

ARCH 1231 BUILDING TECHNOLOGY I

Floor Plans Assignment

Description: Architecture is a three-dimensional craft where art and science intersect. Materials are assembled to create space and shelter. The convention and tradition of documenting and diagramming architecture, however, continues to be predominantly two-dimensional, using orthographic, abstract diagrams to depict specific views of buildings: plan, section, and elevation. Each view requires a cut plane and a direction.

This assignment focuses on the study of the case study building in plan view. This study will provide the opportunity to understand the building’s ordering system, the spatial sequence and configuration, the transparency between one space and another, the transparency between interior and exterior, the structural typology of the building, and the nature of the envelop that regulates the interface between the interior environment and the exterior environment.

Note: All drawings require careful architectural lettering for titles, scale, student name, and annotations.

Assignment Context: This assignment is focused the methodology of rigorously setting out architectural plans and provides a basis for the next assignment that focuses of the three-dimensional study of structural components.

Prerequisites: Understanding of orthographic projection, line weight, scale, architectural drafting techniques.

Recommended Text:

[Ching, Francis. Architecture Graphics. John Wiley and Sons, 2009.](#)

Suggested Reference: See the City Tech [Openlab](#) for additional reference materials.

Plagiarism: Student work submitted must be original and developed individually. Tracing is not acceptable. All construction lines and notations during drawing construction are to remain visible at final submission. Drawings without construction lines (guidelines) will be downgrading significantly.

Assignment Specific Learning Outcomes / Assessment Method	
Learning Outcomes	Assessment Methods
Upon successful completion of this assignment the student shall be able to:	To evaluate the students’ achievement of the learning objectives, the professor will do the following:
Layout coordinated, accurate, and consistent plans demonstrating the proper use of plan drawing conventions.	Review student case study floor plans for accuracy, coordination, and consistency as well as the application of line weight and drawing conventions following assignment rubric.
Develop three-dimensional studies of key elements of a building.	Review student vignettes for accuracy and level of detailed documentation following assignment rubric.

Grading Rubric

Student Name:

	Approaching Benchmark	Benchmark	Approaching Capstone	Capstone
<p>Lineweight</p> <p>Distinguishing elements especially cut lines (poche), grid lines, transparent elements, finishes</p>	<p>Lines are consistent thickness and quality, in the correct alignment</p>	<p>In addition, two line weights are distinguishable, including cut line</p>	<p>In addition, three or more line weights are distinguishable, including some finish textures</p>	<p>In addition, transparency is clear, centerlines, grid lines, dimension lines are shown w/ correct line type and line weight.</p>
<p>Drawing Organization and Accuracy</p> <p>Setting out of grid and the relationship of elements to the grid is accurate</p>	<p>Structural Grid is established</p>	<p>In addition, structural grid is dimensioned accurately and labeled correctly</p>	<p>In addition, major elements (walls, columns) are accurately placed in relation to the structural grid</p>	<p>In addition, all plan elements are carefully located in relationship to centerlines and the structural grid</p>
<p>Construction / Guidelines</p> <p>Guidelines and constructions were utilized in the careful construction of each drawing</p>	<p>Guidelines are used for overall geometry of drawings</p>	<p>In addition, guidelines indicate orthographic projection for 3-d vignette construction.</p>	<p>In addition, guidelines indicate geometric center of spaces, perimeters of spaces, and grid locations of key elements</p>	<p>In addition, guidelines are accurate, working off of grid lines and centerlines to each major element and guiding alignments.</p>
<p>Ordering System</p> <p>The ordering system of the spaces is clearly understood.</p>	<p>General configuration of spaces and elements is depicted</p>	<p>In addition, relationships and alignments are accurate and guided by guidelines showing clear relationship</p>	<p>In addition, drawings articulate the ordering system through centerlines, geometric modules, gridlines, and guidelines</p>	<p>In addition, variations and subtleties in sizing and spacing of elements are recognized and accurately depicted.</p>
<p>Drawing Conventions</p> <p>Standard methods of drawing and documentation of key data and elements are utilized</p>	<p>Drawings are properly scaled and provided with a title including course #, student name, professor name, semester + year</p>	<p>In addition, elements including stairs, windows, doors are drawn following standards and conventions</p>	<p>In addition, In addition, dimensions are organized and follow convention</p>	<p>In addition, the drawings exhibit understanding of multiple layers of detailed information, including ceiling conditions, floor finishes, context and grade conditions</p>

FLOOR PLANS & 3-D VIGNETTES ASSIGNMENT

Assignment Schedule: See Syllabus

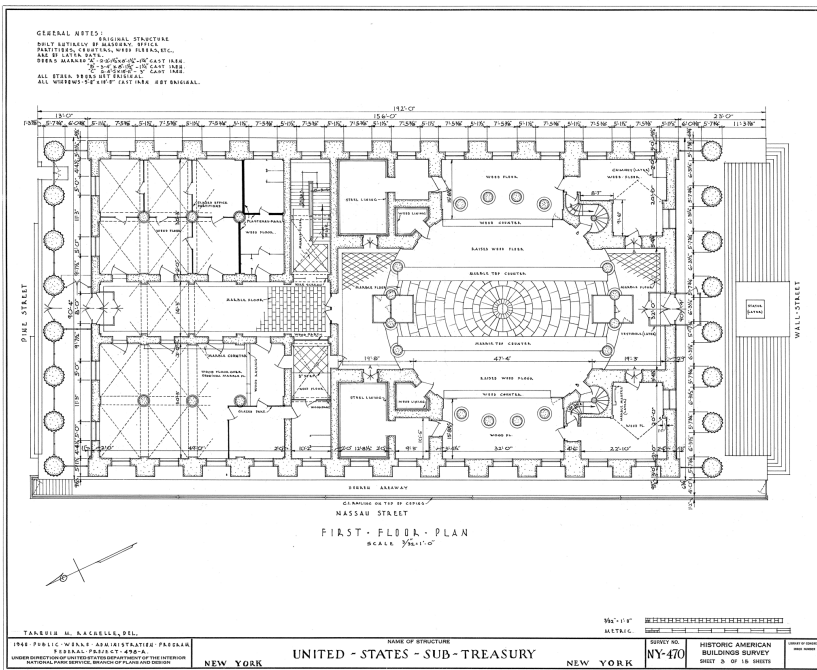
Deliverables:

- | | | |
|---------------------|-----------------------|----------------------|
| 1. First Floor Plan | Sheet Size: 24" x 36" | Scale: 3/32" = 1'-0" |
| 2. Basement Plan | Sheet Size: 24" x 36" | Scale: 3/32" = 1'-0" |

Extra Credit:

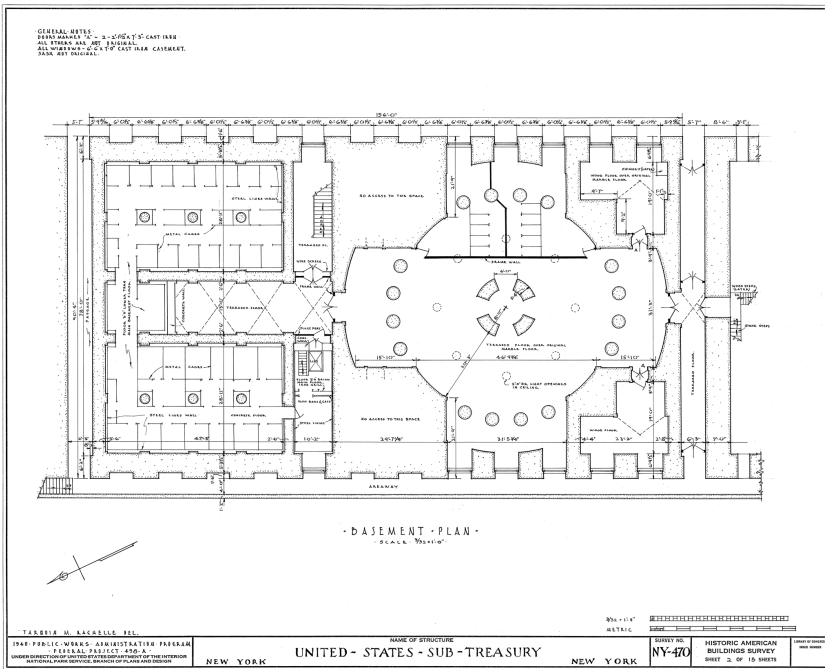
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| 3. Second Floor Plan | Sheet Size: 24" x 36" | Scale: 3/32" = 1'-0" |
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Point Value: See Syllabus + Grade Template

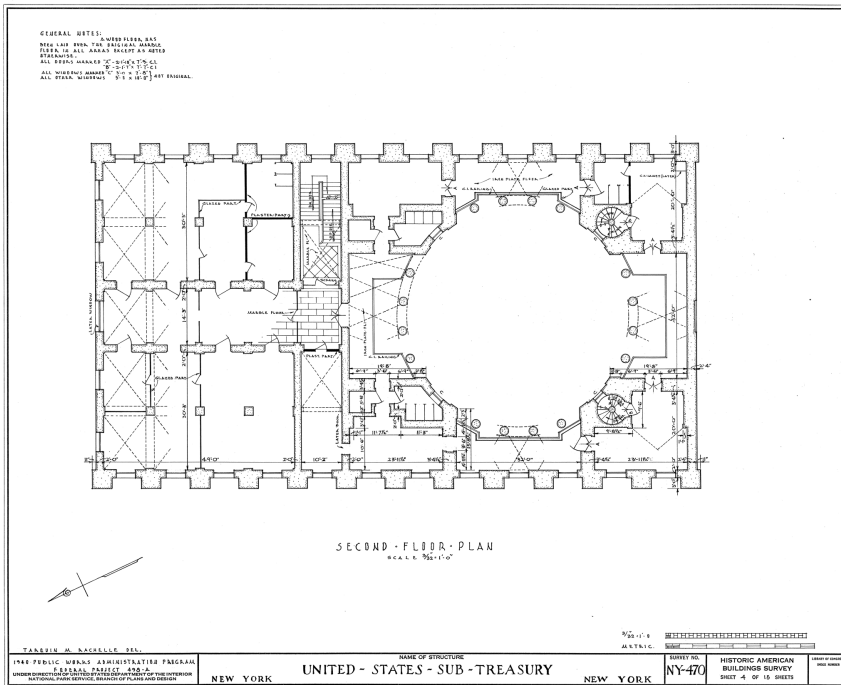


First Floor Plan Historic American Building Survey Drawing

FLOOR PLANS & 3-D VIGNETTES ASSIGNMENT



Basement Plan Historic American Building Survey Drawing



Second Floor Plan Historic American Building Survey Drawing