

DELTA COLLEGE

PLANETARIUM ENTRY DOOR REPLACEMENT

100 CENTER AVENUE
BAY CITY, MI 48708

SHEET INDEX		1-03-25 ISSUED FOR BIDS
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A4.0	EXTERIOR ELEVATION, BUILDING SECTIONS & STRUCTURAL NOTES	X
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CONTACT INFORMATION	
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	KEITH BENNETT BUILDING OFFICIAL
	Know what's below. Call before you dig.

PROJECT INFORMATION	
BUILDING CODE COMPLIANCE	FIRE PROTECTION SYSTEMS [CHAPTER 9]
<ul style="list-style-type: none"> 2015 MICHIGAN REHABILITATION CODE (MRC) 2015 MICHIGAN BUILDING CODE (MBC) 2021 MICHIGAN PLUMBING CODE (MPC) 2021 MICHIGAN MECHANICAL CODE (MMC) 2023 NATIONAL ELECTRICAL CODE (NEC) 2015 INTERNATIONAL FIRE CODE (IFC) 2012 NFPA 101 LIFE SAFETY CODE (LSC) 	<ul style="list-style-type: none"> BUILDING IS PROTECTED BY AUTOMATIC SPRINKLER SYSTEM.
USE AND OCCUPANCY CLASSIFICATION [CHAPTER 3]	PORTABLE FIRE EXTINGUISHERS [SEC 906]
<ul style="list-style-type: none"> GROUP A1 - ASSEMBLY (PLANETARIUM) 	<ul style="list-style-type: none"> CLASS A, 75' - TYPE 2A EXTINGUISHERS SEE ALSO IFC SECTION 2311.6
BUILDING HEIGHT AND NUMBER OF STORIES [TBL 504.3, 504.4]	OCCUPANT LOAD [SEC 1004, TBL 1004.1.2]
<ul style="list-style-type: none"> ALLOWED - 75' (2) STORIES PROPOSED (EXISTING) / (2) STORIES PLANETARIUM DOME - 45'-6" ELEVATOR TOWER - 59'-6" 	<ul style="list-style-type: none"> EXISTING - NO CHANGE
BUILDING AREA [TBL 505.2]	MEANS OF EGRESS SIZING [SEC 1005]
<ul style="list-style-type: none"> ALLOWABLE TOTAL AREA - 55,250 SF (EQUATION 5-2) ACTUAL AREAS (BY FLOOR) 4,492 SFT - BASEMENT 18,384 SFT - FIRST FLOOR 8,971 SFT - SECOND FLOOR 	<ul style="list-style-type: none"> OCCUPANT LOAD 250 X .15 = 37.5' MIN WIDTH REQUIRED EXIT DOORS @ 33'DR = 2 DOORS PROVIDED - 6
CONSTRUCTION CLASSIFICATION [SEC 602, TBL 601]	NUMBER OF EXITS AND EXIT ACCESS DOORWAYS [SEC 1006]
<ul style="list-style-type: none"> TYPE 2B - NON-COMBUSTIBLE 	<ul style="list-style-type: none"> REQUIRED (2) OCCUPANT LOAD > 1 TO 500
FIRE RESISTANCE RATING [TBL 601]	EXIT ACCESS TRAVEL DISTANCE [SEC 1017, TBL 1017.2]
<ul style="list-style-type: none"> 0 - PRIMARY STRUCTURAL FRAME 0 - BEARING WALLS 0 - NON BEARING WALLS & PARTITIONS (INTERIOR) 0 - NON BEARING WALLS & PARTITIONS (EXTERIOR) 0 - FLOOR CONSTRUCTION 0 - ROOF CONSTRUCTION 	<ul style="list-style-type: none"> USE GROUP A W/ SPRINKLER SYSTEM 250'
EXTERIOR WALLS [SECTION 705]	CORRIDORS [SEC 1020, TBL 1020.1]
<ul style="list-style-type: none"> NON-COMBUSTIBLE, TYPE 2B CONSTRUCTION 	<ul style="list-style-type: none"> 0HR RATING W/ SPRINKLER SYSTEM OCCUPANT LOAD > 30
WALLS AND CEILING FINISHES [SEC 803, TBL 803.11]	PROJECT NARRATIVE
<ul style="list-style-type: none"> FLAME SPREAD INDEX - CLASS A(0-25), CLASS B(26-75), CLASS C(76-200) SMOKE DEVELOPED INDEX - CLASS A(0-450), CLASS B(450-900), CLASS C(900-4500) CLASS B - INTERIOR EXIT STAIRWAYS, RAMPS, EXIT PASSAGES CLASS B - CORRIDORS, ENCL. FOR EXIT ACCESS STAIRS, RAMPS CLASS C - ROOMS AND ENCLOSED SPACES 	<ul style="list-style-type: none"> THIS PROJECT ESSENTIALLY CONSISTS OF DEMOLITION OF (2) EXISTING REVOLVING DOOR ENTRY ENCLOSURES AND REPLACEMENT W/(2) NEW AIR-LOCK CONVENTIONAL VESTIBULES, INCIDENTAL MECHANICAL HEATING AND ELECTRIC EXITING REWORK, LIMITED STRUCTURAL WORK FOR NEW ENTRY ROOF COVERINGS.



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TITLE SHEET

NO.	DATE	STATUS / REVISIONS
	11.02.25	ISSUED FOR BIDS

CHECKED BY:
I. DZIRNIS
DES'D BY:
C. TUCKER
DRAWN BY:
C. TUCKER
PROJ #: 24-0543-0241

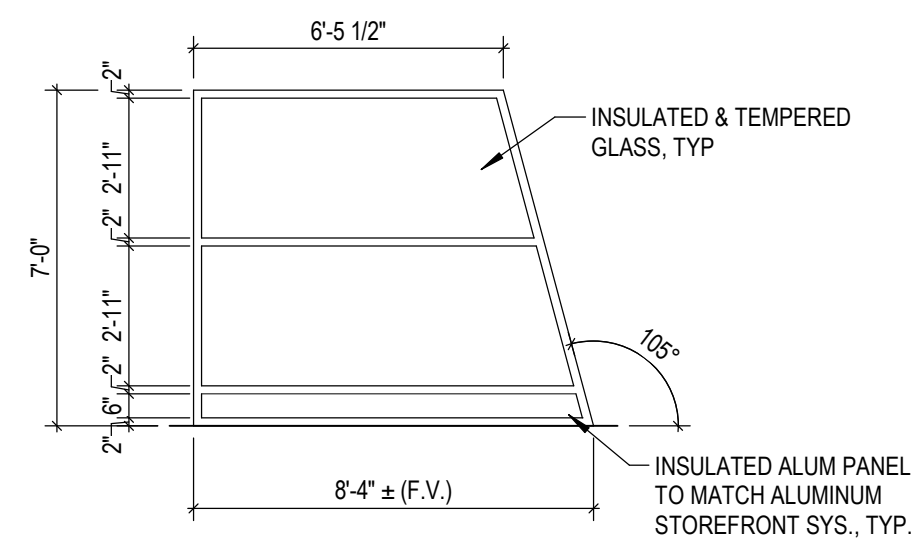
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DOOR AND FRAME SCHEDULE												
DOOR NO.	SIZE			DOOR			FRAME			HDWR	RATING	COMMENTS
	W	HT	THK	TYPE	MTL	FIN	TYPE	MTL	FIN			
100A	3'-0"	7'-0"	1 3/4"	G	AL	PF	2	AL	PF			1, 2, 4
100B	3'-0"	7'-0"	1 3/4"	G	AL	PF	2	AL	PF			1, 2, 4
101A	3'-0"	7'-0"	1 3/4"	G	AL	PF	2	AL	PF			1, 3, 4
101B	3'-0"	7'-0"	1 3/4"	G	AL	PF	2	AL	PF			1, 3, 4

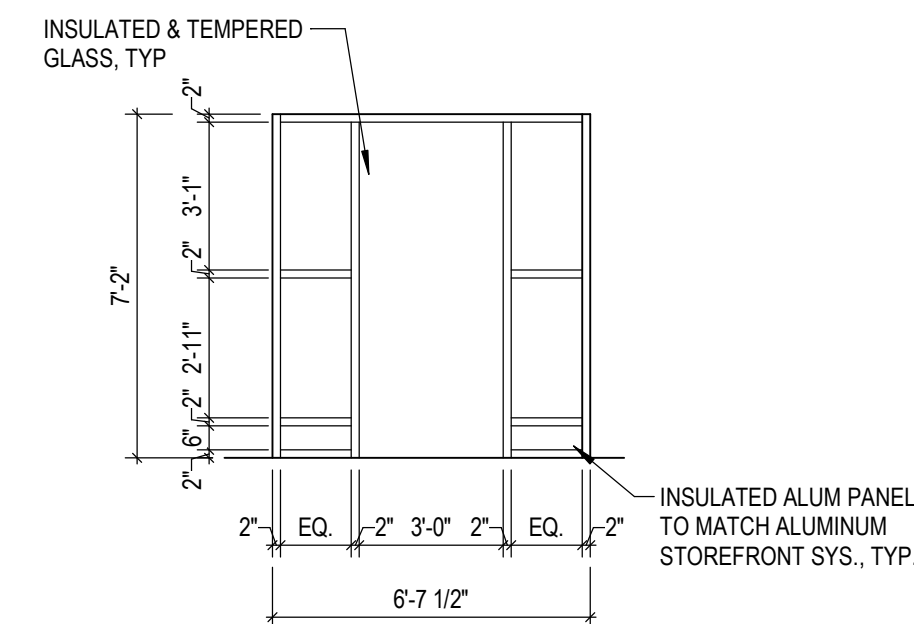
COMMENTS

1. PREFINISHED ALUMINUM STOREFRONT SYSTEM, SEE SPECIFICATIONS. INSULATED & TEMPERED GLASS.
2. PROVIDE NEW ADA OPERATOR & PUSH BUTTONS, VERIFY & MATCH EX SALVAGED ADA OPERATOR MANUFACTURER.
3. SALVAGED ADA OPERATOR TO BE INSTALLED ON THIS DOOR. PROVIDE ALL NEW PUSH BUTTONS.
4. ALL NEW DOOR HARDWARE TO MATCH OWNER'S EXISTING SYSTEM. CONTRACTOR TO FIELD VERIFY PRIOR TO SUBMITTING BID. PROVIDE NEW CYLINDERS TO OWNER FOR KEYING. CYLINDER INSTALLATION BY CONTRACTOR AFTER KEYING IS COMPLETED.

NOTE:
FIELD VERIFY ALL DIMENSIONS IN FIELD
PRIOR TO ORDERING ANY MATERIALS.

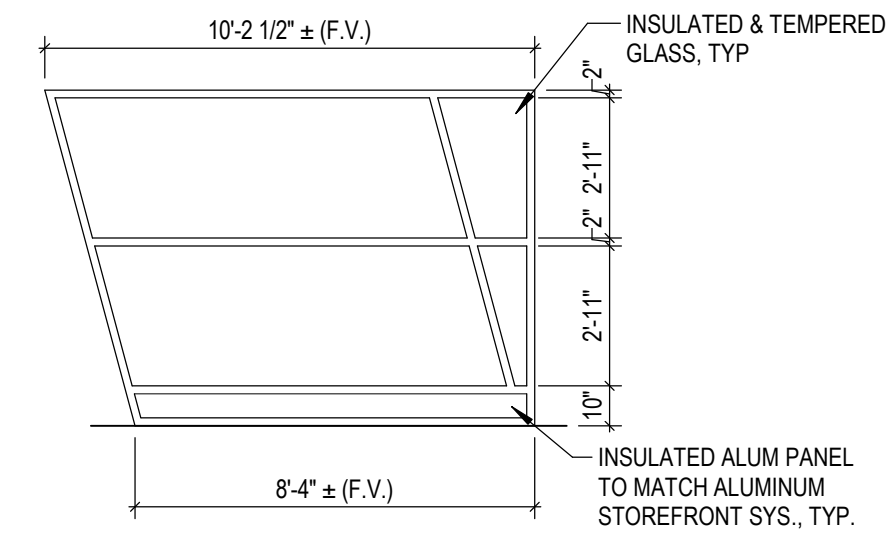


TYPE 1

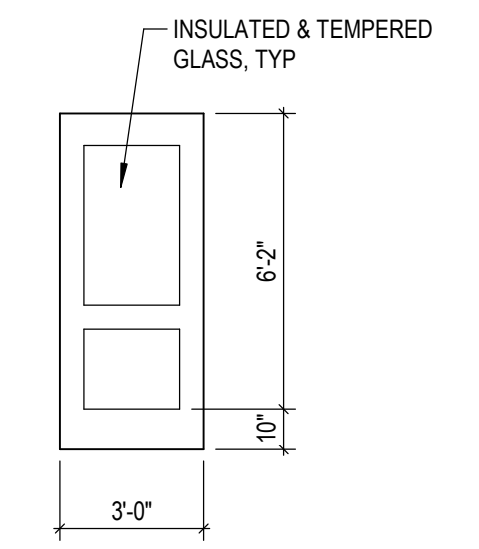


TYPE 2

NOTE:
FIELD VERIFY ALL DIMENSIONS IN FIELD
PRIOR TO ORDERING ANY MATERIALS.



TYPE 3



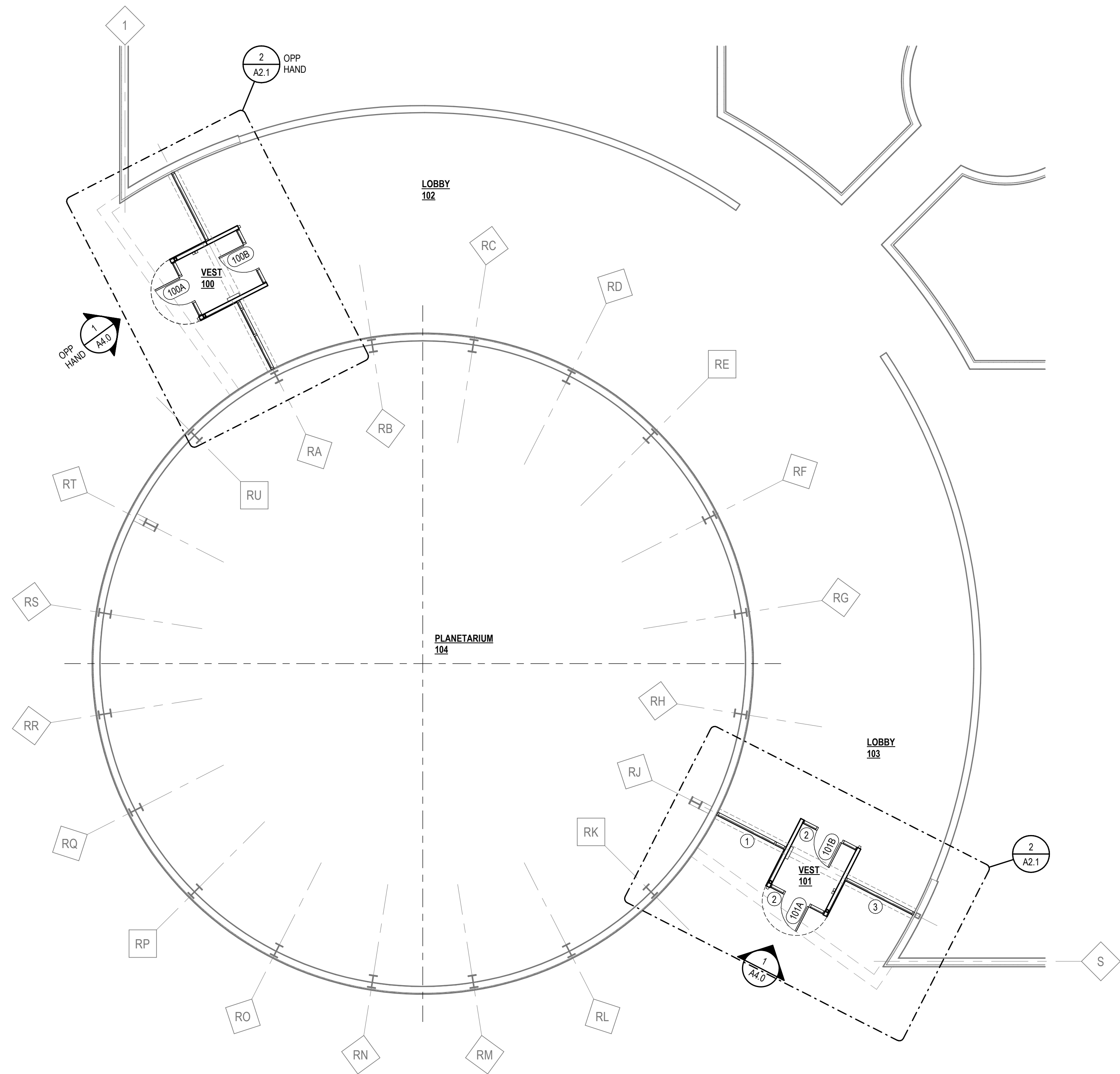
TYPE G

ROOM FINISH SCHEDULE											
ROOM NO.	ROOM NAME	FLOOR		CEILING		WALLS				COMMENTS	
		FINISH	BASE	MATERIAL	FINISH	NORTH	EAST	SOUTH	WEST		
100	VEST	CPT	VB	GYP	P	DWIP	DWIP	DWIP	DWIP	1	
101	VEST	CPT	VB	GYP	P	DWIP	DWIP	DWIP	DWIP	1	
102	LOBBY	EX	VB	EX	EX	EXP	EXP	EXP	EXP	2, 3	
103	LOBBY	EX	EXVB	EX	EX	EXP	EXP	EXP	EXP	2, 3	
104	PLANETARIUM	EX	EX	EX	EX	EX	EX	EX	EX	4	

COMMENTS

1. EXPOSED STEEL BEAM TO BE PAINTED TO MATCH CEILING. CLEAN & PREP AS REQUIRED.
2. WALL PAINT DESIGNATIONS FOR THIS ROOM PERTAINS TO NEW DRYWALL AT NEW VESTIBULE & ALL TOUCH-UP AS REQUIRED.
3. NEW VB AT NEW WALLS ONLY, MATCH EX STYLE, PROFILE AND COLOR.
4. NO WORK IN THIS ROOM.

NOTE:
ONLY ONE ENTRANCE MAY BE WORKED
ON AT A TIME. THE FIRST ENTRANCE WILL
NEED TO BE OPENED FOR USE PRIOR TO
STARTING THE SECOND ENTRANCE.



PARTIAL FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"



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**PARTIAL FLOOR PLAN, ENLARGED PLANS,
DOOR & ROOM FINISH SCHEDULES**

NO.	DATE	STATUS / REVISIONS
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CHECKD BY: J. DZIRNIS
 DESD BY: C. TUCKER
 DRAWN BY: C. TUCKER
 PROJ #: 24-0543-0241

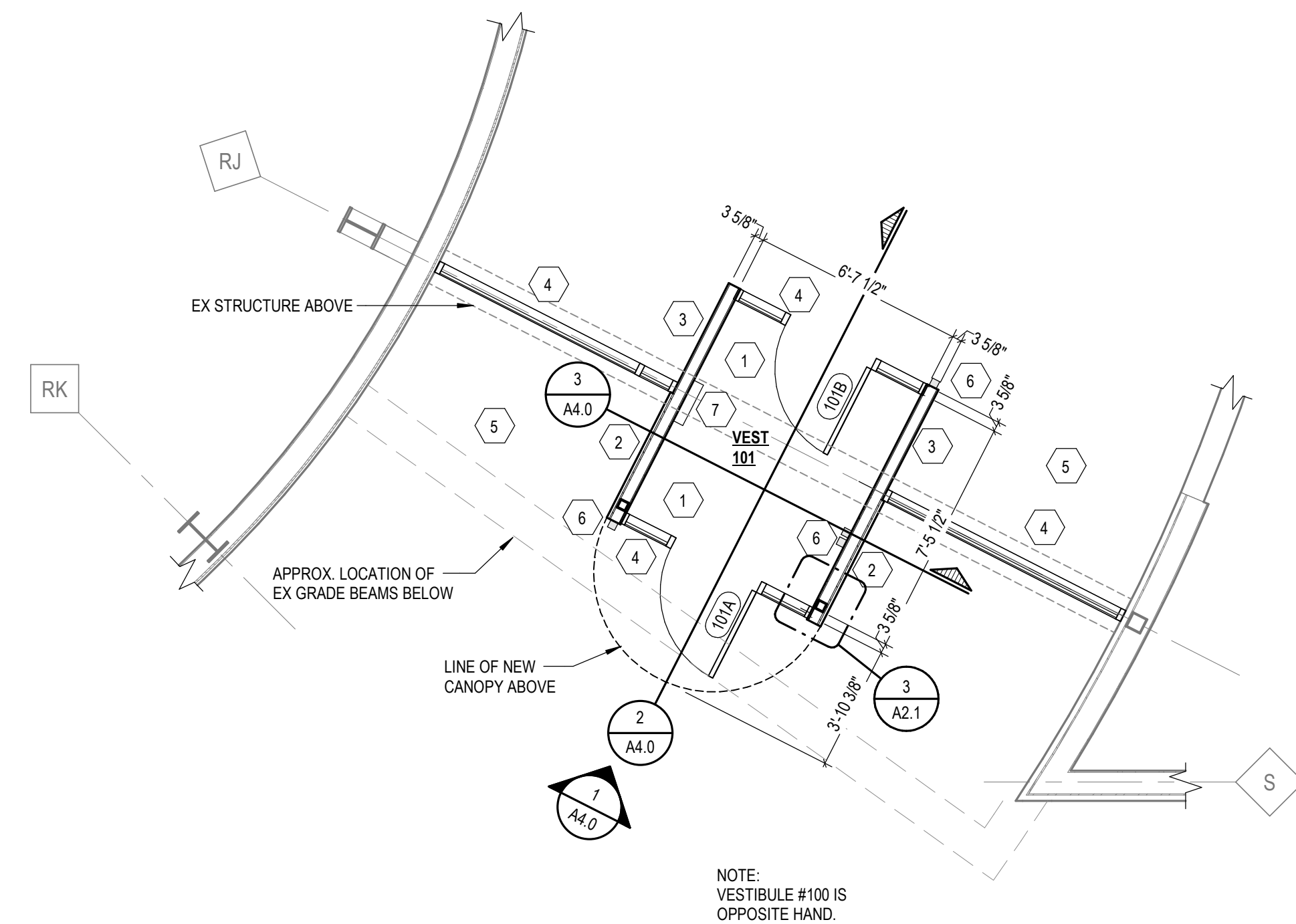
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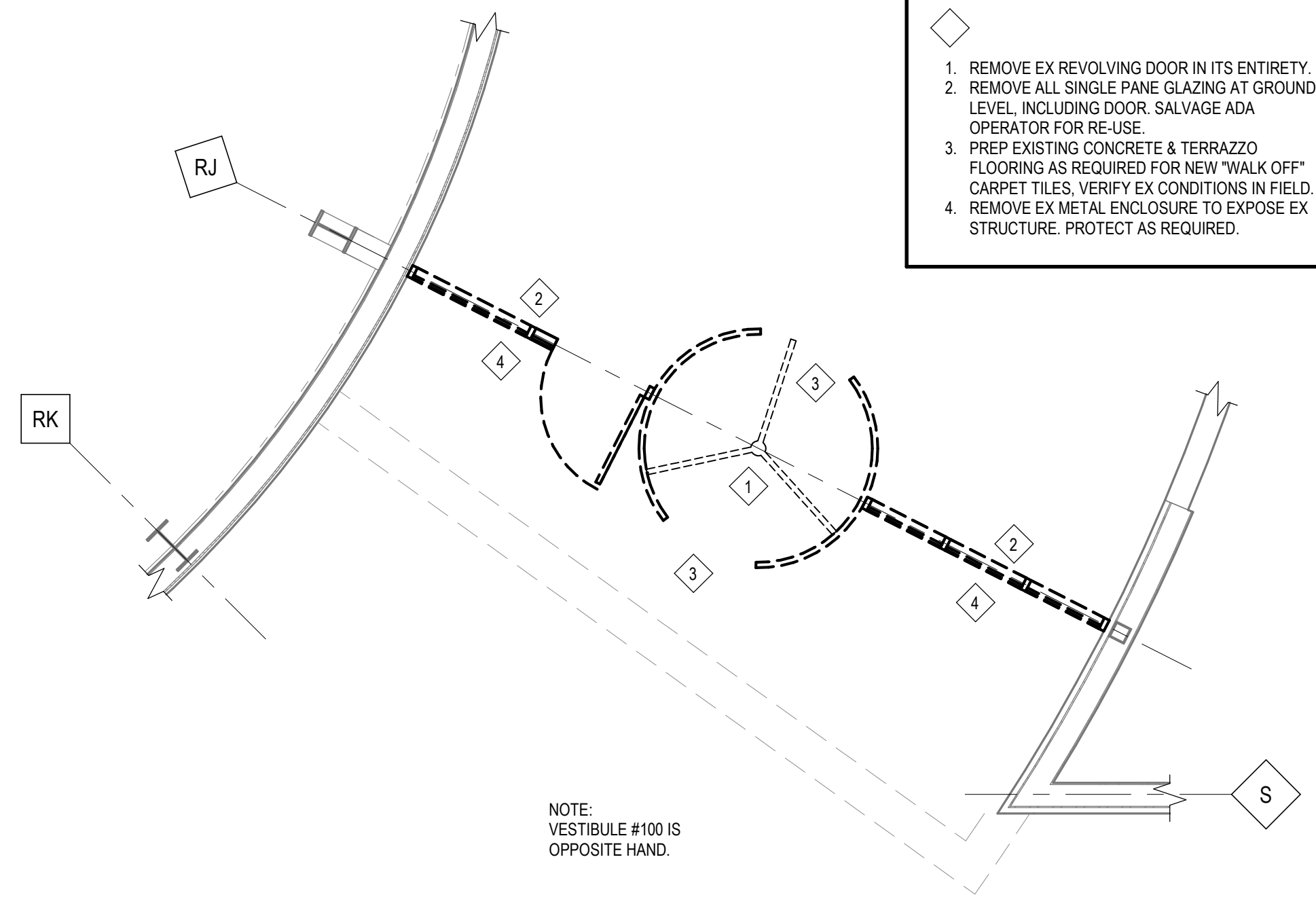
DATE	1.02.25
STATUS/REVISIONS	
ISSUED FOR/BIDS	
NO.	
CHECKED BY:	I. DZIRNIS
DES'D BY:	C. TUCKER
DRAWN BY:	C. TUCKER
PROJ #:	24-0543-0241

NEW CONSTRUCTION NOTES	
SYMBOL	DESCRIPTION
1	PREP EXISTING CONCRETE & TERRAZZO FLOORING AS REQUIRED TO RECEIVE NEW "WALK-OFF" CARPET TILES.
2	3 5/8" STEEL STUDS @ 16" O.C. W/ FULL THICKNESS BATT INSULATION, 1/2" PLYWOOD, VAPOR BARRIER & METAL SIDING ON EXTERIOR SIDE & 5/8" ABUSE RESISTANT GYP. BD. ON INTERIOR SIDE.
3	3 5/8" STEEL STUDS @ 16" O.C. WITH FULL THICKNESS BATT INSULATION & 5/8" ABUSE RESISTANT GYP. BD. EACH SIDE.
4	NEW ALUMINUM STOREFRONT SYSTEM WITH TEMPERED, INSULATED GLAZING.
5	PROVIDE ALL DUST PROTECTION AS REQUIRED TO MINIMIZE DUST. PROVIDE ALL SAFETY BARRIERS AS REQUIRED TO PROTECT PUBLIC FROM ENTERING WORK AREA. PROTECT EXISTING TERRAZZO FLOORING & CONSTELLATION PATTERN INSIDE BUILDING DURING CONSTRUCTION.
6	ADA PUSH BUTTONS FOR DOOR OPERATOR. COORDINATE WITH ELECTRICAL DRAWINGS. ALL PUSH BUTTONS TO BE NEW.
7	SURFACE MOUNTED ELECTRIC CABINET HEATER. SEE MECHANICAL DRAWINGS.

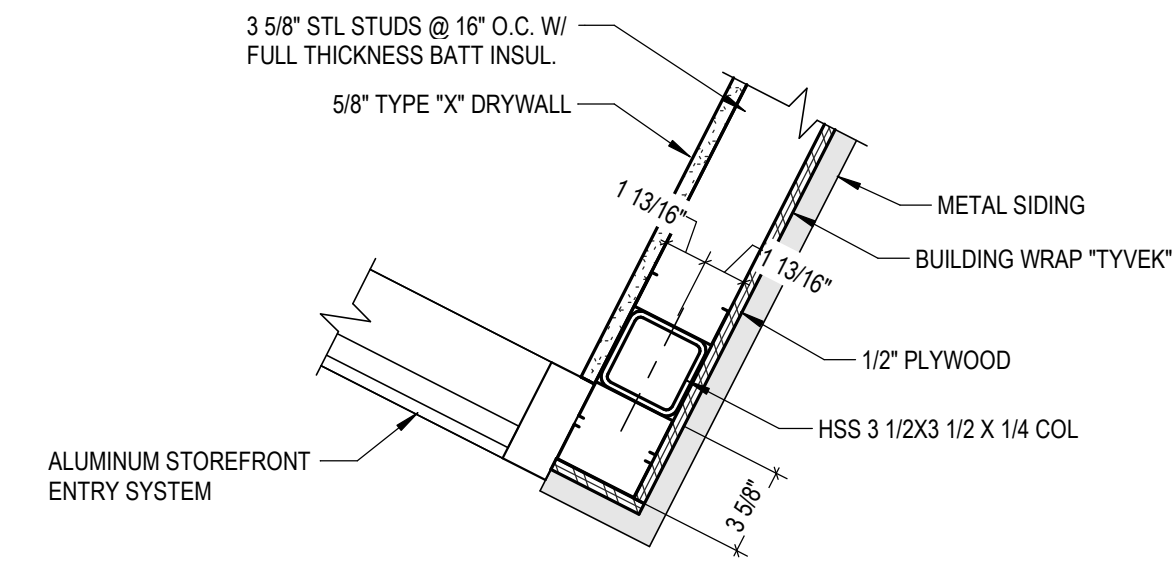
DEMOLITION KEYED NOTES	
SYMBOL	DESCRIPTION
1	REMOVE EX REVOLVING DOOR IN ITS ENTIRETY.
2	REMOVE ALL SINGLE PANE GLAZING AT GROUND LEVEL, INCLUDING DOOR, SALVAGE ADA OPERATOR FOR RE-USE.
3	PREP EXISTING CONCRETE & TERRAZZO FLOORING AS REQUIRED FOR NEW "WALK OFF" CARPET TILES. VERIFY EX CONDITIONS IN FIELD.
4	REMOVE EX METAL ENCLOSURE TO EXPOSE EX STRUCTURE. PROTECT AS REQUIRED.



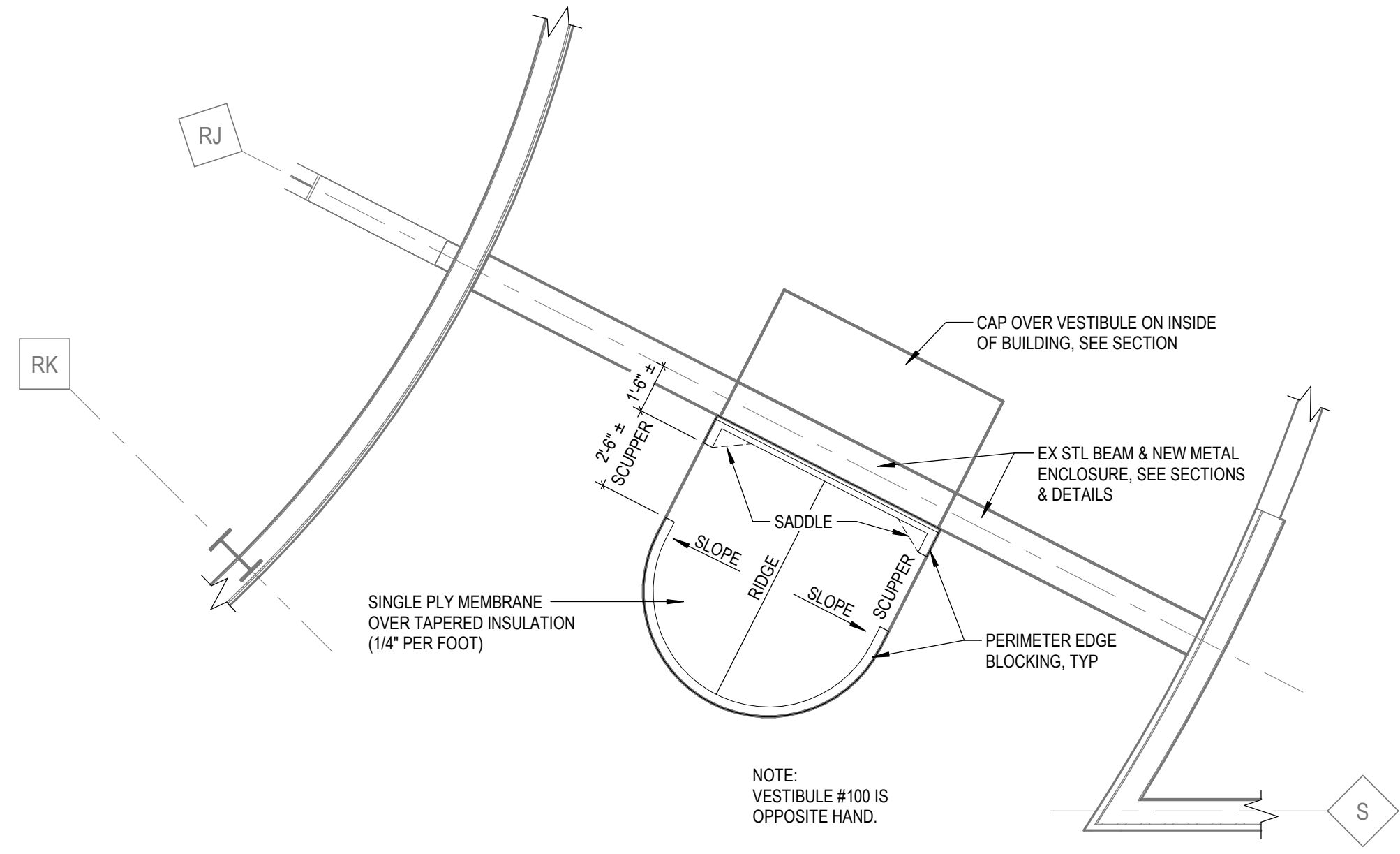
2 TYP. ENLARGED VESTIBULE FLOOR PLAN
 SCALE: 1/4" = 1'-0"



1 TYP. ENLARGED VESTIBULE DEMO PLAN
 SCALE: 1/4" = 1'-0"



3 TYP. JAMB DETAIL
 SCALE: 1 1/2" = 1'-0"

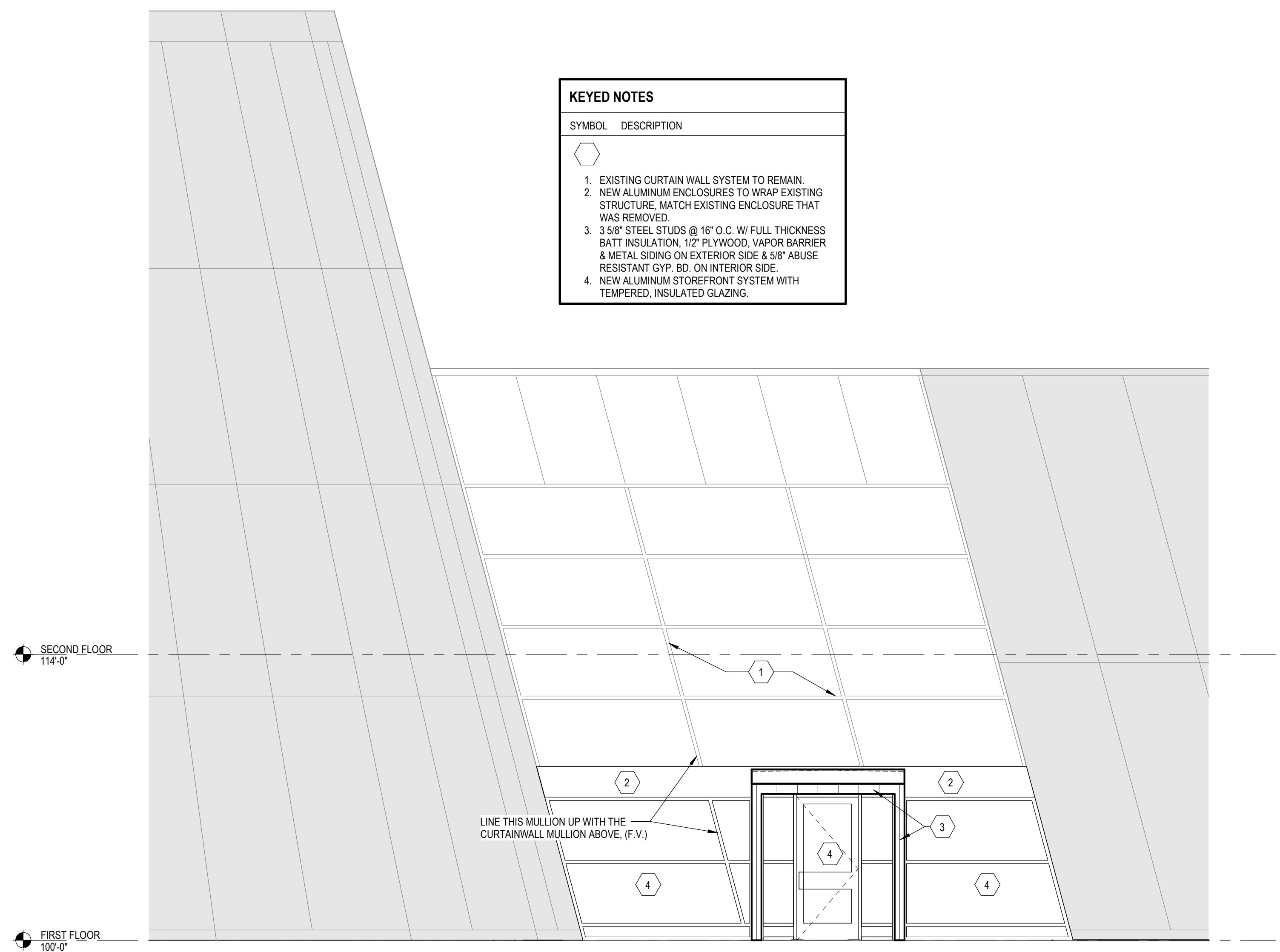


4 TYP. VESTIBULE ROOF PLAN
 SCALE: 1/4" = 1'-0"

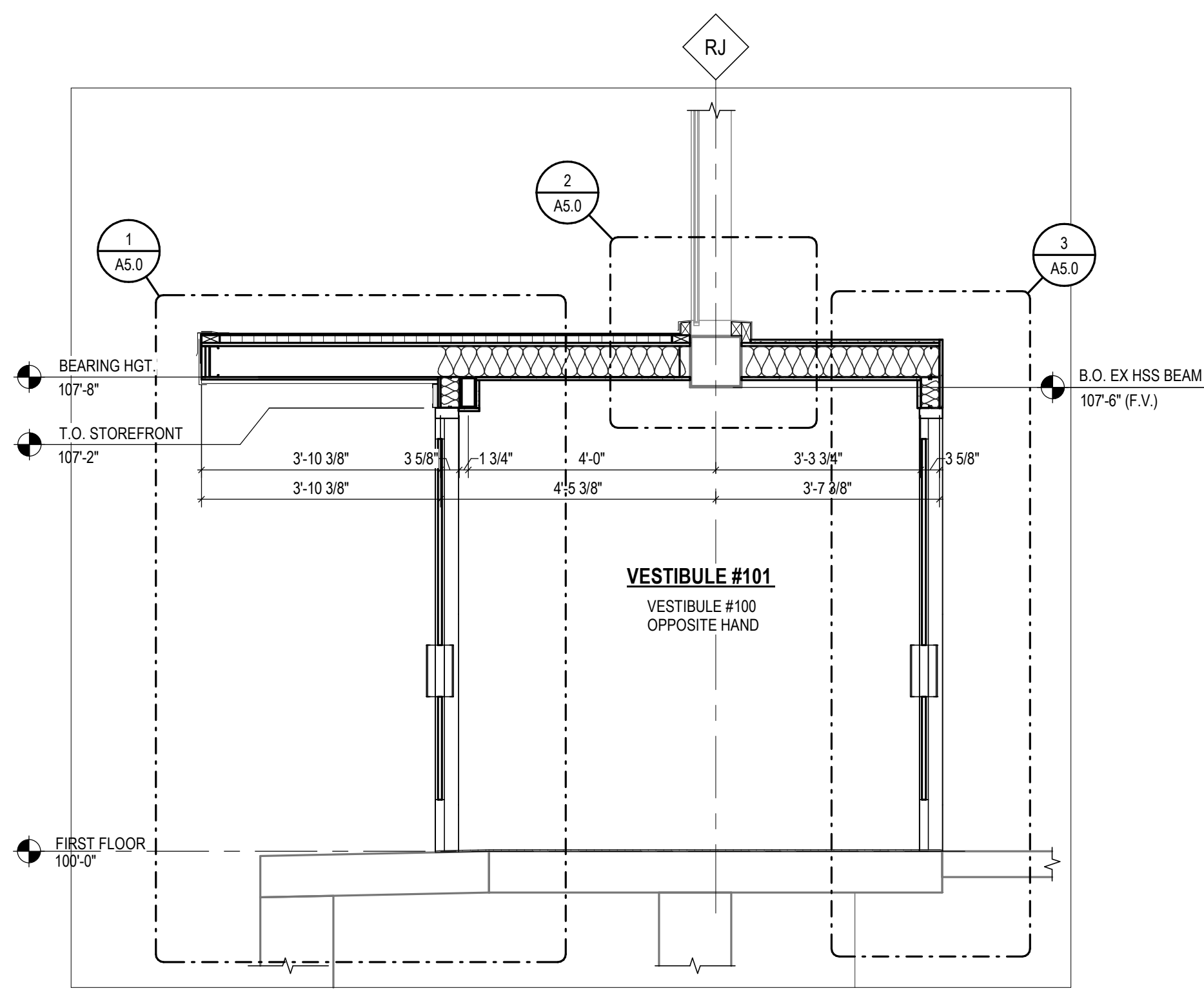
NOTE:
 ONLY ONE ENTRANCE MAY BE WORKED ON AT A TIME. THE FIRST ENTRANCE WILL NEED TO BE OPENED FOR USE PRIOR TO STARTING THE SECOND ENTRANCE.

KEYED NOTES	
SYMBOL	DESCRIPTION
1	EXISTING CURTAIN WALL SYSTEM TO REMAIN.
2	NEW ALUMINUM ENCLOSURES TO WRAP EXISTING STRUCTURE. MATCH EXISTING ENCLOSURE THAT WAS REMOVED.
3	3/8" STEEL STUDS @ 16" O.C. W/ FULL THICKNESS BATT INSULATION, 1/2" PLYWOOD, VAPOR BARRIER & METAL SIDING ON EXTERIOR SIDE & 5/8" ABUSE RESISTANT GYP. BD. ON INTERIOR SIDE.
4	NEW ALUMINUM STOREFRONT SYSTEM WITH TEMPERED, INSULATED GLAZING.

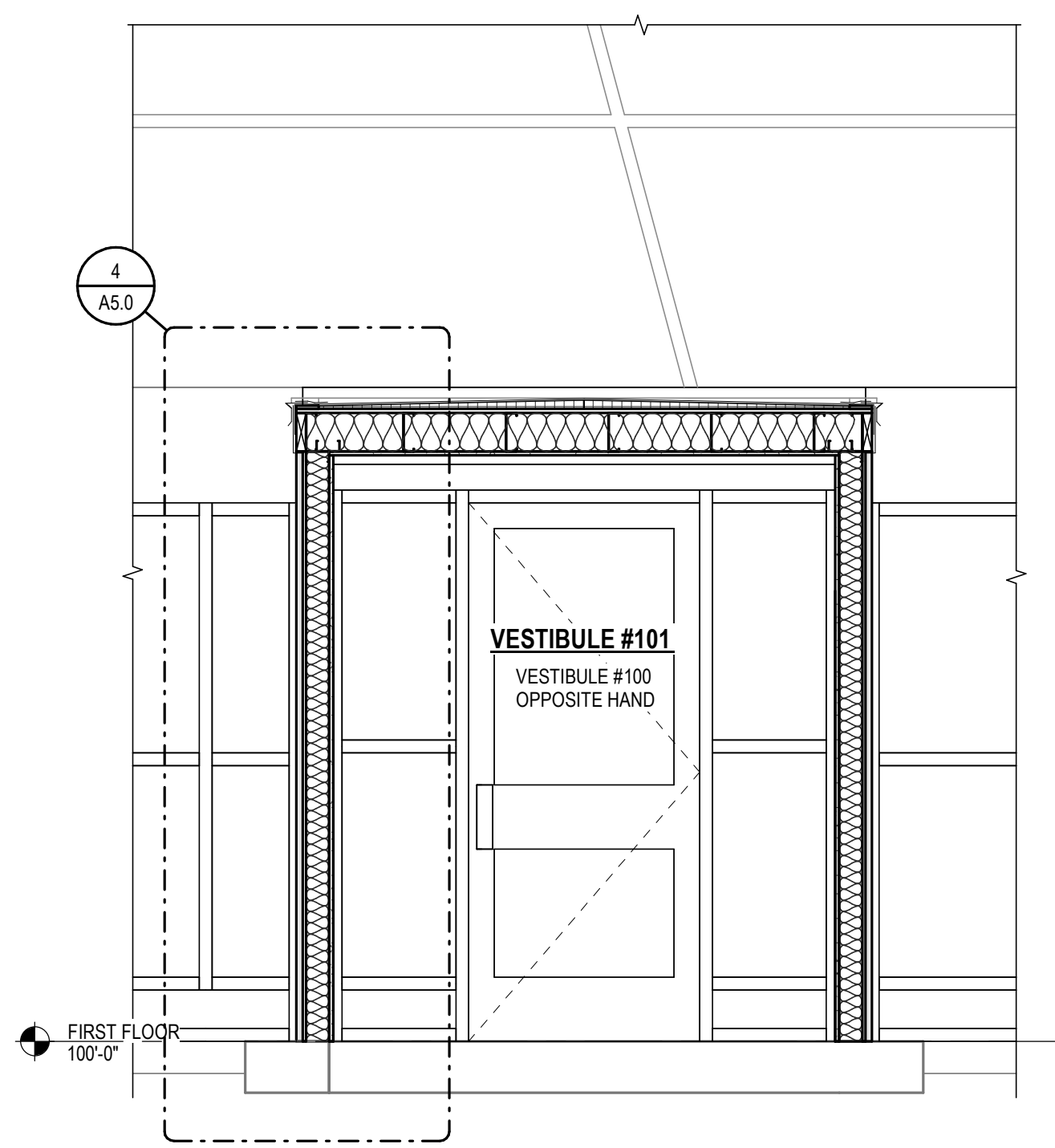
NOTE:
 ONLY ONE ENTRANCE MAY BE WORKED ON AT A TIME. THE FIRST ENTRANCE WILL NEED TO BE OPENED FOR USE PRIOR TO STARTING THE SECOND ENTRANCE.



1 TYPICAL ELEVATION
 SCALE: 1/4" = 1'-0"



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



3 VESTIBULE SECTION
 SCALE: 1/2" = 1'-0"

DESIGN CRITERIA

- MICHIGAN BUILDING CODE 2015 (ASCE 7-10)
 RISK CATEGORY II
- ROOF DEAD LOADS**
- ROOFING AND INSULATION 2 PSF
 - 5/8" PLYWOOD SHEATHING 3 PSF
 - CEILING 5/8" GYPSUM 3 PSF
 - MECHANICAL AND ELECTRICAL 4 PSF
 - MISCELLANEOUS 3 PSF
 - TOTAL 15 PSF**
- ROOF LIVE LOADS**
- MINIMUM LOAD 20 PSF
- SNOW LOADS**
- IMPORTANCE FACTOR I_s = 1.0
 - GROUND SNOW LOAD P_g = 35 PSF
 - SNOW EXPOSURE FACTOR C_e = 1.0
 - THERMAL FACTOR C_t = 1.0
 - FLAT USE SNOW P_f = 24.5 PSF (TYPICAL ROOF)
 - SNOW DRIFT PER ASCE 7
- WIND LOADS**
- BASIC WIND SPEED 115 MPH (3 SEC GUST)
 - EXPOSURE CATEGORY B
 - COMPONENTS AND CLADDING PER ASCE 7
- SEISMIC DESIGN DATA**
- SITE CLASS D
 - RESPONSE COEFFICIENTS SD_s = 0.067, SD₁ = 0.062
 - SEISMIC DESIGN CATEGORY A

DIVISION 5 - COLD FORMED METAL FRAMING

- THE LATEST REVISION OF THE FOLLOWING CODES GOVERN THE DESIGN, DETAILING, FABRICATION AND ERECTION OF COLD FORMED METAL FRAMING.
 - A. AMERICAN IRON AND STEEL INSTITUTE (AISI) AISI S200, NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING - GENERAL PROVISIONS.
 - B. AISI S201, NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING - PRODUCT DATA.
 - C. AISI S202, CODE OF STANDARD PRACTICE FOR COLD-FORMED STEEL STRUCTURAL FRAMING.
- COLD FORMED STEEL SHALL CONFORM TO THE FOLLOWING ASTM MATERIAL SPECIFICATIONS:
 - A. ASTM A446, F_y = 33 KSI FOR MATERIAL 0.0478 INCH (18 GAGE) OR THINNER.
 - B. ASTM A446, F_y = 50 KSI FOR MATERIAL 0.0598 INCH (16 GAGE) OR THICKER.
- ALL COLD FORMED STEEL SHALL HAVE A GALVANIZED COATING CONFORMING TO ASTM A653-G60.
- ALL WELDING SHALL CONFORM TO AWS D1.3 SPECIFICATION FOR WELDING SHEET STEEL STRUCTURES AND AWS D19.0 WELDING ZINC COATED STEEL.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING SIZES, DESIGN VALUES, MATERIALS, DIMENSIONS, CONNECTIONS AND CALCULATIONS WHICH HAVE BEEN PREPARED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER.
- UNLESS SPECIFICALLY NOTED, ALL MATERIAL SHALL BE A MINIMUM 18 GAUGE (MINIMUM 16 GAUGE FOR STUDS SERVING AS BACKUP FOR BRICK VENEER) THICKNESS, AND SHALL MEET THE DEFLECTION REQUIREMENTS OF THE FINISH MATERIAL TO BE ATTACHED TO THE COLD FORMED FRAMING WORK. DEFLECTION OF COLD FORMED STUDS, UNDER WIND LOADS, SERVING AS BACKUP FOR BRICK VENEER SHALL NOT EXCEED SPAN/1,000.
- ALL STUDS AND JOISTS SHALL BE INSTALLED AT SPACING INDICATED ON THE DRAWINGS, UNLESS NOTED, EACH SIDE OF THE OPENINGS SHALL BE FRAMED WITH DOUBLE STUDS.
- ALL STUDS AND JOISTS SHALL HAVE A BRIDGING LINE INSTALLED AT A MAXIMUM DISTANCE OF 4'-0" AND 5'-0" RESPECTIVELY.
- ALL JOISTS SHALL HAVE WEB STIFFENERS AT REACTION POINTS AND CONCENTRATED LOADS.
- STRUCTURAL CONNECTIONS OF COLD FORMED METAL FRAMING MEMBERS SHALL BE MADE PER MANUFACTURER'S RECOMMENDATIONS, ADEQUATE TO CARRY THE IMPOSED LOADS, AND CONFORMING TO THE AISI AND AWS SPECIFICATIONS.
- NON LOAD BEARING WALLS OR CURTAIN WALLS SHALL BE DESIGNED AND CONNECTED TO ALLOW FOR DEFLECTION OF THE BUILDING STRUCTURE.

SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	DUPLEX RECEPTACLE, 18" A.F.F. TO TOP
	DUPLEX RECEPTACLE GF, 18" A.F.F. TO TOP
	DUPLEX RECEPTACLE, CEILING MOUNTED
	DUPLEX RECEPTACLE GF, CEILING MOUNTED
	DUPLEX RECEPTACLE USB, 18" A.F.F. TO TOP
	DUPLEX RECEPTACLE, 6" ABOVE COUNTER
	DUPLEX RECEPTACLE GF, 6" ABOVE COUNTER
	DUPLEX RECEPTACLE, FLOOR MOUNTED
	DUPLEX RECEPTACLE GF, FLOOR MOUNTED
	SPECIALTY OUTLET, SEE DRAWINGS W/ MTG HT
	QUAD RECEPTACLE, 18" A.F.F. TO TOP
	QUAD RECEPTACLE GF, 18" A.F.F. TO TOP
	QUAD RECEPTACLE, CEILING MOUNTED
	QUAD RECEPTACLE GF, CEILING MOUNTED
	MOTOR SWITCH
	OVERHEAD DOOR 3-BUTTON SWITCH, OPEN-CLOSE-STOP
	POWER POLE
	JUNCTION BOX
	FURNITURE FEED
	MOTOR
	NON-FUSED DISCONNECT
	COMBINATION MOTOR STARTER/ DISCONNECT
	FUSED DISCONNECT
	MANUAL MOTOR STARTER
	MOTOR STARTER
	SURFACE MOUNTED PANEL BOARD
	RECESSED PANEL BOARD
	SWITCH, SINGLE POLE, 48" A.F.F. TO TOP UNO
	SWITCH, 3-POLE, 48" A.F.F. TO TOP UNO
	SWITCH, 4-POLE, 48" A.F.F. TO TOP UNO
	SWITCH, WALL BOX DIMMER, 48" A.F.F. TO TOP UNO
	SWITCH, LOW VOLTAGE, 48" A.F.F. TO TOP UNO (VERIFY W/ FIXTURE)
	SWITCH, LOW VOLTAGE DIMMER, 48" A.F.F. TO TOP UNO (VERIFY W/ FIXTURE)
	SWITCH, FUSED: 125V, SINGLE POLE, DUAL ELEMENT PLUG FUSE
	SWITCH, KEYED, 48" A.F.F. TO TOP UNO
	SWITCH, PILOT LIGHT, 48" A.F.F. TO TOP UNO
	SWITCH, TIMER, 48" A.F.F. TO TOP
	SWITCH, MULTI-TECH OCCUPANCY SENSOR, WALL
	SWITCH, MULTI-TECH OCCUPANCY SENSOR, CEILING
	SWITCH, EXTERIOR PHOTOCCELL
	POWER PACK FOR OCCUPANCY SENSORS
	CONTROLS: SPEAKER (SEE SCHEDULE)
	CONTROLS: ADA DOOR CONTROL OPENER, COORDINATE WITH DOOR REQUIREMENTS
	CONTROLS: ADA DOOR CONTROL OPENER, COORDINATE WITH SECURITY, AUTO AND MANUAL CONTROL
	SECURITY: PAN - TILT - ZOOM CAMERA
	SECURITY: PUSH BUTTON
	SECURITY: CARD READER
	SECURITY: DOOR CONTACT
	LUMINAIRE: WALL MOUNTED W/ TYPE
	LUMINAIRE: RECESSED DOWNLIGHT OR PENDANT W/ TYPE, REFER TO SCHEDULE
	LUMINAIRE: SURFACE OR RECESSED W/ TYPE, REFER TO SCHEDULE
	LUMINAIRE: ON EMERGENCY, LIFE SAFETY, OR LOCAL LIGHTING CIRCUIT W/ TYPE, REFER TO SCHEDULE
	EXIT SIGN: CEILING MOUNTED W/ TYPE, SEE SCHEDULE
	EXIT SIGN: WALL MOUNTED W/ TYPE, SEE SCHEDULE
	EM LIGHTS: WALL MOUNTED UNO, REFER TO SCHEDULE
	REMOTE HEADS: WALL MOUNTED, REFER TO SCHEDULE
	TV CONNECTION: 96" TO TOP, COAX CONNECTION, UNO
	VOICE/ DATA OUTLET: 18" TO TOP, UNO
	VOICE/ DATA OUTLET: CEILING MOUNTED, UNO
	VOICE/ DATA/ TV OUTLET: FLOOR MOUNTED, UNO
	TELEPHONE: 18" TO TOP, UNO
	DATA/ TELEPHONE: 18" TO TOP, UNO
	FIRE: MANUAL PULL STATION, WALL MOUNTED, 48" AFF TO TOP UNO
	FIRE: AUDIBLE AND VISUAL ANNUNCIATION, WALL MOUNTED, 6" AFF TO TOP UNO
	FIRE: VISUAL ANNUNCIATION, WALL MOUNTED, 6" AFF TO TOP UNO
	FIRE: AUDIBLE ANNUNCIATION, WALL MOUNTED, 6" AFF TO TOP UNO
	FIRE: AUDIBLE AND VISUAL ANNUNCIATION, CEILING MOUNTED
	FIRE: VISUAL ANNUNCIATION, CEILING MOUNTED
	FIRE: AUDIBLE ANNUNCIATION, CEILING MOUNTED
	FIRE: SMOKE DETECTOR, CEILING
	FIRE: HEAT DETECTOR, CEILING
	FIRE: SMOKE AND HEAT DETECTOR
	FIRE: DUCT SMOKE DETECTOR, CEILING, PROVIDED / INSTALLED BY EC, MOUNTED BY MC, UNO
	FIRE ALARM: REMOTE TEST STATION
	FIRE: TAMPER SWITCH
	FIRE: FLOW SWITCH
	FIRE: MAGNETIC DOOR HOLD
	FIRE: DOOR LOCK RELEASE
	FIRE: PRESSURE SWITCH
	HOME RUN W/ DIRECTION
	ELECTRICAL CIRCUIT
	UNDERGROUND ELECTRICAL W/ INDICATOR
	SITE: LIGHT, POLE, AND BASE
	TRANSFORMER W/ LABEL
	DEVICE OR EQUIPMENT CONNECTION

CIRCUIT CONDUIT & CONDUCTOR SCHEDULE			
FUSE/CIRCUIT BREAKER - AMP/POLE	PHASE/NEUTRAL (NOTE 3)	GROUND	CONDUIT
15A/1P & 20A/1P	2 - 12 AWG	1 - 12 AWG	3/4"
15A/2P & 20A/2P	2 OR 3 - 12 AWG	1 - 12 AWG	3/4"
15A/3P & 20A/3P	3 OR 4 - 12 AWG	1 - 12 AWG	3/4"
25A/1P & 30A/1P	2 - 10 AWG	1 - 10 AWG	3/4"
25A/2P & 30A/2P	2 OR 3 - 10 AWG	1 - 10 AWG	3/4"
25A/3P & 30A/3P	3 OR 4 - 10 AWG	1 - 10 AWG	3/4"
35A/1P & 40A/1P	2 - 8 AWG	1 - 10 AWG	3/4"
35A/2P & 40A/2P	2 OR 3 - 8 AWG	1 - 10 AWG	3/4"
35A/3P & 40A/3P	3 OR 4 - 8 AWG	1 - 10 AWG	3/4"
40A/1P & 45A/1P	2 - 8 AWG	1 - 10 AWG	3/4"
40A/2P & 45A/2P	2 OR 3 - 8 AWG	1 - 10 AWG	3/4"
40A/3P & 45A/3P	3 OR 4 - 8 AWG	1 - 10 AWG	3/4"
60A/1P	2 - 6 AWG	1 - 10 AWG	3/4"
60A/2P	2 OR 3 - 6 AWG	1 - 10 AWG	3/4"
60A/3P	3 OR 4 - 6 AWG	1 - 10 AWG	1"
70A/1P	2 - 4 AWG	1 - 8 AWG	1"
70A/2P	2 OR 3 - 4 AWG	1 - 8 AWG	1"
70A/3P	3 OR 4 - 4 AWG	1 - 8 AWG	1 1/4"
80A/2P	2 OR 3 - 4 AWG	1 - 8 AWG	1"
80A/3P	3 OR 4 - 4 AWG	1 - 8 AWG	1 1/4"
90A/2P	2 OR 3 - 3 AWG	1 - 8 AWG	1 1/4"
100A/2P	2 OR 3 - 3 AWG	1 - 8 AWG	1 1/4"
100A/3P	3 OR 4 - 3 AWG	1 - 8 AWG	1 1/4"
110A/2P	2 OR 3 - 2 AWG	1 - 6 AWG	1 1/4"
110A/3P	3 OR 4 - 2 AWG	1 - 6 AWG	1 1/4"
125A/2P	2 OR 3 - 1 AWG	1 - 6 AWG	1 1/4"
125A/3P	3 OR 4 - 1 AWG	1 - 6 AWG	1 1/2"
150A/2P	2 OR 3 - 1/0 AWG	1 - 6 AWG	1 1/2"
150A/3P	3 OR 4 - 1/0 AWG	1 - 6 AWG	2"
175A/2P	2 OR 3 - 2/0 AWG	1 - 6 AWG	2"
175A/3P	3 OR 4 - 2/0 AWG	1 - 6 AWG	2"
200A/2P	2 OR 3 - 3/0 AWG	1 - 6 AWG	2"
200A/3P	3 OR 4 - 3/0 AWG	1 - 6 AWG	2"
225A/2P	2 OR 3 - 4/0 AWG	1 - 4 AWG	2"
225A/3P	3 OR 4 - 4/0 AWG	1 - 4 AWG	2 1/2"
250A/2P	2 OR 3 - 250 MCM	1 - 4 AWG	2 1/2"
250A/3P	3 OR 4 - 250 MCM	1 - 4 AWG	3"
300A/2P	2 OR 3 - 350 MCM	1 - 4 AWG	3"
300A/3P	3 OR 4 - 350 MCM	1 - 3 AWG	3"
350A/2P	2 OR 3 - 500 MCM	1 - 3 AWG	3 1/2"
350A/3P	3 OR 4 - 500 MCM	1 - 3 AWG	3 1/2"
400A/2P	2 OR 3 - 500 MCM	1 - 3 AWG	3 1/2"
400A/3P	3 OR 4 - 500 MCM	1 - 3 AWG	3 1/2"

NOTES:
1. PROVIDE CIRCUIT CONDUIT AND CONDUIT SIZES INDICATED ABOVE UNLESS OTHERWISE NOTED.
2. CONDUCTOR SIZING BASED UPON 75C THIN INSULATED COPPER CONDUCTORS.
3. FOR TWO AND THREE POLE CIRCUITS PROVIDE NEUTRAL CONDUCTOR IF REQUIRED BY EQUIPMENT SERVED.

GENERAL NOTES

- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST ACCEPTED EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND ALL STATE AND LOCAL CODES.
- COORDINATE THE INSTALLATION OF ALL EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS WITH ARCHITECTURAL AND MECHANICAL PLANS. SPECIFICATIONS AND EQUIPMENT DRAWINGS. PROVIDE ALL NECESSARY EQUIPMENT POWER AND CONTROL CONNECTIONS NOT PROVIDED BY OTHERS WHETHER INDICATED ON THE DRAWINGS OR NOT.
- UNLESS OTHERWISE NOTED, WHERE ELECTRICAL DEMOLITION WORK IS SHOWN, REMOVE ALL CONDUCTOR AND EXPOSED CONDUITS FROM EQUIPMENT OR OUTLET LOCATION BACK TO THE POWER SOURCE(S) FOR THE CIRCUIT.
- SEAL ALL WALL AND FLOOR PENETRATIONS TO MAINTAIN RATING.
- BACK-TO-BACK OR THROUGH THE WALL BOXES SHALL NOT BE USED.
- ALL LOW VOLTAGE CONDUCTORS SHALL BE STRANDED COPPER.
- SPLICE CABLES OR CONDUCTORS IN OUTLET BOXES, DEVICE BOXES, PULL BOXES, JUNCTION BOXES. DO NOT SPLICE CABLES OR CONDUCTORS IN CONDUIT BODIES.
- RECEPTACLES INDICATED AS GROUND FAULT CIRCUIT INTERRUPTER (GFI) TYPE MUST BE GFI RECEPTACLE, NO FEED THROUGH.
- BRANCH CIRCUITS FROM CIRCUIT BREAKER TYPE DISTRIBUTION EQUIPMENT WHICH SUPPLY MOTOR LOADS THAT ARE LESS THAN 6.0 AMP SHALL BE PROTECTED BY A 15 AMP CIRCUIT BREAKER.
- FINAL CONNECTIONS TO ITEMS SUBJECT TO VIBRATION SHALL BE MADE WITH LIQUID TIGHT FLEXIBLE METAL CONDUIT. LIQUID TIGHT FLEXIBLE METAL CONDUIT SHALL NOT BE USED AS A GROUNDING CONDUCTOR. PROVIDE A SEPARATE GREEN GROUNDING CONDUCTOR.
- IN THE EVENT OF CONFLICTS BETWEEN THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS OR WITHIN THE DRAWINGS OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL BE ASSUMED TO BE CORRECT. REFER UNCERTAINTIES IN REQUIREMENTS TO THE ENGINEER FOR CLARIFICATION.
- ALL BELOW GRADE LOCATIONS WITHIN BUILDINGS ARE DAMP LOCATIONS UNLESS OTHERWISE NOTED.
- 120V AC CONTROL WIRING ASSOCIATED WITH MOTOR CONTROL CIRCUITS MAY BE RUN IN THE SAME RACEWAY WITH MOTOR POWER WIRING FOR CONSTANT SPEED MOTORS LESS THAN 30HP. FOR MOTORS 30HP AND GREATER OR FOR MOTORS POWERED FROM VARIABLE FREQUENCY CONTROLLERS, SEPARATE RACEWAYS SHALL BE USED FOR POWER AND CONTROL CONDUCTORS.
- 120/240V CIRCUIT WIRING FOR ANY ROOM OR AREA MAY BE GROUPEED INTO RACEWAYS AS REQUIRED UNLESS SEPARATE RACEWAYS ARE REQUIRED BY THE NEC. COMPLY WITH NEC REQUIREMENTS FOR CONDUCTOR DERATING.
- CONDUIT PENETRATIONS OF FLOORS, LOWER LEVEL EXTERIOR WALLS OR WETWELL WALLS SHALL BE SLEEVED AND SEALED WITH LINKSEAL. SEE DETAILS ON MECHANICAL DRAWINGS.
- IF COMPLIANCE WITH TWO OR MORE DIFFERING STANDARDS, REQUIREMENTS, DRAWINGS OR SPECIFICATIONS, OR ANY COMBINATION THEREOF, IS SPECIFIED AND THESE ESTABLISH DIFFERENT OR CONFLICTING REQUIREMENTS FOR MINIMUM QUANTITIES OR QUALITY LEVELS, COMPLY WITH THE MOST STRINGENT REQUIREMENT. THE MOST STRINGENT REQUIREMENT WILL BE THE BETTER QUALITY OR GREATER QUANTITY OF WORK, AND WILL TYPICALLY BE THE MORE EXPENSIVE OPTION. REFER UNCERTAINTIES AND REQUIREMENTS THAT ARE DIFFERENT, BUT APPARENTLY EQUAL, TO ENGINEER FOR A DECISION BEFORE PROCEEDING.
- THE QUANTITY OR QUALITY LEVEL SHOWN OR SPECIFIED SHALL BE THE MINIMUM PROVIDED OR PERFORMED. THE ACTUAL INSTALLATION MAY COMPLY EXACTLY WITH THE MINIMUM QUANTITY OR QUALITY SPECIFIED, OR IT MAY EXCEED THE MINIMUM WITHIN REASONABLE LIMITS. TO COMPLY WITH THESE REQUIREMENTS, INDICATED NUMERIC VALUES ARE MINIMUM OR MAXIMUM, AS APPROPRIATE. FOR THE CONTEXT OF REQUIREMENTS, REFER UNCERTAINTIES TO ENGINEER FOR A DECISION BEFORE PROCEEDING.
- DESIGN DOCUMENTS MUST BE REPRODUCED IN THEIR ENTIRETY, INCLUDING ALL PLANS, SPECIFICATIONS, AND FRONT END DOCUMENTS.
- ONLY COMPLETE DOCUMENT SETS ARE TO BE DISTRIBUTED TO SUBCONTRACTORS AND SUPPLIERS OF THE CONTRACTOR DURING BIDDING OR CONSTRUCTION.
- FAILURE TO REVIEW AND COMPLY WITH A FULL SET OF CONTRACT DOCUMENTS WILL NOT BE ACCEPTED AS A VALID REASON FOR FAILURE TO MEET THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS.
- ALL ABOVE CEILING SYSTEMS AND COMPONENTS (INCLUDING BUT NOT LIMITED TO MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION, ETC.) SHALL BE COORDINATED SUCH THAT THE SYSTEMS ARE PROPERLY INTEGRATED IN THE SPACE PROVIDED ABOVE CEILING AT THE CEILING HEIGHTS NOTED. IT IS THE RESPONSIBILITY OF EACH CONTRACTOR TO COORDINATE PATHWAYS WITHIN THE SPACE PROVIDED. CEILING HEIGHTS WILL NOT BE MODIFIED.
- EQUIPMENT SHALL BE MOUNTED 6'-0" AWAY FROM HEAT PRODUCING EQUIPMENT. U.N.O.

GENERAL DEMOLITION NOTES

- NOTES AND GRAPHIC REPRESENTATION SHALL NOTE LIMIT THE EXTENT OF DEMOLITION REQUIRED. ELECTRICAL CONTRACTOR TO PERFORM ALL DEMOLITION REQUIRED TO ACHIEVE THE FINAL DESIGN INTENT AS REQUIRED BY THE CONTRACT DOCUMENTS. EXTENT OF DEMOLITION WORK SHALL INCLUDE, BUT NOT LIMITED TO, REMOVAL OF LIGHT FIXTURES, WIRING DEVICES, CONNECTIONS TO EQUIPMENT, DISTRIBUTION PANELS, AND ALL ASSOCIATED RACEWAY AND WIRING. EXTENT OF DEMOLITION SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR.
- EQUIPMENT AND WIRING TO BE REMOVED SHALL BE DE-ENERGIZED PRIOR TO ANY DEMOLITION WORK.
- ALL WORK REQUIRED TO REMAIN IN SERVICE, BUT INTERFERES WITH RENOVATIONS, SHALL BE RELOCATED AND RECONNECTED USING MATERIALS AND STANDARDS OF THIS CONTRACT.
- ELECTRICAL CONTRACTOR SHALL TRACE AND RELOCATE ALL EXISTING FEEDERS AND BRANCH CIRCUITS PASSING THROUGH THE DEMOLITION AREA THAT SERVE EXISTING SPACES TO REMAIN.
- ELECTRICAL CONTRACTOR SHALL MAINTAIN CONTINUITY OF CIRCUITS FOR EXISTING EQUIPMENT AND DEVICES THAT ARE TO REMAIN. WHEN DEVICES ARE REMOVED AND NOT THE CIRCUIT DEAD END, EXTEND CIRCUIT AS REQUIRED TO MAINTAIN INTEGRITY OF ORIGINAL CIRCUIT.
- ELECTRICAL EQUIPMENT INDICATED TO BE REMOVED SHALL GET FIRST REFUSAL FROM OWNER AND IS THE RESPONSIBILITY OF ELECTRICAL CONTRACTOR FOR PROPER DISPOSAL. EQUIPMENT TO BE RE-INSTALLED OR TURNED OVER TO OWNER SHALL BE PLACED IN A MUTUALLY ACCEPTABLE LOCATION.
- FEEDERS AND BRANCH CIRCUITS TO BE REMOVED: CONDUIT AND SUPPORTS SHALL BE REMOVED TO THE PANEL OF ORIGIN. WIRING SHALL BE REMOVED TO THE PANEL OF ORIGIN. WHERE EMPTY CONDUITS REMAIN, INSTALL PULLSTRING AND IDENTIFY BOTH ENDS.
- FEEDERS AND BRANCH CIRCUITS TO BE RE-USED: REMOVE CONDUIT AND WIRING TO LOCATIONS WHICH AVOID CONFLICT WITH NEW WORK. INSTALL JUNCTIONS BOX, TAPE OFF CONDUCTORS AND IDENTIFY WITH PANEL AND CIRCUIT NUMBER. PROVIDE BLANK COVER PLATES AT OPEN BOXES WHERE EXISTING RECEPTACLES OR ELECTRICAL DEVICES ARE REMOVED AND NOT INDICATED TO BE REPLACED.
- UPDATE ALL PANEL SCHEDULES TO REFLECT EQUIPMENT AND CIRCUIT CHANGES OR REMOVALS.
- FIRE ALARM SYSTEM SHALL REMAIN IN OPERATION DURING BOTH DEMOLITION AND CONSTRUCTION STAGES OF THIS PROJECT.

LIGHTING NOTES AND CONTROL SEQUENCE

- LIGHTING CONTROLS SHALL MEET THE 2015 MICHIGAN ENERGY CODE. LIGHTING CONTROL PERFORMANCE CRITERIA TO BE VERIFIED BY A THIRD PARTY FOR PROPER OPERATION, CALIBRATION, ADJUSTMENT, PROGRAMMING, AND APPROVAL.
- CONDUCT PRE-INSTALLATION MEETING WITH THE SUPPLIER, PROGRAMMER, INSTALLER, AND OWNER TO REVIEW THE SYSTEM.
- PERFORM POST VISIT FOR PROGRAMMING.
- PROVIDE 4 HOUR TRAINING SESSION FOR THE LIGHTING CONTROLS BY A MANUFACTURER AUTHORIZED PERSON. TRAINING AGENDA SHOULD BE PROVIDED BEFORE THE CLASS. TRAINING SHOULD INCLUDE:
 - HOW TO OPERATE AND ADJUST THE SYSTEM.
 - HOW TO MAINTAIN THE SYSTEM.
- PROVIDE TWO FOLLOW UP VISITS TO REVIEW OPERATION OF THE SYSTEM AND MAKE ADJUSTMENTS FOR THE OWNER. SCHEDULE FOR 30 DAYS AND 6 MONTHS AFTER OCCUPANCY. SCHEDULE DATES WITH OWNER AT PROJECT CLOSEOUT.

SEE THE FOLLOWING LIGHTING CONTROL SEQUENCE FOR PROPOSED SPACES:

VESTIBULES AND MAIN ENTRANCE EXTERIOR / EGRESS LIGHTING:

- LIGHTING SHALL BE AUTO ON TO 100% LIGHT OUTPUT. VESTIBULES AND MAIN ENTRANCE EXTERIOR / EGRESS LIGHTING WILL BE CONTROLLED BY AN ASTROLOGICAL TIMECLOCK WITH PHOTOCCELL OVERRIDE FOR CLOUDY DAYS AND A MANUAL OVERRIDE "ON" SWITCH LOCATED ON VESTIBULE WALL INSIDE THE ATRIUM. THE TIMECLOCK HAS ITS OWN CAPACITOR BACKUP FOR 100 HOURS. THE VESTIBULE AND MAIN ENTRANCE EXTERIOR EGRESS LIGHTING WILL BE SUPPLIED FROM A REMOTE EMERGENCY INVERTER LOCATED NEAR THE TIMECLOCKS.

KEYED DEMOLITION NOTES

SYMBOL	DESCRIPTION
	REMOVE (4) EXISTING ADA DOOR OPERATORS AND GIVE TO OWNER FOR USE AS SPARES ELSEWHERE IN THE BUILDING. UTILIZE EXISTING ELECTRICAL BOX AS A JUNCTION BOX TO EXTEND WIRING FOR NEW INSTALLATION. INSTALL BLANK COVER
	REMOVE (2) EXISTING EXIT LIGHTS AND DISCARD. REMOVE WIRING BACK TO NEAREST JUNCTION BOX. MAKE ACCOMMODATIONS TO EXTEND WIRING FROM THIS LOCATION TO NEW EXIT LIGHT INSTALLATIONS.
	REMOVE (2) EXTERIOR WALL SCONCES OVER HANDICAP DOORS. REMOVE WIRING BACK TO NEAREST JUNCTION BOX MAKE ACCOMMODATIONS TO EXTEND WIRING FROM THIS LOCATION TO NEW EXTERIOR WALL SCONCES AND SOFFIT LIGHTS.

KEYED CONSTRUCTION NOTES

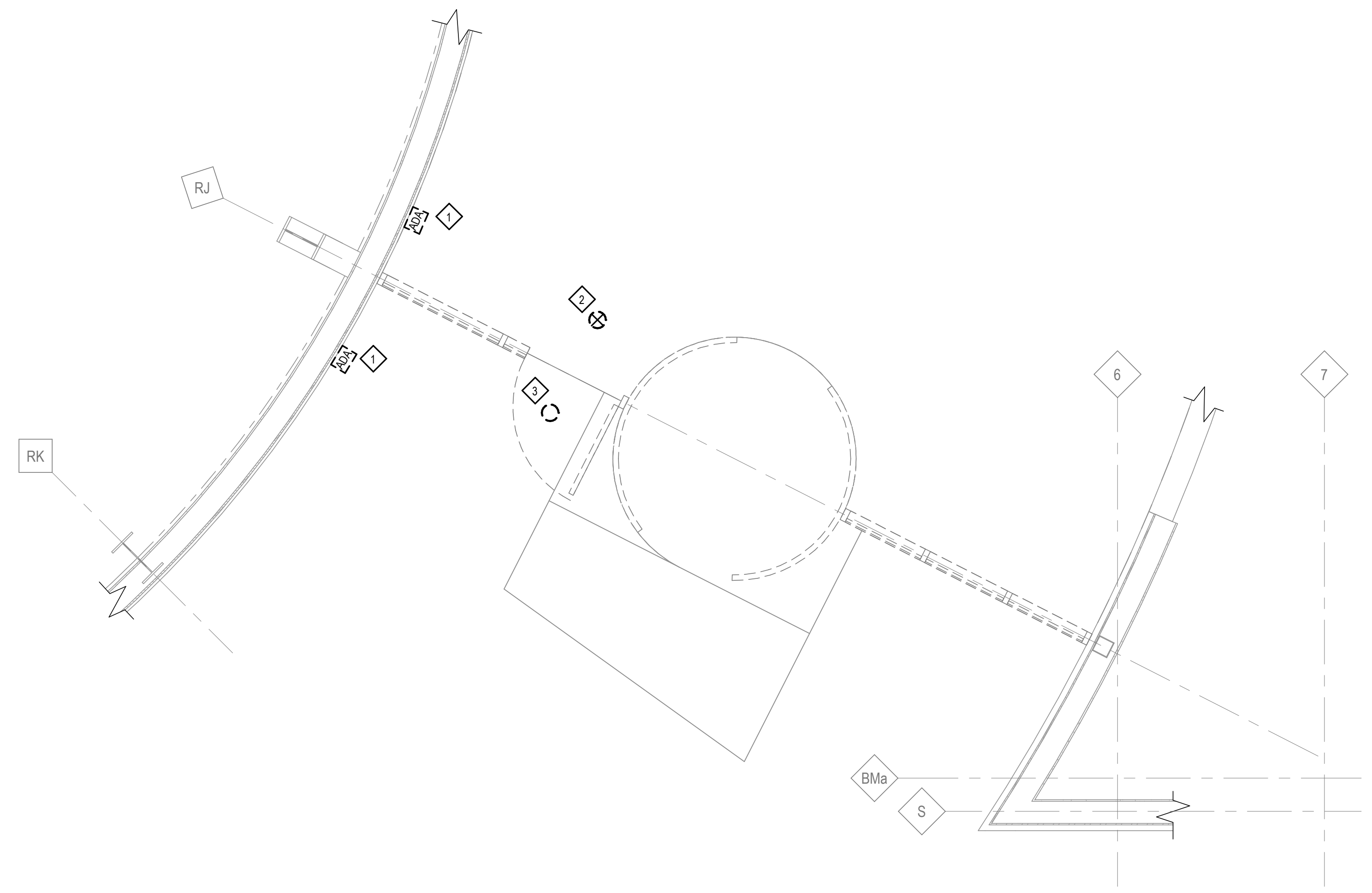
SYMBOL	DESCRIPTION
	INSTALL (8) NEW ADA DOOR OPERATORS (4) AT EACH VESTIBULE LOCATION. TIE INTO EXISTING SALVAGED ADA DOOR OPERATOR CIRCUIT
	INSTALL (4) NEW EXIT LIGHTS. (2) CENTERED ON THE INTERIOR VESTIBULE FACIA (1) AT EACH VESTIBULE LOCATION AND (2) INSIDE THE VESTIBULE NEXT TO THE EXTERIOR DOOR. (1) AT EACH VESTIBULE LOCATION. TIE INTO EXISTING SALVAGED EXIT LIGHT CIRCUIT EL-2.
	INSTALL (4) NEW EXTERIOR WALL SCONCES (2) AT EACH VESTIBULE LOCATION. CENTERED OVER THE MIDDLE WINDOW ON EACH SIDE OF THE VESTIBULE. TIE INTO EXISTING EXTERIOR LIGHTING CIRCUIT EL-4.
	INSTALL (12) NEW RECESSED LED FIXTURES IN VESTIBULE CEILINGS. (6) AT EACH VESTIBULE LOCATION. TIE INTO EXISTING LOBBY LIGHTING CIRCUIT EL-12.
	INSTALL (2) JUNCTION / PULL BOXES INSIDE MAIN BUILDING, (1) FOR EACH VESTIBULE LOCATION AS SHOWN ON DRAWINGS. CONTRACTOR TO FIELD SIZE.
	PROVIDE 208V, 2 POLE FEED TO (2) ELECTRIC HEATERS. (1) IN EACH VESTIBULE. PROVIDE SEPARATE INSULATED EQUIPMENT GROUNDING CONDUCTOR.

LIGHTING FIXTURE SCHEDULE

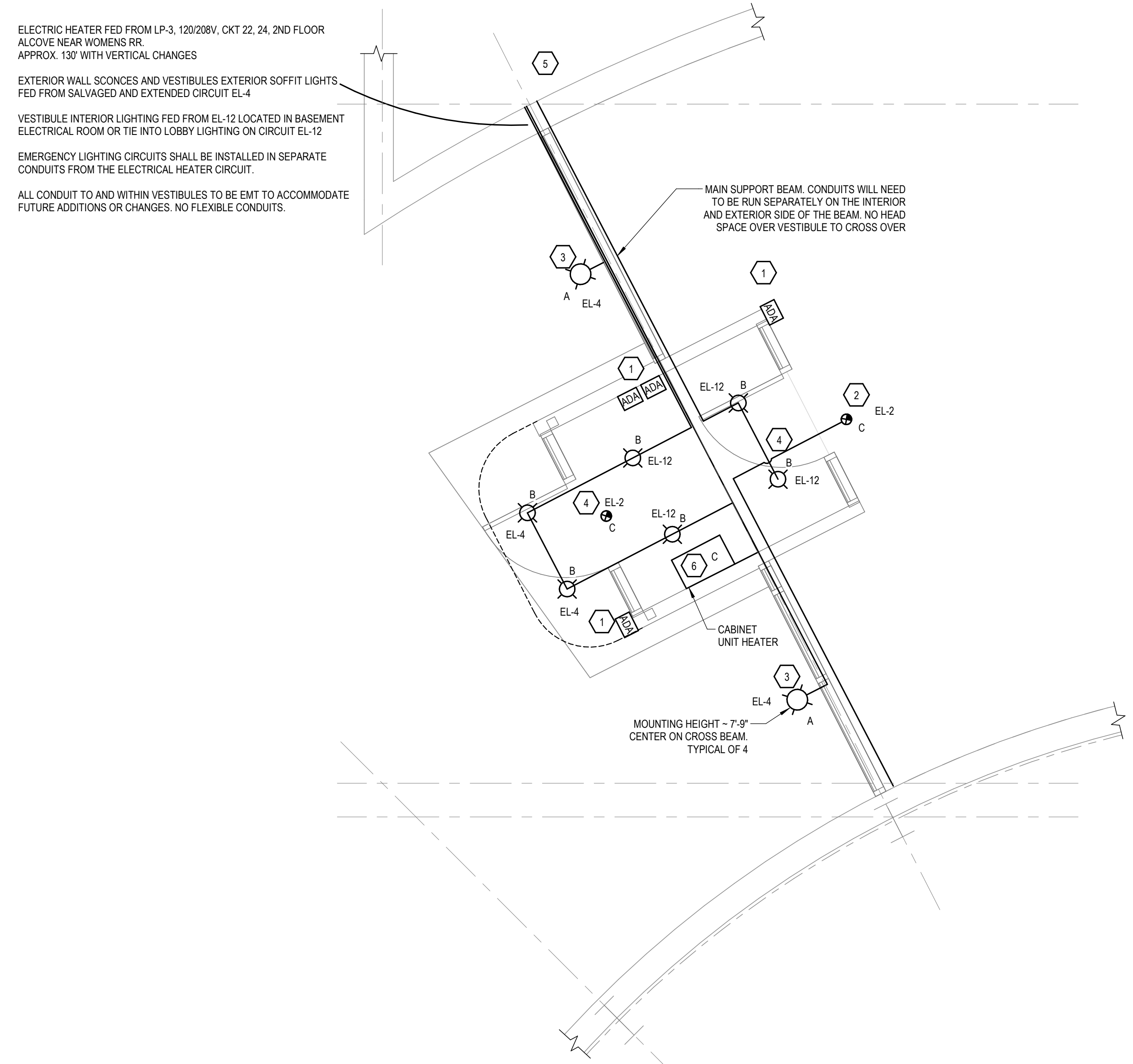
TYPE NAME	TYPE	LAMP	VA	VOLT	DESCRIPTION	BASIS OF DESIGN		COMMENTS
						MANUFACTURER	CAT. NO.	
A	LED	17.5 VA	277 V	6" CLYD. WALL SCONCE, 1500 LUMENS, DN.LT, 80 CRI, 4000K, WET, MATTE WH.	LITHONIA	LDN6CYL4015L06ARLSSMVLGT210MMMLDWHG		
B	LED	6.0 VA	277 V	4" RND. OPEN DN.LT, 597 LUMENS, 80 CRI, 4000K, IC, WET, CLEAR, WH TRIM	LITHONIA	LDN415LM40KLOARTRWLSSMVLGTUGZ-WL		
C	LED	2.3 VA	277 V	EXIT LIGHT, RED, BRUSHED ALUMINUM FACE, DIE CAST AL HOUSING	LITHONIA	SIGNATURE TLE1R		

DATE	1.02.25
STATUS/REVISIONS	ISSUED FOR BIDS
NO.	
CHK'D BY:	E. MARTER
DES'D BY:	R. KAIN
DRAWN BY:	A. FISCHHABER
PROJ #:	24-0543-0241
SHEET	E3.0

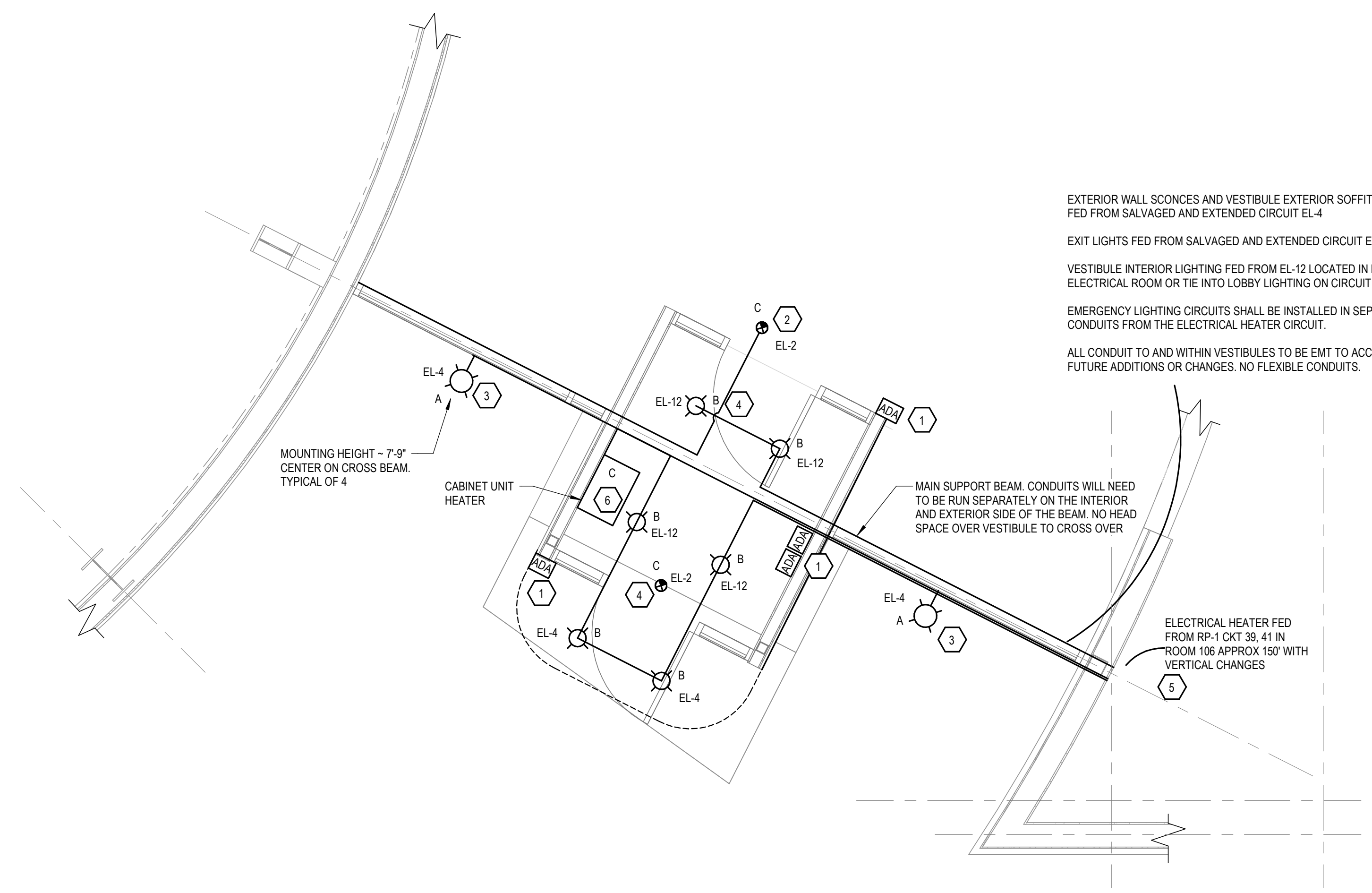
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**FIRST FLOOR POWER AND LIGHTING DEMOLITION PLAN
 TYPICAL FOR EAST & WEST VESTIBULE**
 SCALE: 3/8" = 1'-0"



FIRST FLOOR POWER AND LIGHTING PLAN EAST VESTIBULE
 SCALE: 3/8" = 1'-0"



FIRST FLOOR POWER AND LIGHTING PLAN WEST VESTIBULE
 SCALE: 3/8" = 1'-0"

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ELECTRIC HEATER FED FROM LP-3, 120/208V, CKT 22, 24, 2ND FLOOR
 ALCOVE NEAR WOMENS RR.
 APPROX. 130' WITH VERTICAL CHANGES

EXTERIOR WALL SCONCES AND VESTIBULES EXTERIOR SOFFIT LIGHTS
 FED FROM SALVAGED AND EXTENDED CIRCUIT EL-4

VESTIBULE INTERIOR LIGHTING FED FROM EL-12 LOCATED IN BASEMENT
 ELECTRICAL ROOM OR TIE INTO LOBBY LIGHTING ON CIRCUIT EL-12

EMERGENCY LIGHTING CIRCUITS SHALL BE INSTALLED IN SEPARATE
 CONDUITS FROM THE ELECTRICAL HEATER CIRCUIT.

ALL CONDUIT TO AND WITHIN VESTIBULES TO BE EMT TO ACCOMMODATE
 FUTURE ADDITIONS OR CHANGES. NO FLEXIBLE CONDUITS.

MAIN SUPPORT BEAM. CONDUITS WILL NEED
 TO BE RUN SEPARATELY ON THE INTERIOR
 AND EXTERIOR SIDE OF THE BEAM. NO HEAD
 SPACE OVER VESTIBULE TO CROSS OVER

EXTERIOR WALL SCONCES AND VESTIBULE EXTERIOR SOFFIT LIGHTS
 FED FROM SALVAGED AND EXTENDED CIRCUIT EL-4

EXIT LIGHTS FED FROM SALVAGED AND EXTENDED CIRCUIT EL-2

VESTIBULE INTERIOR LIGHTING FED FROM EL-12 LOCATED IN BASEMENT
 ELECTRICAL ROOM OR TIE INTO LOBBY LIGHTING ON CIRCUIT EL-12

EMERGENCY LIGHTING CIRCUITS SHALL BE INSTALLED IN SEPARATE
 CONDUITS FROM THE ELECTRICAL HEATER CIRCUIT.

ALL CONDUIT TO AND WITHIN VESTIBULES TO BE EMT TO ACCOMMODATE
 FUTURE ADDITIONS OR CHANGES. NO FLEXIBLE CONDUITS.

ELECTRICAL HEATER FED
 FROM RP-1 CKT 39, 41 IN
 ROOM 106 APPROX. 150' WITH
 VERTICAL CHANGES

BRANCH PANEL: PANELBOARD RP-1

LOCATION: FIRST FLOOR IT ROOM 106
VOLTS: 120/208V
A.I.C RATING: 10,000A
SUPPLY FROM: DP-1
PHASES: 3
MAINS TYPE: MLO
MOUNTING: Surface
WIRES: 4
ENCLOSURE: NEMA 1, Square D NQOD
MAINS RATING: 225

NOTES:

CKT	CIRCUIT DESCRIPTION	TRIP	POLES	A	B	C	POLES	TRIP	CIRCUIT DESCRIPTION	CKT		
1	4 RECEPT. RM. 102 DESK AREA	20	1	800	750		1	20	10 "IB" CONF. RM. 110	2		
3	5 RECEPT. GIFT SHOP COUNTER RM. 103	20	1		1000	600	1	20	COPY ROOM	4		
5	1 RECEPT. OFFICE RM. 105	20	1			200	600	1	20	COPY ROOM	6	
7	RECEPT. OFFICE AREA 104 KITCHEN EAST	20	1	1200	600			1	20	COP	8	
9	RECEPT. OFFICE AREA 104 KITCHEN WEST		1		1200	800		1	20	4 RECEPT. CONF. ROOM 110	10	
11	2 RECEPT. OFFICES 104	20	1			400	400	1	20	2 RECEPT. LOBBY 100 SOUTH	12	
13	3 RECEPT. OFFICES 104	20	1	600	600			1	20	3 RECEPT. S. CORRIDOR 101 / MENS RR 112	14	
15	VAV CONTROLS - 1ST FLOOR SOUTH	20	1		600	1176		1	20	FAN POWER VAV BOX 1/2 HP	16	
17	CC-1 OR SPARE?	60	2			2330	1176	1	20	FAN POWER VAV BOX 1/2 HP	18	
19				2330	150			1	20	CUH-1 1/10 HP	20	
21	PROJECTOR RECEPT. ROOM 116	20	1		500	120		1	20	CP-1 1/30 HP THIS ROOM	22	
23	4 RECEPT. - PARKING LOT	20	1			800	0	1	20	SPARE	24	
25	SPARE	20	2		0			1	20	DRINKING FOUNTAIN	26	
27					0			1	20	SPARE	28	
29	TELEPHONE BOARD RECEPT.	20	1			400	200	1	20	RECEPT. LOBBY IN FLOOR	30	
31	GIFT SHOP S. RECEPTS.	20	1	600	500			1	20	KIOSK	32	
33	SPARE	20	1		0	800		1	20	U.C. REFRIG. OFFICE 111	34	
35	SPARE	20	1			0	0	1	20	SPARE	36	
37	SPARE	20	1	0	2400						38	
39					1500	2400		2	20	208V RECEPT THIS ROOM TEMP A/C	40	
41	HEATER WEST ENTRANCE VESTIBULE	20	2			1500	0	1	20	SPARE	42	
TOTAL LOAD:				10530		10696		8006				
TOTAL AMPS:				88		89		67				

LEGEND:

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
Lighting	0	125%		TOTAL CONN LOAD VA: 29,232.0
Motor	3222	125% LG + REMAIN	3516	TOTAL EST DEMAND VA: 28,951.0
Receptacle	13550	100% 10kva + 50%	11775	TOTAL CONN AMPS: 81
Electric Heat	3000	100%	3000	
A/C	9460	125% LG + REMAIN	10660	EST DEMAND AMPS: 80

BRANCH PANEL: PANELBOARD LP-3

LOCATION: SECOND FLOOR ALCOVE NEAR WOMENS RR
VOLTS: 120/208V
A.I.C RATING: 10,000A
SUPPLY FROM: DP-1
PHASES: 3
MAINS TYPE: MLO
MOUNTING: Surface
WIRES: 4
ENCLOSURE: NEMA 1, Square D NQOD
MAINS RATING: 225

NOTES:

CKT	CIRCUIT DESCRIPTION	TRIP	POLES	A	B	C	POLES	TRIP	CIRCUIT DESCRIPTION	CKT		
1	16 LOBBY TRACK LIGHTS SOUTH	20	1	2210	100		1	20	SPARE?	2		
3	16 LOBBY TRACK LIGHTS SOUTH	20	1		2210	0	1	20	SPARE?	4		
5	16 LOBBY TRACK LIGHTS EAST	20	1			2210	800	1	20	LIGHTS RM. 122 MIDDLE ROW	6	
7	16 LOBBY TRACK LIGHTS EAST	20	1	2210	800			1	20	LIGHTS RM. 122 MIDDLE ROW	8	
9	LIGHTS RM. 122 S. ROW		1		800	780		1	20	EXT. GROUND LIGHT N. AROUND DOME	10	
11	LIGHTS RM. 122 S. ROW	20	1			800	780	1	20	EXT. GROUND LIGHT W. AROUND DOME	12	
13	OUTSIDE SIDGN - NW CORNER	20	1	1920	800			1	20	LIGHTS RM. 122 N ROW & EAST EM LIGHT	14	
15	EXT. GROUND LTS AROUND ELEVATOR	20	1		650	800		1	20	LIGHTS RM. 122 N ROW	16	
17	EXT. GROUND LTS AROUND ELEVATOR	60	2			780	440	1	20	LTS S. HALL, GARAGE DR, OUTDR SOFFIT	18	
19	SPARE			0	0			1	20	SPARE	20	
21	DRINKING FOUNTAION	20	1		600	1500		2	20	HEATER EAST ENTRANCE VESTIBULE	22	
23	DRINKING FOUNTAION	20	1			600	1500				24	
25	SPARE	20	2	0	0			1	20	SPARE	26	
27	BLANK			0	0			1	20	SPARE	28	
29	BLANK	20	1			0	0	1	20	BLANK	30	
31	BLANK	20	1	0	0			1	20	BLANK	32	
33	BLANK	20	1		0	0		1	20	BLANK	34	
35	BLANK	20	1			0	0	1	20	BLANK	36	
37	BLANK			0	0					BLANK	38	
39	BLANK			0	0			2	20	BLANK	40	
41	BLANK	20	2			0	0	1	20	BLANK	42	
TOTAL LOAD:				8040		7340		7910				
TOTAL AMPS:				67		61		66				

LEGEND:

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
Lighting	19090	125%	23862.5	TOTAL CONN LOAD VA: 23,290.0
Drinking Fountains	1200	125% LG + REMAIN	1350	TOTAL EST DEMAND VA: 28,212.5
Receptacle	0	100% 10kva + 50%	0	TOTAL CONN AMPS: 65
Electric Heat	3000	100%	3000	EST DEMAND AMPS: 78

BRANCH PANEL: PANELBOARD EMERGENCY LIGHTING - EL

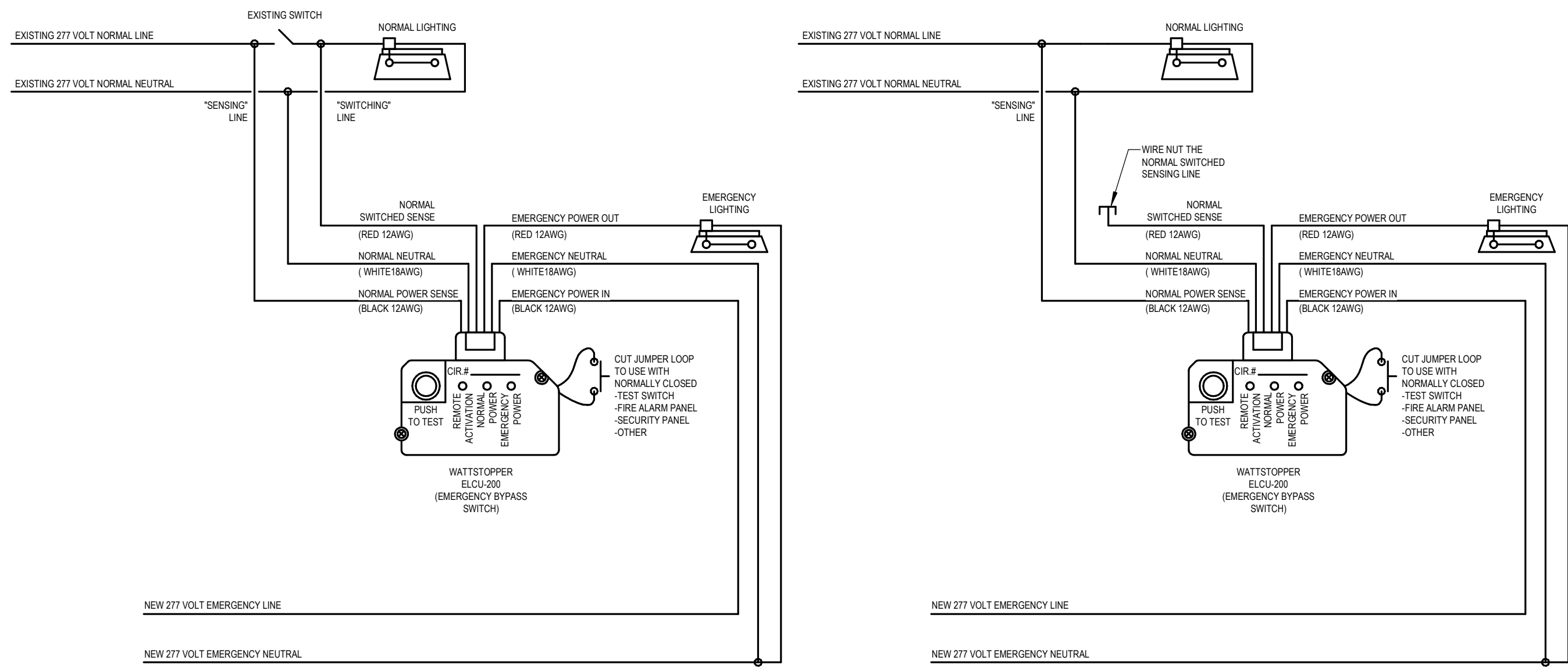
LOCATION: BASEMENT ELECTRICAL ROOM 003, SE CORNER
VOLTS: 277/480V
A.I.C RATING: 10,000
SUPPLY FROM: ATS-EL
PHASES: 3
MAINS TYPE: BRANCH MOUNTED MAIN WITHIN PANEL
MOUNTING: Surface
WIRES: 4
ENCLOSURE: NEMA 1, Square D NF
MAINS RATING: 40A

NOTES:

CKT	CIRCUIT DESCRIPTION	TRIP	POLES	A	B	C	POLES	TRIP	CIRCUIT DESCRIPTION	CKT	
1	BRANCH MOUNTED MAIN CIRCUIT BREAKER			MAIN	29.0		1	20	EXIT LIGHTS	2	
3	BRANCH MOUNTED MAIN CIRCUIT BREAKER	40	3		MAIN	553.0	1	20	OUTSIDE LIGHTS	4	
5	BRANCH MOUNTED MAIN CIRCUIT BREAKER					MAIN	520.0	1	20	PASSAGE/BALCONY LIGHTS	6
7	FIRE ALARM PANEL	25	1	120.0	364.0		1	20	RESTROOM LIGHTS	8	
9	PREPARED SACE				0	771.0	1	20	THEATER LIGHTS	10	
11	PREPARED SACE					0	356.0	1	20	LOBBY LIGHTS	12
13	PREPARED SACE			710.0			1	20	BASEMENT LIGHTS	14	
15	PREPARED SACE				0	360.0	1	20	CIRCLE STARIS	16	
17	PREPARED SACE					0	421.0	1	20	STAIR 075E, 175D, 275D	18
19	PREPARED SACE			0	284.0		1	20	STAIR 175F, 275F	20	
21	TRANSFORMER T-EL ROOF				867.0	120.0	1	20	CORRIDOR 175E, 275E	22	
23	TRANSFORMER T-EL ROOF	30	3			867.0	120.0	1	20	CORRIDOR 175C, 275C	24
25	TRANSFORMER T-EL ROOF			867.0	0				PREPARED SPACE	26	
27	TVSS	30	2		0.2	0			PREPARED SPACE	28	
29	TVSS					0.2	0		PREPARED SPACE	30	
TOTAL LOAD:				2374.0		2671.2		2284.2			
TOTAL AMPS:				9		10		8			

LEGEND:

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
Lighting	7209.0	125%	9011.3	TOTAL CONN LOAD VA: 7,329.4
Equipment	120.4	125% LG + REMAIN	150.4	TOTAL EST DEMAND VA: 9,161.7
				TOTAL CONN AMPS: 8.8
				EST DEMAND AMPS: 11.0



TYPICAL EBS WIRING DIAGRAM WITH LOCAL SWITCHING

TYPICAL EBS WIRING DIAGRAM WITH NO LOCAL SWITCHING