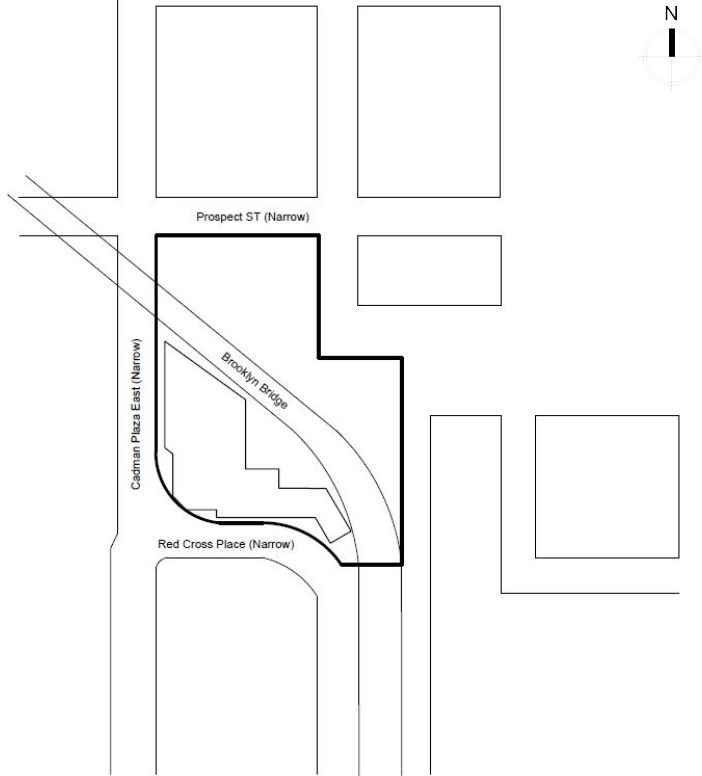
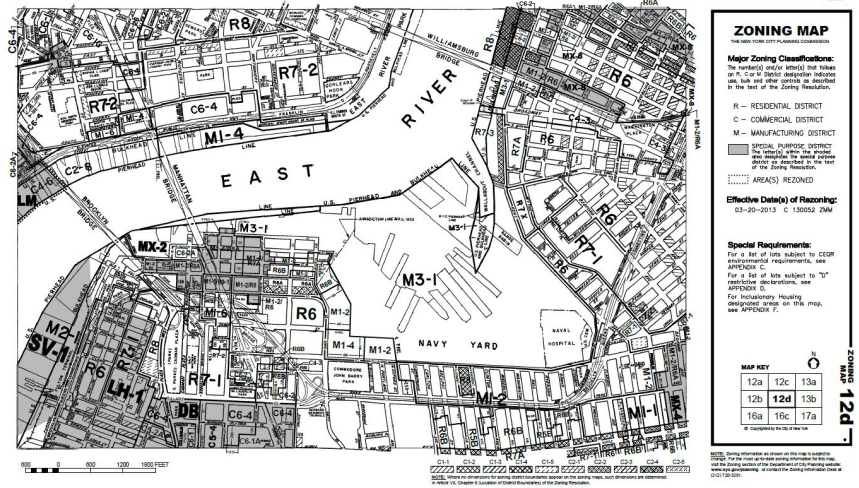

Building Development

— Yan, Carmelo, Yujie —

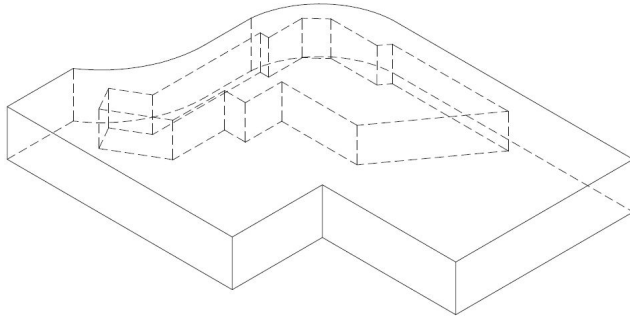
Zoning



Zoning Group: R7-1
 Lot area: 120,000 sq ft
 FAR: 3.44
 Total Allowable: $120,000 \times 3.44 = 412,800$ sq ft

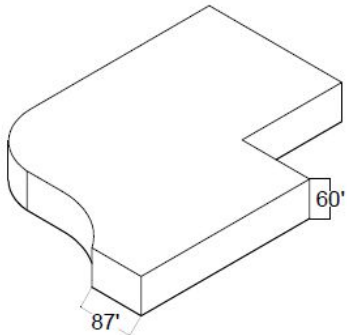


Zoning Envelope

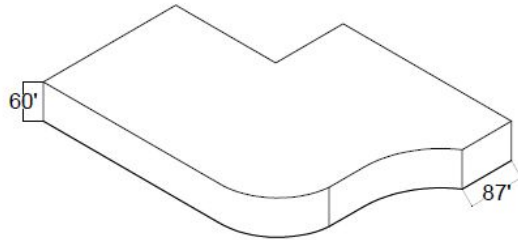


MAXIMUM HEIGHT OF FRONT WALL AND REQUIRED FRONT SETBACKS

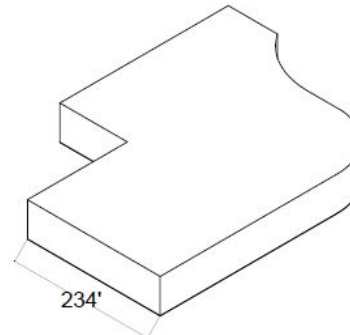
#Initial Setback Distance# (in feet)	On #Narrow Street#	On #Wide Street#	Maximum Height of a Front Wall or other portion of a #Building or Other Structure# within the #Initial Setback Distance#	#Sky Exposure Plane#				
				#Street Line#	Slope over #Zoning Lot# (expressed as a ratio of vertical distance to horizontal distance)		Height above	
					On #Narrow Street#	On #Wide Street#	Vertical Distance	Horizontal Distance
R6 or R7 Districts	<u>20</u>	<u>15</u>	60 feet or six #stories#, whichever is less	<u>60</u>	2.7 to 1	5.6 to 1		



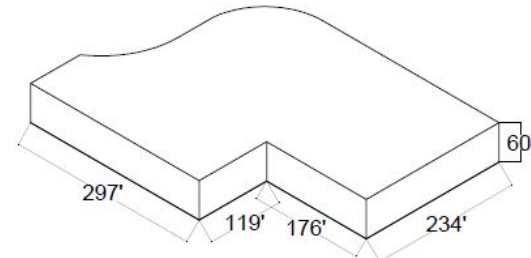
South-East



South-West

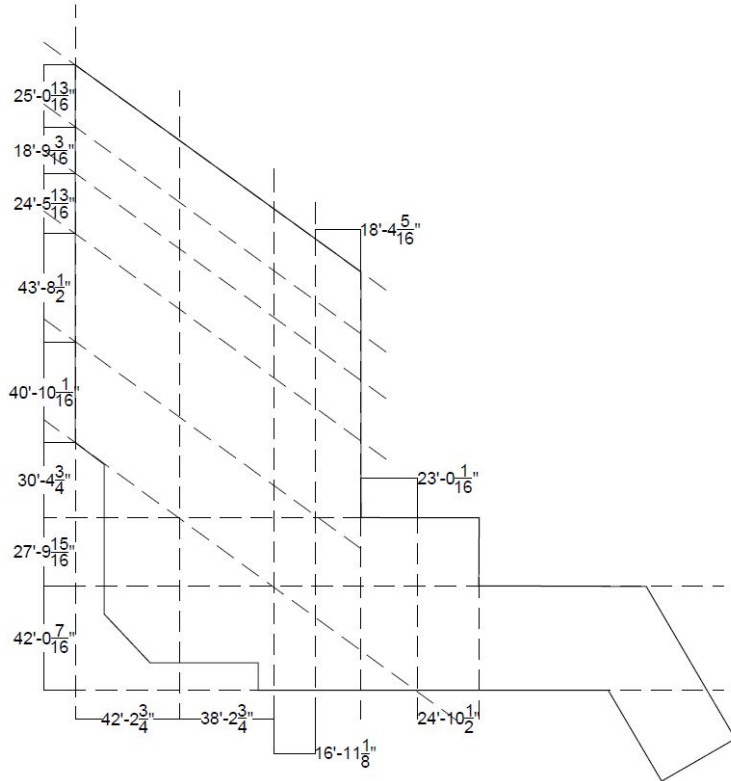


North-West



North-East

Structural



old brooklyn museum

sections



north section



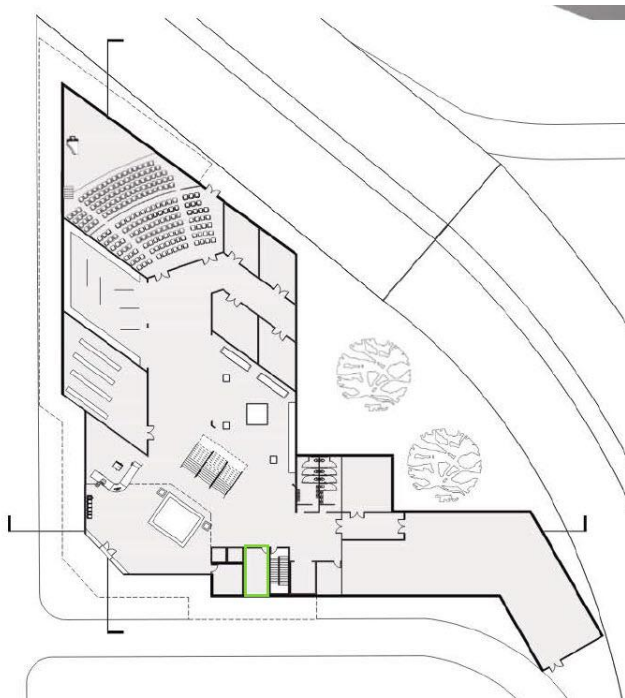
west section

arch 2410
design iv

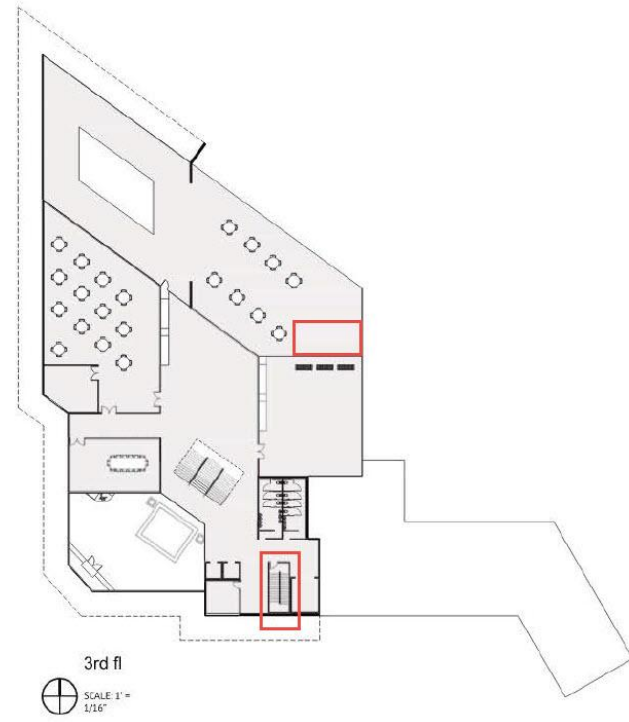
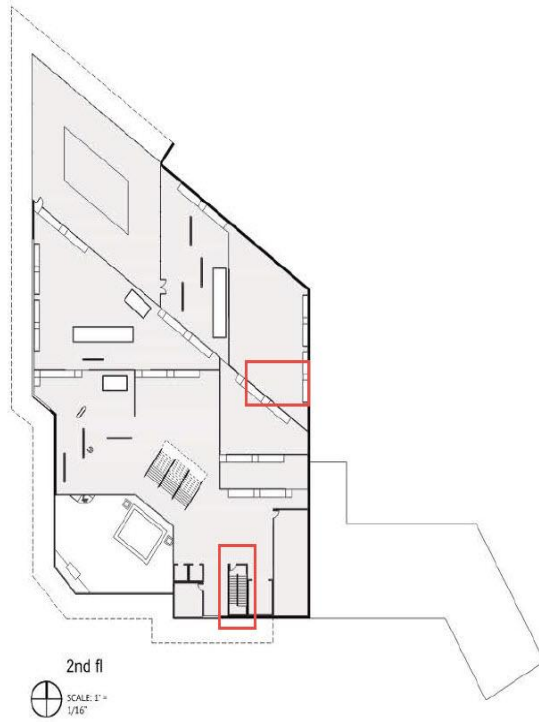
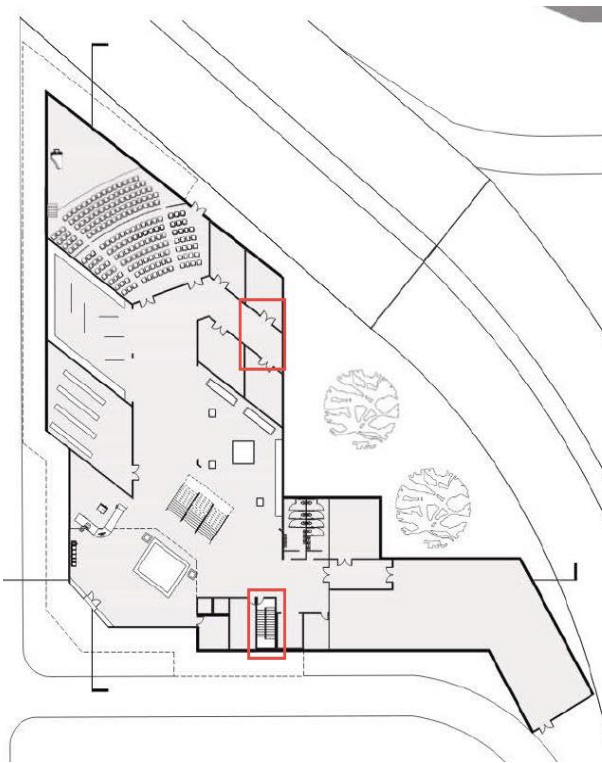
starky acevedo professor
william ngo

Height of floor to floor is 15'

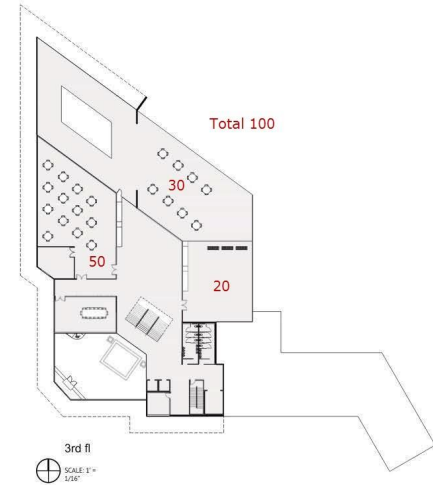
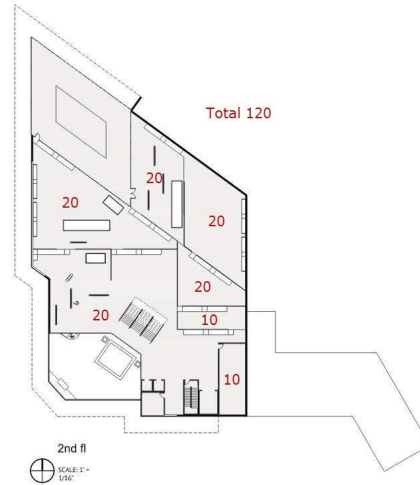
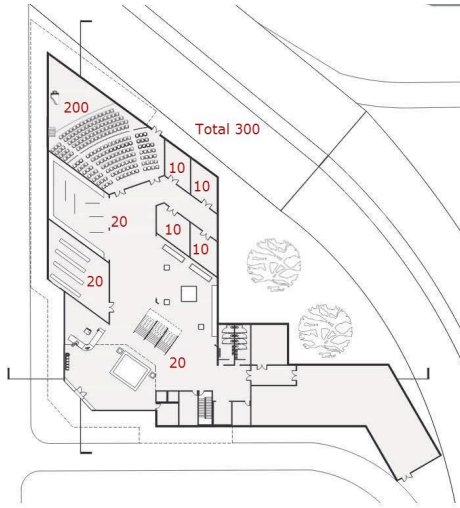
Mechanical Solution



Egress



Occupancy



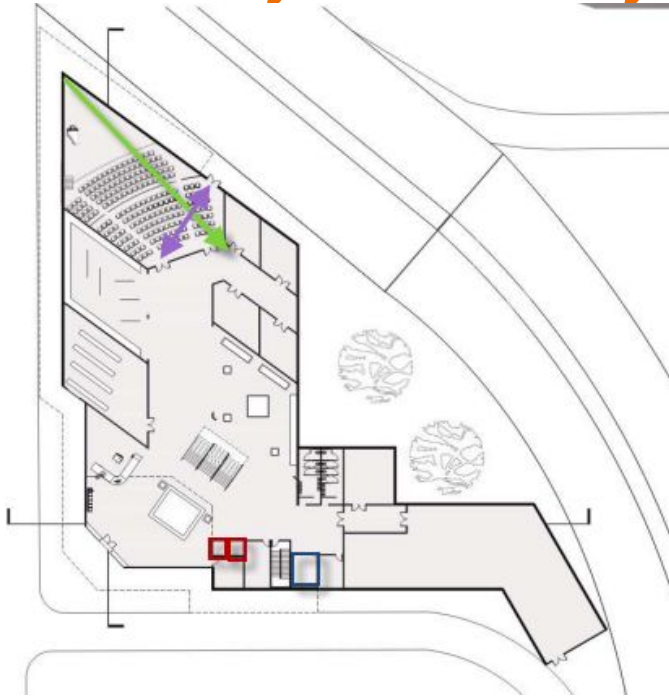
Width of Stair:

3rd floor: $100 \times 0.3 = 30''$

2nd floor: $120 \times 0.3 = 36''$

Ground floor: $300 \times 0.3 = 90''$

Inventory and Analysis



Door arrange: 102', 42'

Elevator :passenger, freight

Door width: 5' for 2 door, 3' for 1 door

Door arrange: meet the require

Elevator: total of 3

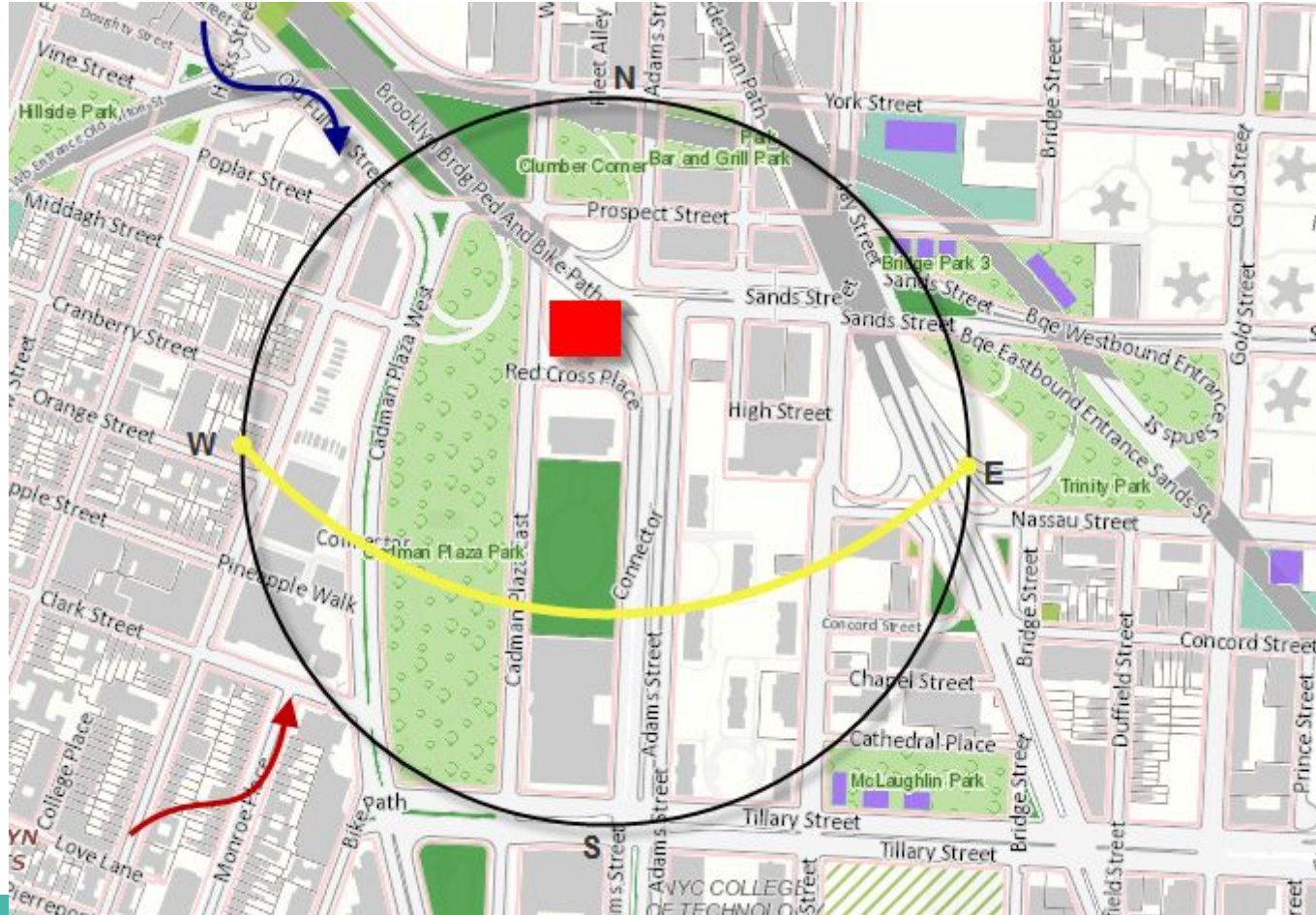
Corridor: meet the require of 44", the smallest is 10'.

Stair width: total of 30' (21+9)

Travel distance: meet the require in ground floor (for 200' to exit) . Need extra stair for 2 and 3 floor

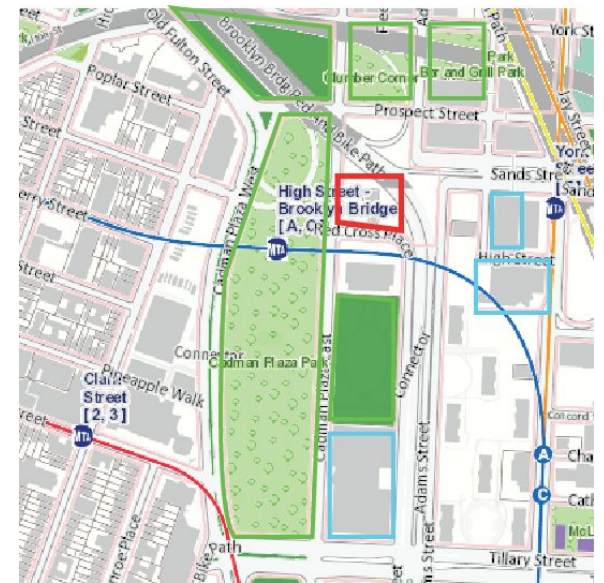
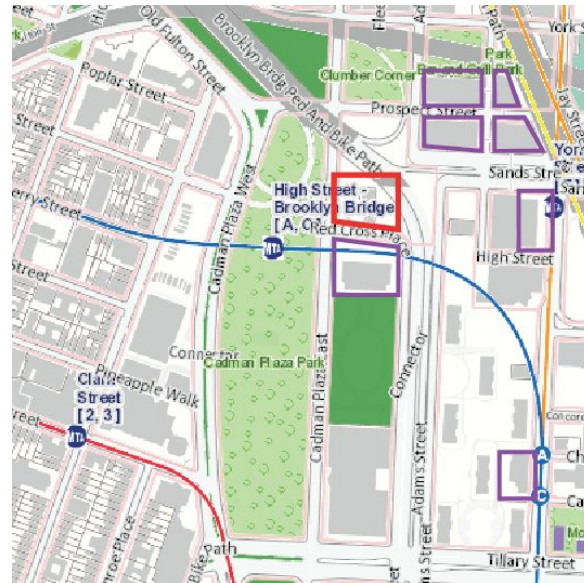
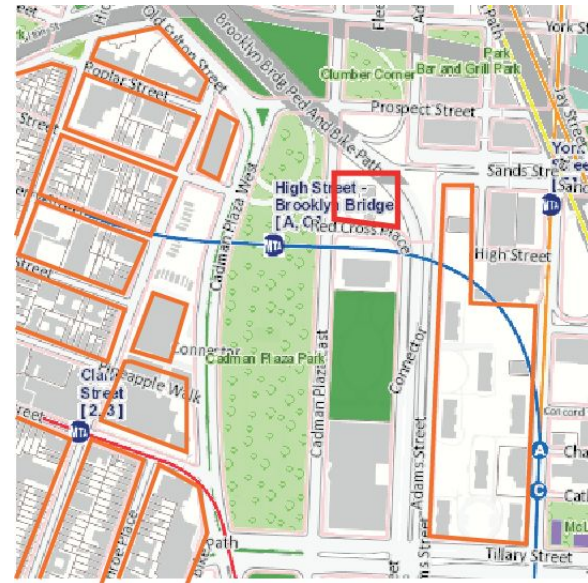
Number of exit: 4 (require of 3 and 1 connect to egress)

Climate



SUMMER WIND
PATH: SW
WINTER WIND
PATH: NW
SUN PATH

Land use



Residential

Commercial

Institution / open space

Transportation



Train: A, C, F, 2, 3



bus: B67, B25

Case Study

Structural design for auditorium

- Sloped floor
- Special acoustical design
- Ventilation
- Heating & cooling

