75 Jordan Ave,
Brunswick, ME 04011

Bid Documents April 1, 2020

DISCOVERY CLASSROOM
CONSTRUCTION DOCUMENTS

CHA Project No.
17078

OWNER:

BRUNSWICK SCHOOL DEPARTMENT

ARCHITECT:

CHA ARCHITECTURE
49 DARTMOUTH STREET
PORTLAND, ME 04101
207-775-1059
www.chaarchitecture.com

CONSULTANTS:

STRUCTURAL

Becker Structural Engineers, Inc.
75 York Street, Portland, ME 04101

MECHANICAL, ELECTRICAL, AND PLUMBING

Bennett Engineering, Inc.
7 Burnett Road, Freeport, ME 04032

CIVIL ENGINEERING

Atlantic Resource Consultants
541 US Route One, Suite 21, Freeport, ME 04032

Sheet Number	Sheet Name
Architectural	
A000	Cover Sheet
A001	GENERAL NOTES & MATERIAL LEGEND
A002	TYPICAL ASSEMBLIES
A003	LIFE SAFETY
A101	OVERALL PLAN
A102	OVERALL PLAN - ROOF
A111	OVERALL RCP
A200	EXTERIOR ELEVATIONS
A210	INTERIOR ELEVATIONS
A300	BUILDING SECTIONS
A310	WALL SECTIONS
A320	ENVELOPE DETAILS
A322	TYPICAL ENVELOPE DETAILS
A410	ENLARGED BATHROOM DETAILS
A501	TYPICAL INTERIOR DETAILS
A600	DOOR SCHEDULE & DETAILS
A630	STOREFRONT ELEV. & DETAILS
A700	CASEWORK DETAILS
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C-1	SITE & UTILITIES PLAN
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Mechanical	
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M102	ROOF MECHANICAL
M201	FIRST FLOOR PLUMBING
M301	MECHANICAL SCHEDULES, LEGEND AND DETAILS
Structural	
DC-S1.1	FOUNDATION PLAN, SECTION & DETAILS
DC-S1.2	ROOF FRAMING PLAN, BRACED FRAME ELES & SECTIONS

KATE FURBISH ELEMENTARY SCHOOL
DISCOVERY CLASSROOM

75 JORDAN AVENUE BRUNSWICK, MAINE 04011

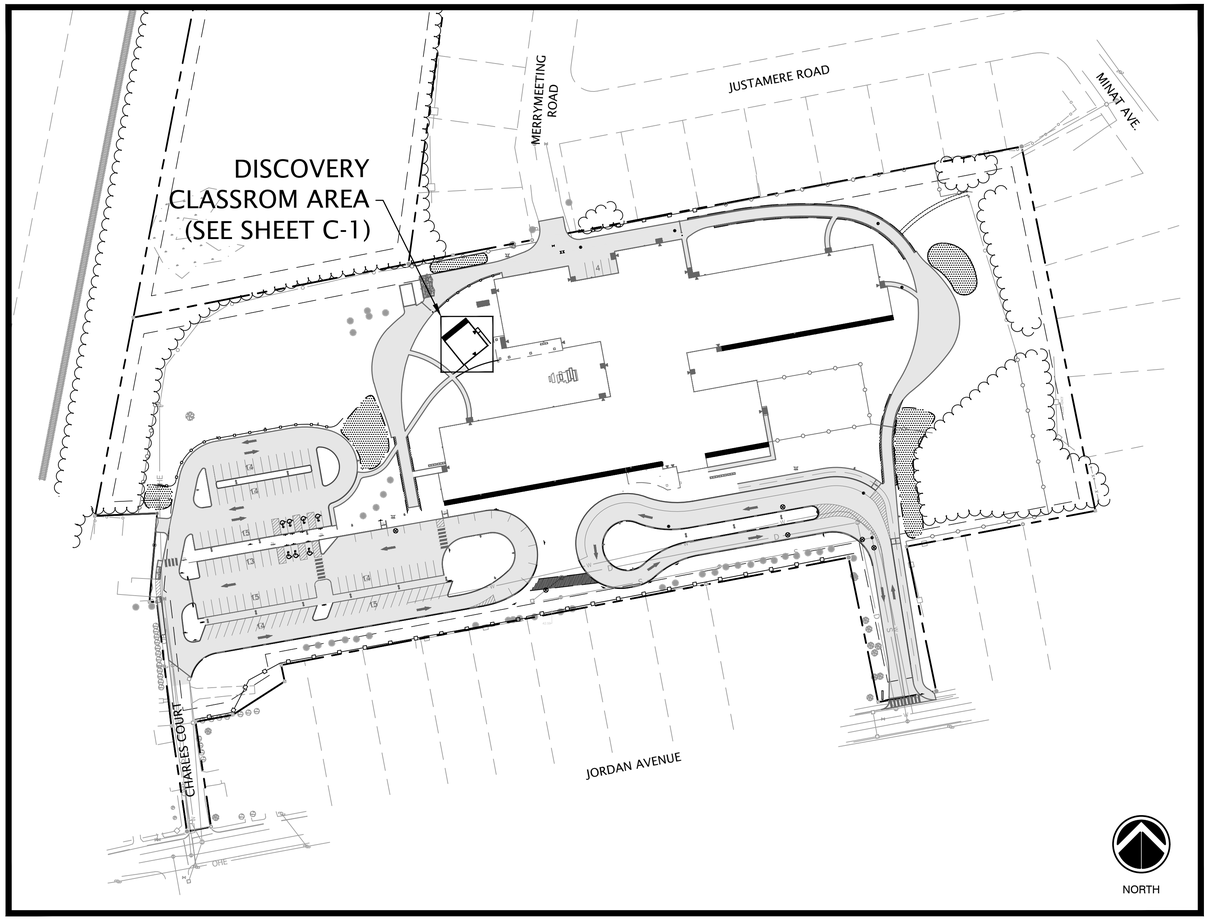
REVISION 3 - FEBRUARY 25, 2020

OWNER:
TOWN OF BRUNSWICK SCHOOL DEPARTMENT
46 FEDERAL STREET,
BRUNSWICK, MAINE 04011

ARCHITECT:
CHA ARCHITECTURE
49 DARTMOUTH STREET,
PORTLAND, MAINE 04101

CIVIL ENGINEERING & PERMITTING:
Atlantic Resource Consultants
Engineering Strategies and Solutions
541 US ROUTE ONE, SUITE 21
FREEPORT, MAINE 04032

LAND SURVEYOR:
HORIZONS ENGINEERING
34 SCHOOL STREET
LITTLETON, NEW HAMPSHIRE 03561



SCALE

0 40 80 160

SCALE in FEET
1"=80'

SHEET INDEX:

THE PROPERTY SHOWN ON THE APPROVED SITE PLAN MAY BE DEVELOPED AND USED ONLY AS SHOWN ON THE PLAN. ALL ELEMENTS AND FEATURES OF THE PLAN AND ALL REPRESENTATIONS MADE BY THE APPLICANT WHICH APPEAR IN THE RECORD OF THE PLANNING BOARD PROCEEDINGS ARE CONDITIONS OF APPROVAL. NO CHANGE FROM THE CONDITIONS OF APPROVAL IS PERMITTED UNLESS AN AMENDED STE PLAN IS APPROVED BY THE PLANNING BOARD.

ISSUED FOR BID

KATE FURBISH ELEMENTARY SCHOOL
DISCOVERY CLASSROOM ZONING SUMMARY

THE PROJECT IS LOCATED ENTIRELY WITHIN THE GR8 ZONE SCHOOL IS A PERMITTED USE IN THE ZONE

THE PROJECT SITE COMPRISES MAP UO6, LOT 5 AND MAP 54, LOT 14 - THE TOTAL SITE AREA IS 17.10 ACRES+/-

DISTRICT DIMENSIONAL STANDARDS

STANDARD	REQUIRED	APPROVED SCHOOL PLAN	CLASSROOM ADDITION	COMBINED
MIN. LOT WIDTH	65FT	>800FT	>800FT	>800FT
FRONT SETBACK	20FT	128.3FT	292.2FT	128.3FT
REAR SETBACK	20FT	29.7FT	75.9FT	29.7FT
SIDE SETBACK	15FT	177.8FT	347.0FT	177.8FT
IMPERVIOUS COVERAGE	35%	26.8%	**0.2%**	**27.0%**
BUILDING HEIGHT	35 FT	<35FT	<35FT	<35FT
BUILDING FOOTPRINT (MAX. PER STRUCTURE)	5,000SF	70,900SF+/-*	1,156SF	70,900SF+/-*

* THE PROJECT SITE HAS AN EXISITNG NON-CONFORMING STRUCTURE - THIS PROJECT HAS RECEIVED A SPECIAL PERMIT FOR EXPANSION OF A NON-CONFORMING BUILDING FOOTPRINT, I IN ACCORDANCE WITH SECTION 5.2.4. OF THE ZONING ORDINANCE

ISSUED FOR BID

NORTH

NEW 1" TAP ON EXISTING 8" WATER SERVICE -INSTALL 1" TYPE COPPER SERVICE TO CURB STOP, THEN TRANSITION TO 1"PE

NEW 6" TAP ON EXISTING 8" WATER SERVICE

CB-11

CB-12

CB-8

CORE SMH FOR NEW FORCE MAIN

RUN NEW WATER SERVICES IN SAME TRENCH (SEPARATION SHOWN FOR CLARITY)

NEW 1.25" HDPE SEWER FORCE MAIN 175± L.F.

NEW COMBINED UTILITY TRENCH (ELECTRIC, COMMS AND DATA) FROM MAIN BUILDING

GAS SERVICE LOCATION FROM SKETCH BY CONTRACTOR

NEW SCHOOL BUILDING (UNDER CONSTRUCTION) F.F.E. = 43.75

NEW 6" DUCTILE IRON FIRE SERVICE

NEW SEWER PUMP STATION SEE DETAIL

14 'X 6' GENERATOR PAD

NEW 1" GAS SERVICE

NEW 1" DOMESTIC WATER SERVICE

PINNED ENTRY SLAB

NEW BITUMINOUS WALKWAY

LIMITS OF WORK FOR DISCOVERY CLASSROOM

4" SEWER INV. OUT=38.0

DISCOVERY CLASSROOM F.F.E. = 43.50

4' x 34' BUILDING DRIP-EDGE

NEW CONCRETE SIDWALK

PINNED ENTRY SLAB

LAWN (TYP.)

LAWN (TYP.)

LAWN (TYP.)

REV	DATE	DESCRIPTION
3	2-25-20	REVISED BUILDING LOCATION
2	09-30-19	ADDED GAS SERVICE
1	08-29-19	REVISED PER STAFF REVIEW COMMENTS

REVISIONS

STATE OF MAINE — ANDREW D. JOHNSTON — NO. 9994 — 2-25-20 — LICENSED PROFESSIONAL ENGINEER

P.E. ANDREW D. JOHNSTON
LIC. #9994

KATE FURBISH ELEMENTARY SCHOOL
DISCOVERY CLASSROOM
SITE & UTILITIES PLAN

BRUNSWICK SCHOOL DEPARTMENT
75 JORDAN AVENUE
BRUNSWICK, MAINE 04011

Atlantic Resource Consultants
541 US Route One
Freeport, ME 04032
Tel: 207.869.9050

DRAWN:	MPV	DATE:	FEBRUARY 25, 2020
DESIGNED:	ADJ	SCALE:	1" = 10'
CHECKED:	ADJ	JOB NO.	17-035
FILE NAME:			
SHEET:	C-1		

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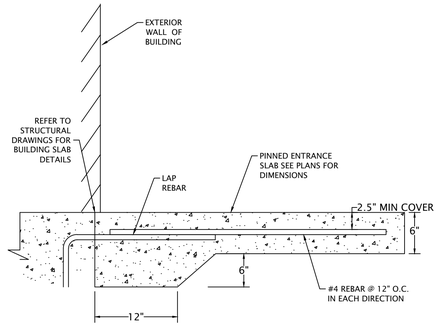
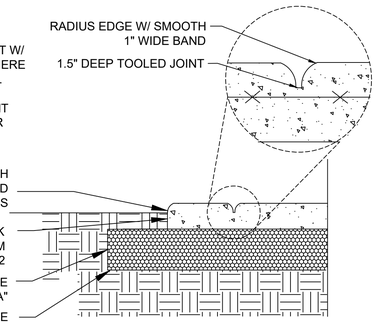


NOTES:
1. SINGLE DOOR PADS SHALL BE 5'X5', DOUBLE DOOR PADS SHALL BE 5'X7'
2. SEE CONFORMED DRAWING SET FOR BACKFILL REQUIREMENTS

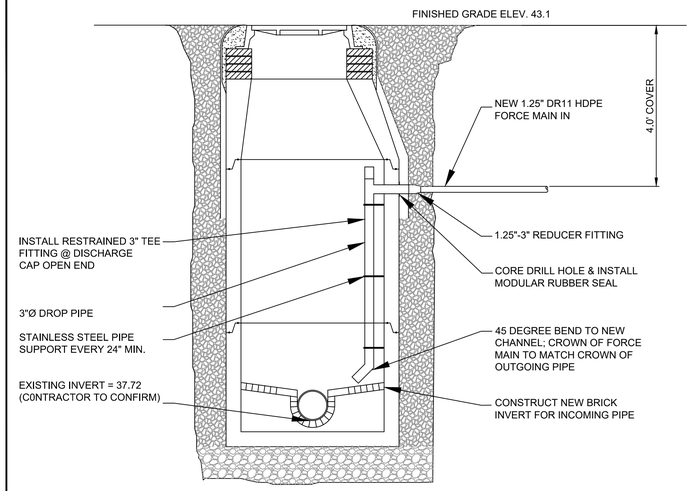
(A) PINNED ENTRANCE SLAB DETAIL
N.T.S.

NOTES:
1. PROVIDE ISOLATION JOINT W/ SELF-LEVELING SEALER WHERE WALK ABUTS ANY VERTICAL SURFACE.
2. DEPTH OF CONTROL JOINT MUST BE AS INDICATED FOR ACCEPTANCE OF WORK.

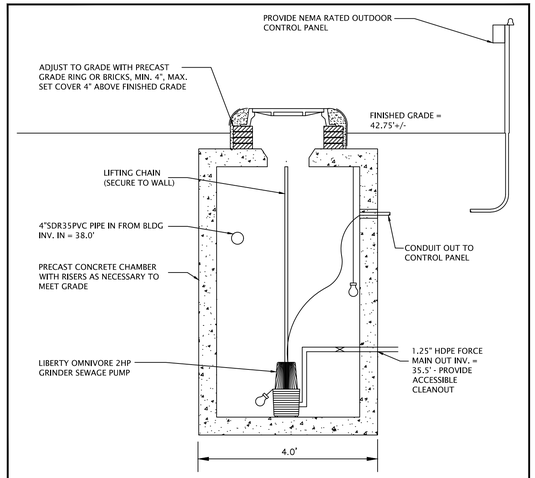


*UNLESS SHOWN OR NOTED OTHERWISE, BROOM PERPENDICULAR TO DIRECTION OF TRAVEL.

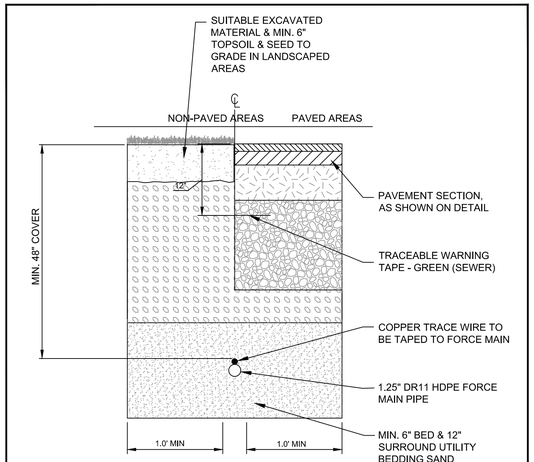
(B) CONCRETE WALKWAY
N.T.S.



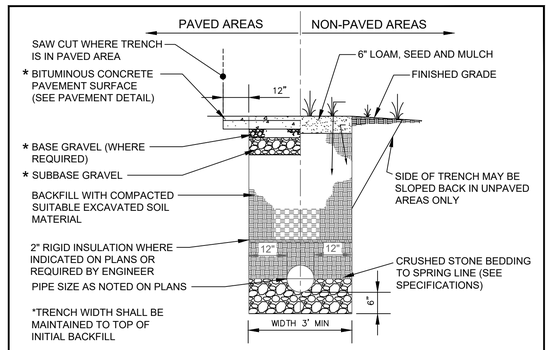
(D) FORCE MAIN OUTLET TO PRECAST SEWER MANHOLE DETAIL
N.T.S.



(G) SANITARY SEWER PUMP STATION DETAIL
N.T.S.

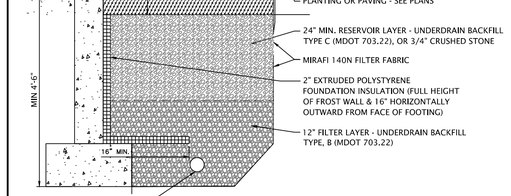


(I) SANITARY FORCE MAIN TRENCH DETAIL
N.T.S.



NOTE:
BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

(E) TYPICAL SEWER AND STORM DRAIN TRENCH DETAIL
N.T.S.

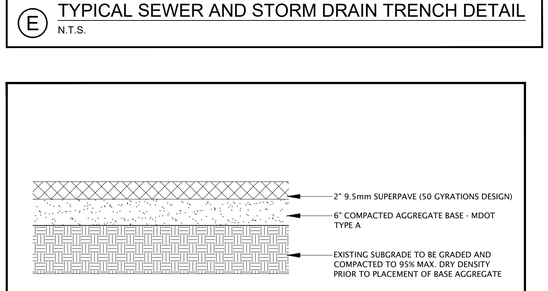


(H) STONE DRIP EDGE FILTER DETAIL
N.T.S.

NOTES:
1. INSTALL PULL STRING IN EACH CONDUIT

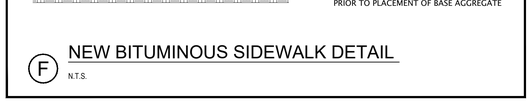
SERVICE	CONDUIT SIZE	CONDUIT TYPE GRASS AREAS	CONDUIT TYPE PAVED AREAS	UTILITY
A	4"	SCHEDULE 40 PVC ELECTRICAL GRADE	RIGID GALVANIZED STEEL, ASTM A120	POWER
B	4"	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL, ASTM A120	TELEPHONE/DATA
C	4"	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL, ASTM A120	FIRE ALARM
C	4"	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL, ASTM A120	SPARE

(J) COMBINED UTILITY TRENCH
N.T.S.



NOTE:
1. BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. ALL WATER MAINS, SERVICES & APPURTENANCES SHALL MEET THE STANDARDS AND SPECIFICATIONS OF BRUNSWICK AND TOPSHAM WATER DISTRICT

(C) WATER PIPE TRENCH DETAIL
N.T.S.



(F) NEW BITUMINOUS SIDEWALK DETAIL
N.T.S.

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STATE OF MAINE ANDREW D. JOHNSTON NO. 9994 2-25-20 LICENSED PROFESSIONAL ENGINEER

P.E. ANDREW D. JOHNSTON
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KATE FURBISH ELEMENTARY SCHOOL
DISCOVERY CLASSROOM
SITE CIVIL DETAILS I

BRUNSWICK SCHOOL DEPARTMENT
75 JORDAN AVENUE
BRUNSWICK, MAINE 04011

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541 US Route One
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Tel: 207.869.9050

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DESIGNED:	ADJ	SCALE:	N.T.S.
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SHEET:	C-2		

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GENERAL 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.

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 GRANTRACTOR 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.

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.
4. Install coat hooks at doors and walls.
5. Install transition strips between dissimilar flooring materials.
6. All wood not indicated to be painted shall be natural finish (clear).
7. 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.

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.

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.

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.

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.

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
B/S	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 (S)
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
ZCC	ZINC-COATED COPPER

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
- 1\ — WINDOW\GLAZING TAG
- XX — WALL TAG
- 123 — SPECIALTY EQUIPMENT\ TOILET ACCESSORY TAG
- 1\ — CASEWORK TAG
- 1 / A101 — BUILDING SECTION
- 1 / A101 — WALL SECTION
- SIM / 1 / A101 — PLAN OR SECTION DETAIL
- SIM / 1 / A101 — 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

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DRWN. CHK Checker

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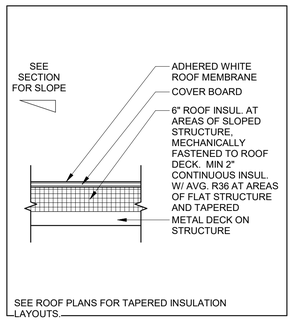
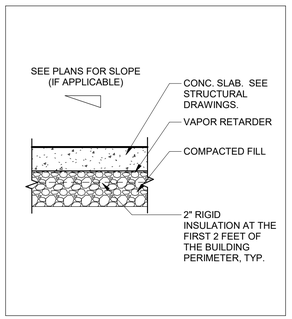
ISSUE 4/1/2020

TITLE
GENERAL NOTES & MATERIAL LEGEND

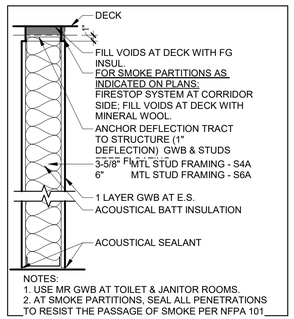
SHEET
A001



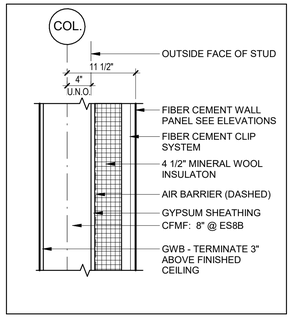
SINGLE-PLY MEMBRANE ROOFING ON METAL DECK | R1



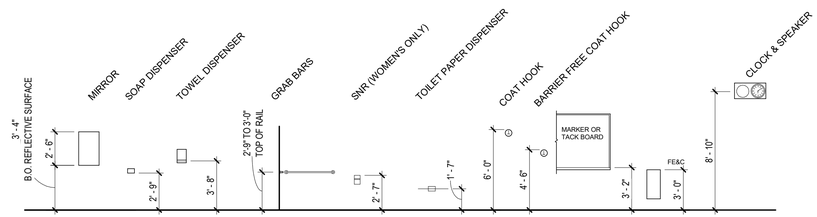
CONCRETE SLAB ON GRADE



METAL STUD PARTITION FULL HEIGHT | S4A | S6A



FIBER CEMENT WALL PANELS AT CFMF BACKUP | ES8C



MOUNTING HEIGHT GENERAL NOTES:

1. SEE MECHANICAL, ELECTRICAL, AND TECHNOLOGY DRAWINGS FOR SPECIFIC FIXTURE OR DEVICE LOCATION AND DESIGNATION AND ADDITIONAL MOUNTING REQUIREMENTS.
2. COORDINATE LOCATION OF ALL RECEPTACLES, FIXTURES OR DEVICES WITH INTERIOR ELEVATIONS AND CASEWORK LOCATIONS.
3. REFER TO MANUFACTURER'S INSTRUCTIONS FOR SPECIFIC ADA REQUIRED MOUNTING HEIGHTS AS APPLICABLE.

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-FLOOR OR SLAB TO UNDERSIDE OF FLOOR OR ROOF DECK ABOVE, UNLESS NOTED OTHERWISE.

5. GYPSUM BOARD APPLIED TO WALLS SHALL BE APPLIED WITH THE BOTTOM EDGE SPACED NOT LESS THAN 1/4" ABOVE THE FLOOR. INSTALL A CONTINUOUS BEAD OF ACOUSTICAL SEALANT UNDER EACH LAYER OF GWB AT THE INTERSECTION WITH FLOOR, ON EACH SIDE OF THE WALL.

6. ALL TOP-OF-WALL CONDITIONS SHALL BE SEALED TO THE DECK ABOVE, UNLESS NOTED OTHERWISE. MAINTAIN THE REQUIRED FIRE RATINGS, SMOKE RATINGS, AND ACOUSTICAL RATINGS. COORDINATE THE TOP OF WALL CONSTRUCTION WITH THE STRUCTURAL FRAMING.

7. 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.

8. FOR EXISTING WALLS SUPPORTING NEW ITEMS, VERIFY THE WALL TYPE PRIOR TO PERFORMING THE WORK TO DETERMINE APPROPRIATE TYPE OF ANCHOR UNLESS INDICATED OTHERWISE. CONSULT ARCHITECT FOR CLARIFICATION IF NEEDED.

9. INSTALL MOISTURE RESISTANT (M.R.) GWB IN TOILET ROOMS, JANITOR'S CLOSETS, SHOWER ROOMS, LOCKER ROOMS, KITCHENS, DARKROOMS, ALL WALL AREAS WITHIN 8 FEET OF SINKS, AND OTHER DAMP OR HIGH HUMIDITY AREAS.

10. PROVIDE WOOD-PRESERVATIVE TREATED LUMBER (PRESSURE TREATED) AT ALL EXTERIOR WOOD FRAMING IN CONTACT WITH CONCRETE, WITHIN 18" OF THE GROUND, OR EXPOSED TO THE WEATHER SHALL BE.

11. VERIFY ALL COLD-FORMED METAL FRAMING AND CONNECTION REQUIREMENTS WITH ENGINEER OF EXTERIOR FRAMING SYSTEM.

12. ALL INTERIOR LIGHT GAGE METAL FRAMING IS 6", UNLESS NOTED OTHERWISE.

13. ALL CMU IS 8"X8"X16" (NOMINAL), UNLESS NOTED OTHERWISE.

14. LOCATE CONTROL JOINTS IN MASONRY AS SHOWN, OR IF NOT SHOWN, IN ACCORDANCE WITH ACI 530/ACI 530.1, UNLESS NOTED OTHERWISE.

15. ALL COLD-FORMED METAL FRAMING CAVITIES SHALL BE FIRE STOPPED WITH A 1-HOUR SEPARATION AT EACH FLOOR LEVEL.

16. PROVIDE ACOUSTICAL INSULATION AT ALL INTERIOR STUD WALL ASSEMBLIES UNLESS NOTED OTHERWISE.

17. IDENTIFY ALL FIRE-RATED PARTITIONS BY STENCILING THE RATING ON EACH SIDE OF THE RATED WALLS ABOVE THE CEILING LINE WITH 4" HIGH LETTERS IN RED OR ORANGE PAINT; EACH RATED WALL SHALL BE IDENTIFIED AT LEAST ONCE AND AT A SPACING NOT GREATER THAN 12 FEET ON CENTER.

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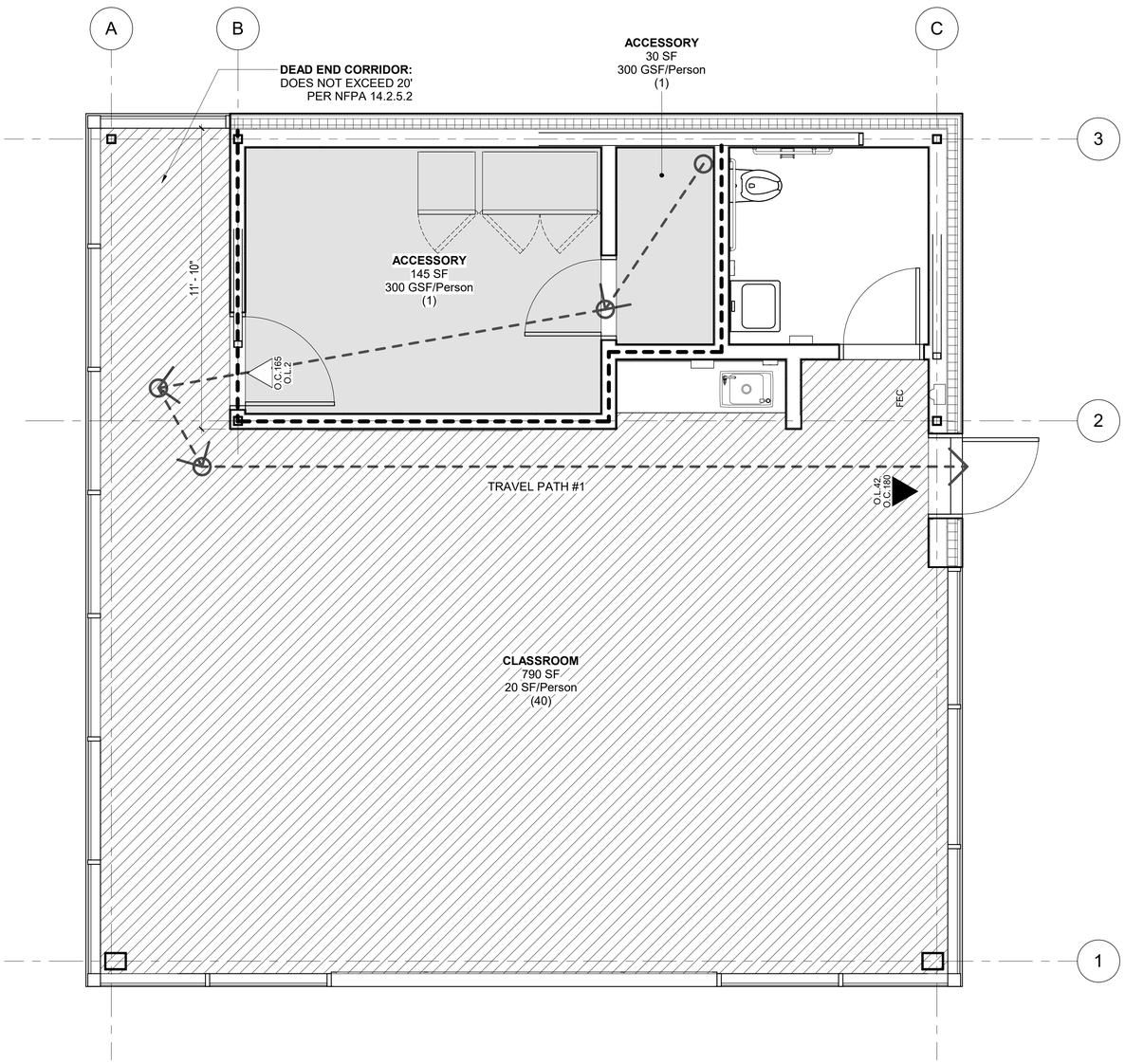
TITLE
TYPICAL ASSEMBLIES

SHEET
A002



1 Life Safety Plan
3/8" = 1'-0"

LEGEND

OCCUPANT LOAD AT EXIT ACCESS COMPONENTS

O.L.140
O.C.145 — LOAD FROM A SINGLE ROOM OR SPACE

O.L.140
O.C.160 — OCCUPANT LOAD / OCCUPANT CAPACITY

EXIT FROM A FLOOR OR SPACE

DIVISION LINE OF SMOKE PARTITION

FEC — FIRE EXTINGUISHER CABINET (LOCATED EVERY 75 FT.)

EGRESS TRAVEL PATH

EGRESS TRAVEL PATH SCHEDULE	
Travel Path ID	Travel Distance
	0"
TRAVEL PATH #1	58' - 4 1/4"

ARCHITECTURAL CODE AND STANDARD COMPLIANCE SUMMARY
Project Description: A new single story Pre-Kindergarten to 2nd grade classroom space of approx 1,100 sf total. Construction type will be steel-framed, non-combustible, unprotected.

ARCHITECTURAL CODE AND STANDARD COMPLIANCE SUMMARY
Project Description: A new two story Pre-Kindergarten to 2nd Grade School of approx 88,000 sf total. Construction type will be steel-framed, non-combustible, unprotected with a supervised fully automatic sprinkler system.

Maine Uniform Building and Energy Code (MUBEC/MUBC/MUEC)
International Building Code (IBC) - 2015 edition w/ Maine amendments

Use and Occupancy Classifications
Occupancy Classification:
Single Occupancy (Educational)
Occupancy Groups:
Educational: Group E (Section 305)
311.1.1 Accessory storage spaces. A room or space used for storage purposes that is less than 100 square feet (9.3 m2) in area and accessory to another occupancy shall be classified as part of that occupancy. The aggregate area of such rooms or spaces shall not exceed the allowable area limits of Section 508.2.

Construction Classification: II-B (non-combustible, unprotected)

Fire Protection Systems:
Automatic alarm system, monitored and supervised per NFPA 72.

Means of Egress Components
Travel Distance Limitations:
Educational use areas

Max travel distance to an exit	250 ft
Max common path of travel	75 ft
Max dead end length	20 ft

Exits/Exit Access per Floor	Occs	Req'd	Provided
	42	1	1

Fire and Smoke Protection Requirements	Vert	Horiz	Door	Window
Exterior walls	none	none	none	none
Occupancy separations (single occupancy building)	none	none	none	none
Accessory occupancies	none	none	none	none

IECC International Energy Conservation Code - 2009 edition/ASHRAE 90.1 - 2013 edition
This building has been designed to exceed the energy conservation requirements in the above referenced code and standard.

NFPA 101 Life Safety Code - 2015 edition
Classification of Occupancy and Hazard of Contents

Occupancy Classification:
Single Occupancy (Educational)
Occupancy Groups:
Educational (Section 6.1.3.1)
6.1.3.2 Other Occupancies. Other occupancies associated with educational institutions shall be in accordance with the appropriate parts of this Code.
Multiple-Occupancies (6.1.14)
6.1.14.1.3 Per Maine SFM Rules, this section regarding *Incidental Occupancies* is omitted and the replaced with IBC *Accessory Occupancies* section.

Construction Classification: II (0,0,0) non-combustible, unprotected

Detection,Alarm,andCommunicationsSystems.
14.3.4.1.1 Educational occupancies shall be provided with a fire alarm system in accordance with Section 9.6.

Sprinkler System Type: Not required per NFPA 101

Level of Exit Discharge: 1st Floor

Means of Egress Components
Educational use areas
200 ft Max travel distance to an exit
100 ft Max common path of travel
50 ft Max dead end length

Minimum number of exits per floor	Occupants	Exits
	42	1

Construction Type Limitations:

Fire and Smoke Protection Requirements	Vert	Horiz	Door	Window
Exterior walls	none	none	none	none
Occupancy separations (single occupancy building)	none	none	none	none
Accessory occupancies (see 6.1.14.1.3 below)	none	none	none	none

Means Egress Component Capacity:
Doors and other horizontal components .2"/person

Interior Finishes
14.3.3.2 Interior Wall and Ceiling Finish. Interior wall and ceiling finish materials complying with Section 10.2 shall be permitted as follows:
(1) Exits — Class A
(2) Other than exits — Class A or Class B

Extinguishment Requirements:
Portable fire extinguishers
9.7.4.1 - NFPA 10
Class A Hazard - Light /Low Hazard Occupancy - Table 6.2.1.1
&
IBC 2009 - TABLE 906.3 (1)
Building equipped with quick response sprinklers = shall be installed in special hazard areas or where required by IFC Table 906.1

IFC Table 906.1-
IFC 2306.1 - Rack Storage (high-piled storage)
IFC 2906.3 - Combustible Fibers

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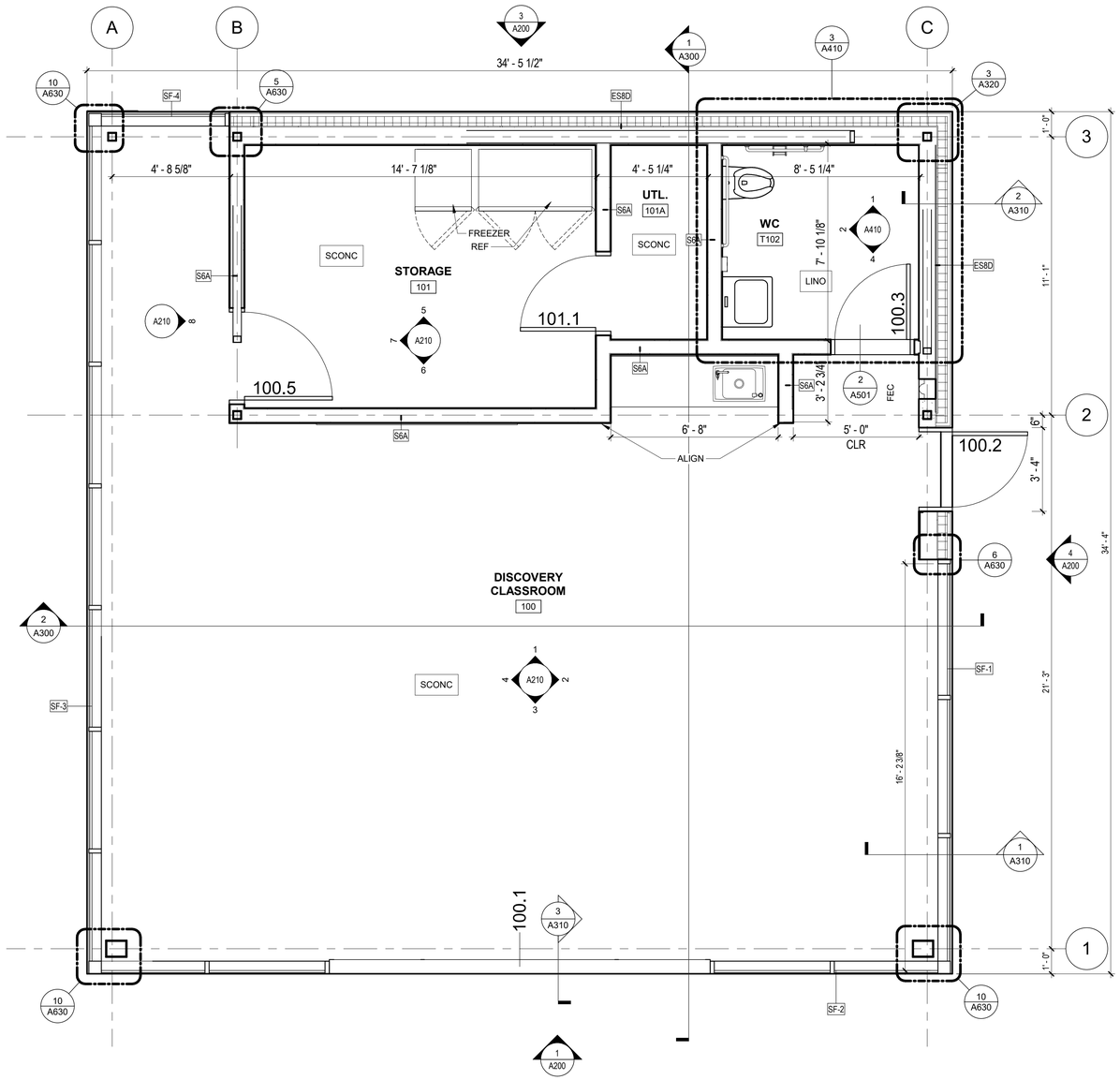
TITLE
LIFE SAFETY

SHEET
A003



1 LEVEL 1
3/8" = 1'-0"

PLAN GENERAL NOTES

1. WORK FROM GIVEN DIMENSIONS. IN GENERAL, LARGE-SCALE DETAILS TAKE PRECEDENCE OVER SMALLER SCALE PLANS, ELEVATIONS AND BUILDING SECTIONS. NOTIFY THE ARCHITECT OF ANY DIMENSIONAL DISCREPANCIES PRIOR TO COMMENCING THE WORK, AND DO NOT BEGIN WORK UNTIL SUCH DISCREPANCIES ARE RESOLVED BY THE ARCHITECT.

2. DO NOT SCALE THE DRAWINGS.

3. DIMENSIONS INDICATED AS "CLEAR" SHALL BE MAINTAINED IN CASES OF DISCREPANCY.

4. UNLESS NOTED OTHERWISE, THE LOCATION OF DOOR FRAMES SHALL BE:
- CMU PARTITIONS: 4" FROM THE ADJACENT WALL TO THE HINGE SIDE OF THE ROUGH OPENING.
- METAL STUD PARTITIONS: 4" FROM THE ADJACENT WALL STUDS TO THE HINGE SIDE OF THE ROUGH OPENING.

5. MASONRY OPENING OR ROUGH OPENING DIMENSIONS INDICATED ARE NOMINAL DIMENSIONS AND MAY NOT MATCH THE ACTUAL DIMENSIONS OF THE PRODUCT. COORDINATE ALL MASONRY OPENINGS AND ROUGH OPENINGS WITH THE ACTUAL WINDOW UNIT, DOORFRAME, CURTAIN WALL/STOREFRONT, OR LOUVER SIZES AND REQUIREMENTS.

6. DIMENSIONAL CONTROL:

EXTERIOR DIMENSIONS ARE TO:
- CENTERLINE OF COLUMN
- FACE OF MASONRY
- FACE OF STUD
- FACE OF CONCRETE
- CENTERLINE OF WINDOW OPENING
- ROUGH OPENING
- MASONRY OPENING

INTERIOR DIMENSIONS ARE TO:
- CENTERLINE OF COLUMN
- FACE OF MASONRY
- FACE OF STUD
- FACE OF EXISTING FINISH MATERIAL

- **EXISTING** DIMENSIONS SHALL BE VERIFIED. REPORT ANY DISCREPANCIES TO THE ARCHITECT.

7. TYPICAL DETAIL NOTES:
- THE FOLLOWING NOTES ARE TYPICAL THROUGHOUT THIS PROJECT AND APPLY IN ALL CASES UNLESS SPECIFICALLY NOTED OTHERWISE. THESE NOTES AND ASSOCIATED DETAILS MAY NOT BE DIRECTLY REFERENCED ON THE DRAWINGS:
- ALL COLUMNS ADJACENT TO OR INTEGRAL WITH EXTERIOR WALL CONSTRUCTION SHALL BE ENCLOSED WITHIN THE WALL CONSTRUCTION.
- ALL COLUMNS LOCATED ADJACENT TO OR INTEGRAL WITH CMU OR GWB PARTITIONS SHALL BE ENCLOSED WITHIN THE WALL CONSTRUCTION.
- ALL FREESTANDING COLUMNS SHALL BE ENCLOSED WITH GWB ON METAL LGMF.
- ALL GWB PARTITIONS INTERSECTING MASONRY PARTITIONS, EITHER NEW OR EXISTING, SHALL BE FINISHED WITH A "J" BEAD AND CONTINUOUS SEALANT.
- ALL NEW OPENINGS FOR WINDOWS AND DOORS IN EXISTING MASONRY WALLS SHALL BE TOOTHED IN AT THE JAMBS.
- ALL ROOF LEADERS, HEAT PIPING, SPRINKLER RISERS, PLUMBING VENTS, SANITARY PLUMBING OR MISCELLANEOUS PIPING SHALL BE ENCLOSED WITHIN THE WALL CONSTRUCTION.
- ALL DUCT PENETRATIONS THROUGH FLOORS SHALL BE ENCLOSED IN A CHASE.

MATERIAL KEY

LINO	LINOLEUM
PLAM	PLASTIC LAMINATE
PT	PAINT
RB	RESILIENT BASE
SCONC	SEALED CONCRETE
WB	WHITE BOARD
WF	WINDOW FILM

ROOM FINISH NOTES

1. REFER TO ELEVATIONS FOR MATERIAL LOCATIONS & ACCESSORIES
2. LINO-2C TO RUN 4' UP WET WALL IN CLASSROOM TOILET ROOMS
3. EXPOSED STRUCTURE, INCLUDING DECK, JOISTS & DUCTS TO BE PAINTED P-6 (WHITE)
4. WALLS TO BE PAINTED P-1 U.N.O.

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JOB NO.
17078

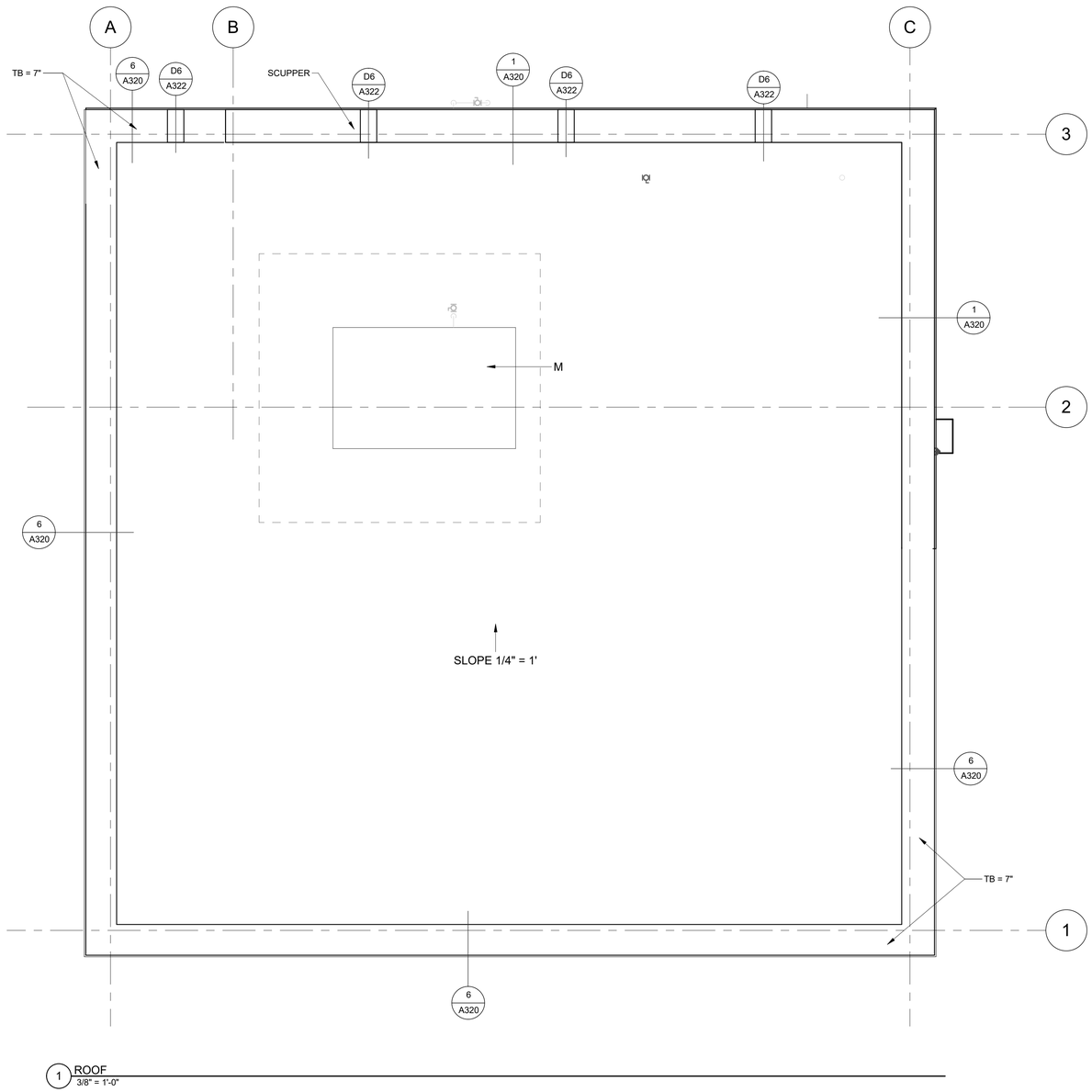
DRWN. CHK
Checker

SCALE:
As indicated

ISSUE
4/1/2020

TITLE
OVERALL PLAN

SHEET
A101



1 ROOF
3/8" = 1'-0"

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.

ROOF LEGEND

ROOF SYSTEM - SEE TYPICAL ASSEMBLIES SHEET

TB - TOP OF PARAPET BLOCKING (FROM T.O. DECK)

WALKWAY PAD, TO BE PLACED AT ALL EQUIP. SERVICE AREAS, DOOR, AND LADDERS. 10' MIN FROM ROOF EDGES AND SKYLIGHTS

M "M" INDICATES ROOF TOP MECHANICAL EQUIPMENT THAT IS TO BE CURB MOUNTED. CONFIRM ALL LOCATIONS AND ANY ADDITIONAL EQUIPMENT NOT NOTED ON ROOF PLAN WITH MEP DRAWINGS. NO CURB-MOUNTED EQUIPMENT TO BE LOCATED WITHIN 10' OF A ROOF EDGE.

ROOF SLOPE

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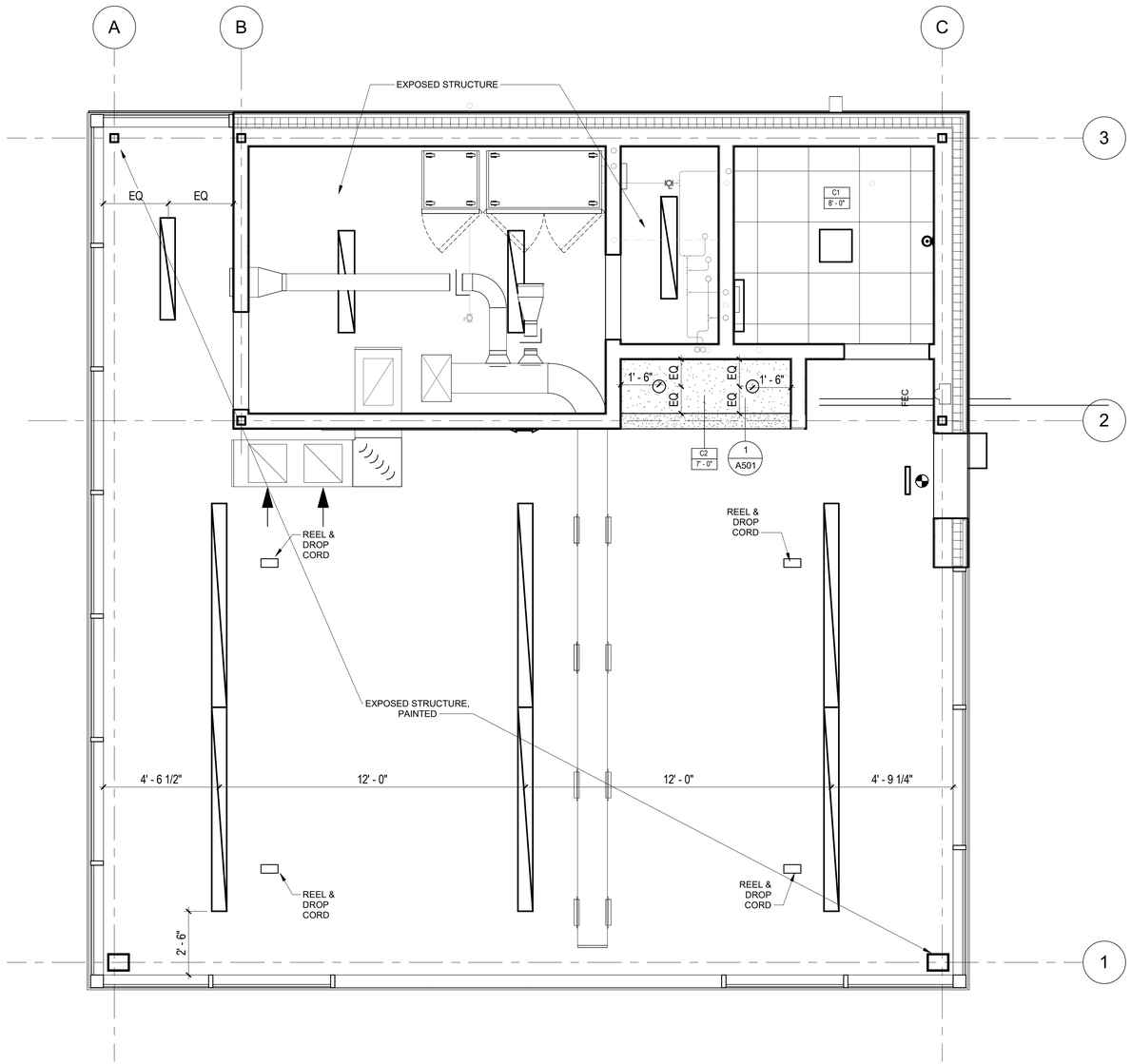
4/1/2020

TITLE
OVERALL PLAN - ROOF

SHEET
A102



1 ROOF PLAN
3/8" = 1'-0"

CEILING TYPES

C1	2x2 ACOUSTIC CEILING TILE
C2	GWB ON METAL STUD

GRAPHIC LEGEND

- CLASSROOM LIGHT
- DOWNLIGHT
- STORAGE/MECH LIGHT
- MECHANICAL SUPPLY OR RETURN
- EXIT SIGN

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.

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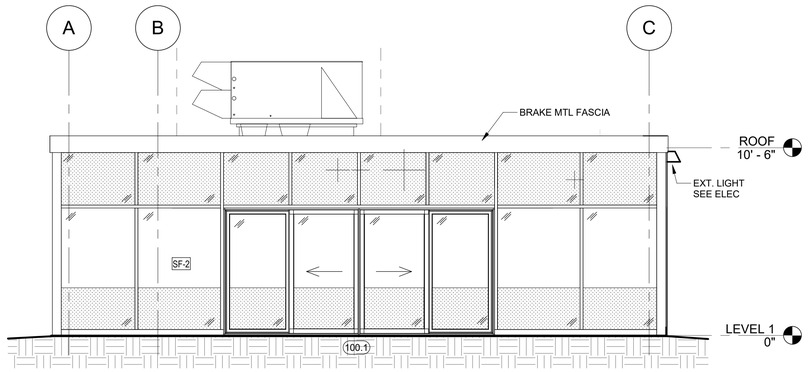
OVERALL RCP

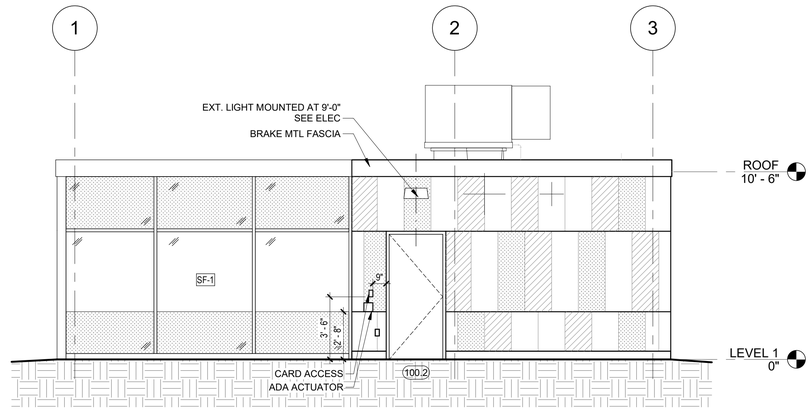
SHEET
A111

Fiber Cement Panel Colors

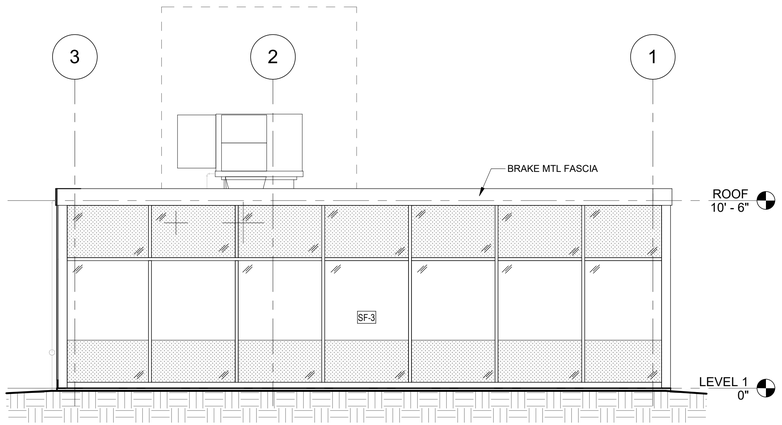
PANEL COLOR 1 | PANEL COLOR 2 | PANEL COLOR 3



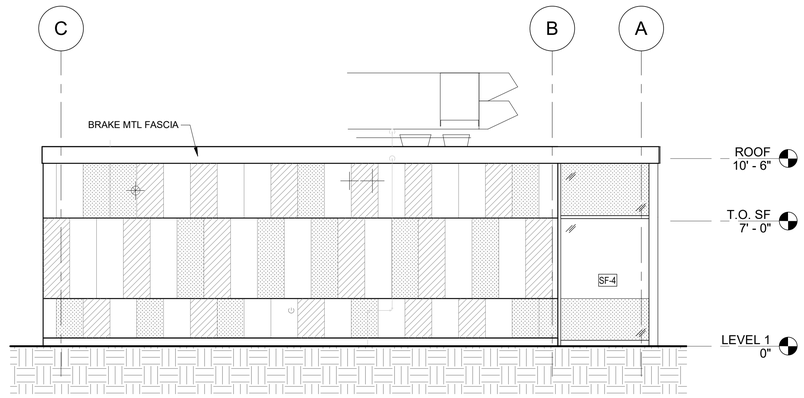
1 South Elevation
1/4" = 1'-0"



4 East Elevation
1/4" = 1'-0"



2 West Elevation
1/4" = 1'-0"



3 North Elevation
1/4" = 1'-0"

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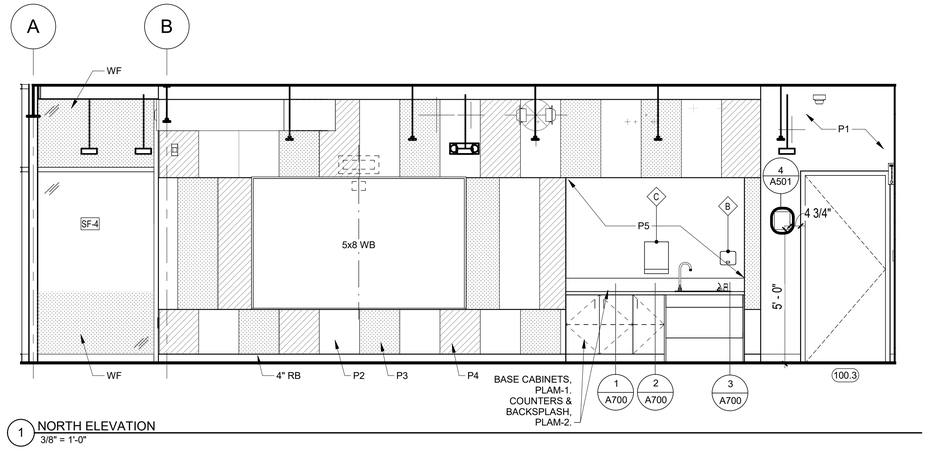
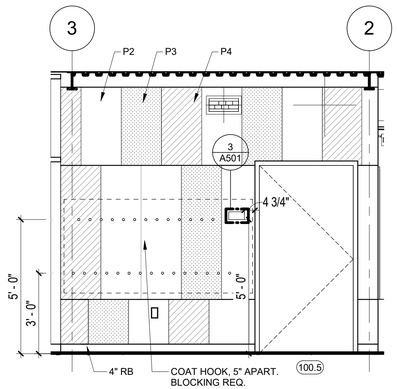
4/1/2020

TITLE
EXTERIOR ELEVATIONS

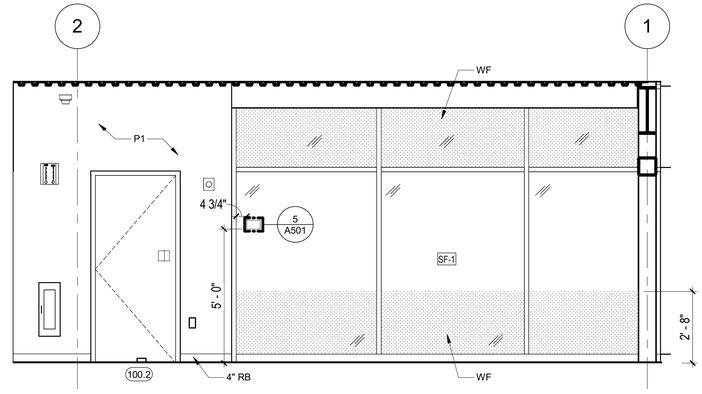
SHEET
A200



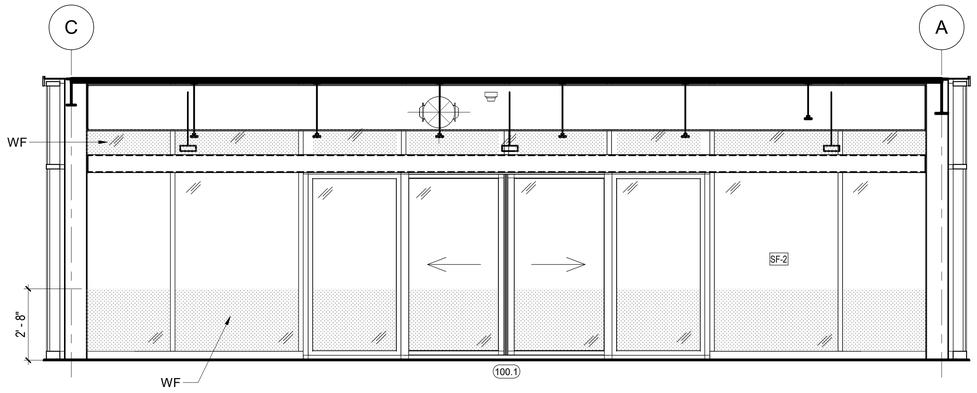
1 NORTH ELEVATION
3/8" = 1'-0"



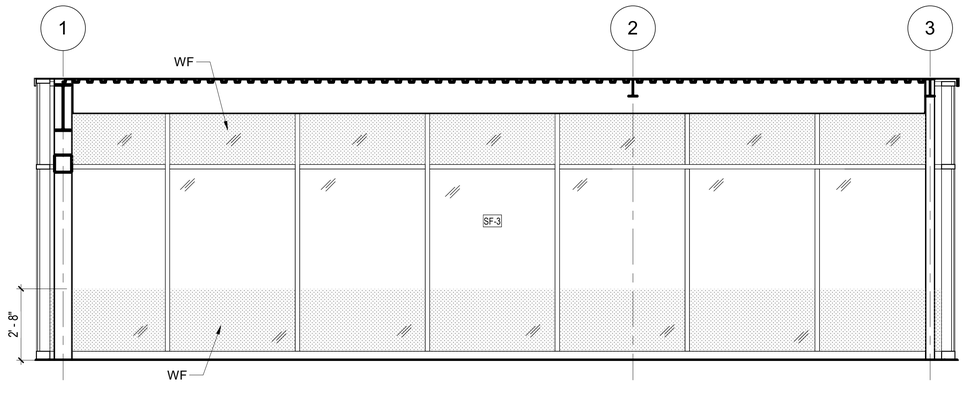
8 EAST ELEVATION 2
3/8" = 1'-0"



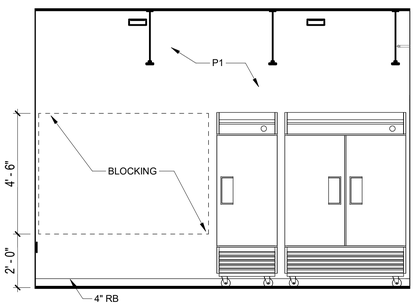
2 EAST ELEVATION
3/8" = 1'-0"



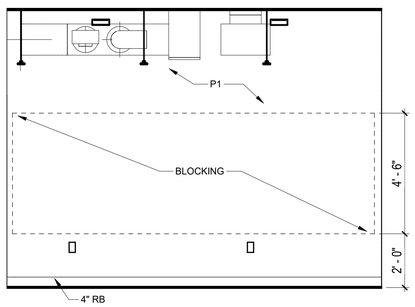
3 SOUTH ELEVATION
3/8" = 1'-0"



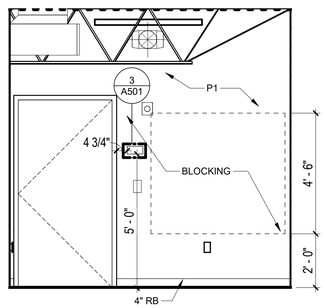
4 WEST ELEVATION
3/8" = 1'-0"



5 STORAGE - NORTH ELEV.
3/8" = 1'-0"



6 STORAGE - SOUTH ELEVATION
3/8" = 1'-0"



7 STORAGE - WEST ELEVATION
3/8" = 1'-0"

MATERIAL KEY

LINO	LINOLEUM
PLAM	PLASTIC LAMINATE
P	PAINT
RB	RESILIENT BASE
SCONC	SEALED CONCRETE
WB	WHITE BOARD
WF	WINDOW FILM

	ACCESSORIES
B	SOAP DISPENSER - OSCI
C	PAPER TOWEL DISPENSER - OSCI

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.
4. Install coat hooks at doors and walls.
5. Install transition strips between dissimilar flooring materials.
6. All wood not indicated to be painted shall be natural finish (clear).
7. All grab bar components shall be able to withstand a horizontal load of 250lbs at any point.

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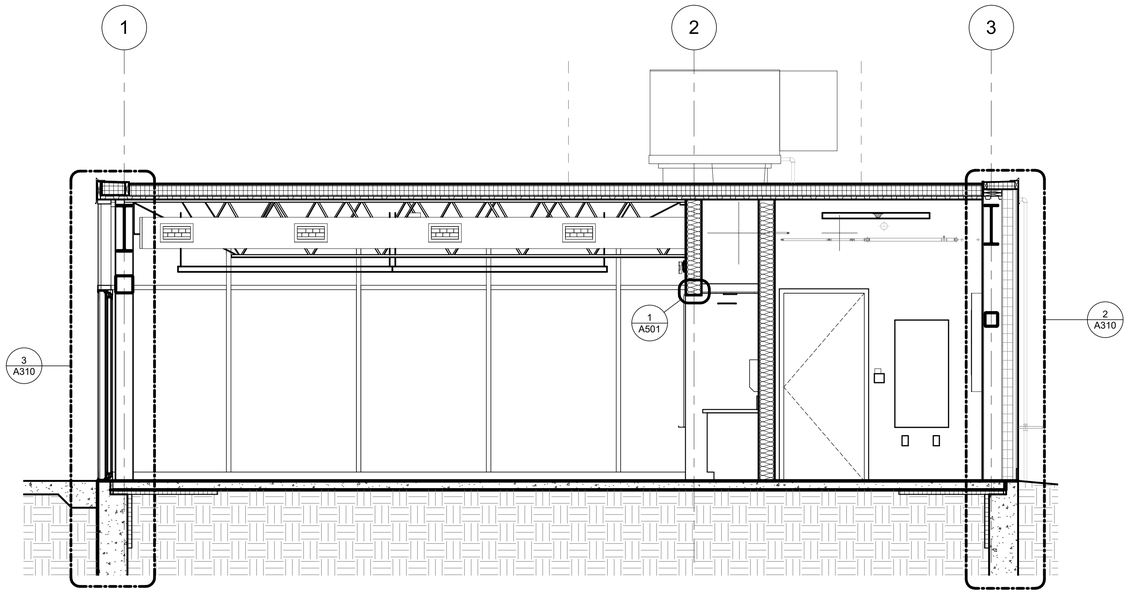
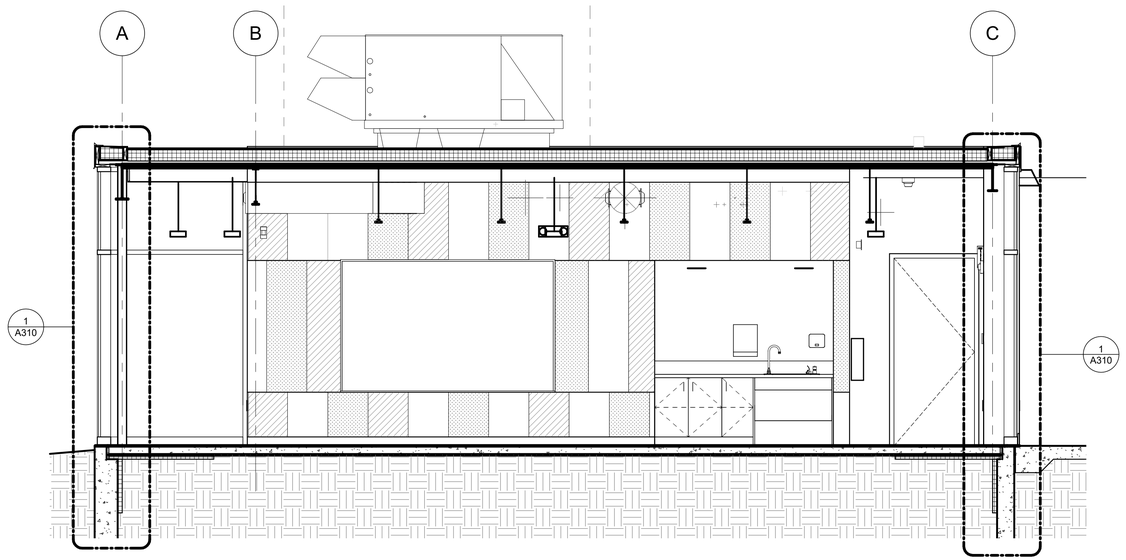
ISSUE
4/1/2020

TITLE
INTERIOR ELEVATIONS

SHEET
A210



1 BUILDING SECTION 1
3/8" = 1'-0"



2 BUILDING SECTION 2
3/8" = 1'-0"

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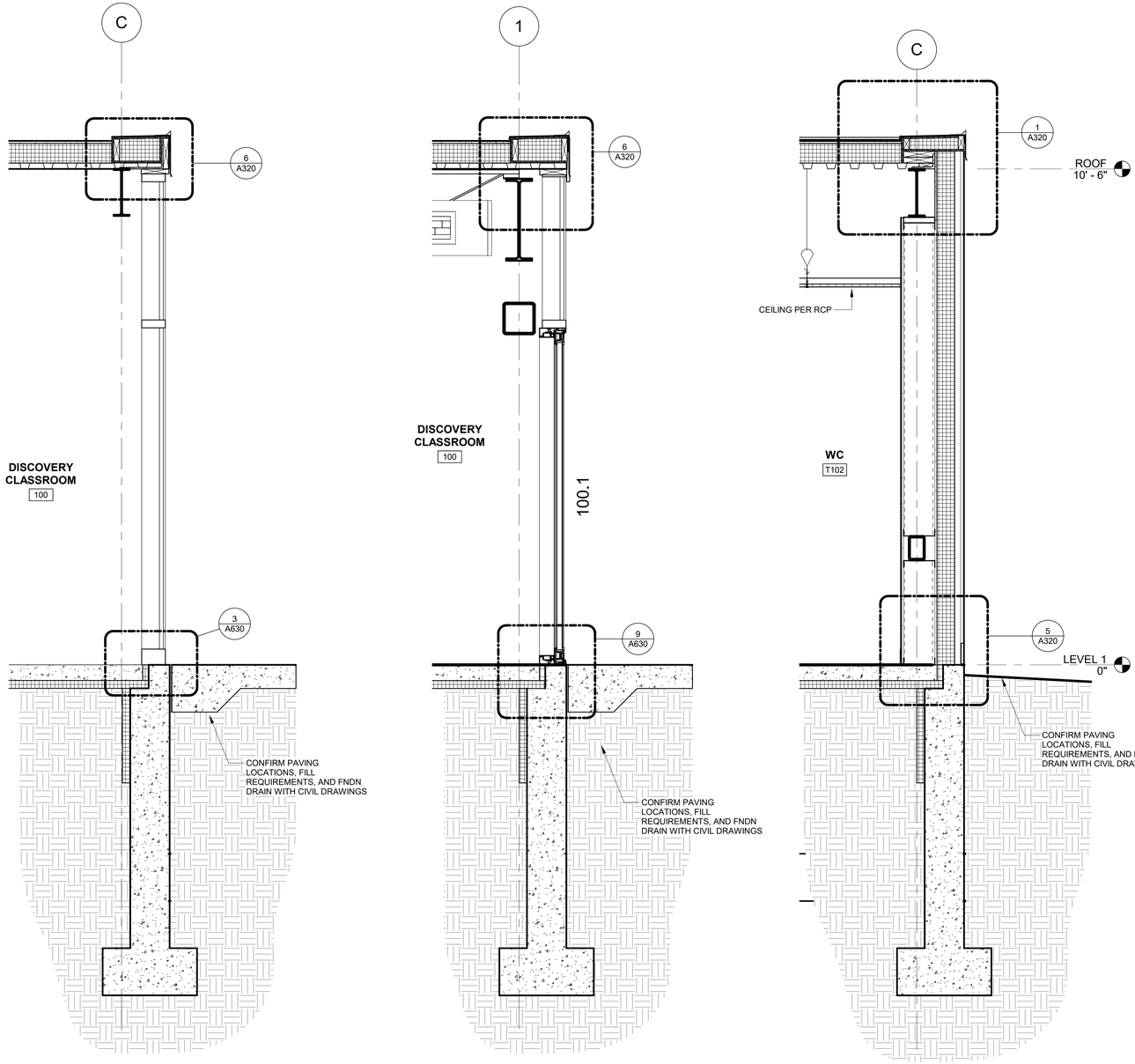
SCALE:
3/8" = 1'-0"

ISSUE
4/1/2020

TITLE
BUILDING SECTIONS

SHEET
A300



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

3 WALL SECTION AT SLIDING STOREFRONT DOOR
3/4" = 1'-0"

2 WALL SECTION AT FIBER CEMENT PANEL
3/4" = 1'-0"

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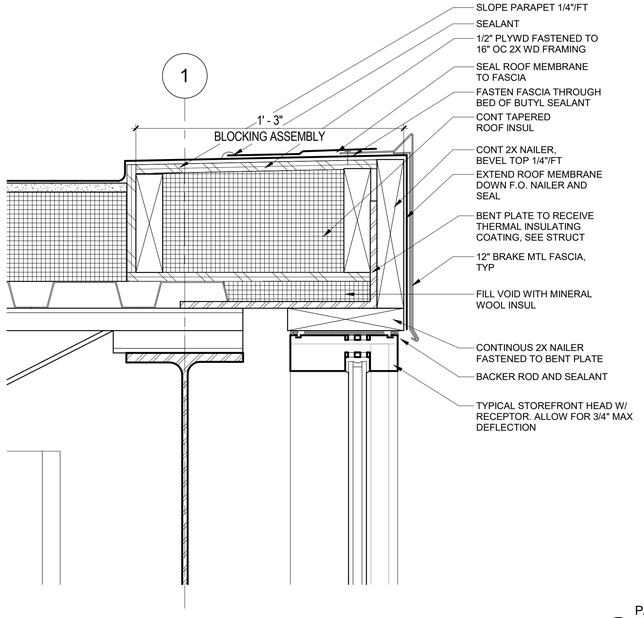
SCALE:
3/4" = 1'-0"

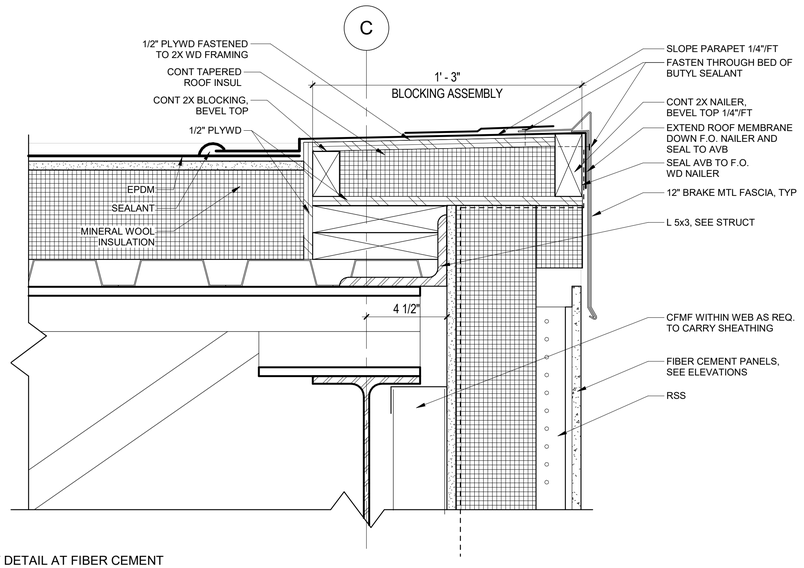
ISSUE
4/1/2020

TITLE
WALL SECTIONS

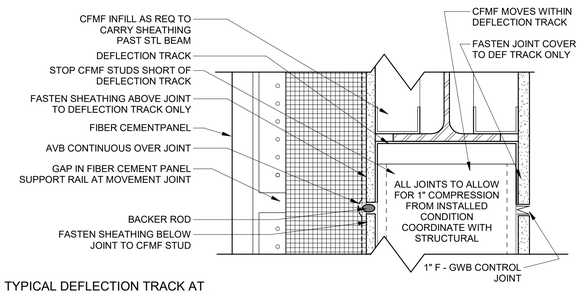
SHEET
A310



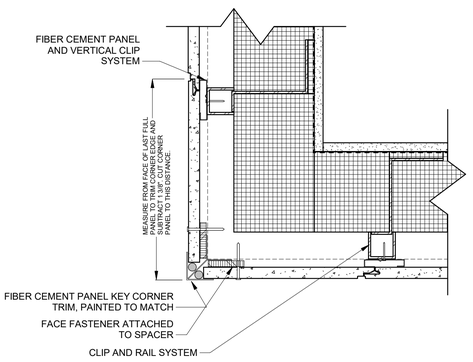
6 TOP OF WALL DETAIL @ STOREFRONT
3" = 1'-0"



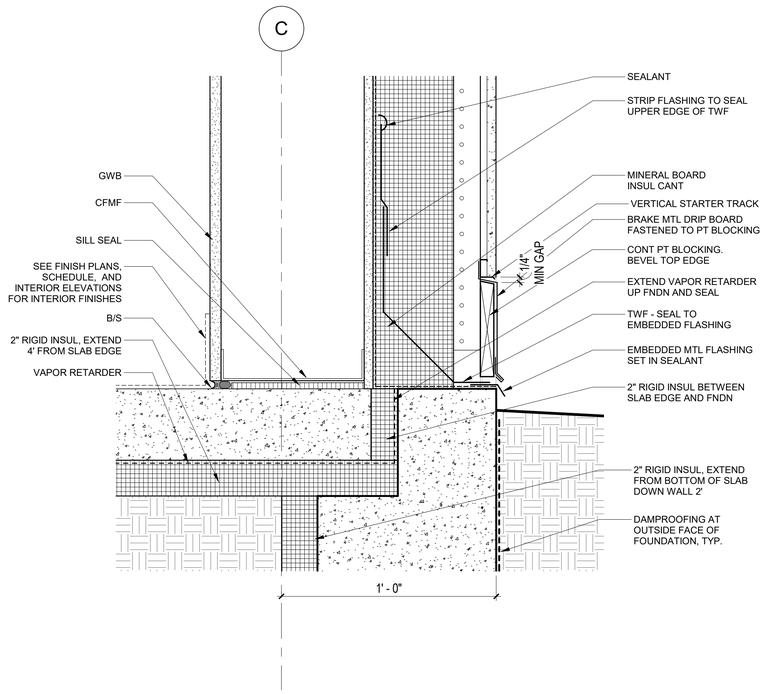
1 PARAPET DETAIL AT FIBER CEMENT
Copy 1
3" = 1'-0"



2 TYPICAL DEFLECTION TRACK AT EXTERIOR WALL CONTROL JOINT
3" = 1'-0"



3 CLOSED CORNER TRIM DETAIL AT FIBER CEMENT PANEL
3" = 1'-0"



5 BOTTOM OF WALL DETAIL AT FIBER CEMENT
3" = 1'-0"

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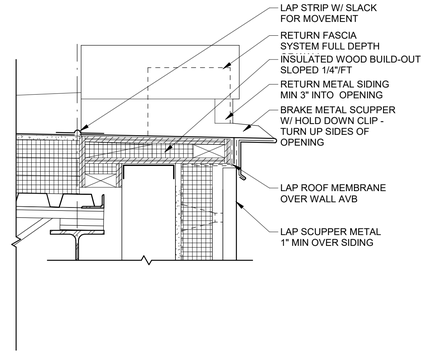
SCALE:
3" = 1'-0"

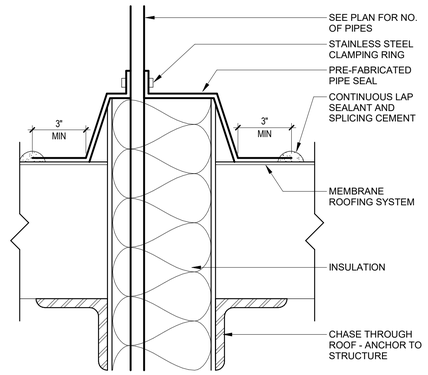
ISSUE
4/1/2020

TITLE
ENVELOPE DETAILS

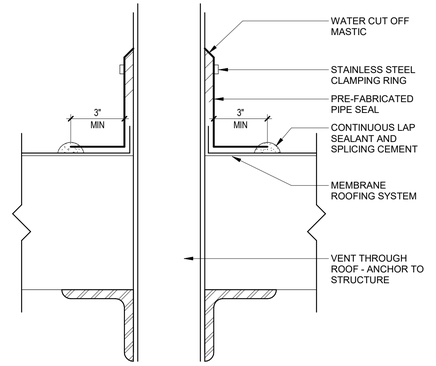
SHEET
A320



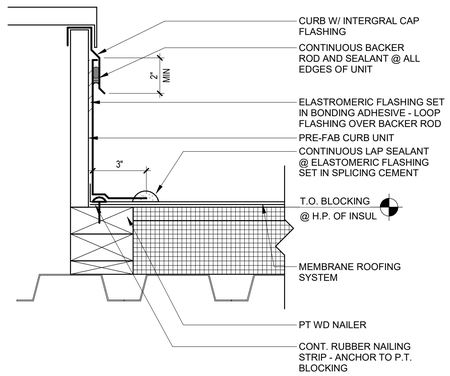
D6 ENV - 3-SIDED SCUPPER - BRAKE METAL
1 1/2" = 1'-0"



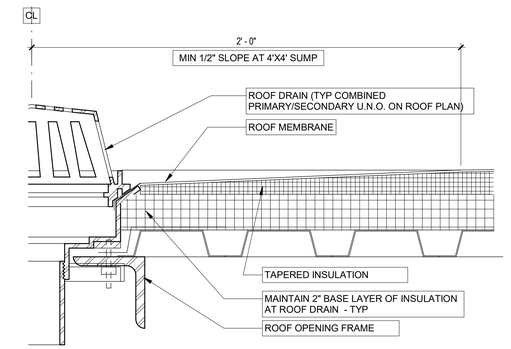
E3 CHASE FOR MECHANICAL PENETRATION
3" = 1'-0"



E4 DTL @ VENT / FLAT ROOF
3" = 1'-0"



E2 VERTICAL TERMINATION @ ROOF TOP AHU
3" = 1'-0"



E6 TYP. MEMBRANE @ ROOF DRAIN
3" = 1'-0"

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SCALE:
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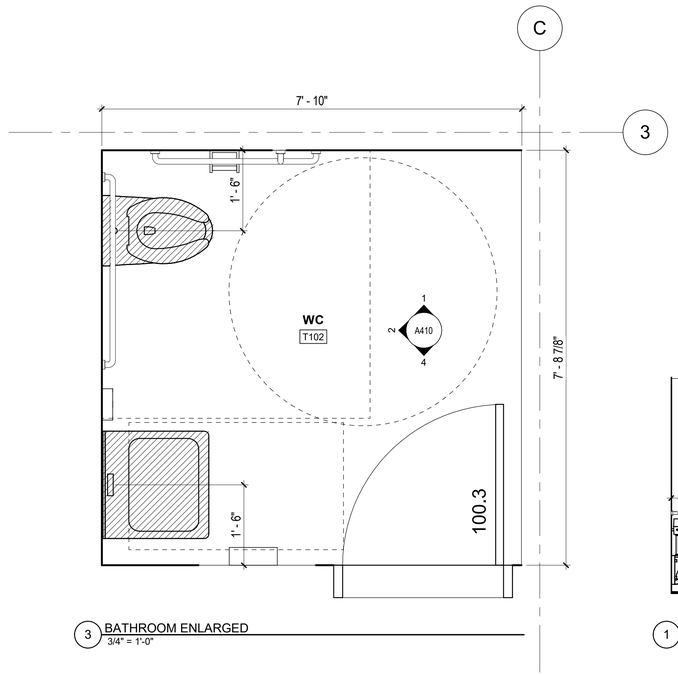
ISSUE
4/1/2020

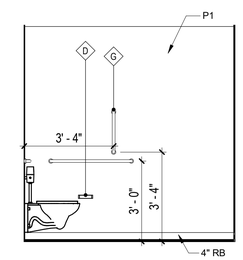
TITLE
TYPICAL ENVELOPE DETAILS

SHEET
A322

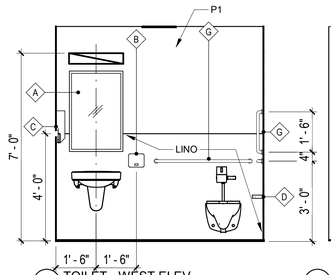
	TOILET ACCESSORIES
A	MIRROR - 24 X 36
B	SOAP DISPENSER - OSCI
C	PAPER TOWEL DISPENSER - OSCI
D	TOILET PAPER DISPENSER - OSCI
G	GRAB BARS



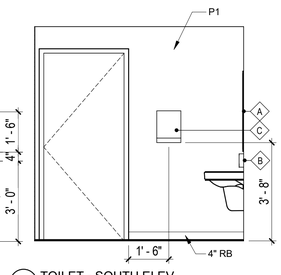
3 BATHROOM ENLARGED
3/4" = 1'-0"



1 TOILET - NORTH ELEV.
3/8" = 1'-0"



2 TOILET - WEST ELEV.
3/8" = 1'-0"



4 TOILET - SOUTH ELEV.
3/8" = 1'-0"

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DRWN. CHK
Checker

SCALE:
As indicated

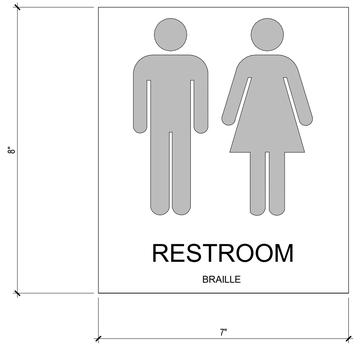
ISSUE
4/1/2020

TITLE
ENLARGED BATHROOM DETAILS

SHEET
A410

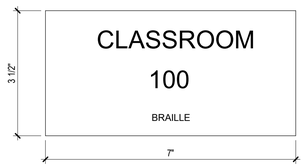
WINDOW ID NUMERALS (VISIBLE FROM EXTERIOR)
FONT TBD
COLOR TBD
HEIGHT TO BE 4-1/2"
MATERIAL TO BE REFLECTIVE

5 SIGNAGE - TYPE 7
3" = 1'-0"



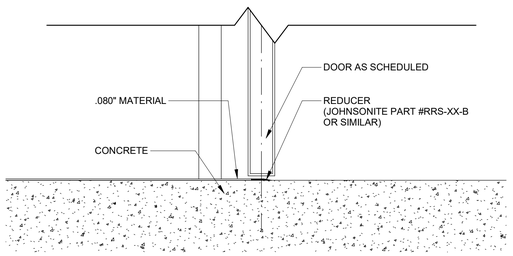
ROOM NAME
BRAILLE
FONT TBD
ALL LETTERING/NUMERALS/BRAILLE TO BE CHEMICALLY WELDED (INLAY)
ANY SIGN MOUNTED TO GLASS SHALL INCLUDE A BACKPLATE MADE OF SAME MATERIAL AS FRONT PLATE

4 SIGNAGE - TYPE 3
6" = 1'-0"

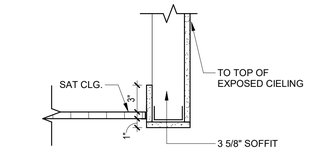


ROOM NAME
ROOM NUMBER
BRAILLE
FONT TBD
ALL LETTERING/NUMERALS/BRAILLE TO BE CHEMICALLY WELDED (INLAY)
ANY SIGN MOUNTED TO GLASS SHALL INCLUDE A BACKPLATE MADE OF SAME MATERIAL AS FRONT PLATE

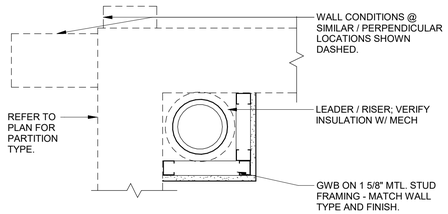
3 SIGNAGE - TYPE 1
6" = 1'-0"



2 TS-11 - .080" MATERIAL TO FLOOR
3" = 1'-0"

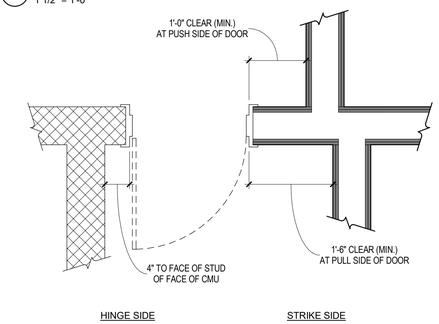


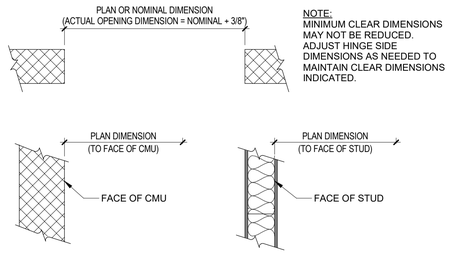
1 SAT TO GWB SOFFIT @ EXPOSED CEILING
1 1/2" = 1'-0"



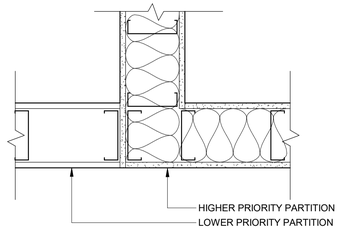
NOTES: MAINTAIN RATING OF WALL ASSEMBLY AS INDICATED ON PLANS.
RUN PIPE COVER TO DECK TO MATCH WALL TYPE. KEEP CAVITY AROUND PIPE CLEAR OF MORTAR / GROUT DROPPINGS. COORDINATE DIMENSIONS WITH SIZE OF PIPE AND INSULATION.

C4 LEADER / RISER ENCLOSURES
1 1/2" = 1'-0"



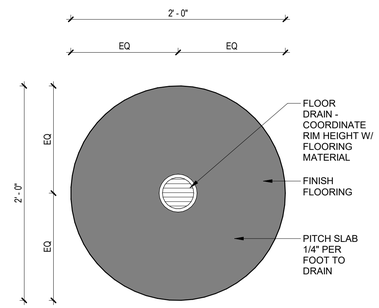


A1 DIMENSIONAL STANDARDS
1 1/2" = 1'-0"

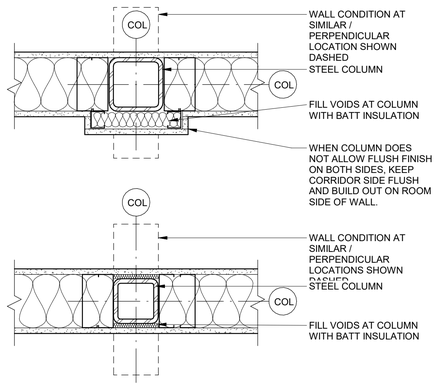


PARTITION PRIORITY LEGEND		
FIRE & SMOKE	HIGHEST	2-HOUR FIRE WALL 2-HOUR FIRE BARRIER AT EXIT ENCLOSURE 2-HOUR FIRE BARRIER 1-HOUR FIRE BARRIER AT EXIT ENCLOSURE 1-HOUR FIRE BARRIER SMOKE PARTITION
	LOWEST	NON-RATED PARTITION OR FURRING
SOUND CLASS	HIGHEST	STC >= 60
		60 > STC > 50
	LOWEST	NO STC
ALL COMPONENTS OF THE HIGHER PRIORITY PARTITION ASSEMBLY MUST CONTINUE UNINTERRUPTED PAST THE LOWER PRIORITY PARTITION ASSEMBLY. SEE SHEET A00x FOR FIRE, SMOKE AND STC VALUES OF PARTITION ASSEMBLIES.		

A6 PARTITION PRIORITY
1 1/2" = 1'-0"



D6 FLOOR DRAIN - CIRCULAR
1 1/2" = 1'-0"



NOTES: MAINTAIN RATING OF WALL ASSEMBLY AS INDICATED ON PLANS.

A2 COLUMN @ INTERIOR PARTITION CONDITION
1 1/2" = 1'-0"

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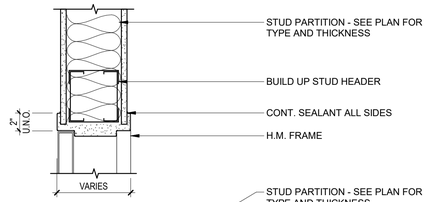
4/1/2020

TITLE
TYPICAL INTERIOR DETAILS

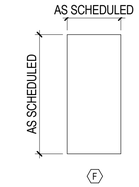
SHEET
A501

Door & Frame Schedule

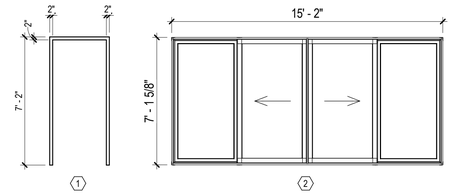
LOCATION			DOOR							FRAME							
			OPENING		PANEL							DETAILS					
DOOR NO.	ROOM NO.	ROOM NAME	WIDTH	HEIGHT	TYPE	MATL	THICK	CONFIG	Finish	TYPE	MATL	HEAD	JAMB	SILL	RATING	HDWR	COMMENTS
100.1	100	DISCOVERY CLASSROOM	15' - 2"	7' - 1 9/16"		ALUM	6 3/4"		CLR	2	ALUM			9/A630		1.0	NOTE 1
100.2	100	DISCOVERY CLASSROOM	3' - 0"	7' - 0"	F	HM	1 3/4"	SINGLE	PTD	1	HM	3/A600	4/A600	2/A600		2.0	NOTES 2, 3 & 4
100.3	T102	WC	3' - 0"	7' - 0"	F	WD	1 3/4"	SINGLE	STN	1	HM	1/A600	1/A600			3.0	
100.5	101	STORAGE	3' - 6"	7' - 0"	F	WD	1 3/4"	SINGLE	STN	1	HM	1/A600	1/A600			4.0	
101.1	101A	UTL.	3' - 0"	7' - 0"	F	HM	1 3/4"	SINGLE	STN	1	HM	1/A600	1/A600			4.0	



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



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



BASIS OF DESIGN:
KAWNEER AA3200 IR-SUB SASH (OXXO)

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

GENERAL 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.

DOOR SCHEDULE NOTES

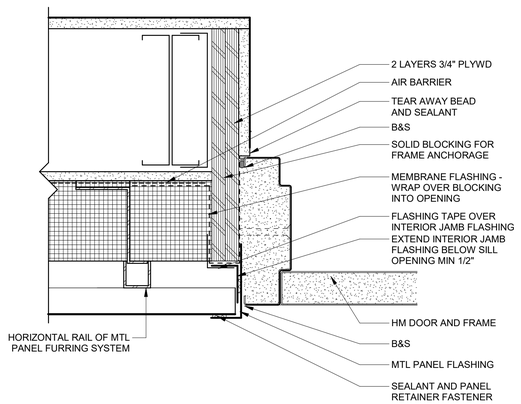
SEE DOOR AND FRAME SCHEDULE FOR DOORS APPLICABLE TO THE NOTES BELOW:

1. FOR STOREFRONT / CURTAINWALL FRAMING SYSTEM ELEVATIONS, SEE SHEET: A600
2. FINSH OF EXTERIOR SIDE OF EXTERIOR DOOR PANEL(S) TO BE FACTORY PRIMED AND FIELD PAINTED TO MATCH ADJACENT MATERIAL COLOR. COLOR SELECTION BY ARCHITECT.
3. DOOR TO HAVE KEY CARD ACCESS SYSTEM, SEE ELEC DRAWINGS.
4. DOOR TO CONNECTED TO AUTOMATIC DOOR OPERATER SYSTEM, SEE ELEC. DRAWINGS.

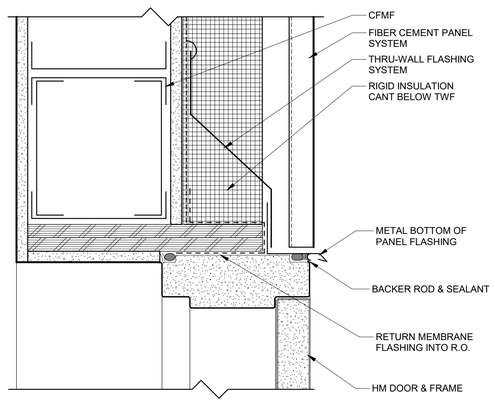
DOOR & FRAME SCHEDULE ABBREVIATIONS:

GL - GLASS
ALUM - ALUMINUM
MIN - MINUTES
PTD - PAINTED, OPAQUE FINISH
STL - STEEL
STN - STAINED, TRANSPARENT FINISH
CLR - CLEAR FINISH
WD - WOOD

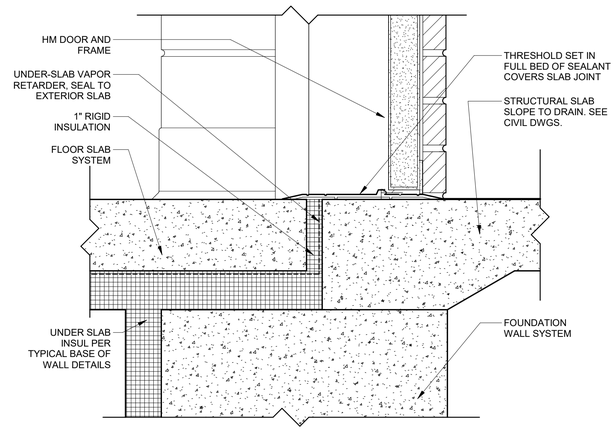
FOR OTHER DESIGNATIONS, REFER TO ABBREVIATIONS LIST.



4 HM DOOR JAMB - CFMF BACKUP - SIDING
3" = 1'-0"



3 ENV - HM DOOR HEAD - CFMF BACKUP - SIDING
3" = 1'-0"



2 HM DOOR THRESHOLD
3" = 1'-0"

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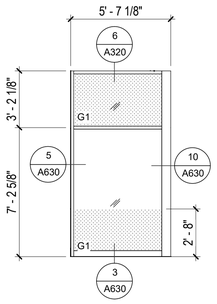
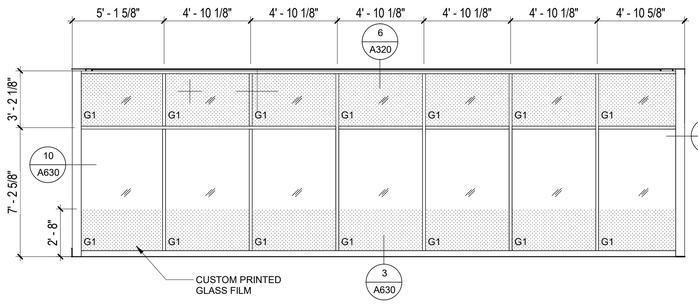
4/1/2020

TITLE
DOOR SCHEDULE & DETAILS

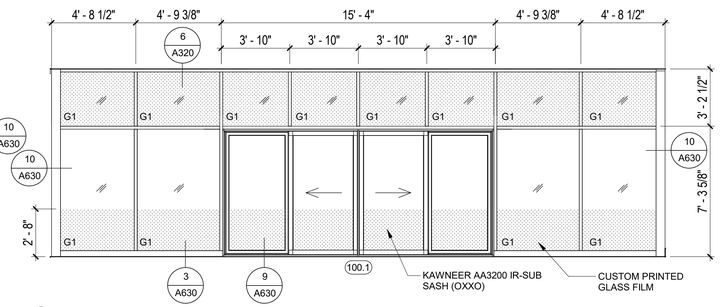
SHEET
A600



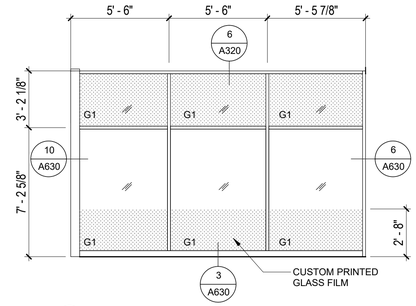
7 SF-4 ELEVATION
1/4" = 1'-0"



4 SF-3 ELEVATION
1/4" = 1'-0"



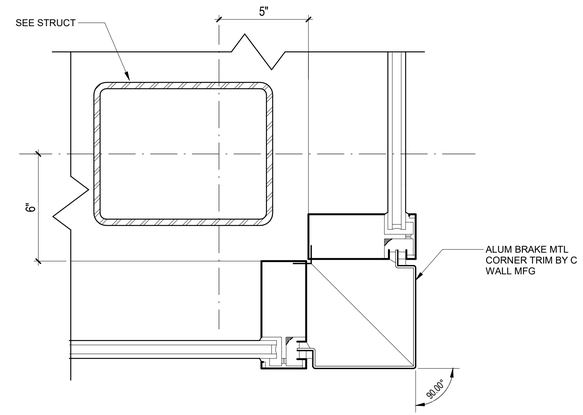
2 SF-2 ELEVATION
1/4" = 1'-0"



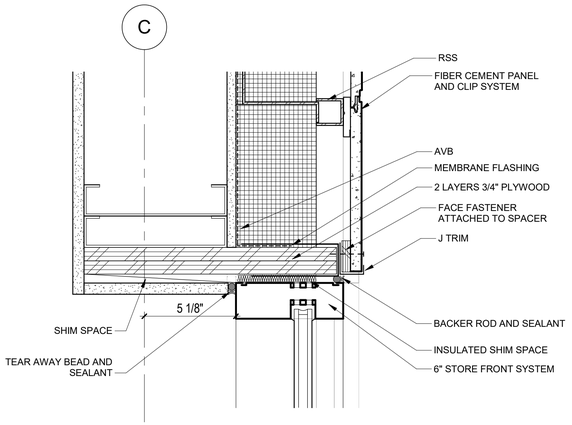
1 SF-1 ELEVATION
1/4" = 1'-0"

GLAZING NUMBER	GLAZING TYPE
G1	**HIGH PERFORMANCE INSULATED GLASS: LOW-E-COATED, CLEAR INSULATING GLASS** **BASIS OF DESIGN**: PPG SOLARBAN 90 UNIT THICKNESS: 1 INCH INTERSPACE CONTENT: ARGON OUTDOOR LITE: ANNEALED FLOAT GLASS, FULLY TEMPERED WHERE REQUIRED BY CODE INDOOR LITE: ANNEALED FLOAT GLASS, FULLY TEMPERED WHERE REQUIRED BY CODE LOW-E-COATING: PYROLYTIC OR SPUTTERED ON SECOND AND THIRD SURFACE VLT: 51% MAXIMUM SGC: 0.23 MAXIMUM WINTER NIGHTTIME U-FACTOR: 0.26 MAXIMUM

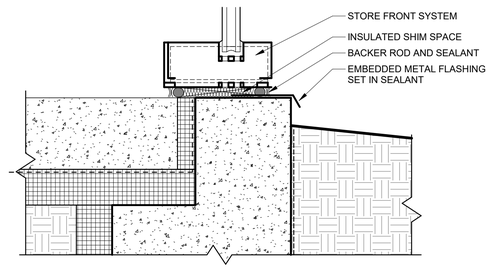
NOTE: STOREFRONT FINISH TO BE CLR ANODIZED ALUMINUM



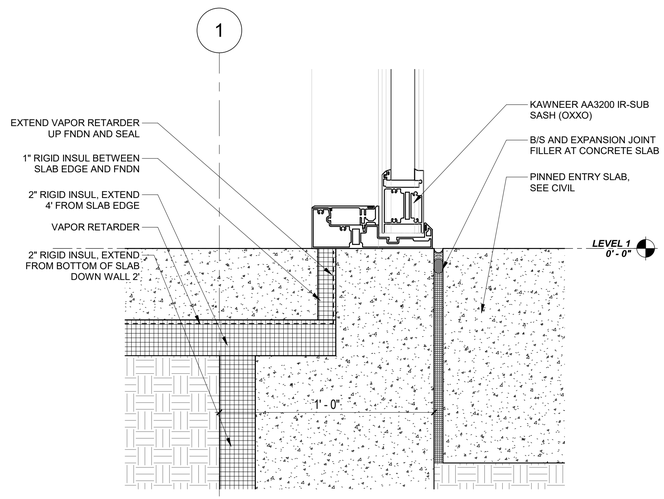
10 STOREFRONT CORNER TRIM DETAIL
3" = 1'-0"



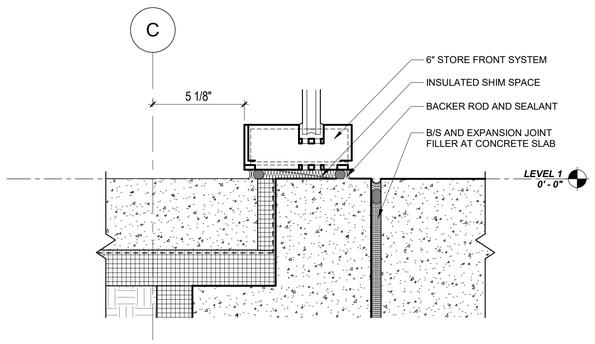
6 STORE FRONT JAMB @ FIBER CEMENT
3" = 1'-0"



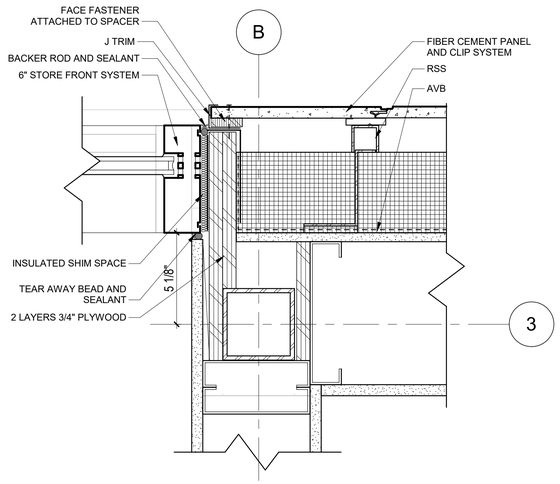
8 STOREFRONT SILL @ GRADE
3" = 1'-0"



BOTTOM OF WALL DETAIL AT
9 STOREFRONT DOOR
3" = 1'-0"



3 STORE FRONT SILL @ CONCRETE SLAB
3" = 1'-0"



5 STORE FRONT JAMB @ B LINE
3" = 1'-0"

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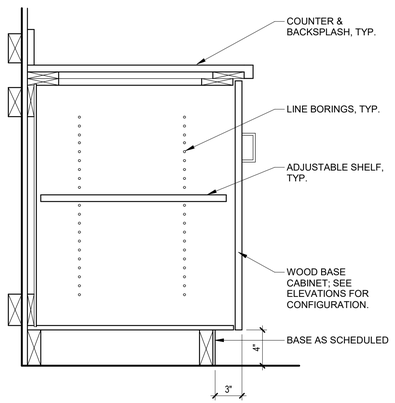
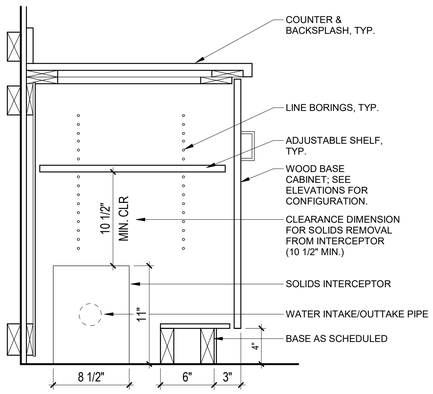
TITLE
STOREFRONT
ELEV. & DETAILS

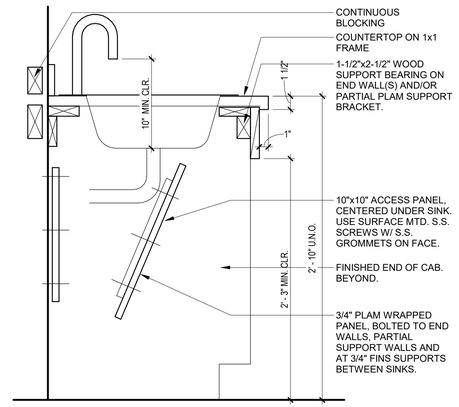
SHEET
A630



1 BASE CABINET
1 1/2" = 1'-0"



2 BASE CABINET WITH INTERCEPTOR
1 1/2" = 1'-0"



3 ACCESSIBLE SINK DETAIL
1 1/2" = 1'-0"

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

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4/1/2020

TITLE
CASEWORK DETAILS

SHEET
A700

SYMBOL LEGEND

POWER SYMBOLS

ELECTRICAL PANELBOARD, SEE DRAWING FOR DETAILS

CONTROL PANEL, SEE DRAWING FOR DETAILS

DUPLEX RECEPTACLE, 20A, 125V, SPEC GRADE, GROUNDING TYPE, FLUSH MOUNTED, PROVIDED W/MATCHING FACEPLATE,
R = REFRIGERATOR
GF = GFCI RATED
48" AFF = MOUNTING HEIGHT
WP = GFCI RATED, WEATHERPROOF

REEL & DROP CORD — CEILING MTD CABLE REEL W/25FT CORD, QUAD RECEPTACLE BOX, 15A, 125V, GFCI RATED, SPEC GRADE, GROUNDING TYPE, LEGRAND #CRCD123G25R15, OR EQUAL

30/2 — DISCONNECT SWITCH, SIZE AND NUMBER OF POLES AS INDICATED ON DRAWING. PROVIDED BY EC UNLESS NOTED OTHERWISE. PROVIDE FUSES WHERE RECOMMENDED BY MANUFACTURER.
WP = WEATHER NEMA 3R ENCLOSURE

WIRING SYMBOLS

RACEWAY & WIRING OR MC CABLE RUN CONCEALED IN WALLS/CEILINGS

RACEWAY & WIRING RUN EXPOSED

RACEWAY & WIRING RUN CONCEALED UNDER FLOOR OR BURIED 30" BELOW FINISH GRADE

DCP-XX — HOME RUN TO PANEL, WITH PANEL AND CIRCUIT NUMBER

BRANCH CIRCUIT WIRING SHALL CONSIST OF 2 #12AWG, 1 #12GND, 1/2" CDT UNLESS OTHER WISE NOTED. (*)ASTERISK DENOTED #10 AWG FOR ALL CIRCUITS CONTAINED IN HOME RUN. (**)DOUBLE ASTERISK DENOTES 2 #8AWG, 1 #10GND, 3/4" CDT

PROVIDE EQUIPMENT GROUNDS IN ACCORDANCE WITH NFPA 70, ARTICLE 250.

TELECOMMUNICATIONS SYMBOLS

WN — DUAL NETWORK JACK FOR WIRELESS ROUTER W/CAT 6 CABLE RUN BACK TO TELECOM BACKBOARD, MOUNT 12" AFF BELOW CEILING UNLESS OTHERWISE NOTED

DUAL NETWORK JACK W/CAT 6 CABLE RUN BACK TO TELECOM BACKBOARD, MOUNT 18" AFF UNLESS OTHERWISE NOTED

TV — F-TYPE JACK W/COAXIAL CABLE RUN BACK TO TELECOM BACKBOARD, MOUNT 18" AFF UNLESS OTHERWISE NOTED

LIGHTING CONTROL SYMBOLS

OS — WALL MOUNTED MOTION SENSOR (WATTSTOPPER OR EQUAL)

$OS — SINGLE POLE SWITCH, 120V, 20A, SPEC GRADE, GROUNDING TYPE, W/MATCHING FACEPLATE AND INTEGRAL OCCUPANCY SENSOR, MOUNT 48" AFF

$ — SINGLE POLE SWITCH, 120V, 20A, SPEC GRADE, GROUNDING TYPE, W/MATCHING FACEPLATE, MOUNT 48" AFF

$D — SINGLE POLE DIMMER SWITCH, 120V, 20A, SPEC GRADE, GROUNDING TYPE, W/ MATCHING FACEPLATE, MOUNT 48" AFF

LIGHTING SYMBOLS

A, D, Fa — LIGHTING FIXTURES, CAPITAL LETTERS DENOTE TYPE PER LIGHTING FIXTURE SCHEDULE. LOWER CASE LETTERS INDICATE SWITCH CONTROL.

SELF CONTAINED EMERGENCY LIGHT W/2 HEADS

UNIVERSAL MOUNTED EXIT LIGHT SIGN, UNSWITCHED, PROVIDE DIRECTIONAL ARROWS AS INDICATED ON PLANS

FIRE ALARM SYMBOLS

75 F — FIRE ALARM AUDIO/VISUAL, MOUNT AT MAXIMUM HEIGHT ALLOWED BY CODE, NUMBER INDICATES CANDELA RATING

15 S — FIRE ALARM VISUAL STROBE ONLY, FLUSH MOUNT AT MAXIMUM HEIGHT ALLOWED BY CODE, NUMBER INDICATED CANDELA RATINGS

F — FIRE ALARM PULL STATION, MOUNT 48"AFF

H — FIXED TEMPERATURE HEAT DETECTOR, 135°F

SD — SMOKE DETECTOR, PHOTOELECTRIC TYPE

GENERAL NOTES

1. ALL RECEPTACLES SHALL BE INSTALLED 18" AFF TO CENTERLINE OF BOX UNLESS NOTED OTHERWISE.
2. ALL WIRING SHALL BE COPPER UNLESS DESIGNATED AS "AL". UNLESS OTHERWISE NOTED ALL WIRING SHALL BE 2 #12 AWG AND 1 #12 EQUIPMENT GROUNDING CONDUCTOR. HOMERUNS FED FROM A 20A/1P, 120V CIRCUIT IN EXCESS OF 70' SHALL BE #10 AWG. ALL CONDUCTOR INSULATION FOR BUILDING WIRE SHALL BE THWN/THHN UNLESS NOTED OTHERWISE.
3. CONNECT BATTERY BACKED EMERGENCY AND EXIT LIGHTING TO NEAREST LIGHTING CIRCUIT AHEAD OF ANY SWITCHING. CONNECT REMOTE HEADS WITH #10 AWG COPPER CONDUCTORS.
4. TEST ALL EMERGENCY LIGHTING UNITS FOR PROPER OPERATION OF LAMPS AND BATTERIES.
5. FUSES AND OVERLOAD UNITS FOR MOTORS SHALL BE SIZED BASED ON ACTUAL MOTOR NAMEPLATE DATA AND IN ACCORDANCE WITH NEC. CIRCUIT BREAKERS FOR MOTORS ARE SUPPLIED AT MAX VALUE PER NEC (2.5 x FLA). SIZE IN THE FIELD IN ACCORDANCE WITH MFGR RECOMMENDATION.
6. ALL WORK SHALL COMPLY WITH NFPA70, NFPA72, NFPA101 & ALL FEDERAL, STATE & LOCAL REGULATIONS.
7. ALL PENETRATIONS THROUGH FLOORS, RATED WALLS AND PARTITIONS SHALL BE SEALED WITH UL APPROVED FIRE SEALANT MATERIAL TO MAINTAIN FIRE RATING FOR THE SEPARATION.
8. ALL ENCLOSURES, CONDUIT BODIES AND THEIR COVERS CONTAINING FIRE ALARM SYSTEM CONDUCTORS SHALL BE PAINTED RED.
9. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITH ALL FEEDERS AND BRANCH CIRCUITS. SIZE IN ACCORDANCE WITH NFPA 70 ARTICLE 250.
10. COORDINATE INSTALLATION OF VOICE/DATA OUTLETS WITH OWNER, MIS OR COMMUNICATIONS CONTRACTOR.
11. LOCATE DISCONNECTS AT EQUIPMENT AS REQUIRED BY MANUFACTURER. LOCATIONS ON DRAWINGS ARE APPROXIMATE.
12. PROVIDE RISER OR PLENUM RATED CABLES ABOVE SUSPENDED CEILINGS.
13. THE CONTRACTOR SHALL SET ALL ELECTRONIC BREAKERS TO SPECIFIED TRIP SETTINGS BEFORE ENERGIZING EQUIPMENT.
14. PROVIDE EXPANSION FITTINGS FOR ALL UNDERGROUND RACEWAYS ENTERING ENCLOSURES ATTACHED TO FIXED STRUCTURES.
15. OUTDOOR RECEPTACLE COVERS SHALL COMPLY WITH NFPA 70 - ARTICLE 406.9.
16. PROVIDE LABEL ON SERVICE EQUIPMENT INDICATING AVAILABLE SHORT CIRCUIT CURRENT OBTAIN VALUES FROM ENGINEER.
17. COORDINATE THE EXACT LOCATION OF ALL MECHANICAL EQUIPMENT AND LOCATIONS OF MECHANICAL DISCONNECT SWITCHES WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
18. CIRCUIT ROOFTOP UNIT HVAC-1 WITH 3 #6, 1 #10 GND, IN A 3/4" CDT. PROVIDE A 120VAC, 20AMP, DUPLEX, WEATHERPROOF RECEPTACLE AT UNIT, COORDINATE MOUNTING WITH MECHANICAL CONTRACTOR. CIRCUIT TO NEAREST RECEPTACLE CIRCUIT.
19. PROVIDE (1) 4" CDT WITH PULL STRINGS ONLY FOR TELECOM CABLES. COORDINATE WITH OWNER'S IT DEPARTMENT.
20. PROVIDE 100A/3P CIRCUIT BREAKER IN EXISTING PANEL LP2 LOCATED IN THE MAIN BUILDING FOR FEEDER TO DCP-1. FEEDER SIZE SHALL BE 4 #1, 1 #6 GND, IN A 1-1/2" CDT.
21. PROVIDE (1) 2" CDT WITH PULL STRINGS ONLY FOR FIRE ALARM WIRING. COORDINATE WITH EXISTING FIRE ALARM VENDOR.

Branch Panel: DCP-1

Location: UTL. 101A
Supply From:
Mounting: Surface

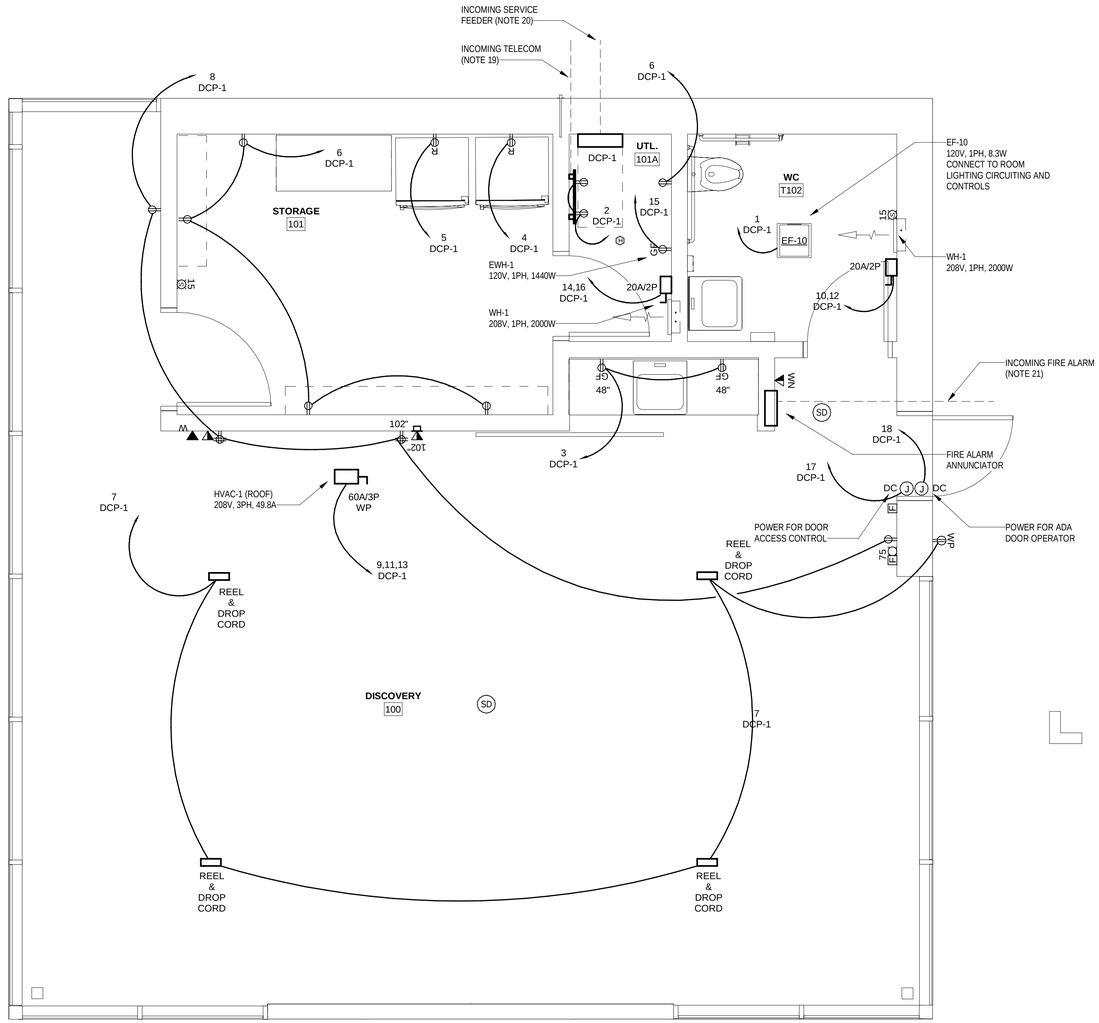
Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10kA
Mains Rating: 100 A
MCB Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Lighting	20 A	1	7 A	8 A					1	20 A	Telecom Equipment	2
3	Receptacle	20 A	1			24 A	8 A			1	20 A	Refrigerator	4
5	Refrigerator	20 A	1					8 A	8 A	1	20 A	Receptacles	6
7	Classroom Receptacles	20 A	1	2 A	9 A					1	20 A	Classroom Receptacles	8
9						50 A	10 A			2	20 A	WH-1 WC T102	10
11	HVAC-1 Rooftop	60 A	3					50 A	10 A				12
13				50 A	10 A					2	20 A	WH-1 UTL. 101A	14
15	EWH-1 UTL. 101A	20 A	1			12 A	10 A						16
17	Door Access Control	20 A	1					4 A	4 A	1	20 A	ADA Door Operator	18
19													20
21													22
23													24
				Total Load:	9994 VA		13300 VA		9880 VA				
				Total Amps:	83 A		111 A		82 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	17940 VA	100.00%	17940 VA		
Heating	4000 VA	100.00%	4000 VA	**Total Conn. Load:**	33174 VA
Lighting	795 VA	100.00%	795 VA	**Total Est. Demand:**	32150 VA
Other	4320 VA	100.00%	4320 VA	**Total Conn.:**	92 A
Power	1000 VA	100.00%	1000 VA	**Total Est. Demand:**	89 A
Receptacle	5120 VA	80.00%	4096 VA		

Notes:



1 Level 1 - Power
3/8" = 1'-0"

CHA ARCHITECTURE
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DISCOVERY CLASSROOM
75 Jordan Ave, Brunswick, ME 04011

JOB NO.
Project Number

DRWN. CHK
SAJ

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

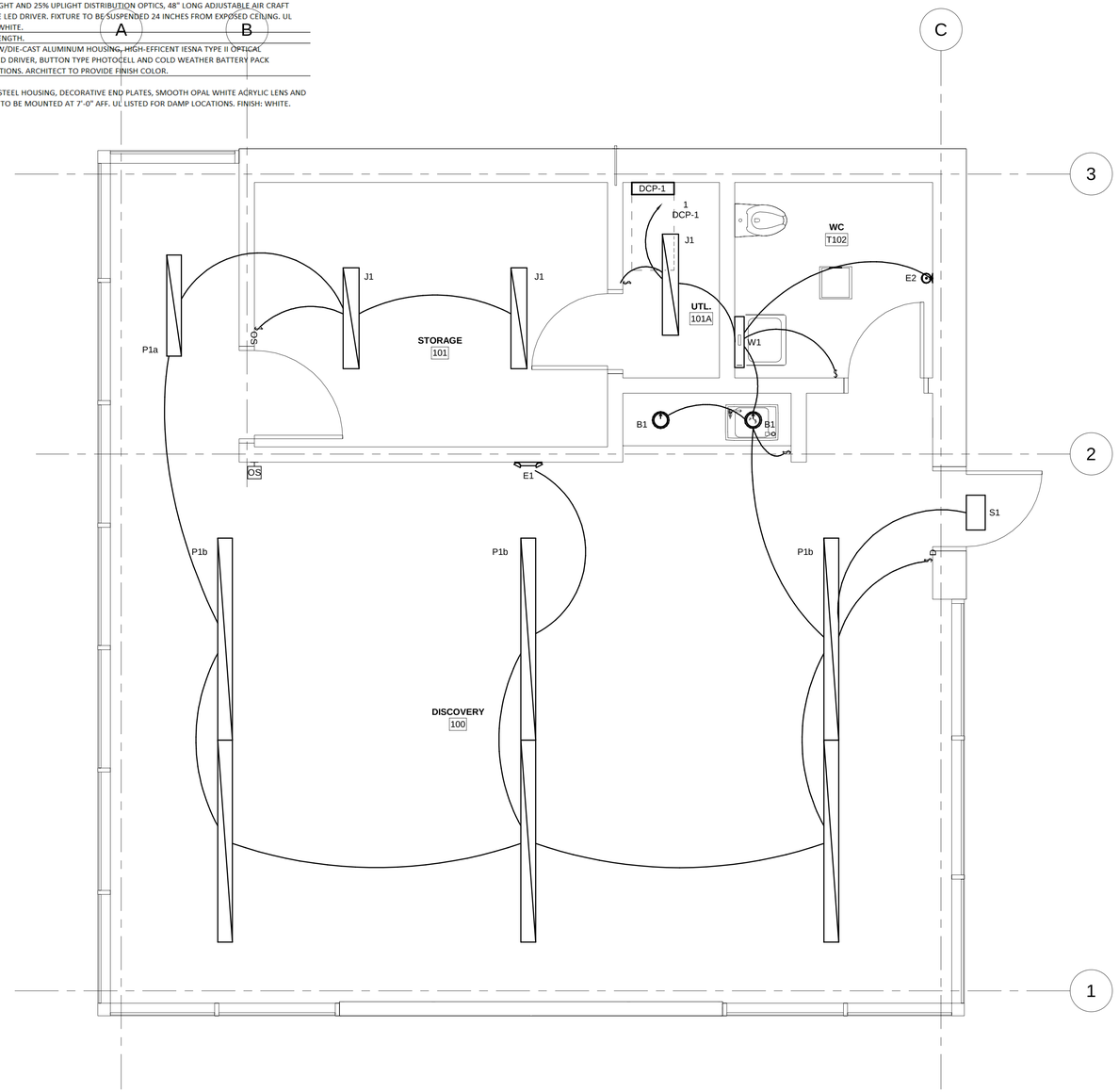
ISSUE
4/1/2020

TITLE
FIRST FLOOR ELECTRICAL POWER

SHEET
E101

LIGHTING FIXTURE SCHEDULE

NEW	ORDING INFORMATION		LED INFORMATION	FIXTURE INFORMATION	
TYPE	MANUFACTURER	MODEL NUMBER	WATTAGE / COLOR TEMP / LUMENS	SIZE	DESCRIPTION
B1	ALPHABET	NU6-RD-XTM19-10LM-35K-83-HE80-120V-DIM10-NC-WH-WH	12.4W / 3500K / 860 LUMENS	6" DIA APERTURE x 4-3/8" H	6" DIAMETER RECESED LED DOWNLIGHT W/STEEL HOUSING, FLAME RETARDANT POLYCARBONATE FRAME AND TRIM, 80 DEG HIGH EFFICENCY DIFFUSED LENS, WHITE PAINTED TRIM, WHITE BEZEL, AND 0-10V DIMMABLE LED DRIVER. UL LISTED FOR WET LOCATIONS. FINISH: WHITE.
E1	SURE-LITES	SEL50R7SD	LED	14" W x 4-3/4" H x 1-3/4" D	UNIVERSAL MOUNTED EMERGENCY BATTERY PACK W/HIGH IMPACT POLYCARBONATE HOUSING, 2 FULLY ADJUSTABLE LED LAMP HEADS, SELF-DIAGNOSTICS, 7W REMOTE CAPACITY AND A NICKEL CADMIUM BATTERY RATED TO OPERATE FIXTURE FOR 90 MINS UPON LOSS OF NORMAL POWER. UL LISTED FOR DAMP LOCATIONS. FINISH: WHITE.
E2	SURE-LITES	SRP25	LED	4.7 DIA x 6.3" PROJ	UNIVERSAL MOUNTED REMOTE EMERGENCY HEAD W/HIGH IMPACT THERMOPLASTIC HOUSING AND 1 FULLY ADJUSTABLE LED LAMP HEAD. FIXTURE TO BE POWERED FROM TYPE E1 LOCATED IN ADJACENT ROOM. UL LISTED FOR DAMP LOCATIONS. FINISH: WHITE.
J1	METALUX	4WSNLED-LD4-44SL-F-UNV-L835-CD1-U	101W / 3500K / 4424 LUMENS	48" L x 9-1/8" w x 3-3/16" H	SURFACE MOUNTED LED WRAP W/STEEL HOUSING, FROSTED ACRYLIC DIFFUSER AND INTEGRAL LED DIMMABLE DRIVER. UL LISTED FOR DAMP LOCATIONS. FINISH: WHITE.
P1a	CORELITE	CTA-F-752S-40L-835-1-UNV-STD-W-AC48-UM-4	30W / 3500K / 3993 LUMENS	48" L x 7" W x 2.4" H	PENDANT MOUNTED LINEAR LED W/EXTRUDED ALUMINUM HOUSING, DIE-CAST ALUMINUM END CAPS, FROSTED CONTINUOUS ROLL LENS, 75% DOWNLIGHT AND 25% UPLIGHT DISTRIBUTION OPTICS, 48" LONG ADJUSTABLE AIR CRAFT HANGERS AND AN INTEGRAL DIMMABLE LED DRIVER. FIXTURE TO BE SUSPENDED 24 INCHES FROM EXPOSED CEILING. UL LISTED FOR DAMP LOCATIONS. FINISH: WHITE.
P1b	CORELITE	CTA-F-752S-40L-835-1-UNV-STD-W-AC48-UM-16	120W / 3500K / 15968 LUMENS	16' L x 7" W x 2.4" H	SIMILAR TO TYPE P1a EXCEPT 16FT IN LENGTH.
S1	MCGRAW EDISION	IST-AF-1200-LED-E1-T2-XX-P120-CWB-8030	66.2W / 3000K / 7047 LUMENS	16-1/2" W x 7" H x 9" D	WALL MOUNTED EXTERIOR LED LIGHT W/DIE-CAST ALUMINUM HOUSING, HIGH-EFFICENT IESNA TYPE II OPTICAL DISTRIBUTION, INTEGRAL DIMMABLE LED DRIVER, BUTTON TYPE PHOTOCELL AND COLD WEATHER BATTERY PACK W/BACKBOX. UL LISTED FOR WET LOCATIONS. ARCHITECT TO PROVIDE FINISH COLOR.
W1	METALUX	2BCLED-LD4-28HL-F-UNV-L835-CD1-U	29W / 3500K / 2800 LUMENS	24" L x 4-3/4" H x 4-1/2" D	WALL MOUNTED LED VANITY LIGHT W/STEEL HOUSING, DECORATIVE END PLATES, SMOOTH OPAL WHITE ACRYLIC LENS AND 0-10V DIMMABLE LED DRIVER. FIXTURE TO BE MOUNTED AT 7'-0" AFF. UL LISTED FOR DAMP LOCATIONS. FINISH: WHITE.



1 Level 1 - Lighting
3/8" = 1'-0"

CHA ARCHITECTURE
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DISCOVERY CLASSROOM
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STATE OF MAINE
STEVEN
WONASON
#8468
LICENSED
PROFESSIONAL ENGINEER

JOB NO.
Project Number

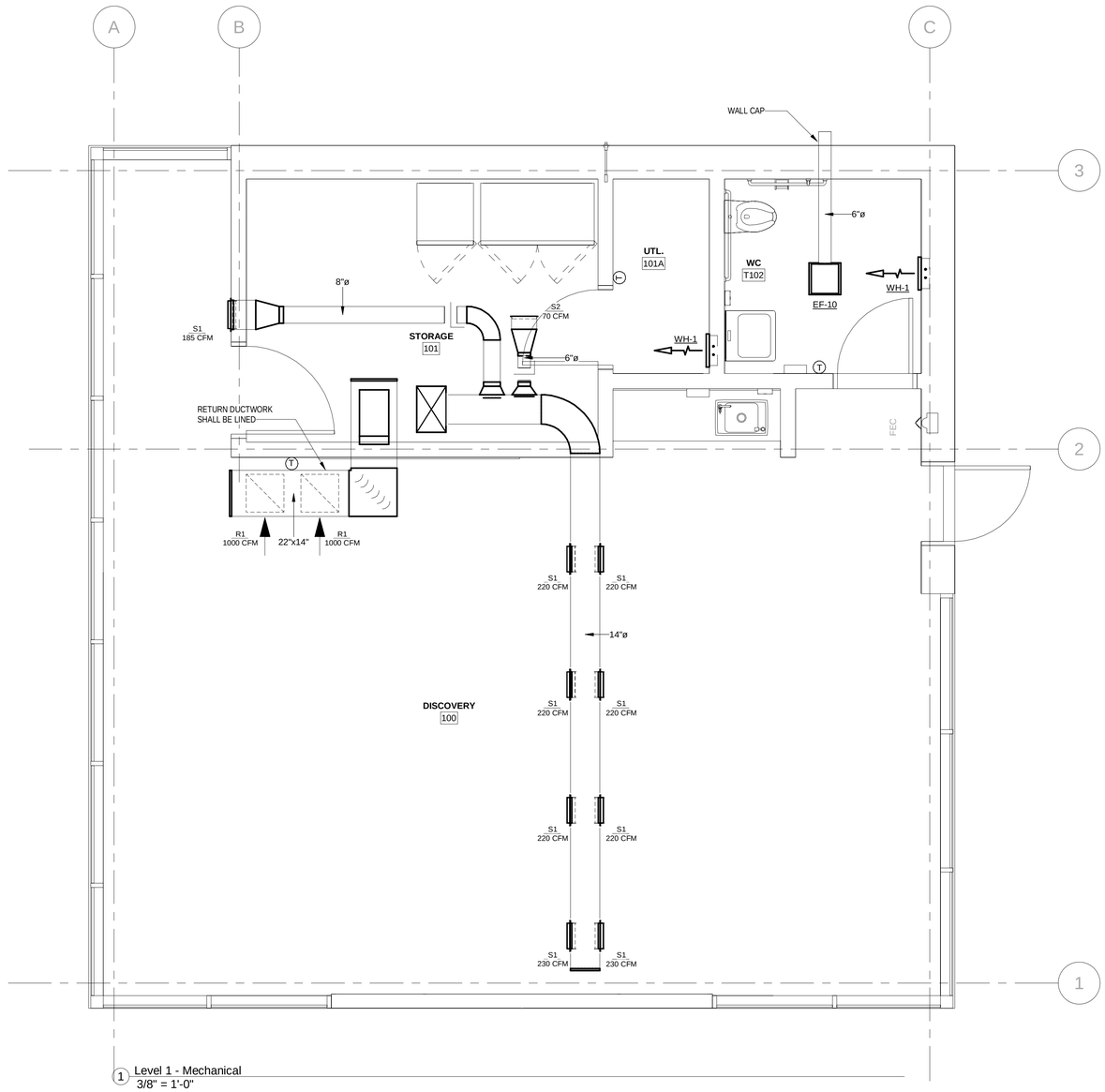
DRWN. CHK
Checker

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

ISSUE
4/1/2020

TITLE
FIRST FLOOR LIGHTING

SHEET
E102



1 Level 1 - Mechanical
3/8" = 1'-0"

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DISCOVERY CLASSROOM
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STATE OF MAINE
JUSTIN M. VALLIERE
No. 10548
LICENSED
PROFESSIONAL ENGINEER

JOB NO.
Project Number

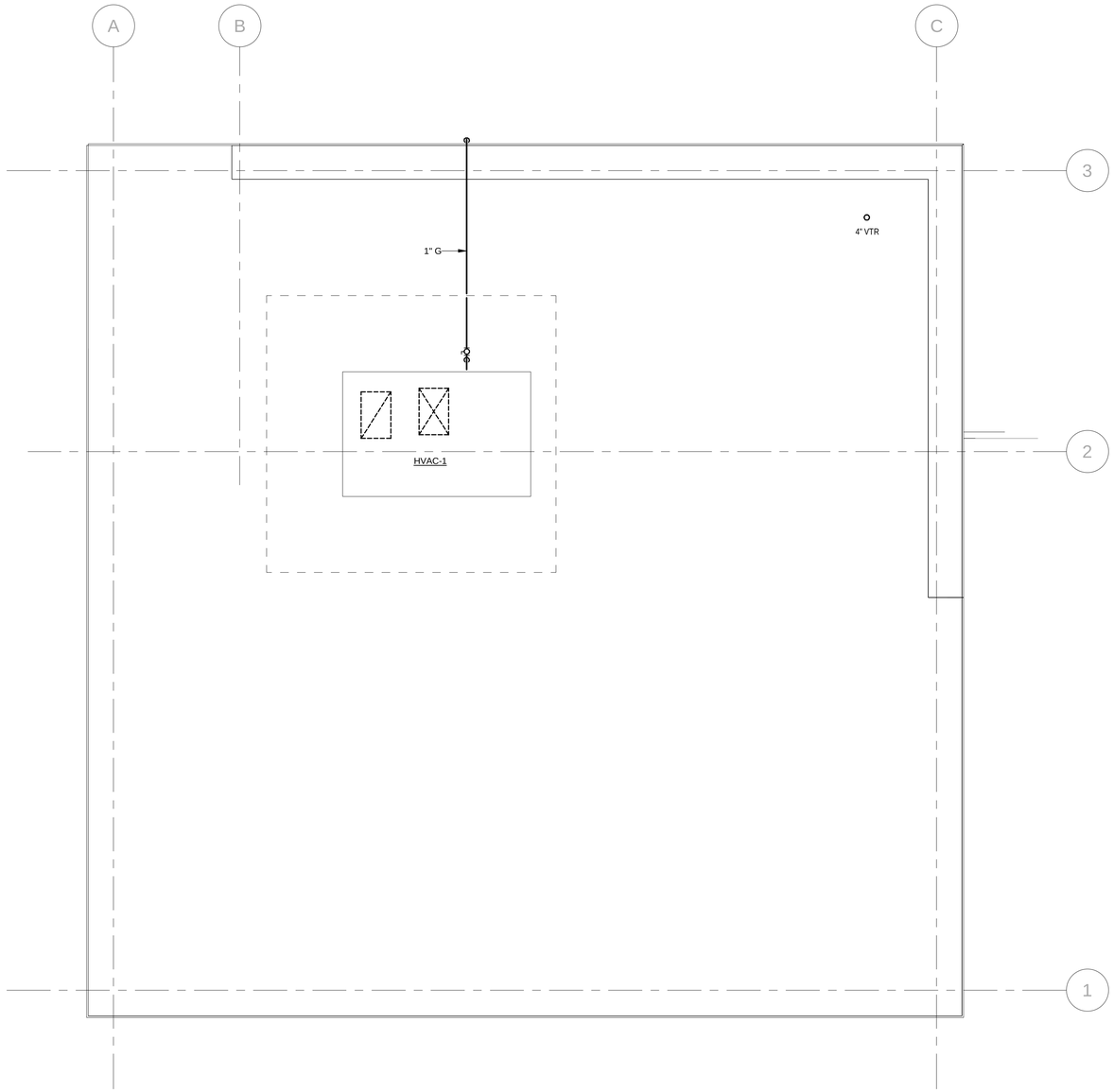
DRWN. CHK
JMV / JJK

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

ISSUE
4/1/2020

TITLE
FIRST FLOOR MECHANICAL

SHEET
M101



1 Roof - Mechanical
3/8" = 1'-0"

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STATE OF MAINE
JUSTIN M. VALLIERE
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Project Number

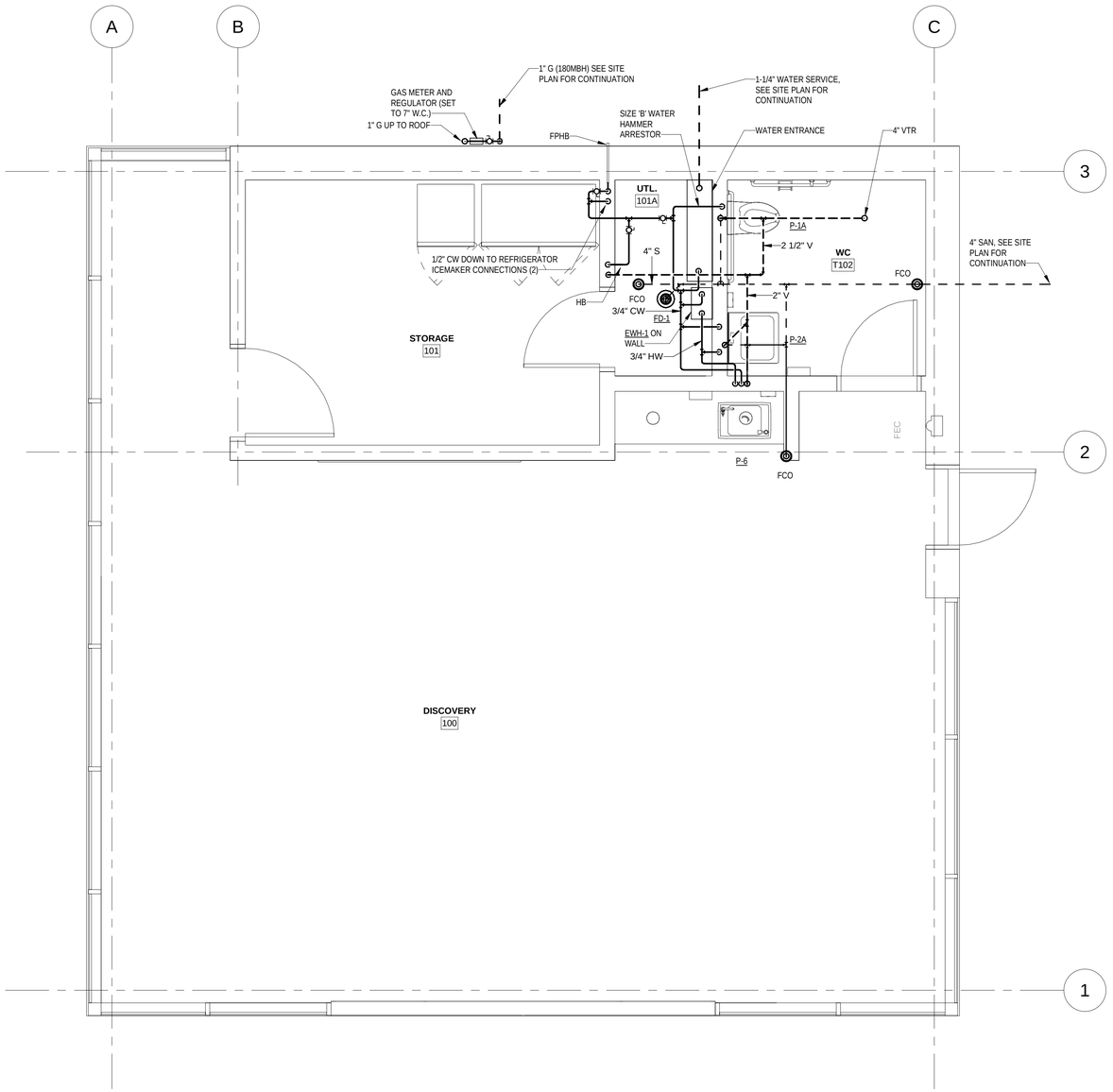
DRWN. CHK
JMV / JJK

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

ISSUE
4/1/2020

TITLE
ROOF MECHNICAL

SHEET
M102



1 Level 1 - Plumbing
3/8" = 1'-0"

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LICENSED
PROFESSIONAL ENGINEER

JOB NO.
Project Number

DRWN. CHK
JMV / JJK

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

ISSUE
4/1/2020

TITLE
FIRST FLOOR PLUMBING

SHEET
M201

PACKAGED ROOFTOP UNIT PERFORMANCE SCHEDULE

• - (NET) AT 95°F AMBIENT

TAG	NOMINAL COOLING (TONS)	TOTAL COOLING (MBH)•	SENSIBLE COOLING (MBH)•	EDB/EWB (°F)	LDB (°F)	TOTAL AIRFLOW (CFM)	E.S.P. (IN.W.G.)	SUPPLY FAN RPM	MINIMUM O.A. (CFM)	MINIMUM EXHAUST (CFM)	FUEL INPUT (MBH)	HEATING OUTPUT (MBH)	HEATING EAT (°F)	HEATING LAT (°F)	EER (BTUH/WATT)	WEIGHT W/ CURB (LBS)	TYPE OF REFRIG-ERANT	FUEL	ELECTRICAL REQUIREMENTS				BASIS OF DESIGN - YORK	
																			HP	MCA	MOCP	V/PH/HZ	SERVICE	MODEL
HVAC-1	6.5	73.9	47.6	78.8/66.6	56.0	2075	0.50	1016	515	-	180	144	45.0	109.3	11.2	1500	R-410a	NAT GAS	15	49.8	60.0	208/3/60	BUILDING	JCH2R5

PROVIDE ALL UNITS WITH DUAL ENTHALPY ECONOMIZERS, HOT GAS REHEAT.

PLUMBING FIXTURE CONNECTION SCHEDULE

TAG	DESCRIPTION	SAN	VENT	CW	HW
P-1A	ADA FLOOR MOUNTED FV WC	3"	2"	1"	-
P-2A	ADA WALL HUNG LAVATORY	1-1/2"	1-1/2"	1/2"	1/2"
P-6	ADA CLASSROOM SINK	1-1/2"	1-1/2"	1/2"	1/2"
FD-1	FLOOR DRAIN (W/ TRAP PRIMER)	3"	2"	1/2"•	-

MINIMUM SIZE OF BELOW SLAB SANITARY • VENT PIPING SHALL BE 2".
FLOOR DRAINS SHALL BE CONNECTED TO A NEARBY TRAP PRIMER.
• - TRAP PRIMER CONNECTION (ROUTED FROM NEAREST FIXTURE)

FAN PERFORMANCE SCHEDULE

TAG	AIRFLOW LOW/HIGH (CFM)	T.S.P. (IN.W.G.)	NOISE (SONES)	RPM	DRIVE	ELECTRICAL REQUIREMENTS					BASIS OF DESIGN - PANASONIC		
						HP	BHP	WATTS	AMPS	V/PH/HZ	SERVICE	ARRANGEMENT	MODEL
EF-10	75	0.25	0.5	1112	DIRECT	-	-	85	0.7	120/1/60	BATHROOM	CEILING	FV-05IVKS2

BFP PERFORMANCE SCHEDULE

TAG	SIZE	FLOW RATE (GPM)	W.P.D. (PSI)	MAX. WORK'G. TEMPERATURE (DEGREES F)	MAX. WORK'G. PRESSURE (PSI)	TESTABLE (Y) OR (N)	BASIS OF DESIGN - ZURN-WILKINS		
							BODY STYLE•	SERVICE	MODEL
BFP-10	3/4"	25	12.0	180	175	Y	RPZ	WATER ENTRANCE	975XL

EXPANSION TANK PERFORMANCE SCHEDULE

TAG	TANK VOLUME (GAL)•	ACCEPTANCE VOLUME (GAL)	MIN. REQ'D. ACCEPT.VOL. (GAL)	MAX. WORK'G. TEMPERATURE (DEG F)	MAX. WORK'G. PRESSURE (PSI)	WEIGHT (LBS)	BASIS OF DESIGN - AMTROL		
							MOUNTING	SERVICE	MODEL
ET-10	2.0	0.9	0.5	200	150	5	FLOOR	DOM HW	ST-5

ELECTRIC WATER HEATER PERFORMANCE SCHEDULE

TAG	STORAGE (GALS)	REC.VRY. @ 10°F	ELECTRICAL REQ'S		BASIS OF DESIGN - A.O. SMITH	
			WATTS	V/PH/HZ	SERVICE	MODEL
EWH-1	4.0	8.0	1440	120/1/60	DOM HW	EMT-4

ELECTRIC WALL HEATER PERFORMANCE SCHEDULE

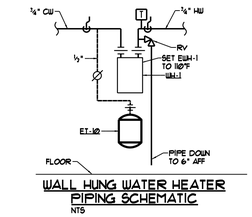
TAG	OUTPUT (MBH)	AIRFLOW (CFM)	THROW	MTG.HT. (INCHES)	ELECTRICAL REQUIREMENTS		BASIS OF DESIGN - QMARK		
					AMPS	WATTS	V/PH/HZ	SERVICE	ARRANGEMENT	MODEL
WH-1	6.8	100	-	16"	8.3	2000	208/1/60	SPACE HEAT	WALL	HT2024S6

• - PROVIDE WITH SURFACE MOUNTING FRAME

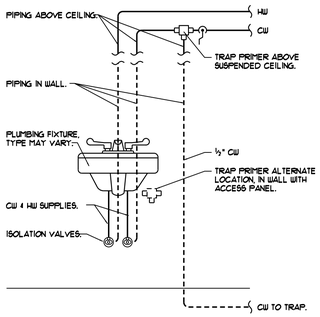
AIR DEVICE PERFORMANCE SCHEDULE

TAG	PANEL SIZE(IN)	NECK SIZE(IN)	AIRFLOW (CFM)	SP.LOSS (IN.W.G.)	THROW(L)	THROW(S)	Nc	BASIS OF DESIGN - PRICE		
								DUCT CONN.(IN)	PATTERN	MODEL
S1	-	6x12	210	0.05	-	-	20	12x6	SEE DRAWINGS	AHCD
S2	-	12x6	110	0.05	-	-	20	12x6	16A, NARROW	LBP
R1	-	18x18	1000	0.05	-	-	21	18x18	SEE DRAWINGS	610

PROVIDE WITH OPPOSED BLADE DAMPERS

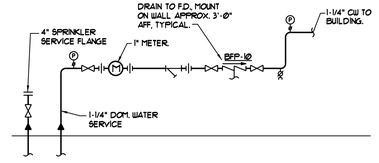


WALL HUNG WATER HEATER PIPING SCHEMATIC
NTS

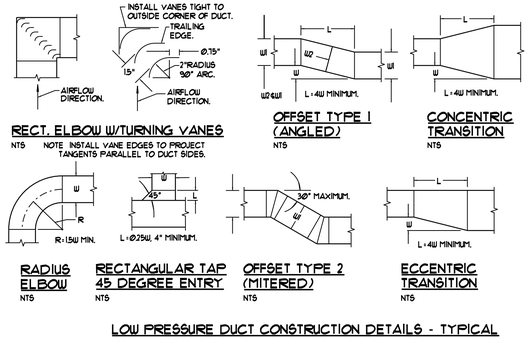


TRAP PRIMER CONNECTION DETAIL
NTS

NOTE - ALL FLOOR DRAINS SHALL HAVE TRAP PRIMERS, CONNECT TO NEAREST FIXTURE.



WATER ENTRANCE PIPING SCHEMATIC
NTS



RECT. ELBOW W/TURNING VANES
NTS — NOTE INSTALL VANE EDGES TO PROJECT TANGENTS PARALLEL TO DUCT SIDES.

OFFSET TYPE 1 (ANGLED)
NTS

CONCENTRIC TRANSITION
NTS

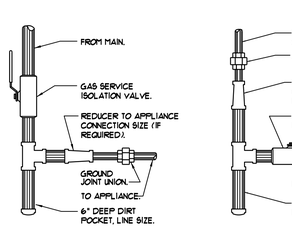
RADIUS ELBOW
NTS

RECTANGULAR TAP 45 DEGREE ENTRY
NTS

OFFSET TYPE 2 (MITERED)
NTS

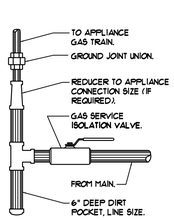
ECCENTRIC TRANSITION
NTS

LOW PRESSURE DUCT CONSTRUCTION DETAILS - TYPICAL
NTS



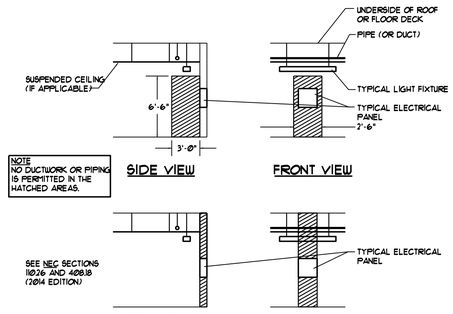
DOWNFEED GAS PIPING CONNECTION DETAIL
NTS

NOTE APPLIANCES WITH REGULATORS LOCATE PIPING SHOWN HEREIN UPSTREAM OF THE APPLIANCE REGULATOR. PROVIDE A TEST PLUG DOWNSTREAM OF THE APPLIANCE REGULATOR.



UPFEED GAS PIPING CONNECTION DETAIL
NTS

NOTE APPLIANCES WITH REGULATORS LOCATE PIPING SHOWN HEREIN UPSTREAM OF THE APPLIANCE REGULATOR. PROVIDE A TEST PLUG DOWNSTREAM OF THE APPLIANCE REGULATOR.



CLEARANCES AT ELECTRICAL PANELS
NTS

MECHANICAL AND PLUMBING SYMBOLS AND ABBREVIATIONS LEGEND

NOTE - USE SYMBOLS AND ABBREVIATIONS AS APPLICABLE FOR THIS MECHANICAL DRAWING SET.
SOME SYMBOLS AND ABBREVIATIONS IN THIS LEGEND MAY NOT APPLY.

SYMBOL	DESCRIPTION
CA	COMPRESSED AIR PIPING (CA)
C	CONDENSATE DRAIN PIPING (C)
CTR	COOLING TOWER RETURN PIPING (CTR)
CTS	COOLING TOWER SUPPLY PIPING (CTS)
CWR	CHILLED WATER RETURN PIPING (CWR)
CWS	CHILLED WATER SUPPLY PIPING (CWS)
FOR	FUEL OIL RETURN PIPING (FOR)
FOS	FUEL OIL SUPPLY PIPING (FOS)
G	GAS PIPING (G)
HWR	HOT WATER RETURN PIPING (HWR)
HWS	HOT WATER SUPPLY PIPING (HWS)
RL	REFRIGERANT LIQUID PIPING (RL)
RG	REFRIGERANT GAS PIPING (RG)
SAN	SANITARY PIPING BELOW FLOOR (SAN)
SAN	SANITARY PIPING ABOVE FLOOR (SAN)
SAN	SANITARY VENT PIPING
RWL	RAINWATER LEADER ABOVE SLAB (RWL)
ORWL	OVERFLOW RAINWATER LEADER ABOVE SLAB (RWL)
CW	COLD WATER PIPING (CW)
HW	HOT WATER PIPING (HW)
RHW	RECIRCULATED HOT WATER PIPING (RHW)
	PIPE CAP
	DIRECTION OF FLUID FLOW
	ELBOW UP
	ELBOW DOWN
	PIPE TEE UP
	PIPE TEE DOWN
	PIPE REDUCER
	PIPE WITH GUIDE
	PIPE WITH ANCHOR
	BUTTERFLY VALVE
	OS & Y GATE VALVE

SYMBOL	DESCRIPTION
	BACKFLOW PREVENTER (BFP)
	CHECK VALVE
	BALANCING VALVE (ADJUSTABLE)
	AUTOMATIC FLOW CONTROL VALVE
	RELIEF VALVE (RV)
	BALL VALVE
	3/4" BALL VALVE WITH 3/4" HOSE END
	GATE VALVE
	PRESSURE REDUCING VALVE
	FUSIBLE VALVE
	STRAINER W/BLOWDOWN BALL VALVE
	2-WAY CONTROL VALVE
	SOLENOID VALVE
	3-WAY CONTROL VALVE
	3-WAY CONTROL VALVE (TOP VIEW)
	4-WAY CONTROL VALVE (TOP VIEW)
	2 BUTTERFLY VALVES W/SINGLE ACTUATOR
	BUTTERFLY VALVE W/ACTUATOR
	TRIPLE-DUTY VALVE
	UNION
	PIPE FLANGE
	PUMP WITH FLANGES
	BASE MOUNTED PUMP
	CARTRIDGE TYPE INLINE PUMP
	VERTICAL INLINE PUMP
FC	FLEXIBLE PIPE CONNECTION (FC)
	PITCH DOWN
	PETCOCK
	FLOW METER

SYMBOL	DESCRIPTION
	PRESSURE GAGE WITH GAGE COCK
	THERMOMETER IN WELL
	WATER FLOW SWITCH
	PRESSURE SWITCH OR SENSOR
	IMMERSION TEMPERATURE SENSOR
	DUCT MOUNTED SMOKE DETECTOR
	ROOM TEMPERATURE SENSOR
T S	THERMOSTAT OR SENSOR ON WALL
T G	T&TAT OR SENSOR W/ TAMPERPROOF GUARD
V	MANUAL AIR VENT
2	NOTE TAG (NUMBER)
A 2 Ø50	AIR DEVICE TAG (LETTER) WITH CFM
101	ROOM NUMBER
	TURNING VANES
	DUCT W/MANUAL DAMPER
	DUCT W/FLEXIBLE CONNECTION (FC)
	LAGGED DUCT
	DUCT W/ACOUSTIC LINING
	DUCT W/SQUARE-TO-ROUND TRANSITION
	FLEXIBLE DUCT
MOD	MOTOR OPERATED DAMPER
	AIRFLOW OUT
	AIRFLOW IN
Ø	DIAMETER OR FLAT OVAL
	FIRE DAMPER
	ROUND OR FLAT OVAL DUCT DOWN
	ROUND OR FLAT OVAL DUCT UP
	SUPPLY DIFFUSER
	RETURN GRILLE
	STEAM TRAP
	WATER HAMMER ARRESTOR

ABBREVIATION	DESCRIPTION
AAV	AUTOMATIC AIR VENT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU-•	AIR HANDLING UNIT TAG
AMS	AIRFLOW MONITORING STATION
AMPS	AMPERES
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
AS-•	AIR SEPARATOR TAG
ATC	AUTOMATIC TEMPERATURE CONTROL
B-•	BOILER TAG
BFP-•	BACKFLOW PREVENTER TAG
BHP	BRAKE HORSEPOWER
BTUH	BRITISH THERMAL UNITS PER HOUR
CBD	COUNTER BALANCED DAMPER
CC-•	COOLING COIL TAG
CFM	CUBIC FEET PER MINUTE
CO	CLEANOUT
CUH-•	CABINET UNIT HEATER TAG
CP-•	CIRCULATING PUMP TAG
CT-•	COOLING TOWER TAG
Cv	VALVE COEFFICIENT
CW	COLD WATER
DB	DRY BULB
dB RE	DECIBELS RELATIVE TO
DC	DOUBLE CHECK
DCA	DOUBLE CHECK ATMOSPHERIC
DEG F	DEGREES FAHRENHEIT
DIA	DIAMETER
DW	DOWN IN WALL
DN	DOWN
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE

ABBREVIATION	DESCRIPTION
EDB	ENTERING DRY BULB
EDC-•	ELECTRIC DUCT COIL TAG
EER	ENERGY EFFICIENCY RATIO
EF-•	EXHAUST FAN TAG
EFF	EFFICIENCY
EG-•	EXHAUST GRILLE TAG
ESP	EXTERNAL STATIC PRESSURE
ET-•	EXPANSION TANK TAG
EWB	ENTERING WET BULB
EWH-•	ELECTRIC WATER HEATER TAG
EWT	ENTERING WATER TEMPERATURE
EXG	EXISTING
EXH	EXHAUST
FC	FLEXIBLE CONNECTION
FCO	FLOOR CLEANOUT
FD	FIRE DAMPER
FD-•	FLOOR DRAIN TAG
FLA	FULL LOAD AMPS
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FPHB	FROST PROOF HOSE BIBB
FPM	FEET PER MINUTE
FS-•	FLOOR SINK TAG
FT	FEET
FTR-•	FINTUBE RADIATION TAG
GA.	GAGE
GAL	GALLONS
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HC-•	HEATING COIL TAG
HP	HORSEPOWER
HW	HOT WATER
HWS/R	HOT WATER SUPPLY AND RETURN

ABBREVIATION	DESCRIPTION
I=B=R	INSTITUTE OF BOILER AND RADIATOR MANUFACTURERS
IFUH-•	INDIRECT FIRED WATER HEATER TAG
IN.	INCHES
L-•	LOUVER TAG
LAT	LEAVING AIR TEMPERATURE
LB	POUNDS
LTHWS/R	LOW TEMPERATURE HOT WATER
LRA	LOCKED ROTOR AMPS
LWCO	LOW WATER CUTOFF
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	THOUSANDS OF BTU PER HOUR
MCA	MINIMUM CIRCUIT AMPACITY
MIN	MINIMUM
NC	NOISE CRITERION
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
O.D.	OUTSIDE DIAMETER
OED	OPEN ENDED DUCT
OPD	OVERCURRENT PROTECTIVE DEVICE
ORD	OVERFLOW ROOF DRAIN
ORWL	OVERFLOW RAINWATER LEADER
P-•	PLUMBING FIXTURE TAG
PENETN	PENETRATION
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAGE
PVC	POLYVINYL CHLORIDE (PIPE)
RA	RETURN AIR
RD	ROOF DRAIN
RDE	RECOMMENDED DUAL ELEMENT FUSE AMPS
RFH-•	RADIANT FLOOR MANIFOLD TAG
RHW	RECIRCULATED HOT WATER

ABBREVIATION	DESCRIPTION
RLA	RUNNING LOAD AMPS
RPM	REVOLUTIONS PER MINUTE
RPS	REVOLUTIONS PER SECOND
RPZ	REDUCED PRESSURE ZONE
RTU	ROOM TEMPERATURE SENSOR
RV	RELIEF VALVE
RWL	RAINWATER LEADER
SA	SUPPLY AIR
SAN	SANITARY (DRAIN & WASTE)
SD	SMOKE DAMPER
SEER	SEASONAL ENERGY EFFICIENCY RATIO
SF	SUPPLY FAN
SP	STATIC PRESSURE
SP-•	SUMP PUMP TAG
SQFT	SQUARE FEET
ΔT	TEMPERATURE DIFFERENTIAL
TEMP.	TEMPERATURE
TCP	TEMPERATURE CONTROL PANEL
TMV-•	THERMOSTATIC MIXING VALVE TAG
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UH-•	UNIT HEATER TAG
VB	VACUUM BREAKER
VFD	VARIABLE FREQUENCY INVERTER DRIVE
VTR	VENT THRU ROOF
V/PH/HZ	VOLTS/PHASES/HERTZ
WB	WET BULB
WCO	WALL CLEANOUT
WG	WATER GAGE
WPD	WATER PRESSURE DROP
WSA	WIRE SIZING AMPS
WTD	WATER TEMPERATURE DROP
W	WITH

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PROFESSIONAL ENGINEER

JOB NO.
Project Number

DRWN. CHK
JMV / JJK

SCALE:
NO SCALE

ISSUE
4/1/2020

TITLE
MECHANICAL SCHEDULES, LEGEND AND DETAILS

SHEET
M301

GENERAL NOTES

1. THE NOTES ON THESE DRAWINGS ARE NOT INTENDED TO REPLACE SPECIFICATIONS. SEE SPECIFICATIONS FOR REQUIREMENTS IN ADDITION TO GENERAL NOTES. INCONSISTENCIES BETWEEN THESE DRAWINGS AND THE SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.
2. EDITIONS OF MATERIAL STANDARDS REFERENCED ON THIS DRAWING SHALL BE AS INDICATED IN THE BUILDING CODES.
3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ALL OTHER PROJECT DRAWINGS AND SPECIFICATIONS. CONSULT ALL OTHER PROJECT DOCUMENTS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, REGLETS, SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.
4. ALL DIMENSIONS, EXISTING CONDITIONS, AND AS-BUILT CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER BEFORE PROCEEDING WITH THE EFFECTED PART OF THE WORK.
5. SECTIONS AND DETAILS SHOWN ON ANY STRUCTURAL DRAWINGS SHALL BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS AS DETERMINED BY THE STRUCTURAL ENGINEER. THE STRUCTURAL ENGINEER RESERVES THE RIGHT TO INTERPRET DETAILS TO ADDRESS OTHER PROJECT CONDITIONS.
6. IN ACCORDANCE WITH THE MAINE UNIFORM BUILDING AND ENERGY CODE AND INTERNATIONAL BUILDING CODE (2015 EDITION, SECTION 1704.1), SPECIAL INSPECTIONS ARE REQUIRED BY THE LOCAL CODE OFFICIAL. SEE THE STATEMENT OF INSPECTIONS AND THE PROJECT SPECIFICATIONS FOR ADDITIONAL CRITERIA.
7. ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.
8. THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE ONLY AFTER THE STRUCTURAL WORK CONTAINED IN THE STRUCTURAL DRAWINGS IS COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS, OR TIE-DOWNS. SUCH MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
9. REFERENCE THE PROJECT SPECIFICATIONS FOR ALL TESTING REQUIREMENTS.

DESIGN LOADS

1. BUILDING CODE:
   MAINE UNIFORM BUILDING AND ENERGY CODE
   INTERNATIONAL BUILDING CODE (IBC), 2015 EDITION
   ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER
   STRUCTURES, RISK CATEGORY III
2. DESIGN FLOOR LIVE LOADS: — UNIFORM / CONCENTRATED
   ROOF — DESIGN GOVERNED BY SNOW
   FIRST FLOOR — 100 PSF / 1,000 LBS
3. DESIGN ROOF SNOW LOAD:
   GROUND SNOW LOAD (Pg): — 52 PSF
   SNOW EXPOSURE FACTOR (Ce): — 1.0
   SNOW LOAD IMPORTANCE FACTOR (Is): — 1.1
   SNOW LOAD THERMAL FACTOR (Ct): — 1.1
   FLAT ROOF SNOW LOAD (Pf): — 44 PSF
4. DESIGN WIND LOAD:
   ULTIMATE DESIGN WIND SPEED (VULT): — 124MPH
   WIND EXPOSURE: — B
   INTERNAL PRESSURE COEFFICIENT: — ±0.18
   COMPONENTS & CLADDING PER ASCE 7-10 — SEE TABLE THIS SHEET
5. DESIGN SEISMIC LOADS:
   EQUIVALENT LATERAL FORCE PROCEDURE
   SEISMIC IMPORTANCE FACTOR (IE): — 1.25
   MAPPED SPECTRAL RESPONSE ACCELERATIONS: — Ss: 0.228; S1: 0.077
   SEISMIC SITE CLASS: — D
   SPECTRAL RESPONSE COEFFICIENTS: — SDS: 0.243; SD1: 0.123
   SEISMIC DESIGN CATEGORY: — B
   BASIC STRUCTURAL SYSTEM:
   BUILDING FRAME SYSTEM
   BASIC SEISMIC FORCE RESISTING SYSTEM:
   STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE (R-3)
   RESPONSE MODIFICATION FACTOR (R): — X: 3; Y: 3
   SEISMIC RESPONSE COEFFICIENT (CS): — X: 0.101; Y: 0.101
6. FUTURE FLUSH PANEL PHOTO VOLTAIC:
   DEAD LOAD — 8 PSF

FOUNDATION NOTES

1. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE REPORT ENTITLED "GEOTECHNICAL ENGINEERING SERVICES PROPOSED ELEMENTARY SCHOOL, JORDAN ACRES SCHOOL SITE, BRUNSWICK, MAINE" PREPARED BY S.W. COLE ENGINEERING, INC. DATED 11/27/17. THE RECOMMENDATIONS OF THE REPORT ARE PART OF THIS WORK. REFER TO THIS REPORT FOR SPECIFIC RECOMMENDATIONS.
2. FOUNDATION DESIGN IS BASED ON SHALLOW SPREAD FOOTINGS BEARING ON SUITABLE UNDISTURBED NATIVE SOILS AND/OR NEW COMPACTED STRUCTURAL FILL EXTENDING TO UNDISTURBED NATIVE SOIL PER THE REQUIREMENTS OF THE GEOTECHNICAL REPORT. REFER TO THIS REPORT FOR SPECIFIC BEARING RECOMMENDATIONS.
3. ALLOWABLE BEARING CAPACITY 3,000 PSF
4. EXTEND BOTTOM OF EXTERIOR FOOTINGS AT LEAST 4.5 FEET BELOW THE FINAL EXTERIOR GRADE FOR PROTECTION AGAINST FROST.
5. NO FILL FOR BUILDING SUPPORT SHALL BE PLACED UNTIL SUBGRADES HAVE BEEN OBSERVED AND APPROVED BY THE GEOTECHNICAL ENGINEER.
6. REFERENCE THE GEOTECHNICAL REPORT FOR ALL EXCAVATION, BACKFILL, COMPACTION, CONSTRUCTION DEWATERING AND PERMANENT DRAINAGE REQUIREMENTS.
7. SOILS EXPOSED AT THE BASE OF ALL SATISFACTORY FOUNDATION EXCAVATIONS SHOULD BE PROTECTED AGAINST ANY DETRIMENTAL CHANGE IN CONDITION, SUCH AS DISTURBANCE FROM RAIN OR FROST. SURFACE RUNOFF SHALL BE DRAINED AWAY FROM THE EXCAVATIONS AND NOT BE ALLOWED TO POND. FOUNDATION EXCAVATIONS SHALL BE ADEQUATELY PROTECTED FROM RAINFALL OR FREEZING CONDITIONS. GROUNDWATER SHOULD BE ANTICIPATED FOR EXCAVATIONS AND APPROPRIATE DEWATERING MEASURES SHALL BE EMPLOYED.
8. EXCAVATIONS FOR BUILDING CONSTRUCTION SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS. BRACED EXCAVATIONS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF // MAINE. // DO NOT UNDERMINE EXISTING FOUNDATIONS OF ANY ADJACENT STRUCTURES. REFER TO THE GEOTECHNICAL REPORT FOR ADDITIONAL AND/OR MORE SPECIFIC REQUIREMENTS.

CONCRETE NOTES

1. CONCRETE WORK SHALL CONFORM TO THE ACI "MANUAL OF CONCRETE PRACTICE," INCLUDING BUT NOT LIMITED TO ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE."
2. CONCRETE FOUNDATIONS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,500 PSI. CONCRETE SLABS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI. EXTERIOR SLAB-ON-GRADE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5,000 PSI. ADDITIONAL CONCRETE MIX PERFORMANCE DATA INCLUDING AIR CONTENT, WATER-CEMENT RATIO, AGGREGATE SIZE, SLUMP, ETC. HAS BEEN INCLUDED IN THE PROJECT SPECIFICATIONS. SEE THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
3. CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.
4. REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 DEFORMED BARS AND SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE WITH ACI 315.
5. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 AND SHALL BE PROVIDED IN FLAT SHEETS. LAP TWO SQUARES AT ALL JOINTS AND TIE AT 3'-0" ON CENTER.
6. FIBER REINFORCEMENT SHALL BE TYPE II SYNTHETIC VIRGIN HOMOPOLYMER POLYPROPYLENE FIBERS CONFORMING TO ASTM C1116.
7. MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:
   A. SURFACES CAST AGAINST AND PERMANENTLY IN CONTACT WITH EARTH, 3"
   B. FORMED SURFACES IN CONTACT WITH EARTH OR EXPOSED TO WEATHER:
      #5 BARS AND SMALLER, 1 1/2"
      #6 THROUGH #11 BARS, 2"
   C. SURFACES NOT IN CONTACT WITH EARTH OR EXPOSED TO WEATHER:
      WALLS, SLABS, AND JOISTS #11 AND SMALLER, 1"
      BEAMS, GIRDERS, AND COLUMNS; ALL REINFORCEMENT, 1 1/2"
8. REINFORCEMENT SHALL BE CONTINUOUS AROUND CORNERS AND AT INTERSECTIONS. PROVIDE LAPPED BARS AT NECESSARY SPLICES OR HOOKED BARS AT DISCONTINUOUS ENDS. SEE SCHEDULE FOR REQUIRED REBAR LAP SPLICE LENGTHS.
9. WELDING OF REINFORCEMENT IS NOT PERMITTED, UNLESS SPECIFICALLY INDICATED.
10. CONSTRUCTION AND CONTRACTION JOINTS SHOWN ON DRAWINGS ARE MANDATORY. OMISSIONS, ADDITIONS, OR CHANGES SHALL NOT BE MADE EXCEPT WITH THE SUBMITTAL OF A WRITTEN REQUEST TOGETHER WITH DRAWINGS OF THE PROPOSED JOINT LOCATIONS FOR APPROVAL OF THE STRUCTURAL ENGINEER. WHERE JOINTS ARE NOT SHOWN, OR WHEN ALTERNATE LOCATIONS ARE PROPOSED, DRAWINGS SHOWING LOCATION OF CONSTRUCTION AND CONTRACTION JOINTS AND CONCRETE PLACING SEQUENCE SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO PREPARATION OF THE REINFORCEMENT SHOP DRAWINGS. CONCRETE SHALL BE PLACED WITHOUT HORIZONTAL CONSTRUCTION JOINTS EXCEPT WHERE SHOWN OR NOTED. VERTICAL CONSTRUCTION JOINTS AND STOPS IN CONCRETE BEAMS/GRADE BEAMS SHALL BE MADE AT MIDSPAN OR AT POINTS OF MINIMUM SHEAR, UNLESS NOTED OTHERWISE.
11. SPACING OF CONSTRUCTION OR CONTRACTION JOINTS, UNLESS NOTED OTHERWISE SHALL BE AS FOLLOWS:
   A. FOOTINGS AND WALLS:
      MAX SPACING OF 40'-0" OR 15'-0" FROM ANY CORNER. A MINIMUM OF 72 HOURS SHALL ELAPSE BETWEEN
      ADJACENT CONCRETE PLACEMENTS. COORDINATE JOINT LOCATIONS WITH VENEER CONTROL JOINT
      LOCATIONS WHEREVER POSSIBLE.
   B. SLABS ON GRADE
      MAX SPACING IN EACH DIRECTION OF 36xSLAB DEPTH. LIMIT PLAN ASPECT RATIOS TO 1.5.
12. ANCHOR RODS FOR STRUCTURAL STEEL ATTACHMENTS SHALL BE HEADED RODS CONFORMING TO ASTM F1554, GRADE 36 KSI WELDABLE STEEL, UNLESS NOTED OTHERWISE ON DRAWINGS. ANCHOR RODS FOR ATTACHMENT OF SILL PLATES SHALL BE A307, UNLESS NOTED OTHERWISE ON THE DRAWINGS. ANCHOR RODS THAT ARE TO BE IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT-DIPPED GALVANIZED.
13. ALL GROUT BENEATH BASE PLATES & BEARING PLATES SHALL BE 5000-PSI (MIN) NON-SHRINK GROUT.
14. SLAB THICKNESSES INDICATED ON THE DRAWINGS ARE MINIMUMS. PROVIDE SUFFICIENT CONCRETE TO ACCOUNT FOR STRUCTURE DEFLECTION, SUBGRADE FLUCTUATIONS, AND TO OBTAIN THE SPECIFIED SLAB ELEVATION AT THE FLATNESS AND LEVELNESS INDICATED.
15. PROVIDE A 15-MIL POLYOLEFIN VAPOR RETARDER MEETING THE REQUIREMENTS OF ASTM E1745 CLASS A OVER PREPARED SUB BASE (U.N.O). REFERENCE ARCHITECTURAL DRAWINGS AND GEOTECHNICAL REPORT FOR ADDITIONAL REQUIREMENTS AND VAPOR RETARDER LOCATIONS.
16. FOR ALL OPENINGS IN CONCRETE WALLS AND SLABS, PROVIDE SUPPLEMENTAL REINFORCING AROUND OPENING AS SHOWN IN THE TYPICAL DETAILS.
17. PROVIDE PVC SLEEVES WHERE PIPES PASS THROUGH EXTERIOR CONCRETE OR SLABS CAST ON GRADE. ADJACENT SLEEVES SHALL BE SPACED A MINIMUM OF THREE DIAMETERS APART. NO PENETRATIONS SHALL BE MADE THROUGH FOOTINGS WITHOUT WRITTEN PERMISSION FROM ENGINEER.
18. INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AT LEAST 24 HOURS PRIOR TO THE SCHEDULED CONCRETE PLACEMENT. NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OF COMPLETION AT LEAST 24 HOURS PRIOR TO THE SCHEDULED COMPLETION OF THE INSTALLATION OF REINFORCEMENT.
19. ALL ITEMS TO BE EMBEDDED INTO CONCRETE SHALL BE INSTALLED PRIOR TO PLACEMENT OF CONCRETE. PROVIDE ADDITIONAL REINFORCEMENT AND/OR TEMPLATES AS REQUIRED TO ENSURE THE CORRECT POSITIONS OF EMBEDMENTS. "WET SETTING" OF EMBEDMENTS INTO CONCRETE IS STRICTLY PROHIBITED. EMBEDMENTS INCLUDE, BUT NOT BY LIMITATION, REINFORCEMENT, REINFORCING DOWELS, EMBEDDED PLATES, ANCHOR RODS, ANCHOR INSERTS, SLEEVES, LOAD TRANSFER PLATES, DIAMOND DOWELS, AND SHELF BULK HEADS.

STRUCTURAL STEEL NOTES

1. STRUCTURAL STEEL DESIGN, DETAIL, FABRICATION, AND ERECTION SHALL CONFORM TO ANSI/AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND TO ANSI/AISC303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES."
2. STRUCTURAL STEEL SHAPES SHALL CONFORM TO THE FOLLOWING, UNLESS NOTED OTHERWISE:
   A. STEEL PLATES, SHAPES, AND BARS: ASTM A36
   B. WIDE-FLANGE SECTIONS: ASTM A992
   C. HOLLOW STRUCTURAL SECTIONS (HSS): ASTM A500 GR. C
   D. PIPES: ASTM A53 GR. B
3. CONNECTION DESIGN FOR THIS PROJECT IS THE RESPONSIBILITY OF THE FABRICATOR. CONNECTION CALCULATIONS, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MAINE, SHALL BE SUBMITTED WITH THE SHOP DRAWINGS FOR THIS PROJECT. SEE THE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. DESIGN AND DETAIL ALL CONNECTIONS ACCORDING TO AISC STANDARD CONNECTION TABLES. DESIGN STANDARD BEAM CONNECTIONS FOR THE MAXIMUM LOAD CAPACITY OF THE MEMBER; U.N.O. ON THE SIMPLE SHEAR BEAM REACTION SCHEDULE.
4. BOLTED CONNECTIONS SHALL USE 3/4" ASTM F3125, GRADE A325, HIGH STRENGTH BOLTS (U.N.O.), EXCEPT WHERE SLIP CRITICAL CONNECTIONS ARE REQUIRED AND NOTED BY (SC) ON THE DRAWINGS OR AS REQUIRED BY CONNECTION DESIGN.
5. ALL WELDING SHALL CONFORM TO AWS D1.1. ELECTRODES SHALL CONFORM TO AWS A5.1 E70XX SERIES (U.N.O.) WITH PROPER ROD TO PRODUCE OPTIMUM WELD (LOW HYDROGEN).
6. SEE CONCRETE NOTES AND DRAWINGS FOR ANCHOR BOLT INFORMATION.
7. PROVIDE 1/4" THICK LEVELING PLATE AND 3/4" ± OF NON SHRINK GROUT UNDER ALL COLUMN BASE PLATES (U.N.O.). LEVELING PLATES SHALL BE SET AND GROUTED PRIOR TO ERECTING COLUMNS. LEVELING NUTS MAY BE USED AS AN ALTERNATE PROVIDED BASEPLATES ARE SHIMMED IN ACCORDANCE WITH AISC SPECIFICATIONS UNTIL SUCH TIME AS THE BASEPLATE IS GROUTED.
8. COAT ALL COLUMNS, BASEPLATES, AND BRACE ELEMENTS ENCASED IN CONCRETE OR BELOW GRADE WITH BITUMINOUS MASTIC ON TNEMEC H.B. TNEMECOL (46-465) COAL TAR PAINT (U.N.O.).
9. PROVIDE ALL MISCELLANEOUS ANGLES, PLATES, ANCHOR BOLTS, ETC. SHOWN ON ARCHITECTURAL DRAWINGS. COORDINATE WITH MISCELLANEOUS METAL FABRICATOR TO ENSURE COMPLETE COVERAGE OF ALL ITEMS.

REBAR LAP SPLICE TABLE

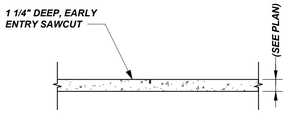
BAR SIZE	LAP LENGTH	
	3,000/3,500 PSI	5,000 PSI
#3	30"	24"
#4	36"	32"
#5	48"	42"
#6	56"	48"
#7	81"	72"
#8	93"	80"

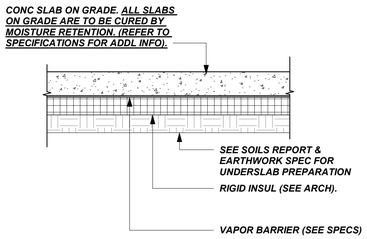
OPEN WEB STEEL JOIST NOTES

1. OPEN WEB STEEL JOIST DESIGN, DETAIL, FABRICATION, AND ERECTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE STEEL JOIST INSTITUTE (SJI).
2. REFERENCE PROJECT SPECIFICATIONS FOR ADDITIONAL CRITERIA.
3. HANGERS FOR DUCTS, PIPES, UNITS, ETC. MUST BE ATTACHED TO JOISTS AT PANEL POINTS ONLY. EXCEPT WHERE DESIGNATED ON "SP" JOISTS, IN NO CASE SHALL ANY SINGLE POINT LOAD EXCEED 150 LBS.
4. PROVIDE BRIDGING AND BRIDGING ANCHORAGE IN ACCORDANCE WITH SJI SPECIFICATIONS. PROVIDE ADDITIONAL BRIDGING FOR UPLIFT AT ROOF JOISTS.

METAL DECK

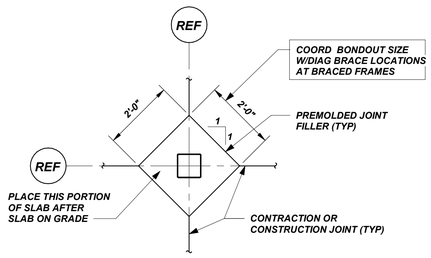
1. METAL DECK DESIGN, DETAIL, FABRICATION, AND ERECTION SHALL CONFORM TO THE STANDARDS OF THE STEEL DECK INSTITUTE (SDI).
2. REFERENCE PROJECT SPECIFICATIONS FOR DECK ATTACHMENTS, PENETRATION REINFORCEMENT, AND ACCESSORIES.
3. THE METAL DECK SHALL BE FORMED OF STEEL SHEETS CONFORMING TO THE FOLLOWING STANDARDS: G60 GALVANIZED ZINC COATING, ASTM A653, STRUCTURAL QUALITY, GRADE // 33 // OR HIGHER. IF INDICATED ON THE DRAWINGS TO BE FIELD PAINTED, PROVIDE GALVANIZED DECK THAT IS FACTORY PRIMED AND COMPATIBLE WITH TOP COAT.
4. DECK TYPE, GAGE, AND DEPTH SHALL BE AS NOTED ON THE DRAWINGS. PROVIDE 3 SPAN CONDITIONS MINIMUM (U.N.O.).





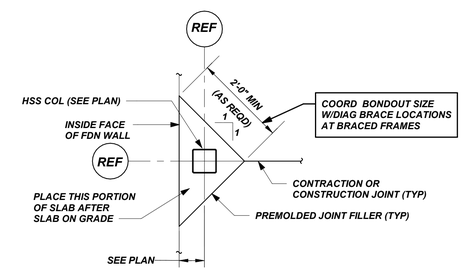
4" SLAB ON GRADE CONTRACTION JOINT DETAIL

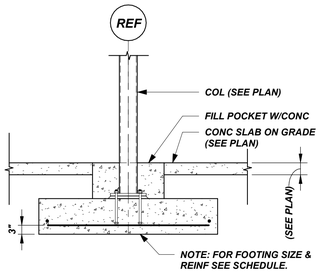
N.T.S.



TYP SLAB DETAIL

N.T.S.



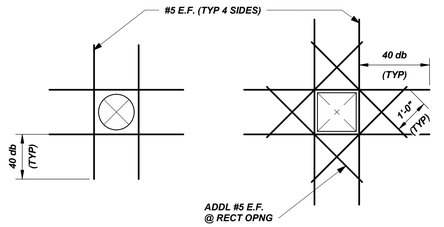


TYP INTERIOR FOOTING DETAIL U.N.O.

N.T.S.

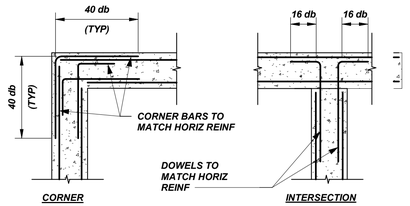
TYP INT COLUMN ISOLATION JOINT DETAIL

N.T.S.



TYP EXT COLUMN ISOLATION JOINT DETAIL

N.T.S.



TYP OPENING IN WALL OR SLAB DETAIL

N.T.S.

TYP WALL REINF DETAILS

N.T.S.

WALL COMPONENTS & CLADDING NET WIND PRESSURES (PSF)																
ZONE 4								ZONE 5								
TRIBUTARY AREA (SQ. FT.)								TRIBUTARY AREA (SQ. FT.)								
10		20		50		100		10		20		50		100		
26	-28	25	-27	24	-26	23	-25	26	-34	25	-32	24	-29	23	-27	

REFERENCE: ASCE 7-10, FIGURE 30.4-1 AND TABLE 30.7-2
ROOF TYPE: FLAT ROOF
a= 8 FT

ROOF COMPONENTS & CLADDING NET WIND PRESSURES (PSF)																							
ZONE 1								ZONE 2								ZONE 3							
TRIBUTARY AREA (SQ. FT.)								TRIBUTARY AREA (SQ. FT.)								TRIBUTARY AREA (SQ. FT.)							
10		20		50		100		10		20		50		100		10		20		50		100	
12	-28	11	-27	10	-27	9	-26	12	-47	11	-42	10	-35	9	-30	12	-70	11	-58	10	-42	9	-30

REFERENCE: ASCE 7-10, FIGURE 30.4-2A AND TABLE 30.7-2
ROOF TYPE: FLAT ROOF
a= 8 FT

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JOB NO. 4235

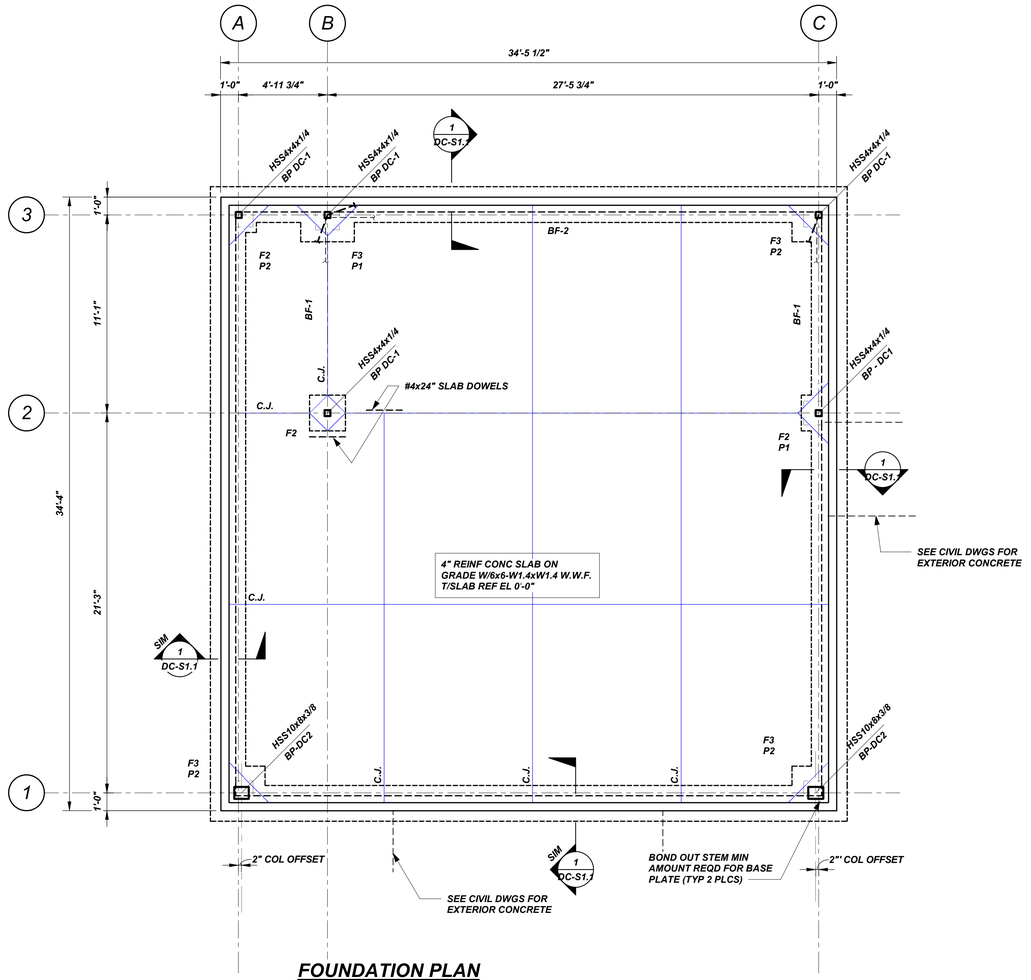
DRWN. BSE/TT
Checker: DSB

SCALE: As indicated

ISSUE 4/1/2020

TITLE
GENERAL NOTES & TYPICAL DETAILS

SHEET
DC-S1.0



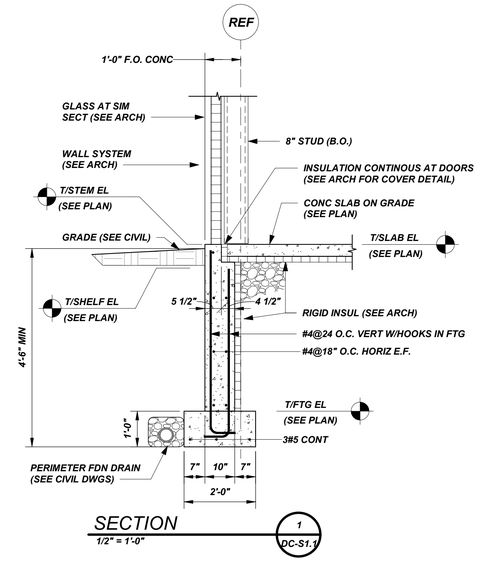
FOUNDATION PLAN

1/4"=1'-0"

NOTES:

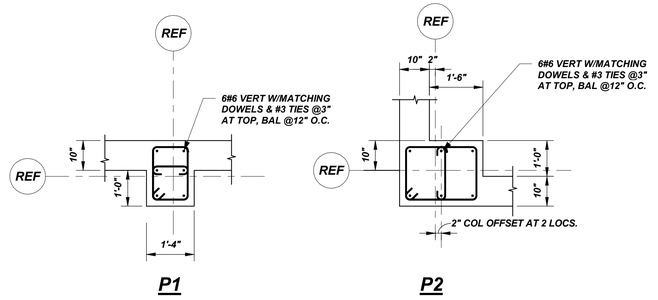
1. TOP OF WALL EL 0'-0" U.N.O. BY [XX'-XX"]
2. Fx INDICATES CONCRETE FOOTING. SEE SCHEDULE FOR SIZE & REINF.
3. TOP OF INTERIOR FOOTING EL (-1'-0") U.N.O.
4. TOP OF EXTERIOR FOOTING EL (-4'-0") U.N.O.
5. Px INDICATES REINF CONCRETE PIER. SEE PIER DETAILS.
6. TOP OF PIER EL (-0'-8") U.N.O.
7. BP-x INDICATES COLUMN BASE PLATE. SEE BASE PLATE DETAILS.
8. C.J. INDICATES SLAB CONTRACTION JOINT. SEE TYP DETAILS.
9. BF-1, BF-2, ETC INDICATES BRACED FRAME. SEE BRACED FRAME ELEVATIONS.

FOOTING SCHEDULE		
FOOTING MARK	FOOTING SIZE	REINF EACH WAY BOT U.N.O.
F2	2'-0"x2'-0"x1'-0"	3#4
F3	3'-0"x3'-0"x1'-0"	3#4



SECTION

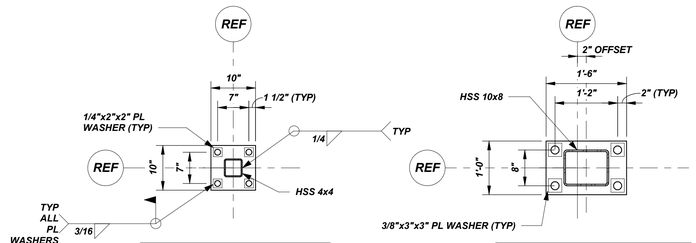
1/2" = 1'-0"



P1 **P2**

PIER DETAILS

N.T.S.
NOTE: WALL REINF NOT SHOWN FOR CLARITY.



BP-DC1 **BP-DC2**

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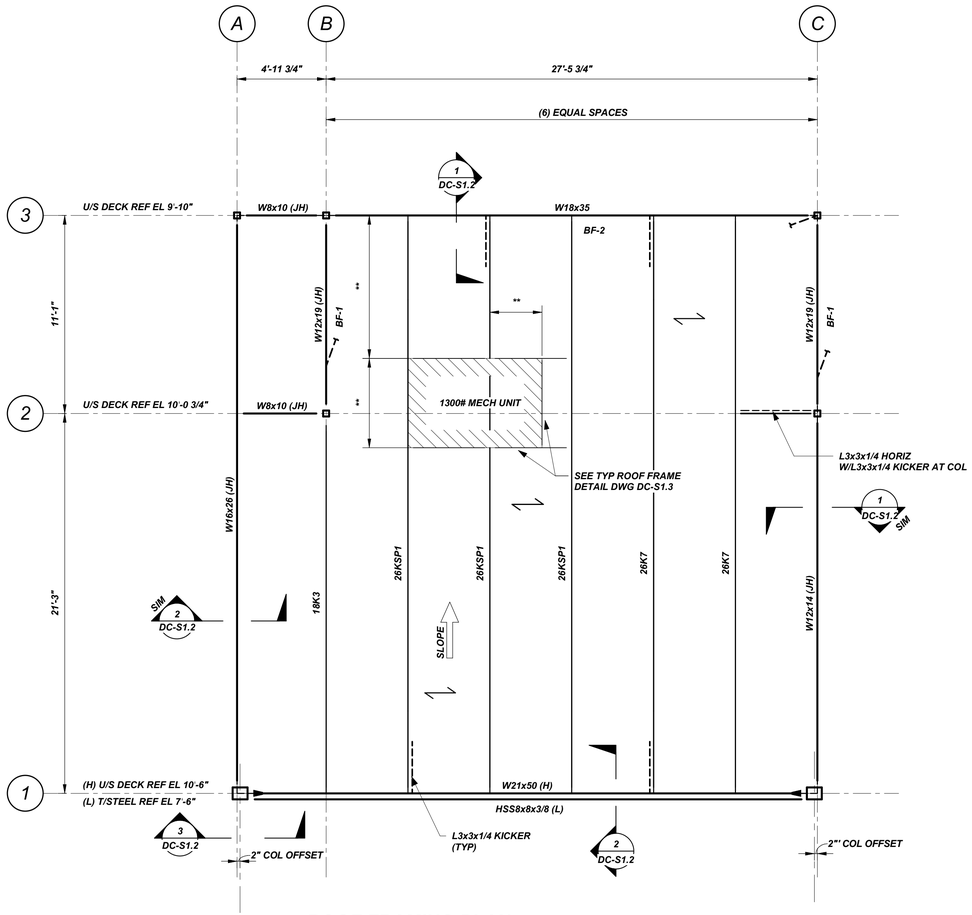
ISSUE 4/1/2020

TITLE
FOUNDATION PLAN, SECTION & DETAILS

SHEET
DC-S1.1

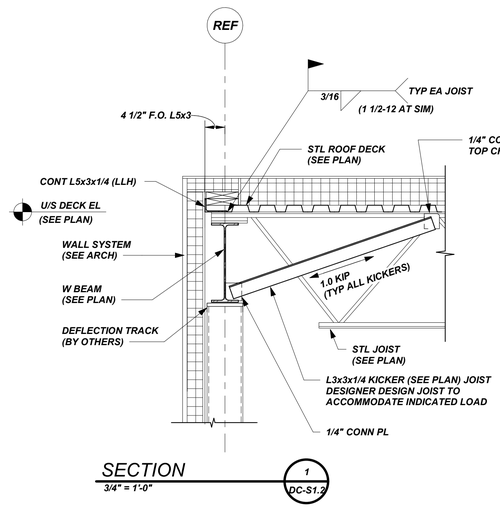


ROOF FRAMING PLAN

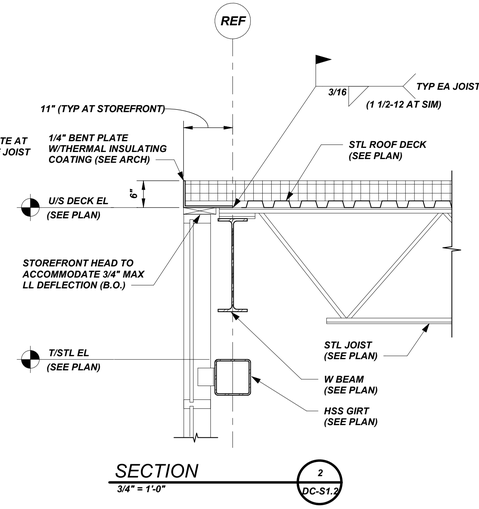
1/4"=1'-0"

NOTES:

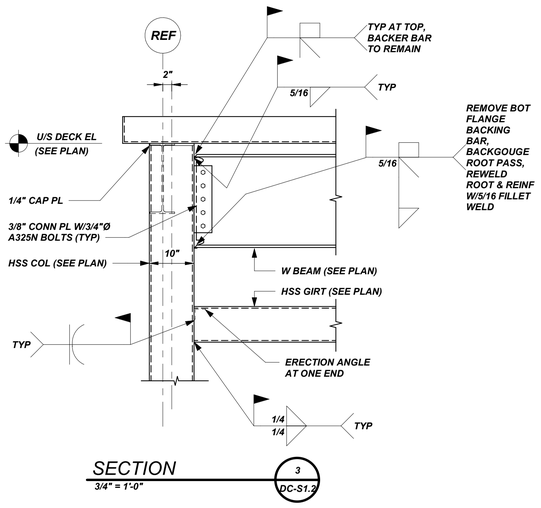
1. ⟋ INDICATES SPAN DIRECTION OF 1.5BA20 GALV ACOUSTIC ROOF DECK (3 SPAN MIN).
2. (J.H.) INDICATES W BEAM IN THE PLANE OF THE JOIST.
3. PROVIDE ALL BRIDGING PER STEEL JOIST INSTITUTE SPECIFICATIONS.
4. BF-XX INDICATES BRACED FRAME ELEVATION. SEE BRACED FRAME ELEVATIONS DWG DC-S1.3 FOR DESIGN INFO.
5. COORD ROOF DRAIN LOCATIONS W/ARCH & PLUMBING. ROOF DRAINS MAY REQUIRE A STRUCTURAL FRAME. SEE TYP DETAIL DC-S1.3 FOR CRITERIA.
6. ** INDICATES DIMENSIONS TO BE VERIFIED BY G.C. WITH APPROVED MECHANICAL UNIT REQUIREMENTS.



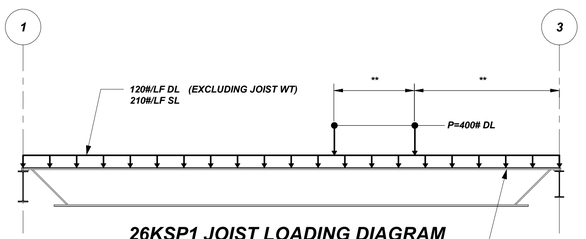
SECTION 1 DC-S1.2
3/4" = 1'-0"



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



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



26KSP1 JOIST LOADING DIAGRAM

N.T.S.

NOTES:

1. SEE ROOF FRAMING PLANS FOR SP JOIST LOCATIONS.
2. ** INDICATES DIMENSIONS TO BE COORDINATED BY G.C. W/MEP REQUIRMENTS.

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TITLE
ROOF FRAMING PLAN, BRACED FRAME ELEVS & SECTIONS

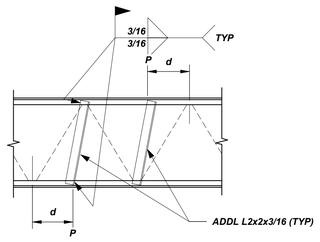
SHEET
DC-S1.2

SIMPLE SHEAR BEAM CONNECTION SCHEDULE

BEAM SIZE	DESIGN REACTION	MIN No. BOLTS - ONE SIDED CONNECTION	MIN No. BOLTS - TWO SIDED CONNECTION
W8/W10	15K	2	2
W12/W14	20K	3	3
W16/W18	35K	4	3
W21	45K	5	4
W24	60K	6	5
W27	70K	7	6
W30	80K	7	6

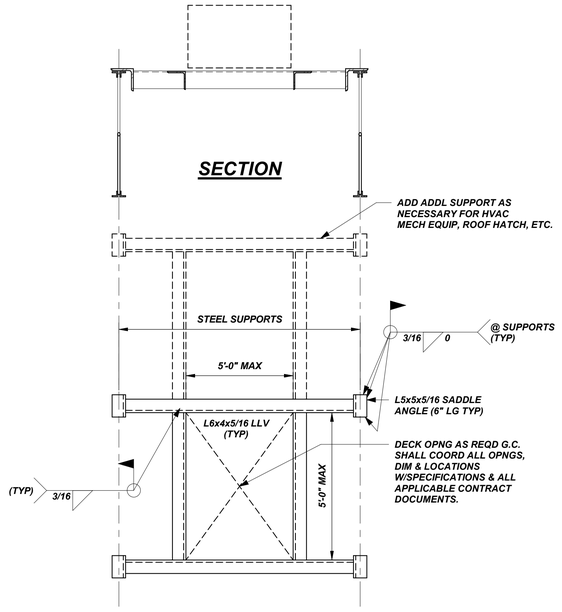
SIMPLE SHEAR CONNECTIONS NOTES:

1. SIMPLE SHEAR CONNECTIONS SHALL BE SELECTED FROM THE AISC "MANUAL OF STEEL CONSTRUCTION, THIRTEENTH EDITION" USING THE ABOVE REFERENCED REACTIONS AND CRITERIA. REACTIONS INDICATED ARE UNFACTORED (SERVICE LEVEL LOADS). MORE BOLTS THAN REFERENCED IN THE "MINIMUM" SECTIONS ABOVE MAY BE REQUIRED FOR LOAD REQUIREMENTS.
2. CONNECTIONS ARE SUBJECT TO REVIEW ON THE STEEL SHOP DRAWINGS.
3. ALL BOLTS SHALL BE A325 OR A490 FOR SIMPLE SHEAR CONNECTIONS, MIN 3/4"Ø. MINIMUM WELD SIZE SHALL BE 5/16". MINIMUM ANGLE/PLATE THICKNESS SHALL BE 3/8".
4. ONE SIDED CONNECTIONS INCLUDE SINGLE PLATES AND SINGLE ANGLE CONNECTIONS.
5. TWO SIDED CONNECTIONS INCLUDE DOUBLE ANGLE AND END PLATE CONNECTIONS.



1. FOR CONCENTRATED LOADS LOCATED A DISTANCE "d", 4" OR MORE FROM PANEL POINT, PROVIDE ADDITIONAL WEB MEMBERS AS SHOWN.
2. P = 300# MAX LOAD.

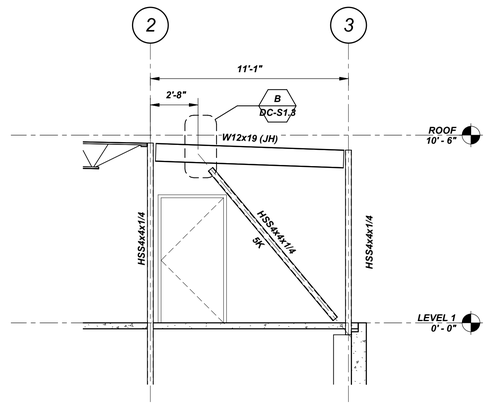
TYP JOIST REINF DETAIL
N.T.S.



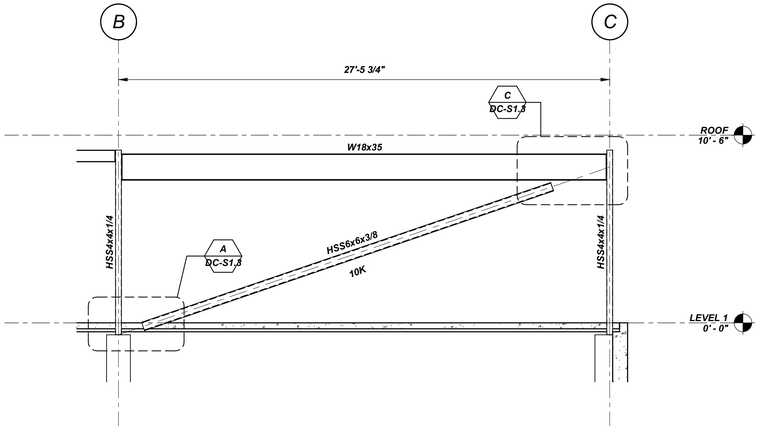
PLAN OF TYP OPENING IN ROOF AND FLOOR DECK
N.T.S.

NOTE:

DETAIL TYPICAL AT ROOF DRAINS, EXHAUST FANS AND OTHER MECH AND HVAC EQIP IF OPENING IS LARGER THAN 12"Ø OR CUTS MORE THAN (1)DECK RIB. FOR OPENINGS LESS THAT 12"Ø, REINF OPNG W/16GA MIN PL. MIN PL LENGTH SHALL BE "D"+4". EXTEND AS REQD FOR 2" MIN BRG ON DECK RIB.



BF1 AT LINES B & C
1/4" = 1'-0"

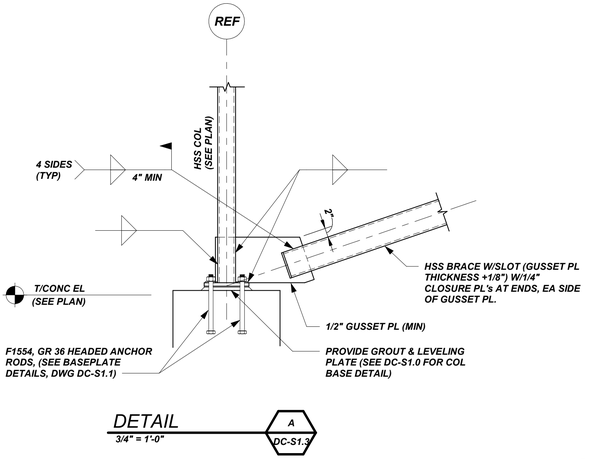


BF-2 AT LINE 3
1/4" = 1'-0"

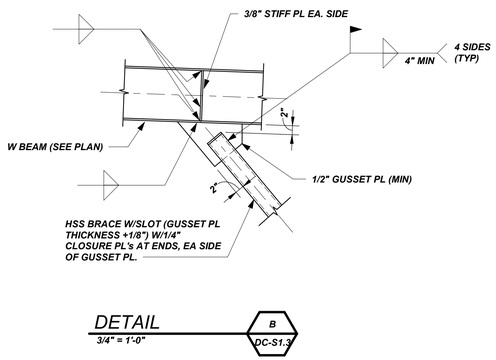
BRACED FRAME ELEVATIONS
1/4"=1'-0"

NOTES:

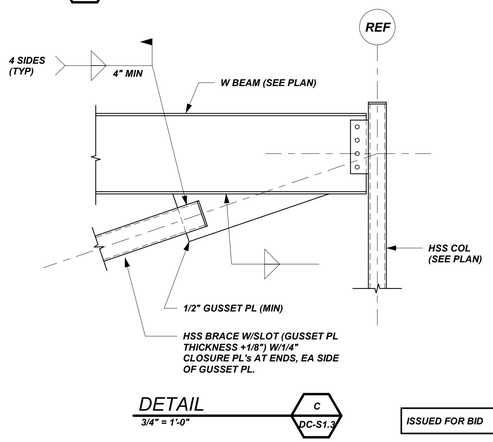
1. LOADS INDICATED ON BRACED FRAME ELEVATIONS --K ARE UNFACTORED LOADS AND MAY ACT IN TENSION AND COMPRESSION.
2. LOADS INDICATED HAVE BEEN GENERATED USING R=3. CONNECTIONS DO NOT REQUIRE ADDITIONAL OVERSTRENGTH FACTORS.
3. CONNECTIONS SHALL BE DESIGNED TO NOT INDUCE MOMENT INTO BEAMS AND COLUMNS, BEYOND THAT FORCED BY MEMBER GEOMETRY.
4. PROVIDE ANGLE BRACE AT ALL DIAGONAL CONNECTIONS LOCATED WITHIN SPAN OF BEAM.
5. S.L. INDICATES SHEAR LUG. SEE ADDITIONAL INFORMATION ON S4.1.
6. LOADS INDICATED ON JOINTS P=--K ARE UNFACTORED AXIAL LOADS TO BE DESIGNED TO PASS THROUGH COLUMN INTO ADJACENT BEAM AND MAY ACT IN TENSION OR COMPRESSION. CONNECTION DESIGNER TO CHECK COLUMN WALL TO CONFIRM IF THROUGH PLATE IS REQUIRED.
7. CONNECTION DESIGN CALCULATIONS SHALL BE SUBMITTED FOR REVIEW PER SPECIFICATIONS AND SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MAINE AND SHALL INCLUDE THE FOLLOWING:
   - A. GEOMETRY NECESSARY FOR UNIFORM FORCE METHOD CALCULATIONS.
   - B. ALL APPLICABLE FAILURE MODE CHECKS.



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



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



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

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TITLE
BRACED FRAME ELEVATIONS & TYPICAL STEEL DETAILS

SHEET
DC-S1.3