ONTARIO - MONTCLAIR SCHOOL DISTRICT

TRANSPORTATION CENTER

CitySubmittal - Registration #B202301766

3/3/23

12/11/2023	Submission Number 2	Revision Number	

NEW SERVER ROOM AND STORAGE AT MEZZANINE WITH HVAC SYSTEM.

1442 S BON VIEW AV

B202301766

OWNER

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PBK

TRANSPORTATION CENTER

PROJECT ADDRESS:
1442 South Bon View
Ontario, Ca 91761

CitySubmittal - Registration #B202301766

Architect

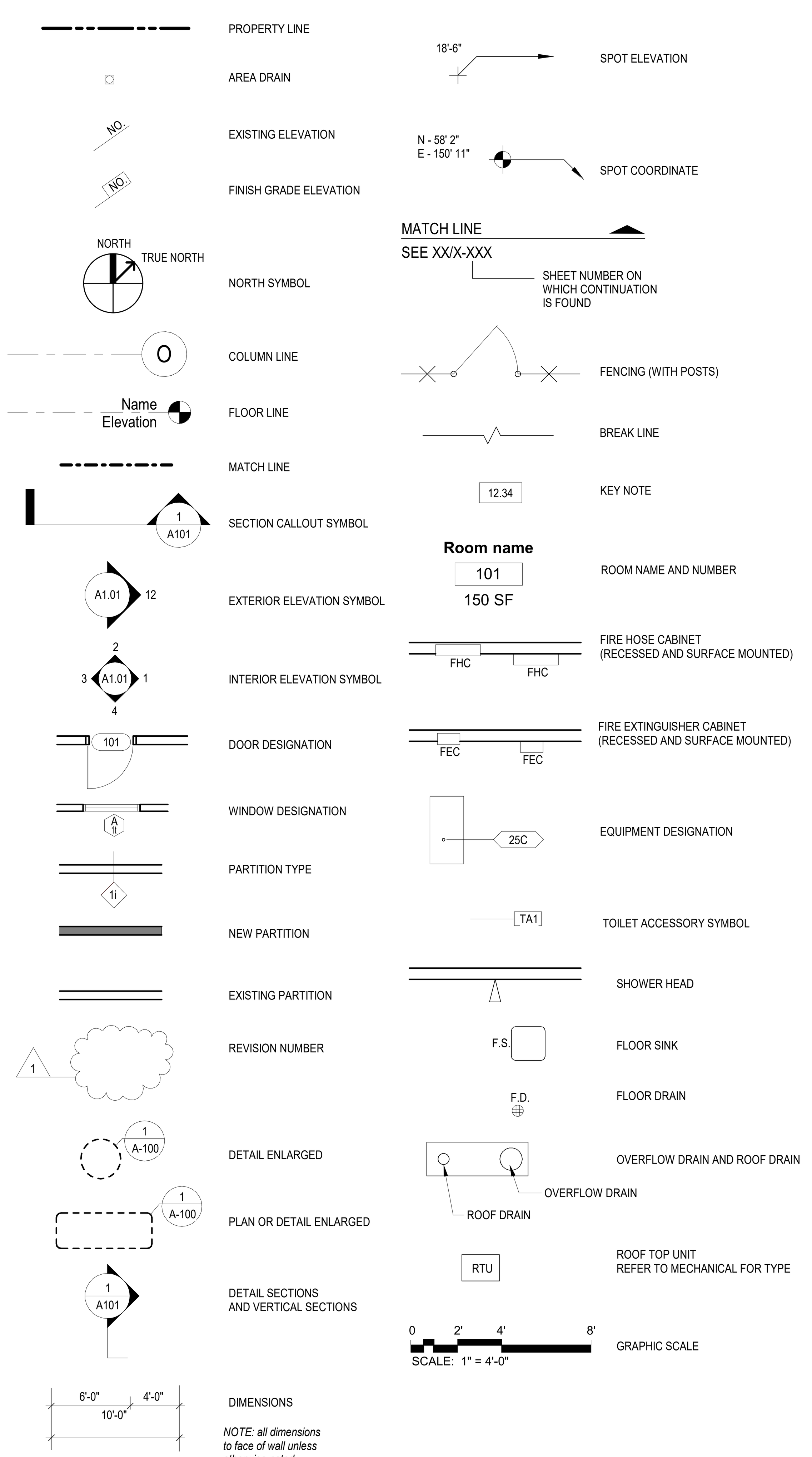
LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN. 10-31-2025
STATE OF CALIFORNIA

COVER SHEET

G0.00

G0.01 - TITLE SHEET

DRAWING CONVENTIONS



GENERAL NOTES

1. CONSTRUCTION DOCUMENTS DESCRIBE THE PRODUCTS, SYSTEMS, QUANTITIES, CONFIGURATION AND PERFORMANCE SPECIFICATIONS THAT DELIVER THE OVERALL DESIGN INTENT OF THE PROJECT.
2. THE CONSTRUCTION DOCUMENT DRAWINGS AND SPECIFICATIONS ARE COMPLIMENTARY, AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY BOTH.
3. PERFORMANCE BY THE CONSTRUCTION TEAM SHALL BE CONSISTENT WITH THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS AS NECESSARY TO DELIVER THE INDICATED RESULTS OF THE DESIGN INTENT.
4. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH ALL GOVERNING CODES, ORDINANCES, REGULATIONS AND LAWS.
5. THE DESIGN ADEQUACY AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS AND SCAFFOLDING IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
6. WHERE ANY CONFLICT OCCURS BETWEEN THE REQUIREMENTS OF LAWS, CODES, ORDINANCES, RULES AND REGULATIONS, THE MOST STRINGENT SHALL GOVERN.
7. ENACT ALL MEASURES TO PROTECT AND SAFEGUARD ALL EXISTING ELEMENTS TO REMAIN FROM BEING DAMAGED. REPLACE OR REPAIR EXISTING ELEMENTS DAMAGED BY THE EXECUTION OF THIS CONTRACT TO EQUAL OR BETTER CONDITION.
8. CUTTING, BORING, SAWCUTTING OR DRILLING THROUGH THE EXISTING OR NEW STRUCTURAL ELEMENTS SHALL NOT BE STARTED UNTIL THE DETAILS HAVE BEEN REVIEWED AND APPROVED BY THE ARCHITECT, AND STRUCTURAL ENGINEER OF RECORD.
9. VERIFY DIMENSIONS AND EXISTING CONDITIONS BEFORE COMMENCING WORK. REPORT DISCREPANCIES TO THE ARCHITECT PRIOR TO PROCEEDING WITH AFFECTED WORK.
10. REFLECTED CEILING PLAN DIMENSIONS ARE REFERENCED FROM FINISHED SURFACES UNLESS NOTED OTHERWISE. CEILING HEIGHTS ARE DIMENSIONED FROM FLOOR TO FINISHED CEILING HEIGHT.
11. DIMENSIONS NOTED AS "FIELD VERIFY" SHALL BE CHECKED AT THE SITE BY THE CONTRACTOR AND REVIEWED WITH THE ARCHITECT BEFORE INCORPORATING INTO THE WORK.
12. DO NOT SCALE DRAWING. WRITTEN DIMENSIONS TAKE PRECEDENCE. IF CLARIFICATION IS REQUIRED IN ORDER TO DETERMINE THE INTENT OF THE CONTRACT DOCUMENTS, CONTACT THE ARCHITECT.
13. NOTES OR DIMENSIONS LABELED "TYPICAL" SHALL APPLY TO SITUATIONS THAT ARE THE SAME OR SIMILAR.
14. ALL DIMENSIONS ARE TO FACE OF STUD, UNLESS NOTED OTHERWISE.
15. COORDINATE HOUSEKEEPING PAD DIMENSIONS AND LOCATIONS WITH EQUIPMENT TO BE INSTALLED.
16. ALL DOORS IN INTERIOR GYP. BD STUD WALLS SHALL BE SET 4" OFF THE PERP. ADJ. WALL ON THE HINGE SIDE OF THE DOOR UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL CONTACT THE ARCHITECT IF ANY CONFLICTS OCCUR.
17. UNLESS OTHERWISE NOTED, ALL ELECTRICAL AND MECHANICAL OPERABLE DEVICES SHALL BE MOUNTED WITH THE HIGHEST OPERABLE CONTROL AT MAX. OF 42" AFF.
18. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE APPROVED DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CONSTRUCTION CHANGE DOCUMENT, OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE REPAIR WORK, PER CAC, 2022, 4-317(c)
19. ALL ITEMS ARE "NEW", UNLESS NOTED AS EXISTING, TYPICAL.

SCOPE OF WORK

THIS CONSTRUCTION DOCUMENTS PACKAGE INCLUDE, BUT IS NOT LIMITED TO THE FOLLOWING SCOPE:

1. CONSTRUCT NEW SERVER ROOM & STORAGE ROOM AT MEZZANINE WITH NEW HVAC
2. NEW MANUAL FIRE ALARM SYSTEM
3. MODIFY EXISTING FIRE SPRINKLER SYSTEM
4. ACCESSIBILITY UPGRADES AS REQUIRED

PROJECT DATA

N/A

DRAWING INDEX

GENERAL

G0.00	COVER SHEET
G0.01	TITLE SHEET
G0.03	OVERAL SITE PLAN, ENLARGED SITE PLAN, DEMO. SITE PLAN & MISC. DETAILS
G0.04	ACCESSIBILITY DETAILS

DEMOLITION

D3.01	DEMOLITION ENLARGED FLOOR PLANS
D4.01	BLDG 'A' DEMOLITION REFLECTED CEILING PLAN

ARCHITECTURAL

A2.01	FIRST & MEZZANINE FLOOR PLAN
A3.01	ENLARGED FLOOR PLANS, INTERIOR ELEVATIONS & SCHEDULES
A4.01	REFLECTED CEILING PLAN & SECTIONS
A10.01	WALLS, DOORS & MISCELLANEUS DETAILS
A20.01	CEILING DETAILS

MECHANICAL *

M0.00	MECHANICAL SYMBOLS, LEGENDS & GENERAL NOTES
M0.01	MECHANICAL TITLE 24
M0.02	MECHANICAL TITLE 24
M1.01	MECHANICAL SITE PLAN
M2.01	MECHANICAL FLOOR PLANS
M3.01	MECHANICAL ENLARGED PLANS
M5.01	MECHANICAL SCHEDULES
M6.01	MECHANICAL DETAILS

ELECTRICAL *

E0.00	ELECTRICAL SYMBOLS, LEGENDS & GENERAL NOTES
E0.01	TITLE 24 FORMS
E1.01	OVERALL SITE PLAN
ED3.01	ELECTRICAL DEMOLITION ENLARGED PLANS
ED3.02	ELECTRICAL DEMOLITION SECOND FLOOR RCP
E2.01	ELECTRICAL FLOOR PLANS
E2.02	ENLARGED FLOOR PLAN - SECOND FLOOR LIGHTING PLAN
E3.01	ELECTRICAL ENLARGED PLANS
E5.01	ELECTRICAL PANEL SCHEDULES & DETAILS

FIRE ALARM

FA0.00	FIRE ALARM SYMBOLS, LEGENDS & GENERAL NOTES
FA2.01	FIRE ALARM FLOOR PLANS

FIRE SPRINKLER

FS0.00	FIRE SPRINKLER SHEET INDEX, LEGEND AND NOTES
FS1.01	FIRE SPRINKLER FIRST FLOOR PLAN
FS1.02	FIRE SPRINKLER SECOND FLOOR PLAN
FS6.00	FIRE SPRINKLER DETAILS

TECHNOLOGY *

T0.00	TECHNOLOGY SYMBOLS, LEGENDS & GENERAL NOTES
TD1.01	TECHNOLOGY DEMOLITION ENLARGED PLANS
TN2.01	TECHNOLOGY SECOND FLOOR PLAN & DETAILS

TOTAL SHEETS: 37

CALGREEN NOTE

CITY OF ONTARIO REQUIRES ALL NEW BUILDINGS, AND DEMOLITION / RENOVATION/ TENANT IMPROVEMENT PERMIT APPLICANT WITH PROJECT VALUATION OF 100,000.00 OR MORE TO PREPARE A CONSTRUCTION & DEMOLITION RECYCLING PLAN (CDRP). FILL OUT "FORM CDRP" AND SUBMIT TO ONTARIO MUNICIPAL UTILITIES COMPANY - SOLID WASTE DEPARTMENT FOR APPROVAL. CALL (909) 395-2664 FOR FURTHER INFORMATION & ASSISTANCE.

PROJECT DESCRIPTION

1. OCUPPANCY CLASSIFICATION :.................................(E) B-1(MEZZ), B-1(SERVICE BAYS) & (N)B-2(OFFICE)
2. OCCUPANCY SEPARATION..(E) B-1 - B-2 = 1(ONE HOUR)
3. CONSTRUCTION TYPE:...(E) II - B — AAB@BPR 12/15/23
4. BUILDING HEIGHT / NO. OF STORIES:.......................(E) 24' - 0" / 1 STORY
5. SPRINKLERS:...(E) YES
6. AREA SUMMARY:...

(E) B-1(SERVICE BAYS)	= 5,580 S.F.
(E) B-2	= 2,100 S.F.
(E) B-1(MEZZ)	= 1,510 S.F.
(N) B-1(STORAGE & DATA ROOM)	= 890 S.F.
TOTAL	**=10,080 S.F.**

7. ALTERATION AREA:.. B-1(STORAGE & DATA ROOM) = 890 S.F.

STRUCTURAL TESTS AND INSPECTIONS

1. IN ADDITION TO THE REQUIRED INSPECTIONS, THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS WHO SHALL PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED BELOW.
2. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
3. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.
4. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE STRUCTURAL ENGINEER, AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE STRUCTURAL ENGINEER AND TO THE ENFORCEMENT AGENCY.
5. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION, WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.
6. SPECIAL INSPECTIONS SHALL NOT BE REQUIRED WHEN THE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED BY THE ENFORCEMENT AGENCY TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION.
7. THE FOLLOWING TYPES OF WORK SHALL BE INSPECTED BY A SPECIAL INSPECTOR:

   STEEL CONSTRUCTION
   (SEE SECTION 1705.2 FOR ADDITIONAL INFORMATION)

   CONCRETE CONSTRUCTION
   (SEE SECTION 1705.3 AND TABLE 1705.3 FOR ADDITIONAL INFORMATION)

   INSPECTION OF REINFORCING STEEL PLACEMENT

   INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO, DURING, AND AFTER PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED

   VERIFYING USE OF REQUIRED MIX DESIGN

   AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF CONCRETE

   INSPECT CONCRETE PLACEMENT FOR PROPER TECHNIQUES

   INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES

   INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED
8. IF APPROVED BY PLAN REVIEWER, BATCH PLANT INSPECTION MAY BE REDUCED TO PERIODIC SUBJECT TO THE REQUIREMENTS OF CBC SEC. 1705.3.3.1, WHEN CONTINUOUS BATCH PLANT INSPECTION IS WAIVED;

1. AN APPROVED AGENCY SHALL CHECK THE FIRST BATCH AT THE START OF THE DAY TO VERIFY MATERIALS AND PROPORTIONS CONFORM TO THE APPROVED MIX DESIGN.
2. LICENSED WEIGHMASTER SHALL POSITIVELY IDENTIFY QUANTITY OF MATERIAL AND CERTIFY EACH LOAD BY A BATCH TICKET.
3. BATCH TICKETS, INCLUDING MATERIAL QUANTITIES AND WEIGHTS, SHALL ACCOMPANY THE LOAD, SHALL BE TRANSMITTED TO THE INSPECTOR OF RECORD BY THE TRUCK DRIVER WITH LOAD IDENTIFIED THEREON. THE LOAD SHALL NOT BE PLACED WITHOUT A BATCH TICKET IDENTIFYING THE MIX. THE INSPECTOR OF RECORD SHALL KEEP A DAILY RECORD OF PLACEMENTS, IDENTIFYING EACH TRUCK, ITS LOAD, TIME OF RECEIPT AT THE JOB SITE AND APPROXIMATE LOCATION OF DEPOSIT IN THE STRUCTURE AND SHALL MAINTAIN A COPY OF THE DAILY RECORD AS REQUIRED BY THE ENFORCEMENT AGENCY.

PROJECT DESIGN CRITERIA

1. BASIC DESIGN LIVE LOADS:

   ROOF: 20 PSF (REDUCIBLE)
   FLOOR:
   MEZZANINE LIGHT STORAGE: 125 PSF
   MEZZANINE HEAVY STORAGE: 250 PSF
   (revision 2)

2. WIND LOADS

   RISK CATEGORY: II
   EXPOSURE CATEGORY: C
   ULTIMATE DESIGN WIND SPEED (3–SECOND GUST), V_{ULT} = 110 MPH
   NOMINAL DESIGN WIND SPEED, V_{ASD} = 85 MPH
   VELOCITY PRESSURE EXPOSURE COEFFICIENT, K_z = 0.84 (@ 25 FT)
   TOPOGRAPHIC FACTOR, K_{zt} = 1.0
   WIND DIRECTIONALITY FACTOR, K_d = 0.85
   GROUND ELEVATION FACTOR, Ke = 0.96 (@ 912 FT ASL)

   A. MWFRS – DIRECTIONAL PROCEDURE (ASCE 7–16, CH. 27 PART 1)
   $q_z = 0.00256 K_z K_{zt} K_d Ke V_{ULT}^2$ = 23.9 PSF
   $P = qGC_p - q_i(GC_{pi})$
   GUST EFFECT FACTOR, G = 0.85
   EXTERNAL PRESSURE COEFFICIENT, C_p = [FIG. 27.4–1 THRU 27.4–3] 27.4–3]
   INTERNAL PRESSURE COEFFICIENT, (GC_{pi}) = TABLE 26.13–1

   B. COMPONENTS & CLADDING (ASCE 7–16, CH. 30)
   $q_h = 0.00256 K_z K_{zt} K_d V_{ULT}^2$ = 19.6 PSF
   $P = q_h[(GC_p) - (GC_{pi})]$
   GUST EFFECT FACTOR, G = 0.85
   EXTERNAL PRESSURE COEFFICIENT, (GC_P) = [FIG. 30.3–1 THRU 30.3–7]
   INTERNAL PRESSURE COEFFICIENT, (GC_{pi}) = TABLE 26.13–1

3. EARTHQUAKE LOADS

   SEISMIC DESIGN CRITERIA

   S_s = 1.740g
   S_1 = 0.570g
   SITE CLASS: D
   F_A = 1.0
   F_v = 1.7
   S_{DS} = 1.250g
   S_{D1} = 0.930g
   RISK CATEGORY: II
   SEISMIC DESIGN CATEGORY: D

CODES & STANDARDS

PARTIAL LIST OF APPLICABLE CODES

2022 California Administrative Code (CAC) ....(Part 1, Title 24, CCR)
2022 California Building Code (CBC) ....(Part 2, Title 24, CCR)
(2018 International Building Code Volumes 1-2 and 2022 California Amendments)
2022 California Electrical Code (CEC) ....(Part 3, Title 24, CCR)
(2017 National Electrical Code and 2022 California Amendments)
2022 California Mechanical Code (CMC) ....(Part 4, Title 24, CCR)
(2018 Uniform Mechanical Code and 2022 California Amendments)
2022 California Plumbing Code (CPC) ....(Part 5, Title 24, CCR)
(2018 Uniform Plumbing Code and 2022 California Amendments)
2022 California Energy Code (CEC) ....(Part 6, Title 24, CCR)
2022 California Fire Code (CFC) ....(Part 9, Title 24, CCR)
(2018 International Fire Code and 2022 California Amendments)

2022 California Green Building Standards Code (CAL Green) ....(Part 11, Title 24, CCR)
2022 California Referenced Standards Code ....(Part 12, Title 24, CCR)
Title 19 CCR, Public Safety, State Fire Marshall Regulations
2016 ASME A17.1/CSA B44-13 Safety Code For Elevators and Escalators (per 2022 CBC Part2, Ch 35)
Note: Cal/OSHA Elevator Unit enforces CCR Title 8 and uses the 2004 ASME A17.1 by adoption

PARTIAL LIST OF APPLICABLE STANDARDS

NFPA 13 Automatic Fire Sprinkler Systems ....(2016 Edition)
NFPA 14 Standpipe and Hose Systems ....(2016 Edition)
NFPA 17 Dry Chemical Extinguishing Systems ....(2017 Edition)
NFPA 17a Wet Chemical Extinguishing Systems ....(2017 Edition)
NFPA 20 Stationary Pumps for Fire Protection ....(2016 Edition)
NFPA 22 Water Tanks for Private Fire Protection ....(2013 Edition)
NFPA 24 Standard for the Installation of Private Fire Service Mains & their Appurtenances (CA amended) ....(2016 Edition)
NFPA 25 Standard for Inspection, Testing and Maintenance of Water-Based Fire Protection Systems (CA amended) ....(2013 Edition)
NFPA 72 National Fire Alarm & Signaling Code (CA amended) ....(2016 Edition)
NFPA 80 Fire Doors and Other Opening Protectives ....(2016 Edition)
NFPA 92 Standard for Smoke Control Systems ....(2015 Edition)
NFPA 253 Critical Radiant Flux of Floor Covering Systems ....(2015 Edition)
NFPA 2001 Clean Agent Fire Extinguishing Systems (CA amended) ....(2015 Edition)
ICC 300 ICC Stds on Bleachers, Folding and Telescoping Seating and Grand stands ....(2017 Edition)
UL 300 Fire Testing of Fire Extinguishing Sys for Protection of Restaurant Cooking Areas.........2005 (R2010)
UL 464 Audible Signal Appliances ....(2003 Edition)
UL 521 Heat Detectors for Fire Protective Signaling Systems ....(1999 Edition)
UL 1971 Standard for Signaling Devices for the Hearing Impaired ....(2002 Edition)

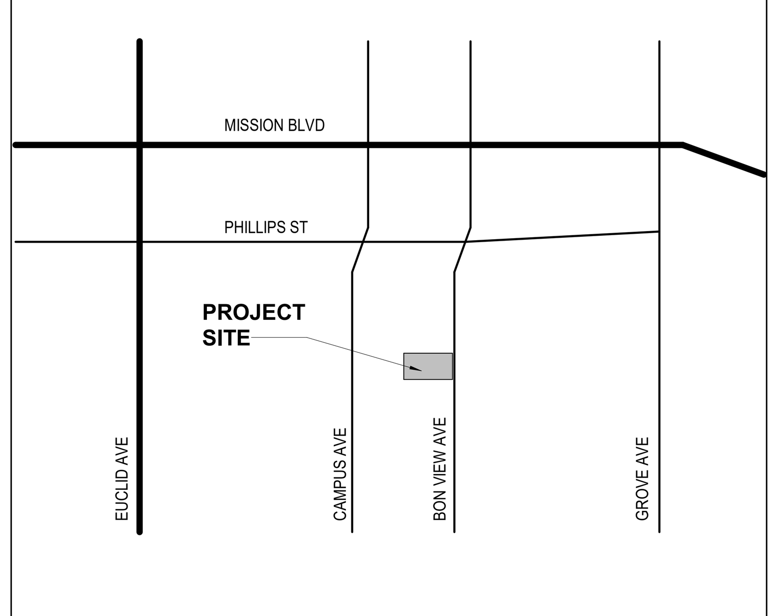
For a complete list of applicable NFPA standards refer to 2022 CBC (SFM) Chapter 35 and California Fire Code Chapter 80

See California Building Code Chapter 35 for State of California amendments to the NFPA Standards.

ABBREVIATIONS

A.D.	AREA DRAIN
A.D.A.	AMERICANS WITH DISABILITIES ACT
A.F.F.	ABOVE FINISH FLOOR
A.F.G.	ABOVE FINISH GRADE
A.H.J.	ATHORITY HAVING JURISDICTION
A/C	AIR CONDITIONING
ACP.	ACOUSTICAL PANEL
ACT.	ACOUSTICAL TILE
ADJ.	ABADJUSTABLE
ALT.	ALTERNATE
ALUM.	ALUMINUM
ASPH.	ASPHALT
∠	ANGLE
B.U.R.	BUILT-UP ROOF
BD.	BOARD
BLDG.	BUILDING
BLK.	BLOCK
BM.	BEAM
C	CHANNEL
C.J.	CONTROL JOINT
C.M.U.	CONCRETE MASONRY UNIT
C.W.	COLD WATER
CAB, CABT	CABINET
CFMF	COLD FORMED METAL FRAMING
CL	CENTERLINE
CLG.	CEILING
CLR	CLEAR
COL.	COLUMN
COMP.	COMPRESSIBLE
CONC.	CONCRETE
COND.	CONDITION
CORR.	CORRIDOR
CPT.	CARPET (ED)
CT.	CERAMIC TILE
CTG	CLEAR TEMPERED GLAZING
CTSK.	COUNTER SINK
D	DRYER
D.F.	DRINKING FOUNTAIN
D.P.	DAMPPROOFING
D.S.	DOWN SPOUT
DIA.	DIAMETER
DIM.	DIMENSION
DTL.	DETAIL
DWG.	DRAWING
E.J.	EXPANSION JOINT
E.Q.	EQUAL
EA.	EACH
EDF	ELECTRIC DRINKING FOUNTAIN
EL.	ELEVATION (HEIGHT)
ELECT.	ELECTRICAL
ELEV	ELEVATION (DRAWING)
EQUIP	EQUIPMENT
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
F.H.C.	FIRE HOSE CABINET
FB.	FACE BRICK
FD.	FLOOR DRAIN
FIN.	FINISH (ED)
FIXT.	FIXTURE
FLR.	FLOOR (ING)
FLSHG.	FLASHING
FLUOR	FLUORESCENT
G.B.	GRAB BAR
G.I.	GALVANIZED IRON
GA.	GAUGE
GALV.	GALVANIZED
GCMU	GLAZED CONCRETE MASONRY UNIT
GEN.	GENERAL
GEN.	GENERAL
GL.	GLASS / GLAZING
GL.	GLASS
GR.	GRADE
GTP.	GLAZED TILE PAVER
GYP.	GYPSUM DRYWALL
H.W.	HOT WATER
HM	HOLLOW METAL FRAME
HORIZ.	HORIZONTAL
HT.	HEIGHT
I.D.	INSIDE DIAMETER
I.P.S.	IRON PIPE SIZE
INSUL	INSULATE (ED), (ION)
INT.	INTERIOR
ISA	INTERNATIONL SYMBOL OF ACCESSIBILITY
JT.	JOINT
L.P.	LIGHT POLE
LAM.	LAMINATE (D)
LAV.	LAVATORY
LT.	LIGHT
LT. WT.	LIGHTWEIGHT
M.O.	MASONRY OPENING
MAS.	MASONRY
MATL.	MATERIAL (S)
MAX.	MAXIMUM
MB.	MARKER BOARD
MECH.	MECHANICAL
MEM	MEMBRANE
MEM. WP.	MEMBRANE WATERPROOFING
MEP	MECHANICAL, ELECTRICAL AND PLUMBING
MEZZ.	MEZZANINE
MFR.	MANUFACTURE (R)
MH.	MANHOLE
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MOD	MODULAR
MTL	METAL
MTP.	METAL TOILET PARTITION
N.D.	NAPKIN DISPOSAL
N.I.C.	NOT IN CONTRACT
N.R.	NOT RATED
N.T.S.	NOT TO SCALE
N.V.	NAPKIN VENDOR
NO.	NUMBER
O.C.	ON CENTER (S)
O.C.E.W.	ON CENTER EACH WAY
O.D.	OUTSIDE DIAMETER
O.F.C.I.	OWNER FURNISHED, CONTRACTOR INSTALLED
O.H.	OPPOSITE HAND
OPNG.	OPENING
OPP.	OPPOSITE
P. LAM.	PLASTIC LAMINATE
P.C.	PRECAST
P.H.	PAPER HOLDER
P.L.	PROPERTY LINE
P.P.	POWER POLE
P.W.B.	PREFINISHED WALL BOARD
PL.	PLATE
PLUMB.	PLUMBING
PLYWD.	PLYWOOD
POL.	POLISHED
PR.	PAIR
PREFIN.	PRE-FINISHED
PT.	POINT
PTD.	PAINTED
Q.T.	QUARRY TILE
R / RAD	RADIUS
RD	ROOF DRAIN
RE. , REF.	REFER TO / REFERENCE / SEE
RECP.	RECEPTACLE
REINF.	REINFORCE (D), (ING)
REQ'D.	REQUIRED
RES.	RESILIENT
REV.	REVISION (S), REVISED
RF	RECREATIONAL RESILIENT FLOORING
RPG.	RELOCATABLE PAINTED GYPSUM BOARD
RSS.	ROD STOCK AND SEALANT
S.C.	SEALED CONCRETE
S.D.	SOAP DISPENSER
SCHED	SCHEDULE
SCPL	SOLID CORE PLASTIC LAMINATE
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
SPC	SPECIAL COATING SYSTEM
SPEC	SPECIFICATION (S)
SQ.	SQUARE
SS.	SOUND STRIP
SS. STL.	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRUC	STRUCTURAL
SUSP	SUSPENDED
SVDF	SHEET VINYL DANCE FLOORING
SYS	SYSTEM
T.B.	TACK BOARD
T.D.R.	TOWEL DISPENSER AND RECEPTACL
T.O.	TOP OF
T.O.B.	TOP OF (WOOD) BLOCKING
T.O.M.	TOP OF MASONRY
T.O.S.	TOP OF STEEL
T.T.D.	TOILET TISSUE DISPENSER
TCNA	TILE COUNCIL OF NORTH AMERICA
TEL	TELEPHONE
TERR	TERRAZZO
THK	THICK (NESS)
TYP	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
UR.	URINAL
V	VENT
V.C.T.	VINYL COMPOSITION TILE
V.I.F.	VERIFY IN FIELD
VENT.	VENTILATING, VENTILATED
VER.	VERIFY
VERT.	VERTICAL
VGB	(PREFINISHED) VINYL CLAD GYPSUM BOARD
VWC	VINYL WALL COVERING
W	WASHING MACHINE
W.P.	WATER PROOFING
W.S.	WEATHERSTRIP
W.W.	WATER WELL
W.W.F	WELDED WIRE FABRIC
W/	WITH
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WT	WEIGHT

VICINITY MAP



SHEET NUMBERING

A2.01A — BUILDING AREA

SEQUENCE (.01 - .99......etc.)

SHEET DISCIPLINE TYPE
0 - GENERAL
1 - SITE PLANS & DETAILS
2 - FLOOR PLANS (Note: Flip Sheets are Schedules)
3 - ROOF
4 - ADA & ENLARGED PLANS
5 - PLAN DETAILS
6 - EXTERIOR/INTERIOR ELEVATIONS
7 - PARTITION TYPES & WALL SECTIONS
8 - CASEWORK ELEVATIONS
9 - WINDOWS, DOORS, FRAME ELEVATIONS & DETAILS
10 - REFLECTED CEILING PLANS & DETAILS

DISCIPLINE
G - GENERAL (Cover, A0 Sheets)
C - CIVIL
L - LANDSCAPE
D - DEMO
A - ARCHITECTURAL
S - STRUCTURAL
I - INTERIORS
M - MECHANICAL
E - ELECTRICAL
P - PLUMBING
T - TECHNOLOGY

B202301766

City of Ontario | Building Department
APPROVED & REVIEWED FOR CODE COMPLIANCE
The issuance of a permit and approval of these plans shall not be construed to permit or approve any violation of the applicable codes or ordinances.
Date: 01/16/2024 1:33:43 PM

REVIEWED FOR CODE COMPLIANCE
USING THE FOLLOWING CODES:
☐ 2022 CALIFORNIA RESIDENTIAL CODE
☑ 2022 CALIFORNIA BUILDING CODE
☑ 2022 CALIFORNIA ELECTRICAL CODE
☑ 2022 CALIFORNIA PLUMBING CODE
☑ 2022 CALIFORNIA MECHANICAL CODE
☑ 2022 CALIFORNIA ENERGY CODE
☑ 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
☐ 2022 CALIFORNIA BUILDING CODE - STRUCTURAL DESIGN PROVISIONS ONLY
☐ 2022 CALIFORNIA FIRE CODE
☐ OTHER:
COMPLETION OF THIS REVIEW DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE OR LOCAL REGULATIONS.
BY: *Andrew Burke - BPR* DATE: *Dec 15, 2023*
BPR CONSULTING GROUP

ARCHITECT PBK Architects, Inc.
RANCHO CUCAMONGA PBK.com
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga
California 91730
P 909-987-0909

REVIEWED
FOR
CODE COMPLIANCE
Dec 15, 2023
BPR CONSULTING GROUP

TRANSPORTATION CENTER

PROJECT ADDRESS:
1442 South Bon View
Ontario, Ca 91761

CitySubmittal - Registration #B202301766

ONTARIO • MONTCLAIR SCHOOL DISTRICT SINCE 1884

KEY PLAN
NORTH: PLAN TRUE

Consultant

Architect
LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN. 10-31-2025
STATE OF CALIFORNIA

CLIENT
ONTARIO - MONTCLAIR SCHOOL DISTRICT

DATE	PROJECT NUMBER
3/3/23	220316

REVISIONS

No.	Description	Date
1	CITY BACK CHECK	10/23/23
2	CITY BACK CHECK	12/08/23

CitySubmittal - Registration #B202301766

TITLE SHEET

G0.01

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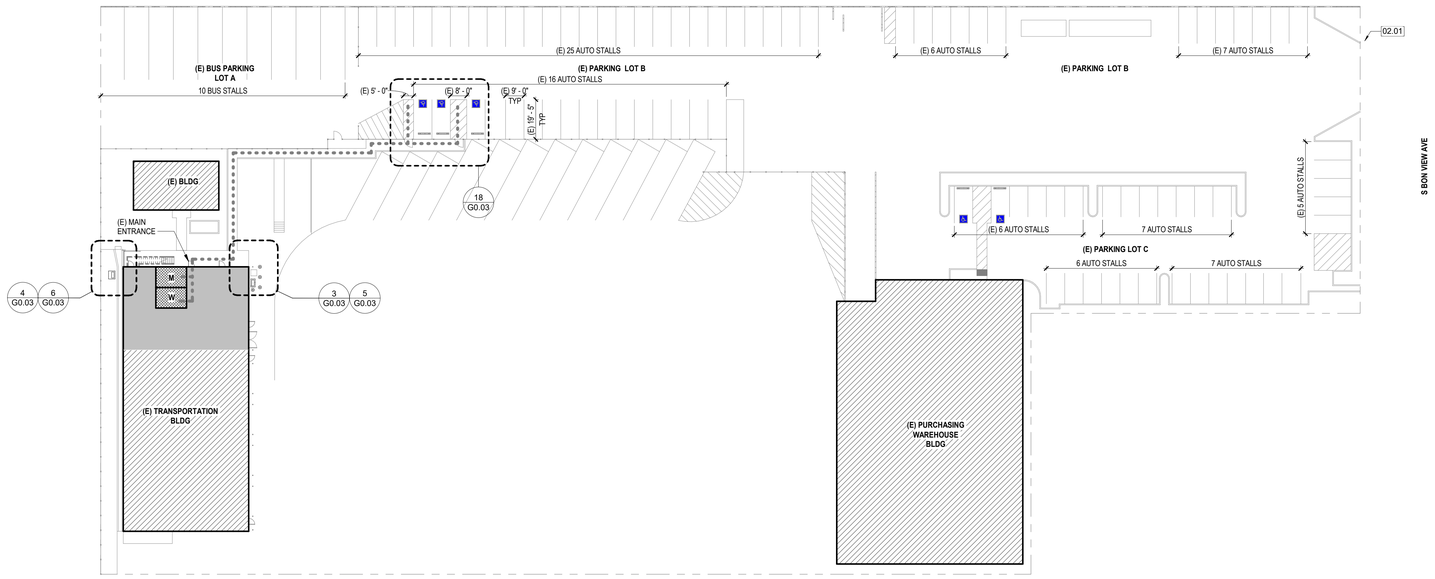


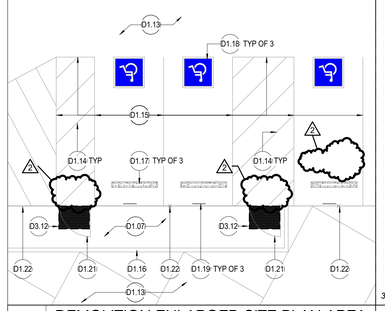
24 SITE PLAN
1" = 30'-0"

SITE PLAN KEYED NOTES

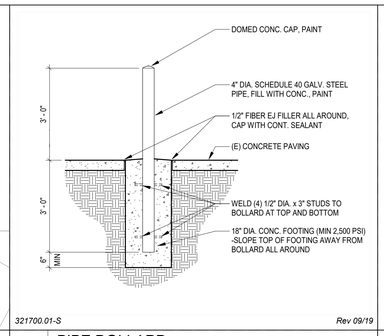
#	Description
02.01	(E) TOW AWAY SIGN
26.01	NON-FUSIBLE DISCONNECT SWITCH ON UNISTRUT SUPPORT, SEE ELECTRICAL DRAWINGS
32.01	4" H. HOUSEKEEPING PAD, SEE ELECTRICAL & MECHANICAL DRAWINGS
32.02	PIPE BOLLARDS WITH CONCRETE FOOTING

DEMOLITION KEYED NOTES

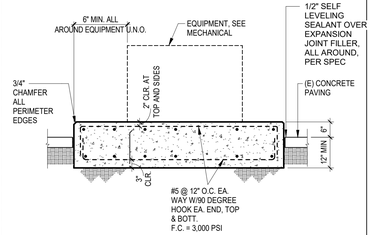
#	Description
D1.01	(E) CONCRETE GUTTER, PROTECT IN PLACE
D1.02	(E) CATCH BASIN, PROTECT IN PLACE
D1.03	(E) DOWNSPOUT, PROTECT IN PLACE
D1.04	(E) HANDRAIL, PROTECT IN PLACE
D1.05	(E) SURFACE MOUNT JUNCTION BOX, PROTECT IN PLACE
D1.06	(E) CONCRETE PLATFORM, PROTECT IN PLACE
D1.07	(E) CONCRETE PAVING, PROTECT IN PLACE
D1.08	(E) LINE OF STAIRS WITH HANDRAIL OVERHANG, PROTECT IN PLACE
D1.09	(E) LANDSCAPE, PROTECT IN PLACE
D1.10	(E) CHAIN LINK FENCE WITH CONCRETE FOOTINGS, PROTECT IN PLACE
D1.11	(E) CONDENSING UNIT OVER HOUSEKEEPING PAD, PROTECT IN PLACE
D1.12	(E) BOLLARD WITH CONCRETE FOOTING, PROTECT IN PLACE
D1.13	(E) ASPHALT PAVING, PROTECT IN PLACE
D1.14	(E) 4" WIDE WHITE STRIPES, PROTECT IN PLACE
D1.15	(E) 4" WIDE BLUE STRIPES, PROTECT IN PLACE
D1.16	(E) CONCRETE CURB, PROTECT IN PLACE
D1.17	(E) PRECAST CONCRETE WHEEL STOPS, PROTECT IN PLACE
D1.18	(E) ISA SIGNAGE, PROTECT IN PLACE
D1.19	(E) ACCESSIBLE PARKING SIGNAGE
D1.21	(E) SERVICE CHAIN LINK GATE, PROTECT IN PLACE
D1.22	(E) CHAIN LINK FENCE, PROTECT IN PLACE
D3.10	PORTION OF (E) LANDSCAPE AREA TO BE REMOVED IN ITS ENTIRETY
D3.11	PORTION OF (E) CONCRETE PAVING TO BE REMOVED IN ITS ENTIRETY
D3.12	(E) TRUNCATED DOMES TO BE REMOVED IN ITS ENTIRETY, PATCH AND REPAIR (E) FINISHES AS REQUIRED



18 DEMOLITION ENLARGED SITE PLAN AREA
1/8" = 1'-0"

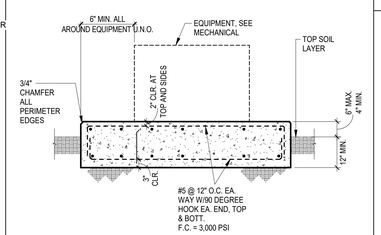


17 PIPE BOLLARD
1/2" = 1'-0"



GENERAL NOTES:
1. REFER TO EQUIPMENT DETAILS FOR SPECIFIC ANCHORAGE REQUIREMENTS.

16 TYPICAL CONCRETE PAD @ C. PAVING
1/2" = 1'-0"



GENERAL NOTES:
1. REFER TO EQUIPMENT DETAILS FOR SPECIFIC ANCHORAGE REQUIREMENTS.

15 TYPICAL CONCRETE PAD @ SOIL LAYER
1/2" = 1'-0"

GENERAL DEMOLITION NOTES:

1. THE DEMOLITION PLAN OUTLINES SOME OF THE SCOPE OF THE WORK INVOLVED FOR THE DEMOLITION PHASE OF THIS PROJECT. CONTRACTOR SHALL REVIEW ALL SHEETS FOR ADDITIONAL DEMO SCOPE.
2. CONTRACTOR SHALL VERIFY EXISTING SITE AND BUILDING CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO COMMERCIAL DEMOLITION ACTIVITIES. CONTRACTOR SHALL NOT SCALE DRAWINGS. CONTRACTOR WILL NOTIFY ARCHITECT OF ANY DISCREPANCIES IN WRITING.
3. AFTER AWARD OF THE CONTRACT, CHANGE ORDER REQUESTS FOR ADDITIONAL MONEY WILL NOT BE APPROVED IF THE WORK COULD HAVE BEEN ANTICIPATED DURING A SITE VISIT BY THE CONTRACTOR.
4. CONTRACTOR WILL BE REQUIRED TO REPAIR, REPLACE, OR PATCH EXISTING BUILDINGS, DRIVEWAYS, SIDEWALKS, CANOPIES, AND/OR PARKING AREAS DISTURBED BY DEMOLITION.
5. CONTRACTOR WILL BE REQUIRED TO REGRADE AND HYDROMULCH AREAS AFFECTED BY DEMOLITION.
6. ALL FURNITURE WILL BE REMOVED OR RELOCATED BY THE OWNER AS NECESSARY PRIOR TO THE DEMOLITION WORK OF THIS PROJECT. CONTRACTOR SHALL COORDINATE WITH OWNER AS REQUIRED.
7. REMOVE EXISTING CONSTRUCTION TO THE EXTENT INDICATED ON THE DRAWINGS. WHERE ANY DAMAGE OCCUR TO ANY EXISTING CONSTRUCTION TO REMAIN, THE CONTRACTOR SHALL REPAIR THE DAMAGE. TO MATCH EXISTING/ADJACENT CONSTRUCTION.
8. CONTRACTOR IS TO VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO DEMOLITION ACTIVITIES.
9. CONTRACTOR SHALL REMOVE DEBRIS REGULARLY AS NECESSARY TO ELIMINATE INTERFERENCE WITH ROADS, STREET, WALKS, AND ALL OTHER ADJACENT FACILITIES.
10. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF TEMPORARY DUST AND/OR SOUND PARTITION BETWEEN CONSTRUCTION AREA AND AREAS NOT IN SCOPE AS NECESSARY. DEMOLITION ACTIVITIES SHALL BE PERFORMED SO AS TO PRODUCE MINIMAL DISTURBANCE TO EXISTING FACILITY AND OCCUPANTS (I.E. MINIMIZE EXCESSIVE AND PROLONGED NOISE LEVELS AND DUST.)
11. NOTIFY THE BUILDING OWNER OF ANY MATERIALS, FIXTURES, ETC. TO BE REMOVED THAT ARE DEEMED SALVAGEABLE. TURN OVER ANY REQUESTED ITEMS TO THE BUILDING OWNER IN GOOD CONDITION.
12. THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
13. MAINTAIN THE INTEGRITY OF ALL EXISTING RATED WALLS, FIRE SEAL ANY PENETRATIONS WITH U.L. APPROVED ASSEMBLY.
14. WHEN UNANTICIPATED MECHANICAL, ELECTRICAL, OR STRUCTURAL ELEMENTS THAT CONFLICT WITH THE INTENDED FUNCTION OR DESIGN ARE ENCOUNTERED, DETERMINE THE NATURE AND EXTENT OF THE CONFLICT AND NOTIFY THE ARCHITECT IMMEDIATELY FOR RESOLUTION.
15. PROTECT EXISTING SITE IMPROVEMENTS AND LANDSCAPING TO REMAIN. INCLUDING BUT NOT LIMITED TO EXISTING TREES AND OTHER VEGETATION INDICATED TO REMAIN IN PLACE AGAINST UNNECESSARY CUTTING, BREAKING, OR SKINNING OF ROOTS, SKINNING OR BRUISING OF BARK, SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION MATERIAL OR EXCAVATED MATERIAL WITHIN DRIP LINES.
16. CONTRACTOR SHALL PROVIDE TRAFFIC HANDLING MEASURES AS NECESSARY TO PROTECT THE GENERAL PUBLIC AT ALL TIMES, AND AS REQUIRED BY GOVERNING AUTHORITIES.
17. DO NOT INTERRUPT EXISTING UTILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY AUTHORITIES HAVING JURISDICTION. PROVIDE TEMPORARY SERVICES DURING INTERRUPTIONS TO EXISTING UTILITIES, AS ACCEPTABLE TO GOVERNING AUTHORITIES.
18. WHEN UTILITY SERVICES ARE REQUIRED TO BE REMOVED, RELOCATED, OR ABANDONED, PROVIDE BYPASS CONNECTIONS TO MAINTAIN CONTINUITY OF SERVICE BEFORE PROCEEDING WITH DEMOLITION.
19. CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT ALL UTILITY COMPANIES INCLUDING BUT NOT LIMITED TO THE FOLLOWING: ELECTRIC, GAS, WATER, TELEPHONE, STORM SEWER, AND SANITARY SEWER FOR FIELD LOCATION OF ALL UNDERGROUND AND OVERHEAD UTILITY LINES. PRIOR TO COMMENCEMENT WITH ANY DEMOLITION WORK, CONTRACTOR SHALL IDENTIFY ALL ELECTRICAL CIRCUITS SERVICING THE AREA INVOLVED WITH THIS DEMOLITION. THOSE CIRCUITS SHALL THEN BE LOCKED OUT AND TAGGED OUT IF THEY DO NOT SERVICE ANY OF THE REMAINING BUILDING. THOSE CIRCUITS WHICH ARE IDENTIFIED TO SERVICE BOTH THE AREA TO BE DEMOLISHED AND THE REMAINING BUILDING SHALL BE SPLIT SO AS TO KILL ALL ELECTRICAL POWER TO THE AREA TO BE DEMOLISHED WHILE MAINTAINING POWER TO THE REMAINDER OF THE BUILDING.
20. CONTRACTOR TO RE-LOCATE UTILITIES & EQUIPMENT AS REQUIRED TO ACCOMMODATE NEW HVAC, ELECTRICAL & PLUMBING REQUIREMENTS FOR NEW RENOVATION WORK.
21. REFER TO MEPT DRAWINGS FOR DEMOLITION OF MEPT SYSTEMS. IDENTIFY WORK REQUIRED BY THIS CONTRACTOR WHICH MAY AFFECT DEMOLITION AND/OR REPAIRS OF ARCHITECTURAL ELEMENTS. COORDINATE WITH RELATED SUBS THE EXTENT OF ALL DEMOLITION WORK.
22. PATCH FLOORS, WALLS CEILINGS WHICH REMAIN AT LOCATIONS WHERE PIPES, CONDUITS, ETC. ARE REMOVED AS REQUIRED TO MATCH EXISTING CONDITIONS OR TO RECEIVE NEW FINISHES.
23. WHERE EXISTING FINISH FLOOR IS REMOVED, PREPARE SURFACE TO RECEIVE NEW FLOORING
24. NOTIFY ARCHITECT & OWNER OF ANY POSSIBLE ASBESTOS CONTAINING MATERIALS DISCOVERED BEFORE PROCEEDING WITH WORK. PROTECT INTERIOR CONSTRUCTION TO REMAIN DURING DEMOLITION AND CONSTRUCTION.
25. CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS BEFORE COMMENCING WORK.
26. CONTRACTOR TO PROVIDE ALL NECESSARY SHORING FOR PROTECTION OF EXISTING STRUCTURE AND FOUNDATION TO REMAIN.
27. ALL DASHED LINES ARE DEMOLITION LINES UNLESS NOTED OTHERWISE (U.N.O.)

SITE PLAN LEGEND

- PATH OF TRAVEL
- (E) PROPERTY LINE
- (E) CHAIN LINK FENCE TO REMAIN
- (E) BUILDING NOT IN SCOPE
- (E) BUILDING AREA OF WORK
- TOILET ROOMS NOT IN SCOPE
  W = WOMENS
  M = MENS
- (E) LANDSCAPE / PLANTER AREA TO BE REMOVED
- DEMOLITION AREA OF WORK
- 00.00 CONSTRUCTION KEY NOTE
- 00.00 DEMOLITION KEY NOTE

PARKING CALCULATION

(E) PARKING LOT A (BUS):

	PROVIDED	REQUIRED
STALLS	10	

(E) PARKING LOT B :

	PROVIDED	REQUIRED
STANDARD STALLS	51	
ACCESSIBLE STALLS	03	03
• STANDARD	02	
• VAN	01	
TOTAL P-LOT STALLS	**54**	

(E) PARKING LOT C :

	PROVIDED	REQUIRED
STANDARD STALLS	29	
ACCESSIBLE STALLS	02	02
• STANDARD	01	
• VAN	01	
TOTAL P-LOT STALLS	**31**	

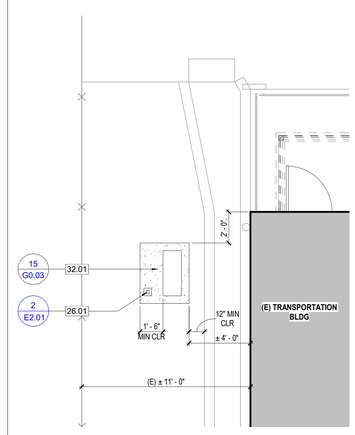
PATH OF TRAVEL STATEMENT

"DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT:
THE POT IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS MEETS THE REQUIREMENTS OF THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE (CBC) ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NONCOMPLIANT WITH THE CBC HAVE BEEN IDENTIFIED AND THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NONCOMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE INDICATED IN THESE CONSTRUCTION DOCUMENTS.

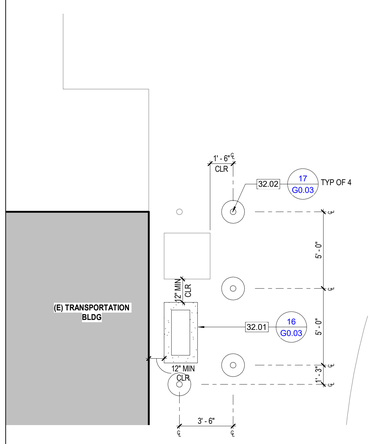
DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CBC COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THE **ITEMS SHALL BE BROUGHT INTO COMPLIANCE** WITH THE CBC AS PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

THE STATEMENT INDICATES THAT THE ITEMS NOT IDENTIFIED AND NOT IN COMPLIANCE SHALL BE BROUGHT INTO COMPLIANCE BY MEANS OF CONSTRUCTION CHANGE DOCUMENTS. **IT DOES NOT MEAN AN UNREASONABLE HARDSHIP CAN BE SUBMITTED IN LIEU OF COMPLIANCE.**

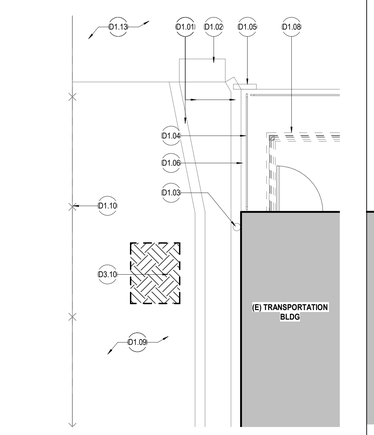
"ACCESSIBLE PATH OF TRAVEL AS INDICATED ON PLANS IS A BARRIER-FREE ACCESS ROUTE WITHOUT ABRUPT LEVEL CHANGES EXCEEDING 1/2" 8° BEVELED AT 1:12 MAXIMUM SLOPE OR VERTICAL LEVEL CHANGES NOT EXCEEDING 1/4" MAXIMUM AND AT LEAST 48" IN WIDTH. SURFACE IS STABLE, FIRM AND SLIP-RESISTANT. CROSS-SLOPE SHALL NOT BE STEEPER THAN 1:48 AND SLOPE IN THE DIRECTION OF TRAVEL SHALL NOT BE STEEPER THAN 1:20. ACCESSIBLE PART OF TRAVEL SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM AND FREE OF OBJECTS PROTRUDING MORE THAN 4" FROM THE WALL ABOVE 27" AND LESS THAN 80" ABOVE THE FLOOR. ARCHITECT SHALL VERIFY THAT THERE ARE NO BARRIERS IN THE PATH OF TRAVEL."



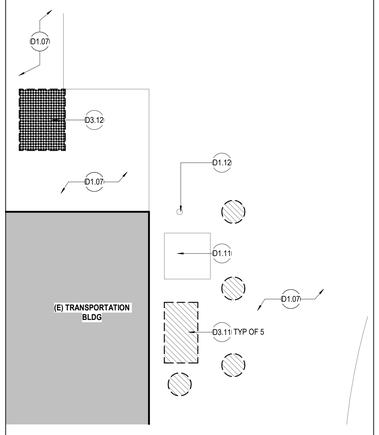
6 ENLARGED SITE PLAN AREA
1/4" = 1'-0"



5 ENLARGED SITE PLAN AREA
1/4" = 1'-0"



4 DEMOLITION ENLARGED SITE PLAN AREA
1/4" = 1'-0"



3 DEMOLITION ENLARGED SITE PLAN AREA
1/4" = 1'-0"

PBK

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P 909-987-0909

B202301766

ONTARIO
City of Ontario | Building Department
APPROVED & REVIEWED FOR CODE COMPLIANCE
The issuance of a permit and approval of these plans shall not be construed to permit or approve any violation of the applicable codes or ordinances.
Date: 01/16/2024 4:34:37 PM

REVIEWED
FOR
CODE COMPLIANCE
Dec 15, 2023
BPR CONSULTING GROUP

TRANSPORTATION CENTER

PROJECT ADDRESS:
1442 South Bon View
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ONTARIO-MONTCLAIR SCHOOL DISTRICT

KEY PLAN
NORTH: PLAN TRUE

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Architect
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Jong Yoo
No. C-31162
Exp. 10-31-2023
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ONTARIO - MONTCLAIR SCHOOL DISTRICT

DATE	PROJECT NUMBER
3/3/23	220316

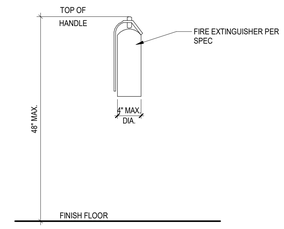
REVISIONS

No.	Description	Date
1	CITY BACK CHECK	10/23/23
2	CITY BACK CHECK	12/08/23

CitySubmittal - Registration #B202301766

OVERAL SITE PLAN, ENLARGED SITE PLAN, DEMO. SITE PLAN & MISC. DETAILS

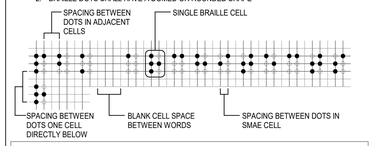
G0.03



28 FIRE EXTINGUISHER MOUNTING HEIGHT
N.T.S.

BRAILLE REQUIREMENTS PER 2022 CBC 11B-703.3:

1. CONTRACTED CALIFORNIA GRADE 2 BRAILLE SHALL BE USED WHEREVER BRAILLE IS REQUIRED
2. BRAILLE DOTS SHALL HAVE A DOMED OR ROUNDED SHAPE



BRAILLE DIMENSIONS	
MEASUREMENT RANGE	**MINIMUM IN INCHES MAXIMUM IN INCHES**
DOT BASE DIAMETER	0.059 (1.5 mm) TO 0.063 (1.6 mm)
A. DISTANCE BETWEEN TWO DOTS IN SAME CELL[1]	0.100 (2.5 mm)
DISTANCE BETWEEN CORRESPONDING DOTS IN ADJACENT CELLS[1]	0.300 (7.6 mm)
DOT HEIGHT	0.025 (0.6 mm) TO 0.037 (0.9 mm)
DISTRANCE BETWEEN CORRESPONDING DOTS FROM ONE CELL DIRECTLY BELOW[1]	0.395 (10 mm) TO 0.400 (10.2 mm)

1. MEASURE CENTER TO CENTER

26 BRAILLE STANDARDS FOR SIGNAGE
6" = 1'-0"

CHARACTER REQUIREMENTS:

A. CHARACTER REQUIREMENTS FOR ALL SIGNS PER 2022 CBC 11B-703:

1. 3 CHARACTERS SHALL BE UPPERCASE.
2. CHARACTERS SHALL BE SANS SERIF. CHARTERS SHALL NOT BE ITALLIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OF OTHER UNUSUAL FORMS.
3. CHARACTER SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER "O" IS 60 PERCENT MINIMUM AND 110 PERCENT MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I".
4. SPACING BETWEEN THE BASELINES OF SEPARATE LINES OF RAISED CHARACTERS WITHIN A MESSAGE SHALL BE 135 PERCENT MINIMUM AND 170 PERCENT MAXIMUM OF THE CHARACTER HEIGHT.
5. TEXT SHALL BE IN HORIZONTAL FORMAT.
6. CHARACTERS AND THEIR BACKGROUND SHALL HAVE A NON-GLARE FINISH AND CONTRAST WITH ONE ANOTHER

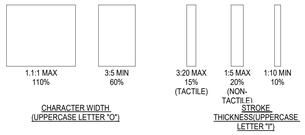
B. RAISED CHARACTER REQUIREMENTS FOR SIGNS WITH BRAILLE PER 2022 CBC 11B-703.2:

1. RAISED CHARACTERS SHALL COMPLY WITH REQUIREMENTS NOTED IN PARAGRAPH 'A' ABOVE
2. RAISED CHARACTERS SHALL BE 1/32 INCH MIN ABOVE BACKGROUND.
3. RAISED CHARACTER HEIGHT MEASURED VERTICALLY FROM THE BASELINE OF THE CHARACTER SHALL BE 5/8 INCH MINIMUM AND 2 INCHES MAXIMUM BASED ON THE HEIGHT OF THE UPPERCASE LETTER 'I'.
4. STROKE THICKNESS OF THE UPPERCASE LETTER 'I' SHALL BE 10 PERCENT MINIMUM AND 15 PERCENT MAXIMUM OF THE HEIGHT OF THE CHARACTER.
5. CHARACTER SPACING BETWEEN INDIVIDUAL RAISED LETTERS SHALL BE 1/8 INCH MINIMUM AND FOUR (4) TIMES THE RAISED CHARACTER STROKE WIDTH MAXIMUM.
6. ALL EDGES ON GEOMETRIC SYMBOLS SHALL BE EASED OR ROUNDED AT 1/16 INCH MINIMUM. VERTICES SHALL BE RADIUSED BETWEEN 1/8" INCH MINIMUM AND 1/4 INCH

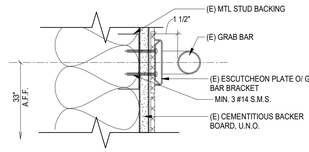
C. VISUAL CHARACTER REQUIREMENTS FOR SIGNS WITHOUT BRAILLE PER 2022 CBC 11B-703.5:

1. VISUAL CHARACTERS SHALL COMPLY WITH REQUIREMENTS NOTED IN PARAGRAPH 'A' ABOVE
2. MINIMUM CHARACTER HEIGHT SHALL CONFORM TO 2022 CBC TABLE 11B-703.5.5 BUT IN NO CASE SHALL BE LESS THAN 5/8 INCH.
3. HEIGHT FROM FINISH FLOOR SHALL BE NO LESS THAN 40 INCHES.
4. STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 10 PERCENT MINIMUM AND 20 PERCENT MAXIMUM OF THE HEIGHT OF THE CHARACTER.
5. SPACING BETWEEN INDIVIDUAL CHARACTERS SHALL BE 10 PERCENT MINIMUM AND 35 PERCENT MAXIMUM OF CHARACTER HEIGHT.

CHARACTER AND STROKE WIDTH TO HEIGHT PROPORTIONS.

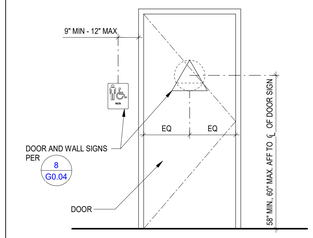


101400.10-S CBC 2019 - Rev 10/17



101400.06-S Rev 09/16

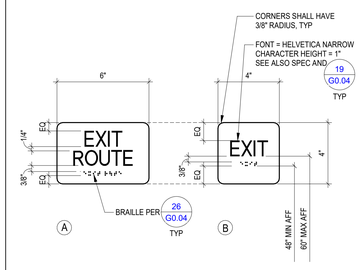
22 (E) GRAB BAR MOUNT
3" = 1'-0"



101400.04-S CBC 2019 - Rev 10/17

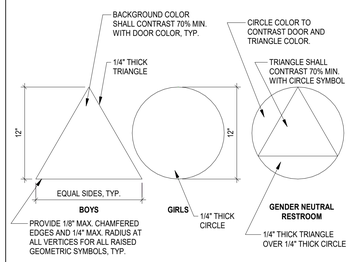
20 RESTROOM SIGNAGE
1/2" = 1'-0"

19 CHARACTER REQMNTS FOR SIGNAGE
1" = 1'-0"

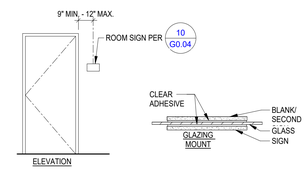


101400.12-S CBC 2019 - Rev 10/17

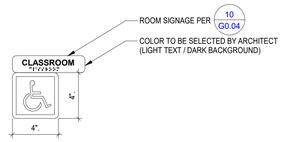
15 TACTILE EXIT SIGNS
3" = 1'-0"



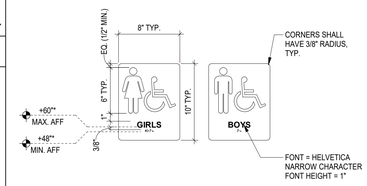
(B) DOOR SIGNAGE

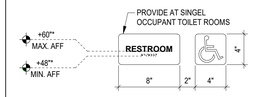


(B) ROOM SIGN_____



(A) BUILDING ENTRY ROOM SIGN_





GENDER NEUTRAL RESTROOM

(A) WALL SIGNAGE

- 60" MAX A.F.F. TO THE BASE LINE OF THE HIGHEST TEXT & 48" MIN. A.F.F. TO THE BASE LINE OF THE LOWEST BRAILLE CELLS

NOTE:
FOR CHARACTER TYPE AND BRAILLE REQUIREMENTS SEE DETAILS 19 G0.04 26 G0.04 ON THIS SHEET.

NOTES:

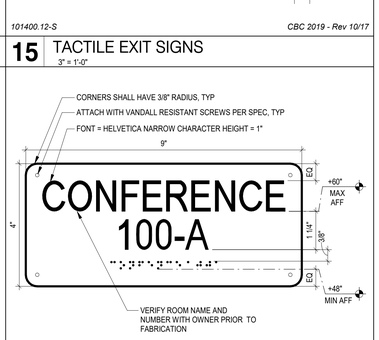
1. FOR CHARACTER TYPE & BRAILLE, SEE ALSO DETAIL 19 G0.04 26 G0.04
2. SIGN MATERIAL SHALL BE PAINTED, 1/8" THICKENS PLASTIC USING GRAPHIC PROCESS SAND-CARVED W/ 3/32" RAISED GRAPHIC AND LETTERS. PROVIDE MECHANICAL MOUNTING W/ COUNTERSUNK, VANDAL RESISTANT #8 FASTENERS. MOUNT ON GLAZING WITH CLEAR SILICONE ADHESIVE AND A SECOND SIGN OR BLANK ALIGNED ON THE OTHER SIDE OF GLAZING TO MASK THE ADHESIVE.
3. PROVIDE ONE SIGN WHERE INDICATED ON PLANS OR SCHEDULE.

101400.05-S CBC 2019 - Rev 10/16

8 RESTROOM DOOR & WALL SIGNS
1 1/2" = 1'-0"

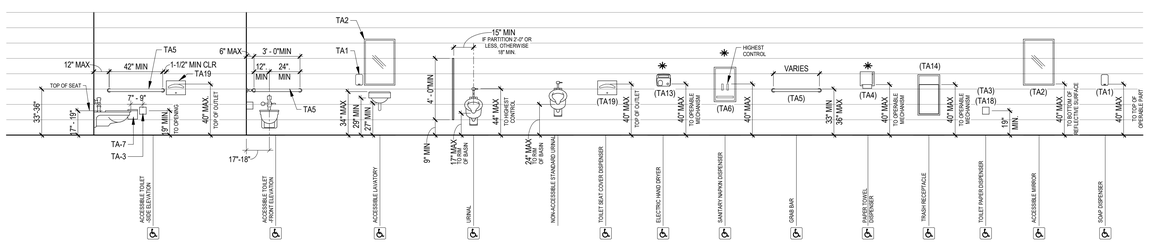
101400.08-S CBC 2019 - Rev 09/29/16

7 ROOM IDENTIFICATION SIGNAGE
1 1/2" = 1'-0"



101400.11-S CBC 2019 - Rev 09/17

10 TYP. ROOM ID SIGN
6" = 1'-0"



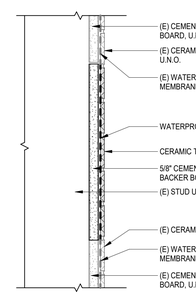
NOTE:

1. ACCESSIBLE TOILET COMPARTMENT DOOR HERE LOCATED IN THE SIDE WALL OR PARTITION. THE DOOR OPENING SHALL BE FARTHEST FROM THE WATER CLOSET AND SHALL BE 54" MIN. FROM THE REAR WALL

2. **TOE CLEARANCE ON PARTITION PER CBC 11B-604.8.1.4** AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF 9 INCHES MINIMUM ABOVE THE FINISH FLOOR AND 6 INCHES DEEP MINIMUM BEYOND THE COMPARTMENT-SIDE FACE OF THE PARTITION. EXCLUSIVE OF PARTITION SUPPORT MEMBERS. PARTITION COMPONENTS AT TOE CLEARANCES SHALL BE SMOOTH WITHOUT SHARP EDGES OR ABRASIVE SURFACES. COMPARTMENTS FOR CHIDREN'S USE SHALL PROVIDE A TOE CLEARANCE OF 12 INCHES MINIMUM ABOVE THE FINISH FLOOR.

EXCEPTION: TOE CLEARANCE AT THE SIDE PARTITION IS NOT REQUIRED IN A COMPARTMENT GREATER THAN 66 INCHES WIDE.

6 CBC COMPLIANT STANDARDS - ADULTS
1/4" = 1'-0"



2 TYPICAL WALL TILE - INFILL
3" = 1'-0"

LABEL	DESCRIPTION	REMARKS
TA1	SOAP DISPENSER	
TA2	MIRROR (24"x36" U.N.O.)	NOTE 5
TA3	TOILET PAPER DISPENSER	
TA4	PAPER TOWEL DISPENSER	
TA5	GRAB BARS AT TYPICAL ACCESSIBLE TOILET STALLS	
TA7	SANITARY NAPKIN DISPOSAL	
TA11	CLOTHES HOOK	NOTE 6 NOTE 6
TA17	TRASH RECEPTACLE	
TA19	TOILET SEAT COVER DISPENSER	

NOTES:

1. ALL TOILET ACCESSORIES SHALL BE CONTRACTOR FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE
2. COORDINATE FINAL LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION.
3. CONTRACTOR IS TO VERIFY ALL HEIGHTS OF ACCESSORIES TO COMPLY WITH ADA.
4. REFER TO ALL FINISHES AND COLORS IN FINISH SCHEDULE.VERIFY ALL PATTERNS WITH ARCHITECT.

1 TOILET ACCESSORIES TYPES
12" = 1'-0"

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12/1/2023 9:38:43 AM

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B202301766

ONTARIO
City of Ontario | Building Department
APPROVED & REVIEWED
FOR CODE COMPLIANCE
The issuance of a permit and approval of these plans shall not be construed to permit or approve any violation of the applicable codes or ordinances.
Date: 01/16/2024 1:34:37 PM

REVIEWED
FOR
CODE COMPLIANCE
Dec 15, 2023
BPR CONSULTING GROUP

TRANSPORTATION CENTER

PROJECT ADDRESS:
1442 South Bon View
Ontario, Ca 91761

CitySubmittal - Registration #B202301766

ONTARIO-MONTCLAIR SCHOOL DISTRICT

KEY PLAN
NORTH: PLAN TRUE

Consultant

Architect
LICENSED ARCHITECT
Jong Yoo
No. C-31162
REN. 10-31-2025
STATE OF CALIFORNIA

CLIENT
ONTARIO - MONTCLAIR SCHOOL DISTRICT

DATE	PROJECT NUMBER
3/3/23	220316

REVISIONS

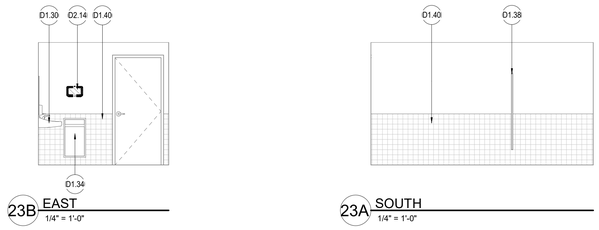
No.	Description	Date
1	CITY BACK CHECK	10/23/23
2	CITY BACK CHECK	12/08/23

CitySubmittal - Registration #B202301766

ACCESSIBILITY DETAILS

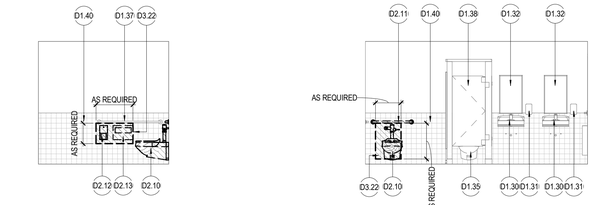
G0.04

D3.01 - DEMOLITION ENLARGED FLOOR PLANS



23B EAST 1/4" = 1'-0"

23A SOUTH 1/4" = 1'-0"



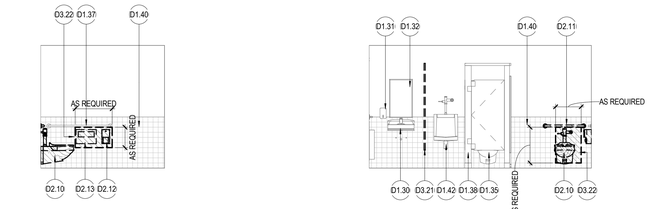
23D WEST 1/4" = 1'-0"

23C NORTH 1/4" = 1'-0"

23 DEMOLITION INTERIOR ELEVATIONS - MEN RESTROOM
1/4" = 1'-0"

21B EAST 1/4" = 1'-0"

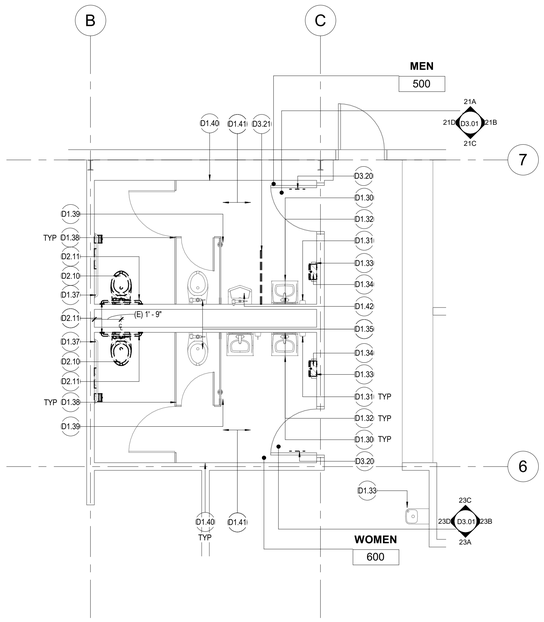
21A NORTH 1/4" = 1'-0"



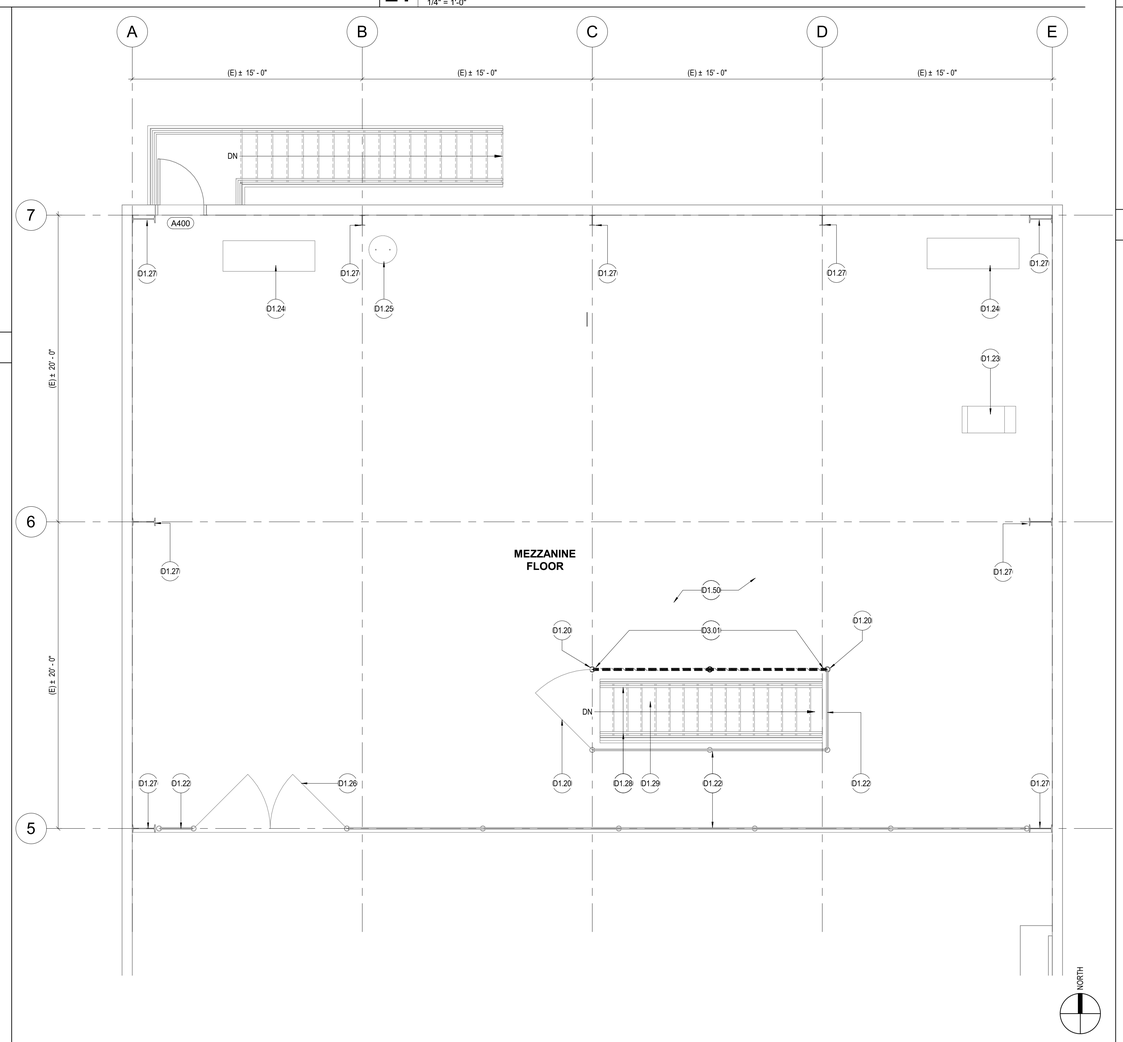
21D WEST 1/4" = 1'-0"

21C SOUT 1/4" = 1'-0"

21 DEMOLITION INTERIOR ELEVATIONS - WOMEN RESTROOM
1/4" = 1'-0"



6 DEMOLITION ENLARGED FLOOR PLAN - MEN & WOMEN RESTROOMS
1/4" = 1'-0"



04 DEMOLITION ENLARGED FLOOR PLAN - SECOND FLOOR
1/4" = 1'-0"

DEMOLITION KEYED NOTES

#	Description
D1.20	(E) CHAIN LINK POST TO REMAIN IN PLACE
D1.22	(E) CHAIN LINK FENCE, PROTECT IN PLACE
D1.23	(E) LOCATION OF EXISTING DATA RACK. CONTRACTOR SHALL CAREFULLY RELOCATE DATA RACK, ALL MOUNTED COMPONENTS, INCOMING FIBER AND/OR COPPER TO NEW LOCATION INDICATED, SEE TECHNOLOGY DRAWINGS
D1.24	(E) MECHANICAL EQUIPMENT, PROTECT IN PLACE
D1.25	(E) WATER HEATER, PROTECT IN PLACE
D1.26	(E) SERVICE DOUBLE CHAIN LINK GATE, PROTECT IN PLACE
D1.27	(E) STEEL COLUMNS, PROTECT IN PLACE
D1.28	(E) HANDRAIL, PROTECT IN PLACE
D1.29	(E) STAIRS PROTECT IN PLACE
D1.30	(E) LAVATORY, PROTECT IN PLACE
D1.31	(E) SOAP DISPENSER, PROTECT IN PLACE
D1.32	(E) MIRROR, PROTECT IN PLACE
D1.33	(E) DRINKING FOUNTAIN, PROTECT IN PLACE
D1.34	(E) RECESSED WASTE RECEPTACLE, PROTECT IN PLACE
D1.35	(E) WALL MOUNT TOILET, PROTECT IN PLACE
D1.37	(E) ACCESSIBLE GRAB BAR, PROTECT IN PLACE
D1.38	(E) PARTITION WALL, PROTECT IN PLACE, U.N.O.
D1.39	(E) FLOOR DRAIN WITH MAX. OPENING OF 1/4", PROTECT IN PLACE
D1.40	(E) WAINSCOT 4" X 4" CERAMIC WALL TILE WITH GYPSUM BOARD ABOVE, PROTECT IN PLACE, U.N.O.
D1.41	(E) 2" X 2" FLOOR TILE, PROTECT IN PLACE
D1.42	(E) URINAL, PROTECT IN PLACE
D1.50	(E) LIGHTWEIGHT STRUCTURAL CONCRETE FILL OVER STEEL DECK, PROTECT IN PLACE
D2.10	(E) ACCESSIBLE SURFACE MOUNT TOILET WITH ASSOCIATED PARTS TO BE REMOVED AND SALVAGE FOR REINSTALLATION, SEE MECHANICAL DRAWINGS, PATCH AND REPAIR PORTION OF EXISTING WALL TO MATCH EXISTING ADJACENT MATERIALS AND FINISHES
D2.11	TEMPORARY REMOVAL OF (E) GRAB BAR FOR REINSTALLATION OF (E) SURFACE MOUNTED TOILET, PATCH AND REPAIR PORTION OF EXISTING WALL TO MATCH EXISTING ADJACENT MATERIALS AND FINISHES
D2.12	(E) SEMI-RECESSED TOILET PAPER DISPENSER TO BE REMOVED AND SALVAGE, REMOVE ANY EXISTING OPENING FRAME, PATCH AND REPAIR PORTION OF EXISTING WALL TO MATCH EXISTING ADJACENT MATERIALS AND FINISHES
D2.13	(E) RECESSED SEAT COVER DISPENSER TO BE REMOVED AND SALVAGE, REMOVE ANY EXISTING OPENING FRAME, PATCH AND REPAIR PORTION OF EXISTING WALL TO MATCH EXISTING ADJACENT MATERIALS AND FINISHES
D2.14	(E) SURFACE MOUNT PAPER TOWEL DISPENSER TO BE REMOVED AND SALVAGE FOR REINSTALLATION, PATCH AND REPAIR PORTION OF EXISTING WALL TO MATCH EXISTING ADJACENT MATERIALS AND FINISHES
D3.01	REMOVE (E) ± 4'- 0" HIGHT CHAIN LINK FENCE
D3.20	(E) DOOR SIGNAGE TO BE REMOVED IN ITS ENTIRETY
D3.21	(E) PARTITION WALL TO BE REMOVED IN ITS ENTIRETY
D3.22	PORTION OF (E) WALL TILE WITH GYPSUM BOARD TO BE REMOVED IN ITS ENTIRETY, PREP FOR (E) SURFACE MOUNT TOILET REINSTALLATION, (E) STUD FRAMING TO REMAIN IN PLACE, U.N.O.

DEMOLITION LEGEND

EXISTING WALL TO REMAIN

CMU WALL TO BE REMOVED

DOOR & FRAME TO BE REMOVED

DEMOLITION AREA OF WORK

Room name
101 ROOM NAME AND NUMBER

00.00 KEY NOTE

GENERAL DEMOLITION NOTES:

1. THE DEMOLITION PLAN OUTLINES SOME OF THE SCOPE OF THE WORK INVOLVED FOR THE DEMOLITION PHASE OF THIS PROJECT. CONTRACTOR SHALL REVIEW ALL SHEETS FOR ADDITIONAL DEMO SCOPE.
2. CONTRACTOR SHALL VERIFY EXISTING SITE AND BUILDING CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO COMMERCIAL DEMOLITION ACTIVITIES. CONTRACTOR SHALL NOT SCALE DRAWINGS. CONTRACTOR WILL NOTIFY ARCHITECT OF ANY DISCREPANCIES IN WRITING.
3. AFTER AWARD OF THE CONTRACT, CHANGE ORDER REQUESTS FOR ADDITIONAL MONEY WILL NOT BE APPROVED IF THE WORK COULD HAVE BEEN ANTICIPATED DURING A SITE VISIT BY THE CONTRACTOR.
4. CONTRACTOR WILL BE REQUIRED TO REPAIR, REPLACE, OR PATCH EXISTING BUILDINGS, DRIVEWAYS, SIDEWALKS, CANOPIES, AND/OR PARKING AREAS DISTURBED BY DEMOLITION.
5. CONTRACTOR WILL BE REQUIRED TO REGRADE AND HYDROMULCH AREAS AFFECTED BY DEMOLITION.
6. ALL FURNITURE WILL BE REMOVED OR RELOCATED BY THE OWNER AS NECESSARY PRIOR TO THE DEMOLITION WORK OF THIS PROJECT. CONTRACTOR SHALL COORDINATE WITH OWNER AS REQUIRED.
7. REMOVE EXISTING CONSTRUCTION TO THE EXTENT INDICATED ON THE DRAWINGS. SHOULD ANY DAMAGE OCCUR TO ANY EXISTING CONSTRUCTION TO REMAIN, THE CONTRACTOR SHALL REPAIR THE DAMAGE. TO MATCH EXISTING/ADJACENT CONSTRUCTION.
8. CONTRACTOR IS TO VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO DEMOLITION ACTIVITIES.
9. CONTRACTOR SHALL REMOVE DEBRIS REGULARLY AS NECESSARY TO ELIMINATE INTERFERENCE WITH ROADS, STREET, WALKS, AND ALL OTHER ADJACENT FACILITIES.
10. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF TEMPORARY DUST AND/OR SOUND PARTITION BETWEEN CONSTRUCTION AREA AND AREAS NOT IN SCOPE AS NECESSARY. DEMOLITION ACTIVITIES SHALL BE PERFORMED SO AS TO PRODUCE MINIMAL DISTURBANCE TO EXISTING FACILITY AND OCCUPANTS (I.E. MINIMIZE EXCESSIVE AND PROLONGED NOISE LEVELS AND DUST.)
11. NOTIFY THE BUILDING OWNER OF ANY MATERIALS, FIXTURES, ETC. TO BE REMOVED THAT ARE DEEMED SALVAGEABLE. TURN OVER ANY REQUESTED ITEMS TO THE BUILDING OWNER IN GOOD CONDITION.
12. THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
13. MAINTAIN THE INTEGRITY OF ALL EXISTING RATED WALLS, FIRE SEAL ANY PENETRATIONS WITH U.L. APPROVED ASSEMBLY.
14. WHEN UNANTICIPATED MECHANICAL, ELECTRICAL, OR STRUCTURAL ELEMENTS THAT CONFLICT WITH THE INTENDED FUNCTION OR DESIGN ARE ENCOUNTERED, DETERMINE THE NATURE AND EXTENT OF THE CONFLICT AND NOTIFY THE ARCHITECT IMMEDIATELY FOR RESOLUTION.
15. PROTECT EXISTING SITE IMPROVEMENTS AND LANDSCAPING TO REMAIN. INCLUDING BUT NOT LIMITED TO EXISTING TREES AND OTHER VEGETATION INDICATED TO REMAIN IN PLACE AGAINST UNNECESSARY CUTTING, BREAKING, OR SKINNING OF ROOTS, SKINNING OR BRUISING OF BARK, SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION MATERIAL OR EXCAVATED MATERIAL WITHIN DRIP LINES.
16. CONTRACTOR SHALL PROVIDE TRAFFIC HANDLING MEASURES AS NECESSARY TO PROTECT THE GENERAL PUBLIC AT ALL TIMES, AND AS REQUIRED BY GOVERNING AUTHORITIES.
17. DO NOT INTERRUPT EXISTING UTILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY AUTHORITIES HAVING JURISDICTION. PROVIDE TEMPORARY SERVICES DURING INTERRUPTIONS TO EXISTING UTILITIES, AS ACCEPTABLE TO GOVERNING AUTHORITIES.
18. WHEN UTILITY SERVICES ARE REQUIRED TO BE REMOVED, RELOCATED, OR ABANDONED, PROVIDE BYPASS CONNECTIONS TO MAINTAIN CONTINUITY OF SERVICE BEFORE PROCEEDING WITH DEMOLITION.
19. CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT ALL UTILITY COMPANIES INCLUDING BUT NOT LIMITED TO THE FOLLOWING: ELECTRIC, GAS, WATER, TELEPHONE, STORM SEWER, AND SANITARY SEWER FOR FIELD LOCATION OF ALL UNDERGROUND AND OVERHEAD UTILITY LINES. PRIOR TO COMMENCEMENT WITH ANY DEMOLITION WORK, CONTRACTOR SHALL IDENTIFY ALL ELECTRICAL CIRCUITS SERVICING THE AREA INVOLVED WITH THIS DEMOLITION. THOSE CIRCUITS SHALL THEN BE LOCKED OUT AND TAGGED OUT IF THEY DO NOT SERVICE ANY OF THE REMAINING BUILDING. THOSE CIRCUITS WHICH ARE IDENTIFIED TO SERVICE BOTH THE AREA TO BE DEMOLISHED AND THE REMAINING BUILDING SHALL BE SPLIT SO AS TO KILL ALL ELECTRICAL POWER TO THE AREA TO BE DEMOLISHED WHILE MAINTAINING POWER TO THE REMAINDER OF THE BUILDING.
20. CONTRACTOR TO RE-LOCATE UTILITIES & EQUIPMENT AS REQUIRED TO ACCOMMODATE NEW HVAC, ELECTRICAL & PLUMBING REQUIREMENTS FOR NEW RENOVATION WORK.
21. REFER TO MEPT DRAWINGS FOR DEMOLITION OF MEPT SYSTEMS. IDENTIFY WORK REQUIRED BY THIS CONTRACTOR WHICH MAY AFFECT DEMOLITION AND/OR REPAIRS OF ARCHITECTURAL ELEMENTS. COORDINATE WITH RELATED SUBS THE EXTENT OF ALL DEMOLITION WORK.
22. PATCH FLOORS, WALLS CEILINGS WHICH REMAIN AT LOCATIONS WHERE PIPES, CONDUITS, ETC. ARE REMOVED AS REQUIRED TO MATCH EXISTING CONDITIONS OR TO RECEIVE NEW FINISHES.
23. WHERE EXISTING FINISH FLOOR IS REMOVED, PREPARE SURFACE TO RECEIVE NEW FLOORING.
24. NOTIFY ARCHITECT & OWNER OF ANY POSSIBLE ASBESTOS CONTAINING MATERIALS DISCOVERED BEFORE PROCEEDING WITH WORK, PROTECT INTERIOR CONSTRUCTION TO REMAIN DURING DEMOLITION AND CONSTRUCTION.
25. CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS BEFORE COMMENCING WORK.
26. CONTRACTOR TO PROVIDE ALL NECESSARY SHORING FOR PROTECTION OF EXISTING STRUCTURE AND FOUNDATION TO REMAIN.
27. ALL DASHED LINES ARE DEMOLITION LINES UNLESS NOTED OTHERWISE (U.N.O.)

PBK

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Rancho Cucamonga
California 91730
P 909-987-0909

B202301766

ONTARIO
City of Ontario | Building Department
APPROVED & REVIEWED
FOR CODE COMPLIANCE
The issuance of a permit and approval of these plans shall not be construed to permit or approve any violation of the applicable codes or ordinances.
Date: 01/16/2024 1:34:27 PM

REVIEWED
FOR
CODE COMPLIANCE
Dec 15, 2023
BPR CONSULTING GROUP

TRANSPORTATION CENTER

PROJECT ADDRESS:
1442 South Bon View
Ontario, Ca 91761

CitySubmittal - Registration #B202301766

ONTARIO • MONTCLAIR SCHOOL DISTRICT SINCE 1884

KEY PLAN
NORTH: PLAN TRUE

Consultant

Architect
LICENSED ARCHITECT Jong Yoo No. C-31162 REN. 10-31-2023 STATE OF CALIFORNIA

CLIENT
ONTARIO - MONTCLAIR SCHOOL DISTRICT

DATE	PROJECT NUMBER
3/3/23	220316

REVISIONS

No.	Description	Date
1	CITY BACK CHECK	10/23/23

CitySubmittal - Registration #B202301766

DEMOLITION ENLARGED FLOOR PLANS

D3.01

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D4.01 - BLDG 'A' DEMOLITION REFLECTED CEILING PLAN

0" 1"

DEMOLITION KEYED NOTES

#	Description
D1.51	(E) LIGHT FIXTURE, PROTECT IN PLACE
D1.52	(E) STEEL JOIST, PROTECT IN PLACE
D2.01	(E) LIGHT FIXTURE TO BE REMOVED AND SALVAGE FOR REINSTALLATION

DEMOLITION REFLECTED CEILING PLAN LEGEND

(E) WALL TO REMAIN

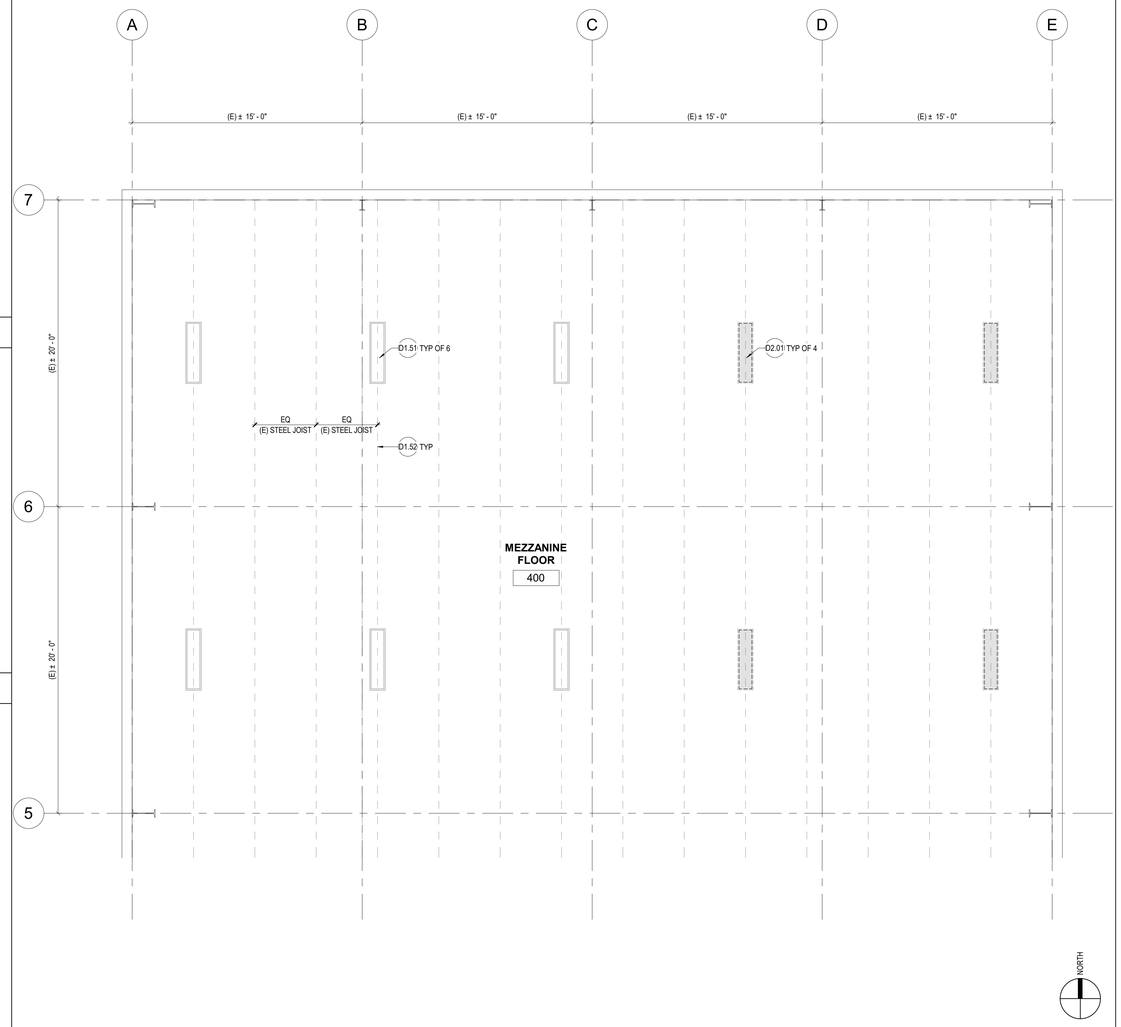
(E) STEEL JOIST TO REMAIN

HATCH INDICATES:
(E) OPEN TO STRUCTURE ABOVE

(E) LIGHT FIXTURE(S) TO REMAIN

(E) LIGHT FIXTURE(S) TO BE REMOVED U.N.O.

(E) LIGHT FIXTURE(S) TO BE RELOCATED



04 COMPOSITE REFLECTED CEILING PLAN @ MEZZANINE LEVEL
1/4" = 1'-0"

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8. CONTRACTOR IS TO VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO DEMOLITION ACTIVITIES.
9. CONTRACTOR SHALL REMOVE DEBRIS REGULARLY AS NECESSARY TO ELIMINATE INTERFERENCE WITH ROADS, STREET, WALKS, AND ALL OTHER ADJACENT FACILITIES.
10. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF TEMPORARY DUST AND/OR SOUND PARTITION BETWEEN CONSTRUCTION AREA AND AREAS NOT IN SCOPE AS NECESSARY. DEMOLITION ACTIVITIES SHALL BE PERFORMED SO AS TO PRODUCE MINIMAL DISTURBANCE TO EXISTING FACILITY AND OCCUPANTS (I.E. MINIMIZE EXCESSIVE AND PROLONGED NOISE LEVELS AND DUST.)
11. NOTIFY THE BUILDING OWNER OF ANY MATERIALS, FIXTURES, ETC. TO BE REMOVED THAT ARE DEEMED SALVAGEABLE. TURN OVER ANY REQUESTED ITEMS TO THE BUILDING OWNER IN GOOD CONDITION.
12. THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
13. MAINTAIN THE INTEGRITY OF ALL EXISTING RATED WALLS, FIRE SEAL ANY PENETRATIONS WITH U.L. APPROVED ASSEMBLY.
14. WHEN UNANTICIPATED MECHANICAL, ELECTRICAL, OR STRUCTURAL ELEMENTS THAT CONFLICT WITH THE INTENDED FUNCTION OR DESIGN ARE ENCOUNTERED, DETERMINE THE NATURE AND EXTENT OF THE CONFLICT AND NOTIFY THE ARCHITECT IMMEDIATELY FOR RESOLUTION.
15. PROTECT EXISTING SITE IMPROVEMENTS AND LANDSCAPING TO REMAIN. INCLUDING BUT NOT LIMITED TO EXISTING TREES AND OTHER VEGETATION INDICATED TO REMAIN IN PLACE AGAINST UNNECESSARY CUTTING, BREAKING, OR SKINNING OF ROOTS, SKINNING OR BRUISING OF BARK, SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION MATERIAL OR EXCAVATED MATERIAL WITHIN DRIP LINES.
16. CONTRACTOR SHALL PROVIDE TRAFFIC HANDLING MEASURES AS NECESSARY TO PROTECT THE GENERAL PUBLIC AT ALL TIMES, AND AS REQUIRED BY GOVERNING AUTHORITIES.
17. DO NOT INTERRUPT EXISTING UTILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY AUTHORITIES HAVING JURISDICTION. PROVIDE TEMPORARY SERVICES DURING INTERRUPTIONS TO EXISTING UTILITIES, AS ACCEPTABLE TO GOVERNING AUTHORITIES.
18. WHEN UTILITY SERVICES ARE REQUIRED TO BE REMOVED, RELOCATED, OR ABANDONED, PROVIDE BYPASS CONNECTIONS TO MAINTAIN CONTINUITY OF SERVICE BEFORE PROCEEDING WITH DEMOLITION.
19. CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT ALL UTILITY COMPANIES INCLUDING BUT NOT LIMITED TO THE FOLLOWING: ELECTRIC, GAS, WATER, TELEPHONE, STORM SEWER, AND SANITARY SEWER FOR FIELD LOCATION OF ALL UNDERGROUND AND OVERHEAD UTILITY LINES. PRIOR TO COMMENCEMENT WITH ANY DEMOLITION WORK, CONTRACTOR SHALL IDENTIFY ALL ELECTRICAL CIRCUITS SERVICING THE AREA INVOLVED WITH THIS DEMOLITION. THOSE CIRCUITS SHALL THEN BE LOCKED OUT AND TAGGED OUT IF THEY DO NOT SERVICE ANY OF THE REMAINING BUILDING. THOSE CIRCUITS WHICH ARE IDENTIFIED TO SERVICE BOTH THE AREA TO BE DEMOLISHED AND THE REMAINING BUILDING SHALL BE SPLIT SO AS TO KILL ALL ELECTRICAL POWER TO THE AREA TO BE DEMOLISHED WHILE MAINTAINING POWER TO THE REMAINDER OF THE BUILDING.
20. CONTRACTOR TO RE-LOCATE UTILITIES & EQUIPMENT AS REQUIRED TO ACCOMMODATE NEW HVAC, ELECTRICAL & PLUMBING REQUIREMENTS FOR NEW RENOVATION WORK.
21. REFER TO MEPT DRAWINGS FOR DEMOLITION OF MEPT SYSTEMS. IDENTIFY WORK REQUIRED BY THIS CONTRACTOR WHICH MAY AFFECT DEMOLITION AND/OR REPAIRS OF ARCHITECTURAL ELEMENTS. COORDINATE WITH RELATED SUBS THE EXTENT OF ALL DEMOLITION WORK.
22. PATCH FLOORS, WALLS CEILINGS WHICH REMAIN AT LOCATIONS WHERE PIPES, CONDUITS, ETC. ARE REMOVED AS REQUIRED TO MATCH EXISTING CONDITIONS OR TO RECEIVE NEW FINISHES.
23. WHERE EXISTING FINISH FLOOR IS REMOVED, PREPARE SURFACE TO RECEIVE NEW FLOORING
24. NOTIFY ARCHITECT & OWNER OF ANY POSSIBLE ASBESTOS CONTAINING MATERIALS DISCOVERED BEFORE PROCEEDING WITH WORK, PROTECT INTERIOR CONSTRUCTION TO REMAIN DURING DEMOLITION AND CONSTRUCTION.
25. CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS BEFORE COMMENCING WORK.
26. CONTRACTOR TO PROVIDE ALL NECESSARY SHORING FOR PROTECTION OF EXISTING STRUCTURE AND FOUNDATION TO REMAIN.
27. ALL DASHED LINES ARE DEMOLITION LINES UNLESS NOTED OTHERWISE (U.N.O.)

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Ontario, Ca 91761

CitySubmittal - Registration #B202301766

ONTARIO-MONTCLAIR SCHOOL DISTRICT SINCE 1884

KEY PLAN
NORTH: PLAN TRUE

Consultant

Architect
LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN. 10-31-2025
STATE OF CALIFORNIA

CLIENT
ONTARIO - MONTCLAIR SCHOOL DISTRICT

DATE	PROJECT NUMBER
3/3/23	220316

REVISIONS

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BLDG 'A' DEMOLITION REFLECTED CEILING PLAN

D4.01

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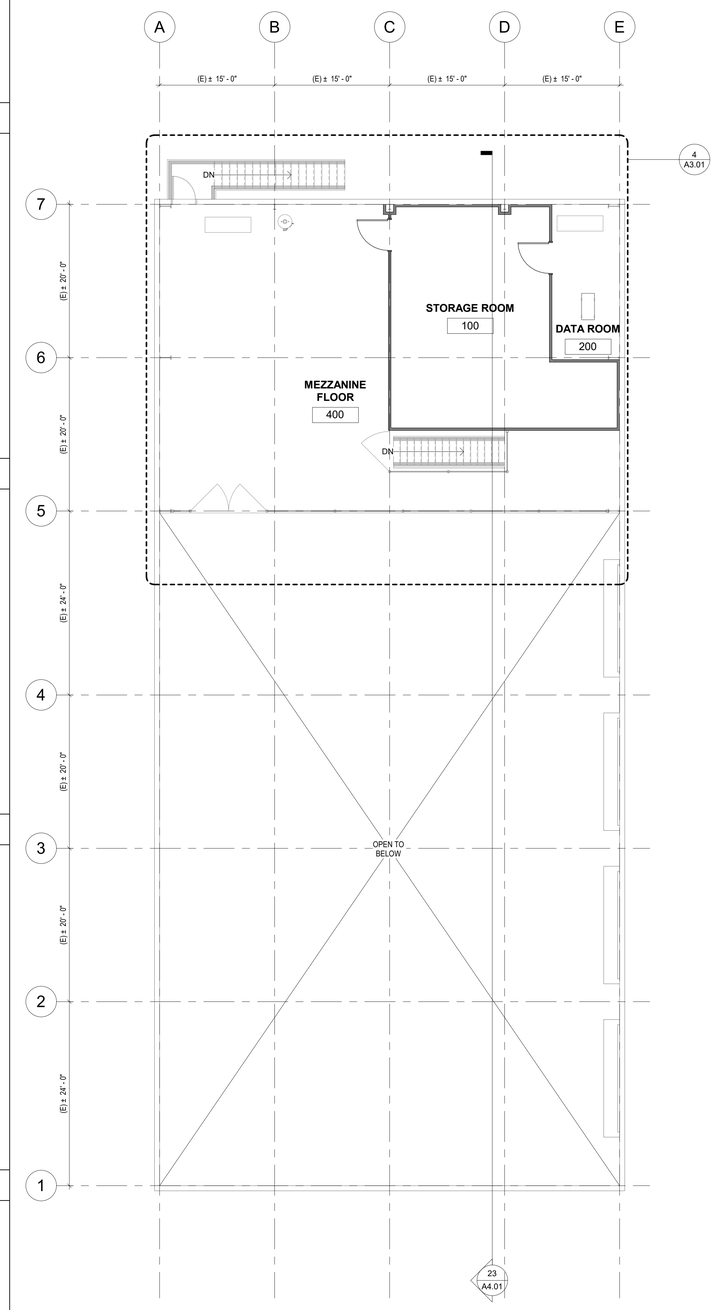
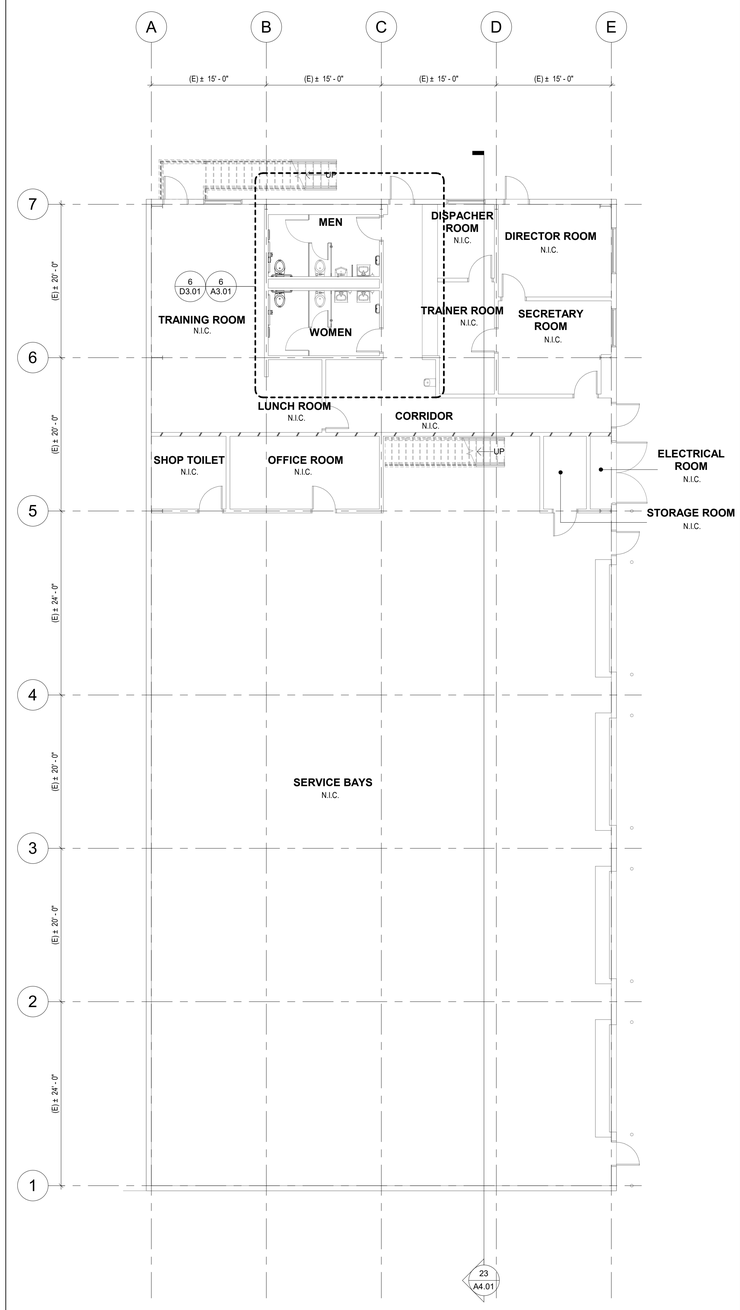
A2.01 - FIRST & MEZZANINE FLOOR PLAN



05 FLOOR PLAN - MEZZANINE FLOOR
1/8" = 1'-0"



03 FLOOR PLAN - FIRST FLOOR
1/8" = 1'-0"

KEYED NOTES

#	Description

FLOOR PLAN LEGEND

- EXISTING NR WALL TO REMAIN
- EXISTING 1 HR RATED WALL TO REMAIN
- NON - RATED WALL TO BE PROVIDED

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FIRST & MEZZANINE FLOOR PLAN

A2.01

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ROOM FINISH SCHEDULE

ROOM DATA		FLOOR	BASE	WALL FINISHES				CEILING
№	NAME	FINISH	FINISH	NORTH	EAST	SOUTH	WEST	FINISH
100	STORAGE ROOM	N/A	RB1	N/A	P1	P1	P1	ACP1
200	DATA ROOM	N/A	RB1	N/A	N/A	P1	P1	ACP1
400	MEZZANINE FLOOR	N/A	RB1	P1	P1	N/A	P1	N/A
500	MEN	N/A	N/A	CT1	N/A	N/A	N/A	N/A
600	WOMEN	N/A	N/A	N/A	N/A	CT1	N/A	N/A

FINISH SCHEDULE ABBREVIATIONS

ACP ACOUSTIC CEILING PANEL
CPT CARPET
LVT LUXURY VINLY TILE
P PAINT
RB RUBBER BASE
PC POLISHED CONCRETE
CT CERAMIC TILE

NOTE:

1. FOR ADDITIONAL IFORMATION, PLEASE REFER TO COLOR & MATERIALS SCHEDULE, SEE DETAIL: 24 / A4.01

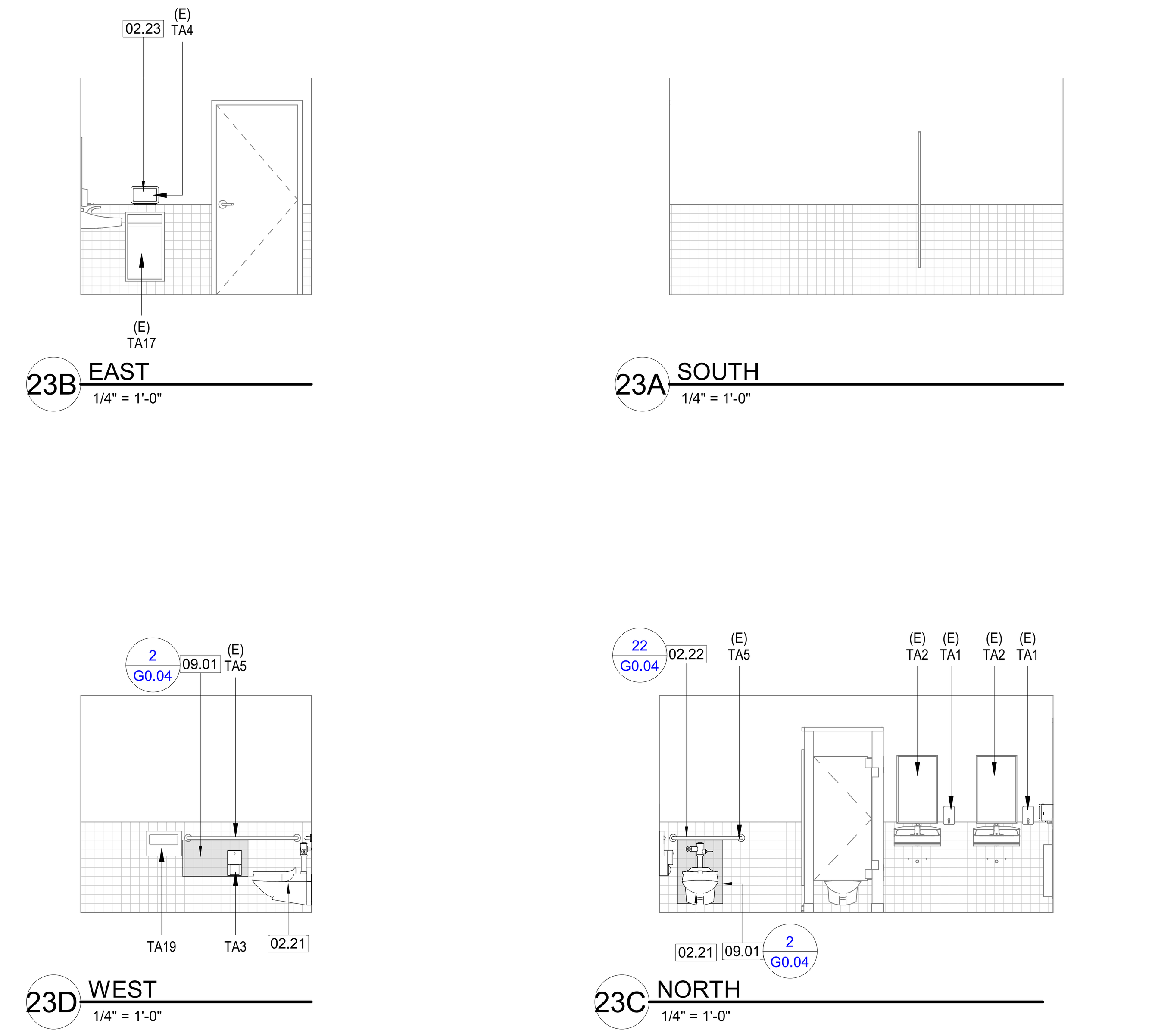
30 FINISH SCHEDULE
NOT TO SCALE

ITEM	MANUFACTURER	DESCRIPTION	COLOR	SIZE	NOTES
ACOUSTIC CEILING PANEL					
ACP1	ARMSTRONG	SCHOOL ZONE FINE FISSURED	WHITE	24" x 48"	GRID: 15/16" XL
PAINT					
P1	DUNN EDWARDS	INTERIOR	NAVAJO WHITE DEC 772	N/A	FIELD PAINT
RUBBER BASE					
RB1	JOHNSONITE	TOP SET BASE	40 BLACK	4" H	
CERAMIC WALL TILE					
CT1	DALTILE	TO MATCH (E)	TO MATCH (E)	4"X4"	GROUT COLOR TO MATCH (E)

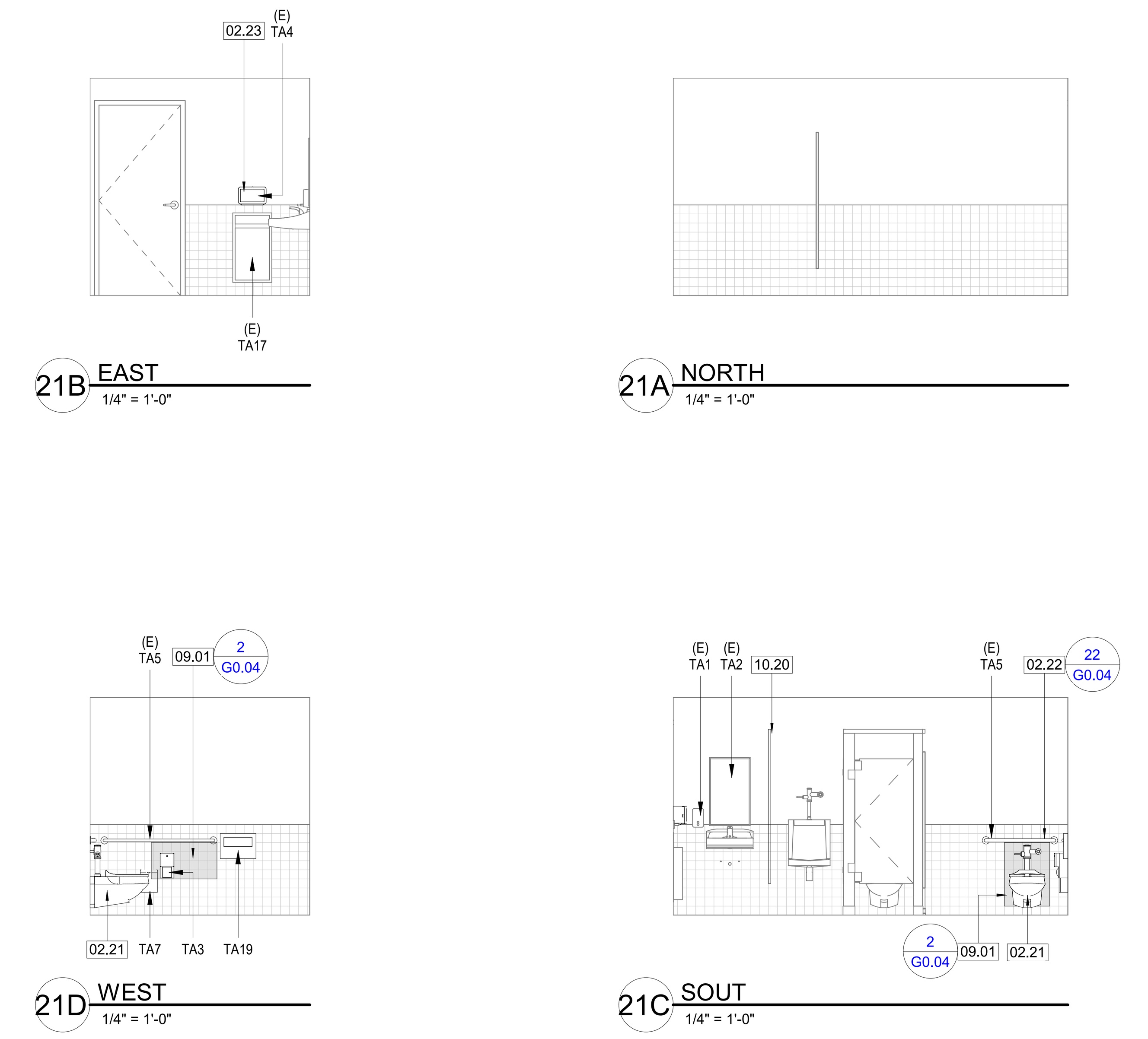
NOTE:

* SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION

24 COLORS & MATERIALS SCHEDULE
NOT TO SCALE



23 INTERIOR ELEVATIONS - MEN RESTROOM
1/4" = 1'-0"



21 INTERIOR ELEVATIONS - WOMEN RESTROOM
1/4" = 1'-0"

DOOR SCHEDULE

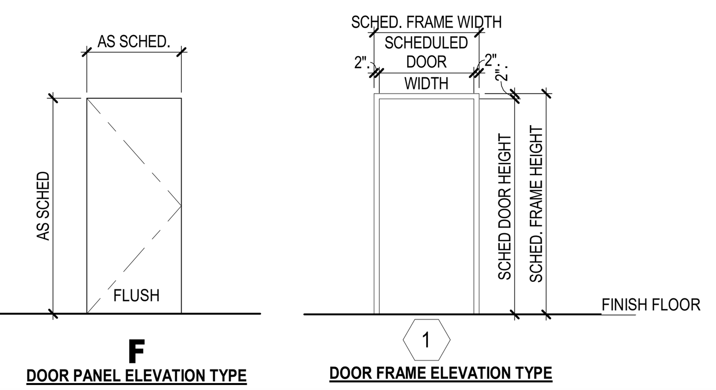
FROM ROOM	DOOR #	DOOR TYPE	PAIR/ SINGLE	SIZE W X H WIDTH	SIZE W X H HEIGHT	MATL.	FINISH	FRAME TYPE	FRAME MATL.	FRAME FINISH	DETAILS SILL	DETAILS JAMB	DETAILS HEAD	HARDWARE	DOOR #	COMMENTS	P.H.
STORAGE ROOM	A100	F	SINGLE	4' - 0"	7' - 0"	HM	P	1	HM	P	06A10.01	15/A10.01	14/A10.01	1	A100	(N) Construction	NO
DATA ROOM	A200	F	SINGLE	4' - 0"	7' - 0"	HM	P	1	HM	P	06A10.01	15/A10.01	14/A10.01	1	A200	(N) Construction	NO
MEZZANINE FLOOR	A400	F	SINGLE	3' - 0"	7' - 0"	HM	-	1	HM	-	-	-	-	-	A400	(E) Construction	YES
MEN	A500	F	SINGLE	3' - 0"	7' - 0"	WOOD	-	1	HM	-	-	-	-	-	A500	(E) Construction	NO
WOMEN	A600	F	SINGLE	3' - 0"	7' - 0"	WOOD	-	1	HM	-	-	-	-	-	A600	(E) Construction	NO
CORRIDOR	A700	F	SINGLE	3' - 0"	7' - 0"	HM	-	1	HM	-	-	-	-	-	A700	(E) Construction	

DOOR ABBREVIATIONS

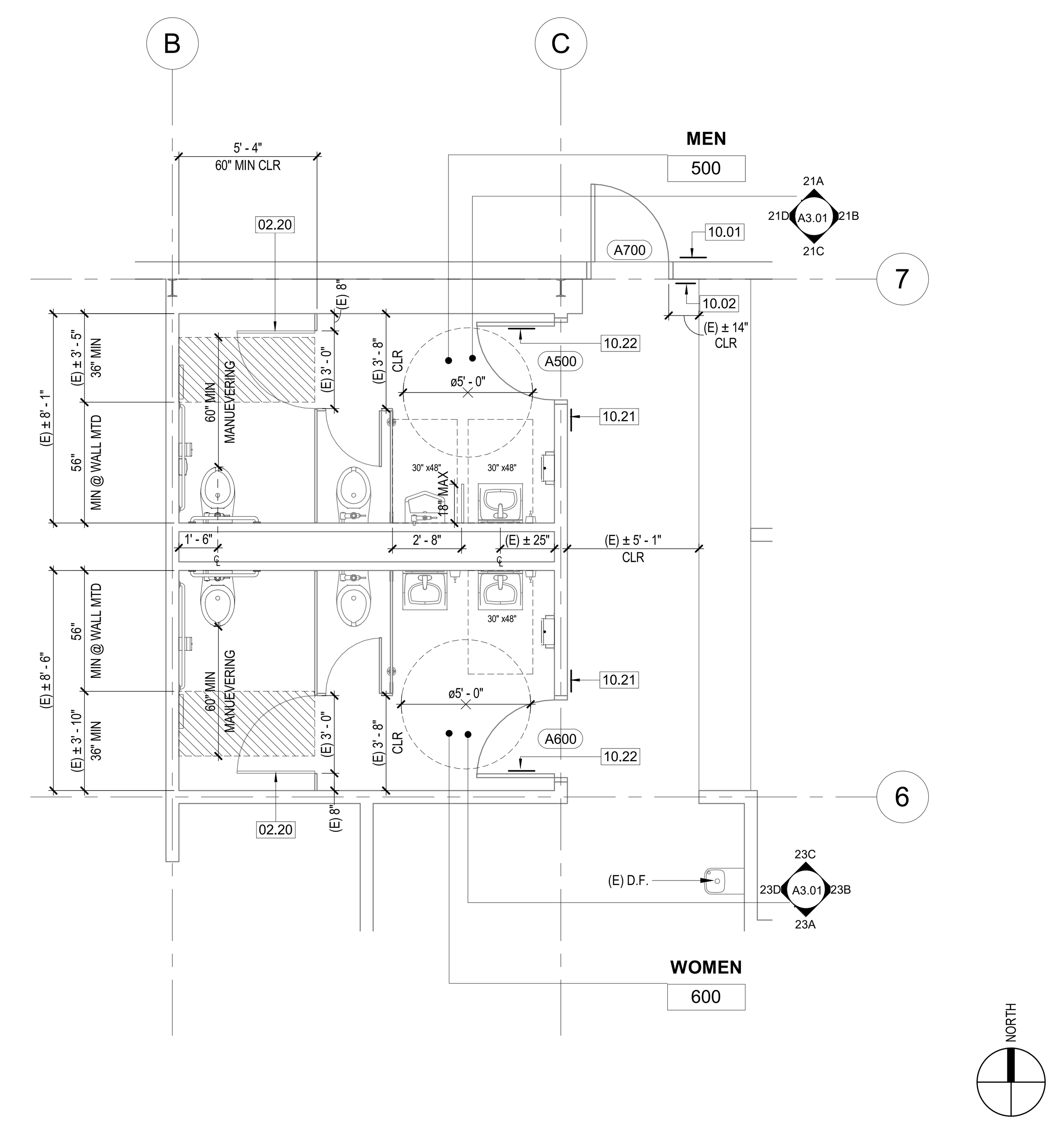
FF FACTORY FINISH
HM HOLLOW METAL
P PAINT FINISH

NOTES:

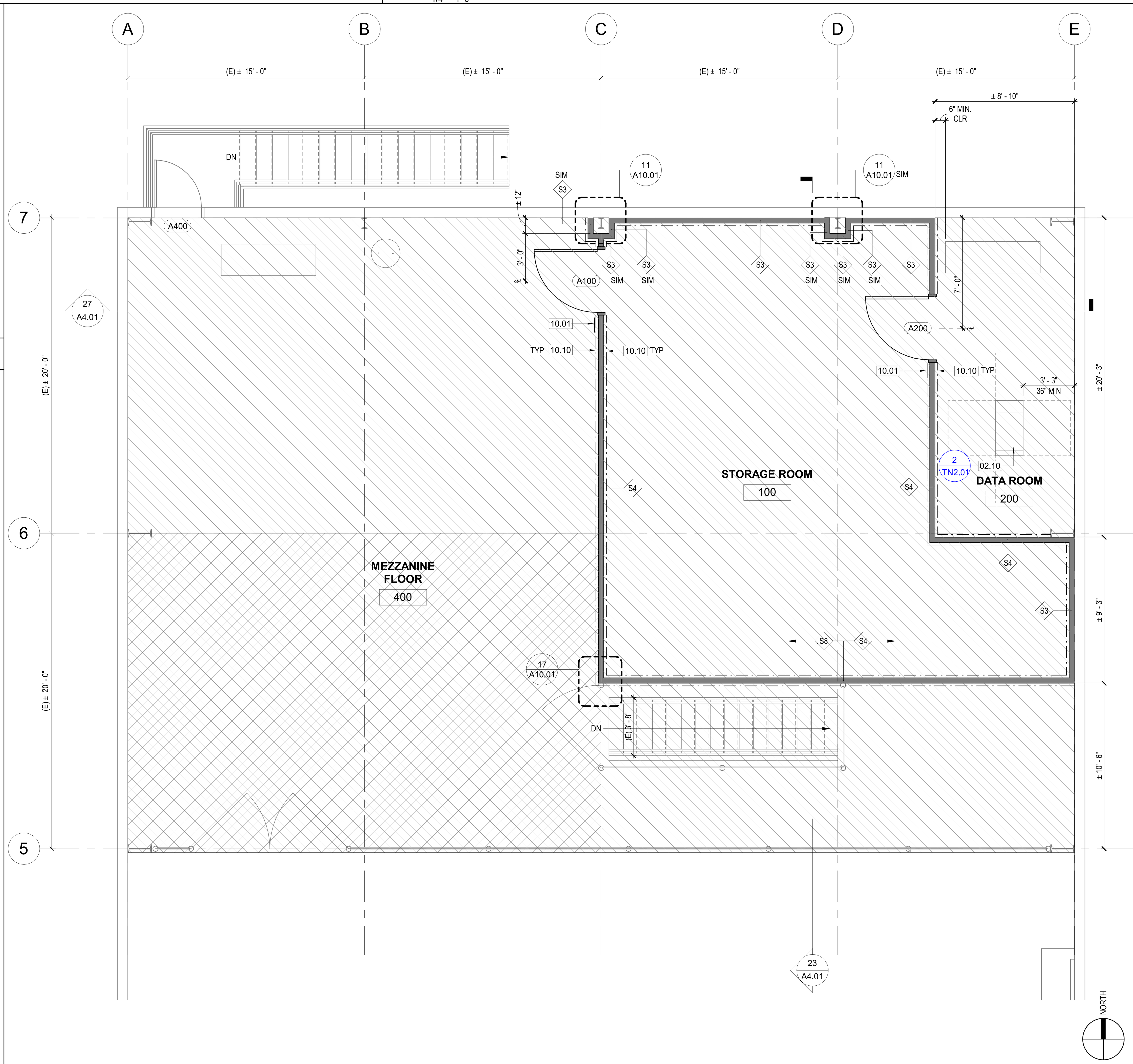
1. ALL DOORS WITHOUT PANIC HARDWARE SHALL HAVE LEVER HARDWARE.
2. EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
3. CONTRACTOR SHALL FIELD MEASURE ALL OPENINGS BEFORE FABRICATION
4. INTERIOR AND EXTERIOR DOOR OPENING FORCE OF 5 LBS. CBC 1B-404.2.4.9
5. ALL HOLLOW METAL DOOR FRAMES TO BE PAINTED TO MATCH ADJACENT WALL COLOR, U.N.O.
6. MAXIMUM EFFORT TO OPERATE DOOR SHALL NOT EXCEED THE FOLLOWING:
   - INTERIOR HINGED DOORS AND GATES: 5 POUNDS MAXIMUM
   - EXTERIOR HINGED DOORS: 5 POUNDS MAXIMUM
   - THESE FORCES DO NOT APPLY TO THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DESENGAGE OTHER DEVICES THAT HOLD THE DOOR OR GATE IN A CLOSED POSITION



18 DOOR SCHEDULE
NOT TO SCALE



6 ENLARGED FLOOR PLAN - MEN & WOMEN RESTROOMS
1/4" = 1'-0"



4 ENLARGED FLOOR PLAN - MEZZANINE FLOOR
1/4" = 1'-0"

KEYED NOTES

#	Description
02.10	(E) DATA EQUIPMENT, ROTATED 90 DEGREE FOR CLEARANCE REQUIREMENTS, SEE TECHNOLOGY DRAWINGS
02.20	(E) PARTITION DOOR, REVERSE SWING AS SHOWN
02.21	(E) ACCESSIBLE SURFACE MOUNT TOILET TO BE REINSTALLED, SEE MECHANICAL DRAWINGS
02.22	(E) GRAB BARS TO BE REINSTALLED
02.23	(E) SURFACE MOUNT PAPER TOWEL DISPENSER TO BE REINSTALLED
09.01	WALL TILE, GROUT TO MATCH EXISTING
10.01	ROOM IDENTIFICATION SIGNAGE, FOR ADDITIONAL INFORMATION SEE REMODEL PLAN LEGEND
10.02	TACTILE EXIT SIGN, FOR ADDITIONAL INFORMATION SEE REMODEL PLAN LEGEND
10.10	RUBBER BASE ALONG THE DASH / DOT LINE, SEE ENLARGED FLOOR PLAN FOR LOCATION
10.20	PARTITION WALL
10.21	RESTROOM WALL SIGNAGE, FOR ADDITIONAL INFORMATION SEE REMODEL PLAN LEGEND
10.22	RESTROOM DOOR SIGNAGE, FOR ADDITIONAL INFORMATION SEE REMODEL PLAN LEGEND

REMODEL PLAN LEGEND

EXISTING NR WALL TO REMAIN

NON - RATED WALL TO BE PROVIDED

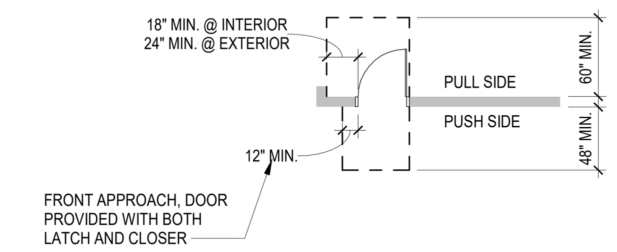
S6A R — WALL PARTITIONS TAG, SEE SHEET - / A10.01
- 'R' DESIGNATES RATED CONDITION, WHERE OCCURS
- LETTER INDICATES PARTITION TYPE
- # INDICATES CORE WIDTH
- LETTER INDICATES CORE TYPE (S = STUD)

Room name
101 — ROOM NAME AND NUMBER

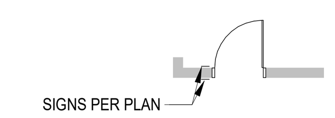
00.00 — KEY NOTE

AXXXX — DOOR TAG, REFER TO SHEET **AA9.01** DOOR SCHEDULE

ACCESSBILE DOOR CLEARANCE REQUIREMENTS



ROOM SIGNAGE REQUIREMENTS



FOR ROOM IDENTIFICATION SIGN........................ 7 / G0.04

FOR EXIT / EXIT ROUTE SIGN........................ 15 / G0.04

FOR RESTROOM SIGNAGE........................ 20 / G0.04

FOR CBC COMPLIANT STANDARD MOUNTING HEIGHT........................ 6 / G0.04

INDICATES (E) 125 PSF MAX LIGHT STORAGE LOADING AREA.

INDICATES (E) 250 PSF MAX HEAVY STORAGE LOADING AREA.

2

GENERAL NOTES

1. ALL FINISH MATERIALS MUST MEET THE FLAME SPREAD RATINGS PER THE BUILDING CODE.
2. REFER TO INTERIOR ELEVATIONS FOR SPECIFIC MATERIAL LOCATIONS.
3. PAINT ALL EXPOSED DUCTWORK, CONDUIT, ELECTRICAL EQUIPMENT, ETC TO MATCH ADJACENT SURFACES.
4. REFER TO TYPICAL FLOORING TRANSITION DETAILS FOR ALL FLOORING MATERIALS.
5. FLOORING TRANSITIONS AT DOORS SHOULD BE LOCATED UNDER THE DOOR IN THE CLOSED POSITION, UNLESS NOTED OTHERWISE.
6. CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING FINISHED FLOORING SURFACES FROM DAMAGE DURING ALL CONSTRUCTION PHASES.
7. REFER TO REFLECTED CEILING PLANS FOR CEILING HEIGHTS.
8. ALL ELECTRICAL DEVICE COVERS ARE TO BE WHITE UNLESS NOTED OTHERWISE.
9. BEFORE COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS, ELEVATIONS AND CHARACTERISTICS OF ALL UTILITIES AND PIPING BY PHYSICAL EXCAVATION, AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
10. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES AND POINTS OF CONNECTION PRIOR TO BIDDING PROJECT.
11. WHERE PLANS INDICATE NEW FIXTURES OR EQUIPMENT CONNECTING TO EXISTING SERVICES, PLUMBING CONTRACTOR SHALL MODIFY AND/OR EXTEND EXISTING PIPING OR ROUGH-INS AS REQUIRED TO SUIT THE NEW FIXTURE.
12. ACCESSIBLE WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED, NO SHARP OR ABRASIVE SURFACES ARE ALLOWED.

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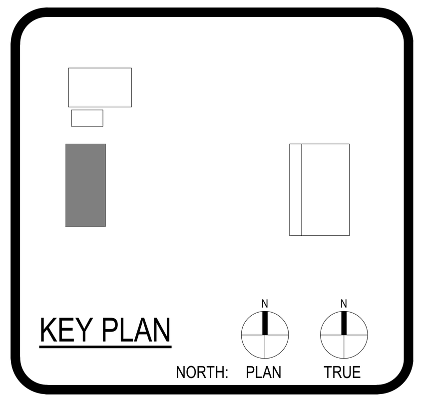

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3/3/23	220316

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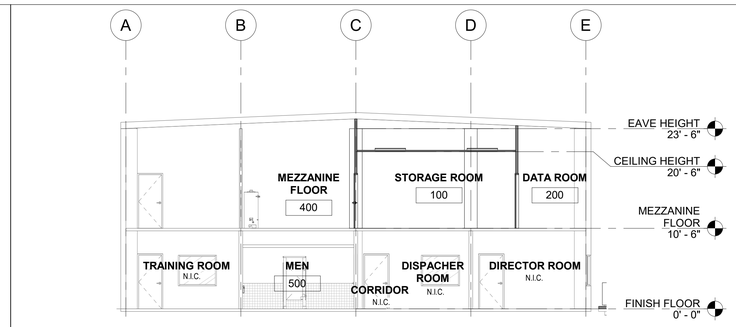
1	CITY BACK CHECK	10/23/23
2	CITY BACK CHECK	12/08/23

CitySubmittal - Registration #B202301766

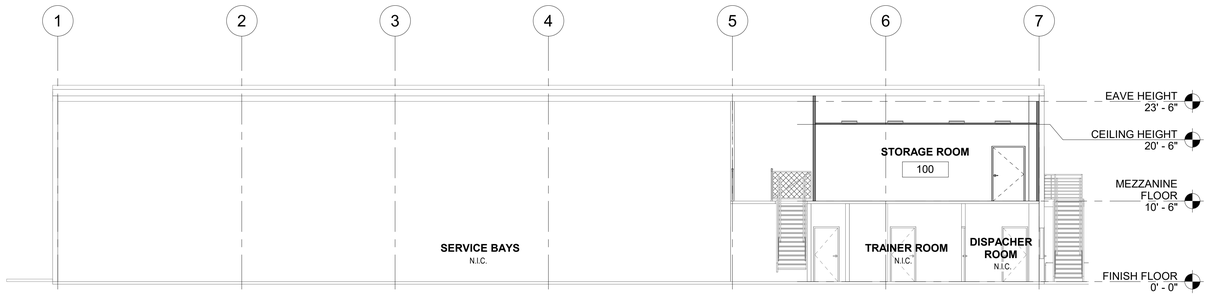
ENLARGED FLOOR PLANS, INTERIOR ELEVATIONS & SCHEDULES

A3.01

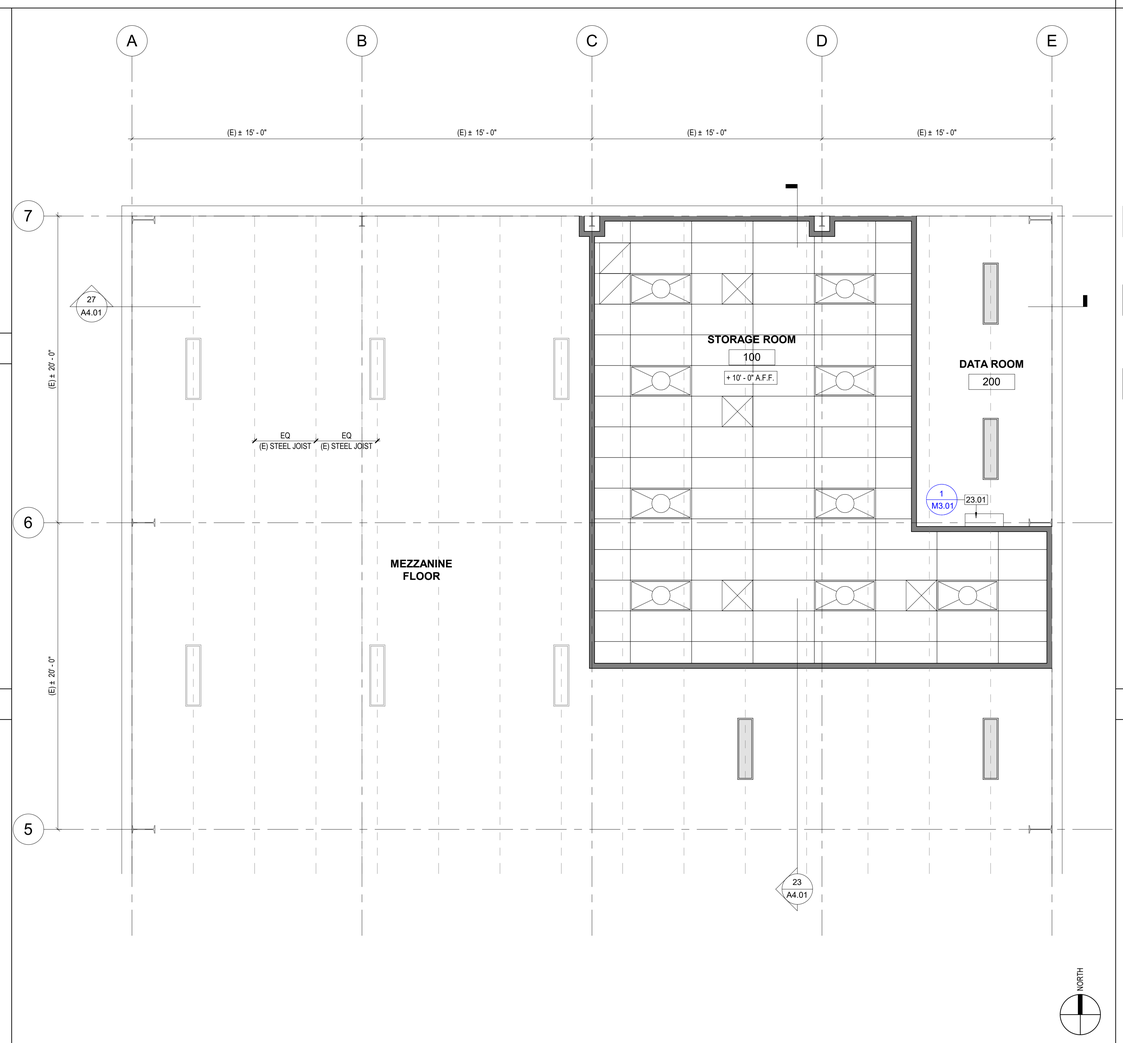
A4.01 - REFLECTED CEILING PLAN & SECTIONS



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



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



04 COMPOSITE REFLECTED CEILING PLAN
1/4" = 1'-0"

KEYED NOTES

#	Description
23.01	DUCTLESS WALL MOUNTED FAN COIL UNIT, SEE MECHANICAL DRAWINGS

REFLECTED CEILING PLAN LEGEND

- NON - RATED WALL TO BE PROVIDED
- (E) NR WALL TO REMAIN
- (E) STEEL JOIST TO REMAIN
- HATCH INDICATES: 2'x4' ACOUSTICAL TILES TO BE PROVIDED..... 1 A10.01 14 A10.01
- HATCH INDICATES: (E) OPEN TO STRUCTURE ABOVE
- (E) LIGHT FIXTURE(S) TO REMAIN
- (E) RELOCATED LIGHT FIXTURE(S), REFER TO ELECTRICAL DRAWINGS..... 20 A10.01
- LIGHT FIXTURE(S), REFER TO ELECTRICAL DRAWINGS..... 20 A10.01
- MECHANICAL GRILLES, REFER TO MECHANICAL DRAWINGS

NOTE:
HORIZONTAL CONTROL FOR CEILING DEVICES SEE: 17 A10.01

GENERAL RCP NOTES:

1. ALL CEILING AND SOFFIT HEIGHTS ARE GIVEN ABOVE FINISHED FLOOR ELEVATION (EL. 0'-0").
2. GENERALLY ONLY CEILING MOUNTED FIXTURES ARE SHOWN ON THIS PLAN. COORDINATE WITH MEP PLANS FOR ADDITIONAL INFORMATION.
3. SOME OR ALL SPRINKLERS MAY NOT BE SHOWN ON THIS PLAN. COORDINATE WITH MEP DRAWINGS FOR ADDITIONAL INFORMATION. SPRINKLER HEADS TO BE CENTERED ON CEILING TILE, TYP.
4. VERIFY LOCATIONS OF ALL CEILING ACCESS PANELS WITH MEP DRAWINGS. COORDINATE LOCATIONS OF PANELS WITH ARCHITECT PRIOR TO INSTALLATION. ACCESS PANEL FIRE RATINGS MUST MATCH CEILING ASSEMBLY FIRE RATINGS.
5. ONLY CEILING MOUNTED FIXTURES AND EQUIPMENT IS SHOWN ON ARCH. CEILING PLANS. REFER TO MEPT DOCUMENTS FOR ADDITIONAL INFORMATION CONCERNING CEILING MOUNTED FIXTURES AND OR WALL MOUNTED FIXTURES.
6. LIGHTING FIXTURES TO BE CENTERED AND SPACED EQUALLY UNLESS NOTED OTHERWISE.
7. LIGHT FIXTURES ARE SHOWN FOR DIMENSIONAL PURPOSES ONLY COORDINATE WITH ELECTRICAL DRAWINGS FOR FIXTURE DESIGNATIONS.
8. IF PROJECT INCLUDES FIRE RATED CEILINGS, LIGHT FIXTURES LOCATED IN RATED CEILING ASSEMBLIES ARE TO BE TENTED OR OTHERWISE RATED TO MATCH THE CEILING.
9. ALL ACT CEILINGS ARE 10' - 0" A.F.F UNLESS NOTED OTHERWISE.
10. NO FIRE SPRINKLER HEADS ARE SHOWN ON ARCH. CEILING PLANS, ALL SPRINKLER HEADS SHALL BE CENTERED WITHIN CEILING TILES U.N.O.

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1	CITY BACK CHECK	10/23/23

CitySubmittal - Registration #B202301766

REFLECTED CEILING PLAN & SECTIONS

A4.01

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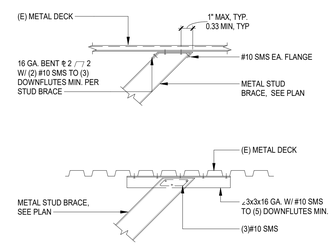
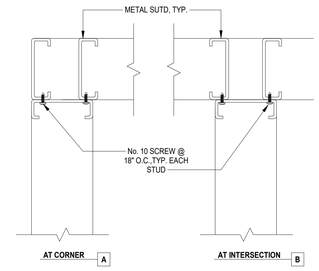
12/11/2023 3:33:27 PM



27 TYP. STUD BRACE TO METAL DECK
3/4" = 1'-0"

NOTE: "SLAMMER" SUTDS NO PERMITTED



26 CORNERS & INTER. @ METAL FRAMING
3" = 1'-0"

BRACING NOTES:

1. AT WALLS THAT TERMINATE ABOVE CEILING, CONTRACTOR MAY CONTINUE METAL STUD FRAMED WALLS TO UNDERSIDE OF METAL DECK AND OMIT DIAGONAL BRACING IF HEIGHT DOES NOT EXCEED LIMITING HEIGHT OF METAL STUD AS INDICATED ON CHART BELOW.

2. PROVIDE INTERMEDIATE BRACING AT ALL PARTITIONS THAT EXCEED LIMITING HEIGHT OF METAL STUDS AS INDICATED ON CHART BELOW.

3. ALL BRACING SHALL BE AT STUD POINTS.

4. HERE BRACING METHODS BETWEEN THIS SHEET AND STRUCTURE CONFLICT, STRUCTURE SHALL OVERRIDE. NOTIFY ARCHITECT.

TERMINATION NOTES:

1. AT ALL RATED PARTITIONS, FILL VOIDS IN METAL DECK AT TOP OF PARTITIONS WITH FIRESAFING.

GYPSUM WALLBOARD PARTITION NOTES:

1. ALL METAL STUD PARTITIONS ARE 25 GAUGE METAL STUDS AT 16" O.C. UNLESS NOTED OTHERWISE. IF THE LIMITING HEIGHT FOR A PARTITION IS EXCEEDED, INCREASE GAUGE OF STUDS AS INDICATED ON "LIMITING HEIGHT OF METAL STUDS" TABLE BELOW. NOTIFY ARCHITECT PRIOR TO INSTALLATION.

2. PROVIDE 20 GAUGE METAL STUDS IN LIEU OF 25 GAUGE METAL STUDS AT STUD WALL CERAMIC TILE LOCATIONS.

3. SET ALL FLOOR TRACKS ON A CONTINUOUS RIBBON OF SEALANT.

4. AT PARTITIONS DESIGNATED TO HAVE SOUND ATTENUATION BLANKETS:

A. PROVIDE 3-1/2" OR 6" THICK (MATCH STUD SIZE) SOUND ATTENUATION BLANKETS OR BATTS FULL HEIGHT OF PARTITION, UNLESS NOTED OTHERWISE.
B. FILL ALL DECK VOIDS WITH SOUND ATTENUATION MATERIAL.
C. SEAL PARTITION PERIMETER AND ALL PENETRATIONS WITH ACOUSTICAL SEALANT.
D. TAPE AND BED OR CAULK ALL JOINTS BETWEEN FIRST AND SECOND LAYERS OF GYPSUM BOARD AND AT ALL SOUND RATED WALLS TAKEN THROUGH THE CEILING.
E. PROVIDE CONTINUOUS ACOUSTICAL SEALANT AT BOTTOM OF PARTITION ON BOTH SIDES AT NON-RATED PARTITIONS AND PROVIDE CONTINUOUS FIRE RATED SEALANT AT FIRE-RATED PARTITIONS.

5. PROVIDE TILE BACKER BOARD ON WALLS BEHIND AND ADJACENT TO PLUMBING FIXTURES, AND BEHIND ALL CERAMIC TILE AT ALL DAMP LOCATIONS AT GYPSUM BOARD PARTITIONS.

6. RIGIDLY BRACE ALL DOOR JAMBS AT THE HEAD, HINGE AND STRIKE SIDES AND WINDOW AT THE HEAD, SILL AND JAMBS.

7. LOCATE CONTROL JOINTS IN GYPSUM BOARD PARTITIONS AS FOLLOWS:

A. PARTITIONS OR FURRING RUNS EXCEEDING 30'-0"
B. WHERE A PARTITION ABUTS A STRUCTURAL ELEMENT OR DISSIMILAR WALL
C. CONSTRUCTION CHANGES WITHIN PLANE OF PARTITION
D. AT EXPANSION OR CONTROL JOINTS THROUGHOUT THE BUILDING
E. AT BOTH JAMBS OF INTERIOR AND EXTERIOR DOOR AND WINDOW FRAMES, ABOVE AND BELOW FULL HEIGHT OF WALL

8. FIRE RATED PARTITIONS:

A. PROVIDE TYPE "X" FIRE RESISTIVE GYPSUM BOARD, 5/8" THICK UNLESS NOTED OTHERWISE
B. FILL ALL VOIDS AT DECK WITH FOAM FIRESTOP SEALANT
C. SEAL PARTITION PERIMETER AND ALL PENETRATIONS WITH RATED SEALANT
D. REFER TO UL MANUAL FOR RATED PARTITION DESCRIPTIONS AND DETAILED CONSTRUCTION NOTES.

9. PROVIDE DEFLECTION TRACK AT ALL STUD CONNECTIONS AT BOTTOM OF DECK AND FILL VOIDS AS REQUIRED.

10. EXTEND GYPSUM BOARD ABOVE ADJACENT FINISHED CEILING MINIMUM OF SIX INCHES (6").

HOW TO USE THIS SHEET:

1. NOT EVERY PARTITION TYPE SHOWN IS NECESSARILY INTENDED FOR THE USE ON THIS PROJECT. REFER TO FLOOR PLANS FOR REFERENCE MARKS INDICATING APPLICABLE PARTITION TYPES.

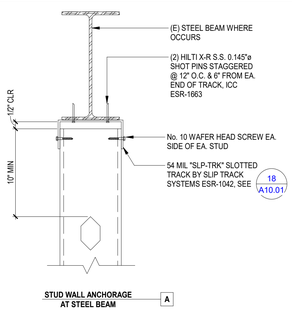
2. REFER TO BRACING DETAILS FOR SUPPORT OF THE TOP OF EACH PARTITION TYPE AND BRACING OF PARTITIONS THAT EXCEED LIMITING HEIGHT OF PARTITION TYPES.

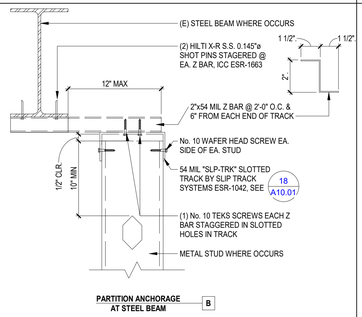
3. REFER TO FINISH SCHEDULES FOR APPLIED FINISHES TO BOTH SIDES OF WALLS.

4. COORDINATE BURNISHED AND SPLIT FACE CMU BLOCK BASED ON FINISH SCHEDULES, SECTIONS AND DETAILS.

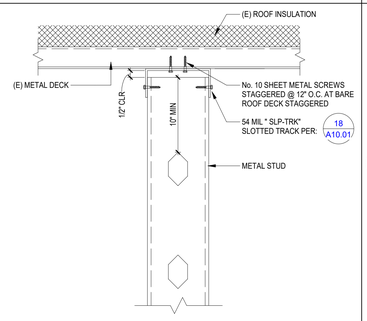
5. COORDINATE TOPS OF FINISHED WALLS WITH ADJACENT CEILING HEIGHTS PER SCHEDULES, SECTIONS AND/OR DETAILS.

6. CONSULT ARCHITECT FOR ANY DISCREPANCIES OR QUESTIONS REGARDING PARTITIONS PRIOR TO INSTALLATION.

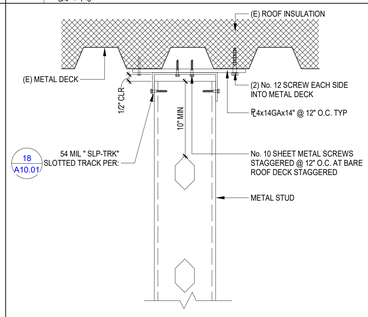




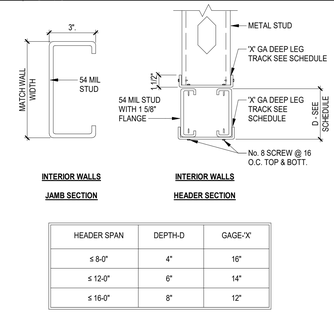
24 PARTITION ANCHOR. AT BEAM
3" = 1'-0"



22 PARTITION ANCHOR. AT PERPEN. DECK
3" = 1'-0"

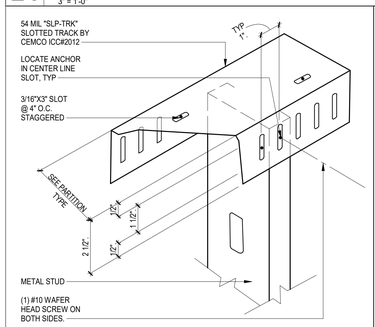


21 PARTITION ANCHOR. AT PARALLEL DECK
3" = 1'-0"

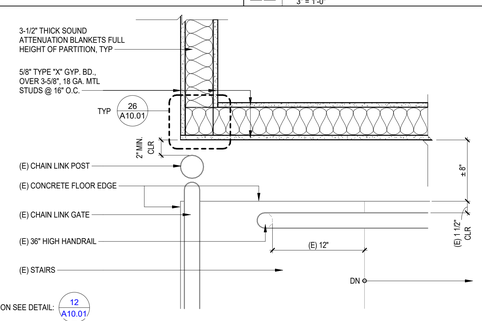


HEADER SPAN	DEPTH-D	GAGE-'X'
≤ 8-0"	4"	16"
≤ 12-0"	6"	14"
≤ 16-0"	8"	12"

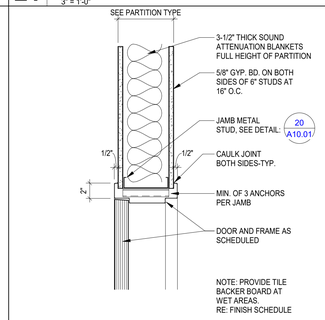
20 HEADER AND JAMB CONSTRUCTION
3" = 1'-0"



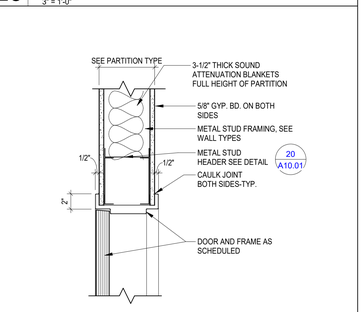
18 SLOTTED TRACK
3" = 1'-0"



17 CORNER WALL AT C.L. POST
1 1/2" = 1'-0"

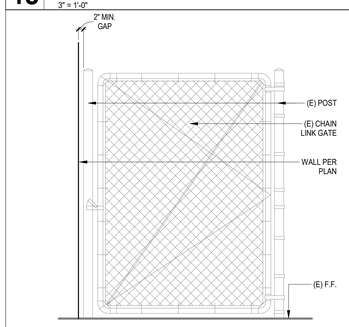


15 INT-STUD-DOOR-HM-JAMB-DTL
1 1/2" = 1'-0"

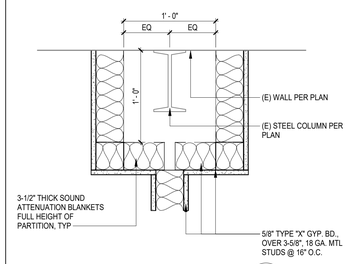


14 INTERIOR H.M. DOOR HEAD
1 1/2" = 1'-0"

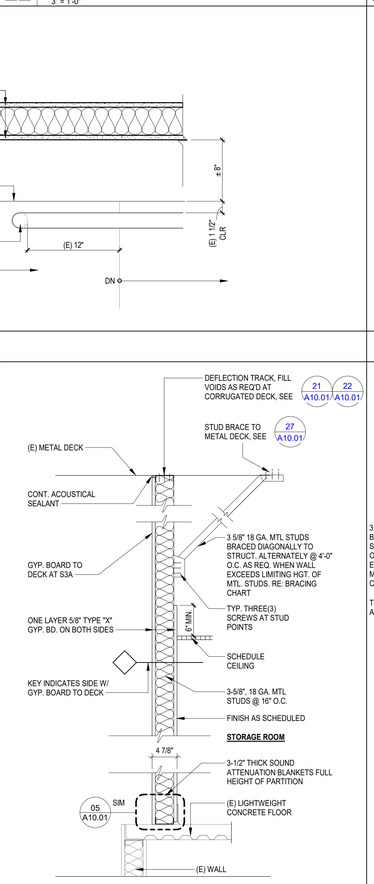
13 PARTITION TYPES-TYPICAL NOTES
12" = 1'-0"



12 WALL AT FENCE
1/2" = 1'-0"

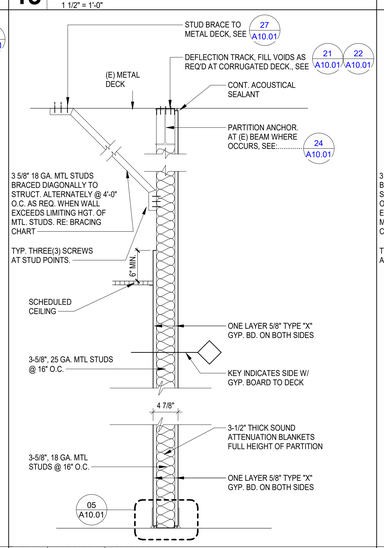


11 COLUMN FURRING
1 1/2" = 1'-0"



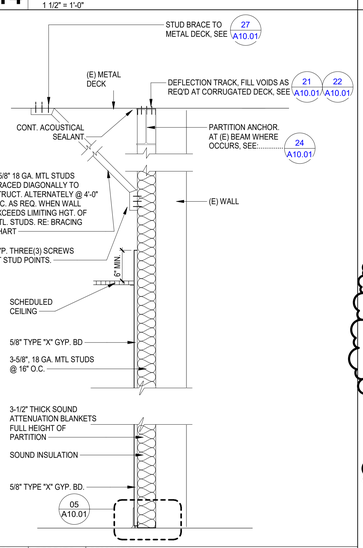
TYPE	FIRE RAT'G	DESCRIPTION
S8	NONE	3-5/8" METAL STUDS TO DECK

04 PARTITION TYPE S8
1" = 1'-0"



TYPE	FIRE RAT'G	DESCRIPTION
S4	NONE	3-5/8" METAL STUDS TO DECK

03 PARTITION TYPE S4
1" = 1'-0"



TYPE	FIRE RAT'G	DESCRIPTION
S3	NONE	3-5/8" METAL STUDS TO DECK

02 PARTITION TYPE S3
1" = 1'-0"

BRACING PLAN REQUIREMENTS (INTERIOR WALLS ONLY)

BRACE FRAMING FOR 3 5/8" STUDS

STUD TYPE	STUD PROP.	SPACING	MAX. LENGTH	MISCELLANEOUS
362S162-43 (18 GA.)	1X = 0.710 IN^4	4'-0" O.C.	14'-0"	BRACE AT MID-POINT FOR LENGTHS OVER 14'-0"
	rx = 1.445 IN			
	A = 0.340 IN^2			
	Sx = 0.392 IN^3			

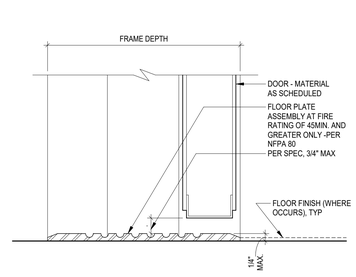
LIMITING HEIGHT OF METAL STUDS

STUD SIZE	SPACING	18 GA.
362S162-43	16"	14'-6"

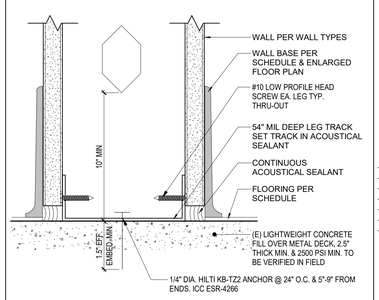
NOTE: THE TABLE INDICATED ABOVE IS BASED ON "DIETRICH" LIMITING HEIGHT CHART AND IS TO BE USED AS A GUIDE FOR INTERIOR WALL CONSTRUCTION. THE TABLE IS BASED WITH SHEATHING BOARD ON BOTH SIDES OF PARTITION.

ALL INFORMATION PER INTERTEK EVALUATION REPORT, CCRR-0206 & PER ICC-ES ESR-1166P.

01 PARTITION TYPES-BRACING CHART
12" = 1'-0"



06 INT. SILL @ DR.
6" = 1'-0"



05 TYPICAL MTL STUD WALL BASE
6" = 1'-0"

PBK

ARCHITECT
PBK Architects, Inc.
PBK.com
RANCHO CUCAMONGA
8163 Rochester Avenue, Suite 100
Rancho Cucamonga
California 91730
P 909-987-0909

B202301766

ONTARIO
City of Ontario | Building Department
APPROVED & REVIEWED
FOR CODE COMPLIANCE
The issuance of a permit and approval of these plans shall not be construed to permit or approve any violation of the applicable codes or ordinances.
Date: 01/16/2024 1:34:38 PM

REVIEWED
FOR
CODE COMPLIANCE
Dec 15, 2023
BPR CONSULTING GROUP

TRANSPORTATION CENTER

PROJECT ADDRESS:
1442 South Bon View
Ontario, Ca 91761

CitySubmittal - Registration #B202301766

ONTARIO · MONTCLAIR SCHOOL DISTRICT · SINCE 1884

KEY PLAN
NORTH: PLAN TRUE

Consultant

Architect
LICENSED ARCHITECT
Yong Yon
No. C-31162
REN. 10-31-2023
STATE OF CALIFORNIA

CLIENT
ONTARIO - MONTCLAIR SCHOOL DISTRICT

DATE	PROJECT NUMBER
3/3/23	220316

REVISIONS

No.	Description	Date
1	CITY BACK CHECK	10/23/23
2	CITY BACK CHECK	12/08/23

CitySubmittal - Registration #B202301766

WALLS, DOORS & MISCELLANEUS DETAILS

A10.01

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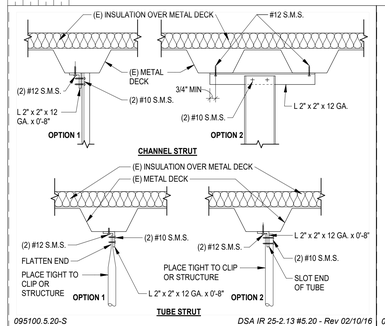
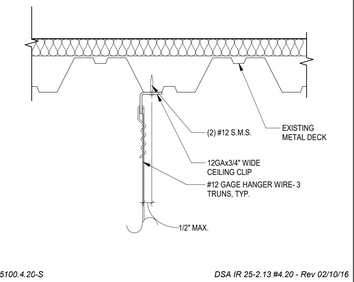


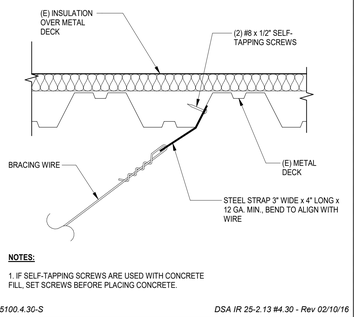
095100.5.20-S DSA IR 25-2.13 #5.20 - Rev 02/10/16

30 STRUT TO MTL DECK
1 1/2" = 1'-0"



095100.4.20-S DSA IR 25-2.13 #4.20 - Rev 02/10/16

29 HANGER WIRE TO MTL DECK
6" = 1'-0"

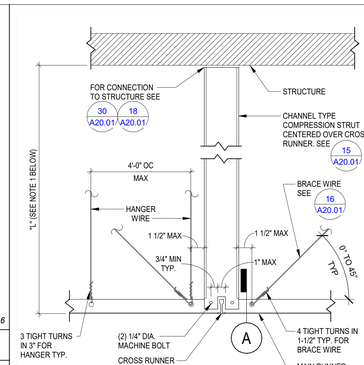


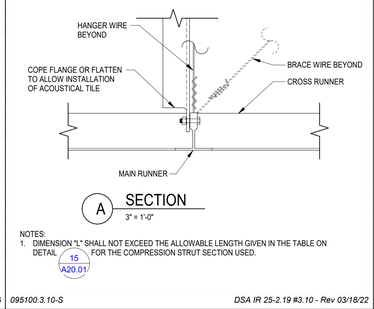
NOTES:

1. IF SELF-TAPPING SCREWS ARE USED WITH CONCRETE FILL, SET SCREWS BEFORE PLACING CONCRETE.

095100.4.30-S DSA IR 25-2.13 #4.30 - Rev 02/10/16

28 BRACING WIRE TO MTL DECK
6" = 1'-0"





NOTES:
1. DIMENSION "L" SHALL NOT EXCEED THE ALLOWABLE LENGTH GIVEN IN THE TABLE ON DETAIL 15 A20.01 FOR THE COMPRESSION STRUT SECTION USED.

095100.3.10-S DSA IR 25-2.19 #3.10 - Rev 03/18/22

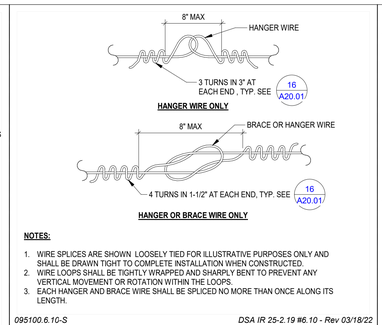
21 COMPRESSION STRUT - EMT
1 1/2" = 1'-0"

EMT COMPRESSION STRUT	MAXIMUM LENGTH
1/2" DIAMETER EMT (0.042" WALL THICKNESS)	3'-11"
3/4" DIAMETER EMT (0.049" WALL THICKNESS)	6'-4"
1" DIAMETER EMT (0.057" WALL THICKNESS)	9'-9"
1 1/4" DIAMETER EMT (0.065" WALL THICKNESS)	12'-9"
1 1/2" DIAMETER EMT (0.065" WALL THICKNESS)	14'-9"
2" DIAMETER EMT (0.065" WALL THICKNESS)	18'-10"

CHANNEL COMPRESSION STRUT	MAXIMUM LENGTH
250S125-33	5'-10"
250S137-33	6'-10"
362S137-33	8'-0"
250137-43	8'-10"
400S137-43	10'-10"

095100.3.21-S DSA IR 25-2.19 #3.21 - Rev 03/18/22

15 COMPRESSION STRUT TABLE
1/2" = 1'-0"

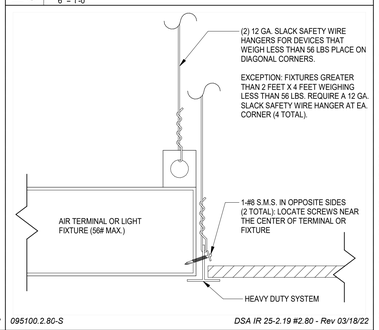


NOTES:

1. WIRE SPLICES ARE SHOWN LOOSELY TIED FOR ILLUSTRATIVE PURPOSES ONLY AND SHALL BE DRAWN TIGHT TO COMPLETE INSTALLATION WHEN CONSTRUCTED.
2. WIRE LOOPS SHALL BE TIGHTLY WRAPPED AND SHARPLY BENT TO PREVENT ANY VERTICAL MOVEMENT OR ROTATION WITHIN THE LOOPS.
3. EACH HANGER AND BRACE WIRE SHALL BE SPLICED NO MORE THAN ONCE ALONG ITS LENGTH.

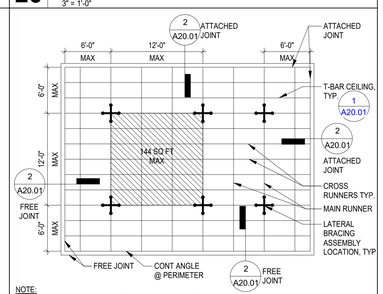
095100.6.10-S DSA IR 25-2.19 #6.10 - Rev 03/18/22

26 CEILING WIRE SPLICES
6" = 1'-0"



095100.2.80-S DSA IR 25-2.19 #2.80 - Rev 03/18/22

20 SUSP. LIGHT FIXTURES / AIR TERMINALS
3" = 1'-0"



NOTE:
BRACING WIRES AND COMP. STRUT SHALL OCCUR AT EVERY 144 SQ. FT. MAX. IN ROOMS OVER 144 SQ. FT.

095100.2.12-S DSA IR 25-2.19 #2.12 - Rev 03/18/22

14 TYP CEILING PLAN
1/8" = 1'-0"

1. CEILING SYSTEM GENERAL NOTES:
1.01 CEILING SYSTEM COMPONENTS SHALL COMPLY WITH ASTM C635 AND SECTION 5.1 OF ASTM E580.
1.02 THE CEILING GRID SYSTEM MUST BE RATED HEAVY DUTY AS DEFINED BY ASTM C635.
1.03 CEILING SYSTEMS THE FOLLOWING CEILING SYSTEM(S) IS/ARE PART OF THE SCOPE OF THIS PROJECT:
MANUFACTURER'S NAME __ARMSTRONG__
PRODUCT NAME _____
PRODUCT EVALUATION REPORT TYPE AND NUMBER __ICC-ES ESR-1308__
MANUFACTURER'S MODEL NUMBER - MAIN RUNNER __Heavy Duty Prelude XL 7301__
MANUFACTURER'S CATALOG NUMBER - CROSS RUNNER __Heavy Duty Prelude XL 7328__
1.04 SEISMIC WALL CLIP
MANUFACTURER'S MODEL __BERC2__
1.05 CEILING PANELS SHALL NOT SUPPORT ANY LIGHT FIXTURES, AIR TERMINALS OR DEVICES.
1.06 FOR CEILING INSTALLATIONS UTILIZING ACOUSTICAL TILE PANELS OF MINERAL OR GLASS FIBER, IT IS NOT MANDATORY TO PROVIDE 3/4" CLEARANCE BETWEEN THE ACOUSTICAL TILE PANELS AND THE WALL ON THE SIDES OF THE CEILING WHICH ARE FREE TO SLIP. FOR ALL OTHER CEILING PANEL TYPES, PROVIDE 3/4" CLEARANCE BETWEEN THE CEILING PANEL AND THE WALL ON THE SIDES OF THE CEILING FREE TO SLIP. CLEARANCE BETWEEN CEILING GRID RUNNERS/MEMBERS AND WALLS SHALL COMPLY WITH THE DETAILS ON THESE DRAWINGS REGARDLESS OF CEILING TILE MATERIAL.

2. MATERIALS:
2.01 CEILING WIRE SHALL BE CLASS 1 ZINC COATED (GALVINZED) CARBON STEEL CONFORMING TO ASTM A641. WIRE SHALL BE #12 GAUGE (0.108" DIAMETER) WITH SOFT TEMPER AND MINIMUM ULTIMATE TENSILE STRENGTH = 70 KSI.
2.02 GALVANIZED SHEET STEEL (INCLUDING THAT USED FOR METAL STUD AND TRACK COMPRESSION STRUTS/POST) SHALL CONFORM TO ASTM A653, OR OTHER EQUIVALENT SHEET STEEL LISTED IN SECTION A3.1 OF THE NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, AISI S100). MATERIAL 43 MIL (16 GAUGE) AND LIGHTER SHALL HAVE MINIMUM YIELD STRENGTH OF 33 KSI. MATERIAL 54 MIL (16 GAUGE) AND HEAVIER SHALL HAVE A MINIMUM YIELD STRENGTH OF 50 KSI.
2.03 ELECTRICAL METALLIC TUBE (EMT) SHALL BE ANSI C80.3/UL 797 CARBON STEEL WITH G90 GALVANIZING. EMT SHALL HAVE MINIMUM YIELD STRENGTH (Fy) OF 30 KSI AND MINIMUM ULTIMATE STRENGTH (Fu) OF 48 KSI.

3. ATTACHMENT OF HANGER AND BRACING WIRES:
3.01 SEPARATE ALL CEILING HANGER AND BRACING WIRES AT LEAST SIX (6) INCHES FROM ALL UNBRACED DUCTS, PIPES, CONDUIT, ETC.
3.02 HANGER AND BRACING WIRES SHALL NOT ATTACH TO OR BEND AROUND OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO: PIPING, DUCTWORK, CONDUIT AND EQUIPMENT.
3.03 HANGER WIRES THAT ARE MORE THAN ONE (HORIZONTAL) IN SIX (VERTICAL) OUT OF PLUMB SHALL HAVE COUNTER-SLOPING WIRES.
3.04 SLACK SAFETY WIRES SHALL BE CONSIDERED HANGER WIRES FOR INSTALLATION AND TESTING REQUIREMENTS.
3.05 HANGER AND BRACING WIRE ANCHORAGE TO THE STRUCTURE SHALL BE INSTALLED IN SUCH A MANNER THAT THE DIRECTION OF THE ANCHORAGE ALIGNS CLOSELY WITH THE DIRECTION OF THE WIRE. (E.G. BRACING WIRE CEILING CLIPS MUST BE BENT AS SHOWN IN THE DETAILS AND ROTATED AS REQUIRED TO ALIGN CLOSELY WITH THE DIRECTION OF THE WIRE, SCREW EYES IN WOOD MUST BE INSTALLED SO THEY ALIGN CLOSELY WITH THE DIRECTION OF THE WIRE. ETC.)

4. FASTENERS AND WELDING:
4.01 SHEET METAL SCREWS SHALL COMPLY WITH ASTM C1513. ASME B18.6.3. PENETRATION OF SCREWS THROUGH JOINED MATERIAL SHALL NOT BE LESS THAN THREE EXPOSED THREADS.
4.02 EXPANSION ANCHORS SHALL BE: _____
4.03 POWER-ACTUATED FASTENERS SHALL BE: _____
4.04 IF NOT OTHERWISE SPECIFIED IN THE EVALUATION REPORT, POWER-ACTUATED FASTENERS INSTALLED IN STEEL SHALL BE INSTALLED SO THE ENTIRE POINTED END OF THE FASTENER IS DRIVEN THROUGH THE STEEL MEMBER.
4.05 POWER-ACTUATED FASTENERS IN CONCRETE OR MASONRY ARE NOT PERMITTED FOR BRACING WIRES.
4.06 CONCRETE REINFORCEMENT AND PRESTRESSING TENDONS SHALL BE LOCATED BY NON DESTRUCTIVE MEANS PRIOR TO INSTALLING POST-INSTALLED ANCHORS.
4.07 WELDING SHALL BE IN ACCORDANCE WITH AWS D1.3 USING E60XX SERIES ELECTRODES.

5. TESTING: ALL FIELD TESTING MUST BE PERFORMED IN THE PRESENCE OF THE PROJECT INSPECTOR.
5.01 ALL FIELD TESTING MUST BE PERFORMED IN THE PRESENCE OF THE PROJECT INSPECTOR.
5.02 POST-INSTALLED ANCHORS IN CONCRETE USED TO SUPPORT HANGER WIRES SHALL BE TESTED AT A FREQUENCY OF 10 PERCENT. POWER ACTUATED FASTENERS IN CONCRETE SHALL BE FIELD TESTED FOR 200 LBS. IN TENSION. ALL OTHER POST-INSTALLED ANCHORS IN CONCRETE SHALL BE TESTED IN ACCORDANCE WITH CBC SECTION 1910A.5
5.03 POST-INSTALLED ANCHORS IN CONCRETE USED TO ATTACH BRACING WIRES SHALL BE TESTED AT A FREQUENCY OF 50 PERCENT IN ACCORDANCE WITH CBC SECTION 1910A.5.

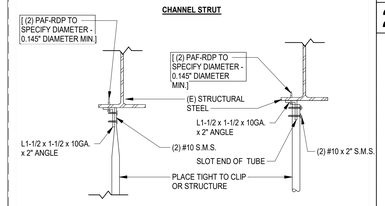
6. LIGHT FIXTURES:
6.01 ALL LUMINARES SHALL BE POSITIVELY ATTACHED TO THE CEILING SUSPENSION SYSTEMS BY MECHANICAL MEANS TO RESIST A HORIZONTAL FORCE EQUAL TO THE WEIGHT OF THE LUMINARE. A MINIMUM OF TWO SCREWS OR APPROVED FASTENERS ARE REQUIRED AT EACH LUMINARE. PER ASTM E580, SECTION 5.3.1.
6.02 SURFACE-MOUNTED LUMINARES SHALL BE ATTACHED TO THE MAIN RUNNER WITH AT LEAST TWO POSITIVE CLAMPING DEVICES. THE CLAMPING DEVICE SHALL COMPLETELY SURROUND THE SUPPORTING CEILING RUNNER AND BE MADE OF STEEL WITH A MINIMUM THICKNESS OF #14 GAUGE. ROTATIONAL SPRING CATCHES DO NOT COMPLY. A # 12 GAUGE SLACK SAFETY WIRE SHALL BE CONNECTED FROM EACH CLAMPING DEVICE TO THE STRUCTURE ABOVE. PROVIDE ADDITIONAL SUPPORTS WHEN A LUMINARE IS EIGHT (8) FEET OR LONGER OR EXCEED 56 LB. MAXIMUM SPACING BETWEEN SUPPORTS SHALL NOT EXCEED EIGHT (8) FEET.
6.03 LUMINARES WEIGHING LESS THAN OR EQUAL TO 10 LB. MAY BE SUPPORTED DIRECTLY ON THE CEILING RUNNERS, SHALL HAVE A MINIMUM OF ONE (1) #12 GAUGE SLACK SAFETY WIRE CONNECTED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE.
6.04 LUMINARES WEIGHING GREATER THAN 10 LB. BUT LESS THAN OR EQUAL TO 56 LBS. MAY BE SUPPORTED DIRECTLY ON THE CEILING RUNNERS, BUT THEY SHALL HAVE A MINIMUM OF TWO (2) #12 GAUGE SLACK SAFETY WIRES CONNECTED FROM THE FIXTURE HOUSING AT DIAGONAL CORNERS TO THE STRUCTURE ABOVE. EXCEPTION: ALL LIGHT FIXTURES GREATER THAN TWO BY FOUR FEET WEIGHING LESS THAN 56LBS. SHALL HAVE A #12 GAUGE SLACK SAFETY WIRE AT EACH CORNER.
6.05 ALL LIGHT FIXTURES WEIGHING GREATER THAN 56 LB. SHALL BE INDEPENDENTLY SUPPORTED BY NOT LESS THAN FOUR (4) TAUT #12 GAUGE HANGER WIRES (ONE AT EACH CORNER) FASTENED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE OR OTHER APPROVED HANGERS. THE FOUR (4) TAUT #12 GAUGE WIRES OR OTHER APPROVED HANGERS, INCLUDING THEIR ATTACHMENT TO THE STRUCTURE ABOVE, SHALL BE CAPABLE OF SUPPORTING FOUR (4) TIMES THE WEIGHT OF THE FIXTURE.

7. SERVICES WITHIN THE CEILING:
7.01 ALL FLEXIBLE SPRINKLER HOSE FITTING MOUNTING BRACKETS, CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES SHALL BE POSITIVELY ATTACHED TO THE CEILING SUSPENSION SYSTEMS BY MECHANICAL MEANS. SCREWS OR APPROVED FASTENERS ARE REQUIRED. A MINIMUM OF TWO ATTACHMENTS ARE REQUIRED AT EACH COMPONENT.
7.02 CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES WEIGHING LESS THAN OR EQUAL TO 20 LB. SHALL HAVE ONE (1) #12 GAGE SLACK SAFETY WIRE ATTACHED FROM THE TERMINAL OR SERVICE TO THE STRUCTURE ABOVE.
7.03 FLEXIBLE SPRINKLER HOSE FITTINGS, CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES WEIGHING MORE THAN 20 LB. BUT LESS THAN OR EQUAL TO 56 LB. SHALL HAVE TWO (2) #12 GAUGE SLACK SAFETY WIRES (AT DIAGONAL CORNERS) CONNECTED FROM THE TERMINAL OR SERVICE TO THE STRUCTURE ABOVE.
7.04 FLEXIBLE SPRINKLER HOSE FITTINGS, CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES WEIGHING MORE THAN 56 LB. SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE ABOVE BY NOT LESS THAN FOUR (4) TAUT #12 GAUGE HANGER WIRES ATTACHED FROM THE TERMINAL OR SERVICE TO THE STRUCTURE ABOVE OR OTHER APPROVED HANGERS.

8. OTHER DEVICES WITHIN THE CEILING:
8.01 ALL LIGHTWEIGHT MISCELLANEOUS DEVICES, SUCH AS STROBE LIGHTS, OCCUPANCY SENSORS, SPEAKERS, EXIT SIGNS, ETC., SHALL BE ATTACHED TO THE CEILING GRID. IN ADDITION, DEVICES WEIGHING MORE THAN 10 LBS. SHALL HAVE A #12 GAUGE SLACK SAFETY WIRE ANCHORED TO THE STRUCTURE ABOVE. DEVICES WEIGHING MORE THAN 20 LB. SHALL BE SUPPORTED INDEPENDENTLY FROM THE STRUCTURE ABOVE.

095100.1.00-S

13 SUSPENDED CEILING NOTES
1/2" = 1'-0"

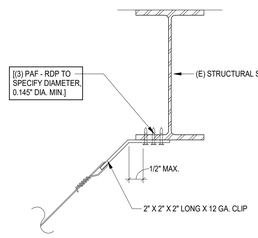


NOTES:

1. STRUCTURAL STEEL MEMBER SHALL NOT BE LESS THAN 3/16".
2. RDP IN RESPONSIBLE CHARGE, I.O.R. AND CONTRACTOR SHALL VERIFY THAT NO PAF IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER, SEE ANSI/AISC 341-10.
3. FOR ADDITIONAL INFORMATION REFER TO

095100.5.40-S DSA IR 25-2.13 #5.40 - Rev 02/10/16

18 STRUT TO STRUC STEEL
1 1/2" = 1'-0"



NOTES:

1. BEAM FLANGE THICKNESS SHALL NOT BE LESS THAN 3/16"
2. RDP IN RESPONSIBLE CHARGE, IOR AND CONTRACTOR SHALL VERIFY THAT NO PAF IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER. SEE ANSI/AISC 341-10
3. FOR ADDITIONAL DETAILS REFER TO

095100.4.33-S DSA IR 25-2.13 #4.33 - Rev 02/10/16

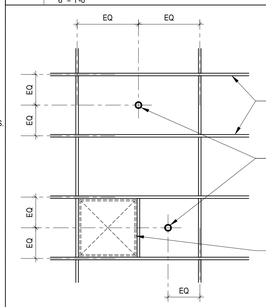
23 BRACING WIRE TO STRUC STEEL
6" = 1'-0"

NOTES:

1. STRUCTURAL STEEL MEMBER SHALL NOT BE LESS THAN 3/16".
2. RDP IN RESPONSIBLE CHARGE, I.O.R. AND CONTRACTOR SHALL VERIFY THAT NO PAF IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER, SEE ANSI/AISC 341-10.
3. FOR ADDITIONAL INFORMATION REFER TO

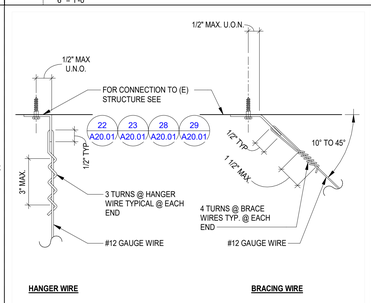
095100.5.40-S DSA IR 25-2.13 #5.40 - Rev 02/10/16

18 STRUT TO STRUC STEEL
1 1/2" = 1'-0"



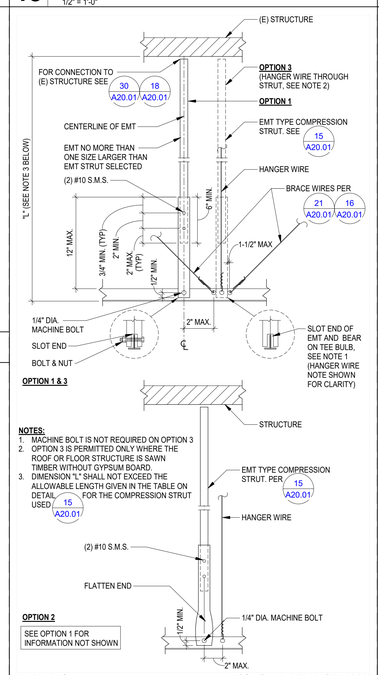
095100.00-S Rev 03/17

17 HORIZ CONTROL FOR CLG DEVICES
1/2" = 1'-0"



095100.4.10-S DSA IR 25-2.19 #4.10 - Rev 03/18/22

16 HANGER & BRACING WIRE TYP CXN
3" = 1'-0"

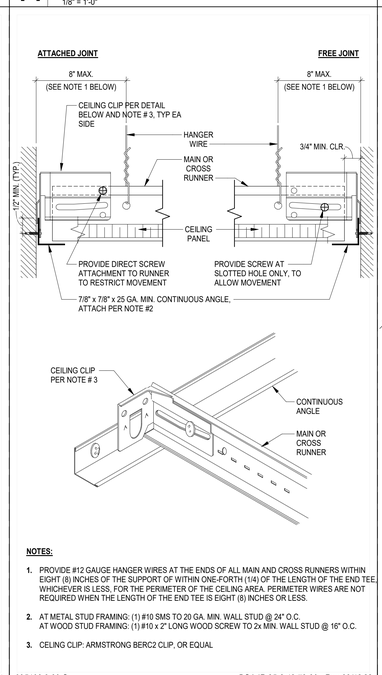


NOTES:

1. MACHINE BOLT IS NOT REQUIRED ON OPTION 3
2. OPTION 3 IS PERMITTED ONLY WHERE THE ROOF OR FLOOR STRUCTURE IS SAWN TIMBER WITHOUT GYPSUM BOARD.
3. DIMENSION "L" SHALL NOT EXCEED THE ALLOWABLE LENGTH GIVEN IN THE TABLE ON DETAIL 15 A20.01 FOR THE COMPRESSION STRUT USED

095100.3.20-S DSA IR 25-2.19 #3.20 - Rev 03/18/22

3 COMPRESSION STRUT - CHANNEL
1 1/2" = 1'-0"

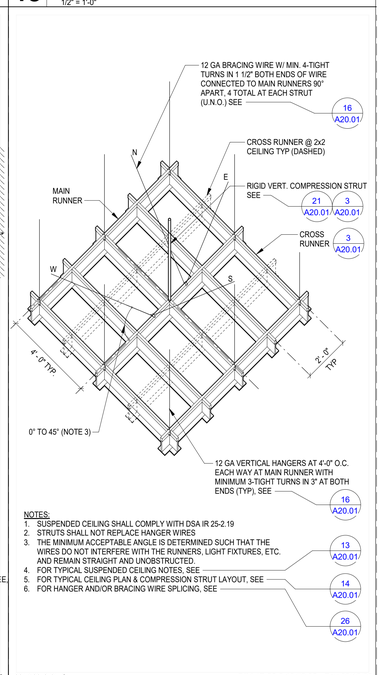


NOTES:

1. PROVIDE #12 GAUGE HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN EIGHT (8) INCHES OF THE SUPPORT OF WITHIN ONE-FORTH (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS, FOR THE PERIMETER OF THE CEILING AREA. PERIMETER WIRES ARE NOT REQUIRED WHEN THE LENGTH OF THE END TEE IS EIGHT (8) INCHES OR LESS.
2. AT METAL STUD FRAMING: (1) #10 SMS TO 20 GA. MIN. WALL STUD @ 24" O.C. AT WOOD STUD FRAMING: (1) #10 x 2" LONG WOOD SCREW TO 2x MIN. WALL STUD @ 16" O.C.
3. CELING CLIP: ARMSTRONG BERC2 CLIP, OR EQUAL

095100.2.60-S DSA IR 25-2.19 #2.60 - Rev 03/18/22

2 SUSPENDED CEILING PERIMETER JOINTS
6" = 1'-0"



NOTES:
1. SUSPENDED CEILING SHALL COMPLY WITH DSA IR 25-2.19
2. STRUTS SHALL NOT REPLACE HANGER WIRES
3. THE MINIMUM ACCEPTABLE ANGLE IS DETERMINED SUCH THAT THE WIRES DO NOT INTERFERE WITH THE RUNNERS, LIGHT FIXTURES, ETC. AND REMAIN STRAIGHT AND UNOBSTRUCTED.
4. FOR TYPICAL SUSPENDED CEILING NOTES, SEE 13 A20.01
5. FOR TYPICAL CEILING PLAN & COMPRESSION STRUT LAYOUT, SEE 14 A20.01
6. FOR HANGER AND/OR BRACING WIRE SPLICING, SEE 26 A20.01

095100.2.35-S DSA IR 25-2.19 #2.35 - Rev 03/18/22

1 SUSPENDED CEILING SYSTEM
3/8" = 1'-0"

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B202301766
CITY OF ONTARIO
City of Ontario | Building Department
APPROVED & REVIEWED FOR CODE COMPLIANCE
The issuance of a permit and approval of these plans shall not be construed to permit or approve any violation of the applicable codes or ordinances.
Date: 01/16/2024 1:34:38 PM

REVIEWED
FOR
CODE COMPLIANCE
Dec 15, 2023
BPR CONSULTING GROUP

TRANSPORTATION CENTER

PROJECT ADDRESS:
1442 South Bon View
Ontario, Ca 91761

CitySubmittal - Registration #B202301766

ONTARIO-MONTCLAIR SCHOOL DISTRICT

KEY PLAN
NORTH: PLAN TRUE

Consultant

Architect
LICENSED ARCHITECT
Yong Yao
No. C-31162
REN. 10-31-2023
STATE OF CALIFORNIA

CLIENT
ONTARIO - MONTCLAIR SCHOOL DISTRICT

DATE	PROJECT NUMBER
3/3/23	220316

REVISIONS

No.	Description	Date

CitySubmittal - Registration #B202301766

CEILING DETAILS

A20.01

M0.00 - MECHANICAL SYMBOLS, LEGENDS & GENERAL NOTES

TITLE 24 NOTES

THE FOLLOWING SHALL BE REQUIRED WHETHER OR NOT SPECIFICALLY SHOWN OR MENTIONED IN DRAWINGS AND/OR SPECIFICATIONS:

1. EQUIPMENT SHALL MEET EFFICIENCY REQUIREMENTS OF TABLES 110.2-A THROUGH 110.2-K.
2. ALL AIR-COOLED, UNITARY, DX UNITS (PACKAGED, SPLIT-SYSTEM, HEAT PUMPS AND VRF) WITH ECONOMIZERS SHALL BE EQUIPPED WITH FAULT DETECTION AND DIAGNOSTICS SYSTEMS.
3. PIPE INSULATION FOR SPACE CONDITIONING AND SERVICE WATER-HEATING WITH FLUID TEMPERATURES LISTED IN TABLE 120.3-A SHALL HAVE INSULATION LEVELS AS SPECIFIED IN SUBSECTION (A) AND (B).
4. MECHANICAL HEATING AND COOLING EQUIPMENT SHALL BE THE SMALLEST SIZE, WITHIN THE AVAILABLE OPTIONS OF THE DESIRED EQUIPMENT LINE, NECESSARY TO MEET THE DESIGN HEATING AND COOLING LOADS OF THE BUILDING, AS CALCULATED ACCORDING TO THE REQUIREMENTS OF SECTION 140.4(B).
5. HVAC MOTORS FOR FANS THAT ARE LESS THAN 1 HP AND 1/12 HP OR GREATER SHALL BE ECM OR HAVE A MINIMUM MOTOR EFFICIENCY OF 70%. MOTORS SHALL ALSO HAVE MEANS TO ADJUST MOTOR SPEED FOR BALANCING OR REMOTE CONTROL.
6. ELECTRIC RESISTANCE HEATING SYSTEMS ARE NOT PROVIDED FOR SPACE HEATING.
7. IN DRIER CLIMATES AND WHEN LARGE OUTDOOR AIR FRACTIONS ARE REQUIRED, EVAPORATIVE PRE-COOLING PACKAGES WERE EVALUATED TO PRE-COOL OUTSIDE AIR AND COOL THE AIR FLOWING OVER THE DX CONDENSING UNIT.
8. ZONE EACH AIR HANDLER TO SERVE ONLY AREAS WITH COMMON LOADS TO ALLOW MORE AGGRESSIVE CONTROL STRATEGIES AND IMPROVE COMFORT. HAVE DIFFERENT AHU'S SERVING CORE VS. PERIMETER AREAS.
9. THE DESIGN ACCOMMODATES PARTIAL OCCUPANCY ENERGY SAVINGS WHEN THE OWNER'S REQUIREMENTS OR NARRATIVE DESCRIBE ANY POSSIBLITY OF PARTIAL OCCUPANCY, BY ZONING AIR HANDLERS BY FLOOR OR BY PART OF A FLOOR, OR BY INCORPORATING CONTROLLED FLOOR DAMPERS, OR VAV AIR TERMINALS GOING TOTALLY SHUT WHEN NOT OCCUPIED, ETC.
10. EACH ZONE IS CONTROLLED BY AN INDIVIDUAL THERMOSTATIC CONTROL. CONTROLS SHALL BE CAPABLE OF SETTING TEMPERATURES TO 55 DEG F FOR HEATING AND 85 DEG F FOR COOLING AND PROVIDE A TEMPERATURE DEADBAND OF AT LEAST 5 DEG F IF CONTROLLING BOTH HEATING AND COOLING.
11. EACH SPACE CONDITIONING SYSTEM SHALL BE EQUIPPED WITH CONTROLS TO SHUT THE SYSTEM OFF DURING PERIODS OF NONUSE AND WILL TEMPORARILY OPERATE THE SYSTEM TO MAINTAIN SETBACK AND SETUP TEMPERATURES WHILE KEEPING VENTILATION DAMPERS CLOSED.
12. SYSTEMS SERVING MULTIPURPOSE ROOMS LESS THAN 100 SF AND CLASSROOMS, CONFERENCE, AUDITORIUM OR MEETING CENTER ROOMS GREATER THAN 750 SF SHALL HAVE OCCUPANCY SENSORS THAT INTERFACE WITH HVAC CONTROLS TO AUTOMATICALLY SETUP THE COOLING SETPOINT BY 2F OR MORE AND AUTOMATICALLY RESET THE MINIMUM REQUIRED VENTILATION RATE. THESE OCCUPANT SENSOR VENTILATION CONTROL DEVICES MUST MEET THE REQUIREMENTS OF SECTION 120.1(C)5.
13. OUTDOOR AIR SUPPLY AND EXHAUST EQUIPMENT SHALL BE INSTALLED WITH DAMPERS THAT AUTOMATICALLY CLOSE UPON EF FAN SHUTDOWN.
14. HVAC SYSTEMS WITH DDC TO THE ZONE LEVEL SHALL BE PROGRAMMED TO ALLOW CENTRALIZED DEMAND SHED FOR NON-CRITICAL ZONES.
15. ZONE CONTROLS PREVENT REHEATING, RECOOLING AND SIMULTANEOUS PROVISIONS OF HEATING AND COOLING TO THE SAME ZONE.
16. EACH WALL MOUNTED THRMOSTAT SHALL BE LOCATED AWAY FROM POTENTIAL SOURCES THAT WOULD ADVERSELY AFFECT THE READING (CLOSE TO COPIERS, DIRECT SUNLIGHT, BELOW OR ABOVE A SUPPLY AIR DIFFUSER OR CONVECTOR, ETC.). ANY THERMOSTATS MOUNTED ON EXTERIOR WALLS SHALL BE INSTALLED IN SEALED AND INSULATED JUNCTION BOXES.
17. CORNER OFFICE SHALL ALWAYS HAVE THEIR OWN THERMOSTATS, AIR TERMINAL BOXES OR FIN-TUBE RADIATORS.
18. CONTROL SEQUENCES SHALL BE LISTED FOR EQUIPMENT OPERATED BY STAND-ALONE PACKAGED CONTROLS. UNOCCUPIED SEQUENCES SHALL BE INCLUDED.
19. CONTROL SEQUENCES SHALL BE PROVIDED FOR EACH PIECE OF EQUIPMENT LISTED IN THE EQUIPMENT SCHEDULE THAT IS MONITORED OR CONTROLLED BY THE BUILDING AUTOMATION SYSTEM (BAS). UNOCCUPIED SEQUENCES SHALL BE INCLUDED.
20. OUTSIDE AIR TEMPERATURE SENSORS SHALL BE IN A COMMERCIALLY DESIGNED SOLAR SHIELD LOCATED ON A NORTH WALL OR SOME OTHER LOCATION OUT OF DIRECT SUNLIGHT AND AWAY FROM BUILDING EXHAUST OR HEAT REJECTION EQUIPMENT.
21. THE OUTDOOR AIR-VENTILATION RATE AND AIR-DISTRIBUTION ASSUMPTIONS MADE IN THE DESIGN OF THE VENTILATING SYSTEM ARE CLEARLY IDENTIFIED ON THE PLANS.
22. EACH SPACE IS DESIGNED TO HAVE NATURAL VENTILATION OR MECHANICAL VENTILATION THAT IS NO LESS THAN THE LARGER OF CONDITIONED FLOOR AREA TIMES THE REQUIREMENTS IN TABLE 120.1-A OR 15 CFM TIMES THE EXPECTED NUMBER OF OCCUPANTS.
23. THE MINIMUM AND MAXIMUM OUTDOOR AIR RATES FOR EACH AIR HANDLER ARE LISTED ON THE EQUIPMENT SCHEDULES.
24. THE OUTDOOR AIR-VENTILATION RATES ARE BASED ON PLANNED OWNER OCCUPANCY AS DEFINED IN OWNER'S DESIGN INTENT AND ARE NOT BASED ON MAXIMUM EGRESS OCCUPANCY RATES.
25. HVAC SYSTEMS THAT HAVE AN ECONOMIZER, SERVE A SPACE WITH A DESIGN OCCUPANT DENSITY GREATER THAN OR EQUAL TO 25 PEOPLE PER 1000 SF, AND ARE EITHER A SINGLE ZONE SYSTEM WITH ANY CONTROLS OR MULTIPLE ZONE SYSTEM WITH DDC CONTROLS TO THE ZONE LEVEL MUST HAVE DEMAND CONTROL VENTILATION CONTROLS. THE FOLLOWING MUST BE MET:
    - A. CO2 SENSORS INSTALLED IN EACH ROOM SERVED BY SYSTEMS WITH DCV CONTROLS.
    - B. CO2 SENSORS ARE LOCATED BETWEEN 3 FT AND 6 FT ABOVE THE FLOOR.
    - C. CO2 CONCENTRATIONS MAINTAINED AT LESS THAN OR EQUAL TO 600 PPM PLUS OUTDOOR PPM.
    - D. DURING HOURS OF EXPECTED OCCUPANCY, CONTROLS MAINTAIN THE SYSTEM VENTILATION RATE.
26. EACH COOLING FAN SYSTEM THAT HAS A DESIGN MECHANICAL COOLING CAPACITY OVER 54,000 BTU/H SHALL HAVE AN AIR ECONOMIZER OR A WATER ECONOMIZER. AIR ECONOMIZERS MUST COMPLY WITH THE HIGH LIMIT SHUTOFF CONTROLS SHOWN IN TABLE 140.4-B.
27. INTEGRATED ECONOMIZER CONTROLS SHALL BE SET UP SUCH THAT PARTIAL COOLING IS PROVIDED BY THE ECONOMIZER EVEN WHEN ADDITIONAL MECHANICAL COOLING ID REQUIRED.
28. ECONOMIZER DAMPERS SHALL BE DRIVEN BY DIRECT DRIVE ACTUATORS RATHER THAN ROD LINKAGES, WHICH CAN BE A MAJOR CAUSE OF ECONOMIZER MALFUNCTION.
29. BAROMETRIC RELIEF IS USED, IF POSSIBLE. IF NOT, RELIEF FANS (RATHER THAN RETURN FANS) SHALL BE USED IN MOST CASES.
30. OUTDOOR AND RETURN AIR SENSORS SHALL BE PROPERLY SELECTED, PROPERLY LOCATED TO PROVIDE ACCURATE AND REPEATABLE MEASUREMENTS FOR CONTROLLING ECONOMIZER OPERATION. AVERAGING SENSORS COVER THE ENTIRE DUCT OR COIL FACE AREAS.
31. ALL AIR DISTRIBUTION SYSTEM DUCTS AND PLENUMS MUST BE INSTALLED, SEALED AND INSULATED AS REQUIRED BY 120.4(A).
32. DUCT SEALING LEAKAGE RATES SHALL BE NO MORE THAN 6% OF AIR FLOW FOR NEW DUCT SYSTEMS AND NO MORE THAN 15% OF AIR FLOW FOR ALTERED EXISTING DUCT SYSTEMS.
33. DUCT SHALL UTILIZE LOW STATIC PRESSURE DESIGN. IDENTIFY THE MOST RESTRICTIVE BRANCH FROM THE FAN TO THE LAST AIR TERMINAL UNIT. IDENTIFY POSSIBLE MEANS OF SIGNIFICANTLY REDUCING THE PRESSURE DROP. BRANCH DUCT SYSTEMS SHALL DESIGNED FOR EQUAL PRESSURE DROP, WHEN POSSIBLE.
34. DUCT BRANCHES WITH SIGNIFICANTLY DIFFERING STATIC PRESSURE REQUIREMENTS SHALL HAVE VOLUME CONTROL STRATEGICALLY PLACED TO AID IN TAB WORK.
35. FAN SHALL DISCHARGE INTO DUCT SECTIONS THAT REMAIN STRAIGHT FOR AS LONG AS POSSIBLE (IDEALLY 10 DUCT DIAMETERS) TO REDUCE FAN INEFFICIENCIES FROM SYSTEM EFFECTS.
36. DUCT VELOCITIES SHALL GENERALLY BE BELOW 2,000 FPM FOR DUCTS IN CEILING PLENUMS, 1500 FPM FOR EXPOSED DUCTS AND 3500 FPM IN MECHANICAL ROOMS AND NON-NOISE SENSITIVE SHAFTS AND DO NOT REDUCE ANY DUCT SIZES LISTED ON PLANS.
37. DUCT FRICTION RATES SHALL GENERALLY BE LESS THAN O.25" WC PER 100 LINEAL FEET NEARER THE FAN, 0.15 TO 0.20" IN THE MAIN DUCTS AND 0.08 TO 0.12" WC/100' NEARER THE END OF THE SYSTEM. DESIGNS OVER THESE RATES SHALL BE QUESTIONED. VERY ENERGY EFFICIENT DESIGN CAN LOWER THESE VALUES BY UP TO 40%.
38. CONTRACTOR SHOP DRAWINGS SHALL BE SUFFICIENTLY DETAILED TO ENSURE THAT DISTRIBUTION SYSTEM DESIGN INTENT IS ADEQUATELY CONVEYED TO MATCH PLANS. IF SUFFICIENT DETAIL IS NOT INCLUDED IN DRAWINGS, INSTALLATIONS MAY RESULT IN SIGNIFICANTLY HIGHER PRESSURE DROPS AND HENCE HIGHER ENERGY CONSUMPTION AND OTHER OPERATING ISSUES.
39. ACCEPTANCE REQUIREMENTS ARE CLEARLY IDENTIFIED IN CONSTRUCTION DOCUMENTS.
40. COMMISSIONING MEASURES OR REQUIREMENTS ARE REFLECTED IN THE CONSTRUCTION DOCUMENTS.
41. REQUIREMENTS FOR FUNCTIONAL PERFORMANCE TESTS ARE REFLECTED IN THE CONSTRUCTION DOCUMENTS.
42. COOLING SYSTEMS IDENTIFIED IN TABLE 140.4-D SHALL HAVE FAN CONTROLS TO VARY THE INDOOR FAN AIRFLOW AS A FUNCTION OF LOAD:
    - A. DX AND CHILLED WATER COOLING SYSTEMS THAT CONTROL CAPACITY BASED ON OCCUPIED SPACE TEMPERATURE SHALL HAVE A MINIMUM OF 2 STAGES OF CONTROL.
    - B. SYSTEMS THAT CONTROL SPACE TEMPERATURE BY MODULATING AIRFLOW TO THE SPACE SHALL HAVE PROPORTIONAL FAN CONTROL.
    - C. SYSTEMS WITH AIR SIDE ECONOMIZER SHALL HAVE A MINIMUM OF 2 SPEEDS OF FAN CONTROL DURING ECONOMIZER OPERATION.
43. FAN CABINET ENCLOSURE AND INTERNAL COMPONENTS SHALL BE ELECTED TO MINIMIZE PRESSURE DROP, E.G. FACE VELOCITY IS LESS THAN 500 FPM, LOW PRESSURE DROP COILS, FILTERS, ETC.
44. FAN WHEEL SHALL BE SELECTED FOR EFFICIENT OPERATION, E.G. LARGER DIAMETER ROTATING AT LOWER SPEED.
45. SYSTEMS THAT SERVE MULTIPLE ZONES SHALL HAVE CONTROLS THAT AUTOMATICALLY RESET SUPPLY AIR TEMPERATURE. ZONES WITH HIGH INTERNAL LOADS WITH NEAR CONSTANT AIRFLOW SHALL BE DESIGNED FOR THE ELEVATED RESET SUPPLY AIR TEMPERATURE. RESET CONTROLS SHALL BE IN RESPONSE TO BUILDING LOADS OR TO OUTDOOR AIT TEMPERATURE AND SHALL BE AT LEAST 25% OF THE DIFFERENCE BETWEEN SUPPLY AIR AND DESIGN ROOM AIR TEMPERATURE. CONTROL SEQUENCES ARE IDENTIFIED IN CONSTRUCTION DOCUMENTS.
46. SAT RESET SHALL BE ESTABLISHED WITH AN AGGRESSIVE RESET SCHEDULE OF 10F, E.G. 55F DURING WARM WEATHER AND 65F DURING COOL WEATHER.

GENERAL NOTES

1. ALL WORK SHALL BE IN CONFORMANCE WITH TITLE 24, 2022 CALIFORNIA CODE OF REGULATIONS (CCR), 2022 CALIFORNIA BUILDING CODE, PART 2, TITLE 24 CCR, 2022 CALIFORNIA MECHANICAL CODE, PART 4, TITLE 24 CCR, ALL OTHER APPLICABLE CODES AND REGULATIONS, SMACNA AND ASHRAE GUIDELINES, AND LOCAL CODES.
2. ALL HVAC EQUIPMENT SHALL BE COMPLIANT WITH EFFICIENCY STANDARDS PER TITLE-24, PART 6.
3. ALL FRESH AIR INTAKES SHALL BE AT LEAST 10 FEET IN A HORIZONTAL DIRECTION FROM ALL EXHAUST, FLUE, FUEL BURNING APPLIANCE AND PLUMBING VENT OUTLETS. FOR GAS/ELECTRIC AIR CONDITIONING UNITS WHERE THE CODE REQUIRED CLEARANCES ARE NOT MET, A FACTORY FLUE GAS DEFLECTOR AND EXTENSION SHALL BE USED TO MINIMIZE THESE CLEARANCES. CONTRACTOR SHALL DETERMINE LOCATIONS WHERE REQUIRED PRIOR TO BID. THIS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
4. AIR FILTERS SHALL BE STATE FIRE MARSHAL APPROVED AND LISTED. PREFORMED FILTERS HAVING COMBUSTIBLE FRAMING SHALL BE TESTED AS A COMPLETE ASSEMBLY. AIR FILTERS IN ALL OCCUPANCIES SHALL BE PER TITLE-24 PART 6 AND APPLICABLE ASHRAE REQUIREMENTS. FILTERS SHALL BE ACCESSIBLE
5. REVIEW THESE PLANS AND SPECIFICATIONS PRIOR TO BID. REVIEW PLANS AND SPECIFICATIONS OF OTHER RELATED TRADES INCLUDING ARCHITECTURAL, STRUCTURAL, ELECTRICAL, AND FIRE PROTECTION.
6. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AS THESE ARE PART OF THE CONTRACT DOCUMENTS. WHERE A CONFLICT OCCURS BETWEEN THIS SPECIFICATION AND OTHER SPECIFICATIONS ISSUED AS A PART OF THE CONTRACT DOCUMENTS, THE MORE STRINGENT REQUIREMENT SUPERCEDES.
7. THESE DRAWINGS ARE DIAGRAMMATIC ONLY AND NOT INTENDED TO INDICATE ALL REQUIRED OFFSETS, BENDS, ELBOWS, TRANSITIONS, FITTINGS AS REQUIRED TO CONFORM TO THE BUILDING STRUCTURE, CLEARANCE INSIDE CEILINGS, AVOIDANCE OF OBSTRUCTIONS, AND MAINTAINING HEAD CLEARANCE.
8. COORDINATE INSTALLATION WITH ALL OTHER TRADES PRIOR TO INSTALLATION OF EQUIPMENT OR MATERIALS, INCLUDING BUT NOT LIMITED TO, STRUCTURAL, ARCHITECTURAL, ELECTRICAL, AND PLUMBING.
9. COORDINATE THE LOCATIONS OF ALL CEILING DIFFUSERS, REGISTERS, AND GRILLES WITH THE ARCHITECTURAL REFLECTIVE CEILING PLANS, ELECTRICAL LIGHTING LAYOUT, AND ARCHITECTURAL ROOM ELEVATIONS. THE ARCHITECT AND ENGINEER SHALL BE IMMEDIATELY NOTIFIED OF ANY CONFLICTS PRIOR TO FABRICATION AND INSTALLATION.
10. COORDINATE THE LOCATION OF ALL ROOF OPENINGS AND THE LOCATIONS OF ALL ROOF MOUNTED EQUIPMENT WITH THE STRUCTURAL AND ARCHITECTURAL WEIGHTS FOR PLATFORM AND CURB SIZES, FOR ROOF AND WALL PENETRATION DETAILS AND REQUIREMENTS, SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS. REQUIRED PLATFORMS AND FLASHINGS FOR MECHANICAL EQUIPMENT SHALL BE AS INDICATED ON THE STRUCTURAL AND ARCHITECTURAL PLANS, UNLESS NOTED OTHERWISE.
11. HIRE A TEST AND BALANCE AGENCY TO PERFORM THE TESTING PROCEDURES, REQUIRED BY THE MECH-2A THROUGH MECH-11A CERTIFICATE OF ACCEPTANCE FORMS, AS APPLICABLE FOR ALL NEWLY INSTALLED HEATING AND COOLING SYSTEMS. THE CONTRACTOR AND TEST AND BALANCE AGENCY ARE RESPONSIBLE FOR OBTAINING THE CERTIFICATE OF ACCEPTANCE FORMS REQUIRED BY THE IOR. THE TEST AND BALANCE AGENCY SHALL BE WELL VERSED WITH ALL THE REQUIREMENTS OF THESE CERTIFICATE OF ACCEPTANCE FORMS, AND SHALL COORDINATE AND WORK WITH THE EQUIPMENT AND CONTROLS INSTALLERS TO COMPLY WITH THESE REQUIREMENTS IN A TIMELY MANNER WITHIN THE PROJECT SCHEDULE. THE AIR BALANCE CONTRACTOR SHALL BE A MEMBER OF AABC (ASSOCIATED AIR BALANCE COUNCIL).
12. PAINT ALL EXPOSED DUCTWORK, DUCT SUPPORTS, ACCESSORIES, REGISTERS, GRILLES, DIFFUSERS, AND APPURTENANCES, WHETHER OR NOT COLORS ARE DESIGNATED IN SCHEDULES, EXCEPT WHERE A SURFACE OR MATERIAL IS SPECIFICALLY INDICATED NOT TO BE PAINTED OR IS TO REMAIN NATURAL. WHERE AN ITEM OR SURFACE IS NOT SPECIFICALLY MENTIONED, PAINT THE SAME AS SIMILAR ADJACENT MATERIALS OR SURFACES. IF COLOR OR FINISH IS NOT DESIGNATED, THE ARCHITECT WILL SELECT FROM STANDARD COLORS OR FINISHES AVAILABLE. PAINTING INCLUDES FIELD PAINTING EXPOSED BARE AND COVERED PIPES AND DUCTS (INCLUDING COLOR CODING), HANGERS, EXPOSED STEEL AND IRON WORK, AND PRIMED METAL SURFACES OF MECHANICAL EQUIPMENT.
13. PROVIDE ALL LABOR, MATERIAL, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, AND OTHER WORK AS REQUIRED. FOR A COMPLETE AND PROPERLY OPERATING MECHANICAL SYSTEM.
14. ALL MATERIALS SHALL BE NEW AND OF THE SAME MANUFACTURER FOR EACH CLASS OR GROUP OF EQUIPMENT. EQUIPMENT SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORIES, AND SHALL BEAR THE INSPECTION LABEL WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH THE APPROVAL OF THE GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY THE LATEST EDITION OF CMC, CBC U.L., SMACNA AND ASHRAE GUIDELINES. INSTALL PER MANUFACTURERS' RECOMMENDATIONS, AND INSTALLATION INSTRUCTIONS.
15. OBTAIN AND PAY FOR ALL NECESSARY BUILDING PERMITS AND VARIANCES. COORDINATE TEMPORARY CONSTRUCTION REQUIREMENTS WITH ALL TRADES PRIOR TO CONSTRUCTION. INCLUDE ALL COSTS IN THE BID.
16. IF THE CONTRACTOR PROPOSES ALTERNATE EQUIPMENT OR MATERIAL, THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL DSA APPROVALS, PAY ALL RELATED FEES AND OBTAIN APPROVAL FROM OWNER & ENGINEER OF RECORD. PROVIDE TITLE-24 COMPLIANCE CERTIFICATION AND ALL ASSOCIATED FEES REQUIRED. COORDINATE SUBMITTED EQUIPMENT WITH OTHER TRADES. INCLUDE IN THE SHOP DRAWINGS THE EQUIPMENT SUBMITTED FOR APPROVAL WITH A DIFFERENT PHYSICAL SIZE OR ARRANGEMENT FROM THAT SHOWN.
17. PROVIDE SHOP DRAWINGS PER PROJECT SCHEDULE, SEE 23 00 00 SPECIFICATIONS FOR REQUIREMENTS. IF SHOP DRAWINGS ARE NOT PROVIDED TO THE ENGINEER FOR REVIEW, AND ANY CONFLICTS OCCUR BETWEEN TRADES, DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK NECESSARY TO RESOLVE THE CONFLICT AND BEAR ALL COSTS INCURRED FOR ALL REVISIONS, AT NO ADDITIONAL COST TO THE DISTRICT. THE DISTRICT AND ENGINEER SHALL BE NOTIFIED IMMEDIATELY PRIOR TO FABRICATION AND INSTALLATION OF ALL WORK THAT CAUSES CONFLICTS BETWEEN TRADES.
18. PROVIDE ALL MANUFACTURER'S PRODUCT DATA CLEARLY INDICATING MODEL NUMBERS, CAPACITIES, CONSTRUCTION, ELECTRICAL INFORMATION, AND OPTIONAL ACCESSORIES, PER PROJECT SCHEDULE AND PRIOR TO THE START OF WORK. THESE SHALL BE REVIEWED BY THE MECHANICAL ENGINEER PRIOR TO PURCHASING.
19. SUBMIT TO THE OWNER ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, "AS-BUILTS", ETC. AT THE COMPLETION OF THE JOB. PROVIDE THE OWNER WITH COMPLETE MECHANICAL "AS-BUILTS" INDICATING FINAL EQUIPMENT LOCATIONS, DUCTWORK AND PIPE ROUTING, ETC.
20. OBTAIN APPROVAL FROM THE OWNER ON ALL ADDENDA AND CONSTRUCTION CHANGE DOCUMENT (CCD) PRIOR TO DOING THE WORK.
21. INSTALL ALL EQUIPMENT, ACCESSORIES, AND MATERIAL IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS.
22. PROVIDE FIRESTOPPING FOR PIPE AND DUCT PENETRATIONS THROUGH RATED WALLS. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES AS NECESSARY PRIOR TO INSTALLATION.
23. ANY MATERIAL EXPOSED WITHIN A PLENUM OR DUCT MUST HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25, AND A SMOKE DEVELOPED RATING OF NOT MORE THAN 50, AND A MOLD/HUMIDITY RESISTANCE PER U.L. 181.
24. ALL EQUIPMENT, DUCTS, PIPING, AND OTHER DEVICES AND MATERIALS OUTSIDE OF THE BUILDING OR OTHERWISE EXPOSED TO THE WEATHER SHALL BE COMPLETELY WEATHERPROOFED.
25. LOCATE ALL EQUIPMENT SUCH THAT CODE REQUIRED ACCESS IS MAINTAINED, INCLUDING N.E.C. REQUIREMENTS. ACCESS PANELS WHERE REQUIRED, SHALL BE COORDINATED WITH ARCHITECT, AND PROVIDED BY FACTORY OR BE FIELD-PROVIDED. FOR ATTIC EQUIPMENT, G.C. TO PROVIDE A CATWALK & LIGHT PER CMC FOR ATTIC EQUIPMENT.
26. FOR INACCESSIBLE AREAS THE CONTRACTOR SHALL PROVIDE ACCESS PANELS FOR ALL DAMPERS, EQUIPMENT, SMOKE DETECTORS, AND CONTROL DEVICES. THESE PANELS SHALL MATCH THE RATING OF THE WALL AND/OR CEILING WHERE THEY ARE LOCATED IN. MINIMUM ACCESS PANEL SIZES SHALL BE AS FOLLOWS:
    1) HAND ACCESS: 12"x12" MIN.
    2) BODY ACCESS: 30"x30" MIN.
27. ALL EQUIPMENT WITH MOVING PARTS SHALL BE PROVIDED WITH FLEXIBLE DUCT AND PIPE CONNECTIONS.
28. LABEL ALL EQUIPMENT AS TO THE SPACE IT SERVES. SEE SPECIFICATIONS FOR IDENTIFICATION STANDARDS. LABEL DUCT SMOKE DETECTOR LOCATIONS (AT CEILING) AS TO THE EQUIPMENT IT SERVES.
29. A/C UNITS PROVIDED WITH ECONOMIZER CYCLE DAMPERS SHALL HAVE OSA DAMPERS SET UP TO CLOSE AUTOMATICALLY ON FAN SHUT DOWN.
30. PROVIDE MANUAL VOLUME DAMPERS AND BACKDRAFT DAMPERS FOR FRESH AIR INTAKES ON ALL AIR HANDLING EQUIPMENT AND EXHAUST FANS SERVING CONDITIONED SPACES. EXCEPTION: EQUIPMENT WITH FACTORY-ECONOMIZERS.
31. DRAWINGS ARE FOR REFERENCE ONLY. CONTRACTOR TO FIELD VERIFY EXISTING CONDITION PRIOR TO BID DATE.
32. OWNER RETAINS SALVAGE RIGHTS, PROVIDE A MINIMUM OF 72 HOURS NOTICE PRIOR TO REMOVAL OF ROOF TOP UNITS AND EXHAUST FANS.
33. PATCH AND SEAL ALL SLAB, ROOF AND WALL OPENINGS WITH LIKE MATERIAL WHERE MECHANICAL EQUIPMENT ONCE PENETRATED.
34. REMOVE EXISTING AND PROVIDE ALL NEW DUCT AND PIPE HANGER SUPPORTS WHERE DUCT AND PIPE IS BEING REPLACED.
35. PROVIDE ALL NEW PIPE SUPPORTS WHERE PIPING IS SCHEDULED TO BE REPLACED.
36. OUTDOOR REFRIGERANT PIPING TO BE INSULATED AND ALUMINUM WRAPPED.
37. CONTRACTOR IS RESPONSIBLE FOR COMPLETE AND OPERABLE SYSTEM.
38. ALL MECHANICAL EQUIPMENTS, PIPES AND DUCTS SHALL BE SUPPORTED AND BRACED PER THE CURRENT CALIFORNIA BUILDING CODE. ALL MECHANICAL COMPONENTS SHALL BE ABLE TO RESIST THE EFFECTS OF SEISMIC FORCES.
39. MECHANICAL WORK SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL CODES AND REGULATIONS.
40. CONTRACTOR SHALL PROTECT EXISTING BUILDING INFRASTRUCTURE DURING CONSTRUCTION FROM OUTDOOR ELEMENT. IF DAMAGED, CONTRACTOR SHALL REPLACE DAMAGED BUILDING COMPONENTS WITH NEW AT NO ADDITIONAL COST TO THE OWNER.
41. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE SMACNA LOW PRESSURE DUCT CONSTRUCTION STANDARDS.
42. ALL DUCT JOINTS SHALL BE MADE WITH MASTIC SEALANT, SHEET METAL SCREWS AND TAPED AIR TIGHT WITH HARDCAST OR EQUIV., MINIMUM 2-1/2" WIDTH.
43. WHERE BRACING DETAILS ARE NOT SHOWN ON THE DRAWINGS OR IN THE GUIDELINES, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT, MECHANICAL ENGINEER AND DSA FIELD ENGINEER.
44. A COPY OF THE GUIDELINES PUBLISHED BY SMACNA AND APPROVED BY DSA SHALL BE PROVIDED BY THE CONTRACTOR AND KEPT ON THE JOB AT ALL TIMES.
45. CONTRACTOR SHALL COORDINATE ALL DUCTWORK ROUTING WITH WORK OF OTHER TRADES AND MAKE ANY OFFSET AS REQUIRED TO AVOID CONFLICT WITH PIPING, LIGHT FIXTURES, TRUSSES, ETC.
46. COORDINATE ALL EQUIPMENT VOLTAGES WITH ELECTRICAL PRIOR TO ORDERING ANY EQUIPMENT.

MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC, SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTER 13, 26 AND 30:

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (e.g. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRIC, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

1. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
2. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUND PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTION 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2022 CBC, SECTION 1617A.1.24, 1617A.1.25, AND 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G., OSHPD OPM FOR 2022 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO START OF AND DURING THE HANGING AND BRACING OF DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

MP ☐ MD ☐ PP ☐ E ☐ OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES & DETAILS.

MP ☒ MD ☒ PP ☐ E ☐ OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) # 0203-13.

CAL GREEN NOTES

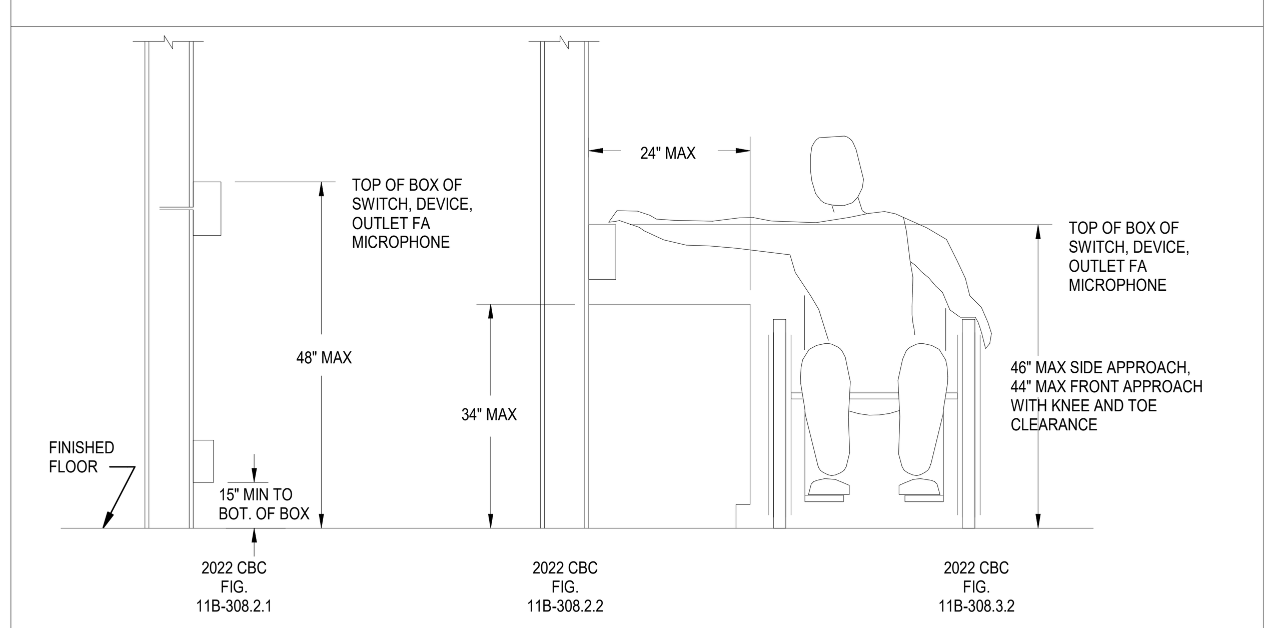
1. TESTING AND ADJUSTING. TESTING AND ADJUSTING OF SYSTEMS SHALL BE REQUIRED FOR NEW BUILDING LESS THAN 10,000 SQUARE FEET OR NEW SYSTEMS TO SERVE AN ADDITION OR ALTERATION SUBJECT TO SECTION 303.1
2. SYSTEMS. DEVELOP A WRITTEN PLAN OF PROCEDURES FOR TESTING AND ADJUSTING SYSTEMS. SYSTEMS TO BE INCLUDED FOR TESTING AND ADJUSTING SHALL INCLUDE, AS APPLICABLE TO THE PROJECT:
    - A. HVAC SYSTEMS AND CONTROLS.
    - B. INDOOR AND OUTDOOR LIGHTING AND CONTROLS.
    - C. WATER HEATING SYSTEMS.
    - D. RENEWABLE ENERGY SYSTEMS.
    - E. LANDSCAPE IRRIGATION SYSTEMS.
    - F. WATER REUSE SYSTEMS.
3. PROCEDURES. PERFORM TESTING AND ADJUSTING PROCEDURES IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND APPLICABLE STANDARDS ON EACH SYSTEM.
    - A. HVAC BALANCING. IN ADDITION TO TESTING AND ADJUSTING, BEFORE A NEW SPACE-CONDITIONING SYSTEM SERVING A BUILDING OR SPACE IS OPERATED FOR NORMAL USE, BALANCE THE SYSTEM IN ACCORDANCE WITH THE PROCEDURES DEFINED BY THE TESTING ADJUSTING AND BALANCING BUREAU NATIONAL STANDARDS; THE NATIONAL ENVIRONMENTAL BALANCING BUREAU PROCEDURAL STANDARDS; ASSOCIATED AIR BALANCE COUNCIL NATIONAL STANDARDS OR AS APPROVED BY THE ENFORCING AGENCY.
4. REPORTING. AFTER COMPLETION OF TESTING, ADJUSTING AND BALANCING, PROVIDE A FINAL REPORT OF TESTING SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESE SERVICES.
5. OPERATION AND MAINTENANCE (O & M) MANUAL. PROVIDE THE BUILDING OWNER OR REPRESENTATIVE WITH DETAILED OPERATING AND MAINTENANCE INSTRUCTIONS AND COPIES OF GUARANTIES/WARRANTIES FOR EACH SYSTEM. O & M INSTRUCTIONS SHALL BE CONSISTENT WITH OSHA REQUREMENTS IN CCR, TITLE 8, SECTION 5142, AND OTHER RELATED REGULATIONS.
    - A. INSPECTIONS AND REPORTS. INCLUDE A COPY OF ALL INSPECTION VERIFICATIONS AND REPORTS REQUIRED BY THE ENFORCING AGENCY.
6. TEMPORARY VENTILATION. THE PERMANENT HVAC SYSTEM SHALL ONLY BE USED DURING CONSTRUCTION IF NECESSARY TO CONDITION THE BUILDING WITHIN THE REQUIRED TEMPERATURE RANGE FOR MATERIAL AND EQUIPMENT INSTALLATION. IF THE HVAC SYSTEM IS USED DURING CONSTRUCTION, USE RETURN AIR FILTERS WITH A MINIMUM REPORTING VALUE (MERV 13) OF 13, BASED ON ASHRAE 52.2-1999 OR AN AVERAGE EFFICIENCY OF 30 PERCENT BASED ON ASHRAE 52.1-1992. REPLACE ALL FILTERS IMMEDIATELY PRIOR TO OCCUPANCY, OR, IF THE BUILDING IS OCCUPIED DURING ALTERATIONS, AT THE CONCLUSION OF CONSTRUCTION.
7. COVERING OF DUCT OPENINGS AND PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. AT THE TIME OF ROUGH INSTALLATION AND DURING STORAGE ON THE CONSTRUCTION SITE UNTIL FINAL STARTUP OF THE HEATING, COOLING AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH WRAP, PLASTIC, SHEET METAL OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF DUST, WATER AND DEBRIS WHICH MAY ENTER THE SYSTEM.
8. FILTERS. IN MECHANICALLY VENTILATED BUILDINGS, PROVIDE REGULARLY OCCUPIED AREAS OF THE BUILDING WITH AIR FILTRATION MEDIA FOR OUTSIDE AND RETURN AIR PRIOR TO OCCUPANCY THAT PROVIDE AT LEAST A MINIMUM EFFICIENCY REPORTING VALUE (MERV 13) OF 13. MERV 13 FILTERS SHALL BE INSTALLED PRIOR TO OCCUPANCY AND RECOMMENDATIONS FOR MAINTENANCE WITH FILTERS OF THE SAME VALUE SHALL BE INCLUDED IN THE OPERATION AND MAINTENANCE MANUAL.

    EXCEPTIONS:
    - A. AN ASHRAE 10-PERCENT TO 15-PERCENT EFFICIENCY FILTER SHALL BE PERMITTED FOR AN HVAC UNIT MEETING THE 2019 CALIFORNIA ENERGY CODE HAVING 60,000 BTU/H OR LESS CAPACITY PER FAN COIL, IF THE ENERGY USE OF THE AIR DELIVERY SYSTEM IS 0.4 W/CFM OR LESS AT DESIGN AIR FLOW.
    - B. EXISTING MECHANICAL EQUIPMENT.
9. OZONE DEPLETION AND GREENHOUSE GAS REDUCTIONS. INSTALLATIONS OF HVAC, REFRIGERATION AND FIRE SUPPRESSION EQUIPMENT SHALL COMPLY WITH SECTIONS 5.508.1.1 AND 5.508.1.2.
    - A. CHLOROFLOUROCARBONS (CFCS). INSTALL HVAC, REFRIGERATION AND FIRE SUPPRESSION EQUIPMENT THAT DO NOT CONTAIN CFCS.
    - B. HALONS. INSTALL HVAC REFRIGERATION AND FIRE SUPPRESSION EQUIPMENT THAT DO NOT CONTAIN HALONS.
10. ADHESIVES, ADHESIVE BONDING PRIMERS, ADHESIVE PRIMERS, SEALANTS, SEALANT PRIMERS AND CAULKS SHALL COMPLY WITH LOCAL OR REGIONAL AIR POLLUTION CONTROL OR AIR QUALITY MANAGEMENT DISTRICT RULES WHERE APPLICABLE, OR SCAQMD RULE 1168 VOC LIMITS, AS SHOWN IN TABLES 5.504.4.1.

MECHANICAL LEGEND

SYMBOL	DESCRIPTION
-	KEY NOTES
-	DEMOLITION KEY NOTES
01 / M-2	DETAIL DESIGNATION DETAIL NUMBER SHEET NO. WHERE SHOWN
AC / 1	EQUIPMENT DESIGNATION UNIT ABBREVIATION NUMBER
10X10-3 120 F/S	GRILLE DESIGNATION NECK SIZE & BLOW FIRE/SMOKE DAMPER WHERE REQ'D CFM
- / -	SECTION CALLOUT
	POINT OF CONNECTION
	POINT OF DISCONNECTION
	NEW LINEWORK
	EXISTING LINEWORK
	DEMOLITION LINEWORK
16"x12"	SHEET METAL DUCT
16"x12"	HIDDEN SHEET METAL DUCT
16"x12"	INTERNALLY INSULATED SHEET METAL DUCT
	DIRECTION OF FLOW
	STANDARD BRANCH FOR SUPPLY AND RETURN
	ROUND ELBOW DOWN
	ROUND ELBOW UP
	RECTANGULAR TO ROUND TRANSITION
8"	FLEXIBLE DUCT
FC	FLEX CONNECTION
BDD	BACK DRAFT DAMPER
FD	FIRE DAMPER
F/S	COMBINATION FIRE AND SMOKE DAMPER
M	MOTORIZED DAMPER
	SUPPLY DIFFUSER: 2-WAY/3-WAY/4-WAY
	GRILLE: RETURN/EXHAUST
	1'x2' RETURN AIR GRILLE
	2'x2' RETURN AIR GRILLE
UP / DN	SUPPLY AIR DUCT SECTION
UP / DN	RETURN AIR DUCT SECTION
UP / DN	EXHAUST AIR DUCT SECTION
	POWER OR GRAVITY ROOF VENTILATOR - EXHAUST
	POWER OR GRAVITY ROOF VENTILATOR - SUPPLY
UC	UNDERCUT DOOR
TG	TRANSFER GRILLE OR LOUVER
DG	DOOR GRILLE OR LOUVER
D / X	DX COOLING COIL
H / C	HEATING COIL
	DAMPER, OPPOSED BLADE
	DAMPER, PARALLEL BLADE
	FILTER
	HUMIDIFIER
	LOUVER
AD	ACCESS DOOR OR ACCESS PANEL (AP) IN DUCTWORK
1" 2"	STATIC PRESSURE CHANGE TAG
2"	STATIC PRESSURE TAG
	TURNING VANES (RECTANGULAR)
	DRAIN, FUNNEL
	CENTRIFUGAL FAN
	ANALOG SIGNAL
	DIGITAL SIGNAL
	ELECTRIC LEAD
	INSTRUMENT CAPILLARY TUBING
	ELECTRONIC 3-WAY VALVE
	ELECTRONIC 2-WAY VALVE
	DDC INPUT
	DDC OUTPUT
	LOCALLY MOUNTED INSTRUMENT
C02	CARBON DIOXIDE SENSOR
DPS	DIFFERENTIAL PRESSURE SENSOR
FM	FLOW METER
FS	AIRFLOW SENSOR
HS	RELATIVE HUMIDITY SENSOR
TS	TEMPERATURE SENSOR
TS	AVERAGING TEMPERATURE SENSOR
	METAL DUCT
R	EMS CO2 SENSOR
T	THERMOSTAT
PS	PRESSURE SWITCH
SD	SMOKE DETECTOR
SP	STATIC PRESSURE SENSOR
RS	REFRIGERANT SENSOR
D	DEW POINT SENSOR
H	SPACE HUMIDITY SENSOR
S	SWITCH
▲	FIRE WALL PENETRATION
(E)	EXISTING
(N)	NEW

MOUNTING OVER OBSTRUCTION DETAIL



NOTE:
1. THIS DETAIL APPLIES TO MOUNTING OF ANY MECHANICAL AND ELECTRICAL DEVICE WHICH CONTAINS AN OPERABLE PART THAT IS ADJUSTABLE BY THE OCCUPANT. THIS DOES NOT APPLY TO SENSORS OR CONTROLS THAT ARE ONLY ADJUSTABLE THROUGH THE BUILDING AUTOMATION SYSTEM (IE: TEMPERATURE AND HUMIDITY SENSORS).

DRAWING INDEX

SHEET	DESCRIPTION
M0.00	MECHANICAL SYMBOLS, LEGENDS & GENERAL NOTES
M0.01	MECHANICAL TITLE 24
M0.02	MECHANICAL TITLE 24
M1.01	MECHANICAL SITE PLAN
M2.01	MECHANICAL FLOOR PLANS
M3.01	MECHANICAL ENLARGED PLANS
M5.01	MECHANICAL SCHEDULES
M6.01	MECHANICAL DETAILS

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City of Ontario | Building Department
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FOR CODE COMPLIANCE
The issuance of a permit and approval of these plans shall not be construed to permit or approve any violation of the applicable codes or ordinances.
Date: 01/16/2024 1:34:38 PM

ABBREVIATIONS

ABBREVIATION	DESCRIPTION
AAV	AUTOMATIC AIR VENT
ABV	ABOVE
AC	AIR CONDITIONING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
ALUM	ALUMINUM
AO	ANALOG OUTPUT
AP	ACCESS PANEL
B	BOILER
BDD	BACK DRAFT DAMPER
BEL	BELOW
BFC	BELOW FINISHED CEILING
BFP	BACK FLOW PREVENTER
BG	BLAST GATE
BHP	BREAK HORSEPOWER
BLDG	BUILDING
BOB	BOTTOM OF BEAM
BOP	BOTTOM OF PIPE
BSMT	BASEMENT
BTU	BRITISH THERMAL UNIT
CD	CEILING DIFFUSER
CFM	CUBIC FEET PER MINUTE
CI	CAST IRON
CL	CENTER LINE
CLG	CEILING
CO	CLEANOUT
COL	COLUMN
CP	CONDENSATE PUMP
CT	COOLING TOWER
CU	CONDENSING UNIT
CV	CONSTANT VOLUME BOX
D	DRAIN
DB	DRY BULB
DEG	DEGREES
DI	DIGITAL INPUT
DIA	DIAMETER
DL	DOOR LOUVER
DN	DOWN
DO	DIGITAL OUTPUT
DP	DIFFERENATIAL PRESSURE
DS	DUCT SILENCER
DX	DIRECT EXPANSION
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EFF	EFFICIENCY
EGC	EGGCRATE GRILLE
EJ	EXPANSION JOINT
EL	ELEVATION
EQ	EQUAL
ER	EXHAUST REGISTER
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EWC	ELECTRIC WATER COOLER
EXIST / (E)	EXISTING
°F	DEGREES FAHRENHEIT
FA	FREE AREA
FC	FAN COIL UNIT
FD	FIRE DAMPER
FG	FILTER GRILLE
FLA	FULL LOAD AMPS
FLR	FLOOR
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FP	FIRE PUMP
FPI	FINS PER INCH
FPM	FEET PER MINUTE
FS	FLOW SWITCH
FT	FEET / FOOT
FX	FLEXIBLE CONNECTION
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HD	HEAD
HOA	HANDS OFF AUTO
HP	HEAT PUMP
HP	HORSEPOWER
HT	HEIGHT
HV	HEATING AND VENTILATING UNIT
HWC	HOT WATER CONVERTER
HWP	HEATING HOT WATER RETURN
HWR	HOT WATER PUMP
HWS	HEATING HOT WATER SUPPLY
HZ	HERTZ
IC	MOTOR STATUS
ICW	INDUSTRIAL COLD WATER
ID	INSIDE DIAMETER
IN	INCHES
IW	INDIRECT WASTE

ABBREVIATION	DESCRIPTION
KW	KILOWATTS
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LD	LINEAR DIFFUSER
LF	LINEAR FEET
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	THOUSAND BTU PER HOUR
MC	MECHANICAL CONTRACTOR
MCA	MINIMUM CIRCUIT AMPS
MH	MANHOLE
MIN	MINIMUM
MOCP	MAXIMUM OVERLOAD CIRCUIT PROTECTION
MOD	MOTOR OPERATED DAMPER
MTD	MOUNTED
MUA	MAKE-UP AIR UNIT
(N)	NEW
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
OAT	OUTSIDE AIR TEMPERATURE
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER
OD	OUTSIDE DIAMETER
OSA	OUTSIDE AIR
PBD	PARALLEL BLADE DAMPER
PD	PRESSURE DROP
PERF	PERFORATED
PH	PHASE
PR	PRESSURE RELIEF
PS	PRESSURE SWITCH
PSID	POUNDS PER SQUARE INCH DIFFERENTIAL
PSIG	POUNDS PER SQUARE INCH GAUGE
PT	PRESSURE TRANSMITTER
PTAC	PACKAGED TERMINAL AIR CONDITIONER
PVC	POLYVINYL CHLORIDE
RA	RETURN AIR
RAR	RETURN AIR REGISTER
RD	ROOF DRAIN
RF	RETURN FAN
RG	RETURN AIR GRILLE
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RLA	RATED LOAD AMPS
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SAR	SUPPLY AIR REGISTER
SAV	STAGED AIR VOLUME
SD	SMOKE DAMPER
SF	SUPPLY FAN
SI	SPEED INDICATOR
SK	SPEED CONTROL
SMBH	SENSIBLE MBH
SP	STATIC PRESSURE
SPEC	SPECIFICATION
SS	STAINLESS STEEL
STD	STANDARD
TAD	TRANSFER AIR DUCT
TEFC	TOTALLY ENCLOSED FAN COOLED
TEMP	TEMPERATURE
TG	TRANSFER GRILLE
TI	TEMPERATURE INDICATOR
TMBH	TOTAL MBH
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UC	UNDERCUT
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
UTR	UP THROUGH ROOF
V	VOLTS
VA	DAMPER/VALVE ACTUATOR
VAV	VARIABLE AIR VOLUME UNIT
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
VP	VELOCITY PRESSURE
VTR	VENT THROUGH ROOF
W/	WITH
W/O	WITHOUT
WB	WET BULB
WC	WATER COLUMN
WG	WATER GAUGE
WT	WEIGHT

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Dec 15, 2023
BPR CONSULTING GROUP

TRANSPORTATION CENTER

PROJECT ADDRESS:
1442 South Bon View
Ontario, Ca 91761

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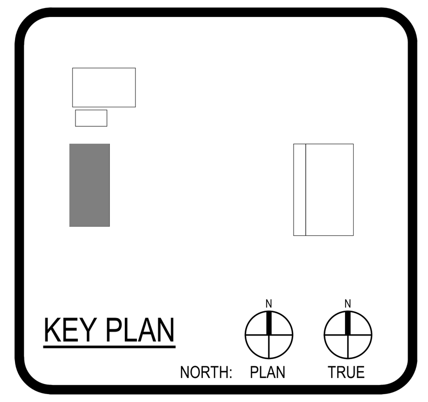

Consultant
REGISTERED PROFESSIONAL ENGINEER REX DAVID WANG No.M36155 Exp.09-30-2024 MECHANICAL STATE OF CALIFORNIA

Architect
LICENSED ARCHITECT Yong Yoo No. C-31162 REN. 10-31-2025 STATE OF CALIFORNIA

CLIENT
ONTARIO - MONTCLAIR SCHOOL DISTRICT

DATE	PROJECT NUMBER
3/3/23	220316

REVISIONS

No.	Description	Date

CitySubmittal - Rgistration #B202301766

MECHANICAL SYMBOLS, LEGENDS & GENERAL NOTES

M0.00

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M0.01 - MECHANICAL TITLE 24

This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, or 141.0(b)2 for alterations.

A. GENERAL INFORMATION

01	Project Location (city)	Ontario	04	Total Conditioned Floor Area	4800
02	Climate Zone	10	05	Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	2

● Office

B. PROJECT SCOPE

This table Includes mechanical systems or components that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, 170.2(b) or 141.0(b)2 and 180.2(b)2 for alterations.

01	02	03
Air System(s)	Wet System Components	Dry System Components
☒ Heating Air System	☐ Water Economizer	☐ Air Economizer
☒ Cooling Air System	☐ Pumps	☐ Electric Resistance Heat
Mechanical Controls	☐ System Piping	☒ Fan Systems
☒ Mechanical Controls (existing to remain, altered or new)	☐ Cooling Towers	☒ Ductwork (existing to remain, altered or new)
	☐ Chillers	☒ Ventilation
	☐ Boilers	☐ Zonal Systems/ Terminal Boxes

C. COMPLIANCE RESULTS

Table C will indicate if the project data input into the compliance document is compliant with mechanical requirements. This table is not editable by the user. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D., or the table indicated as not compliant for guidance.

01		02		03		04		05		06		07		08	09
System Summary 110.1, 110.2, 140.4, 170.2(c)	AND	Pumps 140.4(k), 170.2(c)4I	AND	Fans/ Economizers 140.4(c), 140.4(e), 170.2(c)	AND	System Controls 110.2, 120.2, 140.4(f), 170.2(c)	AND	Ventilation 120.1, 160.2	AND	Terminal Box Controls 140.4(d), 170.2(c)4B	AND	Distribution 120.3, 140.4(l), 160.2, 160.3	AND	Cooling Towers 110.2(e)2	Compliance Results
(See Table F)		(See Table G)		(See Table H)		(See Table I)		(See Table J)		(See Table K)		(See Table L)		(See Table M)	
Yes	AND		AND	Yes	AND	Yes	AND	Yes	AND		AND	Yes	AND		COMPLIES with Exceptional Conditions
Mandatory Measures Compliance (See Table Q for Details)										COMPLIES					

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

The permit applicant has indicated on Table J that ventilation calculations have been attached or included elsewhere on the plans.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01	02	03	04	05	06
System Name	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat
FC-1	1	Single zone	Alteration		☐

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01	02	03	04	05	06
System Name	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat
FC-2	1	Single zone	Alteration		☐

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters and DOAS systems)

01	02	03	04	05	06	07	08	09	10	11
Name or Item Tag	Equipment Category per Tables 110.2, 140.4(a)2 and 170.2(c)3aii	Equipment Type per Tables 110.2 and Title 20	Smallest Size Available[1] 140.4(a) and 170.2(c)1	Equipment Sizing per Mechanical Schedule (kBtu/h) 140.4(a&b), 170.2(c)1 & 170.2(c)2						
				Heating Output[2,3]			Cooling Output[2,3]		Load Calculations[3,4]	
				Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
FC-1	Unitary Heat Pumps (no elec. resistance)	Air-cooled, split (1phase)	Yes	40,000	36,000	0	36,000	36,000	8900	26,000
FC-2	Unitary Heat Pumps (no elec. resistance)	Air-cooled, split (1phase)	Yes	27,000	24,000	0	24,000	24,000	3400	14,300

[1]*FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per 140.4(a) and 170.2(c)1. Healthcare facilities are excepted.*

[2]*It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.*

[3] *If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.*

[4] *Authority Having Jurisdiction may ask for load calculations used for compliance per 140.4(b) and 170.2(c).*

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F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP), DX-DOAS and Dual Fuel Heat Pumps)

01	02	03	04	05	06	07	08	09
Name or Item Tag	Size Category (Btu/h)	Heating Mode				Cooling Mode		
		Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency
FC-1	<65,000		HSPF	8.19	9.9	SEER	14	17.6
FC-2	<65,000		HSPF	8.19	10.3	SEER	14	22.7

G. PUMPS

This section does not apply to this project.

H. FAN SYSTEMS & AIR ECONOMIZERS

This table is used to demonstrate compliance with prescriptive requirements found in 140.4(c), 140.4(e), 140.4(m), 170.2(c)3, and 170.2(c)4A for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name	FC-1	Quantity	1	Fan System Status	New	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,130	Site Elevation	934	Economizer	Fixed Temperature

01	02	03	04	05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance		Design		
						Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
FC-1	Supply	1	Hydronic/DX cooling coil or heat pump coil	100		0.13	0.139	Manufacturer provided		0.33
				Fan System Allowance (kW)[3]		0.42		Fan System Electrical Output (kW)		0.33

H. FAN SYSTEMS & AIR ECONOMIZERS

System Name	FC-2	Quantity	1	Fan System Status	New	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	706	Site Elevation	934	Economizer	Fixed Temperature

01	02	03	04	05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance		Design		
						Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
FC-2	Supply	1	Hydronic/DX cooling coil or heat pump coil	100		0.13	0.139	Manufacturer provided		0.03
				Fan System Allowance (kW)[3]		0.26		Fan System Electrical Output (kW)		0.03

[1] *FOOTNOTES: Fans serving spaces with design background noise goals below NC35*

[2] *Low-turndown single-zone VAV fan system must be capable of and configured to reduce airflow to 50 percent of design airflow and use no more than 30 percent of the design wattage at that airflow. No more than 10 percent of the design load served by the equipment shall have fixed loads.*

H. EXHAUST AIR HEAT RECOVERY 140.4(q), 170.2(c)4O

01	02	03	04	05	06	07	08	09	10	11
Fan System Name	Qty	Hours of Operation per Year	Design Supply Airflow Rate	Outdoor Airflow	% Outdoor Air at Full Design Airflow	Exemptions to Exhaust Air Heat Recovery Requirement per 140.4(q) & 170.2(c)4O	Exhaust Air Heat Recovery 140.4(q) & 170.2(c)4O	Type Of Heat Recovery Rating	Required Recovery Ratio	Energy Recovery Bypass
FC-1	1	< 8,000	1,130	125	0.1	No Exemptions Apply	Not Required	Sensible Energy Recovery Ratio	0.6	Recovery Bypass provided

H. EXHAUST AIR HEAT RECOVERY 140.4(q), 170.2(c)4O

FC-2	1	< 8,000	706	30	0.04	No Exemptions Apply	Not Required	Sensible Energy Recovery Ratio	0.6	Recovery Bypass provided

Fan Energy Index (FEI)

01	02	03
Name or Item Tag	FEI Exception	FEI
FC-1	Embedded Fan <5HP or <4.1kW	
FC-2	Embedded Fan <5HP or <4.1kW	

I. SYSTEM CONTROLS

This table is used to demonstrate compliance with mandatory controls in 110.2 and 120.2 and prescriptive controls in 140.4(f) and (n), 170.2(c)4D 170.2(c)4L or requirements in 141.0(b)2E 180.2(b)2 for altered space conditioning systems.

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft^2)	Thermostats 110.2(b) & (c)[1], 120.2(a) 160.3(a)2A or 141.0(b)2E & 180.2(b)2	Shut-Off Controls 120.2(e) & 160.3(a)2D	Isolation Zone Controls 120.2(g) & 160.3(a)2F	Demand Response 110.12 120.2(b) & 160.3(a)2B	Supply Air Temp. Reset 140.4(f) & 170.2(c)4D	Window Interlocks per 140.4(n) & 170.2(c)4D
FC-1	Single zone	<= 25,000 ft^2	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-2	Single zone	<= 25,000 ft^2	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows

[1]*FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.*

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1 120.2(e)3B 140.4(p) and 140.4(q) for all nonresidential and hotel/motel and d:t24refnolink/]160.2, 160.3(a)3D, 170.2(a)4N, 170.2(a)4O for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☒	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☐	Check this box if the project included Nonresidential, Hotel/Motel Spaces or Multifamily Common Use Spaces
	☐	
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per 120.1(c)2.

Multifamily Dwelling Unit Ventilation Systems

☐ Check the box if the system is using continuous ventilation to meet the ventilation requirements per 160.2(b)2Aivb2

19	20	21	22	23	24	25	26	27
Space Name or Item Tag	Mechanical Ventilation Required per 120.1(b) & 160.2(b)2				Ventilation per Design		Local Exhaust	Air Filtration per 120.1(c) & 160.2(b)1
	Conditioned Floor Area (ft^2)	# of Bedrooms	# of Dwelling Units	Required Min OA CFM[1]	Supply Air CFM	Exhaust CFM		
28	Is this a balanced system[4]				29	Meeting Outside Air Requirements?		

[1] *FOOTNOTES: Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.*

[2] *Kitchen range hood will be verified per NA7.18.1 to confirm model is rated by HVI or AHAM.*

[3] *Air filtration requirements apply to the following three system types per 120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.*

[4] *A balanced ventilation system provides ventilation airflow to each dwelling-unit at a rate equal to or greater than the required minimum rate, but not more than twenty percent.*

K. TERMINAL BOX CONTROLS

This section does not apply to this project.

L. DISTRIBUTION (DUCTWORK and PIPING)

This table is used to show compliance with mandatory pipe insulation requirements found in 120.3 and mandatory requirements found in 120.4(g) for duct sealing.

01	☐	Insulation shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather shall be installed with a cover suitable for outdoor service. Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space shall have a Class I or Class II vapor retarder. All penetrations and joints of which shall be sealed.

Duct Leakage Testing

The answers to the questions below apply to the following duct systems:	Supply and Return	**NR/ Common Use:** Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?	No
		Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems?	---
		Duct leakage testing per CMC Section 603.10.1 required for these systems?	Yes

11	No	The scope of the project includes only duct systems serving healthcare facilities
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.
13	Yes	The space conditioning system serves less than 5,000 ft^2 of conditioned floor area.
14	No	The combined surface area of the ducts is more than 25% of the total surface area of the entire duct system:
15	No	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.
17	Exposed Ductwork located in occupied space	All Ductwork and plenums with pressure class ratings shall be constructed to Seal Class A
18		All ductwork is an extension of an existing duct system
19		Ductwork serving individual dwelling unit
20		< 25 ft of new or replacement space conditioning ducts installed
21	R-8	Dust Insulation R-value

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Ontario, Ca 91761

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KEY PLAN
NORTH: PLAN TRUE

Consultant

REGISTERED PROFESSIONAL ENGINEER
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Architect

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REN. 10-31-2025
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CLIENT
ONTARIO - MONTCLAIR SCHOOL DISTRICT

DATE	PROJECT NUMBER
3/3/23	220316

REVISIONS

No.	Description	Date

CitySubmittal - Rgistration #B202301766

MECHANICAL TITLE 24

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STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			**NRCC-MCH-E**
Project Name:	Transportation Center	**Report Page:**	**(Page 10 of 12)**
Project Address:	1442 South Bon View Ontario, CA 91761	**Date Prepared:**	2023-02-07T19:43:46-05:00

M. COOLING TOWERS
This section does not apply to this project.

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Form/Title
NRCI-MCH-01-E - Must be submitted for all buildings

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Form/Title	Systems/Spaces To Be Field Verified
NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	
NRCA-MCH-05-A - Air Economizer Controls	FC-1; FC-2

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION
There are no NRCV forms required for this project.

Registration Number:

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Generated Date/Time:

Report Version: 2022.0.000
Schema Version: rev 20220101

Documentation Software: Energy Code Ace

Compliance ID: 87928-0223-0003
Report Generated: 2023-02-07 16:43:50

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			**NRCC-MCH-E**
Project Name:	Transportation Center	**Report Page:**	**(Page 11 of 12)**
Project Address:	1442 South Bon View Ontario, CA 91761	**Date Prepared:**	2023-02-07T19:43:46-05:00

Q. MANDATORY MEASURES DOCUMENTATION LOCATION
This table is used to indicate where mandatory measures are documented in the plan set or construction documentation.

01		02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block	No	Plan sheet or construction document location
03		04
Mandatory Measure		**Plan sheet or construction document location**
Heating Equipment Efficiency per 110.1		M5.01
Cooling Equipment Efficiency per 110.1		M5.01
Furnace Standby Loss Control per 110.2(d)		N/A
Duct Insulation per 120.4		Specifications
Heat Pump with Supplemental electric Resistance Heater Controls per 110.2(b)		M5.01
The air duct and plenum system is designed per 120.4(a)-(f)		M3.01 and Specifications
Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2		N/A

Registration Number:

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Generated Date/Time:

Report Version: 2022.0.000
Schema Version: rev 20220101

Documentation Software: Energy Code Ace

Compliance ID: 87928-0223-0003
Report Generated: 2023-02-07 16:43:50

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			**NRCC-MCH-E**
Project Name:	Transportation Center	**Report Page:**	**(Page 12 of 12)**
Project Address:	1442 South Bon View Ontario, CA 91761	**Date Prepared:**	2023-02-07T19:43:46-05:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Maher Dandachi	Documentation Author Signature:
Company: LEAF Engineers	Signature Date: 02/08/2023
Address: 8163 Rochester Ave., Ste 100	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Rancho Cucamonga, CA 91730	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT
I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Rex Wang	Responsible Designer Signature:
Company: LEAF Engineers	Date Signed: 02/08/2023
Address: 8163 Rochester Ave., Ste 100	License:
City/State/Zip: Rancho Cucamonga, CA 91730	Phone:

B202301766

CITY OF ONTARIO
City of Ontario | Building Department
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FOR CODE COMPLIANCE
The issuance of a permit and approval of these plans shall not be construed to permit or approve any violation of the applicable codes or ordinances.
Date: 01/16/2024 1:34:38 PM

Registration Number:

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Generated Date/Time:

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Schema Version: rev 20220101

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CONSULTANT LEAF Engineers
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REVIEWED
FOR
CODE COMPLIANCE
Dec 15, 2023
BPR CONSULTING GROUP

TRANSPORTATION CENTER

PROJECT ADDRESS:
1442 South Bon View
Ontario, Ca 91761

CitySubmittal - Rgistration #B202301766

ONTARIO-MONTCLAIR SCHOOL DISTRICT SINCE 1884

KEY PLAN
NORTH: PLAN TRUE

Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M38155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

LICENSED ARCHITECT
Jong Yoo
No. C-31162
REN. 10-31-2023
STATE OF CALIFORNIA

CLIENT
ONTARIO - MONTCLAIR SCHOOL DISTRICT

DATE	PROJECT NUMBER
3/3/23	220316

REVISIONS

No.	Description	Date

CitySubmittal - Rgistration #B202301766

MECHANICAL TITLE 24

M0.02

M0.02 - MECHANICAL TITLE 24

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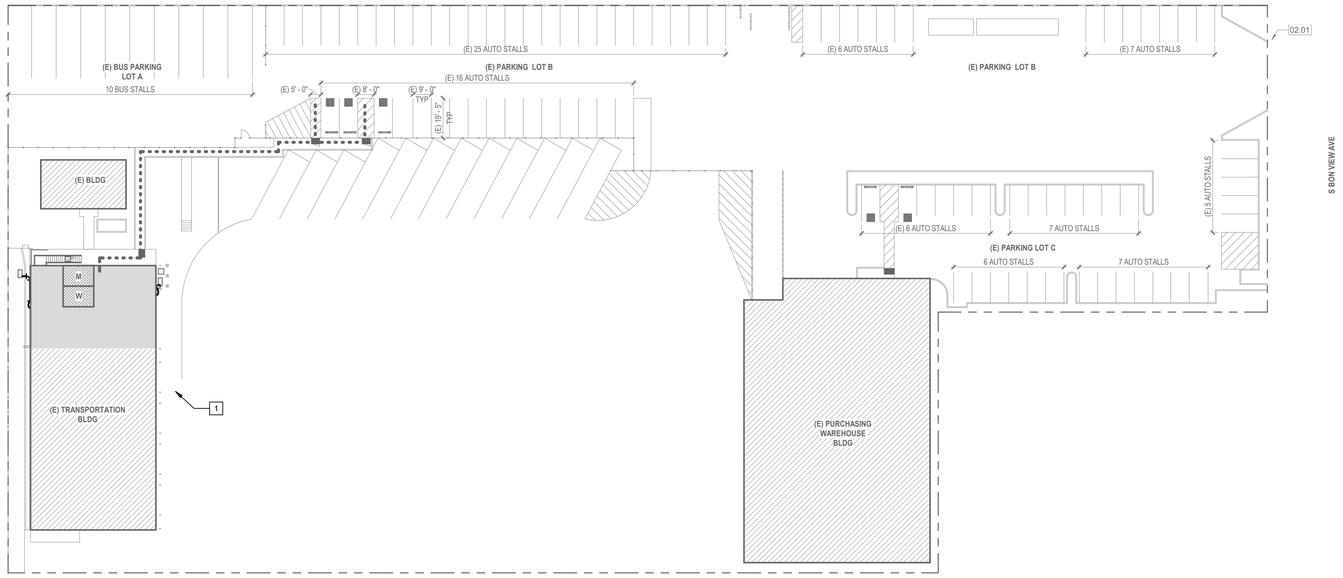
M1.01 - MECHANICAL SITE PLAN

0" 1"



1 SITE PLAN
1" = 30'-0"

NORTH

KEY NOTES

1 AREA OF SCOPE OF WORK.

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ONTARIO • MONTCLAIR SCHOOL DISTRICT SINCE 1884

KEY PLAN
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3/3/23	220316

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MECHANICAL SITE PLAN

M1.01

FILE PATH: Z:\Projects\...
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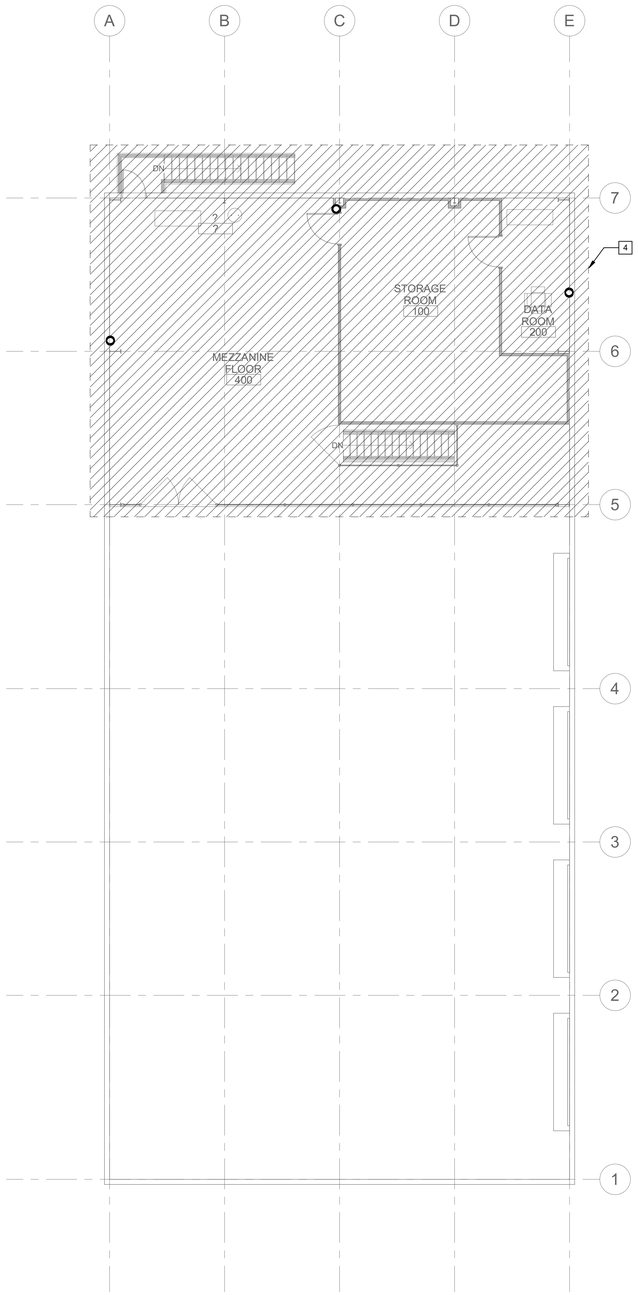
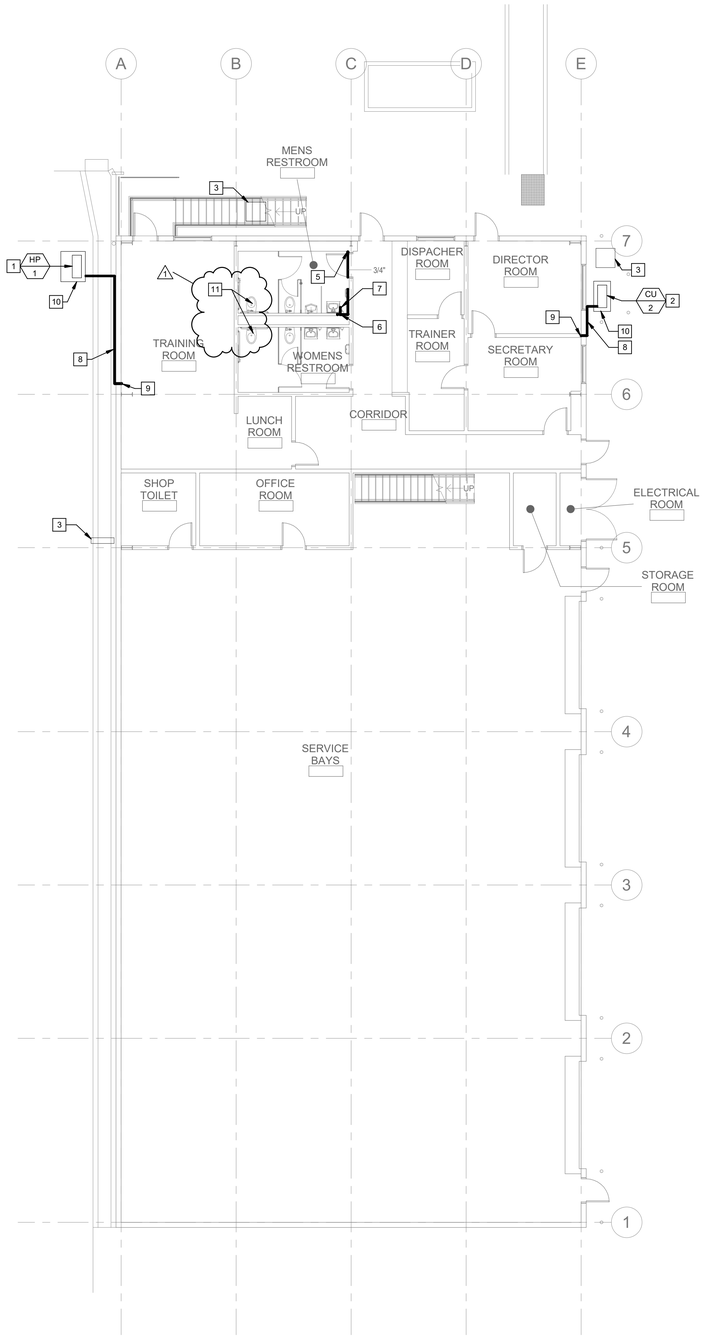
M2.01 - MECHANICAL FLOOR PLANS



2 SECOND FLOOR
1/8" = 1'-0"



1 FIRST FLOOR
1/8" = 1'-0"

GENERAL NOTES

1. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS (EQUIPMENT, DUCT, SIZES, DAMPERS, PIPES, WIRING, ETC.) BEFORE COMMENCING ANY WORK.

KEY NOTES

1. GROUND MOUNTED HEAP PUMP UNIT (SPLIT SYSTEM, OUTDOOR), SEE SCHEDULE SHEET M5.01 FOR INFORMATION.
2. GROUND MOUNTED CONDENDSING UNIT (SPLIT SYSTEM, OUTDOOR), SEE SCHEDULE SHEET M5.01 FOR INFORMATION.
3. (E) CONDENSING UNIT TO REMAIN WITH ALL ASSOCIATED HOUSEKEEPING PAD, WIRING, ACCESSORIES, ETC.
4. REFER TO ENLARGED SECOND FLOOR PLAN SHEET M3.01.
5. 3/4"ø CD PIPE FROM ABOVE.
6. 3/4"ø CD PIPE FROM DN. INSIDE WALL.
7. CONNECT 3/4"ø CD PIPE (E) LAV TAILPIECE.
8. REFRIGERANT PIPING, SIZES PER MANUFACTURER'S RECOMMENDATIONS.
9. REFRIGERANT PIPING UP TO SECOND FLOOR.
10. 6" CONCRETE HOUSEKEEPING PAD.
11. MODIFY ROUGH-IN, EXTEND AND CONNECT TO EXISTING PIPING IN WALL WITH NEW CARRIER; PATCH TO MATCH FINISH.

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TRANSPORTATION CENTER

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Ontario, Ca 91761

CitySubmittal - Rgistration #B202301766

ONTARIO-MONTCLAIR SCHOOL DISTRICT SINCE 1884

KEY PLAN
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ONTARIO - MONTCLAIR SCHOOL DISTRICT

DATE	PROJECT NUMBER
3/3/23	220316

REVISIONS

No.	Description	Date
1	CITY BACK CHECK	10/23/23

CitySubmittal - Rgistration #B202301766

MECHANICAL FLOOR PLANS

M2.01

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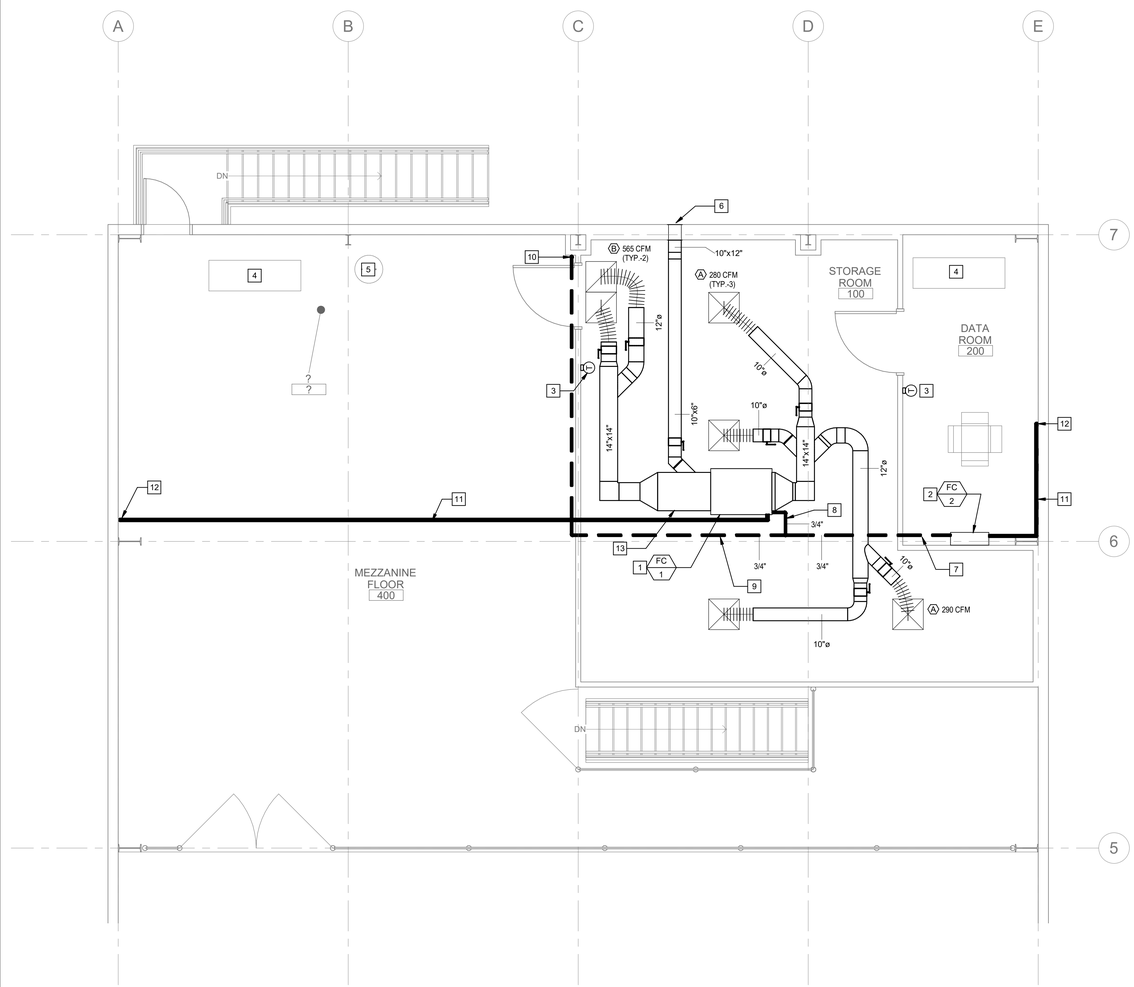
10/3/2023 6:20:01 PM

M3.01 - MECHANICAL ENLARGED PLANS

0" 1"



1 ENLARGED SECOND FLOOR
1/4" = 1'-0"

GENERAL NOTES

1. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS (EQUIPMENT, DUCT, SIZES, DAMPERS, PIPES, WIRING, ETC.) BEFORE COMMENCING ANY WORK.

KEY NOTES

1. DUCTED SUSPENDED FAN COIL UNIT (SPLIT SYSTEM, INDOOR), SEE SCHEDULE SHEET M5.01 FOR INFORMATION.
2. DUCTLESS WALL MOUNTED FAN COIL UNIT (SPLIT SYSTEM, INDOOR), SEE SCHEDULE SHEET M5.01 FOR INFORMATION.
3. THERMOSTAT..
4. (E) HVAC UNIT TO REMAIN WITH ALL ASSOCIATED DUCT, DAMPERS, WIRINGS, ACCESSORIES, ETC.
5. (E) WATER HEATER TO REMAIN WITH ALL ASSOCIATED ACCESSORIES, ETC..
6. 1.0 SQUARE FEET, 50% FREE AREA, OSA WALL LOUVER.
7. 3/4"ø CD PIPE FROM FC-2 (3/4 TON).
8. 3/4"ø CD PIPE FROM FC-1 (3 TON).
9. COMBINED 3/4"ø CD PIPE (3-3/4 TON).
10. 3/4"ø CD PIPE DN. TO FIRST FLOOR.
11. REFRIGERANT PIPING, SIZES PER MANUFACTURER'S RECOMMENDATIONS.
12. REFRIGERANT PIPING DN. TO FIRST FLOOR.
13. MIXING BOX, SAME SIZE AS RETURN AIR UNIT'S OPENING.

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TRANSPORTATION CENTER

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Ontario, Ca 91761

CitySubmittal - Rgistration #B202301766

ONTARIO - MONTCLAIR SCHOOL DISTRICT

KEY PLAN
NORTH: PLAN TRUE

Consultant
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DATE	PROJECT NUMBER
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MECHANICAL ENLARGED PLANS

M3.01

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SPLIT SYSTEM INDOOR FAN COIL UNIT SCHEDULE

UNIT	MANUFACTURER AND MODEL NO.	SERVICE/ LOCATION	TYPE	CAPACITY (MBH)		OSA TEMP. (°F)		EAT (°F)	LAT (°F)	SUPPLY FAN		ELECTRICAL				OPER. WT. (LBS.)	REMARKS
				TOTAL COOLING	HEATING	SUMMER (DB/WB)	WINTER (DB)	(DB/WB)		CFM (H/M/L)	E.S.P. (IN.)	VOLTAGE	UNIT FLA	UNIT MCA	MOCP		
FC 1	CARRIER/TOSHIBA RAV-SM362BTP-UL	STORAGE ROOM 100	SUSPENDED DUCTED	36.0	40.0	101.0/69.0	33.0	77.8/66.2	56.6	1,130 920 790	0.6	SEE OUTDOOR HP UNIT				95.0	

NOTES:
1. PROVIDE WITH CONDENSATE DRAIN PAN (PRIMARY AND SECONDARY) FOR FAN COIL UNIT AND ASSOCIATED PIPING.
2. PROVIDE WITH FACTORY FURNISHED & INSTALLED CONDENSATE DRAIN LIFT PUMP (CONDENSATE PUMP SHALL BE POWERED THRU INDOOR FAN COIL UNIT).
3. SIZE REFRIGERANT LINES PER MANUFACTURERS RECOMMENDATIONS.
4. PROVIDE T-24 COMPLIANT PROGRAMMABLE THERMOSTAT AND CONNECT TO EXISTING EMS.
5. SUSPENDED/DUCTGED FAN COIL UNIT.
6. PROVIDE DISCONNECT SWITCH.
7. PROVIDE WITH HIGH STATIC MOTOR.
8. PROVIDE WITH MERV 13 FILTER.
9. INDOOR UNIT SHALL BE POWERED BY OUTDOOR UNIT.

SPLIT SYSTEM INDOOR FAN COIL UNIT (COOLING ONLY) SCHEDULE

UNIT	MANUFACTURER AND MODEL NO.	SERVICE/ LOCATION	COOLING CAPACITY (MBH)	OSA TEMP. (°F) (DB/WB)	EAT (°F)	LAT (°F)	SUPPLY FAN		ELECTRICAL			OPER. WT. (LBS.)	REMARKS
					(DB/WB)		CFM (H, M, L)	E.S.P. (IN.)	VOLTAGE	UNIT MCA	MOCP		
FC 2	CARRIER/TOSHIBA RAV-SM242KRTP-UL	DATA ROOM 200	24.0	101.0/69.0	80.0/67.0	57.4	706 530 353	0.25	SEE OUTDOOR CU UNIT			35.0	

NOTES:
1. PROVIDE WITH CONDENSATE DRAIN PAN (PRIMARY AND SECONDARY) FOR FAN COIL UNIT AND ASSOCIATED PIPING.
2. PROVIDE WITH FACTORY FURNISHED & INSTALLED CONDENSATE DRAIN LIFT PUMP (CONDENSATE PUMP SHALL BE POWERED THRU INDOOR FAN COIL UNIT).
3. SIZE REFRIGERANT LINES PER MANUFACTURERS RECOMMENDATIONS.
4. CONNECT TO EXISTING EMS FOR CONTROLS.
5. WALL MOUNTED FAN COIL UNIT.
6. PROVIDE WITH HIGH STATIC MOTOR.
7. PROVIDE WITH TITLE 24 COMPLIANT THERMOSTAT.
8. INDOOR UNIT SHALL BE POWERED BY OUTDOOR UNIT.

SPLIT SYSTEM OUTDOOR UNIT SCHEDULE

UNIT	MANUFACTURER AND MODEL NO.	TYPE	COOLING CAP. (MBH)		COP/ HSPF	AMB. TEMP.(°F)		E.E.R. S.E.E.R.	ELECTRICAL						OPER WT. (LBS)	REMARKS
			COOLING (TOTAL/SENSIBLE)	HEATING		SUMMER (DB/WB)	WINTER (DB)		COMPRESSOR		OUTDOOR FAN		MCA	MOCP	VOLTAGE	
									QTY.	RLA	QTY./FLA					
HP 1	CARRIER/TOSHIBA RAV-SP362AT2P-UL	MOUNTED ON GRADE	36.0	40.0	3.5/ 9.9	101.0/69.0	33.0	11.0 17.6	1	-	1/-		30.0	40	208V / 1Ø / 60HZ	220.0	

NOTES:
1. PROVIDE CRANKCASE HEATER, HIGH & LOW PRESSURE SWITCHES.
2. PROVIDE LOW AMBIENT KIT.
3. PROVIDE 3/4" EXPAND METAL CONDENSING COIL GUARD.
4. PROVIDE MINIMUM CLEARANCE AROUND EACH UNIT PER THE MANUFACTURER'S RECOMMENDATIONS.
5. SIZE REFRIGERANT (R410A) LINES PER MANUFACTURERS RECOMMENDATIONS. PROVIDE LONG LINE KIT IF REQUIRED.
6. PROVIDE HAIL-GUARD.
7. PROVIDE WITH 6" CONCRETE HOUSEKEEING PAD.

SPLIT SYSTEM OUTDOOR CONDENSING UNIT (COOLING ONLY) SCHEDULE

UNIT	MANUFACTURER AND MODEL NO.	COOLING CAPACITY (MBH)	AMB. TEMP.(°F) (DB/WB)	E.E.R. S.E.E.R.	ELECTRICAL							OPER WT. (LBS)	REMARKS
					COMPRESSOR		OUTDOOR FAN		MCA	MOCP	VOLTAGE		
					QTY.	RLA	QTY.	FLA					
CU 2	CARRIER/TOSHIBA RAV-SP242AT2P-UL	24.0	101.0/69.0	11.8 22.7	1	-	1	-	17.0	25	208V / 1Ø / 60HZ	145.0	

NOTES:
1. PROVIDE CRANKCASE HEATER, HIGH & LOW PRESSURE SWITCHES.
2. PROVIDE LOW AMBIENT KIT.
3. PROVIDE 3/4" EXPAND METAL CONDENSING COIL GUARD.
4. PROVIDE MINIMUM CLEARANCE AROUND EACH UNIT PER THE MANUFACTURER'S RECOMMENDATIONS.
5. SIZE REFRIGERANT (R410A) LINES PER MANUFACTURERS RECOMMENDATIONS. PROVIDE LONG LINE KIT IF REQUIRED.
6. PROVIDE HAIL-GUARD.
7. PROVIDE WITH 6" CONCRETE HOUSEKEEPING PAD.
8. CONDENSING UNIT IS A FLOOR MOUNTED.
9. BLANK-OFF HEATING SECTION.

AIR DISTRIBUTION SCHEDULE

SYMBOL	TYPE	MAKE & MODEL	DESCRIPTION
A	CEILING SUPPLY	TITUS MODEL MCD	MODULAR CORE DIFFUSER WITH FRAME FOR LAY-IN T-BAR CEILING, FLUSH FACE MOUNTING.
B	CEILING RETURN	TITUS MODEL PAR	PERFORATED FACE DIFFUSER WITH FRAME FOR LAY-IN T-BAR CEILING, FLUSH FACE MOUNTING.
C	CEILING SUPPLY	TITUS MODEL MCD	MODULAR CORE DIFFUSER WITH RAPID MOUNT FRAME MODEL TRM FOR SURFACE MOUNTING.
D	CEILING RETURN/EXHASUT	TITUS MODEL 50F	EGG CRATE GRILLE REGISTER WITH RAPID MOUNT FRAME TRM FOR SURFACE MOUNTING.
E	SIDEWALL SUPPLY	TITUS MODEL 1700	DOUBLE DEFLECTION HORIZONTAL 5" DOWN FRONT GRILLE WITH 1/2" BLADE SPACING, FRAME FOR WALL MOUNTING.
F	CEILING SUPPLY	TITUS MODEL ML-38-2B	ALUMINUM LINEAR SLOT DIFFUSER, 3/4" SLOT,4-SLOT, PATTERN CONTROLLER, FLANGED BORDER FOR SURFACE MOUNTING, OPTIONAL PLENUM IN 2,3,4 OR 5 FOOT SECTIONS PER PLANS, COLOR PER ARCHITECT.

NOTES:
1. REFER TO THE FLOOR PLANS FOR NECK SIZE, CFM, AIR DIFFUSION PATTERN AND FIRE/DAMPER, IF REQUIRED.
2. PROVIDE AIR CONTROL GRID FOR ALL CEILING SUPPLY DIFFUSERS SET AT 90°.

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ONTARIO-MONTCLAIR SCHOOL DISTRICT SINCE 1884

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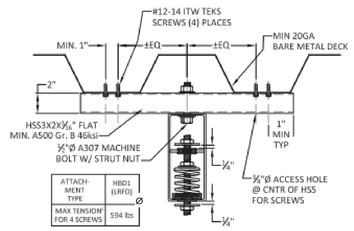
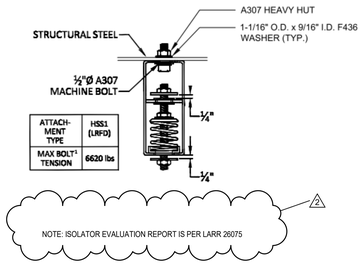
MECHANICAL SCHEDULES

M5.01

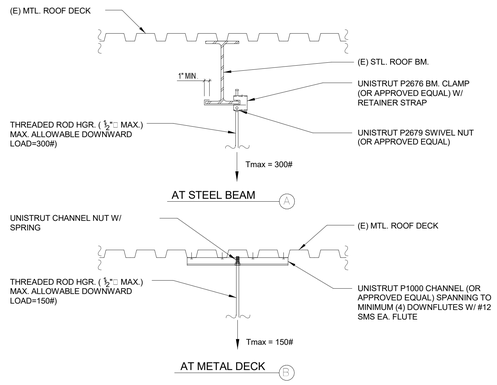


ATTACHMENT TYPE	HBD1 (LRFD)
MAX TENSION FOR 4 SCREWS	594 lbs

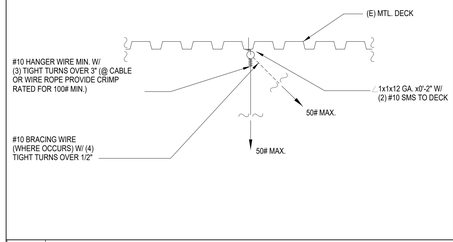


ATTACHMENT TYPE	HSS1 (LRFD)
MAX BOLT[1] TENSION	6620 lbs

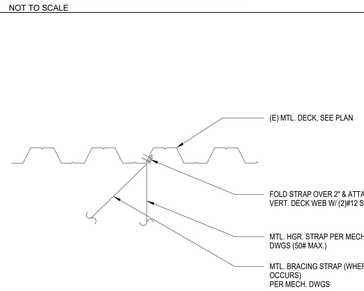
29 ISOLATOR ATTACHMENT TO STEEL AND STEEL DECK
NOT TO SCALE



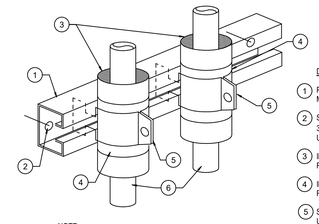
24 THREADED ROD HANGER AT METAL ROOF DECK DETAIL
NOT TO SCALE



28 HANGER WIRE TO DECK DETAIL
NOT TO SCALE



22 TYP. DUCT SUPPORT STRAP ATTACHMENT
NOT TO SCALE

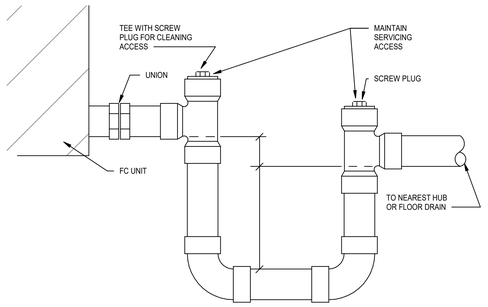


DETAIL NOTES:

1. P1000 UNISTRUT CHANNEL AT 6'-0" MAX. SPACING. (LENGTH AS REQ'D).
2. SECURE EACH END TO METAL STUD W/ (2) #10 SMS OR CONC. FLOOR WITH 3/8"ø TITAN HD ANCHOR W/ 2-1/2" NOMINAL EMBEDMENT, (2) PER UNISTRUT (ICC ESR-2713).
3. INSULATION (OMIT WHEN NOT REQUIRED).
4. INSULATION SHIELD (OMIT WHEN NOT REQUIRED).
5. SECURE PIPING TO SUPPORT WITH UNISTRUT P1100 PIPE CLAMP.
6. SEE PLAN FOR TYPE OF PIPING.

NOTE:
WEIGHT IS LESS THAN 2 LBS. PER FOOT FOR BOTH PIPES COMBINED.

26 PIPE SUPPORT DETAIL (TYPICAL FOR HORIZ. OR VERT.)
NOT TO SCALE



DRAW THRU:

DIMENSION TO BE 1" GREATER THAN SUCTION PRESSRE OF OF UNIT (IN. W.G.).

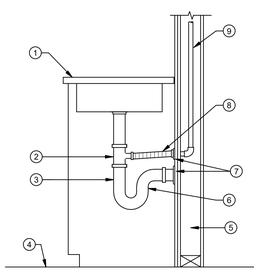
DIMENSION TO BE 1/2 TOTAL PRESSURE OF UNIT (IN. W.G.)

BLOW THRU:

DIMENSION TO BE 1"

DIMENSION TO BE EQUAL TO TOTAL PRESSURE OF UNIT (IN. W.G.)

20 CONDENSATE TRAP PIPING DETAIL
NOT TO SCALE



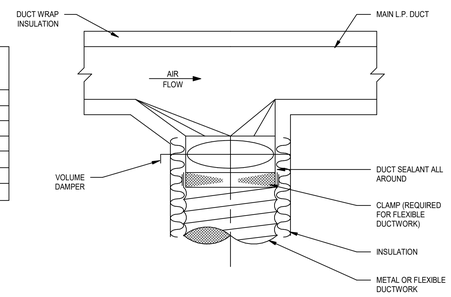
DETAIL NOTES:

1. SINK IN CABINET.
2. SLIP-JOINT FITTING.
3. TRAP.
4. FINISHED FLOOR.
5. WALL.
6. INSULATE SUPPLY AND DRAIN PER SPECIFICATIONS.
7. ESCUTCHEON PLATE.
8. NEOPRENE HOSE & CLAMPS.
9. 3/4" CONDENSATE DRAIN IN WALL.

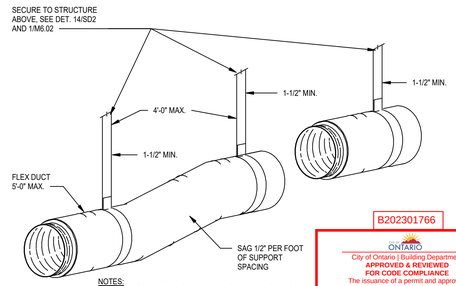
NOTE:
SEE ARCHITECT'S DRAWINGS FOR ACCESSIBLE REQUIREMENTS.

18 CONDENSATE TO TAILPIECE DETAIL
NOT TO SCALE

ROUND DUCT SIZE	BUCKLEY TAKE-OFF SIZE	MINIMUM MAIN DUCT DEPTH
6"	6"X12"	8"
8"	6"X12"	8"
9"	6"X14"	8"
10"	6 1/2" X16"	8 1/2"
12"	7 3/4"X18"	9 3/4"
14"	9"X20"	11"
16"	10"X20"	12"



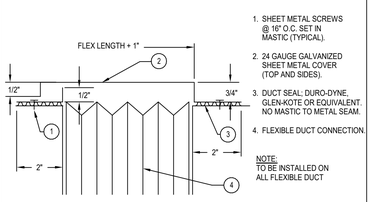
16 RECTANGULAR TO ROUND TRANSITION TAKE-OFF DETAIL
NOT TO SCALE



NOTES:
1. INSTALL DUCTWORK PER SMACNA GUIDLINES. REFER TO "SMACNA DUCT CONSTRUCTION STANDARDS, "LATEST EDITION".

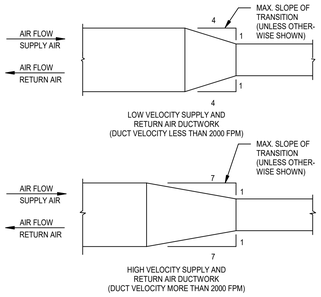
B202301766
ONTARIO
City of Ontario | Building Department
APPROVED & REVIEWED
FOR CODE COMPLIANCE
The issuance of a permit and approval of these plans shall not be construed to permit or approve any violation of the applicable codes or ordinances.
Date: 01/16/2024 1:34:39 PM

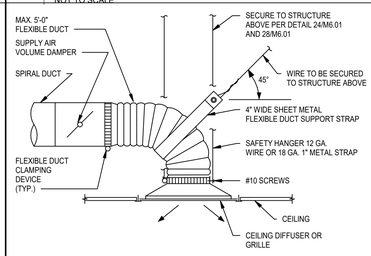
14 FLEXIBLE DUCTWORK HANGER DETAIL
NOT TO SCALE



1. SHEET METAL SCREWS @ 16" O.C. SET IN MASTIC (TYPICAL).
2. 24 GAUGE GALVANIZED SHEET METAL COVER (TOP AND SIDES).
3. DUCT SEAL: DURO-DYNE, GLEN-KOTE OR EQUIVALENT. NO MASTIC TO METAL SEAM.
4. FLEXIBLE DUCT CONNECTION.

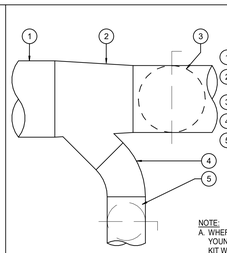
NOTE:
TO BE INSTALLED ON ALL FLEXIBLE DUCT





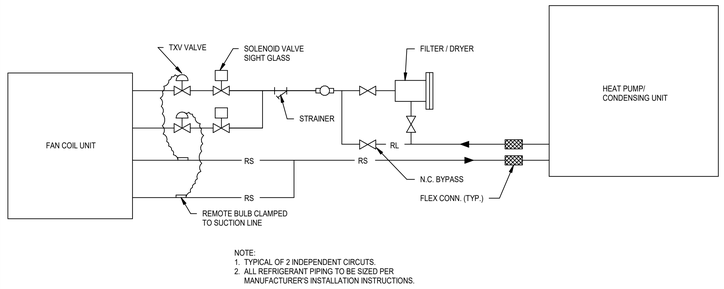
NOTES:

1. REFER TO DETAIL #14/M6.01 FOR FLEXIBLE DUCTWORK DETAIL.
2. LOCATE VOLUME DAMPER AS FAR AWAY FROM DIFFUSER OR GRILLE AS POSSIBLE.



1. SHEET METAL DUCT.
2. SHEET METAL TAPER WITH BRANCH STUB.
3. DAMPER AT END OF DUCT RUN ONLY.
4. BRANCH TAKE-OFF.
5. BUTTERFLY DAMPER W/ LOCKING QUAD. (TYP)

NOTE:
A. WHERE DAMPER IS INACCESSIBLE PROVIDE YOUNG REGULATOR MODEL 270-301 CABLE KIT WITH EITHER 820A-CC (RECTANGULAR OR 5020-CC (ROUND) DAMPER.
B. PROVIDE DAMPER WITH LOCKING QUADRANT AT ALL SINGLE RUNOUTS.



NOTE:
1. TYPICAL OF 2 INDEPENDENT CIRCUTS.
2. ALL REFRIGERANT PIPING TO BE SIZED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

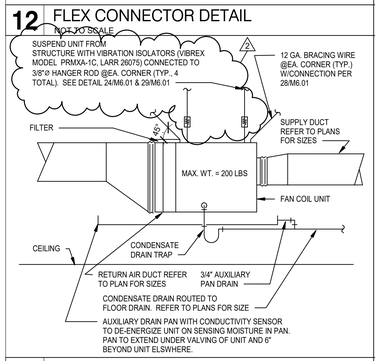
12 FLEX CONNECTOR DETAIL
NOT TO SCALE

11 RECTANGULAR DUCT TRANSITION DETAIL
NOT TO SCALE

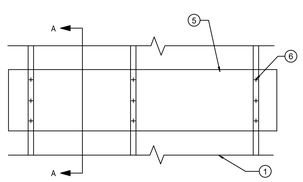
10 LAY IN DIFFUSER CONNECTION DETAIL
NOT TO SCALE

9 BRANCH DUCT DAMPER DETAIL
NOT TO SCALE

8 REFRIGERANT PIPING SCHEMATIC DETAIL
NOT TO SCALE



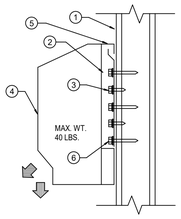
6 DUCTED FAN COIL UNIT DETAIL
NOT TO SCALE



ELEVATION

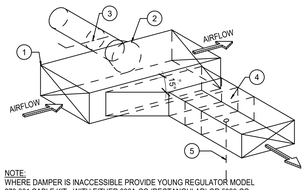
NOTES:

1. METAL FRAMED WALL, SEE ARCHITECTURAL & STRUCTURAL DWGS.
2. (5) #12 SCREWS TO BACKING.
3. UNIT MANUFACTURER MOUNTIANG PLATE.
4. WALL MOUNTED INDOOR UNIT SLIPS ONTO MOUNTING PLATE.
5. 8" X 16 GA. BACKING PLATE
6. #12 SCREW @6" O.C.



SECTION A-A

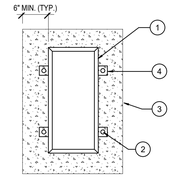
5 DUCTLESS WALL MOUNTED FAN COIL UNIT DETAIL
NOT TO SCALE



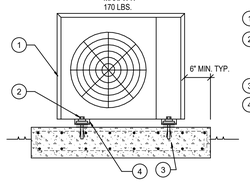
NOTE:
WHERE DAMPER IS INACCESSIBLE PROVIDE YOUNG REGULATOR MODEL 270-301 CABLE KIT WITH EITHER 830A-CC (RECTANGULAR) OR 5020-CC (ROUND) DAMPER.

1. RECTANGULAR GALVANIZED SHEET METAL SUPPLY AIR DUCT - SEE MECHANICAL PLAN FOR SIZE.
2. CUT OPENING ACCURATELY FOR SPIN IN (FLARED) FITTING - WHERE POSSIBLE.
3. BUTTERFLY DAMPER W/ LOCKING QUAD. (TYP)
4. VOLUME CONTROL DAMPER WITH LOCKING QUADRANT.
5. DAMPER REGULATOR

3 BRANCH DUCT TAKE-OFF & DMP. DETAIL
NOT TO SCALE



PLAN VIEW



SIDE VIEW

DETAIL NOTES:

1. OUTDOOR. SEE OUTDOOR UNIT SCHEDULE.
2. 3/8"Ø KB-TZ2 SS BOLT W/ 2-1/2" EFFECTIVE EMBEDMENT. (ESR-4266 WITH (2) 1/4" NEOPRENE PADS. ONE EACH CORNER OF UNIT'S FOOTING, (TYPICAL OF 4).
3. 18" CONC. SLAB W/ REINF. PER DETAIL 16/G0.03.
4. MOUNTING BRACKET (ONE ON EACH CORNER, TOTAL 4), PER MANUFACTURER'S RECOMMENDATIONS.

NOTE:
MAINTAIN CLEARANCES REQUIRED BY MANUFACTURER.

2 SPLIT SYSTEM OUTDOOR UNIT (ON GRADE) DETAIL
NOT TO SCALE

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12/4/2023 3:56:15 PM

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CONSULTANT LEAF Engineers
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leafengineers.com

REVIEWED
FOR
CODE COMPLIANCE
Dec 15, 2023
BPR CONSULTING GROUP

TRANSPORTATION CENTER

PROJECT ADDRESS:
1442 South Bon View
Ontario, Ca 91761

CitySubmittal - Rgistration #B202301766

ONTARIO-MONTCLAIR SCHOOL DISTRICT

KEY PLAN
NORTH: PLAN TRUE

Consultant
REGISTERED PROFESSIONAL ENGINEER
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Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect
LICENSED ARCHITECT
Yong Yon
No. C-31162
REN. 10-31-2023
STATE OF CALIFORNIA

CLIENT
ONTARIO - MONTCLAIR SCHOOL DISTRICT

DATE	PROJECT NUMBER
02/15/2023	220316

REVISIONS

No.	Description	Date
1	City Back Check	10/06/23
2	City Back Check	12/08/23

CitySubmittal - Rgistration #B202301766

MECHANICAL DETAILS

M6.01