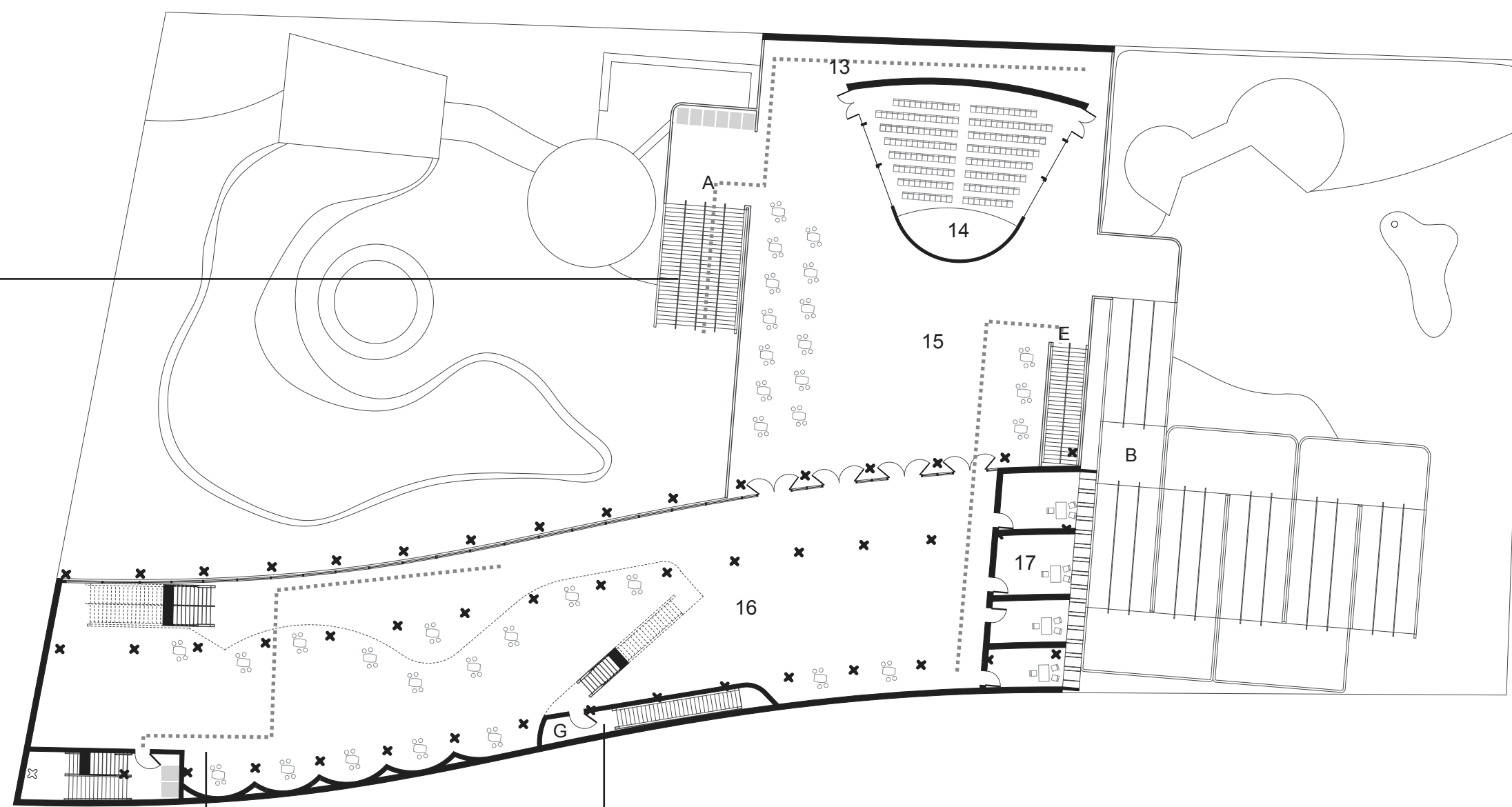


THIRD FLOOR PLAN  
SCALE 1/32" = 1'



4



SECOND FLOOR PLAN  
SCALE 1/32" = 1'



1

4

2

**CODE REVIEW**

IBC 503: The Brazilian Pavilion by Oscar Niemeyer is a Type 1B construction building. According to IBC Table 503, the floor area for a Type 1B occupancy building is unlimited, and the maximum stories allowed is 11. This building is 52,216 sf, and 3 stories, and is therefore compliant with Table 503.

IBC 601: According to Table 601, the fire resistance rating for a Type 1B building must be 2 hours.

IBC 1004.1.1: Table 1004.1.1 determines the maximum floor area allowances per occupant based on function of space. According to this, the total maximum occupancy of the occupiable spaces are 4,600 persons. [Individual spaces are listed in Occupancy Loads below]

IBC 1004.6 The occupant load of a mezzanine level with egress into a room or area below shall be added to that room or area's occupant load, and the capacity of the exits shall be designed for the total occupant load thus established.

IBC 1005.1: Using the factors given in Table 1005.1 Egress Width per Occupant Served, the stairway egress width (inches per occupant) is 0.3 and other egress components' width (inches per occupant) is 0.2.

The first floor's required occupancy based on spaces is 239 persons, which requires 3.97' means of egress. There is now 48' of egress to serve 2,880 persons, which is more than required and complies with Table 1005.1.

The second floor's required occupancy based on area is 1,671 persons, which requires 41.75' means of egress. There is now 51.57' of egress to serve 2,063 persons, which is more than required and complies with Table 1005.1.

The third floor's [mezzanine] required occupancy based on area is 305 persons, which requires 7.61' means of egress. There is now 9.57' of egress to serve 383 persons, which is more than required and complies with Table 1005.1.

Code Review continues on Page 2.

**CODE ANNOTATION KEY:**

- ① 1012.8: Intermediate handrails are required in areas so that all portions of the stairway width required for egress capacity are within 30 inches of a handrail [Required for Egress A, B, C, E.]
- ② 1020.1.7 & 1020.1.7.1: According to this section, 50% of interior means of egress stairways are required to be enclosed because of the occupancy number for the floors it serves. The smokeproof enclosure stairway shall exit into a public way.

**MEANS OF EGRESS WIDTHS**

- A. 19'
- B. 15'
- C. 8'10"
- D. 5'6"
- E. 8'
- F. 4'
- G. 4'

**OCCUPANCY LOADS [OCCUPIABLE AREAS ONLY]**

- 13. CLOAKROOM: S1, ACCESSORY STORAGE  
AREA: 593 sf OCCUPANCY: 2
- 14. LECTURE HALL: A3, ASSEMBLY FIXED SEATS  
AREA: 1172 sf OCCUPANCY: 192
- 15. ESPLANADE: A5, ASSEMBLY UNCONCENTRATED  
AREA: 6017 sf OCCUPANCY: 402
- 16. EXHIBITION HALL: A3, ASSEMBLY UNCONCENTRATED  
AREA: 11426 sf OCCUPANCY: 762
- 17. OFFICES: B, BUSINESS AREAS  
AREA: 880 sf OCCUPANCY: 9
- 18. EXHIBITION MEZZANINE: A3, ASSEMBLY UNCONCENTRATED  
AREA: 4566 sf OCCUPANCY: 54

**MEANS OF EGRESS  
(STAIRS & RAMPS)**

**ASSIGNMENT 2  
PAGE: 1 of 5**

**48-215 MATERIALS & ASSEMBLY  
SPRING 2017**

**INSTRUCTOR: DAMIANI**

**SELENA ZHEN**