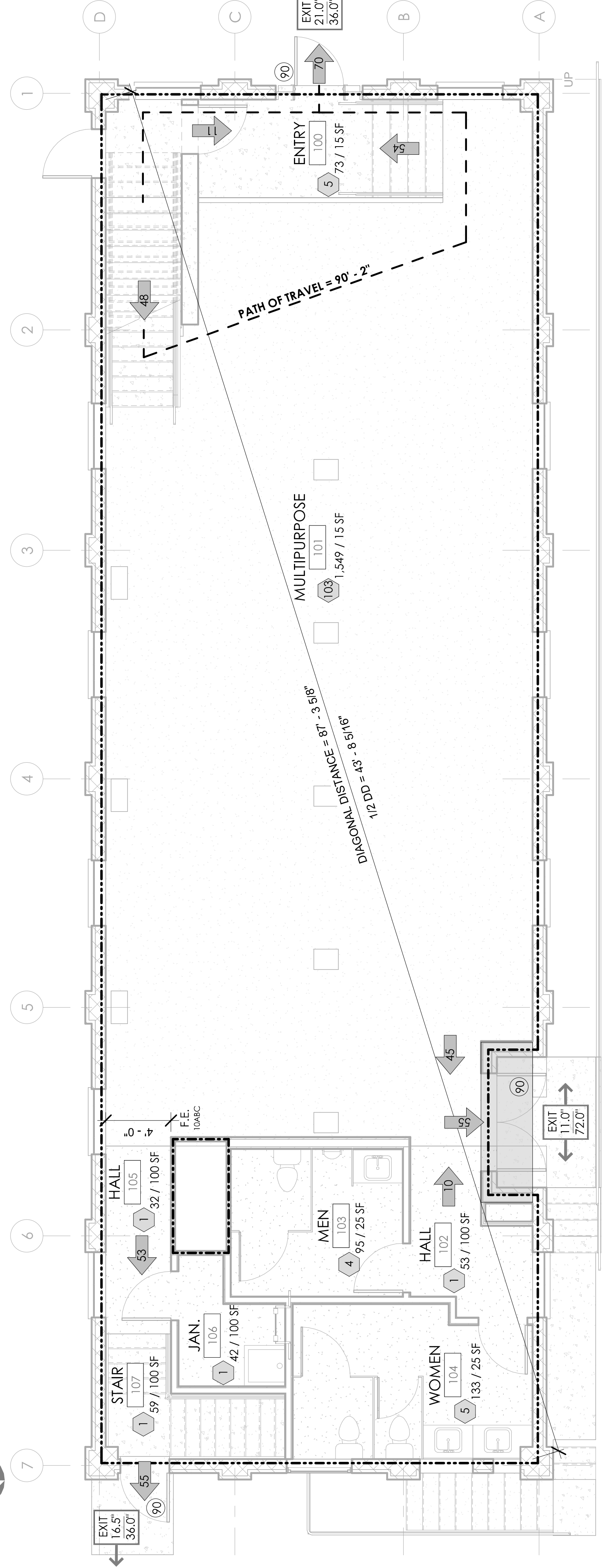
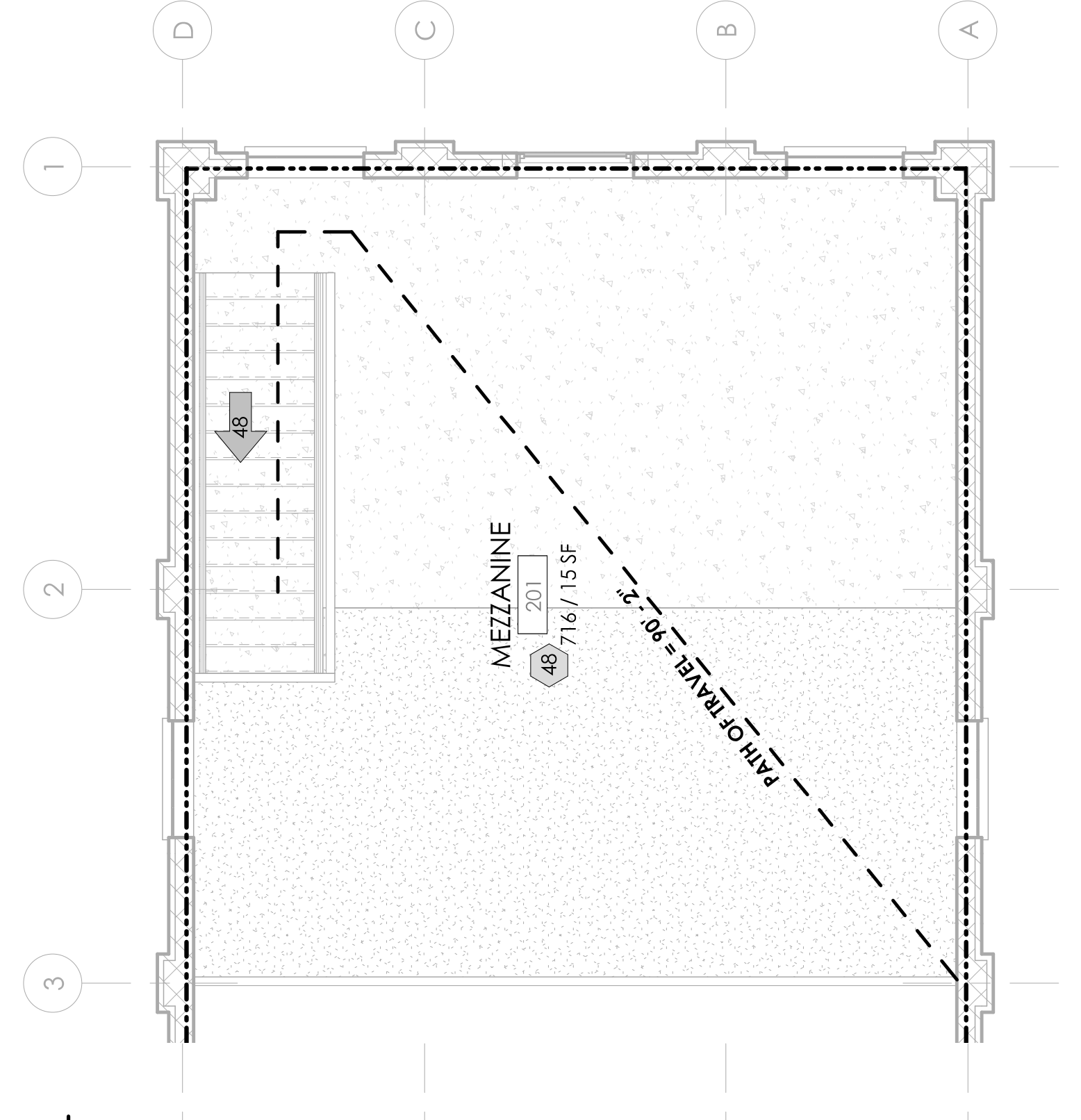


Z BASEMENT CODE PLAN



Z FIRST FLOOR CODE PLAN



Z MEZZANINE CODE PLAN

CODE SUMMARY

- A. APPLICABLE CODES:
- BUILDING CODES:
 - MICHIGAN REHABILITATION CODE (MRC) 2015 WITH AMENDMENTS
 - RESOURCE A GUIDELINES ON FIRE RATINGS OF ARCHITECTURAL MATERIALS AND ASSEMBLIES
 - MICHIGAN BUILDING CODE (MBC) 2015 WITH AMENDMENTS
 - ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES AMERICANS WITH DISABILITIES ACT (ADA) 2010
 - MECHANICAL CODES:
 - MICHIGAN MECHANICAL CODE 2015
 - MICHIGAN PLUMBING CODE (MPC) 2015
 - ELECTRICAL CODE (NEC) 2017
 - PROPOSED BUILDING DATA:
 - PROPOSED WORK TYPE: **ALTERATION - LEVEL 3 (MBC 9)**
 - USE: **ASSEMBLY A-3 (MBC 303.4) NO-CHANGE**
 - CONSTRUCTION TYPE: **III-B (MBC 602.3)**
 - ROOF TYPE: **NOT SPRINKLED**
 - BUILDING AREA:
 - ALLOWABLE AREA: 9,500 SF (MBC TABLE 506.2)
 - PROPOSED AREA: 5,526 SF GROSS; 5,076 SF NET RENTABLE
 - BUILDING HEIGHT: 55 FEET (MBC TABLE 504.3)
 - ALLOWABLE HEIGHT: 55 FEET (MBC TABLE 504.4)
 - ALLOWABLE STORIES: 3 STORIES (MBC TABLE 504.4)
 - PROPOSED STORIES: 1 STORY + MEZZANINE (W/BASEMENT) **NO-CHANGE**
 - FIRE RESISTANCE RATINGS (MBC TABLE 601):
 - PRIMARY STRUCTURAL FRAME: 0-HOURS
 - BEARING WALLS: 0-HOURS
 - INTERIOR: 0-HOURS
 - NON-BEARING WALLS: 0-HOURS
 - EXTERIOR: X-30 = 1-HOUR; 30-K = 0-HOUR
 - INTERIOR: 0-HOUR
 - FLOOR CONSTRUCTION: 0-HOUR
 - CEILING CONSTRUCTION: 0-HOUR
 - OPENING PROTECTION: **REPLACE IN KIND - NOT PROTECTED**
 - OCCUPANT LOAD (MBC TABLE 1004.1.2): 300 GROSS
 - ASSEMBLY - UNCONCENTRATED: 15 NET
 - BUSINESS AREA: 100 GROSS
 - MAXIMUM TRAVEL DISTANCE: 200' REQUIRED / 91'-2" PROVIDED (MBC TABLE 1017.2)
 - MINIMUM CORRIDOR WIDTH: 44" REQUIRED / 48" PROVIDED (MBC 1020.2)
 - MAXIMUM DEAD END CORRIDOR: 20' / 10' (MBC 1020.4)
 - MINIMUM EXITS: 2 REQUIRED / 4 PROVIDED (MBC 1006.3.1)
 - MINIMUM EXIT WIDTH: 50.9' REQUIRED / 178' PROVIDED (MBC 1006.3.2)

STRUCTURAL DESIGN CRITERIA

STRUCTURAL DESIGN IN ACCORDANCE WITH MRC 907: NO SUBSTANTIAL STRUCTURAL ALTERATIONS (X<30%)

NEW ELEMENTS CRITERIA:

A. **DEAD LOADS**

METAL TRUSS ROOF	MAX GRAVITY LOAD	MAX GRAVITY LOAD FOR UPJET
TOP CHORD	2 PSF	2 PSF
ROOFING	2 PSF	2 PSF
METAL DECK	8 PSF	8 PSF
WOOD DECKING	3 PSF	0 PSF
MISC.	15 PSF	12 PSF
BOTTOM CHORD	2 PSF	1 PSF
MECH/ELEC	2 PSF	0 PSF
PANELERS	2 PSF	0 PSF
MISC.	11 PSF	5 PSF
TOTAL	26 PSF	17 PSF
	+ TRUSS	+ TRUSS
	SELF WEIGHT	SELF WEIGHT

B. **LIVE LOADS**
ROOF LIVE LOADS: GREATER OF 20 PSF OR ROOF SNOW LOAD.

C. **SNOW LOAD**
ROOF SNOW LOAD, P_S: 20 PSF
SNOW LOAD IMPACTANCE FACTOR, I_s: 1.0
SNOW EXPOSURE FACTOR, C_e: 1.0
SNOW THERMAL FACTOR, C_t: 1.1
MINIMUM FLAT ROOF SNOW LOADS: 15.4 PSF

SNOW DRIFT LOADS

ROOF MEMBER DESIGN INCLUDES SNOW DRIFT LOADING

D. **SEISMIC LOAD (MRC 907.4.3)** **NOT CATEGORY F - NOT APPLICABLE**

RISK CATEGORY	1.0
IMPORTANCE FACTOR, I _s	1.0
SPECTRAL RESPONSE ACCELERATION S ₁	0.096
SPECTRAL RESPONSE ACCELERATION S ₂	0.047
SITE CLASS	E
SPECTRAL RESPONSE ACCELERATION S _{ms}	0.16
SPECTRAL RESPONSE ACCELERATION S _{0.1}	0.109
BASIC SEISMIC FORCE-RESISTING SYSTEM	ORDINARY PLAIN MASONRY SHEAR WALLS
RESPONSE MODIFICATION COEFFICIENT(S) C _s	1.5
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE METHOD

E. **WIND LOAD (MRC 907.5)** **NO ALTERATIONS - NOT APPLICABLE**
ASCE 7-16 (PRESSURES ARE ULTIMATE, FACTOR BY 1.6 FOR ASD)

ULTIMATE WIND SPEED, V _{ult}	115 MPH
RISK CATEGORY	II
WIND EXPOSURE CATEGORY	B

CODE LEGEND

