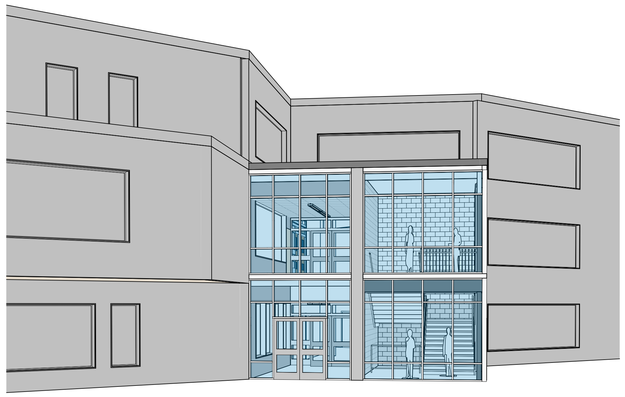


BID DOCUMENTS
March 20, 2018

196 Allen Avenue
Portland, ME

CASCO BAY HIGH SCHOOL EXPANSION
CONSTRUCTION DOCUMENTS

OWNER:

PORTLAND PUBLIC SCHOOLS

ARCHITECT:

PDT ARCHITECTS

49 DARTMOUTH STREET
PORTLAND, ME 04101
207-775-1059
www.pdtarchs.com

CONSULTANTS:

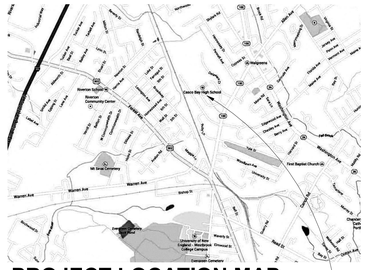
STRUCTURAL
Allied Engineering, Inc.
160 Veranda Street
Portland, ME 04103
207-221-2260

MECHANICAL, ELECTRICAL, AND PLUMBING
Allied Engineering, Inc.
160 Veranda Street
Portland, ME 04103
207-221-2260

CIVIL ENGINEERING
Gorill Palmer Consulting Engineers, Inc
707 Sable Oaks Drive #30
South Portland, ME 04106
207-772-2515

SPECIFICATIONS
Lowell Specifications, Inc.
34 Marc Avenue
Topsham, ME 04085
207-406-4001

COST ESTIMATING
CONESTCO
222 Mountain Road
Raymond, ME 04071
207-627-4099



PROJECT GENERAL NOTES

1. THESE GENERAL NOTES ARE INTENDED TO COMPLIMENT THE CONTRACT DOCUMENTS. REFER TO THE CONTRACT DOCUMENTS FOR DETAILED INFORMATION AND ADDITIONAL REQUIREMENTS.

2. ALL WORK INCLUDED IN THIS CONTRACT SHALL CONFORM TO ALL FEDERAL, STATE, AND LOCAL LAWS, STATUTES, ORDINANCES, CODES, RULES AND REGULATIONS, OR LAWFUL ORDERS OF PUBLIC AUTHORITY. PROMPTLY REPORT ANY NONCONFORMITY DISCOVERED TO THE ARCHITECT.

3. THE INTENT OF THE CONTRACT DOCUMENTS IS TO INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF WORK BY THE CONTRACTOR AND TO PROVIDE A COMPLETE, FULLY OPERATIONAL BUILDING. PROVIDE ALL LABOR, MATERIALS AND INCIDENTALS NECESSARY TO ACHIEVE THIS INTENT.

4. FAILURE OF THE DRAWINGS OR SPECIFICATIONS TO INDICATE EACH INCIDENTAL SHALL NOT RELIEVE THE CONTRACTOR FROM PROVIDING THE NECESSARY ITEMS AS PART OF THIS CONTRACT. THE DRAWINGS SHOW THE DESIGN, LOCATION, DESCRIBE THE QUALITY LEVEL AND CONSTRUCTION TECHNIQUES IN A GENERAL SENSE ONLY.

5. ALL DETAILS ARE TYPICAL. WHAT IS SHOWN IN ONE CONDITION APPLIES TO ALL OTHER SIMILAR CONDITIONS, UNLESS NOTED OTHERWISE.

6. VERIFY THE FOLLOWING ITEMS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO PROCEEDING WITH WORK, AND PROCEED WITH THE WORK ONLY AFTER SUCH DISCREPANCIES ARE RESOLVED:

- EXISTING CONDITIONS
- WALLS, FLOORS, ROOFS, AND SUBSTRATES WHERE PRODUCTS AND SYSTEMS ARE TO BE INSTALLED.
- SIZE AND CONDITION OF WINDOW, DOOR, LOUVER, AND OTHER OPENINGS WHERE PRODUCTS AND SYSTEMS ARE TO BE INSTALLED.
- THE EXISTENCE, SIZE, AND LOCATION OF ALL EXISTING UTILITIES, MECHANICAL AND ELECTRICAL SYSTEMS.
- DISCREPANCIES BETWEEN OR WITHIN THE CONTRACT DOCUMENTS.
- UNSUITABLE SOILS: REPORT THE LOCATION OF ALL UNSUITABLE SOIL MATERIALS BELOW ANTICIPATED LEVELS OF FOOTINGS OR SLABS PRIOR TO SETTING FORMS.
- MECHANICAL, ELECTRICAL AND PLUMBING WHICH IMPACT CEILING INSTALLATION HEIGHTS OR BUILDING THE APPEARANCE.
- DIMENSIONAL DISCREPANCIES.

7. COORDINATE THE WORK OF ALL SUBCONTRACTORS.

8. DO NOT PENETRATE STRUCTURAL BEAMS, COLUMNS, OR SHEAR WALLS UNLESS SPECIFICALLY DETAILED OTHERWISE.

9. PROVIDE BOND-OUTS, BLOCKING, SLEEVES AND PIPES AS REQUIRED FOR ALL WALL, FLOOR, ROOF, AND CEILING PENETRATIONS.

- MAINTAIN CONTINUITY OF FIRE RATED ASSEMBLIES AND SMOKE ASSEMBLIES. SEAL ALL PENETRATIONS TO CONFORM TO U.L. RATED ASSEMBLIES AND ALL NFPA AND IBC REQUIREMENTS. REFER TO THE CODE PLANS FOR ADDITIONAL CODE REFERENCES.
- ALL PENETRATIONS SHALL COMPLY WITH THE ACOUSTICAL ASSEMBLY RATING REQUIRED FOR EACH WALL OR FLOOR ASSEMBLY.

10. COORDINATE THE WORK TO ACHIEVE THE GIVEN VISUAL AND PERFORMANCE REQUIREMENTS OF MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS WITHIN THE INDICATED SPACE.

11. PROVIDE WORK HOLES OR ADEQUATE ACCESS AS REQUIRED TO INSTALL NEW SYSTEMS IN CONCEALED SPACES.

12. PRODUCTS SHALL BEAR UL CLASSIFICATION WHERE REQUIRED BY DESIGN. DO NOT REMOVE OR PAINT OVER UL CLASSIFICATIONS.

13. DEFINITIONS:

- **NEW:** INDICATES ITEMS THAT SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACT. TYPICALLY USED TO ENSURE CLARITY BETWEEN VARIOUS COMPONENTS OF THE DRAWINGS. NOT ALL ITEMS ARE LABELED AS "NEW" WHEN IT IS OBVIOUS BY OTHER INDICATION.
- **EXISTING:** EXISTING BUILDING OR SITE COMPONENTS WHICH ARE IN PLACE AT THE START OF CONSTRUCTION. NOT ALL ITEMS ARE LABELED AS "EXISTING" WHEN IT IS OBVIOUS BY OTHER INDICATION.
- **REPAIR:** RESTORE TO SUITABLE OR APPROPRIATE OPERATING AND AESTHETIC CONDITION.
- **RESTORE:** BRING BACK TO FORMER CONDITION, BY REPAIRING OR PATCHING AS REQUIRED.
- **PATCH:** RESTORE TO CONDITION MATCHING EXISTING ADJACENT CONSTRUCTION, SURFACE TEXTURE AND FINISH.
- **N.I.C.** (NOT IN CONTRACT): WORK WHICH IS NOT INCLUDED IN THIS CONTRACT, BUT WHICH MAY REQUIRE CONTRACTOR COORDINATION.
- **REMOVE:** DISMANTLE AND/OR EXTRACT FROM THE PREMISES ENTIRELY. DISPOSE OF OFF OF THE SITE UNLESS NOTED OTHERWISE.
- **REPLACE:** DISMANTLE AND/OR EXTRACT FROM THE PREMISES ENTIRELY. DISPOSE OF OFF OF THE SITE UNLESS NOTED OTHERWISE. PROVIDE NEW MATERIAL AS INDICATED.
- **DAMAGES:** EXISTING BUILDING OR SITE COMPONENTS, NOT SCHEDULED FOR WORK, WHICH ARE DAMAGED. SUCH ELEMENTS AND COMPONENTS SHALL BE REPLACED OR RESTORED TO ORIGINAL CONDITION BY METHODS APPROVED BY THE ARCHITECT.
- **DEMOLISH:** DISMANTLE AND/OR EXTRACT FROM THE PREMISES ENTIRELY. DISPOSE OF OFF OF THE SITE UNLESS NOTED OTHERWISE.

SALVAGE: REMOVE AND REINSTALL OR REMOVE AND DELIVER TO THE OWNER, AS INDICATED. SALVAGED COMPONENTS MAY BE FOR LIMITED REUSE, TO MATCH EXISTING CONDITIONS OR TO PATCH AND REPAIR AS INDICATED.

GENERAL DEMOLITION AND REMOVAL NOTES

1. THE DEMOLITION DRAWINGS PROVIDE GENERAL COORDINATION INFORMATION ONLY, AND ARE SCHEMATIC IN NATURE. THEY DO NOT IDENTIFY ALL INDIVIDUAL ITEMS TO BE REMOVED. REMOVE ANY EXISTING CONSTRUCTION WHICH IS IN THE WAY OF NEW CONSTRUCTION OR PROHIBITS THE NEW CONSTRUCTION.

2. VERIFY EXISTING STRUCTURAL CONDITIONS PRIOR TO DEMOLITION OR REMOVALS.

3. PROTECT FROM DAMAGE AND WEATHER ANY EXISTING BUILDING COMPONENTS, WHICH ARE EXPOSED AS A RESULT OF DEMOLITION OR REMOVALS.

4. COORDINATE AND SCHEDULE ALL WORK IN EXISTING OCCUPIED PORTIONS OF THE BUILDING WITH THE OWNER.

5. NOTIFY THE ARCHITECT AND OWNER IMMEDIATELY UPON DISCOVERY OF POTENTIALLY HAZARDOUS MATERIAL OR SUBSTANCE NOT ADDRESSED IN THE CONTRACT DOCUMENTS, INCLUDING BUT NOT LIMITED TO ASBESTOS, PCB, LEAD, MERCURY, AND MOLD. DO NOT DISTURB HAZARDOUS MATERIALS. HAZARDOUS MATERIAL SHALL BE LEGALLY ABATED, TRANSPORTED, AND DISPOSED OF.

6. CONCRETE SLAB REMOVALS MAY BE REQUIRED THROUGHOUT THE EXISTING BUILDING AND MAY NOT BE SHOWN ON THE DEMOLITION DRAWINGS. COORDINATE THE EXTENT OF SLAB REMOVALS WITH STRUCTURAL, MECHANICAL AND ELECTRICAL PLANS. CUT TRENCHES IN EXISTING CONCRETE FLOORS WITH NO MORE THAN A 1:2 SLOPE. PROVIDE AN UNDER-SLAB VAPOR RETARDER AT SLABS ON GRADE. REFER TO STRUCTURAL DRAWINGS FOR REINFORCEMENT REQUIREMENTS. PATCH CONCRETE TO MATCH ADJACENT THICKNESS AND FINISH PRIOR TO THE INSTALLATION OF UNDERLAYMENT OR NEW FINISHES.

7. REMOVAL OF MATERIALS SHALL BE DONE WITHOUT DISTURBING ADJACENT SURFACES OR THE CURRENT CONDITION OF OTHER BUILDING ELEMENTS INTENDED TO REMAIN.

8. THE OWNER SHALL REMOVE FURNITURE AND OTHER MOVABLE AND/OR FIXED EQUIPMENT PRIOR TO NEW WORK IN ANY AREA, EXCEPT FOR MECHANICAL, ELECTRICAL OR MINOR WORK NOT REQUIRING THE OWNER TO COMPLETELY VACATE THE PREMISES. NOTIFY THE OWNER OF THE SCHEDULE FOR NEW WORK AND EXTENT OF OWNER REMOVALS NECESSARY.

9. REMOVE ALL DAMAGED AND/OR DISCARDED BUILDING CONSTRUCTION MATERIAL FROM CONCEALED SPACES. PRIOR TO CLOSING- OR SEALING-OFF CONCEALED SPACES, THE CONTRACTOR SHALL ALLOW FOR AN INSPECTION OF COMPONENTS WHICH WILL NOT BE VISIBLE WHEN THE SPACES HAVE BEEN SEALED.

10. ALL DEMOLITION/REMOVAL DEBRIS IS THE PROPERTY OF THE CONTRACTOR, UNLESS NOTED OTHERWISE, AND SHALL BE LEGALLY DISPOSED OF.

GENERAL PATCHING AND REPAIRING NOTES

1. WHERE NEW CONSTRUCTION EITHER INFILLS OR ABUTS EXISTING CONSTRUCTION, THE FINISHED FACES SHALL ALIGN, AND THE SURFACES SHALL BE FINISHED TO MATCH.

2. AFTER CUTTING, FITTING, OR REMOVAL OF BUILDING COMPONENTS, ANY RESULTING HOLES SHALL BE PATCHED. SUCH PATCHES SHALL BE FLUSH WITH ADJACENT SURFACES AND FINISHED TO MATCH.

3. MAINTAIN FIRE RATINGS, SMOKE RATINGS, AND ACOUSTICAL RATINGS.

4. PROVIDE METAL COVER PLATES AT ALL ABANDONED ELECTRICAL DEVICES, FINISHED TO MATCH WALL.

DOOR AND WINDOW NOTES

1. AT EXTERIOR WALLS AND MASONRY WALLS, COAT THE INSIDE OF ALL HOLLOW METAL FRAMES WITH BITUMINOUS COATING.

2. FILL ALL INTERIOR HOLLOW METAL FRAMES ADJACENT TO MASONRY WITH MORTAR.

3. PACK MINERAL-FIBER INSULATION IN ALL INTERIOR HOLLOW METAL FRAMES IN STUD WALLS.

4. FILL ALL EXTERIOR METAL DOOR FRAMES WITH LOW-EXPANSION SPRAY-FOAM INSULATION.

5. REFER TO SPECIFICATIONS FOR LOCATIONS OF TEMPERED, LAMINATED, WIRED, AND INSULATING GLASS.

6. AT DOOR, WINDOW AND LOUVER OPENINGS IN EXTERIOR WALLS WITH MASONRY VENEER PROVIDE METAL PAN FLASHING AT HEADS UNLESS NOTED OTHERWISE.

7. PROVIDE METAL RAIN HOOD AT ALL EXTERIOR HOLLOW METAL FRAMES.

8. PROVIDE DOOR STOPS TO PROTECT WALLS AT ALL LOCATIONS WHERE A DOOR SWING WILL STRIKE THE WALL.

9. ALL EXTERIOR DOORS SHALL HAVE WEATHER STRIPPING, THRESHOLDS, AND SHALL BE INSTALLED WEATHERTIGHT.

GENERAL ARCHITECTURAL NOTES

1. THE DRAWINGS USE A SYSTEM OF KEYED NOTES ON PLANS, ELEVATIONS AND DETAILS. INSTRUCTIONS FOR SPECIFIC COMPONENTS OF THE WORK ARE KEYED TO THE DRAWINGS. BUILDING SYSTEMS (PARTITIONS, ROOF & FOUNDATION) ARE KEYED TO FLOOR PLANS, WALL SECTIONS, ROOF PLAN AND OTHER DETAILS AS APPROPRIATE.

2. MAINTAIN MINIMUM MANEUVERING CLEARANCES AT DOORS IN COMPLIANCE WITH THE ADA ACCESSIBILITY GUIDELINES (ADAAG), INCLUDING BUT NOT LIMITED TO THE FOLLOWING EXCERPT FROM 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN:

404.2.4.1 Swinging Doors and Gates. Swinging doors and gates shall have maneuvering clearances complying with Table 404.2.4.1.

Table 404.2.4.1 Maneuvering Clearances at Manual Swinging Doors and Gates

Type of Use		Minimum Maneuvering Clearance	
Approach Direction	Door or Gate Side	Perpendicular to Doorway	Parallel to Doorway (beyond latch side unless noted)
From front	Pull	60 inches (1525 mm)	18 inches (455 mm)
From front	Push	48 inches (1220 mm)	0 inches (0 mm)[1]
From hinge side	Pull	60 inches (1525 mm)	36 inches (915 mm)
From hinge side	Pull	54 inches (1370 mm)	42 inches (1065 mm)
From hinge side	Push	42 inches (1065 mm)[2]	22 inches (560 mm)[3]
From latch side	Pull	48 inches (1220 mm)[4]	24 inches (610 mm)
From latch side	Push	42 inches (1065 mm)[4]	24 inches (610 mm)

1. Add 12 inches (305 mm) if closer and latch are provided.
2. Add 6 inches (150 mm) if closer and latch are provided.
3. Beyond hinge side.
4. Add 6 inches (150 mm) if closer is provided.

3. ALL MOUNTING HEIGHTS AND CLEARANCES AT TOILET ROOMS AND ELSEWHERE SHALL COMPLY WITH THE LATEST VERSION OF THE ADA ACCESSIBILITY GUIDELINES (ADAAG).

- BARRIER-FREE CLEARANCES ARE GIVEN. THESE **CLEAR** DIMENSIONS SHALL BE MAINTAINED IN CASES OF DISCREPANCY.
- ALL DIMENSIONS GIVEN FOR FIXTURE AND ACCESSORY LOCATIONS ARE **CLEAR** DIMENSIONS FROM FINISHED SURFACES, UNLESS NOTED OTHERWISE. COORDINATE ACTUAL DIMENSIONS WITH WALL CONSTRUCTION AND FINISHES.
- LOCATE ALL CONTROLS, FLUSH VALVES, SHUTOFFS AND SIMILAR ITEMS IN ACCORDANCE WITH THE LATEST VERSION OF THE ADA ACCESSIBILITY GUIDELINES (ADAAG).
- SOME ITEMS MAY INDICATE A RANGE IN MOUNTING HEIGHT. MAINTAIN A CONSISTENT MOUNTING HEIGHT, WITHIN THE GIVEN RANGE, THROUGHOUT THE PROJECT, UNLESS NOTED OTHERWISE.

4. MAINTAIN **CLEAR** DIMENSIONS IN ACCORDANCE WITH THE LATEST VERSION OF THE ADA ACCESSIBILITY GUIDELINES (ADAAG).

5. ALL GRAB BAR COMPONENTS SHALL BE ABLE TO WITHSTAND A LOAD OF 250LBS AT ANY POINT.

6. INSTALL BLOCKING BEHIND ALL SURFACE-APPLIED FIXTURES, TRIM, GRAB BARS, SHELVES, CHAIR RAILS, PICTURE RAILS, BASE MOLDINGS, TACK OR MARKER BOARDS, WINDOW TREATMENT, WALL OR BASE CABINETS OR COUNTERS, AND MISCELLANEOUS ACCESSORIES MOUNTED ON STUD WALLS.

7. ALL EXPOSED WOOD NOT INDICATED TO BE PAINTED SHALL BE NATURAL FINISH (CLEAR).

8. FLOORING AND FLOOR FINISHES SHALL BE INSTALLED TO A MAXIMUM DIFFERENTIAL OF 1/16" BETWEEN DISSIMILAR MATERIALS. PROVIDE TRANSITION STRIPS OR THRESHOLDS (1/2" MAXIMUM) OF SAME MATERIAL AS FLOORING AND/OR AS NOTED ON THE DRAWINGS, BETWEEN DISSIMILAR FLOORING MATERIALS

9. PATCH AND LEVEL EXISTING SUBFLOORS TO RECEIVE NEW FLOOR FINISHES AS INDICATED IN THE ROOM FINISH SCHEDULE.

10. ALL EXPOSED PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT.

11. INSTALL 2 COAT HOOKS CENTERED ON THE INSIDE OF SINGLE USER TOILET ROOM DOORS, MOUNTED AT 48"AFF AND 60"AFF.

CEILING NOTES

1. CEILING PLANS DO NOT SHOW EVERY FIXTURE OR COMPONENT. REFER TO ELECTRICAL, PLUMBING, MECHANICAL AND STRUCTURAL DRAWINGS FOR EXTENT OF ALL CEILING PENETRATIONS AND INSTALLATIONS AND COORDINATE PRIOR TO INSTALLATION.

2. CENTER GRID LAYOUT IN ALL ROOMS UNLESS NOTED OTHERWISE.

3. ALL COMPONENTS MOUNTED IN OR BELOW A SUSPENDED ACOUSTIC CEILING SHALL BE CENTERED IN THE CEILING TILE OR IN THE 2X2 PORTION OF TEGULAR CEILING TILES, UNLESS NOTED OTHERWISE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, LIGHT FIXTURES, DIFFUSERS, SPEAKERS, SMOKE DETECTORS, AND SPRINKLER HEADS.

4. PRIOR TO THE INSTALLATION OF CEILINGS, ALLOW FOR AN ABOVE-CEILING INSPECTION OF COMPONENTS THAT WILL NOT BE VISIBLE WHEN THE CEILINGS HAVE BEEN INSTALLED, INCLUDING INSPECTION OF FIRE, SMOKE, AND ACOUSTICAL SEPARATIONS.

INTERIOR GENERAL NOTES

1. All mounting heights and clearances at Toilet rooms and elsewhere shall comply with the latest version of the ADA Accessibility Guidelines (ADAAG).

- Barrier-Free clearances are given. These **clear** dimensions shall be maintained in cases of discrepancy.
- All dimensions given for fixture and accessory locations are **clear** dimensions from finished surfaces, unless noted otherwise. Coordinate actual dimensions with wall construction and finishes.
- Locate all controls, flush valves, shutoffs and similar items in accordance with the latest version of the ADA Accessibility Guidelines (ADAAG).
- A range of mounting heights may be given for some items. Maintain a consistent mounting height, within the given range, throughout the Project, unless noted otherwise.

2. Install blocking behind all surface-applied fixtures, trim, grab bars, shelves, chair rails, picture rails, base moldings, tack or marker boards, window treatment, wall or base cabinets or counters, and miscellaneous accessories mounted on stud walls.

3. Fill CMU solid with grout at all surface-applied fixtures, trim, grab bars, shelves, chair rails, picture rails, base moldings, tack or marker boards, window treatment, wall or base cabinets or counters, and miscellaneous accessories mounted on CMU walls.

4. Install transition strips between dissimilar flooring materials.

5. All wood not indicated to be painted shall be natural finish (clear).

6. All grab bar components shall be able to withstand a horizontal load of 250lbs at any point.

ROOF GENERAL NOTES

1. PROTECT ALL OPENINGS CUT IN THE ROOF. PROVIDE TEMPORARY ROOFING IF WORK IS TO BE UNFINISHED DURING ADVERSE WEATHER CONDITIONS THROUGHOUT THE CONSTRUCTION PHASE.

2. PROVIDE FLASHING AT ALL ROOF PENETRATIONS. PENETRATIONS MAY NOT BE INDICATED ON THE ROOF PLAN. REFER TO STRUCTURAL, MECHANICAL AND ELECTRICAL PLANS FOR NUMBER, LOCATION, AND SIZE OF PENETRATIONS.

3. PROVIDE A 2 FEET WIDE WALKWAY WITH PROTECTION STRIPS ENTIRELY AROUND ALL ROOF TOP MECHANICAL UNITS AND CREATE A PROTECTION STRIP PATHWAY, 2 FEET WIDE, FROM THE ROOF ACCESS LOCATION(S) TO EACH MECHANICAL UNIT.

4. PROTECT ROOFING MATERIALS FROM CONSTRUCTION OPERATIONS.

5. PROVIDE CURBS AND PRESSURE TREATED WOOD BLOCKING AS REQUIRED FOR ALL ROOF MOUNTED EQUIPMENT, UNLESS NOTES OTHERWISE.

VERTICAL CIRCULATION GENERAL NOTES

1. ALL HANDRAIL AND GUARDRAIL COMPONENTS SHALL BE ABLE TO WITHSTAND A HORIZONTAL LOAD OF 250 POUNDS AT ANY POINT.

2. GUARDRAILS SHALL NOT ALLOW THE PASSAGE OF A 4-INCH SPHERE BETWEEN MEMBERS.

3. ALL RAMP, STAIR, LADDER, ALTERNATING TREAD DEVICE, HANDRAIL AND GUARDRAIL COMPONENTS SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF THE LATEST VERSION(S) IBC, NFPA 101, AND THE ADA.

ABBREVIATIONS

AB	**ANCHOR BOLT**
AB	**AIR BARRIER**
AC	**AIR CONDITIONING**
ADDL	**ADDITIONAL**
ADJ	**ADJUSTABLE**
ADO	**AUTOMATIC DOOR OPERATOR**
AFF	**ABOVE FINISHED FLOOR**
AH	**AIR HANDLER**
AIB	**AIR INFILTRATION BARRIER**
ALT	**ALTERNATE**
ALUM	**ALUMINUM**
AOR	**AREA OF REFUGE**
APPROX	**APPROXIMATE**
ARCH	**ARCHITECT(URAL)**
ARND	**AROUND**
AVB	**AIR/VAPOR BARRIER**
AWP	**ACOUSTICAL WALL PANEL**
BD	**BOARD**
BF	**BARRIER FREE**
BIT	**BITUMINOUS**
BLDG	**BUILDING**
BLKG	**BLOCKING**
BM	**BENCHMARK**
BOT	**BOTTOM**
BO	**BOTTOM OF**
BRK	**BRICK**
BRG	**BEARING**
BS	**BRICK SHELF**
BSMT	**BASEMENT**
C, CRS	**COURSE**
CAB	**CABINET**
CB	**CATCH BASIN**
CC	**CENTER TO CENTER**
CF	**CUBIC FOOT**
CFMF	**COLD FORMED METAL FRAMING**
CJ	**CONTROL JOINT**
CL	**CENTERLINE**
CLG	**CEILING**
CLR	**CLEAR**
CMT	**CERAMIC MOSAIC TILE**
CMU	**CONCRETE MASONRY UNIT**
CO	**CLEANOUT**
COL	**COLUMN**
CONC	**CONCRETE**
CONC/C	**COLORED CONCRETE**
CONT	**CONTINUOUS OR CONTINUE**
CONTR	**CONTRACTOR**
CPT	**CARPET**
CS	**COUNTERSINK**
CSMT	**CASEMENT**
CT	**CERAMIC TILE**
CWT	**CERAMIC WALL TILE**
CUH	**CABINET UNIT HEATER**
CY	**CUBIC YARD**
DBL	**DOUBLE**
DC	**DISPLAY CASE**
DEMO	**DEMOLISH, DEMOLITION**
DF	**DRINKING FOUNTAIN**
DIA, DIAM	**DIAMETER**
DIM	**DIMENSION**
DIV	**DIVISION**
DMP	**DEMOUNTABLE PARTITION**
DN	**DOWN**
DR	**DOOR**
DTL	**DETAIL**
DWG	**DRAWING**
DWR	**DRAWER**
E	**EAST**
EA	**EACH**
EF	**EXHAUST FAN**
EMHO	**ELECTRO MAGNETIC HOLD OPEN**
EIFS	**EXTERIOR INSULATION FINISH SYSTEM**
EJ	**EXPANSION JOINT**
EL	**ELEVATION**
EP	**EPOXY PAINT**
ELEC	**ELECTRICAL**
ELEV	**ELEVATOR**
EMER	**EMERGENCY**
ENCL	**ENCLOSED/ENCLOSURE**
EQ	**EQUAL**
EQUIP	**EQUIPMENT**
EXH	**EXHAUST**
EXIST	**EXISTING**
EXT	**EXTERIOR**
EW	**EYEWASH**
EWC	**ELECTRIC WATER COOLER**
FB	**FIRE BLANKET**
FBO	**FURNISHED BY OWNER**
FCS	**FLOOR COATING SYSTEM**
FD	**FLOOR DRAIN**
FE	**FIRE EXTINGUISHER**
FEC	**FIRE EXTINGUISHER AND CABINET**
FFE	**FINISHED FLOOR ELEVATION**
FG	**FIBERGLASS**
FHVC	**FIRE HOSE AND VALVE CABINET**
FIN	**FINISH(ED)**
FIN GR	**FINISH GRADE**
FLR	**FLOOR(ING)**
FNDN	**FOUNDATION**
FP	**FIREPROOFING**
FO	**FACE OF**
FRMG	**FRAME(ING)**
FRP	**FIBER REINFORCED PLASTIC**
FRT	**FIRE RETARDANT TREATED**
FSR	**FLEXIBLE SHEET ROOFING**
FT	**FOOT(/FEET)**
FTG	**FOOTING**
FTR	**FIN TUBE RADIATION**
FUR	**FURRED(ING)**
FV	**FIELD VERIFY**
FWC	**FABRIC WALL COVERING**
GA	**GAUGE**
GALV	**GALVINIZED**
GB	**GRAB BAR**
GFB	**GROUND FACE CMU**
GL	**GLASS, GLAZING**
GWB	**GYPSUM WALLBOARD**
HARD	**HARDENER**
HB	**HOSE BIBB**
HC	**HOLLOW CORE**
HD	**HEAD**
HDO	**HIGH DENSITY OVERLAY**
HDWD	**HARDWOOD**
HDWR	**HARDWARE**
HM	**HOLLOW METAL**
HORIZ	**HORIZONTAL**
HR	**HAND RAIL**
HS	**HIGH SCHOOL**
HT	**HEIGHT**
HTG	**HEATING**
HVAC	**HEATING/VENTILATION/AIR CONDITIONING**
IBC	**INSTALLED BY CONTRACTOR**
ID	**INSIDE DIAMETER**
IN	**INCH (ES)**
INCL	**INCLUDE (D), (ING)**
INFO	**INFORMATION**
INSUL	**INSULATED**
INT	**INTERIOR**
INV	**INVERT**
JT	**JOINT**
KIT	**KITCHEN**
LAB	**LABORATORY**
LAM	**LAMINATE (D)**
LAV	**LAVATORY**
LB	**POUND ($)**
LCC	**LEAD COATED COPPER**
LF	**LINEAR FOOT**
LH	**LEFT HAND**
LOC'N	**LOCATION**
LW	**LIGHTWEIGHT (CMU)**
MAS	**MASONRY**
MATL	**MATERIAL**
MAX	**MAXIMUM**
MC	**MEDICINE CABINET**
MCWF	**MULTI COLOR WALL FINISH**
MDO	**MEDIUM DENSITY OVERLAY**
MECH	**MECHANICAL**
MED	**MEDIUM**
MF	**MEMBRANE FLASHING**
MFR	**MANUFACTURER**
MH	**MANHOLE**
MIN	**MINIMUM**
MISC	**MISCELLANEOUS**
MLDG	**MOULDING, MOULDING**
MO	**MASONRY OPENING**
MR	**MOISTURE RESISTANT**
MRGB	**MOISTURE RESISTANT GYPSUM BOARD**
MS	**MOP SINK**
MSF	**METAL STUD FRAMING**
MTL	**METAL**
N	**NORTH**
NA	**NOT APPLICABLE**
NIC	**NOT IN CONTRACT**
NO	**NUMBER**
NOM	**NOMINAL**
NRC	**NOISE REDUCTION COEFFICIENT**
NTS	**NOT TO SCALE**
O/	**OVER**
OC	**ON CENTER**
OD	**OUTSIDE DIAMETER**
OFS	**OVERFLOW SCUPPER**
OP	**OPAQUE**
OH	**OVERHEAD**
OPH	**OPPOSITE HAND**
OPNG	**OPENING**
OPP	**OPPOSITE**
OPS	**OPERABLE PANEL SYSTEM**
P, PTD	**PAINT**
PC	**PRECAST CONC.**
PERF	**PERFORATED**
PERIM	**PERIMETER**
PRKG	**PARKING**
PL	**PLATE**
PLAM	**PLASTIC LAMINATE**
PLYWD	**PLYWOOD**
PSF	**POUNDS PER SQUARE FOOT**
PSI	**POUNDS PER SQUARE INCH**
PT	**PRESSURE TREATED**
PTD	**PAPER TOWEL DISPENSER**
PTN	**PARTITION**
PVC	**POLYVINYL CHLORIDE**
PVMT	**PAVEMENT**
QR	**QUARTER ROUND**
QT	**QUARRY TILE**
RE:	**REFERENCE**
REF	**REFRIGERATOR**
REQ'D	**REQUIRED**
REV	**REVISION (S), REVISED**
RL	**RAIN LEADER**
RF	**RUBBER FLOOR**
RH	**RIGHT HAND**
RM	**ROOM**
RO	**ROUGH OPENING**
ROW	**RIGHT OF WAY**
S	**SOUTH**
SAT	**SUSPENDED ACOUSTICAL TILE**
SC	**SOLID CORE**
SCHED	**SCHEDULE**
SD	**STORM DRAIN, SOAP DISPENSER**
SECT	**SECTION**
SF	**SQUARE FOOT**
SGL	**SAFETY GLASS**
SH	**SHOWER**
SHT	**SHEET**
SHTHG	**SHEATHING**
SIM	**SIMILAR**
SLNT	**SEALANT**
SNR	**SANITARY NAPKIN RECEPTOR**
SP	**SPECIAL PAINT**
SPEC	**SPECIFICATION**
SPKR	**SPEAKER**
SQ	**SQUARE**
SS	**STAINLESS STEEL**
STC	**SOUND TRANSMISSION CLASS**
STD	**STANDARD**
STL	**STEEL**
STOR	**STORAGE**
STRL	**STRUCTURAL**
STRUCT	**STRUCTURE/STRUCTURAL**
SUPT	**SUPPORT**
SUSP	**SUSPENDED**
SV	**SHEET VINYL**
T	**TOILET**
TB	**TOWEL BAR**
TB	**TACKBOARD**
T&G	**TONGUE AND GROOVE**
TGL	**TEMPERED GLASS**
THK	**THICK(NESS)**
TO	**TOP OF**
TP	**TOILET PARTITION**
TPD	**TOILET PAPER DISPENSER**
TV	**TELEVISION**
TYP	**TYPICAL**
UCR	**UNDER COUNTER REFRIGERATOR**
UNO	**UNLESS NOTED OTHERWISE**
VB	**VAPOR BARRIER/VINY BASE**
VC	**VALVE CABINET**
VCT	**VINYL COMPOSITION TILE**
VERT	**VERTICAL**
VPW	**VENEER PLYWOOD**
VWC	**VINYL WALL COVERING**
W	**WEST**
W/	**WITH**
WC	**WATER CLOSET**
WD	**WOOD**
WGL	**WIRE GLASS**
WH	**WATER HEATER**
W/O	**WITHOUT**
WS	**WATERSTOP**
WP	**WATERPROOF**
WWF	**WELDED WIRE FABRIC**
WWM	**WELDED WIRE MESH**
YD	**YARD**

MATERIALS LEGEND

GRAVEL

CONCRETE MASONRY UNIT

BRICK

CONCRETE

SOIL

STEEL

WOOD FRAMING

WOOD BLOCKING

GYPSUM BOARD

PLYWOOD

RIGID INSULATION

BATT INSULATION

SYMBOLS

Room name 101 150 SF — ROOM TAG

101 — DOOR TAG

9 — WINDOW\GLAZING TAG

XX — WALL TAG

SPECIALTY EQUIPMENT\ TOILET ACCESSORY TAG

1J — CASEWORK TAG

— DEMOLITION KEY NOTE

1 / A101 — BUILDING SECTION

1 / A101 — WALL SECTION

1 / A101 SIM — PLAN OR SECTION DETAIL

1 / A101 SIM — EXTERIOR ELEVATION

1 / A41.1 / 1 — INTERIOR ELEVATION

FLOOR LEVEL\VERTICAL ELEVATION

0.0 — COLUMN CENTERLINE

FIRE RATINGS

SMOKE

1 HOUR FIRE RATED PARTITION

2 HOUR FIRE RATED PARTITION

1/2 HOUR FIRE RATED PARTITION

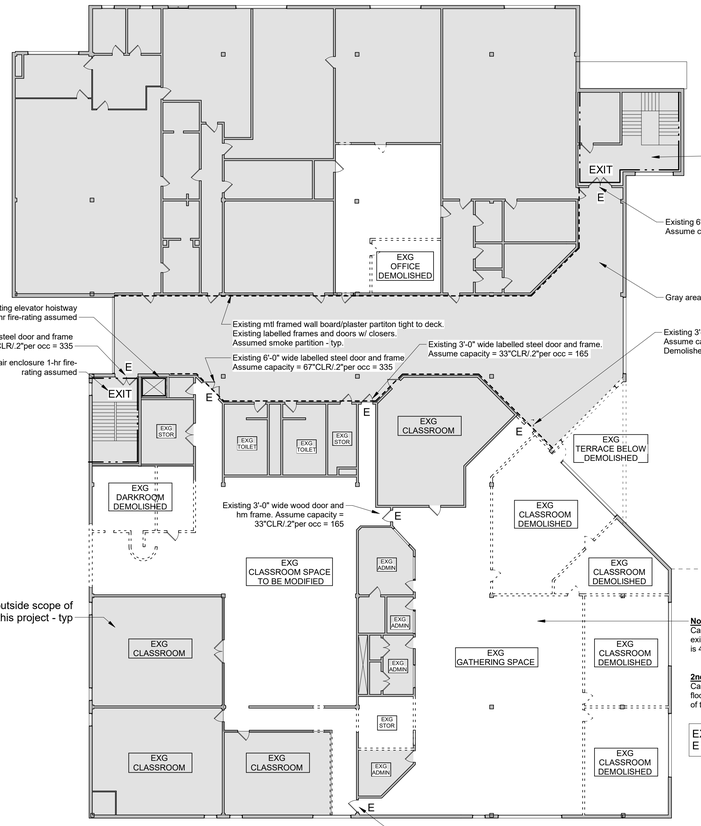
WALL SYSTEMS

1. REFER TO STRUCTURAL DRAWINGS FOR NOTES ON MASONRY REINFORCEMENT.

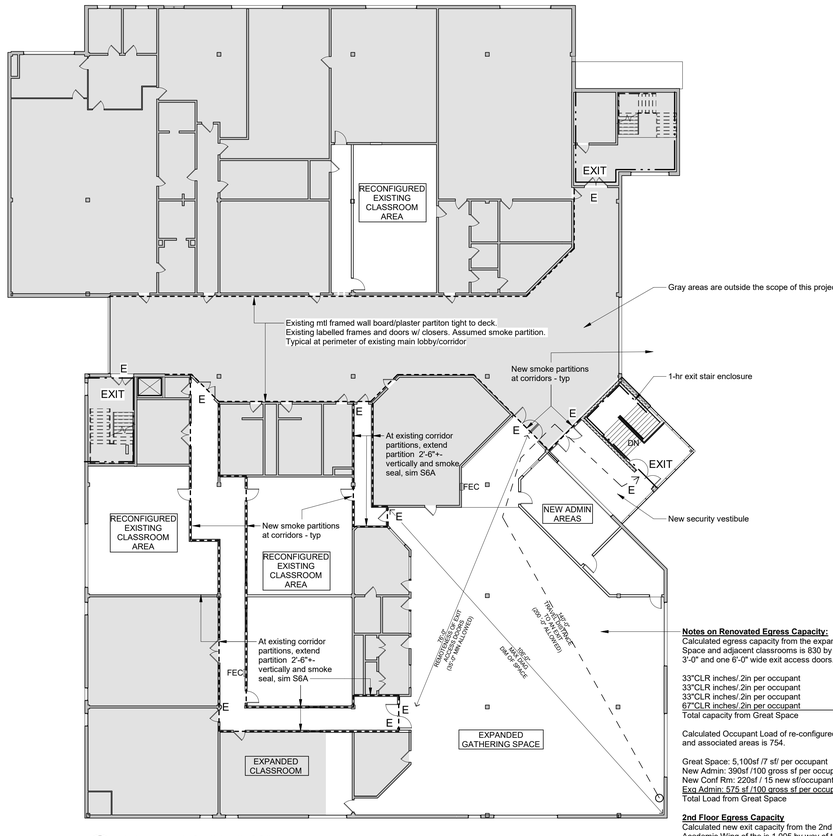
2. ALL NEW OPENINGS, GREATER THAN 12" FOR BRICK-SIZE AND 24" FOR BLOCK-SIZE, INTO MASONRY WALLS SHALL RECEIVE A LINTEL. REFER TO THE STRUCTURAL DRAWINGS FOR LINTEL REQUIREMENTS. REFER TO MECHANICAL, ELECTRICAL, & PLUMBING PLANS FOR NUMBER, LOCATION, AND SIZE OF APPLICABLE PENETRATIONS.

3. FILL ALL CMU VOIDS WITH MORTAR OR GROUT AT ALL DOOR JAMBS.

4. ALL PARTITIONS SHALL EXTEND FROM SUB-

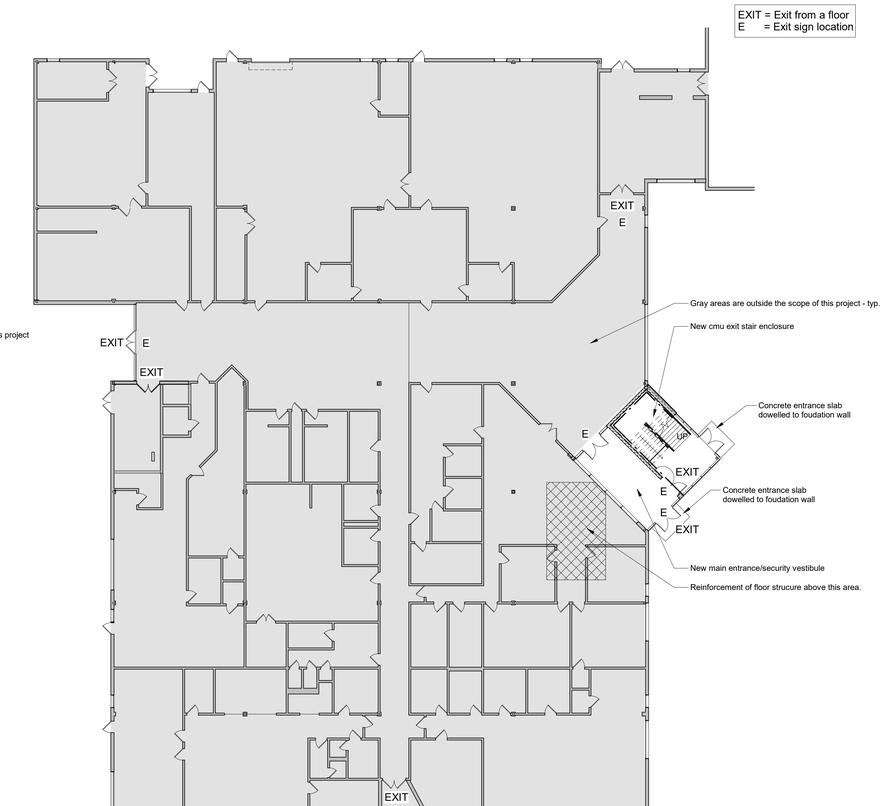


C5 EXISTING/DEMOFLOOR PLAN - LEVEL 2
1/16" = 1'-0"



A5 LEVEL 2 - LIFE SAFETY FLOOR PLAN
1/16" = 1'-0"

C4 EXISTING/DEMO FLOOR PLAN - LEVEL 1
1/16" = 1'-0"



A4 LIFE SAFETY FLOOR PLAN - LEVEL 1
1/16" = 1'-0"

Description of the Existing School:
The existing building houses the PATHS and Casco Bay High School programs. The school building was designed and constructed in the early 1970. Its primary structural frame is constructed with wide-flange steel beams and columns and steel bar joists. Framed floor decks are corrugated steel forms with concrete fill. Roof deck is fiber cement plank. Exterior walls are 10"-wide double-wythe brick, separated by 1" if rigid insulation and an air cavity.

Origonal interior partitions are steel vertical truss-style studs with plaster-coated, gypsum wall board finish

The building is fully protected by a monitored, fully supervised fire supression system.

The building is three stories in height, with all floor levels at or above the primary level of exit discharge.

Description of the Proposed Project:
1. Partial renovation/reconfiguration of Casco Bay High School instructional areas on Second Floor.
2. Addition of an enclosed egress stair connecting the 1st and 2nd Floors.
3. Entrance stair tower is designed to accommodate future extens to existing 3rd floor.

The building has two distinct areas -- an acadamic wing and a shop/vocational. This project renovates part of the 2nd floor of the academic wing occupied by Casco Bay High School and constructs a new, 2-story entrance/exit stair tower at the existing main entrance to the building.

- This project does NOT include any work in the shop/vocational wing.
- This project does NOT include any work in the 3rd floor of the academic wing.
- Work on the 1st floor of the academic wind is limited to
  - A. construction of the new entrance/stair tower
  - B. reinforcement of a small area of existing 2nd floor framing above and consruction of a few small mechanical chases that connect the second floor to the first floor.

Note on Use of the Instructional Spaces:
The current Gathering Space is used on a daily basis for small or large, teacher or student-lead group educational activities that are not compatible with conventional classrooms spaces. The Gather Space is also used for school-wide Casco Bay High School meetings. Student population is capped at 400 for teh program. The enlarged Gathering Space will continue to be used in this same manner.

MUBEC Code Analysis Summary:
IEBC 2009
- Compliance Method: Work Area Compliance Method (101.5.2)
- Work Area: 2nd Floor Area as indicated at left are less than 50% of the aggregate building area.
- Work does not result in a chage of occupancy.
- Classification of Work: Alteration -- Level 2 (404)
- Level 2 Alterations are permitted without requiring the entire building to comply with IECC requirements.

IBC 2009
- New Construction is designed to comply with IBC 2009.
- Exit Enclosure (connecting 2 floor levels):

	Required	Provided
	1-hr fire barrier	1-hr fire barrier

- Travel Distance Limitations (Educational):

	Max Allowed	Provided
Distance to an Exit	250 ft	<250 ft
Common Path of Travel	75 ft	<75 ft
Dead end	50 ft	<50 ft

- Interior Finish Classification (Educational):

	Min Required	Designed
Exit Enclosures	B	A
Corridors	C	A
Spaces	C	A

IECC 2009
- Building enclosure components at new construction comply with Perscriptive Requirements in Chapter 5.

	Required	Provided
Roofs (IEAD)	max U-0.048	U-0.036
Above Grade Walls	max U-0.064	U-0.056
Slabs on Grade	max F-0.540	F-0.360
Fenestration	max U-0.45	
Entrance Doors	max U-0.80	

Building Envelope Component Descriptions:
Roof Assembly:
Fully adhered EPDM, low slope, internally drained, 2 layers 2.5" poly isocyanurate roof insulation (R-5.6/inch), top layer tapered to slope 1/4", and with 1/2" high density poly-iso cover board (R2.5) continuous above concrete deck. Self-adhering vapor retared applied to top of concrete. Assembly U factor U-0.036 per ASHRAE 90.1, Table A.2.2.3. Roof deck above stair enclosure is fire-retardand treat plywood to facilitate future expansion.

Above Grade Wall Assembly:
Rainscreen wall assembly consisting of fully grouted 8" cmu with continuous, fluid-appled AVB, 3.5" continuous dual-density mineral fiber board insulation (R-4.3/inch), 1" air cavity and metal wall panel siding. Assembly U-Factor = 0.056 per ASHRAE 90.1, Table A3.3.3.1.

Slab on Grade Concrete Floor Assembly:
4" concrete slab on grade, 2" XPS insulation (R-5/inch)under entire slab, sheet vapor retarder, 4" concrete slab. Assembly F-Factor = F0.360 per ASHRAE 90.1, Table S6.3.1.

NFPA-101 2009 COMPLIANCE SUMMARY
Construction Type
- Existing: Type II (0,0,0) with occasional dimension lumber partitino infill
- New: Type II (0,0,0) - non-combustibe, unprotected.

Occupancy
- Educational with Assembly and use related to Educational function and accessory business (admin) use. No change of occupancy is proposed.

Travel Distance Limitations:

	Max Allowed	Provided
Distance to an Exit	200 ft	<200 ft
Common Path of Travel	100 ft	<100 ft
Dead end	50 ft	50 ft

Building Rehabilitation (Chapter 43)
- Rehabilitation Work Category: *Modification* per Section 43.2.2.1.3

Interior Finish Classification:

	Min Required	Designed
Exit Enclosures	A	A
Exit Access Components	A or B	A
Spaces	A, B or C	A

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CASCO BAY HIGH SCHOOL EXPANSION
196 Allen Avenue
Portland, ME

No.	Date	Description
		Revision Schedule

REGISTERED ARCHITECT
TIMOTHY J. DUNN
No. 1342
STATE OF MAINE

JOB NO.
17056

DRWN. CHK
Checker

SCALE:

ISSUE
BID DOCUMENTS
March 20, 2018

TITLE
Life safety Plan

SHEET
A002

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CASCO BAY HIGH SCHOOL EXPANSION

196 Allen Avenue
Portland, ME

No.	Date	Description
		Revision Schedule

REGISTERED ARCHITECT
TYLER J. WOLFF
No. 7142
STATE OF MAINE

JOB NO.
17056

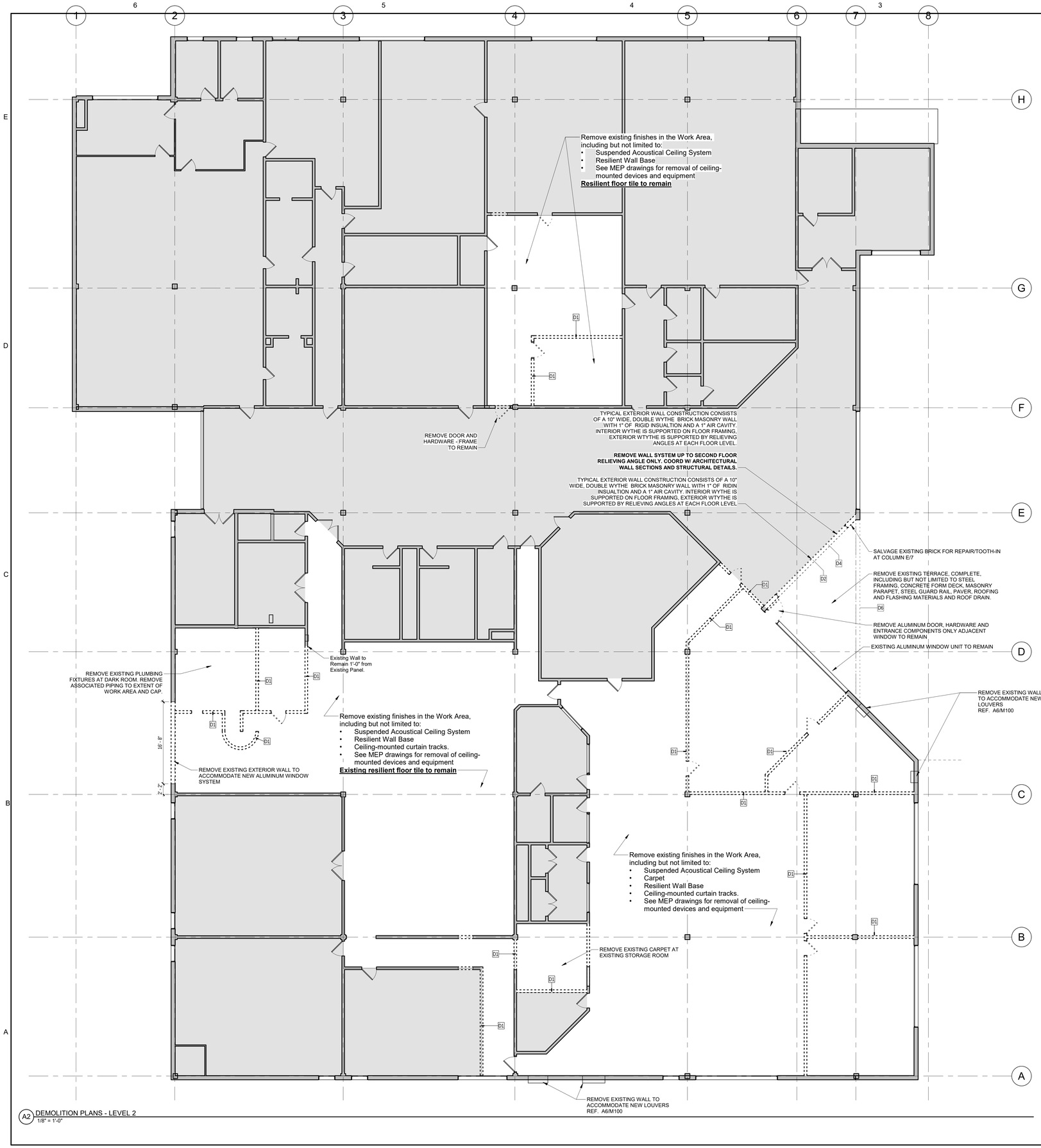
DRWN. CHK
Checker

SCALE:

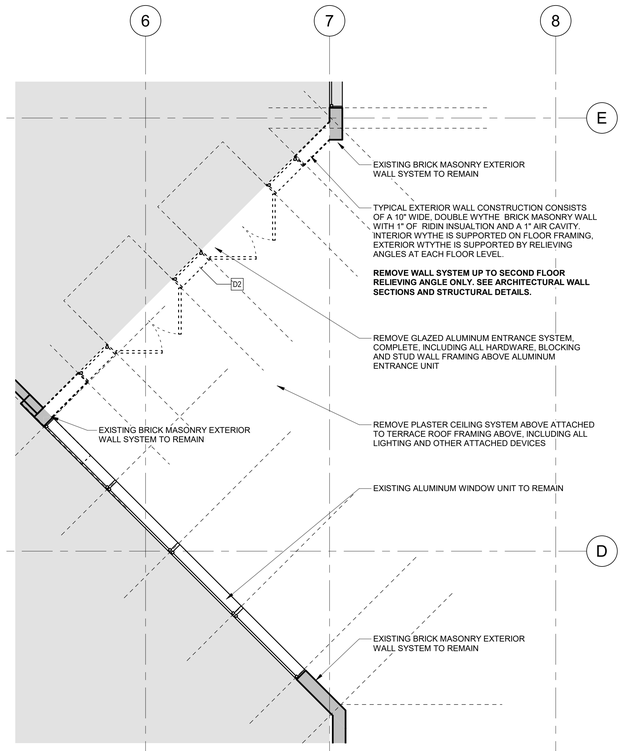
ISSUE
BID DOCUMENTS
March 20, 2018

TITLE
Site Access Plan

SHEET
A003



A2 DEMOLITION PLANS - LEVEL 2
1/8" = 1'-0"



A1 DEMOLITION PLAN - LEVEL 1
1/4" = 1'-0"

DEMOLITION GENERAL NOTES

1. DASHED LINES INDICATE ITEMS TO BE DEMOLISHED. TYPICAL
2. IF SUSPECTED HAZARDOUS MATERIALS ARE ENCOUNTERED STOP WORK IMMEDIATELY AND NOTIFY CONSTRUCTION MANAGER. DO NOT RESUME WORK UNTIL DIRECTED BY CONSTRUCTION MANAGER
3. ALL CONTRACTORS ARE RESPONSIBLE FOR VISITING THE SITE AND BECOMING FAMILIAR WITH THE SCOPE OF WORK. COORDINATE SITE VISITS WITH CONSTRUCTION MANAGER
4. ALL DEMOLITION MATERIALS NOT CLAIMED BY THE OWNER, OR TO BE REFUSED ARE TO BE DISPOSED OF OFF SITE, AS PER LOCAL REGULATIONS AT THE CONTRACTORS EXPENSE. COORDINATE ALL DEMOLITION.
5. CONTRACTOR TO TAKE CARE NOT TO DAMAGE EXISTING MATERIALS AND SPACES WHICH ARE TO REMAIN
6. CONTRACTOR TO RETAIN EXTERIOR BRICK REMOVED FROM BUILDING FOR PATCHING AS REQUIRED. REMAINING BRICK TURNED OVER TO OWNER FOR FUTURE USE. UNWANTED BRICK DISPOSED OF AT CONTRACTOR'S EXPENSE.
7. REMOVE ALL INTERIOR SIGNS AND GRAPHICS FROM WALLS. REMOVE ALL VINYL SURFACE APPLIED LETTERS FROM INTERIOR AND EXTERIOR WINDOWS.
8. ALL SHADED WALLS REPRESENT EXISTING WALLS TO REMAIN. TYPICAL
9. "NO WORK" PERTAINS TO DISCIPLINE SPECIFIC SHEETS, COORDINATE WITH OTHER DISCIPLINES.
10. CUTTING AND PATCHING, ALL FUTURE EXPOSED DEMO LOCATIONS ARE TO BE PATCHED TO MATCH ADJACENT MATERIALS, COORDINATE DEMOLITION W/ REPAIR/REPLACEMENT.

LEGEND

NOT IN SCOPE

KEYNOTES DEMOLITION	
D1	REMOVE WALL FULL HEIGHT
D2	REMOVE PORTION OF WALL TO ACCOMODATE NEW WORK
D3	REMOVE EXTERIOR SIDING AND SHEATHING
D4	REMOVE WINDOW
D5	REMOVE WINDOW AND THRU-WALL MECHANICAL UNIT
D6	REMOVE DECK - INCLUDES STRUCTURAL FRAMING
D7	REMOVE CONCRETE PAVING ON GRADE

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CASCO BAY HIGH SCHOOL EXPANSION
196 Allen Avenue
Portland, ME

No.	Date	Description
		Revision Schedule

REGISTERED ARCHITECT
TIMOTHY J. WHITE
No. 1142
STATE OF MAINE

JOB NO.
17056

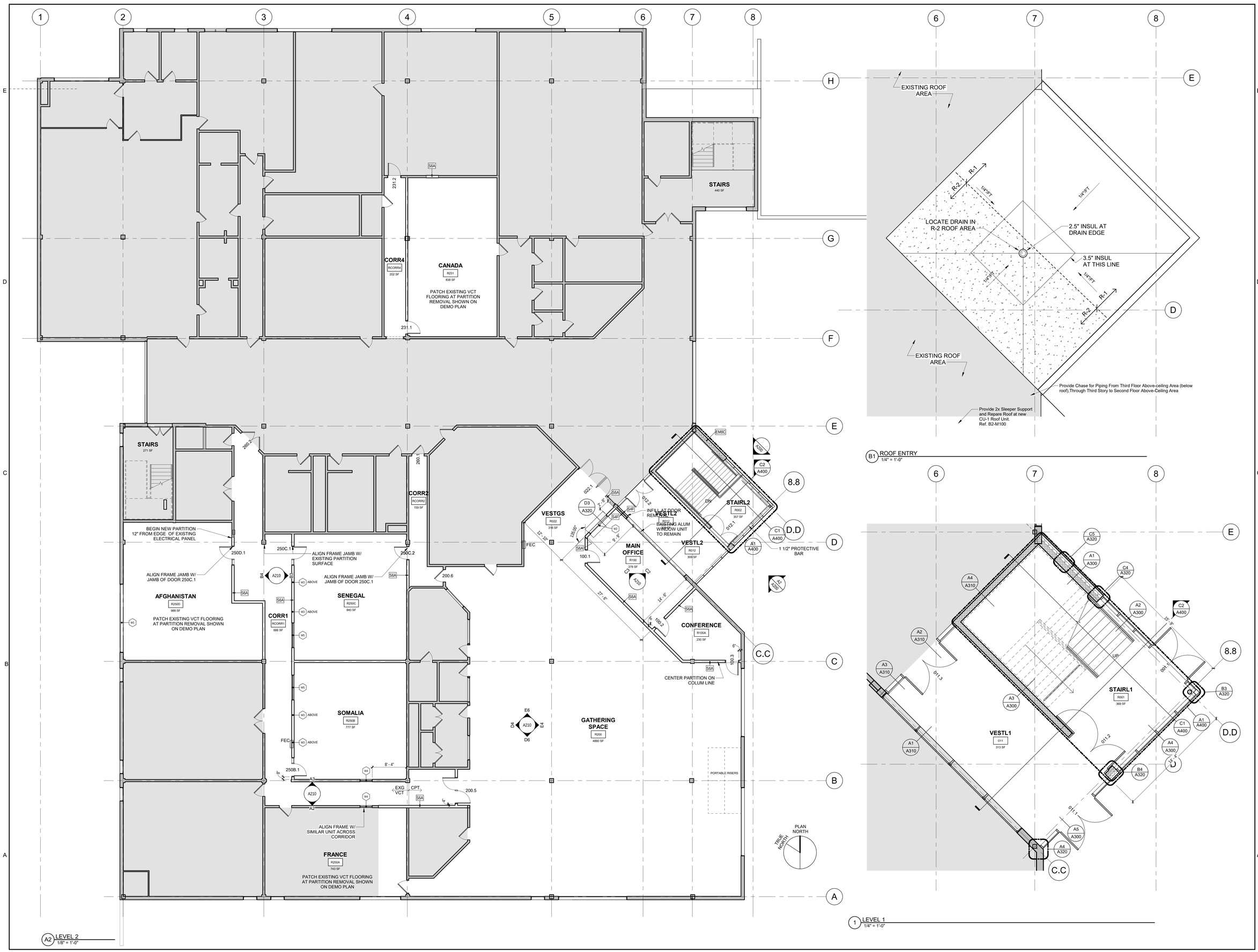
DRWN. CHK
Checker

SCALE:

ISSUE
BID DOCUMENTS
March 20, 2018

TITLE
Demolition Plans

SHEET
AD.1



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CASCO BAY HIGH SCHOOL EXPANSION

196 Allen Avenue
Portland, ME

No.	Date	Description
		Revision Schedule

REGISTERED ARCHITECT
JOSHUA WEBB
No. 11742
STATE OF MAINE

JOB NO.
17056

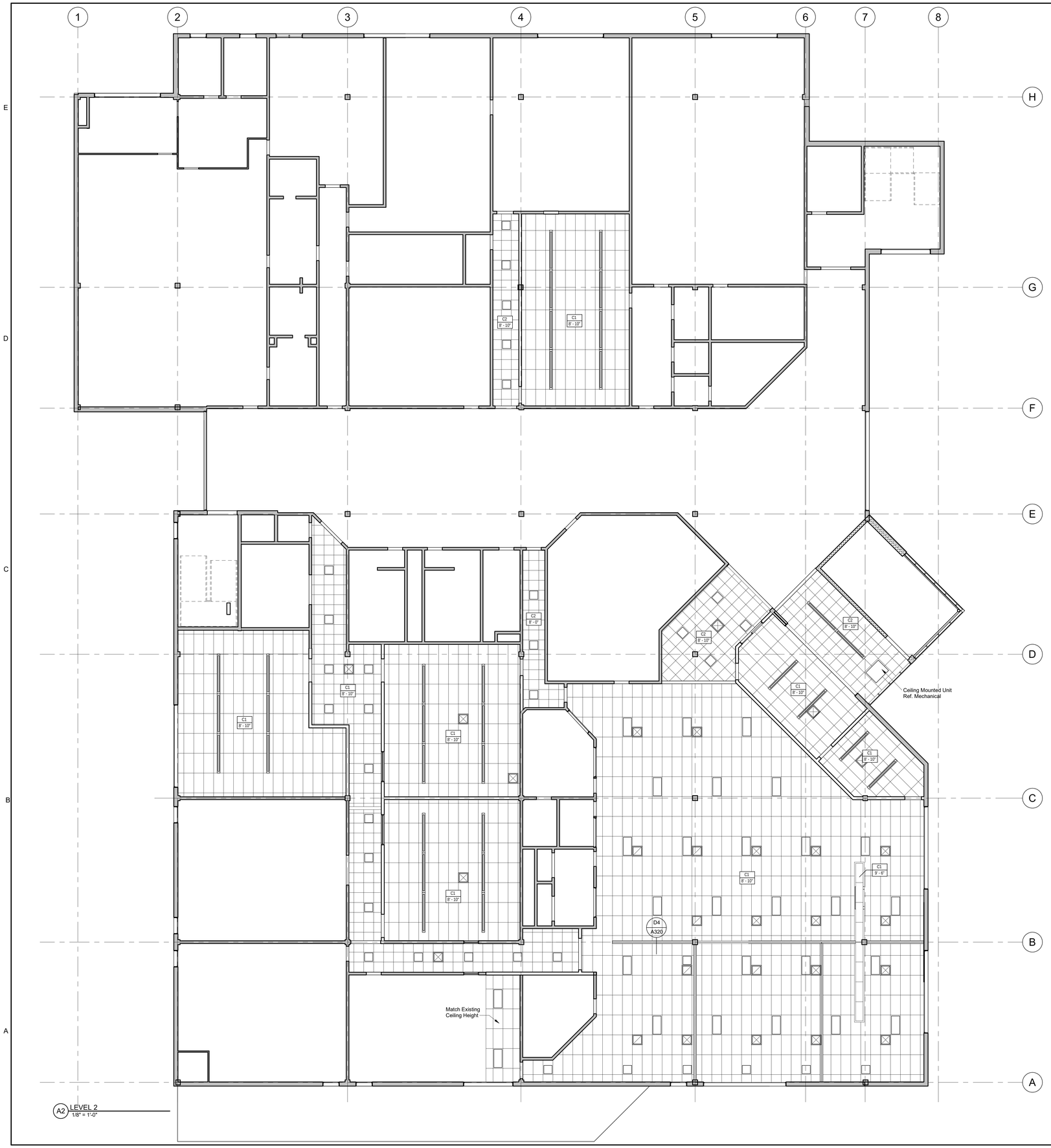
DRWN. CHK
Checker

SCALE:

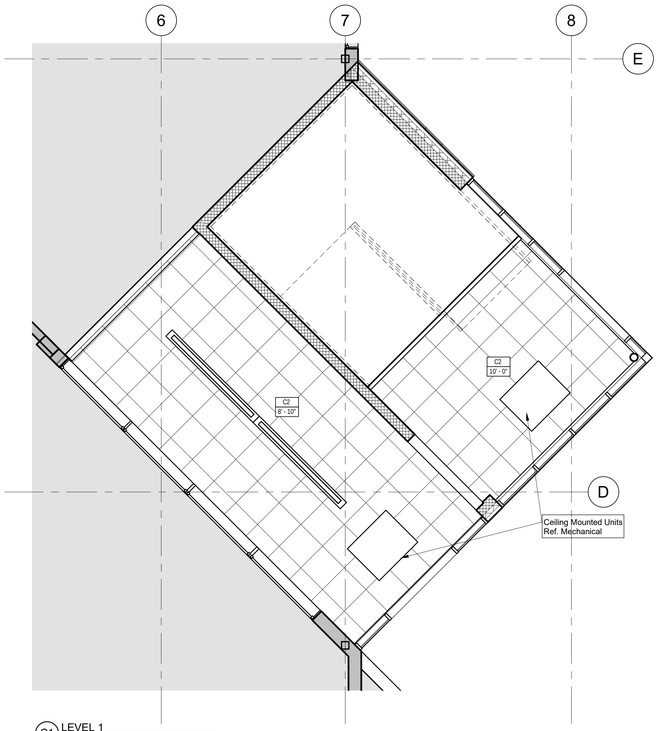
ISSUE
BID DOCUMENTS
March 20, 2018

TITLE
Floor Plans

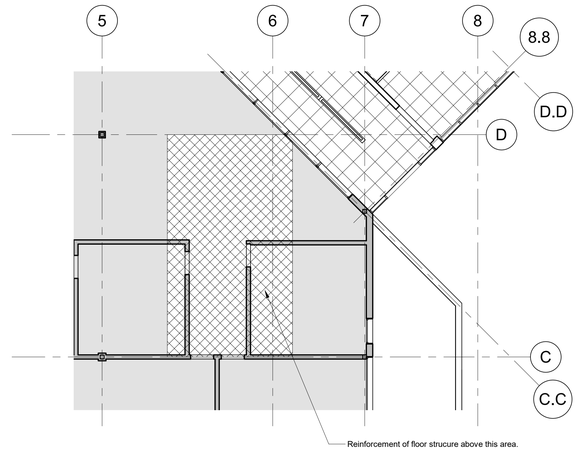
SHEET
A101



A2 LEVEL 2
1/8" = 1'-0"



C1 LEVEL 1
1/4" = 1'-0"



A1 LEVEL 1 - Reinforcement
1/8" = 1'-0"

CEILING NOTES

1. CEILING PLANS DO NOT SHOW EVERY FIXTURE OR COMPONENT. REFER TO ELECTRICAL, PLUMBING, MECHANICAL AND STRUCTURAL DRAWINGS FOR EXTENT OF ALL CEILING PENETRATIONS AND INSTALLATIONS AND COORDINATE PRIOR TO INSTALLATION.

2. CENTER GRID LAYOUT IN ALL ROOMS UNLESS NOTED OTHERWISE.

3. ALL COMPONENTS MOUNTED IN OR BELOW A SUSPENDED ACOUSTIC CEILING SHALL BE CENTERED IN THE CEILING TILE OR IN THE 2X2 PORTION OF TEGULAR CEILING TILES, UNLESS NOTED OTHERWISE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, LIGHT FIXTURES, DIFFUSERS, SPEAKERS, SMOKE DETECTORS, AND SPRINKLER HEADS.

4. PRIOR TO THE INSTALLATION OF CEILINGS, ALLOW FOR AN ABOVE-CEILING INSPECTION OF COMPONENTS THAT WILL NOT BE VISIBLE WHEN THE CEILINGS HAVE BEEN INSTALLED, INCLUDING INSPECTION OF FIRE, SMOKE, AND ACOUSTICAL SEPARATIONS.

CEILING TYPES	
C1	2x4 ACT SYSTEM
C2	2x2 ACT SYSTEM
C3	--
C4	--
C5	--

GRAPHICS LEGEND

- 24"x24" RECESSED LIGHT
- 6"x96" LINEAR RECESSED OR SUSPENDED LIGHT
- 6"x48" LINEAR RECESSED OR SUSPENDED LIGHT
- C1 8'-0" — CEILING TYPE CEILING HEIGHT
- ACCESS PANEL
- MECHANICAL

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CASCO BAY HIGH SCHOOL EXPANSION

196 Allen Avenue
Portland, ME

No.	Date	Description
		Revision Schedule

REGISTERED ARCHITECT
LAWSON
CHRISTIE
No. 1342
STATE OF MAINE

JOB NO.
17056

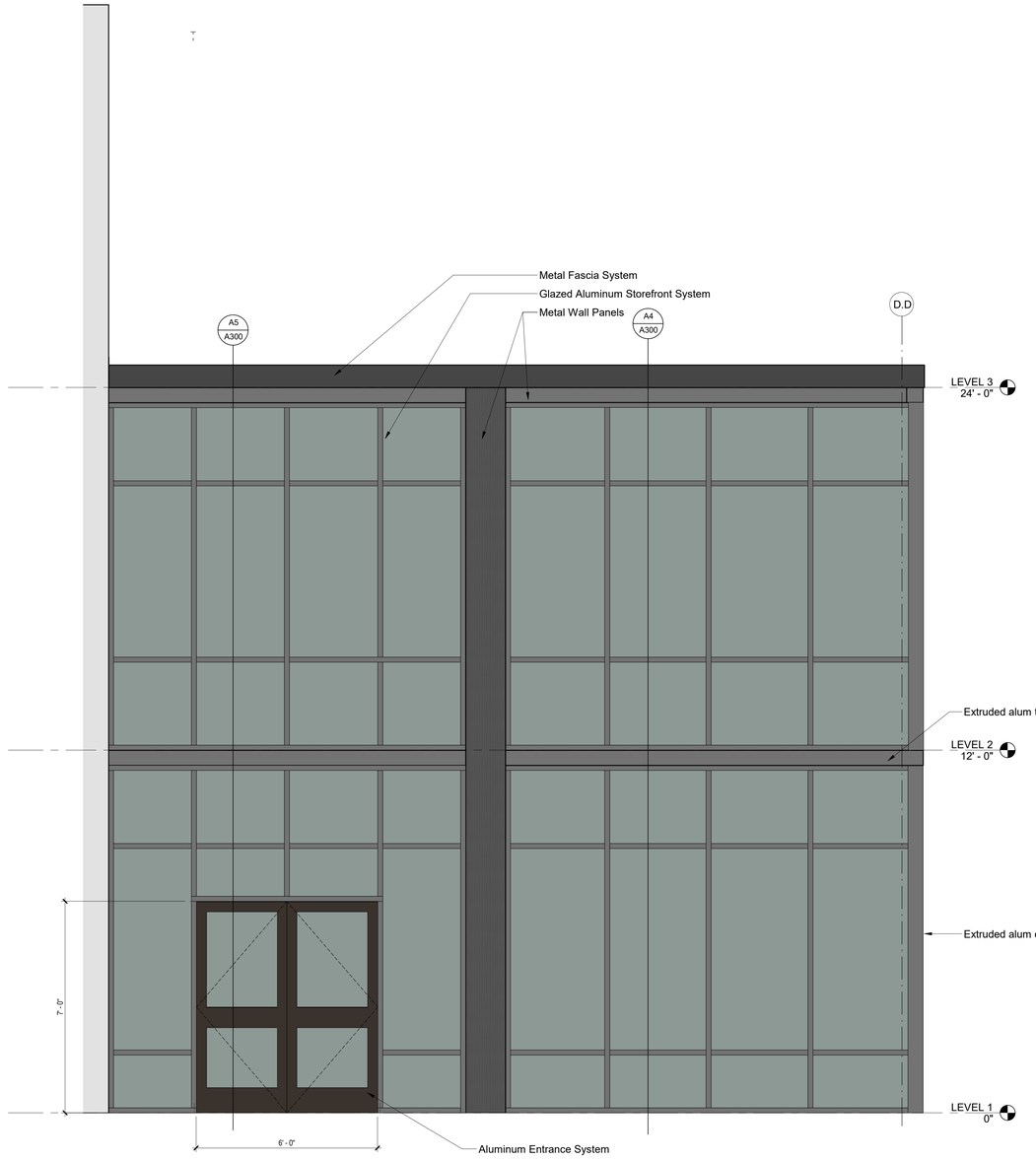
DRWN. CHK
Checker

SCALE:

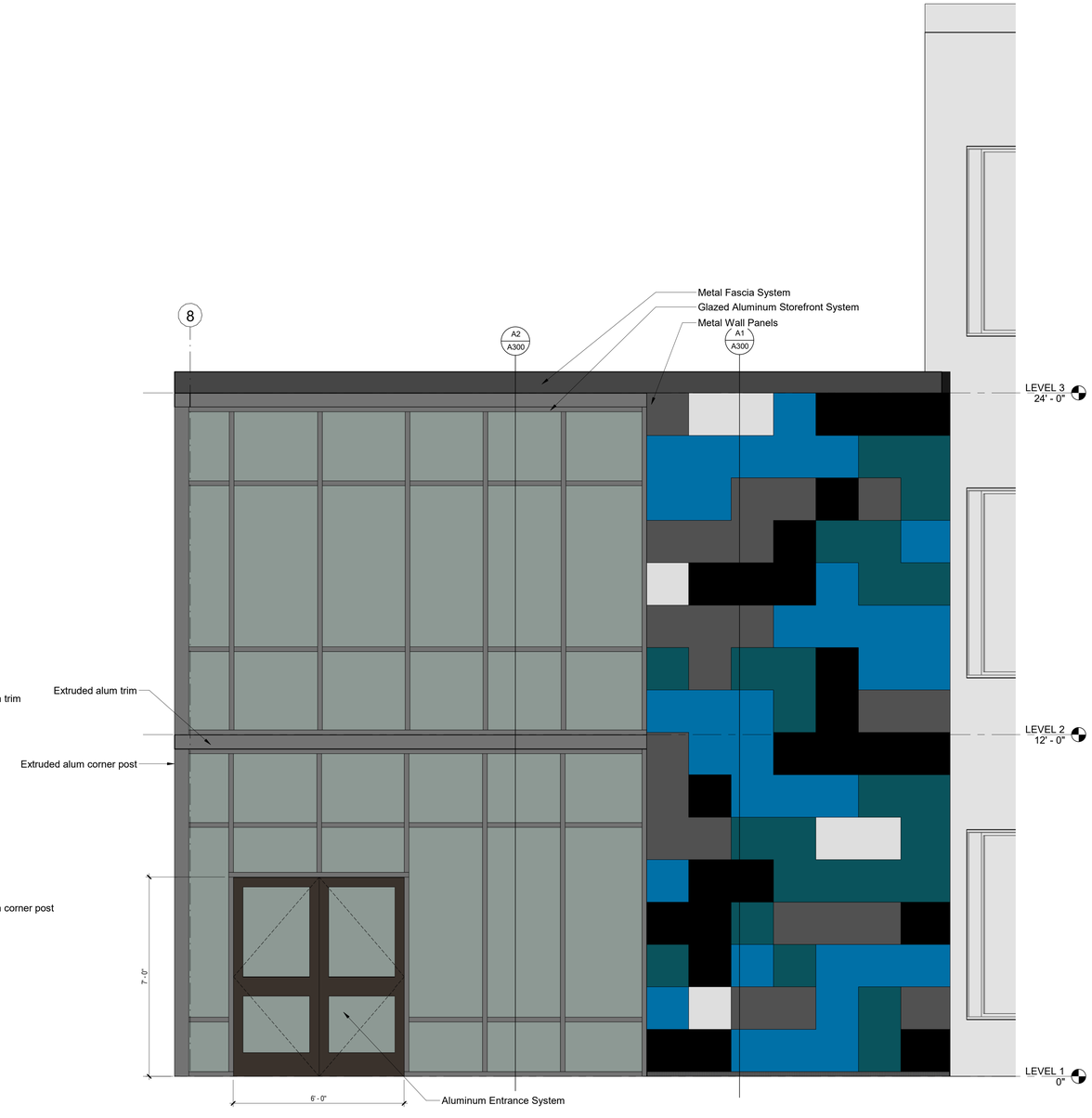
ISSUE
BID DOCUMENTS
March 20, 2018

TITLE
Reflected Ceiling Plans

SHEET
A110



A2 Elevation - New Entry
1/2" = 1'-0"



A1 Elevation - New Entry - Side
1/2" = 1'-0"

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CASCO BAY HIGH SCHOOL EXPANSION

196 Allen Avenue
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No.	Date	Description
		Revision Schedule

REGISTERED ARCHITECT
JAMES D. WOODWARD
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STATE OF MAINE

JOB NO.
17056

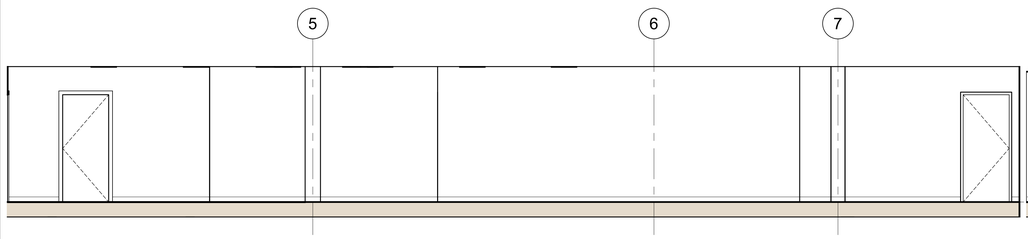
DRWN. CHK
Checker

SCALE:

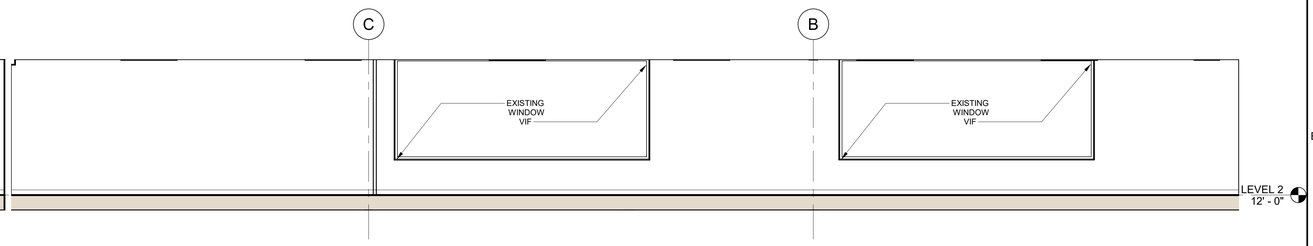
ISSUE
BID DOCUMENTS
March 20, 2018

TITLE
Exterior Elevations

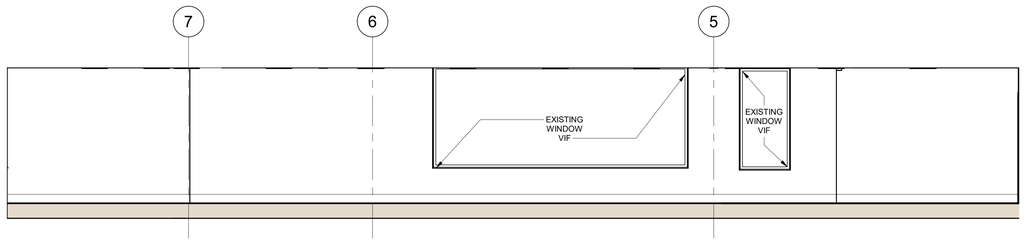
SHEET
A200



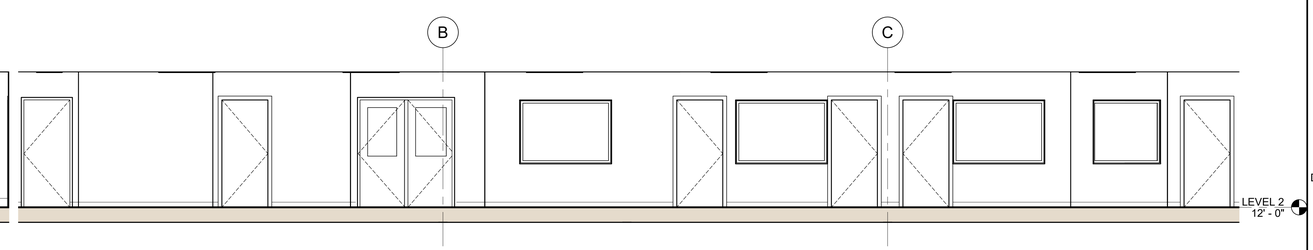
E6 GATHERING SPACE - LOOKING NORTH
1/4" = 1'-0"



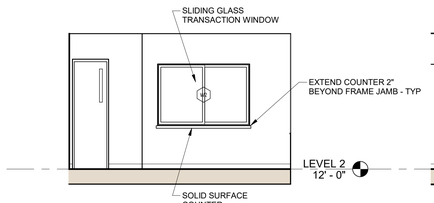
E4 GATHERING SPACE - LOOKING EAST
1/4" = 1'-0"



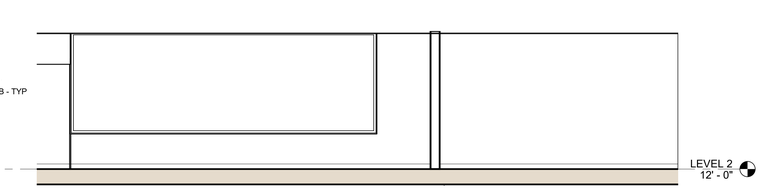
D6 GATHERING SPACE - LOOKING SOUTH
1/4" = 1'-0"



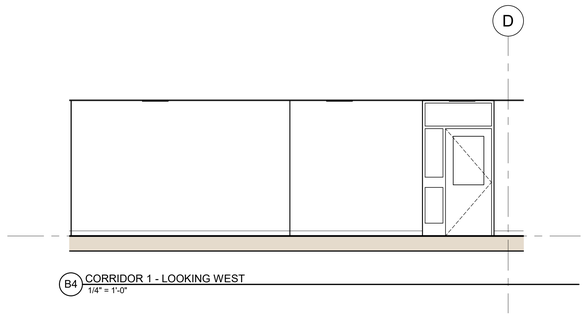
D4 GATHERING SPACE LOOKING WEST
1/4" = 1'-0"



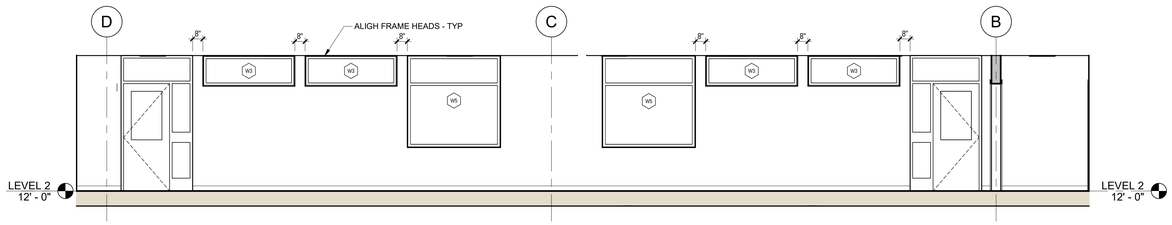
C3 MAIN OFFICE - LOOKING NORTHWEST
1/4" = 1'-0"



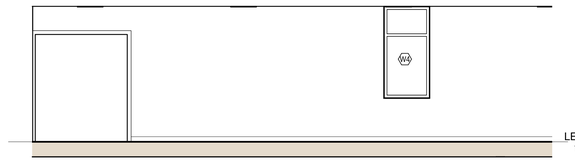
C2 MAIN OFFICE - LOOKING NORTHEAST
1/4" = 1'-0"



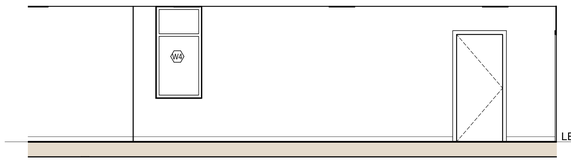
B4 CORRIDOR 1 - LOOKING WEST
1/4" = 1'-0"



B3 CORRIDOR 1 - LOOKING EAST
1/4" = 1'-0"

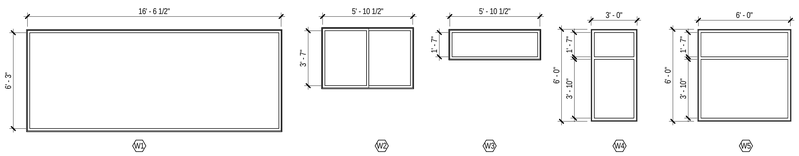


A3 CORRIDOR 2 - LOOKING NORTH
1/4" = 1'-0"



A2 CORRIDOR 2 - LOOKING SOUTH
1/4" = 1'-0"

Window Schedule						
Type Mark	Family	Type	Width	Height	Comments	Count
W1	Fixed	16R8 x 6ft8	16' - 8"	6' - 8"	Exterior alum storefront	1
W2	Slider with Trim	72" x 60"	6' - 0"	4' - 0"	Aluminum transaction	1
W3	Fixed	72" x 24"	6' - 0"	2' - 0"	HM borowed lite	4
W4	window 2	3ft x 6ft	3' - 0"	6' - 0"	HM borowed lite	2
W5	Classroom 6x6	6ft x 6ft	6' - 0"	6' - 0"	HM borowed lite	2



BORROWED LIGHT LEGEND
1/4" = 1'-0"

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CASCO BAY HIGH SCHOOL EXPANSION

196 Allen Avenue
Portland, ME

No.	Date	Description
		Revision Schedule

REGISTERED ARCHITECT
ALLISON
WHITE
No. 1142
STATE OF MAINE

JOB NO.
17056

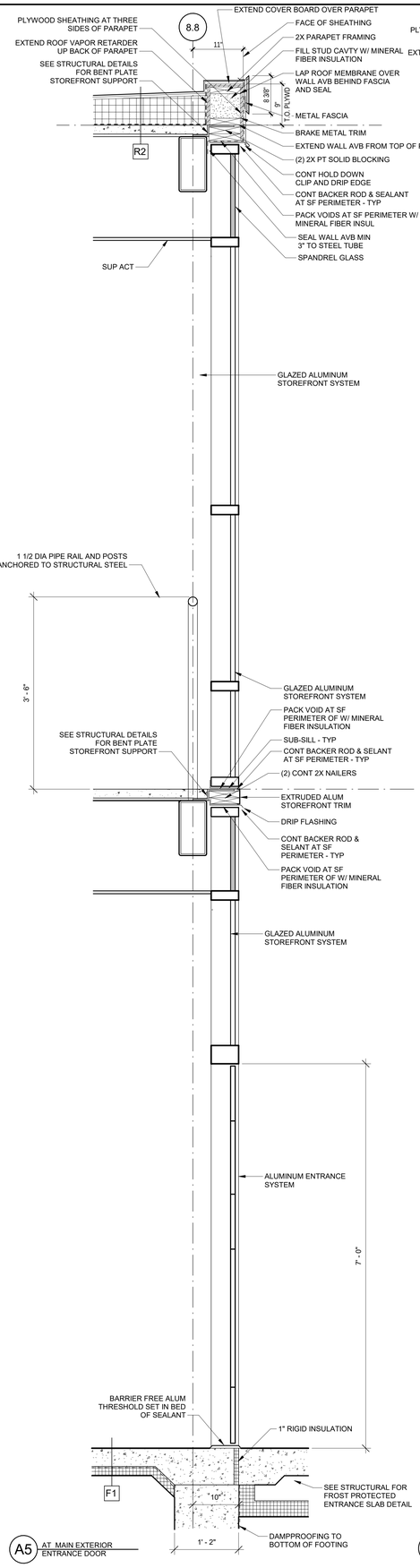
DRWN. CHK
Checker

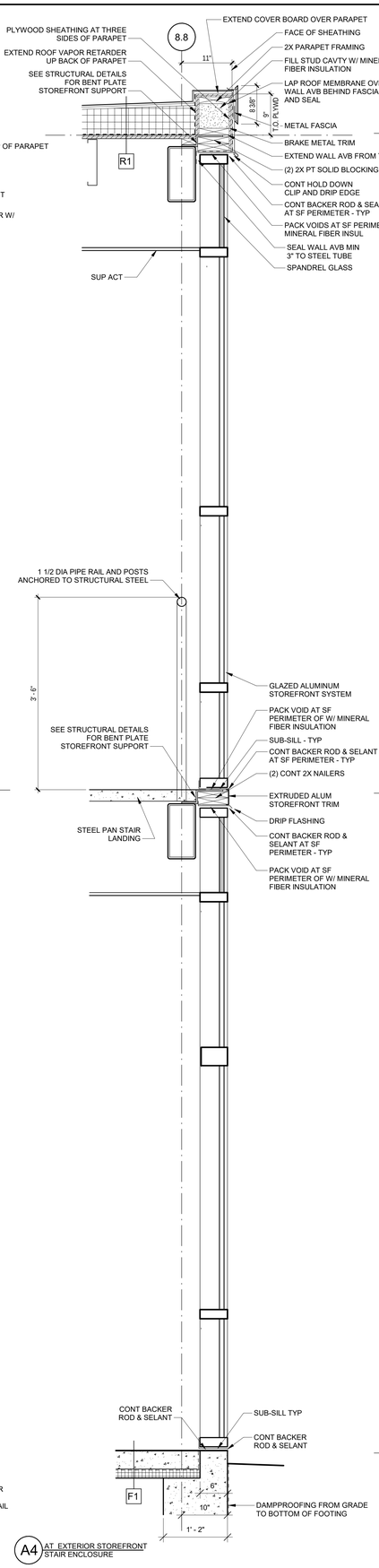
SCALE:

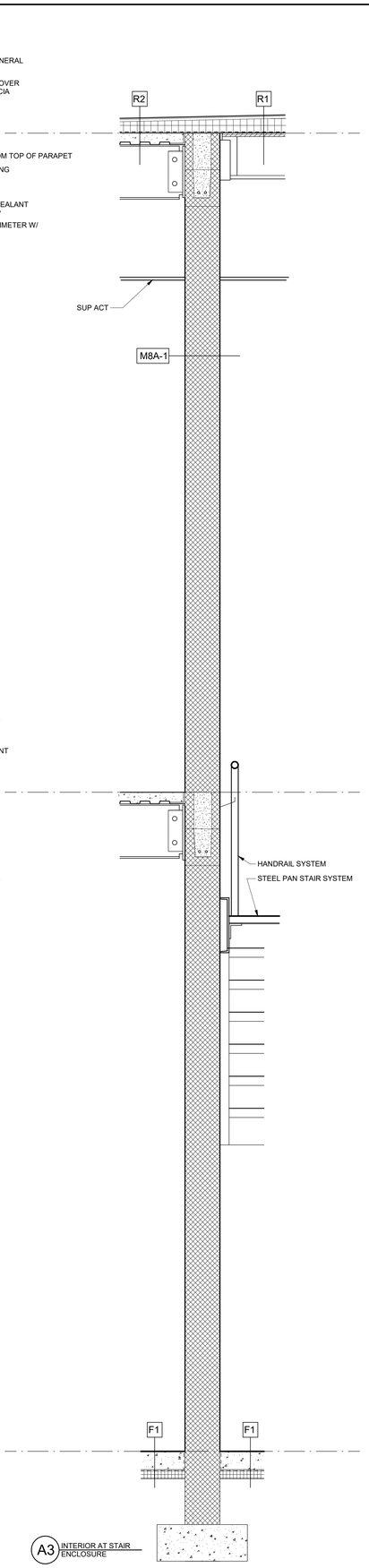
ISSUE
BID DOCUMENTS
March 20, 2018

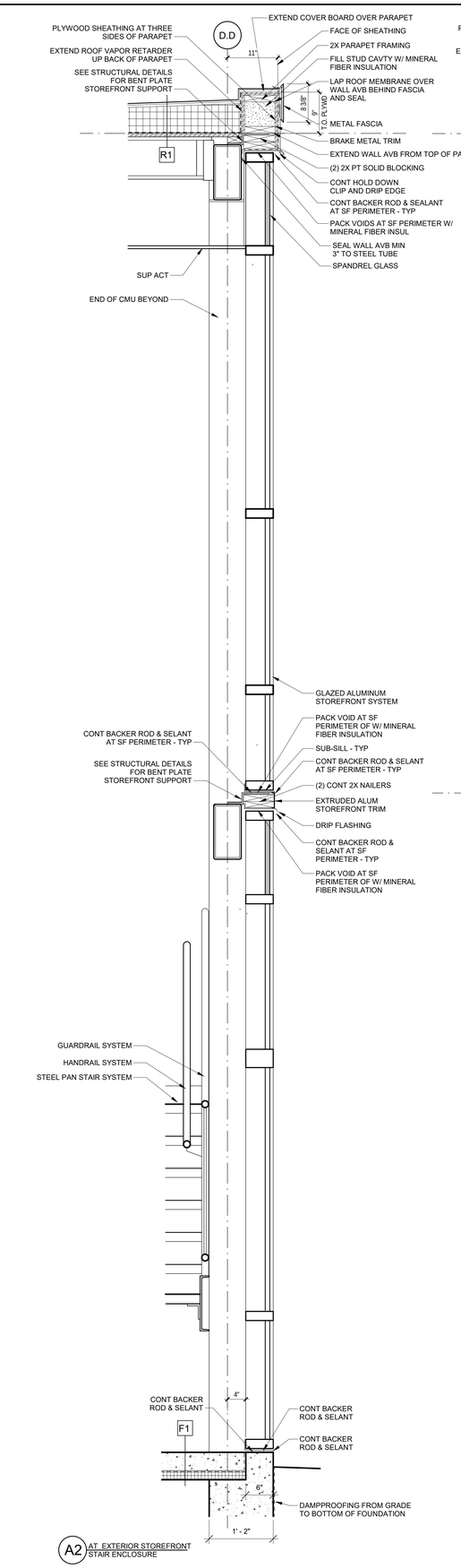
TITLE
Interior Elevations + Window Schedule

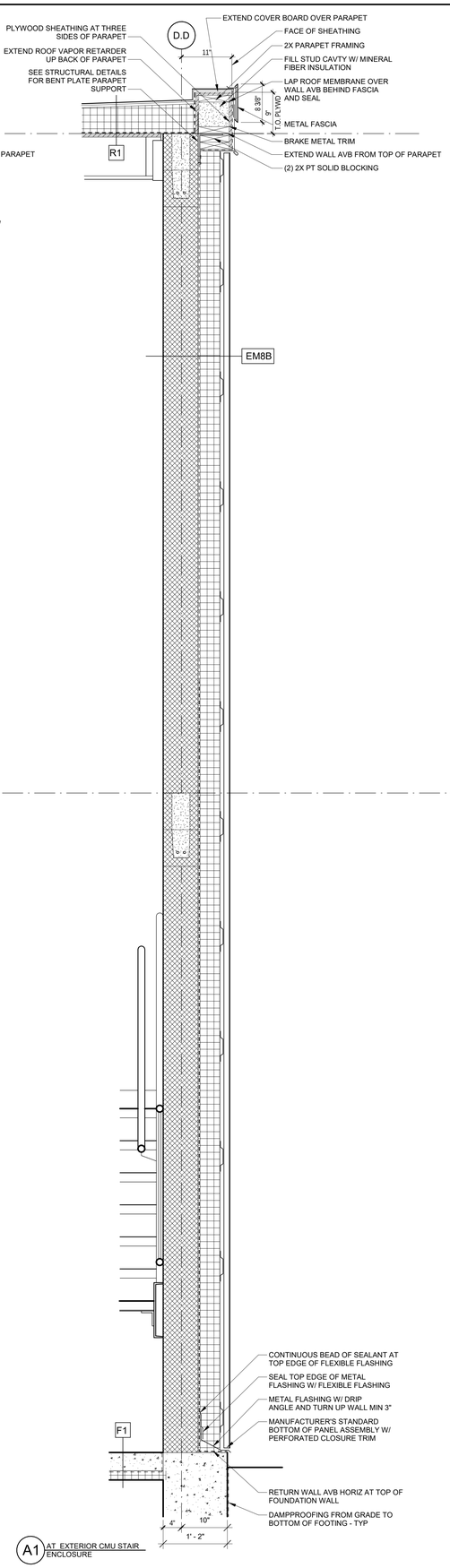
SHEET
A210











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207-775-1059
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CASCO BAY HIGH SCHOOL EXPANSION

196 Allen Avenue
Portland, ME

No.	Date	Description
		Revision Schedule

REGISTERED ARCHITECT
JEAMSON WILLIAM WATTS
No. 1142
STATE OF MAINE

JOB NO.
17056

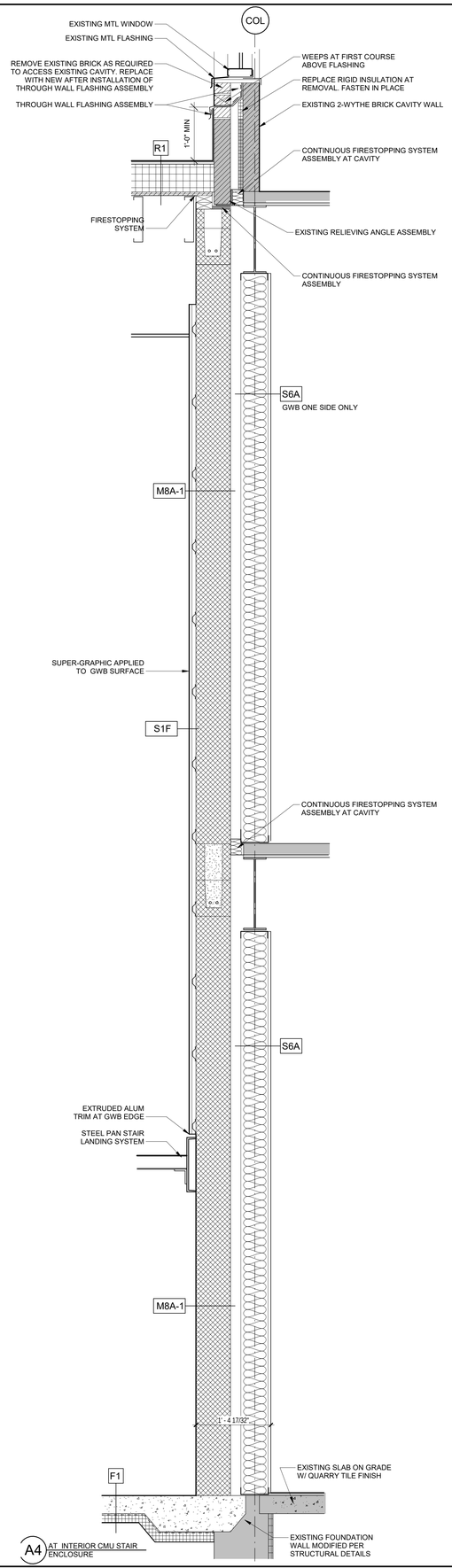
DRWN. CHK
Checker

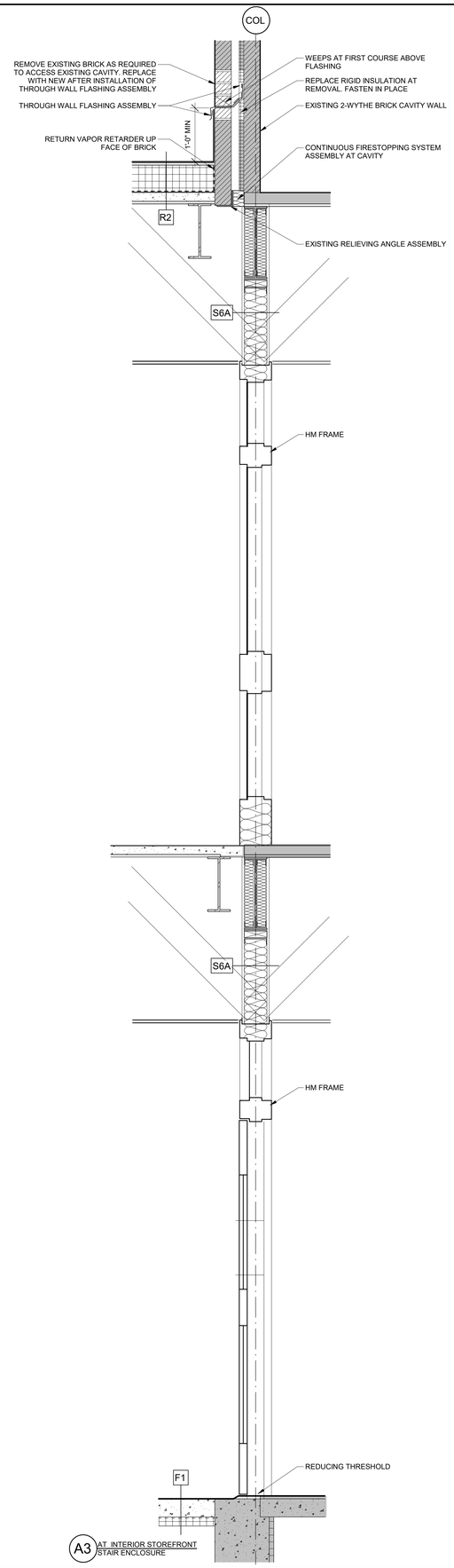
SCALE:

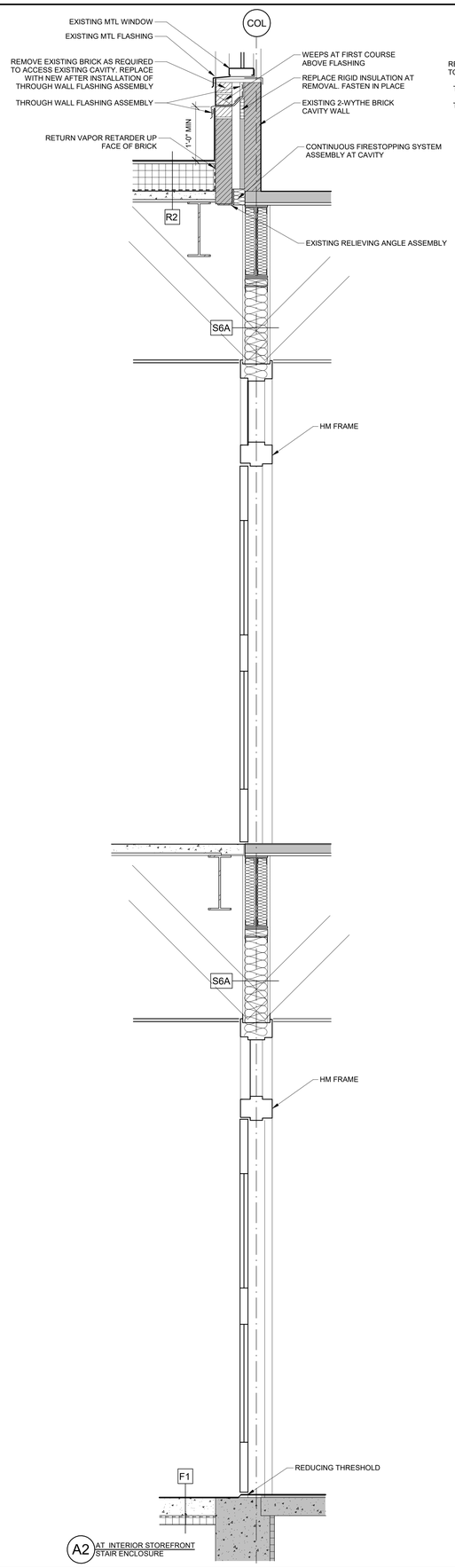
ISSUE
BID DOCUMENTS
March 20, 2018

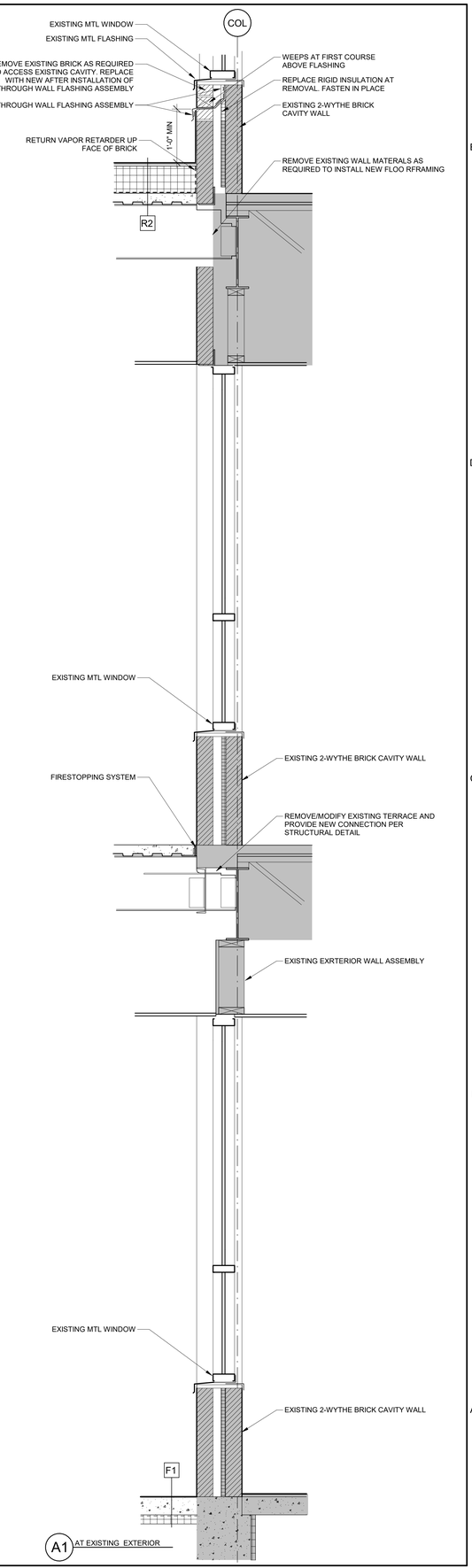
TITLE
Wall Sections

SHEET
A300









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CASCO BAY HIGH SCHOOL EXPANSION

196 Allen Avenue
Portland, ME

No.	Date	Description
Revision Schedule		

REGISTERED ARCHITECT
LAWSON
No. 1142
STATE OF MAINE

JOB NO.
17056

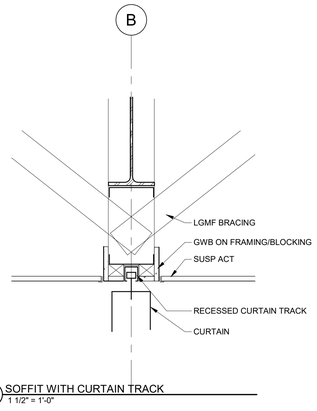
DRWN. CHK
Checker

SCALE:

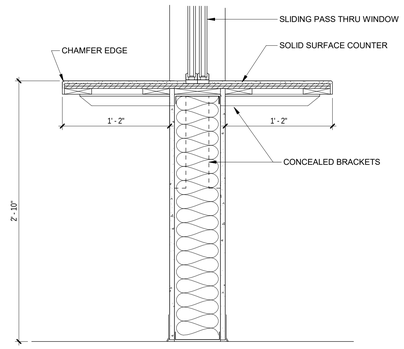
ISSUE
BID DOCUMENTS
March 20, 2018

TITLE
Wall Sections

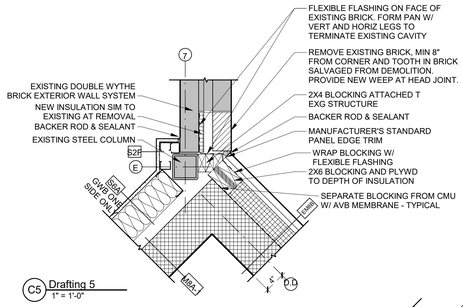
SHEET
A310



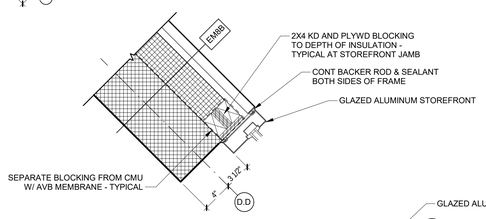
D4 SOFFIT WITH CURTAIN TRACK
1 1/2" = 1'-0"



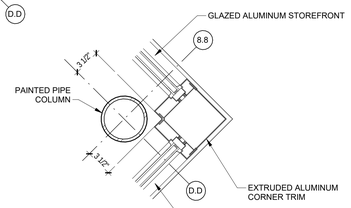
D3 COUNTER - PASS THRU WINDOW
1 1/2" = 1'-0"



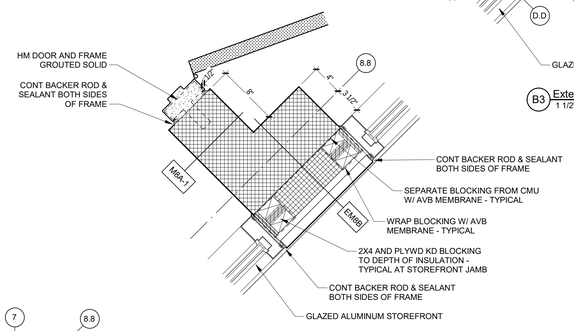
C5 Drafting 5
1" = 1'-0"



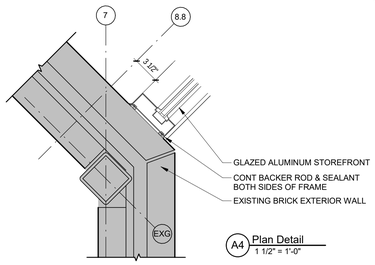
C4 LEVEL 1 - Callout 3
1 1/2" = 1'-0"



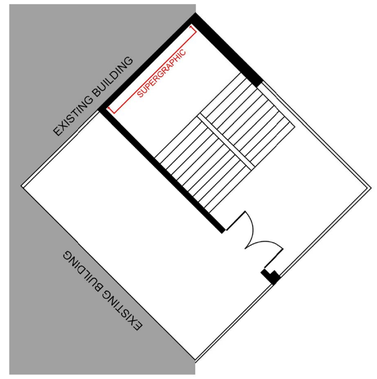
B3 Exterior Storefront Corner
1 1/2" = 1'-0"

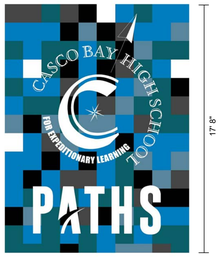


B4 LEVEL 1 - Callout 1
1 1/2" = 1'-0"



A4 Plan Detail
1 1/2" = 1'-0"





C1 SUPERGRAPHIC DIAGRAM
1/4" = 1'-0"

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CASCO BAY HIGH SCHOOL EXPANSION

196 Allen Avenue
Portland, ME

No.	Date	Description
		Revision Schedule

REGISTERED ARCHITECT
JEFFREY T. WHITE
No. 1142
STATE OF MAINE

JOB NO.
17056

DRWN. CHK
Checker

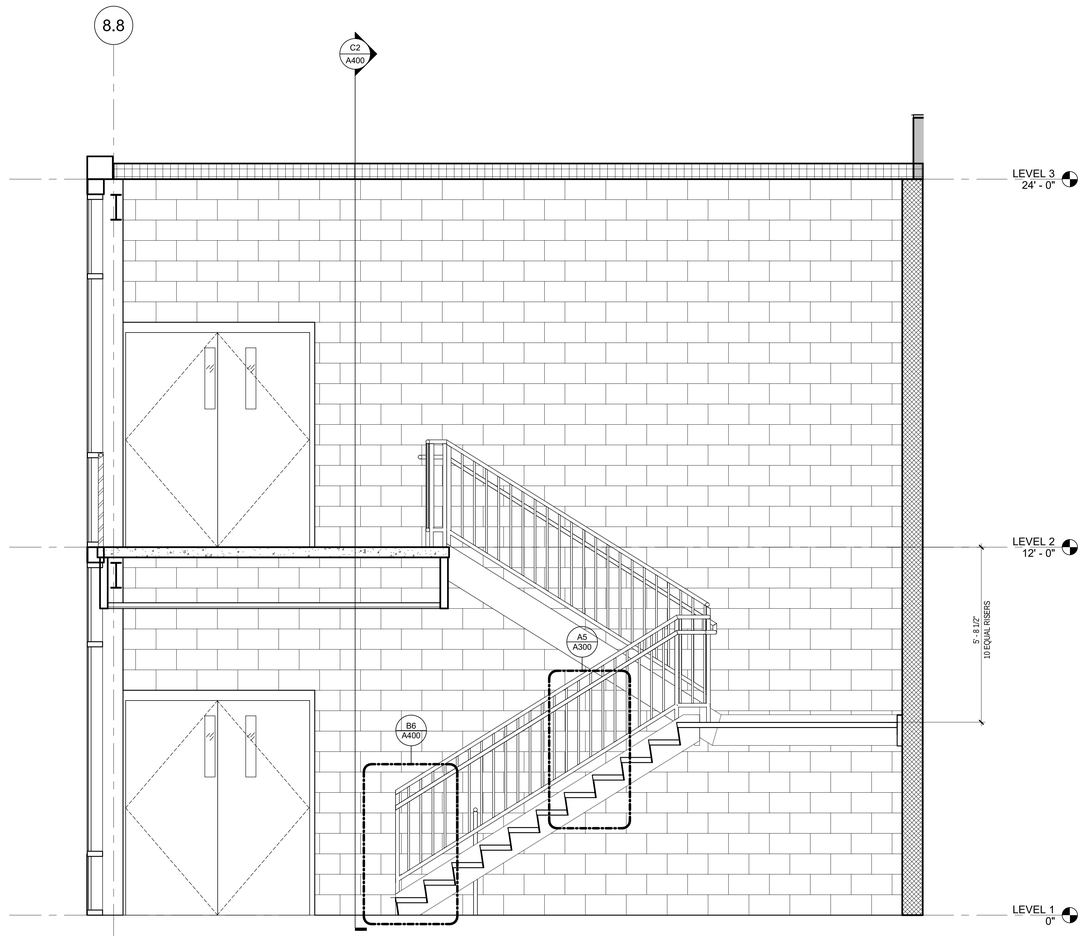
SCALE:

ISSUE
BID DOCUMENTS
March 20, 2018

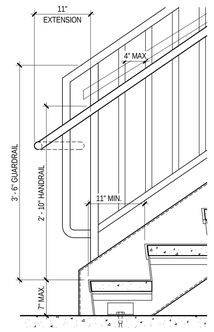
TITLE
Details

SHEET
A320

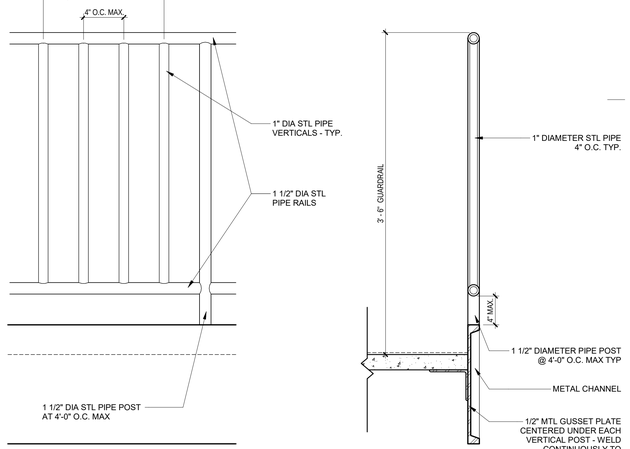
C2 ENTRANCET
1/2" = 1'-0"



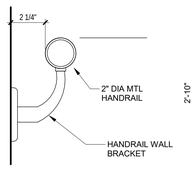
C1 Stair Section
1/2" = 1'-0"



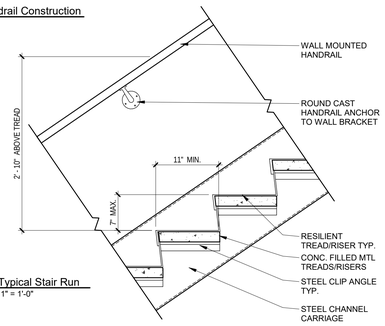
B6 Bottom of Stair
1" = 1'-0"



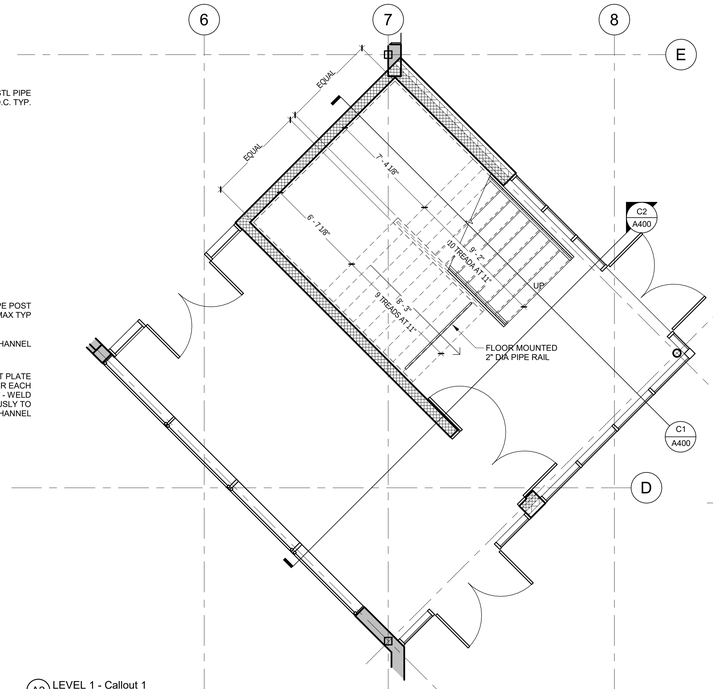
B5 Typical Guardrail Construction
1 1/2" = 1'-0"



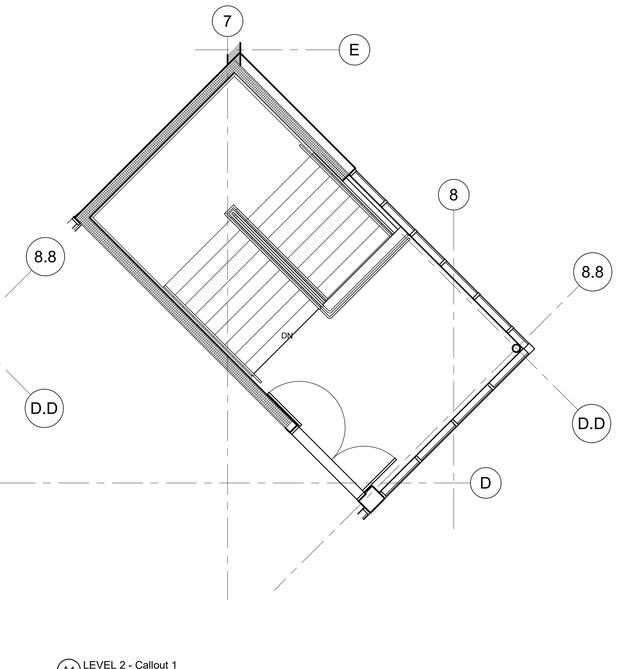
A4 Typical Wall-mounted Handrail Bracket
3" = 1'-0"



A5 Typical Stair Run
1" = 1'-0"



A2 LEVEL 1 - Callout 1
1/4" = 1'-0"



A1 LEVEL 2 - Callout 1
1/4" = 1'-0"

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CASCO BAY HIGH SCHOOL EXPANSION

196 Allen Avenue
Portland, ME

No.	Date	Description
		Revision Schedule

REGISTERED ARCHITECT
JASON M. WALKER
No. 11472
STATE OF MAINE

JOB NO.
17056

DRWN. CHK
Checker

SCALE:

ISSUE
BID DOCUMENTS
March 20, 2018

TITLE
Stair Drawings / Sections

SHEET
A400

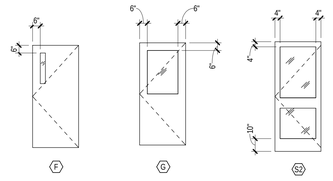
Door & Frame Schedule

LOCATION			DOOR				FRAME			
			OPENING		PANEL					
MARK	ROOM NO.	ROOM NAME	WIDTH	HEIGHT	TYPE	MATL	TYPE	MATL	RATING	COMMENTS
001.1	R001	STAIRL1	6' - 0"	7' - 0"	S2	Alum	--	Alum		Aluminum Entrance; Security Glazing
001.4	R022	VESTGS	9' - 0"	8' - 6"	G	STL	11	HM		
001.5	R231	CANADA	3' - 0"	7' - 0"						Q
011.1	011	VESTL1	6' - 0"	7' - 0"	S2	Alum	--	Alum		Aluminum Entrance; Security Glazing
011.2	R001	STAIRL1	6' - 0"	7' - 0"	F	STL	1	HM	60	
011.3	011	VESTL1	6' - 0"	7' - 0"	S2	STL	10	HM		
012.1	R002	STAIRL2	6' - 0"	7' - 0"	F	STL	1	HM	60	
012.2	R012	VESTL2	6' - 0"	7' - 0"	S2	STL	10	HM		
022.1	R022	VESTGS	9' - 0"	8' - 6"	G	STL	11	HM		
100.1	R100	MAIN OFFICE	3' - 0"	7' - 0"	F	WD	1	HM		
100.2	R100A	CONFERENCE	3' - 0"	7' - 0"	F	WD	1	HM		
100.3	R100A	CONFERENCE	3' - 0"	7' - 0"	F	WD	1	HM		
200.5	R200	GATHERING SPACE	6' - 0"	7' - 0"	G	STL	12	HM		DOUBLE EGRESS FRAME
200.6	RCORR2	CORR2	3' - 0"	7' - 0"		WD		HM		EXISTING; Hardware to be Replaced
231.1	R231	CANADA	3' - 0"	7' - 0"	F	WD	1	HM	SMOKE	
231.2	RCORR4	CORR4	3' - 0"	7' - 0"	F	WD	1	HM	SMOKE	
250B.1	R250B	SOMALIA	3' - 0"	7' - 0"	G	WD	9	HM	SMOKE	
250C.1	R250C	SENEGAL	3' - 0"	7' - 0"	G	WD	9	HM	SMOKE	
250C.2	RCORR2	CORR2	3' - 0"	7' - 0"	F	WD	1	HM	SMOKE	
250D.1	R250D	AFGHANISTAN	3' - 0"	7' - 0"	G	WD	9	HM	SMOKE	
260.1	RCORR2	CORR2	3' - 0"	7' - 0"		MTL		HM		EXISTING; Hardware to be Replaced
260.2	RCORR1	CORR1	6' - 0"	7' - 0"		MTL		HM		EXISTING; Hardware to be Replaced

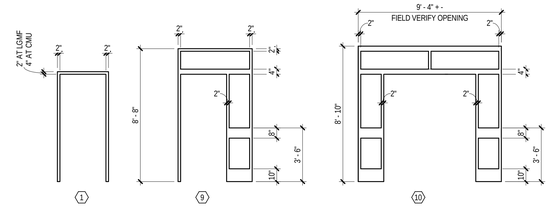
NOTE:

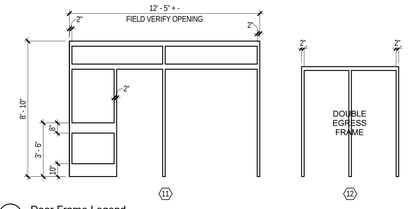
GL1 = LAMINATED SAFETY GLAZING. FOR USE AT SECURITY DOORS AND EXTERIOR DOORS WITH GLAZING.

GL2 = TEMPERED GLAZING FOR ALL INTERIOR DOORS AND OFFICE SIDE LITES THAT DO NOT NEED SECURITY PURPOSES.

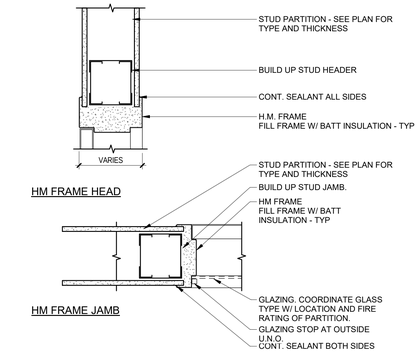


Door Elevation Legend
1/4" = 1'-0"





Door Frame Legend
1/4" = 1'-0"



D1 HM FRAME DETAILS @ GWB
1 1/2" = 1'-0"

Room Finish Schedule

NUMBER	ROOM NAME	FLOOR	BASE MATL	WALLS N	WALLS S	WALLS E	WALLS W	NOTES
R250B	SOMALIA	EXG VCT	RB	PT	PT	PT	PT	
R100	MAIN OFFICE	CPT	RB	PT	PT	EXG BR	PT	
RCORR1	CORR1	EXG VCT / CPT	RB	PT	PT	PT	PT	CARPET OUTSIDE OF DOOR 200.5 AT AREA OF CARPET REMOVAL ONLY
R250C	SENEGAL	EXG VCT	RB	PT	PT	PT	PT	
RCORR2	CORR2	EXG VCT	RB	PT	PT	PT	PT	
R011	VESTL1	MAT	RB	PT	PT	PT	EXG BR	
R200	GATHERING SPACE	CPT	RB	PT	PT	PT	PT	
R022	VESTGS	CPT	RB	PT	PT	PT	PT	
R012	VESTL2	VCT	RB	PT	PT	PT	EXG BR	
R002	STAIRL2	RB	RB	VWC	GFBL	GFBL	GFBL	VINYL GRAPHIC ON NORTH WALL OF STAIR
R001	STAIRL1	MAT	RB	VWC	GFBL	GFBL	GFBL	
R250D	AFGHANISTAN	EXG VCT	RB	PT	PT	PT	PT	PATCH EXG VCT
R250A	FRANCE	EXG VCT	RB	PT	PT	PT	PT	PATCH EXG VCT
R801	STORAGE	CPT	RB	PT	PT	PT	PT	
R100A	CONFERENCE	CPT	RB	PT	PT	EXG BR	PT	
R231	CANADA	EXG VCT	RB	PT	PT	PT	PT	PATCH EXG VCT
RCORR4	CORR4	EXG	RB	PT	PT	PT	PT	

FINISH KEY:

CPT	CARPET
RB	RUBBER BASE
MAT	ENTRY MAT
VWC	VINYL WALLCOVERING
PT	PAINT
VCT	VINYL COMPOSITION TILE
EXG	EXISTING
VYC	VINYL WALL COVERING
BR	BRICK

FINISH NOTES:

1. PAINT ALL NEW AND EXISTING EXPOSED DRYWALL IN AREAS OF WORK.
2. PAINT ALL STEEL STAIR FRAMING, GUARD AND HANDRAILS.
3. PAINT BOTH SIDES OF ALL NEW AND EXISTING HOLLOW METAL FRAMES IN AREAS OF WORK.
4. PAINT BOTH SIDES OF ALL NEW AND EXISTING HOLLOW METAL DOORS IN AREAS OF WORK.
5. PROVIDE TRANSITION STRIPS BETWEEN DIFFERENT FLOORING TYPES.

PDT ARCHITECTS
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04101
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CASCO BAY HIGH SCHOOL EXPANSION

196 Allen Avenue
Portland, ME

No.	Date	Description
Revision Schedule		

REGISTERED ARCHITECT
ALLISON WEIR
No. 1142
STATE OF MAINE

JOB NO.
17056

DRWN. CHK
Checker

SCALE:

ISSUE
BID DOCUMENTS
March 20, 2018

TITLE
Finish and Door Schedule

SHEET
A500

A5 STRUCTURAL NOTES

1. MINIMUM LOADING REQUIREMENTS:

   A. ROOF SNOW LOADS: (EXCEPT AT DRIFTING SNOW LOCATIONS AND THOSE LISTED BELOW)

   B. ROOF SNOW LOADS: LOADS: (EOR TO DETERMINE DRIFTING SNOW LOCATIONS)

   a. GROUND SNOW LOAD: P_G = 60.0 PSF
      i. IMPORTANCE FACTOR: I = 1.10
      ii. COLD ROOF SLOPE FACTOR: C_s = 1.0
      iii. THERMAL FACTOR: C_t = 1.1
      iv. EXPOSURE FACTOR: C_e = 1.0
      v. TERRAIN CATEGORY: B

   b. FLAT ROOF SNOW LOAD: P_f = 51.0 PSF

   C. ROOF DEAD LOAD:

   a. FUTURE 3RD FLOOR/ROOF: P_{DL} = 35.0 PSF
   b. STAIR TOWER TEMPORARY ROOF P_{DL} = 15.0 PSF

   D. ROOF LIVE LOAD:

   a. STANDARD ROOF LIVE LOAD: 20 PSF

   E. FLOOR LIVE LOADS:

		UNIFORM	CONCENTRATED	PARTITION
a.	SCHOOLS			
	i. CLASSROOMS	40 PSF	1,000#	15 PSF
	ii. CORRIDORS ABOVE 1ST FLOOR	80 PSF	1,000#	
	iii. 1ST FLOOR CORRIDORS	100 PSF	1,000#	
	iv. ASSEMBLY MOVABLE SEATS	100 PSF	1,000#	
b.	OFFICES			
	i. OFFICES	50 PSF	2,000#	15 PSF
	ii. CORRIDORS ABOVE 1ST FLOOR	80 PSF	2,000#	

   F. WIND:

Wind Design Data		
Wind Speed:		100 mph
Occupancy Category:		III
Wind Importance Factor:		1.15
Enclosure Classification:		Enclosed
Internal Pressure Coefficient:		0.18 +/-
Components and Cladding:		
Roofing Zone 1:	8.8 psf max.,	21.7 psf min.
Roofing Zone 2:	8.8 psf max.,	36.5 psf min.
Roofing Zone 3:		54.8 psf min.
Roofing at Zone 2 Overhangs:		31.3 psf min.
Roofing at Zone 3 Overhangs:		51.6 psf min.
Stucco, Cladding, Doors & Windows:		
Zone 4:	21.7 psf max.,	23.5 psf min.
Zone 5:	21.7 psf max.,	29.1 psf min.
End Zone Width:		3.50 ft.
This Building is not in a Wind-Borne Debris Region, and opening protection is not required.		

   G. SEISMIC

   a. DESIGN DATA:

      i. BUILDING RISK CATEGORY: III
      ii. SEISMIC IMPORTANCE FACTOR: I_e = 1.25
      iii. MAPPED RESPONSE SPECTRAL ACC. (0.2 SEC.): S_S = 0.314 G 7-05
      iv. MAPPED RESPONSE SPECTRAL ACC. (1.0 SEC.): S_1 = 0.077 G 7-05
      v. SOIL SITE CLASSIFICATION: D
      vi. SITE COEFFICIENTS: FA = 1.60; FV = 2.40
      vii. DESIGN RESPONSE SPECTRAL ACC. @ 5% DAMPED DESIGN: S_{DS} = 0.324 G 7-05; S_{D1} = 0.123 G 7-05
      viii. SEISMIC DESIGN CATEGORY: B
      ix. BASIC SEISMIC FORCE-RESISTING SYSTEM: H1 (SEE BELOW)
      x. FUNDAMENTAL PERIOD T = 0.318
      xi. SEISMIC RESPONSE COEFFICIENT C_S = 0.135
      xii. SEISMIC BASE SHEAR: V =1 0.3 KIP
      xiii. ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE

   b. DESIGN COEFFICIENTS AND FACTORS FOR SEISMIC FORCE RESISTING SYSTEMS

      i. (H1) STEEL SYSTEMS NOTE SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
         1. ORDINARY STEEL CONCENTRICALLY BRACED FRAMES
            a. RESPONSE MODIFICATION R = 3
            b. SYSTEM OVERSTRENGTH FACTOR Ω_0 = 3
            c. DEFLECTION AMPLIFICATION FACTOR C_D = 3

2. STRUCTURAL STEEL SHALL BE DESIGNED USING THE 13TH EDITION OF THE AISC STEEL CONSTRUCTION MANUAL. STEEL BEAMS SHALL CONFORM TO ASTM A992, FY = 50KSI; MISCELLANEOUS PLATES, SHAPES, CHANNELS, ANGLES ETC. SHALL CONFORM TO ASTM A36, FY = 36KSI. ALL STEEL SUPPORTING MECHANICAL EQUIPMENT AND TO RECEIVE FIREPROOFING SHALL BE UNPAINTED AND UNPRIMED. STEEL TUBING: COLD-FORMED STEEL TUBING COMPLYING WITH ASTM A500. STEEL PIPE: ASTM A53, STANDARD WEIGHT (SCHEDULE 40), UNLESS ANOTHER WEIGHT IS INDICATED OR REQUIRED BY STRUCTURAL LOADS.
3. STEEL JOIST SHALL CONFORM TO THE LATEST S.J.I. STANDARDS.
4. SEE ARCHITECTURAL WALL SECTIONS AND DETAILS FOR MISCELLANEOUS STEEL.
5. FASTENED METAL DECKING TO STEEL BEAMS, BAR JOIST, AND PERIMETER ANGLES PER DIVISION 5 OF SPECIFICATIONS AND STRUCTURAL DETAILS.
6. PROVIDE L4 X 4 X 1/4" SLAB SUPPORT ANGLE AS REQUIRED AT COLUMNS WHERE STRUCTURAL MEMBERS DO NOT FRAME IN AT ALL FOUR SIDES.
7. BASE PLATE ANCHOR BOLTS IN NEW CONSTRUCTION SHALL BE
   A. ANCHOR RODS: 3/4" Ø ASTM F1554, UNO
   B. NUTS: ASTM A563, GRADE A
   C. WASHERS: ASTM F4367
8. INSPECTION REPORTS SHALL BE FURNISHED TO THE OWNER, BUILDING OFFICIAL, ARCHITECT AND SER. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR AND IF NOT CORRECTED, SHALL BE REPORTED TO THE OWNER, BUILDING OFFICIAL, ARCHITECT AND SER.

CONNECTIONS:

1. DETAILS ARE CONCEPTUAL ONLY AND DO NOT INDICATE THE REQUIRED NUMBER OF BOLTS OR WELD SIZES, UNLESS SPECIFICALLY NOTED OTHERWISE.
2. FIELD CONNECTIONS SHALL BE FIELD BOLTED WITH A325N HIGH STRENGTH BOLTS (U.N.O.) EXCEPT WHERE SLIP CRITICAL CONNECTIONS ARE REQUIRED AND NOTED BY A325 (SC) ON THE DRAWINGS. WASHERS SHALL CONFORM TO ASTM F436, NUTS SHALL CONFORM TO ASTM A563 PROVIDE SLIP CRITICAL (SC) CONNECTIONS AT MOMENT CONNECTIONS, BRACED FRAMES, RELIEVING ANGLES AND WHERE OTHERWISE NOTED.
3. SLIP CRITICAL (S.C.) BOLTED CONNECTIONS SHALL BE CHECKED AND INSPECTED USING ONE OF THE FOLLOWING:
   A. TURN OF THE NUT
   B. CALIBRATED WRENCH
   C. ALTERNATE DESIGN FASTENER
   D. DIRECT TENSION INDICATOR
   E. OTHER BOLTED CONNECTIONS SHALL BE TIGHTENED TO "SNUG TIGHT" CONDITION UNLESS NOTED OTHERWISE.
4. UNLESS NOTED OTHERWISE, CONNECTIONS SHALL BE WELDED OR BOLTED WITH ¾" DIAMETER BOLTS (BEARING TYPE, DESIGNATION N, THREADS IN SHEAR PLANE) BEAM TO COLUMN CONNECTIONS SHALL BE FULL DEPTH (BOLT SPACING 3" ON-CENTER).
5. OVERSIZE OR SLOTTED HOLES SHALL NOT BE USED FOR ANY CONNECTIONS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS OR APPROVED IN WRITING BY ENGINEER OF RECORD.
6. MINIMUM NUMBER OF BOLTS PER CONNECTION SHALL BE 2.
7. ALTERNATE CONNECTIONS SHALL BE ACCEPTED ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD; HOWEVER, THE ENGINEER SHALL BE THE SOLE JUDGE OF ACCEPTABILITY. THE CONTRACTOR'S BID SHALL ANTICIPATE THE USE OF THOSE SPECIFIC DETAILS SHOWN ON THE DRAWINGS. IN ANY EVENT THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF SUCH ALTERNATE DETAILS.
8. WELDS INDICATED SHALL BE THE MINIMUM WELD SIZED SPECIFIED BY THE AISC MANUAL OF STEEL DESIGN (SINGLE PASS AS REQUIRED) ALL BUTT AND FULL PENETRATION WELDS SHALL BE MADE USING RUN OFF TABS THAT SHALL BE REMOVED AND GROUND SMOOTH AFTER WELD IS COMPLETED. ALL WELD BACK UP BARS SHALL BE REMOVED AND GROUND SMOOTH AFTER WELD IS COMPLETED.
9. SHOP CONNECTIONS, UNLESS NOTED OTHERWISE, SHALL BE WELDED. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, BEAM CONNECTION CAPABILITIES SHALL BE CALCULATED IN ACCORDANCE WITH AISC'S "THE STEEL CONSTRUCTION MANUAL", 13TH EDITION, FOR EACH SHEAR CONNECTION PROVIDE THE GREATER OF THE FOLLOWING SHEAR CAPACITIES:
   A. BEAMS: SUPPORT A REACTION ⊛ EQUAL TO HALF TOTAL UNIFORM LOAD CAPACITY OF BEAM FOR GIVEN SHAPE, SPAN AND STEEL SPECIFICATION (AISC) WITH EFFECT OF CONCENTRATED LOADS ACCOUNTED FOR OR THE (UNFACTORED) REACTIONS SHOWN ON PLAN, WHICHEVER IS GREATER.
10. CONNECTION DESIGN IS THE RESPONSIBILITY OF THE FABRICATOR FOR OTHER THAN THE STANDARD CONNECTIONS NOTED ON DETAIL [REFERENCE TYPICAL CONNECTION DETAIL HERE], CONNECTIONS CALCULATIONS SHALL BE SIGNED, SEALED BY A PE REGISTERED IN THE PROJECT STATE AND SUBMITTED FOR REVIEW WITH THE SHOP DRAWINGS. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. PARTIAL SUBMITTAL PACKAGES SHALL BE RETURNED.

SPECIAL INSPECTIONS

1. SPECIAL INSPECTIONS: AN INDEPENDENT INSPECTIONS PROGRAM AND SCHEDULE SHALL BE ARRANGED BY THE BUILDING OWNER AND THE STRUCTURAL ENGINEER OF RECORD.
2. A QUALIFIED PERSON APPROVED BY THE BUILDING OFFICIALS SHALL MAKE SPECIAL INSPECTIONS IN ACCORDANCE WITH CHAPTER 17 OF THE IBC-2009 AND AS DEFINED. SPECIAL INSPECTOR SHALL OBSERVE WORK FOR CONFORMANCE WITH THE APPROVED DRAWINGS AND SPECIFICATIONS.
3. INSPECTION REPORTS SHALL BE FURNISHED TO THE OWNER, BUILDNG OFFICIAL, ARCHITECT AND SER. DISCREPENCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR AND IF NOT CORRECTED, SHALL BE REORTED TO THE OWNER, BUILDNG OFFICIAL, ARCHITECT AND SER.
4. THE FOLLOWING TYPES OF WORK SHALL RECEIVE SPECIAL INSPECTION OVERSITE: STRUCTRUAL STEEL FABRICATION, ERECTION AND CONNECTIONS, METAL DECK FASTENING, INSTALLATION OF REINFORCING STEEL FOR CONCRETE, ALL CONCRETE PLACEMENT AND STRENGTH TESTING, AND STRUCTURAL FILL PLACEMENT.

FIELD TESTING

1. BOLTED CONNECTIONS: 100% OF COMPONENTS AND FASTENERS IN SLIP CRITICAL CONNECTIONS, AS IDENTIFIED IN THE PROJECT CONTRACT DOCUMENTS SHALL BE VISUALLY INSPECTED AND TESTED FOR TIGHTNESS IN ACCORDANCE WITH AISC SPECIFICATIONS FOR STRUCTURAL JOINTS, PARTS 8 AND 9.
2. CHECK BY CALIBRATION TORQUE WRENCH 25% OF BOLTS IN EACH NON-SC SHEAR CONNECTION BUT NOT LESS THAN (2) PER CONNECTION.
3. FIELD WELDED CONNECTIONS: PERFORM TESTING IN ACCORDANCE WITH ANSI/AWS D1.1, CHAPTER 6.
4. CONDUCT TESTING OF 10% OF WELDS ON STRUCTURAL STEEL BY DYE PENETRATION OR MAGNETIC PARTICLE TESTING.
5. CONDUCT TESTING OF 100% OF GROOVE, PLUG, OR SLOT WELDS IN STRUCTURAL STEEL BY ULTRASONIC TESTING OR OTHER NONDESTRUCTIVE TESTING APPROVED BY ENGINEER OF RECORD.
6. RADIOGRAPHICALLY TEST 5% OF ALL FULL PENETRATION WELDS.
7. THE STRUCTURAL FABRICATOR AND ERECTOR SHALL SCHEDULE ALL WORK TO ALLOW THE ABOVE INSPECTION AND TESTING REQUIREMENTS TO BE COMPLETED.

B2 CONCRETE NOTES

FOUNDATIONS:

1. NET ALLOWABLE BEARING PRESSURE(S) LISTED BELOW SHALL BE VERIFIED BY THE OWNER'S TESTING AGENCY PRIOR TO PLACING FOOTING CONCRETE – ASSUMED AS BEING 2.0 KSF.
2. EXTERIOR STRIP AND SPREAD FOOTINGS SHALL HAVE MINIMUM 4'-6" GRADE COVER TO BOTTOM OF FOOTING ELEVATIONS.
3. 10 MIL VAPOR BARRIER REQUIREMENTS BENEATH SLABS THROUGHOUT.
4. UNDERDRAINS SHALL BE PLACED AS SHOWN ON THE SITE DRAWINGS. UNDERDRAINS SHALL BE INSTALLED TO POSITIVELY DRAIN TO A SUITABLE DISCHARGE POINT AWAY FROM THE STRUCTURE. REFER TO SITE DRAWINGS FOR ADDITIONAL INFORMATION.
5. EXCAVATIONS FOR BUILDING FOUNDATIONS AND STRUCTURES SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS. BRACED EXCAVATIONS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROJECT STATE. DO NOT UNDERMINE EXISTING ADJACENT FOUNDATIONS.
6. IN NO CASE SHALL HEAVY EQUIPMENT BE PERMITTED CLOSER THAN 8'-0" FROM ANY FOUNDATION/BASEMENT WALL. IF THE DESIGN-BUILD CONTRACTOR DEEMS IT NECESSARY TO OPERATE SUCH EQUIPMENT CLOSER THAN 8'-0", THE DESIGN-BUILD CONTRACTOR SHALL BE SOLELY RESPONSIBLE AND, AT HIS OWN EXPENSE, PROVIDE ADEQUATE SUPPORTS OR WALL BRACES TO WITHSTAND THE ADDITIONAL LOADS SUPERIMPOSED FROM SUCH EQUIPMENT.
7. CONCRETE SHALL NOT BE PLACED ON FROZEN GROUND OR IN WATER.

CONCRETE:

1. CONCRETE WORK SHALL COMPLY WITH ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE BUILDINGS"; ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"; AND ACI 315 "ACI DETAIL MANUAL", AND CRSI "MANUAL OF STANDARD PRACTICE".
2. CONTRACTOR SHALL PROVIDE TIES AND BRACING WHERE NECESSARY DURING CONSTRUCTION, TO REMAIN IN PLACE UNTIL THE STRUCTURES ARE COMPLETE.
3. CONCRETE SHALL BE:
   a. FOOTINGS, PIERS AND FOUNDATION WALLS: 3,500 PSI AT (28) DAYS. SLUMP SHALL NOT EXCEED 6 INCHES (W/C RANGE: 0.48 – 0.52) – (AIR ENTRAINED).
   b. INTERIOR SLABS-ON-GRADE: (NO AIR): 3,500 PSI CONCRETE AT (28) DAYS. SLUMP SHALL NOT EXCEED 6 INCHES (W/C RANGE: 0.47 – 0.50). MAXIMUM AGGREGATE SHALL BE 3/4".
   c. ELEVATED AREAS - 3,500 PSI CONCRETE AT (28) DAYS. SLUMP SHALL NOT EXCEED 6-INCHES (W/C RANGE: 0.47 – 0.50). MAXIMUM AGGREGATE SHALL BE 3/8".
   d. EXTERIOR SLABS ON GRADE SIDEWALKS, AND STAIRS SHALL BE 4000 PSI AT (28) DAYS. SLUMP SHALL NOT EXCEED 6-INCHES (W/C = 0.45) – (AIR ENTRAINED).
4. CONCRETE MATERIALS:
   a. PORTLAND CEMENT: ASTM C150, TYPE I OR II. USE ONE TYPE THROUGHOUT PROJECT.
   b. NORMAL WEIGHT AGGREGATES: ASTM C33. PROVIDE FROM SINGLE SOURCE FOR ENTIRE PROJECT. NO AGGREGATE CONTAINING SOLUBALE SALTS, IRON SULFIDES, PYRITE, MARCASITE, OR OCHRE WHICH CAN CAUSE STAINS ON EXPOSED CONCRETE SURFACES.
   c. LIGHTWEIGHT AGGREGATES: ASTM C330
   d. WATER: POTABLE
   e. AIR-ENTRAINING ADMIXTURE: ASTM C260
   f. HIGH RANGE WATER REDUCING ADMIXTURES (SUPER PLASTICIZER): ASTM C494, TYPE F OR G CONTAINING NOT MORE THAN 1% CHLORIDE IONS.
   g. NORMAL RANGE WATER REDUCING ADMIXTURES: ASTM C494 TYPE A CONTAINING NO CALCIUM CHLORIDE.
   h. ACCELERATING ADMIXTURES: ASTM C494, TYPE C OR E.
5. PROVIDE PVC SLEEVES WHERE PIPES PASS THROUGH CONCRETE WALLS OR SLABS.
6. REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 DEFORMED BARS, AND SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH ACI 315-LATEST EDITION. PROVIDE
7. COMPLETE SHOP DRAWINGS AND SCHEDULES OF ALL REINFORCING STEEL SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE OWNER AFTER REVIEW BY EOR FOR REVIEW PRIOR TO COMMENCEMENT OF THAT PORTION OF THE WORK. ALL ACCESSORIES MUST BE SHOWN ON THE SHOP DRAWINGS.
8. ALL CONSTRUCTION JOINTS FOR SLABS SHALL BE KEY JOINTED AT MID-SPAN WITH REINFORCING DISCONTINUOUS AT JOINT AND FILLED WITH AN APPROPRIATE SEALANT FOR THE INTENDED USE.
9. CONTRACTOR WILL CHECK WITH EACH TRADE TO ASSURE CORRECT LOCATION, SIZE, LINE AND ELEVATION OF SLEEVES, BOND-OUTS, ETC. REQUIRED IN CONCRETE FLOORS AND WALLS.
10. WELDING OF REINFORCEMENT IS NOT PERMITTED.
11. MECHANICAL EQUIPMENT RESTING ON THE CONCRETE FLOOR SLAB SHALL HAVE A 4-INCH HIGH CONCRETE PAD UNDERNEATH, EXTENDING A MINIMUM OF 6-INCHES BEYOND UNIT EDGE (EACH DIRECTION), REINFORCED WITH #3 BARS AT 18-INCHES ON-CENTER EACH WAY.
12. ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED. CONCRETE SHALL NOT BE IN DIRECT CONTACT WITH ALUMINUM.
13. PROVIDE IN SLABS-ON-GRADE: (2) BARS 4'-0" LONG AT EACH REENTRANT CORNER AND BOTH SIDES OF DOOR OPENING.
14. COORDINATE SLAB DEPRESSIONS AND ALL INTERIOR FLOOR SLOPES TO DRAIN LOCATIONS WITH ARCHITECTURAL DRAWINGS.
15. SLAB THICKNESSES (ELEVATED OR ON-GRADE) INDICATED ON THE DRAWINGS ARE MINIMUMS. PROVIDE SUFFICIENT CONCRETE TO ACCOUNT FOR STRUCTURE DEFLECTION AND/OR SUBGRADE FLUCTUATIONS IN ORDER TO OBTAIN SPECIFIED SLAB ELEVATIONS AT THE FLATNESS AND LEVELNESS INDICATED IN THE SPECIFICATION.
16. ANCHOR BOLTS SHALL CONFORM TO ASTM A1554 – GRADE 36 UNLESS NOTED OTHERWISE ON PLAN.

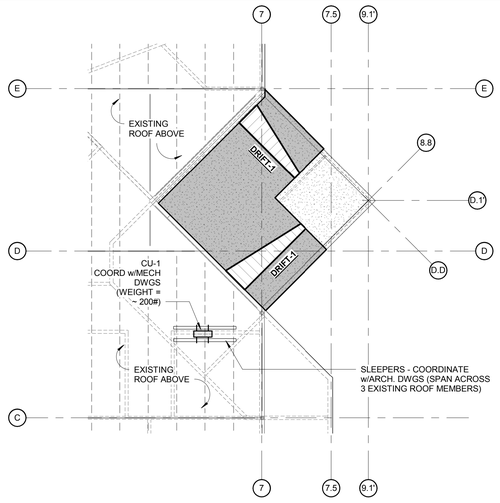
B1 MASONRY NOTES

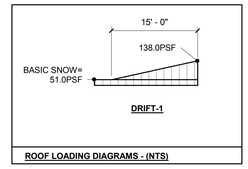
1. BUILDING CODE:
   a. INTERNATIONAL BUILDING CODE – 2009 EDITION
   b. ASCE 7-5 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
2. CONTRACTOR SHALL CONFORM TO SAFETY REQUIREMENTS OF THE OWNER, OSHA SAFETY AND HEALTH STANDARDS, AND OTHER LOCAL AUTHORITIES IN CONNECTION WITH THE PERFORMANCE OF THIS PROJECT.
3. ALL REFERENCED STANDARDS OR PUBLICATIONS SHALL PERTAIN TO THE MOST CURRENT DATA, STANDARD OR PUBLICATION, UNLESS NOTED OTHERWISE.
4. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL AND CIVIL DRAWINGS WHICH DESCRIBE THE SCOPE OF THIS EFFORT.
5. CONTRACTOR SHALL VISIT THE SITE AT A DESIGNATED TIME APPROVED BY THE OWNER, TO VERIFY EXISTING CONDITIONS, DIMENSIONS, LOCATION OF EXISTING UTILITIES, ETC. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES WITHOUT EXCEPTION.
6. THE STRUCTURE SHALL BE DESIGNED AS A SELF-SUPPORTING SYSTEM ONCE ALL WORK HAS BEEN COMPLETED. CONTRACTOR IS SOLELY RESPONSIBLE FOR ERECTION PROCEDURES AND SEQUENCE OF INSTALLATION TO ENSURE SAFETY OF THE BUILDING AND ITS OCCUPANTS DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS AND METHODS AND TEMPORARY SHORING, PRECAUTIONS DURING BUILDING OPERATIONS, PROTECTION OF PUBLIC AND WORKERS, REMOVAL OF WASTE MATERIAL, PROTECTION OF ADJACENT PROPERTY, PROTECTION OF HAZARDOUS OPENINGS, SAFETY PRECAUTIONS, AND SANITARY PROVISIONS OF EMPLOYEES AND SUB-CONTRACTORS AS REQUIRED FOR THE DURATION OF THE CONTRACT.
7. WORK SHALL BE DONE IN AN ORDERLY AND PROFESSIONAL MANNER. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL WORK TO BE DONE BY SUB-CONTRACTORS, LOCAL AUTHORITIES, STATE AGENCIES AND/OR UTILITY COMPANIES WHICH MAY HAVE JURISDICTION OVER THIS PROJECT.
8. UTILITY EXTENSIONS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH STATE AND LOCAL CODES.
9. CONTRACTOR SHALL REVIEW AND SUBMIT COMPLETE SHOP DRAWINGS FOR ALL SPECIFIED PARTS OF THE WORK. PORTION OF THE WORK COVERED BY THESE SHOP DRAWINGS SHALL COMMENCE UNTIL RETURNED APPROVED SHOPS ARE RECEIVED BY THE CONTRACTOR. SHOP SUBMITTAL PACKAGES SHALL INCLUDE, BUT NOT BE LIMITED TO:
   a. SITE: SHORING AND CONSTRUCTION METHODS/SEQUENCING WHERE APPLICABLE.
   b. CONCRETE: MIX DESIGNS, ADMIXTURES, MIX HISTORIES; REBAR ORIGIN STRENGTH/GRADE; REBAR PLACEMENT DRAWINGS.
   c. COLD FORMED METAL FRAMING: COLD-FORMED METAL CUT SHEETS, CONNECTIONS, PLACEMENT DRAWINGS ALONG WITH HEADER/JAMB AT OPENINGS AND FRAMING ELEMENT CALCULATIONS SIGNED BY A PE REGISTERED IN THE PROJEST STATE.
   d. STRUCTURAL STEEL: MISCELLANEOUS STEEL FRAMING COMPONENT SHOP DRAWINGS ALONG WITH STEEL ORIGINAL AND STRENGTH/GRADES.
10. CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY EXISTING ITEMS DAMAGED BY NEW CONSTRUCTION, AND FOR ANY INCIDENTAL REPAIRS OF EXISTING FINISHED SURFACES DISTURBED BY NEW CONSTRUCTION; SUCH REPAIRS SHALL MATCH EXISTING TO THE OWNER'S SATISFACTION.
11. CONTRACTOR IS RESPONSIBLE FOR COORDINATING, HANDLING, AND STORAGE OF ITEMS/MATERIALS TO REMAIN THE PROPERTY OF THE OWNER WITH THE OWNER'S REPRESENTATIVE.
12. SPECIAL INSPECTIONS AS REQUIRED BY IBC 2009 CHAPTER 17 SHALL BE PERFORMED BY AN INSPECTION AGENCY CONTRACTED BY THE OWNER FOR ALL WOOD, STEEL, MASONRY (LEVEL 1), CONCRETE AND SOIL ACTIVITIES.

D1 GENERAL NOTES

1. PROVIDE AND INSTALL MASONRY LINTEL AT STAIR OPENING AS NOTED ON PLAN.
2. CONCRETE MASONRY SHALL HAVE 8-INCH (MIN) END BEARING UNLESS OTHERWISE NOTED.
3. CONCRETE MASONRY BLOCK WALLS WITH VERTICAL REINFORCING SHALL HAVE CORES FILLED WITH 3000 PSI CONCRETE. INSTALLATION OF REINFORCEMENT SHALL BE CONTINUOUS AND RUN UNOBSTRUCTED BY BAR JOIST SEAT/BEARING PLATE ARRANGEMENTS. HORIZONTAL REINFORCEMENT SHALL BE PROVIDED @ 16-INCHES ON-CENTER VERTICALLY.
4. VERTICAL CONTROL, EXPANSION OR CONTRACTION JOINTS SHALL BE SHOWN ON THE CONTRACT DOCUMENTS AT LOCATIOSN DETERMINED BY THE DESIGN-BUILD TEAM'S STRUCTURAL ENGINEER.
5. HOLLOW CONCRETE BLOCK UNITS: GRADE N, 3,250 PSI CMU NET AREA, DESIGN STRENGTH, F'M = 2,500 psi.
6. LAY UNITS IN RUNNING BOND - CORNERS SHALL HAVE A STANDARD BOND BY OVERLAPPING UNITS.
7. MORTAR: TYPE S.
8. MAXIMUM GROUT LIFT WITHOUT CLEANOUTS SHALL NOT EXCEED 4'-0" IN BLOCK WALLS.
9. IN 8-INCH WALLS, PROVIDE VERTICAL REINFORCING IN CENTER OF GROUT, AT CENTER OF WALL, CONTINUOUS FULL HEIGHT OF WALL AS FOLLOWS, U.N.O ON DRAWINGS:
   A - (1) #5 VERTICAL AT CORNERS, INTERSECTIONS, WALL ENDS, JAMBS AND EACH SIDE OF EXPANSION OR CONTROL JOINTS.
   D - (1) #5 VERTICAL AT 48-INCHES ON-CENTER TYPICAL. (UNLESS NOTED ON PLAN)
   C - (1) #5 VERTICAL IN EACH CORE WITHIN 12-INCHES OF WALL CORNERS.
10. MASONRY LAID IN OUTSIDE AIR TEMPERATURES BELOW 40°F SHALL BE PROTECTED IN ACCORDANCE WITH THE PROVISIONS OF THE "IMIAWC RECOMMENDED PRACTICES AND GUIDE SPECIFICATIONS FOR COLD WEATHER MASONRY".

A2 STRUCTURAL ~ ROOF LOADING PLAN





ROOF LOADING DIAGRAMS - (NTS)

BASIC SNOW LOAD
DRIFT SNOW LOAD
LEGEND

PDT ARCHITECTS
49 DARTMOUTH STREET
PORTLAND, MAINE
04101
207-775-1059
www.pdtarchs.com

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
T: 207.221.2260
F: 207.221.2266
Web: www.allied-eng.com

Allied Project No: 17013

CASCO BAY HIGH SCHOOL EXPANSION

196 Allen Avenue
Portland, ME

No.	Date	Description
		Revision Schedule

STATE OF MAINE
WILLIAM P FAUCHER
#7137
REGISTERED PROFESSIONAL ENGINEER

JOB NO. 17056

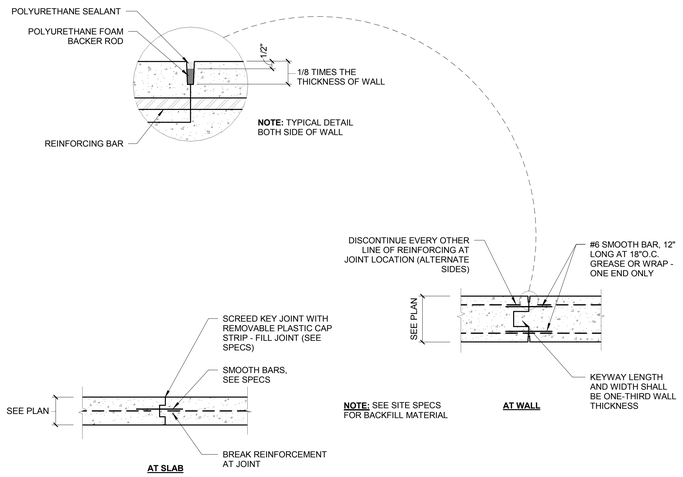
DRWN. CHK
PED WPF

SCALE:

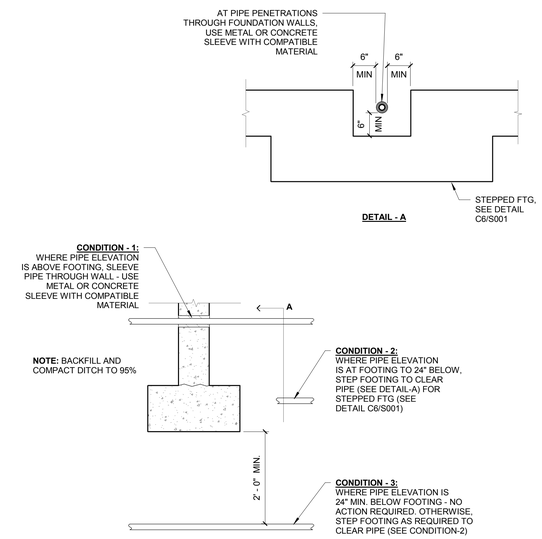
ISSUE
ISSUED FOR BID
20 March 2018

TITLE
STRUCTURAL - GENERAL INFORMATION

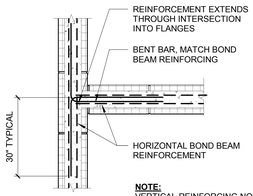
SHEET
S000



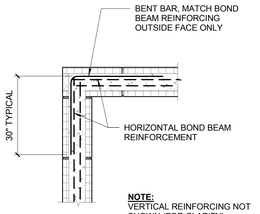
D6	TYPICAL WALL AND SLAB CONSTRUCTION JOINT DETAIL
3/4" = 1'-0"	



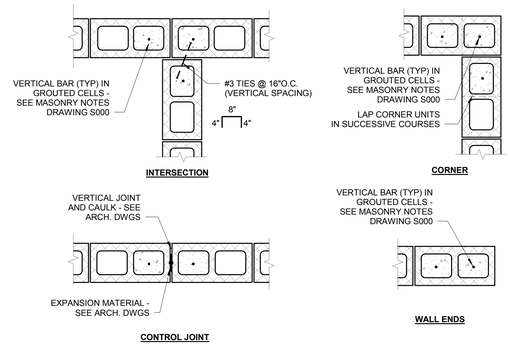
D4	TYPICAL PIPE AT FOOTING DETAIL
3/4" = 1'-0"	



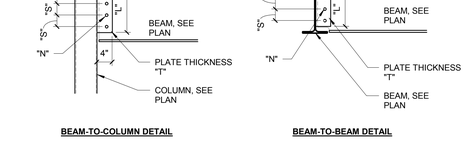
E2	TYP. BOND BEAM @ WALL INTERSECTION
3/4" = 1'-0"	



E1	TYP. BOND BEAM @ CORNER
3/4" = 1'-0"	

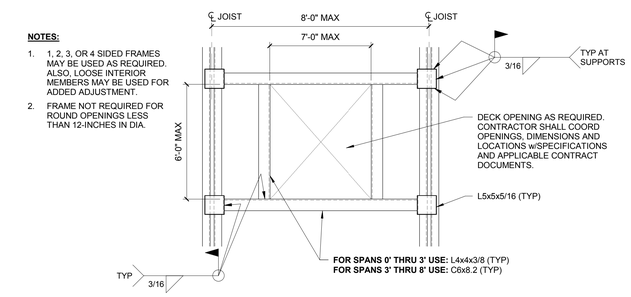


D2	TYPICAL CMU REINFORCING DETAILS
1" = 1'-0"	

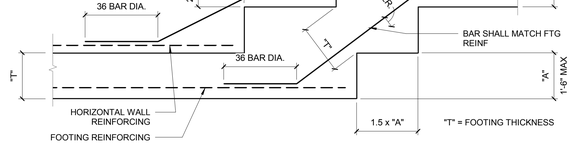


CONNECTION SCHEDULE							
BEAM	N	L	T	D	S	CAPACITY (KIP)	NOTES:
W8	2	6"	1/4"	1"	3"	16.3	1. BOLTS SHALL BE 3/4" DIA. A325N (U.N.O.)
W10	2	6"	1/4"	1 1/2"	3"	16.3	2. N = NUMBER OF BOLTS
W12	3	9"	1/4"	1 1/2"	3"	25.6	3. L = LENGTH OF PLATE
W14	4	11 1/3/8"	1 1/2"	3"	42.4		4. T = THICKNESS OF PLATE
W16	4	12"	3/8"	1 1/2"	3"	42.4	5. D = DEPTH OF PLATE FROM TOP FLANGE OF BEAM
W18	5	15"	3/8"	1 1/2"	3"	53.0	6. S = BOLT SPACING
W21	6	18"	3/8"	1 1/2"	3"	63.6	7. SIMILAR AT CHANNEL SECTIONS OF SAME DEPTH
W24	7	20 1/3/8"	1 1/2"	3"	74.2		

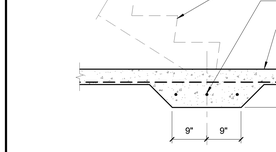
B2	TYPICAL CONNECTION DETAIL
3/4" = 1'-0"	



A2	TYPICAL FRAMED OPENING IN ROOF DECK
3/4" = 1'-0"	

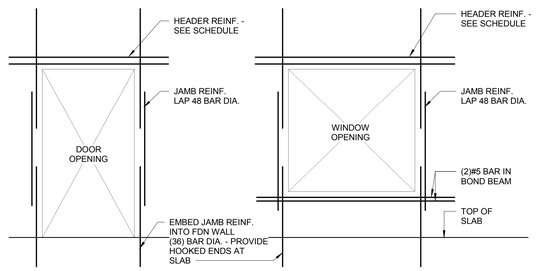


C6	TYPICAL STEPPED FOOTING DETAIL
3/4" = 1'-0"	

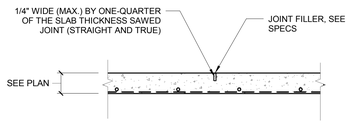


NOTES:

1. PROVIDE 48 BAR DIAMETER SPLICES IN MASONRY WALLS, 36 BAR DIAMETER BAR EMBEDMENT IN CONCRETE WALLS (HOOK BAR WHEN EMBEDDING INTO SLAB)
2. JAMB REINFORCMENT SHALL EXTEND FULL HEIGHT OF WALL (TYP)

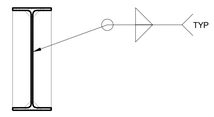


C4	MASONRY HEADER SCHEDULE
3/4" = 1'-0"	

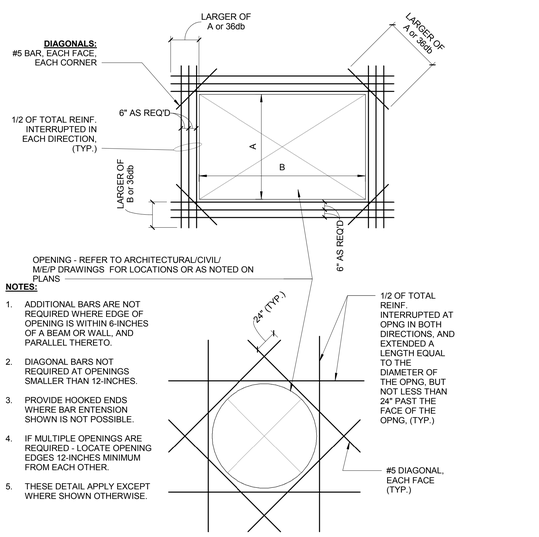


B4	TYPICAL CONTROL JOINT IN SLAB DETAIL
1" = 1'-0"	

A4	THICKENED SLAB DTL @ STAIR BASE
3/4" = 1'-0"	



A3	TYPICAL WEB STIFFENER DETAIL
3/4" = 1'-0"	



A6	TYPICAL ADD'L REINF. FOR OPENING IN CONCRETE WALL/SLAB
3/4" = 1'-0"	

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Allied Project No: 17013

CASCO BAY HIGH SCHOOL EXPANSION

196 Allen Avenue
Portland, ME

No.	Date	Description
		Revision Schedule

STATE OF MAINE
WILLIAM P FAUCHER
#7157
REGISTERED PROFESSIONAL ENGINEER

JOB NO. 17056

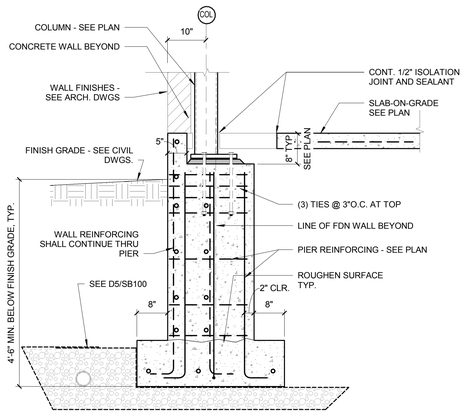
DRWN. CHK
PED WPF

SCALE:

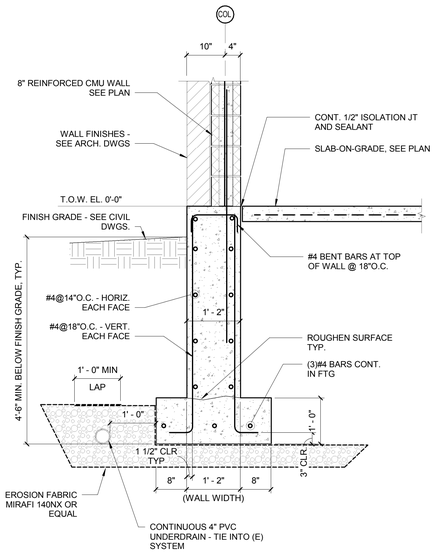
ISSUE
ISSUED FOR BID
20 March 2018

TITLE
STRUCTURAL - TYPICAL DETAILS

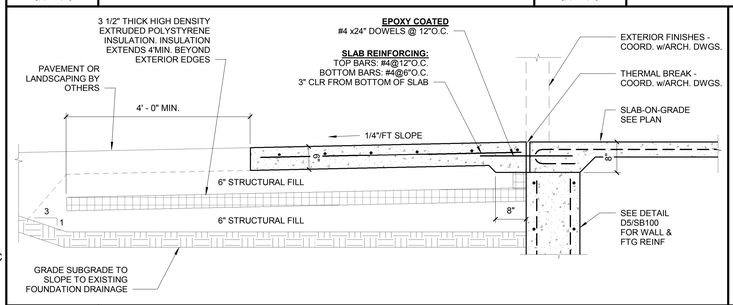
SHEET
S001



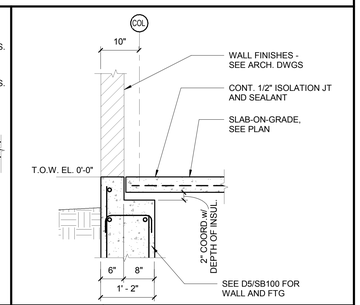
D6	TYPICAL DETAIL AT EXTERIOR PIER
3/4" = 1'-0"	



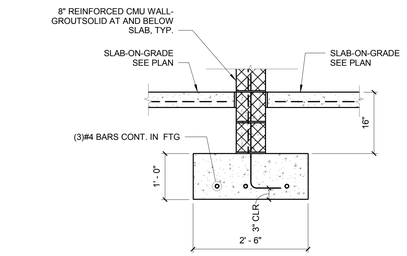
D5	SECTION AT EXTERIOR WALL
3/4" = 1'-0"	



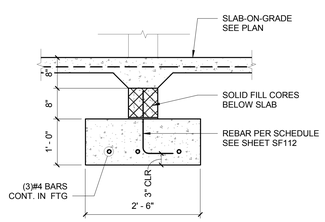
C6	DETAIL
3/4" = 1'-0"	



C4	SECTION AT EXTERIOR WALL AT CWS
3/4" = 1'-0"	

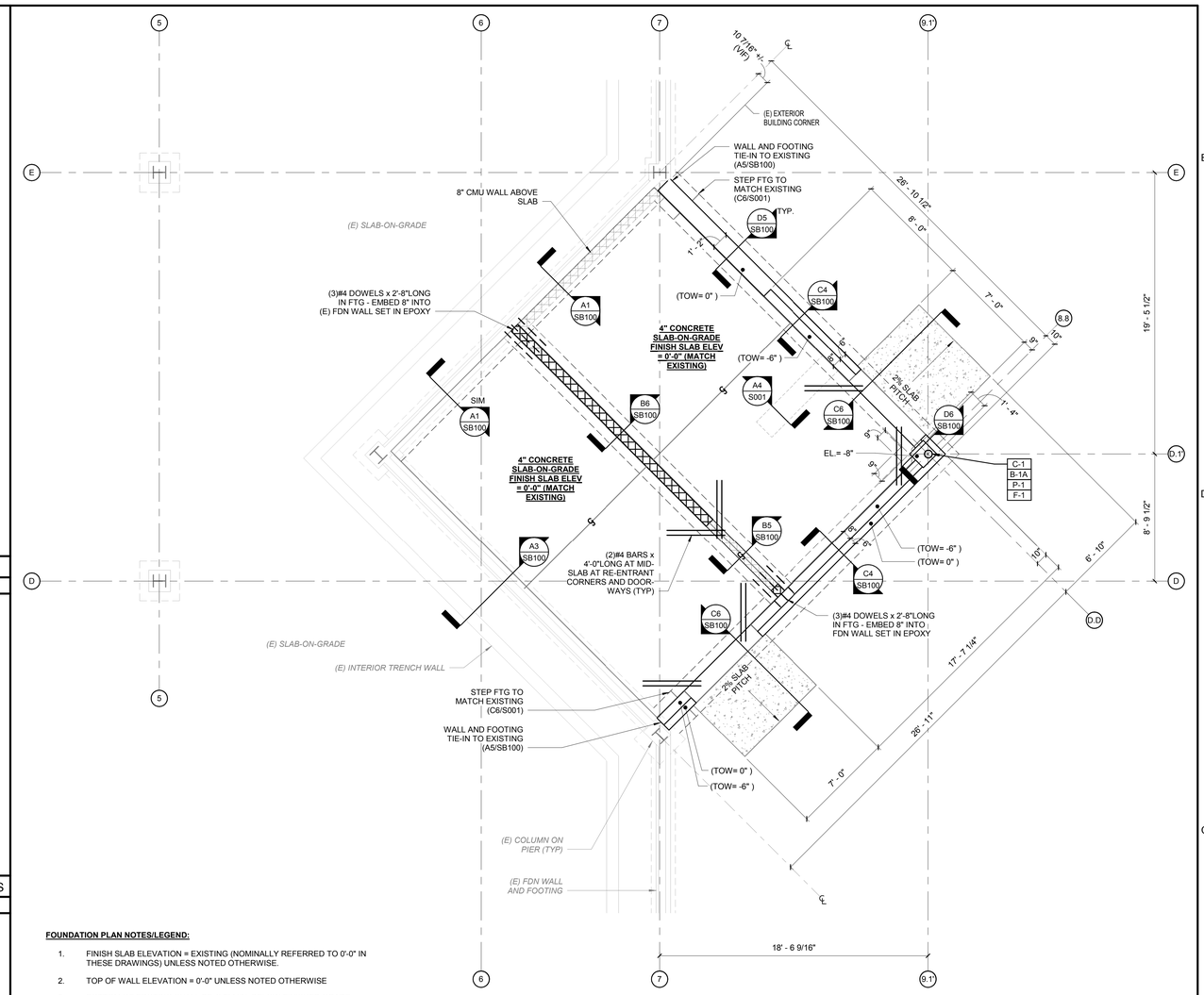


B6	CMU TO FOOTING DETAIL
3/4" = 1'-0"	



TYPICAL UNLESS NOTED

B5	CMU TO FOOTING DETAIL AT DOORWAY
3/4" = 1'-0"	



B3	STRUCTURAL ~ FOUNDATION PLAN
1/4" = 1'-0"	

FOUNDATION PLAN NOTES/LEGEND:

1. FINISH SLAB ELEVATION = EXISTING (NOMINALLY REFERRED TO 0'-0" IN THESE DRAWINGS) UNLESS NOTED OTHERWISE.
2. TOP OF WALL ELEVATION = 0'-0" UNLESS NOTED OTHERWISE
3. BOTTOM OF FOOTING SHALL BE 4'-6" MIN. BELOW FINISHED GRADE
4. REFER TO ARCHITECTURAL DRAWINGS FOR DATA RELATED TO FOUNDATION WALL/SLAB INSULATION AND VAPOR BARRIER REQUIREMENTS.
5. G.C. VERIFY LAYOUT DIMENSIONS IN FIELD PRIOR TO FABRICATION

P- # INDICATES CONCRETE PIER - SEE B3/SB100 FOR SCHEDULE

B-#X INDICATES BASE PLATE TYPE - SEE A6/SB100 FOR DETAILS

C-# INDICATES COLUMN TYPE - SEE B3/SB100 FOR SCHEDULE

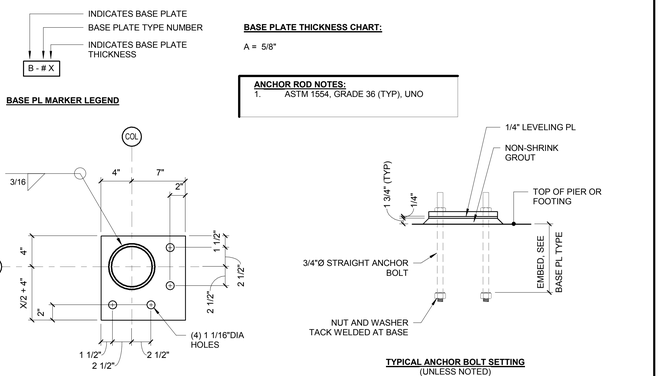
F-# INDICATES FOOTING TYPE - SEE B3/SB100 FOR SCHEDULE

G INDICATES CONTROL JOINT, REFER TO B4/S001

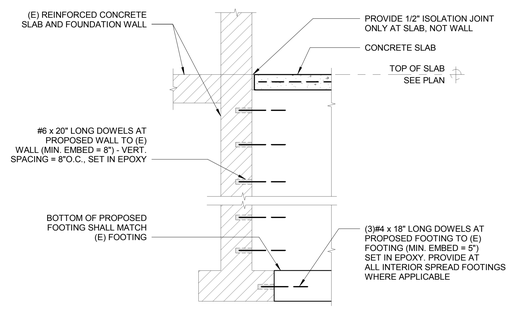
COLUMN SCHEDULE	
MARK	SIZE
C-1	HSS6.625X0.375

PIER SCHEDULE		
MARK	SIZE	REINFORCING
P-1	20 x 20	(8)#5 VERTICAL BARS w/#3 TIES @ 10"O.C. (3)#3 TIES @ 3" AT TOP OF PIER

FOOTING SCHEDULE		
MARK	SIZE	REINFORCING
F-1	3'-2" x 3'-2" x 1'-0"	(4)#4 BARS, E.W. - BOTTOM

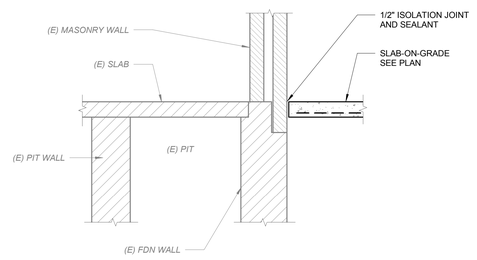


A6	BASE PLATE TYPES
1 1/2" = 1'-0"	

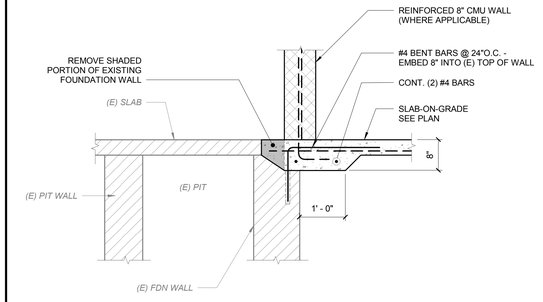


NOTE: SEE APPROPRIATE FOUNDATION WALL SECTION FOR REINFORCING AND DETAILS.

A5	PROPOSED WALL TIE-IN TO EXISTING
3/4" = 1'-0"	



A3	SECTION AT EXISTING WALL
3/4" = 1'-0"	



A1	SECTION AT THICKENED SLAB AT EXISTING WALL
3/4" = 1'-0"	

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CASCO BAY HIGH SCHOOL EXPANSION

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SCALE:

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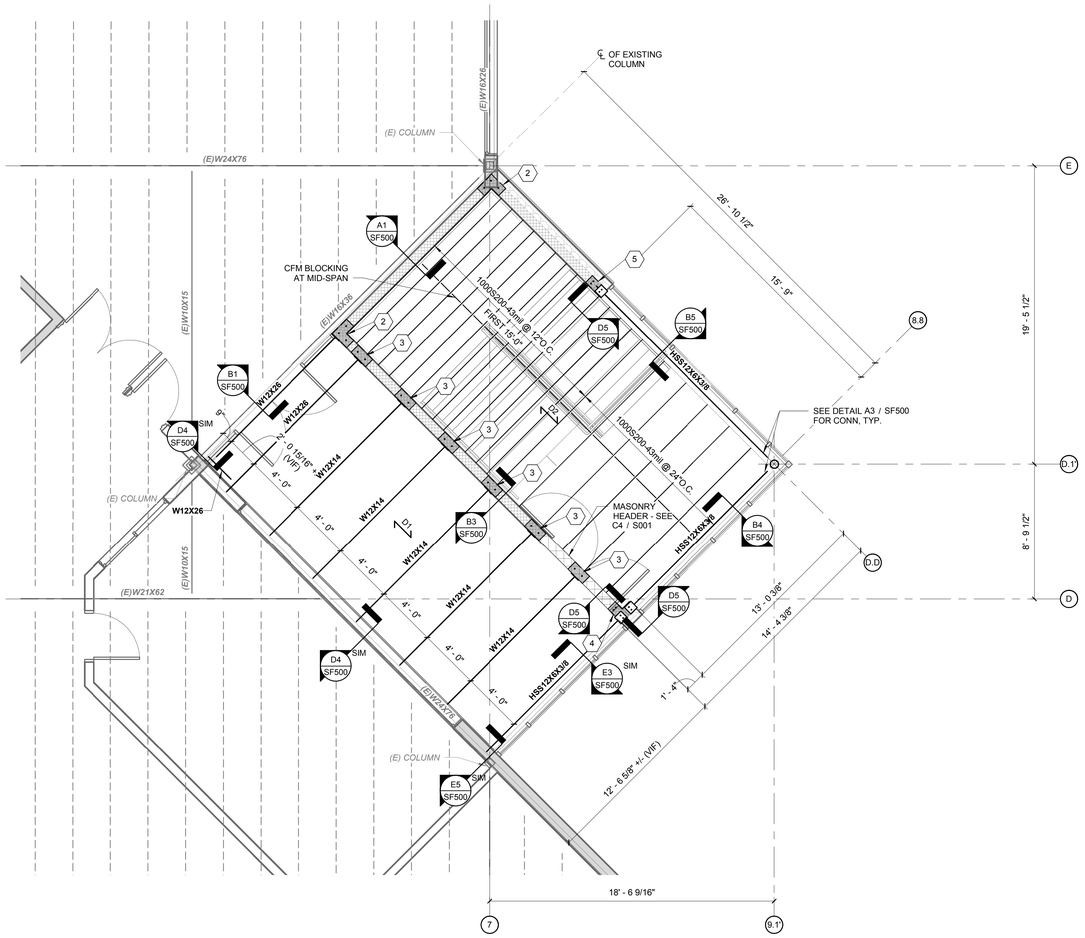
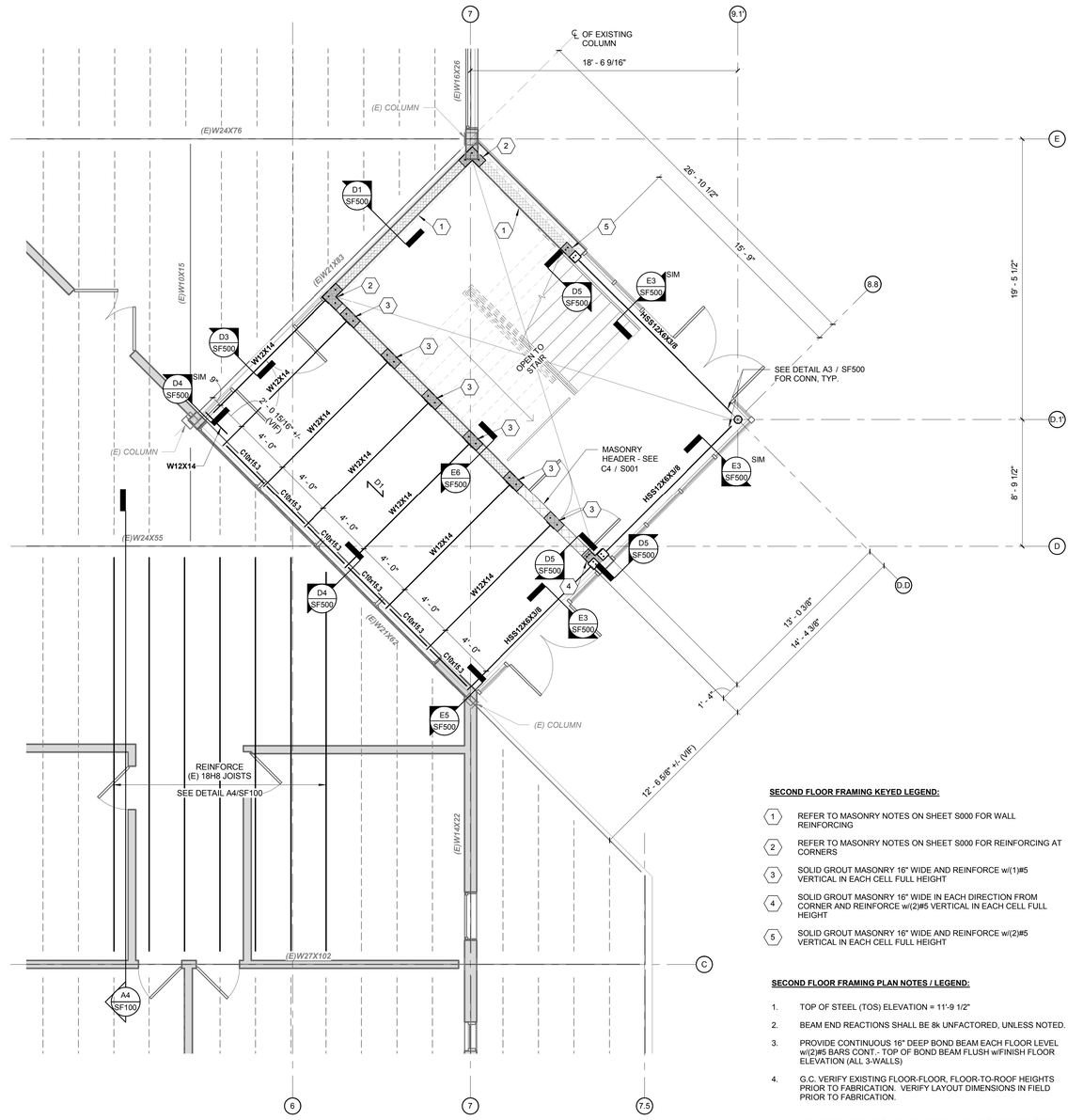
20 March 2018

TITLE
STRUCTURAL - FOUNDATION PLAN

SHEET
SB100





THIRD FLOOR FRAMING KEYED LEGEND:

1. REFER TO MASONRY NOTES ON SHEET S000 FOR WALL REINFORCING
2. REFER TO MASONRY NOTES ON SHEET S000 FOR REINFORCING AT CORNERS
3. SOLID GROUT MASONRY 16" WIDE AND REINFORCE w/(1)#5 VERTICAL IN EACH CELL FULL HEIGHT
4. SOLID GROUT MASONRY 16" WIDE IN EACH DIRECTION FROM CORNER AND REINFORCE w/(2)#5 VERTICAL IN EACH CELL FULL HEIGHT
5. SOLID GROUT MASONRY 16" WIDE AND REINFORCE w/(2)#5 VERTICAL IN EACH CELL FULL HEIGHT

THIRD FLOOR FRAMING PLAN NOTES / LEGEND:

1. TOP OF STEEL (TOS) ELEVATION = 23'-9 1/2"
2. BEAM END REACTIONS SHALL BE 8k UNFACTORED, UNLESS NOTED.
3. PROVIDE CONTINUOUS 16" DEEP BOND BEAM EACH FLOOR LEVEL w/(2)#5 BARS CONT.- TOP OF BOND BEAM FLUSH w/FINISH FLOOR ELEVATION (ALL 3-WALLS)
4. G.C. VERIFY EXISTING FLOOR-FLOOR, FLOOR-TO-ROOF HEIGHTS PRIOR TO FABRICATION. VERIFY LAYOUT DIMENSIONS IN FIELD PRIOR TO FABRICATION.

D1 INDICATES SPAN OF 2 1/2" CONCRETE SLAB ON 9/16" FORM DECK - TOTAL FLOOR THICKNESS = 2 1/2"

D2 INDICATES SPAN OF 3/4" PLYWOOD DECKING - REFER TO SPECS.

SECOND FLOOR FRAMING KEYED LEGEND:

1. REFER TO MASONRY NOTES ON SHEET S000 FOR WALL REINFORCING
2. REFER TO MASONRY NOTES ON SHEET S000 FOR REINFORCING AT CORNERS
3. SOLID GROUT MASONRY 16" WIDE AND REINFORCE w/(1)#5 VERTICAL IN EACH CELL FULL HEIGHT
4. SOLID GROUT MASONRY 16" WIDE IN EACH DIRECTION FROM CORNER AND REINFORCE w/(2)#5 VERTICAL IN EACH CELL FULL HEIGHT
5. SOLID GROUT MASONRY 16" WIDE AND REINFORCE w/(2)#5 VERTICAL IN EACH CELL FULL HEIGHT

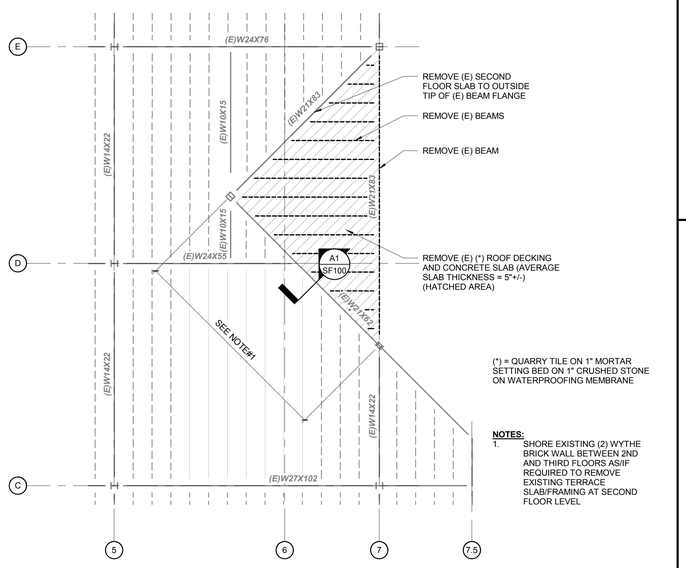
SECOND FLOOR FRAMING PLAN NOTES / LEGEND:

1. TOP OF STEEL (TOS) ELEVATION = 11'-9 1/2"
2. BEAM END REACTIONS SHALL BE 8k UNFACTORED, UNLESS NOTED.
3. PROVIDE CONTINUOUS 16" DEEP BOND BEAM EACH FLOOR LEVEL w/(2)#5 BARS CONT.- TOP OF BOND BEAM FLUSH w/FINISH FLOOR ELEVATION (ALL 3-WALLS)
4. G.C. VERIFY EXISTING FLOOR-FLOOR, FLOOR-TO-ROOF HEIGHTS PRIOR TO FABRICATION. VERIFY LAYOUT DIMENSIONS IN FIELD PRIOR TO FABRICATION.

D1 INDICATES SPAN OF 2 1/2" CONCRETE SLAB ON 9/16" FORM DECK - TOTAL FLOOR THICKNESS = 2 1/2"

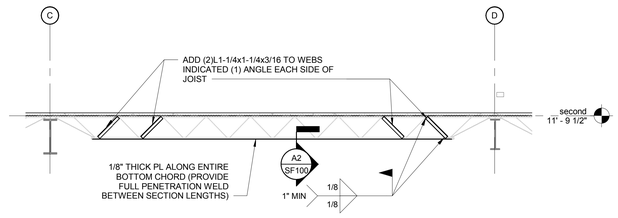
C6	STRUCTURAL ~ ROOF FRAMING PLAN (FUTURE THIRD FLOOR)
1/4" = 1'-0"	

B3	STRUCTURAL ~ SECOND FLOOR FRAMING PLAN
1/4" = 1'-0"	

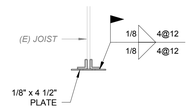


NOTES:
1. SHORE EXISTING (2) WYTHE BRICK WALL BETWEEN 2ND AND THIRD FLOORS AS/IF REQUIRED TO REMOVE EXISTING TERRACE SLAB/FRAMING AT SECOND FLOOR LEVEL

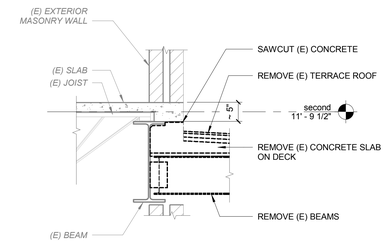
A6	STRUCTURAL ~ SECOND FLOOR DEMOLITION PLAN
1/8" = 1'-0"	



A4	REINFORCED JOIST DETAIL
1/4" = 1'-0"	



A2	SECTION THRU REINFORCED BOTTOM CHORD
1 1/2" = 1'-0"	



A1	DEMO DETAIL AT EXISTING WALL
3/4" = 1'-0"	

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CASCO BAY HIGH SCHOOL EXPANSION

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No.	Date	Description
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17056

DRWN. PED | CHK WPF

SCALE:

ISSUE
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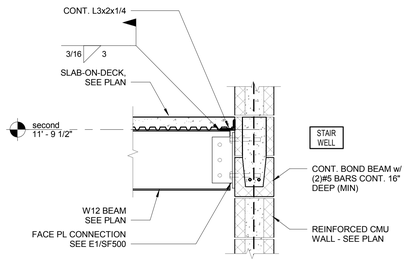
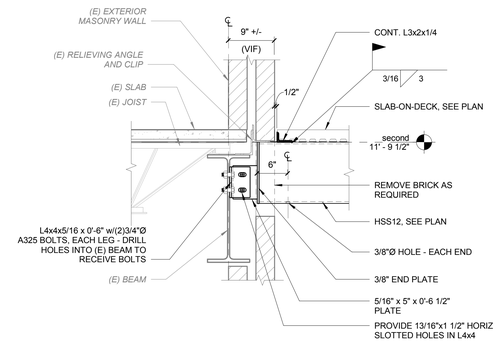
20 March 2018

TITLE
STRUCTURAL - FRAMING PLANS

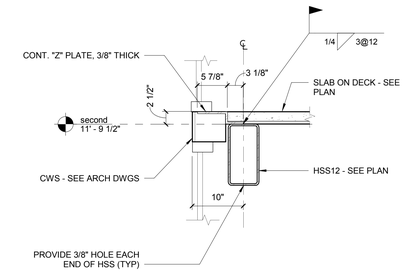
SHEET
SF100



E6	SECTION AT W12 BEARING AT CMU WALL
1" = 1'-0"	

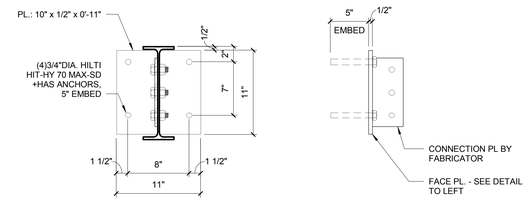


E5	SECTION AT HSS BEARING AT EXISTING BEAM
1" = 1'-0"	



NOTE: SIMILAR AT THIRD FLOOR LEVEL

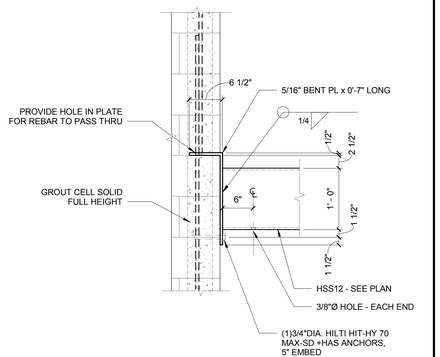
E3	SECTION AT EXTERIOR
1" = 1'-0"	



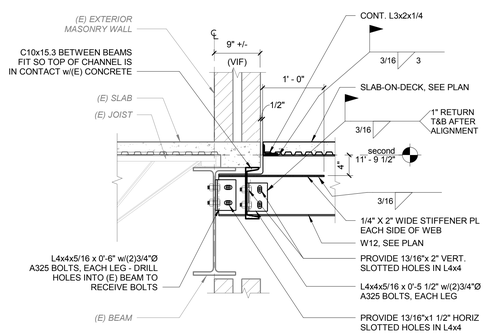
FACE PLATE ELEVATION VIEW

NOTE: FACE PLATE DESIGNED FOR MAX. BEAM REACTION OF 8K (UNFACTORED)

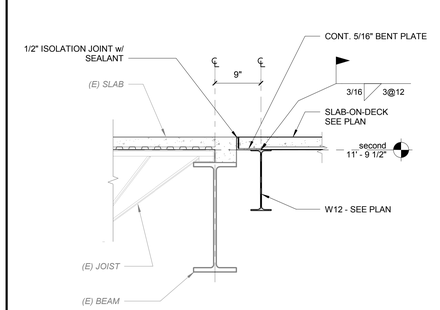
E1	FACE PLATE CONNECTION DETAIL
1 1/2" = 1'-0"	



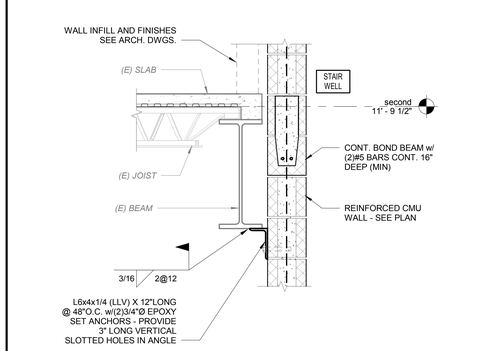
D5	HSS BEARING ON CMU WALL
1" = 1'-0"	



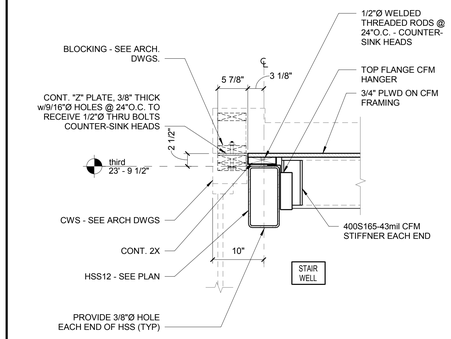
D4	SECTION AT W12 BEARING AT EXISTING BEAM
1" = 1'-0"	



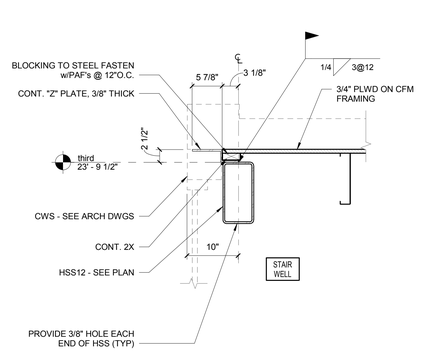
D3	SECTION AT EXISTING WALL
1" = 1'-0"	



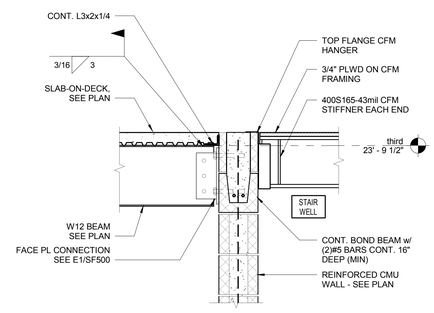
D1	SECTION AT CMU WALL TIE TO EXISTING BEAM
1" = 1'-0"	



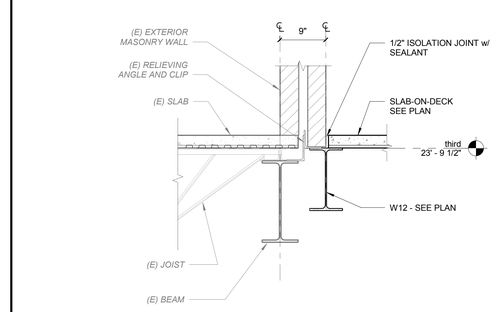
B5	SECTION AT THIRD FLOOR
1" = 1'-0"	



B4	SECTION AT THIRD FLOOR
1" = 1'-0"	



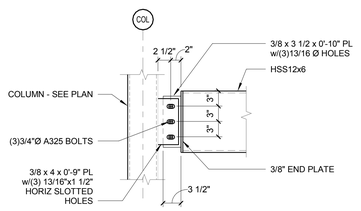
B3	SECTION AT W12 BEARING AT CMU WALL AT THIRD FLOOR
1" = 1'-0"	



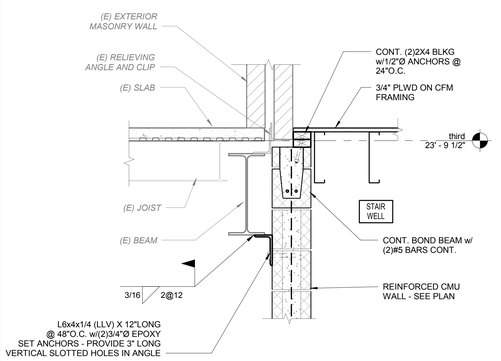
B1	SECTION AT EXISTING WALL AT THIRD FLOOR
1" = 1'-0"	

NOTE:
COORDINATE OPENING LOCATIONS w/MECH. DWGS.

A4	LINTEL AT MECH. OPENING UP TO 4'-0"
1 1/2" = 1'-0"	



A3	SECTION OF HSS TO COLUMN
1" = 1'-0"	



A1	SECTION AT CMU WALL TIE TO EXISTING BEAM AT THIRD FLOOR
1" = 1'-0"	

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Allied Project No: 17013

CASCO BAY HIGH SCHOOL EXPANSION

196 Allen Avenue
Portland, ME

No.	Date	Description
		Revision Schedule

STATE OF MAINE
WILLIAM P FAUCHER #7133
REGISTERED PROFESSIONAL ENGINEER
PROFESSIONAL ENGINEER
20 MARCH 2018

JOB NO.
17056

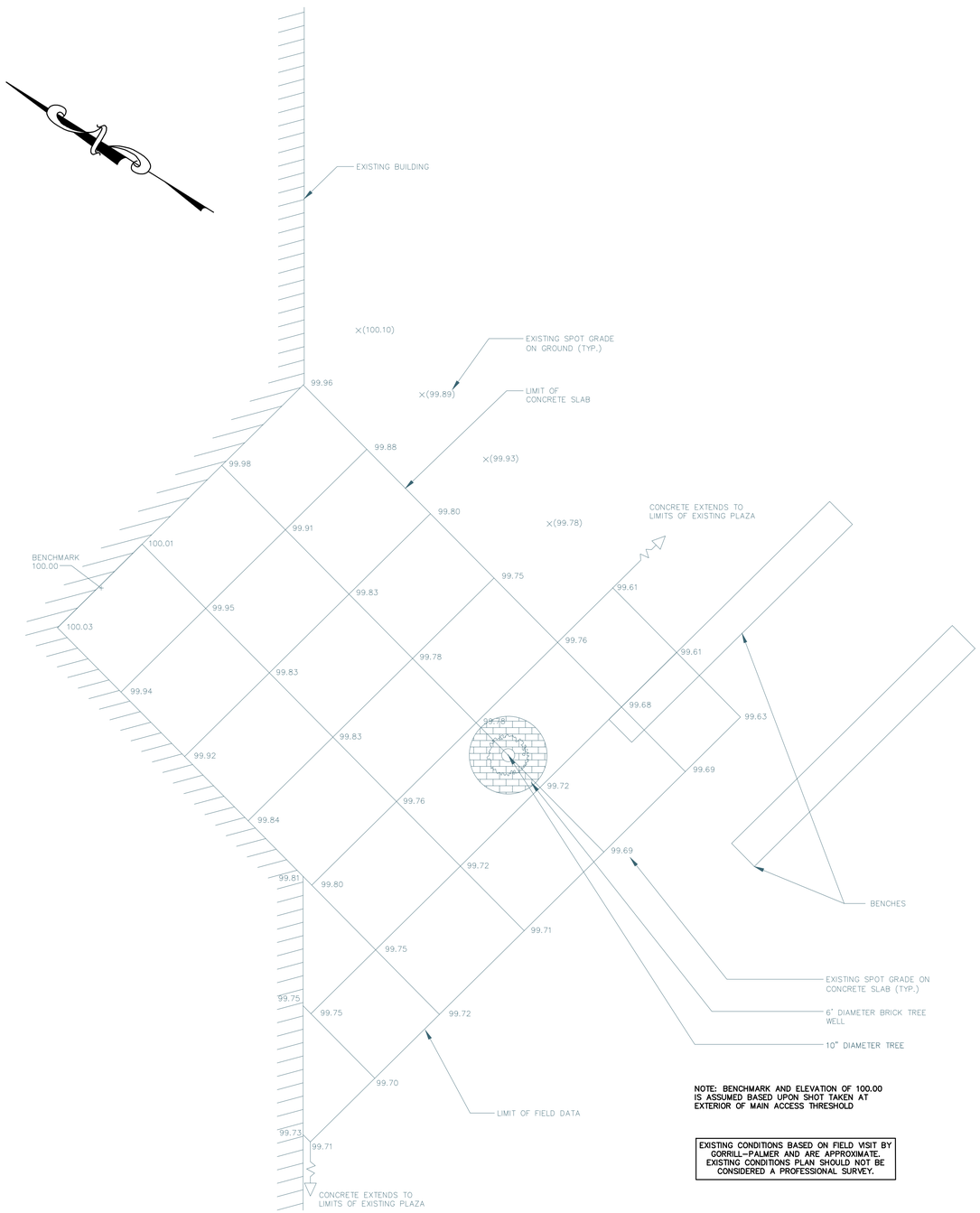
DRWN. CHK
PED WPF

SCALE:

ISSUE
ISSUED FOR BID
20 March 2018

TITLE
STRUCTURAL - DETAILS

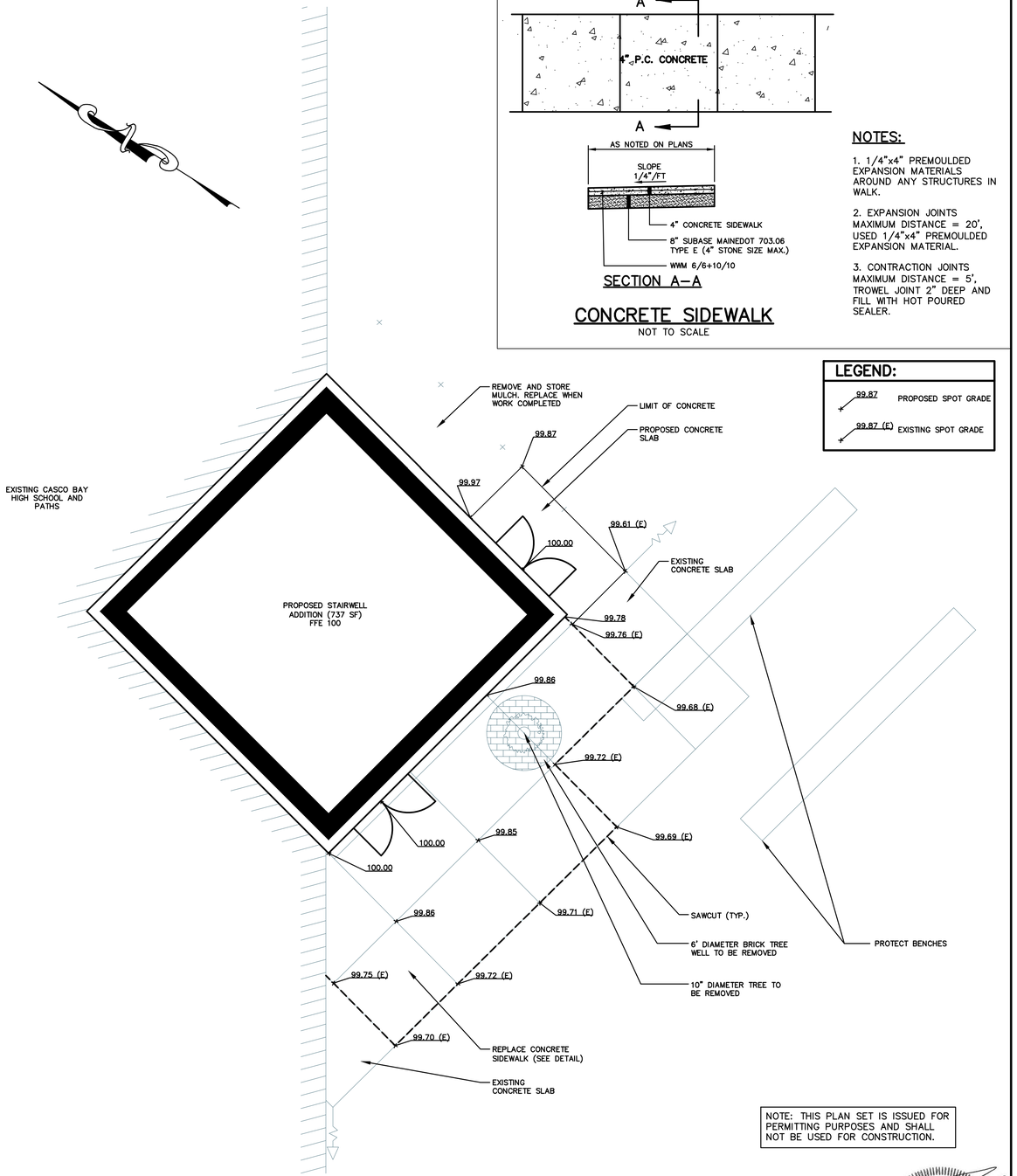
SHEET
SF500



NOTE: BENCHMARK AND ELEVATION OF 100.00 IS ASSUMED BASED UPON SHOT TAKEN AT EXTERIOR OF MAIN ACCESS THRESHOLD

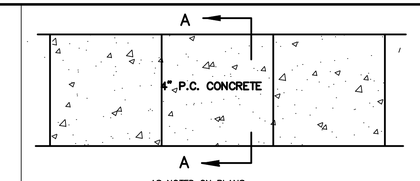
EXISTING CONDITIONS BASED ON FIELD VISIT BY GORRILL-PALMER AND ARE APPROXIMATE. EXISTING CONDITIONS PLAN SHOULD NOT BE CONSIDERED A PROFESSIONAL SURVEY.

EXISTING CONDITIONS PLAN
1"=5'



NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES AND SHALL NOT BE USED FOR CONSTRUCTION.

SITE AND GRADING PLAN
1"=5'



SECTION A–A

CONCRETE SIDEWALK
NOT TO SCALE

NOTES:

1. 1/4"x4" PREMOULDED EXPANSION MATERIALS AROUND ANY STRUCTURES IN WALK.
2. EXPANSION JOINTS MAXIMUM DISTANCE = 20', USED 1/4"x4" PREMOULDED EXPANSION MATERIAL.
3. CONTRACTION JOINTS MAXIMUM DISTANCE = 5', TROWEL JOINT 2" DEEP AND FILL WITH HOT POURED SEALER.

LEGEND:

99.87	PROPOSED SPOT GRADE
99.87 (F)	EXISTING SPOT GRADE

STATE OF MAINE — DOUGLAS E. REYNOLDS — No 9868 — 3-14-18 — LICENSED PROFESSIONAL ENGINEER

5 0 2.5 5 10
1 inch = 5 ft.

Rev.	Date	Revision
–	–	–

Issued For	Date	By
ISSUED FOR BID	3/20/18	DER
APPLICATION TO CITY	2/19/18	DER

Design: DJV	Draft: CG	Date: FEB 2018
Checked: DER	Scale: 1"=5'	Job No.: 3319
File Name: 3319-SP.dwg		

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Drawing Name: **Casco Bay High School Expansion**

Project: **Casco Bay High School**
196 Allen Ave. Portland, Maine

Client: **PDT Architects**
49 Dartmouth Street, Portland, Maine 04101

Drawing No. *C1*

C:\CAD WORKING\3319-Casco Bay High School\DWG\3319-SP.dwg – 3/15/2018 10:12 AM

E1 SYMBOLS LEGEND

NONE

PIPE ELBOW TURNED DN	GLOBE VALVE
PIPE ELBOW TURNED UP	LOCKABLE BALL VALVE
PIPING TEE DOWN	PLUG VALVE
PIPING TEE UP	2-WAY CONTROL VALVE
PIPE RISER	3-WAY CONTROL VALVE
45° ELBOW DOWN	LOCK & SHIELD VALVE
PIPING TO BE REMOVED	CHECK VALVE
CAPPED PIPING	BALANCING VALVE CIRCUIT SETTER
CAPPED BELOW FINISHED FLOOR	AIR VENT ~ REFER TO SPECIFICATIONS
CONCENTRIC REDUCER	STRAINER WITH BLOWDOWN VALVE AND CAP
ECCENTRIC REDUCER	EXPANSION VALVE (AUTOMATIC)
DIRECTION OF FLOW	RELIEF/SAFETY VALVE
PIPE PITCHES DOWN	PRESSURE GAUGE WITH COCK
PIPE GUIDE	SIGHT GLASS
EXPANSION JOINT	PRESSURE REDUCING VALVE
PIPE ANCHOR	FLOW SWITCH
UNION	SELF-CONTAINED TEMP. CONTROL VALVE WITH REMOTE SENSOR
FLANGED CONNECTION	STEAM TRAP (FLOAT & THERMOSTATIC INDICATED T.T.= THERMOSTATIC TRAP, B.T.= BUCKET TRAP)
BACKFLOW PREVENTER	PUMP ~ POINT OF TRIANGLE INDICATES DIRECTION OF FLOW
FLEXIBLE CONNECTION	GAS SHUT-OFF VALVE
SHUT-OFF/ISOLATION VALVE REFER TO SPECIFICATIONS	HOSE END DRAIN VALVE W/CAP
GATE VALVE ~ OUTSIDE SCREW & YOKE (OS&Y)	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	CHANGE IN ELEVATION (UP, DOWN, RISE OR DROP)
EXPANSION LOOP (BRAIDED/MANUFACTURED)	SUPPLY DUCT TURNED UP/DN
FLOOR DRAIN	RETURN DUCT TURNED UP/DN
SHOCK ABSORBER (WATER HAMMER ARRESTER)	EXHAUST DUCT TURNED UP/DN
FIRE DEPARTMENT CONNECTION	ROUND DUCT TURNED UP/DN
FREE STANDING FIRE DEPARTMENT CONNECTION	MITERED DUCT ELBOW W/TURNING VANES
WATER GONG	RADIUS DUCT ELBOW
DUCTWORK ~ FIRST DIMENSION IS SIDE SHOWN IN INCHES S= SUPPLY, R= RETURN, E= EXHAUST AIR, OA= OUTSIDE AIR F.O. = FLAT OVAL	DUCT/PIPE CAP (SINGLE/DOUBLE LINE)
ACCOUSTICAL LINING (DUCT DIMENSION FOR NET FREE AREA)	VOLUME DAMPER
DUCTWORK TO BE REMOVED	FIRE DAMPER
SINGLE LINE DUCTWORK TO BE REMOVED	SMOKE DAMPER
DUCT TRANSITION	FIRE AND SMOKE DAMPER
SQUARE TO ROUND DUCT TRANSITION	BACKDRAFT DAMPER
FLEX DUCT ~ DOUBLE LINE	
FLEX DUCT ~ SINGLE LINE	
MOTORIZED DAMPER	REGISTER, GRILLE & DIFFUSER TAG DIFFUSER, REGISTER OR GRILLE No. QUANTITY CFM AIR FLOW
FLEXIBLE CONNECTION	FINTUBE TAG FINTUBE No. LENGTH GPM
TEMPERATURE SENSOR OR THERMOSTAT (AS SPECIFIED)	VAV TAG VAV No. MINIMUM CFM MAXIMUM CFM GPM
HUMIDISTAT OR HUMIDITY SENSOR (AS SPECIFIED)	EQUIPMENT TAG TYPE DESIGNATOR NUMBER
CARBON DIOXIDE SENSOR	EQUIPMENT TAG (ON FLOOR/ROOF ABOVE) TYPE DESIGNATOR NUMBER
CARBON MONOXIDE SENSOR	
ACCESS PANEL	DETAIL REFERENCE SYMBOL DETAIL No. SHEET DETAIL LOCATED ON
DUCT SMOKE DETECTOR	SECTION REFERENCE SYMBOL SECTION No. SHEET SECTION LOCATED ON
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	

A1 PIPING LINETYPE LEGEND

NONE

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

A5 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, SYNMBOL 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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CASCO BAY HIGH SCHOOL EXPANSION

196 Allen Avenue
Portland, ME

No.	Date	Description
		Revision Schedule

STATE OF MAINE
ANTHONY S. DAVIS
No. 8834
REGISTERED PROFESSIONAL ENGINEER
MECHANICAL

JOB NO. 17056

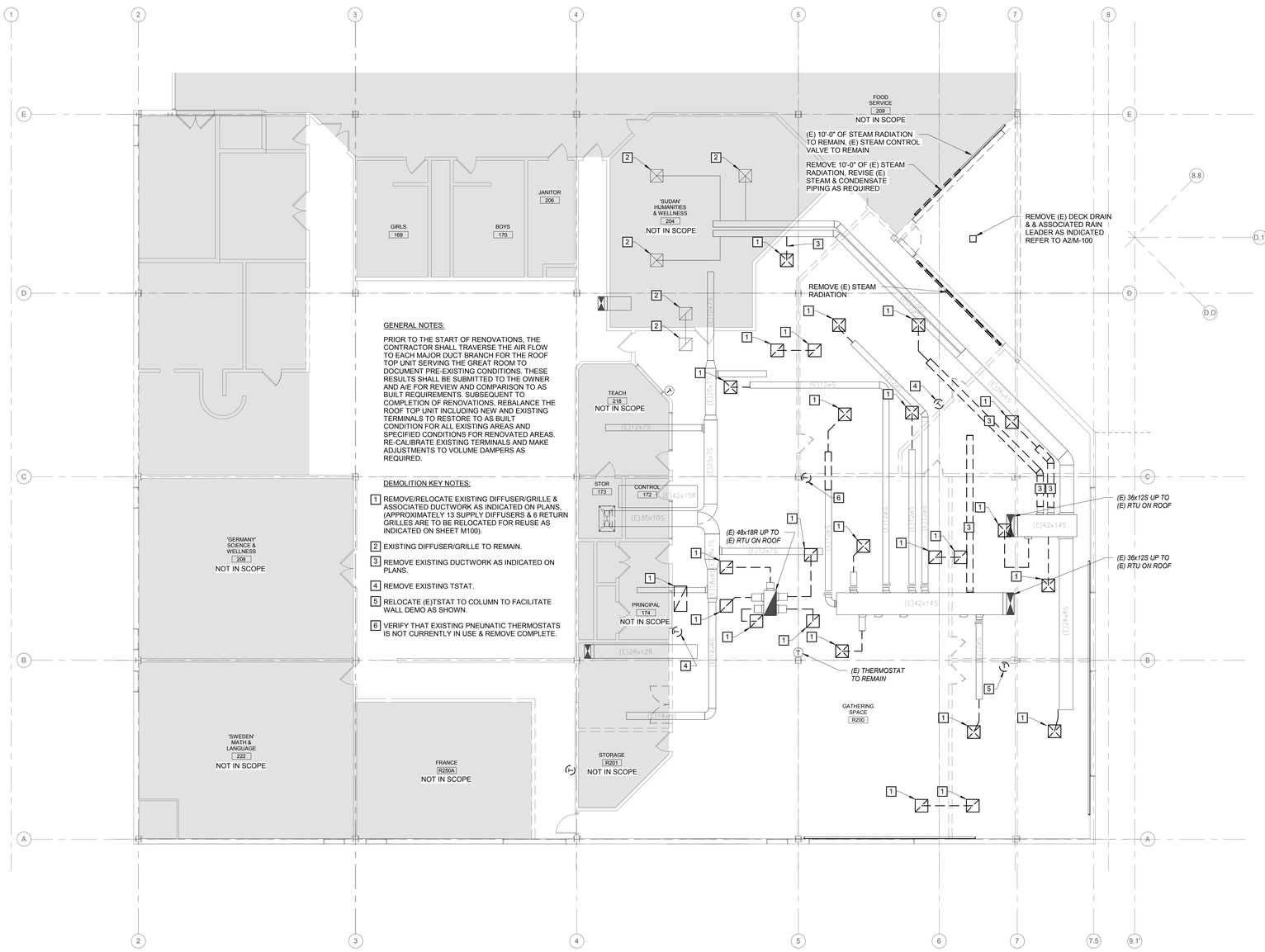
DRWN. SCL | CHK ASD

SCALE:

ISSUE
ISSUED FOR BID
20 March 2018

TITLE
MECHANICAL NOTES, LEGEND ABBREVIATIONS

SHEET
M000



A6	MECHANICAL DEMOLITION PLAN
1/8" = 1'-0"	

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196 Allen Avenue
Portland, ME

No.	Date	Description
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STATE OF MAINE
ANTHONY S. DAVIS
No. 8834
LICENSED PROFESSIONAL ENGINEER

JOB NO.
17056

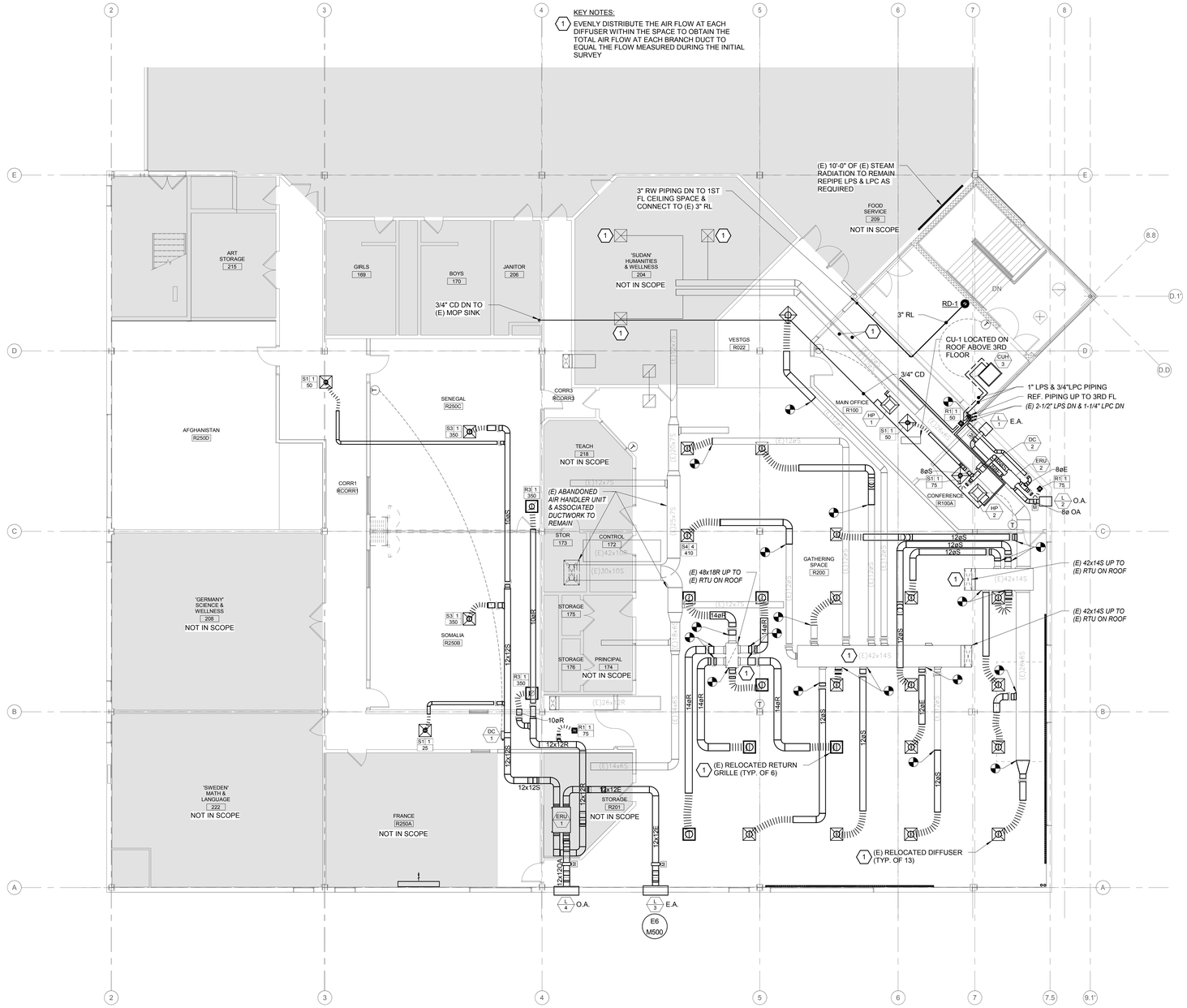
DRWN. SCL | CHK ASD

SCALE:

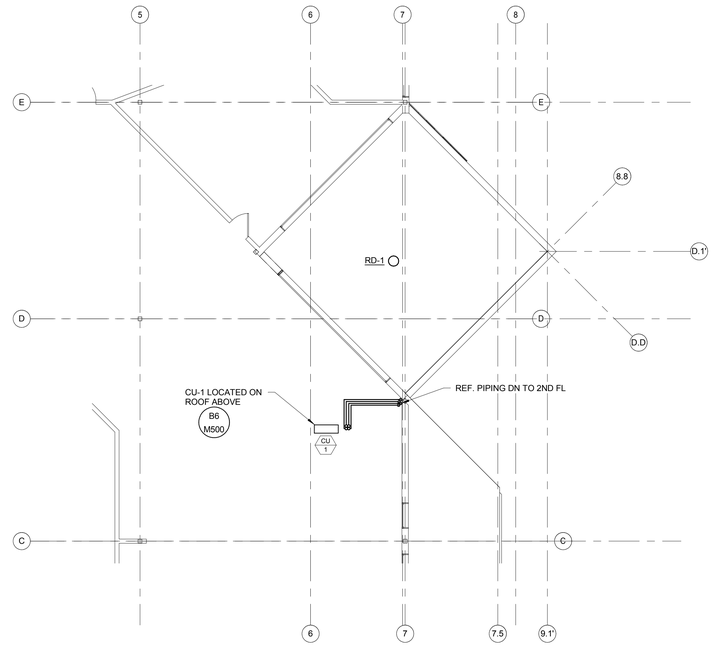
ISSUE
ISSUED FOR BID
20 March 2018

TITLE
MECHANICAL DEMO

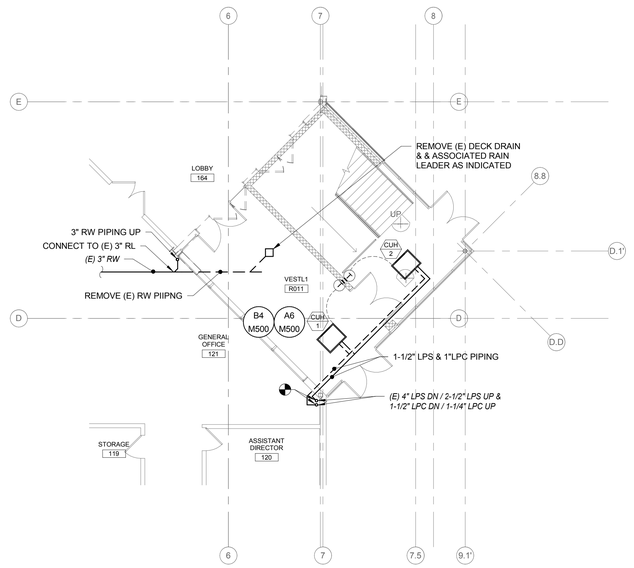
SHEET
MD100



A6 MECHANICAL SECOND FLOOR PLAN
1/8" = 1'-0"



B2 MECHANICAL THIRD FLOOR PART PLAN
1/8" = 1'-0"



A2 MECHANICAL FIRST FLOOR PART PLAN
1/8" = 1'-0"

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No.	Date	Description
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STATE OF MAINE
ANTHONY S. DAVIS
No. 8834
REGISTERED PROFESSIONAL ENGINEER

JOB NO.
17056

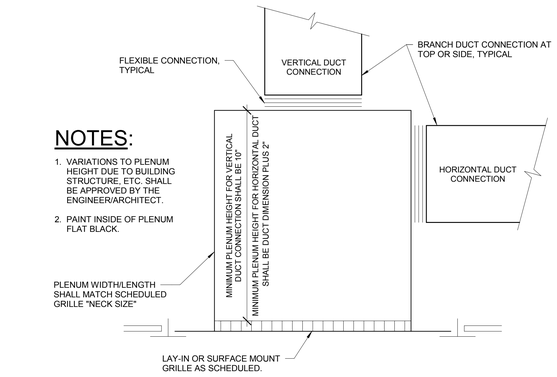
DRWN. CHK
SCL ASD

SCALE:

ISSUE
ISSUED FOR BID
20 March 2018

TITLE
MECHANICAL FIRST, SECOND AND THIRD PLANS

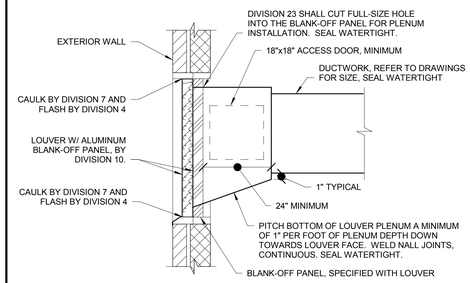
SHEET
M100



NOTES:

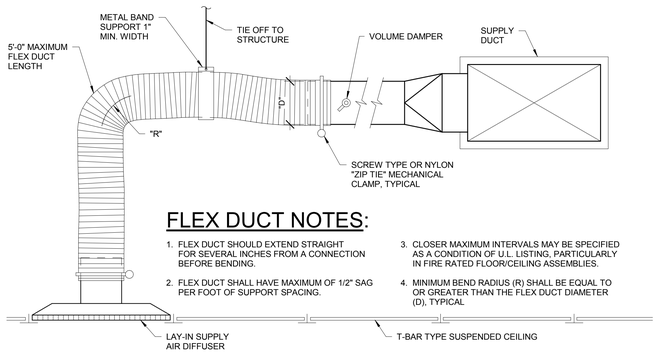
1. VARIATIONS TO PLENUM HEIGHT DUE TO BUILDING STRUCTURE, ETC. SHALL BE APPROVED BY THE ENGINEER/ARCHITECT.
2. PAINT INSIDE OF PLENUM FLAT BLACK.

E6	15855 - RETURN AIR REGISTER BOOT
NONE	



NOTE:
REFER TO ARCHITECTURAL LOUVER DETAILS FOR MORE INFORMATION.

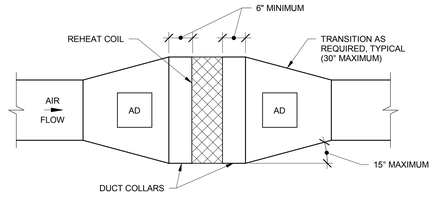
E4	DETAIL - EXTERIOR LOUVER
NONE	



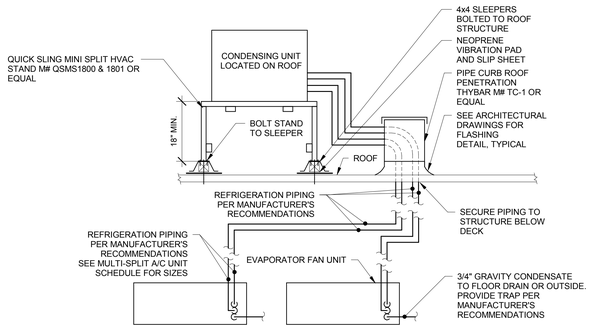
FLEX DUCT NOTES:

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

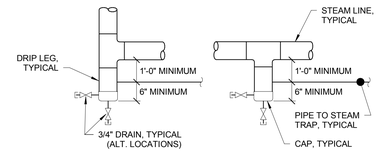
C6	15855 - SUPPLY AIR BRANCH CONNECTION
NONE	



C4	DETAIL - REHEAT COIL DUCT CONNECTION
NONE	

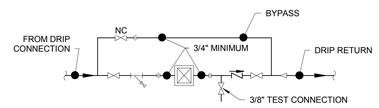


B6	DETAIL - DUCTLESS SPLIT SYSTEM INSTALLATION
NONE	



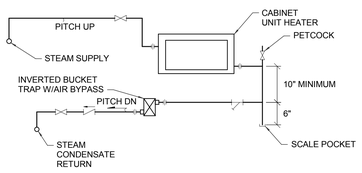
NOTE:
DRIP POCKET SIZE SAME AS STEAM MAIN UNLESS NOTED OTHERWISE.

STEAM LINE DRIP POCKET

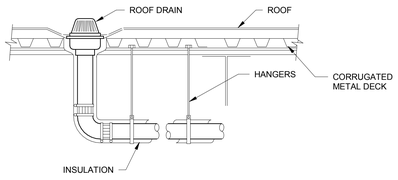


STEAM TRAP ASSEMBLY

B4	DETAIL - STEAM TRAP ASSEMBLY & DRIP POCKET
NONE	



A6	DETAIL ~ STEAM CABINET UNIT HEATER PIPING
NONE	



A4	DETAIL - ROOF DRAIN PIPING
NONE	

A3	MECHANICAL SCHEDULES
NONE	

UNIT HEATER SCHEDULE

TAG	SERVES	MFR. -MODEL	SIZE	TYPE	MBH	CFM	EAT (DEG.-F)	LAT (DEG.-F)	LB/HR	FLUID	STEAM PRESSURE	MOTOR TYPE	MOTOR HP	ELECT	CONTROL VALVE	NOTES
CUH-1	VESTL1 R011 1ST FL	TRANE FF- E-B	80	HORIZ RECESSED	33.1	702	70	113.0	34.1	STEAM	2 PSIG	ECM	135 W	120-1-60	2-WAY	1
CUH-2	STAIR1	TRANE FF- N-B	30	HORIZ RECESSED	12.5	277	70	112.0	12.9	STEAM	2 PSIG	ECM	70 W	120-1-60	2-WAY	1
CUH-3	VESTL1 R211 2ND FL	TRANE FF- N-B	30	HORIZ RECESSED	12.5	277	70	112.0	12.9	STEAM	2 PSIG	ECM	70 W	120-1-60	2-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.

ENERGY RECOVERY UNIT SCHEDULE

		ERU-1	ERU-2
GENERAL	TAG		
	SERVES	R250C & R250B CLASS ROOMS	MAIN OFFICE R100
	TYPE	FIXED-PLATE	FIXED-PLATE
	MFR	RenewAire	RenewAire
	MODEL	HE1XNH EC	EV200
FILTER SECTION	FILTERS	2" MERV-13	2" MERV-8
OUTSIDE AIR FAN	TYPE	FC	FC
	AIRFLOW, cfm	**775**	**125**
	ESP, in.wc.	0.9"	0.70"
	HP	0.5	0.1
EXHAUST AIR FAN	TYPE	FC	FC
	AIRFLOW, cfm	**775**	**125**
	ESP, in.wc.	0.65"	0.70"
	HP	0.75	SHARED MOTOR
OVERALL DIMENSIONS	LENGTH	54.75"	33.5"
	WIDTH	23.75"	24"
	HEIGHT	35.75"	20"
	OPERATING WEIGHT, lbs.	275	68
HEAT RECOVERY CORE	SUMMER OA DB/WB	87 / 72	87 / 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
	TEMP EFF.	72.0%	81.0%
	SUMMER EFF.	55.0%	77.0%
	WINTER EFF.	66.0%	64.0%
	FROST CONTROL	NONE REQUIRED	NONE REQUIRED
ELECTRICAL DATA	V-PH-HZ	208/1/60	120/1/60
	DISC SWITCH	WITH UNIT	-
	STARTER	-	-
	UNIT FLA	4.8	1.5
	S & R SMOKE DETECTORS	NO	NO
NOTES		1,2	

Notes:
1. Provide ECM motor as specified.
2. Provide factory isolation damper at OA/EA as specified.

MULTI - SPLIT A/C UNIT SCHEDULE

INDOOR UNITS	HP-1	HP-2
ARRANGEMENT	CEILING CASSETTE	CEILING CASSETTE
COOLING BTUH	9,000	9,000
HEATING BTUH @ 47F	10,450	10,450
HEATING BTUH @ -5F	9,000	9,000
MITSUBISHI MODEL NO.	SLZ-KA12NA	SLZ-KA12NA
DIMENSIONS - H X W X D	9-1/4" x 22-7/16" x 22-7/16"	9-1/4" x 22-7/16" x 22-7/16"
WEIGHT, LBS.	36	36
CFM	290	290
EXT S.P., IN. WC	0.21"	0.21"
SOUND dBA - HIGH CFM	34 dB(A)	34 dB(A)
ELECTRICAL	208/230-1	208/230-1
ELECTRICAL, MCA	1A	1A
COND. DRAIN SIZE	3/4"	3/4"
LIQUID LINE SIZE	1/4"	1/4"
GAS LINE SIZE	3/8"	3/8"
OUTDOOR COND. UNIT:	**CU-1**	
MITSUBISHI COND UNIT MODEL NO.	MXZ-2C20NAHZ	
BRANCH SELECTOR BOX (BSB) MODEL	----------	
COOLING BTUH	18,000	
HEATING BTUH	22,000	
REFRIGERANT	R410A	
ELECTRICAL	208-230/1/60	
MCA	28.9	
MOP	-	
SOUND dBA - HIGH	58dB(A)	
DIMENSIONS (H x W x D)	41-9/32" x37-13/32" x 13"	
WEIGHT, LBS.	187	

NOTES:
1. POWER TO CU'S BY DIV 26. WIRING BETWEEN AC AND CU PROVIDED BY DIV 23.

LOUVER SCHEDULE

TAG	MAKE - MODEL	AIR SYSTEM	DUTY	CFM	DIMENSIONS HEIGHT (IN.)	DIMENSIONS 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	ERU-2	EXHAUST	125	12	18	0.63	83.3	198.4	42.0%	4"	873 FPM	0.06	SEE SPEC	
L-2	RUSKIN ELF445DX	ERU-2	INTAKE	125	12	18	0.63	83.3	198.4	42.0%	4"	873 FPM	0.06	SEE SPEC	
L-3	RUSKIN ELF445DX	ERU-1	EXHAUST	775	24	48	3.8	96.9	203.9	47.5%	4"	873 FPM	0.06	SEE SPEC	
L-4	RUSKIN ELF445DX	ERU-1	INTAKE	775	24	48	3.8	96.9	203.9	47.5%	4"	873 FPM	0.06	SEE SPEC	

REGISTERS - GRILLES - DIFFUSERS (RGD) SCHEDULE

TAG	PRICE MODEL	TYPE	NECK SIZE	FACE SIZE	CFM RANGE	MAX TOTAL P.D. (IN.W.C.)	MAX NC LEVEL	BORDER TYPE	BLOW	NOTES
S-1	SCD	SQ. CEILING SUPPLY DIFFUSER	6" DIA	24" X 24"	0-150	0.07"	16	LAY-IN	4-WAY	
S-2	SCD	SQ. CEILING SUPPLY DIFFUSER	8" DIA	24" X 24"	151-275	0.07"	19	LAY-IN	4-WAY	
S-3	SCD	SQ. CEILING SUPPLY DIFFUSER	10" DIA	24" X 24"	276-440	0.07"	22	LAY-IN	4-WAY	
S-4	SCD	SQ. CEILING SUPPLY DIFFUSER	12" DIA	24" X 24"	441-630	0.07"	24	LAY-IN	4-WAY	
R-1	530	STEEL RETURN GRILLE, 3/4" SPACING, 45 DEG VANES	8" X 8"	8" X 8"	0-170	0.05"	23	SURFACE MT.	----------	
R-2	530	STEEL RETURN GRILLE, 3/4" SPACING, 45 DEG VANES	12" X 12"	12" X 12"	171-440	0.05"	27	SURFACE MT.	----------	
R-3	530	STEEL RETURN GRILLE, 3/4" SPACING, 45 DEG VANES	22" X 22"	22" X 22"	440-940	0.03"	27	LAY-IN	----------	

NOTE 1. PROVIDE W/ FACTORY PRIME COAT FINISH TO FOR FIELD PAITING - REFER TO ARCHITECTURAL DRAWING.

ELECTRIC DUCT HEATING COIL SCHEDULE

TAG	MANUFACTURER - MODEL	SERVES	AIRFLOW	LENGTH	HEIGHT	FACE VEL	EDB	LDB	MAX APD	BTUH	KW	AMPS	VOLT / PH
DC-1	INDEECO	ERU-1	775	14	14	569	40	75	0.2"	29,295	8.6	10.3	480/3
DC-2	INDEECO	ERU-2	125	10	6	300	40	75	0.2"	4,725	1.4	1.8	208/3

NOTES:
1. Provide SCR Heating Control
2. Provide disconnect switch.
3. Accessories: Airflow switch, duct thermostat, magnetic contactor, and pilot light.
4. Coordianate control box location - LH or RH for proper maintenance access.
5. Provide duct mounted thermostat

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Allied Project No: 17013

CASCO BAY HIGH SCHOOL EXPANSION

196 Allen Avenue
Portland, ME

No.	Date	Description
		Revision Schedule

STATE OF MAINE
ANTHONY S. DAVIS
No. 8834
REGISTERED PROFESSIONAL ENGINEER
MECHANICAL

JOB NO.
17056

DRWN. SCL | CHK ASD

SCALE:

ISSUE
ISSUED FOR BID
20 March 2018

TITLE
MECHANICAL SCHEDULES, DETAILS & NOTES

SHEET
M500

SYMBOL	MTG HT AFF UNO	DESCRIPTION	KEY NOTE	CONDUIT SIZE	BOX TYPE: SINGLE GANG BOX	BOX TYPE: DOUBLE GANG BOX	BOX TYPE: FLUSH COVERPLATE UNDERFLOOR BOX	OUTLET TYPE ~ SEE NOTE 3: 8 WIRE, 6 POSITION VOICE OUTLET	OUTLET TYPE ~ SEE NOTE 3: 8 WIRE, 8 POSITION DATA OUTLET	OUTLET TYPE ~ SEE NOTE 3: RJ-45 WITH SS WALL PHONE PLATE	OUTLET TYPE ~ SEE NOTE 3: TYPE F OUTLET	OUTLET TYPE ~ SEE NOTE 3: DUPLEX RECEPTACLE (IN FLOOR BOX)	CABLING SEE NOTE 3: 4-PAIR UTP CABLING - CATEGORY 6, UNO	CABLING SEE NOTE 3: RG-11 75 OHM COAX
▼	18"	(1) VOICE AND (2) DATA OUTLETS		3/4"	X			1	2				3	
▽	18"	(2) DATA OUTLETS		3/4"	X				2				2	
▼	45°	WALL PHONE OUTLET		3/4"						1			1	
(WA)	ABOVE CEILING	DATA OUTLET FOR WIRELESS ACCESS POINT			X				1				1	
▼ F		UNDERFLOOR BOX WITH (1) VOICE AND (4) DATA OUTLETS AND (4) DUPLEX RECEPTACLES	2				X	1	4			4	5	

NOTES:
1. MOUNTING HEIGHT AS NOTED ON PLANS.
2. NOT USED
3. CABLING, OUTLETS AND TERMINATIONS SHALL BE PROVIDED BY OWNER AND ARE SHOWN FOR INFORMATION ONLY.

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 RECEPTACLE
RECEPT
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
W WATT
WP WEATHERPROOF
WG WIREGUARD
WSH WASHER
XFMR TRANSFORMER

(E) EXISTING ITEM TO REMAIN
(R) REMOVE ITEM AND DISPOSE OF PROPERLY
(ER) RELOCATED ITEM AT NEW LOCATION
(RL) REMOVE AND RELOCATE

SINGLE RECEPTACLES

MOUNT 46" AFF U.N.O.

20A, 125V, 2P, 3W, NEMA 5-20R
GFCI 20A, 125V, 3W, NEMA 5-20R ~ MOUNT 46" AFF UNO
2 — 20A, 125V, 2P, 3W, NEMA L5-20R (TWISTLOCK)
3 — 30A, 125/250V, 3P, 4W, GROUNDING, NEMA 14-30R, (3)#10+(1)#10G TO 30A
4 — 30A, 480V, 2P, 3W, NEMA 8-30R, (2)#10+(1)#10G
5 — 50A, 250V, 3P, 3W, GROUNDING, NEMA 10-50R, (3)#6+(1)#10
7 — 50A, 480V, 2P, 3W, NEMA 8-50L, GROUNDING, (3)#6+(1)#8G
8 — 30A, 125V, 3W, NEMA L5-30R (TWIST LOCK), (2)#10+(1)#10G TO 30A, 1P CIRCUIT BREAKER
OVERHEAD RECEPTACLE CORD DROP
OVERHEAD RECEPTACLE DROP, GFCI 20A, 125V, 2P, 3W, NEMA 5-20R

NOTE:

PROVIDE MATCHING CORD AND PLUG FOR SINGLE RECEPTACLES FOR NEW EQUIPMENT AND WHERE NOTED FOR RELOCATED EQUIPMENT

FLOOR AND CEILING DEVICES

F — DUPLEX RECEPTACLE, 20A, 125V, 2P, 3W, NEMA 5-20R, MOUNT IN FLUSH FLOOR BOX
F — DOUBLE DUPLEX RECEPTACLE, 20A, 125V, 2P, 3W, NEMA 5-20R, MOUNT IN FLUSH FLOOR BOX
P — DUPLEX RECEPTACLE, PEDESTAL MOUNTED
P — SINGLE RECEPTACLE, PEDESTAL MOUNTED
C — DUPLEX RECEPTACLE, FLUSH MOUNTED IN CEILING
C — DOUBLE DUPLEX RECEPTACLE, FLUSH MOUNTED IN CEILING
C — DUPLEX GFCI RECEPTACLE, FLUSH MOUNTED IN CEILING
C — DOUBLE DUPLEX GFCI RECEPTACLE, FLUSH MOUNTED IN CEILING
OVERHEAD RECEPTACLE DROP, DUPLEX
OVERHEAD RECEPTACLE DROP, DOUBLE DUPLEX
OVERHEAD RECEPTACLE DROP, GFCI
CR — OVERHEAD RETRACTABLE CORD REEL, DOUBLE DUPLEX
CR — OVERHEAD RETRACTABLE CORD REEL, GFCI

RECEPTACLES

DUPLEX RECEPTACLE ~ 20A, 125V, 2P, 3W, NEMA 5-20R
DOUBLE DUPLEX RECEPTACLE
DUPLEX RECEPTACLE, HATCH INDICATES AFCI PROTECTION
GFCI DUPLEX RECEPTACLE, MOUNT 46" AFF UNO
GFCI DOUBLE DUPLEX RECEPTACLE, MOUNT 46" 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
MULTI-OUTLET STRIP, (8) SINGLE 5-20R SINGLE RECEPTACLES MOUNTED VERTICALLY IN CABINET. REFER TO ARCHITECTURAL PLANS.
SURFACE RACEWAY WITH DIVIDER, MOUNT 44" AFF UNO. PROVIDE NEMA 5-20 RECEPTACLES AND TECHNOLOGY OUTLETS AS SHOWN ON PLAN
LC — LAPTOP CHARGING CART RECEPTACLES. FOR EACH CART LOCATION PROVIDE (2) 20A, 125V, 2P, 3W, NEMA 5-20R RECEPTACLES. WIRE AND CONNECT EACH RECEPTACLE TO A DEDICATED 20A, 1P, 120V CIRCUIT.

NOTES:

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

FACP — FIRE ALARM CONTROL PANEL, MOUNT WITH TOP OF PANEL NOT MORE THAN 72"AFF
FAA — FIRE ALARM ANNUNCIATOR, MOUNT WITH TOP OF PANEL NOT MORE THAN 72"AFF, WIRED TO FACP
S — SMOKE DETECTOR, WIRED TO FACP
H — HEAT DETECTOR, WIRED TO FACP
D — DUCT SMOKE DETECTOR, WIRED TO FACP
G — GAS 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 — HORN/STROBE, WALL MOUNTED CANDELA AS NOTED ON PLANS, WIRED TO FACP
F — HORN/STROBE, CEILING MOUNTED, CANDELA AS NOTED ON PLANS, WIRED TO FACP
F — STROBE ONLY INDICATING APPLIANCE, WALL MOUNTED, CANDELA AS NOTED ON PLANS, WIRED TO FACP
F — STROBE ONLY INDICATING APPLIANCE, CEILING MOUNTED, CANDELA AS NOTED ON PLANS, WIRED TO FACP
F F — HORN/STROBE WITH PULL STATION DIRECTLY BELOW
DH — 120V MAGNETIC DOOR HOLD OPEN DEVICE, WIRED TO FACP ~ FLOOR MOUNTED
DH — 120V MAGNETIC DOOR HOLD OPEN DEVICE, WIRED TO FACP ~ WALL MOUNTED
T — TRANSFORMER
K — KNOX BOX, MOUNT 60" AFF
SD — SMOKE DAMPER, WIRED TO FACP
FSD — FIRE AND SMOKE DAMPER, WIRED TO FACP HORN/STROBE, CANDELA AS NOTED ON PLANS, WIRED TO FACP
S — SPEAKER/STROBE, WALL MOUNTED, CANDELA AS NOTED ON PLANS, WIRED TO FACP
S — SPEAKER/STROBE, CEILING MOUNTED, CANDELA AS NOTED ON PLANS, WIRED TO FACP

D2	FIRE ALARM

PANELBOARD ~ SURFACE MOUNTED
PANELBOARD ~ FLUSH MOUNTED
AS / AF — FUSED DISCONNECT SWITCH
NON-FUSED DISCONNECT SWITCH
00 — MOTOR STARTER ~ NUMBER INDICATES NEMA SIZE
00 — COMBINATION MOTOR STARTER/FUSED DISCONNECT
MOTOR OR FAN
M — METER AND CABINET
J — JUNCTION BOX
J — JUNCTION BOX ~ WALL MOUNTED
J2 — DOUBLE GANG JUNCTION BOX ~ WALL MOUNTED 18" AFF
C J — JUNCTION BOX ~ FLUSH CEILING MOUNTED
P J — JUNCTION BOX ~ PEDESTAL MOUNTED
T# — TRANSFORMER ~ NUMBER INDICATES DESIGNATION SEE TRANSFORMER SCHEDULE
VFD — VARIABLE FREQUENCY DRIVE
TVSS — TRANSIENT VOLTAGE SURGE SUPPRESSOR
S — POWER SHUTOFF SWITCH ~ WALL MOUNTED 48" TO CENTER LINE. INTERLOCK TO CONTROL SHUNT TRIP CIRCUIT BREAKER IN PANELBOARD SERVING AREA
CONDUIT TURNING UP
CONDUIT TURNING DOWN
WIRING UNDERGROUND OR UNDERSLAB
HOMERUN ~ (2)#12+(1)#12G UNO (EXCEPT LIGHTING CIRCUITS: (1)#12+(1)#10N+(1)#12G UNO)
SINGLE-PHASE HOMERUN OR MULTIPLE HOMERUN UTILIZING THE SAME CONDUIT
3-PHASE HOMERUN OR MULTIPLE HOMERUN UTILIZING THE SAME CONDUIT
FLEXIBLE CONNECTION
GROUNDING SYSTEM
P — MOTORIZED DOOR OPERATOR AND PUSH PADDLE ~ FURNISHED BY DIV 08, WIRED BY DIV 26
CB — ENCLOSED CIRCUIT BREAKER
ATS — AUTOMATIC TRANSFER SWITCH
H — HAND DRYER, COORDINATE HEIGHT WITH ARCHITECTURAL PLANS
C — ENCLOSED CONTACTOR
OVERHEAD DATA DROP
C — DATA OUTLET FLUSH IN CEILING
X / XX — MECHANICAL EQUIPMENT TAG ~ REFER TO SCHEDULES FOR POWER AND DATA REQUIREMENTS.

1. BRANCH CIRCUIT WIRING NOT SHOWN. REFER TO SCHEDULES FOR CIRCUITING INFORMATION.
2. EXISTING CONDITIONS ARE NOT SHOWN. REMOVE AND LEGALLY DISPOSE OF EXISTING ELECTRICAL ITEMS AS REQUIRED TO CREATE INDICATED CONDITIONS. NOTHING SHALL BE ABANDONED IN PLACE EXCEPT FOR RACEWAYS CONCEALED WITHIN EXISTING MASONRY PARTITIONS. PROVIDE BLANK COVERS AS REQUIRED TO COVER EXISTING BOXES THAT BECOME UNUSED AS A RESULT OF THIS PROJECT.
3. WHERE REMOVALS IMPACT WIRING TO EXISTING ITEMS TO REMAIN, PROVIDE WIRING AND CONNECTIONS AS REQUIRED TO RE-FEED ITEMS TO REMAIN.
4. EXISTING RACEWAYS AND BOXES SHALL BE PERMITTED TO BE REUSED WHERE THEY ARE LOCATED IN THE SAME LOCATION AS AN INDICATED ITEM AND WHERE THEY COMPLY WITH PROJECT SPECIFICATIONS FOR NEW WORK.
5. DO NOT SCALE THE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS AND EXISTING CONDITIONS FOR EXACT DIMENSIONS.
6. 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.
7. ALL ELECTRICAL DEVICES, WHEN INSTALLED, SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. COVER PLATES SHALL BE INSTALLED AFTER FINISH MATERIALS HAVE BEEN APPLIED.
8. COORDINATE ALL WORK WITH OTHER DIVISIONS AND THE OWNER.
9. VERIFY EXACT POWER REQUIREMENTS OF EQUIPMENT PRIOR TO ROUGH IN.
10. COORDINATE LOCATIONS OF LIGHT FIXTURES AND OTHER ELECTRICAL ITEMS WITH ARCHITECTURAL INTERIOR ELEVATIONS.

E1	GENERAL NOTES

LIGHTING SWITCHES

$S_A — LIGHT SWITCH, 20A,125/277V
$S_3 — THREE-WAY LIGHT SWITCH
$S_4 — FOUR-WAY LIGHT SWITCH
$S_2 — TWO-POLE SWITCH
$S_C — CONTROL STATION ~ REFER TO DETAIL G8/E001
$S_K — KEY OPERATED SWITCH
$S_M — MOTOR RATED SWITCH
$S_P — SINGLE POLE SWITCH WITH RED PILOT LIGHT ~ RED LIGHT SHALL GLOW WHEN CIRCUIT IS ENERGIZED
$S_a / $S_b — MULTI-GANGED SWITCHES, GANG UNDER ONE PLATE, LETTER INDICATES SWITCHING
$OS — OCCUPANCY SENSOR SWITCH, WALL MOUNTED
$OS2 — 2-BUTTON OCCUPANCY SENSOR SWITCH
$OS3 — OCCUPANCY SENSOR SWITCH WIRED FOR 3-WAY OPERATION
$OSD — OCCUPANCY SENSOR SWITCH WITH DIMMING ~ COORDINATE DIMMING TECHNOLOGY WITH LOAD TO BE DIMMED
OS — OCCUPANCY SENSOR, CEILING MOUNTED
OS — OCCUPANCY SENSOR, WALL MOUNTED
$D — DIMMER SWITCH ~ COORDINATE DIMMING TECHNOLOGY WITH LOAD TO BE DIMMED
$HP / $HL — HANDICAP SWITCHES FOR HOOD LIGHT AND FAN
$T — TIMER SWITCH
$LV — LOW VOLTAGE LIGHT SWITCH, MOMENTARY CONTACT
$LVab — LOW VOLTAGE LIGHT SWITCH CONTROLLING MULTIPLE LIGHTING GROUPS
$Eab — WALL STATION ~ REFER TO DETAIL J10/E001 - LOWER CASE LETTERS INDICATE SWITCHING, MULTIPLE LOWER CASE LETTERS INDICATE MANUAL CONTROL OF MULTIPLE SWITCH GROUPS
LTC — LIGHTING TIME CLOCK
LC — LIGHTING CONTACTOR
LCP — LIGHTING CONTROL PANEL
PC — OUTDOOR PHOTOELECTRIC SWITCH
DS — DAYLIGHT HARVESTING SENSOR
DS — DAYLIGHT HARVESTING SENSOR MOUNTED IN SOLATUBE

NOTES:

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

EMERGENCY LIGHTING

EM — HATCHING INDICATES FIXTURE CONNECTED TO LIFE SAFETY EMERGENCY GENERATOR BRANCH U.N.O. FIXTURES SHALL BE UNSWITCHED AND REMAIN ON U.N.O. ~ "EM" INDICATES EMERGENCY WHERE SYMBOL HATCHING IS UNCLEAR
BP# — EMER BATTERY UNIT WITH NO HEADS, MT 7'-6"AFF BP# INDICATES BATTERY UNIT DESIGNATION, CONNECT TO UNSWITCHED PORTION OF AREA LIGHTING BRANCH CIRCUIT, U.N.O.
C — EMER BATTERY UNIT WITH INTEGRAL HEADS, MT 7'-6"AFF BP# INDICATES BATTERY UNIT DESIGNATION, CONNECT TO UNSWITCHED PORTION OF AREA LIGHTING BRANCH CIRCUIT, U.N.O. "C" INDICATES CEILING MOUNTED
BP# — SINGLE REMOTE EMERGENCY LIGHT HEAD, MOUNT 7'-6"AFF BP# INDICATES BATTERY UNIT CONNECTED TO
BP# — DOUBLE REMOTE EMERGENCY LIGHT HEAD, MOUNT 7'-6"AFF BP# INDICATES BATTERY UNIT CONNECTED TO
BP# — DOUBLE REMOTE EMERGENCY LIGHT HEAD, CEILING MOUNTED, BP# INDICATES BATTERY UNIT CONNECTED TO
EXIT SIGN, CEILING MOUNTED, SHADING INDICATES FACE(S) ARROWHEAD INDICATES CHEVRON(S) REQUIRED, CONNECT TO UNSWITCHED PORTION OF AREA 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 LIGHTING BRANCH CIRCUIT, U.N.O.
INV — CENTRAL LIGHTING INVERTER

REFER TO LUMINAIRE SCHEDULE FOR FIXTURE TYPES

TYPICAL FOR ALL FIXTURE TYPES :

R1 — INDICATES LUMINAIRE TYPE ON SCHEDULE
a — LOWER CASE LETTER INDICATES SWITCH GROUP
— INDICATES CIRCUIT NUMBER

NOTE:
WHERE INDICATED ON PLANS, FIXTURES EQUIPPED WITH EMERGENCY BATTERY DRIVER: CONNECT TO BOTH SWITCHED AND UNSWITCHED PORTION OF LIGHTING CIRCUIT IN ACCORDANCE WITH EMERGENCY BATTERY DRIVER MANUFACTURER'S INSTRUCTIONS.

A4	ABBREVIATIONS	A3	RECEPTACLES	A2	POWER DISTRIBUTION	A1	LUMINAIRES AND SWITCHES

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CASCO BAY HIGH SCHOOL EXPANSION
196 Allen Avenue
Portland, ME

No.	Date	Description
		Revision Schedule

STATE OF MAINE — CATHERINE A. FAUCHER — No. 7575 — REGISTERED PROFESSIONAL ENGINEER — ELECTRICAL

JOB NO.
17056

DRWN. DLL CHK CAF

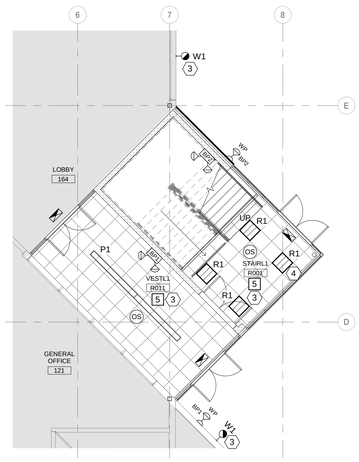
SCALE:
12" = 1'-0"

ISSUE
ISSUED FOR BID
20 March 2018

TITLE
ELECTRICAL GENERAL NOTES AND LEGENDS

SHEET
E100

A6	LEVEL 2 LIGHTING PLAN
1/8" = 1'-0"	



B2	LEVEL 1 LIGHTING PLAN
1/8" = 1'-0"	

LIGHTING CONTROL NOTES SCHEDULE

TAG/ NOTE	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	WALL SWITCH - MANUAL ON AND OFF; AUTO OFF VIA OCCUPANCY SENSORS; DIMMING VIA DAYLIGHT HARVESTING SENSOR FOR FIXTURES INDICATED	**NO DETAIL**
4	LIGHTING CONTROLLED BY LCP - REFER TO LIGHTING CONTROL PANEL SCHEDULE	**NO DETAIL**
5	AUTO ON/AUTO OFF VIA OCCUPANCY SENSOR(S)	**B6/E500**
6	WALL SWITCH(ES) - MANUAL ON AND OFF; AUTO OFF VIA OCCUPANCY SENSOR(S)	**A6/E500**

E5	KEY NOTES

1. RELOCATE AN EXISTING 2' X 4' LENS TROFFER TO THIS LOCATION. CONNECT TO EXISTING BRANCH CIRCUIT AND LIGHTING CONTROLS SERVING CLASSROOM. VERIFY THAT THE EXISTING CIRCUIT HAS ADEQUATE CAPACITY TO SUPPLY THE ADDITIONAL LOAD.
2. CONNECT LIGHTING IN THIS ROOM TO CIRCUIT ASL-35. PROVIDE A GE TYPE TED 1P, 20A CB.
3. CONNECT LIGHTING IN THIS ROOM TO CIRCUIT ASL-37. PROVIDE A GE TYPE TED 1P, 20A CB.
4. LIGHT FIXTURE SHALL OPERATE CONTINUOUSLY.

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CATHERINE A. FAUCHER
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JOB NO.
17056

DRWN. CHK
SRM

SCALE:
As indicated

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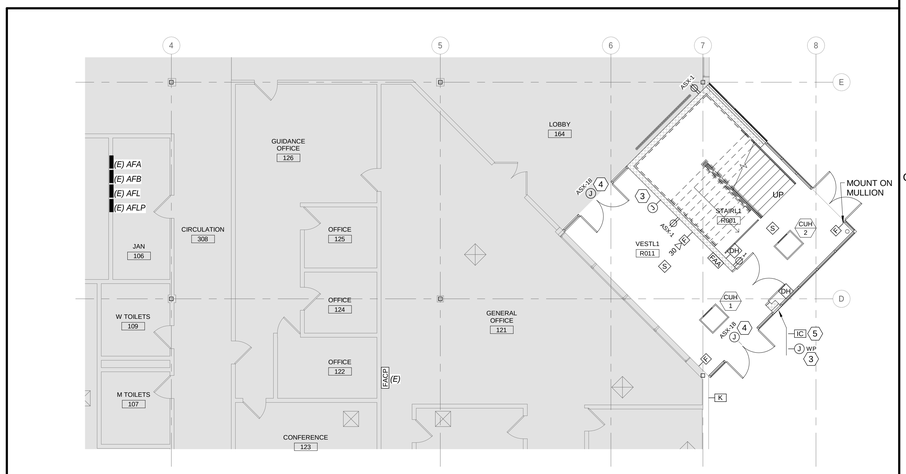
20 March 2018

TITLE
LIGHTING PLANS

SHEET
EL100

2 LEVEL 2 POWER AND SYSTEMS PLAN

1/8" = 1'-0"



B3 LEVEL 1 POWER AND SYSTEMS PLAN

1/8" = 1'-0"

1. PROVIDE A 30 KVA 3-PHASE TRANSFORMER WITH 480V DELTA PRIMARY AND 208Y/120V SECONDARY TO FEED PANEL ASX. CONNECT THE TRANSFORMER PRIMARY TO (E) PANEL ASP USING (3) #6 + (1) #10G IN ¾"C. PROVIDE A 3P, 60A GE TYPE TED CB AT AVAILABLE SPACE IN (E) PANEL ASP. PROVIDE BUSS CONNECTORS AS REQUIRED. GROUND TRANSFORMER PER NEC 250.
2. CONNECT PANEL ASX TO 30 KVA TRANSFORMER SECONDARY USING (4) #2 + (1) #8G IN 1-1/4"C.
3. PROVIDE SINGLE-GANG BOX MOUNTED 44" AFF WITH BLANK COVER AND 1"C WITH PULL STRING TO ABOVE ACCESSIBLE CEILING FOR FUTURE CARD READER.
4. PROVIDE JUNCTION BOX LOCATED ABOVE ACCESSIBLE CEILING WITH INDICATED CIRCUIT CAPPED FOR FUTURE ELECTRIFIED DOOR HARDWARE POWER SUPPLY.
5. RELOCATE EXISTING VIDEO INTERCOM STATION FROM EXISTING MAIN ENTRANCE TO INDICATED LOCATION.
6. REMOVE (13) EXISTING CEILING MOUNTED SPEAKERS IN GATHERING SPACE AND RELOCATE THEM TO NEW CEILING.

E5 KEY NOTES

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SCALE:

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TITLE
POWER & SYSTEMS PLANS

SHEET
EP100

LUMINAIRE SCHEDULE

LEGEND	TYPE	DESCRIPTION	MFR	CATALOG SERIES NUMBER SEE NOTE 1	MOUNTING	VOLTS	WATTS	LUMENS	TYPE	KEY NOTES
	R1	2X2 HIGH PERFORMANCE TROFFER	METALUX	22CZ-LD5-24 WITH SMOOTH FROSTED LENS	RECESSED	277	19.6	2519	LED ARRAY 3500K	6
	R2	2X4 HIGH PERFORMANCE TROFFER	METALUX	24CZ-LD5-45 WITH SMOOTH FROSTED LENS	RECESSED	277	35.7	4558	LED ARRAY 3500K	6
	P1	LINEAR PENDANT, CONVERGE	NEO-RAY	S920DIP-W-1-DD-W	PENDANT 7'-6" AFF UNO	277	18.7 /4FT	2150 /4FT	LED ARRAY 3500K	7, 9
	W1	EXTERIOR WALL PACK WITH INTEGRAL PHOTOCELL	NCGRAW EDISON	GWC-AF-SL3-BZ-P	WALL 12'-0" AFG	277	34	4188	LED ARRAY 4000K	
		EXIT LIGHT	SURE-LITES	CX6 SERIES WITH RED LETTERS AND WHITE FACE	NOTE 3	277	1.04	PER CODE	LED ARRAY	3
		EMERGENCY LIGHTING UNIT	SURE-LITES	SEL-25	7'-6" UNO	277	0.64	109/ HEAD	LED ARRAY	
		NOTES								
	1	**NOTE THAT THESE NUMBERS ARE NOT COMPLETE CATALOG NUMBERS. PROVIDE ALL REQUIREMENTS ON SCHEDULE, NOTES, SPECS, AND DRAWINGS COMBINED.**								
	2	**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.**								
	3	PROVIDE WALL,CEILING, OR PENDANT MOUNTING AS INDICATED ON PLANS. PROVIDE NUMBER OF FACES AND ARROWS AS INDICATED.								
	4	PROVIDE ENERGY STAR FIXTURE								
	5	VERIFY CEILING STRUCTURE AND MOUNTING HEIGHT PRIOR TO ORDERING ANY LIGHT FIXTURES.								
	6	FIXTURE SHALL BE DLC PREMIUM LISTED								
	7	PROVIDE LENGTHS AND SHAPES AS SHOWN ON PLANS								
	8	COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLORS								
	9	8' MINIMUM LENGTH SHALL BE USED.								

ELECTRICAL SCHEDULE OF MECHANICAL EQUIPMENT

TAG	DESCRIPTION	VOLTS	PH	LOAD	FLA	MCA	MOPD	DISCONNECT SWITCH					STARTER (NEMA)		CBD	PANEL	WIRING IN CONDUIT	NOTES
								FRAME	POLES	FUSE	NEMA ENCL	FBD	SIZE/ VFD	FBD				
CU-1	CONDENSING UNIT	208	1	--	28.9	28.9	40	60	2	40	3R	26	-	-	23	ASX	(2)#8, (1)#10G, 1"C	
HP-1	HEAT PUMP	208	1	--	1	1	-	-	-	-	-	-	-	-	23	-	BY DIV 23	3
HP-2	HEAT PUMP	208	1	--	1	1	-	-	-	-	-	-	-	-	23	-	BY DIV 23	3
CUH-1	UNIT HEATER	120	1	135 W	2	-	-	FWE				23	-	-	23	ASX	(2)#12, (1)#12G, 3/4"C	
CUH-2	UNIT HEATER	120	1	70 W	1	-	-	FWE				23	-	-	23	ASX	(2)#12, (1)#12G, 3/4"C	
CUH-3	UNIT HEATER	120	1	70 W	1	-	-	FWE				23	-	-	23	ASX	(2)#12, (1)#12G, 3/4"C	
ERU-1	ENERGY RECOVERY UNIT	208	1	-	9.6	10.8	-	FWE				23	-	-	23	ASX	(2)#12, (1)#12G, 3/4"C	
ERU-2	ENERGY RECOVERY UNIT	120	1	-	1.5	-	-	-	-	-	-	-	-	-	23	ASX	(2)#12, (1)#12G, 3/4"C	6
DC-1	ELECTRIC DUCT HEATING COIL	480	3	8.6 kW	10.3	-	-	FWE				23	-	-	23	ASL	(3)#12, (1)#12G, 3/4"C	7
DC-2	ELECTRIC DUCT HEATING COIL	208	3	1.4 KW	3.9	-	-	FWE				23	-	-	23	ASX	(3)#12, (1)#12G, 3/4"C	

NOTES:

1. LEAD/LAG.
2. DUCT SMOKE DETECTORS FURNISHED BY DIVISION 26, INSTALLED BY DIVISION 23, WIRED TO FIRE ALARM BY DIVISION 26.
3. POWER TO CU BY DIVISION 26, WIRING BETWEEN AC AND CU PROVIDED BY DIVISION 23.
4. WIRE AND CONNECT MOTORIZED DAMPER AT EXHAUST FAN. CONNECT DAMPER TO SAME BRANCH CIRCUIT THAT SUPPLIES FAN.
5. UNIT IS CONSISTS OF MULTIPLE MOTORS FACTORY WIRED FOR SINGLE-POINT POWER CONNECTION.
6. CORD AND PLUG FURNISHED WITH EQUIPMENT, PROVIDE NEMA 5-20 RECEPTACLE.
7. PROVIDE GE TYPE TED 3P, 15A CB AT AVAILABLE SPACE IN (E) PANEL ASL. PROVIDE BUSS CONNECTORS AS REQUIRED.

ABBREVIATIONS:

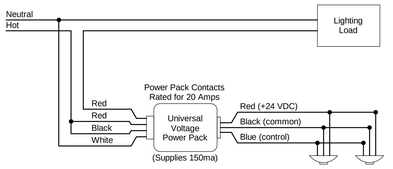
FWE	FURNISHED WITH EQUIPMENT
NF	NOT FUSED
SWBD	SWITCHBOARD
FBD	FURNISHED BY DIVISION
CBD	CONTROL WIRING BY DIVISION

PANEL SCHEDULE ~ ASX

VOLTAGE: 208/120V | MCB: 100A | AIC: 10KA

3-PHASE, 4-WIRE

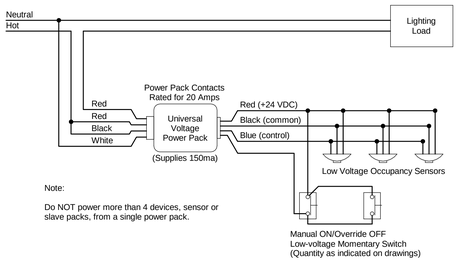
CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	20	1	A	0.90			REC: STAIRL1, VESTL1, STAIRL2, VESTL2, FIRST FL LOBBY
3	20	1	B		1.08		REC: R100 NORTH, EAST, & WEST WALLS
5	20	1	C			1.08	REC: R100 SOUTH & EAST WALL
7	20	1	A	0.90			REC: R100A, R022
9	20	1	B		0.54		REC: R200 WALLS
11	20	1	C			0.36	REC: R200 CEILING
13	20	1	A	0.36			REC: R200 CEILING
15	20	1	B		0.36		REC: R200 CEILING
17	20	1	C			0.54	REC: CORR1, CORR2
19	20	1	A	1.08			REC: R250B
21	20	1	B		1.08		REC: R250C
23	20	2	C			1.00	ENERGY RECOVERY UNIT ERU-1
25			A	1.00			
27	20	1	B		0.18		ENERGY RECOVERY UNIT ERU-2
29	20	3	C			0.46	DC-1 ELECTRIC DUCT HEATING COIL
31			A	0.46			
33			B		0.46		
35	20	1	C			0.00	SPARE
37	20	1	A	0.00			SPARE
39	20	1	B		0.00		SPARE
41	20	1	C			0.00	SPARE
			SUBTOTAL	4.70	3.70	3.44	
2	40	2	A	3.01			CONDENSING UNIT CU-1
4			B		3.01		
6	20	1	C			0.24	UNIT HEATER CUH-1
8	20	1	A	0.12			UNIT HEATER CUH-2
10	20	1	B		0.12		UNIT HEATER CUH-3
12	20	1	C			1.08	REC: R202, R231
14	20	1	A	0.90			REC: R202, R231
16	20	1	B		0.36		REC: R200 CEILING
18	20	1	C			0.00	FUTURE ELECTRIFIED DOOR HARDWARE
20	20	1	A	0.90			REC: R250D
22	20	1	B		0.90		REC: R250D
24	20	1	C			0.36	REC: R200 CEILING
26	20	1	A	0.00			SPARE
28	20	1	B		0.00		SPARE
30	20	1	C			0.00	SPARE
32	20	1	A	0.00			SPARE
34	20	1	B		0.00		SPARE
36	20	1	C			0.00	SPARE
38	20	1	A	0.00			SPARE
40	20	1	B		0.00		SPARE
42	20	1	C			0.00	SPARE
			SUBTOTAL	4.93	4.39	1.68	



Note:

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

B6 LIGHTING CONTROL DETAIL - NOTE 5



Note:

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A6 LIGHTING CONTROL DETAIL - NOTE 6

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