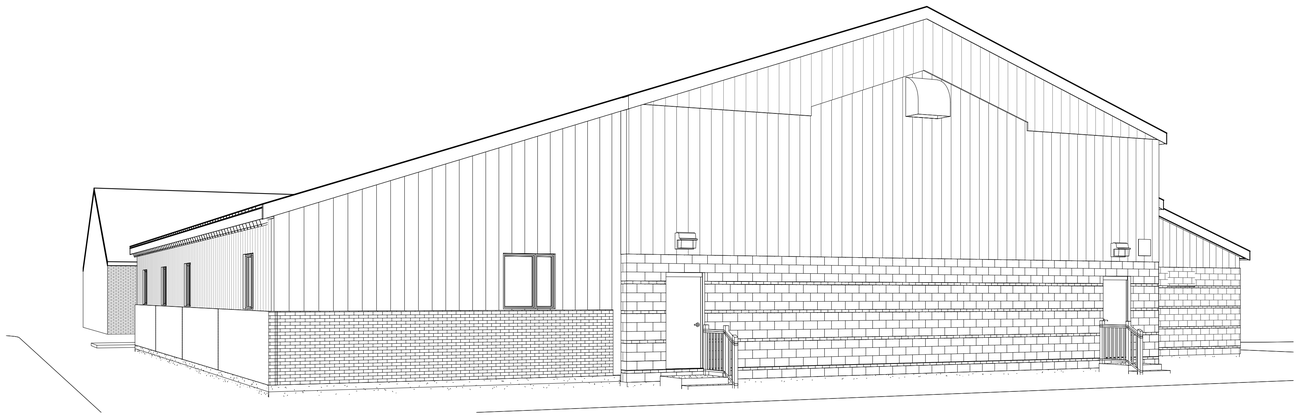

3 CHINA MIDDLE SCHOOL

SET SHEETS- GENERAL		
NUMBER	NAME	DATE
G-000	TITLE SHEET	
G-001	GENERAL NOTES	
G-100	CODE ANALYSIS	
G-200	WORK AREA	

SET SHEETS- CIVIL		
NUMBER	NAME	DATE
C-101	PROPOSED SITE PLAN	

SET SHEETS- STRUCTURAL		
NUMBER	NAME	DATE
S1.0	GENERAL NOTES	
S1.1	FOUNDATION PLAN	
S1.2	ROOF FRAMING PLAN	
S2.1	FOUNDATION SECTIONS & DETAILS	
S3.1	FRAMING SECTIONS & DETAILS	

SET SHEETS- ARCHITECTURAL		
NUMBER	NAME	DATE
A-010	INTERIOR WALLS	
A-011	EXTERIOR WALLS	
A-020	ROOF AND CEILING ASSEMBLIES	
A-021	FLOOR ASSEMBLIES	
A-040	AXONOMETRICS	
A-041	GYM AXONOMETRICS	
A-110	DEMOLITION PLAN AND ELEVATION	
A-111	REFLECTED CEILING DEMOLITION PLAN	
A-120	ROOF DEMOLITION	
A-150	DEMO/NEW OVERLAY	
A-210	KEY PLAN	
A-211	FLOOR PLANS	
A-220	ROOF PLAN	
A-300	REFLECTED CEILING PLAN	
A-400	ELEVATIONS	
A-401	SECTIONS	
A-410	INTERIOR ELEVATIONS	
A-411	INTERIOR ELEVATIONS	
A-412	INTERIOR ELEVATIONS	
A-413	INTERIOR ELEVATIONS	
A-414	INTERIOR ELEVATIONS	
A-500	WALL SECTIONS	
A-501	WALL SECTIONS	
A-502	WALL SECTIONS	
A-600	TYPICAL DIMENSIONS AND ENLARGED PLANS	
A-700	DETAILS	
A-701	DETAILS	
A-702	DETAILS	
A-703	DETAILS	
A-704	DETAILS	
A-800	OPENINGS	
A-801	OPENINGS	
A-900	FIRST FLOOR FINISHES	
A-920	SIGNAGE	

SET SHEETS- PLUMBING		
NUMBER	NAME	DATE
P-000	PLUMBING AND HVAC NOTES, LEGEND AND ABBREVIATIONS	
PD-100	PLUMBING DEMOLITION	
PL-100	SANITARY PIPING	
PL-200	DOMESTIC PIPING	

SET SHEETS- MECHANICAL		
NUMBER	NAME	DATE
MD-100	MECHANICAL DEMOLITION	
MD-200	MECHANICAL PIPING DEMOLITION	
MH-100	MECHANICAL	
MH-600	MECHANICAL SCHEDULES	
MP-100	MECHANICAL PIPING	

SET SHEETS- ELECTRICAL		
NUMBER	NAME	DATE
E-100	ELECTRICAL NOTES, LEGENDS AND ABBREVIATIONS	
ED-100	ELECTRICAL DEMOLITION PLAN	
EL-100	LIGHTING PLAN	
EL-501	LIGHTING DETAILS	
EP-100	POWER PLAN	
EP-501	ELECTRICAL SCHEDULES	
ES-100	ELECTRICAL SITE PLAN	
EY-100	SYSTEMS PLAN	

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8 APR 2019
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TITLE SHEET

G-000

2 GOOGLE EARTH IMAGE
12" = 1'-0"

1 PROJECT LOCATION
12" = 1'-0"

PROJECT TEAM
12" = 1'-0"

CLIENT:
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41 HEATH STREET
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STRUCTURAL ENGINEER:
BECKER STRUCTURAL ENGINEERS
75 YORK STREET
PORTLAND ME 04101
CONTACT: ETHAN RHILE, P.E
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CIVIL ENGINEER:
CES, INC.
465 S MAIN ST,
BREWER, ME 04412
CONTACT: TRAVIS NOYES
207.989.4824
TNOYES@CESINCUSA.COM

THIS IS A 24 X 36 SHEET.

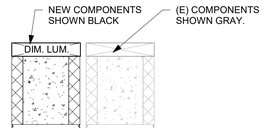
C:\Users\Mike 2\Documents\CMS 2019 March 30_Mike 2.rvt

SPECIFIED COMPONENTS LEGEND	
Key Value	Keynote Text
03 15 00.A2	JOINT FILLER
03 31 00.B2	CONCRETE
04 05 00.B1	ANCHOR
04 05 00.C1	MORTAR NET
04 20 00.B1	VENEER BRICK
04 20 00.C1	CMU
05 12 00.L0	TUBE SHAPE
05 12 00.M0	W SHAPE
05 12 00.O1	STEEL .250
05 40 00.C1	CFMF ANGLE
05 40 00.E2	CFMF STUD
05 40 00.G1	SLOTTED CHANNEL
05 52 13.A1	PIPE RAIL
05 75 00.A1	MESH, ST. STL.
06 10 00.A1	DIM. LUM.
06 10 00.A3	WD. FURRING
06 16 00.D1	GYP. SHEATHING .500
06 16 00.H2	PLY, 1/2"
06 16 00.H4	PLY, 3/4"
06 41 00.C1	COAT HOOK
06 43 00.D1	WD. RAIL BRACKET
06 60 00.A1	SOL. SURF.
07 21 00.D1	2.0 PCF SPRAY FOAM
07 21 00.D2	XPS INSUL.
07 21 00.D3	POLYISO INSUL.
07 21 00.E1	INSUL. BUCK
07 25 00.A5	VAPOR BARRIER
07 25 00.B1	UNDERLAYMENT
07 25 00.C1	SEAL TAPE
07 31 00.A1	ASPHALT SHINGLES
07 42 00.A1	MTL WALL PANEL
07 42 00.D1	PANEL TRIM
07 42 00.D2	PANEL CLOSURE
07 46 00.A8	EXT 5/4 TRIM
07 46 00.B1	LAP SIDING
07 46 00.B3	VINYL TRIM
07 53 00.A1	EPDM
07 62 00.A6	FLASHING
07 62 00.B2	ROOF FLASHING
07 62 00.B3	WALL FLASHING
07 62 00.C3	GUTTER
07 84 00.A1	FIRE STOPPING
07 92 00.A1	SEALANT
07 92 00.B1	SEALANT AND BACKER
07 92 00.C2	FOAM TAPE
08 11 13.A1	H.M DOOR
08 11 13.D2	H.M FRAME
08 33 00.A2	FIRE SHUTTER
08 35 00.B1	ACCORDION DOOR
08 51 00.A2	STEEL WINDOW
08 54 13.A2	VINYL WINDOW
09 22 16.A1	METAL STUDS
09 24 00.A2	CEM. PLASTER
09 29 00.D1	5/8" GWB
09 51 00.A5	A.C.T.
09 65 00.A1	RES. SHT.
09 65 00.A5	VINYL SHT.
09 65 00.B1	RES. BASE
09 72 00.D1	VINYL FLOORING
09 72 00.D3	CAP STRIP
10 14 00.A1	ROOM SIGN
10 26 00.A1	CORN. GRD
10 51 00.B1	BENCH
11 61 00.A1	STAGE CURTAIN
11 65 00.C1	GYM CURTAIN
22 11 00.B1	WATER PIPE
22 14 00.B1	FNDN DRAIN
22 40 00.A16	SINK
23 37 00.B1	REGISTER
23 82 00.A2	FTR
33 46 00.C1	DRAIN FABRIC

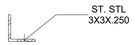
DETAIL COMPONENTS
MATERIAL
#2 SPF
(E) 1 X TRIM
(E) #2 SPF
(E) #2SPF
(E) A36
(E) ACT
(E) ALUMINUM
(E) ANGLE
(E) BEAM
(E) BRICK VENEER
(E) CFMF STUD
(E) CFMF TRACK
(E) CMU
(E) CMU VENEER
(E) CONCRETE
(E) DRIP EDGE
(E) EPDM
(E) FLASHING
(E) GLASS
(E) GWB
(E) GYPSUM SHEATHING
(E) HARDBOARD
(E) HSS
(E) METAL TRACK
(E) MTL STUD
(E) MTL. PNL.
(E) PLYWOOD
(E) ST. STL
(E) T1-11
(E) TECTUM
2 PCF SPF
ACCORDION DOOR
ACCORDION TRACK
AIR BARRIER
ASPHALT SHINGLE
BRICK VENEER
CARPET
CFMF
CFMF STUD
CFMF TRACK
CLAPBOARD
CMU
COAT HOOK
CONCRETE
CRUSHED STONE
DRAIN FABRIC
EARTH
EPDM

DETAIL COMPONENTS
MATERIAL
EPDM FLASHING
EPS
FERROUS METAL
FLASHING
FLOOR DRAIN
GALV. STL
GLASS
GWB
GYM FLOOR
GYP. SHEATH.
HARDBOARD
MASONRY
MDF
METAL
METAL PANEL
METAL STUD
MORTAR NET
MTL STUD
MTL TRACK
NON-FERROUS METAL
P1750
P1843
PARALAM
PINE
PLY
PLYWOOD
POLYISO INSUL.
POLYISO. INSUL.
POROUS FILL
PTSP
PVC
RIGID INSULATION
SAND
SC-1
SEALANT
SHEET VINYL
SOLID SURFACE
SPF
ST. STL
STEEL
STEEL UNISTRUT
STL. BOLT
T&G FIR
THREADED ROD
TJI
UNDERLAYMENT
VAPOR BARRIER
WATER PIPE
WING NUT ANCHOR
WOOD
XPS

PROJECT MATERIALS
Material: Description
#2 SPF
(E) BRICK
(E) CMU
(E) FRAMING
(E) GWB
(E) GYP SHTHG
(E) MTL PNL
(E) MTL STUDS
AIR GAP
ASPHALT
BRICK
CARPET TILE
CFMF
CMU
CONCRETE
EPDM
FIB. CEM.
GLASS
GWB
GYP SHTHG
H.M
MDF
METAL STUDS
MTL. PANEL
MTL. PNL.
PLY
PLYWOOD
POLYISO
PORCELAIN
SCT
SHEET VINYL
SHINGLES
SHT MTL. PTD.
SPRAY POLYURETHANE
ST. STL.
TECTUM
TEXTURED SHEET VINYL
URETHANE COMP.
VAPOR RETARDER
VINYL
VINYL TILE
XPS INSUL

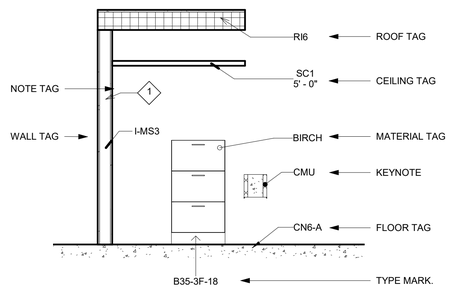


10 NEW/EXISTING DETAIL GRAPHICS
1 1/2" = 1'-0"

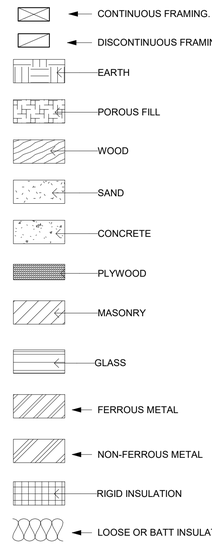


PRIMARY MATERIALS, SUCH AS PLYWOOD, METAL SHAPES, DIMENSIONAL LUMBER, ARE TAGGED BY MATERIAL AND SIZE.

11 PRIMARY MATERIAL NOTING
1 1/2" = 1'-0"



7 LEADER TYPES
1/2" = 1'-0"



PHASE PREFIX	FUNCTION PREFIX	SEPARATER	CORE MATERIAL	CORE THICKNESS	SEPARATER	TYPE SUFFIX	MEANING
(E)							EXISTING
	I	-					INTERIOR
	X	-					EXTERIOR
	C	-					CORE
	R	-					RETAINING
	F	-					FOUNDATION
	S	-					SOFFIT
			BR	NUMBER	-	LETTER	BRICK
			CD	NUMBER	-	LETTER	COMPOSITE DECK
			CN	NUMBER	-	LETTER	CONCRETE
			CP	NUMBER	-	LETTER	CONCRETE PLANK
			CM	NUMBER	-	LETTER	CLAY MASONRY
			CW	NUMBER	-	LETTER	CURTAINWALL
			DL	NUMBER	-	LETTER	DIMENSION LUMBER
			EL	NUMBER	-	LETTER	ENGINEERED LUMBER
			IF	NUMBER	-	LETTER	INSULATED CONCRETE FORM
			IP	NUMBER	-	LETTER	STRUCTURAL INSULATED PANEL
			MD	NUMBER	-	LETTER	METAL DECK
			MS	NUMBER	-	LETTER	METAL STUDS
			MF	NUMBER	-	LETTER	COLD FORMED METAL FRAMING
			SC	NUMBER	-	LETTER	SUSPENDED CEILING
			SM	NUMBER	-	LETTER	STONE MASONRY
			UM	NUMBER	-	LETTER	UNIT MASONRY
			WT	NUMBER	-	LETTER	WOOD TIMBER
				SEPARATER	SERIES		
			*F	-	NUMBER		VENEER FLOORING
			*C	-	NUMBER		VENEER CEILING
			*R	-	NUMBER		VENEER ROOF
			*W	-	NUMBER		VENEER WALL

9 ASSEMBLY NAMING
12" = 1'-0"

5 MATERIAL GRAPHICS
1 1/2" = 1'-0"

EXISTING TO REMAIN.
EXISTING TO REMOVE.

2 DEMOLITION WALL GRAPHICS
1/4" = 1'-0"

NEW WALLS
EXISTING WALLS

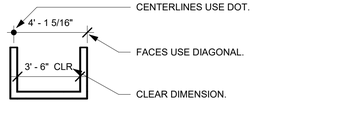
3 NEW CONSTRUCTION WALL GRAPHICS
1/4" = 1'-0"

3 / X0 — BUILDING SECTION
1 / X0 — WALL SECTION
2 / X0 — ELEVATION

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

AIR BARRIER (ALIGNING LINE, 4)
CENTERLINE (CENTER LINE)
EXTENT OF WORK (DASH DOT DOT 1/8"
60-MINUTE (DASH, 7)
90-MINUTE (DASH DOT, 7
120-MINUTE (DASH DOT DOT, 7)
MEASURED DISTANCE (DOT 1/16", 3
CLEAR SPACE (DOT, 4)

6 SPECIAL LINE STYLES
1/2" = 1'-0"



DIMENSIONS ARE TO FACE OF WALL FINISH UNLESS NOTED.

8 DIMENSION NOTES
1/4" = 1'-0"

ABBREVIATION	MEANING
(E)	EXISTING
(N)	NEW
(P)	PROTECT AND REINSTALL
(R)	REMOVE
(S)	SALVAGE
ACX	PLYWOOD GRADE ACX
ADJ	ADJUSTABLE
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
B.O...	BOTTOM OF
BLDG	BUILDING
BS*	BACKING SYSTEM, SEE DETAILS.
C.L	CENTERLINE
CDX	PLYWOOD GRADE CDX
CFMF	COLD FORMED METAL FRAMING
CLG	CEILING
CLO	CLOSET
CLR	CLEAR
CMP	COMPOSITE METAL PANEL
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CONT	CONTINUOUS
CP*	CARPET
CPT*	CARPET TILE
CT*	CERAMIC TILE
CTR	CENTER
CTSK	COUNTERSINK
DATA	DATA OUTLET
DBL	DOUBLE
DIST	DISTANCE
DUP	DUPLEX CONVENIENCE OUTLET
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
EP*	EXTERIOR PAINT
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EQ	EQUAL
ERU	ENERGY RECOVERY UNIT
F.O...	FACE OF
FA	FIRE ALARM
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FIN	FINISH
FLR	FLOOR
FSW	FLOWING SEA WATER
FTG	FOOTING
FTR	FIN TUB RADIATOR
FU	FURNACE UNIT
GA	GAUGE
GALV	GALAVANIZED
GB*	GRAB BAR
GFI	GROUND FAULT INTERRUPT
GSM	GALVANIZED SHEET METAL
GWB	GYPSUM WALL BOARD
HB	HOSE BIBB
HDWD	HARDWOOD
HM	HOLLOW METAL
HR	HOUR
HR	HOUR
IBC	INTERNATIONAL BUILDING CODE
ID	INSIDE DIAMETER
IF(O)	INSIDE FACE (OF)
IP*	INTERIOR PAINT
JAN.	JANITOR
JBOX	JUNCTION BOX
JT	JOINT
LVL	LAMINATED VENEER LUMBER
M/E/P	MECHANICAL/ELECTRICAL/PLUMBING
MAX.	MAXIMUM
MB*	MARKER BOARD
MDF	MEDIUM DENSITY FIBERBOARD
MIN	MINIMUM
MIN	MINUTE
MJ	MOVEMENT JOINT
MTD	MOUNTED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
OA	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF(O)	OUTSIDE FACE (OF)
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
OH	OPPOSITE HAND
PEN	PENETRATION
PERP	PERPENDICULAR
PL*	PLASTIC LAMINATE
PLY	PLYWOOD
PM	POWER MONUMENT
PMD	PLUG MOLD
PS*	PROJECTION SCREEN
PSL	PARALLEL STRAND LUMBER
QCO	QUAD CONVENIENCE OUTLET
R.O	ROUGH OPENING
RB	RUBBER BASE
RD	ROOF DRAIN
RF*	RESINOUS FLOOR
RFT*	RESILIENT FLOOR TILE
RJ*	REVEAL JOINT
RS*	RESILIENT SHEET
RS*	ROOM SIGN
RWL	RAIN WATER LEADER
SC-*	SUSPENDED CEILING
SD	SHOWER DRAIN
SIM	SIMILAR
SPLIT	SPLIT DATA/PHONE JACK
ST STL	STAINLESS STEEL
T.O...	TOP OF
TB*	TACK BOARD
TEL	TELEPHONE
TGM*	TEMPERED GLASS MIRROR
TPO	THERMOPLASTIC POLYOLEFIN
TT	TERRAZZO TILE
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UV	UNIT VENTILATOR
WF*	WOOD FLOORING
WO	WHERE OCCURS
WRC	WESTERN RED CEDAR
WS*	WORK SURFACE
WT*	WINDOW TREATMENT

1. SEE ADDITIONAL ABBREVIATIONS ON ELECTRICAL, STRUCTURAL AND MECHANICAL DRAWINGS
2. ABBREVIATIONS ENDING IN * INDICATE SCHEDULED ITEMS, SUCH AS INTERIOR PAINT (IP1, IP2..)
3. SEE CASEWORK TYPES FOR CASEWORK NOMENCLATURE
4. SEE WALL TYPES FOR WALL NOMENCLATURE

1 ABBREVIATIONS
12" = 1'-0"

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CHINA MIDDLE SCHOOL ADDITION

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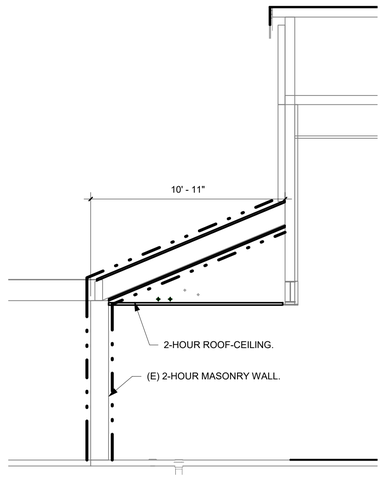
8 APR 2019
4/8/2019 9:14:30 AM

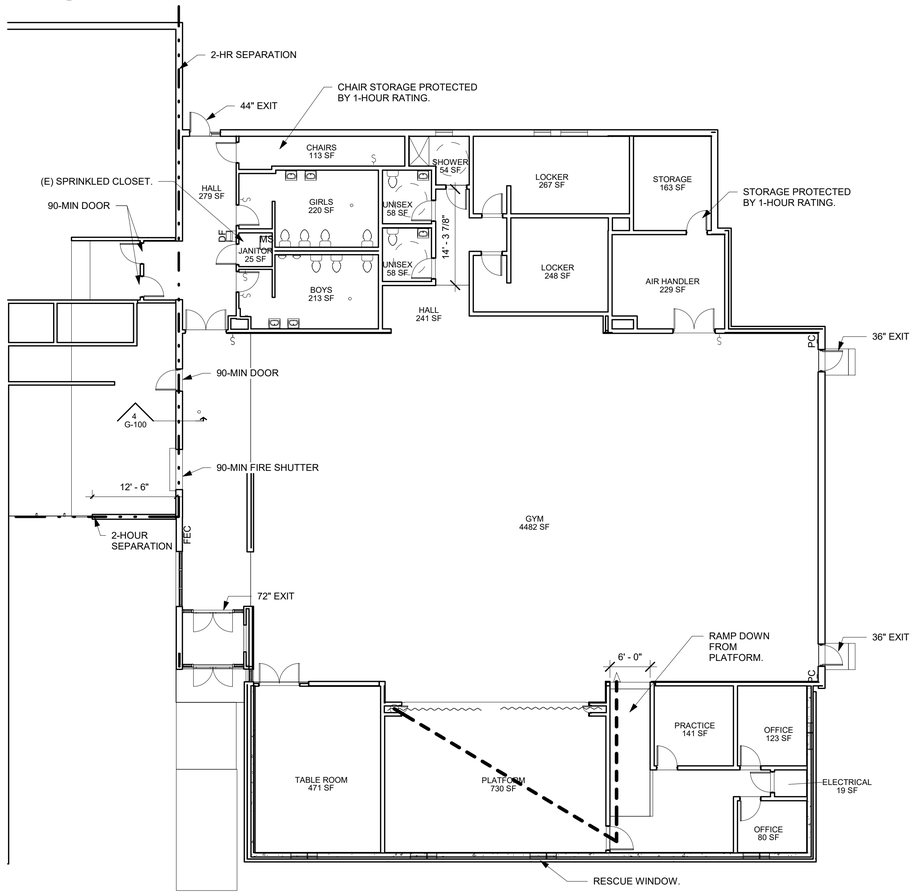
GENERAL NOTES

G-001

00 OCCUPANT LOAD					
LEVEL	AREA	NAME	NUMBER	FEET PER PERSON	OCCUPANT LOAD
FLOOR 1	248 SF	LOCKER	119	0	
FLOOR 1	229 SF	AIR HANDLER	120	0	
FLOOR 1	163 SF	STORAGE	120A	0	
FLOOR 1	267 SF	LOCKER	118	0	
FLOOR 1	58 SF	UNISEX	116	0	
FLOOR 1	58 SF	UNISEX	115	0	
FLOOR 1	213 SF	BOYS	113	0	
FLOOR 1	220 SF	GIRLS	112	0	
FLOOR 1	241 SF	HALL	114	0	
FLOOR 1	4482 SF	GYM	100	7	640.353976
FLOOR 1	279 SF	HALL	110	0	
FLOOR 1	25 SF	JANITOR	121	0	
FLOOR 1	471 SF	TABLE ROOM	106	0	
FLOOR 1	54 SF	SHOWER	117	0	
FLOOR 1	113 SF	CHAIRS	111	0	
FLOOR 1	427 SF	HALL	123		
FLOOR 1	657 SF	KITCHEN	124		
PLATFORM	80 SF	OFFICE	104	100	0.799757
PLATFORM	141 SF	PRACTICE	102	20	7.026015
PLATFORM	123 SF	OFFICE	103	100	1.22816
PLATFORM	730 SF	PLATFORM	105	15	48.696935
PLATFORM	19 SF	ELECTRICAL	103A	0	
PLATFORM	205 SF	INSTRUMENTS	136		
PLATFORM	123 SF	HALL	101		
Grand total: 24	9627 SF				698.104842



4 FIRE SEPARATION
G-100 1/4" = 1'-0"



3 FLOOR 1 LIFE SAFETY
A-401 3/32" = 1'-0"

NFPA 101-2009		
Chapter 14, New Educational Occupancies		
1.6	Minimum construction requirements	None.
1.7	According to Table 7.3.1.2	See occupant load table.
2.1.2	Rooms occupied by Pre-K/K/1	Building is single story
2.3.2	Minimum corridor width	6 feet at ramp
2.5.3.2	Common path of travel less than 75'	See egress path table
2.5.5	Intervening room	Travel distance from room to exit door is less than 75 feet. Hazardous materials not present. Gym has fire detection
2.6	Travel distance	Less than 150 feet
2.8	Means of egress illumination	Required
2.9	Emergency lighting	Required
2.11.1	Windows for rescue	Required in rooms greater than 250 square feet
3.2.1	Rooms or spaces for storage	Storage and janitor closet protected by 1-hour fire resistance rating
3.2.3	Platform	No construction requirements. No storage or access underneath.
3.3.2	Interior wall and ceiling finish	Class A at exits, Class and or B elsewhere.
3.3.3	Interior floor finish	Wood allowed at platform. Class II elsewhere.
3.4.2	Detection and Alarm systems	Manual pull stations required. Automatic detection required in gym (intervening room).
3.4.3	Notification	Automatic notification required.
3.5.1	Sprinkler required for buildings over 20,000 s.f	2-hour fire separation used to limit size to less than 20,000 s.f in area of work.
3.6	Corridors	Not applicable

2 EDUCATIONAL OCCUPANCY ANALYSIS
12" = 1'-0"

00 EGRESS PATHS		
TYPE	SEGMENT	DISTANCE
Path of Travel: 01 Start	PATH 1A	38' - 7 7/16"
Path of Travel: 03 End	PATH 1B	23' - 9 13/16"
Grand total: 2		62' - 5 1/4"

Nominal	Actual	Quantity	Load Factor	Occupants
36-inch doors	34	2	0.2	340
44-inch	42	1	0.2	210
72-inch	70.5	1	0.2	352.5
			Total	902.5

1 EXIT DOOR CAPACITY
12" = 1'-0"

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STATE OF MAINE

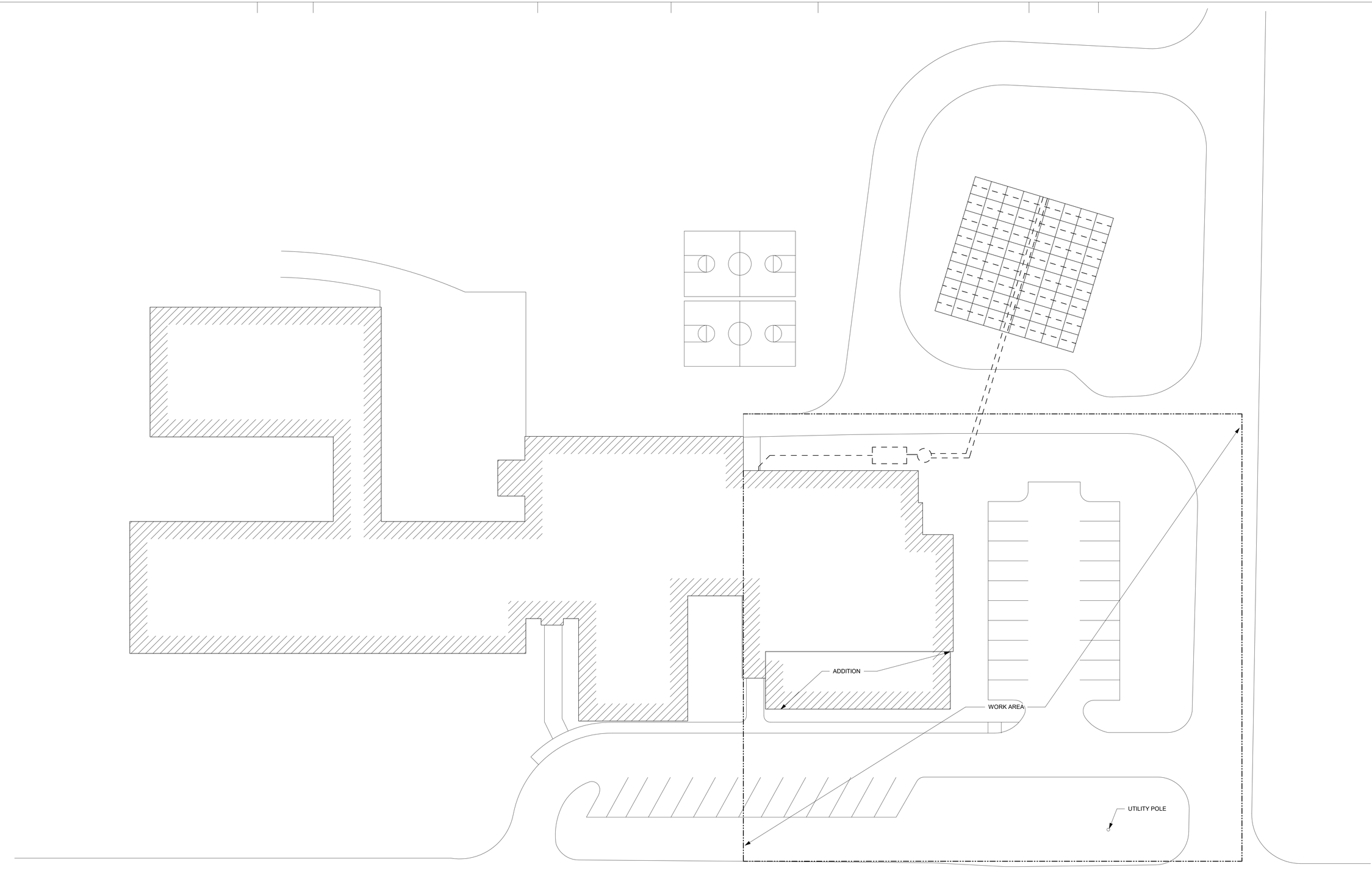
RSU 18

CHINA MIDDLE SCHOOL ADDITION

BIDDING
8 APR 2019
4/8/2019 9:14:32 AM

CODE ANALYSIS

G-100



1 SITE PLAN
1" = 20'-0"

SEALANDER ARCHITECTS
79 Main Street, Suite C
Ellsworth ME 04605
207.266.5822

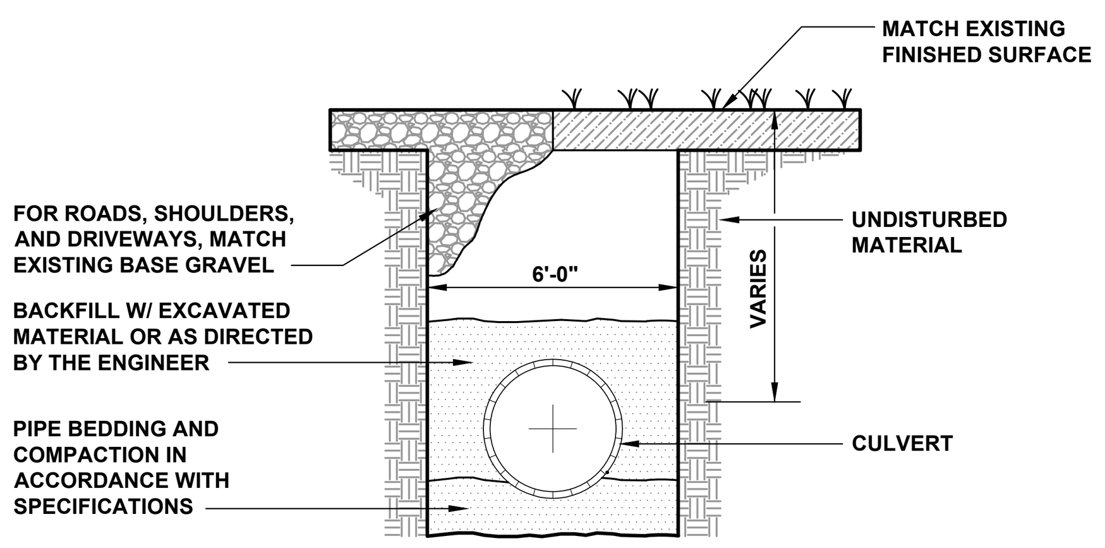
LICENSED ARCHITECT
MICHAEL SEALANDER
3414
Exp. 6.30.2019
STATE OF MAINE

RSU 18
CHINA MIDDLE SCHOOL ADDITION

BIDDING
8 APR 2019
4/8/2019 9:14:32 AM

WORK AREA

G-200

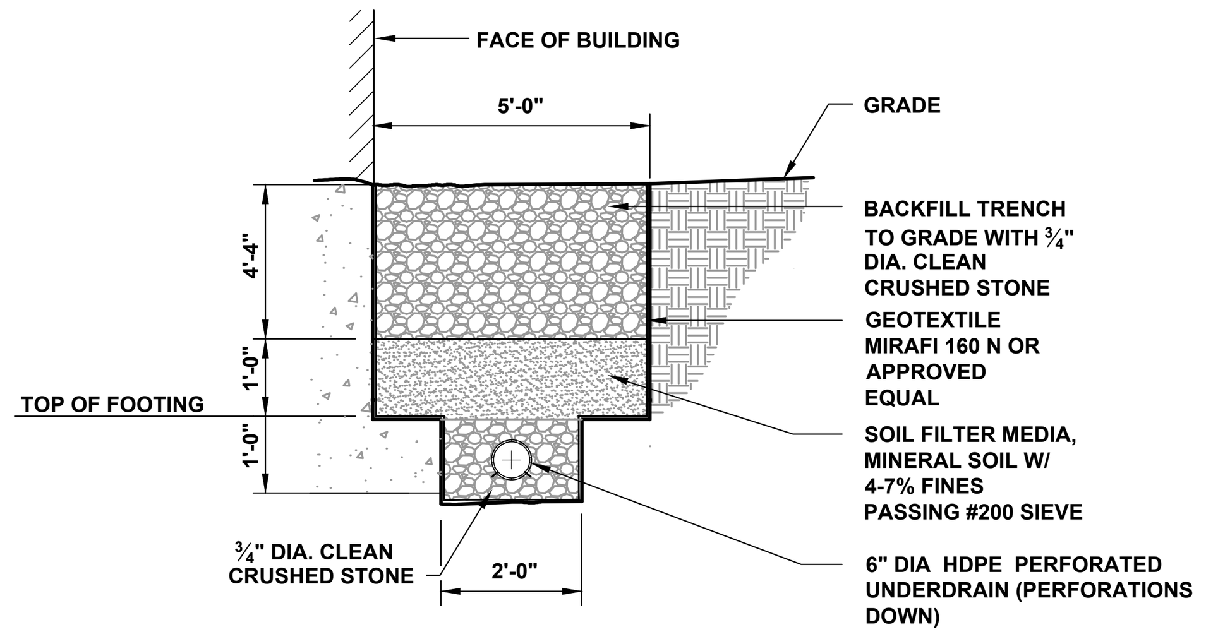


NOTE:

1. PAYMENT LIMITS SHALL BE 6' WIDE (3' EACH SIDE OF CULVERT)

TYPICAL CULVERT TRENCH DETAIL

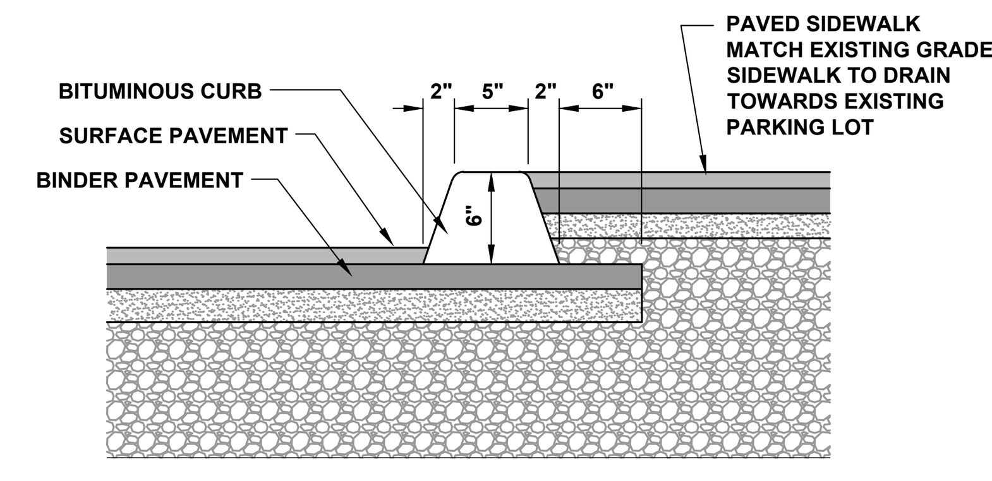
N.T.S.



NOTE:
1. COORDINATE PIPE DEPTH WITH FOUNDATION DRAWINGS. PIPE DEPTH TO BE FIELD VERIFIED AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
2. PIPE TO SERVE AS BOTH ROOF DRIP EDGE FILTER AND FOUNDATION DRAIN ON THE NORTHWEST SIDE OF THE ADDITION.
3. CONNECT TO EXISTING FOUNDATION PERIMETER DRAINS.

ROOF DRIP EDGE FILTRATION DETAIL

N.T.S.

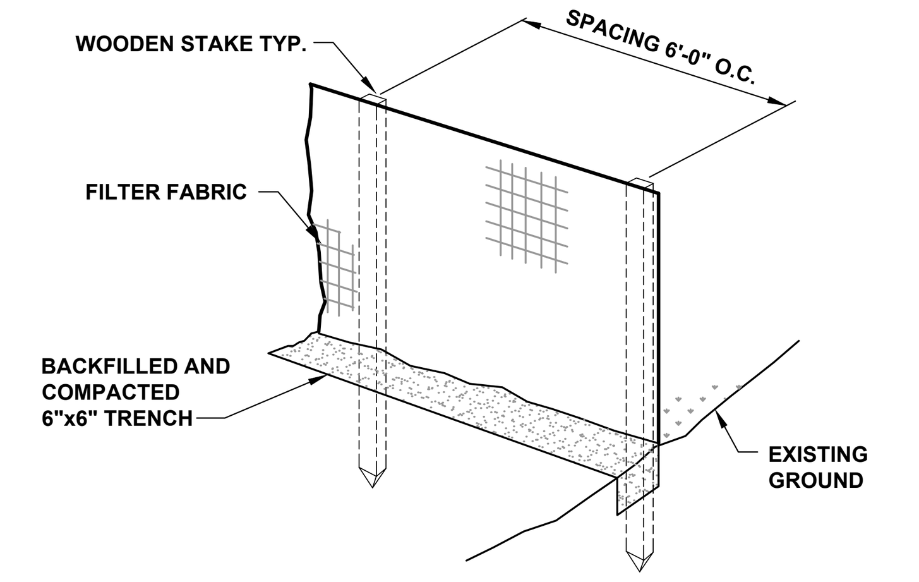


NOTES:

1. MATCH EXISTING BUILDUP OF ADJACENT SURFACES WHERE REPLACING ITEMS DISTURBED DURING CONSTRUCTION.

BITUMINOUS CURB AT SIDEWALK DETAIL

N.T.S.



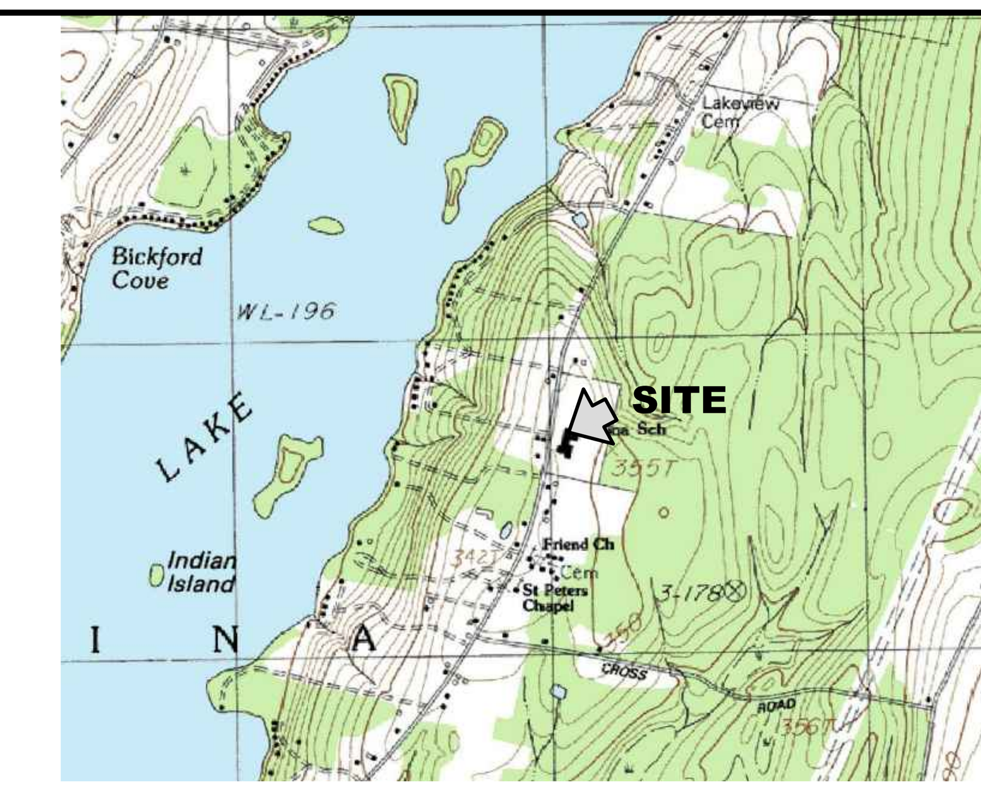
NOTES:

1. KEY FABRIC IN A 6"x6" TRENCH W/BACKFILL AND COMPACT.

2. SILT FENCE SHALL BE A 3' FENCE WITH A MINIMUM GRAB STRENGTH OF 120 LBS.

SILT FENCE DETAIL

N.T.S.



LOCATION MAP: USGS QUADRANGLE: CHINA LAKE MAPTECH® USGS TOPOGRAPHIC SERIES™, ©MAPTECH®, INC. 978-933-3000 WWW.MAPTECH.COM/TOPO

SCALE: 1"=2000'

Brewer
465 South Main Street
PO Box 639
Brewer, ME
T.207-989-4824
F.207-989-4881

Bar Harbor
1366 State Hwy 102
Bar Harbor, ME
T.207-288-0587
F.207-288-0588

Lewiston
640 Main Street
Lewiston, ME
T.207-795-6009
F.207-795-6128

Machias
61 Dublin Street
PO Box 587
Machias, ME
T.207-255-3270
F.207-255-8367

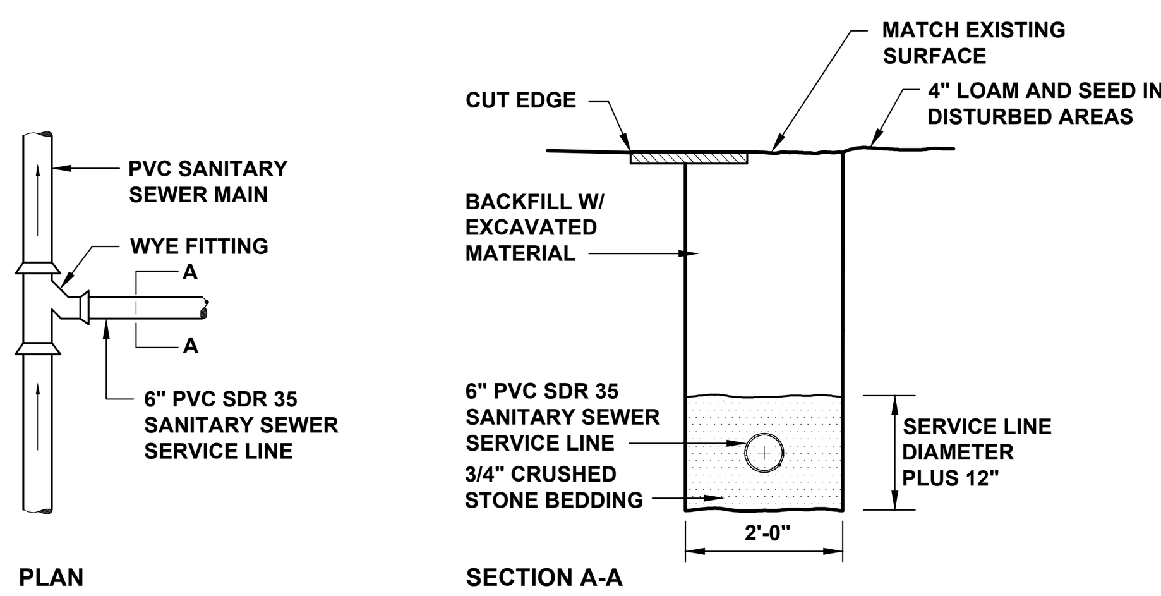
Presque Isle
549 Main Street
PO Box 827
Presque Isle, ME
T.207-764-8412
F.207-764-8414

Waterville
44 Main Street
Suite 204
Waterville, ME
T.207-680-2202
F.207-680-2204

Saco
146 Main Street
Suite 300
Saco, ME
T.207-283-9151
F.207-283-9136

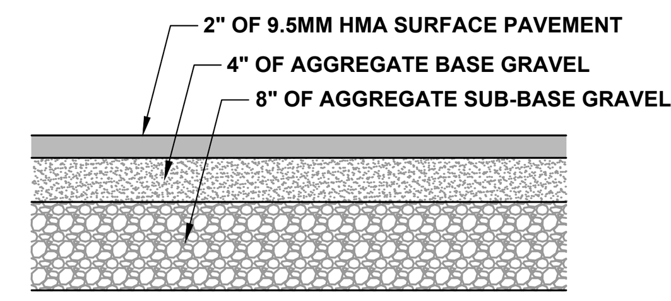
BWLK, a division of CES, Inc.
13041 McGregor Blvd
Fort Myers, FL 33919
T.239-481-1331
F.239-481-1073

CES INC
Engineers • Environmental Scientists • Surveyors



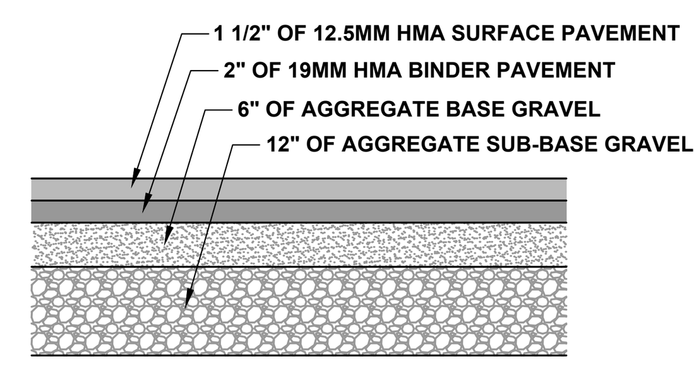
TYPICAL SANITARY SEWER SERVICE DETAIL

N.T.S.



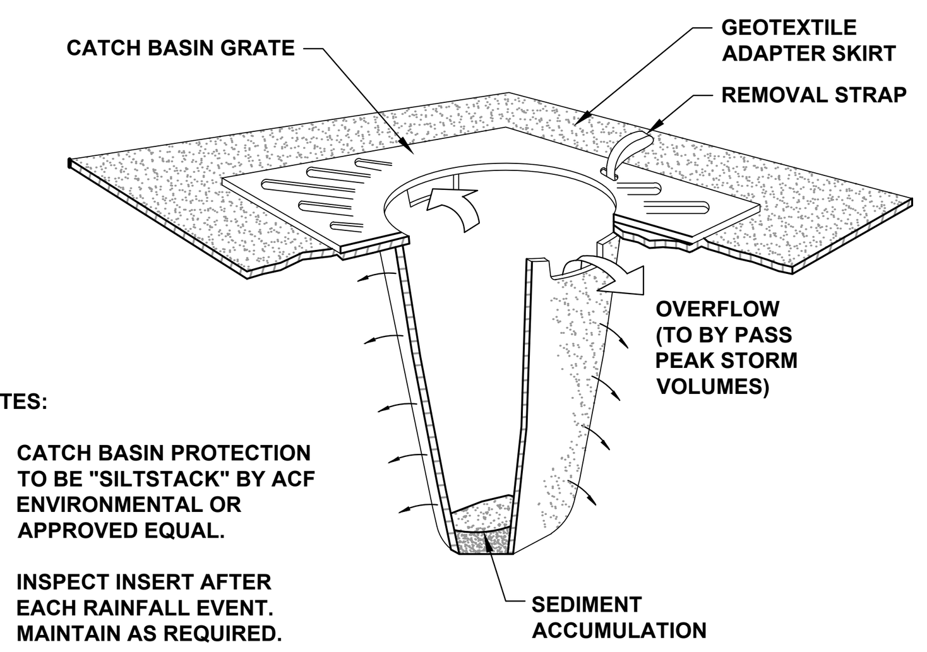
TYPICAL SIDEWALK BUILDUP DETAIL

N.T.S.



TYPICAL PARKING LOT BUILDUP DETAIL

N.T.S.



NOTES:

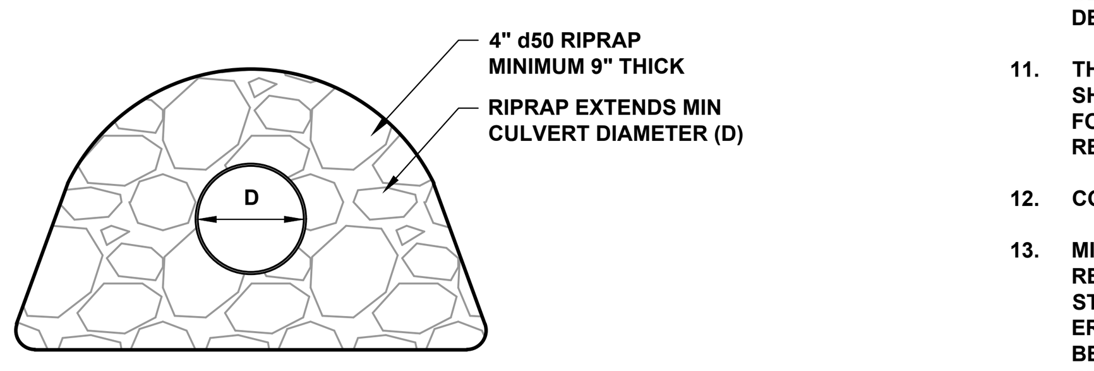
1. CATCH BASIN PROTECTION TO BE "SILTSTACK" BY ACF ENVIRONMENTAL OR APPROVED EQUAL.

2. INSPECT INSERT AFTER EACH RAINFALL EVENT. MAINTAIN AS REQUIRED.

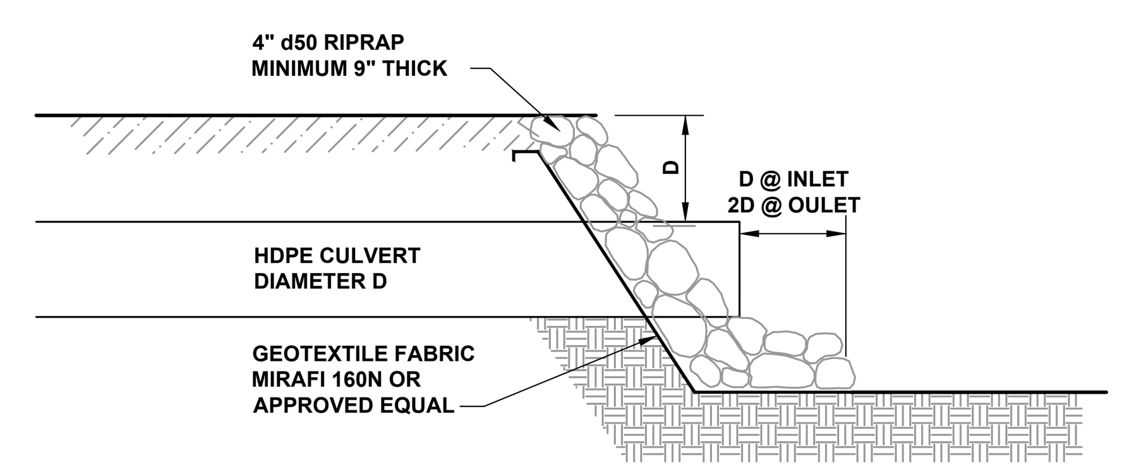
3. SEDIMENT WITHIN INSERT SHALL BE EMPTIED WHEN 1/2 FULL.

SEDIMENT SACK INLET PROTECTION DETAIL

N.T.S.



ELEVATION



PROFILE VIEW

TYPICAL CULVERT INLET/OUTLET PROTECTION DETAIL

N.T.S.

EROSION CONTROL NOTES

1. ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENTATION CONTROL BEST MANAGEMENT PRACTICES (BMPS), PUBLISHED BY THE BUREAU OF LAND AND WATER QUALITY, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST EDITION.

2. SILT FENCE WILL BE INSPECTED, REPLACED AND/OR REPAIRED IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT OR LOSS OF SERVICEABILITY DUE TO SEDIMENT ACCUMULATION. AT A MINIMUM, ALL EROSION CONTROL DEVICES WILL BE OBSERVED WEEKLY.

3. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO CONSTRUCTION SITE.

4. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE STABILIZED BY A SUITABLE GROWTH OF GRASS. ONCE A SUITABLE GROWTH OF GRASS HAS BEEN OBTAINED, ALL TEMPORARY EROSION CONTROL ITEMS SHALL BE REMOVED BY THE CONTRACTOR. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THEY ARE REMOVED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, SEEDED, AND MULCHED IMMEDIATELY.

5. ALL DISTURBED AREAS WILL BE SEEDED WITH 2.5 LBS. RED FESCUE AND 0.5 LBS. RYE GRASS PER 1,000 SQUARE FEET AND MULCHED AT A RATE OF 90 LBS. PER 1,000 SQUARE FEET OR EQUIVALENT APPLICATION OF SEED AND MULCH.

6. A SUITABLE BINDER SUCH AS CURASOL OR TERRTACK WILL BE USED ON THE HAY MULCH FOR WIND CONTROL.

7. IF FINAL SEEDING OF DISTURBED AREAS IS NOT COMPLETED BY SEPTEMBER 15th OF THE YEAR OF CONSTRUCTION, THEN ON THAT DATE THESE AREAS WILL BE GRADED AND SEEDED WITH WINTER RYE AT THE RATE OF 112 POUNDS PER ACRE OR 3 POUNDS PER 1000 SQUARE FEET. THE RYE SEEDING WILL BE PRECEDED BY AN APPLICATION OF 3 TONS OF LIME AND 800 LBS. OF 10-20-20 FERTILIZER OR ITS EQUIVALENT. MULCH WILL BE APPLIED AT A RATE OF 90 POUNDS PER 1000 SQUARE FEET.

8. IF THE RYE SEEDING CANNOT BE COMPLETED BY OCTOBER 1st OR IF THE RYE DOES NOT MAKE ADEQUATE GROWTH BY DECEMBER 1st, THEN ON THOSE DATES, HAY MULCH WILL BE APPLIED AT 150 POUNDS PER 1000 SQUARE FEET.

9. ALL CATCH BASINS ARE TO BE PROTECTED BY STRAW BALE OR SILTFENCE IN ACCORDANCE WITH SECTION B-3 STORM DRAIN INLET PROTECTION OF THE MAINE BMP HANDBOOK. SURROUNDING AREAS CAN BE EXCAVATED OR LEFT LOW AS A SEDIMENT TRAP. CURB INLETS SHALL BE PROTECTED BY GUTTERGATORS, OR APPROVED EQUIVALENT.

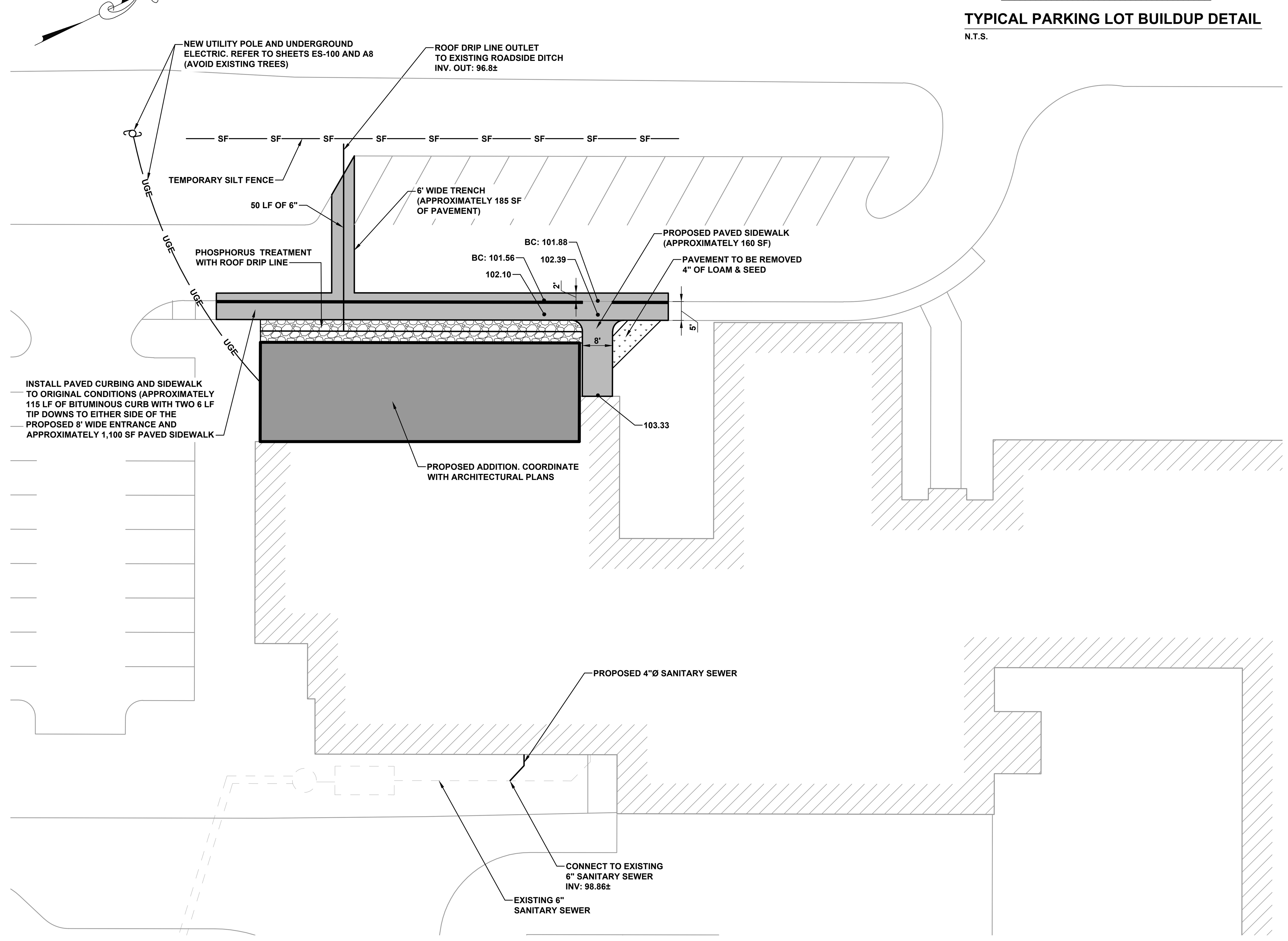
10. INTERIOR SILT FENCES ALONG CONTOUR DIVIDING FLAT AND STEEP SLOPES, AREAS WITH DIFFERENT DISTURBANCE SCHEDULES, AROUND TEMPORARY STOCKPILES OR IN OTHER UNSPECIFIED POSSIBLE CIRCUMSTANCES SHOULD BE CONSIDERED BY THE CONTRACTOR. THE INTENT OF SUCH INTERIOR SILT FENCES IS TO LIMIT SEDIMENT TRANSPORT WITHIN THE SITE TOWARD THE PROTECTED CATCH BASIN INLETS TO MINIMIZE SEDIMENT REMOVAL REQUIRED BY THE EROSION CONTROL NOTE 9 PROTECTIONS AND EXTEND LIFE OF SUCH DEVICES.

11. THE CONTRACTOR SHALL PROVIDE A SEDIMENT BASIN FOR ALL WATER PUMPED FROM EXCAVATIONS. BASIN SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES". THE CONTRACTOR SHALL SUBMIT FOR REVIEW/APPROVAL PRIOR TO BEGINNING ANY PROJECT WORK.

12. CONTRACTOR TO PROVIDE SEDIMENT SACKS IN ALL EXISTING BASINS PRIOR TO CONSTRUCTION.

13. MINIMUM EROSION CONTROL MEASURES WILL NEED TO BE IMPLEMENTED AND THE CONTRACTOR WILL BE RESPONSIBLE TO MAINTAIN ALL COMPONENTS OF THE EROSION CONTROL PLAN UNTIL THE SITE IS FULLY STABILIZED. HOWEVER, BASED ON SITE AND WEATHER CONDITIONS DURING CONSTRUCTION, ADDITIONAL EROSION CONTROL MEASURES MAY NEED TO BE IMPLEMENTED. ALL AREAS OF INSTABILITY AND EROSION MUST BE REPAIRED IMMEDIATELY DURING CONSTRUCTION AND NEED TO BE MAINTAINED UNTIL THE SITE IS FULLY STABILIZED OR VEGETATION IS ESTABLISHED. A CONSTRUCTION LOG MUST BE MAINTAINED FOR THE EROSION AND SEDIMENTATION CONTROL INSPECTIONS AND MAINTENANCE

CONTRACTOR WILL BE RESPONSIBLE FOR FOLLOWING PROCEDURES FOUND IN THE "MAINE EROSION AND SEDIMENT CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS" (PUBLISHED MARCH 2015). THE PUBLICATION CAN BE FOUND AT: HTTP://WWW.MAINE.GOV/DEP/LAND/EROSION/ESCBMPS/INDEX.HTML



P:\11395-SEALANDER_ARCHITECTS\002-CHINA MID SCH-SITE DESIGN-CTM\02-CAD_DRAWINGS\CIVIL\DSGN_DWGS\11395.002-C-SP.DWG, 4/8/2019 12:53 PM

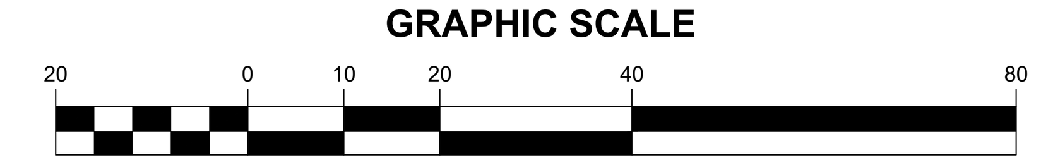
PLAN REFERENCE:

1. BASE PLAN IS A SITE PLAN DRAWING BY PLYMOUTH ENGINEERING, DATED, JULY 21, 1998.

2. EXISTING TOPOGRAPHY FROM SITE PLAN BY REA ASSOCIATES / ARCHITECTS DATED AUGUST 9, 1985. INFORMATION FIELD VERIFIED BY CES, INC. ON MARCH 25, 2019.

PROPOSED SITE PLAN
FOR
CHINA MIDDLE SCHOOL
CHINA, MAINE

GRAPHIC SCALE



(IN FEET)
1 inch = 20 ft.

PROJECT TITLE
CHINA MIDDLE SCHOOL
CHINA, MAINE

SHEET TITLE
PROPOSED SITE PLAN

REV.	DESCRIPTION	DATE	DRAWN BY	CHECKED BY
R1				
R2				
R3				
R4				
R5				
R6				
R7				

ISSUE STATUS
ISSUED FOR BID

STATE OF MAINE
CHRISTOPHER T. MICHAUD
No. 12674
04/08/2019
LICENSED
PROFESSIONAL ENGINEER

SCALE	1"=20'		
DATE	2019-04-08		
DRAWN BY	WAB	CHECKED BY	CTM
DESIGNED BY	CTM	APPROVED BY	TEN
JOB NUMBER	11395.002		
DRAWING NUMBER	C101		

GENERAL NOTES

1. THE NOTES ON THESE DRAWINGS ARE NOT INTENDED TO REPLACE SPECIFICATIONS. SEE SPECIFICATIONS FOR REQUIREMENTS IN ADDITION TO GENERAL NOTES. INCONSISTENCIES BETWEEN THESE DRAWINGS AND THE SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.

2. EDITIONS OF MATERIAL STANDARDS REFERENCED ON THIS DRAWING SHALL BE AS INDICATED IN THE BUILDING CODES.

4. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ALL OTHER PROJECT DRAWINGS AND SPECIFICATIONS. CONSULT ALL OTHER CONTRACT DOCUMENTS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, REGLETS, SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.

5. ALL DIMENSIONS, EXISTING CONDITIONS, AND AS-BUILT CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER BEFORE PROCEEDING WITH THE EFFECTED PART OF THE WORK. EXISTING CONDITION INFORMATION SHOWN IN THE DRAWINGS ARE BASED ON "CHINA MIDDLE SCHOOL, ADDITIONS AND ALTERATIONS, SCHOOL UNION #52", BY REA/ASSOCIATES ARCHITECTS, DATED 1985. ALL CONDITIONS TO BE V.I.F.

6. SECTIONS AND DETAILS SHOWN ON ANY STRUCTURAL DRAWINGS SHALL BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS AS DETERMINED BY THE STRUCTURAL ENGINEER. THE STRUCTURAL ENGINEER RESERVES THE RIGHT TO INTERPRET DETAILS TO ADDRESS OTHER PROJECT CONDITIONS.

7. ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.

8. THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE ONLY AFTER THE STRUCTURAL WORK CONTAINED IN THE STRUCTURAL DRAWINGS IS COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS, OR TIE-DOWNS. SUCH MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.

9. REFERENCE THE PROJECT SPECIFICATIONS FOR SUBMITTAL AND TESTING REQUIREMENTS.

DESIGN LOADS

1. BUILDING CODE:
   MAINE UNIFORM BUILDING AND ENERGY CODE
   INTERNATIONAL BUILDING CODE (IBC), 2015 EDITION
   INTERNATIONAL EXISTING BUILDING CODE (IEBC), 2015 EDITION
   ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, RISK CATEGORY III

2. DESIGN FLOOR LIVE LOADS: — UNIFORM / CONCENTRATED
   - ROOF — DESIGN GOVERNED BY SNOW
   - SCHOOL-CLASSROOM — 40 PSF / 1,000 LBS
   - SCHOOL-FIRST FLOOR CORRIDOR — 80 PSF / 1,000 LBS
   - STAIR & EXITS WAY — 100 PSF / 1,000 LBS

   LIVE LOAD HAVE BEEN REDUCED WHERE ALLOWED IN ACCORDANCE WITH IBC 2015 SECTION 1607.10 AND ASCE 7-10 SECTION 4.7.

3. DESIGN ROOF SNOW LOAD:
   - GROUND SNOW LOAD (Pg): 70 PSF
   - SNOW EXPOSURE FACTOR (Ce): 1.0
   - SNOW LOAD IMPORTANCE FACTOR (Is): 1.1
   - SNOW LOAD THERMAL FACTOR (Ct): 1.1
   - FLAT ROOF SNOW LOAD (Pf): 60 PSF

4. DESIGN WIND LOAD:
   - ULTIMATE DESIGN WIND SPEED (VULT): 120 MPH
   - NOMINAL DESIGN WIND SPEED (VASD): 93 MPH
   - WIND EXPOSURE: B
   - INTERNAL PRESSURE COEFFICIENT: ±0.18
   - COMPONENTS & CLADDING PER ASCE 7-10: SEE TABLES THIS SHEET

5. DESIGN SEISMIC LOADS: .
   - EQUIVALENT LATERAL FORCE PROCEDURE
   - SEISMIC IMPORTANCE FACTOR (IE): 1.25
   - MAPPED SPECTRAL RESPONSE ACCELERATIONS: Ss: 0.219; S1: 0.077
   - SEISMIC SITE CLASS: D
   - SPECTRAL RESPONSE COEFFICIENTS: SDS: 0.234; SD1: 0.124
   - SEISMIC DESIGN CATEGORY: B
   - BASIC STRUCTURAL SYSTEM: BEARING WALL SYSTEM
   - BASIC SEISMIC FORCE RESISTING SYSTEM: LIGHT-FRAMED SHEAR WALL (COLD-FORMED STEEL OR WOOD) SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE.
   - RESPONSE MODIFICATION FACTOR (R): X: 6.5; Y: 6.5
   - SEISMIC RESPONSE COEFFICIENT (CS): X: 0.073; Y: 0.073
   - SEISMIC BASE SHEAR (V): X: 14 KIPS; Y: 14 KIPS

6 EXISTING BUILDING:
HORIZONTAL ADDITION STRUCTURALLY ATTACHED ALTERATION LEVEL 2.
LATERAL SYSTEM:
ADDITION IS SELF SUPPORTING: WOOD SHEAR WALL
EXISTING BUILDING: IN MOST LOCATIONS THE LATERAL SYSTEM IS NOT MODIFIED. AT GRIDLINE 1 THE WALL IS REINFORCED TO RESIST REDUCED IBC LEVEL LOADS (LIGHT FRAME SHEAR WALL/COLD FORM STEEL) SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE.

FOUNDATION NOTES

1. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE REPORT ENTITLED "EXPLORATIONS AND GEOTECHNICAL ENGINEERING SERVICES, PROPOSED GYMNASIUM RENOVATION & ADDITION, 773 LAKEVIEW DRIVE, CHINA, MAINE", PREPARED S.W. COLE ENGINEERING, INC., DATED 02/13/2019. THE RECOMMENDATIONS OF THE REPORT ARE PART OF THIS WORK. REFER TO THIS REPORT FOR SPECIFIC RECOMMENDATIONS.

2. FOUNDATION DESIGN IS BASED ON SHALLOW SPREAD FOOTINGS BEARING ON SUITABLE UNDISTURBED NATIVE SOILS AND/OR NEW COMPACTED STRUCTURAL FILL EXTENDING TO UNDISTURBED NATIVE SOIL PER THE REQUIREMENTS OF THE GEOTECHNICAL REPORT. REFER TO THIS REPORT FOR SPECIFIC BEARING RECOMMENDATIONS.

3. ALLOWABLE BEARING CAPACITY 4,500 PSF

4. EXTEND BOTTOM OF EXTERIOR FOOTINGS AT LEAST 5 FEET BELOW THE FINAL EXTERIOR GRADE FOR PROTECTION AGAINST FROST.

5. NO FILL FOR BUILDING SUPPORT SHALL BE PLACED UNTIL SUBGRADES HAVE BEEN OBSERVED AND APPROVED BY THE GEOTECHNICAL ENGINEER.

6. REFERENCE THE GEOTECHNICAL REPORT FOR ALL EXCAVATION, BACKFILL, COMPACTION, CONSTRUCTION DEWATERING AND PERMANENT DRAINAGE REQUIREMENTS.

7. SOILS EXPOSED AT THE BASE OF ALL SATISFACTORY FOUNDATION EXCAVATIONS SHOULD BE PROTECTED AGAINST ANY DETRIMENTAL CHANGE IN CONDITION, SUCH AS DISTURBANCE FROM RAIN OR FROST. SURFACE RUNOFF SHALL BE DRAINED AWAY FROM THE EXCAVATIONS AND NOT BE ALLOWED TO POND. FOUNDATION EXCAVATIONS SHALL BE ADEQUATELY PROTECTED FROM RAINFALL OR FREEZING CONDITIONS. GROUNDWATER SHOULD BE ANTICIPATED FOR EXCAVATIONS AND APPROPRIATE DEWATERING MEASURES SHALL BE EMPLOYED.

8. EXCAVATIONS FOR BUILDING CONSTRUCTION SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS. BRACED EXCAVATIONS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MAINE. DO NOT UNDERMINE EXISTING FOUNDATIONS OF ANY ADJACENT STRUCTURES. REFER TO THE GEOTECHNICAL REPORT FOR ADDITIONAL AND/OR MORE SPECIFIC REQUIREMENTS.

CONCRETE NOTES

1. CONCRETE WORK SHALL CONFORM TO THE ACI "MANUAL OF CONCRETE PRACTICE," INCLUDING BUT NOT LIMITED TO ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE."

2. CONCRETE FOUNDATIONS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,500 PSI. CONCRETE SLABS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI. EXTERIOR SLAB-ON-GRADE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5,000 PSI. ADDITIONAL CONCRETE MIX PERFORMANCE DATA INCLUDING AIR CONTENT, WATER-CEMENT RATIO, AGGREGATE SIZE, SLUMP, ETC. HAS BEEN INCLUDED IN THE PROJECT SPECIFICATIONS. SEE THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

3. CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.

4. REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 DEFORMED BARS AND SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE WITH ACI 315.

5. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 AND SHALL BE PROVIDED IN FLAT SHEETS. LAP TWO SQUARES AT ALL JOINTS AND TIE AT 3'-0" ON CENTER.

6. FIBER REINFORCEMENT SHALL BE TYPE II SYNTHETIC VIRGIN HOMOPOLYMER POLYPROPYLENE FIBERS CONFORMING TO ASTM C1116.

7. MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:
   A. SURFACES CAST AGAINST AND PERMANENTLY IN CONTACT WITH EARTH, 3"
   B. FORMED SURFACES IN CONTACT WITH EARTH OR EXPOSED TO WEATHER:
      #5 BARS AND SMALLER, 1 1/2"
      #6 THROUGH #11 BARS, 2"
   C. SURFACES NOT IN CONTACT WITH EARTH OR EXPOSED TO WEATHER:
      WALLS, SLABS, AND JOISTS #11 AND SMALLER, 1"
      BEAMS, GIRDERS, AND COLUMNS; ALL REINFORCEMENT, 1 1/2"

8. REINFORCEMENT SHALL BE CONTINUOUS AROUND CORNERS AND AT INTERSECTIONS. PROVIDE LAPPED BARS AT NECESSARY SPLICES OR HOOKED BARS AT DISCONTINUOUS ENDS. SEE SCHEDULE FOR REQUIRED REBAR LAP SPLICE LENGTHS.

9. WELDING OF REINFORCEMENT IS NOT PERMITTED, UNLESS SPECIFICALLY INDICATED.

10. CONSTRUCTION AND CONTRACTION JOINTS SHOWN ON DRAWINGS ARE MANDATORY. OMISSIONS, ADDITIONS, OR CHANGES SHALL NOT BE MADE EXCEPT WITH THE SUBMITTAL OF A WRITTEN REQUEST TOGETHER WITH DRAWINGS OF THE PROPOSED JOINT LOCATIONS FOR APPROVAL OF THE STRUCTURAL ENGINEER. WHERE JOINTS ARE NOT SHOWN, OR WHEN ALTERNATE LOCATIONS ARE PROPOSED, DRAWINGS SHOWING LOCATION OF CONSTRUCTION AND CONTRACTION JOINTS AND CONCRETE PLACING SEQUENCE SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO PREPARATION OF THE REINFORCEMENT SHOP DRAWINGS. CONCRETE SHALL BE PLACED WITHOUT HORIZONTAL CONSTRUCTION JOINTS EXCEPT WHERE SHOWN OR NOTED. VERTICAL CONSTRUCTION JOINTS AND STOPS IN CONCRETE BEAMS/GRADE BEAMS SHALL BE MADE AT MIDSPAN OR AT POINTS OF MINIMUM SHEAR, UNLESS NOTED OTHERWISE.

11. SPACING OF CONSTRUCTION OR CONTRACTION JOINTS, UNLESS NOTED OTHERWISE SHALL BE AS FOLLOWS:
   A. FOOTINGS AND WALLS:
      MAX SPACING OF 40'-0" OR 15'-0" FROM ANY CORNER, A MINIMUM OF 72 HOURS SHALL ELAPSE BETWEEN ADJACENT CONCRETE PLACEMENTS. COORDINATE JOINT LOCATIONS WITH VENEER CONTROL JOINT LOCATIONS WHEREVER POSSIBLE.
   B. SLABS ON GRADE
      MAX SPACING IN EACH DIRECTION OF 36xSLAB DEPTH. LIMIT PLAN ASPECT RATIOS TO 1.5.

12. ANCHOR RODS FOR STRUCTURAL STEEL ATTACHMENTS SHALL BE HEADED RODS CONFORMING TO ASTM F1554, GRADE 36 KSI WELDABLE STEEL, UNLESS NOTED OTHERWISE ON DRAWINGS. ANCHOR RODS FOR ATTACHMENT OF SILL PLATES SHALL BE A307, UNLESS NOTED OTHERWISE ON THE DRAWINGS. ANCHOR RODS THAT ARE TO BE IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT-DIPPED GALVANIZED.

13. ALL GROUT BENEATH BASE PLATES & BEARING PLATES SHALL BE 5000-PSI (MIN) NON-SHRINK GROUT.

14. SLAB THICKNESSES INDICATED ON THE DRAWINGS ARE MINIMUMS. PROVIDE SUFFICIENT CONCRETE TO ACCOUNT FOR STRUCTURE DEFLECTION, SUBGRADE FLUCTUATIONS, AND TO OBTAIN THE SPECIFIED SLAB ELEVATION AT THE FLATNESS AND LEVELNESS INDICATED.

15. PROVIDE A 15-MIL POLYOLEFIN VAPOR RETARDER MEETING THE REQUIREMENTS OF ASTM E1745 CLASS A OVER PREPARED SUB BASE (U.N.O). REFERENCE ARCHITECTURAL DRAWINGS AND GEOTECHNICAL REPORT FOR ADDITIONAL REQUIREMENTS AND VAPOR RETARDER LOCATIONS.

16. FOR ALL OPENINGS IN CONCRETE WALLS AND SLABS, PROVIDE SUPPLEMENTAL REINFORCING AROUND OPENING AS SHOWN IN THE TYPICAL DETAILS.

17. PROVIDE PVC SLEEVES WHERE PIPES PASS THROUGH EXTERIOR CONCRETE OR SLABS CAST ON GRADE. ADJACENT SLEEVES SHALL BE SPACED A MINIMUM OF THREE DIAMETERS APART. NO PENETRATIONS SHALL BE MADE THROUGH FOOTINGS WITHOUT WRITTEN PERMISSION FROM ENGINEER.

18. INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AT LEAST 24 HOURS PRIOR TO THE SCHEDULED CONCRETE PLACEMENT. NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OF COMPLETION AT LEAST 24 HOURS PRIOR TO THE SCHEDULED COMPLETION OF THE INSTALLATION OF REINFORCEMENT.

19. ALL ITEMS TO BE EMBEDDED INTO CONCRETE SHALL BE INSTALLED PRIOR TO PLACEMENT OF CONCRETE. PROVIDE ADDITIONAL REINFORCEMENT AND/OR TEMPLATES AS REQUIRED TO ENSURE THE CORRECT POSITIONS OF EMBEDMENTS. "WET SETTING" OF EMBEDMENTS INTO CONCRETE IS STRICTLY PROHIBITED. EMBEDMENTS INCLUDE, BUT NOT BY LIMITATION, REINFORCEMENT, REINFORCING DOWELS, EMBEDDED PLATES, ANCHOR RODS, ANCHOR INSERTS, SLEEVES, LOAD TRANSFER PLATES, DIAMOND DOWELS, AND SHELF BULK HEADS.

STRUCTURAL STEEL NOTES

1. STRUCTURAL STEEL DESIGN, DETAIL, FABRICATION, AND ERECTION SHALL CONFORM TO ANSI/AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND TO ANSI/AISC303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES."

2. STRUCTURAL STEEL SHAPES SHALL CONFORM TO THE FOLLOWING, UNLESS NOTED OTHERWISE:
   A. STEEL PLATES, SHAPES, AND BARS: ASTM A36
   B. WIDE-FLANGE SECTIONS: ASTM A992
   C. HOLLOW STRUCTURAL SECTIONS (HSS): ASTM A500 GR. C
   D. PIPES: ASTM A53 GR. B

3. BOLTED CONNECTIONS SHALL USE 3/4" ASTM F3125, GRADE A325, HIGH STRENGTH BOLTS (U.N.O.), EXCEPT WHERE SLIP CRITICAL CONNECTIONS ARE REQUIRED AND NOTED BY (SC) ON THE DRAWINGS OR AS REQUIRED BY CONNECTION DESIGN.

4. ALL WELDING SHALL CONFORM TO AWS D1.1. ELECTRODES SHALL CONFORM TO AWS A5.1 E70XX SERIES (U.N.O.) WITH PROPER ROD TO PRODUCE OPTIMUM WELD (LOW HYDROGEN).

5. SEE CONCRETE NOTES AND DRAWINGS FOR ANCHOR BOLT INFORMATION.

6. PROVIDE 1/4" THICK LEVELING PLATE AND 3/4" ± OF NON SHRINK GROUT UNDER ALL COLUMN BASE PLATES (U.N.O.). LEVELING PLATES SHALL BE SET AND GROUTED PRIOR TO ERECTING COLUMNS. LEVELING NUTS MAY BE USED AS AN ALTERNATE PROVIDED BASEPLATES ARE SHIMMED IN ACCORDANCE WITH AISC SPECIFICATIONS UNTIL SUCH TIME AS THE BASEPLATE IS GROUTED.

7. PROVIDE 3/8" MINIMUM STIFFENER PLATES EACH SIDE OF BEAM WEB AT BEAMS FRAMING OVER COLUMNS AND AT BEAMS SUPPORTING COLUMNS ABOVE.

8. PROVIDE L 4 x 4 x 1/4 DECK SUPPORT ANGLE AS REQUIRED AT COLUMNS WHERE STRUCTURAL MEMBERS DO NOT FRAME IN AT ALL FOUR SIDES.

9. COAT ALL COLUMNS, BASEPLATES, AND BRACE ELEMENTS ENCASED IN CONCRETE OR BELOW GRADE WITH BITUMINOUS MASTIC ON TNEMEC H.B. TNEMECOL (46-465) COAL TAR PAINT (U.N.O.).

10. PROVIDE ALL MISCELLANEOUS ANGLES, PLATES, ANCHOR BOLTS, ETC. SHOWN ON ARCHITECTURAL DRAWINGS. COORDINATE WITH MISCELLANEOUS METAL FABRICATOR TO ENSURE COMPLETE COVERAGE OF ALL ITEMS.

11. ALL STAIR STRUCTURES AND RAILING ASSEMBLIES SHALL BE DESIGNED BY A SPECIALTY ENGINEER ENGAGED BY THE FABRICATOR. ALL DESIGNS SHALL MEET THE REQUIREMENTS OF THE INDICATED BUILDING CODE. COORDINATE ALL DETAILS WITH THE ARCHITECTURAL DRAWINGS AND SUBMIT COMPLETE FABRICATION DRAWINGS WITH ALL NECESSARY SUPPORTING ENGINEERING CALCULATIONS FOR REVIEW. DRAWINGS AND CALCULATIONS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MAINE.

WOOD FRAMING NOTES

1. WOOD FRAMING WORK SHALL CONFORM TO THE AF&PA NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS) AND WOOD SHEATHING WORK SHALL TO CONFORM TO AMERICAN PLYWOOD ASSOCIATION (APA).

2. DIMENSIONAL LUMBER: NO. 2 GRADE OR BETTER SPRUCE-PINE-FIR (SPF), NGLA GRADED. NELMA GRADED SPF-S WILL NOT BE ACCEPTED AS AN EQUAL SUBSTITUTE. KILN-DRIED OR SEASONED TO 19% MAXIMUM MOISTURE CONTENT.

3. STRUCTURAL COMPOSITE LUMBER: LAMINATED VENEER LUMBER (LVL), PARALLEL STRAND LUMBER (PSL), AND LAMINATED STRAND LUMBER (LSL) BY WEYERHAEUSER, BOISE, OR APPROVED PRODUCTS (SUBMIT DATA). INSTALLATION AND FASTENING OF PLIES ACCORDING TO MANUFACTURER'S DETAILS.

   BEAMS AND HEADERS (LVL & PSL):
   MODULUS OF ELASTICITY (E) = 2,000,000 PSI (MIN)
   ALLOWABLE BENDING STRESS (Fb) = 2,600 PSI (MIN)
   ALLOWABLE SHEAR STRESS (Fv) = 285 PSI (MIN)

   POSTS AND COLUMNS (LVL & PSL):
   E = 1,800,000 PSI (MIN)
   Fb = 2,400 PSI (MIN)
   Fv = 190 PSI (MIN)

4. I-JOISTS AND RIM BOARD FRAMING SYSTEM: MANUFACTURED BY WEYERHAEUSER (TJI), BOISE (BCI), OR APPROVED PRODUCTS (SUBMIT DATA). INSTALLATION AND FASTENING ACCORDING TO MANUFACTURER'S DETAILS.

5. PRESERVATIVE TREATED (PT) LUMBER: NO. 2 GRADE OR BETTER SOUTHERN PINE (SP OR SYP) TREATED WITH MICRONIZED COPPER AZOLE (MCA) OR ALKALINE COPPER QUATERNARY (ACQ). MCA & ACQ PRESERVATIVE CONTENT, 0.15 PCF. USE ONLY HOT-DIP GALVANIZED OR STAINLESS STEEL NAILS AND FASTENERS, OR COATED FASTENERS APPROVED FOR USE IN PT LUMBER AND EXTERIOR APPLICATION.

6. SHEATHING & SUBFLOOR: PLYWOOD OR OSB WOOD STRUCTURAL PANELS STAMPED RATED SHEATHING, EXPOSURE 1. APPLY SHEATHING WITH LONG EDGES AND FACE GRAIN PERPENDICULAR TO FRAMING.

   FLOORS: 3/4 INCH NOMINAL TONGUE & GROOVE (T&G) GLUED TO ALL FRAMING AND USE RING SHANK OR ANNULAR NAILS.
   ROOFS: 5/8 INCH NOMINAL. USE T&G FOR 24" O.C. FRAMING.
   WALLS: 1/2 INCH NOMINAL.

   NAIL SHEATHING AND SUBFLOOR TO ALL FRAMING AND BLOCKING USING GALVANIZED 8d BOX NAILS 0.113"x2 3/8" (MIN) OR BRIGHT 8d COMMON NAILS 0.131"x2 1/2" (MIN) AS FOLLOWS:

   FLOORS: 6" O.C. PANEL EDGES, 12" O.C. WITHIN PANELS.
   ROOFS: 4" O.C. PANEL EDGES, 8" O.C. WITHIN PANELS.
   WALLS: 6" O.C. PANEL EDGES, 12" O.C. WITHIN PANELS (SEE SHEAR WALL SECTIONS AND SCHEDULE FOR NAILING REQUIREMENTS)

7. NAIL BUILT-UP LUMBER BEAMS, HEADERS, AND POSTS AS FOLLOWS:
   BEAMS AND HEADERS: (3) ROWS 12d BOX NAILS (0.128"x3 1/4" MIN) @ 12" O.C. IN EACH PIECE.
   POSTS AND COLUMNS: (2) ROWS 12d BOX NAILS @ 8" O.C. IN EACH PIECE.

8. FASTENING NOT SPECIFIED IN THESE NOTES OR ON THE DRAWINGS SHALL CONFORM TO THE FASTENING SCHEDULE AND TABLES IN IBC OR IRC CODES AS REQUIRED BY THE PROJECT TYPE. FASTENERS SHALL CONFORM TO:

   NAILS: ASTM F1667
   THROUGH BOLTS: ANSI B18.2.1 WITH HEX HEAD & NUT AND WASHER AGAINST WOOD.
   LAG SCREWS: ANSI B18.2.1 WITH HEX HEAD & WASHER.

   HOLE FOR BOLT OR LAG SCREW TO BE 1/32" TO 1/16" LARGER IN DIAMETER THAN BOLT OR LAG SCREW SHANK. LEAD HOLE FOR LAG SCREW THREADS:

   A. 60% TO 75% OF SHANK DIAMETER FOR SP OR SYP, LVL & PSL
   B. 40% TO 70% OF SHANK DIAMETER FOR SPF.

9. ALL WOOD FRAMING CONNECTION HARDWARE (JOIST HANGERS, POST BASES, SHEARWALL HOLDOWNS, ETC) TO BE MANUFACTURED BY SIMPSON STRONG-TIE, OR APPROVED EQUAL (SUBMIT DATA). ALL CONNECTION HARDWARE SHALL BE ZINC COATED G-90 (MIN). CONNECTION HARDWARE USED WITH PRESERVATIVE TREATED LUMBER (PT) AND/OR EXTERIOR APPLICATION SHALL BE GALVANIZED G185 (ZMAX). USE FASTENERS OF SAME MATERIAL & COATING AS CONNECTOR AS SPECIFIED BY MANUFACTURER. REFER TO MANUFACTURER'S LITERATURE FOR PROPER CONNECTOR HANDLING AND INSTALLATION GUIDELINES.

10. FASTENERS USED WITH PT LUMBER AND EXTERIOR EXPOSED FRAMING (OTHER THAN THOSE IN SIMPSON OR EQUAL CONNECTORS) SHALL BE HOT-DIPPED GALVANIZED INCLUDING NUTS AND WASHERS (ASTM A153).

11. LOAD BEARING STUD WALLS CAPPED WITH DOUBLE TOP PLATES HAVING END JOINTS OFFSET OVERLAPPED 4'-0" (MIN) AND NAILED WITH (12) 10d OR 12d SPACED @ 8" O.C. OVERLAP TOP PLATES AT CORNERS AND INTERSECTIONS AND NAIL WITH (4) 10d OR 12d.

12. PROVIDE BLOCKING UNDER POSTS MATCHING SIZE OF POST. PROVIDE POST OF MATCHING MATERIAL AND SIZE UNDERNEATH POST & BLOCKING WHERE ABOVE A STUD WALL (U.N.O.).

13. HOLES IN FRAMING FOR ELECTRICAL, PLUMBING, HEATING, AND MECHANICAL COMPONENTS MUST MEET THE GUIDELINES AND REQUIREMENTS IN THE IBC AND IRC CODES FOR LUMBER. HOLES IN LVL, PSL, LSL, AND I-JOISTS MUST MEET THE GUIDELINES AND REQUIREMENTS OF THE MANUFACTURER.

COMPONENTS & CLADDING NET WIND PRESSURES (PSF)

TRIB AREA (SQ. FT.)	GABLE ROOF 4:12 SLOPE									
	ROOF ZONE 1		ROOF ZONE 2		ROOF ZONE 3		WALL ZONE 4		WALL ZONE 5	
10	14.9	-23.9	14.9	-41.3	14.9	-61	25.9	-28.1	25.9	-34.7
50	11.9	-22.2	11.9	-33.6	11.9	-51.8	23.2	-25.4	23.2	-29.3
100	10.5	-24.5	10.5	-30.3	10.5	-47.9	22	-24.2	22	-24.5

REFERENCE: ASCE 7-10, FIGURE 30.5-1
ROOF TYPE: GABLE ROOF
a=10FT

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CHINA MIDDLE SCHOOL GYM ADDITION

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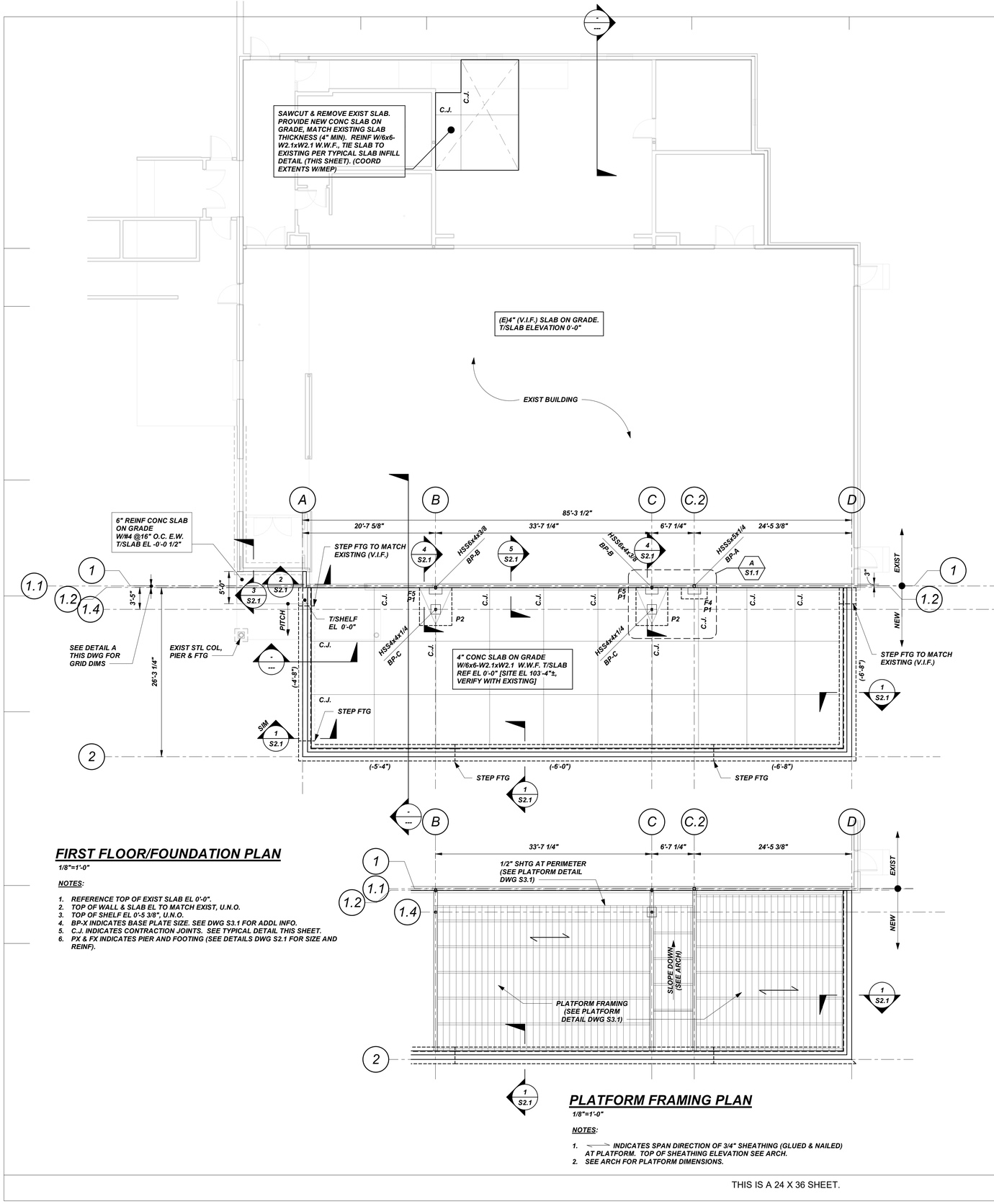
04/08/2019
BSE PROJ: 4439

GENERAL NOTES

S1.0

THIS IS A 24 X 36 SHEET.



FIRST FLOOR/FOUNDATION PLAN

1/8"=1'-0"

NOTES:

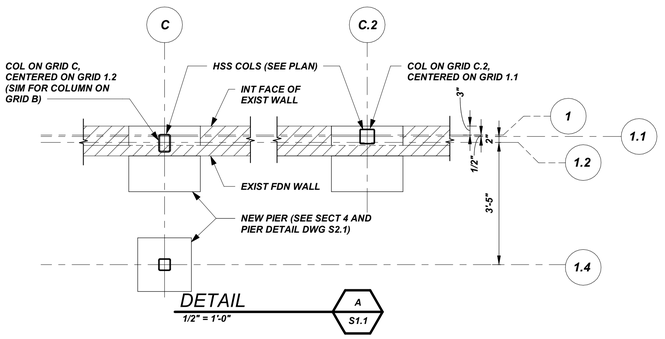
1. REFERENCE TOP OF EXIST SLAB EL 0'-0".
2. TOP OF WALL & SLAB EL TO MATCH EXIST, U.N.O.
3. TOP OF SHELF EL 0'-5 3/8", U.N.O.
4. BP-X INDICATES BASE PLATE SIZE. SEE DWG S3.1 FOR ADDL INFO.
5. C.J. INDICATES CONTRACTION JOINTS. SEE TYPICAL DETAIL THIS SHEET.
6. PX & FX INDICATES PIER AND FOOTING (SEE DETAILS DWG S2.1 FOR SIZE AND REINF).

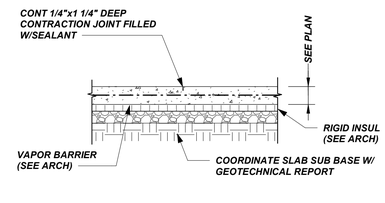
PLATFORM FRAMING PLAN

1/8"=1'-0"

NOTES:

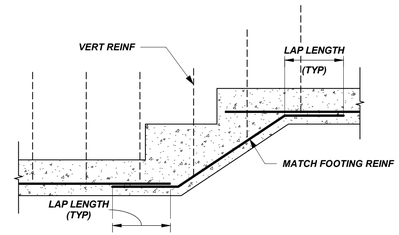
1. ⟶ INDICATES SPAN DIRECTION OF 3/4" SHEATHING (GLUED & NAILED) AT PLATFORM. TOP OF SHEATHING ELEVATION SEE ARCH.
2. SEE ARCH FOR PLATFORM DIMENSIONS.





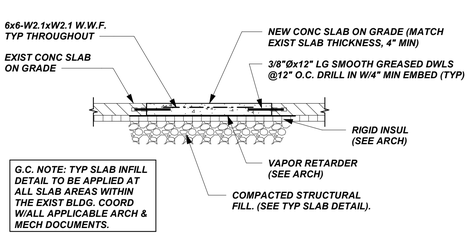
TYP SLAB ON GRADE CONTRACTION JOINT DETAIL

N.T.S.



TYP STEP FOOTING DETAIL

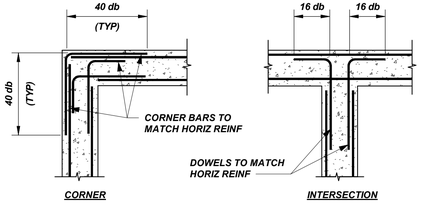
N.T.S. t=FOOTING THICKNESS



G.C. NOTE: TYP SLAB INFILL DETAIL TO BE APPLIED AT ALL SLAB AREAS WITHIN THE EXIST BLDG. COORD W/ALL APPLICABLE ARCH & MECH DOCUMENTS.

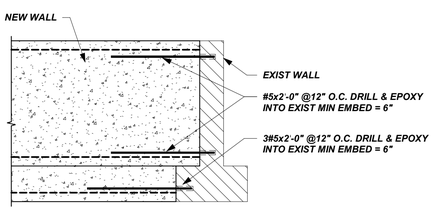
TYP SLAB INFILL DETAIL (EXIST BLDG)

N.T.S.



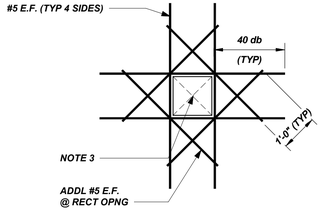
TYP WALL REINF DETAILS

N.T.S.



TYP NEW FDN TO EXIST FDN WALL DETAIL

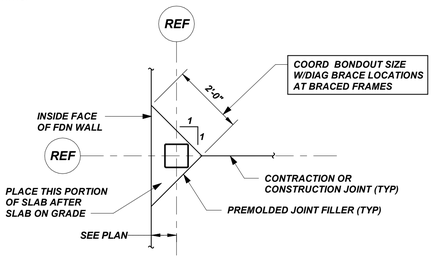
N.T.S.



TYP OPENING IN WALL OR SLAB DETAIL

N.T.S.

NOTES:
1. ALL OPENINGS TO BE SLEEVED
2. WHERE 40bd CAN'T BE ACHIEVED HOOK BAR.
3. AT WALL BONDOUT LARGER THEN 12" USE #6 BARS



TYP EXT COLUMN ISOLATION JOINT DETAIL

N.T.S.

REBAR LAP SPLICE TABLE

BAR SIZE	LAP LENGTH	
	3,500/4,000 PSI	5,000 PSI
#4	36"	32"
#5	48"	42"

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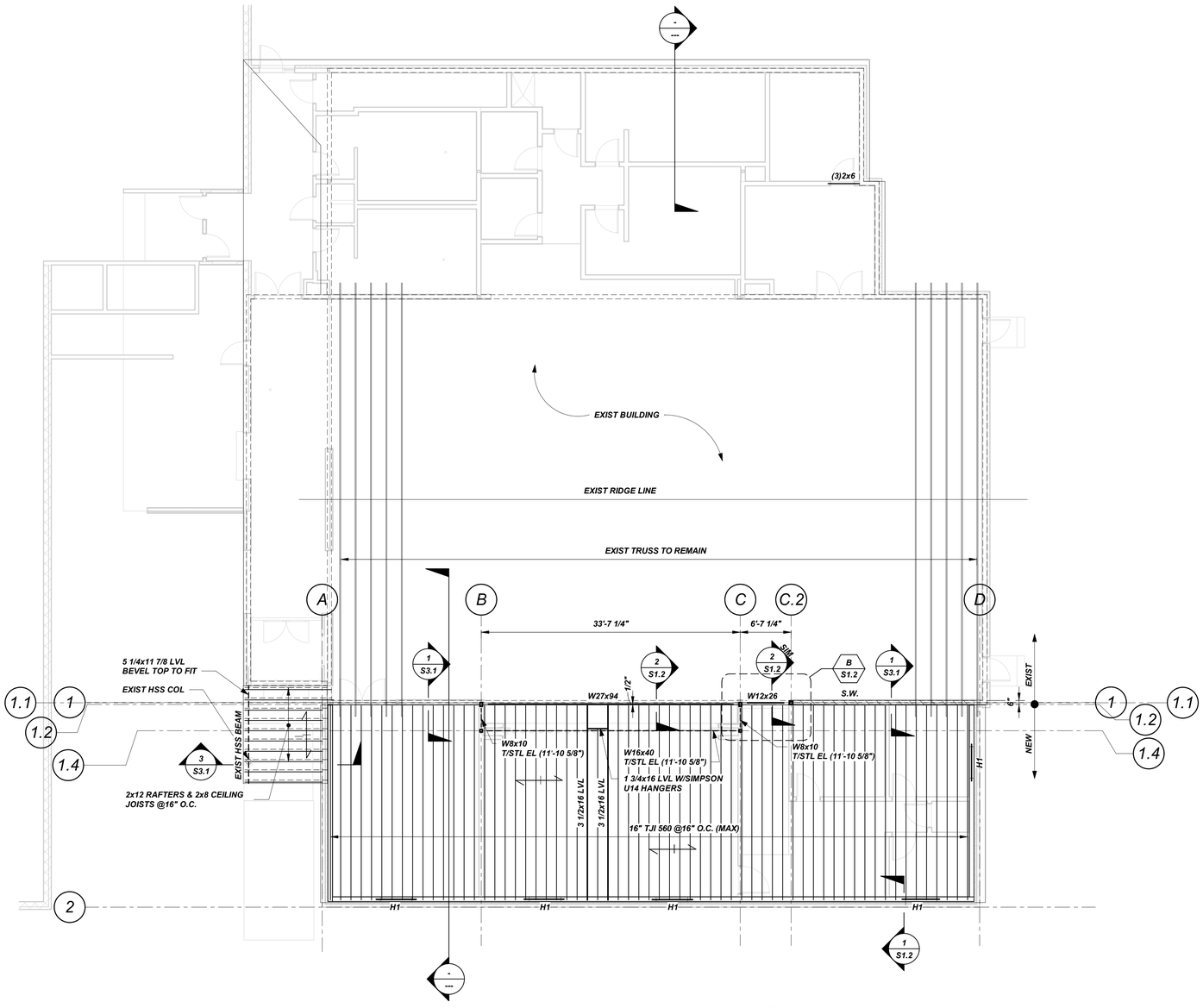
FOUNDATION PLAN

S1.1

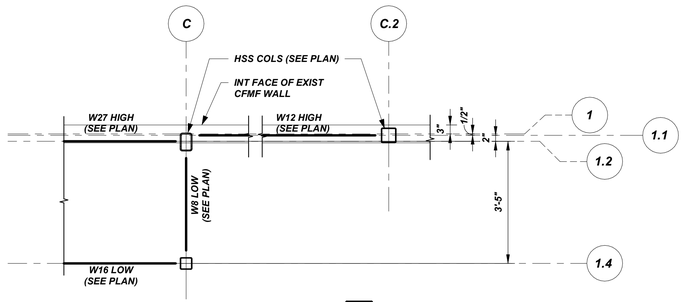


ROOF FRAMING PLAN

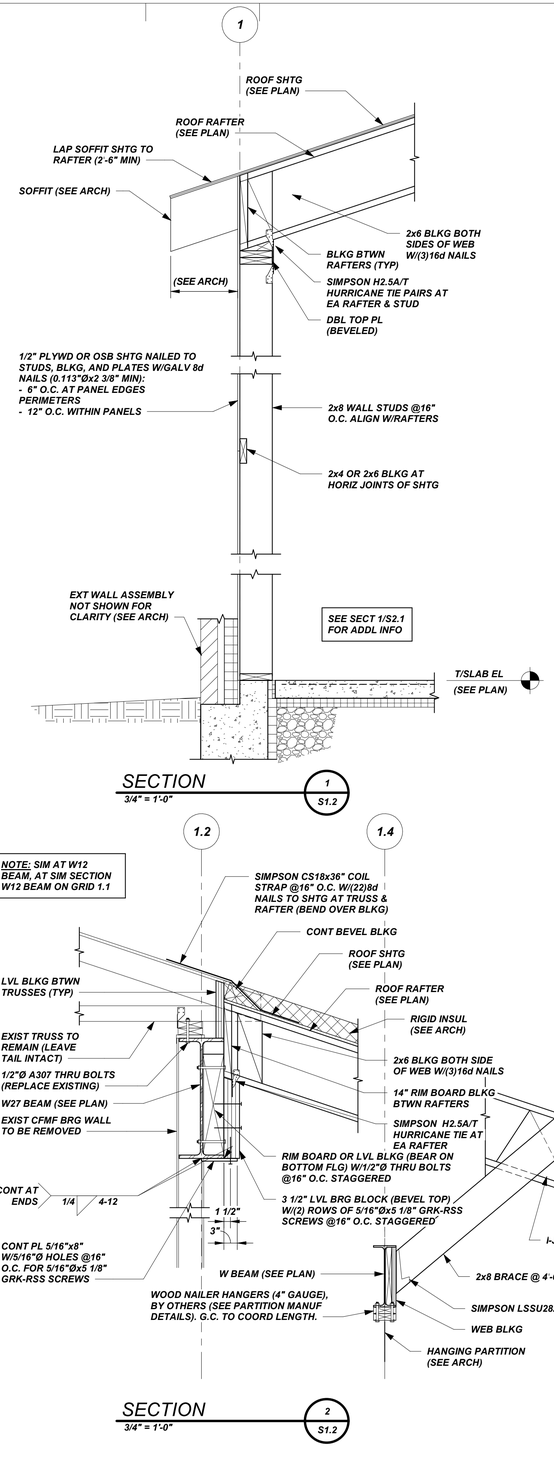
1/8"=1'-0"

NOTES:

1. INDICATES SPAN DIRECTION OF 5/8" ROOF SHEATHING.
2. TOP OF STEEL= 19'-7 5/8", U.N.O., T/SHTG ELEV SLOPE, (SEE ARCH).
3. H1 INDICATES (3)2x8 HEADER W/(1)2x8 JACK & (1)2x8 KING.



DETAIL B S1.2
1/2" = 1'-0"



SECTION 1 S1.2
3/4" = 1'-0"

SECTION 2 S1.2
3/4" = 1'-0"

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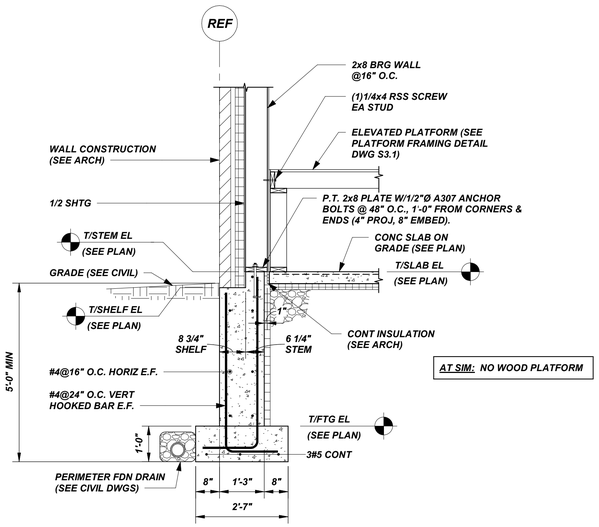
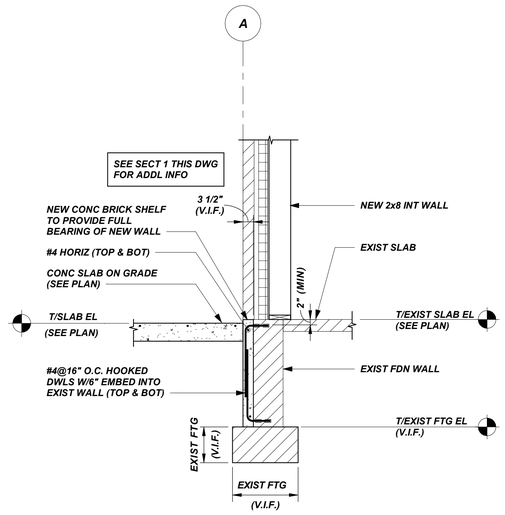
ROOF FRAMING PLAN

S1.2



SECTION 1 S1.1
1/2" = 1'-0"



SECTION 2 S1.1
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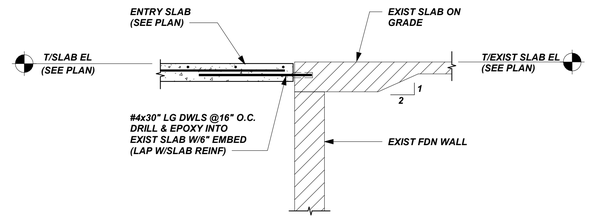
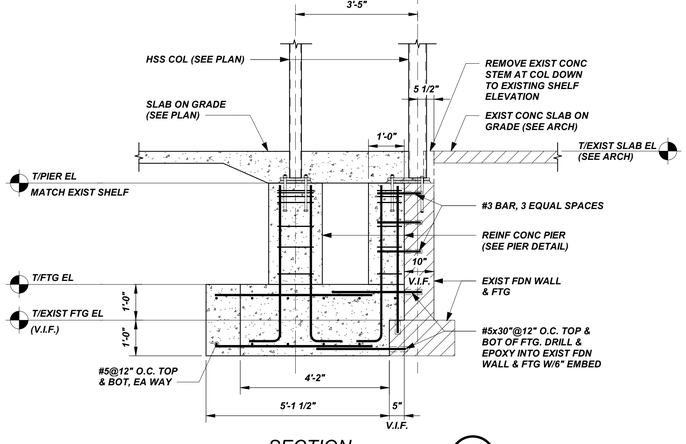
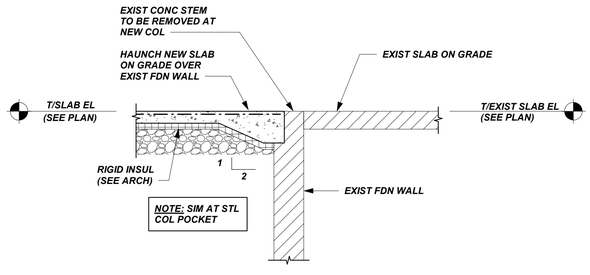


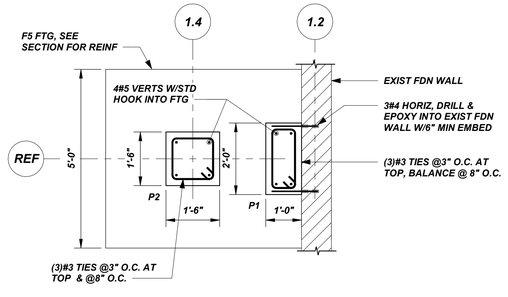
SECTION 3 S1.1
1/2" = 1'-0"



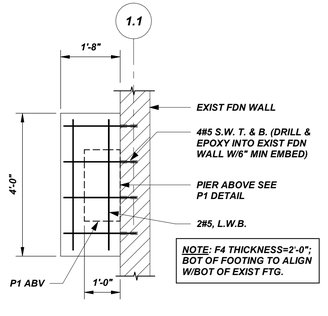
SECTION 4 S1.1
1/2" = 1'-0"



SECTION 5 S1.1
1/2" = 1'-0"



F5 AND P1 & P2 DETAIL
1/2"=1'-0"



F4 DETAIL
1/2"=1'-0"

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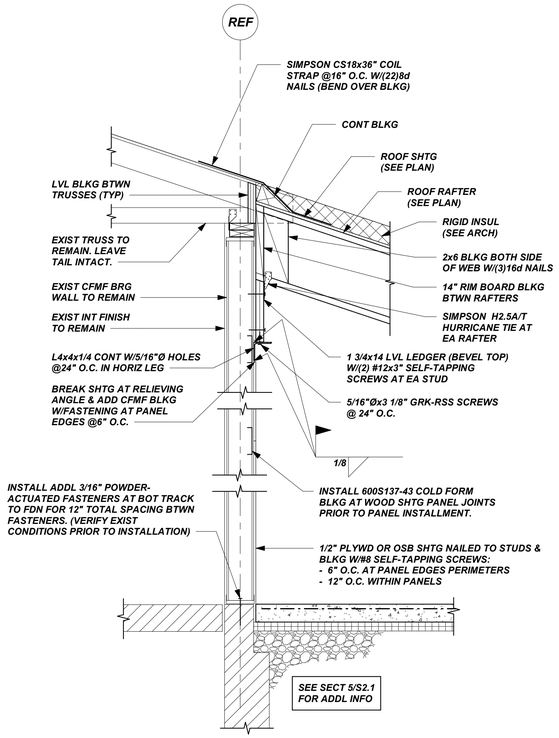
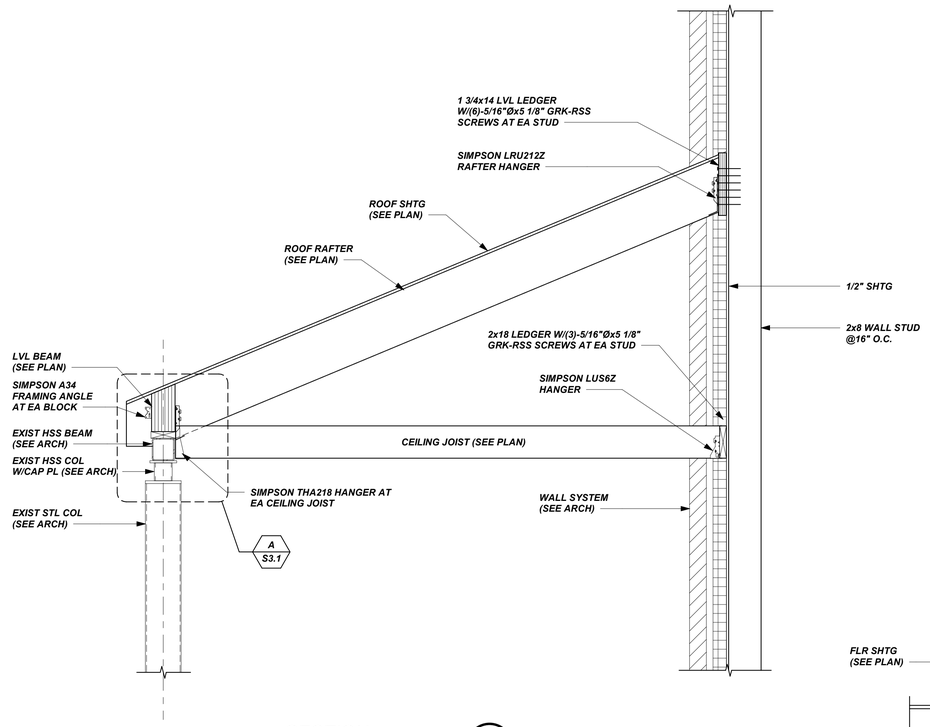
FOUNDATION SECTIONS & DETAILS

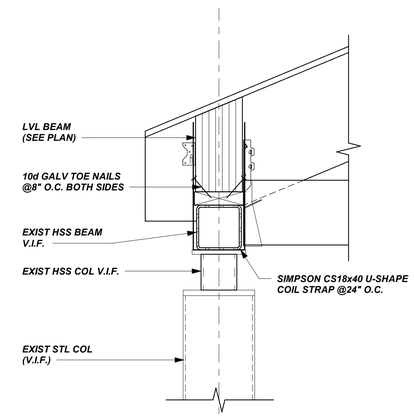
S2.1



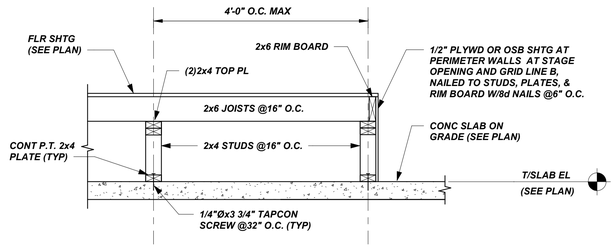
SECTION
3/4" = 1'-0"
1 / S1.2



SECTION
3/4" = 1'-0"
3 / S1.2

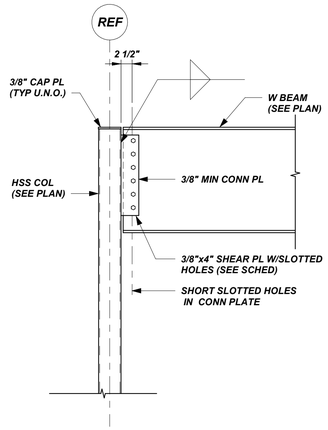


DETAIL
1 1/2" = 1'-0"
A / S3.1

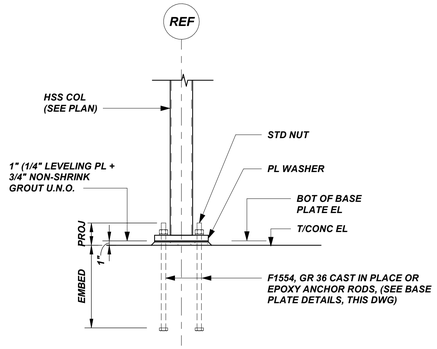


PLATFORM FRAMING DETAIL
3/4"=1'-0"

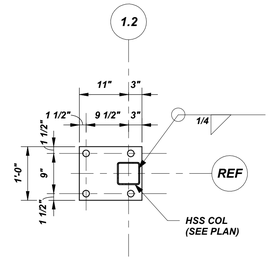
SHEAR PLATE SCHEDULE		
BEAM SIZE	PLATE LENGTH	BOLTS
W8	5 1/2"	(2)-3/4"Ø A325 BOLTS
W12	8 1/2"	(3)-3/4"Ø A325 BOLTS
W16	11 1/2"	(4)-3/4"Ø A325 BOLTS
W27	20 1/2"	(7)-3/4"Ø A325 BOLTS



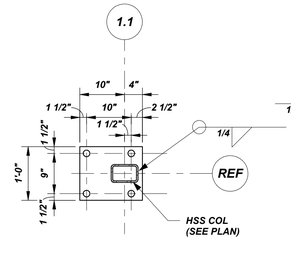
TYP BEAM TO HSS COL CONN U.N.O.
N.T.S.



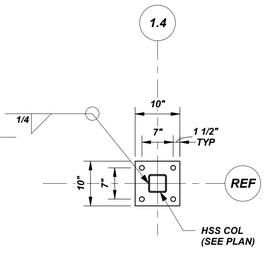
TYP COL BASE DETAIL U.N.O.
N.T.S.



BP-A
PL 1x12x1'-2" W/(4)-1 5/16"Ø HOLES FOR (4)-3/4"Ø x12" LG F1554 GR 36 ANCHOR RODS
- (2) AT NEW PIER: HEADED ANCHOR RODS CAST IN PLACE W/8" EMBED, 4" PROJ.
- (2)AT EXIST FDN WALL : THRD ANCHOR ROD W/HILTI HIT-200 EPOXY W/8" EMBED, 4" PROJ



BP-B
PL 1x12x1'-2" W/(4)-1 5/16"Ø HOLES FOR (4)-3/4"Ø x12" LG F1554 GR 36 ANCHOR RODS
- (2) AT NEW PIER: HEADED ANCHOR RODS CAST IN PLACE W/8" EMBED, 4" PROJ.
- (2)AT EXIST FDN WALL : THRD ANCHOR ROD W/HILTI HIT-200 EPOXY W/8" EMBED, 4" PROJ



BP-C
PL 3/4x10x0'-10" W/(4)-1 5/16"Ø HOLES FOR (4)-3/4"Ø x12" LG F1554 GR 36 ANCHOR RODS W/8" EMBED, 4" PROJ

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75 York Street, Portland, Maine 04101
207.879.1838 ■ beckerstructural.com

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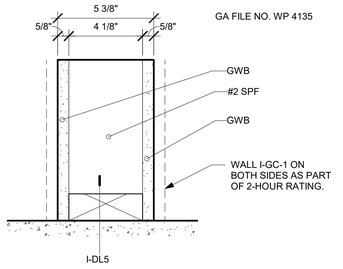
207.266.5822

RSU 18
CHINA MIDDLE SCHOOL GYM ADDITION

BID DOCUMENTS
04/08/2019
BSE PROJ: 4439

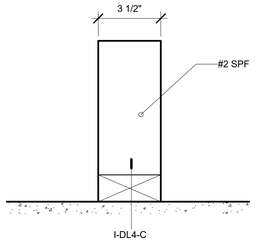
FRAMING SECTIONS & DETAILS

S3.1



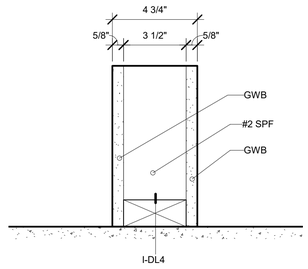
4 WALL I-DL5

3" = 1'-0"



3 WALL I-DL4-C

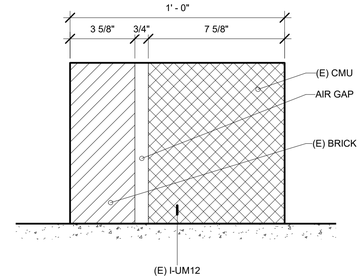
3" = 1'-0"



2 WALL I-DL4

3" = 1'-0"

EXISTING WALL MEETS REQUIREMENT
FOR 2-HOUR ASSEMBLY.



1 WALL (E) I-UM12

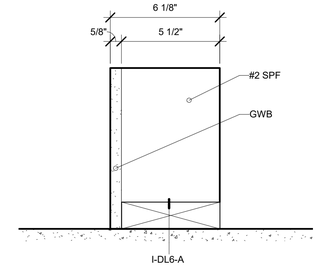
3" = 1'-0"

C10 INTERIOR PARTITIONS			
TYPE MARK	FUNCTION	AREA	DESCRIPTION
(E) I-UM12	Interior	0 SF	EXISTING MASONRY
I-DL4	Interior	2 SF	RAMP CURB
I-DL4-C	Interior	426 SF	STAGE FRAMING
I-DL5	Interior	47 SF	INFILL AT (R) DOORS
I-DL6-A	Interior	234 SF	WOOD STUD PARTITION
I-DL6-C	Interior	50 SF	STAGE FRAMING
I-GC1	Interior	943 SF	GWB
I-MS3	Interior	125 SF	METAL STUD PARTITION
I-MS3-A	Interior	31 SF	METAL STUD PARTITION
I-MS3-B	Interior	73 SF	120-MIN PARTITION
I-MS3-C	Interior	5 SF	METAL STUD PARTITION
I-MS6	Interior	2960 SF	METAL STUD PARTITION
I-MS6-A	Interior	178 SF	METAL STUD PARTITION
I-PW-1	Interior	745 SF	SHEET VINYL
I-PW-2	Interior	212 SF	REINSTALLED TECTUM
I-PW-3	Interior	224 SF	REINSTALLED MASONITE
Grand total: 104		6255 SF	

SEE G-001 FOR EXPLANATION OF ASSEMBLY NAMING

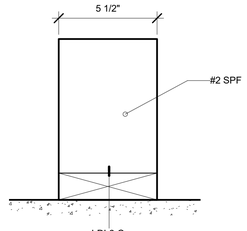
ASSEMBLY NAMING

12" = 1'-0"



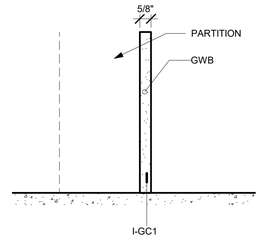
5 WALL I-DL6-A

3" = 1'-0"



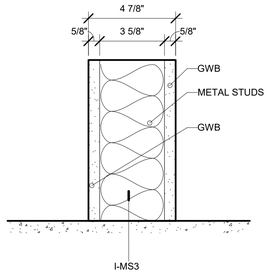
6 WALL I-DL6-C

3" = 1'-0"



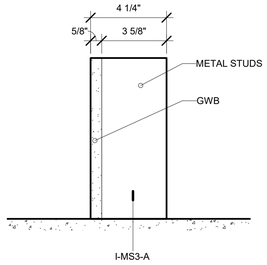
7 WALL I-GC1

3" = 1'-0"



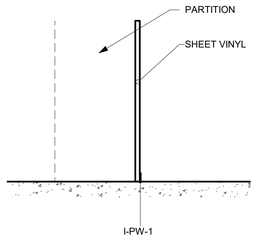
8 WALL I-MS3

3" = 1'-0"



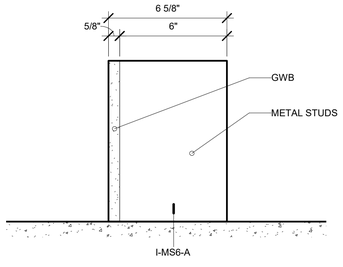
9 WALL I-MS3-A

3" = 1'-0"



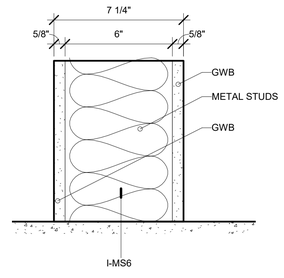
14 WALL I-PW1

3" = 1'-0"



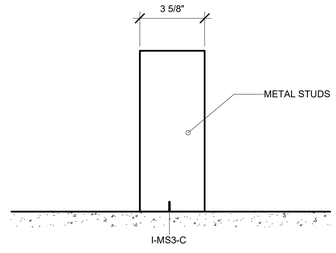
13 WALL I-MS6-A

3" = 1'-0"



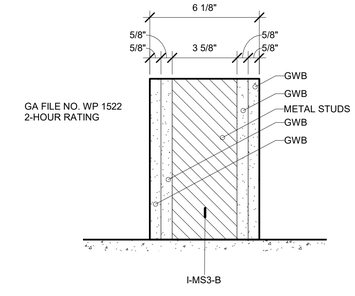
12 WALL I-MS6

3" = 1'-0"



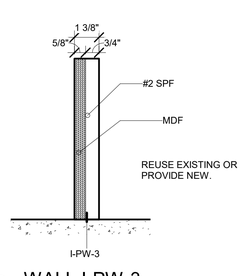
11 WALL I-MS3-C

3" = 1'-0"



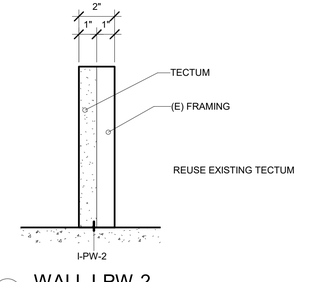
10 WALL I-MS3-B

3" = 1'-0"



16 WALL I-PW-3

3" = 1'-0"



15 WALL I-PW-2

3" = 1'-0"

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STATE OF MAINE

RSU 18

CHINA MIDDLE SCHOOL ADDITION

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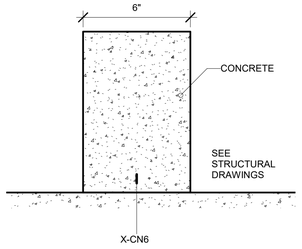
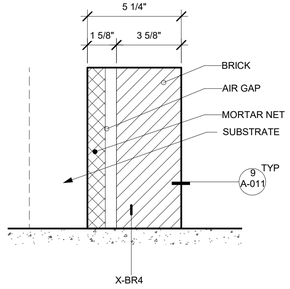
8 APR 2019
4/8/2019 9:13:17 AM

INTERIOR WALLS

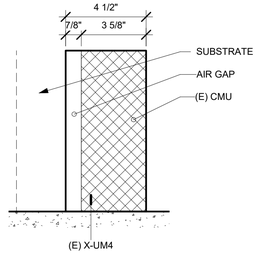
A-010



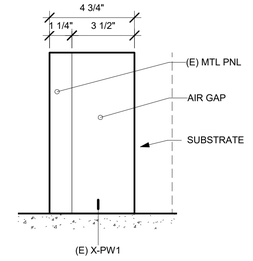
4 WALL X-CN6
3" = 1'-0"



3 WALL X-BR4
3" = 1'-0"



2 WALL (E) X-UM4
3" = 1'-0"

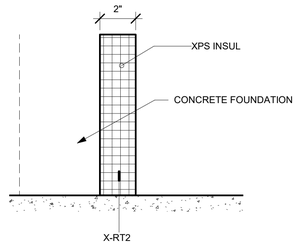


1 WALL (E) X-PW-1
3" = 1'-0"

B20 EXTERIOR WALLS			
TYPE MARK	FUNCTION	AREA	DESCRIPTION
(E) I-GC1	Exterior	24 SF	
(E) X-MF6	Exterior	8 SF	
(E) X-PW1	Exterior	7 SF	REINSTALLED METAL PANEL
(E) X-UM4	Exterior	34 SF	REINSTALLED MASONRY
X-BR4	Exterior	673 SF	BRICK
X-CN6	Exterior	59 SF	CONCRETE
X-CN15	Exterior	648 SF	CONCRETE
X-DL4	Exterior	111 SF	EXTERIOR KITCHEN
X-DL8	Exterior	1796 SF	EXTERIOR WALL
X-MF6	Exterior	403 SF	COLD FORMED FRAMING
X-RT2	Exterior	635 SF	RIGID INSULATION
X-WP1	Exterior	1127 SF	METAL WALL PANEL
Grand total: 33		5525 SF	

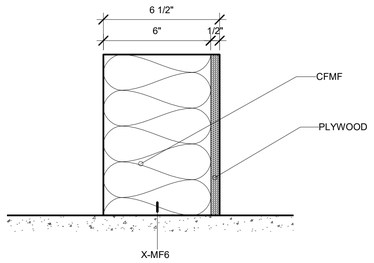
SEE G-001 FOR EXPLANATION OF ASSEMBLY NAMING

ASSEMBLY NAMING
12" = 1'-0"

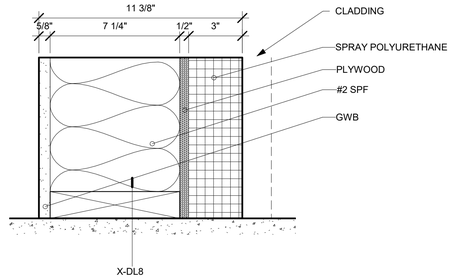


11 WALL X-RT2
3" = 1'-0"

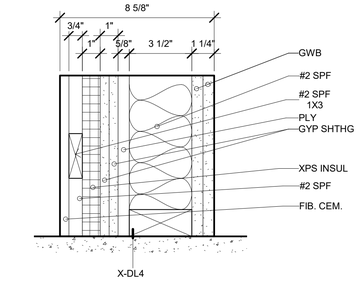
SEE STRUCTURAL DRAWINGS FOR
EXTENT OF PLYWOOD SHEATHING.



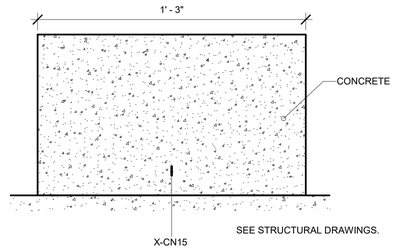
8 WALL X-MF6
3" = 1'-0"



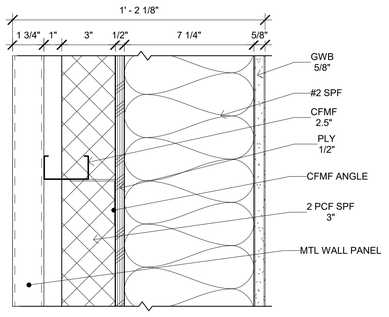
7 WALL X-DL8
3" = 1'-0"



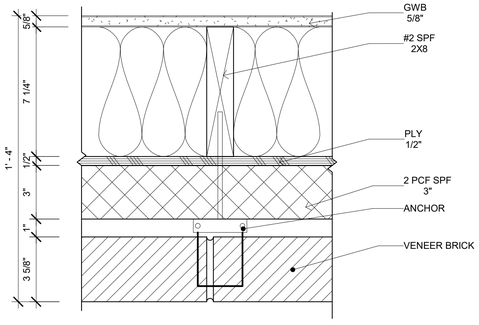
6 WALL X-DL4
3" = 1'-0"



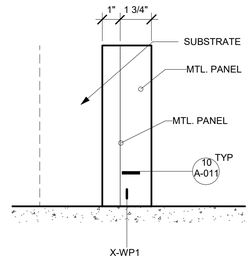
5 WALL X-CN15
3" = 1'-0"



10 EXTERIOR WALL AT METAL PANEL
A-011 3" = 1'-0"



9 EXTERIOR WALL AT BRICK
A-011 3" = 1'-0"



12 WALL X-WP1
3" = 1'-0"

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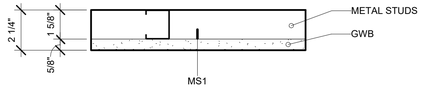
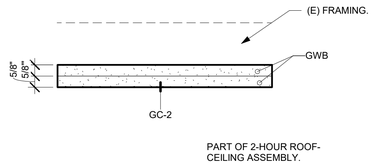
EXTERIOR WALLS

A-011



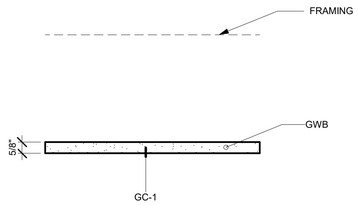
4 CEILING MS1

3" = 1'-0"



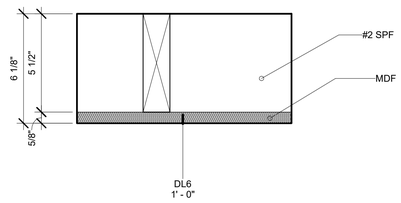
3 CEILING GC-2

3" = 1'-0"



2 CEILING GC-1

3" = 1'-0"



1 CEILING DL6

3" = 1'-0"

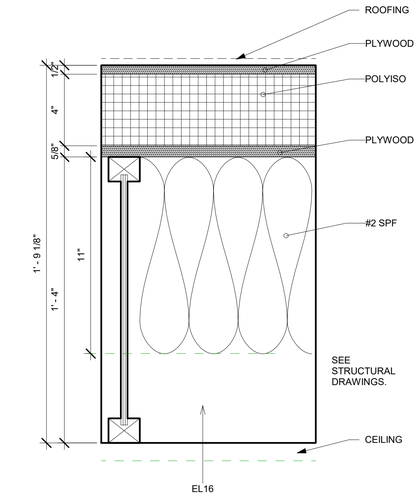
C30 CEILINGS			
	ASSEMBLY CODE	AREA	DESCRIPTION
DL6	C3030220	132 SF	ACCORDION DOOR SOFFIT
GC-1	C3030310	1205 SF	GYPSUM BOARD
GC-2	C3030220	540 SF	GYPSUM BOARD
MS1	C3030220	87 SF	GWB ON MTL STUD
MS2	C3030220	47 SF	GWB ON MTL STUD ON GWB
MS6	C3030220	178 SF	GWB ON MTL STUD
SC1	C3030210	2055 SF	ACOUSTICAL CEILING TILES
Grand total: 23		4245 SF	

B30 ROOFS			
TYPE MARK	ASSEMBLY CODE	AREA	DESCRIPTION
DL8	B1020400	184 SF	BRACING
DL12	B1020400	159 SF	2X12 FRAMING
EL16	B1020400	2250 SF	TRUSS JOIST FRAMING
MR1	B1020	607 SF	ROOF RATING ASSEMBLY
TR1	B3010150	9909 SF	ASPHALT SHINGLES
Grand total: 8		13109 SF	

SEE G-001 FOR EXPLANATION OF ASSEMBLY NAMING

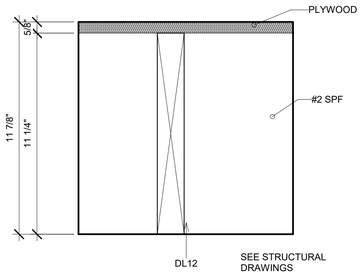
ASSEMBLY NAMING

12" = 1'-0"



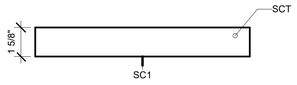
9 ROOF EL16

3" = 1'-0"



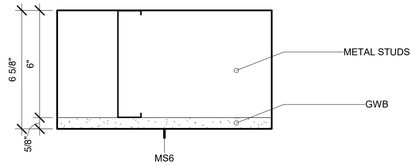
8 ROOF DL12

3" = 1'-0"



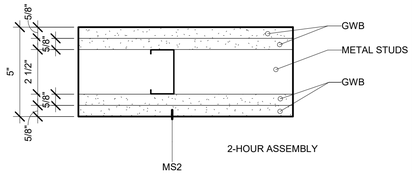
7 CEILING SC1

3" = 1'-0"



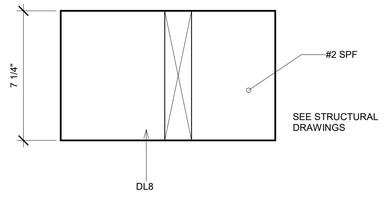
6 CEILING MS6

3" = 1'-0"



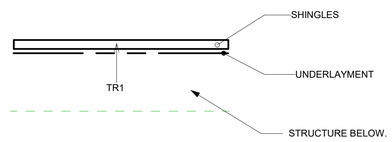
5 CEILING MS2

3" = 1'-0"



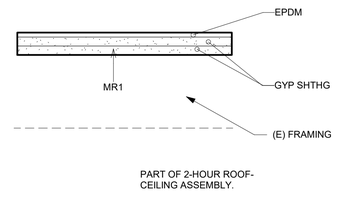
12 ROOF DL8

3" = 1'-0"



11 ROOF TR-1

3" = 1'-0"



10 ROOF MR-1

3" = 1'-0"

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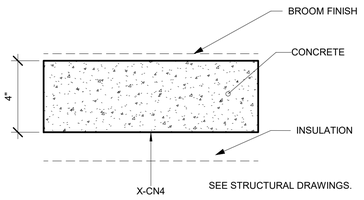
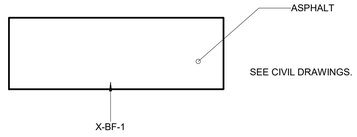
ROOF AND CEILING ASSEMBLIES

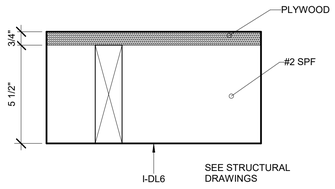
A-020



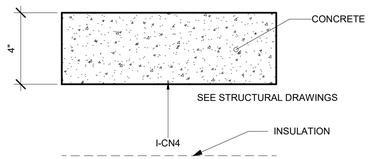
4 FLOOR X-CN4
3" = 1'-0"



3 FLOOR X-BF-1
3" = 1'-0"



2 FLOOR I-DL6
3" = 1'-0"



1 FLOOR I-CN4
3" = 1'-0"

B10 STRUCTURAL FLOORS

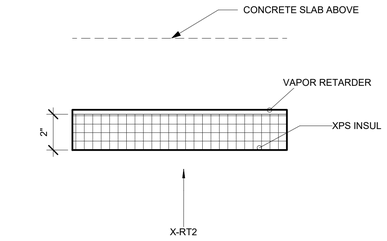
TYPE MARK	FUNCTION	ASSEMBLY CODE	AREA	DESCRIPTION
I-CN4	Interior	A1030110	2229 SF	CONCRETE SLAB
I-DL6	Interior	B1010	1473 SF	RAMP FRAMING
X-BF-1	Exterior	G2030200	253 SF	ASPHALT. SEE CIVIL DWGS
X-CN4	Exterior	A1030110	52 SF	LANDING
X-RT2	Exterior	A1030100	2074 SF	UNDERSLAB INSULATION
Grand total: 11			6080 SF	

C30 FLOOR FINISHES

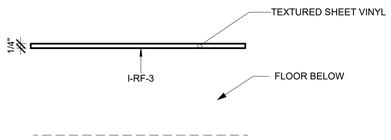
TYPE MARK	FUNCTION	ASSEMBLY CODE	AREA	DESCRIPTION
I-CF1	Interior	C3020510	577 SF	CARPET TILE
I-RF-1	Interior	C3020440	4656 SF	URETHANE ATHLETIC FLOOR
I-RF-2	Interior	C3020440	172 SF	SHEET VINYL
I-RF-3	Interior	C3020440	113 SF	SHEET VINYL
I-TF-1	Interior	C3020520	1100 SF	VINYL TILE
I-WF-1	Interior	C3020810	743 SF	HARDBOARD

SEE G-001 FOR EXPLANATION OF ASSEMBLY NAMING

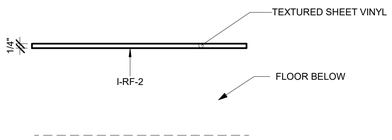
ASSEMBLY NAMING
12" = 1'-0"



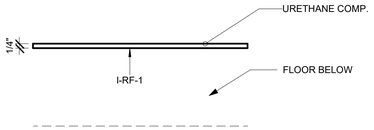
5 FLOOR X-RT2
3" = 1'-0"



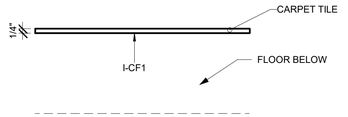
11 FLOOR I-RF-3
3" = 1'-0"



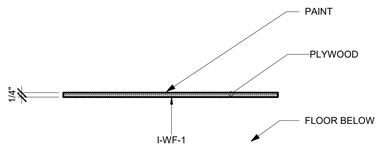
8 FLOOR I-RF-2
3" = 1'-0"



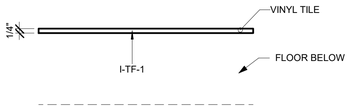
7 FLOOR I-RF-1
3" = 1'-0"



6 FLOOR I-CF1
3" = 1'-0"



10 FLOOR I-WF-1
3" = 1'-0"



9 FLOOR I-TF-1
3" = 1'-0"

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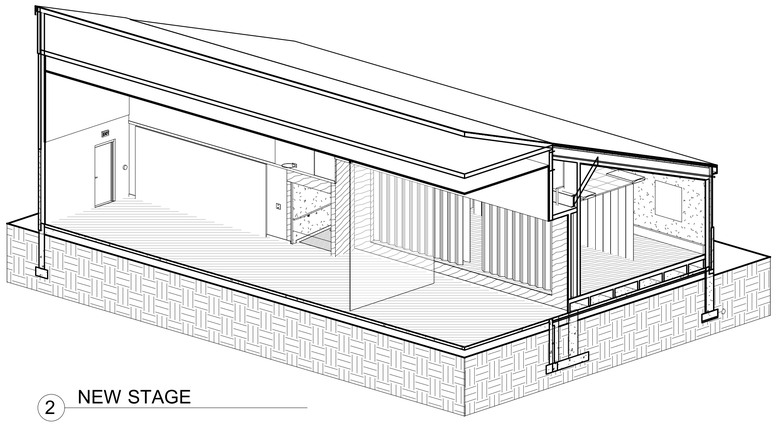
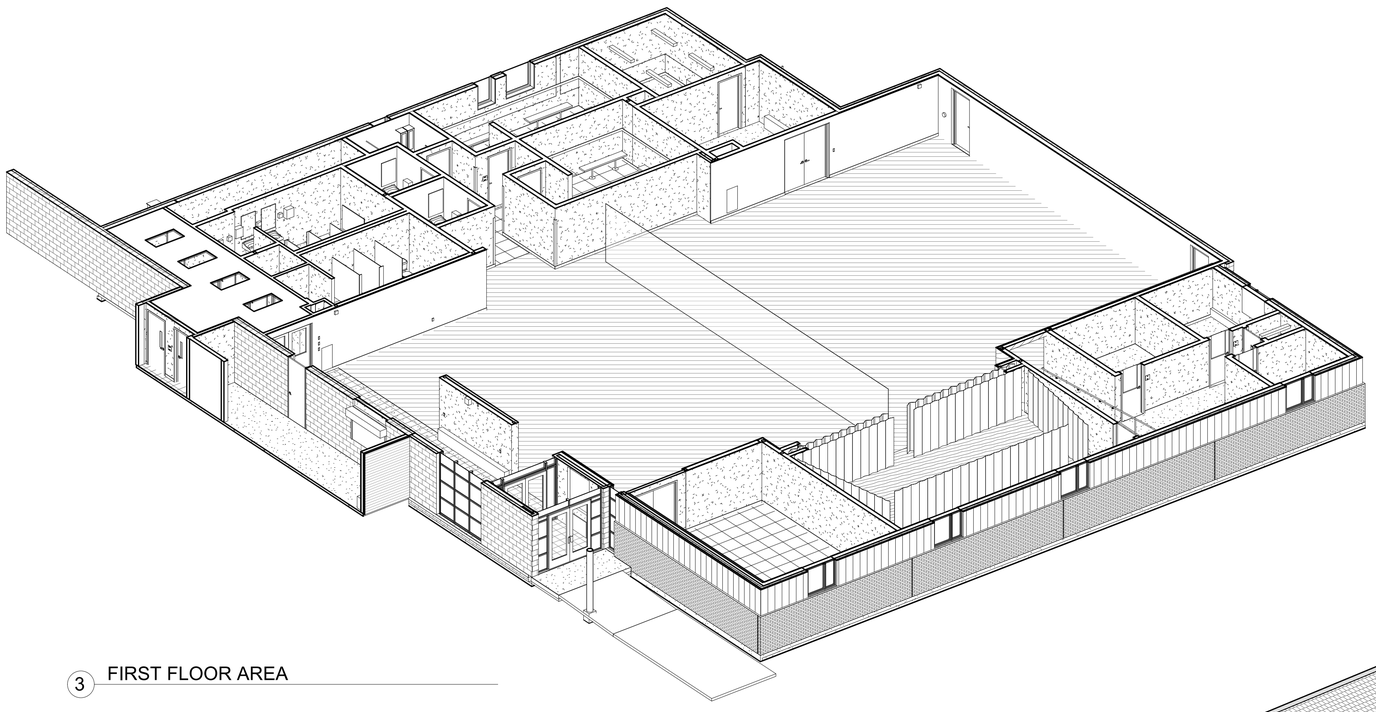
FLOOR ASSEMBLIES

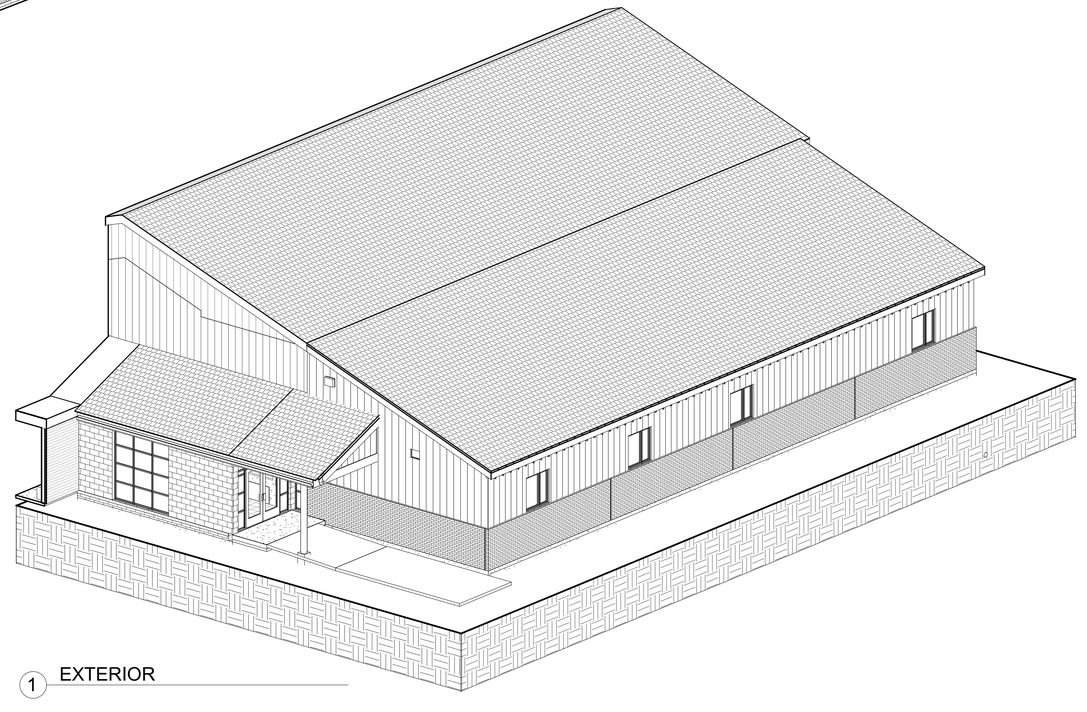
A-021



2 NEW STAGE



3 FIRST FLOOR AREA



1 EXTERIOR

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AXONOMETRICS

A-040

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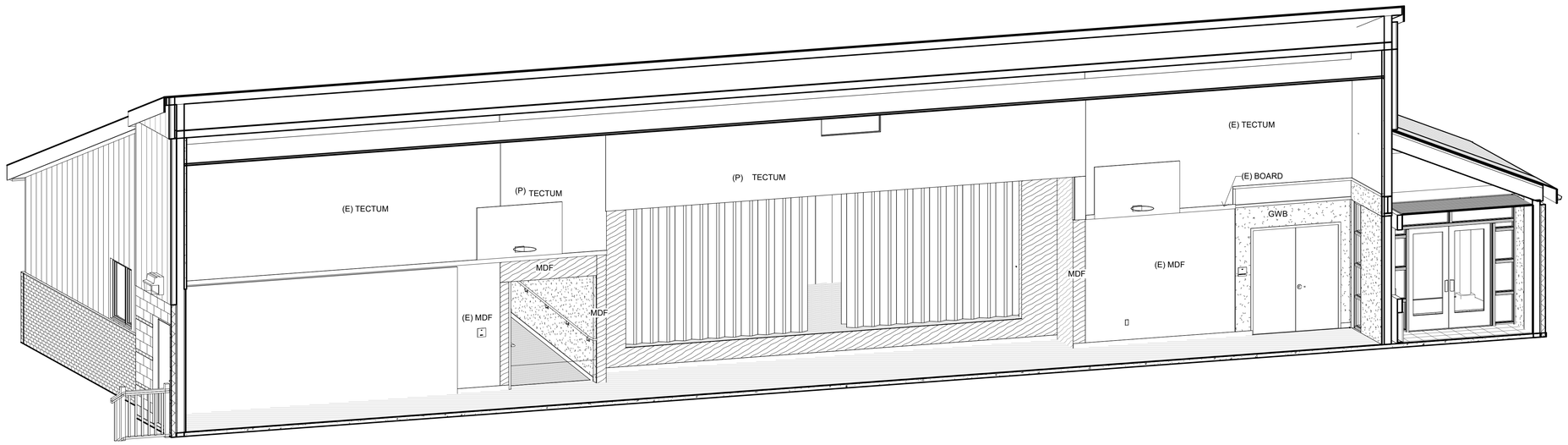
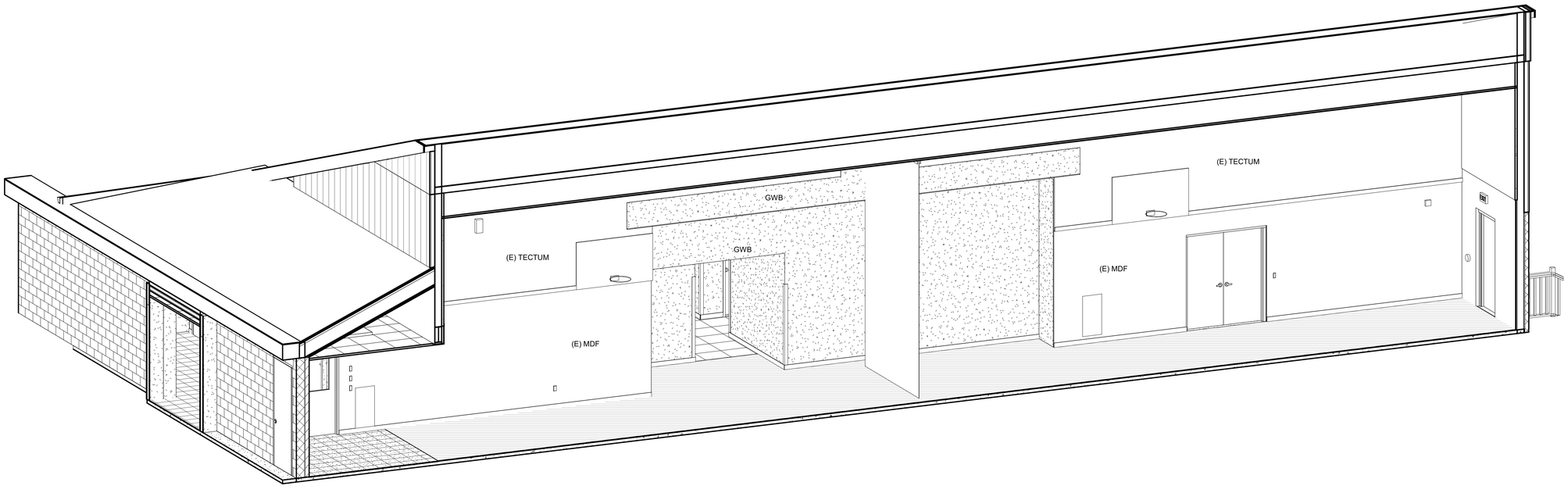


1 100 GYMNASIUM WEST



2 100 GYMNASIUM EAST

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GYM
AXONOMETRICS

A-041

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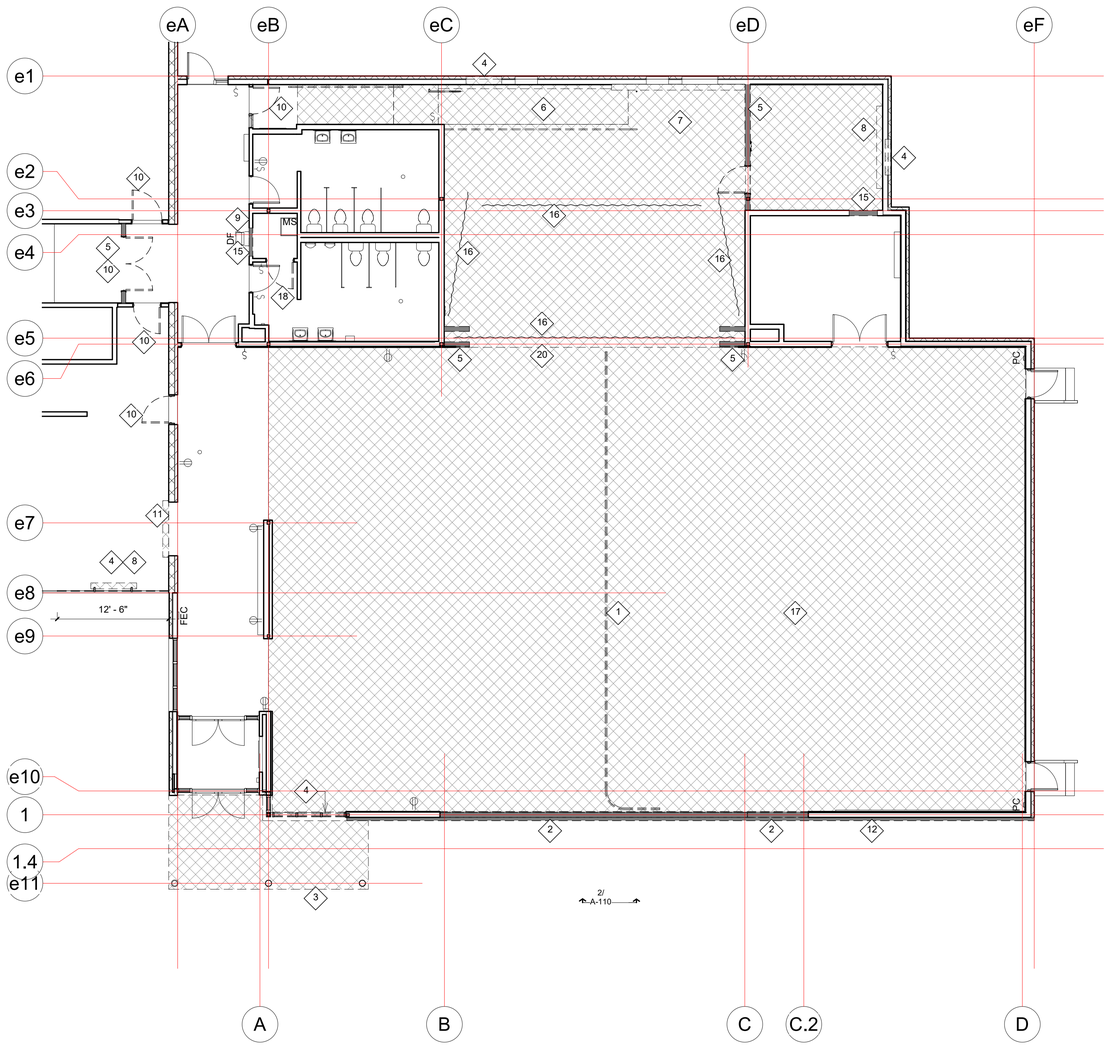
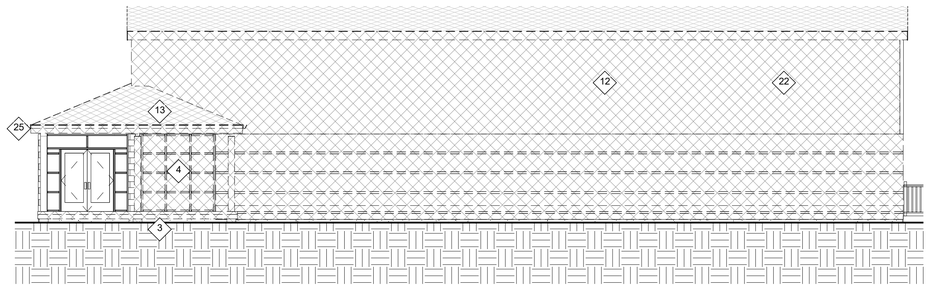


1 FLOOR 1 DEMOLITION
A-401 1/8" = 1'-0"



2 EXTERIOR DEMOLITION
A-110 1/8" = 1'-0"

1.SEE STRUCTURAL, MECHANICAL, ELECTRICAL AND PIPING SHEETS FOR ADDITIONAL DEMOLITION REQUIREMENTS.
2.SEE DEMOLITION ELEVATIONS.
3. THE WORK REQUIRES MISCELLANEOUS REMOVAL OF FINISH PANELS, DEMOLITION AND PATCHING NOT SHOWN ON DEMOLITION DRAWINGS IN ORDER TO COMPLETE THE WORK. THIS DEMOLITION WORK IS A PART OF THE PROJECT.
4. NOTE TAGS IN ROOMS INDICATED REQUIREMENTS TYPICAL FOR THAT ROOM.
5. SEE SPECIFICATION SECTION 01 23 00 FOR A FULL DESCRIPTION OF ALTERNATES.
6. (P) TECTUM PANELS FOR RE-USE.

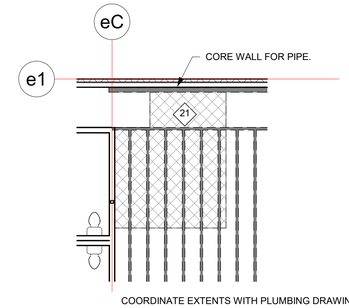
DEMOLITION NOTES
12" = 1'-0"

TAGGED NOTES- DEMOLITION

Demo note	Description
1	(R) GYM CURTAIN
2	(R) EXTERIOR WALL FOR NEW OPENING
3	(R) APRON AND FOUNDATION
4	(R) WINDOW
5	(R) WALL
6	(R) RAMP AND RAILS
7	(R) RAISED FLOOR AND SUPPORTS
8	(R) HEATER
9	(R) DRINKING FOUNTAIN
10	(R) DOOR
11	(R) SHUTTER
12	(R) EXTERIOR SIDING
13	(R) PORTION OF ROOF AND FRAMING
15	(R) PORTION OF WALL FOR NEW OPENING
16	(P) CURTAIN AT NEW LOCATION
17	(R) GYM FLOORING ADD ALT
18	(P) DOOR AND RELOCATE
19	(R) CEILING
20	(R) ACCORDION PARTITION
21	(R) SLAB FOR PLUMBING
22	SEE STRUCTURAL DRAWINGS FOR EXTENT OF GYPSUM SHEATHING REMOVAL
23	(R) REMOVE ROOF SHINGLES ADD ALT.
24	(R) REMOVE EPDM ROOFING
25	(R) GUTTER

ALTERNATES
1. RESHINGLE EXISTING GYM ROOF
2. REPLACE EXISTING GYM FLOORING AND BASE
3. CHANGE IN DATE OF FINAL COMPLETION

ALTERNATES
12" = 1'-0"



COORDINATE EXTENTS WITH PLUMBING DRAWINGS.

3 FLOOR 1 SLAB DEMOLITION
A-401 1/8" = 1'-0"

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DEMOLITION PLAN AND ELEVATION

A-110

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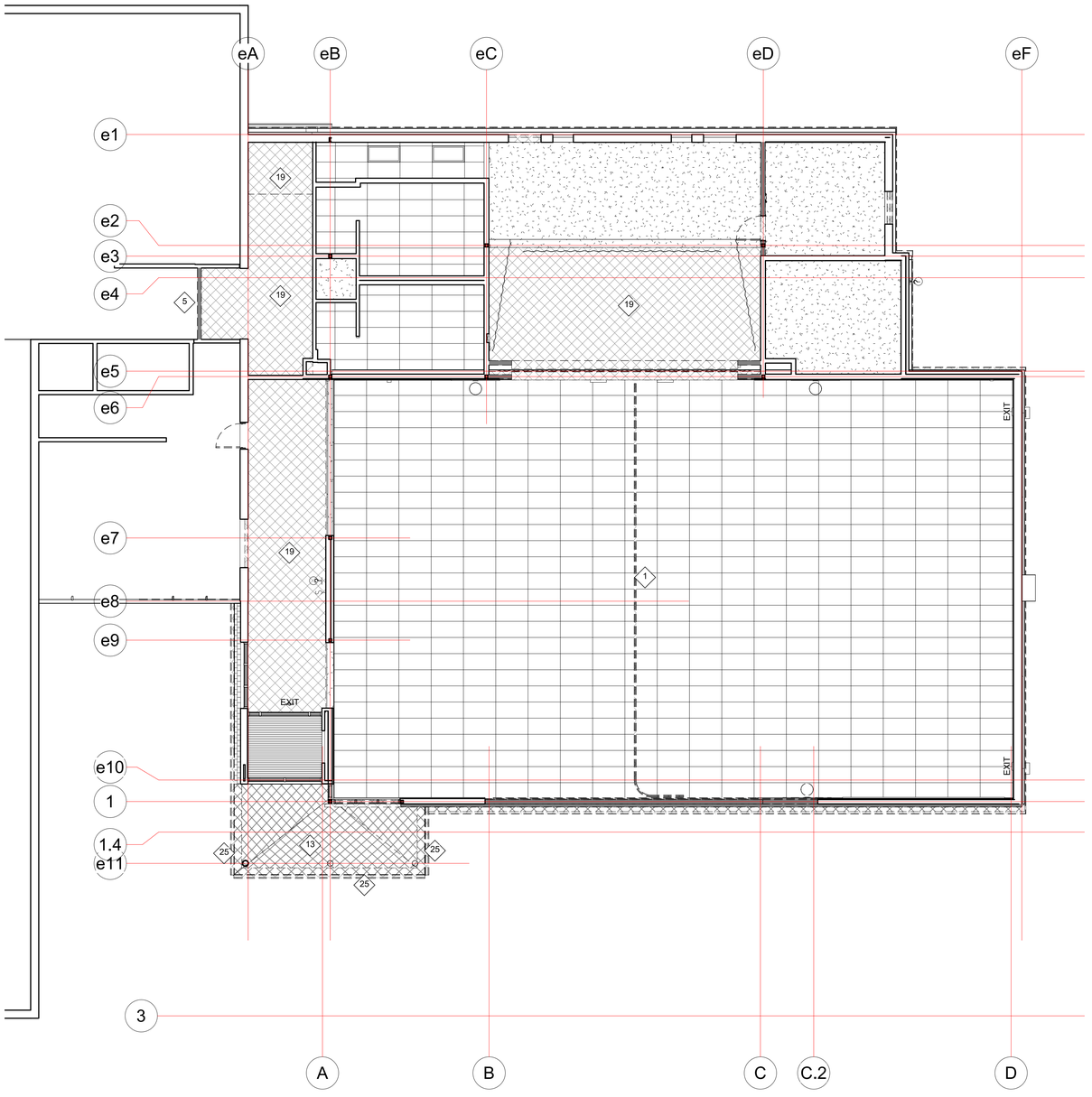
1.SEE STRUCTURAL, MECHANICAL, ELECTRICAL AND PIPING SHEETS FOR ADDITIONAL DEMOLITION REQUIREMENTS.
2.SEE DEMOLITION ELEVATIONS.
3. THE WORK REQUIRES MISCELLANEOUS REMOVAL OF FINISH PANELS, DEMOLITION AND PATCHING NOT SHOWN ON DEMOLITION DRAWINGS IN ORDER TO COMPLETE THE WORK. THIS DEMOLITION WORK IS A PART OF THE PROJECT.
4. NOTE TAGS IN ROOMS INDICATED REQUIREMENTS TYPICAL FOR THAT ROOM.
5. SEE SPECIFICATION SECTION 01 23 00 FOR A FULL DESCRIPTION OF ALTERNATES.
6. (P) TECTUM PANELS FOR RE-USE.



DEMOLITION NOTES

12" = 1'-0"

TAGGED NOTES- DEMOLITION	
Demo note	Description
1	(R) GYM CURTAIN
2	(R) EXTERIOR WALL FOR NEW OPENING
3	(R) APRON AND FOUNDATION
4	(R) WINDOW
5	(R) WALL
6	(R) RAMP AND RAILS
7	(R) RAISED FLOOR AND SUPPORTS
8	(R) HEATER
9	(R) DRINKING FOUNTAIN
10	(R) DOOR
11	(R) SHUTTER
12	(R) EXTERIOR SIDING
13	(R) PORTION OF ROOF AND FRAMING
15	(R) PORTION OF WALL FOR NEW OPENING
16	(P) CURTAIN AT NEW LOCATION
17	(R) GYM FLOORING ADD ALT
18	(P) DOOR AND RELOCATE
19	(R) CEILING
20	(R) ACCORDION PARTITION
21	(R) SLAB FOR PLUMBING
22	SEE STRUCTURAL DRAWINGS FOR EXTENT OF GYPSUM SHEATHING REMOVAL
23	(R) REMOVE ROOF SHINGLES ADD ALT.
24	(R) REMOVE EPDM ROOFING
25	(R) GUTTER

1 FLOOR 1
A-401 1/8" = 1'-0"

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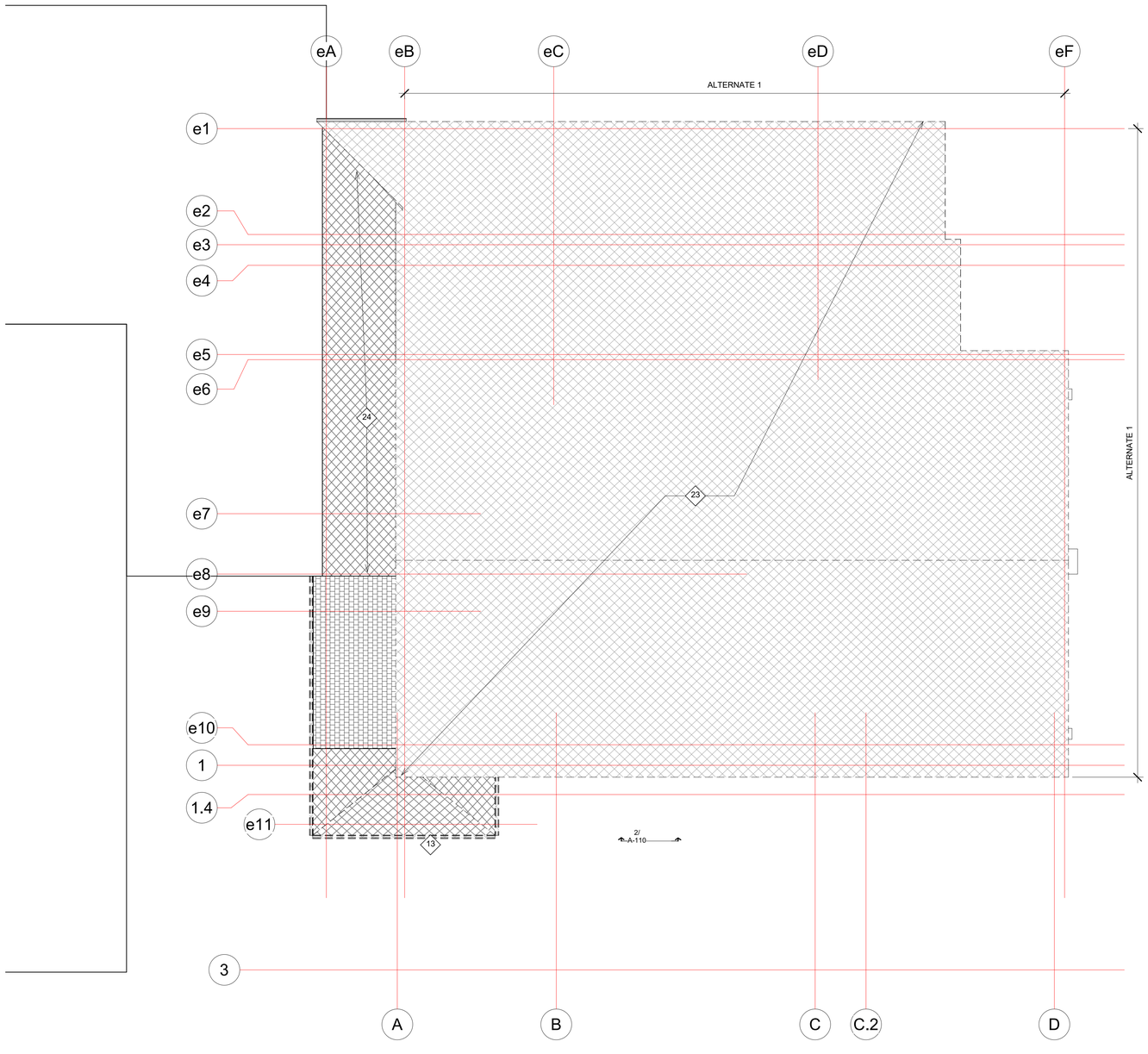
REFLECTED CEILING DEMOLITION PLAN
A-111



1 ROOF DEMOLITION
A-401 1/8" = 1'-0"

TAGGED NOTES- DEMOLITION	
Demo note	Description
1	(R) GYM CURTAIN
2	(R) EXTERIOR WALL FOR NEW OPENING
3	(R) APRON AND FOUNDATION
4	(R) WINDOW
5	(R) WALL
6	(R) RAMP AND RAILS
7	(R) RAISED FLOOR AND SUPPORTS
8	(R) HEATER
9	(R) DRINKING FOUNTAIN
10	(R) DOOR
11	(R) SHUTTER
12	(R) EXTERIOR SIDING
13	(R) PORTION OF ROOF AND FRAMING
15	(R) PORTION OF WALL FOR NEW OPENING
16	(P) CURTAIN AT NEW LOCATION
17	(R) GYM FLOORING ADD ALT
18	(P) DOOR AND RELOCATE
19	(R) CEILING
20	(R) ACCORDION PARTITION
21	(R) SLAB FOR PLUMBING
22	SEE STRUCTURAL DRAWINGS FOR EXTENT OF GYPSUM SHEATHING REMOVAL
23	(R) REMOVE ROOF SHINGLES ADD ALT.
24	(R) REMOVE EPDM ROOFING
25	(R) GUTTER

ALTERNATES
1. RESHINGLE EXISTING GYM ROOF
2. REPLACE EXISTING GYM FLOORING AND BASE
3. CHANGE IN DATE OF FINAL COMPLETION

9.000°

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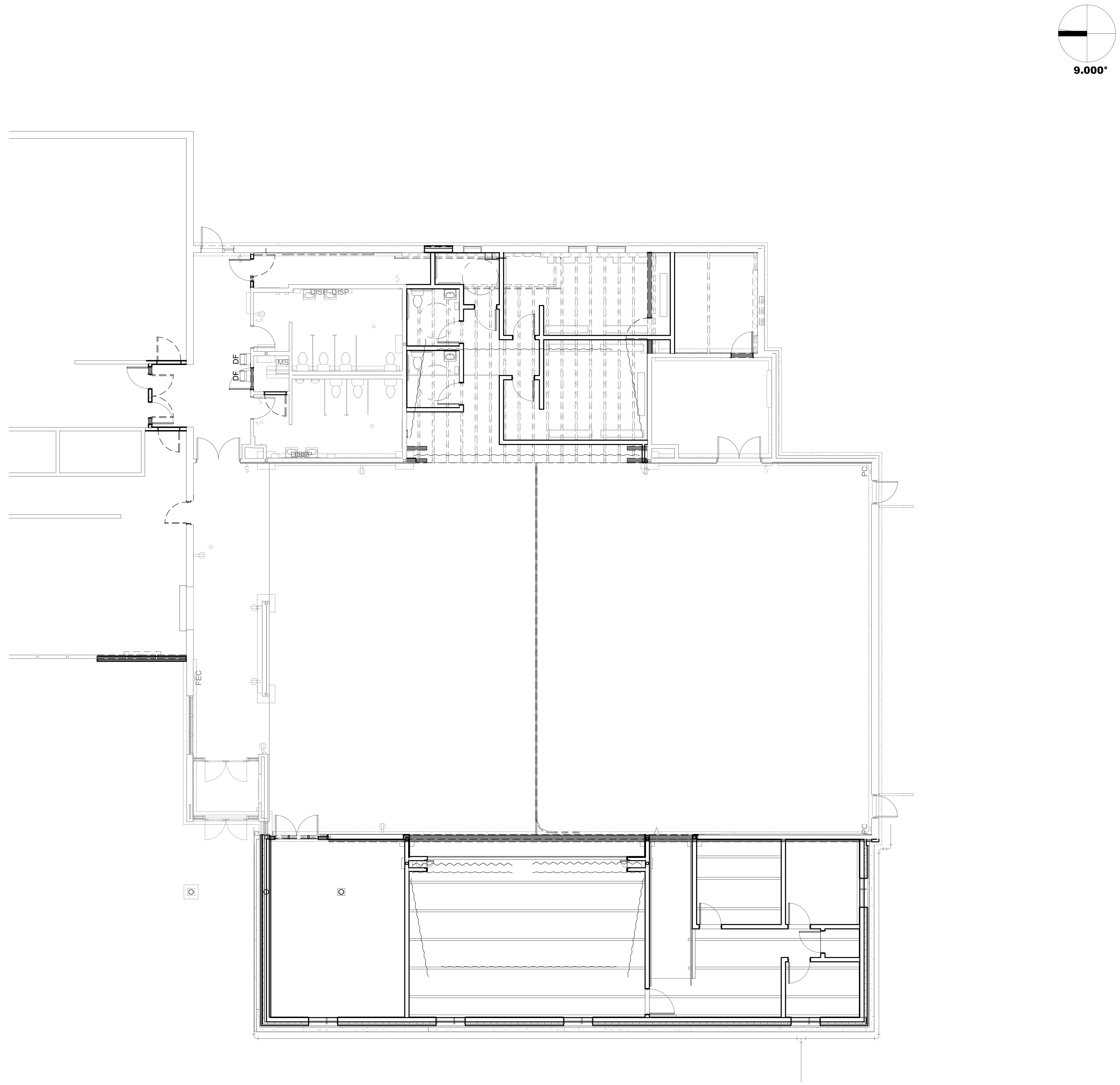
ROOF DEMOLITION

A-120



1 DEMOLITION/NEW OVERLAY
A-401 1/8" = 1'-0"

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DEMO/NEW OVERLAY

A-150

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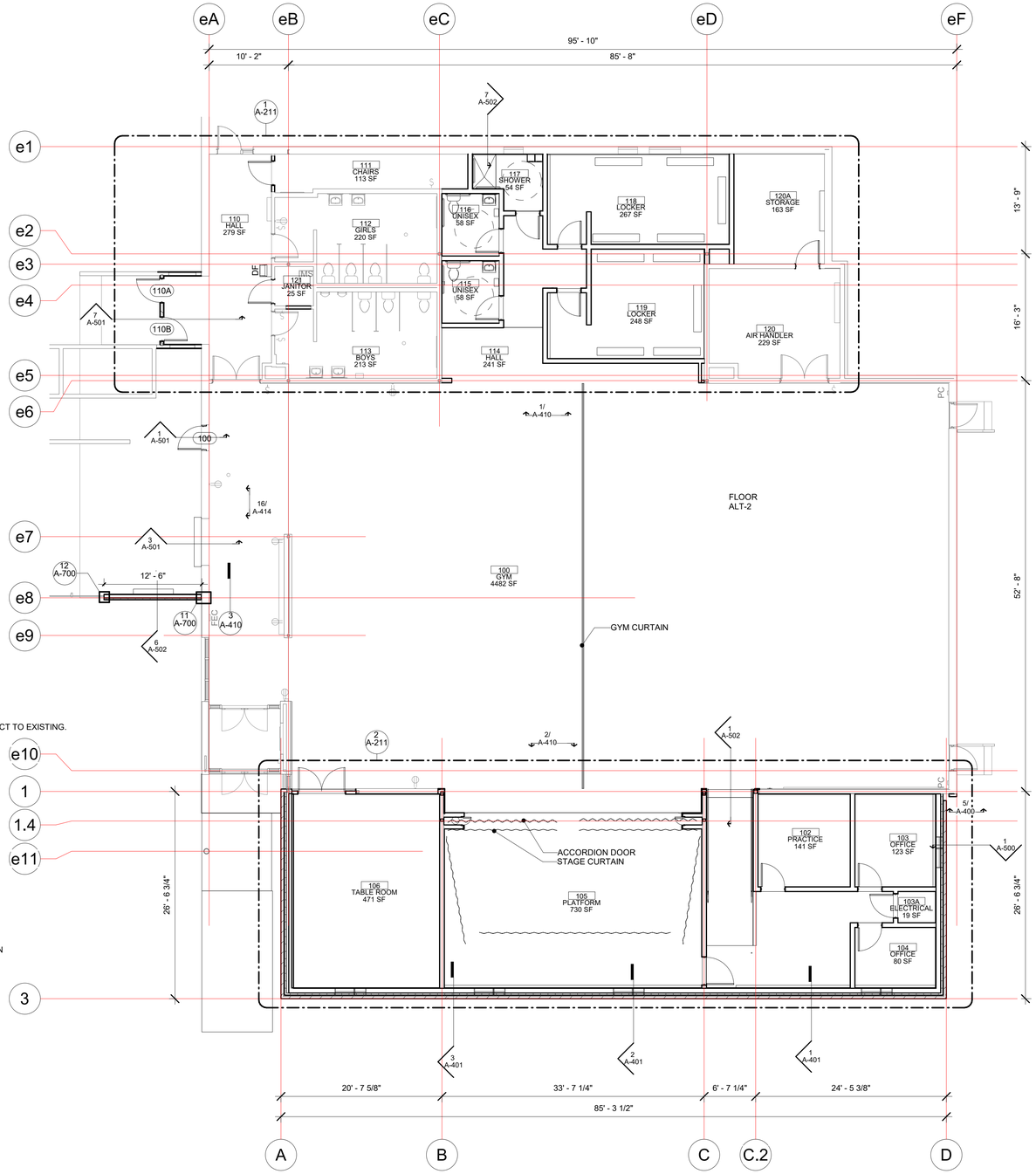
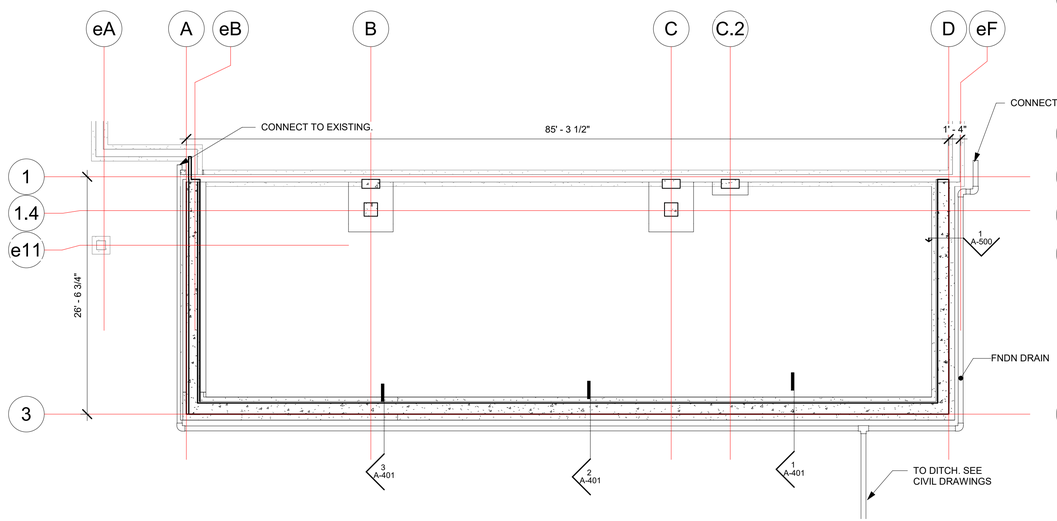
ALTERNATES
1. RESHINGLE EXISTING GYM ROOF
2. REPLACE EXISTING GYM FLOORING AND BASE
3. CHANGE IN DATE OF FINAL COMPLETION

9.000°

00 ROOMS		
NUMBER	NAME	AREA
100	GYM	4482 SF
101	HALL	123 SF
102	PRACTICE	141 SF
103	OFFICE	123 SF
103A	ELECTRICAL	19 SF
104	OFFICE	80 SF
105	PLATFORM	730 SF
106	TABLE ROOM	471 SF
110	HALL	279 SF
111	CHAIRS	113 SF
112	GIRLS	220 SF
113	BOYS	213 SF
114	HALL	241 SF
115	UNISEX	58 SF
116	UNISEX	58 SF
117	SHOWER	54 SF
118	LOCKER	267 SF
119	LOCKER	248 SF
120	AIR HANDLER	229 SF
120A	STORAGE	163 SF
121	JANITOR	25 SF
123	HALL	427 SF
124	KITCHEN	657 SF
136	INSTRUMENTS	205 SF
Grand total: 24		9627 SF





2 FOUNDATION DRAINS
A-500 1/8" = 1'-0"

1 FLOOR PLAN
A-401 1/8" = 1'-0"

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KEY PLAN

A-210

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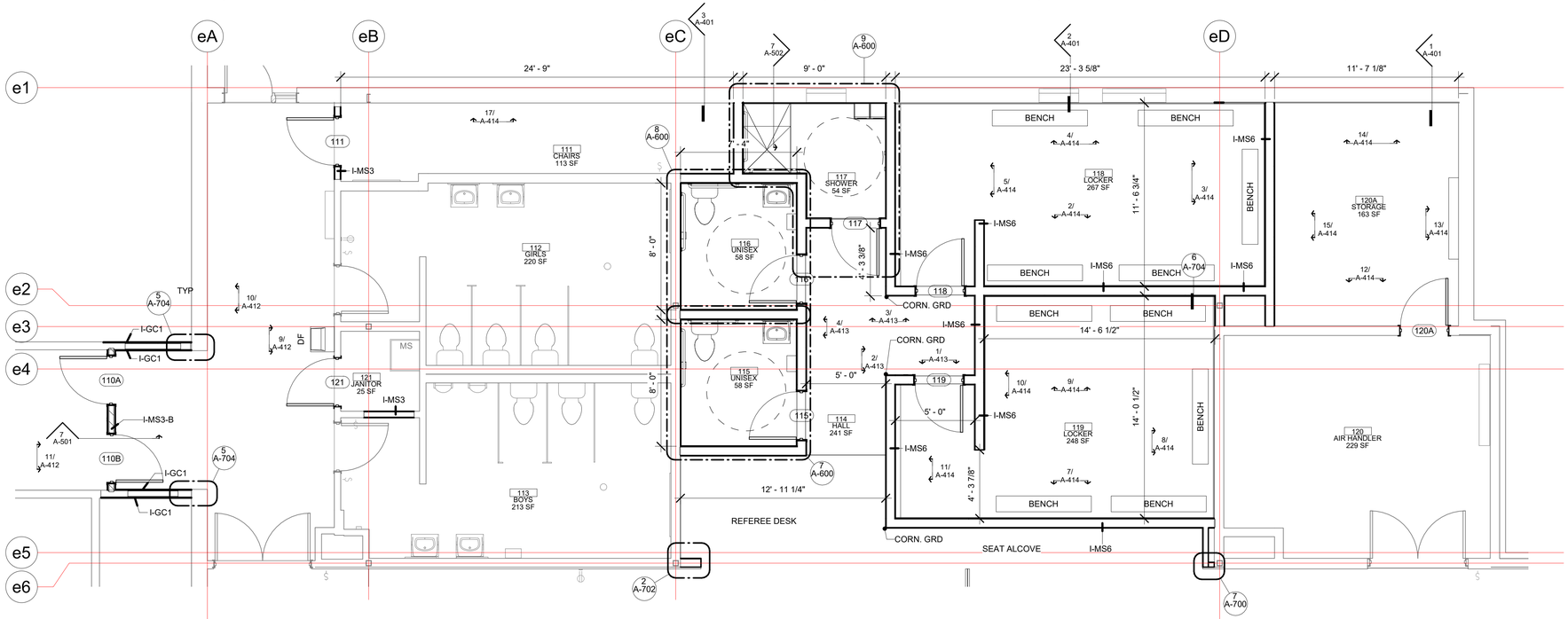
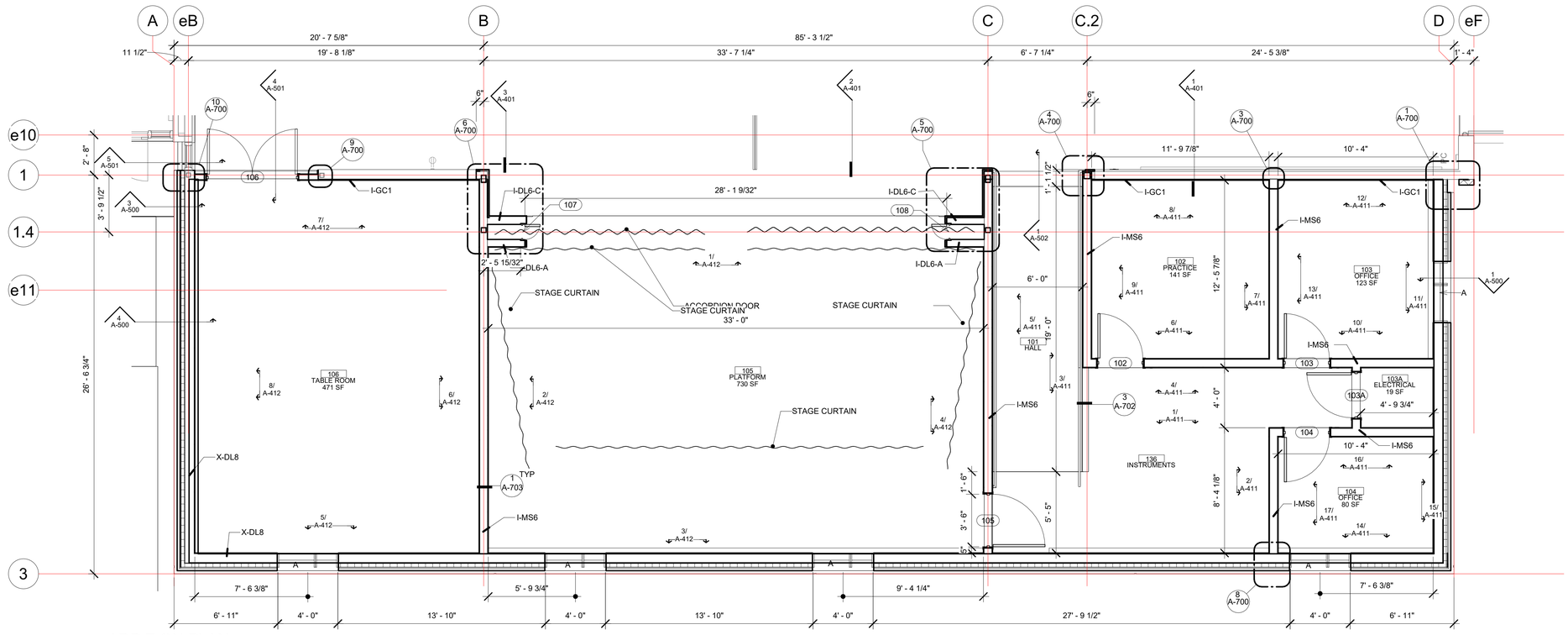


1 RENOVATION PLAN
A-210 1/4" = 1'-0"



2 ADDITION PLAN
A-210 1/4" = 1'-0"

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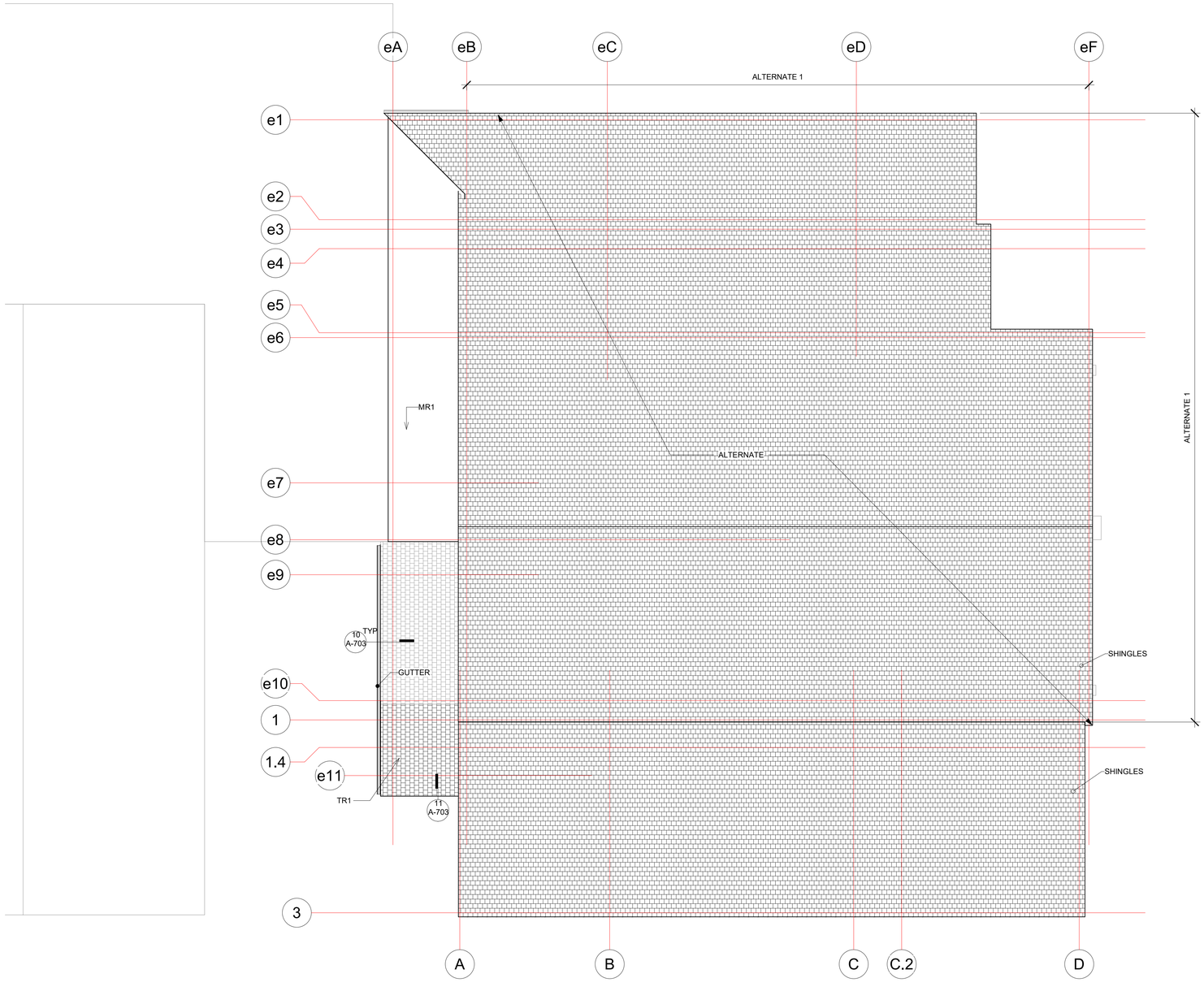
FLOOR PLANS

A-211



1 ROOF
A-401 1/8" = 1'-0"

9.000°

B30 ROOFS ALL			
TYPE MARK	ASSEMBLY CODE	AREA	DESCRIPTION
DL8	B1020400	184 SF	BRACING
DL12	B1020400	159 SF	2X12 FRAMING
EL16	B1020400	2250 SF	TRUSS JOIST FRAMING
MR1	B1020	607 SF	ROOF RATING ASSEMBLY
TR1	B3010150	9909 SF	ASPHALT SHINGLES

ALTERNATES
1. RESHINGLE EXISTING GYM ROOF
2. REPLACE EXISTING GYM FLOORING AND BASE
3. CHANGE IN DATE OF FINAL COMPLETION

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CHINA MIDDLE SCHOOL ADDITION

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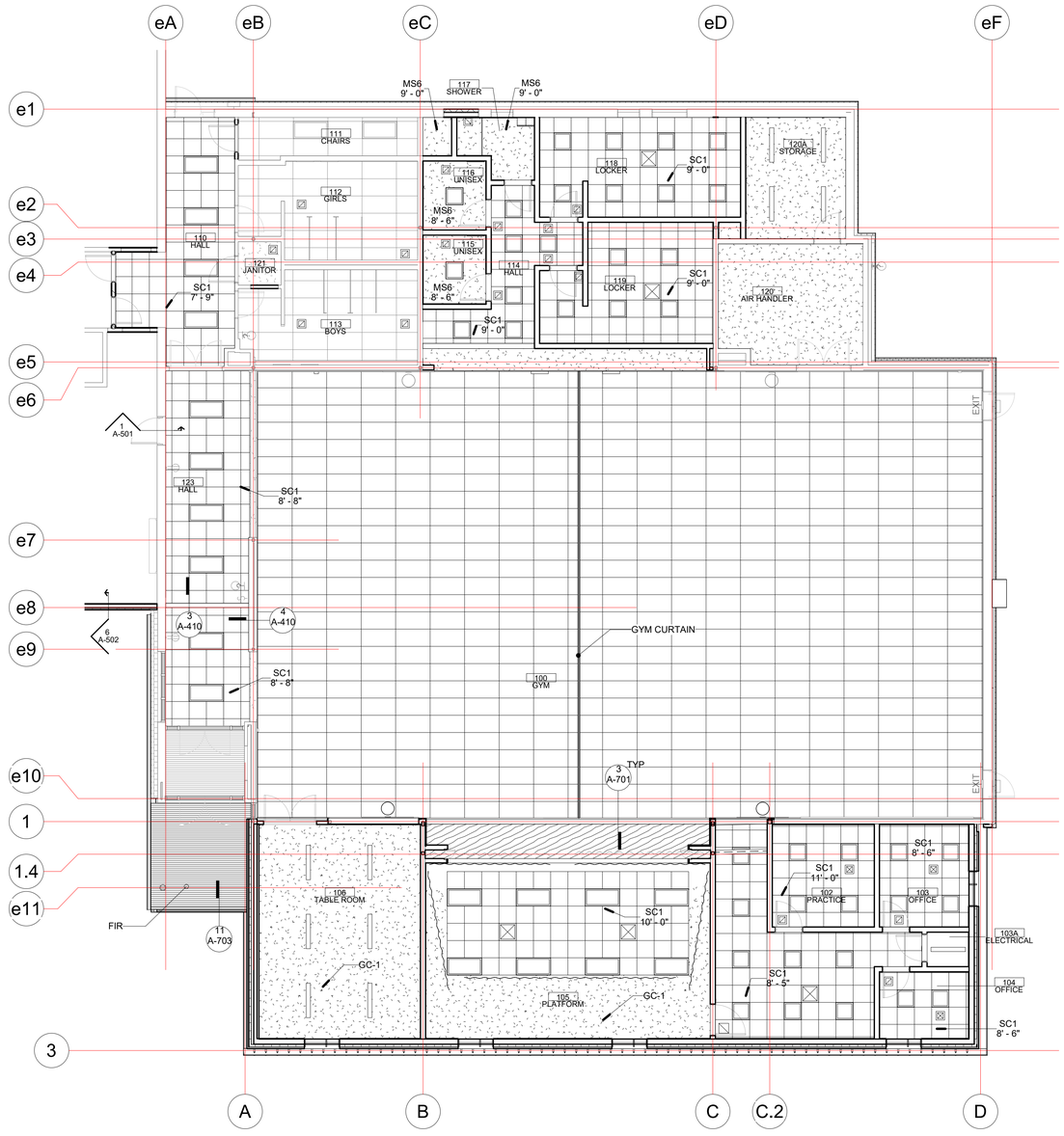
ROOF PLAN

A-220

C30 CEILINGS ALL		
TYPE	AREA	Description
DL6	132 SF	ACCORDION DOOR SOFFIT
GC-1	1205 SF	GYPSUM BOARD
GC-2	540 SF	GYPSUM BOARD
MS1	87 SF	GWB ON MTL STUD
MS2	47 SF	GWB ON MTL STUD ON GWB
MS6	178 SF	GWB ON MTL STUD
SC1	2055 SF	ACOUSTICAL CEILING TILES
Grand total: 23	4245 SF	



1 FLOOR 1 REFLECTED CEILING
A-401 1/8" = 1'-0"

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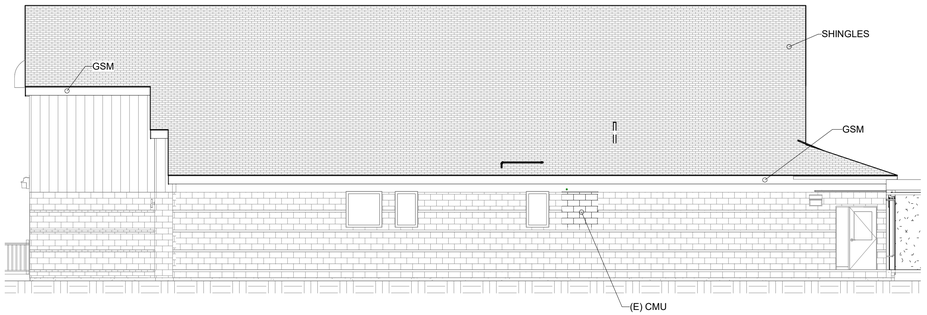
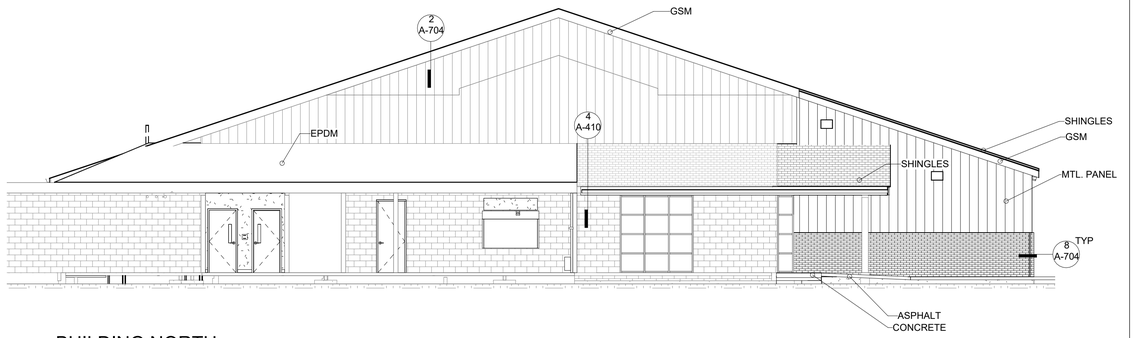
REFLECTED CEILING PLAN

A-300

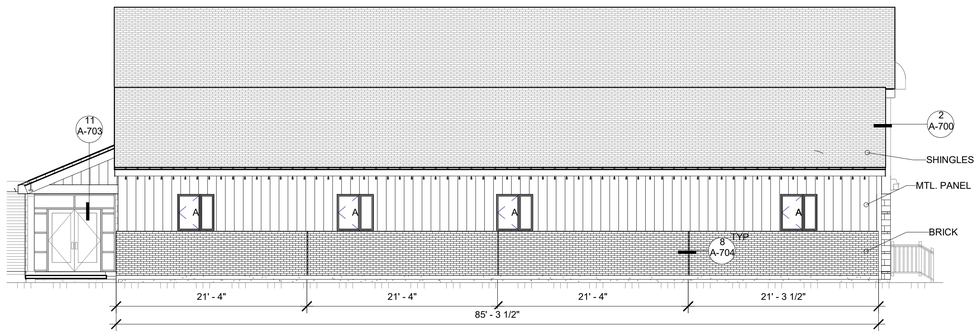
ALTERNATES
1. RESHINGLE EXISTING GYM ROOF
2. REPLACE EXISTING GYM FLOORING AND BASE
3. CHANGE IN DATE OF FINAL COMPLETION



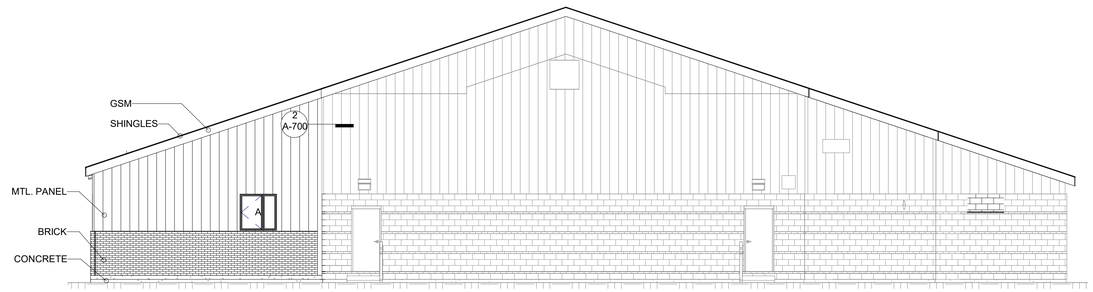
2 BUILDING EAST
PB-001 1/8" = 1'-0"



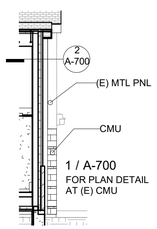
1 BUILDING NORTH
PB-001 1/8" = 1'-0"



4 BUILDING WEST
PB-001 1/8" = 1'-0"



3 BUILDING SOUTH
PB-001 1/8" = 1'-0"



1 / A-700
FOR PLAN DETAIL
AT (E) CMU

5 GRID D NOTCH EAST
A-210 1/8" = 1'-0"

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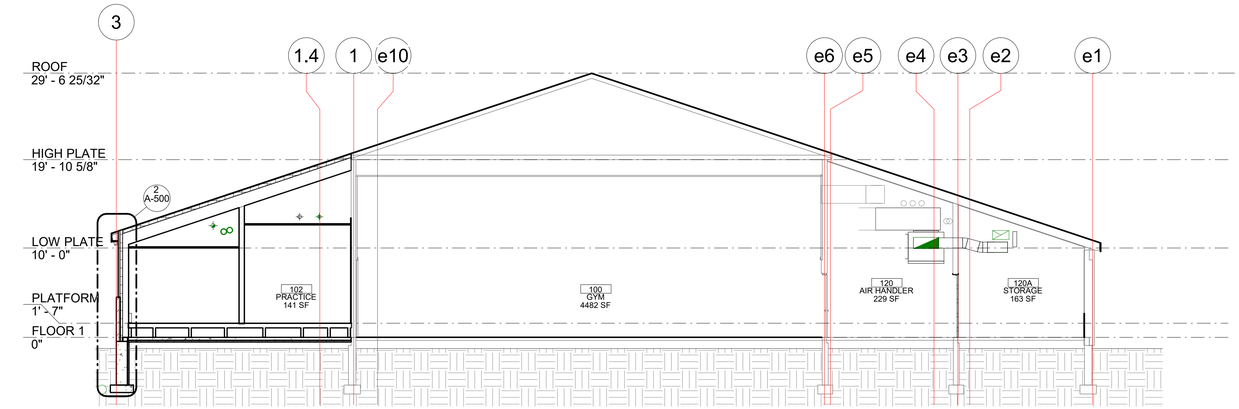
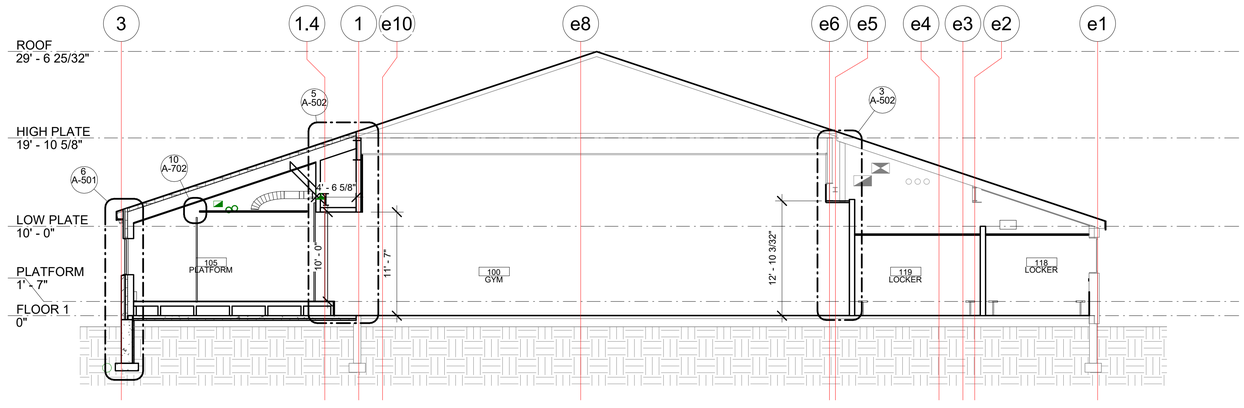
ELEVATIONS

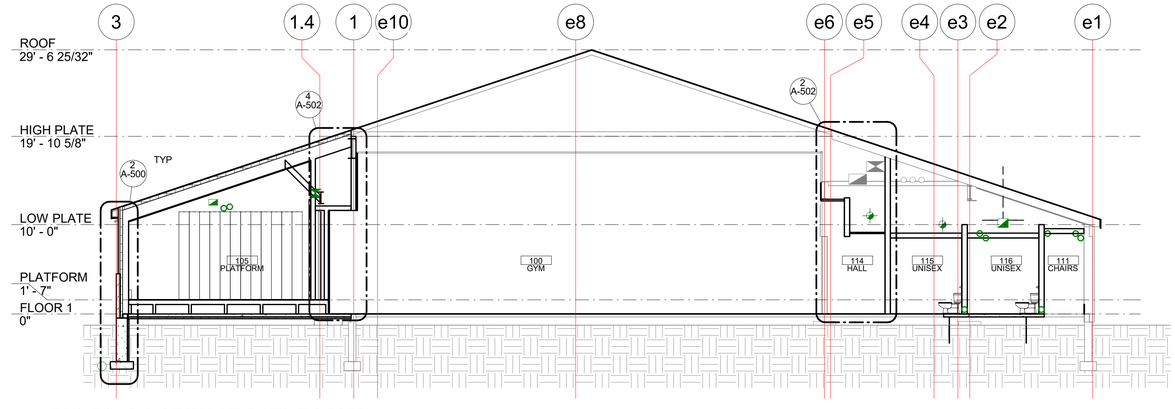
A-400



1 BUILDING NORTH AT INSTRUMENTS
A-210 1/8" = 1'-0"



2 BUILDING NORTH AT PLATFORM
A-210 1/8" = 1'-0"



3 BUILDING NORTH AT BATHROOMS
A-210 1/8" = 1'-0"

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SECTIONS

A-401

THIS IS A 24 X 36 SHEET.

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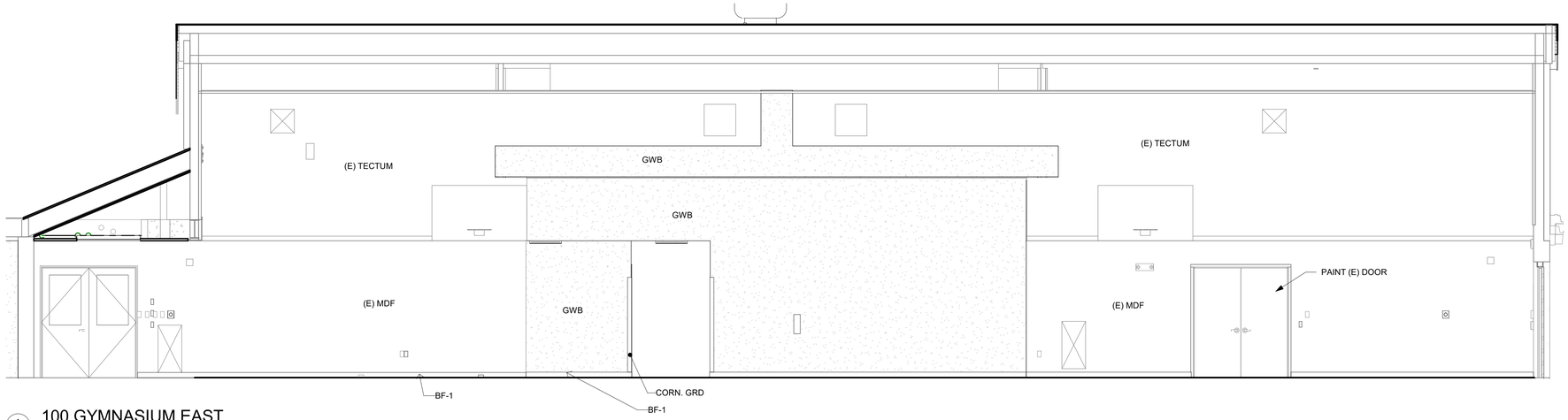
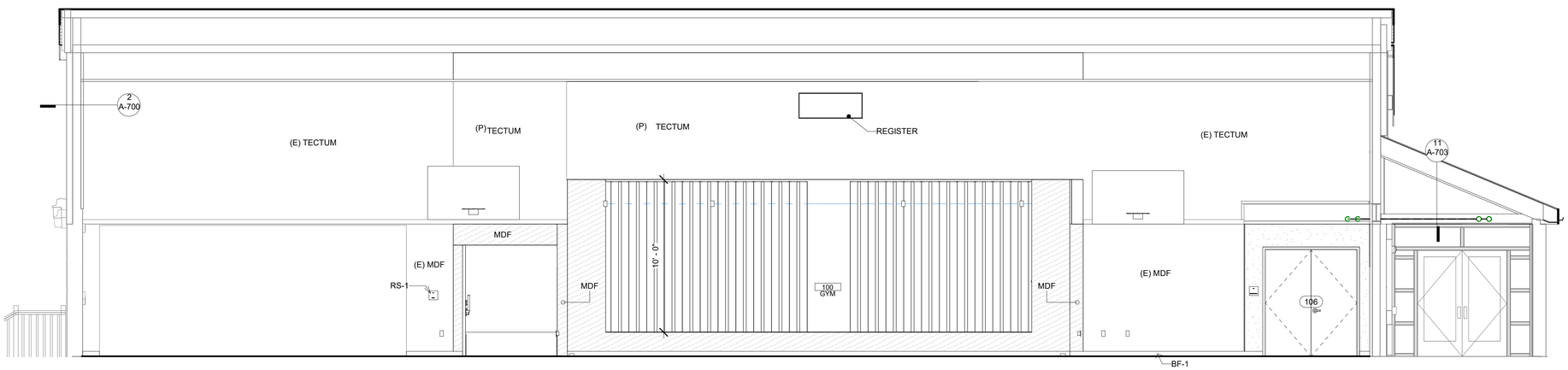
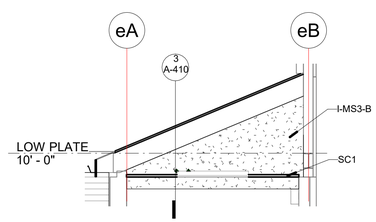


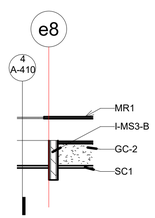
1 100 GYMNASIUM EAST
A-210 1/4" = 1'-0"



2 100 GYMNASIUM WEST
A-210 1/4" = 1'-0"



4 FASCIA AT GRID e8
A-300 1/4" = 1'-0"



3 CEILINGS AT GRID e8
A-210 1/4" = 1'-0"

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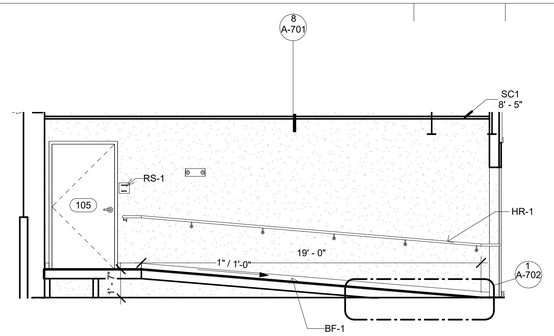
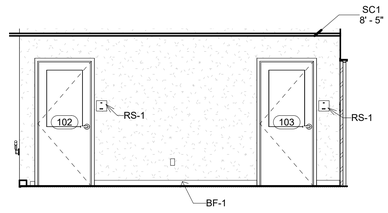
INTERIOR ELEVATIONS

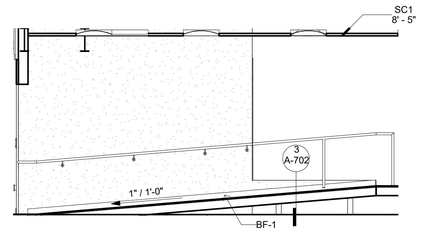
A-410



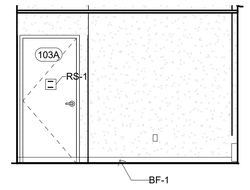
5 101 INSTRUMENTS NORTH
A-211 1/4" = 1'-0"



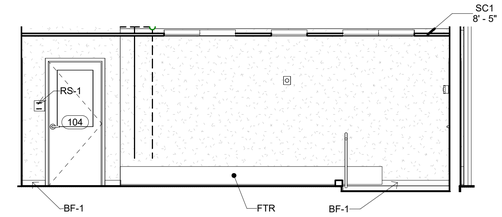
4 101 INSTRUMENTS EAST
A-211 1/4" = 1'-0"



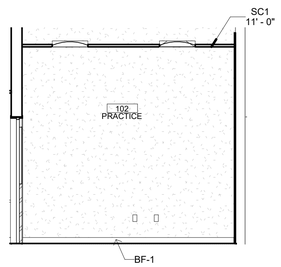
3 101 RAMP SOUTH
A-211 1/4" = 1'-0"



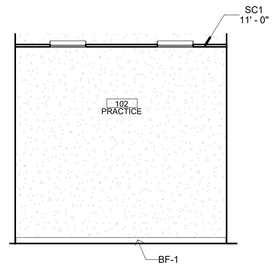
2 101 INSTRUMENTS SOUTH
A-211 1/4" = 1'-0"



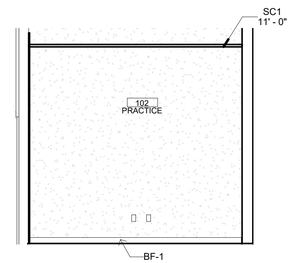
1 101 INSTRUMENTS WEST
A-211 1/4" = 1'-0"



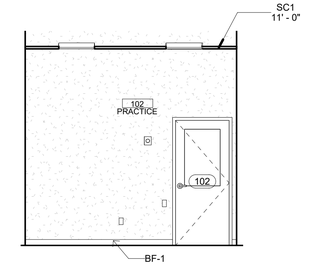
9 102 PRACTICE NORTH
A-211 1/4" = 1'-0"



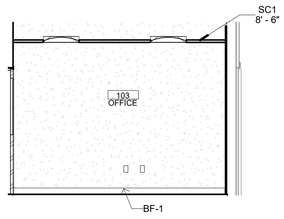
8 102 PRACTICE EAST
A-211 1/4" = 1'-0"



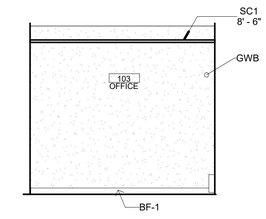
7 102 PRACTICE SOUTH
A-211 1/4" = 1'-0"



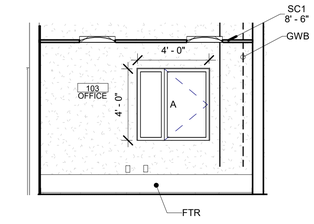
6 102 PRACTICE WEST
A-211 1/4" = 1'-0"



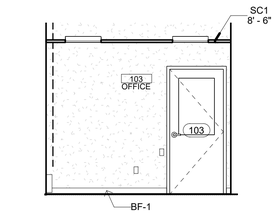
13 103 OFFICE NORTH
A-211 1/4" = 1'-0"



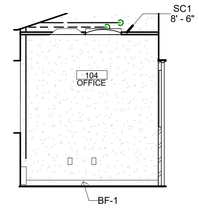
12 103 OFFICE EAST
A-211 1/4" = 1'-0"



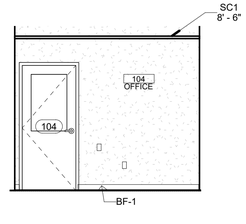
11 103 OFFICE SOUTH
A-211 1/4" = 1'-0"



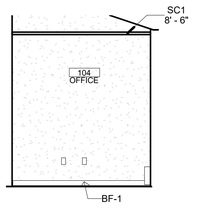
10 103 OFFICE WEST
A-211 1/4" = 1'-0"



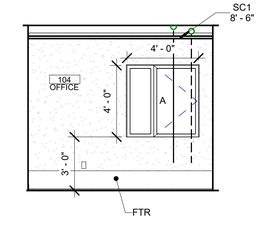
17 104 OFFICE NORTH
A-211 1/4" = 1'-0"



16 104 OFFICE EAST
A-211 1/4" = 1'-0"



15 104 OFFICE SOUTH
A-211 1/4" = 1'-0"



14 104 OFFICE WEST
A-211 1/4" = 1'-0"

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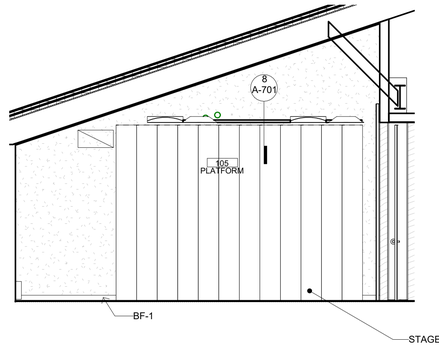
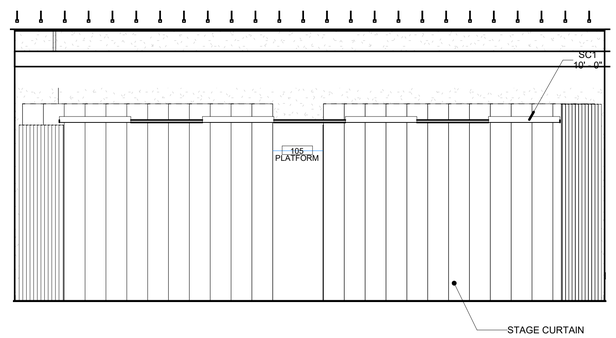
INTERIOR ELEVATIONS

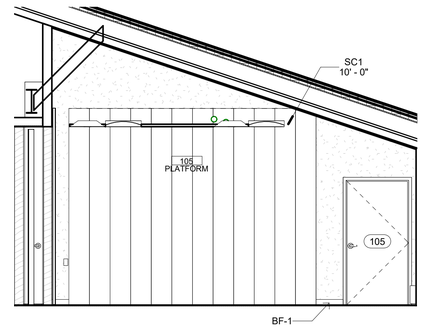
A-411



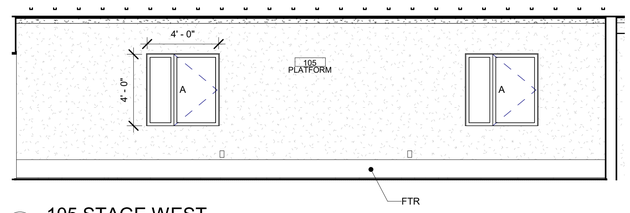
2 105 STAGE NORTH
A-211 1/4" = 1'-0"



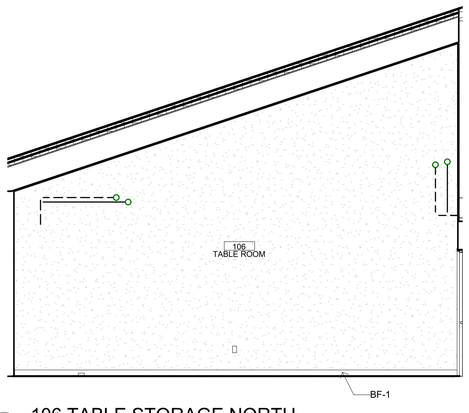
1 105 STAGE EAST
A-211 1/4" = 1'-0"



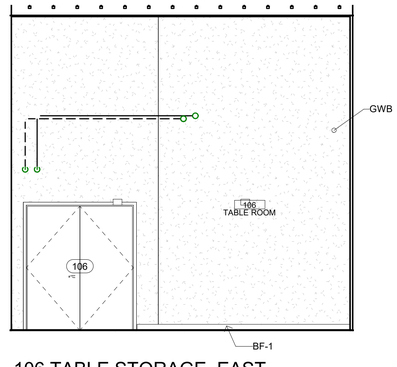
4 105 STAGE SOUTH
A-211 1/4" = 1'-0"



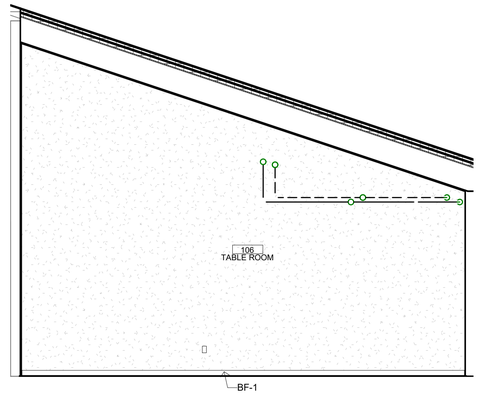
3 105 STAGE WEST
A-211 1/4" = 1'-0"



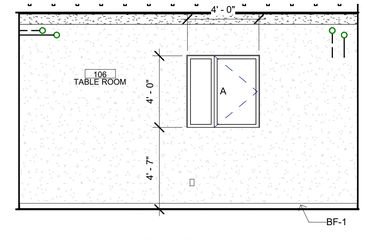
8 106 TABLE STORAGE NORTH
A-211 1/4" = 1'-0"



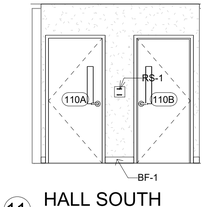
7 106 TABLE STORAGE EAST
A-211 1/4" = 1'-0"



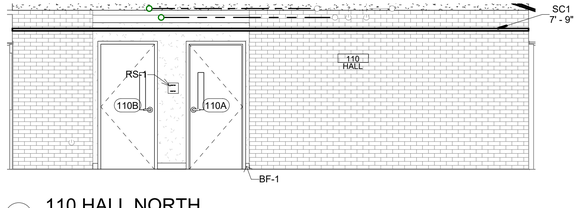
6 106 TABLE STORAGE SOUTH
A-211 1/4" = 1'-0"



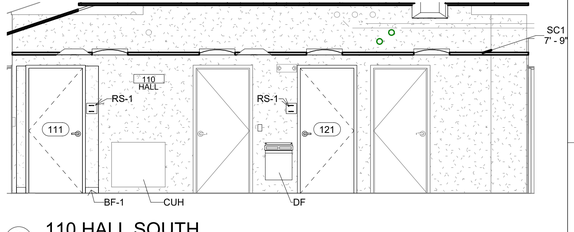
5 106 TABLE STORAGE WEST
A-211 1/4" = 1'-0"



11 HALL SOUTH
A-211 1/4" = 1'-0"



10 110 HALL NORTH
A-211 1/4" = 1'-0"



9 110 HALL SOUTH
A-211 1/4" = 1'-0"

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INTERIOR ELEVATIONS

A-412

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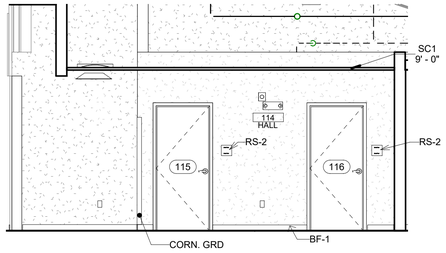
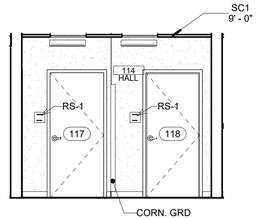
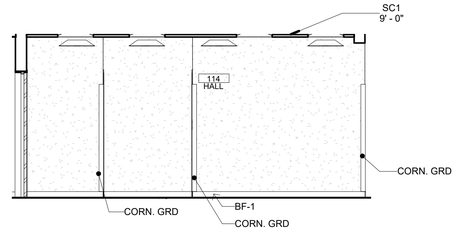


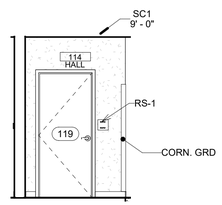
4 114 HALL NORTH
A-211 1/4" = 1'-0"



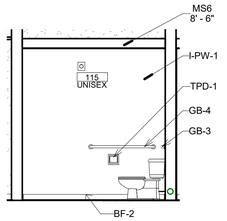
3 114 HALL EAST
A-211 1/4" = 1'-0"



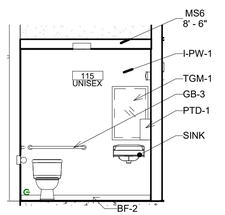
2 114 HALL SOUTH
A-211 1/4" = 1'-0"



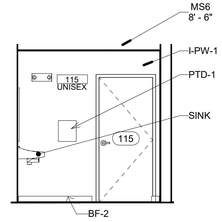
1 114 HALL WEST
A-211 1/4" = 1'-0"



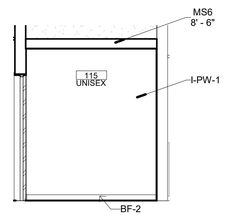
9 115 UNISEX NORTH
A-600 1/4" = 1'-0"



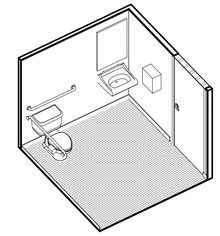
8 115 UNISEX EAST
A-600 1/4" = 1'-0"



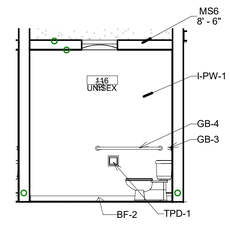
7 115 UNISEX SOUTH
A-600 1/4" = 1'-0"



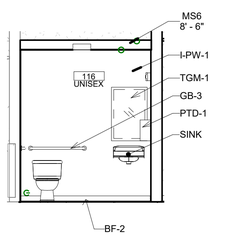
6 115 UNISEX WEST
A-600 1/4" = 1'-0"



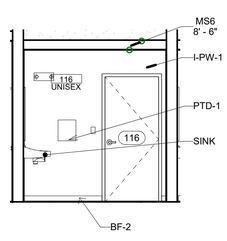
5 115 UNISEX



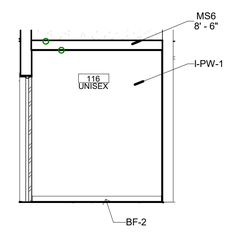
14 116 UNISEX NORTH
A-600 1/4" = 1'-0"



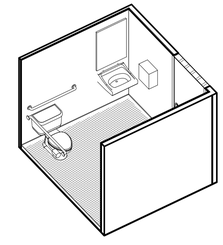
13 116 UNISEX EAST
A-600 1/4" = 1'-0"



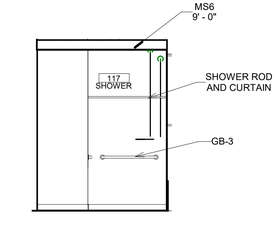
12 116 UNISEX SOUTH
A-600 1/4" = 1'-0"



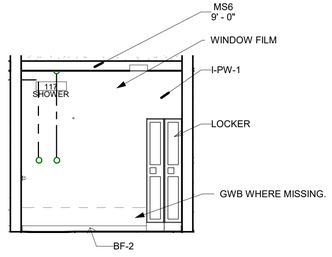
11 116 UNISEX WEST
A-600 1/4" = 1'-0"



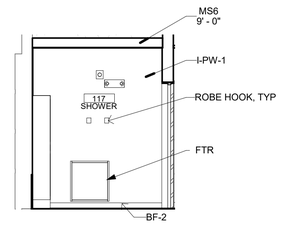
10 116 UNISEX



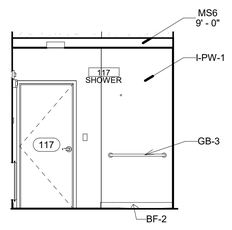
19 117 SHOWER NORTH
A-600 1/4" = 1'-0"



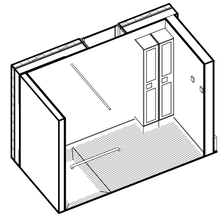
18 117 SHOWER EAST
A-600 1/4" = 1'-0"



17 117 SHOWER SOUTH
A-600 1/4" = 1'-0"



16 117 SHOWER WEST
A-600 1/4" = 1'-0"



15 117 SHOWER

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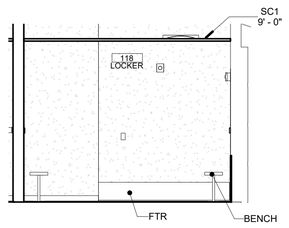
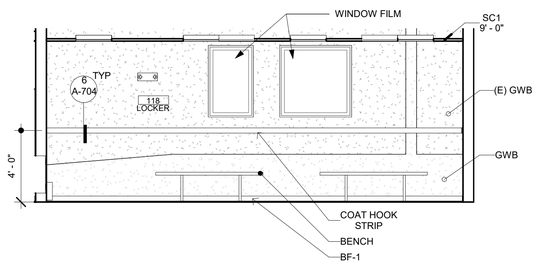
INTERIOR ELEVATIONS

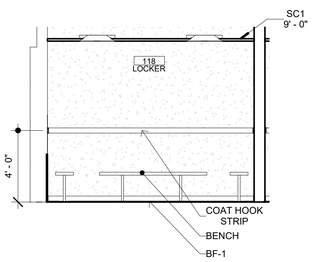
A-413



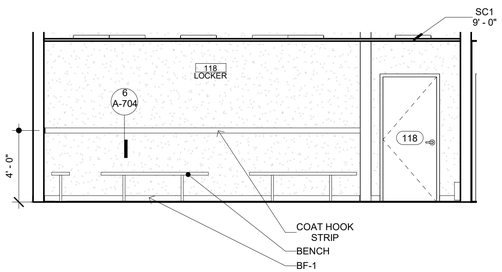
5 118 LOCKER NORTH
A-211 1/4" = 1'-0"



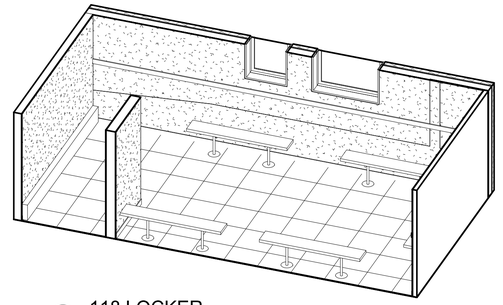
4 118 LOCKER EAST
A-211 1/4" = 1'-0"



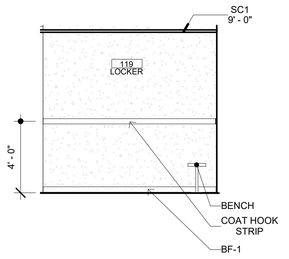
3 118 LOCKER SOUTH
A-211 1/4" = 1'-0"



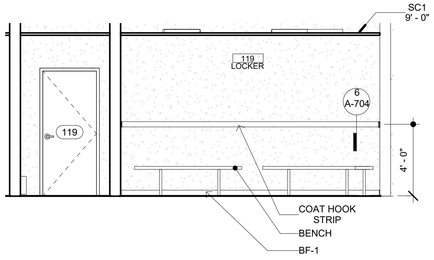
2 118 LOCKER WEST
A-211 1/4" = 1'-0"



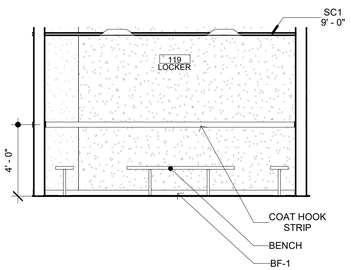
1 118 LOCKER



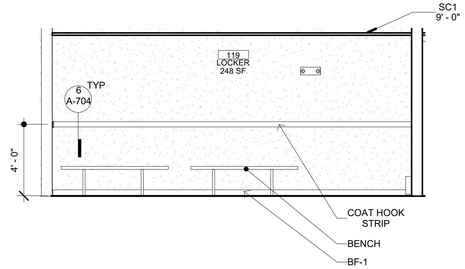
10 119 LOCKER NORTH A
A-211 1/4" = 1'-0"



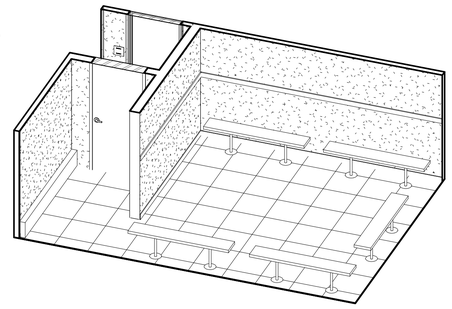
9 119 LOCKER EAST
A-211 1/4" = 1'-0"



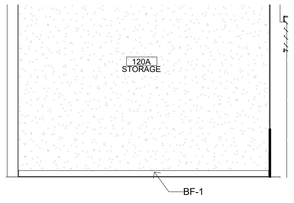
8 119 LOCKER SOUTH
A-211 1/4" = 1'-0"



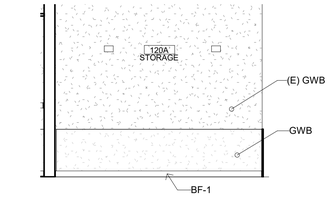
7 119 LOCKER WEST
A-211 1/4" = 1'-0"



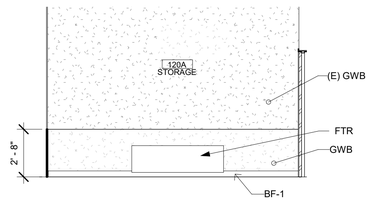
6 119 LOCKER



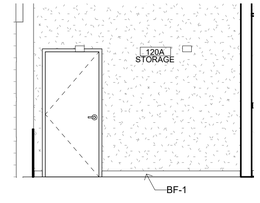
15 120A STORAGE NORTH
A-211 1/4" = 1'-0"



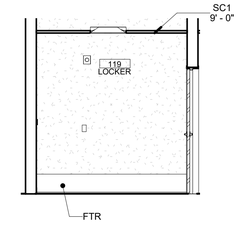
14 120A STORAGE EAST
A-211 1/4" = 1'-0"



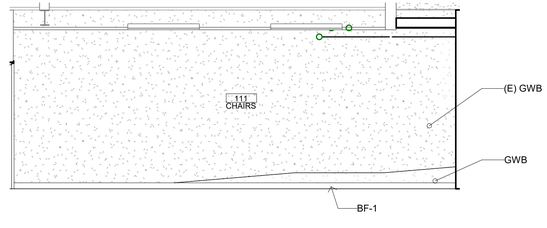
13 120A STORAGE SOUTH
A-211 1/4" = 1'-0"



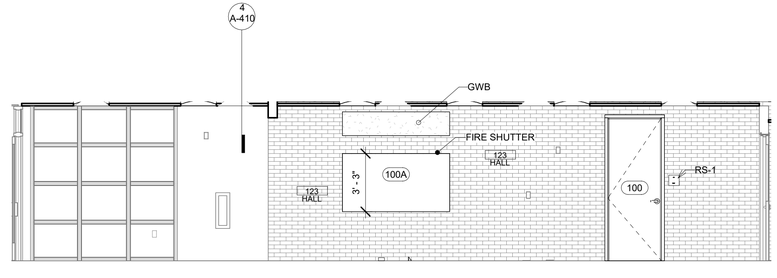
12 120A STORAGE WEST
A-211 1/4" = 1'-0"



11 119 LOCKER NORTH
A-211 1/4" = 1'-0"



17 113 CHAIRS EAST
A-211 1/4" = 1'-0"



16 123 HALL NORTH
A-210 1/4" = 1'-0"

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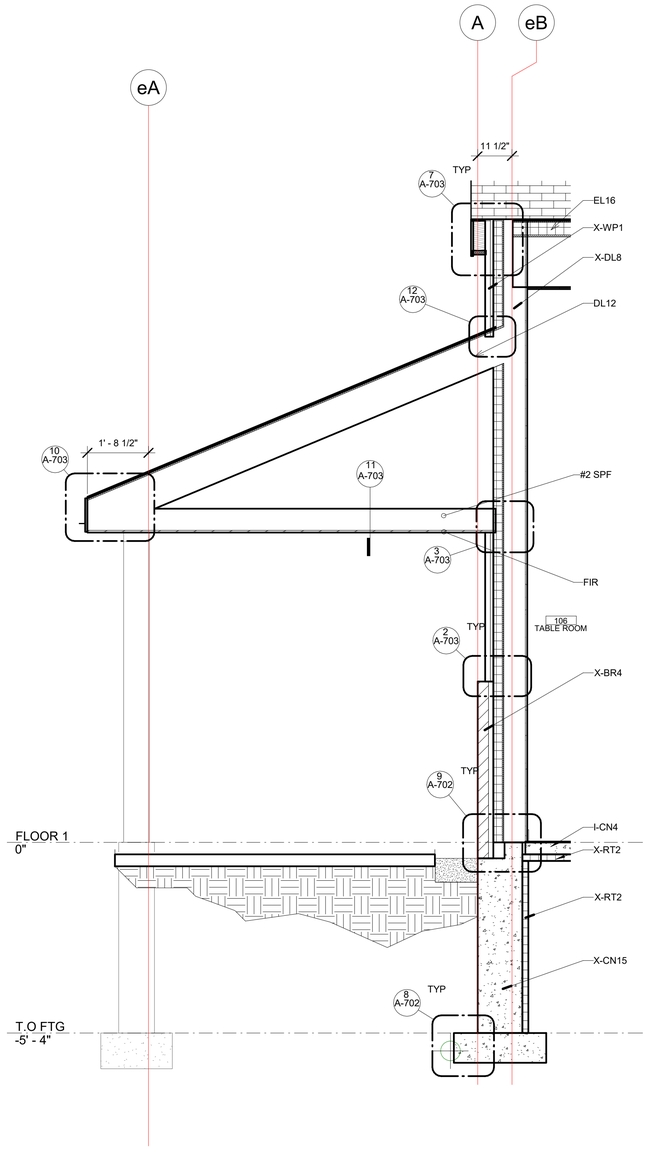
INTERIOR ELEVATIONS

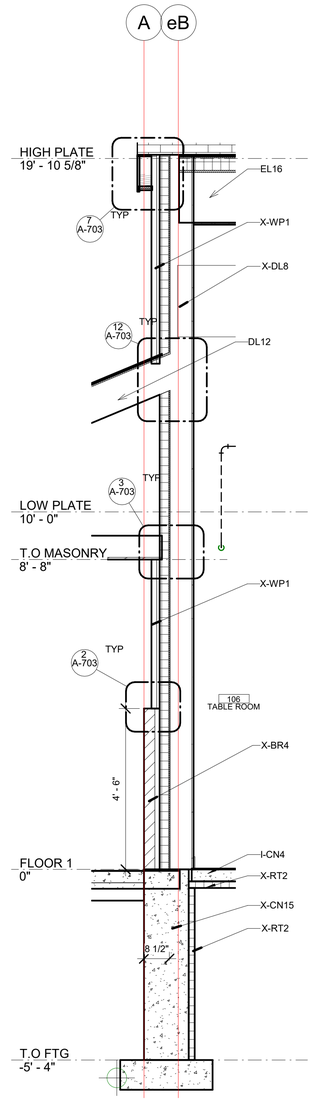
A-414

THIS IS A 24 X 36 SHEET.

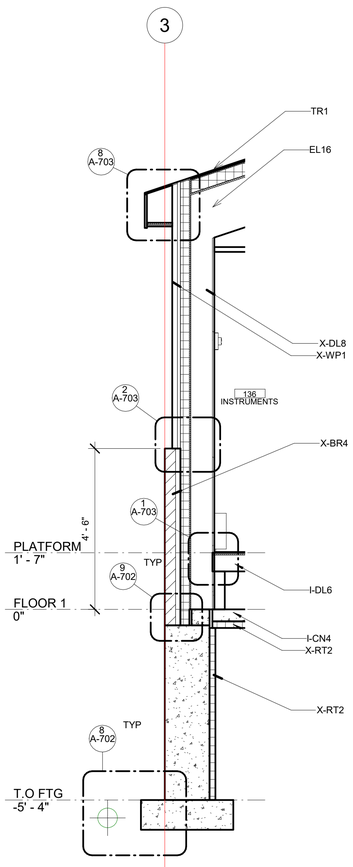
C:\Users\Mike 2\Documents\CMS 2019 March 30_Mike 2.rvt



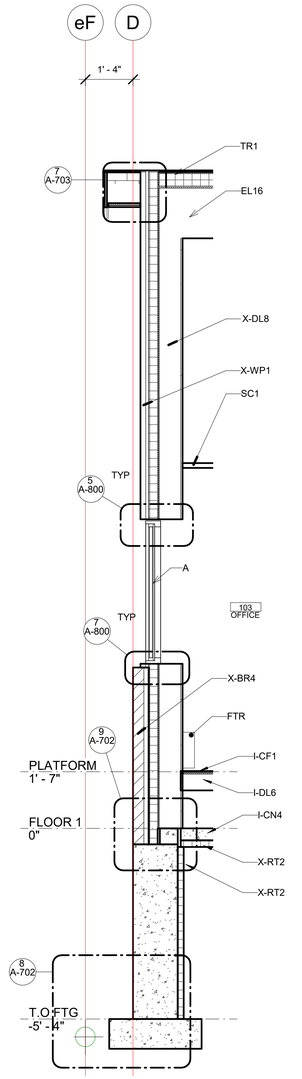
4 GRID A AT WALKWAY
A-211 1/2" = 1'-0"



3 GRID A AT LANDING
A-211 1/2" = 1'-0"



2 GRID 3 AT INSTRUMENTS
A-401 1/2" = 1'-0"



1 GRID D AT OFFICE
A-210 1/2" = 1'-0"

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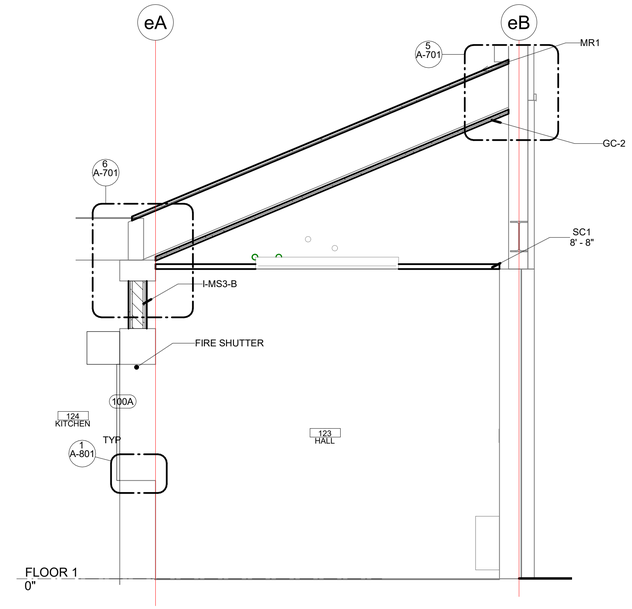
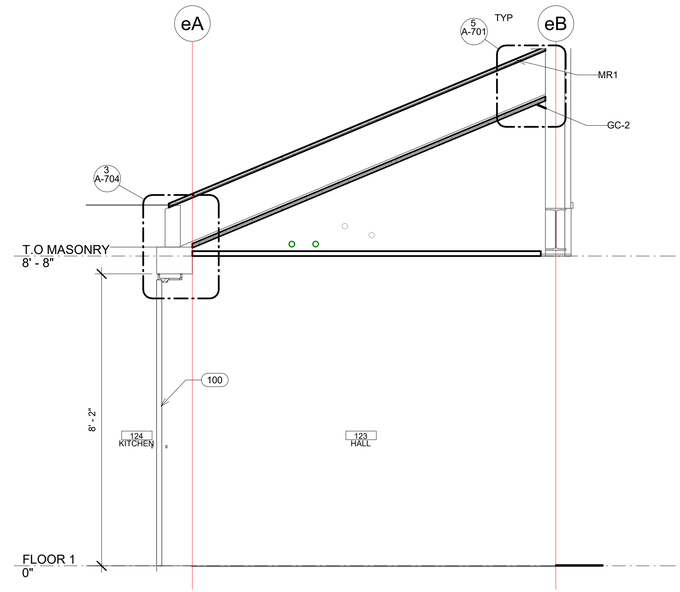
WALL SECTIONS

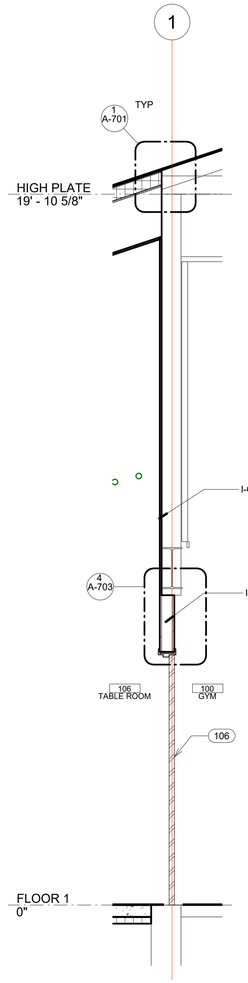
A-500



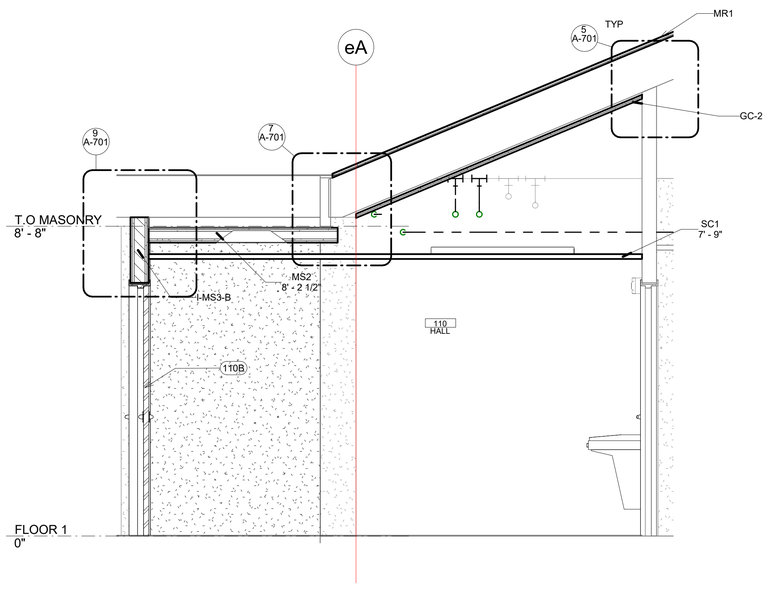
3 FIRE SEPARATION AT FIRE SHUTTER
A-210 1/2" = 1'-0"



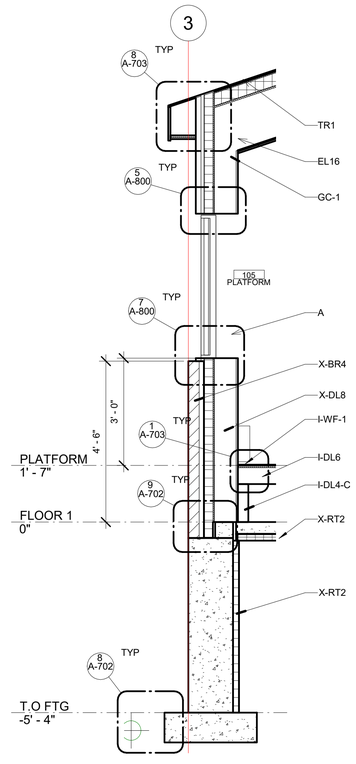
1 FIRE SEPARATION AT DOOR 100
A-210 1/2" = 1'-0"



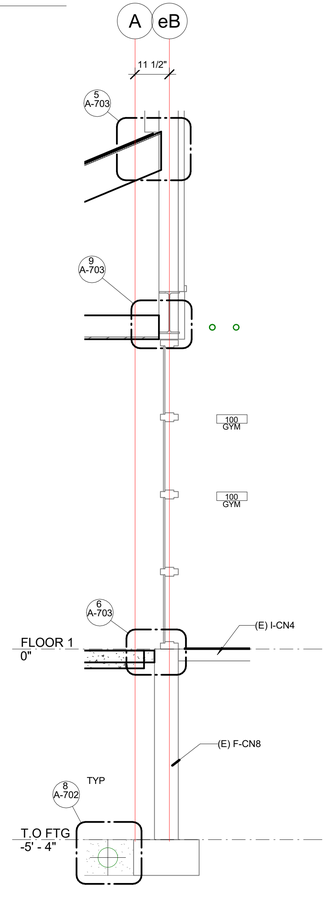
4 GRID 1 AT STORAGE DOORS
A-211 1/2" = 1'-0"



7 FIRE SEPARATION AT DOOR 110B
A-210 1/2" = 1'-0"



6 GRID 2 AT PLATFORM
A-401 1/2" = 1'-0"



5 GRID A AT (E) FOUNDATION
A-211 1/2" = 1'-0"

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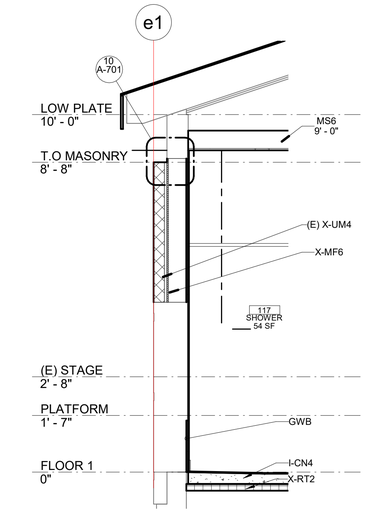
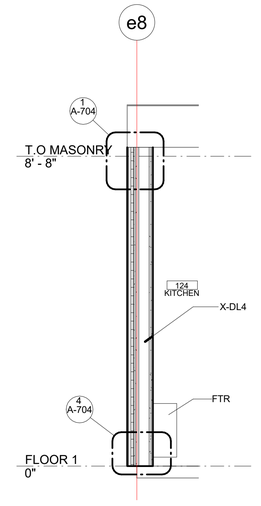
WALL SECTIONS

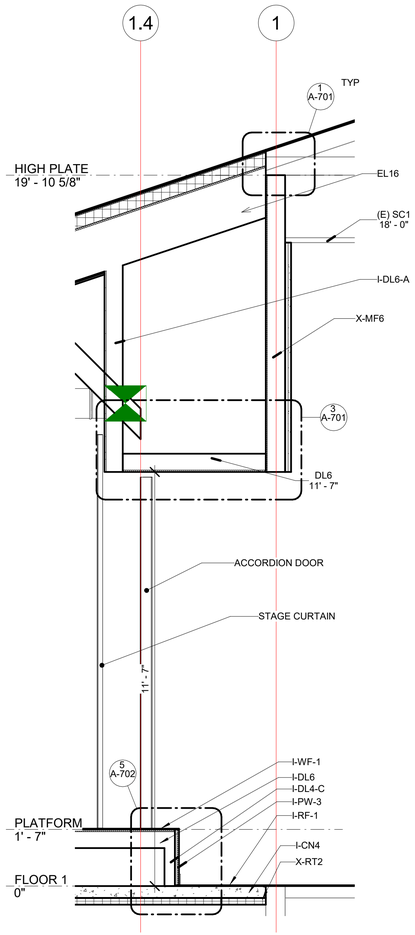
A-501



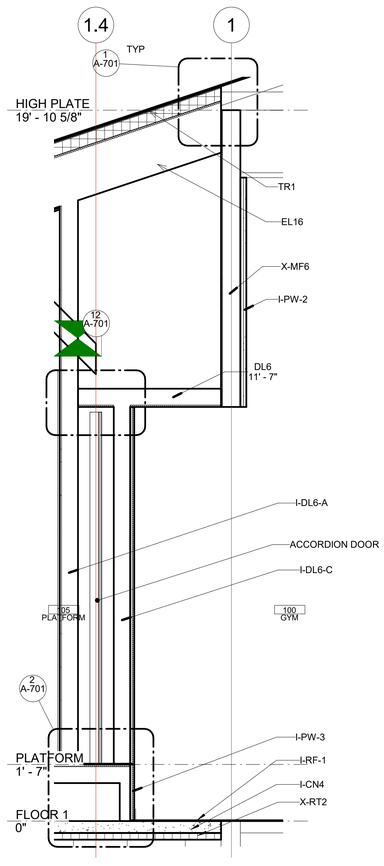
7 SHOWER AT GRID e1
A-210 1/2" = 1'-0"



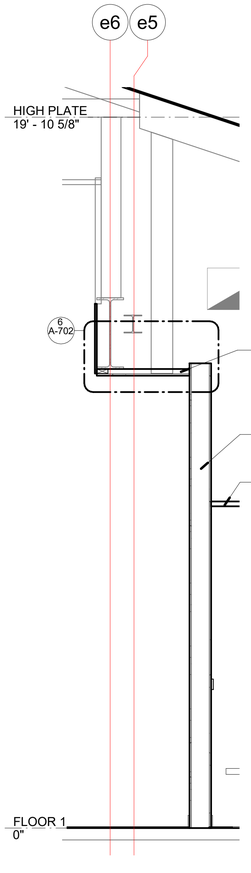
6 GRID e8 AT FIRE WALL
A-210 1/2" = 1'-0"



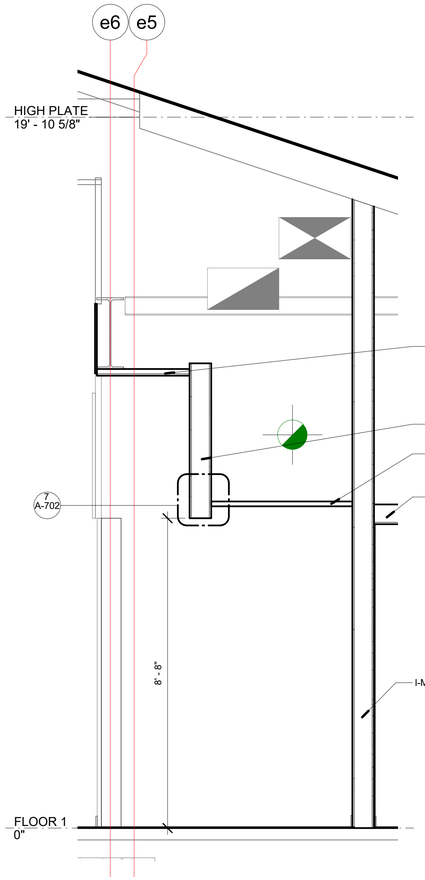
5 GRID 1 AT PLATFORM
A-401 1/2" = 1'-0"



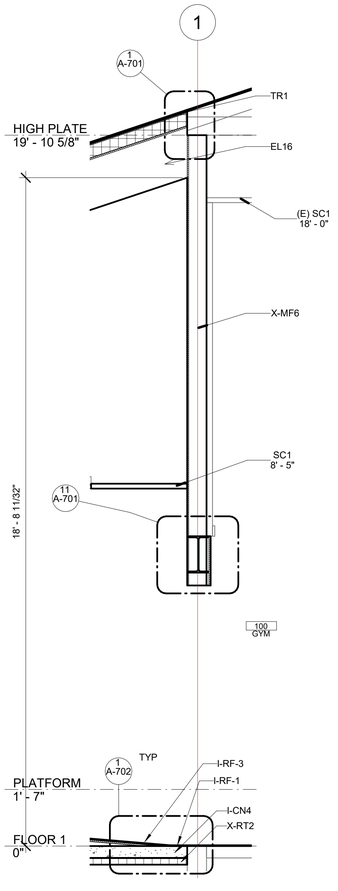
4 GRID 1 AT NORTH POCKET
A-401 1/2" = 1'-0"



3 GRID e6 AT SEAT ALCOVE
A-401 1/2" = 1'-0"



2 GRID e6 AT REFEREE DESK
A-401 1/2" = 1'-0"



1 GRID 1 AT RAMP
A-210 1/2" = 1'-0"

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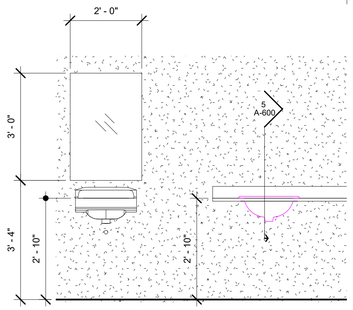
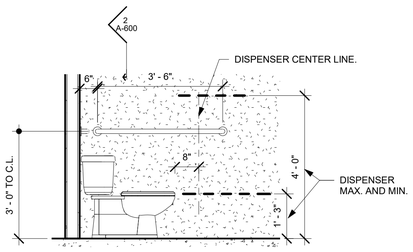
WALL SECTIONS

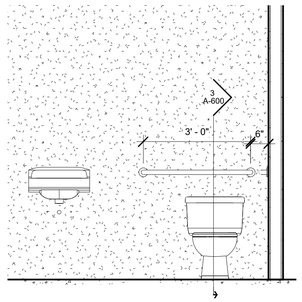
A-502



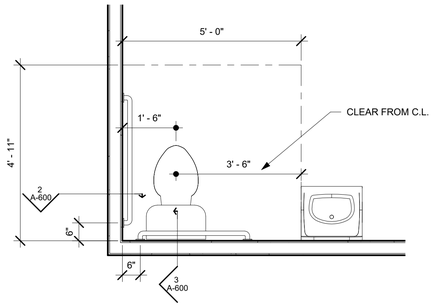
4 LAVATORY HEIGHTS
A-600 1/2" = 1'-0"



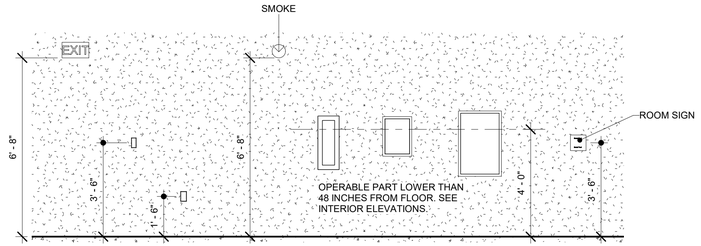
3 ACCESSIBLE STALL SIDE WALL
A-600 1/2" = 1'-0"



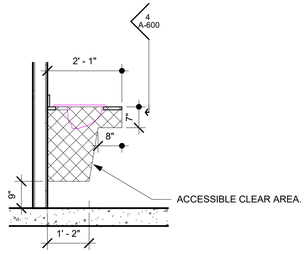
2 ACCESSIBLE STALL BACK WALL
A-600 1/2" = 1'-0"



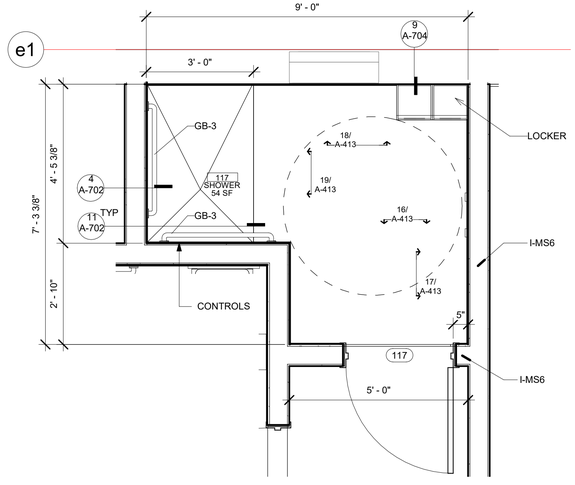
1 TYPICAL BATHROOM STALLS
1/2" = 1'-0"



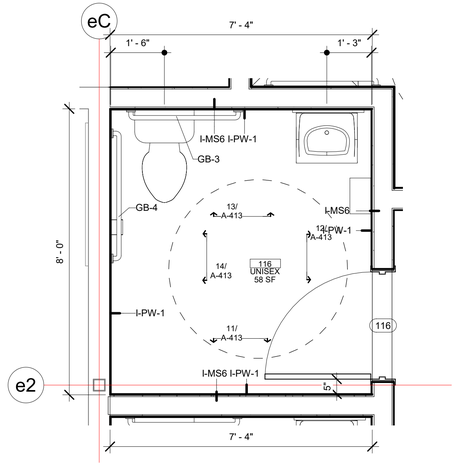
6 FF&E MOUNTING HEIGHTS
3/8" = 1'-0"



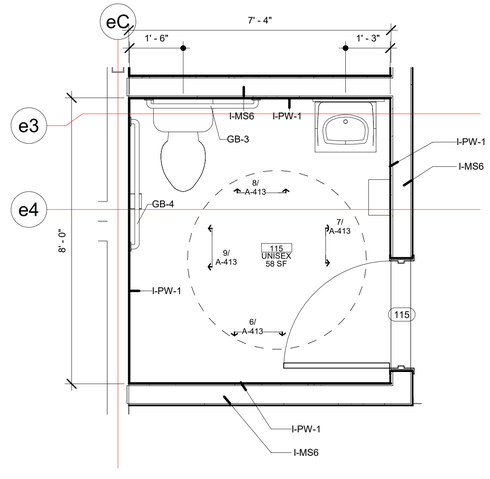
5 CLEAR AREA AT SKIRT PANEL
A-600 1/2" = 1'-0"



9 117 SHOWER
A-211 1/2" = 1'-0"



8 116 UNISEX BATHROOM
A-211 1/2" = 1'-0"



7 115 UNISEX BATHROOM
A-211 1/2" = 1'-0"

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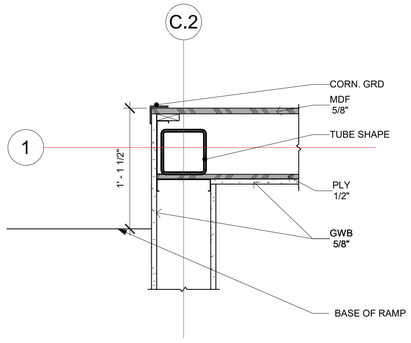
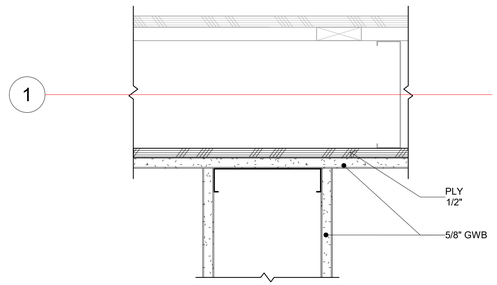
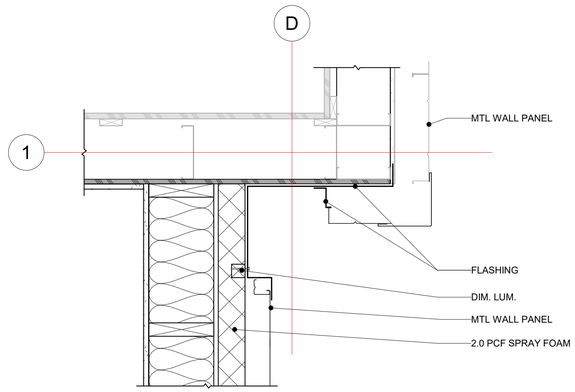
TYPICAL DIMENSIONS AND ENLARGED PLANS
A-600



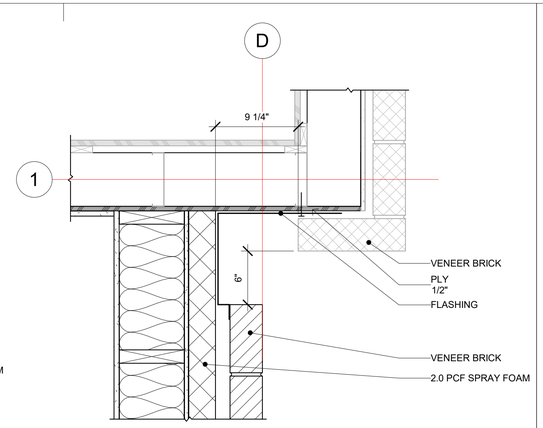
4 PARTITION AT BASE OF RAMP
A-211 1 1/2" = 1'-0"



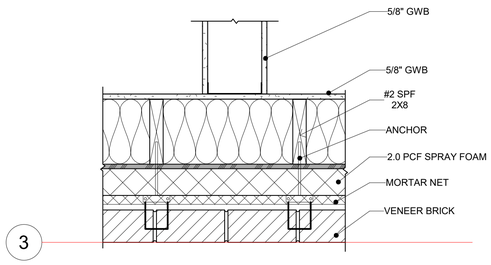
3 PARTITION AT (E) WALL
A-211 3" = 1'-0"



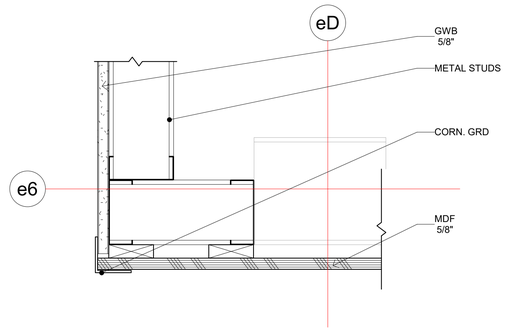
2 METAL PANEL AT GRID D-1
A-400 1 1/2" = 1'-0"



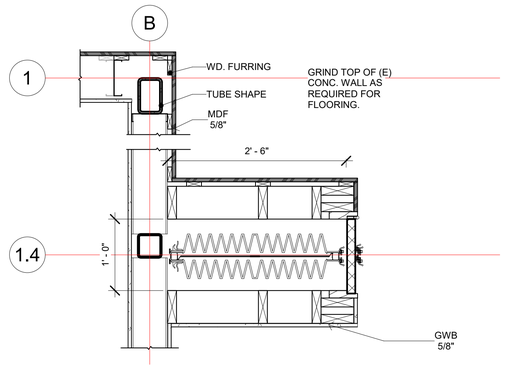
1 BRICK AT GRID 1-D
A-211 1 1/2" = 1'-0"



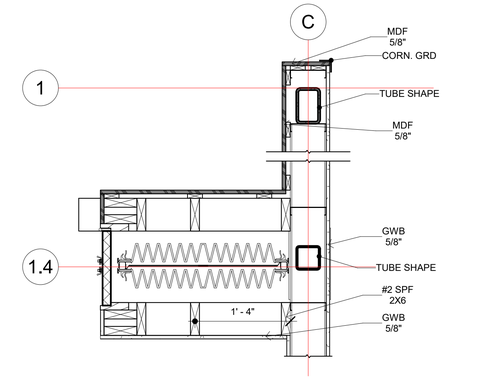
8 PARTITION AT EXTERIOR WALL
A-211 1 1/2" = 1'-0"



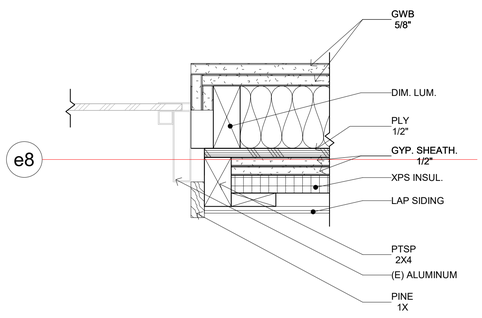
7 (E) PROSCENIUM AT eD
A-211 3" = 1'-0"



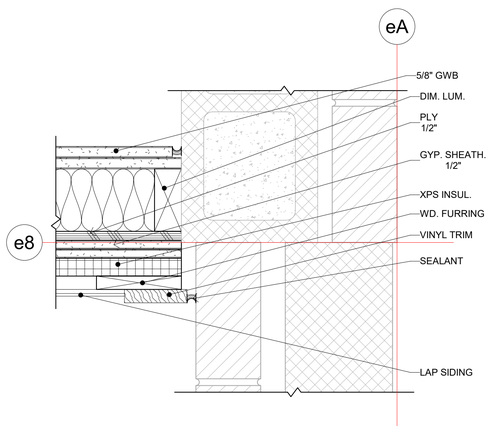
6 ACCORDION NORTH POCKET
A-211 1" = 1'-0"



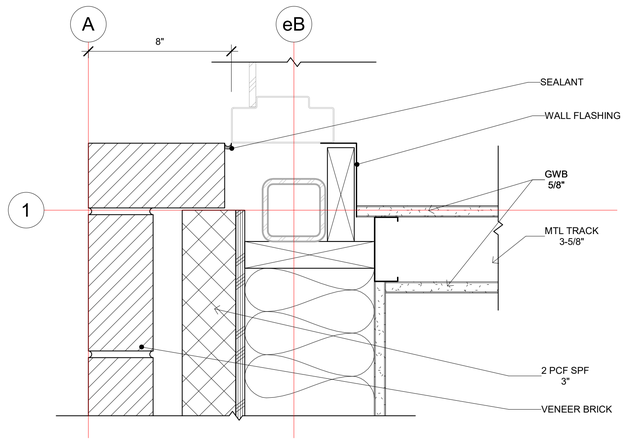
5 ACCORDION SOUTH POCKET
A-211 1" = 1'-0"



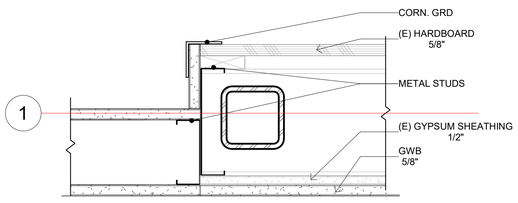
12 KITCHEN WALL AT (E) CURTAIN
A-210 3" = 1'-0"



11 KITCHEN WALL AT CMU
A-210 3" = 1'-0"



10 EXTERIOR WALL AT GRID A-1
A-211 3" = 1'-0"



9 TABLE ROOM INFILL WALL
A-211 3" = 1'-0"

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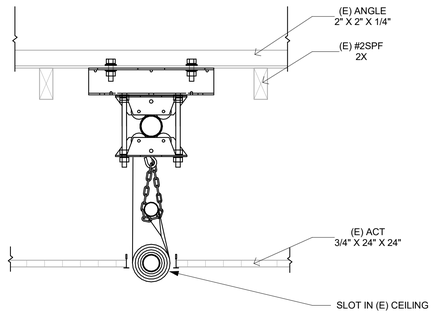
DETAILS

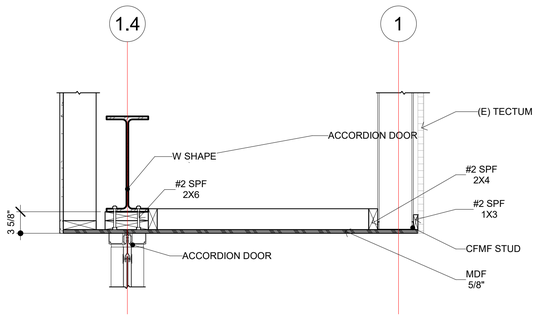
A-700

THIS IS A 24 X 36 SHEET.

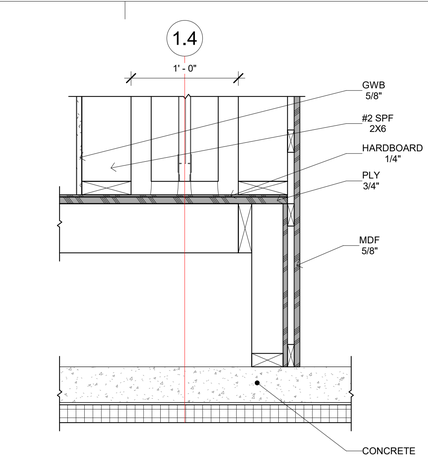
C:\Users\Mike 2\Documents\CMS 2019 March 30_Mike 2.rvt



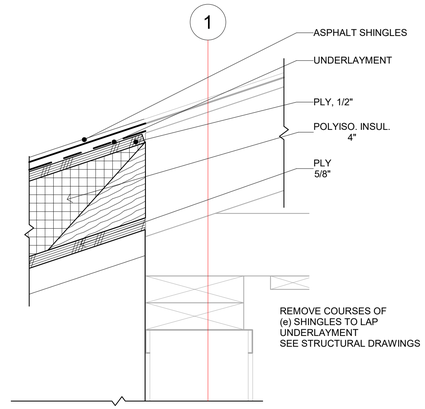
4 GYM CURTAIN AT HEAD
1 1/2" = 1'-0"



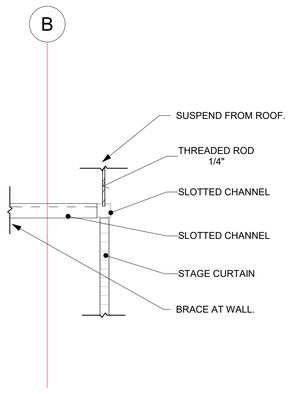
3 ACCORDION HEAD AT OPENING
A-300 1" = 1'-0"



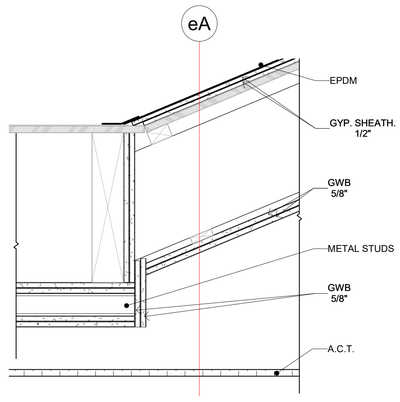
2 PLATFORM AT POCKET
A-502 1 1/2" = 1'-0"



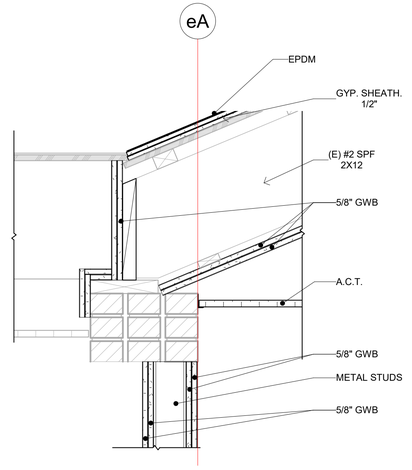
1 ROOFS AT GRID 1
A-501 3" = 1'-0"



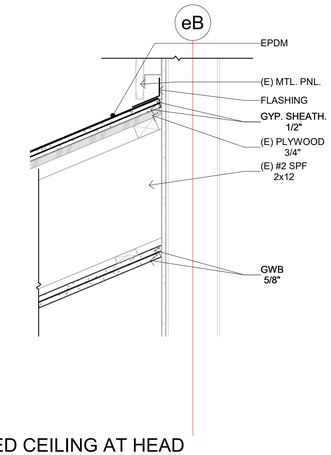
8 SIDE CURTAIN AT GRID B
A-411 1 1/2" = 1'-0"



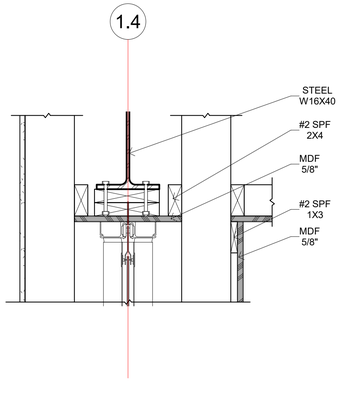
7 RATED CEILING AT GIRDER
A-501 1 1/2" = 1'-0"



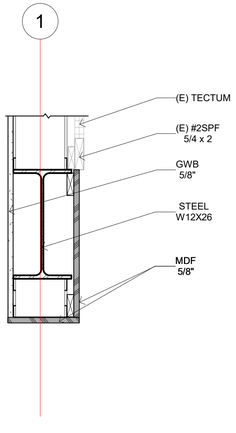
6 RATED CEILING AT FIRE SHUTTER
A-501 1 1/2" = 1'-0"



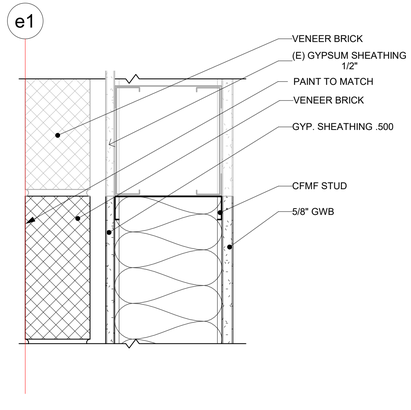
5 RATED CEILING AT HEAD
A-501 1 1/2" = 1'-0"



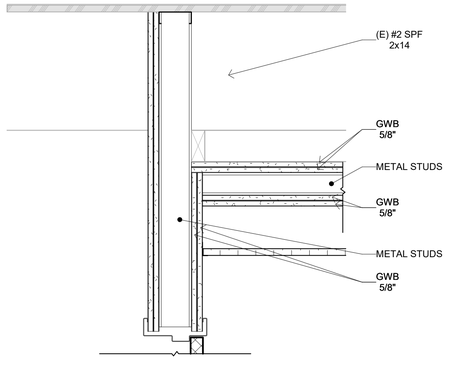
12 ACCORDION HEAD AT POCKET
A-502 1 1/2" = 1'-0"



11 RAMP OPENING AT HEAD
A-502 1 1/2" = 1'-0"



10 INFILLED WINDOW AT GRID e1
A-502 3" = 1'-0"



9 RATED CEILING AT DOOR 110
A-501 1 1/2" = 1'-0"

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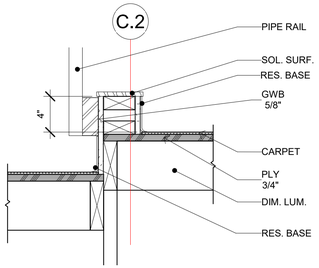
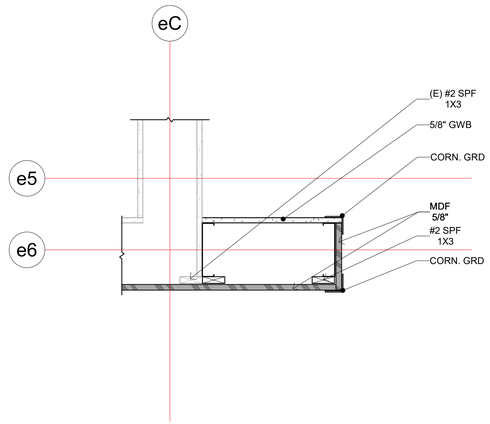
DETAILS

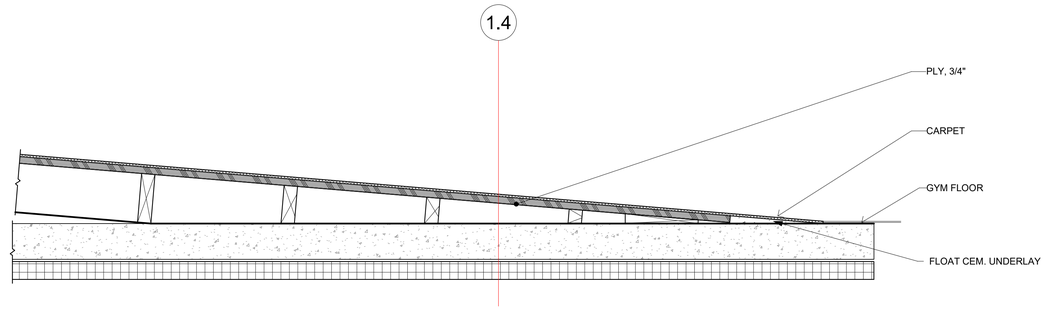
A-701



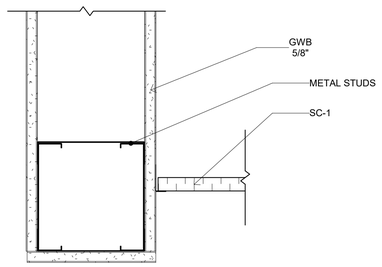
3 RAMP AT EDGE
A-211 1 1/2" = 1'-0"



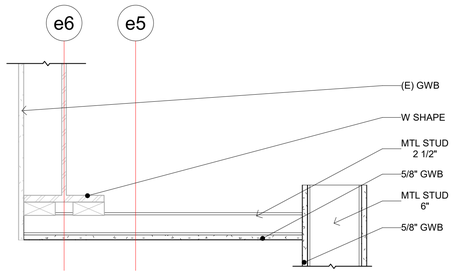
2 (E) PROSCENIUM AT eC
A-211 1 1/2" = 1'-0"



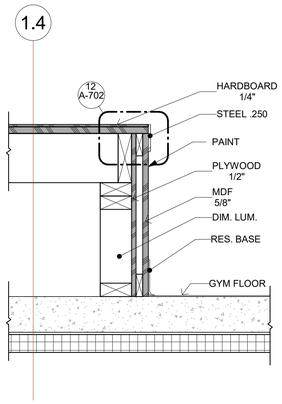
1 RAMP AT BASE
A-411 1 1/2" = 1'-0"



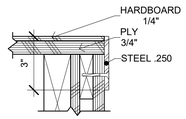
7 SOFFIT AT REFEREE DESK
A-502 3" = 1'-0"



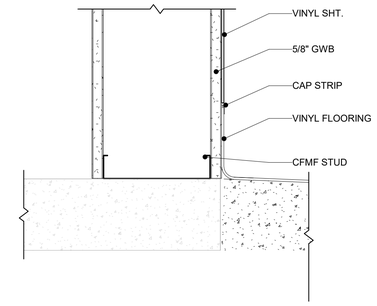
6 SOFFIT AT SEAT ALCOVE
A-502 1 1/2" = 1'-0"



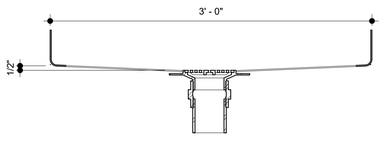
5 PLATFORM AT RECESS
A-502 1 1/2" = 1'-0"



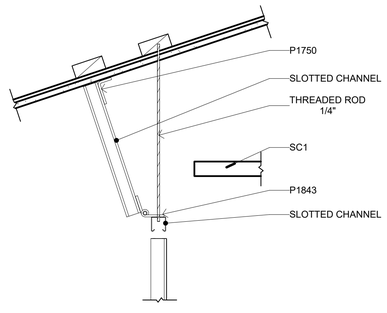
12 PLATFORM NOSING
A-702 3" = 1'-0"



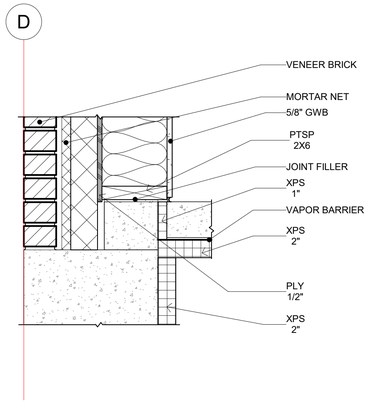
4 SHOWER
A-600 3" = 1'-0"



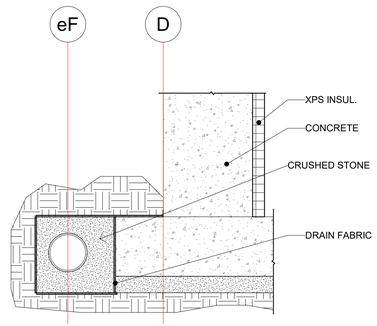
11 SLOPE AT SHOWER DRAIN
A-600 1 1/2" = 1'-0"



10 BACK CURTAIN MOUNT
A-401 1 1/2" = 1'-0"



9 BRICK AT BASE
A-500 1 1/2" = 1'-0"



8 FOUNDATION DRAIN
A-500 1" = 1'-0"

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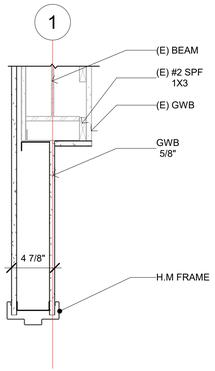
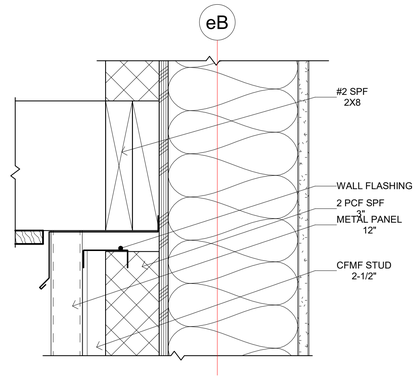
DETAILS

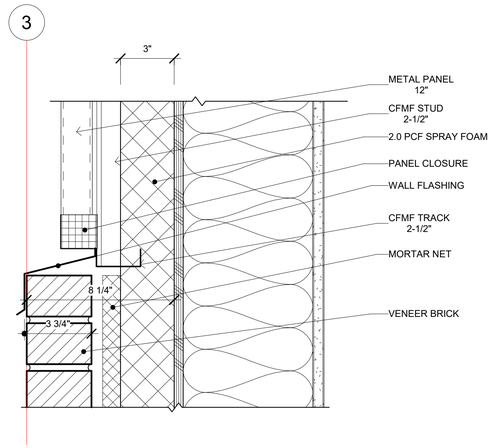
A-702



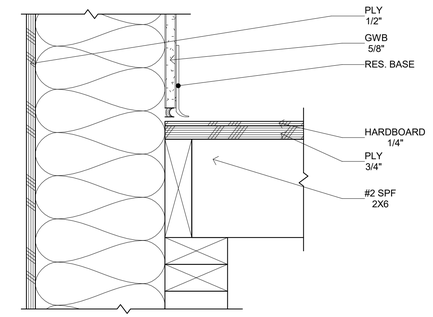
4 DOOR 106 HEAD
A-501 1 1/2" = 1'-0"



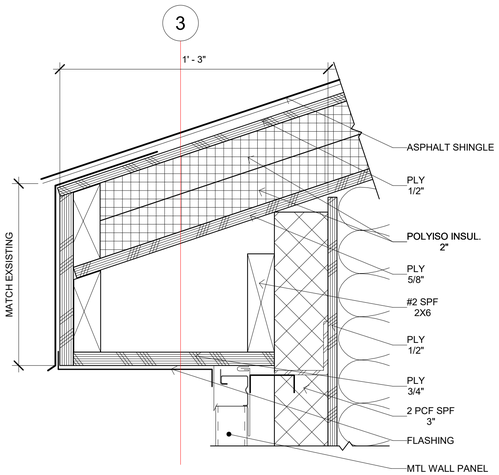
3 METAL PANEL AT SOFFIT
A-500 3" = 1'-0"



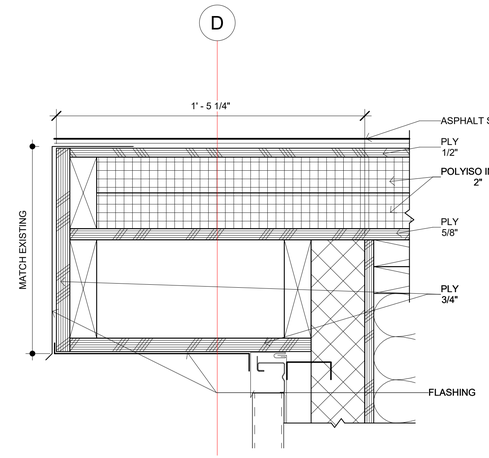
2 BRICK AT TOP
A-500 3" = 1'-0"



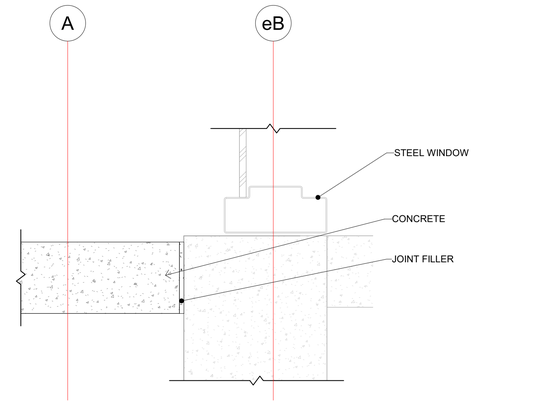
1 PLATFORM AT EXTERIOR WALL
A-211 3" = 1'-0"



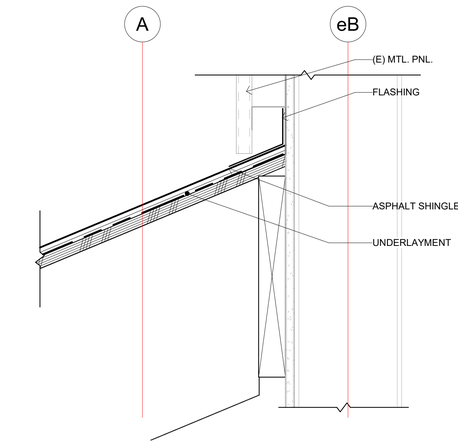
8 ROOF AT SHED
A-500 3" = 1'-0"



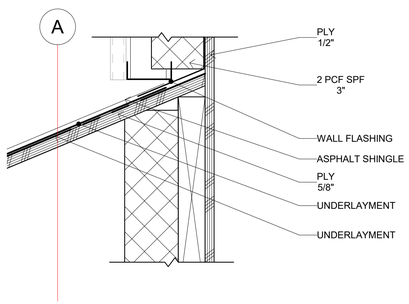
7 ROOF AT GABLE
A-500 3" = 1'-0"



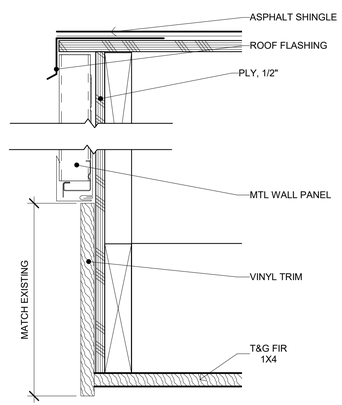
6 (E) STEEL WINDOW AT LANDING
A-501 3" = 1'-0"



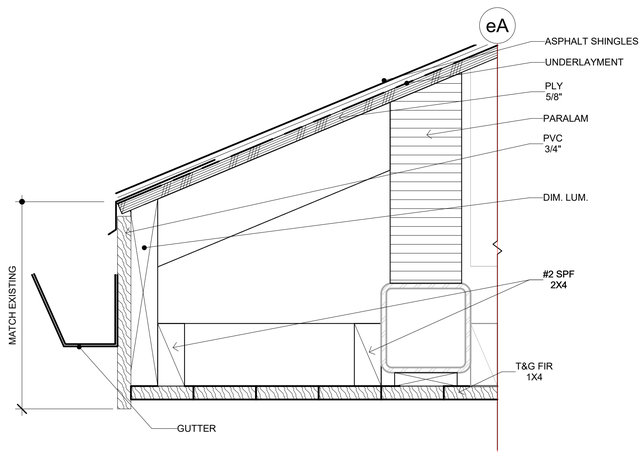
5 ROOF AT (E) WALL
A-501 3" = 1'-0"



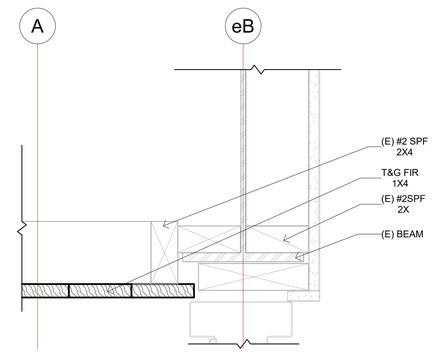
12 ENTRANCE ROOF AT HEAD
A-500 3" = 1'-0"



11 ENTRANCE GABLE AT SOFFIT
A-220 3" = 1'-0"



10 ENTRANCE ROOF AT EAVE
A-220 3" = 1'-0"



9 SOFFIT AT (E) BEAM
A-501 3" = 1'-0"

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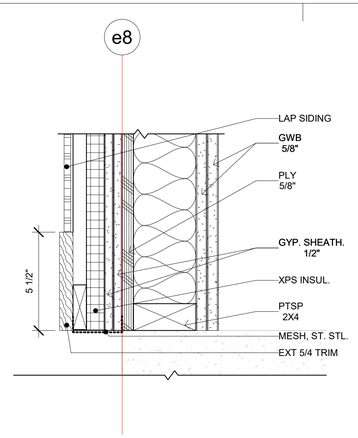
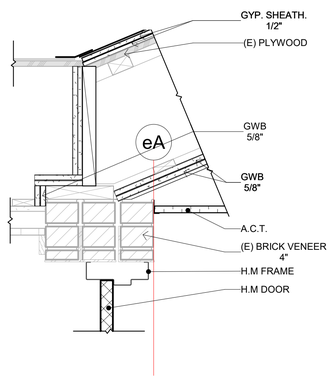
DETAILS

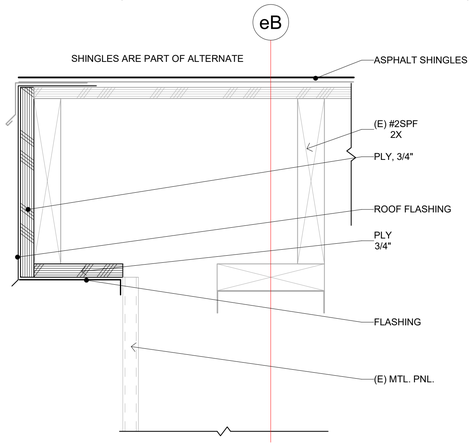
A-703



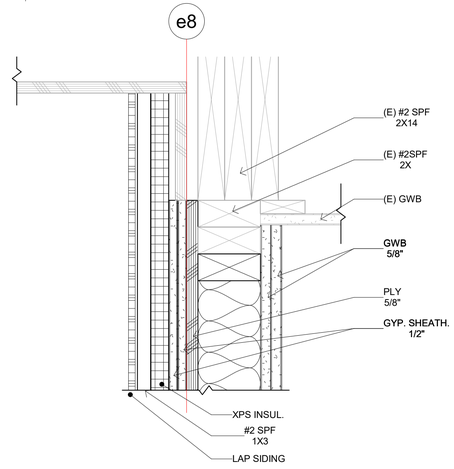
4 KITCHEN WALL AT BASE
A-502 3" = 1'-0"



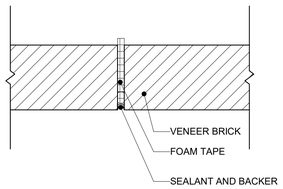
3 DOOR 100 AT HEAD
A-501 1 1/2" = 1'-0"



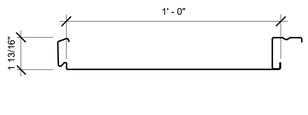
2 FASCIA AT (E) ROOF
A-400 3" = 1'-0"



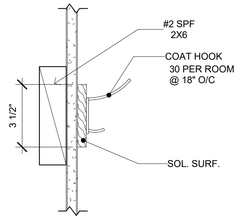
1 KITCHEN WALL AT HEAD
A-502 3" = 1'-0"



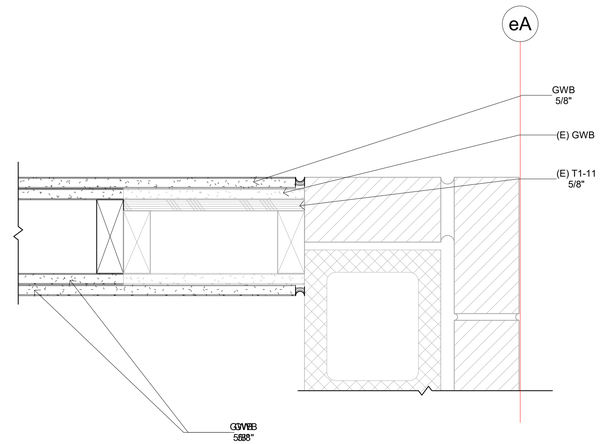
8 BRICK CONTROL JOINT
A-400 3" = 1'-0"



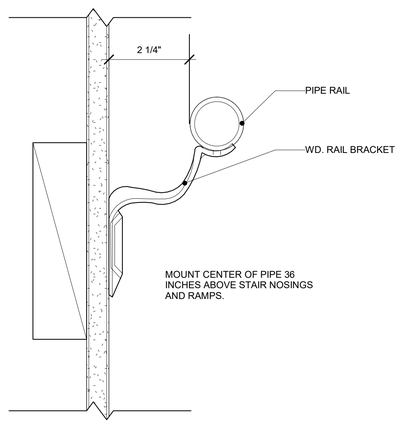
7 METAL PANEL PROFILE
3" = 1'-0"



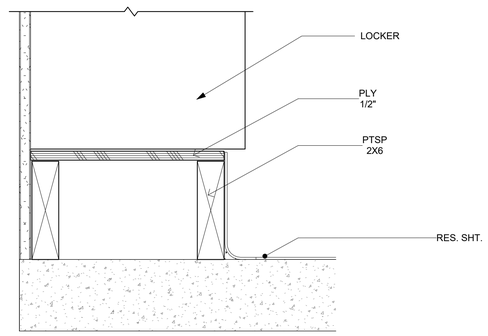
6 COAT HOOK STRIP AT LOCKER
A-211 3" = 1'-0"



5 RATED WALL AT MASONRY OPENING
A-211 3" = 1'-0"



10 TYPICAL HANDRAIL
6" = 1'-0"



9 LOCKER BASE
A-600 3" = 1'-0"

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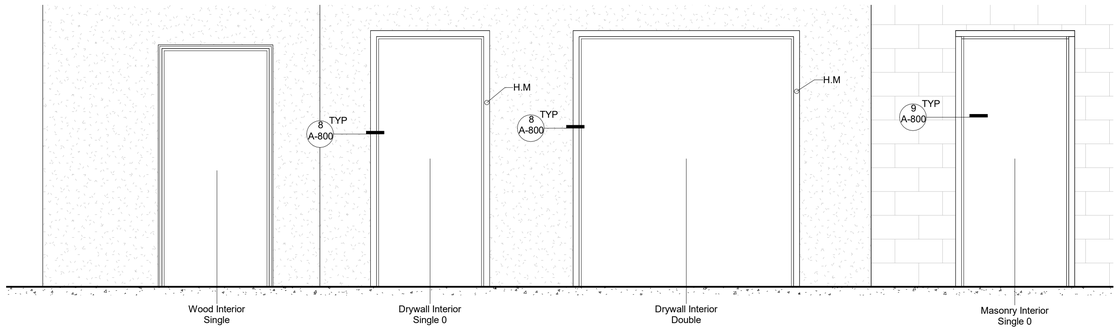
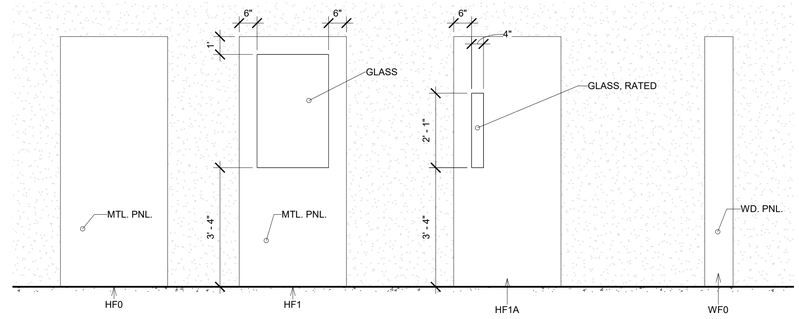
DETAILS

A-704



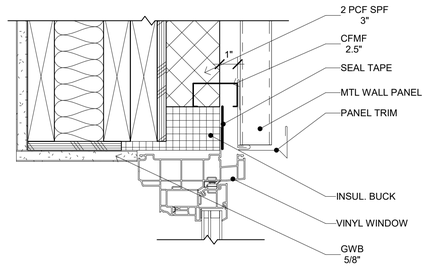
3 FRAME ELEVATIONS

1/2" = 1'-0"



1 DOOR PANEL ELEVATIONS

1/2" = 1'-0"



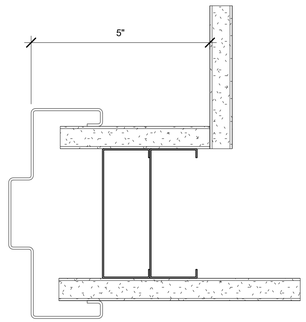
5 WINDOW HEAD

A-500 3" = 1'-0"

C10 INTERIOR DOORS						
MARK	FRAME ELEVATION (Family)	PANEL TYPE (Type)	HARDWARE	PANEL PAINT (Finish)	FRAME PAINT (Frame Material)	RATING
100	Masonry Interior Single 0	3080 HF0- 90	1	IP-3	IP-3	90
100A	Fire Shutter- Surface	FS-1				90
102	Drywall Interior Single 0	3070 HF1	3	IP-2	IP-2	NR
103	Drywall Interior Single 0	3070 HF1	3	IP-2	IP-2	NR
103A	Drywall Interior Single 0	3070 HF0	6	IP-2	IP-2	NR
104	Drywall Interior Single 0	3070 HF1	3	IP-2	IP-2	NR
105	Drywall Interior Single 0	3670 HF0	3	IP-2	IP-2	NR
106	Drywall Interior Double	6070 HF0	4	IP-3	IP-3	NR
107	Wood Interior Single	10100 WF0	5	IP-1	IP-1	NR
108	Wood Interior Single	10100 WF0	5	IP-1	IP-1	NR
110A	Drywall Interior Single 0	3070 HF1A-90	2	IP-3	IP-3	90
110B	Drywall Interior Single 0	3070 HF1A-90	2	IP-3	IP-3	90
111	Drywall Interior Single 0	3070 HF0-45	6	IP-3	IP-3	45
115	Drywall Interior Single 0	3070 HF0	7	IP-2	IP-2	NR
116	Drywall Interior Single 0	3070 HF0	7	IP-2	IP-2	NR
117	Drywall Interior Single 0	3070 HF0	7	IP-2	IP-2	NR
118	Drywall Interior Single 0	3070 HF0	8	IP-2	IP-2	NR
119	Drywall Interior Single 0	3070 HF0	8	IP-2	IP-2	NR
120A	Drywall Interior Single 0	3070 HF0-45	5	IP-3	IP-3	45
121	Drywall Interior Single 0	3070 HF0	5	IP-3	IP-3	NR

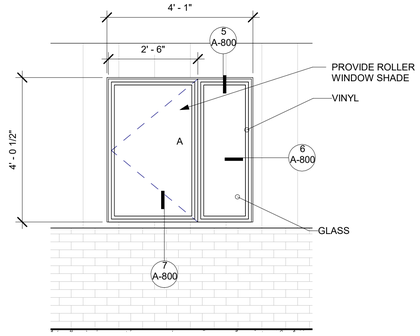
B20 EXTERIOR WINDOWS			
TYPE MARK	STYLE (Family)	SIZE (Type)	OPERATION
A	FAC 1T2W	Type A	CASEMENT

Type A: 5
Grand total: 5



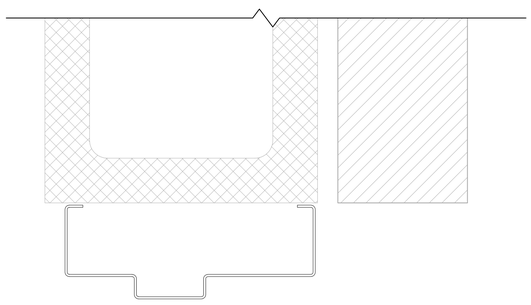
4 DOOR FRAME AT WALL CORNER

6" = 1'-0"



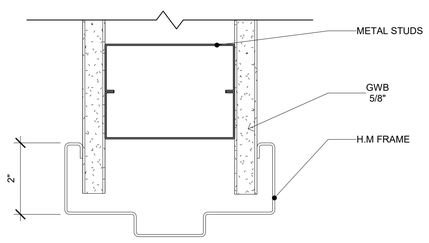
2 EXTERIOR WINDOWS

1/2" = 1'-0"



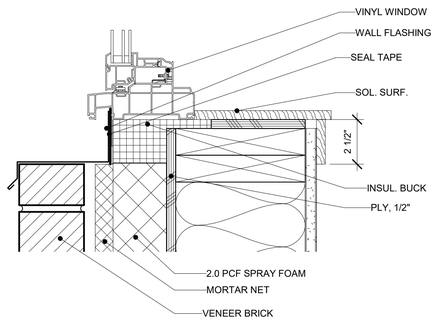
9 MASONRY JAMB

A-800 6" = 1'-0"



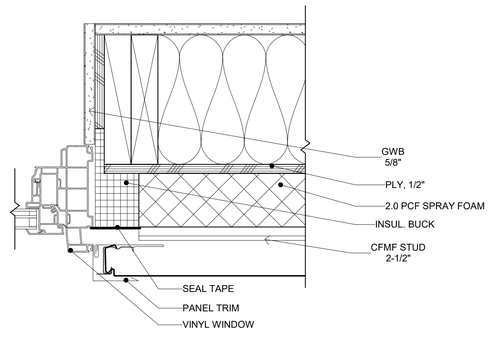
8 DRYWALL JAMB

A-800 6" = 1'-0"



7 WINDOW SILL

A-500 3" = 1'-0"



6 WINDOW JAMB

A-800 3" = 1'-0"

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CHINA MIDDLE SCHOOL ADDITION

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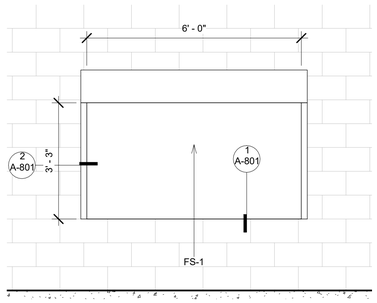
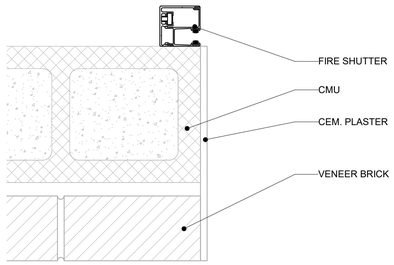
OPENINGS

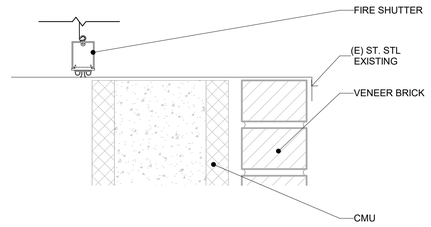
A-800



3 FIRE SHUTTER
1/2" = 1'-0"



2 FIRE SHUTTER JAMB
A-801 3" = 1'-0"



1 FIRE SHUTTER SILL
A-501 3" = 1'-0"

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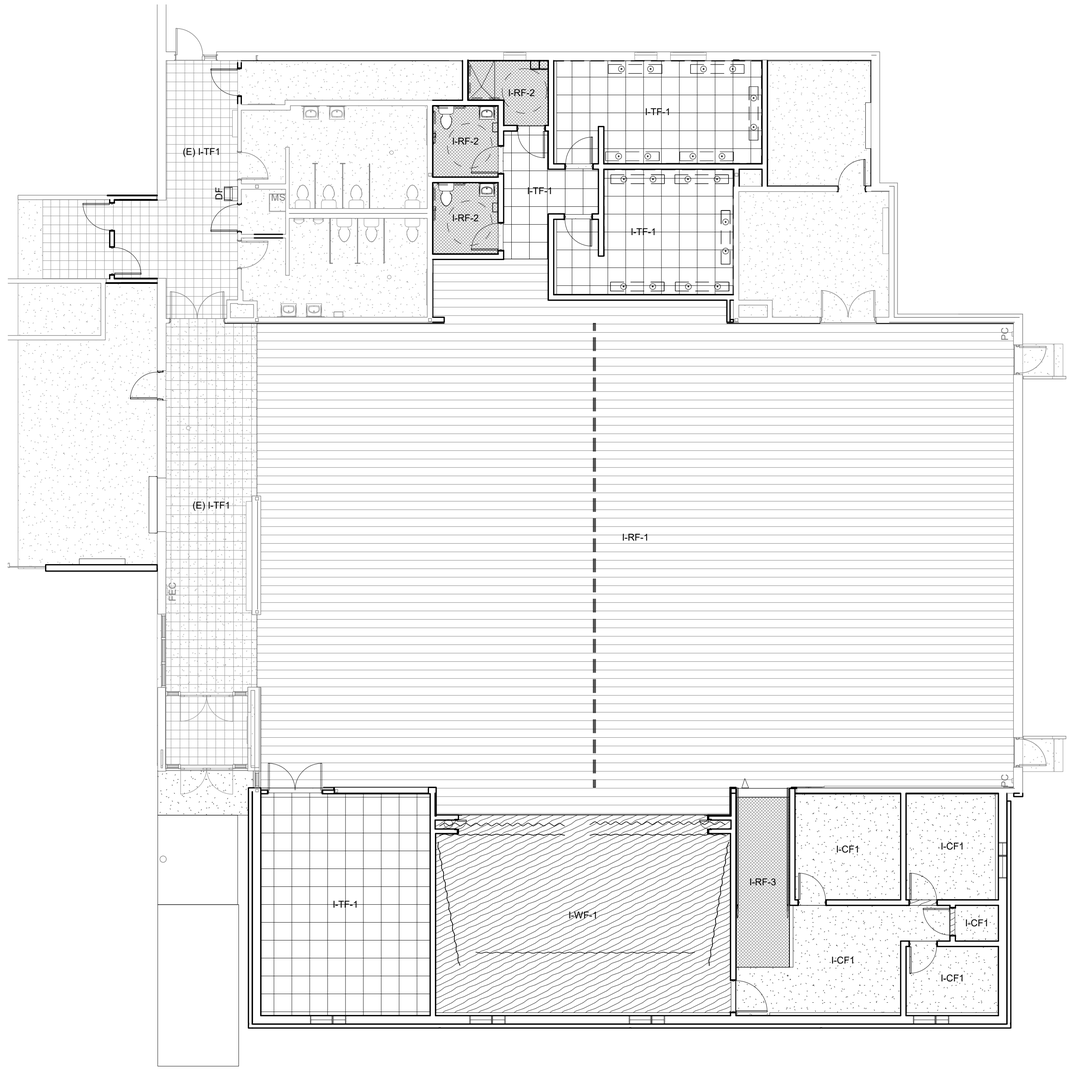
OPENINGS

A-801



1 FLOOR 1 FINISHES
A-401 1/8" = 1'-0"

C30 FLOOR FINISHES				
TYPE MARK	FUNCTION	ASSEMBLY CODE	AREA	DESCRIPTION
I-CF1	Interior	C3020510	577 SF	CARPET TILE
I-RF-1	Interior	C3020440	4656 SF	URETHANE ATHLETIC FLOOR
I-RF-2	Interior	C3020440	172 SF	SHEET VINYL
I-RF-3	Interior	C3020440	113 SF	SHEET VINYL
I-TF-1	Interior	C3020520	1100 SF	VINYL TILE
I-WF-1	Interior	C3020810	743 SF	HARDBOARD

ALTERNATES
1. RESHINGLE EXISTING GYM ROOF
2. REPLACE EXISTING GYM FLOORING AND BASE
3. CHANGE IN DATE OF FINAL COMPLETION

ALTERNATES
12" = 1'-0"

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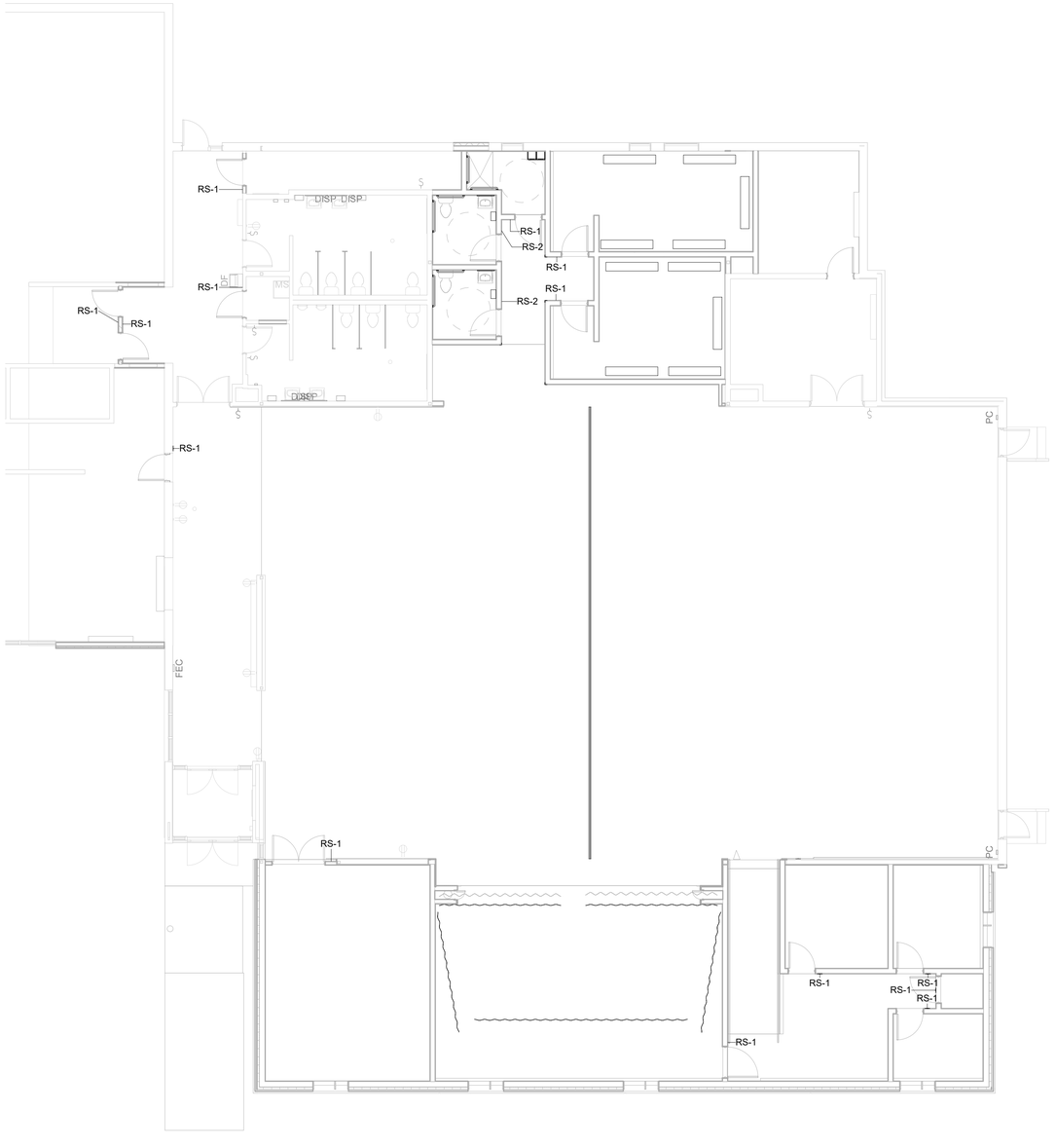
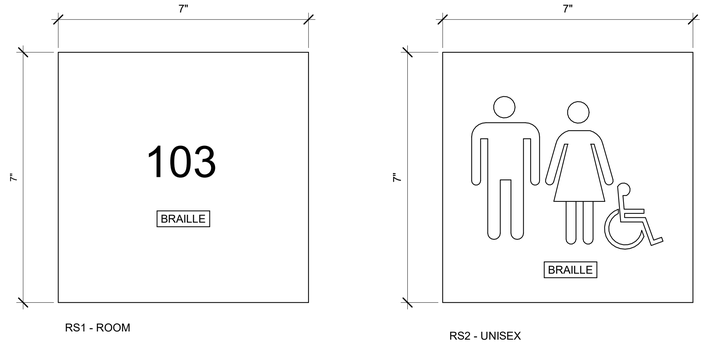
FIRST FLOOR FINISHES

A-900

C10 ROOM SIGNS		
Assembly Code	Type Mark	Count
C1030510	RS-1	15
C1030510	RS-2	2
Grand total: 17		



1 FLOOR 1 SIGNAGE
A-401 1/8" = 1'-0"



RS1 - ROOM

RS2 - UNISEX

2 SIGNAGE
6" = 1'-0"

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SIGNAGE

A-920

PIPE ELBOW TURNED DN
PIPE ELBOW TURNED UP
PIPING TEE DOWN
PIPING TEE UP
PIPE RISER
45° ELBOW DOWN
PIPING TO BE REMOVED
CAPPED PIPING
CAPPED BELOW FINISHED FLOOR
CONCENTRIC REDUCER
ECCENTRIC REDUCER
DIRECTION OF FLOW
PIPE PITCHES DOWN
PIPE GUIDE
EXPANSION JOINT
PIPE ANCHOR
UNION
FLANGED CONNECTION
BACKFLOW PREVENTER
FLEXIBLE CONNECTION
SHUT-OFF/ISOLATION VALVE REFER TO SPECIFICATIONS
GATE VALVE ~ OUTSIDE SCREW & YOKE (OS&Y)

GLOBE VALVE
LOCKABLE BALL VALVE
PLUG VALVE
2-WAY CONTROL VALVE
3-WAY CONTROL VALVE
LOCK & SHIELD VALVE
CHECK VALVE
BALANCING VALVE CIRCUIT SETTER
AIR VENT ~ REFER TO SPECIFICATIONS
STRAINER WITH BLOWDOWN VALVE AND CAP
EXPANSION VALVE (AUTOMATIC)
RELIEF/SAFETY VALVE
PRESSURE GAUGE WITH COCK
SIGHT GLASS
PRESSURE REDUCING VALVE
FLOW SWITCH
SELF-CONTAINED TEMP. CONTROL VALVE WITH REMOTE SENSOR

STEAM TRAP (FLOAT & THERMOSTATIC INDICATED T.T.= THERMOSTATIC TRAP, B.T.= BUCKET TRAP)
PUMP ~ POINT OF TRIANGLE INDICATES DIRECTION OF FLOW
GAS SHUT-OFF VALVE
HOSE END DRAIN VALVE W/CAP
TEMPERATURE/PRESSURE TAP (PETE'S PLUG)
THERMOMETER WITH COCK
SOLENOID VALVE
ORIFICE FLOWMETER
DIFFERENTIAL PRESSURE TRANSMITTER
HUMIDIFIER (DUCT/AHU MOUNTED)
FINNED TUBE BASEBOARD
HOSE BIB/WALL HYDRANT
FLOOR CLEANOUT
FUSIBLE LINK VALVE
WALL CLEANOUT
AQUASTAT

EXPANSION LOOP
EXPANSION LOOP (BRAIDED/MANUFACTURED)
FLOOR DRAIN
SHOCK ABSORBER (WATER HAMMER ARRESTER)
FIRE DEPARTMENT CONNECTION
FREE STANDING FIRE DEPARTMENT CONNECTION
WATER GONG
DUCTWORK ~ FIRST DIMENSION IS SIDE SHOWN IN INCHES S= SUPPLY, R= RETURN, E= EXHAUST AIR, OA= OUTSIDE AIR F.O. = FLAT OVAL
ACCOUSTICAL LINING (DUCT DIMENSION FOR NET FREE AREA)
DUCTWORK TO BE REMOVED
SINGLE LINE DUCTWORK TO BE REMOVED
DUCT TRANSITION
SQUARE TO ROUND DUCT TRANSITION
FLEX DUCT ~ DOUBLE LINE
FLEX DUCT ~ SINGLE LINE

CHANGE IN ELEVATION (UP, DOWN, RISE OR DROP)
SUPPLY DUCT TURNED UP/DN
RETURN DUCT TURNED UP/DN
EXHAUST DUCT TURNED UP/DN
ROUND DUCT TURNED UP/DN
MITERED DUCT ELBOW W/TURNING VANES
RADIUS DUCT ELBOW
DUCT/PIPE CAP (SINGLE/DOUBLE LINE)
VOLUME DAMPER
FIRE DAMPER
SMOKE DAMPER
FIRE AND SMOKE DAMPER
BACKDRAFT DAMPER

MOTORIZED DAMPER
FLEXIBLE CONNECTION
TEMPERATURE SENSOR OR THERMOSTAT (AS SPECIFIED)
HUMIDISTAT OR HUMIDITY SENSOR (AS SPECIFIED)
CARBON DIOXIDE SENSOR
CARBON MONOXIDE SENSOR
ACCESS PANEL
DUCT SMOKE DETECTOR
ROOFTOP EXHAUST FAN
ROOFTOP SUPPLY FAN
CEILING DIFFUSER ~ 4-WAY BLOW
CEILING DIFFUSER ~ 3-WAY BLOW
CEILING DIFFUSER ~ 2-WAY BLOW
CEILING DIFFUSER ~ CORNER BLOW
CEILING RETURN GRILLE
CEILING EXHAUST GRILLE
POINT OF CONNECTION - EXISTING TO NEW
DIRECTION OF AIR FLOW

REGISTER, GRILLE & DIFFUSER TAG
DIFFUSER, REGISTER OR GRILLE No.
QUANTITY
CFM AIR FLOW

FINTUBE TAG
FINTUBE No.
LENGTH
GPM

VAV TAG
VAV No.
MINIMUM CFM
MAXIMUM CFM
GPM

EQUIPMENT TAG
TYPE DESIGNATOR
NUMBER

EQUIPMENT TAG (ON FLOOR/ROOF ABOVE)
TYPE DESIGNATOR
NUMBER

DETAIL REFERENCE SYMBOL
DETAIL No.
SHEET DETAIL LOCATED ON

SECTION REFERENCE SYMBOL
SECTION No.
SHEET SECTION LOCATED ON

E1 SYMBOLS LEGEND

NONE

AW ACID WASTE
ATV AIR RELIEF
BBD BOILER BLOWDOWN
C CONDENSATE (HVAC DRAIN PAN)
CA COMPRESSED AIR
CHWR CHILLED WATER RETURN
CHWS CHILLED WATER SUPPLY
CTR COOLING TOWER RETURN
CTS COOLING TOWER SUPPLY
CWR CONDENSER WATER RETURN
CWS CONDENSER WATER SUPPLY
DOMESTIC COLD WATER
DOMESTIC HOT WATER
DOMESTIC HOT WATER RECIRC.
D DRAIN
FM PUMP FORCE MAIN
FOF FUEL OIL FILL
FOR FUEL OIL RETURN
FOS FUEL OIL SUPPLY
FOV FUEL OIL TANK VENT
FW FEEDWATER
GR GLYCOL RETURN
GS GLYCOL SUPPLY
GW GREASE WASTE
GWR GEOTHERMAL WATER RETURN
GWS GEOTHERMAL WATER SUPPLY
H HUMIDIFICATION LINE
H2 HYDROGEN GAS
HCR HEAT/COOL RETURN
HCS HEAT/COOL SUPPLY
HPWR HEAT PUMP WATER RETURN
HPWS HEAT PUMP WATER SUPPLY
HPC HIGH PRESSURE CONDENSATE
HPS HIGH PRESSURE STEAM
HTWR HIGH-TEMP HOT WATER RETURN
HWR HOT WATER RETURN
HWS HOT WATER SUPPLY
IND INDUSTRIAL WASTE
IW INDIRECT WASTE
LN LIQUID NITROGEN
LOX LIQUID OXYGEN
LP LIQUID PETROLEUM GAS
LPR LOW PRESSURE CONDENSATE
LPS LOW PRESSURE STEAM
MA MEDICAL AIR
MPR MEDIUM PRESSURE CONDENSATE
MPS MEDIUM PRESSURE STEAM
MUW MAKE-UP WATER
N2 NITROGEN
NG NATURAL GAS
NO NITROUS OXIDE
NPW NON-POTABLE WATER
OX OXYGEN
PC PUMPED CONDENSATE
PCWR PROCESS COLD WATER RETURN
PCWS PROCESS COLD WATER SUPPLY
RD REFRIGERANT DISCHARGE
RL REFRIGERANT LIQUID
RS REFRIGERANT SUCTION
RO REVERSE OSMOSIS WATER
RW RAIN WATER - ABOVE FLOOR
RW RAIN WATER - BELOW GRADE
RWO RAIN WATER OVERFLOW - ABOVE FLOOR
RWO RAIN WATER OVERFLOW - BELOW GRADE
SP SPRINKLER MAIN PIPING
SWR SOLAR WATER RETURN
SWS SOLAR WATER SUPPLY
TP TRAP PRIMER - ABOVE FLOOR
TP TRAP PRIMER - BELOW GRADE
TWR TEMPERED WATER RETURN
TWS TEMPERED WATER SUPPLY
V SANITARY SOIL VENT - ABOVE FLOOR
V SANITARY SOIL VENT - BELOW GRADE
VAC VACUUM (AIR)
VC VACUUM CLEANING (HOUSE)
VPD VACUUM PUMP DISCHARGE
W SANITARY SOIL WASTE - ABOVE FLOOR
W SANITARY SOIL WASTE - BELOW GRADE
WV SANITARY WET VENT - ABOVE FLOOR
WV SANITARY WET VENT - BELOW GRADE

A1 PIPING LINETYPE LEGEND

NONE

A4 ABBREVIATIONS

NONE

AAV	AUTOMATIC AIR VENT
AC	ABOVE CEILING
ACC	AIR COOLED CONDENSER
ACU	AIR CONDITIONING UNIT
ADA	AMERICANS WITH DISABILITIES ACT
AD	ACCESS DOOR
AE	ACID EXHAUST
AW	ACID WASTE
AFF; A.F.F.	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
APPROX.	APPROXIMATE; APPROXIMATELY
APMR	AS PER MFR'S RECOMMENDATIONS
ATC	AUTOMATIC TEMPERATURE CONTROL
AV	AIR VENT
BC	BALANCING COCK
BDD	BACKDRAFT DAMPER
BG	BLAST GATE
BF	BARRIER FREE
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSEPOWER
BLDG	BUILDING
BOD	BOTTOM OF DUCT
B.T.U.; BTU	BRITISH THERMAL UNIT
CONV.	CONVECTOR
CCW	COUNTER CLOCKWISE
CFF	CAPPED FOR FUTURE
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
CO	CLEANOUT
CM	CONSTRUCTION MANAGER
CNTR	COUNTER; COUNTER TOP
CONN	CONNECT; CONNECTION
CONT.	CONTINUE; CONTINUATION
COORD.	COORDINATE
CORR	CORRIDOR
CR	CHEMICAL RESISTING
CT	COOLING TOWER
CTE	CONNECT TO EXISTING
CTR	CENTER
CTRLN	CENTERLINE
CU	COPPER; CONDENSING UNIT
CUH	CABINET UNIT HEATER
C.V.	CONTROL VALVE
CW	COLD WATER; CLOCKWISE
DB	DRY BULB TEMPERATURE
DC	DOUBLE CONTAINED
DDC	DIRECT DIGITAL CONTROL
DET	DETAIL
DIA	DIAMETER
DIC	DOWN IN CHASE
DIW	DOWN IN WALL
DN	DOWN
DS	DOWNSPOUT
DT	DROP AND TRANSITION
DV	DRAIN VALVE
DWG	DRAWING
E	EXHAUST AIR
EF	EXHAUST FAN
EG	EXHAUST GRILLE
ELEV	ELEVATION
ELONG	ELONGATE
ENC	ENCLOSURE
ER	EXHAUST REGISTER
ERU	ENERGY RECOVERY UNIT
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
(E)	EXISTING
F&T	FLOAT AND THERMOSTATIC
FBO	FURNISHED BY OTHERS
FBP	FACE AND BYPASS
FC	FLEXIBLE CONNECTION
FCO	FLOOR CLEANOUT
FD-#	FLOOR DRAIN TAG
FD	FIRE DAMPER
FDC	FIRE DEPT. CONNECTION
FIN	FINISH
FL; FLR	FLOOR
FP	FROST/FREEZE PROOF
FTG	FOOTING
FTR	FINNED TUBE RADIATION
FS	FLOW SWITCH
FM	FORCE MAIN
GC	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
GRV	GRAVITY ROOF VENTILATOR
H	HUMIDIFIER
HB	HOSE BIBB
HC; HDC	HANDICAP ACCESS
HGT; HT	HEIGHT
HP	HEAT PUMP
HRU	HEAT RECOVERY UNIT
HTR	HEATER
H&V	HEATING AND VENTILATION
HVAC	HEATING, VENTILATING AND AIR COND.
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HX	HEAT EXCHANGER
ID	INSIDE DIAMETER
IN WG	INCHES WATER GAUGE
INCL.	INCLUDING
INV. EL.	INVERT ELEVATION
IPS	IRON PIPE SIZE
KE-#	KITCHEN EQUIPMENT NUMBER
LD	LINEAR DIFFUSER
LE-#	SCIENCE LAB EQUIPMENT NUMBER
LP	LIQUID PETROLEUM GAS
LPR	LOW PRESSURE STEAM RETURN
LPS	LOW PRESSURE STEAM SUPPLY
MAX	MAXIMUM
MBH	1000 BTUH/hr.
MFR	MANUFACTURER
MIN	MINIMUM
MOD	MOTOR OPERATED DAMPER
MPG	MEDIUM PRESSURE GAS
MPV	MULTI-PURPOSE VALVE
MTD	MOUNTED
MTG	MOUNTING
MUA	MAKE UP AIR
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
NG	NATURAL GAS
NIC	NOT IN CONTRACT
NPT	NATIONAL PIPE THREAD
NTS	NOT TO SCALE
OBD	OPPOSED BLADE DAMPER
OA	OUTSIDE AIR
OD	OUTSIDE DIAMETER
OED	OPEN ENDED DUCT
P-#	PLUMBING FIXTURE TAG
PD	PUMPED DISCHARGE
PP	PROCESS PIPING
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE
R	RETURN AIR
RD	ROOF DRAIN
REC	RECOMMENDATION
REG	REGULAR
RF	RETURN FAN
RG	RETURN GRILLE
RHC	REHEAT COIL
RM	ROOM
RPZ	REDUCED PRESSURE BFP
RR	RETURN REGISTER
RV	RELIEF VALVE
RW	RAIN WATER
S	SUPPLY AIR
SA-" "	SHOCK ABSORBER OF PDI SIZE (" ") AS INDICATED
SCV	SELF-CONTAINED VALVE
SD	SMOKE DAMPER
SF	SUPPLY FAN
SG	SUPPLY GRILLE
SGL	SINGLE
SHT	SHEET
SPLR	SPRINKLER
SQ. FT; SF	SQUARE FEET
SR	SUPPLY REGISTER
S/O	SHUT-OFF
S.S.	STAINLESS STEEL
TD	TRENCH DRAIN
TG	TRANSFER GRILLE
TOD	TOP OF DUCT
TP	TRAP PRIMER
TSP	TOTAL STATIC PRESSURE
TTS	TIGHT TO STEEL
TV	TURNING VANE
TW	TEMPERED WATER
TYP	TYPICAL
UH	UNIT HEATER
UIC	UP IN CHASE
UIW	UP IN WALL
UV	UNIT VENTILATOR
V	VENT
VAC	VACUUM
VB	VACUUM BREAKER
VCFF	VALVE & CAP FOR FUTURE
VD	VOLUME DAMPER - MANUAL
VLV	VALVE
VS	VENT STACK
VTR	VENT TO ROOF
W	WASTE
W/	WITH
WB	WET BULB TEMPERATURE, °F
WCO	WALL CLEANOUT
WH	WATER HEATER
WHYD	WALL HYDRANT
Ø	DIAMETER
@	AT
&	AND
%	PERCENT

NOTE

ALL GENERAL NOTES, SYMBOL LEGENDS AND DETAILS ARE TO BE CONSIDERED AS APPLICABLE TO ALL PLUMBING AND HVAC DRAWINGS FOR THIS PROJECT. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT INDICATE THEIR INCORPORATION INTO THE DESIGN.

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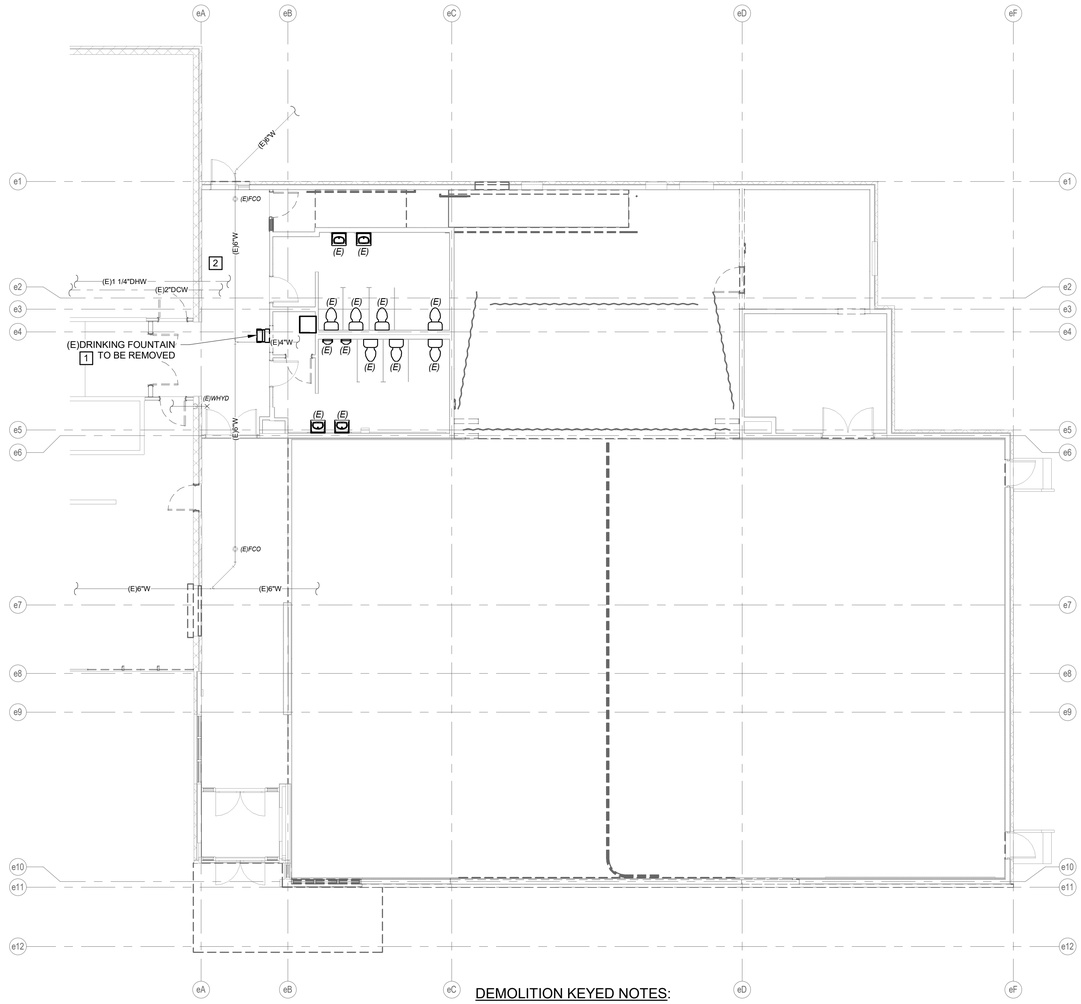
LICENSED PROFESSIONAL ENGINEER

RSU 18 CHINA MIDDLE SCHOOL GYM ADDITION

Bid Documents
08 April 2019

PLUMBING AND HVAC NOTES, LEGEND AND ABBREVIATIONS

P-000



DEMOLITION KEYED NOTES:

1. RELOCATE EXISTING WASTE DOWN, EXISTING VENT AND DCW UP TO FACILITATE NEW DOOR OPENING. COORDINATE WITH ARCHITECTURAL FOR SLAB CUT AS REQUIRED. CONNECT RELOCATE RISERS TO EXISTING WASTE BELOW FLOOR, EXISTING VENT AND DCW ABOVE CEILING.
2. EXISTING DCW/DHW/DHWR PIPING TO BE REMOVED/ RELOCATED AS REQUIRED TO FACILITATE THE INSTALLATION OF GWB CEILING SYSTEM AT UNDERSIDE OF JOISTS. REFER TO ARCHITECTURAL PLANS FOR DETAIL. RE-INSTALL PIPING SUBSEQUENT TO COMPLETION OF THE CEILING SYSTEM.

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PLAN NORTH

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PLUMBING DEMOLITION PART PLAN

PD-100

		A5	PLUMBING DEMOLITION PART PLAN
		1/8" = 1'-0"	

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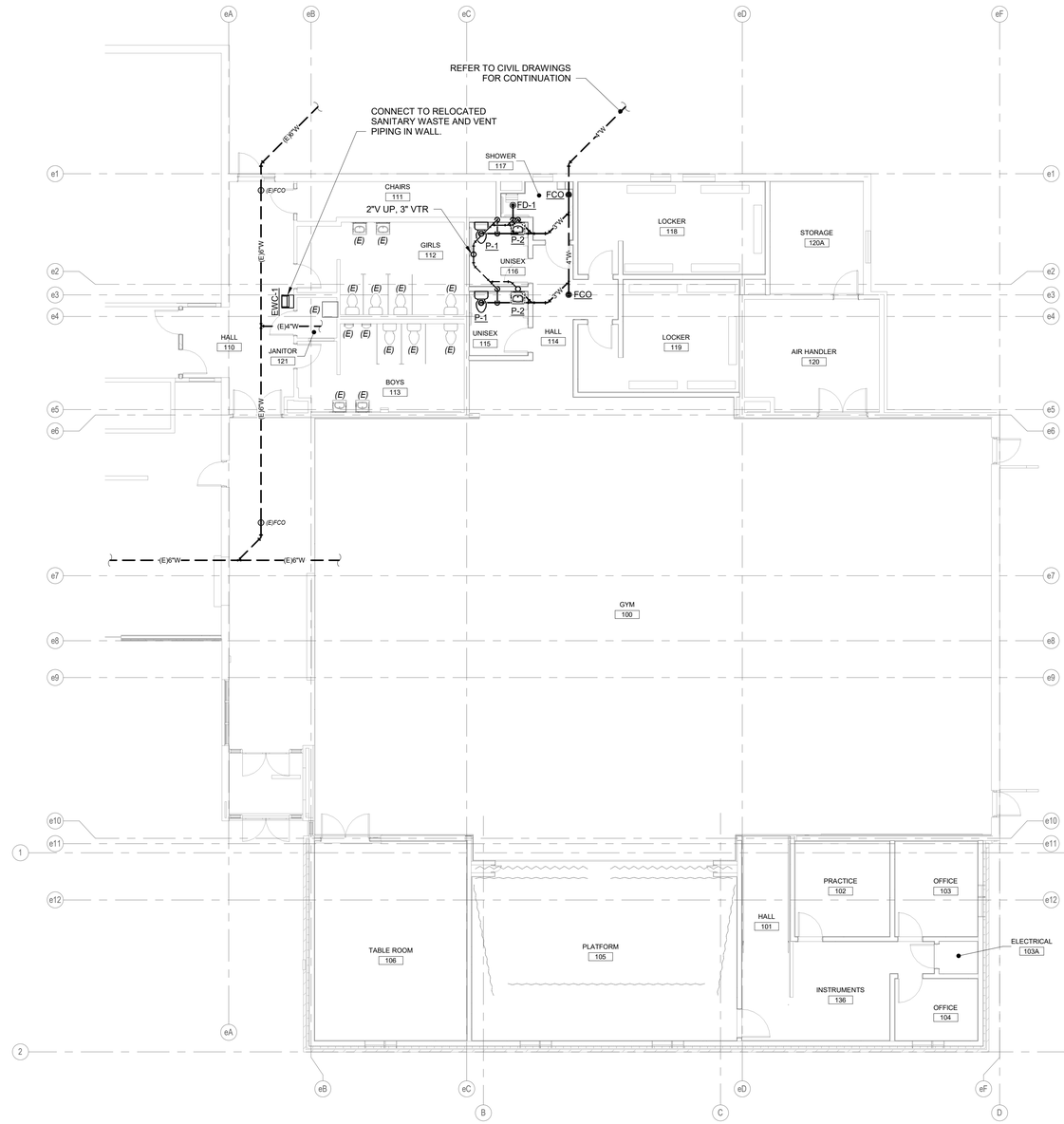

PLUMBING FIXTURE SCHEDULE

TAG	DESCRIPTION	BRANCH SIZES				NOTES
		CW	HW	VENT	WASTE	
P-1	WATER CLOSET - FLUSH VALVE, FLOOR MOUNT	1/2"	-----	2"	3"	
P-2	LAVATORY, WALL HUNG	3/8"	3/8"	1-1/2"	1-1/2"	
P-3	SHOWER - FIELD BUILT SURROUND	1/2"	1/2"	1-1/2"	2"	FLOOR DRAIN
EWC-1	WATER COOLER - BOTTLE FILLER	3/8"	-----	1-1/4"	1-1/4"	
FD-1	SHOWER DRAIN	1/2"	-----	1-1/2"	2"	
FD-2	LIGHT DUTY FLOOR DRAIN	1/2"	-----	1-1/2"	2"	

TRUE NORTH

PLAN NORTH

A5 | SANITARY PIPING PART PLAN

1/8" = 1'-0"

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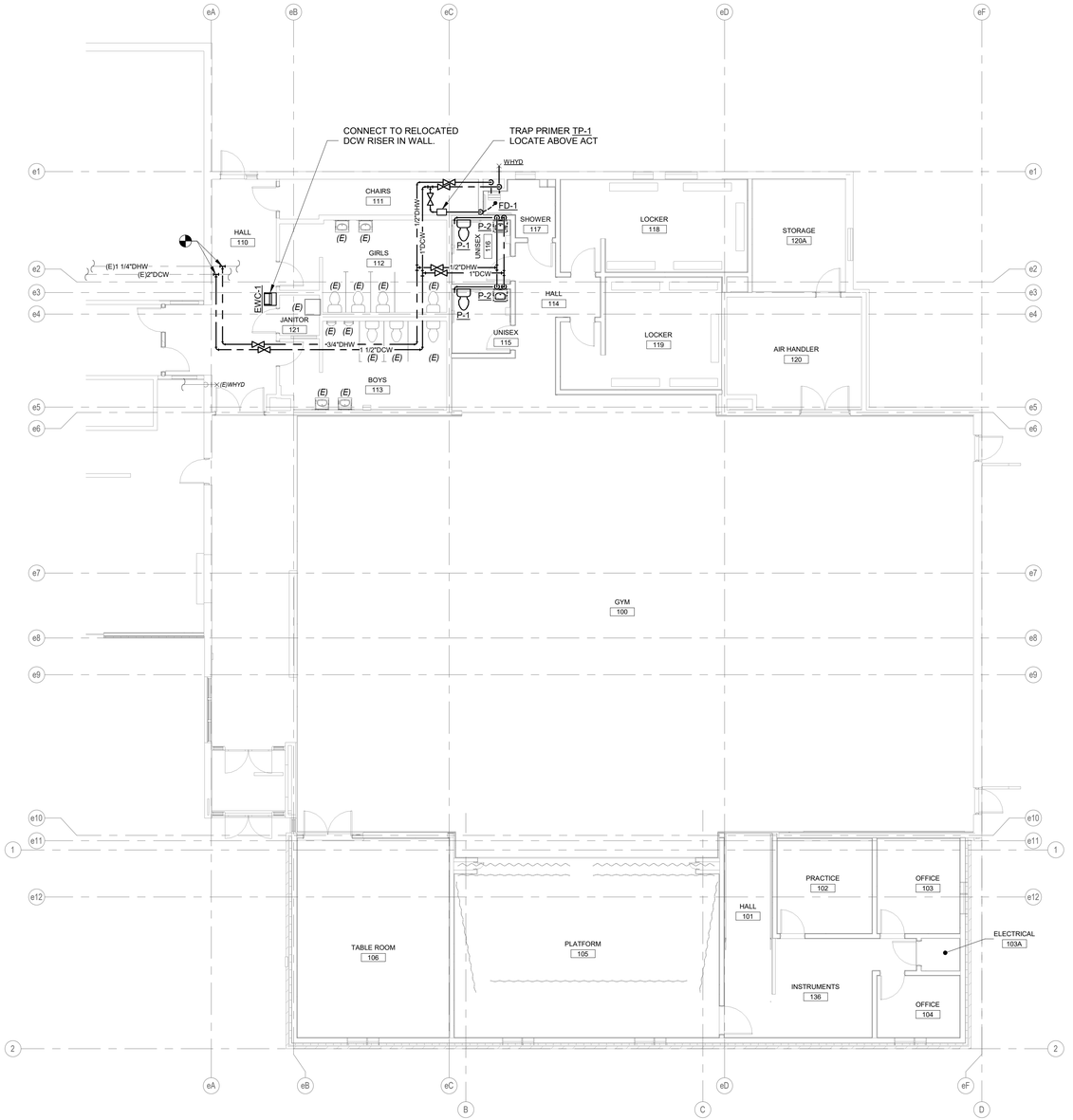
SANITARY PIPING PART PLAN AND DETAILS

PL-100



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DOMESTIC PIPING PART PLAN AND DETAILS

PL-200

A5 DOMESTIC PIPING PART PLAN

1/8" = 1'-0"

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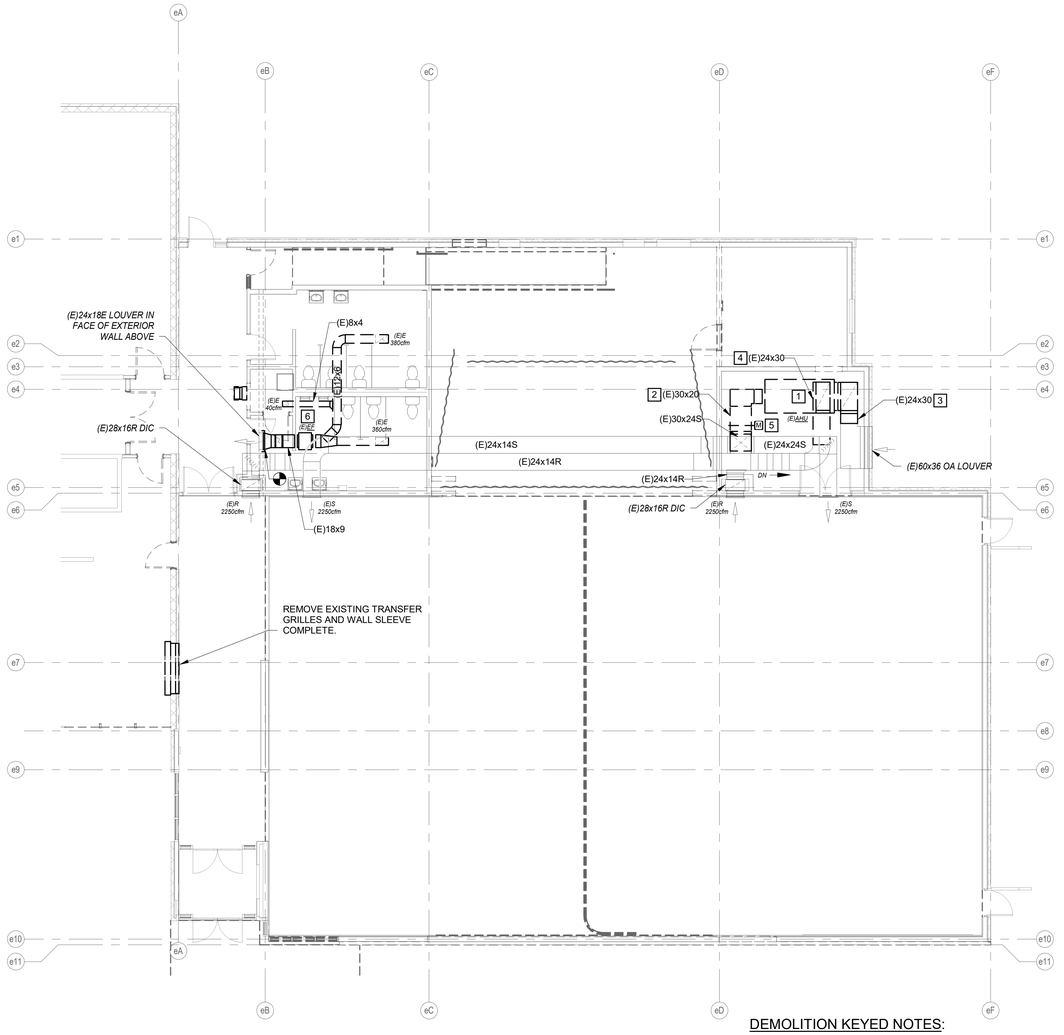

DEMOLITION KEYED NOTES:

1. REMOVE EXISTING HV-1 UNIT COMPLETE.
2. REMOVED EXISTING SUPPLY DUCT.
3. REMOVE EXISTING OUTSIDE AIR DUCT.
4. REMOVE EXISTING RETURN DUCT RISER TO THE EXTENT NECESSARY TO INSTALL NEW UNIT.
5. REMOVE EXISTING MOD.
6. REMOVE EXISTING EXHAUST FAN COMPLETE WITH ASSOCIATED DUCT AND GRILLES. CAP (E)EXHAUST DUCT BEHIND (E)LOUVER AND SEAL WEATHERTIGHT.

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MECHANICAL DEMOLITION PART PLAN

MD-100

		A5	MECHANICAL DEMOLITION PART PLAN
		1/8" = 1'-0"	

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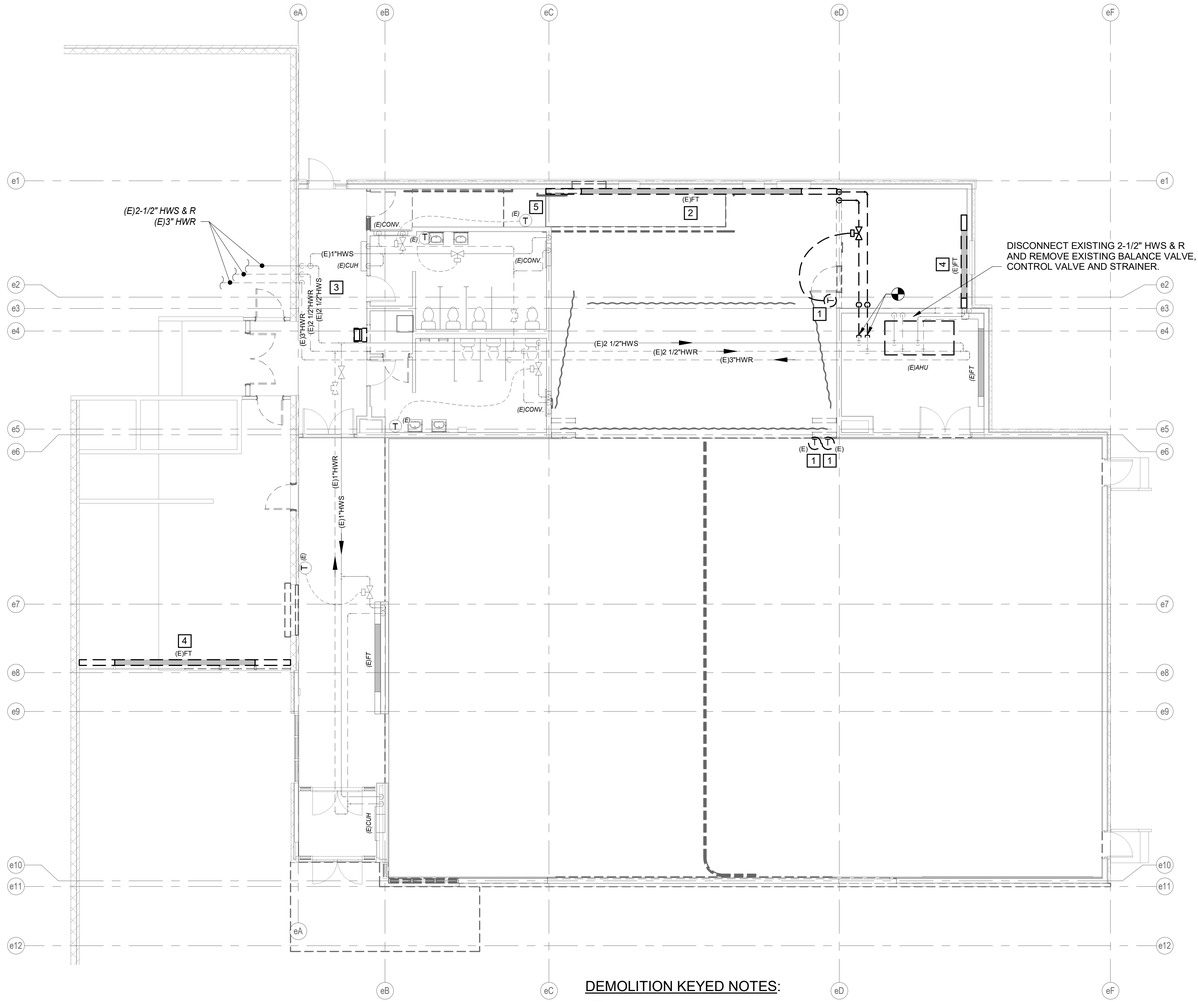

DEMOLITION KEYED NOTES:

1. REMOVE EXISTING THERMOSTAT COMPLETE.
2. REMOVE EXISTING FINTUBE RADIATION COMPLETE. REMOVE (E)HWS & R BACK TO (E)MAINS AND CAP.
3. EXISTING HWS/HWR PIPING TO BE REMOVED/ RELOCATED AS REQUIRED TO FACILITATE THE INSTALLATION OF GWB CEILING SYSTEM AT UNDERSIDE OF JOISTS. REFER TO ARCHITECTURAL PLANS FOR DETAIL. RE-INSTALL PIPING SUBSEQUENT TO COMPLETION OF THE CEILING SYSTEM.
4. EXISTING FINTUBE TO BE REMOVED TO FACILITATE REMOVAL OF EXISTING CURTAIN WALL ASSEMBLY/PLATFORM. STORE FINTUBE AND MAINTAIN IN GOOD CONDITION FOR RE-INSTALLATION SUBSEQUENT TO COMPLETION OF RENOVATIONS.
5. LOWER EXISTING THERMOSTAT TO FACILITATE REMOVAL OF (E)RAMP.

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MECHANICAL PIPING DEMOLITION PART PLAN

MD-200

A5 | MECHANICAL PIPING DEMOLITION PART PLAN

1/8" = 1'-0"

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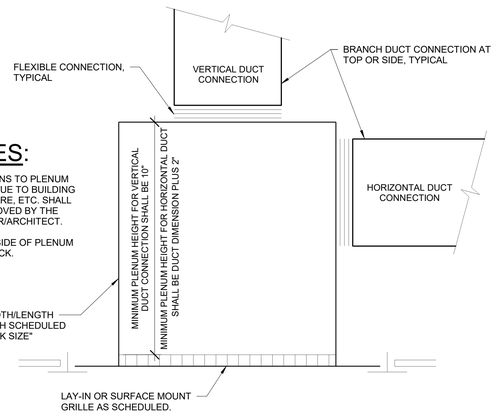


NOTES:

1. VARIATIONS TO PLENUM HEIGHT DUE TO BUILDING STRUCTURE, ETC. SHALL BE APPROVED BY THE ENGINEER/ARCHITECT.
2. PAINT INSIDE OF PLENUM FLAT BLACK.

E1	DETAIL - RETURN AIR REGISTER BOOT
NOT TO SCALE	

NOTE:

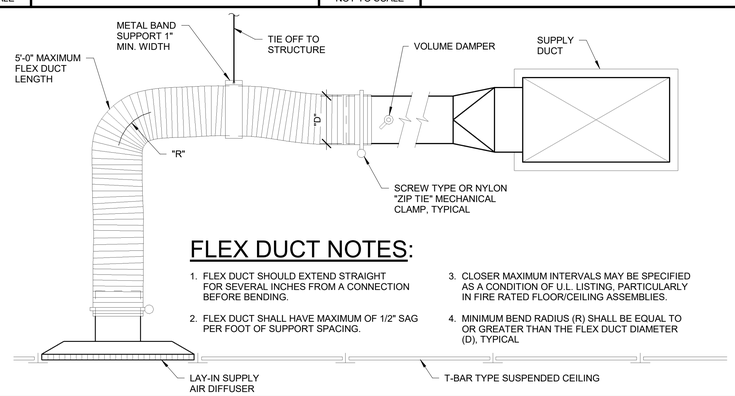
REFER TO ARCHITECTURAL DRAWINGS FOR ROOF CURB FLASHING DETAILS.

C1	DETAIL - ROOF MOUNTED EXHAUSTER
NOT TO SCALE	

NOTE:

REFER TO ARCHITECTURAL LOUVER DETAILS FOR MORE INFORMATION.

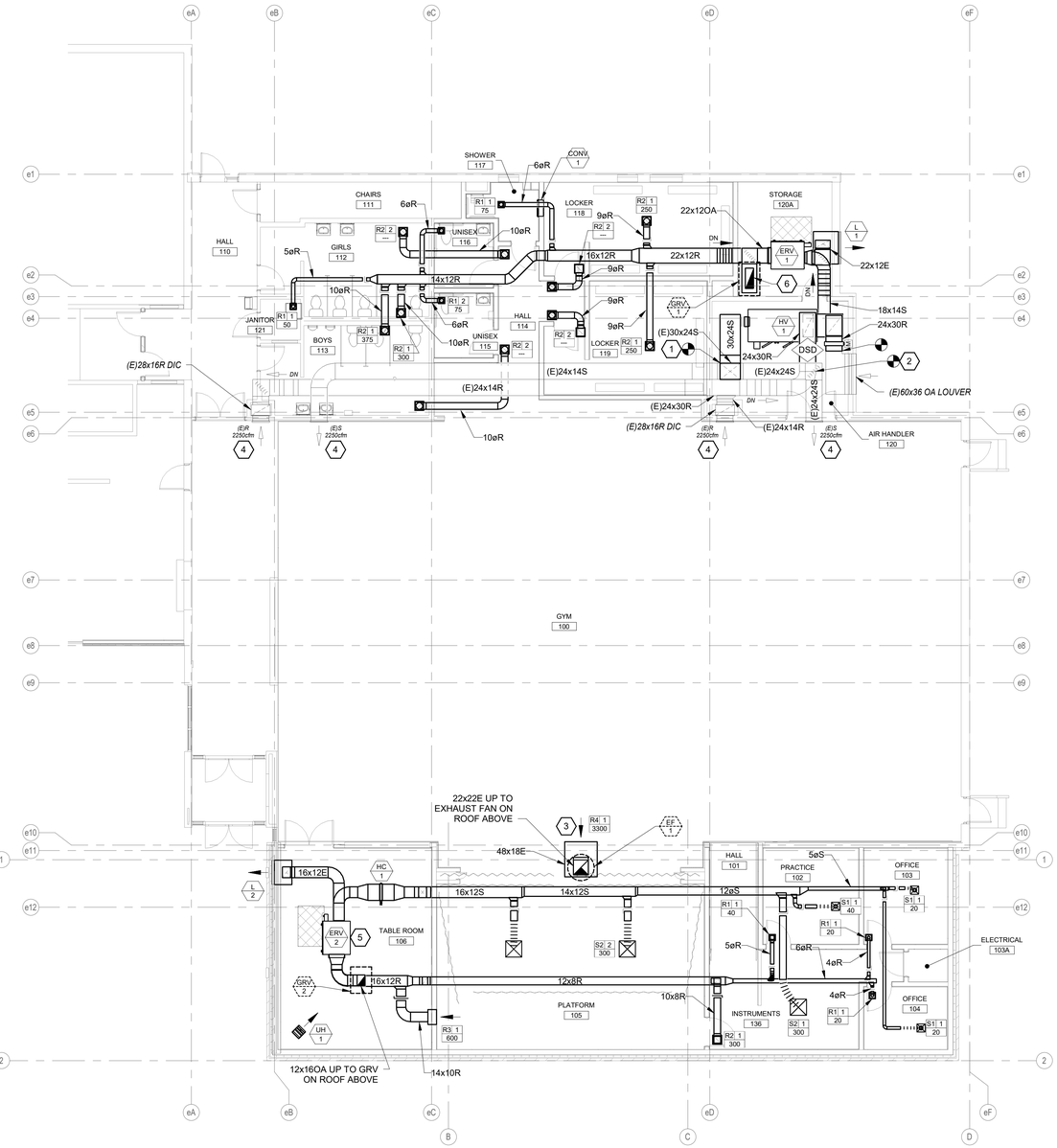
C3	DETAIL - EXTERIOR LOUVER
NOT TO SCALE	



FLEX DUCT NOTES:

1. FLEX DUCT SHOULD EXTEND STRAIGHT FOR SEVERAL INCHES FROM A CONNECTION BEFORE BENDING.
2. FLEX DUCT SHALL HAVE MAXIMUM OF 1/2" SAG PER FOOT OF SUPPORT SPACING.
3. CLOSER MAXIMUM INTERVALS MAY BE SPECIFIED AS A CONDITION OF U.L. LISTING, PARTICULARLY IN FIRE RATED FLOOR/CEILING ASSEMBLIES.
4. MINIMUM BEND RADIUS (R) SHALL BE EQUAL TO OR GREATER THAN THE FLEX DUCT DIAMETER (D), TYPICAL

A1	DETAIL - SUPPLY AIR BRANCH CONNECTION
NOT TO SCALE	



KEYED NOTES:

1. CONNECT NEW 30x24S ELBOW TO (E)30x24S RISER.
2. CONNECT NEW 24x30R DUCT TO (E)24x30R ELBOW (BELOW (E)24x24S DUCT)
3. MOUNT GRILLE HIGH AS POSSIBLE ON WALL.
4. EXISTING SUPPLY DIFFUSER/RETURN GRILLE TO REMAIN.
5. MOUNT ERV UNIT 10'-0" ABOVE FINISHED FLOOR AND OFFSET DUCTWORK TO INTAKE GRV/EXHAUST LOUVER AND ABOVE HIGH CEILING OVER PLATFORM 105.
6. 12x30OA UP TO GRV ON ROOF ABOVE.

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A5	MECHANICAL PART PLAN
1/8" = 1'-0"	

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MECHANICAL PART PLAN

MH-100

LOUVER SCHEDULE

TAG	MAKE - MODEL	AIR SYSTEM	DUTY	CFM	DIMENSIONS HEIGHT (IN.)	WIDTH (IN.)	MIN. FREE AREA (SF)	GROSS VELOCITY (FT/MIN)	NET VELOCITY (FT/MIN)	% FREE AREA	BLADE DEPTH	BEGINNING POINT OF WATER PENETRATION AT 0.01 OZ./SF	MAX P.D. MAX W.C.	SCREEN	NOTES
L-1	RUSKIN ELF445DX	ERV-1	EXHAUST	1,400	24	48	3.8	175.0	368.4	47.5%	4"	873 FPM	0.06	SEE SPEC	
L-2	RUSKIN ELF445DX	ERV-2	EXHAUST	980	24	36	2.8	163.3	350.0	46.7%	4"	873 FPM	0.06	SEE SPEC	

AIR HANDLING UNIT SCHEDULE

GENERAL	TAG	**HV-1**	
	DUTY	AIR HANDLER 128	
	DESIGN EQUIPMENT	YORK SOLUTION	
	WEIGHT (LBS)	1,312	
ELECTRICAL	VOLTAGE	208-3-60	
	MOTOR EFFICIENCY	PREMIUM	
	VFD FURNISHED BY	NA	
	DISCONNECT SW. FURN BY	AHU MFR.	
	SMOKE DETECTOR (SD)	NOT REQUIRED	
	SD'S FURN BY	NA	
	SD'S INSTALLED IN DUCT BY	NA	
	SD'S WIRED TO HVAC CONTROL...	NA	
	SD'S WIRED TO FIRE ALARM BY	NA	
1- AIR MIXING SECTION	RA DAMPER	TOP, PARALLEL BLADE	
	OA DAMPER	BACK, PARALLEL BLADE	
2 - FILTER SECTION	TYPE	4" DEPTH, MERV 8	
	MODULE PD, in. wc. - MID-LIFE	0.5"	
	MIN. AREA, SF	12.0	
	VELOCITY, FPM	375	
3 - AIR BLENDER		NOT REQUIRED	
4 - HEATING COIL	EAT, deg-F.	25	
	LAT, deg-F.	92	
	TMBTUH	329	
	MIN COIL AREA, sf.	7.5	
	MAX AIR PD. in. wc.	0.2	
	COIL FACE VELOCITY	600	
	FLUID	WATER	
	EWT, deg-F	180	
	LWT, deg-F	160	
	GPM	36.4	
	WATER PD, ft-H2O	5.8	
5 - ACCESS SECTION		YES - 18"	
7 - ACCESS SECTION		YES - 18"	
8 - SUPPLY FAN	DIAMETER - TYPE	FORWARD CURVE	
	CFM STD. AIR	**4,500**	
	MIN. OA CFM - VIA ERV-1	1,400	
	OA CFM - MAX CO2 CONTROL	3,000	
	ESP, in.wc.	2"	
	TSP, in. wc.	2.95"	
	MAX-BHP	4.46	
	MOTOR HP	5	
	VOLTAGE	208/3	
	MCA	17.5	
	MOP	30	
	STARTER OR VFD	STARTER	
9 - DISCHARGE PLENUM		NOT REQUIRED	

ENERGY RECOVERY UNIT SCHEDULE

GENERAL	TAG	ERV-1	ERV-2
	SERVES		
	LOCATION		
	TYPE	FIXED-PLATE ENTHALPIC	FIXED-PLATE ENTHALPIC
	MFR	RENEWAIRE	RENEWAIRE
	MODEL	HE2XINH	HE2XINH
FILTER SECTION	FILTERS	2" MERV 8	2" MERV 8
(TYP-2, SUPPLY & EXH)	MIN. AREA, sf	11.1	11.1
	VELOCITY	126	88
OUTSIDE AIR FAN	TYPE	FC	FC
	AIRFLOW, cfm	**1,400**	**980**
	ESP, in.wc.	1.5"	1.25"
	MOTOR SPEEDS	VFD	VFD
	HP	2	1.5
EXHAUST AIR FAN	TYPE	FC	FC
	AIRFLOW, cfm	**1,400**	**980**
	ESP, in.wc.	1.5"	1.25"
	MOTOR SPEEDS	VFD	VFD
	HP	2	1.5
OVERALL DIMENSIONS	LENGTH	64 1/2"	64 1/2"
	WIDTH	43"	43"
	HEIGHT	35 1/2"	35 1/2"
	OPERATING WEIGHT, lbs.	714	714
HEAT RECOVERY CORE	SUMMER OA DB/WB	88 / 72	88 / 72
	WINTER OA DB	0	0
	SUMMER SA DB/WB	78.5 / 72.9	78.5 / 72.9
	WINTER SA DB	52.8	52.8
	SENSIBLE EFFECTIVENESS	72.0%	75.0%
	SUMMER ENTHALPY EFF.	54.0%	60.0%
	WINTER ENTHALPY EFF.	64.0%	70.0%
	FROST CONTROL	NONE REQUIRED	NONE REQUIRED
ELECTRICAL DATA			
	V-PH-HZ	208/3/60	208/3/60
	UNIT FLA	6.6/MOTOR	4.8/MOTOR
	UNIT MCA	14.9	10.8
	MAX FUSE SIZE	20A	15A
	SUPPLY AND RETURN SMOKE DETECTORS	NONE REQUIRED	NONE REQUIRED
MOD			
	OUTSIDE AIR	YES, UNIT MOUNTED	YES, UNIT MOUNTED
	EXHAUST AIR	YES, UNIT MOUNTED	YES, UNIT MOUNTED

CONVECTOR SCHEDULE

TAG	STERLING MODEL	STYLE	LENGTH	HEIGHT	DEPTH	MBH	GPM	MAX WPD	
CONV-1	PWG-A	PARTIALLY RECESSED	24"	20"	4 1/4"	2.1	0.5	0.2	

NOTES:
BASE SIZING ON: 170F AWT, 20F TEMP DROP.

DUCT HEATING COIL SCHEDULE

TAG	SERVES	AIRFLOW	LENGTH	HEIGHT	FACE VEL	EDB	LDB	MBH	MAX APD	GPM	EWT	LWT	MAX WPD
HC-1	ERV-2	980	24	12	490	50	70	21.2	0.2"	1.1	180	160	3'

NOTES:

UNIT HEATER SCHEDULE

TAG	SERVES	MFR. -MODEL	SIZE	TYPE	MBH	CFM	EAT (DEG.-F)	LAT (DEG.-F)	GPM	FLUID	EWT	LWT	MOTOR TYPE	MOTOR HP	ELECT	MAX WPD	CONTROL VALVE	NOTES
UH-1	CHAIR STORAGE	TRANE UHS	36	HORIZ. UH	16.8	550	60	88.3	1.6	WATER	160	130.0	TEAO	1/15	120-1-60	0.1	3-WAY	1

NOTES:
1. POWER WIRING TO UNIT HEATER BY DIV 26. ALL LOW VOLTAGE CONTROL WIRING, THERMOSTAT, RELAYS, AND TRANFORMERS BY DIV. 23.
   DISCONNECT SWITCH: PROVIDE BY UNIT HEATER MANUFACTURER.

FINNED TUBE RADIATION SCHEDULE (HOT WATER)

TAG	STERLING MODEL No.	GRADE	ENCLOSURE HEIGHT	MOUNTING HEIGHT, TOP ...	DEPTH FROM...	No. OF TIERS	BTU / FT	GPM	AWT	EAT	ELEMENT	FIN DIMENSIONS	FINS/FT.	NOTES
FT-A	VERSALINE JVA	COMMERCIAL	14"	18"	4-3/8"	1	1,120	1.0	170	65	3/4" COPPER/ALUM	4-1/4" X 3-5/8"	50	

NOTES:
1. PROVIDE RETURNS WITHIN ENCLOSURE WHERE APPLICABLE.

FAN SCHEDULE

TAG	SERVES	MFR.	MODEL	TYPE	DRIVE	CFM	SP (IN. WC.)	MOTOR HP	SPEED CONTROL	DISC. SWITCH FURN BY	VOLTS/PH	MAX SONES	WEIGHT (LBS.)	DAMPER	NOTES
EF-1	GYM	COOK	ACRU-D 210R08D	ROOF-UPBLAST	DIRECT	3,300	.5"	0.8	YES-VFD	FAN MFR	208/3/60	8.4	129	MOD	

GRAVITY ROOF VENTILATOR SCHEDULE

TAG	MAKE - MODEL	ASSOICATED AIR SYSTEM	INTAKE OR RELIEF?	CFM	HOOD DIMENSIONS LENGTH (in.)	HOOD DIMENSIONS WIDTH (in.)	HOOD DIMENSIONS HEIGHT (in.)	HOOD DIMENSIONS MIN. FREE AREA (SF)	THROAT DIMENSIONS LENGTH (in.)	THROAT DIMENSIONS WIDTH (in.)	THROAT DIMENSIONS MIN. FREE AREA (SF)	NUMBERS OF TIERS	MAX P.D. MAX W.C.	SCREEN	WEIGHT LBS	ROOF CURB
GRV-1	COOK GI	ERV-1	INTAKE	1,400	51	32	12	7.2	30.0	12	2.5	NA	0.02	SEE SPEC	121	30"
GRV-2	COOK GI	ERV-2	INTAKE	980	39	31	12	5.5	18.0	12	1.5	NA	0.02	SEE SPEC	101	30"

REGISTERS - GRILLES - DIFFUSERS (RGD) SCHEDULE

TAG	MFR.	MODEL	TYPE	NECK SIZE	FACE SIZE	MAX CFM	MAX TOTAL P.D. (IN.W.C.)	MAX NC LEVEL	BORDER TYPE	BLOW	NOTES
S-1	PRICE	SMDA	SQ. CEILING SUPPLY DIFFUSER, ADJUSTABLE	6 X 6 / 6" DIA	12" X 12"	100	0.07"	15	LAY-IN		ROUND NECK ADAPTER
S-2	PRICE	SMDA	SQ. CEILING SUPPLY DIFFUSER, ADJUSTABLE	12 X 12 / 10" DIA	24" X 24"	370	0.07"	17	LAY-IN		ROUND NECK ADAPTER
R-1	PRICE	530	STEEL RETURN, 3/4" SPACING, 45 DEG VANES	8" X 8"	9.75" X 9.75"	110	0.05"	20	SURFACE MT.	----------	6" DIA RUNOUT
R-2	PRICE	530	STEEL RETURN, 3/4" SPACING, 45 DEG VANES	12" X 12"	13.75" X 13.75"	375	0.05"	20	SURFACE MT.	----------	10" DIA RUNOUT
R-3	PRICE	530	STEEL RETURN, 3/4" SPACING, 45 DEG VANES	22" X 10"	23.75" X 13.75"	600	0.05"	20	LAY-IN	----------	12" DIA RUNOUT
R-4	PRICE	530	STEEL RETURN, 3/4" SPACING, 45 DEG VANES	48" X 18"	49.75" X 19.75"	3,300	.09"	26	SURFACE MT.	----------	26" X 18" RUNOUT

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RSU 18
CHINA MIDDLE SCHOOL
GYM ADDITION

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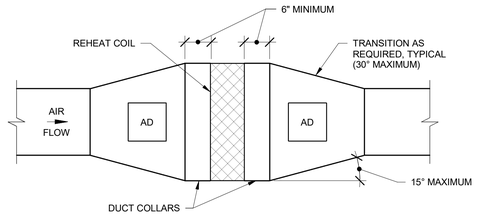
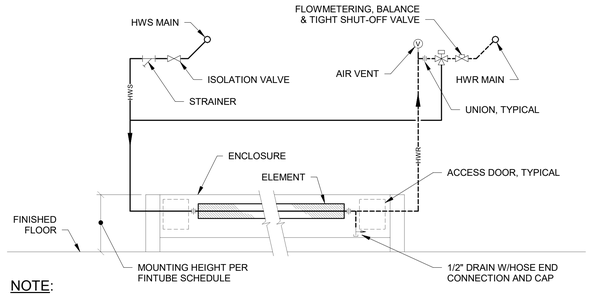
08 April 2019

MECHANICAL SCHEDULES

MH-600



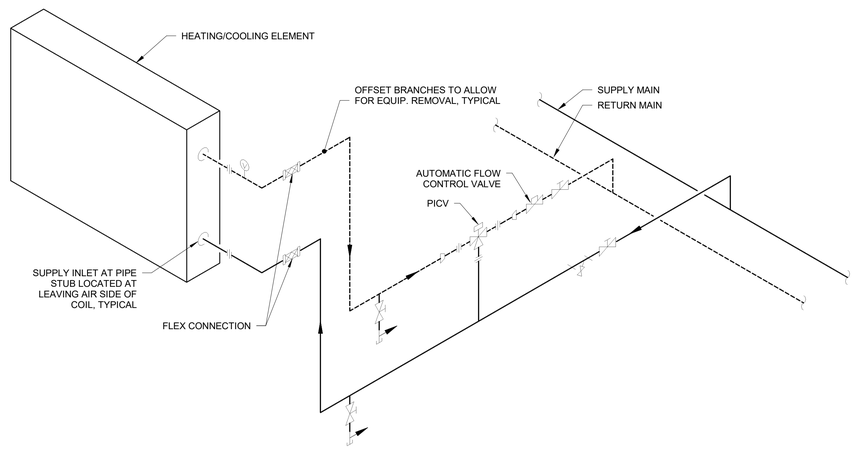
F1	DETAIL - REHEAT COIL DUCT CONNECTION
NOT TO SCALE	



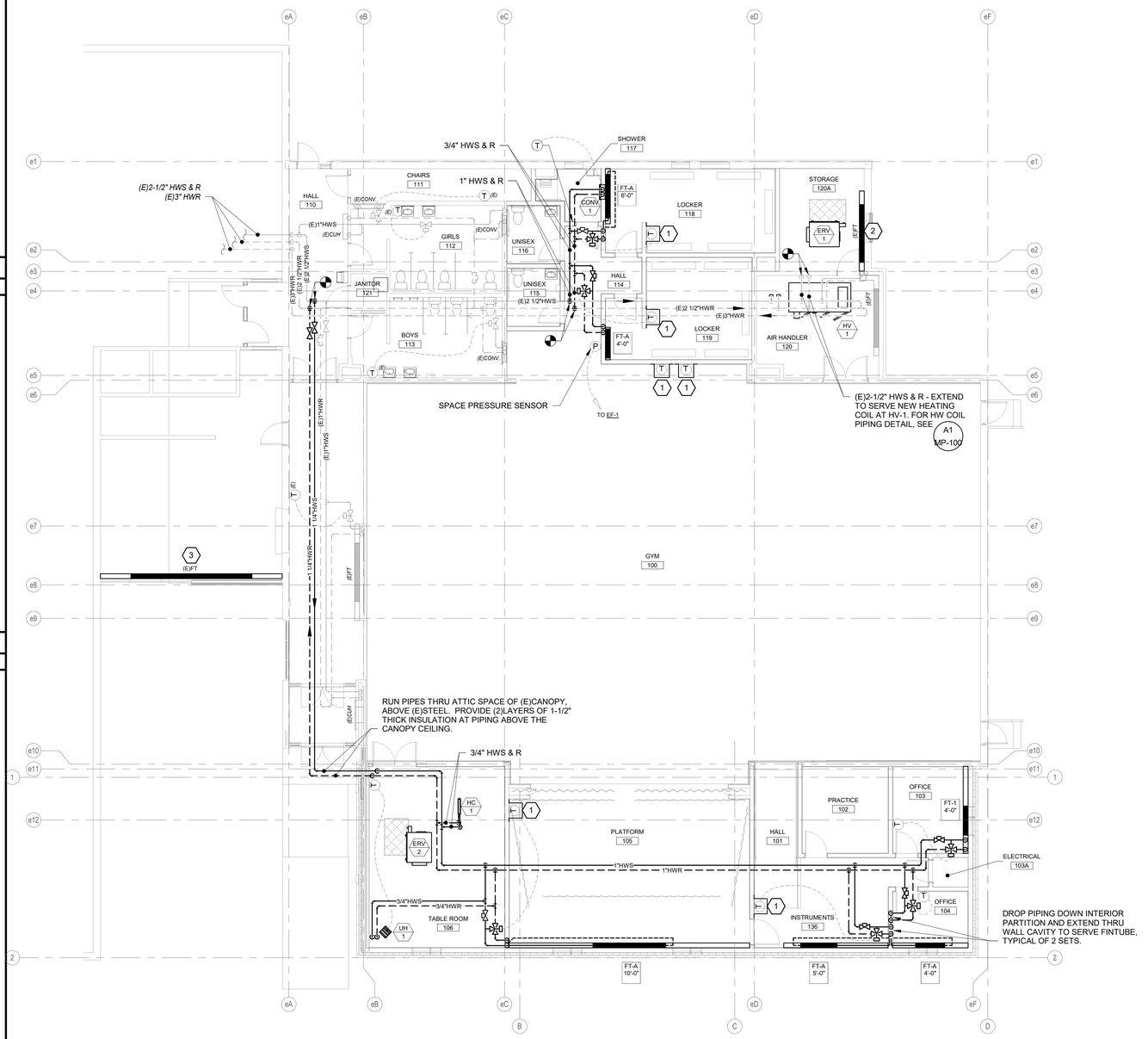
NOTE:

PITCH ELEMENTS UP IN DIRECTION OF FLOW.

D1	DETAIL - FINTUBE PIPING
NOT TO SCALE	



A1	DETAIL - HYDRONIC COIL PIPING SCHEMATIC - 3-WAY VALVE
NOT TO SCALE	



KEYED NOTES:

1. PROVIDE GUARD AT TEMPERATURE SENSOR, AS SPECIFIED.
2. EXISTING FINTUBE RELOCATED TO FINISHED FLOOR ELEVATION SUBSEQUENT TO REMOVAL OF THE EXISTING PLATFORM . EXTEND EXISTING HWS/HWR PIPING AS REQUIRED.
3. EXISTING FINTUBE RELOCATED SUBSEQUENT TO CURTAIN WALL REPLACEMENT. REVISED EXISTING HWS/HWR PIPING AS REQUIRED TO MAKE FINTUBE FUNCTIONAL.

TRUE NORTH

PLAN NORTH

A5	MECHANICAL PIPING PART PLAN
1/8" = 1'-0"	

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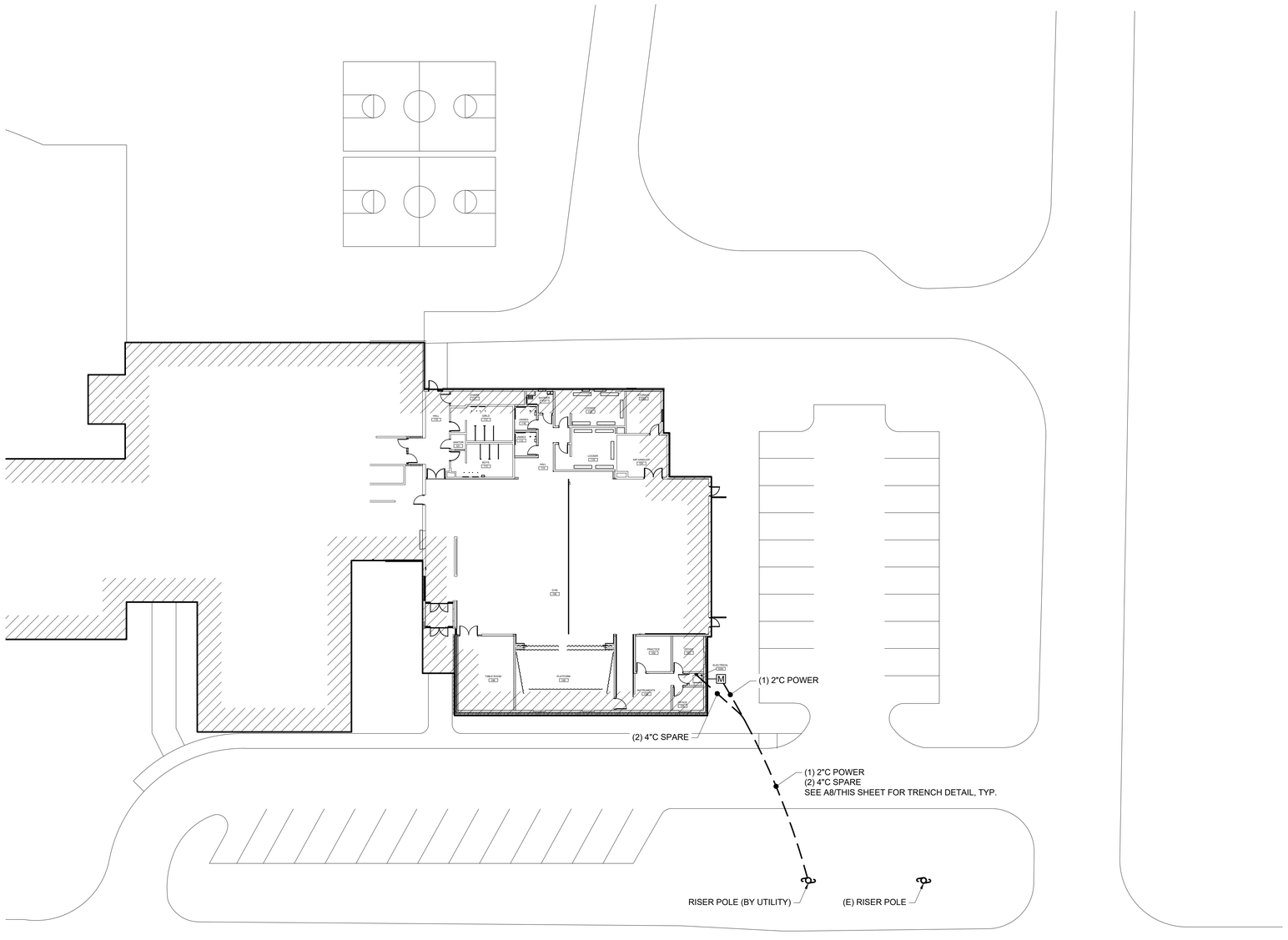
MECHANICAL PIPING PART PLAN

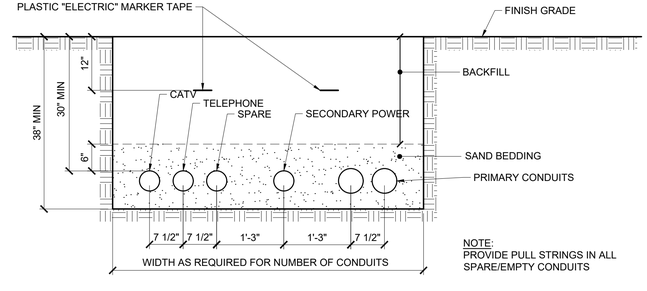
MP-100



OH	OVERHEAD WIRING, TYPE AS INDICATED
	UNDERGROUND OR UNDERSLAB WIRING, TYPE AS INDICATED
	UTILITY POLE
	FUSED DISCONNECT SWITCH
	NON-FUSED DISCONNECT SWITCH
	MOTOR
	GROUNDING SYSTEM
J	JUNCTION BOX, WALL MOUNTED
J	JUNCTION BOX, IN-GROUND
M	ELECTRICAL MANHOLE, COORDINATE LOCATION WITH OTHER UNDERGROUND UTILITIES
T	PADMOUNT TRANSFORMER
PB	4'X6' PULL BOX WITH 32" COVER PLATE IN ACCORDANCE WITH UTILITY STANDARDS
P	PEDESTAL LOCATION, PEDESTAL BY SERVICE PROVIDER, STUB UP (2) 2" CONDUITS WITH CONNECTORS AND BUSHINGS FROM HANDHOLE
H	HANDHOLE, MINIMUM 18"x36"x24", SIZE PER NEC FOR NUMBER OF CONDUITS INSTALLED
M	METER & CT CABINET, WALL MOUNTED
	SINGLE POLE MOUNTED LIGHT
	DOUBLE POLE MOUNTED LIGHT
	WALL MOUNTED LIGHT FIXTURE
	SINGLE POLE HOMERUN: (2)#12+(1)#12G UNO, CONNECT TO PANEL INDICATED
	SINGLE-PHASE HOMERUN OR MULTIPLE HOMERUN UTILIZING THE SAME CONDUIT, CONNECT TO PANEL INDICATED
	3-PHASE HOMERUN OR MULTIPLE HOMERUN UTILIZING THE SAME CONDUIT, CONNECT TO PANEL INDICATED
A1 / ES-000	DETAIL CALL-OUT
A1 / ES-000	SECTION/ELEVATION CALL-OUT

AFF	ABOVE FINISHED FLOOR	(E)	EXISTING ITEM TO REMAIN
AFG	ABOVE FINISHED GRADE	(R)	REMOVE ITEM AND DISPOSE OF PROPERLY
C	CONDUIT	(ER)	RELOCATED ITEM AT NEW LOCATION
CATV	CABLE TV	(RL)	REMOVE AND RELOCATE
CB	CIRCUIT BREAKER		
P/O	PART OF		
MT	MOUNT		
NEC	NATIONAL ELECTRICAL CODE		
TEL	TELEPHONE		
UNO	UNLESS NOTED OTHERWISE		
WP	WEATHERPROOF		
WG	WIREGUARD		

C8 SITE LEGEND & ABBREVIATIONS



NOTE:
PROVIDE PULL STRINGS IN ALL SPARE/EMPTY CONDUITS

A8 TYPICAL SEPARATION OF UTILITY SYSTEMS

NOT TO SCALE

A1 ELECTRICAL SITE PLAN

SCALE: 1"=20'-0"

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ELECTRICAL SITE PLAN

ES-100

4/8/2019 1:43:22 PM

THIS IS A 24 X 36 SHEET.

A	AMPERE
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPERES INTERRUPTING CAPACITY
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BKBD	BACKBOARD
C	CONDUIT
CAT	CATALOG, CATEGORY
CATV	CABLE TV
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CM	CIRCULAR MILS
COMM	COMMUNICATIONS
CU	MECH CONDENSING UNIT
CU	COPPER
CUH	CABINET UNIT HEATER
DC	DIRECT CURRENT
DDC	DIGITAL DIRECT CONTROL
DN	DOWN
DW	DISHWASHER
DWG	DRAWING
EF	EXHAUST FAN
ELEV	ELEVATOR
EMT	ELECTRICAL METALLIC TUBING
EP	EXPLOSION PROOF
ERU	ENERGY RECOVERY UNIT
EWC	ELECTRIC WATER COOLER
FACP	FIRE ALARM CONTROL PANEL
FB	FLOOR BOX
FLA	FULL LOAD AMPS
FWE	FURNISHED WITH EQUIPMENT
G, GND	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTO SELECTOR SWITCH
HP	HORSEPOWER
HVAC	HEATING, VENTILATION AND COOLING UNIT
IDS	INTRUSION DETECTION SYSTEM
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
IR	INFRARED
K	KILO
KCMIL	KILO CIRCULAR MILS
KW	KILOWATT
KVA	KILO VOLT-AMPS
LAN	LOCAL AREA NETWORK
LC	LIGHTING CONTACTOR
LF	LINEAR FEET
LC	LOADCENTER
LCP	LIGHTING CONTROL PANEL
LED	LIGHT EMITTING DIODE
LTG	LIGHTING
LTS	LIGHTS
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MECH	MECHANICAL
MH	MOUNTING HEIGHT
MC	MICROPHONE
MW	MICROWAVE
MLO	MAIN LUG ONLY
MT	MOUNT
MTS	MANUAL TRANSFER SWITCH
MCP	MOTOR CONTROL PANEL
MH	METAL HALIDE
MDP	MAIN DISTRIBUTION PANEL
MIN	MINIMUM
N	NEUTRAL
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NF	NON-FUSED
NO	NORMALLY OPEN
NO., #	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OCC	OCCUPANCY
OH	OVERHEAD
P	POLE
PA	PUBLIC ADDRESS
PB	PULLBOX
PH,	PHASE
PIR	PASSIVE INFRARED
PNL	PANELBOARD
P/O	PART OF
PV	PHOTOVOLTAIC
PVC	POLY-VINYL CHLORIDE
REC RECEPT	RECEPTACLE
REF	REFRIGERATOR
RF	RETURN FAN
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RMC	RIGID METAL CONDUIT
RTU	ROOFTOP UNIT
REF	REFRIGERATOR
SF	SUPPLY FAN
SPDT	SINGLE POLE, DOUBLE THROW
SQ	SQUARE
TEL	TELEPHONE
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL
UF	UNDER FLOOR
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITER'S LABORATORY
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VFD	VARIABLE FREQUENCY DRIVE
VIF	VERIFY IN FIELD
W	WATT
WP	WEATHERPROOF
WG	WIREGUARD
XFMR	TRANSFORMER

PROJECT NOTES

1. THE SCOPE OF WORK SHALL INCLUDE PROVIDING ALL WORK INDICATED UNLESS OTHERWISE SPECIFICALLY INDICATED AS EXISTING OR WORK BY OTHERS, AND COORDINATION WITH ALL TRADES SCOPE OF WORK AS INDICATED ON THE CONTRACT DOCUMENTS INCLUDING BOTH THE DRAWINGS AND THE SPECIFICATIONS, WHICH ARE COMPLIMENTARY. WORK REQUIREMENTS INDICATED IN ANY CONTRACT DOCUMENT SHALL BE CONSIDERED PART OF THE SCOPE OF WORK, UNLESS SPECIFICALLY INDICATED AS EXISTING OR WORK BY OTHERS.
2. IN GENERAL, WORK REQUIREMENTS ARE NOT INDICATED IN BOTH DOCUMENTS. WHERE DOCUMENTS CONFLICT WITHIN THEMSELVES OR WITH CODES AND REGULATIONS. PROVIDE THE HIGHER QUANTITY AND QUALITY AND FOLLOW THE STRICTER REQUIREMENTS.
3. WORK AT A MINIMUM SHALL BE IN ACCORDANCE WITH OSHA, NFPA STANDARDS, THE ELECTRICAL CODE AND THE LOCAL GOVERNING AUTHORITIES. THE DRAWINGS AND SPECIFICATIONS DO NOT ATTEMPT TO INDICATE ALL WORK REQUIRED BY CODE AND AUTHORITIES. DO NOT INSTALL WORK THAT DOES NOT MEET THE MINIMUM REQUIREMENTS. IF NECESSARY, REQUEST CLARIFICATION FROM ARCHITECT AND ENGINEER BEFORE PROCEEDING.
4. ALL EQUIPMENT SHALL BE INSTALLED IN A NEAT AND PROFESSIONAL MANNER. RECTILINEAR TO BUILDING STRUCTURE.
5. ALL COMPONENTS SHOWN ON THE RISER DIAGRAMS OR DETAILS, BUT NOT ON THE PLAN OR VICE VERSA SHALL BE INCLUDED AS IF SHOWN ON BOTH.
6. IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS TO PROVIDE A WORKING INSTALLATION IN EVERY DETAIL AND ALL ITEMS REQUIRED FOR SUCH AN INSTALLATION SHALL BE PROVIDED WHETHER OR NOT SPECIFICALLY INDICATED OR MENTIONED.
7. VISIT THE SITE TO DETERMINE PRE-EXISTING CONDITIONS AND WORK NECESSARY PRIOR TO SUBMISSION OF BID PRICE. SUBMIT ANY QUESTIONS REQUIRED TO CLARIFY SCOPE PRIOR TO BID. INCLUDE ALL REQUIRED WORK IN BID PRICE.
8. INCLUDE IN BID WHATEVER IS REQUIRED TO MEET SCHEDULE INCLUDING OVERTIME, EXPRESS SHIPPING, EXPEDITING EQUIPMENT, ETC. PLAN FOR PROJECT AND SUBMIT SHOP DRAWING AND ORDER EQUIPMENT IN A TIMELY MANNER; EQUIPMENT SHALL BE BASED ON THE SPECIFIED EQUIPMENT.
9. ANY EQUIPMENT TO BE SUBSTITUTED SHALL BE IDENTIFIED AT THE TIME OF BID. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR SUBSTITUTIONS.
10. ALL ELECTRICAL DEVICES, WHEN INSTALLED, SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. COVER PLATES SHALL BE INSTALLED AFTER FINISH MATERIALS HAVE BEEN APPLIED.
11. TEST ALL EQUIPMENT AND SYSTEMS INSTALLED TO CERTIFY COMPLIANCE WITH DRAWINGS, SPECIFICATIONS, CODES, LOCAL AUTHORITIES AND REGULATIONS, INCLUDE LABOR AND COSTS FOR TESTING, REVIEWS, COMMISSIONING, APPROVALS AND CERTIFICATIONS.
12. PROVIDE TRAINING TO OWNER ON ALL EQUIPMENT AND SYSTEMS INSTALLED.
13. TEMPORARY LIGHTING AND POWER SHALL BE PROVIDED AS REQUIRED BY OSHA, CODES AND LOCAL AUTHORITIES. REMOVE ALL TEMPORARY FACILITIES PROVIDED AT PROJECT COMPLETION.

INSTALLATION COORDINATION NOTES

1. PRIOR TO ROUGH-IN OF ELECTRICAL PROVISIONS FOR OWNER FURNISHED EQUIPMENT AND EQUIPMENT PROVIDED BY OTHER TRADES, COORDINATE WITH THE GENERAL CONTRACTOR, EQUIPMENT SHOP DRAWINGS AND APPLICABLE EQUIPMENT INSTALLER FOR EXACT LOCATION AND WIRING REQUIREMENTS. PROVIDE ALL NECESSARY EQUIPMENT, WIRING AND ACCESSORIES FOR A COMPLETE INSTALLATION. MAKE ALL FINAL CONNECTIONS AS REQUIRED, I.E. POWER, CONTROL, INTERLOCK, ETC.
2. DISCONNECT, REMOVE, RELOCATE, AND RECONNECT ELECTRICAL CONDUIT, WIRING, DEVICES, BOXES, FIXTURES, EQUIPMENT, ETC. AS INDICATED AND AS REQUIRED TO FACILITATE THE WORK OF DIVISION 26 AND OTHER DIVISIONS. THESE DRAWINGS ARE NOT INTENDED TO INDICATE ALL ITEMS TO BE REMOVED.
3. ELECTRICAL EQUIPMENT, RACEWAYS AND OUTLETS MOUNTED TO AND OR INSTALLED IN OWNER FURNISHED FURNITURE SHALL BE COORDINATED WITH THE EQUIPMENT AND FURNITURE INSTALLERS AND THE GENERAL CONTRACTOR PRIOR TO ROUGH-IN. EXCEPT WHERE INDICATED OR REQUIRED OTHERWISE.
4. THE LOCATION OF EQUIPMENT, OUTLETS, ETC. AS GIVEN ON THE DRAWINGS IS APPROXIMATE. IT SHALL BE UNDERSTOOD THAT THESE LOCATIONS ARE SUBJECT TO MODIFICATION AS MAY BE FOUND NECESSARY OR DESIRABLE AT THE TIME OF INSTALLATION IN ORDER TO MEET PROJECT REQUIREMENTS. SUCH CHANGES SHALL BE MADE WITHOUT EXTRA CHARGE.
5. IF EXACT LOCATION, MOUNTING OR RACEWAY ROUTING ARE NOT INDICATED OR ARE NOT CLEAR OR CONFLICT (LOCATION OR HEIGHT) COORDINATE WITH OTHER TRADES AND REQUEST CLARIFICATION PRIOR TO ROUGH-IN OR INSTALLATION. DRAWINGS ARE DIAGRAMMATIC ONLY. EXACT LOCATION, MOUNTING HEIGHTS OR EQUIPMENT AND ROUTING OF RACEWAYS SHALL BE COORDINATED WITH THE EQUIPMENT REQUIREMENTS AND FIELD CONDITIONS.
6. WHERE LOADS ARE ADDED TO EXISTING BRANCH CIRCUITS, VERIFY THAT THE EXISTING CIRCUITS HAVE ADEQUATE CAPACITY TO SUPPORT THE ADDITIONAL LOAD WITHOUT EXCEEDING SPECIFIED MAXIMUM LOAD.
7. UNLESS OTHERWISE DIRECTED, PROVIDE ALL NEW POWER DISTRIBUTION EQUIPMENT WITH AIC RATINGS THAT MATCH OR EXCEED THE AIC RATING OF THE NEXT ACTIVE EXISTING UPSTREAM OVER-CURRENT PROTECTIVE DEVICE SERVING THE PANEL WHEN SERVED DIRECTLY BY ITS SOURCE (E.G. NO TRANSFORMER) OR PROVIDE AIC RATING THAT EXCEEDS BY 10% THE MAXIMUM LET THROUGH FAULT CURRENT (UNDER INFINITE PRIMARY BUSS) OF THE NEXT ACTIVE UPSTREAM TRANSFORMER (EXISTING OR NEW) SERVING THE RESPECTIVE PANEL.
8. ALL NEW PANELS SHALL BE FULLY RATED FOR THE DESIGNATED AIC VALUE; PANELS UTILIZING SERIES RATINGS WILL NOT BE ACCEPTABLE. NEW CIRCUIT BREAKERS PROVIDED IN EXISTING PANELS SHALL BE PROVIDED WITH AIC RATINGS THAT MATCH OR EXCEED THE HIGHEST RATED OVER-CURRENT PROTECTIVE DEVICE WITHIN THE RESPECTIVE EXISTING PANEL.
9. SUBMIT SHORT CIRCUIT STUDY WITH POWER DISTRIBUTION EQUIPMENT SUBMITTALS FOR REVIEW AND APPROVAL. IN THE STUDY DEMONSTRATE THAT THE AIC RATING SELECTIONS ARE PROPERLY INTEGRATED AND COORDINATED WITH THE EXISTING AND NEW POWER DISTRIBUTION EQUIPMENT. CONFIRM THAT THE AIC RATING SELECTIONS HAVE INCORPORATED THE AVAILABLE FAULT DUTY VALUES OBTAINED FROM THE UTILITY COMPANY FOR THE PROJECTS ELECTRICAL SERVICE POINT OF COMMON COUPLING.
10. SUBMIT OVER-CURRENT PROTECTIVE DEVICE COORDINATION STUDY, FOR ALL NEW POWER DISTRIBUTION EQUIPMENT, WITH THE POWER DISTRIBUTION EQUIPMENT SUBMITTALS FOR REVIEW AND APPROVAL. INCLUDE THE NEXT ACTIVE EXISTING UPSTREAM OVER-CURRENT PROTECTIVE DEVICES, IN THE STUDY ANALYSIS, WHEN PROJECT IS WITHIN AN EXISTING FACILITY.
11. SUBMIT ARC FLASH REPORT, FOR ALL NEW POWER DISTRIBUTION EQUIPMENT, WITH POWER DISTRIBUTION EQUIPMENT SUBMITTALS FOR REVIEW AND APPROVAL.

WIRING NOTES

1. UNLESS OTHERWISE INDICATED ON PLANS OR IN SPECIFICATIONS; ALL CONDUCTORS, POWER DISTRIBUTION EQUIPMENT BUSSING AND TRANSFORMER WINDINGS SHALL BE FABRICATED OF 98% CONDUCTIVE COPPER MATERIAL.
2. WIRING IS INDICATED ON DRAWINGS ONLY FOR SPECIFIC ROUTES OR SPECIAL CONDITIONS.
3. BRANCH CIRCUIT WIRING NOT SHOWN. CIRCUITING SHALL IN ACCORDANCE WITH APPLICABLE CODES AND STANDARD PRACTICE. PROVIDE A 20A, 1P CIRCUIT BREAKER FOR EACH LIGHTING AND RECEPTACLE CIRCUIT UNLESS OTHERWISE INDICATED OR NOTED. CONNECT NO MORE THAN SIX DUPLEX CONVENIENCE RECEPTACLES PER BRANCH CIRCUIT. CONNECTED LOAD ON LIGHTING CIRCUITS SHALL NOT EXCEED 12 AMPS.
4. ALL WIRING SHALL BE RUN CONCEALED UNLESS SPECIFIED OTHERWISE. ALL EXPOSED WIRING INCLUDING THAT WHICH IS INSTALLED ABOVE BUT IS VISIBLE FROM BELOW, PARTIALLY OR FULLY OPEN CEILING, SHALL BE INSTALLED IN CONDUIT OR RACEWAYS. REFER TO SPECIFICATIONS FOR ACCEPTABLE WIRING METHODS.
5. WIRING AND CONDUIT SHALL BE REQUIRED FOR ALL SWITCHES, AND OUTLETS INDICATED WITH CIRCUIT NUMBERS. PROVIDE ¾" CONDUIT , 3#12 UNLESS OTHERWISE INDICATED (1 PHASE, 1 NEUTRAL AND 1 GROUND). WIRE AND CONDUIT SIZES ON HOME RUNS SHALL BE CONTINUOUS THROUGHOUT CIRCUIT, REFER TO VOLTAGE DROP CHART ON SCHEDULE SHEET. ALTHOUGH ALL BRANCH CIRCUIT WIRE AND CONDUIT IS NOT SHOWN, IT IS THE INTENT OF THESE DOCUMENTS THAT A COMPLETE BRANCH CIRCUIT WIRING SYSTEM BE INSTALLED.
6. RACEWAYS SHALL BE LIMITED TO SIX CURRENT CARRYING CONDUCTORS (PHASE AND NEUTRALS) AND GROUNDING CONDUCTOR. PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH SINGLE-PHASE RECEPTACLE OR LIGHTING CIRCUIT. UNLESS OTHERWISE INDICATED OR IF AN OVERSIZED NEUTRAL IS SPECIFIED. CIRCUITS WITH SHARED NEUTRALS SHALL BE PROVIDED WITH CIRCUIT BREAKERS THAT HAVE A COMMON TRIP (E.G. FURNITURE WHIPS)
7. MARK ALL CONDUITS AND JUNCTION BOXES WITH PERMANENT MARKER INDICATING PANEL AND CIRCUIT NUMBER OF CONDUCTORS CONTAINED WITHIN. LABEL WHERE CONDUITS ENTER PANELS, WIRE WAYS, PULL BOXES, ETC. LABEL EMPTY CONDUITS WITH SYSTEM (VOICE, DATA, SECURITY, ETC.) AND SOURCE OF CONDUIT.
8. COORDINATE WITH OWNER TO DETERMINE WHICH RECEPTACLES AND ITEMS OF EQUIPMENT REQUIRE STANDBY GENERATOR POWER.
9. ELECTRICAL WORK NOT SERVING STAIRWELLS SHALL NOT PASS THROUGH A STAIR ENCLOSURE UNLESS AN APPROVED RATED SOFFIT IS PROVIDED TO MAINTAIN FIRE AND SMOKE RATING.
10. ALL RACEWAYS CROSSING EXPANSION JOINTS SHALL BE EQUIPPED WITH EXPANSION FITTINGS.
11. PROVIDE WATERTIGHT AND GAS TIGHT SEALS INSIDE AND OUTSIDE OF CONDUITS THAT PENETRATE THE BUILDING BELOW GRADE. O.Z. GEDNEY OR APPROVED EQUAL. PROVIDE WEATHER TIGHT SEAL AT PENETRATIONS ABOVE GRADE.
12. PROVIDE NRTL LISTED SMOKE AND FIRE SEALS AT ALL PENETRATIONS THROUGH FLOORS OR FULL HEIGHT (FLOOR TO FLOOR) WALLS.

SYSTEM POWER WIRING NOTES

1. ALL VIDEO PROJECTOR, CAMERA AND MONITOR POWER OUTLETS AND THEIR ASSOCIATED COMPUTER POWER OUTLETS FEEDING THE VIDEO SOURCE ARE TO BE CONNECTED TO THE SAME PHASE TO ELIMINATE THE POTENTIAL FOR VIDEO INTERFERENCE BETWEEN VIDEO SOURCE AND EQUIPMENT. COORDINATE ALL POWER WIRING FOR SYSTEM EQUIPMENT WITH THE SYSTEM INSTALLER PRIOR TO INSTALLATION

RECEPTACLE COLOR CODE NOTES

UNLESS OTHERWISE INDICATED PROVIDE 20A HEAVY DUTY GRADE RECEPTACLES WITH COLOR CODE AS FOLLOWS:

1. ON GENERATOR POWER – RED
2. ON UPS POWER – BLUE
3. ISOLATED GROUND – ORANGE
4. ON NORMAL POWER – IVORY OR AS SELECTED BY ARCHITECT

MOUNTING NOTES

1. DO NOT SCALE THE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS AND EXISTING CONDITIONS FOR EXACT DIMENSIONS.
2. INSTALL ALL ELECTRICAL DEVICES (FIRE ALARM, SWITCHES, RECEPTACLES, WORK BOXES. JUNCTION BOXES, EXIT SIGNS, LUMINAIRES, ETC.) IN THE LOCATIONS IDENTIFIED OR DIMENSIONS ON THE ARCHITECTURAL PLANS, DETAILS, OR ELEVATIONS.
3. IF THE DEVICE LOCATION IS NOT SPECIFICALLY SHOWN ON ARCHITECTURAL DRAWINGS, FOLLOW THE GUIDELINES LISTED BELOW:
4. INSTALL NEARBY DEVICES ON ONE COMMON VERTICAL CENTERLINE
5. INSTALL ADJACENT TO DEVICES LINED UP WITH A COMMON BOTTOM LINE.
6. INSTALL DEVICES AT INDICATED HEIGHT AS APPLICABLE UNLESS OTHERWISE NOTED. ALL MOUNTING HEIGHTS SHALL BE MEASURED FROM FINISHED FLOOR TO CENTERLINE OF DEVICE EXCEPT AS INDICATED BY NOTE 7.
7. ON MASONRY WALLS LINE UP THE BOTTOM OF THE DEVICE WITH A MASONRY JOINT AS CLOSE TO THE INDICATED HEIGHT AS PRACTICAL.
8. INSTALL DEVICES IN SAME AREA AT THE SAME HEIGHT.
9. MOUNT PANELS SIX FEET TO THE TOP OF THE PANEL OR ANNUNCIATOR/ FA GRAPHIC.
10. MOUNT AT 8 FOOT TO BOTTOM FOR SIGNAGE, EMERGENCY LIGHTING, CLOCKS, SECURITY SENSORS, WALL MOUNTED OCCUPANCY SENSORS MODIFIED AS FOLLOWS: 4' FROM TOP OF DEVICE TO CEILING AND 4' ABOVE DOOR FRAMES.
11. LOCATE CONTROL DEVISE AT LEAST 18" FROM AN INSIDE CORNER.
12. SUPPORT WORK FROM THE BUILDING STRUCTURE.
13. IN FINISHED AREAS ELECTRICAL WORK SHALL BE INSTALLED CONCEALED, RECESSED INTO WALLS OR INSTALLED ABOVE HUNG CEILINGS UNLESS OTHERWISE INDICATED.
14. DO NOT INSTALL OUTLETS BACK TO BACK. PROVIDE 24" SPACING IN FIRE RATED WALLS.
15. PROVIDE ELECTRICAL OUTLET PLATE GASKETS SEALS AT RECEPTACLES, SWITCHES AND OTHER ELECTRICAL BOXES ON EXTERIOR WALLS AND INTERIOR WALLS BETWEEN CONDITIONED AND NON-CONDITIONED SPACES.

D3 | GENERAL NOTES

- PANELBOARD ~ FLUSH MOUNTED
- PANELBOARD ~ SURFACE MOUNTED
- DISCONNECT SWITCH
- CABLE TRAY
- MOTOR OR FAN
- (J) JUNCTION BOX, CEILING OR WALL MOUNTED. MAKE CONNECTION TO RESPECTIVE EQUIPMENT. COORDINATE EXACT TERMINATION POINT IN FIELD OR THROUGH APPROVED SUBMITTALS.
- T# TRANSFORMER ~ SEE TRANSFORMER SCHEDULE
- INDICATES DEDICATED CIRCUIT OR HOMERUN BACK TO RESPECTIVE PANEL ~ (2)#12+(1)#12G UNO. REFER TO EQUIPMENT SCHEDULES AND PANELBOARD SCHEDULES FOR ADDITIONAL INFORMATION.
- P DIVIDED POWER POLE FOR SYSTEM FURNITURE POWER AND DATA WIRING
- (P) MOTORIZED DOOR OPERATOR AND PUSH PADDLE ~ FURNISHED BY DIVISION 08, WIRED BY DIVISION 26
- CB ENCLOSED CIRCUIT BREAKER
- ATS AUTOMATIC TRANSFER SWITCH
- #/I/D SF SYSTEMS FURNITURE FEED WITH WHIPS, WALL MOUNT OR MOUNTED AT POWER POLE WHERE INDICATED ~ PROVIDE SINGLE GANG JUNCTION BOX 18" AFF FOR POWER; PROVIDE DOUBLE GANG JUNCTION BOX 18" AFF WITH EMPTY 1"CONDUIT WITH PULLSTRING FOR VOICE/DATA CABLING UP TO 6" ABOVE NEAREST ACCESSIBLE CEILING
- TPS TRIPLE SWITCH FOR MANUAL TRANSFER FROM PERMANENT GENERATOR TO TEMPORARY ROLL-UP GENERATOR WITH CONNECTION (CAM-LOK) PROVISIONS FOR ROLL-UP UNIT (ESL OR EQUAL)
- PH IN-GRADE PULL HOLE, REFER TO PLANS FOR REQUIRED SIZE
- $M MOTOR RATED SWITCH WITH THERMAL OVERLOAD PROTECTION

SINGLE RECEPTACLES

(A) SINGLE 20A, 120V TWIST-LOCK RECEPTACLE FLUSH MOUNTED IN CEILING TO SERVE OWNER'S PERMANCE LIGHTNG ~ NEMA L5-20R.

NOTES:
1. PROVIDE MATCHING CORD AND PLUG FOR SINGLE RECEPTACLES
2. MOUNT EXTERIOR RECEPTACLES WITH CENTERLINE 24" AFG UNO
3. MOUNT RECEPTACLES WITH CENTERLINE 18" AFF UNO. (30") INDICATES DEVICE MOUNTING HEIGHT WHEN NOT MOUNTED AT 18".

FLOOR AND CEILING DEVICES

- OVERHEAD RECEPTACLE DROP, DOUBLE DUPLEX

RECEPTACLES

- DUPLEX RECEPTACLE ~ 20A, 125V, 2P, 3W, NEMA 5-20R
- DOUBLE DUPLEX RECEPTACLE
- GFCI DUPLEX RECEPTACLE, MOUNT 44" AFF UNO
- GFCI DOUBLE DUPLEX RECEPTACLE, MOUNT 44" AFF UNO
- EWC GFCI RECEPTACLE FOR ELECTRIC WATER COOLER - COORDINATE LOCATION WITH DIVISION 22.
- WP GFCI RECEPTACLE WITH WEATHERPROOF COVER
- WP GFCI RECEPTACLE IN WP ENCLOSURE ON ROOF
- TECHNOLOGY OUTLET ~ PROVIDE 1-GANG BOX FLUSH MOUNTED IN WALL AT 18" AFF UNO WITH 1" CONDUIT STUBBED 6" ABOVE ACCESSIBLE CEILING THAT IS CONTIGUOUS TO THE DATA ROOM OR WIRING CLOSET. CABLING AND DEVICES SHALL BE PROVIDED BY OWNER
- (WA) WIRELESS ACCESS POINT ~ PROVIDE 1-GANG BOX FLUSH IN CEILING WITH 1" CONDUIT STUBBED 6" ABOVE ACCESSIBLE CEILING THAT IS CONTIGUOUS TO THE DATA ROOM OR WIRING CLOSET. CABLING AND DEVICES SHALL BE PROVIDED BY OWNER

NOTES:
1. MOUNT RECEPTACLES WITH CENTERLINE 18" AFF UNO
2. MOUNT EXTERIOR RECEPTACLES WITH CENTERLINE 24" AFG UNO

- (C) WALL MOUNTED SYSTEMS CLOCK ~ 2.25 INCH
- (C1) WALL MOUNTED SYSTEMS CLOCK ~ 4 INCH
- (S) PA SPEAKER, RECESSED CEILING MOUNTED ~ 2'x2' SQUARE
- PA PA SPEAKER, WALL MOUNTED
- LS LOUDSPEAKER, WALL MOUNTED
- IC INTERCOM ~ 48" AFF
- AC ADMINISTRATIVE INTERCOM ~ 48" AFF
- (V) VOLUME CONTROL, MOUNT 48" AFF
- WP (PA) EXTERIOR WALL MOUNTED SPEAKER

C6 | INTERCOMMUNICATIONS AND PROGRAM SYSTEM

12" = 1'-0"

- FACP FIRE ALARM CONTROL PANEL, MOUNT WITH TOP OF PANEL NOT MORE THAN 72"AFF
- FATC FIRE ALARM TRANSPONDER CABINET
- FAA FIRE ALARM ANNUNCIATOR, MOUNT WITH TOP OF PANEL NOT MORE THAN 72"AFF, WIRED TO FACP
- (S) SMOKE DETECTOR, WIRED TO FACP
- (S) E SMOKE DETECTOR, "E" INDICATES CONNECTION FOR ELEVATOR RECALL, WIRED TO FACP
- (H) E HEAT DETECTOR, "E" INDICATES CONNECTION FOR ELEVATOR RECALL, WIRED TO FACP
- (D) DUCT SMOKE DETECTOR, WIRED TO FACP
- RTS RTS REMOTE TEST/INDICATOR FOR DUCT SMOKES, MOUNT ON CEILING BENEATH UNIT, OR WALL MOUNT WHERE INDICATED ON PLANS
- F MANUAL PULL STATION, MOUNT 48" AFF
- F F HORN/STROBE, WALL MOUNTED CANDELA AS NOTED ON PLANS, WIRED TO FACP. MOUNT 80" AFF TO BOTTOM, OR 6" BELOW CEILING, WHICH EVER IS LOWER.
- S S SPEAKER/STROBE, WALL MOUNTED, CANDELA AS NOTED ON PLANS, WIRED TO FACP. MOUNT 80" AFF TO BOTTOM, OR 6" BELOW CEILING, WHICH EVER IS LOWER.
- (F) STROBE ONLY INDICATING APPLIANCE, WALL MOUNTED, CANDELA AS NOTED ON PLANS, WIRED TO FACP, MOUNT 80" AFF TO BOTTOM, OR 6" BELOW CEILING, WHICH EVER IS LOWER.
- F F HORN/STROBE WITH PULL STATION DIRECTLY BELOW, MOUNT 80" AFF TO BOTTOM, OR 6" BELOW CEILING, WHICH EVER IS LOWER.

LIGHTING SWITCHES

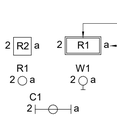
- $a LIGHT SWITCH, 20A,125/277V
- $a $b MULTI-GANGED SWITCHES, GANG UNDER ONE PLATE, LETTER INDICATES SWITCHING
- $OS OCCUPANCY SENSOR SWITCHOCCUPANCY SENSOR SWITCH
- $OSD OCCUPANCY SENSOR SWITCH WITH DIMMING ~ COORDINATE DIMMING TECHNOLOGY WITH LOAD TO BE DIMMED
- (OS) OCCUPANCY SENSOR, CEILING MOUNTED
- $D DIMMER SWITCH ~ COORDINATE DIMMING TECHNOLOGY WITH LOAD TO BE DIMMED
- $LV LOW VOLTAGE LIGHT SWITCH, MOMENTARY CONTACT
- (DS) DAYLIGHT HARVESTING SENSOR, CEILING MOUNTED

NOTES:
1. MOUNT LIGHT SWITCHES WITH CENTERLINE 48" AFF, UNO
2. LOWER CASE LETTER AT SWITCH INDICATES SWITCHING

EMERGENCY AND EXIT LIGHTING

- HATCHING INDICATES FIXTURE CONNECTED TO LIFE SAFETY BRANCH. FIXTURES SHALL AUTOMATICALLY SWITCH TO FULL ON UPON FIRE ALARM OR LOSS OF NORMAL POWER.
- EM "EM" INDICATES EMERGENCY WHERE SYMBOL HATCHING IS UNCLEAR
- EXIT SIGN, CEILING MOUNTED, SHADING INDICATES FACE(S) ARROWHEAD INDICATES CHEVRON(S) REQUIRED, CONNECT TO UNSWITCHED PORTION OF AREA LIFE SAFETY LIGHTING BRANCH CIRCUIT, U.N.O.
- EXIT SIGN, WALL MOUNTED, SHADING INDICATES FACE(S) MOUNT AT 7'-6"AFF OR OVER DOOR, CONNECT TO UNSWITCHED PORTION OF AREA LIFE SAFETY LIGHTING BRANCH CIRCUIT, U.N.O.
- EM EMERGENCY BATTERY LIGHTING- CONNECT TO UNSWITCHED PORTION OF AREA LIFE SAFETY LIGHTING BRANCH CIRCUIT, U.N.O.

TYPICAL FOR ALL FIXTURE TYPES:



A1	ABBREVIATIONS
A2	POWER DISTRIBUTION
A4	RECEPTACLES
A6	FIRE ALARM
A8	LUMINAIRES

12" = 1'-0"

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GYM ADDITION

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ELECTRICAL NOTES, LEGENDS AND ABBREVIATIONS

E-100

KEYED REMOVALS NOTES

1 EXISTING ELECTRICAL ITEMS IN THIS ROOM SHALL REMAIN UNO.

2 EXISTING LIGHTING INCLUDING EMERGENCY LIGHTING AND EXIT SIGNS, AND LIGHTING CONTROL DEVICES IN THIS ROOM SHALL REMAIN EXCEPT WHERE SPECIFICALLY INDICATED TO BE REMOVED.

3 REMOVE EXISTING LIGHTING AT OUTDOOR CANOPY TO BE DEMOLISHED.

GENERAL REMOVALS NOTES

1. REFER TO FLOOR PLAN FOR SCOPE OF WORK AREA. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL DEMOLITION SCOPE OF WORK.

2. REMOVE ALL ELECTRICAL DEVICES WITHIN SCOPE OF WORK AREA, UNLESS NOTED OR INDICATED OTHERWISE. DEMOLITION SHALL INCLUDE BUT NOT BE LIMITED TO WIRING DEVICES, OUTLET BOXES, PULL BOXES, LIGHTING FIXTURES AND SWITCHES, WIRING AND CONDUIT, TELECOMMUNICATIONS, OUTLETS, ETC.

3. EXISTING FIRE ALARM SYSTEM COMPONENTS SHALL REMAIN, EXCEPT WHERE SPECIFICALLY INDICATED TO BE REMOVED OR WHERE SYSTEM COMPONENTS ARE LOCATED IN WALLS TO BE REMOVED. WHERE WALLS ARE TO BE REMOVED, REMOVE AND RELOCATE EXISTING FIRE ALARM COMPONENTS AS INDICATED AND AS REQUIRED.

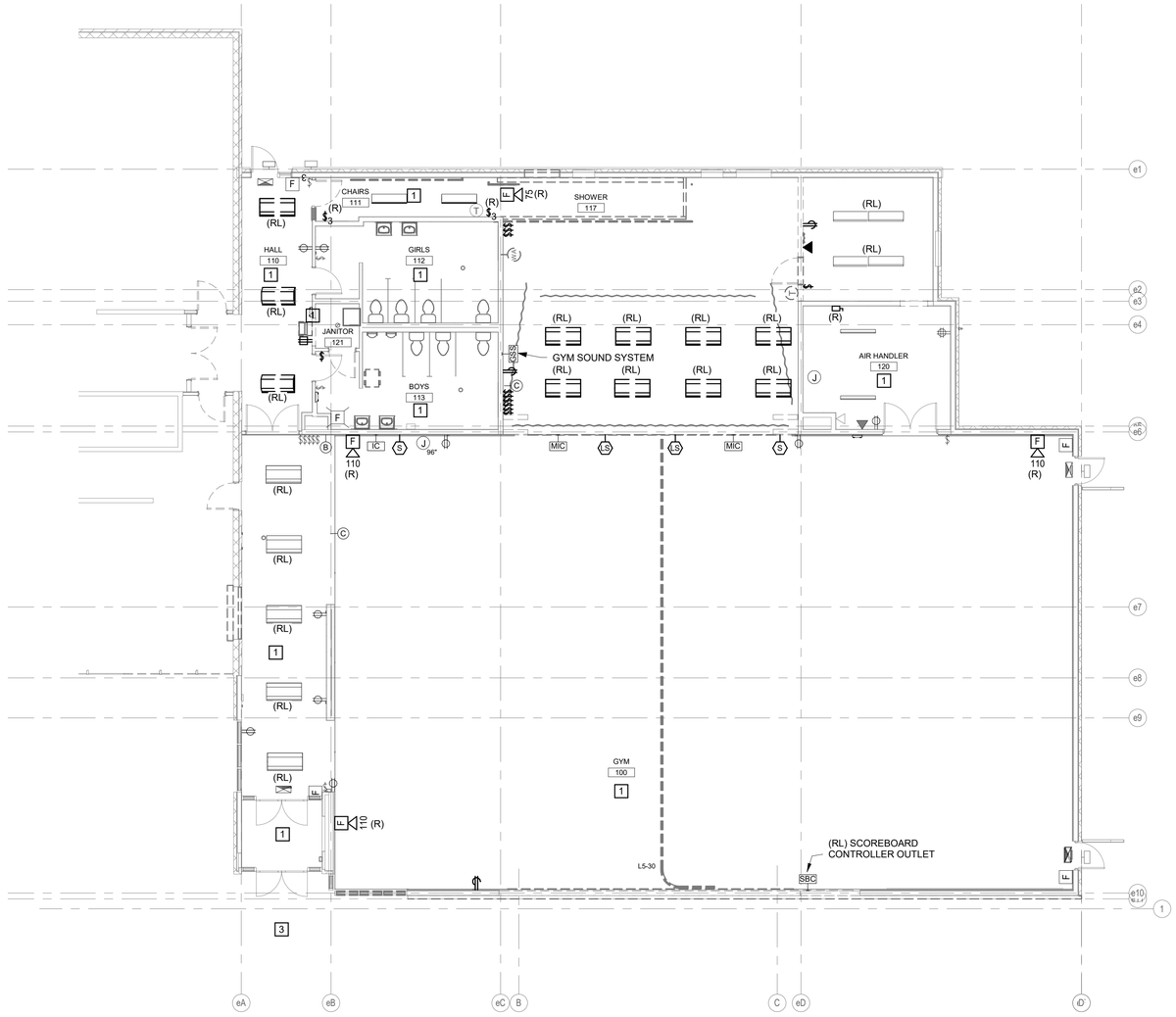
4. DISCONNECT AND REMOVE ALL WIRING FOR EQUIPMENT TO BE REMOVED BACK TO THE POINT OF CONNECTION. NOTHING SHALL BE ABANDONED IN PLACE.

5. VERIFY ALL EXISTING SOURCES OF POWER TO EQUIPMENT PRIOR TO FINAL REMOVAL.

6. COORDINATE ALL SHUTDOWN PROCEDURES WITH THE OWNER PRIOR TO DISCONNECTING ANY CIRCUITS.

7. PROVIDE BLANK COVER PLATES FOR REMOVED POWER AND COMMUNICATIONS OUTLETS IN EXISTING WALLS TO REMAIN.

8. THE WORK INCLUDES DISPOSAL OF ALL REMOVED ELECTRICAL ITEMS INCLUDING BALLASTS AND LAMPS. LEGALLY DISPOSE OF ALL HAZARDOUS MATERIALS



PLAN NORTH

TRUE NORTH

		A5	ELECTRICAL DEMOLITION PLAN
		1/8" = 1'-0"	

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ELECTRICAL DEMOLITION PLAN

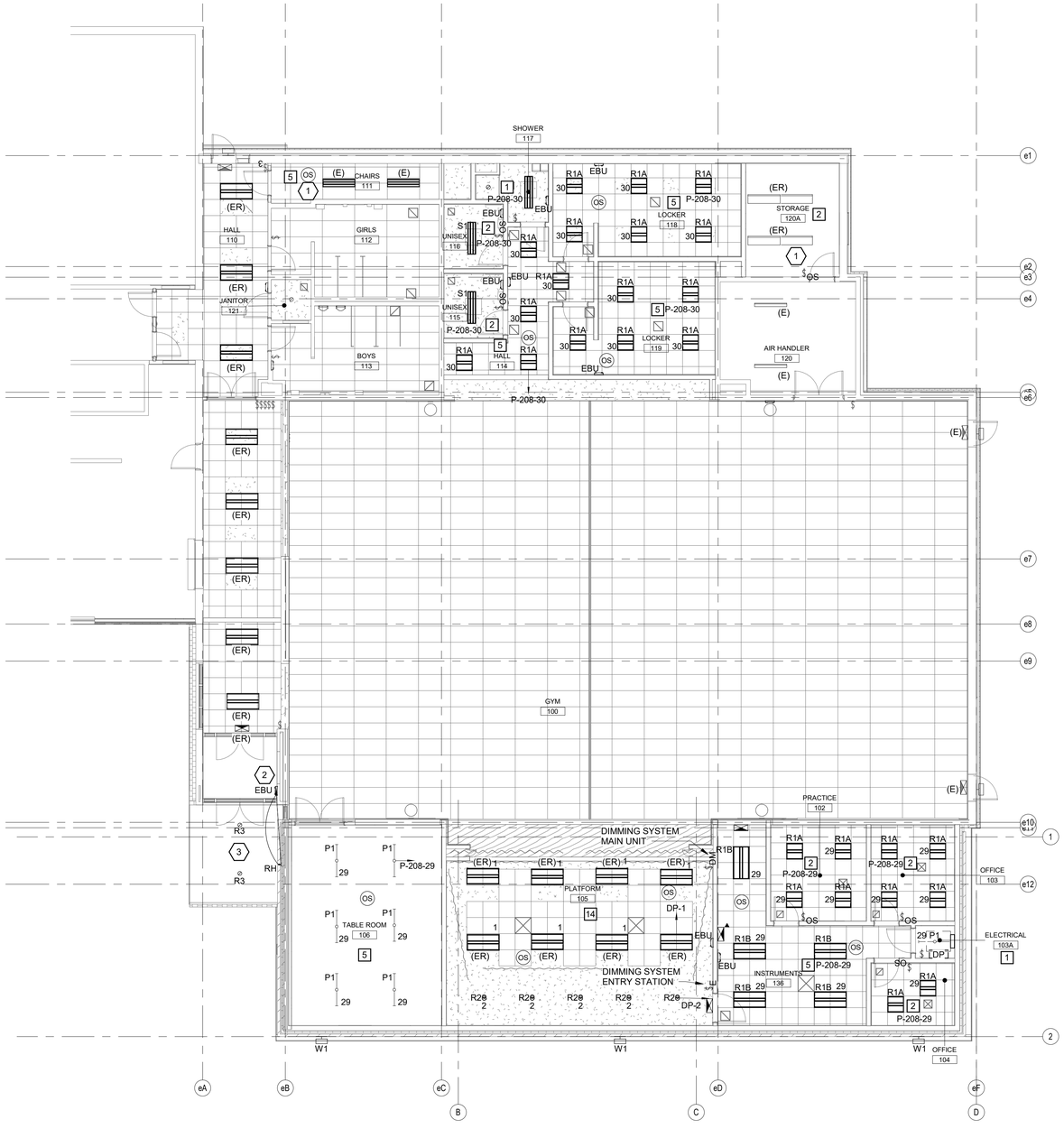
ED-100

LIGHTING CONTROL NOTES SCHEDULE

TAG #	DESCRIPTION OF LIGHTING CONTROL DEVICES AND OPERATION	DETAIL NUMBER
1	WALL SWITCH - MANUAL ON/MANUAL OFF	**NO DETAIL**
2	WALL SWITCH WITH OCCUPANCY SENSOR - MANUAL ON AND OFF/AUTO OFF	**NO DETAIL**
3	NOT USED	
4	LIGHTING CONTROLLED BY LCP - REFER TO LIGHTING CONTROL PANEL SCHEDULES	**NO DETAIL**
5	AUTO ON/AUTO OFF VIA OCCUPANCY SENSOR(S)	**A5/EL501**
6	WALL SWITCH(ES) - MANUAL ON AND OFF; AUTO OFF VIA OCCUPANCY SENSOR(S)	**N/A**
7	WALL SWITCH WITH DIMMER AND OCCUPANCY SENSOR - MANUAL ON AND OFF/MANUAL DIMMING/AUTO OFF	**NO DETAIL**
8	WALLSTATION(S) - MANUAL ON AND OFF - WHERE NOTED ON PLANS; WALLSTATION(S) WITH DIMMER(S) - MANUAL ON AND OFF/MANUAL DIMMING; AUTO OFF VIA OCCUPANCY SENSORS	**N/A**
9	NOT USED	
10	NOT USED	
11	PROVIDE UL924 EMERGENCY BYPASS RELAY TO FORCE LIGHTING ON FOR ENTIRE ROOM,CORRIDOR, OR ENTRY UPON ACTIVATION OF FIRE ALARM OR LOSS OF UTILITY POWER. (1) RELAY IS REQUIRED PER EACH SWITCH GROUP OF LIGHTS. IF MULTIPLE SWITCH GROUPS IN A ROOM, MULTIPLE RELAYS ARE NEEDED.	**N/A**
12	NOT USED	
13	NOT USED	
14	LIGHTING SHALL BE CONTROLLED BY DIMMING SYSTEM	**A1/EL501**

KEY NOTES

1. CONNECT INDICATED CONTROLS TO EXISTING LIGHTING.
2. CONNECT TO UNSWITCHED PORTION OF EXISTING LIGHTING CIRCUIT SERVING AREA.
3. CONNECT INDICATED LIGHTING TO EXISTING LIGHTING CIRCUIT AND CONTROLS FROM WHICH EXISTING LIGHTING WAS REMOVED.



PLAN NORTH

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LIGHTING PLAN

EL-100

A5 | LIGHTING PLAN | 1/8" = 1'-0"

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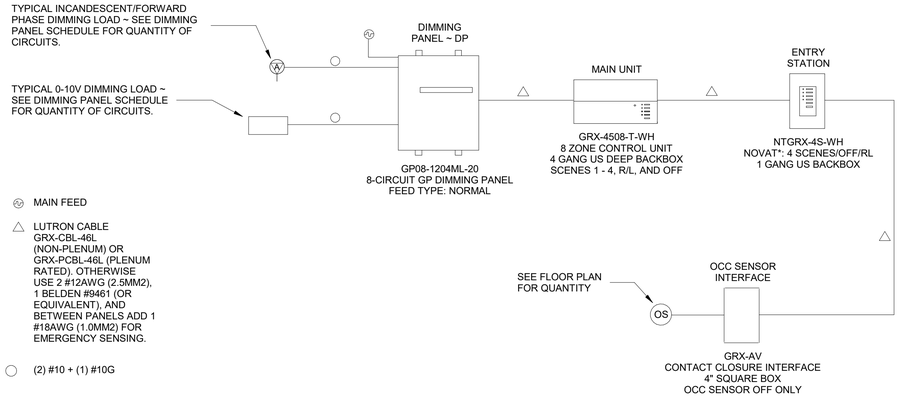
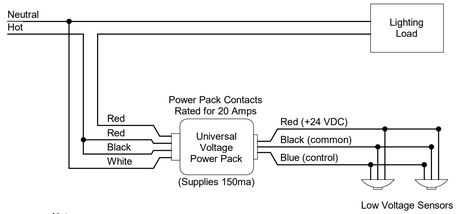
LIGHTING DETAILS

EL-501



A1 STAGE DIMMING RISER



Note:

Do NOT power more than 4 devices, sensor or slave packs, from a single power pack.

A5 LIGHTING CONTROL DETAIL - NOTE 5

1. CATALOG SERIES NUMBERS ARE USED TO ESTABLISH A LEVEL OF QUALITY AND NOT INTENDED TO LIMIT COMPETITION. SERIES NUMBERS ARE NOT COMPLETE CATALOG NUMBERS. COMPLY WITH ADDITIONAL REQUIREMENTS IN SPECIFICATIONS AND DRAWINGS.

2. FIELD DIMENSION WALL COVE, WALL VALENCE AND WALL SLOT LIGHTING PRIOR TO ORDERING TO ENSURE PROPER FIXTURE LENGTHS. NOTIFY ARCHITECT OF ANY DISCREPANCIES IN LENGTHS SHOWN ON DRAWINGS AND ACTUAL FIELD DIMENSIONS. ADJUST LENGTHS OF ANY SPECIFIED FIXTURE AS DIRECTED BY ARCHITECT.

3. EXCEPT AS INDICATED OTHERWISE ON FIXTURE SCHEDULE, SUSPENDED LIGHT FIXTURES SHALL BE FURNISHED AND INSTALLED COMPLETE WITH STEEL STEM SETS, AND PIECES AND ALIGNERS WITH ALIGNER TYPE CANOPIES AS MANUFACTURED BY RESPECTIVE FIXTURE MANUFACTURER.

4. PENDANT MOUNTING HEIGHTS ARE TO BOTTOM OF FIXTURE. VERIFY EXACT MOUNTING HEIGHTS OF PENDANT FIXTURES WITH ARCHITECT PRIOR TO ROUGHING.

5. WALL MOUNT FIXTURE HEIGHTS ARE TO CENTERLINE UNLESS NOTED OTHERWISE. VERIFY EXACT MOUNTING HEIGHTS AND LOCATIONS OF WALL MOUNTED LIGHTING WITH ARCHITECT PRIOR TO ROUGHING.

6. REFER TO REFLECTED CEILING PLANS FOR EXACT LOCATION OF CEILING MOUNTED LIGHTING AND DEVICES.

7. PROVIDE TRIM AND MOUNTING ACCESSORIES FOR RECESSED LIGHTING FIXTURES WHICH ARE COMPATIBLE WITH THE TYPE OF CEILING CONSTRUCTION IN WHICH THEY ARE TO BE MOUNTED. REFER TO REFLECTED CEILING PLANS AND ROOM FINISH SCHEDULES.

8. LIGHT FIXTURE LOCATIONS IN MECHANICAL ROOMS AND ELECTRIC ROOMS ARE APPROXIMATE. INSTALL LIGHTING TO AVOID DUCTWORK, PIPING AND ELECTRICAL ITEMS.

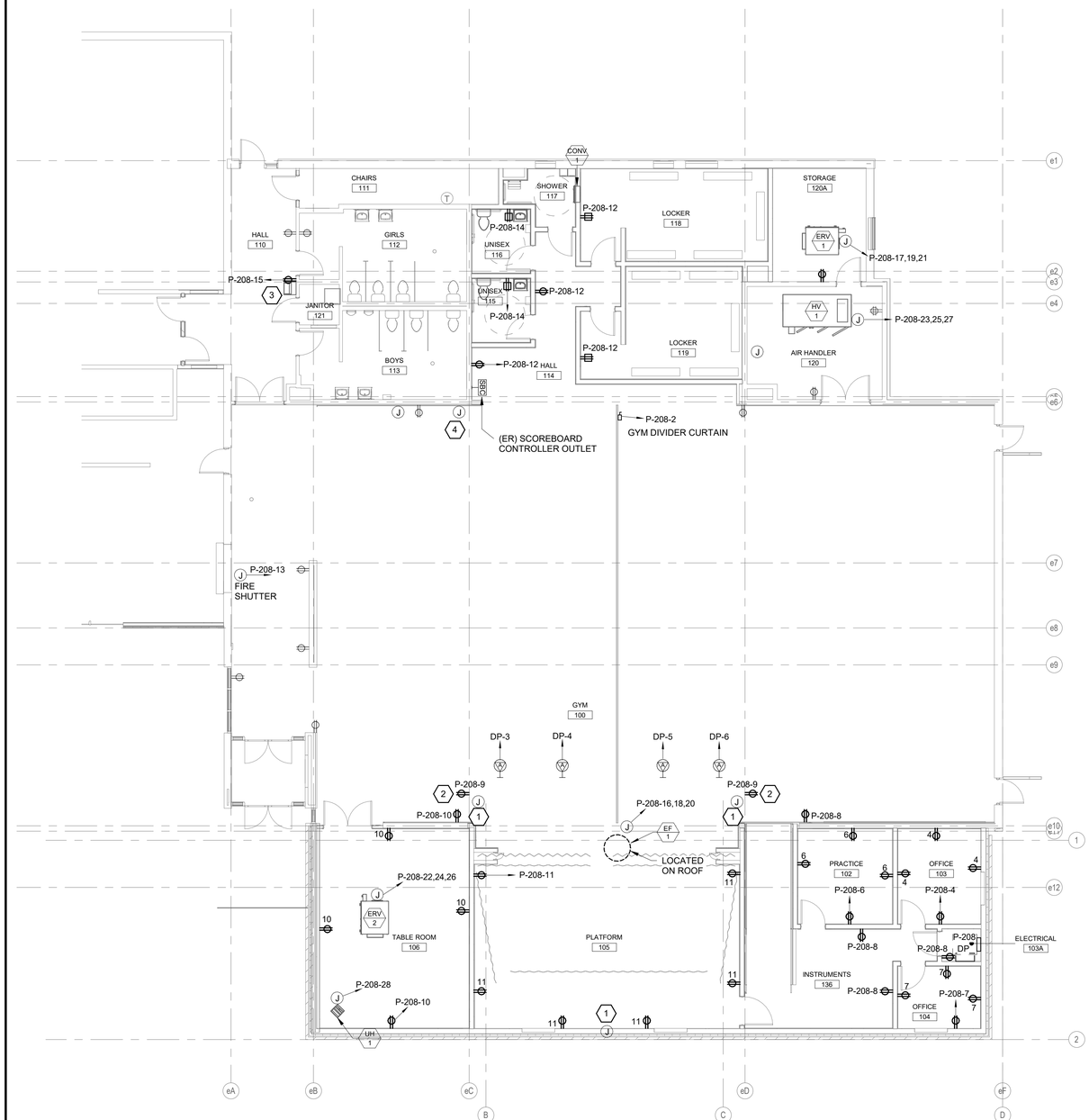
9. PENDANT LINEAR FIXTURES SHALL SATISFY LENGTHS SHOWN ON DRAWINGS.

10. PROVIDE WIRE GUARDS WHERE INDICATED ON FLOOR PLANS.

A8 LUMINAIRE SCHEDULE GENERAL NOTES

KEY NOTES

1. PROVIDE 2-GANG BOX FLUSH MOUNTED IN WALL AT 18" AFF ON PLATFORM. PROVIDE ONE 1" CONDUIT FROM THIS BOX TO EACH OF TWO 1-GANG BOXES FLUSH MOUNTED IN GYM CEILING TO FACILITATE CONNECTING SOUND SYSTEM SPEAKERS FURNISH BY OWNER. COORDINATE LOCATIONS WITH OWNER.
2. PROVIDE DUPLEX RECEPTACLE FLUSH MOUNTED IN CEILING AT SOUND SYSTEM SPEAKER LOCATION. COORDINATE LOCATION WITH OWNER.
3. RECEPTACLE FOR WATER COOLER/WATER BOTTLE FILLER. COORDINATE EXACT LOCATION WITH DIVISION 22. PROVIDE GFCI CIRCUIT BREAKER.
4. WIRE AND CONNECT GYM DIVIDER CURTAIN CONTROL STATION. COORDINATE EXACT LOCATION WITH OWNER.



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POWER PLAN

EP-100

	A5	POWER PLAN
	1/8" = 1'-0"	

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Branch Panel: P-208

Location:
Supply From:
Mounting: Surface
Enclosure: 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10kA
Mains Type: MCB
Mains Rating: 200 A
MCB Rating: 200 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1				604 VA	1200...					1	20 A	GYM DIVIDER CURTAIN	2
3	DP	60 A	3			1000...	720 VA			1	20 A	Receptacle-OFFICE 103	4
5								1000...	720 VA	1	20 A	Receptacle-PRACTICE 102	6
7	Receptacle-OFFICE 104	20 A	1	720 VA	720 VA					1	20 A	ReceptacleS-103A, 136, GYM	8
9	Receptacle-SPEAKERS GYM	20 A	1			360 VA	900 VA			1	20 A	Receptacle-TABLE ROOM, GYM	10
11	Receptacle-PLATFORM 105	20 A	1					1080...	720 VA	1	20 A	Receptacle-HALL 114, LOCKER 118/119	12
13	FIRE SHUTTER	20 A	1	500 VA	360 VA					1	20 A	Receptacle-UNISEX 115/116	14
15	Receptacle	20 A	1			180 VA	576 VA						16
17								1585...	576 VA	3	20 A	EF-1 MECHANICAL EQUIP	18
19	ERV-1 MECHANICAL EQUIP	20 A	3	1585...	576 VA								20
21						1585...	1153...						22
23								2102...	1153...	3	20 A	ERV-2 MECHANICAL EQUIP	24
25	HV-1 MECHANICAL EQUIP	20 A	3	2102...	1153...								26
27						2102...	250 VA			1	20 A	UH-1 MECHANICAL EQUIP	28
29	LIGHTING- 106, 136, 102, 103,103A,102	20 A	1					711 VA	582 VA	1	20 A	LIGHTING- 114, 115, 116, 117, 118, 119	30
31	Spare	20 A	1	0 VA	0 VA					1	20 A	Spare	32
33	Spare	20 A	1			0 VA	0 VA			1	20 A	Spare	34
35	Spare	20 A	1					0 VA	0 VA	1	20 A	Spare	36
37	Spare	20 A	1	0 VA	0 VA					1	20 A	Spare	38
39	Spare	20 A	1			0 VA	0 VA			1	20 A	Spare	40
41	Spare	20 A	1					0 VA	0 VA	1	20 A	Spare	42
			Total Load:	9513 VA		8826 VA		10226 VA					
			Total Amps:	80 A		74 A		86 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	1389 VA	100.00%	1389 VA		
Power	18198 VA	100.00%	18198 VA	**Total Conn. Load:**	28565 VA
Receptacle	8480 VA	100.00%	8480 VA	**Total Est. Demand:**	28565 VA
Lighting - Dwelling Unit	524 VA	100.00%	524 VA	**Total Conn. Current:**	79 A
				Total Est. Demand Current:	79 A

Notes:

Branch Panel: DP

Location: ELECTRICAL 103A
Supply From: P-208
Mounting: Surface
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type:
Mains Rating: 60 A
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	PLATFORM LIGHTING - 0-10V DIMMING	20 A	1	312 VA	300 VA					1	20 A	PLATFORM LIGHTING - 0-10V DIMMING	2
3	Receptacle	20 A	1			500 VA	500 VA			1	20 A	Receptacle	4
5	Receptacle	20 A	1					500 VA	500 VA	1	20 A	Receptacle	6
7	Spare	20 A	1	0 VA	0 VA					1	20 A	Spare	8
			Total Load:	604 VA		1000 VA		1000 VA					
			Total Amps:	5 A		9 A		9 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	312 VA	100.00%	312 VA		
Receptacle	2000 VA	100.00%	2000 VA	**Total Conn. Load:**	2599 VA
Lighting - Dwelling Unit	300 VA	100.00%	300 VA	**Total Est. Demand:**	2599 VA
				Total Conn. Current:	7 A
				Total Est. Demand Current:	7 A

Notes:

ELECTRICAL SCHEDULE OF MECHANICAL EQUIPMENT

TAG	DESCRIPTION/ AREA SERVED	VOLTS	PH	LOAD	FLA	MCA	MOPD	DISCONNECT SWITCH				STARTER...		CBD	WIRING IN CONDUIT (2 #12, 1#12 G UNO)	KEY NOTES
								FRAME	POLES	FUSE	NEMA ENCL	FBD	SIZE/ VFD	FBD		
EF-1	EXHAUST FAN	208	3	0.8 HP	4.8	--	--	FWE				23	VFD	23	23	3 #12, 1#12 G	
ERV-1	ENERGY RECOVERY UNIT	208	3	--	13.2	14.9	20	FWE				23	VFD	23	23	3 #12, 1#12 G	
ERV-2	ENERGY RECOVERY UNIT	208	3	--	9.6	10.8	15	FWE				23	VFD	23	23	3 #12, 1#12 G	
HV-1	AIR HANDLING UNIT	208	3	5 HP	17.5	--	--	FWE				23	NEMA 1	26	23	3 #10, 1#10 G	
UH-1	UNIT HEATER	120	1	1/15 HP	2.0	--	--	FWE				23	--	--	23		

KEY NOTES:

1	
2	
3	
4	
5	
6	

ABBREVIATIONS:

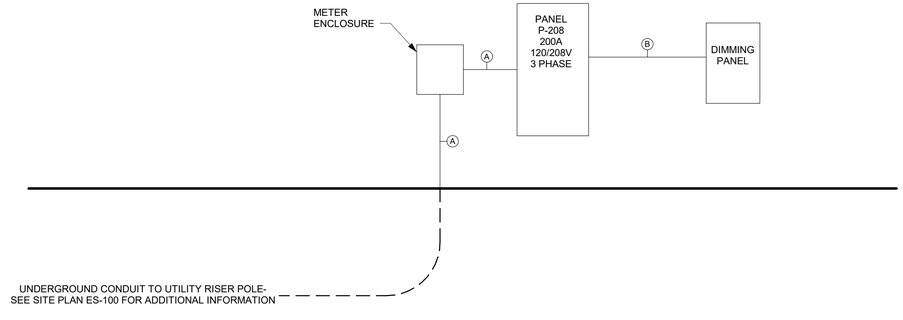
FWE	FURNISHED WITH EQUIPMENT
NF	NOT FUSED
SWBD	SWITCHBOARD
FBD	FURNISHED BY DIVISION
CBD	CONTROL WIRING BY DIVISION

FEEDER SCHEDULE

TAG	DESCRIPTION	CONDUCTORS (NOTE 1)	CONDUIT (NOTE 2)
A	200 AMP SECONDARY/FEEDER	(4) #3/0	2"
B	DIMMING PANEL FEEDER	(4) #6, (1) #10 G	1"

FEEDER SCHEDULE NOTES:

1. WIRING BASED ON COPPER THWN/THHN
2. CONDUIT SIZE BASED ON EMT



A5 RISER DIAGRAM

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Designer
Project Mgr:
Project No: 19006

RSU 18
CHINA MIDDLE SCHOOL
GYM ADDITION

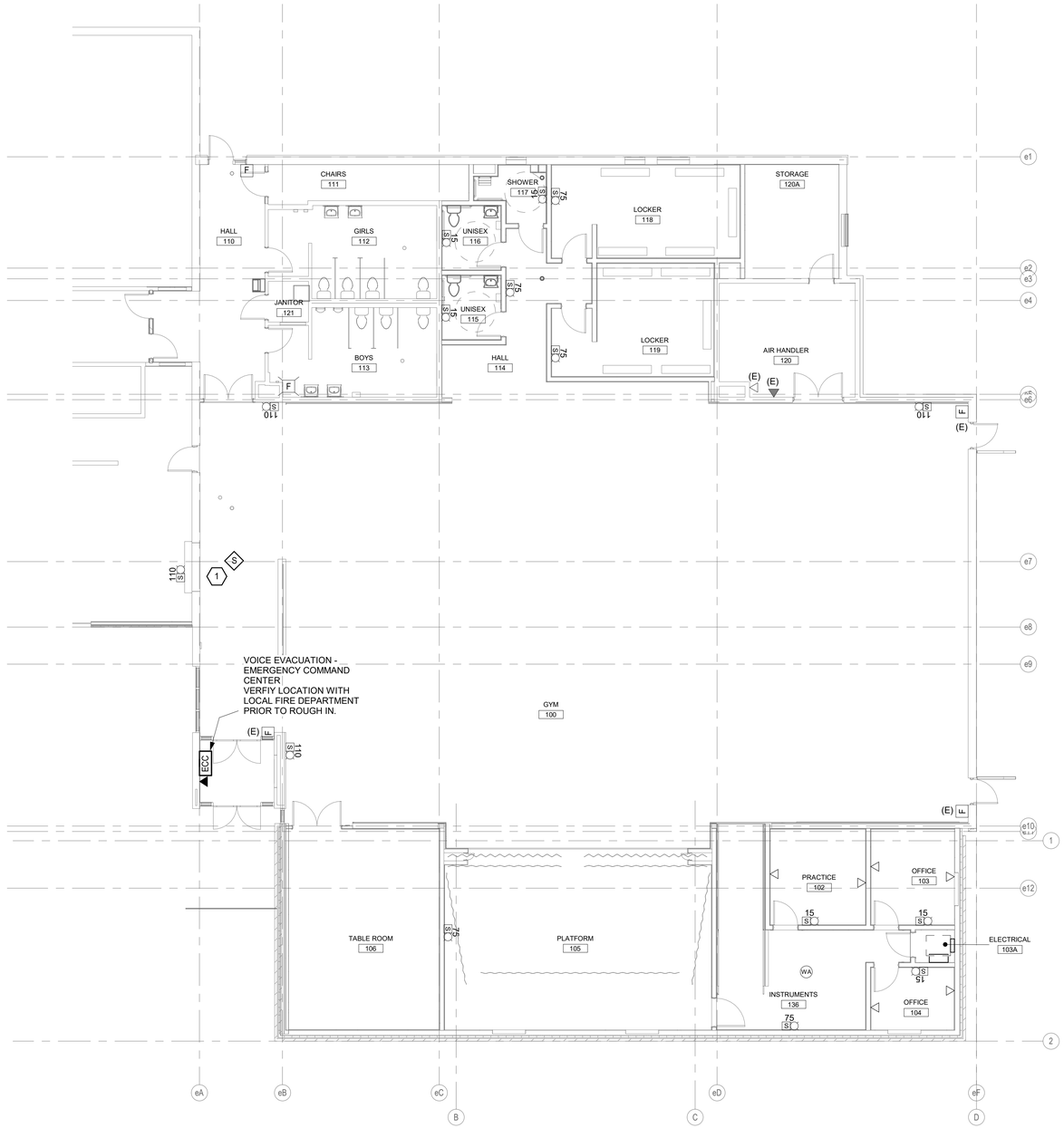
Bid Documents
08 April 2019

ELECTRICAL SCHEDULES

EP-501

KEY NOTES

1 WIRE AND CONNECT FIRE SHUTTER TO FIRE ALARM SYSTEM TO ACTIVATE UPON SMOKE DETECTOR ACTIVATION. PROVIDE ADDRESSSABLE INTERFACE MODULES AS REQUIRED.



TRUE NORTH
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RSU 18
CHINA MIDDLE SCHOOL
GYM ADDITION

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08 April 2019

SYSTEMS PLAN

EY-100

A5 SYSTEMS PLAN
1/8" = 1'-0"

THIS IS A 24 X 36 SHEET.
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