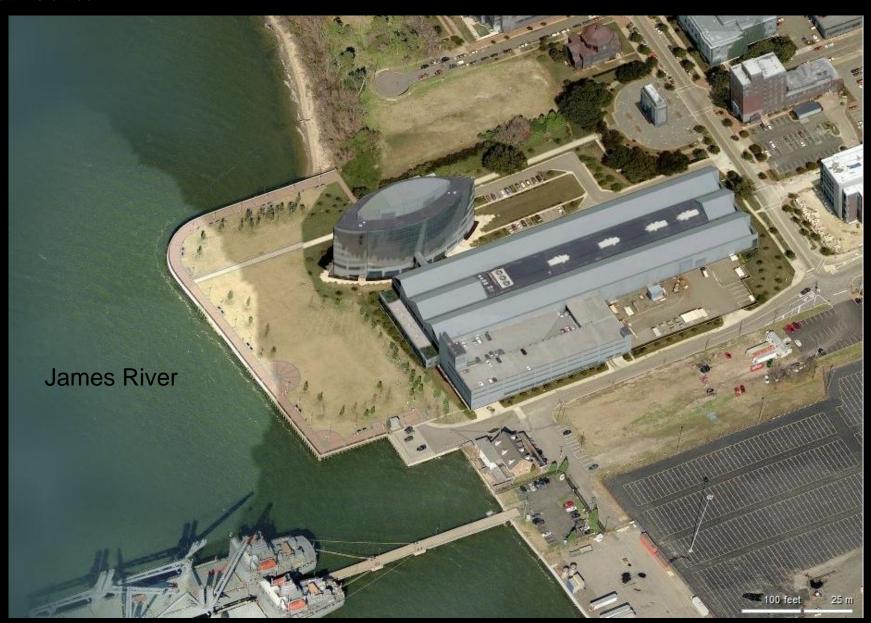
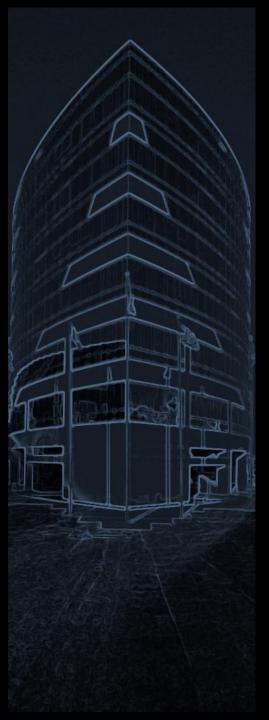




ARIAL VIEW



A A A



BUILDING STATISTICS

LOCATION: NEWPORT NEWS, VIRGINIA ALONG THE JAMES RIVER

OWNER: NORTHROP GRUMMAN, NN (NEWPORT NEWS SHIPBUILDING)

OCCUPANT: RESEARCH, OFFICE, SHIPBUILDING

SIZE: 7 STORY OFFICE BUILDING - 115,000 SF

3 STORY LABORATORY WING - 125,000 SF

TOTAL: 241,000 SF

COST: \$58 MILLION

DESIGN TEAM

A/E: CLARK NEXSEN ARCHITECTURE AND ENGINEERING

PURPOSE

- ENHANCE AND PROMOTE THE QUALITY AND COMPETITIVENESS OF VIRGINIA'S SHIPBUILDING INDUSTRY
- PROVIDE GROUND FOR ADVANCED SHIPBUILDING AND OPERATION TECHNOLOGIES BEFORE INTRODUCING TO SHIPS
- NIMIT -AND- FORD CLASS NUCLEAR-POWERED AIRCRAFT CARRIERS
- VIRGINIA-CLASS ATTACK SUBMARINES
- SURFACE COMBATANCE, AMPHIBIOUS ASSAULT SHIPS
- U.S COAST GUARD NATIONAL SECURITY CUTTERS AND FLEET/MAINTENANCE SUPPORT



CVN-69 USS DWIGHT D. EISENHOWER



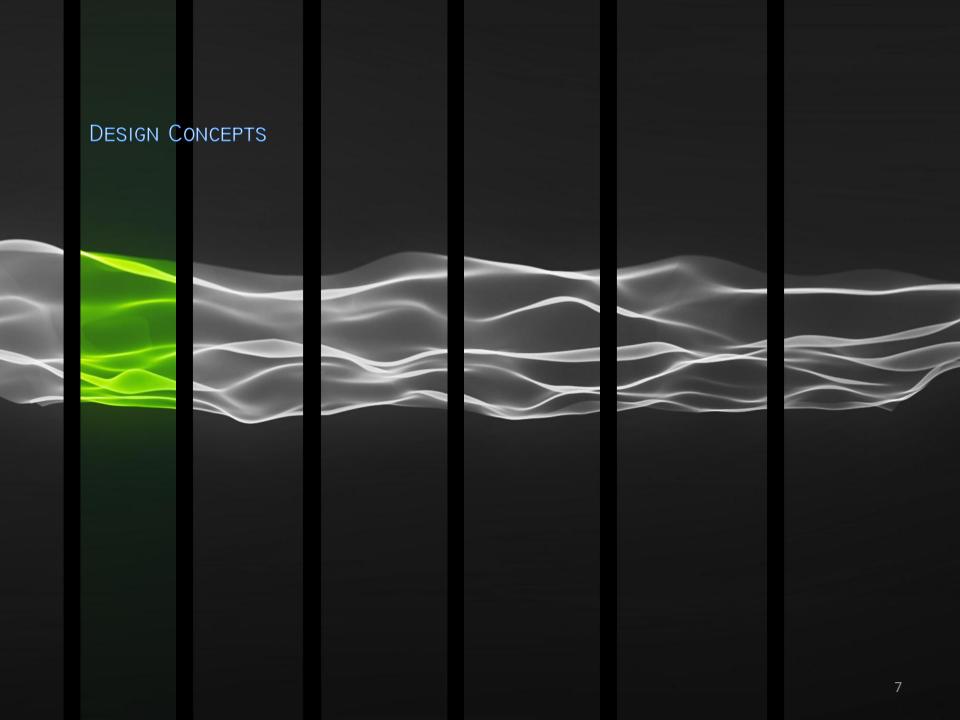
CVN-68 USS NIMITZ

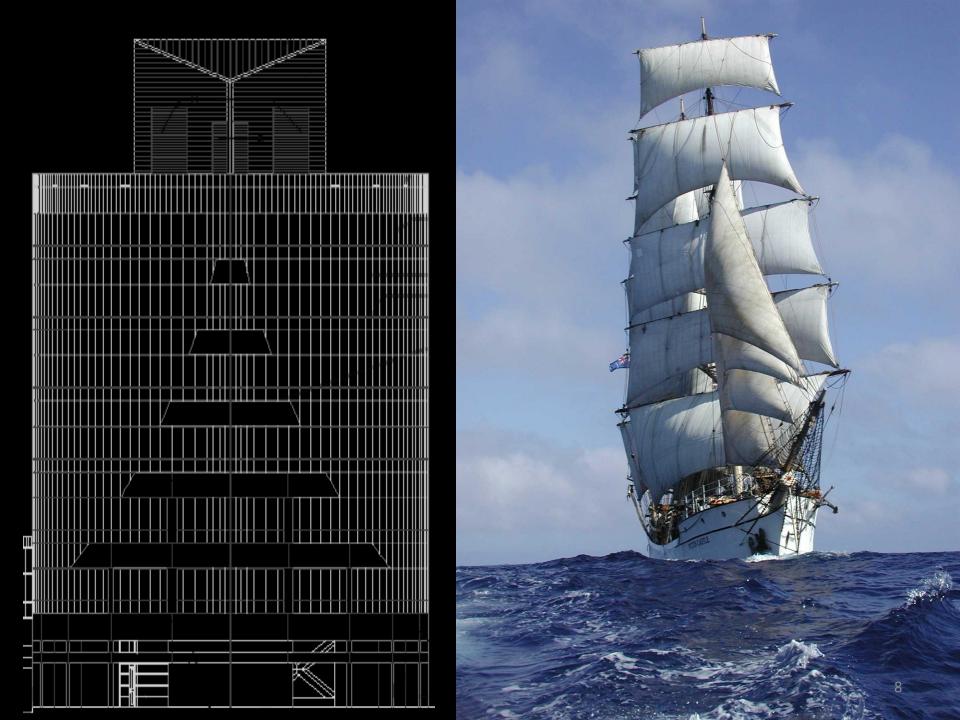


CVN-78 USS GERALD R. FORD



VSN VIRGINIA-CLASS ATTACK SUBMARINE



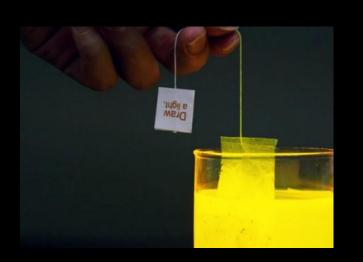






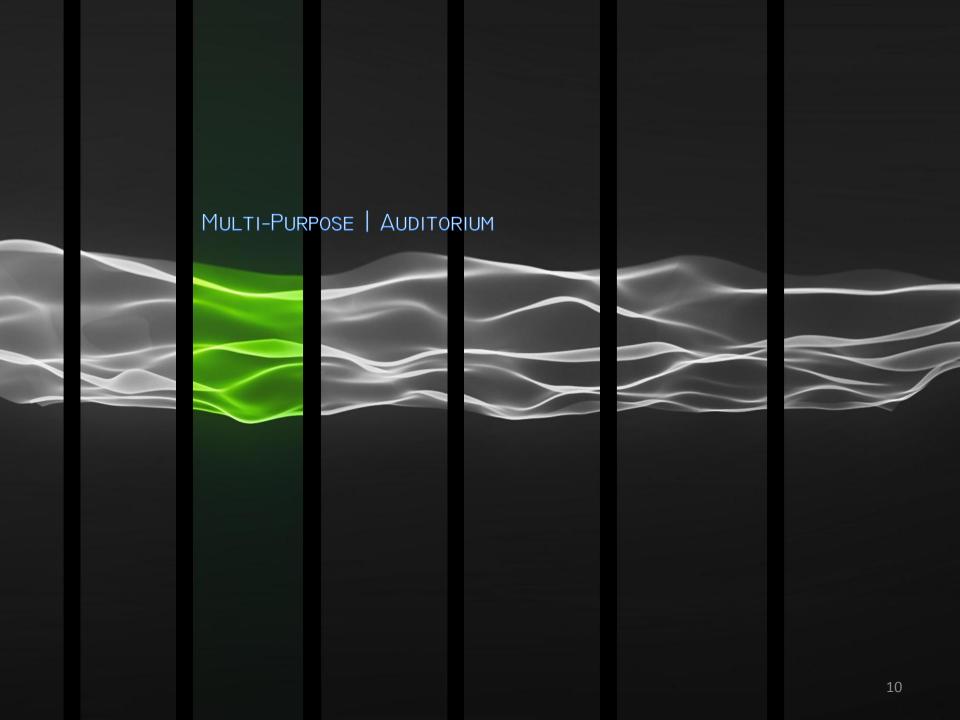
 $D_y Nam Ic$

Free Howing

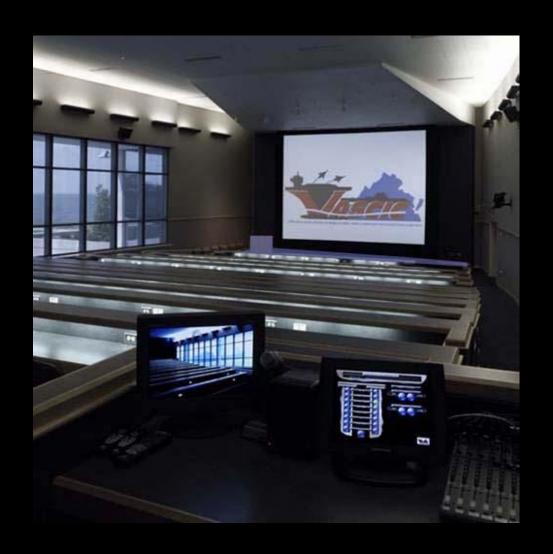


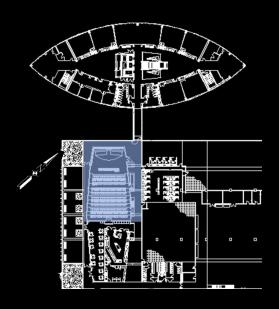
LIQUID





MULTI-PURPOSE | AUDITORIUM

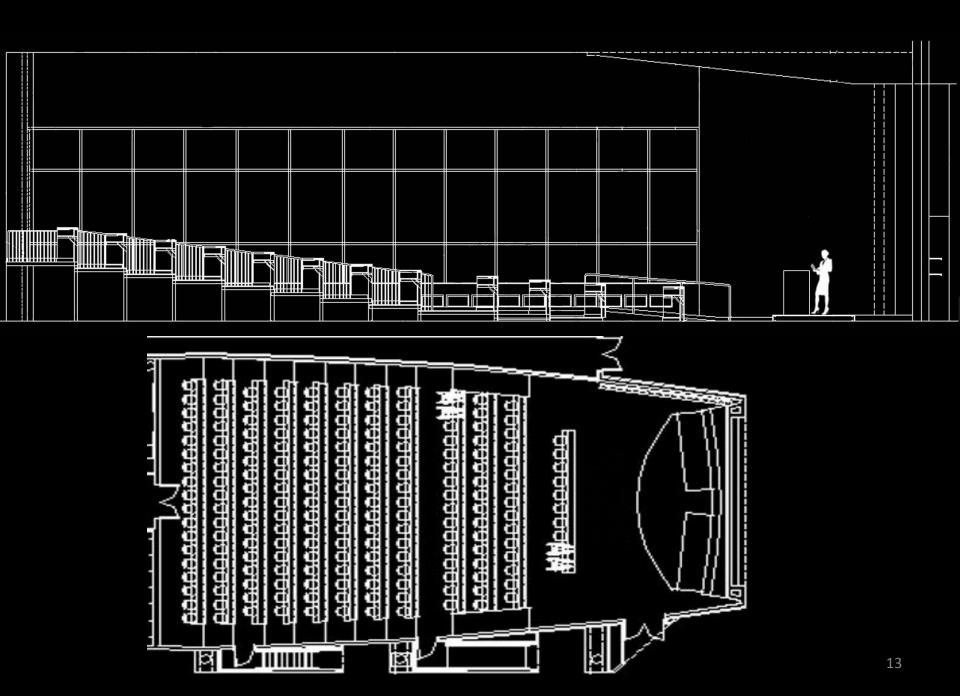


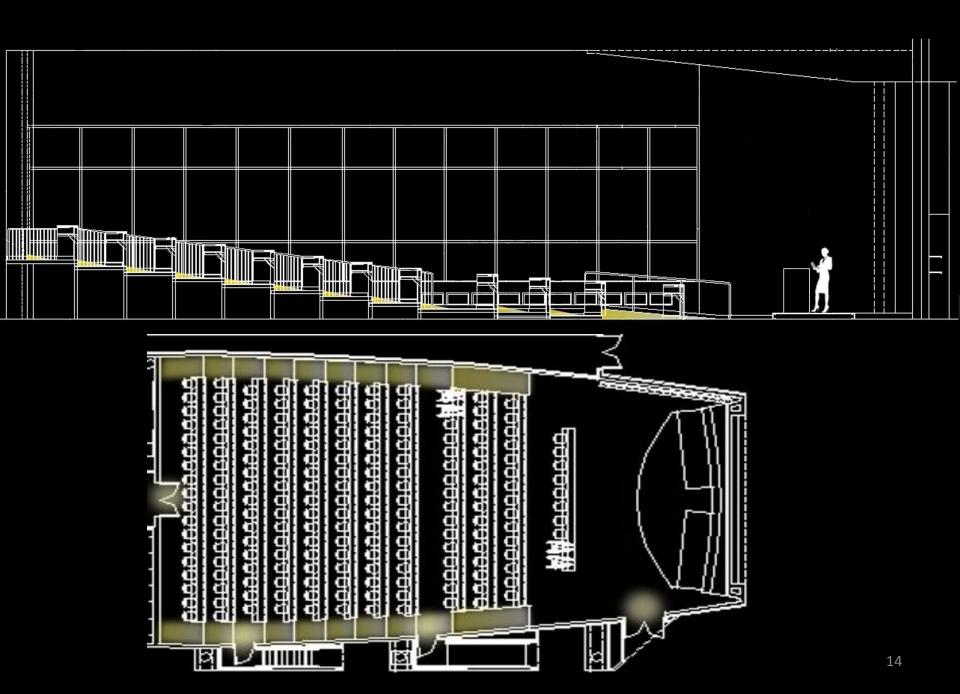


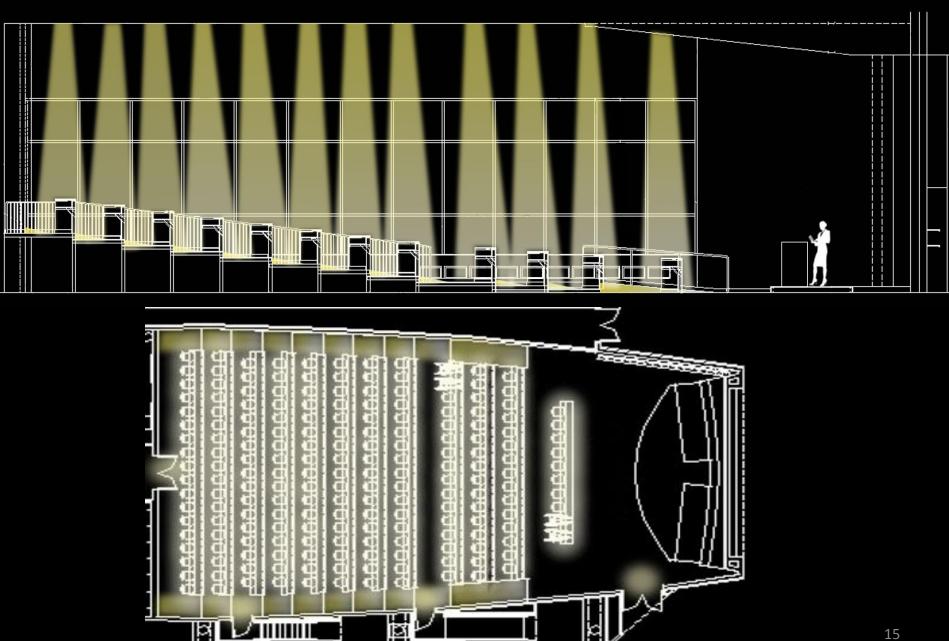
DESIGN CONSIDERATIONS:

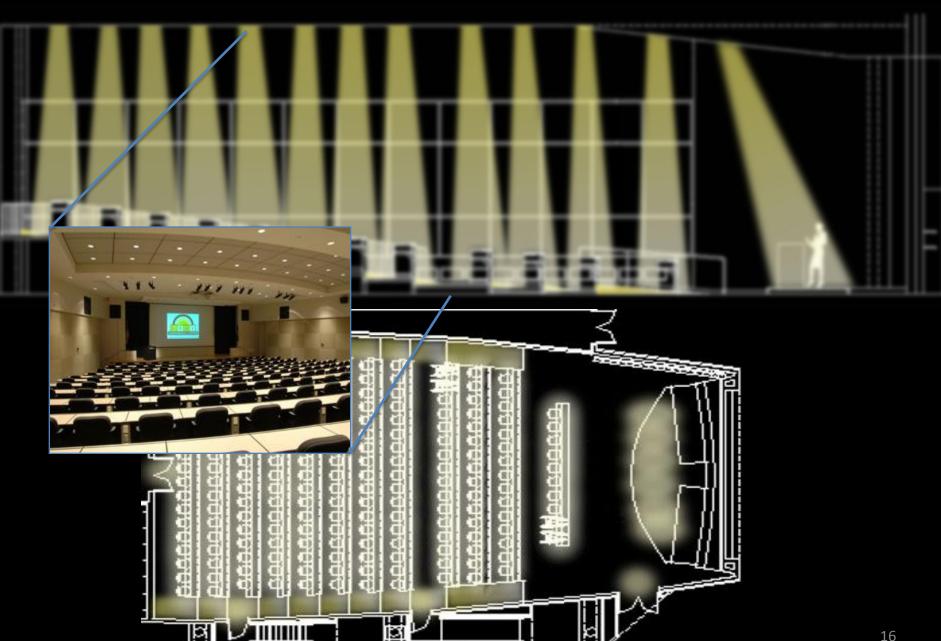
- TASK SURFACE ILLUMINANCE
- VERTICAL ILLUMINANCE
- PROJECTION SCREEN GLARE
- DAYLIGHTING FROM WINDOWS
- STAGE/SPEAKER LIGHTING

DESIGN I: POOLS OF LIGHT





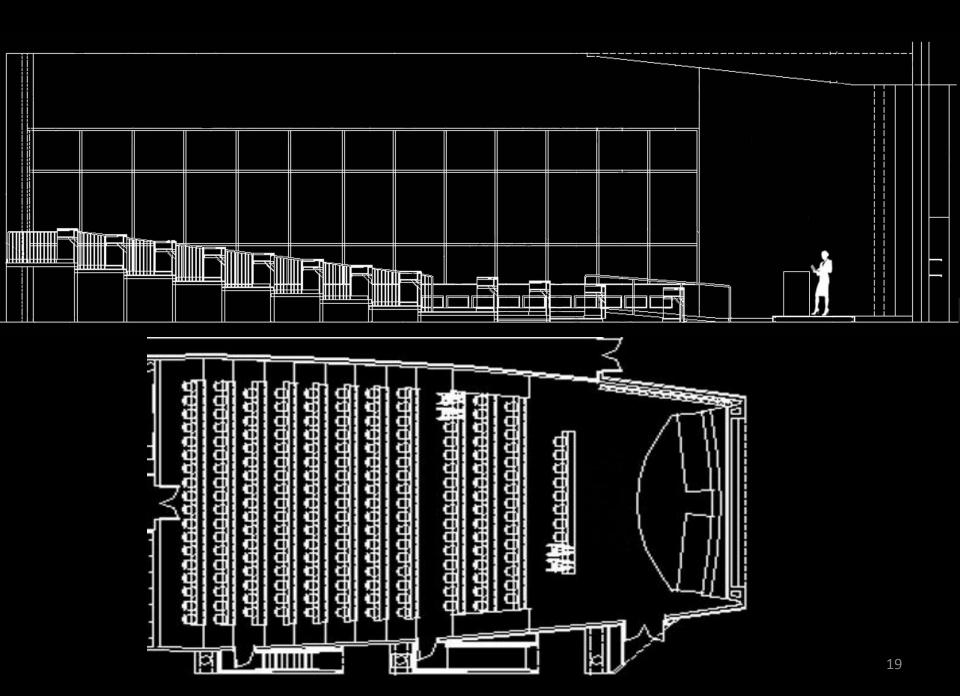


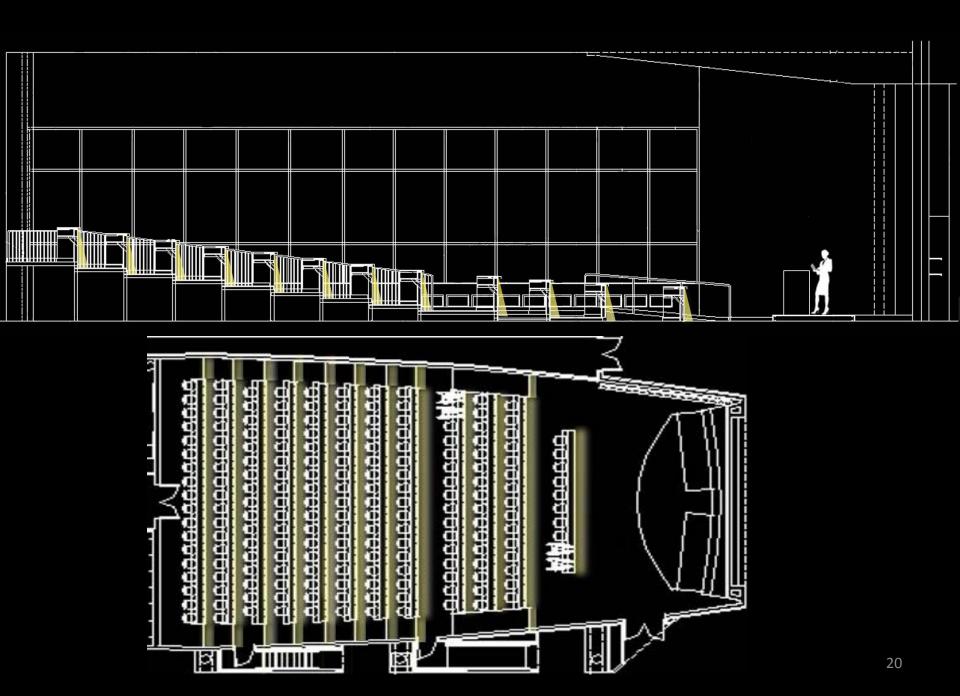


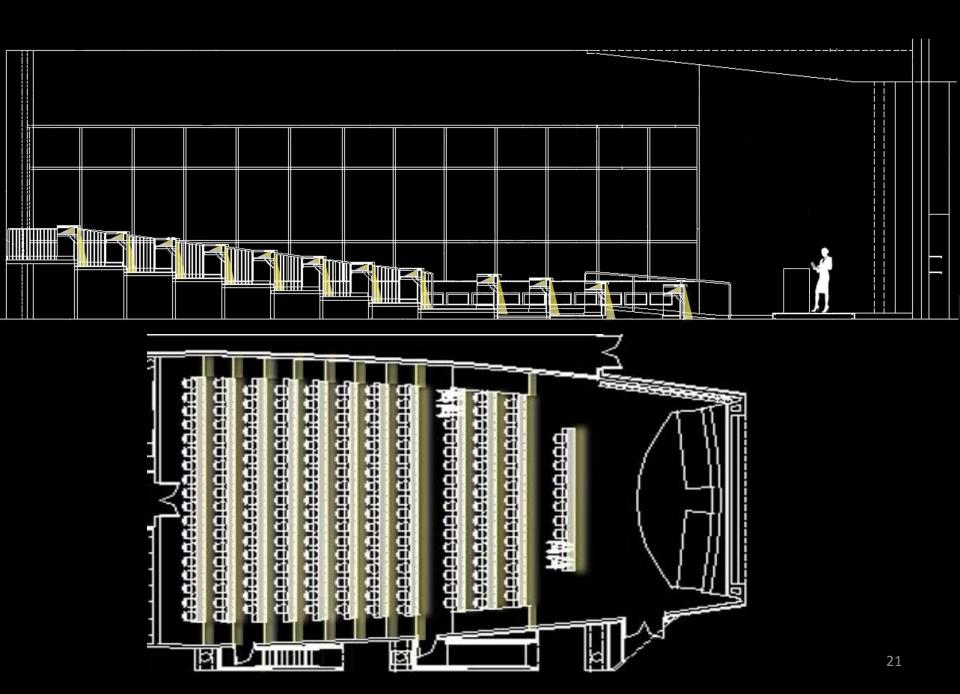


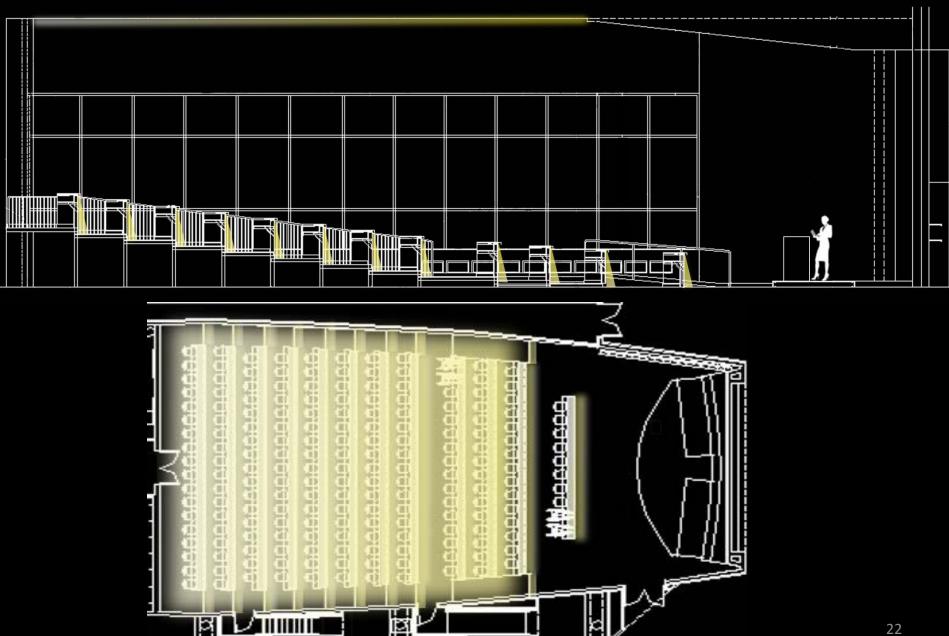
DESIGN 2: UNIFORM FLOW

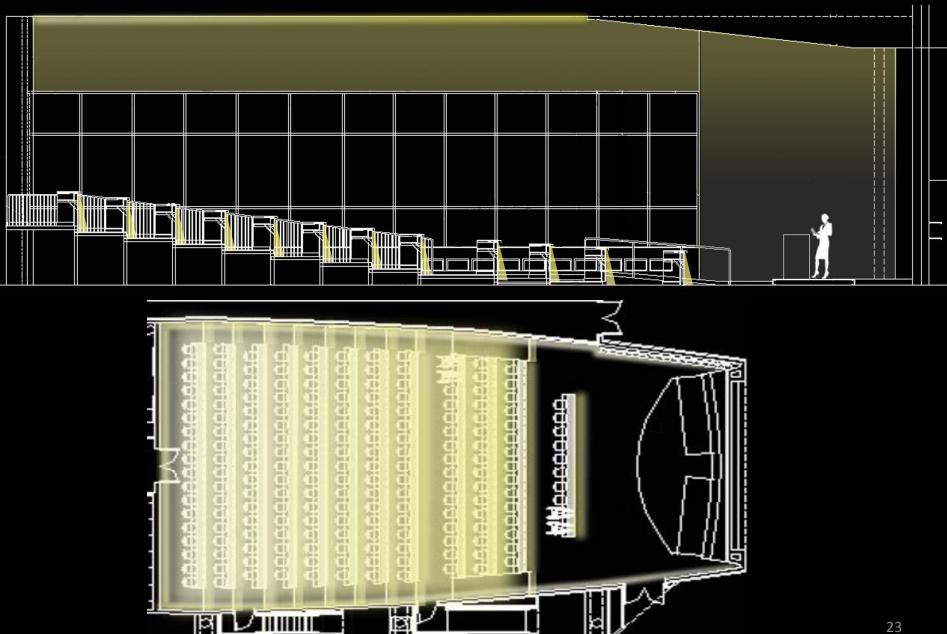


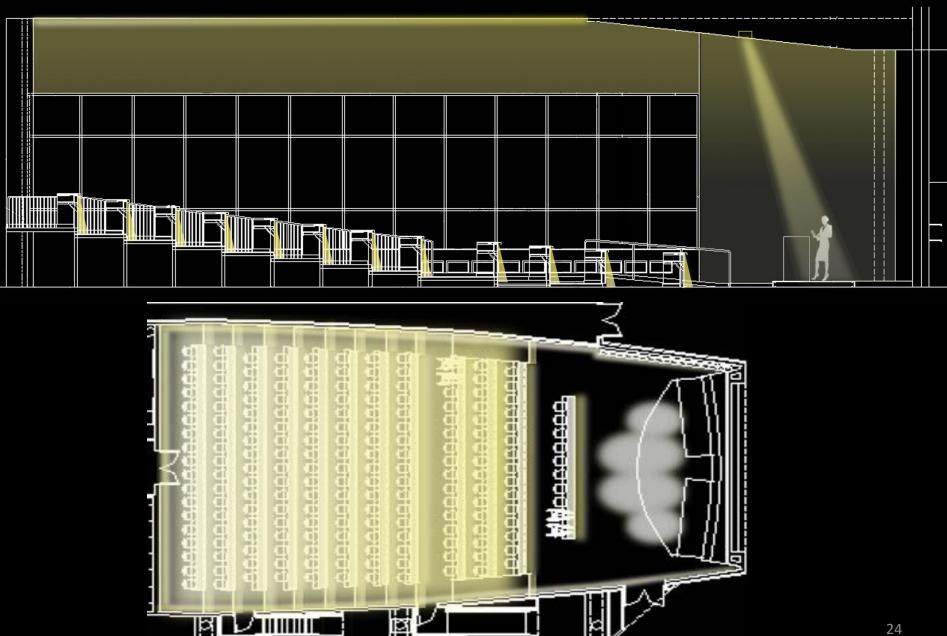




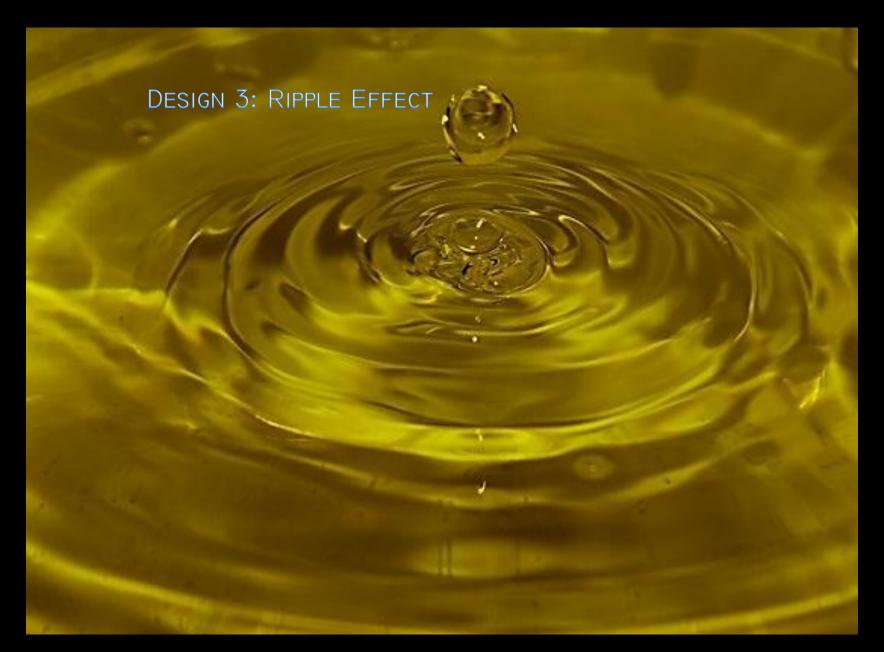


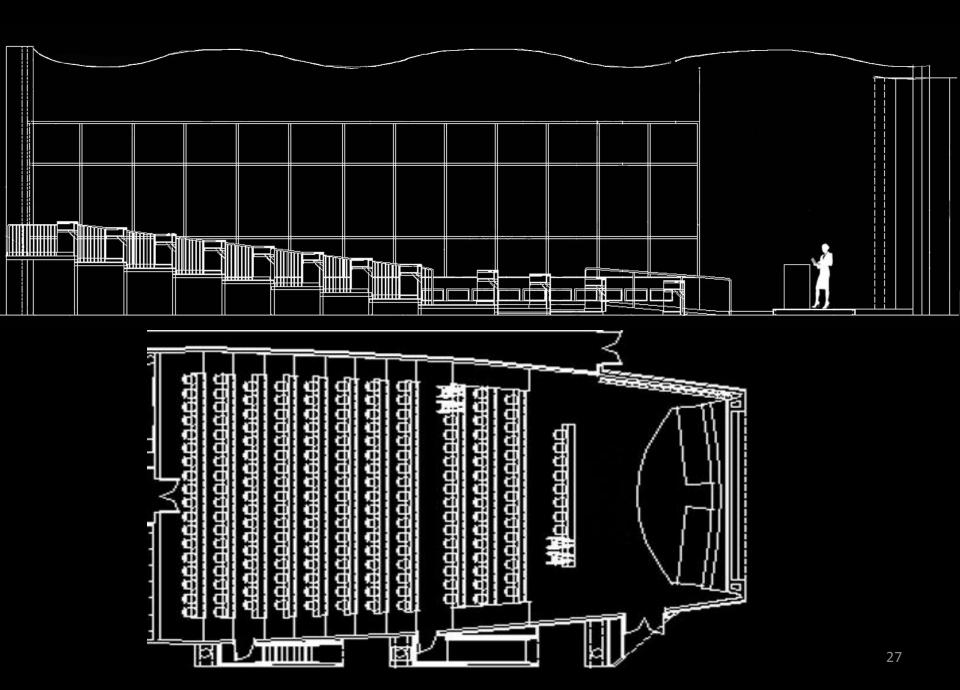


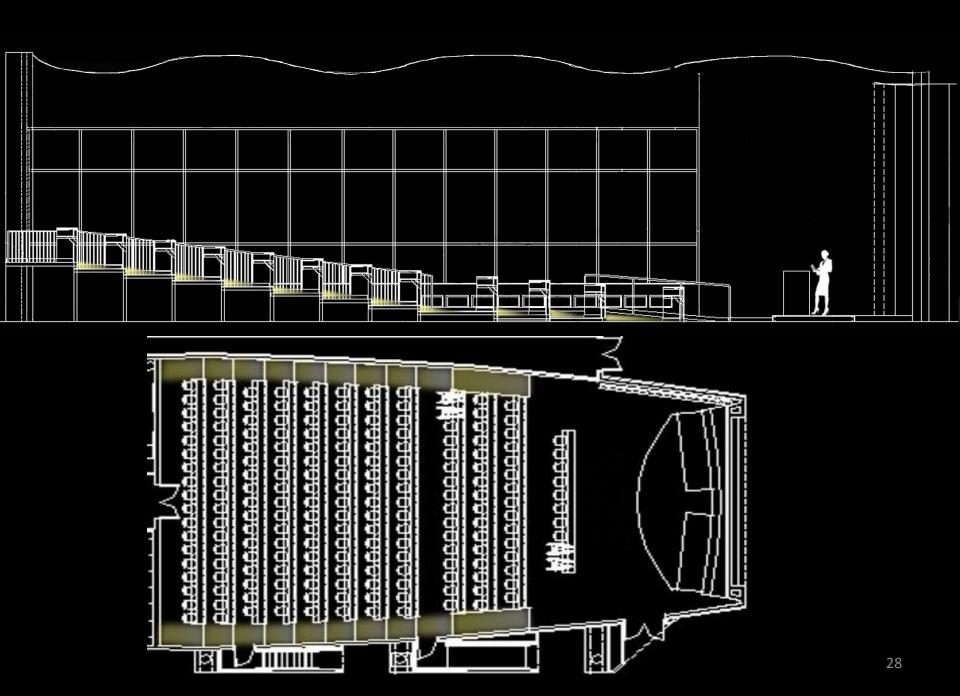


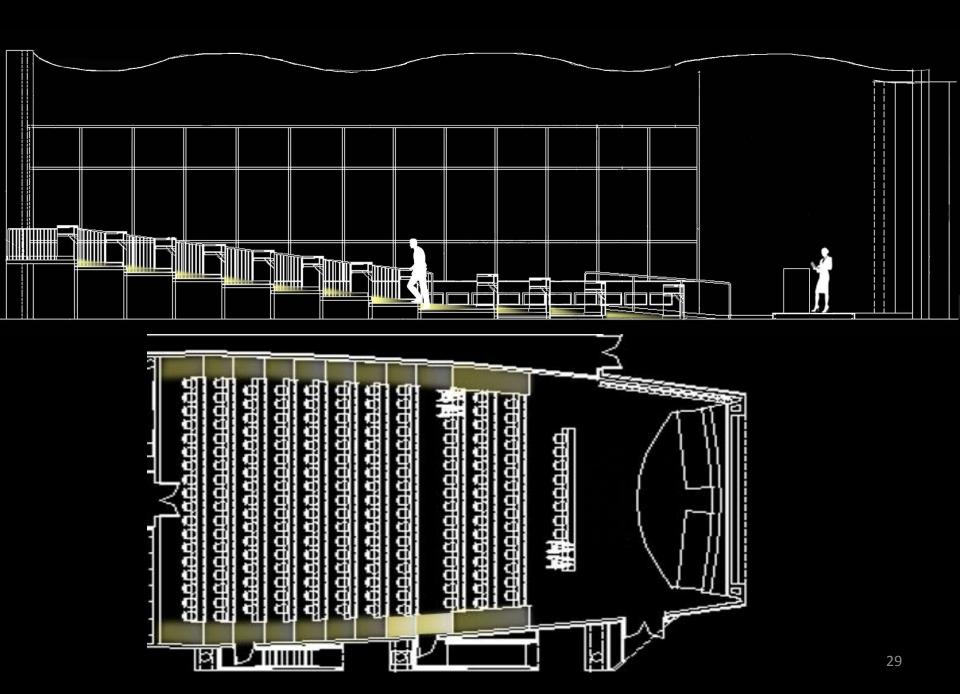




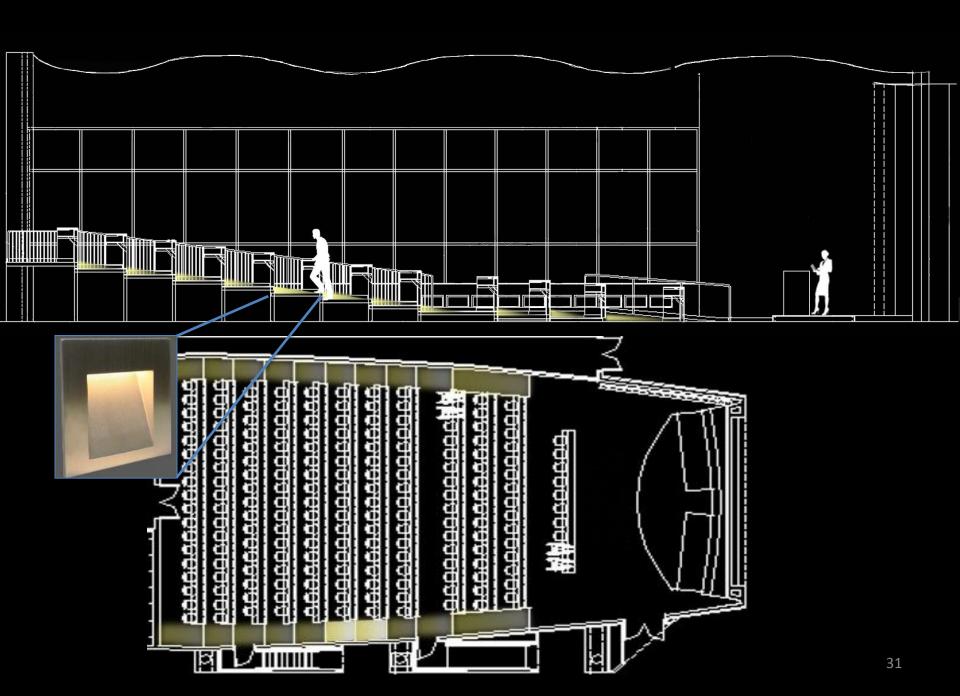


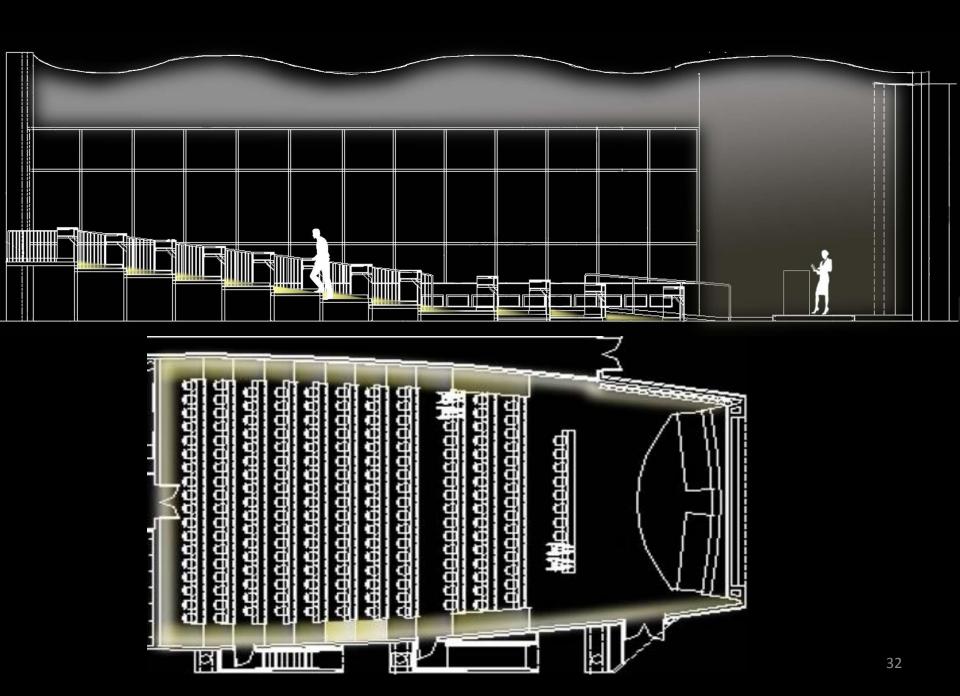


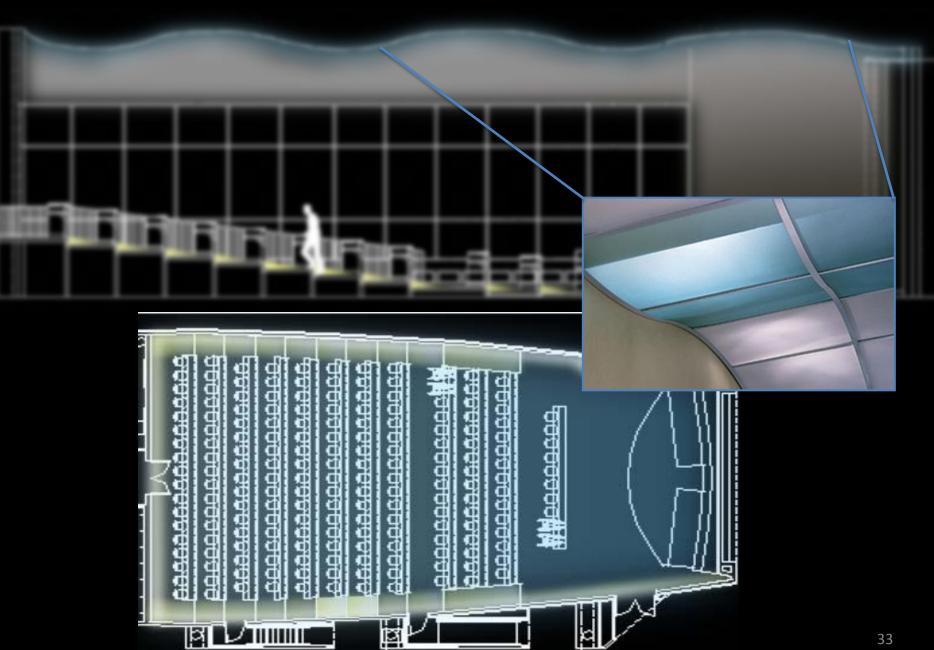


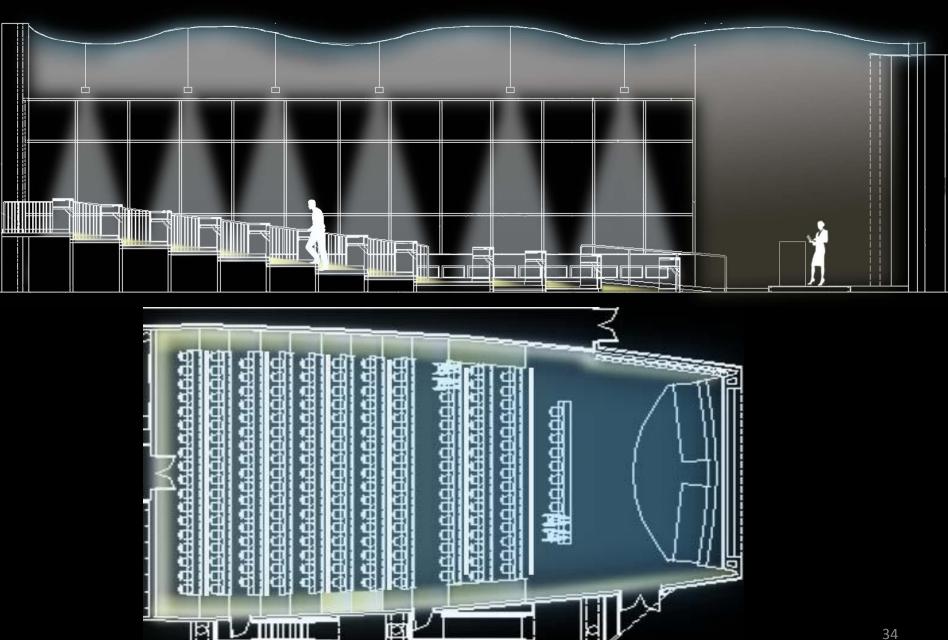


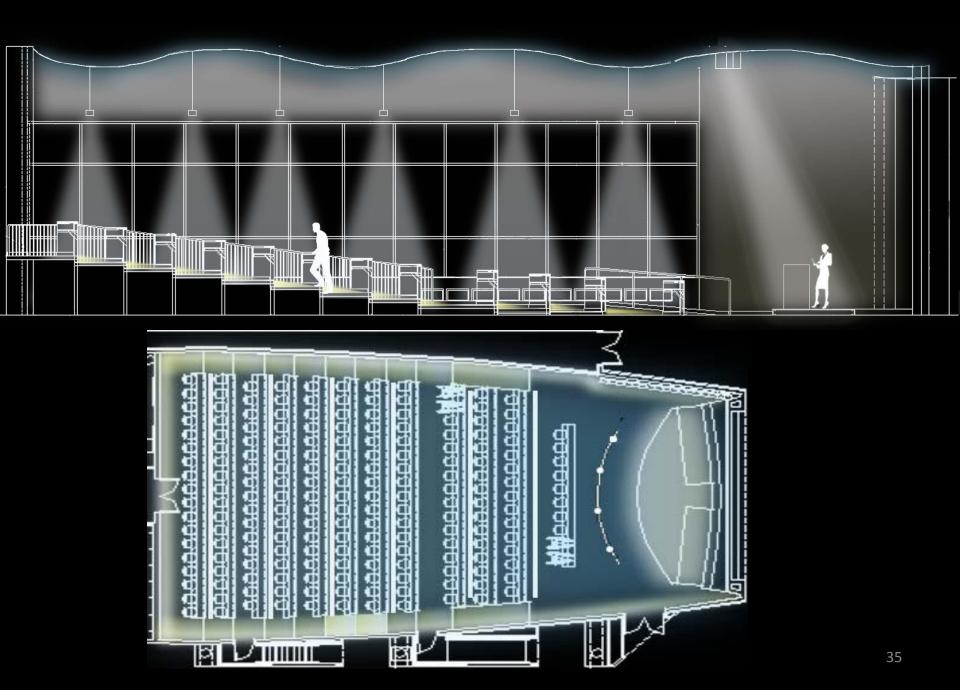








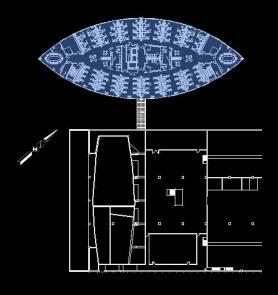






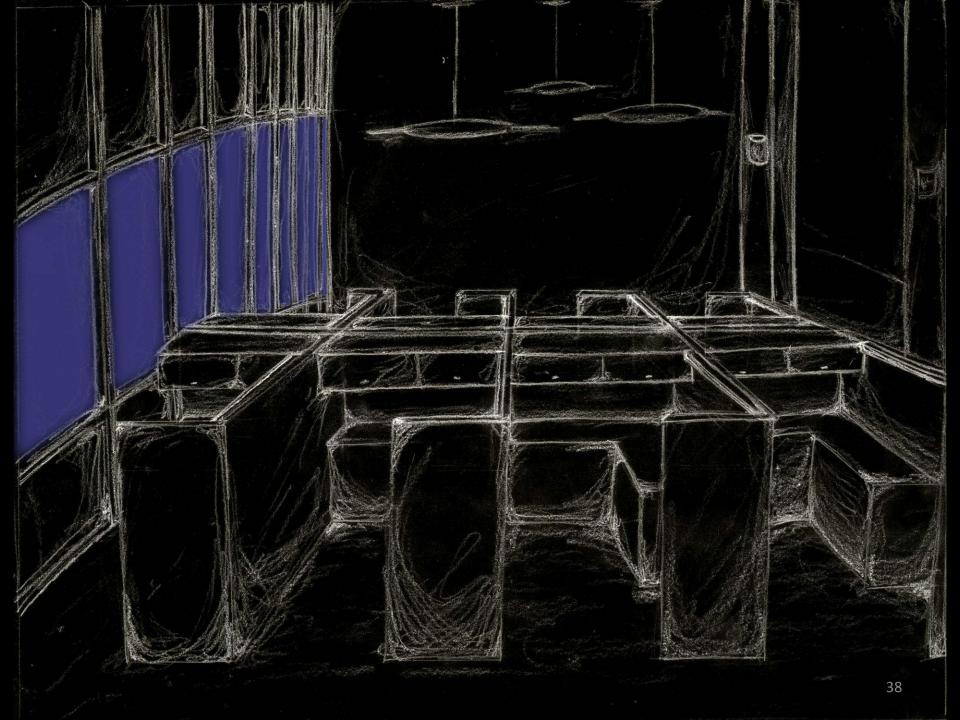
WORK SPACE OPEN OFFICE

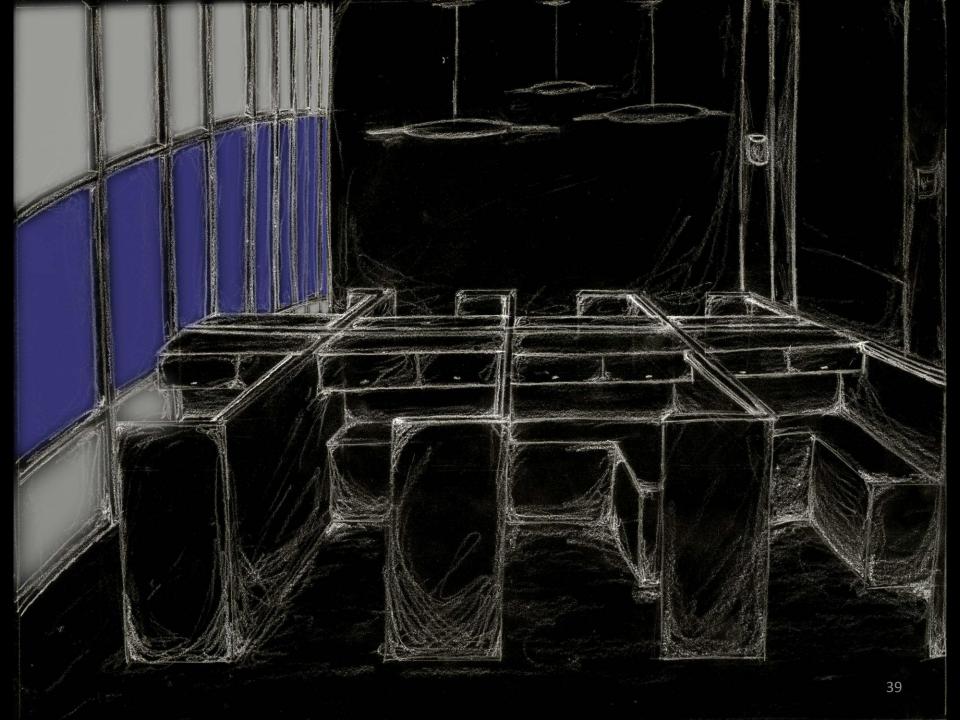


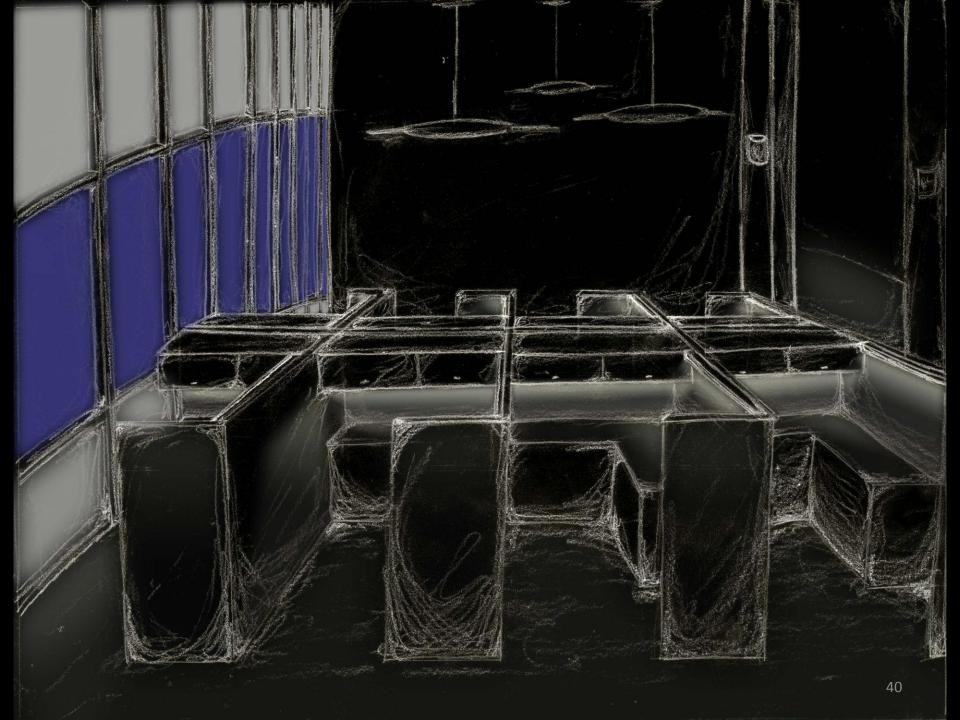


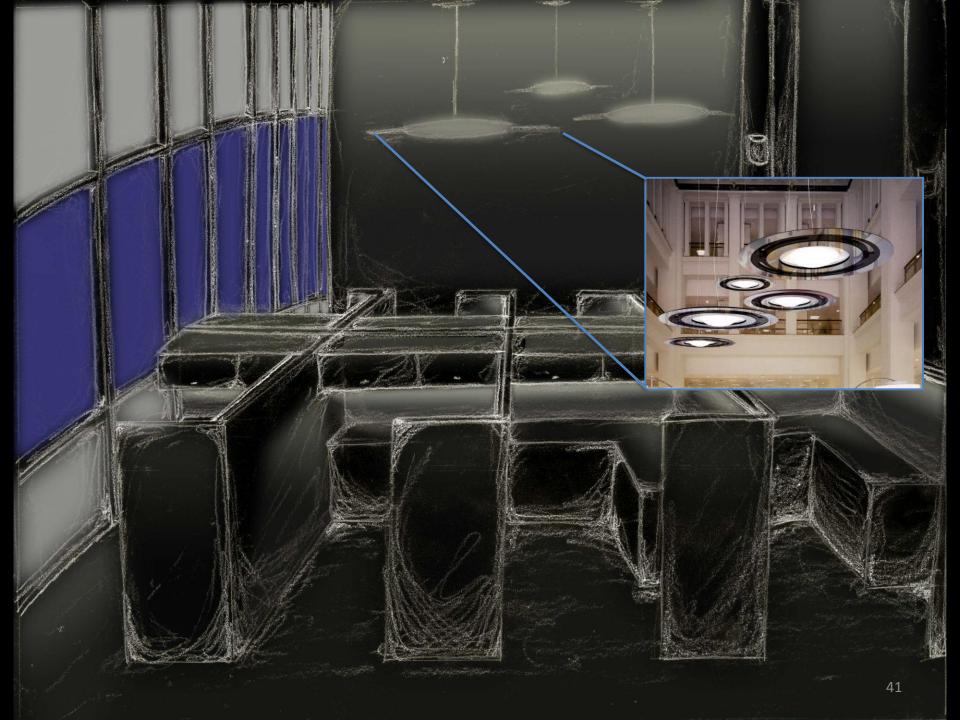
DESIGN CONSIDERATIONS:

- TASK/AMBIENT
- DIRECT GLARE
- REFLECTED GLARE
- VERTICAL ILLUMINANCE
- Source/task/eye geometry





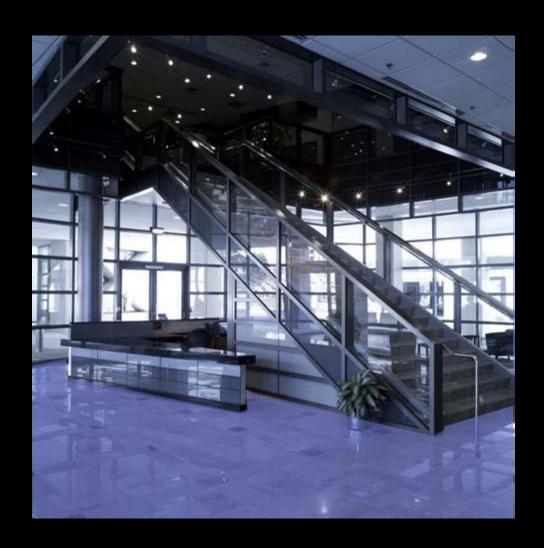


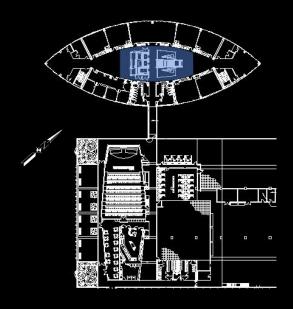






CIRCULATION | LOBBY ATRIUM

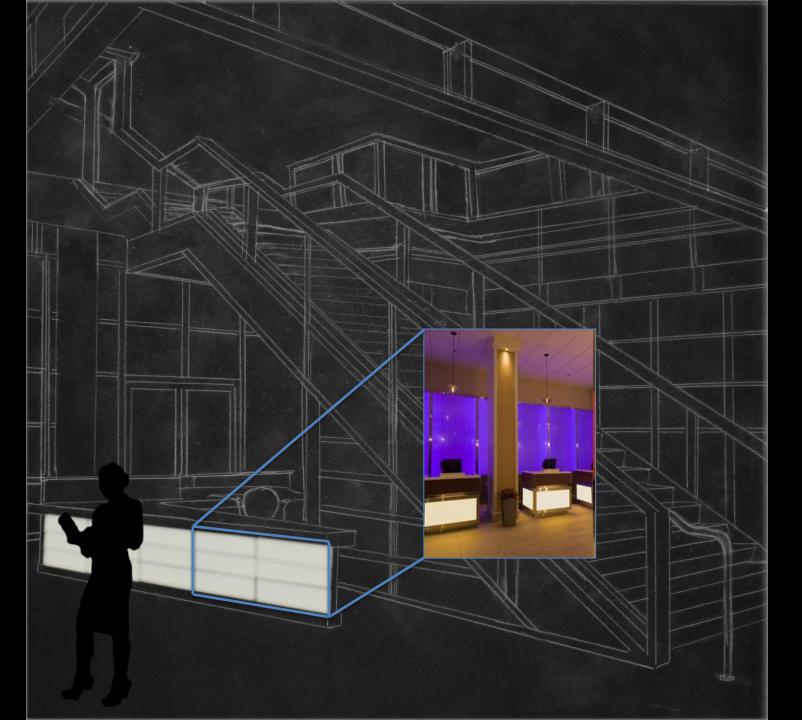




DESIGN CONSIDERATIONS:

- INVITING AND IMPRESSIVE
- RECEPTION DESK ILLUMINATION
- STAIRCASE ILLUMINATION
- DAYLIGHTING FROM GLASS ENVELOPE
- ADEQUATE ILLUMINANCE FOR SECURITY PURPOSES
- TRANSITION ILLUINANCE FROM
 EXTERIOR TO INTERIOR ENVIRONMENT

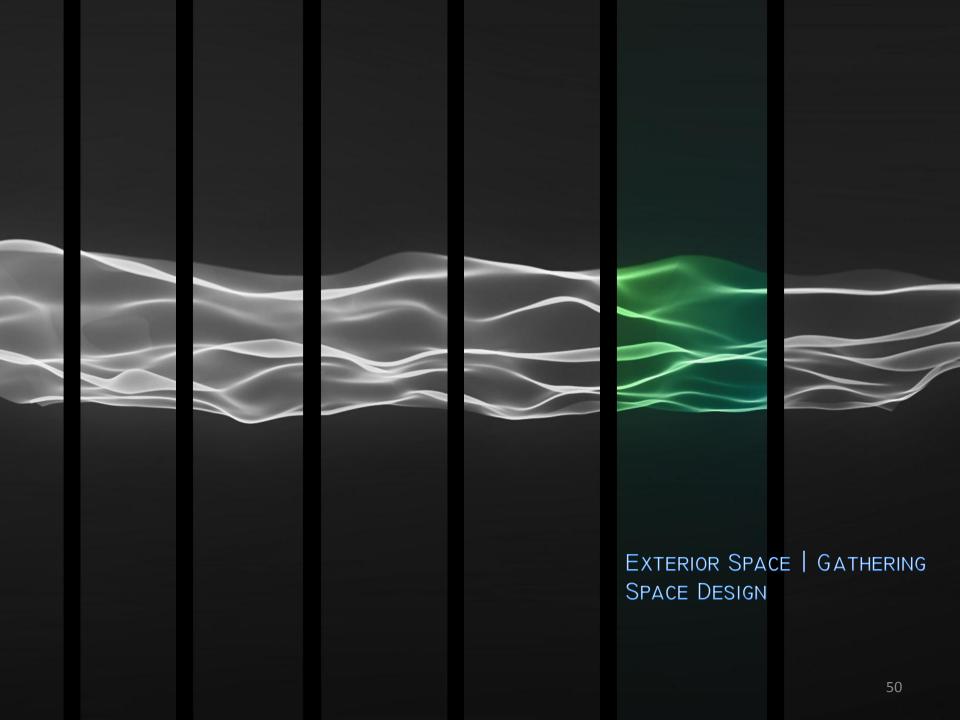






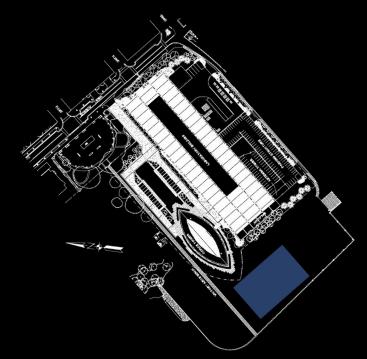






EXTERIOR | GATHERING SPACE



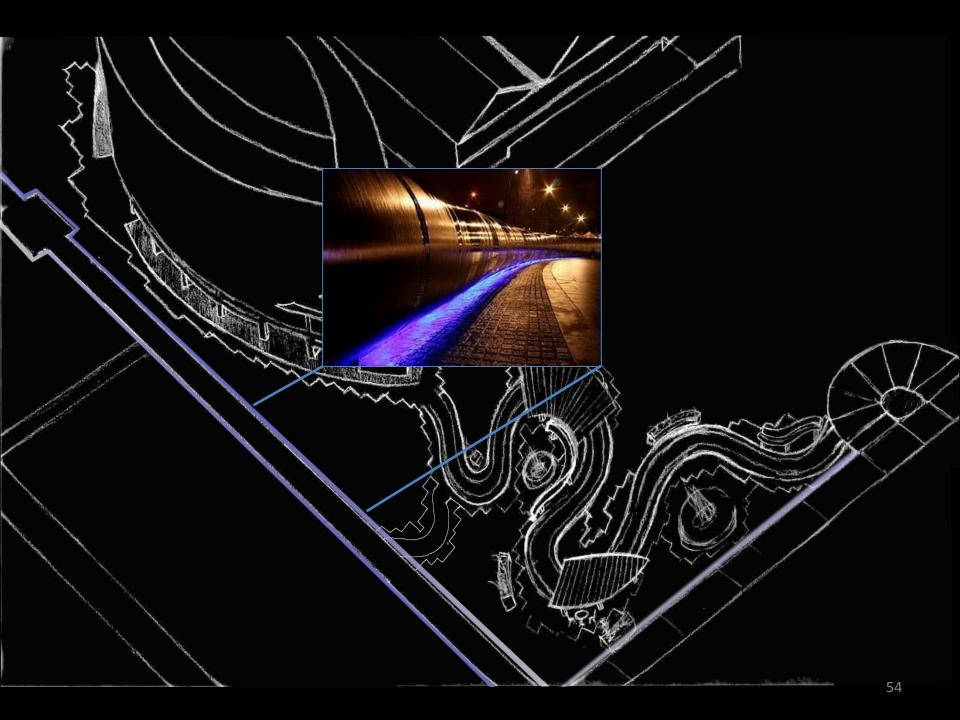


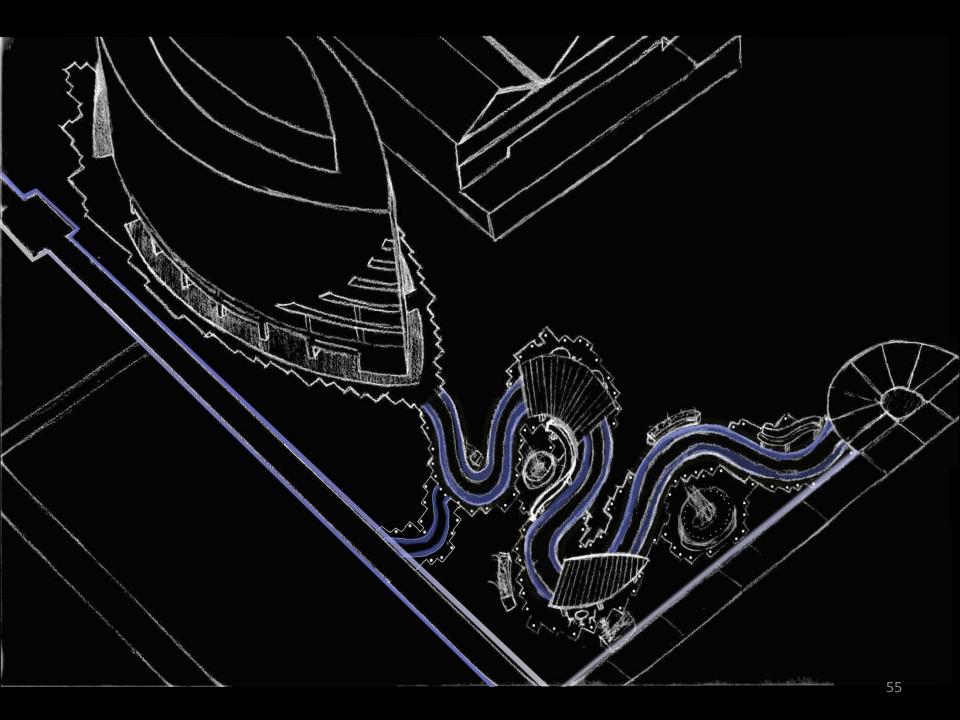
DESIGN CONSIDERATIONS:

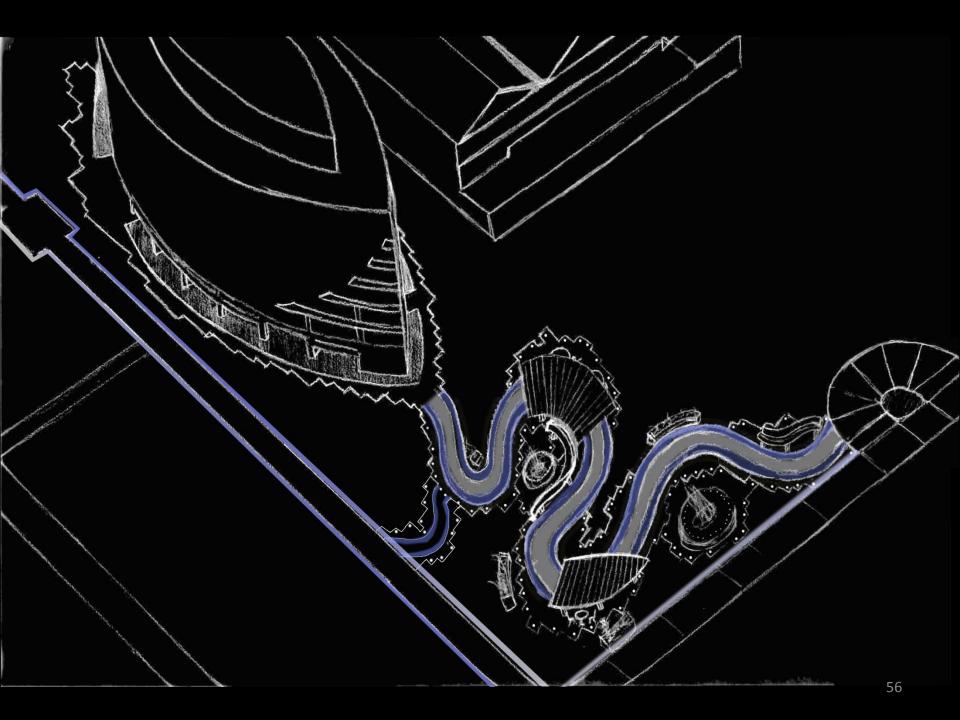
- INTENDED USE OF SPACE
- SIGNIFICANT SPACES IN DAYLIGHT VS. NIGHTTIME - CONTROLS
- SECURITY ILLUMINANCE
- PATHWAY ILLUMINANCE
- FLYNN IMPRESSION- FESTIVE
- LIGHT POLLUTION
- MINIMIZE NON-TARGET ILLUMINATION

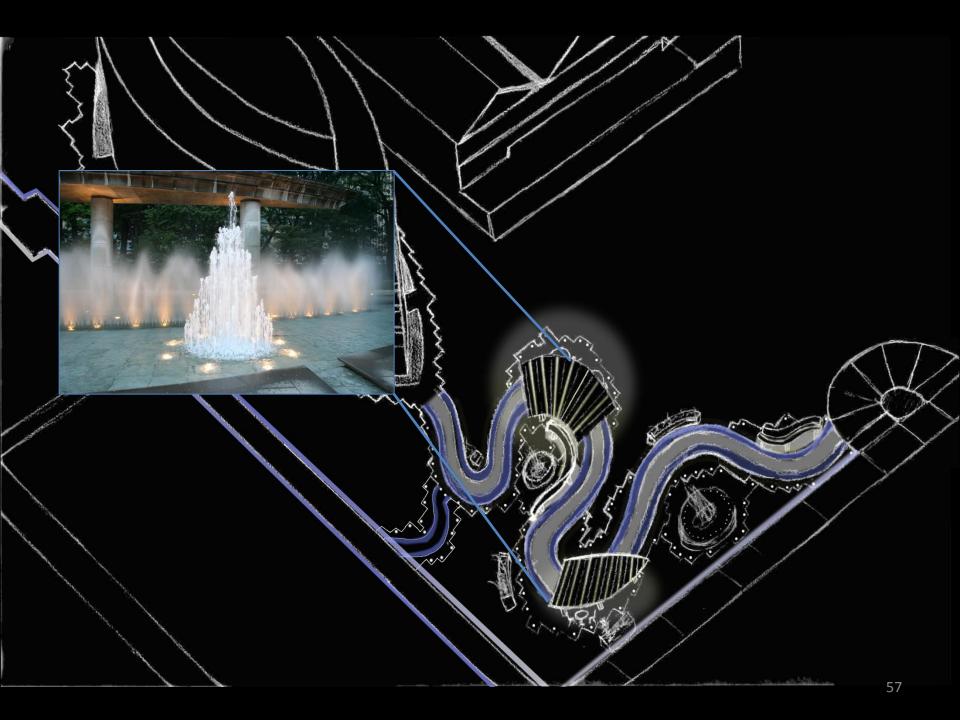


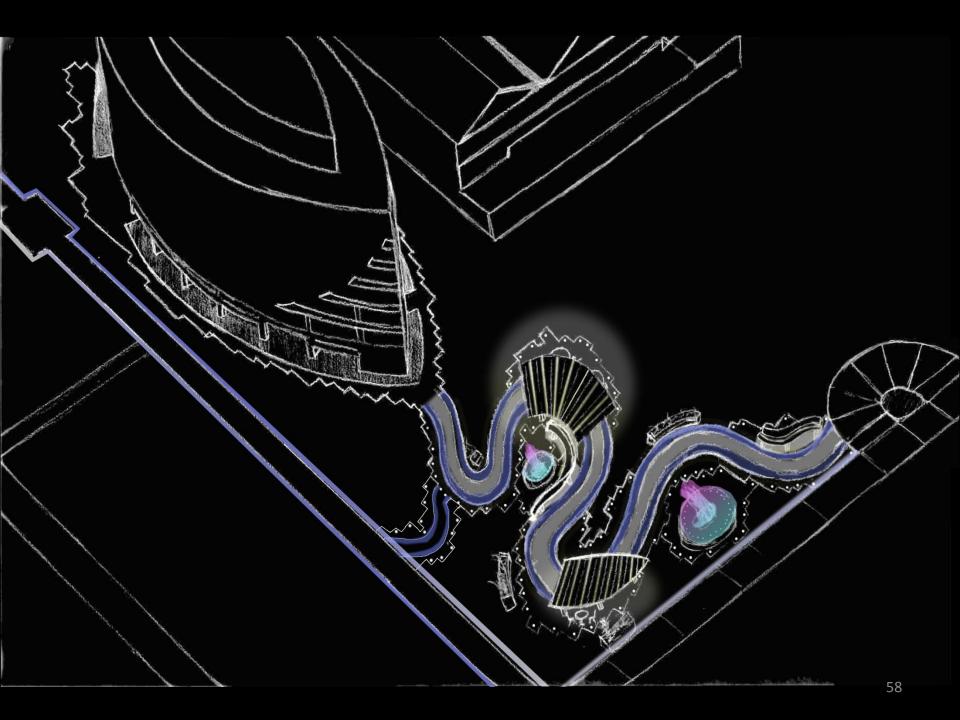


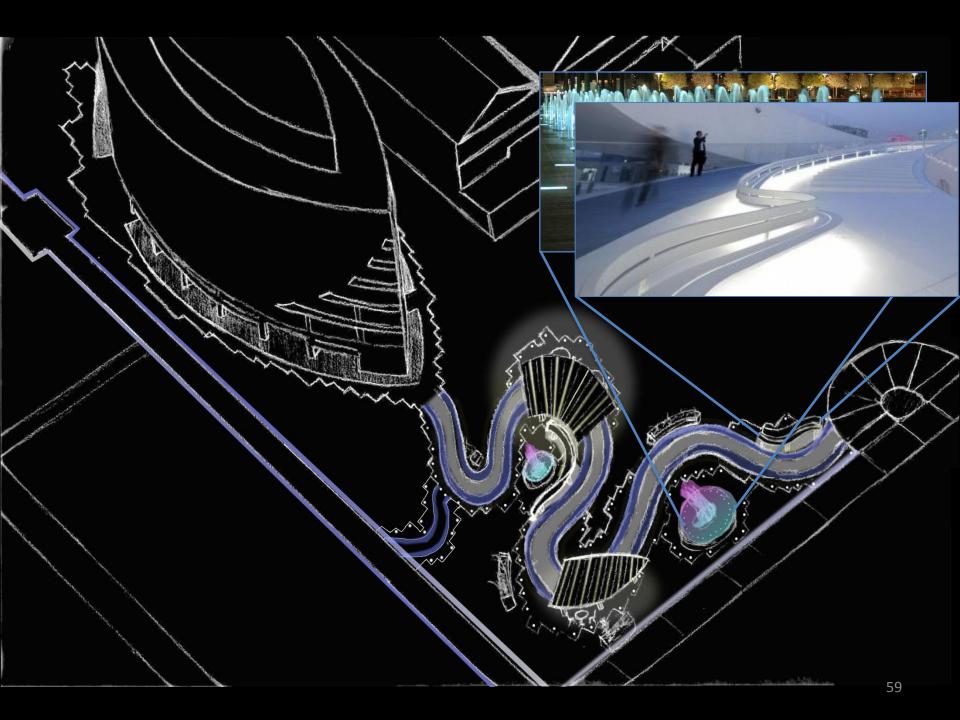












DESIGN CONCEPTS



Free Flowing

DyNamIc

Fluid

LIQUID

