

East Memorial Stadium Welcome Center

Kansas State University
Manhattan, Kansas 66506

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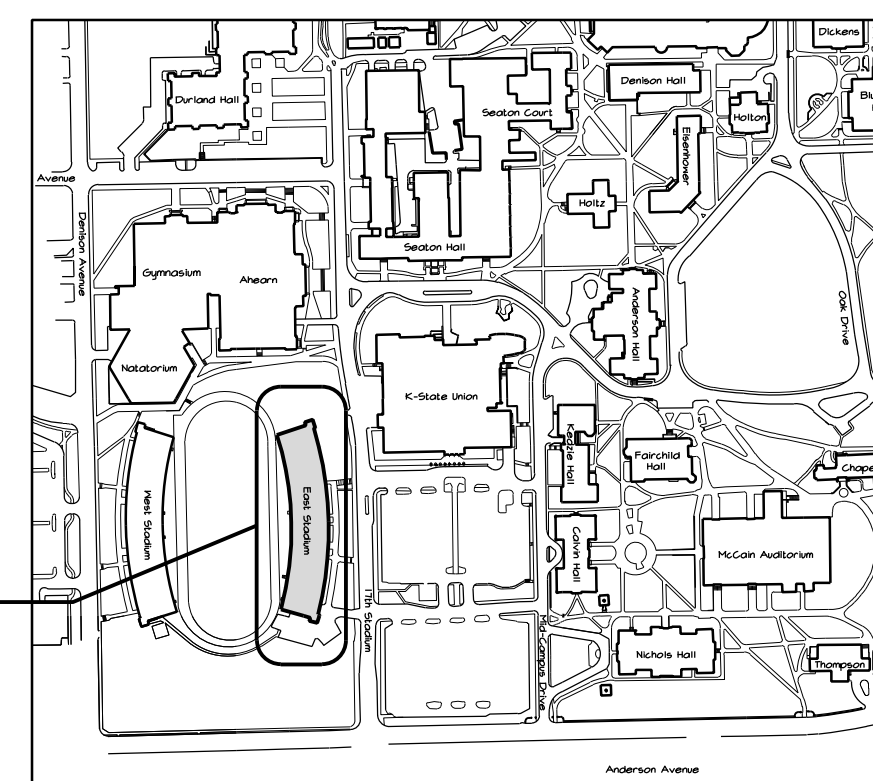
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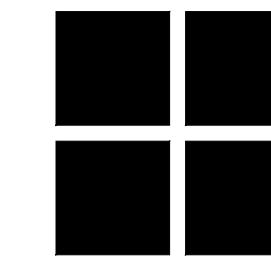


Project Location

Location Map 

Design Team

Architect



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Civil Engineer



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Kansas State University
**EAST MEMORIAL STADIUM
WELCOME CENTER**
803 N. 17TH STREET MANHATTAN, KANSAS 66506
BUILDING NUMBER - 36700 - 00104
DATE: OCT 2014 DRAWN BY: CAD

COVER
SHEET

A-011845

G1

DESIGN DEVELOPMENT
SUBMITTAL

CODE FOOTPRINT SHEET INDEX

- CF1 GENERAL INFORMATION
- CF2 LEGEND, SITE PLAN
- CF3 MAIN FLOOR & MEZZANINE CODE PLAN

CODE DATA

FACILITY TYPE: CAMPUS WELCOME CENTER FOR POTENTIAL FUTURE STUDENTS AND OFFICES FOR NEW STUDENT SERVICES, CAREER AND EMPLOYMENT SERVICES

PROJECT TYPE: RENOVATION OF AN EXISTING BUILDING

ADDRESS: 803 N. 17th STREET
KANSAS STATE UNIVERSITY
MANHATTAN, KANSAS 66506

OWNER: STATE OF KANSAS (KANSAS STATE UNIVERSITY)

LOCAL FIRE DEPARTMENT: MANHATTAN FIRE DEPARTMENT

LOCAL BUILDING INSPECTION DEPARTMENT: OFFICE OF FACILITIES AND PROCUREMENT MANAGEMENT - DESIGN, CONSTRUCTION & COMPLIANCE

ARCHITECT: THE EBERT MAYO DESIGN GROUP

CODES/REGS UTILIZED IN DESIGN:
2006 INTERNATIONAL BUILDING CODE NFPA 70 - 2008 NEC, ELECTRICAL CODE
2006 INTERNATIONAL FIRE CODE 2006 INTERNATIONAL FUEL GAS CODE
2006 INTERNATIONAL MECHANICAL CODE KANSAS FIRE PREVENTION CODE
2006 INTERNATIONAL PLUMBING CODE KANSAS STATE BOILER CODE K.S.A. 44-913
2006 INTERNATIONAL ENERGY CONSERVATION CODE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

OCCUPANCY GROUP (CHAPTER 3): A-3; LECTURE HALL
S; OFFICES AND ASSOCIATED FUNCTIONS

OCCUPANCY SEPARATION (508.3): NON-SEPARATED MIXED USE BUILDING COMPLYING WITH MOST RESTRICTIVE REQUIREMENTS (A-3).

OCCUPANT LOAD FACTORS (TABLE 1004.1.1):
ASSEMBLY W/O FIXED SEATS = 15 SF PER PERSON
ASSEMBLY WITH FIXED SEATS = SECTION 1004.7
CATERING KITCHEN = 200 SF PER PERSON
OFFICES = 100 SF PER PERSON
STORAGE, MECHANICAL = 300 SF PER PERSON

CONSTRUCTION TYPE (TABLE 503): TYPE I-B

BUILDING HEIGHT AND AREAS (TABLE 503):
ALLOWABLE HEIGHT: 11 STORIES
ACTUAL HEIGHT: 1 STORY WITH MEZZANINE
ALLOWABLE AREA: UNLIMITED
ACTUAL AREA: MAIN FLOOR = 28,100 S.F.
MEZZANINE = 9,100 S.F.
TOTAL = 37,200 S.F.

EXIST ACCESS TRAVEL DISTANCE (TABLE 1016.1.1): A, WITH SPRINKLERS = 250 FT

SAFETY FEATURES

- ACTIVE FEATURES
1. AUTOMATIC SPRINKLER SYSTEM: REQUIRED AND PROVIDED. (907.2.1)
 2. FIRE ALARM SYSTEM: REQUIRED AND PROVIDED.
 3. EXIT SIGNS: REQUIRED AND PROVIDED.
 4. EMERGENCY EGRESS LIGHTING: REQUIRED AND PROVIDED. (1006.3)
 5. FIRE EXTINGUISHERS: REQUIRED AND PROVIDED. (NFPA 10, IFC 906)

STRUCTURAL FIRE PROTECTION (TABLE 601)

STRUCTURAL FRAME	2 HOURS
EXTERIOR BEARING WALLS	2 HOURS
INTERIOR BEARING WALLS	2 HOURS
EXTERIOR NON BEARING WALLS	0 HOURS
INTERIOR NON BEARING WALLS	0 HOURS
FLOOR CONSTRUCTION	2 HOURS
ROOF CONSTRUCTION	1 HOUR

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

OCCUPANT LOAD: $\frac{506}{2} = 303$ FEMALE, 303 MALE

WATER CLOSETS REQ'D	LAVATORIES REQ'D
FEMALE: 5 (1 PER 65)	2 (1 PER 200)
MALE: 3 (1 PER 125)	2 (1 PER 200)
DRINKING FOUNTAINS REQ'D	SERVICE SINK REQ'D
2 (1 PER 500)	1

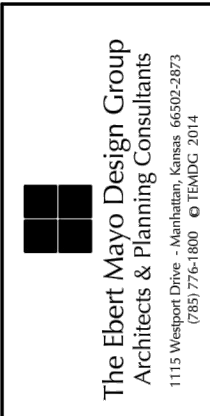
NOTE: IPC 410.1 ALLOWS UP TO 50% OF MENS WATER CLOSETS TO BE URINALS

WATER SUPPLY - FLOW TESTS

STATIC:
RESIDUAL:
FLOW:

CODES/REGS. UTILIZED IN DESIGN: 2006 IBC, The current version of Kansas Statute 31-150 only recognized the 2000 edition of the IBC, International Building Code, as the standard for school construction. Statute defines colleges and universities as schools. The Kansas State Fire Marshal will accept compliant design and construction per the 2006 IBC via the 2000 IBC 104.11 - Alternative materials, design and methods of construction.

K-STATE FACILITIES	DATE	IMPORTANT ANY DEVIATIONS FROM THIS DOCUMENT MAY RESULT IN THE DELAY OF ISSUING THE CERTIFICATE OF OCCUPANCY. CHANGES AFFECTING THIS CODE FOOTPRINT SHALL BE DOCUMENTED BY THE CONSULTANT AND APPROVED BY THE AHJ.
OFFM - CODE COMPLIANCE COORDINATOR	DATE	
STATE FIRE MARSHAL REPRESENTATIVE	DATE	
K-STATE PUBLIC SAFETY	DATE	



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DRAWN BY: AJWZ
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A-012254

CF1
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CODE
FOOTPRINT

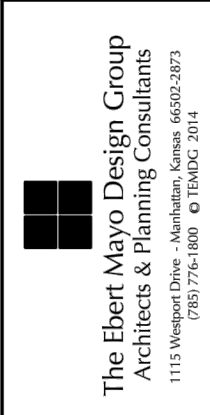
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G2

DESIGN DEVELOPMENT
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Symbol	Description	Protection Elements
	Exit - Exterior	
	Exit - Interior (Assembly Occupancies over 50 & exits from floors)	
	Fire Extinguisher	42"-60" AFF Mounting Height to bracket / handle.
	Fire Department Connection (FDC)	
	Standpipe	Class 1
	Fire Extinguisher Spacing (show radius)	75-Ft Radius - Class A (Offices, Classrooms, Assembly Halls, etc.) 50-Ft Radius - Class B (Storage, Shop, Research, Warehouse, etc.)
	Non-Protected Exit Path	
	1-Hour Exit Enclosure (vertical) (stairwell - 3 stories or less)	1-Hour Fire Barrier wall construction. No openings other than required exit doors. 1-Hour door assembly.
	2-Hour Exit Enclosure (vertical) (stairwell - 4 stories and more)	2-Hour Fire Barrier wall construction. No openings other than required exit doors. 1.5-Hour door assembly.
	Sprinklered Incidental Use Area (Storage Rooms, Per OPM)	Wall construction to resist the passage of smoke from floor to F.R. floor/ceiling assembly. Self-closing or automatic-closing doors, no air transfer grilles.
	1-Hour Fire Barrier (Occupancy and Incidental Use Areas)	1-Hour Fire Barrier wall construction. 34-Hour rated door assembly. Fire Dampers.
	2-Hour Fire Barrier (Occupancy)	2-Hour Fire Barrier wall construction. 1.5-Hour rated door assembly. Fire Dampers.
	1-Hour Shaft (3 stories)	1-Hour Fire Barrier wall construction. 34-Hour rated door assembly. Fire/Smoke Dampers.
	2-Hour Shaft (4 stories or more)	2-Hour Fire Barrier wall construction. 1.5-Hour rated door assembly. Fire/Smoke Dampers.
	Accumulated exit width at required exit (clear width)	Occupants / Required Width Provided Width
	Public Fire Hydrant (show distance from building)	300' Max. Connection Distance to Fire Truck (200' Max. Hose Distance from Fire Truck to Building)
	Room Designation & Occupancy	Room Type / Occupancy Type SF / Maximum Allowable Occupants
	Show accumulated occupant loads for complex exit paths (when applicable)	Wall construction to resist the passage of smoke from floor to floor to F.R. floor/ceiling assembly. Self- or automatic-closing doors, no air transfer grilles.

SITE PLAN HERE



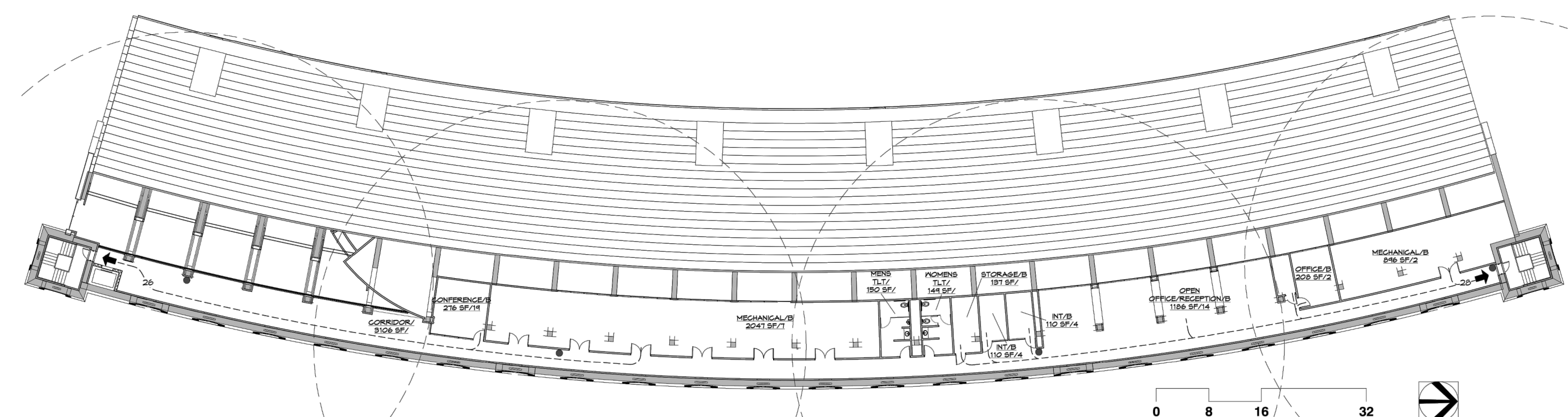
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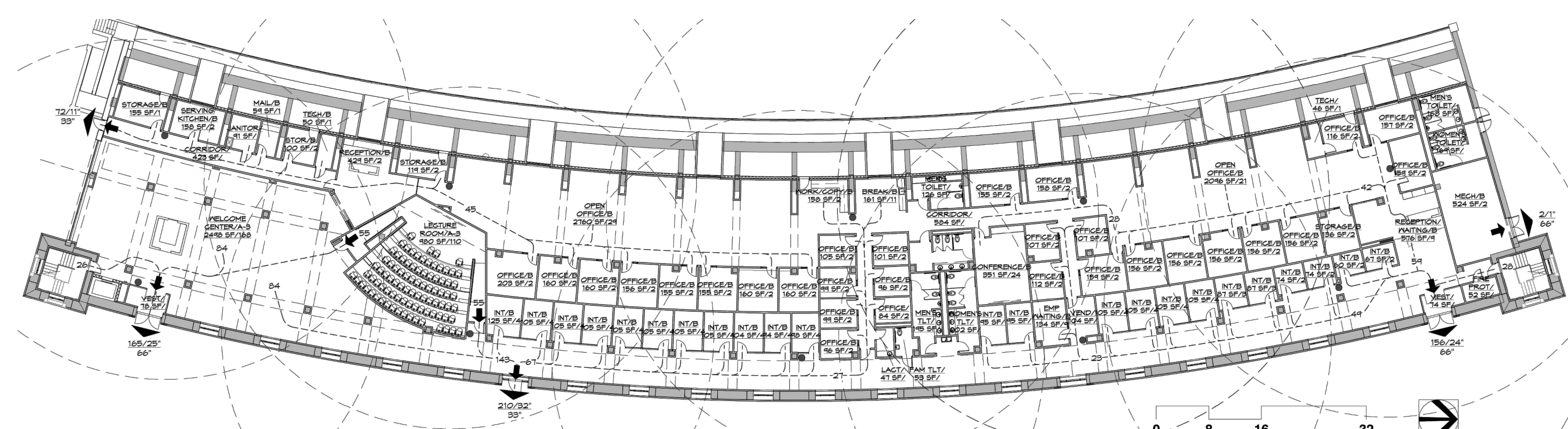
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CF2
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CODE FOOTPRINT - MEZZANINE FLOOR PLAN
1/32" = 1'-0"



CODE FOOTPRINT - FIRST FLOOR PLAN
1/32" = 1'-0"

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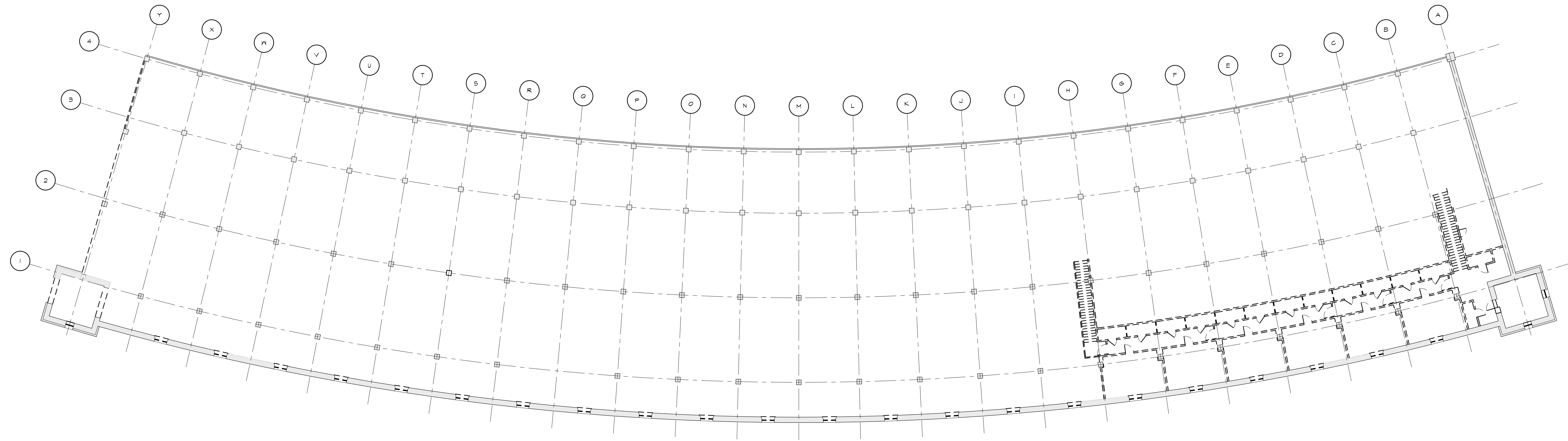

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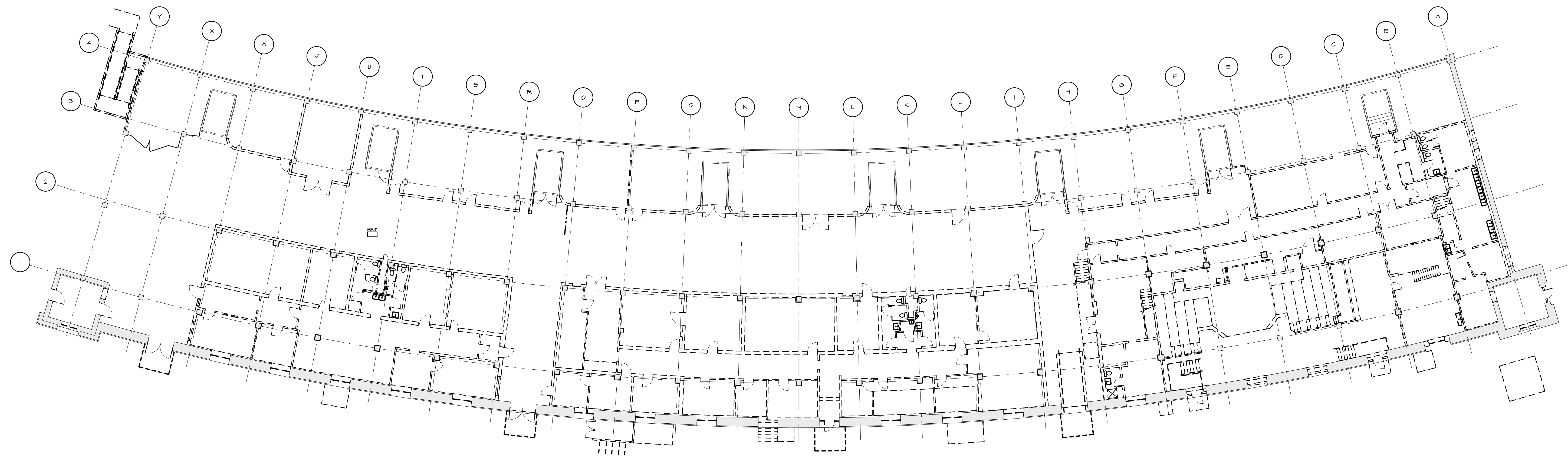
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CODE
 FOOTPRINT
A-011845
G3
 DESIGN DEVELOPMENT
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B MEZZANINE DEMOLITION PLAN
1/16" = 1'-0"



A FIRST FLOOR DEMOLITION PLAN
1/16" = 1'-0"

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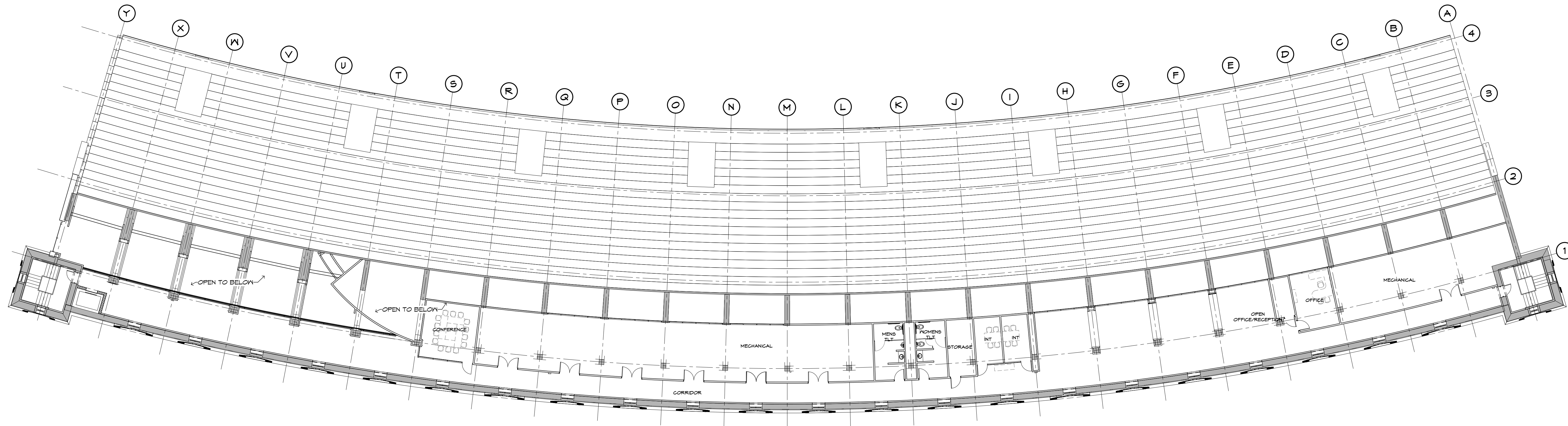
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DEMOLITION
PLANS

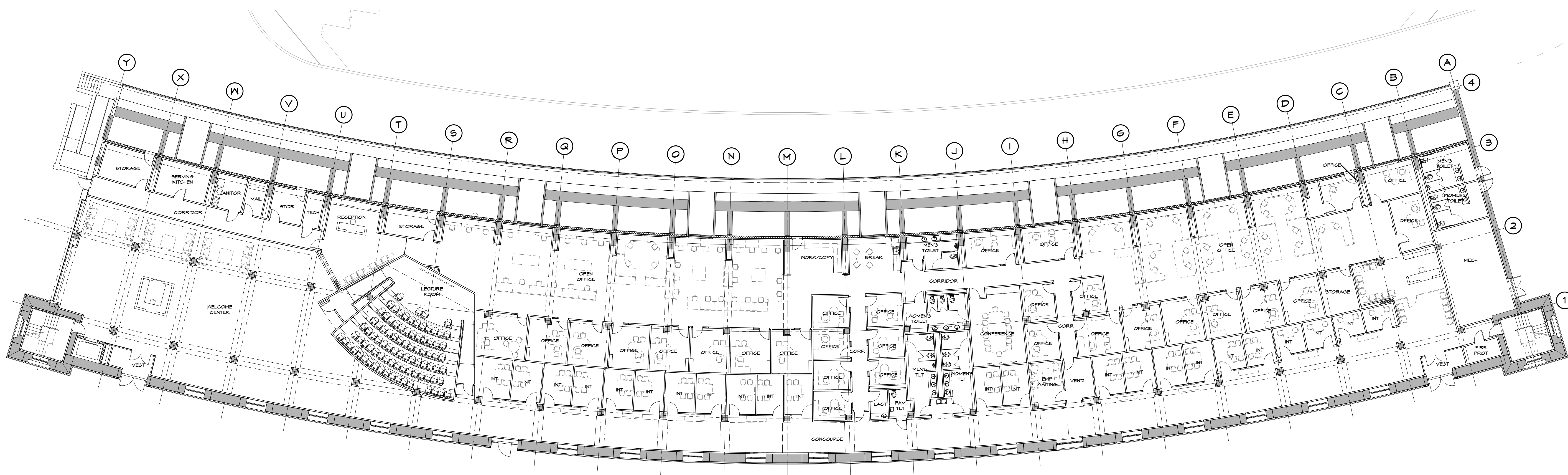
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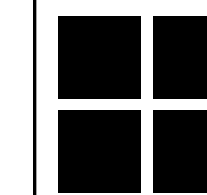
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B OVERALL MEZZANINE FLOOR IMPROVEMENT PLAN
1/16" = 1'-0"



A OVERALL FIRST FLOOR IMPROVEMENT PLAN
1/16" = 1'-0"



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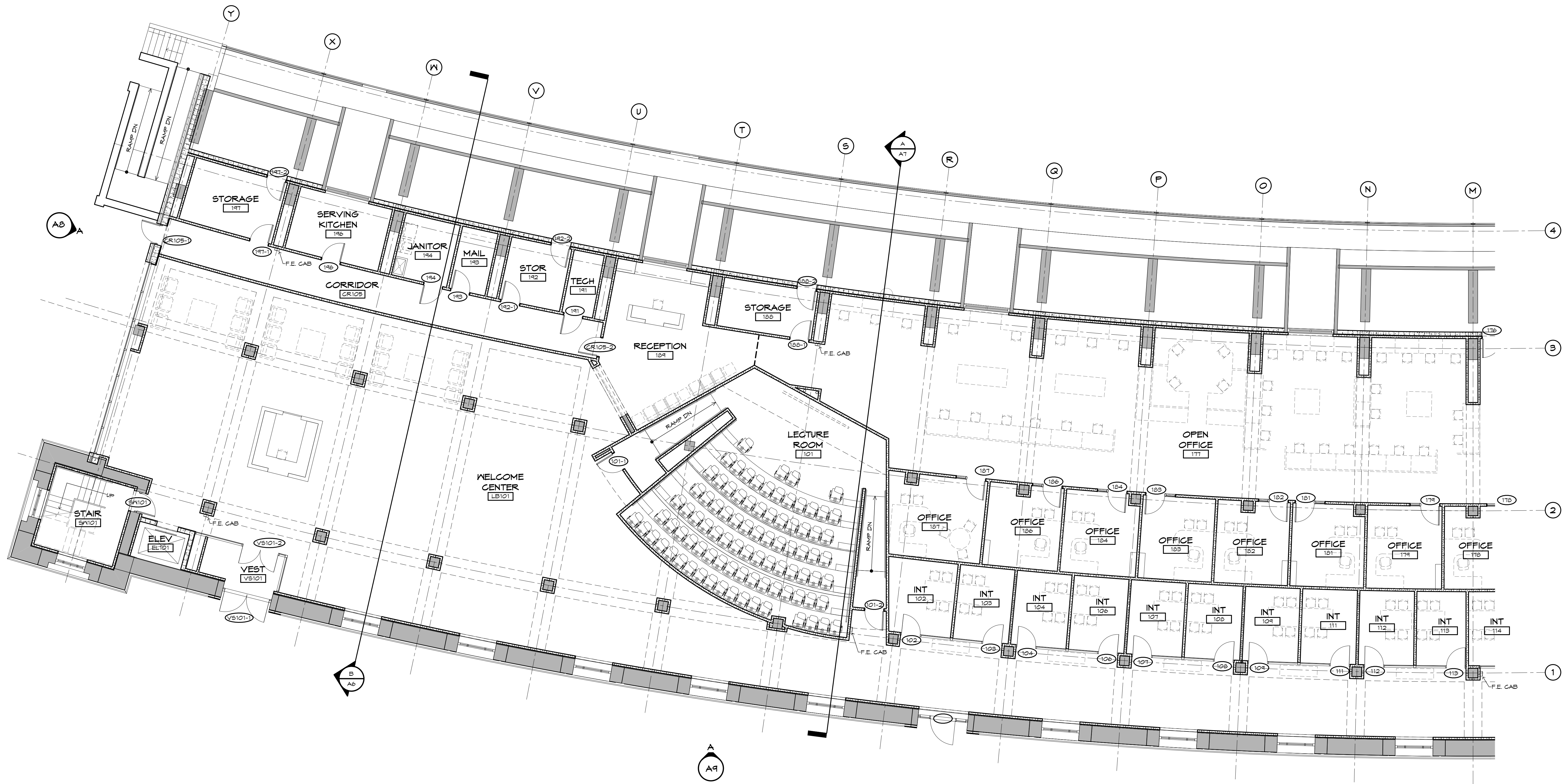
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OVERALL
IMPROVEMENT PLANS

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A1

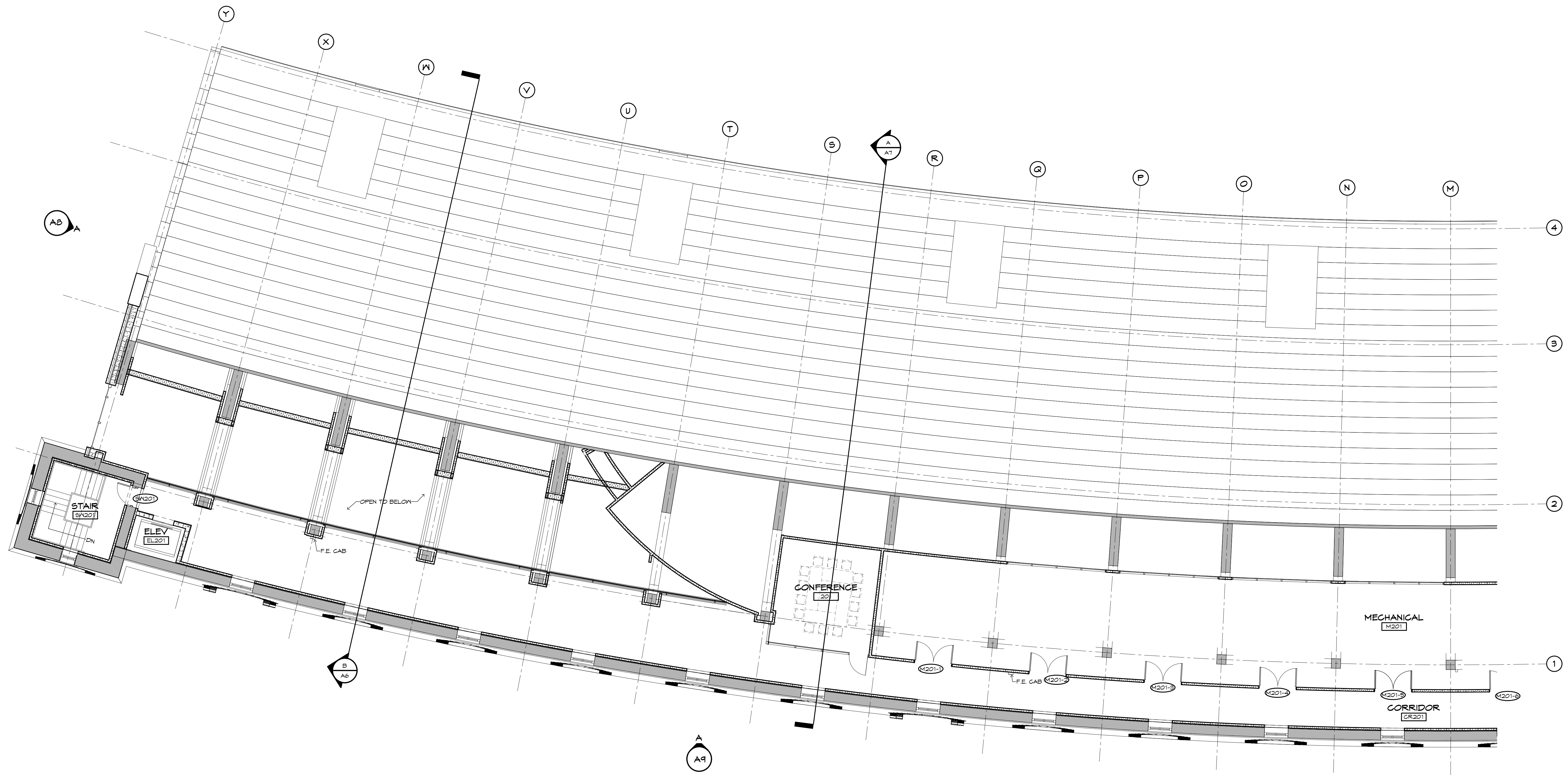
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A FIRST FLOOR IMPROVEMENT PLAN - SOUTH
1/8" = 1'-0"



A FIRST FLOOR IMPROVEMENT PLAN - NORTH
1/8" = 1'-0"



A MEZZANINE IMPROVEMENT PLAN - SOUTH
1/8" = 1'-0"

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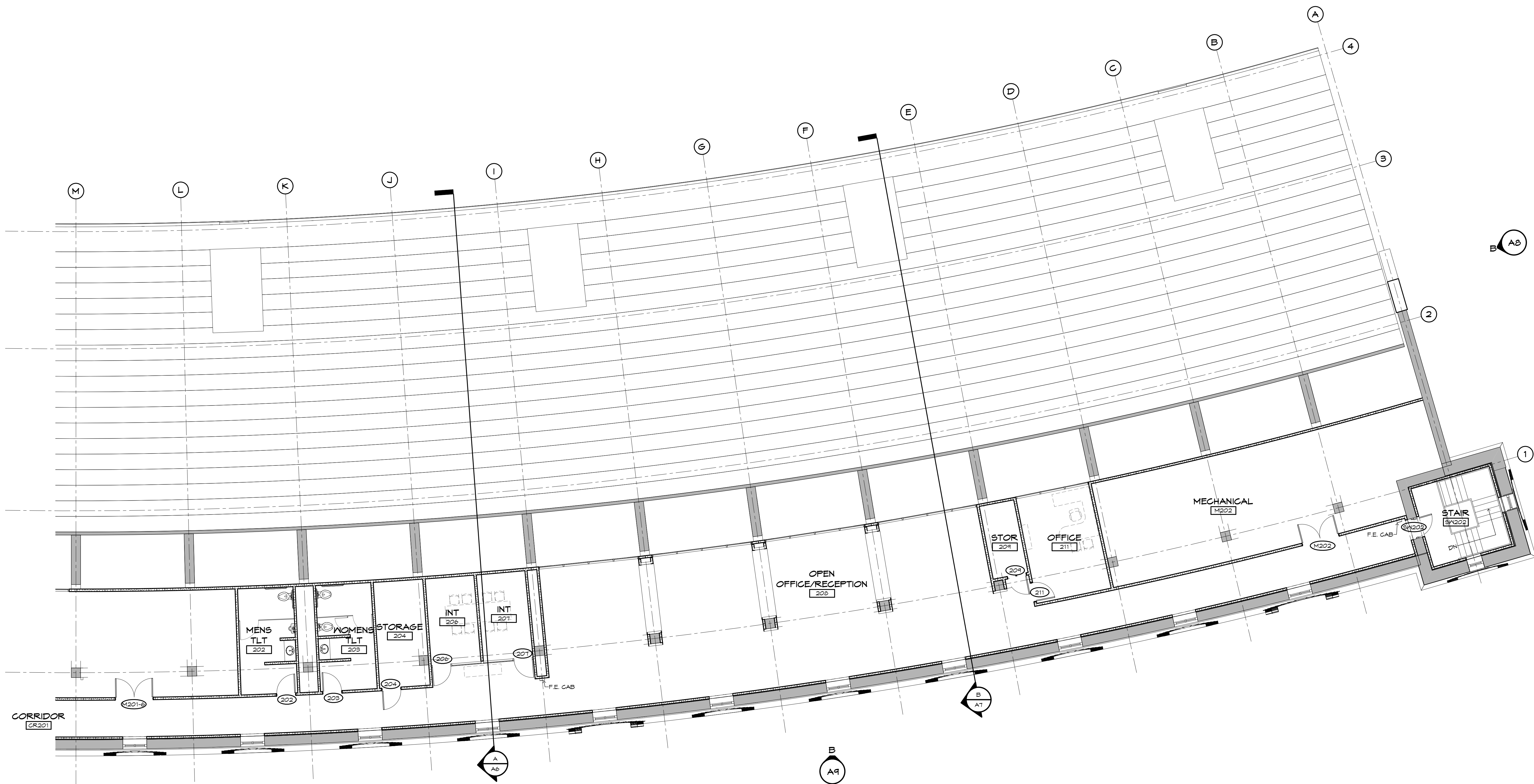
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MEZZANINE
IMPROVEMENT PLAN -
SOUTH

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A4
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A MEZZANINE IMPROVEMENT PLAN - NORTH
1/8" = 1'-0"

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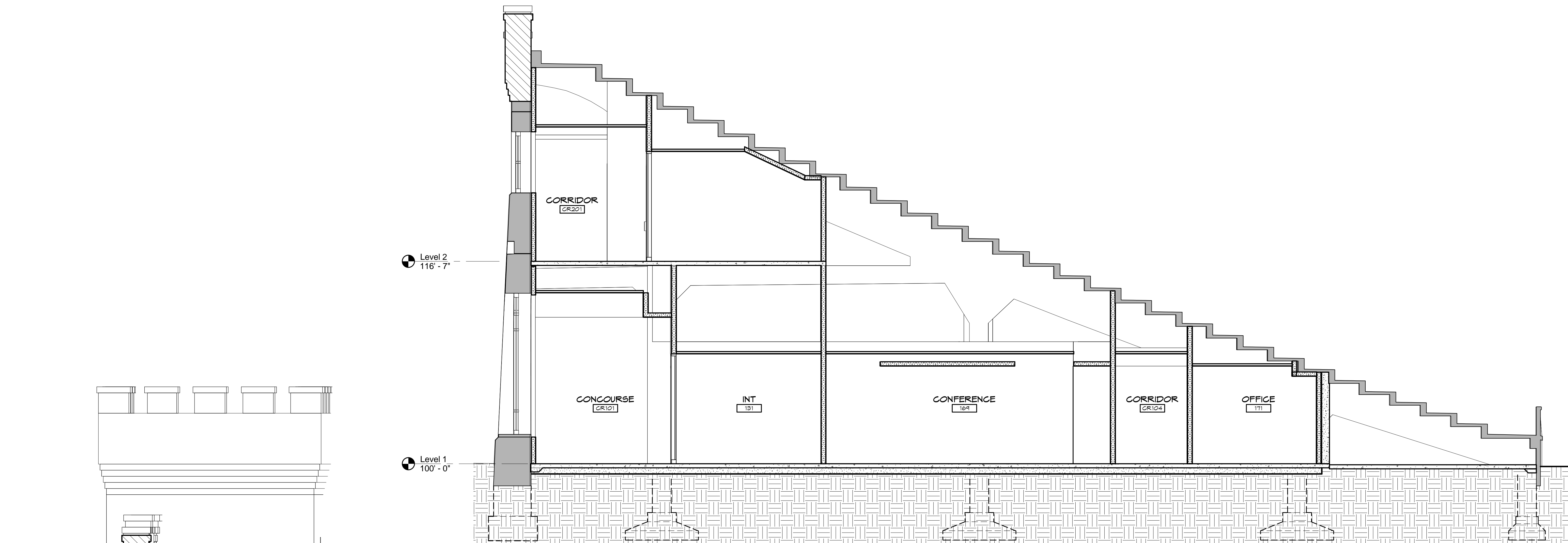
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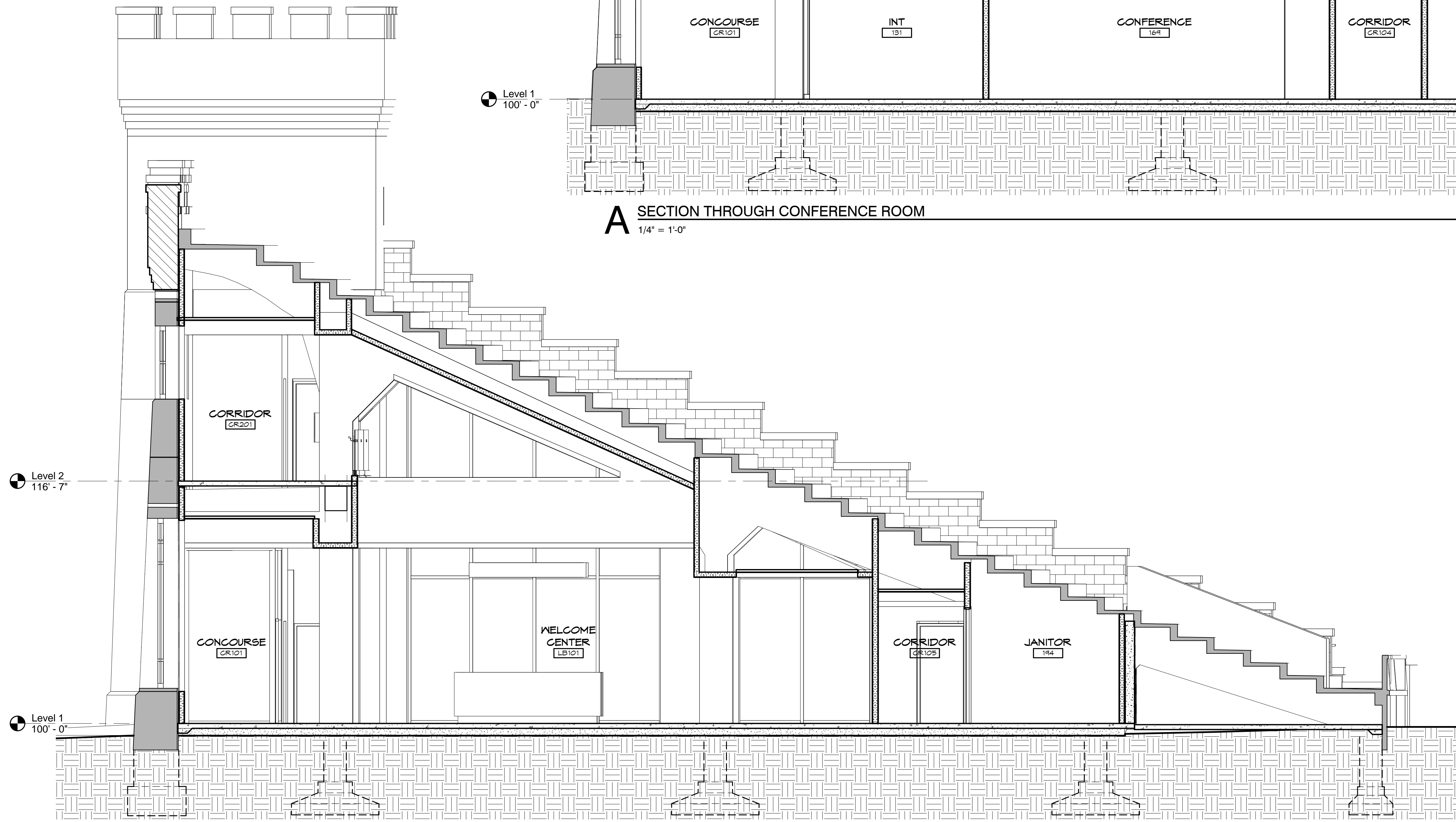
MEZZANINE
IMPROVEMENT PLAN -
NORTH

A-011845

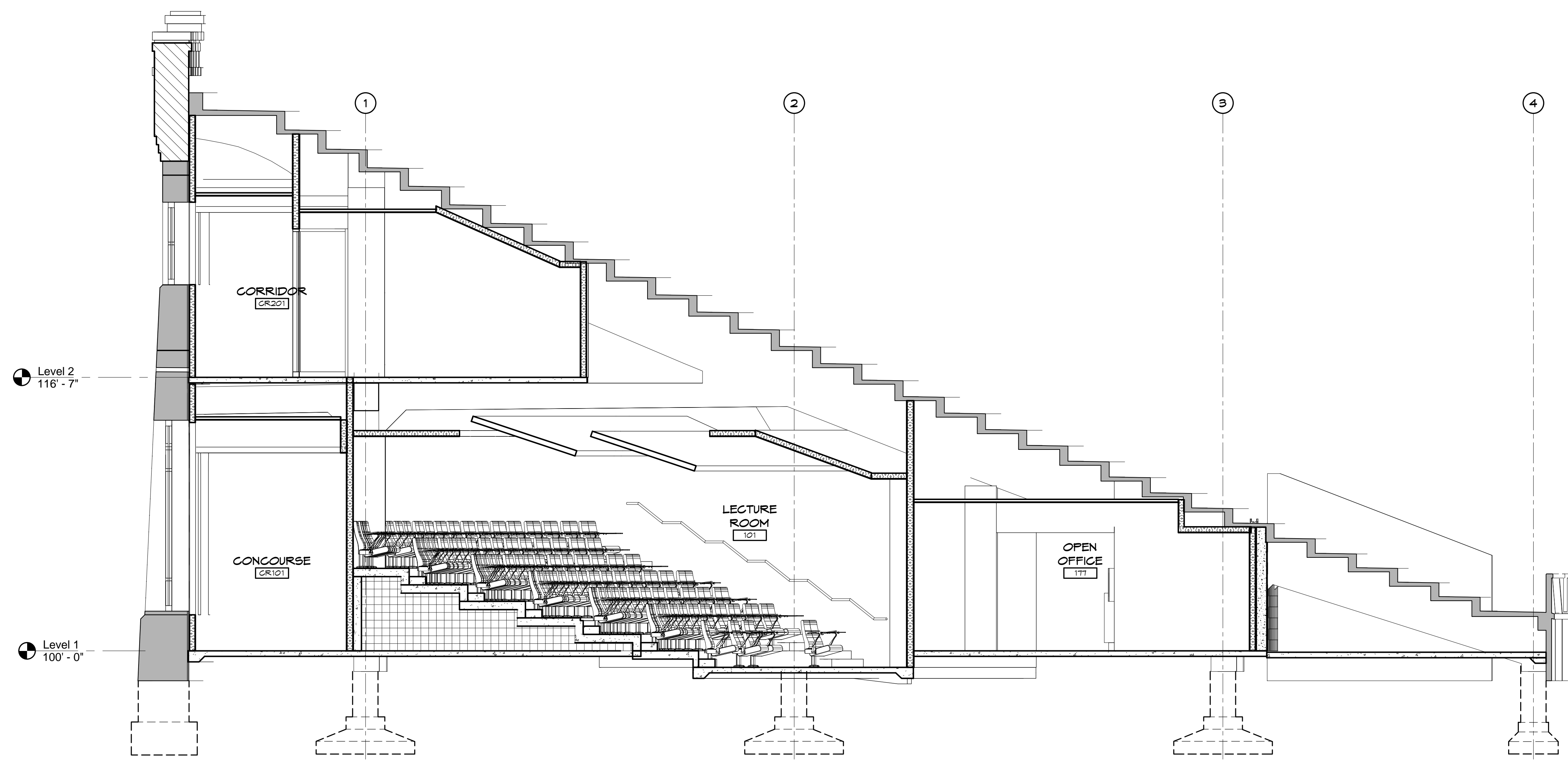
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DESIGN DEVELOPMENT
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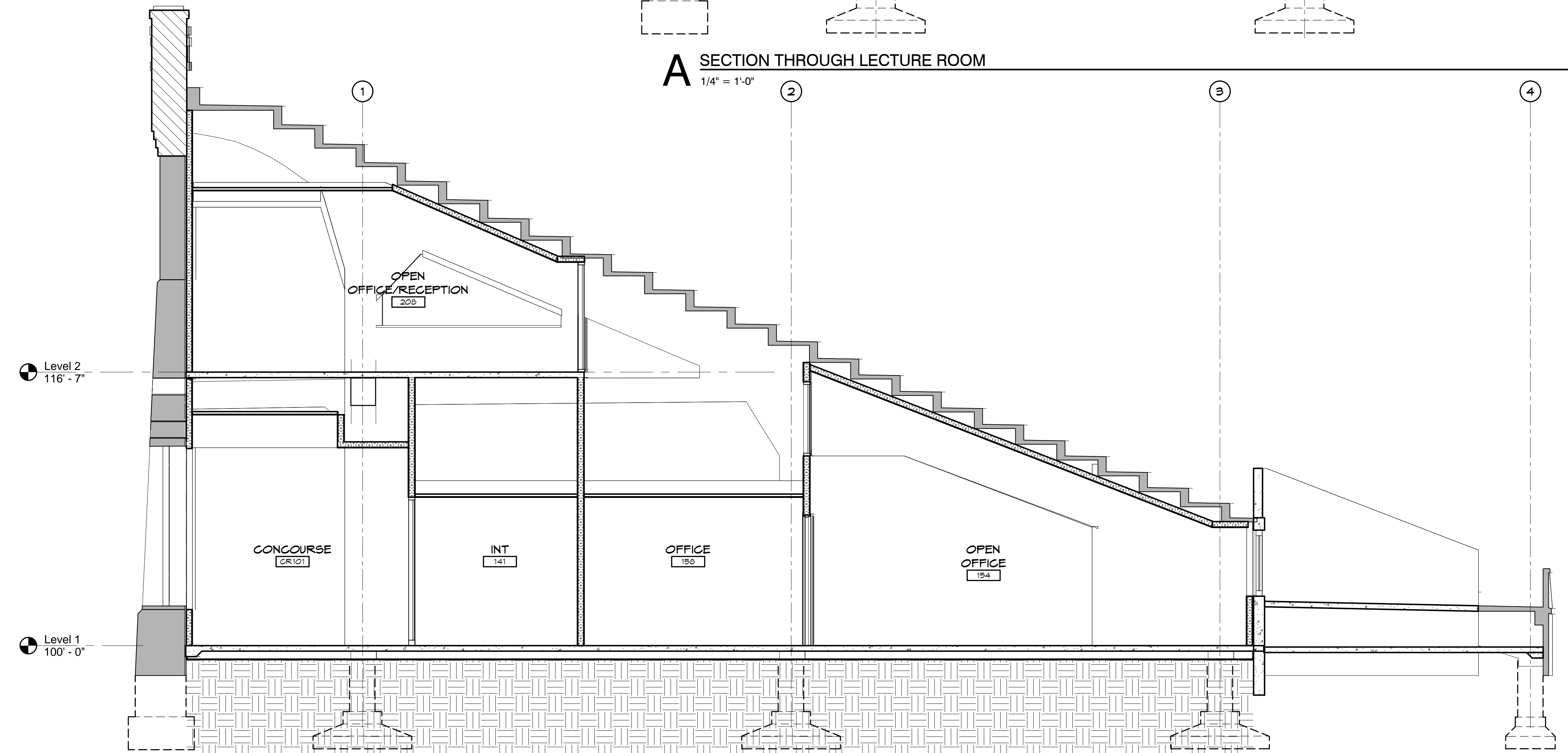
A SECTION THROUGH CONFERENCE ROOM
1/4" = 1'-0"



B SECTION THROUGH WELCOME CENTER
1/4" = 1'-0"



A SECTION THROUGH LECTURE ROOM
1/4" = 1'-0"



B SECTION THROUGH OPEN OFFICE
1/4" = 1'-0"

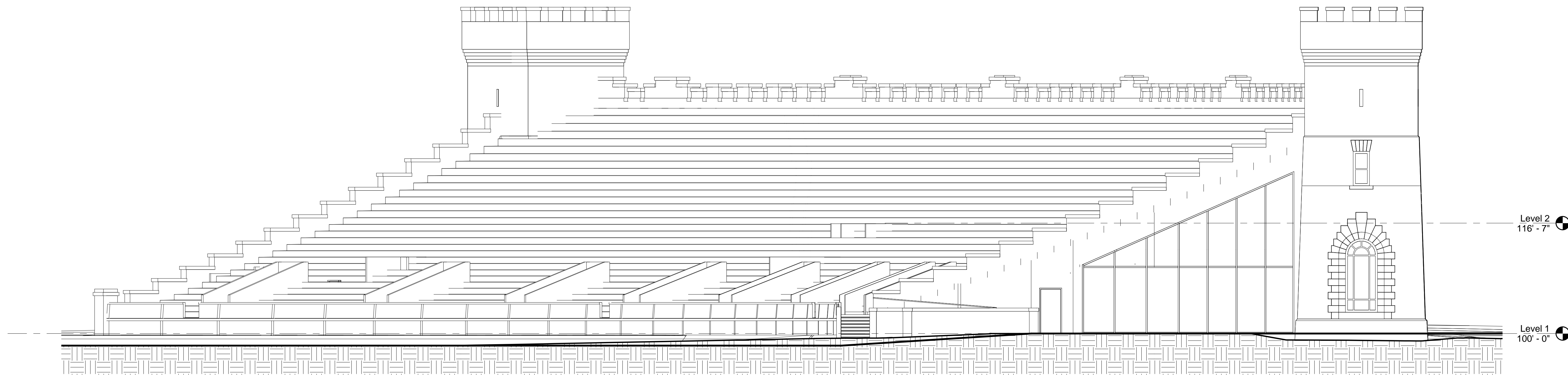
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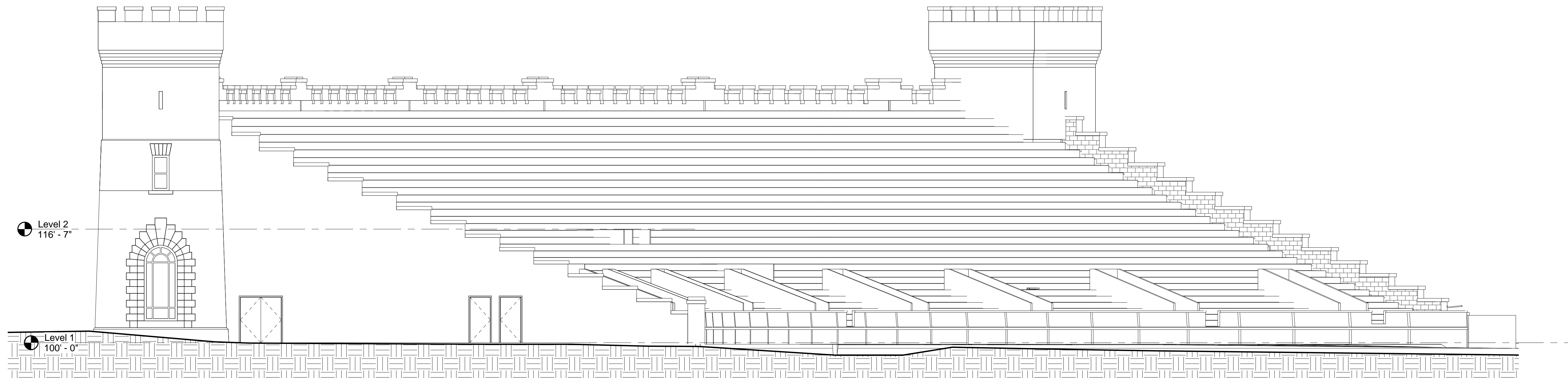
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BUILDING SECTIONS
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A7
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A SOUTH ELEVATION
1/8" = 1'-0"



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

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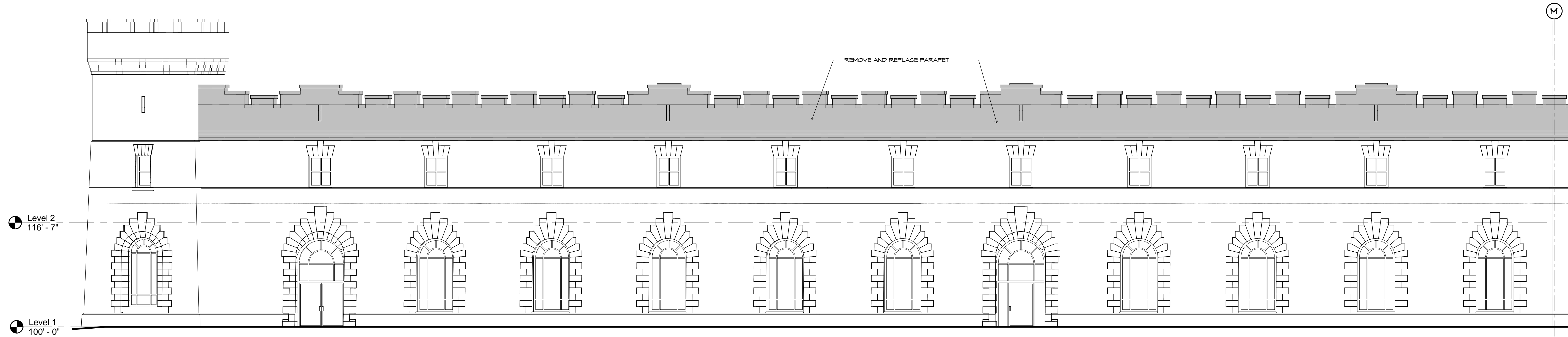
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NORTH AND SOUTH
ELEVATIONS

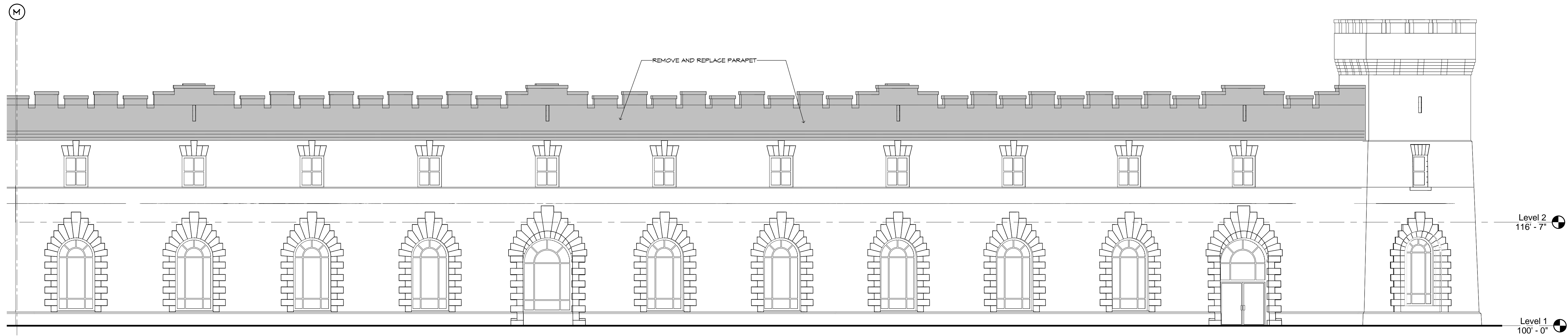
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A8

DESIGN DEVELOPMENT
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A EAST ELEVATION - SOUTH
1/8" = 1'-0"



B EAST ELEVATION - NORTH
1/8" = 1'-0"

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EAST ELEVATIONS

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A9

DESIGN DEVELOPMENT
SUBMITTAL

Room Finish Schedule

Room Number	Room Name	Floor	Base	N Wall Mat	E Wall Mat	S Wall Mat	W Wall Mat	N Wall Fin	E Wall Fin	S Wall Fin	W Wall Fin	Clg Mat	Clg Fin	Clg Height
100	RECEPTION/WAIT	CPT	X	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	APC / GWB	-	
100	ST	VCT	R	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	APC	-	
101	LECTURE ROOM	CPT	X	GWB	GWB	GWB	GWB	X	X	X	X	-	-	
102	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
103	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
104	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
106	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
107	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
108	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
109	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
111	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
112	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
113	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
114	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
116	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
117	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
118	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
119	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
121	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
122	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
123	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
124	LAQT	CPT	R	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	APC	-	9'-0"
126	FAM TLT	PT	PT	GWB	GWB	GWB	GWB	PT	PT	PT	PT	APC	-	9'-0"
127	MENS TLT	PT	PT	GWB	GWB	GWB	GWB	PT	PT	PT	PT	APC	-	9'-0"
128	WOMENS TLT	PT	PT	GWB	GWB	GWB	GWB	PT	PT	PT	PT	APC	-	9'-0"
129	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
131	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
132	EMP WAITING	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
133	VEND	PT	PT	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	-	-	
134	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
136	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
137	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
138	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
139	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
141	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
142	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
143	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
144	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
146	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
147	FIRE PROT													
148	RECEPTION/ WAITING	CPT	X	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	APC	-	
149	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
151	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
152	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	-	-	
153	TECH													
154	OPEN OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
156	STORAGE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
157	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
158	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
159	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
161	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
162	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
163	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
164	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
166	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
167	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
168	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
169	CONFERENCE	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
171	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
172	WOMENS TOILET	PT	PT	GWB	GWB	GWB	GWB	PT	PT	PT	PT	APC	-	9'-0"
173	MENS TOILET	PT	PT	GWB	GWB	GWB	GWB	PT	PT	PT	PT	APC	-	9'-0"
174	BREAK	PT	PT	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	APC	-	
176	WORK/COPY	CPT	R	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	APC	-	
177	OPEN OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	GWB	-	
178	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
179	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
181	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
182	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
183	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
184	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
186	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
187	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
188	STORAGE	VCT	R	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	APC	-	
189	RECEPTION	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC / GWB	-	
191	TECH													
192	STOR	VCT	R	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	APC	-	
193	MAIL	VCT	R	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	APC	-	
194	JANITOR	SC	R	GWB	GWB	GWB	GWB	EP	EP	EP	EP	X	-	
196	BEKING KITCHEN	EP	EP	GWB	GWB	GWB	GWB	EP	EP	EP	EP	APC	-	
197	STORAGE	VCT	R	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	APC	-	
198	MENS TOILET	PT	PT	GWB	GWB	GWB	GWB	PT	PT	PT	PT	APC	-	9'-0"
199	WOMENS TOILET	PT	PT	GWB	GWB	GWB	GWB	PT	PT	PT	PT	APC	-	9'-0"
201	CONFERENCE	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	
202	MENS TLT	PT	PT	GWB	GWB	GWB	GWB	PT	PT	PT	PT	APC	-	9'-0"
203	WOMENS TLT	PT	PT	GWB	GWB	GWB	GWB	PT	PT	PT	PT	APC	-	9'-0"
204	STORAGE	VCT	R	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	APC	-	
206	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
207	INT	CPT	X	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
208	OPEN OFFICE/RECEPTION	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC / GWB	- / PNTE	
209	STOR	VCT	R	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	APC	-	
211	OFFICE	CPT	R	GWB	GWB	GWB	GWB	PNTE	PNTE	PNTE	PNTE	APC	-	9'-0"
CR101	CONCOURSE	PT	PT	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	APC / GWB	- / PNTE	
CR102	CORR	CPT	R	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	APC	-	
CR102	CORR	CPT	R	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	APC	-	
CR104	CORRIDOR	CPT	R	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	APC	-	
CR105	CORRIDOR	CPT	R	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	APC	-	
CR201	CORRIDOR	CPT	R	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	APC / GWB	- / PNTE	
EL101	ELEV													
EL201	ELEV													
LB101	WELCOME CENTER	CPT / PT	X / PT	GWB / X	GWB	GWB	GWB	PNTS / -	PNTS	PNTS	PNTS	APC / GWB	- / PNTE	
LB102	WAITING	CPT	X	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	GWB	PNTE	12'-0"
M101	MECH	VCT	R	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	X	-	
M201	MECHANICAL	VCT	R	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	X	-	
M202	MECHANICAL	VCT	R	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	X	-	
SN101	STAIR	PT	PT	GWB	GWB	GWB	GWB	EP	EP	EP	EP	GWB	PNTE	
SN102	STAIR	PT	PT	GWB	GWB	GWB	GWB	EP	EP	EP	EP	GWB	PNTE	
SN201	STAIR	PT	PT	GWB	GWB	GWB	GWB	EP	EP	EP	EP	GWB	PNTE	
SN202	STAIR	PT	PT	GWB	GWB	GWB	GWB	EP	EP	EP	EP	GWB	PNTE	
VS101	VEST	CPT	PT	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	GWB	PNTE	
VS102	VEST	CPT	PT	GWB	GWB	GWB	GWB	PNTS	PNTS	PNTS	PNTS	GWB	PNTE	

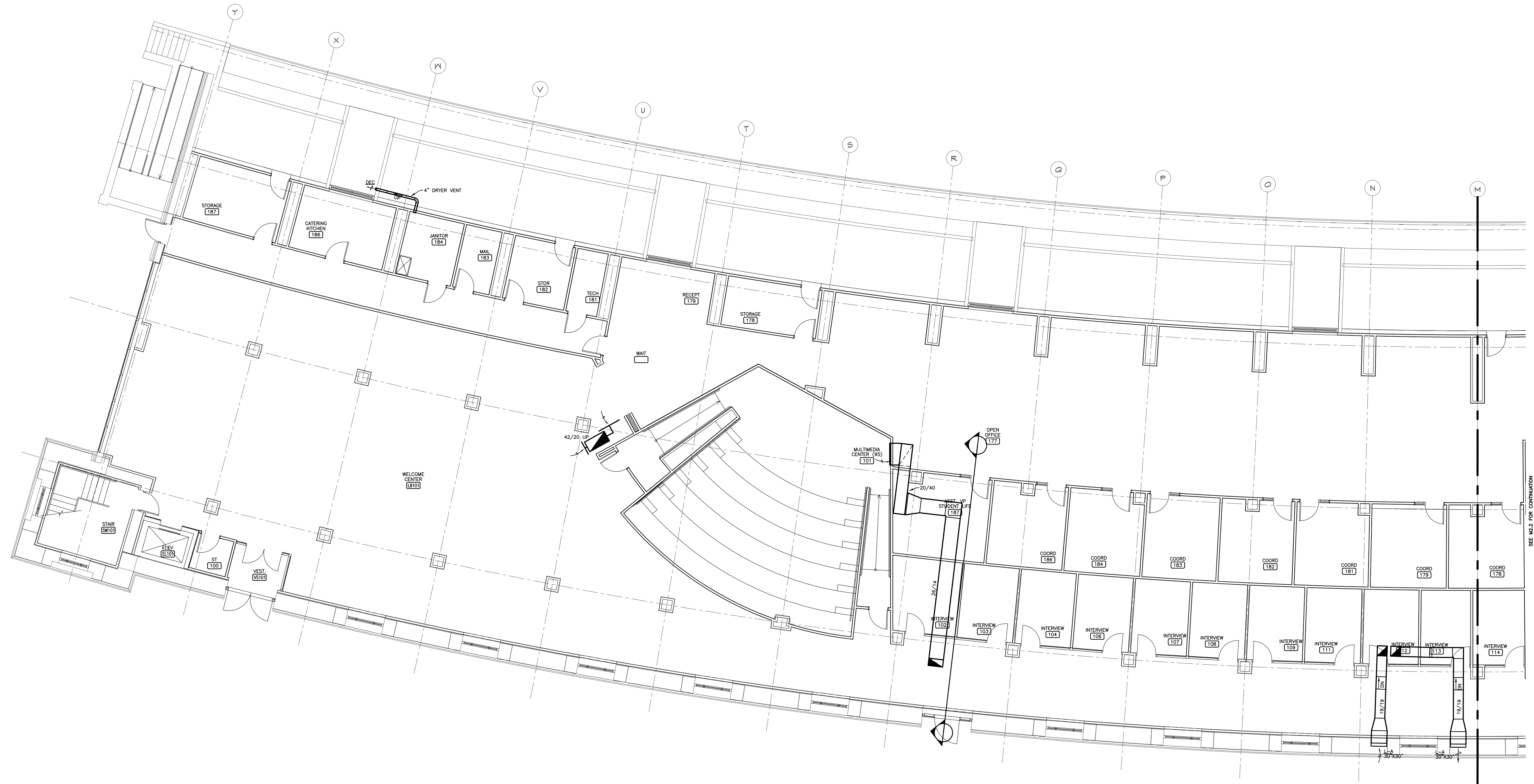
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 803 N. 17TH STREET MANHATTAN, KANSAS 66506
 BUILDING NUMBER - 36700-00104
 DATE: OCT 2014
 DRAWN BY: Author

ROOM FINISH
 SCHEDULE
A-011845
A10
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M2.1
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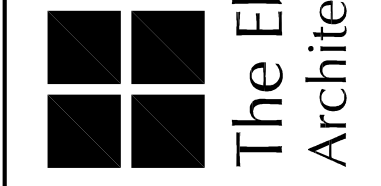
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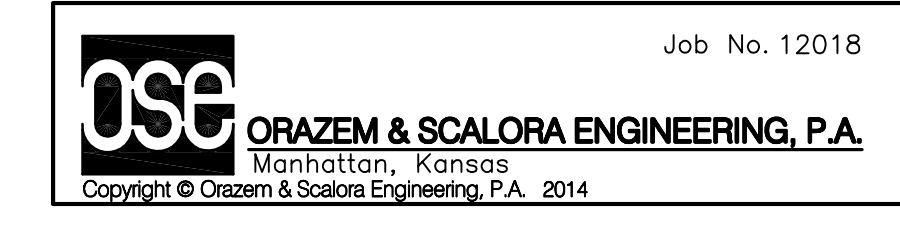
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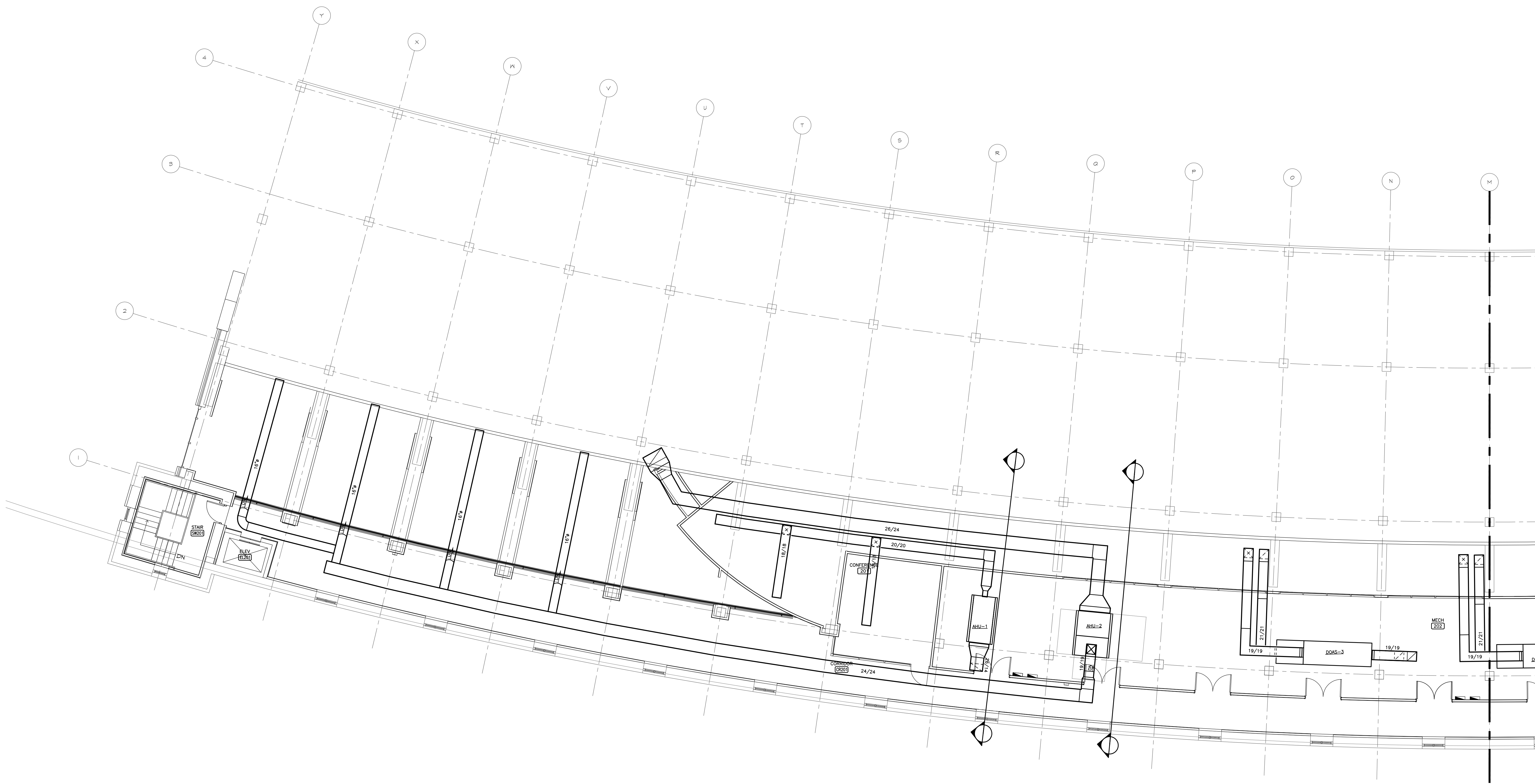
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 DUCT PLAN

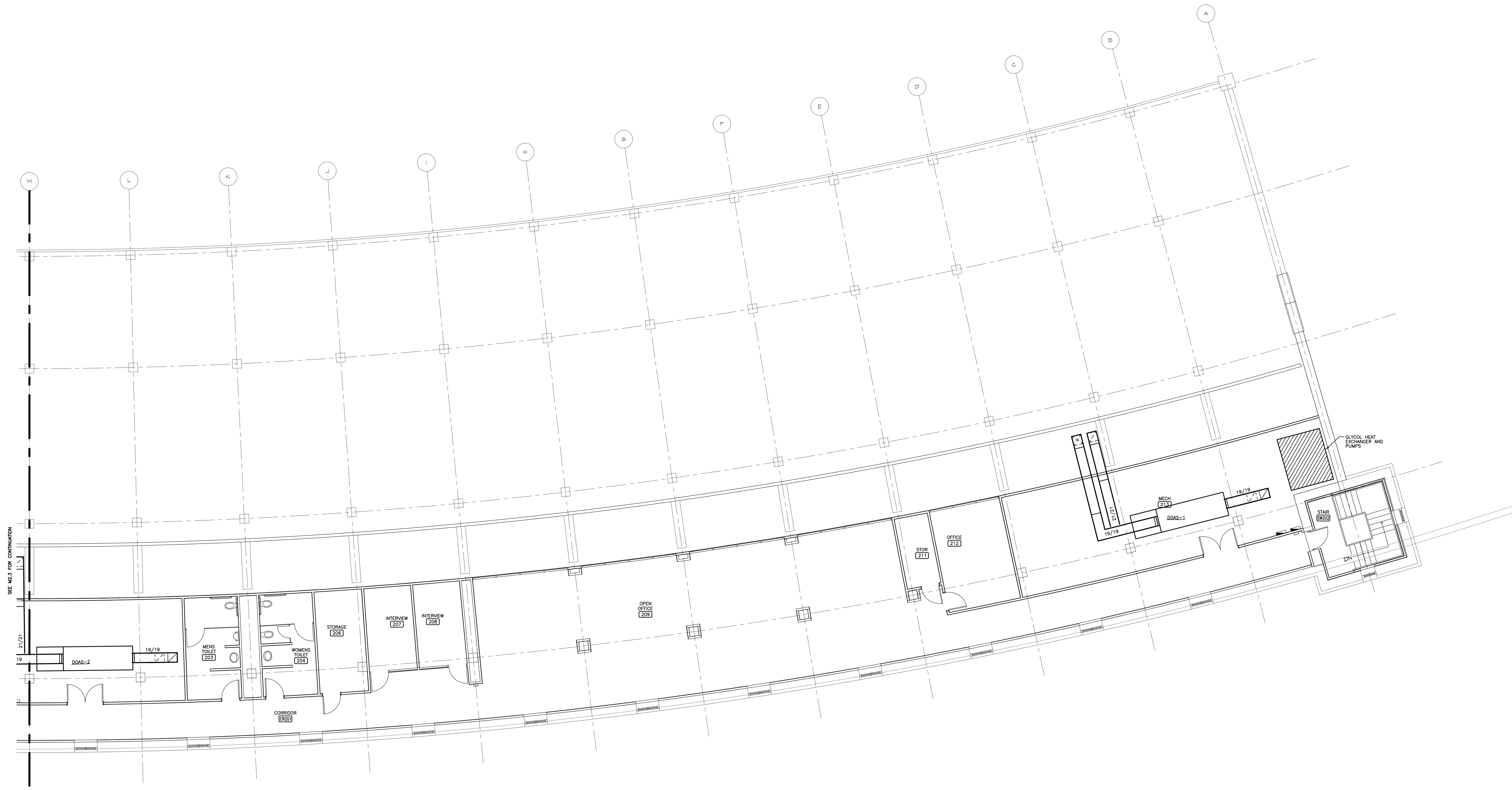
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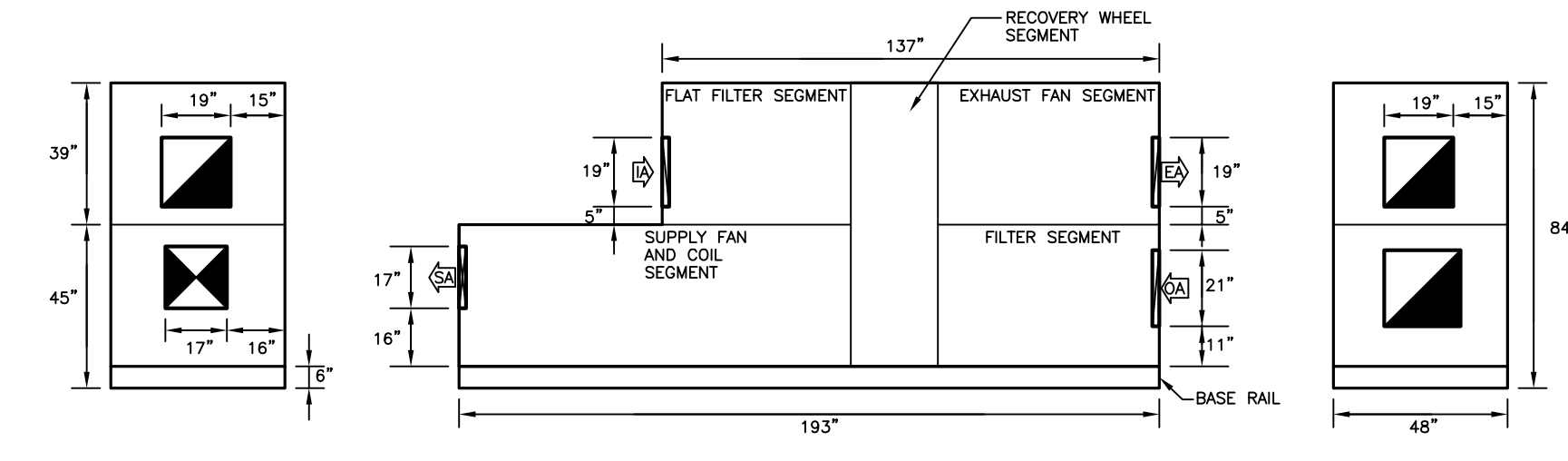
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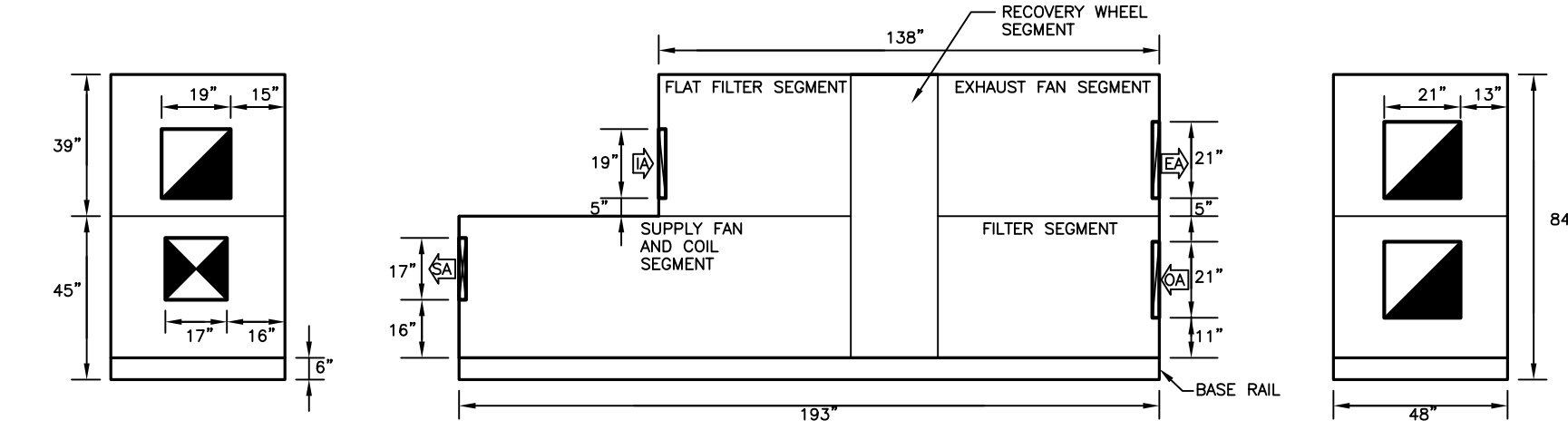
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Job No. 12018



A DOAS-1 AND DOAS-2
SCALE: 1/4" = 1'-0"



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

AIR HANDLING UNIT SCHEDULE		
DESIGNATION	AHU-1	AHU-2
LOCATION	Draw-Thru	Draw-Thru
ARRANGEMENT	Vertical Stack	Vertical Stack
CONFIGURATION	Multi-Media	Lobby
SERVES		
FAN TYPE	Centrifugal	Centrifugal
DRIVE	Belt	Belt
WHEEL TYPE	Forward Curved	Forward Curved
TOTAL CFM	1800	5000
OA CFM	See VAV Sched	See VAV Sched
EXT. S.P. ("wg)	0.5	0.75
TOT. S.P. ("wg)	1.5	1.5
BHP INCLUDING DRIVE LOSS	0.96	1.81
MOTOR HP	1.5	2
FAN RPM	1308	664
COOLING COIL:		
TYPE	Chilled Water	Chilled Water
E.A.T. DB/WB (F)	77/67	77/67
L.A.T. DB/WB (F)	55/55	56/55
TOTAL CAPACITY (MBH)	69.6	184.1
SENSIBLE CAPACITY (MBH)	42.4	113.4
MAXIMUM FACE VELOCITY (FPM)	500	500
MIN. ROWS/ MAX. FINS PER INCH	8/8	6/8
EWT (F)	45	45
MAXIMUM WATER FLOW (GPM)	14	35
MAXIMUM WATER P.D. (FT)	5	5
CONTROL VALVE P.D. (FT)	7.5	7.5
CONTROL VALVE	2-WAY	2-WAY
MAXIMUM AIR P.D. ("wg)	0.6	0.4
PIPE CONNECTIONS INLET/OUTLET (IN.)	1/1	2/2
HEATING COIL:		
TYPE	Hot Water	Hot Water
E.A.T. DB (F)	70	70
L.A.T. DB (F)	86	88
CAPACITY (MBH)	30	95
MAXIMUM FACE VELOCITY (FPM)	500	500
MIN. ROWS/ MAX. FINS PER INCH	1/8	1/10
EWT (F)	160	160
MAXIMUM WATER FLOW (GPM)	3	8
MAXIMUM WATER P.D. (FT)	0.75	0.75
CONTROL VALVE P.D. (FT)	1.5	1.5
CONTROL VALVE	2-WAY	2-WAY
MAXIMUM AIR P.D. ("wg)	0.1	0.1
PIPE CONNECTIONS INLET/OUTLET (IN.)	0.75/0.75	1.25/1.25
FILTER:		
TYPE	Pleated	Pleated
THICKNESS (INCH)	2	2
MAXIMUM CLEAN P.D. ("wg)	0.2	0.2
ELECTRICAL		
VOLTAGE/PHASE	480/3	480/3
FULL LOAD AMPS	2.2	2.9
MIN. CIRCUIT AMPS	2.75	3.63
MAX. OVERCURRENT PROTECTION	15	15
UNIT DIMENSIONS ("L x "W x "H)	83x52x48	91x74x92
APPROXIMATE WEIGHT INCLUDING ACCESSORIES (LBS.)	1000	1600
BASED ON: (JOHNSON CONTROLS INC.)	AMI-V04	AMI-VT2
EQUIPMENT NOTES:	<ol style="list-style-type: none"> 1. Provide all required transitions, and adapters. 2. Maintain all Manufacturer's recommended clearances. 3. Provide flexible connections at supply and return duct connections to unit. 4. Provide 4" base rail. 5. Provide double wall case construction, see specifications. 6. Provide non-fused disconnect. 7. Provide fan arrangement as indicated on drawings. 8. Provide left and right hand units as indicated on drawings. 9. Provide 15" cooling coil access module to allow access to both heating and cooling coil. 10. Provide terminal connections required to interface with Honeywell BCS. 11. See specifications for additional requirements. 	

DEDICATED OUTSIDE AIR SYSTEM SCHEDULE		
DESIGNATION	DOAS-1,2	DOAS-3
LOCATION	Mechanical	Mechanical
ARRANGEMENT	2-Level	2-Level
CONFIGURATION	Horizontal	Horizontal
SERVES	See Plans	South
SUPPLY FAN TYPE	Plenum	Plenum
DRIVE	Direct	Direct
WHEEL TYPE	Plug	Plug
TOTAL CFM	1800	2,390
MINIMUM CFM	-	-
EXT. S.P. ("wg)	2.0	2.0
TOT. S.P. ("wg)	4.2	4.3
BHP INCLUDING DRIVE LOSS	1.87	2.48
MOTOR HP	3	5
FAN RPM	3503	2927
EXHAUST FAN TYPE	Plenum	Plenum
DRIVE	Direct	Direct
WHEEL TYPE	Plug	Plug
TOTAL CFM	1800	2,390
MINIMUM CFM	-	-
EXT. S.P. ("wg)	2.00	2.00
TOT. S.P. ("wg)	3.6	3.6
BHP INCLUDING DRIVE LOSS	1.61	2.28
MOTOR HP	2	3
FAN RPM	2685	3503
HEAT RECOVERY SECTION		
MAXIMUM EXHAUST AIR (CFM)	1800	2390
MAXIMUM SUPPLY AIR CFM	1800	2390
MAXIMUM AIR P.D. SUPPLY/EXHAUST ("wg)	0.9/0.9	0.75/0.75
WHEEL TYPE	Enthalpy	Enthalpy
ENERGY WHEEL MOTOR HP	0.167	0.167
SUMMER CONDITIONS		
OUTSIDE AIR DB/WB (F)	103/75	103/75
INTAKE AIR DB/WB (F)	78/65	78/65
TOTAL RECOVERED LOAD (MBH)	50	45
SUPPLY AIR DB/WB (F)	84/68	83/67
WINTER CONDITIONS		
OUTSIDE AIR DB/WB (F)	-1/-1	-1/-1
INTAKE AIR DB/WB (F)	72/55	72/55
TOTAL RECOVERED LOAD (MBH)	137	122
SUPPLY AIR DB/WB (F)	55/45	57/46
COOLING COIL:		
TYPE	Chilled E. Glycol (40%)	Chilled E. Glycol (40%)
E.A.T. DB/WB (F)	103/75	103/75
L.A.T. DB/WB (F)	51/51	55/53
CAPACITY (MBH)	133.1	175.5
MAXIMUM FACE VELOCITY (FPM)	300	300
MIN. ROWS/ MAX. FINS PER INCH	8/12	8/12
EWT (F)	47	47
MAXIMUM WATER FLOW (GPM)	23	33
MAXIMUM WATER P.D. (FT)	7.3	10.6
CONTROL VALVE P.D. (FT)	10.5	15
MAXIMUM AIR P.D. ("wg)	0.55	0.7
PIPE CONNECTIONS INLET/OUTLET (IN.)	2/2	2/2
HEATING COIL:		
TYPE	Hot E. Glycol	Hot E. Glycol
E.A.T. DB (F)	-1	-1
L.A.T. DB (F)	66	-
CAPACITY (MBH)	146.0	194.0
MAXIMUM FACE VELOCITY (FPM)	300	500
MIN. ROWS/ MAX. FINS PER INCH	1/11	1/12
EWT (F)	157	157
MAXIMUM WATER FLOW (GPM)	17	28
MAXIMUM WATER P.D. (FT)	0.6	1.4
CONTROL VALVE P.D. (FT)	1	2.1
MAXIMUM AIR P.D. ("wg)	0.1	0.1
PIPE CONNECTIONS INLET/OUTLET (IN.)	2/2	2/2
FILTER:		
TYPE	Pleated	Pleated
THICKNESS (INCHES)	2	2
MAXIMUM CLEAN P.D. ("wg)	0.2	0.2
ELECTRICAL		
EXHAUST FAN		
VOLTAGE/PHASE	480/3	480/3
FULL LOAD AMPS	2.7	3.69
MINIMUM CIRCUIT AMPS	3.1	4.25
MAX. OVERCURRENT PROTECTION	15	15
RECOVERY WHEEL		
VOLTAGE/PHASE	480/3	480/3
FULL LOAD AMPS	0.44	0.44
MINIMUM CIRCUIT AMPS	0.51	0.51
MAX. OVERCURRENT PROTECTION	15	15
SUPPLY FAN		
VOLTAGE/PHASE	480/3	480/3
FULL LOAD AMPS	3.69	5.9
MINIMUM CIRCUIT AMPS	4.25	6.8
MAX. OVERCURRENT PROTECTION	15	15
UNIT DIMENSIONS ("L x "W x "H)	193x48x84	193x48x90
APPROXIMATE WEIGHT INCLUDING ACCESSORIES (LBS.)	4500	4600
BASED ON: (Johnson Controls)	Solution 39 x 48	Solution 42 x 48
EQUIPMENT NOTES:	<ol style="list-style-type: none"> 1. Provide all required transitions, and adapters. 2. Maintain all Manufacturer's recommended clearances. 3. Provide flexible connections at supply and return duct connections to unit. 4. Provide Variable Speed Drives for Exhaust Fan, Supply Fan, and Energy Recovery Wheel. 5. Provide Heat Wheel Segment with motorized bypass dampers. 6. Provide supply, intake, exhaust, and outside air openings as indicated on DOAS Dimension drawings, see Mechanical Detail Drawings. 7. Provide left and right hand units as indicated on drawings. 8. Provide terminal connections required to interface with Honeywell BCS. 9. Provide 6" base rail. 10. See specifications for additional requirements. 	

HEAT EXCHANGER SCHEDULE			
DESIGNATION	HX-1	HX-2	HX-3
LOCATION	Mech M101	Mech M201	Mech M201
CAPACITY (MBH)	451	438	485
CONSTRUCTION	Steel	Steel/Aluminum	Steel
TYPE	Shell and Tube	Plate and Frame	Shell and Tube
HOT SIDE			
MEDIA	Steam	40% Ethylene Glycol	Steam
EWT F	-	Chilled	1
LWT F	-	59.5	-
GPM	-	47	-
ENTERING STEAM PRESSURE (PSIG)	5	-	5
STEAM LB/HR	471	-	506
MAX. P.D. (FT)	0	3.5	0
PIPE CONNECTIONS INLET/OUTLET (IN.)	1.5/1	4/4	2/1
COLD SIDE			
MEDIA	Heating Water	Chilled Water	40% Ethylene Glycol
EWT F	140	45	Heating
LWT F	160	55	140
GPM	46	87.5	62
MAX. P.D. (FT)	2.8	3.5	10
PIPE CONNECTIONS INLET/OUTLET (IN.)	1.5/1.5	4/4	2/2
BASED ON: (ARMSTRONG)	WS-0602-400-1-CSSSSNN-20	S-M35X-750	WS-0603-200-1-CSSSSNN-20

MECHANICAL SYMBOLS LEGEND	
	Thermostat
	90° Elbow down, round duct
	90° Elbow up, round duct
	Round duct offset
	Radius elbow
	90° Elbow down, rectangular supply duct
	90° Elbow up, rectangular supply duct
	90° Elbow down, rectangular return duct
	90° Elbow up, rectangular return duct
	Rectangular elbow with turning vanes
	Flexible duct
	Manual balancing damper
	Motorized damper
	Fire damper
	Smoke damper
	Combination fire/smoke damper
	Ceiling supply air diffuser
	Ceiling return air grille
	Sidewall supply air diffuser
	Sidewall return air grille
	Supply air slot diffuser
	Round tap in bottom of duct
	Rectangular tap in bottom of duct
	Condensate drain
	Cold water
	Hot water
	Tempered water
	Recirculated water
	Recirculated tempered water
	Hot water supply
	Hot water return
	Chilled water supply
	Chilled water return
	Condenser water supply
	Condenser water return
	Refrigerant liquid
	Refrigerant suction
	Natural gas
	LP gas
	Storm sewer above grade
	Storm sewer below grade
	Sanitary waste above grade
	Sanitary waste below grade
	Sanitary vent
	Vent through roof
	Plumbing trap
	Pipe turning down
	Pipe turning up
	Shock arrester
	Ball valve
	Gate valve
	Check valve
	Butterfly valve
	Control valve
	3-Way valve
	Solenoid valve
	Pressure reducing valve
	Gas cock
	Union
	Temperature/pressure relief valve
	Strainer
	Flow switch
	Flow meter
	Aquatstat
	Automatic air vent
	Manual air vent
	Flexible pipe
	Gauge
	Test plug
	Reducer
	Thermometer in well
	Temperature sensor in well
	Connection of new to existing
	Existing device
	Typical
	A.F.F. Above finished floor
	U.N.O. Unless noted otherwise
	N.I.C. Not in contract
	G.C. General Contractor

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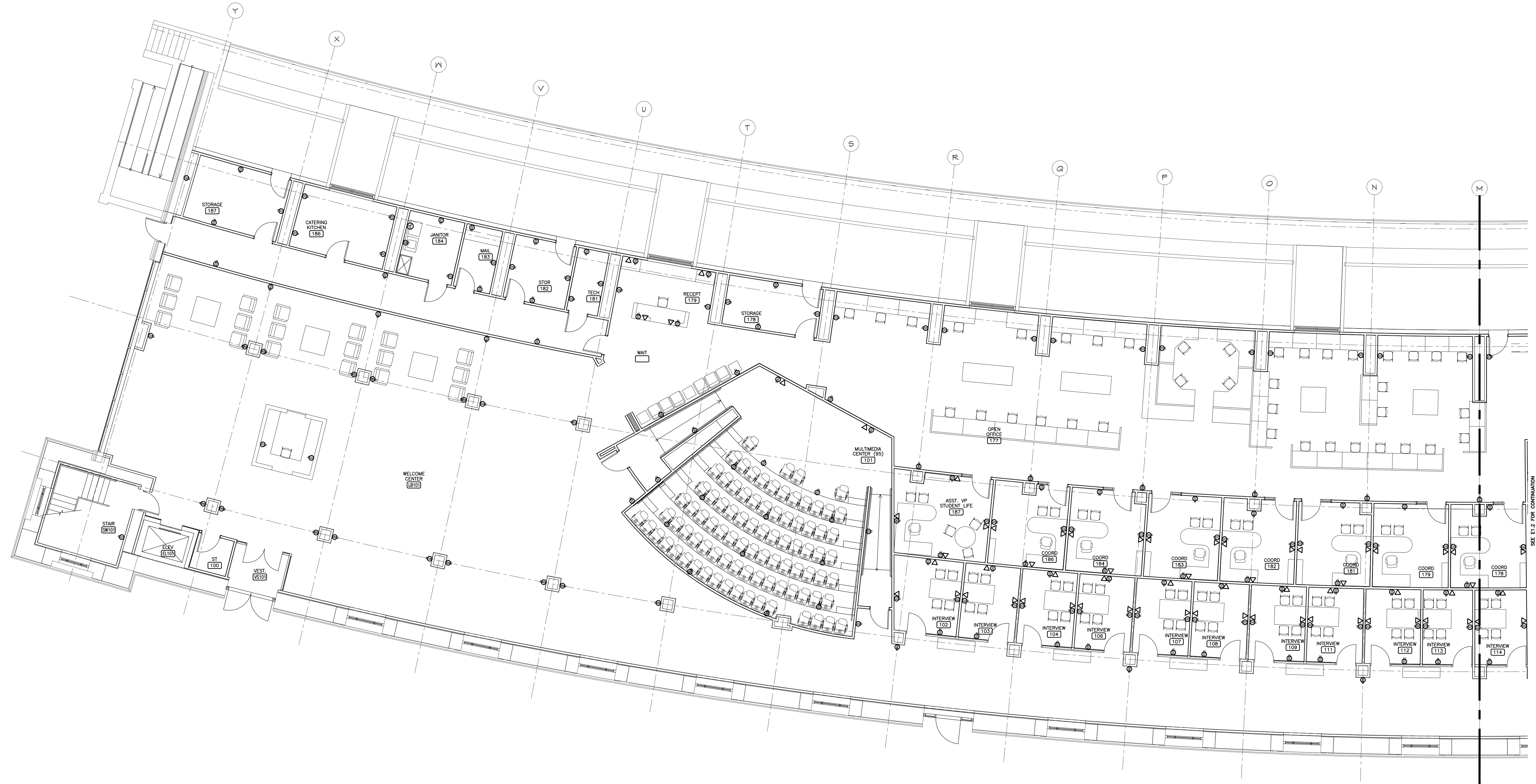
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MECHANICAL DETAILS
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POWER PLAN

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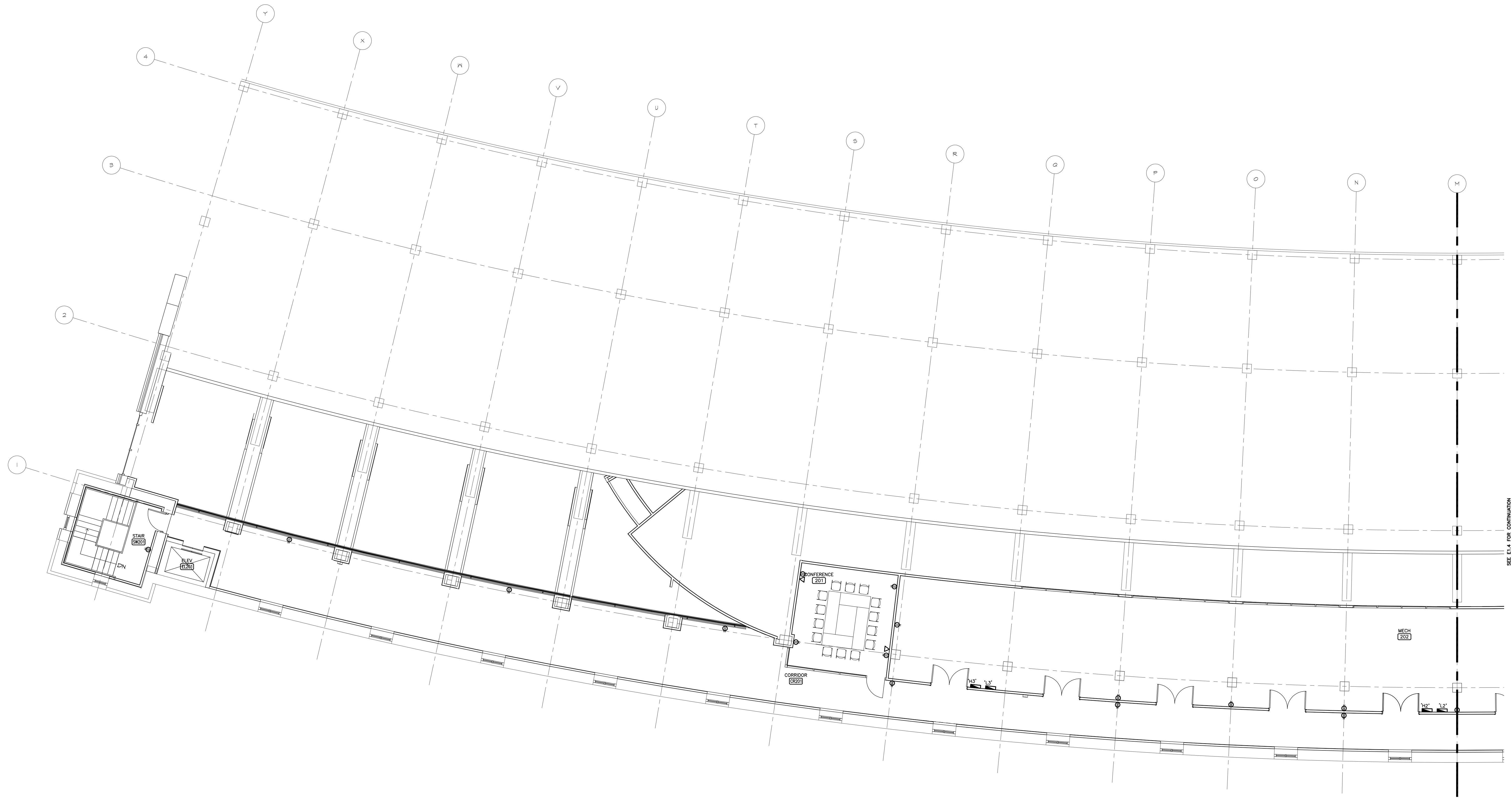
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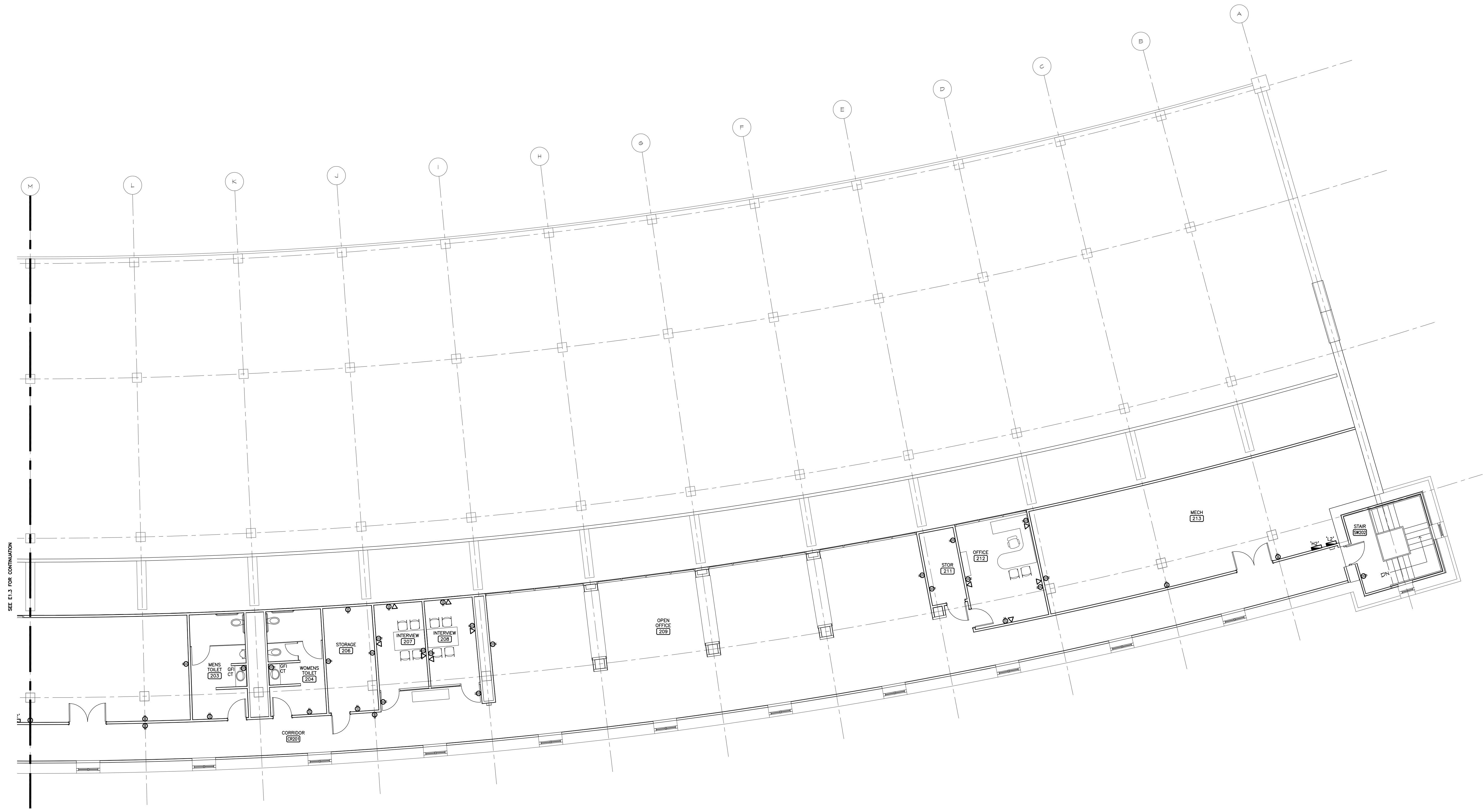
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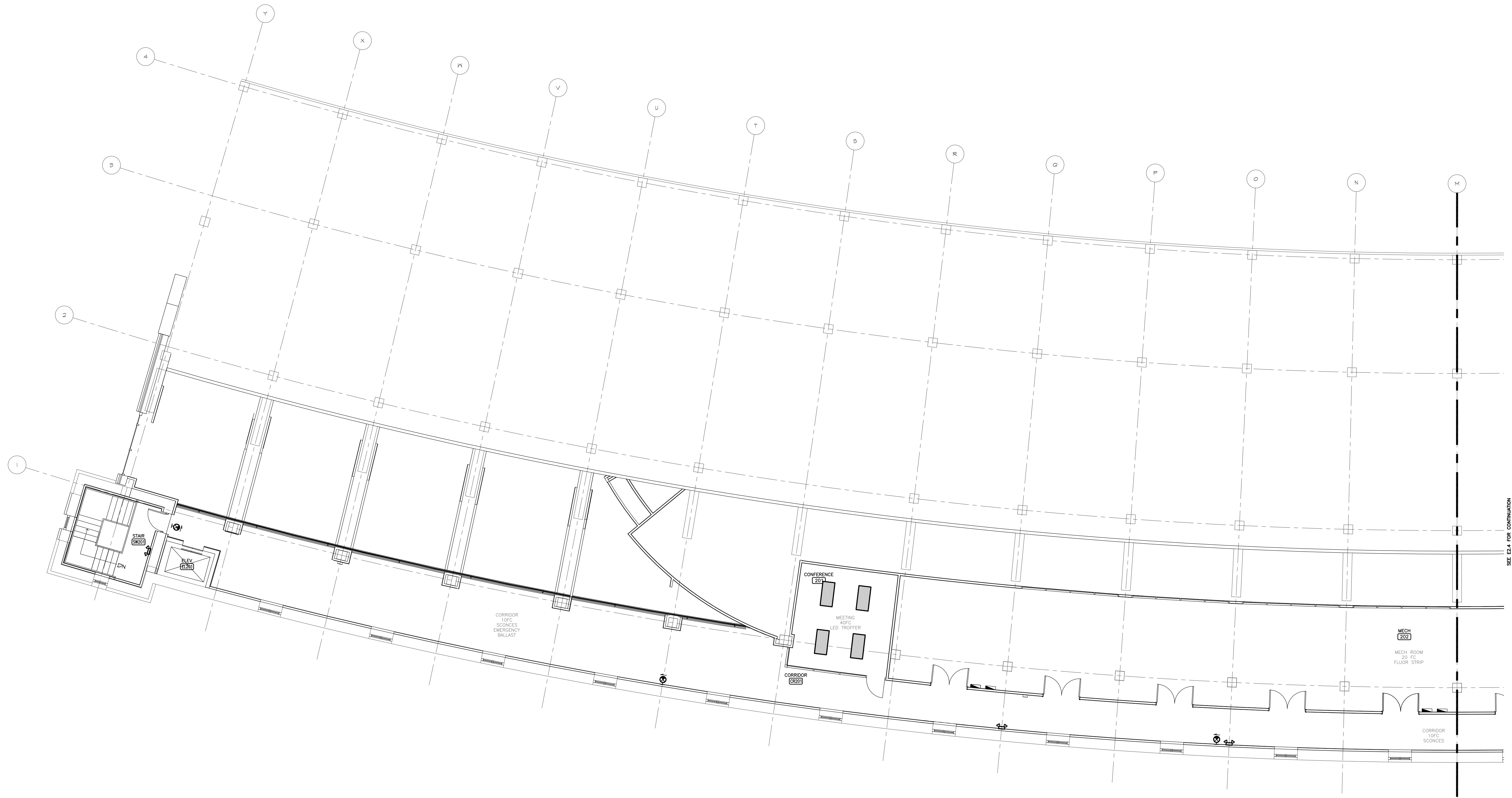
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LIGHTING
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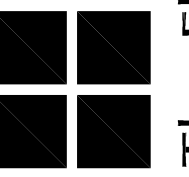
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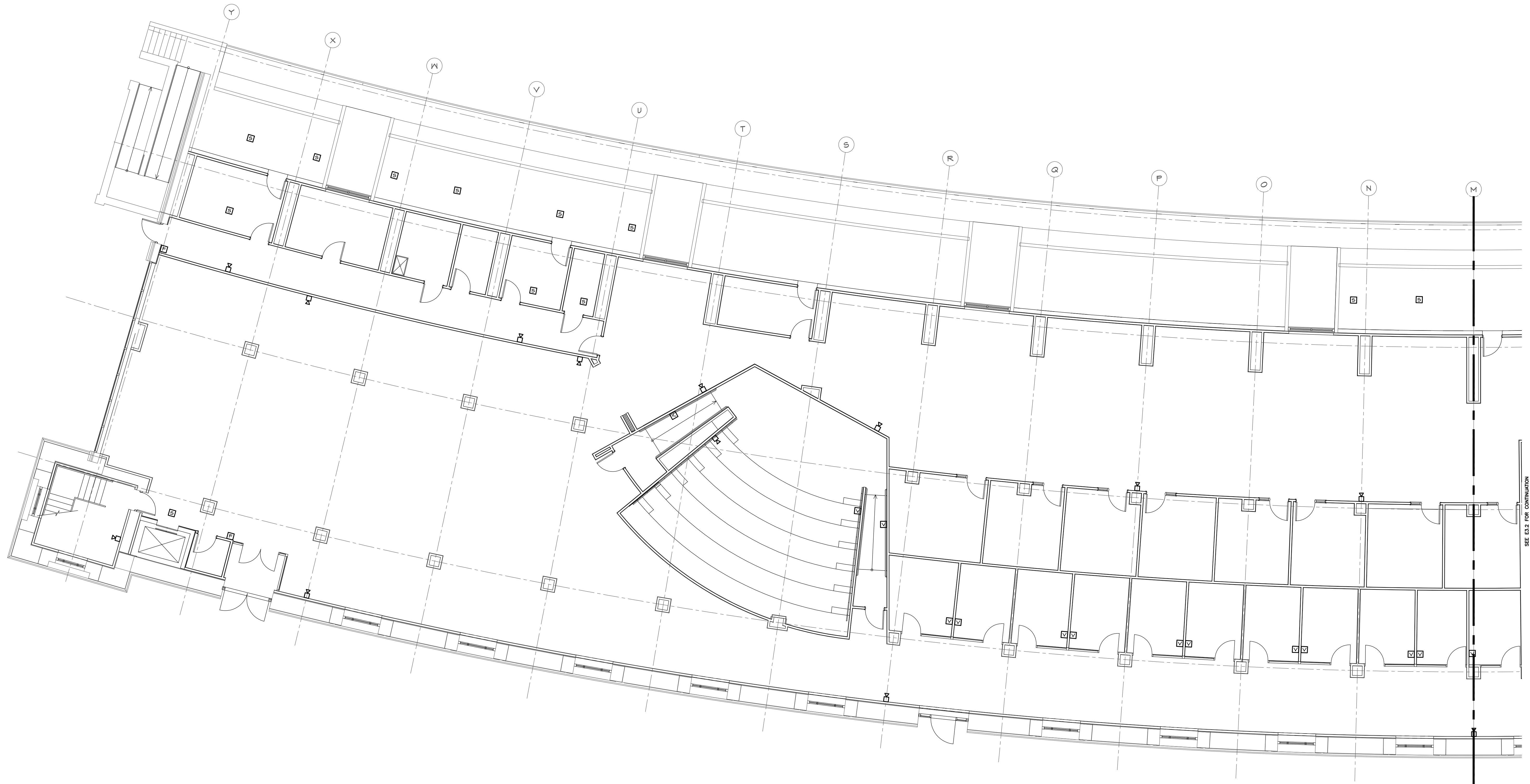
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FIRE ALARM
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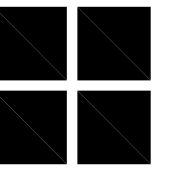
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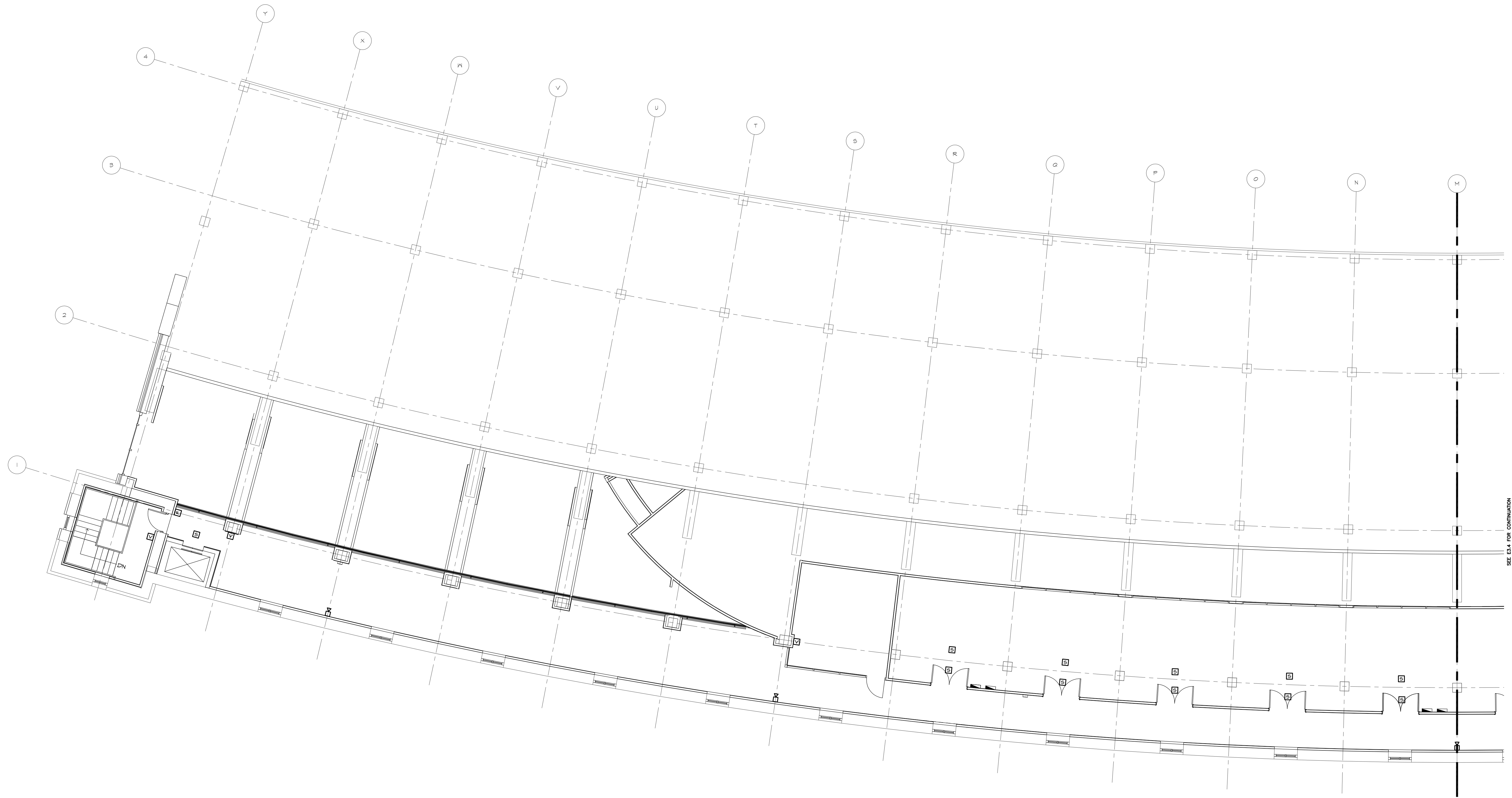
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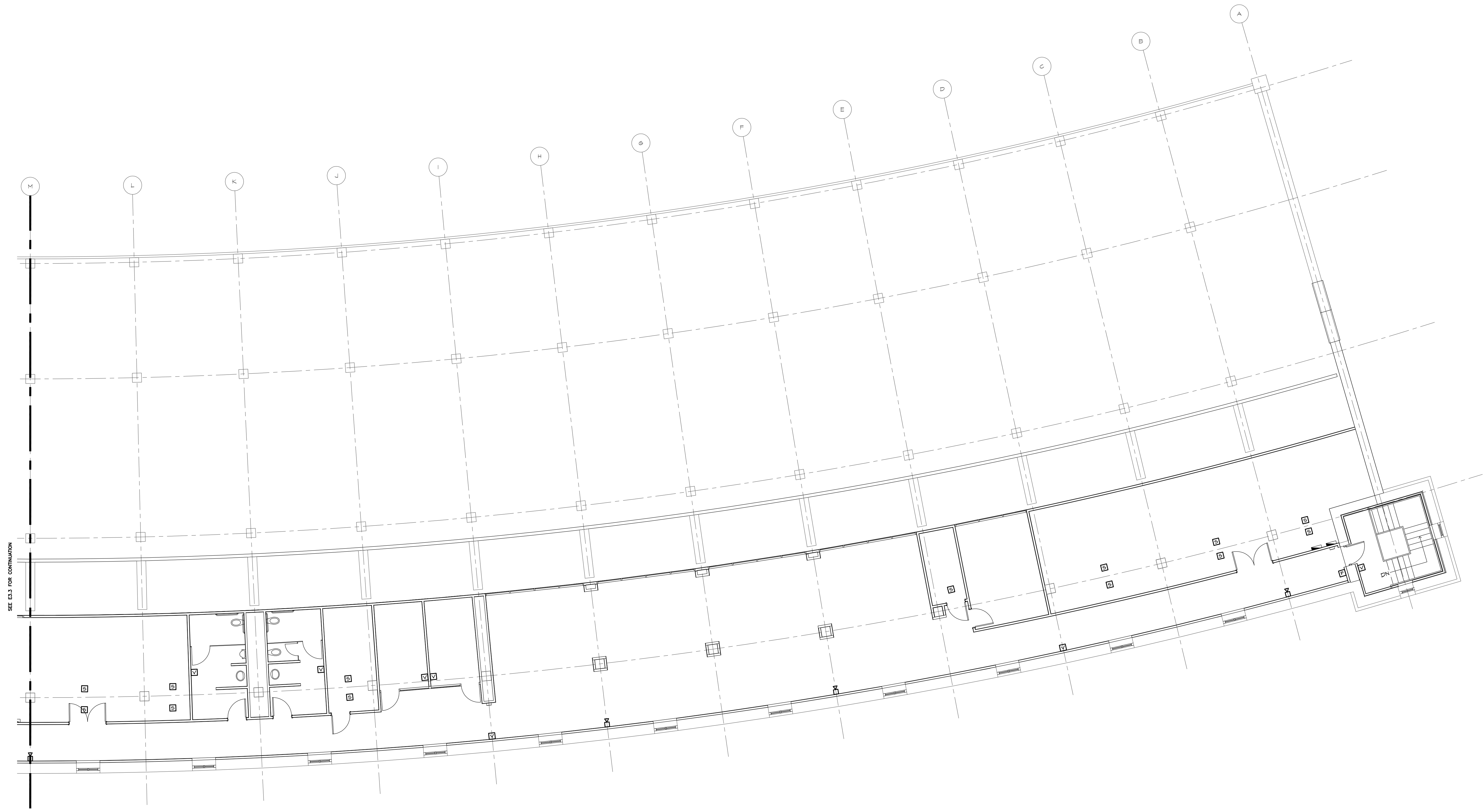
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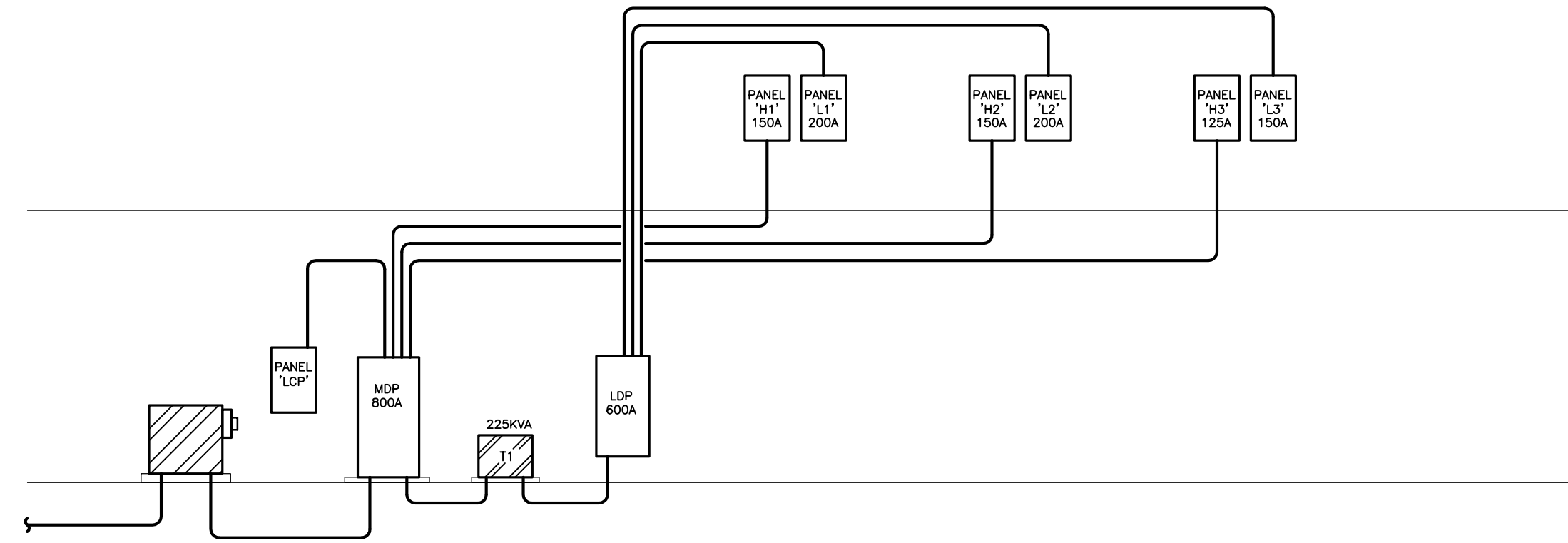
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ELECTRICAL SYMBOLS LEGEND

	Duplex receptacle
	Ground fault interrupting duplex receptacle
	Countertop duplex receptacle
	Weatherproof duplex receptacle
	Four-plex receptacle
	Special receptacle as noted
	Telephone or intercom box
	Countertop telephone or intercom box
	Wall telephone or intercom box
	Data box
	Countertop data box
	Flush floor duplex receptacle
	Flush floor telephone or intercom box
	Flush floor data box
	Cable television box
	Flush junction box
	Surface or concealed junction box
	Electrical connection to equipment
	Single pole switch
	Keyed switch
	Two pole switch
	Switch with pilot light
	Timer switch
	Three-way switch
	Four-way switch
	Manual motor starter
	Sensor switch
	Electrical disconnect switch
	Motor starter
	Electrical motor
	Conduit concealed in wall or ceiling
	In-floor conduit
	Homerun to panelboard with conductors as indicated. Do not share neutrals unless noted otherwise.
	Panelboard
	Transformer
	Electrical meter
	Clock backbox
	Wall mounting bracket
	Music system speaker
	Speaker jack
	Microphone jack
	Trumpet intercom speaker
	Intercom ceiling speaker
	Fire alarm horn
	Fire alarm horn/strobe
	Fire alarm speaker
	Fire alarm smoke detector
	Fire alarm pull station
	Fire alarm electromagnetic door hold-open
	Fire alarm duct smoke detector
	Fire alarm beam smoke detector
	Fire alarm beam smoke detector reflector
	Fire alarm test switch
	Fire alarm relay/addressable control module
	Fire alarm addressable monitor module
	Fire alarm strobe
	Fire alarm heat detector
	Fire alarm bell
	Fire alarm control panel
	#14 AWG, number as indicated
	#16 AWG, number as indicated
	Digital communications cable
	Existing device
	Circuit breaker
U.N.O.	Unless noted otherwise
A.F.F.	Above finished floor
N.I.C.	Not in contract
TYP	Typical
G.C.	General Contractor

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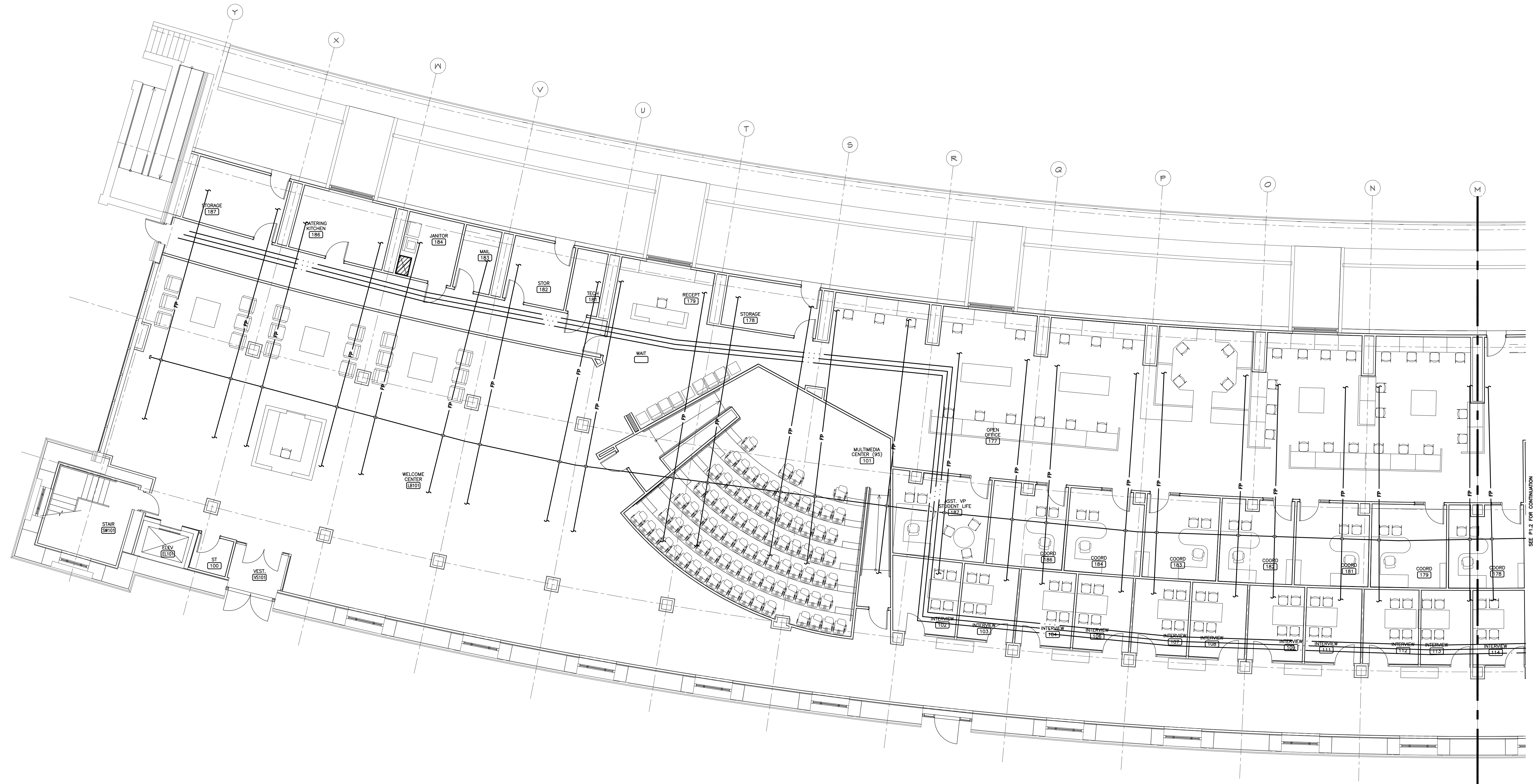
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ELECTRICAL DETAILS
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PLUMBING WATER AND
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PLUMBING WATER AND
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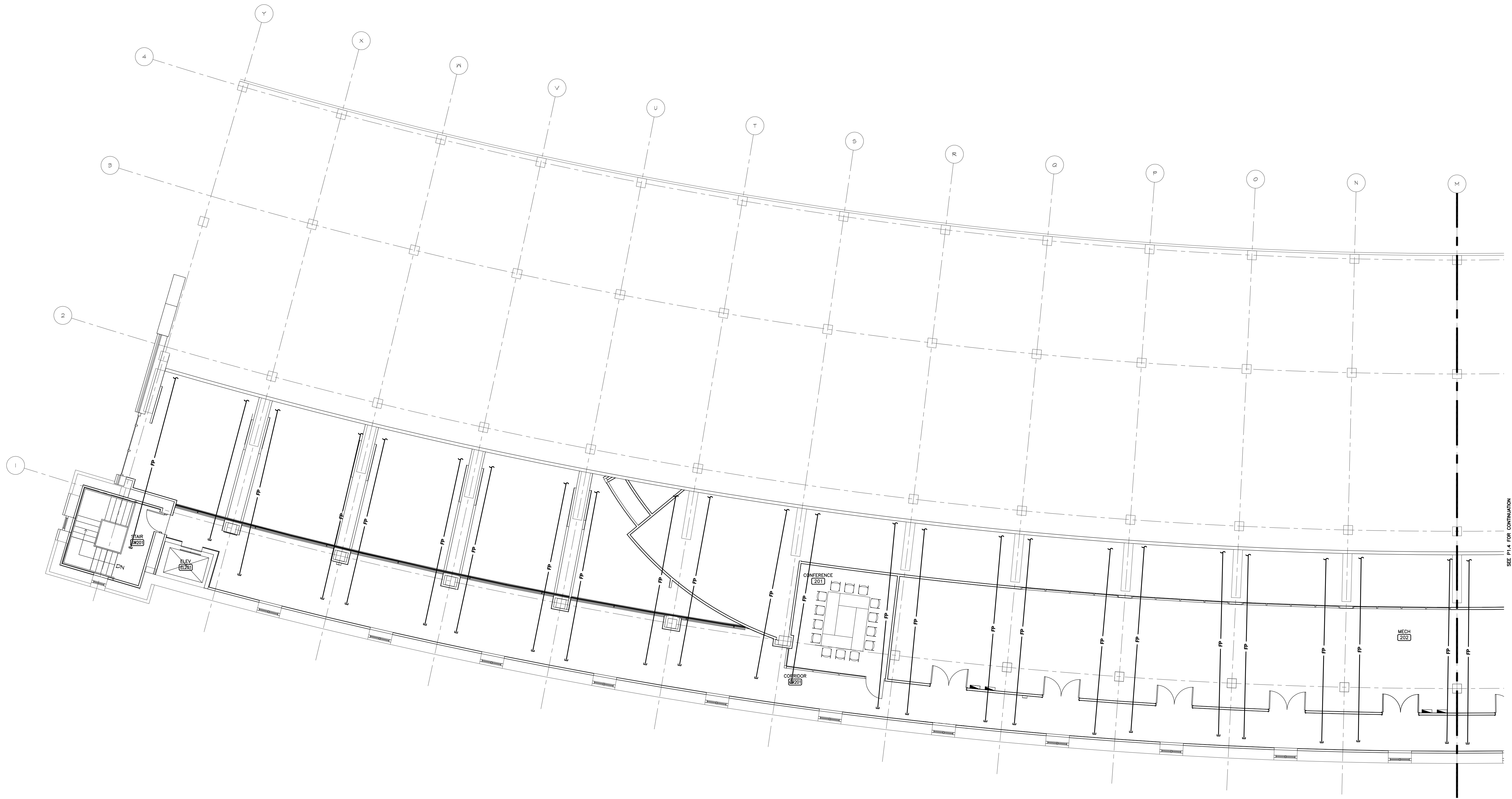
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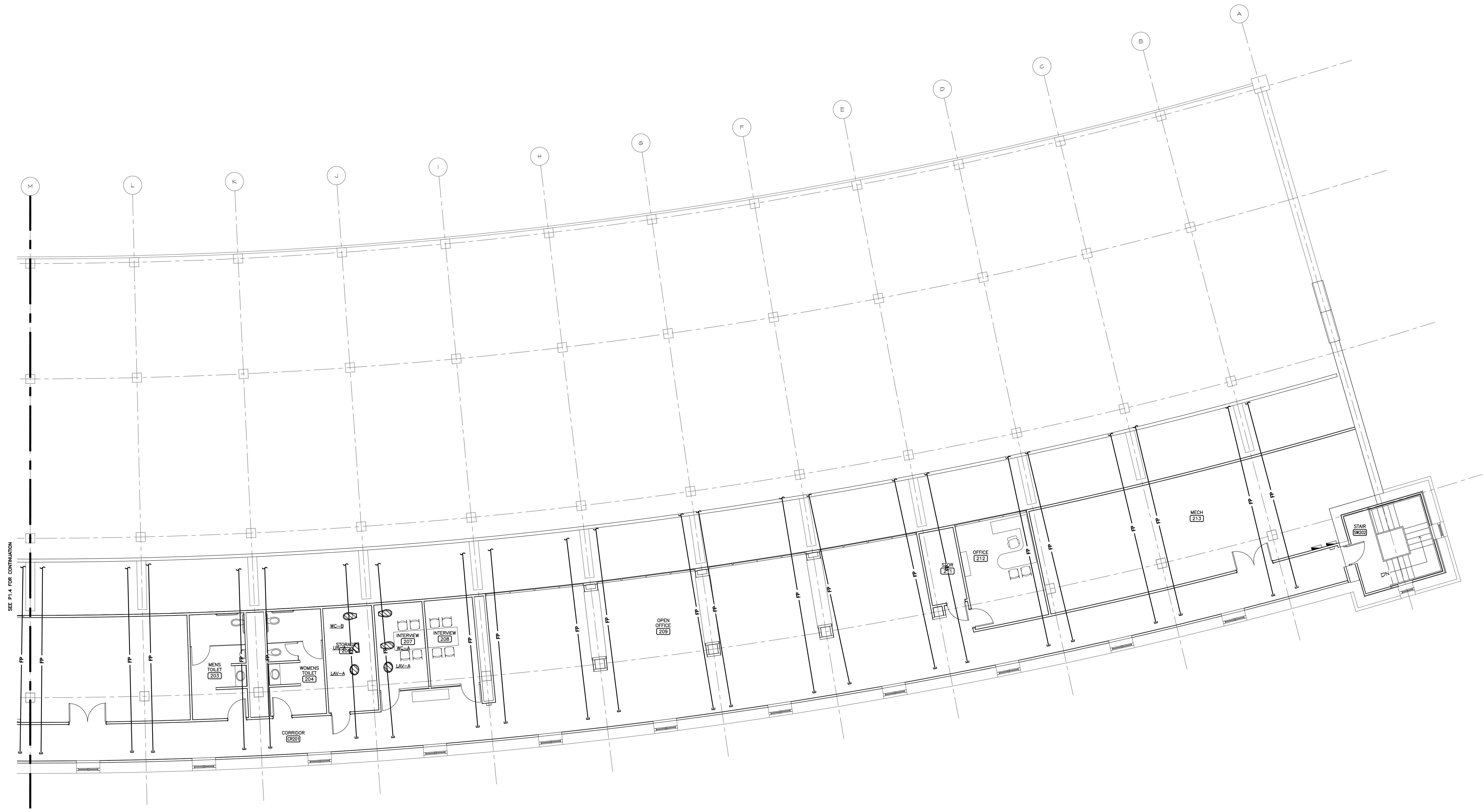
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 803 N. 17TH STREET MANHATTAN, KANSAS 66506
 BUILDING NUMBER - 36700 - 00104
 DATE: NOV 2014 DRAWN BY: -

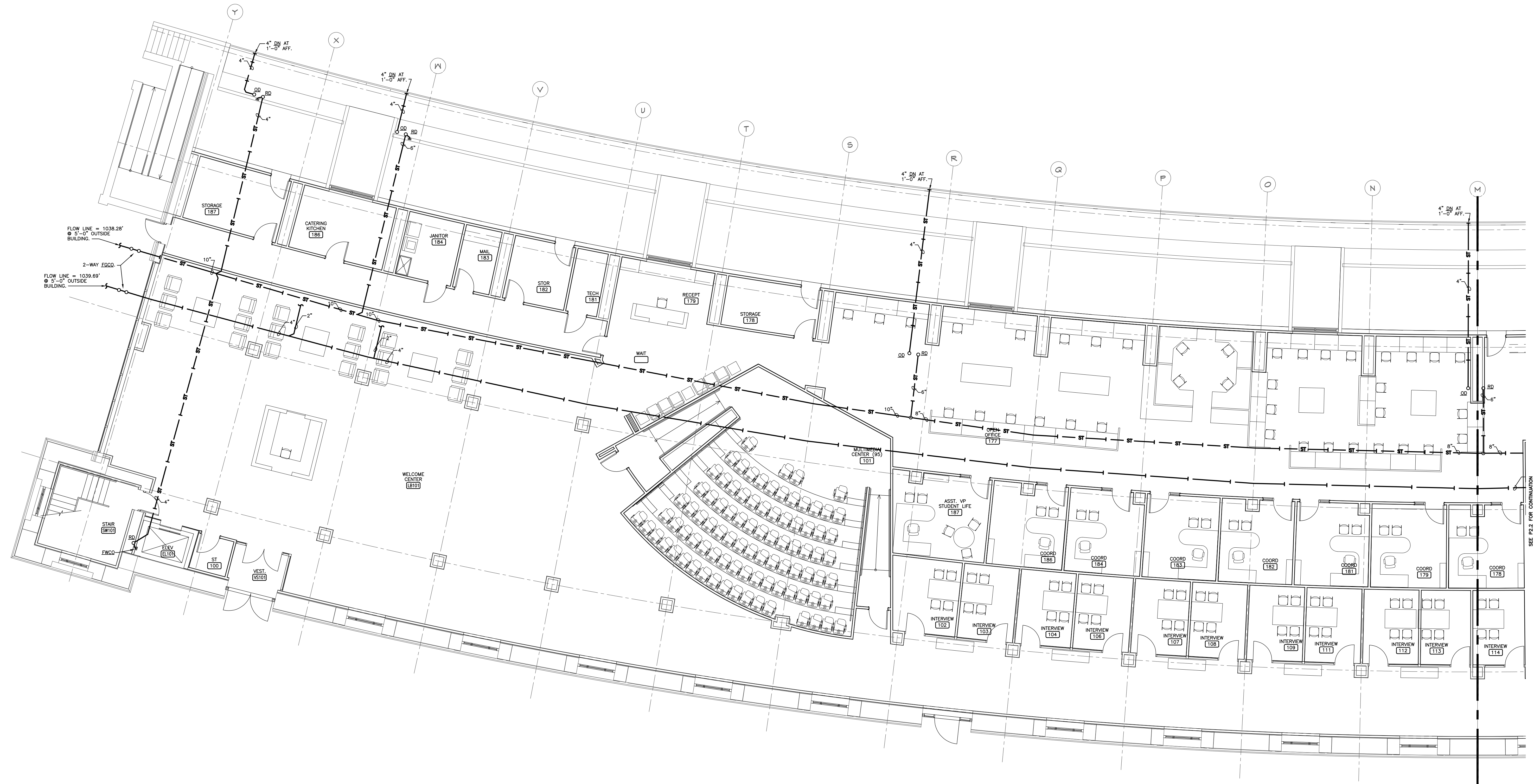
PLUMBING WATER AND
 FIRE PROTECTION PLAN

A-011845

P1.4
 DESIGN DEVELOPMENT
 SUBMITTAL



Job No. 12018



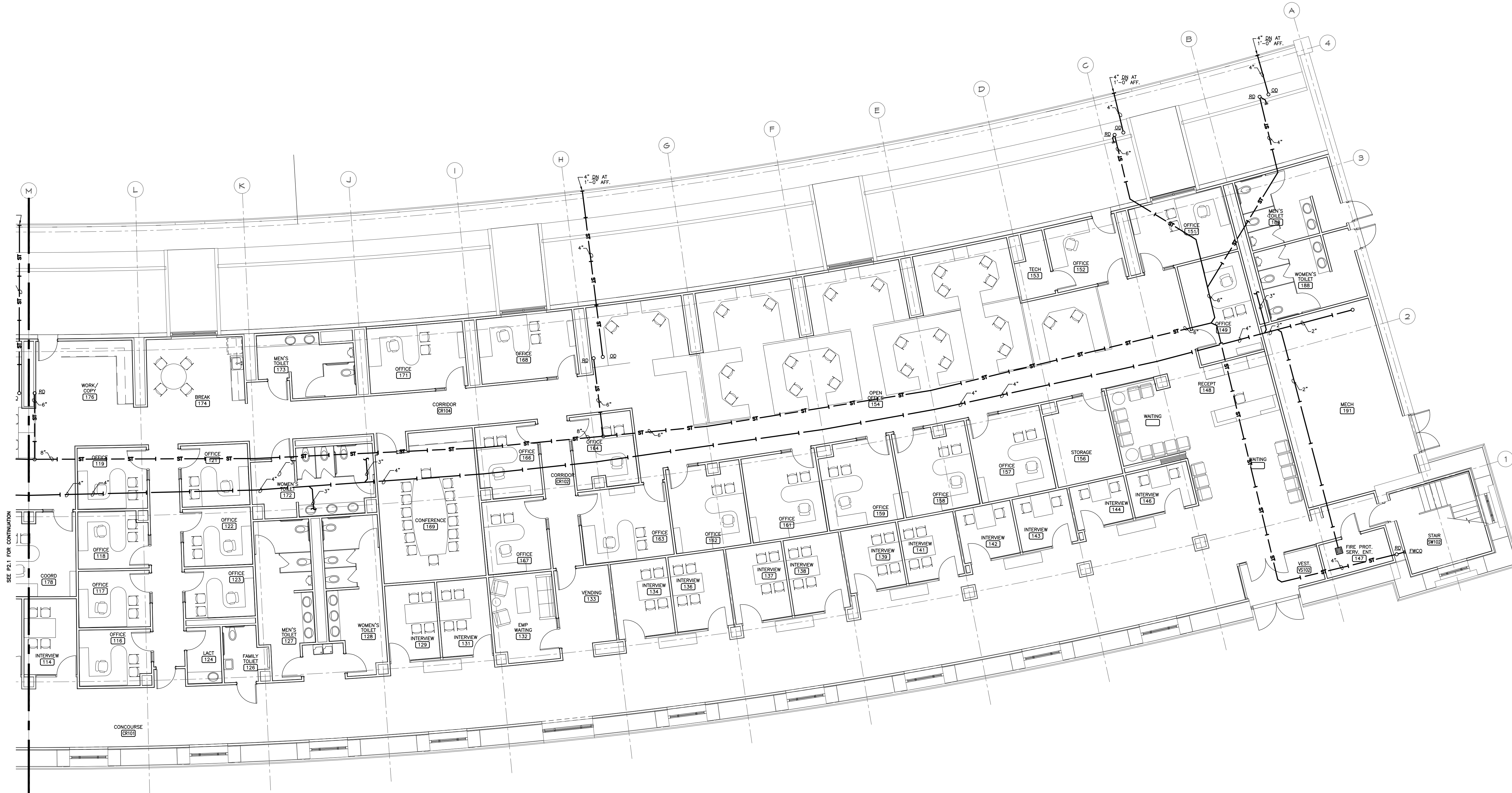
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Kansas State University
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PLUMBING WASTE
 AND VENT PLAN
A-011845
P2.1
 DESIGN DEVELOPMENT
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SEE P2.1 FOR CONTINUATION

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PLUMBING WASTE
 AND VENT PLAN

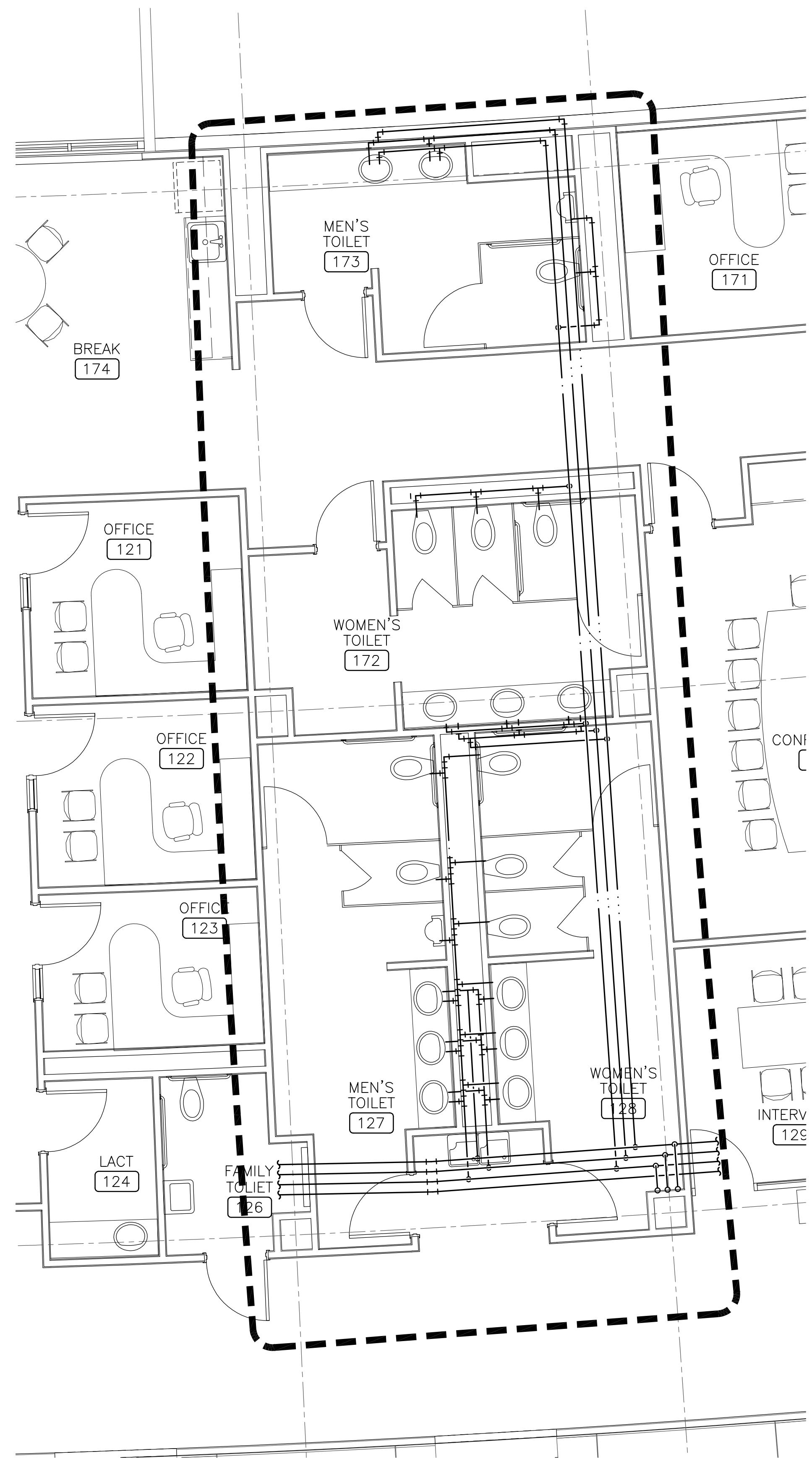
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P2.2

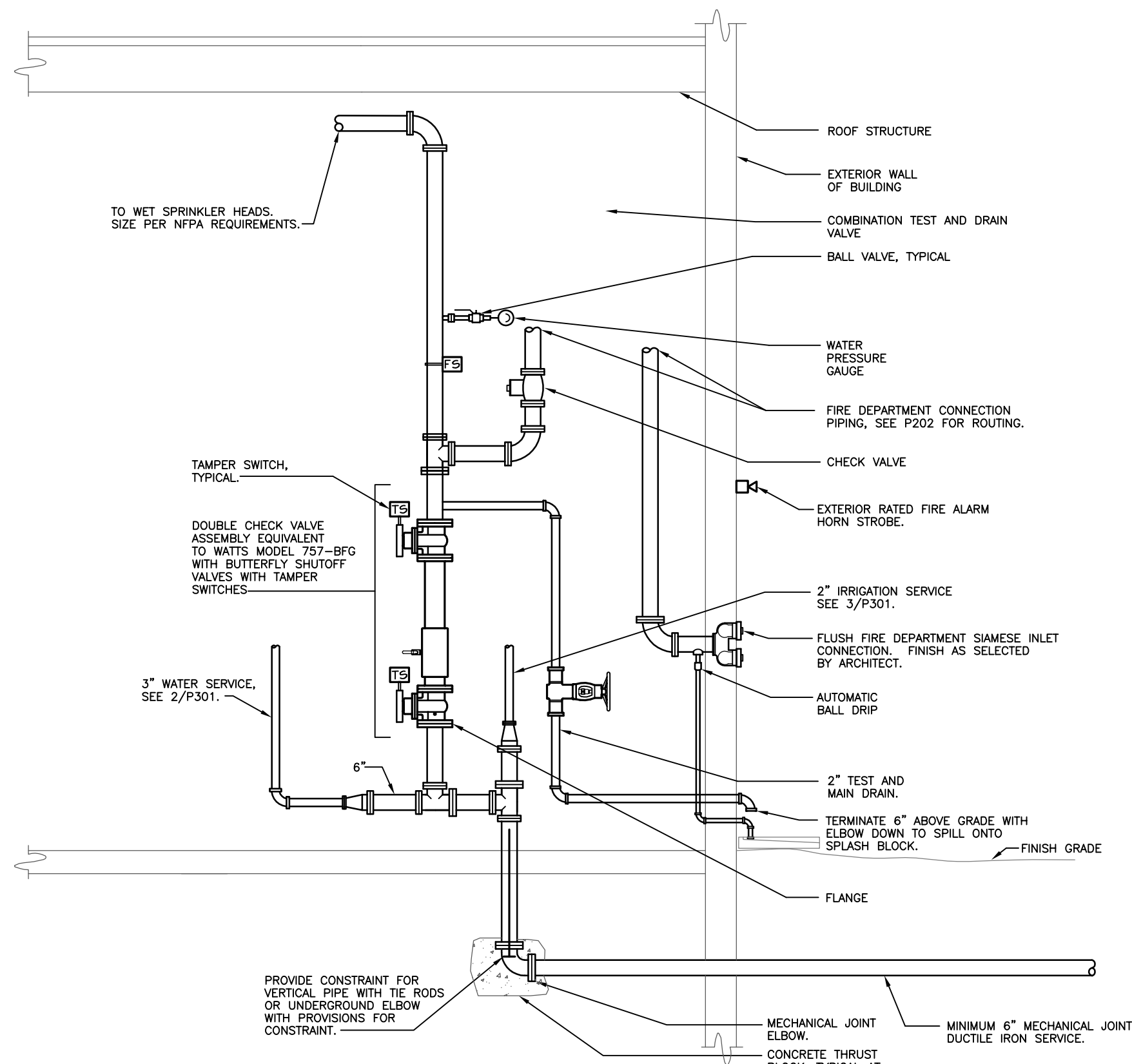
DESIGN DEVELOPMENT
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Job No. 12018

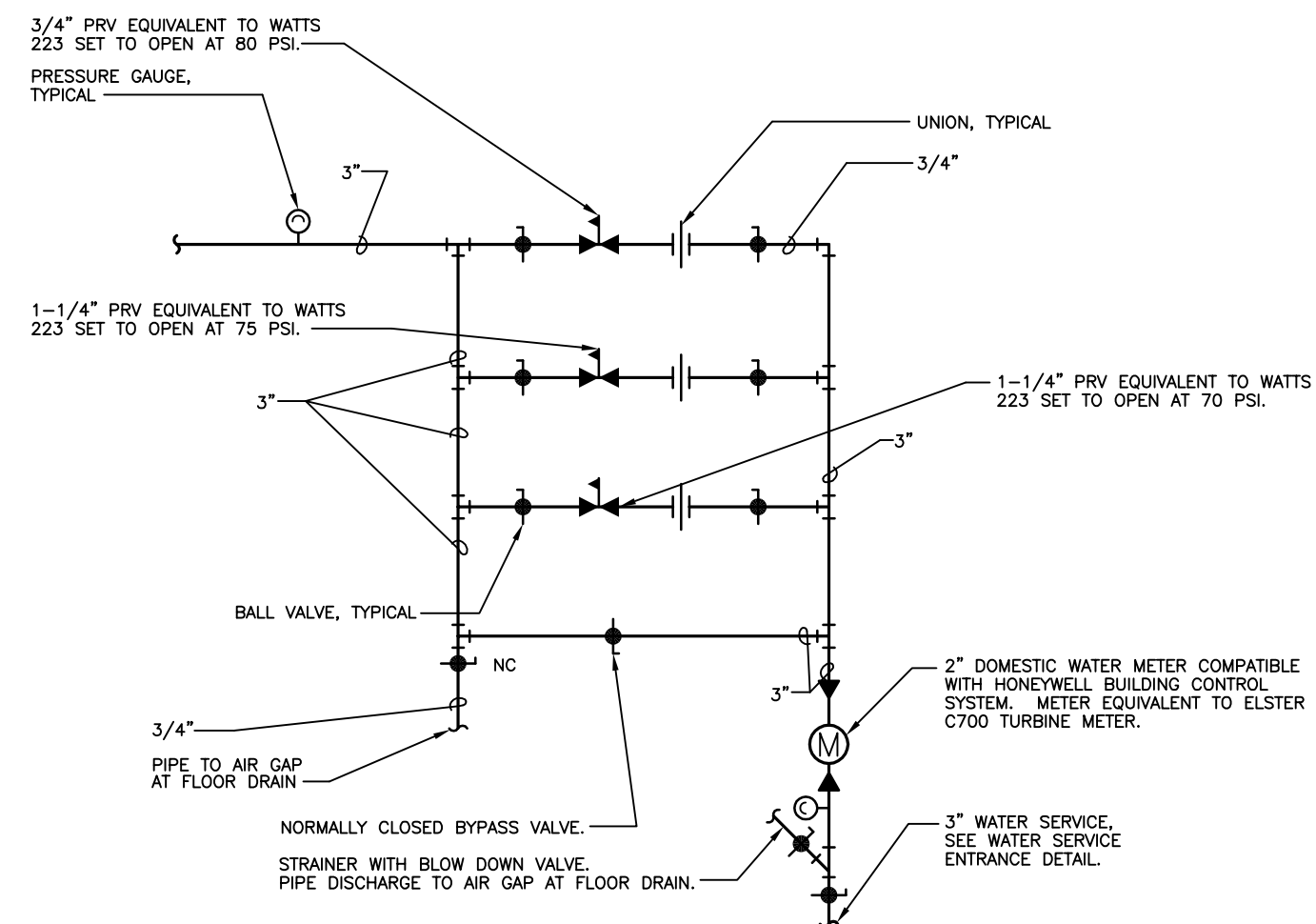


PLUMBING EQUIPMENT SCHEDULE		
General Notes: 1. For fixtures marked (ADA), fixture, trim, mounting dimensions and installation shall meet the requirements of the 1991 Americans With Disabilities Act. 2. Coordinate fixture locations with Architectural plans and elevations prior to rough-in. 3. All fixtures shall be provided with vandal resistant trim. 4. Provide carrier required for complete installation of fixture.		
WC-A	Zurn Z5610 vitreous china, wall mounted, elongated bowl, siphon jet flushing action, 1.6 GPF, 1-1/2" spud toilet, open front seat less cover, Zurn Z6000AV-WS1 flush valve with vacuum breaker and angle stop, coated cast iron closet carrier with adjustable closet connection and with feet anchor bolted to slab. Fixture color: white. Mount with rim at 15 inches above finished floor.	
WC-B (ADA)	Zurn Z5610 ADA vitreous china, wall mounted, elongated bowl, siphon jet flushing action, 1.6 GPF, 1-1/2" top spud toilet, open front seat less cover, Zurn Z6000AV-WS1 flush valve with vacuum breaker, angle stop and ADA compliant handle, coated cast iron closet carrier with adjustable closet connection and with feet anchor bolted to slab. Fixture color: white. Mount with rim at 17" above finish floor.	
JUR-A (ADA)	Zurn Z5750 vitreous china, wall hung, washout flushing action, extended rim, 1.0 GPF, 3/4" top spud, integral trap, wall hanger carrier with feet bolted to floor, Zurn Z6003AV-WS1 flush valve with vacuum breaker, ADA compliant handle and angle stop. Fixture color: white. Mount with lip at maximum of 17" AFF.	
LAV-A	Zurn Z5124 self-rimming round vitreous china lavatory, 19" outside diameter, front overflow. Trim with Zurn Z81101-3M 4" centerset faucet with 4" spout, 0.5 gpm flow control, grid drain, indexed hot or cold 2-1/2" metal lever handles, Dearborn supplies with stops and escutcheon plate, Dearborn 1-1/4" cast brass P-trap with cleanout plug. Fixture color: white.	
LAV-B (ADA)	Zurn Z5124 self-rimming round vitreous china lavatory, 19" outside diameter, front overflow. Trim with Zurn Z81104-3M 4" centerset faucet with 4" spout, 0.5 gpm flow control, grid drain, indexed hot or cold 4" wrist blade handles, Dearborn supplies with stops and escutcheon plate, Dearborn #760W 17 ga. offset tailpiece and 1-1/4" cast brass P-trap with cleanout plug. Fixture color: white. Insulate water and waste piping below sink with manufactured piping covers consisting of flexible vinyl insulation with white finish and access to piping, equivalent to Handi Lav-Guard manufactured by Truebro Inc.	
LAV-C (ADA)	Zurn Z5344 20" x 18" vitreous china front overflow lavatory for wall hanger. Trim with Zurn Z81101-3M 4" centerset faucet with 4" spout, 0.5 gpm flow control, grid drain, indexed hot or cold 2-1/2" metal lever handles, Dearborn supplies with stops and escutcheon plate, Dearborn #760W 17 ga. offset tailpiece and 1-1/4" cast brass P-trap with cleanout plug. Fixture color: white. Insulate water and waste piping below sink with manufactured piping covers consisting of flexible vinyl insulation with white finish and access to piping, equivalent to Handi Lav-Guard manufactured by Truebro Inc.	
S-A (ADA)	Zurn Z5344 20" x 18" vitreous china front overflow lavatory for concealed arms. Trim with Zurn Z8104-3M 4" centerset faucet with 4" spout, 0.5 gpm flow control, grid drain, indexed hot or cold 4" metal wristblade handles, Dearborn supplies with stops and escutcheon plate, Dearborn #760W 17 ga. offset tailpiece and 1-1/4" cast brass P-trap with cleanout plug. Fixture color: white. Insulate water and waste piping below sink with manufactured piping covers consisting of flexible vinyl insulation with white finish and access to piping, equivalent to Handi Lav-Guard manufactured by Truebro Inc. Note: This sink is selected for shallowness of compartments and location of waste outlets, which combine to provide maximum clearance below sink for wheelchair use. Any substitutions must provide same or greater clearance.	
KS-** (ADA)	Elkay #GECR-3321 20 gauge type 302 18-8 nickel bearing stainless steel two compartment self-rimming kitchen sink, each compartment 14"L x 15-3/4"W x 5-1/4"D, fully undercoated, 1-hole, LK-35-L strainer with elbow. Trim with Zurn Z82300-16M single handle kitchen deck faucet, chrome plated finish, metal lever handle, 10" swing spout, Dearborn supplies with stops and escutcheon plate, Dearborn 1-1/2" cast brass P-trap with cleanout plug. Insulate hot water and waste piping below sink with manufactured piping covers consisting of flexible vinyl insulation with white finish and access to piping, equivalent to Handi Lav-Guard manufactured by Truebro Inc. Note: This sink is selected for shallowness of compartments and location of waste outlets, which combine to provide maximum clearance below sink for wheelchair use. Any substitutions must provide same or greater clearance.	
SS	Fiat MSB2424 24" x 24" x 10" deep Molded Stone one piece service sink with drain and strainer. Trim with Zurn Z843M1-CS faucet with top brace, service stops, check stops, indexed 2-1/2" hot and cold metal lever handles, bucket hook, vacuum breaker, and threaded hose end spout, polished chrome plated finish. Fixture color: white.	
EMC (ADA)	Elkay #E7LBC two-level, lead free, wall hung electric drinking fountain with front mounted push bars for water control, single water chilling unit with capacity to cool 8.0 GPH from 80 degrees F to 50 degrees F at 90 degrees F room temperature, with Refrigerant 134a, and single plumbing and electrical rough-in. Tops shall be stainless steel, frame shall be heavy duty welded steel with beige steel cabinet. Provide with supply stops and 1-1/4" Dearborn 17 gauge cast brass P-trap with cleanout plug. Electrical characteristics: 120 volt/1 phase, 4.8 F.L.A.	
WH	Wade W-8600 non-freeze wall hydrant, cast bronze with satin bronze face, 3/4" inlet and brass casing of sufficient length to extend through walls as required to place valve inside building. Valve rod and seat washer shall be removable through the face of the hydrant. Hydrant shall be furnished complete with detachable T-handle and integral vacuum breaker.	
HB	Woodford model 26, hose bibb, cast bronze, with rough chrome finish, wheel handle, 3/4" inlet and hose thread outlet. Hose bibb shall be furnished complete with no spray back integral vacuum breaker.	
FD-A	Floor drain for finished areas - Wade 1100-1 floor drain with clamping collar, adjustable, vandal proof, 6" satin nickel bronze top.	
FD-B	Floor drain for mechanical rooms - Wade 2350-27 cast iron with bottom outlet, 8" square top, square loose set grate, removable sediment bucket.	
FD-C	Floor drain for mechanical rooms - Wade 2350-27 cast iron with bottom outlet, 8" square top, square loose set grate, removable sediment bucket.	
FWCO	Wade 8560-E cleanout tee with brass threaded plug and 8480-R round stainless steel coverplate secured to plug by countersunk screw.	
FGCO	Finished grade cleanout, Wade 6000-Z cast iron cleanout with straight body and fitted with bronze countersunk plug, same size as soil pipe with ductile iron scoriated cover. Bring extra heavy cast iron riser pipe to grade. Terminate hub flush in center of 18"x18"x4" (18" x 36" x 4" for two way cleanout) concrete block when not located in concrete area.	
FFCO	Finished floor cleanout, Wade 6000-Z-1 cast iron finished floor cleanout with spigot outlet, threaded adjustable housing, flanged ferrule with bronze threaded plug and vandal proof round secured nickel bronze scoriated top.	
RD	Roof drain, Wade 3000 coated cast iron, cast iron mushroom dome, non-puncturing flashing ring with integral gravel stop, adjustable extension collar as required, wide flange reversible high or low position deck ring, deck clamp and bottom outlet. Maximum grate opening size of 3/4".	
OD	Overflow roof drain, Wade 3000-SD, coated cast iron, cast iron mushroom dome, non-puncturing flashing ring with integral gravel stop, adjustable extension collar as required, wide flange reversible high or low position deck ring, deck clamp, bottom outlet and 2" high plastic standpipe. Maximum grate opening size of 3/4".	
DN	Wade 3890-SS series stainless steel downspout cover with hinged perforated grate and round frame with anchor holes. Constructed of 304 stainless steel. Sizes as shown on plans.	
SA	Wade Shock Arrestors, stainless steel construction with welded nested bellows, precharged with nitrogen, 125 psi maximum operating pressure, 300 degree F maximum temperature. Fixture Units Designation Wade Catalog No. PDI Rating 1-11 SA-5 5 A 12-32 SA-10 10 B 33-60 SA-20 20 C	
RPZ	Watts Series 009, Reduced Pressure Zone Backflow Prevention Assembly, for size 1/2" to 2", bronze body construction, two independent check valves, two quarter turn full port bronze body ball valves, relief valve assembly, four bronze body ball valve test cocks, suitable for 175 psi line pressure and 140 degree F temperatures, and USC listed. Provide with bronze strainer	
TEA	Thermal Expansion Absorber, Amtrol ST-60V precharged hydropneumatic steel expansion tank with internal butyl diaphragm. 34 gallons total volume, 17 gal minimum expansion volume, 150 psig maximum working pressure.	
SP	Sump Pump, Little Giant 9E-CIM. 4/10 hp, 120 volt permanent split capacitor motor with oil filled housing, mechanical type seals, 15' power cord with grounding plug, 1-1/2" FN PT, epoxy coated cast iron housing, volute, and impeller rated for 27 gpm at 20' head. Finish with check valve, Little Giant #RFSN-9 non-mercury float switch with 15' cord, #101 indoor high water alarm, NEMA 1 metal enclosure, remote float switch with 15' cable, red LED light, horn with silence switch, test button, 115V cord and plug. 36" dia. X 48" deep fiberglass basin with bolted steel cover with 2" vent connection and air admittance valve.	

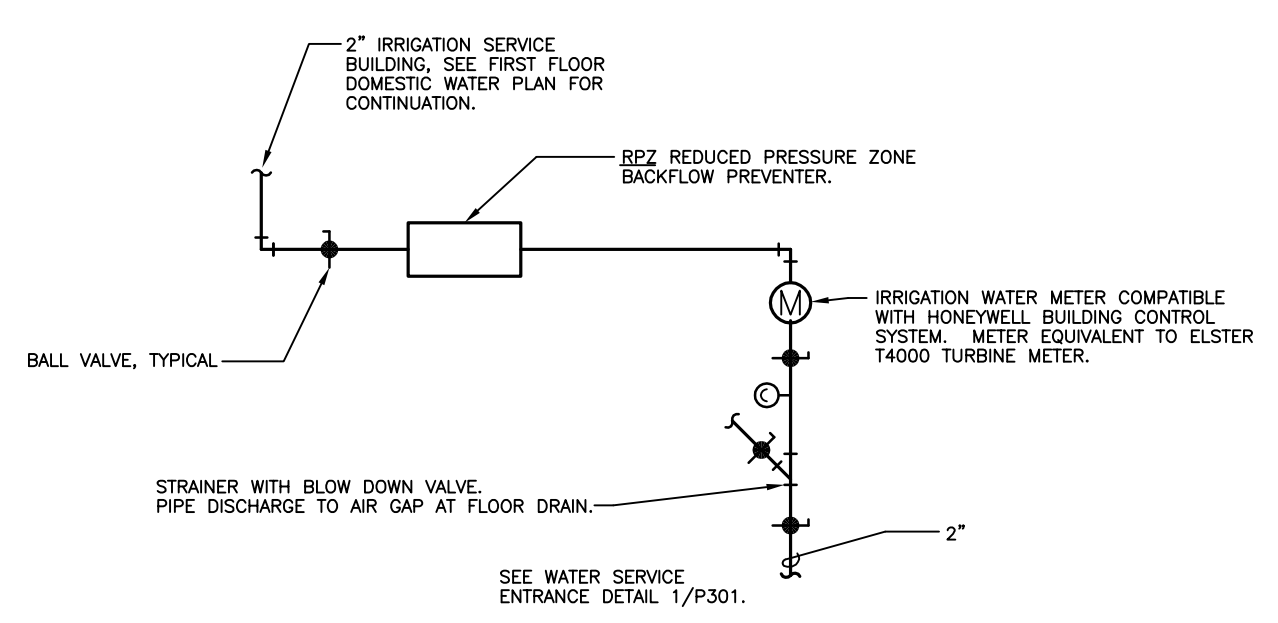


- NOTES:**
- COORDINATE ALL EQUIPMENT INSTALLATION REQUIREMENTS AND LOCATIONS WITH CITY FIRE DEPARTMENT.
 - SIZE SERVICE ENTRANCE AND FIRE PROTECTION MAIN LEAVING FIRE PROTECTION ROOM TO SERVE THE ENTIRE BUILDING. ANTICIPATED USE FOR UNOCCUPIED PORTIONS OF THE BUILDING IS EITHER EDUCATIONAL OR BUSINESS.
 - REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

1 WATER SERVICE ENTRANCE DETAIL
NO SCALE



2 DOMESTIC WATER SERVICE DETAIL
NO SCALE



3 IRRIGATION SERVICE ENTRANCE DETAIL
NO SCALE

PLUMBING SYMBOLS LEGEND	
---D---	Condensate drain
---	Cold water
---	Hot water
---T---	Tempered water
---	Recirculated water
---T---	Recirculated tempered water
---HS---	Hot water supply
---HR---	Hot water return
---CHS---	Chilled water supply
---CHR---	Chilled water return
---CS---	Condenser water supply
---CR---	Condenser water return
---RL---	Refrigerant liquid
---RS---	Refrigerant suction
---	Natural gas
---LP---	LP gas
---ST---	Storm sewer above grade
---ST---	Storm sewer below grade
---	Sanitary waste above grade
---	Sanitary waste below grade
---	Sanitary vent
VTR	Vent through roof
---D---	Plumbing trap
---	Pipe turning down
---	Pipe turning up
---	Shock arrester
---	Ball valve
---	Gate valve
---	Check valve
---	Butterfly valve
---	Control valve
---	3-Way valve
---	Solenoid valve
---	Pressure reducing valve
---	Gas cock
---	Union
---	Temperature/pressure relief valve
---	Strainer
---	Flow switch
---	Flow meter
---	Aquastat
---	Automatic air vent
---	Manual air vent
---	Flexible pipe
---	Gauge
---	Test plug
---	Reducer
---	Thermometer in well
---	Temperature sensor in well
---	Connection of new to existing
e	Existing device
TYP	Typical
A.F.F.	Above finished floor
U.N.O.	Unless noted otherwise
N.I.C.	Not in contract
G.C.	General Contractor