PORTIONS OF BUILDING.

4. PROTECT SHEET MATERIALS FROM CORNERS BREAKING AND DAMAGING SURFACES WHILE UNLOADING.

5. NOMINAL SIZES ARE INDICATED EXCEPT AS SHOWN BY DETAIL DIMENSIONS. PROVIDE ACTUAL SIZES AS REQUIRED BY PRODUCT STANDARD 20, DEPARTMENT OF COMMERCE.

6. MAXIMUM MOISTURE CONTENT SHALL NOT EXCEED 19%.

7. LIGHT GAGE METAL CONNECTIONS SHALL BE SIMPSON, SUBMIT MANUFACTURERS SPECIFICATION SHEETS.

LUMBER GRADES:

1. 2x6 AND 2x4 BEARING WALLS, INTERIOR AND EXTERIOR LOCATIONS: SPRUCE-PINE-FIR No. 1 / No. 2 AS GRADED BY NLGA

2. STRUCTURAL ROOF AND FLOOR FRAMING: SPRUCE-PINE-FIR No. 1 / No. 2 AS GRADED BY NLGA

3. PRESERVATIVE PRESSURE TREATED LUMBER: SOUTHERN PINE No. 2, AS GRADED BY SPIB

4. LAMINATED VENEER LUMBER (LVL):
   A. PROVIDE LVL HEADERS AND BEAMS AS INDICATED.
   B. LVL FRAMING SHALL BE LAMINATED DOUGLAS FIR OR SOUTHERN PINE (GP LAM BY GEORGIA PACIFIC OR MICROLAM BY TRUS-JOIST OR EQUAL) MEETING THE FOLLOWING MINIMUM ALLOWABLE STRESS CRITERIA:
      FB (BENDING STRESS) = 2600 PSI
      FV (HORIZ. SHEAR STRESS) = 285 PSI
      E (MODULUS OF ELASTICITY) = 1,900,000 PSI
      FC (COMPRESSIONS PERPENDICULAR TO GRAIN) = 750 PSI

5. LAMINATED STRAND LUMBER (LSL):
   A. PROVIDE LSL HEADERS AND BEAMS AS INDICATED.
   B. LSL FRAMING (TIMBERSTRAND BY TRUS-JOIST OR EQUAL) TO MEET THE FOLLOWING MINIMUM ALLOWABLE STRESS CRITERIA:
      FB (BENDING STRESS) = 2600 PSI
      FV (HORIZ. SHEAR STRESS) = 400 PSI
      E (MODULUS OF ELASTICITY) = 1,700,000 PSI
      FC (COMPRESSION PERPENDICULAR TO GRAIN) = 880 PSI

6. PARALLEL STRAND LUMBER (PSL):
   A. PROVIDE PSL BEAMS AND POSTS AS INDICATED.
   B. PSL FRAMING (PARALLAM BY TRUS-JOIST OR EQUAL) TO MEET THE FOLLOWING MINIMUM ALLOWABLE STRESS CRITERIA:
      FB (BENDING STRESS) = 2900 PSI
      FV (HORIZ. SHEAR STRESS) = 290 PSI
      E (MODULUS OF ELASTICITY) = 2,000,000 PSI
      FC (COMPRESSION PERPENDICULAR TO GRAIN) = 750 PSI

7. PREFABRICATED WOOD I-JOISTS (TJI):
   A. PROVIDE TJI JOISTS AS INDICATED.
   B. TJI JOISTS TO BE AS MANUFACTURED BY TRUS-JOIST

8. GLULAM BEAMS AND COLUMNS
   A. PROVIDE GLULAM BEAMS AND COLUMNS AS INDICATED.
   B. GLULAM BEAMS AND COLUMNS SHALL BE PRODUCED BY NORDIC ENGINEERED WOOD, OR APPROVED EQUIVALENT MEETING THE FOLLOWING MINIMUM ALLOWABLE STRESS CRITERIA:
      FB (BENDING STRESS) = 2400 PSI
      FV (HORIZ. SHEAR STRESS) = 300 PSI
      E (MODULUS OF ELASTICITY = 1,900,000 PSI
      FC (COMPRESSION PERPENDICULAR TO GRAIN) = 600 PSI
      APPEARANCE GRADE - ARCHITECTURAL
      STRESS GRADE - 24F-ED/NPG

9. MISCELLANEOUS LUMBER: PROVIDE WOOD FOR SUPPORT OR ATTACHMENT OF THE WORK INCLUDING NON-BEARING PARTITIONS, CANT STRIPS, BUCKS, NAILERS, BLOCKING, FURRING, GROUNDS, STRIPPING AND SIMILAR MEMBERS. PROVIDE LUMBER OF SIZES AND SHAPES INDICATED. GRADE: SPRUCE-PINE-FIR STUD GRADE AS GRADED BY NLGA.

MATERIALS:

1. PLYWOOD ROOF SHEATHING: APA RATED SHEATHING, SPAN RATING AS REQUIRED TO SUIT SUPPORT SPACING INDICATED; EXPOSURE DURABILITY 1; SANDED.
2. FLOOR SHEATHING: 3/4" ADVANTECH
3. FASTENERS AND ANCHORS: FURNISH ITEMS OF ROUGH HARDWARE, METAL CONNECTORS, BOLTS, ETC., REQUIRED TO COMPLETE THE WORK. BOLTS, NUTS AND WASHERS SHALL BE HOT DIPPED ELECTRO GALVANIZED STEEL.
4. SILL GASKET ON TOP OF FOUNDATION WALL: 1/4 INCH THICK, PLATE WIDTH WIDE, CLOSED CELL POLYETHYLENE URETHANE FOAM FROM CONTINUOUS ROLLS.
5. SUBFLOOR GLUE: APA AFG-01, WATERPROOF OF WATER SOLVENT BASE, AIR CURE TYPE, CARTRIDGE DISPENSED.
6. BUILDING PAPER: NO. 15 ASPHALT FELT. PLAIN UNTREATED CELLULOSE BUILDING PAPER.
7. WOOD PRESERVATIVE (PRESSURE TREATMENT): AWPA TREATMENT ACQ USING WATER BORNE PRESERVATIVE WITH 0.40 PERCENT RETAINAGE.
8. SET STRUCTURAL MEMBERS LEVEL AND PLUMB, IN CORRECT POSITION.
9. MAKE PROVISIONS FOR ERECTION LOADS, AND FOR SUFFICIENT TEMPORARY BRACING TO MAINTAIN STRUCTURE SAFE, PLUMB, AND IN TRUE ALIGNMENT UNTIL COMPLETION OF ERECTION AND INSTALLATION OF PERMANENT BRACING.
10. PLACE HORIZONTAL MEMBERS, CROWN SIDE UP.
11. CONSTRUCT LOAD BEARING FRAMING FULL LENGTH WITHOUT SPLICES.
12. DOUBLE MEMBERS AT OPENINGS OVER 24 INCHES WIDE. SPACE SHORT STUDS OVER AND UNDER OPENING TO STUD SPACING.
13. CONSTRUCT DOUBLE JOIST HEADERS AT FLOOR AND CEILING OPENINGS AND UNDER WALL STUD PARTITIONS THAT ARE PARALLEL TO FLOOR JOISTS. FRAME RIGIDLY INTO JOISTS.
14. BRIDGE JOISTS FRAMING IN EXCESS OF 8 FEET SPAN AT MID-SPAN AND WHERE SHOWN ON DRAWINGS. FIT SOLID BLOCKING OR BRIDGING AT ENDS OF MEMBERS.
15. SECURE ROOF SHEATHING WITH LONGER EDGE PERPENDICULAR TO FRAMING MEMBERS AND WITH ENDS STAGGERED AND SHEET ENDS OVER BEARING.
16. USE SHEATHING CLIPS BETWEEN SHEETS BETWEEN ROOF FRAMING MEMBERS.
17. WHERE TONGUE AND GROOVE PLYWOOD IS USED, FULLY ENGAGE TONGUE AND GROOVE EDGES.
18. SECURE WALL SHEATHING WITH LONG DIMENSION PERPENDICULAR TO WALL STUDS, WITH ENDS OVER FIRM BEARING AND STAGGERED.
19. PLACE BUILDING PAPER HORIZONTALLY OVER WALL SHEATHING; WEATHER LAP EDGES AND ENDS.
20. SECURE SUB-FLOOR SHEATHING WITH LONGER EDGE PERPENDICULAR TO FLOOR FRAMING AND WITH END JOINTS STAGGERED AND SHEET ENDS OVER BEARING. ATTACH WITH SUB-FLOOR GLUE AND 8D NAILS AT 6" ON CENTER AT PERIMETER AND 12" ON CENTER ON INTERIOR OF PANEL.
21. TOLERANCES:
   A. FRAMING MEMBERS: 1/4 INCH FROM TRUE POSITION, MAXIMUM.
   B. SURFACE FLATNESS OF FLOOR: 1/4 INCH IN 10 FEET MAXIMUM, AND 1/2 INCH IN 30 FEET MAXIMUM.
22. ALL POSTS AND COLUMNS FROM HEADERS AND BEAMS SHALL BEAR CONTINUOUSLY TO CONCRETE FOUNDATIONS INCLUDING BLOCKING IN FLOOR AND ROOF SPACES. BLOCKING SHALL BE OF THE SIZE AND SHAPE TO CARRY THE REQUIRED LOADING.
23. ALL BOTTOM BEARING PLATES, FOR STUD WALLS OR BEAM BEARING, SHALL BE ANCHORED TO THE FOUNDATION WITH 1/2" DIAMETER ANCHOR BOLTS AT 4'-0" ON CENTER, UNLESS NOTED OTHERWISE.
24. ALL BEARING WALLS SHALL BE BLOCKED AT 4'-0" ON CENTER, VERTICALLY, UNLESS NOTED OTHERWISE.
25. ALL WOOD IN CONTACT WITH CONCRETE SHALL BE PRESERVATIVE PRESSURE TREATED, P.P.T.
26. ALL FASTENERS FOR PRESSURE TREATED WOOD TO BE G90 HOT-DIPPED GALVANIZED.
27. ALL HANGERS FOR PRESSURE TREATED WOOD TO BE G90 HOT-DIPPED GALVANIZED.
28. PROVIDE 1/4" NOMINAL GAP BETWEEN WOOD FRAMING AND HORIZONTAL FACES OF CONCRETE WALLS.

R. PLATE CONNECTED WOOD TRUSSES

1. DESIGN TO LOADINGS AND CONFIGURATIONS SHOWN ON DRAWINGS WITH DEFLECTION LIMITED TO 1/360 OF SPAN FOR FLOOR MEMBERS AND 1/240 OF SPAN (INCLUDING CEILING LOAD) FOR ROOF MEMBERS.

2. SUBMIT TRUSS SHOP DRAWINGS INCLUDING LAYOUT PLANS CODED TO INDICATE TRUSS DESIGN LOCATIONS AND TRUSS TO TRUSS CONNECTIONS. FOR EACH TRUSS, INDICATE SIZES AND SPACING OF TRUSSES AND ASSOCIATED COMPONENTS, WEB AND CHORD SIZES, PLATE SIZES, FASTENER DESCRIPTIONS AND SPACINGS, LOADS AND TRUSS CAMBERS, AND FRAMED OPENINGS. SUBMIT ALL DESIGN CALCULATIONS INCLUDING DEFLECTIONS.

3. PUBLICATIONS: SUBMIT ONE COPY OF BCSI 1-06 AND BCSI B1 SUMMARY SHEET AND PROVIDE TWO COPIES TO ERECTOR TO BE KEPT ON SITE.

4. REVIEW OF TRUSS SUBMITTALS BY THE ENGINEER SHALL BE ONLY FOR CONFORMANCE WITH THE DESIGN CONCEPT AND SHALL NOT INDICATE APPROVAL OF THE DESIGN OF THE TRUSS OR ITS COMPONENTS. REVIEW SHALL BE LIMITED TO THE FOLLOWING:
   A. VERIFICATION OF CORRECT LOADING USED BY THE TRUSS ENGINEER.
   B. REVIEW OF TRUSS REACTIONS AND VERIFICATION THAT BUILDING ELEMENTS ARE ADEQUATE TO SUPPORT TRUSS REACTIONS AS DETERMINED BY THE TRUSS ENGINEER.
   C. REVIEW OF TRUSS DEFLECTIONS AS CALCULATED BY THE TRUSS ENGINEER FOR SUITABILITY IN THE OVERALL BUILDING CONFIGURATION.
   D. DIMENSIONS WILL BE REVIEWED FOR CONFORMANCE WITH THE BEARING LOCATIONS AS INDICATED ON THE PROJECT DRAWINGS.

5. DESIGN AND FABRICATE TRUSSES IN ACCORDANCE WITH TRUSS PLATE INSTITUTE TPI 1-2014.

6. TRUSS HANDLING AND INSTALLATION SHALL BE IN ACCORDANCE WITH TPI BCSI 1-06.

7. DESIGN TRUSSES UNDER DIRECT SUPERVISION OF A PROFESSIONAL STRUCTURAL ENGINEER EXPERIENCED IN DESIGN OF THIS WORK AND LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. SHOP DRAWINGS SHALL BEAR THE STAMP OF A PROFESSIONAL ENGINEER.

8. MINIMUM MEMBER SIZE SHALL BE 2X4. MINIMUM STRESS VALUES SHALL MEET THE REQUIREMENTS OF SPRUCE-PINE-FIR No. 1 / No. 2, 19 PERCENT MAXIMUM AND 7 PERCENT MINIMUM MOISTURE CONTENT. STUD GRADE LUMBER SHALL NOT BE USED.

9. STEEL PLATE CONNECTORS SHALL BE ASTM A446 STEEL, GRADE B, HOT DIP GALVANIZED; DIE STAMPED WITH INTEGRAL TEETH THICKNESS AS DETERMINED BY TRUSS ENGINEER.

10. TRUSS BRIDGING: TYPE, SIZE AND SPACING RECOMMENDED BY TRUSS MANUFACTURER.

11. TRUSS ERECTOR SHALL VERIFY THAT SUPPORTS AND OPENINGS ARE READY TO RECEIVE TRUSSES PRIOR TO BEGINNING WORK.

12. MAKE PROVISIONS FOR ERECTION LOADS AND FOR SUFFICIENT TEMPORARY BRACING TO MAINTAIN STRUCTURE PLUMB AND IN TRUE ALIGNMENT UNTIL COMPLETION OF ERECTION AND INSTALLATION OF PERMANENT BRACING.

13. PERMANENT BRACING AS SHOWN ON PROJECT DRAWINGS AND AS INDICATED IN BCSI 1-03 SHALL BE COMPLETED NO LATER THAN IMMEDIATELY AFTER INSTALLATION OF TOP CHORD SHEATHING.

14. DO NOT FIELD CUT OR ALTER STRUCTURAL MEMBERS WITHOUT APPROVAL OF ARCHITECT/ENGINEER.

15. FRAMING MEMBERS SHALL BE INSTALLED A MAXIMUM OF 1/2 INCH FROM TRUE POSITION.

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BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER, VERMONT 05602

REVISIONS

GENERAL NOTES

SCALE
1/8" = 1'-0"

DATE
03/22/2023

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KG

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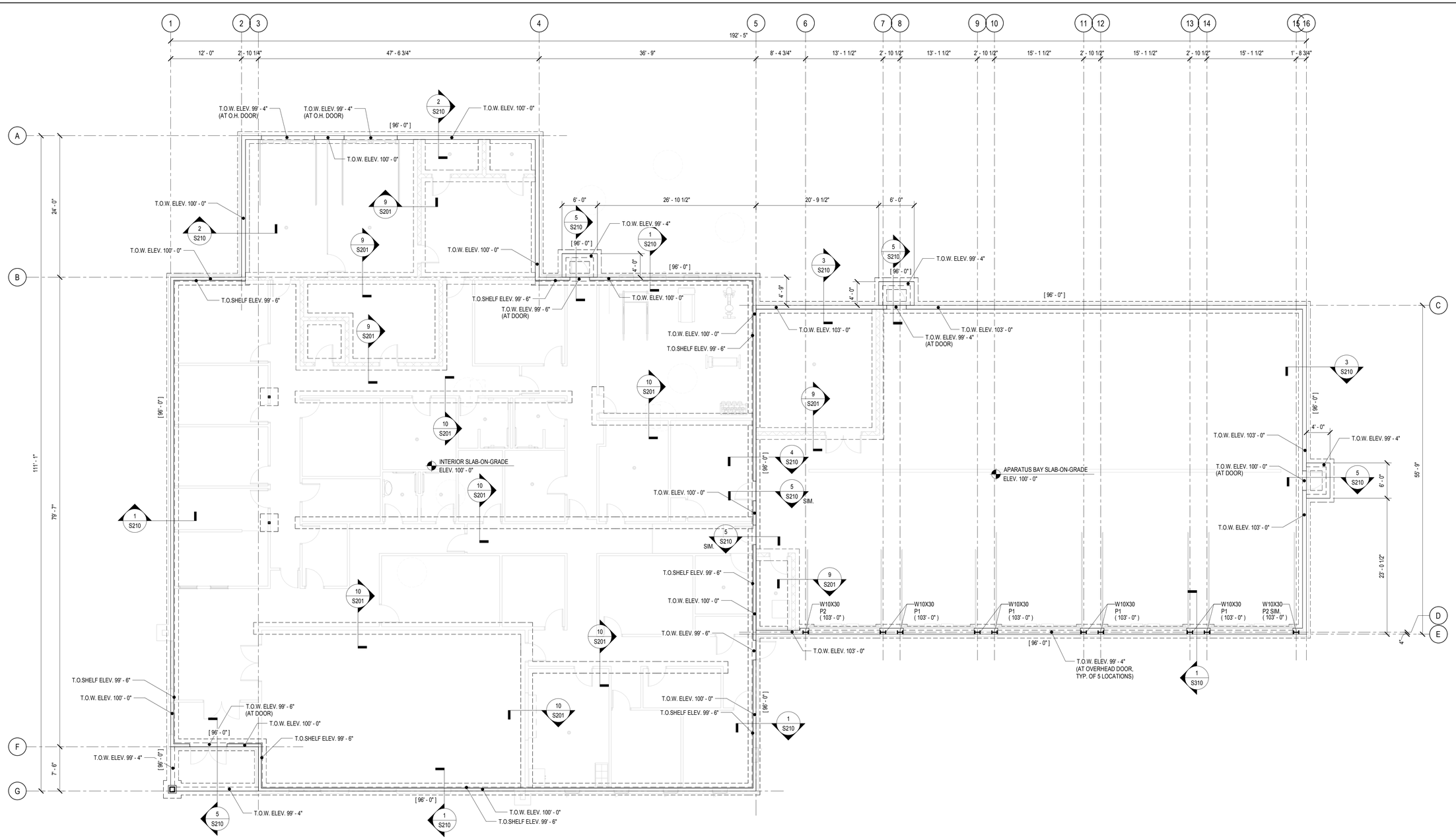

FOUNDATION PLAN

1/8" = 1'-0"

NOTES:

1. SLAB-ON-GRADE ELEVATION 100'-0" REFERENCES CIVIL FINISH FLOOR ELEVATION --------.
2. [XX'-XX"] INDICATES TOP OF FOOTING ELEVATION.
3. "F#" DENOTES SPREAD FOOTING. SEE FOOTING SCHEDULE FOR SIZE AND REINFORCING.
4. "P#" DENOTES CONCRETE PIER. SEE DETAILS ON SHEET -------.
5. (XX'-XX") INDICATES TOP OF PIER ELEVATION.

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FOUNDATION PLAN

SCALE
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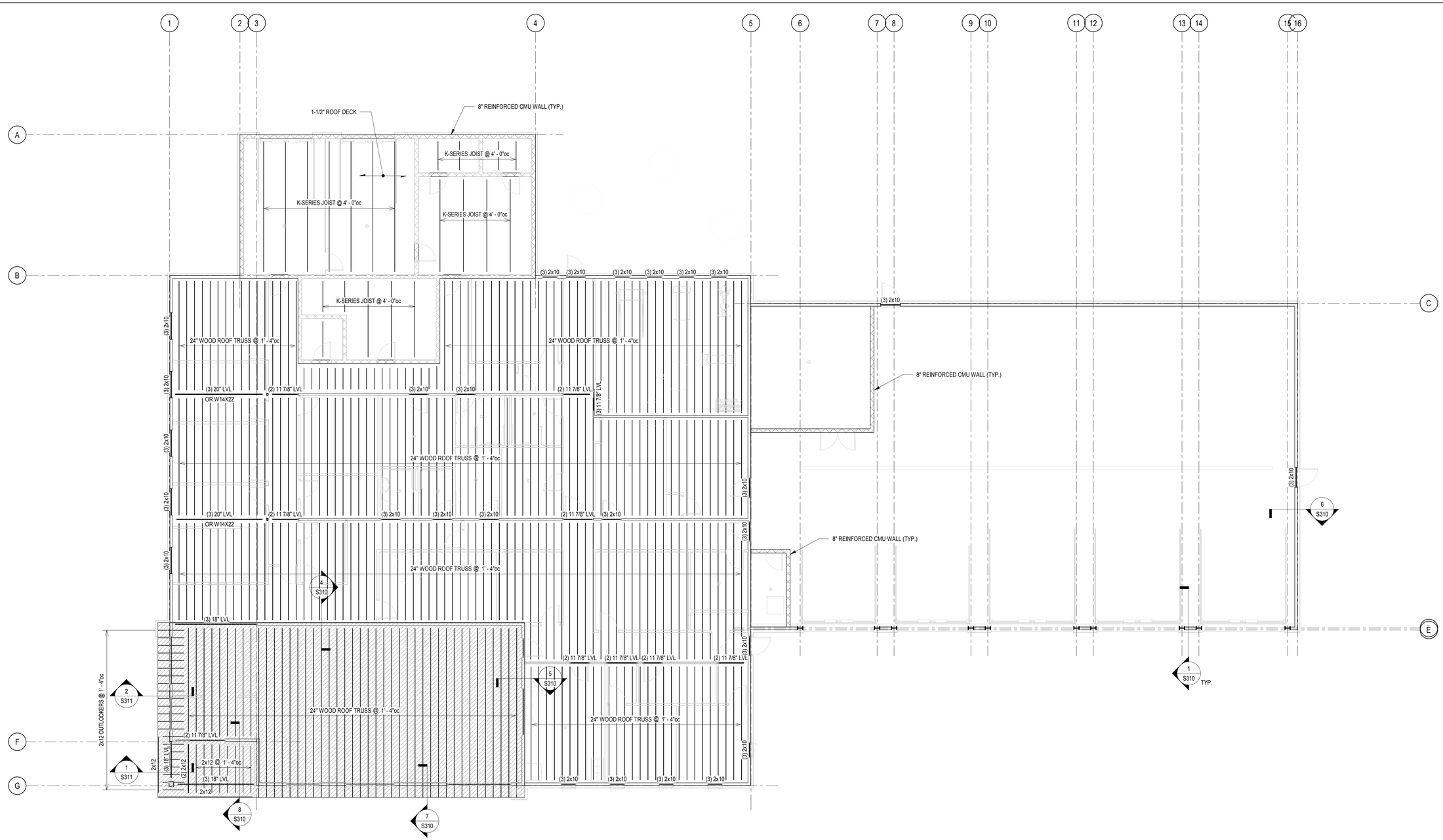

1 ROOF DECK - OFFICE BUILDING
1/8" = 1'-0"

NOTES:

1. ELEVATIONS SHOWN REFERENCE SLAB ELEVATION 100'-0".
2. ROOF SHEATHING SHALL BE 5/8" APA RATED PLYWOOD, ---- SPAN RATING, 2 SPAN MINIMUM. PLACE LONG DIMENSION OF SHEET PERPENDICULAR TO SUPPORTS AND STAGGER JOINTS.
3. "SW#" INDICATES BEARING WALL. SEE BEARING WALL SCHEDULE FOR INFORMATION.
4. "SW#" INDICATES SHEAR WALL. SEE SHEAR WALL SCHEDULE FOR INFORMATION.
5. UNLESS NOTED OTHERWISE, ALL EXTERIOR WALLS SHALL BE "SW1".

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REVISIONS

OFFICE BUILDING
ROOF FRAMING PLAN

SCALE
1/8" = 1'-0"

DATE
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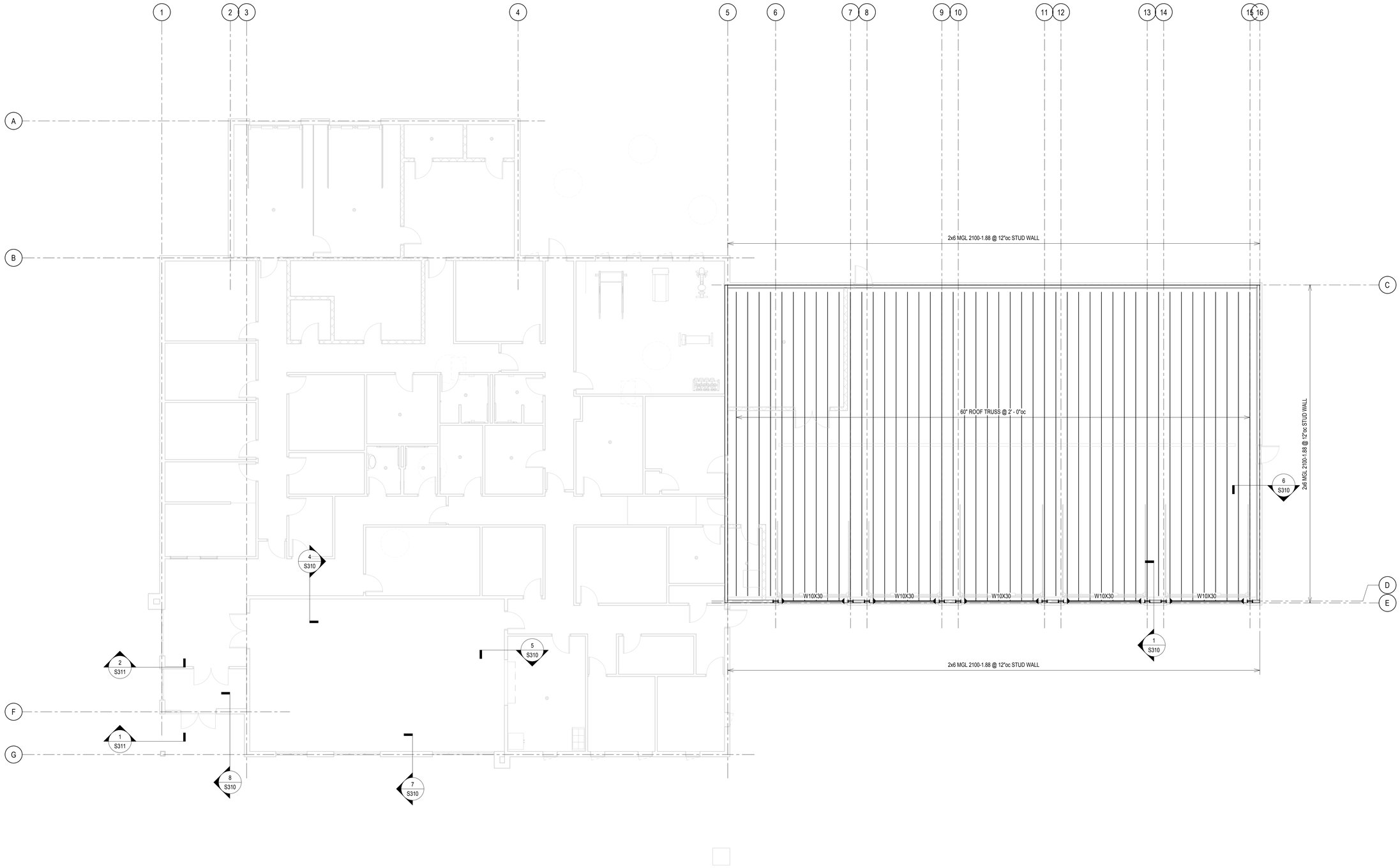

1 ROOF DECK - APARATUS BAY
1/8" = 1'-0"

NOTES:

1. ELEVATIONS SHOWN REFERENCE SLAB ELEVATION 100'-0".
2. ROOF SHEATHING SHALL BE 5/8" APA RATED PLYWOOD, ---- SPAN RATING, 2 SPAN MINIMUM. PLACE LONG DIMENSION OF SHEET PERPENDICULAR TO SUPPORTS AND STAGGER JOINTS.
3. "BW#" INDICATES BEARING WALL. SEE BEARING WALL SCHEDULE FOR INFORMATION.
4. "SW#" INDICATES SHEAR WALL. SEE SHEAR WALL SCHEDULE FOR INFORMATION.
5. UNLESS NOTED OTHERWISE, ALL EXTERIOR WALLS SHALL BE "SW1".
6. TOP OF STEEL ELEVATION = 116'-9"

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APARATUS BAY ROOF FRAMING PLAN

SCALE
1/8" = 1'-0"

DATE
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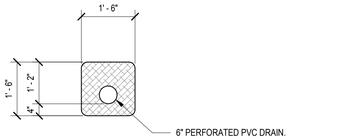
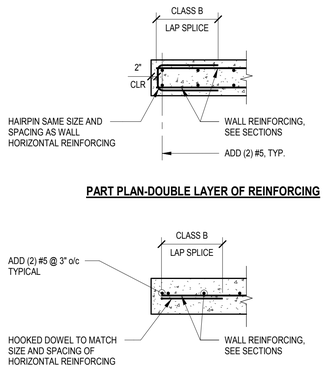
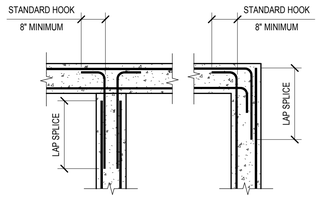


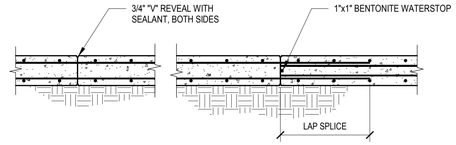
1 TYPICAL FOOTING DRAIN
1/2" = 1'-0"



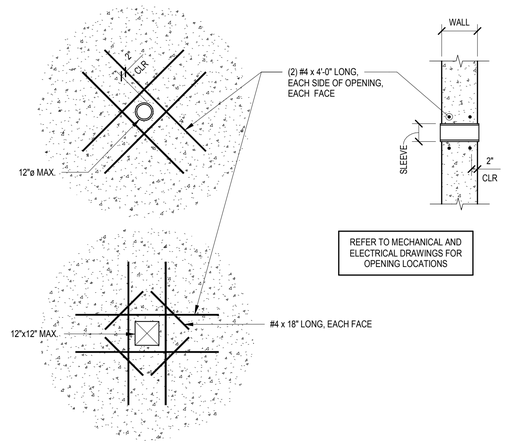
2 TYPICAL CONCRETE WALL END
1/2" = 1'-0"



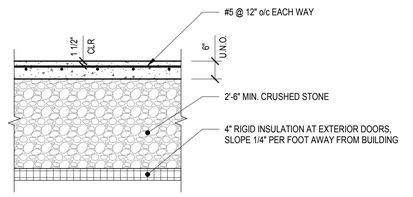
3 TYPICAL WALL CORNER REINFORCING
1/2" = 1'-0"

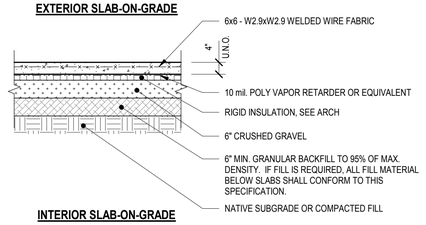


4 TYPICAL CONCRETE WALL JOINTS
1/2" = 1'-0"

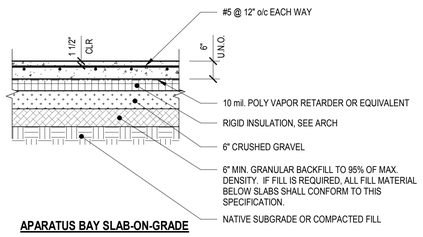


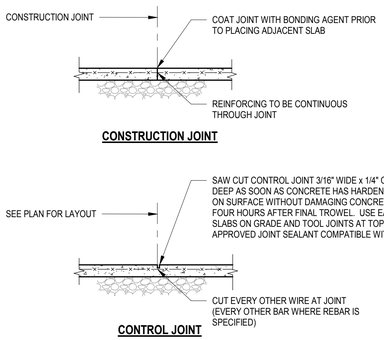
5 TYPICAL CONCRETE WALL OPENINGS
1/2" = 1'-0"



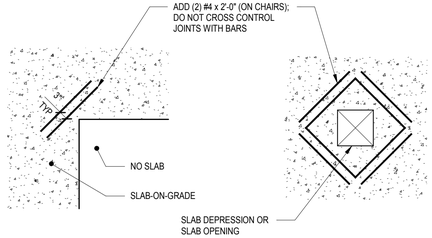


6 TYPICAL SLAB-ON-GRADE SECTIONS
1/2" = 1'-0"

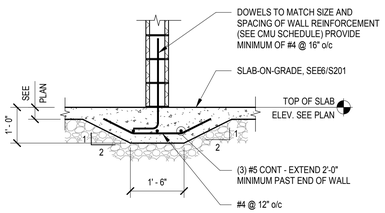




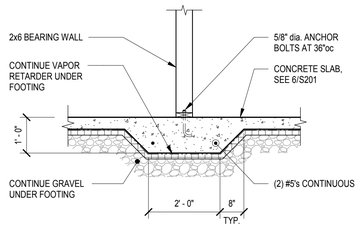
7 TYPICAL SLAB-ON-GRADE JOINTS
1/2" = 1'-0"



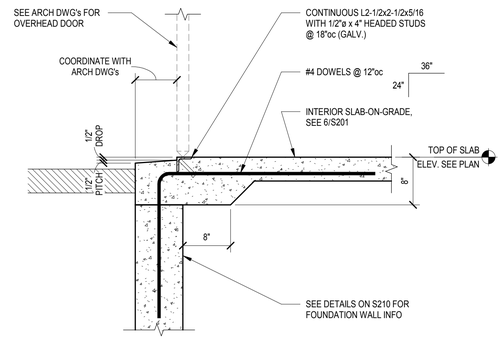
8 TYPICAL RE-ENTRANT CORNERS AT SLAB-ON-GRADE
1/2" = 1'-0"



9 TYPICAL SLAB-ON-GRADE THICKENING AT ITNERIOR NON-LOAD BEARING CMU WALLS
1/2" = 1'-0"



10 TYPICAL THICKENED SLAB-ON-GRADE AT STUD BEARING WALL
1/2" = 1'-0"



11 TYPICAL TOP OF WALL AT OVERHEAD DOOR
1" = 1'-0"

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BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

TYPICAL FOUNDATION DETAILS

SCALE
As indicated

DATE
03/22/2023

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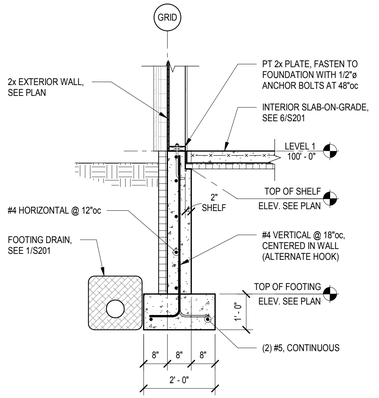
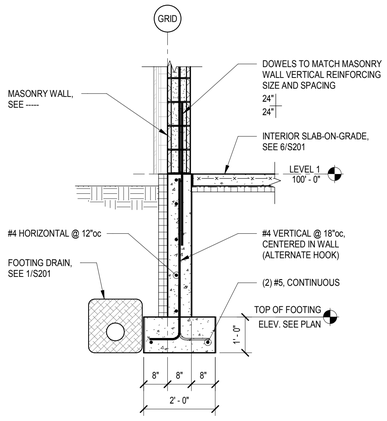
S201

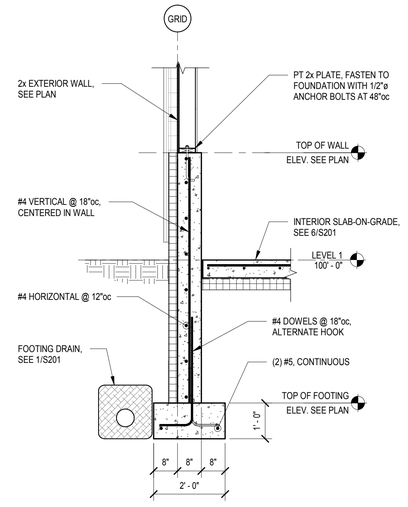
EPSF1222



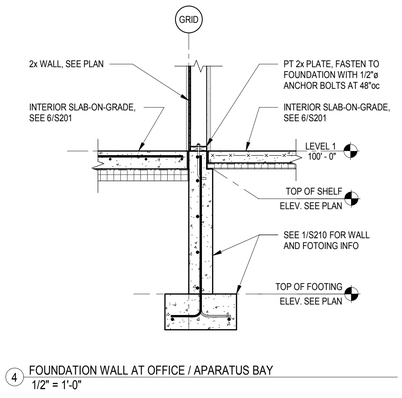
1 FOUNDATION AT WOOD WALL
1/2" = 1'-0"



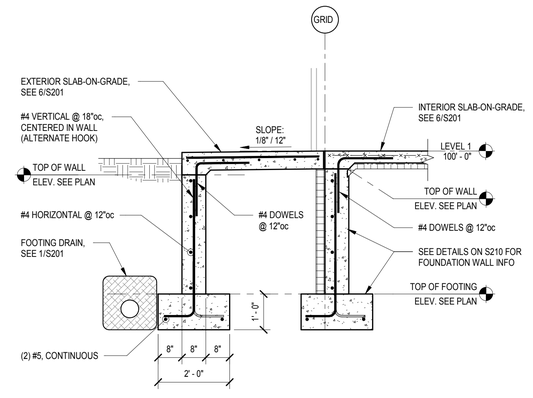
2 FOUNDATION AT MASONRY WALL
1/2" = 1'-0"



3 FOUNDATION WALL AT APARATUS BAY
1/2" = 1'-0"



4 FOUNDATION WALL AT OFFICE / APARATUS BAY
1/2" = 1'-0"



5 FOUNDATION WALL AT EXTERIOR SLAB
1/2" = 1'-0"

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1/2" = 1'-0"

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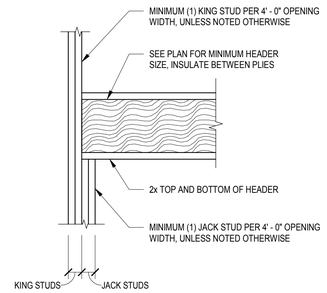
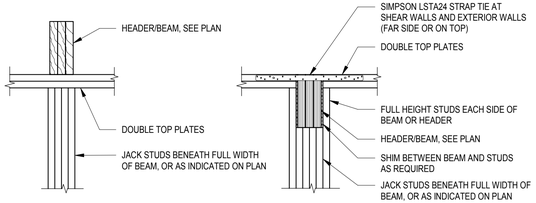
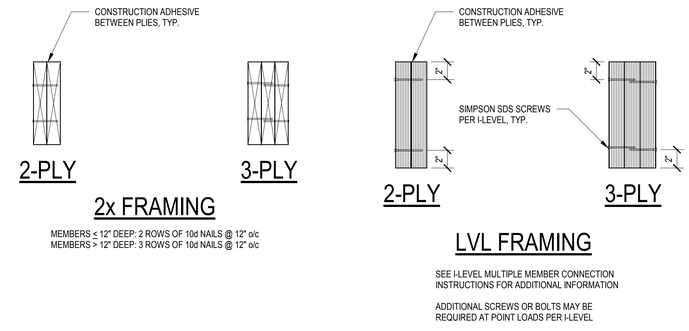


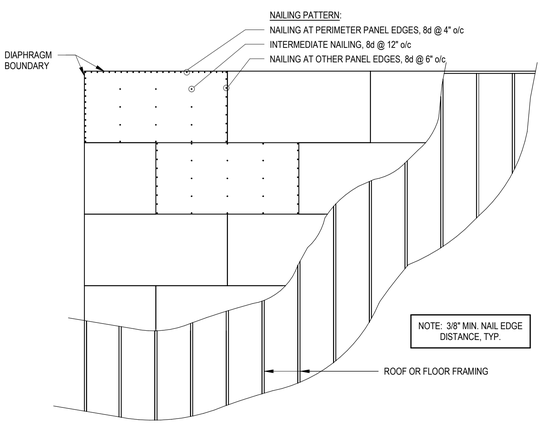
1 TYPICAL WOOD HEADER AT WALL OPENING
3/4" = 1'-0"



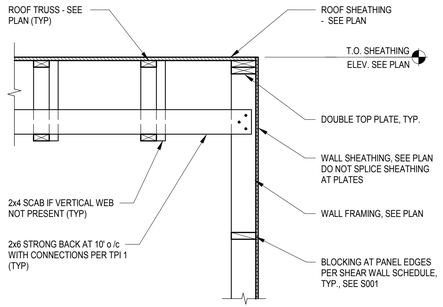
2 TYPICAL WOOD BEAM BEARING PERPENDICULAR TO WALL
3/4" = 1'-0"



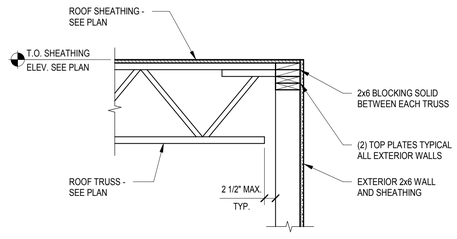
3 TYPICAL MULTI-MEMBER BEAM CONNECTION
1 1/2" = 1'-0"



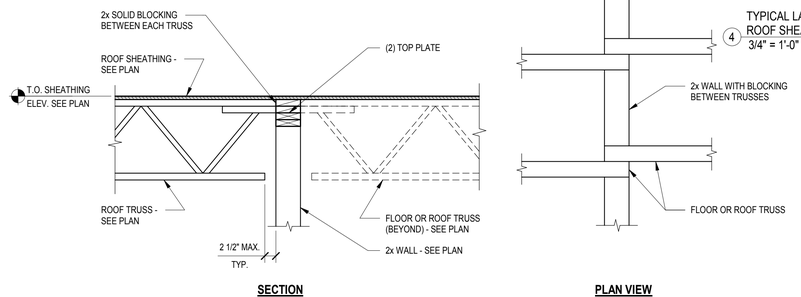
4 TYPICAL LAYOUT AND NAILING FOR FLOOR AND ROOF SHEATHING
3/4" = 1'-0"



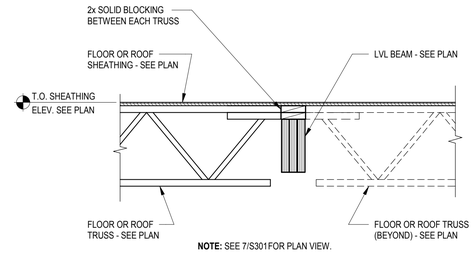
5 TYPICAL ROOF TRUSSES PARALLEL TO EXTERIOR WALL
3/4" = 1'-0"



6 TYPICAL ROOF TRUSS PERPENDICULAR TO EXTERIOR WALL
3/4" = 1'-0"

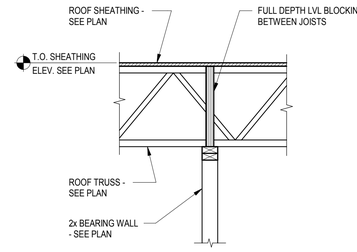


7 TYPICAL ROOF TRUSS AT INTERIOR BEARING WALL
3/4" = 1'-0"

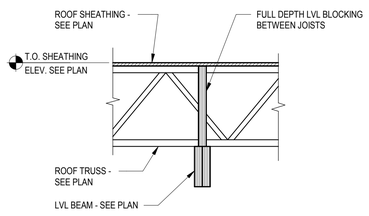


NOTE: SEE 7/S301FOR PLAN VIEW.

8 TYPICAL FLOOR / ROOF TRUSS AT BEAM
3/4" = 1'-0"



9 TYPICAL MID-SPAN BEARING WALL AT ROOF TRUSS
3/4" = 1'-0"



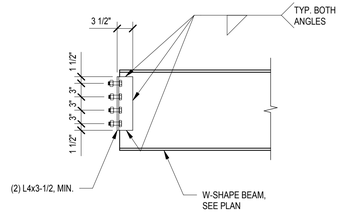
10 TYPICAL MID-SPAN DROPPED BEAM AT ROOF TRUSS
3/4" = 1'-0"

SCHEDULE OF MINIMUM BEAM CONNECTIONS

NOMINAL BEAM DEPTH (NOTE 1)	MINIMUM ROWS OF BOLTS (NOTE 2)	MINIMUM VERTICAL REACTION FOR BEAM CONNECTION, DESIGN, KIPS (NOTE 2)
W6	N = 2	8
W8	N = 2	10
W10	N = 2	12
W12	N = 2	14
W14	N = 3	18
W16	N = 3	24
W18	N = 4	30
W21	N = 4	40
W24	N = 5	50
W27	N = 5	60
W30	N = 6	70
W33	N = 6	80
W36	N = 7	90
-	-	-

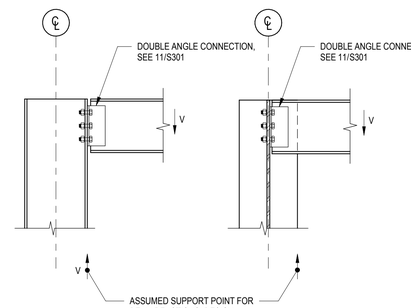
NOTES:
1. MINIMUM REQUIREMENTS FOR CHANNELS AND TUBES AS BEAMS ARE THE SAME FOR WIDE-FLANGE BEAMS OF THE SAME NOMINAL DEPTH.
2. PROVIDE ADDITIONAL BOLTS AS NEEDED TO RESIST THE SPECIFIED CONNECTION FORCES.
3. DESIGN BEAMS CONNECTIONS FOR REACTIONS INDICATED IN THE DRAWINGS. WHERE NO REACTION IS INDICATED, DESIGN FOR THE SCHEDULED MINIMUM REACTION.

11 MINIMUM BEAM CONNECTION SCHEDULE
3/4" = 1'-0"



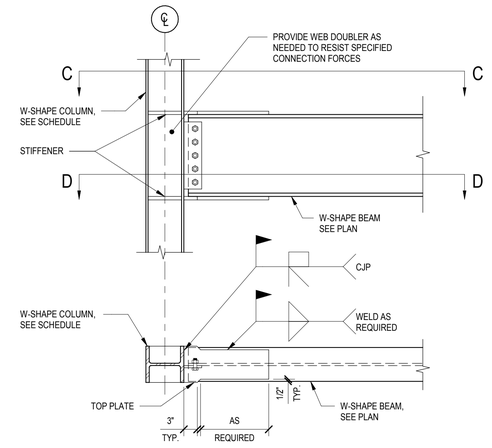
NOTES:
1. NUMBER OF BOLTS SHOWN ARE INDICATIVE ONLY. DESIGN CONNECTION FOR SPECIFIED REACTION.
2. SEE 11/S301 FOR SCHEDULE OF MINIMUM BEAM CONNECTIONS.

12 TYPICAL DOUBLE ANGLE CONNECTION
3/4" = 1'-0"

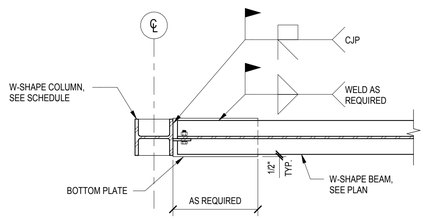


NOTES:
1. NUMBER OF BOLTS SHOWN ARE INDICATIVE ONLY. DESIGN CONNECTION FOR SPECIFIED REACTION.
2. SEE 11/S301 FOR SCHEDULE OF MINIMUM BEAM CONNECTIONS.

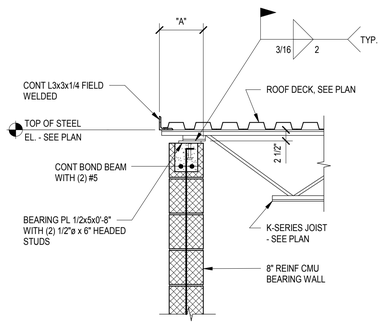
13 TYPICAL STEEL BEAM TO WIDE FLANGE COLUMN CONNECTION
3/4" = 1'-0"



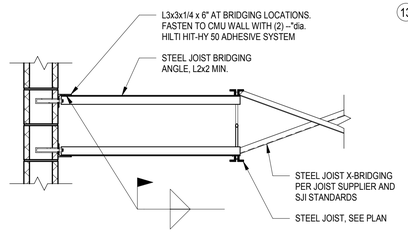
NOTES:
1. PROPORTION WELDS, PLATES, STIFFENERS AND WEB DOUBLERS FOR SPECIFIED MOMENT AND SHEAR. WHERE MOMENT IS NOT INDICATED, DESIGN FOR FULL MOMENT CAPACITY OF BEAM.



14 TYPICAL MOMENT CONNECTION AT W-SHAPE COLUMN
3/4" = 1'-0"



15 TYPICAL STEEL JOIST BEARING ON CMU WALL
3/4" = 1'-0"



16 TYPICAL STEEL JOIST BRIDGING AT CMU WALL
3/4" = 1'-0"

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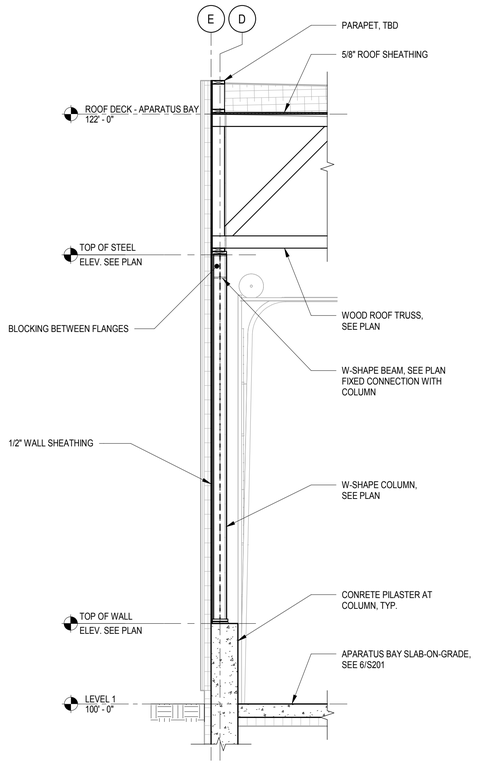
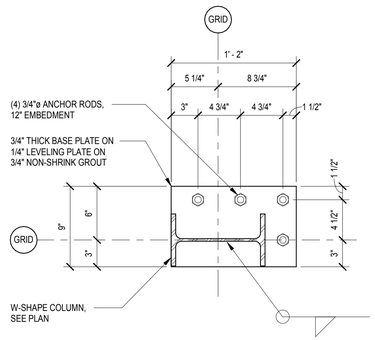
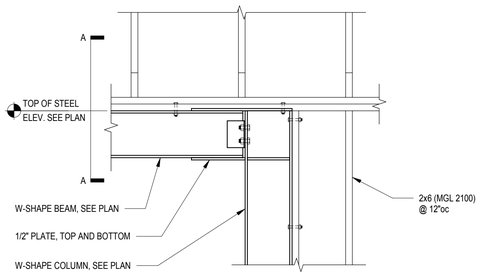
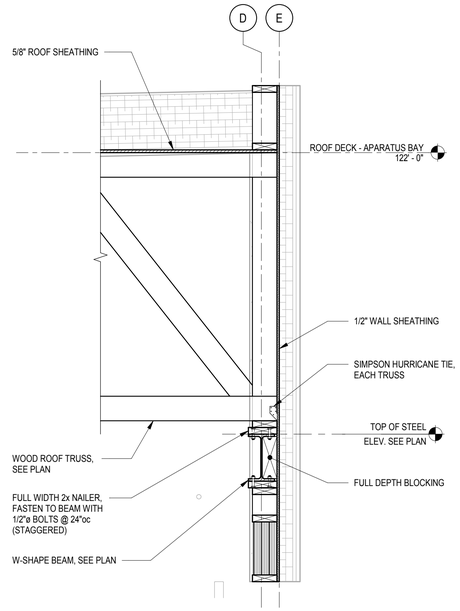


1 SECTION AT MOMENT FRAME COLUMN
3/8" = 1'-0"

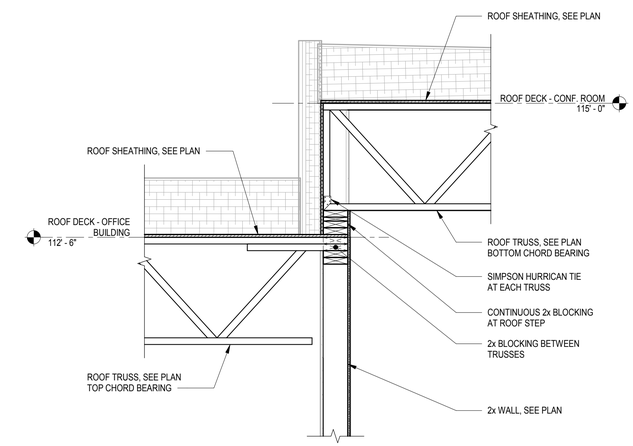


2 BASE PLATE DETAIL
1 1/2" = 1'-0"

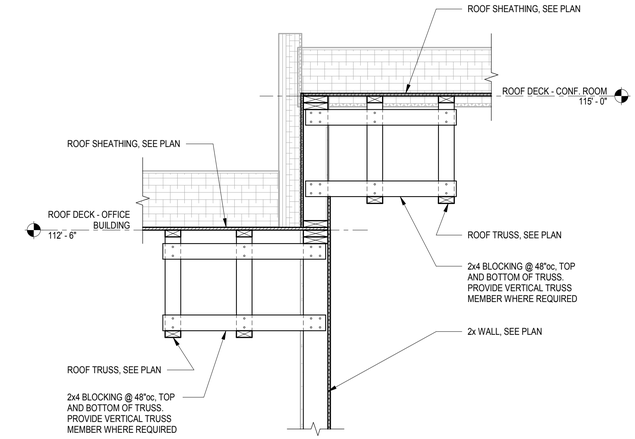




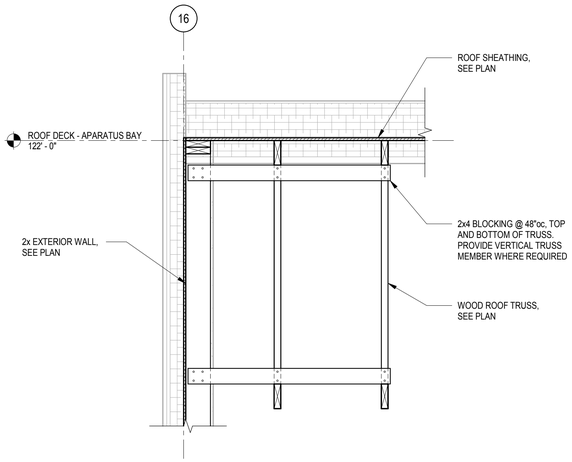
3 W-SHAPE BEAM / COLUMN
3/4" = 1'-0"



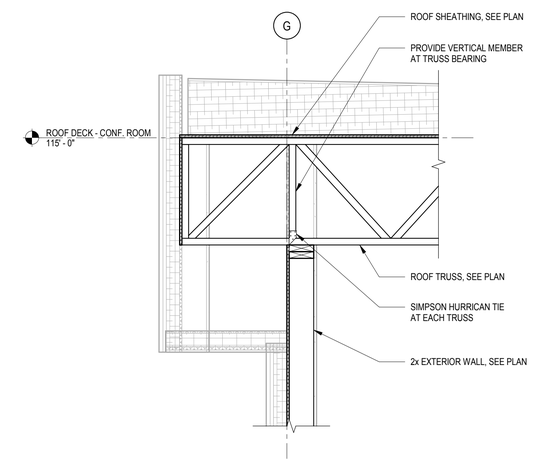
4 SECTION AT CONFERENCE ROOM / OFFICE ROOF
3/4" = 1'-0"



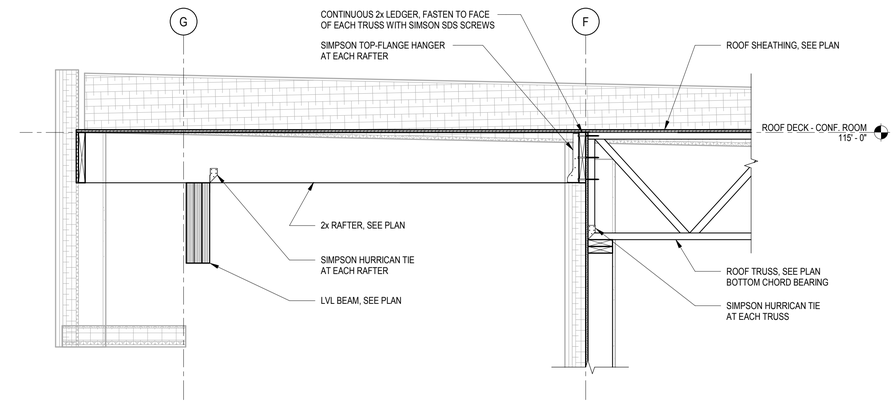
5 SECTION AT CONFERENCE ROOM / OFFICE ROOF
3/4" = 1'-0"



6 SECTION AT APARATUS BAY ROOF
3/4" = 1'-0"



7 SECTION AT CONFERENCE ROOM ROOF
3/4" = 1'-0"



8 SECTION AT CONFERENCE ROOM ROOF
3/4" = 1'-0"

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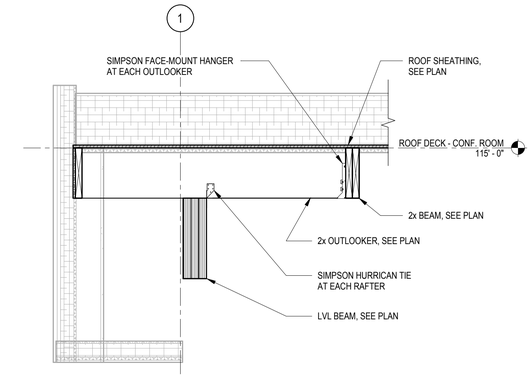
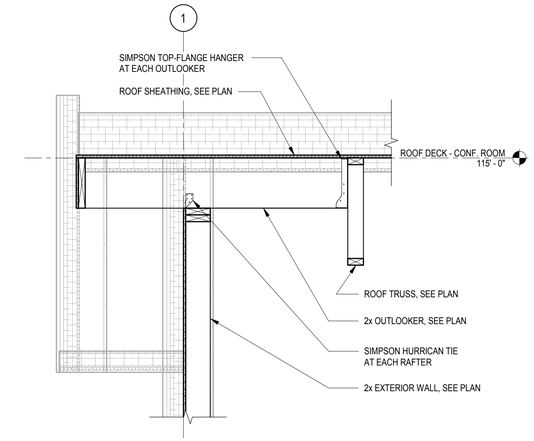


1 SECTION AT CONFERENCE ROOM ROOF
3/4" = 1'-0"



2 SECTION AT CONFERENCE ROOM ROOF
3/4" = 1'-0"

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