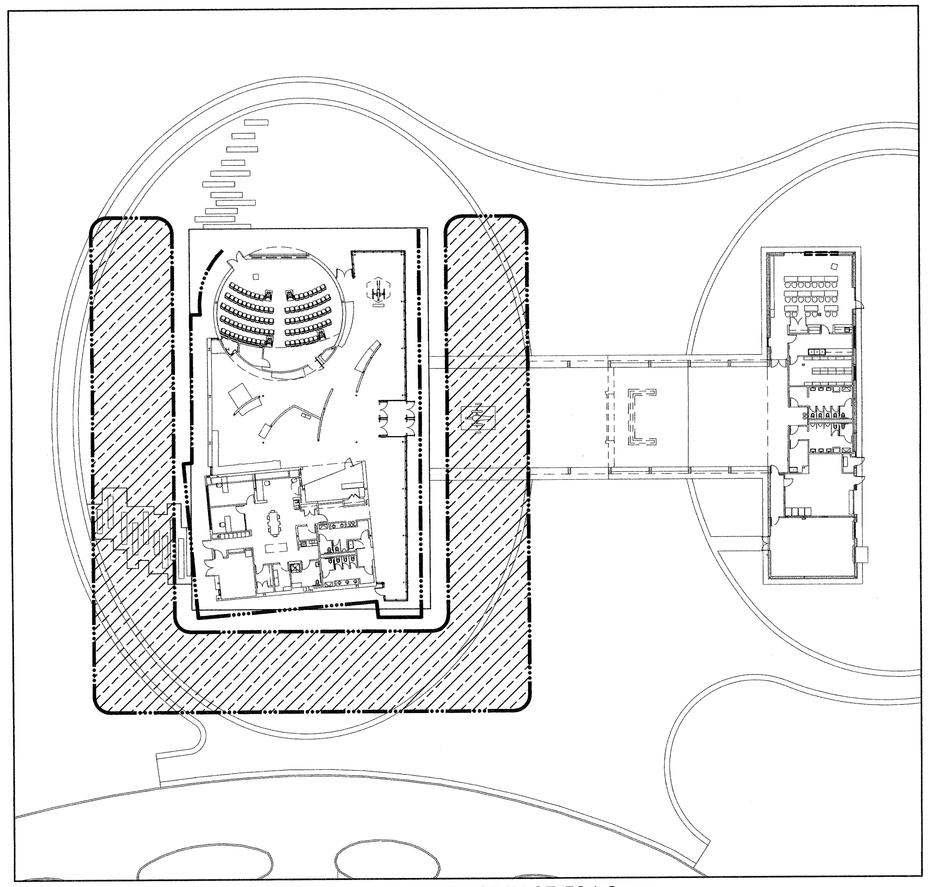


3 ACCESSIBLE PERIMETER- FRONTAGE INCREASE 506.2
1/32" = 1'-0"

PROJECT LOCATION:

MANALAPAN TOWNSHIP, MONMOUTH COUNTY, NEW JERSEY

APPLICABLE CONSTRUCTION CODES:

CODE:	NEW JERSEY ADMINISTRATIVE CODE TECHNICAL AMENDMENTS:
INTERNATIONAL BUILDING CODE (IBC) - 2009 ED.	N.J.A.C. 5:23 - 3.14
INTERNATIONAL MECHANICAL CODE (IMC) - 2009 ED.	N.J.A.C. 5:23 - 3.20
NATIONAL STANDARD PLUMBING CODE (NSPC) - 2009 ED.	N.J.A.C. 5:23 - 3.15
INTERNATIONAL FUEL GAS CODE - 2009 ED.	N.J.A.C. 5:23 - 3.22
N.J.A.C. 5:70 UNIFORM FIRE CODE	-
NATIONAL ELECTRICAL CODE (NEC) - 2008 ED.	N.J.A.C. 5:23 - 3.16
ASHRAE 90.1 - 2004 ED.	N.J.A.C. 5:23 - 3.18
BARRIER FREE SUBCODE & ANSI A117.1 - 2003 ED.	N.J.A.C. 5:23 - 7

PROJECT SUMMARY:

THIS PROJECT CONSISTS OF DEMOLISHING A PORTION OF THE EXISTING MONMOUTH BATTLEFIELD VISITORS CENTER, RENOVATING ANOTHER PORTION OF THE EXISTING BUILDING (BUILDING 1), AND CONSTRUCTION OF A NEW SEPARATE BUILDING (BUILDING 2).

USE GROUP (BUILDING 1):

A-3 - ASSEMBLY (WITH ACCESSORY S-1 STORAGE)

CONSTRUCTION TYPE CLASSIFICATION (BUILDING 1):

TYPE IIB CONSTRUCTION (NONCOMBUSTIBLE, UNPROTECTED (UNSPRINKLERED))

ALLOWABLE FOOTPRINT (INCREASE NOT REQUIRED):
(MORE RESTRICTIVE USE GROUP IS S-1)

	ALLOWABLE	PROPOSED
AREA	17,500 SQ. FT.	4,066 SQ. FT.
HEIGHT IN STORIES	3 STORIES	1 STORY
HEIGHT IN FEET	55'-0"	21'-0"

FIRE-RESISTANCE RATINGS (BUILDING 1):

FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (TABLE 601 IBC)

STRUCTURAL FRAME - INCLUDING COLUMNS, GIRDERS, AND TRUSSES	0 HOUR
SUPPORTING ROOF ONLY	0 HOUR
ROOFS MORE THAN 20'-0" ABOVE OCCUPIED FLOOR BELOW	0 HOUR
BEARING WALLS - INTERIOR AND EXTERIOR	0 HOUR
FLOOR CONSTRUCTION - INCLUDING SUPPORTING BEAMS AND JOISTS	0 HOUR
ROOF CONSTRUCTION - INCLUDING SUPPORTING BEAMS AND JOISTS	0 HOUR
ROOFS MORE THAN 20'-0" ABOVE OCCUPIED FLOOR BELOW	0 HOUR
INCIDENTAL USE AREAS	
STORAGE ROOMS OVER 100 SQUARE FEET - UNSPRINKLERED	1 HOUR

EXIT ACCESS TRAVEL DISTANCE (BUILDING 1):

USE GROUP	NOT SPRINKLERED
GROUP B - (TABLE 1016.1)	200 FT.
GROUP S-1 - (TABLE 1016.1)	200 FT.
COMMON PATH OF TRAVEL	75 FT.

USE GROUP (BUILDING 2):

NON-SEPARATED, MIXED USE

B - BUSINESS
A-3 - ASSEMBLY

AS PER SECTION 302.1 & 508.3.2

THE ALLOWABLE BUILDING AREA AND HEIGHT OF THE BUILDING OR PORTION THEREOF SHALL BE BASED ON THE MOST RESTRICTIVE ALLOWANCES FOR THE OCCUPANCY GROUPS UNDER CONSIDERATION FOR THE TYPE OF CONSTRUCTION OF THE BUILDING...

SINCE ALL USES COMPRISING MORE THAN 10% OF THE FLOOR AREA (THOSE LESS THAN 10% WOULD BE "ACCESSORY USES") FIT WITHIN THE TOTAL HEIGHT AND AREA LIMITATIONS FOR THE CONSTRUCTION TYPE, SEPARATION OF USES IS NOT REQUIRED.

CONSTRUCTION TYPE CLASSIFICATION (BUILDING 2):

TYPE VB CONSTRUCTION (COMBUSTIBLE, UNPROTECTED (UNSPRINKLERED))

ALLOWABLE FOOTPRINT: (W/FRONTAGE INCREASE PER 506.2)
(MORE RESTRICTIVE USE GROUP IS A-3)

IFRONTAGE = [F/P - 0.25]W/30
IFRONTAGE = [362'/450'-0.25]30/30 (SEE 3/G0.01)
IFRONTAGE = 0.55
AALLOWABLE = ATABLE + (ATABLE X IFRONTAGE)
AALLOWABLE = 6,000 + (6,000 X 0.55)
AALLOWABLE = 9,300 SQ. FT.

	ALLOWABLE	PROPOSED
AREA	9,300 SQ. FT.	8,861 SQ. FT.
HEIGHT IN STORIES	1 STORIES	1 STORY
HEIGHT IN FEET	40'-0"	21'-0"

FIRE-RESISTANCE RATINGS (BUILDING 2):

FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (TABLE 601 IBC)

STRUCTURAL FRAME - INCLUDING COLUMNS, GIRDERS, AND TRUSSES	0 HOUR
SUPPORTING ROOF ONLY	0 HOUR
ROOFS MORE THAN 20'-0" ABOVE OCCUPIED FLOOR BELOW	0 HOUR
BEARING WALLS - INTERIOR AND EXTERIOR	0 HOUR
FLOOR CONSTRUCTION - INCLUDING SUPPORTING BEAMS AND JOISTS	0 HOUR
ROOF CONSTRUCTION - INCLUDING SUPPORTING BEAMS AND JOISTS	0 HOUR
ROOFS MORE THAN 20'-0" ABOVE OCCUPIED FLOOR BELOW	0 HOUR
INCIDENTAL USE AREAS	
STORAGE ROOMS OVER 100 SQUARE FEET - UNSPRINKLERED	1 HOUR

FIRE AREAS (BUILDING 2) | TABLE 707.3.9:

2 HOUR FIRE BARRIER AT FIRE AREA SEPARATION

INTERIOR FINISHES (BUILDING 2):

INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY (TABLE 803.9)

ROOMS AND ENCLOSED SPACES (A-3/UNSPRINKLERED)	CLASS C
EXIT ENCLOSURES AND EXIT PASSAGEWAYS (A-3)	CLASS B
CORRIDORS (A-3)	CLASS B
WESTERN RED CEDAR SIDING (ACTUAL):	CLASS B
SITE-FABRICATED STRETCH SYSTEMS (ACTUAL):	CLASS C

EXIT ACCESS TRAVEL DISTANCE (BUILDING 2):

USE GROUP	NOT SPRINKLERED
GROUP B - (TABLE 1016.1)	200 FT.
GROUP A-3 - (TABLE 1016.1)	200 FT.
COMMON PATH OF TRAVEL	75 FT.

BUILDING OCCUPANT LOAD - BUILDING #1: EXISTING

LOCATION	USE GROUP	SQ. FOOTAGE	OCCUPANT LOAD FACTOR	# OF OCCUPANTS
ENTRY HALL* 019	—	287 SQ. FT.	—	—
MULTIPURPOSE 020	CLASSROOM (A-3)	819 SQ. FT.	15 NET	55
ARCH. LAB 021	VOCATIONAL SHOP (A-3)	191 SQ. FT.	50 NET	4
ARTIFACT STORAGE 022	STORAGE (INCIDENTAL A-3)	256 SQ. FT.	300 G	1
WOMENS TOILET 023	—	248 SQ. FT.	ACTUAL	8
MENS TOILET 024	—	214 SQ. FT.	ACTUAL	8
JANITOR 025	—	75 SQ. FT.	—	—
STAFF STORAGE 027	STORAGE (INCIDENTAL A-3)	28 SQ. FT.	300 G	1
STORAGE 028	STORAGE S-1 (ACCESSORY)	498 SQ. FT.	300 G	2
EX. MECH. RM., 029	MECHANICAL (INCIDENTAL A-3)	765 SQ. FT.	300 G	3
BUILDING #1 TOTAL		3381 SQ. FT.		82

* W/ALTERNATE #4 ONLY

BUILDING OCCUPANT LOAD - BUILDING #2 PAVILION

LOCATION	USE GROUP	SQ. FOOTAGE	OCCUPANT LOAD FACTOR	# OF OCCUPANTS
VESTIBULE 001	—	129 SQ. FT.	—	—
EXHIBITION 002	ASSEMBLY (A-3)	2315 SQ. FT.	ACTUAL	186
AUDITORIUM 003	ASSEMBLY (A-3) W/ FIXED SEATS	1480 SQ. FT.	ACTUAL	104
STORAGE 004	STORAGE (INCIDENTAL A-3)	39 SQ. FT.	300 G	1
MUSEUM STORE 005	MERCANTILE (M) (ACCESSORY)	230 SQ. FT.	30 G	8
FOYER 006	—	120 SQ. FT.	—	—
WOMENS TOILET 007	—	156 SQ. FT.	—	—
JANITOR 008	—	13 SQ. FT.	—	—
MENS TOILET 009	—	163 SQ. FT.	—	—
ADMINISTRATION 010	BUSINESS (B)	539 SQ. FT.	100 G	6
OFFICE STORAGE 011	STORAGE (INCIDENTAL A-3)	36 SQ. FT.	300 G	1
STAFF TOILET 012	—	104 SQ. FT.	—	—
BUILDING STORAGE 013	STORAGE (INCIDENTAL A-3)	63 SQ. FT.	300 G	1
EXHIBIT STORAGE 014	STORAGE (INCIDENTAL A-3)	63 SQ. FT.	300 G	1
MECH. RM 015	MECHANICAL (INCIDENTAL)	319 SQ. FT.	300 G	1
INTERPRETIVE SPECIALIST 016	BUSINESS (B)	116 SQ. FT.	100 G	2
SUPERINTENDENT 017	BUSINESS (B)	187 SQ. FT.	100 G	2
BUILDING #2 TOTAL		6072 SQ. FT.		313

OCCUPANT LOAD EGRESS (BUILDING 1):

FLOOR USE	RENOV.
ASSEMBLY (A-3)	82
TOTALS	82

OCCUPANT LOAD (BUILDING 2):

FLOOR USE	NEW CONSTR.
BUSINESS (B)	14
ASSEMBLY (A-3)	299
TOTALS	313

MINUMUM NUMBER OF REQUIRED FIXTURES (BUILDING 1):

Building 1: (occupancy based on egress requirement of building code)

Assembly (A-3) Total Occupant Load = 82 Occupants
(As per 7.21.2b: Occupant Load permitted to be reduced to 2/3)
Total Permitted Load: 82 x 2/3 = 55 occupants
(As per 7.21.2 Occupant Load shall be multiplied by 50% to determine number of persons of each sex)
Male Population: 55 x 50% = 28
Female Population: 55 x 50% = 28

MINUMUM NUMBER OF REQUIRED FIXTURES (BUILDING 2):

Building 2:

(As per 7.21.2e: at Auditoriums the number of occupants cannot be less than the number of seats)
Auditorium: 105 Occupants + Exhibition Hall: 186 Occupants + Museum Store: 8 Occupants
Assembly (A-3) Total Occupant Load = 299 Occupants
(As per 7.21.2 Occupant Load shall be multiplied by 50% to determine number of persons of each sex)
Male Population = 299 x 50% = 150
Female Population = 299 x 50% =150

Business(B) Total Occupant Load = 14 Occupants
(As per 7.21.2 Occupant Load shall be multiplied by 50% to determine number of persons of each sex)
Male Population = 14 x 50% = 7
Female Population = 14 x 50% = 7
Per Section 7.21.4(3) Separate Facilities: Business Occupancies with a total floor area of 1,500 SF or less, one single use toilet facility shall satisfy the requirements for serving customers and employees of both sexes.

PLUMBING FIXTURE REQUIREMENTS (BUILDING 1):

TABLE 7.21.1-1c ASSEMBLY FOR EXHIBITION HALLS

USE GROUP	No. Of Persons of Each Sex	WC (URINALS) MALE	WC (URINALS) FEMALE	LAVATORIES MALE	LAVATORIES FEMALE	DRINKING FOUNTAINS	SERVICE SINKS
ASSEMBLY (A-3) *	28	1	1	1	1	1	1
TOTAL REQUIRED		1	1	1	1	1	1
TOTAL PROVIDED		5*	5*	3*	3*	1	1

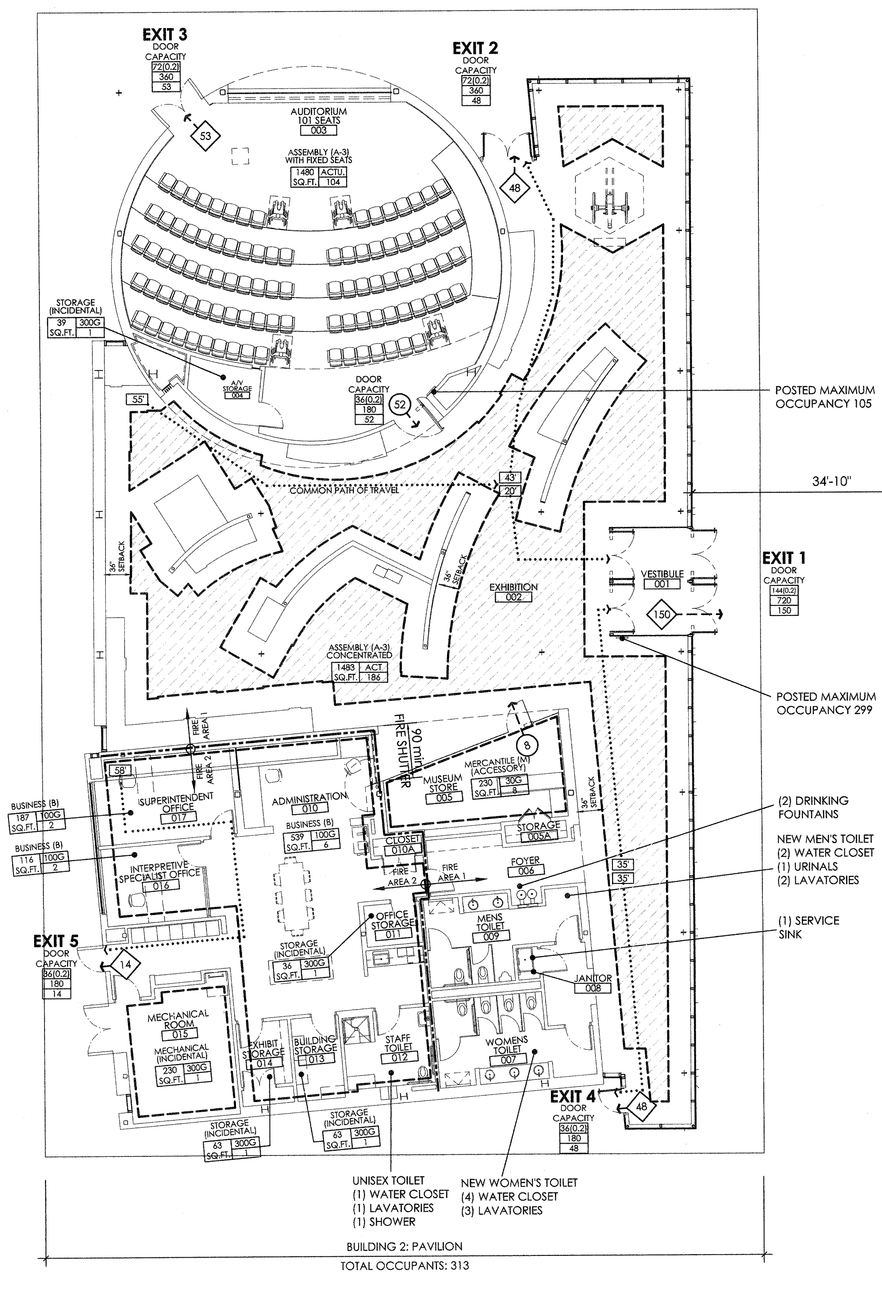
* ADDITIONAL URINALS, WATER CLOSETS, AND LAVATORIES PROVIDED FOR PARK PATRONS

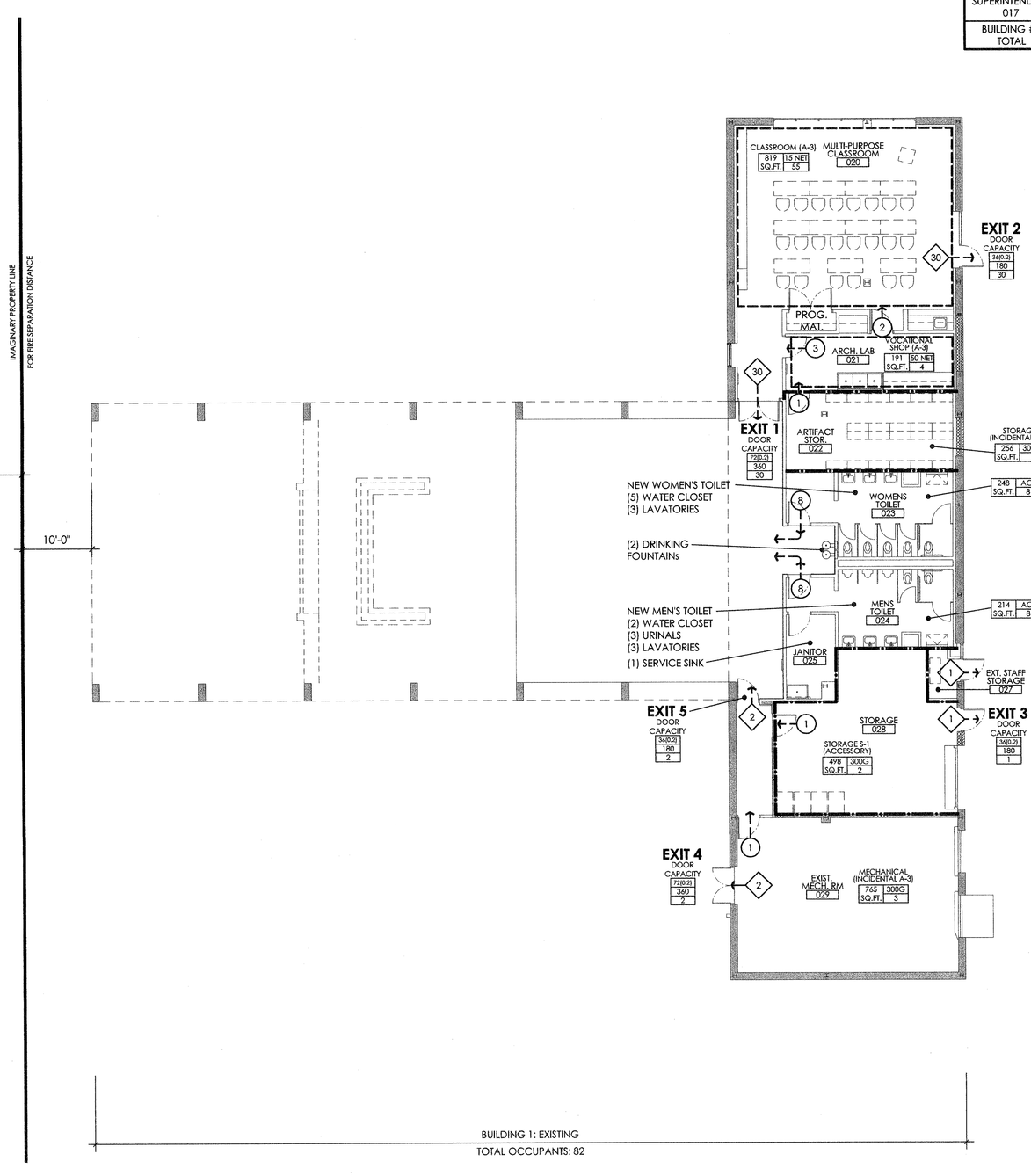
PLUMBING FIXTURE REQUIREMENTS (BUILDING 2):

TABLE 7.21.1-2 BUSINESS
TABLE 7.21.1-1c ASSEMBLY FOR AUDITORIUMS/LECTURE HALLS/EXHIBITION HALLS

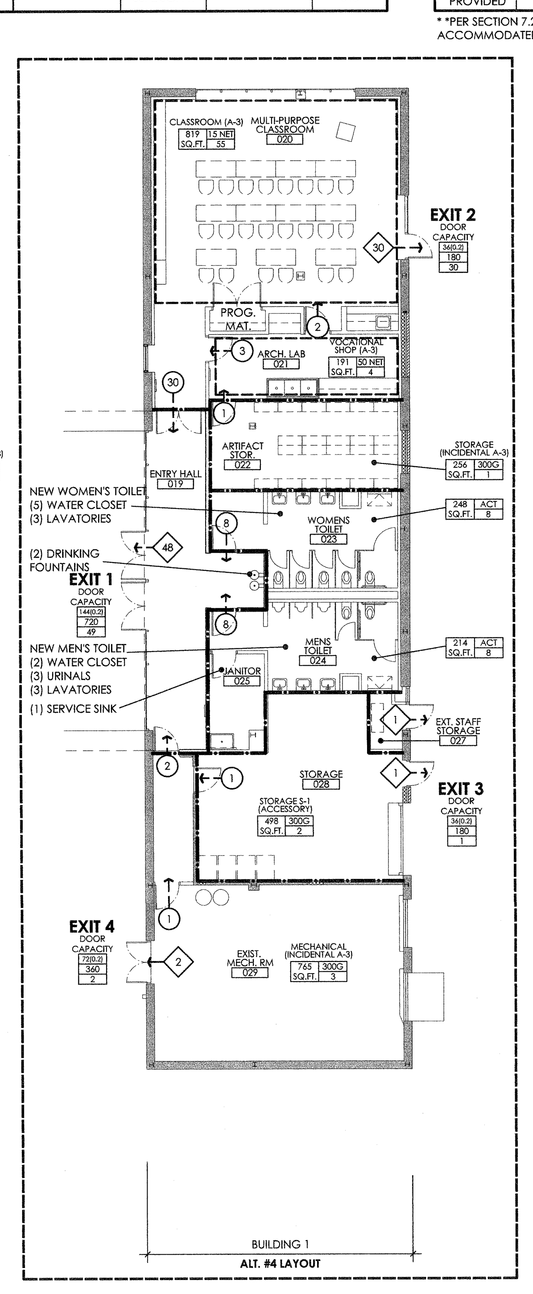
USE GROUP	No. Of Persons of Each Sex	WC (URINALS) MALE	WC (URINALS) FEMALE	LAVATORIES MALE	LAVATORIES FEMALE	DRINKING FOUNTAINS	SERVICE SINKS
BUSINESS (B) **	NA	NA		NA		1	-
ASSEMBLY (A-3)	179	3	4	2	3		1
TOTAL REQUIRED	-	3	4	2	3	1	1
TOTAL PROVIDED	-	3	4	2	3	1	1

* *PER SECTION 7.21.4(3) THIS OCCUPANCY IS LESS THAN 1,500 SF AND WILL BE ACCOMMODATED WITH A SINGLE USE TOILET.





2 FIRST FLOOR CODE PLAN
3/32" = 1'-0"



1 ALTERNATE #4 PARTIAL CODE PLAN
3/32" = 1'-0"

CODE PLAN LEGEND

DOOR CAPACITY SYMBOL
- DOOR WIDTH IN INCHES (MULTIPLIER USED)
- DOOR CAPACITY
- ANTICIPATED LOAD

OCCUPANT LOAD SYMBOL
- USE GROUP
- OCCUPANT LOAD FACTOR
- SQUARE FOOTAGE
- OCCUPANT LOAD
- GROUP AREA LIMIT
- NUMBER OF OCCUPANTS EXITING @ DISCHARGE DOOR
- NUMBER OF OCCUPANTS EXITING ALONG EGRESS PATH

EXIT ACCESS TRAVEL DISTANCE SYMBOL
- TRAVEL DISTANCE
- EGRESS PATH

RATED PARTITION SYMBOLS
- 1-HOUR RATED FIRE BARRIER
- 2-HOUR RATED FIRE BARRIER

EXISTING TO REMAIN

FIRE DEPARTMENT ACCESS OPEN SPACE

ACCESSIBLE PERIMETER

IMAGINARY LINE FOR FIRE SEPARATION DISTANCE

VERSIONS

No.	Date	Description
	10-03-2011	BID DOCUMENTS

ikon.5 architects

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Planning
Research
Strategy

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PROJECT TITLE:

VISITORS CENTER RENOVATION AND EXPANSION

MONMOUTH BATTLEFIELD STATE PARK

MANALAPAN, NEW JERSEY

PROJECT NO.: P1035-00

SHEET TITLE:

CODE PLAN AND CODE DATA

DATE: 10-03-2011

DRAWN BY: ikon.5

DRAWING NO.:

G1.01