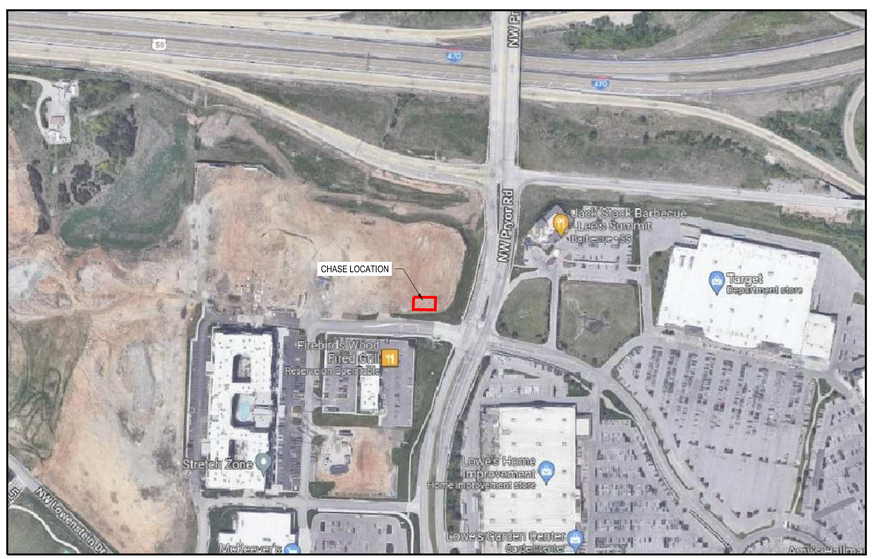
CHASE

RETAIL BANKING CENTER
PRYOR RD AND LOWENSTEIN DR
908 NW PRYOR RD
LEE'S SUMMIT, MO 64081



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DRAWING SYMBOLS LEGEND

- CONSTRUCTION TYPE (WE1)
- WINDOW (A1)
- DOOR (C)
- FINISH MATERIAL (FTS-5)
- EQUIPMENT / FURNITURE / DEVICE (OE 17)
- EQUIPMENT / FURNITURE / DEVICE (T.O. STEEL 12'-7 1/2")
- EXTERIOR ELEVATION (4 / A2.1.2)
- INTERIOR ELEVATION (6 / 7 A6.3 5 / 8)
- SECTION (3 / A2.1)
- DETAIL- VERTICAL (7 / A5.2.4)
- DETAIL- HORIZONTAL (5 / A4.3)
- KEYNOTE (A-23)
- ROOM / AREA DESIGNATION (OFFICE 3)
- DRAWING REVISION (2)
- NOTATION — DRAWING TEXT NOTES INTENDED FOR INCLUSION WITH COMPLETED CONSTRUCTION DOCUMENTS
- *notation* — DRAWING TEXT NOTES INDICATING DESIGN-INTENT INFORMATION FOR THE DESIGNER- NOT INTENDED FOR INCLUSION WITH COMPLETED CONSTRUCTION DOCUMENTS

GENERAL NOTES

1. ALL WORK SHALL BE IN COMPLIANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL BUILDING CODES, REGULATIONS, ORDINANCES AND STANDARDS INCLUDING ADA AND OR OTHER HANDICAP ACCESSIBILITY CODES.
2. THE ARCHITECT OF RECORD SHALL DESIGN, AND THE GENERAL CONTRACTOR SHALL CONSTRUCT, THE BUILDING TO CONFORM TO THE LEASST RESTRICTIVE AND MOST ECONOMICAL I.B.C. CONSTRUCTION TYPE PERMITTED BY AUTHORITIES HAVING JURISDICTION. FOR NEW-CONSTRUCTION "PROTOTYPICAL" PROJECTS, CONSTRUCTION TYPE V-B IS GENERALLY SUFFICIENT. CONSTRUCTION SHALL CONFORM TO I.B.C. 602.1.1 MINIMUM REQUIREMENTS:

   A BUILDING OR PORTION THEREOF SHALL NOT BE REQUIRED TO CONFORM TO THE DETAILS OF A TYPE OF CONSTRUCTION HIGHER THAN THAT TYPE WHICH MEETS THE MINIMUM REQUIREMENTS BASED ON OCCUPANCY EVEN THOUGH CERTAIN FEATURES OF SUCH A BUILDING ACTUALLY CONFORM TO A HIGHER TYPE OF CONSTRUCTION.
3. GEN. CONTRACTOR SHALL COORDINATE WITH THE OWNER'S VENDORS REGARDING SCHEDULING AND SEQUENCING OF THE WORK.
4. THE CONSTRUCTION NOTES AND DRAWINGS ARE SUPPLIED TO ILLUSTRATE THE DESIGN AND GENERAL TYPE OF CONSTRUCTION DESIRED AND ARE INTENDED TO IMPLY THE FINEST QUALITY OF CONSTRUCTION, MATERIAL AND WORKMANSHIP THROUGHOUT.
5. THE DRAWINGS ARE NOT TO BE SCALED. FOR INFORMATION CONCERNING EXISTING CONDITIONS, ETC., VERIFICATION MUST BE DONE IN THE FIELD. LARGE SCALE DRAWINGS HAVE PRECEDENCE OVER SMALL SCALE DRAWINGS.
6. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTENCE AND LOCATION OF ALL EXISTING ABOVE- AND BELOW-GRADE UTILITIES, INCLUDING SANITARY SEWER, STORM SEWER, WATER, GAS, ELECTRICAL, TELEPHONE, ETC. ANY DISCREPANCIES IN UTILITY LOCATIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT. G.C. SHALL BE RESPONSIBLE FOR SET-UP AND COORDINATION OF ALL THE UTILITY SERVICES FOR THE PROJECT.
7. GENERAL CONTRACTOR SHALL ALSO OBTAIN FINAL SITE ADDRESS.
8. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL BUILDING DIMENSIONS PRIOR TO BEGINNING CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY VARIANCE OR DISCREPANCY AFFECTING NEW CONSTRUCTION PRIOR TO PROCEEDING WITH WORK.
9. CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING IN WALLS FOR SUPPORT OF ALL EQUIPMENT, SHELVING, ACCESSORIES, SIGNAGE, AND OTHER DEVICES REQUIRED.
10. ALL PENETRATIONS SHALL RECEIVE CAULKING TO SEAL ANY TYPE OF ENERGY LOSS.
11. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL APPLICABLE DIMENSIONS OF FIXTURES AND EQUIPMENT SUPPLIED AND/OR INSTALLED BY OTHERS.
12. UPON COMPLETION OF PROJECT, OBTAIN ALL FINAL INSPECTIONS AS REQUIRED BY LOCAL JURISDICTIONS AND FURNISH OWNER WITH EVIDENCE OF ALL SUCH INSPECTIONS AND CERTIFICATES OF OCCUPANCY.
13. GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL SITE CUT & FILL TO ATTAIN FINISH GRADES AS INDICATED ON THESE DRAWINGS. GENERAL CONTRACTOR SHALL INCLUDE THE COST OF ANY TOPSOIL REQUIRED IN ADDITION TO THAT ON SITE, AT THE TIME OF THE PRE-BID MEETING. IN BASE BID.
14. GENERAL CONTRACTOR SHALL INCLUDE THE COST OF POWER COMPANY ELECTRICAL TRANSFORMER, PAD, PRIMARY & SECONDARY CONDUITS, AND SECONDARY CABLING IN BASE BID.
15. SIGNAGE:
    - 15.1. GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL CODE-REQUIRED EXTERIOR DIRECTIONAL TRAFFIC SIGNAGE.
    - 15.2. OWNER'S SIGNAGE VENDOR SHALL PROVIDE AND INSTALL ALL NON-CODE-REQUIRED SITE DIRECTIONAL AND EQUIPMENT INSTUCTIONAL SIGNAGE.
    - 15.3. UNLESS OTHERWISE DIRECTED BY THE OWNER, GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL BASE WORK FOR SITE MONUMENT AND/OR PYLON SIGN(S), INCLUDING EXCAVATION, CONCRETE FOUNDATION, SIGN BASE VENEER/FINISH AND CAP WHEN REQUIRED, ELECTRICAL ROUGH-IN AND WIRING TO BASE-MOUNTED SIGN JUNCTION BOX, FINISH GRADING AND LANDSCAPING.
    - 15.4. OWNER'S SIGN CONTRACTOR SHALL PROVIDE AND INSTALL BUILDING EXTERIOR AND SITE BRAND SIGNAGE, AND MAKE FINAL ELECTRICAL CONNECTIONS FROM SIGN JUNCTION BOXES.
    - 15.5. OWNER'S SIGN VENDOR SHALL PROVIDE AND INSTALL ALL INTERIOR BRAND, ROOM IDENTIFICATION, AND ACCESSIBILITY SIGNAGE. GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL BLOCKING AS REQUIRED FOR SIGNAGE SUPPORT AND ELECTRICAL ROUGH-IN AND WIRINGTO ALL POWERED SIGNS FOR FINAL CONNECTION BY THE OWNER'S SIGNAGE VENDOR.
16. GENERAL CONTRACTOR TO PROVIDE FOUR (4) 30 YARD DUMPSTERS DURING CHASE RETAIL MOVE-IN.
17. GENERAL CONTRACTOR SHALL PROVIDE ONE SKILLED LABORER FOR ONE WEEK DURING CHASE RETAIL MOVE-IN. (40 HOURS).
18. GENERAL CONTRACTOR SHALL PERFORM A TOPOGRAPHIC SURVEY PRIOR TO STARTING CONSTRUCTION AND REPORT ANY DISCREPANCIES IN GRADES AS COMPARED TO EXISTING GRADES INDICATED ON CIVIL DRAWINGS. SUBMIT A COPY OF TOPOGRAPHIC SURVEY TO ARCHITECT AND INDICATE ANY DISCREPANCIES ON SURVEY PRIOR TO COMMENCING EARTHWORK.
19. ALL EXTERIOR FLOOR PLAN DIMENSIONS ARE TO EXTERIOR FACE OF FINISH UNLESS OTHERWISE NOTED. ALL INTERIOR FLOOR PLAN DIMENSIONS ARE TO FACE OF FINISH UNLESS OTHERWISE NOTED.

ABBREVIATIONS

GENERAL ABBREVIATIONS

A	ANNEALED
AC	AIR CONDITIONING
ACM	ALUMINUM COMPOSITE MATERIAL
ACT	ACOUSTIC CEILING TILE
AFF	ABOVE FINISH FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
AL	ALUMINUM
ASPH	ASPHALT
BMS	BUILDING ENERGY MANAGEMENT SYSTEM
CJ	CONTROL JOINT
CLNG	CEILING
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CPT	CARPET
CT	CERAMIC TILE
CL	CENTERLINE
DBL	DOUBLE
DEFS	DIRECT-APPLY EXTERIOR FINISH SYSTEM
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DS	DOWNSPOUT
EA	EACH
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATION
EQ	EQUAL
EXIST	EXISTING
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FLOOR
FR	FIRE RATED
FRP	FIBERGLASS REINFORCED PLASTIC
GALV	GALVANIZED
GYP BD	GYPSUM BOARD
HC	HANDICAP
H.D. GALV.	HOT-DIP GALVANIZED (STEEL)
HDW	HARDWARE
HM	HOLLOW METAL
H.O.P.	HIGHEST OPERABLE PART
HT	HEIGHT
HVAC	HEATING,VENTILATION, AIR CONDITIONING
INSUL	INSULATION
JAN, JC	JANITOR, JANITOR'S CLOSET
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MO	MASONRY OPENING
MR	MOISTURE RESISTANT
MTL	METAL
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OPP	OPPOSITE
PF	PRE-FABRICATED
PSF	POUNDS PER SQUARE FOOT
PT	PRESSURE TREATED
PTD	PAINTED
QT	QUARRY TILE
R	RADIUS
REBAR	REINFORCING BAR
REF	REFERENCE
REQD.	REQUIRED
RO	ROUGH OPENING
SB	SPLASHBLOCK
SIM	SIMILAR
SPEC	SPECIFICATION
SS	STAINLESS STEEL
STL	STEEL
STOR	STORAGE
SUSP	SUSPENDED
T	TEMPERED
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
WD	WOOD
WP	WATERPROOF
WRB	WEATHER-RESISTIVE BARRIER
WWF	WELDED WIRE FABRIC

CHASE ABBREVIATIONS

ABCM	ASSISTANT BANKING CENTER MANAGER
AHD	AFTER-HOUR DEPOSITORY
ATM, eATM	AUTOMATED TELLER MACHINE
BCM	BANKING CENTER MANAGER
BRG	BULLET-RESISTANT GLASS
CAT	CUSTOMER ACCESS TABLE
CCS	CUSTOMER CONSULTATION SPACE
CMS	CASUAL MEETING SPACE
CPC	CHASE PRIVATE CLIENT
CR	CASH RECYCLER
DAB	DIGITAL ADVICE BAR
DRC	DESIGN REVIEW CALL
DRT	DINING ROOM TABLE
DU, D/U	DRIVE-UP
EBDU	EXPRESS BANKING DRIVE-UP
HUB	HOLD-UP BUTTON
IWS	INDIVIDUAL WORK SPACE
LAO	LEAD ASSOCIATE OPERATIONS
LTOS	LEAD TELLER OPERATIONS SPECIALIST
MFD	MULTI-FUNCTIONAL DEVICE
PB	PERSONAL BANKER
PCA	PRIVATE CLIENT ADVISOR
PCB	PRIVATE CLIENT BANKER
PCIA	PRIVATE CLIENT INVESTMENT ADVISOR
PCS	PRIVATE CONSULTATION SPACE
PTB	POWER TRANSITION BOX
SDB	SAFE DEPOSIT BOX
TCC	TABLET CHARGING CABINET
TP	TELEPRESENCE
VAT	VACUUM AIR TUBE

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SIGNED BY:

STATE OF MISSOURI
JOSHUA W. CARRELL
NUMBER A-2018040323
ARCHITECT
3/2/2022

PRYOR ROAD & LOWENSTEIN DRIVE
908 NW PRYOR ROAD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

ISSUE	DATE	DESCRIPTION

CHASE

PRYOR & LOWENSTEIN
PROTOTYPE VERSION 20.4

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GENERAL NOTES
TABLE OF CONTENTS
ABBREVIATIONS
DRAWING SYMBOLS LEGEND

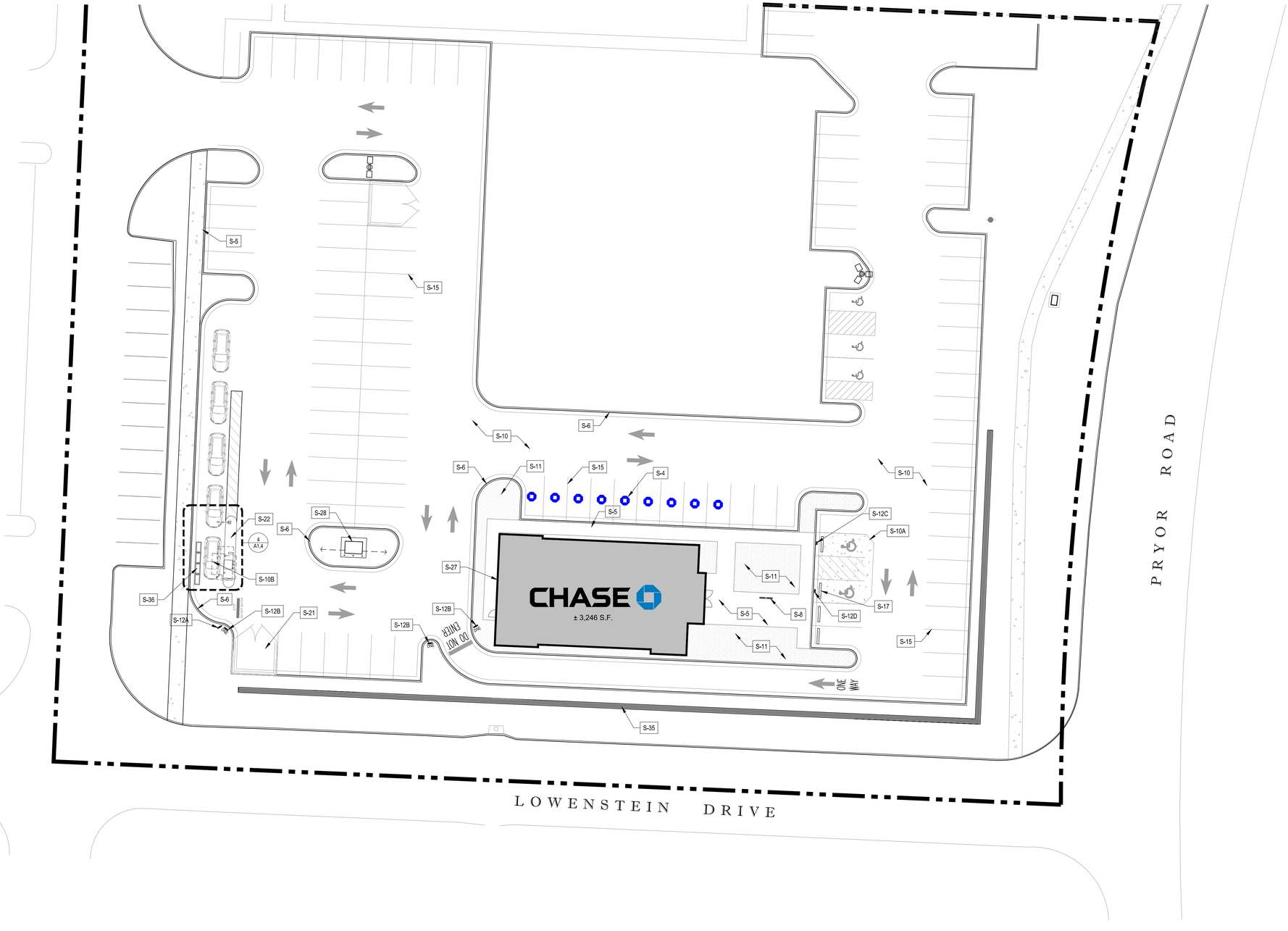
02/04/2022

SHEET

A0.1

SITE PLAN NOTES

S-1	*NOT USED*
S-2	*NOT USED*
S-2A	*NOT USED*
S-3	*NOT USED*
S-4	DEDICATED CHASE CUSTOMER PARKING (CONFIRM QUANTITY WITH LEASE AGREEMENT)
S-5	*EXISTING CONCRETE WALK*
S-6	*EXISTING CONCRETE CURB*
S-7	*TRASH CAN*
S-8	*BICYCLE RACK*
S-9	*PEDESTRIAN CROSS-WALK- MAINTAIN ACCESSIBLE PATH OF TRAVEL INCLUDING 5% MAX. RUNNING SLOPE AND 2% MAX. CROSS SLOPE*
S-10	*EXISTING PAVEMENT*
S-10A	*EXISTING ACCESSIBLE PARKING AND ACCESS AISLE PAVEMENT*
S-10B	*DRIVE-UP CANOPY / ATM CANOPY DRIVE AISLE PAVING: REINFORCED CONCRETE SLAB- EXTEND TO BYPASS LANE OUTSIDE CURB (NOT BY DEVELOPER)*
S-11	*EXISTING LANDSCAPING*
S-12	*REGULATORY SIGNAGE: AS REQUIRED BY LOCAL ORDINANCE AND FURNISHED BY G.C. UNLESS OTHERWISE NOTED:*
	S-12A: STOP
	S-12B: DO NOT ENTER
	S-12C: ACCESSIBLE PARKING
	S-12D: ACCESSIBLE PARKING (VAN)
S-13	*DIRECTIONAL SIGNAGE: PROVIDED AND INSTALLED BY OWNER'S SIGNAGE VENDOR (NOT BY DEVELOPER)*
S-14	*IDENTIFICATION SIGNAGE: PROVIDED AND INSTALLED BY OWNER'S SIGNAGE VENDOR (NOT BY DEVELOPER)*
	S-14A: MONUMENT SIGN: SIZE AND POSITION AS DETERMINED BY MARKET (NOT BY DEVELOPER)
	S-14B: PYLON SIGN: SIZE AND POSITION AS DETERMINED BY MARKET (NOT BY DEVELOPER)
S-15	*EXISTING PAVEMENT STRIPING*
S-16	*TACTILE WARNING SURFACE: AS REQUIRED BY AUTHORITIES HAVING JURISDICTION, INSTALLED IN CONFIGURATIONS AS GENERALLY INDICATED IN THE SITE PLAN AND FABRICATED OF THE MATERIALS AS INDICATED IN THE PROJECT MANUAL SPECIFICATIONS AND PEDESTRIAN CIRCULATION DESIGNER NOTES*
S-17	*WHEEL STOP: RECYCLED RUBBER w/ WHITE POLYGONS, MODEL #RF-PWS38 AS MFRD. BY RUBBERFORM OR EQ. PROVIDE WHERE INDICATED ON PLAN AND AT ALL PARKING SPACES NOSING-INTO PEDESTRIAN WALKS NARROWER THAN 5'-0".*
S-18	*NOT USED*
S-19	*DOWNSPOUT: CONNECT AT GRADE THROUGH CAST IRON HUB TO UNDERGROUND STORMATER MANAGEMENT SYSTEM*
S-20	*NOT USED*
S-21	*EXISTING TRASH ENCLOSURE*
S-22	*CURB AND CONDUITS BY DEVELOPER ONLY*
S-23	*DOWNSPOUT NOZZLE OR CANOPY DOWNSPOUT: SPLASH DIRECT TO SPLASH BLOCK OR CONCRETE SLAB*
S-24	*ON-GRADE SPLASH BLOCK: MANUFACTURED STONE VENEER REMNANTS SET FLUSH WITH GRADE AT ALL STORMWATER DOWNSPOUT NOZZLES AND MECHANICAL, PLUMBING OR FIRE PREVENTION SYSTEM DRAINS, HOSE BIBS, ETC. WHERE EROSION MAY OTHERWISE OCCUR*
S-25	*STORMWATER DRAINAGE SYSTEM: REFER TO CIVIL ENGINEERING DRAWINGS*
S-26	*LIGHT FIXTURE: REFER TO LIGHT FIXTURE SCHEDULE*
S-27	*UTILITIES: REFER TO DEVELOPER / EXISTING ENGINEERING DRAWINGS- CONCEAL ALL SERVICES BELOW GRADE: GAS METER, WATER METER REMOTE-READ, ELECTRICAL CT CABINET, EMERGENCY ELECTRICAL TRANSFER SWITCH, FIRE SPRINKLER TEST VALVE AND TELEPHONE*
S-28	*EXISTING POWER TRANSFORMER*
S-29	*ACCESSIBLE ENTRANCE DIRECTIONAL SIGNAGE: AT PROJECTS WITH MULTIPLE ENTRANCES WHERE ALL ARE NOT ACCESSIBILITY COMPLIANT, PROVIDE ACCESSIBILITY-COMPLIANT DIRECTINAL SIGNAGE DIRECTING PEDESTRIANS TO THE ACCESSIBLE ENTRANCE (NONE INDICATED ON SAMPLE SITE PLAN)*
S-30	*MAIL BOX- PROVIDED ONLY WHERE REQUIRED BY LOCAL U.S.P.S. OFFICE: SALSBURY INDUSTRIES #4350SLV SALSBURY MAIL CHEST WITH PEDESTAL #4385SLV SET IN CAST-IN-PLACE CONCRETE POST BASE AS REQUIRED CONCEALED BELOW LANDSCAPING; OR #4365SLV SURFACE-BOLTED TO EXISTING CONCRETE SLAB*
S-31	*LANDSCAPE IRRIGATION CONTROL EQUIPMENT*
S-32	*ACCESSIBILITY CLEARANCE AREA- SURFACE NOT TO EXCEED 2% SLOPE IN ANY DIRECTION*
S-33	*AUTOMATIC DOOR OPERATOR PUSH BUTTON(S) AND 24-HOUR ACCESS CARD READER*
S-34	*FLUSH THRESHOLD COMPLIANT WITH ADA ACCESSIBLE PATH OF TRAVEL REQUIREMENTS*
S-35	*RETAINING WALL, BY OTHERS*
S-36	*ATM SECURITY BARRIER: VERIFY REQUIREMENT WITH AD&E DESIGN PROJECT MANAGER - REFER TO DETAILS 7-9/A0.3*



1 / A0.2 ARCHITECTURAL SITE PLAN

1" = 20'

NORTH

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PRYOR & LOWENSTEIN
PROTOTYPE VERSION 20.4

CONTENTS

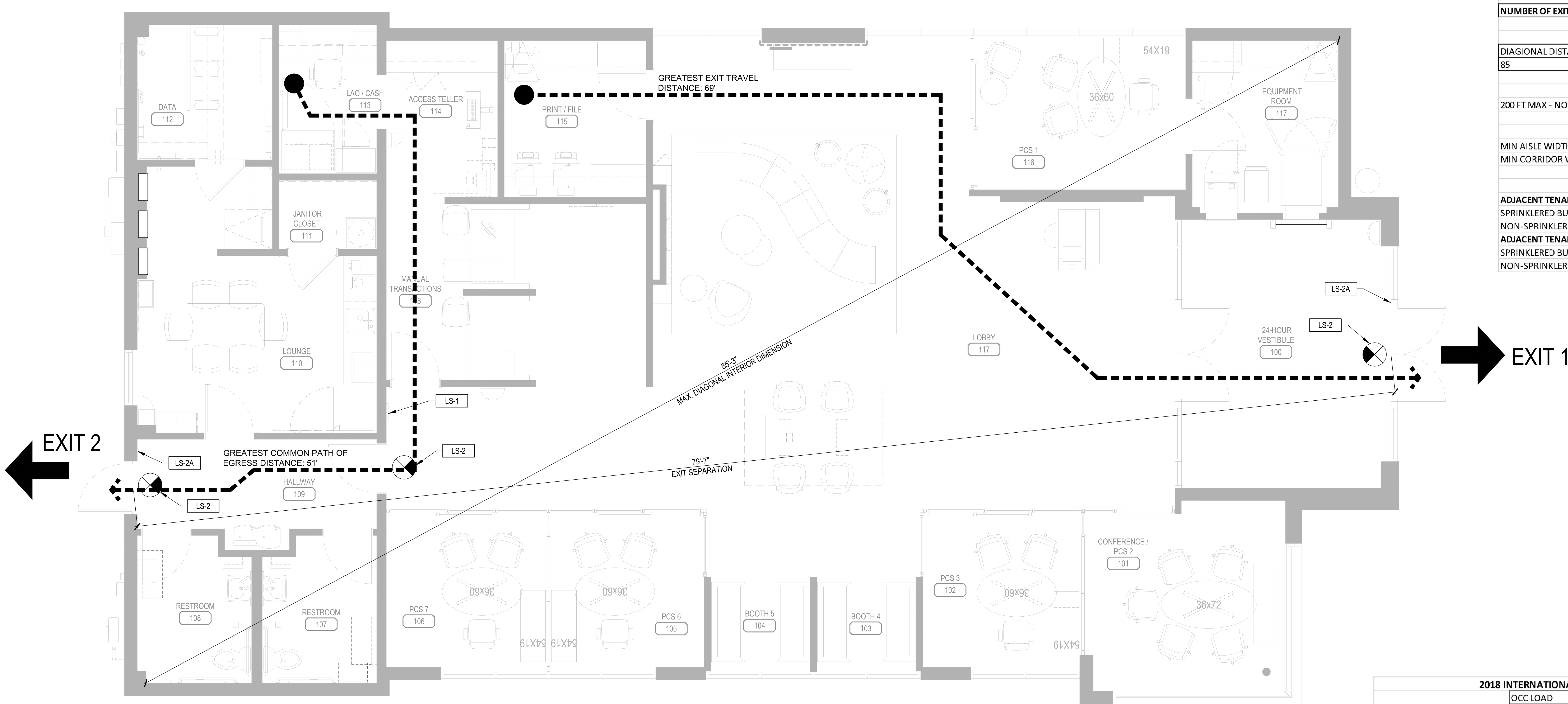
ARCHITECTURAL SITE PLAN

02/04/2022

SHEET

A0.2

PLAN NOTES	
LS-1	*FIRE EXTINGUISHER CABINET: PREFERRED LOCATION IN REAR CORRIDOR. MEET CODE REQUIREMENTS. DO NOT LOCATE IN 24-HOUR VESTIBULE.*
LS-1A	*FIRE EXTINGUISHER*
LS-2	*EXIT SIGN: REFER TO LIGHT FIXTURE SCHEDULE*
LS-2A	*TACTILE EXIT SIGNS: ADHESIVE PLASTIC PLACARD COMPLYING WITH ADA 703 AT EACH EXIT DISCHARGE (IBC 1011.3)*



1
A0.2.1
LIFE SAFETY COMPLIANCE PLAN
1/4" = 1'-0"

NORTH

CHASE BANK - PRYOR RD and LOWENSTEIN DR

PROJECT NAME	Pryor Rd and Lowenstein Dr
CITY	Lee's Summit
STATE	MO
BUILDING CODE	2018 International Building Code
PLUMBING CODE	2018 International Plumbing Code
MECHANICAL CODE	2018 International Mechanical Code
ELECTRICAL CODE	2017 National Electrical Code
ENERGY CODE	2018 International Energy Code
FUEL CODE	2018 International Fuel Gas Code
ACCESSIBILITY CODE	ICC/ANSI A117.1-2009
LEASED SF	3,246
OCCUPANCY CLASSIFICATION	B - BUSINESS
CONSTRUCTION TYPE	V-B
SPRINKLERED (YES/NO)	No
FIRE ALARMS (YES/NO)	

OCCUPANT LOAD SCHEDULE (TABLE 1004.5)

ROOM NAME	AREA (SF)	LOAD FACTOR	OCCUPANT LOAD
LOBBY/OFFICES	3246	150	22
RESTROOMS		0	0
STORAGE/MECHANICAL/JAN		300	0
CIRCULATION AREAS		200	0
UNOCCUPIABLE AREAS		0	0
Total Gross SF	**3246**		**22**

EGRESS WIDTH (SECTION 1005.3.2)

OCCUPANT LOAD	FACTOR	WIDTH REQ'D (INCHES)
22	0.2	4.40

EXIT	WIDTH	MAX CAPACITY	REQUIRED CAPACITY
MAIN EXIT WIDTH	68	13.60	2.2
EXIT #2 WIDTH	34	6.80	

NUMBER OF EXITS REQUIRED (SECTION 1006.2.1.1)

NUMBER OF EXITS REQUIRED	2

EXIT SEPARATION (SECTION 1007.1.1)

DIAGIONAL DISTANCE OF SPACE	FACTOR	REQUIRED SEPARATION	ACTUAL SEPARATION
85	1/2	42.5 FT	79'-7"

EXIT TRAVEL DISTANCE IN FEET (SECTION 1017.2)

200 FT MAX - NON-SPRINKLERED

CORRIDORS AND AISLE WIDTH (SECTION 1020.2)

MIN AISLE WIDTH 42"		
MIN CORRIDOR WIDTH 44"	CORRIDOR RATING	1 HR

DEMISING WALL RATING (TABLE 508.4)

ADJACENT TENANT MERCANTILE	
SPRINKLERED BUILDING	1 HR
NON-SPRINKLERED	2 HR
ADJACENT TENANT ASSEMBLY	
SPRINKLERED BUILDING	1 HR
NON-SPRINKLERED	2 HR

2018 INTERNATIONAL PLUMBING CODE: TABLE 403

	OCC LOAD	FACTOR	# OF FIXTURES REQUIRED	# OF FIXTURES PROVIDED
LAVITORY WOMENS	11	40 OR LESS = 1 41-80 = 2 81-120 = 3 121-160 = 4	1	1
WATER CLOSETS WOMENS	11	25 OR LESS = 1 26-50 = 2 51-100 = 3 101-150 = 4	1	1
LAVITORY MENS	11	40 OR LESS = 1 41-80 = 2 81-120 = 3 121-160 = 4	1	1
WATER CLOSETS MENS	11	25 OR LESS = 1 26-50 = 2 51-100 = 3 101-150 = 4	1	1
URINALS	11	100 OR LESS = 1 101-200 = 2 201-400 = 3	1	0
DRINKING FOUNTAINS	22	100	1	1 Hi/Lo
MOP SINK			1	1

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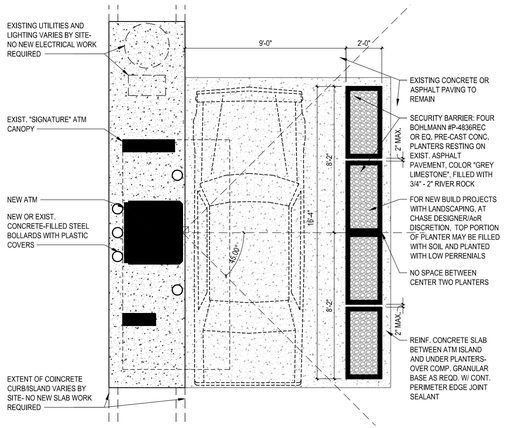


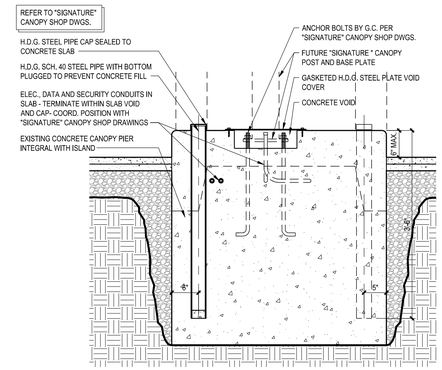
9 / A0.3 — ATM SECURITY BARRIER- PRE-FAB. PLANTER OPTION

1/4" = 1'-0"

8 / A0.3 — (NOT USED)

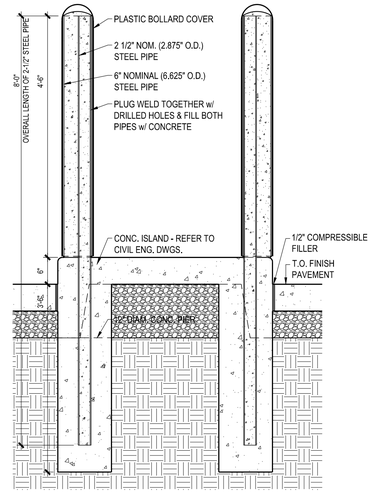
7 / A0.3 — (NOT USED)

6 / A0.3 — (NOT USED)



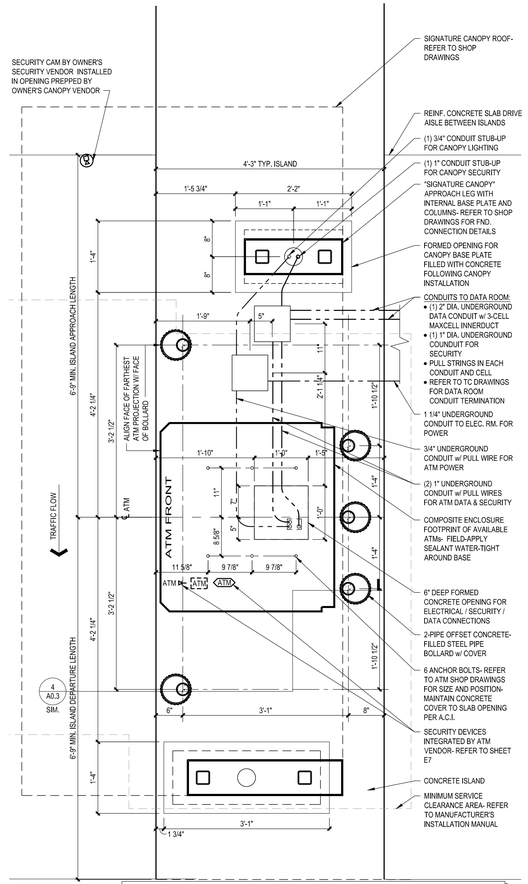
5 / A0.3 — DRIVE-UP ISLAND SECTION- FUTURE ATM

1/2" = 1'-0"



4 / A0.3 — DRIVE-UP ISLAND ATM BOLLARD

3/4" = 1'-0"



GENERAL NOTES:
1. COMPOSITE FOOTPRINT OF AVAILABLE ATM ENCLOSURES AND 'SIGNATURE CANOPY' SHOWN. VERIFY EXACT MODELS FOR PROJECT WITH THE OWNER AND SIGNAGE VENDOR AND COORDINATE DETAILS AS REQUIRED.
2. "SIGNATURE CANOPY" SHALL BE PROVIDED BY OWNER'S SIGNAGE VENDOR AND INSTALLED BY THE G.C.
3. ONCE ATM IS SET, G.C. IS TO FILL ANY EXPOSED WIRING TRENCH. WATER TIGHT SEAL REQUIRED.
4. EXPANSION BOLTS ARE NOT TO BE PLACED WITHIN 3" OF A CONDUIT OR JUNCTION BOX UNLESS THE EXPANSION HEAD OF THE ANCHOR BOLT IS BELOW THE LEVEL OF THE CONDUIT OR JUNCTION BOX WITHIN THE CONCRETE.
5. ELECTRICAL CONTRACTOR MUST BE ON-SITE WHEN WHEN ATM IS SET.
6. DEDICATED 30A CIRCUIT REQUIRED FOR EACH ATM.

2 / A0.3 — DRIVE-UP ISLAND PLAN- "SIGNATURE" CANOPY

3/4" = 1'-0"

3 / A0.3 — (NOT USED)

1 / A0.3 — (NOT USED)

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PROTOTYPE VERSION 20.4

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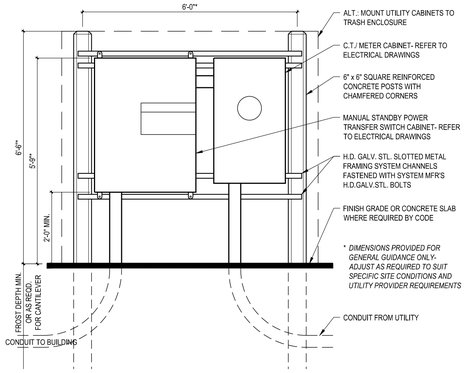
DRIVE-UP ISLAND AND CANOPY

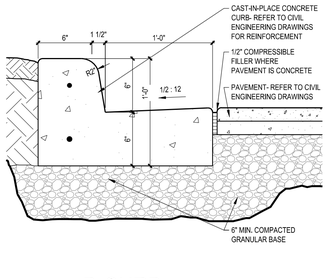
02/04/2022

SHEET

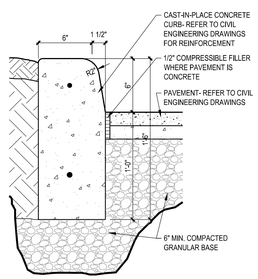
A0.3



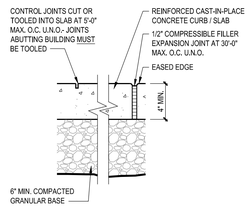
12 A0.4 REMOTE UTILITY MOUNT
1/2" = 1'-0"



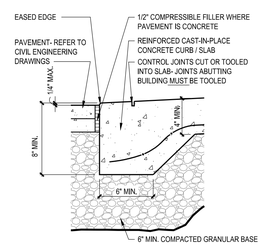
9 A0.4 B-CURB WITH GUTTER
3/4" = 1'-0"



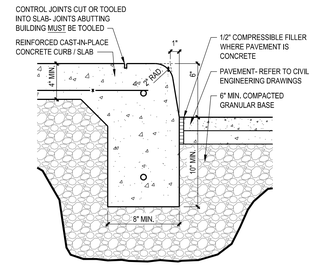
8 A0.4 BARRIER CURB
3/4" = 1'-0"



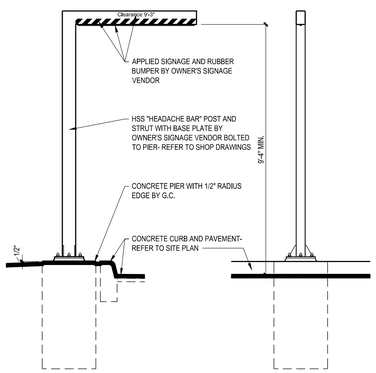
7 A0.4 PEDESTRIAN WALK EXPANSION JOINT
1 1/2" = 1'-0"



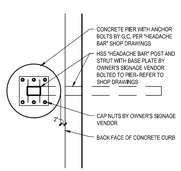
6 A0.4 FLUSH CURB
1 1/2" = 1'-0"



5 A0.4 PEDESTRIAN WALK CURB
1 1/2" = 1'-0"



11 A0.4 DETACHED DRIVE-UP HEADACHE BAR ELEVATIONS
3/8" = 1'-0"



10 A0.4 DETACHED DRIVE-UP HEADACHE BAR PLAN
3/4" = 1'-0"

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SIGNED BY:

3/2/2022

PRYOR ROAD & LOWENSTEIN DRIVE

908 NW PRYOR ROAD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

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TRASH ENCLOSURE DETAILS
SITE PAVING DETAILS
HEADACHE BAR

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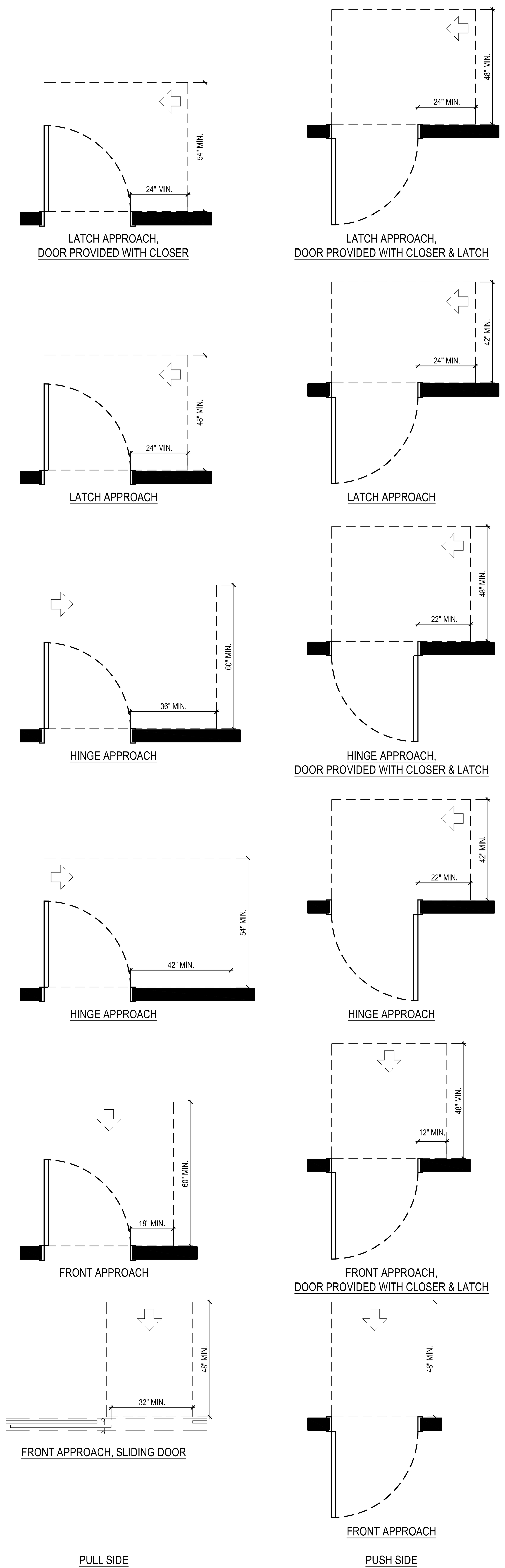
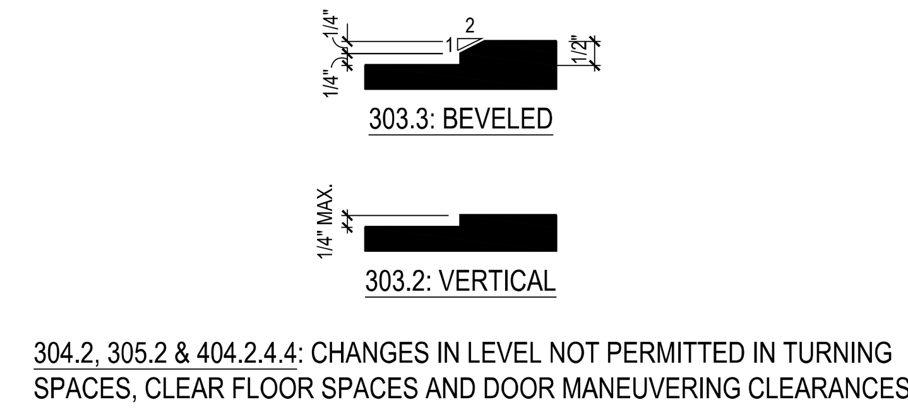
SHEET

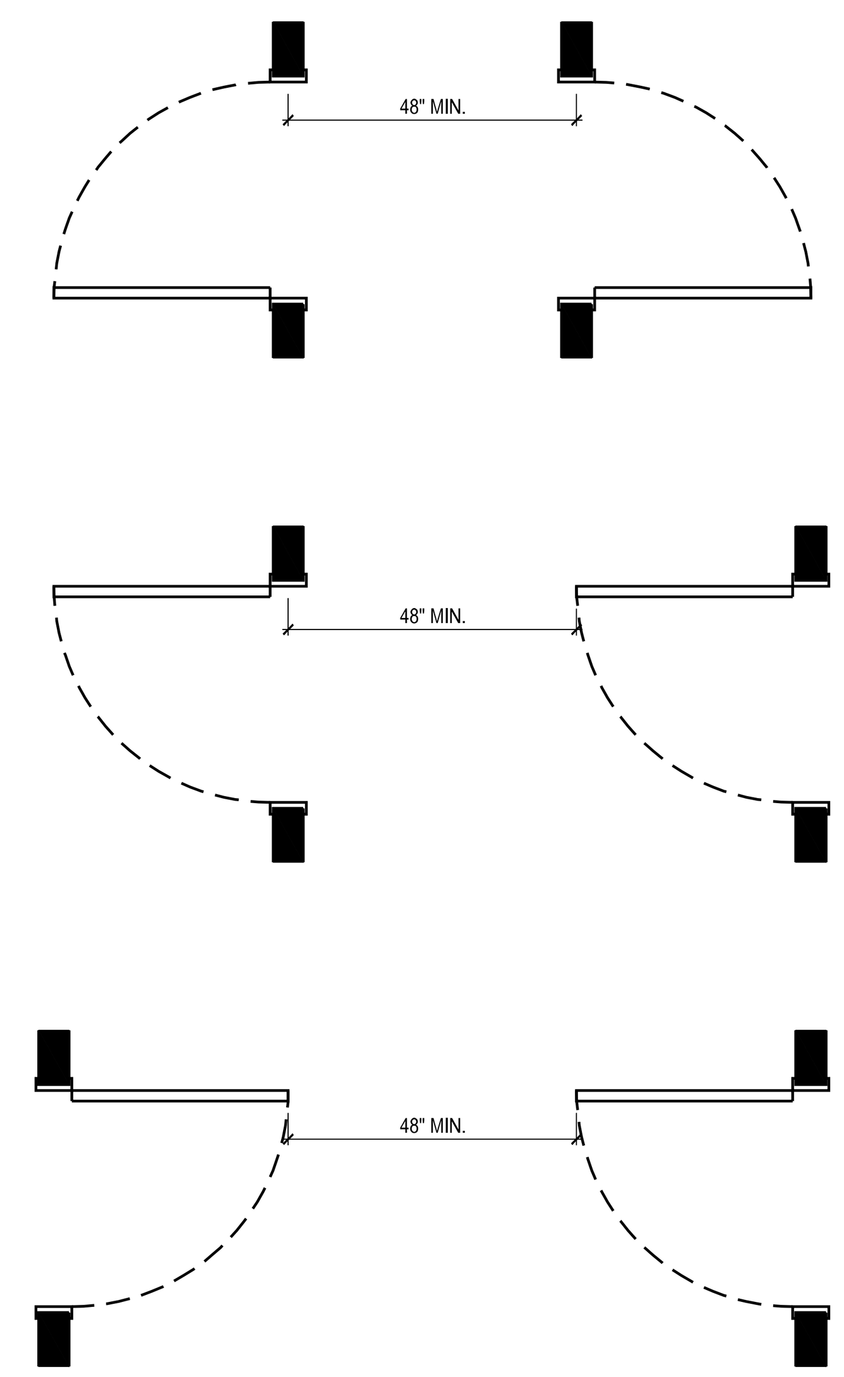
A0.4



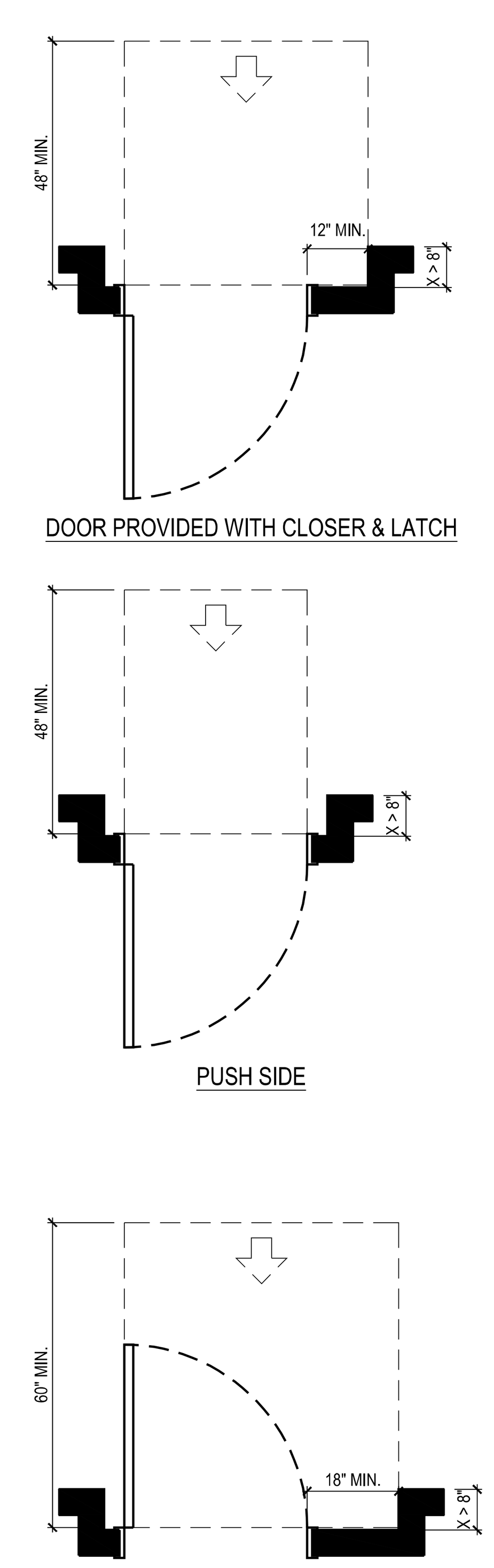
SECTION 404.2.4: MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS



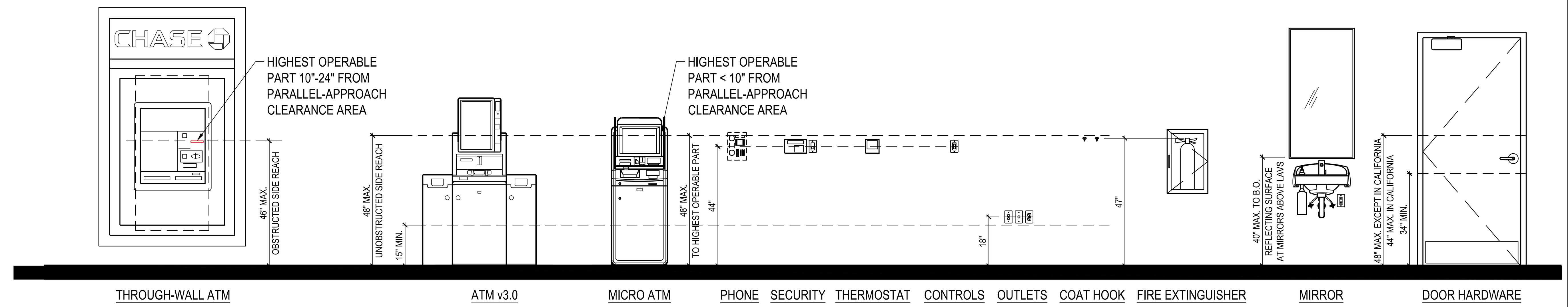
SECTION 303: CHANGES IN LEVEL



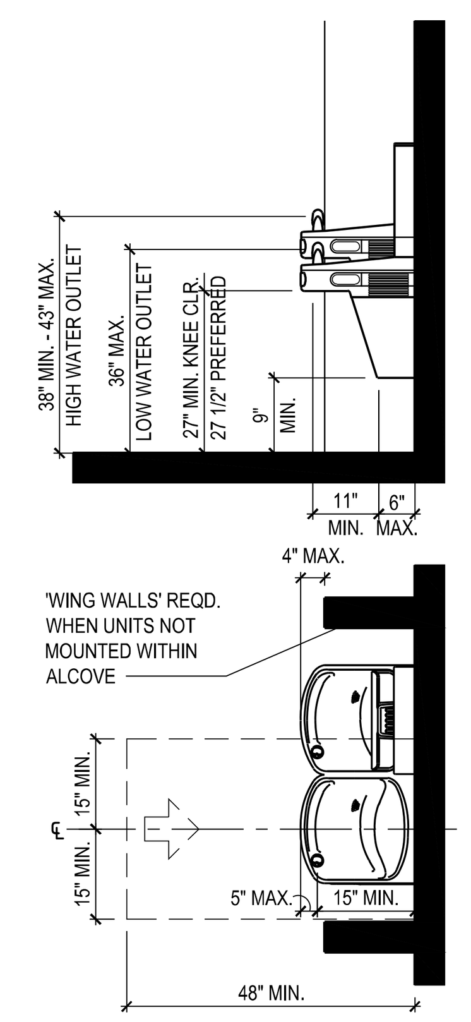
SECTION 404.2.6: DOORS IN SERIES



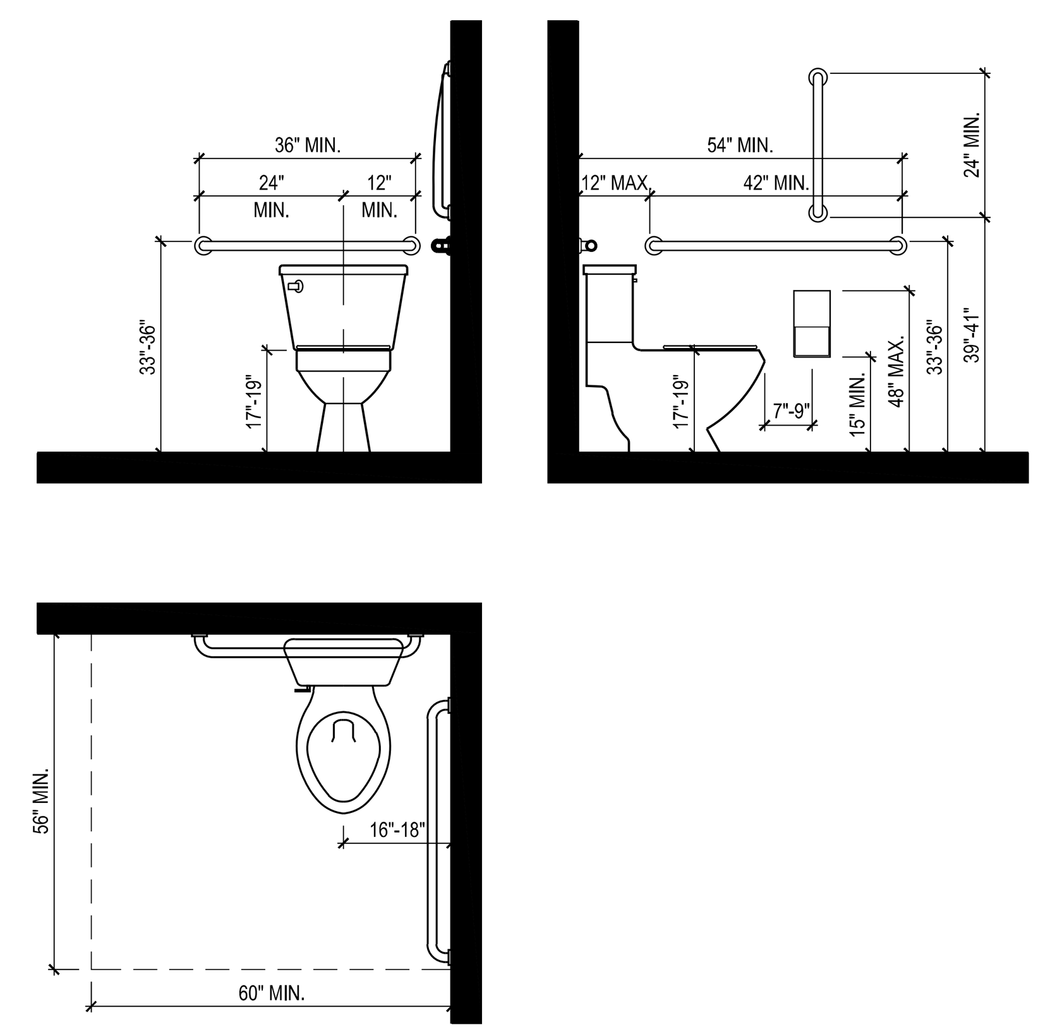
SECTION 404.2.4.3: MANEUVERING CLEARANCES AT RECESSED DOORS



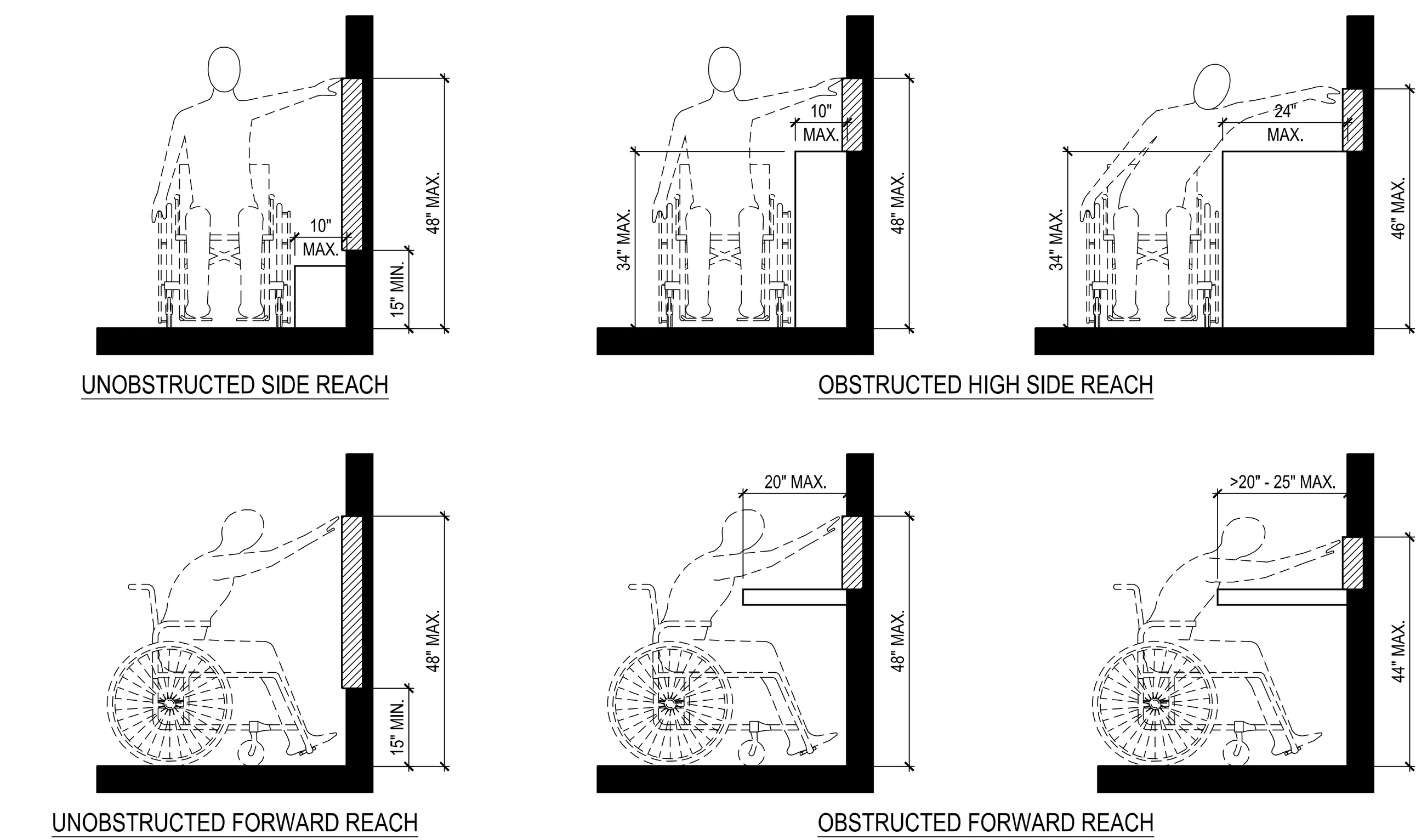
SECTION 308: REACH RANGE / SECTION 309: OPERABLE PARTS



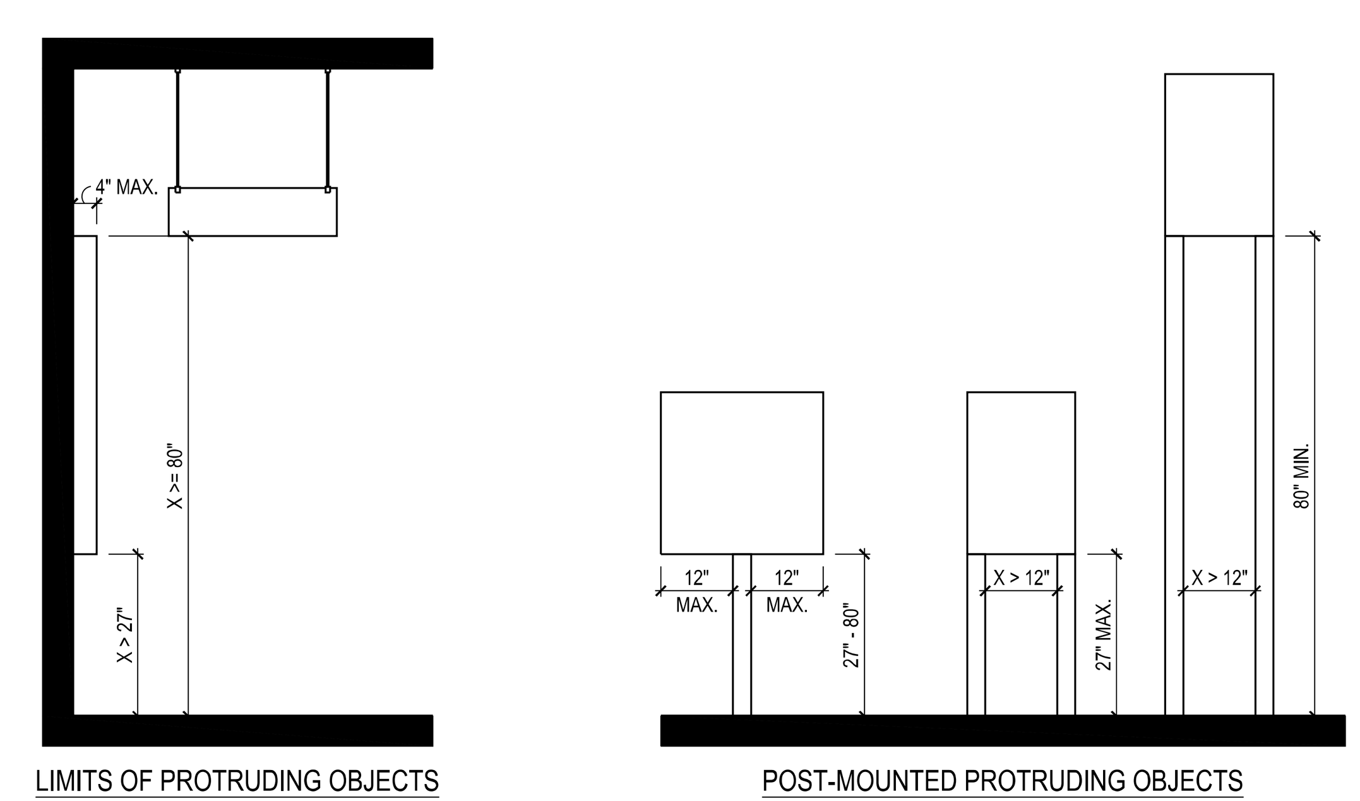
SECTION 602: DRINKING FOUNTAINS



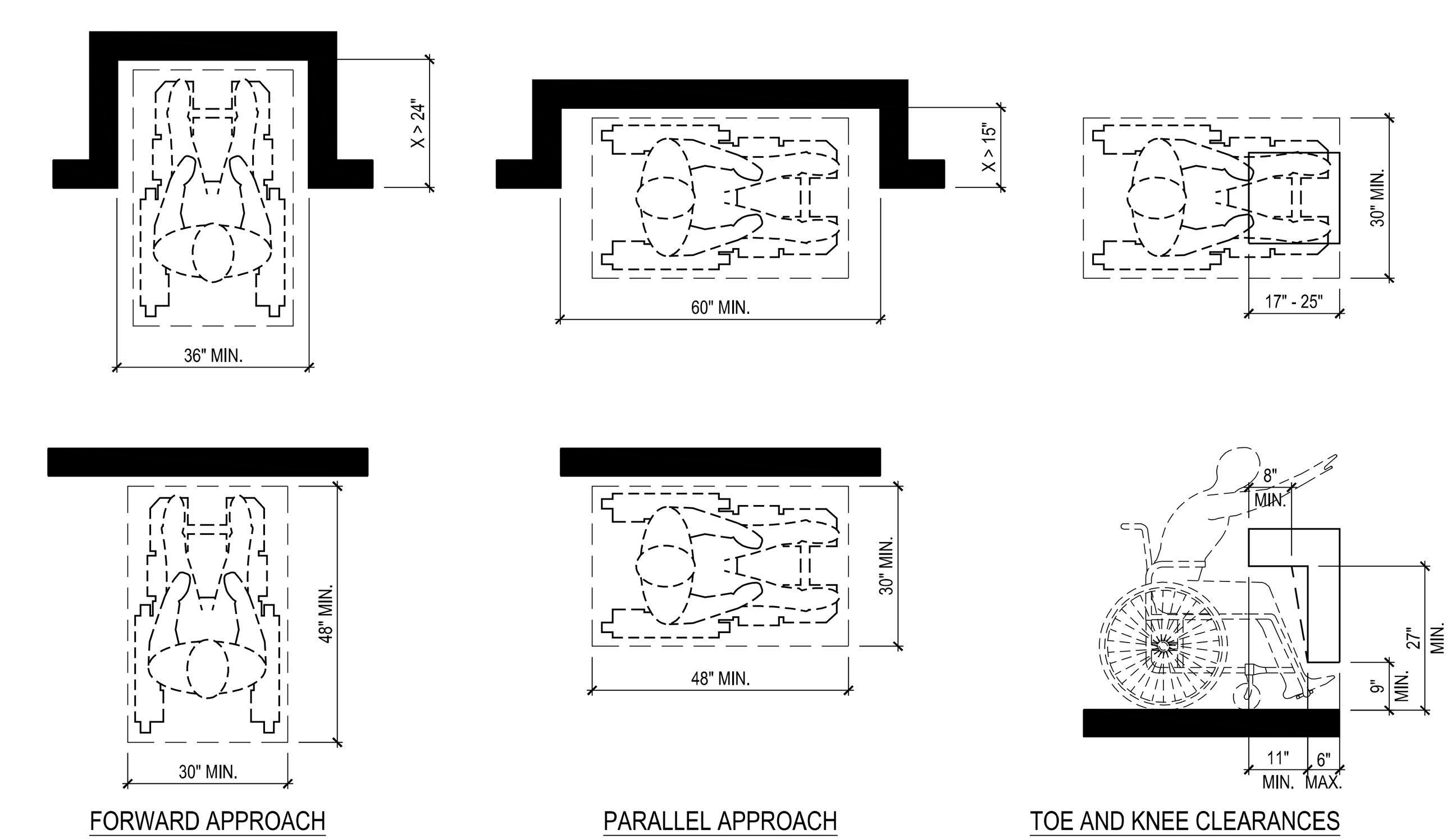
SECTION 604: WATER CLOSETS



SECTION 308: REACH RANGES / SECTION 309: OPERABLE PARTS

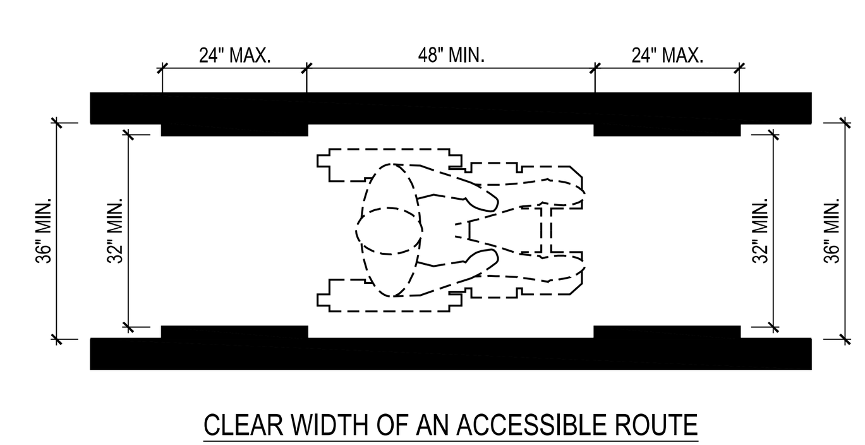


SECTION 307: PROTRUDING OBJECTS

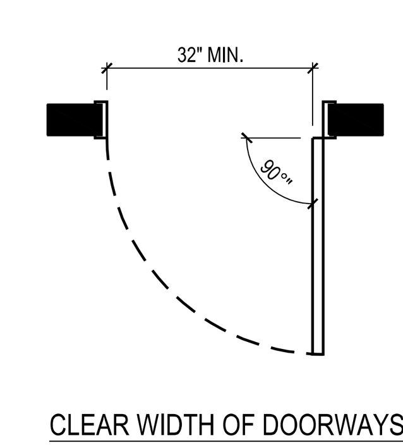


SECTION 305: CLEAR FLOOR OR GROUND SPACE

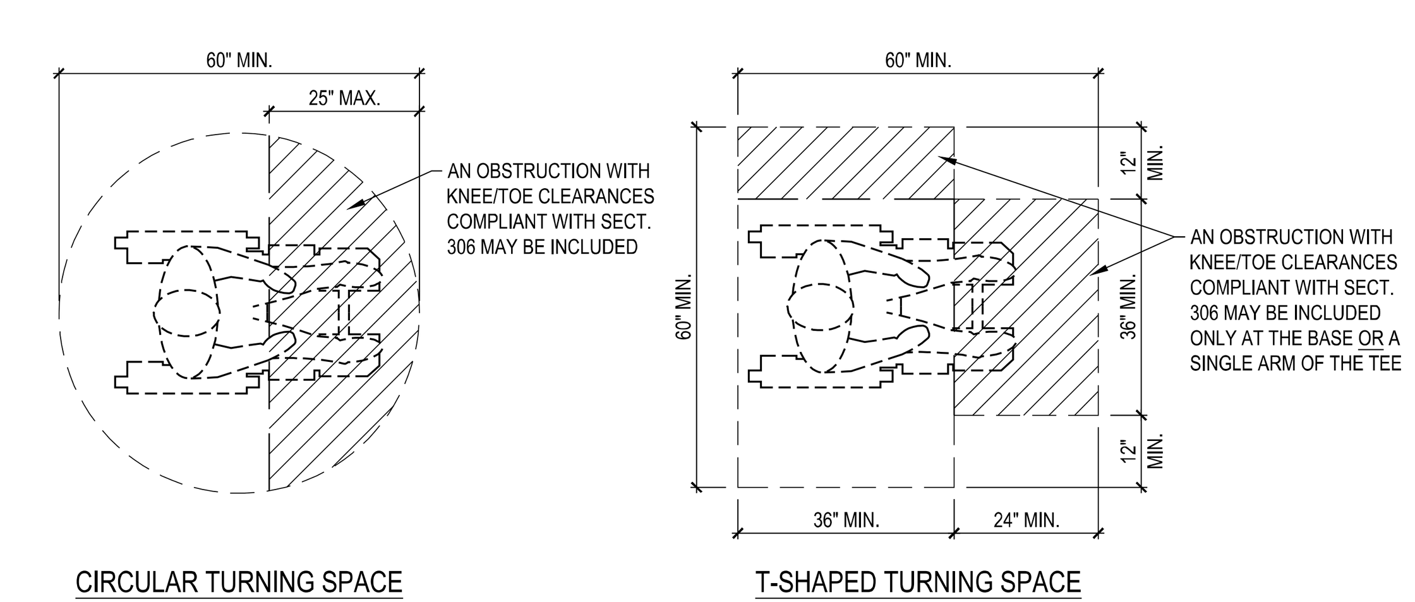
SECTION 306: KNEE AND TOE CLEARANCE



SECTION 403: WALKING SURFACES



SECTION 404: DOORS, DOORWAYS, AND GATES



SECTION 304: TURNING SPACE

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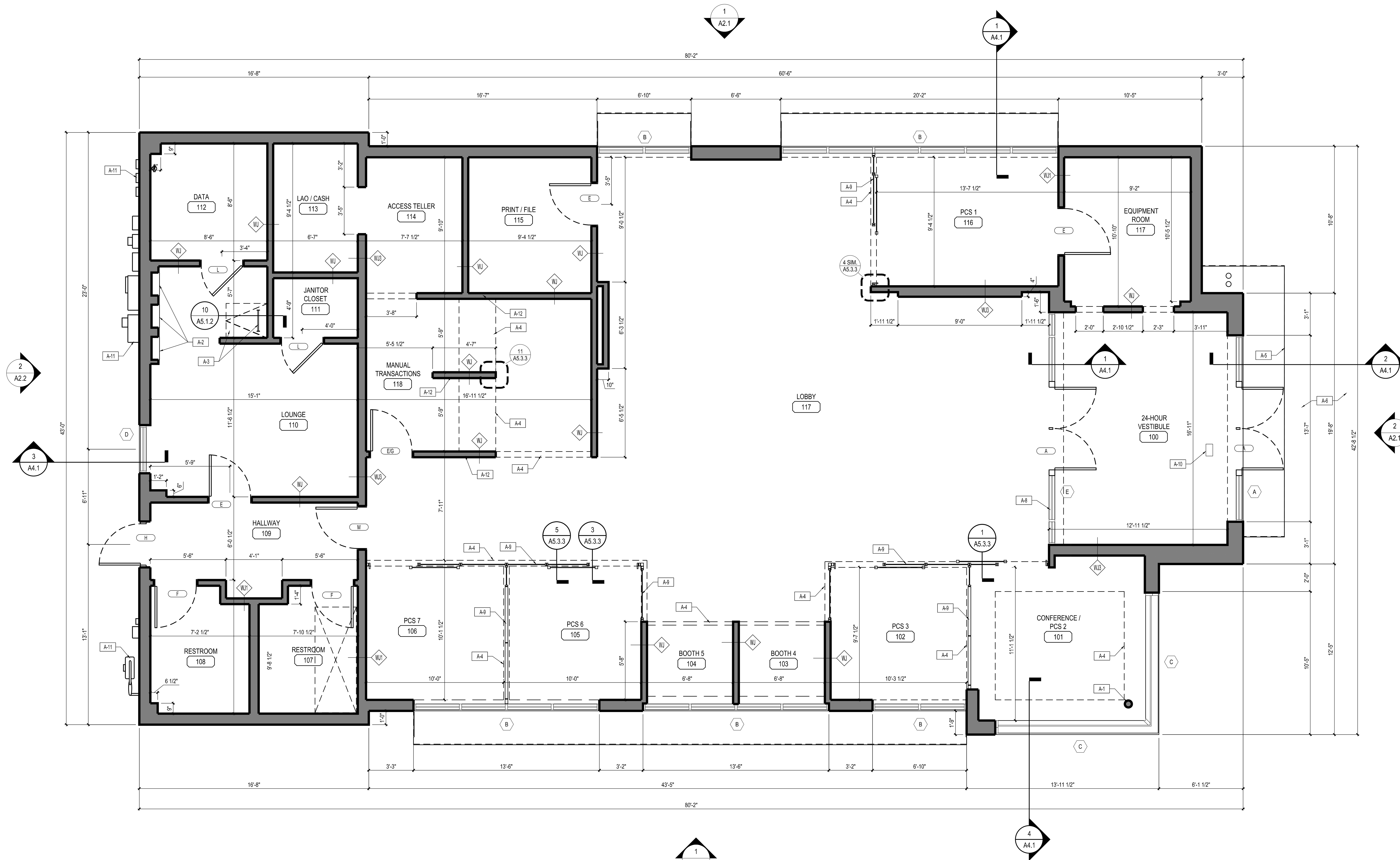
ACCESSIBILITY REQUIREMENTS

02/04/2022

SHEET

A0.6



1 A1.1.1 FLOOR PLAN
1/4" = 1'-0"

FLOOR PLAN NOTES

A-1	*STRUCTURAL COLUMN: COORDINATE WITH STRUCTURAL ENGINEERING DRAWINGS*
A-2	*ELECTRICAL PANELS: LOCKING ENCLOSURES FOR ELECTRICAL MAIN SERVICE AND DISTRIBUTION*
A-3	*ROOF ACCESS LADDER & SCUTTLE: REFER TO A1.3 FOR DETAILS*
A-4	*SOFFIT / BULKHEAD ABOVE: REFER TO REFLECTED CEILING PLANS, SECTIONS, DETAILS AND INTERIOR ELEVATIONS. PROVIDE DEFLECTION TRACK AT UNDERSIDE OF ROOF / FLOOR STRUCTURE ABOVE TO ALLOW BULKHEAD TO REST ON DEMOUNTABLE PARTITION SYSTEM BELOW.*
A-5	*ENTRANCE CANOPY: SHOP FABRICATED PRE-FINISHED CUSTOM ALUMINUM CANOPY UNIT WITH INTEGRAL ELECTRICAL AND DRAINAGE SYSTEMS FASTENDED TO BUILDING STRUCTURE- REFER TO ELEVATIONS AND WALL SECTIONS*
A-6	*CONCRETE STOOP: ACCESSIBILITY-COMPLIANT CONTINUOUS PAVING TO PUBLIC R.O.W. REQD. FROM ALL EXITS*
A-7	*(NOT USED)*
A-8	*STOREFRONT GLAZING SYSTEM INTERIOR PARTITION- REFER TO INTERIOR ELEVATIONS*
A-9	*DEMOUNTABLE PARTITION SYSTEM WITH INTEGRAL DOORS AND POWER, DATA AND SECURITY CONDUIT SYSTEMS, ANCHORED TO BUILDING WALLS AND FLOOR*
A-10	*EXIT ALARM POWER SUPPLY: INSTALLED ABOVE FINISH CEILING OVER ALARMED EGRESS DOOR- REFER TO DETAIL 2/E3.*
A-11	*UTILITY EQUIPMENT: REFER TO EXTERIOR ELEVATIONS, SITE PLAN, AND ELECTRICAL AND PLUMBING DRAWINGS*
A-12	*PROVIDE FIRE-RATED BLOCKING BETWEEN STUDS TO 8'-0" A.F.F.*

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FLOOR PLAN

02/04/2022

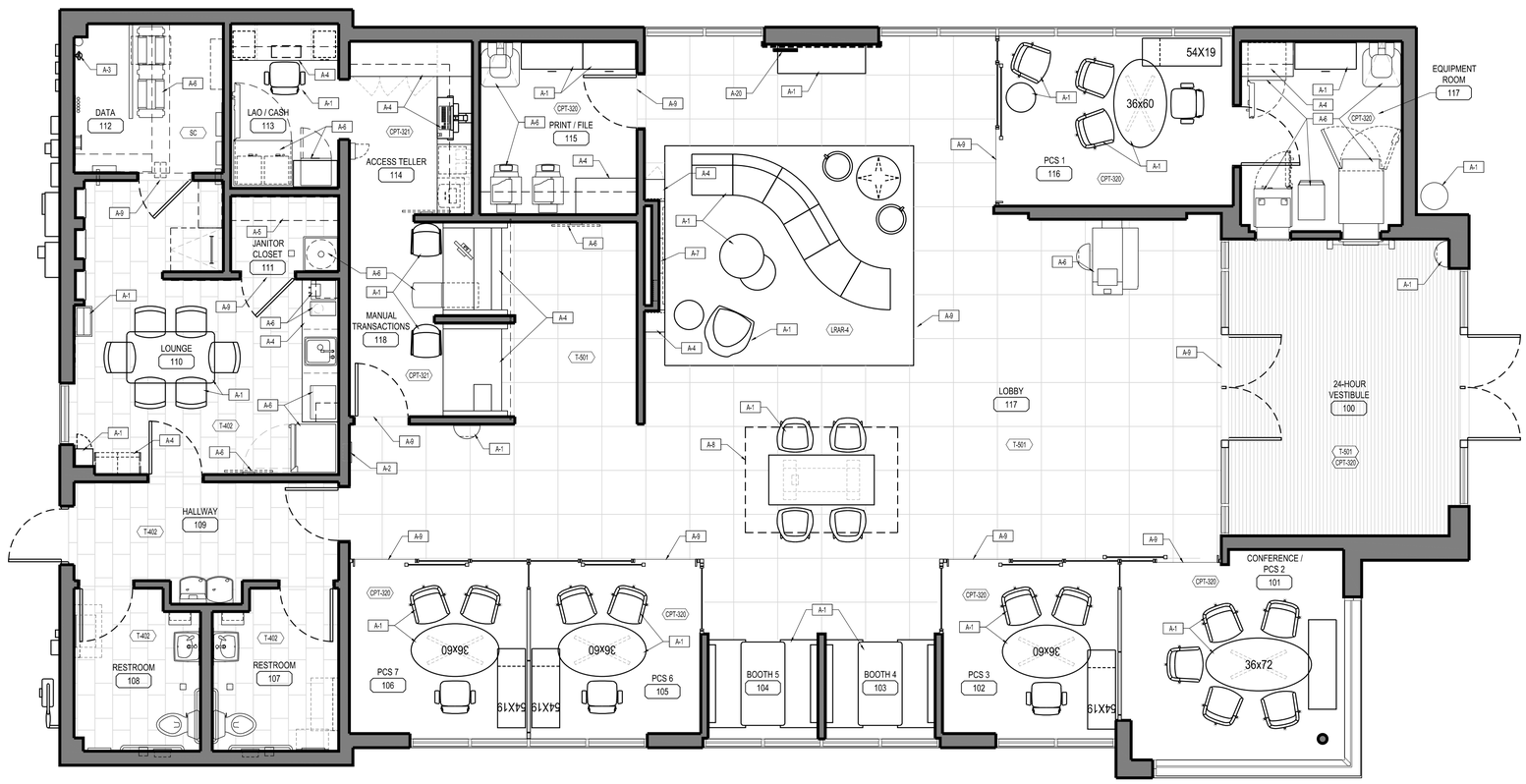
SHEET

A1.1.1

PLAN NOTES

A-1	*FURNITURE:* *REFER TO FURNITURE SCHEDULE- COORD. ELEC., DATA AND SECURITY CONNECTIONS AND TERMINATIONS*
A-2	*FIRE EXTINGUISHER AND CABINET:* *PROVIDE THE MINIMUM NUMBER AS REQUIRED AND COORDINATE LOCATIONS WITH CODE REQUIREMENTS AND ADJACENT ACCESSIBILITY CLEARANCES*
A-3	WALL-MOUNT FIRE EXTINGUISHER CARBON DIOXIDE ONLY / WATER OR DRY CHEMICAL TYPES NOT PERMITTED, CLASS C OR B-C, 5LB, OR SMALLER, SET WALL BRACKET TO KEEP HANDLE , 48" AFF
A-4	*CUSTOM SHOP-FABRICATED BUILT-IN MILLWORK:* *REFER TO INTERIOR ELEVATIONS- SUBMIT SHOP DRAWINGS AND FINISH SAMPLES TO ARCHITECT FOR APPROVAL*
A-5	*ADJUSTABLE SHELVES:* *REFER TO INTERIOR ELEVATIONS- PROVIDE BLOCKING IN WALL AS REQUIRED*
A-6	*EQUIPMENT / APPLIANCE:* *REFER TO EQUIPMENT INSTALLATION MANUAL- COORDINATE WITH EQUIPMENT INSTALLER- PROVIDE ELECTRICAL, DATA AND SECURITY ROUGH-IN WORK AS REQUIRED- FRAME WALL OPENING AND PREPARE FLOOR SUBSTRATE AS REQUIRED. PROVIDE BLOCKING IN WALL AS REQUIRED*
A-7	*AUDIO/VIDEO EQUIPMENT:* *REFER TO INTERIOR ELEVATIONS*
A-8	*CEILING LIGHT FIXTURE COVE- REFER TO REFLECTED CEILING PLAN*
A-9	*FLOOR MATERIAL TRANSITION:* *REFER TO DETAIL 1/A3.3.1*

SEE SHEET A3.3.1 AND A 3.3.2 FOR FINISH SCHEDULE



1 / A1.1.2 FURNITURE AND FLOOR FINISH PLAN

1/4" = 1'-0"

NORTH

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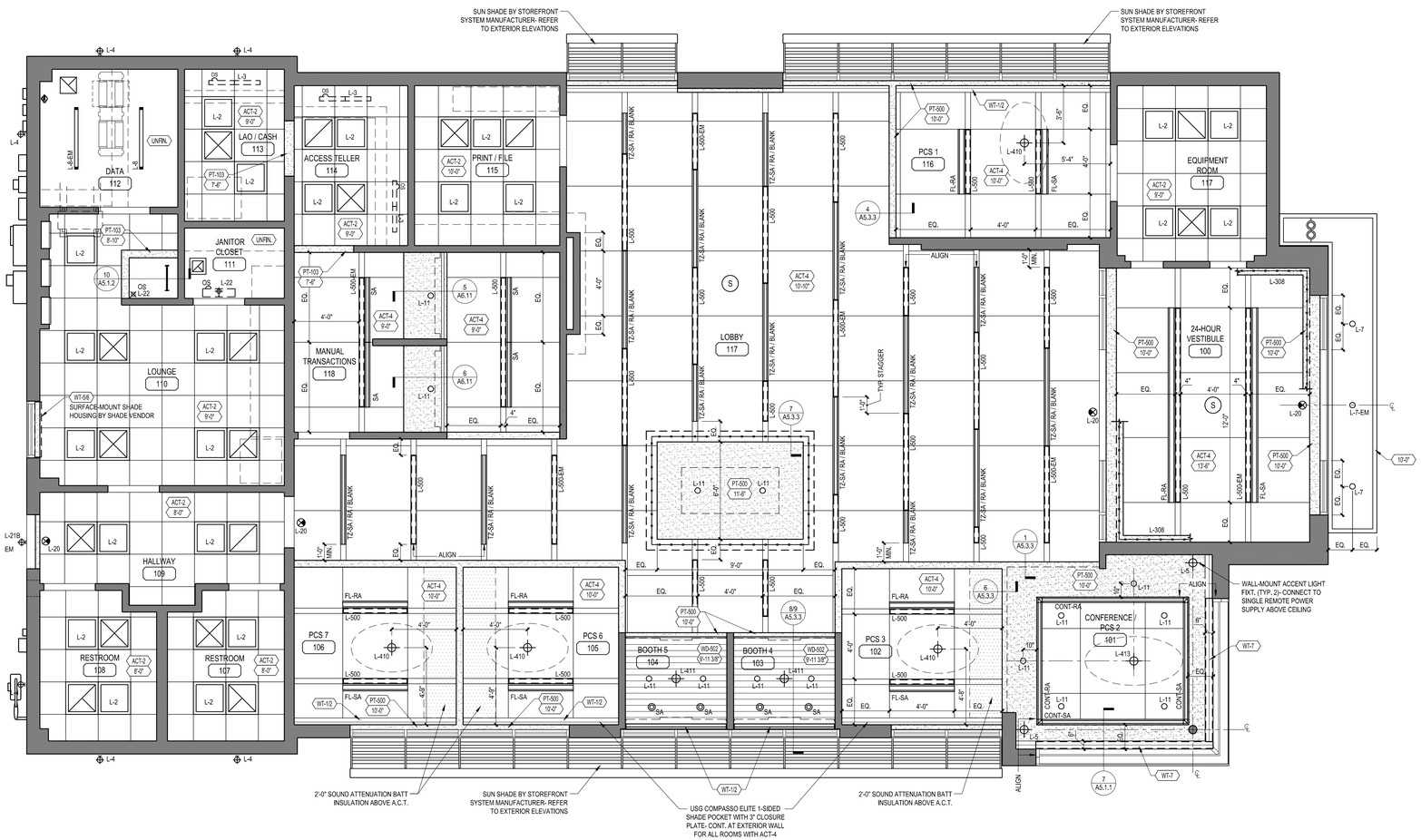
FURNITURE AND FLOOR FINISH PLAN

02/04/2022

SHEET

A1.1.2



1 A1.2 REFLECTED CEILING PLAN

1/4" = 1'-0"

NORTH

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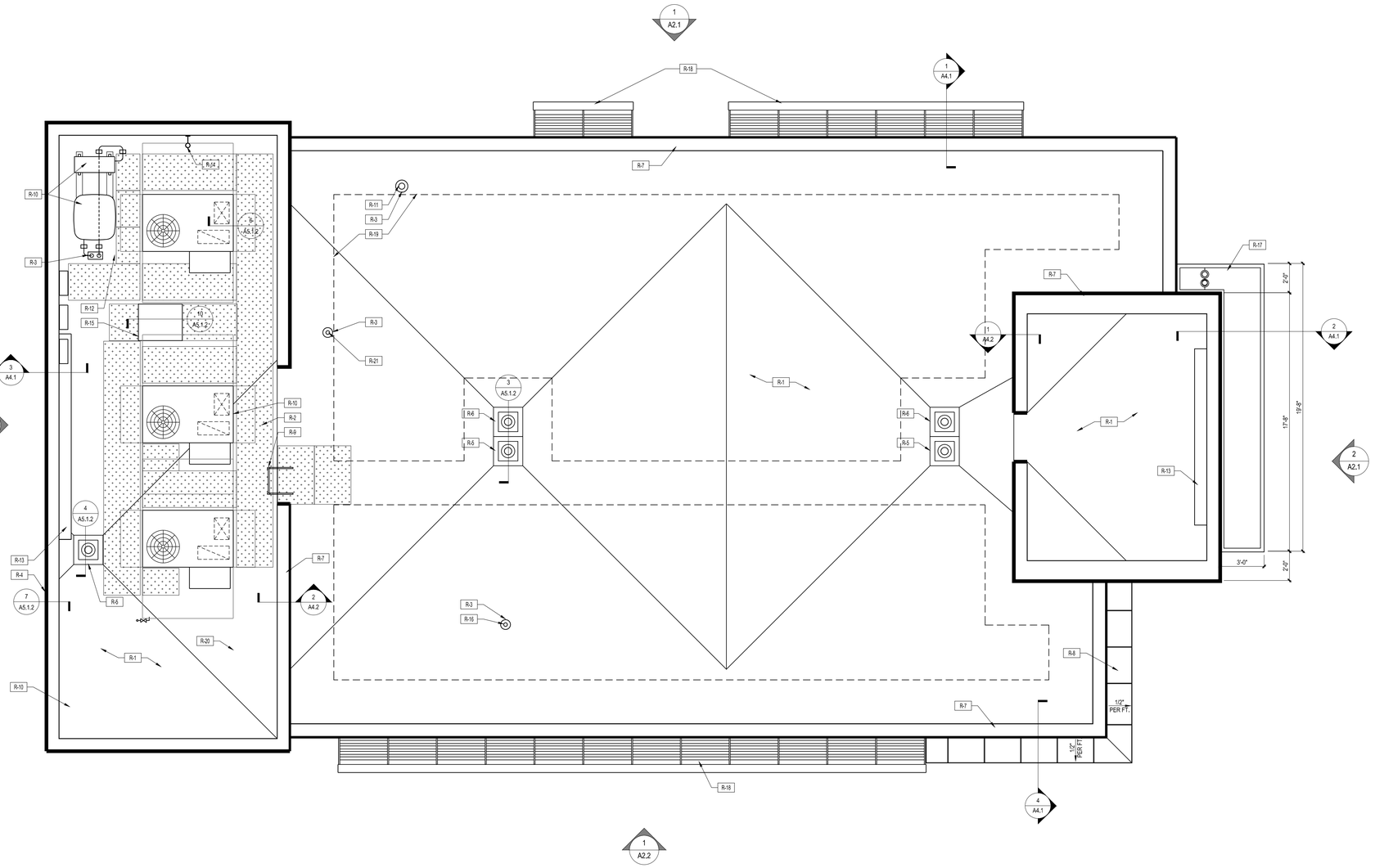
REFLECTED CEILING PLAN

02/04/2022

SHEET

A1.2



1 A1.3 ROOF PLAN

1/4" = 1'-0"

NORTH

ROOF PLAN NOTES

R-1	*LOW-SLOPE ROOFING: THERMOPLASTIC SHEET MEMBRANE ROOFING INSTALLED OVER TAPERED INSULATION AS REQUIRED TO FORM RIDGES, VALLEYS, CRICKETS AND SADDLES AS REQUIRED TO ACHIEVE MINIMUM 1/4" PER FOOT PITCH OR MANUFACTURER'S MINIMUM PITCH REQUIREMENTS FOR THE APPLICATION, WHICHEVER IS GREATER- FORM SLOPES TO ELIMINATE THE POSSIBILITY OF PONDING; REFER TO WALL SECTIONS AND CONSTRUCTION TYPES*
R-2	*ROOFING TRAFFIC PADS: SURFACE-ADHERED TEXTURED WALKWAY MATERIAL PER ROOFING MANUFACTURER SPECIFICATIONS TO ALL MECHANICAL EQUIPMENT*
R-3	*PIPE PENETRATION: PRE-FABRICATED WATER-TIGHT SURFACE-ADHERED ROOFING PORTAL COMPATIBLE WITH ROOFING MATERIAL*
R-4	*ATM CANOPY: SHOP FABRICATED PRE-FINISHED CUSTOM ALUMINUM CANOPY UNIT WITH INTEGRAL ELECTRICAL AND DRAINAGE SYSTEMS FASTENDED TO BUILDING STRUCTURE- REFER TO ELEVATIONS AND WALL SECTIONS*
R-5	*ROOF DRAIN: METAL DRAIN PAN AND BASKET ASSEMBLY WITH CLAMP RING SECURED WATER-TIGHT TO ROOFING MEMBRANE- REFER TO PLUMBING FIXTURE SCHEDULE*
R-6	*OVERFLOW DRAIN: METAL DRAIN PAN AND BASKET ASSEMBLY WITH CLAMP RING SECURED WATER-TIGHT TO ROOFING MEMBRANE- REFER TO PLUMBING FIXTURE SCHEDULE*
R-7	*PARAPET COPING SYSTEM: SHOP-FABRICATED PRE-FINISHED ALUMINUM- REFER TO WALL SECTIONS FOR DETAILS AND EXTERIOR ELEVATIONS FOR COLOR*
R-8	*BAY ROOF: SEALED-JOINT ACM COPING / CLADDING SYSTEM OVER LOW-SLOPE ROOFING AND RAIN SCREEN WATERPROOFING SYSTEM; REFER TO EXTERIOR ELEVATIONS AND WALL SECTIONS*
R-9	*ROOF LADDER: REFER TO DETAILS AS NOTED*
R-10	*MECHANICAL EQUIPMENT: VENTILATION UNIT, PACKAGED ROOFTOP HEATING AND COOLING UNIT OR SPLIT-SYSTEM A/C UNIT MOUNTED TO SHOP-FAB. VIBRATION-ISOLATING RAIL OR INSULATED CURB UNIT- LAP FLASH WATER-TIGHT TO ROOFING MEMBRANE. REFER TO DETAILS 1AM2 AND 1BM2.*
R-11	*PLUMBING STACK VENT: PVC SIZED AS REQD. WITH PRE-FABRICATED COMPATIBLE FLASHING BOOT ADHERED TO ROOF MEMBRANE- EXTEND VENT TO ALIGN WITH ADJACENT PARAPET COPING AND PROVIDE LATERAL BRACING AS REQD.*
R-12	*SURFACE-MOUNT MECHANICAL PIPING: GAS AND REFRIGERANT PIPING SUPPORTED ON ROOFING BY B-LINE DURA-BLOK PRE-FAB. RUBBER-BASE GALVANIZED STEEL UNISTRUT PIPE SUPPORTS AT 8'-0" o.c. MAX.*
R-13	*SURFACE-MOUNT SIGNAGE EQUIPMENT ENCLOSURE: WATER-TIGHT SHOP-FABRICATED METAL SIGNAGE ENCLOSURE BY SIGN VENDOR- SECURE TO BACKSIDE OF PARAPET WALL WITH MINIMAL PENETRATIONS OF ROOFING MEMBRANE- PROVIDE PERIMETER WATER-TIGHT SEALANT COMPATIBLE WITH ROOF MEMBRANE*
R-14	*LANDSCAPE IRRIGATION SYSTEM WEATHER STATION: FASTENED TO BACKSIDE OF PARAPET USING MFR'S BRACKET- SEAL MEMBRANE PENETRATIONS W/ 100% SILICONE SEALANT*
R-15	*SCUTTLE: PRE-FAB. INSULATED ROOF SCUTTLE WITH RETRACTABLE SAFETY POST-FLASH WATER-TIGHT TO ROOFING MEMBRANE- PROVIDE CARABINER THROUGH LATCH*
R-16	*FURNACE VENT: CONCENTRIC OR SIDE-WALL PVC EXHAUST / COMBUSTION AIR INTAKE W/ ROOF MEMBRANE FLASHING BOOT- AT GAS-FIRED FURNACE LOCATIONS ONLY*
R-17	*ENTRANCE CANOPY: SHOP FABRICATED PRE-FINISHED CUSTOM ALUMINUM CANOPY UNIT WITH INTEGRAL ELECTRICAL AND DRAINAGE SYSTEMS FASTENDED TO BUILDING STRUCTURE- REFER TO ELEVATIONS AND WALL SECTIONS*
R-18	*SUN SHADE: BY STOREFRONT SYSTEM MANUFACTURER- REFER TO EXTERIOR ELEVATION NOTES*
R-19	*FUTURE PHOTOVOLTAIC PANEL ARRAY AREA: FOR DETAILS OF FUTURE PV SYSTEM, REFER TO "ROOFTOP SOLAR PROGRAM STANDARD BUILDING PACKAGE" DRAWINGS POSTED TO OVP/SPOTLIGHT; ADDITIONAL STRUCTURAL LOADING IS 5PSF AT SLOPED ROOFS AND 10PSF AT FLAT ROOFS*
R-20	*FUTURE PHOTOVOLTAIC EQUIPMENT AREA: REFER TO ELEC. RISER DIAGRAM, SHEET E3*
R-21	*RIGID METAL CONDUIT MAST FOR FUTURE CELLULAR ANTENNA: REFER TO BUILDING ENVELOPE LIGHTING AND POWER PLAN, SHEET E3*

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ROOF PLAN

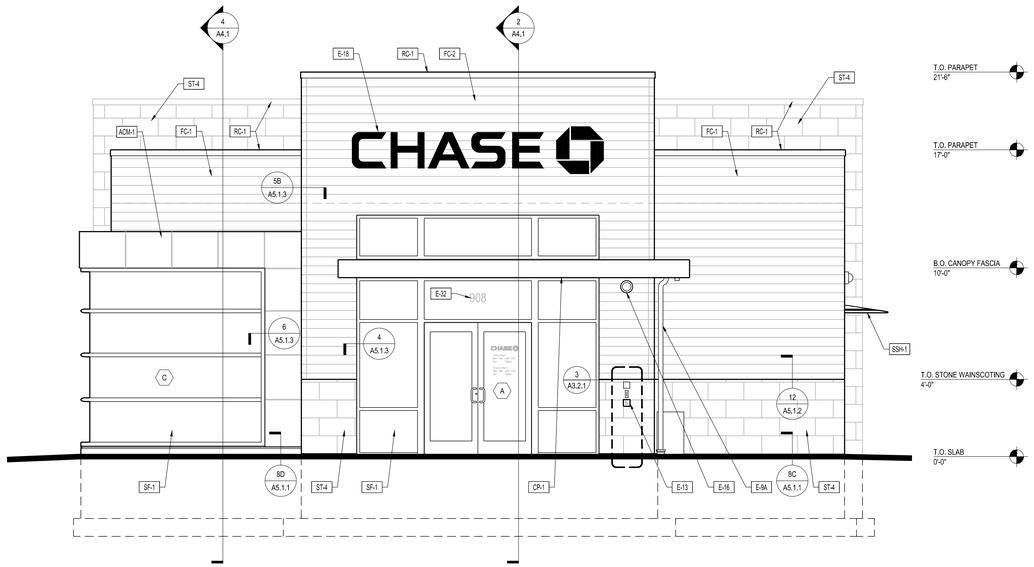
02/04/2022

SHEET

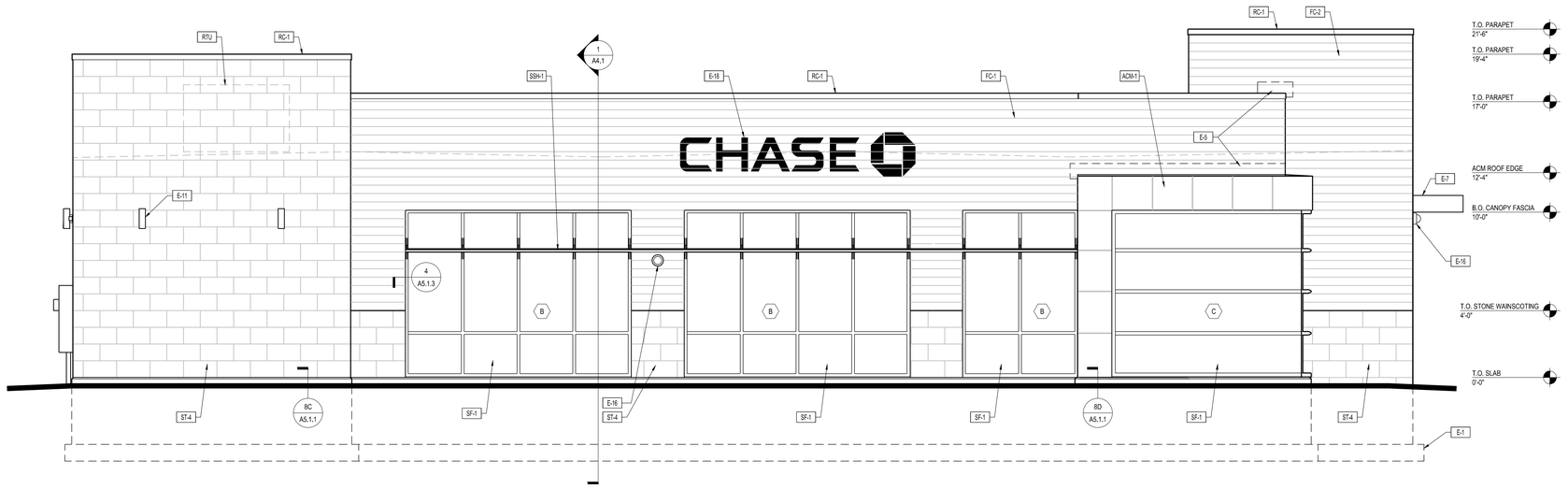
A1.3

EXTERIOR FINISH MATERIALS

ST-4	**MANUFACTURED THIN STONE VENEER**	
	MANUFACTURER	CORONADO STONE PRODUCTS
	PRODUCT	CHISELED LIMESTONE
	COLOR	CREAM
	SIZE	24" WIDE x 12" HIGH x 1" THICK
	GROUT	1/4" NOMINAL JOINTS WITH FULL SMOOTH TOOLED COLOR-MATCHED PORTLAND CEMENT GROUT
	NOTES	RUNNING BOND MANUFACTURED THIN STONE FIELD-CUT TO MAX. LENGTHS POSSIBLE WITH BUTTED AND LAPPED INSIDE CORNERS AND MANUFACTURER'S FABRICATED RETURN CORNER PIECES- MITERED CORNERS ARE NOT ACCEPTABLE- PLACE CONTROL JOINTS AS RECOMMENDED BY THE MANUFACTURER- REFER TO WALL SECTIONS AND DETAILS
FC-1	**FIBER CEMENT PANEL - DARK**	
	MANUFACTURER	NICHIHA FIBER CEMENT
	PRODUCT	VINTAGEWOOD AWP 1818 (AVAILABLE AS AWP 3030 FOR NON-PROTOTYPICAL PROJECTS)
	COLOR	BARK
	SIZE	18" NOMINAL x 72" NOMINAL AND 120" NOMINAL
	NOTES	INCLUDE 3.5" MANUFACTURED CORNERS AND MANUFACTURER'S "ESSENTIAL" FLASHING SYSTEM.
FC-2	**FIBER CEMENT PANEL - LIGHT**	
	MANUFACTURER	NICHIHA FIBER CEMENT
	PRODUCT	VINTAGEWOOD AWP 1818 (AVAILABLE AS AWP 3030 FOR NON-PROTOTYPICAL PROJECTS)
	COLOR	ASH
	SIZE	18" NOMINAL x 72" NOMINAL AND 120" NOMINAL
	NOTES	INCLUDE 3.5" MANUFACTURED CORNERS AND MANUFACTURER'S "ESSENTIAL" FLASHING SYSTEM.
RC-1	**ROOF COPING**	
	MANUFACTURER	PETERSEN ALUMINUM / PAC-CLAD
	PRODUCT	PAC-CONTINUOUS
	COLOR	MATTE BLACK STEEL / BLACK ALUMINUM
ACM-1	**ALUMINUM COMPOSITE MATERIAL**	
	MANUFACTURER	ARCONIC ARCHITECTURAL PRODUCTS
	PRODUCT	REYNOBOND
	COLOR	DURAGLOSS 5000 DG SILVER
SF-1	**ALUMINUM STOREFRONT**	
	MANUFACTURER	KAWNEER
	PRODUCT	451T
	COLOR	BLACK ANODIZED ALUMINUM
SSH-1	**SUNSHADE**	
	MANUFACTURER	KAWNEER
	PRODUCT	VERSOLEIL
	COLOR	BLACK ANODIZED ALUMINUM
CP-1	**CANOPY**	
	MANUFACTURER	SHOP FABRICATED
	PRODUCT	
	COLOR	BLACK ANODIZED ALUMINUM



2 A2.1 EAST ELEVATION
1/4" = 1'-0"



1 A2.1 SOUTH ELEVATION
1/4" = 1'-0"

ELEVATION NOTES

E-1	*CONCRETE FOOTINGS / FOUNDATIONS: REFER TO STRUCTURAL DWGS.*
E-2	*CONCRETE CURB AND ISLANDS: REFER TO ARCHITECTURAL SITE PLAN AND DRIVE-UP CANOPY PLAN*
E-3	*EMERGENCY ACCESS KEY BOX: WHERE REQUIRED BY LOCAL CODE ONLY- RECESS-MOUNT IN WALL CONSTRUCTION AS REQD. TO SET FACE FLUSH WITH ADJACENT WALL FINISH- VERIFY FINAL LOCATION WITH AUTHORITIES HAVING JURISDICTION*
E-4	*LIGHTING TIMER SYSTEM PHOTO SENSOR: REFER TO ELECTRICAL DRAWINGS*
E-5	*METAL FLASHING AND COUNTER FLASHING CONCEALED BEHIND WALL FINISH AND FINISH OF EXPOSED FLASHING TO MATCH ADJACENT ROOFING/COPING*
E-6	*FLASHING AT PREFAB CANOPY: PRE-FINISHED ALUMINUM FLASHING TO SPAN GAP BETWEEN PREFAB CANOPY AND BUILDING CONCEALED BEHIND WALL FINISH- REFER TO WALL SECTIONS AND DETAILS- COLOR TO MATCH EPT-4- VERIFY FINAL FLASHING LENGTH AND CONFIGURATION WITH APPROVED CANOPY SHOP DWGS*
E-7	*ENTRANCE / ATM CANOPY: SHOP FABRICATED SITE-ASSEMBLED PRE-FINISHED BLACK CUSTOM ALUMINUM CANOPY UNIT WITH PREPPED ELECTRICAL OPENINGS AND INTEGRAL DRAINAGE SYSTEM FASTENDED TO BUILDING STRUCTURE- MAPES ARCHITECTURAL CANOPIES SUPER LUMIDECK WITH FLAT SOFFIT AND 12" FASCIA, OR APPROVED EQUAL- REFER TO ROOF PLAN AND WALL SECTIONS- INSTALLED BY GC. MAPES CANOPIES CAN EITHER PRE-FAB THE UNITS AND SHIP READY-TO –INSTALL, OR SHIP AS KIT OF PARTS FOR GC TO ASSEMBLE ON-SITE; GC SELECTS OPTION WHEN THEY ORDER*
E-8	*CONTROL / EXPANSION JOINT: VERTICAL ELASTOMERIC SEALANT JOINT CONTINUOUS THROUGH VENEER- MATCH SEALANT COLOR TO VENEER COLOR*
E-9A	*SMALL CANOPY DOWNSPOUT/OVERFLOW: 3" DIAM ALUMINUM DOWNSPOUT PRE-FIN. TO MATCH THE CANOPY; CONNECT TO CAST IRON DRAIN HUB AT GRADE AND EXTEND SUBSURFACE TO SITE DRAINAGE SYSTEM- REFER TO SITE PLAN*
E-9B	*LARGE CANOPY DOWNSPOUT/OVERFLOW: ROUND ALUMINUM DOWNSPOUT, SIZED AS REQUUIRED, WITH ATTACHEMENT HARDWARE AS REQUIRED, PAINTED TO MATCH ADJACENT WALL/COLUMN FINISH- SPLASH TO CONCRETE DRIVE UP ISLAND*
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E-11	*SURFACE-MOUNT DECORATIVE LIGHT FIXTURE: REFER TO REFLECTED CEILNG PLAN AND ELECTRICAL DRAWINGS*
E-12	*SURFACE-MOUNT EMERGENCY LIGHT FIXTURE: TO BE PROVIDED ONLY WHEN DOOR BELOW IS A REQUIRED OR MARKED EXIT- REFER TO REFLECTED CEILING PLAN AND LIGHT FIXTURE SCHEDULE*
E-13	*AUTOMATIC DOOR OPERATOR BUTTON AND KEYCARD READER RECESSED FLUSH WITH WALL SURFACE- DO NOT SURFACE-MOUNT*
E-14	*HOSE BIB SET FLUSH WITH FACE OF MASONRY VENEER- REFER TO PLUMBING FIXTURE SCHEDULE*
E-15	*ELECTRICAL OUTLET: SET FLUSH WITH FACE OF MASONRY VENEER- PROVIDE METAL COVER COMPLIANT WITH N.E.C.*
E-16	*SECURITY CAMERA: PROVIDE CONCEALED JUNCTION BOX AND CONDUIT TO INTERIOR; REFER TO OWNER'S SECURITY CONSULTANT DRAWINGS*
E-17	*BANK EQUIPMENT: FURNISHED AND INSTALLED BY BANK EQUIPMENT VENDOR- COORD. WALL OPENINGS AND ELECTRICAL / DATA REQUIREMENTS WITH OWNER-FURNISHED EQUIPMENT SHOP DRAWINGS AND PRODUCT DATA*
E-18	*SIGNAGE: BY OWNER'S SIGN VENDOR- N.I.C.- PROVIDE ROUGH ELEC. WORK AND BLOCKING IN WALL AS REQD. FOR VENDOR INSTALLATION*
E-19	*BUILDING ADDRESS NUMBER: WHITE VINYL NUMBERS WITH 1/2" WIDE STROKE APPLIED TO INTERIOR FACE OF GLASS TRANSOM- MIN. 6" HEIGHT OR AS REQD. BY LOCAL CODE*
E-20	*ELECTRICAL SERVICE CT / METER CABINET: REFER TO ELECTRICAL DRAWINGS. PAINT TO MATCH ADJACENT SURFACE.*
E-21	*EMERGENCY TRANSFER SWITCH: REFER TO ELECTRICAL DRAWINGS. PAINT TO MATCH ADJACENT SURFACE.*
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E-25	*GAS METER: REFER TO SITE PLAN AND PLUMBING DRAWINGS. PAINT TO MATCH ADJACENT SURFACE.*
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E-30	*SUN SHADE: GLAZING SYSTEM MANUFACTURER'S STANDARD INTEGRAL SHADE ACCESSORY- REFER TO WALL SECTIONS; MATCH GLAZING SYSTEM FINISH; BASIS OF DESIGN IS KAWNEER VERSOLEIL 30" WEDGE WITH ANGULAR FASCIA AND CIRCULAR BLADES*
E-31	*BOLLARD: REFER TO ARCHITECTURAL SITE PLAN AND DRIVE-UP CANOPY PLAN*
E-32	*G.C. TO PROVIDE 6" HIGH WHITE ARABIC ADDRESS NUMBERS WITH MIN 1/2" STROKE WIDTH*

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SIGNED BY:

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NUMBER A-2018040323
ARCHITECT
STATE OF MISSOURI

3/2/2022

PRYOR ROAD &
LOWENSTEIN DRIVE

908 NW PRYOR ROAD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

ISSUE	DATE	DESCRIPTION

CHASE

PRYOR & LOWENSTEIN
PROTOTYPE VERSION 20.4

CONTENTS

EXTERIOR ELEVATIONS

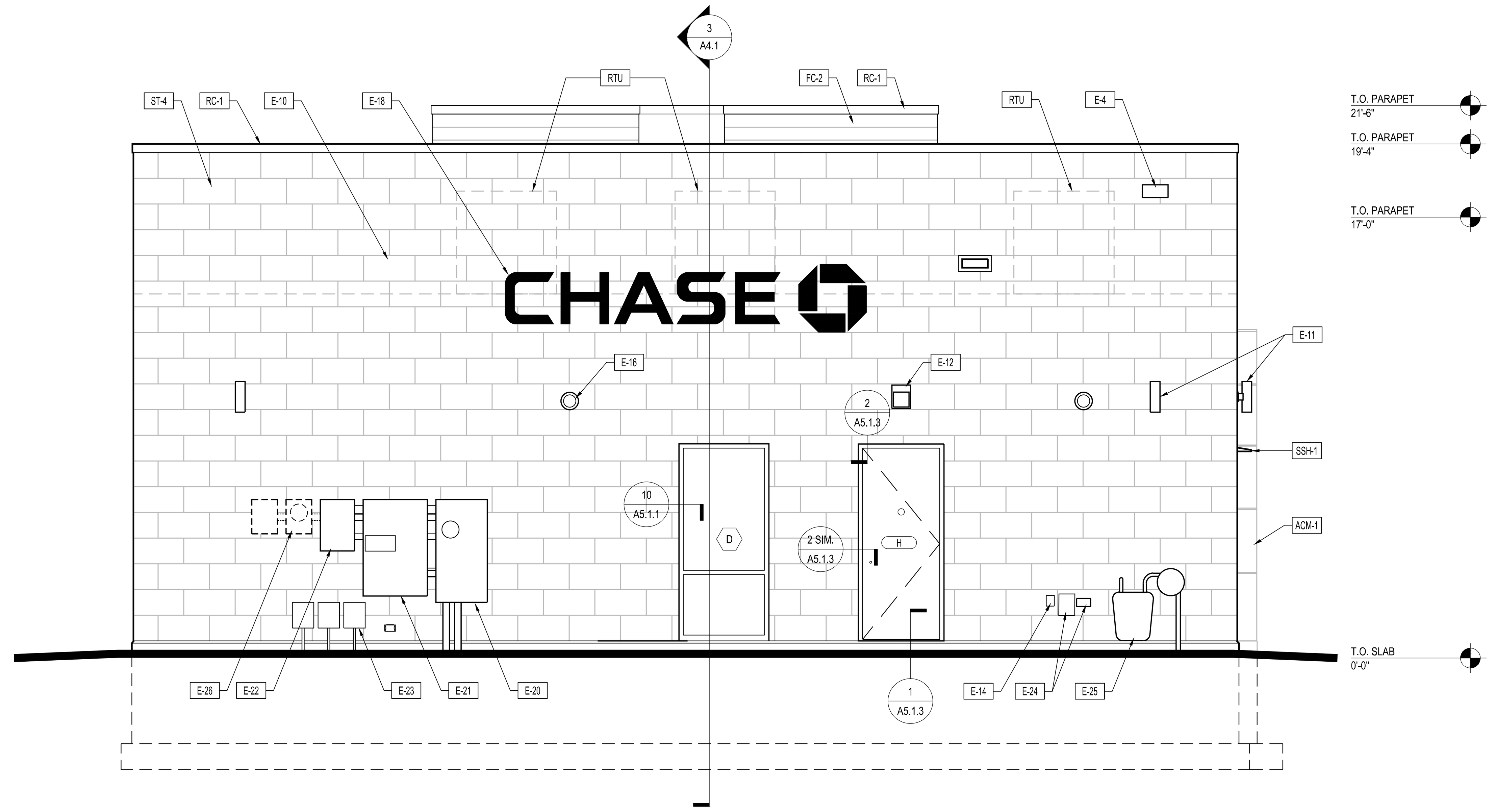
02/04/2022

SHEET

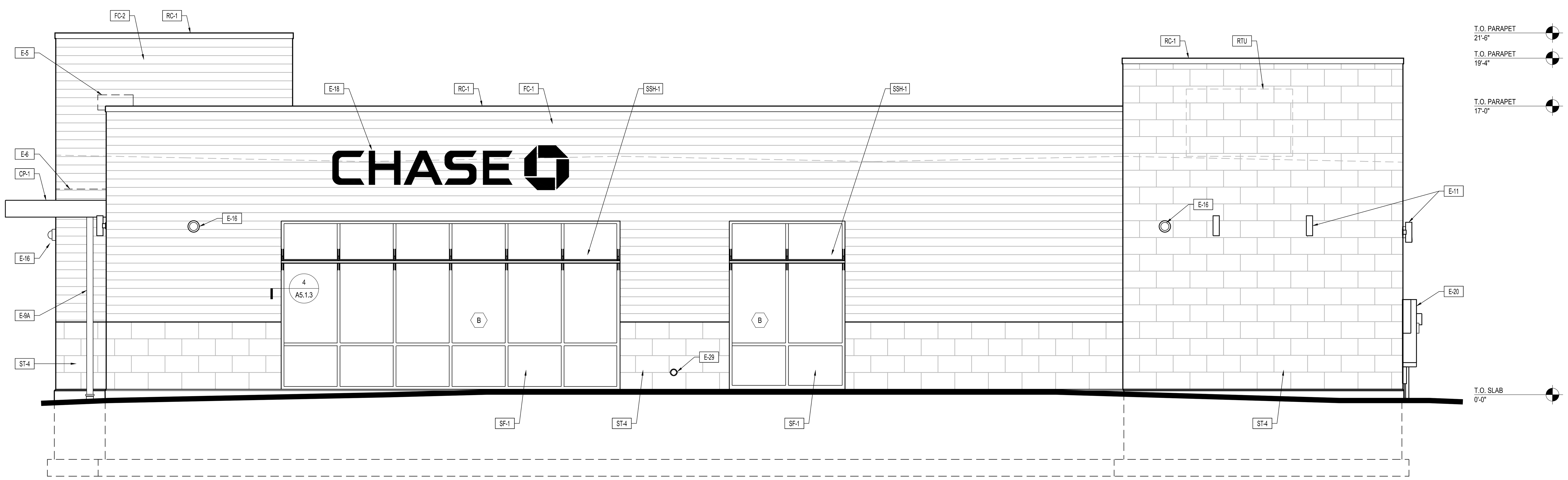
A2.1

EXTERIOR FINISH MATERIALS

ST-4	**MANUFACTURED THIN STONE VENEER**	
	MANUFACTURER	CORONADO STONE PRODUCTS
	PRODUCT	CHISELED LIMESTONE
	COLOR	CREAM
	SIZE	24" WIDE x 12" HIGH x 1" THICK
	GROUT	1/4" NOMINAL JOINTS WITH FULL SMOOTH TOOLED COLOR-MATCHED PORTLAND CEMENT GROUT
	NOTES	RUNNING BOND MANUFACTURED THIN STONE FIELD-CUT TO MAX. LENGTHS POSSIBLE WITH BUTTED AND LAPPED INSIDE CORNERS AND MANUFACTURER'S FABRICATED RETURN CORNER PIECES- MITERED CORNERS ARE NOT ACCEPTABLE- PLACE CONTROL JOINTS AS RECOMMENDED BY THE MANUFACTURER- REFER TO WALL SECTIONS AND DETAILS
FC-1	**FIBER CEMENT PANEL- DARK**	
	MANUFACTURER	NICHIHA FIBER CEMENT
	PRODUCT	VINTAGEWOOD AWP 1818 (AVAILABLE AS AWP 3030 FOR NON-PROTOTYPICAL PROJECTS)
	COLOR	BARK
	SIZE	18" NOMINAL x 72" NOMINAL AND 120" NOMINAL
	NOTES	INCLUDE 3.5" MANUFACTURED CORNERS AND MANUFACTURER'S "ESSENTIAL" FLASHING SYSTEM.
FC-2	**FIBER CEMENT PANEL- LIGHT**	
	MANUFACTURER	NICHIHA FIBER CEMENT
	PRODUCT	VINTAGEWOOD AWP 1818 (AVAILABLE AS AWP 3030 FOR NON-PROTOTYPICAL PROJECTS)
	COLOR	ASH
	SIZE	18" NOMINAL x 72" NOMINAL AND 120" NOMINAL
	NOTES	INCLUDE 3.5" MANUFACTURED CORNERS AND MANUFACTURER'S "ESSENTIAL" FLASHING SYSTEM.
RC-1	**ROOF COPING**	
	MANUFACTURER	PETERSEN ALUMINUM / PAC-CLAD
	PRODUCT	PAC-CONTINUOUS
	COLOR	MATTE BLACK STEEL / BLACK ALUMINUM
ACM-1	**ALUMINUM COMPOSITE MATERIAL**	
	MANUFACTURER	ARCONIC ARCHITECTURAL PRODUCTS
	PRODUCT	REYNOBOND
	COLOR	DURAGLOSS 5000 DG SILVER
SF-1	**ALUMINUM STOREFRONT**	
	MANUFACTURER	KAWNEER
	PRODUCT	451T
	COLOR	BLACK ANODIZED ALUMINUM
SSH-1	**SUNSHADE**	
	MANUFACTURER	KAWNEER
	PRODUCT	VERSOLEIL
	COLOR	BLACK ANODIZED ALUMINUM
CP-1	**CANOPY**	
	MANUFACTURER	SHOP FABRICATED
	PRODUCT	
	COLOR	BLACK ANODIZED ALUMINUM



2 A2.2 WEST ELEVATION
1/4" = 1'-0"



1 A2.2 NORTH ELEVATION
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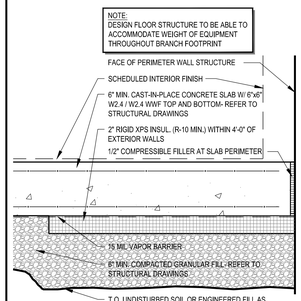
CONTENTS
EXTERIOR ELEVATIONS

02/04/2022
SHEET
A2.2

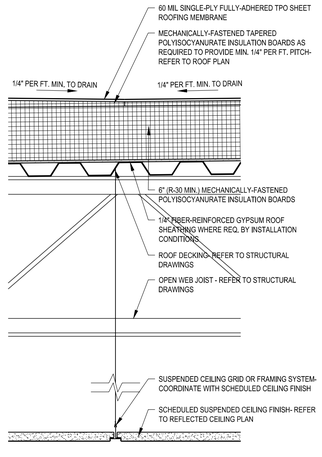


FA INSULATED INTERIOR CONCRETE SLAB ON GRADE
FIRE RATING NOT REQUIRED

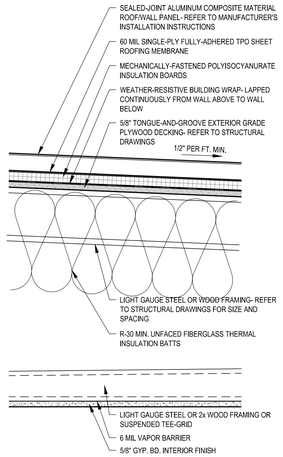
FA1 UNINSULATED INTERIOR CONCRETE SLAB ON GRADE
SAME AS 'FA' EXCEPT OMIT INSULATION

FA2 EXTERIOR CONCRETE SLAB ON GRADE
SAME AS 'FA1' EXCEPT 5" SLAB THICKNESS AND SINGLE LAYER OF 6"x6" W1.4 / W1.4 WWF AT TOP OF SLAB. REFER TO CIVIL DWGS.

3 / A3.1 FLOOR TYPES
1 1/2" = 1'-0"



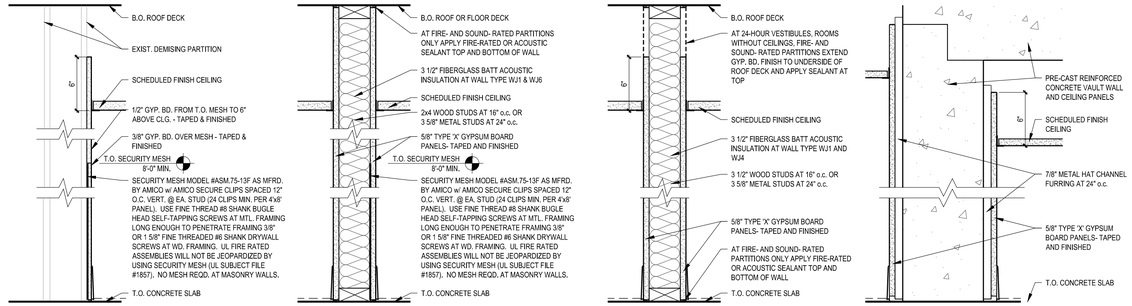
RA STEEL BAR JOIST FLAT ROOF
VERIFY FIRE RATING REQUIRED



RB LOW-SLOPE ACM BAY ROOF

WOOD FRAMING IS ACCEPTABLE AND PREFERRED THROUGHOUT WHERE MORE ECONOMICAL THAN METAL FRAMING. DRAWING GRAPHICS ARE STANDARDIZED AROUND METAL FRAMING FOR SIMPLICITY IN REPRESENTING DESIGN INTENT, AND ARE TO BE ADJUSTED AS NECESSARY BY THE ARCHITECT OF RECORD TO CONFORM TO THE MOST ECONOMICAL CHOICE OF CONSTRUCTION TYPE.

2 / A3.1 ROOF TYPES
1 1/2" = 1'-0"



RJ8 EXISTING TENANT DEMISING PARTITION
VERIFY FIRE RATING REQUIRED

RJ7 TENANT DEMISING PARTITION
VERIFY FIRE RATING REQUIRED

WJ TYPICAL INTERIOR PARTITION
NO FIRE RATING U.N.O.

WJ1 INTERIOR SOUND-RATED PARTITION
NO FIRE RATING U.N.O.

WJ2 INTERIOR SINGLE-SIDE PARTITION OR SPANDREL INFILL
SAME AS 'WJ' EXCEPT OMIT GYP. BD. ONE SIDE

WJ3 6" NOMINAL INTERIOR PARTITION
SAME AS 'WJ' EXCEPT SUBSTITUTE 6" METAL STUDS

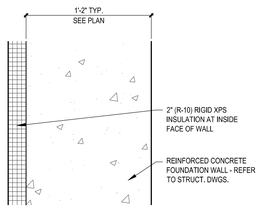
WJ4 6" NOMINAL INTERIOR SOUND-RATED PARTITION
SAME AS 'WJ1' EXCEPT SUBSTITUTE 6" METAL STUDS

WJ5 BALLISTIC PARTITION
SAME AS 'WJ' EXCEPT ADD 5/16" BALLISTIC PANEL SYSTEM PROVIDED BY OWNER'S EQUIPMENT VENDOR UNDER GYP. BD. FINISH AT EXTERIOR SIDE OF PROTECTED ROOM

WJ6 1-HOUR FIRE-RATED PARTITION
CONSTRUCTED TO COMPLY WITH WITH U.L. TYPE U419

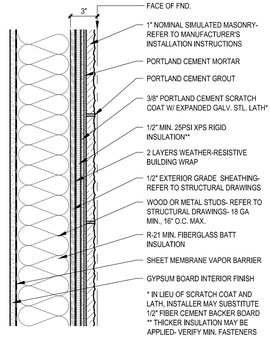
WR TYPICAL VAULT WALL
NO FIRE RATING

WR1 WIDE VAULT WALL
SAME AS 'WR' EXCEPT SUBSTITUTE 1 1/2" METAL HAT CHANNELS OR 2x PRESSURE-TREATED WOOD FURRING
NO FIRE RATING



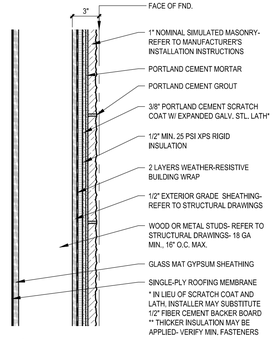
WA FOUNDATION WALL- INSULATED
NOT FIRE-RATED

WA1 FOUNDATION WALL- NON-INSULATED
SAME AS 'WA' EXCEPT OMIT RIGID INSUL.
NOT FIRE-RATED

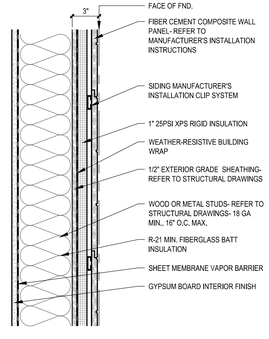


WB EXTERIOR WALL WITH SIMULATED MASONRY VENEER-
VERIFY FIRE RATING REQUIRED

WB1 EXTERIOR WALL WITH SIMULATED MASONRY VENEER- INTERIOR UNFIN.: SAME AS 'WB' EXCEPT OMIT GYPSUM BOARD INTERIOR FINISH- VERIFY FIRE RATING REQUIRED

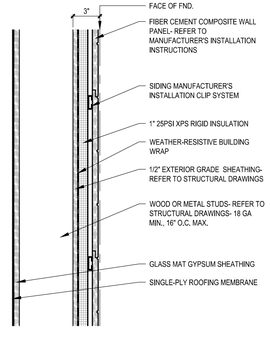


WB2 FRAME PARAPET WALL WITH SIMULATED MASONRY VENEER-
VERIFY FIRE RATING REQUIRED

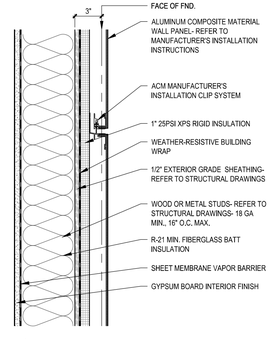


WC EXTERIOR WALL WITH FIBER CEMENT PANEL FINISH-
VERIFY FIRE RATING REQUIRED

WC1 EXTERIOR WALL WITH FIBER CEMENT PANEL FINISH- INTERIOR UNFIN.: SAME AS 'WC' EXCEPT OMIT GYPSUM BOARD INTERIOR FINISH- VERIFY FIRE RATING REQUIRED

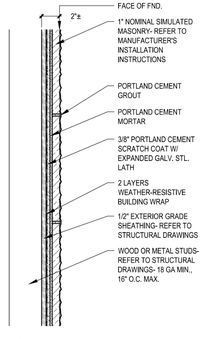


WC2 FRAME PARAPET WALL WITH FIBER CEMENT PANEL FINISH-
VERIFY FIRE RATING REQUIRED

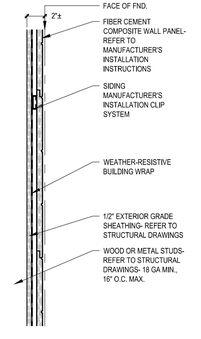


WD EXTERIOR WALL WITH ALUMINUM COMPOSITE PANEL FINISH-
VERIFY FIRE RATING REQUIRED

WD1 EXTERIOR WALL WITH ALUMINUM COMPOSITE PANEL FINISH- INTERIOR UNFIN.: SAME AS 'WC' EXCEPT OMIT GYPSUM BOARD INTERIOR FINISH- VERIFY FIRE RATING REQUIRED



WE1 DRIVE-UP CANOPY PIER WITH SIMULATED MASONRY VENEER
NON-PROTOTYPICAL- USED ONLY WHERE REQD. BY AUTHORITY HAVING JURISDICTION



WE2 DRIVE-UP CANOPY PIER WITH FIBER CEMENT PANEL FINISH
NON-PROTOTYPICAL- USED ONLY WHERE REQD. BY AUTHORITY HAVING JURISDICTION

WOOD FRAMING IS ACCEPTABLE AND PREFERRED THROUGHOUT WHERE MORE ECONOMICAL THAN METAL FRAMING. DRAWING GRAPHICS ARE STANDARDIZED AROUND METAL FRAMING FOR SIMPLICITY IN REPRESENTING DESIGN INTENT, AND ARE TO BE ADJUSTED AS NECESSARY BY THE ARCHITECT OF RECORD TO CONFORM TO THE MOST ECONOMICAL CHOICE OF CONSTRUCTION TYPE.

1 / A3.1 WALL TYPES
1 1/2" = 1'-0"

PREPARED BY:

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SIGNED BY:

JOSHUA W. CARRELL
NUMBER A-2018040323
STATE OF MISSOURI
ARCHITECT
3/2/2022

PRYOR ROAD & LOWENSTEIN DRIVE

908 NW PRYOR ROAD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

ISSUE	DATE	DESCRIPTION

CHASE

PRYOR & LOWENSTEIN
PROTOTYPE VERSION 20.4

CONTENTS

WALL TYPES
FLOOR TYPES
ROOF TYPES

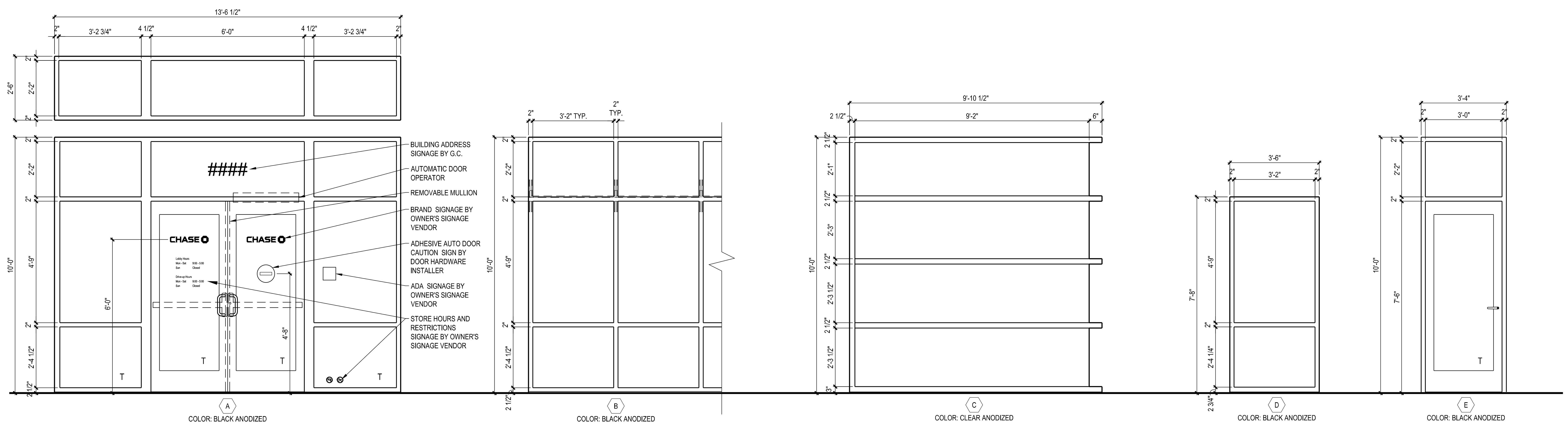
02/04/2022

SHEET

A3.1

DOOR TYPES SCHEDULE

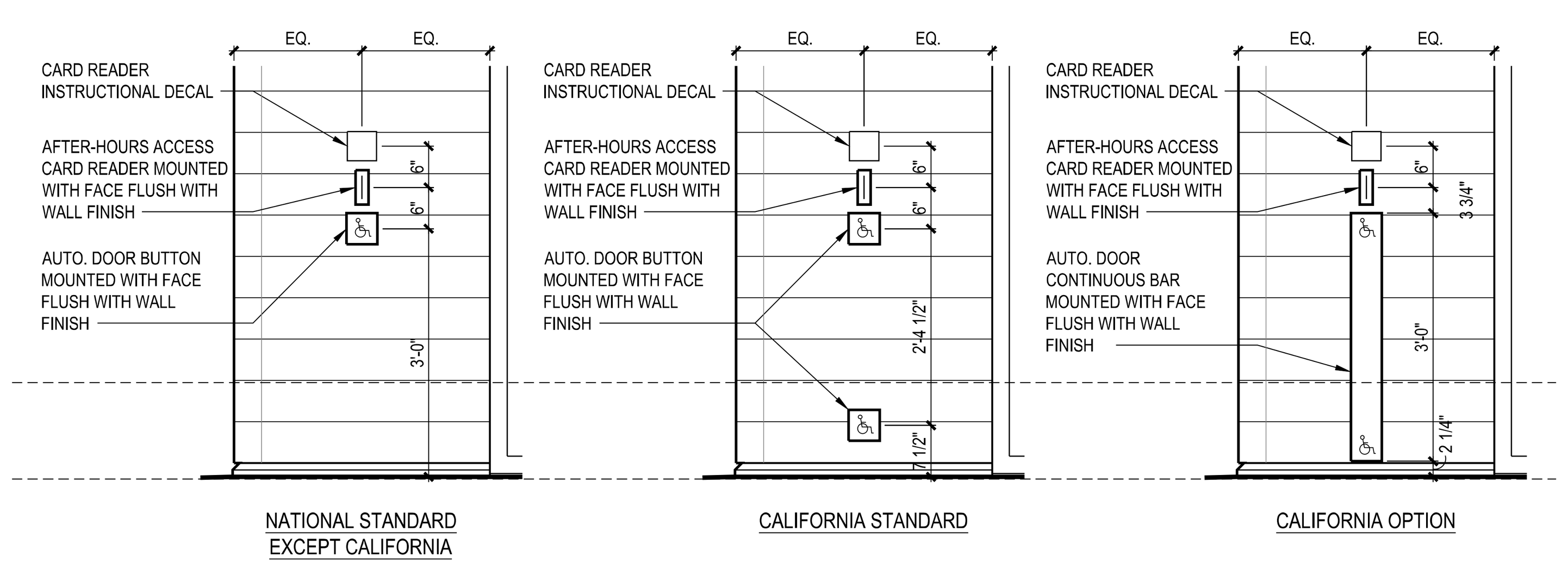
TYPE	TYPICAL SIZE W	TYPICAL SIZE H	TYPICAL SIZE T	DOOR MATERIAL	DOOR FINISH	FRAME MATERIAL	FRAME FINISH	HDWR.	NOTES
A ENTRANCE	(2) 3'-1 3/4"	7'-6"	1 3/4"	ALUMINUM / INSUL. GLASS	BLACK ANODIZED	ALUMINUM	BLACK ANODIZED	01	WIDE-STILE, 10" BOTTOM RAILS, REMOVABLE MULLION, STORE HOURS SIGNAGE BY OWNER
A (2ND ENTRANCE)	(2) 3'-1 3/4"	7'-6"	1 3/4"	ALUMINUM / INSUL. GLASS	BLACK ANODIZED	ALUMINUM	BLACK ANODIZED	01A	WIDE-STILE, 10" BOTTOM RAILS, REMOVABLE MULLION, STORE HOURS SIGNAGE BY OWNER
B VESTIBULE	(2) 3'-0"	7'-6"	1 3/4"	ALUMINUM / GLASS	BLACK ANODIZED	ALUMINUM	BLACK ANODIZED	02	NOT USED IN PROTOTYPE PLANS. WIDE-STILE, 10" BOTTOM RAILS, REMOVABLE MULLION
E SECURED	3'-0"/ 3'-4"	7'-0"	1 3/4"	SOLID-CORE FLUSH WOOD	PAINT TO MATCH ADJACENT WALL	HOLLOW METAL	PAINT TO MATCH ADJACENT WALL	03	3'-0" TYPICAL WIDTH; 3'-4" WIDTH AT ATM & SDB ROOMS; CLOSER CONCEALED FROM CUSTOMER VIEW
F PRIVACY (RESTROOM, SDB CHEST RM.)	3'-0"/ 3'-4"	7'-0"	1 3/4"	SOLID-CORE WOOD	PAINT TO MATCH ADJACENT WALL	HOLLOW METAL	PAINT TO MATCH ADJACENT WALL	04	TYPICAL AT RESTROOMS AND SDB ROOMS WITH VIEWING CARRELS. UNDERCUT DOORS 1" WHEN ROOM PROVIDED WITH ONLY SUPPLY AIR OR RUTURN AIR OR EXHAUST.
F1 PRIVACY (SDB VIEWING RM.)	3'-0"/ 3'-4"	7'-0"	1 3/4"	SOLID-CORE WOOD	PAINT TO MATCH ADJACENT WALL	HOLLOW METAL	PAINT TO MATCH ADJACENT WALL	04A	TYPICAL AT SDB VIEWING ROOMS. UNDERCUT DOORS 1" WHEN ROOM PROVIDED WITH ONLY SUPPLY AIR OR RUTURN AIR OR EXHAUST.
G BULLET-RESISTANT	3'-0"/ 3'-4"	7'-0"	1 3/4"	REINFORCED SOLID-CORE FLUSH WOOD	PAINT TO MATCH ADJACENT WALL	HOLLOW METAL	PAINT TO MATCH ADJACENT WALL	10	DOOR, FRAME, HINGE AND CLOSER PROVIDED BY BANK EQUIPMENT VENDOR- G.C.'S PAINTER TO FIELD PRIME WITH ETCHING PRIMER AND PAINT DOOR AND FRAME
H EGRESS/STEEL	3'-0"	7'-6"	1 3/4"	INSUL. STEEL	INT.: MATCH WALL EXT: EPT-1	HOLLOW METAL	INT.: MATCH WALL EXT: EPT-1	09	EGRESS DOORS IN HOLLOW METAL FRAMES
L UTILITY	3'-0"	7'-0"	1 3/4"	SOLID-CORE FLUSH WOOD	PAINT TO MATCH ADJACENT WALL	HOLLOW METAL	PAINT TO MATCH ADJACENT WALL	06	OMIT CLOSER AND HOLD-OPEN AT DOORS TO ROOMS WITH LADDERS ONLY. UNDERCUT DOORS 1" WHEN ROOM PROVIDED WITH ONLY SUPPLY AIR OR RETURN AIR OR EXHAUST. PROVIDE KICK PLATES AT EACH SIDE, AND COMBINED STOP/HOLDER PER HARDWARE SCHEDULE.
L1 FIRE-RATED UTILITY	3'-0"	7'-0"	1 3/4"	SOLID-CORE FLUSH WOOD	PAINT TO MATCH ADJACENT WALL	HOLLOW METAL	PAINT TO MATCH ADJACENT WALL	06	SAME AS "L" EXCEPT FIRE-RESISTANCE RATED FOR 1 HOUR. INCLUDE FULL PERIMETER SMOKE SEALS AND SWEEP.
M PASSAGE	3'-0"/ 3'-4"	7'-0"	1 3/4"	SOLID-CORE FLUSH WOOD	PAINT TO MATCH ADJACENT WALL	HOLLOW METAL	PAINT TO MATCH ADJACENT WALL	05	TYPICAL AT 2ND DOOR IN A SERIES TO A ROOM WITH BANK EQUIPMENT WHERE THE FIRST DOOR IS TYPE E; ALSO FOR USE AT NON-SECURED CLOSETS
Q OVERHEAD COILING	SEE PLAN	FLUSH W/ CEILING	NA	ALUMINUM / POLYCARBONATE	BLACK ANODIZED- FIELD-PAINT BOTTOM RAIL/PLATE BOTTOM SURFACE PT-500	ALUMINUM	CLEAR ANODIZED (JAMB CHANNELS ONLY)	BY MFR.	QMI SECURITY SOLUTIONS TRANSPAROLL NPT (SUBSTITUTIONS NOT PERMITTED). PROVIDE FLUSH KEY SWITCHES WITH SCHLAGE C123 CORES: 2 AT SITES WITHOUT SEPARATE EMPLOYEE ACCESS, 1 AT SITES WITH SEPARATE EMPLOYEE ACCESS; PROVIDE BATTERY BACKUP POWER WITH REQUIRED ACCESS ABOVE CEILING.
R EMPLOYEE ENTRANCE	3'-0"	7'-6"	1 3/4"	ALUMINUM / GLASS	BLACK ANODIZED	ALUMINUM	BLACK ANODIZED	16	



- REFER TO OWNER'S PUBLICATION CHASE ADA SIGNAGE STANDARDS AND GUIDELINES, LATEST VERSION, FOR ADDITIONAL OWNER AND REGULATORY SIGNAGE REQUIREMENTS AND GUIDANCE
- AT NON-ADA-COMPLIANT ENTRANCES, PROVIDE ADA-COMPLIANT DIRECTIONAL SIGNAGE FEATURING THE INTERNATIONAL SYMBOL ACCESSIBILITY AS REQD. TO DIRECT APPROACHING FOOT TRAFFIC TO THE COMPLIANT ENTRANCE
- ALL UNIT DIMENSIONS ARE NOMINAL AND MAY VARY BY MANUFACTURER- COORDINATE WITH WALL SECTIONS
- INDIVIDUAL LITES DESIGNATED WITH THE 'T' SYMBOL REQUIRE TEMPERED SAFETY GLASS- VERIFY ADDITIONAL REQUIREMENTS WITH APPLICABLE BUILDING CODES
- MODIFY SIGNAGE DESIGN AS REQUIRED TO COMPLY WITH LOCAL BUILDING AND ZONING CODES AND SUBMIT TO OWNER FOR APPROVAL

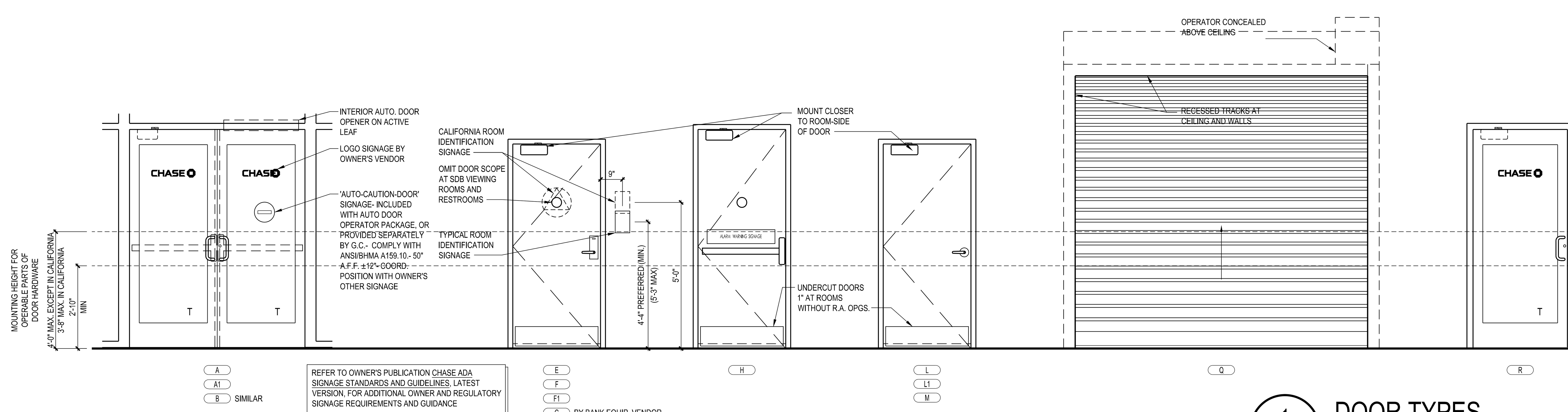
2 / A3.2.1 WINDOW TYPES

1/4" = 1'-0"



3 / A3.2.1 AUTO. DOOR BUTTONS AND SIGNAGE

1/2" = 1'-0"



1 / A3.2.1 DOOR TYPES

1/4" = 1'-0"

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DOOR TYPES SCHEDULE
DOOR TYPES
WINDOW TYPES

02/04/2022

SHEET

A3.2.1

DOOR HARDWARE SCHEDULE

GROUP	COMPONENT	MFR.	MODEL	FINISH	NOTES
01 ENTRANCE / 01A ENTRANCE 2	BUTT HINGE (6)	HAGER	BB1191 4.5x4.5 L1 NRP	BLACK	STOCK# 006597
	REMOVABLE MULLION	VON DUPRIN	KR4854	SPBLK (BLACK PAINT)	
	PANIC BAR	VON DUPRIN	CD99EO	626 SATIN CHROMIUM	
	PANIC BAR	VON DUPRIN	CD99NL-OP	626 SATIN CHROMIUM	
	MORTISE CYLINDER	SCHLAGE	20-001/C123	626 SATIN CHROMIUM	NOTE 8
	MORTISE CYLINDER (2)	SCHLAGE	20-001 XQ11-948/C123	626 SATIN CHROMIUM	
	RIM CYLINDER	SCHLAGE	20-022	626 SATIN CHROMIUM	
	ELECTRIC STRIKE	VON DUPRIN	6111 FSE DS 24V	630 SATIN STAINLESS STEEL	OMIT AT TYPE 01A (NOTES 4,5)
	CARD READER SYSTEM	PARABIT	ACSIEV2	BLACK	PROVIDED AND INSTALLED BY OWNER'S SECURITY SYSTEM VENDOR, OMIT AT TYPE 01A (NOTES 4,5)
	OFFSET DOOR PULL (2)	IVES	8190-0-O	630 SATIN STAINLESS STEEL	
	OFFSET DOOR PULL (ALT.) (2)	TRIMCO	1191E-3-4,BPVC	PVC	PVC-COATED "STAY-COOL" PULLS FOR USE IN THE DESERT SOUTHWEST ONLY
	POWER OPERATOR	LCN	4640CS	POWDER COAT BLACK	OMIT AT TYPE 01A. MATCH EXISTING STOREFRONT COLOR AT IN-LINE OR EXISTING BUILDING PROJECTS. INCLUDE CONCEALED SWITCH BLANK END PLATE 334-2. (NOTE 5)
	DOOR PUSHPLATES (2) EXCEPT CALIFORNIA PROJECTS	LCN	8310-853T (4" SQUARE)	SATIN S.S	OMIT AT TYPE 01A
	DOOR PUSHPLATES (4) CALIFORNIA PROJECTS ONLY	LCN	8310-853T (4" SQUARE)	SATIN S.S	OMIT AT TYPE 01A
	DOOR PUSHPLATES (2) OPT. BAR AT CALIFORNIA PROJECTS ONLY	LCN	8310-836T (6" x 36" BAR)	SATIN S.S	OMIT AT TYPE 01A
	SURF.-MOUNT PUSH PLATE ENCLOSURE	LCN	8310-867S	BLACK PLASTIC	FOR USE ONLY AT NON-STANDARD PLANS WHERE A WALL WITH ACCESSIBLE CLEARANCES IS NOT AVAILABLE. NOT TO BE USED AT ANY EXTERIOR NEW-BUILD CONDITION.
	KEY SWITCH	SCHLAGE	653-1414-L2	---	NARROW-STILE COVER PLATE- OMIT AT TYPE 01A
	CLOSER	LCN	4111-3077CNS	STANDARD POWDER COAT BLACK	PROVIDE 2 AT TYPE 01A, SET TO LOWEST POSSIBLE OPENING FORCE REQUIRED TO MAINTAIN WEATHER SEAL INTEGRITY
	SEALS	PEMKO	297AS	MILL-FIN. ALUMINUM	
	SWEEP- STANDARD	PEMKO	2170DV	DARK BRONZE VINYL	
	SWEEP- HIGH WIND CONDITIONS	PEMKO	315DN	DARK ANOD. BRONZE	ORDER LONG AND CUT METAL SHORT TO ALLOW NEOPRENE TO EXTEND BEYOND DOOR LOCK EDGE
	THRESHOLD	PEMKO	253X3AFG	MILL-FIN. ALUMINUM	
02 VESTIBULE	BUTT HINGE (6)	HAGER	BB1191 4.5x4.5 L1 NRP	BLACK	STOCK# 006597
	REMOVABLE MULLION	VON DUPRIN	KR4954	SPBLK (BLACK PAINT)	
	PANIC BAR	VON DUPRIN	CD99EO	626 SATIN CHROMIUM	
	PANIC BAR	VON DUPRIN	CD99NL-OP	626 SATIN CHROMIUM	
	MORTISE CYLINDER	SCHLAGE	20-001/C123	626 SATIN CHROMIUM	NOTE 8
	MORTISE CYLINDER (2)	SCHLAGE	20-001 XQ11-948/C123	626 SATIN CHROMIUM	
	RIM CYLINDER	SCHLAGE	20-022	626 SATIN CHROMIUM	
	OFFSET DOOR PULL (2)	IVES	8190-0-O	630 SATIN STAINLESS STEEL	
	POWER OPERATOR	LCN	4640CS	POWDER COAT BLACK	INCLUDE CONCEALED SWITCH BLANK END PLATE 334-2 (NOTE 5)
	DOOR PUSHPLATES (2) EXCEPT CALIFORNIA PROJECTS	LCN	8310-853T (4" SQUARE)	SATIN S.S	OMIT AT TYPE 01A
	DOOR PUSHPLATES (4) CALIFORNIA PROJECTS ONLY	LCN	8310-853T (4" SQUARE)	SATIN S.S	OMIT AT TYPE 01A
	DOOR PUSHPLATES (2) OPT. BAR AT CALIFORNIA PROJECTS ONLY	LCN	8310-836T (6" x 36" BAR)	SATIN S.S	OMIT AT TYPE 01A
	SURF.-MOUNT PUSH PLATE ENCLOSURE	LCN	8310-867S	BLACK PLASTIC	FOR USE ONLY AT NON-STANDARD PLANS WHERE WALL WITH ACCESSIBLE CLEARANCES IS NOT AVAILABLE. NOT TO BE USED AT ANY EXTERIOR NEW-BUILD CONDITION.
	KEY SWITCH	LCN	8310-806K	---	RECESSED IN HINGE JAMB MULLION at 38" AFF (NOTE 5)
	CLOSER	LCN	4111-3077CNS	STANDARD POWDER COAT BLACK	LEFT-HAND LEAF AS VIEWED FROM EXTERIOR, ADA COMPLIANT
03 SECURED	BUTT HINGE (3)	HAGER	BB1191 ANSI A2112 4.5x4.5	626 SATIN CHROMIUM	
	ELECTRONIC LOCK	SCHLAGE	CO-100-CY-70-KP-SPA-626-PD-C123	626 SATIN CHROMIUM	NOTE 8
	CLOSER	LCN	4011/4041-3077	SP28 GRAY PAINT	DOOR-MOUNT ON ROOM SIDE- NOT VISIBLE TO CUSTOMERS; ADA COMPLIANT
	FLOOR STOP	IVES	FS13 / FS17	626 SATIN CHROMIUM	AT DOORS OPENING AGAINST WALL; WITH R14 RISER AS REQUIRED
	OVERHEAD STOP	GLYNN-JOHNSON	410S	630 SATIN STAINLESS STEEL	AT DOORS OPENING AGAINST FURNITURE
	KICK PLATE	IVES	8400	630 SATIN STAINLESS STEEL	PUSH SIDE ONLY; 8" x 2" LESS THAN DOOR WIDTH
	DOOR SCOPE	IPI / DOOR SCOPE	DS2000	SILVER PAINT	ALUMINUM BODY, NOTE 1
	SILENCERS	IVES	SR64	GRAY	
04 PRIVACY	BUTT HINGE (3)	HAGER	BB1191 ANSI A2112 4.5x4.5	626 SATIN CHROMIUM	
	ELECTRONIC LOCK	SCHLAGE	CO-100-CY-40-KP-SPA-626-PD-C123	626 SATIN CHROMIUM	WITH PRIVACY FUNCTION; NOTE 8
	CLOSER	LCN	4011/4041-3077	SP28 GRAY PAINT	DOOR-MOUNT ON ROOM SIDE- NOT VISIBLE TO CUSTOMERS, ADA COMPLIANT
	FLOOR STOP	IVES	FS13 / FS17	626 SATIN CHROMIUM	WITH R14 RISER AS REQUIRED
	KICK PLATE	IVES	8400	630 SATIN STAINLESS STEEL	PUSH SIDE ONLY; 8" x 2" LESS THAN DOOR WIDTH
	COAT HOOKS (2)	IVES	581	626 SATIN CHROMIUM	AT RESTROOMS ONLY, 1 AT 36" AFF, 1 AT 60" AFF
	DOOR SCOPE	IPI / DOOR SCOPE	DS2000	SILVER PAINT	ALUMINUM BODY- OMIT AT RESTROOMS & SDB VIEWING ROOMS, NOTE 1
	SILENCERS	IVES	SR64	GRAY	
04A STANDARD AT SDB VIEWING RM. --- ALTERNATE AT RESTROOMS BY EXCEPTION	BUTT HINGE (3)	HAGER	BB1191 ANSI A2112 4.5x4.5	626 SATIN CHROMIUM	
	PRIVACY LOCK	SCHLAGE	L9496-17A/C123	626 SATIN CHROMIUM	ADA-COMPLIANT MORTISE THUMB TURN PRIVACY LOCK WITH OCCUPANCY INDICATOR; EXTERIOR UNLOCKED EXCEPT WHEN LOCKED BY THUMB TURN OR KEY; NOTE 8; EXCEPTION FOR OCCUPANCY INDICATOR LOCK IN LIEU OF STANDARD KEYPAD LOCK (#04) PERMITTED ONLY WHEN ADJACENT HALLWAY IS SECURED BY A KEYPAD LOCK FROM THE LOBBY.
	THUMB TURN	SCHLAGE	09-509xL583-363	626 SATIN CHROMIUM	ADA-COMPLIANT THUMB TURN
	CLOSER	LCN	4011/4041-3077	SP28 GRAY PAINT	OMIT AT SDB VIEWING ROOMS; DOOR-MOUNT ON ROOM SIDE, ADA COMPLIANT
	FLOOR STOP	IVES	FS13 / FS17	626 SATIN CHROMIUM	WITH R14 RISER AS REQUIRED
	KICK PLATE	IVES	8400	630 SATIN STAINLESS STEEL	PUSH SIDE ONLY; 8" x 2" LESS THAN DOOR WIDTH
	COAT HOOKS (2)	IVES	581	626 SATIN CHROMIUM	AT RESTROOMS ONLY, 1 AT 36" AFF, 1 AT 60" AFF
	DOOR SCOPE	IPI / DOOR SCOPE	DS2000	SILVER PAINT	ALUMINUM BODY- OMIT AT RESTROOMS & SDB VIEWING ROOMS, NOTE 1
	SILENCERS	IVES	SR64	GRAY	
05 PASSAGE	BUTT HINGE (3)	HAGER	BB1191 ANSI A2112 4.5x4.5	626 SATIN CHROMIUM	
	PASSAGE LATCH SET	SCHLAGE	ND10S/SPA	626 SATIN CHROMIUM	INCLUDE MILLED GROOVES (#8SP) AT ELECTRICAL ROOM DOORS
	CLOSER	LCN	4011/4041-3077	SP28 GRAY PAINT	DOOR-MOUNT ON ROOM SIDE- NOT VISIBLE TO CUSTOMERS, ADA COMPLIANT
	FLOOR STOP	IVES	FS13 / FS17	626 SATIN CHROMIUM	WITH R14 RISER AS REQUIRED
	KICK PLATE	IVES	8400	630 SATIN STAINLESS STEEL	PUSH SIDE ONLY; 8" x 2" LESS THAN DOOR WIDTH
	SILENCERS	IVES	SR64	GRAY	
06 UTILITY	BUTT HINGE (3)	HAGER	BB1191 ANSI A2112 4.5x4.5	626 SATIN CHROMIUM	
	STOREROOM LOCK SET	SCHLAGE	ND80PD/C123/SPA	626 SATIN CHROMIUM	NOTE 8
	CLOSER	LCN	4011/4041-3077	SP28 GRAY PAINT	DOOR-MOUNT ON ROOM SIDE- NOT VISIBLE TO CUSTOMERS, ADA COMPLIANT
	CONCEALED OVERHEAD STOP/HOLDER	GLYNN-JOHNSON	410H	630 SATIN STAINLESS STEEL	OVERHEAD CONCEALED COMBINED STOP/HOLDER REQUIRED AT PLUMBING/JANITOR CLOSET, ELECTRICAL, AND DATA ROOMS; OMIT AT ROOMS WITH LADDER ONLY.
	KICK PLATE (2)	IVES	8400	630 SATIN STAINLESS STEEL	8" x 2" LESS THAN DOOR WIDTH; PLUMBING/JANITOR CLOSET, ELECTRICAL, AND DATA ROOMS REQUIRE KICK PLATES AT BOTH SIDES OF DOOR.
	DOOR SWEEP	PEMKO	4131CNBL	CLEAR ANOD. ALUMINUM	DATA ROOM DOOR ONLY
	DOOR SCOPE	IPI / DOOR SCOPE	DS2000	SILVER PAINT	ALUMINUM BODY, NOTE 1
	SILENCERS	IVES	SR64	GRAY	
09 EGRESS	BUTT HINGE (2)	HAGER	BB1191 ANSA A5112 NRP 4.5x4.5	630 SATIN STAINLESS STEEL	
	POWER TRANSFER HINGE (1)	HAGER	BB1191 ANSI A5112 ETW 4.5 x 4.5	630 SATIN STAINLESS STEEL	4-CONDUCTOR THROUGH-WIRE POWER TRANSFER HINGE
	PANIC BAR WITH ALARM	VON DUPRIN	99NL-OP-ALK-AR-CON-3'-US26D	626 SATIN CHROMIUM	PANIC BAR WITH ALARM KIT, AUTO-RESET, AND MFR'S POWERED HINGE WIRING KIT, LENGTH AS REQD.
	ALARM POWER SUPPLY	VON DUPRIN	PS-900 SERIES	---	INCLUDE INTERNAL BACKUP BATTERY; SEE NOTE 7
	MORTISE CYLINDER	SCHLAGE	20-001/C123	626 SATIN CHROMIUM	NOTE 8
	RIM CYLINDER	SCHLAGE	20-022	626 SATIN CHROMIUM	
	CLOSER	LCN	4111-3077 CNS	SP28 GRAY PAINT	ADA COMPLIANT
	KICK PLATE	IVES	8400	630 SATIN STAINLESS STEEL	8" x 2" LESS THAN DOOR WIDTH
	SEALS	PEMKO	297AS	MILL-FIN. ALUMINUM	
	DOOR SWEEP	PEMKO	315CN	CLEAR ANOD. ALUMINUM	
	THRESHOLD	PEMKO	170A	MILL-FIN. ALUMINUM	
	DOOR SCOPE	IPI / DOOR SCOPE	DS2000 168 degree	SILVER PAINT	ALUMINUM BODY, NOTE 1
10 BULLET-RESISTANT	CONTINUOUS HINGE	---	---	SATIN CHROME/STAINLESS STEEL	BY BANK EQUIPMENT VENDOR
	ELECTRONIC LOCK	SCHLAGE	CO-100-CY-70-KP-SPA-626-PD-C123	626 SATIN CHROMIUM	BY BANK EQUIPMENT VENDOR; NOTE 8
	CLOSER	LCN	4011/4041-3077 CNS	SP28 GRAY PAINT	BY BANK EQUIPMENT VENDOR, ADA COMPLIANT
	FLOOR STOP	IVES	FS13 / FS17	626 SATIN CHROMIUM	WITH R14 RISER AS REQUIRED
	KICK PLATE	IVES	8400	630 SATIN STAINLESS STEEL	PUSH SIDE ONLY; 8" x 2" LESS THAN DOOR WIDTH
	DOOR SCOPE	IPI / DOOR SCOPE	DS2000	SILVER PAINT	ALUMINUM BODY, NOTE 1
	SILENCERS	IVES	SR64	GRAY	
14 TRASH ENCLOSURE GATE	BARREL HINGES (1 PAIR PER LEAF)	GUARDIAN	2130.100	PAINT TO MATCH ADJ. FINISH	AT C.M.U. ENCLOSURES- OR EQUAL- 1000-LB. CAPACITY PER PAIR, PRIMED STEEL
			2135.100	PAINT TO MATCH ADJ. FINISH	AT STEEL POST ENCLOSURES- OR EQUAL- 1000-LB. CAPACITY PER PAIR, PRIMED STEEL
	LATCH	STANLEY	621513	GALVANIZED STEEL	OR EQUAL
	PULL (1 PER LEAF)	CROWN BOLT	62309	GALVANIZED STEEL	OR EQUAL
	CANE BOLT (1 PER LEAF)	STANLEY	532531	GALVANIZED STEEL	BY PANEL SYSTEM MANUFACTURER
	SPRING-LOADED CASTERS (1 PER LEAF)	ABBEY TRADING	081-368-1	GALVANIZED STEEL	OR EQUAL
	BOLTS AND MISC. HARDWARE	---	---	STAINLESS STEEL	
16 EMPLOYEE ENTRANCE	BUTT HINGE (3)	HAGER	BB1191 4.5x4.5 L1 NRP	BLACK	STOCK #006597
	MORTISE DEAD LATCH	SCHLAGE	L9080/C123/SPA	626 SATIN CHROMIUM	WHERE DOOR MFR'S LOCK BODY IS REQD., PROVIDE SCHLAGE LOCK CYLINDER, ANSI F07 "STOREROOM LOCK" FUNCTION; ADA SINGLE-ACTION COMPLIANT; NOTE 8
	LEVERS (2)	SCHLAGE	SPARTA	626 SATIN CHROMIUM	
	SILENCERS	IVES	SR64	GRAY	
	CLOSER	LCN	4111-3077/CNS	STANDARD POWDER COAT BLACK	
	FLOOR STOP	IVES	FS13 / FS17	626 SATIN CHROMIUM	

NOTES:

1. DOOR SCOPE REQUIRED UNLESS DOOR INTO ROOM CANNOT BE CLOSED WHILE OCCUPIED (I.E. CLOSETS) OR DOOR DOES NOT OPEN INTO AREAS ACCESSIBLE TO CUSTOMERS.
2. HARDWARE SET 08A - ALT. GLASS SHALL BE SPECIFIED ONLY AT PROJECTS WHERE AUTHORITIES HAVING JURISDICTION DO NOT PERMIT THE 4" BEVELLED BOTTOM RAIL EXCEPTION TO THE 10" DOOR BOTTOM RAIL REQUIREMENT.
3. DOOR HARDWARE VENDOR IS TO VERIFY COMPATIBILITY OF SPECIFIED HARDWARE AND SUBMIT RECOMMENDATIONS AS REQUIRED TO THE G.C. TO CONFORM TO THE LOCK FUNCTION AND FINISH HARDWARE CONFIGURATION DESIGN INTENT. ANY DEVIATIONS FROM SCEHDULED HARDWARE MUST BE APPROVED BY THE OWNER. CHANGE ORDERS RESULTING FROM NON-COMPATIBIILTY OF HARDWARE WILL NOT BE ACCEPTED.
4. OMIT PARABIT AFTER-HOURS CARD READER ACCESS SYSTEM WHERE DOORS DO NOT ACCESS A 24-HOUR VESTIBULE WITH ATM OR OTHER CUSTOMER-FACING EQUIPMENT.
5. REFER TO AUTO DOOR CONTROL DIAGRAMS, SHEET E3.
6. ADJUST DOOR CLOSERS TO COMPLY WITH ANSI A117.1 REQUIREMENTS FOR OPENING FORCE AND CLOSING SPEED. SET OPENING FORCE AS LOW AS POSSIBLE WHILE ALLOWING THE DOOR TO FULLY LATCH.
7. FOR PROJECTS WITH A SINGLE ALARMED EGRESS DOOR, INSTALL POWER SUPPLY ABOVE FINISH CEILING OVER DOOR. FOR PROJECTS WITH MULTIPLE ALARMED DOORS, INSTALL SIZE POWER SUPPLY FOR MULTIPLE DOORS AND INSTALL IN A CENTRAL LOCATION.
8. G.C. TO COORDINATE WITH OWNER'S FACILITY MANAGER TO VERIFY LOCK CORE AND KEYWAY COMPATIBILITY WITH REGIONAL HARDWARE STANDARDS- MATCH LOCAL CONFIGURATION.

PREPARED BY:
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SIGNED BY:

STATE OF MISSOURI
JOSHUA W. CARRELL
NUMBER A-2018040323
ARCHITECT
3/2/2022

PRYOR ROAD & LOWENSTEIN DRIVE
908 NW PRYOR ROAD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

ISSUE	DATE	DESCRIPTION

CHASE

PRYOR & LOWENSTEIN
PROTOTYPE VERSION 20.4

CONTENTS

DOOR HARDWARE SCHEDULE

02/04/2022

SHEET

A3.2.2

INTERIOR FINISH SCHEDULE

TRANSACTION VESTIBULE		
	FLOOR- FIELD TILE	T-501
	WALK-OFF MAT	CPT-302
	WALL BASE	WB-402
	ATM WALL	WC-402
	WALLS (NON-ATM)	PT-500
	SUSPENDED GRID CEILING	ACT-4
	SOFFITS- FACE AND BOTTOM	PT-500
	LIGHT FIXTURES- GENERAL	L-500
	ILLUMINATED OCTAGON	PREFERRED
LOBBY AND CORRIDOR		
	FLOOR- FIELD TILE	T-501
	WALL BASE	WB-402
	WALLS - GENERAL	PT-500
	WALL - CAFÉ / COMMUNITY WALL	PT-311 (NOTE 13)
	WALL - ATM	PT-501
	SUSPENDED GRID CEILING	ACT-4
	GYPSUM CEILINGS, SOFFIT BOTTOMS AND SOFFIT FACES NOT FLUSH WITH WALL	PT-500
	WINDOW SILLS	SS-300
	LIGHT FIXTURES- GENERAL	L-500
	LIGHT FIXTURES - CEILING ACCENT	L-11
	WINDOW SHADES (NOTE 6B)	WT-1 / WT-2
LIVING ROOM		
	FLOOR- AREA RUG	LRAR-4
	WALLS- GENERAL	PT-500
	FEATURE WALL PANELS	WD-601
	LIGHT FIXTURES- GENERAL	L-500
MANUAL TRANSACTIONS		
	FLOOR	CPT-321
	WALL BASE	WB-402
	WALLS - GENERAL	PT-500
	WALLS - MANUAL TRANSACTION BACK WALL	PT-500
	WALLS- ACCENT	(NOTE 13)
	MILLWORK- GENERAL	PL-502/ PL-503
	MANUAL TRANSACTION MODULE FRONT PANELS	(NOTE 5)
	MANUAL TRANSACTION MODULE COUNTER	(NOTE 5)
	CEILING	ACT-4
	SOFFITS- BOTTOM AND FACES NOT FLUSH WITH WALL	PT-500
	LIGHT FIXTURES- GENERAL	L-11
	ILLUMINATED OCTAGON	PREFERRED
	SCRIM	WT-20
CASUAL AND PRIVATE CONSULTATION SPACE (CCS, PCS)		
	FLOOR - GENERAL	CPT-320
	WALL BASE	WB-402
	WALLS	PT-500
	WALLS- ACCENT	PT-501 (NOTE 12)
	WALLS - PARTIAL HEIGHT	PT-500
	GLAZING HARDWARE	DEMOUNTABLE WALL SYTEM (NOTE 12)
	DOOR CLOSER COVER	DEMOUNTABLE WALL SYTEM (NOTE 12)
	CEILING	ACT-4
	PCS/CMS BULKHEADS	PT-500
	SOFFITS - BOTTOM AND FACES NOT FLUSH WITH WALL	PT-500
	LIGHT FIXTURES- GENERAL	L-500
	LIGHT FIXTURES- PENDANT	L-410
	WINDOW SHADES: PCS / CMS (NOTE 6B)	WT-1 / WT-2
CONFERENCE ROOM		
	FLOOR - GENERAL	CPT-320
	WALL BASE	WB-402
	WALLS	PT-500
	WALLS- ACCENT	PT-501 (NOTE 12)
	WALLS - PARTIAL HEIGHT	(NOTE 12)
	GLAZING HARDWARE	DEMOUNTABLE WALL SYTEM (NOTE 12)
	DOOR CLOSER COVER	DEMOUNTABLE WALL SYTEM (NOTE 12)
	CEILING	ACT-4
	CONFERENCE BULKHEADS	PT-500
	SOFFITS - BOTTOM AND FACES NOT FLUSH WITH WALL	PT-500
	LIGHT FIXTURES- GENERAL	L-500
	LIGHT FIXTURES - ACCENT - CONFERENCE ROOM	L-413
	WINDOW SHADES: CONFERENCE (NOTE 6B)	WT-7
BOOTH		
	FLOOR	T-501
	WALL BASE	WB-402
	WALLS - ACCENT PAINT	PT-501 (NOTE 12)
	WALLS - WOOD ACCENT	WD-502
	CEILING	WD-502
	BOOTH BULKHEADS	PT-500
	SOFFITS - BOTTOM AND FACES NOT FLUSH WITH WALL	PT-500
	LIGHT FIXTURES- GENERAL	L-500
	LIGHT FIXTURES- ACCENT- BOOTH	L-411
	WINDOW SHADES: PCS / CMS (NOTE 6B)	WT-1 / WT-2

DINING ROOM TABLE		
	FLOOR (DAB ON HARD SURFACE)	T-501
	WALL BASE	WB-402
	WALLS - GENERAL	PT-500
	WALLS - DIGITAL	PT-311 (NOTE 13)
	WALLS - PARTIAL HEIGHT	PT-500
	CEILING	ACT-4
	LIGHT FIXTURES- GENERAL	L-500
SDB CHEST ROOM OR VAULT		
	FLOOR	CPT-320
	WALL BASE	WB-402
	WALLS - GENERAL	PT-500
	CEILING	ACT-2
	LIGHT FIXTURES	L-2
SDB VIEWING ROOM		
	FLOOR	CPT-320
	WALL BASE	WB-402
	WALLS	PT-500
	WALL- ACCENT (COUNTER WALL)	PT-501
	MILLWORK COUNTER	SS-300
	CARREL COUNTER	SS-300
	CEILING	ACT-2
	LIGHT FIXTURES- GENERAL	L-2
RESTROOMS (NOTE 6B)		
	FLOOR- FIELD	T-402
	WALL BASE	WB-402
	WALLS - GENERAL	PT-500
	WALL- VANITY	PT-501
	WALL TILE	T-402
	CEILING	ACT-2
	LIGHT FIXTURES- GENERAL	L-2
WORK / PRINT / FILE / STORAGE ROOMS, LTOS AND CASH ROOMS SEPARATE FROM MANUAL TRANSACTION AREAS		
	FLOOR	CPT-320
	WALL BASE	WB-402
	WALLS	PT-500
	MILLWORK	PL-502/ PL-503
	CEILING	ACT-2
	LIGHT FIXTURES	L-2
LAO / CASH ROOMS- OPEN TO MANUAL TRANSACTION AREAS		
	FLOOR	CPT-321
	WALL BASE	WB-402
	WALLS	PT-500
	MILLWORK	PL-502/ PL-503
	CEILING	ACT-2
	LIGHT FIXTURES	L-2
LOUNGE		
	FLOOR	T-402
	WALL BASE	WB-402
	WALLS	PT-500
	MILLWORK COUNTER	PL-503
	MILLWORK	PL-502
	CEILING	ACT-2
	LIGHT FIXTURES	L-2
JANITOR / DATA / ELECTRICAL/ LADDER / ATM ROOMS		
	FLOOR	SC (NOTE 14)
	WALL BASE	WB-403
	WALLS (NOTE 8)	PT-500
	FLOOR SINK WALLS (NOTE 6)	FRP-1
	LADDER AREA WALLS (NOTE 6)	FRP-1
	CEILING	ACT-2 U.N.O.
	LIGHT FIXTURES	L-2 U.N.O.
FINISH SCHEDULE NOTES:		
	REFER TO INTERIOR ELEVATIONS, FLOOR PLANS, FINISH PLANS AND REFLECTED CEILING PLANS- DRAWING NOTES SUPERSEDE SCHEDULES.
1	PAINT ALL DOORS AND FRAMES TO MATCH ADJACENT WALL COLOR IN SATIN FINISH UNLESS OTHERWISE NOTED.
2	REFER TO FLOOR PLAN FOR DAB FLOOR FINISH
3	PAINT FACES AND BOTTOMS OF GYPSUM BOARD BULKHEADS TO MATCH ADJACENT WALLS UNLESS OTHERWISE NOTED.
4	LAMINATE, FABRIC OR SOLID SURFACE PROVIDED AND INSTALLED BY FURNITURE VENDOR
5	FRP FINISH EXTENTS: * LADDER AREA: ALL WALL SURFACES BEHIND AND WITHIN 12" EACH SIDE OF LADDER, SIDE WALLS WITHIN 12" OF EACH LADDER SIDE FOR A MINIMUM WITH OF 48" AND WALLS OPPOSITE LADDER WITHIN 48", FOR FULL HEIGHT OF ALL WALLS TO UNDERSIDE OF SCUTTLE FRAMING FINISH. * FLOOR SINK AREA: SPLASH AREA AT EACH WALL SURFACE CONTACTING THE SINK FROM THE TOP OF THE SINK TO THE UNDERSIDE OF THE WATER HEATER SHELF ABOVE OR 6'-0", WHICHEVER IS GREATER- REFER TO INTERIOR ELEVATIONS.
6A	RESTROOM WALL TILE FINISH EXTENTS: PROVIDE ONLY IF REQUIRED BY JURISDICTIONS HAVING AUTHORITY, TO THE MINIMUM HEIGHT REQUIRED, CONTINUOUS AT ALL WALLS REGARDLESS OF CODE REQUIREMENT- REFER TO INTERIOR ELEVATIONS.
6B	ROLLER SHADE FABRIC SELECTION VARIES BY REGION AND CLIMATE- VERIFY SELECTION WITH OWNER; ALL CONFERENCE ROOMS TO RECEIVE DOUBLE ROLLER SHADE WT-7.
7	3/4" x 4' x 8' HIGH FIRE-RETARDANT PLYWD ON GWB IN DATA RM PER PLAN- PAINT PT-207 (RATED LABEL TO BE VISIBLE)
8	PAINT INTERIOR DIFFUSERS, REGISTERS AND LOUVERS TO MATCH ADJACENT SURFACE
9	PAINT LOBBY FACING PCS SOFFITS ACCENT PAINT WHEN INSTALLING CPC LETTERSET UNLESS OTHERWISE NOTED.

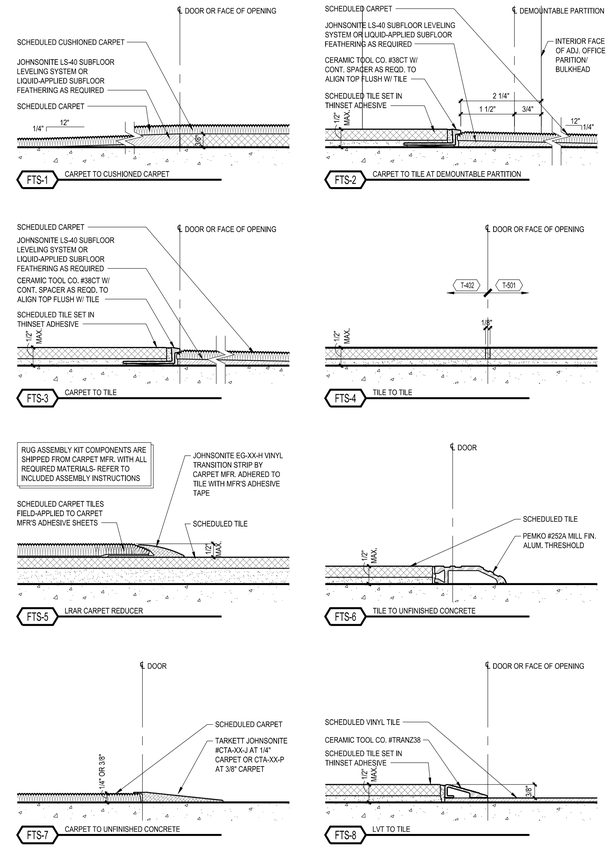
10	INSTALL FINISH CEILING GRID AS HIGH AS POSSIBLE IN UTILITY SPACES
11	DEMOUNTABLE PARTITION SYSTEMS: ARTWORK / MARKETING NOT TO BE INSTALLED ON WALL, UNLESS OTHERWISE NOTED. REFER TO PROTOTYPE SET FOR ACCENT PAINT LOCATION(S)
12	ACCENT WALLS: * EXTENTS: ACCENT PAINTS TO TERMINATE AT INTERIOR CORNER(S), UNLESS OTHERWISE NOTED. * LOCATION: PLANS WITH GYPSUM WALL IN MEETING SPACES- REFER TO FLOOR PLAN AND ELEVATIONS
13	* FINISH: DARK ACCENT PAINT(S) REQUIRE LEVEL 5 FINISH
14	JANITOR ROOM SHALL UTILIZE TILE FLOORING, PER FINISH SCHEDULE
15	WINDOW SHADE ENCLOSURES AND POCKETS: * WINDOW SHADE HOUSINGS AND POCKETS INTEGRATED WITH GRID CEILING SYSTEMS SHALL BE PROVIDED BY THE CEILING GRID MANUFACTURER AND INSTALLED BY THE CEILING SYSTEM VENDOR. FINISH SHALL MATCH THE CEILING GRID. * SURFACE-MOUNT WINDOW SHADE HOUSINGS SHALL BE PROVIDED BY THE WINDOW SHADE VENDOR. FINISH SHALL MATCH THE STOREFRONT GLAZING SYSTEM FINISH.

FLOORING TRANSITION FINISHES

MATERIAL	PALETTE	FINISH
NON-METALLIC TRANSITIONS	ALL	BLACK
METALLIC TRANSITIONS	ALL	CLEAR ANODIZED ALUMINUM
T-BAR	ALL	CLEAR ANODIZED ALUMINUM

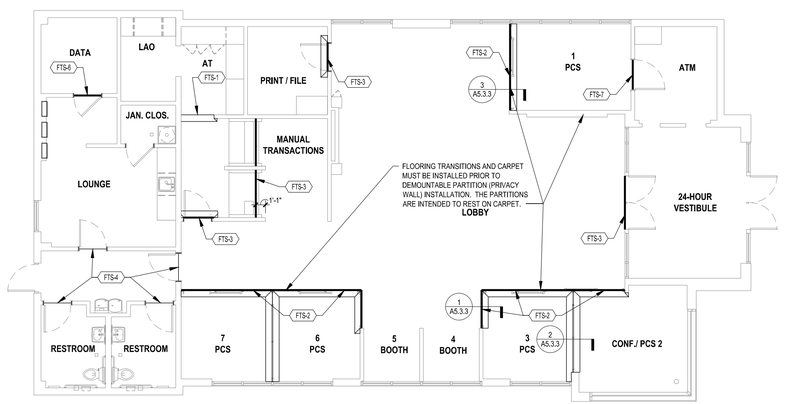
VENDOR CONTACTS

VENDOR / MFR.	CONTACT	PHONE	E-MAIL
ACME BRICK CO.	---	708-344-1000	---
BENJAMIN MOORE	LOCAL DISTRIBUTOR	---	---
BENTLEY PRINCE STREET	CHRIS CLARK	800-423-4709 EXT 5844	Chris.Clark@bentleymills.com
BLACK AND VEATCH (ROOFTOP SOLAR)	CHRIS ROGGE	913-458-8110	RoggeC@bv.com
BROOKSIDE VENEERS	KEVIN HALL	718-369-0526	kevinh@brooksideveneers.com
CARRIER- PRIMARY CONTACT	STEVE OWENS	---	STEPHEN.OWENS@Carrier.com Strategic.Accounts1@carrier.utc.com
CBBE	KRISTI FRANKS	770-342-8272	Kfranks@cbbe.net
CERTAINTEED	LOCAL DISTRIBUTOR	---	---
CORONADO STONE	DERRICK JOHNSON	909-561-8922	derrick@coronado.com
DAINTREE B.M.S. (CURRENT BY GE)	GENERAL SUPPORT	---	JPMCcontrols@gecurrent.com
	BOB FLANNERY	312-550-6554	robert.flannery@gecurrent.com
	TRAVIS LYNCH	216-212-7558	Travis.Lynch@gecurrent.com
DESIGN TEX	JULIE BRINKWORTH	800-221-1540	jbrinkworth@designtex.com
EMSER	AMBER SHOWALTER	323-650-2000	chase@emser.com
FSG	ISAIAH RAMDEEN	(888) 671-4074	jpmc@fsgi.com
GORDON, INC.	ERIC MAU	847-797-1010	eric@mauinc.com
CHASE GTI A/V SCREENS	CLAYTON COCHRAN	---	Niche_Check@jpmchase.com
HARVEY CEMENT PRODUCTS, INC.	ELLICE HERMAN CRAIG KIRK	708-833-1900 708-822-3907	---
HINES, INC.	NATE HINES	870-233-7925 480-710-7474	nate@hinesinc.com
INTERFACE FLOR	JOE FOLEY	312-961-7046	joe.foley@interface.com
JOHNSONITE	LOCAL DISTRIBUTOR	---	---
LLUMAR	SCOTT CURRY LISA BOAZ	888-257-5470	---
LUMENOMICS, LLC	MARTI HOFFER	206-327-9037	chaseteam@lumenomics.com
MADICO	LOCAL DISTRIBUTOR	---	---
MAPES ARCHITECTURAL CANOPIES	CHAD FREEBURGER	888-273-1132	cfreeburger@mapes.com nationalaccounts@mapes.com
MATTHEWS PAINT	LOCAL DISTRIBUTOR	---	---
MOMENTUM TEXTILES	MEGAN CUDA	800-433-0790 EXT.1113	mcuda@momtex.com
NICHIHA FIBER CEMENT	ADAM COSSICK	770-570-0011	chase@nichiha.com
NEVAMAR	LOCAL DISTRIBUTOR	---	---
NORTON INDUSTRIES, INC.	ALEXANDRA SCOTT	216-228-6650	alexandra@nortonceilings.com
PHOTOVOLTAIC SYSTEM (FUTURE)	CHRIS ROGGE	913-458-8110	RoggeC@bv.com
PIONEER MILLWORKS	JERED SLUSSER	800-951-9663	jered@pioneermillworks.com
PIONITE	LOCAL DISTRIBUTOR	---	---
PRINCIPLE USA	CHASE HEARING LOOP PROJECT MANAGER	865-692-4104	ChaseHearingLoop@principleglobal.com
PULP STUDIOS	ALEX ROSUL	216-227-1801	arosul@sbcglobal.neet
QMI SECURITY SOLUTIONS	KEVIN BECERRA	800-446-2500	kbecerra@qmiusa.com
ROLL-A-SHADE	DEANNA MCCOY	951-245-5077	Deanna.McCoy@RollAShade.com
SBEMCO	DEB WOLFE	515-295-3902 X18	dwolfe@mattingbydesign.com
SHERWIN-WILLIAMS	LOCAL DISTRIBUTOR	---	---
STEELCASE (EMPIRE OFFICE)	MARIBETH CAREY	212-607-5568	MCarey@EmpireOffice.com
STONE SOURCE	DAVID SELTZER	212-979-6400	DSELTZER@STONESOURCE.COM
TELEPRESENCE (CHASE GTI)	TODD YORK	972-324-8100	todd.york@jpmorgan.com
TRANE	NATL. ACCOUNT REP.	630-400-4285 630-200-7155	JPMorganChase@trane.com
TELLEREX	MELISSA DORMAN BRIAN LECHLITNER	888.395.0170	melissa.dorman@tellerex.com brian.lechlitner@tellerex.com
USG	BLAKE PANNO	515-707-9179	bpanno@usg.com
WASTE WISE PRODUCTS, INC	PAUL DECONINCK	877-680-8361	---
WEATHERMATIC	PARRY WEBB	972-9262193	Parry.webb@weathermatic.com
WILSONART	LOCAL DISTRIBUTOR	---	---



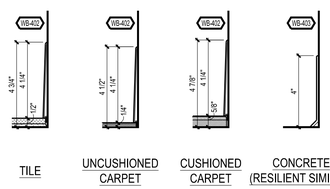
2 A3.3.1 FLOORING TRANSITION TYPES

6" = 1'-0"



1 A3.3.1 FLOORING TRANSITION PLAN

1/8" = 1'-0"



3 A3.3.1 TYP. WALL BASE

3" = 1'-0"

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SHEET

A3.3.1

INT. FIN. MATERIALS SCHEDULE

PAINT		
PT-311	**ACCENT PAINT- NAVY**	
	MFR.	BENJAMIN MOORE
	PRODUCT	ULTRA SPEC SCUFF-X
	PRODUCT NUMBER	OLD NAVY #2063-10
	FINISH	MATTE (484)
PT-500	**GENERAL WALL/ CEILING PAINT**	
	MFR.	BENJAMIN MOORE
	PRODUCT	AURA WATERBORNE INTERIOR PAINT
	COLOR	CLOUD WHITE #CC-40
	FINISH	EGGSHELL FINISH 524 (WALLS)
		SATIN FINISH 526 (DOORS & FRAMES)
PT-501	**ACCENT WALL PAINT- GREY**	
	MFR.	BENJAMIN MOORE
	PRODUCT	AURA WATERBORNE INTERIOR PAINT
	COLOR	HEARTHSTONE #1601
	FINISH	EGGSHELL FINISH 524 (WALLS)
		SATIN FINISH 526 (DOORS & FRAMES)
WALL FINISHES		
WC-402	**WALLCOVERING AT ATM WALL**	
	MFR.	MOMENTUM TEXTILES
	PRODUCT	RECORE 'BACCARAT'
	COLOR	BASALT #NA-4C-JPM501
	WIDTH	53" ROLLED MATERIAL
FRP-1	**FIBERGLASS-REINFORCED PLASTIC PANELING**	
	MFR.	CRANE COMPOSITES
	PRODUCT	GLASBORD PIF
	FINISH	84 IVORY
	LOCATIONS	JANITOR CLOSET / LADDER ROOM
WINDOW TREATMENTS		
WT-1	**MOTORIZED ROLLING SHADE (5% OPENNESS FACTOR)**	
	VENDOR / INSTALLER	LUMENOMICS
	PRODUCT	SHEER WEAVE 2000
	SHADE COLOR	WHITE PLATINUM P05
	HOUSING	REFER TO INTERIOR FINISH SCHEDULE
	NOTES	PRODUCT INSTALLED BY LUMENOMICS, REFER TO STANDARDS FOR GC COORDINATION WITH VENDOR
WT-1 ALT	**MOTORIZED ROLLING SHADE (5% OPENNESS FACTOR)**	
	VENDOR / INSTALLER	ROLL-A-SHADE
	PRODUCT	SHEER WEAVE 2000
	SHADE COLOR	WHITE PLATINUM P05
	HOUSING	REFER TO INTERIOR FINISH SCHEDULE
	NOTES	PRODUCT INSTALLED BY ROLL-A-SHADE, REFER TO STANDARDS FOR GC COORDINATION WITH VENDOR
WT-2	**MOTORIZED ROLLING SHADE (3% OPENNESS FACTOR)**	
	VENDOR / INSTALLER	LUMENOMICS
	PRODUCT	SHEER WEAVE 2410 P14
	SHADE COLOR	PEARL GREY / OYSTER
	HOUSING	REFER TO INTERIOR FINISH SCHEDULE
	NOTES	PRODUCT INSTALLED BY LUMENOMICS, REFER TO STANDARDS FOR GC COORDINATION WITH VENDOR
WT-2 ALT	**MOTORIZED ROLLING SHADE (3% OPENNESS FACTOR)**	
	VENDOR / INSTALLER	ROLL-A-SHADE
	PRODUCT	SHEER WEAVE 2410 P14
	SHADE COLOR	PEARL GREY / OYSTER
	HOUSING	REFER TO INTERIOR FINISH SCHEDULE
	NOTES	PRODUCT INSTALLED BY ROLL-A-SHADE, REFER TO STANDARDS FOR GC COORDINATION WITH VENDOR
WT-4	**FROSTED WINDOW FILM**	
	MFR.	LLUMAR
	PRODUCT	NRM PS2
	COLOR	FROSTED 69% TRANSMITTANCE
	USES	AT CLOSED VESTIBULE GLAZING ADJACENT TO BANKER CUBICLES
WT-5	**MANUAL ROLLING SHADE (5% OPENNESS FACTOR)**	
	VENDOR / INSTALLER	LUMENOMICS
	PRODUCT	SHEER WEAVE 2000
	SHADE COLOR	WHITE PLATINUM P05
	HOUSING	REFER TO INTERIOR FINISH SCHEDULE

WT-5 ALT	**MANUAL ROLLING SHADE (5% OPENNESS FACTOR)**	
	VENDOR / INSTALLER	ROLL-A-SHADE
	PRODUCT	SHEER WEAVE 2000
	SHADE COLOR	WHITE PLATINUM P05
	HOUSING	REFER TO INTERIOR FINISH SCHEDULE
WT-6	**MANUAL ROLLING SHADE (3% OPENNESS FACTOR)**	
	VENDOR / INSTALLER	LUMENOMICS
	PRODUCT	SHEER WEAVE 2410 P14
	SHADE COLOR	PEARL GREY / OYSTER
	HOUSING	REFER TO INTERIOR FINISH SCHEDULE
WT-6 ALT	**MANUAL ROLLING SHADE (3% OPENNESS FACTOR)**	
	VENDOR / INSTALLER	ROLL-A-SHADE
	PRODUCT	SHEER WEAVE 2410 P14
	SHADE COLOR	PEARL GREY / OYSTER
	HOUSING	REFER TO INTERIOR FINISH SCHEDULE
WT-7	**DOUBLE-ROLLER SHADE**	
	VENDOR / INSTALLER	LUMENOMICS
	PRODUCT	MBOR
	FRONT SHADE	MATCH TYPICAL FABRIC WITHIN BRANCH, WT-1 OR WT-2
	BACK SHADE	INDIANA COATED GRAY (OPAQUE)
	HOUSING	REFER TO INTERIOR FINISH SCHEDULE
	NOTES	PRODUCT INSTALLED BY LUMENOMICS, REFER TO STANDARDS FOR GC COORDINATION WITH VENDOR
	USES	TYPICAL AT ALL CONFERENCE ROOM WINDOWS
WT-7 ALT	**DOUBLE-ROLLER SHADE**	
	VENDOR / INSTALLER	ROLL-A-SHADE
	PRODUCT	MBOR
	FRONT SHADE	MATCH TYPICAL FABRIC WITHIN BRANCH, WT-1 OR WT-2
	BACK SHADE	INDIANA COATED GRAY (OPAQUE)
	HOUSING	REFER TO INTERIOR FINISH SCHEDULE
	NOTES	PRODUCT INSTALLED BY LUMENOMICS, REFER TO STANDARDS FOR GC COORDINATION WITH VENDOR
	USES	TYPICAL AT ALL CONFERENCE ROOM WINDOWS
WT-8	**FIELD-APPLIED SPANDREL FILM**	
	VENDOR / INSTALLER	3M
	PRODUCT	SCOTCHCAL GRAPHIC FILM
	COLOR	3630-51, SILVER
	FURNISHED BY	GENERAL CONTRACTOR
	USES	RETROFIT STOREFRONT GLAZING TO BLOCK VISIBILITY
WT-20	**MOTORIZED ROLLING TELLER SCRIM (OPAQUE)**	
	VENDOR / INSTALLER	LUMENOMICS
	PRODUCT	MOBR INTERIOR SUN CONTROL FABRICS PHIFER SHEAR WEAVE 7100
	SHADE COLOR	WHITE P-02
	ENCLOSURE COLOR	ANODIZED ALUMINUM - PAINT TO MATCH ADJACENT FINISHES
	EXPOSED HEM BAR	ANODIZED ALUMINUM WITH GREY RUBBER BOTTOM SEAL
	NOTES	PRODUCT INSTALLED BY LUMENOMICS, REFER TO STANDARDS FOR GC COORDINATION WITH VENDOR
WT-20 ALT	**MOTORIZED ROLLING TELLER SCRIM (OPAQUE)**	
	VENDOR / INSTALLER	ROLL-A-SHADE
	PRODUCT	MOBR INTERIOR SUN CONTROL FABRICS PHIFER SHEAR WEAVE 7100
	SHADE COLOR	WHITE P-02
	ENCLOSURE COLOR	ANODIZED ALUMINUM - PAINT TO MATCH ADJACENT FINISHES
	EXPOSED HEM BAR	ANODIZED ALUMINUM WITH GREY RUBBER BOTTOM SEAL
	NOTES	PRODUCT INSTALLED BY ROLL-A-SHADE, REFER TO STANDARDS FOR GC COORDINATION WITH VENDOR
WT-11	**SPANDREL GLAZING (SPECIAL- CASE USE ONLY)**	
	MFR.	VIRACON
	PRODUCT	VIRAPSAN
	COLOR	MEDIUM GRAY
	NOTES	LEAD FREE
		OPTION FOR FIELD APPLIED TREATMENT

GF-300	**DISTRACTION BANDING**	
	MFR.	DESIGNTEX
	PRODUCT	#146504
	FURNISHED BY	EMPIRE
	NOTES	APPLIED TO ALL FULL HEIGHT GLASS PARTIONS
		STOREFRONT- INSTALLED 30" AFF (44" TALL BAND)
TRIM		
WB-402	**VINYL WALL BASE- STRAIGHT- AREAS WITH FLOORING**	
	MFR.	JOHNSONITE
	PRODUCT	TIGHTLOCK
	COLOR	20 CHARCOAL WG
	PROFILE	4 1/2" STRAIGHT (TOELESS)
WB-403	**VINYL WALL BASE- COVE- AREAS WITH EXPOSED SLAB**	
	MFR.	JOHNSONITE
	PRODUCT	TRADITIONAL WALL BASE
	COLOR	20 CHARCOAL WG
	PROFILE	4" COVE
MILLWORK SURFACES		
SS-300	**SOLID SURFACE MATERIAL**	
	DESCRIPTION	1/2" ACRYLIC SOLID SURFACE WITH EASED EDGES
	MFR.	DUPONT CORIAN
	COLOR	SILVER BIRCH
	USES	WINDOW SILLS & MILLWORK SURFACES
PL-502	**MILLWORK LAMINATE**	
	DESCRIPTION	PLASTIC LAMINATE
	MFR.	WILSONART
	COLOR	NATURAL RECON 7996-38
	USES	MILLWORK, CHECK DESK
PL-503	**MILLWORK LAMINATE**	
	DESCRIPTION	PLASTIC LAMINATE
	MFR.	WILSONART
	COLOR	LECHE VESTA 4987K-07
	USES	BOH MILLWORK COUNTER SURFACE
WD-502	**WOOD ACCENT**	
	DESCRIPTION	ENGINEERED PLANK, RAKED PROFILE
	MFR.	PIONEER MILLWORKS
	PRODUCT	MODERN FARMHOUSE- CLEAN ASH
	SIZE	5 1/2" X 5/8", FCS MIX
	TEXTURE	RAKED
	FINISH	CLEAR, POLY CLASS A FIRE RETARDANT
	USES	BOOTH MILLWORK
	NOTES	MATCHING 5/8" PERIMETER TRIM IN WIDTHS PER ELEVATIONS TO BE ORDERED THROUGH PIONEER MILLWORKS
WD-601	**VENEER PANELS**	
	MFR.	BROOKSIDE VENEERS
	PRODUCT	10,84 UNFINISHED
	SPECIES	PLANKED SLAVONY OAK
	FINISH	CLEAR MATTE UV INHIBITOR, LOW VOC FLAT ACRYLIC POLYURETHANE
	INSTALLER	G.C.
	USES	ARCHITECTURAL WALL MILLWORK
		APPLIED TO FEATURE DIGITAL WALL
		REFER TO FINISH PLAN & ELEVATIONS
CARPET		
CPT-302	**WALK-OFF MAT**	
	MFR.	SBEMCO / MATTING BY DESIGN
	PRODUCT	ULTRA DRY PCR PET
	COLOR	PUMICE #620
	SIZE	PER PLAN
	BACKING	THERMAL BONDED, BLOWN PVC, ANTI-MICROBIAL PINK
	NOTES	LOOSE-LAID/NOT ADHERED
		RIB DIRECTION TO RUN PARALLEL TO ENTRY DOOR
CPT-320	**GENERAL CARPET**	
	MFR.	INTERFACE
	PRODUCT	HARMONIZE
	COLOR	GRAVEL 104043
	SIZE	25CM X 1M TILE
	BACKING	GLASBAC
	PATTERN	ASHLAR

CPT-321	**MANUAL TRANSACTION AREA CARPET**	
	MFR.	INTERFACE
	PRODUCT	HARMONIZE
	COLOR	GRAVEL 104043
	SIZE	25CM X 1M TILE
	BACKING	CUSHIONBAC PLUS (ANTI-FATIGUE CUSHION)
	PATTERN	ASHLAR
AREA RUGS		
LRAR -4	**FLOATING CARPET- NAVY**	
	MFR.	INTERFACE
	PRODUCT	HAPTIC
	COLOR	INDIGO
	SIZE	PER PLAN
	BACKING	GLASBAC
	EDGING	MFR.: JOHNSONITE PRODUCT # EG-XX-H COLOR: 40 BLACK B
	NOTES	EDGE BANDING/RUG KIT PROVIDED BY MANUFACTURER
TILE		
T-402	**RESTROOM WALL & FLOOR TILE/ LOUNGE**	
	MFR.	STONE SOURCE
	PRODUCT	CREOS
	COLOR	DORIAN
	FINISH	NATURAL FINISH
	SIZE	12" x 24" x 3/8"
	GROUT	LATICRETE PERMACOLOR SELECT GROUT #24 "NATURAL GREY"
	GROUT JOINT	1/8"
	NOTES	MATCHING TILE WALL BASE AVAILABLE FOR RESTROOMS
T-501	**GENERAL FLOOR TILE**	
	MFR.	STONE SOURCE
	PRODUCT	CREOS
	COLOR	DORIAN
	FINISH	NATURAL FINISH
	SIZE	30" X 30" x 3/8"
	GROUT	LATICRETE PERMACOLOR SELECT GROUT #24 "NATURAL GREY"
	GROUT JOINT	1/8"
MISCELLANEOUS FLOORING		
SC	**CONCRETE FLOOR PAINT (NON-CUSTOMER AREA)**	
	MFR.	SHERWIN WILLIAMS
	PRODUCT	TREAD-PLEX 100% ACRYLIC WATER BASED FLOOR COATING
	COLOR	DECK GRAY
	FINISH	SEMI-GLOSS, SLIP-RESISTANT
ACOUSTIC CEILING TILE AND GRID		
ACT-2	**ACOUSTICAL CEILING (NON-CUSTOMER AREAS)**	
	MFR.	USG
	PRODUCT	MARS CLIMAPLUS HIGH-NRC (ITEM NO. 87100)
	COLOR	WHITE
	SIZE	24"x24"x7/8"
	EDGE	9/16" FINELINE BEVEL (FLB)
	GRID	CENTRICITEE DXT 9/16" EXPOSED TEE SYSTEM
	GRID FINISH	FLAT WHITE
ACT-4	**ACOUSTICAL CEILING (CUSTOMER AREAS)**	
	MFR.	USG
	PRODUCT	MARS HIGH-NRC LOGIX CLIMAPLUS PERFORMANCE FIELD AND CHANNEL PANELS
	COLOR	WHITE
	SIZE	48" x 48" x 1" FIELD PANELS (#80281) AND 4"x48"x1" CHANNEL PANELS (#80268)
	EDGE	9/16" FINELINE BEVEL (FLB)
	GRID	IDENTITEE DXI 9/16" TEE SYSTEM WITH 9/16" STANDARD PERIMETER MOLDING
	GRID FINISH	FLAT WHITE
NOTES		
1	INTUMESCENT FLAME RETARDANT: FIREKOTE 100 AS MANUFACTURED BY UNIVERSAL FIRE SHIELD, CLEAR FINISH	

REGIONAL WINDOW SHADE FABRICS

MIDWEST REGION	3% OPENNESS FACTOR	5% OPENNESS FACTOR
ILLINOIS		X
INDIANA		X
IOWA		X
KANSAS		X
MICHIGAN		X
MINNESOTA		X
MISSOURI		X
NEBRASKA		X
OHIO		X
NORTH DAKOTA		X
SOUTH DAKOTA		X
WISCONSIN		X
NORTHEAST REGION	**3% OPENNESS FACTOR**	**5% OPENNESS FACTOR**
CONNECTICUT		X
MAINE		X
MASSACHUSETTES		X
NEW HAMPSHIRE		X
NEW JERSEY		X
NEW YORK		X
PENNSYLVANIA		X
RHODE ISLAND		X
VERMONT		X
SOUTH REGION	**3% OPENNESS FACTOR**	**5% OPENNESS FACTOR**
ALABAMA	X	
ARKANSAS	X	
NORTH CAROLINA	X	
SOUTH CAROLINA	X	
DELAWARE		X
FLORIDA	X	
GEORGIA	X	
KENTUCKY		X
LOUISIANA	X	
MARYLAND		X
MISSISSIPI	X	
OKLAHOMA	X	
TENESSEE		X
TEXAS	X	
VIRGINIA		X
WASHINGTON D.C.		X
WEST VIRGINIA		X
WEST REGION	**3% OPENNESS FACTOR**	**5% OPENNESS FACTOR**
ARIZONA	X	
CALIFORNIA	X	
COLORADO	X	
IDAHO		X
MONTANA		X
NEVADA	X	
NEW MEXICO	X	
OREGON		X
UTAH	X	
WASHINGTON		X
WYOMING		X

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SIGNED BY:

STATE OF MISSOURI
JOSHUA W. CARRELL
NUMBER A-2018040323
ARCHITECT
3/2/2022

PRYOR ROAD &
LOWENSTEIN DRIVE

908 NW PRYOR ROAD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

ISSUE	DATE	DESCRIPTION

CHASE

PRYOR & LOWENSTEIN
PROTOTYPE VERSION 20.4

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02/04/2022

SHEET

A3.3.2

FURNITURE SCHEDULE

GROUP	OGL TAG	DESCRIPTION	VENDOR	VENDOR #	MANUFACTURER	MODEL	FINISH	FURNISHED BY				INSTALLED BY			
								OWNER	GC	EQUIP. VENDOR	FURN. VENDOR	OWNER	GC	EQUIP. VENDOR	FURN. VENDOR
FILES	2AF	30" 2-DRAWER LATERAL FILE	EMPIRE	2A1	STEELCASE	900 SERIES	MF-1				■				■
	2AP	15" PEDESTAL BBF	EMPIRE	2A1	STEELCASE	900 SERIES	MF-1				■				■
	2AW	30" 2-DRAWER LATERAL FILE W/ WOOD TOP	EMPIRE	2A1W	STEELCASE	901 SERIES	OAK COMPOSITE				■				■
	2BF	36" 2-DRAWER LATERAL FILE	EMPIRE	2B1	STEELCASE	900 SERIES	MF-1				■				■
	2BP	15" PEDESTAL BBF	EMPIRE	2B1	STEELCASE	900 SERIES	MF-1				■				■
	2BW	36" 2-DRAWER LATERAL FILE W/ WOOD TOP	EMPIRE	2B1W	STEELCASE	901 SERIES	OAK COMPOSITE				■				■
	2CF	42" 2-DRAWER LATERAL FILE	EMPIRE	2C1	STEELCASE	900 SERIES	MF-1				■				■
	2CP	15" PEDESTAL BBF	EMPIRE	2C1	STEELCASE	900 SERIES	MF-1				■				■
	2CW	42" 2-DRAWER LATERAL FILE W/ WOOD TOP	EMPIRE	2C1W	STEELCASE	901 SERIES	OAK COMPOSITE				■				■
	3A	30" 3-DRAWER LATERAL FILE	EMPIRE	3A1	STEELCASE	900 SERIES	MF-1				■				■
	3B	36" 3-DRAWER LATERAL FILE	EMPIRE	3B1	STEELCASE	900 SERIES	MF-1				■				■
	3C	42" 3-DRAWER LATERAL FILE	EMPIRE	3C1	STEELCASE	900 SERIES	MF-1				■				■
	5A	30" 5-DRAWER LATERAL FILE	EMPIRE	5A1	STEELCASE	900 SERIES	MF-1				■				■
	5B	36" 5-DRAWER LATERAL FILE	EMPIRE	5B1	STEELCASE	900 SERIES	MF-1				■				■
	5C	42" 5-DRAWER LATERAL FILE	EMPIRE	5C1	STEELCASE	900 SERIES	MF-1				■				■
LOUNGE	LC	6-TIER LOCKERS (15"D x 15"W x 72"H)	EMPIRE	FLC-11	PENCO	---	028 GRAY				■				■
	BT4-A	LOUNGE TABLE, 36" DIA.	EMPIRE	FT-14	STEELCASE	853600	ARCTIC WHITE				■				■
	BT4-B	LOUNGE TABLE, 48" DIA.	EMPIRE	FT-14 48	STEELCASE	853600	ARCTIC WHITE				■				■
	BT4-C	LOUNGE TABLE, 60x35	EMPIRE	FT-14 60X35	STEELCASE	853600	ARCTIC WHITE				■				■
	BS	LOUNGE CHAIR	EMPIRE	FS-14	TURNSTONE	TS37101	BLACK				■				■
	---	TALL KITCHEN TRASH RECEPTACLE	CHASE BP GROUP	---	---	---	---	■				■			
JANITOR'S CLOSET / GENERAL STORAGE	WS-1	WIRE SHELVING - HANG TRACK	---	---	CLOSETMAID	282400, 282600, 283600	WHITE		■				■		
		WIRE SHELVING - STANDARD	---	---	CLOSETMAID	280000, 280100, 280800, 281200, 280400	WHITE		■				■		
		WIRE SHELVING - 12" SHELF ("SUPERSLIDE")	---	---	CLOSETMAID	471400, 471700, 471800, 471900	WHITE		■				■		
		WIRE SHELVING - 12" BRACKET	---	---	CLOSETMAID	5285300	WHITE		■				■		
		WIRE SHELVING - 16" SHELF ("CLOSE MESH")	---	---	CLOSETMAID	139500, 3731800	WHITE		■				■		
		WIRE SHELVING - 16" BRACKET	---	---	CLOSETMAID	5285400	WHITE		■				■		
LIVING ROOM/ LOBBY	OT-20A	KIMBERLY TABLE- 36"DIA X 21"H	EMPIRE		STEELCASE	CUSTOM	PLANKED OAK				■				■
	OT-20B	KIMBERLY TABLE- 30"DIA X 18"H	EMPIRE		STEELCASE	CUSTOM	PLANKED OAK				■				■
	OT-20C	KIMBERLY TABLE- 25"DIA X 15"H	EMPIRE		STEELCASE	CUSTOM	PLANKED OAK				■				■
	OT-20D	KIMBERLY TABLE- 20"DIA X 18"H	EMPIRE		STEELCASE	CUSTOM	PLANKED OAK				■				■
	OT-21	GINGKO WIRE CAFÉ TABLE- 30" DIA	EMPIRE		DAVIS	GINGKO	PLANKED OAK TOP, BLACK BASE								
	CH-322	ALWAYS LOUNGE CHAIR	EMPIRE		NAUGHTONE	ALWAYS	GEIGER: IOTA- NAVY, BLACK BASE				■				■
	CH-323	STYLEX SHARE SOFA- CURVED	EMPIRE		STYLEX	SHARE	DESIGNTEX: WOOLISH- OSPREY, BLACK MATTE LEGS				■				■
	CH-324	STYLEX SHARE SOFA- CURVED 1/2 UPHOLSTERED, 1/2 VINYL	EMPIRE		STYLEX	SHARE	BLACK METAL SLED FRAME, BACK OF SOFA UPHOLSTERY: DESIGNTEX: BARKCLOTH-CHARCOAL, SEAT OF SOFA UPHOLSTERY: DESIGNTEX: SORANO-KEYSTONE				■				■
	CH-325	DRT CHAIR - ALWAYS CHAIR	EMPIRE		NAUGHTONE	ALWAYS	DESIGNTEX: EVERYWHERE TEXTURE- STORM				■				■
	PF	WHIMSY POUF	EMPIRE		NATIONAL	WHIMSY	BLACK STRAP HANDLE, UPHOLSTERY: DESIGNTEX: SPANDAU-COGNAC				■				■
	FS-2	STOOL-CAFÉ HEIGHT	EMPIRE		GORDON	FORMULA	BLACK MATTE FRAME, UPHOLSTERY: DESIGNTEX: SPANDAU- COGNAC				■				■
	TP	TELEPRESENCE SIDE TABLE- LIVING ROOM	GTI		SALAMANDER	CUSTOM	BLACK PAINTED OAK			■				■	
	DRT	DINING ROOM TABLE (4 OR 6 PERSON)	CBBE	34X72 34X96	CBBE	CUSTOM	STAIN TO MATCH: OAK				■				■
	CR-2 3619	COFFEE CREDENZA, 36x19	EMPIRE	36X19	STEELCASE	TBD	OAK, SILVER BIRCH CORIAN				■				■
	CR-2 4819	COFFEE CREDENZA, 48x19	EMPIRE	48X19	STEELCASE	TBD	OAK, SILVER BIRCH CORIAN				■				■
	CR-2 6019	COFFEE CREDENZA, 60x19	EMPIRE	60X19	STEELCASE	TBD	OAK, SILVER BIRCH CORIAN				■				■
MISC.	CT	CAFÉ TABLE- HIGH TOP	EMPIRE	30D, 36D	COALESSE	MONTARA	WHITE TOP, BLACK BASE				■				■
	WT	WORK TABLE- DESK HEIGHT	EMPIRE	36D	COALESSE	MONTARA	WHITE TOP, BLACK BASE				■				■
	BT-2	BOOTH TABLE WITH POWER MODULE	EMPIRE	57X30, 57X36, 57X42, 57X48	COALESSE	LAGUNITAS	WHITE TOP, BLACK BASE				■				■
	BB-1	BOOTH BENCH (QTY- 2 BENCHES)	CBBE		CBBE	CUSTOM	BACK OF BOOTH UPHOLSTERY: DESIGNTEX- WOOLISH: OSPREY, BOOTH SEAT UPHOLSTERY: DESIGNTEX: SORANO- KEYSTONE, BLACK FEET				■				■
	BB-2	DROP IN BOOTH	EMPIRE		NATIONAL	FRINGE	BACK OF BOOTH UPHOLSTERY: DESIGNTEX- WOOLISH: OSPREY, BOOTH SEAT UPHOLSTERY: DESIGNTEX: SORANO- KEYSTONE, BLACK FEET				■				■
	TD	TRAINING DESK	EMPIRE	48X30, 60X30, 72X30	COALESSE	AKIRA	ARCTIC WHITE SURFACE, BLACK BASE/CASTERS				■				■
	TC	TRAINING CHAIR	EMPIRE		COALESSE	KART	BLACK SHELL/SEAT, BLACK BASE/CASTERS, NESTING				■				■
MANUAL TRANSACTIONS	MST-3	MANUAL TRANSACTION MODULE - MST	EMPIRE	TC 1M	STEELCASE	CUSTOM	QUARTER CUT OAK COMPOSITE				■				■
	AST-3	MANUAL TRANSACTION MODULE - LEFT AST	EMPIRE	TC 1AL	STEELCASE	CUSTOM	QUARTER CUT OAK COMPOSITE				■				■
	AST-3	MANUAL TRANSACTION MODULE - RIGHT AST	EMPIRE	TC 1A	STEELCASE	CUSTOM	QUARTER CUT OAK COMPOSITE				■				■
	ACR1	ACRYLIC RISER (1 PER AST)	CBBE	ACR1	CBBE	ACR1	CLEAR		■				■		

CONFERENCE	D-401D	CONF. TABLE WITH X BASE (72X36)	EMPIRE	72X36	STEELCASE/GORDON	---	QUARTER CUT OAK COMPOSITE, BLACK 'X' BASE				■				■
	D-401E	CONF. TABLE WITH X BASE(84X36)	EMPIRE	84X36	STEELCASE/GORDON	---	QUARTER CUT OAK COMPOSITE, BLACK 'X' BASE				■				■
	D-401F	CONF. TABLE WITH X BASE (96X48)	EMPIRE	96X48	STEELCASE/GORDON	---	QUARTER CUT OAK COMPOSITE, BLACK 'X' BASE				■				■
	CC5	CONF CREDENZA W/ WOOD TOP	EMPIRE	CCREDDW	STEELCASE	---	QUARTER CUT OAK COMPOSITE				■				■
	CC6	CONF CREDENZA W/ CORIAN TOP	EMPIRE	CCREDPWC/CCREDDWC	STEELCASE	---	QUARTER CUT OAK COMPOSITE, SILVER BIRCH CORIAN				■				■
PRIVATE CONSULTATION SPACE	D-400A / DB-400	BANKER DESK, WOOD TOP, X BASE, (36R)	EMPIRE	36DIA	STEELCASE	---	QUARTER CUT OAK COMPOSITE, BLACK HARDWARE				■				■
	D-401A / DB-400	BANKER DESK, WOOD TOP, X BASE, (42R)	EMPIRE	42DIA	STEELCASE	---	QUARTER CUT OAK COMPOSITE, BLACK HARDWARE				■				■
	D-401B / DB-400	BANKER DESK, OVAL, WOOD TOP, X BASE, (54X36)	EMPIRE	54X36	STEELCASE	---	QUARTER CUT OAK COMPOSITE, BLACK HARDWARE				■				■
	D-401 C/ DB-400	BANKER DESK, OVAL, WOOD TOP, X BASE, (60x36)	EMPIRE	60X36	STEELCASE	---	QUARTER CUT OAK COMPOSITE, BLACK HARDWARE				■				■
	HAD-2	OLOGY HEIGHT ADJUSTABLE DESK	EMPIRE		STEELCASE	OLOGY	QUARTER CUT OAK COMPOSITE TOP, BLACK ADJUSTABLE BASE				■				■
	WPD-6A	BANKER DESK PEDESTAL FILE- 18"	EMPIRE		STEELCASE	CUSTOM	QUARTER CUT OAK COMPOSITE, BLACK HARDWARE				■				■
	WPD-6B	BANKER DESK PEDESTAL FILE- 30"	EMPIRE		STEELCASE	CUSTOM	QUARTER CUT OAK COMPOSITE, BLACK HARDWARE				■				■
	WPD-7A	LATERAL FILE WITH CPU CABINET- MEDIUM OFFICE- 54"	EMPIRE		STEELCASE	CUSTOM	QUARTER CUT OAK COMPOSITE, BLACK HARDWARE				■				■
	WPD-7B	LATERAL FILE WITH CPU CABINET- MEDIUM OFFICE- 48"	EMPIRE		STEELCASE	CUSTOM	QUARTER CUT OAK COMPOSITE, BLACK HARDWARE				■				■
	WPD-8	IWS TALL PEDESTAL FILE	EMPIRE		STEELCASE	CUSTOM	QUARTER CUT OAK COMPOSITE, BLACK HARDWARE				■				■
DESK, CONFERENCE AND GUEST CHAIRS	DS	BANKER DESK AND LAO CHAIR	EMPIRE	FS-11T	STEELCASE	THINK	BLACK, NON-NESTING, ADJUSTABLE ARMS				■				■
	CH-311	BINDU CONFERENCE CHAIR- LOW BACK ON CASTERS	EMPIRE		COALESSE	BINDU	DESIGNTEX: BARK CLOTH-DARK CHARCOAL, BLACK BASE ON CASTERS				■				■
SDB	CS-3	SDB CARREL / VIEWING ROOM	EMPIRE	TRADCARREL-C	STEELCASE	CARREL	QUARTER CUT OAK COMPOSITE				■				■
	CH-320	SDB ARMLESS CHAIR	EMPIRE		STEELCASE	FORMULA	DESIGNTEX: BARKCLOTH-DARK CHARCOAL, BLACK SLED BASE				■				■

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908 NW PRYOR ROAD
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PRYOR & LOWENSTEIN

PROTOTYPE VERSION 20.4

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FURNITURE SCHEDULE

02/04/2022

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A3.4.1

BANK EQUIPMENT SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	PRODUCT (NOTE 3)	FINISH	WEIGHT (NOTE 1)	ELECTRICAL REQUIREMENTS	FURNISHED BY						INSTALLED BY						NOTES
							OWNER	GC	ATM VENDOR	SIGNAGE VENDOR	BANK EQUIP. VENDOR	FURN VENDOR	OWNER	GC	ATM RIGGER	SIGNAGE VENDOR	BANK EQUIP. VENDOR	FURN VENDOR	
BE-01A	ATM, WALK-UP, EXTERIOR, THROUGH-WALL	HYOSUNG	MX 7800 TR	---	1522 LB	120V / 20A DED.			■						■				
	ATM SURROUND	SIGNAGE VENDOR	SUR-TTW-U-4	---	NA	120V / 3A				■						■			2
BE-01B	ATM, WALK-UP, INTERIOR, THROUGH-WALL	HYOSUNG	MX 7800 TR	---	1522 LB	120V / 20A DED.			■						■				
	ATM SURROUND	SIGNAGE VENDOR	SUR-TTW-U-4	---	NA	120V / 3A				■						■			2
BE-02A	ATM, DRIVE-UP, ISLAND	HYOSUNG	MX 7800 IR	---	1918 LB	120V / 30A DED.			■						■				
BE-02B	ATM, DRIVE-UP, THROUGH-WALL	HYOSUNG	MX 7800 DR	---	1852 LB	120V / 20A DED.			■						■				
	ATM SURROUND	SIGNAGE VENDOR	SUR-TTW-U-4-TP	---	NA	120V / 3A				■						■			2
BE-03	APRON CASE	DIEBOLD	AC-225-SX + AC-1-H + M-7-UD	BLACK	NA	NONE					■						■		
		HAMILTON	HSKS103	BLACK	NA	NONE													
BE-04A	ACCESSIBLE TELLER PEDESTAL	DIEBOLD	SD-3-C-SL	BLACK	NA	NONE					■						■		
		HAMILTON	S-604	BLACK	NA	NONE													
BE-04B	ACCESSIBLE TELLER PEDESTAL WITH LOCKER	DIEBOLD	SD-3-LL/RL	BLACK	NA	NONE					■						■		
		HAMILTON	604	BLACK	NA	NONE													
BE-05	STANDARD TELLER PEDESTAL	DIEBOLD	SU-4-2C	BLACK	NA	NONE					■						■		
		HAMILTON	S-205	BLACK	NA	NONE													
BE-06	STANDARD TELLER PEDESTAL WITH LOCKERS	DIEBOLD	SU-4-L2L/R2L	BLACK	NA	NONE					■						■		
		HAMILTON	S-207	BLACK	NA	NONE													
BE-07	TELLER BRG INTERCOM	PRINCIPLE USA	STS	S.S. / ALUM.	NA	120V / 1.6A	■						■						
BE-08	COMBO ATM / AHD	NCR	5285	---	2853 LB	120V / 10A				■					■				4
BE-09	NOT USED	---	---	---	---	---													
BE-10	AFTER HOURS DEPOSITORY	DIEBOLD	30901 TL-15	S.S. / BLACK	1495 LB	120V / 4A					■						■		4
		HAMILTON	14-126 L/R	S.S. / TAUPE	1886 LB	120V / 4A													4
BE-11	VACUUM AIR TUBE	DIELBOLD	VAT 30 GX 89G- 13	---	---	120V / 20 A DED.					■						■		
		DIEBOLD	42 - 15163	---	---	120V / 20 A DED.					■						■		
BE-12	CASH RECYCLER	HYOSUNG	MS500	---	970 LB	120V / 12 A DED.			■				■		■				
		GLORY	RBG-100	---	550 LB	120V / 6 A DED.			■						■				
	COIN DISPENSER	TELEQUIP	T-FLEX (DUAL CUPS)	---	12 LB	120V / 4A			HYOSUNG						HYOSUNG				
		GLORY	INSTACHANGE	---	10 LB	120V 1A			GLORY						GLORY				
BE-13	MAIN CASH CHEST (FULL-HEIGHT)	DIEBOLD	271-95 + 20530 + 20531 + (2) 20532 + (12) P-1500-CTK	BLACK	2922 LB	NONE					■						■		4
		HAMILTON	14-123 L/R + (12) (HSCT310 + HSCT211 + HSCT303)	BLACK	3545 LB	NONE					■						■		4, 5
BE-13A	MAIN CASH CHEST (HALF-HEIGHT)	DIEBOLD	271-80 + 20531 + 20532 + (6) P-1500-CTK	BLACK	1848 LB	NONE					■						■		4
		HAMILTON	14-127 L/R + (6) (HSCT310 + HSCT211 + HSCT303)	BLACK	2444 LB	NONE					■						■		4, 5
BE-13B	MAIN CASH CHEST (HALF-HEIGHT - EVERYDAY EXPRESS)	DIEBOLD	271-80 + 20531 + 20536 + 40537 + 40534	BLACK	1580 LB	NONE					■						■		4
		HAMILTON	18-029 L/R	BLACK	2078 LB	NONE					■						■		4, 5
BE-14	SAFE DEPOSIT CHEST WITH BOXES	DIEBOLD	478-98	BLACK	4739 LB MAX.	NONE													
		HAMILTON (ALL 3X5)	14-124 L/R	BLACK	4870 LB	NONE					■						■		4, 6, 7, 12
		HAMILTON (MIXED)	14-125 L/R	BLACK	4430 LB	NONE													
BE-15	ATM, WALK-UP, LOBBY (V2.5.5)	HYOSUNG	MX 8700 QT	---	2094 LB	120V / 12 A DED.			■						■				10, 14
BE-15A	ATM, WALK-UP, LOBBY (V3.0)	HYOSUNG	MX 8200 QT	---	1432 LB	120V / 12 A DED.			■						■				14
	POWER TRANSITION BOX	HYOSUNG	5992008200-5.5 (WALL) NH-1808 (FREESTANDING)	---	NA	NONE			■						■			■	
BE-15B	ATM, WALK UP, MICRO	HYOSUNG	MX 8100 QTN	---	1050 LB (fully loaded)	120V / 12 A DED.			■						■				14
	POWER TRANSITION BOX	HYOSUNG	5992008200-5.5 (WALL) NH-1808 (FREESTANDING)	---	NA	NONE			■						■			■	
BE-16	MICRO ATM KIOSK	HYOSUNG	CUSTOM	VARIES	---	---				■						■			
BE-17	MODULAR VAULT	DIEBOLD	CLASS 2 MODULAR 6-SIDE	NA	PANELS 123 LB/SF	NONE					■						■		11
		HAMILTON	TBD	NA	TBD	NONE													
BE-18	VAULT DOOR WITH DAY GATE	DIEBOLD	TITAN + 223-80 DAY GATE	S.S., ALUM. + GLASS	5250 LB	120V / 20A					■						■		
		HAMILTON	TBD	S.S., ALUM. + GLASS	TBD	TBD													
BE-19	VAULT SDB NESTS	DIEBOLD	LM SERIES	S.S.	1092 LB MAX. PER STACK	NA					■						■		6, 8
		HAMILTON	TBD	TBD	TBD	TBD													
BE-20	ATM V3.0 SIDE CAR	HYOSUNG	MX 8200 QT ACCESSORY UNIT	---	---	---			■						■				
BE-21	NOT USED	---	---	---	---	---													
BE-22	TELLER LINE SCANNER	CTS ELECTRONICS	LS150	NA	NA	120V / 2A	■						■						
BE-23	TELLER LINE RECEIPT PRINTER	BANKJET	1500	NA	NA	120V	■						■						
BE-24	NOT USED	---	---	---	---	---													
BE-25	UNDERCOUNTER CASH CHEST ('DAY SAFE')	DIEBOLD	271-30	BLACK	823 lbs	NONE					■						■		4
		HAMILTON	14-130 L/R	BLACK	1157 LB														
BE-25A	UNDERCOUNTER CASH CHEST ('SMALL CASH CHEST')	DIEBOLD	271-30 + (2) 20536 + (4) P-1500-CTK	BLACK	905 LB	NONE					■						■		4, 9
		HAMILTON	14-129 L/R + (3) (HSCT310 + HSCT211 + HSCT303)	BLACK	1278 LB	NONE					■						■		4, 5, 9
BE-25B	UNDERCOUNTER CASH CHEST (EVERYDAY EXPRESS BRANCHES ONLY)	DIEBOLD	DXE TL-15 11H X 17W X 20D	BLACK	267 LB	NONE					■						■		4
		HAMILTON	DEA TL-15 SMALLEST 11H X 17W X 20D	BLACK	387 LB	NONE					■						■		4
BE-26	CURRENCY COUNTER	CUMMINS	JETSCAN	NA	NA	120V / 1A	■						■						
BE-27	TELLER PIN PAD	INGENICO	iPP320	BLACK	9.41 oz	NA-POWERED VIA USB	■						■						

NOTES

1	ALL EQUIPMENT WEIGHTS ARE LISTED AS EMPTY.
2	B.O. SURROUND 7 1/4" AFF AT NCR UNIT, 12" AFF AT HYOSUNG UNIT.
3	MODEL NUMBERS ARE PROVIDED TO REFERENCE PRODUCT CUT SHEETS FOR SPACE PLANNING PURPOSES ONLY. PRIOR TO ORDERING EQUIPMENT, VERIFY MAKE / MODEL W/ CHASE BRANCH PLANNING MANAGER.
4	VENDOR TO INCLUDE INTERNAL CABLE DOOR STOP FOR FIELD-ADJUSTEMENT BY INSTALLER TO STOP DOOR AS INDICATED IN PLAN.
5	INCLUDES CHEST MANUFACTURER'S LOCKERS.
6	INTERNAL BOX CONFIGURATION TO BE DETERMINED BY CHASE BRANCH PLANNING.
7	PROVIDE AMERICAN SECURITY PRODUCT CO, ESL20 DAY LOCK AT ALL SDB CHESTS IN ROOMS WITH VIEWING CARRELS.
8	PROVIDE MANUFACTURER'S KEY TRAYS AND MATCHING METAL CEILING AND WALL CLOSURE PANELS AS INDICATED IN DRAWINGS.
9	FOR USE BY EXCEPTION ONLY AT ROOMS WITH ACCESS TELLER AND NO MAIN CASH SAFE. INCLUDES INTERNAL TELLER CASH DRAWER LOCKERS.
10	INCLUDES MANUFACTURER'S ENCLOSURE, FLOOR POWER TRANSITION BOX, AND SIGN PANEL POWERED BY ATM.
11	6-SIDED, CLASS II, 9'-0" CLEAR INTERIOR HEIGHT.
12	PROVIDE DAY LOCK AT CHESTS LOCATED IN THE SAME ROOM AS A VIEWING CARREL.
13	NOT USED
14	ATM VENDOR TO PROVIDE AND INSTALL SCREEN LOCKING BRACKETS TO MAINTAIN SCREEN POSITION WITH ALL OPERABLE PARTS WITHIN ACCESSIBLE REACH RANGE.

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SIGNED BY:

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NUMBER A-2018040323
STATE OF MISSOURI
ARCHITECT

3/2/2022

PRYOR ROAD & LOWENSTEIN DRIVE

908 NW PRYOR ROAD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

ISSUE	DATE	DESCRIPTION

CHASE

PRYOR & LOWENSTEIN
PROTOTYPE VERSION 20.4

CONTENTS

BANK EQUIPMENT SCHEDULE

02/04/2022

SHEET

A3.4.2

OFFICE EQUIPMENT SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	PRODUCT	FINISH	FURNISHED BY				INSTALLED BY				NOTES
					OWNER	GC	EQUIP VENDOR	FURN VENDOR	OWNER	GC	EQUIP VENDOR	FURN VENDOR	
OE-01-BW	MULTI-FUNCTIONAL DEVICE (MFD) - B/W	LEXMARK	24T7401	PUTTY	■				■				
	SWIVEL BASE	LEXMARK	40G0855	BLACK	■				■				
	5.1" SPACER	LEXMARK	40G0854	PUTTY	■				■				
	550 SHEET DRAWER	LEXMARK	40G0802	PUTTY	■				■				
OE-01-C	MULTI-FUNCTIONAL DEVICE (MFD) - COLOR	LEXMARK	42K0177	PUTTY	■				■				
	SWIVEL BASE	LEXMARK	21K2501	BLACK	■				■				
	5.1" SPACER	LEXMARK	40G0854	PUTTY	■				■				
	550 SHEET DRAWER	LEXMARK	21K0567	PUTTY	■				■				
OE-02	NOT USED												
OE-03	MICR ST921 PRINTER	LEXMARK	K101-0010000	---	■				■				
	MICR ST921 LOCKING DRAWER	LEXMARK	ST921	---	■				■				
	MICR 9720 UNDERCOUNTER STAND	BRETFORD	CK15-BK	BLACK	■				■				
OE-04	ADA MONITOR & KEYBOARD STAND	HUMANSCALE	QSLBHD	BLACK				■				■	
OE-05	NOT USED												
OE-06	23" MONITOR AND STAND	HP	1FH48A8#ABA	SILVER	■				■				ALL MONITORS EXCEPT AST
	PRIVACY SCREEN FILTER	TARGUS	AST127MGLZ	---	■				■				
	SOUND BAR	TBD	TBD	WHITE	■				■				
OE-07	TELLER CPU	HP	5GP85US#ABA	BLACK	■				■				
OE-08	WIRED KEYBOARD & MOUSE	LOGITECH	MK520	WHITE	■				■				
OE-09	NOT USED												
OE-10	NOT USED												
OE-11	ACCESS TELLER MONITOR STAND	HUMANSCALE	QSBH30FNN	BLACK				■					
OE-12	DESK MONITOR ARM	HUMANSCALE	MFLEX	GRAY				■				■	POLE-MOUNT THROUGH GROMMET
OE-13	NOT USED												
OE-14	23" MONITOR LESS STAND	TBD	TBD	WHITE	■				■				AST MONITOR
	PRIVACY SCREEN FILTER	TARGUS	AST127MGLZ	---	■				■				
	SOUND BAR	TBD	TBD	WHITE	■				■				
OE-15	VDI TERMINAL	HP	4DT99UC#ABA-CUSTCHS	SILVER	■				■				
	VDI TERMINAL ADAPTER			---	■				■				
OE-16	WIRELESS KEYBOARD AND MOUSE	DELL/ LENOVO	580-ADTY	BLACK/SILVER	■				■				
OE-17	NOT USED												
OE-18	CPU/VDI UNDER SURFACE MOUNT	HUMANSCALE	CPU200	WHITE BR ALUM.				■				■	UNDER SURFACE MOUNT WITH 360 DEGREE SWIVEL CAPABILITY
OE-19	NOT USED												
OE-20	NOT USED												
OE-21	NOT USED												
OE-22	NOT USED												
OE-23	NOT USED												
OE-24A	NOT USED												
OE-24B	NOT USED												
OE-24C	NOT USED												
OE-25	NOT USED												
OE-26	NOT USED												
OE-27	NOT USED												
OE-28	PHONE	CISCO	IP 7962	BLACK	■				■				
OE-28-V	PHONE - VIDEO PHONE	CISCO	CP-8865-K9	CHARCOAL	■				■				
OE-29	CUSTOMER UNIVERSAL CHARGING STATION	CHARGE TECH	CHW2-CHG	BLACK	■				■				ONLY USED IN BOOTHS

MISCELLANEOUS EQUIPMENT SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	PRODUCT	FINISH	FURNISHED BY				INSTALLED BY				NOTES
					OWNER	GC	EQUIP VENDOR	FURN VENDOR	OWNER	GC	EQUIP VENDOR	FURN VENDOR	
ME-01	SHRED BIN	---	---	---	■				■				FURNISHED & INSTALLED BY CHASE FACILITIES GROUP
ME-02	DUAL BAND QUEUE ROPES AND STANCHIONS	LAWRENCE METALS	TENSABARRIER	BLACK		■				■			REFER TO FLOOR PLANS FOR QUANTITIES
	POST WITH BELT	LAWRENCE METALS	889 DUAL	BLACK		■				■			
	POST WITHOUT BELT	LAWRENCE METALS	889 T2U-33-RCV	BLACK		■				■			
ME-03	BRUSH EXTRUSION KIT	DOUG MOCKETT	BRKIT1	BLACK		■		■		■		■	FURNITURE OR MILLWORK VENDOR TO COORDINATE WITH OWNER FOR REQUIRED OPENING
ME-04	HALF ROUND WASTE RECEPTACLE	RUBBERMAID COMMERCIAL	FGSO8SSSPL	STAINLESS STEEL		■				■			
ME-05	EXTERIOR WASTE RECEPTACLE	RUBBERMAID	FGS3ETBKPL	BLACK		■				■			
	ANCHOR KIT	HILTI	3.3.8 KWIK Bolt 3	N/A		■				■			
ME-06	MUSIC PLAYER AND SPEAKERS	MOOD MEDIA	PROFUSION IS	BLACK	■				■				LOCATE IN PRINT/FILE ROOM
ME-07	WIRELESS SDB SERVICE ENUNCIATOR SYSTEM	NUTONE	LA223WH			■				■			'OR EQUAL' SUBSTITUTIONS PERMITTED BASED ON LOCAL AVAILABILITY, INSTALL 1 PUSH BUTTON AT EACH SDB VIEWING STATION. DELIVER ENUNCIATOR TO CHASE REAL ESTATE PROJECT MANAGER AT PROJECT CLOSE-OUT. MOUNT BUTTON 44" A.F.F.
ME-08	DUAL-CONTROL KEY BOX	BLOCK AND COMPANY	STEELMASTER #201SP8801	GRAY	■					■			INCLUDES KABA LOCK. G.C. TO PROVIDE SOLID WOOD BLOCKING AS REQUIRED.
ME-09A	BULLETIN BOARD	QUARTET	QRT 303	---		■				■			AVAILABLE FROM OFFICE DEPOT/MAX. 'OR EQUAL' SUBSTITUTIONS PERMITTED BASED ON LOCAL AVAILABILITY- 36"W x 24"H NATURAL CORK WITH OAK FRAME.
ME-09B	DRY ERASE BOARD	QUARTET	EMA 203	---		■				■			AVAILABLE FROM OFFICE DEPOT/MAX. 'OR EQUAL' SUBSTITUTIONS PERMITTED BASED ON LOCAL AVAILABILITY- 36"W x 24"H ALUM. FRAME WITH PEN LEDGE AND WHITE MELAMINE SURFACE.
ME-09C	MAGNETIC STRIP BULLETIN BOARD	THREE BY THREE	31189 (8 REQUIRED)	NAVY BLUE		■				■			EIGHT 28" X 2.5" PAINTED METAL STRIPS WITH INCLUDED SCREWS AND MAGNETS ADHERED TO WALL WITH 3M SCOTCH OR EQUAL PERMANENT DOUBLE-SIDED FOAM MOUNTING TAPE.
ME-10	NEW YORK CITY RECYCLING COMPONENTS												REQUIRED AT NEW YORK CITY PROJECTS ONLY
	ME-10A: TRIPLE-COMPARTMENT REFUSE BIN	WASTE WISE PRODUCTS INC.	RC-1526-3-SS WITH CUSTOM LABELS			■				■			NYC PROJECTS ONLY- ONE REQD. AT EACH VESTIBULE AND LOBBY OR SIMILAR AREA; CUSTOM LABELS: PAPER, TRASH, METAL/GLASS/PLASTIC
	ME-10B: RECYCLING INSTRUCTIONAL SIGN	NA	NA	NA	■				■				NYC PROJECTS ONLY- REQUIRED AT EACH ME-10B TRIPLE-COMPARTMENT BIN AND ME-10D SORTING STATION
	ME-10C: RECYCLING COMPLIANCE PLACCARD	NA	NA	NA	■				■				NYC PROJECTS ONLY; PROVIDED BY REFUSE HAULER AND INSTALLED BY J.L.L. FACILITIES
	ME-10D: 3-BIN SORTING STATION	NA	NA	NA	■				■				NYC PROJECTS ONLY; PROVIDED AND INSTALLED BY CHASE BRANCH PLANNING
	ME-10E: TRASH BIN LABELS	NA	NA	NA	■				■				NYC PROJECTS ONLY; PROVIDED AND APPLIED BY CHASE BRANCH PLANNING TO ALL NON-RECYCLING BINS; HTTP://STORE.RECYCLEACROSSAMERICA.ORG/LABELS/TRASH-LABELS/TRASH-4X9.HTML
ME-11	TABLET CHARGING CABINET	KENSINGTON	K678625AMA-CUSTBO	BLACK	■				■				PROVIDED AND INSTALLED BY CHASE GTI
ME-12	RECESSED ATM KEY BOX	TELLEREX	RECESSED TRACCESS BOX	BLACK			■			■			KEY BOX IS PRE-PURCHASED BY OWNER. GC TO REQUEST DELIVERY BY EMAILING VENDOR CONTACTS WITH SUBJECT LINE 'RECESSED TRACCESS BOX REQUEST'. INCLUDE PROJECT NAME, DELIVERY ADDRESS AND CERP NUMBER IN THE BODY OF THE EMAIL

OFFICE EQUIPMENT BY PROGRAMMATIC ELEMENT

PROGRAMMATIC ELEMENT				
ABBREV.	DESCRIPTION	TAG	QTY.	DESCRIPTION
MST PST AT	MERCHANT SERVICES TELLER, PERSONAL SERVICES TELLER, OR ACCESS TELLER	OE-06	1	23" MONITOR AND STAND
			1	PRIVACY SCREEN FILTER
			1	SOUND BAR
		OE-07	1	TELLER CPU
		OE-08	1	WIRED KEYBOARD & MOUSE
		OE-10	1	WIRE MANAGEMENT KIT
AST	ACCESSIBLE SERVICES TELLER	OE-04	1	ADA MONITOR & KEYBOARD STAND (NOTE 1)
		OE-07	1	TELLER CPU
		OE-08	1	WIRED KEYBOARD & MOUSE
		OE-10	1	WIRE MANAGEMENT KIT
		OE-14	1	23" MONITOR - LESS STAND
			1	PRIVACY SCREEN FILTER
			1	SOUND BAR
LAO	LEAD ASSOCIATE OPERATIONS	OE-05	1	KEYBOARD TRAY
		OE-06	1	23" MONITOR AND STAND
			1	PRIVACY SCREEN FILTER
			1	SOUND BAR
		OE-07	1	TELLER CPU
		OE-08	1	WIRED KEYBOARD & MOUSE
		OE-10	1	WIRE MANAGEMENT KIT
DRT	DINING ROOM TABLE	OE-29	1	CUSTOMER UNIVERSAL CHARGING STATION

BOOTH	OE-06	1	23" MONITOR AND STAND
		1	PRIVACY SCREEN FILTER
		1	SOUND BAR
	OE-15	1	VDI TERMINAL
		1	VDI TERMINAL ADAPTER
	OE-16	1	WIRELESS KEYBOARD AND MOUSE
	OE-18	1	CPU/VDI UNDER SURFACE MOUNT
	OE-28	1	PHONE
	OE-29	1	CUSTOMER UNIVERSAL CHARGING STATION
CASUAL CONSULTATION SPACE	OE-06	1	23" MONITOR
		1	PRIVACY SCREEN FILTER
		1	SOUND BAR
	OE-12	1	MONITOR ARM (NOTE 1)
	OE-15	1	VDI TERMINAL
		1	VDI TERMINAL ADAPTER
	OE-16	1	WIRELESS KEYBOARD AND MOUSE
	OE-27	1	PLATFORM STATION WIRED 10-KEY KEYPAD
	OE-28	1	PHONE
PRIVATE CONSULTATION SPACE	OE-06	1	23" MONITOR
		1	PRIVACY SCREEN FILTER
		1	SOUND BAR
	OE-12	1	MONITOR ARM (NOTES 1, 2, 4)
	OE-15	1	VDI TERMINAL
		1	VDI TERMINAL ADAPTER
	OE-16	1	WIRELESS KEYBOARD AND MOUSE
	OE-27	1	PLATFORM STATION WIRED 10-KEY KEYPAD
	OE-28	1	PHONE

CONFERENCE ROOM MARKET CONFERENCE SPACE	OE-06	1	23" MONITOR
		1	PRIVACY SCREEN FILTER
		1	SOUND BAR
	OE-12	1	MONITOR ARM (NOTE 1)
	OE-15	1	VDI TERMINAL (NOTE 3)
		1	VDI TERMINAL ADAPTER
	OE-16	1	WIRELESS KEYBOARD AND MOUSE
	OE-27	1	PLATFORM STATION WIRED 10-KEY KEYPAD
	OE-28	1	PHONE
IWS INDIVIDUAL WORK SPACE	OE-06	1	23" MONITOR AND STAND
		1	PRIVACY SCREEN FILTER
		1	SOUND BAR
	OE-15	1	VDI TERMINAL
		1	VDI TERMINAL ADAPTER
	OE-16	1	WIRELESS KEYBOARD AND MOUSE
	OE-27	1	PLATFORM STATION WIRED 10-KEY KEYPAD
	OE-28	1	PHONE

NOTES

1. MONITOR ARMS AND ADA MONITOR AND KEYBOARD STAND PROVIDED AND INSTALLED BY FURNITURE VENDOR. ALL OTHER SCHEDULED EQUIPMENT PROVIDED BY CHASE GLOBAL TECHNOLOGY INFRASTRUCTURE (GTI).
2. IF SPACE IS BEING DESIGNED TO ACCOMMODATE A VIDEO ADVISOR, MANAGING DIRECTOR OR REGIONAL DIRECTOR, ADD A/V SOLUTION 4
3. IF TABLE IS CENTERED IN ROOM AND FLOOR POWER/DATA CONNECTIONS ARE PROVIDED, ADD CPU/VDI UNDER-SURFACE MOUNT [OE-18]
4. ONE OFFICE TO RECEIVE 2-ARM MONITOR STAND, LOCATION TO BE DETERMINED BY BRANCH PLANNING MANAGER DURING TURNOVER.

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STATE OF MISSOURI

3/2/2022

PRYOR ROAD & LOWENSTEIN DRIVE

908 NW PRYOR ROAD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

ISSUE	DATE	DESCRIPTION

CHASE

PRYOR & LOWENSTEIN

PROTOTYPE VERSION 20.4

CONTENTS

02/04/2022

SHEET

A3.4.3

PLUMBING FIXTURE SCHEDULE

TAG	DESCRIPTION	COMPONENT	MANUFACTURER	MODEL	FINISH	NOTES
PF-WC	FLOOR-MOUNT WATER CLOSET	WATER CLOSET	KOHLER	K-3519/3519-RA HIGHLINE	WHITE/CHROME	
		OPEN-FRONT SEAT	KOHLER	K-4650	WHITE	
		SUPPLY	---	---	POL. CHROME	3/8" NPT RIGHT ANGLE VALVE WITH LOOSE KEY STOP AND ANNEALED CHROME-PLATED COPPER RISER
PF-LAV	WALL-MOUNT LAVATORY	LAVATORY	AMERICAN STANDARD	0356.115/137 LUCERNE	WHITE	COORD. MODEL NUMBER TO POSITION SOAP DISPENSER AT WALL-SIDE OF LAV.
		STRAINER	AMERICAN STANDARD	2411.015	POL. CHROME	WITH OVERFLOW AND TAILPIECE
		P-TRAP	---	1 1/4"	POL. CHROME	WITH ESCUTCHEON AND CLEANOUT
		FAUCET	SLOAN	EAF-200-P-ISM	POL. CHROME	WITH AC POWER ADAPTER
		SUPPLIES	---	3/8"	POL. CHROME	POL. CHROME FLEX TUBE SUPPLIES, ESCUTCHEONS AND KEY STOPS
		LAV GUARD	TRUEBRO	LAV GUARD 2 EZ-SERIES	WHITE	COVER TAILPIECE, P-TRAP, SUPPLIES AND VALVES
		SOAP DISPENSER	---	---	---	REFER TO TOILET ACCESSORIES SCHEDULE
PF-SINK	LOUNGE SINK	SINGLE-BOWL SINK	ELKAY	LRAD 202255-MR2	STAINLESS STEEL	
		STRAINER	---	3 1/2"	STAINLESS STEEL	
		P-TRAP	---	---	PVC	
		FAUCET	ELKAY	LK3000CR	POL. CHROME	INSTALL OPTIONAL 2.2GPM FLOW REGULATOR
		SUPPLIES	---	3/8"	---	FLEX HOSE SUPPLIES AND POL. CHROME KEY STOPS
PF-MOP	MOP SINK	FLOOR SINK	MUSTEE	63M	WHITE	
		FAUCET	MUSTEE	63.600A	CHROME	WITH INTEGRAL VACUUM BREAKERS
		HOSE AND BRACKET	MUSTEE	65.700	STAINLESS STL.	SHORTEN HOSE TO PROVIDE AIR GAP
		MOP HANGER	MUSTEE	65.600	STAINLESS STL.	
		SPLASHES	BY G.C.	FRP-1	FRP	REFER TO INTERIOR ELEVATIONS
PF-WH	DOMESTIC WATER HEATER	WATER HEATER	A.O. SMITH	EJC-10	---	OR EQUAL 10-GAL ELEC. WATER HEATER, 6kW ELEMENT, 240V/1PH ALT: TANKLESS ELECTRIC OR GAS-FIRED UNIT, SIZED AS REQD.
		WALL-MT. BRACKET / DRIP PAN	HOLDRITE	40 SWHP-W	---	MAINTAIN 81" MIN. HEADROOM CLEARANCE TO FLOOR BELOW
PF-DF	DRINKING FOUNTAIN	---	ELKAY	EZSTL8WSSK	STAINLESS STEEL	WITH BOTTLE FILLER
PF-WHB	WALL HOSE BIB	---	WOODFORD	B65	CHROME	18" ABOVE T.O. FND.
PF-RHB	ROOF HOSE BIB	---	WOODFORD	RHY1-MS	PRE-FIN. PAINT	
PF-FD	FLOOR DRAIN	FLOOR DRAIN	ZURN	415S-Y-P	NICKEL BRONZE	W/ SEDIMENT BUCKET
		TRAP SEAL	JAY R. SMITH	2692-04	---	
PF-RD1	ROOF DRAIN- LARGE	---	ZURN	ZC100-DP-VP	CAST IRON	PROVIDE PERIMETER BLOCKING TO RAISE DECK PLATE TO ROOFING LEVEL; INCLUDES DECK MOUNTING PLATE AND SECURED STRAINER
PF-RD2	ROOF DRAIN- SMALL	---	ZURN	Z181 / Z185 / Z-185-45	BRONZE	COORDINATE OUTLET SELECTION WITH FRAMING AS REQUIRED
PF-OD1	ROOF OVERFLOW- LARGE	---	ZURN	ZC100-DP-VP-89	CAST IRON	PROVIDE PERIMETER BLOCKING TO RAISE DECK PLATE TO ROOFING LEVEL; INCLUDES DECK MOUNTING PLATE, SECURED STRAINER AND OVERFLOW DAM
PF-OD2	ROOF OVERFLOW- SMALL	---	ZURN	Z-181	BRONZE	SET 2" ABOVE DECK
PF-DN1	DOWNSPOUT NOZZLE	---	ZURN	ZANB199-SS 4"	NICKEL BRONZE	4" DIA., WITH REMOVABLE SCREEN
PF-GCO	GROUND CLEAN-OUT	---	ZURN	Z1440/Z1475	STAINLESS STEEL	
PF-WCO	WALL CLEAN-OUT	---	ZURN	Z1446	STAINLESS STEEL	
PF-FCO	FLOOR CLEAN-OUT	---	ZURN	ZS1400	STAINLESS STEEL	

APPLIANCE SCHEDULE

TAG	DESCRIPTION	MANUFACTURER (OR EQUAL)	MODEL (OR EQUAL)	REQUIREMENTS	FINISH	FURNISHED BY		INSTALLED BY		NOTES
						OWNER	GC	OWNER	GC	
A-01	2.2 CU. FT. MICROWAVE	GE	PES7227DLBB	ADA-COMPLIANT	BLACK		■		■	ALT. 1.4+ CF ADA-COMPLIANT SUBSTITUTIONS PERMITTED
A-02	NOT USED	---	---	---	---	---	---	---	---	---
A-03	FULL-SIZE REFRIGERATOR	FRIGIDAIRE	FFHT1814QB	ADA-COMPLIANT ENERGY STAR	BLACK		■		■	ALT 18+ CF TOP-FREEZER SUBSTITUTIONS PERMITTED
		WHIRLPOOL	WRT541SZDB							
A-04	UNDERCOUNTER REFRIGERATOR	WESTINGHOUSE - COMMERCIAL COOL	CCR45B	ADA-COMPLIANT	BLACK		■		■	ALT. 4.4+ +CF <32.5"H SUBSTITUTIONS PERMITTED
		IGLOO	FR464	ADA-COMPLIANT	WH OR SS		■		■	ALT. 4.4+ +CF <32.5"H SUBSTITUTIONS PERMITTED
		HAIER	HC46SF10SV	ADA-COMPLIANT	SS		■		■	ALT. 4.4+ +CF <32.5"H SUBSTITUTIONS PERMITTED
A-05	NOT USED	---	---	---	---	---	---	---	---	---
A-06	COFFEE MAKER	BY OWNER	---		---	■		■		G.C. TO PROVIDE 1/4" COPPER WATER SUPPLY FOR FINAL CONNECTION BY OWNER
A-07	WATER PURIFIER	BY OWNER	---		---	■		■		G. C. TO PROVIDE 1/4" COPPER WATER SUPPLY FOR FINAL CONNECTION BY OWNER

RESTROOM ACCESSORIES SCHEDULE

TAG	DESCRIPTION	MFR.	MODEL	FINISH	NOTES
TA-01	TOILET TISSUE DISPENSER	BOBRICK	B-2888	S.S.	
TA-02 (OPT.)	UNIVERSAL C-FOLD / MULTI-FOLD PAPER TOWEL DISPENSER	BOBRICK	B-262	S.S.	1
TA-02 (OPT.)	UNIVERSAL 8" ROLL PAPER TOWEL DISPENSER	BOBRICK	B-2860	S.S.	1, 3
TA-03	WASTE RECEPTACLE	BOBRICK	B-279	S.S.	
TA-04	GRAB BARS	BOBRICK	B-5806 SERIES	S.S.	
TA-05	MIRROR	BOBRICK	B-165 2448	S.S.	
TA-06 (OPT.)	LIQUID SOAP DISPENSER: LAV.-MOUNT, LONG SHANK, 4" SPOUT	BOBRICK	B-822	POL. S.S.	1, 2
TA-06 (OPT.)	FOAM SOAP DISPENSER: LAV.-MOUNT, LONG SHANK, 4" SPOUT	BOBRICK	B-823	POL. S.S.	1, 2
TA-07	SANITARY NAPKIN DISPOSAL	BOBRICK	B-270	S.S.	
TA-08	TOILET SEAT COVER DISPENSER	BOBRICK	B-4221	S.S.	
TA-09	SHELF	GAMCO	B-7816	S.S.	4
TA-10	BABY CHANGING STATION (ONLY WHERE CODE REQUIRED)	GAMCO	BCS-2	GREY HDPE	4, 5

NOTES:

1. G.C. TO VERIFY OPTION PREFERENCE WITH OWNER'S LOCAL FACILITIES MANAGER.
2. FIELD-CUT SOAP DISPENSER SHANK TO MINIMIZE RESERVOIR EXPOSURE
3. AoR TO COORDINATE DISPENSER POSITION TO MAINTAIN ACCESSIBLE REACH RANGE AND PATH TO DISPENSER AND ADJACENT FIXTURES.
4. AVAILABLE FROM BOBRICK.
5. BABY CHANGING STATION TO BE PROVIDED ONLY WHEN REQUIRED BY A.H.J.. MOUNT FOR ACCESSIBILITY COMPLIANCE, HANDLE < 44" AFF.

ELECTRICAL DEVICE FINISHES

LOCATION		LUTRON	LEVITON, LEGRAND
SURFACE	FINISH		
CEILINGS AND SOFFIT FACES	PT-500	WHITE	WHITE
TYPICAL WALL	PT-500	WHITE	WHITE
ACCENT WALL	ANY OTHER THAN PT-500	WHITE	WHITE

LIGHT FIXTURE SCHEDULE

TYPE	MANUFACTURER	MODEL	LAMPING	DESCRIPTION
L-1	GE	LAD22A033MMT35KVQLTWHTE	27W 3500K LED	2x2 REC.27W 3500K LED TROFFER
L-1-EM	GE	LAD22A033MMT35KVQLTWHTE-EL	27W 3500K LED	L-1 FIXTURE WITH EMERGENCY LIGHT DRIVER
L-2	GE	LBT22A033MM835VQLTWHTE	34W 3500K LED 3300 lm	2x2 REC. LENSED 34W 3500K LED TROFFER
L-2 (ALT)	LITELINE	LEDP-22-WH-WHIP-35-30-120./277	30W 3500K LED 3300 lm	2x2 REC. LENSED 30W 3500K LED PANEL
L-2-EM	GE	LBT22A033MM835TVLTWHTE-EM	34W 3500K LED 3490 lm	L-2 FIXTURE WITH EMERGENCY LIGHT DRIVER
L-2-EM (ALT)	LITELINE	LEDP-22-WH-WHIP-(EM)-35-30-120./277	30W 3500K LED 3490 lm	L-2 (ALTERNATE) FIXTURE WITH EMERGENCY LIGHT DRIVER
L-3	FEELUX	(2) TUN7-35K-SF-STD-S-HW-OCC-120	(2) 7W 3500K LED ~900 lm TOTAL	(2) 20.7" LED UNDERCAB. LIGHT WITH OCCUPANCY SENSOR
L-4	LUMIERE	LANTERRA 9004-W2-RW-LED 4080-W-W-CS-L1-UNV-WIS	(2) 10W 4000K LED	120V EXTERIOR UP/DOWN SCONCE WITH INTEGRAL LED DRIVER
L-4 (ALT)	LUMIERE	LANTERRA 9004-W1-RW-LED 4080-W-W-CS-L1-UNV-WIS	(2) 10W 4000K LED	120V EXTERIOR DOWN ONLY SCONCE WITH INTEGRAL LED DRIVER ALTERNATE FIXTURE FOR "DARK SKY" COMPLIANCE JURISDICTIONS ONLY
L-5	IGUZZINI	I.BU27-REM-01 + 4549-0350-019-UNV-ED10	(1) 6W LED	TRICK 360 DEG. BLADE EFFECT - 90mm WITH CUSTOM BLUE LAMP, WHITE, SINGLE REMOTE 19W 0-10V DIMMING POWER SUPPLY SHARED BY TWO FIXTURES. SCREEN LENS TO ILLUMINATE ADJ. WALL AND CEILING ONLY.
L-6	GE	ECRA0C5F5401BWHTE	110W 4000K LED	EXTERIOR SEMI-RECESSED 110W 4000K LED DOWNLIGHT
L-7	GE	LDXB-4R-0-10-T-35-V1 + RDI4R-W-PT-WT-WT-WR + BH3 (OPTIONAL)	14W 3500K LED	4" ROUND 14W 3500K LED LENSED DOWNLIGHT - WET RATED
L-7-EM	GE	LDXB-4R-0-10-T-35-V1-EL + RDI4R-W-PT-WT-WT-WR + BH3 (OPTIONAL)	14W 3500K LED	L-7 FIXTURE WITH EMERGENCY LIGHT DRIVER
L-7-R	LF ILLUMINATION	5811-1SA-T-20L-8040-W-1-BB	20W 4000K 80 CRI LED	EXTERIOR CANOPY RECESSED CAN, BLACK TRIM
L-7-R-EM	LF ILLUMINATION	5811-1SA-T-20L-8040-W-1-BB-EM	20W 4000K 80 CRI LED	EXTERIOR CANOPY RECESSED CAN W/ EMERGENCY BATTERY RELAY, BLACK TRIM
L-7 (ALT)	AMERLUX	L7 - HDL-HP-R-NC-A17-T-16-120V-0-10V (HOUSING) + HDL-HP-RLD-A17-T-MWW-65SOL-359-WET (TRIM)	18W 3500K LED	4" ROUND 18W 3500K LED LENSED DOWNLIGHT - WET RATED
L-7-EM (ALT)	AMERLUX	L7EM - HDL-HP-R-NC-A17-T-16-120V-0-10V-EM (HOUSING) + HDL-HP-RLD-A17-T-MWW-65SOL-359-WET (TRIM)	18W 3500K LED	L-7 ALTERNATE FIXTURE WITH EMERGENCY LIGHT DRIVER
L-7 (ALT)	USAI	RD-DL-BEVELED-PRIMARY-NCSM-35K-90CRI-1000L-WHIT E CONE-WET RATED-27"	15W 3500K LED 4000 lm	4" ROUND 15W 3500K LED LENSED DOWNLIGHT - WET RATED
L-7-EM (ALT)	USAI	RD-DL-BEVELED-PRIMARY-NCSM-35K-90CRI-1000L-WHIT E CONE-WET RATED-27"-EMPK	15W 3500K LED 4000 lm	L-7 ALTERNATE FIXTURE WITH EMERGENCY LIGHT DRIVER
L-8	GE	ALC6-1-4T04-T-C8-1D-S-Q-Q-Q-[ST/51]-[K/A]-Q-W	27W 3500K LED	SURFACE-MOUNT AT CEILINGS UP TO 10'. CABLE-MOUNT AT CEILINGS OVER 10'.
L-8-EM	GE	ALC6-1-4T04-T-C8-1D-S-Q-Q-E-[ST/51]-[K/A]-Q-W	27W 3500K LED	SURFACE-MOUNT AT CEILINGS UP TO 10'. CABLE-MOUNT AT CEILINGS OVER 10'. INCLUDES EMERGENCY BATTERY.
L-11	GE	LDXB-4R-0-10-T-35-V1 + RDI4R-W-PT-WT-WT + BH3 (OPTIONAL)	14W 3500K LED	4" ROUND 14W 3500K LED LENSED DOWNLIGHT- WET RATED, PROVIDE MATTE BLACK FLANGE IN WOOD ACCENT CEILINGS
L-11-EM	GE	LDXB-4R-0-10-T-35-V1-EL + RDI4R-W-PT-WT-WT + BH3 (OPTIONAL)	14W 3500K LED	L-11 FIXTURE WITH EMERGENCY LIGHT DRIVER
L-11 (ALT)	AMERLUX	L11 - HDL-HP-R-NC-A17-T-16-120V-0-10V (HOUSING) + HDL-HP-RLD-A17-T-MWW-65SOL-359 (TRIM)	18W 3500K LED	4" ROUND 18W 3500K LED LENSED DOWNLIGHT, PROVIDE MATTE BLACK FLANGE (MBB) IN WOOD ACCENT CEILINGS
L-11-EM (ALT)	AMERLUX	L11EM - HDL-HP-R-NC-A17-T-16-120V-0-10V-EM (HOUSING) + HDL-HP-RLD-A17-T-MWW-65SOL-359 (TRIM)	18W 3500K LED	L-11 ALTERNATE FIXTURE WITH EMERGENCY LIGHT DRIVER
L-11 (ALT)	USAI	RD-DL-BEVELED-PRIMARY-NCSM-35K-90CRI-1000L-WHIT E CONE-27"	15W 3500K LED	4" ROUND 15W 3500K LED LENSED DOWNLIGHT, PROVIDE 'BLACK CONE' FINISH IN WOOD ACCENT CEILINGS
L-11-EM (ALT)	USAI	RD-DL-BEVELED-PRIMARY-NCSM-35K-90CRI-1000L-WHIT E CONE-27"-EMPK	15W 3500K LED	L-11 ALTERNATE FIXTURE WITH EMERGENCY LIGHT DRIVER
L-20	BEST	EZXTEU-1-RW-EMRC	LAMP INCL.	SINGLE-FACE LED EXIT SIGN WITH 90-MIN. BATTERY
L-20 (ALT)	ENCORE UNO-SERIES	UNO X SERIES (UNIVERSAL MOUNT)	LAMP INCL.	EDGE-LIT SINGLE-FACE LED EXIT SIGN WITH 90-MIN. BATTERY
L-20-CHICAGO	SURE-LITES	CHX703 Series	LAMP INCL.	CHICAGO-APPROVED SINGLE-FACE LED EXIT SIGN WITH 90-MIN. BATTERY
L-21A	LUMARK	XTOR6B-W-BZ	58W 4000K LED	EXTERIOR WALL-MOUNT 58W 4000K LED FULL-CUTOFF FIXTURE FOR GENERAL LIGHTING
L-21B	LUMARK	XTOR6B-W-BZ-MS-L20-CBP	58W 4000K LED	EXTERIOR WALL-MOUNT 58W 4000K LED FULL-CUTOFF FIXTURE FOR EMERGENCY LIGHTING WITH 90-MINUTE BACKUP BATTERY
L-22	LITHONIA	ZL1N-L24-1500LM-FST-MVOLT-35K-80CRI-WH-LSXR	18W 3500K LED	2' 18W 3500K LED LENSED UTILITY LIGHT w/ OCCUPANCY SENSOR
L-307	PHILIPS COLOR KINETICS	523-000091-18	6W 3500K LED (WHITE)	12" 'eW Cove QLX Powercore' RIGID 3500K WHITE 120V LED STRIP
L-307 (ALT)	ECOSENSE	L35-I-12"-06-35-80-MULT-120	6W 3500K LED (WHITE)	12" 'SLIM COVE DIM' 3500K WHITE 120V LED STRIP
L-308	PHILIPS COLOR KINETICS	223-000004-02	6W LED (BLUE)	12" 'eW Cove QLX Powercore' RIGID BLUE 120V LED STRIP, WHERE MOUNTED ABOVE ACT-3, USE MOUNTING TRACK MODEL #120-000125-00 OR EQ. TO MINIMIZE LIGHT BLEEDING THROUGH TILE
L-308 (ALT)	ECOSENSE	L35-I-12"-06-BL-MULT-120	6W LED (BLUE)	12" 'TROVE' MULT (120V-220V) LED STRIP, WHERE MOUNTED ABOVE ACT-3, USE MOUNTING TRACK MODEL #MNT-L-TRKCLIP-12 OR EQ. TO MINIMIZE LIGHT BLEEDING THROUGH TILE
L-410	VONN LIGHTING	VMC31810BL 17" SALM LED PENDANT BLACK	120V 40W LED, 3000K	17" DIAMETER, MATTE BLACK FINISH, ELV DIMMING, INSTALLED 82" A.F.F. TO B.O. FIXT.; SET DIMMING PER BMS ZONE CONTROL SCHEDULE
L-411	BASELITE	PEQ/41.5/LBLC/LED12W/3K/DM0-10V/120/277V + SP-LBLC5-2	120V, 12W LED, 3000K	16" DIAMETER, MATTE BLACK, 0-10V DIMMING, INSTALLED 82" A.F.F. TO B.O. FIXT.
L-412	BASELITE	PENB/41.5/SP-LBLC5-2/LED12W/3K/DM0-10V/120/277V	120v, 12W LED, 3000K	10" DIAMETER, MATTE BLACK FINISH, 0-10V DIMMING, INSTALLED 82" A.F.F. TO B.O. FIXT.
L-413	BASELITE	CS22/41.5/LED12W/BLC/LED12/30K/DM0-10V/120/277V	120v, 12W LED, 3000K	22" DIAMETER, MATTE BLACK FINISH, O-10V DIMMING, INSTALLED 82" A.F.F. TO B.O. FIXT.
L-500	FOCAL POINT	SEEM 4-LP, FSM4LP-FL-625LF-35K-1C-UNV-LD1-T6TZ-WH	3500K LED, INCLUDED	LINEAR LED, 4" WIDE, SET IN GRID CHANNELS, 2' MINIMUM LENGTH
L-500-EM	FOCAL POINT	SEEM 4-LP, FSM4LP-FL-625LF-35K-1C-UNV-LD1-T6TZ-EM-WH	3500K LED, INCLUDED	L-500 WITH EMERGENCY BATTERY PACK
L-500 (ALT)	AMERLUX	4" GRUV, GRUV4-HE-GRID-A16-PL-5-35-HW-120/277-CUS-0-10V	3500K LED, INCLUDED	LINEAR LED, 4" WIDE, SET IN GRID CHANNELS, 2' MINIMUM LENGTH
L-500-EM (ALT)	AMERLUX	4" GRUV, GRUV4-HE-GRID-A16-PL-5-35-HW-120/277-CUS-0-10V-EM C-PF	3500K LED, INCLUDED	L-500 WITH EMERGENCY BATTERY PACK
L-501	AMERLUX	DRA-LWG-A16 - 8- 35- DAL- 120/277- IND- 0-10V- EMC-PF	3500K LED, INCLUDED	LED BOOTH WALL WASH FIXTURE; ORDER CUSTOM-LENGTH TO NEAREST FOOT OF BOOTH CEILING WIDTH
SL-1	GE	EACL-0-XX-XX-7-XX-X-X-C1-DKBZ-XXX/ 25' POLE	44-125W 4000K LED	FULL CUT-OFF 4000K LED ON 25' POLE- AoR TO SELECT OPTICS AND WATTAGE AS REQUIRED.

PREPARED BY:

EBI Consulting

ENVIRO BUSINESS, INC.
21 B Street | Burlington, MA 01803
Tel: (781) 273-2500 | www.ebiconsulting.com

SIGNED BY:

STATE OF MISSOURI
JOSHUA W. CARRELL
NUMBER A-2018040323
ARCHITECT
3/2/2022

PRYOR ROAD & LOWENSTEIN DRIVE

908 NW PRYOR ROAD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

ISSUE	DATE	DESCRIPTION

CHASE

PRYOR & LOWENSTEIN
PROTOTYPE VERSION 20.4

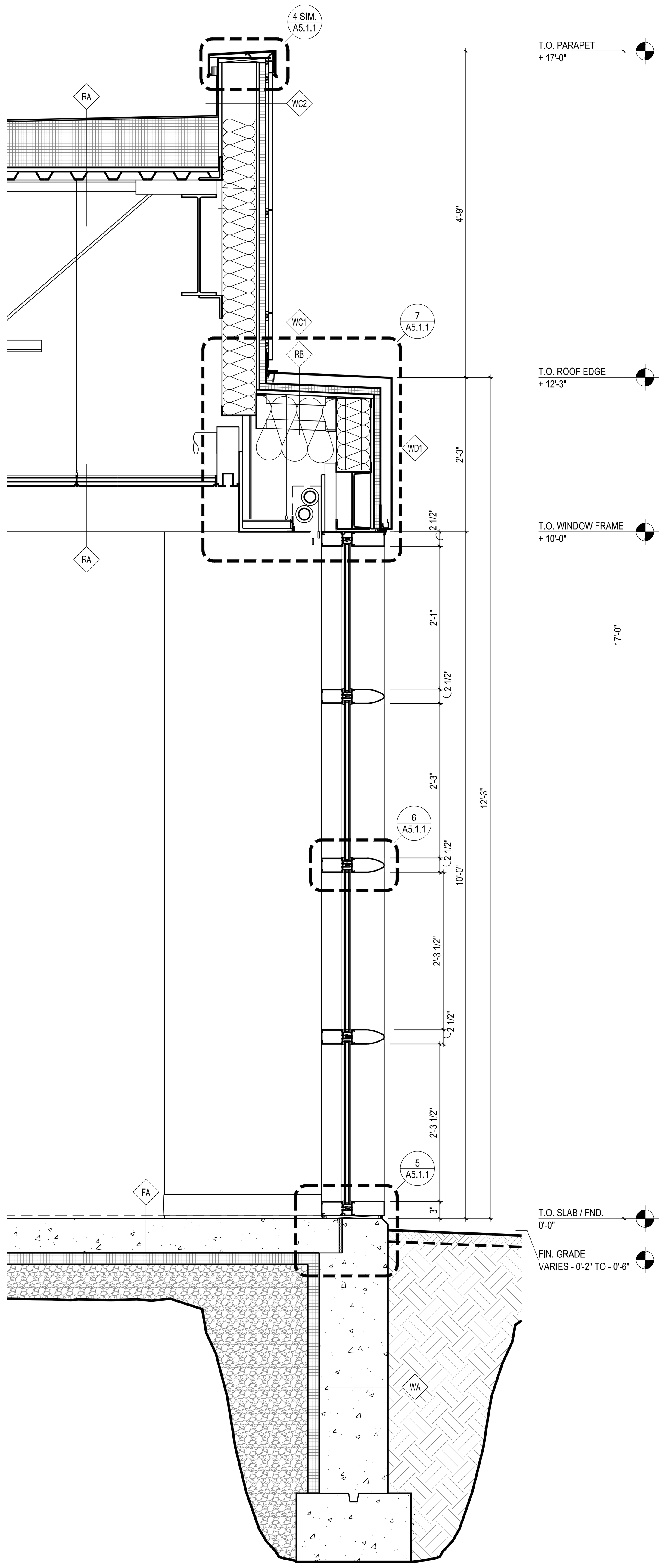
CONTENTS

PLUMBING FIXTURE SCHEDULE
LIGHT FIXTURE SCHEDULE
APPLIANCE SCHEDULE
RESTROOM ACCESS. SCHED.
ELECTRICAL DEVICE FINISHES

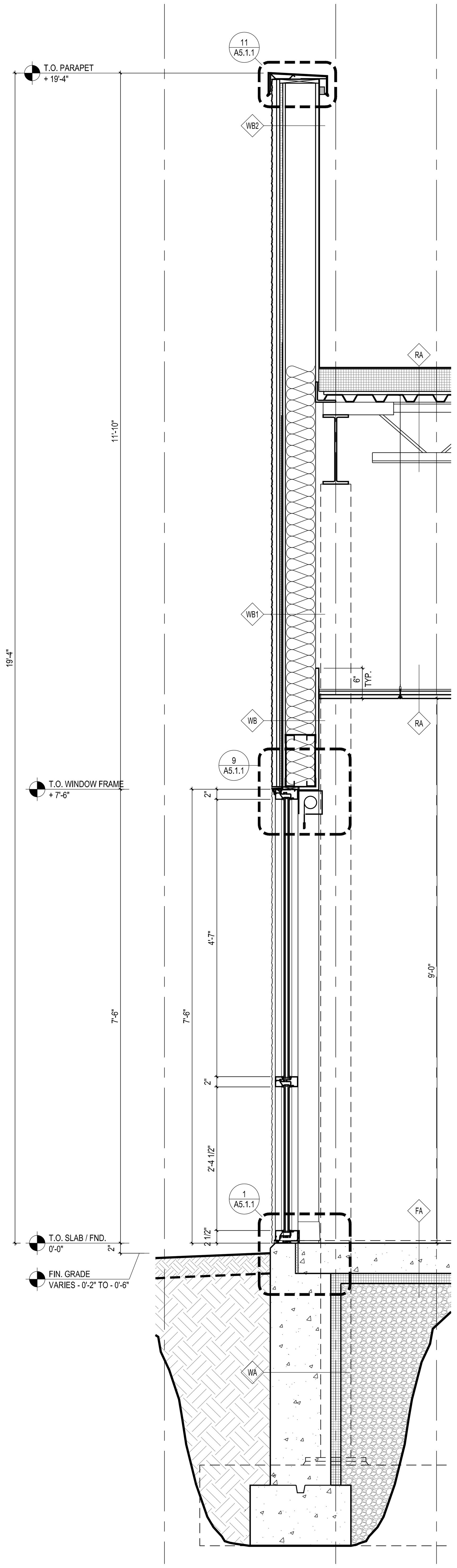
02/04/2022

SHEET

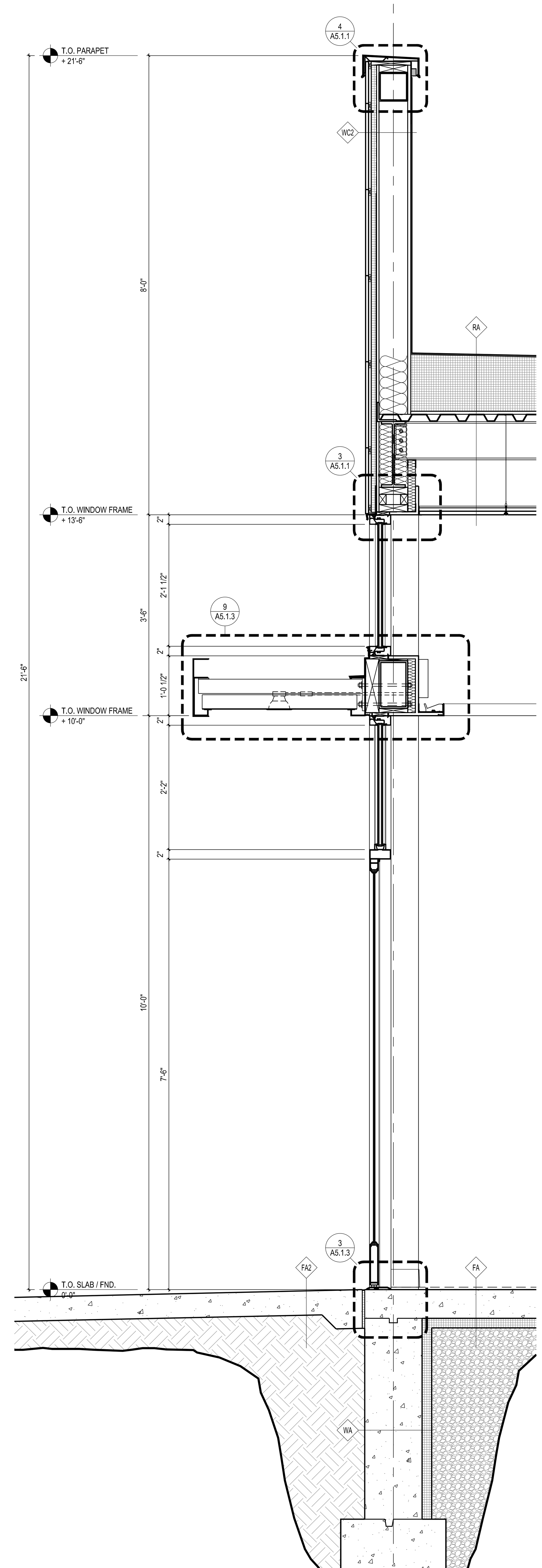
A3.5



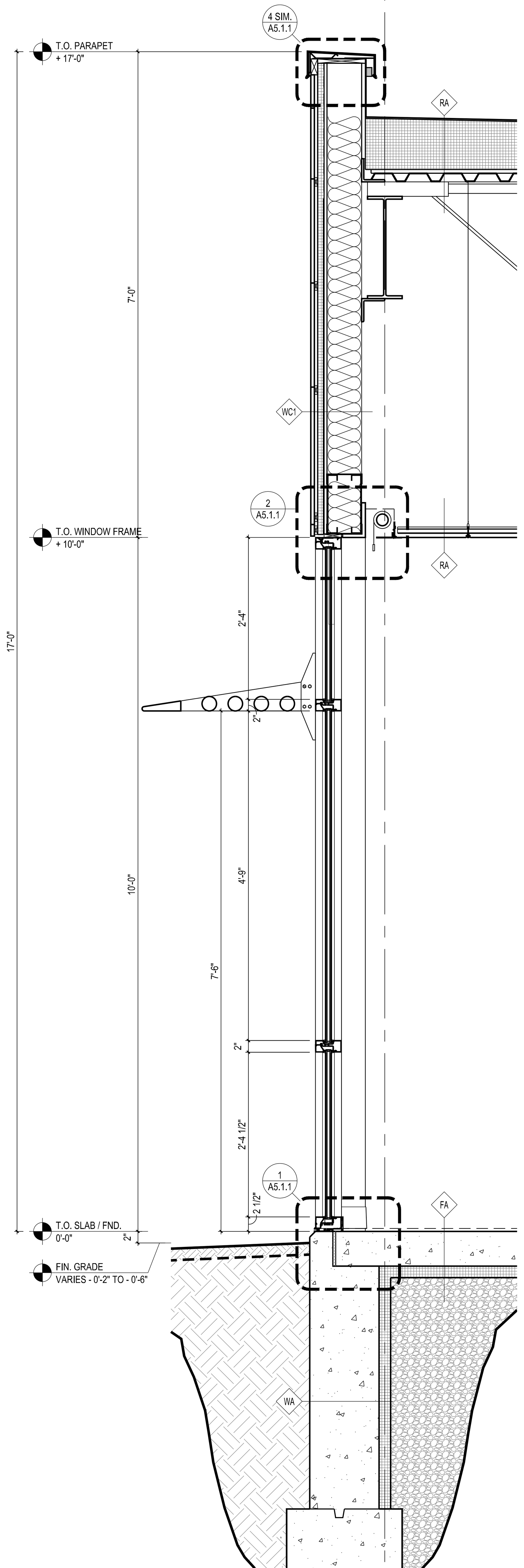
4
A4.1
BAY WALL SECTION
3/4" = 1'-0"



3
A4.1
UTILITY WALL SECTION
3/4" = 1'-0"



2
A4.1
TOWER WALL SECTION
3/4" = 1'-0"



1
A4.1
TYPICAL STOREFRONT WALL SECTION
3/4" = 1'-0"

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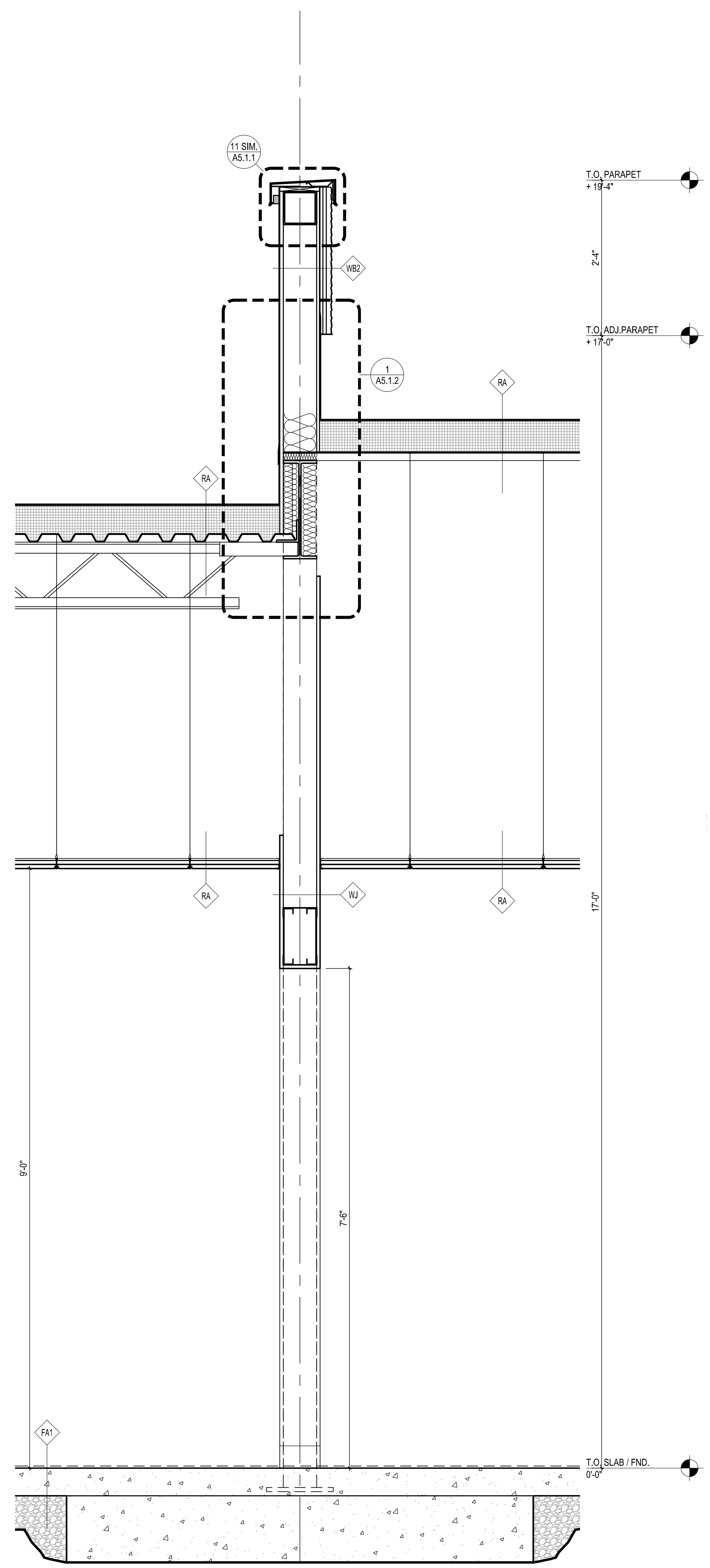
WALL SECTIONS

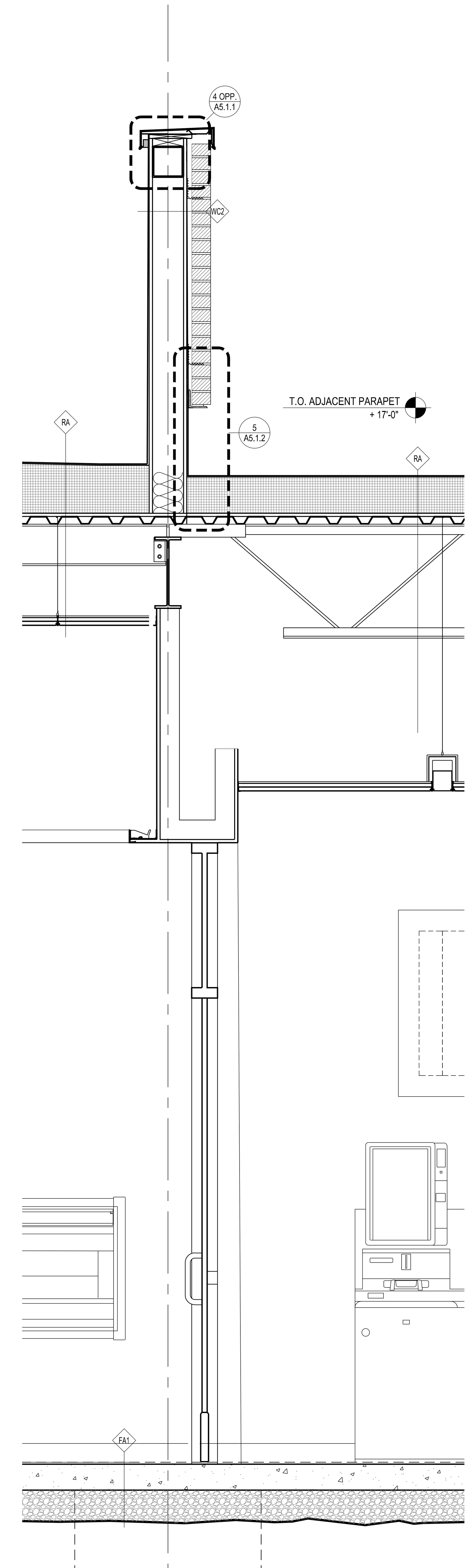
02/04/2022

SHEET

A4.1



2
A4.2
ROOF TRANSITION
WALL SECTION
3/4" = 1'-0"



1
A4.2
ROOF TRANSITION
WALL SECTION
3/4" = 1'-0"

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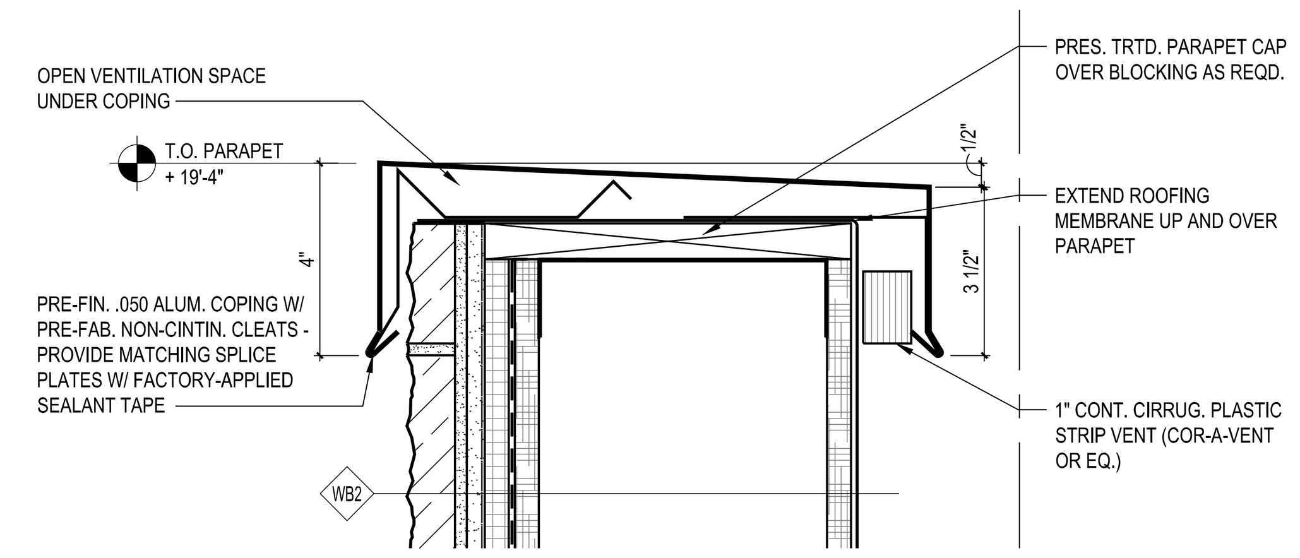
WALL SECTIONS
DRIVE-UP CANOPY SECTION AND DETAILS

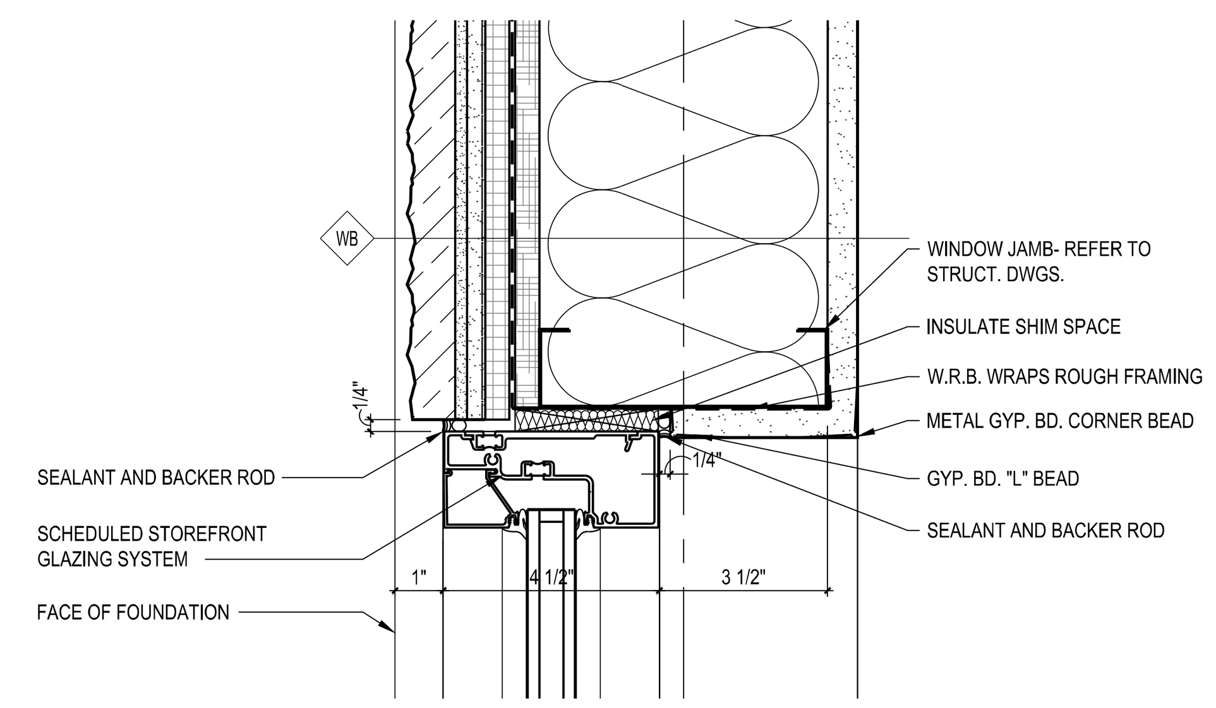
02/04/2022

SHEET

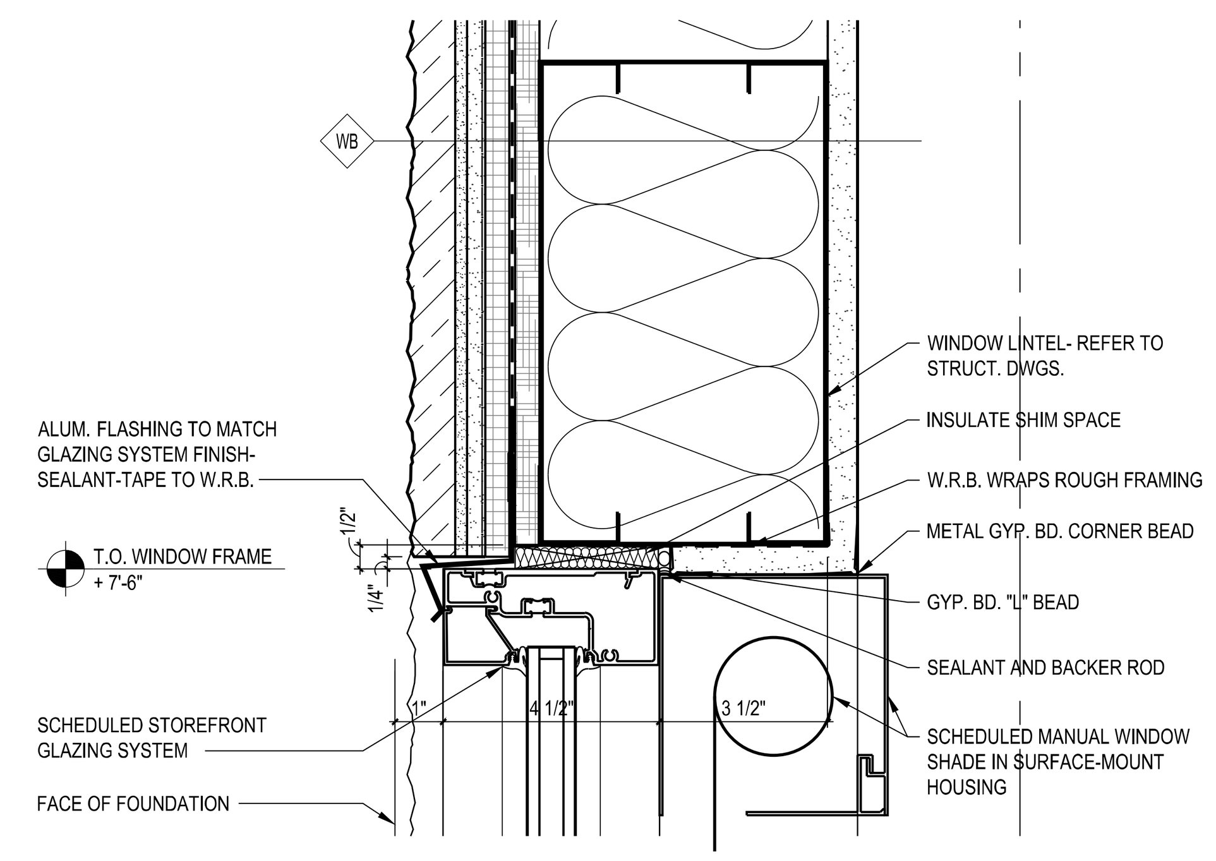
A4.2



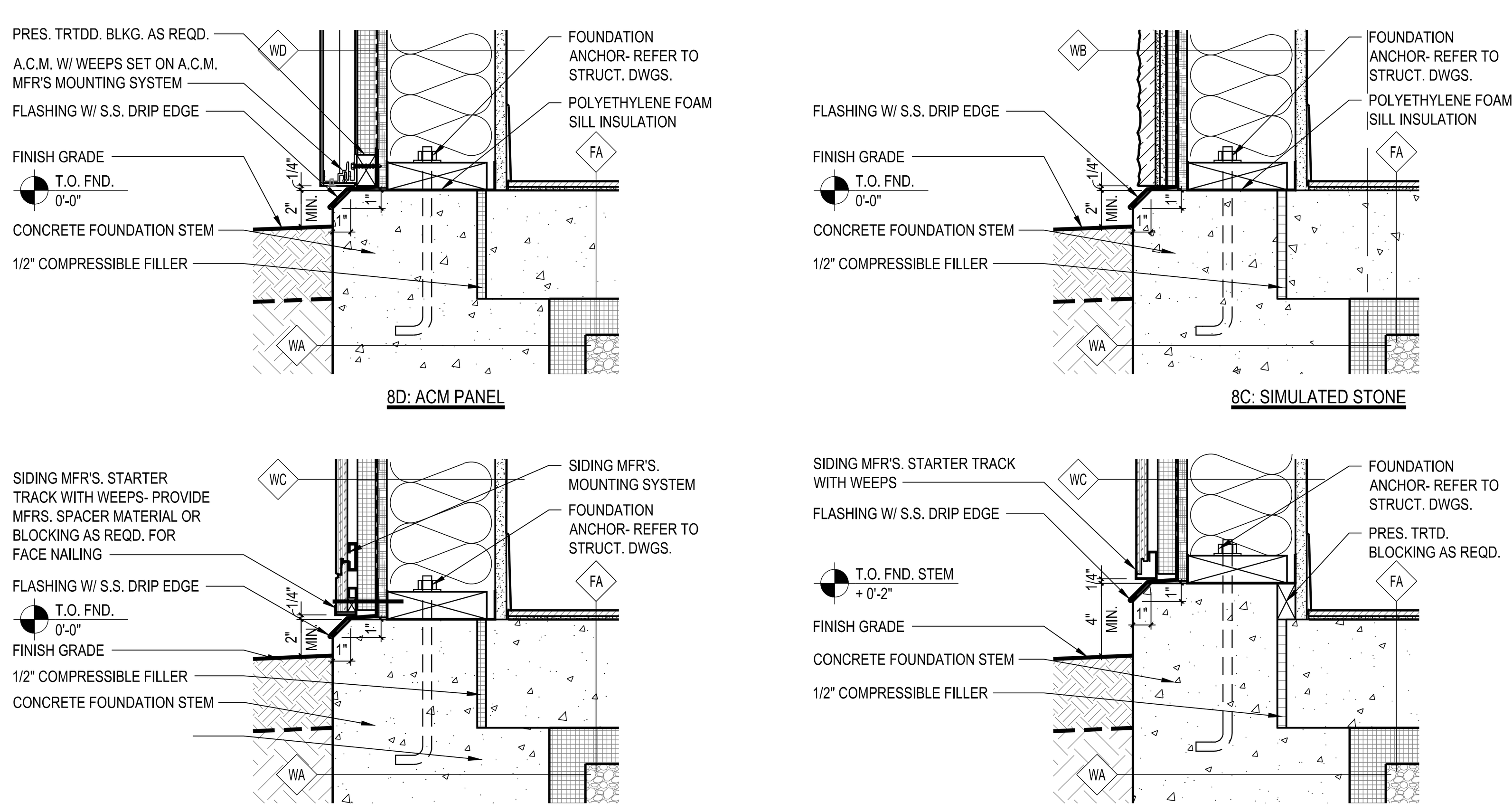
11 COPING AT SIMULATED STONE
A5.1.1
3" = 1'-0"



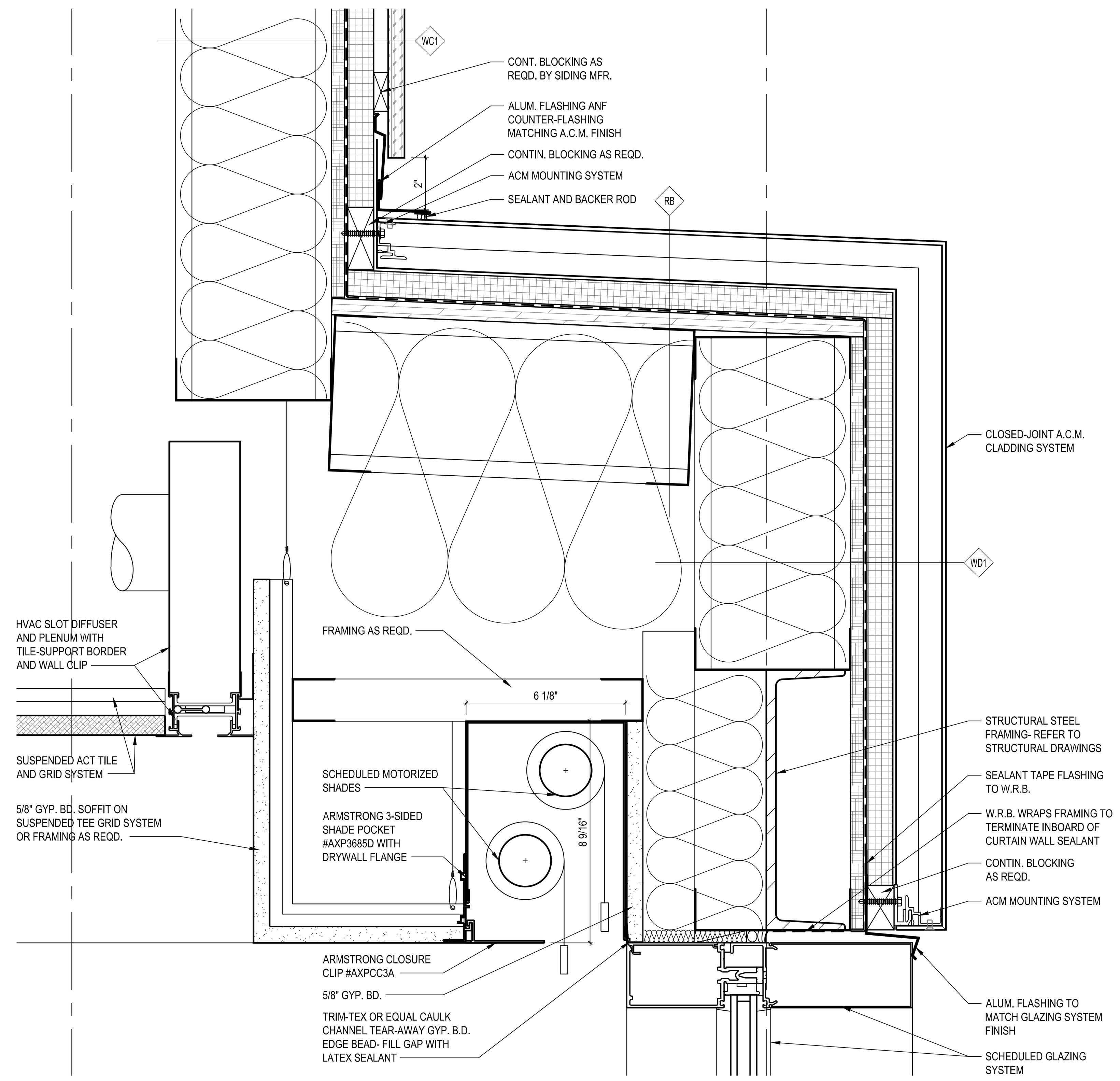
10 STOREFRONT JAMB AT SIMULATED STONE
A5.1.1
3" = 1'-0"



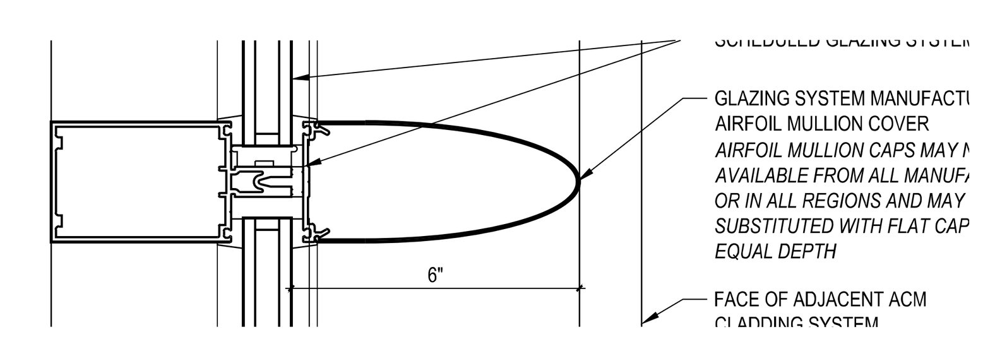
9 STOREFRONT HEAD AT SIMULATED STONE
A5.1.1
3" = 1'-0"



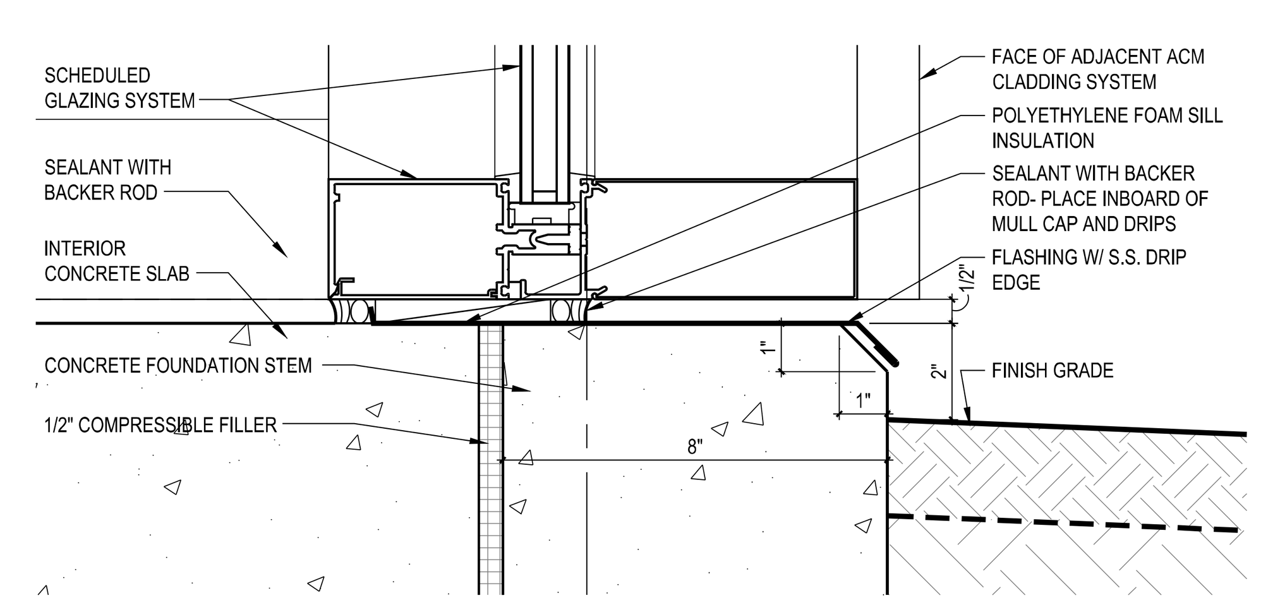
8 TYPICAL TOPS OF FOUNDATION
A5.1.1
1 1/2" = 1'-0"



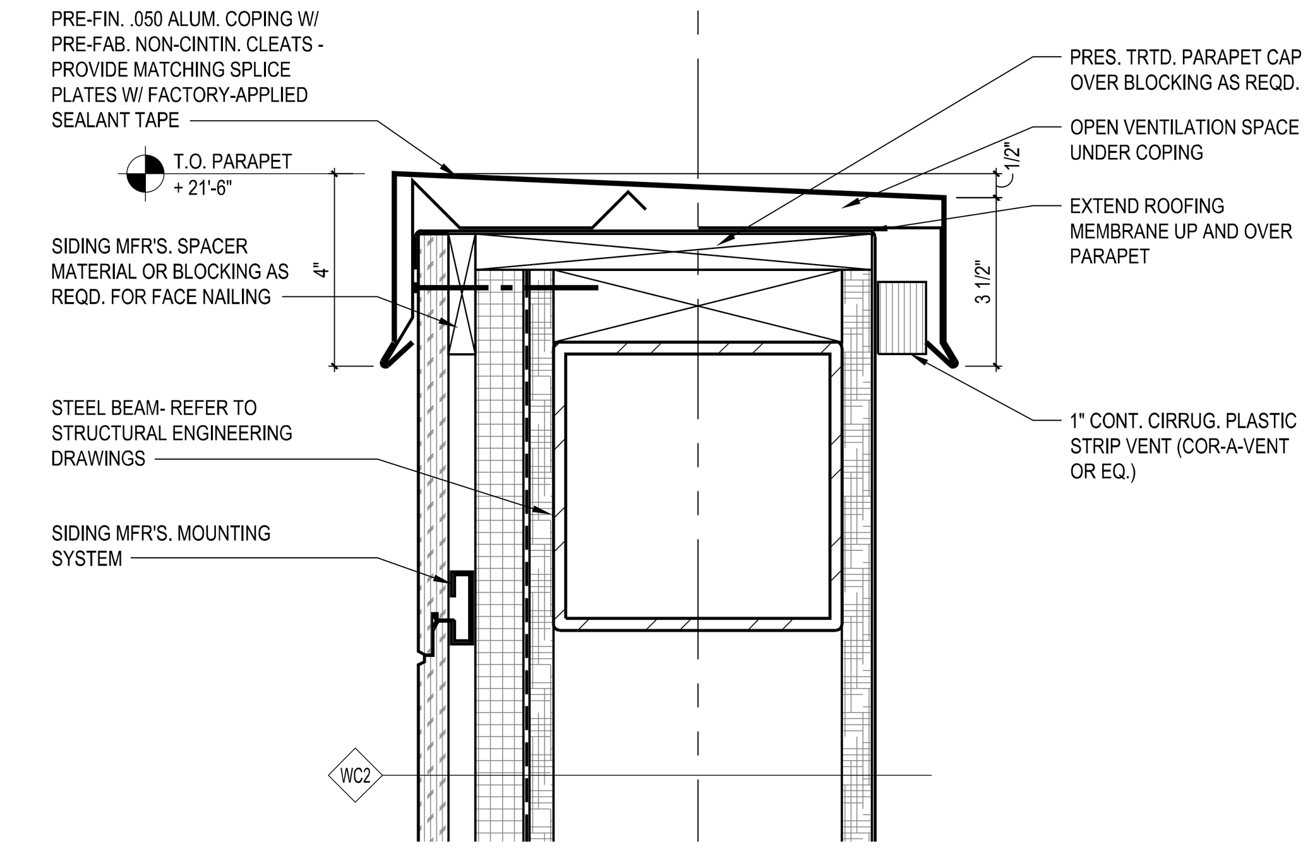
7 PROJECTING BAY ROOF / CURTAIN WALL HEAD
A5.1.1
3" = 1'-0"



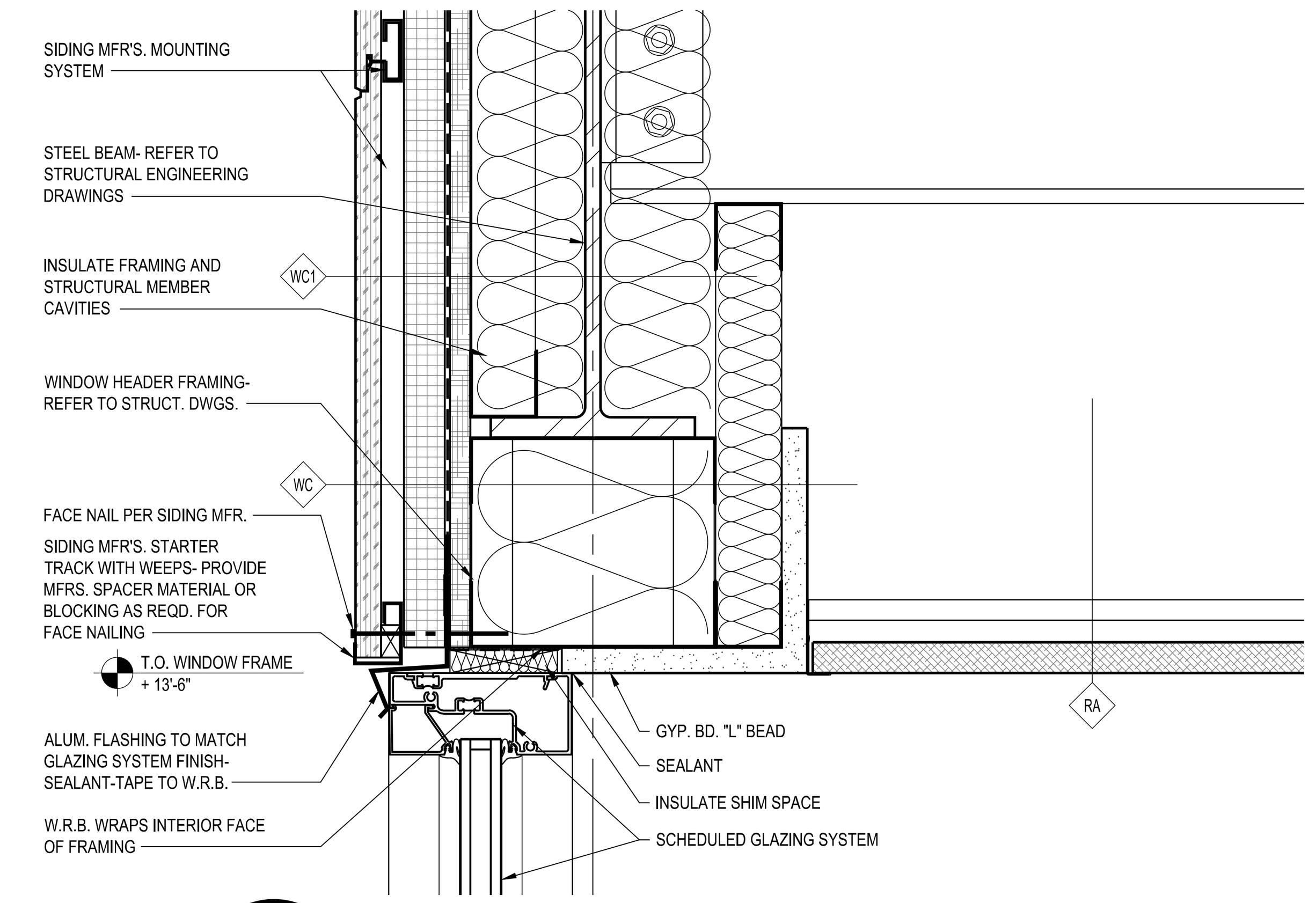
6 INTERMEDIATE MULLION
A5.1.1
3" = 1'-0"



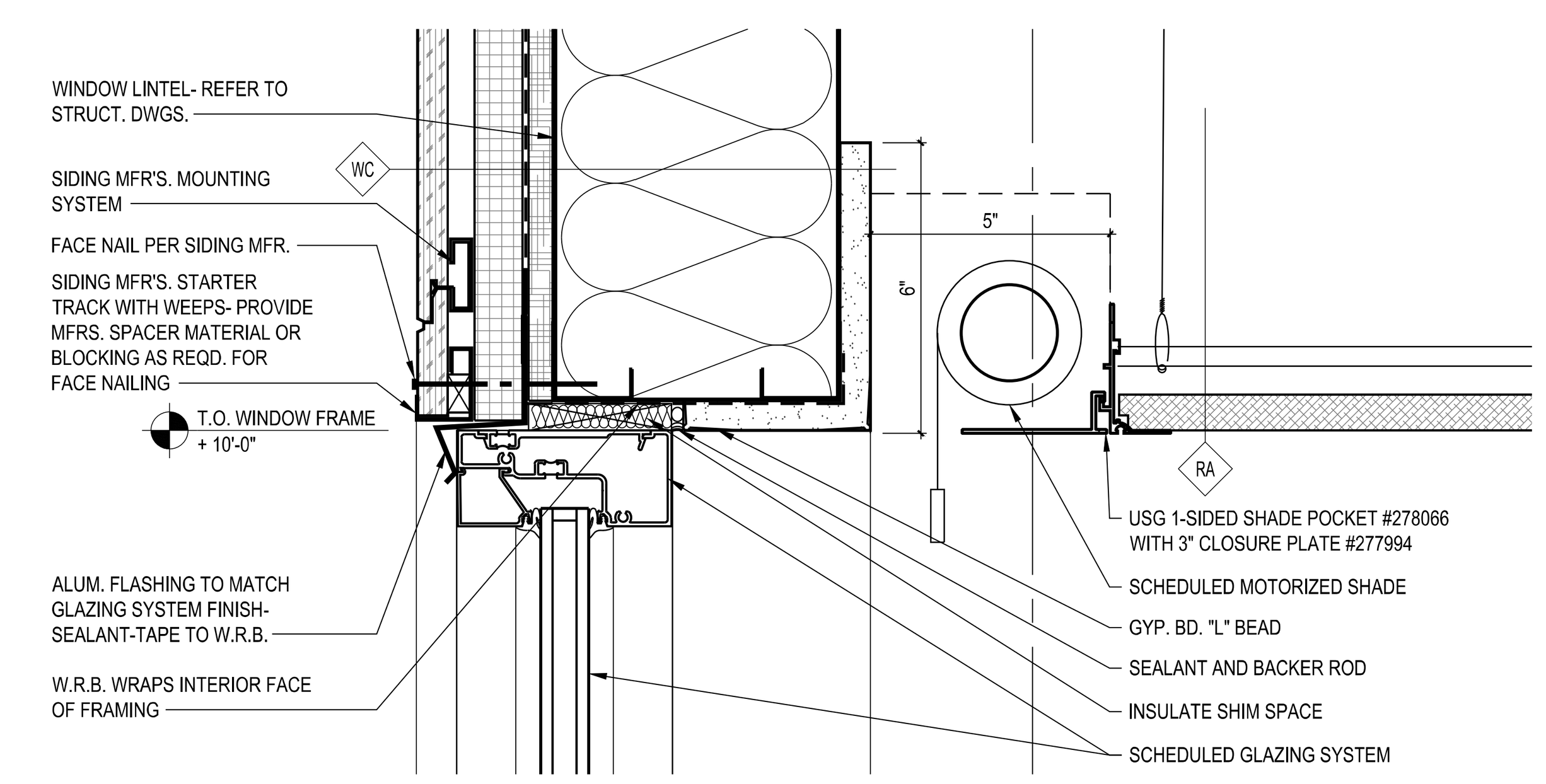
5 TOP OF FOUNDATION / PROJECTING CURTAIN WALL SILL
A5.1.1
3" = 1'-0"



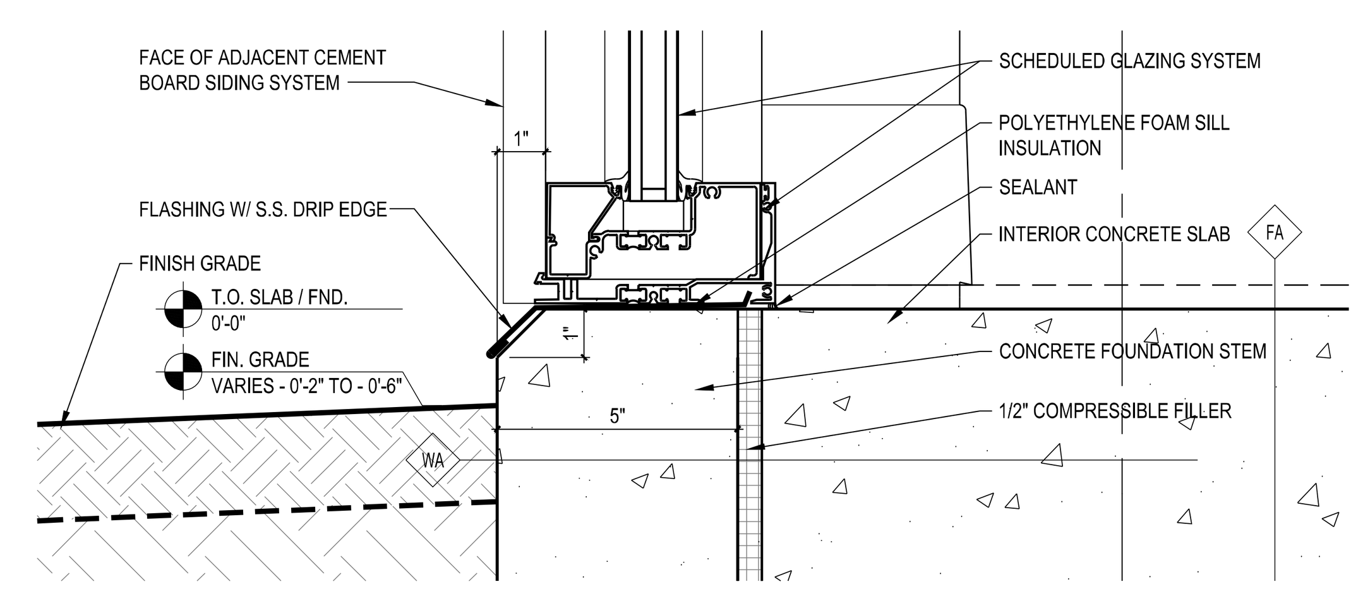
4 COPING AT CEMENT BOARD
A5.1.1
3" = 1'-0"



3 ENTRANCE HEAD / CEILING
A5.1.1
3" = 1'-0"



2 STOREFRONT HEAD / CEILING AT CEMENT BOARD
A5.1.1
3" = 1'-0"



1 TOP OF FOUNDATION / STOREFRONT SILL
A5.1.1
3" = 1'-0"

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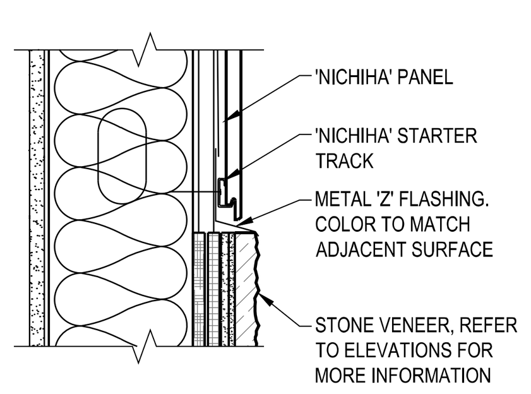
DETAILS: BUILDING ENVELOPE

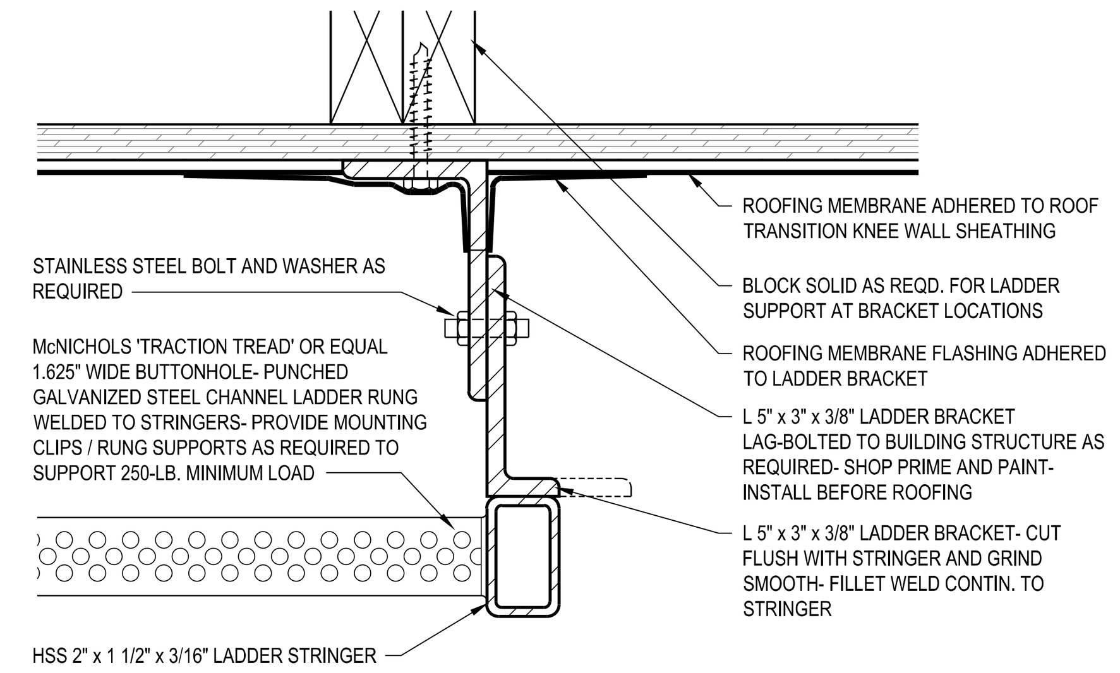
02/04/2022

SHEET

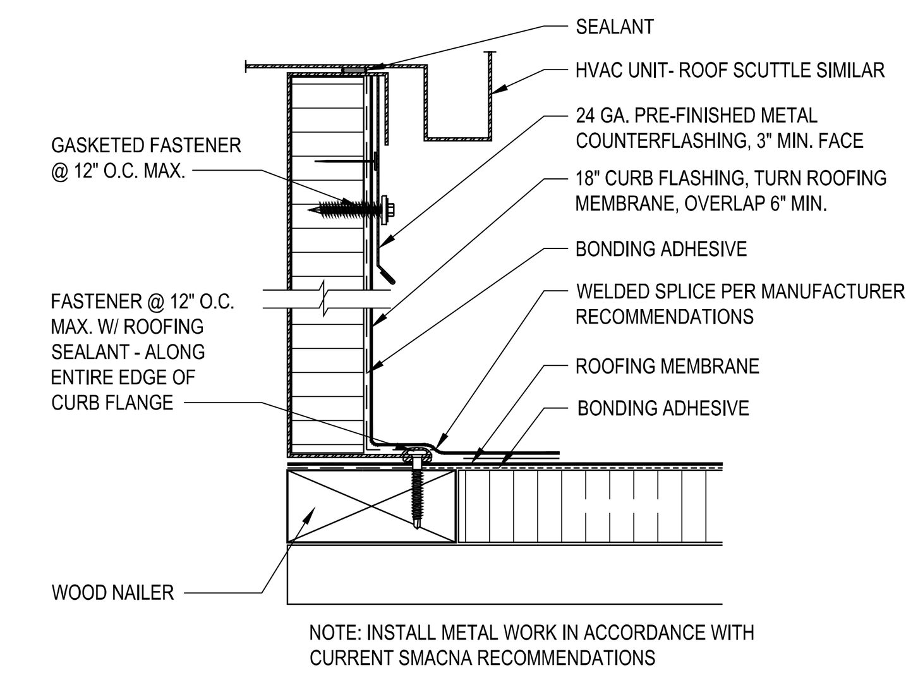
A5.1.1



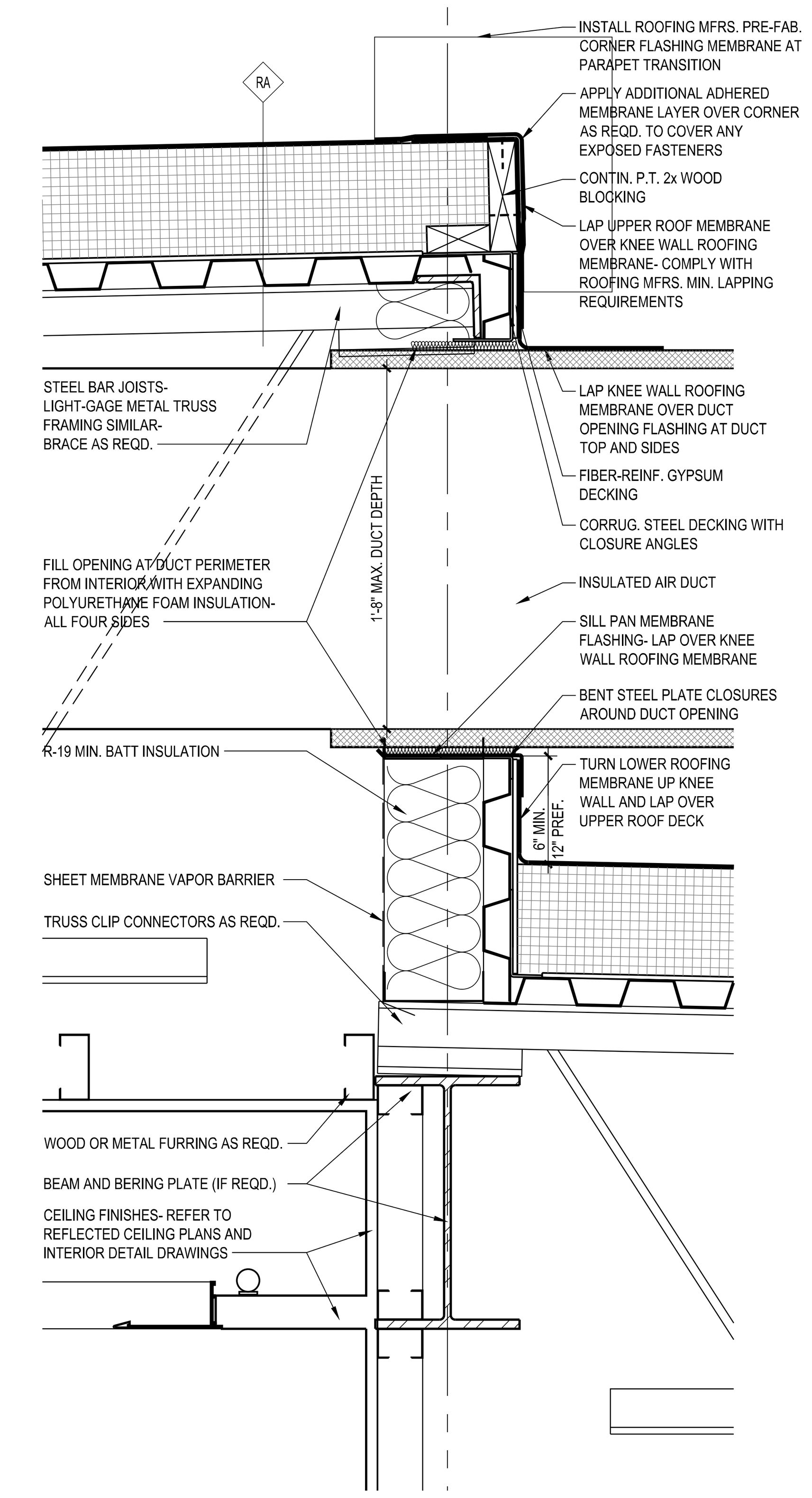
12 A5.1.2 SILL DETAIL @ STONE
1 1/2" = 1'-0"



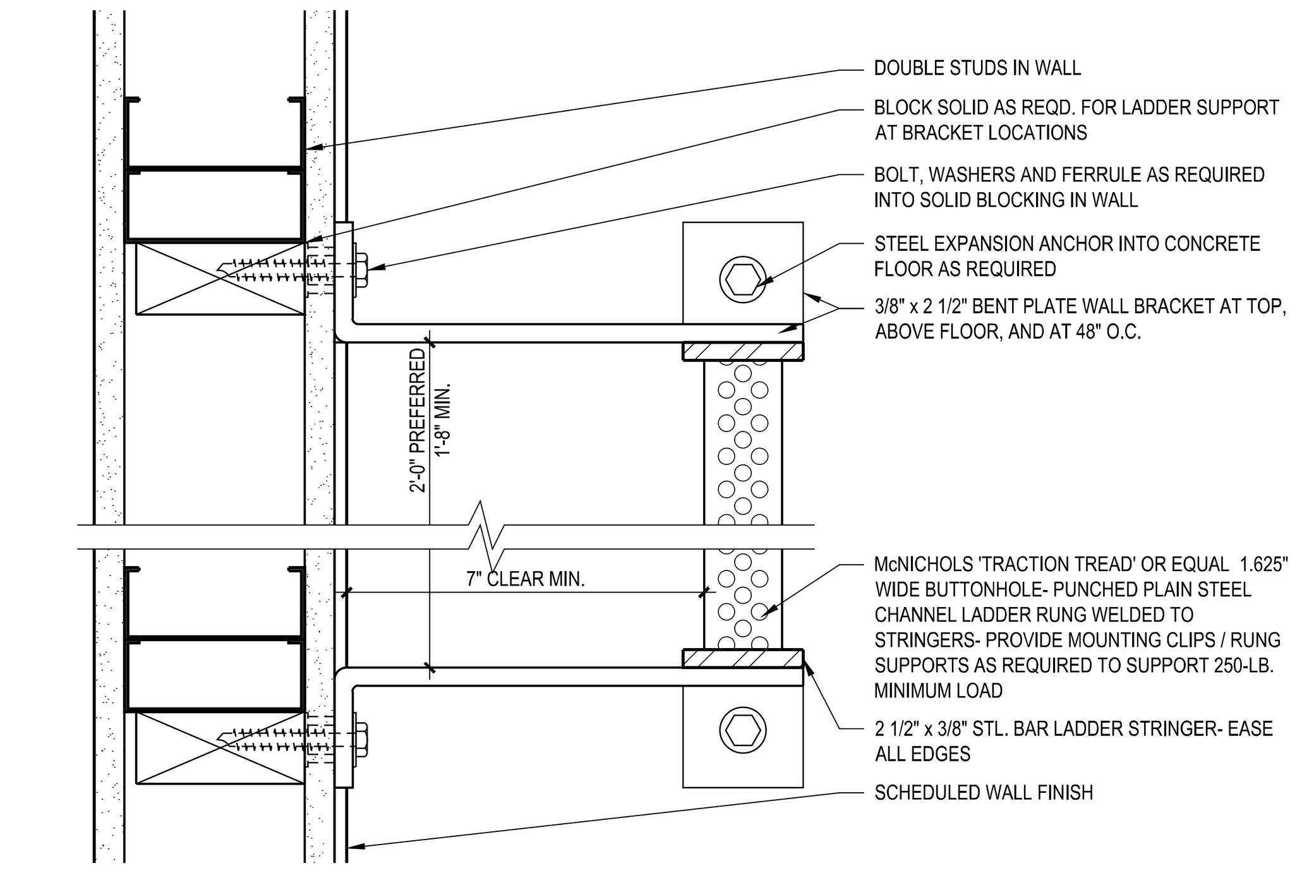
9 A5.1.2 ROOF TRANSITION LADDER SECTION
3" = 1'-0"



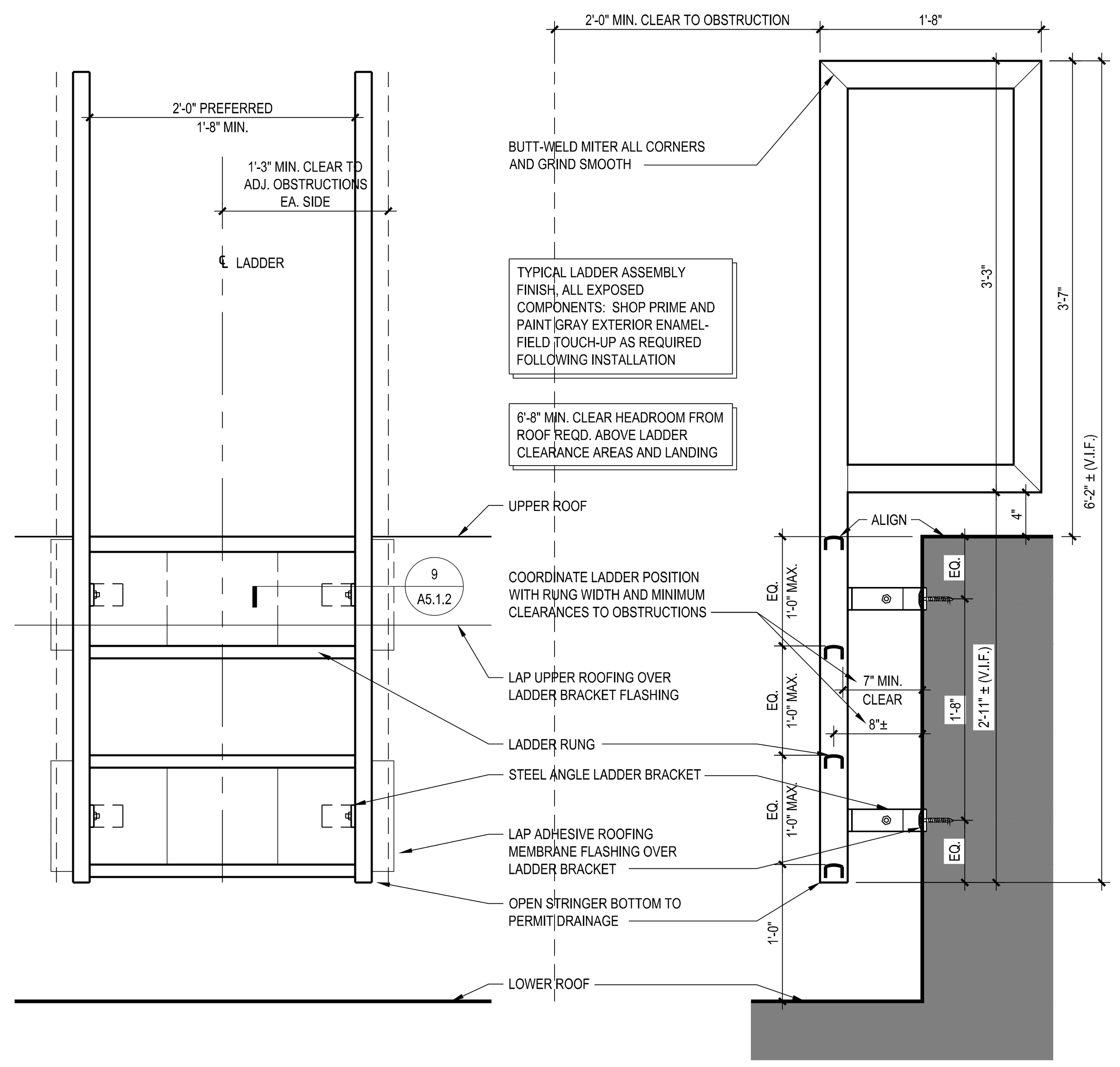
6 A5.1.2 ROOF EQUIPMENT CURB
3" = 1'-0"



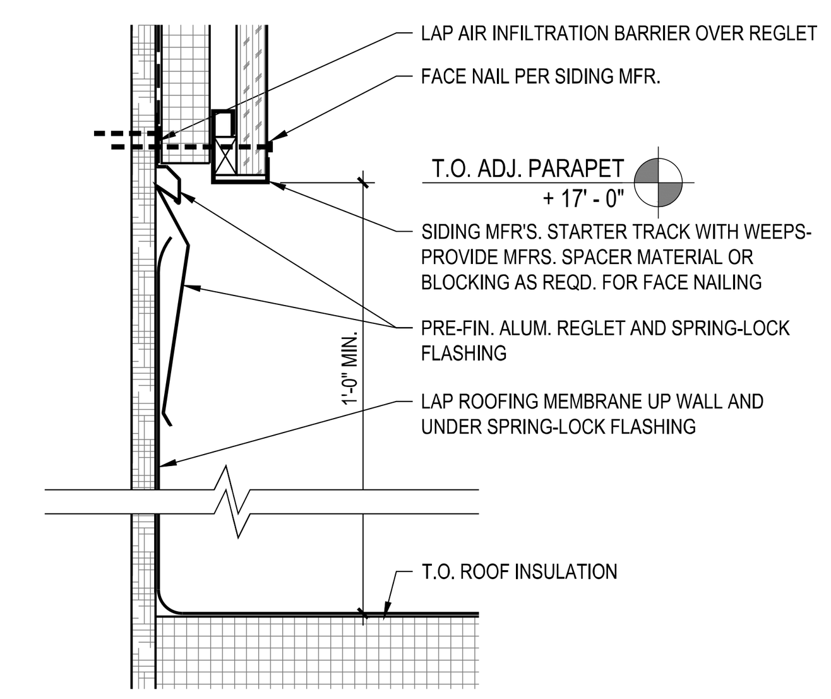
2 A5.1.2 KNEE WALL DUCT PENETRATION
1 1/2" = 1'-0"
NON-STANDARD DETAIL PROVIDED FOR USE AT NON-PROTOTYPICAL PROJECTS



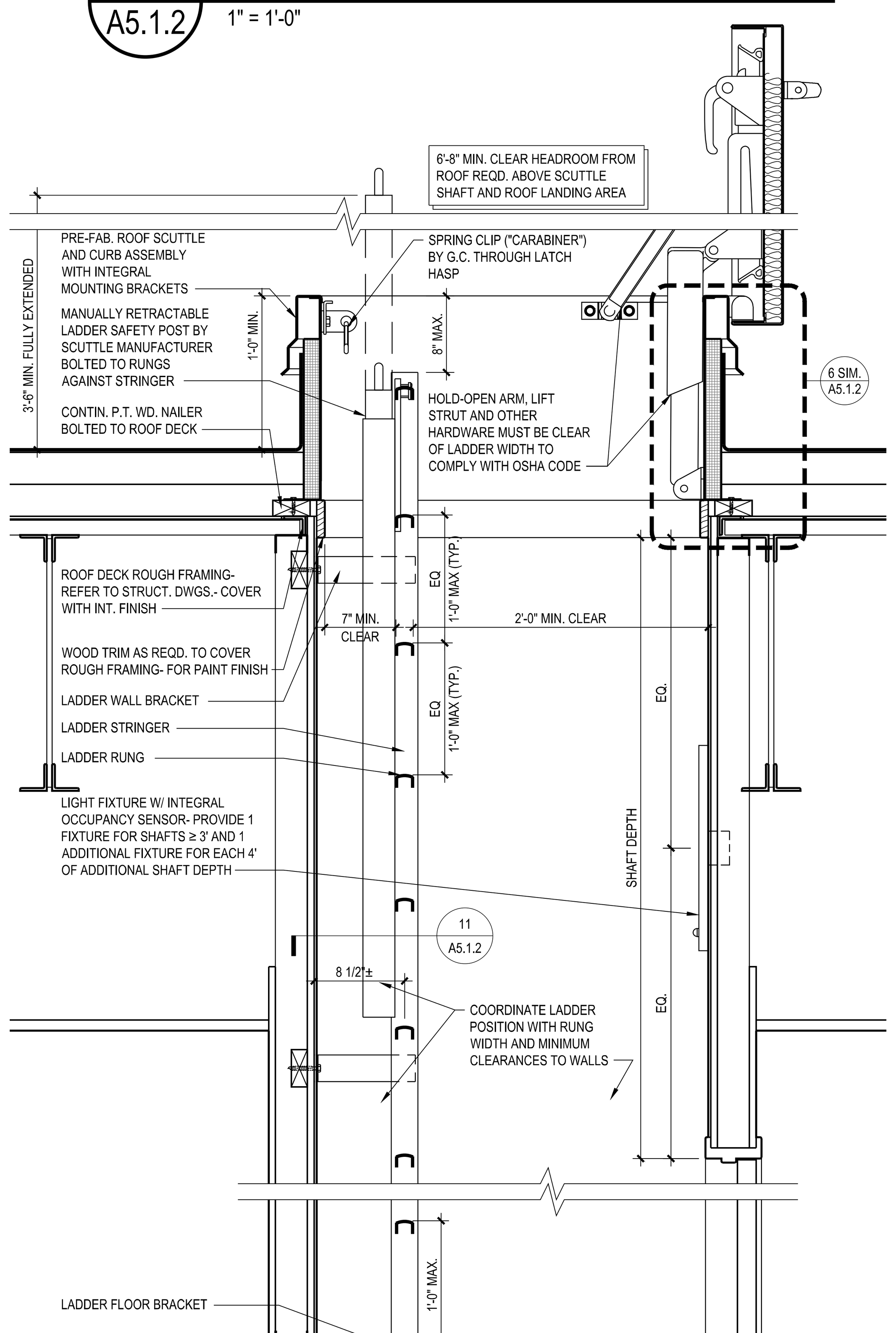
11 A5.1.2 ROOF SCUTTLE LADDER BRACKET SECTION
1" = 1'-0"



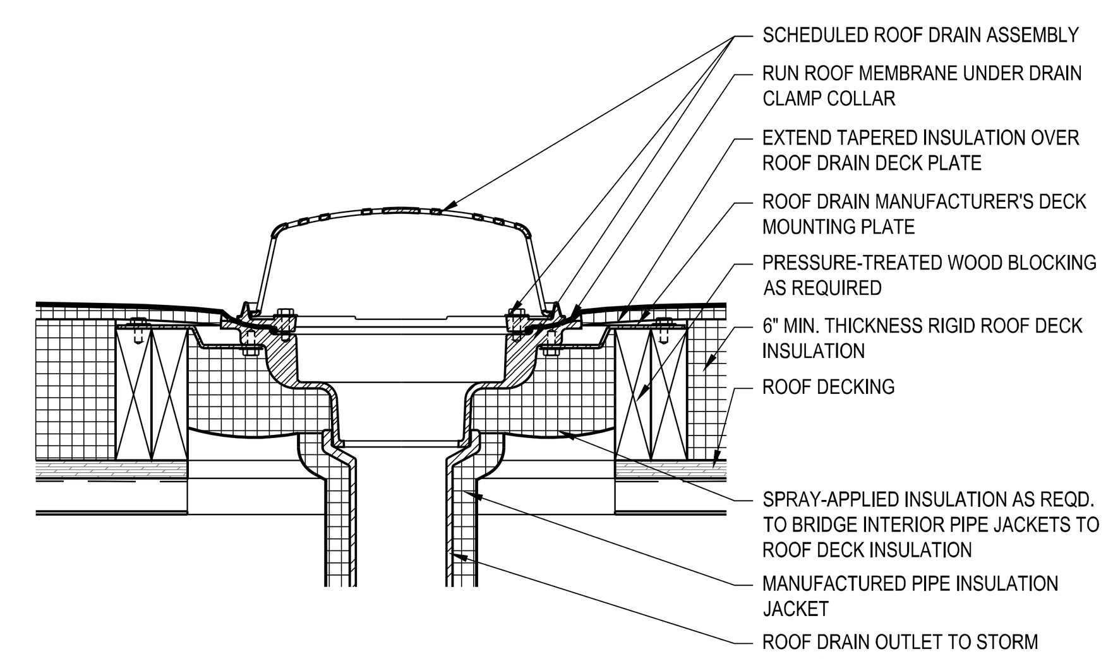
8 A5.1.2 ROOF TRANSITION LADDER
1" = 1'-0"



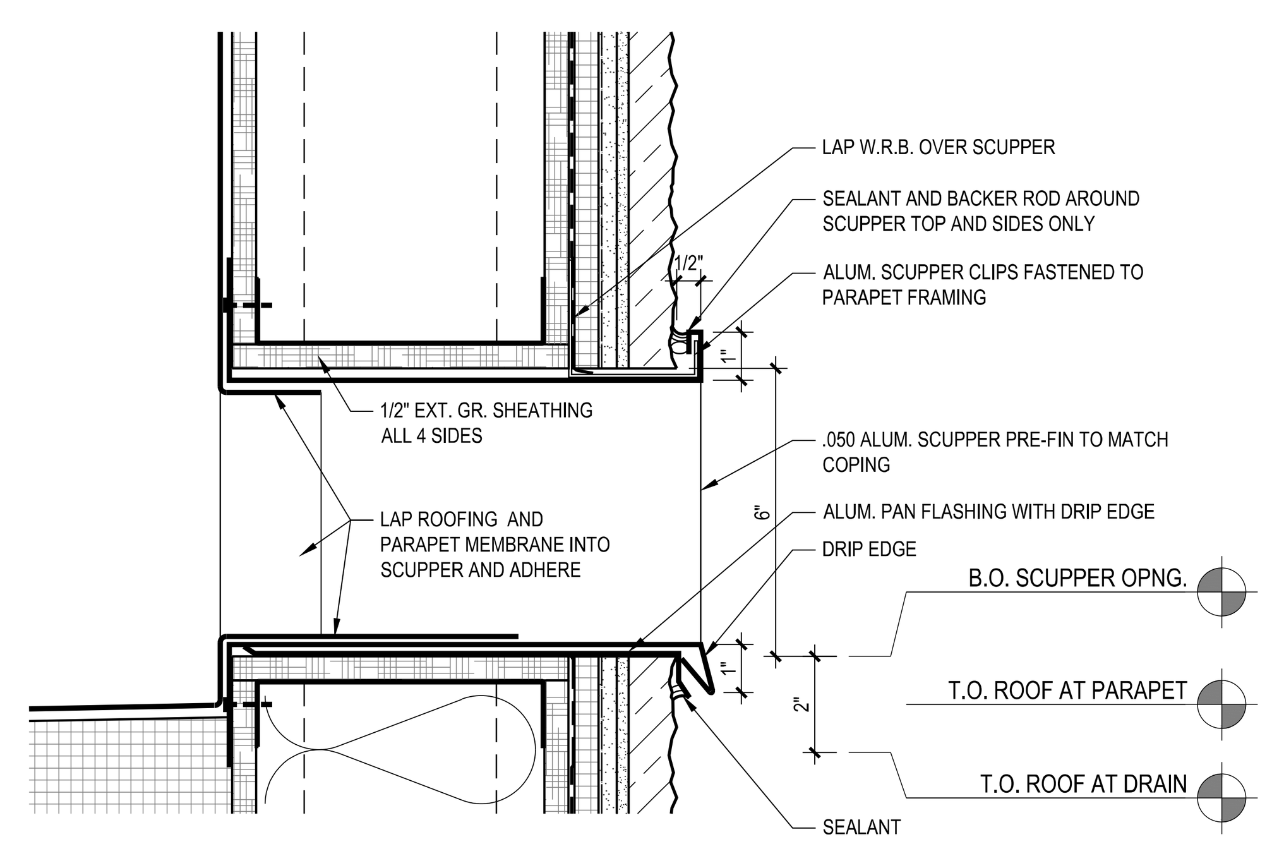
5 A5.1.2 ROOF / WALL FLASHING
3" = 1'-0"



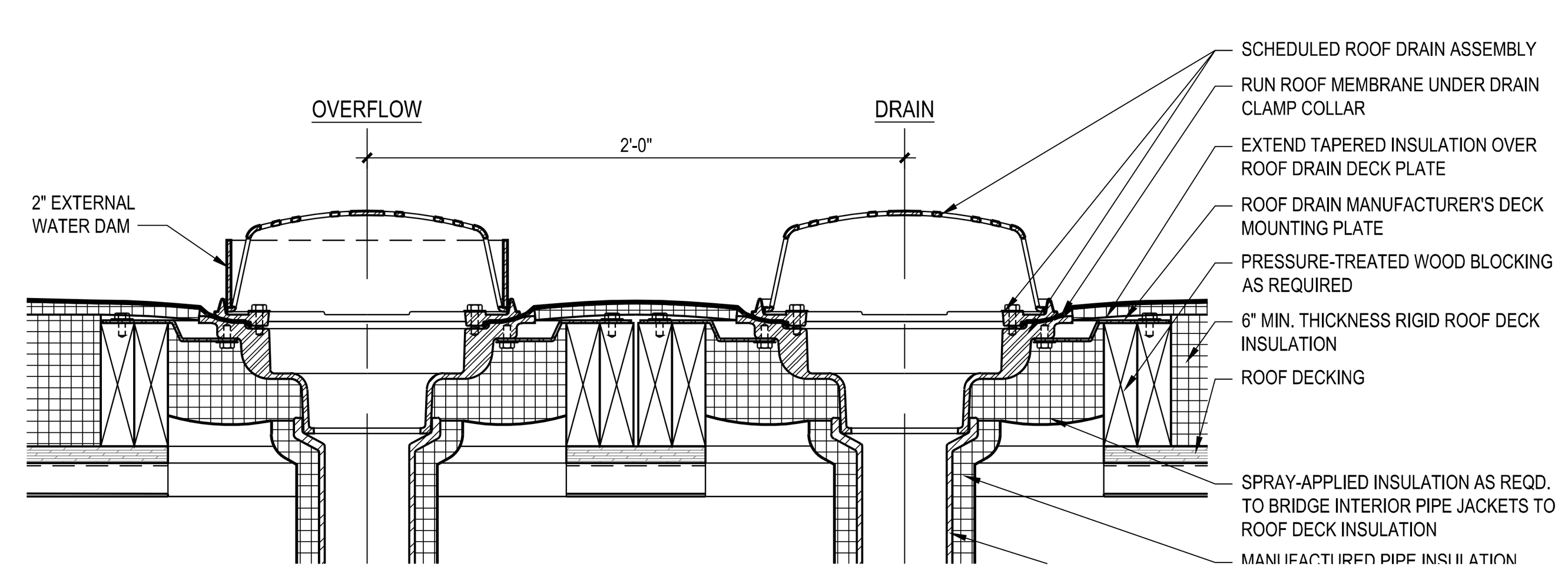
10 A5.1.2 ROOF SCUTTLE AND LADDER SECTION
1" = 1'-0"



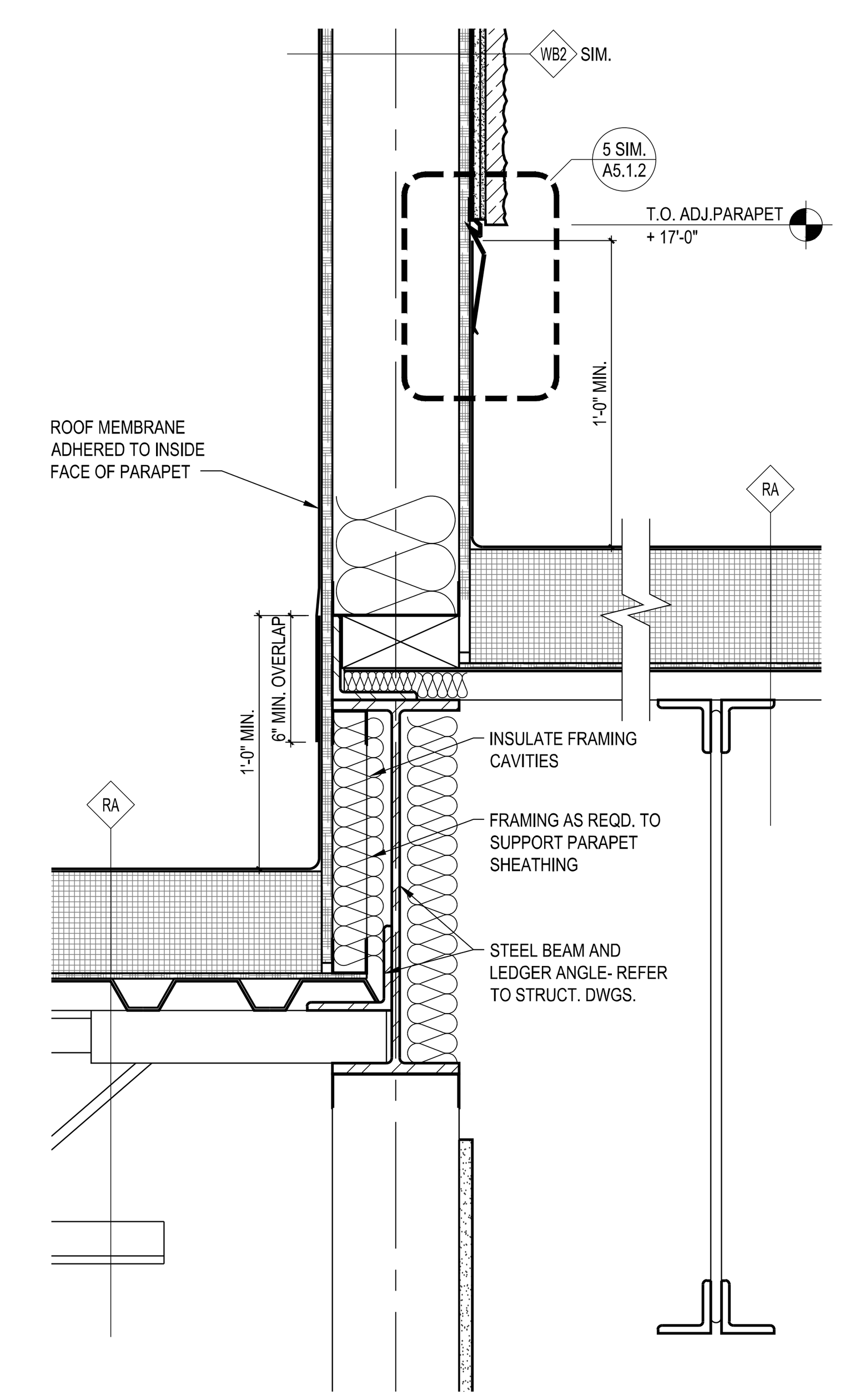
4 A5.1.2 TYP. ROOF DRAIN
1 1/2" = 1'-0"



7 A5.1.2 OVERFLOW SCUPPER
3" = 1'-0"



3 A5.1.2 TYP. ROOF DRAIN W/ OVERFLOW
1 1/2" = 1'-0"



1 A5.1.2 INTERIOR PARAPET
1 1/2" = 1'-0"

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3/2/2022

PRYOR ROAD & LOWENSTEIN DRIVE
908 NW PRYOR ROAD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

ISSUE	DATE	DESCRIPTION

CHASE

PRYOR & LOWENSTEIN
PROTOTYPE VERSION 20.4

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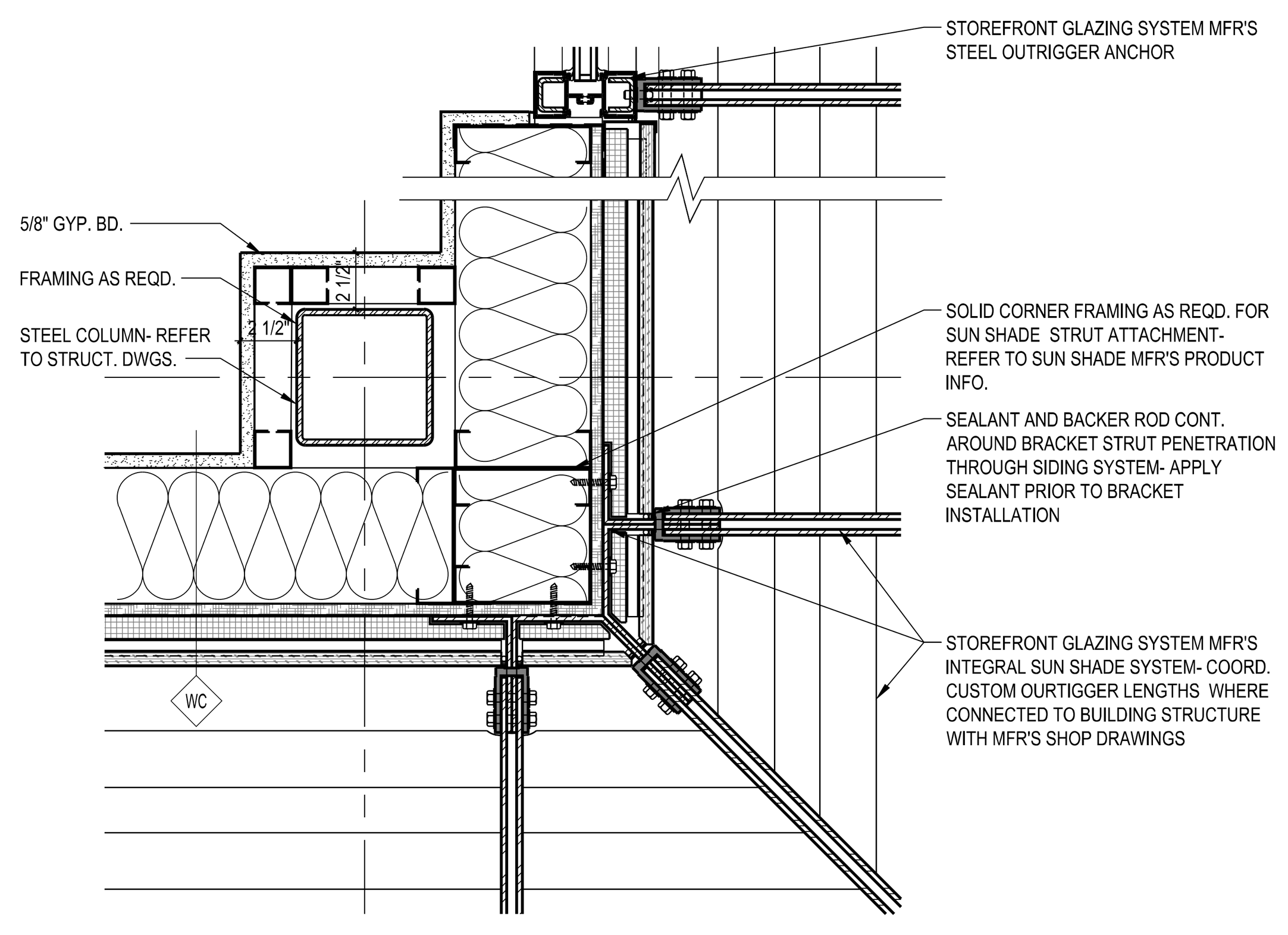
DETAILS: BUILDING ENVELOPE

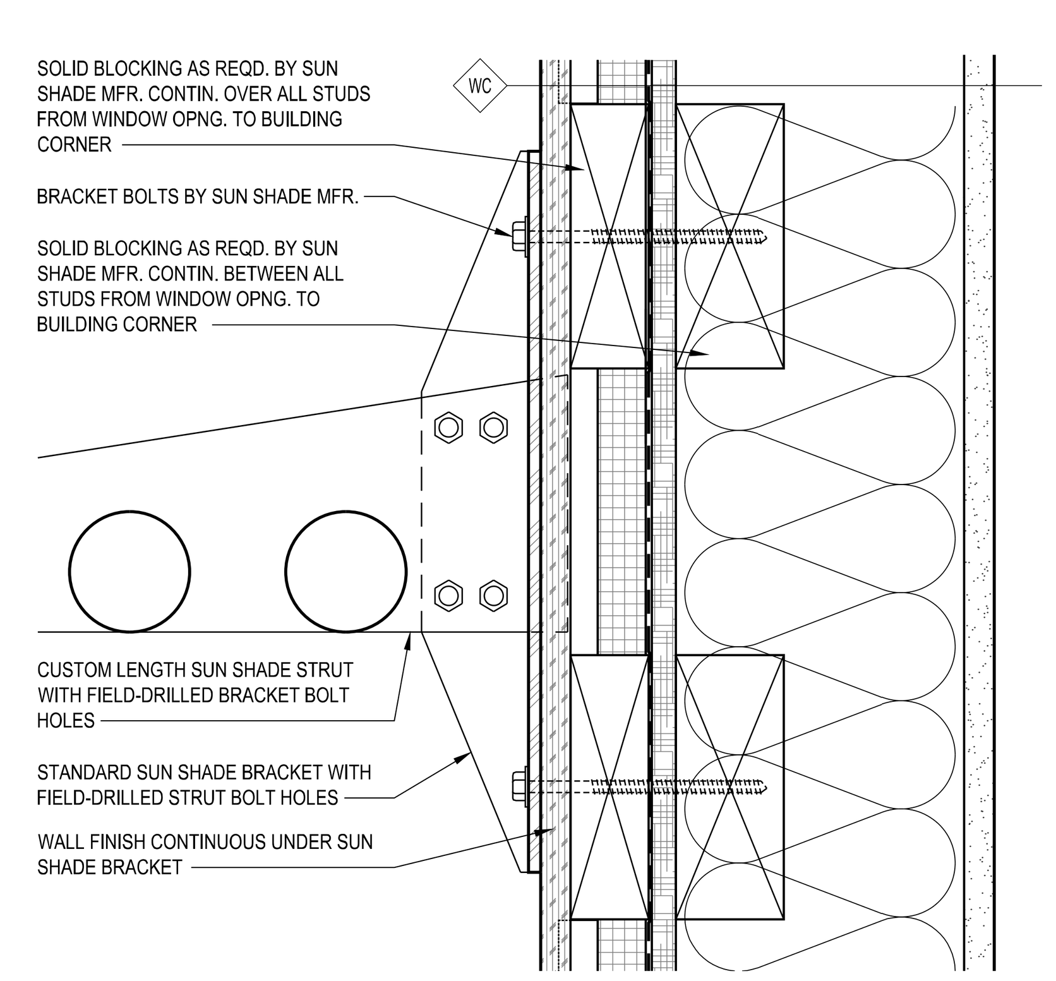
02/04/2022

SHEET

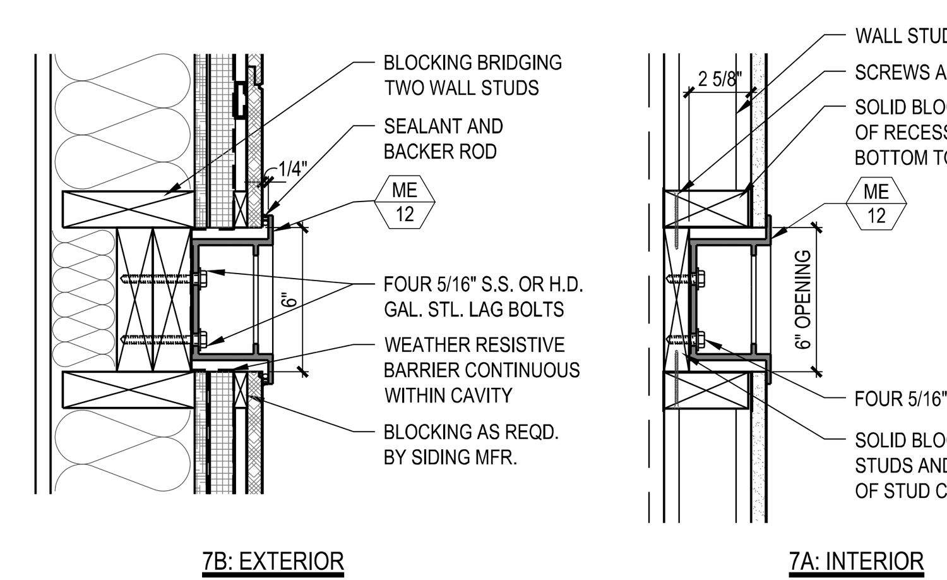
A5.1.2



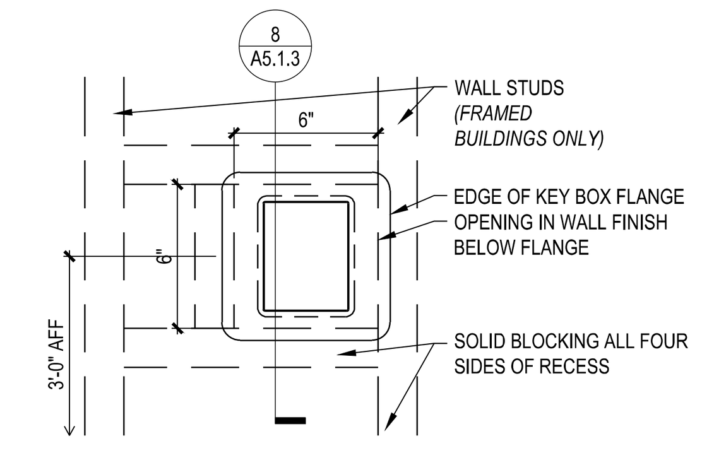
12 A5.1.3 SUN SHADE CORNER BRACKET
1 1/2" = 1'-0"



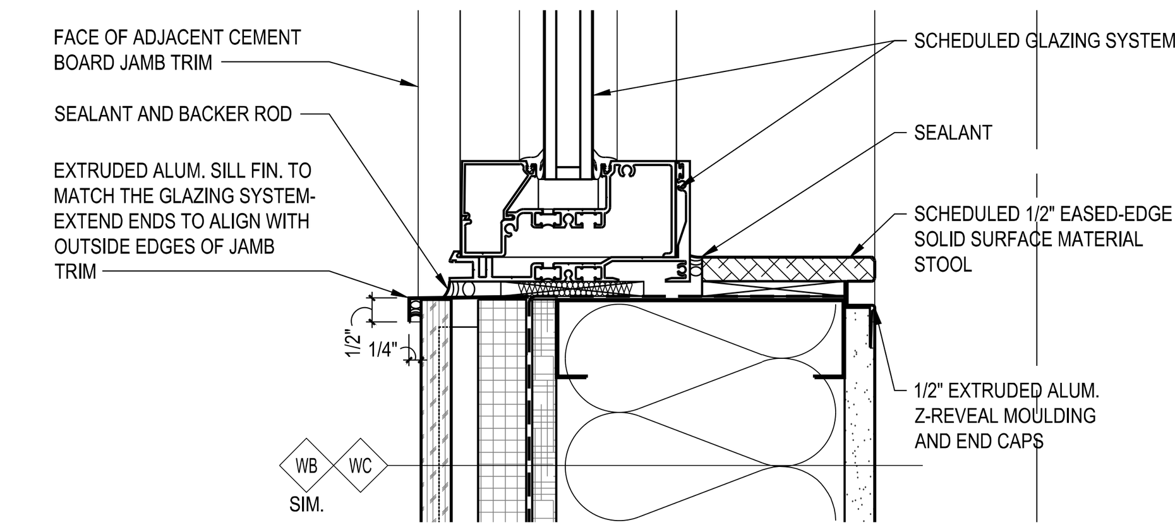
11 A5.1.3 SUN SHADE WALL BRACKET
3" = 1'-0"



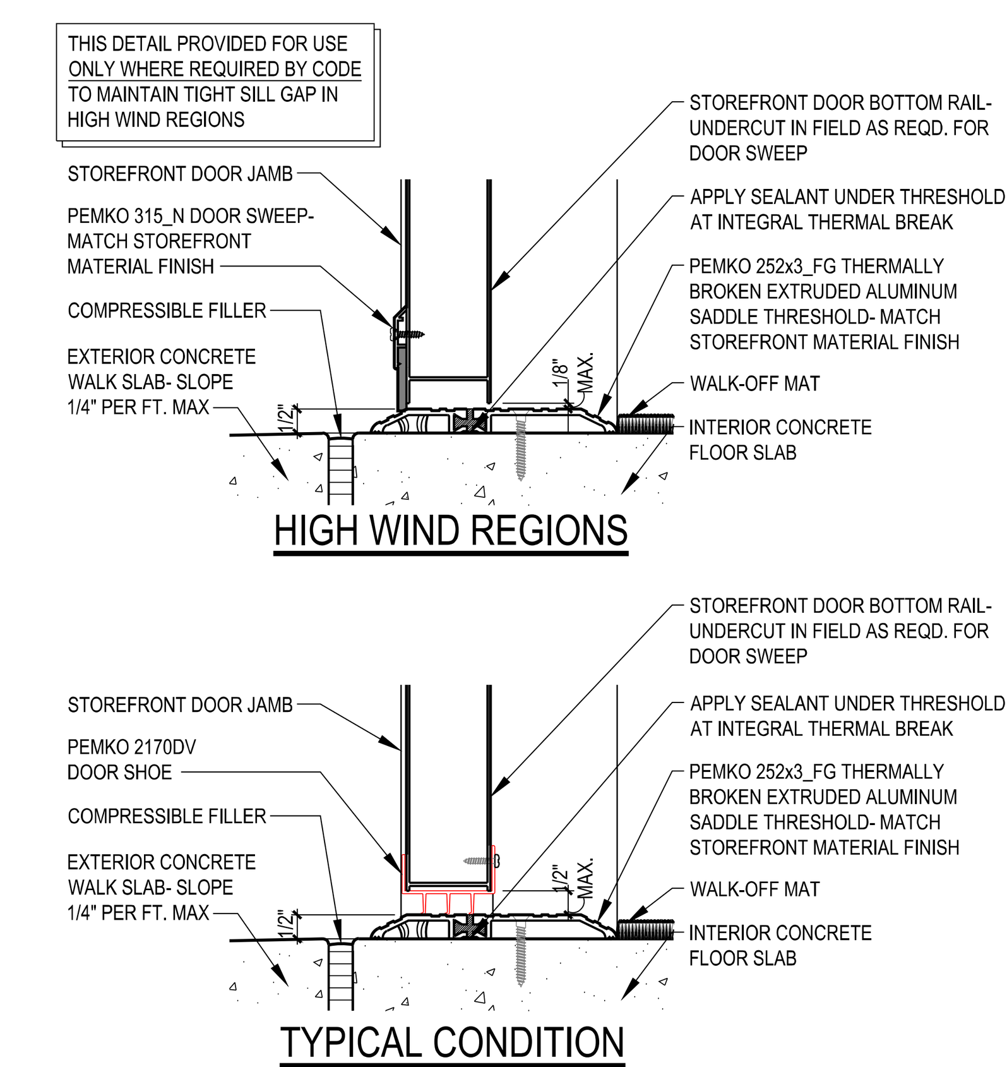
8 A5.1.3 RECESSED KEY BOX SECTION
1 1/2" = 1'-0"



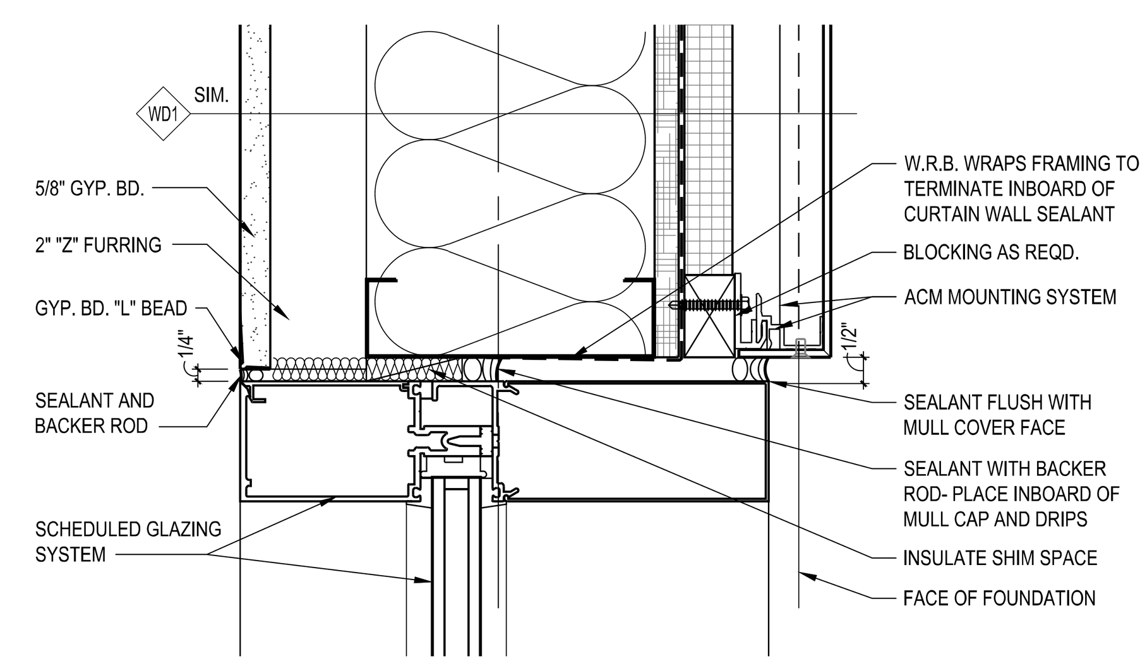
7 A5.1.3 RECESSED KEY BOX ELEVATION
1 1/2" = 1'-0"



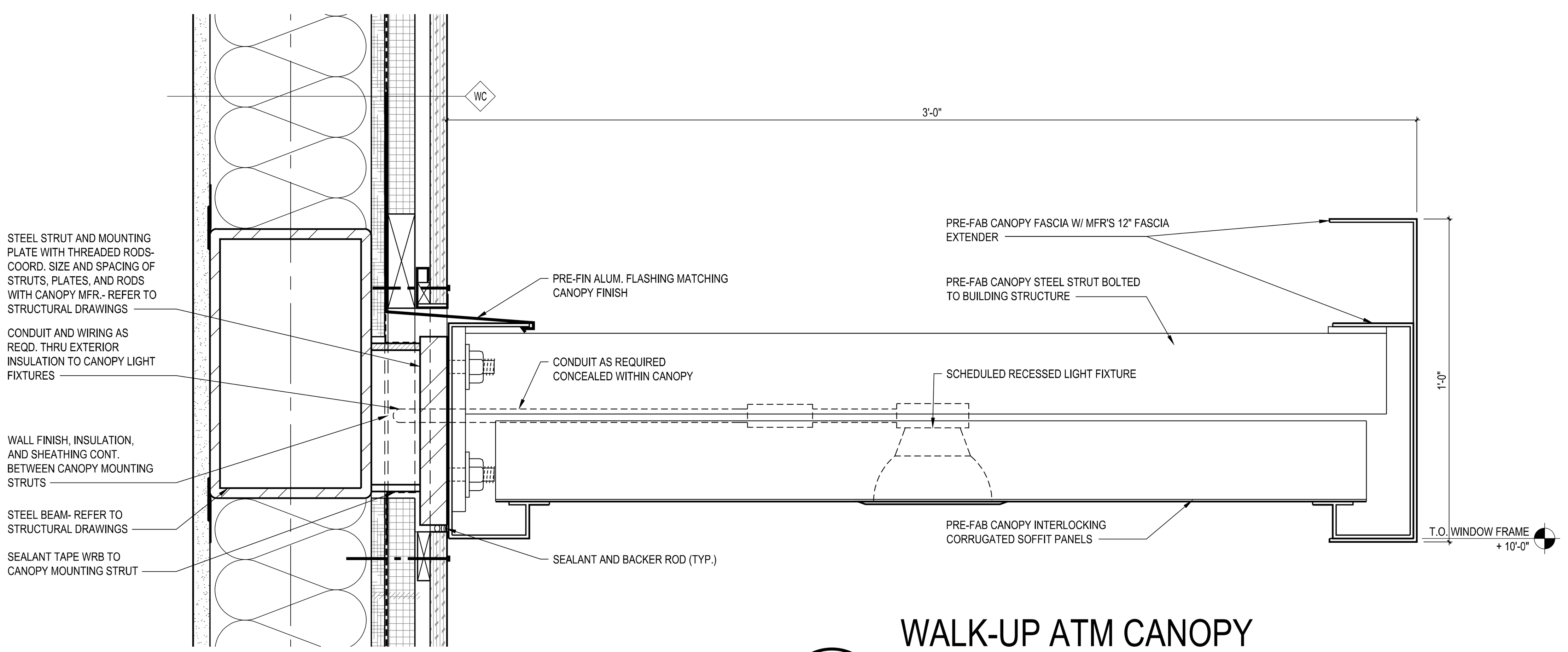
12 A5.1.3 WINDOW STOOL (NON-STANDARD)
3" = 1'-0"



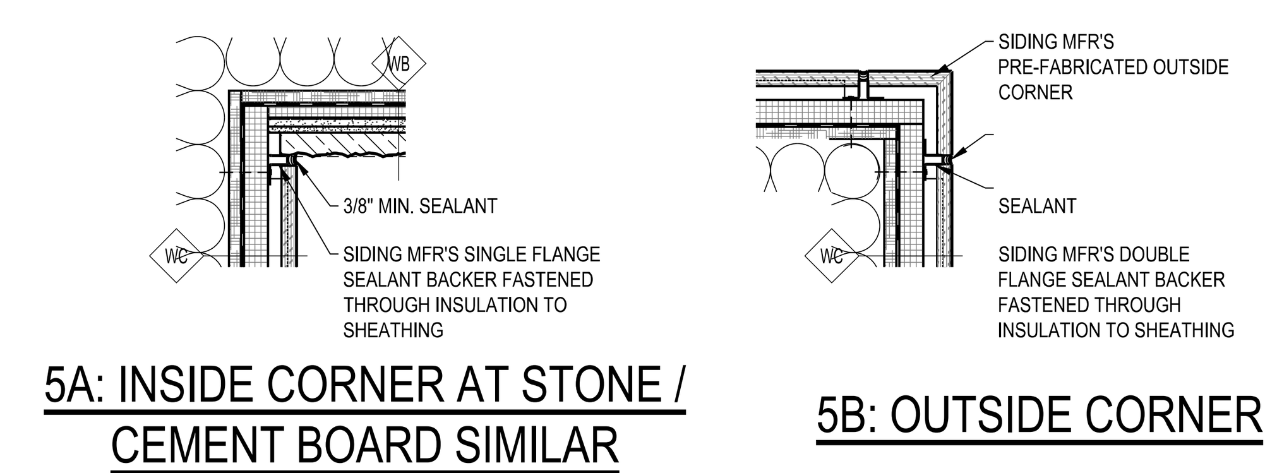
3 A5.1.3 ENTRANCE THRESHOLD
3" = 1'-0"



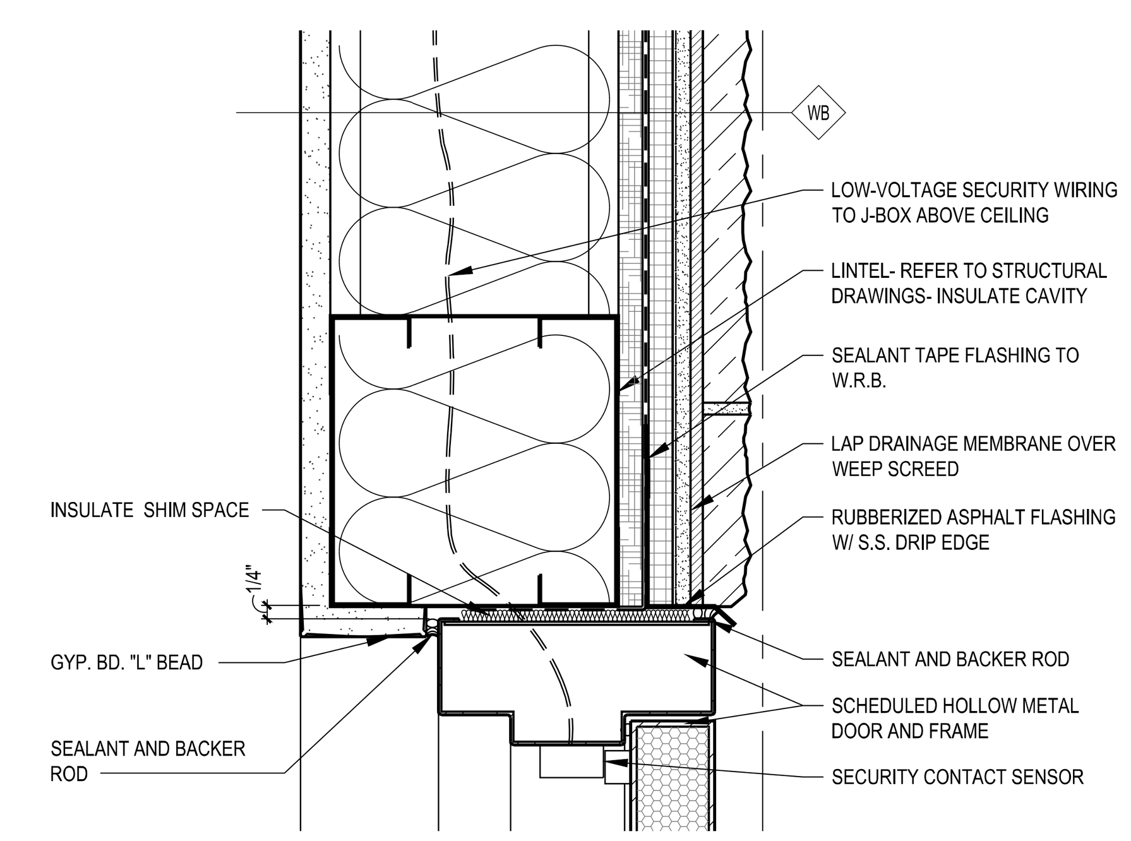
6 A5.1.3 ACM / GLAZING JAMB
3" = 1'-0"



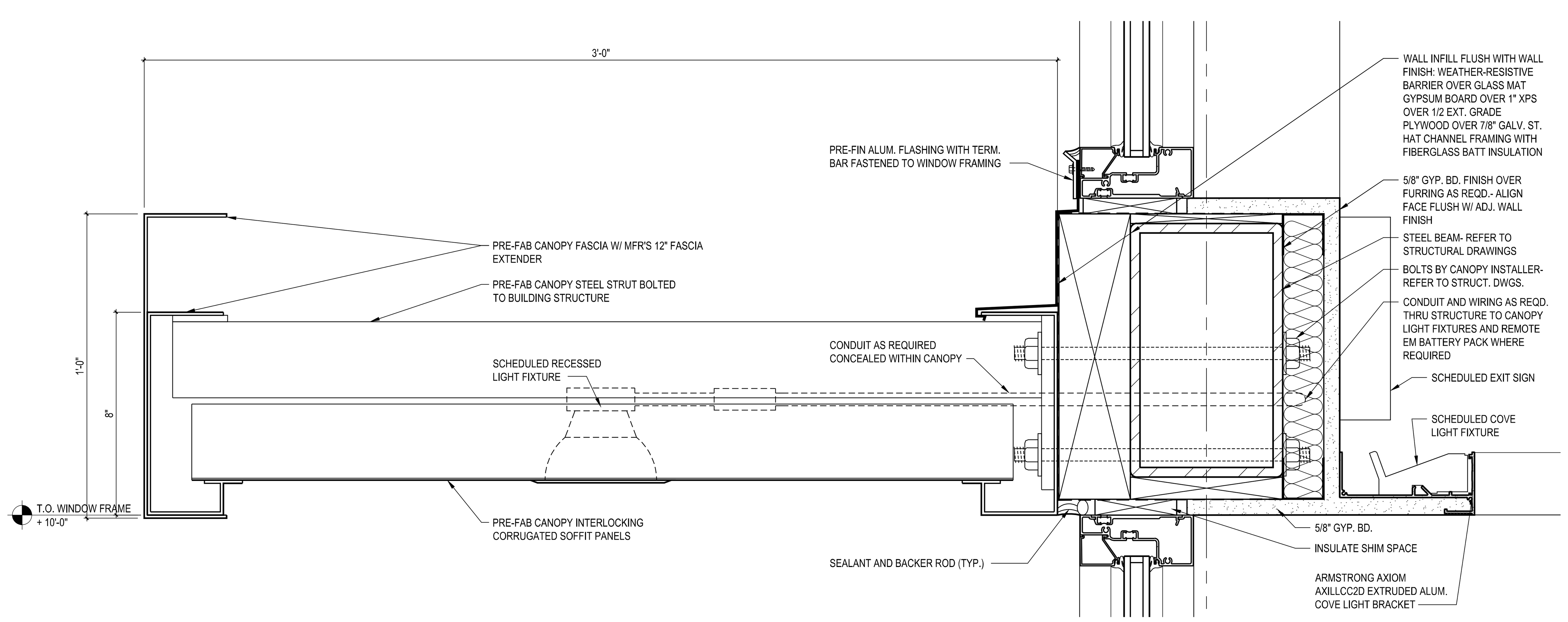
10 A5.1.3 WALK-UP ATM CANOPY DRIVE-UP CANOPY SIMILAR
3" = 1'-0"



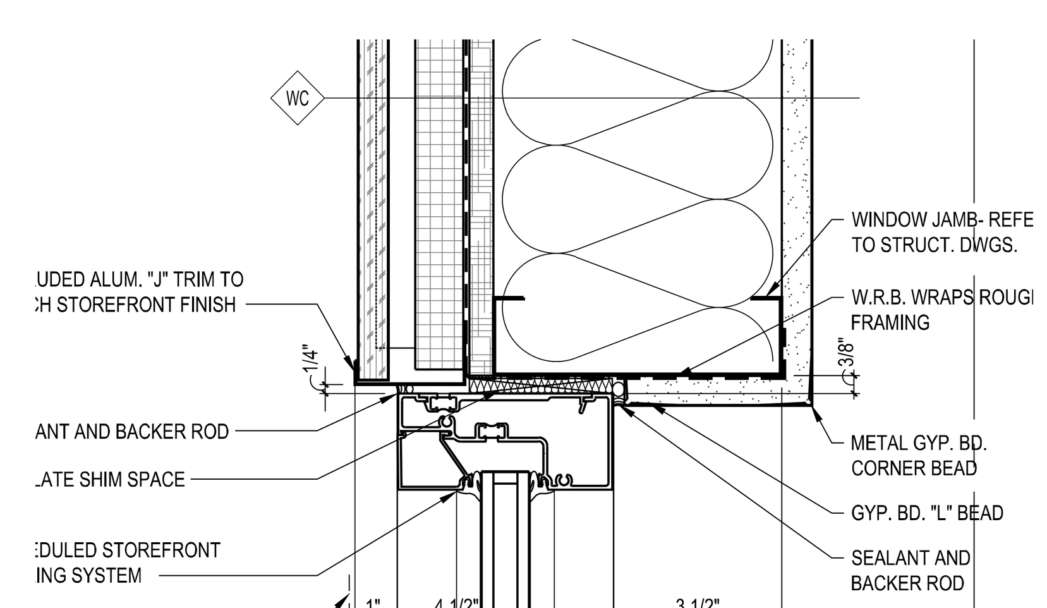
5 A5.1.3 FIBER CEMENT CORNER DETAILS
1 1/2" = 1'-0"



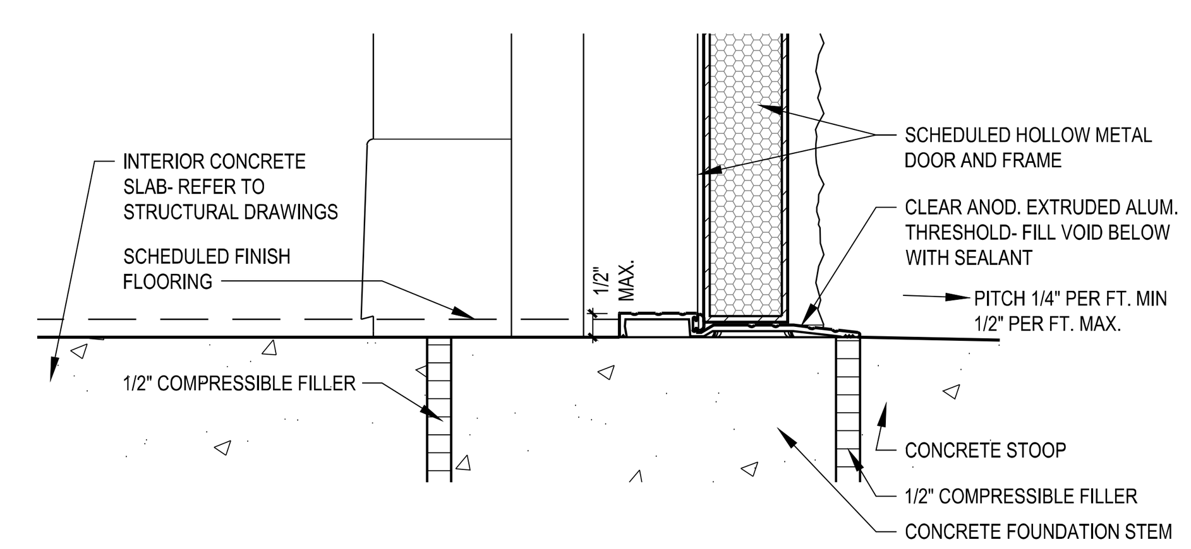
2 A5.1.3 EXTERIOR DOOR HEAD (JAMB SIMILAR)
3" = 1'-0"



9 A5.1.3 TYP. ENTRANCE CANOPY
3" = 1'-0"



4 A5.1.3 FIBER CEMENT / GLAZING JAMB
3" = 1'-0"



1 A5.1.3 EXTERIOR DOOR THRESHOLD
3" = 1'-0"

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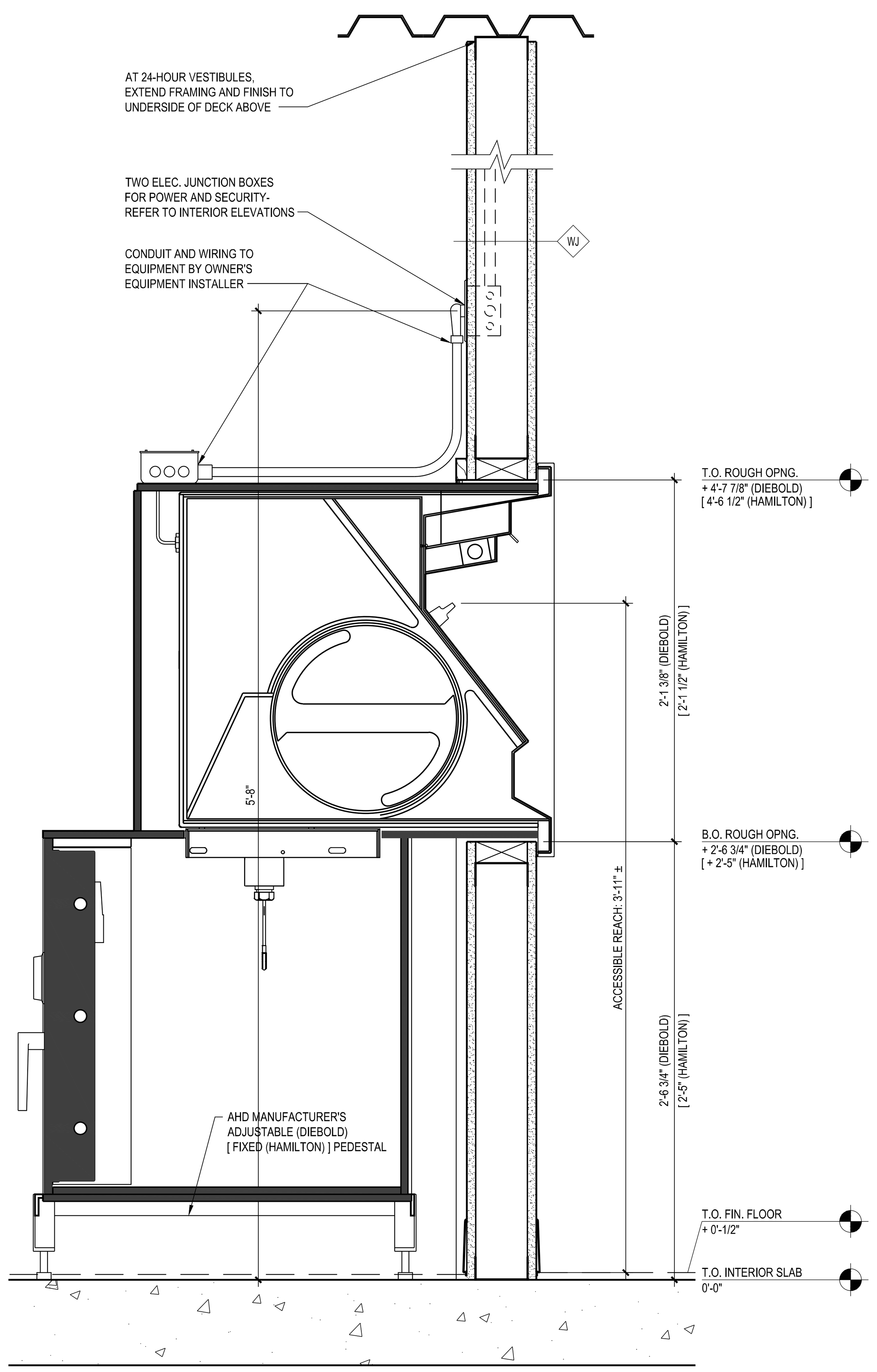
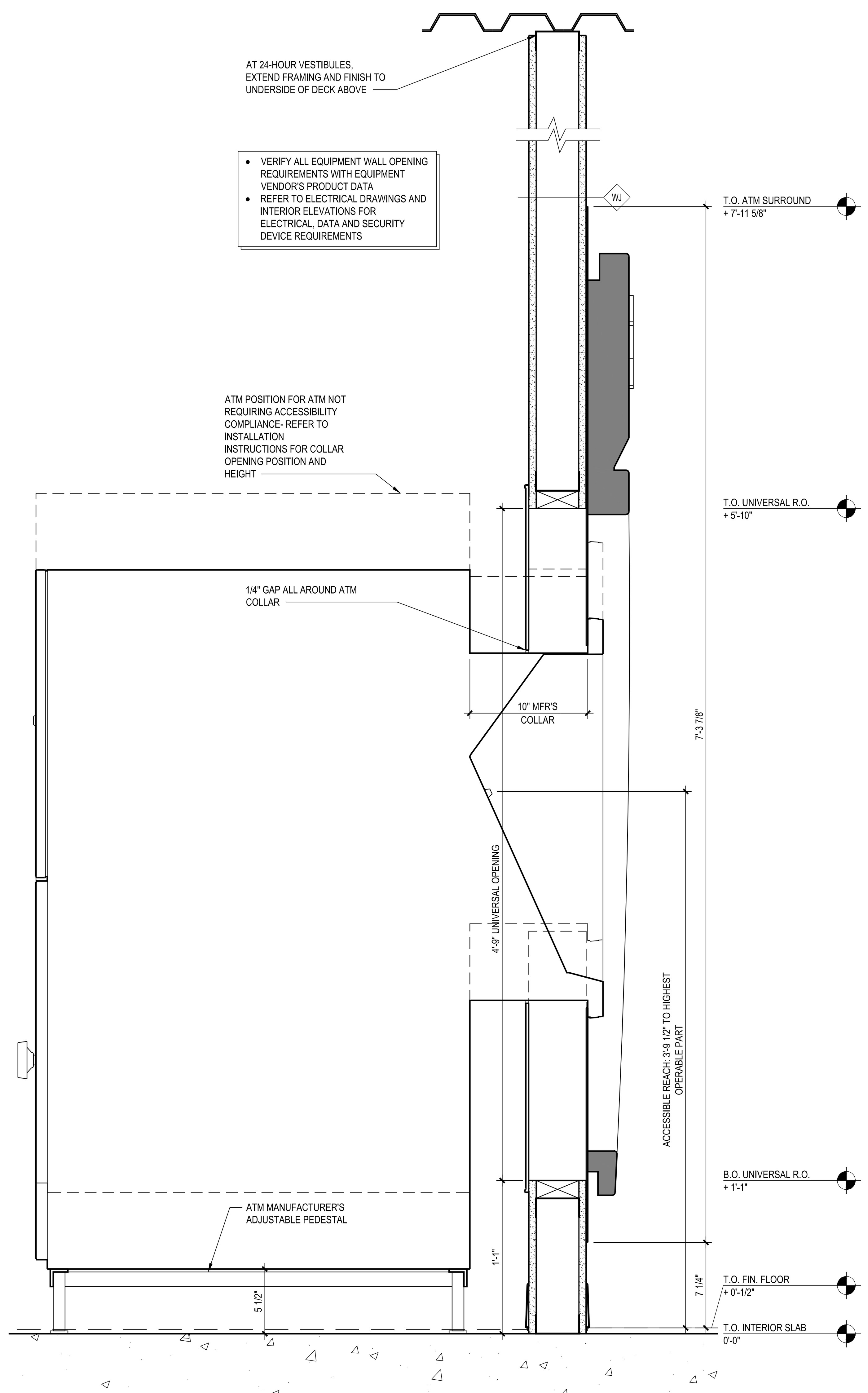
A5.1.3



3
A5.2.1
INTERIOR THROUGH-WALL AHD
1 1/2" = 1'-0"



2
A5.2.1
INTERIOR THROUGH-WALL ATM
1 1/2" = 1'-0"

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INTERIOR THROUGH-WALL ATM
INTERIOR THROUGH-WALL AHD

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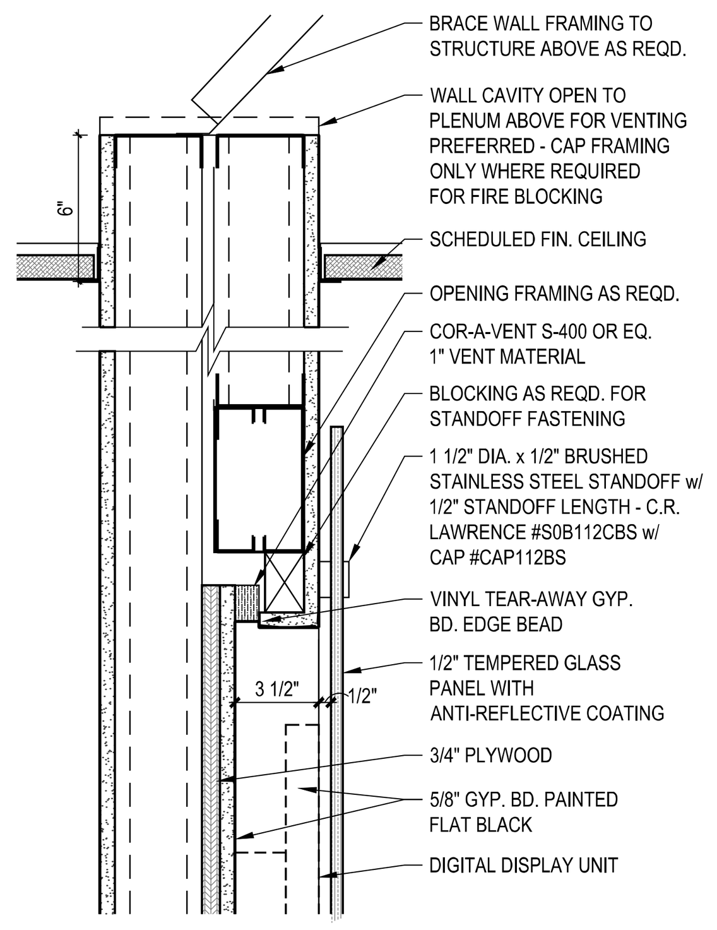
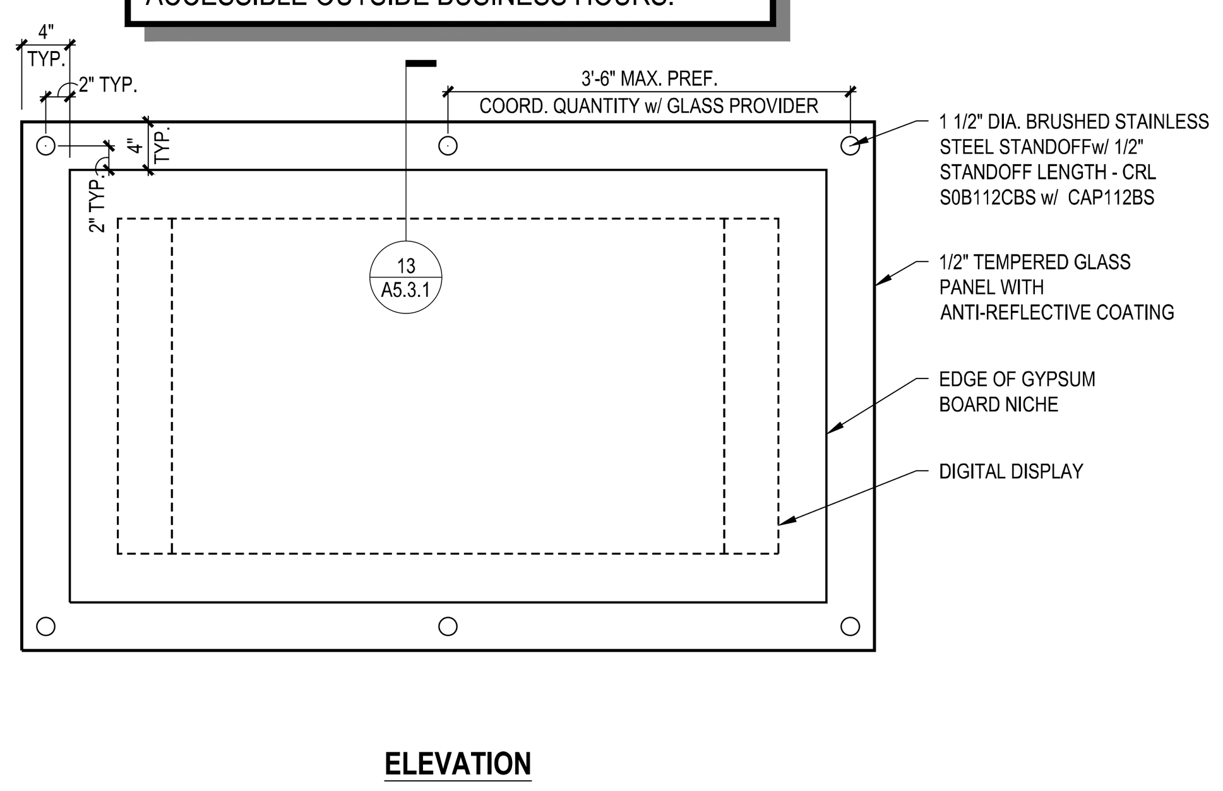
A5.2.1

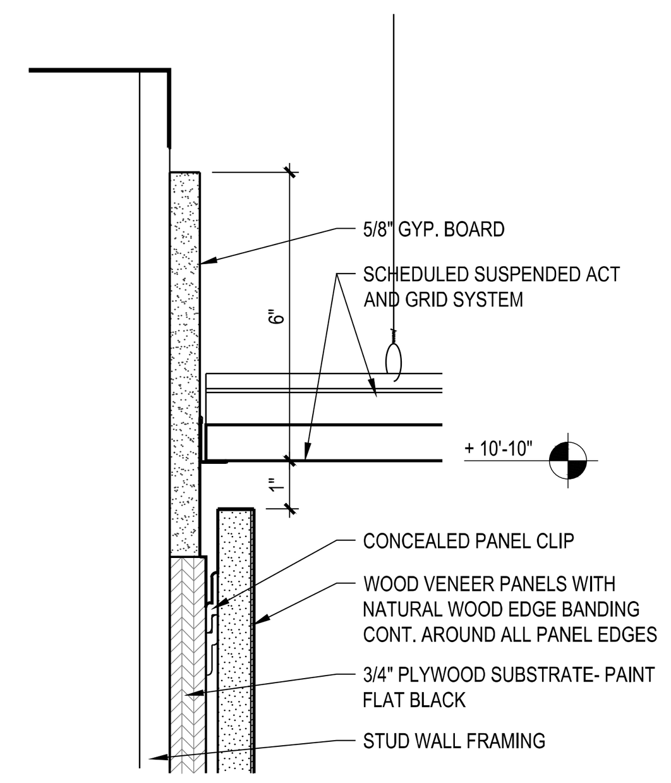


13 A5.3.1 DIGITAL DISPLAY PROTECTION
1 1/2" = 1'-0"

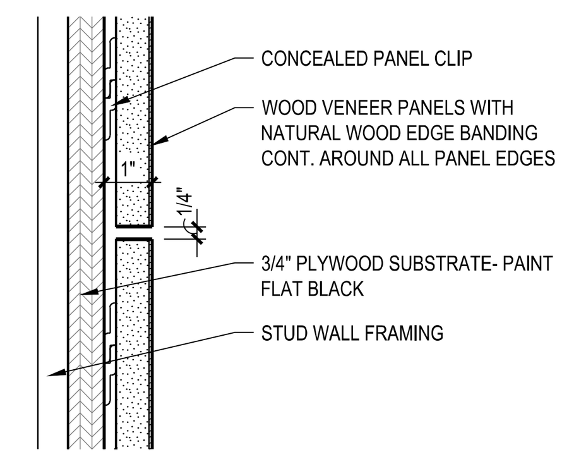
PROVIDE DIGITAL DISPLAY PROTECTION WHEN LOCATED IN ENVIRONMENTS THAT ARE ACCESSIBLE OUTSIDE BUSINESS HOURS.



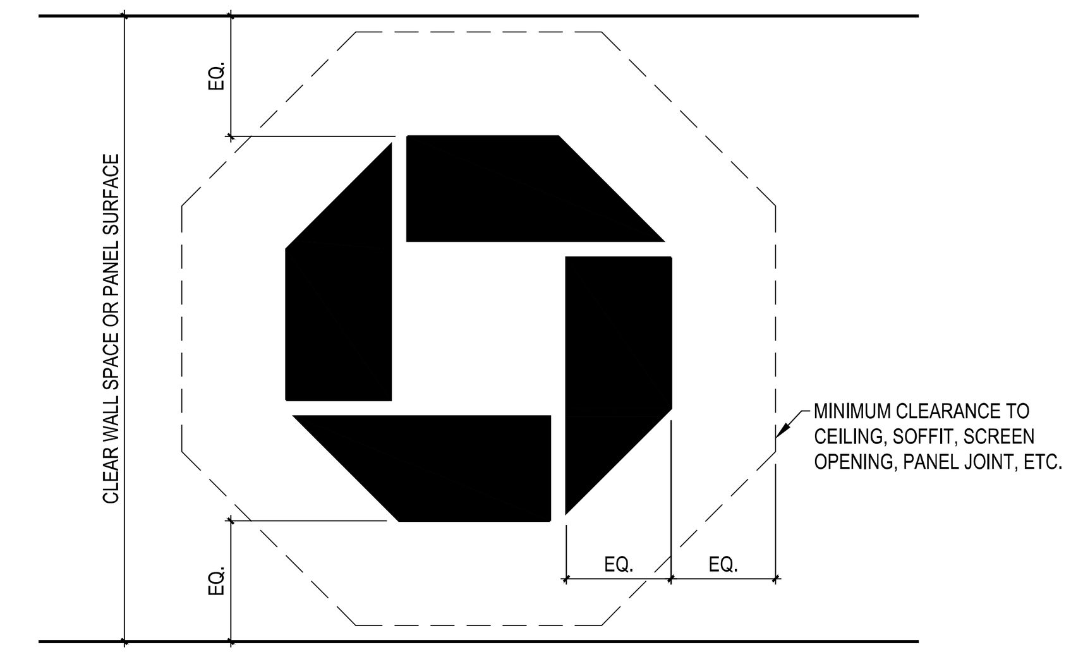
12 A5.3.1 DIGITAL DISPLAY PROTECTION
3/4" = 1'-0"



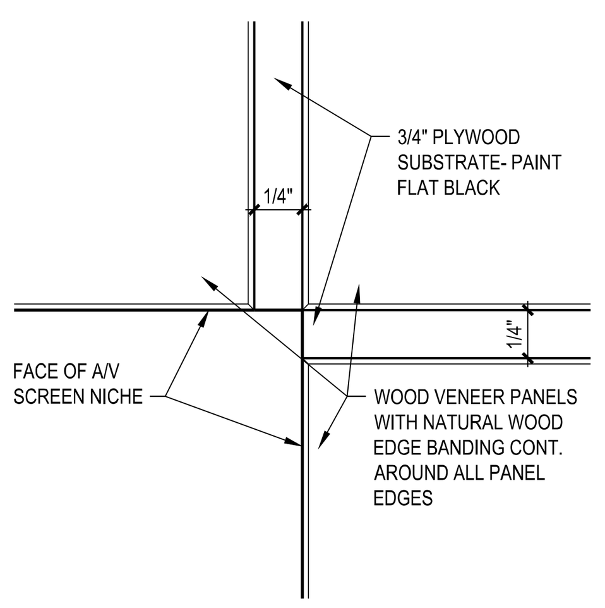
8 A5.3.1 PANEL WALL TOP
3" = 1'-0"



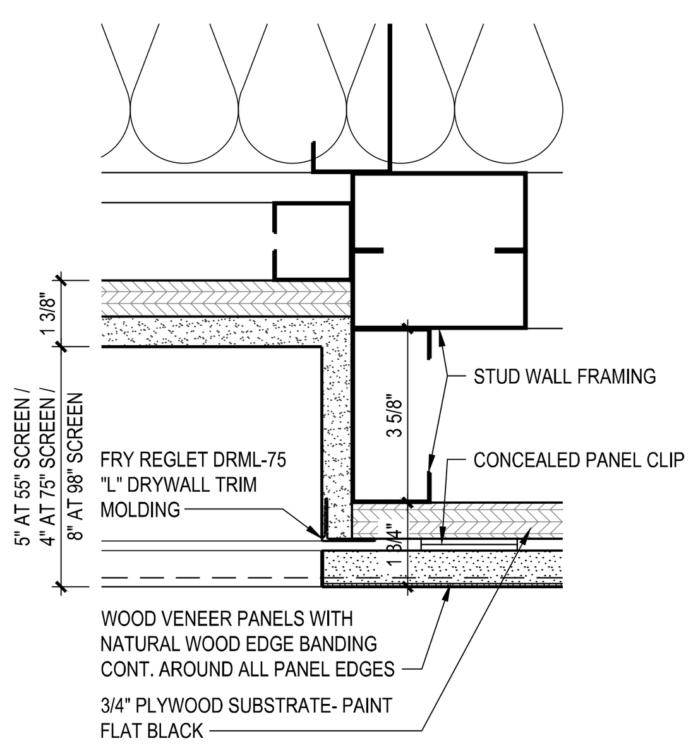
7 A5.3.1 PANEL JOINT
3" = 1'-0"



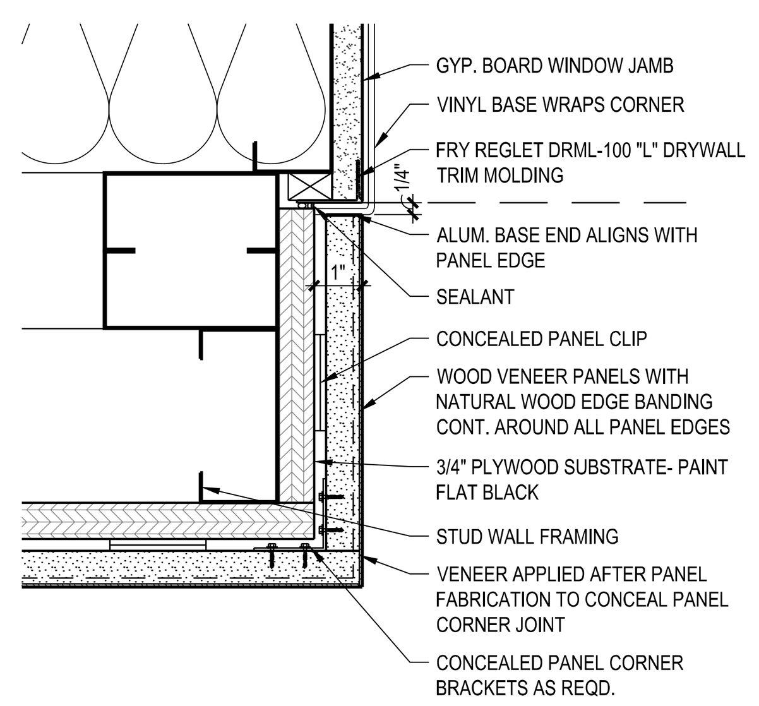
14 A5.3.1 OCTAGON MINIMUM SPACING
1 1/2" = 1'-0"



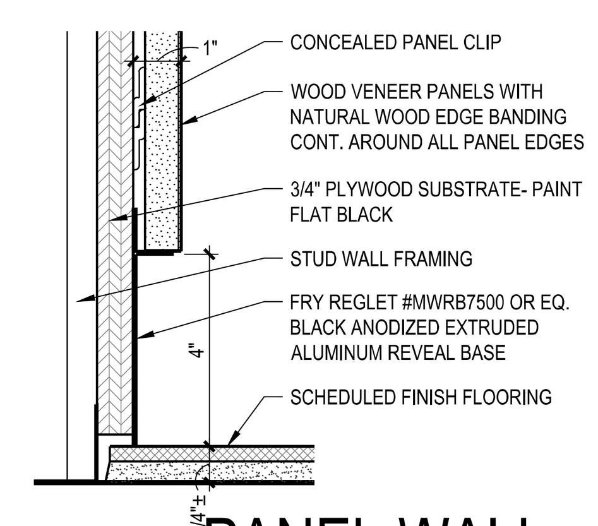
11 A5.3.1 PANEL JOINT ALIGNMENT
FULL SCALE



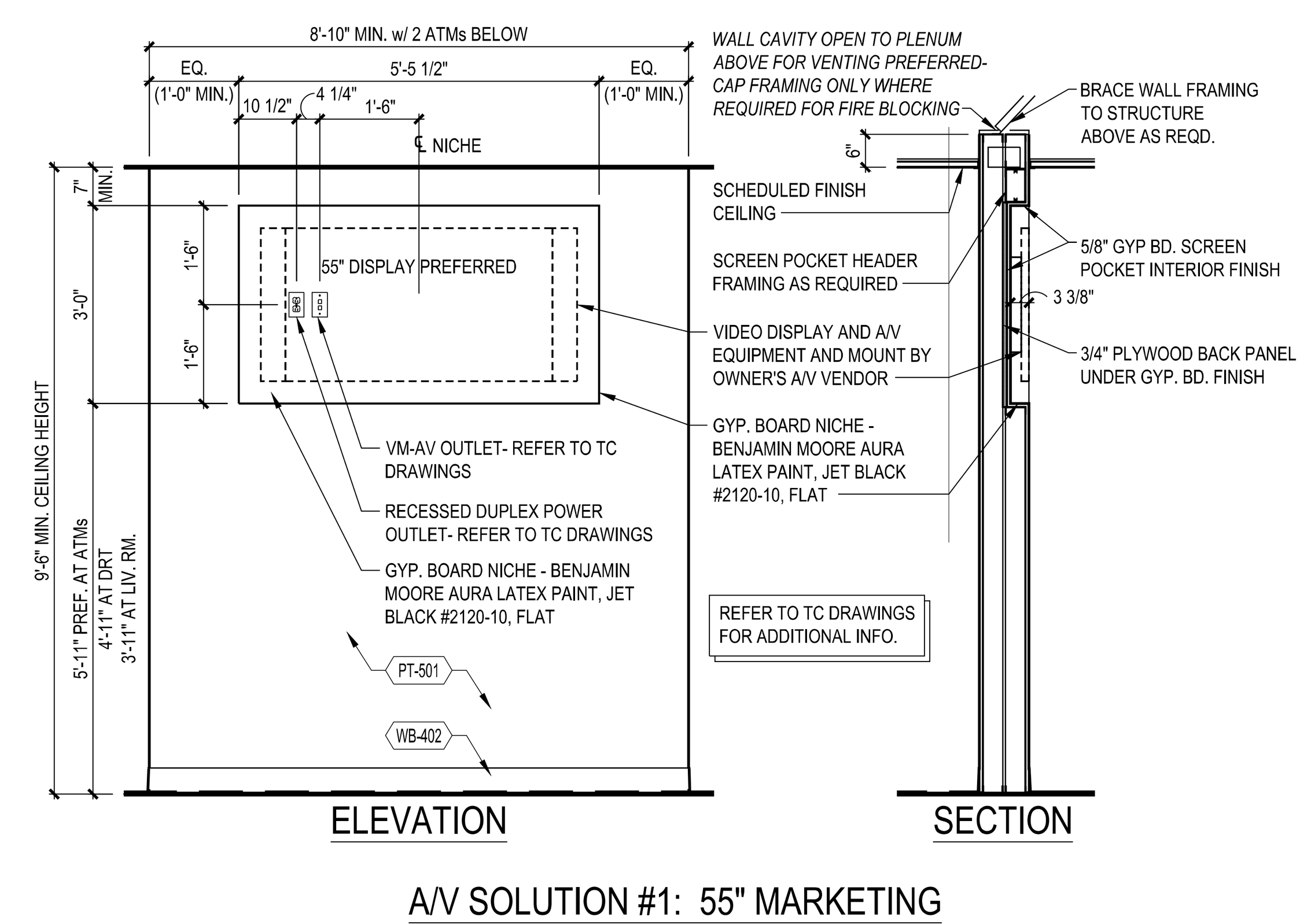
10 A5.3.1 SCREEN NICHE
3" = 1'-0"



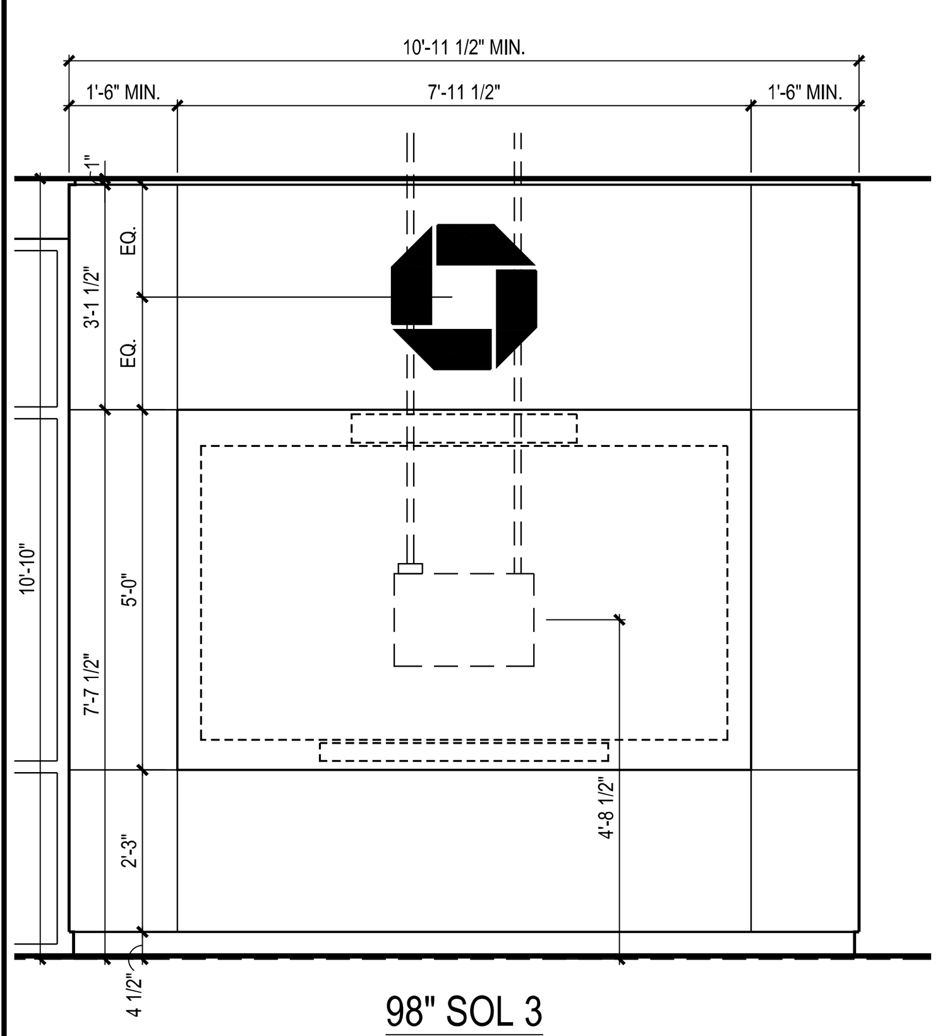
9 A5.3.1 PANEL WALL CORNER
3" = 1'-0"

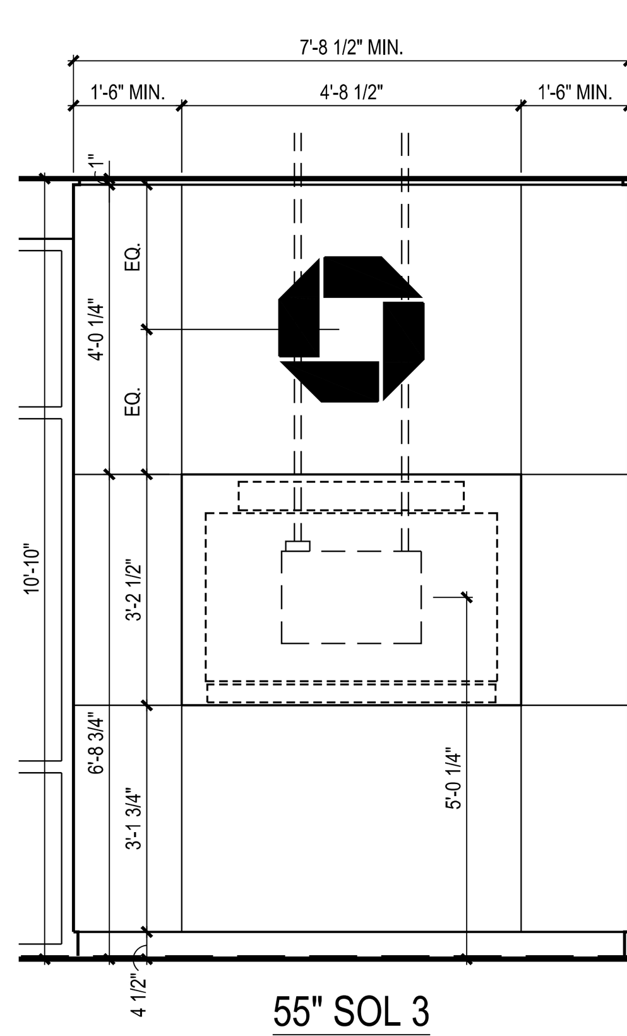


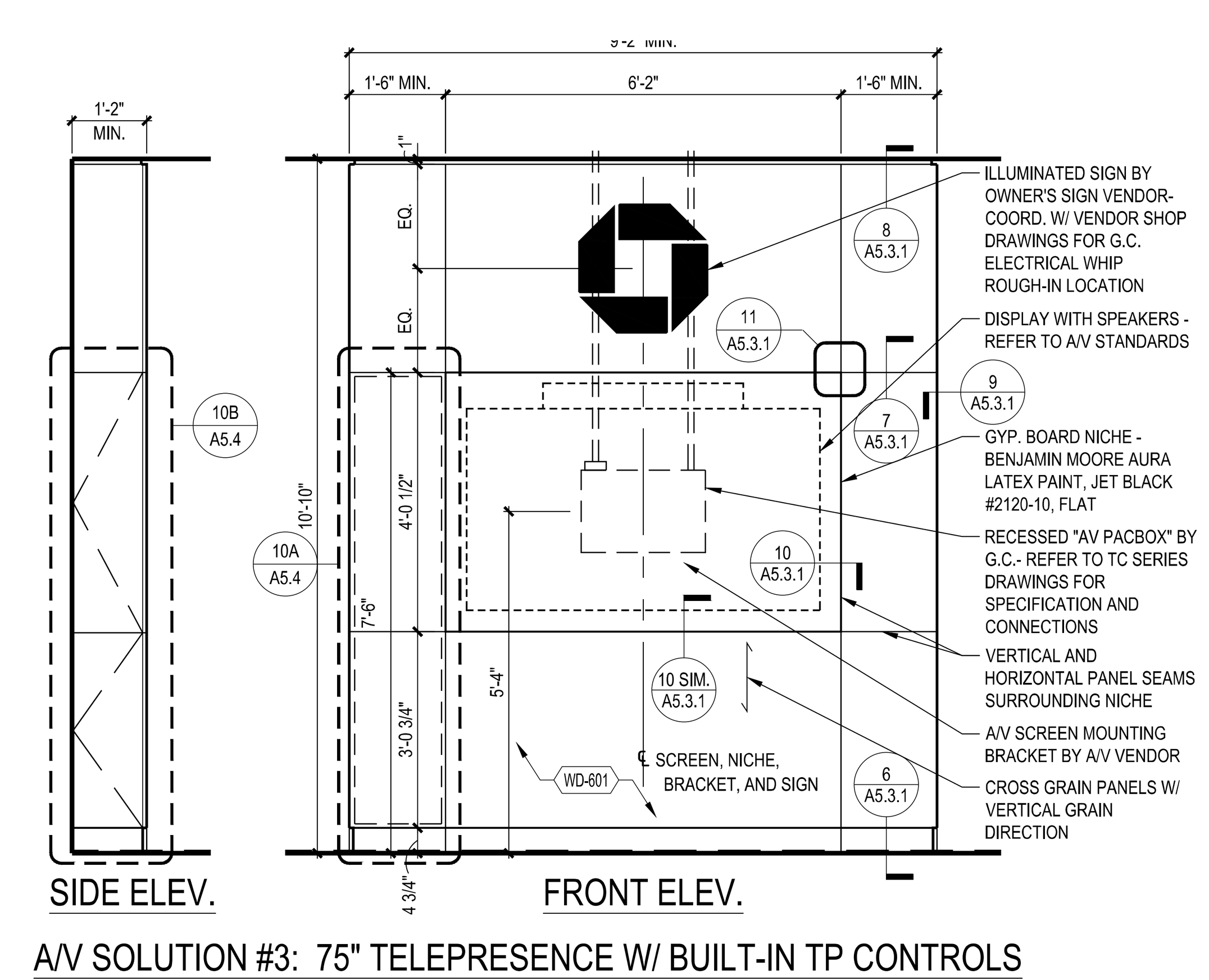
6 A5.3.1 PANEL WALL BASE
3" = 1'-0"

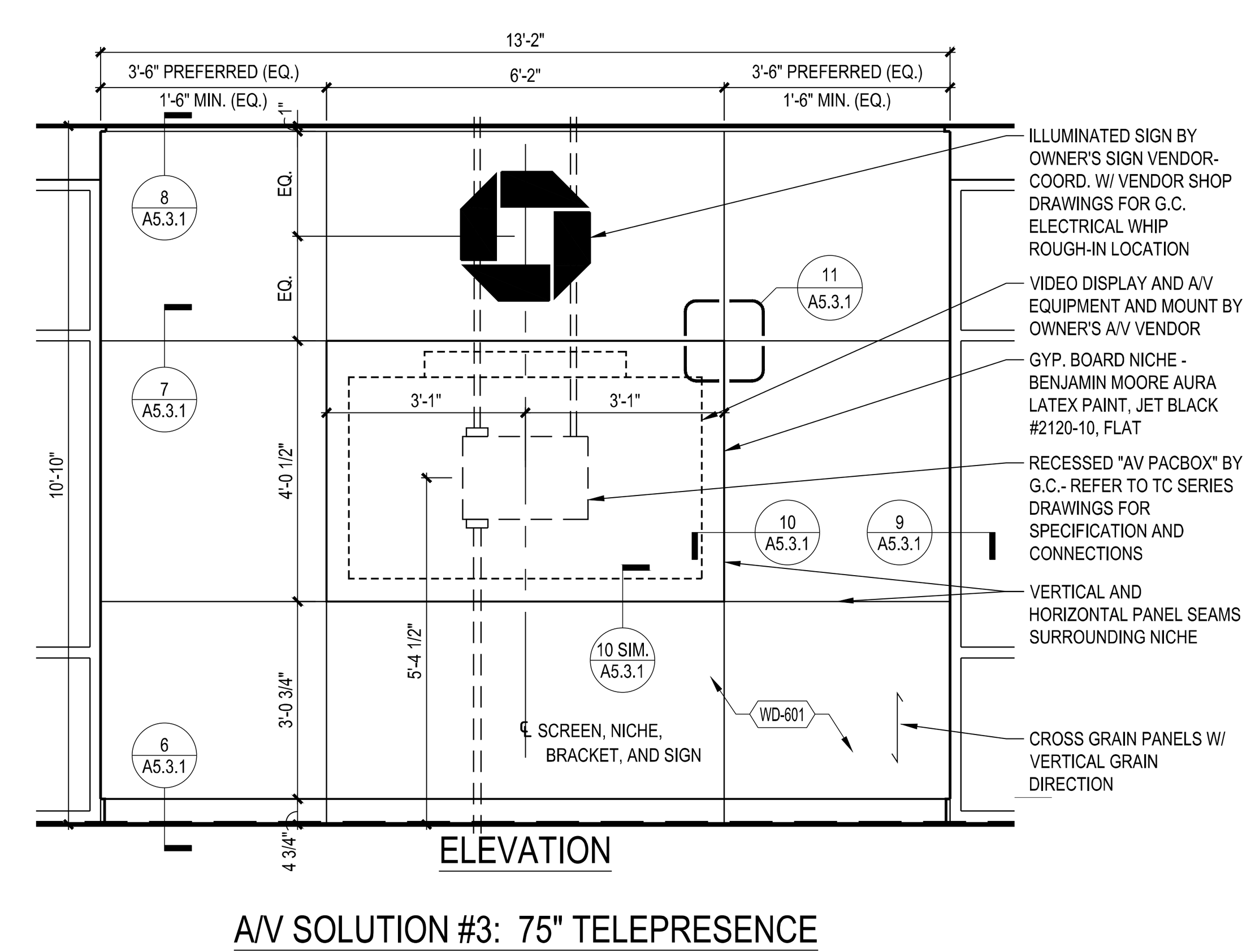


5 A5.3.1 TYPICAL A/V MARKETING WALL
3/8" = 1'-0"









4 A5.3.1 PANELED A/V TELEPRESENCE WALL
3/8" = 1'-0"

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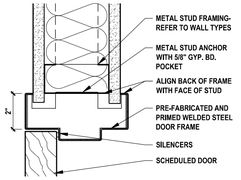
OVERHEAD COILING DOORS
DIGITAL DISPLAYS
TELEPRESENCE
MILLWORK WALL PANELS

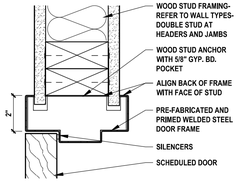
02/04/2022

SHEET

A5.3.1

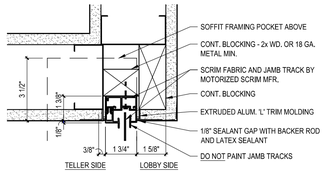


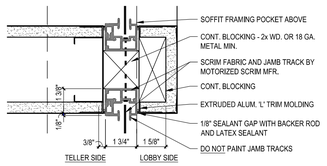
METAL FRAMING



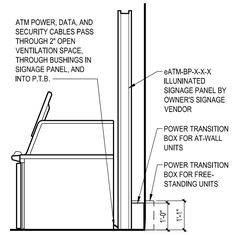
WOOD FRAMING

13 A5.3.2 **INTERIOR DOOR HEAD / JAMB SIM.**
3" = 1'-0"

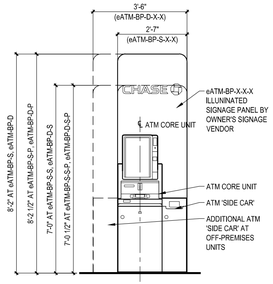




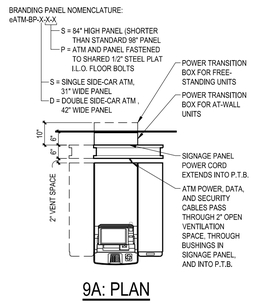
11 A5.3.2 **SCRIM JAMB**
3" = 1'-0"



9C: SIDE

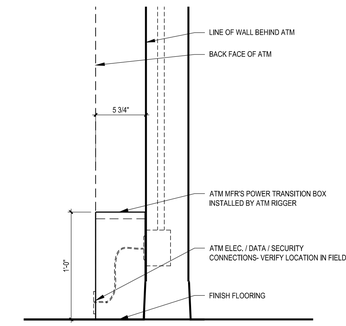


9B: FRONT

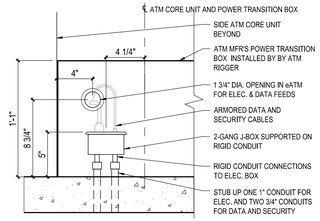


9A: PLAN

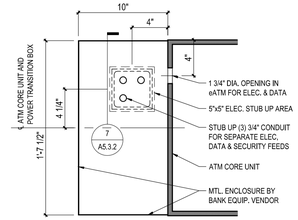
9 A5.3.2 **ATM BRANDING PANEL**
3/8" = 1'-0"



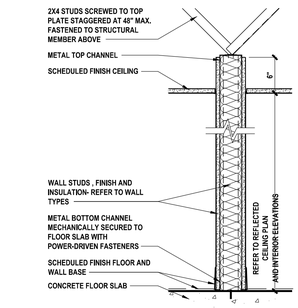
8 A5.3.2 **ATM MANUFACTURER'S POWER TRANSITION BOX**
1 1/2" = 1'=0"

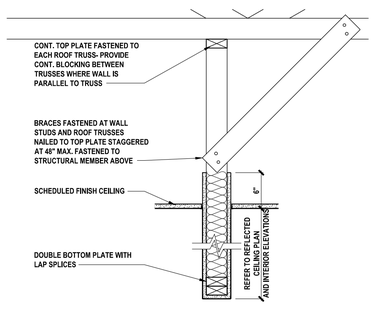


7 A5.3.2 **FREESTANDING ATM - ELEC./DATA/ SECURITY ROUGH-INS (VERT.)**
1 1/2" = 1'=0"

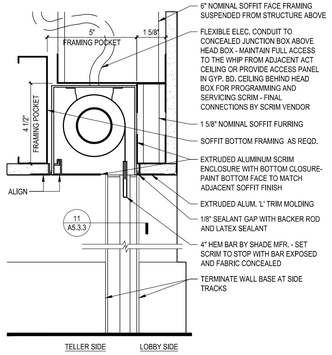


6 A5.3.2 **FREESTANDING ATM- ELEC./DATA/ SECURITY ROUGH-INS (HORIZ.)**
1 1/2" = 1'-0"

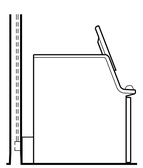


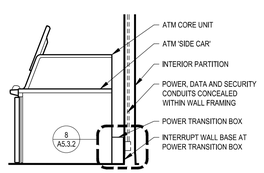


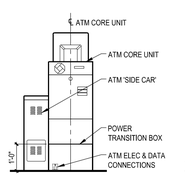
12 A5.3.2 **INTERIOR PARTITION BRACING**
1" = 1'-0"

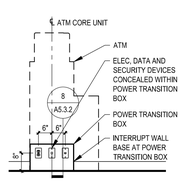


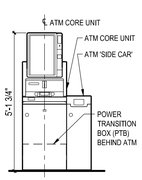
10 A5.3.2 **SCRIM HEAD**
3" = 1'-0"



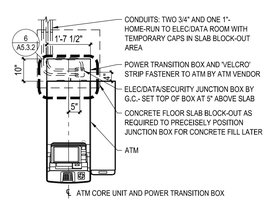




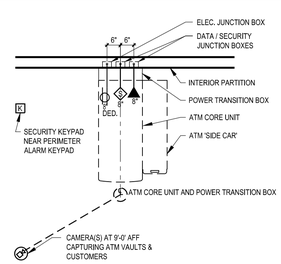




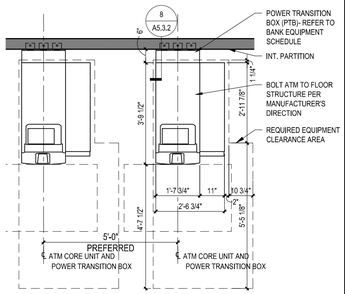
4 A5.3.2 **ATM v3.0 ELEVATIONS- AGAINST WALL**
3/8" = 1'-0"



3 A5.3.2 **ATM v3.0 PLAN- FREESTANDING**
3/8" = 1'-0"



2 A5.3.2 **ATM v3.0 ELEC./ DATA/SEC. PLAN**
3/8" = 1'-0"



1 A5.3.2 **ATM v3.0 FLOOR PLAN**
3/8" = 1'-0"

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LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

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PRYOR & LOWENSTEIN
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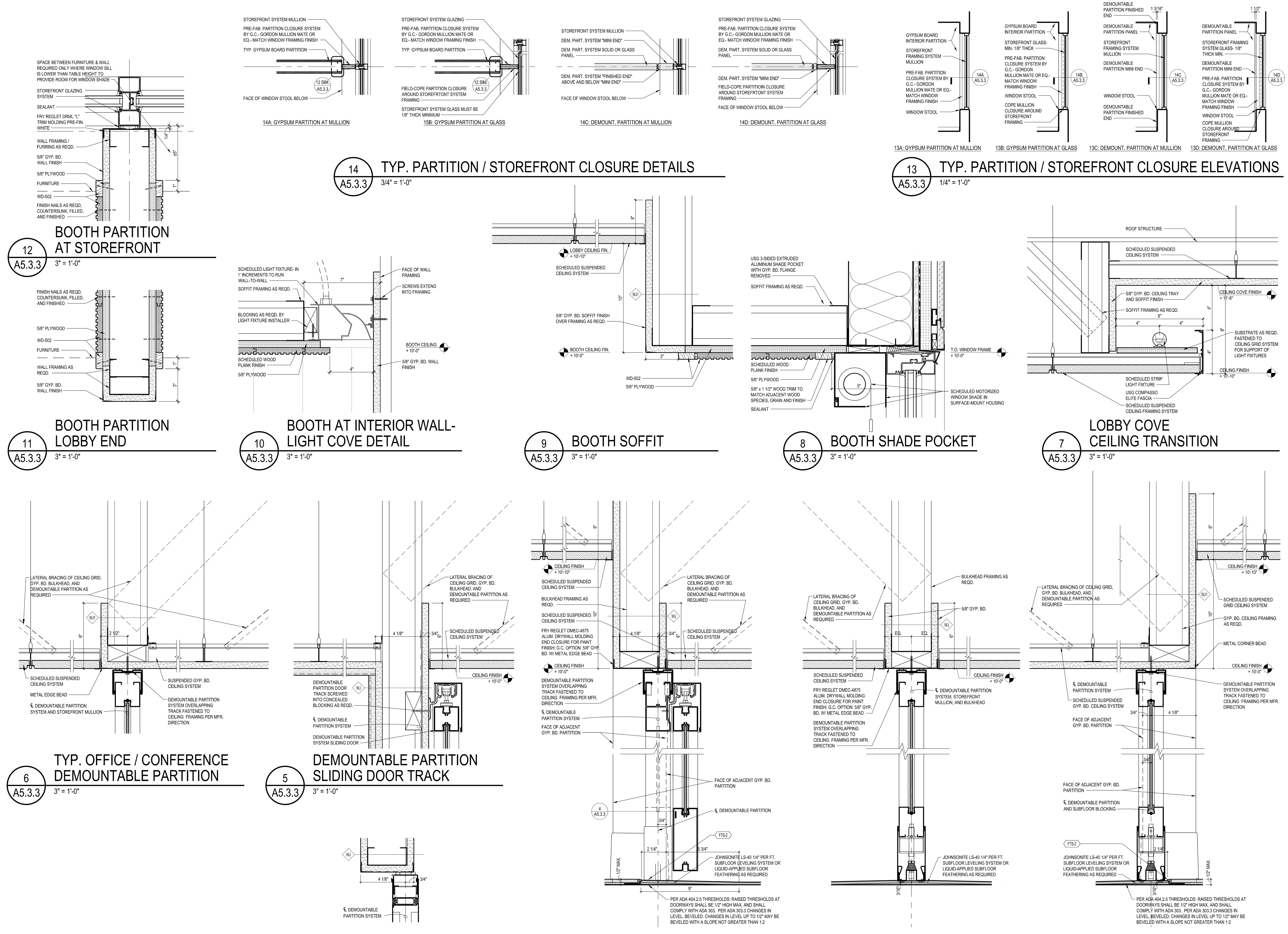
INTERIOR DETAILS:
FREESTANDING ATMs
PARTITION BRACING
INTERIOR DOORS
SCRIM, SHADE POCKET

02/04/2022

SHEET

A5.3.2



14 A5.3.3 TYP. PARTITION / STOREFRONT CLOSURE DETAILS
3/4" = 1'-0"

13 A5.3.3 TYP. PARTITION / STOREFRONT CLOSURE ELEVATIONS
1/4" = 1'-0"

12 A5.3.3 BOOTH PARTITION AT STOREFRONT
3" = 1'-0"

11 A5.3.3 BOOTH PARTITION LOBBY END
3" = 1'-0"

10 A5.3.3 BOOTH AT INTERIOR WALL- LIGHT COVE DETAIL
3" = 1'-0"

9 A5.3.3 BOOTH SOFFIT
3" = 1'-0"

8 A5.3.3 BOOTH SHADE POCKET
3" = 1'-0"

7 A5.3.3 LOBBY COVE CEILING TRANSITION
3" = 1'-0"

6 A5.3.3 TYP. OFFICE / CONFERENCE DEMOUNTABLE PARTITION
3" = 1'-0"

5 A5.3.3 DEMOUNTABLE PARTITION SLIDING DOOR TRACK
3" = 1'-0"

4 A5.3.3 TYP. GYPSUM JAMB AT DEMOUNTABLE PARTITION
3" = 1'-0"

3 A5.3.3 TYP. OFFICE / LOBBY DOOR AT DEMOUNTABLE PARTITION
3" = 1'-0"

2 A5.3.3 TYP. OFFICE / OFFICE DEMOUNTABLE PARTITION
3" = 1'-0"

1 A5.3.3 TYP. CONFERENCE / LOBBY PARTITION
3" = 1'-0"

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3/2/2022

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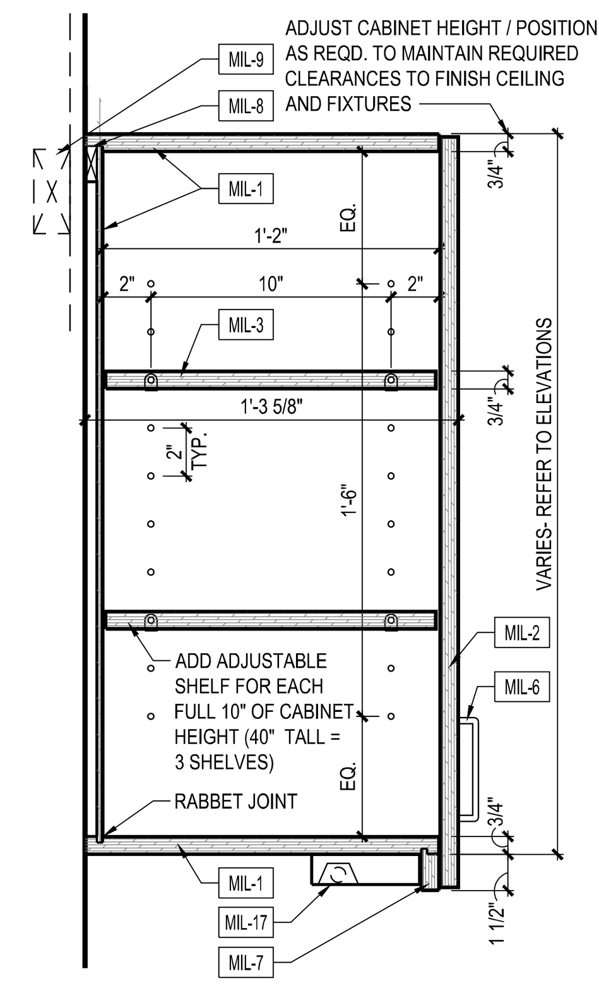
A5.3.3

CUSTOM CABINET NOTES

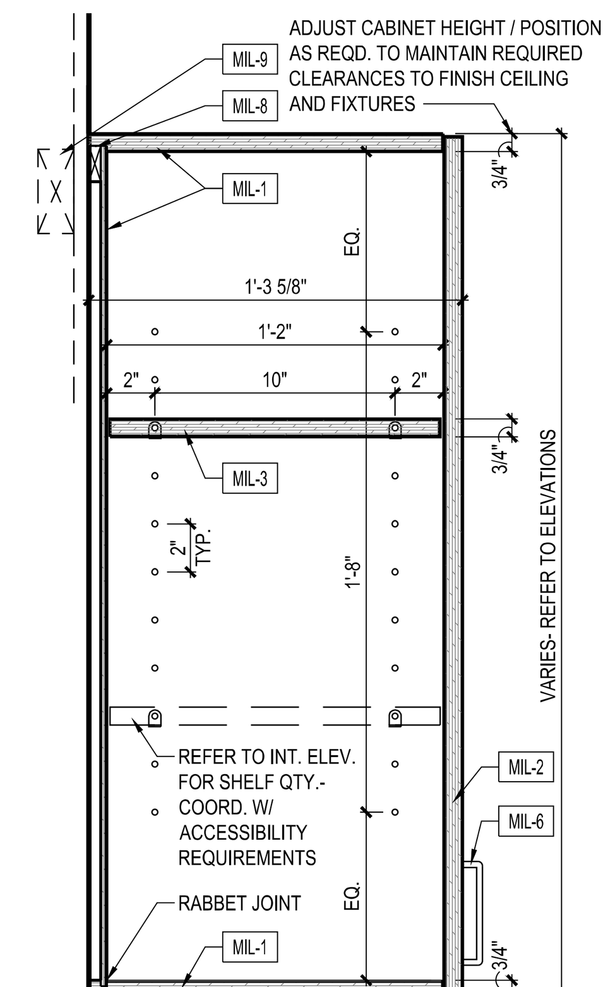
SUBMIT SHOP DRAWINGS AND MATERIALS TO ARCHITECT OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION

REFER TO INTERIOR FINISH MATERIALS SCHEDULE FOR LAMINATE SPECIFICATIONS

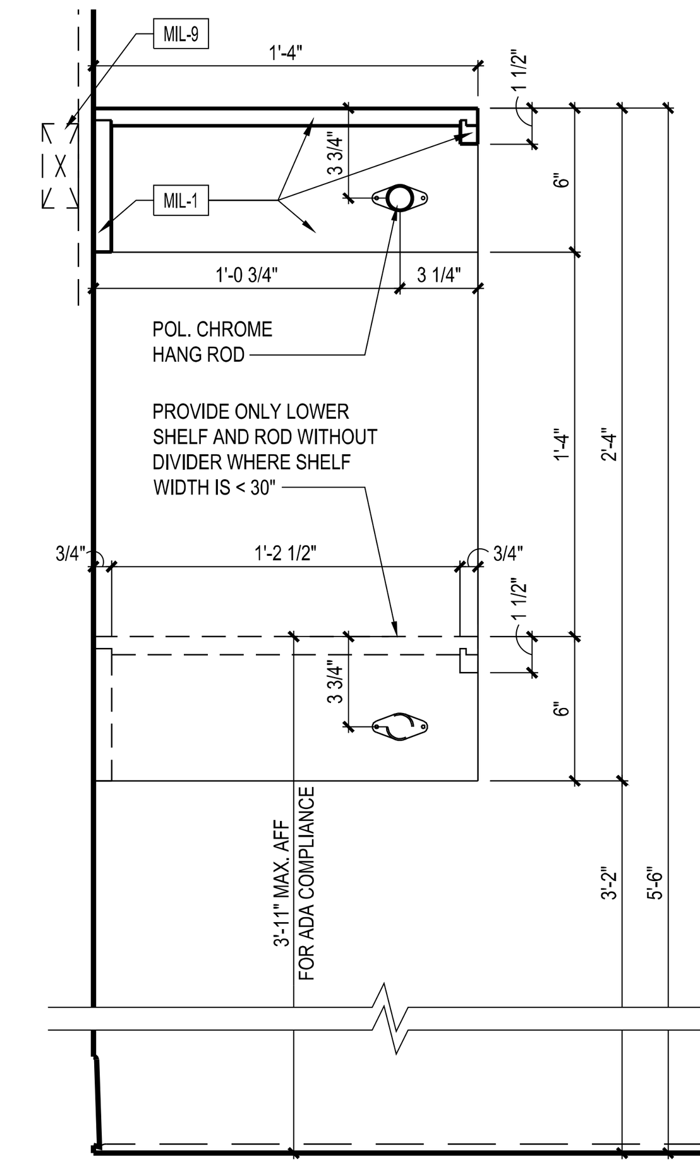
MIL-1	CABINET TOP / BOTTOM / SIDE PANEL: 3/4" PLASTIC LAMINATE MDF ALL EXPOSED SURFACES - INTERIOR SURFACES WHITE MELAMINE
MIL-2	CABINET DOOR: 3/4" PLASTIC LAMINATE MDF ALL 6 FACES
MIL-3	ADJUSTABLE SHELF: 3/4" PLASTIC LAMINATE MDF ALL 6 FACES - PROVIDE FOUR 5MM NICKEL-PLATED SPOON-SHAPED PINS EACH SHELF-DRILL 5MM HOLES IN CABINET SIDE PANELS AS NOTED
MIL-4	CABINET BACK: 1/4" PLASTIC LAMINATE MDF EXPOSED FACE
MIL-5	SURFACE-MOUNT ELECTRICAL / DATA RACEWAY
MIL-6	WIRE PULL
MIL-7	LIGHT VALENCE: 3/4" PLASTIC LAMINATE MDF EXPOSED FACES
MIL-8	CONTINUOUS WOOD CLEAT: SIZE AS REQUIRED-PAINT TO MATCH ADJACENT WALL SURFACE
MIL-9	WOOD BLOCKING AS REQUIRED
MIL-10	COUNTER TOP: REFER TO INTERIOR FINISH MATERIALS SCHEDULE
MIL-11	COUNTER SPLASH: MATCH COUNTER TOP MATERIAL
MIL-12	COUNTER APRON: MATCH COUNTER TOP MATERIAL
MIL-13	DRAWER BACK / SIDE / SUB-FRONT: 1/2" WHITE MELAMINE MDF
MIL-14	DRAWER BOTTOM: 1/4" WHITE MELAMINE MDF
MIL-15	DRAWER SLIDE: FULL-EXTENSION BALL-BEARING
MIL-16	COUNTER EDGE SUPPORT: CONT. STEEL ANGLE BOLTED TO SOLID WOOD BLOCKING CONCEALED WITHIN WALLS- RE-PRIME FOLLOWING INSTALLATION
MIL-17	SCHEDULED LIGHT FIXTURE
MIL-18	TOE-KICK: 1/2" MINIMUM PLASTIC LAMINATE MDF- COLOR AND PATTERN TO MATCH CABINET PANELS
MIL-19	ELECTRICAL / DATA ROUGH-IN AND COVER PLATE
MIL-20	SINK APRON: 3/4" PLASTIC LAMINATE MDF
MIL-21	COUNTER EQUIPMENT SUPPORT: 1 1/2" x 1 1/2" x 1/4" STEEL ANGLE BOLTED TO CABINET BACK , SIDES AND APRON - PRIME AND PAINT TO MATCH CABINET COLOR
MIL-22	GROMMET: MOCKET #BRKIT 12" BLACK LINEAR BRUSH GROMMET
MIL-23	GROMMET: MOCKET #BG 1 1/2" ROUND BLACK PLASTIC GROMMET
MIL-24	COUNTER SUPPORT: 3/4" THICK PLASTIC LAMINATE MDF PANEL MATCHING COUNTER DEPTH- QUANTITY AND POSITIONS AS REQUIRED TO ENSURE MAX. COUNTER DEFLECTION OF L/768 (1/8" OVER 8')
MIL-25	CABINET TOP / BOTTOM / SIDE / DOOR PANEL: 3/4" PLASTIC LAMINATE MDF ALL SURFACES EXPOSED TO VIEW, INCLUDING INTERIOR- REFER TO INTERIOR FINISH SCHEDULE FOR LAMINATE SPECIFICATION
MIL-26	SOLID SURFACE COUNTER: 2" BUILT-UP FRONT EDGES, OPENINGS, AND VERTICAL PANELS, ALL CONTACT EDGES EASED- REFER TO INTERIOR FINISH SCHEDULE FOR MATERIAL SPECIFICATION
MIL-27	REFUSE CAN TRAY, 36-QT PLASTIC CAN, AND DRAWER GLIDES ATTACHED TO CABINET BOTTOM AND DRAWER PANELS
MIL-28	OPEN COUNTER SUPPORT BRACKET: CENTERLINE BRACKETS #CSA-004-20, COLOR WHITE- 24" MAX. O.C.- CUT MINIMAL OPENING IN WALL FINISH AS REQD, LAG-SCREW TO WALL STUDS OR BLOCKING- PATCH WALL FINISH OPENING
MIL-29	ELECTRICAL / DATA OUTLETS: COORD. WITH ELECTRICIAN TO PROVIDE MUD RING OF SUFFICIENT DEPTH TO REACH CABINET BACK- INSTALL OVER PLATES OVER CABINET BACK
MIL-30	CONTINUOUS COUNTER UNDERLAYMENT: 3/4" PLYWOOD- PROVIDE WHITE PLASTIC LAMINATE FACE AT UNDERSIDE OF OPEN COUNTER SECTIONS
MIL-31	STOP: 1/2" x 3/4" EASED-EDGE PAINT GRADE-WOOD
MIL-32	CABINET PULL: AMEROCK #BP55364G10 'RIVA' IN SATIN NICKEL, 3" CTC
MIL-33	HARDWOOD FIN: 1" x 3 1/2" AND 2" x 9 1/4" SOLID AND VENEER NATURAL RED OAK FOR STAIN AND CLEAR FINISH- REFER TO FINISH MATERIALS SCHEDULE- MITER CORNERS OF ASSEMBLIES TO CONCEAL JOINTS
MIL-34	PAINTED CABINET BACK: 1/2" MDF FOR PAINT FINISH- REFER TO FINISH MATERIAL SHEDULE FOR PAINT SPECIFICATIONS
MIL-35	FIN PLINTH: SOLID RED OAK FOR STAIN AND CLEAR FINISH PER MATERIALS FINISH SCHEDULE- APPLY FACE BOARD WITH MINIMAL FINISH NAILS TO FACILITATE REPLACEMENT
MIL-36	SACRIFICIAL BASE: 1/2" x 4" SOLID RED OAK FOR STAIN AND CLEAR FINISH- APPLY WITH MINIMAL FINISH NAILS TO FACILITATE REPLACEMENT
MIL-37	REFUSE OPENING: 4" DIAM. HOLE WITH 2" BUILT-UP EASED EDGE
MIL-38	FACE-FRAME CABINET SIDE PANEL: EXTENDED 3/4" PLASTIC LAMINATE MDF CABINET SIDE PANEL AND FACE ALIGNED WITH HARDWOOD FIN ABOVE
MIL-39	FIXED DRAWER SHELF: PLASTIC LAMINATE



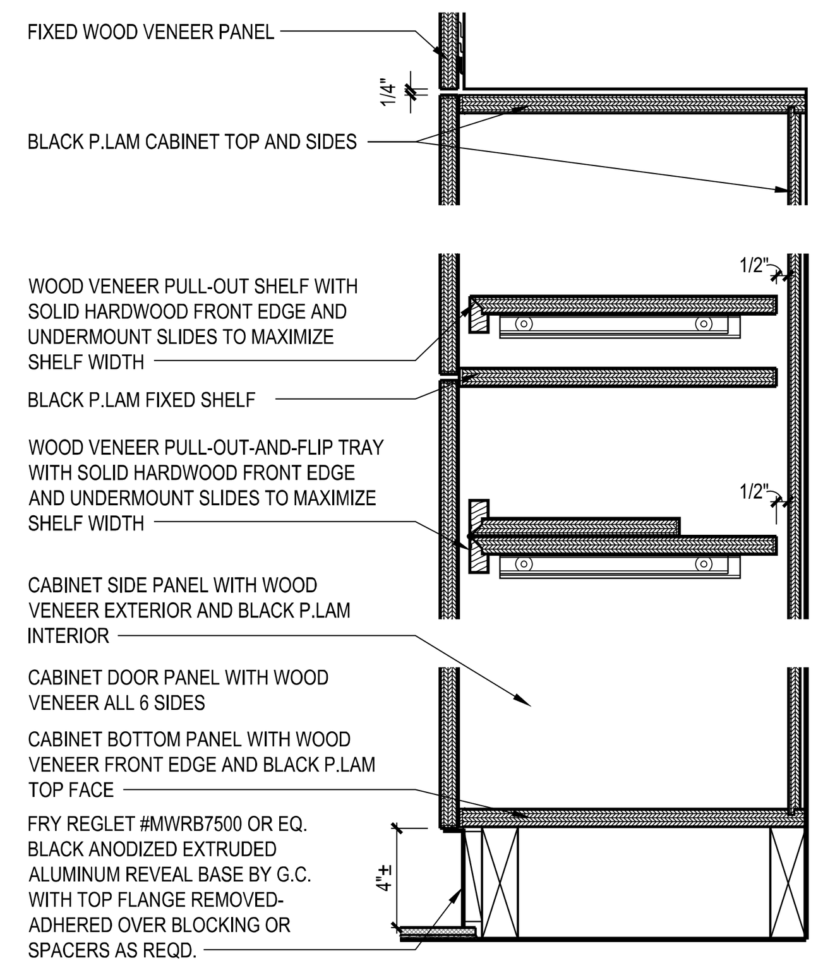
9 A5.4 WALL CABINET W/ DOORS AND LIGHT FIXTURE
1 1/2" - 1'-0"



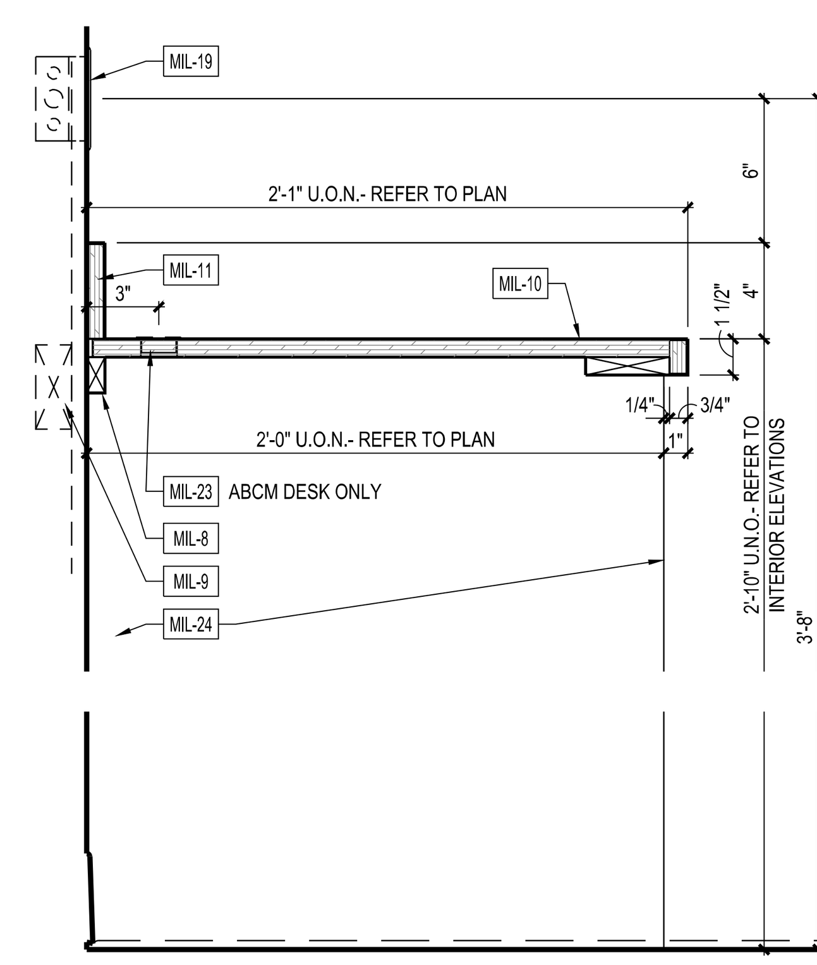
8 A5.4 WALL CABINET W/ DOORS
1 1/2" - 1'-0"



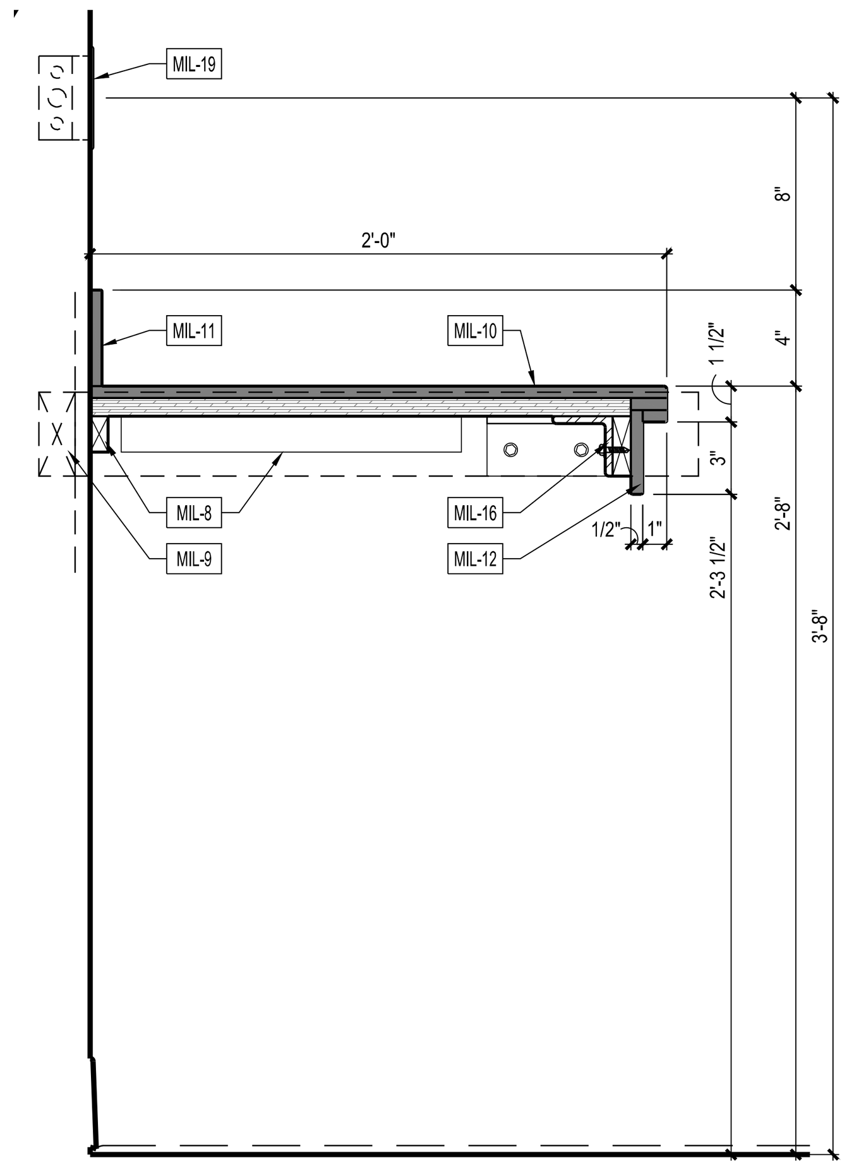
6 A5.4 HANG ROD AND SHELF
1 1/2" - 1'-0"



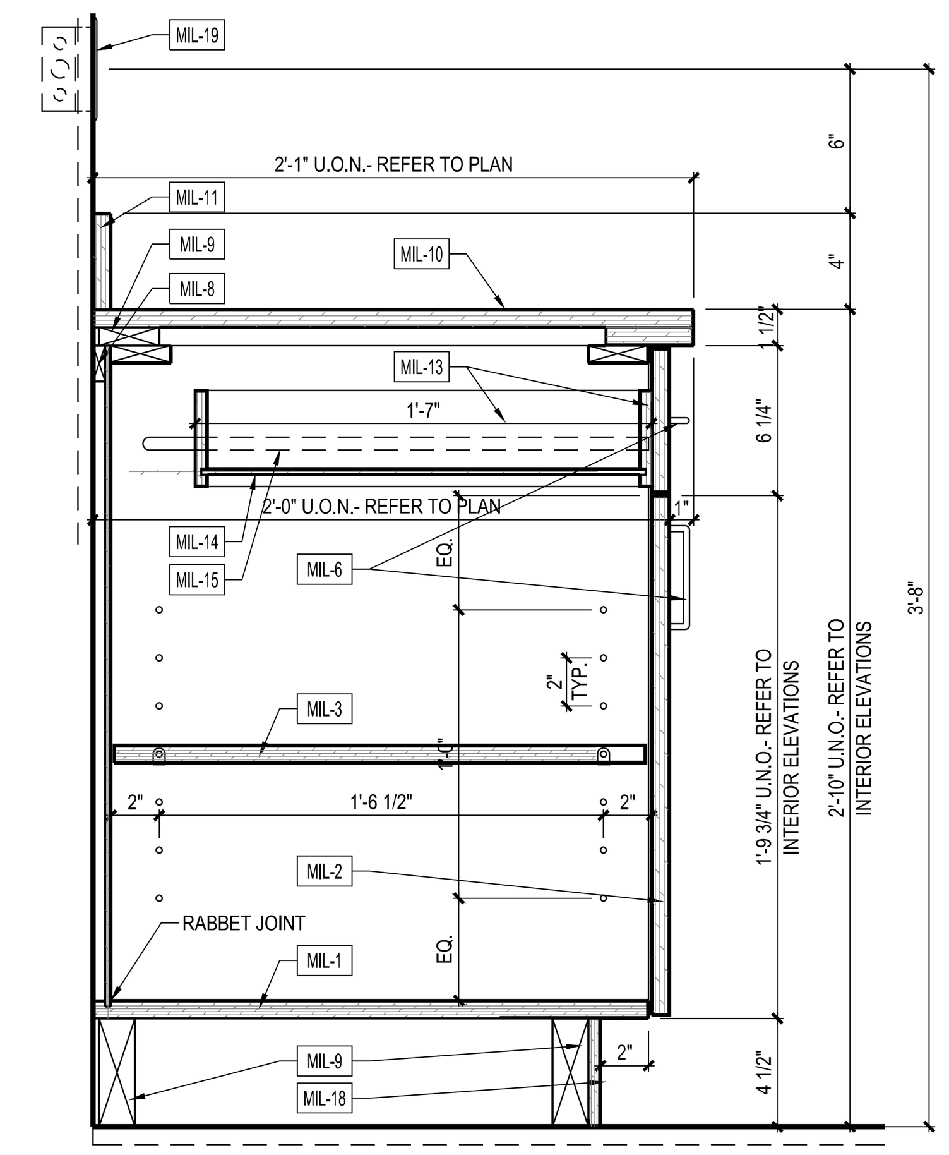
11 A5.4 AV CABINET
1 1/2" - 1'-0"



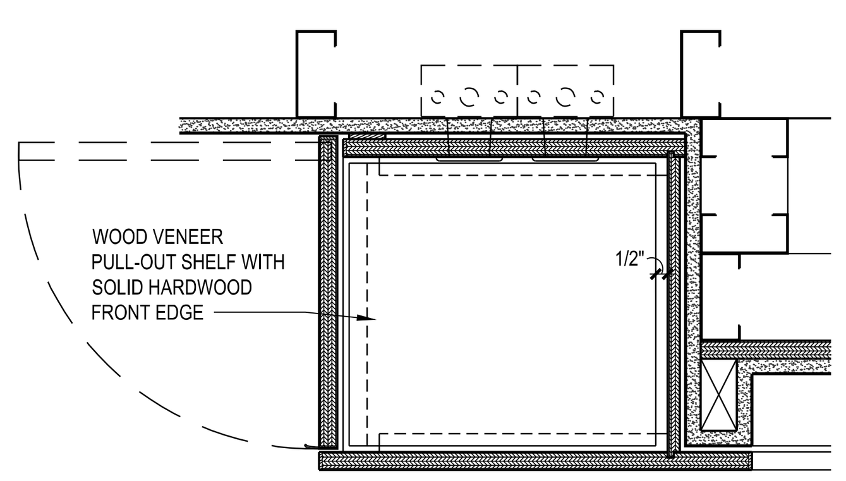
5 A5.4 OPEN LAMINATE COUNTER
1 1/2" - 1'-0"



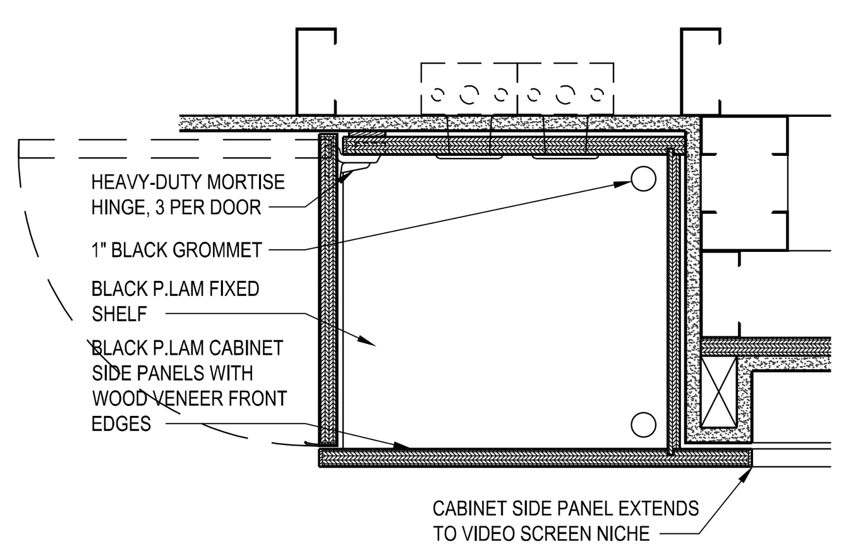
4 A5.4 SDB VIEWING ROOM COUNTER
1 1/2" - 1'-0"



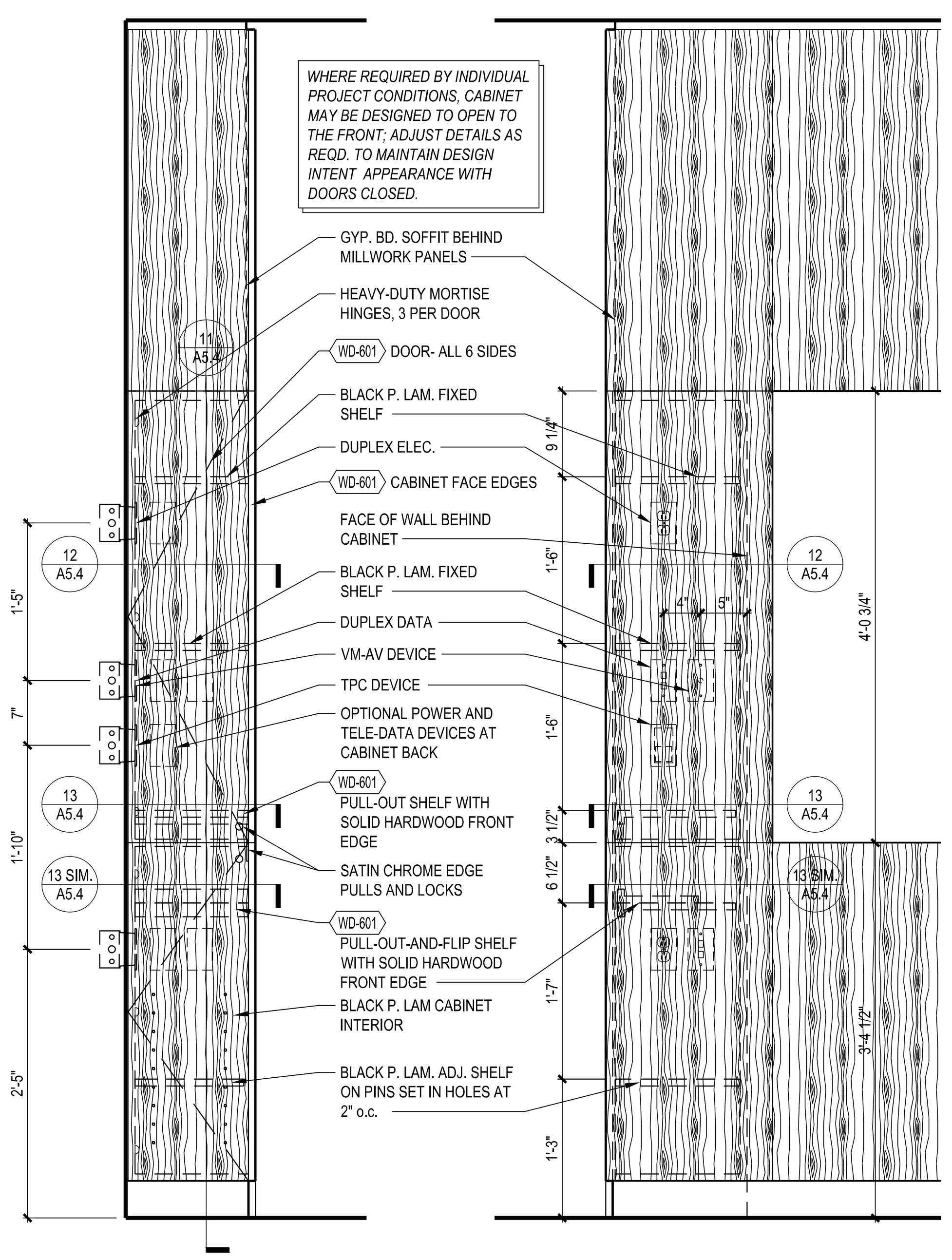
3 A5.4 DOOR / DRAWER BASE CABINET
1 1/2" - 1'-0"



13 A5.4 AV CABINET PULL-OUT TRAY
1 1/2" - 1'-0"



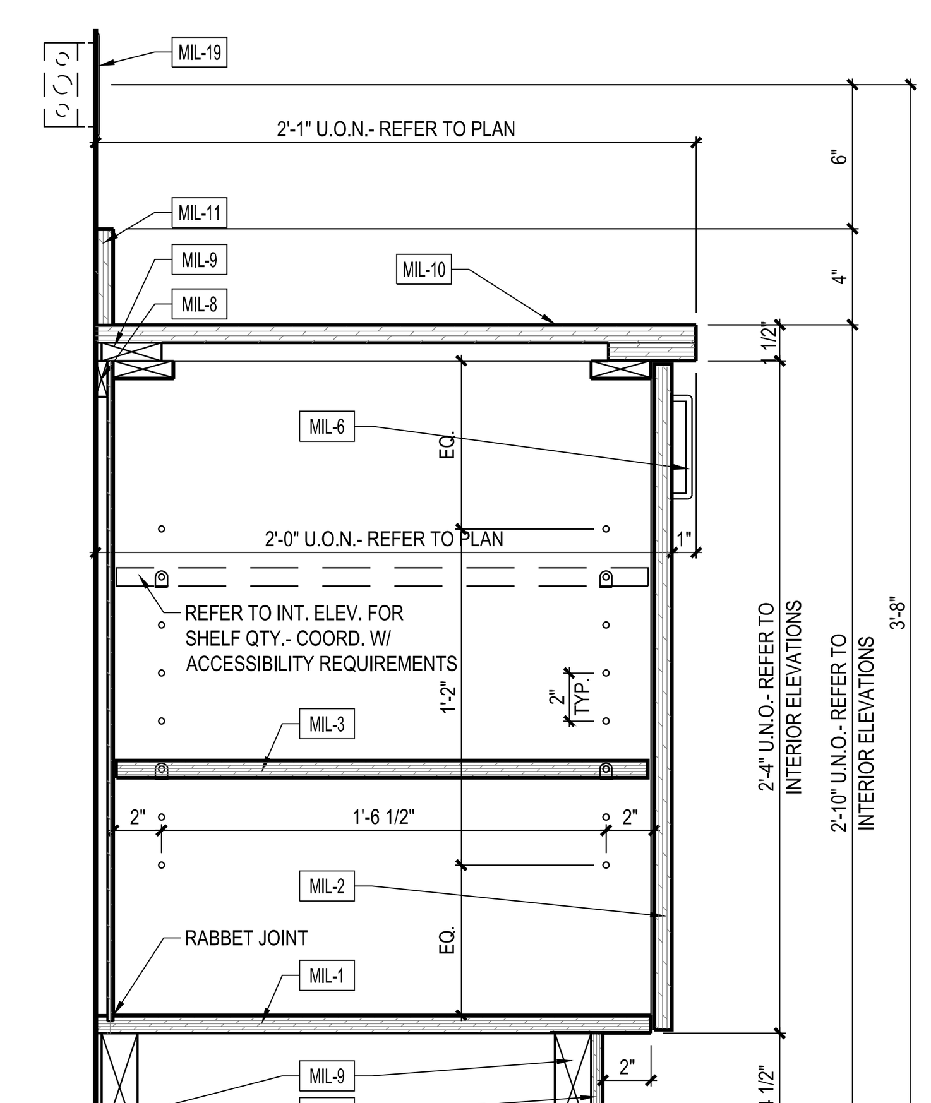
12 A5.4 AV CABINET FIXED SHELF
1 1/2" - 1'-0"



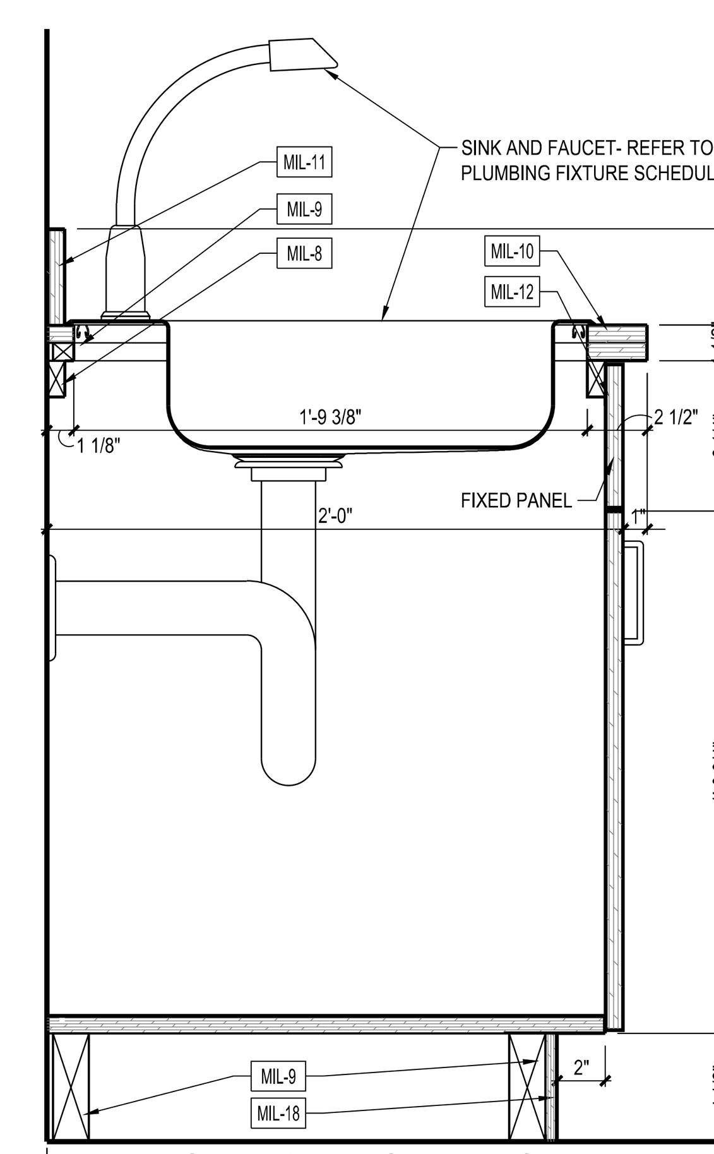
10B: SIDE ELEVATION

10A: FRONT ELEVATION

10 A5.4 AV CABINET
1 1/2" - 1'-0"

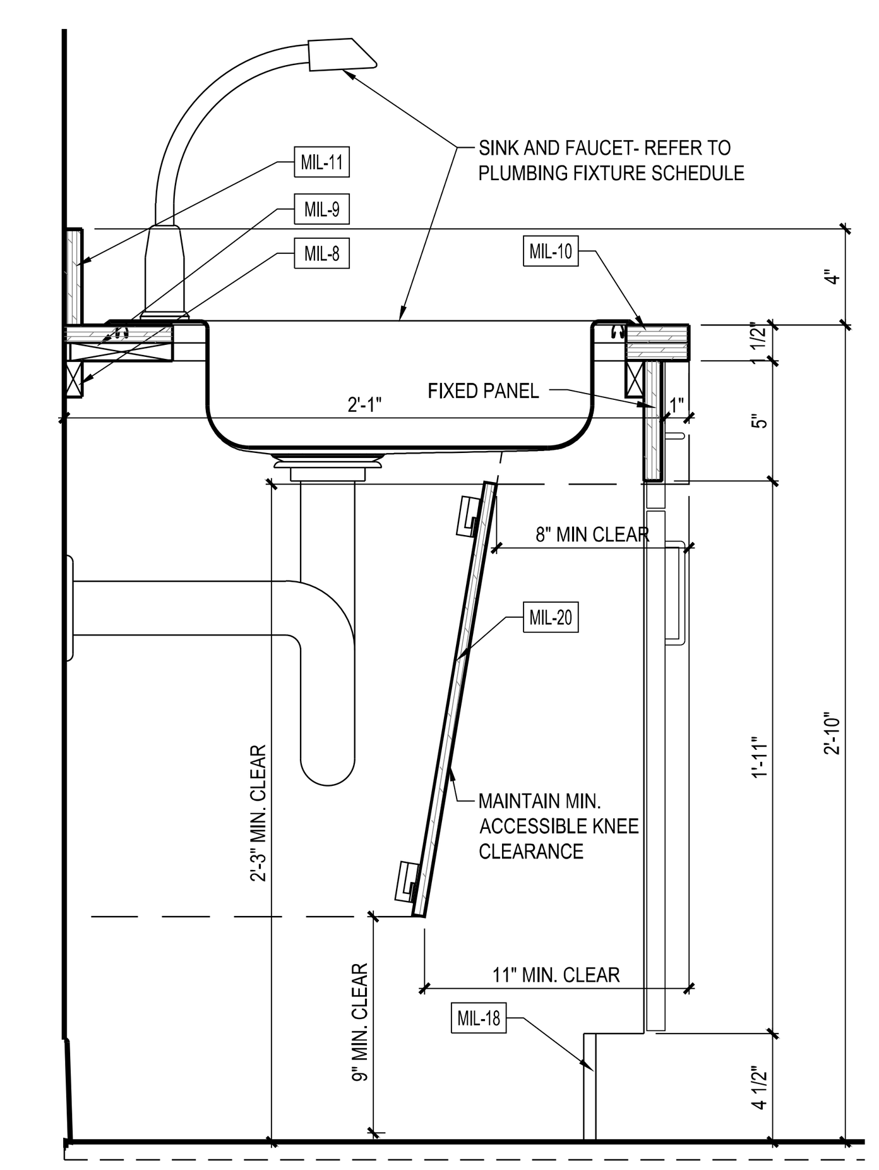


2 A5.4 DOOR BASE CABINET
1 1/2" - 1'-0"



STANDARD SINK BASE

1 A5.4 SINK BASE CABINET
1 1/2" - 1'-0"



FRONT-APPROACH SINK BASE FOR USE BY EXCEPTION ONLY TO COMPLY WITH SPECIFIC MUNICIPAL INTERPRETATIONS

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JOSHUA W. CARRELL
NUMBER A-2018040323
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3/2/2022

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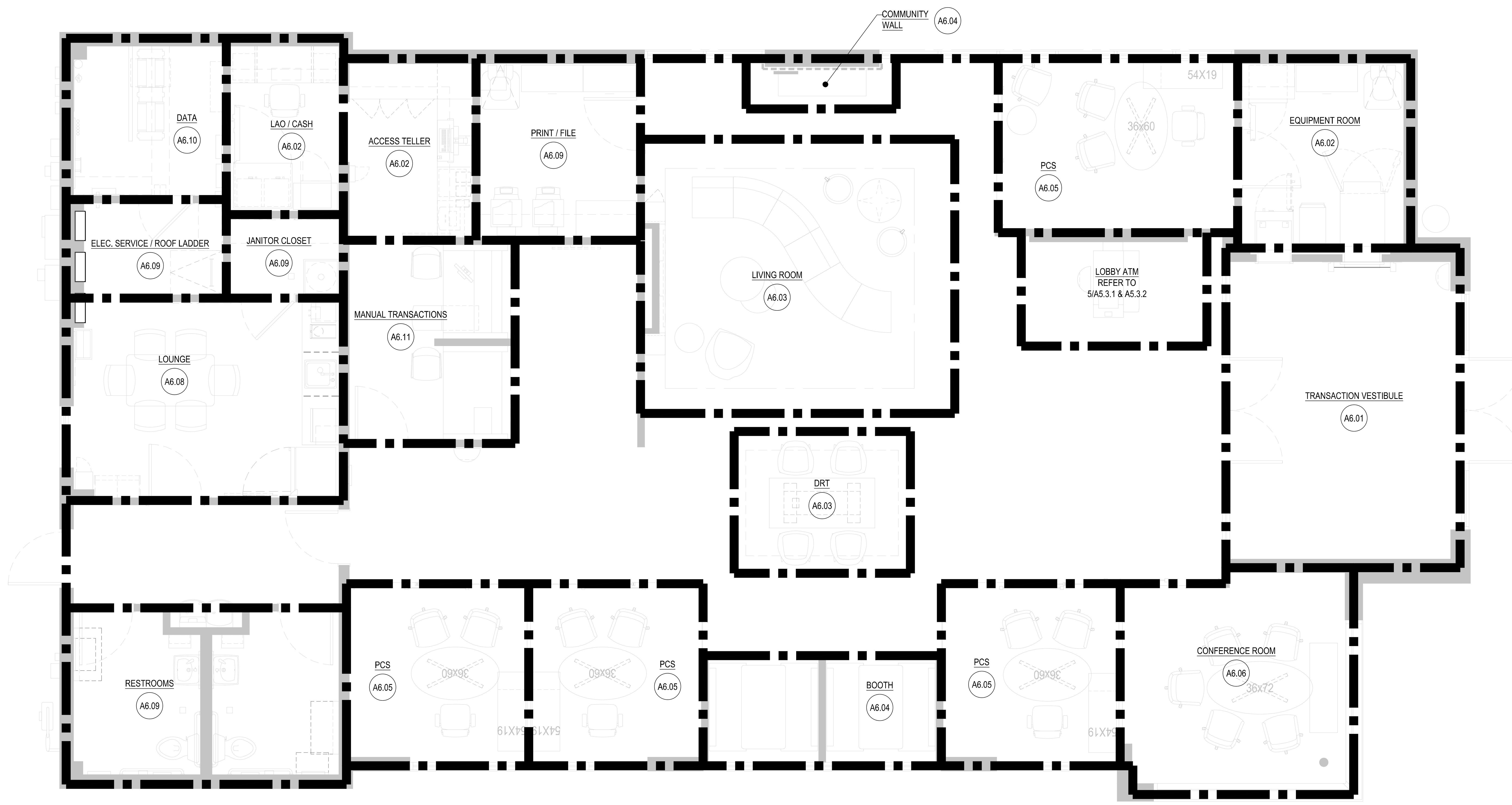

1 / A6.00 PROGRAMMATIC KEY PLAN

1/4" = 1'-0"

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PROGRAMMATIC ELEMENT KEY PLAN

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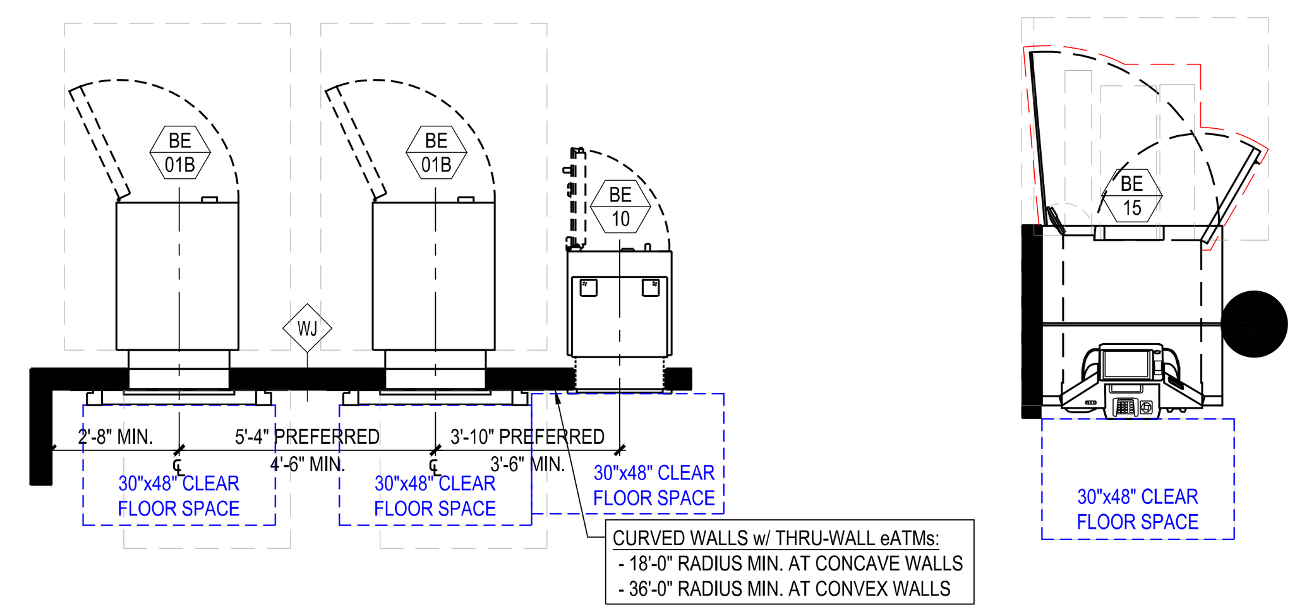
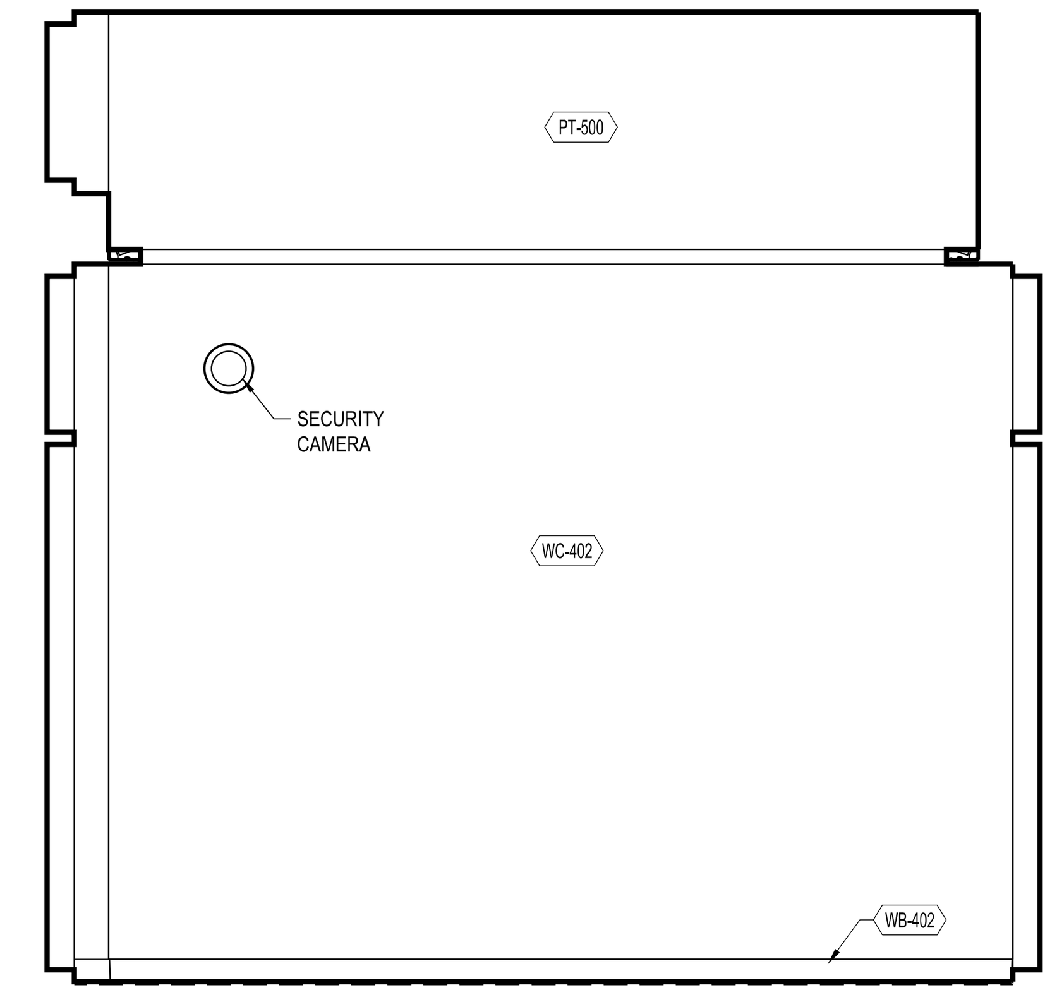
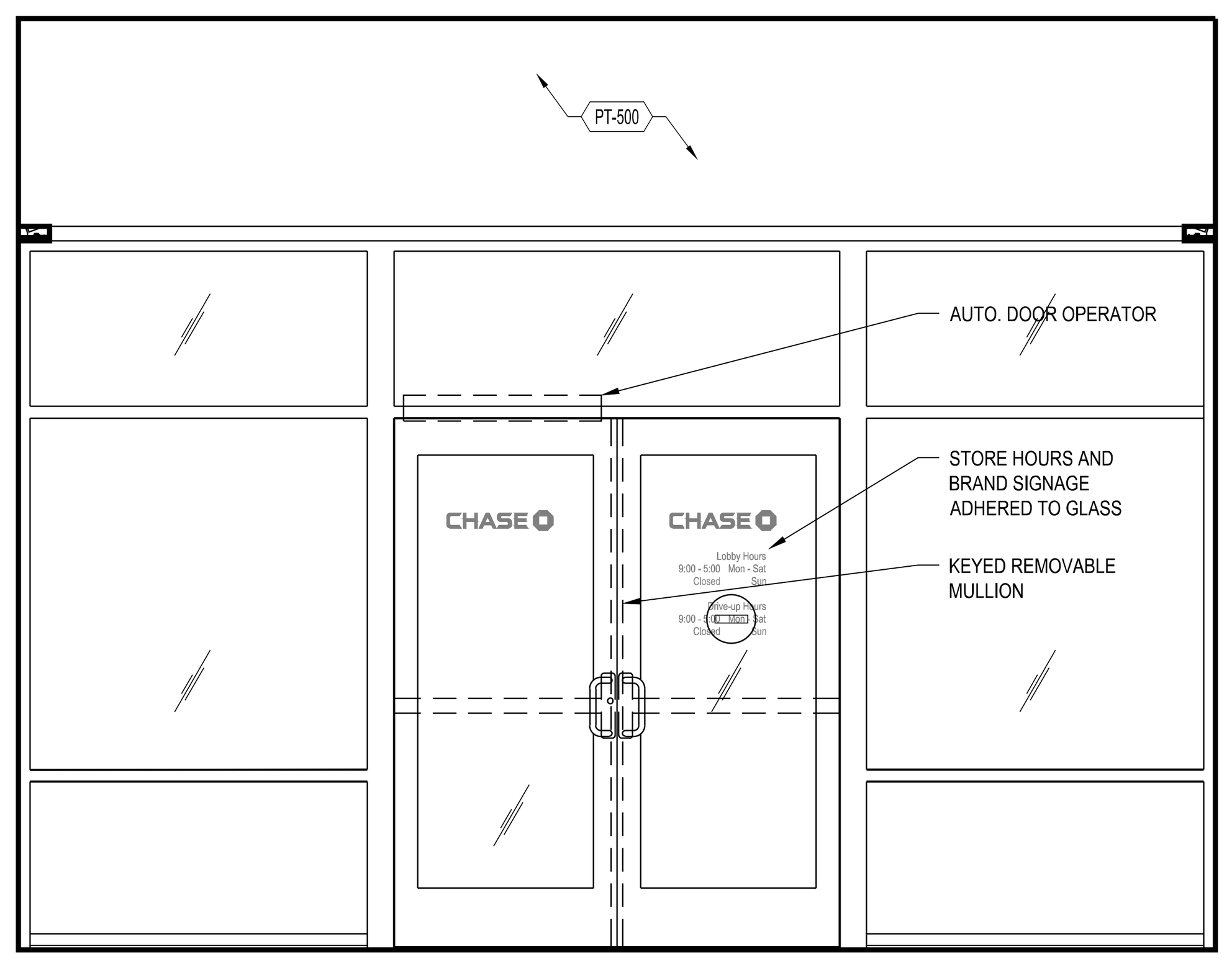
A6.00



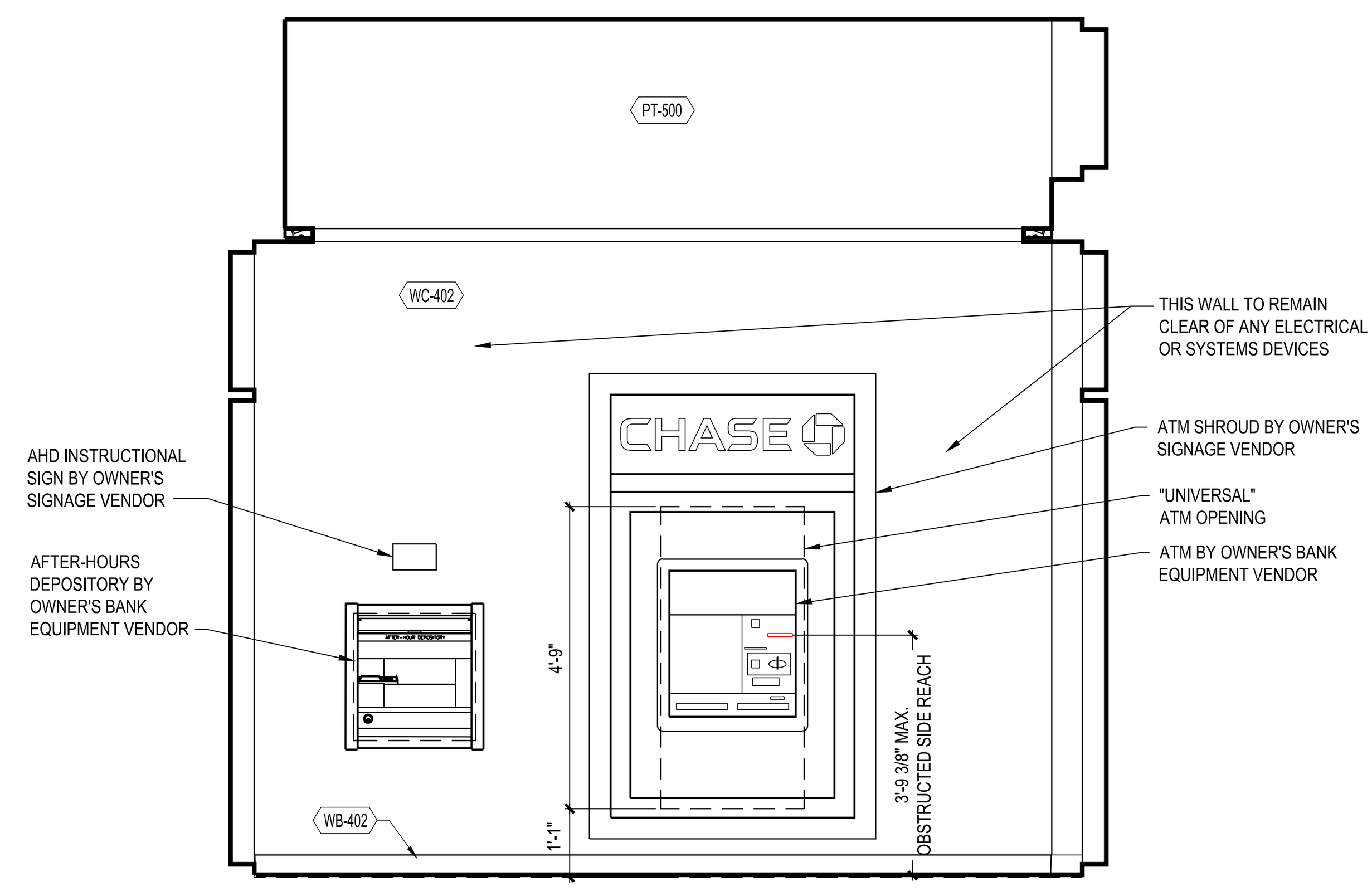
8 A6.01 BANK EQUIP. CONFIGURATIONS
1/4" = 1'-0"



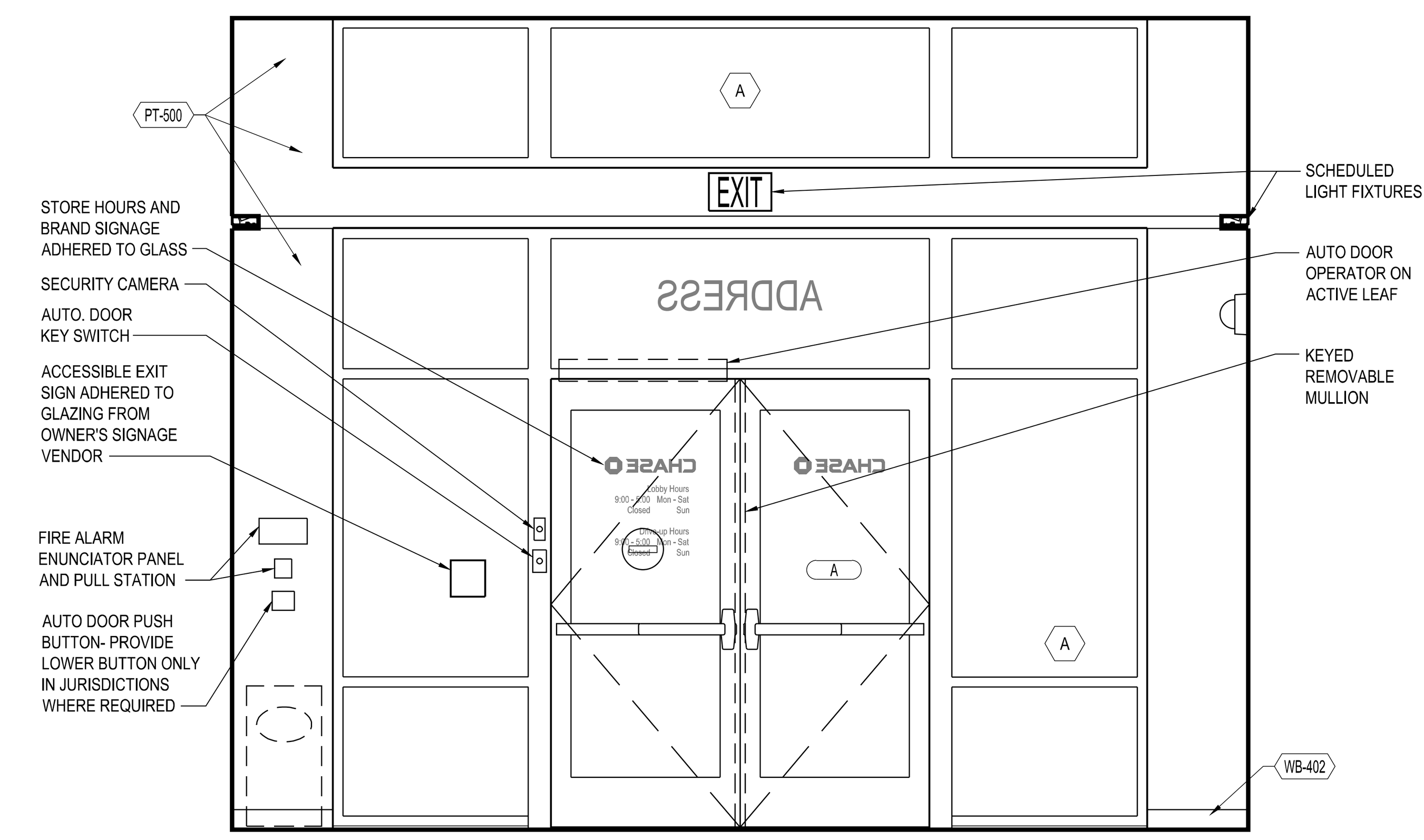
7 A6.01 ELEVATION- FACING CONFERENCE
3/8" = 1'-0"



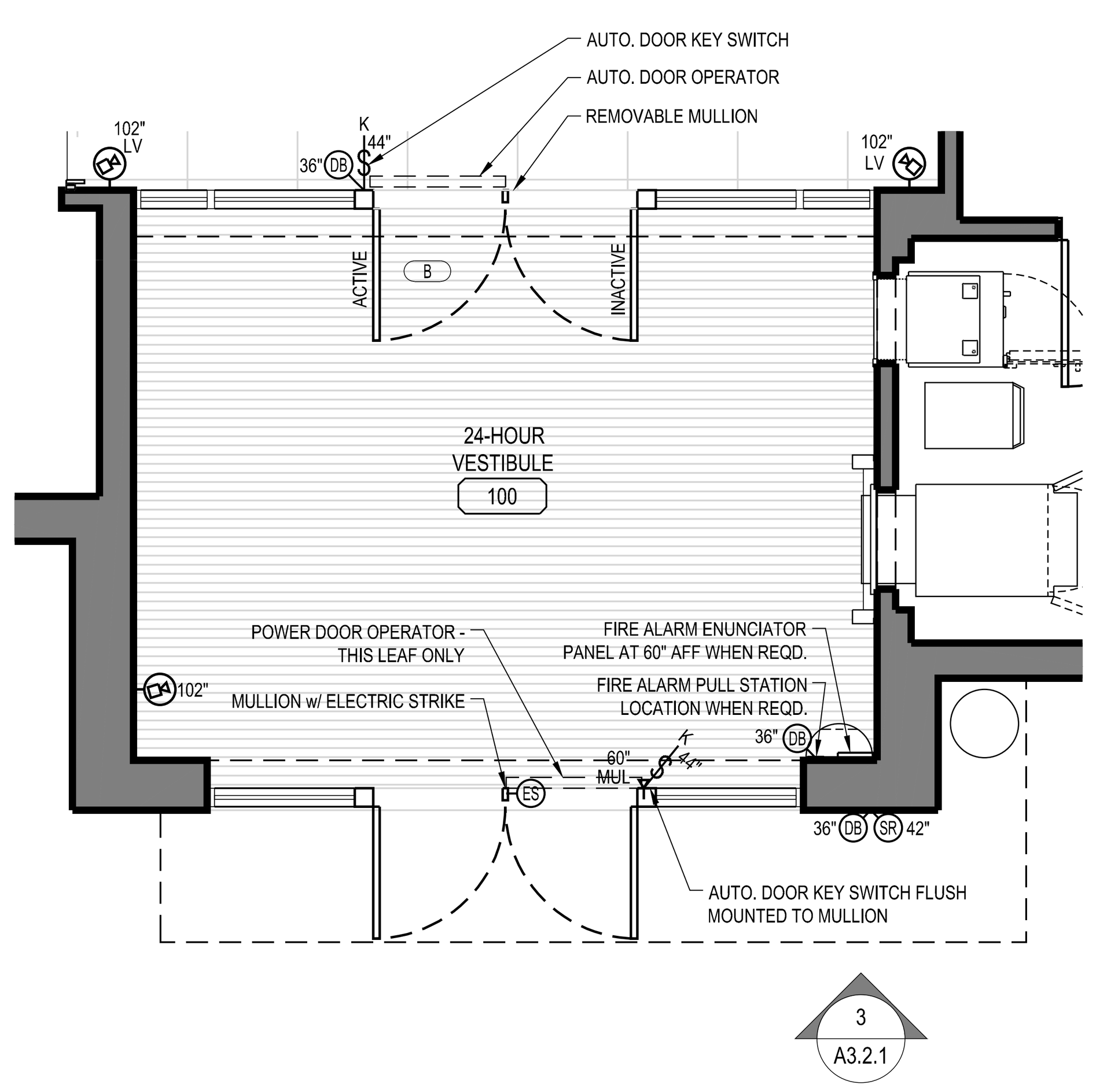
6 A6.01 ELEVATION- FACING LOBBY
3/8" = 1'-0"



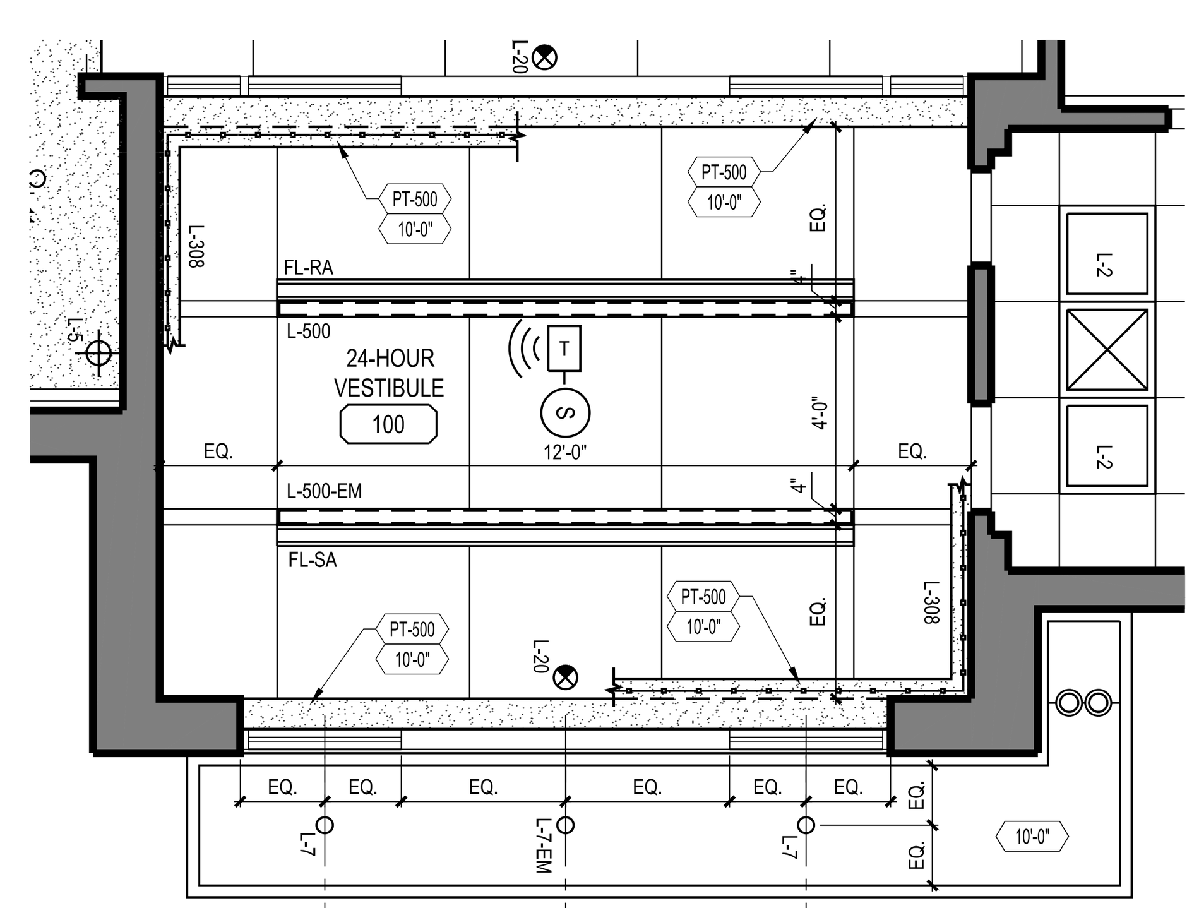
5 A6.01 ELEVATION- FACING ATM
3/8" = 1'-0"



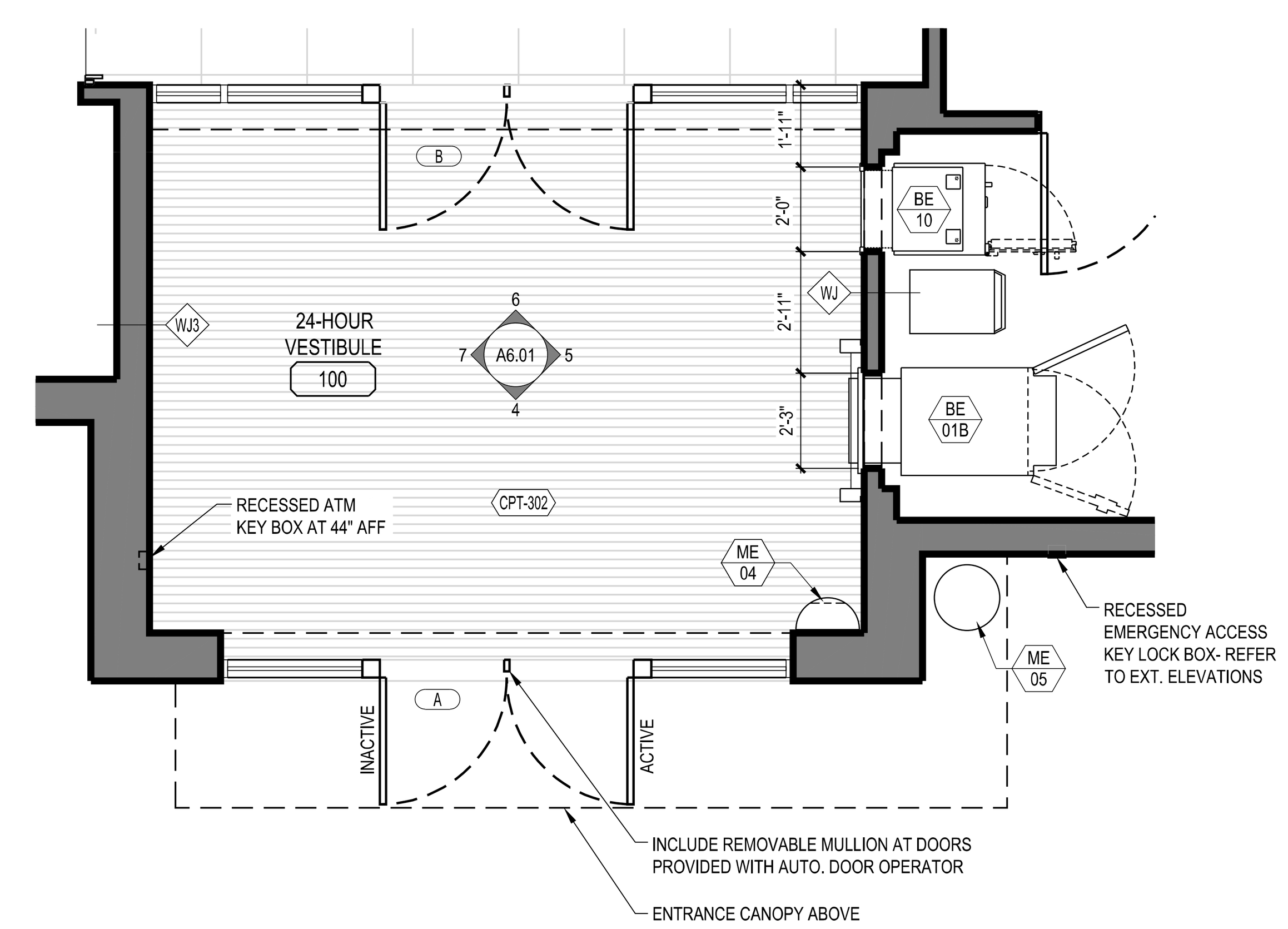
4 A6.01 ELEV.- FACING ENTRANCE
3/8" = 1'-0"



3 A6.01 ELEC./DATA/SECURITY PLAN
1/4" = 1'-0"



2 A6.01 REFLECTED CEILNG PLAN
1/4" = 1'-0"



1 A6.01 FLOOR PLAN
1/4" = 1'-0"

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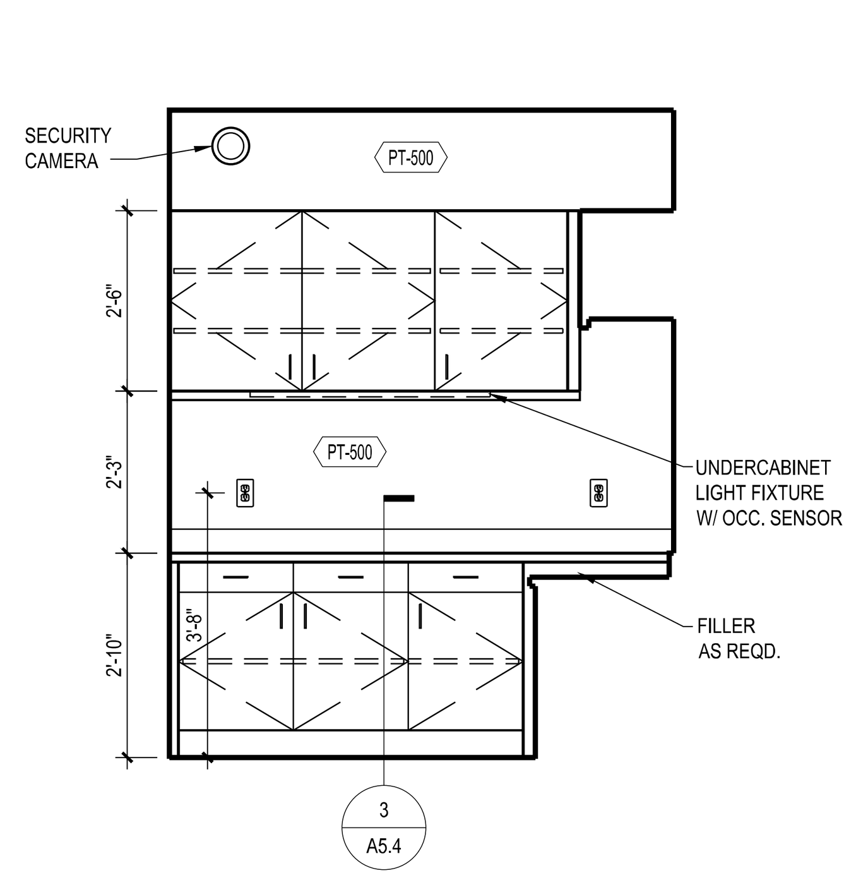
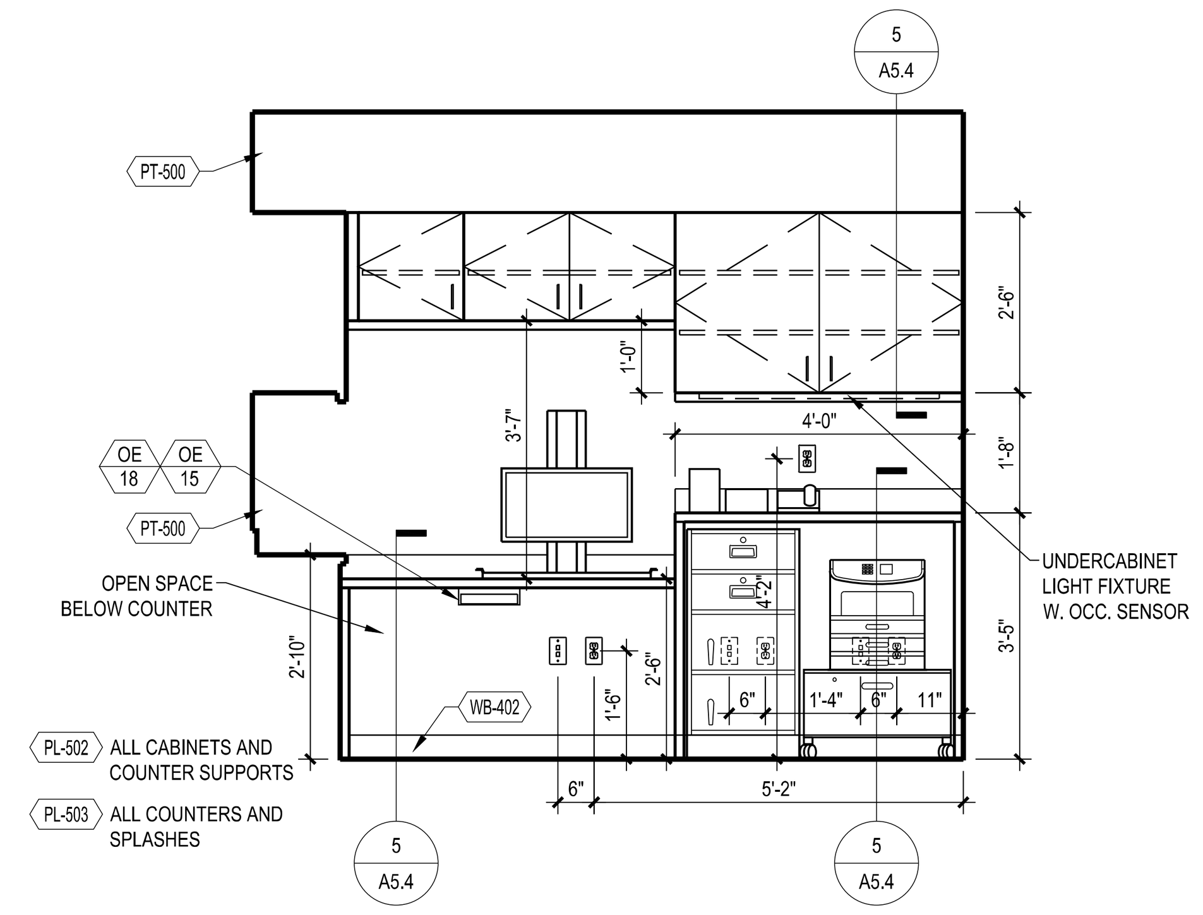
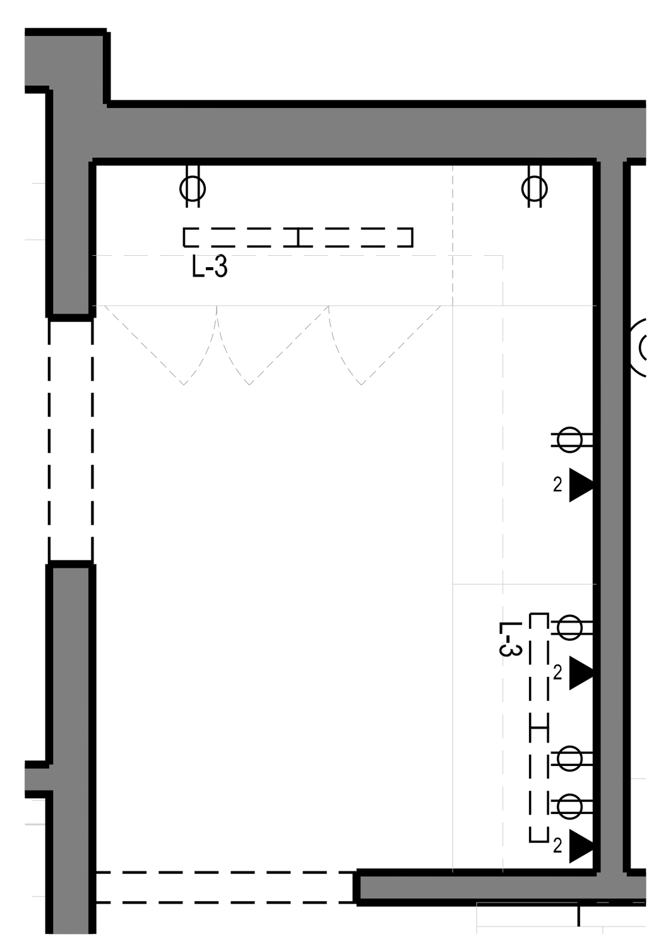


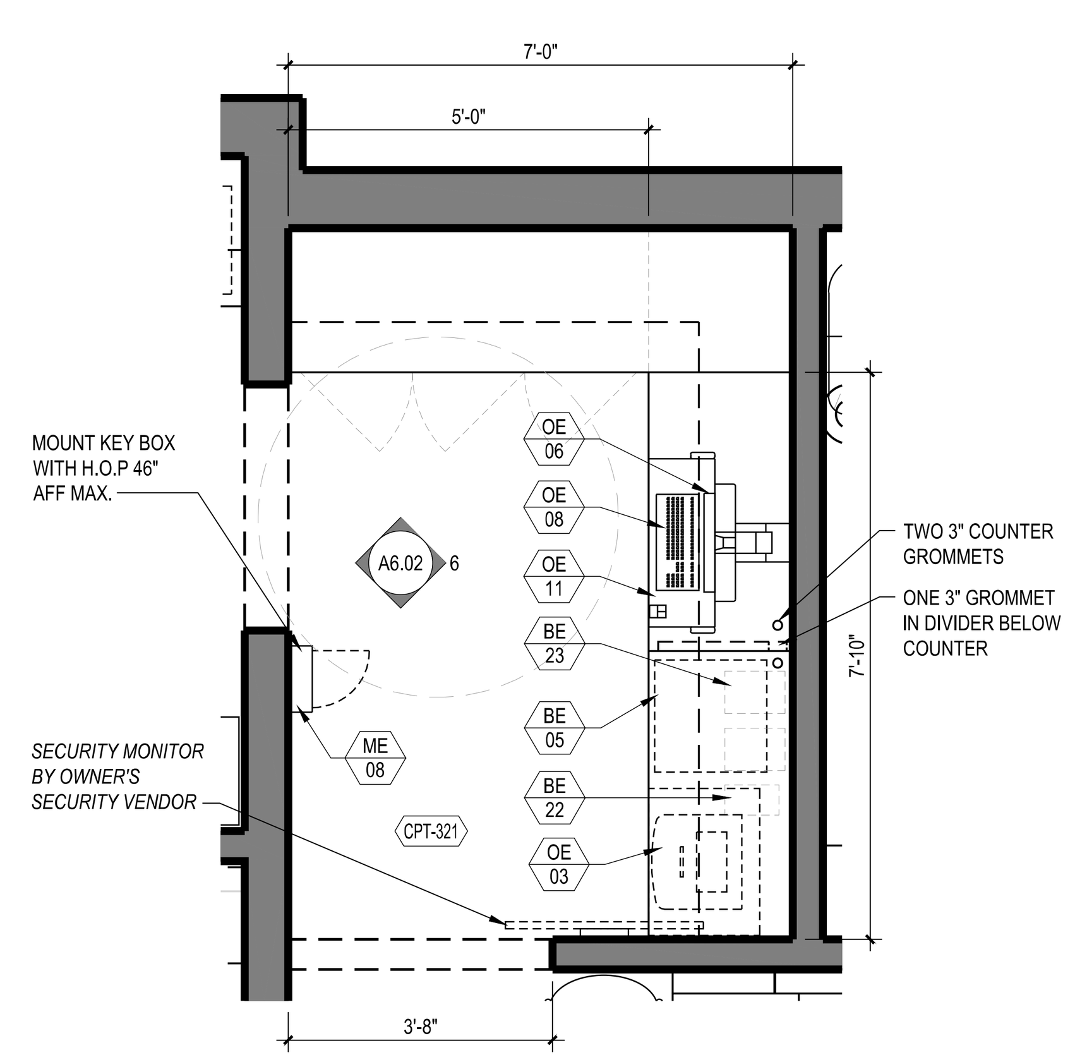
7
A6.02
ACCESS TELLER ELEVATION
3/8" = 1'-0"



6
A6.02
ACCESS TELLER ELEVATION
3/8" = 1'-0"

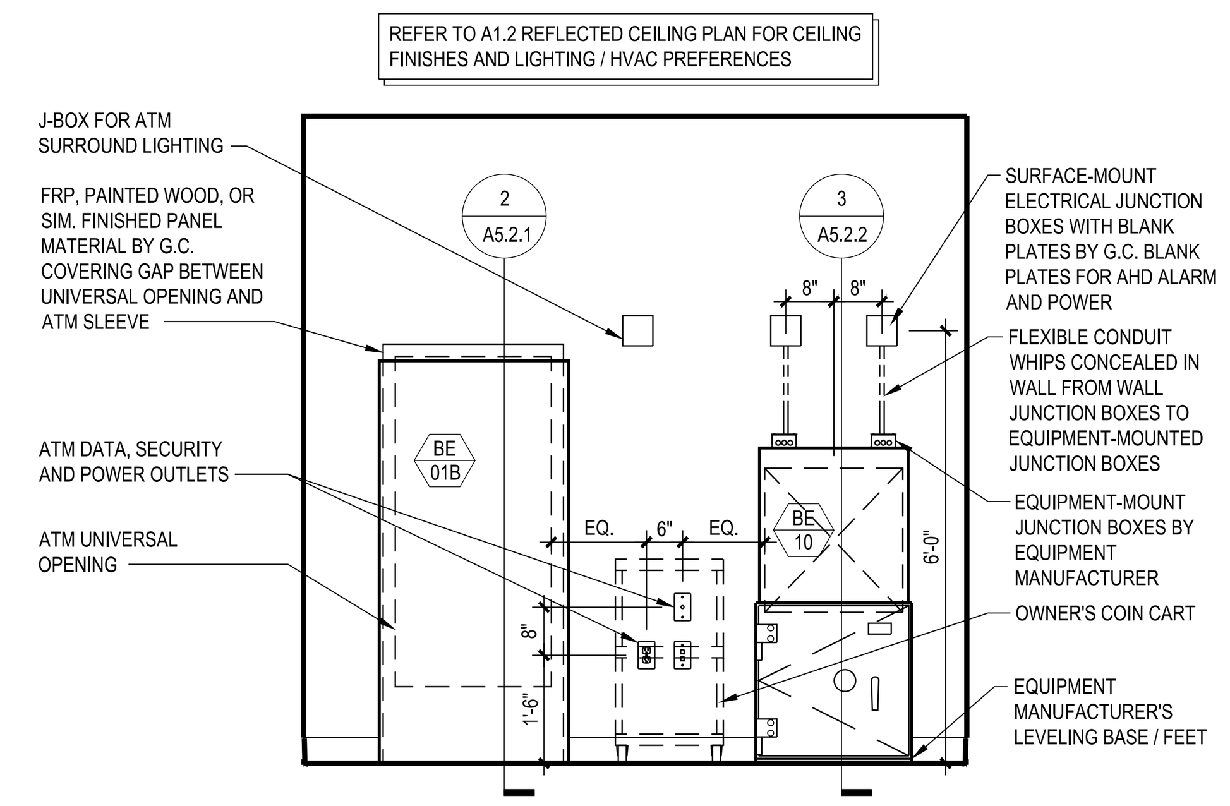


5
A6.02
ACCESS TELLER SYSTEMS PLAN
3/8" = 1'-0"

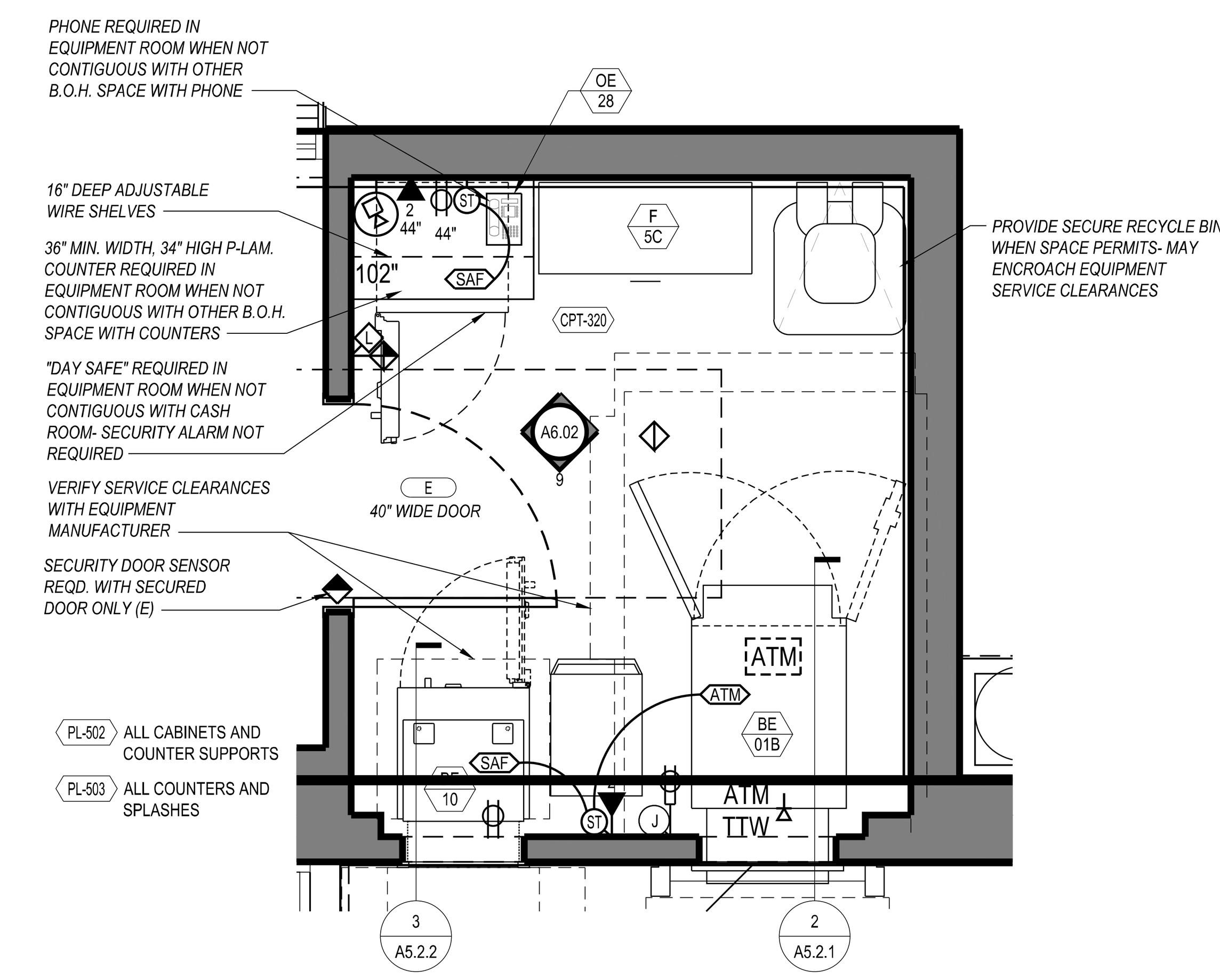


4
A6.02
ACCESS TELLER FLOOR PLAN
3/8" = 1'-0"

ACCESS TELLER

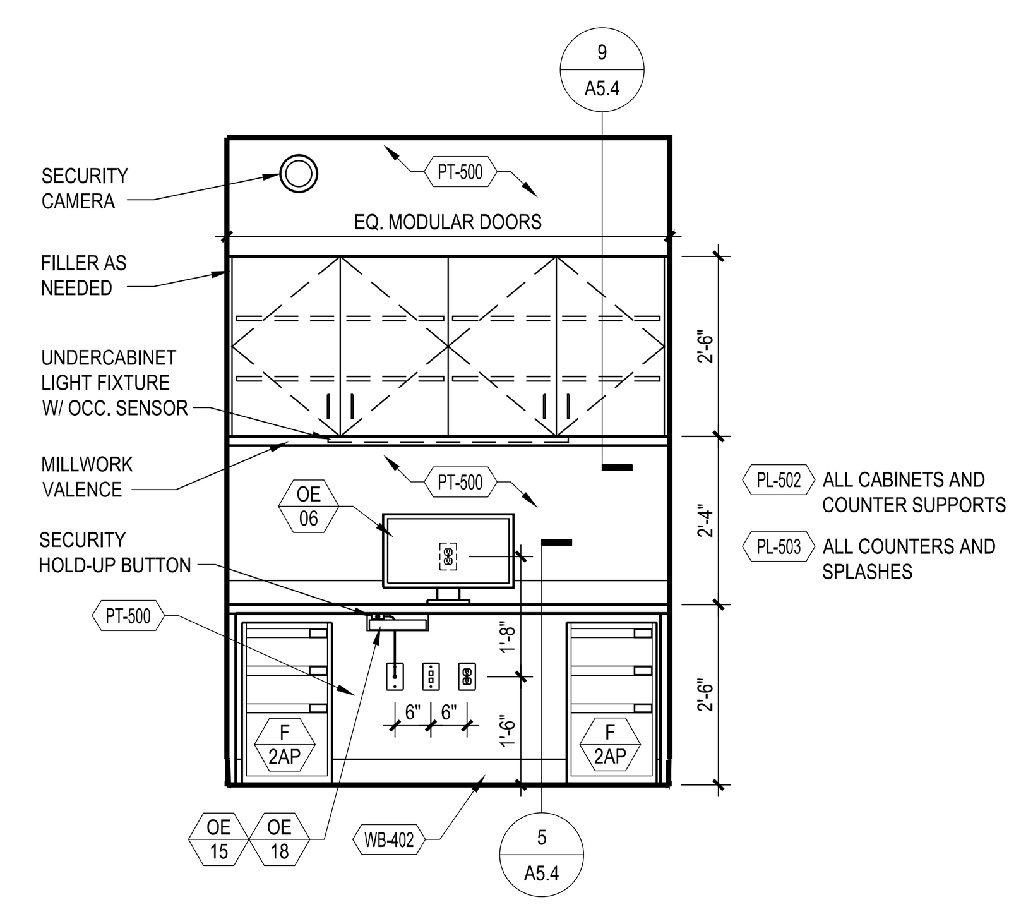


9
A6.02
EQUIPMENT WALL ELEVATION
3/8" = 1'-0"

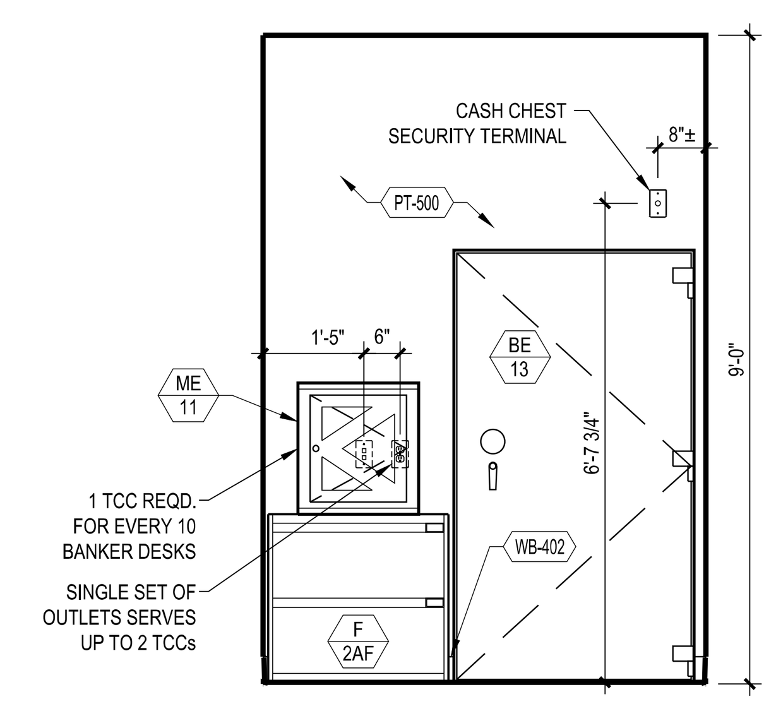


8
A6.02
EQUIPMENT AREA FLOOR PLAN
3/8" = 1'-0"

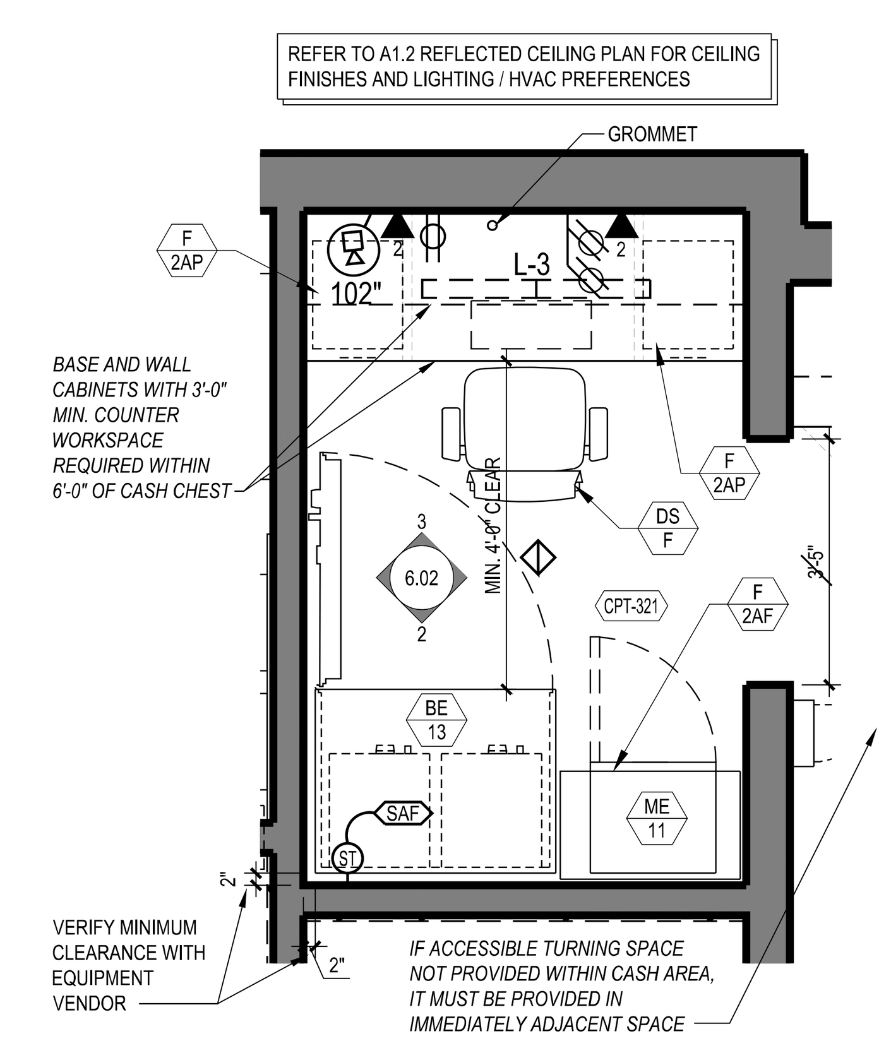
TRANSACTION EQUIPMENT ROOM



3
A6.02
LAO MILLWORK WALL ELEVATION
3/8" = 1'-0"



2
A6.02
CASH CHEST WALL ELEVATION
3/8" = 1'-0"



1
A6.02
LAO / CASH ROOM FLOOR PLAN
3/8" = 1'-0"

LAO / CASH ROOM

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NUMBER A-2018040323
ARCHITECT
3/2/2022

PRYOR ROAD & LOWENSTEIN DRIVE
908 NW PRYOR ROAD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

ISSUE	DATE	DESCRIPTION

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PRYOR & LOWENSTEIN
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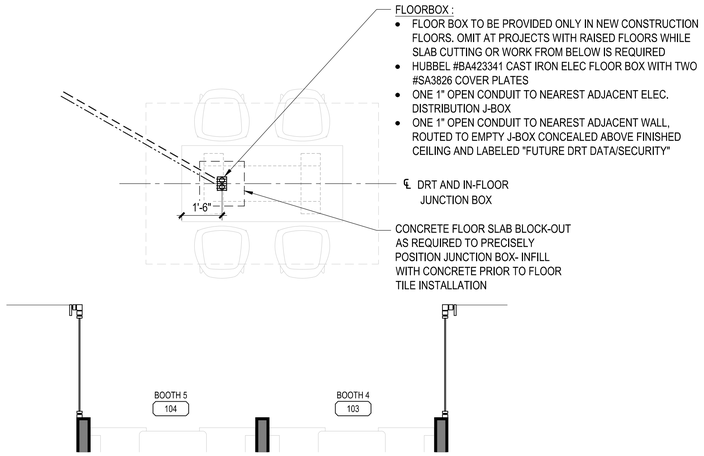
LAO / CASH ROOM
ACCESS TELLER
TRANSACTION EQUIPMENT ROOM

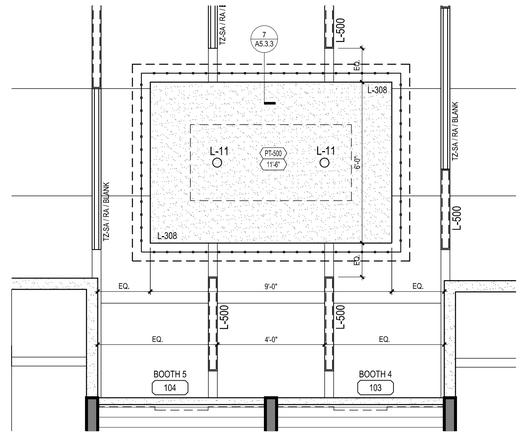
02/04/2022

SHEET

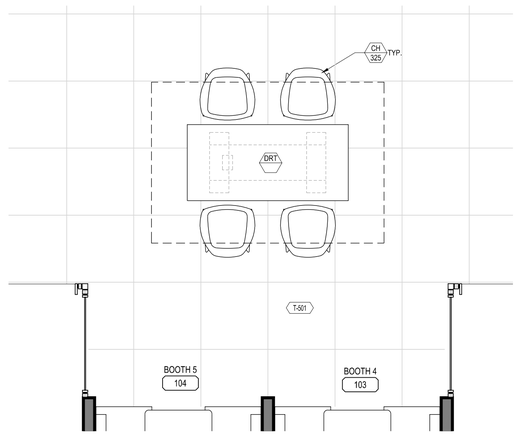
A6.02



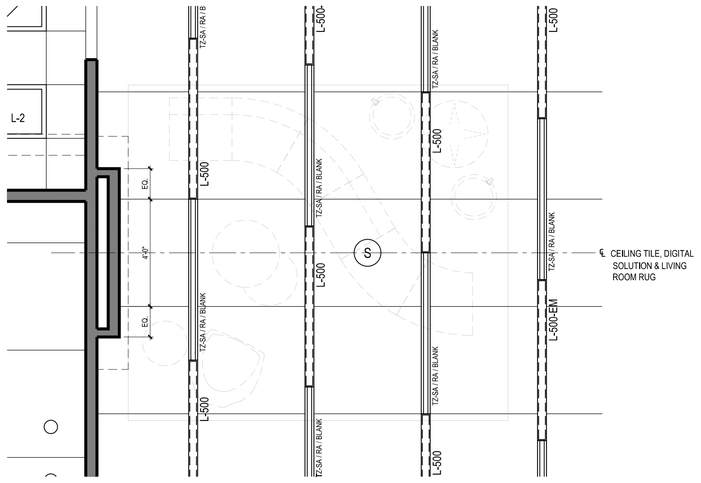
5 A6.03 DRT ELEC./DATA/SEC. PLAN
3/8" = 1'-0"



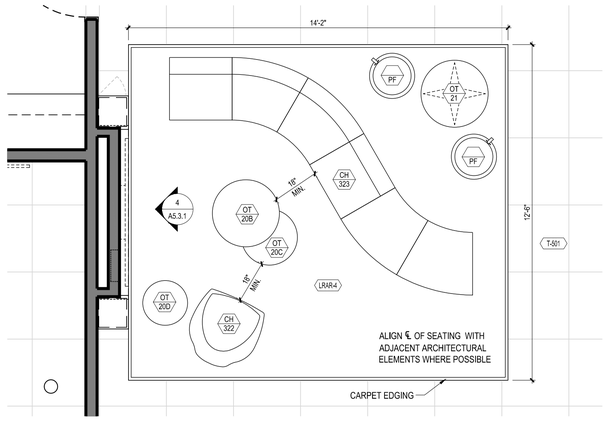
4 A6.03 DRT REFL. CLG. PLAN
3/8" = 1'-0"



3 A6.03 DRT FLOOR PLAN
3/8" = 1'-0"



2 A6.03 REFLECTED CEILING PLAN
3/8" = 1'-0"



1 A6.03 FLOOR PLAN
3/8" = 1'-0"

LIVING ROOM

DINING ROOM TABLE (DRT)

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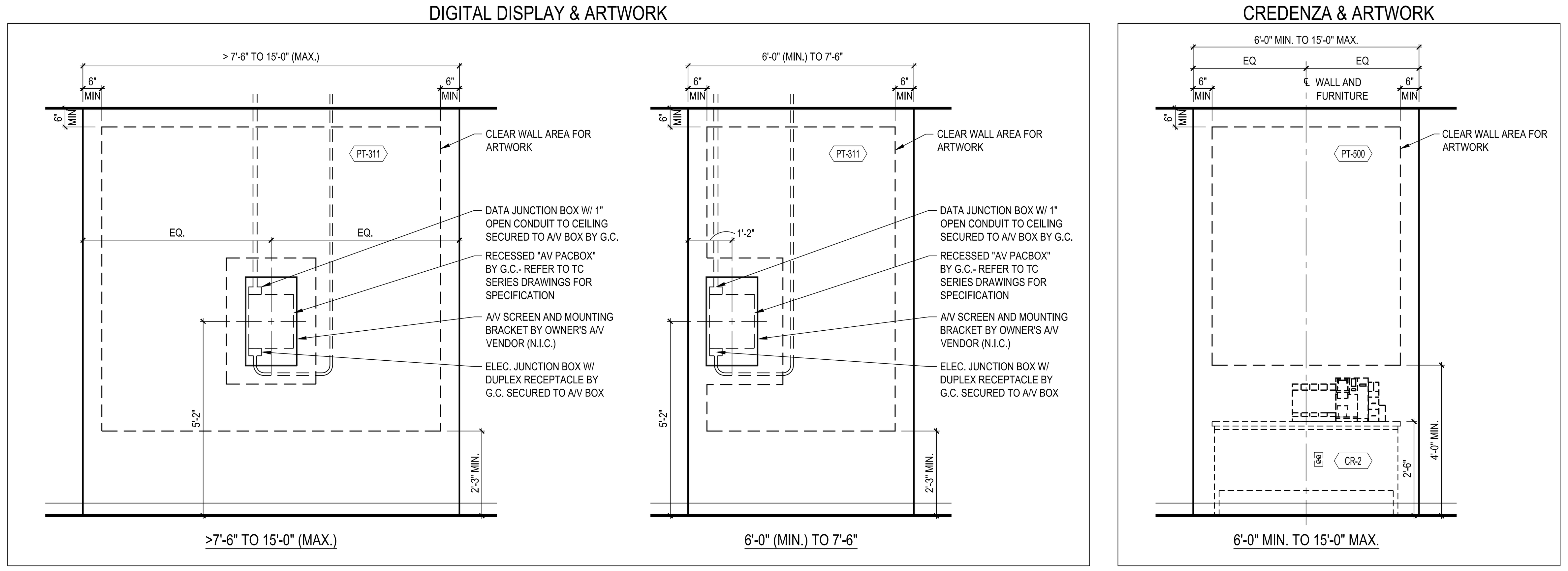
LIVING ROOM
DINING ROOM TABLE (DRT)

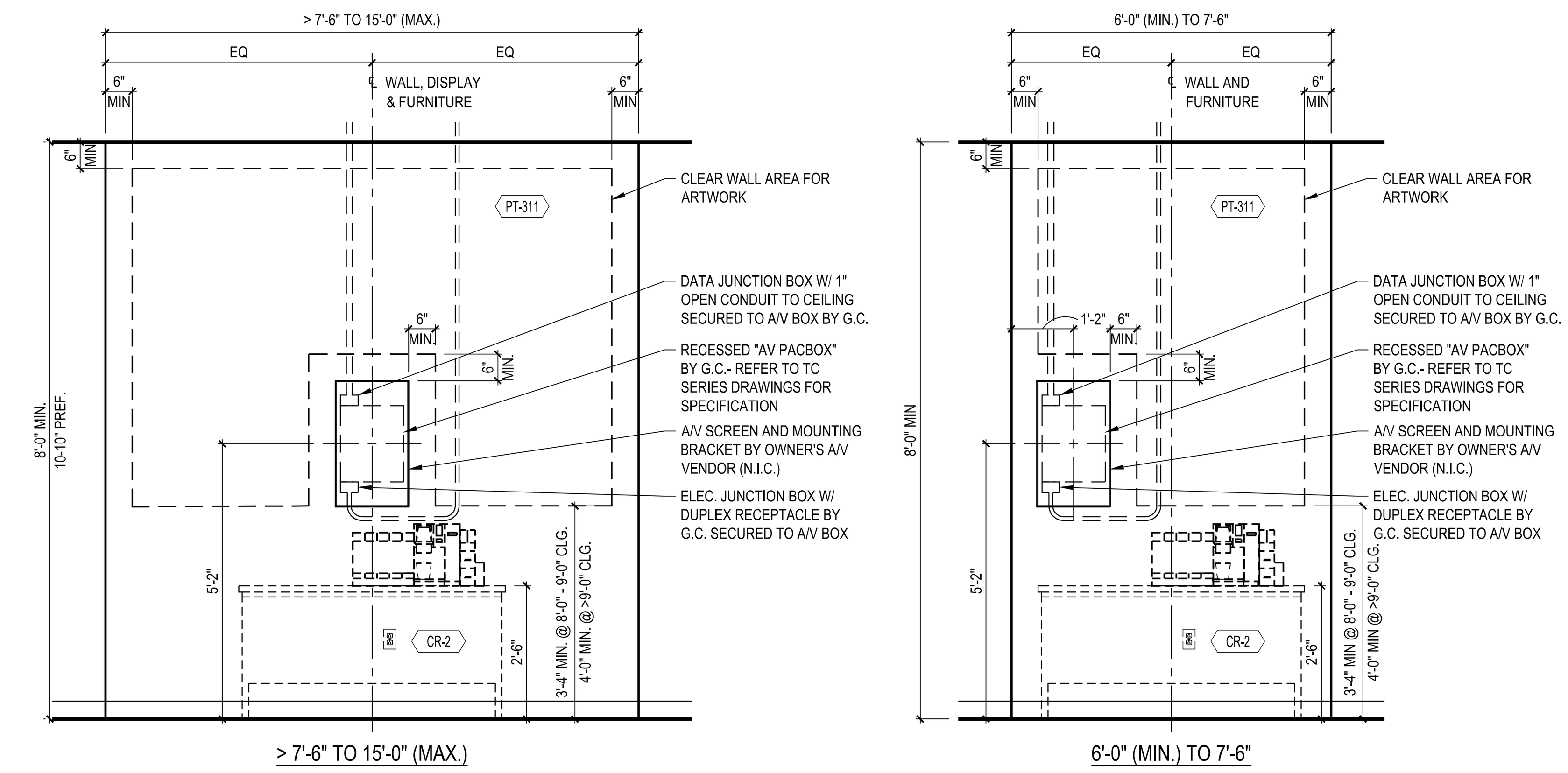
02/04/2022

SHEET

A6.03



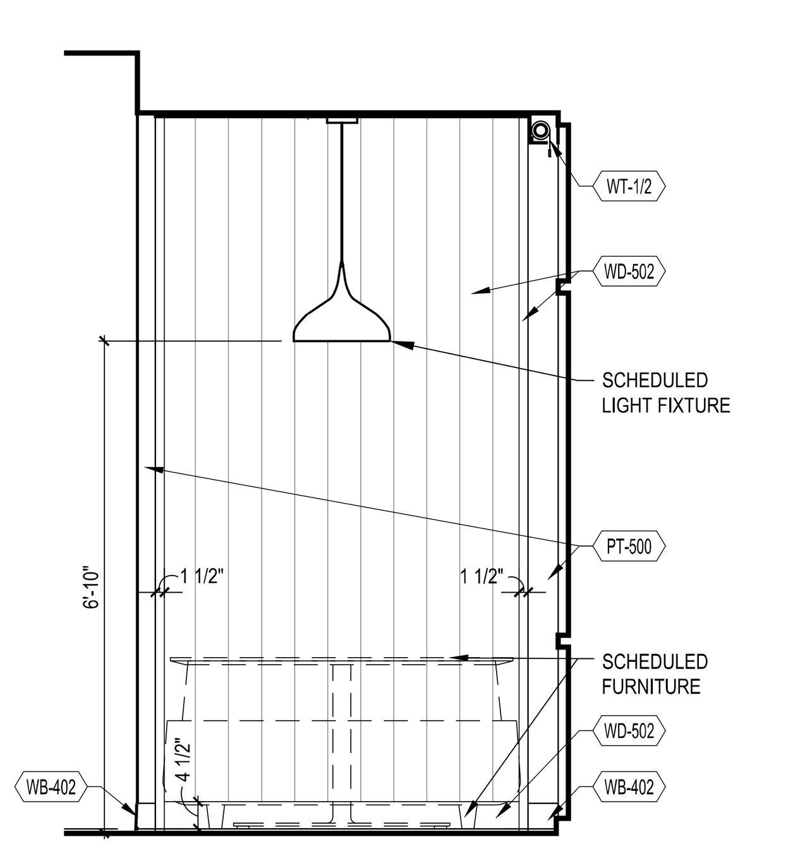
13
A6.04
INTERIOR ELEVATIONS - SEPARATE COMPONENTS
3/8" = 1'-0"



12
A6.04
INTERIOR ELEVATIONS - DIGITAL & ART ABOVE CREDENZA
3/8" = 1'-0"

COMMUNITY WALL

BOOTH



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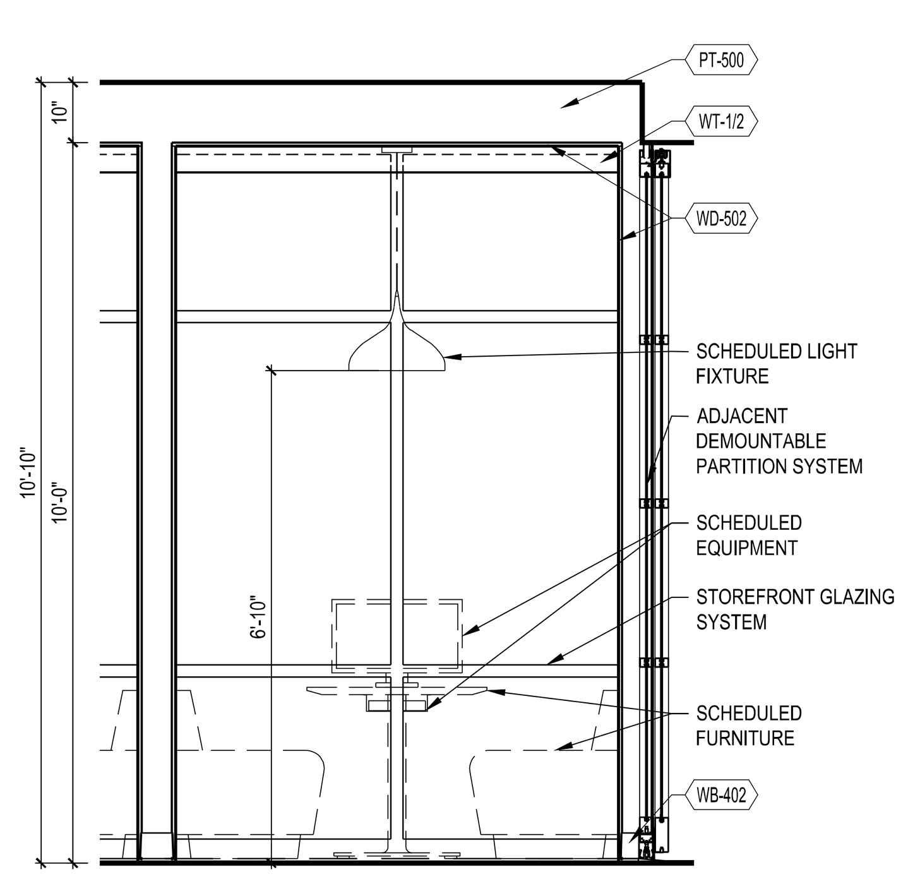
A6.04
BOOTH SEAT WALL ELEVATION
3/8" = 1'-0"



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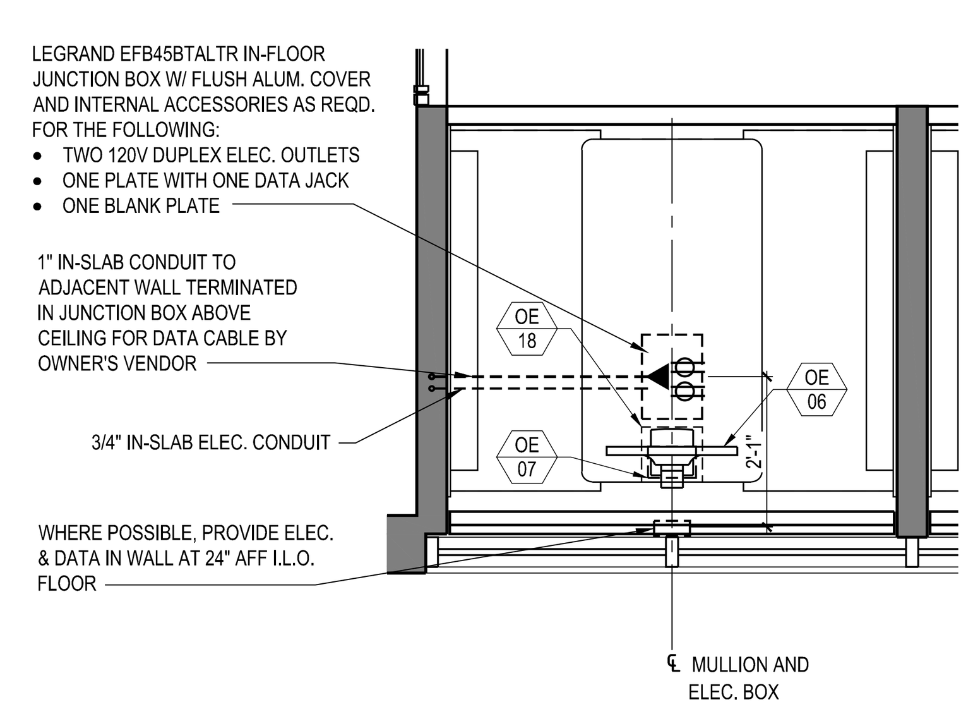
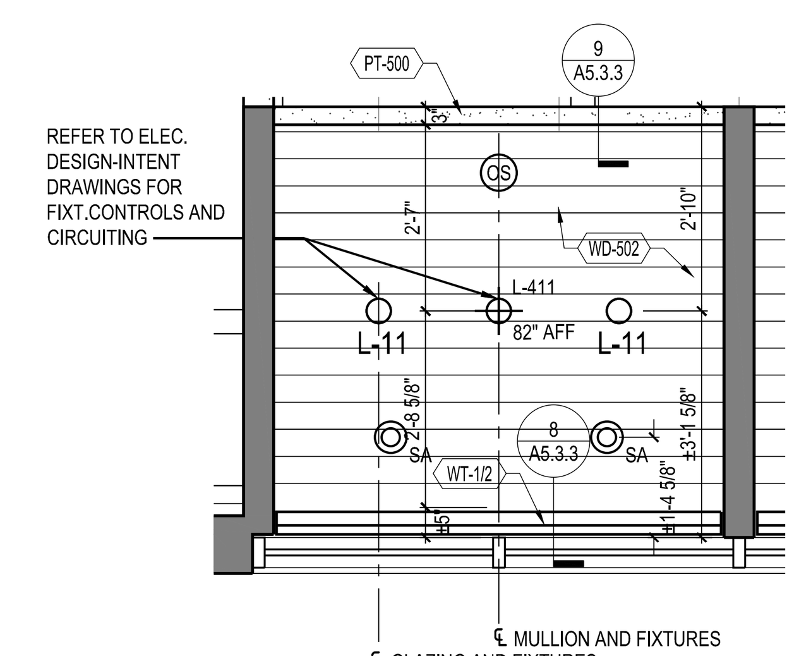
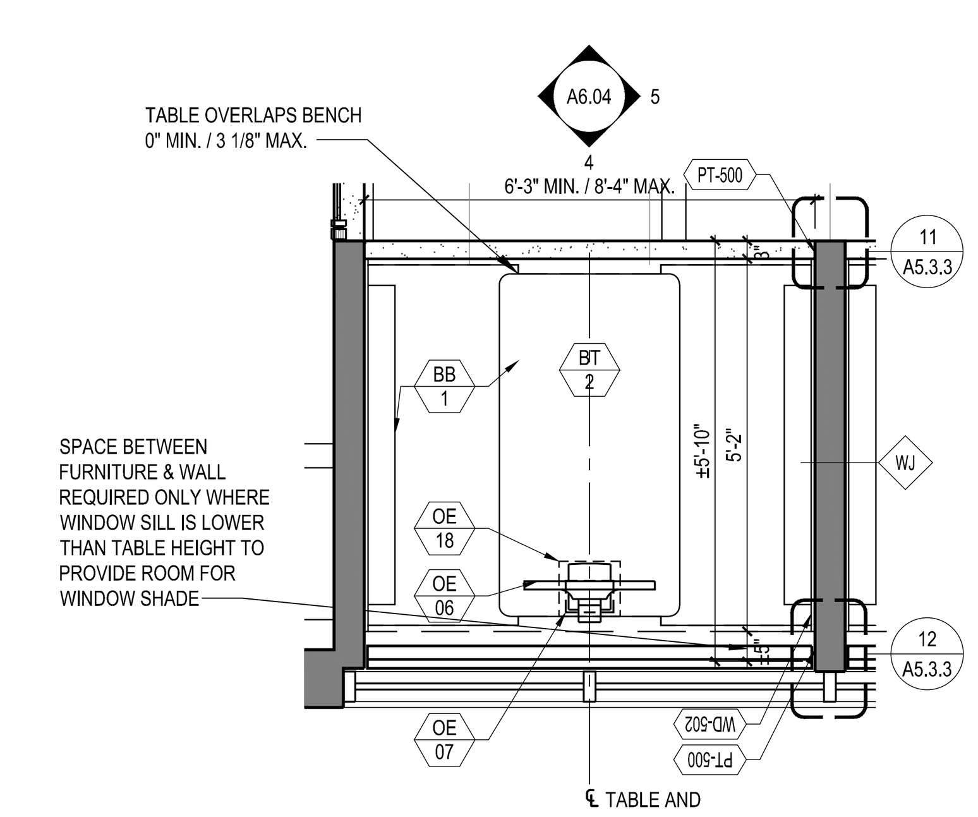
A6.04
BOOTH BACK WALL ELEVATION
3/8" = 1'-0"



3
A6.04
BOOTH ELEC. / SYSTEMS PLAN
3/8" = 1'-0"



2
A6.04
BOOTH REFL. CEILING PLAN
3/8" = 1'-0"



1
A6.04
BOOTH FLOOR PLAN
3/8" = 1'-0"

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BOOTH
COMMUNITY WALL

02/04/2022
SHEET
A6.04

IN JURISDICTIONS WHERE FURNITURE MANUFACTURER'S MODULAR POWER SYSTEM IS NOT PERMITTED (GENERALLY NEW YORK CITY AND CHICAGO):

- *JUNCTION BOXES AND COVER PLATES FOR ELECTRICAL RECEPTACLES IN PARTITION PANELS ARE PROVIDED BY PARTITION MFR.; CONDUIT, WIRING, AND RECEPTACLES ARE PROVIDED BY ELECTRICIAN.*
- *FOR ELECTRICAL AND DATA DEVICES IN PARTITION BASES, ALL COMPONENTS ARE PROVIDED BY ELECTRICIAN.*

6 A6.05 ELEVATION- WALL ADJ. TO OFFICE

3/8" = 1'-0"

5 A6.05 ELEVATION- DOOR WALL

3/8" = 1'-0"

4 A6.05 ELEVATION- WALL ADJ. TO LOBBY

3/8" = 1'-0"

3 A6.05 ELEC/DATA/ SECURITY PLAN

1/4" = 1'-0"

2 A6.05 REFL. CLG. PLAN

1/4" = 1'-0"

FOR FURTHER GUIDANCE ON AVAILABLE DEMOUNTABLE PARTITION SYSTEM CONFIGURATIONS, REFER TO FURNITURE VENDOR'S DOCUMENT "RETAIL BRANCH PRIVACY WALL ARCHITECTURAL STANDARDS" POSTED TO OVP.

1 A6.05 FLOOR PLAN

1/4" = 1'-0"

PRIVATE CONSULT. SPACE (PCS)

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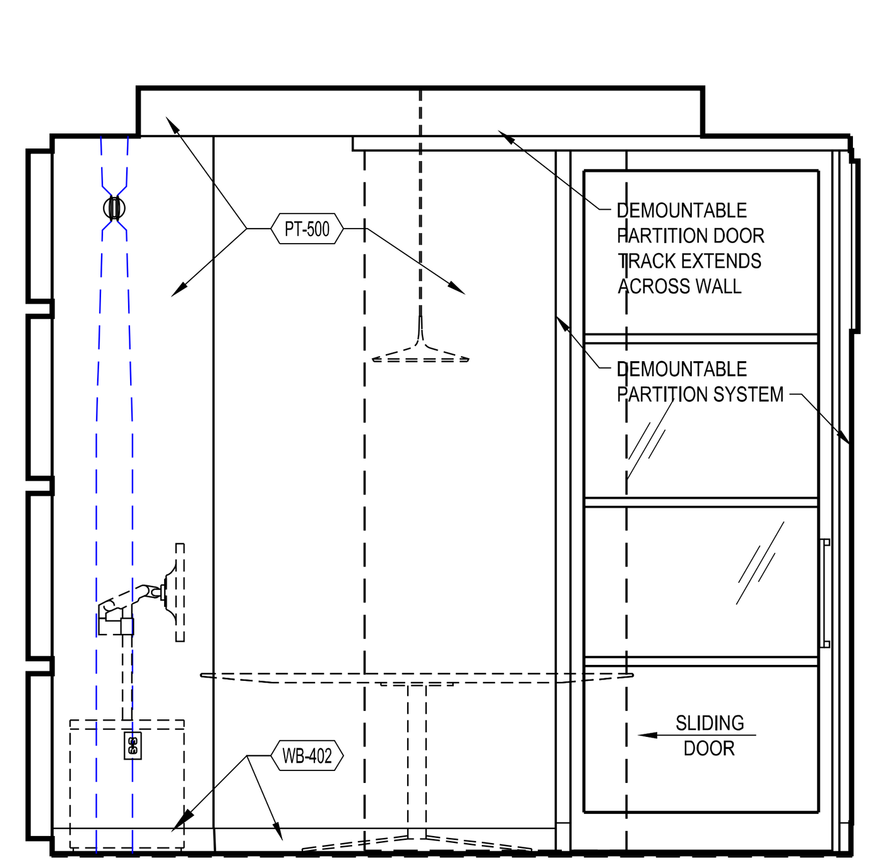
PRIVATE CONSULTATION SPACE

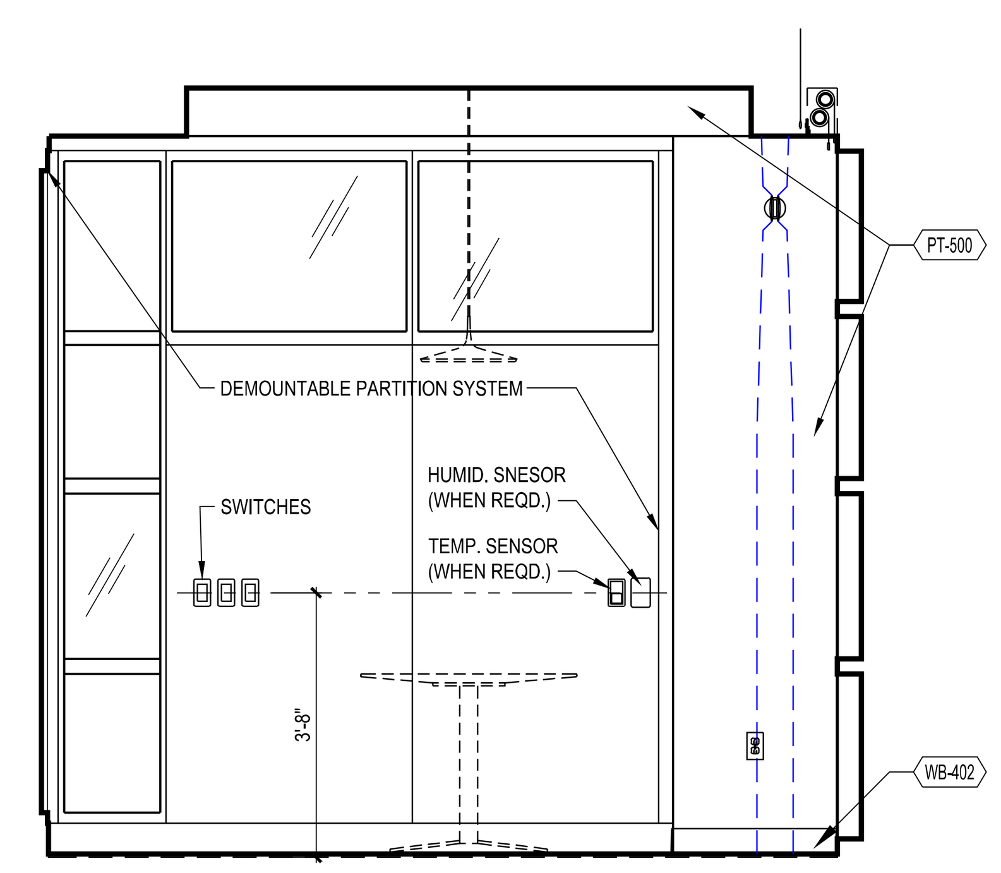
02/04/2022

SHEET

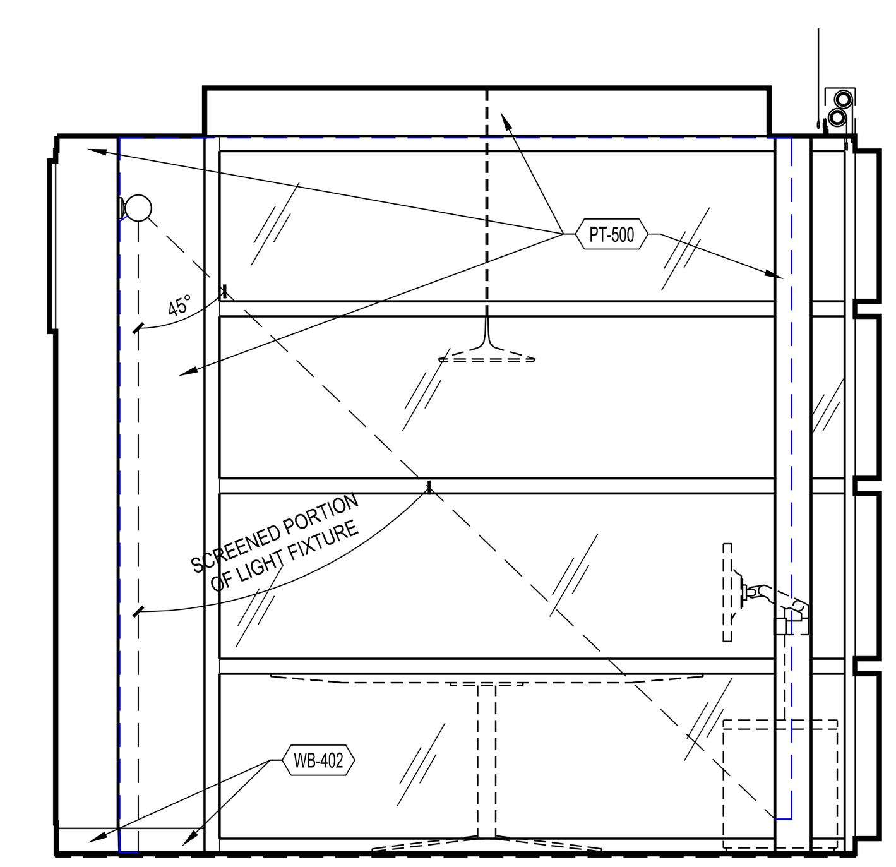
A6.05



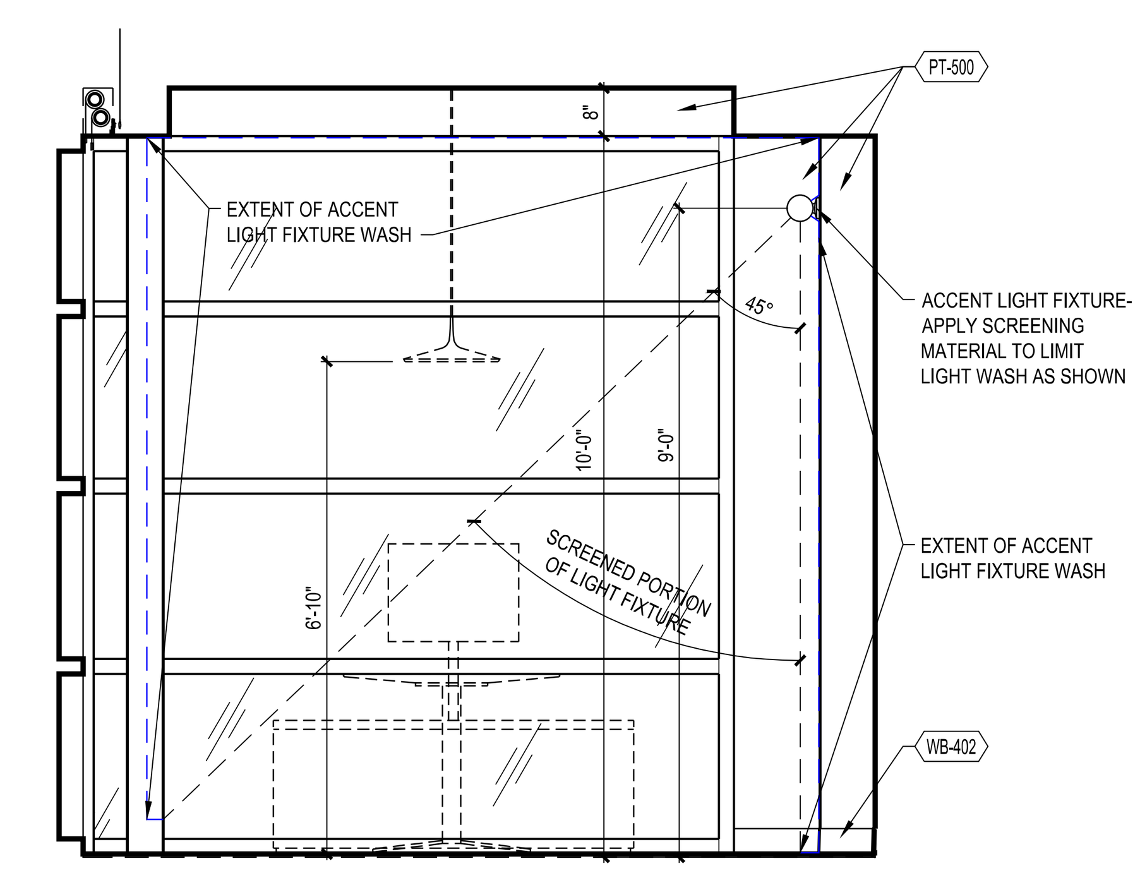
7
A6.06
ELEV- DOOR WALL
3/8" = 1'-0"



6
A6.06
ELEV- DEMOUNT. PART. WALL
3/8" = 1'-0"

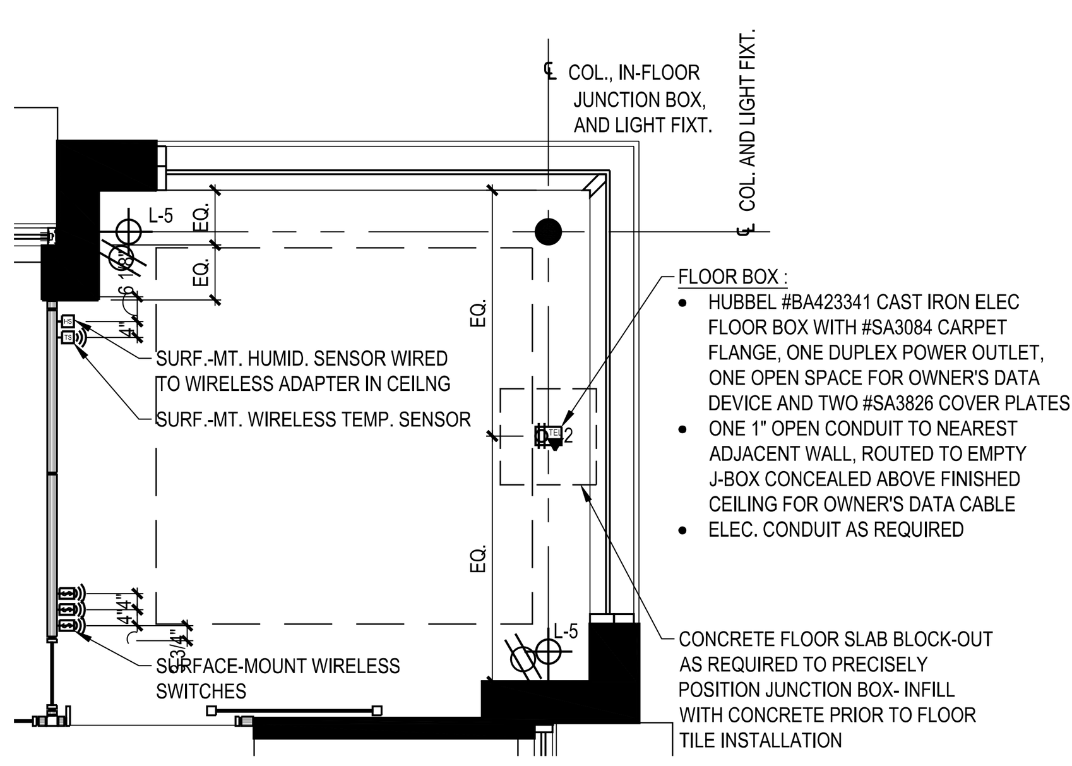


5
A6.06
ELEV- EXTERIOR WALL
3/8" = 1'-0"

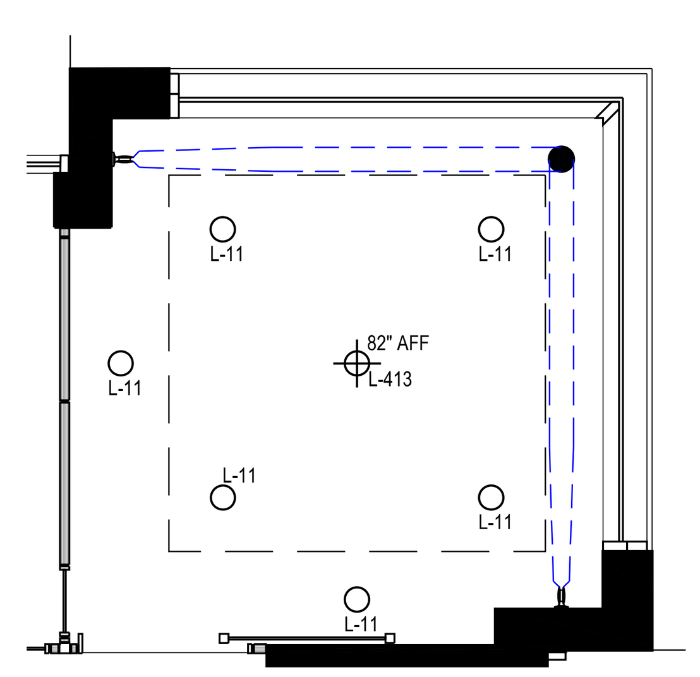


4
A6.06
ELEV- EXTERIOR WALL
3/8" = 1'-0"

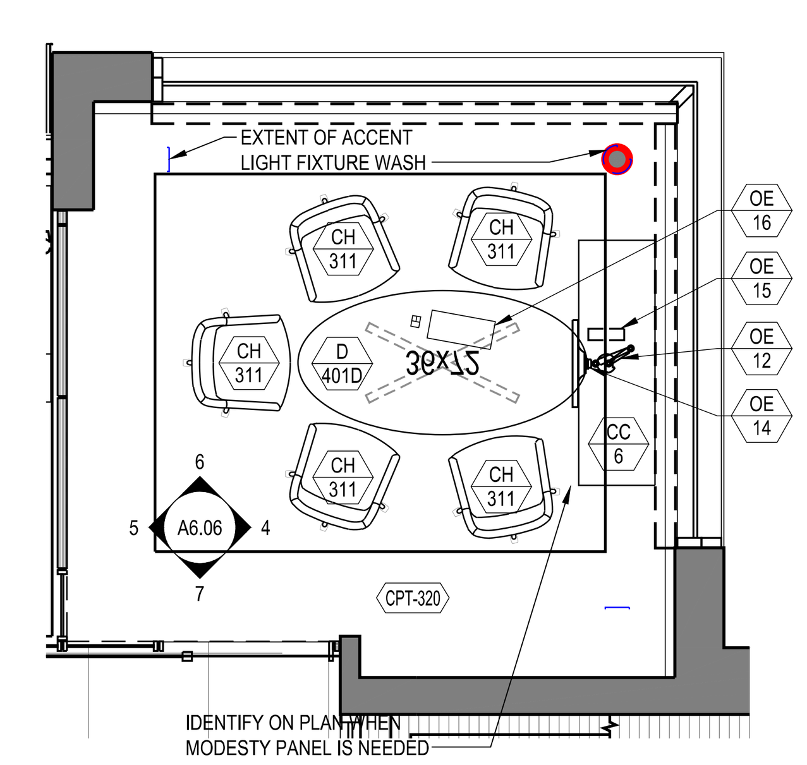
FOR FURTHER GUIDANCE ON AVAILABLE DEMOUNTABLE PARTITION SYSTEM CONFIGURATIONS, REFER TO FURNITURE VENDOR'S DOCUMENT "RETAIL BRANCH PROVACY WALL ARCHITECTURAL STANDARDS" POSTED TO OVP.



3
A6.06
ELEC./DATA/SECURITY PLAN
1/4" = 1'-0"



2
A6.06
REFL. CEILING PLAN
1/4" = 1'-0"



1
A6.06
FLOOR PLAN
1/4" = 1'-0"

CONFERENCE ROOM

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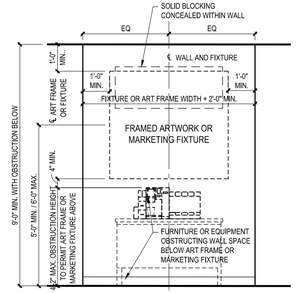
CONFERENCE ROOM
COMMUNITY CONFERENCE ROOM
MARKET CONFERENCE ROOM

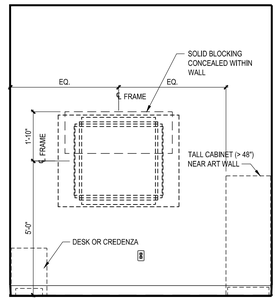
02/04/2022

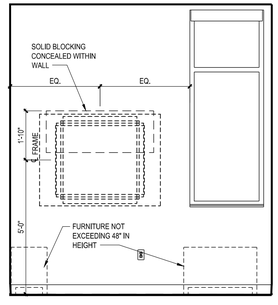
SHEET

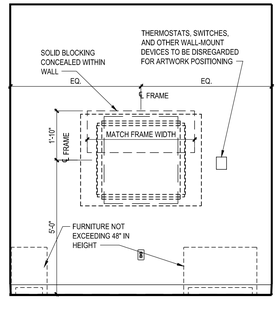
A6.06

ART AND MARKETING









OWNER-PROVIDED ARTWORK POSITIONING GUIDELINES:

- PREFERRED LOCATION: BACK WALL
- SECONDARY LOCATION: SIDE WALL OPPOSITE DESK.
- STANDARD SIZES FOR OFFICES, CONFERENCE ROOMS, AND LOBBIES:
  - 35" SQUARE
  - 33"W x 39"H
  - 39"W x 33"H
  - 39.75"W x 30.75" H
- LARGE SIZE FOR CONFERENCE ROOMS AND LOBBIES ONLY:
  - 54"W x 41"H

10 / A6.07

ELEVATIONS:
ART AND MARKETING MATERIALS POSITIONING

3/8" = 1'-0"

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PRYOR & LOWENSTEIN
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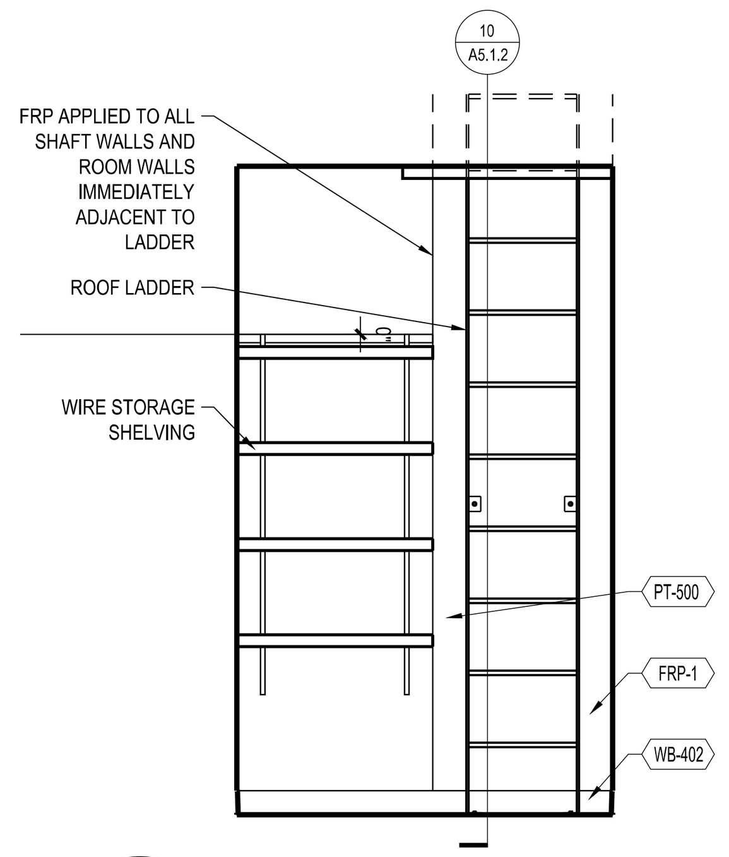
ART AND MERCHANDISING POSITIONING

02/04/2022

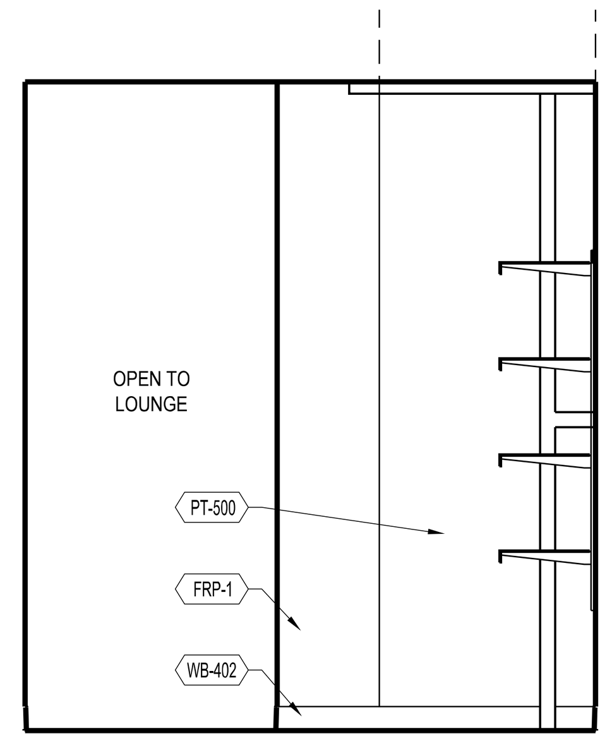
SHEET

A6.07

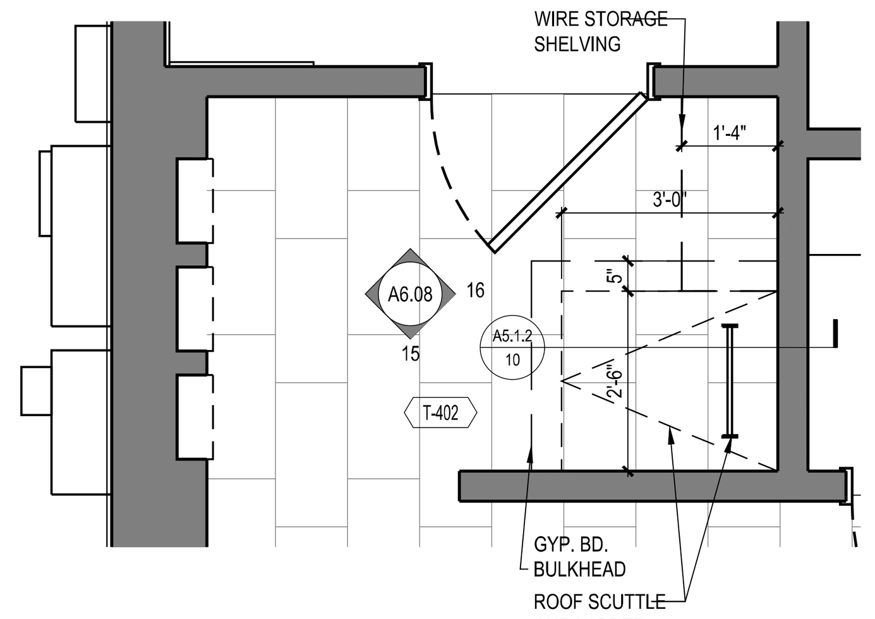
LADDER AREA



16 A6.08 **ELEVATION** 3/8" = 1'-0"

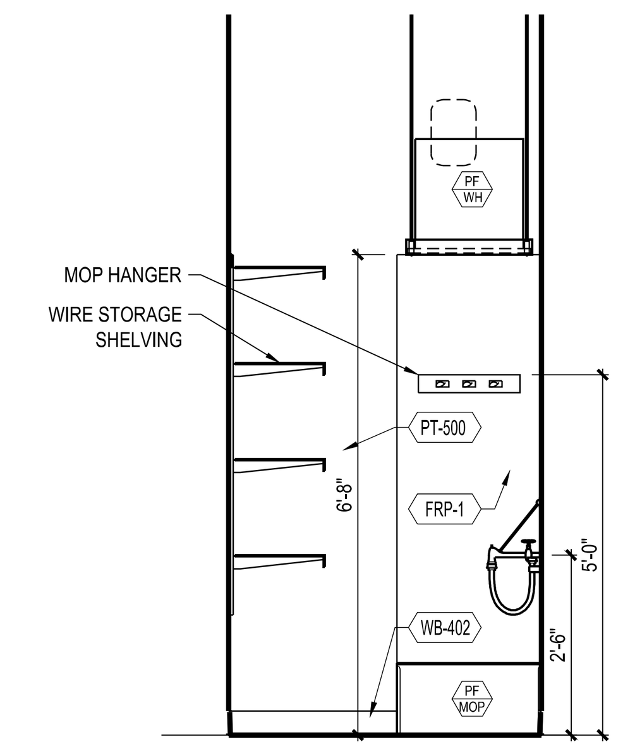


15 A6.08 **ELEVATION** 3/8" = 1'-0"

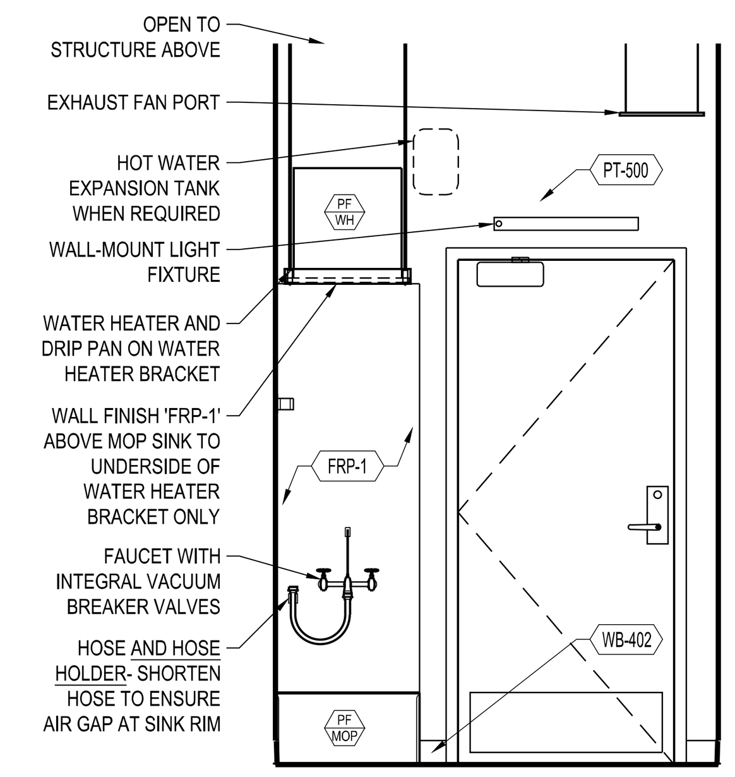


14 A6.08 **FLOOR PLAN** 3/8" = 1'-0"

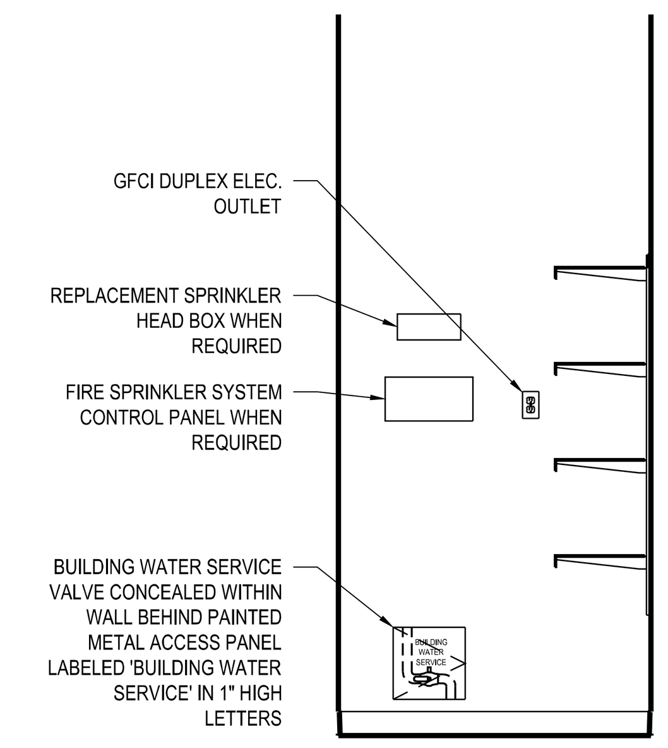
JANITOR'S CLOSET



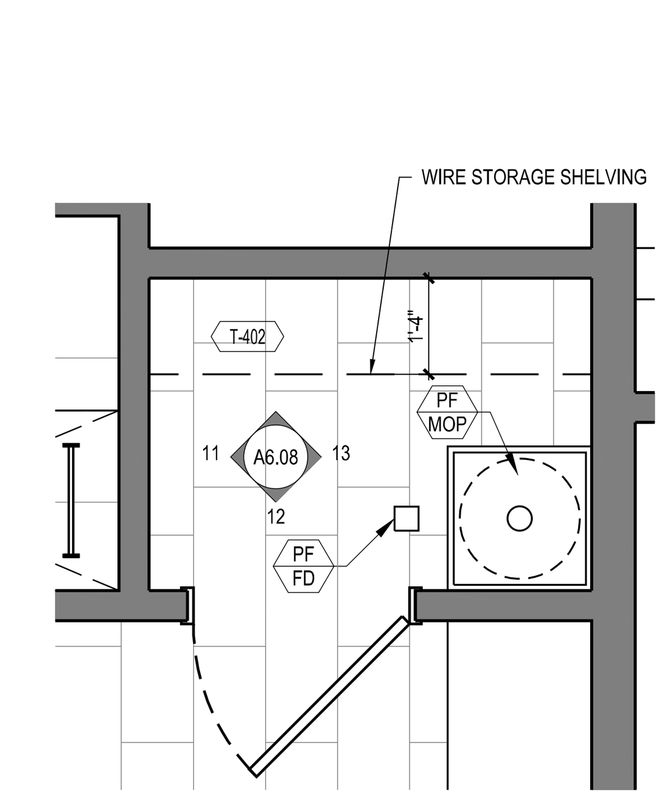
13 A6.08 **ELEVATION** 3/8" = 1'-0"



12 A6.08 **ELEVATION** 3/8" = 1'-0"

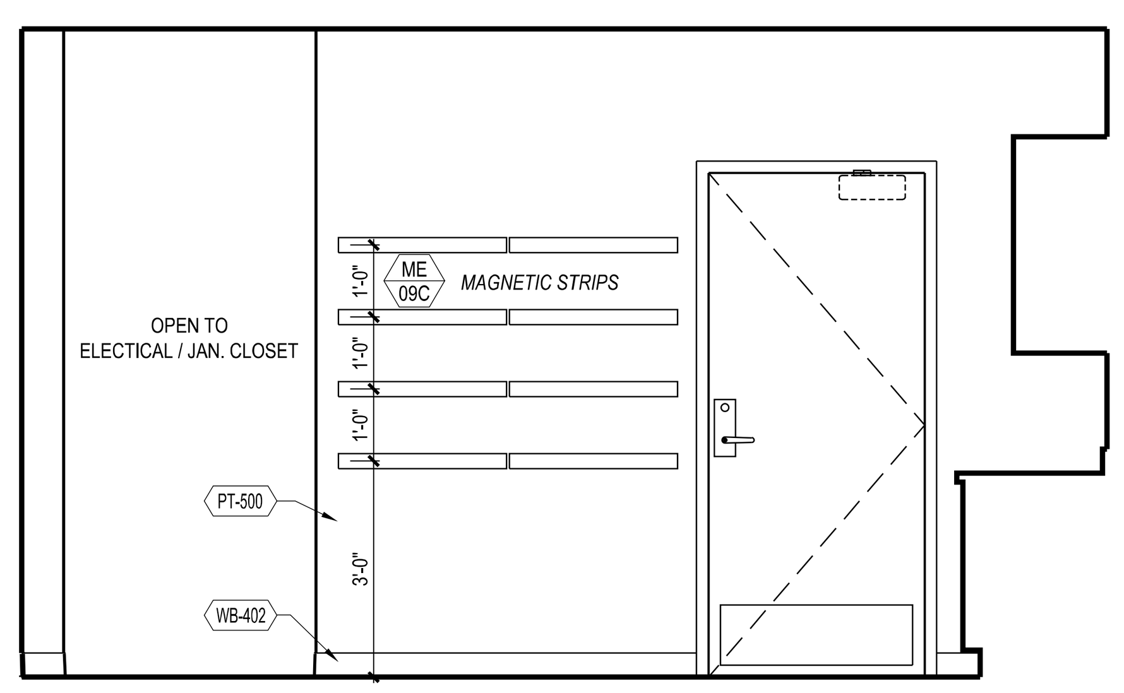


11 A6.08 **ELEVATION** 3/8" = 1'-0"

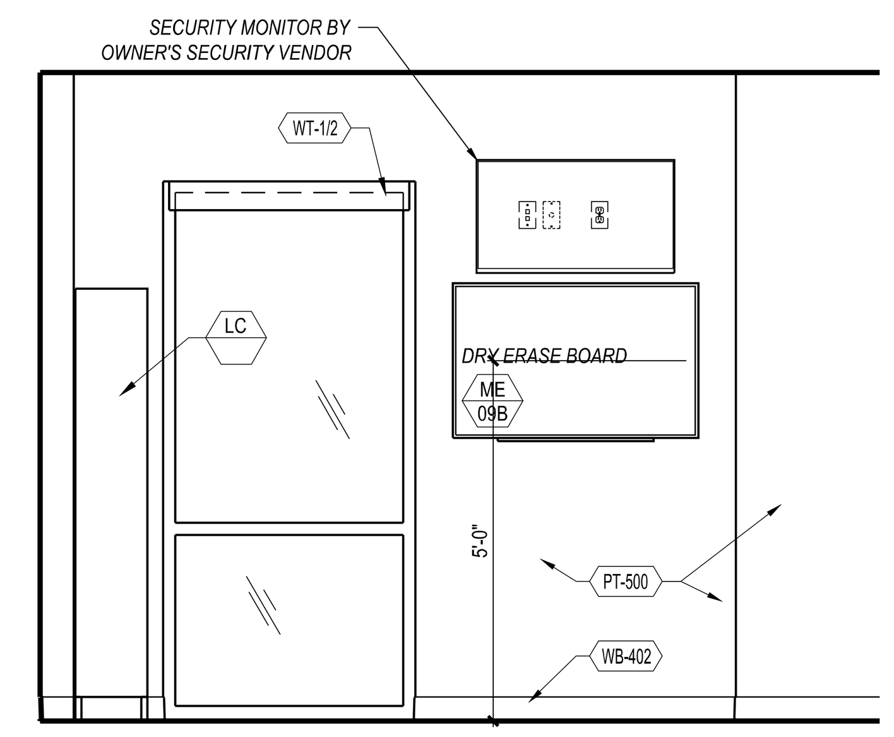


10 A6.08 **FLOOR PLAN** 3/8" = 1'-0"

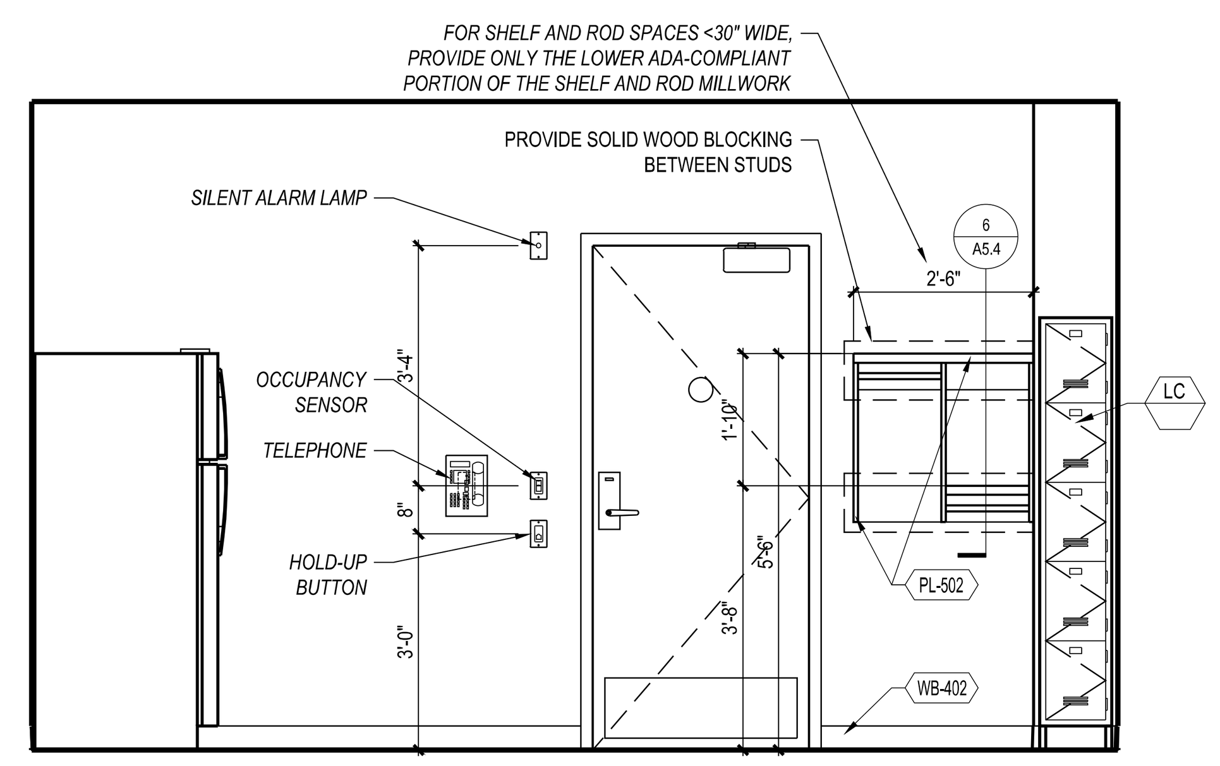
LOUNGE



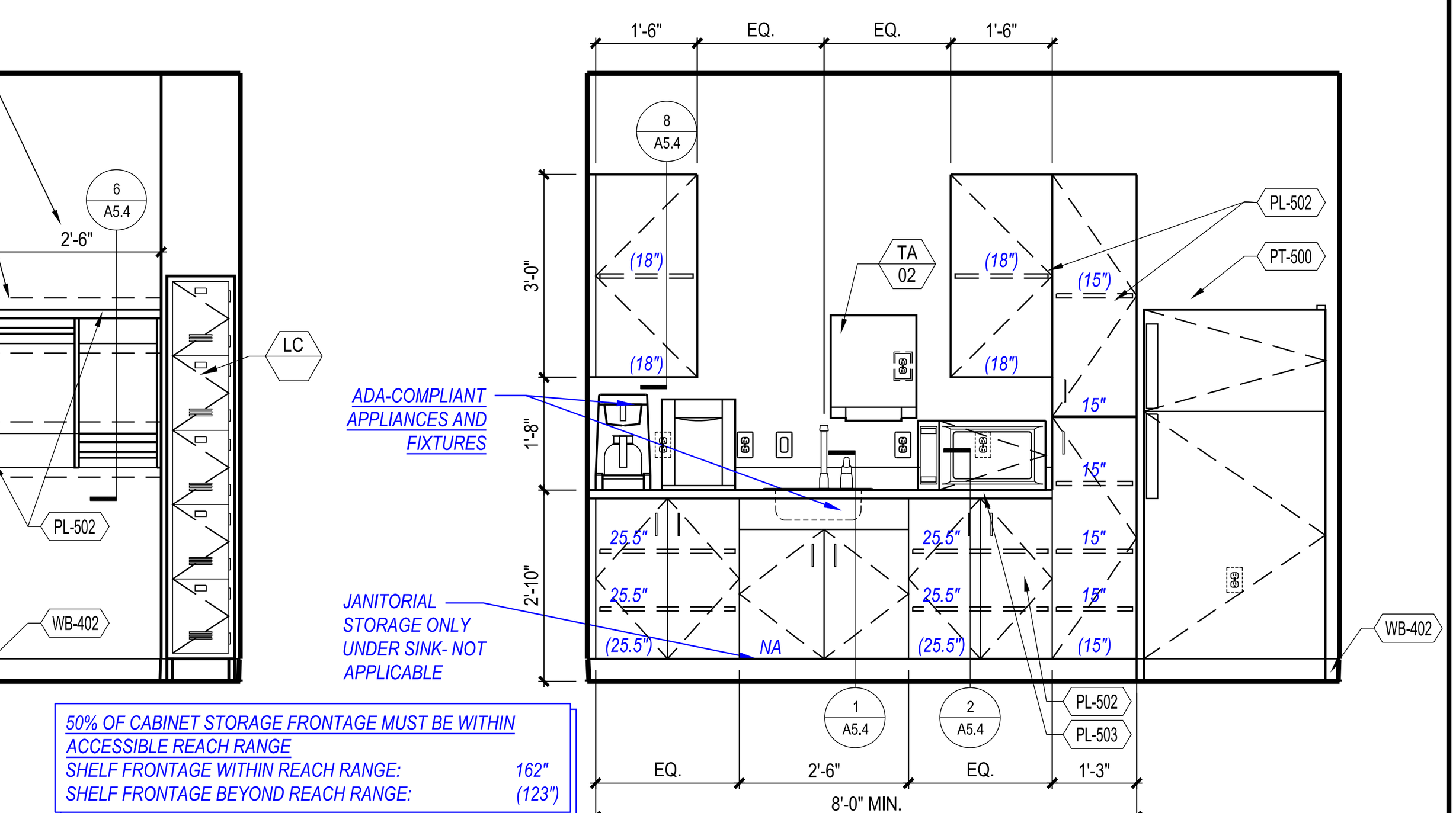
8 A6.08 **ELEVATION** 3/8" = 1'-0"



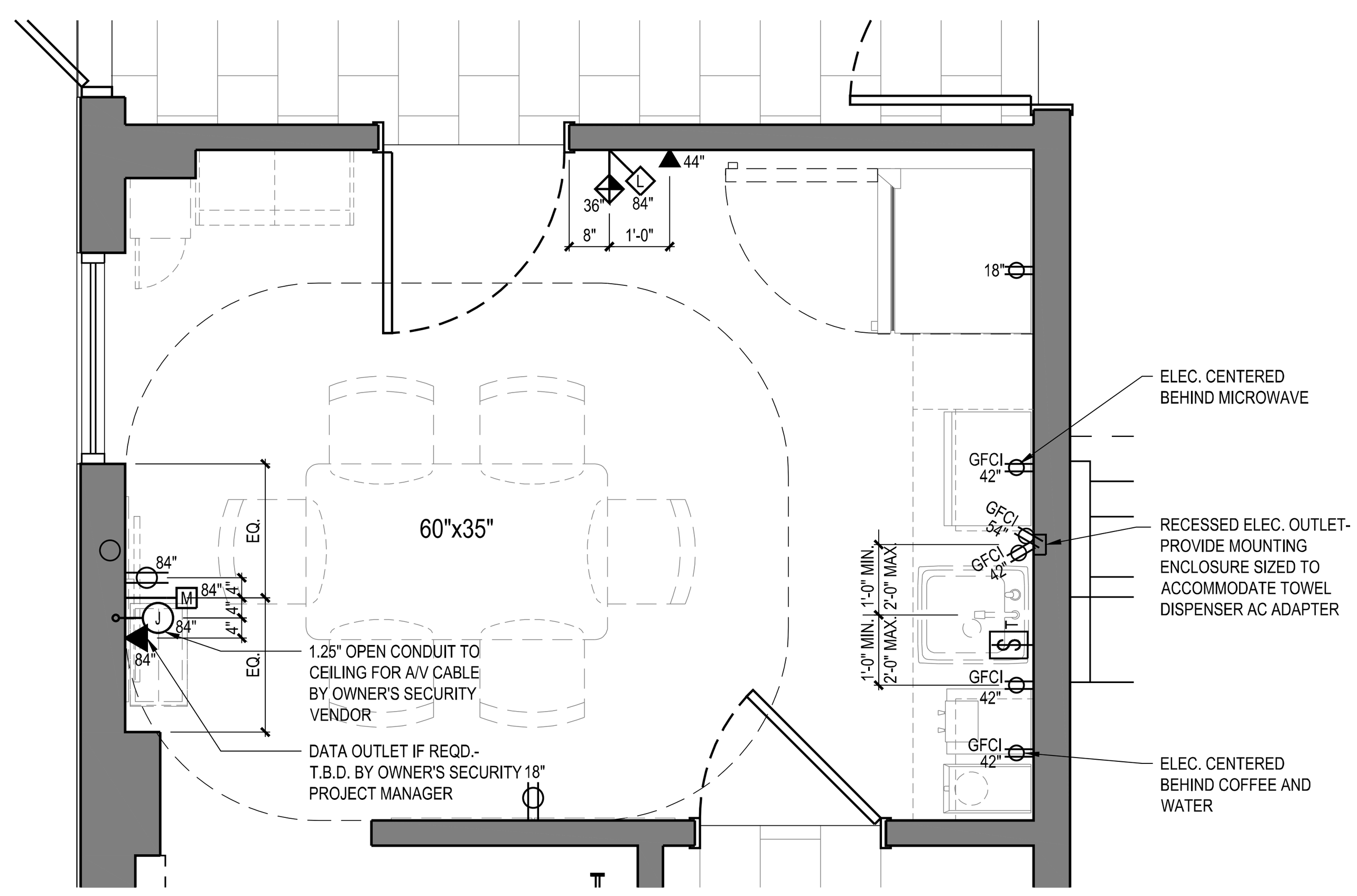
7 A6.08 **ELEVATION-** 3/8" = 1'-0"



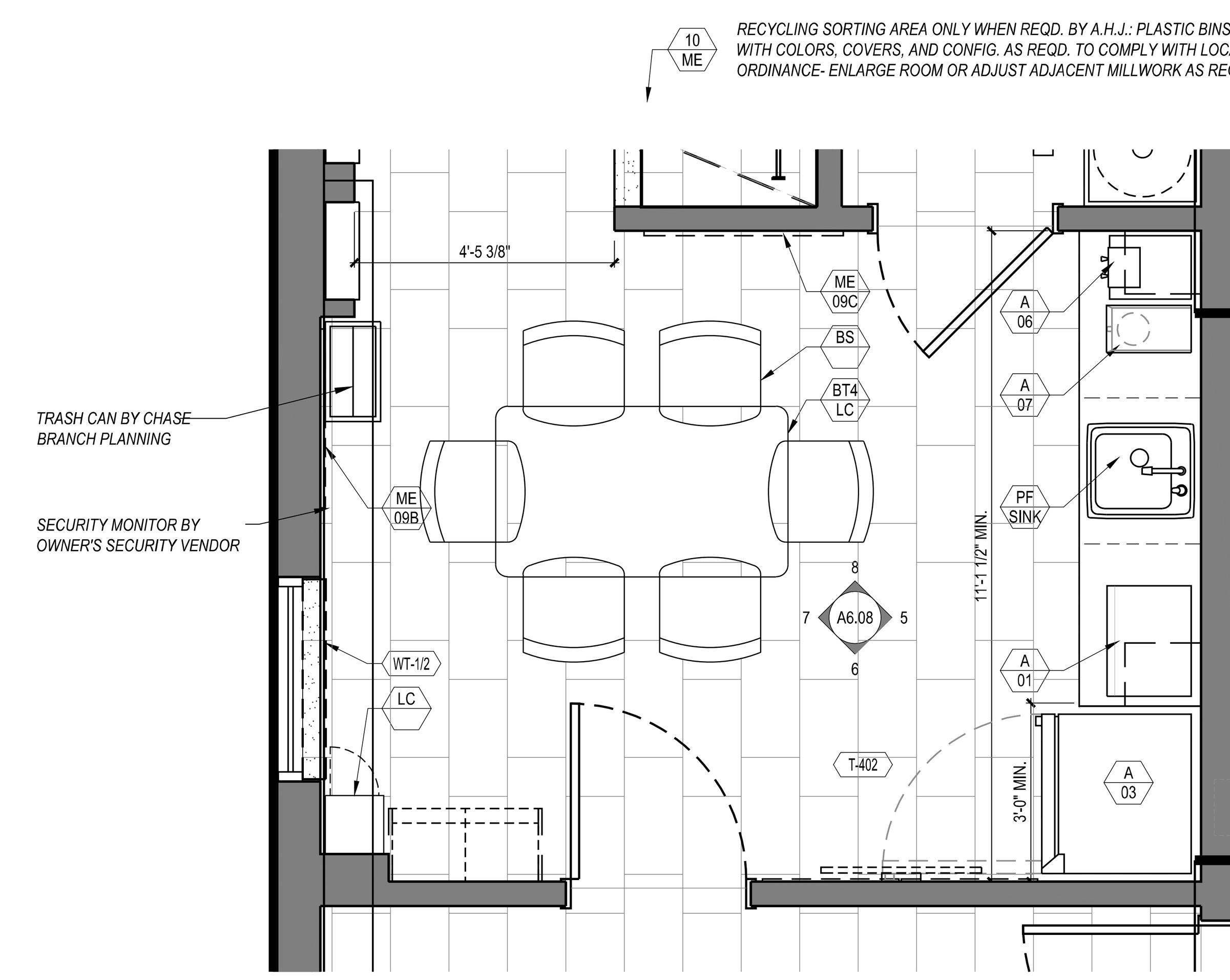
6 A6.08 **ELEVATION** 3/8" = 1'-0"



5 A6.08 **ELEVATION** 3/8" = 1'-0"



3 A6.08 **ELEC / DATA / SECURITY PLAN** 3/8" = 1'-0"



1 A6.08 **FLOOR PLAN** 3/8" = 1'-0"

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LOUNGE
JANITOR'S CLOSET
ELECTRICAL PANEL / LADDER AREA

02/04/2022

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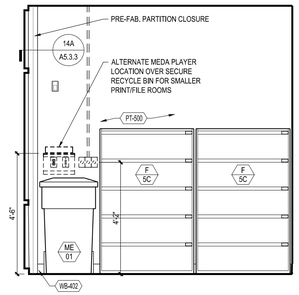
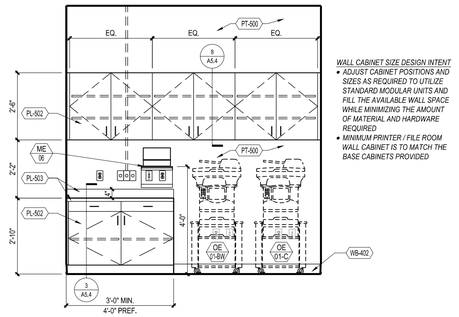
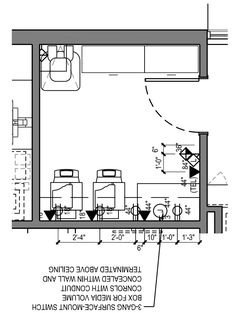
A6.08







13
A6.09
INTERIOR ELEVATION
3/8" = 1'-0"

WALL CABINET SIZE DESIGN INTENT
- *ADJUST CABINET POSITIONS AND SIZES AS REQUIRED TO UTILIZE STANDARD MODULAR UNITS AND FILL THE AVAILABLE WALL SPACE WHILE MINIMIZING THE AMOUNT OF MATERIAL AND HARDWARE REQUIRED*
- *MINIMUM PRINTER / FILE ROOM WALL CABINET IS TO MATCH THE BASE CABINETS PROVIDED*

12
A6.09
INTERIOR ELEVATION
3/8" = 1'-0"

11
A6.09
ELEC/DATA PLAN
1/4" = 1'-0"

9
A6.09
FLOOR PLAN
1/4" = 1'-0"

PRINT / FILE ROOM

8
A6.07
ELEVATION- FOUNTAINS
3/8" = 1'-0"

7
A6.07
ELEVATION- RESTROOM
3/8" = 1'-0"

6
A6.07
ELEVATION- RESTROOM
3/8" = 1'-0"

5
A6.07
ELEVATION- RESTROOM
3/8" = 1'-0"

4
A6.07
ELEVATION- RESTROOM
3/8" = 1'-0"

RESTROOMS

3
A6.07
ELEC. PLAN
3/8" = 1'-0"

1
A6.07
FLOOR PLAN
3/8" = 1'-0"

PREPARED BY:

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SIGNED BY:

STATE OF MISSOURI
JOSHUA W. CARRELL
NUMBER A-2018040323
ARCHITECT
Joshua W Carrell
3/2/2022

PRYOR ROAD & LOWENSTEIN DRIVE

908 NW PRYOR ROAD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

ISSUE	DATE	DESCRIPTION

CHASE

PRYOR & LOWENSTEIN
PROTOTYPE VERSION 20.4

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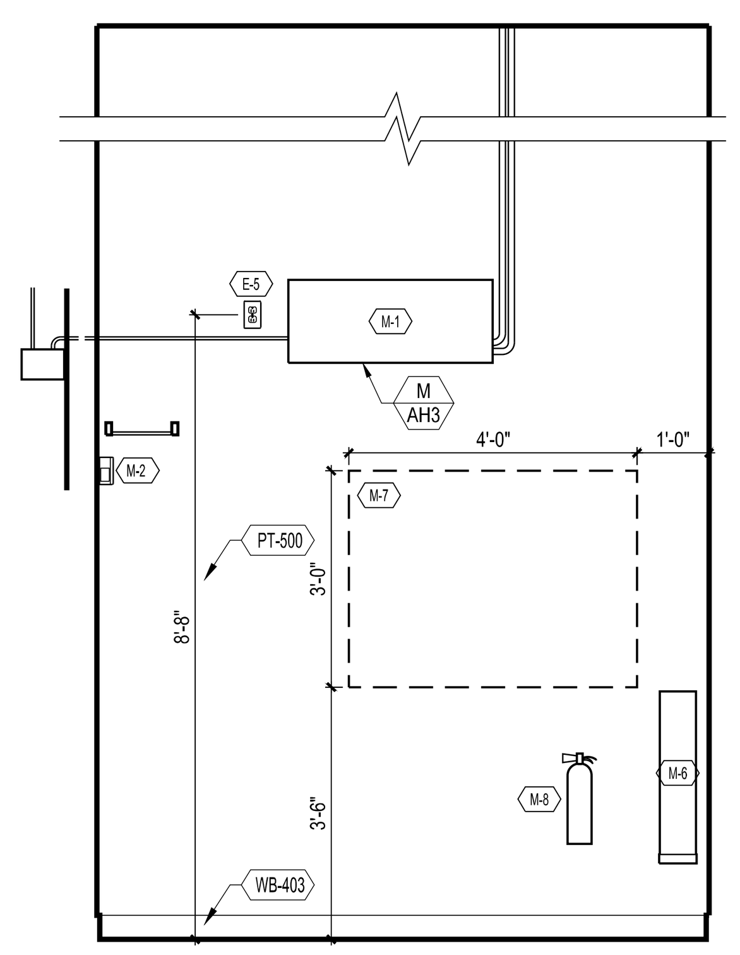
RESTROOMS
PRINT / FILE ROOM

02/04/2022

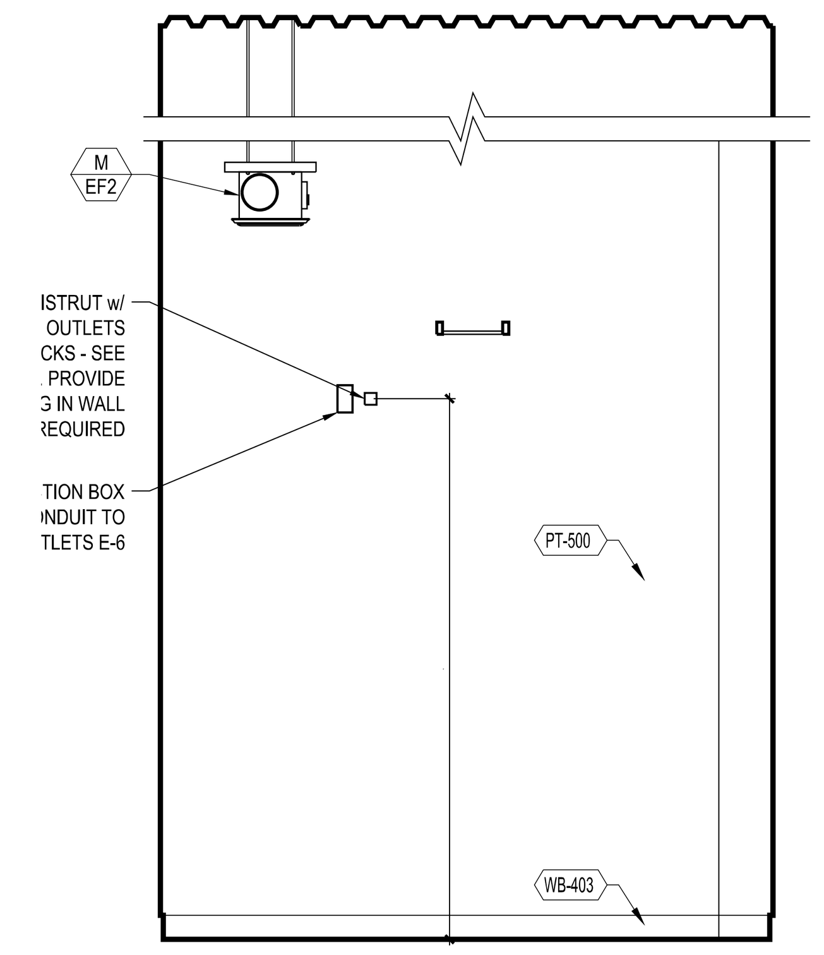
SHEET

A6.09

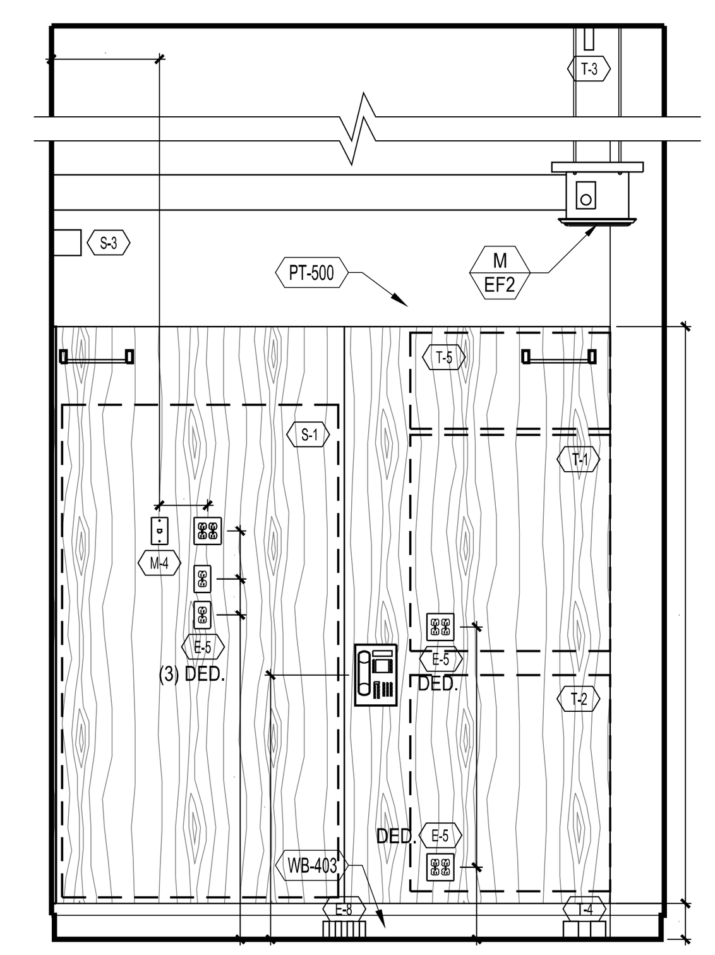
	DATA ROOM DIAGRAM KEY
E-1	ELEC PANEL: MAIN (NOT IN DATA ROOM)
E-2	ELEC. PANEL: DISTRIBUTION (NOT IN DATA ROOM)
E-3	ELEC. PANEL: DISTRIBUTION (NOT IN DATA ROOM)
E-4	SURGE PROTECTION DEVICE (NOT IN DATA ROOM)
E-5	120V/20A ELEC. OUTLET- DUPLEX OR QUADRUPLEX AS SHOWN- RECESSED OR SURF. MTD.
E-6	(2) DEDICATED 208V/30A ELEC OUTLETS - TWIST-LOCK, NEMA L14-30
E-7	(2) DEDICATED 120V/20A ELEC OUTLETS - NEMA 5-20R
E-8	IN-FLOOR CONDUIT TERMINATIONS- REFER TO ELECTRICAL DRAWINGS
E-9	MANUAL TOGGLE LIGHT SWITCH
T-1	TELECOM CARRIER #1: 36"W X 36"H
T-2	TELECOM CARRIER #2: 36"W X 36"H
T-3	1" CONDUIT TO ROOF LOCATION FOR FUTURE ANTENNA CABLING.
T-4	(2) 2" CONDUITS FOR TELECOM SERVICE W/ 3-CELL MAXCELL INNERDUCT- COORD. LOCN. W/ UTILITY
T-5	CELLULAR TELECOM CARRIER: 36"W x 16"H
D-1	DATA RACK / CABLE TRAY COMPONENTS
D-2	(2) 4" DATA CABLE SLEEVES PROVIDED AND INSTALLED BY OWNER'S STRUCTURED CABLING CONTRACTOR AFTER WALL FINISH (2 LOCATIONS)
S-1	SECURITY EQUIPMENT: 48"W x 66"H
S-2	2" FIRE-RATED SECURITY CABLE SLEEVE PROVIDED AND INSTALLED BY OWNER'S STRUCTURED CABLING CONTRACTOR AFTER WALL FINISH
S-3	4" FIRE-RATED SECURITY CABLE SLEEVE PROVIDED AND INSTALLED BY OWNER'S STRUCTURED CABLING CONTRACTOR AFTER WALL FINISH
M-1	FAN COIL UNIT WITH REMOTE CONDENSATE PUMP IN ADJACENT ROOM - PROVIDE DEDICATED SYSTEM THAT MEETS ROOM TEMPERATURE AND HUMIDITY REQUIREMENTS IN JPMC RETAIL STRUCTURED CABLING STANDARDS, APPENDIX B
M-2	SECURITY MOTION SENSOR
M-4	SURFACE-MOUNT DATA NETWORK JACK
M-5	WALL BRACKET FOR REMOTE THERMOSTAT
M-6	DRAWING STORAGE TUBE
M-7	STRUCTURED CABLING FLOOR PLAN: 48"W X 36"H
M-8	WALL-MOUNT FIRE EXTINGUISHER: CARBON DIOXIDE ONLY / WATER OR DRY CHEMICAL TYPES NOT PERMITTED, CLASS C OR B-C, 5 LB. OR SMALLER,SET WALL BRACKET TO KEEP HANDLE < 48" AFF
B-1	BMS EQUIPMENT: 15"W X 54"H



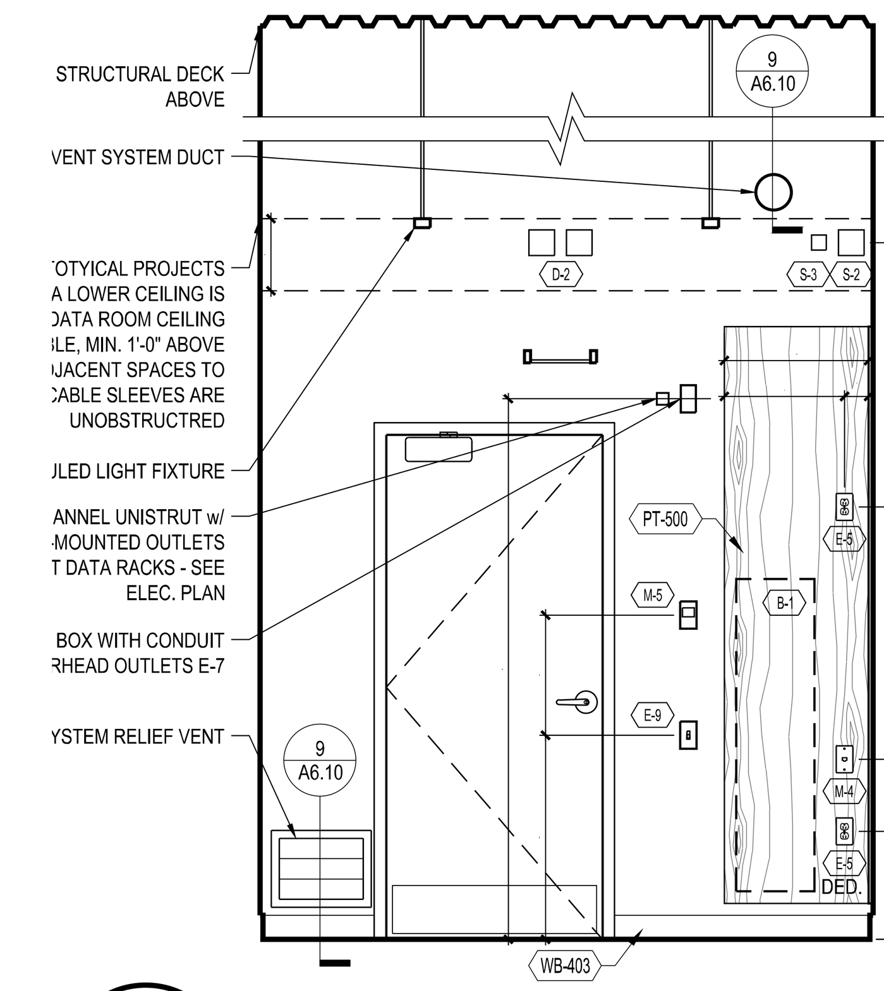
7 A6.10 ELEVATION- OPEN WALL
3/8" = 1'-0"



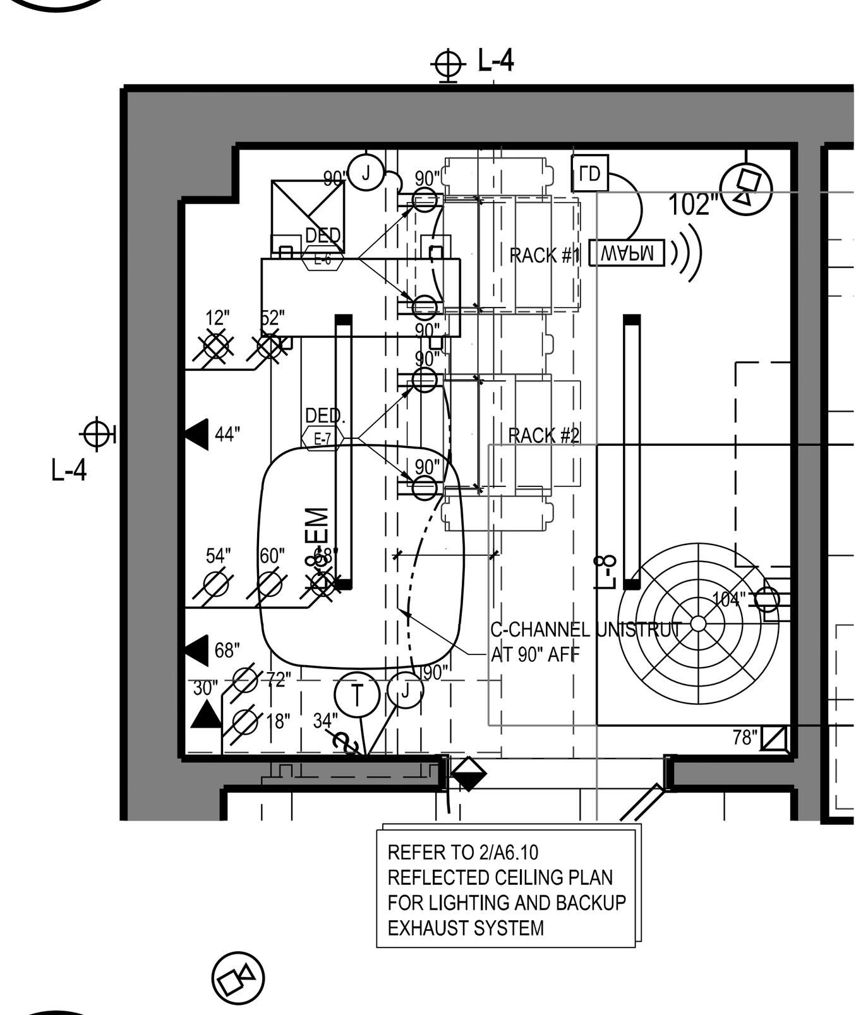
6 A6.10 ELEVATION- RACK WALL
3/8" = 1'-0"



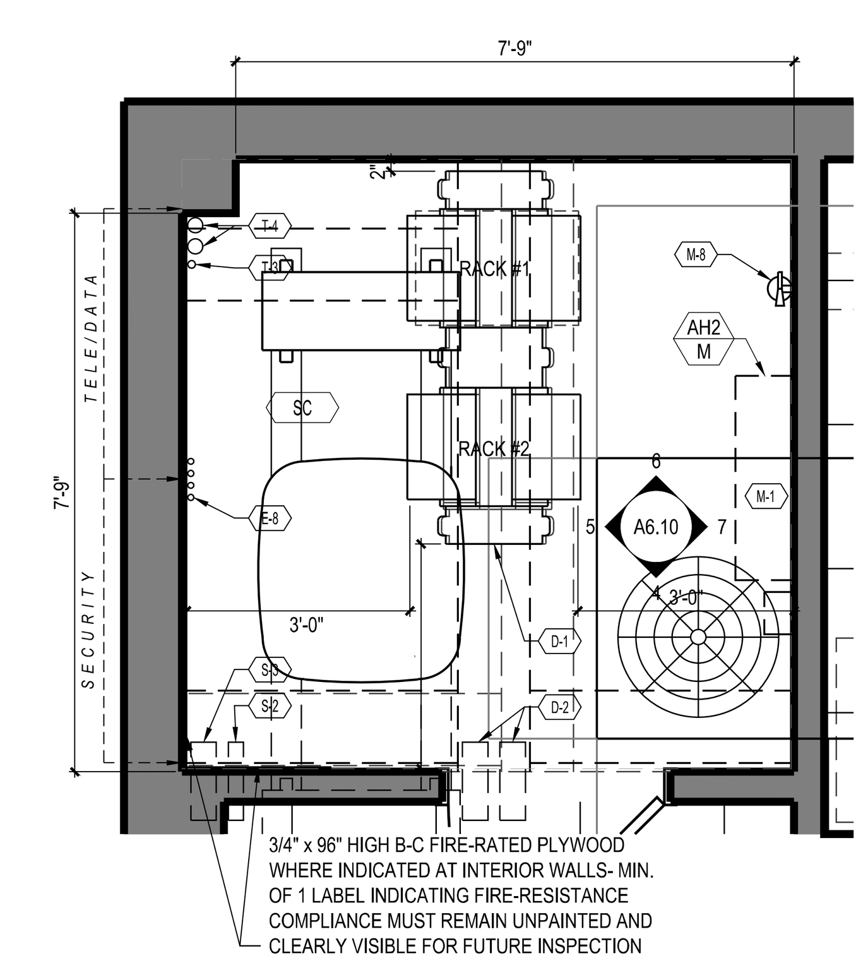
5 A6.10 ELEVATION- EQUIPMENT WALL
3/8" = 1'-0"



4 A6.10 ELEVATION- DOOR WALL
3/8" = 1'-0"



3 A6.10 ELEC. SYSTEMS PLAN
3/8" = 1'-0"



1 A6.10 FLOOR PLAN
3/8" = 1'-0"

STANDARD - 2-RACK

PREPARED BY:
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SIGNED BY:

3/2/2022

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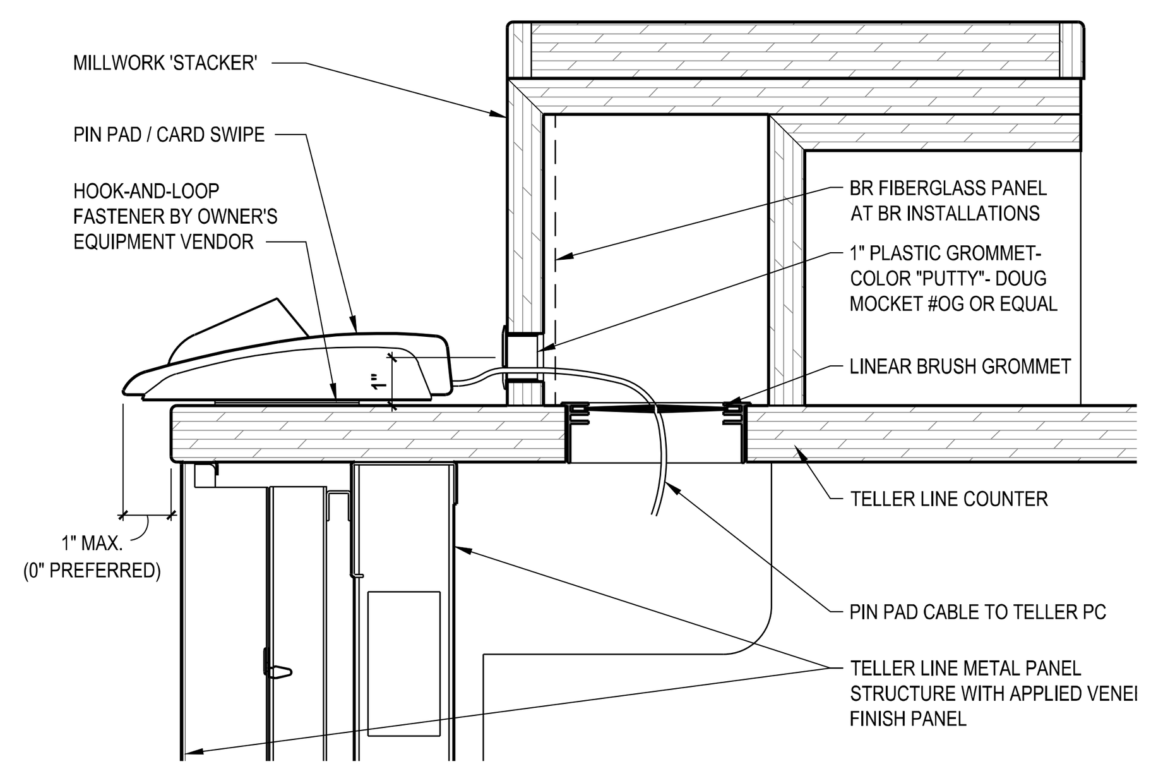
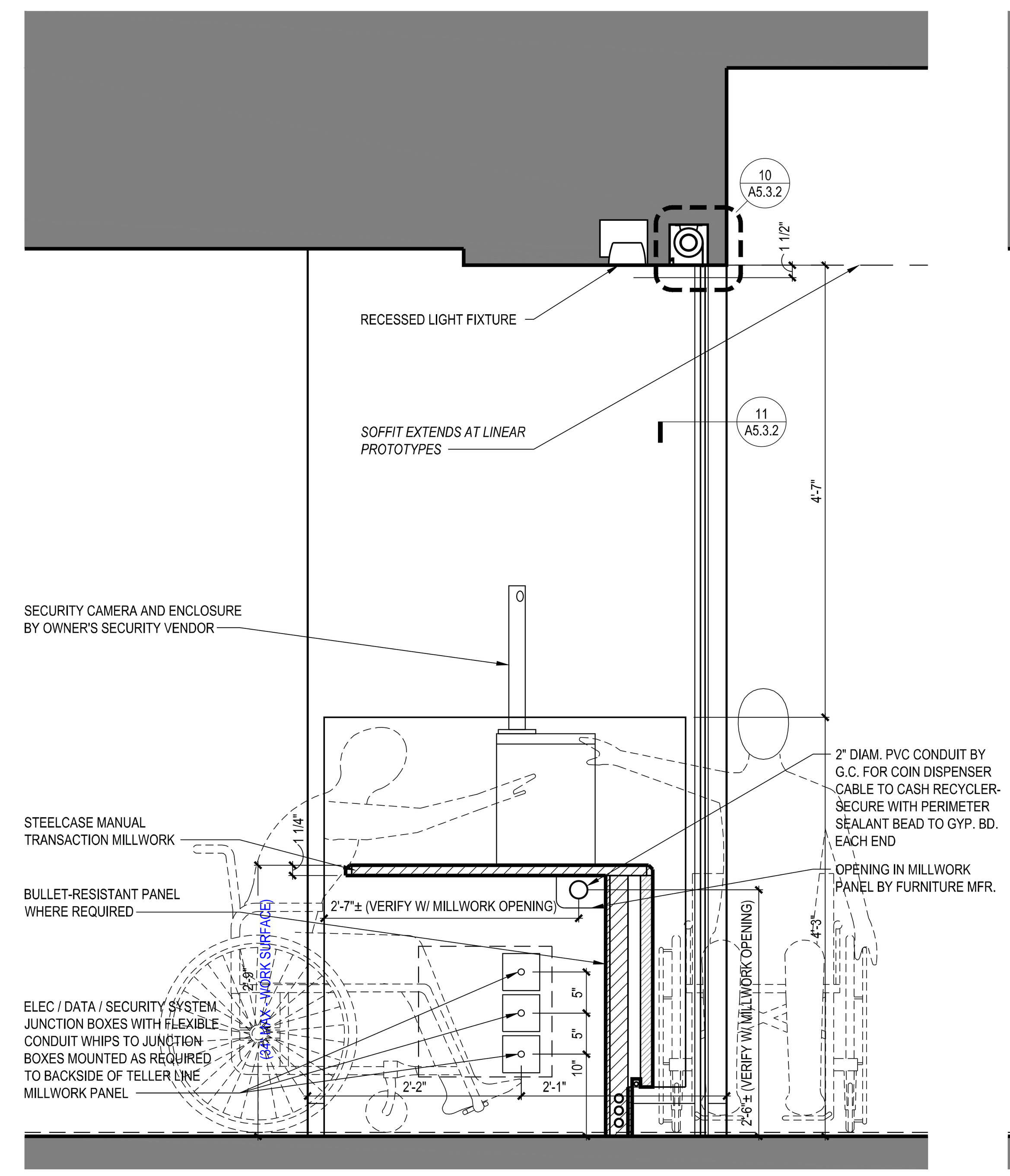
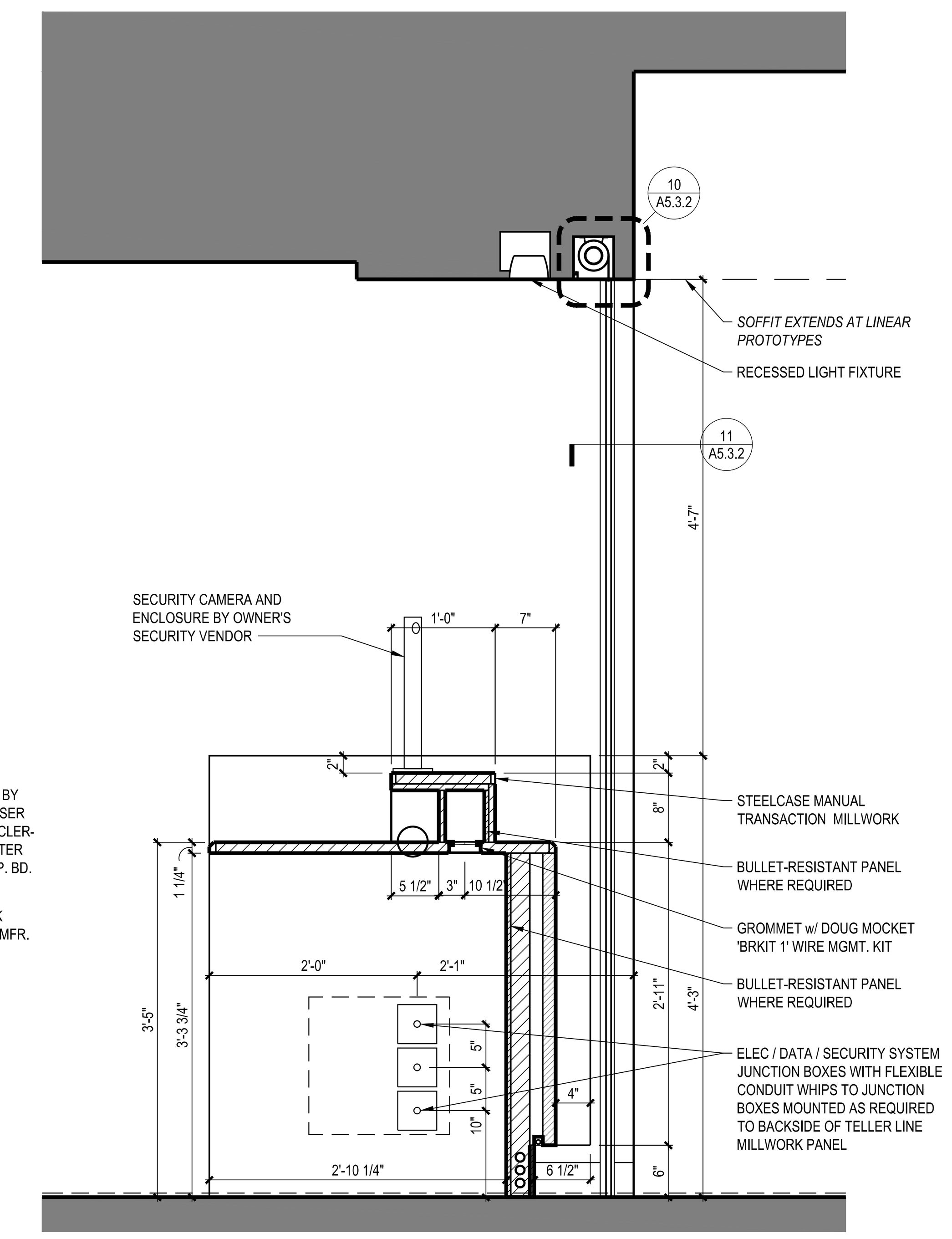


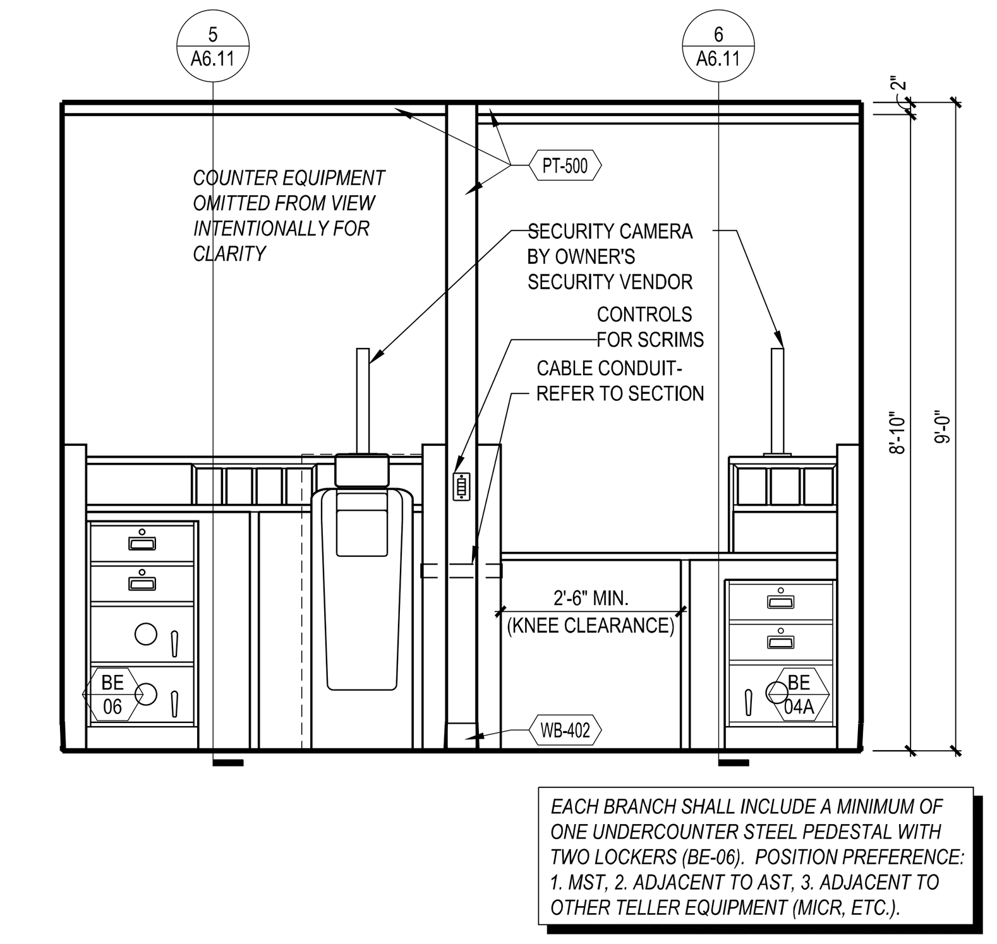
10 A6.11 PIN PAD / CARD SWIPE MOUNTING
3" = 1'-0"



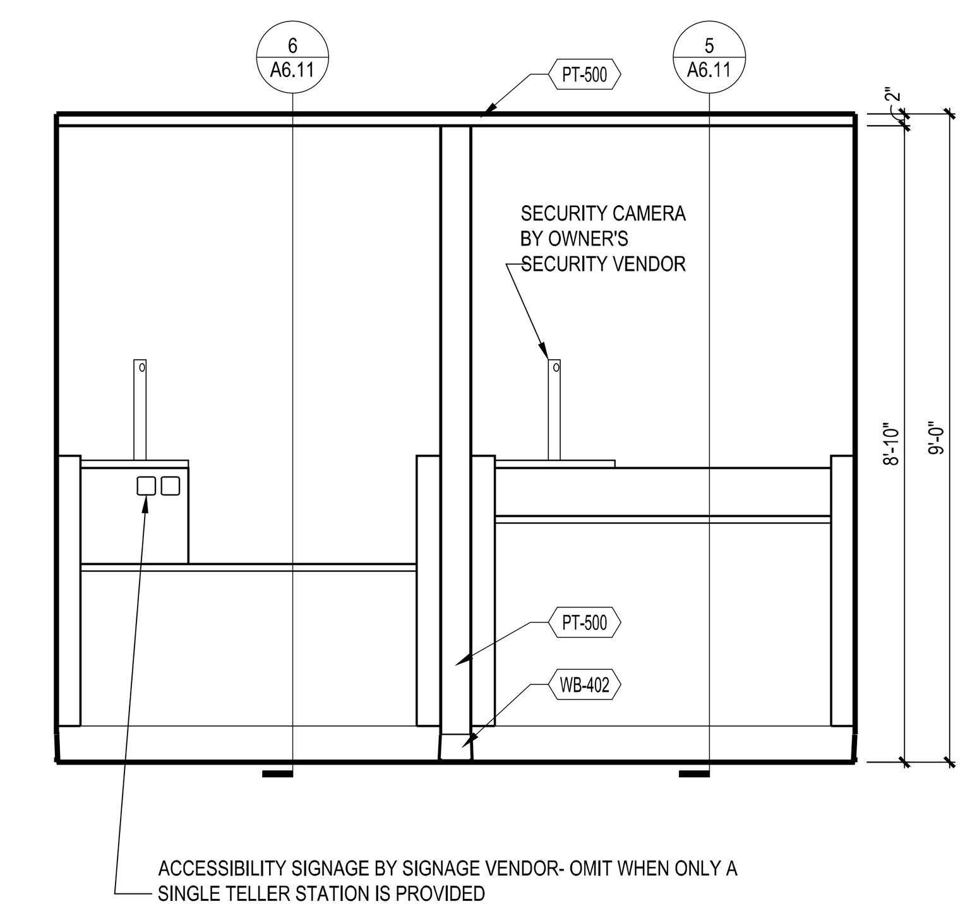
6 A6.11 SECTION AT AST
3/4" = 1'-0"



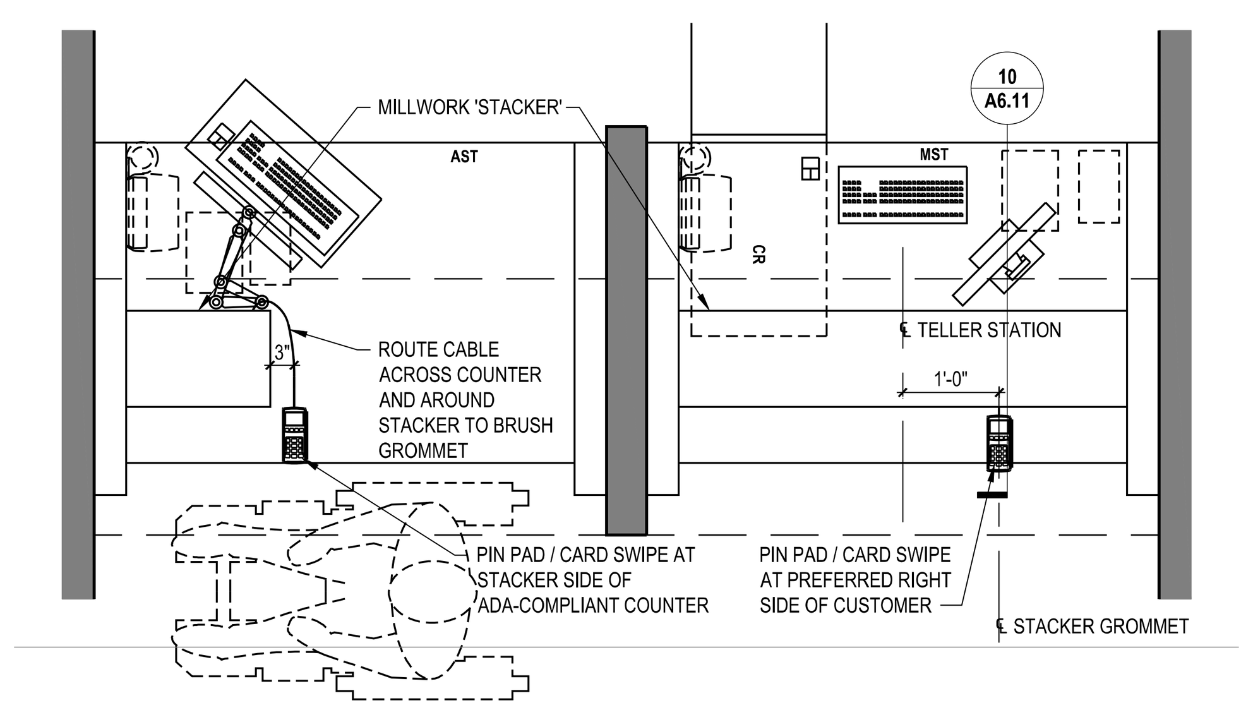
5 A6.11 SECTION AT MST
3/4" = 1'-0"



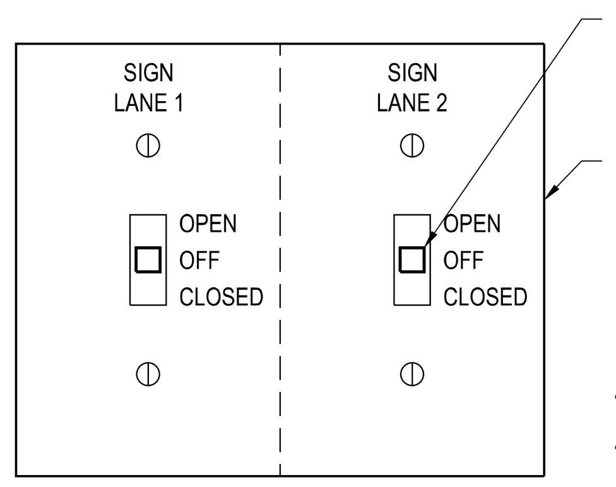
4 A6.11 MANUAL TRANSACTIONS TELLER SIDE ELEV.
3/8" = 1'-0"



3 A6.11 MANUAL TRANSACTIONS CUSTOMER SIDE ELEV.
3/8" = 1'-0"



9 A6.11 PIN PAD / CARD SWIPE POSITION
1/2" = 1'-0"

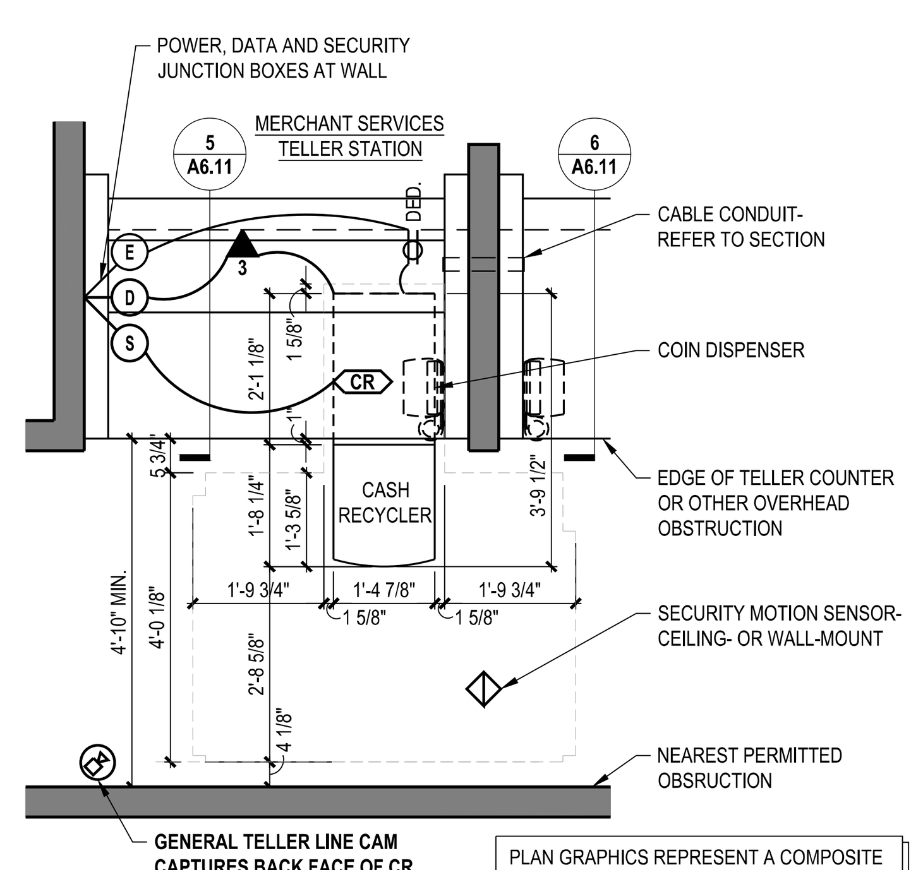


DRIVE-UP LANE SIGNAGE CONTROLS, ONE PER LANE: HUBBELL #HBL 1385W OR APPROVED EQUAL 3-POSITION HEAVY/INDUSTRIAL DUTY WHITE MAINTAINED-CONTACT SWITCH WITH CENTER- OFF

CUSTOM ENGRAVED ELECTRICAL DEVICE COVER PLATE WITH 3/16" HIGH LETTERING IN ARIAL OR HELVETICA FONT: WHITE FLAT 'LAMICOID' STOCK WITH INNER BLACK LAYER OR STANDARD WHITE COVER PLATE ENGRAVED AND PAINT-FILLED- SUBMIT PRODUCT DATA TO ARCHITECT OF RECORD FOR APPROVAL

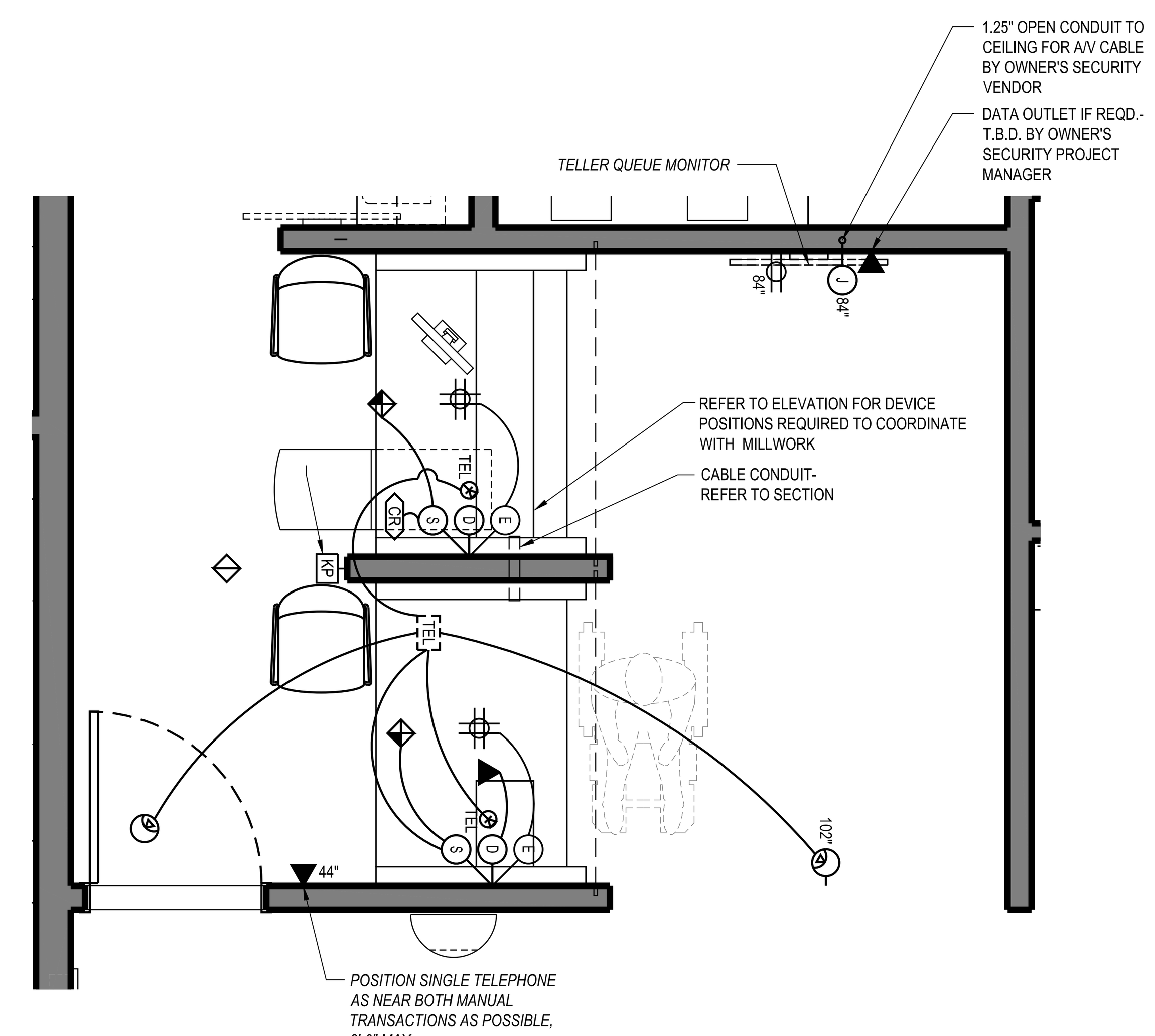
DESIGNER NOTES:
- *ONLY REQUIRED AT GC-BUILT DRIVE-UP CANOPIES WITH CANOPY-MOUNTED LANE SIGNS.*
- *PLATE CONFIGURATON MUST BE MODIFIED TO COORDINATE WITH DRIVE-UP LANE CONFIGURATION, ADD OR REMOVE SIGNAGE-CONTROL SWITCHES AS REQUIRED.*

8 A6.11 DRIVE-UP CANOPY LIGHTING AND SIGN CONTROLS
N.T.S.

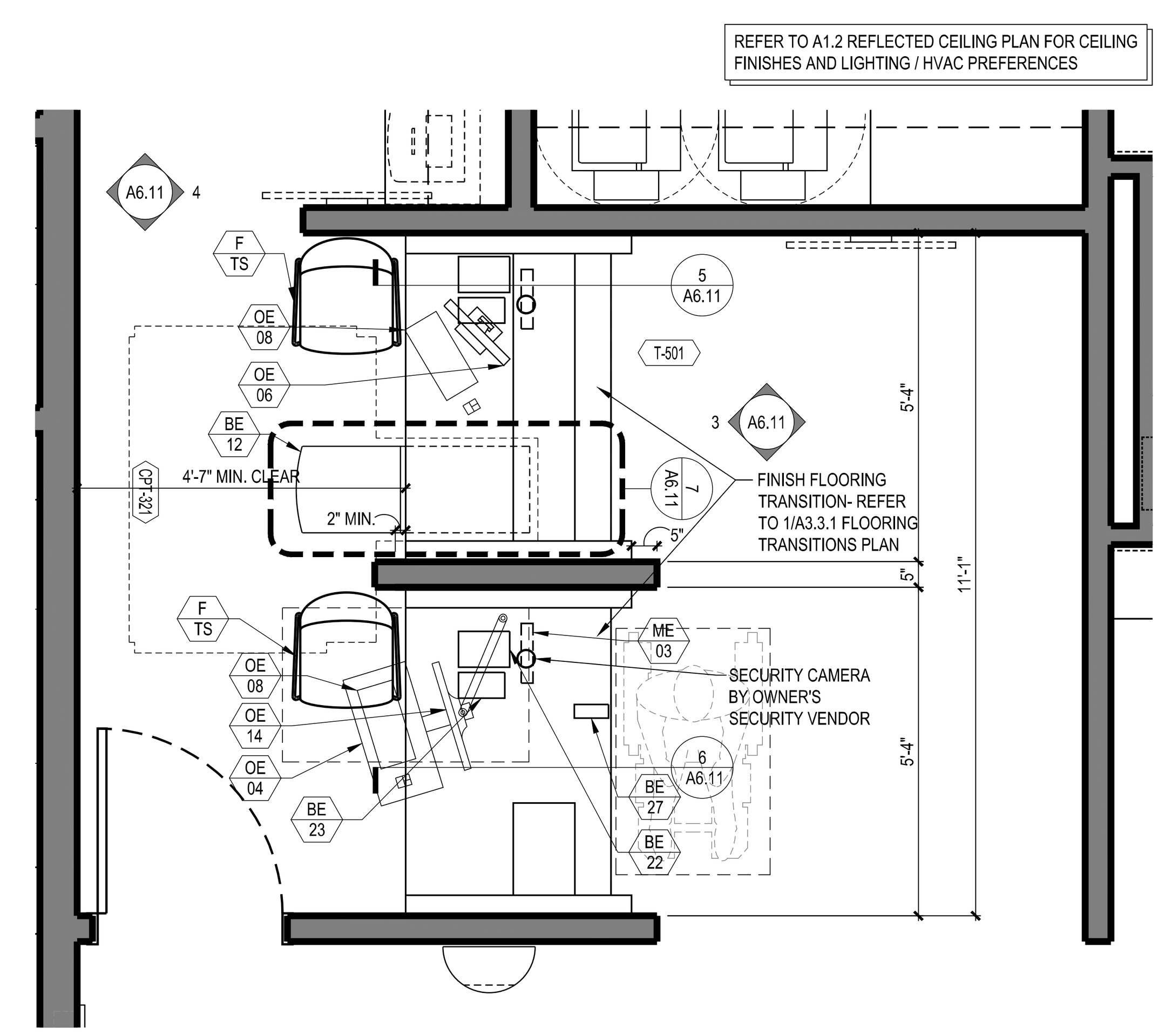


PLAN GRAPHICS REPRESENT A COMPOSITE OF THE FOOTPRINT AND CLEARANCE AREAS OF THE TWO AVAILABLE PRODUCTS- REFER TO THE BANK EQUIPMENT SCHEDULE AND MANUFACTURER'S INSTALLATION MANUALS FOR MODEL-SPECIFIC CLEARANCE REQUIREMENTS

7 A6.11 CASH RECYCLER- CLEARANCES AND CONNECTIONS
3/8" = 1'-0"



2 A6.11 MANUAL TRANSACTIONS ELEC. SYSTEMS PLAN
3/8" = 1'-0"



1 A6.11 MANUAL TRANSACTIONS FLOOR PLAN
3/8" = 1'-0"

PREPARED BY:

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SIGNED BY:

[Seal: STATE OF MISSOURI, JOSHUA W. CARRELL, NUMBER A-2018040323, ARCHITECT — signed]
3/2/2022

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02/04/2022
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CHASE BANK

NEW STRUCTURE

908 NW PRYOR RD., LEE'S SUMMIT, MO 64081

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Design Loads

GROUND FLOOR DEAD LOAD	
SLAB ON GRADE	SELF WEIGHT

ROOF DEAD LOADS	
ROOF MEMBRANE	0.5 PSF
ROOF INSULATION	5 PSF (AVG.)
ROOF SHEATHING	2.5 PSF (PLYWOOD), 2 PSF (STEEL)
MEP	7 PSF
CEILING	1.5 PSF
TOTAL IMPOSED DL	16.5 PSF
ROOF FRAMING	8.5 PSF
DL w/ FRAMING	25 PSF
LLr	20 PSF
SL	20 PSF
WB TYPE EXTERIOR WALLS (SEE ARCH.)	17 PSF
WC TYPE EXTERIOR WALLS (SEE ARCH.)	13 PSF

LIVE LOADS	
1st FLOOR	100 PSF
ROOF	20 PSF (REDUCIBLE)

IBC Lateral Loads

OCCUPANCY CATEGORY	II

WIND	
BASIC WIND SPEED	109 MPH
IMPORTANCE FACTOR	IW = II
EXPOSURE CATEGORY	C
INTERNAL PRESSURE COEFFICIENT	GCPI = ±0.18
CLADDING WIND PRESSURE	-17 PSF
DESIGN WALL WIND PRESSURE	24 PSF
DESIGN PARAPET WIND PRESSURE	58 PSF
DESIGN ROOF UPLIFT	-20 PSF
WIND MAX BASE SHEAR	V = 43.3K

SEISMIC	
OCCUPANCY CATEGORY	II
IMPORTANCE FACTOR	I = 1.00
SOIL SITE CLASS	D

SPECTRAL RESPONSE COEFFICIENTS	
S_{DS}	0.106
S_{D1}	0.109

MAPPED SPECTRAL RESPONSE ACCELERATION	
S_S	0.099
S_1	0.068

SOIL FACTOR COEFFICIENTS	
F_A	1.6
F_V	2.4
STRUCTURAL SYSTEM	WOOD STRUCTURAL PANEL SHEATHED SHEAR WALLS, R=6.5
SEISMIC BASE SHEAR	V = 2.64k
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE
SEISMIC DESIGN CATEGORY	B

General Notes

1. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES: THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC), AND OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK, AND THOSE CODES AND STANDARDS LISTED IN THESE NOTES AND IN THE PROJECT SPECIFICATIONS.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.
3. STRUCTURE NOTED IN THE DRAWINGS AS EXISTING SHALL BE FIELD VERIFIED BY THE CONTRACTOR AND ANY DISCREPANCIES NOTED SHALL BE REPORTED TO THE ARCHITECT/STRUCTURAL ENGINEER.
4. DO NOT SCALE THE DRAWINGS.
5. NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER THESE GENERAL NOTES, TYPICAL DETAILS, AND THE PROJECT SPECIFICATIONS.
6. TYPICAL DETAILS AND SCHEDULES INDICATED MAY NOT BE SPECIFICALLY REFERENCED ON THE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE WHERE EACH TYPICAL DETAIL OR SCHEDULE APPLIES. IF LOCATIONS ARE FOUND WHERE NO TYPICAL DETAIL, TYPICAL SCHEDULE, OR SPECIFIC DETAIL APPLIES, NOTIFY THE ARCHITECT/STRUCTURAL ENGINEER.
7. SEE THE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING: SIZE AND LOCATION OF DOOR AND WINDOW OPENINGS, SIZE AND LOCATION OF INTERIOR AND EXTERIOR NONBEARING PARTITIONS, SIZE AND LOCATION OF CONCRETE CURBS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHANGES IN LEVEL, CHAMFERS, GROOVES, INSERTS, ETC., SIZE AND LOCATION OF FLOOR AND ROOF OPENINGS, FLOOR AND ROOF FINISHES, STAIR FRAMING AND DETAILS, DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS, CEILING ASSEMBLIES, EXTERIOR WALL ASSEMBLIES.
8. SEE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR THE FOLLOWING: PIPES, SLEEVES, HANGERS, TRENCHES, WALL, FLOOR AND ROOF OPENINGS, DUCT PENETRATIONS ETC., EXCEPT AS SHOWN OR NOTED, ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS, CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL OR PLUMBING FIXTURES, SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES AND ANCHOR BOLTS FOR MOUNTS.
9. FOR MECHANICAL AND ELECTRICAL EQUIPMENT ANCHORAGE TO BE DESIGNED BY OTHERS, SEE ASCE 7-16 SECTION 13.6. USE ISOLATORS, FASTENERS AND BRACING APPROVED BY ICC-ES CAPABLE OF TRANSMITTING CODE REQUIRED LATERAL LOADS. SECURE SUSPENDED EQUIPMENT WITH LATERAL BRACING.
10. FOR PIPING AND DUCTWORK BRACING TO BE DESIGNED BY OTHERS, SEE THE LATEST EDITION OF "GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS" BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION.
11. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. CONTRACTOR TO PROVIDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AS REQUIRED. CONTRACTOR TO PROVIDE ADEQUATE EXCAVATION PROCEDURES, SHORING, BRACING AND ERECTION PROCEDURES COMPLYING WITH NATIONAL, STATE AND LOCAL SAFETY ORDINANCES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO: BRACING AND SHORING FOR LOADS DUE TO HYDROSTATIC, EARTH, WIND OR SEISMIC FORCES, CONSTRUCTION EQUIPMENT, ETC.
12. OBSERVATION VISITS (SITE VISITS) BY REPRESENTATIVES OF ARCHITECT/STRUCTURAL ENGINEER DO NOT INCLUDE INSPECTION OF CONSTRUCTION MEANS AND METHODS. SITE VISITS DURING CONSTRUCTION ARE NOT CONTINUOUS AND DETAILED INSPECTION SERVICES ARE TO BE PERFORMED BY OTHERS. OBSERVATIONS ARE PERFORMED SOLELY FOR THE PURPOSE OF DETERMINING IF THE CONTRACTOR UNDERSTANDS DESIGN INTENT SHOWN IN THE CONTRACT DRAWINGS. OBSERVATIONS DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE AND ARE NOT TO BE CONSTRUED AS SUPERVISION OR VERIFICATION OF CONSTRUCTION.
13. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN THE STRUCTURAL MEMBERS.
14. ALL SPECIFICATIONS AND CODES NOTED SHALL BE THE LATEST APPROVED EDITIONS AND REVISIONS BY THE GOVERNMENTAL AGENCY HAVING JURISDICTION OVER THIS PROJECT.
15. CONTRACTOR SHALL INVESTIGATE THE SITE DURING CLEARING AND EARTH WORK OPERATIONS FOR FILLED EXCAVATIONS OR BURIED STRUCTURES SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, UTILITIES, ETC. IF ANY SUCH STRUCTURES ARE FOUND, THE STRUCTURAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
16. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT WHEN PLACED ON FRAMED FLOORS OR ROOFS. THE CONSTRUCTION MATERIAL LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE STRUCTURE HAS NOT ATTAINED DESIGN STRENGTH.
17. SHOP DRAWINGS SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW SHALL CONSIST OF 2 BOND SETS. NO MODIFICATIONS OR SUBSTITUTION OF DRAWINGS AND SPECIFICATIONS WILL BE ACCEPTED VIA SHOP DRAWING REVIEW.
    - CONTRACTOR SHALL REVIEW AND STAMP SHOP DRAWINGS PRIOR TO SUBMISSION TO THE ARCHITECT/STRUCTURAL ENGINEER. CONTRACTOR SHALL REVIEW FOR COMPLETENESS AND COMPLIANCE WITH CONTRACT DOCUMENTS.
    - SUBMIT SHOP DRAWINGS TO THE ARCHITECT/STRUCTURAL ENGINEER AS INDICATED OR SPECIFIED FOR REVIEW PRIOR TO FABRICATION. REVIEW WILL BE FOR GENERAL CONFORMANCE WITH DESIGN INTENT CONVEYED IN CONTRACT DOCUMENTS.
    - WHEN AN ENGINEER IS REQUIRED TO SIGN AND STAMP SHOP DRAWINGS AND CALCULATIONS, ENSURE SEAL INDICATES ENGINEER AS REGISTERED IN STATE WHERE PROJECT SITE OCCURS.
    - SHOP DRAWINGS ARE NOT A PART OF CONTRACT DOCUMENTS. THEREFORE, ARCHITECT'S/STRUCTURAL ENGINEER'S REVIEW DOES NOT CONSTITUTE AN AUTHORIZATION TO DEVIATE FROM TERMS AND CONDITIONS OF THE CONTRACT.
    - SHOP DRAWINGS WILL BE REJECTED FOR INCOMPLETENESS, LACK OF COORDINATION WITH OTHER PORTIONS OF CONTRACT DOCUMENTS, LACK OF CALCULATIONS (IF REQUIRED), OR WHERE MODIFICATIONS OR SUBSTITUTIONS ARE INDICATED WITHOUT PRIOR REVIEW PER PARAGRAPH ABOVE.
    - SUBMIT SHOP DRAWINGS AND CALCULATIONS TO GOVERNING CODE AUTHORITY WHEN SPECIFICALLY INDICATED OR REQUESTED.
    - MAINTAIN A COPY OF ALL SHOP DRAWINGS ACCEPTED BY THE ARCHITECT/STRUCTURAL ENGINEER AT SITE DURING CONSTRUCTION PERIOD.
    - STRUCTURAL ENGINEER REQUIRES 10 WORKING DAYS AFTER RECEIPT OF SHOP DRAWINGS AND CALCULATIONS FOR PROCESSING.
18. DIMENSION RESPONSIBILITIES: INNOVA TECHNOLOGIES, INC. WILL MAKE ALL EFFORTS TO ENSURE ALL DIMENSIONS PROVIDED ARE COMMENSURATE WITH DESIGN DRAWINGS, INCLUDING IDENTIFYING DISCREPANCIES AS FOUND. INNOVA TECHNOLOGIES, INC. CANNOT BE HELD RESPONSIBLE FOR DIMENSIONS, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY CORRECTNESS OF DIMENSIONS PRIOR TO FABRICATION AND/OR ERECTION OF ALL WORK WITHIN DRAWINGS. USE OF DRAWINGS SUBMITTED BY INNOVA TECHNOLOGIES, INC. ASSUMES ACCEPTANCE OF SAID DRAWINGS AND DIMENSIONS WITHIN BY CONTRACTOR.
19. DRAWINGS AS INSTRUMENTS OF SERVICE ARE THE PROPERTY OF INNOVA TECHNOLOGIES, INC., AND ANY USE OR REPRODUCTION, IN WHOLE OR IN PART, WITHOUT WRITTEN CONSENT IS STRICTLY PROHIBITED. DRAWINGS AND SPECIFICATIONS REMAIN THE PROPERTY OF THE DESIGN PROFESSIONAL. COPIES OF THE DRAWINGS AND SPECIFICATIONS RETAINED BY THE CLIENT MAY BE UTILIZED ONLY FOR HIS USE AND FOR OCCUPYING THE PROJECT FOR WHICH THEY WERE PREPARED, AND NOT FOR CONSTRUCTION OF ANY OTHER PROJECTS. NAC 623.780.

Abbreviations

&	AND
A.B.	ANCHOR BOLTS
ACI	AMERICAN CONCRETE INSTITUTE
ADD'L.	ADDITIONAL
AGGR.	AGGREGATE
AIA	AMERICAN INSTITUTE OF ARCHITECTS
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
AL.	ALUMINUM
ALT.	ALTERNATE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX.	APPROXIMATE
ARCH.	ARCHITECT OR ARCHITECTURAL
ASPH.	ASPHALT
ASSY.	ASSEMBLY
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AVG.	AVERAGE
AWS	AMERICAN WELDING SOCIETY
B/ or B.O.	BOTTOM OF
BLDG.	BUILDING
BLK.	BLOCK
BLK'G.	BLOCKING
BM.	BEAM
B.N.	BOUNDARY NAIL
BOCA	BUILDING OFFICIALS AND CODE ADMINISTRATORS INTERNATIONAL, INC.
B.O.D or B/D	BOTTOM OF DECK
B.O.F or B/F	BOTTOM OF FOOTING
B.O.S or B/S	BOTTOM OF STEEL
B.P.	BASE PLATE
BRD.	BOARD
BRG.	BEARING
BTWN.	BETWEEN
C	CHANNEL
C/G	CENTER OF GRAVITY
C/C	CENTER TO CENTER
C.C.	CARRIED COLUMN
CBC	CALIFORNIA BUILDING CODE
CF	CUBIC FOOT
C.I.	CAST IRON
C.J.	CONTROL, OR CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION
℄ or CL	CENTERLINE
CLG.	CEILING
CLR.	CLEAR
CMU	CONCRETE MASONRY UNITS
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
CONTR.	CONTRACTOR
CY	CUBIC YARD
2L	DOUBLE ANGLE
Ø or DIA.	DIAMETER
d	PENNY WEIGHT
Do	DITTO
DBL.	DOUBLE
D.F.	DOUGLAS-FIR
DIAG.	DIAGONAL
DTL.	DETAIL
DWG.	DRAWING
(E)	EXISTING
E.	EAST
EA.	EACH
E.A.	EACH FACE
E.J.	EXPANSION JOINT
ELEC.	ELECTRIC or ELECTRICAL
ELEV.	ELEVATION
E.N.	EDGE NAIL
ENG'R.	ENGINEER
EQ.	EQUAL
EQUIP.	EQUIPMENT
EST.	ESTIMATE
E.W.	EACH WAY
EXCAV.	EXCAVATE
EXT.	EXTERIOR
' or FT.	FEET or FOOT
FAB.	FABRICATOR OR FABRICATION
FDN.	FOUNDATION
F.F.	FAR FACE
FIN.	FINISH
FLR.	FLOOR
F.N.	FIELD NAIL
FRMG.	FRAMING
F.S.	FAR SIDE
FTG.	FOOTING
GA.	GAGE OR GAUGE
GALV.	GALVANIZED
GEN.	GENERAL
G.I.	GALVANIZED IRON
GLB	GLU-LAM BEAM
GR.	GRADE
H	HEIGHT
HEX.	HEXAGON
HNG'R.	HANGER
HORIZ.	HORIZONTAL
" or IN.	INCHES
IBC	INTERNATIONAL BUILDING CODE
I.D.	INSIDE DIAMETER
I.F.	INSIDE FACE
INFO.	INFORMATION
JT.	JOINT
K	KIP (1,000 LBS)
Kg	KILOGRAM
KSI	KIPS PER SQUARE INCH
L	ANGLE
LABDS	LOS ANGELES BUILDING DEPARTMENT AND SAFETY
LB or LBS	POUND or POUNDS
Le	LENGTH
LLBB	LONG LEG BACK TO BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG.	LONGITUDINAL
LS	LENGTH OF SPAN
LSH	LONG SLOTTED HOLE
MATL.	MATERIAL
MAX.	MAXIMUM
M.B.	MACHINE BOLT
MECH.	MECHANICAL
MEZZ.	MEZZANINE
MID.	MIDDLE
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MIX.	MIXTURE
MTL.	METAL
MULT.	MULTIPLE
(N)	NEW
# or No.	NUMBER
N.	NORTH
N.F.	NEAR FACE
NOM.	NOMINAL
N.S.	NEAR SIDE
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
O.H.	OPPOSITE HAND
OPP.	OPPOSITE
OPNG.	OPENING
OSB	ORIENTED STRAND BOARD
OWJ	OPEN WEB JOIST
PAF	POWDER ACTUATED FASTENER
PCF	POUNDS PER CUBIC FOOT
PERM.	PERMANENT
PERP.	PERPENDICULAR
PL.	PLATE
P.L.	PROPERTY LINE
PLY.	PLYWOOD
PROJ.	PROJECT
P-T	POST-TENSION
P.T.	PRESSURE-TREATED
PTN.	PARTITION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
QTY.	QUANTITY
R	RADIUS
RCP	REFLECTED CEILING PLAN
REF.	REFERENCE
REINF.	REINFORCE, REINFORCED, REINFORCEMENT, OR REINFORCING
REQ.	REQUIREMENT
REQ'D.	REQUIRED
REV.	REVISION
R.J.	ROOF JOIST
RM.	ROOM
R.R.	ROOF RAFTER
S	STANDARD I BEAM
S.	SOUTH
SCHED.	SCHEDULE
SECT.	SECTION
SF	SQUARE FEET
SHT.	SHEET
SHT'G.	SHEATHING
SIM.	SIMILAR
SIMP.	SIMPSON
SK.	SKETCH
SMS	SHEET METAL SCREW
SPECS.	SPECIFICATIONS
SQ.	SQUARE
S.F.	SQUARE FOOT
S.S.	STAINLESS STEEL
SSH	SHORT SLOTTED HOLE
STAGG.	STAGGER, OR STAGGERED
STD.	STANDARD
STL.	STEEL
STRUC.	STRUCTURAL
S.W.	SHEAR WALL
SYM.	SYMMETRICAL
T/ or T.O.	TOP OF
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
THK.	THICK, OR THICKNESS
THRD.	THREADED
THRU	THROUGH
THRU-OUT	THROUGH-OUT
TJI	TRUSS JOIST MACMILLAN I-JOIST
T.N.	TOE NAIL
T.O.C. or T/C	TOP OF CONCRETE
T.O.F. or T/F	TOP OF FOOTING
T.O.M. or T/M	TOP OF MASONRY
T.O.S. or T/S	TOP OF STEEL
TRANS.	TRANSVERSE
TS	TUBE STEEL
TYP.	TYPICAL
U..O.	UNLESS NOTED OTHERWISE
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
VOL.	VOLUME
w/	WITH
w/o	WITHOUT
W	WIDE FLANGE BEAM
W.	WEST
W.I.	WROUGHT IRON
W.P.	WORK POINT
WT.	WEIGHT
WWF	WELDED WIRE FABRIC
YD.	YARD

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SIGNED BY:

STATE OF MISSOURI
ROBERT CONTI MAPLES
NUMBER PE-2012005352
Exp 12/31/2022
PROFESSIONAL ENGINEER

COA # 2012012048
02/21/2022

DATE:
NAME:
LICENSE NUMBER:

PRYOR RD AND LOWENSTEIN DR.
908 NW PRYOR RD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000082

ISSUE	DATE	DESCRIPTION

CHASE

PRYOR RD AND LOWENSTEIN DR.

CONTENTS

COVER SHEET AND GENERAL NOTES

02/21/2022

SHEET

S0.0

Foundation

1. THE DESIGN OF THE FOUNDATION SYSTEM IS BASED ON THE GEOTECHNICAL REPORT (AND ANY ADDENDA) PREPARED BY THE FOLLOWING COMPANY:
   COMPANY: KAW VALLEY ENGINEERING
   REPORT NO.: C21G1105
   DATED: DECEMBER 6, 2021

   COPIES SHALL BE MADE AVAILABLE FOR REVIEW AT THE ARCHITECT'S OFFICE AND CONTRACTOR SHALL HAVE A COPY AT THE JOBSITE.

2. THE FOUNDATION SYSTEM IS DESIGNED BASED ON THE FOLLOWING INFORMATION:
   a. ALLOWABLE SOIL BEARING PRESSURE:
      - CONTINUOUS FOOTINGS..... 3500 PSF*
      - SPREAD FOOTINGS..... 3500 PSF*
   b. EQUIVALENT FLUID PRESSURE UNCONSTRAINED..... 40 PCF
   c. EQUIVALENT FLUID PRESSURE CONSTRAINED..... 60 PCF
   d. FRICTION COEFFICIENT..... 0.25

3. THE CONTRACTOR SHALL PROVIDE FOR PROPER DEWATERING OF EXCAVATIONS FROM SURFACE WATER, GROUND WATER, SEEPAGE, ETC.

4. THE CONTRACTOR SHALL PROVIDE FOR THE INSTALLATION AND DESIGN OF ALL CRIBBING, SHEATHING AND SHORING REQUIRED TO SAFELY AND ADEQUATELY RETAIN THE EARTH BANKS AND SUPPORT ANY EXISTING STRUCTURES IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL SAFETY ORDINANCES.

5. ALL ABANDONED UTILITIES, FOOTINGS, ETC., THAT INTERFERE WITH THE NEW CONSTRUCTION SHALL BE REMOVED. NOTIFY THE STRUCTURAL ENGINEER SHOULD ANY FOUNDATIONS FOR EXISTING STRUCTURES BE ENCOUNTERED THAT ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS.

6. FOOTINGS SHALL BE PLACED AND ESTIMATED ACCORDING TO DEPTHS SHOWN ON THE DRAWINGS. EXCAVATIONS FOR FOOTINGS SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING THE CONCRETE AND REINFORCING. THE CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER WHEN THE EXCAVATIONS ARE READY FOR INSPECTION. THE GEOTECHNICAL ENGINEER SHALL SUBMIT A LETTER OF COMPLIANCE TO THE OWNER. SHOULD SOIL ENCOUNTERED AT THESE DEPTHS NOT BE APPROVED BY THE GEOTECHNICAL ENGINEER, FOOTING ELEVATIONS OR FOOTING DESIGNS WILL BE ALTERED BY CHANGE ORDER.

7. ALL EXCAVATIONS SHALL BE PROPERLY BACKFILLED. FOOTING BACKFILL AND UTILITY TRENCH BACKFILL WITHIN THE BUILDING PERIMETER SHALL BE MECHANICALLY COMPACTED IN LAYERS, TO THE APPROVAL OF THE GEOTECHNICAL ENGINEER. SEE GEOTECHNICAL REPORT FOR REQUIREMENTS. FLOODING WILL NOT BE PERMITTED.

8. THE CONTRACTOR SHALL NOT BACKFILL BEHIND RETAINING WALLS BEFORE THE CONCRETE OR MASONRY WALLS HAVE REACHED FULL DESIGN STRENGTH. THE CONTRACTOR SHALL BRACE OR PROTECT ALL BUILDING AND PIT WALLS BELOW GRADE FROM LATERAL LOADS UNTIL ATTACHING FLOORS ARE COMPLETELY IN PLACE AND HAVE REACHED FULL DESIGN STRENGTH. THE CONTRACTOR SHALL PROVIDE FOR THE DESIGN, ANY REQUIRED PERMITS AND THE INSTALLATION OF SUCH BRACING AND PROTECTION.

9. SUB-BASE BELOW SLABS ON GRADE SHALL BE SUPPORTED ON NATURAL GRADE OR STRUCTURAL FILL AS DIRECTED IN THE GEOTECHNICAL REPORT. SEE TYPICAL DETAILS AND GEOTECHNICAL REPORT FOR VAPOR BARRIER AND SUB-BASE REQUIREMENTS.

Reinforcing Steel

1. ALL REINFORCING STEEL SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" ACI 318-14 FOR CONCRETE CONSTRUCTION OR "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" TMS 402/602-16 FOR MASONRY CONSTRUCTION AND THE "MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION" BY CRSI AND WCRSI AS MODIFIED BY THE PROJECT DRAWINGS AND SPECIFICATIONS.

2. DEFORMED REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60 AND ASTM A706 GRADE 60 FOR DEFORMED WELDABLE BARS, EXCEPT AS FOLLOWS:
   a. SHEARWALL, TILT-UP WALL, MOMENT FRAME, COUPLING BEAMS AND SLAB CHORD AND DRAG REINFORCING SHALL BE ASTM A706 EXCEPT ASTM A615 GRADE 60 MAY BE USED IF (A) THE ACTUAL YIELD STRESS IS BETWEEN 60 KSI AND 78 KSI AND (B) ACTUAL TENSILE STRENGTH IS GREATER THAN 1.25 TIMES ACTUAL YIELD STRENGTH, MILL TEST SHALL BE SUBMITTED.

3. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.

4. LAP SPLICES SHALL BE MADE ONLY WHERE SHOWN ON THE STRUCTURAL DRAWINGS.

5. REINFORCING DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE THE SAME NUMBER, SIZE, SPACING AND GRADE AS THE SPECIFIED VERTICAL REINFORCING, UNO.

6. ALL REINFORCING BARS SHALL BE MARKED SO THEIR IDENTIFICATION CAN BE MADE WHEN THE FINAL IN-PLACE INSPECTION OCCURS.

7. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.

8. MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 6" OR ONE FULL MESH AND ONE HALF, WHICHEVER IS GREATER.

9. IN ADDITION TO ALL THE REINFORCING STEEL INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF TWO TONS OF REINFORCING BARS TO BE FURNISHED, FABRICATED AND PLACED DURING THE PROGRESSION OF WORK AS MAY BE DIRECTED BY THE STRUCTURAL ENGINEER.

Structural Steel

1. STRUCTURAL STEEL SHALL BE DESIGNED, DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC 360-16 'SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS' AND AISC 303-16 'CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES'.

2. ALL FABRICATION SHALL OCCUR IN AN AISC APPROVED FABRICATION SHOP LICENSED BY THE AUTHORITY HAVING JURISDICTION OVER THE PROJECT WITH A MINIMUM OF 10 YEARS OF EXPERIENCE IN SIMILAR WORK. THE FABRICATOR SHALL RETAIN A DETAILER WITH A MINIMUM OF 5 YEARS RELEVANT EXPERIENCE IN THE PREPARATION OF ERECTION AND FABRICATION DRAWINGS.

3. MATERIALS:

WIDE FLANGE SHAPES	ASTM A992, Fy = 50 KSI
HSS SQUARE & RECTANGLE SHAPES	ASTM 500 GR. C, Fy = 50 KSI
HSS ROUND SHAPE	ASTM 500 GR. C, Fy = 46 KSI
PIPES	ASTM A53, GR. B, TYPE E OR S Fy = 35 KSI
ALL OTHER SHAPES & PLATES	ASTM A36, Fy = 36 KSI
HIGH STRENGTH BOLTS	F3125 GR. A325 OR F1852 U.N.O.
ANCHOR BOLTS	ASTM F1554, GR. 36 w/ SUPP. S1 U.N.O

4. BOLT HOLES IN STEEL SHALL BE $\frac{1}{16}$" LARGER THAN NOMINAL SIZE OF BOLT USED, EXCEPT ANCHOR BOLT HOLES.

5. WELDED JOINTS SHALL CONFORM TO THE *PREQUALIFIED* JOINT DETAILS AS INDICATED IN THE STRUCTURAL WELDING CODE (AWS D1.1) BY THE AMERICAN WELDING SOCIETY. WELDS SHALL BE MADE USING A FILLER METAL HAVING 70 KSI MINIMUM TENSILE STRENGTH, FILLER METAL SHALL HAVE A MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20 FT-LBS AT 0 DEGREES FAHRENHEIT, UNLESS NOTED OTHERWISE. SMAW OR FCAW PROCESSES ARE ACCEPTABLE PROVIDED ALL POWER, CURRENT, AND FEED RATES ARE SET IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

6. WELD LENGTHS CALLED FOR ON PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WELD SIZE SHALL BE AISC MINIMUM UNLESS A LARGER SIZE IS NOTED.

7. WELDING TESTS AND INSPECTIONS:
   A. ALL SHOP WELDS SHALL BE TESTED AND INSPECTED ON THE FOLLOWING MANNER:
      - FILLET WELDS: 100% VISUALLY INSPECTED
      - PJP: 100% VISUALLY INSPECTED, 20% ULTRASONIC TESTING
      - CJP: 100% ULTRASONIC TESTING

   B. ALL FIELD WELDS SHALL BE INSPECTED PER QUALITY ASSURANCE AND SPECIAL INSPECTIONS.

8. THE FABRICATOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW TWO BOND SETS (MIN.) OF SHOP AND ERECTION DRAWINGS. DRAWINGS MUST BE COMPLETE, SHOW ALL WELDS, BOLTS, DIMENSIONS, ETC. RFI AND QUESTIONS THAT MAY RESULT IN A CHANGE ORDER REQUEST MAY NOT BE POSED ON THE SHOP OR ERECTION DRAWINGS. SUCH QUESTIONS MUST FOLLOW THE FORMAL RFI PROCESS.

Concrete

1. ALL ASPECTS OF WORK PERTAINING TO THE CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318-14, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND THE LATEST EDITION OF "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", ACI 301, WITH MODIFICATIONS AS NOTED ON THE PROJECT DRAWINGS AND/OR SPECIFICATIONS.

2. CONCRETE MIX DESIGNS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW. ALL MIX DESIGNS SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY AND SHALL BE WET STAMPED BY A CIVIL ENGINEER LICENSED IN THE STATE OF THE PROJECT. BASE DESIGN MIX ON FIELD EXPERIENCE OR TRIAL MIXTURES AS STIPULATED IN ACI 318-14, SECTION 26.4.4.

3. PORTLAND CEMENT SHALL CONFORM TO ASTM C150 TYPE V WHERE THE CONCRETE IS IN CONTACT WITH SOIL. CONCRETE THAT WILL BE EXPOSED TO SULFATE-CONTAINING SOLUTIONS SHALL COMPLY WITH IBC SECTION 1904.2 AND ACI 318-14 SECTION 19.3.1. SEVERE AND VERY SEVERE SULFATE EXPOSURES AS IDENTIFIED IN THE PROJECT GEOTECHNICAL REPORT, THE WATER CEMENT RATIO SHALL NOT EXCEED 0.45 AND SHALL NOT EXCEED 0.50 FOR MODERATE SULFATE EXPOSURE. TYPE II CEMENT SHALL BE USED AT ALL OTHER LOCATIONS IN THE STRUCTURE.

4. FLY ASH MAY BE USED IN CONCRETE MIXES. THE FLY ASH SHALL CONFORM TO ASTM C618 CLASS F. THE LOSS OF IGNITION SHALL BE LIMITED TO 2%. THE ADDITION RATE FOR FLY ASH SHALL BE LIMITED TO 15% OF THE CEMENT WEIGHT. THE CONTRACTOR SHALL SUBMIT ALL CERTIFICATES SHOWING THE FLY ASH IS IN ACCORDANCE WITH THE ABOVE CRITERIA.

5. DO NOT USE CONCRETE OR GROUT CONTAINING CHLORIDES.

6. NORMAL WEIGHT CONCRETE-AGGREGATE SHALL CONFORM TO ALL REQUIREMENTS AND TESTS OF ASTM C33 AND PROJECT SPECIFICATIONS. EXCEPTIONS MAY BE USED ONLY WITH APPROVAL OF THE STRUCTURAL ENGINEER. PROVIDE CONCRETE MIX DESIGN WITH PROVEN SHRINKAGE CHARACTERISTICS OF LESS THAN 0.0005 INCHES/INCH.

7. STRUCTURAL CONCRETE 28-DAY STRENGTHS AND TYPES ARE AS FOLLOWS:

LOCATION OF CONCRETE	STRENGTH, PSI	TYPE
FOOTINGS	4000	NORMAL WEIGHT
SLAB ON GRADE	4000	NORMAL WEIGHT

8. THE MODULUS OF ELASTICITY OF CONCRETE SHALL BE TESTED IN ACCORDANCE WITH ASTM C469 FOR FRAMED CONCRETE SLABS AND BEAMS, AND SHALL AT A MINIMUM ACHIEVE THE VALUE GIVEN BY THE EQUATIONS IN SECTION 19.2.2.1 OF ACI 318 FOR THE SPECIFIED CONCRETE 28-DAY STRENGTH.

9. CONCRETE MIXING OPERATIONS, ETC., SHALL BE IN ACCORDANCE WITH ASTM C94.

10. DRY PACK OR GROUT UNDER BASE PLATES, SILL PLATES, ETC., SEE SPECIFICATIONS. STRENGTH REQUIREMENTS ARE 7000 PSI MINIMUM NON-SHRINK GROUT AS REQUIRED FOR CONCRETE.

11. SUBMIT SHOP DRAWINGS TO ARCHITECT/STRUCTURAL ENGINEER INDICATING LOCATIONS OF CONCRETE JOINTS FOR REVIEW PRIOR TO PLACING CONCRETE. PLACE JOINTS AT LOCATIONS TO MINIMIZE EFFECTS OF SHRINKAGE AS WELL AS BEING PLACED AT POINTS OF LOW STRESS.

12. CONCRETE PLACEMENT SHALL BE IN ACCORDANCE WITH ACI STANDARD 304 AND PROJECT SPECIFICATIONS. PROVIDE KEYS IN CONSTRUCTION JOINTS UNLESS DETAILED OTHERWISE. THOROUGHLY CLEAN, REMOVE LAITANCE AND THOROUGHLY WET AND REMOVE STANDING WATER IN CONSTRUCTION JOINTS BEFORE PLACING NEW CONCRETE. AT VERTICAL JOINTS, SLUSH WITH A COAT OF NEAT CEMENT BEFORE PLACING NEW CONCRETE.

13. ROUGHEN CONCRETE SURFACE TO A FULL AMPLITUDE OF $\frac{1}{4}$" WHERE MASONRY WALLS INTERSECT CONCRETE OR WHERE NEW CONCRETE INTERFACES WITH EXISTING CONCRETE.

14. CLEAR COVERAGE OF CONCRETE OVER REINFORCING BARS SHALL BE AS FOLLOWS:

LOCATION OF CONCRETE	MIN. CONCRETE COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER: #6 THROUGH #18 BAR #5 AND SMALLER	2" 1 ½"
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND, UNO: SLABS, WALLS, JOISTS: #14 AND #18 BAR #11 BAR AND SMALLER BEAMS, COLUMNS: PRIMARY REINFORCING, TIES, STIRRUPS, SPIRALS.	 1 ½" ¾" 1 ½"
SLAB ON GRADE:	3"

15. PRIOR TO CONCRETE PLACEMENT, ALL REINFORCING BARS, ANCHOR BOLTS AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN POSITION.

16. UNLESS OTHERWISE INDICATED IN THE MECHANICAL OR ELECTRICAL DRAWINGS OR PROJECT SPECIFICATIONS, MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH SLAB ON GRADE, CONCRETE ON STEEL DECK, FRAMED CONCRETE FLOORS AND WALLS DO NOT REQUIRE SLEEVES. IF SLEEVES ARE REQUIRED, THE SLEEVES SHALL BE INSTALLED PRIOR TO PLACING CONCRETE. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN CONCRETE IS NOT PERMITTED. NOTIFY THE STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS.

17. FOR SLABS ON GRADE NO PIPES OR CONDUITS SHALL BE PLACED WITHIN THE INDICATED CONCRETE SLAB THICKNESS AND SHALL BE LOCATED BELOW THE SLAB UNLESS SPECIFICALLY DETAILED OTHERWISE.

18. MAINTAIN CONCRETE ABOVE 50 DEGREES FAHRENHEIT AND IN A MOIST CONDITION FOR A MINIMUM OF 7 DAYS AFTER PLACEMENT UNLESS OTHERWISE ACCEPTED BY ARCHITECT/STRUCTURAL ENGINEER.

19. ANY CURING COMPOUNDS USED ON CONCRETE THAT IS TO RECEIVE A RESILIENT TILE FINISH SHALL BE APPROVED BY THE FINISH APPLICATOR BEFORE USE.

Wood

1. ALL STRUCTURAL FRAMING AND CONNECTIONS SHALL BE PER CHAPTER 23 OF THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC). SPECIFIED HARDWARE SHALL BE SIMPSON STRONG-TIE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS, UNO.

2. ALL TIMBER AND WOOD CONSTRUCTION SHALL CONFORM TO THE 2018 NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION WITH THE SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC AND MANUAL FOR ENGINEERED WOOD CONSTRUCTION.

3. SOLID SAWN LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN WOOD PRODUCTS ASSOCIATION (WWPA) OR THE WEST COAST LUMBER INSPECTION BUREAU (WCLIB). ALL SOLID SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED GRADING AGENCY. THE MAXIMUM MOISTURE CONTENT SHALL NOT EXCEED 19% BY WEIGHT. SOLID SAWN LUMBER SHALL HAVE THE FOLLOWING MINIMUM GRADES:

2x4 STUDS AND BLOCKING	DF#2 AND BETTER
2x6 STUDS AND BLOCKING	DF#2 AND BETTER
JOISTS, TOP PLATES AND BLOCKING	DF#2 AND BETTER
4x BEAMS AND POSTS	DF#1 AND BETTER
6x BEAMS AND POSTS	DF#1 AND BETTER

NOTE: INTERIOR NON-BEARING PARTITIONS MAY BE DFL STUD GRADE.

4. INTERIOR NONBEARING WALLS LESS THAN 12' HIGH SHALL BE 2x4 STUDS AT 16"OC.

   DOOR OPENINGS IN INTERIOR NONBEARING WALLS SHALL HAVE THE FOLLOWING MINIMUM HEADERS (UNLESS NOTED OTHERWISE ON PLANS):

OPENINGS LESS THAN 6'-0"	(2) 2x4 VERTICAL
OPENINGS LESS THAN 10'-0"	(2) 2x6 VERTICAL

   OPENINGS IN EXTERIOR AND INTERIOR BEARING WALLS SHALL HAVE THE FOLLOWING MINIMUM FRAMING (UNLESS NOTED OTHERWISE ON PLANS):

OPENINGS LESS THAN	5'-0"	8'-0"
NUMBER OF TRIMMERS	1	2
NUMBER OF KINGS	1	2

   PROVIDE (1) TRIMMER STUD AND (1) KING STUD MINIMUM AT OPENINGS IN INTERIOR WALLS (UNLESS NOTED OTHERWISE ON PLANS).

   ALL STUD PARTITIONS OR WALLS OVER 10'-0" HIGH SHALL HAVE 2x BRIDGING, SAME WIDTH AS THE STUD, PREFERABLY AT MID-HEIGHT BUT NOT TO EXCEED INTERVALS OF 8'-0".

5. SILL PLATES RESTING ON CONCRETE OR MASONRY SHALL BE OF PRESSURE TREATED DOUGLAS FIR. MAXIMUM ANCHOR BOLT SPACING SHALL BE 72" ON CENTER UNLESS NOTED OTHERWISE ON PLANS AND DETAILS. ALL ANCHOR BOLTS (OTHER THAN BOLTS FOR HOLDOWNS) SHALL BE EMBEDDED 7" INTO CONCRETE. ANCHOR BOLTS FOR HOLDOWNS SHALL NOT BE CONSIDERED AS PART OF REQUIRED ANCHOR BOLTS FOR SHEARWALLS. ALL EXTERIOR WALLS SHALL BE SECURED WITH MINIMUM ANCHOR BOLTS. INTERIOR WALLS, THAT ARE NOT SHEARWALLS, MAY BE SECURED BY DRIVEN SHOT PINS AT 16"OC MINIMUM 1" EMBEDMENT UNLESS NOTED OTHERWISE ON PLANS.

6. ALL BOLTS IN WOOD SHALL CONFORM TO ASTM A307 BOLTS AND SHALL BE INSTALLED IN HOLES BORED WITH A BIT 1/16" LARGER THAN THE DIAMETER OF THE BOLT. BOLTS AND NUTS SEATING ON WOOD SHALL HAVE CUT STEEL WASHERS UNDER HEADS AND NUTS. DAMAGE THREADS AFTER INSTALLATION TO PREVENT LOOSENING.

7. ALL STUD WALL TOP PLATES SHALL BE DOUBLE MEMBERS SPLICED WITH 48" MINIMUM LAP PER TYPICAL STRUCTURAL DETAIL, UNLESS NOTED OTHERWISE.

8. DO NOT NOTCH JOISTS, RAFTERS OR BEAMS, EXCEPT WHERE SHOWN IN DETAILS. OBTAIN ENGINEER'S APPROVAL FOR ANY HOLES OR NOTCHES NOT DETAILED. HOLES THROUGH SILLS, PLATES, STUDS AND DOUBLE PLATES IN INTERIOR, BEARING AND SHEAR WALLS SHALL NOT EXCEED 1/3 THE PLATE WIDTH. USE BORED HOLES LOCATED IN THE CENTER OF THE STUD OR PLATE.

9. NAILED CONNECTIONS SHALL BE COMMON WIRE NAILS AND CONFORM TO TABLE 2304.10.1 OF THE 2018 INTERNATIONAL BUILDING CODE, UNLESS OTHERWISE NOTED. WHERE DRIVING OF NAILS CAUSE SPLITTING, HOLES FOR THE NAILS SHALL BE SUB-DRILLED. EXPOSED EXTERIOR NAILS AND HARDWARE SHALL BE GALVANIZED. WHERE AUTOMATIC NAILING IS USED, NAIL HEADS SHALL NOT PENETRATE PLYWOOD SHEATHING. CONNECTIONS LISTED ARE MINIMUM PERMISSIBLE. DETAILS GOVERN OVER SCHEDULE. SINKERS SHALL NOT BE ALLOWED UNLESS NOTED ON PLANS.

10. ALL EXTERIOR WALLS SHALL BE SOLIDLY SHEATHED, SEE SHEARWALL PLAN / SCHEDULE.

11. FASTENERS IN PRESERVATIVE TREATED AND FIRE RETARDANT TREATED WOOD SHALL BE OF HOT-DIPPED ZINC COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER. FASTENINGS FOR WOOD FOUNDATIONS SHALL BE AS REQUIRED IN AF&PA TECHNICAL REPORT NO. 7.

12. PLYWOOD FOR ROOFS AND FLOORS SHALL BE C-C OR C-D SHEATHING CONFORMING TO PRODUCTS STANDARD PS 1-74. LAY PLYWOOD WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. ALL NAILING SHALL BE WITH COMMON NAILS AND SOLID 2x BLOCKING SHALL BE PLACED AT ALL RIDGES AND VALLEYS. ALL ROOF AND FLOOR SHEATHING SHALL BE NAILED WITH BOUNDARY NAILING ALONG THE ENTIRE LENGTH OF SUPPORTING MEMBERS USED AS "DRAG" MEMBERS. A DRAG MEMBER IS A TRUSS OR BEAM DESIGNED TO TRANSMIT A LATERAL FORCE AND/OR A DIAPHRAGM CHORD FORCE AS INDICATED ON THE FRAMING PLANS. PROVIDE BLOCKING AT PANEL EDGES WHERE INDICATED ON PLANS. ALL PLYWOOD SHALL BE OF THE FOLLOWING NOMINAL THICKNESS AND SPAN/INDEX RATING AND SHALL BE NAILED AS FOLLOWS UNLESS NOTED OTHERWISE:

	THICKNESS	SPAN RATING	BOUNDARY NAILING	EDGE NAILING	FIELD NAILING
ROOF	$\frac{7}{16}$"	$\frac{40}{20}$	10d AT 2½" O.C.	10d AT 4" O.C.	10d AT 12" O.C.

   PLYWOOD FOR SHEARWALLS SHALL BE STRUCTURAL II C-C OR C-D, SPAN INDEX $\frac{24}{0}$ ON FORMING TO PS 1-83. THICKNESS SHALL BE AS CALLED FOR ON THE PLANS AND SHEARWALL SCHEDULE. PROVIDE BLOCKING AT ALL PANEL EDGES. ALL WALLS DESIGNATED AS SHEARWALLS SHALL BE CONNECTED TO ROOF AND FLOOR DIAPHRAGMS WITH BOUNDARY NAILING TO PROVIDE PROPER SHEAR TRANSFER.

   AS AN ALTERNATE TO PLYWOOD, AMERICAN PLYWOOD ASSOCIATION (APA) PERFORMANCE RATED SHEATHING MAY BE USED WITH PRIOR APPROVAL OF THE OWNER. RATED SHEATHING SHALL COMPLY WITH EXPOSURE 1, AND SHALL HAVE A SPAN RATING EQUIVALENT TO OR BETTER THAN THE PLYWOOD IT REPLACES. ATTACHMENT AND THICKNESS (WITHIN $\frac{1}{32}$") SHALL BE THE SAME AS THE PLYWOOD IT REPLACES. INSTALL PER MANUFACTURER RECOMMENDATIONS.

13. LAG SCREWS AND WOOD SCREWS SHALL CONFORM TO ANSI B.18. ROUND WASHERS SHALL CONFORM TO ANSI/A B18.22.1.

Wood Fastening Schedule

1. AS A MINIMUM AND IF NOT SPECIFICALLY DETAILED OR NOTED ELSEWHERE AND OTHERWISE, THE VARIOUS WOOD COMPONENTS OF THE STRUCTURE SHALL BE FASTENED TOGETHER AS FOLLOWS:
   a. JOIST TO MUD SILL OR UPPER TOP PLATE: (3) 8d COMMON OR 16d SINKER OR SHORT, TOE NAILS.
   b. BLOCKING TO JOIST: (3) 8d COMMON OR 16d SINKER OR SHORT, TOE NAILS OR (2) 16d SINKER OR SHORT FACE NAIL.
   c. SOLE (BOTTOM) PLATE TO JOIST OR BLOCKING: 16d COMMON OR SHORT FACE NAIL AT 16" O.C.
   d. LOWER TOP PLATE TO STUD: (2) 16d COMMON FACE NAIL.
   e. STUD TO SOLE BOTTOM PLATE: (2) 16d SINKER OR SHORT FACE NAIL OR (4) 8d COMMON OR 16d SINKER OR SHORT TOE NAIL. AT 3x SILL PLATES, USE (2) 20d BOX FACE NAILS IN LIEU OF (2) 16d SINKER OR SHORT.
   f. DOUBLE STUDS, OR BUILT-UP STUDS TYPICAL STITCHING: 16d SINKER OR SHORT FACE NAILS AT 24" O.C.
   g. TOP PLATES AT INTERSECTION, FACE NAIL: (4) 16d COMMON FACE NAIL.
   h. TOP PLATES TYPICAL STITCHING: 16d SINKER OR SHORT FACE NAILS AT 16" O.C.
   i. UPPER TOP PLATES AT LAPS: (8) 16d SINKER OR SHORT FACE NAIL EACH SIDE OF BUTT JOINT.
   j. RIM JOIST TO UPPER TOP PLATE OR MUD SILL: 8d COMMON OR 16d SINKER OR SHORT TOE NAILS AT 6" O.C.
   k. CEILING JOIST TO PLATE, TOE NAILS: (3) 8d COMMON OR 16d SINKER OR SHORT TOE NAILS.
   l. CEILING JOIST, LAP OVER WALLS AND PARTITION: (3) 16d COMMON FACE NAILS.
   m. CEILING JOIST, PARALLEL RAFTERS: (3) 16d COMMON FACE NAILS.
   n. RAFTER TO PLATE, TOE NAILS: (3) 8d COMMON OR 16d SINKER OR SHORT TOE NAILS.
   o. BUILT UP CORNER STUDS: 16d COMMON FACE NAILS AT 24" O.C.
   p. THREE PIECE BUILT UP GIRDER AND BEAM: 16d AT 12" O.C. AT TOP AND AT BOTTOM. (3) 16d AT EACH END.

2. ALL NAILING NOT SPECIFICALLY CALLED OUT ON PLANS SHALL BE PER TYPICAL DETAILS, TABLE 2304.9.1 OF THE 2013 CBC AND SCHEDULE ABOVE.

3. TYPICAL NAIL SIZE:

SIZE	LENGTH	SHANK DIAMETER
8d COMMON	2½"	0.131"
10d COMMON	3"	0.148"
16d COMMON	3½"	0.162"
20d COMMON	4"	0.192"

Deferred Submittals

1. IN ACCORDANCE WITH THE IBC SECTION 107.3.4.1, SPECIALTY ITEMS, PRE-ENGINEERED COMPONENTS, AND DESIGN/BUILD ELEMENTS MAY BE SUBMITTED FOR APPROVAL BY THE ENGINEER OF RECORD AND THE BUILDING OFFICIAL BY DEFERRED SUBMITTAL. SUCH ITEMS ARE DEFINED AS THOSE SPECIFIED IN CONSTRUCTION DOCUMENTS BUT WHICH REQUIRE DESIGN BY THE MANUFACTURER, SUPPLIER OR INSTALLER.

2. DEFERRED SUBMITTALS ARE REQUIRED FOR THE FOLLOWING:
   - WOOD TRUSSES
   - EXTERIOR LIGHTING POLES AND FOUNDATIONS

3. SUBMITTALS SHALL INCLUDE:
   A. CALCULATIONS, PREPARED AND SEALED BY AN APPROPRIATELY REGISTERED ENGINEER (THE "SPECIALTY ENGINEER").
   B. DIAGRAM PREPARED AND SEALED BY THE SPECIALTY ENGINEER, SHOWING LOAD MAGNITUDES AND LOCATIONS - SEPARATED INTO DEAD, LIVE, WIND AND/OR SEISMIC COMPONENTS - THAT ARE APPLIED TO THE PRIMARY STRUCTURE.
   C. ERECTION AND/OR DESIGN DRAWINGS BEARING THE SPECIALTY ENGINEER'S SEAL AND THE ENGINEER OF RECORD'S SHOP DRAWING STAMP INDICATING HIS REVIEW.

4. SUBMIT ONE (1) WET SEALED COPY FOR THE STRUCTURAL ENGINEER OF RECORD'S FILE, AND ADDITIONAL COPIES AS ARE NECESSARY FOR THE BUILDING DEPARTMENT. SUBMITTALS CONTAINING EXCEPTIONS, CORRECTIONS, OR OTHER REVIEW COMMENTS ARE NOT ACCEPTABLE FOR SUBMITTAL TO THE BUILDING DEPARTMENT.

5. THE STRUCTURAL ENGINEER OF RECORD'S REVIEW IS STRICTLY LIMITED TO THE FOLLOWING:

   A. THE DRAWINGS AND CALCULATIONS ARE PROPERLY SEALED.
   B. THE LOAD CRITERIA IS CONSISTENT WITH THE CONTRACT DOCUMENTS AND UNIFORM BUILDING CODE REQUIREMENTS.
   C. THE CONNECTIONS TO THE PRIMARY STRUCTURE ARE CONSISTENT WITH THE PRIMARY DESIGN.
   D. THE BASE STRUCTURE IS CAPABLE OF SUPPORTING THE IMPOSED LOADS.

6. IF THE LOADS IMPOSED ON THE STRUCTURE EXCEED THE LOAD ALLOWANCE PROVIDED, THE STRUCTURAL ENGINEER OF RECORD WILL REJECT THE SUBMITTAL. ONLY AT THE OWNER'S WRITTEN DIRECTION WILL MODIFICATIONS TO THE BASE STRUCTURE TO ACCOMMODATE THE SPECIALTY ITEM(S) BE MADE BY THE ENGINEER OF RECORD. DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE ENGINEER OF RECORD AND THE BUILDING OFFICIAL HAVE APPROVED SUBMITTAL DOCUMENTS.

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NUMBER PE-2012005382
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COA # 2012012048
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LEE'S SUMMIT, MO 64081

EBI JOB #4121000082

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CHASE

PRYOR RD AND LOWENSTEIN DR.
-

CONTENTS

GENERAL NOTES

02/21/2022

SHEET

S0.1

Quality Assurance and Special Inspection

1. TESTING LABORATORY: RETAINED BY OWNER AND SATISFACTORY TO ARCHITECT/STRUCTURAL ENGINEER AND LOCAL JURISDICTION TO PERFORM REQUIRED TESTS AND INSPECTIONS OF THIS CONTRACT AND APPLICABLE CODE.

2. MATERIAL CERTIFICATION: SUBMIT LABORATORY TEST REPORTS CERTIFYING MATERIALS ARE OF IDENTIFIABLE TESTED STOCK TO OWNER, TESTING LABORATORY, ARCHITECT/STRUCTURAL ENGINEER AND, UPON REQUEST, TO LOCAL JURISDICTION. IF LABORATORY TEST REPORTS CANNOT BE MADE AVAILABLE, TESTING LABORATORY WILL PERFORM TESTS AS DIRECTED BY ARCHITECT/STRUCTURAL ENGINEER. CONTRACTOR SHALL PAY TESTING LABORATORY FOR COSTS RELATED TO TESTS AND INSPECTIONS OF UNIDENTIFIABLE MATERIALS OR MATERIALS FURNISHED WITHOUT LABORATORY TEST REPORTS, MATERIALS FOUND DEFICIENT AFTER INITIAL TESTS AND INSPECTIONS, OR MATERIALS REPLACING DEFICIENT MATERIALS.

3. FABRICATOR MUST BE REGISTERED AND APPROVED BY LOCAL JURISDICTION FOR THE FABRICATION OF MEMBERS AND ASSEMBLIES ON THE PREMISES OF THE FABRICATOR'S SHOP.

4. THE SPECIAL INSPECTIONS IDENTIFIED ON THIS SHEET ARE, IN ADDITION TO, AND NOT A SUBSTITUTE FOR, THOSE INSPECTIONS REQUIRED TO BE PERFORMED BY A BUILDING INSPECTOR LICENSED BY THE AUTHORITY HAVING JURISDICTION OVER THE PROJECT.

   A. QUALITY ASSURANCE FOR SEISMIC RESISTANCE:
      SPECIAL INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF IBC SECTION 1704, 1707, AND STRUCTURAL TESTING IN ACCORDANCE WITH THE REQUIREMENTS OF IBC SECTION 1708 SHALL BE REQUIRED FOR:
      - ALL SEISMIC FORCE RESISTING SYSTEMS (I.E. SHEARWALLS)
      - ALL DIAPHRAGMS SHOWN ON PLAN SHEETS.
      - ALL CHORD AND DRAG MEMBERS DENOTED ON PLAN.

   B. A QUALIFIED AND APPROVED THIRD PARTY INSPECTION AND TESTING AGENCY IN ACCORDANCE WITH IBC 1710.1, ANY DEFICIENCIES OR DISCREPANCIES FROM THAT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE REPORTED TO THE ENGINEER OF RECORD.

   C. THE TYPE AND FREQUENCY OF SPECIAL INSPECTION, STRUCTURAL TESTING AND SUBSEQUENT REPORTING CONFORMING TO THE REQUIREMENTS OF IBC SECTION 1704, 1707, AND 1708 SHALL BE SUBMITTED BY THE INSPECTION AND TESTING AGENCIES TO THE ARCHITECT/STRUCTURAL ENGINEER FOR APPROVAL.

   D. STRUCTURAL OBSERVATIONS AND SUBSEQUENT REPORTING OF GENERAL CONFORMANCE TO THE STRUCTURAL DRAWINGS SHALL BE PERFORMED PERIODICALLY BY THE ENGINEER IN RESPONSIBLE CHARGE AT HIS/HER DISCRETION OR WHEN SPECIFICALLY REQUIRED BY THE BUILDING OFFICIAL.

   E. QUALITY ASSURANCE FOR GENERAL CONSTRUCTION:
      SPECIAL INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF IBC SECTION 1704 SHALL BE REQUIRED FOR THE FOLLOWING ELEMENTS OF GENERAL CONSTRUCTION.

IBC Table 1705.3
REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	REQUIRED Y/N	CONTINUOUS	PERIODIC	REFERENCED STANDARD[1]	IBC REFERENCE
1. Inspection of reinforcing steel, including prestressing tendons, and placement.	Y	—	X	ACI 318: 3.5, 7.1-7.7	1910.4
2. Inspection of reinforcing steel welding in accordance with Table 1705.2.2, Item 2b.	Y	—	—	AWS D1.4 ACI 318: 3.5.2	—
3. Inspection of anchors cast in concrete where allowable loads have been increased or where strength design is used.	Y	—	X	ACI 318: 8.1.3, 21.1.8	1908.5, 1909.1
4. Inspection of anchors post-installed in hardened concrete members[2]	Y	—	X	ACI 318: 3.8.6, 8.1.3, 21.1.8	1909.1
5. Verifying use of required design mix.	Y	—	X	ACI 318: Ch. 4, 5.2-5.4	1904.2, 1910.2, 1910.3
6. At the time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Y	X	—	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	1910.10
7. Inspection of concrete and shotcrete placement for proper application techniques.	Y	X	—	ACI 318: 5.9, 5.10	1910.6, 1910.7, 1910.8
8. Inspection for maintenance of specified curing temperature and techniques.	Y	—	X	ACI 318: 5.11- 5.13	1910.9
9. Inspection of prestressed concrete:					
a. Application of prestressing forces.	N	X	—	ACI 318: 18.20 ACI 318: 18.18.4	—
b. Grouting of bonded prestressing tendons in the seismic-force-resisting system.		X			
10. Erection of precast concrete members.	N	—	X	ACI 318: Ch. 16	—
11. Verification of in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	N	—	X	ACI 318: 6.2	—
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.	Y	—	X	ACI 318: 6.1.1	—

For SI: 1 inch = 25.4 mm.

[1] Where applicable, see also Section 1705.11, Special inspection for seismic resistance.

[2] Specific requirements for special inspection shall be included in the research report for the anchor issued by an approved source in accordance with ACI355.2 or other qualification procedures. Where specific requirements are not provided, special inspection requirements shall be specified by the registered design professional and shall be approved by the building official prior to the commencement of the work.

IBC Table 1705.6
REQUIRED VERIFICATION AND INSPECTIONS OF SOILS

VERIFICATION AND INSPECTION TASK	REQUIRED Y/N	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	Y	—	X
2. Verify excavations are extended to proper depth and have reached proper material.	Y	—	X
3. Perform classification and testing of compacted fill materials.	Y	—	X
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	Y	X	—
5. Prior to placement of compacted fill, observe subgrade and verify that site has been prepared properly.	Y	—	X

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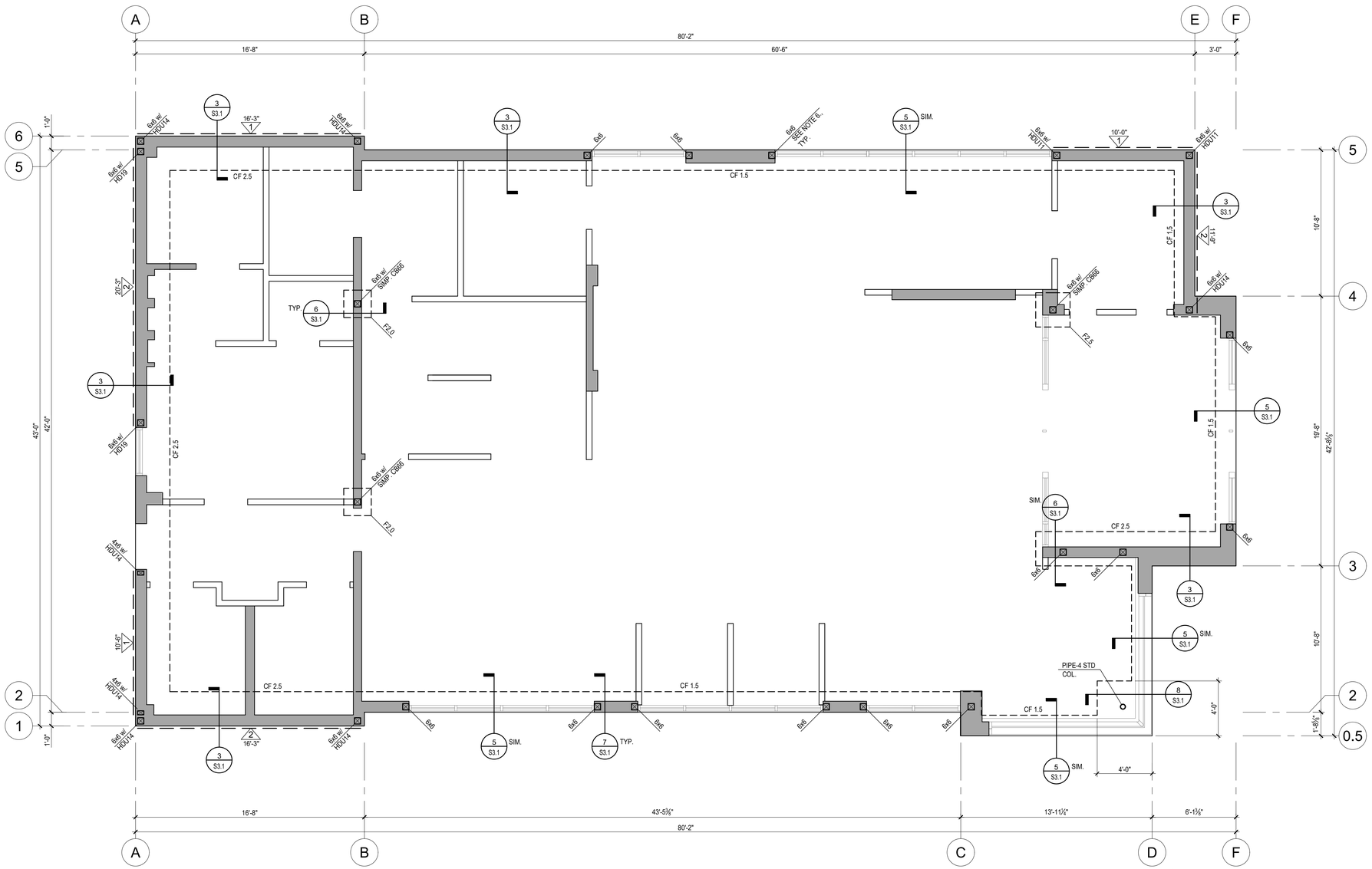
QUALITY ASSURANCE AND SPECIAL INSPECTIONS

02/21/2022

SHEET

S0.2



1 FOUNDATION PLAN
1/4" = 1'-0"

FOUNDATION NOTES:

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. CONTRACTOR SHALL NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
2. SLAB ON GRADE SHALL BE 5" THICK WITH #4 AT 24" O.C. EACH WAY, 2" CLEAR FROM TOP OF SLAB. FOR METHOD OF PLACING SLAB ON GRADE, SEE 7/S2.0. FOR SLAB JOINT LAYOUT, DEPRESSIONS, SLAB EDGE, ETC., SEE ARCHITECTURAL DRAWINGS.
3. VERIFY ALL TOP OF SLAB ELEVATIONS WITH ARCHITECTURAL DRAWINGS.
4. SEE DETAIL 7/S3.1 FOR WOOD POST WITHOUT HOLDOWN AT EXTERIOR FOOTING, U.N.O.
5. FOR TYPICAL FOUNDATION DETAILS, SEE SHEET S3.0. FOR TYPICAL WOOD FRAMING DETAILS, SEE SHEET S4.0. FOR GENERAL NOTES, SEE SHEETS S0.0, S0.1, AND S0.2.
6. IN LIEU OF 6x6 HEADER POSTS INDICATED ON PLAN, (3) 2x6 KING STUDS MAY BE USED WHEN POST DOES NOT DOUBLE AS SHEAR WALL CHORD.

FOUNDATION LEGEND:

- CFX.X — CONTINUOUS FOOTING, SEE CONTINUOUS FOOTING SCHEDULE.
- 2x6 WOOD STUD WALL FULL-HEIGHT AT 16" O.C., PER ARCH.
- 2x4 WOOD STUD WALL AT 16" O.C., PER ARCH.
- LENGTH MARK — INDICATES SHEAR WALL, SEE SCHEDULE.
- 6x6 HDU1 — POST SIZE, SEE PLAN; INDICATES HOLDOWN, SEE SCHEDULE.

CONTINUOUS FOOTING (CF) SCHEDULE

MARK	WIDTH	LENGTH	THICKNESS	REINFORCING		REMARKS
				TOP	BOTTOM	
CF1.5	1'-6"	CONT.	3'-0"	(2) #5 CONT.	(2) #5 CONT.	(2) #5 CONT. MID-HEIGHT
CF2.5	2'-6"	CONT.	3'-0"	(2) #6 CONT.	(2) #6 CONT.	(2) #5 CONT. MID-HEIGHT

NOTE:
1. ALL LONGITUDINAL REINFORCING SHALL DOWEL AROUND ALL CORNERS, BENDS AND INTERSECTIONS WITH MINIMUM CLASS B LAP SPLICES.

SPREAD FOOTING (F) SCHEDULE

MARK	SIZE	THICKNESS	REINFORCING		REMARKS
			TOP	BOTTOM	
F2.0	2'-0" x 2'-0"	2'-0"	(4) #5 E.W.	(4) #5 E.W.	

HOLDOWN SCHEDULE

HOLDOWN TYPE	MANUFACTURER	MIN. POST SIZE	FASTENERS	ANCHOR BOLT	
				TYPE	EMBED.
HDU11	SIMPSON STRONG-TIE	SEE PLAN	(30) SDS ¼"x2½"	SB 1 x 30	24"
HDU14	SIMPSON STRONG-TIE	SEE PLAN	(36) SDS ¼"x2½"	SB 1 x 30	24"
HD19	SIMPSON STRONG-TIE	SEE PLAN	(5) 1"Ø MACHINE BOLTS	PAB10-36	14"

NOTE:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. HOLDOWN TO FOUNDATION DETAILS, SEE 1/S3.1 AND 2/S3.1.
3. HOLDOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE APPROVED PLATE WASHERS; AND HOLDOWNS SHALL BE FINGER TIGHT AND 1/2 WRENCH TURN JUST PRIOR TO COVERING THE WALL FRAMING. CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE STEEL PLATE WASHERS ON THE POST ON THE OPPOSITE SIDE OF THE ANCHORAGE DEVICE. PLATE SIZE SHALL BE A MINIMUM OF 0.299"x3" x 0'-3".
4. HOLDOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.

PLYWOOD / OSB SHEAR WALL (SW) SCHEDULE

TYPE	SHEATHING	FIELD NAILING (F.N.) & EDGE NAILING (E.N.)	SILL PLATE	5/8" x 7" EMBED. F1554 A36 A.B. SPACING	REMARKS	ALLOWABLE UNIT SHEAR (SEE NOTES 6 & 7)	
						SEISMIC	WIND
1 LENGTH	15/32" STRUCT I	10d @ 4" O.C. E.N. & @ 12" O.C. F.N.	2x	36" O.C.	SEE NOTES 1, 2, 3 & 4	510 PLF	715 PLF
2 LENGTH	15/32" STRUCT I	10d @ 3" O.C. E.N. & @ 12" O.C. F.N.	2x	24" O.C.	SEE NOTES 1, 2, 3 & 4	665 PLF	930 PLF

NOTES:
1. FRAMING AT ADJOINING PANEL EDGES SHALL BE 2" NOMINAL OR WIDER.
2. ALL ANCHOR BOLTS IN SHEAR WALLS WITH 2x SILL PLATES SHALL HAVE 0.299"x3"x0'-3" PLATE WASHER.
3. SEE S4.0 FOR TYPICAL SHEATHING DETAILS AND ELEVATIONS.
4. FOR ANCHORAGE, SEE 6/S3.0.
5. FRAMING AT ADJOINING PANEL EDGES SHALL BE 3" NOMINAL OR WIDER AND NAILS AT ALL PANEL EDGES SHALL BE STAGGERED.
6. ALLOWABLE UNIT SHEAR IS PER AWC SDPWS-15 TABLE 4.3A. FOR SHEAR WALLS WITH ASPECT RATIOS GREATER THAN 2:1, THE SEISMIC ALLOWABLE UNIT SHEAR WALL SHALL BE MULTIPLIED BY TWO TIMES THE WALL WIDTH DIVIDED BY THE WALL HEIGHT, $2b_s/h$.
7. ALLOWABLE UNIT LOADS HAVE BEEN REDUCED BY THE ASD REDUCTION FACTOR PER SDPWS-15 SECTION 4.3.3.

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FOUNDATION PLAN

02/21/2022

SHEET

S1.0

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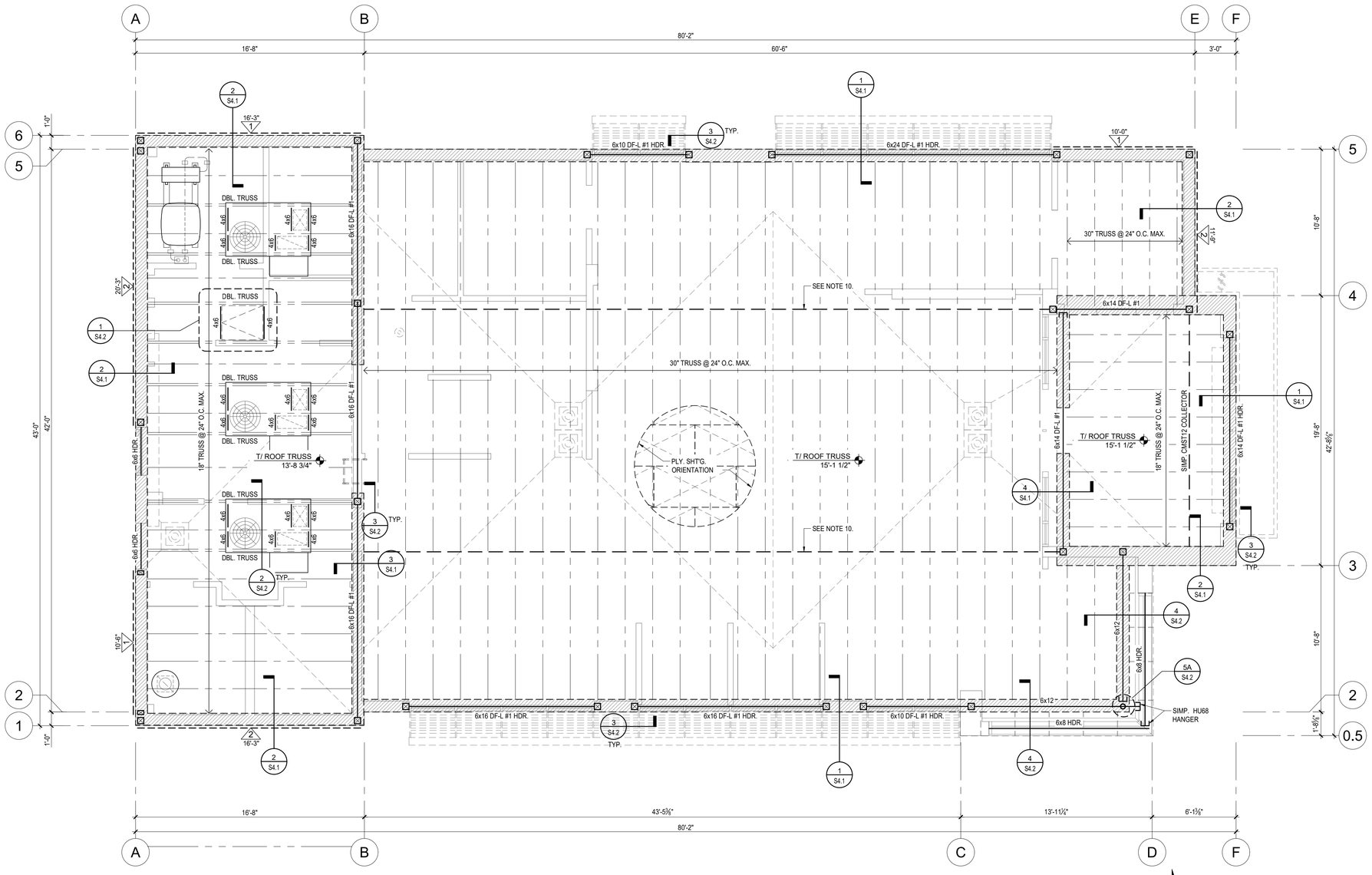

1 ROOF FRAMING PLAN
1/4" = 1'-0"

ROOF FRAMING NOTES:

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. CONTRACTOR SHALL NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL LOCATE ALL MECHANICAL OPENINGS SHOWN WITH DIMENSIONS AND EQUIPMENT SPECIFIED BY THE ARCHITECTURAL AND MECHANICAL DRAWINGS. NOTIFY STRUCTURAL ENGINEER IF ROUGH OPENING IS LARGER THAN INDICATED.
3. ROOF JOIST DESIGN CRITERIA SHALL BE AS FOLLOWS:
   A. LOADING:
      - MECHANICAL EQUIPMENT: VERIFY w/ MECH. DRAWINGS & SUPPLIER
      - SPECIAL LOADING: VERIFY w/ ARCH.
   B. MAXIMUM LIVE LOAD DEFLECTION IS TO BE L/360.
   C. MAXIMUM TOTAL LOAD DEFLECTION IS TO BE L/240.
5. PROVIDE SIMPSON STRONG-TIE H2.5A WALL TIES AT 24" O.C. ALONG ALL EXTERIOR WALLS AND/OR AT EACH TRUSS END, SEE DETAILS 1/S4.1 AND 2/S4.1.
6. ALL EXTERIOR POP-OUT AND BOXED-OUT FRAMING SHALL BE SHEATHED WITH TYPE 1 SHEAR WALL FRAMING AS DESCRIBED IN THE SHEAR WALL SCHEDULE, TYPICAL AT ALL EXTERIOR POP-OUTS, ROOF TOP WALLS AND BOX-OUTS.
7. PROVIDE DOUBLE 2x12 BLOCKING UNDER PARAPETS WHERE APPLICABLE.
8. USE MINIMUM 4x6 POSTS WITH SIMPSON ECC64 CAP FOR ALL 6x HEADERS, U.N.O.
9. TRUSS MANUFACTURE TO PROVIDE MINIMUM (3) LINES OF BOTTOM CHORD BRIDGING CONNECTED TO END EXTERIOR END WALLS.
10. FOR TYPICAL WOOD FRAMING DETAILS, SEE SHEET S4.0. FOR GENERAL NOTES, SEE SHEETS S0.0, S0.1, AND S0.2.

FRAMING LEGEND:

- 2x6 EXTERIOR WOOD STUD WALL FULL-HEIGHT AT 16" O.C.,PER ARCH. (H = 17'-0")
- 2x6 WOOD STUD PARAPET WALL AT 16" O.C., HEIGHT VARIES, SEE ARCH.
- LENGTH / MARK — INDICATES SHEAR WALL, SEE SCHEDULE.
- T/ ROOF TRUSS 15'-1 1/2" — INDICATES ROOF JOIST ELEVATIONS, SEE PLAN

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ROOF FRAMING PLAN

02/21/2022

SHEET

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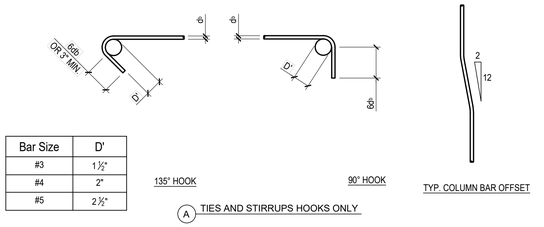
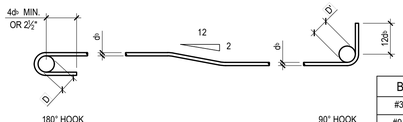


Bar Size	D'
#3	1½"
#4	2"
#5	2½"

A TIES AND STIRRUPS HOOKS ONLY

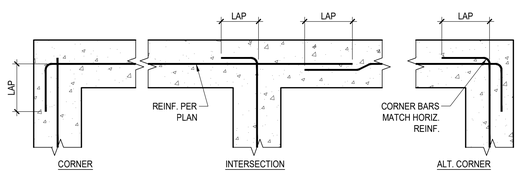


Bar Size	D'
#3 THRU #8	6db
#9 THRU #11	8db
#14 THRU #18	10db

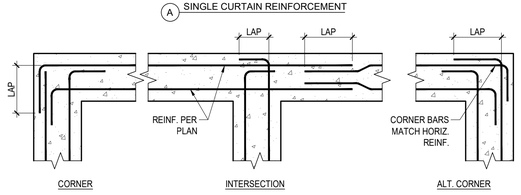
B STANDARD HOOKS

NOTES:
1. ALL BENDS SHALL BE MADE COLD.
2. #14 AND #18 BARS SHALL BE BEND TESTED AND LAB APPROVED PRIOR TO BENDING.

1 TYPICAL REINFORCING BAR BENDS
SCALE: N.T.S.



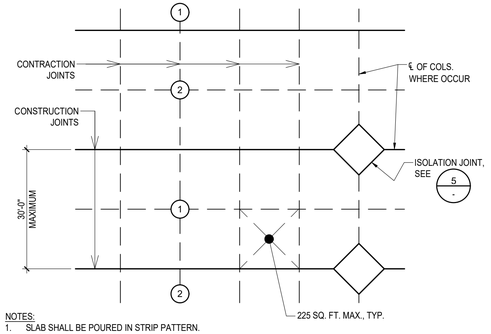
A SINGLE CURTAIN REINFORCEMENT



BAR SIZE	LAP
#4	20"
#5	25"
#6	30"

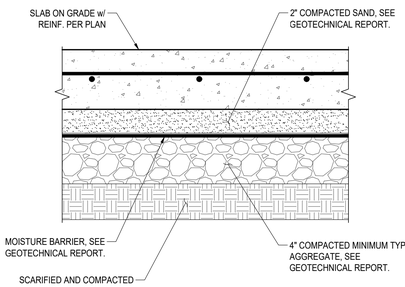
B DOUBLE CURTAIN REINFORCEMENT

2 TYPICAL REINFORCEMENT LAP AT FOOTING
SCALE: N.T.S.



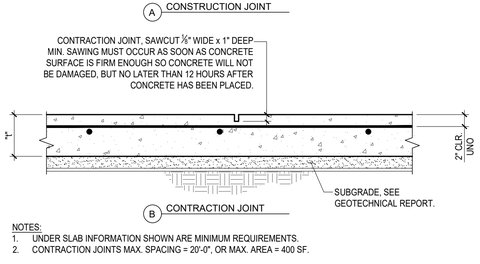
NOTES:
1. SLAB SHALL BE POURED IN STRIP PATTERN.
   (1) = FIRST POUR (2) = SECOND POUR
2. STRIPS TO BE DIVIDED BY CONSTRUCTION JOINTS AT THE CENTERLINE OF COLUMNS WHERE THEY OCCUR AND SUBDIVIDED AS REQUIRED INTO AREAS NOT EXCEEDING 225 SQ. FT. BY CONTRACTION JOINTS.
3. IN AREAS WHERE COLUMNS DO NOT OCCUR, PROVIDE CONSTRUCTION AND CONTRACTION JOINTS AS ABOVE.
4. CONTRACTORS SHALL OBTAIN ARCHITECT'S APPROVAL FOR ALL JOINT LOCATIONS.
5. SEE GEOTECHNICAL REPORT AND DETAIL 5/- FOR MINIMUM SUBGRADE PREPARATION REQUIREMENTS.

3 METHOD OF PLACING SLAB ON GRADE
SCALE: N.T.S.

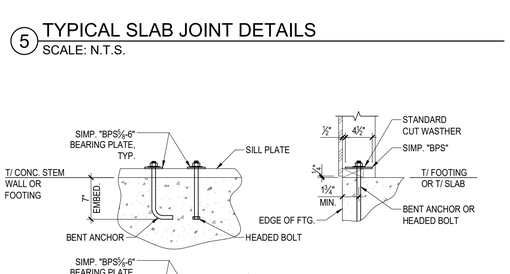


NOTE:
UNDER SLAB INFORMATION SHOWN ABOVE ARE MINIMUM REQUIREMENTS. SEE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION AND REQUIREMENTS WHICH SUPERCEDE THESE MINIMUM REQUIREMENTS.

4 TYPICAL SLAB ON GRADE - SUBGRADE DETAIL
SCALE: N.T.S.



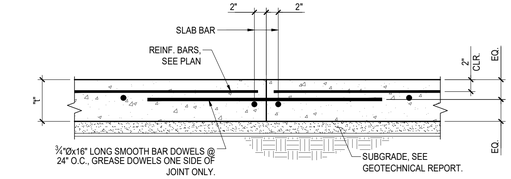
A CONSTRUCTION JOINT



B CONTRACTION JOINT

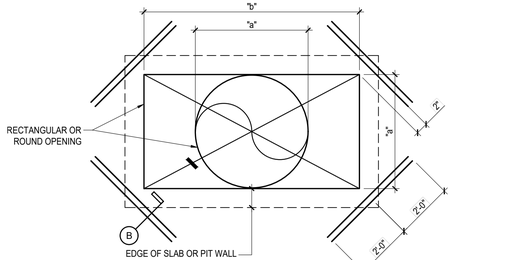
NOTES:
1. UNDER SLAB INFORMATION SHOWN ARE MINIMUM REQUIREMENTS.
2. CONTRACTION JOINTS MAX. SPACING = 20'-0", OR MAX. AREA = 400 SF.

5 TYPICAL SLAB JOINT DETAILS
SCALE: N.T.S.

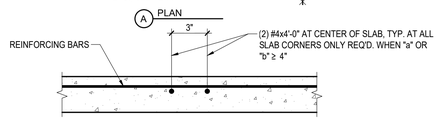


NOTES:
1. PROVIDE A MINIMUM SILL BOLT EMBEDMENT OF 7" BELOW TOP OF CONCRETE.
2. PROVIDE AN ADDITIONAL SILL BOLT 6" MINIMUM FROM END OF EACH PIECE OF SILL PLATE.
3. WHERE SILL PLATES ARE BORED OR NOTCHED IN EXCESS OF ¼ OF THE SILL PLATE WIDTH, PROVIDE ADDITIONAL SILL BOLTS 6" MINIMUM EACH SIDE OF BORE OR NOTCH.
4. SET ALL SILL BOLTS WITH A SETTING TEMPLATE BEFORE PLACING CONCRETE.
5. THE CONTRACTOR MUST COORDINATE AND IF NECESSARY DECREASE THE SILL BOLT SPACING SO THAT THE TOTAL NUMBER OF SILL BOLTS REQUIRED ARE INSTALLED IN ALL SHEAR WALL SILL PLATES (IE: IN A 4' SHEARWALL w/ SILL BOLTS SPACED @ 16" O.C. & 9" OFF EACH END THERE BE 48/16+1=4 SILL BOLT ANCHORS), TYP.
6. STANDARD HOOKED ANCHOR BOLTS OF THE SAME SIZE AND SPACING MAY BE SUBSTITUTED IN PLACE OF HEADED BOLTS.

6 TYP. ANCHOR BOLTS EMBEDMENT
SCALE: N.T.S.



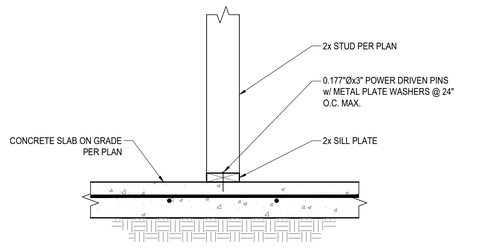
A PLAN



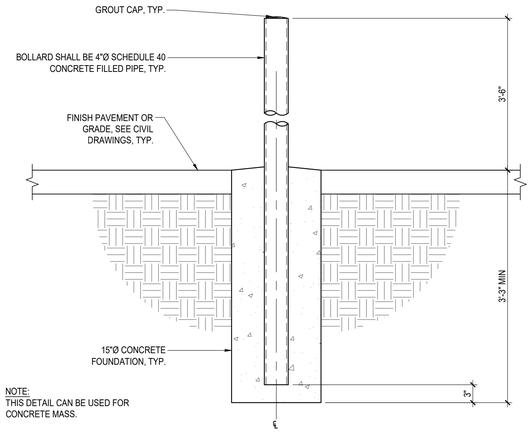
B SECTION

NOTE:
FOR DIMENSIONS, SEE PLAN, ARCH., MECH., ETC.

7 TYPICAL OPENING IN SLAB ON GRADE
SCALE: 1" = 1-0"



8 TYP. NON-BEARING STUD WALL TO FOUNDATION
SCALE: N.T.S.



NOTE:
THIS DETAIL CAN BE USED FOR CONCRETE MASS.

9 TYPICAL BOLLARD DETAIL
SCALE: 1" = 1-0"

f'c = 4000 PSI or 4500 PSI

BAR SIZE	TOP BARS		OTHER BARS	
	CASE 1	CASE 2	CASE 1	CASE 2
#3	19	28	15	22
#4	25	37	19	29
#5	31	47	24	36
#6	37	56	29	43
#7	54	81	42	63
#8	62	93	48	71
#9	70	105	54	81
#10	79	118	61	91
#11	87	131	67	101
#14	105	157	81	121
#18	139	209	107	161

NOTES:
1. THIS TABLE FOR USE WITH NORMAL WEIGHT HARDROCK CONCRETE AND GRADE 60 UNCOATED REINFORCING BARS. FOR LIGHTWEIGHT AGGREGATE USE 1.3 ℓ_d. ℓ_d= TENSION DEVELOPMENT LENGTH SHOWN AT THIS TABLE.
2. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST IN THE MEMBER BELOW THE BAR.
3. FOR BARS ENCLOSED IN STANDARD COLUMN SPIRALS, USE 0.75 ℓ_d OR 12" MIN.
4. TENSION DEVELOPMENT LENGTH OF INDIVIDUAL BARS WITH A BUNDLE SHALL BE 1.2 ℓ_d FOR THAT BAR IN A 3-BAR BUNDLE AND 1.33 ℓ_d FOR A 4-BAR BUNDLE.
5. COMPRESSION DEVELOPMENT LENGTH (ONLY WHERE INDICATED ON DRAWINGS) FOR GRADE 60 BARS USE 22 BAR DIAMETERS.
6. CASES 1 AND 2 ARE DEFINED AS FOLLOWS:
   BEAMS OR COLUMNS
   CASE 1: COVER AT LEAST 1.0 db AND CENTER TO CENTER SPACING AT LEAST 2.0 db.
   CASE 2: COVER LESS THAN 1.0 db OR CENTER TO CENTER SPACING LESS THAN 2.0 db.
   ALL OTHER MEMBERS
   CASE 1: COVER AT LEAST 1.0 db AND CENTER TO CENTER SPACING AT LEAST 3.0 db.
   CASE 2: COVER LESS THAN 1.0 db OR CENTER TO CENTER SPACING LESS THAN 3.0 db.

10 TENSION DEVELOPMENT LENGTH (FOR CONCRETE ONLY)
SCALE: N.T.S.

f'c = 4000 PSI

BAR SIZE	LAP CLASS	TOP BARS		OTHER BARS	
		CASE 1	CASE 2	CASE 1	CASE 2
#3	A	19	28	15	22
	B	24	36	19	28
#4	A	25	37	19	29
	B	32	48	25	37
#5	A	31	47	24	36
	B	40	60	31	47
#6	A	37	56	29	43
	B	48	72	37	56
#7	A	54	81	42	63
	B	70	106	54	81
#8	A	62	93	48	71
	B	80	121	62	93
#9	A	70	105	54	81
	B	91	136	70	105
#10	A	79	118	61	91
	B	102	153	79	118
#11	A	87	131	67	101
	B	113	170	87	131

NOTES:
1. THIS TABLE FOR USE WITH NORMAL WEIGHT HARDROCK CONCRETE AND GRADE 60 UNCOATED REINFORCING BARS. FOR LIGHTWEIGHT AGGREGATE USE 1.3 ℓ_d.
2. CLASS A - HALF OR LESS OF THE BARS ARE SPLICED WITHIN A REQUIRED LAP LENGTH.
   CLASS B - MORE THAN HALF OF THE BARS ARE SPLICED WITHIN A REQUIRED LAP LENGTH.
3. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST IN THE MEMBER BELOW THE BAR.
4. FOR BARS ENCLOSED IN STANDARD COLUMN SPIRALS, USE 0.75 ℓ_d OR 12" MIN.
5. LAP SPLICES OF INDIVIDUAL BARS WITH A BUNDLE SHALL BE 1.2 ℓ_d FOR THAT BAR IN A 3-BAR BUNDLE AND 1.3 ℓ_d FOR A 4-BAR BUNDLE. ENTIRE BUNDLES SHALL NOT BE LAP SPLICED AT THE SAME LOCATION. SPLICES FOR INDIVIDUAL BARS WITHIN A BUNDLE SHALL BE STAGGERED SUCH THAT THEY DO NOT OVERLAP.
6. COMPRESSION LAP SPLICE (ONLY WHERE INDICATED ON DRAWINGS) FOR GRADE 60 BARS USE 30 BAR DIAMETERS.
7. CASES 1 AND 2 ARE DEFINED AS FOLLOWS:
   BEAMS OR COLUMNS
   CASE 1: COVER AT LEAST 1.0 db AND CENTER TO CENTER SPACING AT LEAST 2.0 db.
   CASE 2: COVER LESS THAN 1.0 db OR CENTER TO CENTER SPACING LESS THAN 2.0 db.
   ALL OTHER MEMBERS
   CASE 1: COVER AT LEAST 1.0 db AND CENTER TO CENTER SPACING AT LEAST 3.0 db.
   CASE 2: COVER LESS THAN 1.0 db OR CENTER TO CENTER SPACING LESS THAN 3.0 db.

11 TENSION LAP SPLICE LENGTH, ℓ (IN INCHES)
SCALE: N.T.S.

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NUMBER PE-2012005352
Exp 12/31/2022
PROFESSIONAL ENGINEER

COA # 2012012048
DATE: 02/21/2022
NAME:
LICENSE NUMBER:

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LEE'S SUMMIT, MO 64081

EBI JOB #4121000082

ISSUE	DATE	DESCRIPTION

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PRYOR RD AND LOWENSTEIN DR.

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STRUCTURAL DETAILS

02/21/2022

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S3.0

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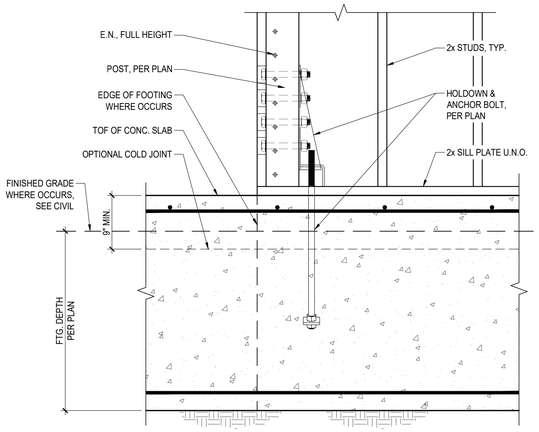
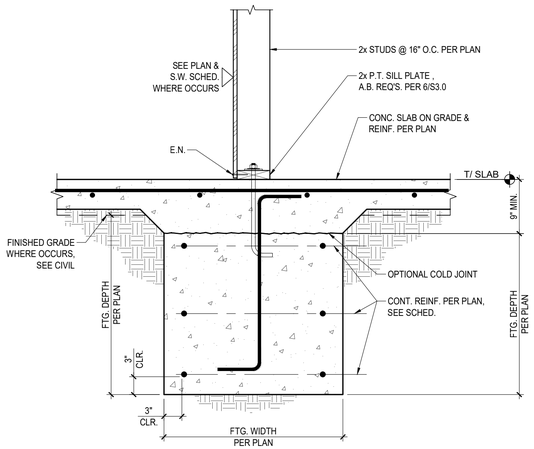
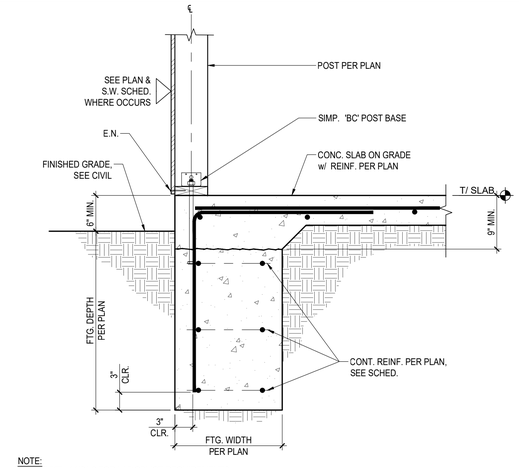


1 HOLDOWN DETAIL
SCALE: N.T.S.

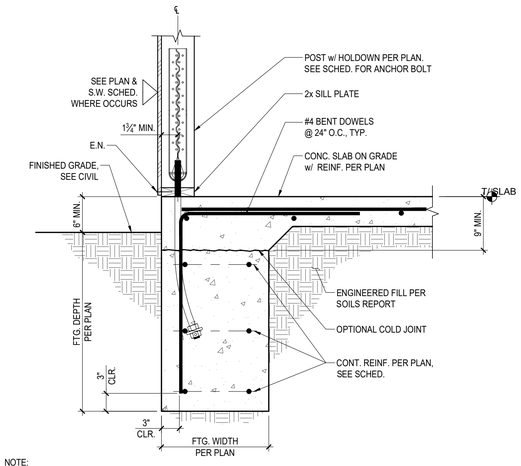


4 INTERIOR WALL FOOTING
SCALE: 1" = 1'-0"



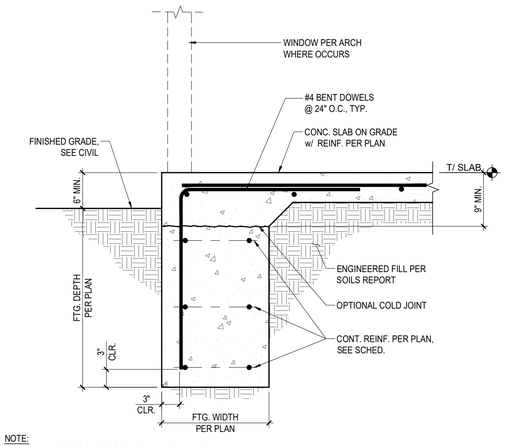
NOTE:
1. SEE DTL. 11/S3.0 FOR LAP SPLICE REQUIREMENTS.
2. SEE DTL. 3/- FOR BALANCE OF INFO.

7 POST AT EXTERIOR FOOTING
SCALE: 1" = 1'-0"



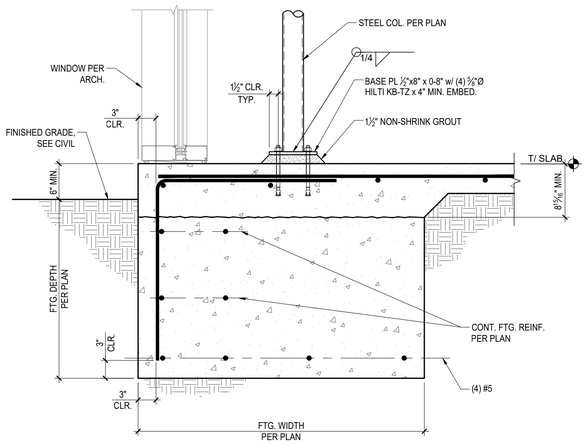
NOTE:
1. SEE DTL. 11/S3.0 FOR LAP SPLICE REQUIREMENTS.

2 HOLDOWN SECTION
SCALE: 1" = 1'-0"

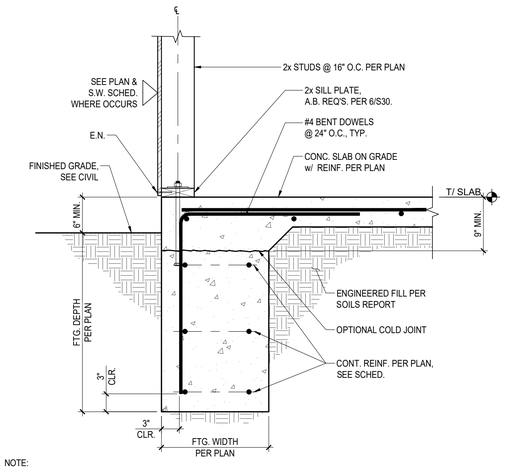


NOTE:
1. SEE DTL. 11/S3.0 FOR LAP SPLICE REQUIREMENTS.

5 EXTERIOR FOOTING AT OPENING
SCALE: 1" = 1'-0"

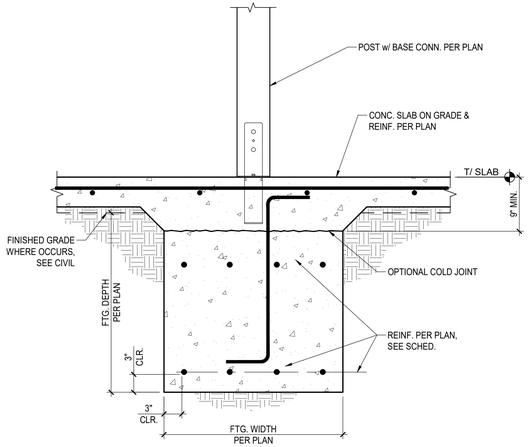


8 STEEL COLUMN TO FOOTING
SCALE: 1" = 1'-0"



NOTE:
1. SEE DTL. 11/S3.0 FOR LAP SPLICE REQUIREMENTS.

3 EXTERIOR WALL FOOTING
SCALE: 1" = 1'-0"



6 POST TO SPREAD FOOTING DETAIL
SCALE: 1" = 1'-0"

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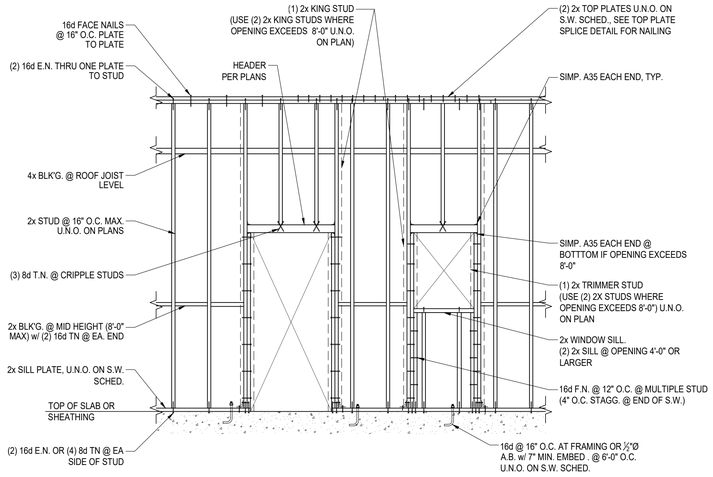
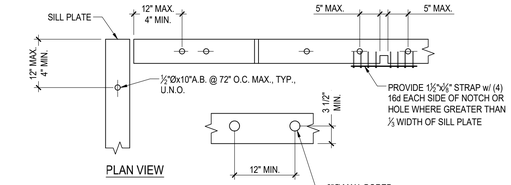
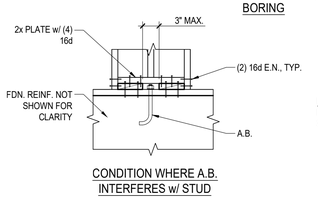


NOTES:
1. HEADERS, KINGSTUDS AND OTHER REFERENCES ON PLAN GOVERN OVER TYPICAL DETAIL.
2. PROVIDE (2) 2x MIN. STUDS AT END OF WALL w/ 16S F.N. @ 12" O.C.
3. PROVIDE (2) 2X STUDS @ CORNERS W/ 16d F.N. @ 12" O.C.

1 TYPICAL STUD WALL FRAMING ELEVATION
SCALE: N.T.S.



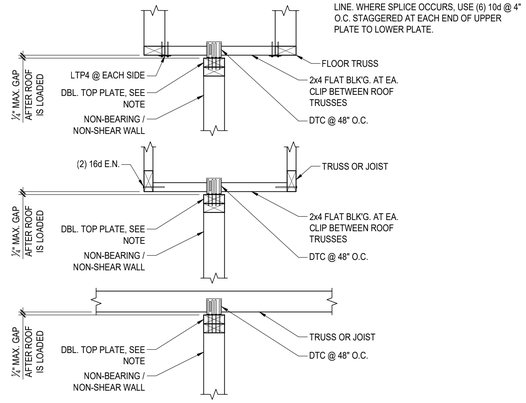


CONDITION WHERE A.B. INTERFERES w/ STUD

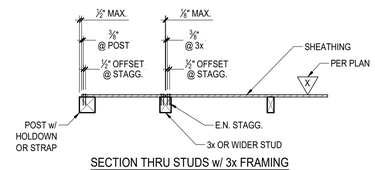
NOTE:
PRESSURE TREAT ALL SILLS BEARING ON CONC OR MASONRY.

NOTE:
PROVIDE MINIMUM EDGE DISTANCE OF 1¾" FOR ½"Ø A.B. AND 2¼" FOR ¾"Ø A.B.

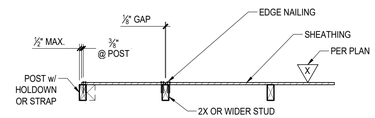
5 TYP. NOTCHING / BORING / BOLTING OF PLATES
SCALE: N.T.S.



8 TYPICAL NON-BEARING WALL TO TRUSS / JOIST
SCALE: N.T.S.



SECTION THRU STUDS w/ 3x FRAMING

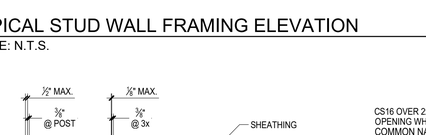


SECTION THRU STUDS w/ 2x FRAMING

2 TYPICAL SHEAR WALL ELEVATION
SCALE: N.T.S.

INTERSECTION w/ POST

INTERSECTION w/o POST

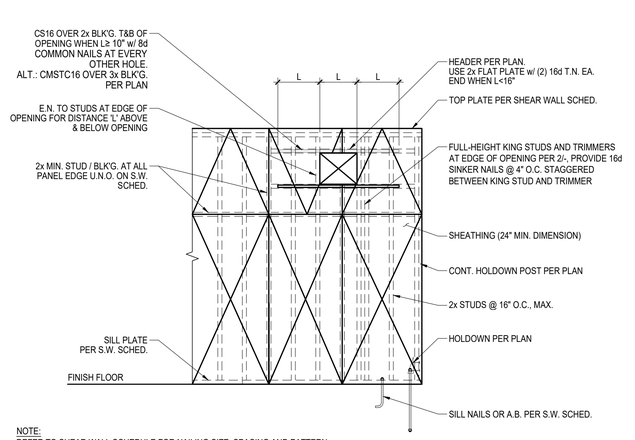


OUTSIDE CORNER w/ POST

OUTSIDE CORNER w/o POST

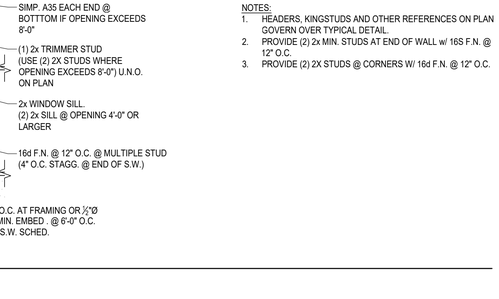
NOTE:
SEE FRAMING PLAN FOR SHEAR WALL LOCATIONS, ORIENTATIONS AND SCHEDULE REFERENCES.

3 TYP. SHEAR WALL INTERSECTION FRAMING
SCALE: N.T.S.



NOTE:
REFER TO SHEAR WALL SCHEDULE FOR NAILING SIZE, SPACING AND PATTERN.

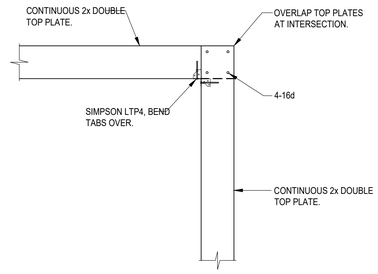
4 TYPICAL SHEATHING DETAIL
SCALE: N.T.S.



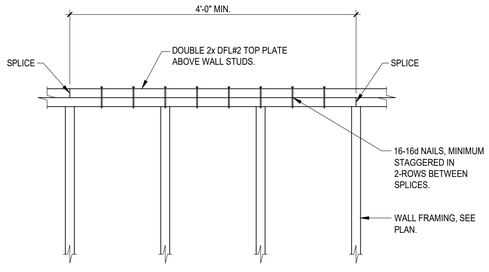
PLAN

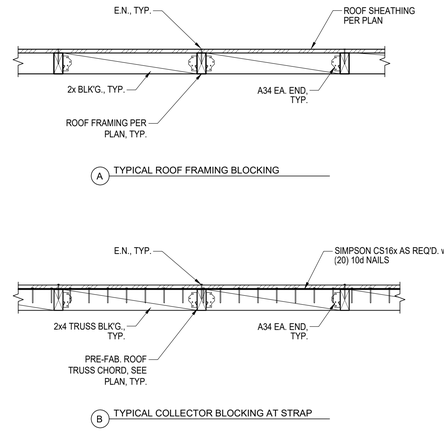
NOTES:
1. NAILS SHALL BE DRIVEN TIGHT BUT SHALL NOT FRACTURE SURFACE OF SHEATHING.
2. PLYWOOD OSB PIECES SHALL CONTAIN NOT LESS THAN 8 SQ. FT. NOR BE LESS THAN 2'-0" WIDE.
3. MAXIMUM UNSUPPORTED SHEATHING TO BE 24".
4. FRAMING AT ADJOINING PANEL EDGE SHALL BE 3" NOMINAL OR WIDER AND NAILS AT ALL PANEL EDGES SHALL BE STAGG. WHERE PANEL EDGE NAILING IS SPECIFIED AT 2½" O.C. OR LESS
5. ALL PANEL EDGES OF THE FLOOR SHEATHING SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED BY BLK'G. PER IBC TABLE 2304.7 (3) FOOTNOTE D.

7 TYPICAL TOP PLATE SPLICE
SCALE: N.T.S.



6 TYPICAL TOP PLATE AT CORNER
SCALE: N.T.S.





A TYPICAL ROOF FRAMING BLOCKING

B TYPICAL COLLECTOR BLOCKING AT STRAP

9 TYPICAL BLOCKING DETAILS
SCALE: N.T.S.

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STATE OF MISSOURI
ROBERT CONTI MAPLES
NUMBER PE-2012005392
Exp 12/31/2022
PROFESSIONAL ENGINEER

COA # 2012012048
DATE: 02/21/2022
NAME:
LICENSE NUMBER:

PRYOR RD AND LOWENSTEIN DR.
908 NW PRYOR RD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000082

ISSUE	DATE	DESCRIPTION

CHASE

PRYOR RD AND LOWENSTEIN DR.
-

CONTENTS

STRUCTURAL DETAILS

02/21/2022

SHEET

S4.0

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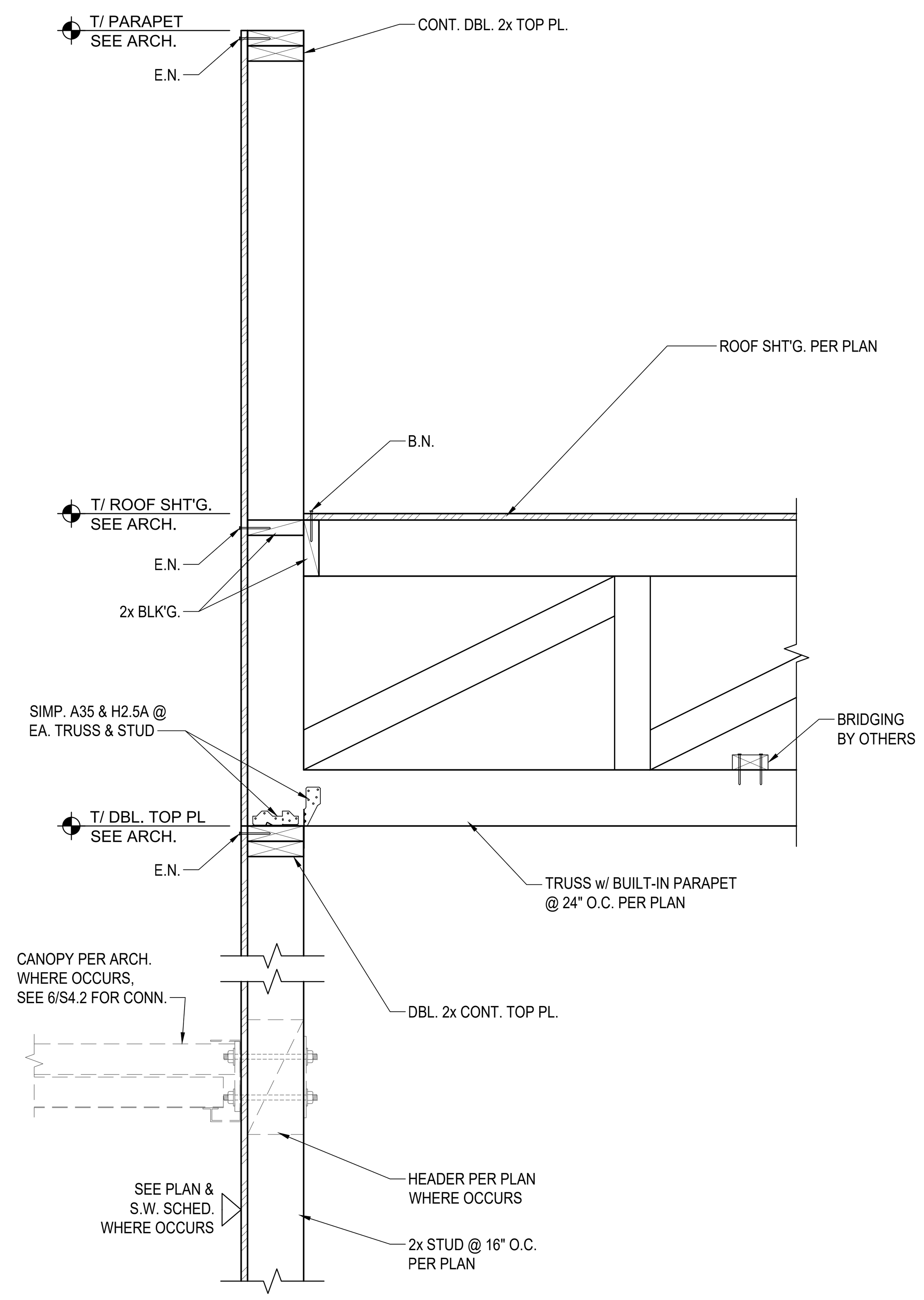
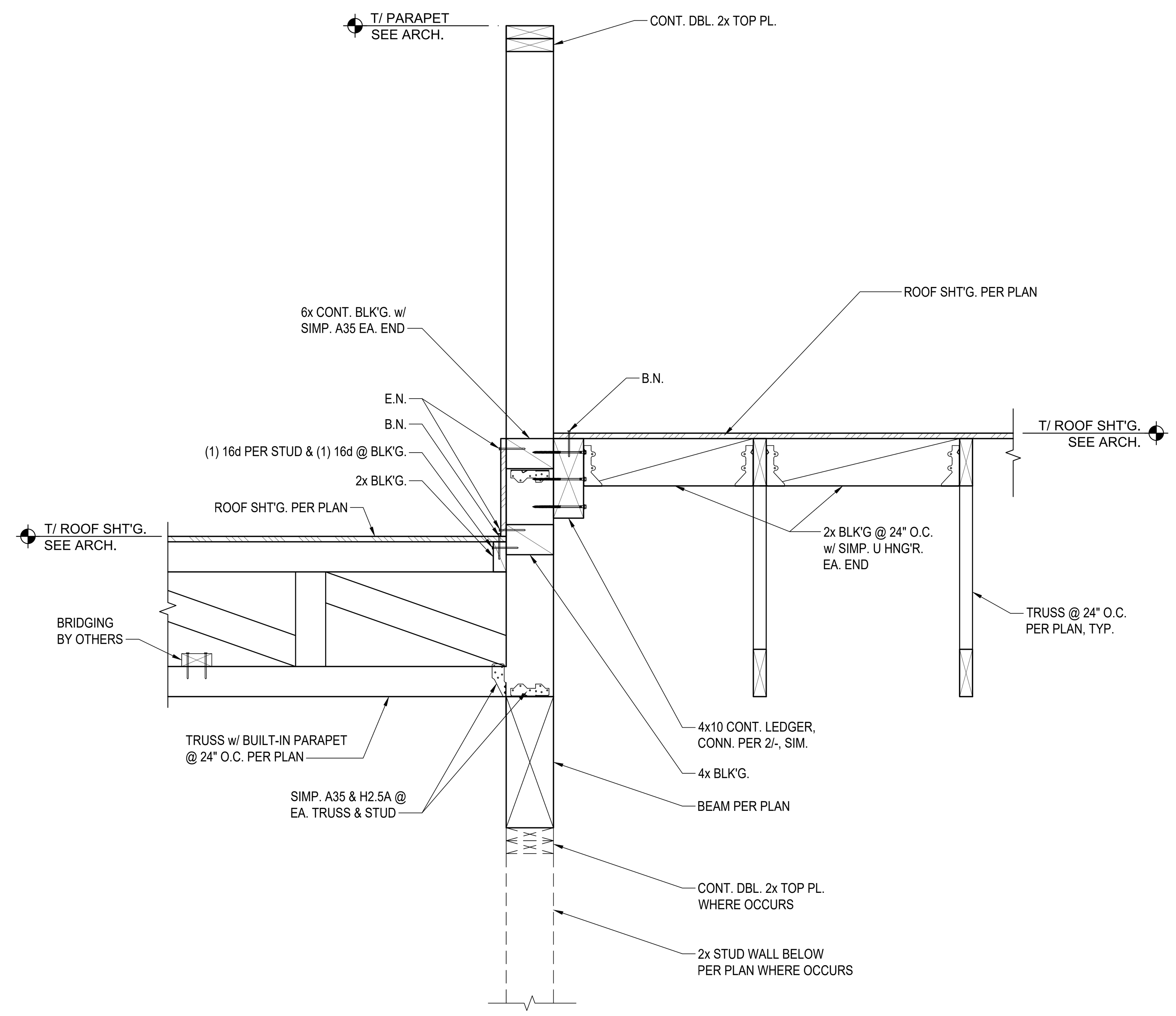


1 ROOF TRUSS PERPENDICULAR TO EXTERIOR WALL

SCALE: 1" = 1'-0"



3 ROOF TRUSS CONNECTION AT DEPRESSED ROOF

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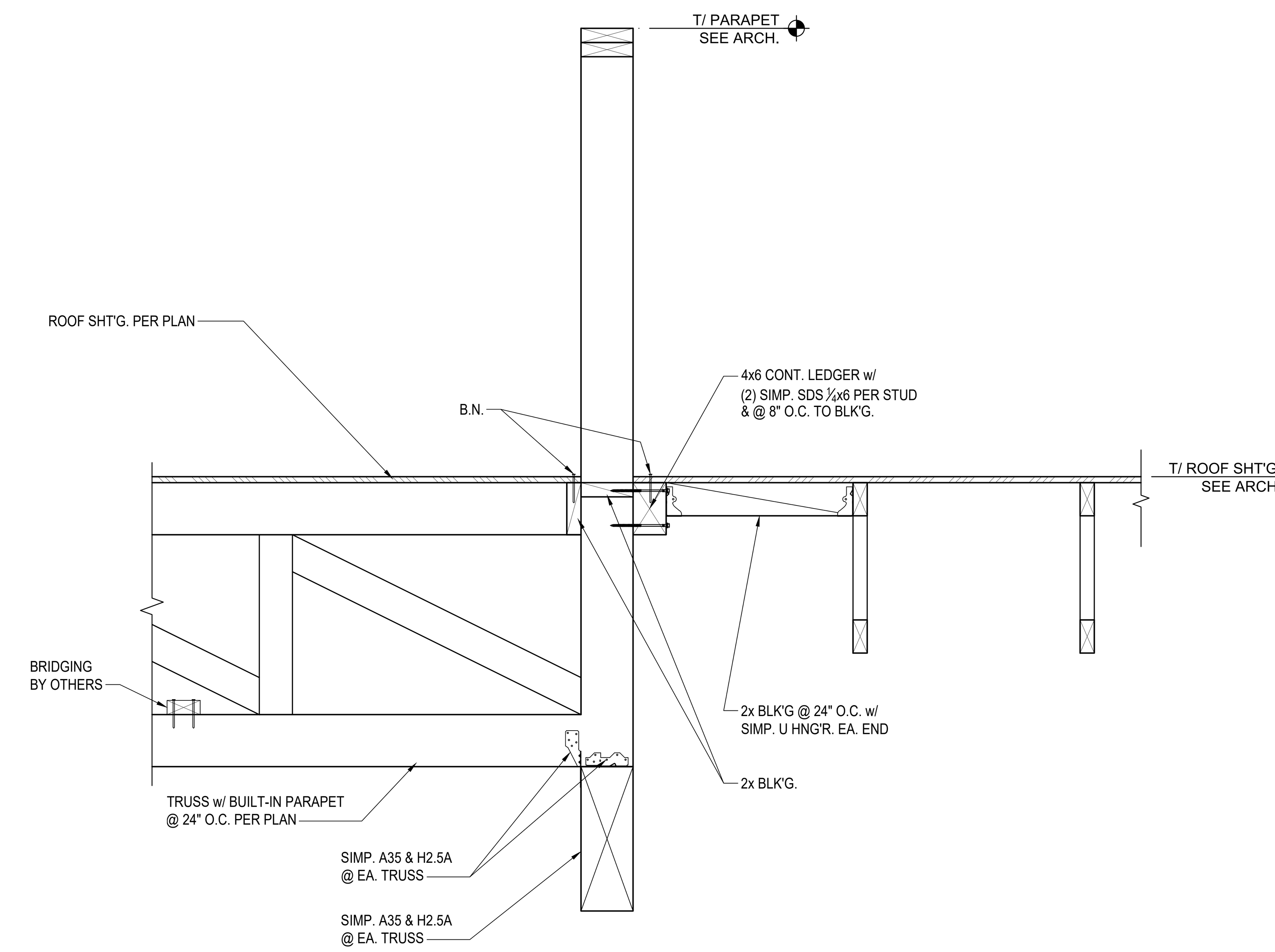
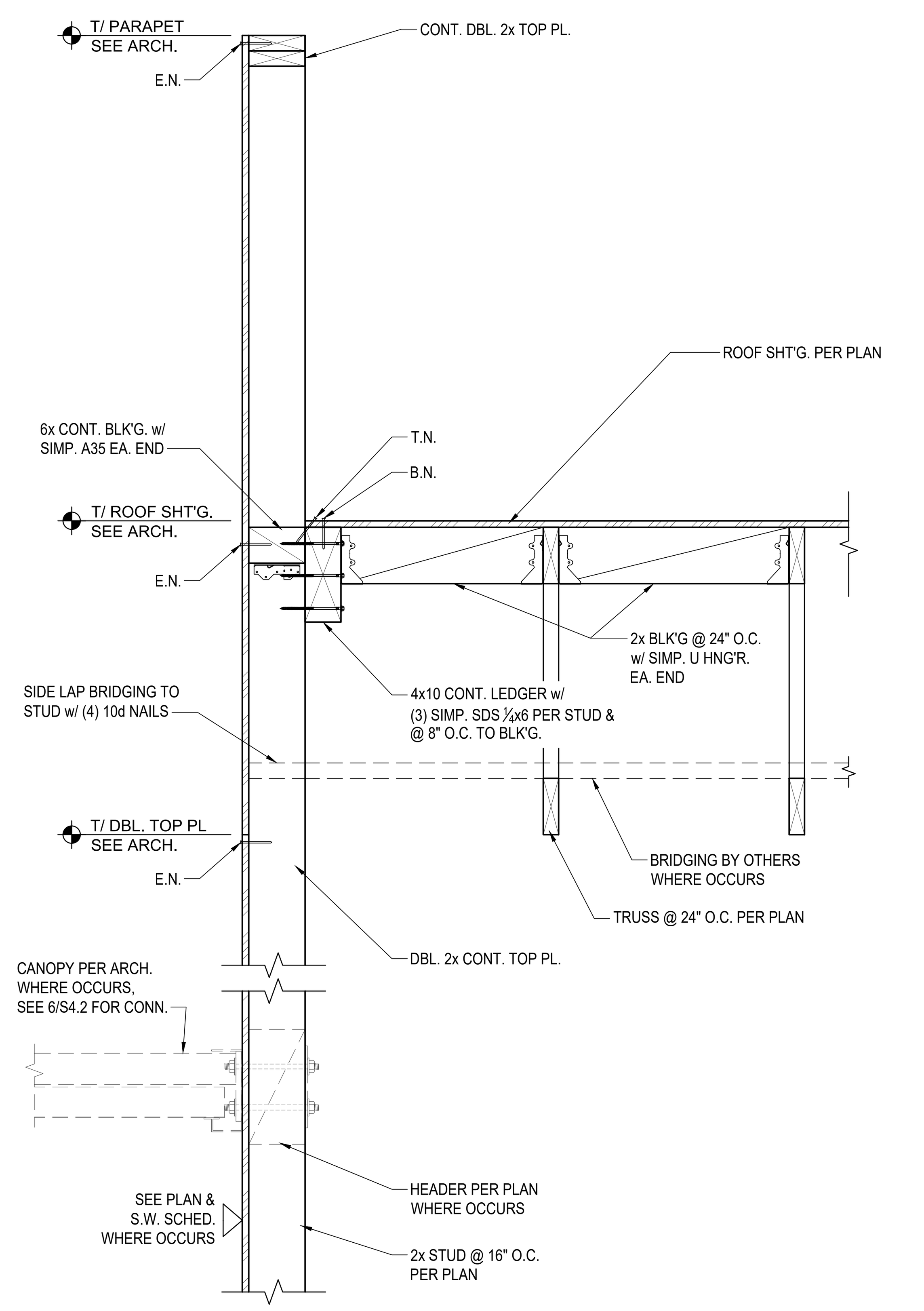


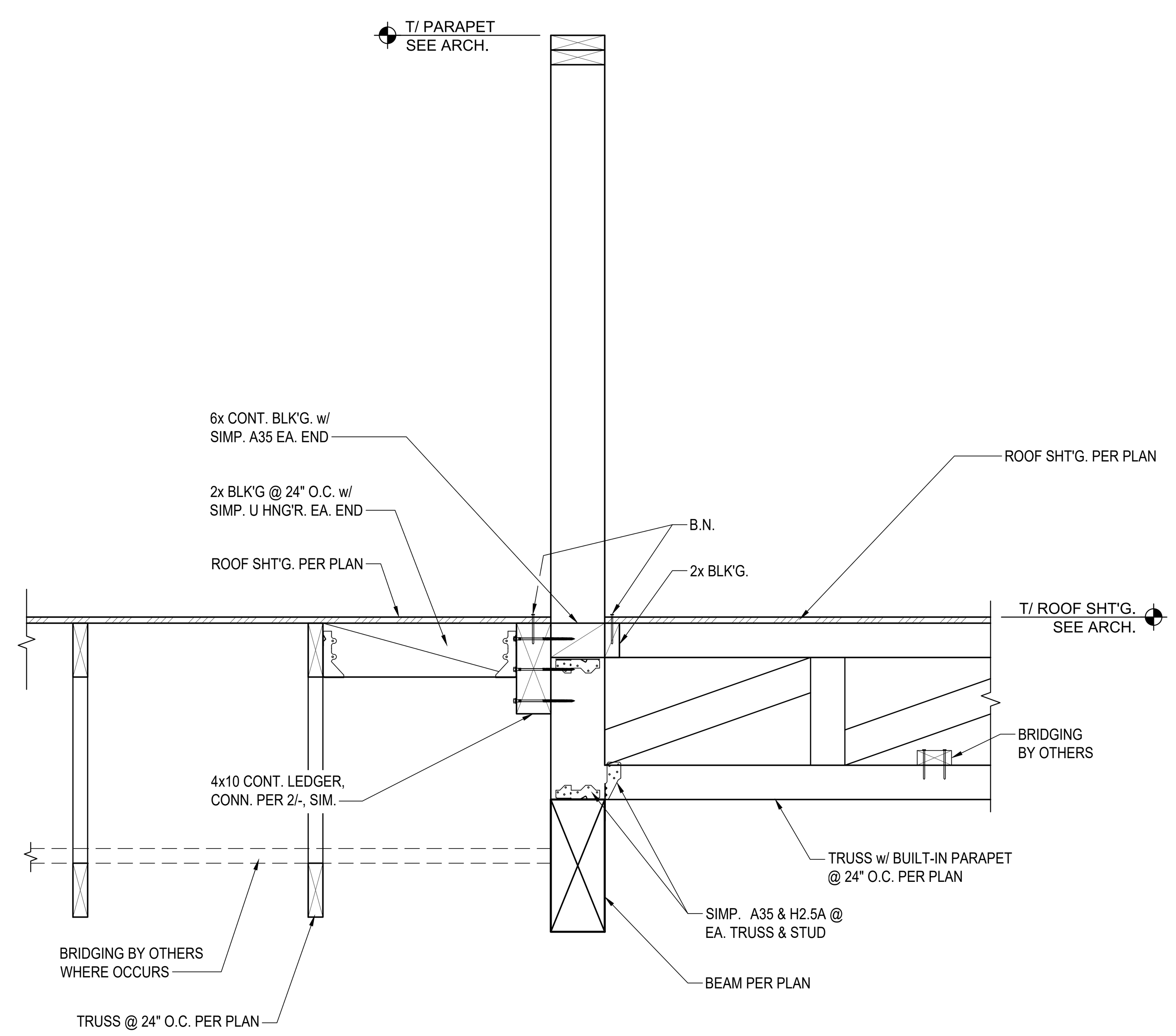
5 ROOF TRUSS CONNECTION AT TOWER

SCALE: 1" = 1'-0"



2 ROOF TRUSS PARALLEL TO EXTERIOR WALL

SCALE: 1" = 1'-0"



4 ROOF TRUSS CONNECTION AT TOWER

SCALE: 1" = 1'-0"

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COA # 2012012048

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02/21/2022

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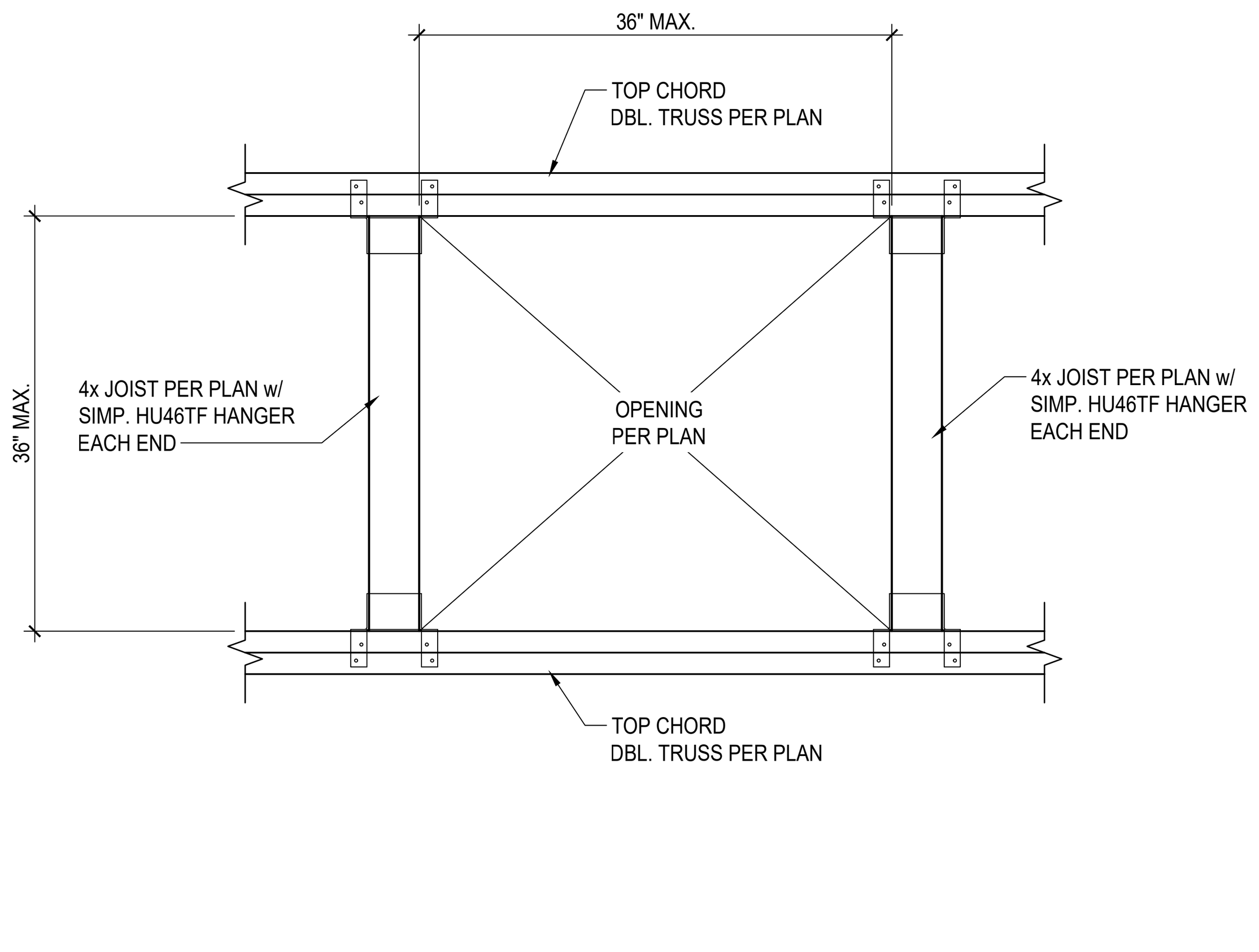
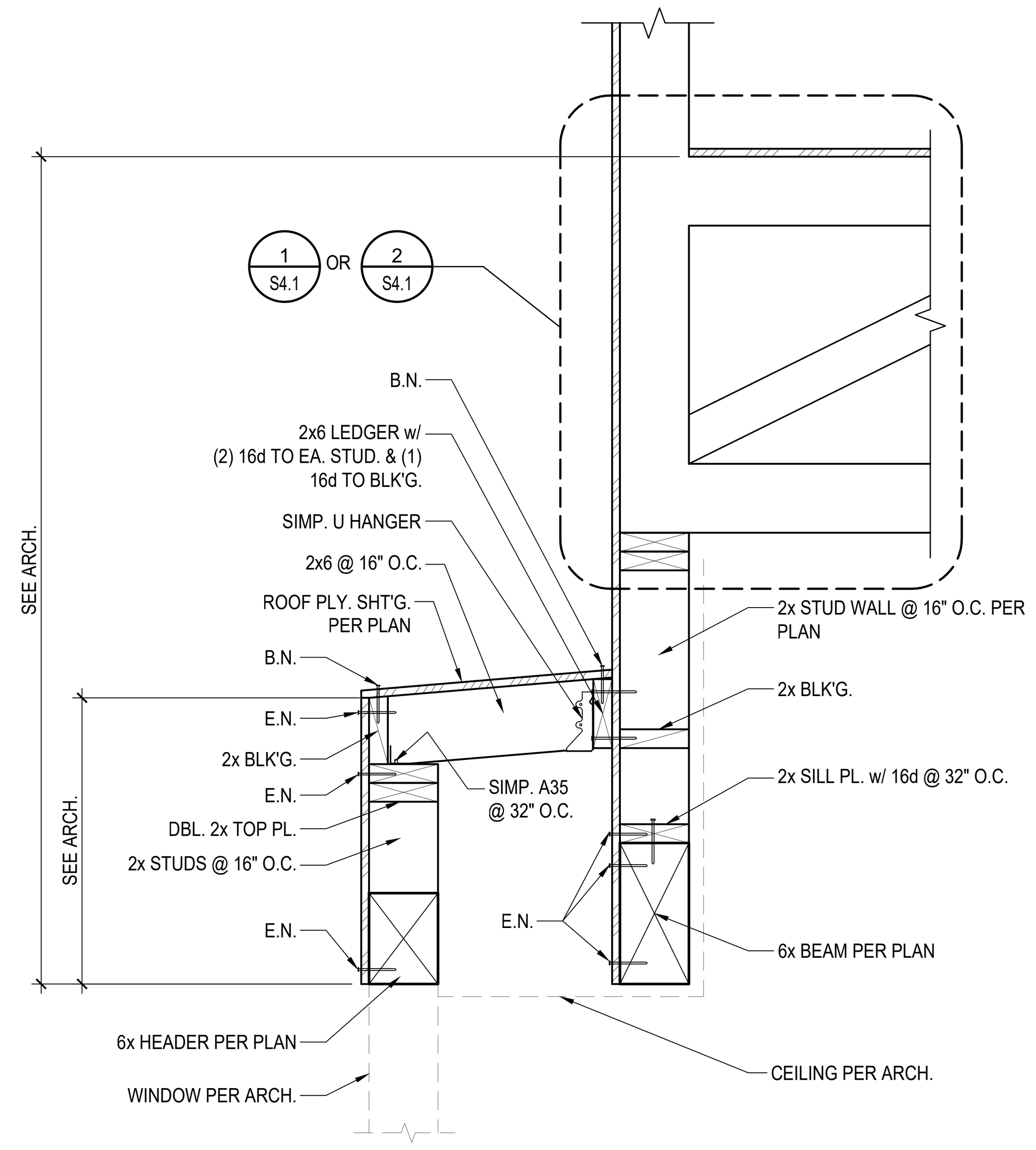


1 ROOF OPENING DETAIL - PLAN VIEW
SCALE: 1" = 1'-0"



4 FRAMING CONNECTION AT POP-OUT WALL
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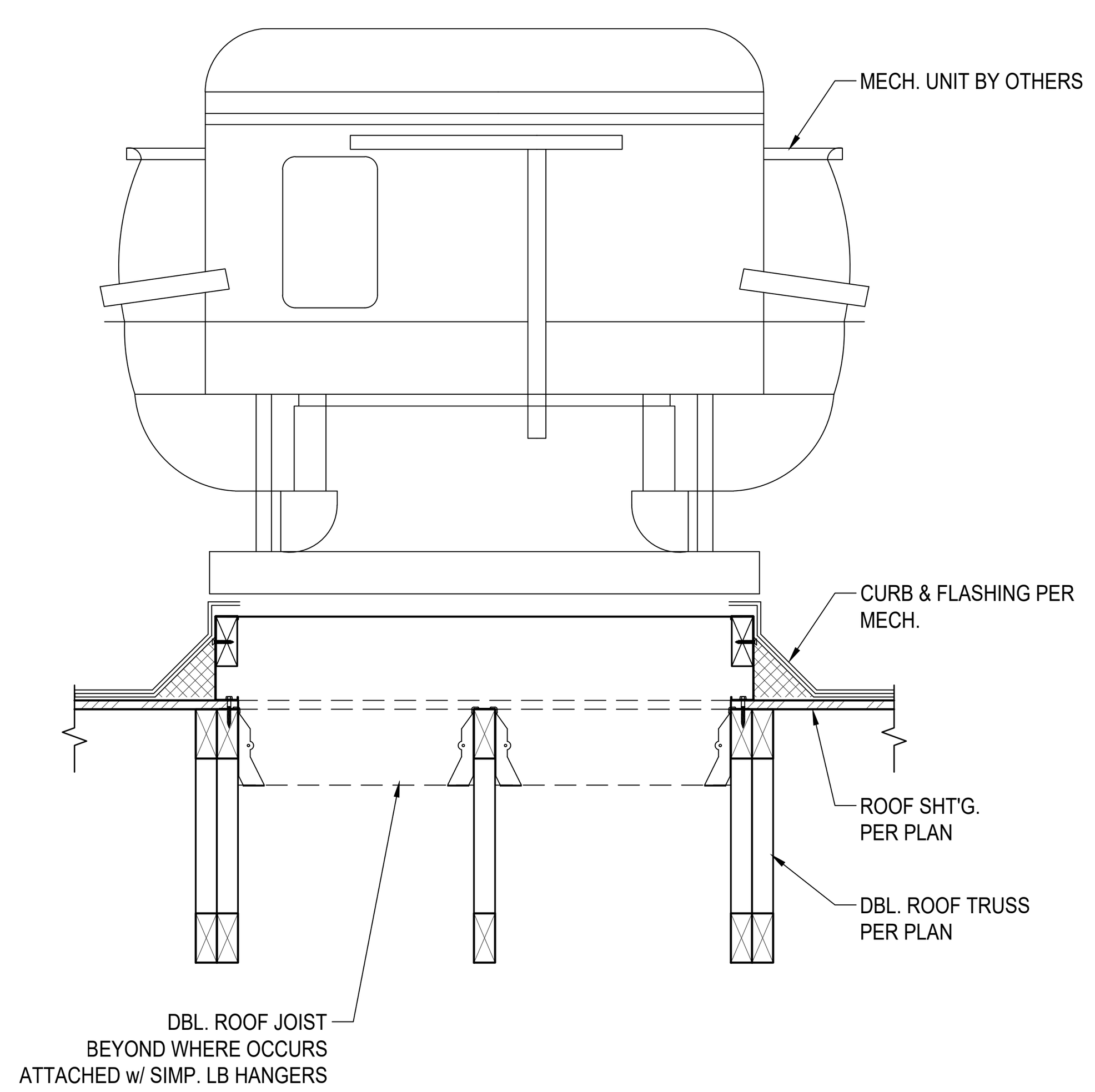

2 ROOF OPENING DETAIL - PLAN VIEW
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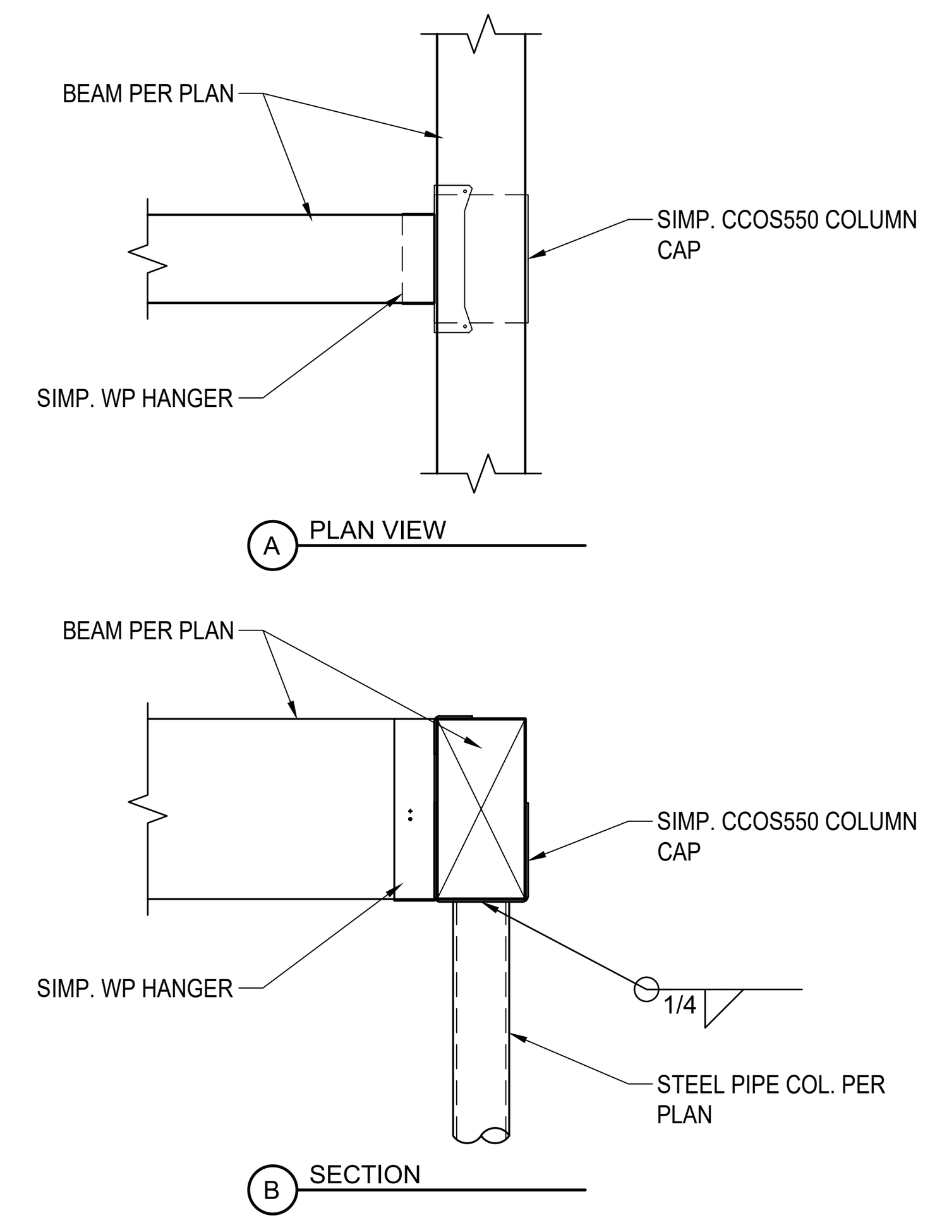
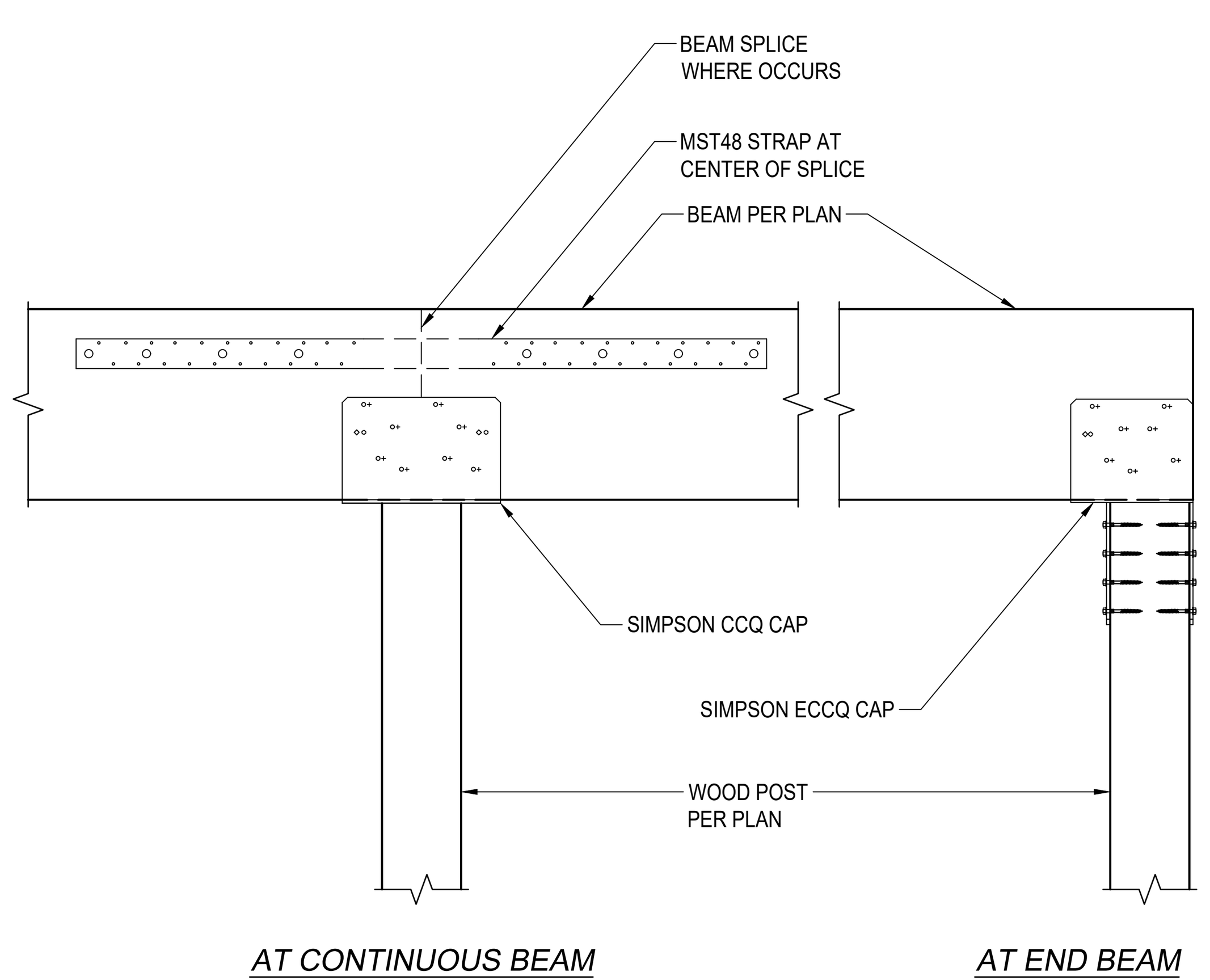
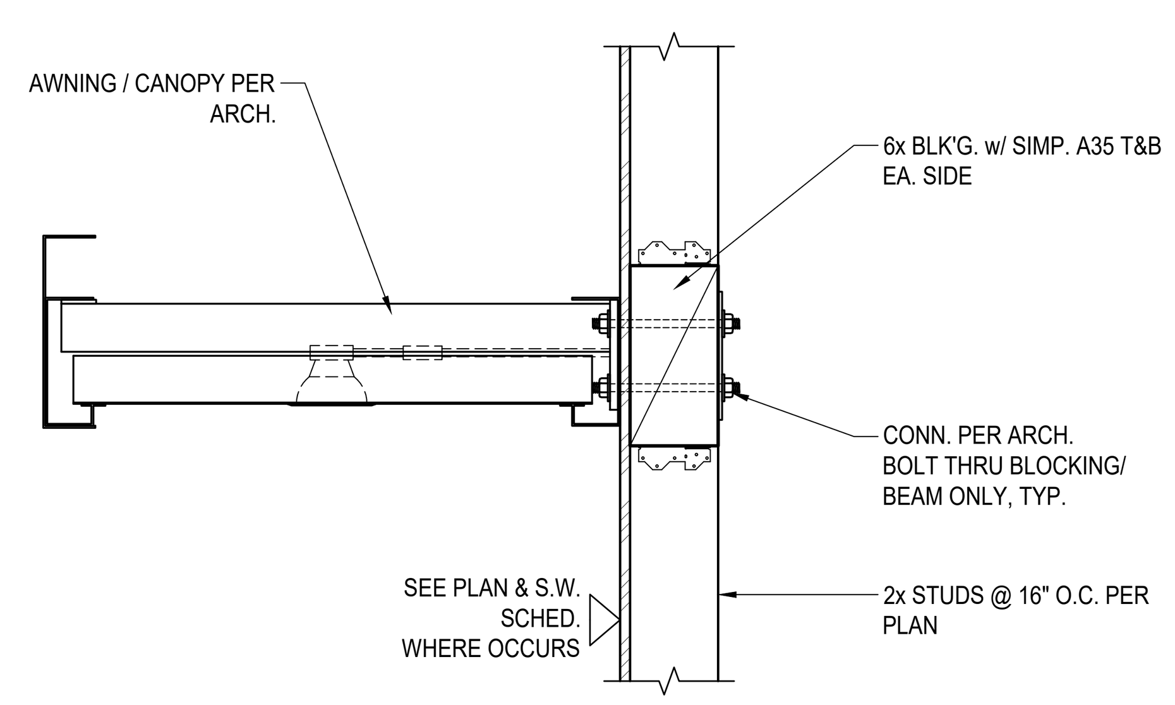


5 WOOD BEAM TO STEEL PIPE COLUMN
SCALE: 1" = 1'-0"



3 WOOD POST TO WOOD BEAM CONNECTION
SCALE: N.T.S.



6 CANOPY CONNECTION
SCALE: 1" = 1'-0"

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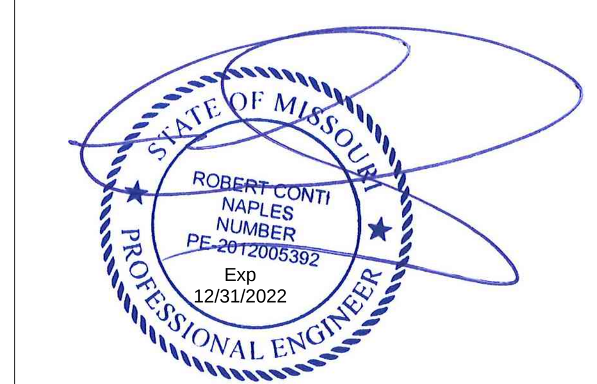

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STRUCTURAL DETAILS

02/21/2022
SHEET
S4.2

MECHANICAL SYMBOLS

AH-1 — MECHANICAL ZONE EQUIPMENT DESIGNATION- REFER TO MECHANICAL EQUIPMENT TYPES SCHEDULE

2X2 — 2X2 SUPPLY AIR DIFFUSER- REFER TO MECHANICAL FIXTURE SCHEDULE

2X2 RETURN AIR GRILLE- REFER TO MECHANICAL FIXTURE SCHEDULE

2X2 EXHAUST GRILLE- REFER TO MECHANICAL FIXTURE SCHEDULE- DUCT TO COMMON ROOF CENTRIFUGAL EXHAUST FAN

SA — LINEAR SLOT SUPPLY DIFFUSER- REFER TO REFL. CEILING PLAN AND MECH. FIXTURE SCHED. FOR FOR SIZE AND CONFIG.

RA — LINEAR SLOT RETURN GRILLE- REFER TO REFL. CEILING PLAN AND MECH. FIXTURE SCHED. FOR FOR SIZE AND CONFIG.

BLANK — LINEAR SLOT BLANK PANEL- REFER TO REFL. CEILING PLAN FOR SIZE

SA — OPEN SUPPLY AIR NOZZLE DIFFUSER

T — RTU MANUFACTURER'S THERMOSTAT

TEST — IN-DUCT SMOKE AND CARBON DIOXIDE DETECTOR TEST KEY SWITCHES- HARDWIRE TO SENSOR

SQUARE ELBOW WITH TURNING VANES

RADIUS ELBOW

MANUAL VOLUME DAMPER

M — MOTOR OPERATED DAMPER

BD — BACKDRAFT DAMPER

FD — FIRE DAMPER

SD — DUCT MOUNTED SMOKE DETECTOR

FS — COMBINATION FIRE/SMOKE DAMPER

FLEXIBLE CONNECTION (DUCTWORK)

FLEXIBLE CONNECTION OR SEISMIC JOINT

LINED DUCTWORK (OR PLENUM)

DUCT RISE IN DIRECTION OF FLOW

MECHANICAL GENERAL NOTES

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS ON SHEETS A1.2 FOR POSITIONS, SIZES AND TYPES OF MECHANICAL FIXTURES (SA / RA / TE).
2. 24-HOUR VESTIBULES REQUIRE DUCTED RETURNS TO PREVENT AIR DRAW FROM ADJACENT SPACES WITHOUT SEPARATION ABOVE THE CEILING.
3. ALL MECHANICAL EQUIPMENT MUST BE ISOLATED FROM THE BUILDING STRUCTURE BY VIBRATION-DAMPENING MOUNTING AND DUCT ACCESSORIES. RIGID EQUIPMENT MOUNTS AND DUCT CONNECTIONS TO EQUIPMENT ARE NOT PERMITTED.
4. RTUS, SPLIT FORCED-AIR SYSTEMS (INCLUDING "MINI-SPLITS"), AND ALL SUPPLEMENTAL HEATING SYSTEMS ARE TO BE CONTROLLED AND MONITORED BY THE BUILDING MANAGEMENT SYSTEM (BMS) FOR CONSTANT VOLUME (CV) SYSTEMS WITHOUT HUMIDITY CONTROL ONLY. REFER TO SHEET E5. MECHANICAL INSTALLER SHALL COORDINATE WITH THE PROJECT ELECTRICIAN FOR CONTROL AND MONITORING DEVICE PROVISION AND INSTALLATION FROM THE COMMON BMS VENDOR.
5. CONTROL AND SENSOR DEVICES ARE NOT TO BE LOCATED ON ANY WALLS OR CEILINGS DESIGNATED FOR AN ACCENT FINISH. REFER TO THE FLOOR PLANS.
6. POSITION CONTROL DEVICES AS NEAR THE ENDS OF WALLS AS POSSIBLE, SO AS NOT TO INTERFERE WITH MARKETING MATERIAL POSITIONING.
7. ALL THERMOSTATS AND TEST SWITCHES FOR REMOTE SMOKE AND CARBON DIOXIDE DETECTORS SHALL BE POSITIONED IN EMPLOYEE-ONLY AREAS, OUT OF CUSTOMER VIEW.
8. INSTALL DAINTREE WTS10, CONTRACTOR TO PROVIDE MITSUBISHI PAC-US44CN-1 ADAPTER.
9. REFER TO ELECTRICAL DRAWINGS FOR HARDWIRED FAN/LIGHT CONTROL AND TIMERS.
10. THERMOSTAT ADAPTERS MAY BE REQUIRED AT SPLIT SYSTEMS WITH DAINTREE WTS10 THERMOSTATS. VERIFY WITH EQUIPMENT MANUFACTURER.
11. WIRE HUMIDITY SENSORS TO DAINTREE WSA10 ADAPTERS.
12. ROUTE RTU CONDENSATE TO NEAREST ROOF DRAIN VIA PVC PIPING.
13. INTERIOR CONDENSATE SHALL BE PERMITTED TO DRAIN TO THE JANITOR SINK OR EXTERIOR. WHERE DRAINED TO THE EXTERIOR, WALL PENETRATION SHALL BE VIA A COPPER OR GALVANIZED STEEL PIPE WITH STREET ELBOW AND SPLASH BLOCK. PLASTIC PIPES ARE NOT PERMITTED THROUGH THE EXTERIOR WALL.
14. SPECIFICATION SECTION 230593 EXPLICITLY REQUIRES A TEST AND BALANCE REPORT WHICH MUST BE SUBMITTED TO THE CONSTRUCTION TEAM AND ENGINEER OF RECORD. THE PROJECT WILL NOT BE ACCEPTED AS COMPLETE BY THE OWNER WITHOUT THE EOR'S REVIEW AND ACCEPTANCE OF THAT REPORT.
15. THE OWNER'S FACILITY MANAGER MUST BE INVITED TO MECHANICAL AND ELECTRICAL SUBCONTRACTOR KICKOFF MEETINGS, AND PERIODIC MEETINGS AND WALK-THROUGHS INVOLVING MECHANICAL AND ELECTRICAL WORK.
16. DUCTED SPLIT SYSTEMS SHALL BE CONTROLLED BY THE DAINTREE SYSTEM (WGA, CT, PRESSURE SENSOR, WSA, DUCT TEMP SENSOR, REMOTE TEMP SENSOR AND THERMOSTAT).
17. ALL THERMOSTATS FOR THE MINI-SPLIT SYSTEMS SHALL BE HARD WIRED. MINI-SPLITS SHALL HAVE 24V INTERFACE BY CONTRACTOR FROM MANUFACTURER FOR DAINTREE WIRELESS THERMOSTATS.
18. ECONOMIZER UNIT DAINTREE COMPATIBILITY: UNITS CONNECTED TO AN ECONOMIZER THAT IS NOT INTEGRAL TO THE RTU SHALL HAVE MANUFACTURER'S CONTROLS AND CONTROL MODULE FOR MODS. ECONOMIZERS FULLY INTEGRATED WITH RTUS CAN BE CONTROLLED BY THE DAINTREE SYSTEM.
19. DAINTREE DEVICE DIP SWITCH SETTINGS: IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO VERIFY EXACT DIP SWITCH SETTING PER MANUFACTURER'S CUT SHEET.

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NUMBER PE-2022000204
PROFESSIONAL ENGINEER

Mallory L. P. Anderson
2022.03.02 16:22:47-05'00'

PRYOR ROAD & LOWENSTEIN DRIVE
908 NW PRYOR ROAD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

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PRYOR & LOWENSTEIN
PROTOTYPE VERSION 20.4

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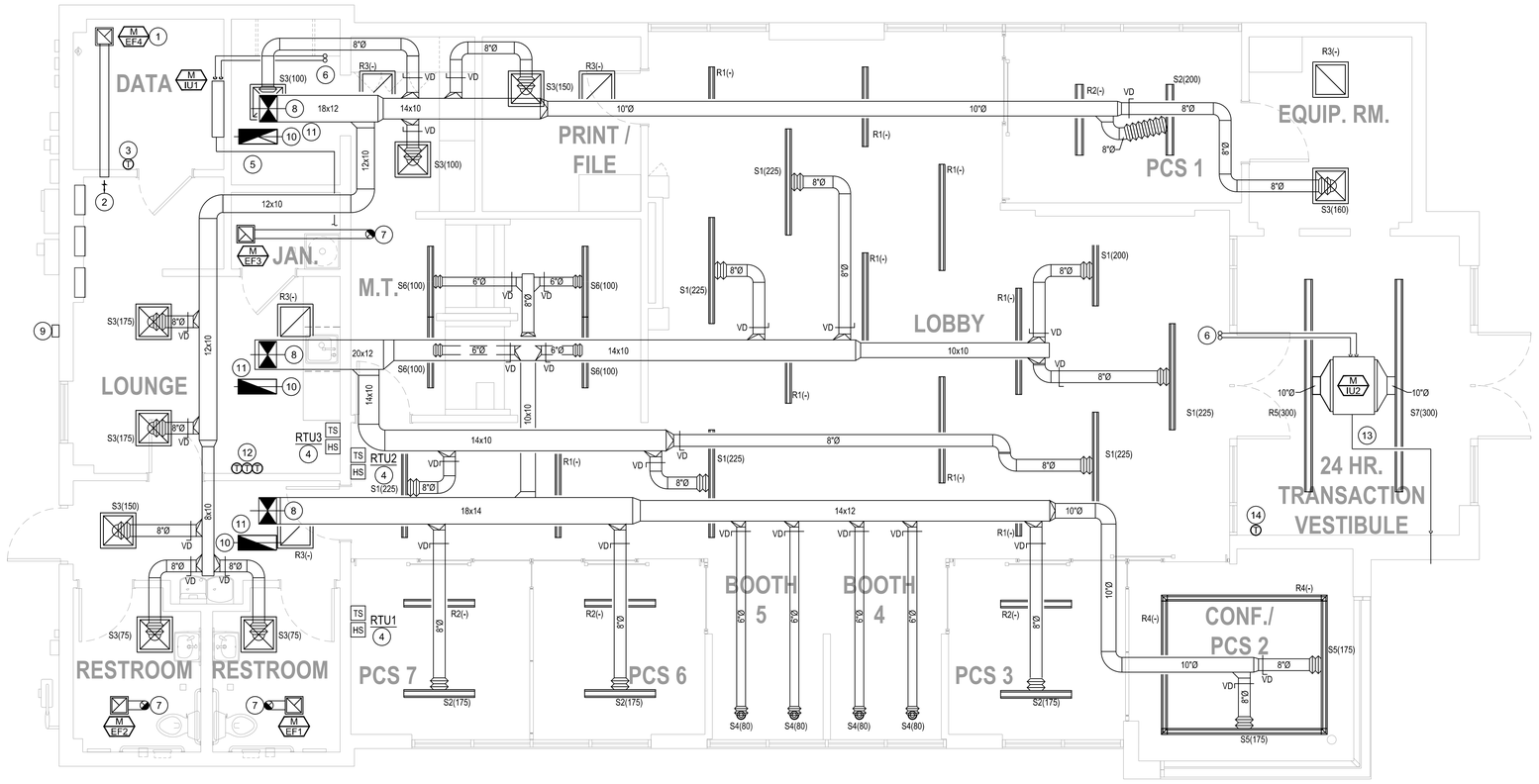
MECHANICAL GENERAL NOTES AND LEGEND

02/04/2022

SHEET

M-0



1 / M1 MECHANICAL - FLOOR PLAN

1/4" = 1'-0"

SHEET NOTES

1. DATA ROOM EXHAUST FAN EF-4 IS CONTROLLED BY NON-DAINTREE HARDWIRED REVERSE THERMOSTAT PROVIDED BY ELECTRICAL CONTRACTOR
2. TERMINATE 6"X6" EXHAUST DUCT ABOVE CEILING INTO PLENUM.
3. PROVIDE BMS WIRELESS THERMOSTAT FOR IU1/OU1.
4. PROVIDE REMOTE TEMPERATURE AND HUMIDITY SENSORS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
5. CONDENSATE ROUTED TO MOP SINK. FROM CONDENSATE PUMP.
6. REFRIGERANT PIPING ROUTED THROUGH PIPING PORTAL TO CONDENSING UNIT ON ROOF. REFER TO SHEET M2 FOR CONTINUATION.
7. TERMINATE EXHAUST DUCT THROUGH ROOF WITH GOOSENECK.
8. PROVIDE SUPPLY DUCT PROBE TEMPERATURE SENSOR FOR RTU.
9. PROVIDE HARDWIRED EXTERIOR TEMPERATURE SENSOR WITH DAINTREE WGA100 AND WSA10 MOUNTED IN THE INTERIOR OF BUILDING FOR MONITORING.
10. PROVIDE RTU WITH DUCT SMOKE DETECTOR.
11. 18"X12" SUPPLY AIR DUCT AND 26"X10" RETURN AIR DUCT ROUTED TO NEW ROOFTOP UNIT ABOVE. REFER TO SHEET M-2 FOR RTU LOCATION.
12. LOCATION OF BMS WIRELESS THERMOSTATS, DAINTREE NETWORKS #WTS10. FOR NEW RTU'S. COORDINATE EXACT LOCATION WITH EQUIPMENT IN THIS ROOM.
13. CONDENSATE ROUTED OUTSIDE. TERMINATE 18" A.F.G.
14. PROVIDE BMS WIRELESS THERMOSTAT FOR IU2/OU2.

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MECHANICAL FLOOR PLAN

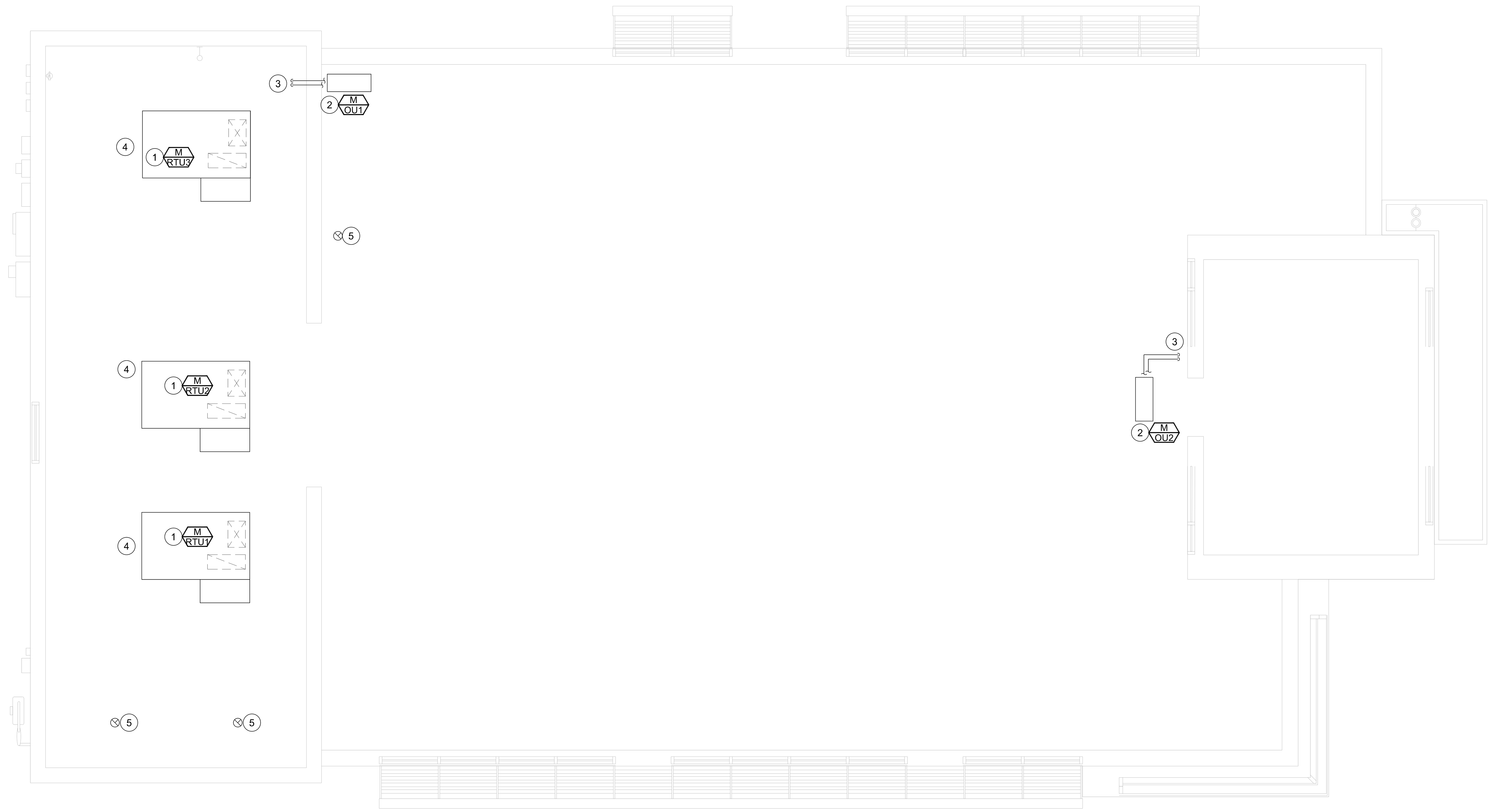
02/04/2022

SHEET

M-1

SHEET NOTES

1. ROOFTOP UNIT LOCATED ON 14" ROOF CURB. REFER TO DETAIL ON SHEET M-4
2. NEW OUTDOOR UNIT MOUNTED ON ROOF CURB RAIL SYSTEM. REFER TO DETAIL ON SHEET M-4.
3. 1/2" SUCTION LINE AND 1/4" LIQUID LINE REFRIGERANT PIPING ROUTED FROM OUTDOOR UNIT TO INDOOR UNIT ON FIRST FLOOR THROUGH PIPING PORTAL. REFER TO DETAIL ON SHEET M-4.
4. OUTSIDE AIR INTAKES MUST MAINTAIN A MINIMUM 10'-0" FROM ALL EXHAUST, GAS FLUES, ETC.
5. EXHAUST MUST MAINTAIN A MINIMUM DISTANCE OF 10'-0" FROM OUTSIDE AIR INTAKES. COORDINATE EXHAUST LOCATION WITH WITH MECHANICAL EQUIPMENT LOCATIONS.



1 M2 MECHANICAL - ROOF PLAN
1/4"=1'-0"

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MECHANICAL ROOF PLAN

02/04/2022

SHEET

M-2

ROOFTOP UNIT SCHEDULE

UNIT									COOLING									GAS HEATING				WEIGHT (LBS.)	ELECTRICAL			REMARKS
					SUPPLY FAN				EAT		LAT		TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	COMPRESSOR											
MARK	MANUFACTURER	MODEL	EER	NOMINAL TONNAGE	AIRFLOW (CFM)	OUTSIDE AIR (CFM)	ESP (in H2O)	BHP	EDB (F)	EWB (F)	LDB (F)	LWB (F)			QTY.	STAGING	REFRIGERANT	EAT (F)	LAT (F)	GAS HEATING INPUT / OUTPUT (MBH)	THERMAL EFFICIENCY (%)		V / Ø / HZ	MCA	MOCP	
RTU-1	CARRIER	48FCEB05K3	11.6	4	1595	320	1	2.43	77	64	55	54	47	37.9	1	2	R-410A	58	95	110 / 88	80	650	208/3/60	33	45	1-17
RTU-2	CARRIER	48FCEB05K3	11.6	4	1550	310	1	2.43	77	64	55	54	47	36.8	1	2	R-410A	58	95	110 / 88	80	650	208/3/60	33	45	1-17
RTU-3	CARRIER	48FCEB05K3	11.6	4	1360	280	1	2.43	77	64	55	54	47	32.3	1	2	R-410A	58	95	110 / 88	80	650	208/3/60	33	45	1-17

REMARKS:

1. CONTRACTOR BACNET CONTROLLER COMPATIBLE WITH DAINTREE BUILDING ENERGY MANAGEMENT SYSTEM (BMS).
2. PROVIDE FILTERS THAT BEAR THE LABEL OF AN APPROVED AGENCY.
3. PROVIDE CONDENSATE DRAIN PIPE PER MANUFACTURER'S RECOMMENDATIONS.
4. PROVIDE WALL MOUNTED TEMPERATURE AND HUMIDITY SENSOR(S) AS SHOWN ON PLAN OR AS OTHERWISE REQUIRED
5. CONTRACTOR SHALL PROVIDE FACTORY INSTALLED HUMIDITY CONTROL AND EQUIPMENT
6. CONTRACTOR SHALL PROVIDE DUEL ENTHALPY ULTRA LOW LEAK ECONOMIZER W/ BAROMETRIC RELIEF.
7. PROVIDE WATER-LEVEL MONITORING DEVICE (FLOAT SWITCH). DEVICE SHALL BE INSTALLED INSIDE THE PRIMARY DRAIN PAN AND SHALL BE INTERLOCKED TO SHUT DOWN UNIT. EXTERNALLY INSTALLED DEVICES AND DEVICES INSTALLED IN THE DRAIN LINE SHALL NOT BE PERMITTED. PROVIDE PIPING FOR AUXILIARY DRAIN CONNECTION IF AVAILABLE.
8. PROVIDE EQUIPMENT MANUFACTURER'S COMMISSIONING SERVICE, INCLUDING MANUFACTURER'S REPRESENTATIVE'S TIME ON-SITE TO COMPLETE BAC-NET POINT ASSIGNMENTS AND INITIAL ZONE PROGRAMMING.
9. UNIT SHALL BE PROVIDED WITH HIGH STATIC DIRECT DRIVE MOTOR.
10. PROVIDE WITH 14" HIGH ROOF CURB.
11. PROVIDE THRU-THE-BASE SINGLE POINT POWER CONNECTION WITH FACTORY MOUNTED STARTER.
12. PROVIDE WITH MOTORIZED OUTSIDE AIR DAMPER.
13. PROVIDE CONDENSER COIL HAIL GUARD.
14. PROVIDE WITH DEHUMIDIFICATION SYSTEM.
15. PROVIDE WITH 5-YEAR COMPRESSOR AND HEAT EXCHANGER WARRANTY.
16. UNIT SHALL BE U.L. TESTED AND CERTIFIED IN COMPLIANCE WITH ANSI Z21.47.
17. PROVIDE WITH DUCT SMOKE DETECTOR.REFER TO SPECIFICATION FOR ADDITIONAL REQUIREMENTS.

DATA ROOM VENTILATION FAN SEQUENCE OF OPERATION

FAN CONTROLS

1. FAN SYSTEM SHALL BE CONTROLLED BY NON-DAINTREE HARDWIRED REVERSE THERMOSTAT.
2. ON RISE OF TEMPERATURE ABOVE 85°F (ADJ.), EXHAUST FAN SHALL START. ON DROP IN TEMPERATURE OF 5° (ADJ.), FAN SHALL STOP.
3. THE DDC CONTROLLER SHALL GIVE A DETAILED ALARM SIGNAL TO THE FRONT END FOR FAN FAILURE (CT) AND/OR TEMPERATURE IN ROOM EXCEEDS 90°F FOR 5 MINUTES.

AIR DEVICE SCHEDULE

MARK	MANUFACTURER	MODEL	CFM	MODULE	NECK	ACCESSORIES / TRIM	REMARKS
S-1	TITUS	FL-TZ	200-225	LINEAR SLOT	8" OVAL	BORDER DF WITH STANDARD END CAP	1-3,6,8,12,14,16
S-2	TITUS	FL-10	175-200	LINEAR SLOT	8" OVAL	BORDER 16 WITH ECX END CAP	1-3,6,8,9,14,16
S-3	TITUS	OMNI-AA	75-175	24x24	8" Ø	AG-75, DB, NT BORDER	1-5,8,10, 15
S-4	PRICE	ANF	80	AIR NOZZLE	6" Ø	-	1,3,8
S-5	TITUS	FL-10	175	LINEAR SLOT	8" OVAL	MITERED CORNERS	1-3,6,8,11-14,16
S-6	TITUS	FL-TZ	100	LINEAR SLOT	6" OVAL	BORDER DF WITH STANDARD END CAP	1-3,6,8,12,14,16
S-7	TITUS	FL-10	300	LINEAR SLOT	10" OVAL	BORDER 16 WITH ECX END CAP	1-3,6,8,9,14,16
R-1	TITUS	FL-TZ	-	LINEAR SLOT	N/A	BORDER DF WITH STANDARD END CAP	1-3,6-8,12
R-2	TITUS	FL-10	-	LINEAR SLOT	N/A	BORDER 16	1-3,6-9,14
R-3	TITUS	350-FL	-	24x24	N/A	BORDER TYPE 3	1-3,7,8,10,11,15
R-4	TITUS	FL-10	-	LINEAR SLOT	N/A	MITERED CORNERS	1-3,6,8,11-14
R-5	TITUS	FL-10	300	LINEAR SLOT	10" OVAL	BORDER 16	1-3,6-9,14,16

REMARKS:

1. COORDINATE WITH LIGHT FIXTURES AND OTHER CEILING DEVICES FOR EXACT LOCATIONS OF ALL AIR FIXTURES.
2. COORDINATE FRAME STYLES WITH CEILING OR WALL SYSTEM FRAMING AND FINISH MATERIALS. PROVIDE GYPSUM BOARD / PLASTER FRAME TO SUPPORT FIXTURE WITHIN GYPSUM CEILNG.
3. N.C. VALUES FOR DIFFUSERS, GRILLES AND REGISTERS SHALL NOT EXCEED 25, WITH A ROOM ABSORPTION RATE OF 10db.
4. PROVIDE BACK SIDE OF SUPPLY AIR FIXTURES WITH FACTORY-INSTALLED R.6 INSULATION BLANKET.
5. PROVIDE DIRECTIONAL BLOW CLIPS (1-3) AS REQUIRED FOR DIRECTIONAL AIRFLOW CONTROL.
6. REFER TO ARCHITECTURAL PLAN FOR LINEAR SLOT FIXTURE LENGTHS.
7. WHERE PLENUM RETURNS ARE UTILIZED, CONCEAL VISIBILITY TO PLENUM SPACE BY PROVIDE DUCT BOOT SECURED TO CEILING FRAMING OR OPTIONAL OPPOSABLE BLADE DAMPERS FOR 2X2 RA GRILLES, AND'FBR' RETURN HOODS AT LINEAR SLOT RA FIXTURES. WHERE RETURN AIR FLOW CONTROL IS REQUIRED, PROVIDE OPTIONAL OPPOSABLE BLADE DAMPERS IN THE 2X2 GRILLES, AND 'FBBO' BLANK-OFFS IN THE LINEAR SLOT FIXTURES. AIR FLOW IS NOT TO BE ADJUSTED BY RE-SIZING OF THE FIXTURE GRILLE AREA.
8. "OR EQUAL" SUBSTITUTIONS PERMITTED. SUBSTITUTIONS MUST BE APPROVED BY THE ARCHITECT OF RECORD BY THE PROCESS DEFINED IN THE PROJECT MANUAL.
9. FLOWBAR DIFFUSER TYPE TO BE SPECIFIED IN PRIVATE OFFICES ONLY. SPECIFY SLOT DIFFUSER WIDTH AS REQD. TO MEET AIR DISTRIBUTION REQUIREMENTS IN THE HIGHEST-DEMAND OFFICE, AND APPLY THAT DIFFUSER THROUGHOUT ALL OFFICES.
10. ALL SA, RA, AND EXHAUST FIXTURES IN 2X2 CEILNG GRIDS SHALL BE 24" X 24" FULL FIXTURES. THE USE OF REDUCED VENT AREAS WITHIN LARGER PLATES TO RESTRICT AIR FLOW IS NOT PERMITTED. AIR FLOW CONTROL IS TO BE PROVIDED BY ADJUSTABLE DAMPERS WITHIN THE DUCTS OR BOOTS SERVING THE FIXTURES.
11. SPECIFY EDGE DETAIL / BORDER TYPE FOR COMPATIBILITY WITH GYPSUM BOARD CEILINGS WHERE REQUIRED.
12. LINEAR SLOT FIXTURES ARE INTENDED TO HAVE A CONTINUOUS, SEAMLESS APPEARANCE FOR THE FULL RUN OF THE CEILING FINISH AS INDICATED IN PLAN, WITHOUT VISUAL DIFFERENTIATION BETWEEN SA, RA, AND UNUSED PORTIONS OF THE RUN. PROVIDE OPTIONAL 'FBR' RETURN HOODS AND 'FBBO' BLANK-OFFS AS REQUIRED.
13. PROVIDE TITUS (OR EQUAL) FBMC-10 MITERED CORNERS.
14. PROVIDE WITH INSULATED PLENUM BOX FOR LINEAR DIFFUSER.
15. PROVIDE WITH PLENUM BOX FOR 24x24 LAY-IN GRILLE.
16. PROVIDE OVAL TO ROUND TRANSITIONS FOR LINEAR SLOT DIFFUSER PLENUMS.

OTHER ACCEPTABLE MANUFACTURER'S INCLUDE PRICE AND TITUS. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

EXHAUST FAN SCHEDULE

MARK	MANUFACTURUER	MODEL	LOCATION	AIRFLOW (CFM)	TYPE	STATIC PRESSURE (IN. H2O)	VOLTAGE / PHASE	WATTS	DRIVE	REMARKS
EF-1	GREENHECK	SP-B110	RESTROOM	75	CEILING MOUTED	0.5	115/1	8	DIRECT	1-5
EF-2	GREENHECK	SP-B110	RESTROOM	75	CEILING MOUTED	0.5	115/1	8	DIRECT	1-5
EF-3	GREENHECK	SP-B110	JANITOR	75	CEILING MOUTED	0.5	115/1	8	DIRECT	1-5
EF-4	GREENHECK	SP-AP0511W	DATA ROOM	110	CEILING MOUTED	0.5	115/1	20	DIRECT	ALL

REMARKS:

1. PROVIDE THE FOLLOWING:
   - 1.1. BACKDRAFT DAMPER, IF NOT INTEGRAL TO EQUIPMENT
   - 1.2. DISCONNECT SWITCH
   - 1.3. SUPPORT BRACKETS AND ISOLATION
   - 1.4. FLEXIBLE CONNECTION
   - 1.5. EXHAUST GRILLE MATCHING TYPICAL R.A. GRILLE SPECIFICATION, IF NOT INTEGRAL TO EQUIPMENT.
2. INTERLOCK FAN OPERATION WITH LIGHTING CONTROL
3. PROVIDE WITH THERMAL OVERLOAD PROTECTION
4. PROVIDE VARIABLE SPEED CONTROLLER .
5. PROVIDE AND MOUNT WITH VIBRATION ISOLATION HARDWARE.
6. EXHAUST FAN CONTROLLED BY NON-DAINTREE HARDWIRED REVERSE THERMOSTAT PROVIDED BY ELECTRICAL CONTRACTOR.

ROOFTOP UNIT - SEQUENCE OF OPERATION

GENERAL

1. ROOFTOP UNIT SHALL BE STARTED AND STOPPED VIA DDC CONTROLLER. COORDINATE OCCUPIED AND UNOCCUPIED SCHEDULES WITH OWNER. ALL SETPOINTS SHALL BE ADJUSTABLE. ALL ACTUATORS SHALL BE ELECTRONIC. CONTROLS SHALL BE DAINTREE AND SHALL BE INSTALLED BY A DAINTREE CERTIFIED VENDOR/CONTRACTOR.
2. ALL TEMPERATURE SENSORS IN THE UNIT AND DUCTWORK SHALL BE AVERAGING TYPE, EXCEPT FOR FREEZESTATS WHICH SHALL BE LOW POINT READING TYPE.
3. PROVIDE APPROPRIATE ANTI-RECYCLE TIME DELAYS AND SAFETIES ON COMPRESSOR AND GAS HEATER STAGING.
4. TEMPERATURE SENSOR (BMS WIRED REMOTE TEMPERATURE SENSOR, BAPI #10K-2-R-Z-CG WALL MOUNT) AND HUMIDITY SENSOR (BMS LOW VOLTAGE WIRED HUMIDITY SENSOR, BAPI #BA/HQX-B-C-X-XX-X WALL MOUNT, WIRED TO WSA10 CONCEALED IN CEILING) LOCATED IN CONDITIONED SPACE AS SHOWN ON PLANS. TEMPERATURE AND HUMIDITY SENSORS SHALL COMMUNICATE WITH BMS WIRELESS THERMOSTAT (DAINTREE NETWORKS #WTS10) LOCATED IN WORKROOM AS INDICATED ON PLANS.

FAN CONTROL

1. WHILE IN UNOCCUPIED MODE (OR OFF ON SAFETY, OR MANUAL DISCONNECT) THE SUPPLY FAN SHALL BE OFF WITH THE OUTSIDE AIR DAMPER (OAD) CLOSED, THE CONDENSING UNIT AND GAS HEATER OFF, AND THE RETURN AIR DAMPER (RAD) OPEN.
2. WHEN STARTED IN OCCUPIED MODE, THE SUPPLY FAN SHALL START IN RECIRCULATION MODE, THEN THE OAD AND RAD SHALL OPEN TO THE MINIMUM OUTDOOR AIR POSITION AS DETERMINED DURING AIR BALANCING.

OCCUPIED HEATING CONTROL

1. UPON A DROP IN ROOM TEMPERATURE BELOW THE ROOM HEATING SETPOINT OF 70°F, GAS HEATER SHALL BE STAGED TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. THE REVERSE SHALL OCCUR ON A RISE IN SPACE TEMPERATURE.
2. DISCHARGE AIR TEMPERATURE (DAT) SENSOR SHALL STAGE THE GAS HEATER TO MAINTAIN A MINIMUM TEMPERATURE OF 50°F DURING THE HEATING SEASON.

OCCUPIED COOLING CONTROL

1. UPON A RISE IN ROOM TEMPERATURE ABOVE THE ROOM COOLING SETPOINT OF 75°F, THE COOLING CYCLE SHALL BE ACTIVATED.
2. THE FIRST MEANS OF COOLING SHALL BE ACTIVATION OF THE ECONOMIZER. IF THE OUTSIDE AIR ENTHALPY IS BELOW THE ROOM ENTHALPY, THE OUTSIDE AND RETURN AIR DAMPERS SHALL BE PROPORTIONALLY MODULATED UP TO 100% OUTDOOR AIR TO MAINTAIN SPACE TEMPERATURE SETPOINT. DAT SENSOR SHALL OVERRIDE, IF REQUIRED, TO LIMIT SUPPLY AIR TEMPERATURE TO 55°F MINIMUM DURING ECONOMIZER COOLING (LIMIT SHALL NOT RESULT IN REDUCTION OF THE MINIMUM OUTDOOR AIRFLOW). IF ADDITIONAL COOLING IS REQUIRED, THE CONDENSING UNIT'S COMPRESSORS SHALL BE STAGED ON AS REQUIRED. FOR LOW LOAD OPERATION, HOT GAS BYPASS (HGB) SHALL BE USED. THE REVERSE SHALL OCCUR ON A DROP IN SPACE TEMPERATURE BELOW COOLING SETPOINT.
3. IF THE OUTSIDE AIR ENTHALPY RISES ABOVE THE ROOM AIR ENTHALPY, THE ECONOMIZER SHALL BE POSITIONED TO PROVIDE MINIMUM OUTDOOR AIRFLOW, AND THE CONDENSING UNIT STAGED TO MAINTAIN ROOM COOLING SETPOINT TEMPERATURE. DAT SENSOR SHALL LIMIT SUPPLY AIR TO 48°F MINIMUM, DURING MECHANICAL COOLING.

OCCUPIED DEHUMIDIFICATION CONTROL

1. IF ROOM RELATIVE HUMIDITY (RH) RISES ABOVE 62% FOR TEN MINUTES AS MEASURED BY HR, DEHUMIDIFICATION CYCLE SHALL BE ACTIVATED.
2. WHEN ACTIVATED, COOLING COIL LEAVING AIR TEMPERATURE (CCLT) SENSOR SHALL STAGE THE CONDENSING UNIT TO MAINTAIN 56°F. ROOM TEMPERATURE SENSOR (TR) SHALL STAGE GAS HEATER AS REQUIRED TO MAINTAIN HEATING SETPOINT OF 70°F.
3. WHEN RH FALLS BELOW 58% FOR TEN MINUTES, DEHUMIDIFICATION CYCLE SHALL END.

UNOCCUPIED CONTROL

1. WHEN THE UNIT IS OFF, IF THE ROOM TEMPERATURE FALLS BELOW 56°F, THE UNIT SHALL START WITH RAD OPEN, AND OAD CLOSED; GAS HEATER SHALL BE CONTROLLED BY DAT SENSOR TO SUPPLY 90°F AIR. WHEN ROOM TEMPERATURE RISES ABOVE 60°F, THE UNIT SHALL SHUT DOWN.
2. BUTTON ON THERMOSTAT SHALL ALLOW 2-HOUR OVERRIDE FROM UNOCCUPIED TO OCCUPIED CONTROL.

WARM-UP CONTROL

1. DDC CONTROLLER SHALL PROVIDE OPTIMUM START CAPABILITY. IF SPACE TEMPERATURE IS BELOW 63°F, WARM-UP SHALL BE DONE WITH RAD OPEN, OAD CLOSED, AND GAS HEATER CONTROLLED BY DAT SENSOR TO SUPPLY 90°F AIR. WHEN ROOM TEMPERATURE RISES ABOVE 69°F, OCCUPIED MODE SHALL START.

SAFETIES

1. THE FOLLOWING SAFETIES EACH WITH ITS OWN MANUAL RESET BUTTON, SHALL SHUT DOWN THE UNIT VIA HARDWARE.

a. ANY FREEZESTAT (FZ) SHALL SHUTDOWN THE UNIT WHENEVER THE TEMPERATURE IS LESS THAN 35°F AND ALL DAMPER SHALL CLOSE

b. WHEN ANY SMOKE DETECTOR (SDET) IS ACTIVATED THE UNIT SHALL SHUT DOWN AND ALL DAMPERS SHALL CLOSE.

ALARMS

1. IF THE SUPPLY FAN FAILS, OR IF ANY SAFETY IS TRIPPED, THE DDC CONTROLLER SHALL GIVE A DETAILED ALARM SIGNAL TO THE FRONT END.
2. IF FILTER PRESSURE DROP EXCEEDS SETPOINT (INITIALLY 0.6" W.G.) FOR 10 MINUTES, THE DDC CONTROLLER SHALL GIVE A DETAILED ALARM SIGNAL TO THE FRONT END.

LOSS OF POWER

1. PROVIDE AUTOMATIC RE-START UPON POWER FAILURE AND UPON RETURN TO NORMAL POWER.

SPLIT SYSTEM SCHEDULE

MARK	MANUFACTURUER	MODEL	AIRFLOW (CFM)	TOTAL COOLING (BTUH)	SEER	HEATING CAPACITY (MBH AT 47° / 5°)	ELECTRICAL			WEIGHT (LBS)	REMARKS
							V / Ø / HZ	MCA	MOCP		
IU-1 / OU-1	MITSUBISHI	PUY-A18NKA7 / PKA-A18LA	265 / 310 / 385 / 455	18,000	19.8	-	208/1/60	11	30	30	1-11
IU-2 / OU-2	MITSUBISHI	SEZ-KD12NA4R1 / SUZ-KA12NA2	247 / 317 / 388	12,000	20.5	15,000 / 7,900	208/1/60	9	16	50	1-4,6,7,9,10-12

REMARKS:

1. PROVIDE THERMAL OVERLOAD PROTECTION.
2. PROVIDE WATER-LEVEL MONITORING DEVICE (FLOAT SWITCH). DEVICE SHALL BE INSTALLED INSIDE THE PRIMARY DRAIN PAN AND SHALL BE INTERLOCKED TO SHUT DOWN UNIT. EXTERNALLY INSTALLED DEVICES AND DEVICES INSTALLED IN THE DRAIN LINE SHALL NOT BE PERMITTED.
3. PROVIDE LIQUID LINE SPECIALTIES INCLUDING FILTER DRIER, SIGHT GLASS, TXV, SOLENOID VALVE, 24V 1ph CONTROL WIRE BY CONTROLS CONTRACTOR.
4. PROVIDE WALL MOUNTED WIRELESS REMOTE CONTROL THERMOSTAT.
5. PROVIDE WITH INTEGRAL CONDENSATE PUMP AND FREEZE PROTECTION (LOW AMBIENT OPERATION).
6. PROVIDE REFRIGERANT PIPING SIZED AS PER MANUFACTURER'S RECOMMENDATIONS. "ACR" COPPER ONLY.
7. PROVIDE CRANKCASE HEATER.
8. PROVIDE PIPING FOR AUXILIARY DRAIN CONNECTION IF AVAILABLE.
9. PROVIDE LOW AMBIENT KIT FOR WINTER COOLING DOWN TO 0 DEG F AMBIENT OUTSIDE AIR TEMPERATURE.
10. PROVIDE WITH BMS WIRELESS THERMOSTAT AND ADAPTER (MITSUBISHI PAC-US444CN-1).
11. COORDINATE ROUTING AND SIZING OF REFRIGERANT PIPING WITH MANUFACTURER.
12. CONDENSATE SHALL GRAVITY DRAIN TO OUTSIDE.

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SIGNED BY:

STATE OF MISSOURI
MALLORY L. P. ANDERSON
NUMBER
PE-2022000204
PROFESSIONAL ENGINEER

Mallory L. P. Anderson
2022.03.02
16:24:20-05'00'

PRYOR ROAD & LOWENSTEIN DRIVE

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LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

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PRYOR & LOWENSTEIN
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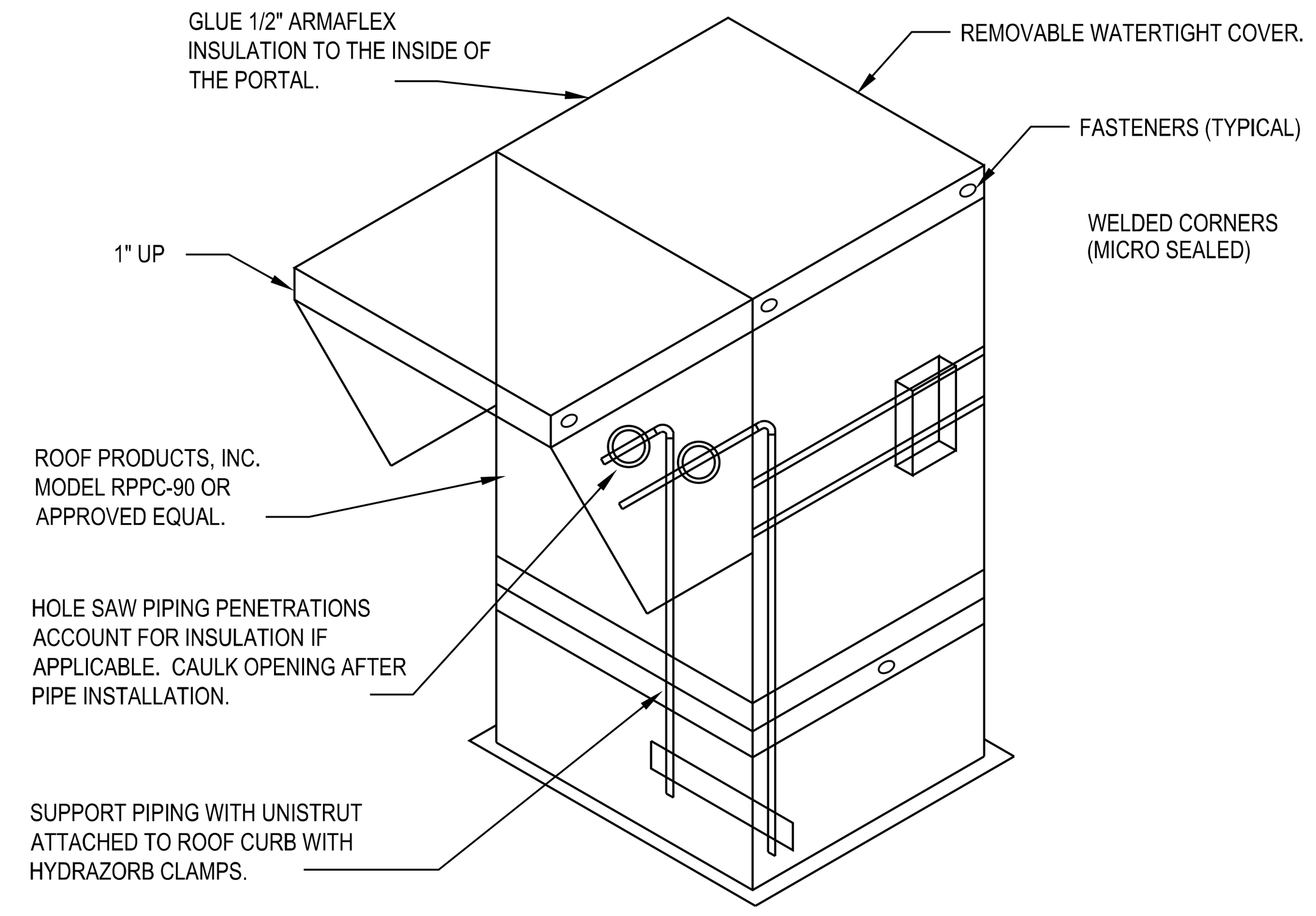
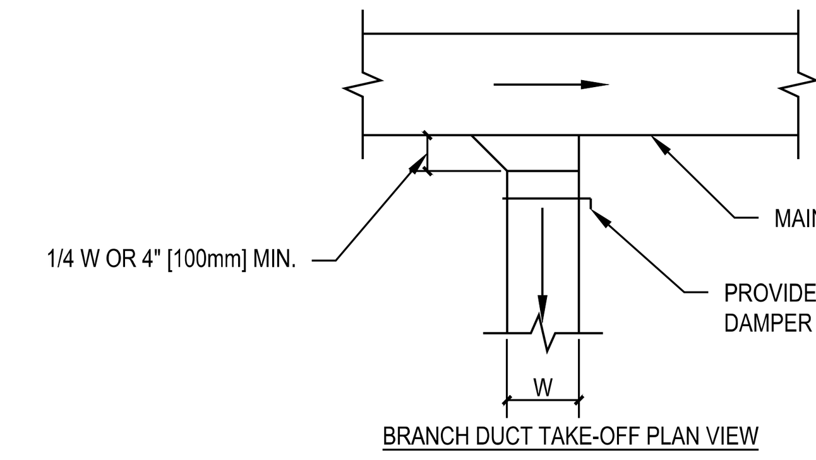


11 M4 **ROOF PENETRATION PIPING DETAIL**
N.T.S.



10 M4 **SUPPLY DUCTWORK TAKE-OFF**
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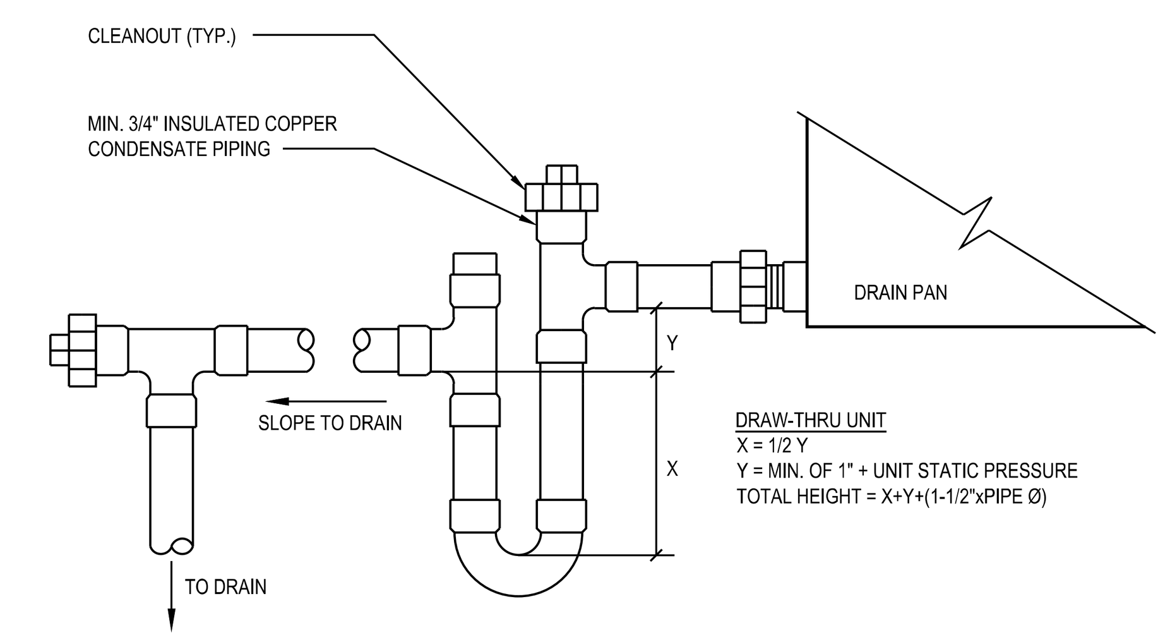

9 M4 **CONDENSATE DRAIN TRAP**
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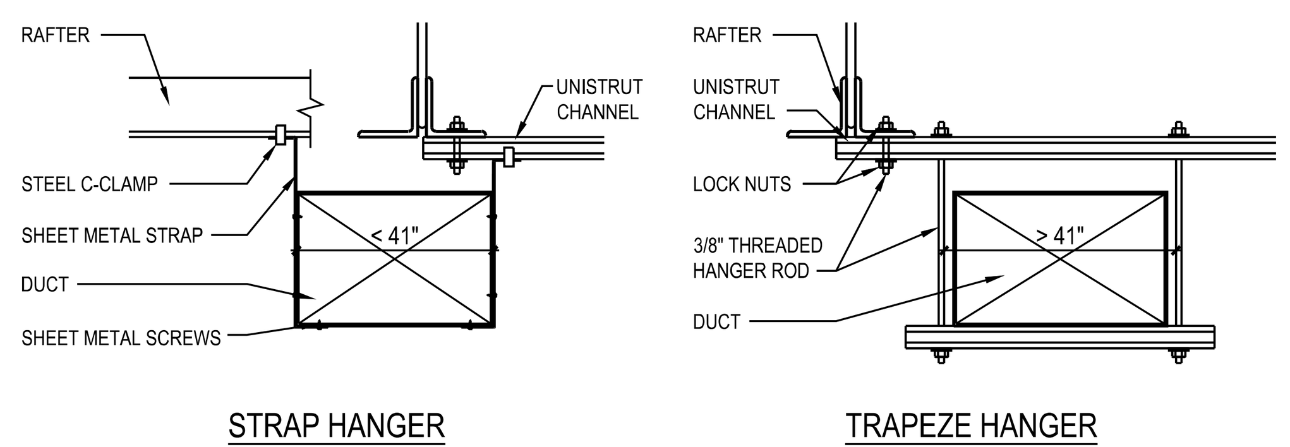

8 M4 **SUSPENDED DUCT SUPPORT**
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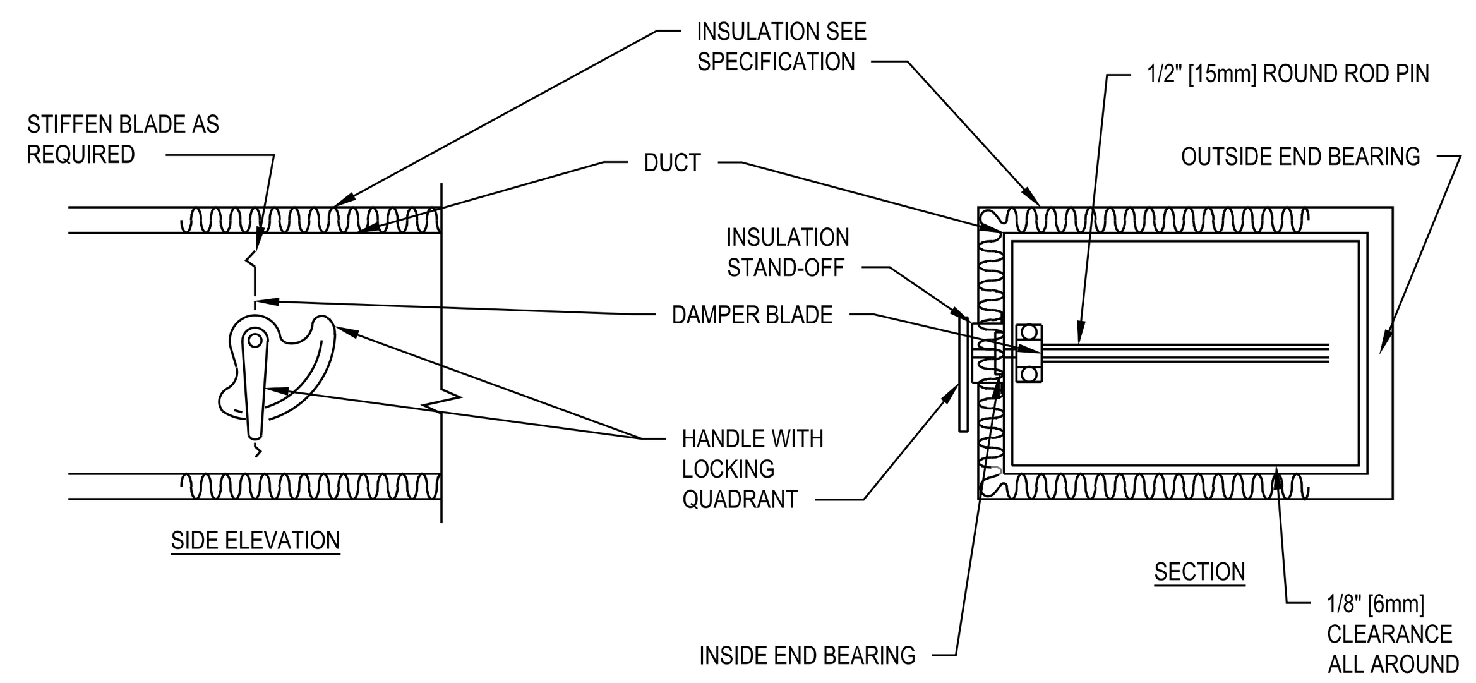
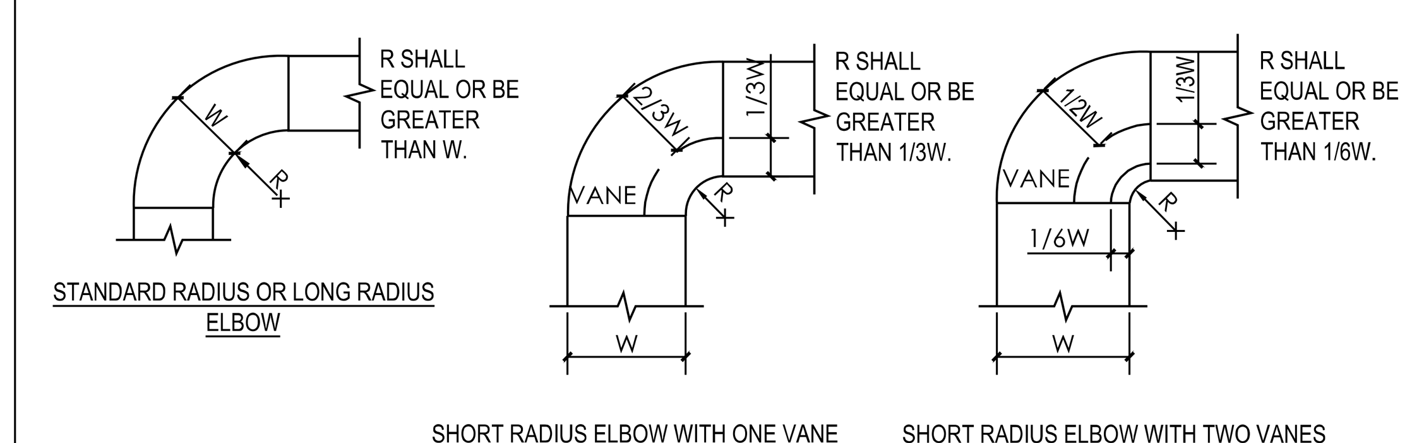


DELETE INSULATION STAND-OFF ON DUCTWORK WITHOUT EXTERIOR INSULATION.

DETAIL SHOWS SINGLE BLADE DAMPER. DAMPER INSTALLATION SHALL BE SIMILAR FOR MULTI-BLADE DAMPERS & ROUND DAMPERS.

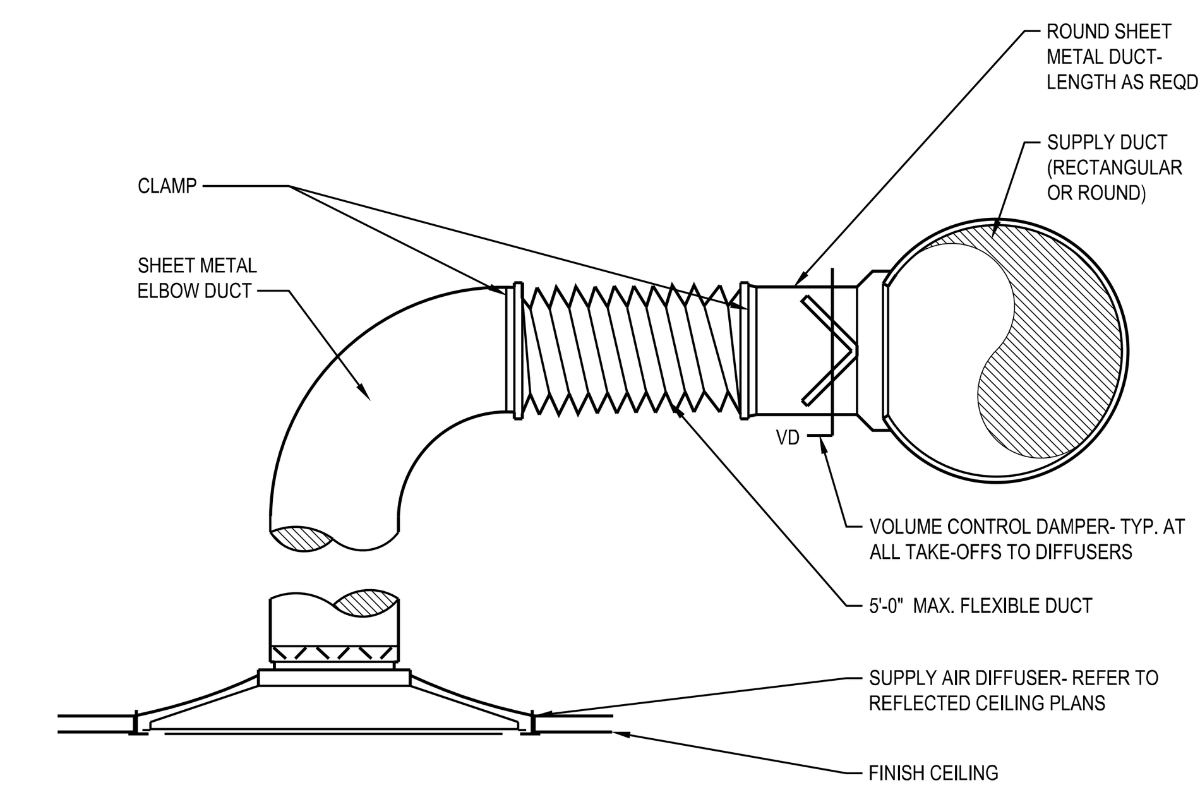
7 M4 **VOLUME DAMPER**
N.T.S.



NOTE:

1. THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.
2. ALL STANDARD RADIUS ELBOWS CAN BE SUBSTITUTED WITH SHORT RADIUS ELBOWS. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED, SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.

6 M4 **DUCTWORK RADIUS ELBOWS**
N.T.S.



5 M4 **SUPPLY AIR TERMINAL**
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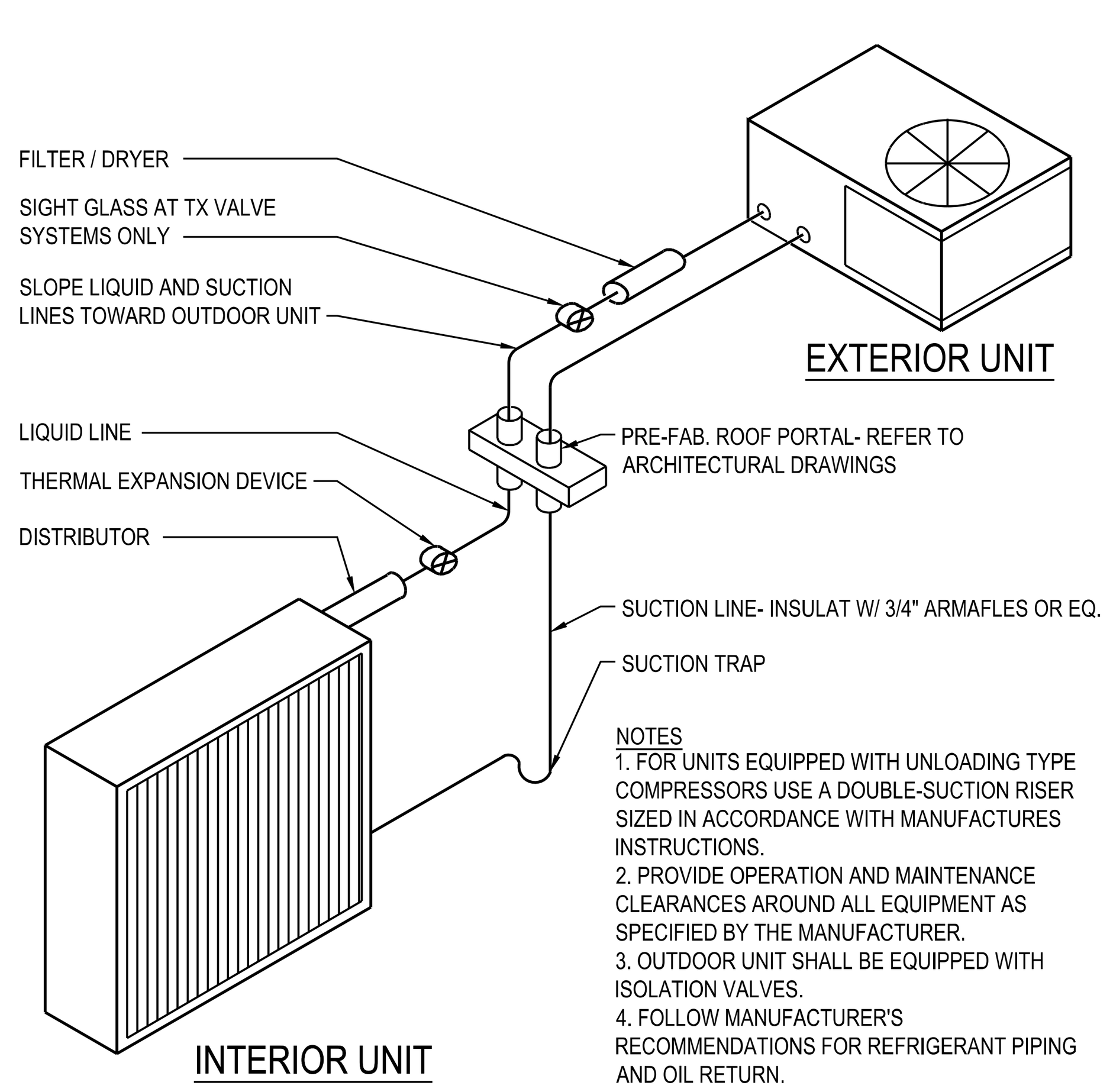
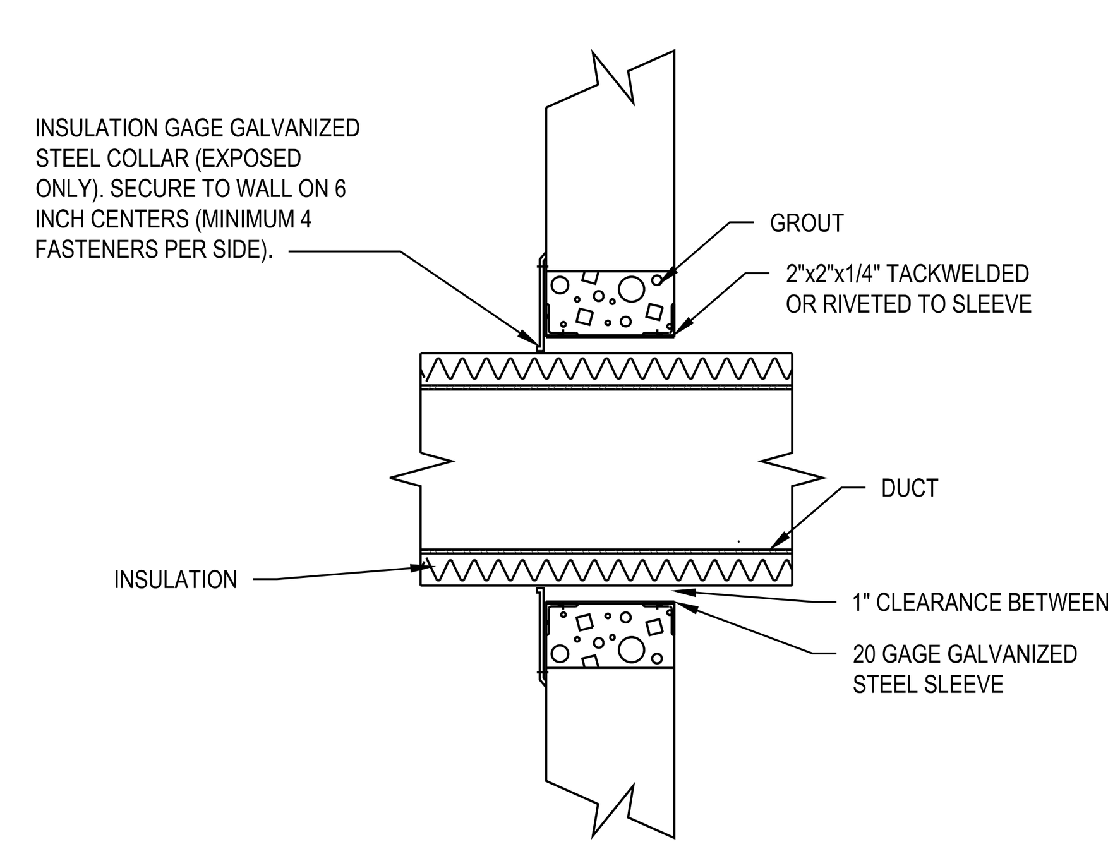


NOTES
1. FOR UNITS EQUIPPED WITH UNLOADING TYPE COMPRESSORS USE A DOUBLE-SUCTION RISER SIZED IN ACCORDANCE WITH MANUFACTURES INSTRUCTIONS.
2. PROVIDE OPERATION AND MAINTENANCE CLEARANCES AROUND ALL EQUIPMENT AS SPECIFIED BY THE MANUFACTURER.
3. OUTDOOR UNIT SHALL BE EQUIPPED WITH ISOLATION VALVES.
4. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR REFRIGERANT PIPING AND OIL RETURN.

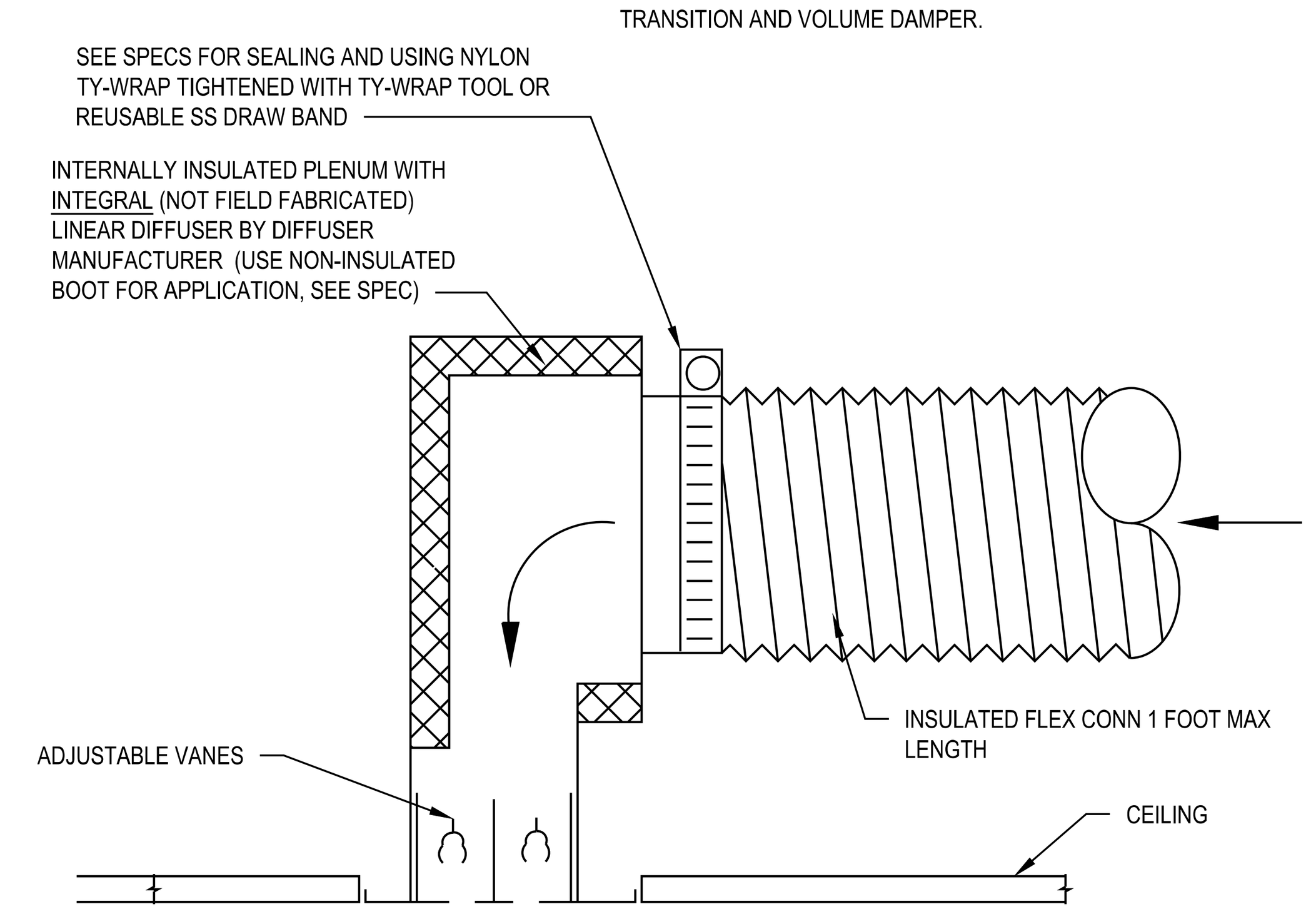
4 M4 **REFRIGERANT PIPING**
N.T.S.



3 M4 **DUCT PENETRATION THROUGH WALL**
N.T.S.

NOTES:

1. OFFSETS WITH FLEX DUCT SHALL NOT EXCEED 30° AND SHALL BE GRADUAL. OFFSETS IN EXCESS OF 30° SHALL BE HARD DUCTED.
2. FLEX DUCT SHALL NOT HAVE MORE THAN 1/2" SAG/FT.
3. FOR PERIMETER DIFFUSERS LOCATE DISTANCE FROM OUTSIDE WALL SHOWN ON ARCH PLANS.
4. CONNECTION TO MAIN DUCT SHALL BE HARD DUCT TRANSITION AND VOLUME DAMPER.



2 M4 **LINEAR DIFFUSER CONNECTION**
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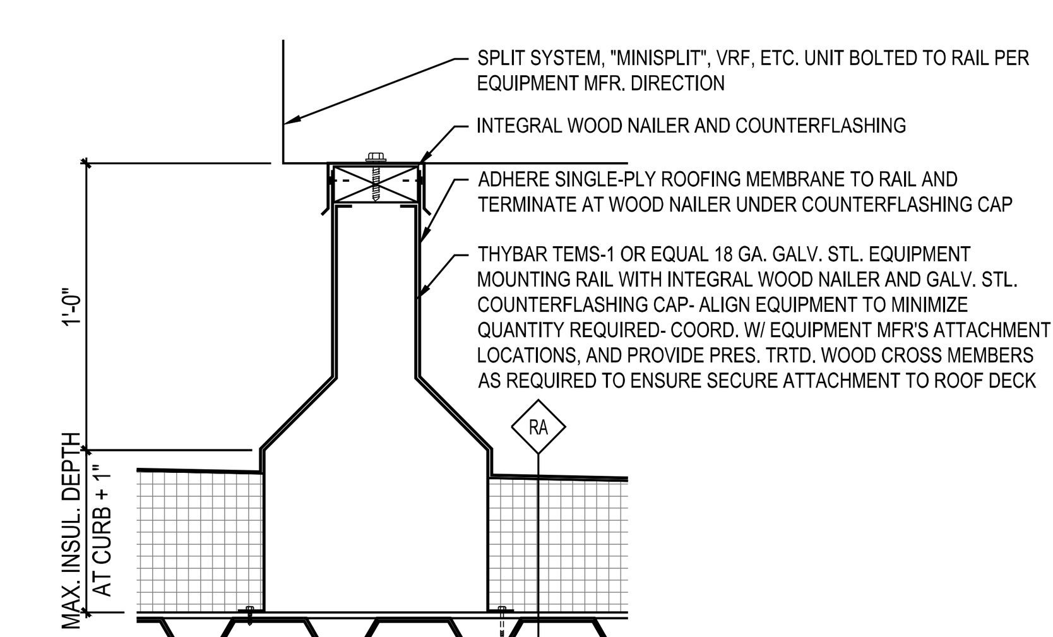

1 M4 **ROOFTOP EQUIPMENT CURB RAIL**
N.T.S.

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PLUMBING SYMBOLS LEGEND

- EXISTING SANITARY BELOW SLAB
- EXISTING SANITARY ABOVE SLAB
- SANITARY BELOW SLAB
- SANITARY ABOVE SLAB
- EXISTING VENT
- VENT
- COLD SUPPLY
- HOT SUPPLY
- FIXTURE VALVE AND NIPPLE WITH HAMMER ARRESTOR
- PF / WC — SCHEDULED PLUMBING FIXTURE
- EX / WC — EXISTING PLUMBING FIXTURE
- XR / WC — EXISTING TO BE RELOCATED PLUMBING FIXTURE
- CO CO — ROUGH CLEAN-OUT CONCEALED BEHIND WALL OR CEILING FINISHES
- BALL VALVE BRANCH SHUT-OFF
- CHECK VALVE
- P-TRAP
- FLOOR DRAIN

PLUMBING GENERAL NOTES

1. CONTRACTOR SHALL PROVIDE COMPLETE PLUMBING SYSTEMS AS DETAILED ON THESE DRAWINGS. WORK CONSISTS OF FURNISHING ALL MATERIALS, EQUIPMENT, AND SERVICES REQUIRED FOR COMPLETE SYSTEMS. INCLUDE ANY INCIDENTAL APPARATUS, APPLIANCES, MATERIAL LABOR AND SERVICES NECESSARY TO MAKE NEW WORK COMPLETE IN ALL RESPECTS AND FULLY READY FOR OPERATION.
2. VERIFY THE EXACT LOCATION OF EXISTING SANITARY SEWERS AND WATER MAINS FROM THE ACTUAL JOB SITE PRIOR TO SUBMITTING BID. SUBMISSION OF YOUR PROPOSAL SHALL BE CONSTRUED AS INDICATING SUCH KNOWLEDGE. NO ADDITIONAL PAYMENT WILL BE MADE ON CLAIMS THAT ARISE FROM THE CONTRACTOR'S FAILURE TO COMPLY WITH THIS REQUIREMENT.
3. MAKE SUCH OFFSETS AND DEVIATIONS FROM WORK SHOWN ON THE DRAWINGS, AS MAY BE NECESSARY TO FIT THE ACTUAL SPACE CONDITIONS
4. WHERE VALVES OCCUR ABOVE DRYWALL OR PLASTER OR ARE CONCEALED BEHIND WALLS, THIS CONTRACTOR SHALL FURNISH AND INSTALL ACCESS PANELS. COORDINATE COLOR AND STYLE WITH ENGINEER/ARCHITECT.
5. INSTALLER SHALL NOT CUT ANY STRUCTURAL MEMBERS WITHOUT FIRST SECURING WRITTEN APPROVAL FROM THE ARCHITECT.
6. PROVIDE DIELECTRIC UNIONS AT ALL CONNECTIONS BETWEEN DISSIMILAR PIPING METALS.
7. NO VENT THROUGH ROOF SHALL TERMINATE CLOSER THAN 10 FT. TO ANY OUTSIDE AIR INTAKE OR VENTILATION LOUVERS, DOORS, WINDOWS AND OTHER BUILDING OPENINGS.
8. SANITARY SEWER AND MAIN WATER PIPING UNDERGROUND SHALL BE A MINIMUM OF 36" BELOW EXTERIOR GRADE.
9. PIPING IN CONCRETE BLOCK WALLS SHALL BE INSTALLED AS BLOCK IS BEING LAID. DO NOT CUT BLOCK WALL.
10. PROVIDE ALL SINKS AND LAVATORIES WITH TRAP FITTINGS FOR CLEANOUT
11. CONTRACTOR IS RESPONSIBLE TO ALSO CHECKING FIELD CONDITIONS PRIOR TO BIDDING AND REPORT ANY PROBLEMS/CONFLICTS TO THE ENGINEER WITHIN 2 DAYS OF DISCOVERY. ANY CHANGES RESULTING FROM CONDITIONS ARISING IN THE FIELD WHICH WERE NOT BROUGHT TO THE ENGINEER'S ATTENTION ARE TO BE MADE BY THIS CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER
12. ALL WORK IS TO BE FREE OF DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE(1) YEAR FROM DATE OF FINAL ACCEPTANCE. ALL DEFECTS WHICH DEVELOP OR ARE DISCOVERED WITHIN THIS PERIOD SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
13. UPON COMPLETION OF THE WORK UNDER THIS CONTRACT, THE CONTRACTOR SHALL REMOVE ALL TOOLS, APPLIANCES, SURPLUS MATERIALS, AND SCRAP. ALL IDENTIFIED EXISTING EQUIPMENT TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER.
14. THE CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES IN ORDER TO AVOID CONFLICTS.
15. THE CONTRACTOR SHALL PROVIDE ALL CHROME EXPOSED TRAP PRIMER CONNECTIONS BELOW LAVATORIES
16. PLUMBING CONTRACTOR SHALL PROVIDE NAMEPLATE INFO TO THE FACILITY MANAGER FOR WATER HEATER, AND RPZ.

PLUMBING FIXTURE SCHEDULE

TAG	DESCRIPTION	COMPONENT	MANUFACTURER	MODEL	CW	HW	SAN	VENT	FINISH	NOTES
PF-WC	FLOOR-MOUNT WATER CLOSET	WATER CLOSET	KOHLER	K-3519/3519-RA HIGHLINE	1/2"	---	4"	2"	WHITE/CHROME	
		OPEN-FRONT SEAT	KOHLER	K-4650					WHITE	
		SUPPLY	---	---					POL. CHROME	3/8" NPT RIGHT ANGLE VALVE WITH LOOSE KEY STOP AND ANNEALED CHROME-PLATED COPPER RISER
PF-LAV	WALL-MOUNT LAVATORY	LAVATORY	AMERICAN STANDARD	0356.115/137 LUCERNE	1/2"	1/2"	2"	2"	WHITE	COORD. MODEL NUMBER TO POSITION SOAP DISPENSER AT WALL-SIDE OF LAV.
		STRAINER	AMERICAN STANDARD	2411.015					POL. CHROME	WITH OVERFLOW AND TAILPIECE
		P-TRAP	---	1 1/4"					POL. CHROME	WITH ESCUTCHEON AND CLEANOUT
		FAUCET	SLOAN	EAF-200-P-ISM					POL. CHROME	WITH AC POWER ADAPTER
		SUPPLIES	---	3/8"					POL. CHROME	POL. CHROME FLEX TUBE SUPPLIES, ESCUTCHEONS AND KEY STOPS
		LAV GUARD	TRUEBRO	LAV GUARD 2 EZ-SERIES					WHITE	COVER TAILPIECE, P-TRAP, SUPPLIES AND VALVES
		SOAP DISPENSER	---	---					---	REFER TO TOILET ACCESSORIES SCHEDULE
PF-SINK	LOUNGE SINK	SINGLE-BOWL SINK	ELKAY	LRAD 202255-MR2	1/2"	1/2"	2"	2"	STAINLESS STEEL	
		STRAINER	---	3 1/2"					STAINLESS STEEL	
		P-TRAP	---	---					PVC	
		FAUCET	ELKAY	LK3000CR					POL. CHROME	INSTALL OPTIONAL 2.2GPM FLOW REGULATOR
		SUPPLIES	---	3/8"					---	FLEX HOSE SUPPLIES AND POL. CHROME KEY STOPS
PF-MOP	MOP SINK	FLOOR SINK	MUSTEE	63M	3/4"	3/4"	3"	2"	WHITE	
		FAUCET	MUSTEE	63.600A					CHROME	WITH INTEGRAL VACUUM BREAKERS
		HOSE AND BRACKET	MUSTEE	65.700					STAINLESS STL.	SHORTEN HOSE TO PROVIDE AIR GAP
		MOP HANGER	MUSTEE	65.600					STAINLESS STL.	
		SPLASHES	BY G.C.	FRP-1					FRP	REFER TO INTERIOR ELEVATIONS
PF-WH	DOMESTIC WATER HEATER	WATER HEATER	A.O. SMITH	EJC-10	1-1/4"	1-1/4"	---	---	---	OR EQUAL 10-GAL ELEC. WATER HEATER, 6kW ELEMENT, 240V/1PH ALT: TANKLESS ELECTRIC OR GAS-FIRED UNIT, SIZED AS REQD.
		WALL-MT. BRACKET / DRIP PAN	HOLDRITE	40 SWHP-W					---	MAINTAIN 81" MIN. HEADROOM CLEARANCE TO FLOOR BELOW
PF-DF	DRINKING FOUNTAIN	---	ELKAY	EZSTL8WSSK	1/2"	---	2"	2"	STAINLESS STEEL	WITH BOTTLE FILLER
PF-WHB	WALL HOSE BIB	---	WOODFORD	B65	3/4"	---	---	---	CHROME	18" ABOVE T.O. FND.
PF-RHB	ROOF HOSE BIB	---	WOODFORD	RHY1-MS	3/4"	---	---	---	PRE-FIN. PAINT	
PF-FD	FLOOR DRAIN	FLOOR DRAIN	ZURN	415S-Y-P	---	---	3"	2"	NICKEL BRONZE	W/ SEDIMENT BUCKET
		TRAP SEAL	JAY R. SMITH	2692-04	---				---	
PF-RD1	ROOF DRAIN- LARGE	---	ZURN	ZC100-DP-VP	---	---	REFER TO DRAWINGS	---	CAST IRON	PROVIDE PERIMETER BLOCKING TO RAISE DECK PLATE TO ROOFING LEVEL; INCLUDES DECK MOUNTING PLATE AND SECURED STRAINER
PF-OD1	ROOF OVERFLOW- LARGE	---	ZURN	ZC100-DP-VP-89	---	---	REFER TO DRAWINGS	---	CAST IRON	PROVIDE PERIMETER BLOCKING TO RAISE DECK PLATE TO ROOFING LEVEL; INCLUDES DECK MOUNTING PLATE, SECURED STRAINER AND OVERFLOW DAM
PF-DN1	DOWNSPOUT NOZZLE	---	ZURN	ZANB199-SS 4"	---	---		---	NICKEL BRONZE	4" DIA., WITH REMOVABLE SCREEN
PF-GCO	GROUND CLEAN-OUT	---	ZURN	Z1440/Z1475	---	---		---	STAINLESS STEEL	
PF-WCO	WALL CLEAN-OUT	---	ZURN	Z1446	---	---	---	---	STAINLESS STEEL	
PF-FCO	FLOOR CLEAN-OUT	---	ZURN	ZS1400	---	---	---	---	STAINLESS STEEL	

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STATE OF MISSOURI
MALLORY L. P. ANDERSON
NUMBER
PE-2022000204
PROFESSIONAL ENGINEER

Mallory L. P. Anderson
2022.03.02
16:25:59-05'00'

PRYOR ROAD & LOWENSTEIN DRIVE

908 NW PRYOR ROAD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

ISSUE	DATE	DESCRIPTION

CHASE

PRYOR & LOWENSTEIN
PROTOTYPE VERSION 20.4

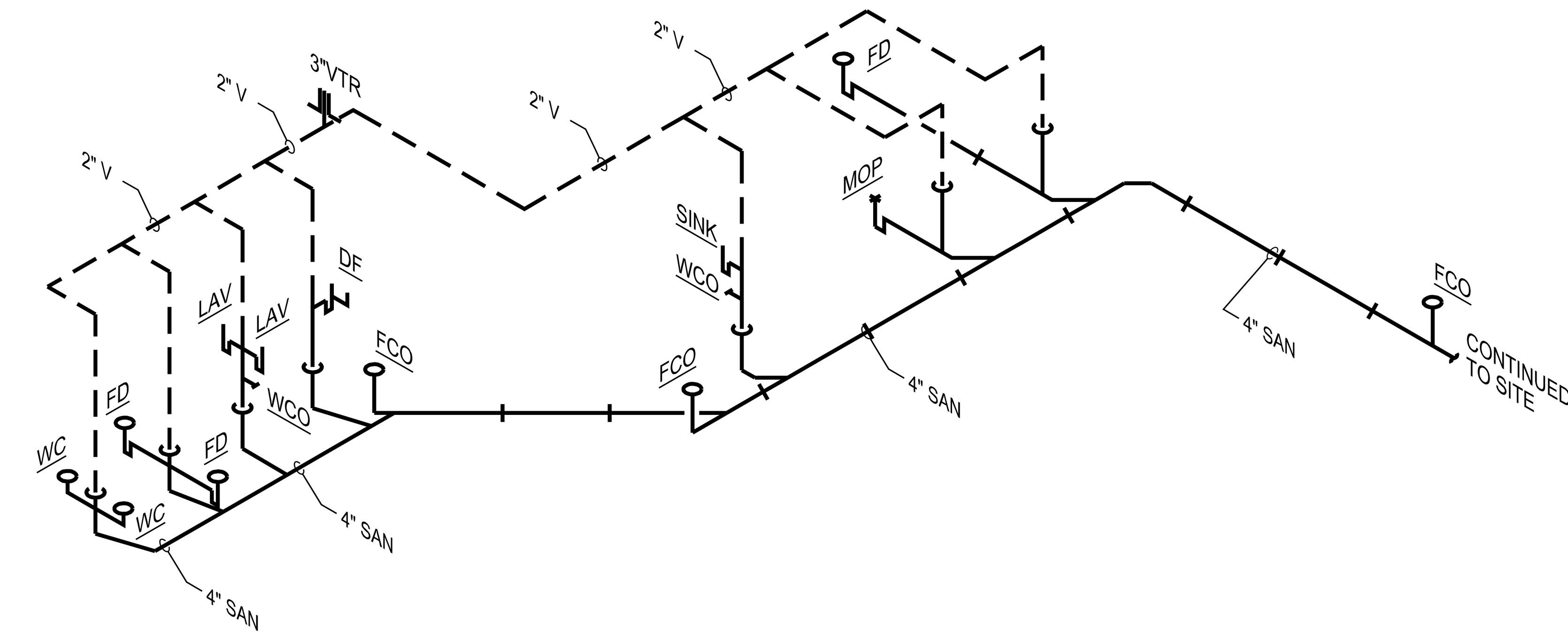
CONTENTS

PLUMBING GENERAL NOTES
LEGEND AND SCHEDULES

02/04/2022

SHEET

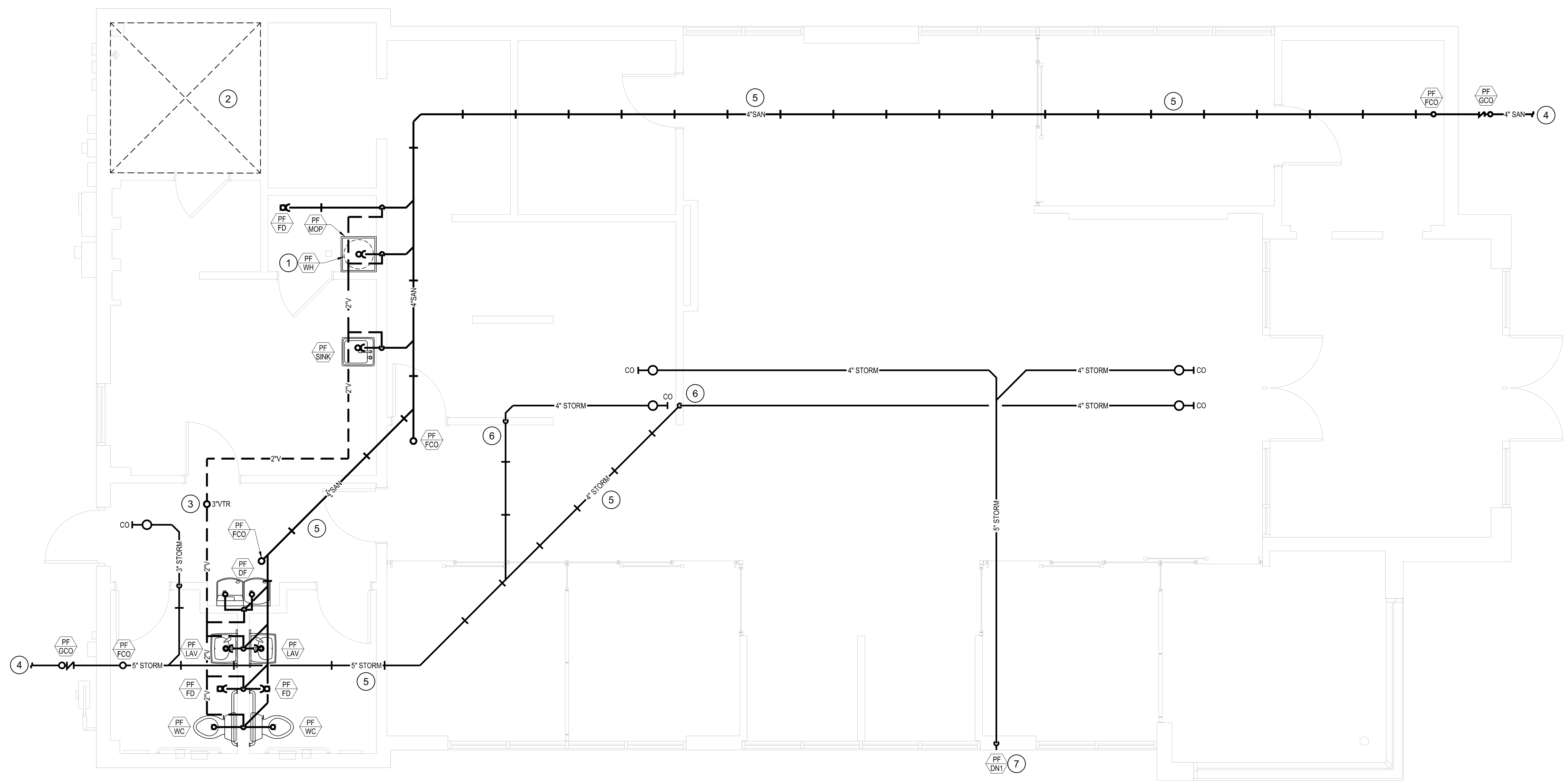
P-0



2 P1 PIPING SCHEMATIC
NO SCALE

SHEET NOTES

1. SCHEDULED WATER HEATER AND WALL-MOUNT PLATFORM WITH DRIP PAN ABOVE MOP SINK. REFER TO DETAIL ON SHEET P-4.
2. NO PLUMBING SHALL BE ROUTED THROUGH DATA ROOM.
3. VENT THROUGH ROOF. COORDINATE LOCATION WITH RTU OUTSIDE AIR INTAKES. VTR SHALL NOT BE WITHIN 10'-0" OF OUTSIDE AIR INTAKES.
4. CONTINUED TO SITE. REFER TO CIVIL DRAWINGS FOR CONTINUATION.
5. COORDINATE ALL UNDERSLAB ROUTING WITH STRUCTURAL MEMBERS AND FOOTINGS. TYPICAL THROUGHOUT BUILDING.
6. STORM DRAIN ROUTED WITHIN WALL TO BELOW SLAB.
7. SET DOWNSPOUT NOZZLE INVERT 1'-0" ABOVE TOP OF FOUNDATION.



1 P1 SANITARY SEWER - FLOOR PLAN
1/4" = 1'-0"

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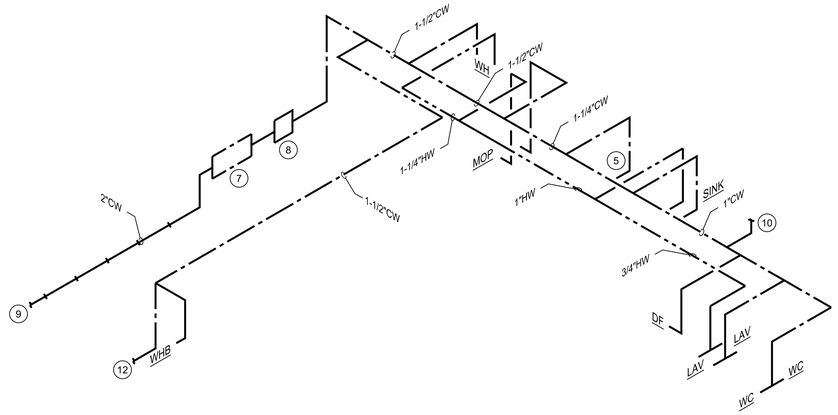
PLUMBING SANITARY SEWER FLOOR PLAN

02/04/2022

SHEET

P-1



2 / P2 DOMESTIC WATER - PIPING SCHEMATIC

NTS

1 / P2 DOMESTIC WATER - FLOOR PLAN

1/4" = 1'-0"

SHEET NOTES

1. SCHEDULED WATER HEATER AND WALL-MOUNT PLATFORM WITH DRIP PAN ABOVE MOP SINK. REFER TO DETAIL ON SHEET P-4.
2. NO PLUMBING SHALL BE ROUTED THROUGH DATA ROOM.
3. 3/4" CW AND 3/4" HW ROUTED TO MOP SINK.
4. PROVIDE WATER HAMMER ARRESTOR DEVICE. REFER TO DETAIL ON SHEET P-4 FOR LOCATION AND QUANTITY REQUIREMENTS.
5. 1/2" CW TO COFFEE MAKER. PROVIDE WITH BACKFLOW PREVENTER.
6. 1-1/4"HW AND 1-1/4"CW ROUTED TO/FROM HOT WATER HEATER.
7. LOCATION OF BACKFLOW PREVENTER ASSEMBLY. PROVIDE BACKFLOW PREVENTER TESTING TO ENSURE PROPER FUNCTION. REFER TO DETAIL ON SHEET P-3.
8. LOCATION OF WATER METER AND BUILDING MAIN SHUT-OFF VALVE.
9. UNDERGROUND DOMESTIC WATER CONTINUED TO SITE. COORDINATE WITH CIVIL.
10. 3/4" CW ROUTED TO HOSE BIBB ON ROOF. REFER TO SHEET P-3 FOR CONTINUATION.
11. LOCATION OF NEW GAS METER. 1-1/4" GAS PIPING ROUTED ON EXTERIOR OF BUILDING TO ROOF. REFER TO SHEET P-3 FOR CONTINUATION.
12. CONTINUED TO IRRIGATION ZONES. REFER TO CIVIL.
13. LANDSCAPE IRRIGATION SYSTEM CONTROLLER AND WIRELESS NETWORK LINK. PROVIDE WITH DEDUCT METER. PROVIDE WITH 25 GPM BACKFLOW PREVENTER. PROVIDE BACKFLOW PREVENTER TESTING TO ENSURE PROPER FUNCTION.

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CONTENTS

PLUMBING DOMESTIC WATER FLOOR PLAN

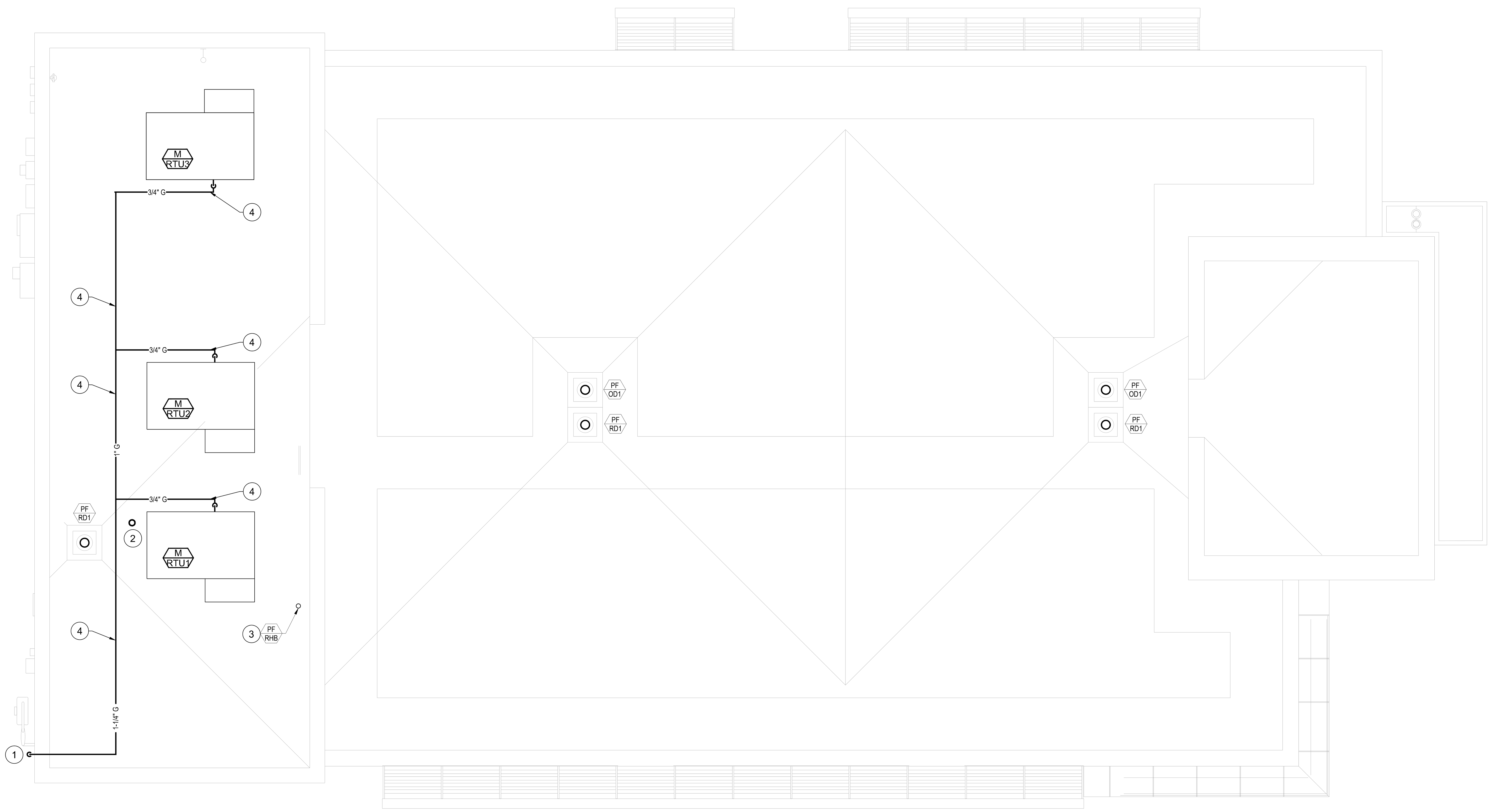
02/04/2022

SHEET

P-2

SHEET NOTES

1. GAS PIPING ROUTED ON EXTERIOR OF BUILDING TO GAS METER. REFER TO P-2 FOR CONTINUATION.
2. 3" VENT THROUGH ROOF LOCATED A MINIMUM OF 10'-0" FROM OUTSIDE AIR INTAKES. COORDINATE EXACT LOCATION WITH ROOFTOP UNITS.
3. 3/4" CW ROUTED TO RHB FROM FLOOR BELOW.
4. COORDINATE ROUTING OF GAS PIPING WITH WALKPADS ON ROOF. AVOID INTERFERENCE WITH WALKPADS AND RTU ACCESS CLEARANCES AS MUCH AS POSSIBLE.



1
P3
PLUMBING - ROOF PLAN
1/4" = 1'-0"

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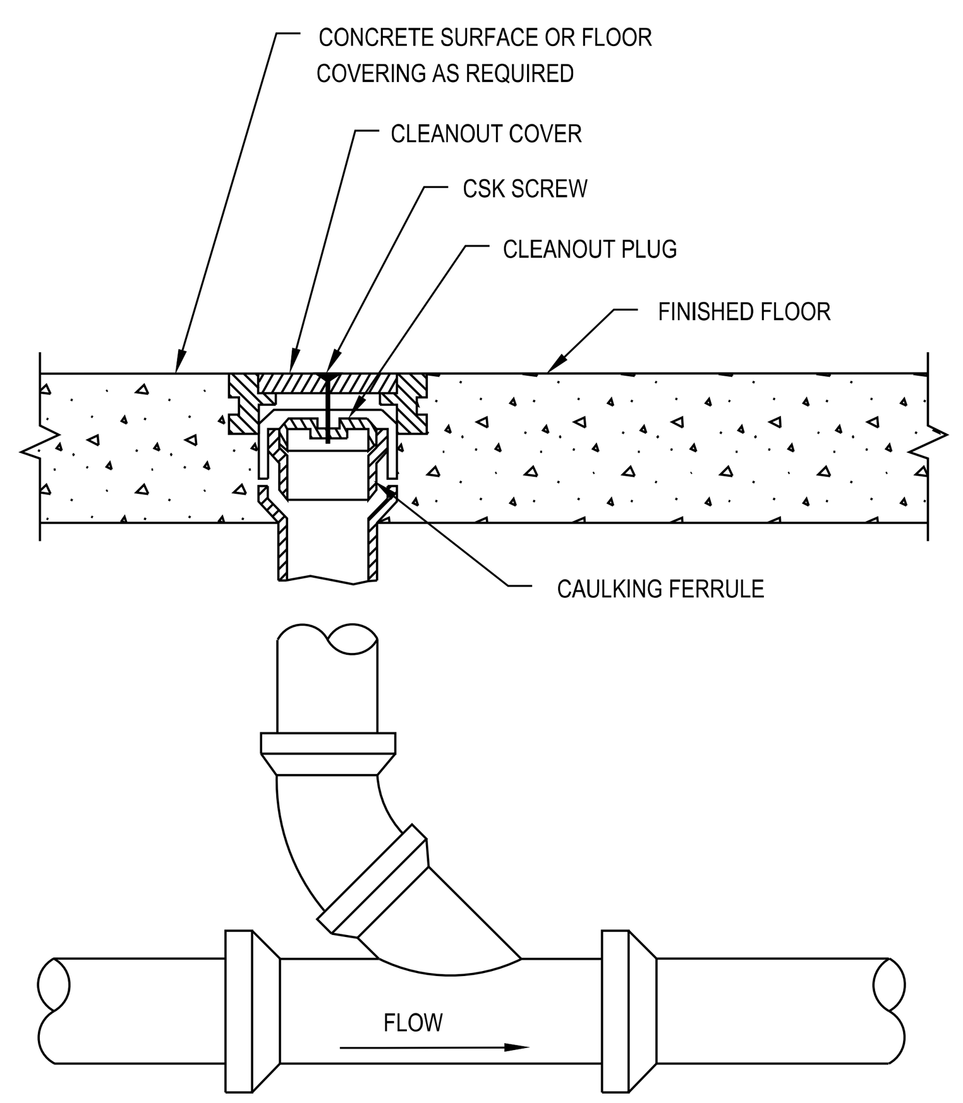
CONTENTS

PLUMBING ROOF PLAN

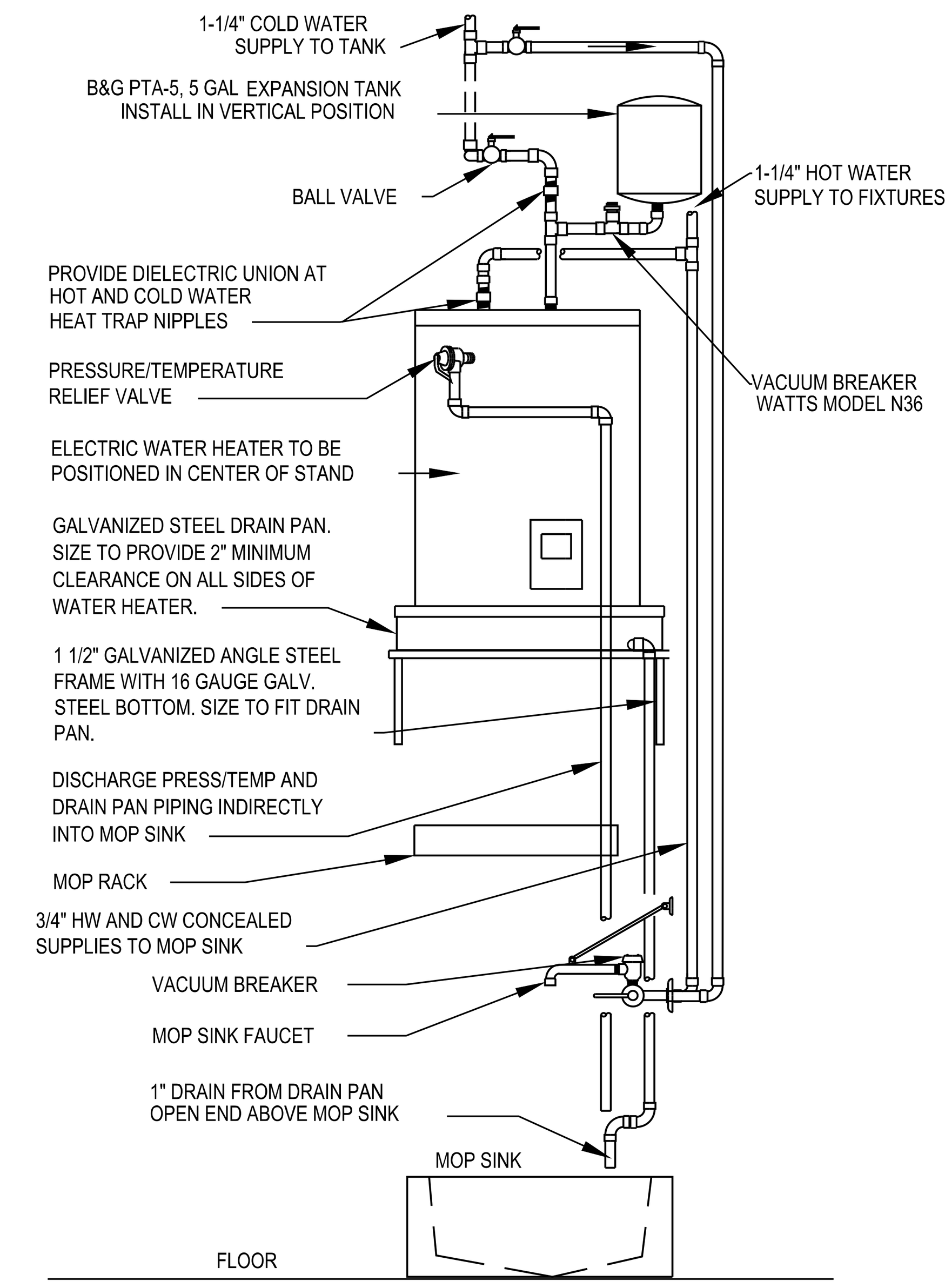
02/04/2022

SHEET

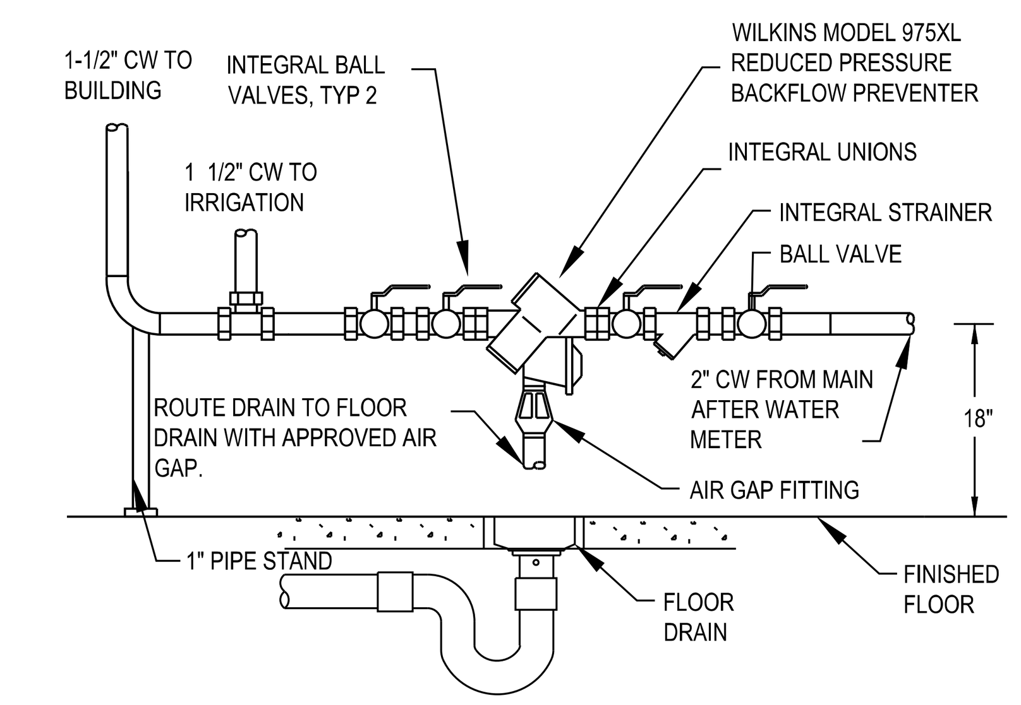
P-3



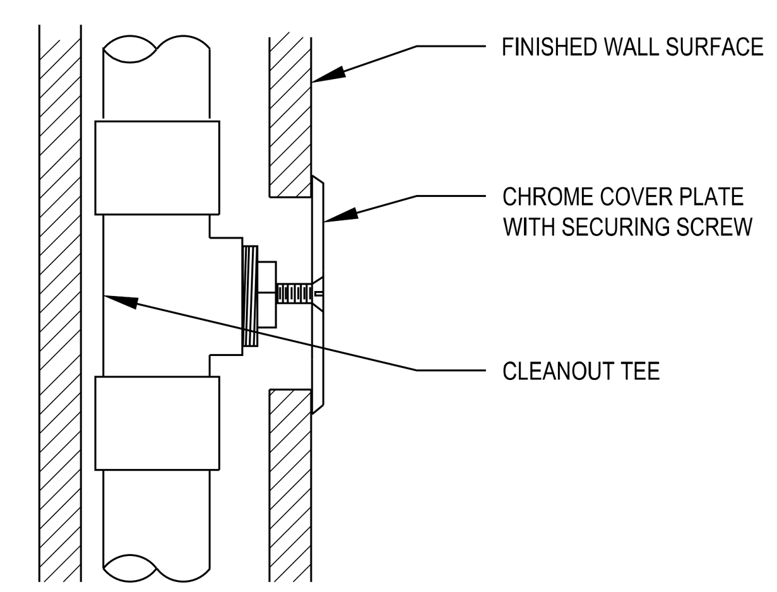
1 P4 FLOOR CLEAN OUT
N.T.S.



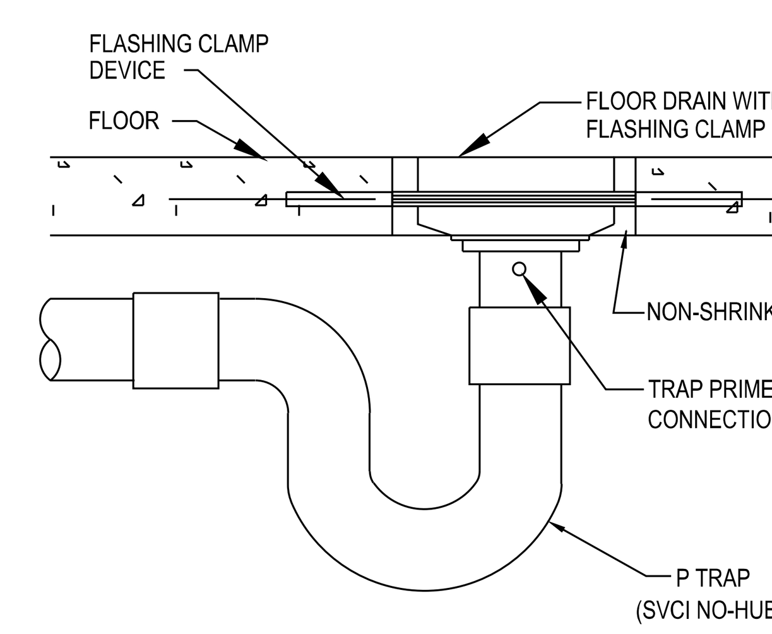
2 P4 SUSPENDED WATER HEATER
N.T.S.



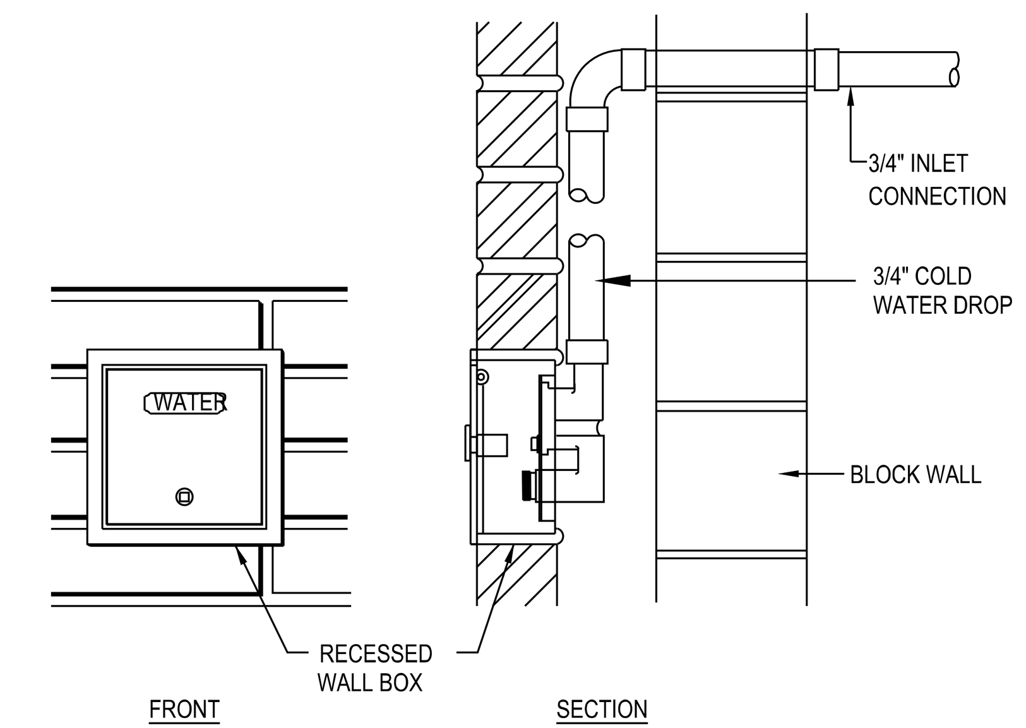
3 P4 REDUCED-PRESSURE ZONE PIPING
N.T.S.



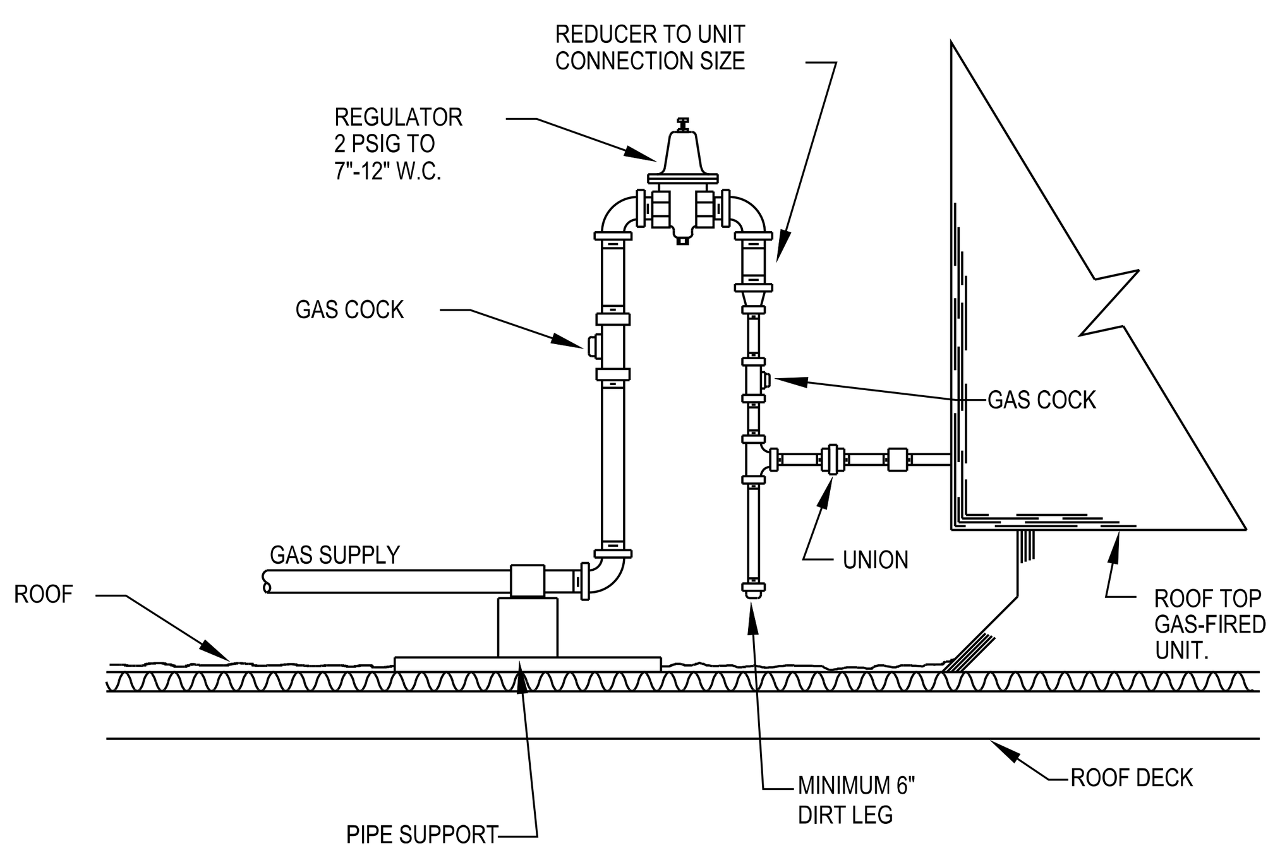
4 P4 TYP. WALL CLEANOUT
N.T.S.



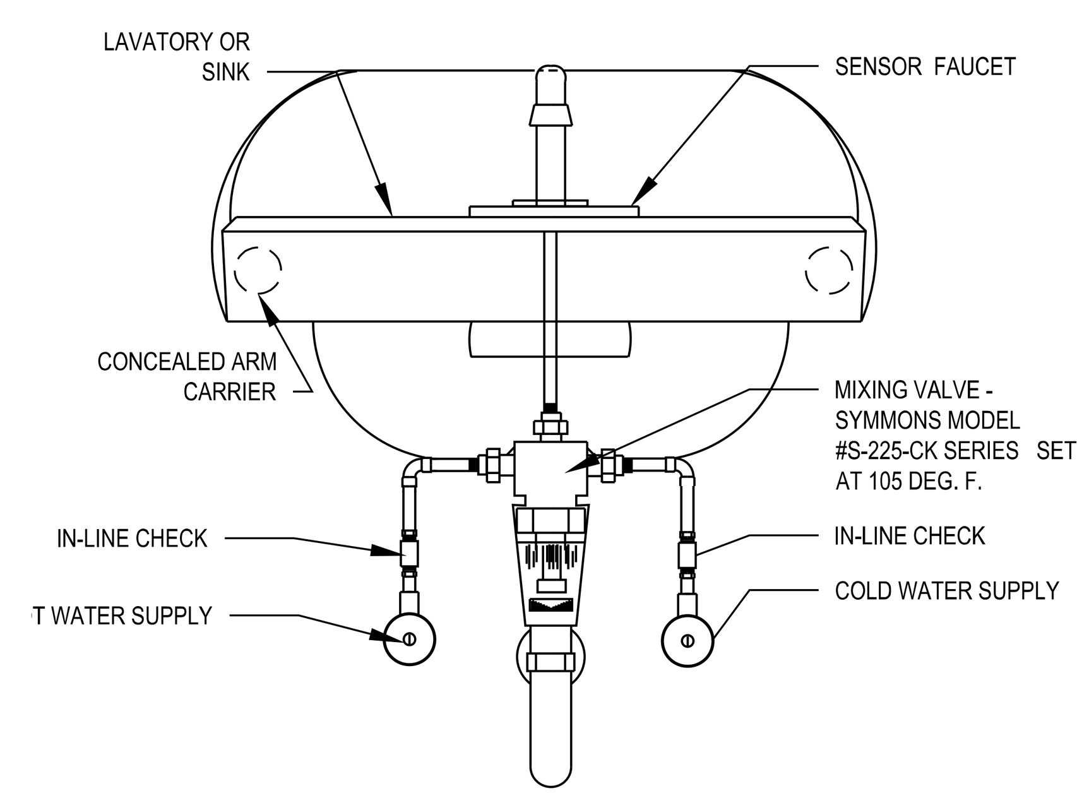
5 P4 TYP. FLOOR DRAIN
N.T.S.



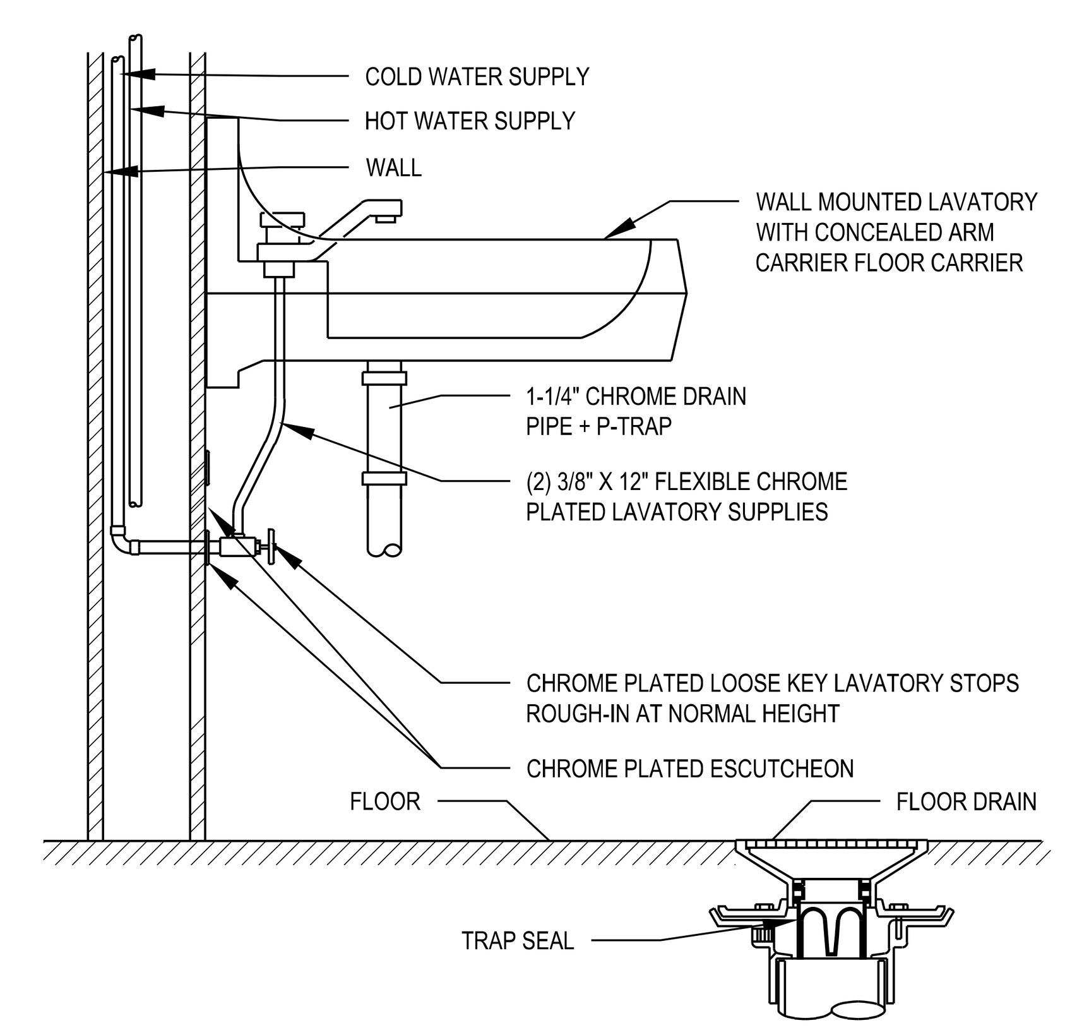
6 P4 TYP. EXTERIOR WALL HYDRANT
N.T.S.



7 P4 ROOFTOP UNIT GAS PIPING CONNECTION
N.T.S.



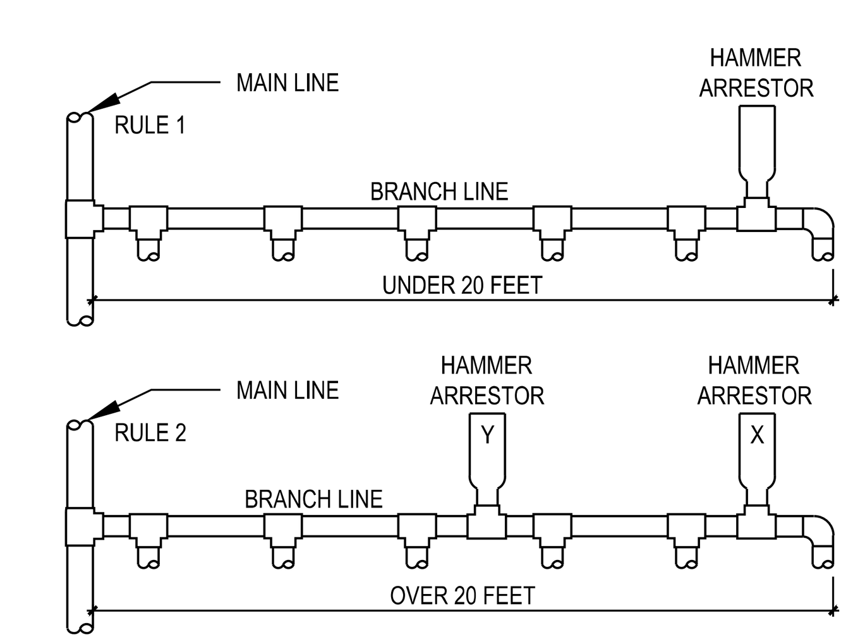
8 P4 TYP. FIXTURE MIXING VALVE
N.T.S.



9 P4 TYP. TRAP SEAL
N.T.S.

RULE 1: BRANCH LINES OF 20 FEET OR LESS.
THE HAMMER ARRESTOR SHOULD BE PLACED AT THE END OF THE BRANCH LINE BETWEEN THE LAST TWO FIXTURES.

RULE 2: BRANCH LINES OVER 20 FEET.
AN ADDITIONAL HAMMER ARRESTOR (Y) SHOULD BE PLACED AS SHOWN (BELOW). THE ADDITIONAL UNIT PLACED AT THE MIDPOINT OF THE RUN LONGER THAN 20 FEET. THE SUM OF THE FIXTURE UNIT RATINGS OF (X) AND (Y) COMBINED, SHOULD BE EQUAL TO OR GREATER THAN THE DEMAND OF ALL BRANCHES. INSTALL IN A ACCESSIBLE AREA



10 P4 TYP. WATER HAMMER ARRESTOR
N.T.S.

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PROTOTYPE VERSION 20.4

CONTENTS

PLUMBING DETAILS

02/04/2022

SHEET

P-4

LIGHT FIXTURE SCHEDULE

TYPE	MANUFACTURER	MODEL	LAMPING	DESCRIPTION
L-2	GE	LBT22A033MM835VQLTWHTE	34W 3500K LED 3300 lm	2x2 REC. LENSED 34W 3500K LED TROFFER
L-2 (ALT)	LITELINE	LEDP-22-WH-WHIP-35-30-120./277	30W 3500K LED 3300 lm	2x2 REC. LENSED 30W 3500K LED PANEL
L-2-EM	GE	LBT22A033MM835TVLTWHTE-EM	34W 3500K LED 3490 lm	L-2 FIXTURE WITH EMERGENCY LIGHT DRIVER
L-2-EM (ALT)	LITELINE	LEDP-22-WH-WHIP-(EM)-35-30-120./277	30W 3500K LED 3490 lm	L-2 (ALTERNATE) FIXTURE WITH EMERGENCY LIGHT DRIVER
L-3	FEELUX	(2) TUN7-35K-SF-STD-S-HW-OCC-120	(2) 7W 3500K LED ~900 lm TOTAL	(2) 20.7" LED UNDERCAB. LIGHT WITH OCCUPANCY SENSOR
L-4	LUMIERE	LANTERRA 9004-W2-RW-LED 4080-W-W-CS-L1-UNV-WIS	(2) 10W 4000K LED	120V EXTERIOR UP/DOWN SCONCE WITH INTEGRAL LED DRIVER
L-4 (ALT)	LUMIERE	LANTERRA 9004-W1-RW-LED 4080-W-W-CS-L1-UNV-WIS	(2) 10W 4000K LED	120V EXTERIOR DOWN ONLY SCONCE WITH INTEGRAL LED DRIVER ALTERNATE FIXTURE FOR "DARK SKY" COMPLIANCE JURISDICTIONS ONLY
L-5	IGUZZINI	I.BU27-REM-01 + 4549-0350-019-UNV-ED10	(1) 6W LED	TRICK 360 DEG. BLADE EFFECT - 90mm WITH CUSTOM BLUE LAMP, WHITE, SINGLE REMOTE 19W 0-10V DIMMING POWER SUPPLY SHARED BY TWO FIXTURES. LENS SCREEN SHIPPED LOOSE TO BE CUSTOM-CUT IN FIELD AND SILICONE-GLUED IN-PLACE TO ILLUMINATE ADJ. WALL AND CEILING ONLY AS INDICATED IN INTERIOR ELEVATIONS.
L-7	GE	LDXB-4R-0-10-T-35-V1 + RDI4R-W-PT-WT-WT-WR + BH3 (OPTIONAL)	14W 3500K LED	4" ROUND 14W 3500K LED LENSED DOWNLIGHT - WET RATED
L-7-EM	GE	LDXB-4R-0-10-T-35-V1-EL + RDI4R-W-PT-WT-WT-WR + BH3 (OPTIONAL)	14W 3500K LED	L-7 FIXTURE WITH EMERGENCY LIGHT DRIVER
L-7-R	LF ILLUMINATION	5811-1SA-T-20L-8040-W-1-BB	20W 4000K 80 CRI LED	EXTERIOR CANOPY RECESSED CAN, BLACK TRIM
L-7-R-EM	LF ILLUMINATION	5811-1SA-T-20L-8040-W-1-BB-EM	20W 4000K 80 CRI LED	EXTERIOR CANOPY RECESSED CAN W/ EMERGENCY BATTERY RELAY, BLACK TRIM
L-7 (ALT)	AMERLUX	L7 - HDL-HP-R-NC-A17-T-16-120V-0-10V (HOUSING) + HDL-HP-RLD-A17-T-MWW-65SOL-359-WET (TRIM)	18W 3500K LED	4" ROUND 18W 3500K LED LENSED DOWNLIGHT - WET RATED
L-7-EM (ALT)	AMERLUX	L7EM - HDL-HP-R-NC-A17-T-16-120V-0-10V-EM (HOUSING) + HDL-HP-RLD-A17-T-MWW-65SOL-359-WET (TRIM)	18W 3500K LED	L-7 ALTERNATE FIXTURE WITH EMERGENCY LIGHT DRIVER
L-7 (ALT)	USAI	RD-DL-BEVELED-PRIMARY-NCSM-35K-90CRI-1000L-WHITE CONE-WET RATED-27"	15W 3500K LED 4000 lm	4" ROUND 15W 3500K LED LENSED DOWNLIGHT - WET RATED
L-7-EM (ALT)	USAI	RD-DL-BEVELED-PRIMARY-NCSM-35K-90CRI-1000L-WHITE CONE-WET RATED-27"-EMPK	15W 3500K LED 4000 lm	L-7 ALTERNATE FIXTURE WITH EMERGENCY LIGHT DRIVER
L-8	GE	ALC6-1-4T04-T-C8-1D-S-Q-Q-Q-[ST/51]-[K/A]-Q-W	27W 3500K LED	SURFACE-MOUNT AT CEILINGS UP TO 10'. CABLE-MOUNT AT CEILINGS OVER 10'.
L-8-EM	GE	ALC6-1-4T04-T-C8-1D-S-Q-Q-E-[ST/51]-[K/A]-Q-W	27W 3500K LED	SURFACE-MOUNT AT CEILINGS UP TO 10'. CABLE-MOUNT AT CEILINGS OVER 10'. INCLUDES EMERGENCY BATTERY.
L-11	GE	LDXB-4R-0-10-T-35-V1 + RDI4R-W-PT-WT-WT + BH3 (OPTIONAL)	14W 3500K LED	4" ROUND 14W 3500K LED LENSED DOWNLIGHT- WET RATED, PROVIDE MATTE BLACK FLANGE IN WOOD ACCENT CEILINGS
L-11-EM	GE	LDXB-4R-0-10-T-35-V1-EL + RDI4R-W-PT-WT-WT + BH3 (OPTIONAL)	14W 3500K LED	L-11 FIXTURE WITH EMERGENCY LIGHT DRIVER
L-11 (ALT)	AMERLUX	L11 - HDL-HP-R-NC-A17-T-16-120V-0-10V (HOUSING) + HDL-HP-RLD-A17-T-MWW-65SOL-359 (TRIM)	18W 3500K LED	4" ROUND 18W 3500K LED LENSED DOWNLIGHT, PROVIDE MATTE BLACK FLANGE (MBB) IN WOOD ACCENT CEILINGS
L-11-EM (ALT)	AMERLUX	L11EM - HDL-HP-R-NC-A17-T-16-120V-0-10V-EM (HOUSING) + HDL-HP-RLD-A17-T-MWW-65SOL-359 (TRIM)	18W 3500K LED	L-11 ALTERNATE FIXTURE WITH EMERGENCY LIGHT DRIVER
L-11 (ALT)	USAI	RD-DL-BEVELED-PRIMARY-NCSM-35K-90CRI-1000L-WHITE CONE-27"	15W 3500K LED	4" ROUND 15W 3500K LED LENSED DOWNLIGHT, PROVIDE 'BLACK CONE' FINISH IN WOOD ACCENT CEILINGS
L-11-EM (ALT)	USAI	RD-DL-BEVELED-PRIMARY-NCSM-35K-90CRI-1000L-WHITE CONE-27"-EMPK	15W 3500K LED	L-11 ALTERNATE FIXTURE WITH EMERGENCY LIGHT DRIVER
L-20	BEST	EZXTEU-1-RW-EMRC	LAMP INCL.	SINGLE-FACE LED EXIT SIGN WITH 90-MIN. BATTERY
L-20 (ALT)	ENCORE UNO-SERIES	UNO X SERIES (UNIVERSAL MOUNT)	LAMP INCL.	EDGE-LIT SINGLE-FACE LED EXIT SIGN WITH 90-MIN. BATTERY
L-20-CHICAGO	SURE-LITES	CHX703 Series	LAMP INCL.	CHICAGO-APPROVED SINGLE-FACE LED EXIT SIGN WITH 90-MIN. BATTERY
L-21A	LUMARK	XTOR6B-W-BZ	58W 4000K LED	EXTERIOR WALL-MOUNT 58W 4000K LED FULL-CUTOFF FIXTURE FOR GENERAL LIGHTING
L-21B	LUMARK	XTOR6B-W-BZ-MS-L20-CBP	58W 4000K LED	EXTERIOR WALL-MOUNT 58W 4000K LED FULL-CUTOFF FIXTURE FOR EMERGENCY LIGHTING WITH 90-MINUTE BACKUP BATTERY
L-22	LITHONIA	ZL1N-L24-1500LM-FST-MVOLT-35K-80CRI-WH-LBOZU	18W 3500K LED	2' 18W 3500K LED LENSED UTILITY LIGHT w/ OCCUPANCY SENSOR
L-308	PHILIPS COLOR KINETICS	223-000004-02	6W LED (BLUE)	12" 'eW Cove QLX Powercore' RIGID BLUE 120V LED STRIP, WHERE MOUNTED ABOVE ACT-3, USE MOUNTING TRACK MODEL #120-000125-00 OR EQ. TO MINIMIZE LIGHT BLEEDING THROUGH TILE
L-308 (ALT)	ECOSENSE	L35-I-12"-06-BL-MULT-120	6W LED (BLUE)	12" 'TROVE' MULT (120V-220V) LED STRIP, WHERE MOUNTED ABOVE ACT-3, USE MOUNTING TRACK MODEL #MNT-L-TRKCLIP-12 OR EQ. TO MINIMIZE LIGHT BLEEDING THROUGH TILE
L-410	VONN LIGHTING	VMC31810BL 17" SALM LED PENDANT BLACK	120V 40W LED, 3000K	17" DIAMETER, MATTE BLACK FINISH, ELV DIMMING, INSTALLED 82" A.F.F. TO B.O. FIXT.; SET DIMMING PER BMS ZONE CONTROL SCHEDULE
L-411	BASELITE	PEQ/41.5/LBLC/LED12W/3K/DM0-10V/120/277V + SP-LBLC5-2	120V, 12W LED, 3000K	16" DIAMETER, MATTE BLACK, 0-10V DIMMING, INSTALLED 82" A.F.F. TO B.O. FIXT.
L-413	BASELITE	CS22/41.5/LED12W/BLC/LED12/30K/DM0-10V/120/277V	120v, 12W LED, 3000K	22" DIAMETER, MATTE BLACK FINISH, O-10V DIMMING, INSTALLED 82" A.F.F. TO B.O. FIXT.
L-500	FOCAL POINT	SEEM 4-LP, FSM4LP-FL-625LF-35K-1C-UNV-LD1-T6TZ-WH	3500K LED, INCLUDED	LINEAR LED, 4" WIDE, SET IN GRID CHANNELS, 2' MINIMUM LENGTH
L-500-EM	FOCAL POINT	SEEM 4-LP, FSM4LP-FL-625LF-35K-1C-UNV-LD1-T6TZ-EM-WH	3500K LED, INCLUDED	L-500 WITH EMERGENCY BATTERY PACK
L-500 (ALT)	AMERLUX	4" GRUV, GRUV4-HE-GRID-A16-PL-5-35-HW-120/277-CUS-0-10V	3500K LED, INCLUDED	LINEAR LED, 4" WIDE, SET IN GRID CHANNELS, 2' MINIMUM LENGTH
L-500-EM (ALT)	AMERLUX	4" GRUV, GRUV4-HE-GRID-A16-PL-5-35-HW-120/277-CUS-0-10V-EMB	3500K LED, INCLUDED	L-500 WITH EMERGENCY BATTERY PACK
PL4 & PL5	McGRAW-EDISON	(2) GLEON-SA2C-740-U-T4FT-BZ (PL4), GLEON-SA2C-740-U-SL2-BZ (PL5)	MVOLT, 4000K LED,258W MVOLT, 4000K LED, 129W	DARK SKY COMPLIANR ARE LIGHT FIXTURE WITH DIRECT ARM MOUNTS

ELECTRICAL SYMBOLS

⊕	LIGHT FIXTURE: CEILING SURFACE-MOUNT OR PENDANT
⊢⊕	LIGHT FIXTURE: WALL SURFACE-MOUNT
○ □	LIGHT FIXTURE: RECESSED DOWNLIGHT
◒ ⬓	LIGHT FIXTURE: RECESSED WALL WASHER
▢ ▤	LIGHT FIXTURE: RECESSED 2x2 GRID
▭	LIGHT FIXTURE: GRID-RECESSED LINEAR TROFFER
▭	LIGHT FIXTURE: LINEAR SURFACE-MOUNT UPLIGHT
OS	LIGHT FIXTURE: UNDERCABINET WITH INTEGRAL OCCUPANCY SENSOR
OS	LIGHT FIXTURE: WALL-MOUNT WITH INTEGRAL OCCUPANCY SENSOR
▬	LIGHT FIXTURE: CEILING-MOUNT OR SUSPENDED LINEAR STRIP
⊗↑	EXIT SIGN INDICATING LIGHTED SIDE(S) AND EGRESS ARROW DIRECTION
	BATTERY-POWERED TWIN HEAD EMERGENCY LIGHT FIXTURE
$	SINGLE-POLE DOUBLE-THROW LINE VOLTAGE TOGGLE SWITCH
$ K	KEY SWITCH- REFER TO DOOR HARDWARE SCHEDULE
$ PL	SINGLE-POLE DOUBLE-THROW LINE VOLTAGE TOGGLE SWITCH WITH PILOT LIGHT
$ MC	3-POSITION MAINTAINED-CONTACT SWITCH- HUBBELL #HBL 1385W OR EQUAL
$	30A DOUBLE POLE SWTCH
⊖	208 V SIMPLEX WALL OUTLET
⊜	115 V DUPLEX WALL OUTLET
●	115 V DUPLEX WALL OUTLET- CONTROLLED (ONLY WHERE REQD. BY ENERGY CODE)
◒	115 V DUPLEX WALL OUTLET SPLIT-CONTROLLED (ONLY WHERE REQD. BY ENERGY CODE)
⊕	2-GANG 115 V DUPLEX WALL OUTLET ('QUAD BOX')
▣	LEGRAND EFB45 FLOOR-RECESSED JUNCTION BOX W/ ALUM. COVER AND INTERNAL ACCESSORIES AS INDICATED
⊜ WP	EXTERIOR 115 V DUPLEX G.F.C.I. WALL OUTLET IN WEATHERPROOF ENCLOSURE SET FLUSH WITH ADJACENT FINISHES, 18" ABOVE T.O. FND.
(J) (J)	WALL / CEILING JUNCTION BOX WITH 4x4 COVER PLATE
(J)	SURFACE-MOUNT JUNCTION BOX WITH DISCONNECT SWITCH FOR ADJACENT EQUIPMENT POWER
	FLEXIBLE CONDUIT FOR DIRECT EQUIPMENT CONNECTION
(S)	CEILING-RECESSED AUDIO SPEAKER
SPD	SURGE PROTECTION DEVICE
DED.	INDICATES DEDICATED CIRCUIT
24"	INDICATES DEVICE HEIGHT ABOVE FINISH FLOOR
EM	INDICATES LIGHT FIXTURE WITH INTEGRAL 90-MINUTE BACKUP BATTERY *(AoR TO DESIGNATE ADDITIONAL FIXTURES AS REQUIRED BY CODE)*
NL	INDICATES 24-HOUR "NIGHT LIGHT" FIXTURE CONNECTED TO PROGRAMMABLE TIMER CIRCUIT *(AoR TO DESIGNATE ADDITIONAL FIXTURES AS REQUIRED BY CODE)*
GFCI	GROUND FAULT CURRENT INTERRUPTER
WP	WEATHERPROOF
(E)	EXISTING TO REMAIN
(ES)	ELECTRIC STRIKE
(DB)	AUTOMATIC DOOR OPERATOR BUTTON
(PB)	LOW-VOLTAGE PUSH BUTTON
(SR)	AFTER-HOURS ACCESS CARD READER
L5	NEMA L-5-20R RECEPTACLE ON A DEDICATED 120V, 20A CIRCUIT, MOUNTED AT 18" AFF

SECURITY SYMBOLS

KP	ALARM KEYPAD
◆	DOOR CONTACT
◇	360 DEG. CEILING-MOUNT MOTION DETECTOR
◇ C	CEILING-MOUNT 'CURTAIN' MOTION DETECTOR
◇	WALL-MOUNT MOTION DETECTOR AT 84" AFF
SAF	SAFE ALARM PACKAGE
ATM	ATM ALARM PACKAGE
CR	CASH RECYCLER ALARM PACKAGE
◆	HOLD-UP BUTTON- SET WALL-MOUNTED UNITS 36-44" AFF
◆	WIRELESS HOLD-UP BUTTON: ONLY AT OVAL BCM DESKS
L	ALARM LAMP AT 84" AFF
WR	WIRELESS RECIEVER CONCEALED ABOVE CEILING
TEL	TELLER LINE CAM CONTROL MOUNTED UNDER COUNTER BY CAM TECH, 1 AT EACH TELLER LINE AXIS #FA54; GS&I #2
ATM	INTEGRATED ATM CAM CONTROL INTEGRATED BY ATM VENDOR AXIS #F41; GS&I #1, 23
TEL	INTEGRATED LENS- TELLER LINE AXIS #FA1105 IN PARABIT MOUNT; GS&I #2A/B
ATM	INTEGRATED LENS- ATM INTEGRATED BY ATM VENDOR AXIS #F1004; GS&I #1A, 23A
ATM FS	INTEGRATED LENS- FREESTANDING ATM INTEGRATED BY ATM VENDOR AXIS #P1265; GS&I #9, 10, 22(2)
MUL	INTEGRATED LENS- MULLION AXIS #P1265; GS&I #8
M 84"	VIDEO MONITOR- REQUIRES 120V/15A POWER AND JUNCTION BOX WITH OPEN 1.25" CONDUIT TO CEILING
NVR	VIDEO RECORDER

DATA SYMBOLS

◀ 2	TELE/DATA SYSTEM TERMINAL IN WALL PLATE- NUMBER INDICATES PORT COUNT
◀ 2	TELE/DATA SYSTEM TERMINAL IN FLUSH FLOOR BOX- NUMBER INDICATES PORT COUNT
◀ TEL	DATA SYSTEM TERMINAL WALL PHONE COVER PLATE
◁ 2	DATA OUTLET LOCATION, WALL/SURFACE MOUNTED, 2-PORT OUTLET, PROVIDE (2) CAT 6 RJ-45 JACKS, (2) HORIZONTAL CAT6 CABLES, A 2-PORT SURFACE MOUNT BOX, & PATCH CORDS.

BMS SYMBOLS

BMS AND OTHER CONTROL DEVICES TO BE ORDERED FROM THE BMS EQUIPMENT VENDOR- REFER TO SHEET E5- COORD. W/ PROJECT ELECTRICIAN

T ZONE	BMS WIRELESS THERMOSTAT: DAINTREE NETWORKS #WTS10
TS ZONE	BMS WIRED REMOTE TEMP. SENSOR (PREFERRED): BAPI #10K-2-R-Z-CG (WALL MOUNT)
OTS	BMS EXTERIOR HARDIRED TEMPERATURE SENSOR: BAPI #BA/10K-2-O-BB2
DUCT	BMS WIRED DUCT TEMP. SENSOR (PREFERRED): BAPI #10K-2-D-4-BBX OR SIMILAR
PS	PRESSURE SENSOR- ADJUSTABLE RANGE: BAPI #BA/ZPM-LR-ST-D
HS	BMS LOW VOLTAGE WIRED HUMIDITY SENSOR: BAPI #BA/HQX-B-C-X-XX-X (WALL MOUNT), WIRED TO WSA10 CONCEALED IN CEILING
LD	BMS LOW VOLTAGE WIRED LEAK DETECTOR: BAPI #RBA-BA/LDT1-PS-BB, WIRED TO WGA100
CO2	BMS HARDWIRED CO2 SENSOR: BAPI #RBA-BA/BS4-DCD10-BNK, WIRED TO WSA10
$ ZONE	WIRELESS WALL SWITCH: DAINTREE NETWORKS #WWD1, FUNCTIONS AS SWITCH AND/OR DIMMER, USE AS MANUAL ON/OFF, MANUAL ON / AUTO OFF
RM ZONE	WIRELESS OCCUPANCY SENSOR, CEILING RECESSED-MOUNT: DAINTREE NETWORKS #WOS2-RM-E, PIR, 1000 SF COVERAGE
PS ZONE	WIRELESS PHOTOSENSOR, CEILING-MOUNT: DAINTREE NETWORKS #WPS1
AUX	DAINTREE NETWORKS #RWS-BZ-200 RELAY PACK INSTALLED IN ACCESSIBLE JUNCTION BOX ABOVE CEILNG
WAPM	WIRELESS ADAPTER: DAINTREE NETWORKS #WA100-PM 15A LINE RELAY, 5mA DIMMING DRIVER CAPACITY (10 DRIVERS TYP.)
WGA	WIRELESS GENERAL ADAPTER: DAINTREE NETWORKS #WGA100 GENERAL PURPOSE 15A LINE RELAY
WSA	WIRELESS SENSOR ADAPTER: DAINTREE NETWORKS #WSA10
LD	LEAK DETECTION SENSOR: DAINTREE #RBA-BA/LDT1-PS-BB; PROVIDE AT ROOMS WITH WATER HEATERS, SUMP/EJECTOR PITS, OR THE LIKE
FP	CURRENT TRANSFORMER: DAINTREE #CR9580-10-M WIRED TO WGA100 SINGLE PHASE
	CELLULAR MODEM: DAINTREE #CELL-MDM-VZ-1WAC
IRC	OWNER'S IRRIGATION SYSTEM CONTROL PANEL: WEATHERMATIC ENABLED FOR ZIGBEE WIRELESS PROTOCOL, BY OWNER'S LANDSCAPER
EX PS	EXTERIOR OUTDOOR PHOTOCELL: DAINTREE #RPL-CES/OD-24-0-10- WIRE TO WA100-PM
WAC	WIRELESS AREA CONTROLLER: DAINTREE #WAC60
UPS	UNINTERRUPTABLE POWER SUPPLY: 120V, 350VA MIN., PROVIDED BY G.C.
PM	POWER METER: 3-POLE: DAINTREE #RDN-PS3037-S-N 24-POLE: DAINTREE #RDN-PS24-D
OC1	OCCUPANCY SENSOR, CEILING-MOUNT, PASSIVE INFRARED, WITH 3-WAY MANUAL OVER-RIDE SWITCH: WATTSTOPPER #CI-355
OC2	OCCUPANCY SENSOR, CEILING-MOUNT, DUAL-TECHNOLOGY: WATTSTOPPER #RWS-DT-305
$ OC	WALL-MOUNT SINGLE-RELAY OCCUPANCY SENSOR WITH COMBINED SWITCH: LEVITON ODS10-IDW
$ OC2	WALL-MOUNT SINGLE-RELAY OCCUPANCY SENSOR WITH COMBINED SWITCH: WATTSTOPPER DSW-302
$ T	PUSH-BUTTON LINE VOLTAGE 5/10/15/30-MINUTE TIMER: WATTSTOPPER TS-400
$ TLV	PUSH-BUTTON LOW VOLTAGE 5/10/15/30-MINUTE TIMER: WATTSTOPPER TS-400-24
$ TLV	120 V UNIVERSAL MANUAL LINE DIMMER: LEGRAND RH703PTUW

ELECTRICAL GENERAL NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR INTERIOR ELECTRICAL SYSTEM DEVICE AND FIXTURE LOCATIONS AND ADDITIONAL INFORMATION ON BUILDING ENVELOPE FIXTURES AND DEVICES.
2. PREFERENCE IS FOR ALL LINE- AND LOW-VOLTAGE WIRING TO BE INSTALLED IN CONDUIT SYSTEMS CONFORMING TO PROJECT MANUAL SPECIFICATIONS SECTION 260531.
3. TYPE MC METAL-SHEATHED CABLES WITH INSULATED CROUNDING CONDUCTORS MAY BE SUBSTITUTED FOR CONDUIT FOR LINE- AND LOW-VOLTAGE WIRING WHERE SKILLED LABOR AVAILABILITY PREVENTS THE USE OF CONDUIT SYSTEMS, AND WHERE PERMITTED BY CODE.
4. TYPE AC ARMORED CABLE WITH UNINSULATED GROUNDING CONDUCTORS ARE NOT PERMITTED.
5. NON-METALLIC SHEATHED CABLES (GENERICALLY "ROMEX"), TYPES NM , NMC, AND NMS, ARE NOT PERMITTED.
6. FLAT OR UNDER-CARPET TYPE CABLE IS NOT PERMITTED.
7. ALL ENDS OF CONDUIT SYSTEM SHALL HAVE A BUSHING OR A COUPLING INSTALLED FOR THE PURPOSE OF PROVIDING PROTECTION OF CONDUCTORS. IN NO CASE ARE CONDUIT ENDS PERMITTED TO REMAIN OPEN.
8. ALL LOW VOLTAGE WIRING IN INACCESSIBLE AREAS, INCLUDING WALL AND CEILING ASSEMBLIES NOT ACCESSIBLE THROUGH EASILY REMOVED CEILING TILES OR ACCESS PANELS, SHALL BE INSTALLED IN METALLIC CONDUIT.
9. CONDUIT SYSTEMS INSTALLED ON THE ROOF SHALL BE SUPPORTED AT MAXIMUM INTERVALS OF FIVE FEET WITH HARDWARE SECURED TO THE BUILDING SURFACE.
10. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL WIRING INCLUDING LOW-VOLTAGE TO OWNER-PROVIDED SIGNAGE. ALL JUNCTION BOXES FOR SIGNAGE SHALL BE PLACED AS REQUIRED TO INSTALL THE SIGNAGE AS INDICATED IN THE ARCHITECTURAL ELEVATIONS. COORDINATE WITH OWNER'S SIGNAGE VENDOR AND REFER TO MANUFACTURERS WIRING DIAGRAMS.
11. SERVICE CONDUCTOR CONDUITS FROM THE METER TO THE ELECTRICAL ROOM SHALL BE ENCASED IN A MINIMUM OF FOUR INCHES (4") OF CONCRETE.
12. EMERGENCY LIGHTING AND EXIT SIGNS CIRCUIT BREAKERS SHALL BE LOCATED IN THE BOTTOM RIGHT OF THE ELECTRICAL PANEL.
13. ALL WIRING FOR THE PURPOSE OF EMERGENCY SYSTEMS SHALL BE INSTALLED IN A SEPARATE CONDUIT SYSTEM INDEPENDENT OF OTHER SYSTEMS.
14. THERE SHALL BE A SEPARATE IDENTIFIED NEUTRAL INSTALLED FOR EACH EMERGENCY LIGHTING CIRCUIT AND/OR EXIT LIGHTING CIRCUIT.
15. THE FUSE HOLDER FOR THE PARKING LOT LIGHTING SHALL BE BUSSMANN IN-LINE, TYPE "HEB-AA" OR EQUAL, WITH A RUBBER COVER "BOOT" TO BE INSERTED OVER THE CRIMPED AREA OF THE FUSE HOLDER.
16. SECURELY FASTEN EACH RECESSED GRID LIGHT FIXTURE TO THE CEILING SYSTEM WITH APPROPRIATE SUPPORT BRACKETS AND CLIPS PER INDUSTRY STANDARDS.AT LEAST TWO CORNERS OF EACH FIXTURE SHALL BE SUPPORTED INDEPENDENTLY FROM ANY OTHER SUPPORTING SYSTEM.
17. WIRE NUMBER 8 AND SMALLER FOR USE IN INTERIOR DRY LOCATIONS SHALL BE TYPE THWN THERMOPLASTIC 600 VOLT INSULATED COPPER CONDUCTORS. FEEDERS AND POWER WIRING NUMBER 6 AND LARGER SHALL BE TYPE THW 600 VOLT INSULATED COPPER. WIRE WHICH IS INSTALLED IN RACEWAY IN MOIST OR DAMP LOCATIONS SHALL BE THW, 600 VOLT INSULATED COPPER CONDUCTORS. NO WIRE SMALLER THAN NUMBER 12 AWG SHALL BE USED FOR LIGHTING OR POWER.
18. REFER TO ARCHITECTURAL DRAWINGS FOR RECESSED-GRID LIGHT FIXTURE LAMP ORIENTATION.
19. ALL FLUORESCENT LIGHTING SHALL BE PROTECTED BY A MAXIMUM 20 AMP CIRCUIT BREAKER.
20. ALL FLEXIBLE FIXTURE CONDUITS SHALL CONTAIN A PROPERLY SIZED GREEN GROUND CONDUCTOR AND SHALL NOT EXCEED SIX FEET (6') IN LENGTH.
21. ALL BRANCH CIRCUIT CONDUCTORS SHALL BE CONNECTED BY MEANS OF A SCREW TERMINAL.
22. THE CONTINUITY OF ANY BRANCH CIRCUIT CONDUCTOR INCLUDING ANY IDENTIFIED GROUNDED CONDUCTOR SHALL NOT DEPEND UPON DEVICE CONNECTIONS, SUCH AS LAMPHOLDERS, RECEPTACLES, ETC., WHERE THE REMOVAL OF SUCH DEVICES WOULD INTERRUPT THE CONTINUITY.
23. DE-RATING OF NEUTRALS IS PROHIBITED.
24. THE USE OF AUXILIARY GUTTERS, WIREWAYS, RACEWAYS AS ENCLOSURES FOR SERVICE ENTRANCE OR TAPPING OF SERVICE ENTRANCE CONDUCTORS IS STRICTLY PROHIBITED.
25. METAL IDENTIFICATION TAGS SHALL BE INSTALLED WHERE THE GROUNDING CONDUCTOR IS CONNECTED TO THE GROUNDING ELECTRODE.
26. ALL EXTERIOR LIGHTING AND SIGNAGE SHALL BE CONTROLLED BY A COMBINATION OF TIME SWITCHES AND PHOTOCELLS. REFER TO SIGNAGE CONTACTOR AND TIME SWITCH SCHEDULE. CANOPY FIXTURES INCLUDE MANUAL OVERRIDE SWITCHES IN THE LANE STATUS CONTROL STATION. REFER TO ARCHITECTURAL DRAWINGS.
27. ALL EMERGENCY BATTERY LIGHTING AND EXIT LIGHT FIXTURES SHALL BE CONTROLLED BY THE LOCAL LIGHTING SWITCH. EXTEND BATTERY WIRING TO THE LINE SIDE OF THE SWITCH AND CONNECT FOR PROPER EMERGENCY BALLAST OPERATION.
28. ALL LOBBY AND OFFICE PENDANT FIXTURES AND RECESSED WALL-WASH FIXTURES SHALL BE CONNECTED TO A CONSTANT-ON CIRCUIT WITH A LOCK-ON CIRCUIT BREAKER. COORDINATE FINAL PENDANT FIXTURE POSITIONS WITH THE FURNITURE PLAN AS INDICATED IN THE ARCHITECTURAL DRAWINGS.
29. A MAXIMUM OF 3 HOMERUNS MAY BE GROUPED TOGETHER IN ONE CONDUIT AND SHARE A COMMON NEUTRAL PROVIDED THE HOMERUNS ARE DIFFERENT PHASES. IF BRANCH CIRCUITS ARE GROUPED THEY MUST ALL BE CONTROLLED BY THE SAME MULTI-POLE BREAKER PER NEC.210.4.
30. ALL POWER, DATA AND SECURITY CONDUIT CONNECTIONS TO SYSTEMS FURNITURE PANELS SHALL BE BY THE ELECTRICAL CONTRACTOR. COORDINATE EXACT LOCATIONS AND CONNECTION REQUIREMENTS WITH OWNER'S SYSTEMS FURNITURE VENDOR PRIOR TO ROUGH-IN. INSTALL FLUSH JUNCTION BOXS AND PROVIDE FLEXIBLE CONDUIT TO PARTITION SYSTEM RACEWAY.
31. ELECTRICAL CONTRACTOR TO INSTALL AND WIRE ALL ELECTRICAL OUTLETS AND RELATED SYSTEM COMPONENTS WITHIN THE SYSTEMS FURNITURE PANEL RACEWAYS AS REQUIRED TO PROVIDE A COMPLETE OPERATING SYSTEM. WHEN REQUIRED BY LOCAL AUTHORITIES, WIRING TO ELECTRICAL OUTLETS SHALL BE RUN IN CONDUIT BY THIS ELECTRICAL CONTRACTOR. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF FURNITURE PARTITIONS.
32. DATA AND SECURITY SYSTEMS SHALL BE RUN IN GROUNDED METALLIC CONDUIT SYSTEMS, INCLUDING MUD RINGS AS REQUIRED, AND SHALL BE INSTALLED BY THE ELECTRICAL CONTRACTOR. CABLING, CONNECTIONS AND COVER PLATES SHALL BE BY OWNER'S CONSULTANTS, NOT IN CONTRACT.
33. REFER TO ARCHITECTURAL DRAWINGS FOR ORIENTATION OF POWER, DATA AND SECURITY SYSTEMS JUNCTION BOXES AND MUD RINGS.
34. REFER TO ARCHITECTURAL DRAWINGS FOR ELECTRICAL, DATA AND SECURITY DEVICE AND COVER PLATE COLORS.
35. ISOLATED GROUND RECEPTACLES SHALL BE ORANGE.
36. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL DETAILS OF MOTORIZED SHADE COMPONENTS. PROVIDE CONDUIT SYSTEM AND FINAL CONNECTIONS. FIELD-COORDINATE FINAL DEVICE POSITIONS WITH MOTORIZED SHADE INSTALLER AND ADJUST ACCORDINGLY.
37. COMPLY WITH REQUIRED CLEARANCES FOR ALL ELECTRICAL PANELS PER THE NEC.
38. WHERE REQUIRED BY CODE, PROVIDE SYSTEM SENSOR #DH400ACDC OR EQUAL STAND-ALONE IN-DUCT SMOKE DETECTORS AT EACH ROOFTOP HVAC UNIT TO HVAC CONTRACTOR FOR INSTALLATION IN DUCT. CONDUIT AND WIRING BY ELECTRICAL CONTRACTOR. POSITION REMOTE TEST SWITCH AS REQUIRED BY CODE.
39. ALL WIRING SHALL BE RUN IN CONDUIT. WHERE HEAVY WALL GALVANIZED RIGID STEEL (GRS) IS NOT REQUIRED, THIN WALL (EMT) MAY BE USED.
40. CONDUIT BURIED IN FLOORS ON OR BELOW GRADE, SERVICE CONDUIT, AND CONDUIT ON BUILDING EXTERIOR OR EXPOSED TO MOISTURE SHALL BE GRS OR IMC; OTHER CONDUIT MAY BE IMC OR THINWALL (EMT).
41. FOR ELECTRICAL REQUIREMENTS OF DATA INFRASTRUCTURE EQUIPMENT AND THE DATA ROOM, REFER TO JPMC RETAIL STRUCTURED CABLING DESIGN STANDARD, POSTED TO OVP SPOTLIGHT.
42. THE OWNER'S FACILITY MANAGER MUST BE INVITED TO MECHANICAL AND ELECTRICAL SUBCONTRACTOR KICKOFF MEETINGS, AND PERIODIC MEETINGS AND WALK-THROUGHS INVOLVING MECHANICAL AND ELECTRICAL WORK.
43. THE GC/EC IS RESPONSIBLE FOR ALL CONDUIT AND JUNCTION BOX ROUGH-INS FOR TELECOMMUNICATIONS AND SECURITY. REFER TO TC SERIES DRAWINGS INCLUDED IN THE CD SET FOR ROUGH-IN REQUIREMENTS AND LOCATIONS.
44. ALL GROUND-LEVEL ELECTRICAL EQUIPMENT ENCLOSURES ARE TO BE SPECIFIED WITH LOCK HASPS. PROVIDE KEYED-ALIKE PADLOCKS AT EACH ENCLOSURE.
45. THE CONTRACTOR SHALL FURNISH OPERATIONS AND MAINTENANCE MANUALS FOR ALL SYSTEMS AND EQUIPMENT TO THE BUILDING OWNER OR DESIGNATED REPRESENTATIVE AT THE COMPLETION OF THE PROJECT.
46. CONTRACTOR SHALL PROVIDE "AS-BUILT" DOCUMENTATION AND HARD COPY REPRODUCIBLE DRAWINGS AT THE COMPLETION OF THE PROJECT AND SUBMIT TO THE ARCHITECT AND THE ENGINEER. AS-BUILT DRAWINGS SHALL INDICATE EXACT CIRCUIT NUMBERS, LOCATIONS, TELECOMMUNICATIONS AND POWER DISTRIBUTION SYSTEMS AS INSTALLED.
47. THE ELECTRICAL CONTRACTOR SHALL TEST ALL LIGHTING CONTROL DEVICES AND THE LIGHTING CONTROL SYSTEM TO ENSURE THAT CONTROL HARDWARE AND SOFTWARE ARE CALIBRATED, ADJUSTED, PROGRAMMED AND IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND MANUFACTURER'S INSTALLATION.
48. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (AS ADOPTED BY THE AUTHORITY HAVING JURISDICTION) AND ALL CODES AND ORDINANCES OF THE AUTHORITY HAVING JURISDICTION. THE SPECIFICATION, CODES AND STANDARDS LISTED BELOW ARE UTILIZED IN THIS PROJECT:

    1. NATIONAL ELECTRICAL CODE (NFPA-70)
    2. CODE FOR SAFETY TO LIFE (NFPA-101)
    3. STANDARD FOR THE INSTALLATION, MAINTENANCE AND USE OF LOCAL PROTECTIVE SIGNALING SYSTEMS (NFPA-72)
    4. UNDERWRITERS' LABORATORIES (UL)
    5. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
    6. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
    7. FEDERAL SPECIFICATION (FED. SPEC.)
    8. INSULATED POWER CABLE ENGINEERS ASSOCIATION (IPCEA)
    9. INTERNATIONAL BUILDING CODE (IBC, AS AMENDED)
    10. INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE)
    11. CITY OF OLATHE BUILDING CODE. (AMENDMENTS TO THE INTERNATIONAL BUILDING CODE)
    12. ADDITIONALLY, DESIGNS, WORK PRACTICES AND CONDITIONS MUST CONFORM WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (OSHA)

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SIGNED BY:

JERMAINE F. WILLIAMS
NUMBER
PE-2021014472

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2022.03.02 21:39:55-05'00'

PRYOR ROAD & LOWENSTEIN DRIVE

908 NW PRYOR ROAD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

ISSUE	DATE	DESCRIPTION

CHASE

PRYOR & LOWENSTEIN
PROTOTYPE VERSION 20.4

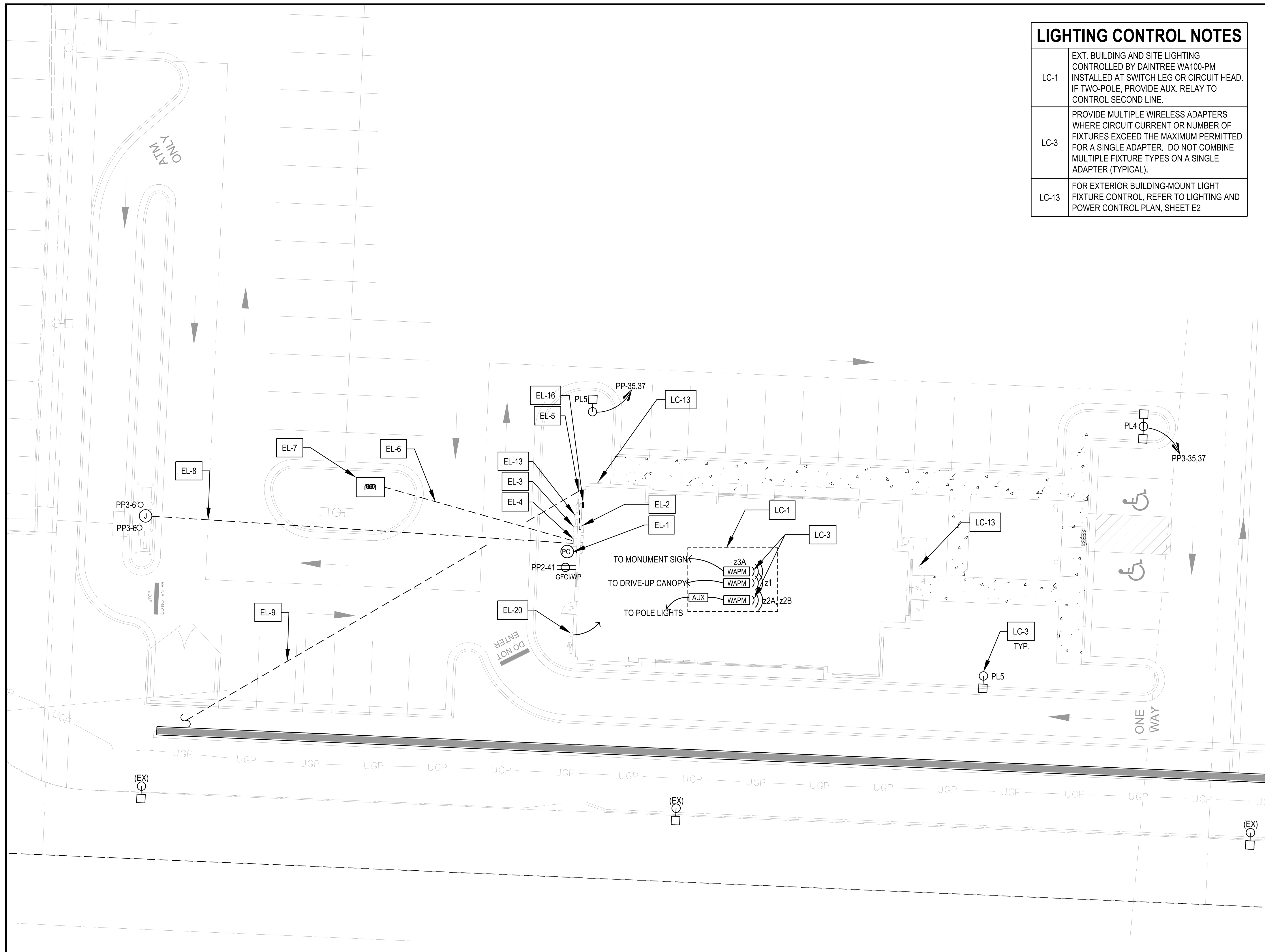
CONTENTS

ELECTRICAL GENERAL NOTES

02/04/2022

SHEET

E-0



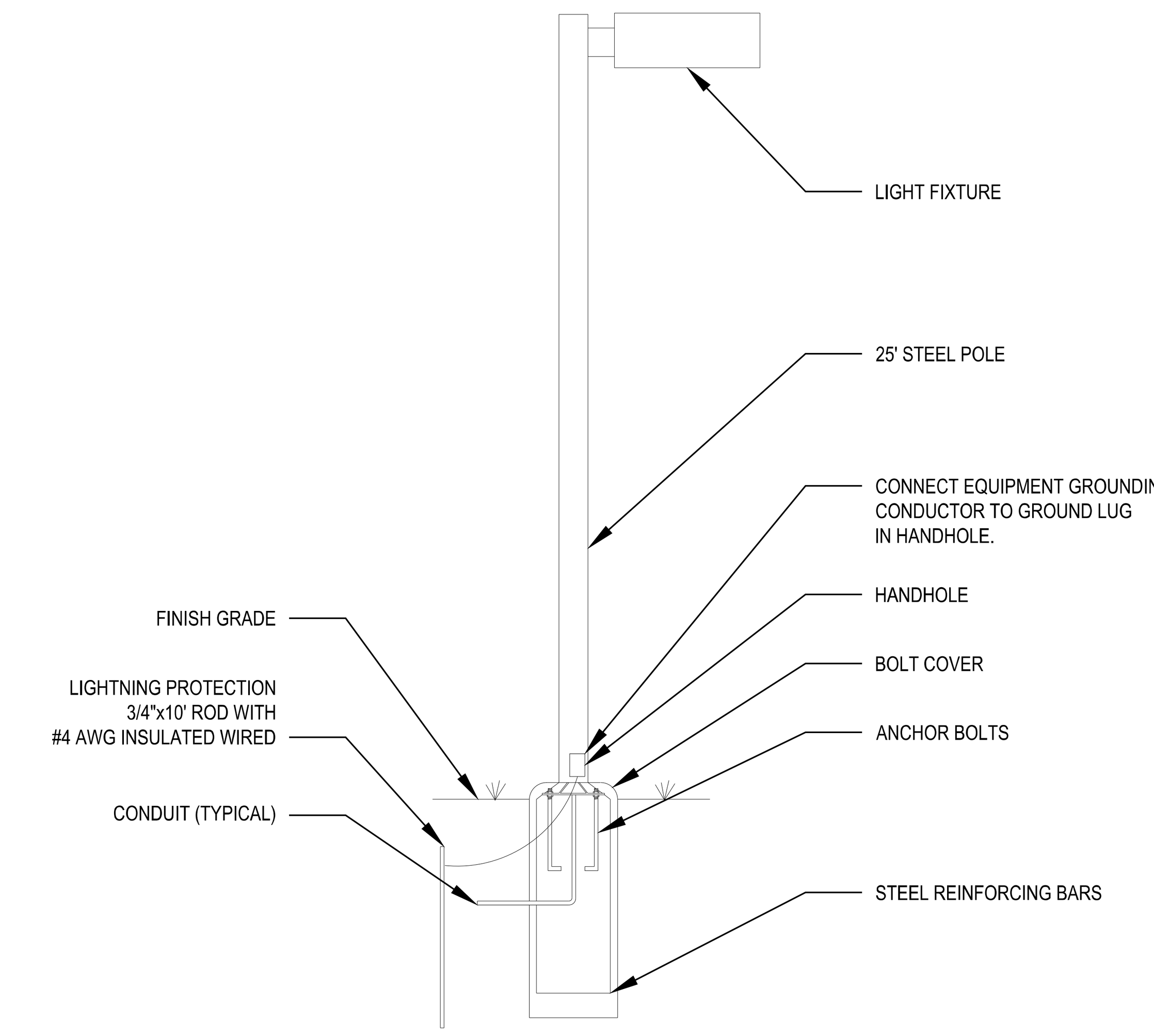
1 E-1 SITE PLAN
1/16" = 1'-0"

LIGHTING CONTROL NOTES

LC-1	EXT. BUILDING AND SITE LIGHTING CONTROLLED BY DAINTREE WA100-PM INSTALLED AT SWITCH LEG OR CIRCUIT HEAD. IF TWO-POLE, PROVIDE AUX. RELAY TO CONTROL SECOND LINE.
LC-3	PROVIDE MULTIPLE WIRELESS ADAPTERS WHERE CIRCUIT CURRENT OR NUMBER OF FIXTURES EXCEED THE MAXIMUM PERMITTED FOR A SINGLE ADAPTER. DO NOT COMBINE MULTIPLE FIXTURE TYPES ON A SINGLE ADAPTER (TYPICAL).
LC-13	FOR EXTERIOR BUILDING-MOUNT LIGHT FIXTURE CONTROL, REFER TO LIGHTING AND POWER CONTROL PLAN, SHEET E2

ELECTRICAL PLAN NOTES

EL-1	PHOTOCELL HIGH ON WALL- REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION- MOUNT AWAY FROM LIGHT SOURCES AS REQD.- SLEEVE WALL AND SEAL WATER TIGHT
EL-2	INTERIOR SERVICE AND DISTRIBUTION PANELS
EL-3	TRANSFER SWITCH ENCLOSURE
EL-4	INLINE METER SOCKET. COORDINATE REQUIREMENTS WITH LOCAL UTILITY- INCLUDE ALL COSTS IN BASE BID.
EL-5	TELE-DATA SERVICE ENCLOSURES- ROUTE (2) 2" CONDUITS WITH PULL STRINGS TO DATA ROOM. COORDINATE FINAL STUB-UP LOCATIONS WITH TELEPHONE PROVIDER PRIOR TO INSTALLATION.
EL-6	UNDERGROUND ELECTRIC SERVICE CONDUITS AND FEEDERS- COORDINATE WITH UTILITY COMPANY FOR EXACT ROUTING AND STUB-UP LOCATION. STAKE CONDUIT END LOCATION FOR UTILITY COMPANY.
EL-7	PROPOSED LOCATION OF 3-PHASE GROUND-MOUNTED POWER TRANSFORMER BY UTILITY COMPANY- COORDINATE FINAL LOCATION, PRIMARY CONDUIT AND FEEDER AND OTHER REQUIREMENTS WITH UTILITY COMPANY- INCLUDE ALL COSTS IN BASE BID
EL-8	(2) 1" CONDUITS WITH PULL STRING FROM PP1 AND DATA ROOM TO ATM FOR POWER AND DATA CONNECTIONS.
EL-9	UNDERGROUND TELEPHONE SERVICE CONDUITS (2 EMPTY 3" WITH PULL STRING). EXTEND TO TELEPHONE SERVICE DEMARCATION POINT. COORDINATE THE FINAL LOCATION AND ALL REQUIREMENTS WITH THE TELEPHONE SERVICE COMPANY.
EL-13	FUTURE NEMA 3R PHOTOVOLTAIC EQUIPMENT CONNECTION ENCLOSURES
EL-16	UNDER-SLAB CONDUIT ROUTING AND TERMINATIONS AS REQUIRED- REFER TO ARCHITECTURAL DRAWINGS
EL-20	IRRIGATION SYSTEM POWER STUB.



NOTE:
POLE SUPPLIER SHALL CERTIFY THAT POLE, BASE, & FIXTURE MEET THE BUILDING CODE'S WIND LOAD CRITERIA AND SHALL PROVIDE SIGNED & SEALED CALCULATIONS BY A REGISTERED ENGINEER.

2 E-1 POLE DETAIL
NTS

SCHEDULE OF NEW BRANCH CIRCUIT PANEL PP1

MAIN: 400 AMP MAIN LUGS ONLY
SPEC SQUARE D TYPE "NQOD" OR APPROVED EQUIVALENT
MOUNTING: FLUSH
VOLTAGE: 208/120V, 3-PHASE, 4 WIRE
FED FROM: 400 OCPD
AIC SYMM: 22,000

LOAD VA	LOAD DESCRIPTION	BRANCH CIRCUIT DATA WIRE	GND.	COND.	TRIP	CKT.	PHASE A VA	PHASE B VA	PHASE C VA	BRANCH CIRCUIT DATA CKT.	TRIP	COND.	GND.	WIRE	LOAD DESCRIPTION	LOAD VA
3960	RTU-1	3#6	1#10	3/4"	45/3	1	7920			2	45/3	3/4"	1#10	3#6	RTU-2	3960
3960						3		7920		4						3960
3960						5			7920	6						3960
1320	OU-1/IU-1	2#10	1#10	3/4"	30/2	7	5280			8	45/3	3/4"	1#10	3#6	RTU-3	3960
1320						9		5280		10						3960
400	SAFE	2#12	1#12	1/2"	20	11			4360	12						3960
400	RECEPTS ROOF	2#12	1#12	1/2"	20	13	1480			14	20	1/2"	1#12	2#12	OU-2/IU-2	1080
600	ATM - DRIVE UP	2#10	1#10	3/4"	20	15		1680		16						1080
600	ATM - VESTIBULE	2#12	1#12	1/2"	20	17			1000	18	20	1/2"	1#12	2#12	TOWEL DISPENSER	400
200	IRRIGATION CONTROLLER*	2#12	1#12	1/2"	20	19	200			20	20				SPARE	0
0	SPARE				20	21		3000		22	30/2	3/4"	1#10	2#10	EWH	3000
0	SPARE				20	23			3000	24						3000
100	TVSS				30/3	25	100			26	20				SPARE	0
100						27		100		28	20				SPARE	0
100						29			100	30	20				SPARE	0
7920	PANEL PP2	4#3	1#8	1-1/4"	100/3	31	12078			32	100/3	1-1/4"	1#8	4#3	PANEL PP3	4158
9020						33		13318		34						4298
7400						35			10184	36						2784
0	SPACE					37	0			38					SPACE	0
0	SPACE					39		0		40					SPACE	0
0	SPACE					41			0	42					SPACE	0

27.06	31.3	26.56	KVA PER PHASE
225.5	260.8	221.4	AMPS PER PHASE
84.9			TOTAL KVA
236.0			TOTAL AMPS

NOTES:
* LOCKED

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SIGNED BY:

STATE OF MISSOURI
JERMAINE F. WILLIAMS
NUMBER
PE-2021014472
PROFESSIONAL ENGINEER

PRYOR ROAD & LOWENSTEIN DRIVE
908 NW PRYOR ROAD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

ISSUE	DATE	DESCRIPTION

CHASE

PRYOR & LOWENSTEIN
PROTOTYPE VERSION 20.4

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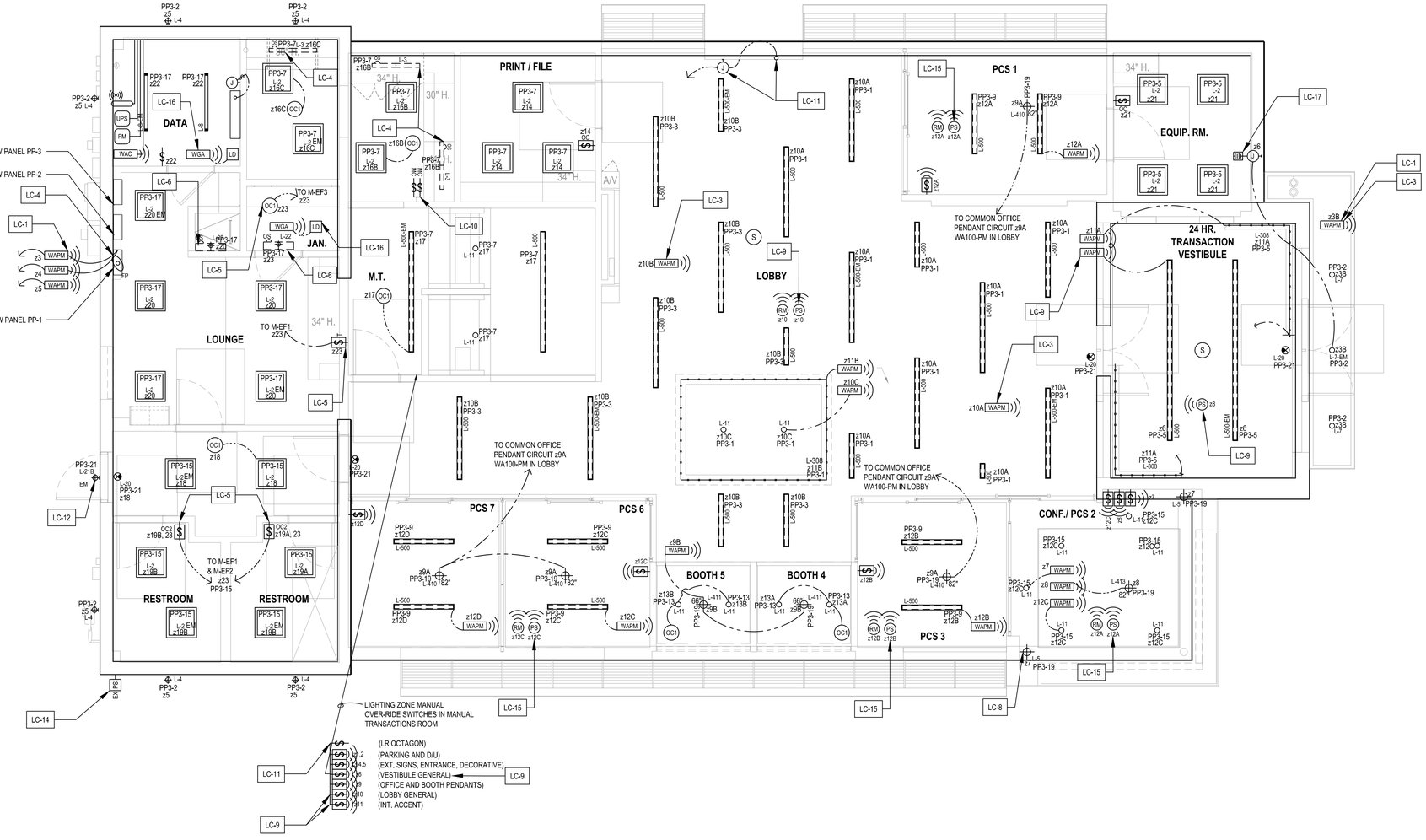
SITE PLAN & PANEL SCHEDULES

02/04/2022

SHEET

E-1



1 / E-2 LIGHTING PLAN

3/16" = 1'-0"

LIGHTING CONTROL NOTES

LC-1	EXT. BUILDING AND SITE LIGHTING CONTROLLED BY DAINTREE WA100-PM INSTALLED AT SWITCH LEG OR CIRCUIT HEAD. IF TWO-POLE, PROVIDE AUX. RELAY TO CONTROL SECOND LINE.
LC-3	PROVIDE MULTIPLE WIRELESS ADAPTERS WHERE CIRCUIT CURRENT OR NUMBER OF FIXTURES EXCEED THE MAXIMUM PERMITTED FOR A SINGLE ADAPTER. DO NOT COMBINE MULTIPLE FIXTURE TYPES ON A SINGLE ADAPTER.
LC-4	INSTALL ONE FLEXIBLE CT PER PHASE OF MAINS POWER- WIRE EACH TO POWER METER LOCATED IN DATA ROOM.
LC-5	REFER TO 3/E2 EXHAUST FAN CONTROL DIAGRAM FOR DUAL RELAY OCC. SENSOR WIRING. WIRE ONE RELAY FOR ROOM LIGHTING CONTROL. WIRE SECOND RELAY IN PARALLEL WITH RESTROOM AND JANITOR CLOSET OCC. SENSORS AND LOUNGE TIMER SWITCH FOR EXHAUST FAN CONTROL.
LC-6	FIXTURES WITH INTEGRAL OCC. SENSORS DO NOT REQUIRE SEPATARATE CONTROLS.
LC-8	PAIR LOW-VOLTAGE CEILING-MOUNTED ACCENT LIGHT FIXTURES IN FLUSH FIXTURE BOX- WIRE TO REMOTE DRIVER AND WAPM CONCEALED ABOVE CEILING
LC-9	PHOTOSENSOR AND AUTO. DIMMING CONTROL OF LOBBY GENERAL LIGHT FIXT. (ZONE 10) AND VESTIBULE LIGHT FIXT. (ZONE 6), AND OTHER ZONES AS SPECIFIED BY CODE, TO BE PROVIDED ONLY WHEN DAYLIGHT HARVESTING OR SIMILAR AUTO. DIMMING CONTROL REQUIREMENTS ARE ENFORCED BY AN AUTHORITY HAVING JURISDICTION. WHERE NOT REQUIRED, OMIT PHOTOSENSORS, AUTO. DIMMING, AND BMS CONTROL, AND PROVIDE LINE-VOLTAGE MANUAL SWITCH AT SWITCH BANK AT/NEAR TELLER LINE.
LC-10	DRIVE-UP LANE STATUS CONTROL SWITCHES; NOT WITHIN B.M.S. SCOPE
LC-11	SIGNAGE ELECTRICAL CONNECTION- PROVIDE J-BOX ABOVE CEILING WITH MULTIPLE FLEXIBLE CONDUIT TERMINATIONS IN WALL BELOW FOR OWNER'S SIGN- REFER TO SIGNAGE VENDOR'S SHOP DWGS. FOR EXACT TERMINATION LOCATIONS. CIRCUIT TO SPDT WALL SWITCH IN MANUAL TRANSACTIONS AREA.
LC-12	UNSWITCHED EXTERIOR EGRESS LIGHT FIXTURE WITH PHOTOSENSOR AND STANDBY BATTERY POWER
LC-14	REFER TO SHEET E6, FIGURE 7 FOR WIRING DETAIL- WIRE TO NEAREST WA100-PM- MAY BE AT ELECTRICAL PANEL
LC-15	PHOTOSENSOR AND AUTO. DIMMING CONTROL OF OFFICE AND CONFERENCE GENERAL LIGHTING (ZONES 12A/B/C…) TO BE PROVIDED ONLY WHEN DAYLIGHT HARVESTING OR SIMILAR AUTO. DIMMING CONTROL REQUIREMENTS ARE ENFORCED BY AN AUTHORITY HAVING JURISDICTION. WHERE NOT REQUIRED, OMIT PHOTOSENSORS AND AUTO. DIMMING.
LC-16	PROVIDE LEAK DETECTOR AT FLOOR AT ALL WATER HEATERS, JANITOR SINKS, AND DATA ROOMS
LC-17	REMOTE EMERGENCY BATTERY PACK AS REQD.

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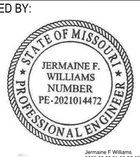

PRYOR ROAD & LOWENSTEIN DRIVE

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LIGHTING PLAN

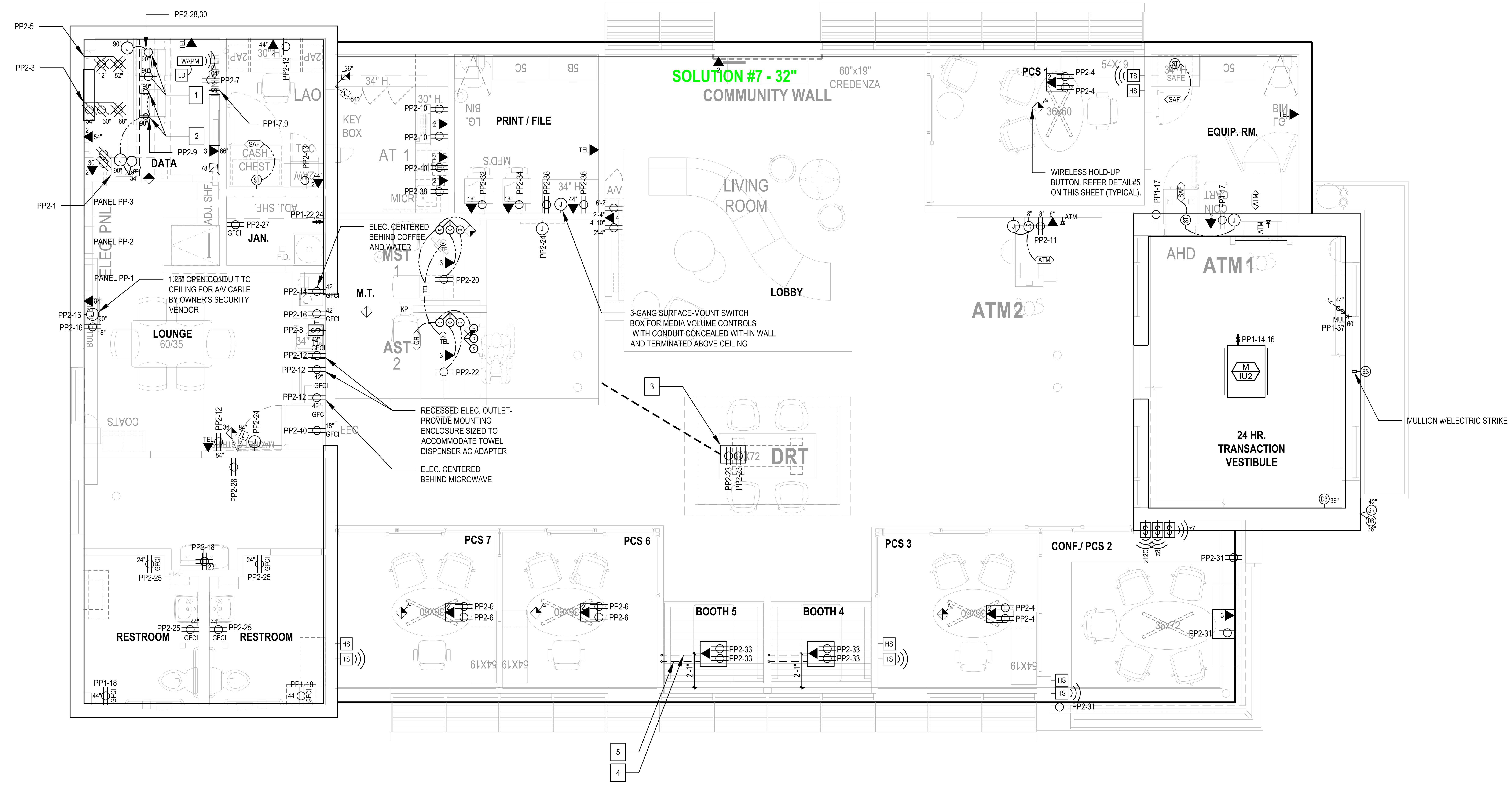
02/04/2022

SHEET

E-2

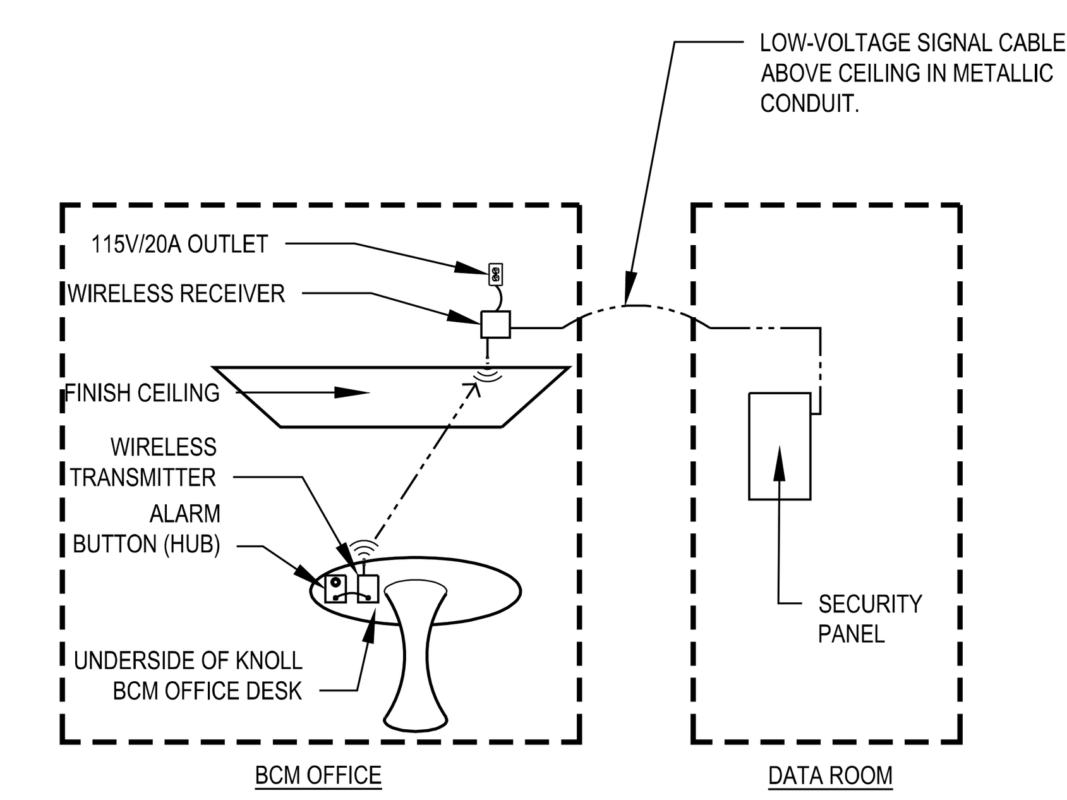
KEY NOTES:

1. 2) DEDICATED 208V/30A RECEPTACLES- TWIST-LOCK, NEMA L14-30.
2. (2) DEDICATED 120V/20A RECEPTACLES- NEMA 5-20R
3. · HUBBEL #BA423341 CAST IRON ELEC FLOOR BOX WITH TWO #SA3826 COVER PLATES
   . ONE 1" OPEN CONDUIT TO NEAREST ADJACENT ELEC. DISTRIBUTION J-BOX
   · ONE 1" OPEN CONDUIT TO NEAREST ADJACENT WALL, ROUTED TO EMPTY J-BOX CONCEALED ABOVE FINISHED CEILING AND LABELED "FUTURE DRT DATA/SECURITY".
4. 3/4" IN-SLAB ELEC. CONDUIT (TYPICAL).
5. 1" IN-SLAB CONDUIT TO ADJACENT WALL TERMINATED IN JUNCTION BOX ABOVE CEILING FOR DATA CABLE BY OWNER'S VENDOR (TYPICAL).



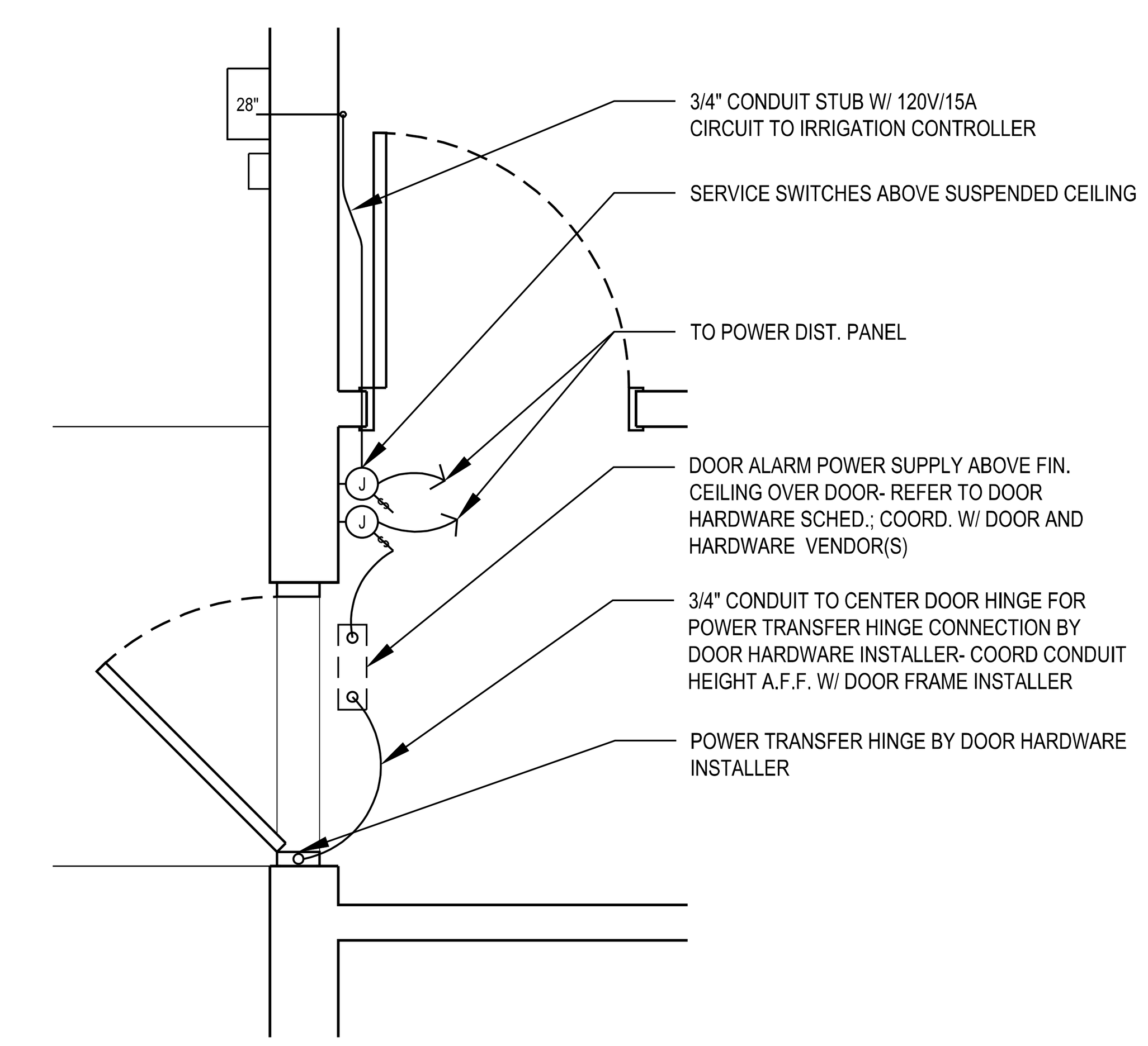
1 E-3 POWER PLAN

1/4" = 1'-0"



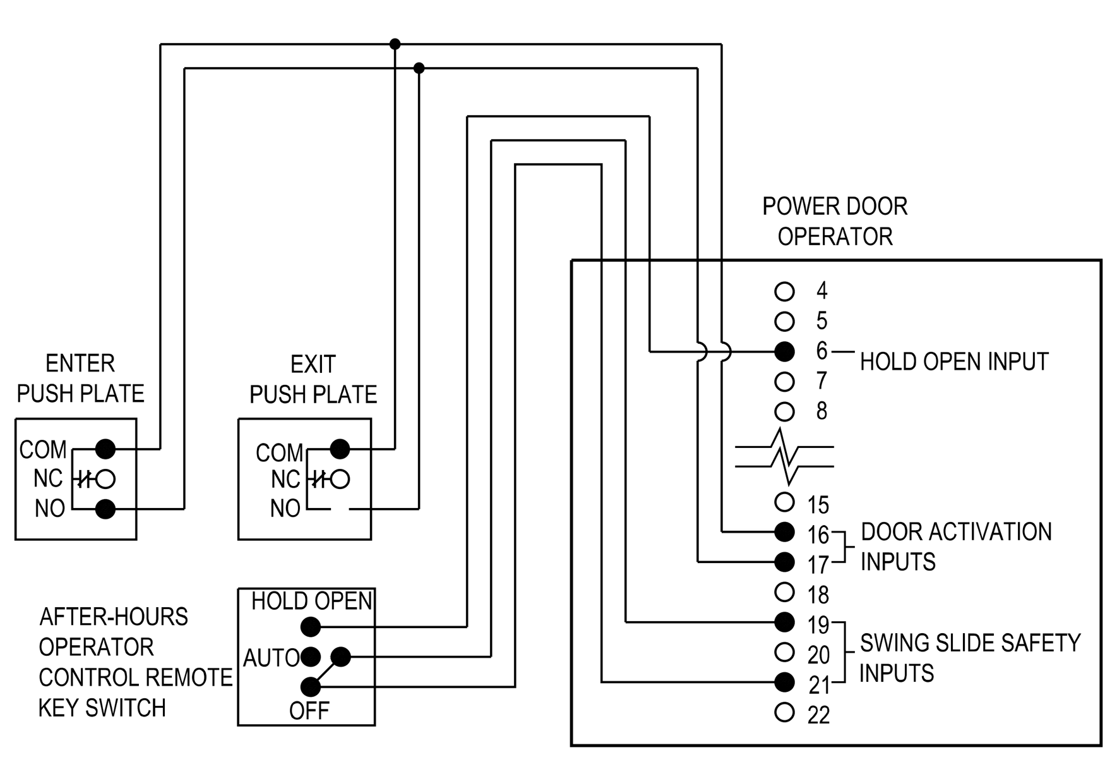
5 E-3 WIRELESS HOLD-UP BUTTON

N.T.S.



4 E-3 TYP. DOOR ALARM AND IRRIGATION POWER SUPPLIER

N.T.S.

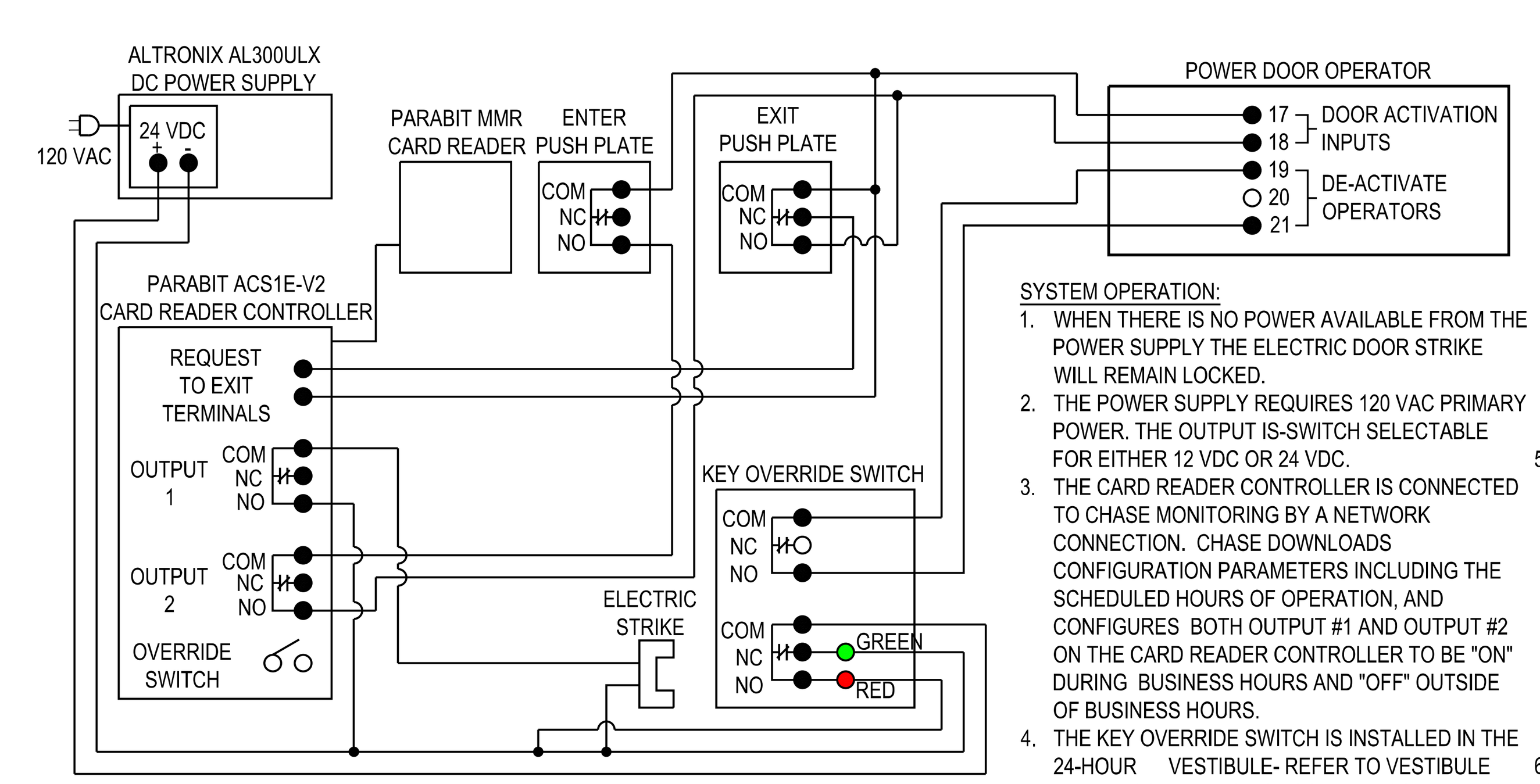


SYSTEM OPERATION

1. THE AUTOMATIC DOOR OPERATOR REQUIRES 120 VAC POWER .
2. DOOR OPERATOR "POWER" AND "HOLD OPEN" ROCKER SWITCHES ARE CONCEALED WITHIN THE OPERATOR HOUSING.
3. KEY SWITCH FUNCTIONS:
   - "OFF" POSITION DISABLES THE PUSH PLATES, PREVENTING AUTOMATIC OPERATION OF THE DOOR. THIS DOES NOT CUT POWER TO THE OPERATOR.
   - "AUTO" ENABLES BOTH PUSH PLATES, PROVIDING AUTOMATIC OPERATION OF THE DOOR.
   - "HOLD OPEN" OPENS THE DOOR, WHICH WILL REMAIN OPEN UNTIL THE SWITCH POSITION IS CHANGED OR POWER IS LOST. THE "HOLD OPEN" FUNCTION OF THE KEY SWITCH CAN BE DISABLED BY NOT TERMINATING THE WIRE AT POSITION 6.
4. WHILE THE DOOR IS UNLOCKED, THE KEY SWITCH IS TO BE TURNED TO "AUTO", ALLOWING BOTH PUSH PLATES TO TRIGGER THE OPERATOR.
5. WHILE THE DOOR IS LOCKED, THE KEY SWITCH MUST BE SET TO "OFF", PREVENTING THE PUSH PLATES FROM ACTIVATING THE OPERATOR. HOWEVER, IF THE DOOR IS LOCKED, AND THE OPERATOR IS POWERED, AND A PUSH PLATE IS PRESSED, THE OPERATOR'S CLUTCH MECHANISM WILL PREVENT DAMAGE TO THE OPERATOR.
6. POWER TO THE OPERATOR IS NOT TO BE CUT DURING OPENING/CLOSING PROCEDURES, AS THIS DISRUPTS THE OPERATOR'S PROGRAMMING; THE KEY SWITCH IS TO BE USED.

3 E-3 AUTOMATIC VESTIBULE DOOR CONTROL DIAGRAM

N.T.S.



SYSTEM OPERATION:

1. WHEN THERE IS NO POWER AVAILABLE FROM THE POWER SUPPLY THE ELECTRIC DOOR STRIKE WILL REMAIN LOCKED.
2. THE POWER SUPPLY REQUIRES 120 VAC PRIMARY POWER. THE OUTPUT IS-SWITCH SELECTABLE FOR EITHER 12 VDC OR 24 VDC.
3. THE CARD READER CONTROLLER IS CONNECTED TO CHASE MONITORING BY A NETWORK CONNECTION. CHASE DOWNLOADS CONFIGURATION PARAMETERS INCLUDING THE SCHEDULED HOURS OF OPERATION, AND CONFIGURES BOTH OUTPUT #1 AND OUTPUT #2 ON THE CARD READER CONTROLLER TO BE "ON" DURING BUSINESS HOURS AND "OFF" OUTSIDE OF BUSINESS HOURS.
4. THE KEY OVERRIDE SWITCH IS INSTALLED IN THE 24-HOUR VESTIBULE- REFER TO VESTIBULE DRAWINGS. IT ALLOWS LOCAL PERSONNEL TO DISABLE THE ELECTRIC STRIKE, ALLOWING THE DOOR TO LOCK AS NEEDED, REGARDLESS OF PROGRAMMING. THE KEY OVERRIDE SWITCH INCLUDES A CONSTRUCTION CORE, TO BE RE-KEYED WHEN THE BRANCH IS TURNED OVER TO CHASE RETAIL.
5. KEY SWITCH FUNCTIONS:
   - WHEN IN "NORMAL" POSITION, THE GREEN LED IS ILLUMINATED, AND THE SYSTEM FOLLOWS THE PROGRAMMED OPERATION, FOLLOWING THE BUSINESS HOURS SCHEDULE.
   - WHEN IN "DISABLED" POSITION, THE RED LED IS ILLUMINATED, THE SYSTEM PROGRAM IS BYPASSED, THE ELECTRIC STRIKE LOCKS THE DOOR, AND THE AUTOMATIC DOOR OPERATOR PUSH PLATES ARE DISABLED.
6. "NORMAL" HARDWARE FUNCTIONS:
   - DURING BUSINESS HOURS, BOTH OUTPUTS #1 AND #2 ARE ENERGIZED, ALLOWING BOTH PUSH PLATES TO ACTIVATE AUTOMATIC DOOR OPERATOR.
   - OUTSIDE BUSINESS HOURS ENTRY: BOTH OUTPUTS #1 AND #2 ARE DE-ENERGIZED, DEACTIVATING THE ENTRY PUSH PLATE UNTIL ACTIVATED BY THE CARD READER, WHICH ENERGIZES OUTPUTS #1 AND #2 FOR A PROGRAMMED TIME, TEMPORARILY UNLOCKING THE DOOR FOR ENTRY PUSH PLATE ACTIVATION OF THE DOOR OPERATOR.
   - OUTSIDE BUSINESS HOURS EXITING: ACTIVATING THE EXIST PUSH PLATE WILL SIGNAL THE CARD READER CONTROLLER TO ISSUE A "REQUEST TO EXIT" COMMAND, WHICH WILL UNLOCK THE ELECTRIC STRIKE AND ENERGIZE BOTH OUTPUTS #1 AND #2, ALLOWING THE EXIT PUSH PLATE TO OPERATE THE DOOR.

2 E-3 AUTOMATIC ENTRANCE DOOR CONTROL DIAGRAM

N.T.S.

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PROFESSIONAL ENGINEER

Jermaine F Williams 2022.03.02 21:39:57-05'00'

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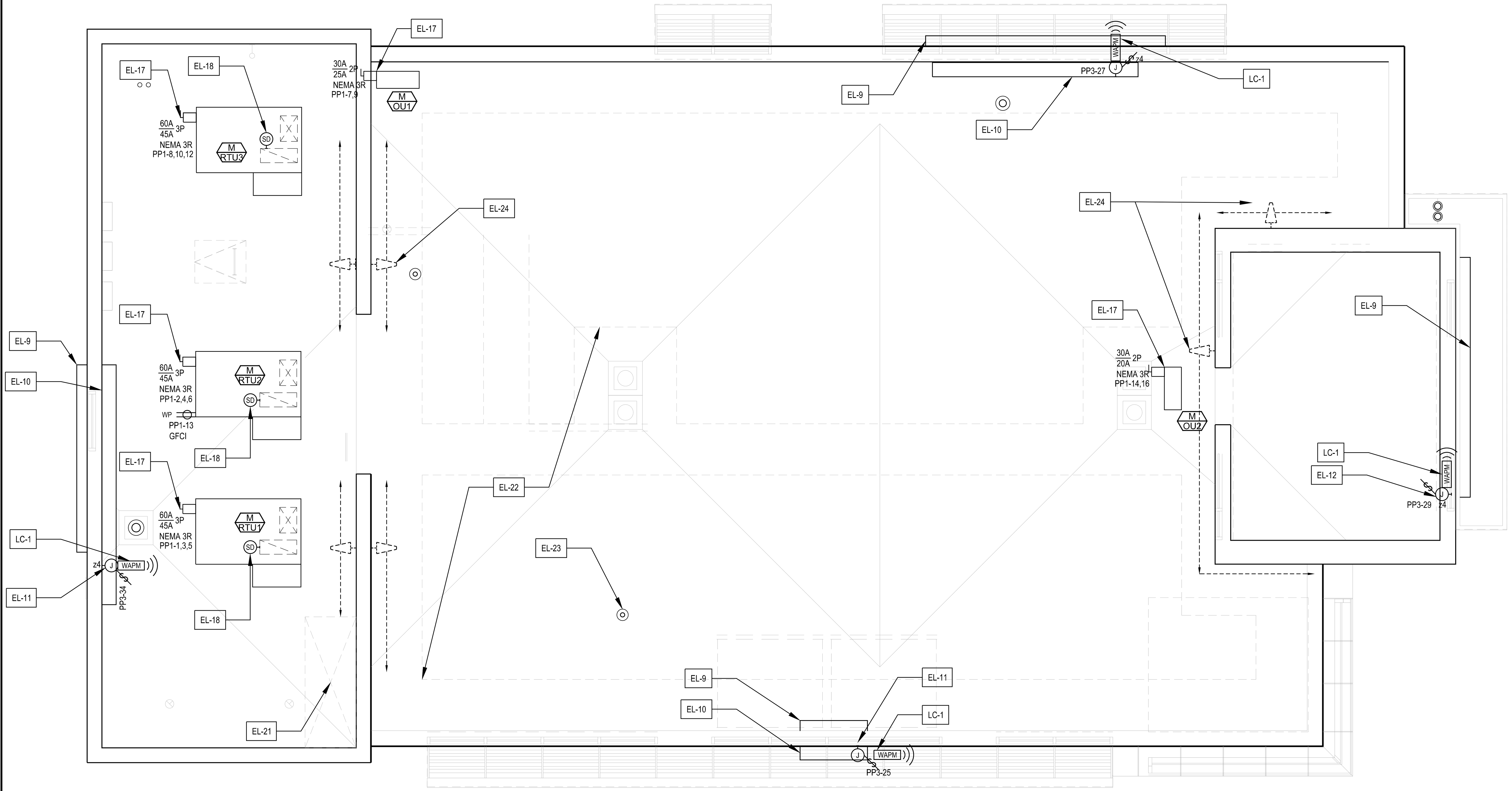
POWER PLAN

02/04/2022

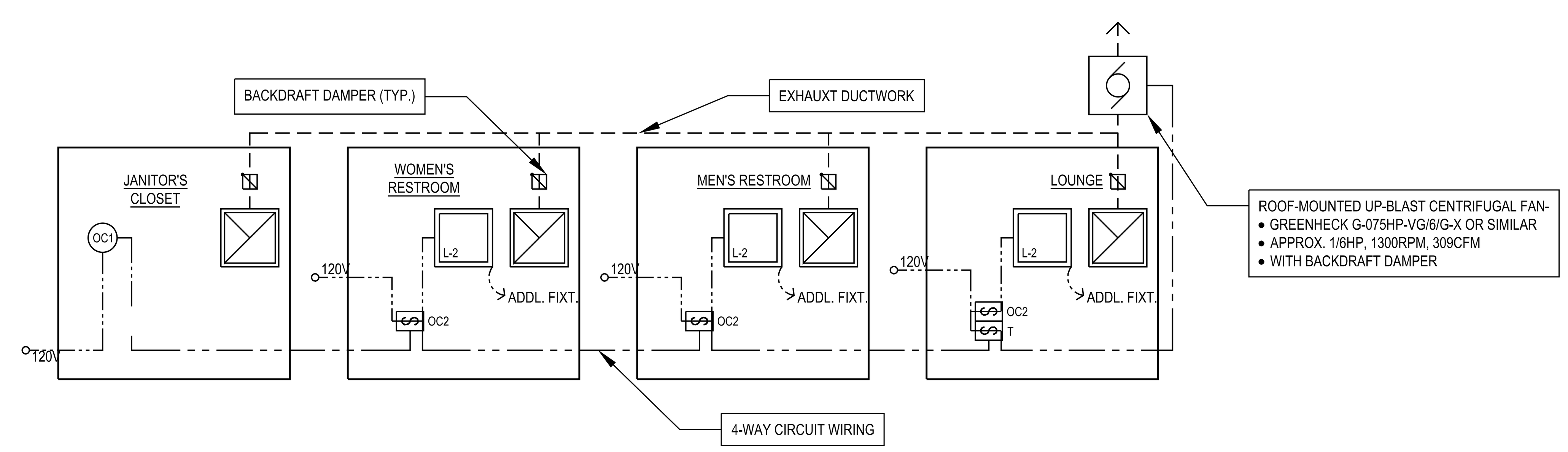
SHEET

E-3



1 E-4 ROOF POWER PLAN

3/16" = 1'-0"



2 E-4 EXHAUST FAN CONTROL DIAGRAM

N.T.S.

ELECTRICAL PLAN NOTES

EL-9	LIGHTED SIGN BY OWNER'S SIGNAGE VENDOR (N.I.C.)- COORDINATE W/ VENDOR TO PROVIDE REQUIRED POWER AND CONTROL CIRCUITS- FINAL CONNECTIONS BY OWNER'S SIGNAGE VENDOR.
EL-10	SHEET METAL ENCLOSURE BY OWNER'S SIGNAGE VENDOR (N.I.C.).
EL-11	NEMA 3R EXTERIOR JUNCTION BOX WITH DISCONNECT SWITCH SURFACE-MOUNTED TO BACKSIDE OF PARAPET WALL- COORDINATE FINAL LOCATION WITH OWNER'S SIGNAGE VENDOR.
EL-12	INTERIOR JUNCTION BOX WITH DISCONNECT SURFACE-MOUNTED TO INSIDE FACE OF EXTERIOR WALL ABOVE CEILING- COORDINATE FINAL LOCATION WITH OWNER'S SIGNAGE VENDOR.
EL-17	EXTERIOR EQUIPMENT-MOUNTED DISCONNECT SWITCH- COORDINATE FINAL LOCATION AND WIRING REQUIREMENTS WITH MECHANICAL UNIT INSTALLER
EL-18	IN-DUCT SMOKE DETECTOR- COORDINATE WITH MECHANICAL UNIT INSTALLER.
EL-21	PREFERRED FUTURE PHOTOVOLTAIC EQUIPMENT LOCATION- REFER TO ARCHITECTURAL ROOF PLAN.
EL-22	FUTURE PHOTOVOLTAIC PANEL LOCATION- REFER TO ARCHITECTURAL ROOF PLAN.
EL-23	CELLULAR TELECOM ANTENNA MAST: GROUNDED 1" MIN. RIGID METALLIC CONDUIT WITH SERVICE MAST HEAD OR SIMILAR WEATHER-TIGHT CAP, ROUTED TO DATA ROOM CEILING FOR FUTURE CABLE.
EL-24	PREFERRED FUTURE CELLULAR TELECOM ANTENNA BY OWNER'S VENDOR- G.C. TO COORDINATE LOCATION TO ELIMINATE VISIBILITY OF ANTENNA FROM WITHIN THE PROPERTY LINES.

LIGHTING CONTROL NOTES

LC-1	EXT. BUILDING AND SITE LIGHTING CONTROLLED BY DAINTREE WA100-PM INSTALLED AT SWITCH LEG OR CIRCUIT HEAD. IF TWO-POLE, PROVIDE AUX. RELAY TO CONTROL SECOND LINE.

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STATE OF MISSOURI JERMAINE F. WILLIAMS NUMBER PE-2021014472 PROFESSIONAL ENGINEER

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ROOF POWER PLAN

02/04/2022

SHEET

E-4

BMS LIGHTING AND POWER CONTROL AND SENSOR NOTES

1. COORDINATION WITH THE BMS VENDOR IS REQUIRED. THE ARCHITECT / ENGINEER OF RECORD SHALL ADVISE THE VENDOR 30 DAYS IN ADVANCE OF THE BID DATE THAT PROJECT DESIGN HAS COMMENCED. SUBMITTAL FOR VENDOR REVIEW AND COORDINATION MUST BE EXECUTED WITH ADEQUATE TIME TO ALLOW COORDINATION AND ADJUSTMENTS BETWEEN THE ARCHITECT, MECHANICAL ENGINEER, AND ELECTRICAL ENGINEER BEFORE BID.
2. WHERE REQUIRED BY AUTHORITIES HAVING JURISDICTION, PROVIDE CONTROL DEVICES AND CIRCUITING AS REQUIRED TO COMPLY WITH ENERGY EFFICIENCY CODE(S) ONLY WHERE APPLICABLE.
3. DESIGNER SHALL CLEARLY INDICATE IN CONSTRUCTION DOCUMENTS THAT THE WIRELESS DEVICE CONTROLS REPLACE TYPICAL HARDWIRED SWITCHING AND WIRING REQUIREMENTS, AND THAT THE CONDUIT SYSTEM IS NOT REQUIRED FOR THE CONTROL DEVICES ASSOCIATED WITH THE BMS EXCEPT AS NOTED.
4. ZONE Z5 FOR EXTERIOR-FACING INTERIOR SIGNAGE NOT PROVIDED WITH THIS PLAN, BUT WOULD BE REQUIRED FOR WALL-WASH RECESSED CANS AIMED AT SIGNAGE, ILLUMINATED LETTER SETS, ETC.
5. EMERGENCY LIGHT FIXTURES WITH BATTERY PACKS ARE NOT INDICATED FOR SEPARATE ZONE CONTROL, BUT SHALL BE PROVIDED WITH CONTROL DEVICES AS REQUIRED TO SYNCHRONIZE FIXTURE SWITCHING WITH OTHER FIXTURES WITHIN THE SPECIFIED ZONE.
6. FIXTURES WITH INTEGRAL OCCUPANCY SENSORS (UNDERCABINET, ETC.) DO NOT REQUIRE ZONE CONTROL SWITCHING
7. EXIT LIGHT FIXTURES ARE EXCLUDED FROM BMS ZONE CONTROL.
8. ROOF CENTRIFUGAL EXHAUST FAN IS NOT CONTROLLED BY BMS, REFER TO DETAIL 3/E2, DESIGN-INTENT EXHAUST FAN CONTROL DIAGRAM, FOR HARDWIRED LINE-VOLTAGE CONTROL REQUIREMENTS.
9. LARGE FIXTURE GROUPS TAGGED WITH A COMMON ZONE, SUCH AS THE SITE AREA LIGHT FIXTURES OR LOBBY TROFFERS, ARE TO BE CONTROLLED SIMULTANEOUSLY. CONTROL SUB-ZONES ARE TO BE PROVIDED AND CONTROLLED BY RELAY CIRCUITS AS DETERMINED BY THE MAXIMUM NUMBER OF FIXTURES PERMITTED ON A SINGLE CIRCUIT.
10. REFER TO SHEET M1 FOR MECHANICAL EQUIPMENT REPORTING AND CONTROL DEVICES.
11. LIGHTING AND SIGNAGE ZONE TIMER / PHOTO CELL PROGRAMS SHALL BE SET PER THE BMS LIGHTING CONTROL SCHEDULE BY THE CHASE FACILITY MANAGER THROUGH THE REMOTE CONTROLSCOPE / ALLSITES INTERFACE.
12. MULTI-POLE CONTACTORS AND RELAYS SHALL BE PROVIDED AS REQUIRED BY THE ELECTRICIAN TO EXECUTE THE DESIGN-INTENT CONTROL CIRCUITING INDICATED IN PLAN.
13. CONTROLLED OUTLETS TO BE PROVIDED ONLY TO THE MINIMUM EXTENT REQUIRED BY APPLICABLE ENERGY CODES. CONTROL SHALL BE PROVIDED BY NEAREST OCCUPANCY SENSOR. OFFICES, AND SIMILAR SPACES SHALL RECEIVE A SINGLE CONTROLLED DUPLEX OUTLET OVER THE DESK. CONFERENCE ROOMS SHALL RECEIVE A SINGLE CONTROLLED DUPLEX WALL OUTLET. ALL LOBBY AND PRINT ROOM CONVENIENCE RECEPTACLES (NOT ADJACENT TO EQUIPMENT) SHALL BE SPLIT-WIRED TO THE NEAREST OCCUPANCY SENSOR.
14. PROVIDE ONE LEAK DETECTOR IN EACH ROOM WITH A WATER HEATER, SUMP/EJECTOR PUMP, OR (SOLENOID VALVE AND/OR CONDENSATE PUMP IF REQUIRED).
15. PROVIDE ONE TEMPERATURE SENSOR IN EACH ROOM WITH ATMS OR SIMILAR TRANSACTION EQUIPMENT, EXCEPT THE LOBBY OR ANY SIMILAR OPEN SPACE. MECHANICAL PLAN SUPERCEDES.
16. CONTROL AND SENSOR DEVICES MUST NOT BE PLACED ON ANY WALL DESIGNATED FOR AN ACCENT FINISH. DEVICES ARE TO BE PLACED AS AS NEAR THE ENDS OF WALLS AS POSSIBLE, SO AS NOT TO INTERFERE WITH MARKETING MATERIAL POSITIONING.
17. LANDSCAPE IRRIGATION CONTROLLER SHALL BE COMPATIBLE WITH THE BMS SYSTEM, AND BE PROVIDED WITH WI-FI CONNECTIVITY. COORDINATE CONTROLLER SPECIFICATION WITH DAINTREE AND LANDSCAPE IRRIGATION SYSTEM VENDOR.
18. THE AoR/EoR SUBMITTAL TO THE BMS VENDOR SHALL BE SUBJECT TO ADJUSTMENT TO COMPLY WITH LOCAL CODE. WHERE DIMMING, CEILING-MOUNTED SWITCH-ON / VACANCY-OFF, OR PLUG LOAD CONTROLS ARE REQUIRED, DAINTREE CONTROLS SHALL BE USED. WHERE WALL-MOUNTED SWITCH-ON / VACANCY-OFF CONTROLS ARE REQUIRED, LINE VOLTAGE CONTROLS MAY BE USED WHEN APPLICABLE.
19. SUBSTITUTIONS FOR THE SPECIFIED CONTROLS BY THE AoR, EoR OR G.C. ARE NOT PERMITTED.
20. ALL CONCEALED SENSORS, ADAPTERS, AND OTHER COMPONENTS SHALL BE PLACED ABOVE ACCESSIBLE CEILING PANELS.
21. ANY DESIGN-BUILD POSITIONING OF BMS DEVICES THAT DEVIATES FROM THE LOCATION ON THE ENGINEERING OR INSTALLATION DRAWINGS MUST BE DOCUMENTED BY THE ELECTRICIAN AND PROVIDED TO THE AOR FOR INCLUSION IN THE AS-BUILT DRAWINGS.
22. BATTERY-POWERED DEVICES ARE NOT PERMITTED TO BE INSTALLED IN CONCEALED LOCATIONS, INCLUDING ABOVE ACCESSIBLE CEILINGS. DEVICESIN CEILINGS OR OTHER CONCEALED LOCATIONS MUST BE HARDWIRED.
23. ALL DEVICES CONCEALED ABOVE CEILINGS MUST BE POSITIONED SO AS TO BE VISIBLE FROM BELOW.

BUILDING ENERGY MANAGEMENT SYSTEM (BMS) GENERAL INSTALLATION NOTES

1. INSTALLER IS RESPONSIBLE FOR THE FINAL LOCATION OF ALL SENSORS, SWITCHES AND CONTROLLERS AND TO CONFORM WITH THE MANUFACTURER'S RECOMMENDATIONS AND MEET THE FUNCTIONAL REQUIREMENTS OF THE SYSTEM.
2. CONTROLSCOPE UTILIZES DISTRIBUTED CONTROL FOR ON/OFF AND DIM STATE. EXISTING RELAY PANELS AND LINE-SIDE SWITCHES MUST BE OVERRIDDEN OR REMOVED. ALL WIRELESS ADAPTER MUST BE PROVIDED WITH UNINTERRUPTED/UNSWITCHED POWER.
3. DURING INSTALLATION THE LAST 4 DIGITS OF THE IEEE ADDRESS FOR EACH WIRELESS COMPONENT MUST BE RECORDED ON THE SHOP DRAWING SET CORRESPONDING TO THE LOCATION OF THE COMPONENT.
4. DURING WIRELESS ADAPTER INSTALLATION FOLLOW THESE STEPS AS DEFINED IN THE DEVICE INSTALLATION GUIDE IN THE FOLLOWING ORDER.
   4.1. CONFIRM WIRELESS ADAPTER DIP SWITCHES ARE SET CORRECTLY.
   4.2. RESET ADAPTER (ALL ADAPTERS)
   4.3. PERFORM PROPER TEST SUITE.
5. INSTALLER MUST BECOME FAMILIAR WITH THE PUBLISHED INSTALLATION GUIDES FOR THE PRODUCTS IN THE PROJECT SCOPE. DAINTREE INSTALLATION GUIDES CAN BE FOUND AT: https://products.currentbyge.com/control-systems/daintree-enterprise-wireless-controls.
6. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROCUREMENT AND INSTALL OF DAINTREE AND RELATED COMPONENTS PERTAINING TO IT/DATA, LIGHTING, POWER AND HVAC.
7. THE IoT CONTROLLER AND ASSOCIATED BACNET HARDWARE IS REQUIRED TO PROVIDE CONTROL FUNCTIONS TO VAV, VVT, OR SIMILAR MULTI-ZONED HVAC SYSTEMS. BACNET HARDWARE WILL BE INCLUDED IN THE BMS EQUIPMENT ORDER TO GE-CURRENT/DAINTREE, AND INSTALLED AND PHYSICALLY CONNECTED TO THE BMS UNDER THE GENERAL CONTRACT, INSTALLERS MAY CONTACT THEIR SYSTEM INTEGRATOR FOR INSTALLATION ASSISTANCE.
8. BIDDERS ARE TO INCLUDE BACNET HARDWARE & INSTALLATION IN THEIR BIDS.
   8.1. THE INITIAL PROGRAMMING AND COMMISSIONING OF THE CARRIER I-VUE (OR SIMILAR TRANE OR OTHER MANUFACTURER'S SYSTEM) WILL BE PERFORMED BY THE GC'S HVAC TECHNICIAN.
   8.2. POINT INTEGRATION SERVICE FOR THE BACNET HARDWARE WILL BE PERFORMED BY GE-CURRENT FOLLOWING HVAC EQUIPMENT AND CONTROLS COMMISSIONING, THIS MAY REQUIRE AN ON-SITE VISIT BY GE-CURRENT.

DAINTREE MECHANICAL CONTROL

1. ALL WIRELESS ADAPTERS MUST BE PROVIDED WITH UNINTERRUPTED/UNSWITCHED POWER. WSA10 WIRELESS SENSOR ADAPTERS REQUIRE 24V POWER.
2. DURING INSTALLATION THE LAST 4 DIGITS OF THE IEEE ADDRESS FOR EACH WIRELESS COMPONENT MUST BE RECORDED ON THE SHOP DRAWING SET CORRESPONDING TO THE LOCATION OF THE COMPONENT.
3. FOR ANY SENSORS ATTACHED TO A WIRELESS SENSOR ADAPTER (WSA10) THE LAST 4 DIGITS OF THE IEEE ADDRESS FOR THE RESPECTIVE WSA10 MUST BE RECORDED. THE SPECIFIC WSA10 PORT MUST ALSO BE RECORDED PER SENSOR.
4. DURING WIRELESS ADAPTER INSTALLATION FOLLOW THESE STEPS AS DEFINED IN THE DEVICE INSTALLATION GUIDE IN THE FOLLOWING ORDER.
   4.1. CONFIRM WIRELESS ADAPTER DIP SWITCHES ARE SET CORRECTLY.
   4.2. RESET ADAPTER (ALL ADAPTERS)
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7. THE IoT CONTROLLER AND ASSOCIATED BACNET HARDWARE IS REQUIRED TO PROVIDE CONTROL FUNCTIONS TO VAV, VVT, OR SIMILAR MULTI-ZONED HVAC SYSTEMS. BACNET HARDWARE WILL BE INCLUDED IN THE BMS EQUIPMENT ORDER TO GE-CURRENT/DAINTREE, AND INSTALLED AND PHYSICALLY CONNECTED TO THE BMS UNDER THE GENERAL CONTRACT, INSTALLERS MAY CONTACT THEIR SYSTEM INTEGRATOR FOR INSTALLATION ASSISTANCE.
8. BIDDERS ARE TO INCLUDE BACNET HARDWARE & INSTALLATION IN THEIR BIDS.
   8.1. THE INITIAL PROGRAMMING AND COMMISSIONING OF THE CARRIER I-VUE (OR SIMILAR TRANE OR OTHER MANUFACTURER'S SYSTEM) WILL BE PERFORMED BY THE GC'S HVAC TECHNICIAN.
   8.2. POINT INTEGRATION SERVICE FOR THE BACNET HARDWARE WILL BE PERFORMED BY GE-CURRENT FOLLOWING HVAC EQUIPMENT AND CONTROLS COMMISSIONING, THIS MAY REQUIRE AN ON-SITE VISIT BY GE-CURRENT.

CONTROLSCOPE COMMISSIONING

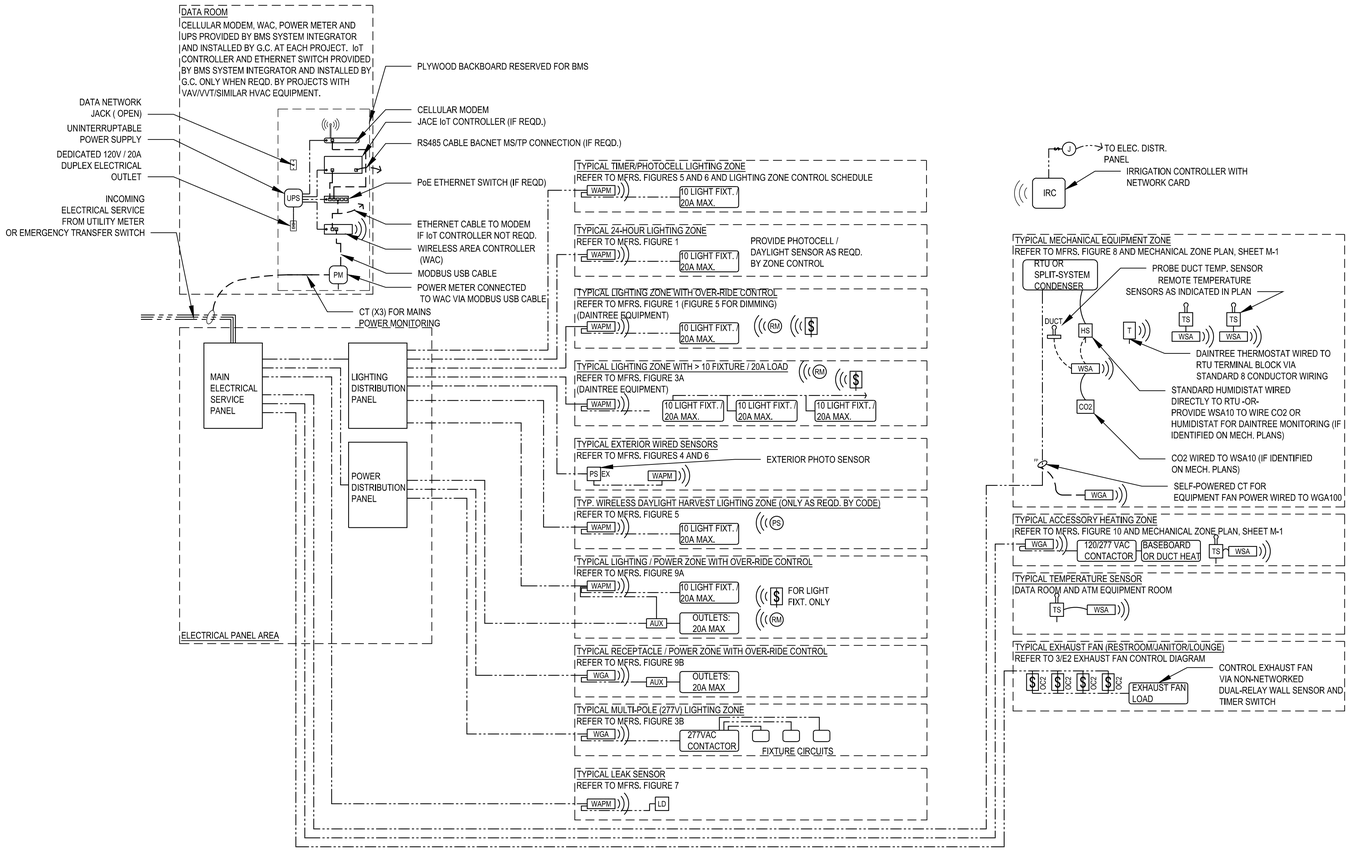
1. CONTRACTOR IS RESPONSIBLE FOR CORRECT WIRING, TESTING, AND DOCUMENTATION OF ALL IEEE DEVICE ADDRESSES IN A FORMAT REQUIRED BY THE CONTROLS SUPPLIER.
2. CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSTALLATION AND COMMISSIONING EFFORTS WITH THE CONTROLS PROVIDER TO SATISFY THE CONSTRUCTION TIMELINE.
3. CONTRACTOR IS RESPONSIBLE FOR PROVIDING FIELD LABOR ASSISTANCE TO FACILITATE THE COMMISSIONING EFFORT, INCLUDING BUT NOT LIMITED TO REPAIRING INCORRECT WIRING, LOCATING DEVICES WHERE THE ADDRESSES WERE NOT DOCUMENTED OR NOT LOCATED PROPERLY, AND RESETTING DEVICES.

LIGHTING ZONE CONTROL SCHEDULE

ZONE	LOCATION / ROOM / FUNCTION	CONTROL FUNCTION					REMARKS
		ON	OFF	TYPE	OVER-RIDE	OVER-RIDE LOCATION	
1	DRIVE-UP CANOPY	PHOTOCELL	SCHEDULE	DAINTREE	SOFTWARE, WALL SWITCH	AT OR NEAR TELLER LINE	4
2A, 2B…	BUILDING AND POLE-MOUNT EXTERIOR AREA FIXTURES (SUB-ZONES AS REQUIRED)	PHOTOCELL	SCHEDULE	DAINTREE	SOFTWARE, WALL SWITCH	AT OR NEAR TELLER LINE	4
3A, 3B…	EXTERIOR ENTRANCE DOWNLIGHTS AND SITE MONUMENT / PYLON SIGNS	PHOTOCELL	PHOTOCELL	DAINTREE	SOFTWARE, WALL SWITCH	AT OR NEAR TELLER LINE	4
4	EXTERIOR BUILDING SIGNAGE AND CANOPY SIGNAGE	PHOTOCELL	SCHEDULE	DAINTREE	SOFTWARE, WALL SWITCH	AT OR NEAR TELLER LINE	4
5A, 5B	EXTERIOR DECORATIVE AND WALL-WASH FIXTURES AND EXTERIOR-FACING INTERIOR SIGNAGE	SCHEDULE	SCHEDULE	DAINTREE	SOFTWARE, WALL SWITCH	AT OR NEAR TELLER LINE	4
6	VESTIBULE (ALWAYS ON)	NA	NA	DAINTREE	SOFTWARE, WALL SWITCH	AT OR NEAR TELLER LINE	1, 5
7	CONFERENCE ROOM ACCENT	SCHEDULE	SCHEDULE	DAINTREE	SOFTWARE, WALL SWITCH	IN ROOM	
8	CONFERENCE ROOM PENDANT(S) (ALWAYS ON, WITH IN-ROOM OVER-RIDE)	SCHEDULE 50%	SCHEDULE 10%	DAINTREE	SOFTWARE, WALL DIMMER	IN ROOM	2
9	PRIVATE OFFICE (PCS/CCS) AND BOOTH DESK PENDANTS (ALWAYS ON)	SCHEDULE 50%	SCHEDULE 10%	DAINTREE	SOFTWARE, WALL DIMMER	AT OR NEAR TELLER LINE	2
10A, 10B…	LOBBY GENERAL (SUB-ZONES AS REQUIRED)	SCHEDULE	SCHEDULE	DAINTREE	SOFTWARE, WALL SWITCH	AT OR NEAR TELLER LINE	1
11A, 11B…	VESTIBULE AND LOBBY ACCENT- COVE STRIPS, ETC. (ALWAYS ON)	NA	NA	DAINTREE	SOFTWARE, WALL DIMMER	AT OR NEAR TELLER LINE	
12A, 12B…	OFFICE AND CONFERENCE GENERAL	NA	NA	DAINTREE	SOFTWARE, WALL DIMMER	IN ROOM	1
13A, 13B…	BOOTH GENERAL	OCCUPANCY	VACANCY	LINE VOLTAGE	NONE	NA	1
14	PRINT / FILE	OCCUPANCY	VACANCY	LINE VOLTAGE	NONE	NA	3
15	SDB CHEST AND VIEWING ROOMS AND SDB VAULTS	OCCUPANCY	VACANCY	LINE VOLTAGE	NONE	NA	
16A, 16B…	BACK-OF-HOUSE WORK AREAS (LAO, CASH, AT, ATM, ETC.)	OCCUPANCY	VACANCY	LINE VOLTAGE	NONE	NA	3
17	MANUAL TRANSACTIONS (TELLER LINE)	OCCUPANCY	VACANCY	LINE VOLTAGE	NONE	NA	3
18	SERVICE HALLWAYS	OCCUPANCY	VACANCY	LINE VOLTAGE	NONE	NA	
19A, 19B…	RESTROOMS	OCCUPANCY	VACANCY	LINE VOLTAGE	NONE	NA	
20	LOUNGE	OCCUPANCY	VACANCY	LINE VOLTAGE	NONE	NA	3
21A, 21B	UTILITY EXCEPT DATA (JANITOR, LADDER, ELEC., PLUMBING, SPRINKLER, ETC)	OCCUPANCY	VACANCY	LINE VOLTAGE	NONE	NA	6
22	DATA	MANUAL	MANUAL	LINE VOLTAGE	NONE	NA	
23	RESTROOM / JANITOR / LOUNGE EXHAUST SYSTEM	OCCUPANCY	VACANCY	LINE VOLTAGE	NONE	NA	7

REMARKS:

1	REFER TOLIGHTING CONTROL NOTE LC-15
2	PROVIDE WIRELESS MANUAL DIMMER PROGRAMMED FOR 50% DIMMING DURING BRANCH HOURS AND 10% DIMMING AFTER BRANCH HOURS.
3	AoR TO ADJUST CONTROL SPECIFICATION AS REQUIRED TO MEET CODES ENFORCED BY AUTHORITY HAVING JURISDICTION. WHERE SIMPLE OCCUPANCY/VACANCY SENSOR CONTROL IS REQUIRED, LINE VOLTAGE CONTROLS ARE PREFERRED.
4	EXTERIOR SITE POLE, BUILDING-MOUNTED, AND SIGNAGE FIXTURES SHALL HAVE A WWD1 MASTER OVER-RIDE SWITCH LOCATED IN INTERIOR SWITCH BANK NEAR TELLER LINE CONTROLLED VIA WA100-PPM(S).
5	WHERE LINE VOLTAGE CONTROLS ARE IMPLEMENTED IN LIEU OF DAINTREE CONTROLS, PROVIDE PILOT LIGHT SWITCH WHERE FIXTURES ARE NOT VISIBLE FROM THE SWITCH LOCATION.
6	SWITCHING PREFERENCE FOR UTILITY SPACE LIGHTING (EXCEPT DATA) IS FOR FIXTURES WITH INTEGRAL OCCUPANCY SENSORS, AND TO ELIMINATE SWITCHING.
7	4-WAY OCCUPANCY SENSOR / TIMER SWITCH CIRCUIT- REFER TO 3/E2 DESIGN-INTENT EXHAUST FAN CONTROL DIAGRAM.



1 / E-5 BMS SCHEMATIC CONTROL DIAGRAM

3/8" = 1'-0"

PREPARED BY:
EBI Consulting
ENVIRO BUSINESS, INC.
21 B Street | Burlington, MA 01803
Tel: (781) 273-2500 | www.ebiconsulting.com

SIGNED BY:

STATE OF MISSOURI
JERMAINE F. WILLIAMS
NUMBER PE-2021014472
PROFESSIONAL ENGINEER

Jermaine F Williams
2022.03.02 21:39:59-05'00'

PRYOR ROAD & LOWENSTEIN DRIVE

908 NW PRYOR ROAD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

ISSUE	DATE	DESCRIPTION

CHASE

PRYOR & LOWENSTEIN
PROTOTYPE VERSION 20.4

CONTENTS

LIGHTING ZONE CONTROL SCHEDULE & BMS CONTROL DIAGRAM

02/04/2022

SHEET

E-5

COM*check* Software Version 4.1.5.3
Interior Lighting Compliance Certificate

Project Information

Energy Code:	2018 IECC
Project Title:	JPM CHASE
Project Type:	New Construction
Permit Date:	TBD
Permit No.	TBD

Construction Site:	Owner/Agent:	Designer/Contractor:
908 NW PRYOR ROAD LEE'S SUMMIT, MO 64081	JPM CHASE	Yao Agbeve EBI CONSULTING 21 B STREET BURLINGTON, MA 01803

Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed
Reduced Lighting Power, 1.0 credit

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Office	3030	0.71	2154
		Total Allowed Watts =	2154

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-Office				
LED 1: L-500: LINEAR LED: Other:	1	32	14	448
LED 2: L-2: LED TROFFER: Other:	1	22	34	748
LED 3: L-11: DOWNLIGHT: Other:	1	14	14	196
LED 4: L-413: PENDANT: Other:	1	1	12	12
LED 5: L8: SURFACE-MOUNT: Other:	1	2	27	54
LED 6: L-411: PENDANT: Other:	1	2	12	24
LED 7: L-410: PENDANT: Other:	1	4	40	160
LED 8: L-5: PENDANT: Other:	1	2	6	12
LED 9: L-3: UNDERCABINET: Other:	1	2	7	14
LED 10: L-308: LED STRIP: Other:	1	1	192	192
			Total Proposed Watts =	1860

Interior Lighting PASSES: Design 14% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2018 IECC requirements in COM*check* Version 4.1.5.3 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

YAO AGBEVE - DESIGNER		03/02/2022
Name - Title	Signature	Date

COM*check* Software Version 4.1.5.3
Inspection Checklist

Energy Code: 2018 IECC

Requirements: 0.0% were addressed directly in the COM*check* software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR4][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	REFER TO SHEETS E0,E2 AND E6.
C406 [PR9][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	REFER TO SHEETS E0,E2 AND E6.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.2.2 [EL22][1]	Spaces required to have light-reduction controls have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern >= 50 percent.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	REFER TO SHEETS E2 AND E5.
C405.2.1, C405.2.1.1 [EL18][1]	Occupancy sensors installed in classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, storage rooms, locker rooms, warehouse storage areas, and other spaces <= 300 sqft that are enclosed by floor-to-ceiling height partitions. Reference section language C405.2.1.2 for control function in warehouses and section C405.2.1.3 for open plan office spaces.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	REFER TO THE LIGHTING PLAN ON SHEET E2 AND THE SYMBOL LEGEND ON SHEET E0.
C405.2.1.2 [EL19][1]	Occupancy sensors control function in warehouses: In warehouses, the lighting in aisleways and open areas is controlled with occupant sensors that automatically reduce lighting power by 50% or more when the areas are unoccupied. The occupant sensors control lighting in each aisleway independently and do not control lighting beyond the aisleway being controlled by the sensor.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	NOT APPLICABLE TO THIS PROJECT.
C405.2.1.3 [EL20][1]	Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq.ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq.ft. within the space, 2) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 3) are configured so that general lighting power in each control zone is reduced by >= 80% of the full zone general lighting power within 20 minutes of all occupants leaving that control zone, and 4) are configured such that any daylight responsive control will activate space general lighting or control zone general lighting only when occupancy for the same area is detected.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	REFER TO THE LIGHTING PLAN ON SHEET E2 AND CONTROLS ON E5.
C405.2.2, C405.2.2.1, C405.2.2.2 [EL21][2]	Each area not served by occupancy sensors (per C405.2.1) have time-switch controls and functions detailed in sections C405.2.2.1 and C405.2.2.2.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	REFER TO THE LIGHTING PLAN ON SHEET E2 AND CONTROLS ON E5.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.3, C405.2.3.1, C405.2.3.2 [EL23][2]	Daylight zones provided with individual controls that control the lights independent of general area lighting. See code section C405.2.3 Daylight-responsive controls for applicable spaces, C405.2.3.1 Daylight responsive control function and section C405.2.3.2 Sidelit zone.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	REFER TO THE LIGHTING PLAN ON SHEET E2 AND CONTROLS ON E5.
C405.2.4 [EL26][1]	Separate lighting control devices for specific uses installed per approved lighting plans.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	REFER TO THE LIGHTING PLAN ON SHEET E2.
C405.2.4 [EL27][1]	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	NOT APPLICABLE TO THIS PROJECT.
C405.3 [EL6][1]	Exit signs do not exceed 5 watts per face.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	REFER TO THE EXIT SIGN DESCRIPTION IN THE LIGHTING FIXTURE SCHEDULE ON SHEET E0.
C405.6 [EL26][2]	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	NOT APPLICABLE TO THIS PROJECT.
C405.7 [EL27][2]	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	REFER TO THE MECHANICAL DRAWINGS.
C405.8.2, C405.8.2.1 [EL28][2]	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	NOT APPLICABLE TO THIS PROJECT.
C405.9 [EL29][2]	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	REFER TO THE VOLTAGE DROP CALCULATIONS ON SHEET E7.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.2 [FI17][3]	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	REFER TO NOTE 45 ON SHEET E0.
C405.4.1 [FI18][1]	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	REFER TO THE LIGHT FIXTURE SCHEDULE ON SHEET E0.
C408.1.1 [FI57][1]	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	REFER TO NOTE 45 ON SHEET E0.
C408.2.5.1 [FI16][3]	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	REFER TO NOTE 46 ON SHEET E0.
C408.3 [FI33][1]	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	REFER TO NOTE 47 ON SHEET E0.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

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SIGNED BY:

STATE OF MISSOURI
JERMAINE F. WILLIAMS
NUMBER
PE-2021014472
PROFESSIONAL ENGINEER

Jermaine F Williams
2022.03.02 21:40:00-05'00'

PRYOR ROAD & LOWENSTEIN DRIVE
908 NW PRYOR ROAD
LEE'S SUMMIT, MO 64081

EBI JOB #4121000090

ISSUE	DATE	DESCRIPTION

CHASE

PRYOR & LOWENSTEIN
PROTOTYPE VERSION 20.4

CONTENTS

INTERIOR LIGHTING COMPLIANCE CERTIFICATE

02/04/2022

SHEET

E-6

VOLTAGE DROP CALCULATION FROM TRANSFORMER TO MAIN DISCONNECT:		
SOURCE	=	AC, 3Φ
VOLTAGE	=	208.0
COND. MATERIAL	=	PVC
POWER FACTOR	=	0.90
COND. TEMP.	=	75°C
CONDUCTOR METAL	=	COPPER
COND. PER PHASE	=	1
WIRE SIZE	=	600 MCM
LOAD	=	86.8 AMPS
LENGTH (1-WAY)	=	80.0 FEET
RESULT:		
THE VOLTAGE DROP = 0.22%, 0.45V L-L.		

VOLTAGE DROP CALCULATION FROM MAIN DISCONNECT TO PP1:		
SOURCE	=	AC, 3Φ
VOLTAGE	=	208.0
COND. MATERIAL	=	STEEL
POWER FACTOR	=	0.90
COND. TEMP.	=	75°C
CONDUCTOR METAL	=	COPPER
COND. PER PHASE	=	1
WIRE SIZE	=	600 MCM
LOAD	=	86.8 AMPS
LENGTH (1-WAY)	=	25.0 FEET
RESULT:		
THE VOLTAGE DROP = 0.08%, 0.16V L-L.		

VOLTAGE DROP CALCULATION TO FARTHEST BRANCH CIRCUIT: PP3-35,37		
SOURCE	=	AC, 1Φ
VOLTAGE	=	208.0
COND. MATERIAL	=	PVC
POWER FACTOR	=	0.90
COND. TEMP.	=	75°C
CONDUCTOR METAL	=	COPPER
COND. PER PHASE	=	2
WIRE SIZE	=	#10
LOAD	=	0.968 KVA
LENGTH (1-WAY)	=	160.0 FEET
RESULT:		
THE VOLTAGE DROP = 0.39%, 0.82V.		

VOLTAGE DROP CALCULATION TO PP1 = 0.22%+0.08% = 0.30%

VOLTAGE DROP CALCULATION TO FARTHEST BRANCH CIRCUIT: 0.39%

TOTAL PERCENT VOLTAGE DROP = 0.30% + 0.39% = 0.69%

2 / E-6 OVERALL VOLTAGE DROP

N.T.S.

FAULT CURRENT CALCULATION FOR MAIN DISCONNECT

AMPS SHORT CIRCUIT FROM ELECTRICAL UTILITIES = 43,237 A RMS

WIRE IS: 600 AWG
NUMBER OF CONDUCTORS PER PHASE: 1
CONDUCTOR LENGTH 'L': 80'
CONDUCTOR C VALUE: 22,965 (#CONDUCTORS PER PHASE x C = 22,965)

$$f = \frac{1.73 \times L \times I}{C \times E_{L-L}} = \frac{1.73 \times 80 \times 43{,}237}{22{,}965 \times 208} = 1.253$$

$$M = \frac{1}{1 + f} = \frac{1}{1 + 1.253} = 0.444$$

I_{SCA} = AVAILABLE FROM UTILITY x M = 43,237 x 0.444 = 19,197 A RMS

I_{SCA} MOTOR CONTRIBUTION = $\frac{\text{MOTOR kVA X 1000}}{1.73 \text{ X } E_{L-L} \text{ X 0.25 MOTOR Zpu}}$ = NEGLIGIBLE

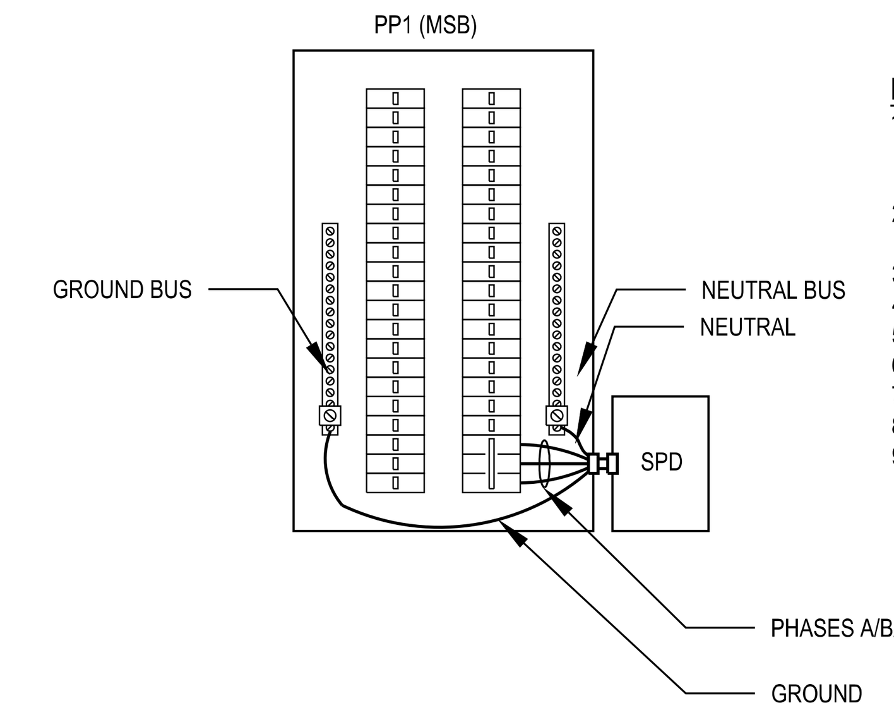
I_{SCA} TOTAL = I_{SCA} = AVAILABLE FROM UTILITY + I_{SCA} MOTOR CONTRIBUTION = 19,197 A RMS AT BUILDING MAIN

MINIMUM BREAKER A.I.C. RATING = 22,000 A.I.C.

L = LENGTH (feet) OF CIRCUIT TO FAULT
C = CONSTANT VALUE FOR CONDUCTORS – FOR PARALLEL RUNS MULTIPLY "C" VALUE BY NUMBER OF CONDUCTORS PER PHASE
I = AVAILABLE SHORT CURRENT IN AMPERES AT BEGINNING OF CIRCUIT

3 / E-6 MAIN DISCONNECT FAULT CURRENT CALCULATION

N.T.S.



NOTES

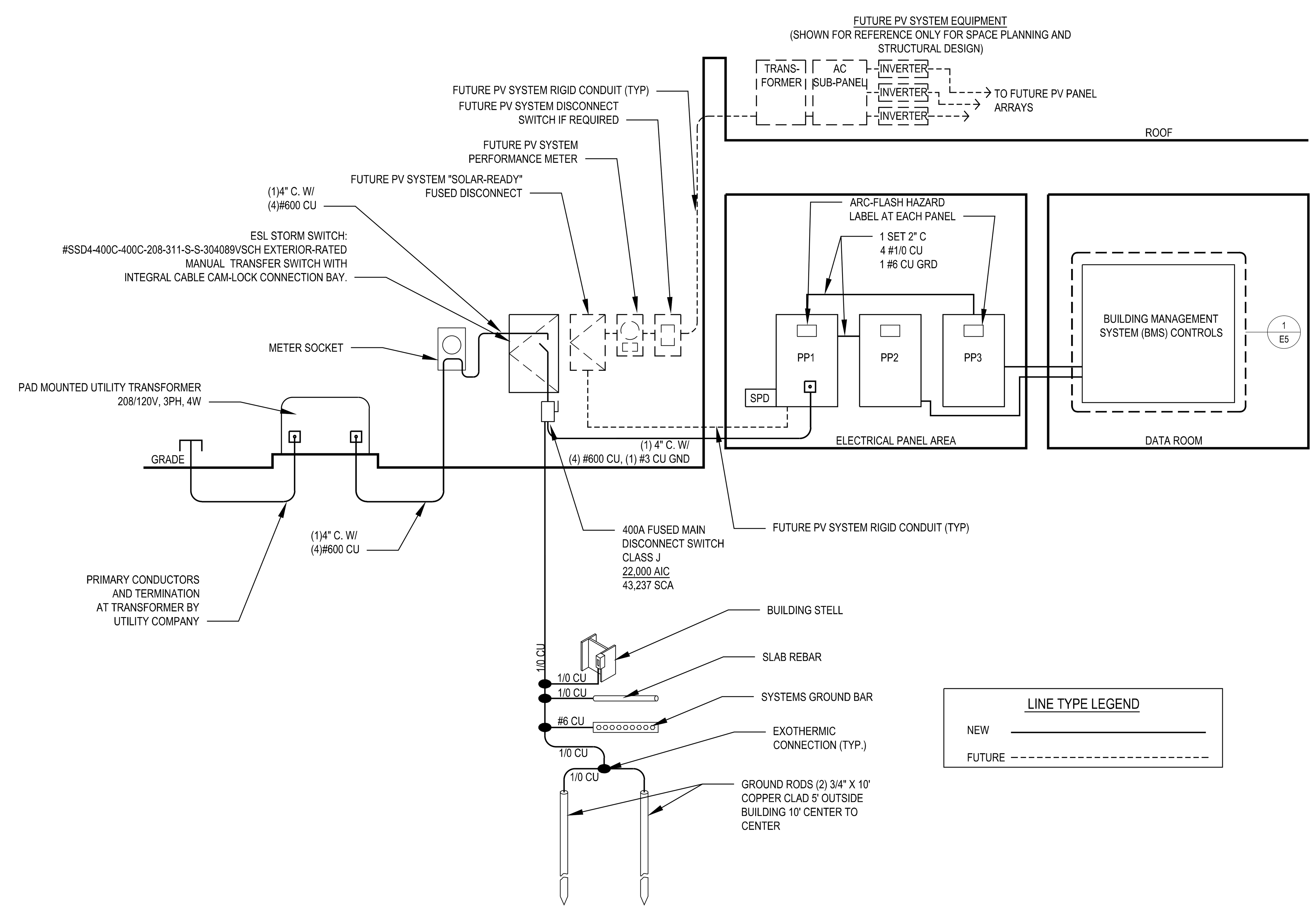
1. CONNECT SPD TO BREAKER AS FOLLOWS:
   2P30 FOR 1 PHASE
   3P30 FOR 3 PHASE
2. RELOCATE BREAKER IN PANEL AS NECESSARY TO PROVIDE THE SHORTEST WIRE LENGTH TO SPD.
3. DIRECT CONNECTION TO BUS IS NOT PERMITTED.
4. USE A CHASE NIPPLE CONNECTION VIA KNOCKOUT.
5. USE #10 AWG OR LARGER CONDUCTORS.
6. LIMIT WIRE LENGTH TO 18" OR LESS.
7. KEEP WIRE FREE OF ANY SHARP BENDS.
8. SPD TO BE MODULAR, UL 1449 3RD EDITION LISTED.
9. 100 KA PER PHASE, 600V CLAMPING.

4 / E-6 ELECTRICAL SERVICE SURGE PROTECTION

N.T.S.

TRANSFER SWITCH

1. SYSTEM SHALL INCLUDE MANUAL DOUBLE-THROW POWER TRANSFER SWITCH, GENERATOR CABLE CONNECTORS, AND ANY ASSOCIATED ENCLOSURES, CONDUITS AND CONDUCTORS AS REQUIRED FOR A COMPLETE EMERGENCY TRANSFER SWITCH INSTALLATION.
2. SYSTEM ELECTRICAL CHARACTERISTICS:
   - 2.1. 3-POSITION SWITCH: ON (UTILITY POWER) / OFF / ON (EMERGENCY GENERATOR POWER)
   - 2.2. 3 PHASE, 60 HZ, NEUTRAL BAR, 208/120 V OR 480/277 V (MATCH UTILITY SERVICE ENTRY WITH AIC RATING CAPABLE OF WITHSTANDING THE AVAILABLE FAULT CURRENT OF THE INCOMING UTILITY.)
   - 2.3. SWITCH AND CONNECTOR CURRENT CAPACITY SHALL MATCH MAIN SERVICE PANEL CIRCUIT BREAKER
3. ENGINEERING DESIGN OF THE ETS SYSTEM SHALL POWER THE FULL FACILITY UNDER 100% LOAD.
4. ALL WORK SHALL COMPLY WITH ALL APPLICABLE CODES. WHERE COMBUSTIBLE MATERIALS (DIESEL FUEL OR THE LIKE) ARE TO BE STORED, THE ARCHITECT OF RECORD IS RESPONSIBLE FOR DETERMINING CODE-COMPLIANT PLACEMENT OF TEMPORARY STORAGE TANKS.
5. ALL MATERIALS AND ASSEMBLIES SHALL BE UL-LISTED FOR THIS APPLICATION. EXTERIOR ENCLOSURES SHALL BE RATED MINIMUM NEMA 3R FOR EXTERIOR USE.
6. APPLY VISUAL ELECTRICAL HAZARD WARNINGS AS REQUIRED BY CODE.
7. THE ETS SHALL BE PROTECTED FROM VEHICULAR DAMAGE BY CONCRETE CURBS, BOLLARDS OR OTHER DEVICES AS REQUIRED.
8. ALL CONDUIT AND FITTINGS SHALL BE WATER-TIGHT HEAVY-WALL THREADED RIGID GALVANIZED STEEL. ALL ENCLOSURES SHALL ACHIEVE NEMA MINIMUM RATING REQUIERD FOR THEIR INTENDED USE.
9. SWITCH ENCLOSURE SHALL INCLUDE LOCK HASPS AT ALL THREE SWITCH POSITIONS SECURING THE SWITCH POSITION AND PANEL DOOR.
10. GENERATOR CONNECTION ENCLOSURE SHALL INCLUDE LOCK HASP.
11. PADLOCKS AT TRANSFER SWITCH AND GENERATOR CONNECTION ENCLOSURES SHALL BE PROVIDED BY OWNER (CHASE FACILITIES) TO GENERAL CONTRACTOR FOR INSTALLATION AT TURNOVER TO RETAIL.
12. THE ETS SHALL INCLUDE A LOCKING GENERATOR CONNECTION ENCLOSURE ATTACHED DIRECTLY TO THE UNDERSIDE OF THE SWITCH ENCLOSURE. THE CONNECTION ENCLOSURE SHALL INCLUDE A SAFETY INTERLOCK WITH THE ETS TO PREVENT CONNECTION / DISCONNECTION WHILE UNDER LOAD. THE CABLE OPENINGS IN THE ENCLOSURE SHALL BE DESIGNED SO AS TO PERMIT ADEQUATE CABLE SLACK TO ROUTE THE CABLE WITHOUT DAMAGE, AND TO PREVENT ENTRY OF WIND-DRIVEN PRECIPITATION.
13. GENERATOR CABLE CONNECTIONS WITHIN THE CONNECTION ENCLOSURE SHALL BE COOPER CAMLOK E1016 COLOR-CODED MALE PANEL CONNECTORS WITH FLIP COVERS. THE ENCLOSURE SHALL BE SIZED AS REQUIRED TO ACCEPT AND SECURE THE GENERATOR CABLES FITTED WITH FEMALE COOPER CAMLOK E1016 CONNECTORS.
14. THE CONNECTION ENCLOSURE INTERIOR SHALL INCLUDE UNIFORM PHENOLIC WEATHER-PROOF SIMPLE FUNCTIONAL INSTRUCTIONS AS TO THE INSTALLATION OF CABLES, PHASE ROTATION CHECK, AND SWITCH OPERATION.
15. THE CONNECTION ENCLOSURE SHALL INCLUDE A CORRECT PHASE ROTATION INDICATOR, ALLOWING THE OPERATOR TO ENSURE THAT THE GENERATOR PHASE ROTATION MATCHES THE UTILITY PHASE ROTATION REGARDLESS OF THE POSITION OF THE ETS.
16. THE ETS ENCLOSURE SHALL INCLUDE AN INDICATOR OF UTILITY AVAILABILITY REGARDLESS OF THE POSITION OF THE ETS.
17. GENERATOR FUEL SOURCE MAY VARY BY REGION. COORDINATE WITH UTILITIES TO DETERMINE AVAILABILITY OF NATURAL GAS OR DIESEL FUEL TYPE. PRIOR TO PROCEEDING WITH DESIGN:
   - 17.1. FOR NATURAL GAS GENERATORS, PROVIDE THE REQUIRED FUEL CONNECTION AT THE BUILDING OR ON THE SITE.
   - 17.2. FOR DIESEL GENERATORS, VERIFY WITH LOCAL AUTHORITIES HAVING JURISDICTION PERMITTED ON-SITE FUEL



LINE TYPE LEGEND

NEW ————————

FUTURE - - - - - - - - -

1 / E-6 ELECTRICAL RISER DIAGRAM

N.T.S.

PREPARED BY:

EBI Consulting
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21 B Street | Burlington, MA 01803
Tel: (781) 273-2500 | www.ebiconsulting.com

SIGNED BY:

STATE OF MISSOURI
JERMAINE F. WILLIAMS
NUMBER
PE-2021014472
PROFESSIONAL ENGINEER

Jermaine F Williams
2022.03.02 21:40:01-05'00'

PRYOR ROAD & LOWENSTEIN DRIVE

908 NW PRYOR ROAD
LEE'S SUMMIT, MO 64081

EBI JOB #41210000090

ISSUE	DATE	DESCRIPTION

CHASE

PRYOR & LOWENSTEIN
PROTOTYPE VERSION 20.4

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ONE-LINE DIAGRAM & ELECTRICAL SYSTEM DETAILS

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FIGURE 1: LIGHTING ZONE/CIRCUIT ON/OFF CONTROL

Switching a 20A Branch Circuit, Load limit 15A:

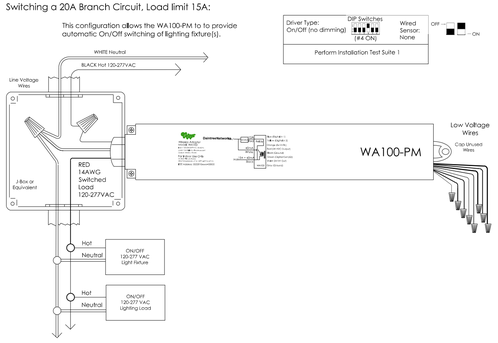


FIGURE 2: LIGHTING ZONE DIMMING WITH PHASE CONVERTOR MODULE

Switching a 20A Branch Circuit, Load limit 15A:

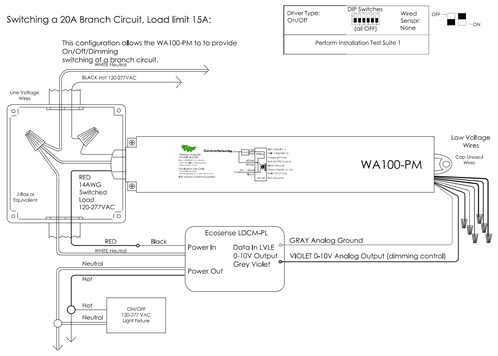


FIGURE 4: WA100-PM WITH (EXTERIOR) PHOTOCELL

Switching a 20A Branch Circuit, Load limit 15A:

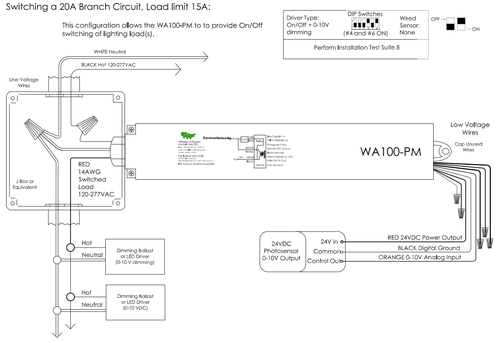


FIGURE 5: DIMMING LIGHT FIXTURE(S) CONFIGURATION

Switching a 20A Branch Circuit, Load limit 15A:

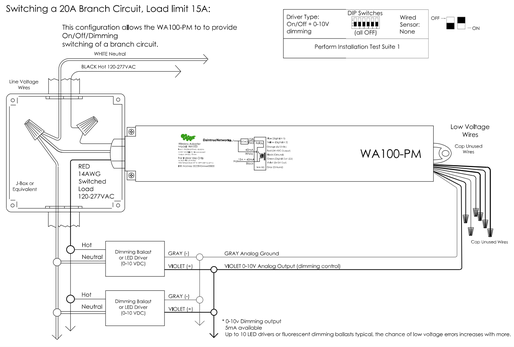


Fig. 6: Dimming Light Fixture(s), Photosensor configuration:

This configuration allows the WA100-PM to provide automatic 0-10V dimming control and to switch light fixtures On/Off.

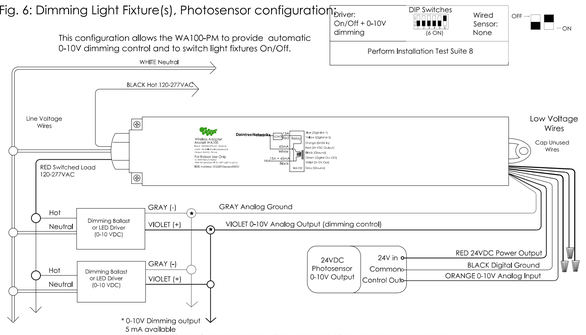


FIGURE 7: WGA100 WITH LEAK DETECTION SENSOR

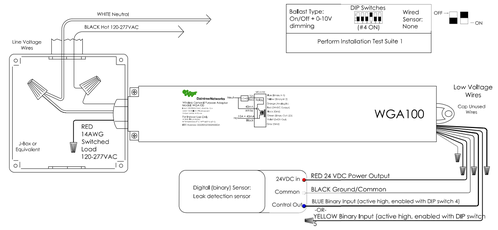


FIGURE 8A: WSA10 FOR HUMIDITY AND CO2 SENSORS

FIGURE 8B: WGA100 ANALOG INPUT CONFIGURATION WITH SELF-POWERED FAN CT

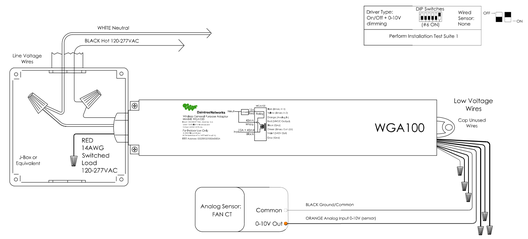


FIGURE 12: 208 V 2-POLE (PHASE-TO-PHASE) WIRING.

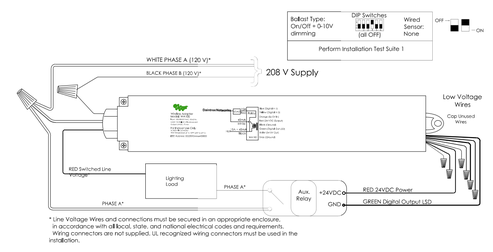


FIGURE 9A: WA100-PM DIMMING CONFIGURATION W/ AUXILIARY RELAY FOR PLUG LOAD CONTROL

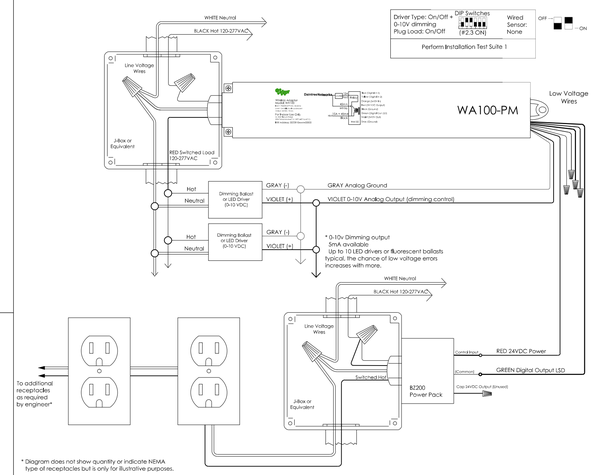


FIGURE 9A: WA100-PM DIMMING CONFIGURATION W/ AUXILIARY RELAY FOR PLUG LOAD CONTROL

On/Off (non-dimming) Line Voltage Load with auxilliary power pack.

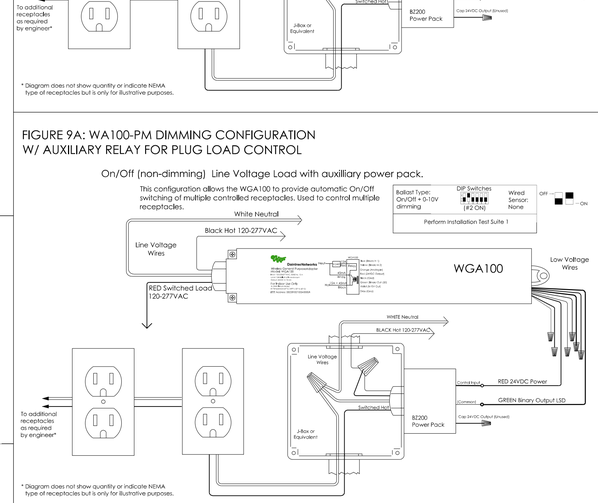


FIGURE 10: 15A NON-LIGHTING LOAD CONFIGURATION

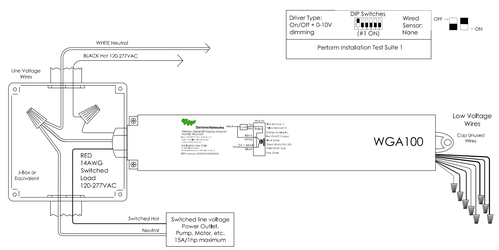
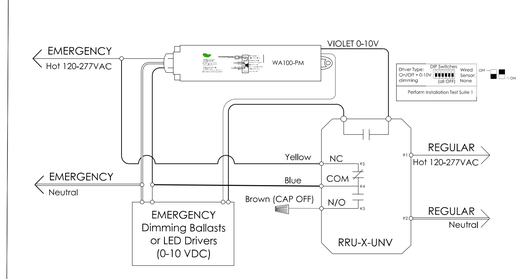


FIGURE 11: WA100-PM DIMMING CONFIGURATION FOR EMERGENCY ZONES USING SHUNT RELAY RRU-X-UNV



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SIGNED BY:

STATE OF MISSOURI
JERMAINE F. WILLIAMS
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PRYOR ROAD &
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PROTOTYPE VERSION 20.4

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BMS MANUFACTURER'S DEVICE WIRING DIAGRAMS

02/04/2022

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SYMBOLS LIST

SYMBOL	DESCRIPTION	BACKBOX REQUIREMENTS (BY EC)	CONDUIT REQUIREMENTS (BY EC)	MOUNTING HEIGHT (UNLESS NOTED OTHERWISE)
X	DATA OUTLET LOCATION, WALL MOUNTED. PROVIDE (X) CAT 6 RJ-45 JACKS, (X) HORIZONTAL CAT 6 CABLES, & A 4-PORT WHITE FACEPLATE. PROVIDE BLANKS FOR UNOCCUPIED PORTS. "X" DENOTES NUMBER OF JACKS /CABLES. WHEN NO NUMBER IS PRESENT IT SHALL BE ONE CAT 6 JACK/CABLE.	5" SQUARE, BY 2-7/8" DEEP BACKBOX WITH A SINGLE GANG REDUCER. PROVIDE RANDL INDUSTRIES T-55017 WITH D-51 SERIES REDUCER OR EQUAL. REDUCER TO MATCH DRY WALL THICKNESS.	MINIMUM OF ONE 1" CONDUIT TO ABOVE THE ACCESSIBLE CEILING.	TYPICAL - 18" AFF, SEE ARCHITECTURAL PLANS FOR EXACT HEIGHT
X	DATA OUTLET LOCATION, FLOOR MOUNTED. PROVIDE (X) CAT 6 RJ-45 JACKS, (X) HORIZONTAL CAT 6 CABLES, & A 4-PORT FACEPLATE OR INSERT TO FIT FLOOR BOX. PROVIDE BLANKS FOR UNOCCUPIED PORTS. "X" DENOTES NUMBER OF JACKS/CABLES. WHEN NO NUMBER IS PRESENT IT SHALL BE ONE CAT 6 JACK/CABLE.	DUAL SERVICE POWER AND LOW VOLTAGE RECESSED BOX.	MINIMUM OF ONE 1" CONDUIT TO ABOVE THE ACCESSIBLE CEILING. REFER TO CABLE FILL CHART.	FLOOR
X	DATA OUTLET LOCATION, TABLE-TOP MOUNTED. PROVIDE (X) CAT 6 RJ-45 JACKS, (X) HORIZONTAL CAT 6 CABLES, & INSERT TO FIT TABLE-TOP BOX. PROVIDE BLANKS FOR UNOCCUPIED PORTS. "X" DENOTES NUMBER OF JACKS/CABLES.	NOT APPLICABLE - FED FROM FLOOR JUNCTION BOX.	CONCEAL CABLING FROM FLOOR JUNCTION BOX WITHIN WIRE MESH.	TABLE TOP
W	WALL MOUNTED TELEPHONE OUTLET LOCATION. WALL MOUNTED, 1-PORT OUTLET. PROVIDE (1) CAT 6 RJ-45 JACK, (1) HORIZONTAL CAT 6 CABLE, AND A 4-PORT FACEPLATE FOR MOUNTING A TELEPHONE.	5" SQUARE, BY 2-7/8" DEEP BACKBOX WITH A SINGLE GANG REDUCER. PROVIDE RANDL INDUSTRIES T-55017 WITH D-51 SERIES REDUCER OR EQUAL.	ONE 1" CONDUIT TO ABOVE THE ACCESSIBLE CEILING.	TYPICAL 44" AFF WITH A 6" CLEARANCE ON ALL SIDES OF FACEPLATE, SEE ARCHITECTURAL PLANS FOR EXACT HEIGHT
ATM	ATM DATA OUTLET LOCATION, WALL MOUNTED. PROVIDE (1) CAT6 & (1) CAT6A RJ-45 JACKS, (1) HORIZONTAL CAT6 CABLE, (1) HORIZONTAL CAT6A CABLE, & A 4-PORT WHITE FACEPLATE. PROVIDE BLANKS FOR UNOCCUPIED PORTS. REFER TO DETAIL ON TC-302.	5" SQUARE, BY 2-7/8" DEEP BACKBOX WITH A SINGLE GANG REDUCER. PROVIDE RANDL INDUSTRIES T-55017 WITH D-51 SERIES REDUCER OR EQUAL.	ONE 1" CONDUIT TO ABOVE THE ACCESSIBLE CEILING.	CONCEALED BEHIND ATM, COORDINATE WITH ATM DESIGN
WAP #	WIRELESS ACCESS POINT OUTLET LOCATION. CEILING MOUNTED. PROVIDE (1) HORIZONTAL CAT 6A CABLE & A PLENUM RATED IN-CEILING CONNECTOR ASSEMBLY.	HARD CEILING LOCATIONS ONLY: 5" SQUARE, BY 2-7/8" DEEP BACKBOX WITH A SINGLE GANG REDUCER. PROVIDE RANDL INDUSTRIES T-55017 WITH D-51 SERIES REDUCER OR EQUAL. SPECIALTY, OR OPEN-TO-STRUCTURE CEILING: SEE INSTALLATION DETAILS	HARD CEILING LOCATIONS ONLY: ONE 1" CONDUIT TO ABOVE THE NEAREST ACCESSIBLE CEILING.	CEILING
CAM CAM	INTERIOR SECURITY CAMERA LOCATION. PROVIDE (1) HORIZONTAL CAT 6A CABLE, & A PLENUM RATED IN-CEILING CONNECTOR ASSEMBLY COILED ABOVE THE CEILING FOR THE SECURITY CONTRACTOR TO ACCESS AND CONNECT TO THE CAMERA. FOR WALL MOUNTED LOCATIONS ROUTE 1" FLEX CONDUIT TO WALL INDICATED AT NOTED MOUNTING HEIGHT	HARD CEILING LOCATIONS ONLY: 5" SQUARE, BY 2-7/8" DEEP BACKBOX WITH A SINGLE GANG REDUCER. PROVIDE RANDL INDUSTRIES T-55017 WITH D-51 SERIES REDUCER OR EQUAL.	HARD CEILING LOCATIONS ONLY: ONE 1" CONDUIT TO ABOVE THE NEAREST ACCESSIBLE CEILING.	ABOVE ACCESSIBLE CEILING
CAM	SECURITY CAMERA LOCATION. WALL MOUNTED. PROVIDE (1) HORIZONTAL CAT 6A CABLE & A PLENUM RATED IN-CEILING CONNECTOR ASSEMBLY COILED ABOVE THE CEILING FOR THE SECURITY CONTRACTOR TO ACCESS AND CONNECT TO THE CAMERA. FOR INTERIOR LOCATIONS, LEAVE PIGTAIL COILED ABOVE THE CEILING. FOR EXTERIOR LOCATIONS, ROUTE PIGTAIL THROUGH 1" FLEX CONDUIT TO EXTERIOR BACK BOX.	FOR INTERIOR CAMERA LOCATIONS, NO BACK BOX IS REQUIRED. FOR EXTERIOR CAMERA LOCATIONS, PROVIDE A DUAL GANG BACK BOX WHERE SHOWN ON FLOOR PLANS.	FOR INTERIOR CAMERA LOCATIONS, NO CONDUIT IS REQUIRED UNLESS OTHERWISE NOTED. FOR EXTERIOR CAMERA LOCATIONS, PROVIDE A 1" FLEX CONDUIT TO ABOVE ACCESSIBLE CEILING.	SEE SECURITY PLANS FOR MOUNTING HEIGHTS
	FIRE-RATED WALL SLEEVE FOR HORIZONTAL CABLING. PROVIDE SIZE AS INDICATED ON THE PLANS.	NOT APPLICABLE	NOT APPLICABLE	AT LEAST 6" ABOVE FINISHED ACCESSIBLE CEILING OF SURROUNDING SPACE
	WALL SLEEVE FOR HORIZONTAL CABLING TO CONNECT TWO ACCESSIBLE CEILINGS SEPARATED AN INACCESSIBLE CEILING. PROVIDE SIZE AS INDICATED ON THE PLANS.	NOT APPLICABLE	NOT APPLICABLE	AT LEAST 6" ABOVE FINISHED ACCESSIBLE CEILING OF SURROUNDING SPACE
	LADDER RACK/CABLE RUNWAY INSTALLED WITHIN THE RMER AND/OR RTR. FINISH SHALL BE WHITE. SIZE AS INDICATED ON THE FLOOR PLAN DRAWINGS.	NOT APPLICABLE	NOT APPLICABLE	8'-0" AFF
	TELECOMMUNICATIONS GROUNDING BUSBAR.	NOT APPLICABLE	NOT APPLICABLE	6" BELOW LADDER RACK
	2-POST EQUIPMENT RACK WITH BLACK FINISH.	NOT APPLICABLE	NOT APPLICABLE	FLOOR
	VERTICAL WIRE MANAGER MOUNTED TO EITHER SIDE OF THE EQUIPMENT RACK WITH A BLACK FINISH. SIZE AS NOTED.	NOT APPLICABLE	NOT APPLICABLE	RACK
1 TC-XXX	REFERENCE TO ANOTHER DRAWING VIEW. EXAMPLE SHOWN REFERS TO DETAIL 1 ON DRAWING TC-XXX.	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE

NOTES:
A. BACKBOXES SHALL BE AS FOLLOWS UNLESS ALTERNATE MANUFACTURER HAS BEEN APPROVED BY OPR:
1. BACKBOX WITH 1" AND 1-1/4" KNOCKOUTS: RANDL INDUSTRIES INC. PART #T-55017.
2. BACKBOX WITH 3/4" AND 1" KNOCKOUTS: RANDL INDUSTRIES INC. PART #T-55018.
3. BACKBOX WITH 1/2" AND 1" KNOCKOUTS: RANDL INDUSTRIES INC. PART #T-55019.
4. 1/2" RAISE SINGLE GANG REDUCERS: RANDL INDUSTRIES INC. D-51G012.
5. 5/8" RAISE SINGLE GANG REDUCERS: RANDL INDUSTRIES INC. D-51G058.
6. 3/4" RAISE SINGLE GANG REDUCERS: RANDL INDUSTRIES INC. D-51G034.

OVERVIEW

THESE DRAWINGS CONTAIN THE SPECIFICATIONS FOR INSTALLING THE STRUCTURED CABLING INFRASTRUCTURE FOR THE PROJECT LOCATED AT THE ADDRESS INDICATED ON THE DRAWINGS. THIS DOCUMENT CONTAINS THE SPECIFICATIONS FOR INSTALLING:

- CATEGORY 6 UTP, 6A UTP, & 6A F/UTP COPPER CABLING INFRASTRUCTURE AND ASSOCIATED HARDWARE
- TELECOM ROOM EQUIPMENT
- FIBER OPTIC CABLING AND ASSOCIATED HARDWARE (IF REQUIRED)

STRUCTURED CABLING CONTRACTOR CLOSEOUT DOCUMENTATION REQUIREMENTS:

A. REQUIRED 'AS-BUILTS':
   a. FLOOR PLAN 'AS-BUILTS' WITH ALL THE OUTLET LABELING INDICATED.
   b. FURNISH AND INSTALL A LAMINATED COPY (18X24) OF THE AS-BUILT FLOOR PLAN
   c. SUBMIT 'AS-BUILT' FLOOR PLANS IN BOTH DWG AND PDF FORMATS TO JPMC PRIOR TO THE COMPLETION OF THE PROJECT.
B. ALL STRUCTURED CABLING TEST RESULTS IN PDF FORMAT. THIS DOCUMENTATION SHALL REFERENCE THE PROJECT ADDRESS WITHIN THE DOCUMENT.
C. ALL STRUCTURED CABLING MANUFACTURER WARRANTIES. THIS DOCUMENTATION SHALL REFERENCE THE PROJECT ADDRESS WITHIN THE DOCUMENT.

REFER ALL QUESTIONS TO STRUCTURED CABLING ENGINEER LISTED BELOW:
KEVIN BRENNAN
JPMC
PH: 614.217.5158
EMAIL: kevin.m.brennan@jpmchase.com

BASE BID

THE JPMC IMPLEMENTATION PROJECT MANAGER WILL SOLICIT BIDS FROM STRUCTURED CABLING CONTRACTORS, NOT THE GENERAL CONTRACTOR OR ELECTRICAL CONTRACTOR. THE BASE BID SHALL INCLUDE ALL LABOR AND MATERIAL NECESSARY TO PROVIDE A COMPLETE STRUCTURED CABLING SYSTEM (E.G., ALL CABLING, CONVEYANCE, PATCH PANELS, MISCELLANEOUS MATERIALS, LABELING, ETC. REGARDLESS OF MANUFACTURER SPECIFIC ITEMS AS IDENTIFIED IN THE BID). THE BIDDER IS RESPONSIBLE FOR ALL PERMITS AND SHALL INCLUDE THE COST IN THEIR BID. BIDDERS SHALL ALSO INCLUDE APPLICABLE TAXES IN THEIR RESPONSE.

ABBREVIATIONS

AFF = ABOVE FINISHED FLOOR
AFC = ABOVE FINISHED COUNTER
BAS = BUILDING AUTOMATION SYSTEM
BBC = BACKBONE BONDING CONDUCTOR
BICSI = BUILDING INDUSTRY CONSULTING SERVICE INTERNATIONAL
CAT = CATEGORY (CABLING)
CCTV = CLOSED CIRCUIT TELEVISION
CM = CONSTRUCTION MANAGER
CP = CONSOLIDATION POINT
EC = ELECTRICAL CONTRACTOR
EMT = ELECTRICAL METALLIC TUBING
ENT = ELECTRICAL NON-METALLIC TUBING
ESD = ELECTROSTATIC DISCHARGE
F/UTP = FOIL SHIELD WITH UNSHIELDED TWISTED PAIR
GC = GENERAL CONTRACTOR
GTI = GLOBAL TECHNOLOGY INFRASTRUCTURE
IEC = INTERNATIONAL ELECTROTECHNICAL COMMISSION
ISO = INTERNATIONAL ORGANIZATION FOR STANDARDS
LOB = LINE OF BUSINESS
MC = MECHANICAL CONTRACTOR
NEC = NATIONAL ELECTRICAL CODE
NFPA = NATIONAL FIRE PROTECTION ASSOCIATION
OPR = OWNER'S PROJECT REPRESENTATIVE
PBB = PRIMARY BONDING BUSBAR
PDU = POWER DISTRIBUTION UNIT
PM = PROJECT MANAGER
RBB = RACK BONDING BUSBAR
RBC = RACK BONDING CONDUCTOR
RMER = RETAIL MAIN EQUIPMENT ROOM
RTR = RETAIL TELECOMMUNICATIONS ROOM
SBB = SECONDARY BONDING BUSBAR
SC = SECURITY CONTRACTOR
TBB = TELECOMMUNICATIONS BONDING BACKBONE
TBC = TELECOMMUNICATIONS BONDING CONDUCTOR
TC = TELECOMMUNICATIONS CONTRACTOR
TEBC = TELECOMMUNICATIONS EQUIPMENT BONDING CONDUCTOR
TIA = TELECOMMUNICATIONS INDUSTRY ASSOCIATION
UTP = UNSHIELDED TWISTED PAIR

INDEX OF DRAWINGS: TELECOMMUNICATIONS

CONDUIT REQUIREMENT CABLE FILL FOR UTP CABLE
(CAT 6 OD = 0.24", CAT 6A OD = 0.285")

CONDUIT TRADE SIZE	CONDUIT AREA (SQ IN)	40% FILL # OF CAT 6 CABLES	40% FILL # OF CAT 6A CABLES
1"	0.81	7	5
1-1/4"	1.27	11	9
1-1/2"	1.86	18	12
2"	3.26	28	21
3"	7.06	62	55
4"	12.56	111	92

ASSUMES INDUSTRY STANDARD AND NEC CODE IS TO DESIGN FOR A MAXIMUM OF 40% FILL. THE ACTUAL NUMBER OF CABLES WHICH CAN BE INSTALLED IN A PARTICULAR CONDUIT CAN BE LESS DEPENDING UPON CONDUIT LENGTH AND NUMBER OF BENDS. SEE CONDUIT INSTALLATION NOTES FOR MORE INFORMATION.

IMPLEMENTATION RESPONSIBILITY MATRIX

INSTALLATION ITEMS	GENERAL CONTRACTOR	ELECTRICAL CONTRACTOR	TELECOM CONTRACTOR	SECURITY CONTRACTOR	A/V CONTRACTOR	3RD PARTY	JPMC
STRUCTURED CABLING - LOW VOLTAGE HORIZONTAL AND BACKBONE CABLING, RACKS, PATCH PANELS, PATCH CORDS			F & I				
CONDUITS AND BACKBOXES FOR STRUCTURED CABLING, AV, AND SECURITY DEVICES, INCLUDING ASSOCIATED INNERDUCT AND PULL STRINGS.		F & I					
NEMA RATED BOXES FOR POLE MOUNTED CCTV INSTALLATIONS		F & I					
AUDIO / VISUAL DEDICATED IN-WALL STORAGE BOXES (PAC BOXES)	F & I						
CABLE SUPPORTS (OUTSIDE OF RMER/RTRs) FOR STRUCTURED CABLING			F & I				
LADDER RACKS (INSIDE RMER/RTRs) FOR STRUCTURED CABLING			F & I				
FIRE-RATED SLEEVES INTO THE RMER/RTR			F & I				
GROUNDING TO THE RMER/RTR INCLUDING THE WALL MOUNTED BUSBAR		F & I					
GROUNDING IN THE RMER/RTR FROM THE WALL MOUNTED BUSBAR TO THE RACK BUSBAR & ALL OTHER EQUIPMENT			F & I				
PLYWOOD BACKBOARDS - MARKED WITH INTENDED USE PER THE TC-DRAWINGS.	F & I						
NETWORK EQUIPMENT WITHIN RMER/RTR						I	F
RACK MOUNTED POWER DISTRIBUTION UNITS (PDUs) FOR IT EQUIPMENT			F & I				
RACK MOUNTED POWER DISTRIBUTION UNITS (PDUs) FOR AV EQUIPMENT					F & I		
POWER CORDS FOR NETWORK EQUIPMENT WITHIN THE RMER/RTR			F & I				
WIRELESS ACCESS POINTS			I				F
SECURITY DEVICES - CAMERAS, ACCESS CONTROL, INTRUSION DETECTION.				F & I			
A/V DEVICES - DISPLAYS, CONTROLS, SPEAKERS, AMPLIFIERS, DIGITAL SIGNAGE, ETC.					F & I		
WIRELESS CELLULAR ANTENNA SYSTEM						F & I	
WIRELESS CELLULAR ANTENNA SYSTEM PATHWAYS		F & I					
BMS SYSTEM& DEVICES						F & I	
BACKGROUND MUSIC SYSTEM & DEVICES						F & I	
SCOPE DEFINED IN ROOM READY & PRODUCTION READY CHECKLISTS	F & I	F & I	F & I	F & I	F & I	F & I	F & I

DEFINITIONS: F = FURNISH I = INSTALL

NEW SCOPE OF WORK

TELECOM SCOPE OF WORK

A. THE COPPER STRUCTURED CABLING SOLUTION FOR THIS PROJECT SHALL BE COMMSCOPE/SYSTIMAX FOR UTP CABLING INFRASTRUCTURE. THE FIBER STRUCTURED CABLING SOLUTION FOR THIS PROJECT SHALL BE CORNING.

B. FURNISH, INSTALL, LABEL AND TEST ALL CABLES AND COMPONENTS PER JPMC STRUCTURED CABLING STANDARDS.

C. THE TELECOMMUNICATIONS CONTRACTOR TO FURNISH AND INSTALL PATCH CORDS AT EVERY OUTLET LOCATION AND IN THE TELECOM ROOM, AND PATCH FROM THE PATCH PANEL TO NETWORK SWITCH IN THE RACK.

D. ALL OUTLETS, JACKS, CABLES, FACEPLATES AND PATCH PANEL IDs SHALL BE LABELED ACCORDINGLY TO REFLECT THE ACCURACY ON BOTH ENDS: TELECOMMUNICATION ROOM AND WORKSTATION.

E. WAP INSTALLATION: CONTRACTOR SHALL RECEIVE, UN-BOX, MOUNT, PATCH, AND RECORD RELEVANT INFORMATION FOR THE WIRELESS ACCESS POINTS FURNISHED BY THE OWNER. EACH WAP HAS ONE PATCH THAT ARE INSTALLED FROM THE OUTLET TO THE WAP AND ONE ON THE RMER/RTR SIDE.

F. NETWORK ELECTRONICS EQUIPMENT RACK AND STACK: CONTRACTOR SHALL COORDINATE WITH JPMC GTI PROJECT MANAGER.

G. WALL PHONE INSTALLATION: CONTRACTOR SHALL RECEIVE, UN-BOX, MOUNT, PATCH, LABEL WALL PHONE BRACKETS, AND RECORD RELEVANT INFORMATION FOR THE WALL MOUNTED PHONES. THE WALL PHONE BRACKETS SHALL BE LABELED WITH THE TELECOMMUNICATIONS OUTLET LABEL ID ON THE TOP OF THE BRACKET SO IT IS VISIBLE AFTER THE WALL PHONE IS INSTALLED. THE CONTRACTOR SHALL ALSO MOUNT THE WALL PHONES. THE OWNER SHALL FURNISH THE WALL PHONES AND BRACKETS.

H. NETWORK TURN-UP: THE CONTRACTOR SHALL PROVIDE SUPPORT DURING NETWORK TURN-UP. THIS SHALL INCLUDE LABOR FOR TWO TECHNICIANS FOR OFF-HOURS WORK FOR TWO HOURS PER RMER AND/OR RTR.

GENERAL COORDINATION NOTES

A. RMERS AND RTRS SHALL NOT BE USED AS A PASS THROUGH (WHETHER UNDER A RAISED FLOOR OR ABOVE CEILING) FOR ANY OTHER TRADES ASIDE FROM STRUCTURED CABLING. ANY PENETRATIONS INTO THESE ROOMS, INCLUDING BUT NOT LIMITED TO ELECTRICAL OR MECHANICAL FIT-OUT TO SOLELY SUPPORT THE MERS AND TRS, SHALL BE ROUTED AWAY FROM THE TECHNOLOGY EQUIPMENT. ROUTING OF CONDUIT SHALL TAKE THE SHORTEST PATH INTO THESE ROOMS.

B. CONTRACTOR IS SOLELY RESPONSIBLE FOR DEVELOPING A STRUCTURED CABLING BILL OF MATERIALS FROM DESIGN DOCUMENTS PROVIDED. IN ALL CASES WHERE CONTRACTOR IDENTIFIES UNCLEAR OR IMPRECISE DRAWINGS OR SPECIFICATIONS DURING THE BIDDING OR QUOTATION PROCESS, CONTRACTOR SHALL CONTACT OPR, WHO SHALL FURNISH APPROPRIATE INTERPRETATION. UPON AWARD, CONTRACTOR ASSUMES RESPONSIBILITY FOR CORRECTING ANY AND ALL INCONSISTENCIES AT NO ADDITIONAL COST TO OWNER. HERE THE REQUIREMENTS OF CERTAIN SECTIONS OF THE SPECIFICATIONS ARE MORE STRINGENT THAN APPLICABLE CODES, RULES, REGULATIONS, AND ORDINANCES, THE SPECIFICATIONS SHALL APPLY. THE CONTRACTOR SHOULD NOTE ITEMS IN THE DRAWINGS OR THE SPECIFICATIONS, CONSTRUCTION OF WHICH WOULD RESULT IN CODE VIOLATIONS, THE CONTRACTOR SHALL PROMPTLY CALL THEM TO THE ATTENTION OF THE OPR IN WRITING.

TELECOM CARRIER CONDUIT INSTALLATION NOTES:

A. ALL NEW CONDUITS FOR TELECOMMUNICATIONS CARRIER CABLING SHALL BE RIGID METALLIC CONDUIT. EACH CONDUIT SHALL HAVE A 3-CELL MAXCELL INNERDUCT INSTALLED AND LABELED WITH THE SOURCE AND DESTINATION.

B. ALL CABLES MUST BE PULLED AT THE SAME TIME TO ACHIEVE THE GREATER FILL LEVELS.

C. PULL BOXES SHOULD BE PLACED EVERY 100 FEET OR IF MORE THAN 180 DEGREES OF BENDS ARE INSTALLED IN THE CONDUIT.

D. CONDUITS SHALL ENTER AND EXIT PULL BOXES IN A CONTINUOUS DIRECTION. PULL BOXES ARE NOT TO BE USED FOR 90 DEGREE BENDS.

E. ALL 90 DEGREE BENDS SHALL HAVE A SWEEPING BEND WITH A BEND RADII EQUAL TO AT LEAST 10 TIMES THE DIAMETER OF THE CONDUIT.

F. ALL CONDUIT END POINTS SHALL BE FREE OF SHARP EDGES AND PROVIDED WITH A SUITABLE BUSHING.

G. ALL CONDUITS SHALL HAVE A PULL STRING INSTALLED PRIOR TO THE STRUCTURED CABLING INSTALLATION. A PULL STRING SHALL ALSO BE WITHIN THE CONDUITS AFTER THE STRUCTURED CABLING INSTALLATION.

JPMORGAN CHASE & CO.
GLOBAL TECHNOLOGY INFRASTRUCTURE
END USER SERVICES
WORKPLACE & DATA CENTER SERVICES
STRUCTURED CABLING ENGINEERING
1111 POLARIS PARKWAY, COLUMBUS, OHIO 43240

NEW RETAIL BRANCH PRYOR RD. AND LOWENSTEIN DR.

keyplan

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REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
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KEVIN BRENNAN
REG NO 166050
EXPIRES 12-31-23
RCDD

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SECTION 27 00 00 - COMMUNICATIONS INTRODUCTORY STANDARD

PART 1 -

1.1 GENERAL REQUIREMENTS

A. THIS DOCUMENT IS INTENDED TO PROVIDE THE INFORMATION NECESSARY TO ALLOW THE DESIGN AND CONSTRUCTION TEAMS TO PLAN AND IMPLEMENT TELECOMMUNICATIONS CABLING INFRASTRUCTURES AND TO ENSURE THAT ALL NEW INSTALLATIONS AND RENOVATIONS ARE UNIFORM AND CONSISTENT WITH COMPANY-WIDE STANDARDS. THIS DOCUMENT IDENTIFIES THE TELECOMMUNICATIONS INFRASTRUCTURE REQUIREMENTS FOR RETAIL SPACES.

B. IT IS ENVISIONED THAT NOT ALL RETAIL SPACES WILL REQUIRE THE COMPLETE RANGE OF SERVICES AND TELECOMMUNICATIONS INFRASTRUCTURE DESCRIBED IN THIS DOCUMENT. THE EXACT SOLUTION THAT SUITS EACH PARTICULAR SPACE WILL BE DEFINED AT THE COMMENCEMENT OF EACH PROJECT BY THE PROJECT TEAM.

1.2 PURPOSE

A. THIS STANDARD FOR RETAIL STRUCTURED CABLING DESIGN AND THE ACCOMPANYING APPENDICES IS INTENDED AS A STANDARD TO BE USED BY CONSTRUCTION DESIGN PROFESSIONALS (ARCHITECTS, ENGINEERS, DESIGNERS, ETC.). ITS PURPOSE IS TO DEFINE THE BASELINE DESIGN FOR RETAIL FACILITIES IN ORDER TO MAKE THEM EASIER TO SPECIFY, UTILIZE, AND MANAGE, AND TO STATE THE CABLING INFRASTRUCTURE STANDARDS ASSOCIATED WITH THESE SPACES. TO PROMOTE WIDE UNDERSTANDING IT IS BUILT UPON A FOUNDATION OF RECOGNIZED INDUSTRY STANDARDS AND BEST PRACTICES.

B. THIS STANDARD MUST BE USED AS A TOOL TO PLAN RETAIL FACILITIES. THIS DOCUMENT IS NOT INTENDED TO REPLACE THE SPECIFIC NEEDS OF A GIVEN RETAIL FACILITY OR ASSOCIATED DESIGN COORDINATION. IT MUST BE USED IN CONJUNCTION WITH NEEDS ASSESSMENT AND PROPER DESIGN COORDINATION. SPECIFIC PROJECT REQUIREMENTS SHALL BE DEFINED IN T-SERIES DRAWINGS THAT SHALL BE ISSUED AS PART OF A COMPLETE CONSTRUCTION DRAWING SET WITH THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS.

C. IF A STANDARD CANNOT BE MET DURING THE PLANNING AND DESIGN PHASES, THE GROUP ACCOUNTABLE TO MEET THE REQUIREMENTS MUST SUBMIT A REQUEST FOR EXCEPTION APPROVAL PRIOR TO PROCEEDING WITH A DEVIATION FROM THE STANDARD.

1.3 DESIGN CONSULTANT REQUIREMENTS

A. IN THE CASE WHERE A PROJECT IS DESIGNED BY AN ENTITY OTHER THAN THE JPMC STRUCTURED CABLING ENGINEERING TEAM, THE DESIGN CONSULTANT SHALL MEET ONE OF THE FOLLOWING CRITERIA:

   1. THE ENGINEER SHALL BE A BICSI RCDD IN GOOD STANDING WITH AT LEAST 2 YEARS OF EXPERIENCE IN STRUCTURED CABLING DESIGN AND CONSTRUCTION MANAGEMENT.
   2. THE ENGINEER SHALL HAVE 10 YEARS OF EXPERIENCE IN STRUCTURED CABLING DESIGN AND CONSTRUCTION MANAGEMENT.

1.4 TECHNOLOGY SPACE DEFINITIONS

A. THE FOLLOWING ARE THE TYPES OF TECHNOLOGY SPACES THAT ARE FOUND IN RETAIL FACILITIES, RETAIL MAIN EQUIPMENT ROOM (RMER), RETAIL TELECOMMUNICATIONS ROOM (RTR), AND RETAIL TELECOMMUNICATIONS ENCLOSURE (RTE).

B. RETAIL MAIN EQUIPMENT ROOM (RMER): THE RMER SERVES AS A COMMON NETWORK DISTRIBUTION POINT FOR THE TELECOMMUNICATIONS ROOMS OR TELECOMMUNICATIONS ENCLOSURES WITHIN THAT BUILDING, HORIZONTAL CABLING DISTRIBUTION POINT FOR A GIVEN AREA, AND THE INTERFACE WITH THE TELECOMMUNICATIONS SERVICE PROVIDERS (CARRIERS). ITEMS WITHIN THE RMER INCLUDE:

   1. FLOOR MOUNTED EQUIPMENT RACKS.
   2. JPMC NETWORKING EQUIPMENT (ROUTERS AND SWITCHES).
   3. BACKBONE CABLING TERMINATIONS FROM RMER TO RTRS (IF APPLICABLE).
   4. HORIZONTAL CABLING TERMINATIONS.
   5. STRUCTURED CABLING PATHWAYS (LADDER RACKS AND FIRE-RATED WALL SLEEVES).
   6. WIRED TELECOMMUNICATIONS SERVICE PROVIDER CABLING ENTRANCE, CABLING TERMINATIONS, AND EQUIPMENT.
   7. WIRELESS TELECOMMUNICATIONS SERVICE PROVIDER CABLING ENTRANCE, CABLING TERMINATIONS, AND EQUIPMENT.
   8. TELECOMMUNICATIONS MAIN GROUNDING BUSBAR.
   9. DEDICATED COOLING UNIT.
   10. AUDIO/VIDEO EQUIPMENT TO SUPPORT DIGITAL SIGNAGE APPLICATIONS.
   11. ACCESS CONTROL SYSTEM PANELS.
   12. INTRUSION DETECTION SYSTEM PANELS.
   13. MOOD MUSIC SYSTEM EQUIPMENT.
   14. BUILDING MANAGEMENT SYSTEM (BMS) EQUIPMENT.

C. RETAIL TELECOMMUNICATIONS ROOMS (RTR): A RTR SERVES AS A HORIZONTAL CABLING DISTRIBUTION POINT FOR A GIVEN AREA. ITEMS WITHIN A RTR INCLUDE:

   1. FLOOR MOUNTED RACK OR WALL MOUNTED-FLOOR SUPPORTED EQUIPMENT CABINET.
   2. JPMC NETWORKING EQUIPMENT (SWITCHES).
   3. BACKBONE CABLING TERMINATIONS TO THE RMER.
   4. HORIZONTAL CABLING TERMINATIONS.
   5. STRUCTURED CABLING PATHWAYS (LADDER RACKS AND FIRE-RATED WALL SLEEVES).
   6. TELECOMMUNICATIONS GROUNDING BUSBAR.
   7. DEDICATED COOLING UNIT.
   8. AUDIO/VIDEO EQUIPMENT TO SUPPORT DIGITAL SIGNAGE APPLICATIONS.

D. STAND ALONE ATM: SMALL ROOM ADJOINING OR BEHIND THE FRONT OF THE ATMS AS A HORIZONTAL CABLING DISTRIBUTION POINT FOR A LIMITED AMOUNT OF CABLES (NO MORE THAN 24). ITEMS INCLUDE:

   1. FLOOR MOUNTED RACK OR WALL MOUNTED-FLOOR SUPPORTED EQUIPMENT CABINET.
   2. JPMC NETWORKING EQUIPMENT (SWITCH).
   3. HORIZONTAL CABLING TERMINATIONS.
   4. STRUCTURED CABLING PATHWAYS (LADDER RACKS AND FIRE-RATED WALL SLEEVES).
   5. WIRED TELECOMMUNICATIONS SERVICE PROVIDER CABLING ENTRANCE, CABLING TERMINATIONS, AND EQUIPMENT.
   6. WIRELESS TELECOMMUNICATIONS SERVICE PROVIDER CABLING ENTRANCE, CABLING TERMINATIONS, AND EQUIPMENT.
   7. TELECOMMUNICATIONS MAIN GROUNDING BUSBAR.
   8. AUDIO/VIDEO EQUIPMENT TO SUPPORT DIGITAL SIGNAGE APPLICATIONS.
   9. ACCESS CONTROL SYSTEM PANELS.
   10. INTRUSION DETECTION SYSTEM PANELS.
   11. ELECTRICAL PANEL

E. TELECOMMUNICATIONS ENCLOSURE (TE): A TE SERVES AS A HORIZONTAL CABLING DISTRIBUTION POINT FOR A LIMITED AMOUNT OF CABLES (NO MORE THAN 24) FOR A GIVEN SMALL AREA AND SHALL ONLY BE USED WHEN ABSOLUTELY NECESSARY WITH APPROVAL FROM THE JPMC STRUCTURED CABLING ENGINEERING TEAM. A TE CONSISTS OF:

   1. WALL MOUNTED OR WALL MOUNTED-FLOOR SUPPORTED EQUIPMENT CABINET.
   2. JPMC NETWORKING EQUIPMENT (SWITCH).
   3. HORIZONTAL CABLING TERMINATIONS.
   4. WIRELESS TELECOMMUNICATIONS SERVICE PROVIDER CABLING ENTRANCE, CABLING TERMINATIONS, AND EQUIPMENT.
   5. TELECOMMUNICATIONS MAIN GROUNDING BUSBAR.
   6. AUDIO/VIDEO EQUIPMENT TO SUPPORT DIGITAL SIGNAGE APPLICATIONS.

F. ITEMS NOT WITHIN THE RMER OR RTR INCLUDE:

   1. ELECTRICAL PANELS.
   2. FIRE ALARM PANELS.
   3. DOMESTIC WATER PIPING.
   4. SANITARY WATER PIPING.
   5. HVAC PIPING UNLESS TO SUPPORT THE RMER/RTR COOLING UNIT.
   6. FIRE PROTECTION PIPING UNLESS TO SUPPORT THE RMER/RTR PER LOCAL CODES.

G. ITEMS NOT WITHIN TE INCLUDE:

   1. DOMESTIC WATER PIPING.
   2. SANITARY WATER PIPING.
   3. HVAC PIPING.
   4. FIRE PROTECTION PIPING UNLESS TO SUPPORT THE TE PER LOCAL CODES.

H. GUIDELINES FOR QUANTITY AND LOCATION OF CRITICAL TECHNOLOGY SPACES.

   1. RMER:
      a. ONE PER FACILITY, CENTRALLY LOCATED AS MUCH AS POSSIBLE, TO SERVE UP TO 10,000 SQUARE FEET OF SPACE ON THE SAME FLOOR/LEVEL.
   2. RTR:
      a. ONE PER ADDITIONAL FLOOR/LEVEL THAT THE RMER DOES NOT SERVE, CENTRALLY LOCATED AS MUCH AS POSSIBLE.
      b. ONE PER ADDITIONAL 10,000 SQUARE FEET THAT THE RMER DOES NOT SERVE, CENTRALLY LOCATED AS MUCH AS POSSIBLE FOR THE AREA SERVED.
   3. TE:
      a. ONLY TO BE USED WITHIN A STAND-ALONE ATM DESIGN (NON-STAFFED LOCATION WITH ONLY ONE OR TWO ATMS).

1.5 DEFINITIONS/TERMINOLOGY/ABBREVIATIONS

A. AHJ: AUTHORITY HAVING JURISDICTION AS DEFINED BY THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE.

B. AS-BUILT: DOCUMENTATION THAT INCLUDES FLOOR PLAN DRAWINGS THAT INDICATE ALL STRUCTURED CABLING OUTLET LOCATIONS WITH CABLE LABELING, MAJOR CABLING PATHWAYS, AND RMER/RTR/TE LAYOUTS WITH RACK ELEVATIONS UPON JOB COMPLETION THAT REFLECTS CHANGES FROM THE PLANNED TO THE FINISHED STATE.

C. CM: CONSTRUCTION MANAGER

D. CONTRACTOR: THE STRUCTURED CABLING INSTALLATION CONTRACTOR

E. FURNISH: THE CONTRACTOR SHALL SUPPLY.

F. GC: GENERAL CONTRACTOR

G. HC: HORIZONTAL CROSS-CONNECT

H. ILEC: INCUMBENT LOCAL EXCHANGE CARRIER.

I. INSTALL: TO PUT INTO PLACE OR FIX IN POSITION READY FOR USE.

J. JPMC: JP MORGAN CHASE & COMPANY

K. MANDATORY: EQUIVALENT TERMS INCLUDE *MUST, SHALL, WILL, IS REQUIRED, & ARE REQUIRED*.

L. RMER: RETAIL MAIN EQUIPMENT ROOM

M. RTR: RETAIL TELECOMMUNICATIONS ROOM

N. OPR: OWNER'S PROJECT REPRESENTATIVE. JPMC'S DESIGNATED REPRESENTATIVE RESPONSIBLE FOR A SUCCESSFUL PROJECT OUTCOME.

O. OPTIONAL: EQUIVALENT TERMS INCLUDE *CAN, MAY, SHOULD, PREFERABLY, PREFERS, DESIRED, & DESIRABLE*.

P. OWNER: JP MORGAN CHASE & COMPANY

Q. PROJECT DOCUMENTS: ALL DOCUMENTS THAT PERTAIN TO THE PROJECT, INCLUDING, BUT NOT LIMITED TO, PROJECT DRAWINGS, THIS STANDARD, AND PROJECT SPECIFICATIONS.

R. PROVIDE: TO FURNISH AND INSTALL.

S. SPECIFICATIONS: DIVISION 27 SPECIFICATIONS, WHICH OUTLINES GENERAL INSTALLATION REQUIREMENTS.

T. TE: TELECOMMUNICATIONS ENCLOSURE

1.6 CODES, REGULATIONS, & STANDARDS

A. ALL ASPECTS OF CONSTRUCTION AND INSTALLATION MUST MEET APPLICABLE LOCAL, STATE, AND FEDERAL LAWS, AS WELL AS ANY REGULATIONS SPECIFIC TO A SITE. LEGALLY BINDING REQUIREMENTS MUST PREVAIL IF THERE ARE ANY CONFLICTS WITH REQUIREMENTS STATED OR IMPLIED IN THIS DOCUMENT. THE AHJ WILL BE THE ARBITER IN SITUATIONS WHERE INTERPRETATION IS NECESSARY TO CLARIFY INFORMATION, OR TO RESOLVE CONFLICTS INVOLVING LEGALLY BINDING REQUIREMENTS.

B. WORK SAFETY MUST BE IN COMPLIANCE WITH PUBLIC LAW 91-596, OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA). AS APPLICABLE, REQUIREMENTS OF THE NFPA 101 LIFE SAFETY CODE MUST BE FOLLOWED.

C. CODES, REGULATIONS, STANDARDS, AND INDUSTRY PRACTICES DOCUMENTS EXPLICIT TO THIS STANDARD ARE LISTED IN SECTION 1.8 BELOW, BUT THEY ARE NOT EXHAUSTIVE. EVEN WHEN NOT EXPLICITLY CITED WITHIN THIS DOCUMENT, THERE IS AN IMPLIED REQUIREMENT OF COMPLIANCE WITH INDUSTRY NORMS REFLECTED IN RECOGNIZED STANDARDS AND PRACTICES, AS WELL AS REQUIREMENTS BASED IN LAW.

D. CODES, REGULATIONS, STANDARDS, AND INDUSTRY PRACTICES DOCUMENTS CHANGE OVER TIME. CURRENT GOVERNING CODES AND REGULATIONS AT A SITE LOCATION, AND THE MOST RECENT EDITION OF STANDARDS AND PRACTICES DOCUMENTS (INCLUDING ERRATA, ANNEXES, AND AMENDMENTS) MUST BE USED AT THE TIME FACILITIES ARE DESIGNED AND WHEN THEY ARE UTILIZED.

E. ALTHOUGH A NUMBER OF STANDARDS AND PRACTICES ARE CITED IN THIS DOCUMENT, ANSI/TIA-569 “COMMERCIAL BUILDING STANDARD FOR TELECOMMUNICATIONS PATHWAYS” HAS BOTH EXPLICIT AND IMPLICIT THREADS THROUGHOUT.

F. ADDITIONALLY INFLUENCING THIS STANDARD ARE ACCEPTED INDUSTRY PRACTICES DOCUMENTS SUCH AS THOSE IN THE NECA/BICSI-568 “STANDARD FOR INSTALLING COMMERCIAL BUILDING COMMUNICATIONS CABLING”, AND THE BICSI *“TELECOMMUNICATIONS DISTRIBUTION METHODS MANUAL (TDMM)”*.

1.7 REFERENCED JPMC STANDARDS

A. FOR ARCHITECTURE: RETAIL DESIGN COMMUNICATION #18-007.

B. FOR PHYSICAL SECURITY: TS - NAMR - RETAIL FACILITY SECURITY DESIGN STANDARD VERSION 1.0

1.8 REFERENCED CODES AND STANDARDS

A. UNLESS OTHERWISE SPECIFICALLY STATED IN THIS DOCUMENT, ALL WORK SHALL BE PERFORMED IN FULL COMPLIANCE WITH THE REQUIREMENTS SET FORTH IN THE FOLLOWING REFERENCE STANDARDS. IN ANY CASE WHERE REGIONAL STANDARDS DISAGREE, LOCAL CODES AND STANDARDS APPLY. EVEN WHEN NOT EXPLICITLY CITED WITHIN THIS STANDARD DOCUMENT, THERE IS AN IMPLIED REQUIREMENT OF COMPLIANCE WITH INDUSTRY NORMS REFLECTED IN RECOGNIZED STANDARDS AND PRACTICES, AS WELL AS REQUIREMENTS BASED IN LAW. CURRENT GOVERNING CODES AND REGULATIONS AT A SITE LOCATION, AND THE MOST RECENT EDITION OF STANDARDS AND PRACTICES DOCUMENTS (INCLUDING ERRATA, ANNEXES, AND AMENDMENTS) MUST BE USED.

   1. AMERICANS WITH DISABILITIES ACT (ADA)
   2. ASHRAE TC9.9 2011 THERMAL GUIDELINES FOR DATA PROCESSING ENVIRONMENTS
   3. BICSI TELECOMMUNICATIONS DISTRIBUTION METHODS MANUAL, (CURRENT EDITION)
   4. CAN/ULC S115, STANDARD METHOD OF FIRE TESTS OF FIRESTOPS SYSTEMS
   5. NFPA 70 NATIONAL ELECTRICAL CODE (CURRENT VERSION AS APPLICABLE TO SITE LOCATION)
   6. TIA 568.0.D - GENERIC TELECOMMUNICATIONS CABLING FOR CUSTOMER PREMISES
   7. TIA 568.1.D - COMMERCIAL BUILDING TELECOMMUNICATIONS CABLING STANDARD
   8. TIA-568-C.2 - BALANCED TWISTED-PAIR TELECOMMUNICATIONS CABLING AND COMPONENTS STANDARDS
   9. TIA 568.3.D - OPTICAL FIBER CABLING COMPONENTS STANDARD
   10. TIA -569-C COMMERCIAL BUILDING STANDARD FOR TELECOMMUNICATIONS PATHWAYS AND SPACES
   11. ANSI/TIA-EIA-569-D TELECOMMUNICATIONS PATHWAYS AND SPACES
   12. TIA/EIA-606-C ADMINISTRATION STANDARD FOR COMMERCIAL TELECOMMUNICATIONS INFRASTRUCTURE
   13. TIA-607 COMMERCIAL BUILDING GROUNDING (EARTHING) AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS
   14. TIA/EIA-72 CENTRALIZED OPTICAL FIBER CABLING GUIDELINES
   15. TIA/EIA-758-B CUSTOMER-OWNED OUTSIDE PLANT TELECOMMUNICATIONS CABLING STANDARD

PART 2 - PRODUCTS

2.1 STRUCTURED CABLING REQUIREMENTS

A. COPPER AND FIBER OPTIC CABLING

   1. FOR UTP COPPER CABLING AND F/UTP COPPER CABLING, ALL MATERIAL SHALL BE MANUFACTURED BY COMMSCOPE SYSTIMAX AND THE CONTRACTOR SHALL BE AN AUTHORIZED COMMSCOPE UNIPRISE BUSINESS PARTNER (BP).
   2. FOR FIBER OPTIC CABLING, ALL MATERIAL SHALL BE MANUFACTURED BY CORNING AND THE CONTRACTOR SHALL BE CERTIFIED AS A CORNING PREFERRED INSTALLER (PI).

B. CABLING TYPES

   1. HORIZONTAL CABLING FOR ALL WIRELESS ACCESS POINTS AND IP-SECURITY CAMERAS UP TO 100M IN LENGTH SHALL BE CATEGORY 6A UTP.
   2. HORIZONTAL CABLING FOR ALL NON-WIRELESS ACCESS POINTS AND NON-IP-SECURITY CAMERAS UP TO 100M IN LENGTH SHALL BE CATEGORY 6 UTP.
   3. HORIZONTAL CABLING FOR ALL HDBASE-T CONNECTIONS SHALL BE CATEGORY 6A F/UTP.
   4. HORIZONTAL CABLING FOR IP-SECURITY CAMERAS OVER 100M IN LENGTH SHALL BE OM3 MULTIMODE FIBER OPTIC CABLE.

C. CABLE SUPPORT & PROTECTION

   1. WITHIN JPMC OWNED OR LEASED SPACES:
      a. ABOVE AN ACCESSIBLE CEILING: SUPPORTED BY EITHER J-HOOKS OR A WIRE-BASKET STYLE CABLE TRAY.
      b. ABOVE A HARD CEILING: WITHIN CONDUIT.
   2. OUTSIDE OF JPMC OWNED OR LEASED SPACES:
      a. ABOVE AN ACCESSIBLE CEILING: WITHIN CONDUIT.
      b. ABOVE A HARD CEILING: WITHIN CONDUIT.
   3. ANY REQUIRED JUNCTION AND/OR PULL BOXES LOCATED OUTSIDE OF JPMC OWNED OR LEASED SPACE SHALL BE PROVIDED WITH LOCKS OR TAMPER-PROOF SCREWS SO THAT THE CABLING IS INACCESSIBLE TO ANYONE OTHER THAN JPMC PERSONNEL.

D. MATERIAL INTERPRETATION

   1. THIS SPECIFICATION CONTAINS ALL PRODUCTS CURRENTLY APPROVED BY OWNER. CONTRACTOR SHOULD NOT ASSUME THAT MATERIALS LISTED IN THIS SPECIFICATION MUST BE INSTALLED MERELY BECAUSE THEY ARE LISTED IN THIS SPECIFICATION. PROJECT-SPECIFIC DETAIL ON REQUIRED MATERIALS IS FURTHER DEFINED IN THE ACCOMPANYING PROJECT DRAWINGS.

PART 3 - EXECUTION

3.1 RMER, RTR, & STAND ALONE ATM DESIGN REQUIREMENTS

A. FOR SITE UTILITIES, ARCHITECTURAL, MECHANICAL, FIRE SUPPRESSION, ELECTRICAL, SECURITY, AND MORE STRUCTURED CABLING REQUIREMENTS, SEE APPENDIX B.

3.2 CONSTRUCTION PROGRESS CHECKLIST

A. FOR A COMPREHENSIVE LIST OF ITEMS TO BE COMPLETED AT VARIOUS MILESTONES OF CONSTRUCTION, SEE APPENDIX A. THE MILESTONES ARE AS FOLLOWS AND SHALL BE INCORPORATED INTO THE CONSTRUCTION SCHEDULE.

   1. SHELL READY - CONSISTS OF GENERAL, MEP, & STRUCTURED CABLING CONSTRUCTION ITEMS.
   2. ROOM READY - CONSISTS OF GENERAL, MEP, SECURITY, & STRUCTURED CABLING CONSTRUCTION ITEMS.
   3. PRODUCTION READY - CONSISTS OF SECURITY, & STRUCTURED CABLING CONSTRUCTION ITEMS.
   4. WORKPLACE READY - CONSISTS OF GENERAL, MEP, FURNITURE, SECURITY, & STRUCTURED CABLING CONSTRUCTION ITEMS OUTSIDE OF THE RMER/RTR.

END OF SECTION

① SECTION 27 00 00
COMMUNICATIONS INTRODUCTORY STANDARD

SECTION 27 05 00 - QUALITY ASSURANCE FOR STRUCTURED CABLING

PART 1 - GENERAL

1.1 DESCRIPTION

A. THIS SPECIFICATION PROVIDES THE REQUIREMENTS FOR ALL STRUCTURED CABLING INSTALLATION CONTRACTORS.

1.2 INSTALLATION CONTRACTOR REQUIREMENTS

A. CERTIFICATIONS/TRAINING

   1. THE CONTRACTOR MUST HAVE FIVE YEARS MINIMUM EXPERIENCE IN STRUCTURED CABLING INSTALLATIONS.
   2. THE CONTRACTOR SHALL BE CONTRACTOR SHALL BE CERTIFIED BY THE MANUFACTURER OF THE SPECIFIED STRUCTURED CABLING IN ORDER TO PROVIDE THE MINIMUM TRENTY (20) YEAR EXTENDED PRODUCT AND APPLICATIONS ASSURANCE WARRANTY ON PARTS AND LABOR ASSOCIATED WITH THE UTP AND F/UTP CABLING INFRASTRUCTURE.
   3. THE CONTRACTOR SHALL BE A CORNING CERTIFIED CONTRACTOR IN ORDER TO PROVIDE A MINIMUM TWENTY (20) YEAR EXTENDED PRODUCT AND APPLICATIONS ASSURANCE WARRANTY ON PARTS AND LABOR ASSOCIATED WITH THE FIBER CABLING INFRASTRUCTURE.
   4. THE CONTRACTOR MUST HAVE AT LEAST ONE EMPLOYEE THAT IS A BICSI CERTIFIED INSTALLER 1, INSTALLER 2, OR TECHNICIAN ON SITE DURING THE INSTALLATION OF STRUCTURED CABLING.

B. UNION AFFILIATION

   1. IF REQUIRED BASED ON THE LOCATION OF THE PROJECT, THE CONTRACTOR SHALL BE A MEMBER OF THE LOCALLY RECOGNIZED UNION. THIS MAY INCLUDE, BUT NOT LIMITED TO, IBEW OR CWA.

1.3 APPROVED CONTRACTORS

A. PREFERRED CABLING CONTRACTOR MASTER LIST

   1. JPMC UTILIZES A LIST OF PRE-QUALIFIED CONTRACTORS TO PERFORM ALL STRUCTURED CABLING INSTALLATIONS. IN ORDER FOR A CONTRACTOR TO PROVIDE PRICING FOR A STRUCTURED CABLING INSTALLATION PROJECT, THE CONTRACTOR MUST BE ON THIS LIST.
   2. JPMC'S STRUCTURED CABLING DESIGN TEAM MAINTAINS THE PREFERRED CABLING CONTRACTOR MASTER LIST THAT IDENTIFIES CABLING CONTRACTORS THAT ARE PROPERLY AND TECHNICALLY QUALIFIED TO INSTALL PRODUCTS SPECIFIED WITHIN THIS STANDARD, HAVE THE FINANCIAL STRENGTH TO PERFORM PROJECTS WITHOUT DISRUPTIONS, AND HAVE A DOCUMENTED HISTORY OF SUCCESS IN PREVIOUS PROJECTS. THE STRUCTURED CABLING DESIGN TEAM IS THE SUBJECT MATTER EXPERT WITHIN JPMORGAN CHASE, REGARDING MATTERS INCLUDING, BUT NOT LIMITED TO QUALIFYING CERTIFIED CONTRACTORS. THE LIST IDENTIFIES IF A CONTRACTOR IS QUALIFIED TO PERFORM WORK IN OUR CORPORATE FACILITIES, AND/OR OUR RETAIL FACILITIES. GREAT CARE AND CONSTANT ATTENTION IS GIVEN TO THE MAINTENANCE OF THIS LIST, AND CONDITIONS FOR PROBATION AND ELIMINATION FROM OUR LIST BASED ON CONTRACTOR PERFORMANCE IS CONTAINED WITHIN THE PREFERRED CONTRACTOR MASTER LIST.

B. SUBCONTRACTORS

   1. JPMC STRUCTURED CABLING PROJECTS AS DEFINED BY THIS STANDARD SHALL ONLY BE IMPLEMENTED BY CONTRACTORS ON THE PREFERRED CABLING CONTRACTOR MASTER LIST. THE INSTALLATION CONTRACTORS ON THIS LIST SHALL NOT SUBCONTRACT WORK TO OTHERS WITHOUT PRIOR WRITTEN OPR APPROVAL. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY RESULT IN REMOVAL FROM CONSIDERATION FOR FUTURE JPMC PROJECTS. CONTRACTOR SHALL EVALUATE STAFFING REQUIREMENTS FOR CONTEMPLATED JPMC PROJECTS, AND SUBMIT REQUEST FOR SAID OPR APPROVAL AT THE TIME THAT THEY TENDER THEIR INITIAL PROPOSAL.

C. NEW CONTRACTOR PROBATION

   1. A CONTRACTOR THAT HAS BEEN ADDED TO THE PREFERRED CONTRACTOR LIST IS AUTOMATICALLY PLACED ON PROBATION. THE NEW CONTRACTOR PROBATION PERIOD IS THE GREATER OF 1) 90 DAYS, AND 2) AFTER TWO OR MORE PROJECTS HAVE BEEN ACCEPTED VIA AN ON-SITE INSPECTION BY OPR. THE NEW CONTRACTOR SHALL BE IMMEDIATELY AND PERMANENTLY REMOVED FROM THE PREFERRED CONTRACTOR LIST IF A) THE RESULTS OF AN ON-SITE INSPECTION ARE JUDGED BY THE INSPECTOR TO BE UNSATISFACTORY, OR B) UPON THE OCCURRENCE OF ONE PROBATION EVENT AS DEFINED UNDER EXISTING CONTRACTOR PROBATION IN THIS STANDARD. AT THE SUCCESSFUL CONCLUSION OF THE PROBATION PERIOD, THE NEW CONTRACTOR SHALL BE ADDED TO THE PREFERRED CONTRACTOR LIST.

D. EXISTING CONTRACTOR PROBATION

   1. AN EXISTING CONTRACTOR PROBATION EVENT OCCURS WHEN THE STRUCTURED CABLING DESIGN TEAM DETERMINES, IN THEIR SOLE DISCRETION, THAT THE CONTRACTOR HAS FAILED TO ADHERE TO INSTALLATION REQUIREMENTS AS DEFINED BY THE RETAIL STRUCTURED CABLING DESIGN STANDARD AND AFFILIATED DOCUMENTS. CONTRACTOR SHALL BE NOTIFIED IN WRITING REGARDING THE PROBATION EVENT, INCLUDING DETAILS OF THE EVENT, DATE OF THE EVENT, AND CONTACT INFORMATION FOR THE OPR THAT IS RESPONSIBLE FOR ADMINISTRATION OF THE PROBATION. EXISTING CONTRACTOR PROBATION PERIOD IS THE GREATER OF 1) 90 DAYS, AND 2) AFTER TWO OR MORE PROJECTS HAVE BEEN ACCEPTED VIA AN ON-SITE INSPECTION BY OPR, AND DEVIATIONS ASSOCIATED WITH THE PROBATION EVENT HAVE BEEN CORRECTED AND ACCEPTED IN WRITING BY OPR. CONTRACTOR SHALL BE IMMEDIATELY AND PERMANENTLY REMOVED FROM THE PREFERRED CONTRACTOR LIST IF A) TWO PROBATION EVENTS OCCUR IN ANY ROLLING 18-MONTH PERIOD, OR B) CONTRACTOR FAILS TO CORRECT DEVIATIONS FROM INSTALLATION REQUIREMENTS AS SPECIFIED IN THIS CLAUSE WITHIN 45 CALENDAR DAYS OF NOTIFICATION, OR C) CONTRACTOR HAS SUBCONTRACTED IN WHOLE OR IN PART A PROJECT WITHOUT PRIOR OWNER NOTIFICATION AND WRITTEN APPROVAL THEREOF, OR D) IN THE SOLE JUDGMENT OF OWNER, CONTRACTOR HAS FALSIFIED TEST RESULTS. CONTRACTOR SHALL BE NOTIFIED IN WRITING REGARDING PROBATION STATUS CHANGE, INCLUDING BUT NOT LIMITED TO PLACEMENT ON PROBATION, LIFTING OF PROBATION, AND REMOVAL FROM THE PREFERRED CONTRACTOR LIST.

E. OTHER CONTRACTOR CHANGES

   1. UPON UNANIMOUS VOTE BY THE STRUCTURED CABLING TEAM, CONTRACTOR MAY BE REMOVED FROM THE PREFERRED CONTRACTOR LIST AT THE SOLE DISCRETION OF THE JPMC STRUCTURED CABLING TEAM AT ANY TIME, AND WITHOUT ADVANCE NOTICE BY JPMC. REASONS INCLUDE, BUT ARE NOT LIMITED TO:
      a. CONTRACTOR LOSS OF PROPER MANUFACTURER CERTIFICATION
      b. CONTRACTOR ASSESSMENT OF MACD (MOVE ADD CHANGE DISCONNECT) FEES, WHICH, IN THE SOLE JUDGMENT OF THE JPMC STRUCTURED CABLING TEAM, ARE DETERMINED TO BE CONSISTENTLY EXCESSIVE
      c. FALSIFYING TEST RESULTS.
   2. UPON EXECUTION OF THIS CLAUSE, THE JPMC STRUCTURED CABLING TEAM MAY OR MAY NOT ISSUE NOTIFICATION TO CONTRACTOR REGARDING SAID REMOVAL.

1.4 OTHER CONTRACTOR REQUIREMENTS

A. OMISSIONS

   1. CONTRACTOR OMISSION OF ANY REQUIREMENT DESCRIBED IN PROJECT DOCUMENTS SHALL NOT BE CONSTRUED AS TO RELIEVE CONTRACTOR OF ANY RESPONSIBILITY OR OBLIGATION REQUIRED TO AFFECT THE COMPLETE AND SATISFACTORY DELIVERY, OPERATION, AND SUPPORT OF ANY AND ALL MATERIALS OR SERVICES.

B. CONTRACTOR ADVERTISING

   1. CONTRACTOR SHALL NOT SOLICIT WRITTEN OR VERBAL TESTIMONIALS FROM JPMC PERSONNEL AT ANY TIME. CONTRACTOR SHALL NOT INSTALL OR POST IN JPMC PROPERTIES ANY FORM OF SIGNAGE THAT CONTAINS CONTRACTOR NAME, ADDRESS, TELEPHONE NUMBER, OR LOGO. PHOTOGRAPHS WITHIN JPMC BUILDINGS INCLUDING TECHNOLOGY SPACES ARE STRICTLY PROHIBITED WITHOUT PRIOR APPROVAL OF JPMC IT RISK MANAGEMENT AND THE LOCAL JPMC SITE MANAGER. ALL REQUESTS SHALL BE SUBMITTED TO THE OPR FOR ROUTING.

PART 2 - PRODUCTS

2.1 GENERAL MATERIAL REQUIREMENTS

A. NEW MATERIALS

   1. ALL CABLE AND MATERIALS SHALL BE NEW, UNLESS PREVIOUSLY APPROVED IN WRITING BY OPR. NEW EQUIPMENT AND MATERIALS SHALL BE WITHOUT BLEMISH OR DEFECT. NEW EQUIPMENT AND MATERIALS SHALL BE UNDERWRITERS LABORATORIES, INC. (U.L.) LABELED AND/OR LISTED WHERE SPECIFICALLY CALLED FOR, OR WHERE NORMALLY SUBJECT TO SUCH U.L. LABELING AND/OR LISTING SERVICES.

B. EQUIVALENTS

   1. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL PRODUCTS INSTALLED AT THIS FACILITY ARE COMPATIBLE WITH THE APPLICATION. THE OWNER MAKES NO REPRESENTATION REGARDING THE ACCURACY OF THE PART NUMBERS LISTED.

C. SUBSTITUTIONS

   1. MATERIALS SHALL BE AS LISTED. NO SUBSTITUTIONS ARE ALLOWED WITHOUT WRITTEN CONSENT FROM THE JPMC STRUCTURED CABLING ENGINEERING TEAM. PROPOSALS FOR EQUIVALENT PRODUCTS MUST BE PRESENTED TO THE OPR VIA RFI'S, SUBMITTALS, AND/OR SHOP DRAWINGS. OPR WRITTEN APPROVAL IS REQUIRED BEFORE ANY SUBSTITUTIONS ARE MADE. MATERIALS MUST BE COMPATIBLE WITH THE END-TO-END SOLUTION BEING PROPOSED

PART 3 - EXECUTION

3.1 PROTECTION OF PROPERTY

A. EXTREME CARE SHALL BE TAKEN BY CONTRACTOR TO PROTECT ALL COMPONENTS OF THE PROPERTY FROM DAMAGE. CONTRACTOR SHALL REPLACE ANY DAMAGED CEILING TILES THAT ARE BROKEN DURING CABLE INSTALLATION. CONTRACTOR SHALL PROVIDE ALL PROTECTIVE DEVICES AND COVERINGS REQUIRED TO PROTECT AREAS ADJACENT TO THE WORK AREA. CONTRACTOR SHALL REPAIR DAMAGE TO AREAS ADJACENT TO THE WORK AREA AT NO COST TO THE OWNER, OR THE OWNER SHALL MAKE THE REPAIRS AND BACK CHARGE AGAINST THE TELECOM CONTRACTOR. CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR DAMAGES TO THIRD PARTIES INCURRED AS A RESULT OF CONTRACTOR'S WORK IN THIS PROJECT. PROTECTION OF PROPERTY SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING PROTECTIVE MEASURES:

   1. KEEPING THE RMER OR RTR FREE OF FOOD AND DRINK AT ALL TIMES.
   2. LEAVING RMER OR RTR DOORS CLOSED AT ALL TIMES.
   3. EMPLOYING HEPA VACUUM WHENEVER DRILLING, CUTTING, CORING, OR PERFORMING ANY WORK THAT WILL IMPACT AIR QUALITY.

B. IT IS CONTRACTOR'S SOLE RESPONSIBILITY TO SECURE, READ AND UNDERSTAND ALL RELEVANT JPMC STANDARDS, AND EXECUTE INSTALLATIONS IN ACCORDANCE WITH SAID STANDARDS.

3.2 DOCUMENTATION

A. UPON REQUEST BY JPMC, THE CONTRACTOR SHALL PROVIDE PROOF OF ANY CERTIFICATIONS, TRAINING, OR UNION AFFILIATIONS.

END OF SECTION

② SECTION 27 05 00 - QUALITY
ASSURANCE FOR STRUCTURED CABLING

JPMORGAN CHASE & CO.
GLOBAL TECHNOLOGY INFRASTRUCTURE
END USER SERVICES
WORKPLACE & DATA CENTER SERVICES
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NEW RETAIL BRANCH PRYOR RD. AND LOWENSTEIN DR.

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seal

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EXPIRES 12-31-23
RCDD

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no	date	issue	by
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TELECOM BOOK SPECS

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TC-001

SECTION 27 05 03 - TECHNOLOGY SPACE CLEANING

PART 1 - GENERAL

1.1 DESCRIPTION

A. THIS SPECIFICATION PROVIDES THE REQUIREMENTS FOR FINAL CLEANING OF TECHNOLOGY SPACES, INCLUSIVE OF RETAIL MAIN EQUIPMENT ROOMS (RMERS), RETAIL TELECOMMUNICATIONS ROOMS (RTRS), AND STAND ALONE ATMS.

1.2 STANDARDS OF OPERATION

A. CLEANING PERSONNEL ARE REQUIRED TO OBSERVE THE TECHNOLOGY ROOM STANDARDS OF OPERATIONS AT ALL TIMES. AT A MINIMUM, THIS INCLUDES:
   1. NO FOOD OR DRINK IN THE ROOM
   2. NO PROPPING TECHNOLOGY ROOM DOORS
   3. NO INTERFERING WITH THE OPERATION OF TECHNOLOGY ROOM EQUIPMENT
   4. NO UNAUTHORIZED/UN-BADGED PERSONNEL IN TECHNOLOGY ROOM

B. WORKERS MUST WEAR CLOTHING THAT EASILY IDENTIFIES THEM AS MEMBERS OF THE CLEANING COMPANY.

C. DURING THE CLEANING, WORKERS ARE RESPONSIBLE FOR CONDUCTING THEMSELVES IN SUCH A MANNER AS TO PROTECT THE OWNER'S EQUIPMENT AND INFRASTRUCTURE AND TO AVOID CREATING HAZARDS FOR EMPLOYEES WHO ENTER THE WORK AREA.

D. SIGNAGE OR SAFETY CONES SHOULD BE USED TO SURROUND OPEN FLOOR TILES, ELECTRICAL CORDS STRUNG ALONG THE FLOOR, AND ANY AREAS THAT ARE BEING DAMP-MOPPED.

PART 2 - PRODUCTS

2.1 APPROVED EQUIPMENT & MATERIALS

A. THE CONTRACTOR WILL USE THE FOLLOWING APPROVED EQUIPMENT AND SUPPLIES:
   1. TRIPLE-FILTRATION HIGH-EFFICIENCY PARTICULATE AIR (HEPA) OR S-CLASS VACUUMS, CAPABLE OF REMOVING 99.97 PERCENT OF PARTICLES 0.3 MICRONS OR LARGER.
   2. CLEANING CHEMICALS THAT ARE PH NEUTRAL, STATIC DISSIPATIVE, AND APPROVED OR QUALIFIED BY COMPUTER HARDWARE MANUFACTURERS.
   3. MATERIAL SAFETY DATA SHEETS MUST BE PROVIDED TO THE OWNER PRIOR TO PERFORMING WORK.
   4. CANNED AIR.
   5. LINT-FREE MOPS THAT ARE APPROVED OR QUALIFIED BY COMPUTER HARDWARE MANUFACTURERS. MOPS SHOULD HAVE NONMETAL HANDLES AND SEWN ENDS, TO PREVENT SNAGGING. MOP HEADS SHOULD HAVE LOOPED ENDS, NOT ENDS THAT ARE OPEN OR STRINGY OR BOTH.
   6. LINT-FREE, ANTISTATIC WIPES AND TOWELS THAT ARE APPROVED OR QUALIFIED BY COMPUTER HARDWARE MANUFACTURERS.
   7. LOW-SPEED FLOOR SCRUBBING MACHINES.
   8. ELECTRICAL CORDS THAT ARE IN GOOD CONDITION AND POSSESS APPROPRIATE GROUND CONFIGURATION.
   9. A STABLE STEPLADDER WITH NON-MARKING RUBBER FEET.

PART 3 - EXECUTION

3.1 EQUIPMENT CLEANING PROCEDURES

A. A HEPA VACUUM WILL BE USED TO CLEAN THE HORIZONTAL SURFACES OF ALL EQUIPMENT.

B. CLOTHS TREATED WITH ANTISTATIC PROPERTY CHEMICAL WILL BE USED TO WIPE DOWN ALL EXTERNAL SURFACES OF ALL CABINETS, POLYSTYRENE END-ROW SHEETS, SERVERS, NETWORKING DEVICES, AND STORAGE UNITS.

C. CHEMICALS WILL NOT BE SPRAYED DIRECTLY ONTO EQUIPMENT.

D. KEYBOARDS WILL NOT BE TOUCHED DURING CLEANINGS.

E. CLEANING ACTIVITIES SHOULD GENERALLY PROGRESS DOWNWARD FROM THE CEILING AND OUTWARD FROM THE ROOM'S AIR HANDLERS.

3.2 HIGH LEVEL CLEANING PROCEDURES

A. ALL CABLE TRAYS, LADDER RACKS, UNISTRUT, BEAMS, ETC. TO BE BLOWN THROUGH WITH COMPRESSED AIR AND WIPED DOWN WITH APPROPRIATE CLOTHS AND CHEMICALS.

3.3 LOW LEVEL CLEANING PROCEDURES

A. VACUUM SURFACE DUST AND PARTICLES FROM THE TOP OF ALL RACEWAYS AND CABLE TRAYS THAT ARE SECURED BELOW THE ROOM'S DECK OR CEILING.

B. MAKE NOTE OF ANY UNUSUAL CONDITIONS--LOOSE BRACKETS, DAMAGED CABLE BUNDLES, CONDENSATION, AND SO ON--AND INCLUDE THEM IN THE FINAL REPORT TO BE PROVIDED TO THE CM AND OWNER.

3.4 CLEANING OF TECHNOLOGY CABINETS/RACKS

A. WIPE DOWN THE EXTERNAL SURFACES OF ALL CABINETS USING LINT-FREE CLOTHS TREATED WITH ANTISTATIC CHEMICAL. AVOID DISTURBING PATCH CORDS OR POWER CABLES, TOUCHING KEYBOARDS, MOVING HARDWARE, OR SPRAYING CHEMICALS DIRECTLY ONTO EQUIPMENT.

B. USE CANNED AIR TO DISLODGE DUST IN AREAS THAT CANNOT BE REACHED BY HAND.

3.5 FLOOR SURFACE CLEANING PROCEDURES

A. WHEN CLEANING THE RAISED FLOOR, AVOID DISTURBING ANY CABLES THAT ARE ROUTED THROUGH THE NOTCHED OPENING OF FLOOR TILES.

B. VACUUM SURFACE DUST AND PARTICLES FROM THE TOP OF ALL ACCESSIBLE PORTIONS OF THE FLOOR, INCLUDING BLANK, NOTCHED, AND PERFORATED FLOOR TILES.

C. TREAT SMUDGES, STAINS, BLACK MARKS, AND SO ON, WITH AN APPROVED SOLUTION AND SCRUB WITH A MEDIUM-GRADE SCRUB PAD. USE AN APPROVED FLOOR MACHINE TO CLEAN ALL ACCESSIBLE PORTIONS OF THE FLOOR.

D. LAST, MOP THE FLOOR WITH A DAMP--NOT WET--MOP USING CLEAN, WARM WATER. USE A TWO-BUCKET SYSTEM, ONE FOR MOPPING AND ONE FOR RINSING. CHANGE WATER FREQUENTLY IN BOTH BUCKETS.

END OF SECTION

3 SECTION 27 05 03 TECHNOLOGY SPACE CLEANING

SECTION 27 05 26 - GROUNDING AND BONDING FOR STRUCTURED CABLING

PART 1 - GENERAL

1.1 DESCRIPTION

A. JPMC'S REAL ESTATE GROUP IS RESPONSIBLE FOR PROPER INSTALLATION OF A GROUNDING (EARTHING) BACKBONE THAT HAS BEEN DESIGNED AND INSTALLED IN ACCORDANCE WITH J-STD-607 OR EQUIVALENT REGIONAL STANDARD. IF SUCH GROUNDING (EARTHING) BACKBONE DOES NOT APPEAR TO BE IN PLACE, CONTRACTOR SHALL INFORM OPR, WHO WILL TAKE ACTION AS APPROPRIATE.

B. ALL BONDING AND GROUNDING (EARTHING) SHALL TRACK METHODS AND PROCEDURES DESCRIBED IN J-STD-607 OR EQUIVALENT REGIONAL STANDARD.

PART 2 - PRODUCTS

2.1 MATERIALS

A. COMPONENTS: SEE THE GROUNDING SCHEMATIC ON DRAWINGS FOR MANUFACTURERS AND PART NUMBERS.

B. ALL GROUNDING/BONDING CONDUCTORS SHALL BE COPPER (NO ALUMINUM ALLOWED).

PART 3 - EXECUTION

3.1 SEE THE GROUNDING SCHEMATIC ON DRAWINGS FOR CONTRACTOR REQUIREMENTS.

END OF SECTION

4 SECTION 27 05 26 - GROUNDING AND BONDING FOR STRUCTURED CABLING

SECTION 27 05 53 - IDENTIFICATION FOR STRUCTURED CABLING

PART 1 - GENERAL

1.1 DESCRIPTION

A. SYSTEM ACCEPTANCE SHALL BE WITHHELD UNTIL OPR HAS REVIEWED AND APPROVED ALL LABELING AS DEFINED ELSEWHERE IN THIS SECTION.

B. IN CASES WHERE 100 PERCENT OF THE CABLING INFRASTRUCTURE IS NEW, ALL LABELING SHALL BE PERFORMED IN ACCORDANCE WITH THIS SECTION 27 05 53. IN CASES WHERE NEW INFRASTRUCTURE IS BEING ADDED TO AN EXISTING (LEGACY) INFRASTRUCTURE THAT FOLLOWS AN EARLIER VERSION JPMC CABLING STANDARD, CONTRACTOR SHALL FURNISH TO OPR A DETAILED DESCRIPTION OF DEVIATIONS FROM THE PREVAILING RETAIL STRUCTURED CABLING STANDARD, AND UPON OPR WRITTEN APPROVAL, FOLLOW INSTEAD THE LEGACY LABELING STANDARD.

C. BECAUSE THE CABLE INFRASTRUCTURE IS A COMPREHENSIVE, INTEGRATED DESIGN, PROPER AND COMPREHENSIVE LABELING IS CRITICAL. TO ENSURE THE SUCCESS OF THIS COMPONENT OF THE SYSTEM DESIGN, ALL LABELS SHALL BE FULLY COMPLIANT WITH THE REQUIREMENTS SET FORTH IN THIS SECTION. CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING ALL LABELS AND LABEL HOLDERS AS SPECIFIED HEREIN.

D. ALL LABELS SHALL BE INSTALLED IN ACCORDANCE WITH INFORMATION CONTAINED IN PROJECT DRAWINGS AND AS SPECIFIED IN THIS SECTION.

E. THIS SPECIFICATION SETS FORTH GENERAL REQUIREMENTS FOR INFRASTRUCTURE IDENTIFICATION, NOT SPECIFIC NUMBERING SCHEMES. BEFORE THE LABELING PROCESS BEGINS, CONTRACTOR SHALL SUBMIT A WRITTEN PLAN THAT INCLUDES SPECIFIC NUMBERING SEQUENCES FOR EACH TELECOMMUNICATIONS ELEMENT, AND SHALL NOT PROCEED WITH THE PLAN UNTIL OPR FURNISHES WRITTEN APPROVAL OF SAID PLAN WHICH MAY CONTAIN STANDARDS-BASED MODIFICATIONS.

PART 2 - PRODUCTS

2.1 GENERAL MATERIAL REQUIREMENTS

A. ALL LABELS SHALL BE INDELIBLE, PRE-PRINTED (NOT HAND-WRITTEN), AND PERMANENT, USING BRADY PRINTER OR EQUIVALENT, ARIAL FONT OR EQUIVALENT. THE TEXT COLOR SHALL BE BLACK WITH A WHITE BACKGROUND, UNLESS AFFIXED ON A BLACK SURFACE, IN WHICH CASE THE LABEL BACKGROUND SHALL BE BLACK AND TEXT SHALL BE WHITE.

PART 3 - EXECUTION

3.1 SYSTEM DESCRIPTION

A. THE FOLLOWING INFRASTRUCTURE COMPONENTS SHALL BE INCLUDED AND FULLY LABELED IN THE IDENTIFICATION SCHEMA:
   1. INFORMATION OUTLET FACEPLATES
   2. HORIZONTAL CABLING
   3. COPPER PATCH PANELS
   4. BACKBONE CABLING
   5. FIBER PATCH PANELS
   6. RACKS
   7. POWER DISTRIBUTION UNITS AND POWER STRIPS
   8. IT EQUIPMENT ASSET TAGS
   9. CONDUIT AND SLEEVE PATHWAYS

3.2 INFORMATION OUTLET FACEPLATES

A. EACH INFORMATION OUTLET IDENTIFIER SHALL BE NUMBERED IN ACCORDANCE WITH THE FACEPLATE LABELING CONFIGURATION DETAIL, USING PAPER LABELS AND CLEAR WINDOWS INCLUDED WITH EACH APPROPRIATE INFORMATION OUTLET FACEPLATE. WHERE CLEAR WINDOWS ARE NOT APPLICABLE, CONTRACTOR SHALL COORDINATE A COMPLIANT LABEL THAT IS RESISTANT TO DAMAGE OR DEGRADATION OVER TIME (E.G. VINYL). TEXT HEIGHT AND POSITIONING SHALL BE IN ACCORDANCE WITH THE FACEPLATE LABELING CONFIGURATION DETAIL.

B. VOICE AND DATA OUTLETS SHALL BE LOCATED IN EACH FACEPLATE IN ACCORDANCE WITH THE FACEPLATE LABELING CONFIGURATION DETAIL.

3.3 HORIZONTAL CABLING

A. LABELS TO BE AFFIXED AT EVERY USED PATCH PANEL AND ON EACH HORIZONTAL CABLE ON BOTH ENDS.
   1. NOMENCLATURE: X#Y##
      a. WHERE X = RMER/RTR DESIGNATION, USE "M" FOR RMER AND "T" FOR RTR.
      b. WHERE # = RACK DESIGNATION (NUMERIC).
      c. WHERE Y = A SINGLE SEQUENTIAL ALPHA CHARACTER, BEGINNING WITH "A", IDENTIFYING THE PATCH PANEL.
      d. WHERE ## = TWO-DIGIT SEQUENTIAL NUMBER BEGINNING WITH "01", IDENTIFYING PATCH PANEL PORT NUMBER.

B. COPPER PATCH PANEL PORT IDENTIFICATION SHALL BE FULLY COMPLIANT WITH THE FACEPLATE LABELING CONFIGURATION DETAIL.

C. IF LABEL IS AFFIXED TO A BLACK OR DARK GRAY SURFACE, LABEL INFORMATION SHALL BE WHITE IN COLOR. IF LABEL IS AFFIXED TO BEIGE OR LIGHT-COLORED SURFACE, LABEL INFORMATION SHALL BE BLACK IN COLOR.

D. COPPER PATCH PANEL LABELS SHALL EMPLOY MANUFACTURER-SUPPLIED LABELING MATERIALS AND COVERS (IF APPLICABLE), AFFIXED TO EACH PANEL IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.

E. COPPER PATCH PANEL LABELS SHALL BE WHITE IN COLOR.

3.4 BACKBONE CABLING

A. THE CABLE SHALL BE LABELED ON BOTH ENDS.

B. NOMENCLATURE: SOURCE = X-#-ZZ AND DESTINATION = X-Y-ZZ-##/##-TTT
   1. WHERE X = RMER OR RTR DESIGNATION.
   2. WHERE # = RACK DESIGNATION.
   3. WHERE ZZ = PATCH PANEL DESIGNATION (RACK UNIT # FROM UPPER LEFT CORNER WHEN PANEL IS INSTALLED).
   4. WHERE ##/## = STARTING STRAND NUMBER/END STRAND NUMBER.
   5. WHERE TTT = FIBER TYPE, OM2, OM3, OR OM4 FOR MULTIMODE OR OS2 FOR SINGLE MODE.

C. WHERE ROUTE DIVERSITY IS EMPLOYED DESIGNATION STRIPS LOCATED ON TERMINATION PANELS FOR EACH ROUTE SHALL BE OF DISTINCTLY DIFFERENT COLORS.

3.5 FIBER PATCH PANELS

A. THE PATCH PANEL SHALL BE LABELED ON THE FRONT DOOR.
   1. NOMENCLATURE: ZZ
      a. WHERE ZZ = PATCH PANEL DESIGNATION (RACK UNIT # FROM THE UPPER LEFT CORNER WHERE THE PANEL IS INSTALLED.
      b. WITHIN THE PATCH PANEL (BEHIND THE FRONT DOOR).
      c. NOMENCLATURE: SOURCE = X-#-ZZ AND DESTINATION = ZZ-##/##-TTT
      d. WHERE X = RMER DESIGNATION, WHICH IS "M".
      e. WHERE # = RACK DESIGNATION.
      f. WHERE ZZ = PATCH PANEL DESIGNATION (RACK UNIT # FROM UPPER LEFT CORNER WHEN PANEL IS INSTALLED).
      g. WHERE ##/## = STARTING STRAND NUMBER/END STRAND NUMBER.
      h. WHERE TTT = FIBER TYPE, OM2, OM3, OR OM4 FOR MULTIMODE OR OS2 FOR SINGLE MODE.

3.6 RACKS

A. LABELS TO BE AFFIXED TO TOP FRONT AND TOP REAR OF RACK
   1. NOMENCLATURE: X#
      a. WHERE X = RMER/RTR DESIGNATION, USE "M" FOR RMER AND "T" FOR RTR.
      b. WHERE # = RACK DESIGNATION (NUMERIC)
      c. TYPE: 1.5 IN. (38 MM) TEXT; MACHINE PRINTED TEXT. BLACK TEXT ON WHITE BACKGROUND.

3.7 POWER DISTRIBUTION UNITS AND POWER STRIPS

A. POWER DISTRIBUTION UNITS AND STRIPS SHALL BE LABELED WITH THE BREAKER PANEL ID AND CIRCUIT NUMBER IT IS SERVED FROM.

3.8 IT EQUIPMENT ASSET TAGS

A. ALL POWERED IT EQUIPMENT, ASIDE FROM AUDIO-VISUAL OR CARRIER EQUIPMENT MUST BE LABELED WITH THE DEVICES HOSTNAME AND A YELLOW ASSET TAG ON THE FRONT (COLD AISLE) SIDE OF THE DEVICE. A MACHINE GENERATED LABEL INDICATING THE SERIAL NUMBER OF THE DEVICE SHALL ALSO BE PLACED ON THE FRONT (COLD AISLE) SIDE OF THE DEVICE. ALL RACKS MUST HAVE A YELLOW ASSET TAG AT THE TOP FRONT IN A VISIBLE AREA THAT CAN BE EASILY ACCESSED WITH A BARCODE SCANNER.

B. THESE ASSET TAGS WILL BE PROVIDED BY SOMEONE OTHER THAN THE STRUCTURED CABLING CONTRACTOR.

3.9 CONDUIT AND SLEEVE PATHWAYS

A. CONDUIT PATHWAY LABELING SHALL BE LABELED AS FOLLOWS.
   1. 1.5 IN. (38 MM) TALL TEXT PLACED IN VISIBLE LOCATION ON PLASTIC BUSHING OR ON THE CONDUIT ITSELF NEAR THE END.
   2. NOMENCLATURE <SIZE>.<PATH A/B>TO<DISTANT END ROOM ID>. EXAMPLE: 4" A TO I-1

B. SLEEVE PATHWAY LABELING SHALL BE LABELED AS FOLLOWS.
   1. 1.5 IN. (38 MM) TALL TEXT PLACED IN VISIBLE LOCATION ON PLASTIC BUSHING OR ON THE SLEEVE ITSELF NEAR BOTH ENDS.
   2. NOMENCLATURE <SIZE>.<PATHWAY TYPE>. EXAMPLE: 4" SLEEVE

END OF SECTION

5 SECTION 27 05 53 IDENTIFICATION FOR STRUCTURED CABLING

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GLOBAL TECHNOLOGY INFRASTRUCTURE
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WORKPLACE & DATA CENTER SERVICES
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REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
BICSI
KEVIN BRENNAN
REG NO 166050
EXPIRES 12-31-23
RCDD

issue no	date	issue	by
	03.02.2022	ISSUED FOR PERMIT/BID	KB

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designed	KB	date	03.02.2022	drawn	KB
checked	CC	scale	AS NOTED		

title

TELECOM BOOK SPECS

job no. C60025810702

sheet

TC-002

SECTION 27 05 28 - PATHWAYS FOR STRUCTURED CABLING

PART 1 - GENERAL

1.1 DESCRIPTION

A. THIS SECTION SPECIFIES TECHNOLOGY INFRASTRUCTURE EQUIPMENT INCLUDING THE FOLLOWING:

1. J-HOOKS.
2. CONDUITS AND BOXES.
3. INNERDUCT
4. PULL BOXES.
5. FIRE-RATED SLEEVES.
6. MISC. ACCESSORIES.

PART 2 - PRODUCTS

2.1 GENERAL MATERIAL REQUIREMENTS

A. NEW MATERIALS

1. ALL CABLE AND MATERIALS SHALL BE NEW, UNLESS PREVIOUSLY APPROVED IN WRITING BY OPR. NEW EQUIPMENT AND MATERIALS SHALL BE WITHOUT BLEMISH OR DEFECT. NEW EQUIPMENT AND MATERIALS SHALL BE UNDERWRITERS LABORATORIES, INC. (U.L.) LABELED AND/OR LISTED WHERE SPECIFICALLY CALLED FOR, OR WHERE NORMALLY SUBJECT TO SUCH U.L. LABELING AND/OR LISTING SERVICES.

B. EQUIVALENTS

1. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL PRODUCTS INSTALLED AT THIS FACILITY ARE COMPATIBLE WITH THE APPLICATION. THE OWNER MAKES NO REPRESENTATION REGARDING THE ACCURACY OF THE PART NUMBERS LISTED.

C. SUBSTITUTIONS

1. MATERIALS SHALL BE AS LISTED. NO SUBSTITUTIONS ARE ALLOWED WITHOUT WRITTEN CONSENT FROM THE JPMC STRUCTURED CABLING ENGINEERING TEAM. PROPOSALS FOR EQUIVALENT PRODUCTS MUST BE PRESENTED TO THE OPR VIA RFIS, SUBMITTALS, AND/OR SHOP DRAWINGS. OPR WRITTEN APPROVAL IS REQUIRED BEFORE ANY SUBSTITUTIONS ARE MADE. MATERIALS MUST BE COMPATIBLE WITH THE END-TO-END SOLUTION BEING PROPOSED.

D. FIRE RATING

1. INNERDUCT SHALL BE RATED FOR THE PURPOSE. INNERDUCT LISTED IN THIS SECTION IS NOT PLENUM RATED. CONTRACTOR SHALL EXERCISE DILIGENCE IN ENSURING THAT THE INNERDUCT INSTALLED MEETS THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
2. LOCAL OR NATIONAL CODES MAY OR MAY NOT REQUIRE PLENUM OR LOW SMOKE ZERO HALOGEN IN SOME APPLICATIONS. IT IS CONTRACTOR'S RESPONSIBILITY TO INSTALL MATERIALS THAT ARE APPROPRIATE TO THE ENVIRONMENT. IF CONTRACTOR INSTALLS INNERDUCT OR SOFT DUCT THAT IS INAPPROPRIATE TO THE ENVIRONMENT (E.G. PLENUM-RATED IN SPACES THAT DO NOT REQUIRE PLENUM, OR NON-PLENUM-RATED IN SPACES THAT REQUIRE PLENUM), CONTRACTOR SHALL BE EXPECTED TO REMOVE THE INAPPROPRIATE INNERDUCT OR SOFT DUCT AND INSTALL APPROPRIATE INNERDUCT OR SOFT DUCT AT THEIR SOLE EXPENSE.

2.2 J-HOOKS

A. REQUIREMENTS:

1. ABOVE ALL ACCESSIBLE CEILINGS, J-HOOKS ARE REQUIRED FOR PROPER CABLE SUPPORT.
2. J-HOOKS SHALL BE SPECIFICALLY DESIGNED FOR INTERIOR USE WITH DATA CABLES.
3. J-HOOKS SHALL BE PROVIDED AS REQUIRED WITH ALL THE MANUFACTURER'S RECOMMENDED INSTALLATION HARDWARE FOR THE INSTALLATION APPLICATION.
4. APPROVED J-HOOK MANUFACTURERS ARE COOPER, CADDY, OR PANDUIT.

B. SEE THE OPEN CABLE SUPPORT DETAIL ON THE CONSTRUCTION DRAWINGS FOR MANUFACTURERS AND PART NUMBERS FOR J-HOOK MOUNTING COMPONENTS.

2.3 CONDUITS AND BOXES

A. CONDUIT

1. ALL WIRING IN THE BUILDING INTERIOR, INCLUDING HORIZONTAL DISTRIBUTION, VERTICAL RISER CONDUITS AND AUXILIARY WIRING MAY BE RUN IN EMT CONDUIT UNLESS OTHERWISE SPECIFIED. CONDUIT SIZES LARGER THAN 4" SHALL BE RIGID METALLIC CONDUIT.
2. EMT SHALL NOT BE USED IN POURED CONCRETE, UNDERGROUND, IN UTILITY TUNNELS OR EXPOSED IN MECHANICAL EQUIPMENT ROOM BELOW 48".
3. ALL EMT CONNECTORS AND COUPLINGS SHALL BE OF THE SETSCREW TYPE. ALL FITTINGS SHALL BE STEEL. NO DIE CAST FITTINGS WILL BE ALLOWED.

B. BOXES

1. THE OUTLET BACKBOXES SHALL BE 5" SQUARE BY 2.875" DEEP WITH A SINGLE GANG REDUCER AND INTEGRAL CABLE MANAGEMENT. THE DEPTH OF THE RAISED SINGLE GANG REDUCER SHALL BE DETERMINED BY THE THICKNESS OF THE WALL MATERIAL THAT THE OUTLET BOX WILL BE INSTALLED WITHIN. THE CONTRACTOR SHALL COORDINATE THIS DIMENSION WITH THE GENERAL CONTRACTOR.
2. SEE THE SYMBOLS LIST ON THE CONSTRUCTION DRAWINGS FOR MANUFACTURERS AND PART NUMBERS.

2.4 INNERDUCT

A. INNERDUCT IS A NONMETALLIC RACEWAY PLACED WITHIN A LARGER RACEWAY. FOR THE PURPOSES OF THIS SECTION, FOR THIS PROJECT, FABRIC INNERDUCT SHALL BE USED. HARD SIDED INNERDUCT SHALL NOT BE USED UNLESS PERMISSION IS EXPLICITLY PROVIDED BY THE STRUCTURED CABLING ENGINEER. IF MULTIPLE CABLES ARE TO BE PULLED THROUGH A SINGLE INNERDUCT CELL, THEY SHOULD BE PULLED AT THE SAME TIME. FABRIC INNERDUCT PROVIDES MULTIPLE SLEEVES WITHIN CONDUITS AND EMPTY CELLS SHOULD BE PROVIDED FOR FUTURE GROWTH.

1. FABRIC INNERDUCT SHALL BE INSTALLED WITHIN CONDUIT.
2. CONTRACTOR SHOULD COORDINATE A SITE VISIT FROM THE FABRIC INNERDUCT MANUFACTURER TO OVERSEE THE INSTALLATION WHEN 1) THE CONTRACTOR HAS NEVER UTILIZED THIS PRODUCT IN THE PAST; OR 2) WHEN THE AGGREGATE LENGTH OF THE INSTALLATION EXCEEDS 1,500 M (5,000 FT.).

B. FABRIC INNERDUCT SIZING

1. THE FABRIC INNERDUCT SHALL BE SIZED FOR THE CONDUIT IT IS BEING INSTALLED WITHIN.

C. FABRIC INNERDUCT

1. STANDARD OUTDOOR FABRIC INNERDUCT: MICRO (33MM), 2-INCH, 3-INCH AND 4-INCH SINGLE OR MULTI-CELL POLYESTER/NYLON FABRIC INNERDUCT CONTAINING 1250 LB. POLYESTER FLAT WOVEN PULL TAPE.
2. DETECTABLE OUTDOOR FABRIC INNERDUCT: MICRO (32MM), 2-INCH, 3-INCH AND 4-INCH SINGLE OR MULTI-CELL POLYESTER/NYLON FABRIC INNERDUCT CONTAINING 1250 LB. POLYESTER FLAT WOVEN PULL TAPE, AND A SOLID COPPER, POLYVINYL COLOR COATED CONDUCTOR (19AWG MINIMUM) FOR TRACING AND RATED FOR A MINIMUM OF 6 AMPS AND 600 VOLTS. CONDUCTOR SHALL BE PLACED IN THE SIDEWALL EDGE FOLD OF THE TEXTILE SLEEVE. DETECTABLE FABRIC INNERDUCT SHALL BE UTILIZED WHEN RUNNING FIBER OPTIC CABLING WITHIN NON-METALLIC UNDERGROUND CONDUITS.
3. INDOOR FABRIC INNERDUCT (RISER-LISTED): MICRO (32MM), 2-INCH, 3-INCH AND 4-INCH SINGLE OR MULTI-CELL NYLON FABRIC INNERDUCT CONTAINING 1250 LB. POLYESTER FLAT WOVEN PULL TAPE WHICH MEETS UL2024A FOR FLAME PROPAGATION AND SMOKE DENSITY VALUES FOR GENERAL APPLICATIONS.
4. PLENUM-LISTED FABRIC INNERDUCT: MICRO (32MM), 2-INCH AND 3-INCH SINGLE OR MULTI-CELL NYLON FABRIC INNERDUCT CONTAINING 200LB NYLON-RESIN FLAT WOVEN PULL TAPE WHICH MEETS UL2024A FOR FLAME PROPAGATION AND SMOKE DENSITY VALUES FOR USE IN AIR HANDLING SPACES.

D. FABRIC INNERDUCT FITTINGS

1. CONDUIT PLUGS: COMPRESSION-TYPE CONDUIT PLUGS WITH LOCKING NUTS FOR SEALING AND SECURING ONE OR MORE FABRIC INNERDUCTS WITHIN A 4-INCH INSIDE DIAMETER CONDUIT, E.G.:
   a. 4-INCH PLUG WITH NINE HOLES FOR CABLES IN A 3 PACK (9-CELL) CONFIGURATION
2. TERMINATION BAGS: INFLATION-TYPE BAGS FOR SEALING AND SECURING AROUND ONE OR MORE FABRIC INNERDUCTS AND CABLES WITHIN 2-INCH OUTSIDE DIAMETER OR LARGER CONDUIT.

2.5 PULL BOXES

A. PULL BOXES SHALL BE MANUFACTURED FOR USE AS A JUNCTION BOX AND PULL BOX IN COMMERCIAL AND GENERAL INDUSTRIAL APPLICATIONS.

B. COVERS SHALL BE SECURED TO THE ENCLOSURE BODY WITH PLATED SCREWS THROUGH KEYHOLE SLOTS PROVIDED IN THE COVER.

C. FINISH SHALL BE A PHOSPHATE UNDERCOAT WITH ANSI 61 GRAY ACRYLIC FINISH.

D. PULL BOXES SHALL COMPLY WITH NEMA STANDARDS TYPE 1.

E. PULL BOXES SHALL BE PROVIDED IN THE SIZES AS INDICATED ON THE PLANS. PULL BOXES SHALL HAVE HOLES PUNCHED OR CORED THROUGH THE ENCLOSURE BODY TO PROVIDE ACCESS INTO THE ENCLOSURE FOR THE CONDUITS INDICATED ON THE PLANS.

2.6 FIRE-RATED SLEEVES

A. CABLES PASSING THROUGH RMER/RTR FLOORS OR WALLS SHALL PASS THROUGH FIRE-RATED WIRING DEVICES WHICH CONTAIN AN INTUMESCENT INSERT MATERIAL THAT ADJUSTS AUTOMATICALLY TO CABLE ADDITIONS OR SUBTRACTIONS.

B. THE DEVICE (PER CODE REQUIREMENTS) SHALL INCLUDE BOTH INTERNAL AND EXTERNAL FIRESTOPPING.

C. CABLES PENETRATING THROUGH RMER/RTR FLOORS OR WALLS SHALL UTILIZE FIRE-RATED PATHWAY DEVICES CAPABLE OF PROVIDING AN F RATING EQUAL TO THE RATING OF THE BARRIER IN WHICH THE DEVICE IS INSTALLED.

D. THE DEVICE SHALL BE TESTED FOR SMOKE LEAKAGE (L RATING) AND SHALL NOT REQUIRE THE USE OF ANY OPTIONAL SEALING MATERIALS TO ACHIEVE THE PUBLISHED RATING.

E. THE DEVICE SHALL UTILIZE A FIRE AND SMOKE SEALING SYSTEM THAT AUTOMATICALLY ADJUSTS TO THE ADDITION OR REMOVAL OF CABLES.

F. WIRE DEVICES SHALL BE OF A SUFFICIENT SIZE TO ACCOMMODATE THE QUANTITY AND SIZE OF DATA CABLES REQUIRED AND SHALL BE SUITABLE FOR USE WITH NEW OR EXISTING CABLE INSTALLATIONS.

G. THE INSTALLED DEVICE (IN NORMAL USE) SHALL REQUIRE NO MAINTENANCE AND SHALL ACCOMMODATE FUTURE CABLE CHANGES WITHOUT MECHANICAL ADJUSTMENT AND/OR REMOVAL OR REPLACEMENT OF PROTECTIVE MATERIALS.

H. WIRE DEVICES TO BE PROVIDED WITH STEEL WALL PLATES ALLOWING FOR SINGLE OR MULTIPLE DEVICES TO BE GANGED TOGETHER.

I. THE DEVICE SHALL BE MODULAR AND SHALL PROVIDE MECHANICAL INSTALLATION OPTIONS FOR COMMON WALL AND FLOOR CONSTRUCTIONS AS WELL AS COMMON CONSTRUCTION CONDITIONS INCLUDING OVER-SIZED OR DAMAGED OPENINGS OR EXISTING SLEEVES.

J. INSTALL RADIUS CONTROL MODULES (RCM) ON ALL HORIZONTAL DEVICES. THE RCM'S PROVIDE A 1" MINIMUM BENDING RADIUS FOR CABLES.

K. COMPONENTS

WALL OR FLOOR SLEEVES: SPECIFIED TECHNOLOGIES INC. EZ-PATH SERIES

CABLE RADIUS CONTROL WATERFALLS: SPECIFIED TECHNOLOGIES INC. RCM SERIES

2.7 MISCELLANEOUS ACCESSORIES

A. PULL STRING

1. PULL STRINGS: CONSTRUCTED OF SYNTHETIC FIBER.

B. PULL TAPE

1. PULL TAPE: MEASURING AND PULLING TAPE CONSTRUCTED OF SYNTHETIC FIBER, PRINTED WITH ACCURATE SEQUENTIAL FOOTAGE MARKS. COLOR-CODED.

C. PENETRATION SEALING MATERIALS

1. DUCT WATER SEAL: PRODUCTS SUITABLE FOR CLOSING UNDERGROUND AND ENTRANCE CONDUIT OPENINGS WHERE INNERDUCT OR CABLE IS INSTALLED, TO PREVENT ENTRY OF GASES, LIQUIDS, OR RODENTS INTO THE STRUCTURE.

PART 3 - EXECUTION

3.1 HANGERS AND SUPPORTS

A. J-HOOKS SHALL BE INSTALLED WITHIN (1) ONE FOOT OF THE BUSHED CONDUIT ENDS STUBBED ABOVE THE CEILING AND WITHIN (1) ONE FOOT OF ANY BEND GREATER THAN 60 DEGREES.

B. J-HOOKS SHALL BE INSTALLED WITH A MAXIMUM CENTER TO CENTER DISTANCE OF (4) FOUR FEET.

C. ALL J-HOOKS SHALL BE ATTACHED SECURELY TO THE CEILING JOISTS OR CONCRETE DECK ABOVE UTILIZING THE MANUFACTURER'S RECOMMENDED HARDWARE AND INSTALLATION PRACTICES. CONTRACTOR SHALL UTILIZE UNISTRUT AND THREADED ROD ASSEMBLIES TO MAINTAIN THE (4) FOUR-FOOT CENTER TO CENTER REQUIREMENT BETWEEN CEILING JOIST MEMBERS AS REQUIRED.

3.2 CONDUIT AND BOXES

A. ALL CONDUITS ENTERING CABINETS, PULL BOXES, JUNCTION BOXES OR OUTLET BOXES SHALL BE SECURED WITH SET-SCREW TYPE BOX CONNECTORS.

B. THE ENDS OF ALL CONDUITS UTILIZED FOR COMMUNICATIONS CABLING SHALL BE PROVIDED WITH NYLON PUSH-ON BUSHINGS AND A PULL STRING PROVIDED THROUGHOUT.

C. EXTERIOR CONDUITS FOR TELECOMMUNICATIONS SERVICE PROVIDERS (CARRIERS) SHALL HAVE A PULL TAPE INSTALLED BY THE ELECTRICAL CONTRACTOR.

D. ALL EXTERIOR CONDUITS SHALL BE SEALED AT THE OPENING WITHIN THE BUILDING BY THE ELECTRICAL CONTRACTOR.

E. ALL CONDUIT RUNS SHALL HAVE A MAXIMUM OF TWO (2) 90-DEGREE BENDS PER CONDUIT RUN. WHEN MORE BENDS ARE NECESSARY IN A SINGLE RUN A PULL BOX SHALL BE INSTALLED. PULL BOXES SHALL NOT BE INSTALLED IN PLACE OF A 90-DEGREE BEND. PULL BOXES SHALL ALSO BE INSTALLED IN LONG RUNS AT A MAXIMUM SEPARATION OF 100'.

F. ALL CONDUITS, EXCEPT IN CONCRETE SLAB OR EARTH, SHALL BE ROUTED PARALLEL AND PERPENDICULAR TO THE COLUMN LINES OF THE BUILDING.

G. CONDUITS THAT ARE NOT INSTALLED PLUMB AND ROUTED PERPENDICULAR TO THE STRUCTURAL COLUMN SUPPORTS OF THE BUILDING WILL NOT BE ACCEPTED.

H. UNLESS OTHERWISE NOTED, ALL CONDUITS SHALL BE RUN CONCEALED WITHIN THE BUILDING CONSTRUCTION WHEN INSTALLED IN FINISHED INTERIOR OR EXTERIOR AREAS.

I. ALL CONDUITS SHALL BE SUBSTANTIALLY SUPPORTED BY USE OF PIPE STRAPS, SUITABLE CLAMPS OR HANGERS ATTACHED TO ELEMENTS OF THE BUILDING STRUCTURE TO PROVIDE A RIGID INSTALLATION. UNDER NO CIRCUMSTANCE SHALL CONDUIT BE ATTACHED OR SUPPORTED FROM ADJOINING PIPE OR INSTALLED IN SUCH A MANNER AS TO PREVENT THE READILY REMOVAL OF OTHER PIPE FOR REPAIRS.

J. UNLESS OTHERWISE NOTED, INSTALL ALL OUTLET BOXES VERTICALLY.

K. INSTALL OUTLET BOXES AT THE MOUNTING HEIGHTS INDICATED ON THE PLANS. COMMUNICATION OUTLET BOXES ADJACENT TO ELECTRIC OUTLETS SHALL BE INSTALLED AT THE SAME MOUNTING HEIGHT. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER PRIOR TO ROUGH-IN.

3.3 PULL BOXES

A. PULL BOXES SHALL BE PROVIDED IN THE SIZES AS INDICATED ON THE PLANS.

B. PULL BOXES SHALL HAVE HOLES PUNCHED OR CORED THROUGH THE ENCLOSURE BODY TO PROVIDE ACCESS INTO THE ENCLOSURE FOR THE CONDUITS INDICATED ON THE PLANS.

C. ALL CONDUITS ENTERING THE PULL BOX SHALL BE SECURED WITH SET-SCREW TYPE BOX CONNECTORS.

D. PULL BOXES SHALL BE INSTALLED IN SUCH A MANNER THAT PROVIDES EASY ACCESS INTO THE INSTALLED ENCLOSURE THROUGH THE REMOVABLE COVER.

E. UNDER NO CIRCUMSTANCE SHALL A PULL BOX BE INSTALLED WITH THE COVER FACING UP. UNLESS CONDUITS ENTERING THE BOX MUST BE STACKED VERTICALLY, ALL PULL BOXES SHALL BE INSTALLED WITH THE COVER FACING DOWN.

F. PULL BOX LOCATIONS SHALL BE COORDINATED WITH OTHER TRADES TO PROVIDE ADEQUATE CLEARANCE BETWEEN THE PULL BOX COVER AND ANY OTHER OBJECT. THE MINIMUM CLEARANCE REQUIRED SHALL BE SIX TIMES THE DIAMETER OF THE LARGEST CONDUIT ENTERING THE PULL BOX.

END OF SECTION

SECTION 27 05 28
PATHWAYS FOR STRUCTURED CABLING

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SECTION 27 11 00 - EQUIPMENT ROOM FITTINGS FOR STRUCTURED CABLING

PART 1 - GENERAL

1.1 DESCRIPTION

A. THIS SECTION INCLUDES RMER/RTR EQUIPMENT RACKS, CABLE MANAGERS, LADDER RACKS, POWER DISTRIBUTION UNITS, PLYWOOD BACKBOARDS, AND ASSOCIATED COMPONENTS.

B. THIS SPECIFICATION CONTAINS ALL PRODUCTS CURRENTLY APPROVED BY JPMC. THE CONTRACTOR SHOULD NOT ASSUME THAT ALL OF THE MATERIALS LISTED IN THE SPECIFICATIONS MUST BE INSTALLED BECAUSE THEY ARE LISTED IN THE SPECIFICATION. PROJECT-SPECIFIC REQUIRED MATERIALS ARE FURTHER DEFINED IN THE PROJECT CONSTRUCTION DRAWINGS.

PART 2 - PRODUCTS

2.1 REQUIREMENTS

A. IN LOCATIONS THAT REQUIRE SEISMIC BRACING, CONSULT WITH THE OPR FOR GUIDANCE AND PRODUCT REQUIREMENTS.

B. AS PART OF THEIR BASE QUOTATION, THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING ALL MISCELLANEOUS HARDWARE (E.G. CAGE NUTS, SCREWS), REQUIRED TO ACCOMPLISH A COMPLETE WORKING INSTALLATION.

C. WHERE ONE EQUIPMENT RACK IS INSTALLED, MOUNT ONE 6" VERTICAL CABLE MANAGER ON BOTH SIDES OF THE EQUIPMENT RACK.

D. WHERE TWO EQUIPMENT RACKS ARE INSTALLED, MOUNT ONE 6" VERTICAL CABLE MANAGER ON BOTH ENDS OF THE ROW, AND ONE 10" VERTICAL CABLE MANAGER BETWEEN RACKS.

E. WHERE A WALL MOUNTED EQUIPMENT CABINET IS INSTALLED, PROVIDE INTERNAL VERTICAL CABLE MANAGERS.

2.2 MATERIALS

A. SEE THE RACK ELEVATIONS AND RACK EQUIPMENT SCHEDULE ON THE CONSTRUCTION DRAWINGS FOR MANUFACTURERS AND PART NUMBERS FOR THE FOLLOWING EQUIPMENT:

1. EQUIPMENT RACK AND ASSOCIATED COMPONENTS
2. CABLE MANAGEMENT - RACK MOUNTED
3. LADDER RACK AND ASSOCIATED COMPONENTS
4. POWER DISTRIBUTION UNITS (PDUS) FOR RMERS AND RTRS
5. POWER DISTRIBUTION UNITS (PDUS) FOR STAND ALONE ATM LOCATIONS
6. EQUIPMENT CABINET AND ASSOCIATED COMPONENTS
7. CABLE MANAGEMENT - CABINET MOUNTED
8. POWER STRIPS FOR WALL MOUNTED CABINETS

B. PLYWOOD BACKBOARDS

1. PROVIDE VOID-FREE, FIRE-RATED PLYWOOD MOUNTED VERTICALLY ON THE WALL. PLYWOOD BOARDS SHALL BE ¾" THICK, 8' TALL, AND WIDTH AS SHOWN ON THE PLANS TO FIT THE ROOM.
2. EITHER FIRE RATED (WITH A UL FR-S CLASSIFICATION), OR IF NON-FIRE-RATED - AND IF ACCEPTABLE TO THE AHJ - COVERED WITH TWO COATS OF FIRE-RETARDANT PAINT ON BOTH SIDES AND EDGES. FOR FIRE-RATED PLYWOOD THE CLASSIFICATION STAMP MUST NOT BE OBSCURED.

PART 3 - EXECUTION

3.1 INSTALLATION

A. ALL RELAY RACKS, LADDER RACK, AND CABLE TRAY SHALL BE BONDED TO GROUND IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS, AND PREVAILING CODES AND STANDARDS. SEE SECTION 27 05 26 FOR FURTHER GROUNDING AND BONDING INFORMATION.

B. RELAY RACKS SHALL BE ASSEMBLED AND MOUNTED IN LOCATIONS SHOWN IN THE DRAWINGS AND AS DESCRIBED HEREIN. EACH RACK SHALL BE ASSEMBLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. EACH RACK SHALL BE MOUNTED SUCH THAT THE SIDE RAILS ARE PLUMB. BOLTS SHALL BE TIGHTENED TO THE EXTENT THAT IT HOLDS THE MOUNTING HARDWARE FIRMLY, BUT NOT SO TIGHT AS TO DISTORT THE HARDWARE OR STRIP THE THREADS. EQUIPMENT RACKS ARE TO BE CO-LOCATED WITH POWER OUTLETS TO ALLOW FOR EASY CONNECTION OF RACK-MOUNTED EQUIPMENT TO THE POWER SYSTEM. RACKS AND CABLE MANAGEMENT HARDWARE SHALL BE SECURELY BOLTED TOGETHER.

C. THE RACK SHOULD BE ATTACHED TO RMER/RTR FLOORS WITH ⅜ IN. LAG SCREWS OR EQUIVALENT HARDWARE. THE FLOOR UNDER THE RACK SHOULD BE LEVEL WITHIN 3/16 IN. USE A FLOOR-LEVELING CEMENT COMPOUND IF NECESSARY.

D. CABLE TRAYS MUST BE INSTALLED IN A MANNER THAT ALLOWS AT LEAST 305 MM (12 IN) OF CLEARANCE ABOVE THE TOP OF THE TRAY.

E. CABLE TRAYS MUST BE INSTALLED A MINIMUM OF 101.6 MM - 152.4 MM (4 IN - 6 IN) ABOVE CABINETS AND RACKS, WITH 304.8 MM (12 IN) BEING PREFERRED..

F. METALLIC CABLE TRAY MUST BE COMPLIANT WITH THE NEMA VE-1 STANDARD. INSTALLATION SHOULD FOLLOW THE GUIDELINES AND RECOMMENDATIONS - AS APPLICABLE - IN THE NEMA VE-2 STANDARD.

G. ALL METALLIC LADDER RACKS MUST BE BONDED TO GROUND PER NEC REQUIREMENTS. WHEN SECTIONS ARE NOT MECHANICALLY CONTINUOUS, BONDING CONDUCTORS MUST BE INSTALLED ACROSS THE SECTIONS. THIS INCLUDES LADDER RACK WHOSE SECTION CONNECTING HARDWARE IS NOT APPROVED AS A MEANS FOR PROVIDING GROUND CONTINUITY.

H. A MINIMUM OF 915 MM (3 FT) OF CLEARANCE IN FRONT AND IN BACK OF RACKS. MORE CLEARANCE MUST BE PROVIDED WHEN DEEMED PRUDENT OR NECESSARY FOR USE, INSTALLATION, AND REMOVAL OF EQUIPMENT, OR TO MEET THERMAL REQUIREMENTS.

I. A MINIMUM OF 1219 MM (3 FT) OF CLEARANCE AT THE END OF A ROW OF RACKS OR CABINETS.

J. A MINIMUM OF 305 MM (1 FT) ADDITIONAL CLEARANCE FROM A CARRIER (SERVICE PROVIDER) WALL FIELD BEYOND THE MINIMUMS SPECIFIED FOR RACKS AND CABINETS.

K. AT LEAST 610 MM (2 FEET) OF CLEARANCE ABOVE RACKS AND CABINETS, WITH CABLE SUPPORT SYSTEMS BEING THE ONLY ALLOWABLE EXCEPTION.

END OF SECTION

SECTION 27 11 00 - EQUIPMENT ROOM FITTINGS FOR STRUCTURED CABLING

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TC-003

SECTION 27 13 00 - STRUCTURED CABLING - BACKBONE CABLING

PART 1 - GENERAL

1.1 DESCRIPTION

A. THIS SECTION INCLUDES INSIDE PLANT MULTIMODE FIBER, OUTSIDE PLANT MULTIMODE FIBER, SINGLE MODE FIBER FOR CARRIER CIRCUIT EXTENSION, AND CATEGORY 6 CABLES FOR CARRIER CIRCUIT EXTENSION.

B. ALL RETAIL STANDARDS REGARDING IDENTIFICATION APPLY TO THIS SECTION. SEE 27 05 53 OF THIS STANDARD FOR ADDITIONAL DETAIL.

C. THE NATIONAL ELECTRIC CODE DEFINES DISTANCE LIMITATIONS FOR OSP CABLE RUNS WITHIN BUILDINGS NOT IN CONDUIT, AT 50 FT. MAXIMUM. ALL SUCH REQUIREMENTS SHALL BE COMPLIED WITH AT ALL JPMC FACILITIES.

D. EXTENDED NETWORK CABLES ARE TYPICALLY COMPRISED OF SIX 4-PAIR CATEGORY 6 CABLES, OR VIA 12-STRAND SINGLE-MODE FIBER IF THE SERVICE IS SWITCHED ETHERNET.

E. EXCEPT FOR THE PURPOSES OF EXTENDING T.1, SWITCHED ETHERNET, OR ANALOG SERVICES, IN NO CASE SHALL CATEGORY 6 CABLE RUNS EXCEED 90M (295 FT) IN LENGTH. IN CASES WHERE T.1 SERVICE IS EXTENDED OVER CATEGORY 6 CABLES, THE CABLE DISTANCE SHALL NOT EXCEED 677 FT.

F. SWITCHED ETHERNET SERVICE IS EXTENDED OVER SINGLE-MODE FIBER BY THE CARRIER TO THE JPMC RMER. PRIMARY SERVICE (CIRCUIT) SHALL BE ROUTED UNDERGROUND IN TWO 2" SCHEDULE 80 PVC CONDUITS. ONCE THE CONDUIT ENTERS THE BUILDING, IF OVER 50 FEET FROM THE ENTRANCE AND WITHIN JPMC CONTROLLED SPACE TRANSITION TO EMT CONDUIT. TERMINATE CONDUIT IN THE RMER. SECONDARY SERVICE (CIRCUIT) IS CELLULAR. PROVIDE EMT CONDUIT FROM THE CELLULAR DONOR ANTENNA LOCATION TO THE RMER, IF THE ANTENNA LOCATION IS ON THE ROOF OR OUTSIDE. IF CONDUITS ARE RUN INSIDE THE BUILDING BUT OUTSIDE OF JPMC CONTROLLED SPACE, TRANSITION IS REQUIRED TO RMC THROUGH NON-JPMC SPACE.

G. EXTENDED NETWORK CABLES ARE USED TO EXTEND ANALOG DIAL TONE SERVICE AND/OR HIGH-SPEED DATA (E.G. T-1, SWE) SERVICE FROM THE ILEC'S PRESENCE IN THE BUILDING TO THE JPMC RMER.

H. THIS SPECIFICATION CONTAINS ALL PRODUCTS CURRENTLY APPROVED BY JPMC. THE CONTRACTOR SHOULD NOT ASSUME THAT ALL OF THE MATERIALS LISTED IN THE SPECIFICATIONS MUST BE INSTALLED BECAUSE THEY ARE LISTED IN THE SPECIFICATION. PROJECT-SPECIFIC REQUIRED MATERIALS ARE FURTHER DEFINED IN THE PROJECT CONSTRUCTION DRAWINGS.

PART 2 - PRODUCTS

2.1 GENERAL FIBER CABLING REQUIREMENTS

A. CABLE RATING
1. LOCAL OR NATIONAL CODES MAY REQUIRE SPECIFIC CABLE GRADING IN SPECIFIC APPLICATIONS. IT IS CONTRACTOR'S RESPONSIBILITY TO INSTALL CABLE THAT IS APPROPRIATE TO THE ENVIRONMENT. IF CONTRACTOR INSTALLS CABLE THAT IS INAPPROPRIATE TO THE ENVIRONMENT (E.G. RISER-RATED CABLE IN SPACES THAT REQUIRE PLENUM CABLE), CONTRACTOR SHALL BE EXPECTED TO REMOVE THE INAPPROPRIATE CABLE AND INSTALL APPROPRIATE CABLE AT THEIR SOLE EXPENSE.

B. TERMINATION TYPE
1. ONLY FACTORY TERMINATED FIBER PATCH CORDS MAY BE UTILIZED IN JPMC FACILITIES. FIBER PATCH CORDS CREATED BY PERSONNEL NOT DIRECTLY EMPLOYED BY THE MANUFACTURER IS NOT PERMISSIBLE.
2. FIELD-TERMINATED CONNECTORS FOR THE FIBER BACKBONE IS THE PREFERRED TERMINATION METHOD. FUSION-SPLICED OR CORNING UNICAM TERMINATIONS ARE PERMITTED.
3. MULTIMODE & SINGLE MODE FIBER SHALL BE TERMINATED INTO LC CONNECTORS UNLESS NOTED OTHERWISE.

C. CABLE JACKETING
1. CABLE JACKETING MAY OR MAY NOT BE ARMORED, DEPENDING UPON THE ENVIRONMENT AND THE APPLICATION.
   a. NON-ARMORED CABLE SHALL BE USED WHEN THE FIBER WILL BE INSTALLED WITHIN CONDUIT OR FOR A POINT-TO-POINT CONNECTION WITHIN THE RMER.
   b. ARMORED CABLE SHALL BE USED WHEN THE FIBER IS NOT INSTALLED WITHIN CONDUIT.

D. CABLE GRADE
1. OM3 MULTIMODE BACKBONE FIBER SHALL BE USED FOR CABLE DISTANCES UP TO 300M (984FT.).
2. SINGLE MODE BACKBONE FIBER SHALL BE USED FOR DISTANCE GREATER THAN 300M (984FT.) OR FOR TELECOMMUNICATIONS CARRIER CIRCUIT EXTENSIONS.
3. SINGLE MODE & CATEGORY 6 SHALL BE USED FOR TELECOMMUNICATIONS CARRIER CIRCUIT EXTENSIONS.

2.2 MATERIALS

A. SEE THE CABLE SCHEDULE AND RACK EQUIPMENT SCHEDULE ON THE CONSTRUCTION DRAWINGS FOR MANUFACTURERS AND PART NUMBERS FOR THE FOLLOWING EQUIPMENT:
1. SINGLE MODE FIBER MATERIALS (FOR EXTENSION OF CARRIER CIRCUIT)
2. FIBER TERMINATION PANELS.
3. MULTIMODE FIBER MATERIALS (FOR BACKBONE TO A RTR IF APPLICABLE)

PART 3 - EXECUTION

3.1 GENERAL CABLING INSTALLATION

A. SLEEVES SHALL NOT BE OVER-POPULATED WITH CABLES. SUFFICIENT SPARE CAPACITY SHALL BE ALLOWED IN EACH SLEEVE TO ACCOMMODATE APPROPRIATE FIRESTOPPING MATERIALS IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS AND THE UL FIRE RESISTANCE DIRECTORY. NOTE THAT MANUFACTURERS TYPICALLY SPECIFY A 20% TO 40% FILL FOR THEIR PRODUCTS.

B. MANUFACTURER'S STANDARD PULLING TENSION AND MINIMUM BEND RADII SHALL BE COMPLIED WITH AT ALL TIMES. CABLES SHALL BE DRESSED-IN, VELCRO® OR MILLEPEDE® MILLE-TIES RELEASABLE CABLE TIED, AND SECURED TO THE LADDER RACK, PLYWOOD BACKBOARD, AND/OR OTHER SUITABLE SURFACES SO AS TO ENSURE A PROFESSIONAL APPEARANCE, RUN STRAIGHT, LEVEL, AND ALIGNED WITH BUILDING LINES, WITH 90° CORNERS WHERE POSSIBLE, BEARING IN MIND MANUFACTURER'S RECOMMENDED BEND RADII.

C. CONTRACTOR SHALL FURNISH AND INSTALL ADEQUATE CABLE STRAIN RELIEF (E.G. CABLE DROPOUTS) TO ACCOMMODATE THE ANTICIPATED MAGNITUDE OF CABLING. WHEREVER FIBER AND COPPER CABLES ARE SEGREGATED, DEDICATED MULTIMODE STRAIN RELIEF SHALL BE PROVIDED, INCLUDING ADEQUATE PROVISION FOR CABLE ROUTE DIVERSITY WHERE APPLICABLE.

3.2 FIBER CABLING INSTALLATION

A. AFTER FIBER CABLE HAS BEEN SUCCESSFULLY TESTED IN ACCORDANCE WITH THIS STANDARD, ALL CONNECTOR DUST COVERS SHALL BE SECURELY RESTORED.

B. EMPTY ADAPTER PANEL PORTS SHALL BE EQUIPPED WITH BLANK PANELS.

C. ALL FIBER STRANDS ARE TERMINATED INTO LC PATCH PANELS AT BOTH ENDS UNLESS NOTED OTHERWISE.

D. IN SPACES WHERE ANY AIRBORNE DUST OR CONTAMINANTS MAY BE PRESENT, ESPECIALLY DURING CONSTRUCTION, CONTRACTOR SHALL FULLY AND PROPERLY PROTECT ANY AND ALL CONNECTORIZED CABLES TO AVOID TRANSMISSION PERFORMANCE DEGRADATION ASSOCIATED WITH DUST COMING IN CONTACT WITH CONNECTOR CONTACT POINTS. IF AT ALL POSSIBLE, AND WHERE ALLOWED BY THE PROJECT TIMELINE, CONTRACTOR'S FIRST CHOICE SHOULD BE TO AVOID THIS PROBLEM BY REFRAINING FROM INSTALLING ANY SUCH COMPONENTS UNTIL THE RISK OF AIRBORNE DUST AND CONTAMINANTS IS ELIMINATED (E.G. AFTER FLOORS AND CEILINGS ARE TREATED, AND WALLS RECEIVE THE FINAL COAT OF PAINT).

3.3 CARRIER CIRCUIT EXTENSION INSTALLATION

A. CARRIER CIRCUIT EXTENSION CABLES SHALL BE INSTALLED BY CONTRACTOR. THE CABLE TERMINATIONS MAY BE PERFORMED EITHER BY CONTRACTOR, OR BY THE ILEC, DEPENDING UPON THE CUSTOMARY PRACTICE IN THAT ILEC'S REGION. CONTRACTOR SHALL COORDINATE THIS PORTION OF THE PROJECT WITH OPR.

B. IF THE ROUTE FOR THE CARRIER CIRCUIT EXTENSION CABLES PASSES THROUGH SPACE THAT IS NOT CONTROLLED BY JPMC, IT IS VULNERABLE TO ACCIDENTAL OR INTENTIONAL SERVICE INTERRUPTION, AND SHOULD BE INSTALLED IN A PROPERLY-DESIGNED CONDUIT INFRASTRUCTURE. THE CONDUIT SIZING SHALL BE BASED ON A 40% FILL OF ALL CABLE TYPES BEING INSTALLED WITHIN THE CONDUIT.

C. IN THE RMER, THE CATEGORY 6 CABLE IS TYPICALLY TERMINATED INTO A SMART JACK OR NTE (CIENA AND BEASBOX) FURNISHED BY THE ILEC. IN THE UNLIKELY EVENT THAT THE SMART JACK IS NOT LOCATED IN THE RMER, CONTRACTOR SHALL COORDINATE CONNECTIVITY REQUIREMENTS WITH THE OPR.

D. CATEGORY 6 CABLES SHALL NOT BE KINKED OR UNDULY TWISTED, NOR SHALL THE INTEGRITY OF THE CABLE SHEATH BE COMPROMISED IN ANY FASHION. CABLE BUNDLES SHALL NOT BE CLINCHED OR TIED TOGETHER WITH EXCESSIVE FORCE, THEREBY HOLDING JACKET DEFORMATION TO A MINIMUM. INDIVIDUAL CABLE BEND RADII MAY BE NO LESS THAN FOUR TIMES THE CABLE DIAMETER OR 0.6 INCHES, WHICHEVER IS GREATER. TIE WRAPS SHALL NOT BE EMPLOYED FOR SECURING CATEGORY 6 CABLES.

DURING TERMINATION, UTP PAIR TWISTS SHALL BE MAINTAINED AS CLOSE AS POSSIBLE TO THE TERMINATION POINT. IN ANY CASE, THE AMOUNT OF UNTWISTING MUST NOT EXCEED .5 INCHES AT THE POINT OF TERMINATION.

3.4 FIBER TESTING

A. TESTS SHALL BE CARRIED OUT AT 850NM AND 1300NM FOR MULTI-MODE TESTING AND 1310NM AND 1550NM FOR SINGLE-MODE TESTING IN ONE DIRECTION.

B. THE FIBER MANUFACTURER'S WARRANTY CONDITIONS SHALL BE USED TO PERFORM ALL FIBER TESTING. THESE STANDARDS ARE MORE STRINGENT THAN INTERNATIONAL AND NATIONAL STANDARDS. THE CONTRACTOR IS REQUIRED TO PERFORM CUSTOM TESTS USING THE TESTER AND IS THEREFORE TO ADJUST THE CONTACTOR LOSS VALUES IN THE TESTER SOFTWARE ACCORDINGLY.

C. SHOULD INSTALLED FIBERS BE REQUIRED TO BE CONNECTED DIRECTLY INTO A SWITCH IN A HARNESS LINK TOPOLOGY, ALL FIBERS WILL BE PATCHED PRIOR TO TESTING COMMENCING, THEN INDIVIDUALLY UN-PATCHED, TESTED, AND FINALLY RE-PATCHED. THIS IS TO MITIGATE POLARITY CONCERNS.

D. WHEN REFERENCING FIBER OPTIC TESTERS THE 1 JUMPER (METHOD B) METHODOLOGY SHALL BE EMPLOYED.

E. FIBER TESTERS SHALL BE COMPLIANT WITH ENCIRCLE FLUX LAUNCH SOURCES/ CONDITIONS. ENCIRCLED FLUX TESTING PATCH LEADS SHALL BE USED AND SHOULD NOT BE MATED BEYOND THE MAXIMUM OF 500 TIMES.

F. DELIVERED CABLE TESTS ARE NOT REQUIRED, HOWEVER A CERTIFICATE OF CONFORMANCE SHALL BE SUPPLIED WITH EACH TRUNK CABLE AND COPIES MADE AVAILABLE ON SITE AND PROVIDED IN THE FINAL HANDOVER DOCUMENTATION.

G. INDIVIDUAL CABLE RUNS SHALL BE TRACEABLE TO THE DELIVERED TRUNK CERTIFICATION.

3.5 CATEGORY 6/6A UTP AND CATEGORY 6A F/UTP TESTING

A. SEE SECTION 27 15 00 - HORIZONTAL CABLING FOR TESTING REQUIREMENTS.

3.6 DOCUMENTATION

A. ALL TEST RESULTS ARE TO BE ISSUED IN PDF FORMAT A MAXIMUM OF TWO DAYS AFTER FINAL COMPLETION OF THE TESTING. THE PROJECT WILL NOT BE CONSIDERED COMPLETE AND INVOICES WILL NOT BE PAID UNTIL THIS IS ACHIEVED.

B. PDF FILE SIZES ARE TO BE NO GREATER THAN 10MB AS EMAIL IS THE ONLY OPTION OF ISSUING THEM. PAPER COPIES ARE NOT REQUIRED.

C. THE TEST RESULTS IN THE PDF DOCUMENT ARE TO BE SEQUENCED IN NUMERICAL ORDER, AND THE PORT DESCRIPTION SHOULD MATCH THE LABELLING NOMENCLATURE. IT IS IMPERATIVE THAT THE TEST RESULTS DETAIL THE LOCAL LENGTH MEASUREMENT UNITS.

D. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL PORTS HAVE BEEN 100% TESTED PRIOR TO SUBMITTING THE TEST RESULTS.

E. CONTRACTOR SHALL PROVIDE IN ELECTRONIC FORMAT:
1. A FINAL AS-BUILT FLOOR PLAN DRAWINGS DETAILING THE LABELING OF ALL DATA OUTLETS.
2. ALL FIBER OPTIC AND COPPER TEST RESULTS AS NOTED ABOVE.
3. MANUFACTURER'S PERFORMANCE AND APPLICATION WARRANTY.

F. THE PROJECT WILL NOT BE CONSIDERED COMPLETE AND ALL INVOICES WILL NOT BE PAID UNTIL THIS IS ACHIEVED.

END OF SECTION

SECTION 27 53 19 - CELLULAR ANTENNA

PART 1 - GENERAL

1.1 DESCRIPTION

A. CELLULAR ANTENNAS ARE DEPLOYED FOR BRANCHES.

PART 2 - PRODUCTS

2.1 MATERIALS

A. JPMC'S CELLULAR ANTENNA DEPLOYMENT UTILIZES THE FOLLOWING MAJOR MATERIALS:
1. OUTDOOR OMNIDIRECTIONAL ANTENNA FOR 2G/3G/4G CELLULAR (JPMC SUPPLIED)
2. 4G LIGHTNING SUPPRESSORS/ARRESTORS FOR OUTDOOR ANTENNA INSTALLS
3. CEILING MOUNT BRACKET (JDTECK) FOR INDOOR PANEL ANTENNAL INSTALLS
4. DIRECTIONAL (PANEL OR LOG PERIODIC STYLE) ANTENNAS (JPMC SUPPLIED)
5. LMR-240 FLEXIBLE LOW LOSS COMMUNICATIONS COAX OR LMR-400 FLEXIBLE LOW LOSS COMMUNICATIONS COAX
6. TNC CONNECTORS (TO ROUTER), N CONNECTORS TO ANTENNA

PART 3 - EXECUTION

3.1 INSTALLATION

A. CABLE & ANTENNA INSTALLATION
1. ROOFTOP INSTALLATION:
   a. PERFORM RF ASSESSMENT FROM THE ROOF FOR VERIZON WIRELESS AND AT&T WIRELESS LTE SERVICE TO CONFIRM BANKING CENTER HAS A USEABLE LTE SIGNAL BY THE TIME IT REACHES JPMC ROUTER IN THE RETAIL MAIN EQUIPMENT ROOM (RMER);
      1) GNS SIGNAL STRENGTH & QUALITY GUIDELINES:
   a. RSSI: > -80 DBM (SIGNAL STRENGTH - LTE OR 3G)
      NOTE: SS POWER CAN BE USED IN PLACE OF RSSI ON THE CELL SURVEY TO INDICATE SIGNAL STRENGTH. SS POWER READING MUST BE ≥ 97 DBM.
   b. RSRP: > -105 DBM (SIGNAL STRENGTH SPECIFIC TO LTE)
   c. RSRQ: > -13 DB (SIGNAL QUALITY SPECIFIC TO LTE)
   d. SNR: > 5 DB (SIGNAL QUALITY - LTE OR 3G)
   b. PERFORM INITIAL SPEED TESTS WITH A LTE MODEM TECHNOLOGY THAT IS EQUAL TO RETAIL NETWORK STANDARD (LTE CATEGORY 3, CATEGORY 6, OR CATEGORY 18). RECORD LOCAL FREQUENCY BANDS AND TRANSMIT/RECEIVE CHANNELS IN USE FOR EACH PROVIDER, FOR USE WITH MORE PRECISE TESTING EQUIPMENT. (I.E., ANRITSU DEVICE). CONTACT RETAIL NETWORK TEAM FOR CURRENT LTE STANDARD BEING USED.
   c. PROVIDE JPMC REAL ESTATE WITH A RECOMMENDATION FOR ANTENNA PLACEMENT - JPMC TO APPROVE FINAL ANTENNA PLACEMENT PRIOR TO PLACEMENT
   d. INSTALL (1) CELLULAR ANTENNA (TBD). INSTALL (1) LMR 240 (OR LMR 400) COAX CABLE FROM THE RMER/RTR TO THE LIGHTNING ARRESTOR LOCATION USING EXISTING ROOFTOP PENETRATION WHEREVER FEASIBLE
      1) TERMINATE BOTH ENDS OF THE LMR 240 (OR LMR 400) COAX CABLE WITH THE LIGHTNING ARRESTOR PROTECTED END UTILIZING (TBD) CONNECTOR TO CISCO 819 END UTILIZING TNC-TYPE MALE CONNECTOR)
      2) PROVIDE 2 FEET OF SLACK AT THE MIDPOINT OF THE VERTICAL CABLE MANAGER, TO ASSURE BEND RADIUS AND CONNECTIVITY TO THE ROUTER.
   e. ATTACH THE ANTENNA-END OF THE CABLE TO THE CISCO 4G LIGHTNING ARRESTOR
   f. EXTEND FROM SURGE PROTECTOR TO ANTENNA TO THE 4G COMPATIBLE LIGHTNING PROTECTOR.
      1) TERMINATE BOTH ENDS OF THE LMR 240 (OR LMR 400) COAX CABLE WITH THE ANTENNA END UTILIZING N-TYPE MALE CONNECTOR, AND THE LIGHTNING ARRESTOR UNPROTECTED END UTILIZING TNC-TYPE MALE CONNECTOR).
   g. GROUND THE SURGE PROTECTOR WITH A #6 AWG GROUND WIRE TO NEAREST GROUND SOURCE. THE GROUND CABLE MAY NOT EXCEED 20 INCHES.
   h. WEATHERIZE ANY OUTDOOR CONNECTIONS AND FIRE-STOP ALL PENETRATIONS

2. CEILING-MOUNT INSTALLATION:
   a. INSTALL (1) JPMC-SUPPLIED CELLULAR ANTENNA [COMMSCOPE CELLMAX-D-CPUSE-O)] WITH CEILING MOUNT BRACKET JDTECK (CMB-YAMB-1) AT JPMC-DESIGNATED LOCATION WITHIN THE BANKING CENTER, IN ACCORDANCE WITH THE MANUFACTURER'S GUIDELINES.
   b. INSTALL (1) LMR 240 (OR LMR 400) COAX CABLE FROM THE RMER/RTR TO THE CELLULAR ANTENNA LOCATION
      1) PROVIDE 2 FEET OF SLACK AT THE MIDPOINT OF THE VERTICAL CABLE MANAGER, TO ASSURE BEND RADIUS AND CONNECTIVITY TO THE ROUTER.
   c. TERMINATE BOTH ENDS OF THE LMR 240 (OR LMR 400) COAX CABLE WITH THE ANTENNA END UTILIZING TNC-FEMALE CONNECTOR AND THE CISCO 819 END UTILIZING TNC-TYPE MALE CONNECTOR)

B. TESTING/REMEDIATION/DOCUMENTATION
1. TEST COAXIAL (LMR 240 OR LMR 400) CABLE FROM ROUTER END TO ANTENNA END FOR; CONTINUITY, SHORTS, SIGNAL LOSS, ETC.
2. TEST RF SIGNAL STRENGTH/QUALITY AT THE RTR/RMER END OF THE CONNECTION DELIVERED BY ANTENNA
3. COMPARE SIGNAL LEVELS AT ROUTER TO DESIGN VALUES
4. REMEDIATE ANY SYSTEM ISSUES (ANTENNA OR CABLING) THAT DEVIATE FROM PLANNED VALUES
5. PROVIDE PHOTOS OF ANTENNA INSTALLATION AND RMER/RTR TERMINATION ALONG WITH FINAL TEST RESULTS FOR SWEEP AND RF SIGNAL LEVEL TESTS TO JPMC (REQUIREMENT FOR FINAL ACCEPTANCE)

END OF SECTION

JPMORGAN CHASE & CO.
GLOBAL TECHNOLOGY INFRASTRUCTURE
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WORKPLACE & DATA CENTER SERVICES
STRUCTURED CABLING ENGINEERING
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NEW RETAIL BRANCH PRYOR RD. AND LOWENSTEIN DR.

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SECTION 27 15 00 - STRUCTURED CABLING - HORIZONTAL CABLING

PART 1 - GENERAL

1.1 DESCRIPTION

A. CATEGORY 6 HORIZONTAL CABLE INFRASTRUCTURE SHALL BE INSTALLED FOR ALL STANDARD WALL OUTLETS AND ATM CABLE RUNS UNLESS NOTED OTHERWISE. THESE CABLES SHALL BE TERMINATED IN THE RMER OR RTR ON A 24-PORT OR 48-PORT PATCH PANEL WITH CATEGORY 6, RJ-45 JACKS, EMPLOYING T568B TERMINATIONS.

B. CATEGORY 6A HORIZONTAL CABLE INFRASTRUCTURE SHALL BE INSTALLED FOR ALL WIRELESS ACCESS POINT AND SECURITY CAMERA LOCATIONS. THESE CABLES SHALL BE TERMINATED IN THE RMER OR RTR ON A 24-PORT PATCH PANEL WITH CATEGORY 6A, RJ-45 JACKS, EMPLOYING T568B TERMINATIONS.

C. FOILED/UNSHIELDED TWISTED PAIR CATEGORY 6A HORIZONTAL CABLE INFRASTRUCTURE SHALL BE INSTALLED FOR ALL VIDEO MONITOR LOCATIONS WHERE IDENTIFIED TO SUPPORT HDBASE-T TECHNOLOGY. THESE CABLES SHALL BE TERMINATED IN THE RMER OR RTR ON A 24-PORT SHIELDED PATCH PANEL WITH CATEGORY 6A, SHIELDED, RJ-45 JACKS, EMPLOYING T568B TERMINATIONS.

D. TELEPRESENCE CONTROLLER LOCATIONS WILL BE EQUIPPED WITH POINT-TO-POINT F/UTP CATEGORY 6A HORIZONTAL CABLES AND AUDIO CABLES.

E. IN NO CASE SHALL CATEGORY 6 / 6A, AND F/UTP CATEGORY 6A CABLE RUNS EXCEED 90M (295 FT) IN LENGTH. IN THE EVENT THAT A CABLE RUNS EXCEEDS 90M (295FT) BUT NO MORE THAN 300M (984FT), THEN 50-MICRON, OM3-RATED MULTIMODE FIBER SHALL BE INSTALLED WITH FIBER-TO-COPPER MEDIA CONVERTERS ON BOTH ENDS OF THE CABLE RUN.

F. THIS SPECIFICATION CONTAINS ALL PRODUCTS CURRENTLY APPROVED BY JPMC. THE CONTRACTOR SHOULD NOT ASSUME THAT ALL OF THE MATERIALS LISTED IN THE SPECIFICATIONS MUST BE INSTALLED BECAUSE THEY ARE LISTED IN THE SPECIFICATION. PROJECT-SPECIFIC REQUIRED MATERIALS ARE FURTHER DEFINED IN THE PROJECT CONSTRUCTION DRAWINGS.

PART 2 - PRODUCTS

2.1 PLENUM REQUIREMENTS

A. LOCAL OR NATIONAL CODES MAY ALLOW NON-PLENUM (PVC) CABLE IN SOME LOCATIONS, IN WHICH CASE CONTRACTOR SHALL INFORM OPR THAT PLENUM RATED CABLE IS NOT REQUIRED. IF THE USE OF PVC CABLE IS APPROVED BY OPR, CONTRACTOR SHALL QUOTE AND INSTALL PVC CABLE. IF NO INFORMATION EXISTS REGARDING PLENUM/PVC CABLE REQUIREMENTS, CONTRACTOR SHALL QUOTE AND INSTALL PLENUM RATED CABLE.

2.2 PATCH CORDS - GENERAL

A. ONLY FACTORY TERMINATED PATCH CORDS MAY BE UTILIZED IN JPMC FACILITIES. UTP PATCH CORDS THAT ARE PRE-TERMINATED (E.G., CREATED BY PERSONNEL NOT DIRECTLY EMPLOYED BY THE MANUFACTURER) ARE NOT PERMISSIBLE, UNLESS PREVIOUSLY APPROVED IN WRITING BY OPR.

B. QUANTITIES, TYPES, AND LENGTHS OF PATCH CORDS ARE SPECIFIED BY OPR.

C. ALL PATCH CORDS FOR PRINTERS, MULTI-FUNCTION DEVICES (MFD), ETC. SHALL BE 7 FT. IN LENGTH.

D. RMER/RTR PATCH CORDS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR, TO ENSURE APPROPRIATE LENGTHS AND TIMELY MATERIAL PROCUREMENT. PATCH CORDS SHALL HAVE NO MORE THAN 1' OF SLACK.

E. PATCH CORDS SHALL BE COLORED AS FOLLOWS:
1. CATEGORY 6: GRAY
2. CATEGORY 6A: WHITE
3. CATEGORY 6A F/UTP: WHITE

2.3 MATERIALS

A. SEE THE WORK AREA OUTLET SCHEDULE, CABLE SCHEDULE, AND RACK EQUIPMENT SCHEDULE ON THE CONSTRUCTION DRAWINGS FOR MANUFACTURERS AND PART NUMBERS FOR THE FOLLOWING EQUIPMENT:
1. CATEGORY 6 UTP MATERIALS
2. CATEGORY 6A UTP MATERIALS
3. CATEGORY 6A F/UTP MATERIALS
4. CATEGORY 6 OSP UTP MATERIALS
5. CATEGORY 6A OSP UTP MATERIALS
6. FACEPLATES
7. OUTSIDE PLANT HORIZONTAL MULTIMODE FIBER MATERIALS

2.4 COPPER AND FIBER OPTIC TESTING EQUIPMENT

A. THE FOLLOWING PRODUCTS SHOULD BE USED WHEN TESTING STRUCTURED CABLING INFRASTRUCTURE:
1. TEST EQUIPMENT WHICH IS CAPABLE OF ELECTRONICALLY STORING TEST RESULT DATA. THE TESTER SHALL EXCEED ANSI/TIA-1152 LEVEL 2G
2. CATEGORY 6 AND CATEGORY 6A PERMANENT AND CHANNEL ADAPTERS
3. SINGLE-MODE AND MULTI-MODE FIBER ADAPTERS
4. ENCIRCLED FLUX REFERENCE CORDS
5. FIBER INSPECTION PROBE/ MICROSCOPE
6. APPROPRIATE CONNECTOR CLEANING TOOLS/ TAPES
7. 2M CATEGORY 6 PATCH LEADS IF CHANNEL TESTING CATEGORY 6 CABLING
8. 2M CATEGORY 6A PATCH LEADS IF CHANNEL TESTING CATEGORY 6A CABLING

PART 3 - EXECUTION

3.1 INSTALLATION

A. ALL RJ45 TERMINATIONS EMPLOY 568B TERMINATIONS.

B. ALL CABLES AND OUTLETS SHALL BE LABELED IN ACCORDANCE WITH SECTION 27 05 53.

C. COMPLETED HORIZONTAL CABLES SHALL BE TESTED IN ACCORDANCE WITH PART 3.2 - TESTING BELOW.

D. CONTRACTOR SHALL POPULATE THE PATCH PANEL WITH OUTLET TERMINATIONS TO SUPPORT INITIAL WORK AREA OUTLET REQUIREMENTS, AND LEAVING A GROWTH FACTOR OF 10% AS OPEN POSITIONS.

E. TO ENSURE OPTIMUM CABLE PERFORMANCE, BUNDLES OF 4-PAIR CABLES SHALL NOT BE TIGHTLY BUNDLED AND CAREFULLY ALIGNED FOR DESIRABLE AESTHETIC APPEARANCE.

F. CATEGORY 6/6A CABLES SHALL NOT BE KINKED OR UNDULY TWISTED, NOR SHALL THE INTEGRITY OF THE CABLE SHEATH BE COMPROMISED IN ANY FASHION. CABLE BUNDLES SHALL NOT BE CLINCHED OR TIED TOGETHER WITH EXCESSIVE FORCE, THEREBY HOLDING JACKET DEFORMATION TO A MINIMUM. INDIVIDUAL CABLE BEND RADII MAY BE NO LESS THAN FOUR TIMES THE CABLE DIAMETER OR 0.6 INCHES, WHICHEVER IS GREATER.

G. DURING TERMINATION, PAIR TWISTS SHALL BE MAINTAINED AS CLOSE AS POSSIBLE TO THE TERMINATION POINT. IN ANY CASE, THE AMOUNT OF UNTWISTING MUST NOT EXCEED .5 INCHES AT THE POINT OF TERMINATION.

H. CABLES SHALL BE DRESSED-IN, VELCRO® OR MILLEPEDE® MILLE-TIES RELEASABLE CABLE TIED, AND SECURED TO THE LADDER RACK, PLYWOOD BACKBOARD, AND/OR OTHER SUITABLE SURFACES TO ENSURE A PROFESSIONAL APPEARANCE AND RUN STRAIGHT, LEVEL, AND PARALLEL TO BUILDING LINES, WITH 90° CORNERS WHERE POSSIBLE. CONTRACTOR SHALL COMPLY WITH MANUFACTURER'S STANDARD PULLING TENSION AND MINIMUM BEND RADII AT ALL TIMES.

I. IN THE RMER/RTR, CABLES ASSOCIATED WITH A GIVEN WORK AREA SHALL BE TERMINATED INTO CONTIGUOUS POSITIONS IN THE PATCH PANEL. FOR EXAMPLE, IF EACH WORK AREA IS EQUIPPED WITH TWO CATEGORY 6 CABLES, THE FIRST WORK AREA SHALL BE TERMINATED ON POSITIONS 1 AND 2 OF THE PATCH PANEL, THE SECOND WORK AREA SHALL BE TERMINATED ON POSITIONS 3 AND 4 OF THE PATCH PANEL, AND SO FORTH.

J. IN THE RMER/RTR, A FLOOR PLAN MAP ILLUSTRATING THE TELECOM OUTLETS, WAPS AND IP CAMERA LOCATIONS AND NUMBERS SHALL BE MADE READILY AVAILABLE AND VIEWABLE.

K. WHEREVER PRACTICAL, JACKS THAT ARE INSTALLED AT MODULAR FURNITURE LOCATIONS SHALL BE FULLY INTEGRATED INTO FURNITURE RACEWAY LOCATIONS THAT ARE DESIGNED FOR THE PURPOSE, AVOIDING THE USE OF BISCUIT JACKS. WHERE THE FURNITURE SYSTEM DOES NOT CONTAIN AN INTEGRAL RACEWAY, AND NO APPARENT CABLE MANAGEMENT METHOD IS PROVIDED, CABLING SHALL BE NEATLY DRESSED AND CONCEALED UPON REVIEW AND APPROVAL BY THE OPR. VELCRO, DOUBLE SIDED TAPE OR OTHER ADHESIVE MATERIALS WILL ONLY BE ACCEPTED IF PREVIOUSLY APPROVED IN WRITING BY THE OPR.

L. CABLING TO WALL MOUNTED WORKSTATION OUTLETS SHALL TERMINATE IN A SINGLE- OR DOUBLE-GANG BOX PROVIDED BY OTHERS. CONTRACTOR SHALL PROVIDE THE NECESSARY CONNECTORS (AS DESCRIBED ELSEWHERE) UNDER A SINGLE-GANG FACEPLATE. THE TYPE OF FACEPLATE TO BE USED SHALL BE COORDINATED WITH THE ARCHITECT FOR COLOR, FINISH, ETC.

M. CABLING TO FLOOR MOUNTED WORKSTATION OUTLETS SHALL BE TERMINATED IN A FLUSH OR SURFACE MOUNTED POKE-THRU OR SERVICE FITTING PROVIDED BY OTHERS. ALL CABLING AND CONNECTORS SHALL REMAIN WITHIN THE POKE-THRU OR SERVICE FITTING HOUSING. IF NECESSARY, THE CONTRACTOR SHALL MODIFY THE BLANK PLATES PROVIDED WITH THE POKE-THRU OR SERVICE FITTING IN ORDER TO ACCOMMODATE THE CONNECTORS.

N. FOR HORIZONTAL FTP CABLING, GROUNDING OF THE SHIELD SHOULD BE MADE ON THE RMER END ONLY.

O. FOR ALL HORIZONTAL CABLE RUNS THAT RUN EXTERIOR TO THE MAIN BUILDING, INSTALL OSP-RATED UTP OR FIBER CABLE. CONDUIT SHALL BE PROVIDED FROM THE OUTLET TO THE RMER/RTR. OSP CABLING SHALL NOT BE INSTALLED IN A PLENUM-RATE CEILING SPACE.

P. FOR EACH UTP OSP CABLE THAT TERMINATES OUTSIDE THE ROOF LINE OF THE BUILDING, FURNISH AND INSTALL ONE OSP PROTECTOR, MOUNTED TO THE PLYWOOD BACKBOARD IN THE EQUIPMENT ROOM, AND BONDED TO THE GROUNDING BUSBAR VIA A MINIMUM 14 AWG GREEN JACKETED GROUND WIRE. TERMINATE THE UTP OSP CABLE AT THE PROTECTOR PER MANUFACTURER SPECIFICATIONS. WHERE THE OSP CABLE IS TERMINATED IN AN RJ45 JACK AT AN ATM, PROTECTION IS FURNISHED BY OTHERS, AND A 6 FT SERVICE LOOP SHALL BE PROVIDED SO THAT THE SURFACE MOUNTED RJ45 SINGLE-OUTLET JACK CAN BE DRESSED INTO THE INTERIOR OF THE ATM BY OTHERS.

Q. ALL OUTLET JACKS, CABLE, PATCH PANEL, PATCH CORDS MUST MATCH THE CATEGORY OR FIBER GRADE OF CABLE BEING DEPLOYED.

3.2 TESTING

A. DESCRIPTION
1. PRIOR TO THE TESTING COMMENCING, THE CONTRACTOR IS TO PROVIDE A COMPREHENSIVE TESTING METHODOLOGY DOCUMENT FOR APPROVAL, PRIOR TO ANY TESTING COMMENCING. THIS DOCUMENT SHALL INCLUDE THE FOLLOWING INFORMATION:
2. BRIEF OVERVIEW OF THE PROJECT (LOCATION, SCOPE ETC.)
3. OVERVIEW OF THE TESTING PROCEDURE INCLUDING SUPPORTING DOCUMENTATION, ONSITE EQUIPMENT CALIBRATION/ REFERENCING AND CLEANING PROCEDURE.
4. DETAILS OF THE EQUIPMENT TO BE USED.
5. CALIBRATION REQUIREMENTS AND CERTIFICATION FOR THE EQUIPMENT TO BE USED
6. TEST RESULT BACKUP PROCEDURE
7. DETAILS OF PROCEDURE FOR REMEDIATING ANY TEST RESULTS WHICH DO NOT PASS THE REQUIRED TESTS
8. A PROGRAM OF WORKS FOR THE TESTING, SHOULD THIS NOT BE CLEAR IN THE OVERALL INSTALLATION PROGRAM

B. ALL ELECTRONIC AND OPTICAL MEASURING (TEST) EQUIPMENT SHALL BE WITHIN 12 MONTHS OF A CALIBRATION THAT HAS BEEN CARRIED OUT BY AN APPROVED CALIBRATION HOUSE. ALL CALIBRATION CERTIFICATES SHALL BE AVAILABLE ON SITE DURING THE TESTING PHASE. ALL TEST RESULTS SHALL IDENTIFY THE EQUIPMENT SERIAL NUMBER (LOCAL AND REMOTE) OF TEST EQUIPMENT USED

C. THE “STORE PLOT DATA” FUNCTION OF THE TESTER MUST BE ENABLED PRIOR TO ANY TESTING COMMENCING. THIS IS TO ENABLE ELECTRONIC RE-TESTING AT A LATER DATE SHOULD THIS BE REQUIRED. TEST RESULTS ISSUED WITHOUT THE PLOT DATA ENABLED WILL BE CONSIDERED NON-COMPLIANT AND RE-TESTING WILL BE REQUIRED AT THE CONTRACTORS COST.

D. ALL MARGINAL (OR STAR *) PASSES SHALL BE CONSIDERED FAILS AND WILL REQUIRE REMEDIATION UNTIL A PASS IS ACHIEVED.

E. ONCE ALL PRODUCTS (I.E. CABLES AND ASSOCIATED HARDWARE) HAVE BEEN FULLY INSTALLED IN THEIR FINAL LOCATIONS AND LABELLED, TESTING OF ALL CORES/ CABLES MAY COMMENCE.

F. ALL CABLES/ CORES SHALL BE 100% TESTED IN ACCORDANCE WITH THE SECTIONS BELOW.

G. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMEDIATE ALL FAULTS FOUND WHILST TESTING AT ITS OWN EXPENSE. ALL TEST EQUIPMENT SHALL BE BY THE CONTRACTOR.

H. JPMC MAY CHOOSE TO WITNESS TEST RANDOM ELEMENTS OF THE INSTALLATION, WHICH SHOULD HAVE ALREADY BEEN ALLOWED FOR IN THE COSTS. THE CONTRACTOR SHALL PROVIDE 2 TESTING ENGINEERS AND ALL EQUIPMENT REQUIRED TO UNDERTAKE THE WITNESS TESTING (INCLUDING FULLY CHARGED TEST EQUIPMENT). CHANNEL TESTING (INCLUDING EXISTING PREVIOUSLY INSTALLED INFRASTRUCTURE MAY ALSO BE REQUIRED AS PART OF THE WITNESS TESTING, TO ENSURE THAT THE FULL CHANNEL IS COMPLIANT.

I. THE PROJECT SHALL NOT BE CONSIDERED COMPLETE UNTIL ALL SCS INFRASTRUCTURE HAS BEEN 100% TESTED AND TEST RESULT ISSUED TO JPMC IN BOTH TESTER AND PDF FORMAT. TEST RESULTS ARE TO BE BROKEN DOWN INTO 10MB FILE SIZES AND EMAILED (FTP SITES, CDS OR FLASH DRIVES ARE NOT PERMITTED).

3.3 FIBER TESTING

A. TESTS SHALL BE CARRIED OUT AT 850NM AND 1300NM FOR MULTI-MODE TESTING AND 1310NM AND 1550NM FOR SINGLE-MODE TESTING IN ONE DIRECTION.

B. THE FIBER MANUFACTURER'S WARRANTY CONDITIONS SHALL BE USED TO PERFORM ALL FIBER TESTING. THESE STANDARDS ARE MORE STRINGENT THAN INTERNATIONAL AND NATIONAL STANDARDS. THE CONTRACTOR IS REQUIRED TO PERFORM CUSTOM TESTS USING THE TESTER AND IS THEREFORE TO ADJUST THE CONTACTOR LOSS VALUES IN THE TESTER SOFTWARE ACCORDINGLY.

C. SHOULD INSTALLED FIBERS BE REQUIRED TO BE CONNECTED DIRECTLY INTO A SWITCH IN A HARNESS LINK TOPOLOGY, ALL FIBERS WILL BE PATCHED PRIOR TO TESTING COMMENCING, THEN INDIVIDUALLY UN-PATCHED, TESTED, AND FINALLY RE-PATCHED. THIS IS TO MITIGATE POLARITY CONCERNS.

D. WHEN REFERENCING FIBER OPTIC TESTERS THE 1 JUMPER (METHOD B) METHODOLOGY SHALL BE EMPLOYED.

E. FIBER TESTERS SHALL BE COMPLIANT WITH ENCIRCLE FLUX LAUNCH SOURCES/ CONDITIONS. ENCIRCLED FLUX TESTING PATCH LEADS SHALL BE USED AND SHOULD NOT BE MATED BEYOND THE MAXIMUM OF 500 TIMES.

F. DELIVERED CABLE TESTS ARE NOT REQUIRED, HOWEVER A CERTIFICATE OF CONFORMANCE SHALL BE SUPPLIED WITH EACH TRUNK CABLE AND COPIES MADE AVAILABLE ON SITE AND PROVIDED IN THE FINAL HANDOVER DOCUMENTATION.

G. INDIVIDUAL CABLE RUNS SHALL BE TRACEABLE TO THE DELIVERED TRUNK CERTIFICATION.

3.4 CATEGORY 6 AND CATEGORY 6A TESTING

A. PERMENANT LINK AND CHANNEL TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING STANDRADS PER REGION:
1. ISO/IEC 11801
2. ANSI/TIA 568

B. PERMANENT LINK TESTING SHOULD BE PERFORMED BETWEEN A PATCH PANEL AND AN RJ45 OUTLET.

C. CHANNEL TESTING SHOULD BE PERFORMED BETWEEN A PATCH PANEL AND A FACTORY TERMINATED RJ45 PLUG (WHEN A HARNESS LINK OR CONSOLIDATION POINT HAS BEEN DEPLOYED). CHANNEL TESTING BETWEEN TWO RJ45 OUTLETS IS NOT TYPICALLY REQUIRED.

D. SYSTEM ACCEPTANCE TESTS FOR CATEGORY 6 ARE DETAILED BELOW:

CATEGORY 6
1. WIRE MAP
2. LENGTH
3. PROPAGATION DELAY
4. DELAY SKEW
5. DC LOOP RESISTANCE - RECORDED FOR INFORMATION ONLY
6. DC RESISTANCE UNBALANCE - RECORDED FOR INFORMATION ONLY
7. INSERTION LOSS
8. NEXT (NEAR-END CROSSTALK)
9. PS NEXT (POWER SUM NEAR-END CROSSTALK)
10. ACR-N (ATTENUATION TO CROSSTALK RATIO NEAR-END) - RECORDED FOR INFORMATION ONLY
11. PS ACR-N (POWER SUM ATTENUATION TO CROSSTALK RATIO NEAR-END) - RECORDED FOR INFORMATION ONLY
12. ACR-F (ATTENUATION TO CROSSTALK RATIO FAR-END)
13. PS ACR-F (POWER SUM ATTENUATION TO CROSSTALK RATIO FAR-END)
14. RETURN LOSS
15. TCL (TRANSVERSE CONVERSION LOSS) - RECORDED FOR INFORMATION ONLY
16. ELTCTL (EQUAL LEVEL TRANSVERSE CONVERSION TRANSFER LOSS) - RECORDED FOR INFORMATION ONLY

CATEGORY 6A & CATEGORY 6A (CATAGORY6A SHIELDED/FOILED CABLES FOR AUDIO-VIDEO CABLES ONLY)
1. WIRE MAP
2. LENGTH
3. PROPAGATION DELAY
4. DELAY SKEW
5. DC LOOP RESISTANCE
6. DC RESISTANCE UNBALANCE WITHIN A PAIR
7. DC RESISTANCE UNBALANCE BETWEEN PAIRS
8. INSERTION LOSS
9. NEXT (NEAR-END CROSSTALK)
10. PS NEXT (POWER SUM NEAR-END CROSSTALK)
11. ACR-N (ATTENUATION TO CROSSTALK RATIO NEAR-END)
12. PS ACR-N (POWER SUM ATTENUATION TO CROSSTALK RATIO NEAR-END)
13. ACR-F (ATTENUATION TO CROSSTALK RATIO FAR-END)
14. PS ACR-F (POWER SUM ATTENUATION TO CROSSTALK RATIO FAR-END)
15. RETURN LOSS
16. TCL (TRANSVERSE CONVERSION LOSS)
17. ELTCTL (EQUAL LEVEL TRANSVERSE CONVERSION TRANSFER LOSS)
18. PS ANEXT (POWER SUM ALIEN NEAR-END CROSSTALK)
19. AVERAGE PS ANEXT (AVERAGE POWER SUM ALIEN NEAR-END CROSSTALK)
20. PS AACR-F (POWER SUM ALIEN ATTENUATION TO CROSSTALK RATIO FAR-END)
21. AVERAGE PS AACR-F (AVERAGE POWER SUM ALIEN ATTENUATION TO CROSSTALK RATIO FAR-END)
22. SHIELD/FOIL CONTINUITY (FOR CATAGORY6A SHIELDED/FOILED CABLES ONLY)

E. ALL MARGINAL (OR STAR *) PASSES SHALL BE CONSIDERED FAILS AND WILL REQUIRE REMEDIATION UNTIL A PASS IS ACHIEVED

3.3 DOCUMENTATION

A. ALL TEST RESULTS ARE TO BE ISSUED IN PDF FORMAT A MAXIMUM OF TWO DAYS AFTER FINAL COMPLETION OF THE TESTING. THE PROJECT WILL NOT BE CONSIDERED COMPLETE AND INVOICES WILL NOT BE PAID UNTIL THIS IS ACHIEVED.

B. PDF FILE SIZES ARE TO BE NO GREATER THAN 10MB AS EMAIL IS THE ONLY OPTION OF ISSUING THEM. PAPER COPIES ARE NOT REQUIRED.

C. THE TEST RESULTS IN THE PDF DOCUMENT ARE TO BE SEQUENCED IN NUMERICAL ORDER, AND THE PORT DESCRIPTION SHOULD MATCH THE LABELLING NOMENCLATURE. IT IS IMPERATIVE THAT THE TEST RESULTS DETAIL THE LOCAL LENGTH MEASUREMENT UNITS.

D. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL PORTS HAVE BEEN 100% TESTED PRIOR TO SUBMITTING THE TEST RESULTS.

E. THE CONTRACTOR SHALL PROVIDE AN ELECTRONIC COPY OF THE TEST RESULTS AND THE FINAL AS-BUILT DRAWINGS SHOWING ALL HORIZONTAL CABLE LABELS AT EACH OUTLET LOCATION. THE FINAL AS-BUILT CABLE LABEL SHALL BE IDENTICAL TO THE CABLE IDENTIFIER IN THE TEST RESULTS.

F. THE CONTRACTOR SHALL PROVIDE THE FINAL MANUFACTURER PERFORMANCE AND ASSURANCE WARRANTY, TEST RESULTS AND FINAL AS-BUILT DRAWINGS AS A COMPLETE CLOSE OUT SUBMITTAL. THE PROJECT WILL NOT BE CONSIDERED COMPLETE AND INVOICES WILL NOT BE PAID UNTIL THIS IS ACHIEVED.

END OF SECTION

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GLOBAL TECHNOLOGY INFRASTRUCTURE
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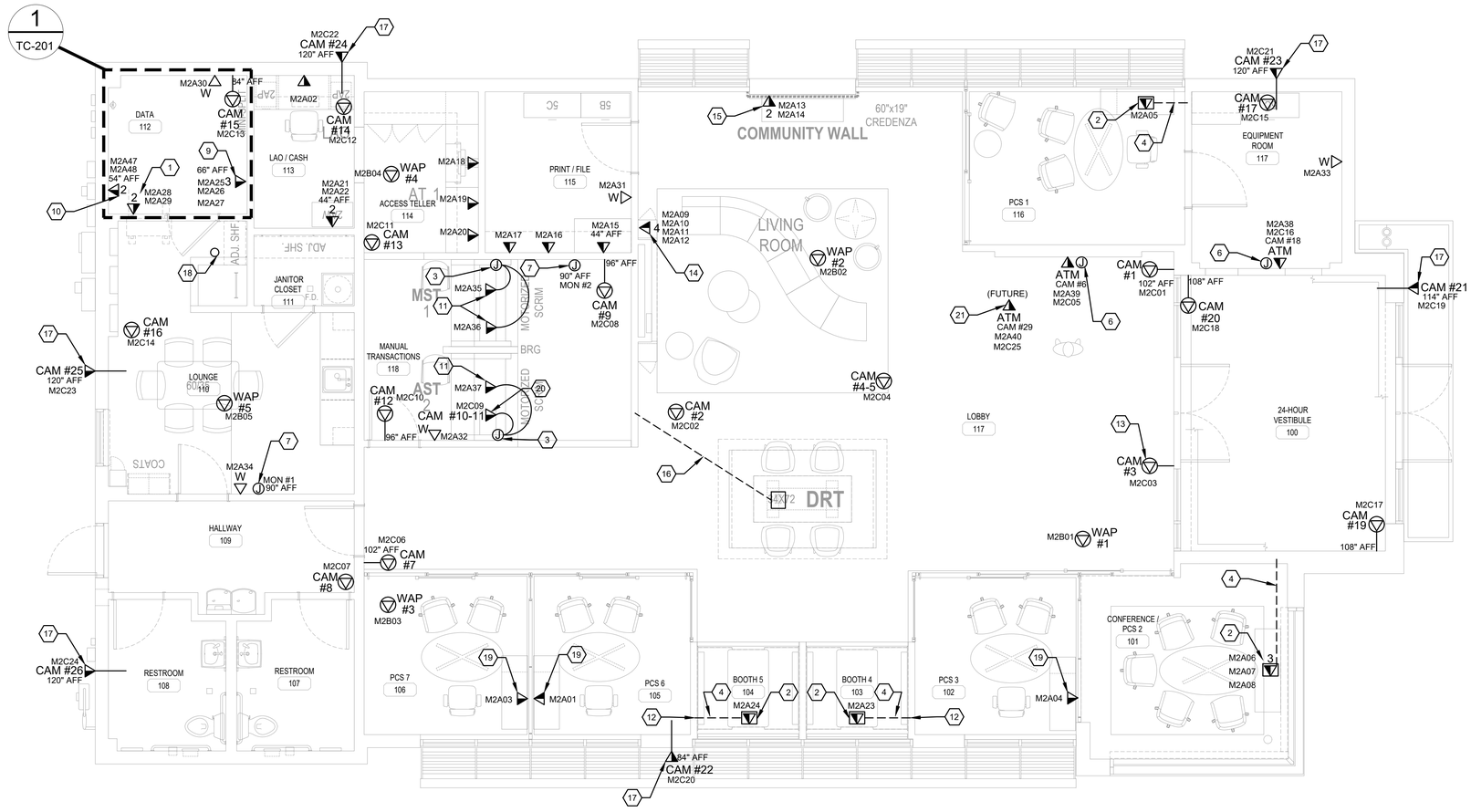
title
TELECOM BOOK SPECS

job no.
C60025810702

sheet
TC-005



1 TELECOM FIRST FLOOR PLAN

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

TELECOMMUNICATIONS PLAN NOTES #

1. OUTLET FOR BUILDING AUTOMATION SYSTEM EQUIPMENT. COORDINATE THE EXACT LOCATION WITH THE BAS EQUIPMENT PRIOR TO ROUGH-IN.
2. FLOOR OUTLET MOUNTED WITHIN DUAL SERVICE POWER AND LOW VOLTAGE RECESSED BOX WITH 1" CONDUIT TO ABOVE ACCESSIBLE CEILING. REFER TO SHEET TC-000 FOR ADDITIONAL INFORMATION.
3. JUNCTION BOX WITH 1" CONDUIT TO ABOVE ACCESSIBLE CEILING FOR CABLING TO THE OUTLETS BENEATH THE TELLER COUNTER. CONCEAL CABLING FROM JUNCTION BOX TO OUTLET WITHIN FLEXIBLE CONDUIT. SEE ARCHITECTURAL DETAILS FOR MORE INFORMATION.
4. PROVIDE 1" CONDUIT UNDER SLAB TO WALL AS SHOWN. ROUTE CONDUIT CONCEALED WITHIN WALL AND STUB OUT TO ABOVE ACCESSIBLE CEILING. REFER TO OUTLET ROUGH-IN REQUIREMENTS ON SHEET TC-401.
5. PROVIDE 1" CONDUIT TO DUAL SERVICE POWER AND LOW VOLTAGE RECESSED BOX FOR TELEPRESENCE CONTROL CABLING. REFER TO FACEPLATE DETAIL AND TERMINATION DETAILS ON SHEET TC-302. REFER TO OUTLET ROUGH-IN REQUIREMENTS ON SHEET TC-401. REFER TO TC-501 AV ELEVATIONS FOR ADDITIONAL DETAIL.
6. PROVIDE A SINGLE GANG BACKBOX WITH A 1" CONDUIT TO ABOVE ACCESSIBLE CEILING THIS ROUGH-IN WILL BE FOR CABLING PROVIDED BY THE SECURITY VENDOR.
7. PROVIDE A 5" SQUARE BACKBOX WITH SINGLE GANG REDUCER FOR SECURITY MONITOR CABLING. PROVIDE 1-1/4" CONDUIT FROM BOX STUBBED OUT TO ABOVE ACCESSIBLE CEILING. PROVIDE PULLSTRING IN CONDUIT. PROVIDE SINGLE GANG BRUSHED PASSTHROUGH FACEPLATE (LEVITON #41075-DBW WITH DECORA STYLE WALLPLATE).
8. NOTE NOT USED.
9. DATA CONNECTION FOR ACCESS CONTROL PANEL. COORDINATE WITH SECURITY CONTRACTOR TO PROVIDE ONE CONNECTION FOR EACH PANEL WITHIN SINGLE GANG BACK BOX AND FACEPLATE. REFER TO SHEET TC-201 FOR ADDITIONAL INFORMATION.
10. PROVIDE 2-PORT SURFACE MOUNTED DATA OUTLET FOR EXTENSION OF COPPER CARRIER CABLING TO RACK. TERMINATE CABLING ON PATCH PANEL LOCATIONS SHOWN. PROVIDE PURPLE COLORED CAT6 JACKS IN FACEPLATE AND MODULAR PATCH PANEL. REFER TO THE CARRIER EXTENSION SURFACE MOUNTED OUTLET CONFIGURATION ON SHEET TC-302 FOR ADDITIONAL INFORMATION.
11. DATA OUTLET MOUNTED IN CASEWORK. COORDINATE MOUNTING LOCATIONS WITH ARCHITECT/JPMC PROJECT MANAGER.
12. DECORATIVE CEILING AREA. EXTEND CONDUIT TO NEAREST ACCESSIBLE CEILING. REFER TO THE OUTLET ROUGH-IN REQUIREMENTS ON SHEET TC-401.
13. MULLION MOUNTED MINI CAMERA. PROVIDE CONDUIT IN DOOR FRAME EXTENDING TO NEAREST ACCESSIBLE CEILING. COORDINATE FINAL MOUNTING WITH PROJECT MANAGER.
14. AV SOLUTION #3. REFER TO SHEET TC-501 FOR ADDITIONAL INFORMATION.
15. AV SOLUTION #7. REFER TO SHEET TC-502 FOR ADDITIONAL INFORMATION.
16. PROVIDE 1" CONDUIT WITH PULLSTRING TO DUAL SERVICE FLOOR BOX FOR FUTURE TELECOMMUNICATION CABLING. ROUTE CONDUIT UNDERSLAB TO NEAREST WALL AND STUB UP WALL TO ACCESSIBLE CEILING SPACE.
17. PLENUM-RATED ABOVE CEILING CONNECTOR ASSEMBLY MOUNTED ABOVE ACCESSIBLE CEILING FOR EXTERIOR SECURITY CAMERA. REFER TO DETAIL ON SHEET TC-401 FOR ADDITIONAL INFORMATION. PROVIDE A DOUBLE GANG BOX WITH 1" FLEX CONDUIT CONNECTION TO ABOVE ACCESSIBLE CEILING. THE CABLING VENDOR SHALL ROUTE THE RJ-45 PIGTAIL FROM ABOVE THE INTERIOR ACCESSIBLE CEILING TO THE EXTERIOR BACK BOX FOR THE SECURITY INTEGRATOR.
18. RECOMMENDED LOCATION OF THE CELLULAR ANTENNA ROOF PENETRATION. COORDINATE LOCATION WITHIN 36" OF THE ACCESS LADDER. CONDUIT PATHWAY SHALL EXTEND FROM THE ROOF PENETRATION TO THE RMER DATA CLOSET. SEE DETAILS ON TC-201 AND TC-402 FOR ADDITIONAL INFORMATION.
19. OUTLET MOUNTED IN PRE-MANUFACTURED FURNITURE WALL (AKA VIA WALL OR PRIVACY WALL). EC TO PROVIDE A 3/4" FLEXIBLE CONDUIT WITH PULL STRING ROUTED FROM THE COMMUNICATIONS OUTLET OPENING TO ABOVE FINISHED CEILING. TC TO PROVIDE CABLING TO COMMUNICATION OPENING AND PROVIDE OUTLET FACEPLATE AS SHOWN ON TC-302.
20. PROVIDE SINGLE PORT CAT6A DATA OUTLET AND FACEPLATE BENEATH COUNTER FOR CAMERA MODULE. PROVIDE 3'-0" CAT6A PATCH CORD FOR SECURITY USE. DATA JACK SHALL BE GREEN. REFER TO TC-300 SERIES FOR FURTHER INFORMATION.
21. PROVIDE CABLING FOR ATM AND CORRESPONDING ATM TRANSACTION CAMERA FOR FUTURE USE. PROVIDE SERVICE LOOP CONSISTING OF 20' SPARE CABLING ABOVE CEILING NEAR TOP OF THE WALL FOR EXTENDING DOWN WALL FOR FUTURE TERMINATION AND TESTING. PERMANENTLY LABEL CABLING "FOR FUTURE ATM INSTALL".

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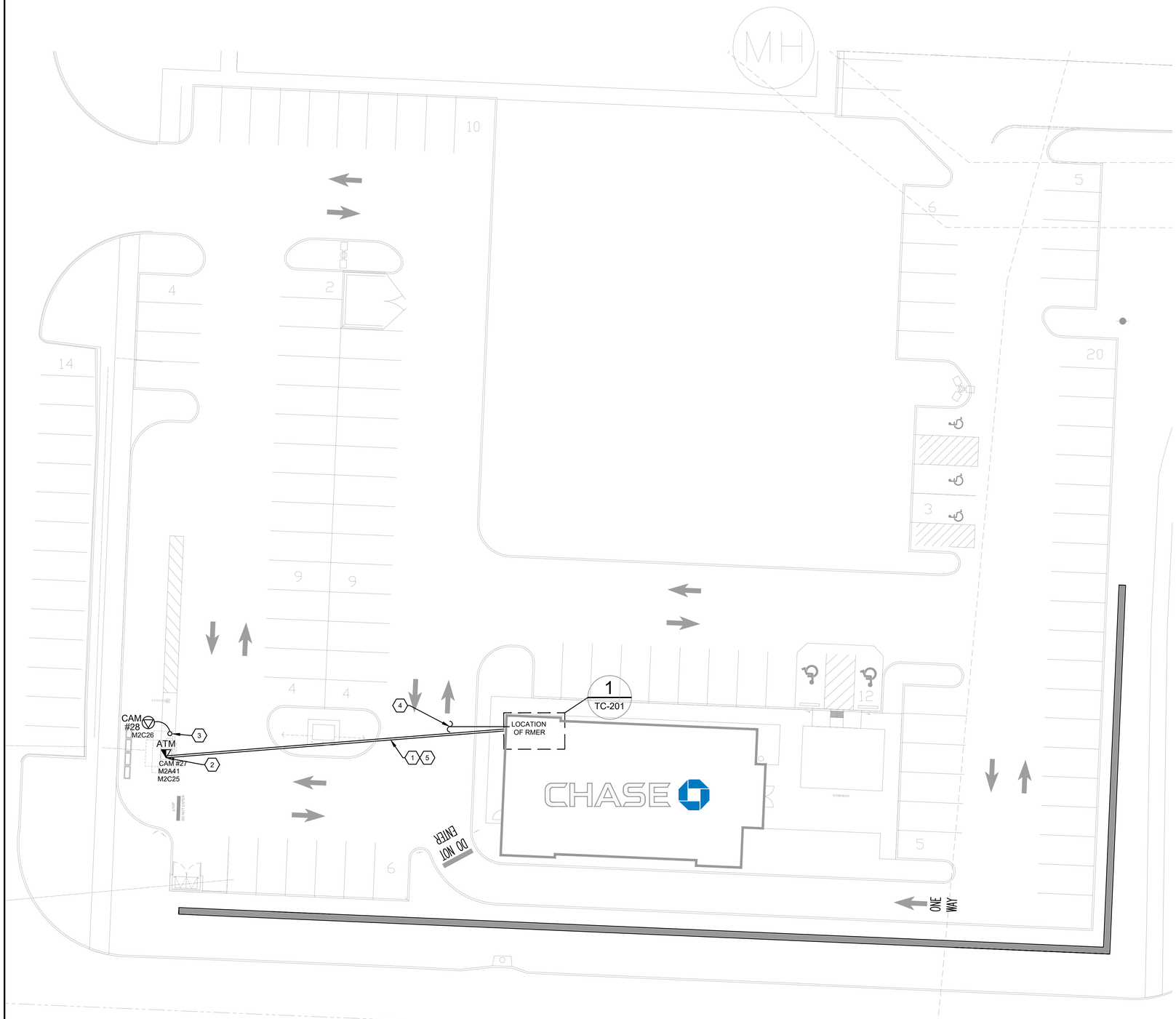
TELECOM FIRST FLOOR PLAN

job no. C60025810702

sheet

TC-101



1 TELECOM SITE PLAN

SCALE: 1/16" = 1'-0"

TELECOMMUNICATIONS PLAN NOTES #

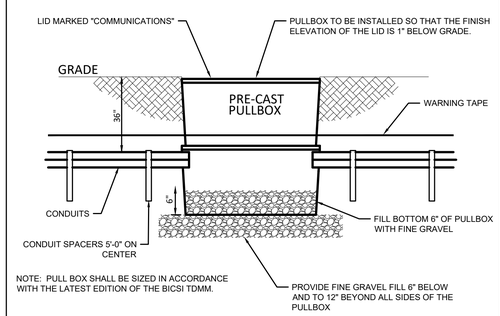
1. PROVIDE ONE (1) 2" CONDUIT TO EXTERIOR ATM LOCATION FROM RMER. PROVIDE 2" 3-CELL MAXCELL INNERDUCT AND SWEEPING 90-DEGREE BENDS.
2. PROVIDE ATM OUTLET AT THIS LOCATION UTILIZING WET LISTED CABLING. REFER TO DETAIL ON SHEET TC-302 FOR ADDITIONAL FACEPLATE CONFIGURATION INFORMATION.
3. PROVIDE 1" VERTICAL CONDUIT FROM ATM OUTLET LOCATION TO CEILING SOFFIT FOR TELECOM CABLING. PROVIDE CAT6A CEILING CONNECTOR ASSEMBLY WITH 18" LONG PIGTAIL WITHIN CANOPY JUNCTION BOX. REFER TO ATM CANOPY MOUNTED IP-CCTV CAMERA INSTALLATION DETAIL ON SHEET TC-401.
4. PROVIDE TWO (2) 2" CONDUIT TO EXTERIOR SERVICE PROVIDER POLE/HANDHOLE LOCATION FROM RMER. PROVIDE 2" 3-CELL MAXCELL INNERDUCT AND SWEEPING 90-DEGREE BENDS. COORDINATE FINAL PLACEMENT WITH SERVICE PROVIDER AND JPMC PROJECT MANAGER. PROVIDE IN-GRADE FLUSH MOUNTED HANDHOLE SIZED PER BICSI TDMM STANDARDS FOR ALL RUNS THAT EXCEED TWO (2) 90-DEGREE BENDS.
5. PROVIDE ONE (1) 2" CONDUIT AND PULLSTRING WITH SWEEPING 90-DEGREE BENDS TO EXTERIOR ATM LOCATION FROM SECURITY WALLBOARD LOCATION IN RMER.

UNDERGROUND CONDUIT GENERAL NOTE

A. PROVIDE HANDHOLES SIZED PER THE BICSI TDMM FOR ALL CONDUIT RUNS THAT EXCEED TWO 90 DEGREE BENDS. PROVIDE HANDHOLE IN THE STRAIGHT RUN SECTION OF CONDUIT. REFER TO DETAILS ON TC-402 FOR FURTHER INFORMATION.

2 TELECOMMUNICATIONS SERVICE ENTRANCE DUCT BANK DETAIL

SCALE: NONE



3 TELECOMMUNICATIONS SERVICE IN-GRADE PULL BOX DETAIL

SCALE: NONE

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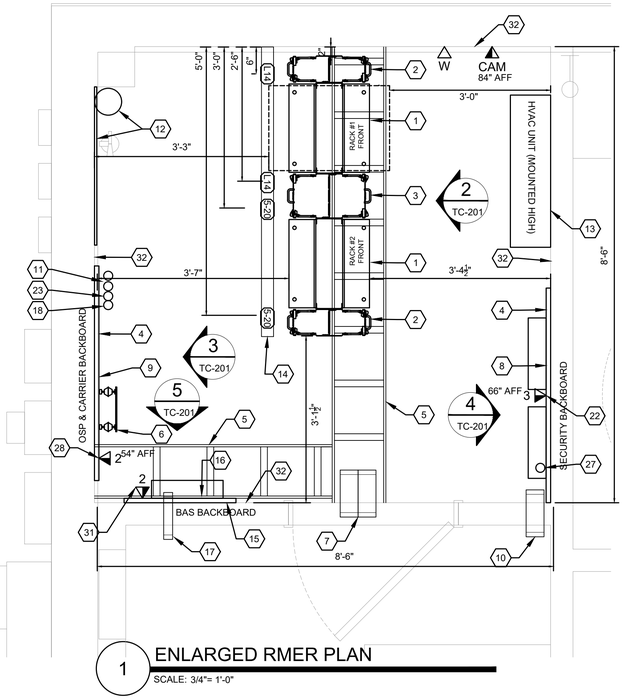
TELECOM SITE PLAN

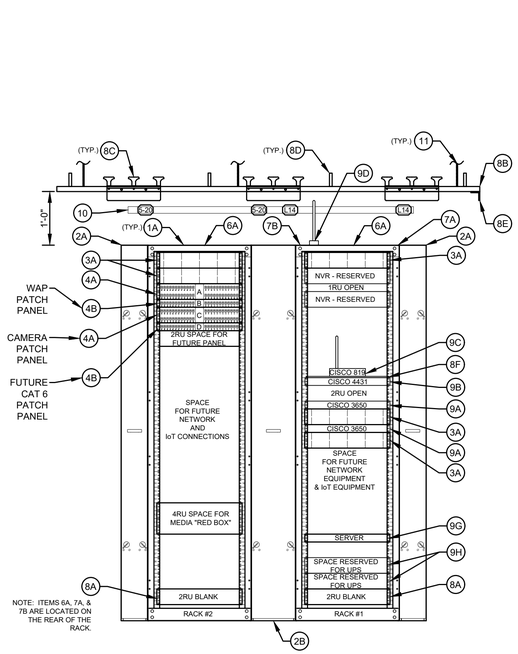
job no.
C60025810702

sheet
TC-102

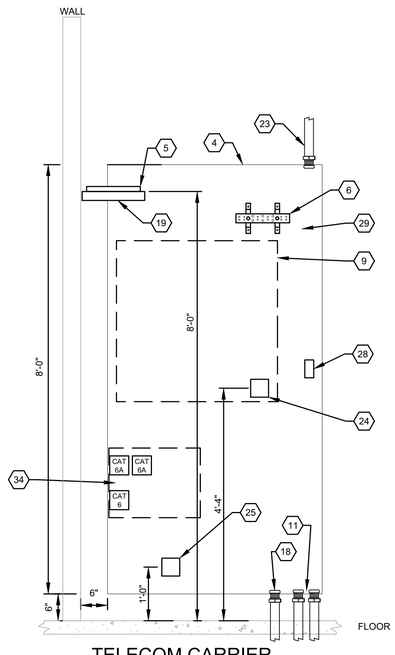
RACK EQUIPMENT SCHEDULE							
ITEM	DESCRIPTION	MANUFACT.	MODEL NUMBER	ITEM	DESCRIPTION	MANUFACT.	MODEL NUMBER
1A	2-POST RACK, 45RU, BLACK FINISH	CPI	66353-703	8B	12" WIDE LADDER RACK - BLACK FINISH	CPI	10250-712
2A	6" WIDE, DOUBLE-SIDED VERTICAL CABLE MANAGER, BLACK FINISH	CPI	30095-703	8C	LADDER RACK STRINGER RADIUS DROP 10.3" W - BLACK FINISH	CPI	12101-701
2B	10" WIDE, DOUBLE-SIDED VERTICAL CABLE MANAGER, BLACK FINISH	CPI	30096-703	8D	LADDER RACK CABLE RETAINING POSTS	CPI	10596-706
3A	2RU HORIZONTAL CABLE MANAGER, BLACK FINISH	CPI	30130-719	8E	LADDER RACK WALL ANGLE SUPPORT KIT	CPI	11421-712
3B	1RU HORIZONTAL CABLE MANAGER, BLACK FINISH	CPI	30139-719	8F	EQUIPMENT SHELF	CPI	11359-719
4A	MODULAR, ANGLED, 48-PORT PATCH PANEL	COMMSCOPE / SYSTIMAX	760187211	9A	NETWORK SWITCH	CISCO	PROVIDED BY OWNER
4B	MODULAR, ANGLED, 24-PORT PATCH PANEL	COMMSCOPE / SYSTIMAX	760187203	9B	NETWORK ROUTER	CISCO	PROVIDED BY OWNER
6A	RACK MOUNTED HORIZONTAL GROUNDING BUSBAR KIT (SEE GROUNDING SCHEMATIC)	PANDUIT	RGRB19U	9C	CELLULAR NETWORK ROUTER WITH ANTENNA	CISCO	PROVIDED BY OWNER
7A	BLACK VERTICAL POWER DISTRIBUTION UNIT WITH MOUNTING BRACKET FOR IT EQUIPMENT ONLY	CPI	EA-3087-CE (2 PACK 1-WHITE 1-BLACK) WITH (2) TS1012713	9D	REMOTE ANTENNA FOR CELLULAR NETWORK ROUTER	CISCO	PROVIDED BY OWNER
7B	WHITE VERTICAL POWER DISTRIBUTION UNIT WITH MOUNTING BRACKET FOR IT EQUIPMENT ONLY	CPI		9G	SERVER AND MOUNTING BRACKET (CPI 12751-719)	PROVIDED BY OWNER	PROVIDED BY OWNER
8A	2RU BLANK PANEL - BLACK FINISH	CPI	30024-702	9H	UPS AND MOUNTING BRACKET	PROVIDED BY OWNER	PROVIDED BY OWNER
				10	RECEPTACLES MOUNTED ON A SEPARATE C-CHANNEL (UNISTRUT) BELOW THE LADDER RACK & ABOVE THE RACKS.		PROVIDED BY EC
				11	ALL-THREAD TO STRUCTURE		PROVIDED BY TC



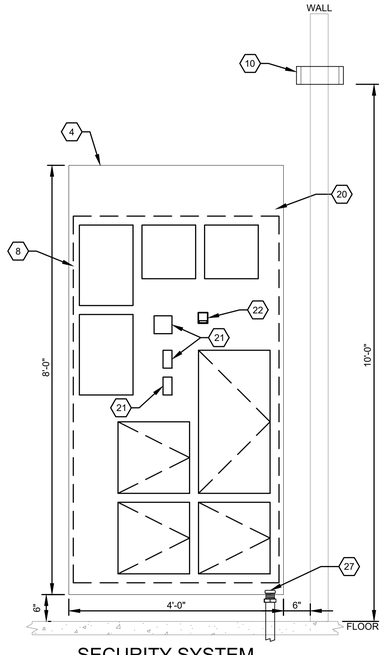
1 ENLARGED RMER PLAN
SCALE: 3/4"= 1'-0"



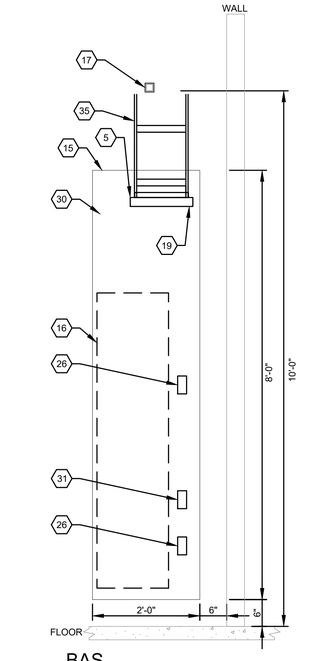
2 RMER EQUIPMENT RACK ELEVATION
SCALE: 3/4"= 1'-0"



3 TELECOM CARRIER BACKBOARD ELEVATION
SCALE: 3/4" = 1'-0"



4 SECURITY SYSTEM BACKBOARD ELEVATION
SCALE: 3/4" = 1'-0"



5 BAS BACKBOARD ELEVATION
SCALE: 3/4" = 1'-0"

ENLARGED MAIN EQUIPMENT ROOM NOTES

1. NEW 2-POST RACK WITH BLACK FINISH.
2. NEW 6" WIDE VERTICAL WIRE MANAGER WITH BLACK FINISH.
3. NEW 10" WIDE VERTICAL WIRE MANAGER WITH BLACK FINISH
4. NEW WALL MOUNTED, FIRE-RATED PLYWOOD BACKBOARD, 4' WIDE BY 8' TALL BY 3/4" THICK, BOTTOM MOUNTED 6" ABOVE FINISHED FLOOR. PAINT WITH FIRE-RETARDANT PAINT TO MATCH ROOM COLOR AND LEAVE ONE FIRE-RATED STAMP VISIBLE.
5. NEW 12" WIDE LADDER RACK OVERHEAD WITH BLACK FINISH.
6. LOCATION OF THE TELECOMMUNICATIONS GROUND BUSBAR. MOUNT 6" BELOW THE BOTTOM OF THE LADDER RACK. REFER TO GROUNDING DETAIL ON TC-403 FOR ADDITIONAL INFORMATION.
7. PROVIDE TWO 4" PRE-MANUFACTURED FIRE-RATED SLEEVES (STI EZ-PATH PART # EZD44S2) WITH WATERFALL ADAPTER (STI PART #EZRCM44S) FOR STRUCTURED CABLING USE ONLY. USE MUTLI-GANG PLATE (STI PART #EZP544W). REFER TO CABLE PENETRATION DETAIL ON TC-402 FOR ADDITIONAL INFORMATION.
8. 4' WIDE BY 7'-0" TALL WALL FIELD AREA RESERVED FOR SECURITY EQUIPMENT.
9. 3' WIDE BY 3' TALL WALL FIELD AREA RESERVED ON BACKBOARD FOR CARRIER EQUIPMENT TO BE MOUNTED.
10. PROVIDE ONE 4" PRE-MANUFACTURED FIRE-RATED SLEEVE (STI EZ-PATH PART # EZDP44S2) FOR SECURITY ALARM AND CARD ACCESS CABLING USE ONLY. REFER TO CABLE PENETRATION DETAIL ON TC-402 FOR ADDITIONAL INFORMATION.
11. E.C. TO PROVIDE TWO 2" CONDUITS FROM THE RMER TO THE CARRIER POINT OF ENTRY. ONE CONDUIT FOR THE SERVICE PROVIDER TO EXTEND THEIR DEMARCATION INTO THE NEW RMER. ONE CONDUIT WILL BE OWNER SPARE. THE E.C SHALL FIELD COORDINATE THIS ROUTE WITH THE BUILDING OWNER AND TELECOMMUNICATIONS CARRIER PRIOR TO INSTALLATION. PROVIDE 2" 3-CELL MAXCELL INNERDUCT AND SWEEPING 90-DEGREE BENDS. REFER TO CONDUIT AND SLEEVE LABELING ON TC-402 FOR LABELING INFORMATION.
12. PROVIDE A DRAWING OF THE FLOOR PLAN AS-BUILT WITH ALL HORIZONTAL CABLING LABELS FOR EACH OUTLET. MOUNT DRAWING TO WALL. PROVIDE ADDITIONAL FULL SIZE DRAWING TUBE ADJACENT TO CABLING DRAWING WITH A COMPLETE FULL SIZE SET OF ALL CONSTRUCTION AS-BUILT DRAWINGS FOR SITE.
13. SPACE FOR WALL MOUNTED HVAC UNIT. BOTTOM MOUNTED 8'-0" AFF WITH DRIP PAN AND DRIP PAN LEAK DETECTION. HVAC CONTRACTOR SHALL PROVIDE PROTECTION ON ALL SHARP CORNER EDGES.
14. EC TO PROVIDE A C-CHANNEL (UNI-STRUT) WITH TWO L14-30 OUTLET AT RACK #1 AND TWO NEMA 5-20 OUTLETS AT RACK #2 MOUNTED AT 7'-6" AFF. EACH OUTLET SHALL BE ON A DEDICATED CIRCUIT. EC TO MOUNT THIS INDEPENDENTLY FROM THE LADDER RACK AND THE EQUIPMENT RACKS. REFER TO TC-403 FOR REQUIRED EQUIPMENT POWER CONNECTIONS SCHEMATIC AND PDU MOUNTING DETAIL.
15. NEW WALL MOUNTED, FIRE-RATED PLYWOOD BACKBOARD, 2' WIDE BY 8' TALL BY 3/4" THICK, BOTTOM MOUNTED 6" ABOVE FINISHED FLOOR. PAINT WITH FIRE-RETARDANT PAINT TO MATCH ROOM COLOR AND LEAVE ONE FIRE-RATED STAMP VISIBLE.
16. 1'-4" WIDE BY 5'-6" TALL WALL FIELD AREA RESERVED BUILDING AUTOMATION SYSTEM (BAS) EQUIPMENT.
17. PROVIDE ONE 2" PRE-MANUFACTURED FIRE-RATED SLEEVE (STI EZ-PATH PART # EZD22) FOR BUILDING AUTOMATION SYSTEM (BAS) CABLING USE ONLY. REFER TO CABLE PENETRATION DETAIL ON TC-402 FOR LABELING INFORMATION.
18. PROVIDE 2" CONDUIT TO EXTERIOR ATM LOCATION AS SHOWN ON SHEET TC-102. PROVIDE 2" 3-CELL MAXCELL INNERDUCT AND SWEEPING 90-DEGREE BENDS. REFER TO CONDUIT AND SLEEVE LABELING ON TC-402 FOR LABELING INFORMATION.
19. WALL MOUNTED SUPPORT BRACKET FOR LADDER RACK.
20. ALL SECURITY SYSTEM CABLING MUST BE AFFIXED TO WALL AND/OR FIXED CONVEYANCE WITH HANGERS, VELCRO AND TIES. NO HANGING CABLES. (TYPICAL)
21. POWER CONNECTIONS ON DEDICATED CIRCUITS AND CONDUIT HOMERUN FOR SECURITY EQUIPMENT. EC TO COORDINATE ADDITIONAL CONNECTIONS REQUIRED, OUTLET MOUNTING HEIGHT, AND OUTLET CONFIGURATIONS & LOCATIONS ON THE BACKBOARD WITH THE SECURITY VENDOR.
22. DATA OUTLETS FOR THE ACCESS CONTROL PANEL FOR EQUIPMENT NETWORK CONNECTION. COORDINATE WITH SECURITY CONTRACTOR TO PROVIDE ONE CONNECTION FOR EACH PANEL WITHIN SINGLE GANG BACK BOX AND FACEPLATE.
23. PROVIDE 1" CONDUIT TO ROOF LOCATION FOR FUTURE ANTENNA CABLING. REFER TO CONDUIT AND SLEEVE LABELING ON TC-402 FOR LABELING INFORMATION.
24. QUAD POWER OUTLET ON A DEDICATED CIRCUIT AND CONDUIT HOMERUN FOR CARRIER EQUIPMENT.
25. QUAD POWER OUTLET ON A DEDICATED CIRCUIT AND CONDUIT HOMERUN FOR FUTURE EQUIPMENT.
26. DEDICATED DUPLEX OUTLET FOR BUILDING AUTOMATION SYSTEM (BAS)EQUIPMENT.
27. APPROXIMATE LOCATION OF THE 2" CONDUIT FOR ALARM CABLING TO DRIVE UP ATM. FIELD COORDINATE FINAL LOCATION.
28. 2-PORT SURFACE MOUNTED CAT6 DATA OUTLET WITH PURPLE COLORED CAT6 JACKS FOR COPPER EXTENSION OF CARRIER CONNECTIONS TO RACK.
29. ALL CARRIER CABLING MUST BE AFFIXED TO WALL AND/OR FIXED CONVEYANCE WITH HANGERS, VELCRO AND TIES. NO HANGING CABLES. (TYPICAL)
30. ALL BAS CABLING MUST BE AFFIXED TO WALL AND/OR FIXED CONVEYANCE WITH HANGERS, VELCRO AND TIES. NO HANGING CABLES (TYPICAL).
31. DATA OUTLET FOR THE BUILDING AUTOMATION SYSTEM (BAS) PANEL FOR EQUIPMENT NETWORK CONNECTION. REFER TO CONDUIT AND SLEEVE LABELING ON TC-402 FOR LABELING INFORMATION.
32. LOCATION FOR CONVENIENCE ELECTRICAL RECEPTACLE (BY DIV 26).
33. NOTE NOT USED.
34. PROVIDE SURGE PROTECTION FOR EACH CAT6 AND CAT6A CABLE LEAVING THE ROOM TO SERVE POLE MOUNTED CAMERAS AND ANY FREESTANDING ATM ISLAND/CANOPY DEVICES. PROVIDE ITW #CAT6-75 PROTECTION FOR EACH CAT6 CABLE AND ITW #CAT6A-75 FOR EACH CAT6A CABLE. BOND TO THE GROUNDING BAR PER MANUFACTURER REQUIREMENTS.
35. WHERE THE SLEEVE PENETRATION IS ELEVATED 24" OR MORE ABOVE THE LADDER RACK, PROVIDE A WALL MOUNTED VERTICAL SECTION OF LADDER RACK FOR CABLE VERTICAL TRANSITION

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NEW RETAIL BRANCH PRYOR RD. AND LOWENSTEIN DR.

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seal

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
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REG NO 166050
EXPIRES 12-31-23
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issue

no	date	issue	by
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site location
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908 NW PRYOR RD
LEE'S SUMMIT, MO 64081

designed	KB	date	03.02.2022	drawn	KB
checked	CC	scale	AS NOTED		

title
FIRST FLOOR ENLARGED RMER PLAN AND ELEVATIONS

job no.
C60025810702

sheet
TC-201

REMOTE/USER END PATCH CORD REQUIREMENTS

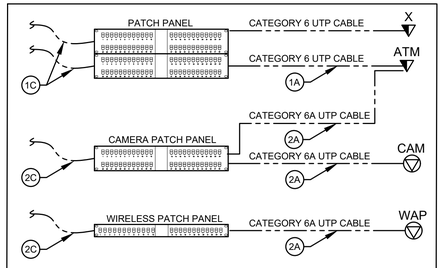
OUTLET TYPE	CABLE CATEGORY	LENGTH	QTY PER OUTLET
WORK AREA OUTLET / CUBICLE / OFFICE (OUTLET TO PHONE)	CAT 6	7 FOOT	1
WORK AREA OUTLET / CUBICLE / OFFICE (PHONE TO COMPUTER)	CAT 6	5 FOOT	1
PRINTER	CAT 6	7 FOOT	1
ATM OUTLETS	CAT 6	15 FOOT	1
WALL PHONE OUTLET	CAT 6	6 INCH	1
VIDEO MONITOR OUTLETS	CAT 6A SHIELDED	5 FOOT	1
TELEPRESENCE CONTROL OUTLETS	CAT 6A SHIELDED	5 FOOT	2
IP-CCTV CAMERA INTEGRAL TO ATM	CAT 6A	15 FOOT	1

RMER / RTR END PATCH CORD REQUIREMENTS

PATCH PANEL TYPE	CABLE TYPE	LENGTH	QTY PER PORT
CAT6 UTP PATCH PANEL SHORTER PULL	CAT 6	7 FOOT	1
CAT6 UTP PATCH PANEL LONGER PULL	CAT 6	10 FOOT	1
CAT6A UTP PATCH PANEL SHORTER PULL	CAT 6A	7 FOOT	1
CAT6A UTP PATCH PANEL LONGER PULL	CAT 6A	10 FOOT	1
SERVER	CAT 6	10 FOOT	1
DVR	CAT 6	10 FOOT	1
UPS	CAT 6	10 FOOT	1
ROUTER	CAT 6	10 FOOT	1
CARRIER BACKBOARD	CAT 6	3 FOOT	2

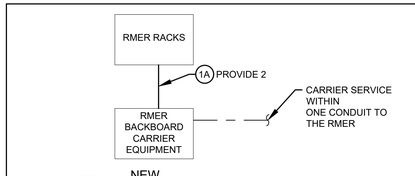
CONFIRM LENGTHS AND QUANTITIES PRIOR TO ORDERING. PULL/PATCH SCHEDULE TEMPLATE SHALL BE PROVIDED BY THE JPMC GTI PM AND TC SHALL BE RESPONSIBLE FOR FILLING THE REQUIRED COLUMNS AS DIRECTED. LENGHTS NOTED ARE FOR CONTRACTOR PRICING PURPOSES. EXACT LENGTHS SHALL BE FIELD VERIFIED PRIOR TO PURCHASING.

FOR RMER/RTR END, THE CONTRACTOR SHALL ORDER PATCH CORD LENGTHS SO THAT NO MORE THAN 1' OF SLACK IS INCLUDED IN EACH PATCH CORD AFTER INSTALLATION. THEREFORE, THE TC SHALL FIELD MEASURE THE REQUIRED LENGTHS. THE LENGTHS SHOWN ABOVE ARE FOR PRICING PURPOSES ONLY.



REFER TO SHEET TC-302 FOR SPECIFIC OUTLET CONFIGURATIONS.

1 NETWORK DIAGRAM
SCALE: NONE



2 NEW BACKBONE DIAGRAM
SCALE: NONE

CABLE SCHEDULE

TYPE	NUMBER	DESCRIPTION	MANUFACTURER	MODEL NUMBER
INTERIOR CATEGORY 6 UTP	1A	CATEGORY 6, PLENUM RATED, HORIZONTAL UTP GRAY CABLE	COMMSCOPE/ SYSTIMAX	700210198 (REEL) 700214372 (BOX)
	1B	CATEGORY 6, NON-PLENUM RATED HORIZONTAL UTP GRAY CABLE	COMMSCOPE/ SYSTIMAX	700211923 (REEL) 700211931 (BOX)
	1C	CATEGORY 6 PATCH CORD	COMMSCOPE/ SYSTIMAX	CPC3312-03F0##, WHERE ## = LENGTH
INTERIOR CATEGORY 6A UTP	2A	CATEGORY 6A, PLENUM RATED, HORIZONTAL UTP WHITE CABLE	COMMSCOPE/ SYSTIMAX	760105940 (REEL) 760107268 (BOX)
	2B	CATEGORY 6A, NON-PLENUM RATED, HORIZONTAL UTP WHITE CABLE	COMMSCOPE/ SYSTIMAX	760105817
	2C	CATEGORY 6A, PATCH CORD	COMMSCOPE/ SYSTIMAX	CPCSSX2-08F0##, WHERE ## = LENGTH
INTERIOR CATEGORY 6A F/UTP	3A	CATEGORY 6A, PLENUM RATED, HORIZONTAL F/UTP BLUE CABLE	COMMSCOPE/ SYSTIMAX	UN874034704 (REEL)
	3B	CATEGORY 6A, F/UTP, BLUE PATCH CORD	COMMSCOPE/ SYSTIMAX	UC111G2-0MF00## WHERE ## = LENGTH
EXTERIOR CATEGORY 6 UTP	4A	CATEGORY 6, OSP RATED, HORIZONTAL UTP CABLE	COMMSCOPE/ SYSTIMAX	760008888
	4B	CATEGORY 6, OSP RATED, PATCH CORD	COMMSCOPE/ SYSTIMAX	CO15542-01F0##, WHERE ## = LENGTH
EXTERIOR CATEGORY 6A UTP	5A	CATEGORY 6A, OSP RATED, HORIZONTAL UTP CABLE	COMMSCOPE/ SYSTIMAX	760178129
	5B	CATEGORY 6A, OSP RATED, PATCH CORD	COMMSCOPE/ SYSTIMAX	CO15582-01F0##, WHERE ## = LENGTH
FIBER	6B	HYBRID FIBER (2-STRAND SINGLE MODE) WITH COPPER (TWO 12AWG), OUTDOOR RATED HORIZONTAL CABLE	BERK-TEK	ONE-REACH SERIES

NOTES

A. FOR PATCH CORDS WITHOUT AN EXACT LENGTH SPECIFIED, THE CONTRACTOR SHALL DETERMINE THE LENGTH SO THERE IS NO MORE THAN 1' OF SLACK ON EACH END.

B. ALL CABLE TYPES LISTED ABOVE MAY NOT BE USED ON EVERY PROJECT.

C. NON-PLENUM CABLES CAN ONLY BE USED WHEN EITHER THE CABLING IS TOTALLY WITHIN CONDUIT OR THE HVAC SYSTEM HAS A DUCTED AIR RETURN.

CABLING INSTALLATION GENERAL NOTES:

A. CABLES ROUTED IN WALLS AND COLUMNS SHALL BE IN CONDUIT STUB-UPS. CABLES ROUTED IN FLOOR SLAB SHALL BE IN CONDUIT. ANY CABLE ROUTES THAT ARE NOT IN JPMC OWNED SPACE SHALL BE IN CONDUIT. (TC TO COORDINATE WITH EC FOR CONDUIT QUANTITIES, PLACEMENT AND SIZING).

B. CABLE PATHWAYS ARE SHOWN FOR DIAGRAMMATICAL PURPOSES ONLY. ACTUAL PATHWAYS MAY BE DIFFERENT. TC SHALL VERIFY CABLE PATHWAYS AND RACK TERMINATION LOCATION OF THE CABLES IN THE FIELD PRIOR TO PULLING ANY CABLES.

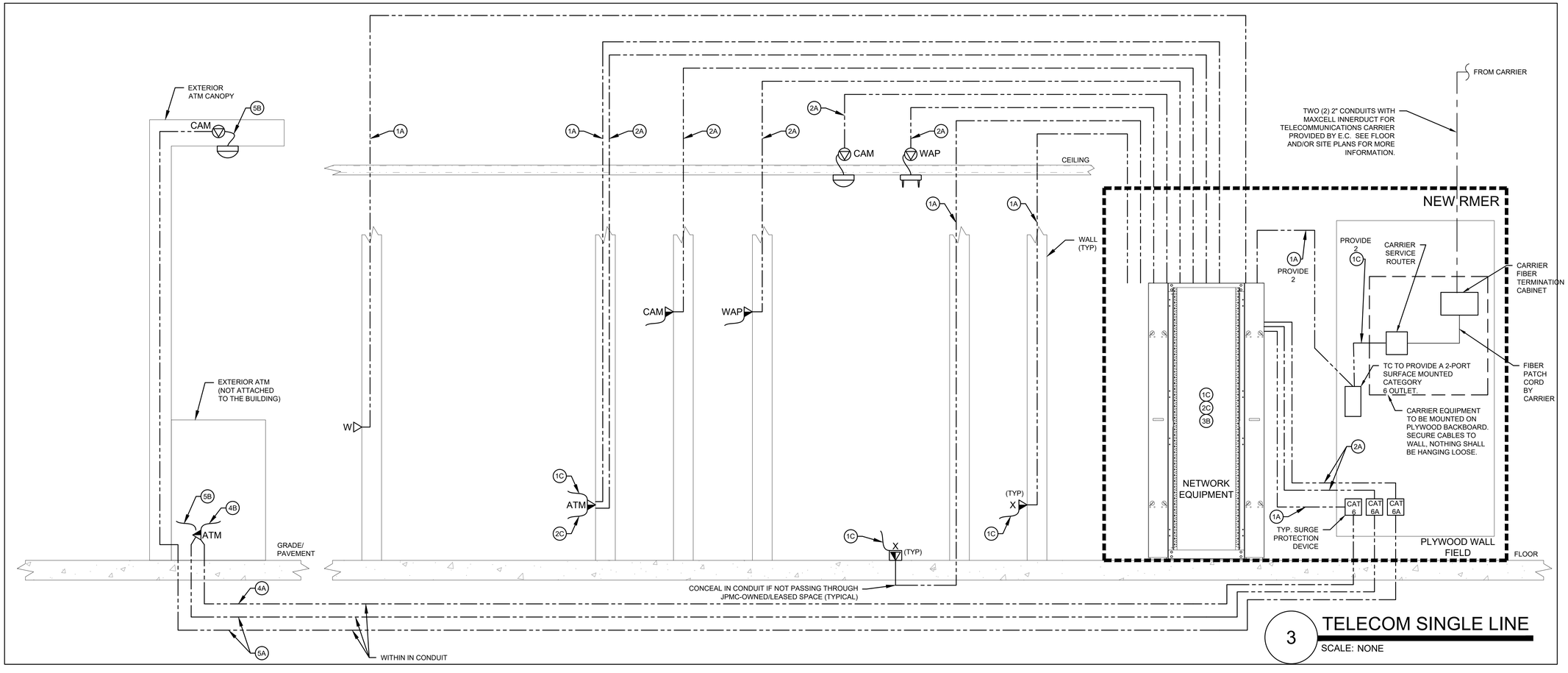
C. THE SINGLE LINE DIAGRAM IS DIAGRAMMATIC FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DISTANCE CALCULATIONS OR QUANTITY TAKE-OFFS.

D. ALL CABLING RUNS THAT REMAIN WITHIN JPMC AREAS SHALL BE PROPERLY SUPPORTED IN ACCORDANCE WITH ALL JPMC STANDARDS. ALL CABLING THAT IS RUN IN COMMON BUILDING AREAS AND OTHER TENANT SPACES MUST BE IN CONDUIT FOR THE FULL RUN OUTSIDE OF JPMC AREAS SUCH THAT NO JPMC CABLING IS ACCESSIBLE TO ANYONE OTHER THAN JPMC PERSONNEL. JUNCTION AND PULL BOXES AND OTHER ACCESS POINTS REQUIRED IN COMMON AREAS SHALL BE PROVIDED WITH LOCKS SO THAT THE CABLING IS INACCESSIBLE TO ANYONE OTHER THAN JPMC PERSONNEL.

E. FOR EACH CAT 6 AND CAT 6A CABLING LEAVING THE BUILDING TO SERVE EXTERIOR ISLAND ATM'S, ATM CANOPY CAMERAS AND EXTERIOR POLE MOUNTED CAMERAS, PROVIDE A SURGE PROTECTION DEVICE WITHIN THE RMER AT THE LOCATION OF SLAB PENETRATION.

CABLE LINETYPE LEGEND

- UTP 4-PAIR CABLE
- F/UTP 4-PAIR CABLE
- CARRIER FIBER OPTIC DEMARC EXTENSION CABLE
- SINGLE MODE FIBER OPTIC BACKBONE CABLE
- HYBRID MULTIMODE FIBER OPTIC & 2-CONDUCTOR 12 AWG COPPER HORIZONTAL CABLE



3 TELECOM SINGLE LINE
SCALE: NONE

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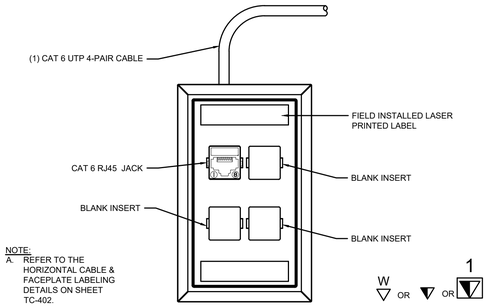
title
TELECOM SINGLE LINE DIAGRAM

job no.
C60025810702

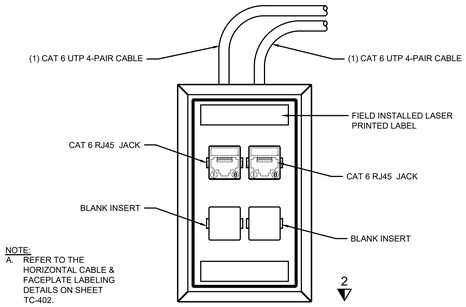
sheet
TC-301



NOTE:
A. REFER TO THE HORIZONTAL CABLE & FACEPLATE LABELING DETAILS ON SHEET TC-402.

WALL MOUNTED PHONE AND 1-PORT
TYPICAL FLUSH MOUNT FACEPLATE

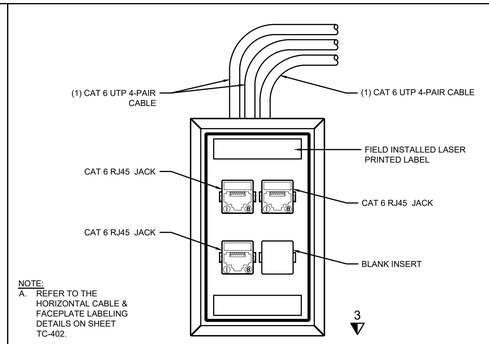
1 SCALE: NONE



NOTE:
A. REFER TO THE HORIZONTAL CABLE & FACEPLATE LABELING DETAILS ON SHEET TC-402.

2-PORT
TYPICAL FLUSH MOUNT FACEPLATE

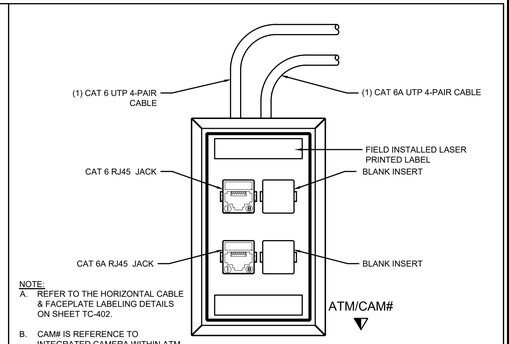
2 SCALE: NONE



NOTE:
A. REFER TO THE HORIZONTAL CABLE & FACEPLATE LABELING DETAILS ON SHEET TC-402.

3-PORT
TYPICAL FLUSH MOUNT FACEPLATE

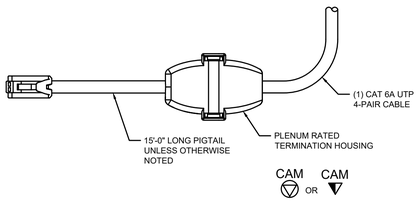
3 SCALE: NONE



NOTE:
A. REFER TO THE HORIZONTAL CABLE & FACEPLATE LABELING DETAILS ON SHEET TC-402.
B. CAM# IS REFERENCE TO INTEGRATED CAMERA WITHIN ATM.

ATM
TYPICAL FLUSH MOUNT FACEPLATE

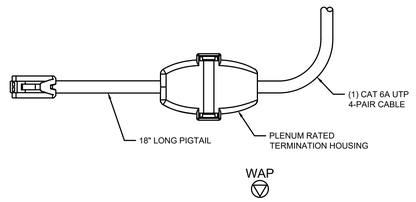
4 SCALE: NONE



NOTE:
A. CEILING CONNECTOR ASSEMBLY MUST BE SECURELY MOUNTED WITHIN THE BACKBOX.
B. REFER TO THE HORIZONTAL CABLE & FACEPLATE LABELING DETAILS ON SHEET TC-402.
C. PROVIDE 18" LONG PIGTAIL ASSEMBLY WHEN MOUNTED WITHIN A BACKBOX, SUCH AS LIGHT POLE MOUNTED CAMERAS ON THE SITE AND DRIVE UP ATM OVERVIEW CANOPY CAMERAS.

TYPICAL OUTLET FOR SECURITY CAMERAS

5 SCALE: NONE



NOTE:
A. CEILING CONNECTOR ASSEMBLY MUST BE SECURELY MOUNTED WITHIN THE BACKBOX.
B. REFERTO THE HORIZONTAL CABLE & FACEPLATE LABELING DETAILS ON SHEET TC-402.

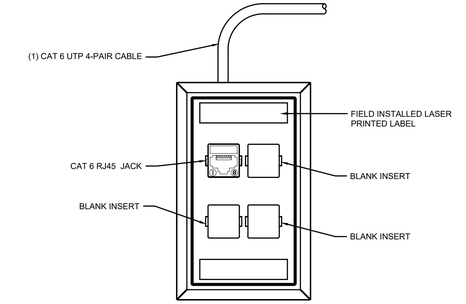
TYPICAL OUTLET FOR WAP DEVICES

6 SCALE: NONE

WORK AREA OUTLET SCHEDULE				
TYPE	DESCRIPTION	COLOR	MANUFACTURER	PART NUMBER
STANDARD JPMC NETWORK WORK AREA OUTLETS	CATEGORY 6 JACK	GRAY	COMMSCOPE/ SYSTIMAX	700206733
	ATM CATEGORY 6 JACK	ORANGE	COMMSCOPE/ SYSTIMAX	700206683
	FURNITURE MOUNTED FACEPLATE, 3-PORT	WHITE	COMMSCOPE/ SYSTIMAX	106650898
	FURNITURE MOUNTED FACEPLATE, 4-PORT	WHITE	COMMSCOPE/ SYSTIMAX	760118232
	WALL MOUNTED FACEPLATE, 4-PORT	WHITE	COMMSCOPE/ SYSTIMAX	108168543
	WALL MOUNTED FACEPLATE, 4-PORT FOR FIUTP CATXA (TPC APPLICATIONS)	WHITE	COMMSCOPE/ SYSTIMAX	108168543
	FLOOR BOX MOUNTED FACEPLATE WITHIN FIRE RATED POKETHRU, 3 PORTS (108 FRAME) - COORDINATE WITH FLOOR BOX MANUFACTURER	WHITE	COMMSCOPE/ SYSTIMAX	108265455
	2-PORT NON-PLENUM RATED SURFACE MOUNT BOX	WHITE	COMMSCOPE/ SYSTIMAX	107964056
WAP & CAMERA OUTLETS	CATEGORY 6A PLENUM RATED CEILING CONNECTOR ASSEMBLY WITH 18" PIGTAIL	WHITE	COMMSCOPE/ SYSTIMAX	760235592
	CATEGORY 6A PLENUM RATED CEILING CONNECTOR ASSEMBLY WITH 15'-0" PIGTAIL	WHITE	COMMSCOPE/ SYSTIMAX	C01SJ02-88F015
	WAP CATEGORY 6A JACK	WHITE	COMMSCOPE/ SYSTIMAX	760092429
	CAMERA CATEGORY 6A JACK	GREEN	COMMSCOPE/ SYSTIMAX	760092403
CARRIER CONNECTION OUTLETS	CARRIER CONNECTION CATEGORY 6 JACK	PURPLE	COMMSCOPE/ SYSTIMAX	700206675

STRUCTURED CABLING OUTLET SCHEDULE

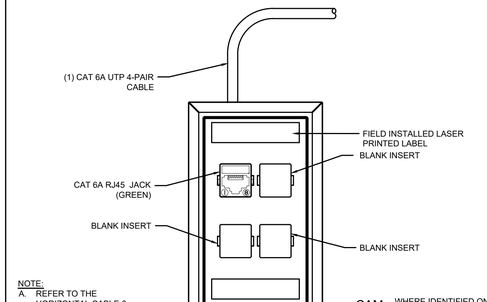
11 SCALE: NONE



NOTE:
A. MOUNT WITHIN FLOOR BOX, POKE-THRU, OR PEDASTAL BOX. COORDINATE WITH THE ELECTRICAL CONTRACTOR.
B. REFER TO THE HORIZONTAL CABLE & FACEPLATE LABELING DETAILS ON TC-402.

TYPICAL FLOOR MOUNTED OUTLET

8 SCALE: NONE



NOTE:
A. REFER TO THE HORIZONTAL CABLE & FACEPLATE LABELING DETAILS ON SHEET TC-402.

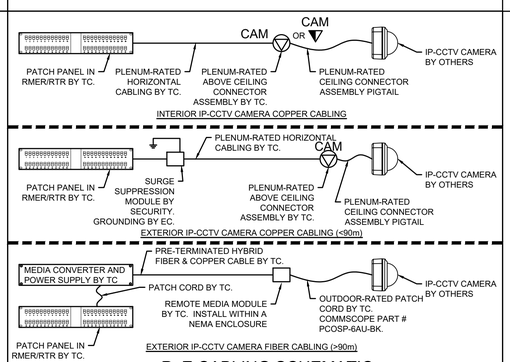
TYPICAL CAMERA
FACEPLATE BENEATH TELLER COUNTER

9 SCALE: NONE

COLOR CODING CHART	
CAT 6 CABLE	GRAY
CAT 6 PATCH CORD - STANDARD WALL OUTLET	GRAY
CAT 6 PATCH CORD - ATM WALL OUTLET	GRAY
CAT 6 CABLE FOR INNOVATION LAB NETWORK	GRAY
CAT 6A CABLE	WHITE
CAT 6A PATCH CORD - WIRELESS ACCESS POINT	WHITE
CAT 6A PATCH CORD - IP SECURITY CAMERA	WHITE
CAT 6A SHIELDED CABLE	BLUE
CAT 6A SHIELDED PATCH CORD	BLUE

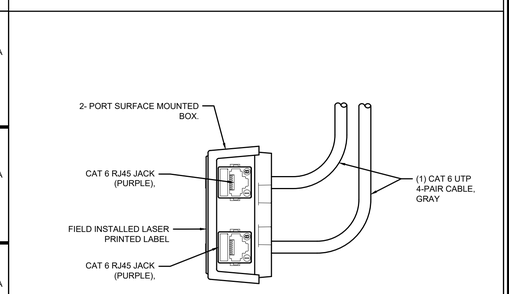
STRUCTURED CABLING COLOR CODING

12 SCALE: NONE



PoE CABLING SCHEMATIC
IP-CCTV CAMERA INSTALLATION DETAIL

13 SCALE: NONE



NOTE:
A. REFER TO THE HORIZONTAL CABLE & FACEPLATE LABELING DETAILS ON SHEET TC-402.

CARRIER EXTENSION
SURFACE MOUNTED OUTLET ON BACKBOARD

14 SCALE: NONE

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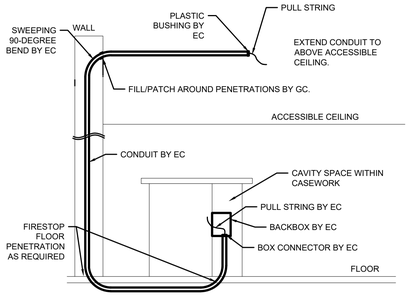
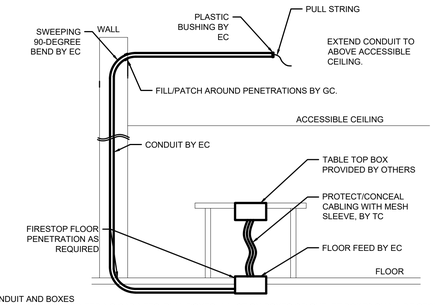
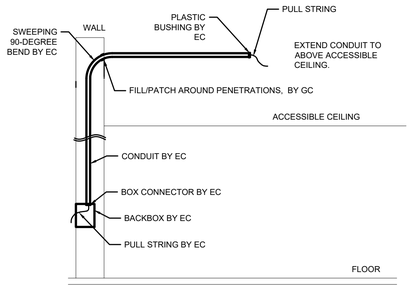
title
TELECOM TERMINATION DETAILS

job no.
C60025810702

sheet
TC-302







CONDUIT AND BOXES

A. ALL CONDUITS ENTERING CABINETS, PULL BOXES, JUNCTION BOXES OR OUTLET BOXES SHALL BE SECURED WITH SET-SCREW TYPE BOX CONNECTORS.

B. THE ENDS OF ALL CONDUITS UTILIZED FOR COMMUNICATIONS CABLING SHALL BE PROVIDED WITH NYLON PUSH-ON BUSHINGS AND A PULL STRING PROVIDED THROUGHOUT.

C. ALL CONDUIT RUNS SHALL HAVE A MAXIMUM OF TWO (2) 90 DEGREE BENDS PER CONDUIT RUN. WHEN MORE BENDS ARE NECESSARY IN A SINGLE RUN A PULL BOX SHALL BE INSTALLED. PULL BOXES SHALL NOT BE INSTALLED IN PLACE OF A 90 DEGREE BEND. PULL BOXES SHALL ALSO BE INSTALLED IN LONG RUNS AT A MAXIMUM SEPARATION OF 100'.

D. ALL CONDUITS, EXCEPT IN CONCRETE SLAB OR EARTH, SHALL BE ROUTED PARALLEL AND PERPENDICULAR TO THE COLUMN LINES OF THE BUILDING.

E. CONDUITS THAT ARE NOT INSTALLED PLUMB AND ROUTED PERPENDICULAR TO THE STRUCTURAL COLUMN SUPPORTS OF THE BUILDING WILL NOT BE ACCEPTED.

F. UNLESS OTHERWISE NOTED, ALL CONDUITS SHALL BE RUN CONCEALED WITHIN THE BUILDING CONSTRUCTION WHEN INSTALLED IN FINISHED INTERIOR OR EXTERIOR AREAS.

G. ALL CONDUITS SHALL BE SUBSTANTIALLY SUPPORTED BY USE OF PIPE STRAPS, SUITABLE CLAMPS OR HANGERS ATTACHED TO ELEMENTS OF THE BUILDING STRUCTURE TO PROVIDE A RIGID INSTALLATION. UNDER NO CIRCUMSTANCE SHALL CONDUIT BE ATTACHED OR SUPPORTED FROM ADJOINING PIPE OR INSTALLED IN SUCH A MANNER AS TO PREVENT THE READILY REMOVAL OF OTHER PIPE FOR REPAIRS.

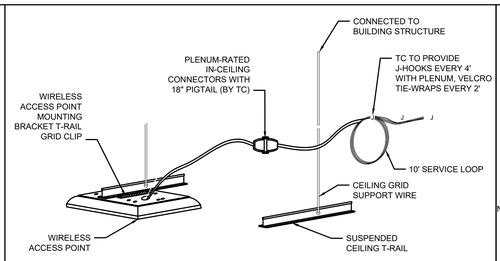
H. UNLESS OTHERWISE NOTED, INSTALL ALL OUTLET BOXES VERTICALLY.

I. INSTALL OUTLET BOXES AT THE MOUNTING HEIGHTS INDICATED ON THE PLANS. COMMUNICATION OUTLET BOXES ADJACENT TO ELECTRIC OUTLETS SHALL BE INSTALLED AT THE SAME MOUNTING HEIGHT. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER PRIOR TO ROUGH-IN.

PULL BOXES

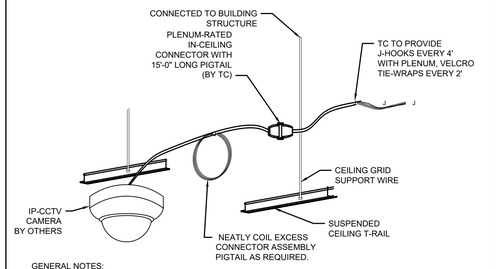
A. PULL BOXES SHALL BE PROVIDED IN THE SIZES AS INDICATED ON THE PLANS.
B. PULL BOXES SHALL HAVE HOLES PUNCHED OR CORED THROUGH THE ENCLOSURE BODY TO PROVIDE ACCESS INTO THE ENCLOSURE FOR THE CONDUITS INDICATED ON THE PLANS.
C. ALL CONDUITS ENTERING THE PULL BOX SHALL BE SECURED WITH SET-SCREW TYPE BOX CONNECTORS.
D. PULL BOXES SHALL BE INSTALLED IN SUCH A MANNER THAT PROVIDES EASY ACCESS INTO THE INSTALLED ENCLOSURE THROUGH THE REMOVABLE COVER.
E. UNDER NO CIRCUMSTANCE SHALL A PULL BOX BE INSTALLED WITH THE COVER FACING UP. UNLESS CONDUITS ENTERING THE BOX MUST BE STACKED VERTICALLY, ALL PULL BOXES SHALL BE INSTALLED WITH THE COVER FACING DOWN.
F. PULL BOX LOCATIONS SHALL BE COORDINATED WITH OTHER TRADES TO PROVIDE ADEQUATE CLEARANCE BETWEEN THE PULL BOX COVER AND ANY OTHER OBJECT. THE MINIMUM CLEARANCE REQUIRED SHALL BE SIX TIMES THE DIAMETER OF THE LARGEST CONDUIT ENTERING THE PULL BOX.

1 OUTLET ROUGH-IN REQUIREMENTS
SCALE: NONE



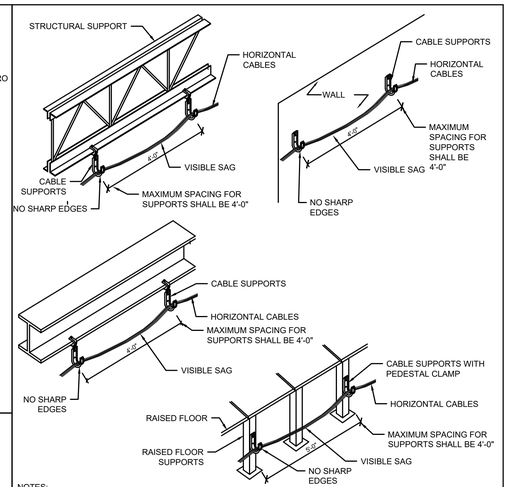
NOTES:
A. WAPs FURNISHED BY JPMC, INSTALLED BY TC.
B. TC SHALL DOCUMENT MAC ADDRESS AND WAP ID NUMBER FOR AS-BUILTS.
C. PATCH WAP PORTS LABELED: POE/mGig & CONSOLE

2 WAP DROP CEILING INSTALLATION DETAIL
SCALE: NONE



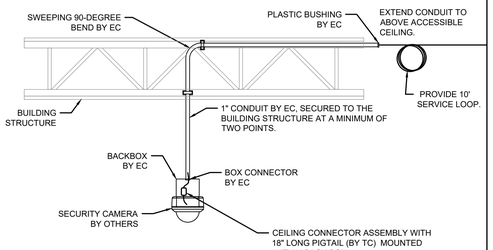
GENERAL NOTES:
A. IP-CCTV CAMERA FURNISHED AND INSTALLED BY OTHERS.

3 INTERIOR ACCESSIBLE CEILING MOUNTED IP-CCTV CAMERA INSTALLATION DETAIL
SCALE: NONE



NOTES:
1. TELECOMMUNICATION CABLES SHALL NOT BE SUPPORTED FROM DUCTWORK, SPRINKLER PIPING, WATER PIPING, WASTE PIPING OR ELECTRICAL CONDUIT. TELECOMMUNICATION CABLES SHALL NOT BE ROUTED ABOVE STRUCTURAL STEEL.
2. TELECOMMUNICATION CABLES SHALL RUN PARALLEL OR AT RIGHT ANGLES TO THE BUILDING STRUCTURE AND SHALL NOT RUN DIAGONALLY ACROSS CEILING SPACE.
3. TELECOMMUNICATION CABLE SUPPORTS SHALL BE PROPERLY ANCHORED TO BUILDING SUPPORT STRUCTURE LOCATED THRU-OUT IN LOCATIONS THAT CABLE TRAY IS NOT USED.
4. TELECOMMUNICATION CABLES SHALL BE INSTALLED WITH AT LEAST 3" OF CLEAR VERTICAL SPACE ABOVE ANY COMPONENT OF THE SUSPENDED CEILING.
5. J-HOOKS SHALL BE INSTALLED WITHIN (1) ONE FOOT OF THE BUSHED CONDUIT ENDS STUBBED ABOVE THE CEILING AND WITHIN (1) ONE FOOT OF ANY BEND GREATER THAN 60 DEGREES.
6. ALL J-HOOKS SHALL BE ATTACHED SECURELY TO THE CEILING JOISTS OR CONCRETE DECK ABOVE UTILIZING THE MANUFACTURER'S RECOMMENDED HARDWARE AND INSTALLATION PRACTICES. CONTRACTOR SHALL UTILIZE UNISTRUT AND THREADED ROD ASSEMBLIES TO MAINTAIN THE (4) FOUR FOOT CENTER TO CENTER REQUIREMENT BETWEEN CEILING JOIST MEMBERS AS REQUIRED.
7. COMPONENTS:
   a. J-HOOKS: COPPER, CADDY, OR PANDUIT
   b. SCREW-ON BEAM CLAMP: PANDUIT JP2SBC50RB-L20
   c. HAMMER-ON BEAM CLAMP: PANDUIT JP2HBC25RB-L20
   d. PURLIN CLIP FOR ANGLED FLANGES: PANDUIT JP1312P-L20
   e. PURLIN CLIP FOR VERTICAL FLANGES: PANDUIT JP131CP-L20
   f. UNDER RAISED FLOOR CLAMP: PANDUIT JP131UF100-L20

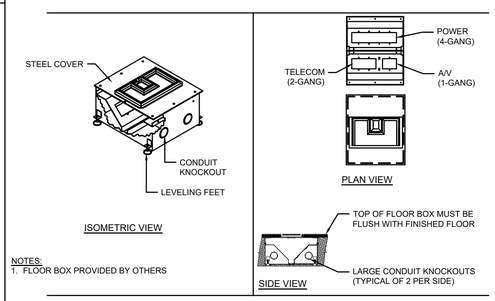
4 OPEN CABLE SUPPORT DETAIL
SCALE: NONE



GENERAL NOTES:
A. SECURITY CAMERA FURNISHED AND INSTALLED OTHERS.
B. EXTEND THE CONDUIT TO THE RMER.
C. BACKBOX SIZE, AND CONDUIT SIZE SPECIFIED BY SECURITY ENGINEER.
D. THE BOTTOM OF THE BACKBOX SHALL BE 2" LOWER THAN THE BOTTOM OF THE LIGHT FIXTURES OFF OF THE FINISHED FLOOR.

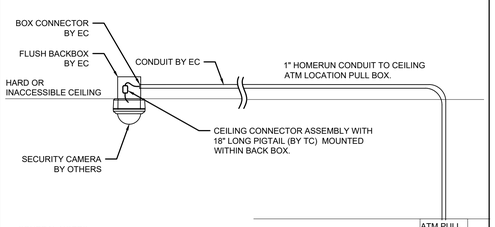
6 OPEN-TO-STRUCTURE CEILING SECURITY CAMERA INSTALLATION DETAIL
SCALE: NONE

CONDUIT NOTES:
1. PROVIDE 1" TELECOM CONDUIT FOR UP TO (4) CAT 6 CABLES (BY EC)
2. PROVIDE 1.25" TELECOM CONDUIT FOR UP TO (8) CAT 6 CABLES (BY EC)



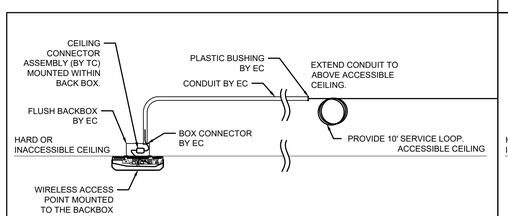
NOTES:
1. FLOOR BOX PROVIDED BY OTHERS

7 STANDARD FLOOR BOX DETAIL
SCALE: NONE



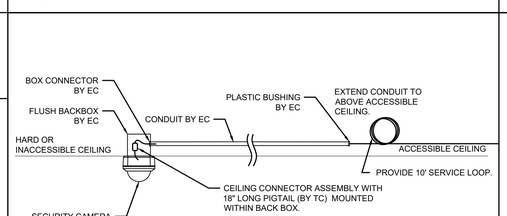
GENERAL NOTES:
A. SECURITY CAMERA FURNISHED AND INSTALLED OTHERS.
B. PATCH CABLE SHALL BE PLENUM RATED. TC TO FIELD VERIFY LENGTH REQUIRED BASED ON CONDUIT INSTALLATION.
C. EXTEND THE CONDUIT TO THE RMER.
D. BACKBOX SIZE, AND CONDUIT SIZE SPECIFIED BY SECURITY ENGINEER.

8 ATM CANOPY MOUNTED SECURITY CAMERA INSTALLATION DETAIL
SCALE: NONE



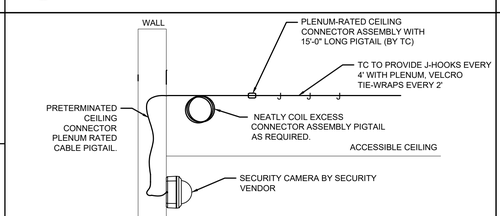
NOTES:
A. WAPs FURNISHED BY JPMC, INSTALLED BY TC.
B. TC SHALL DOCUMENT MAC ADDRESS AND WAP ID NUMBER FOR AS-BUILTS.
C. ALL PATCH CABLES SHALL BE PLENUM RATED.
D. EC SHALL EXTEND THE CONDUIT TO THE RMER.
E. PATCH WAP PORTS LABELED: POE/mGig & CONSOLE

9 HARD-CEILING MOUNTED WAP INSTALLATION DETAIL
SCALE: NONE



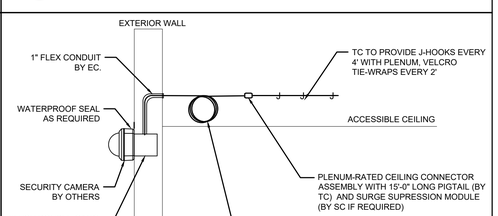
GENERAL NOTES:
A. SECURITY CAMERA FURNISHED AND INSTALLED OTHERS.
B. PATCH CABLE SHALL BE PLENUM RATED. TC TO FIELD VERIFY LENGTH REQUIRED BASED ON CONDUIT INSTALLATION.
C. EXTEND THE CONDUIT TO THE RMER.
D. BACKBOX SIZE, AND CONDUIT SIZE SPECIFIED BY SECURITY ENGINEER.

10 HARD-CEILING MOUNTED SECURITY CAMERA INSTALLATION DETAIL
SCALE: NONE



GENERAL NOTES:
A. SECURITY CAMERA FURNISHED AND INSTALLED OTHERS.
B. PATCH CABLE SHALL BE PLENUM RATED.
C. WHERE A HARD CEILING IS PRESENT NEAR THE CAMERA LOCATION, EC SHALL PROVIDE A 1" FLEXIBLE CONDUIT FROM THE WALL CAVITY TO THE NEAREST ACCESSIBLE CEILING IN THE DIRECTION OF THE RMER/RTR SERVING THE OUTLET.
D. CAMERA MOUNTING HEIGHT, BACKBOX SIZE, AND CONDUIT SIZE SPECIFIED BY SECURITY ENGINEER.

11 INTERIOR WALL MOUNTED SECURITY CAMERA INSTALLATION DETAIL
SCALE: NONE



GENERAL NOTES:
A. SECURITY CAMERA FURNISHED AND INSTALLED OTHERS.
B. PATCH CABLE SHALL BE PLENUM RATED.
C. WHERE A HARD CEILING IS PRESENT NEAR THE CAMERA LOCATION, EC SHALL PROVIDE A 1" FLEXIBLE CONDUIT FROM THE WALL CAVITY TO THE NEAREST ACCESSIBLE CEILING IN THE DIRECTION OF THE RMER/RTR SERVING THE OUTLET.
D. CAMERA MOUNTING HEIGHT, BACKBOX SIZE, AND CONDUIT SIZE SPECIFIED BY SECURITY ENGINEER.

12 EXTERIOR WALL MOUNTED SECURITY CAMERA INSTALLATION DETAIL
SCALE: NONE

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STRUCTURED CABLING ENGINEERING
1111 POLARIS PARKWAY, COLUMBUS, OHIO 43240

NEW RETAIL BRANCH PRYOR RD. AND LOWENSTEIN DR.

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REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
BICSI
KEVIN BRENNAN
REG NO 166050
EXPIRES 12-31-23
RCDD

issue

no	date	issue	by
	03.02.2022	ISSUED FOR PERMIT/BID	KB

site location
JP MORGAN CHASE & CO
908 NW PRYOR RD
LEE'S SUMMIT, MO 64081

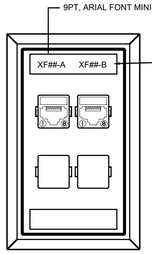
designed	KB	date	03.02.2022	drawn	KB
checked	CC	scale	AS NOTED		

title

TELECOM INSTALLATION DETAILS

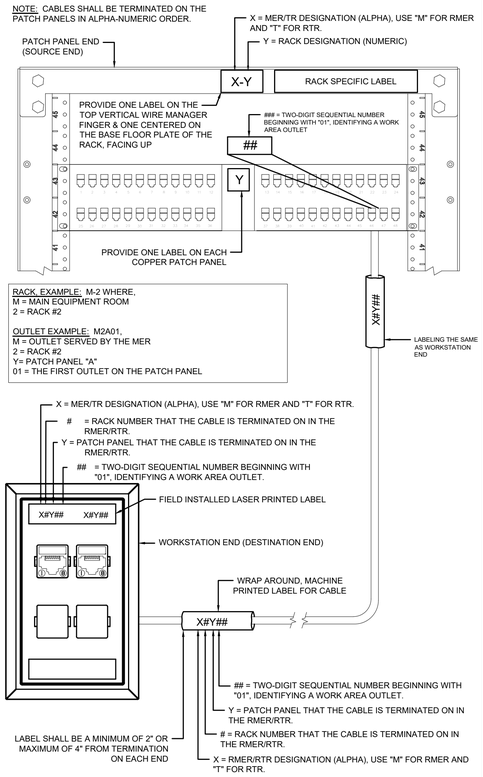
job no.
C60025810702

sheet
TC-401



JACK LABELING SHALL BE MACHINE PRINTED ON THE PROVIDED PAPER LABEL AND INSTALLED BEHIND THE CLEAR WINDOW(S), CENTERED ABOVE THE JACK (ONE AND TWO JACK FACEPLATES) OR ABOVE & BELOW THE JACKS (THREE AND FOUR JACK FACEPLATES).

1 FACEPLATE LABELING CONFIGURATION
SCALE:NONE
(GRID OUTLET NUMBERING)

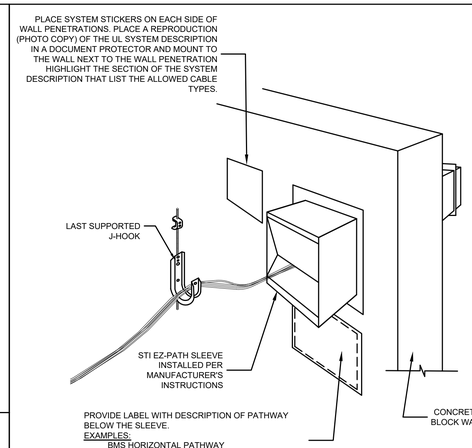


NOTES:
A. IF LABEL IS AFFIXED TO A BLACK OR DARK GRAY SURFACE, LABEL INFORMATION SHALL BE WHITE IN COLOR. IF LABEL IS AFFIXED TO BEIGE OR LIGHT-COLORED SURFACE, LABEL INFORMATION SHALL BE BLACK IN COLOR.

B. COPPER PATCH PANEL LABELS SHALL EMPLOY MANUFACTURER-SUPPLIED LABELING MATERIALS AND COVERS (IF APPLICABLE), AFFIXED TO EACH PANEL IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.
1. COPPER PATCH PANEL LABELS SHALL BE WHITE IN COLOR.

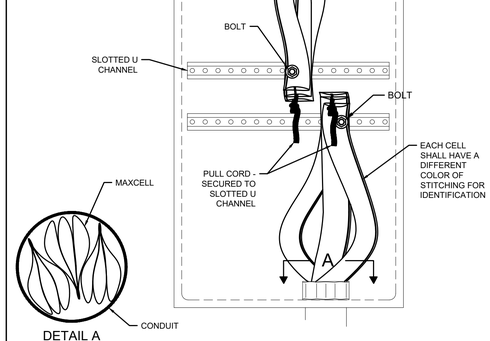
C. ATM PATCH CORD WARNING LABELS SHALL BE MOUNTED ON SELF-LAMINATING CABLE MARKER HOLDERS THAT ARE SECURELY AFFIXED TO THE PATCH CORD WITH VELCRO TIES.

5 STRUCTURED CABLING LABELING
SCALE:NONE



NOTES:
A. BEFORE BEGINNING INSTALLATION, VERIFY THAT SUBSTRATE CONDITIONS PREVIOUSLY INSTALLED UNDER OTHER SECTIONS ARE ACCEPTABLE FOR INSTALLATION OF FIRESTOPPING IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND TECHNICAL INFORMATION.
B. SURFACES SHALL BE FREE OF DIRT, GREASE, OIL, SCALE, LAITANCE, RUST, RELEASE AGENTS, WATER REPELLANTS, AND ANY OTHER SUBSTANCES THAT MAY INHIBIT OPTIMUM ADHESION.
C. PROVIDE MASKING AND TEMPORARY COVERING TO PROTECT ADJACENT SURFACES.
D. DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
E. GENERAL: INSTALL SYSTEMS IN ACCORDANCE WITH PERFORMANCE CRITERIA AND IN ACCORDANCE WITH THE CONDITIONS OF TESTING AND CLASSIFICATION AS SPECIFIED IN THE PUBLISHED DESIGN.
F. MANUFACTURER'S INSTRUCTIONS: COMPLY WITH MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION OF PRODUCTS.
G. KEEP AREAS OF WORK ACCESSIBLE UNTIL INSPECTION BY AUTHORITIES HAVING JURISDICTION.
H. WHERE DEFICIENCIES ARE FOUND, REPAIR FIRESTOPPING PRODUCTS SO THEY COMPLY WITH REQUIREMENTS.
I. REMOVE EQUIPMENT, MATERIALS, AND DEBRIS, LEAVING AREA IN UNDAMAGED, CLEAN CONDITION.
J. CLEAN ALL SURFACES ADJACENT TO SEALED OPENINGS TO BE FREE OF EXCESS FIRESTOPPING MATERIALS AND SOILING AS WORK PROGRESSES.

2 CABLE BUNDLE THROUGH PENETRATION DETAIL FOR WALL CONSTRUCTION
SCALE:NONE

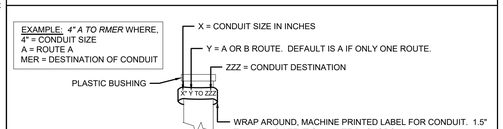


NOTES:
1. FOR EACH 2 INCH CONDUIT, INSTALL (1) 2 IN - 3 CELL MAXCELL INNERDUCT.
2. UNLESS WAIVED IN WRITING BEFORE COMMENCEMENT OF WORK, CONTRACTOR SHALL ENGAGE MANUFACTURER PRIOR TO THE PULL TO ASSURE RECOMMENDED INSTALLATION METHODS ARE FOLLOWED.
3. A BALL BEARING SWIVEL (BULL NOSE SWIVEL) MUST ALWAYS BE USED BETWEEN THE PULL ROPE AND MAXCELL. FAILURE TO DO SO MAY RESULT IN PULL ROPE OR TAPE INDUCING TWIST, CAUSING THE MAXCELL TO TWIST EXCESSIVELY AND MAY MAKE IT DIFFICULT TO PULL CABLE.
4. CELL ASSIGNMENTS MUST BE DOCUMENTED AT EACH APPEARANCE OF THE INNER DUCT.
5. EXCEPT WHERE NOTED, CONDUIT THAT IS 50 MM (2 IN) IN DIAMETER SHOULD BE EQUIPPED WITH 2" 3-CELL SOFT DUCT QUANTITY 1. CONDUIT THAT IS 75 MM (3 IN) SHOULD BE EQUIPPED WITH 3" 3-CELL SOFT DUCT, MAXIMUM QUANTITY 2; AND 100 MM (4 IN) IN DIAMETER SHOULD BE EQUIPPED WITH 3" 3-CELL SOFT DUCT, MAXIMUM QUANTITY
6. WHEN 3" 3-CELL SOFT DUCT IS TOO SMALL TO ACCOMMODATE LARGE DIAMETER CABLES AND LARGE O.D. FACTORY TERMINATED PULLING GRIPS, CONDUIT THAT IS 75 MM (3 IN) SHOULD BE EQUIPPED WITH 4" 3-CELL SOFT DUCT, MAXIMUM QUANTITY 1; AND 100 MM (4 IN) IN DIAMETER SHOULD BE EQUIPPED WITH 4" 3-CELL SOFT DUCT, MAXIMUM QUANTITY 2.
7. THE OUTSIDE DIAMETER OF PULLING GRIPS ASSOCIATED WITH FACTORY TERMINATED FIBER TRUNK CABLES WILL AFFECT THE SELECTION OF SOFT DUCT. SEE TABLE 1 FOR DETAIL,

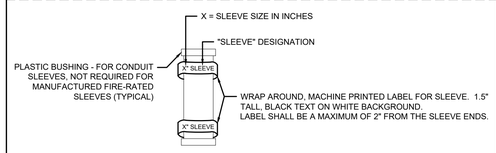
TABLE 1 - SOFT DUCT SIZING GUIDELINE

MAXIMUM CABLE/GRIP DIAMETER PER CELL MM(IN)	CELL SIZE
18 (.7)	2"
26 (1.03)	3"
34 (1.34)	4"
>34 (1.34)	SEE OPR

6 TYPICAL MAXCELL 2", 3-CELL INNERDUCT
SCALE:NONE

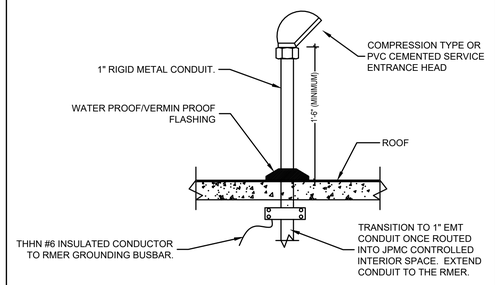


CONDUIT LABELING



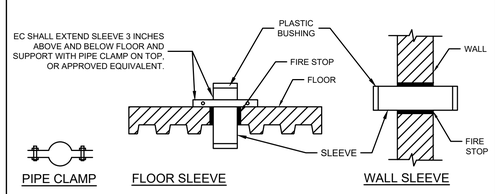
SLEEVE LABELING

3 CONDUIT AND SLEEVE LABELING DETAIL
SCALE:NONE



NOTES:
1. FOR REFERENCE ONLY. EC SHALL COORDINATE INSTALLATION METHOD WITH GC AND ROOF CONTRACTOR AND APPROVAL FROM BUILDING OWNER/MANAGEMENT.

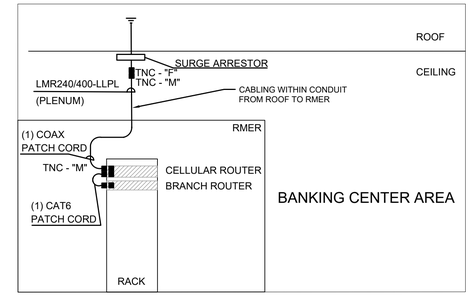
7 ROOF CONDUIT WEATHERHEAD DETAIL
SCALE:NONE



NOTES:
1. CLEAN CORE DRILL, ONE SIZE LARGER THAN SLEEVE.
2. PACK VOID BETWEEN SLEEVE AND FLOOR WITH NON-SHRINK, WATER TIGHT, APPROVED FIRE RATED MATERIAL.
3. INSTALL PLASTIC BUSHINGS AT BOTH ENDS.

LOCATION: TYPICAL FOR ALL RETAIL TELECOM ROOMS / RETAIL MAIN EQUIPMENT ROOMS, SEE DRAWINGS FOR ALL PENETRATION LOCATIONS AND FIELD COORDINATE

8 TYPICAL FLOOR AND WALL SLEEVE PENETRATION DETAILS
SCALE:NONE

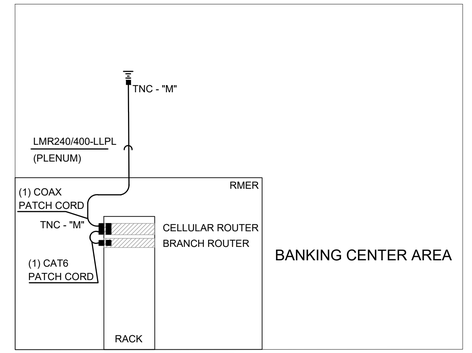


NOTE:
1. DETAIL IS SHOWN FOR REFERENCE ONLY. WIRELESS CELLULAR SYSTEM INFRASTRUCTURE WILL BE PROVIDED BY THIRD PARTY CONTRACTOR.
2. CODE REQUIRES THE OUTDOOR RATED COAX TO THE ROOF ANTENNA BE TRANSITIONED WITHIN 50 FEET OF PENETRATING THE ROOF, TO A PLENUM RATED COAX.
3. SURGE ARRESTOR TO BE LOCATED AS CLOSE AS POSSIBLE TO CEILING PENETRATION.
4. VERIFY ANTENNA, SURGE ARRESTOR, AND CELLULAR ROUTER CONNECTION TYPES PRIOR TO TERMINATING THE COAX CABLES.
5. ALL FIELD TERMINATED CABLES ARE TO BE TESTED

MAJOR MATERIALS:

1. OUTDOOR OMNIDIRECTIONAL ANTENNA FOR 2G/3G/4G CELLULAR (JPMC SUPPLIED)
2. 4G LIGHTNING SUPPRESSORS/ARRESTORS FOR OUTDOOR ANTENNA INSTALLS
3. CEILING MOUNT BRACKET (JDTECK) FOR INDOOR PANEL ANTENNAL INSTALLS
4. DIRECTIONAL (PANEL OR LOG PERIODIC STYLE) ANTENNAS (JPMC SUPPLIED)
5. LMR-240 FLEXIBLE LOW LOSS COMMUNICATIONS COAX OR LMR-400 FLEXIBLE LOW LOSS COMMUNICATIONS COAX
6. TNC CONNECTORS (TO ROUTER), N CONNECTORS TO ANTENNA

4 ROOF ANTENNA MOUNTING OPTION
SCALE:NONE



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3. VERIFY ANTENNA, AND CELLULAR ROUTER CONNECTION TYPES PRIOR TO TERMINATING THE COAX CABLES.
4. ALL FIELD TERMINATED CABLES ARE TO BE TESTED

MAJOR MATERIALS:

1. OUTDOOR OMNIDIRECTIONAL ANTENNA FOR 2G/3G/4G CELLULAR (JPMC SUPPLIED)
2. 4G LIGHTNING SUPPRESSORS/ARRESTORS FOR OUTDOOR ANTENNA INSTALLS
3. CEILING MOUNT BRACKET (JDTECK) FOR INDOOR PANEL ANTENNAL INSTALLS
4. DIRECTIONAL (PANEL OR LOG PERIODIC STYLE) ANTENNAS (JPMC SUPPLIED)
5. LMR-240 FLEXIBLE LOW LOSS COMMUNICATIONS COAX OR LMR-400 FLEXIBLE LOW LOSS COMMUNICATIONS COAX
6. TNC CONNECTORS (TO ROUTER), N CONNECTORS TO ANTENNA

9 CEILING ANTENNA MOUNTING OPTION
SCALE:NONE

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1111 POLARIS PARKWAY, COLUMBUS, OHIO 43240

NEW RETAIL BRANCH PRYOR RD. AND LOWENSTEIN DR.

keyplan

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REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
BICSI
KEVIN BRENNAN
REG NO 160050
EXPIRES 12-31-23
RCDD

issue

no	date	issue	by
	03.02.2022	ISSUED FOR PERMIT/BID	KB

site location
JP MORGAN CHASE & CO
908 NW PRYOR RD
LEE'S SUMMIT, MO 64081

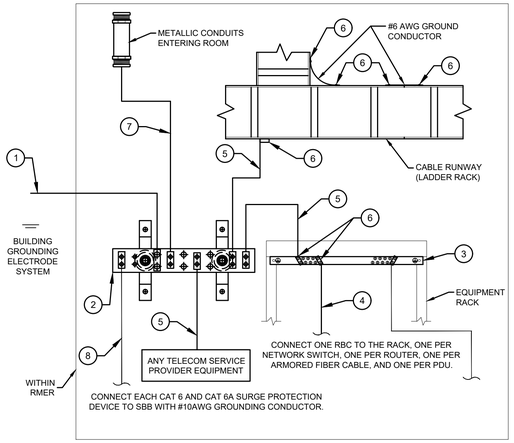
designed	KB	date	03.02.2022	drawn	KB
checked	CC	scale	AS NOTED		

title

TELECOM INSTALLATION DETAILS

job no.
C60025810702

sheet
TC-402



DETAIL NOTES:

A. DEFINITIONS:
- A.1. TELECOMMUNICATIONS BONDING CONDUCTOR (TBC)
- A.2. SECONDARY BONDING BUSBAR (SBB)
- A.3. RACK BONDING BUSBAR (RBB)
- A.4. RACK BONDING CONDUCTORS (RBC)
- A.3. TELECOMMUNICATIONS EQUIPMENT BONDING CONDUCTOR (TEBC)

B. THE TBC SHALL BE SIZED BASED ON THE CONDUCTOR'S LENGTH. THE CONDUCTOR SHALL BE A STRANDED GROUNDING CONDUCTOR WITH A TWO (2) HOLE COPPER COMPRESSION LUG ON EACH END. PROVIDE A #6AWG FOR LENGTHS UP TO 100FT, #4AWG FOR LENGTHS GREATER THAN 100FT UP TO 200FT, #2AWG FOR LENGTHS GREATER THAN 200FT UP TO 400FT, #1AWG FOR LENGTHS GREATER THAN 400FT UP TO 500FT, #1/0AWG FOR LENGTHS GREATER THAN 500FT UP TO 600FT, #2/0AWG FOR LENGTHS GREATER THAN 600FT UP TO 700FT, #3/0AWG FOR LENGTHS GREATER THAN 700FT UP TO 800FT, AND #4/0AWG FOR LENGTHS GREATER THAN 800FT.

C. THE TEBC & THE RBC SHALL BE A MINIMUM OF A #6-AWG STRANDED GROUNDING CONDUCTOR AND A TWO (2) HOLE COPPER COMPRESSION LUG ON EACH END.

D. THE CONTRACTOR IS RESPONSIBLE FOR BONDING SECTIONS OF CABLE TRAY TOGETHER UTILIZING #6-AWG GROUNDING (EARTHING) STRAPS, THEN INSTALLING A #6-AWG GROUNDING (EARTHING) CONDUCTOR BETWEEN THE TRAY AND THE SBB THAT HAS BEEN INSTALLED IN THE ROOM.

E. IF GROUNDING (EARTHING) MUST BE APPLIED TO A LOCATION WHERE BARE METAL IS NOT EXPOSED, THE COVERING (E.G. PAINT) SHALL BE FULLY REMOVED TO EXPOSE BARE METIAL AND FACILITATE BONDING. AT EACH SUCH BONDING POINT, NO GREATER THAN 12MM (.5IN) AND NO LESS THAN 6MM (.25IN) OF EXPOSED METAL SHALL REMAIN AFTER BONDING IS COMPLETED.

F. AFTER BOND HAS BEEN MADE, TC SHALL APPLY ANTI-OXIDANT JOINT COMPOUND OVER ANY AREA THAT BARE METAL IS EXPOSED BECAUSE OF SCRAPING.

G. RACK BONDING BUSSBARS (RBB) SHALL BE INSTALLED IN EACH RACK TO GROUND (EARTH) MULTIPLE PIECES OF EQUIPMENT OR PATCH PANELS FOR SHIELDED CABLING. THE RBB MUST BE BONDED TO THE RACK. THEN TELECOMMUNICATIONS EQUIPMENT BONDING CONDUCTORS (TEBC) CONNECT THE RBB ON EACH RACK, TO THE SBB IN THE ROOM.

H. THE T.C. IS RESPONSIBLE FOR FURNISHING AND INSTALLING A RACK BONDING BUSSBAR (RBB) AT ALL NEW EQUIPMENT RACKS AND CABINETS PER DESIGN DOCUMENTS. EACH RBB SHALL BE BONDED TO THE SBB THAT HAS BEEN INSTALLED IN THE ROOM.

I. DAISY CHAIN FROM ONE RBB TO NEXT RBB NOT PERMITTED.

J. A #6-AWG CONDUCTOR SHALL BE BONDED TO EACH RBB, THEN COILED AND STORED NEATLY AT EACH RACK FOR FUTURE USE.

K. WHERE ARMORED CABLE IS DEPLOYED, IT SHALL BE BONDED TO GROUND (EARTH) AT ONE END IN ACCORDANCE WITH AHJ AND IN ACCORDANCE WITH THE MANUFACTURER'S GUIDELINES.

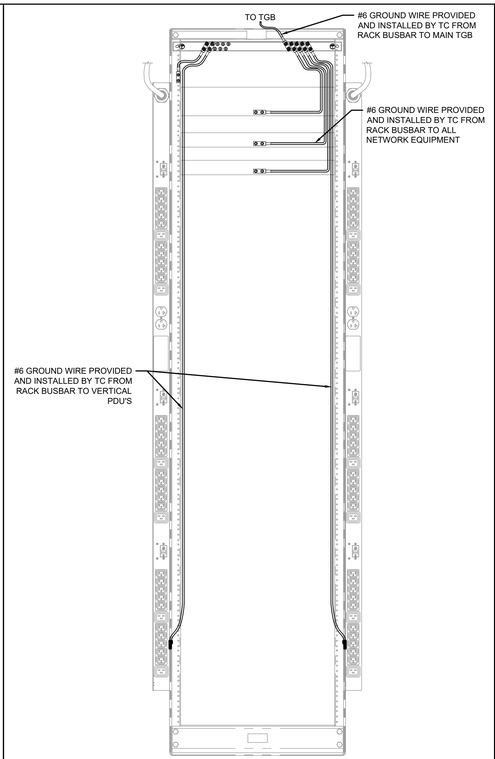
L. MATERIALS SHALL BE AS LISTED OR SHALL BE EQUIVALENT PRODUCTS OF OTHER MANUFACTURERS MEETING THE INTENT AND QUALITY LEVEL OF THIS SPECIFICATION. MATERIALS MUST BE COMPATIBLE WITH THE END TO END SOLUTION BEING PROPOSED. PROPOSALS FOR EQUIVALENT PRODUCTS MUST BE PRESENTED TO THE OPR BY RFI'S, SUBMITTALS, AND/OR SHOP DRAWINGS. OPR WRITTEN APPROVAL IS REQUIRED BEFORE ANY SUBSTITUTIONS ARE MADE.

M. PROVIDE BONDING OF ALL METAL CONDUITS ENTERING THE ROOM. PROVIDE GROUNDING BUSHING AS REQUIRED FOR CONNECTION.

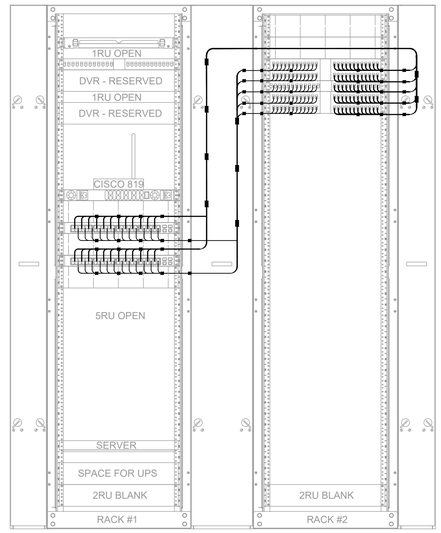
GROUNDING COMPONENT SCHEDULE

ITEM	DESCRIPTION	MANUFACTURER	PART NUMBER	PROVIDED BY
1	TBC	N/A	N/A	EC
2	SBB	PANDUIT	GB2B0304TPI-1	EC
3	RBB	PANDUIT	RGRB19U	TC
4	RBC	PANDUIT OR CPI	GJS6120U OR 40159-009	TC
5	TEBC	PANDUIT	GJS6180U	TC
6	TWO HOLE LONG BARREL LUGS	PANDUIT	LCC6 SERIES	TC
7	TEBC	PANDUIT	GJS6180U	EC
8	SURGE PROTECTION BONDING	N/A	N/A	TC

1 TELECOMMUNICATIONS GROUNDING SCHEMATIC
SCALE: NONE

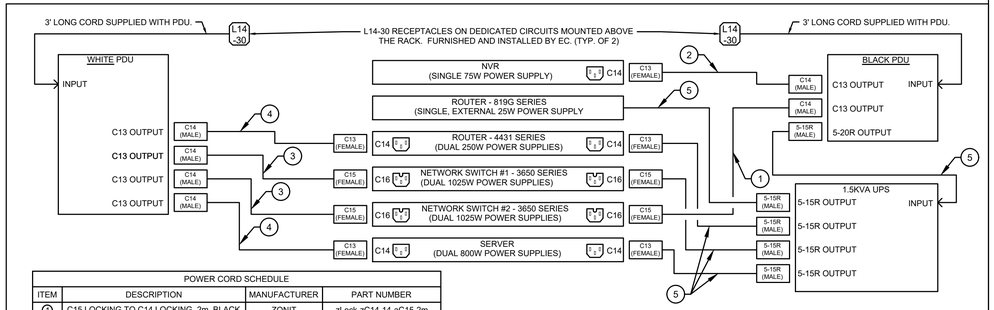


2 TYPICAL EQUIPMENT GROUNDING DETAIL
SCALE: NONE



GENERAL PATCH CORD DRESSING NOTES:
A. PATCH QUANTITIES SHALL BE CONFIRMED PRIOR TO ORDERING.
B. DETERMINATION OF PATCH CORD LENGTHS IS THE RESPONSIBILITY OF THE LOW VOLTAGE CONTRACTOR.
C. PATCH CORDS SHALL BE INSTALLED WITH MINIMAL SLACK.
D. PATCHING OF WIRELESS ACCESS POINTS AND SECURITY (CCTV) CAMERAS SHALL BE EVENLY DISTRIBUTED ON THE SWITCH(ES).
E. PATCH CORDS SHALL BE BUNDLED WITH VELCRO WITHIN VERTICAL WIRE MANAGERS.
F. PATCH CORDS SHALL BE BUNDLED WITH VELCRO FOR EACH SWITCH.
G. PATCH CORDS SHALL BE TIED BACK WITHIN VERTICAL WIRE MANAGERS.
H. ELEVATION SHOULD NOT BE USED FOR LENGTH TAKE OFF.
I. ELEVATION DOES NOT REPRESENT ACTUAL FIELD CONDITION AND SHOULD BE USED FOR REFERENCE INTENT ONLY.

3 TYPICAL PATCH CORD DRESSING
SCALE: NONE

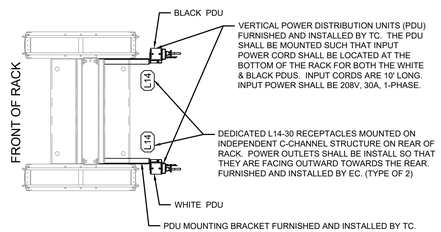


POWER CORD SCHEDULE

ITEM	DESCRIPTION	MANUFACTURER	PART NUMBER
1	C15 LOCKING TO C14 LOCKING, 2m, BLACK	ZONIT	zLock-zC14-14-aC15-2m
2	C13 LOCKING TO C14 LOCKING, 2m, BLACK	ZONIT	zLock-zC14-14-aC13-2m
3	C15 LOCKING TO C14 LOCKING, 2m, WHITE	ZONIT	zLock-zC14-14-aC15-2m-WH
4	C13 LOCKING TO C14 LOCKING, 2m, WHITE	ZONIT	zLock-zC14-14-aC13-2m-WH
5	CORD PROVIDED WITH EQUIPMENT	N/A	N/A

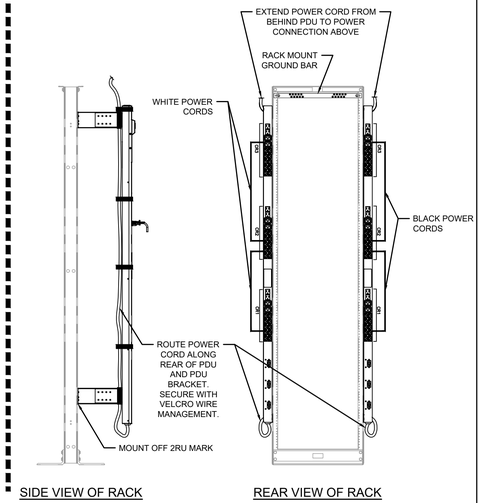
NOTE: THE "2m" WITHIN THE PART NUMBER INDICATES LENGTH. THE LENGTH ORDERED BY THE IMPLEMENTATION TEAM MAY VARY BY PROJECT BASED ON PRODUCT AVAILABILITY.

4 EQUIPMENT POWER CONNECTIONS SCHEMATIC
SCALE: NONE



NOTE: SEE THE RACK EQUIPMENT SCHEDULE ON THE ENLARGED MER/TR PLANS FOR PDU AND PDU MOUNTING BRACKET PART NUMBERS.

BRANCH CIRCUIT DISTRIBUTION:
1. REDUNDANT AND DIVERSELY FED A/B CIRCUITS TO RACKS IN DISCRETE CONDUITS (A & B CIRCUITS CANNOT SHARE A CONDUIT).
2. LOWEST ACCEPTABLE LEVEL OF REDUNDANCY IS TWO CIRCUITS DIVERSELY ROUTED FROM A COMMON BREAKER PANEL, BUT UPS REDUNDANCY SHOULD BE PROVIDED IF AVAILABLE.
3. CIRCUITS MUST BE DEDICATED INCLUDING DEDICATED NEUTRAL AND EQUIPMENT GROUNDING CONDUCTOR (EGC).
4. NO ISLOATED GROUND (IG) CIRCUITS UNLESS REQUIRED FOR SPECIFIC EQUIPMENT.
5. PROTECTED BY TRANSIENT VOLTAGE SURGE SUPPRESSION (TVSS) DEVICE AT BREAKER PANEL SERVING THE TELECOM ROOM.
6. TC SHALL PROVIDE JPMC STANDARD BLACK AND WHITE POWER CORDS FOR NETWORK EQUIPMENT.



PDU MOUNTING NOTES:
A. TC SHALL MOUNT BRACKET TO THE INSIDE FACE OF THE REAR RAIL OF THE RACK.
B. TC SHALL MOUNT PDU TO BRACKET SO OUTLETS ARE FACING OUTSIDE THE RACK.
C. PLUG STRIP OUTLETS MUST BE FREE & CLEAR AND EASILY ACCESSIBLE.
D. TC SHALL PROVIDE A LABEL ON EACH PDU INDICATING THE ELECTRICAL CIRCUIT DESIGNATION. ON THE WHITE PDU, THE LABEL BACKGROUND SHALL BE WHITE WITH BLACK TEXT. ON THE BLACK PDU, THE LABEL BACKGROUND SHALL BE BLACK WITH WHITE TEXT.
E. TC SHALL GROUND THE PDU TO THE RACK-MOUNTED GROUND BAR.
F. POWER CORD OF PDU IS TO BE MOUNTED SO IT IS AT THE BOTTOM OF THE PDU. THE CORD SHOULD BE NEATLY ROUTED ALONG THE REAR OF THE PDU AND SECURED WITH VELCRO TIES ROUTED TO THE TOP OF THE PDU AND THEN EXTENDED TO THE POWER CONNECTION.

5 2-POST PDU MOUNTING DETAILS
SCALE: NONE

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NEW RETAIL BRANCH PRYOR RD. AND LOWENSTEIN DR.

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REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER BICSI KEVIN BRENNAN REG NO 166050 EXPIRES 12-31-23 RCDD

issue

no	date	issue	by
	03.02.2022	ISSUED FOR PERMIT/BID	KB

site location
JP MORGAN CHASE & CO
908 NW PRYOR RD
LEE'S SUMMIT, MO 64081

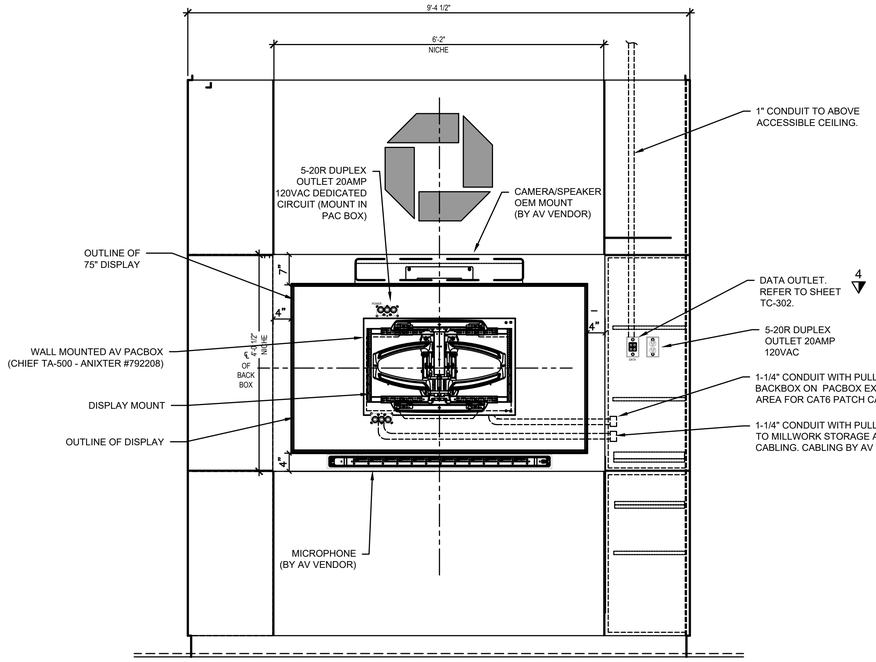
designed	KB	date	03.02.2022	drawn	KB
checked	CC	scale	AS NOTED		

title

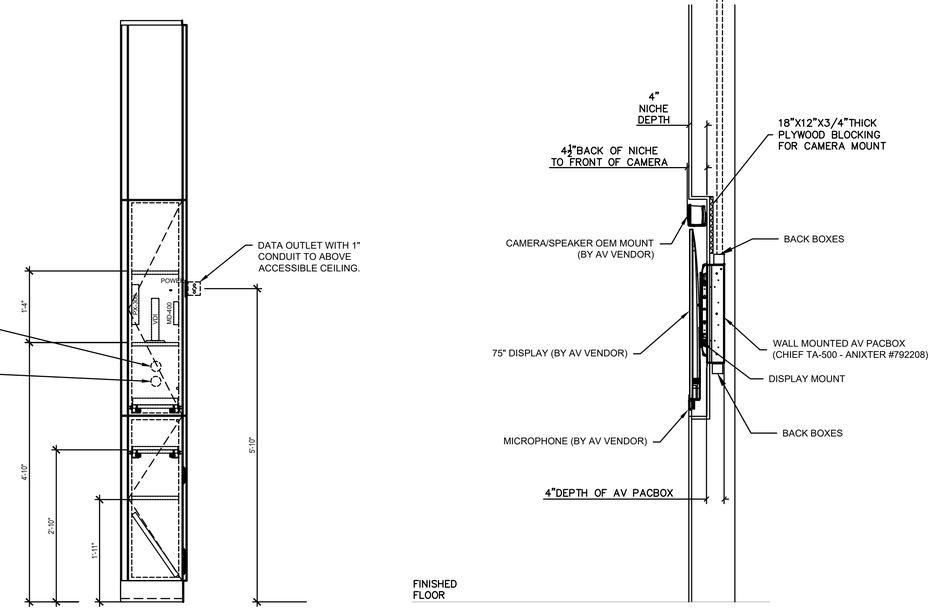
TELECOM INSTALLATION DETAILS

job no.
C60025810702

sheet
TC-403

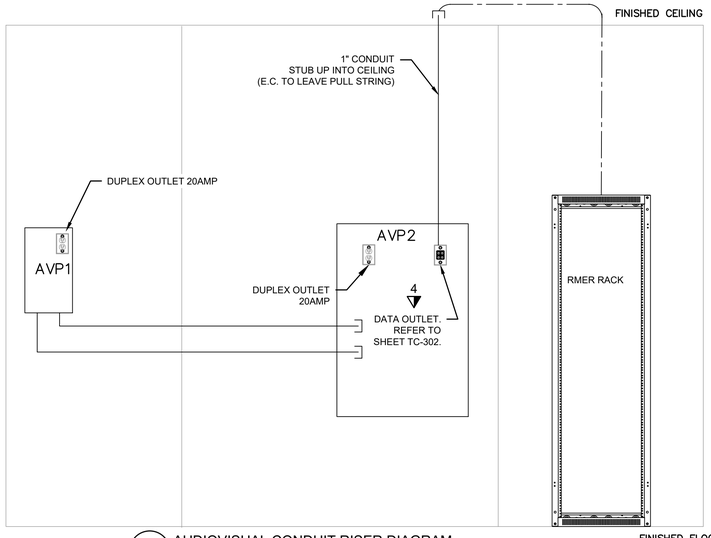


A AUDIOVISUAL 75" DISPLAY MOUNTING ELEVATION
SCALE: 3/4"=1'-0" SOLUTION 3

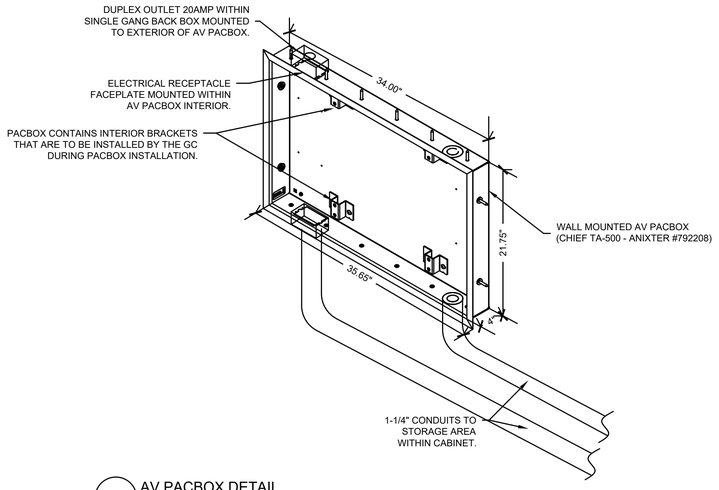


B AUDIOVISUAL 75" DISPLAY WALL SECTIONS
SCALE: 3/4"=1'-0" SOLUTION 3

CAT 6/6A CONNECTIONS TO RMER. REFER TO SHEET TC-302 FOR DETAILS.



C AUDIOVISUAL CONDUIT RISER DIAGRAM
SCALE: NTS SOLUTION 3



D AV PACBOX DETAIL
SCALE: 3/4"=1'-0" SOLUTION 3

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REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
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KEVIN BRENNAN
REG NO 166050
EXPIRES 12-31-23
RCDD

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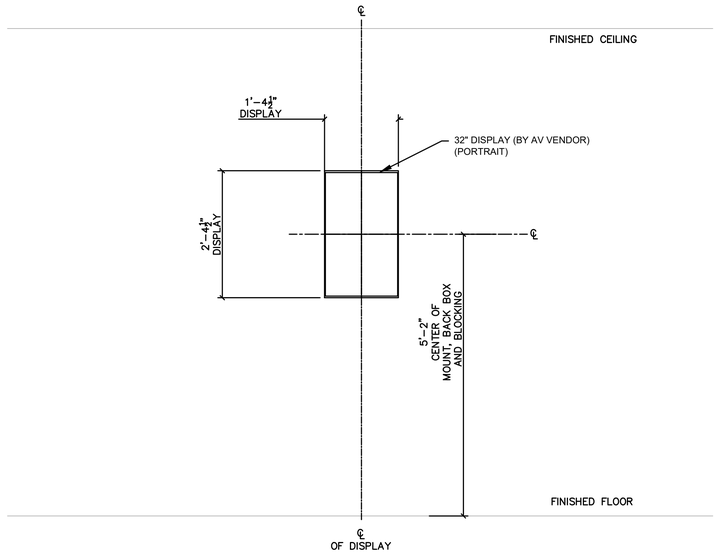
designed	KB	date	03.02.2022	drawn	KB
checked	CC	scale	AS NOTED		

title
AV SOLUTION #3
75" DISPLAY
CUSTOM MILLWORK

job no.
C60025810702

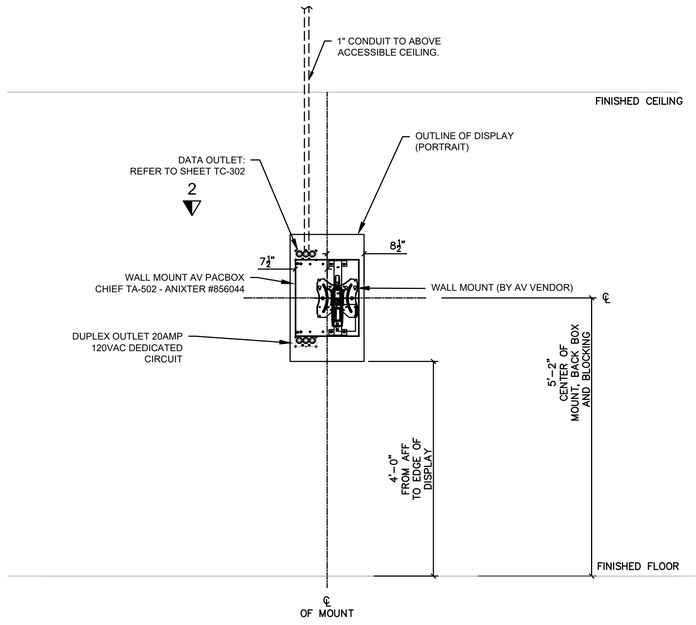
sheet
TC-501

DEVICE NAME	WEIGHT (LBS)
32" DISPLAY	10.70
WALL MOUNT	3.00
TOTAL	13.70



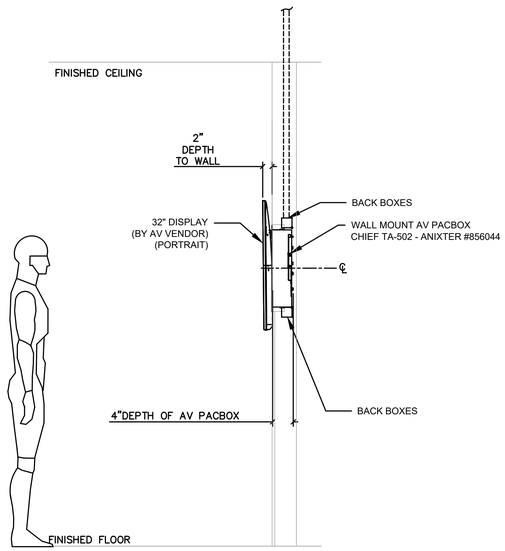
NOTE:
– COORDINATE EXACT LOCATION OF CENTERLINE OF MOUNT WITH ARCHITECT AND ARCHITECTURAL ELEVATION PRIOR TO ROUGH–IN.

A AUDIOVISUAL 32" DISPLAY ELEVATION
SCALE: 3/4"=1'-0" SOLUTION 7

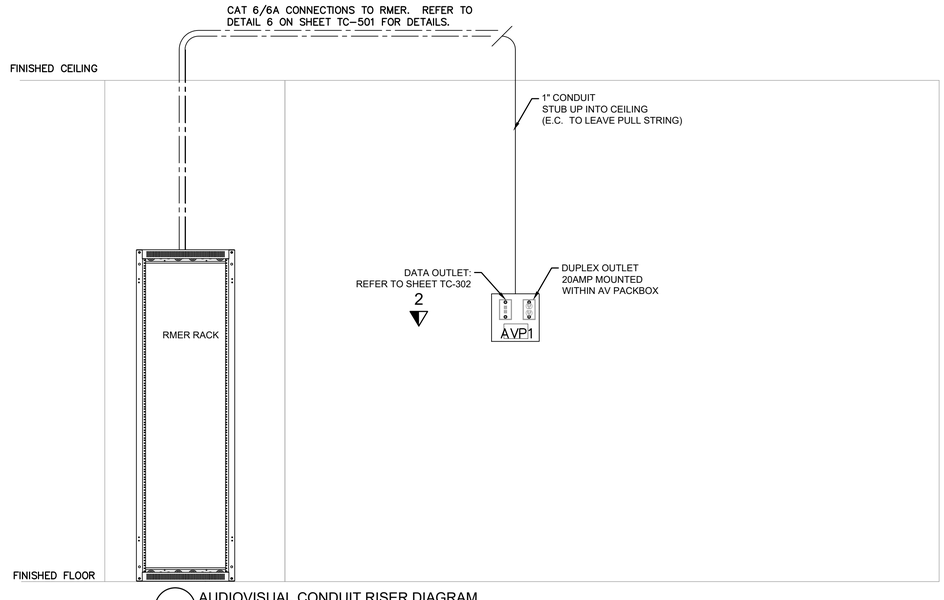


NOTE:
– COORDINATE EXACT LOCATION OF CENTERLINE OF MOUNT WITH ARCHITECT AND ARCHITECTURAL ELEVATION PRIOR TO ROUGH–IN.

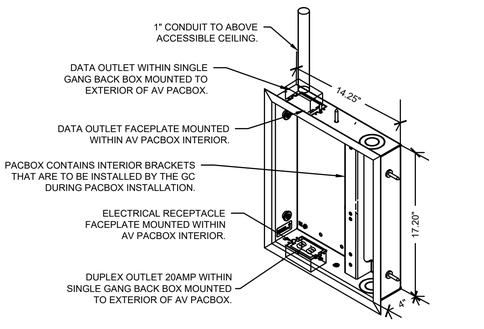
B AUDIOVISUAL 32" DISPLAY MOUNTING ELEVATION
SCALE: 3/4"=1'-0" SOLUTION 7



C AUDIOVISUAL 32" WALL SECTION
SCALE: 3/4"=1'-0" SOLUTION 7



D AUDIOVISUAL CONDUIT RISER DIAGRAM
SCALE: NTS SOLUTION 7



D AV PACBOX DETAIL
SCALE: 3/4"=1'-0" SOLUTION 7

INSTALLATION REQUIREMENTS FROM SURVEY			
MEASUREMENT	REQUIRED DIMENSION	MEASURED DIMENSION	NOTES
CORPORATE DATA	2		
AV STRUCTURED CABLE QTY.	0		
POWER	DUPLEX 20A 120V		

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KEVIN BRENNAN
REG NO 166050
EXPIRES 12-31-23
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designed	KB	date	03.02.2022	drawn	KB
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title
AV SOLUTION #7
32" DISPLAY
SURFACE MOUNTED

job no. C60025810702

sheet **TC-502**

PROJECT MAJOR MATERIAL REQUIREMENTS

CATEGORY	MATERIAL	MANUFACTURER	MODEL NUMBER	QTY	EXT	NOTES
COPPER CABLING	CAT6, PLENUM RATED, HORIZONTAL UTP GRAY CABLE	COMMSCOPE/SYSTIMAX	700210198 (REEL)	#	LF	
	CAT6, PLENUM RATED, HORIZONTAL UTP GRAY CABLE	COMMSCOPE/SYSTIMAX	700214372 (BOX)	#	LF	
	CATEGORY 6, NON-PLENUM RATED HORIZONTAL UTP GRAY CABLE	COMMSCOPE/SYSTIMAX	700211923 (REEL)	#	LF	
	CATEGORY 6, NON-PLENUM RATED HORIZONTAL UTP GRAY CABLE	COMMSCOPE/SYSTIMAX	700211931 (BOX)	#	LF	
	CATEGORY 6 PATCH CORD SLATE	COMMSCOPE/SYSTIMAX	CPC3312-03N006	5	EA	
	CATEGORY 6 PATCH CORD SLATE	COMMSCOPE/SYSTIMAX	CPC3312-03F005	7	EA	
	CATEGORY 6 PATCH CORD SLATE	COMMSCOPE/SYSTIMAX	CPC3312-03F007	56	EA	
	CATEGORY 6 PATCH CORD SLATE	COMMSCOPE/SYSTIMAX	CPC3312-03F010	29	EA	
	CATEGORY 6A, PLENUM RATED, HORIZONTAL UTP WHITE CABLE	COMMSCOPE/SYSTIMAX	760105940 (REEL)	#	LF	
	CATEGORY 6A, PLENUM RATED, HORIZONTAL UTP WHITE CABLE	COMMSCOPE/SYSTIMAX	760107268 (BOX)	#	LF	
	CATEGORY 6A, NON-PLENUM RATED, HORIZONTAL UTP WHITE CABLE	COMMSCOPE/SYSTIMAX	760105817	#	LF	
	CATEGORY 6A, PATCH CORD WHITE	COMMSCOPE/SYSTIMAX	CPCSSX0-08F005	1	EA	
	CATEGORY 6A, PATCH CORD WHITE	COMMSCOPE/SYSTIMAX	CPCSSX0-08F007	16	EA	
	CATEGORY 6A, PATCH CORD WHITE	COMMSCOPE/SYSTIMAX	CPCSSX0-08F010	20	EA	
	CATEGORY 6A, PLENUM RATED, HORIZONTAL F/UTP BLUE CABLE	COMMSCOPE/SYSTIMAX	UN874034704	#	LF	
	CATEGORY 6, OSP RATED, HORIZONTAL UTP CABLE	COMMSCOPE/SYSTIMAX	760008888	#	LF	
	CATEGORY 6, OSP RATED, PATCH CORD BLACK	COMMSCOPE/SYSTIMAX	CO15542-01F007	1	EA	
	CATEGORY 6A, OSP RATED, HORIZONTAL UTP CABLE	COMMSCOPE/SYSTIMAX	760178129	#	LF	
	CATEGORY 6A, OSP RATED, PATCH CORD BLACK	COMMSCOPE/SYSTIMAX	CO15580-01F007	2	EA	
	SHIELDED 22/2 PAIR CABLING	BELDEN	9451	#	LF	
FACEPLATE AND BOXES	CAT 6 RJ45 JACK (GREY)	COMMSCOPE/SYSTIMAX	700206733	74	EA	
	CAT 6 RJ45 JACK (ORANGE)	COMMSCOPE/SYSTIMAX	700206683	8	EA	
	CAT 6 RJ45 JACK (PURPLE)	COMMSCOPE/SYSTIMAX	700206675	4	EA	
	CAT 6A RJ45 JACK (GREEN)	COMMSCOPE/SYSTIMAX	760092403	31	EA	
	CAT 6A RJ45 JACK (WHITE)	COMMSCOPE/SYSTIMAX	760092429	5	EA	
	WALL MOUNTED FACEPLATE, 4-PORT	COMMSCOPE/SYSTIMAX	108168543	32	EA	
	2-PORT NON-PLENUM RATED SURFACE MOUNT BOX	COMMSCOPE/SYSTIMAX	107984056	1	EA	
	CATEGORY 6A PLENUM RATED CEILING CONNECTOR ASSEMBLY WITH 18" LONG PIGTAIL	COMMSCOPE/SYSTIMAX	760235592	6	EA	
	CATEGORY 6A PLENUM RATED CEILING CONNECTOR ASSEMBLY WITH 15'-0" LONG PIGTAIL	COMMSCOPE/SYSTIMAX	C01SJ02-88F015	20	EA	
	BRUSHED DECORA STYLE PASSTHROUGH FACEPLATE	LEVITON	41075-0BW	3	EA	
GROUNDING & BONDING	RACK MOUNTED EQUIPMENT GROUND KIT W/ 108" JUMPER	PANDUIT OR CPI	GJS6120U OR 40199-009	10	EA	
	BUSBAR-TO-RACK GROUND BAR KIT W/ 15' JUMPER	PANDUIT	GJS6180U	4	EA	
	RACK MOUNTED HORIZONTAL GROUNDING BUSBAR KIT (SEE GROUNDING SCHEMATIC)	PANDUIT	RGRB19U	2	EA	
	TWO HOLE LONG BARREL LUG	PANDUIT	LCC6 SERIES	#	EA	
EQUIPMENT ROOM/RACK AND ASSOCIATED COMPONENTS	2-POST RACK, 45RU, BLACK FINISH	CPI	66353-703	2	EA	
	6" WIDE, DOUBLE-SIDED VERTICAL CABLE MANAGER, BLACK FINISH	CPI	30096-703	2	EA	
	10" WIDE, DOUBLE-SIDED VERTICAL CABLE MANAGER, BLACK FINISH	CPI	30096-703	1	EA	
	2RU HORIZONTAL CABLE MANAGER, BLACK FINISH	CPI	30130-719	5	EA	
	MODULAR, ANGLED, 48-PORT PATCH PANEL	COMMSCOPE/SYSTIMAX	760187211	2	EA	
	MODULAR, ANGLED, 24-PORT PATCH PANEL	COMMSCOPE/SYSTIMAX	760187203	1	EA	
	RACK MOUNTED HORIZONTAL GROUNDING BUSBAR KIT (SEE GROUNDING SCHEMATIC)	PANDUIT	RGRB19U	1	EA	
	(1) WHITE AND (1) BLACK VERTICAL POWER DISTRIBUTION UNIT, 2-PACK	CPI	EA-3087-CE	1	EA	
	MOUNTING BRACKET BLACK	CPI	TS1012713	1	EA	
	MOUNTING BRACKET WHITE	CPI	TS1012713	1	EA	
	2RU BLANK PANEL - BLACK FINISH	CPI	30024-702	2	EA	
	12" WIDE LADDER RACK - BLACKFINISH	CPI	10250-712	15	LF	
	LADDER RACK STRINGER RADIUS DROP 10.3" W - BLACK FINISH	CPI	12101-711	3	EA	
	LADDER RACK CABLE RETAINING POSTS	CPI	10596-706	6	EA	
	LADDER RACK WALL ANGLE SUPPORT KIT	CPI	11421-712	4	EA	
	EQUIPMENT SHELF	CPI	11359-719	1	EA	
	SERVER MOUNTING BRACKET	CPI	12751-719	1	EA	
	C14-C15 LOCKING POWER CORD (BLACK) 2 METER	ZONIT	(1) ZLock-zC14-14-aC15-2m	1	EA	
	C14-C15 LOCKING POWER CORD (WHITE) 2 METER	ZONIT	(1)ZLock-zC14-14-aC15-2m-WH	2	EA	
	C14-C13 LOCKING POWER CORD (BLACK) 2 METER	ZONIT	(1) zLock-zC14-14-aC13-2m	1	EA	
	C14-C13 LOCKING POWER CORD (WHITE) 2 METER	ZONIT	(1) ZLock-zC14-14-aC13-2m-WH	2	EA	
	CAT 6 SURGE PROTECTION DEVICE	ITW	CAT6-75	1	EA	
	CAT 6A SURGE PROTECTION DEVICE	ITW	CAT6A-75	2	EA	
FIRE RATED SLEEVES	4" PRE-MANUFACTURED FIRE RATED SLEEVE	STI	EZD44S2	2	EA	
	WATERFALL ADAPTER	STI	EZRCM44S	3	EA	
	MULTI-GANG PLATE	STI	EZP544W	2	EA	
	4" PRE-MANUFACTURED FIRE RATED SSLEEVE FOR SECURITY CABLING	STI	EZDP44S2	1	EA	
	2" PRE-MANUFACTURED FIRE RATED SLEEVE	STI	EZD22	1	EA	

NOTES:
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL QUANTITIES PRIOR TO PROCUREMENT.
- "#" DENOTES THAT THE CONTRACTOR IS TO FIELD VERIFY LENGTHS AND QUANTITIES PRIOR TO PROCUREMENT.

1 PROJECT BILL OF MATERIALS
SCALE:

PATCH PANEL "A" - CAT6 - SCHEDULE

PORT #	LOCATION	ITEM	LABEL
1	PCS 6 105	DATA OUTLET	M2A01
2	LAO / CASH 113	DATA OUTLET	M2A02
3	PCS 7 106	DATA OUTLET	M2A03
4	PCS 3 102	DATA OUTLET	M2A04
5	PCS 1 116	DATA OUTLET	M2A05
6	CONFERENCE / PCS 2 101	DATA OUTLET	M2A06
7	CONFERENCE / PCS 2 101	DATA OUTLET	M2A07
8	CONFERENCE / PCS 2 101	DATA OUTLET	M2A08
9	LOBBY 117	DATA OUTLET	M2A09
10	LOBBY 117	DATA OUTLET	M2A10
11	LOBBY 117	DATA OUTLET	M2A11
12	LOBBY 117	DATA OUTLET	M2A12
13	LOBBY 117	DATA OUTLET	M2A13
14	LOBBY 117	DATA OUTLET	M2A14
15	PRINT / FILE 115	DATA OUTLET	M2A15
16	PRINT / FILE 115	DATA OUTLET	M2A16
17	PRINT / FILE 115	DATA OUTLET	M2A17
18	ACCESS TELLER 114	DATA OUTLET	M2A18
19	ACCESS TELLER 114	DATA OUTLET	M2A19
20	ACCESS TELLER 114	DATA OUTLET	M2A20
21	LAO / CASH 113	DATA OUTLET	M2A21
22	LAO / CASH 113	DATA OUTLET	M2A22
23	BOOTH 4 103	DATA OUTLET	M2A23
24	BOOTH 5 104	DATA OUTLET	M2A24
25	RMER / DATA 112	DATA OUTLET	M2A25
26	RMER / DATA 112	DATA OUTLET	M2A26
27	RMER / DATA 112	DATA OUTLET	M2A27
28	RMER / DATA 112	DATA OUTLET	M2A28
29	RMER / DATA 112	DATA OUTLET	M2A29
30	RMER / DATA 112	WALL PHONE	M2A30
31	PRINT / FILE 115	WALL PHONE	M2A31
32	MANUAL TRANSACTION 118	WALL PHONE	M2A32
33	EQUIPMENT ROOM 117	WALL PHONE	M2A33
34	LOUNGE 110	WALL PHONE	M2A34
35	MANUAL TRANSACTION 118	TELLER DATA OUTLET	M2A35
36	MANUAL TRANSACTION 118	TELLER DATA OUTLET	M2A36
37	MANUAL TRANSACTION 118	TELLER DATA OUTLET	M2A37
38	EQUIPMENT ROOM 117	ATM DATA OUTLET	M2A38
39	LOBBY 117	ATM DATA OUTLET	M2A39
40	LOBBY 117	FUTURE ATM OUTLET	M2A40
41	SITE	DU ATM DATA OUTLET	M2A41
42			
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47	RMER / DATA 112	CARRIER EXTENSION DATA OUTLET	M2A47
48	RMER / DATA 112	CARRIER EXTENSION DATA OUTLET	M2A48

PATCH PANEL "B" - CAT6A WIRELESS - SCHEDULE

PORT #	LOCATION	ITEM	LABEL
1	LOBBY 117	WAP #1	M2B01
2	LIVING ROOM	WAP #2	M2B02
3	PCS 7	WAP #3	M2B03
4	ACCESS TELLER	WAP #4	M2B04
5	LOUNGE	WAP #5	M2B05
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PATCH PANEL "C" - CAT6A CAMERA - SCHEDULE

PORT #	LOCATION	ITEM	LABEL
1	LOBBY 117	CAM #1	M2C01
2	LOBBY 117	CAM #2	M2C02
3	LOBBY 117	CAM #3	M2C03
4	LOBBY 117	CAM #4-5 (360 DEGREE)	M2C04
5	LOBBY 117	ATM CAM #6	M2C05
6	LOBBY 117	CAM #7	M2C06
7	HALLWAY 109	CAM #8	M2C07
8	TELLER AREA	CAM #9	M2C08
9	MANUAL TRANSACTION 118	CAM #10-11 (CAM MODULE)	M2C09
10	MANUAL TRANSACTION 118	CAM #12	M2C10
11	ACCESS TELLER 114	CAM #13	M2C11
12	LAO/CASH 113	CAM #14	M2C12
13	DATA/RMER 112	CAM #15	M2C13
14	LOUNGE 110	CAM #16	M2C14
15	EQUIPMENT ROOM 117	CAM #17	M2C15
16	EQUIPMENT ROOM 117	ATM CAM #18	M2C16
17	24-HOUR VESTIBULE	CAM #19	M2C17
18	24-HOUR VESTIBULE	CAM #20	M2C18
19	24-HOUR VESTIBULE	EXTERIOR CAM #21	M2C19
20	PCS 105	EXTERIOR CAM #22	M2C20
21	EQUIPMENT ROOM 117	EXTERIOR CAM #23	M2C21
22	LAO/CASH 113	EXTERIOR CAM #24	M2C22
23	LOUNGE 110	EXTERIOR CAM #25	M2C23
24	RESTROOM 108	EXTERIOR CAM #26	M2C24
25	SITE	DU ATM CAM #27	M2C25
26	SITE	DU ATM CANOPY CAM #28	M2C26
27	LOBBY 117	FUTURE ATM CAM #29	M2C27
28			
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2 PROJECT PANEL SCHEDULE
SCALE:

JPMORGAN CHASE & CO.
GLOBAL TECHNOLOGY INFRASTRUCTURE
END USER SERVICES
WORKPLACE & DATA CENTER SERVICES
STRUCTURED CABLING ENGINEERING
1111 POLARIS PARKWAY, COLUMBUS, OHIO 43240

NEW RETAIL BRANCH PRYOR RD. AND LOWENSTEIN DR.

keyplan

seal

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
BICSI
KEVIN BRENNAN
REG NO 166050
EXPIRES 12-31-23
RCDD

issue

no	date	issue	by
	03.02.2022	ISSUED FOR PERMIT/BID	KB

site location **JP MORGAN CHASE & CO**
908 NW PRYOR RD
LEE'S SUMMIT, MO 64081

designed	KB	date	03.02.2022	drawn	KB
checked	CC	scale	AS NOTED		

title

TELECOM MATERIALS AND PATCH PANEL SCHEDULES

job no. C60025810702

sheet **TC-601**

Definition and Checklist for RMER & RTR Room Acceptance
Stage 1 of 2: Room Ready

Address: _____ **Room Name/Number** _____
City: _____ **Floor** _____
State: _____ **Punch List Date** _____
Property ID: _____ **Punch List Complete Date** _____
GTI - Implementation PM: _____ **Acceptance Walkthrough** _____
(First name, Last Name, SID)
WDCS Rep: _____ **RRE PM Rep:** _____
(First name, Last Name, SID) *(First name, Last Name, SID)*

General Construction — Approval Initials

Scheduled Date	Verified Complete Date	Inspection Item Description	Exceptions: SNOW SCTASK #	WDCS (Retail SCE / RSO / GTI- Implementation PM)	RRE (JPMC Real Estate, JLL or CBRE PM)
		Walls completed with final painting and built deck to deck.			
		Walls are built with 5/8" Type X gypsum drywall board from the floor to the underside of the deck or greater if local code is more stringent.			
		Permanent door and hardware installed. This should include the automatic closer and door sweep. Temporary lock core is acceptable.			
		Ceiling has been encapsulated to prevent firestopping from flaking and creating dust in the room.			
		Plywood backboards have been installed and painted with fire retardant paint and 1 fire-rating certification stamp is left unpainted.			
		Sealed concrete flooring is completely installed. Architect shall define the seal type (acrylic, epoxy, polyurethane, or siloxane) sealer.			
		RMER/RTR is vacuumed, broom swept, and cleaned to a level that is adequate to safely maintain space for pulling and terminating copper and fiber cabling.			
		Any openings or penetrations through walls have been sealed with firestop.			

Mechanical/Electrical/Plumbing — Approval Initials

Scheduled Date	Verified Complete Date	Inspection Item Description	Exceptions: SNOW SCTASK #	WDCS (Retail SCE / RSO / GTI- Implementation PM)	RRE (JPMC Real Estate, JLL or CBRE PM)
		Electrical distribution on permanent power.			
		Power receptacles should be mounted above racks on an independent C-channel (unistrut). Provide dedicated circuits with dedicated neutral and equipment grounding conductor (EGC). No Isolated Ground (IG) circuits unless required for specific equipment.			
		All power outlets have been installed, energized, tested, & labeled. Power receptacles shall be labeled with panel ID and circuit #.			
		Permanent lighting and switches installed. Lighting located in aisle ways and coordinated with rack and/or cabinet layout.			
		Wall mounted grounding bus bar inside RMER/RTR has been installed and connected to the building grounding system.			
		Fire alarm/smoke detection devices (if required for project) are installed and wired, in the RMER/RTR.			
		All conduits & sleeves have been completely installed, grounded & labeled in compliance with Retail Structured Cabling standard.			
		Backboxes have been roughed-in for Access Control, IP-CCTV & Intrusion Detection systems; inclusive of panels and power.			
		Cages over sprinkler heads installed.			
		Dedicated cooling unit has been installed, including leak detection, pipes, valves, drip pans, ductwork, condensate piping, and drains. Cooling unit designed to maintain ASHRAE standard for temperature and humidity.			
		All duct work & diffuser installations have been completed & fire dampers installed where required to maintain fire rating of room.			
		BMS devices installed and wired to equipment (If required).			
		Piping at cooling units hydrostatically pressure tested throughout.			
		Cooling units fully commissioned and operational 24 x 7.			
		Security camera locations have the pathways roughed-in (if required) and cabling installed			

Technology - Structured Cabling — Approval Initials

Scheduled Date	Verified Complete Date	Inspection Item Description	Exceptions: SNOW SCTASK #	WDCS (Retail SCE / RSO / GTI- Implementation PM)	RRE (JPMC Real Estate, JLL or CBRE PM)
		Racks have been bolted to the floor in their final position and cable managers have been installed per the TC drawings (enlarged RMER/RTR floor plan and rack elevations). Seismic bracing installed on racks if required. All clearances within the RMER/RTR as per drawings have been validated.			
		Pathways outside the RMER/RTR are installed including; J-hooks, sleeves, and any conduit pathways.			
		Ladder rack within the room has been installed.			
		Carrier cabling is pulled into room, terminated, tested, and labeled. (If applicable).			

Acceptance Sign-Off

WDCS: _____ **Date:** _____
(first and last name of approver)
RRE: _____ **Date:** _____
(first and last name of approver)

Comments

Note 1 _____
Note 2 _____
Note 3 _____
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Note 9 _____
Note 10 _____

1 ROOM READY CHECKLIST
SCALE:

Definition and Checklist for RMER & RTR Room Acceptance
Stage 2 of 2: Production Ready

Address: _____ **Room Name/Number** _____
City: _____ **Floor** _____
State: _____ **Punch List Date** _____
Property ID: _____ **Punch List Complete Date** _____
GTI - Implementation PM: _____ **Acceptance Walkthrough** _____
(First name, Last Name, SID)
WDCS Rep: _____ **RRE PM Rep:** _____
(First name, Last Name, SID) *(First name, Last Name, SID)*

General Construction — Approval Initials

Scheduled Date	Verified Complete Date	Inspection Item Description	Exceptions: SNOW SCTASK #	WDCS (Retail SCE / RSO / GTI- Implementation PM)	RRE (JPMC Real Estate, JLL or CBRE PM)
		Temporary lock core has been changed to JPMC lock core.			

Mechanical/Electrical/Plumbing — Approval Initials

Scheduled Date	Verified Complete Date	Inspection Item Description	Exceptions: SNOW SCTASK #	WDCS (Retail SCE / RSO / GTI- Implementation PM)	RRE (JPMC Real Estate, JLL or CBRE PM)
		BMS system operational (If required). (Not monitored)			

Security — Approval Initials

Scheduled Date	Verified Complete Date	Inspection Item Description	Exceptions: SNOW SCTASK #	WDCS (Retail SCE / RSO / GTI- Implementation PM)	RRE (JPMC Real Estate, JLL or CBRE PM)
		Security cameras are installed, online, calibrated, and viewable in the March Network NVR remote viewing software.			
		Door alarms for the branch are enabled.			

Technology - Structured Cabling — Approval Initials

Scheduled Date	Verified Complete Date	Inspection Item Description	Exceptions: SNOW SCTASK #	WDCS (Retail SCE / RSO / GTI- Implementation PM)	RRE (JPMC Real Estate, JLL or CBRE PM)
		Room ready data cleaning completed; room is clean and dust free. (Based on SECTION 27 05 03 Requirements)			
		All rack-mounted ground bars have been grounded to the wall mounted ground bus bar.			
		Overhead pathways (ladder racks) have been grounded within the RMER/RTR.			
		Armored communications cable jackets (if any) have been grounded.			
		The grounding connections have been connected to the Network Electronics (switches & routers).			
		Cabling and wallphone plate installed for wall phone(s). Wall phone installed inside room and operational.			
		Backbone cabling (copper/fiber) installation between RMER and RTR (if applicable).			
		Cabling installed, routed, and supported utilizing strain relief in a neat manner that does not block equipment mounting space or interfere with other systems.			
		Structured cabling installation complete (terminated, labeled, & tested) in RMER/RTR.			
		No plastic tiewraps used to manage power or communications cabling slack or bundles.			
		Equipment racks, fiber enclosures (if applicable), and patch panels labeled as per the Retail Structured Cabling labeling standard			
		Power distribution units (PDUs) mounted to racks & plugged into outlets, or plugged into UPS per design requirements.			
		All equipment power cords are neatly managed.			
		All network equipment racked in their final positions per the rack elevations on the TC drawings.			
		All technology equipment patched and all patching utilizes cable management pathways & is neatly managed.			
		Patch cable slack does not exceed more than 1' on either end of the cable.			
		No cables (horizontal, patch, or backbone) are blocking fan trays or blocking equipment mounting spaces.			
		The JPMC Structured Cabling Engineer has received and reviewed structured cabling test results.			
		As-builts of floor plan with all telecom outlets labeled has been printed out and mounted to the wall.			
		Any punch list items found upon cable test review have been corrected.			
		Carrier equipment is installed and tested by the carrier and JPMC Network Engineer in its designated position.			

Technology - Remote Site Operations — Approval Initials

Scheduled Date	Verified Complete Date	Inspection Item Description	Exceptions: SNOW SCTASK #	WDCS (Retail SCE / RSO / GTI- Implementation PM)	RRE (JPMC Real Estate, JLL or CBRE PM)
		All powered IT equipment, aside from audio-visual or carrier equipment, must be labeled with the devices hostname and a yellow asset tag on the front side of the device. A machine generated label indicating the serial number of the device shall also be placed on the front side of the device.			
		All racks or cabinets have a yellow asset tag at the top of the front door and all racks must have a yellow asset tag at the top front in a visible area that can be easily accessed with a barcode scanner.			
		All assets have been entered into into the asset management system software and the equipment inventoried in the room matches the inventory in the asset management system software.			
		All WDCS signage has been installed within the room, including red box, bar code scanner, and labels.			

Acceptance Sign-Off

WDCS: _____ **Date:** _____
(first and last name of approver)
RRE: _____ **Date:** _____
(first and last name of approver)

Comments

Note 1 _____
Note 2 _____
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Note 10 _____

2 PRODUCTION READY CHECKLIST
SCALE:

JPMORGAN CHASE & CO.
GLOBAL TECHNOLOGY INFRASTRUCTURE
END USER SERVICES
WORKPLACE & DATA CENTER SERVICES
STRUCTURED CABLING ENGINEERING
1111 POLARIS PARKWAY, COLUMBUS, OHIO 43240

NEW RETAIL BRANCH PRYOR RD. AND LOWENSTEIN DR.

keyplan

seal

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
BICSI
KEVIN BRENNAN
REG. NO. 160050
EXPIRES 12-31-23
RCDD

issue

no	date	issue	by
	03.02.2022	ISSUED FOR PERMIT/BID	KB

site location **JP MORGAN CHASE & CO**
908 NW PRYOR RD
LEE'S SUMMIT, MO 64081

designed	KB	date	03.02.2022	drawn	KB
checked	CC	scale	AS NOTED		

title

ROOM READY & PRODUCTION READY CHECKLISTS

job no. C60025810702

sheet

TC-602

SITE DEVELOPMENT PLANS

CHASE

900 NW PRYOR ROAD, LEE'S SUMMIT, MO 64081

SHEET INDEX

EBI CONSULTING DRAWINGS

SHEET NO.	SHEET TITLE
C-1	TITLE SHEET
C-2	GENERAL NOTES & LEGEND SHEET
C-3	SITE PLAN
C-4	GRADING PLAN
C-5	UTILITY & DRAINAGE PLAN
C-6	DETAIL SHEET

SUBMISSION INFO

ISSUED FOR: LOCAL APPROVALS
DATE ISSUED: MARCH 11, 2022
LATEST ISSUE: MARCH 11, 2022

LOCUS MAP

SCALE: 1"=100'

PROPERTY / PARCEL INFORMATION

APPLICANT
EBI CONSULTING
21 B. STREET
BURLINGTON, MA 01803
TEL: (781) 273 - 2500

ASSESSOR'S INFORMATION
PARCEL #
51-800-04-28-00-0-00-0000

PROJECT TEAM

ARCHITECT
EBI CONSULTING
21 B. STREET
BURLINGTON, MA 01803
TEL: (781) 273 - 2500

ENGINEER OF RECORD
EBI CONSULTING
21 B. STREET
BURLINGTON, MA 01803
TEL: (781) 273 - 2500

LANDSCAPE ARCHITECT
JAY MILLER, RLA
2095 VT ROUTE 18
WATERFORD, VT 05819
TEL: (802) 535 - 8586

REFERENCE PLAN

LANDLORDS PLANS

PLAN ENTITLE "STREETS OF WEST PRYOR LOT #9" PREPARED BY: SM ENGINEERING, SCALE: 1"=20', DATED: 1/17/22

811 Know what's below. Call before you dig.

PREPARED BY:

EBI Consulting
environmental | engineering | due diligence

PREPARED BY:
EBI Consulting
environmental | engineering | design
21 B Street | Burlington, MA 01803
Tel: 781.273.2500 | Fax: 781.273.3311
www.ebiconsulting.com

STATE OF MISSOURI
ANTHONY E. FARMAND
NUMBER PE-2012000032
PROFESSIONAL ENGINEER
11 March 2022
Expiration 31 Dec 2022

PRELIMINARY

REVISIONS

NO	DESCRIPTION	DATE	INIT

811 Know what's below. Call before you dig.

PREPARED FOR:
CHASE

DRAWING SCALES NOTED ARE FOR 24" x 36" SIZE PRINTED MEDIA ONLY. ALL OTHER PRINTED SIZES ARE DEEMED "NOT TO SCALE".

DRAWN BY:	REVIEWED BY:	ISSUE DATE	SCALE:	PROJECT #:
EO	KS	03/08/2022	AS SHOWN	4121000090

PROJECT TITLE: SITE DEVELOPMENT PLANS

SHEET TITLE: TITLE SHEET

SITE ADDRESS: 900 NW PRYOR RD LEE'S SUMMIT, MO 64081

SHEET NO. C-1

GENERAL NOTES

NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE NOTES AND SPECIFICATIONS CONTAINED HEREIN. CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS.

1. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, LOCAL AND OSHA CODES, MANDATED REGULATIONS AND REQUIREMENTS.
2. CONTRACTOR SHALL KEEP AN ACCURATE SET OF 'AS-BUILT' PLANS
3. ALL ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE OR THE REQUIREMENTS OF THE JURISDICTION WHERE THE PROJECT SHALL BE CONSTRUCTED.
4. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE COMMENTS TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES AND CONFIRMED THAT ALL NECESSARY OR REQUIRED PERMITS HAVE BEEN OBTAINED. CONTRACTOR SHALL HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.
5. THE OWNER/CONTRACTOR SHALL BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
6. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND CONDITIONS OF APPROVAL, AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT.
7. THE GEOTECHNICAL REPORT AND RECOMMENDATIONS INCLUDED IN SAID REPORT ARE A PART OF THE CONSTRUCTION DOCUMENTS AND, IN CASE OF CONFLICT OR DISCREPANCY, THE MORE STRINGENT REQUIREMENTS CONTAINED IN THE PLANS AND THE GEOTECHNICAL REPORT SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, IN WRITING, OF ANY SUCH CONFLICT, DISCREPANCY OR AMBIGUITY BETWEEN THE GEOTECHNICAL REPORTS AND PLANS AND SPECIFICATIONS PRIOR TO PROCEEDING WITH ANY FURTHER WORK.
8. THESE PLANS ARE BASED ON INFORMATION PROVIDED TO THE ENGINEER BY THE OWNER AND OTHERS PRIOR TO THE TIME OF PLAN PREPARATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY THE ENGINEER, IN WRITING, IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.
9. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER, IN WRITING, IF ANY CONFLICTS, DISCREPANCIES, OR AMBIGUITIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE REDONE OR REPAIRED DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS PRIOR TO CONTRACTOR GIVING ENGINEER WRITTEN NOTIFICATION OF SAME AND ENGINEER, THEREAFTER, PROVIDING CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.
10. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS.
11. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE THE BUILDING LAYOUT BY CAREFUL REVIEW OF THE ENTIRE SITE PLAN AND THE LATEST ARCHITECTURAL PLANS (INCLUDING, BUT NOT LIMITED TO, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLAN, WHERE APPLICABLE). CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER, ARCHITECT AND SITE ENGINEER, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST.
12. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE AND ALL UNSUITABLE EXCAVATED MATERIAL AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL GOVERNMENTAL AUTHORITIES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER CONTRACTOR.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING WHEN SHORING IS REQUIRED AND FOR INSTALLING ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE STABILITY OF ADJACENT, NEARBY AND CONTIGUOUS STRUCTURES AND PROPERTIES.
14. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO REMAIN EITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT, UTILITIES, BUILDINGS, AND INFRASTRUCTURE WHICH ARE TO REMAIN, AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED WITH THE PROJECT.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. AND SHALL BEAR ALL COSTS ASSOCIATED WITH SAME TO INCLUDE, BUT NOT BE LIMITED TO, REDESIGN, RE-SURVEY, RE-PERMITTING AND CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REPLACE ALL SIGNAL INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND SHALL BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY SHALL RESTORE SUCH CONSTRUCTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR BETTER THAN THE CONDITIONS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH SAME. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND TO NOTIFY THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.
16. ALL CONCRETE SHALL BE AIR ENTRAINED AND HAVE THE MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT.
17. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES FOR COMPLETION OF THE WORK DEPICTED BOTH ON THESE PLANS, AND FOR ANY CONFLICTS/SCOPE REVISIONS WHICH RESULT FROM SAME. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE METHODS/MEANS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
18. THE ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE FOR JOB SITE SAFETY. THE ENGINEER OF RECORD HAS NOT BEEN RETAINED TO PERFORM OR BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF ENGINEER'S SERVICES AS RELATED TO THE PROJECT. THE ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES, AT ANY TIME.
19. THE ENGINEER WILL REVIEW THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT. THIS REVIEW IS FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND/OR METHODS AND/OR TECHNIQUES OR PROCEDURES, COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE ENGINEER HAS NO RESPONSIBILITY OR LIABILITY FOR SAME HEREUNDER. THE ENGINEERS SHOP DRAWING REVIEW WILL BE CONDUCTED WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM SHALL NOT INDICATE THAT THE ENGINEER HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT PROMPTLY AND IMMEDIATELY BROUGHT TO ITS ATTENTION, IN WRITING, BY THE CONTRACTOR. THE ENGINEER WILL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
20. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER FOR SUCH DEVIATIONS, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK DONE WHICH DEVIATES FROM THE PLANS, ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND, FURTHER, SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS THE ENGINEER, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, PENALTIES AND THE LIKE RELATED TO SAME.
21. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF TRAFFIC PLAN FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE R.O.W. OR ON SITE. THE COST FOR THIS ITEM SHALL BE INCLUDED IN THE CONTRACTOR'S PRICE.
22. ALL SIGNING AND PAVEMENT STRIPING SHALL CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR LOCALLY APPROVED SUPPLEMENT.
23. ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS. IF CONTRACTOR AND/OR OWNER FAIL TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH APPROVED PLANS, THEY AGREE TO JOINTLY AND SEVERALLY INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS.
24. OWNER SHALL MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, IN STRICT ACCORDANCE WITH THE APPROVED PLAN(S) AND DESIGN AND, FURTHER ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES. IF OWNER FAILS TO MAINTAIN AND/OR PRESERVE ALL PHYSICAL SITE FEATURES AND/OR DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, OWNER AGREES TO INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.
25. ALL DIMENSIONS SHALL BE TO FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, UNLESS NOTED OTHERWISE.
26. ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, ORDINANCES, RULES AND CODES, AND ALL APPLICABLE OSHA REQUIREMENTS.
27. CONTRACTOR AND OWNER SHALL INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS. IF CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY AGREE TO JOINTLY AND SEVERALLY INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.
28. CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH EPA REQUIREMENTS FOR SITES WHERE ONE (1) ACRE OR MORE (UNLESS THE LOCAL JURISDICTION REQUIRES FEWER) IS DISTURBED BY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF SUBCONTRACTORS, ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS APPROPRIATE.
29. AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED APPLICATION DOCUMENTS PREPARED BY THE SIGNATORY PROFESSIONAL ENGINEER, THE USE OF THE WORDS CERTIFY OR CERTIFICATION CONSTITUTES AN EXPRESSION OF "PROFESSIONAL OPINION" REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE UNDERSIGNED PROFESSIONAL'S KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE, EITHER EXPRESSED OR IMPLIED.

GENERAL DEMOLITION NOTES

1. CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AS AMENDED AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS TO SAME.
2. THE ENGINEER HAS NO CONTRACTUAL, LEGAL, OR OTHER RESPONSIBILITY FOR JOB SITE SAFETY OR JOB SITE SUPERVISION, OR ANYTHING RELATED TO SAME.
3. THE DEMOLITION PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION, ONLY, REGARDING ITEMS TO BE DEMOLISHED AND/OR REMOVED. THE CONTRACTOR SHALL ALSO REVIEW THE OTHER SITE PLAN DRAWINGS AND INCLUDE IN DEMOLITION ACTIVITIES ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS.
4. CONTRACTOR SHALL RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THESE PLANS OR SPECIFICATIONS, CONCERNS REGARDING THE APPLICABLE SAFETY STANDARDS, OR THE SAFETY OF THE CONTRACTOR OR THIRD PARTIES IN PERFORMING THE WORK ON THIS PROJECT, WITH THE ENGINEER, IN WRITING, AND RESPONDED TO BY THE ENGINEER, IN WRITING, PRIOR TO THE INITIATION OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY. ALL DEMOLITION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, RULES, REQUIREMENTS, STATUTES, ORDINANCES AND CODES.
5. PRIOR TO STARTING ANY DEMOLITION, CONTRACTOR SHALL BE RESPONSIBLE FOR/TO:
   - A. OBTAINING ALL REQUIRED PERMITS AND MAINTAINING THE SAME ON SITE FOR REVIEW BY THE ENGINEER AND OTHER PUBLIC AGENCIES WITH JURISDICTION THROUGHOUT THE DURATION OF THE PROJECT, SITE WORK, AND DEMOLITION WORK.
   - B. NOTIFYING, AT A MINIMUM, THE MUNICIPAL ENGINEER, DESIGN ENGINEER, AND LOCAL SOIL CONSERVATION DISTRICT, 72 HOURS PRIOR TO THE START OF WORK.
   - C. INSTALLING THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE.
   - D. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR SHALL CALL THE STATE ONE-CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARKOUT, IN ADVANCE OF ANY EXCAVATION.
   - E. LOCATING AND PROTECTING ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORMWATER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN AND ADJACENT TO THE LIMITS OF PROJECT ACTIVITIES. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES.
   - F. PROTECTING AND MAINTAINING IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ALL DEMOLITION ACTIVITIES.
   - G. ARRANGING FOR AND COORDINATING WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) FOR THE TEMPORARY OR PERMANENT TERMINATION OF SERVICE REQUIRED BY THE PROJECT PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE THE UTILITY ENGINEER AND OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTIONAL AND UTILITY COMPANY REQUIREMENTS.
   - H. COORDINATION WITH UTILITY COMPANIES REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REQUIRED TO MINIMIZE THE IMPACT ON THE AFFECTED PARTIES. WORK REQUIRED TO BE DONE "OFF-PEAK" IS TO BE DONE AT NO ADDITIONAL COST TO THE OWNER.
   - I. IN THE EVENT THE CONTRACTOR DISCOVERS ANY HAZARDOUS MATERIAL, THE REMOVAL OF WHICH IS NOT ADDRESSED IN THE PROJECT PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL IMMEDIATELY CEASE ALL WORK AND IMMEDIATELY NOTIFY THE OWNER AND ENGINEER OF THE DISCOVERY OF SUCH MATERIALS.

7. THE FIRM OR ENGINEER OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR SHALL PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING ALL THE OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY.
8. THE CONTRACTOR SHALL PROVIDE ALL "MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS THAT ARE TO REMAIN. CONTRACTOR SHALL USE NEW MATERIAL FOR ALL REPAIRS. CONTRACTOR'S REPAIR SHALL INCLUDE THE RESTORATION OF ANY ITEMS REPAIRED TO THE PRE-DEMOLITION CONDITION, OR BETTER. CONTRACTOR SHALL PERFORM ALL REPAIRS AT THE CONTRACTOR'S SOLE EXPENSE.
9. THE CONTRACTOR SHALL NOT PERFORM ANY EARTH MOVEMENT ACTIVITIES, DEMOLITION OR REMOVAL OF FOUNDATION WALLS, FOOTINGS, OR OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE UNLESS SAME IS IN STRICT ACCORDANCE AND CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, AND/OR UNDER THE WRITTEN DIRECTION OF THE OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.
10. CONTRACTOR SHALL BACKFILL ALL EXCAVATION RESULTING FROM, OR INCIDENTAL TO, DEMOLITION ACTIVITIES. BACKFILL SHALL BE ACCOMPLISHED WITH APPROVED BACKFILL MATERIALS, AND SHALL BE SUFFICIENTLY COMPACTED TO SUPPORT NEW IMPROVEMENTS AND PERFORMED IN COMPLIANCE WITH THE RECOMMENDATIONS AND GUIDANCE IN THE GEOTECHNICAL REPORT. BACKFILLING SHALL OCCUR IMMEDIATELY AFTER DEMOLITION ACTIVITIES, AND SHALL BE DONE SO AS TO PREVENT WATER ENTERING THE EXCAVATION. FINISHED SURFACES SHALL BE GRADED TO PROMOTE POSITIVE DRAINAGE.
11. EXPLOSIVES SHALL NOT BE USED WITHOUT PRIOR WRITTEN CONSENT OF BOTH THE OWNER AND ALL APPLICABLE GOVERNMENTAL AUTHORITIES. ALL THE REQUIRED PERMITS AND EXPLOSIVE CONTROL MEASURES THAT ARE REQUIRED BY THE FEDERAL, STATE, AND LOCAL GOVERNMENTS SHALL BE IN PLACE PRIOR TO CONTRACTOR STARTING AN EXPLOSIVE PROGRAM AND/OR ANY DEMOLITION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES.
12. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FHWA "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROADWAY RIGHT-OF-WAY.
13. CONTRACTOR SHALL CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS SHALL BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY.
14. DEMOLITION ACTIVITIES AND EQUIPMENT SHALL NOT USE AREAS OUTSIDE THE DEFINED PROJECT LIMIT LINE, WITHOUT WRITTEN PERMISSION OF THE OWNER AND ALL GOVERNMENTAL AGENCIES WITH JURISDICTION.
15. THE CONTRACTOR SHALL USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE, CONTRACTOR SHALL CLEAN ALL ADJACENT STRUCTURES AND IMPROVEMENTS TO REMOVE ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION.
16. CONTRACTOR SHALL BE RESPONSIBLE TO SAFEGUARD THE SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME.
17. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE JOB SAFETY, WHICH SHALL INCLUDE, BUT NOT BE LIMITED TO, THE INSTALLATION AND MAINTENANCE OF BARRIERS, FENCING AND OTHER APPROPRIATE SAFETY ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND CONSTRUCTION ACTIVITY.
18. THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION AS TO THE MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED TO ACCOMPLISH THAT WORK. ALL MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED SHALL BE IN STRICT ACCORDANCE WITH ALL STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE.
19. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION WASTES AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES. THE CONTRACTOR SHALL MAINTAIN RECORDS TO DEMONSTRATE PROPER DISPOSAL ACTIVITIES, TO BE PROMPTLY PROVIDED TO THE OWNER UPON REQUEST.
20. CONTRACTOR SHALL MAINTAIN A RECORD SET OF PLANS UPON WHICH IS INDICATED THE LOCATION OF EXISTING UTILITIES THAT ARE CAPPED, ABANDONED IN PLACE, OR RELOCATED DUE TO DEMOLITION ACTIVITIES. THIS RECORD DOCUMENT SHALL BE PREPARED IN A NEAT AND WORKMAN-LIKE MANNER, AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK.

GRADING & UTILITY PLAN NOTES

1. LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND SHALL BE INDEPENDENTLY CONFIRMED WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS SHALL BE INDEPENDENTLY CONFIRMED BY THE CONTRACTOR IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL IMMEDIATELY BE REPORTED, IN WRITING, TO THE ENGINEER. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. CONTRACTOR SHALL VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES INCLUDING, BUT NOT LIMITED TO, GAS, WATER, ELECTRIC, SANITARY SEWER AND STORMWATER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE OR WORK SPACE, WHICHEVER IS GREATER. THE CONTRACTOR SHALL USE, REFER TO, AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION, AT NO COST TO THE OWNER. CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT AND/OR DISCREPANCY BETWEEN THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE OR APPLICABLE CODES, REGULATIONS, LAWS, RULES, STATUTES AND/OR ORDINANCES, IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD, IN WRITING, OF SAID CONFLICT AND/OR DISCREPANCY PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR'S FAILURE TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE CONTRACTOR'S FULL AND COMPLETE ACCEPTANCE OF ALL RESPONSIBILITY TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, STATUTES, ORDINANCES AND CODES AND, FURTHER, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SAME.
4. THE CONTRACTOR SHALL LOCATE AND CLEARLY AND UNAMBIGUOUSLY DEFINE VERTICALLY AND HORIZONTALLY ALL ACTIVE AND INACTIVE UTILITY AND/OR SERVICE SYSTEMS THAT ARE TO BE REMOVED. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE AND INACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE ACTIVITY.
5. THE CONTRACTOR SHALL FAMILIARIZE ITSELF WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND SHALL BE RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH THE JURISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
6. THE CONTRACTOR SHALL INSTALL ALL STORM SEWER AND SANITARY SEWER COMPONENTS WHICH FUNCTION BY GRAVITY PRIOR TO THE INSTALLATION OF ALL OTHER UTILITIES
7. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS/DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE ARCHITECT WILL DETERMINE THE UTILITY SERVICE SIZES. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND TO ENSURE THAT PROPER DEPTHS ARE ACHIEVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT INSTALLATION OF ALL IMPROVEMENTS COMPLIES WITH ALL UTILITY REQUIREMENTS WITH JURISDICTION AND/OR CONTROL OF THE SITE, AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES AND, FURTHER, SHALL BE RESPONSIBLE FOR COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE A CONFLICT(S) EXISTS BETWEEN THESE SITE PLANS AND THE ARCHITECTURAL PLANS, OR WHERE ARCHITECTURAL PLAN UTILITY CONNECTION POINTS DIFFER, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER, IN WRITING, AND PRIOR TO CONSTRUCTION, RESOLVE SAME.
8. WATER LINE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS SHALL BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTOR'S PRICE FOR WATER LINE SHALL INCLUDE ALL FEES, COSTS AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE FULL AND COMPLETE WORKING SERVICE. CONTRACTOR SHALL CONTACT THE APPLICABLE MUNICIPALITY TO CONFIRM THE PROPER WATER METER AND VAULT, PRIOR TO COMMENCING CONSTRUCTION.
9. ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC. ARE TO BE INSTALLED UNDERGROUND. ALL NEW UTILITIES/SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE UTILITY/SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.
10. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING UNSUITABLE MATERIALS WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED AS OUTLINED IN THE GEOTECHNICAL REPORT. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL BE SUBMITTED IN A COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER/DEVELOPER, OR OWNER/DEVELOPER'S REPRESENTATIVE, SUBBASE SHALL BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED AS DIRECTED BY THE GEOTECHNICAL REPORT. EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING SHALL COMPLY WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. EARTHWORK ACTIVITIES SHALL COMPLY WITH THE STANDARD STATE DOT SPECIFICATIONS FOR ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR REVISIONS THERETO.
11. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION SHALL BE PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND SHALL BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS. WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS, FILL AND COMPACTION SHALL, AT A MINIMUM, COMPLY WITH THE STATE DOT REQUIREMENTS AND SPECIFICATIONS AND CONSULTANT SHALL HAVE NO LIABILITY OR RESPONSIBILITY FOR OR AS RELATED TO FILL, COMPACTION AND BACKFILL. FURTHER, CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR EARTHWORK BALANCE.
12. THE CONTRACTOR SHALL COMPLY, TO THE FULLEST EXTENT, WITH THE LATEST OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES AND CONSULTANT SHALL HAVE NO RESPONSIBILITY FOR OR AS RELATED FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES.
13. PAVEMENT SHALL BE SAW CUT IN STRAIGHT LINES, AND EXCEPT FOR EDGE OF BUTT JOINTS, SHALL EXTEND TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS SHALL BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS SHALL NOT BE PERMITTED.
14. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS SHALL BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
15. DURING THE INSTALLATION OF ALL UTILITIES, THE CONTRACTOR SHALL MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD OF CONSTRUCTION TO IDENTIFY THE AS-INSTALLED LOCATIONS OF ALL UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL CAREFULLY NOTE ANY INSTALLATIONS THAT DEVIATE FROM THE INFORMATION CONTAINED IN THE UTILITY PLAN. THIS RECORD SHALL BE KEPT ON A CLEAN COPY OF THE DRAINAGE OR UTILITY PLAN, WHICH CONTRACTOR SHALL PROMPTLY PROVIDE TO THE OWNER AT THE COMPLETION OF WORK.
16. WHEN THE SITE IMPROVEMENT PLANS INVOLVE MULTIPLE BUILDINGS, SOME OF WHICH MAY BE BUILT AT A LATER DATE, THE CONTRACTOR SHALL EXTEND ALL LINES, INCLUDING BUT NOT LIMITED TO STORMWATER, SANITARY SEWER, UTILITIES, AND IRRIGATION LINE, TO A POINT AT LEAST FIVE (5) FEET BEYOND THE PAVED AREAS FOR WHICH THE CONTRACTOR SHALL BE RESPONSIBLE. CONTRACTOR SHALL CAP ENDS AS APPROPRIATE, MARK LOCATIONS WITH A 2X4, AND SHALL NOTE THE LOCATION OF ALL OF THE ABOVE ON A CLEAN COPY OF THE DRAINAGE OR UTILITY PLAN, WHICH CONTRACTOR SHALL PROMPTLY PROVIDE TO THE OWNER UPON COMPLETION OF THE WORK.
17. THE CONTRACTOR SHALL FULLY RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION. CONTRACTOR SHALL CONFIRM AND ENSURE 0.75% MINIMUM SLOPE AGAINST ALL ISLANDS, GUTTERS, AND CURBS; 1.0% ON ALL CONCRETE SURFACES; AND 1.5% MINIMUM ON ASPHALT (EXCEPT WHERE ADA REQUIREMENTS OR EXISTING TOPOGRAPHY LIMIT GRADES), TO PREVENT PONDING. CONTRACTOR SHALL IMMEDIATELY IDENTIFY, IN WRITING TO THE ENGINEER, ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST. IF CONTRACTOR PROCEEDS WITH CONSTRUCTION WITHOUT PROVIDING PROPER NOTIFICATION, SHALL BE AT THE CONTRACTOR'S OWN RISK AND, FURTHER, CONTRACTOR SHALL INDEMNIFY, DEFEND AND HOLD HARMLESS THE DESIGN ENGINEER FOR ANY DAMAGES, COSTS, INJURIES, ATTORNEY'S FEES AND THE LIKE WHICH RESULT FROM SAME.
18. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF .075% GUTTER GRADE ALONG CURB FACE. IT SHALL BE THE CONTRACTOR'S OBLIGATION TO ENSURE THAT DESIGN ENGINEER APPROVES FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION OF SAME.
19. REFER TO THIS SHEET FOR ADDITIONAL NOTES.
20. IN THE EVENT OF DISCREPANCIES AND/OR CONFLICTS BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN SHALL TAKE PRECEDENCE AND CONTROL. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER, IN WRITING, OF ANY DISCREPANCIES AND/OR CONFLICTS.
21. CONTRACTOR SHALL BE REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR SHALL SUPPLY A COPY OF APPROVALS TO ENGINEER AND OWNER PRIOR TO INITIATING ANY WORK.
22. WHERE RETAINING WALLS (WHETHER OR NOT THEY MEET THE JURISDICTIONAL DEFINITION) ARE IDENTIFIED ON PLANS, ELEVATIONS IDENTIFIED ARE FOR THE EXPOSED PORTION OF THE WALL. WALL FOOTINGS/FOUNDATION ELEVATIONS ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR BASED ON FINAL STRUCTURAL DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS.
23. STORM DRAINAGE PIPE: UNLESS INDICATED OTHERWISE, ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE PIPE (RCP) CLASS III WITH SILT TIGHT JOINTS. WHEN HIGH-DENSITY POLYETHYLENE PIPE (HDPE) IS CALLED FOR ON THE PLANS, IT SHALL CONFORM TO AASHTO M294 AND TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR SILT TIGHT JOINT. PVC PIPE FOR ROOF DRAIN CONNECTION SHALL BE SDR 26 OR SCHEDULE 40 UNLESS INDICATED OTHERWISE.
24. UNLESS INDICATED OTHERWISE ON THE DRAWINGS, SANITARY SEWER PIPE SHALL BE AS FOLLOWS: FOR PIPES LESS THAN 12 FT. DEEP: POLYVINYL CHLORIDE (PVC) SDR 35 PER ASTM D3034, FOR PIPES MORE THAN 12 FT. DEEP: POLYVINYL CHLORIDE (PVC) SDR 26 PER ASTM D3034, FOR PIPE WITHIN 10 FT. OF BUILDING, PIPE MATERIAL SHALL COMPLY WITH APPLICABLE BUILDING AND PLUMBING CODES. CONTRACTOR TO VERIFY WITH LOCAL OFFICIALS.
25. STORM AND SANITARY SEWER PIPE LENGTHS INDICATED ARE NOMINAL AND MEASURED CENTER OF INLET AND/OR MANHOLES STRUCTURE TO CENTER OF STRUCTURE.
26. STORMWATER ROOF DRAIN LOCATIONS ARE BASED ON PRELIMINARY ARCHITECTURAL PLANS. CONTRACTOR SHALLBE RESPONSIBLE TO AND FOR VERIFYING LOCATIONS OF SAME BASED ON FINAL ARCHITECTURAL PLANS.
27. SEWERS CROSSING STREAMS AND/OR LOCATION WITHIN 10 FEET OF THE STREAM EMBANKMENT, OR WHERE SITE CONDITIONS SO INDICATE, SHALL BE CONSTRUCTED OF STEEL, REINFORCED CONCRETE, DUCTILE IRON OR OTHER SUITABLE MATERIAL. SEWERS CONVEYING SANITARY FLOW COMBINED SANITARY AND STORMWATER FLOW OR INDUSTRIAL FLOW SHALL BE SEPARATED FROM WATER MAINS BY A DISTANCE OF AT LEAST 10 FEET HORIZONTALLY. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, THE PIPES SHALL BE IN SEPARATE TRENCHES WITH THE SEWER AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN, OR SUCH OTHER SEPARATION AS APPROVED BY THE GOVERNMENT AGENCY WITH JURISDICTION OVER SAME.WHERE APPROPRIATE SEPARATION FROM A WATER MAIN IS NOT POSSIBLE, THE SEWER SHALL BE ENCASED IN CONCRETE, OR CONSTRUCTED OF DUCTILE IRON PIPE USING MECHANICAL OR SLIP-ON JOINTS FOR A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHALL BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER SHALL BE PROVIDED.
28. WATER MAIN PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL WATER COMPANY. IN THE ABSENCE OF SUCH REQUIREMENTS, WATER MAIN PIPING SHALL BE CEMENT-LINED DUCTILE IRON (DIP) MINIMUM CLASS 52 THICKNESS. ALL PIPE AND APPURTENANCES SHALL COMPLY WITH THE APPLICABLE AWWA STANDARDS IN EFFECT AT THE TIME OF APPLICATION.
29. CONTRACTOR SHALL ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS AND PARKING LOTS INCLUDING WATER AND ELECTRICAL CONDUITS, SHALL BE REPAIRED IN ACCORDANCE WITH REFERENCED MUNICIPAL, COUNTY AND/OR DOT DETAILS AS APPLICABLE. CONTRACTOR SHALL COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY WITH JURISDICTION OVER SAME.
30. LOCATION OF PROPOSED UTILITY POLE RELOCATION IS AT THE SOLE DISCRETION OF UTILITY COMPANY.
31. CONSULTANT IS NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, SHALL HAVE NO LIABILITY FOR ANY HAZARDOUS MATERIALS, HAZARDOUS SUBSTANCES, OR POLLUTANTS ON, ABOUT OR UNDER THE PROPERTY.

ADA INSTRUCTIONS TO CONTRACTOR:

CONTRACTORS SHALL EXERCISE APPROPRIATE CARE AND PRECISION IN CONSTRUCTION OF ADA (ACCESSIBLE) ACCESSIBLE COMPONENTS AND ACCESS ROUTES FOR THE SITE. THESE COMPONENTS, AS CONSTRUCTED, SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL ACCESSIBILITY LAWS AND REGULATIONS AND THE CURRENT ADA AND/OR STATE ARCHITECTURAL ACCESS BOARD STANDARDS AND REGULATIONS' BARRIER FREE ACCESS AND ANY MODIFICATIONS, REVISIONS OR UPDATES TO SAME. FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE OF TRAVEL FROM PARKING SPACE, PUBLIC TRANSPORTATION, PEDESTRIAN ACCESS, INTER-BUILDING ACCESS, TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EXIT, SHALL COMPLY WITH THESE ADA AND/OR ARCHITECTURAL ACCESS BOARD CODE REQUIREMENTS. THESE INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

- PARKING SPACES AND PARKING AISLES - SLOPE SHALL NOT EXCEED 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) IN ANY DIRECTION.
- CURB RAMPS - SLOPE SHALL NOT EXCEED 1:12 (8.3%) FOR A MAXIMUM OF SIX (6) FEET.
- LANDINGS - SHALL BE PROVIDED AT EACH END OF RAMPS, SHALL PROVIDE POSITIVE DRAINAGE, AND SHALL NOT EXCEED 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) IN ANY DIRECTION.
- PATH OF TRAVEL ALONG ACCESSIBLE ROUTE - SHALL PROVIDE A 36-INCH OR GREATER UNOBSTRUCTED WIDTH OF TRAVEL (CAR OVERHANGS AND/OR HANDRAILS CANNOT REDUCE THIS MINIMUM WIDTH). THE SLOPE SHALL BE NO GREATER THAN 1:20 (5.0%) IN THE DIRECTION OF TRAVEL, AND SHALL NOT EXCEED 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) IN CROSS SLOPE. WHERE PATH OF TRAVEL WILL BE GREATER THAN 1:20 (5.0%), ADA RAMP SHALL BE ADHERED TO. A MAXIMUM SLOPE OF 1:12 (8.3%), FOR A MAXIMUM RISE OF 2.5 FEET, SHALL BE PROVIDED. THE RAMP SHALL HAVE ADA HAND RAILS AND "LEVEL" LANDINGS ON EACH END THAT ARE CROSS SLOPED NO MORE THAN 1:50 IN ANY DIRECTION (1/4" PER FOOT OR NOMINALLY 2.0%) FOR POSITIVE DRAINAGE.
- DOORWAYS - SHALL HAVE A "LEVEL" LANDING AREA ON THE EXTERIOR SIDE OF THE DOOR THAT IS SLOPED AWAY FROM THE DOOR NO MORE THAN 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) FOR POSITIVE DRAINAGE. THIS LANDING AREA SHALL BE NO LESS THAN 60 INCHES (5 FEET) LONG, EXCEPT WHERE OTHERWISE PERMITTED BY ADA STANDARDS FOR ALTERNATIVE DOORWAY OPENING CONDITIONS. (SEE ICC/ANSI A117.1-2003 AND OTHER REFERENCED INCORPORATED BY CODE.)
- WHEN THE PROPOSED CONSTRUCTION INVOLVES RECONSTRUCTION, MODIFICATION, REVISION OR EXTENSION OF OR TO ADA COMPONENTS FROM EXISTING DOORWAYS OR SURFACES, CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS SHOWN ON THE PLAN. NOTE THAT TABLE 405.2 OF THE DEPARTMENT OF JUSTICE'S ADA STANDARDS FOR ACCESSIBLE DESIGN ALLOWS FOR STEEPER RAMP SLOPES, IN RARE CIRCUMSTANCES. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES AND/OR FIELD CONDITIONS THAT DIFFER IN ANY WAY OR ANY RESPECT FROM WHAT IS SHOWN ON THE PLANS, IN WRITING, BEFORE COMMENCEMENT OF WORK. CONSTRUCTED IMPROVEMENTS SHALL FALL WITHIN THE MAXIMUM AND MINIMUM LIMITATIONS IMPOSED BY THE BARRIER FREE REGULATIONS AND THE ADA REQUIREMENTS.
- THE CONTRACTOR SHALL VERIFY THE SLOPES OF CONTRACTOR'S FORMS PRIOR TO POURING CONCRETE. IF ANY NON-CONFORMANCE IS OBSERVED OR EXISTS, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER PRIOR TO POURING CONCRETE. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS TO REMOVE, REPAIR AND REPLACE NON-CONFORMING CONCRETE.

IT IS STRONGLY RECOMMENDED THAT THE CONTRACTOR REVIEW THE INTENDED CONSTRUCTION WITH THE LOCAL BUILDING CODE PRIOR TO COMMENCEMENT OF CONSTRUCTION.

LEGEND

GENERAL

— · · —	PROPERTY LINE
——— – – ———	EASEMENT
——— – – ———	INTERNAL LOT LINE
━━ · · ━━	WETLAND LINE
BLSF	BORDERING LAND SUBJECT TO FLOODING
200' RA	200' RIVERFRONT AREA
100' RA	100' RIVERFRONT AREA
————	100' WETLAND BUFFER ZONE
▬ ▬ ▬ ▬	LIMIT OF DISTURBANCE
⌖ #1	BORING LOCATION
	MONITORING WELL
TP #	TEST PIT LOCATION
△ WF#5	WETLAND FLAG

SITE

— — — —	BUILDING SETBACK
- - - - - -	SAWCUT LINE
CC/AC	CONC. CURB/ASPHALT CURB
MCC	MONOLITHIC CONC. CURB
SGC	SLOPED GRANITE CURB
VGC	VERTICAL GRANITE CURB
TC	TRANSITION CURB
CCB	CAPE COD BERM
EOP	EDGE OF PAVEMENT
▲ ENT/EXT	BUILDING ENTRANCE
●	STANDARD STALL COUNT
50	TOTAL PARKING COUNT
♿	ACCESSIBLE PARKING
♿ VAN	VAN ACCESSIBLE PARKING
STOP	STOP BAR
↑	PAVEMENT MARKING ARROW
	TRAFFIC SIGN
•	BOLLARD
	PEDESTRIAN LIGHT POLE
	PARKING LOT LIGHT POLE
	UTILITY POLE
—— OH —— OH ——	OVERHEAD WIRE

EROSION CONTROL

—— SF —— SF ——	EROSION CONTROL BARRIER
	STABILIZED CONSTRUCTION EXIT
⊞	INLET PROTECTION

GRADING

53.52 TC=54.32 BC=53.82	SPOT SHOT
—— 50 ——	PROP. CONTOUR
5%	SLOPE
RIDGE	RIDGE LINE

UTILITIES

—— G —— G ——	GAS LINE
—— T —— T ——	TELEPHONE CONDUIT
—— E —— E ——	ELEC. CONDUIT
—— W —— W ——	WATER LINE
▬ ▭ ▬ ▭ ▬	DRAINAGE LINE
—— S —— S ——	SEWER LINE
	TAPPING TEE
	BEND W/ THRUSTBLOCK
⋈	GATE VALVE
HYD	HYDRANT
▣	SQUARE CATCH BASIN
	ROUND CATCH BASIN
	CURB INLET
Ⓓ	DRAIN MANHOLE
Ⓢ	SEWER MANHOLE
	TRENCH DRAIN
○ C/O	CLEAN OUT
○	AREA DRAIN
	DOUBLE GRATE CATCH BASIN

ABBREVIATIONS

BC	BOTTOM CURB	PROP.	PROPOSED
TC	TOP CURB	TBR/R	TO BE REMOVED AND REPLACED
BOC	BACK OF CURB	TBR	TO BE REMOVED
BW	BOTTOM OF WALL GRADE	TPF	TREE PROTECTION FENCE
TW	TOP OF WALL	BLDG.	BUILDING
EXIST.	EXISTING	SF	SQUARE FEET
BM.	BENCHMARK	SMH	SEWER MANHOLE
EOP	EDGE OF PAVEMENT	DMH	DRAIN MANHOLE
℄	CENTERLINE	STM.	STORM
FF	FINISHED FLOOR	SAN.	SANITARY
V.I.F.	VERIFY IN FIELD	CONC.	CONCRETE
GC	GENERAL CONTRACTOR	ARCH.	ARCHITECTURAL
HP	HIGH POINT	DEP.	DEPRESSED
LP	LOW POINT	R	RADIUS
TYP.	TYPICAL	MIN.	MINIMUM
INT.	INTERSECTION	MAX.	MAXIMUM
PC.	POINT OF CURVATURE	No. / #	NUMBER
PT.	POINT OF TANGENCY	W.	WIDE
PI.	POINT OF INTERSECTION	DEC.	DECORATIVE
PVI.	POINT OF VERTICAL INTERSECTION	ELEV.	ELEVATION
STA.	STATION	UNG.	UNDERGROUND
GRT	GRATE	R.O.W.	RIGHT OF WAY
INV.	INVERT	LF	LINEAR FOOT
DIP	DUCTILE IRON PIPE	LOD	LIMIT OF DISTURBANCE
PVC	POLYVINYL CHLORIDE PIPE	LOW	LIMIT OF WORK
HDPE	HIGH DENSITY POLYETHYLENE PIPE	L.S.A.	LANDSCAPED AREA
RCP	REINFORCED CONCRETE PIPE	±	PLUS OR MINUS
S	SLOPE	°	DEGREE
ME	MEET EXISTING	Ø / DIA.	DIAMETER

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ANTHONY E. FARMAND
NUMBER PE-2012000032
11 March 2022
Expiration 31 Dec 2022

PRELIMINARY

REVISIONS

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DRAWN BY: EO
REVIEWED BY: KS
ISSUE DATE 03/08/2022
SCALE: AS SHOWN
PROJECT #: 4121000090

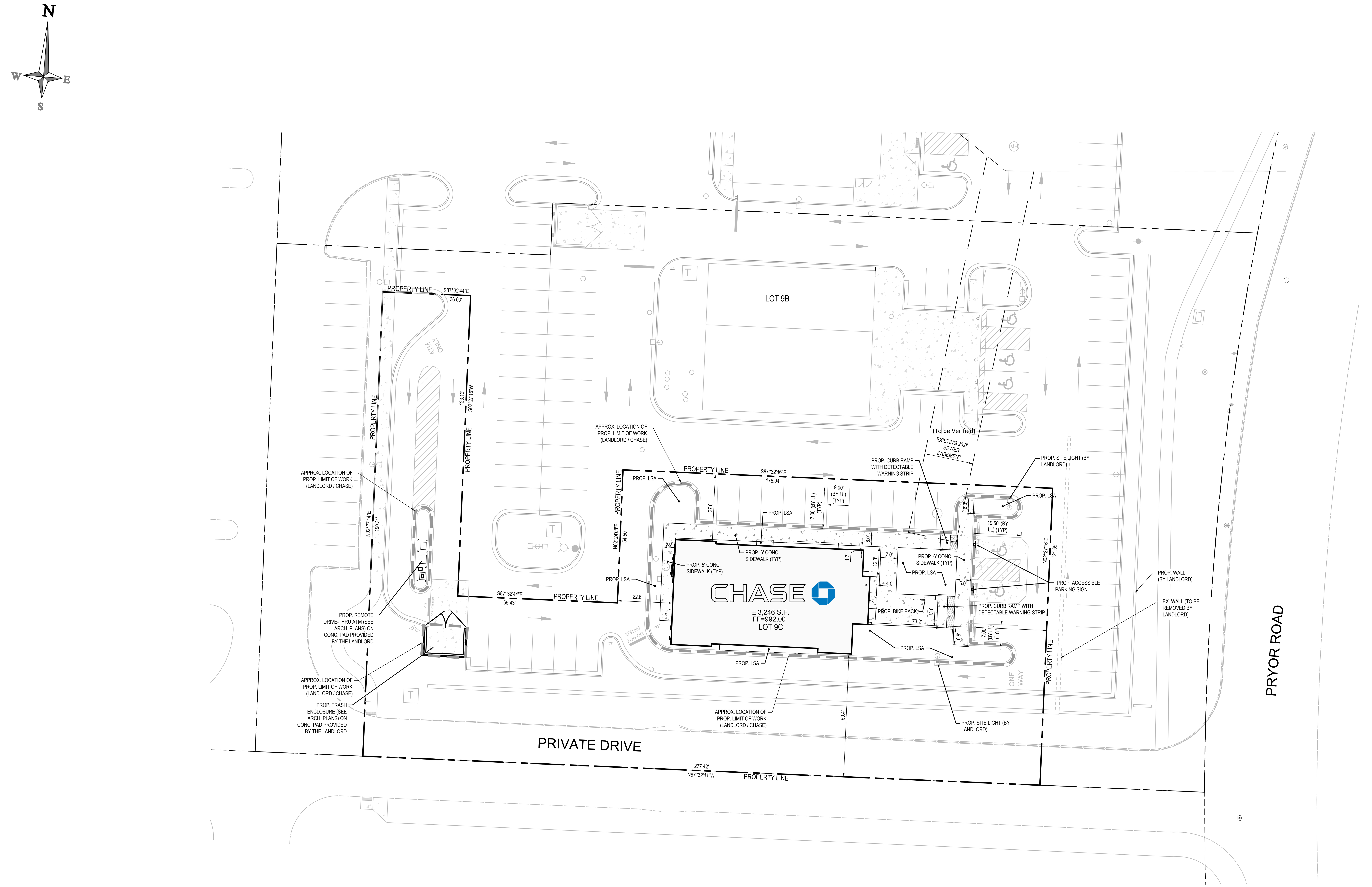
PROJECT TITLE:
SITE DEVELOPMENT PLANS

SHEET TITLE:
GENERAL NOTES & LEGEND SHEET

SITE ADDRESS
900 NW PRYOR RD
LEE'S SUMMIT, MO 64081

SHEET NO.
C-2

Drawing: C:\USERS\SMOORE\APPDATA\LOCAL\TEMP\ACPUBLISH_22336\UNSAVED DRAWING2.DWG Layout Tab: 02-NOTES, Date: 03/11/2022 Time: 12:58:44 PM,Plotted by: SMOORE



ALL WORK BEYOND THE LIMITS OF WORK SHOWN ARE TO BE DESIGNED AND CONSTRUCTED BY THE LANDLORD

REFER TO GENERAL NOTES & LEGEND SHEET FOR NOTES & SPECIFICATIONS

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY

20 10 5 0 20
1"= 20'

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STATE OF MISSOURI
ANTHONY E. FARMAND
NUMBER PE-2012000032
PROFESSIONAL ENGINEER
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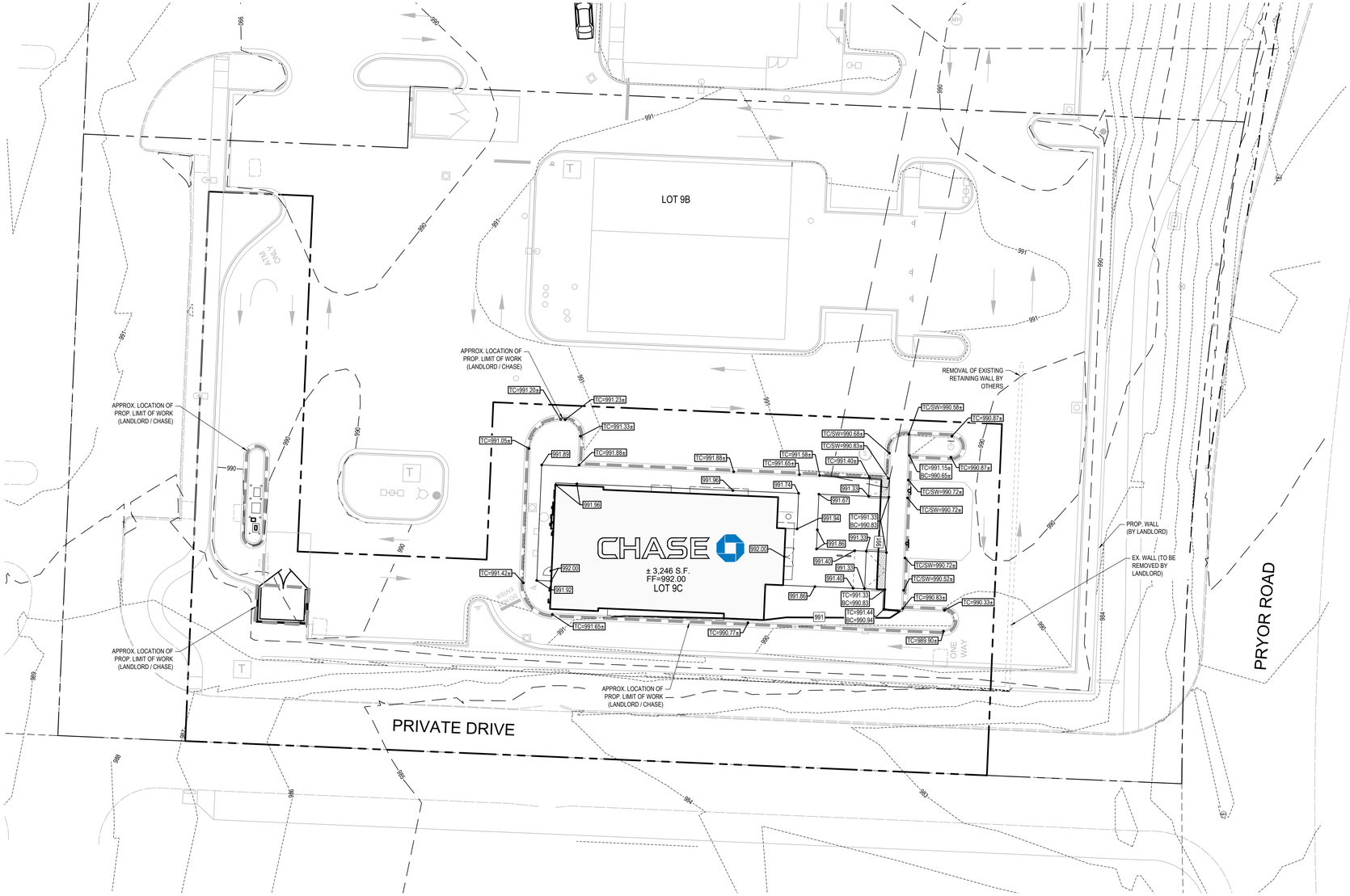
REVIEWED BY: KS
ISSUE DATE: 03/08/2022
SCALE: AS SHOWN
PROJECT #: 4121000090

PROJECT TITLE: SITE DEVELOPMENT PLANS
SHEET TITLE: SITE PLAN
SITE ADDRESS: 900 NW PRYOR RD LEE'S SUMMIT, MO 64081

SHEET NO. C-3



ALL WORK BEYOND THE LIMITS OF WORK SHOWN ARE TO BE DESIGNED AND CONSTRUCTED BY THE LANDLORD

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY

REFER TO GENERAL NOTES & LEGEND SHEET FOR GRADING & UTILITY NOTES

BENCHMARKS:

#1 CHISELED "SQUARE" ON TOP OF CURB POINT OF INTERSECTION OF WEST PARK PARKING LOT AT EAST DRIVE ENTRANCE
ELEVATION 985.05

#2 CHISELED "SQUARE" ON NORTHWEST CORNER AREA INLET, 25' EAST OF CURB LINE AND ON-LINE WITH SOUTH CURB OF LOWENSTEIN DRIVE AT 90° BEND IN ROAD
ELEVATION 971.06

20 10 5 0 20
1"= 20'

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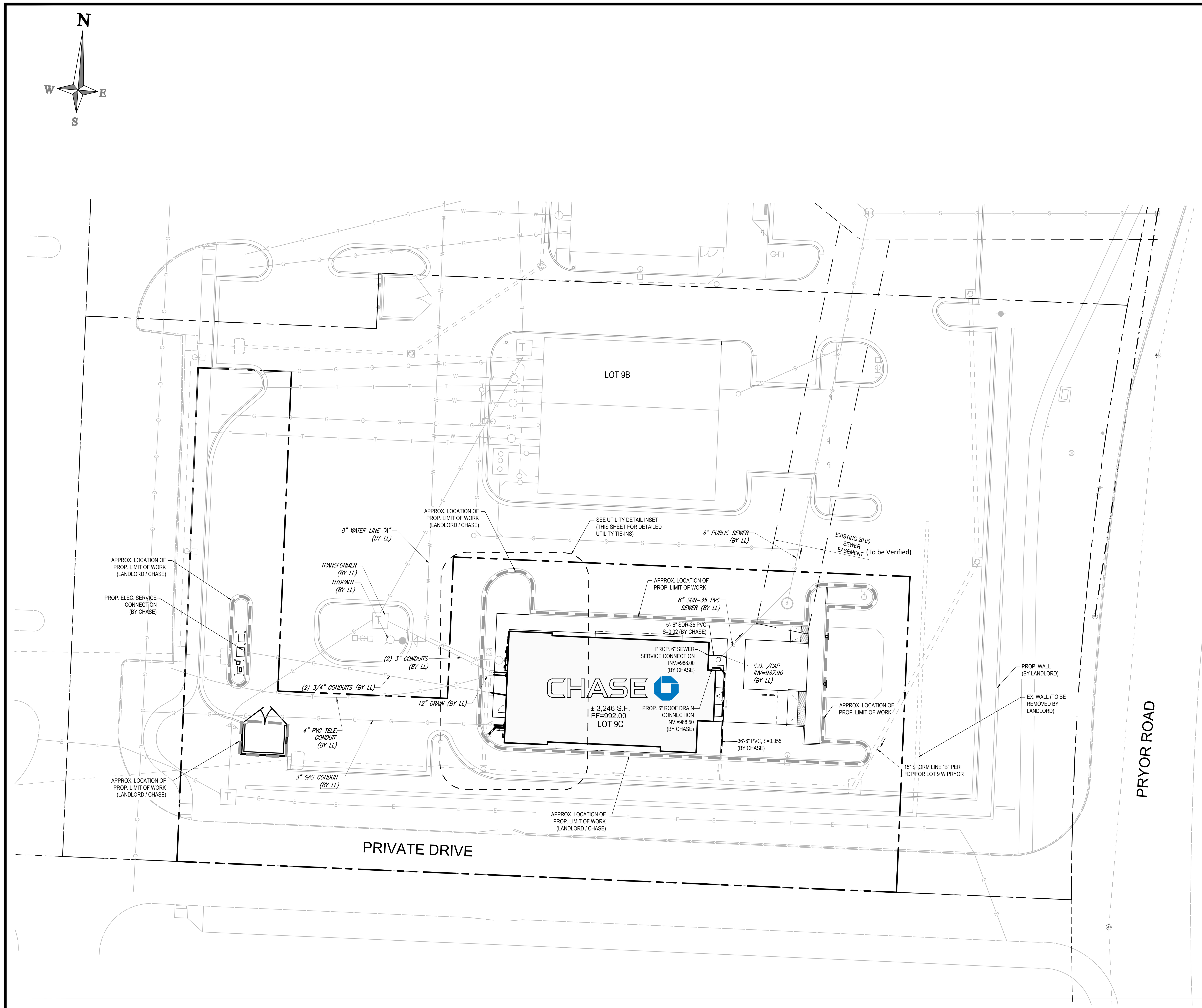
EO	KS	03/08/2022	AS SHOWN	4121000090

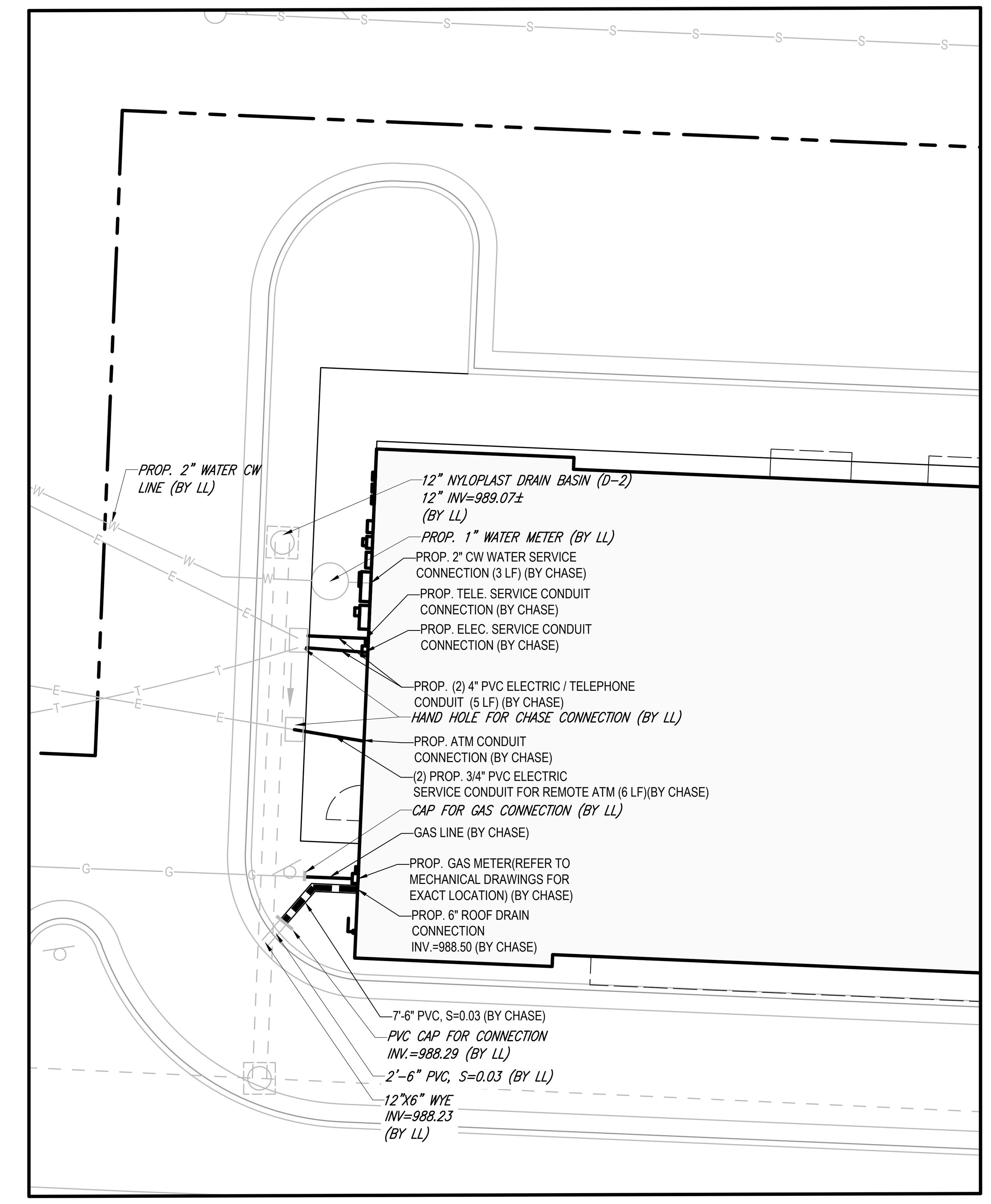
PROJECT TITLE:
SITE DEVELOPMENT PLANS

SHEET TITLE:
GRADING PLAN

SITE ADDRESS:
900 NW PRYOR RD
LEE'S SUMMIT, MO 64081

C-4
SHEET NO.





UTILITY DETAIL INSET
SCALE: 1"=10'

ALL WORK BEYOND THE LIMITS OF WORK SHOWN ARE TO BE DESIGNED AND CONSTRUCTED BY THE LANDLORD

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11 March 2022
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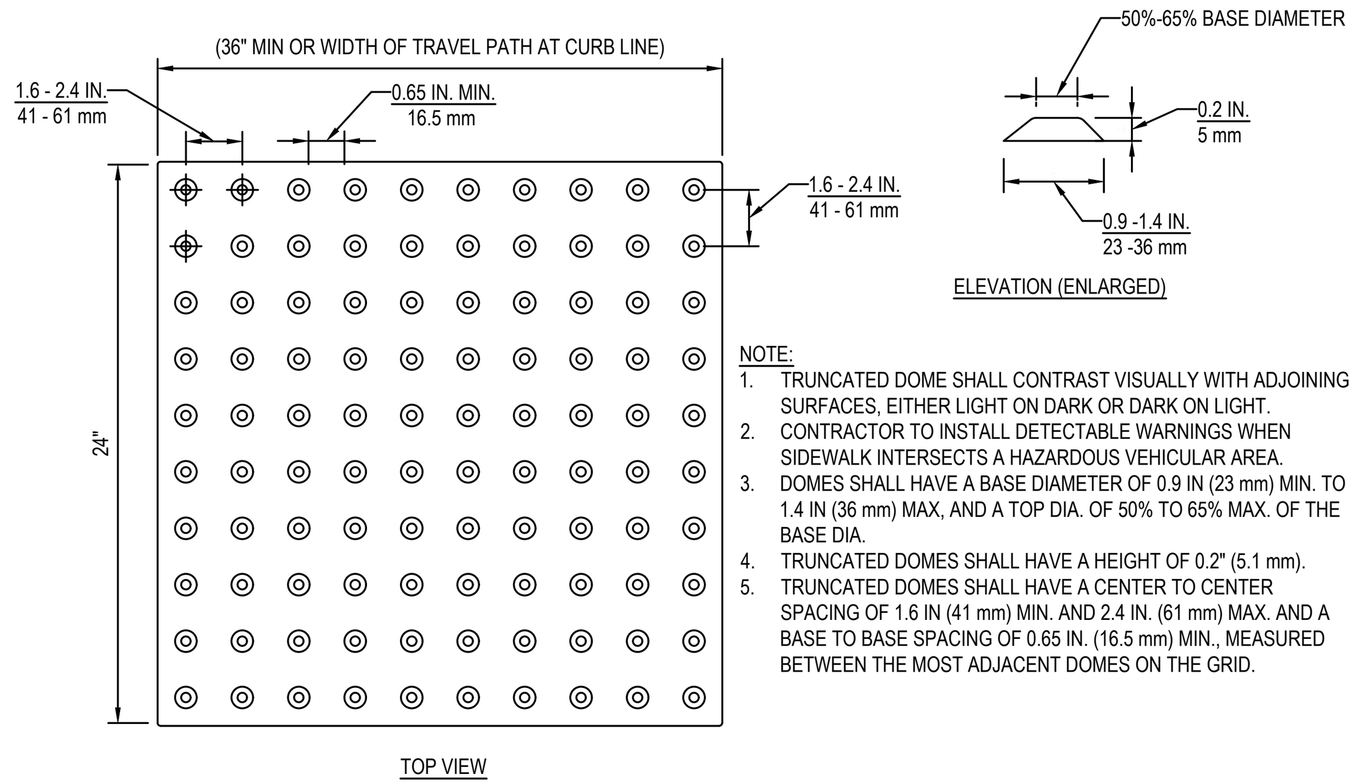
REVIEWED BY: KS
ISSUE DATE: 03/08/2022
SCALE: AS SHOWN
PROJECT #: 412100090

PROJECT TITLE: SITE DEVELOPMENT PLANS
SHEET TITLE: UTILITY & DRAINAGE PLAN
SITE ADDRESS: 900 NW PRYOR RD LEE'S SUMMIT, MO 64081

C-5
SHEET NO.

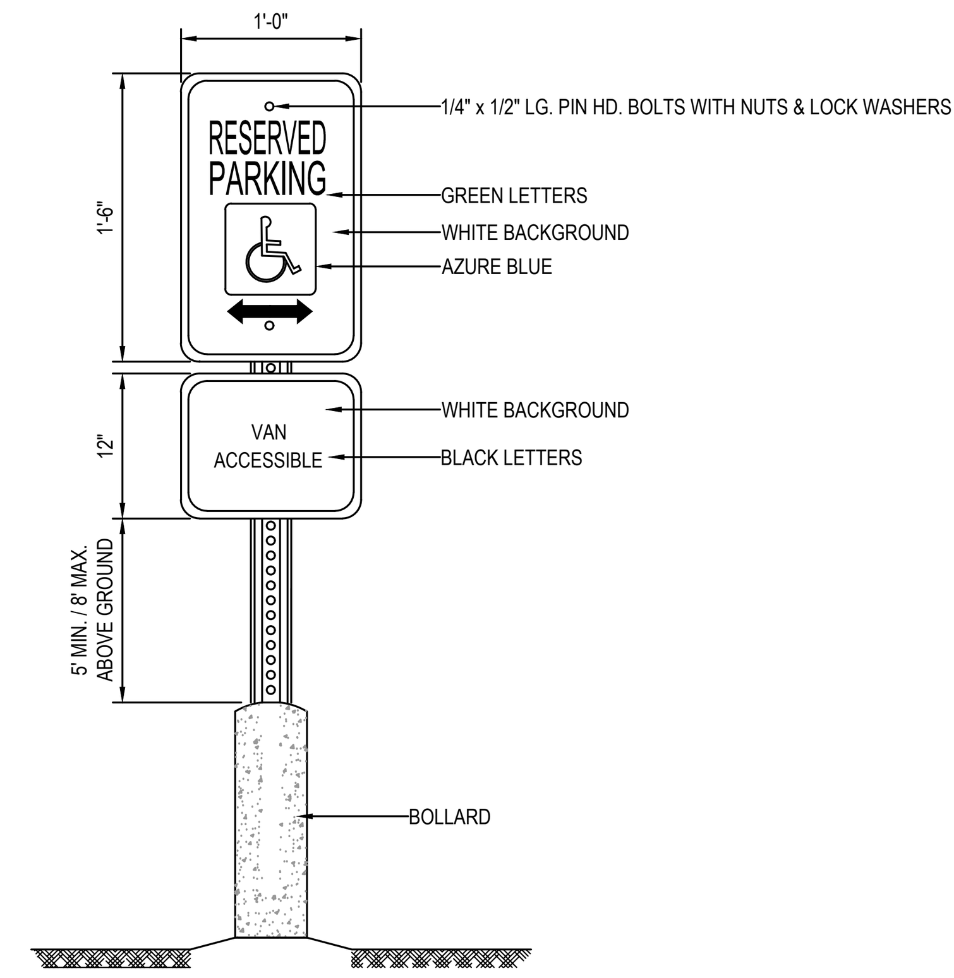


NOTE:
1. TRUNCATED DOME SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT ON DARK OR DARK ON LIGHT.
2. CONTRACTOR TO INSTALL DETECTABLE WARNINGS WHEN SIDEWALK INTERSECTS A HAZARDOUS VEHICULAR AREA.
3. DOMES SHALL HAVE A BASE DIAMETER OF 0.9 IN (23 mm) MIN. TO 1.4 IN (36 mm) MAX, AND A TOP DIA. OF 50% TO 65% MAX. OF THE BASE DIA.
4. TRUNCATED DOMES SHALL HAVE A HEIGHT OF 0.2" (5.1 mm).
5. TRUNCATED DOMES SHALL HAVE A CENTER TO CENTER SPACING OF 1.6 IN (41 mm) MIN. AND 2.4 IN. (61 mm) MAX. AND A BASE TO BASE SPACING OF 0.65 IN. (16.5 mm) MIN., MEASURED BETWEEN THE MOST ADJACENT DOMES ON THE GRID.

NOTE TO DESIGNER:
IF A WALK CROSSES OR ADJOINS A VEHICULAR WAY WHERE THE WALKING SURFACE AND PAVEMENT ARE NOT SEPARATED BY CURBS, RAILING OR OTHER ELEMENTS, THE BOUNDARY BETWEEN THE AREA SHALL BE DEFINED BY A CONTINUOUS DETECTABLE WARNING WHICH IS MIN. 36" WIDE (ADA ACCESSIBLE GUIDELINES PRINTED 11-4-06) AND MIN. 24" DEPTH.

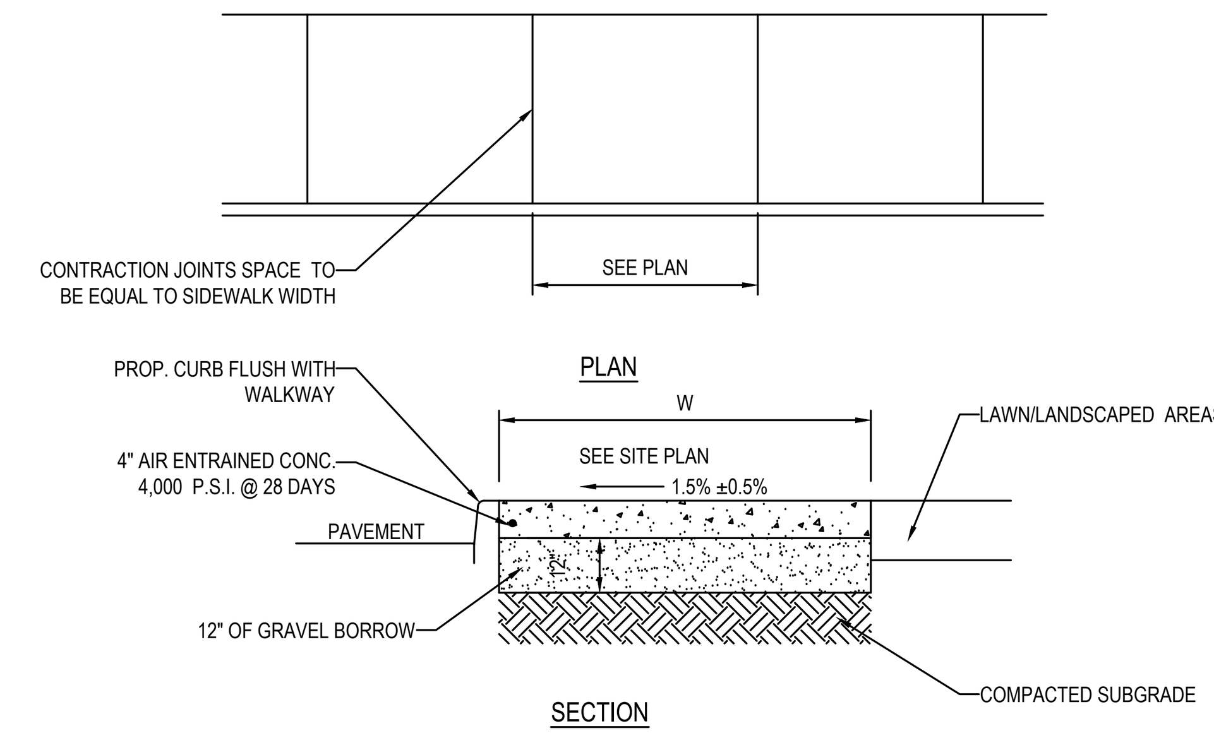
TRUNCATED DOME PATTERN

N.T.S.



ACCESSIBLE PARKING SIGN DETAIL

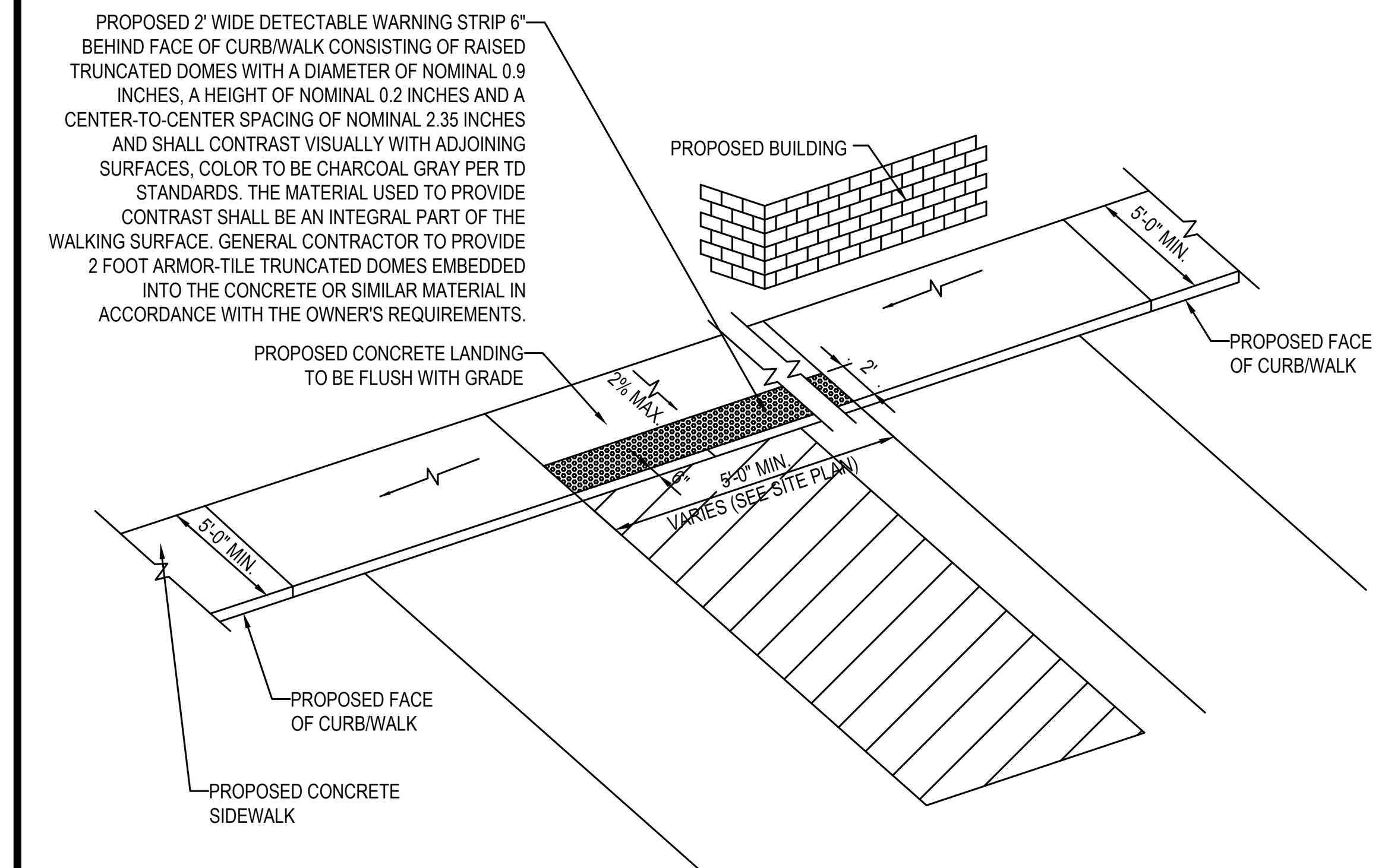
N.T.S.



NOTE:
1. PROVIDE 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT AT 20' O.C.
2. ALL JOINTS SEALED PER SPECIFICATIONS.

SIDEWALK DETAIL

N.T.S.

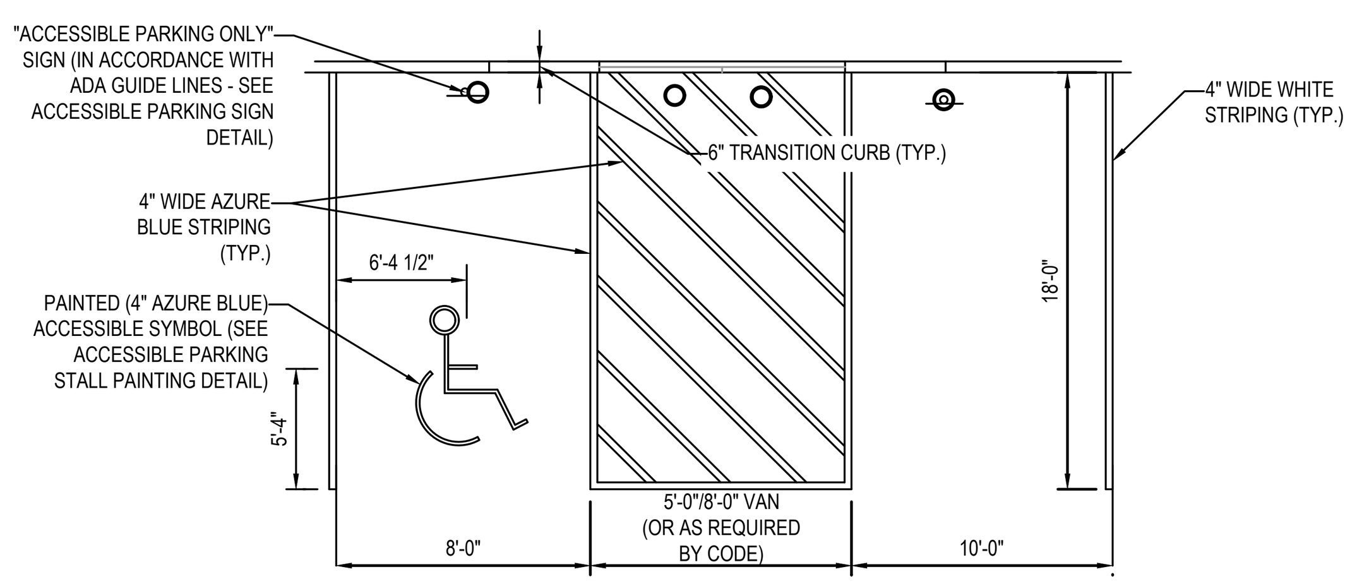


(FOR SIDEWALK SLOPES LESS THAN 1:20 (5.0%) MAX.)

NOTE: SLOPES OF ACCESSIBLE PARKING SPACES AND PARKING ACCESS AISLES SHALL NOT EXCEED 1:50 (2.0%) MAX. IN ANY DIRECTION.

SLOPED WALK DETAIL

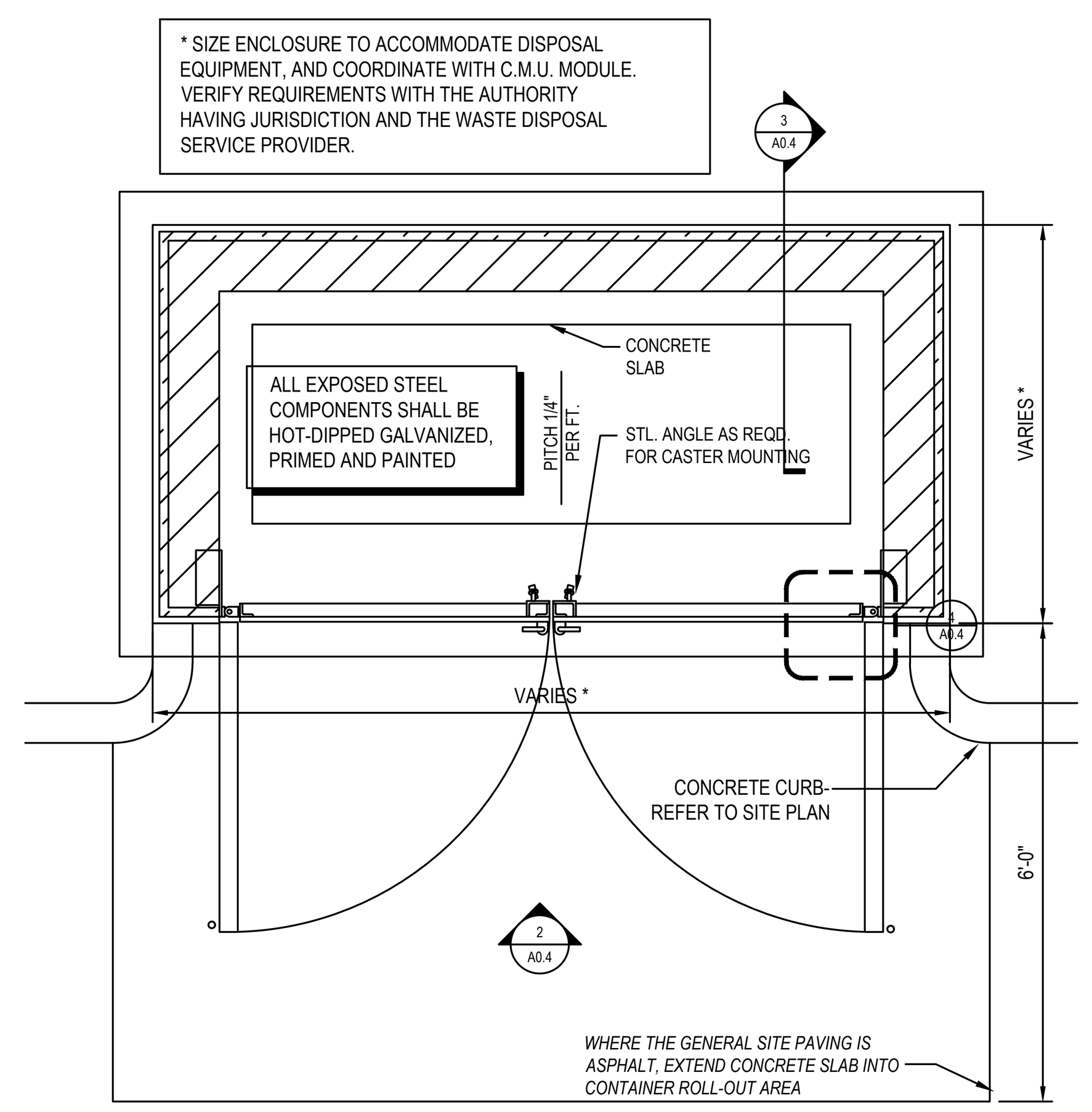
N.T.S.



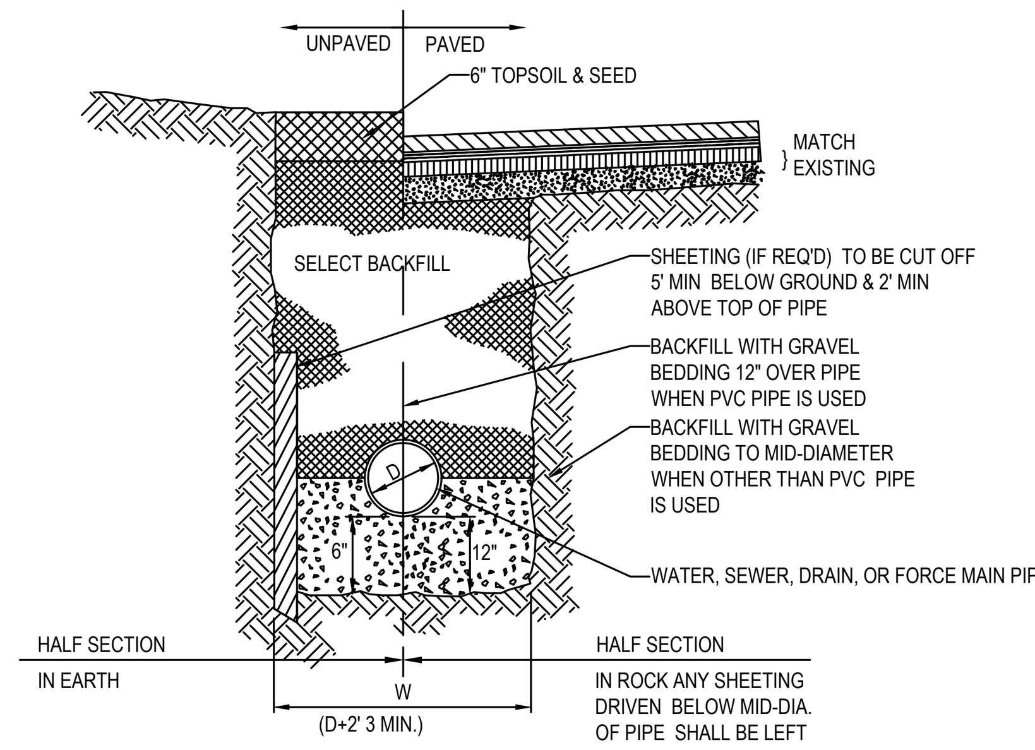
NOTE: ALL PAVEMENT STRIPING AND MARKINGS SHALL CONSIST OF CHLORINATED RUBBER PAINT APPLIED TO A DRY SURFACE WHEN THE TEMPERATURE IS GREATER THAN 40°F. PAINT SHALL BE APPLIED AT A MINIMUM OF 0.015" (15 MIL) FILM THICKNESS

ACCESSIBLE STALL MARKINGS & PARKING LOT STRIPING DETAIL

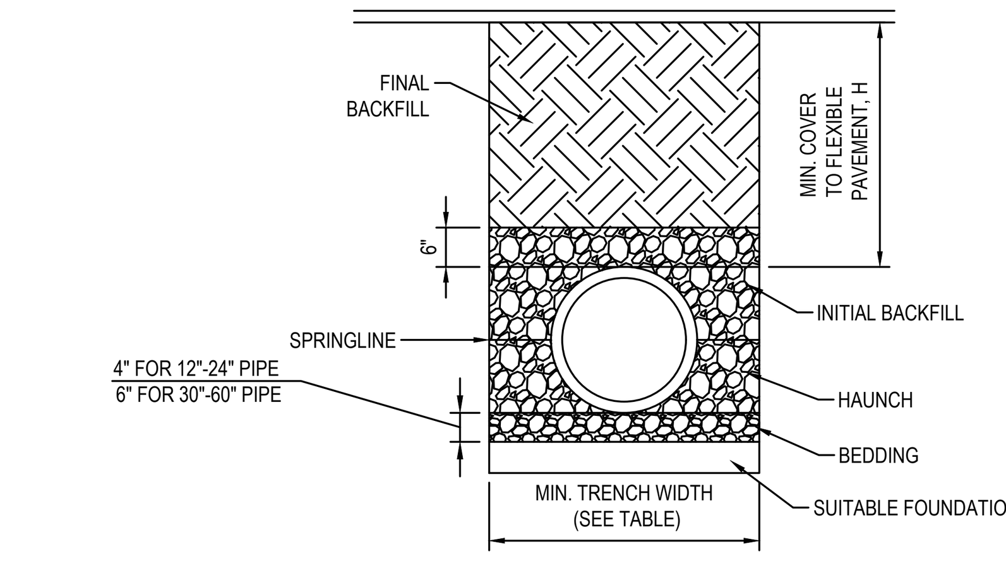
N.T.S.



TRASH ENCLOSURE



TYPICAL UTILITY TRENCH



RECOMMENDED MIN. TRENCH WIDTH	
PIPE DIA.	MIN. TRENCH WIDTH
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
48"	80"
60"	96"

NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321 , "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION.

2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.

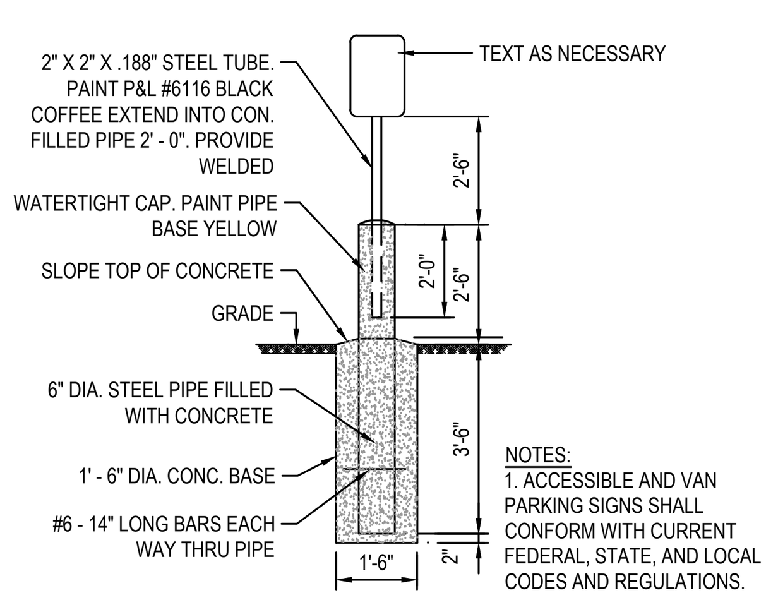
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.

4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (7S0mm-900mm).

5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

HDPE STORM DRAINAGE TRENCH



NOTES:
1. ACCESSIBLE AND VAN PARKING SIGNS SHALL CONFORM WITH CURRENT FEDERAL, STATE, AND LOCAL CODES AND REGULATIONS.

SIGN BOLLARD DETAIL

N.T.S.

PREPARED BY:
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STATE OF MISSOURI
ANTHONY E. FARMAND
NUMBER PE-2012000032
PROFESSIONAL ENGINEER
11 March 2022
Expiration 31 Dec 2022

PRELIMINARY

NO.	DESCRIPTION	DATE	INIT

REVISIONS

Know what's below. Call before you dig.

PREPARED FOR: CHASE

DRAWING SCALES NOTED ARE FOR 24" x 36" SIZE PRINTED MEDIA ONLY. ALL OTHER PRINTED SIZES ARE DEEMED "NOT TO SCALE".

DRAWN BY: EO
REVIEWED BY: KS
ISSUE DATE 03/08/2022
SCALE: AS SHOWN
PROJECT #: 4121000090

PROJECT TITLE: SITE DEVELOPMENT PLANS
SHEET TITLE: DETAIL SHEET
SITE ADDRESS 900 NW PRYOR RD LEE'S SUMMIT, MO 64081

SHEET NO. C-6