

# ARCH 2331

## BUILDING TECHNOLOGY II



<http://www.loc.gov/pictures/item/ca0448.photos.014320p/>

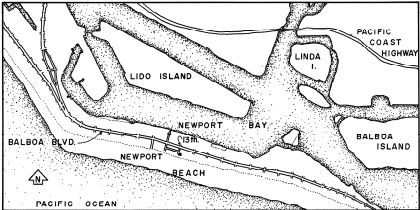
Go over site requirements

Examples:

http://www.loc.gov/pictures/item/ca0448.photos.014320p/

TRIM LINE

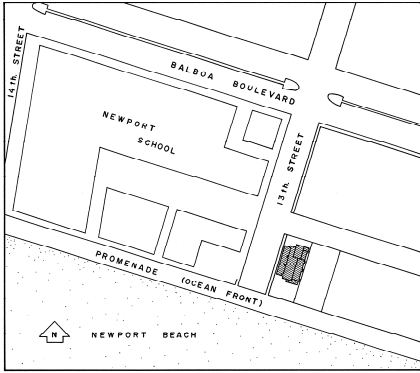
# THE LOVELL BEACH HOUSE



**LOCATION MAP**  
UNITED STATES GEOLOGICAL SURVEY - 1965

SCALE 1"=2400'

THE LOVELL BEACH HOUSE, R.M.SCHINDLER'S MOST IMPORTANT BUILDING, DATING FROM 1926, IS A PRECURSOR OF POST-WAR BRUTALIST DESIGN. IT IS BUILT OF CONCRETE. THE HOUSE IS LIFTED ABOVE ITS BEACH SITE AND CRADLED IN FIVE CONCRETE FRAMES IN THE SHAPE OF FIGURE 8. THESE WERE POURED IN PLACE. THE ENCLOSED AREAS WERE SHOP-FABRICATED AND HOISTED INTO POSITION. THE PLAY OF FORMS IN THE ADVANCING AND RECEDING PLANES ARE RELATED TO THE DE STIJL MOVEMENT BEGUN IN HOLLAND IN 1917.



**AREA MAP**  
UNITED STATES GEOLOGICAL SURVEY - 1965

SCALE 1"=100'

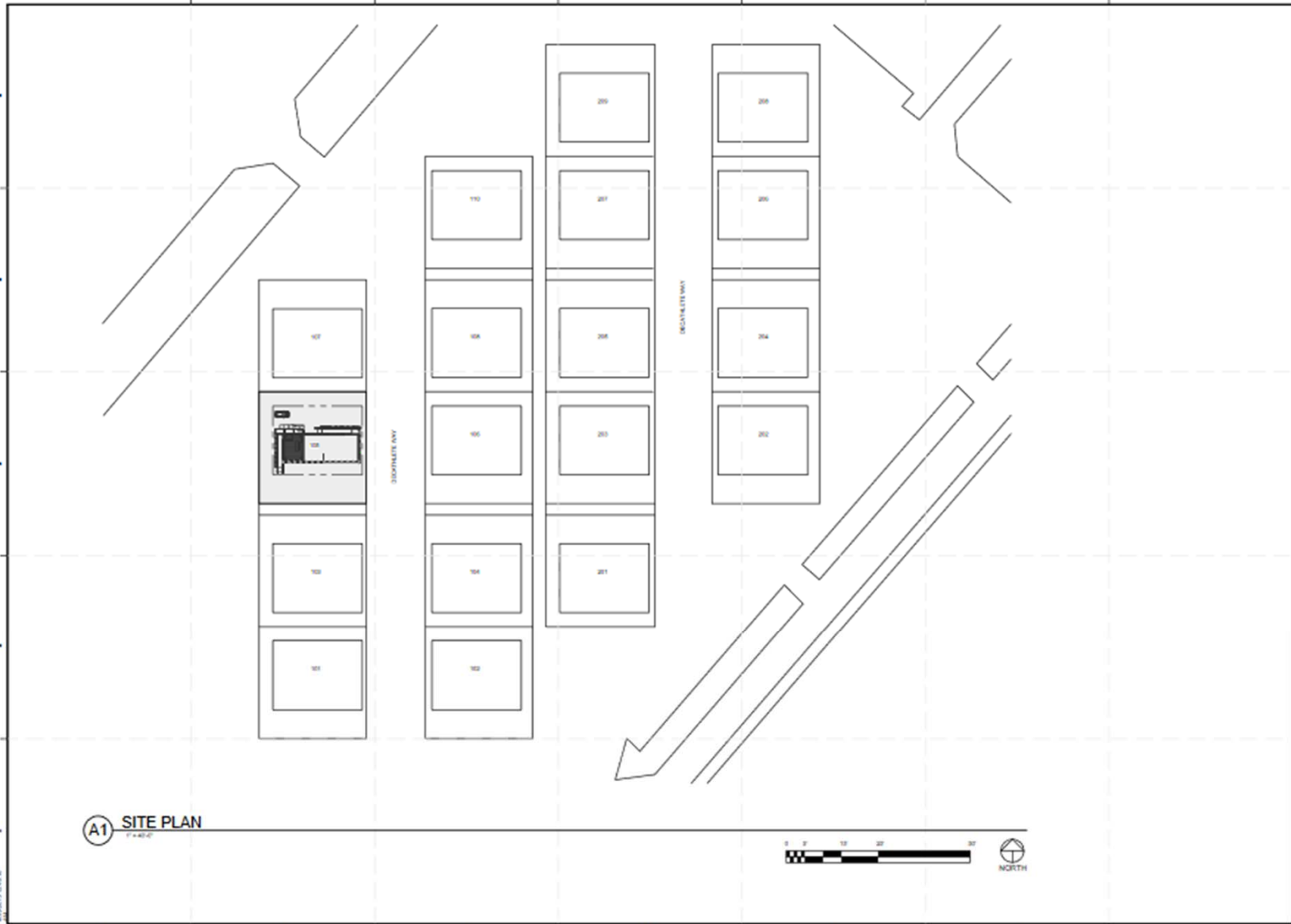
RECORDED BY  
THE UNITED STATES NATIONAL PARK SERVICE

THIS PROJECT WAS UNDERTAKEN BY THE HISTORIC AMERICAN BUILDINGS SURVEY IN CO-OPERATION WITH THE UNIVERSITY OF SOUTHERN CALIFORNIA, THE UNIVERSITY OF CALIFORNIA AT LOS ANGELES, AND THE UNIVERSITY OF CALIFORNIA AT SANTA BARBARA - MEASURED AND DRAWN AUGUST, 1968, UNDER THE DIRECTION OF JAMES C. MASSEY, CHIEF OF H.A.B.S., AND BY ROBERT C. GIEBNER (UNIVERSITY OF ARIZONA), PROJECT SUPERVISOR, WITH STUDENT ASSISTANT ARCHITECTS RALSTON H. NAGATA (UNIVERSITY OF HAWAII), STANLEY A. WESTFALL (UNIVERSITY OF SOUTHERN CALIFORNIA), AND NIKOLAOS PAPADEMOTROPOULOS (UNIVERSITY OF CALIFORNIA AT LOS ANGELES), AT THE LOS ANGELES, CALIFORNIA FIELD OFFICE.

|  |  |                       |  |  |
|--|--|-----------------------|--|--|
| DRAWN BY: ROBERT C. GIEBNER, DEL. 1968<br>SOUTHERN CALIFORNIA PROJECT<br>OFFICE OF ARCHEOLOGY & HISTORIC PRESERVATION<br>NATIONAL PARK SERVICE<br>UNITED STATES DEPARTMENT OF THE INTERIOR | <b>THE LOVELL BEACH HOUSE</b><br>1242 WEST OCEAN FRONT<br>NEWPORT BEACH ORANGE COUNTY CALIFORNIA | SURVEY NO.<br>CA-1986 | HISTORIC AMERICAN BUILDINGS SURVEY<br>SHEET 1 OF 10 SHEETS | (Seal of the University of California) |
|--|--|-----------------------|--|--|

IF REPRODUCED, PLEASE CREDIT: HISTORIC AMERICAN BUILDINGS SURVEY, NATIONAL PARK SERVICE, NAME OF DELINEATOR, DATE OF THE DRAWING

TRIM LINE



DURA HOME

PLAN YEAR: 2014/2015

ADDRESS: 100 JAY ST. BROOKLYN, NY, 11201

CONTACT: INFO@SOLARDECATHON.COM WWW.SOLARDECATHON.COM

CONTRACT NO.:

DATE:

SCALE:

PROJECT NO.:

DATE:

BY:

CHECKED BY:

DATE:

U.S. DEPARTMENT OF ENERGY

SOLAR DECATHLON EPC

WWW.SOLARDECATHLON.COM

U.S. DEPARTMENT OF ENERGY

SOLAR DECATHLON

MARK

DATE

DESCRIPTION

LOT NUMBER

LOT NUMBER

CREATED BY

CHECKED BY

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

SHEET TITLE

SITE PLAN

G-104

A1 SITE PLAN



8/20/14 10:41 AM





# POWERS OF TEN

the site

Image Courtesy of Prof. Montgomery

<http://gis.nyc.gov/taxmap/map.htm>



[Residents](#) | [Business](#) | [Visitors](#) | [Government](#) | [Office of the Mayor](#) | [Search](#) | [Email Updates](#) | [Contact Us](#)

## DOF - Digital Tax Map

[CURRENT TAX MAP](#) | [LIBRARY OF TAX MAPS](#) | [HISTORY OF TAX MAP CHANGES](#) | [HISTORICAL ALTERATION BOOKS](#) | [USER GUIDE](#)

Search for a Location

SEARCH TYPE

Borough / Block / Lot

BOROUGH

BLOCK

LOT

Find

>>

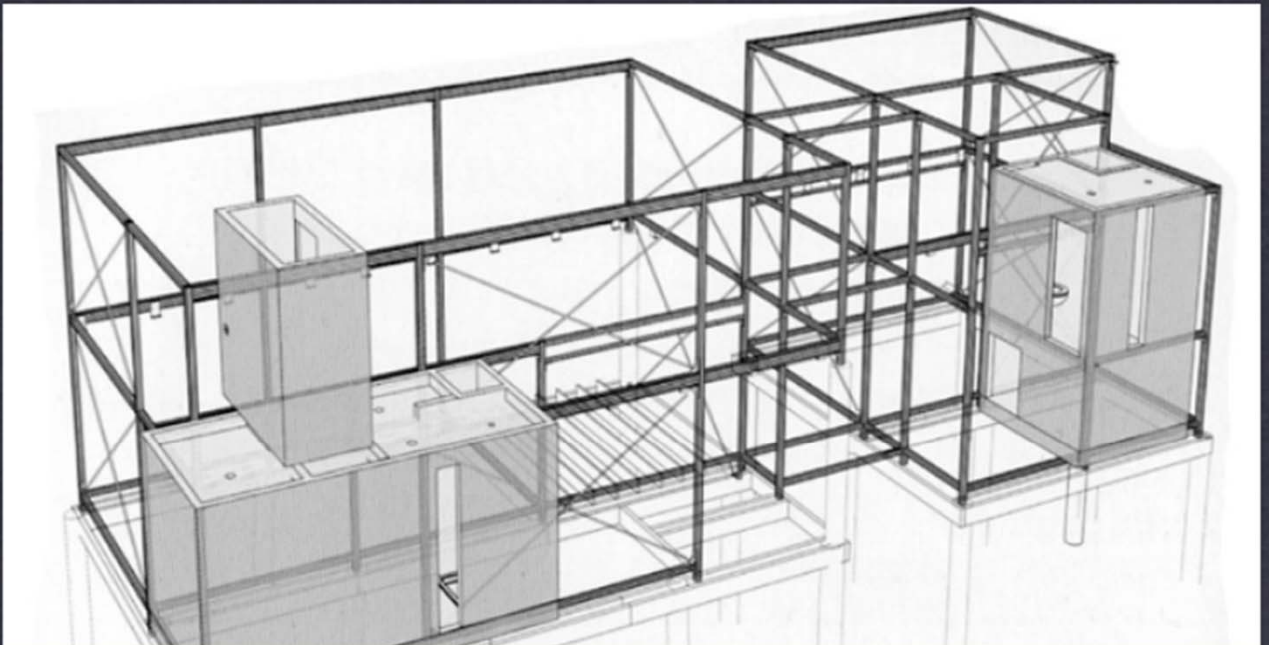
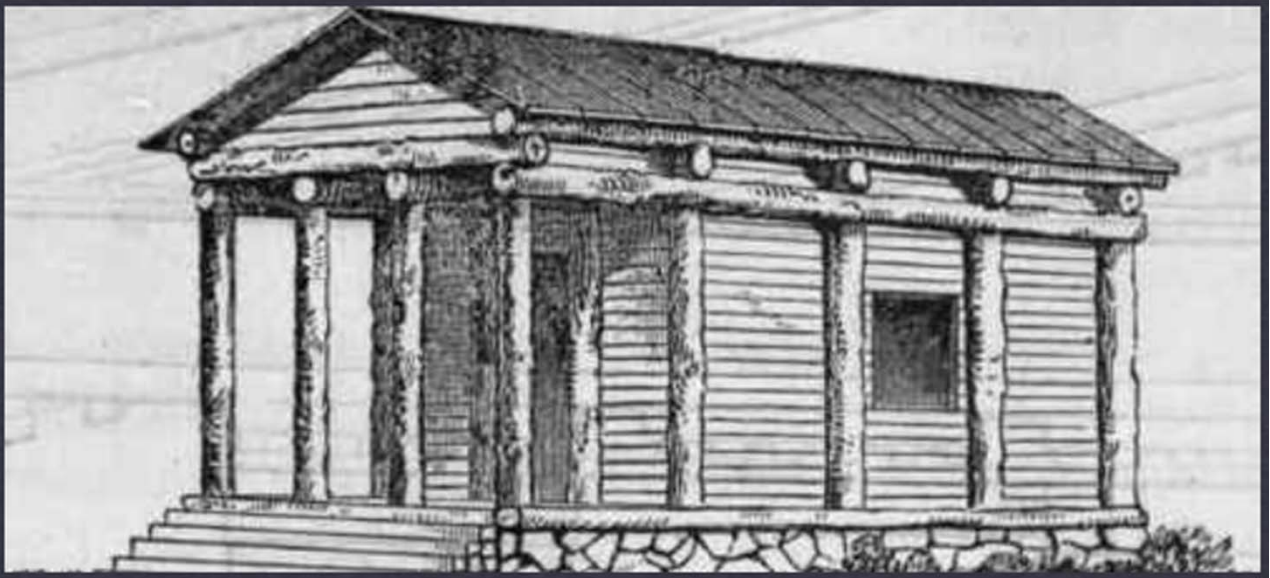
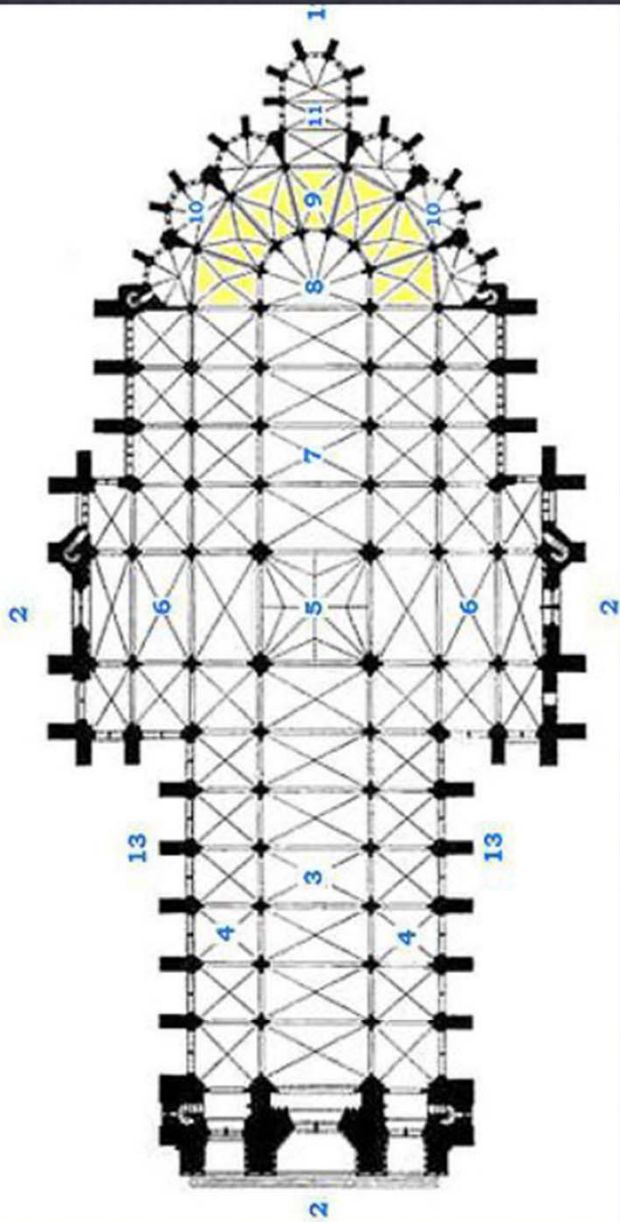


Searched Locations

Show Additional Data on Map

Legend

Overview Map



# ORGANIZING SPACE

the grid

Image Courtesy of Prof. Montgomery

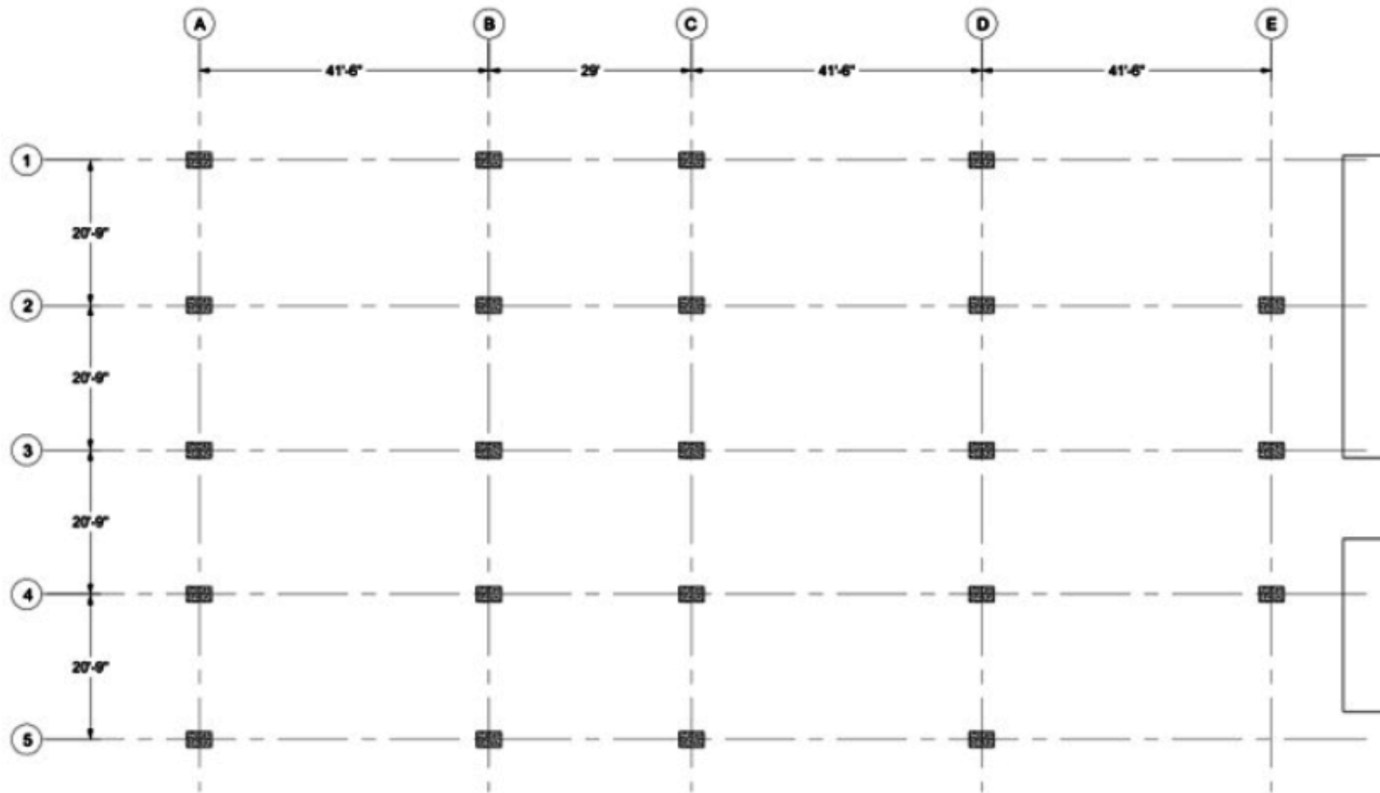


# STRUCTURAL ORDER

the grid

Image Courtesy of Prof. Montgomery



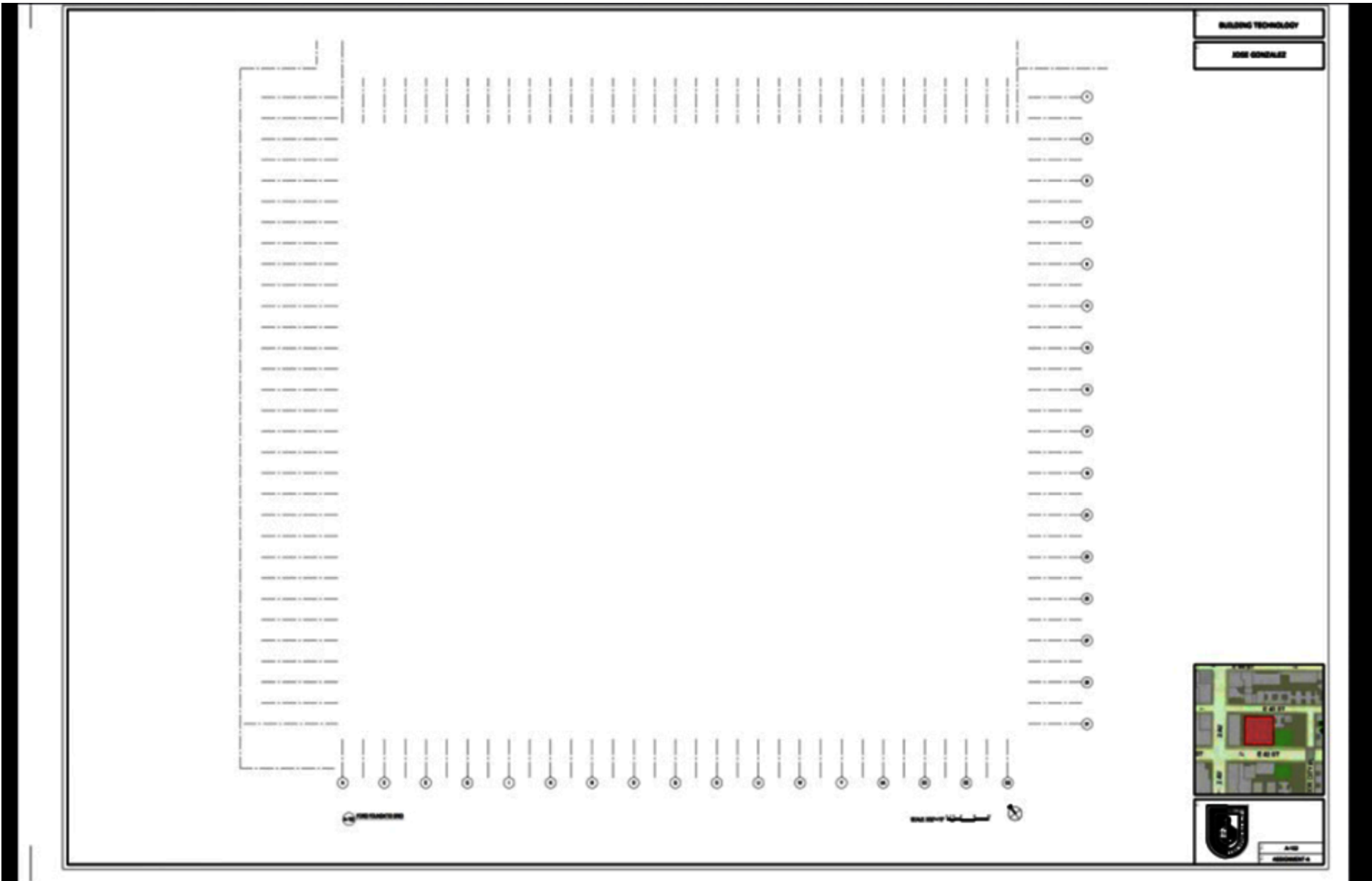


YALE ART GALLERY THIRD FLOOR PLAN

# ABSTRACT ORDER

the grid

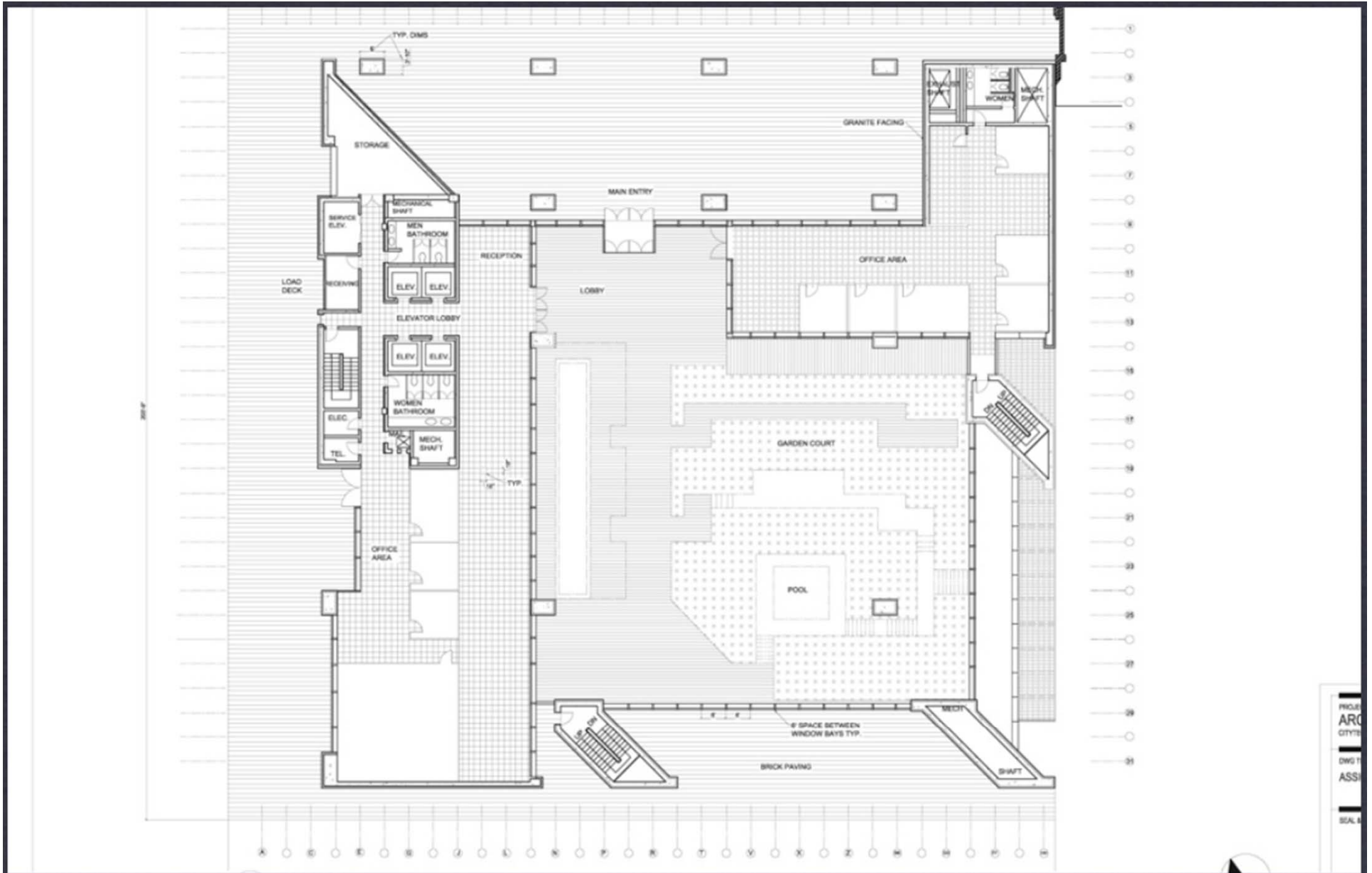




# ABSTRACT ORDER

the grid

Image Courtesy of Prof. Montgomery



# ARCHITECTURAL ORDER

the plan

Courtesy of Prof. Montgomery

## CAD Layer Guidelines:



[http://www.usbr.gov/foia/Vol%20III/NCS-CAD\\_Layer\\_Guidelines.pdf](http://www.usbr.gov/foia/Vol%20III/NCS-CAD_Layer_Guidelines.pdf)

## AIA CAD Layer Guidelines:

| U.S. NATIONAL CAD STANDARD FOR ARCHITECTURE, ENGINEERING, & CONSTRUCTION (A/E/C) VERSION 3.1 |   |     | © 2005. NATIONAL INSTITUTE OF BUILDING SCIENCES |   |     |
|--|---|-----|---|---|-----|
| Layer Name   | Description   | New | Layer Name                                      | Description                                 | New |
| <b>Architectural (continued)</b>   |   |     | <b>Architectural (continued)</b>                |   |     |
| AQ-CLNG-TEES   | Ceiling: main tees  |     | AQ-FLOR-WDWK                                    | Floor: architectural woodwork               |     |
| AQ-CLNG-SUSP   | Ceiling: suspended elements                                 |     | AQ-FURN   | Furnishings                                 |     |
| AQ-COLS  | Columns   |     | AQ-FURN-FILE                                    | Furnishings: file cabinets                  |     |
| AQ-CONV  | Conveying systems   |     | AQ-FURN-FIXD                                    | Furnishings: fixed in place                 |     |
| AQ-DOOR  | Doors   |     | AQ-FURN-FREE                                    | Furnishings: freestanding                   |     |
| AQ-DOOR-FULL   | Doors: full-height (swing and leaf)                         |     | AQ-FURN-PLNT                                    | Furnishings: plants                         |     |
| AQ-DOOR-PRHT   | Doors: partial height (swing and leaf)                      |     | AQ-FURN-PNLS                                    | Furnishings: system panels                  |     |
| AQ-EQPM  | Equipment   |     | AQ-FURN-SEAT                                    | Furnishings: seating                        |     |
| AQ-EQPM-ACCS   | Equipment: access   |     | AQ-FURN-STOR                                    | Furnishings: system storage components      |     |
| AQ-EQPM-FIXD   | Equipment: fixed equipment                                  |     | AQ-FURN-WKSF                                    | Furnishings: system work surface components |     |
| AQ-EQPM-MOVE   | Equipment: moveable equipment                               |     | AQ-GLAZ   | Glazing                                     |     |
| AQ-EQPM-NICN   | Equipment: not in contract                                  |     | AQ-GLAZ-FULL                                    | Glazing: full-height                        |     |
| AQ-EQPM-OVHD   | Equipment: overhead   |     | AQ-GLAZ-PRHT                                    | Glazing: partial-height                     |     |
| AQ-FLOR  | Floor   |     | AQ-GLAZ-SILL                                    | Glazing: window sills                       |     |
| AQ-FLOR-CASE   | Floor: casework   |     | AQ-HVAC   | HVAC  |     |
| AQ-FLOR-EVTR   | Floor: elevator cars and equipment                          |     | AQ-HVAC-SDFF                                    | HVAC: supply diffusers                      |     |
| AQ-FLOR-HRAL   | Floor: handrails, guard rails                               |     | AQ-HVAC-RDFF                                    | HVAC: return air diffusers                  |     |
| AQ-FLOR-LEVL   | Floor: level changes, ramps, pits, depressions              |     | AQ-LITE   | Lighting fixtures                           |     |
| AQ-FLOR-OTLN   | Floor: outline  |     | AQ-ROOF   | Roof  |     |
| AQ-FLOR-OVHD   | Floor: overhead (objects above)                             |     | AQ-ROOF-HRAL                                    | Roof: handrails                             |     |
| AQ-FLOR-RAIS   | Floor: raised   |     | AQ-ROOF-LEVL                                    | Roof: level changes                         |     |
| AQ-FLOR-RISR   | Floor: stair risers   |     | AQ-ROOF-OTLN                                    | Roof: outline                               |     |
| AQ-FLOR-SIGN   | Floor: signs  |     | AQ-ROOF-RISR                                    | Roof: stair risers                          |     |
| AQ-FLOR-SPCL   | Floor: specialties (toilet room accessories, display cases) |     | AQ-ROOF-STRS                                    | Roof: stair treads, ladders                 |     |
| AQ-FLOR-STRS   | Floor: stair treads, escalators, ladders                    |     | AQ-WALL   | Walls                                       |     |
| AQ-FLOR-TPTN   | Floor: toilet partitions                                    |     | AQ-WALL-CAVI                                    | Walls: cavity                               |     |

**ARCHITECTURAL LAYER LIST** CLG-44

<https://openlab.citytech.cuny.edu/arch-1230/files/2014/08/AIA-Layer-Standards.pdf>

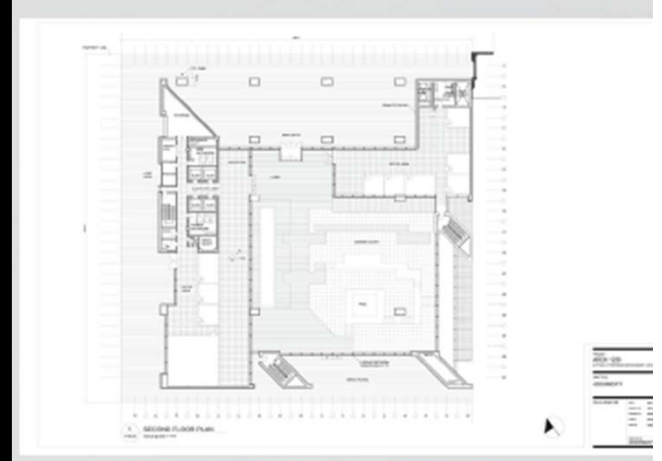
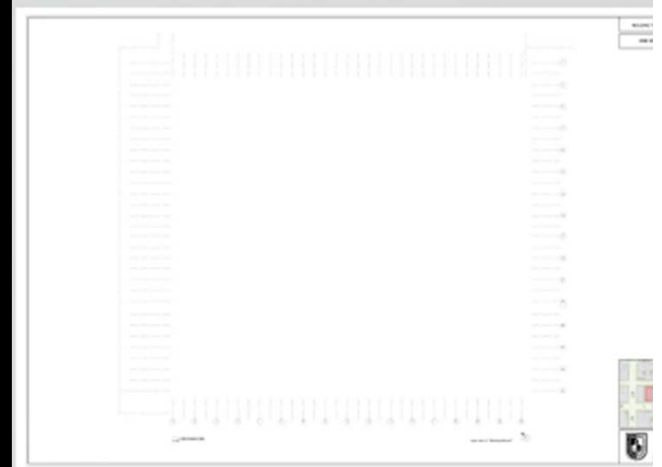
# Assignment A-1

Grid plans & site plan

CASE STUDY #1 SITE+GRID+PLAN

DUE: the Day before next class (9pm)

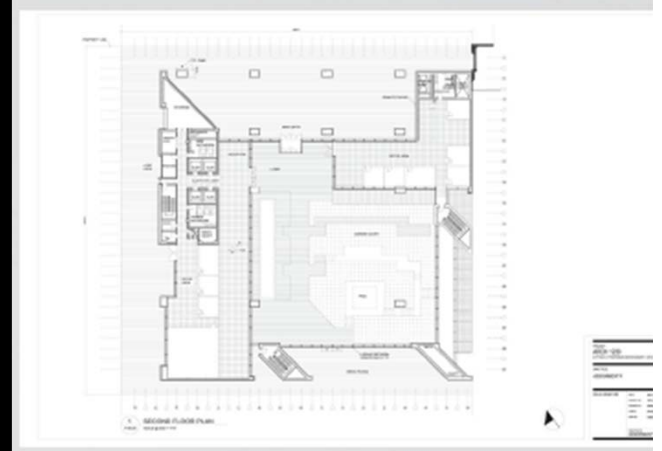
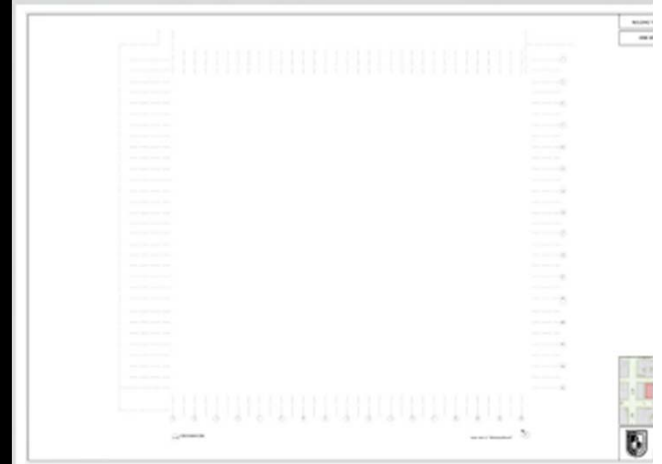
- See Assignment Blackboard File for Grading Rubric
- 3 boards required:
  - i. Site Maps (3 altitudes: 30,000', 3000', 300')
  - ii. Structural Grid @  $1/4''=1'-0''$
  - iii. Specific Floor Plan @  $1/4''=1'-0''$  All
- views must have a north arrow
- One graphic scale must be included for each unique scale
- Your 10 layers list (As part of auto CAD file)



# Assignment A-1

DUE: the Day before next class (9pm)

- Site maps to include the following:
  - i. Scale
  - ii. Altitude
  - iii. Latitude and Longitude Coordinates of Case Study Building
  - iv. Case Study Building Outlined/Highlighted
  - v. major urban features diagramed
  - vi. Case Study Building Outlined/Highlighted
  - vii. major urban features diagramed
  - viii. Roof plan



# Assignment A-1

DUE: Day before Next class (9pm)

- Your 10 layers list
- As part of auto CAD file :
  - use “US national CAD standard” common naming standards
  - make sure you have at least one-layer line weight
  - make sure you have layers for long – short – and – lines
  - use CAPITAL letters only
  - start with S or A prefix (for architecture or structural disciplines)
  - keep the layers “0” and Defpoints as they required by the software
  - prefix code X not use layers
  - you may keep the prefix “Title” for title block information

| S.. Name             | O. | F. | L. | P. | Color  | Linetype       |
|----------------------|----|----|----|----|--------|----------------|
| 0                    |    |    |    |    | white  | Continuous     |
| A-ANNO               |    |    |    |    | green  | Continuous     |
| A-ANNO-DIMS          |    |    |    |    | green  | Continuous     |
| A-DOOR               |    |    |    |    | yellow | Continuous     |
| A-FLOR               |    |    |    |    | red    | Continuous     |
| A-FLOR-OVHD          |    |    |    |    | 18     | Overhead 1_16_ |
| A-FLOR-PATT          |    |    |    |    | 18     | Continuous     |
| A-GLAZ               |    |    |    |    | yellow | Continuous     |
| A-WALL               |    |    |    |    | cyan   | Continuous     |
| Defpoints            |    |    |    |    | white  | Continuous     |
| S-COLS               |    |    |    |    | cyan   | Continuous     |
| S-GRID               |    |    |    |    | green  | Grid Line 1_2_ |
| Title-nrth-arrw      |    |    |    |    | green  | Continuous     |
| Title-text-fixd      |    |    |    |    | green  | Continuous     |
| Title-text-proj-guid |    |    |    |    | red    | Continuous     |
| X-anno-note          |    |    |    |    | green  | Continuous     |
| X-Anno-Symb          |    |    |    |    | cyan   | Continuous     |
| X-ANNO-TEXT          |    |    |    |    | green  | Continuous     |
| X-CASE               |    |    |    |    | red    | Continuous     |
| X-Detl-Patt          |    |    |    |    | 8      | Continuous     |
| X-door-new           |    |    |    |    | white  | Continuous     |
| X-EQPM-IDEN          |    |    |    |    | green  | Continuous     |
| X-fixt-exst          |    |    |    |    | 8      | Continuous     |
| X-fixt-new           |    |    |    |    | red    | Continuous     |
| X-FLOR-HRAL-MBND     |    |    |    |    | 8      | Overhead 1_16_ |
| X-GLAZ-CURT          |    |    |    |    | yellow | Continuous     |
| X-GLAZ-CWMG          |    |    |    |    | yellow | Continuous     |

U.S. NATIONAL CAD STANDARD FOR ARCHITECTURE, ENGINEERING, & CONSTRUCTION (A/E/C) VERSION 3.1  
© 2004 NATIONAL INSTITUTE OF BUILDING SCIENCES

## Discipline Designator, Level 2

The optional second character is used to further define the discipline character. As an example, the Level 2 Discipline Designators for Architectural are shown:

| Designator | Description              | New |
|------------|--------------------------|-----|
| A          | Architectural            |     |
| AS         | Architectural Site       |     |
| AD         | Architectural Demolition |     |
| AE         | Architectural Elements   |     |
| AI         | Architectural Interiors  |     |
| AF         | Architectural Finishes   |     |
| AG         | Architectural Graphics   |     |
| AJ         | User-Defined             | •   |
| AK         | User-Defined             | •   |

For a complete list of Discipline Designators, see Appendix A of UDS Module 1 beginning on page UDS-01.35.

CTB File: TMAPens

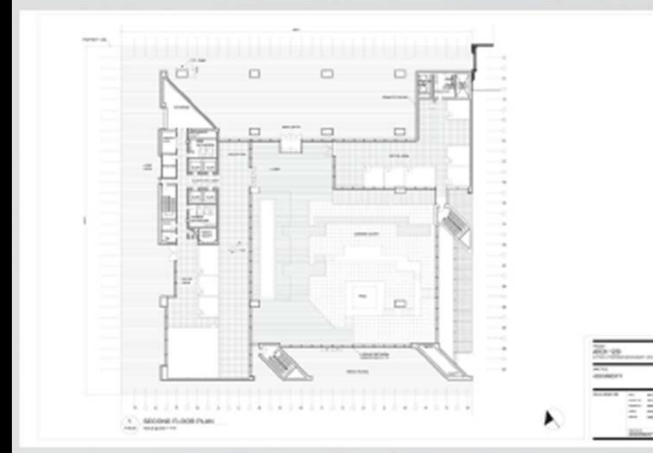
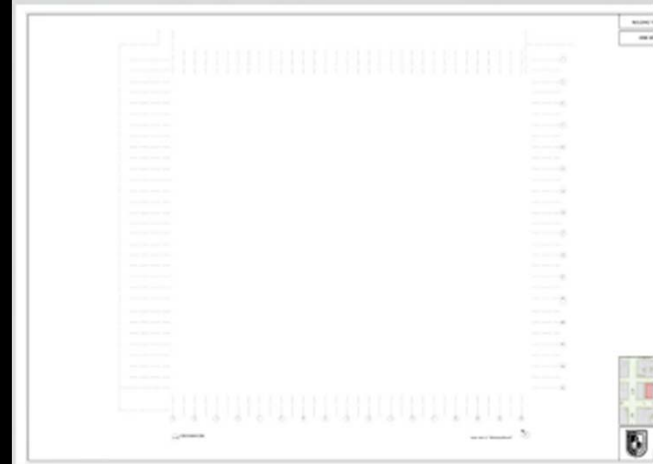
| Pen Thickness    | Pen Color | Example Layer |
|------------------|-----------|---------------|
| 0.4mm thickest   |           | a-wall-new    |
| 0.3mm            |           | rcp-anno-note |
| 0.2mm medium     |           | a-anno-note   |
| 0.1mm thin       |           | p-fixt-new    |
| 0.05mm thinner   |           | p-fixt-exst   |
| 0.025mm thinnest |           | a-flor-patt-0 |



# Assignment A-1

DUE: Day before Next class (9pm)

- Per board AutoCAD files, xrefs, and rasters included.
- all files submitted must follow this naming standard:
- professor\_F\_18\_first name-last name (drawing number).jpg
  - example file name: Gozlan\_F\_18\_george-smith(01).jpg
  - jpeg files to be at 150 dpi resolution.
  - files not conforming to department standards will not be graded.



# Assignment A-1

DUE: Day before Next class (9pm)

- per board, 1 AutoCAD file, xrefs, and rasters included.
- use “etransmit” to create your files for submission
  - menu is under the big A (top left corner)
    - submenu: publish
      - etransmit
- all files submitted must follow this naming standard:
- professor\_F\_18\_first name-last name (drawing number).jpg
  - example file name: Aptekar\_S\_19\_george-smith(01).jpg
  - files not conforming to department standards may not be graded.

