Program Document

HUMANITIES BUILDING
Weber State University
Ogden, Utah
DFCM Project # 05027810

Weber State University
Review Signatures

We have reviewed the Program and warrant that it adequately represents our request for a facility to fulfill our mission and programmatic needs. All appropriate parties in the agency have reviewed it for completeness and accuracy.

_____

Ann Millner
President

Date

_____

Norm Tarbox
Vice President for Administrative Services

Date

Division of Facilities Construction and Management, State of Utah
Review Signatures

We have reviewed the Program, jointly prepared with the agency, for completeness and accuracy. These signatures do not necessarily represent an endorsement for the need of this requested space at this time.

_____

Bill Bowen
Program Director, DFCM

Date

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1.0 EXECUTIVE SUMMARY

1.1 College of Arts and Humanities Mission

The College of Arts and Humanities, the largest and the most diverse college in terms of faculty and programs, draws upon those strengths to foster a Liberal Arts education among the increasingly diverse student body of Weber State University. College programs provide students with rich learning opportunities in the arts, communication, languages, literatures, and writing, pivotal disciplines for life-long learning in the changing global environment.

Students pursuing liberal studies gain an understanding of humanities cultural and aesthetic heritage, develop abilities in critical thinking, and become informed world citizens. The Arts and Humanities faculty strives for excellence and relevance in curriculum so that students might aspire to the professions of the present and be equally capable of embracing the new specialties of the future.

Much of the curricula in the college incorporates an interdisciplinary focus or applied research to assist students in forging connections between theory and practice, professional and personal lives, work and leisure. Achieving these goals depends upon faculty members who continually pursue new knowledge in their disciplines through research and scholarship while serving the larger community with their commitment and expertise.

The College of Arts and Humanities is comprised of five excellent academic departments:

- English and Literature
  - English as a Second Language
- Communication
- Foreign Languages and Literatures
- Performing Arts
- Visual Arts

1.2 Vision Statements and Principles for the New Humanities Building

The following Vision Statements and Principles for the new Humanities Building were identified by the Steering Committee:

The new building will accommodate consolidation and cluster of faculty offices (for the identified departments) in one building.

The new building will have modern, high tech teaching space.

The new building will have student space for group/individual/study/community spaces.

The new building will be interdisciplinary, and provide spaces for faculty/students to interact.

The new building will be programmed and designed for flexible space and will be adaptable to new technology.

1.3 Summary of Existing Facilities and Program

The essential mission of this project is to replace existing Building 1 and Building 2 with a new, multi-level, state-of-the-art research/learning facility. The following users currently occupy these buildings:

Current Building 1 Occupants
- Foreign Languages and Literatures
- Geography
- Air Force ROTC

Current Building 2 Occupants
- Foreign Languages and Literatures
- Telecommunication and Business Education (TBE)
- Printing/Newspaper

The new Humanities Building will have the following occupants:

Department	Current Location
English and Literature	Social Science, Annex 2, Annex 8
Communication	Building 3, Union, and Library
Foreign Languages and Literatures	Buildings 1 and 2
Telecommunications and Business Education (TBE)	Building 2

Geography will be relocated to the vacated space of English in the Social Science Building.
Air Force ROTC will be relocated to an Annex Building.
Printing will be relocated to the Stores and Receiving Building.

Department	Current Location	Square Feet Presently Used
English and Literature	Social Science	10,944 Net Square Feet
	Annex 2	1,378 Net Square Feet
English as a Second Language (ESL)	Social Science	1,244 Net Square Feet
	Annex 8	2,512 Net Square Feet
	Sub Total	*16,078 Net Square Feet*

Communication	Building 3	8,976 Net Square Feet
	Union	1,561 Net Square Feet
Multi Media Services	Library	5,167 Net Square Feet
	Sub Total	*15,704 Net Square Feet*

Foreign Languages and Literatures	Building 1	6,319 Net Square Feet
	Building 2	1,333 Net Square Feet
	Sub Total	*7,652 Net Square Feet*

Telecommunications and Business Education (TBE)	Building 2	5,437 Net Square Feet
	Sub Total	*5,437 Net Square Feet*

Total Existing Square Feet Presently Used	**44,871 Net Square Feet**

1.4 Project Justification-New Humanities Building

Existing Building 1 and Building 2 are two of the original buildings at Weber State University. These buildings were constructed in 1954, and have had minimal upgrades over the years. The buildings have antiquated mechanical and electrical systems, are not completely ADA accessible, contain asbestos, and are seismically unsafe for their current occupancy classification of A-3. In summary, the buildings have out-performed their life expectancy, and the cost to renovate/remodel would not be practical.

The existing Building 1 is approximately 15,533 gross square feet, and Building 2 approximately 16,894 gross square feet, for a total of 32,427 gross square feet on 1 level. The new Humanities Building will have the opportunity of multiple levels, providing a larger building in the same amount of space, yielding a greater use of prime real estate located in the center of campus.

The Humanities Departments of English, Communication and Foreign Languages and Literatures are currently located in 8 different buildings on campus. Part of the Vision and Mission for Humanities is to provide space that is interdisciplinary, where faculty, staff and students from different departments can interact. The new Humanities Building will provide an opportunity for 4 departments to be located in one building, allowing for this interaction and interdisciplinary approach to learning. Clustering humanities

departments of the college also is more effective to administer, to facilitate cooperation and staff assignments, to share facilities such as conference rooms, large meeting rooms, etc. Currently, three humanities disciplines are located in four separate buildings (Social Sciences, Buildings 1, 2, 3). A new building is a propitious opportunity to bring together these three related disciplines that report to one dean/college.

There is also the opportunity for shared spaces in the new building that are now currently duplicated across campus. The 4 departments located in the new Humanities Building will share the following spaces:

Faculty Work Rooms
Faculty Break Rooms/Lounge
Conference Rooms
Adjunct Offices
Student Lounges

This approach to space sharing has resulted in a reduction of required square footage per each department.

All departments in Arts & Humanities underwent external program review in Fall of 2005. Visual and Performing Arts were recognized for the quality of their facilities. However, the humanities departments all had listed among weaknesses the lack of adequate physical plant for student classrooms and the lack of specialized technical learning centers.

The humanities departments have no dedicated space for special events, invited guest speakers, large or combined class presentations. They must always search elsewhere for availability which results in inconvenient times and locations and less than ideal audiences. Having a dedicated space in a Humanities Building will promote and enhance curricular and co-curricular events.

1.5 Project Description- New Humanities Building

1.5.1 Total Facility Summary

The new Humanities Building will be a new facility consisting of 85,700 gross square feet (GSF). It will consist primarily of classroom/computer lab/teaching spaces and administration spaces. The project is currently programmed at:

Total Administration Spaces	20,239 NSF	31,137 GSF
Classrooms/Computer Labs	35,465 NSF	54,562 GSF
Total	**55,704 NSF**	**85,698 GSF**

An efficiency ratio of 65% has been utilized for this Program Document.

SPACE SUMMARY

Administration Spaces

English and Literature	6,998 NSF	10,766 GSF
Foreign Languages and Literatures	2,652 NSF	4,080 GSF
Communication	3,042 NSF	4,680 GSF
Telecommunications and Business Education	2,043 NSF	3,143 GSF
Administration Support Spaces (Shared)	5,504 NSF	8,468 GSF
Total Administration Spaces	**20,239 NSF**	**31,137 GSF**

Administration Space is made up of the following:

Administration Space	
Offices (Enclosed)	93 Total
Offices (Open Work Stations)	15 Total
Shared Adjunct Offices (Open Work Stations)	24 Total
Storage Rooms	4 Total
Tutoring Rooms	3 Total
Conference Rooms	2 Total
Small Adjunct Meeting Rooms	3 Total
Shared Faculty Work Rooms	3 Total
Shared Faculty Break Rooms	2 Total
Shared Student Lounge	1 Total

Classroom/Computer Lab Space is made up of the following:

Classroom/Computer Lab Space	
200 Person Auditorium	1 Total
40 Person Classroom	4 Total
35 Person Classroom	4 Total
30 Person Classroom	10 Total
25 Person Seminar	9 Total
40 Person Specialty Lab	3 Total
30 Person Specialty Lab	1 Total
Debate Special Use Lab	1 Total
34 Person Writing Center	1 Total
32 Person General Computer Lab	1 Total
24 Person General Tutoring	1 Total

Additional Specialty Areas
Electronic Media Production
TBE Audio Visual Recording Room

1.5.2 Project Cost Summary for New Humanities Building

Site Summary for Construction based on October 2005 Construction Costs

Site Costs		$ 960,600	
Sub Total		*$ 960,000*	
General Conditions	7.0%	$ 67,252	
Bonding	1.0%	$ 9,606	
Overhead and Profit	5.0%	$ 48,030	
Sub Total		*$ 1,085,478*	
Design Contingency	10%	$ 96,060	
Total Site (Construction) October 2005		**$ 1,181,538**	

Building Summary for Construction based on October 2005 Construction Costs

Architectural		$ 5,046,115	
Structural		$ 3,401,938	
Mechanical		$ 2,555,375	
Electrical		$ 1,569,875	
Sub Total		*$12,573,303*	
General Conditions	7.0%	$ 880,131	
Bonding	1.0%	$ 125,733	
Overhead and Profit	5.0%	$ 628,665	
Sub Total		*$14,207,832*	
Design Contingency	10%	$ 1,257,330	
Total Building (Construction)		**$15,465,162**	
Total Building and Site		**$16,646,700**	**$194/SF**

Inflation has not been included and will be calculated by DFCM for Total Project Costs

1.5.3 Project Schedule

The overall proposed Project Schedule is as follows:

Design	March 2006 –December 2006
Start of Construction	March 2007
Construction Substantial Completion	July 2008
Occupancy	August 2008

1.5.4 Project Procurement

DFCM will select, through their Value Based Selection Process, a CM/GC (Construction Manager/General Contractor) to provide construction for the new Humanities Building. Ideally, this selection will take place during the early design phases of the project.

1.6 New Chiller

As part of the Programming effort for the new Humanities Building, the programming team was asked to also provide programming services for a new Chiller Building and Plant for Weber State University. A complete Chiller Feasibility Report is included in the Appendix (Section 7) of this Program Document. A complete program for the new Chiller Building is included in Section 6 New Chiller.

Included in Section 7 Appendix of this document is the **Weber State University Central Chilled Water Plant and Distribution System Study.** This study focuses on the existing and proposed chilled water systems for Weber State University. The study identifies existing chilled water distribution conditions, new and existing cooling requirements, and provides recommendations for the construction of a new central chilled water plant. The study will provides recommendations for new upgrades to the existing chilled water distribution systems. Capacities of existing and future buildings were taken from the Weber State University master plan. These capacities and totals can be found in Section 7 Appendix, **Weber State University Central Chilled Water Plant and Distribution System Study,** Sections 2 and 3.

Weber State University originally began as Weber State Academy in 1889. It was made a State Junior College in 1933. Weber State College was updated to University status in 1991. Weber State University has since experienced a steady growth of students and educational facilities. The University is comprised of thirty six (36) main on-campus buildings, and ten (10) auxiliary buildings. Among these buildings, twenty one (21) on-campus buildings are connected to the campus Central Chilled Water Plant. The study focuses on the cooling requirements of the existing buildings, future planned campus buildings, and projected load increases. All discovered and known information has been summarized and the findings incorporated into the design of a new Central Chilled Water Plant.

The following are the main concerns and recommendations for improving the Existing Chilled Water Distribution System and the construction of a new Future Central Chilled Water Plant. (All sections referenced are sections within the document located in Section 7 Appendix):

1. The capacities of the existing three chillers and piping are adequate to handle the existing connected demand. See Section 3.4. However, the existing campus pumping system has reached its' operating limits. Pumps must operate at full capacity to meet current campus needs, without adequate back-up. If a primary pump is lost, the campus capacity is reduced by 50% of one chiller. This could be as much as 625 tons. If a secondary pump is lost, the entire campus cooling capacity will be reduced by 50%.

2. The capacities of the existing three chillers, cooling tower and piping are adequate for the combined existing load and the projected summer 2006 load as long as all three chillers are operating. See Section 3.4. Pumping system will be inadequate as it is currently operating. A higher chilled water Delta T needs to be used to compensate for the lack of pump capacity at future peak demands.

3. The capacities of the existing three chillers, pumps, cooling tower and piping are <u>not</u> adequate for the combined existing connected load, projected summer 2006 load and the future projected load. See Sections 3.3 and 3.4.

4. The new projected central chiller plant should be designed so that a back-up chiller or combination of chillers will always provide the capacity to cover the connected load.

5. Two of the existing chillers are manufactured by The Trane Co, the third chiller by Carrier Corp. The Trane chillers are in good condition and should be relocated to the new proposed central chiller plant. The Carrier chiller is beyond ASHRAE'S recommended service life and should be removed from service.

6. The different chiller combinations that are evaluated for the new central chiller plant in Section 5.2 are as follows:

Combination A:
1) Chiller #1 – New 1500 Ton with VFD
2) Chiller #2 – Existing 1250 Ton Trane Unit
3) Chiller #3 – New 1500 Ton with optional VFD
4) Chiller #4 – Existing 650 Ton Trane Unit

Combination B:
1) Chiller #1 – New 2000 ton with VFD
2) Chiller #2 – Existing 1250 Ton Trane Unit
3) Chiller #3 – New 1250 ton
4) Chiller #4 – Existing 650 Ton Trane Unit

Combination C:
1) Chiller #1 – New 1500 ton with VFD
2) Chiller #2 – Existing 1250 Ton Trane Unit
3) Chiller #3 – New 1250 ton with optional VFD
4) Chiller #4 – Existing 650 Ton Trane Unit

Combination D:
1) Chiller #1 – New 2000 ton with VFD
2) Chiller #2 – Existing 1250 Ton Trane Unit
3) Chiller #3 – New 1500 ton
4) Chiller #4 – Existing 650 Ton Trane Unit

Combination E:
1) Chiller #1 – New 2000 ton with VFD
2) Chiller #2 – Existing 1250 Ton Trane Unit
3) Chiller #3 – New 1700 ton
4) Chiller #4 – Existing 650 Ton Trane Unit

Combination F:
1) Chiller #1 – New 1700 ton with VFD
2) Chiller #2 – Existing 1250 Ton Trane Unit
3) Chiller #3 – New 1700 ton with optional VFD
4) Chiller #4 – Existing 650 Ton Trane Unit

7. Modify the campus chilled water loop as recommended in Section 4. This includes the following:
   a. Incorporate a primary chilled water circulation loop for each chiller.
   b. Provide a secondary loop with new pumps and variable frequency drives. Incorporate the campus loop pipe section modifications as part of the secondary loop.
   c. Provide a separate "decoupled" chilled water loop for the skybox and its' associated loads. Provide a plate and frame heat exchanger and associated pumps and specialties in the old chiller plant room to serve this loop.

8. Provide a new plate and frame exchanger to provide free cooling by utilizing condenser water from the cooling tower without activating the chillers.

9. Provide all new chilled and condenser water pumps with stand by pumps for the chilled water and condenser water systems.

10. Provide an automated control system to match a sequence of control approved by WSU. An example of a sequence is as follows:
    a. The first stage of cooling when the outdoor temperature is below 60 degrees F, shall be provided by the "Free Cooling" ie. plate and frame exchanger and the cooling tower. This stage of cooling shall be provided until the return water temperature can no longer be maintained. At this point, the "Free Cooling" shall be terminated and the lead chiller shall start.

    b. The lead chiller shall start and maintain operation until the return water temperature continues to rise at which time a return water temperature controller (adjustable) will start the other chillers depending on the combination recommended or approved by WSU.

11. The existing five cell cooling tower is not large enough to handle the combination of the existing connected load, the projected summer 2006 load, and the future projected load.

12. Provide a refrigerant detection, evacuation and personnel safety system. See Section 6.4.

13. Design engineers shall use WSU and DFCM standards to Architects and Engineers defining design criteria, equipment approval, etc. for the new central chiller plant.

14. The new chilled water distribution system and condenser water system within the new central chiller plant should be balanced by an independent testing and balancing agency after the new systems are installed.

15. Based on Sections 3 and 5, we recommend for the new central chilled water plant one of the following chiller combinations with the associated equipment listed below:

    Combination A
    1) Chiller #1 – New 1500 ton with VFD
    2) Chiller #2 – Existing 1250 Ton
    3) Chiller #3 – New 1500 ton with optional VFD

4) Chiller #4 – Existing 650 Ton

Combination F

1) Chiller #1 – New 1700 ton with VFD
2) Chiller #2 – Existing 1250 Ton
3) Chiller #3 – New 1700 ton with optional VFD
4) Chiller #4 – Existing 650 Ton

a. Central Air Eliminator – Remove all existing building air eliminators.
b. Central expansion tanks – Remove all existing building expansion tanks.
c. Four inline mounted, constant volume chilled water primary loop circulating pumps for the chillers.
d. Three main campus base mounted secondary distribution pumps with variable frequency drives.
e. Three main condenser water pumps with variable frequency drives.
f. Plate and frame exchanger for free cooling with and automatic change over to mechanical cooling.
g. Cell addition to the existing cooler tower.
h. Automation System.
i. Re-using the existing 24 inch condenser water piping as the new chilled water piping distribution system. See Existing Campus Distribution Map Section 4.2 C.

The recommendations included in this report are based off of WSU master plan information dated September 2005. Because many assumptions have been made concerning future buildings, i.e. future loads, locations, etc. Because of change in the future, as individual building designs are refined, this report shall only be used as a guide and not a finished design for future buildings. WHW Engineering, Inc. assumes no design liability for future modifications to the existing campus plan. Equipment sizing, pipe sizing, loop modifications, field verification of existing conditions, and all other associated recommendations are the responsibility of the future design teams to verify, calculate, and design at the time of the associated future projects.

Costs for Chiller Project (October 2005) **$5,639,844.00**

See Section 6 New Chiller for complete narrative on the New Chiller Building

2.0 SITE ANALYSIS

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- 2.1.1 MAIN CAMPUS LOCATION
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- 2.1.2 CENTRAL QUAD MASTER PLAN

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- 2.2.1 EXISTING VEHICULAR ACCESS
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2.0 SITE ANALYSIS

2.1 SITE LOCATION

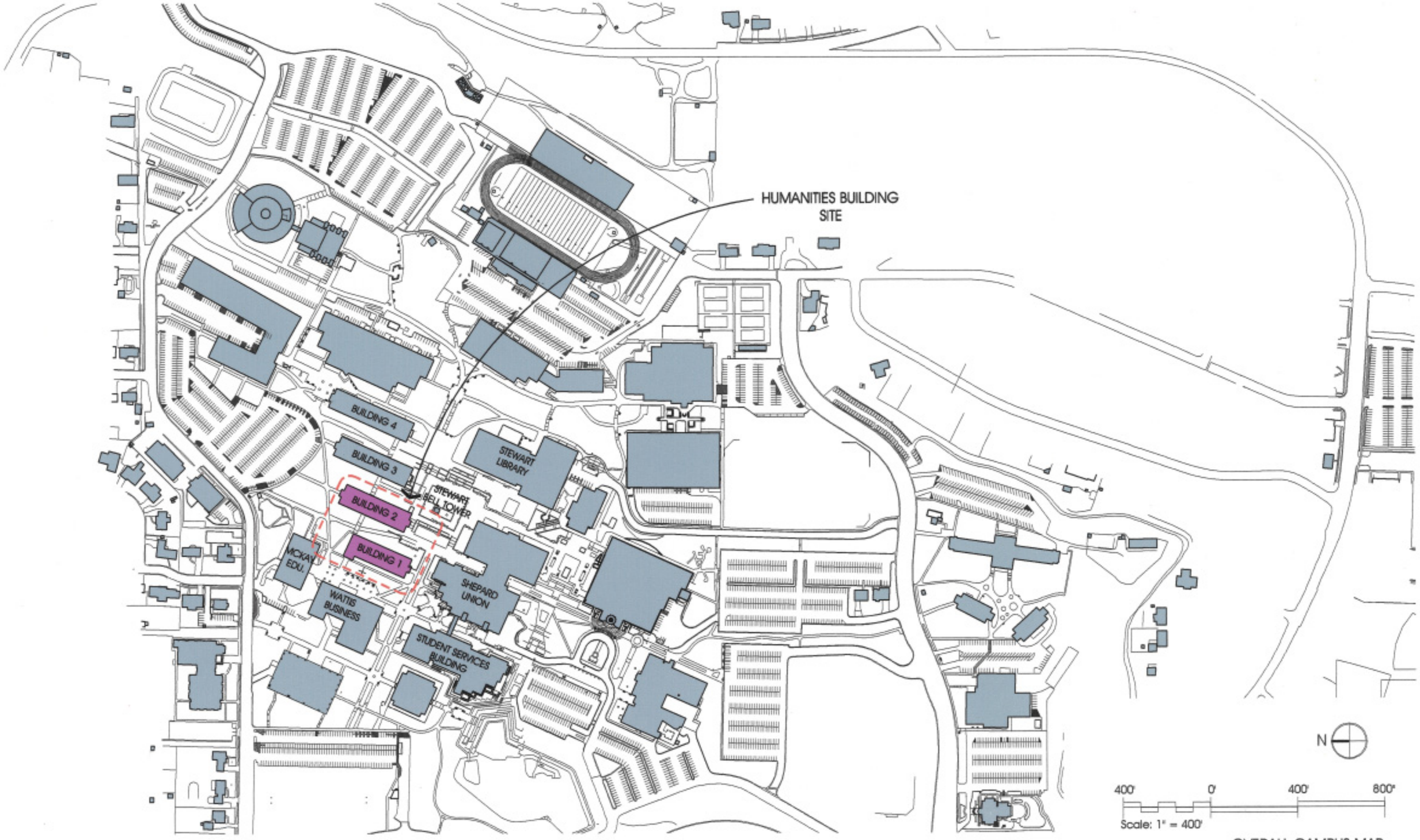
2.1.1 MAIN CAMPUS LOCATION

Weber State University is a four-year institution of higher education located in Ogden, Utah. Its focus is providing undergraduate and selected masters programs of the highest educational quality. WSU offers over 200 separate degrees and programs—the largest and most comprehensive undergraduate program in the State of Utah. The University has a student body of 19,000 drawn predominantly from the Wasatch Front, but also includes students from 50 states and 34 foreign countries. Weber State University takes pride in its student-centered environment for learning and believes that quality undergraduate education is founded upon close associations between faculty and students.

The proposed location for the new Humanities Building is the current location of Buildings 1 and 2. Buildings 1 and 2 are located in the center of campus, just north of the Central Quad Area and Stewart Bell Tower.

To the east of Buildings 1 and 2:	Buildings 3 and 4 Stewart Library Building
To the south of Buildings 1 and 2:	Stewart Bell Tower Shepard Union Building
To the west of Buildings 1 and 2:	Student Service Center Building Wattis Business Building McKay Education Building
To the north of Buildings 1 and 2:	Parking and Open Space

See the **Overall Campus Map** and **Aerial Photo.**



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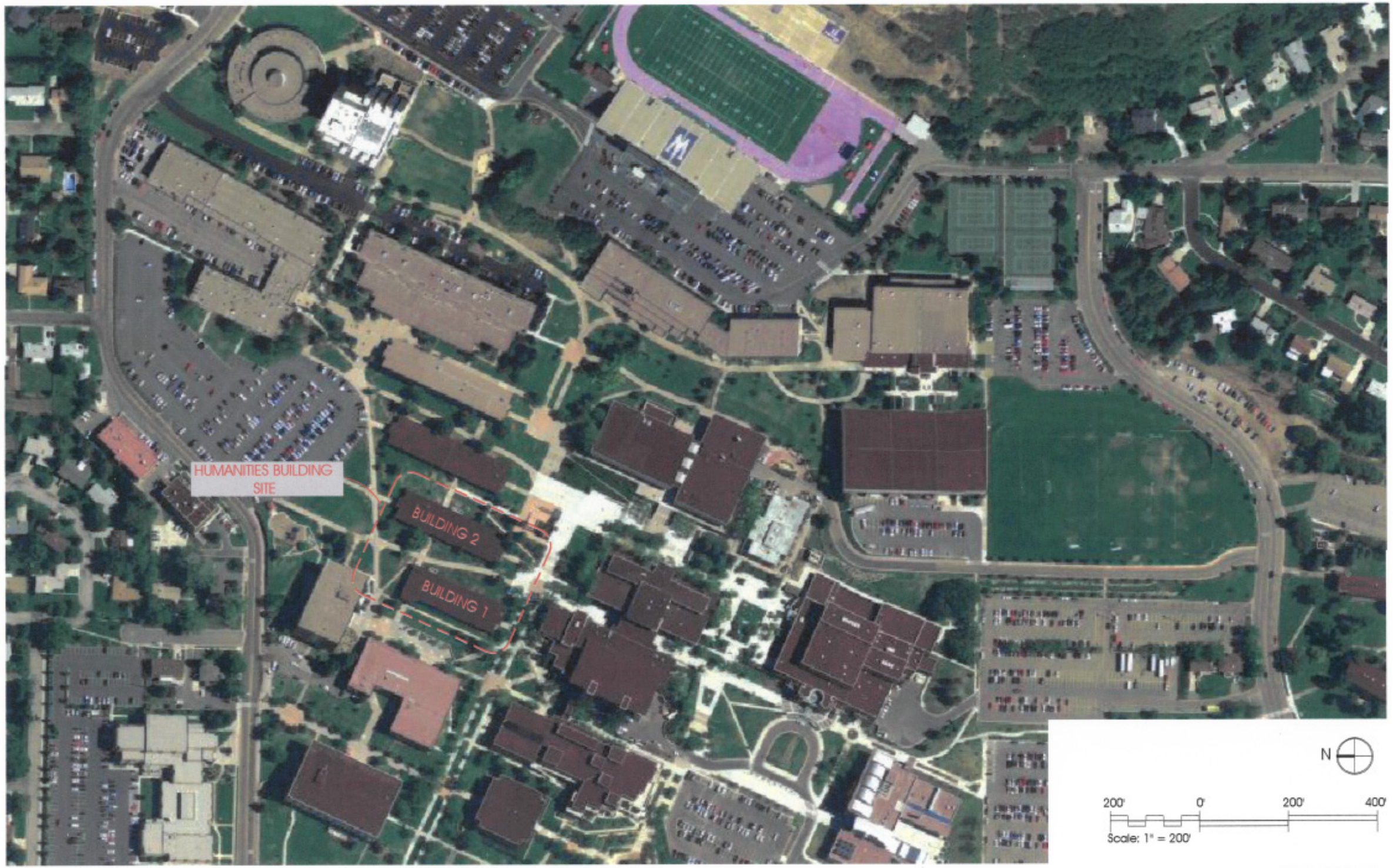
OVERALL CAMPUS MAP
Humanities Building

Program Document



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AERIAL PHOTO
Humanities Building

Program Document

2.1.2 CENTRAL QUAD MASTER PLAN

The Central Quad Plaza serves as the heart of the Weber State University Campus and is the location of the most significant campus landmark, the Stewart Bell Tower. The Stewart Bell Tower is located directly adjacent to the Shepard Union and the Stewart Library, two main centers of student activity. The new Humanities Building will be located just northwest of the Stewart Bell Tower; creating an opportunity to become an additional center for student activity.

In late December 2003/ early January 2004, Weber State University developed a Master Plan document for improvements to the Central Quad Plaza. This Master Plan studied three different solutions/concepts for improvements to the Central Quad, of which a fourth hybrid solution was developed.

In developing the site design for the new Humanities Building, it is critical for the design architect to incorporate and support the main design concepts that were developed in the Central Quad Master Plan Document. These concepts are specifically for the Central Quad, but have design implications for the new Humanities Building which will create the northwest "edge" of the improved Central Quad.

Central Quad Main Design Concepts

- Central Quad Plaza to provide a more direct path at the northeast corner, as this is the main circulation path between classes.
- Shade and cooling to be provided—with additional trees located at the new water feature.
- ADA access through the entire Central Quad area must be provided.
- Central Quad Plaza area should be simple to maintain.
- The Central Quad Master Plan proposes a study for the space between the new building on the north (new Humanities Building). A corridor of no greater than 80' is proposed in the Master Plan document.
- The water feature should be successful and interesting with and without water. (It will be drained in the winter months.)
- The raised area around the Stewart Bell Tower should discourage class change traffic, but encourage student interaction for rest, study and informal gathering.
- Emergency vehicular access through the site needs to be incorporated.

The lower plaza area was planned to respond to the Union and serve as an active zone, connecting the new Union entrance, and the future entrance to the new Humanities Building that is replacing Buildings 1 and 2. This zone of activity will include a designated area for seating at its east side where a new water feature will also be constructed. Entries to the new Humanities Building from the Central Quad Plaza will feed the active zones and relate to Plaza features and axis. If possible, the circulation zone between the new Humanities Building and the replacement building for #3 and #4 should be no greater than 80' in width with a building height of 20' – 24' directly adjacent to the corridor. The building height to circulation path width has been identified as an important relationship in the Central Quad Master Plan Document, as it will frame the Stewart Bell Tower, creating a powerful "gateway" from the parking lot from the north.

2.2 EXISTING SITE CIRCULATION

2.2.1 EXISTING VEHICULAR ACCESS

Vehicular access to the new Humanities Building would be from Harrison Boulevard to Dixon Drive to Edvalson Drive to Parking Lot A-2 located to the north of the site, (north of existing Buildings 1 and 2). There is also parking available at nearby Lots A-4 and A-5 (located to the east) and Lot A-1 (located to the west of the proposed site. The primary vehicle access to the site will be from the north, Lot A-2. This Lot A-2 is located directly adjacent to the new Humanities Building site.

The new Humanities Building location is not eliminating any existing parking on campus. It is a replacement of the Buildings 1 and 2, and has no impact on the current number of existing parking stalls. Therefore, additional parking for the new Humanities has not been provided.

Accessible stalls currently existing in Lot A-2 will be maintained as accessible stalls once Buildings 1 and 2 are replaced with the new Humanities Building.

It has been determined that a traffic study is not required during the Programming phase of this project.

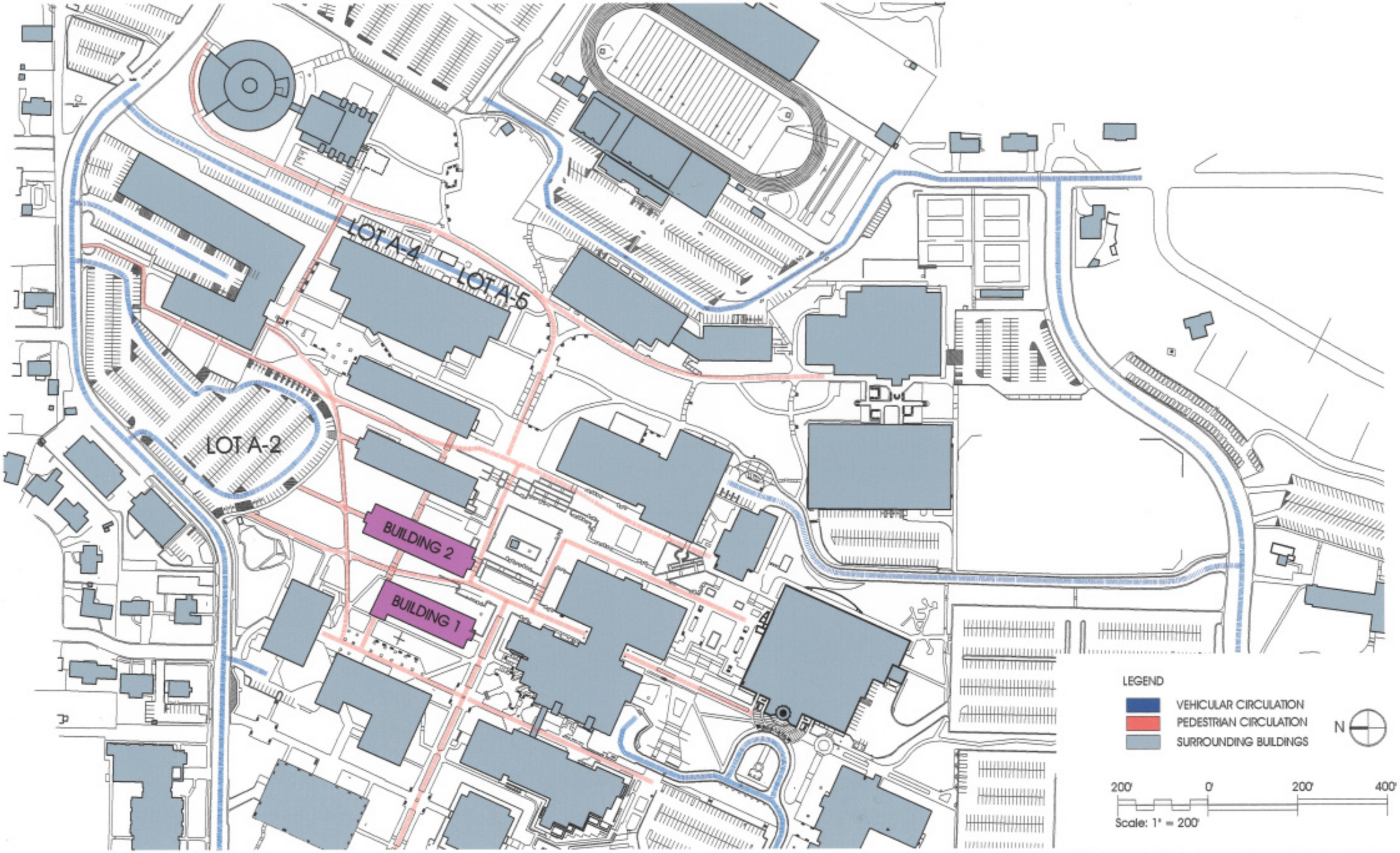
2.2.2 EXISTING PEDESTRIAN ACCESS

The pattern for pedestrian circulation around the existing Buildings 1 and 2 is quite complex, with pedestrians having the options of entering both buildings from all four directions. The main campus circulation pattern takes place around the Central Quad area. This relationship of main campus circulation to the new Humanities Building will be critical in the site location for the new Building.

2.2.3 EXISITING SERVICE AND EMERGENCY ACCESS

Service vehicles and emergency access currently utilize Lot A-2 to access Buildings 1 and 2. It is anticipated that this relationship of emergency access and service access will be maintained with the new Humanities Building location.

See the **Existing Circulation-Pedestrian and Vehicular** drawing.



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EXISTING CIRCULATION - PEDESTRIAN AND VEHICULAR
Humanities Building

Program Document

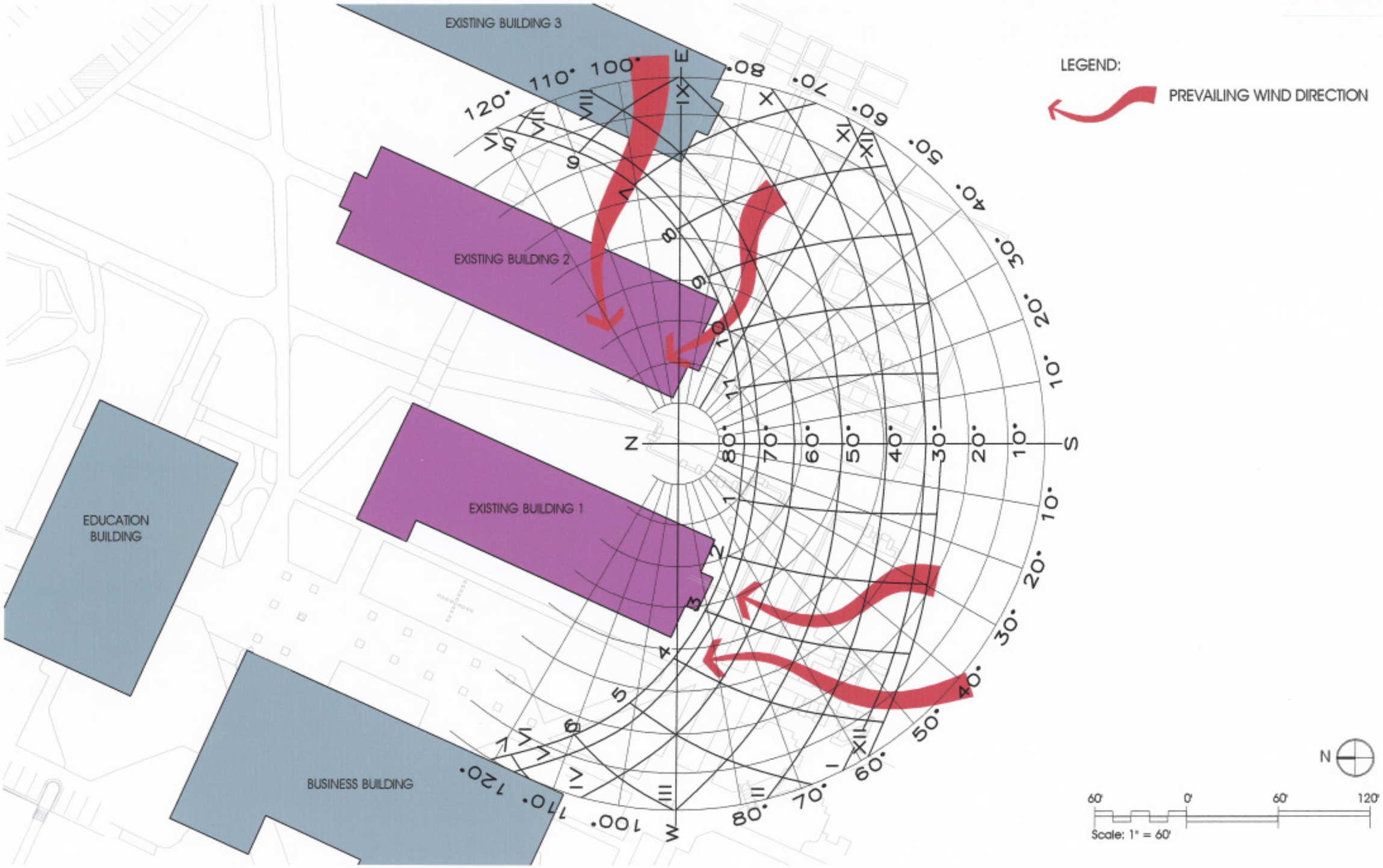
2.3 EXISTING SITE CONDITIONS

2.3.1 CLIMATES, VIEWS AND KEY OPEN SPACES

Climate

The climate of this site (Ogden) ranges from winter low temperatures of 5-25 degrees F to summer lows of 70 degrees F to highs of over 100 degrees F. However, typical relative humidity is low, ranging from 15-30%. In general, the prevailing winds will come from the south (both southwest and southeast), and winter storms approach from the west. There are several months during the year where the micro-climate on the site is not conducive to outdoor activity. Located on the east "bench" of the northern Wasatch Front, the site will typically see substantially more snow than the Ogden area. There are also unique canyon winds from the east that create very cold conditions during the winter. For these reasons, protected exterior spaces will be critical in working with the climate of the site.

See the **Solar Exposure and Prevailing Winds** map



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SOLAR EXPOSURE AND PREVAILING WINDS MAP
Humanities Building

Program Document

Views of the Site
The proposed site for the new Humanities Building is currently occupied by existing Buildings 1 and 2. Both of these buildings, built in 1954, are 1 story masonry buildings.

See the following **Views Into the Site** photos for views into the site and of the existing Buildings 1 and 2.

VIEW #1

VIEW #2

VIEW #3

N

300' 0' 150' 300'

Scale: 1" = 150'

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VIEWS INTO THE SITE
Humanities Building

Program Document

VIEW #4

VIEW #5

VIEW #6

N

300' 0' 150' 300'

Scale: 1" = 150'

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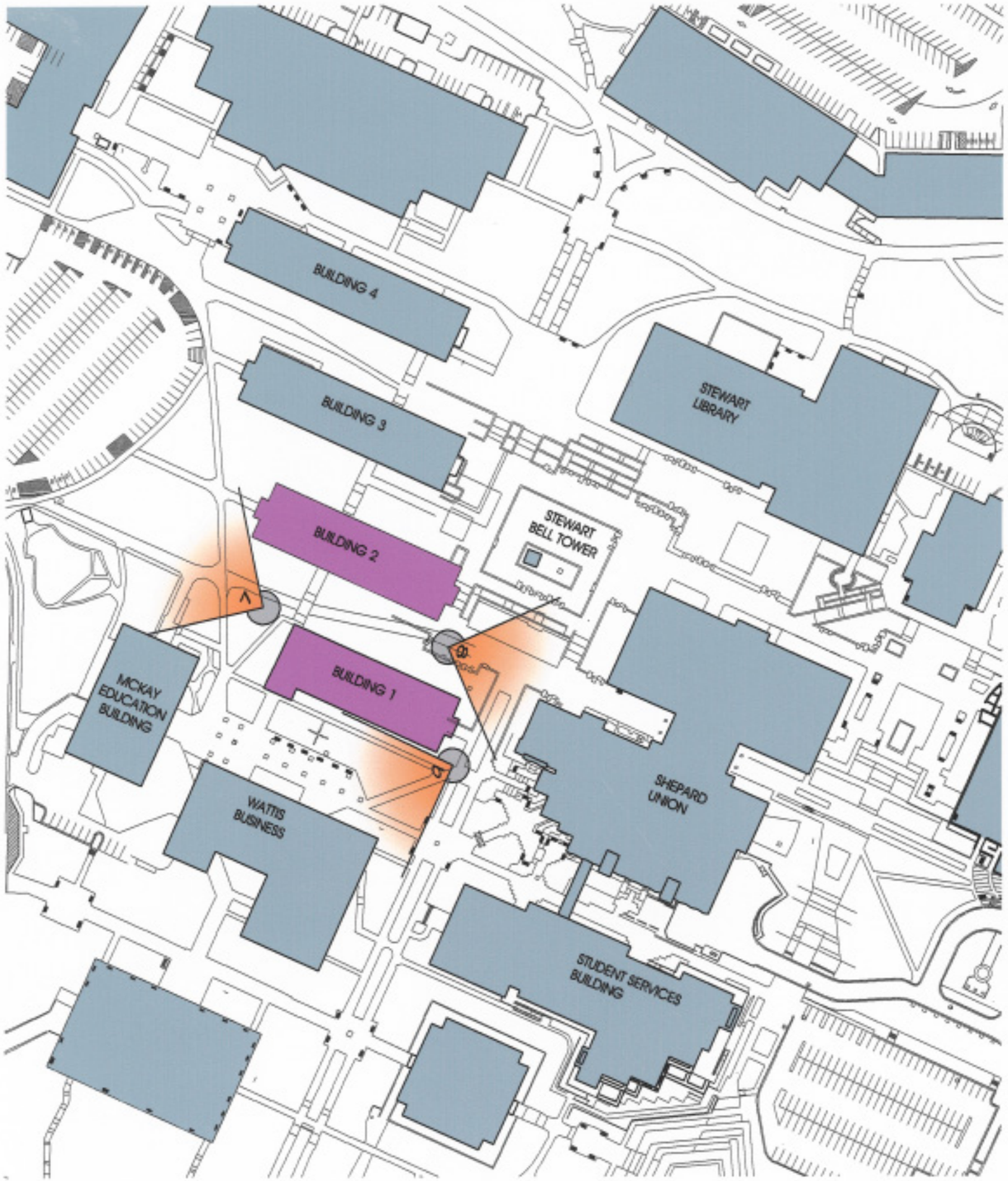
VIEWS INTO THE SITE
Humanities Building

Program Document

Views From the Site

The proposed building site for the new Humanities Building offers spectacular views of the Ogden Valley to the west and the northern Wasatch Front to the north, east and south. Views from the site to the north and east foothills are spectacular and panoramic. The location of the new Humanities Building will not have a significant impact on the view corridors of any existing buildings at the present time. Nor should it impact the replacement building for Building 3 and 4, since that building will be located further up the sloped site.

See the following **Views From the Site** photos for views from the site to adjacent areas.



VIEW #7

VIEW #8

VIEW #9

N

300' 0' 150' 300'

Scale: 1" = 150'

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VIEWS FROM THE SITE
Humanities Building

Program Document

VIEW #10

VIEW #11

VIEW #12

N

300' 0' 150' 300'

Scale: 1" = 150'

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VIEWS FROM THE SITE
Humanities Building

Program Document

Key Open Spaces/Outdoor Gathering Areas
Site Options developed for the new Humanities Building have identified a key open space corridor between the new building and the future replacement building for Buildings 3 and 4. Maintaining this view corridor from the north parking Lot A-2 to the Central Quad Area will help frame the Bell Tower, and enhance the north –south pedestrian corridor.

Even with Utah's snowy winter climates, outdoor gathering spaces can be quite pleasant in the spring-summer-fall months if designed appropriately. Small areas of hardscape combined with landscaped areas with overhead protection from the summer sun, should be provided for outdoor gathering areas.

2.3.2 GEOTECHNICAL INVESTIGATION REPORT

A geotechnical report has not been provided during Programming and will need to be completed prior to the Design Phase.

Once the final building size, configuration, structural system, number of levels above and below grade, and column loads have been defined in more detail, the project geotechnical consultant shall provide guidance on the following design criteria as well as any other criteria deemed by the geotechnical consultant to be important.

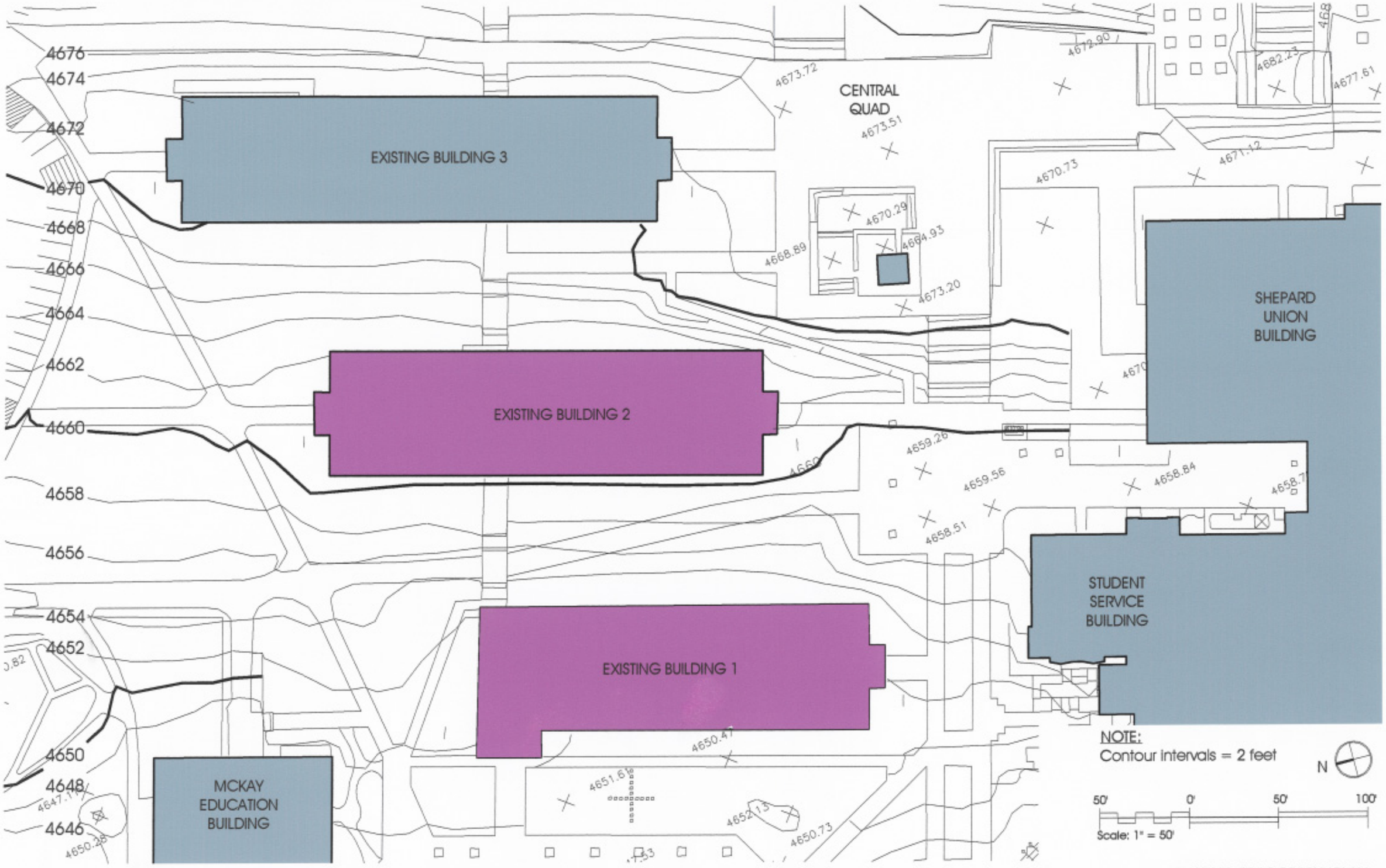
- Soil bearing capacity
- Structural fill requirements
- Potential differential settlements
- Potential for expansion or collapse of soils due to moisture changes
- Liquefaction potential
- Groundwater characteristics and restrictions
- Seismic considerations, coefficients, fault traces, etc.
- Lateral bearing pressures – active and passive
- Alternate foundation systems
- Pavement sections

2.3.3 TOPOGRAPHIC SURVEY

Prior to the start of design, a topographic survey of this site will be contracted by the State of Utah, Division of Facilities Construction and Management. It is anticipated that this survey will document all existing conditions of the site including surface and subsurface improvements. This survey will be made available for use during the design and construction phases of the project.

Weber State University has provided existing topography for use in the Program document. In general, the site slopes from east (high side) to west (low side), with approximately 18'-20' of fall across the site.

See the following **Existing Topography Plan.**



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EXISTING TOPOGRAPHY PLAN
Humanities Building

Program Document

2.3.4 ENVIRONMENTAL IMPACT ISSUES

Buildings 1 and 2 may have asbestos and asbestos containing materials. During the design phase of the project, the method of abatement and disposal of these materials will need to be determined as part of the demolition plan for Buildings 1 and 2.

There are no additional anticipated environmental impact issues anticipated with the design and construction of the new Humanities Building.

2.3.5 DISTANCE TO THE NEAREST KNOWN SEISMIC FAULT

It appears that the fault runs along Skyline Drive along the east side of the campus. Buildings 1 and 2 are located approximately 1/4 mile from this fault.

2.4 UTIITIES

2.4.1 EXISTING/PROPOSED NEW SITE UTILITIES AND CAPACITIES

Specific utility sizes and capacities are available from Weber State Facilities Management. It is the responsibility of the Design Team to fully investigate all existing utilities and confirm all specific information provided in the Programming Document.

Site

The location of the proposed Humanities Building is located east of the existing Education Building and west of Building 3. The site slopes down from southeast to northwest and is currently developed with two existing buildings, Building 1 and Building 2. The existing buildings run north/south between the Education Building and Building 3. Site work for the Humanities Building will require demolition of Buildings 1 and 2. The remainder of the existing building surrounding the site will be retained and protected during construction. The site will also require demolition of existing sidewalk, maintaining an existing utility tunnel, and relocating existing utilities prior to construction of the Humanities Building.

Utilities Located in the Tunnel

Beneath Buildings 1, 2, 3, and 4 is a utility tunnel approximately 12-feet in width. Between Buildings 2 and 3 an additional smaller tunnel approximately 5-feet in width connects to the 12-foot wide tunnel and runs southeast. These tunnels generally enclose utility lines from the central plant such as steam, condensate and chilled water; along with power, data, communications, cable, control, natural gas and domestic water line for the site. The larger tunnel that runs beneath Building 1 and 2 and the utilities located inside the tunnel will be required to be retained and protected with the construction of the new Humanities Building.

Gas

A 4-inch, 4 psi natural gas line is located in the tunnel and will be required to be retained and protected along with the tunnel. The gas line appears to serve Building 1, 2, 3, and 4 as well as a 4-inch gas line that runs in the 6-foot tunnel between Building 2 and 3. Any new gas service for the Humanities Building could be serviced from this gas line.

Sanitary Sewer

An existing sanitary sewer line runs parallel to the existing utility tunnel on the south side of the tunnel and services Buildings 1, 2, 3 and 4. Both the tunnel and the sewer line are located beneath Building 1, 2, 3 and 4. The sewer slopes from east to west until it reaches the west side of Building 1 and then slopes to the northwest. This sewer line will need to be relocated while maintaining service to Buildings 3 and 4 and provide new service to the Humanities Building. To accomplish this, a new sewer line is proposed to run parallel to the existing sidewalk located on the north side of Buildings 1, 2, 3, and 4. This route would require the sewer to cross beneath the 4-foot wide tunnel on the west side of the new Humanities Building and would provide options for servicing the new Humanities Building and any future redevelopment of the ground currently occupied by Buildings 1 and 2. In order to maintain sewer service for Buildings 3 and 4, the

sewer would extend from the new sewer line parallel with the sidewalk and run south between the new Humanities Building and Building 3. The line would be required to route beneath the existing 12-foot tunnel and connect to the existing sewer line on the south side of the tunnel. Sewer piping shall be cast iron. No-hub piping is not allowed underground. Provide cleanouts as required by code.

Water

The domestic cold water is fed from building #4 through the utility tunnel. The existing cold water main is 3" from building #4 to building #3, and reduces to 2" from building #3 to building #2. Design team shall evaluate line size and determine if the domestic water line size needs to be increased based on number and type of fixtures. Culinary water and fire water services for the new Humanities Building could possibly be serviced by connecting to the existing 10-inch culinary water main located adjacent to the south side of the proposed building location.

Underground water service piping shall be type K wrapped copper and enter the building into a pressure reducing station and main building shut-off valve. All interior above grade water piping shall be type L copper. All culinary hot and cold water piping shall be insulated.

Water PRV station shall reduce upstream water pressure to 60 PSIG (adj.) down stream pressure. Provide water meters for culinary hot and cold water at this building. Flow meters shall measure instantaneous flows (in gpm), as well as cumulative flows (in gallons). Flow meter shall have a manual reading at the building, as well the ability to communicate readings via the central control system.

Fire riser shall be tied into existing fire line at building exterior.

Storm Drainage

The proposed building site is surrounded by an existing storm drain; 8-inch concrete lines are located adjacent to the proposed building both on the east and west side; a 12-inch concrete line is located on the north side and a 15-inch line is located on the south side. The proposed roof drain services should be able to connect to these existing lines. Primary and secondary roof drain system shall be provided. Roof drains shall be tied into campus storm drain system.

Steam and Condensate Piping

Steam and condensate piping from the central plant are routed through the tunnel beneath buildings 1 and 2. The high pressure steam branches off to feed the Union Building at the junction just east of Building #2. The Union building kitchen equipment requires steam service year round. Steam piping replacement systems shall be designed to minimize shut down time for the Union building.

All the tunnel piping beneath the Humanities Building shall be replaced and re-connected at the junction east of the Humanities Building. This includes: high pressure steam piping, low pressure condensate piping from Buildings #1 and #2, pumped condensate piping from the Union building, and the domestic cold water piping main. This design shall include high pressure steam traps, expansion joints, anchors, and all

other required specialties. There are existing domestic hot water lines, compressed air lines, gas lines, etc. being fed from the east. All of these lines shall be removed and capped at the east tunnel.

Medium Voltage Power Distribution System

Existing five (5) way medium voltage switch is to be replaced with a new six (6) way medium voltage SF6 switch. The new switch should be installed on grade outside of the building. Existing switch is tied to building #4, building #2, union building #1, student services building and a spare switch. Spare switch can be utilized temporarily to provide power to new on grade switch to reduce length of power outages. This will allow existing feeder cables to be extended to new switch one at a time. New switch must be located close to where existing is to reduce or eliminate number of splices.

The medium voltage switch, which provides power to new Humanities building, must have fuse protection.

Existing three (3) 167 kva single-phase medium voltage transformers are to be replaced with a new pad-mounted transformer (approximately 1,000 kva). New pad-mounted transformer is to be located next to the Medium Voltage Switch. Currently the existing medium voltage transformers provide power to building #1, #2 & #3. During construction of the new Humanities building, temporary power should be provided to building #3.

The new medium voltage switch should provide power to a new oil-filled, air-cooled, pad-mounted transformer. Primary voltage for new transformer should be 12,470 volt Delta; secondary voltage should be 480/277 volts 3-phase WYE connection.

Telecommunication Distribution

The MDF room in the new Humanities building should have connections to the campus distribution network. A total of four (4) 4" conduits should run from this building to existing utility tunnel. MDF room should be located in close proximity to the existing utility tunnel.

Telecommunication work should comply with the Weber State University telecommunications design standards and all work should be coordinated with Weber State University telecommunications.

2.4.2 UTILITY TUNNEL OPTIONS

There were four options considered in regards to the conflict of the existing utility tunnel location and the new building footprint. These options are:

Option 1: Locate and design the new Humanities Building to keep and maintain the existing utility tunnel and associated utilities at their current location.

Advantages: Minimal utility costs since tunnel will be maintained.

Disadvantages: May cause "limitations" to design/layout of building/may not have maximum opportunities for daylight.

May not utilize this construction project as an opportunity to "upgrade" the existing utilities located in the tunnel.

Option 2: Relocate the existing utility tunnel to the north, "missing" the footprint of the new Humanities Building and allowing for the replacement of existing Building 3 and 4 in the future.

Advantages: New Humanities Building footprint will "comfortably" fit the site, allowing quality circulation and access spaces.

New Humanities Building footprint will "comfortably" fit the site, allowing ample open space and providing view corridor from north parking to Stewart Bell Tower.

New Humanities Building footprint will "comfortably" fit the site, allowing ample space for the replacement building for Building 3 and Building 4.

Relocating the tunnel and its associated utilities will force the infrastructure of existing utilities to be upgraded as needed.

Relocated portion of new utility tunnel will not be located under any buildings.

May be easier to maintain existing utility service while new tunnel and new utilities are being constructed.

Disadvantages: Substantially increases overall construction cost of project.

Option 3: Maintain the existing utility tunnel in its current location, but lowering the tunnel and its existing utilities to accommodate the main level of the new building.

Advantages: Less site area is impacted.

Disadvantages: Difficult constructability: Existing utility services will need to be maintained during construction. If they are being lowered but still in the same site location, this may prove to be more expensive than totally relocating them to the north. Substantially increases overall construction cost of project.

Utility tunnel will be located under the new Humanities Building.

Option 4: Service the new Humanities Building from an existing utility tunnel elsewhere on campus. This Option requires additional capacity studies by Weber State University to determine how this could take place.

The Opinion of Probable Cost, located in Section 5, is based on Option 1: Maintaining the existing utility tunnel and associated utilities.

2.4.3 UTILITIES PLANS

See the following Utility Plans:

- Overall Existing Utility Plan
- Existing Utilities Public Utilities
- Existing Utilities Heating and Cooling
- Existing Utilities Power Cable Control
- Existing Utilities Communication and Data
- Proposed Public Utilities

BUILDING 3

BELL TOWER PLAZA

BUILDING 2

BUILDING 1

STUDENT UNION BUILDING

EDUCATION BUILDING

MH

LEGEND

- GAS LINE
- CABLE LINE
- SANITARY SEWER
- C-DOMW-OGCW
- C-CWTR-SITE
- COMMUNICATION LINE
- STORM WATER LINE
- IRRIGATION WATER LINE
- C-CONT-SITE
- C-COND-SITE
- SURROUNDING BUILDINGS

N

50' 0' 50' 100'

Scale: 1" = 50'

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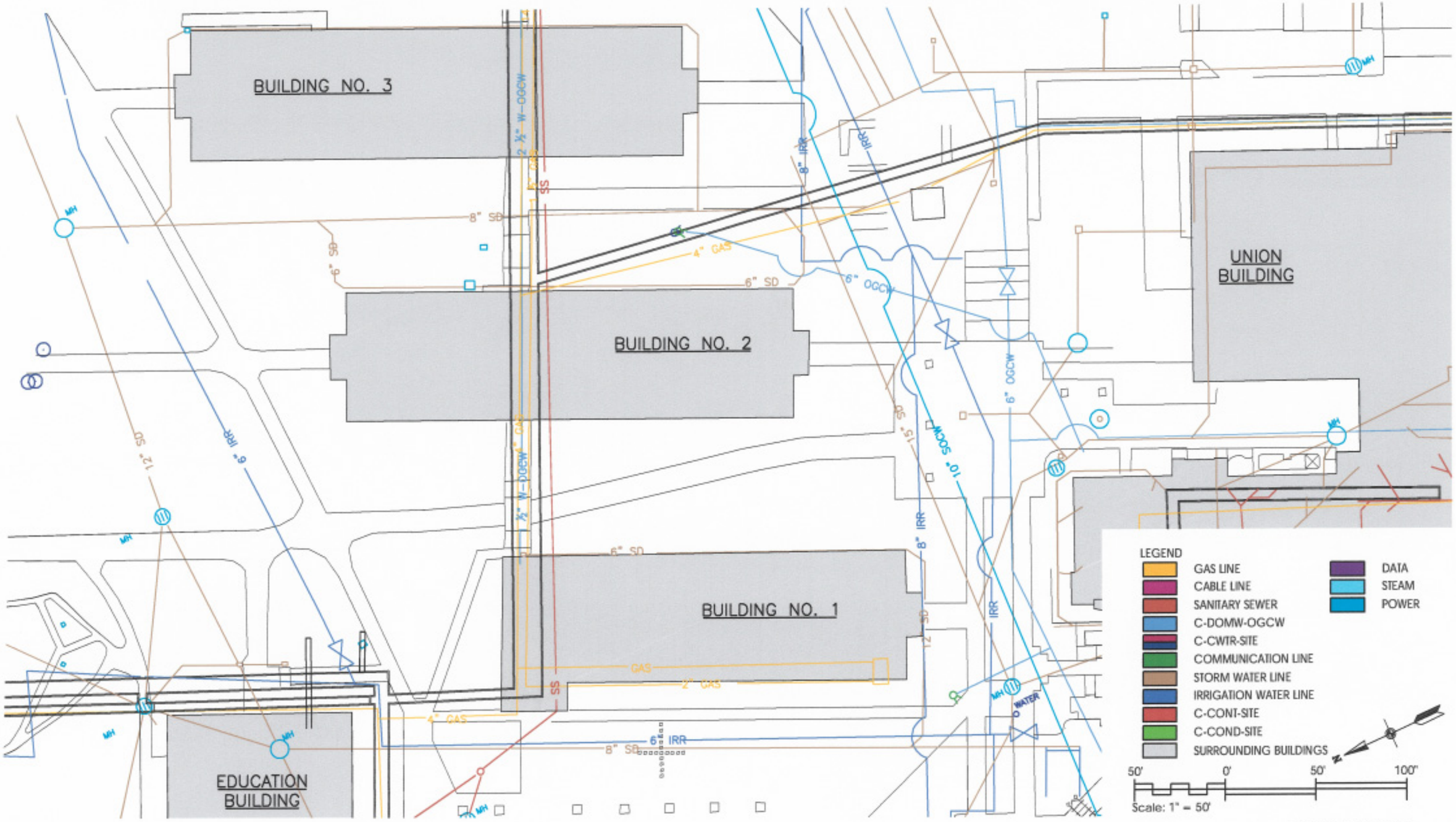
OVERALL EXISTING UTILITIES PLAN
Humanities Building

Program Document



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EXISTING UTILITIES
PUBLIC UTILTIES
Humanities Building

Program Document

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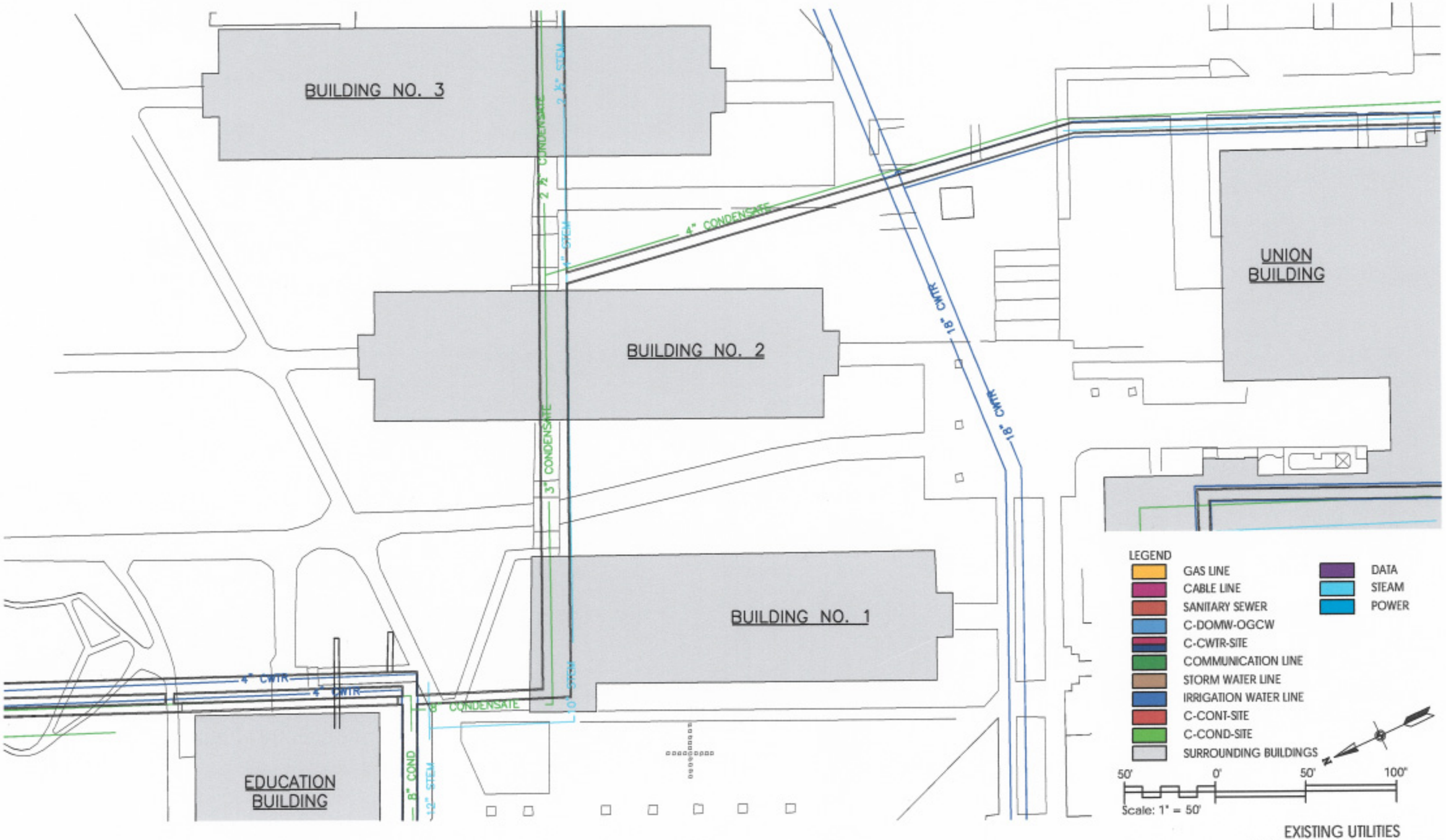

EXISTING UTILITIES
HEATING & COOLING
Humanities Building

Program Document

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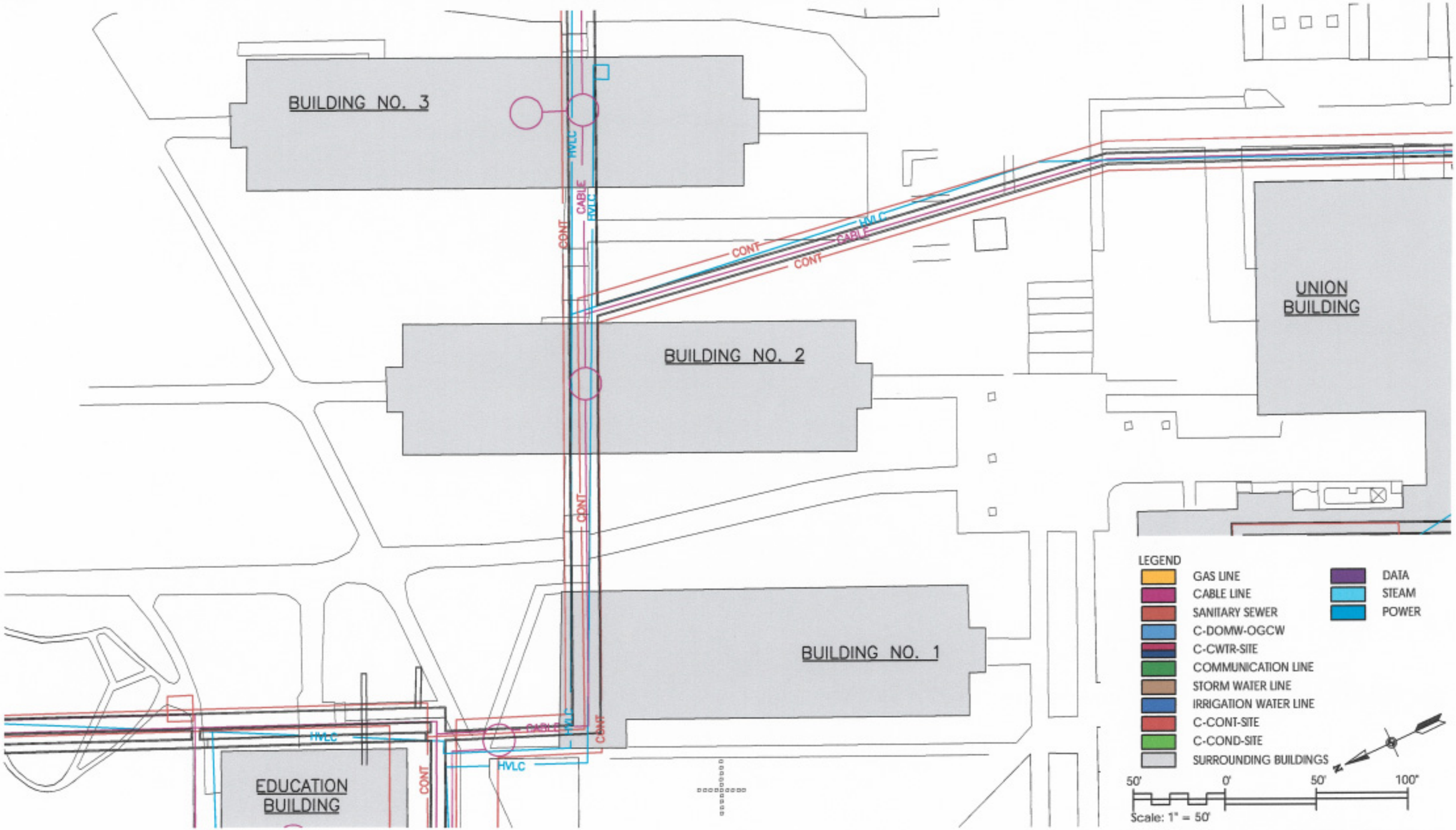

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EXISTING UTILITIES
POWER CABLE CONTROL
Humanities Building

Program Document

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BUILDING NO. 3

BUILDING NO. 2

BUILDING NO. 1

UNION BUILDING

EDUCATION BUILDING

LEGEND

- GAS LINE
- CABLE LINE
- SANITARY SEWER
- C-DOMW-OGCW
- C-CWTR-SITE
- COMMUNICATION LINE
- STORM WATER LINE
- IRRIGATION WATER LINE
- C-CONT-SITE
- C-COND-SITE
- SURROUNDING BUILDINGS
- DATA
- STEAM
- POWER

50' 0' 50' 100'

Scale: 1" = 50'

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EXISTING UTILITIES
COMMUNICATION & DATA
Humanities Building

Program Document

8" SEWER

EXISTING TUNNEL

ROOF DRAIN

CONNECT TO EXISTING SEWER

8" SEWER

BUILDING NO. 2

PROPOSED HUMANITIES BUILDING

ROOF DRAIN

FIRE SERVICE

WATER SERVICE

BUILDING NO. 1

ROOF DRAIN

SEWER SERVICE

CONNECT TO EXISTING SEWER

LEGEND

- GAS LINE
- CABLE LINE
- SANITARY SEWER
- C-DOMW-OGCW
- C-CWTR-SITE
- COMMUNICATION LINE
- STORM WATER LINE
- IRRIGATION WATER LINE
- C-CONT-SITE
- C-COND-SITE
- SURROUNDING BUILDINGS
- DATA
- STEAM
- POWER

50' 0' 50' 100'

Scale: 1" = 50'

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PROPOSED PUBLIC UTILITIES
Humanities Building

Program Document

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2.5 SITE PLANNING PRINCIPLES

Shade and Shadow

Minimize building shadowing of habitable outdoor spaces in winter, spring and fall-- maximize shade in summer. Utilize mature deciduous tree canopies as much as possible to achieve this end. Allow areas of un-shaded seating areas to extend the useful seasons into the late fall and early spring.

Views

Preserve/enhance existing view opportunities to west, north and east. Prioritize views from very public outdoor and public indoor spaces over those from private spaces. Create "viewing platforms" as well as peripheral views out of the campus open spaces. Link campus spaces together with selective views from one to the other. Plantings should encourage view corridors or direct views away from undesirable views, such as the service/dock area.

Outdoor Spaces

Create linked outdoor spaces or "outdoor rooms," with both spatial closure and views outward. Create a variety of campus space-types: quiet--active, green--paved, open--closed, shaded--sunny, etc. Limit hardscape areas to those which will attract large gatherings; in principle most outdoor spaces should not be hardscape. The building site offers an opportunity to create additional outdoor activity areas and to enhance the existing outdoor activity area of the Central Quad. Provide fixed and movable site furniture at strategic quiet and busy locations to accommodate both quiet lounging and interactions. Also provide connections, links, and other methods of integration to the Central Quad utilizing open spaces and pathways. Planning should consider the future pedestrian link to replacement building of Buildings 3 and 4.

Building Spirit

Create a building that is the virtual core of the College Humanities and Telecommunications Business Education physically, functionally and symbolically. The new Humanities Building must have an open, shared character to express the interdisciplinary nature of its programs. The landscape adjacent to the building should extend this character into adjacent circulation paths and campus spaces.

Building Identity

Create an external identity associated with the whole of the College of Humanities. Create internal building identities associated with particular departments and programs. Identify existing identity context and develop a strategy for the new Humanities Building to truly be perceived as the center of campus.

Future Buildings

Locate the new Humanities Building to integrate with the existing Central Quad Area while not limiting the future replacement building for Buildings 3 and 4. Establish finish floor elevations that will allow accessible

connections to the Central Quad and upper floor connections to the replacement building for Buildings 3 and 4.

Building Access
Express the public shared nature of this building by connecting internal circulation to external circulation through multiple entries at multiple grade elevations, with extensive views in and out, etc. Provide strong functional connections between interior program spaces (particularly social spaces, meeting rooms, student lounges, etc.), and exterior spaces.

Loading and Service
It is recommended to locate the loading and service area on the north side, in close proximity to parking Lot A-2 and be fully screened. For this type of building, this area should be minimal, but still needs to be accommodated.

Emergency and Non-Routine Service Access
In accordance with Weber State University's management and maintenance practices, design paths and walkways to accommodate emergency vehicles and occasional non-routine service access. Utilize Weber State University's Design Standards to prevent private vehicles from using these paths.

Accessibility
Wherever possible, all site paths shall meet ADA criteria for slope and landings. If this is unfeasible in a particular location, provide elevator access within the new Humanities Building that will allow wheelchair users to transition the non-compliant grade condition. All usable outdoor campus spaces shall be fully accessible.

Bicycle Access
Provide for bicycle usage along the north-south pedestrian corridor, and secure bicycle storage adjacent to the new Humanities Building entrances. Bicycle racks, rather than bike lockers, should be located conveniently near building entrances.

2.6 PROPOSED SITE CONSIDERATIONS

The guidelines and objectives put forth in the Weber State University Central Quad Master Plan were carefully considered in the planning proposals for the new Humanities Building. Generally, the Central Quad Master

Plan provides a thoughtful and insightful framework for future development, one that reflects an intimate experience for the central campus area and its potential for future improvements.

The site planning guidelines of the new Humanities Building site are as follows:

1. To replace existing Building 1 and 2 with a larger, multiple story building for more efficient use of the land.
    - Maximize use of land available by "sizing" the new Humanities Building based on programmatic need, budget, and maximum use of the land.

2. To not prohibit the replacement of Building 3 and 4 in the future, including potential views from the multi-level replacement building, limiting the new Humanities Building height to 3 levels.
    - Major view opportunities should be considered, enhanced or preserved. Building location, massing and height should contribute to this.
    - Enhance views west towards the city and north-south towards the Wasatch Range.
    - Provide view east towards the foothills.
    - Strategically locate the roof top penthouse as to not block views to the west for the future replacement building for Building 3 and 4.

3. To work with the contours of the site allowing spaces not requiring daylight to be "buried" in the main level east side, allowing the building to be three levels on the west side and two levels on the east side.
    - Take advantage of the 20' fall across the site from east to west to allow a 3 story building with a portion of the main level/east side "buried" into the hillside.
    - Identify program spaces that do not require daylight or views (such as large Auditorium and computer labs) and locate these spaces "into-the-hill."

4. To support major central campus circulation paths from the north parking to the Central Quad Area.
    - Numerous entrances to the building shall be provided, with access to the main entrance accessible from both the north and the south.
    - Establish the location of the building with future growth in mind, to allow a physical connection to new buildings to the east by either a pedestrian bridge or underground connection.
    - Complete pedestrian connection to all surrounding buildings; integrate the new Humanities Building with circulation paths that connect it to all adjacent buildings.
    - Separate the main entrance from all service/loading zone areas.

5. To enhance the Central Quad Area as a student gathering zone.
    - Provide a new physical connection from the existing Central Quad Area to the new Humanities Building through the use of landscaping and an enhanced pedestrian walk way.
    - Provide enhancements to the new south side entrance of the Humanities Building to make it a more usable space, including seating areas and possible shade areas for summer time use.
    - Provide exterior site enhancements to the north, east and west side entrances of the new Humanities Building.

Four Site Plan Options were considered for the Programming Phase of this project. Option 4 was selected as the preferred Option and is included in this section. Option 4 presents 1 zoning solution for the Administration

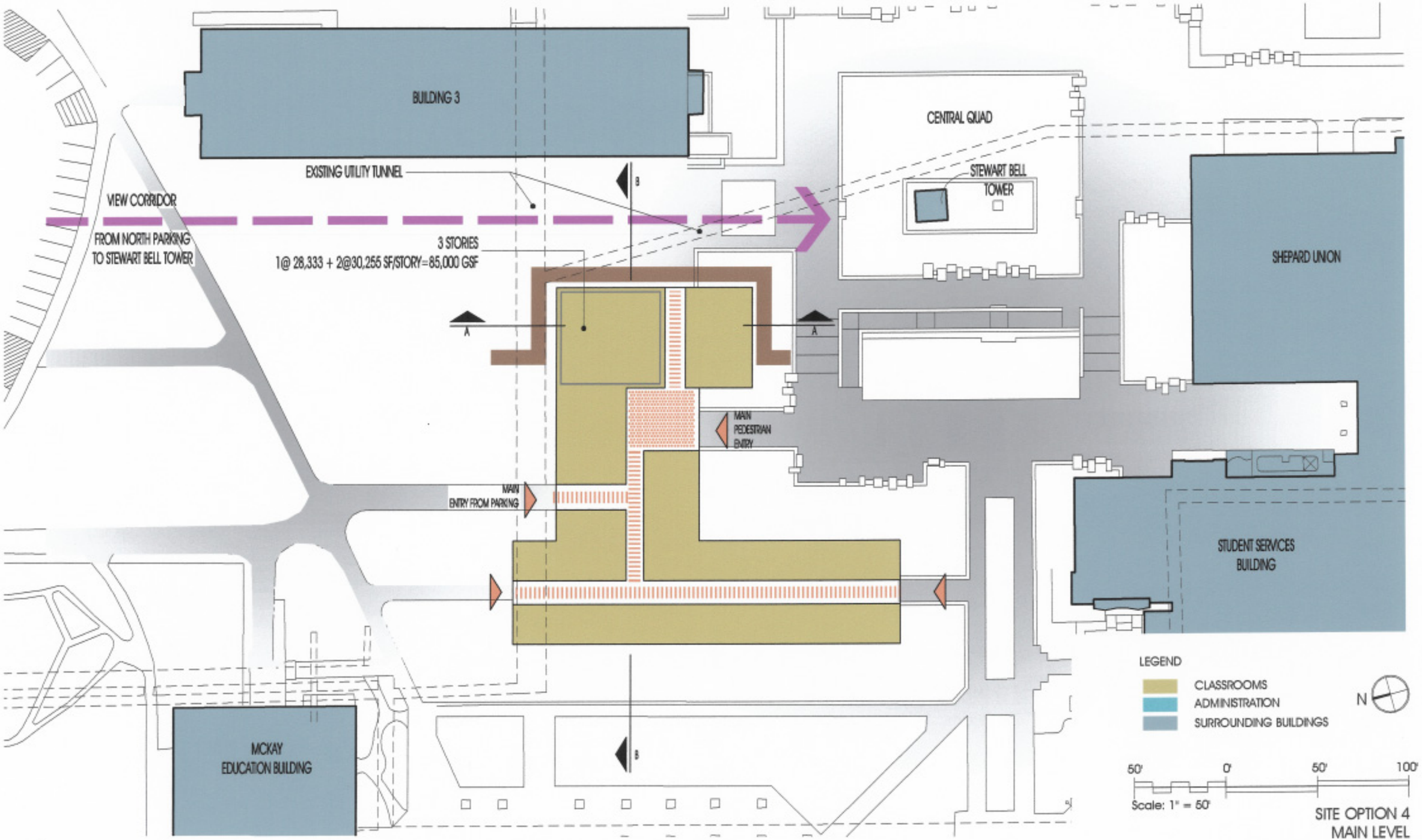
Spaces and the classroom spaces, based on view opportunities. During design, further discussion will be required to prioritize the best views for the faculty offices.

Three additional general siting options (labeled Option 1a, Option 1b, Option 2 and Option 3) that were considered not as favorable have been included in Section 7 Appendix.

Advantages of Option 4

Option 4

- North and east may be preferred views. Consider a variation of Option 4 that places the Administration Space on the East side of the building.
- Once the project moves into design, this Option will need to focus on more direct/simplified circulation for the Administration Space.
- This Option is more in line with the terraced nature of the overall campus design.
- Utility tunnel and associated utilities will be maintained in their current location.
- Footprint vs. real estate; the three story option makes more sense.
- Entrances to the building work best with this Option.
- This Option has more "grade A" space—allowing maximum views to the east.
- This Option provides space for future replacement building for Classrooms 3 and 4.
- This Option emphasizes the Bell Tower/Quad in a positive way.



SITE OPTION 4
MAIN LEVEL

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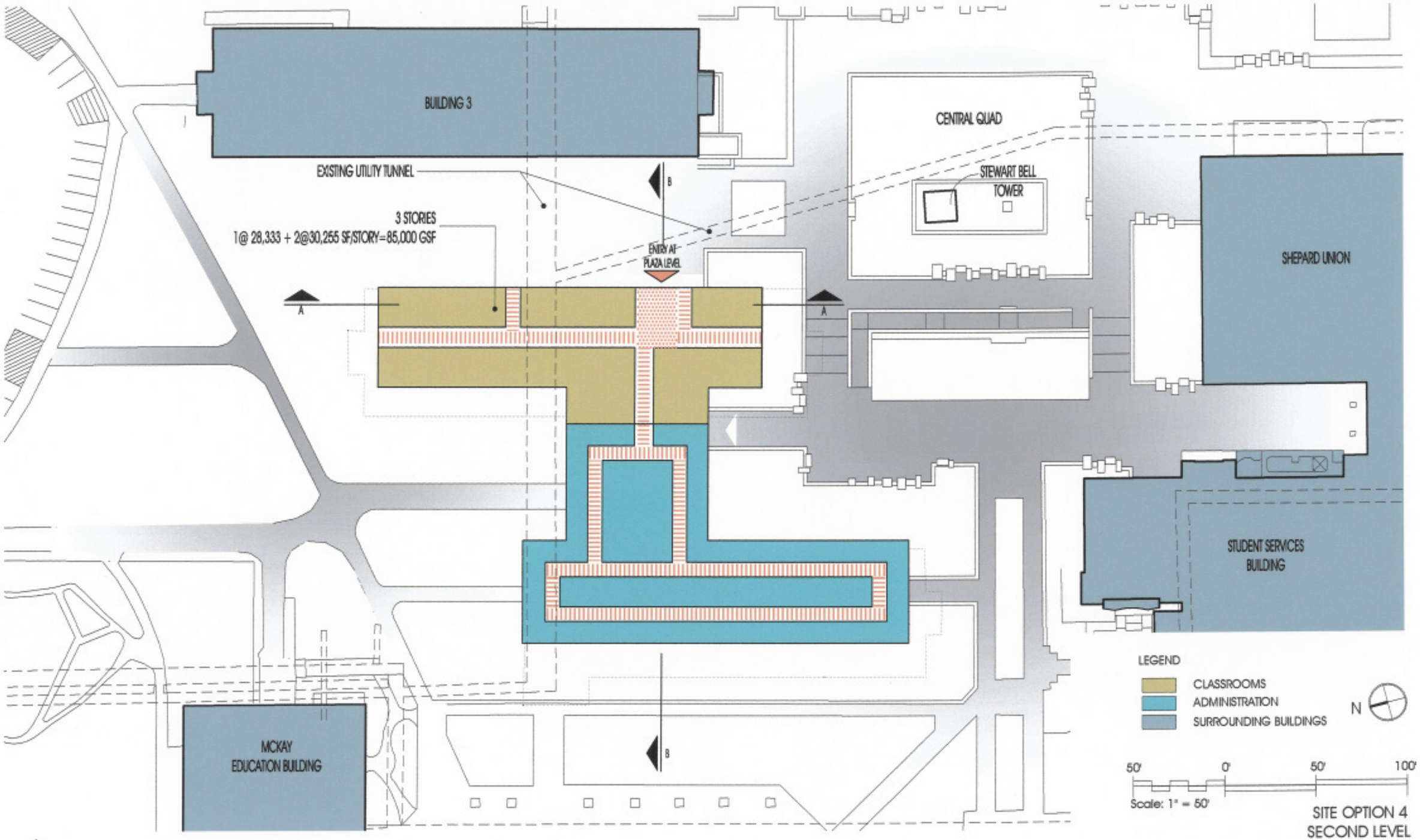
Humanities Building

Program Document



SITE OPTION 4
SECOND LEVEL

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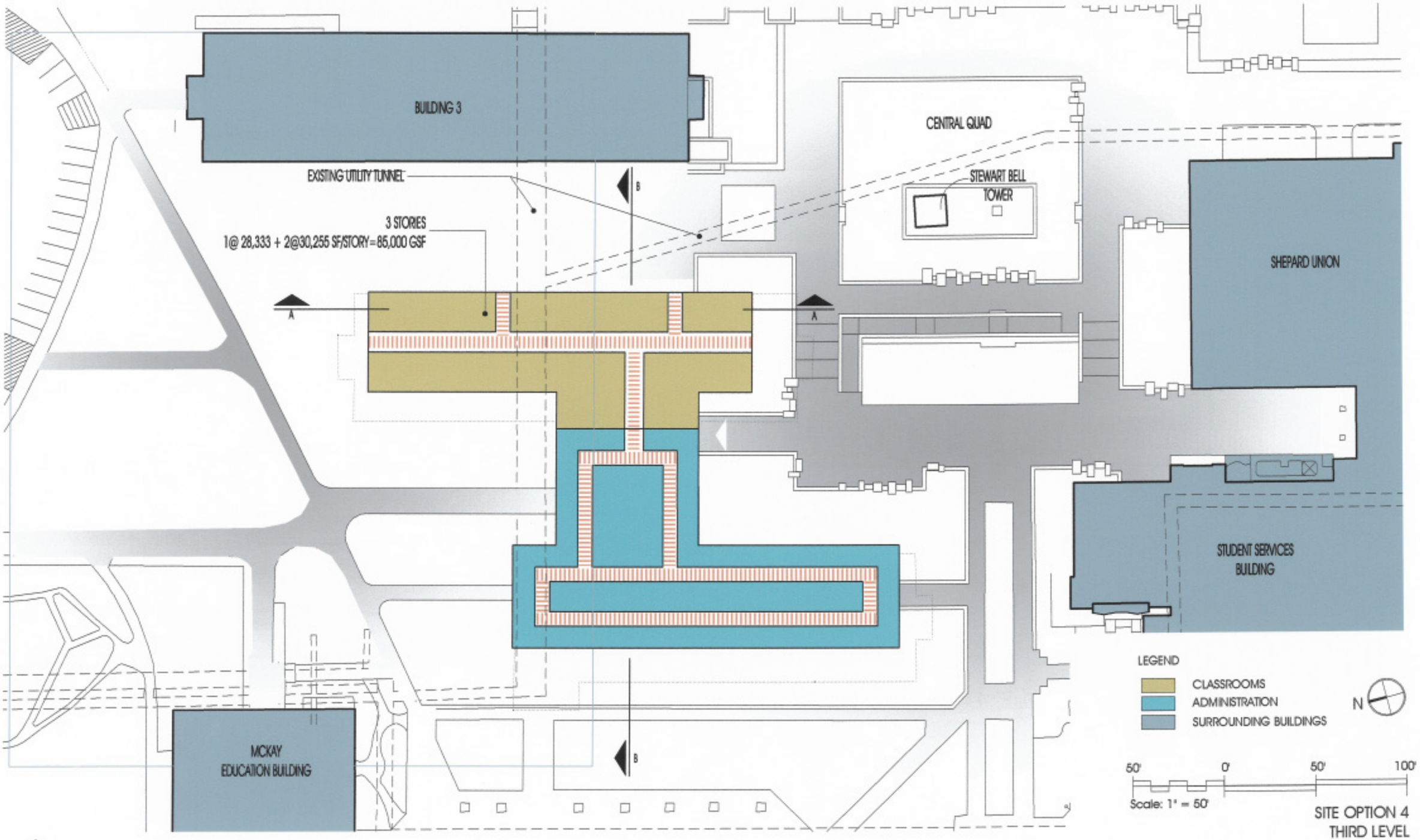
Humanities Building

Program Document



SITE OPTION 4
THIRD LEVEL

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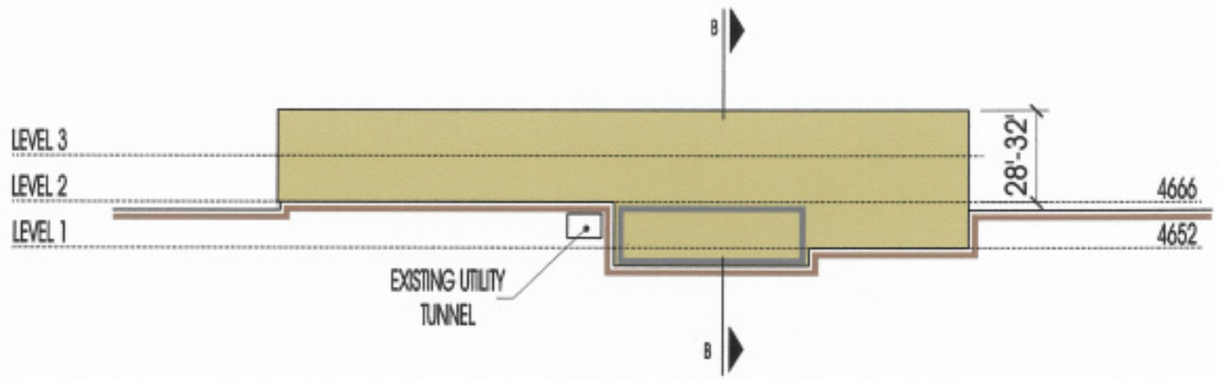
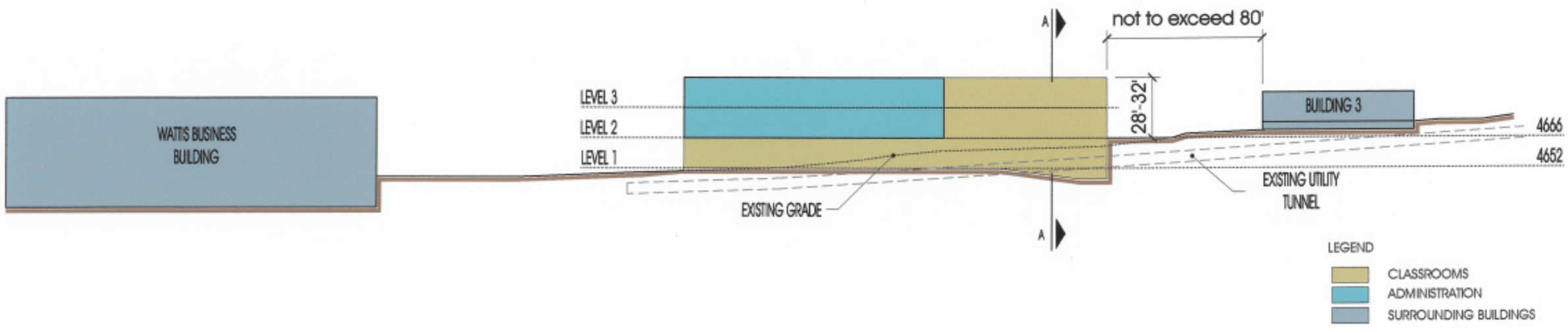
Humanities Building

Program Document





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BUILDING SECTION
OPTION 4
Humanities Building

Program Document

3.0 BUILDING REQUIREMENTS

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- 3.1.1 IDENTIFICATION
- 3.1.2 JUSTIFICATION
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  - CLASSROOM UTILIZATION
- 3.1.3 VISION AND PRINCIPLES FOR THE NEW HUMANITIES BUILDING
- 3.1.4 HISTORY AND GROWTH
- 3.1.5 MASTER PLAN RECONCILIATION
- 3.1.6 FUNCTION
  - DEPARTMENTAL STATISTICS
  - EXPANSION
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- 3.3.2 MECHANICAL, PLUMBING AND FIRE PROTECTION
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3.0 BUILDING REQUIREMENTS

3.1 GENERAL BUILDING REQUIREMENTS

3.1.1 IDENTIFICATION

Weber State University Mission

The mission of the University is to meet the educational needs of Utah through roles assigned by the State Board of Regents in the liberal arts and sciences and a variety of vocations and professions. Primarily committed to quality undergraduate education, the University offers degree programs which include advanced professional preparation.

College of Arts and Humanities Mission

The College of Arts and Humanities, the largest and the most diverse college in terms of faculty and programs, draws upon those strengths to foster a Liberal Arts education among the increasingly diverse student body of Weber State University. College programs provide students with rich learning opportunities in the arts, communication, languages, literatures, and writing, pivotal disciplines for life-long learning in the changing global environment.

Students pursuing liberal studies gain an understanding of humanities cultural and aesthetic heritage, develop abilities in critical thinking, and become informed world citizens. The Arts and Humanities faculty strives for excellence and relevance in curriculum so that students might aspire to the professions of the present and be equally capable of embracing the new specialties of the future.

Much of the curricula in the College incorporates an interdisciplinary focus or applied research to assist students in forging connections between theory and practice, professional and personal lives, work and leisure. Achieving these goals depends upon faculty members who continually pursue new knowledge in their disciplines through research and scholarship while serving the larger community with their commitment and expertise.

The College of Arts and Humanities is comprised of five excellent academic departments:

- English and Literature
  - English as a Second Language
- Communication
- Foreign Languages and Literatures
- Performing Arts
- Visual Arts

The essential mission of this project is to replace existing Building 1 and Building 2 with a new, multi-level, state-of-the-art research/learning facility. The following users currently occupy these buildings:

Current Building 1 Occupants

- Foreign Languages and Literatures
- Geography
- Air Force ROTC

Current Building 2 Occupants
- Foreign Languages and Literatures
- Telecommunication and Business Education (TBE)
- Printing

The new Humanities Building will have the following occupants:

Department	Current Location
English and Literature	Social Science, Annex 2, Annex 8
Communication	Building 3, Union, and Library
Foreign Languages and Literatures	Buildings 1 and 2
Telecommunications and Business Education (TBE)	Building 2

Geography will be relocated to the vacated space of English in the Social Science Building.
Air Force ROTC will be relocated to an Annex Building.
Printing will be relocated to the Stores and Receiving Building.

3.1.2 JUSTIFICATION

Existing Building 1 and Building 2 are two of the original buildings at Weber State University. These buildings were constructed in 1954, and have had minimal upgrades over the years. The buildings have antiquated mechanical and electrical systems, are not completely ADA accessible, contain asbestos, and are seismically unsafe for their current occupancy classification of A-3. In summary, the buildings have out-performed their life expectancy, and the cost to renovate/remodel would not be practical.

The existing Building 1 is approximately 24,300 gross square feet, and Building 2 approximately 18,300 gross square feet, for a total of 42,600 gross square feet on 1 level. The new Humanities Building will have the opportunity of multiple levels, providing a larger building in the same amount of space, yielding a greater use of prime real estate located in the center of campus.

The Humanities Departments of English, Communication and Foreign Languages and Literatures are currently located in 8 different buildings on campus. Part of the Vision and Mission for Humanities is to provide space that is interdisciplinary, where faculty, staff and students from different departments can interact. The new Humanities Building will provide an opportunity for 4 departments to be located in one building, allowing for this interaction and interdisciplinary approach to learning. Clustering humanities departments of the college also is more effective to administer, to facilitate cooperation and staff assignments, to share facilities such as conference rooms, large meeting rooms, etc. Currently, three humanities disciplines are located in four separate buildings (Social Sciences, Buildings 1, 2, 3). A new building is a propitious opportunity to bring together these three related disciplines that report to one dean/college.

There is also the opportunity for shared spaces in the new building that are now currently duplicated across campus. The 4 departments located in the new Humanities Building will share the following spaces:

Faculty Work Rooms
Faculty Break Rooms/Lounge
Conference Rooms
Adjunct Offices
Student Lounges

This approach to space sharing has resulted in a reduction of required square footage per each department.

All departments in Arts & Humanities underwent external program review in Fall of 2005. While Visual and Performing Arts were recognized for the quality of their facilities, the humanities departments all had listed among weaknesses the lack of adequate physical plant for student classrooms and lack of specialized technical learning centers.

The humanities departments have no dedicated space for special events, invited guest speakers, large or combined class presentations. They must always search elsewhere for availability which results in inconvenient times and locations and less that ideal audiences. Having a dedicated space in a Humanities Building will promote and enhance curricular and co-curricular events.

Classroom Quantities

Classroom Needs: The following is a summary of classroom sizes utilized by English, Communication, Foreign Languages and TBE (Fall 2004):

1-10 students	=	15 courses	4.7%
11-20 students	=	85 courses	26.7%
21-30 students	=	168 courses	52.6%
31-40 students	=	36 courses	11.3%
41-50 students	=	14 courses	4.4%
51	=	1 course	

The classrooms for over 40 students are utilized by TBE, and are now being reduced to smaller classroom sizes. These numbers have been utilized in this program document to justify the size of classrooms needed for the 4 departments that will be occupying the building. From these statistics, it has been determined that the following classroom sizes are needed in the new building:

40 Person Classrooms
35 Person Classrooms
30 Person Classrooms
25 Person Classrooms

Classroom Utilization
In determining the average number of classrooms and specialty labs currently utilized by these 4 departments during peak hours (8:00 AM – 12:00 AM), the following was determined:

	Average # of Existing 20 Person	Average # of Existing 30 Person	Average # of Existing 40-50 Person
8:00 AM-12:00 PM	10 Total	28 Total	4 Total

The new Humanities Building has been programmed to accommodate the following classrooms and specialty labs:

New 25 Person	New 35 Person	New 30 Person	New 40 Person
9 Total	4 Total	10 Total	4 Total

It has been determined that even with the classrooms and specialty labs provided in the new Humanities Building, the 4 departments (English, Communication, Foreign Languages and Literatures and TBE) will still need to utilize existing classrooms around campus, as well as extend the peak hours for classrooms/labs to later in the day, such as 1:00 PM and 2:00 PM classes.

3.1.3 VISION AND PRINCIPLES FOR THE NEW HUMANITIES BUILDING

The following Vision Statements and Principles for the new Humanities Building were identified by the Steering Committee:

The new building will accommodate consolidation and cluster of faculty offices (for the identified departments) in one building.

The new building will have modern, high tech teaching space.

The new building will have student space for group/individual/study/community spaces.

The new building will be interdisciplinary, as well as provide spaces for faculty/students to interact.

The new building will be programmed and designed for flexible space and be adaptable to new technology.

3.14 HISTORY AND GROWTH

Department	Current Location	Square Feet Presently Used
English and Literature	Social Science	10,944 Net Square Feet
	Annex 2	1,378 Net Square Feet
English as a Second Language (ESL)	Social Science	1,244 Net Square Feet
	Annex 8	2,512 Net Square Feet
	Sub Total	*16,078 Net Square Feet*
Communication	Building 3	8,976 Net Square Feet
	Union	1,561 Net Square Feet
Multi Media Services	Library	5,167 Net Square Feet
	Sub Total	*15,704 Net Square Feet*
Foreign Languages and Literatures	Building 1	6,319 Net Square Feet
	Building 2	1,333 Net Square Feet
	Sub Total	*7,652 Net Square Feet*
Telecommunications and Business Education (TBE)	Building 2	5,437 Net Square Feet
	Sub Total	*5,437 Net Square Feet*
Total Existing Square Feet Presently Used		**44,871 Net Square Feet**

Growth
The Program spreadsheet has a total of 52,854 Net Square Feet assigned to English and Literature, Communication, Foreign Languages and Literatures and Telecommunications and Business Education. This

allows for approximately 17.5% growth in the next +/- 20 years. The growth provided for in the Program spreadsheet is in additional office space for faculty, staff and adjunct growth. 17.5% is consistent with past and projected growth patterns identified by the 4 departments.

3.1.5 MASTER PLAN RECONCILIATION

The College of Humanities and Arts, as well as Telecommunications and Business Education, do not have any previous master plan documents that apply to the Programming of the new Humanities Building. The only existing Master Plan Document that relates to this project is the Weber State University Central Quad Master Plan, DFCM Project no. 03214810. This master plan document focuses on the Central Quad area of the campus, to which the new Humanities Building will be adjacent. Section 2, Site Analysis of this Program Document, addresses the site relationships of the new Humanities Building that are consistent with the master plan document.

3.1.6 FUNCTION

People: The following people will be utilizing the new Humanities Building:

Departmental Statistics

English and Literature

Faculty	30
Staff	4
Adjunct Positions	60
Student Enrollment (Majors)	402

Communication

Faculty	18
Staff	2
Adjunct Positions	12
Student Enrollment (Majors)	348

Foreign Languages and Literatures

Faculty	15
Staff	2
Adjunct Positions	15
Student Enrollment (Majors)	120

Telecommunications and Business Education

Faculty	9
Staff	1
Adjunct Positions	23
Student Enrollment (Majors)	134

Expansion: The new Humanities Building has not been programmed for future building expansion. It is anticipated that the future expansion needs will not be to the new Humanities Building; rather expansion needs will be accommodated in the future new building that will some day replace Buildings 3 and 4.

General Module System Design: The new Humanities Building should be designed, as far as possible, with an economical, repetitive modular planning system. This system should be used for all building systems in an integrated design strategy including structural, MEP and architectural systems. Unlike a research building, the module system for an education building should not be determined in advance of design.

Building Module Planning/Flexibility Short-term Flexibility: Utilize movable partitions where possible to allow for changing room sizes. Use movable furniture unless built-ins provide a significant advantage. Provide for ongoing changes to all major systems and spaces. All MEP systems maintenance items shall be accessible and capable of replacement without demolition of architectural systems. Utilize drywall construction for partitions that are easily removed and replaced. Oversize elevators, corridors and key doorways to accommodate movement of large items of equipment. Plan the building architectural and MEP systems with a consistent modular strategy that allows for change without disrupting adjacent spaces.

Building Module Planning/Flexibility Long-Term Flexibility:
Consider the possibility of change, both within the current program and to different programs. For any sloped-floor teaching space, plan for future conversion to a flat-floor space without seriously disrupting building functions.

Space Type Summary: The types of spaces to be provided in the new Humanities Building are as follows:

<u>Administration Space</u>

Offices (Enclosed)	93 Total
Offices (Open Work Stations)	15 Total
Shared Adjunct Offices (Open Work Stations)	24 Total
Storage Rooms	4 Total
Tutoring Rooms	3 Total
Conference Rooms	2 Total
Small Adjunct Meeting Rooms	3 Total
Shared Faculty Work Rooms	3 Total
Shared Faculty Break Rooms	2 Total
Shared Student Lounge	1 Total

Classroom/Specialty Lab Space	
200 Person Auditorium	1 Total
40 Person Classroom	4 Total
35 Person Classroom	4 Total
30 Person Classroom	10 Total
25 Person Seminar	9 Total
40 Person Specialty Lab	3 Total
30 Person Specialty Lab	1 Total
Debate Special Use Lab	1 Total
34 Person Writing Center	1 Total
32 Person General Computer Lab	1 Total
24 Person General Tutoring	1 Total

Additional Specialty Areas
Electronic Media Production
TBE Audio Visual Recording Room

For additional information on the Function/Spaces in the Program, including adjacencies, zones of compatibility, and general function, see the Program Spreadsheet located in Section 4.

3.2 ARCHITECTURAL PLANNING ISSUES

3.2.1 BUILDING FORM AND MASSING

Quality and Image: The designated location for the new Humanities Building is where Buildings 1 and 2 are currently located. It is the intent for the new building to occupy the approximate area of the existing buildings. However, the new Building is programmed for 3 –levels; therefore allowing a larger building than the existing square feet of Buildings 1 and 2.

The location of the building is essentially the center of campus, which is appropriate for Humanities, being the largest College at Weber State. The new Humanities Building will also be located adjacent to the Central Quad. Therefore, the architectural image of this building should be significant for both its location and long term durability. The new building should blend in with the traditional architecture of the buildings located around the site, as well as explore new and modern day materials that are found on some of the recent buildings completed on campus.

It would be anticipated that brick masonry would be the dominant exterior material. But the use of concrete, glass and metal would also be appropriate. Due to the types of spaces programmed, extensive use of glass for day lighting and views would also be appropriate.

Building Space Utilization Efficiency: The Program spreadsheet uses a net-to-gross efficiency ratio of .65. This is typical and appropriate for classroom and administration buildings. The areas not included in the net square footage are:

Restrooms
Circulation
Walls, Columns, Structure and Partitions
Unassigned Storage and Maintenance Areas
Stairs
Elevators
Mechanical, Electrical and Communication Shafts and Spaces

3.2.2 INTERNAL RELATIONSHIPS

Maximize Natural Light into Occupied Spaces: As far as possible every space shall have natural light and views- in general nowhere in the building should be more than 35' from natural light.

Low-Rise Construction: Maximize walk-up opportunities with limited use of elevators required to access classrooms and heavily used spaces. Large classrooms and specialty labs should be located on the first two levels, with smaller classrooms and seminar rooms located on the third level.

Administration spaces should be located on the second and third levels.

Student oriented spaces should be located on the first level.

3.2.3 NATURAL LIGHT AND VIEWS

As far as possible every space shall have natural light and views- in general nowhere in the building should be more than 35' from natural light.

The building shall take advantage of daylight to promote connection to the exterior natural environment. Day lighting is to be incorporated into the design of spaces to supplement and supplant artificial lighting.

Daylight should be integrated into building circulation to reinforce connections to the exterior and relieve interior spaces.

Views as identified are to be incorporated into the design of the building. The goal is to take advantage of these views from the most public areas of the building.

3.2.4 CIRCULATION

Internal Circulation

Maximize interactions and efficiency by utilizing "branching" single corridors/routes wherever possible in lieu of multiple parallel corridors/routes.

Locate discussion areas outside classrooms along the internal circulation paths, to promote participation of students and faculty.

Locate interior entry lobby in close relation to outdoor public spaces, to strengthen the indoor/outdoor relationship and encourage activities to continue from one space to the other.

Locate high use areas such as the Student Lounges in central circulation nodes, for ease of access and maximum chance of encounters.

External Circulation

Use outdoor pedestrian pathways in combination with outdoor public spaces, to allow for a maximum number of casual encounters with students and faculty, and to provide continuity and sense of place within the "Education Corridor."

Locate pathways as an organizing way finding device for building entries.

Use deciduous trees and landscaping to delineate pathways, and have shade in the summertime.

3.2.5 PERSONNEL INTERACTION

In the true interdisciplinary character of the facility, interaction among the following groups should be encouraged to the highest degree possible:

Students among different departments and programs (English and Literature, Communication, Foreign Languages and Literatures, Telecommunications and Business Education)
Faculty of all schools and students of all schools

Graduate and undergraduate students from all departments

Faculty and Staff and all groups listed above

In order to promote interaction, all public and semi-public spaces should be very accessible, and in proximity to the major programmatic elements of the facility.

3.2.6 APPROACH TO MATERIALS AND FINISHES

As a vital campus facility, this building is to be planned as a long-term investment. Materials and finishes are to be selected for durability as well as aesthetics, assessing life-cycle costs in comparison with project financial projections and value engineering considerations.

Building Exterior Materials and Finish Goals
Exterior wall finishes and structure to be 100-year materials.
Exterior wall fenestration to be 50-year materials.
Roofing and waterproofing to be 20-year materials.
Below-grade waterproofing to be 100-year materials.

3.2.7 PROGRAM SPECIFIC GOALS

Classrooms: Design for classrooms shall be flexible to support the educational goals, as incorporated into the room layout sheets provided herein. Sightlines for flat floor and sloped floor venues are to be adjusted in accordance with audio/visual planning requirements. Integration of technologies is essential to these areas including state-of-the-art audio/visual equipment, wired and wireless networking, and support for distance teaching/learning and video-conferencing capabilities.

3.2.8 BUILDING SECURITY

Programmatic building security requirements are as follows:

- The building's security system shall provide for separate security for the main functions of the building. These are:
  - Pedestrian Circulation
  - Student Activity Areas
  - Classrooms
  - Administrative Offices

- The building shall be equipped with a card access security system which can be programmed to be "open" during a time frame as required by building occupants.
- The building shall have a University compliant card access system for all exterior entries, with controlled access as programmed.
- The door locking system for all interior spaces shall follow Weber State University Design Guidelines.
- Video Monitoring.

3.2.9 CODES, REGULATIONS AND SAFETY

The governing codes for this project are listed below. The Design Team and Architect of Record will need to verify at the beginning of the design phase all required codes and regulations. It is the Design Team and Architect of Record's responsibility to utilize all latest revisions, editions and adopted versions. The following list presents currently applicable code issues and is not a complete list of applicable codes.

International Building Code (IBC) 2003 with Utah Amendments
International Plumbing Code (IPC) 2003
International Mechanical Code (IMC) 2003
International Fire Code (IFC) 2003
Life Safety Code NFPA 101 with Utah Amendments
National Electric Code (NEC) with Utah Amendments 2002
Laws, Rules and Regulations of the Utah State Fire Marshall
The Utah Code for Energy Conservation in New Building Construction (ASHRAE Standard 9.1-1989)
International Energy Conservation Code 2003
ASHRAE Indoor Air Quality 62-2001 and Addendum 62n

Planning and Design Criteria to Prevent Architectural Barriers for Aged and Physically Handicapped (Fourth Revision, with lever hardware amendment)
Americans with Disabilities Act Title III, 1991/1998 (ADA)
DFCM Design Criteria for Architects and Engineers
Weber State University Design Standards
ANSI A117-119- 1968/1998 Accessibility Design Standards
American Society of Heating, Refrigeration and Air Conditioning (ASHREA)
Sheet Metal and Air Conditioning Contractor National Association (SMACNA)
Underwriters Laboratory (UL)
American Society of Testing Materials (ASTM)

In addition, the Design Team and Architect of Record will be required to coordinate their efforts with Weber State University Facilities Management and DFCM.

Recommended additional codes, standards and guidelines include:
ANSI/ASHRAE Z9.5
Weber State University Central Quad Master Plan

Occupancy Classification
The occupancy determination must be confirmed by the Architect of Record with the University Fire Marshall and the State Fire Marshall.

Weber State University Facilities Management is the representative of the University with authority over all aspects of the design and construction processes. All contact should be directed through the Project Manager from Weber State University.

Based on the 2003 IBC
Programmed Area: 85,700 gross SF, 3 stories

Item	Value	Section / Notes
Sprinklers	Fully Sprinkled	903
Occupancy	B A-3	304.1 Offices / Classrooms 303.1 Auditorium / 20% NASF
Construction Type	IIA or IIB	602.2 Building elements are non-combustible. Construction type limits single floor allowed area. Total allowed floor area is sufficient either building type.
Allowable Height / Area	B= 5/37,000 A-3= 3/15,000	Table 503
Increase in Height	B= 6 stories 85ft total A-3 4 stories 85ft total	504.2
Area Increase	IIB/ A = 35,625 per floor **106,875 total** IIA/ A = 58,125 per floor **174,375 total**	302.3.1 Area increase based on assuming most restrictive occupancy is Group A-3 & applying it to the whole building to achieve "Non separated uses." 506.1. Calculation not shown. Refer to code section. 506.2. Assuming greater than 30ft side yards all around for 75% increase. 506.4. Assuming 3 stories.
Occupancy Separation	Not required.	302.3.1 See area calculations above.
Fire Rating of Building Elements	IIB **Element Rating /hr** Structural frame 0 Bearing walls 0 Non-bearing walls 0 Floor 0 Roof 0 IIA **Element Rating /hr** Structural frame 1 Bearing walls 1 Non-bearing walls 0 Floor 1 Roof 1	Table 601

Stairs	1 hr = 3 stories 2 hr = 4 stories	1019.1
Shafts	1 hr = 3 stories 2 hr = 4 stories	707.2, 707.4
Occupant Load	600	1004.1. Assuming occupant load equal to 75% of the total NASF.
Fixture Count	WC= 1/50= 12 Lavatories= 1/50= 12 Drinking fountain 1/100= 6	Table 2902.1 Assuming Educational classification and equal fixtures for men and women (Total fixtures required shown).

ADA Accessibility
The new Humanities Building and site are required to be in compliance with the American with Disabilities Act, Title III, 1991/1998 (ADA). The Utah State Building Board has adopted the following additional requirements:

- All public entries to the building will be ADA compliant with automatic door operators including required vestibule doors.
- One set of accessible restroom doors shall be equipped with automatic door operators including vestibule doors if applicable.
- ADA compliant parking shall be addressed.

3.2.10 TESTING AND INSPECTIONS
The Architect/Engineer, and the selected testing lab, shall perform periodic construction observations, testing, and special inspections, as outlined in section 4.6 of the DFCM Design Criteria for Architects and Engineers. The design engineer shall list all required special inspections on the contract drawings, and perform periodic construction observations as required by the A/E agreement. Costs for special inspections and testing services will be paid for directly by the owner.

3.3 BUILDING SYSTEMS DESIGN CRITERIA

3.3.1 STRUCTURAL

The structural design for this project should provide a building system which will integrate with the program requirements for space layout, as well as with the architectural and building service needs, while meeting current code standards for vertical and horizontal load carrying capacity. User needs in terms of current flexibility of the spaces and future adaptability of use should be considered.

Structural / Service Coordination

Layout of the structural grid will need to respect the classroom, and office planning module established for the various building functions. During the design phase, a completely integrated approach to building systems is recommended. Distribution of HVAC, plumbing and electrical services must be carefully coordinated with the structural elements, particularly at framing intersections and major crossover points. This close coordination must be achieved in order to avoid conflicts and limit penetrations of major structural members.

Foundation System

A soils report for the project is not yet available. However, it is anticipated that the foundation system will be of conventional spot and continuous footings bearing on suitable, natural, undisturbed soils or on compacted fill extending to suitable, natural, undisturbed soils. The allowable soil bearing pressure will likely range from about 2,000 psf to 3,000 psf. The actual allowable soil bearing pressure will be determined by the Soils Engineer. The frost cover to be provided from final exterior grades to the bottom of exterior footings will be a minimum of 30 inches. Interior footings will likely have a minimum embedment depth of about 18 inches below final interior slab on grade elevations.

The slabs on grade will be a minimum of 4" thick. In the basement area, they may need to be thicker to accommodate a mechanical equipment room. The slabs on grade will be reinforced with at least 0.001 ratio of deformed reinforcing steel in two directions based upon the gross section of concrete. The slab will likely be placed over 4" of free draining granular fill and appropriate moisture barriers. Slabs will be designed and detailed with control and construction joints spaced such that cracking is minimized.

Elevator pits will need to be incorporated into the foundation design.

Some structural work to relocate the utility tunnel will be needed.

Floor System

The suspended floors of the new building will be of 3.1/2" of lightly reinforced normal weight concrete over 3" composite phosphatized/painted steel deck (6.1/2" total thickness) supported by composite steel beams. The floors are to be designed to limit vibrations to those expected for typical office and educational floors. The steel beams will be supported on steel columns. This is also a very efficient and economical framing system. The floors will need to be designed to support some heavy "UPS" equipment. The floors will need to accommodate openings for elevators and mechanical shafts.

Roof System

The roof system will be 1 ½ inch, 20 gauge, type "B" galvanized steel roof deck over open web steel joists and steel beams. The steel joists will be supported on steel girders. The steel girders and steel beams will be supported on steel columns. This is a very efficient and economical framing system. The roof will need to be designed to support snow loads, snow drifts and any miscellaneous mechanical loads (including penthouses or screen walls). It will also need to be designed and detailed to support any window washing equipment. The roof will need to be designed to accommodate the loads and openings of the elevator equipment.

Structural/Architectural Exterior Walls

The type of exterior walls to be used has not yet been determined but will likely be of brick veneer over steel studs. These walls are not load bearing and do not provide lateral support for the building. They will need to be detailed to accommodate lateral story drift caused by wind and seismic forces. The design and detailing of these walls will be covered by the architectural drawings.

Lateral Force Resisting System

The lateral force resisting system will be of the roof and floor systems steel roof deck acting as diaphragms, which will distribute the lateral loads to the vertical force resisting system. The vertical force resisting system will be special moment resisting steel frames or concentric special steel braced frames or concrete walls or a combination of those systems. The redundancy factor for the project is to less than 1.1. The lateral forces will then be delivered into the foundation system by the vertical force resisting system. The foundation system will be designed for both overturning and sliding forces.

The building is located approximately ¼ mile from a fault that runs along Skyline Drive.

Codes

The 2003 International Building Code will be used as the minimum code and standard for this project. This includes the current editions of the standards referenced by the 2003 International Building Code. The project will also need to conform to the design standards of the Division of Facilities and Construction Management (DFCM).

Structural Design Criteria and Material Strengths

The final design criteria and material strengths are to be clearly shown on the final structural documents.

Structural Design Criteria and Material Strengths

Listed below are the minimum required structural design criteria and material strengths. The criteria and strengths will continue to be evaluated as the design progresses. The structural design will be according to the 2003 International Building Code (IBC 2003). The building is to be classified as a Category III building per the IBC 2003.

Design Criteria:

1. Roof Snow Load

Snow Ground Load	P_g = 44 psf
Snow Importance Factor	I = 1.10
Exposure Factor	C_e = 1.0
Thermal Factor	Ct = 1.0
Flat Roof Snow Loads	P_f = .7*Pg*I*Ce*Ct

2. Seismic Loads

Short Period Mapped Acceleration	S_S = 1.80
Long Period Mapped Acceleration	S_1 = 0.78
Soil Site Class	D
Short Period Site Coefficient	F_a = 1.50
Long Period Site Coefficient	F_v = 1.00
Design Spectral Response Acceleration	S_{DS} = 2/3 * F_a * S_S
Design Spectral Response Acceleration	S_{D1} = 2/3 * Fv * S1
Seismic Importance Factor	I_e = 1.25
Response Modification Coefficient	R = 8
Seismic Response Coefficient	C_s = .161
W Dead Loads of Structure	
Building Seismic Design Category	E
Base Shear	V= C_S * W = (Strength Design)

3. Wind Loads:

Basic Wind Velocity (3 Second Gust)	110h
Exposure Type	C
Importance Factor	1.15

Working Stresses for Materials:

1. Concrete (28 day strength):

Footings	3,000 psi
Foundation Walls	4,000 psi
Interior Slabs on Grade	3,500 psi
Concrete over Steel Deck	3,500 psi
Exterior Slabs on Grade	4,000 psi

2. Reinforcing Steel ASTM 615 Grade 60 — F_y = 60 ksi

3. Structural Steel
   Wide Flange Shapes — ASTM A992 (50 ksi)

Other Shapes and Plates	ASTM A36
Steel Tube Columns	ASTM A500 Grade B (46 ksi)

Miscellaneous
Blast loading was not a required design parameter for this project.

Future expansion of the building was not a design parameter for this project and is not anticipated.

3.3.2 MECHANICAL, Plumbing and Fire Protection

General Mechanical
The design and construction of the Humanities Building at Weber State University shall comply with the current Utah State Division of Facilities and Construction Management's updated Design Criteria as well as the current Weber State University Design Standards.

The mechanical and plumbing systems for the buildings shall be energy conserving and suitable for the building occupancy. Systems and equipment shall have a proven history of providing efficiency and optimal energy conservation. Per the Governor's directive, the building systems shall be 20% more energy efficient than current codes.

Automatic temperature controls shall be suitable for the building systems and occupancy. The control system shall be an electronic DDC system tied into the Johnson Metasys central campus control system. The new controls shall be 100% compatible and integrated with the existing campus system.

Provide complete operation and maintenance manuals at the completion of the project as well as a complete set of record drawings and specifications.

All equipment shall be clearly labeled. Equipment, piping and ductwork shall be painted and labeled as required by the Weber State University design guidelines.

Design Conditions
The mechanical system shall be designed to maintain comfort condition in accordance with the Utah State Energy Code, DFCM A/E Design Guide, and WSU Design and Construction Standards.

Elevation:	4350 Ft.
Lat / Long.	41°15' N, 111°57' W

Ambient: (ASHRAE 2-1/2%, 97%)

Summer	95°F DB 65°F WB
Winter	5°F DB

Indoor Conditions

Summer	75°F
Winter	72°F

Envelope U-values

Building envelope shall be designed in coordination with mechanical systems in order to achieve energy performance of 20% better than ASHRAE 90.1 – 2001.

Ventilation Rates: ASHRAE 62-1 – 2001

Internal Heat Gain:

People: ASHRAE Estimates for Level Activity

Equipment: ASHRAE Estimates for Following

- Computers
- Copy Machines
- TV Monitors

Lights: Assume 2.5 Watts / Sq. Ft. general. Adjust for special occupancy or task requirements.

Applicable Codes

The mechanical system throughout the building shall be designed and installed in accordance with the most recently adopted of the following codes and standards:

- Life Safety Code
- International Building Code (IBC) including all appendices
- International Mechanical Code (IMC)
- International Plumbing Code (IPC)
- International Energy Conservation Code (IECC)
- International Fuel Gas Code (IFGC)
- National Electrical Code (NEC)
- National Fire Protection Association (NFPA)
- ASHRAE 90.1 - 2001-2003
- ASHRAE Standard for Ventilation 62-1 2001
- ASHRAE Guides and Standards (ASHRAE)
- State of Utah Boiler and Pressure Vessel Rules and Regulations
- American Society of Mechanical Engineers (ASME)
- American Standards Association (ASA)
- American Society of Testing Materials (ASTM)
- Sheet Metal and Air conditioning Contractors National Association (SMACNA)
- Occupational Safety and Health Administration (OSHA)
- DFCM Indoor Air Quality Criteria
- Utah State Division of Facilities and Construction Management (DFCM) ~ Architect / Engineer Design Guide.

- Weber State University Design Guide

Heating, Ventilating and Air Conditioning

The building shall be heated, cooled, and ventilated with systems suitable for the building function and occupancy in accordance with ASHRAE and DFCM standards. HVAC systems must compare with other mechanical systems designed for classroom and administration areas. The primary mechanical system for the Humanities building shall be VAV with reheat.

Heating System

Heating source shall be campus supplied high pressure steam. Steam pressure shall be reduced at a PRV station at the building, and connected to a plate and frame heat exchanger with a 1/3 and 2/3 control station. Steam shall be converted to 180°F heating water and shall be distributed through a two pipe, direct return system to the building. Hot water pre-heat coils shall be installed at air handling units, and hot water re-heat coils shall be installed at the VAV boxes.

The hot water pumps shall be designed with 100% redundancy. The hot water system shall consist of hot water distribution pumps, standby pumps, variable frequency drives, pre-heat coil circulating pumps, air eliminator, and expansion tank complete with automatic make-up water system. The entire hot water system shall be controlled by a DDC control system, and completely integrated into the existing campus central control system. Provide a building steam meter to measure instantaneous flows (in BTUH), as well as cumulative flows (in BTU's). Flow meter shall have a manual reading at the building, as well the ability to communicate readings via the central control system.

The existing condensate pump below building #1 serves all 4 buildings. The existing low pressure condensate piping from buildings 3 and 4 shall be tied into the new condensate pump for the Humanities Building. Provide two new condensate pumps for redundancy. The condensate pump shall be a steam powered condensate pump with no electrical requirements. Existing condensate pump shall be salvaged to the owner.

Cooling System

Cooling source shall be chilled water provided by the central chiller plant. Chilled water piping shall be tied into existing piping near the Bell Tower, and routed in the existing tunnels to the building mechanical room. Chilled water piping in tunnel shall be sized to accommodate the Humanities Building load, as well as the future anticipated load for the replacement of buildings 3 and 4 (approx 8"). See campus chilled water survey. Building chilled water loop shall consist of a building chilled water pump with a variable frequency drive, air eliminator, and expansion tank. In addition, provide an automatic bypass 3-way valve upstream of the chilled water pump. This valve shall be controlled by the BMS. It shall bypass the pumps when the central pumping system is capable of meeting the chilled water demand. This shall be measured by chilled water return temperature. When the campus pumping system cannot meet the building chilled water demand, the bypass shall open to the pump, and the building chilled water pump VFD shall modulate to meet demand.

Building chilled water system shall be completely integrated with the campus central control system. Chilled water supply piping shall supply 45° F chilled water to the cooling coils located in the building air handling units. Coils shall be designed for a 10° F water temperature rise. Provide a building chilled water flow meter to measure instantaneous flows (in gpm), as well as cumulative flows in (in gallons). Flow meter shall have a manual reading at the building, as well the ability to communicate readings via the central control system.

Computer server rooms shall be provided with independent dedicated cooling units.

Air systems

Air system for the buildings shall be a combination of variable volume air handling units, with VAV boxes for individual zones. Each classroom shall have a dedicated VAV box. Individual rooms in the administration area shall be zoned together with other rooms of similar loading, function, outdoor exposure, etc. No more than 3 individual offices shall be combined on the same VAV box. The number of air handling units and their locations shall be determined by space location and usage, individual zone requirements, and economics. Each air handling unit shall be provided with hot water pre-heat coils, and chilled water cooling coils. Each air handling unit shall have 100% economizer capability. The use of return/relief fans shall be determined during design. Return fans are encouraged where there are large pressure drops through return air systems, or where additional control of building static pressure will be required.

Roof mounted belt driven exhaust fans shall be provided for the toilet rooms, custodial closets, laundry room, copy room, elevator rooms and kitchens. Rooms with similar use, function, and schedule may be combined in the same fan systems. The exact number and location of the fans shall be determined during design. Exhaust ducts shall be routed to roof fans. Building exhaust fans shall be controlled via the BMS.

Outside air ventilation shall comply with ASHRAE Standard 62-1 2001. Outside air shall be controlled by carbon dioxide sensors to provide adequate ventilation, as well as improved energy efficiency. The systems shall be capable of 100% outside air and 100% relief air in economizer load. The number and location of fresh air inlets, and relief air outlets shall be determined during design.

The air handling system shall be controlled by a DDC control system that is 100% integrated into the campus central control system. Building air handling system controls shall include air handler VFD control with duct static pressure re-set, air handler discharge temperature control, VAV box space temperature and discharge temperature control, building static pressure control, outside air damper control, etc. Additional specifics of the controls system shall be coordinated with the University during design.

All ductwork shall be insulated metal duct with volume dampers for each diffuser or grille. Classroom and office air distribution systems shall be designed to provide a quiet comfortable learning and working environment.

Plumbing Systems

Plumbing systems shall be designed to meet the International Plumbing Code as adopted by the State of Utah, D.F.C.M. Guidelines and Weber State University Design and Construction Standards.

Currently domestic hot water for Buildings #1 and #2 is being provided by a heat exchanger under building #3. These existing domestic hot water lines shall be removed and capped. Domestic hot water piping for the Humanities building shall be provided by a new semi-instantaneous steam powered water heater. The water heater shall be a plate and frame steam to water heat exchanger fed by campus supplied steam from the tunnels. Domestic water system shall include building hot water re-circulation with pump and hot water re-circulating line.

Plumbing fixtures shall be manufactured by the same source. Provide ADA compliant fixtures as required by code, and where called out in the individual space requirements. Provide water closets, sinks, lavatories, and any other fixtures as detailed in the individual space requirements.

Provide floor mounted service sinks and wall mounted hand sinks in the custodial closets indicated in the individual space requirements.

Provide mixing valves on ADA bathroom fixtures.

As required by the design, lavatories shall be either cabinet mounted or wall mounted self supporting fixtures.

Water closets shall be wall mounted flush valve type with elongated bowl and open front seat.

Floor drains shall be provided in all bathrooms, custodial closets, mechanical equipment rooms and laundry rooms.

Water treatment for the heating hot water and chilled water systems shall be provided and system shall match existing campus system. The WSU water treatment organization is West Water and Energy Systems Technology.

Exterior Hydrants shall be provided for landscape and hose connections.

Fire Protection Systems

Fire sprinkler protection shall be provided suitable for the building type and occupancy. The entire building shall be sprinkled. System shall comply with NFPA, Campus Fire Marshal and State of Utah Fire Marshal requirements.

Fire alarm main panels shall be installed by the main front entrance used by the fire department, and the exact placement shall be decided during design in conjunction with the campus Fire Marshal.

The fire sprinkler inspector's test shall be piped into a drain or sewer to prevent water damage.

The fire sprinkler inspector test shall be of the simulated sprinkler head type, and not the glass bulb type.

The fire alarm contractor shall provide a "dry" set of contacts to tie into the central campus annunciator panel.

All fire rated doors shall be supplied with a magnetic door hold open that is tied into the fire alarm system. Upon activation of a fire alarm or power failure, they shall release.

The contractor shall provide documentation of the acceptability of all fire-safing materials used.

3.3.3 ELECTRICAL

Codes and Standards

Codes, which are applicable to the design of the electrical systems, are listed below. Comply with each of the latest adopted publications:

ADA, Americans with Disabilities Act
ASHRAE 90.1 Energy Code
EIA/TIA, Electronics Industries Association/Telecommunications Industry Association
IBC 2003, International Building Code
IEEE 1100-1999, Recommended Practice for Power and Grounding Electronic Equipment
IESNA, Illuminating Engineering Society of North America
NFPA, National Fire Protection Association (applicable sections including but not limited to):
- NFPA 70, National Electrical Code
- NFPA 72, National Fire Alarm Code

UL, Underwriter's Laboratories
Utah State Fire Marshal Laws, Rules and Regulations
DFCM, Division of Facilities Construction and Management, Design Criteria
Weber State University Design Guidelines

Site Utilities

Medium Voltage Power Distribution System

Existing five (5) way medium voltage switch is to be replaced with a new six (6) way medium voltage SF6 switch. The new switch should be installed on grade outside of the building. Existing switch is tied to building #4, building #2, union building #1, student services building and a spare switch. Weber State University prefers the new switch to be manufactured by S&C. Spare switch can be utilized temporarily to provide power to new on grade switch to reduce length of power outages. This will allow existing feeder cables to be extended to new switch one at a time. New switch must be located close to where existing is to reduce or eliminate number of splices.

The medium voltage switch, which provides power to new Humanities building, must have fuse protection.

Existing three (3) 167 kva single-phase medium voltage transformers are to be replaced with a new pad-mounted transformer (approximately 1,000 kva). New pad-mounted transformer is to be located next to the Medium Voltage Switch.

The new medium voltage switch should provide power to a new oil-filled, air-cooled, pad-mounted transformer. Primary voltage for new transformer should be 12,470 volt Delta; secondary voltage should be 480/277 volts 3-phase WYE connection.

Telecommunication Distribution

The MDF room in the new Humanities building should have connections to the campus distribution network. A total of four (4) 4" conduits should run from this building to existing utility tunnel. MDF room should be located in close proximity to the existing utility tunnel.

Telecommunication work should comply with the Weber State University telecommunications design standards and all work should be coordinated with Weber State University telecommunications.

Powers Distribution Systems

Existing main distribution switchboard is old and parts are hard to find. Under this project, the entire switchboards, panelboard, feeder conduit and conductors should be removed and replaced with new equipment.

The main electrical room should be constructed to house a 480/277-volt and a 208/120-volt main distribution switchboard.

This room should be located as close as possible to the pad-mounted high voltage transformers to reduce the length of feeder conduit and conductors.

The 480/277 volt main distribution switchboard should be free standing and equipped with Square D. "Powerlogic"- type digital metering and should be tied to the campus central power monitoring system via a data line.

The 480/277 volt main distribution switchboard should be utilized to provide power to branch lighting panelboards, 480 volt machines, elevators, and large mechanical equipment such as air handlers, pumps, chillers, fans, etc.

The 208/120 volt main distribution switchboard should be utilized to provide power to branch power distribution panelboards for computer equipment, owner furnished equipment, duplex outlets, small mechanical equipment, etc.

Electrical rooms should be constructed on each floor to house the 480/277-volt and 208/120-volt branch panelboards.

Electrical rooms should be stacked on top of each other to reduce length of feeder runs.

Electrical rooms should have a minimum of 25% additional space for future growth.

Separate branch panelboards should be installed to feed power to computer equipment. Computers and any sensitive equipment should be tied to separate panelboards to isolate them from other equipment such as small mechanical equipment and general-purpose duplex outlets. Main distribution switchboards and branch panelboards should have 50% excess capacity for future growth and flexibility.

Transient voltage surge suppressors should be provided for 480/277 volt and 208/120-volt main distribution switchboards, also for computer equipment branch panelboards.

All conductors should be copper. Conductors for branch circuits should be sized to prevent voltage drop exceeding 3% at the farthest point with 80% of circuit breaker demand load (duplex outlets, equipment, etc.). The total voltage drop on both feeders and branch circuits should not exceed 5%.

All conductors shall be installed in conduit. Minimum size of conduit to be ¾ ". Type MC cable may be used for light fixtures whip. Length of conduit runs to cable trays should not exceed 50'. Install cable trays in the corridors. Provide pull strings in all empty conduit.

A fault current and selective device coordination study should be done to indicate available fault current at all points in the 15 kV and building power distribution system. New switchboards, panelboards, etc., should be adequately rated for the available fault current. Fuses and circuit breakers should be selected to ensure minimum system power outage due to overloads or faults. Circuit breakers with adjustable long time, short time, instantaneous and/or ground fault setting shall be set at levels for optimum system coordination.

Mechanical equipment requiring variable frequency drives (VFDs) should comply with DFCM standards for VFDs included in the "Design criteria for Architects and Engineers" posted on the DFCM website.

Standby Power Distribution System

Provide a standby diesel engine generator with a skid mounted fuel tank and walk-around sound attenuated enclosure to support new building life safety equipment, network equipment, A/C equipment for network computer equipment, outlets in IDF rooms, and other standby outlets as designated by the users. Standby diesel engine generator should have approximately 20% excess capacity for future growth and flexibility.

New engine generator should be equipped with demand power meters alarm indicating control panel. Dry contacts should be available for remote monitoring of engine and fuel system alarms.

Fuel tank should be sized for 24 hours of engine operation at 100% load. University campus should have the ability to refill the tank during an extended commercial power outage.

A separate automatic transfer switch should be provided for life safety equipment.

Outlets

Locations and number of outlets should be coordinated for each space with users and comply with their needs and requirements. The following is to be used as general guidance:

Offices: For each workstation, provide two duplex outlets dedicated to computer terminals and one additional normal outlet for every 6' of wall space.

Conference and Board Rooms: One outlet for every 6' of wall space, plus one outlet dedicated to computer terminals on all walls. Provide floor outlets underneath conference room tables.

Lounges/Break rooms/Kitchenettes: GFI outlets on dedicated circuits every 4' on counter top plus dedicated outlets for refrigerator, microwave, and disposal (switched at counter top), plus one outlet for every 6' of other wall space in room.

Counter tops (in general): One outlet every 4'; GFI where within 8' of a sink.

Classrooms, Lecture Halls, Teaching Labs and other Instructional Spaces: Provide outlets for instructor's station, audio/visual equipment and each student. Ensure that there is at least one outlet for each 6' of wall space. Provide floor outlets where stations or equipment cannot be served directly from the wall without crossing aisle space. Where tables are fixed in place, coordinate power outlets mounted directly into the millwork.

Research Labs: Provide outlets for instruments, each table/desk, dedicated outlets for refrigerators, etc. Provide plug strip at counters. Provide a general-purpose outlet in each lab to be used for cleaning and maintenance. General-purpose outlets should not be tied to the lab equipment outlets or counter top outlets.

Student Commons Areas, Lounges and Study Areas: Provide power outlets for laptop computers, at least one four-plex for each group of four seats, but no less that one outlet per each 6' of wall space. Provide floor outlets where stations or equipment cannot be served directly from the wall without crossing aisle space.

Telecommunication Rooms: Provide emergency outlets for equipment and a normal power duplex outlet for general-purpose use.

Electrical Rooms: At least one outlet on emergency power, designated by a red outlet with a red cover plate and labeled "EMERGENCY POWER".

Restrooms/Shower Rooms: One GFI outlet near each lavatory counter top.

Corridors: Provide at least one outlet every 25', on alternating sides of the corridor.

Lobbies: Provide at least one outlet every 6', on alternating sides of the lobby.

Stairs: One outlet at the landing of each level.

Storage Rooms (small), Janitors Closets: Two duplex outlets.

Building Exterior: One WP/GFI outlet near each entrance, and adequately spaced in the outside display and student interaction areas.

Grounding: Grounding Conductors

Grounding conductors should be installed with all feeder and branch circuits.

Provide a grounding riser system throughout the telecommunication rooms with grounding bus bars mounted on the wall in each room.

Lighting

General

Lighting design should comply with illuminance levels and uniformity criteria of IESNA and its recommended practices. Comply with RP1-93 "Office Lighting", RP3-00 "Lighting for Educational Facilities", and RP-33-99 "Lighting for Exterior Environments". Except for specialized applications, design lighting with a minimum efficacy of 64 lumens per watt. Specify maximum 20% THD electronic ballasts. In addition, design lighting with a CRI exceeding 82, except in storage, mechanical, electrical, and similar non-public applications. Where appropriate, different lamp types should be minimized. Use 4' T-8 lamps with CRI of 86 or greater wherever possible. Lamps should be specified to comply with EPA TCLP requirements.

Comply with ASHRAE 90.1 requirements, except that overall energy target requirements should be exceeded by 15%. Design lighting control to harvest day lighting where practical, to control based upon occupancy, and according to programmable scheduling as applicable to the application.

Only campus standard lighting fixtures should be used for walkways, compatible with the campus surroundings. Exterior lighting should be controlled by combination photocell and time schedule.

Interior Lighting

In general, low-glare fluorescent lighting with electronic ballasts should be utilized. Pendant indirect lighting should be strongly considered, but must be carefully coordinated in rooms with projectors so that the fixtures will not interfere with the projected image. Select luminaries for areas where VDTs are planned which are designed to minimize veiling reflections, and provide multilevel lighting control and task lighting to reduce the illuminance on the VDT. In addition, in rooms with audio/visual, provide lighting with variable or switched levels as indicated with a separate controlled zone to reduce glare and illuminance on the audio/visual display. In rooms with projectors, provide a separate bank of lighting control switches or station near the instructor position for ease of controlling lighting during presentations. Comply with RP-3-00 for classroom lighting, except increase illuminance to 75 fc (variable). Comply with RP-1-93 for office lighting.

Occupancy sensors should be used for the appropriate applications and control for daylight harvesting. Specify dual technology ceiling mounted directional sensors in private offices and classrooms with manual off-switches. Ultrasonic sensors should be in restrooms. Programmable lighting control with manual timed overrides should be in all common areas such as open offices, corridors, lobbies, and similar areas.

Provide exit lighting to comply with IBC. Emergency lighting should be designed for means of egress to 1 fc minimum to comply with IBC. Include emergency lighting in restrooms, electrical rooms, communication rooms, etc.

Provide emergency lighting in the exterior of the building by the entrance doors to illuminate path of egress.

Fire Alarm System

Fire alarm system should be designed to comply with Utah State Fire Marshall's "Rules and Regulations" and Weber State University Design Standards. Only Notifier as distributed by Mountain Alarm is allowed on campus. An addressable fire alarm system should be designed capable of networking with the campus system and reporting back to central campus fire alarm system. Design strobes visible from all locations except private offices.

Horn installation should comply with NFPA including for higher ambient noise requirements. Where smoke control systems are required, the integration of the fire alarm with the smoke control systems should be coordinated. Provide duct detectors and fan shutdown where required by NFPA and the IMC, including detection of smoke at all return air shafts servicing multiple floors. Coordinate location of the building fire alarm control panel and annunciator panel with the Campus fire marshal.

Telecommunication System

The MDF room should be located next to the existing utility tunnel. Four (4) 4" conduit should be installed between the MDF room and the utility tunnel.

IDF rooms should be constructed on each floor and should be stacked on top of each other. Cable length between IDF and Voice/Data outlets should not exceed 290 feet.

Size of MDF and IDF rooms should be coordinated with Weber State telecommunication group.

Four (4) 4" conduit should be installed between IDF rooms and between MDF room and closest IDF room to MDF room.

All the walls in the MDF room and IDF room should be constructed with ¾ " plywood and painted with two (2) coats of fire retardant paint.

Cable tray should be installed next to all the walls in MDF and IDF rooms.

Cable trays should be installed in the corridors and should tie to cable trays in the IDF and MDF rooms.

J-boxes for all voice/data jacks should be 4" x 4" x 2⅜" with single gang mud rings. Two (2) 1" conduit should run from each J-box to the cable trays or directly to IDF or MDF room, whichever is closest.

Pull box should be provided after total of 180° bend in each conduit run. Maximum conduit distance from each voice/data outlet to cable tray should not exceed 50 feet.

Security Systems
Security system should comply with campus standards. Security system should annunciate alarm condition to, and be completely monitored by the Weber State University campus police department.

Clock System
Simplex clock system should be provided throughout the building in common areas; Locations should be coordinated with the users.

3.3.4 VERTICAL TRANSPORTATION

Elevator Performance Standards

Utilize standards previously recommended for evaluating elevator performance in the new Humanities Building. From these standards, which cover the quality and quantity of elevator service, the following planning criteria are recommended. These criteria are based on five minutes of heavy two-way traffic:

Building Passenger Elevators

Average Interval	Less than 40 seconds
Handling Capacity	To suit needs of each elevator group or building element

3.3.5 SYSTEM COMMISSIONING

Mechanical System Commissioning
In order to comply with 1999 ASHRAE 90.1, commission the mechanical system in accordance with the 1996 ASHRAE Guideline 1 "The HVAC Commissioning Process". A commissioning authority will be hired directly by the State to oversee the commissioning.

Electrical System Commissioning
Complete commissioning specifications are required for this project to ensure that the products specified are tuned and adjusted properly. Commissioning shall include testing and adjusting all electrical and systems equipment, preparing documentation of the testing results, preparing O&M manuals, and providing owner training as specified in each section of the electrical and systems specifications.

3.3.6 LANDSCAPE DESIGN CRITERIA

Outdoor Space Types and Features

Create a variety of campus space-types: quiet--active, green--paved, open--closed, shaded--sunny, etc. Limit hardscape areas to those that will attract large gatherings; in principle most outdoor spaces should not be hardscape. Because of the plan to create a large area of hardscape at the Clock Tower Plaza, extensive hardscape at the Humanities Building should be limited to an outdoor gathering areas just outside the entrances. The building and site must provide for quality key open space. The building site offers an opportunity to create additional outdoor activity areas and to enhance the existing outdoor activity areas/green spaces. Provide fixed and movable site furniture at strategic quiet and busy locations to accommodate both quiet lounging and interactions.

Site Accessibility

Paths to building entrances shall meet ADA criteria for slope and landings. Wherever possible, all other site paths shall meet ADA criteria. If this is unfeasible in a particular location, provide elevator access within the Humanities Building that will allow wheelchair users to transition the non-compliant grade condition. All usable outdoor spaces shall be fully accessible.

Bicycles

Provide for bicycle usage along the north pedestrian corridor, and secure bicycle storage adjacent to the entrance. Bicycle racks, rather than bicycle lockers, should be located conveniently near building entrances.

Trash and Recycling Containers

Locate receptacles near building entrances and in areas where people are encouraged to congregate. Recycle bins should be located adjacent to trash bins to encourage use.

Plant Materials

Indigenous plant materials should constitute a majority of the plant palette and be able to withstand drought conditions during the heat of summer months. Deciduous trees are encouraged along pedestrian walks and in plaza areas to provide shade. Mass shrub plantings should avoid creating areas of security hazard (i.e. along pedestrian walks and entryways).

Irrigation

Irrigation should not be considered as the primary source of plant vitality. Limited focal areas may be considered for irrigation, with consideration of minimal water consumption. Large expansive lawns are to be avoided due to the limited water availability. High drought tolerant grass species should be specified. Alteration of the topography to concentrate water in plant beds and lawn areas instead of storm drains should be considered. Xeriscape design concepts should be incorporated and coordinated with Weber State Facilities Management.

Site Lighting
Lighting is to be provided along pedestrian walks for security. High cut-off fixtures should be used to avoid light wash pollution to adjacent buildings and the sky.

Paving Alternatives
Consider using permeable pavements in areas of low pedestrian concentration or tertiary circulation patterns. Permeable pavements potentially reduce the amount of storm water run-off.

Designated Smoking Areas
Exterior designated smoking areas should be provided that offer shelter from the elements.

3.3.7 VALUE ENGINEERING
Weber State University may conduct a Value Engineering Workshops with the Value Based Selected Contractor (CM/GC) at the Schematic Design Phase and the Design Development Phase submittal stage. The VE sessions should include a presentation of the project by the Design Team, and evaluation/recommendations by the CM/GC and Owner. The University may also invite a "cold team" to participate in these workshops.

3.4 SUSTAINABLE DESIGN

Definition
The American Institute of Architects defines sustainability as "the ability of society to continue functioning in the future without being forced into decline through exhaustion or overloading of the key resources on which that system depends." In simple terms it is the principal of accommodating human needs without diminishing the health and productivity of natural systems.

Current building practices do not represent a sustainable approach to design. The reality is that buildings consume nearly a third of America's energy—much of it wasted by inefficient design—while land-use decisions influence another third used in transportation. However, sustainable design practices represent a healthy balance between human needs and natural systems described above.

This balance can be put into two categories, Resource Efficiency and Community Sensitivity. Resource Efficiency is the practice of utilizing resources such as land, water, soils, minerals, fossil fuels and electricity to their fullest capability. Community or cultural sensitivity connects people to places, nature, and other people.

Benefits
Sustainable design can lead to a variety of benefits, many of which are economic. These benefits can include reduced capital costs of some building components. There are also the obvious reduced operating and maintenance costs that come from a reduction in energy and water costs that come from an efficient design. The reduced operating costs range from 10-50% less than traditional building methods and designs.

There are also numerous studies that link healthy, day lit buildings to decreased absenteeism and increased productivity as much as 2 to 15 percent. Sustainable buildings also provide reduced liability risks by limiting occupant exposure to poor indoor air quality and other known chemical pollutants.

Finally, sustainable buildings can provide opportunities for positive public relations through education programs showing positive solutions and examples of successful buildings.

Sustainable Design Components
Restorative Site Development Strategies

1. Reduce pollution and land development impacts from automobile use by providing and accommodating alternatives such as public transportation, pedestrian links to other campus buildings, and bicycle transportation.
2. Encourage opportunities for urban wildlife by developing and restoring landscaped areas with native and compatible adaptive plant species.
3. Maximize landscaped areas to minimize peak storm flows, increase on-site filtration of solids and phosphorous contaminants.
4. Reduce the negative effects of urban heat-islands by providing shade on paved areas with canopy trees and light colored paving materials.
5. Use high-reflectance (Energy Star) roof and paving materials to reduce heat-island effects.
6. Provide safe & uniform exterior lighting with no offsite light trespass.

Enhanced Water Efficiency

1. Limit the use of potable water for landscape irrigation by designing high-efficiency irrigation systems and grouping plants with like water requirements to reduce irrigation requirements.
2. Include plumbing fixtures with proven history of reduced water use.

Energy-Saving Design Opportunities

1. Verify and ensure that fundamental building elements and systems are designed, installed and calibrated to operate as intended by engaging an independent commissioning authority.
2. Reduce design energy costs compared to code-required levels by a minimum of 20%.
3. Building envelope design to reduce energy use (solar orientation, shading devices at eaves and glazing, high R-value roof and wall assemblies).
4. Design fenestration to provide daylight in occupied spaces to reduce need for artificial illumination.
5. Design electrical switchgear to accommodate future renewable energy producing devices.
6. Building design to include opportunities for future renewable energy devices such as photo-voltaic panels.
7. Reduce ozone depletion and support early compliance with the Montreal Protocol by designing refrigeration systems that do not contain CFC's, HCFC's or Halon.
8. Provide for the ongoing optimization of building energy and water consumption performance over time by including measurement and verification technology.

Materials to Facilitate Healthy Environments

1. Provide multiple recycling areas to accommodate the collection, separation and removal of recyclables to reduce waste that is disposed of in landfills.
2. Divert construction debris from landfill disposal by developing and implementing a waste management plan for construction activities.
3. Prioritize the potential use of building materials with recycled content (tiles, masonry units, steel, carpeting, etc.).
4. Reduce effects of transportation and support local economy by specifying materials manufactured and assembled locally.
5. Encourage environmentally responsible forest management by using wood-based materials certified in accordance with the Forest Stewardship Council Guidelines.

Indoor Environmental Quality

1. Provide for a thermally comfortable environment that supports the productive and healthy performance of the building occupants.
2. Reduce air contaminants coming from building materials by creating a construction Indoor Air Quality Plan.
3. Include capacity for indoor air quality monitoring (CO_2) for occupant health and comfort.
4. Provide increased quantities of fresh air to support health, safety and comfort of building occupants.
5. Specify low V.O.C. emitting paints, adhesives, sealants and other products to enhance the health benefits to occupants.
6. Minimize cross-contamination of pollutants in occupied spaces by separating potentially hazardous chemicals.
7. Provide a connection between indoor and outdoor environments through the introduction of sunlight and views into the occupied areas of the building.

Community Outreach

1. Utilize the opportunity to provide outreach and education for site and building green design features.

University Support

Weber State University supports the goal of sustainable design which incorporates energy savings, while meeting Program and Facilities needs within scope and budget.

4.0 INDIVIDUAL SPACE OUTLINE

4.1 SPACE PROGRAM AND AREA SUMMARY

4.2 BUILDING ORGANIZATION

4.3 INDIVIDUAL ROOM DATA SHEETS

4.4 ADJACENCIES AND RELATIONSHIPS

4.0 INDIVIDUAL SPACE OUTLINE

4.1 SPACE PROGRAM AND AREA SUMMARY

The following sheets provide the square foot requirements for each area included in the new Humanities Building.

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Function Area			Space Name	Description	Notes	Adjacency	Building Level	Occ #	SF / P	NASF	#	Program NASF
A. English and Literature												
1	Administration Offices	a.	Private Office	Department Chair and Advising Office	Individual private office with meeting space for 2-3 in office.	Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	1	180	180	2	360
		b.	Private Office	Faculty Office- Current	Individual private office	Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	1	120	120	30	3,600
		c.	*Private Office*	*Faculty Office-Growth*	*Individual private office*	Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	*1*	*120*	*120*	*3*	*360*
						Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)					
		d.	Administration Support	Secretary Work Station	2 full time secretary/receptionists.	Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	1	81	81	2	162
		e.	Reception Waiting Area	Open space for chairs	Reception area--during registration may have "lines going out of the door."	Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	8	15	120	1	120
		f.	Reception-Computer Station	Computer Station	Computer station located in the reception area for student use.	Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	1	30	30	1	30
		g.	Work Study	Work Station for Work Study-Current		Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	1	81	81	1	81
		h.	*Work Study*	*Work Station for Work Study-Growth*		Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	*1*	*81*	*81*	*2*	*162*
2	Administration Support Spaces	a.	Record Storage Space	Secure Storage Rooms for Records	Should be located close to faculty work room.	Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	1	150	150	1	150
		b.	General Storage	Secure Storage Room	Storage for forms and files, currently have (3) lateral files / 3-4 high. Storage also for equipment on carts.	Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	1	200	200	1	200
		c.	Library	Resource Library	Small library for video tapes, textbooks under review and resources, archives of old catalogs.	Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	6	25	150	1	150
3	English as a Second Language	a.	Private Office	Faculty Office-Current	Individual private office	Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	1	120	120	4	480
		b.	Administration Support	Receptionist	Receptionists	Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	1	81	81	1	81
		c.	Reception Waiting Area	Open space for chairs	Reception area.	Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	8	15	120	1	120

Function Area			Space Name	Description	Notes	Adjacency	Building Level	Occ #	SF / P	NASF	#	Program NASF
		d.	Work Study	Work Station for Work Study-Current		Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	1	81	81	1	81
		e.	Tutoring Rooms	Tutoring-Current	Private meeting room for 1 on 1 tutoring	Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	2	50	100	2	200
		f.	*Tutoring Rooms*	*Tutoring-Growth*	*Private meeting room for 1 on 1 tutoring*	Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	*2*	*50*	*100*	*1*	*100*
4	Outreach Programs	a.	Weber Studies	Private Office	A journal published out of the English Department	Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	1	120	120	1	120
		b.	Metaphor	Private Office	A student literary journal	Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	1	120	120	1	120
		c.	Undergraduate Literary Conference	Private Office		Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	1	120	120	1	120
		d.		Work Station	Secretary for Weber Studies	Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	1	81	81	1	81
		e.	Work Room	Room with work surfaces, cabinets and storage	Copy machines, fax, printers, scanners, work surfaces for collating and sorting.	Strong Adjacency: All English Department Administration Spaces Secondary Adjacency: Communication, Foreign Language and TBE Administration Spaces	Upper Level(s)	8	15	120	1	120
					English Department Sub Total NSF							**6,998**
					English Department Total GSF (ASF / 0.65 Efficiency)							**10,766**
B. Foreign Languages and Literatures												
1	Administration Offices	a.	Private Office	Department Chair	Individual private office with meeting space for 2-3 in office	Strong Adjacency: All Foreign Language Department Administration Spaces Secondary Adjacency: English, Communication and TBE Administration Spaces	Upper Level(s)	1	180	180	1	180
		b.	Private Office	Faculty Office- Current	Individual private office	Strong Adjacency: All Foreign Language Department Administration Spaces Secondary Adjacency: English, Communication and TBE Administration Spaces	Upper Level(s)	1	120	120	15	1,800
		c.	*Private Office*	*Faculty Office-Growth*	*Individual private office*	Strong Adjacency: All Foreign Language Department Administration Spaces Secondary Adjacency: English, Communication and TBE Administration Spaces	Upper Level(s)	*1*	*120*	*120*	*2*	*240*
		d.	Administration Support	Secretary Work Station	1 full time secretary/receptionists	Strong Adjacency: All Foreign Language Department Administration Spaces Secondary Adjacency: English, Communication and TBE Administration Spaces	Upper Level(s)	1	81	81	1	81
		e.	Reception Waiting Area	Reception Area	Open space with chairs for seating	Strong Adjacency: All Foreign Language Department Administration Spaces Secondary Adjacency: English, Communication and TBE Administration Spaces	Upper Level(s)	8	15	120	1	120

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	Function Area		Space Name	Description	Notes	Adjacency	Building Level	Occ #	SF / P	NASF	#	Program NASF
		f.	Work Study	Work Station for Work Study-Current		Strong Adjacency: All Foreign Language Department Administration Spaces Secondary Adjacency: English, Communication and TBE Administration Spaces	Upper Level(s)	1	81	81	1	81
2	Administration Support Spaces	a.	General Storage	Secure Storage Room	General Office Storage.	Strong Adjacency: All Foreign Language Department Administration Spaces Secondary Adjacency: English, Communication and TBE Administration Spaces	Upper Level(s)	1	150	150	1	150
					Foreign Language Sub Total NSF							**2,652**
					Foreign Language Program Total GSF (ASF / 0.65 Efficiency)							**4,080**
C.	**Communication**											
1	Administration Offices	a.	Private Office	Department Chair	Individual private office with meeting space for 2-3 in office.	Strong Adjacency: All Communication Department Administration Spaces Secondary Adjacency: English, Foreign Language and TBE Administration Spaces	Upper Level(s)	1	180	180	1	180
		b.	Private Office	Faculty Office- Current (One of these offices to be for Debate and located adjacent to Communication Debate Lab.	Individual private office	Strong Adjacency: All Communication Department Administration Spaces Secondary Adjacency: English, Foreign Language and TBE Administration Spaces	Upper Level(s)	1	120	120	17	2,040
		c.	*Private Office*	*Faculty Office-Growth*	*Individual private office*	Strong Adjacency: All Communication Department Administration Spaces Secondary Adjacency: English, Foreign Language and TBE Administration Spaces	Upper Level(s)	*1*	*120*	*120*	*2*	*240*
		d.	Administration Support	Secretary Work Station	1 full time secretary/receptionists.	Strong Adjacency: All Communication Department Administration Spaces Secondary Adjacency: English, Foreign Language and TBE Administration Spaces	Upper Level(s)	1	81	81	1	81
		e.	Reception Waiting Area	Reception Area	Open space with chairs for seating	Strong Adjacency: All Communication Department Administration Spaces Secondary Adjacency: English, Foreign Language and TBE Administration Spaces	Upper Level(s)	8	15	120	1	120
		f.	Work Study	Work Station for Work Study-Current		Strong Adjacency: All Communication Department Administration Spaces Secondary Adjacency: English, Foreign Language and TBE Administration Spaces	Upper Level(s)	1	81	81	1	81
2	Administration Support Spaces	a.	General Storage	Secure Storage Room	Storage.	Strong Adjacency: All Communication Department Administration Spaces Secondary Adjacency: English, Foreign Language and TBE Administration Spaces	Upper Level(s)	1	200	200	1	200
3	Meeting Rooms	a.	Small Meeting Room off of Chair's Office	Meeting Room	Small Meeting Room.	Strong Adjacency: All Communication Department Administration Spaces Secondary Adjacency: English, Foreign Language and TBE Administration Spaces	Upper Level(s)	4	25	100	1	100
					Communication Department Sub Total NSF						**25**	**3,042**
					Communications Department Total GSF (ASF / 0.65 Efficiency)							**4,680**

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Function Area			Space Name	Description	Notes	Adjacency	Building Level	Occ #	SF / P	NASF	#	Program NASF
D. Telecommunications and Business Education (TBE)												
1	Administration Offices	a.	Private Office	Department Chair	Individual private office with meeting space for 2-3 in office.	Strong Adjacency: All TBE Department Administration Spaces Secondary Adjacency: English, Foreign Languages and Communication Administration Spaces	Upper Level(s)	1	180	180	1	180
		b.	Private Office	Faculty Office- Current	Individual private office	Strong Adjacency: All TBE Department Administration Spaces Secondary Adjacency: English, Foreign Languages and Communication Administration Spaces	Upper Level(s)	1	120	120	8	960
		c.	*Private Office*	*Faculty Office-Growth*	*Individual private office*	Strong Adjacency: All TBE Department Administration Spaces Secondary Adjacency: English, Foreign Languages and Communication Administration Spaces	Upper Level(s)	*1*	*120*	*120*	*2*	*240*
		d.	Administration Support	Secretary Work Station	1 full time secretary/ receptionists.	Strong Adjacency: All TBE Department Administration Spaces Secondary Adjacency: English, Foreign Languages and Communication Administration Spaces	Upper Level(s)	1	81	81	1	81
		e.	Reception Waiting Area	Reception Area	Open space with chairs for seating	Strong Adjacency: All TBE Department Administration Spaces Secondary Adjacency: English, Foreign Languages and Communication Administration Spaces	Upper Level(s)	8	15	120	1	120
		f.	Work Study	Work Station for Work Study-Current	5 Part-time works study students--space to accommodate up to 2 people.	Strong Adjacency: All TBE Department Administration Spaces Secondary Adjacency: English, Foreign Languages and Communication Administration Spaces	Upper Level(s)	1	81	81	2	162
2	Administration Support Spaces	a.	General Storage	Secure Storage Room	General storage.	Strong Adjacency: All TBE Department Administration Spaces Secondary Adjacency: English, Foreign Languages and Communication Administration Spaces	Upper Level(s)	1	150	150	1	150
		b.	Computer Equipment Storage	Secure Storage Room	Storage for computer equipment.	Strong Adjacency: All TBE Department Administration Spaces Secondary Adjacency: English, Foreign Languages and Communication Administration Spaces	Upper Level(s)	1	150	150	1	150
					TBE Department Sub Total NSF						**17**	**2,043**
					TBE Department Total GSF (ASF / 0.65 Efficiency)							**3,143**
E. Administration Support Spaces												
1	General Support/Shared	a.	Faculty Workroom	Room with work surfaces, cabinets and storage	Copy machines, fax, printers, scanners, work surfaces for collating and sorting, mail distribution.	Strong Adjacency: All Administrative Spaces	If three-levels, 1 per each level	12	25	300	3	900
		b.	Break Room/Faculty Lounge	Break Room	Microwave, fridge, sink, place to sit and eat lunch.	Strong Adjacency: All Administration Spaces	Upper Level(s)	12	25	300	2	600
		c.	Conference Room	Conference Room	To be used as a conference room and also as a formal meeting space.	Strong Adjacency: All Administration Spaces	Upper Level(s)	20	30	600	2	1,200
		d.	Shared Office	Adjunct	Open space for work stations to be shared by adjunct faculty. Approximately 60 adjunct faculty to share 10 open work stations. Adjunct faculty to use conference room as necessary to meet with students privately.	Strong Adjacency: All Administration Spaces	If three-levels, 1 per each level	8	81	648	3	1,944

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Function Area			Space Name	Description	Notes	Adjacency	Building Level	Occ #	SF / P	NASF	#	Program NASF	
		e.	Adjunct Small Meeting Room	Meeting Room	Small Meeting Room to be shared by Adjunct Faculty to meet privately with students.	Strong Adjacency: All Administration Spaces	If three-levels, 1 per each level	4	30	120	3	360	
		f.	Student Lounge	Study Space		Strong Adjacency: Classrooms and Seminar Rooms	Main Level	20	25	500	1	500	
					Administration Support Spaces Sub Total NSF							**5,504**	
					Admin. Support Spaces Total GSF (ASF / 0.65 Efficiency)							**8,468**	
					TOTAL ADMINISTRATION SPACE NSF							**20,239**	**NSF**
					TOTAL ADMINISTRATION SPACE GSF (ASF / 0.65 EFFICIENCY)							**31,137**	**GSF**

F. Humanities and TBE Classrooms

1	Classroom	a.	Classroom	Classroom	Flat floor, moveable seating and tables. Make sure AV equipment includes international all-zone DVD players.	Strong Adjacency: All Classrooms, Labs and Seminar Rooms Secondary Adjacency: Student Spaces	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.	40	25	1,000	4	4,000	
		b.	Observation Classroom	Classroom	Observation classroom to support research in interpersonal and small group communication.	Adjacent to one of the 40 person classrooms	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.	10	10	100	1	100	
		c.	Classroom	Classroom	Flat floor, moveable seating and tables. Make sure AV equipment includes international all-zone DVD players.	Strong Adjacency: All Classrooms, Labs and Seminar Rooms Secondary Adjacency: Student Spaces	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.	35	25	875	4	3,500	
		d.	Classroom	Classroom	Flat floor, moveable seating and tables. Make sure AV equipment includes international all-zone DVD players.	Strong Adjacency: All Classrooms, Labs and Seminar Rooms Secondary Adjacency: Student Spaces	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.	30	25	750	10	7,500	
		e.	Classroom/Seminar	Classroom	Flat floor, moveable seating and tables. (English Composition)	Strong Adjacency: All Classrooms, Labs and Seminar Rooms Secondary Adjacency: Student Spaces	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.	25	25	625	9	5,625	

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	Function Area		Space Name	Description	Notes	Adjacency	Building Level	Occ #	SF / P	NASF	#	Program NASF
2	Specialized Classrooms/Labs	a.	English/Commnication Multi Media Lab	Computer Lab	View demonstrations with screen in the front. Also to be utilized for Media Convergence.	Strong Adjacency: All Classrooms, Labs and Seminar Rooms Secondary Adjacency: Student Spaces	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.	40	35	1,400	1	1,400
		b.	Tiered Classroom	Classroom	Place to hold poetry jams, visiting writers.	Strong Adjacency: All Classrooms, Labs and Seminar Rooms Secondary Adjacency: Student Spaces	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.	200	15	3,000	1	3,000
		c.	Foreign Languages Media Learning Lab	Computer Lab	Space to accommodate 30 students with 30 computers. Needs to be able to be configured for different activities. Also to be used for oral testing.	Strong Adjacency: All Classrooms, Labs and Seminar Rooms Secondary Adjacency: Student Spaces	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.	30	35	1,050	1	1,050
		d.	Electronic Media Production	Audio Recording Studio	Suitable for quality musical recordings and foley work as well as dramatic work and commercials, voice over (announcing) booth and audio control room (big enough for a class of 12-15 observing students)	Strong Adjacency: Electronic Media Production Video Equipment Storage and Check Out room and Video Editing Rooms Secondary Adjacency: Student Spaces and Communication Administration Space	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.			1,000	1	1,000
		e.	Electronic Media Production	Video Field Equipment Storage Check-Out Room	Storage for video cameras, lighting equipment and tripods, plus a computer for logging student use of equipment, and a small test bench at one end for minor repairs, cleaning of equipment.	Strong Adjacency: Electronic Media Production Audio Recording Studio and Video Editing Rooms Secondary Adjacency: Student Spaces and Communication Administration Space	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.			250	1	250
		f.	Electronic Media Production	Video Editing Rooms for Observation	Used for classroom instruction (up to 15 students observing)	Strong Adjacency: Electronic Media Production Video Equipment Storage and Check Out room and Audio Recording Studio Secondary Adjacency: Student Spaces and Communication Administration Space	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.			200	1	200
		g.	Electronic Media Production	Video Editing Rooms	Used for editing video shot with the field equipment.	Strong Adjacency: Electronic Media Production Video Equipment Storage and Check Out room and Audio Recording Studio Secondary Adjacency: Student Spaces and Communication Administration Space	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.			70	2	140
		h.	Special Use Lab	Communication Debate Lab	2 practice rooms and storage (Near Admin. Offices)	Strong Adjacency: All Classrooms, Labs and Seminar Rooms Secondary Adjacency: Student Spaces and Communication Administration Space	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.			700	1	700
		i.	TBE Audio Visual Recording Room	Audio Visual Recording Room	Recording room with storage for AV equipment, blue screen.	Strong Adjacency: All Classrooms, Labs and Seminar Rooms Secondary Adjacency: Student Spaces	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.	6	50	300	1	300

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Function Area			Space Name	Description	Notes	Adjacency	Building Level	Occ #	SF / P	NASF	#	Program NASF
		j.	TBE Computer Lab	40-Person	1 of these labs to be dividable into a 20-person testing center with monitoring capabilities.	Strong Adjacency: All Classrooms, Labs and Seminar Rooms Secondary Adjacency: Student Spaces	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.	40	35	1,400	2	2,800
		k.	TBE Computer Lab	30-Person		Strong Adjacency: All Classrooms, Labs and Seminar Rooms Secondary Adjacency: Student Spaces	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.	30	35	1,050	1	1,050
3	Testing Center (Carl Porter)	a.	Writing Center	Classroom/Lab	Currently in the Student Center-Needs 7 tutor tables for 4 people each; 6 computers	Strong Adjacency: All Classrooms, Labs and Seminar Rooms Secondary Adjacency: Student Spaces	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.	34	25	850	1	850
		b.	Private Office for Director of Writing Center	Director	Individual private office with meeting space for 2-3 in office.	Strong Adjacency: Writing Center	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.	1	180	180	1	180
		c.	Open General Computer Lab/Classroom	Open Lab	Increase available computers on campus--30 students 2 lab aides.	Strong Adjacency: All Classrooms, Labs and Seminar Rooms Secondary Adjacency: Student Spaces	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.	32	35	1,120	1	1,120
		d.	General Tutoring	Open Meeting Space	Currently in S7BS Building snf SSC/tutoring for communications, foreign languages, etc. Needs 6 tutor tables for 4 people each.	Strong Adjacency: All Classrooms, Labs and Seminar Rooms Secondary Adjacency: Student Spaces	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.	24	25	600	1	600
		e.	Office Lab Tech	Tech Office	ASSP Tech--maybe increase of staff shared with CofA&H to support faculty, staff and lab.	Strong Adjacency: Open and General Lab/Classroom	Large Classrooms and Labs located on first and second level. Smaller classrooms/seminar rooms on third level.	1	100	100	1	100
					HUMANITIES AND TBE CLASSROOMS NSF							**35,465 NSF**

HUMANITIES AND TBE CLASSROOMS TOTAL GSF (ASF / 0.65 EFFICIENCY) **54,562 GSF**

TOTAL HUMANITIES BUILDING GSF (ASF / 0.65 EFFICIENCY) **85,698 GSF**

4.2 BUILDING ORGANIZATION

The building organization will be the result of a synthesis of a number of forces operating upon the project. The primary forces affecting the building organization will be:

- Access to natural light and views,
- The social goals of the program,
- Internal circulation and interdisciplinary approach to organization of offices,
- Internal adjacencies, and
- The result of site forces that will shape the building.

All of these forces are discussed in detail elsewhere in this document. In addition,

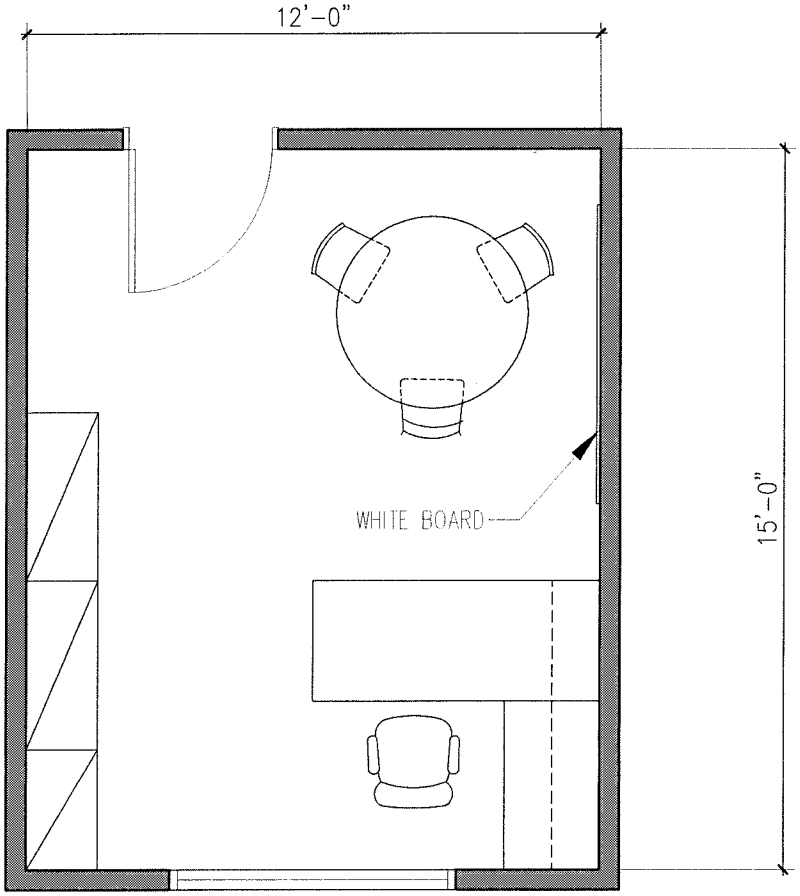
- Particular program locations will have an impact on building organization:

A major component of the new Humanities Building program is classrooms, computer labs and seminar rooms. In particular, several 30, 35 and 40 person classrooms along with a 200 person auditorium are proposed. All of these classrooms, computer labs and the 25-person seminar rooms should be located low in the building, near entrances and in close proximity to large public spaces, student lounges and study areas. This will allow the public spaces to double as pre-function spaces for the larger meeting spaces.

4.3 INDIVIDUAL ROOM DATA SHEETS

The following room data sheets and floor plan diagrams represent the general space needs for the new Humanities Building.

Room Data Sheets



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A-1a

ENGLISH & LITERATURE
INDIVIDUAL PRIVATE OFFICE

- 180 NASF EACH # 2

Room Name: **English & Literature Individual Private Office**

1. SPACE PROGRAM:

General Space Description	Individual private office with meeting space
Total New SF Area	180 NSF
Purpose of Space	Office, work area, and meeting for 2-3
Number of Occupants	1
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

To be located on upper level (s) and adjacent to all English Department administration offices. Also close by Communication, Foreign Languages, and TBE administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

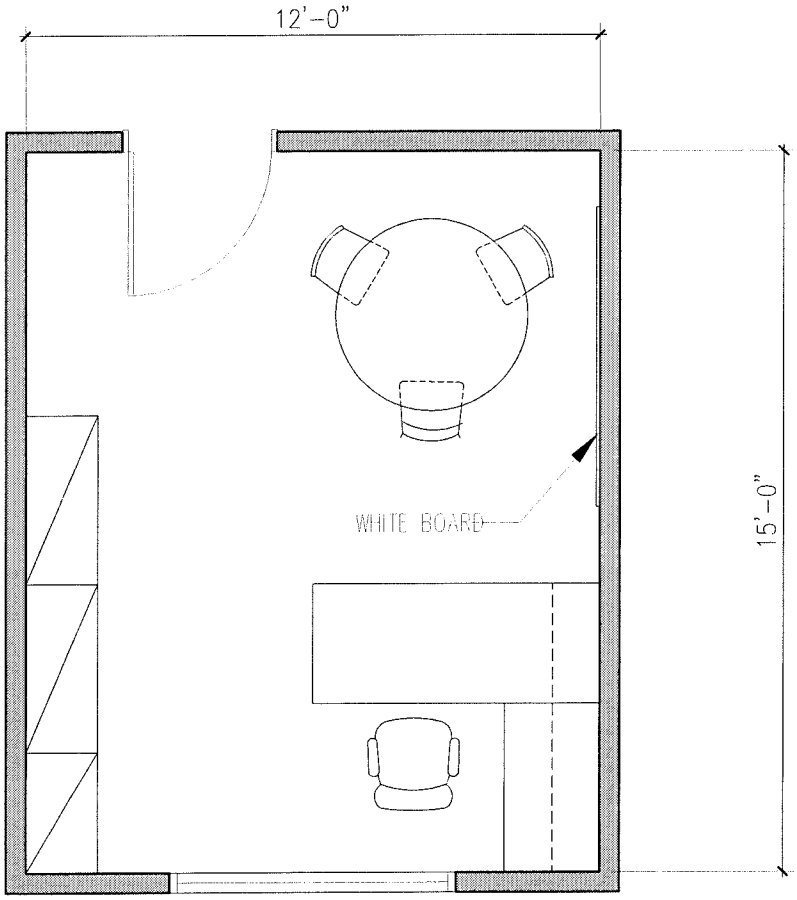
Window	Yes, view preferred
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	No special treatment
General Character of Room	Work area and office

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND ACCESSORIES:

Desk work station with return, file storage, bookshelves, small conference table, marker board, coat hooks, task chair and guest chairs



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B-1a

FOREIGN LANGUAGES & LITERATURE
INDIVIDUAL PRIVATE OFFICE

- 180 NASF

1

Room Name: **Foreign Languages & Literature Individual Private Office**

1. SPACE PROGRAM:

General Space Description	Individual private office with meeting space
Total New SF Area	180 NSF
Purpose of Space	Office, work area, and meeting for 2-3
Number of Occupants	1
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

To be located on upper level(s) and adjacent to all Foreign Languages Department administration offices. Also close by Communication, English, and TBE administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

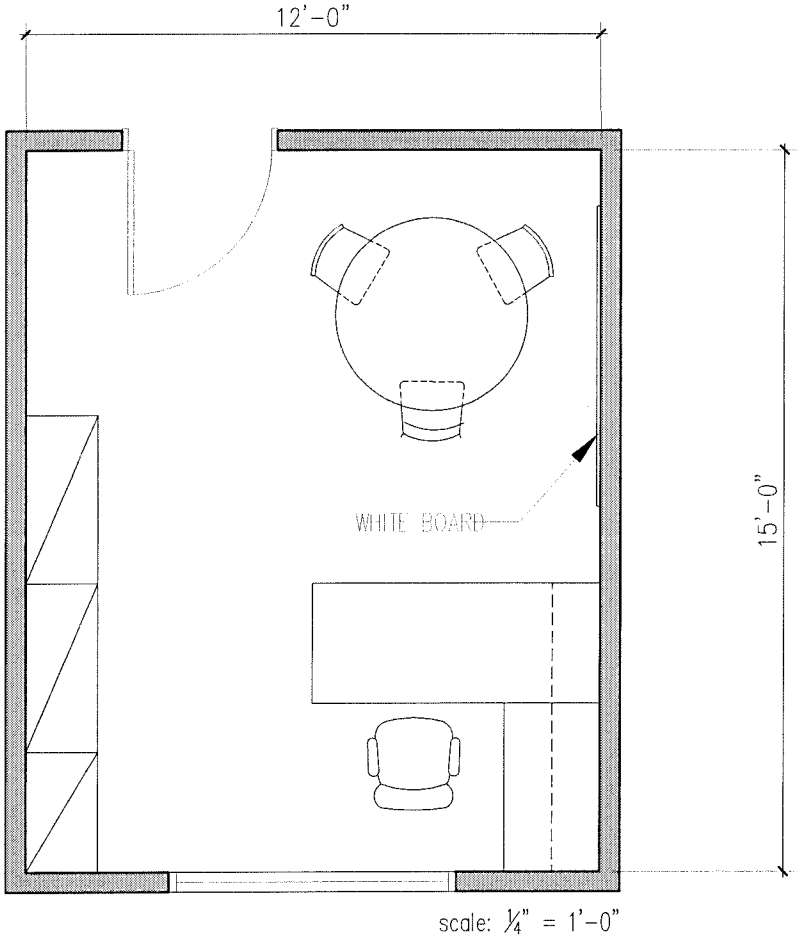
Window	Yes, view preferred
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	No special treatment
General Character of Room	Work area and office

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND ACCESSORIES:

Desk work station with return, file storage, bookshelves, small conference table, marker board, coat hooks, task chair and guest chairs



C-1a

COMMUNICATION
INDIVIDUAL PRIVATE OFFICE

- 180 NASF

1

Room Name: **Communication Individual Private Office**

1. SPACE PROGRAM:

General Space Description	Individual private office with meeting space
Total New SF Area	180 NSF
Purpose of Space	Office, work area, and meeting for 2-3
Number of Occupants	1
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

To be located on upper level (s) and adjacent to all Communication Department administration offices. Also close by English, Foreign Languages, and TBE administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

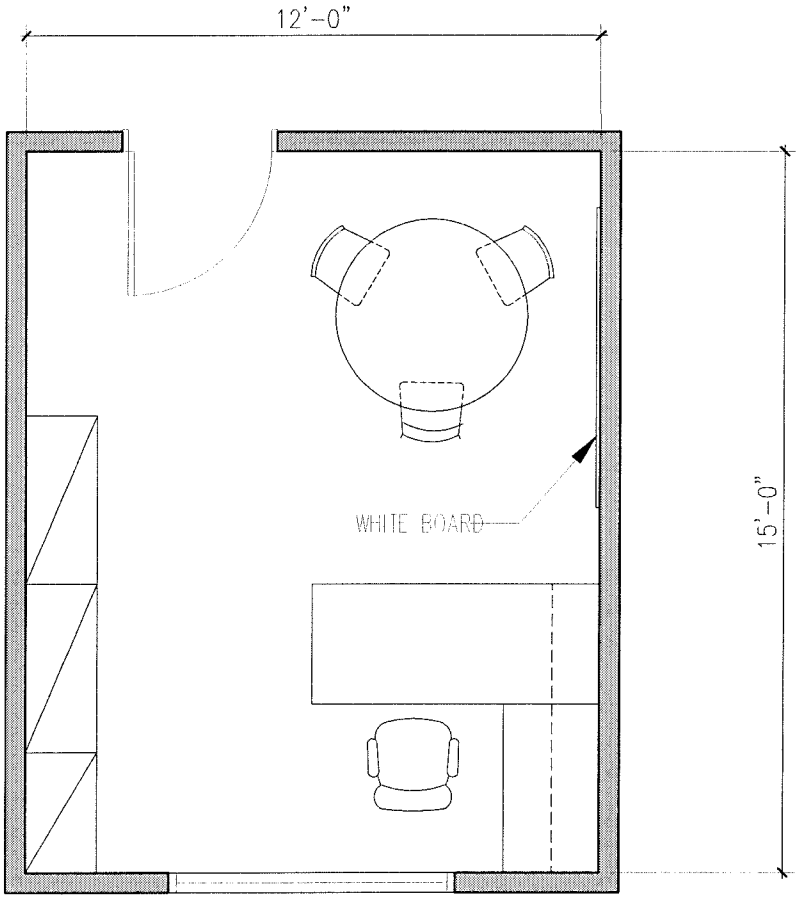
Window	Yes, view preferred
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	No special treatment
General Character of Room	Work area and office

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND ACCESSORIES:

Desk work station with return, file storage, bookshelves, small conference table, marker board, coat hooks, task chair and guest chairs



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D-1a

TBE
INDIVIDUAL PRIVATE OFFICE

- 180 NASF

1

Room Name: **TBE**
Individual Private Office

1. SPACE PROGRAM:

General Space Description	Individual private office with meeting space
Total New SF Area	180 NSF
Purpose of Space	Office, work area, and meeting for 2-3
Number of Occupants	1
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

To be located on upper level (s) and adjacent to all TBE Department administration offices. Also close by Communication, Foreign Languages, and English administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

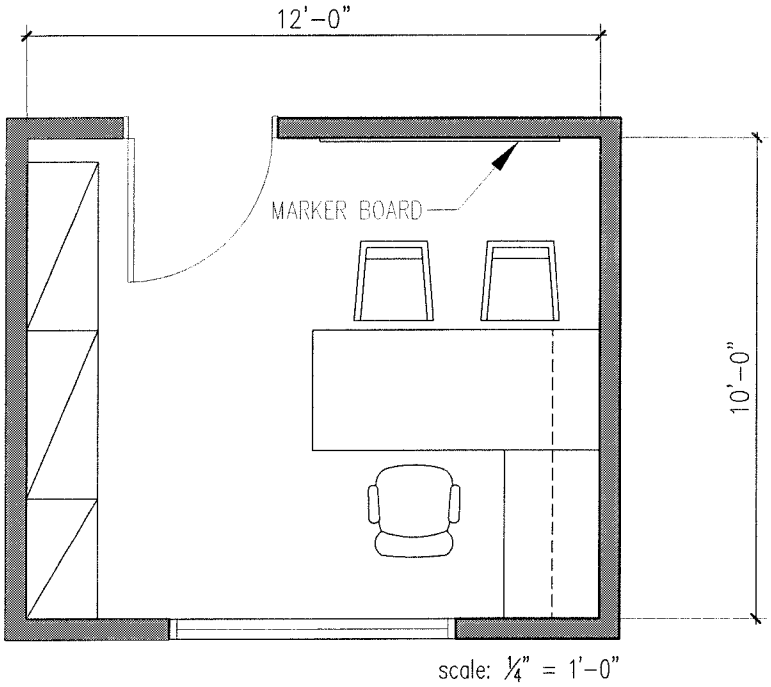
Window	Yes, view preferred
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	No special treatment
General Character of Room	Work area and office

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND ACCESSORIES:

Desk work station with return, file storage, bookshelves, small conference table, marker board, coat hooks, task chair and guest chairs



A-1b — ENGLISH & LITERATURE
INDIVIDUAL PRIVATE OFFICE-CURRENT
- 120 NASF EACH # 30

A-1c — ENGLISH & LITERATURE
INDIVIDUAL PRIVATE OFFICE-GROWTH
- 120 NASF EACH # 3

A-3a — ENGLISH & LITERATURE
INDIVIDUAL PRIVATE OFFICE-CURRENT
- 120 NASF EACH # 4

A-4a — WEBER STUDIES
INDIVIDUAL PRIVATE OFFICE
- 120 NASF # 1

A-4b — METAPHOR
INDIVIDUAL PRIVATE OFFICE
- 120 NASF # 1

A-4c — UNDERGRADUATE LITERARY CONFERENCE
INDIVIDUAL PRIVATE OFFICE
- 120 NASF # 1

Room Name: **English & Literature, Weber Studies, Metaphor, Undergraduate Literary Conference Individual Private Office**

1. SPACE PROGRAM:

General Space Description	Individual private office
Total New SF Area	120 NSF
Purpose of Space	Office, work area
Number of Occupants	1
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

To be located on upper level (s) and adjacent to all English Department administration offices. Also close by Communication, Foreign Languages, and TBE administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

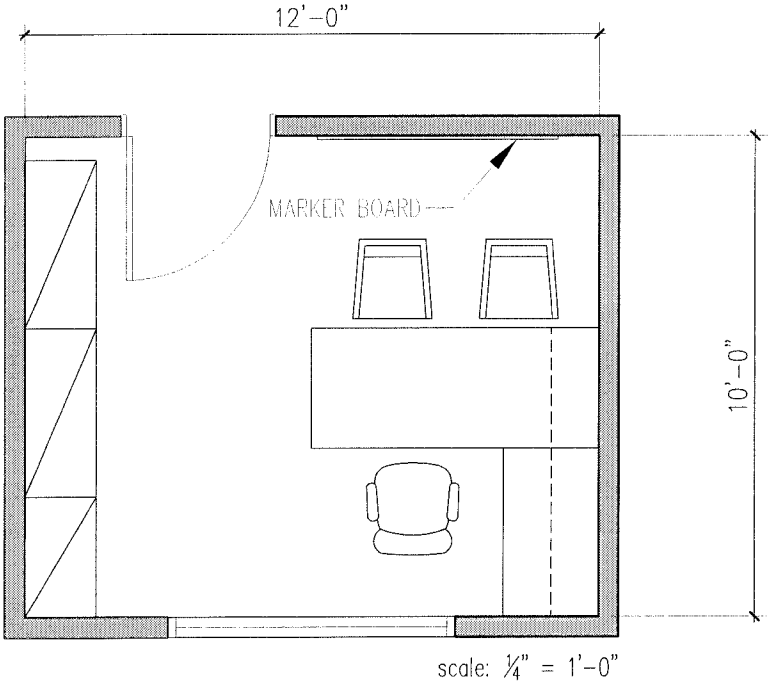
Window	Yes, view preferred
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	No special treatment
General Character of Room	Work area and office

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND ACCESSORIES:

Desk work station with return, file storage, bookshelves, coat hooks, task chair, guest chairs, marker board



B-1b — FOREIGN LANGUAGES & LITERATURE
INDIVIDUAL PRIVATE OFFICE-CURRENT

- 120 NASF EACH # 15

B-1c — FOREIGN LANGUAGES & LITERATURE
INDIVIDUAL PRIVATE OFFICE-GROWTH

- 120 NASF EACH # 2

Room Name: **Communication Individual Private Office**

1. SPACE PROGRAM:

General Space Description	Individual private office
Total New SF Area	120 NSF
Purpose of Space	Office, work area
Number of Occupants	1
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

To be located on upper level (s) and adjacent to all Communication Department administration offices. Also close by Foreign Languages, English, and TBE administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

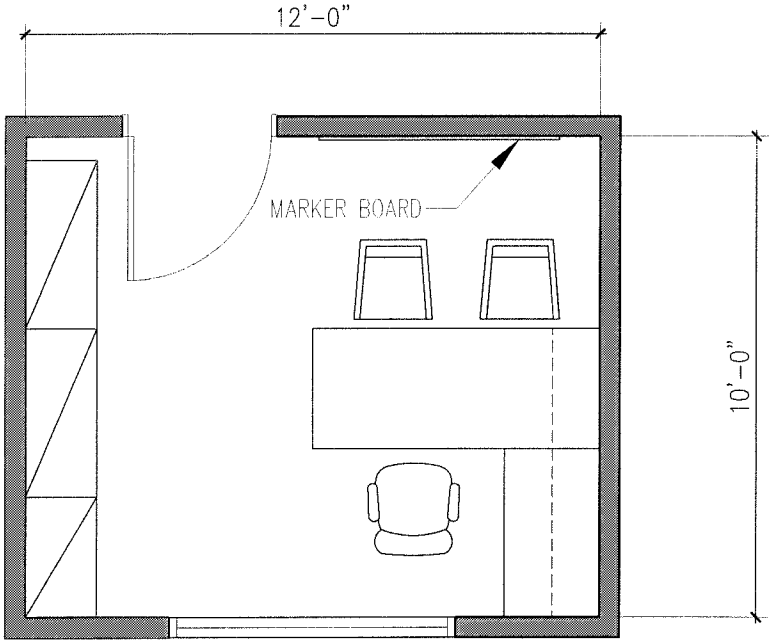
Window	Yes, view preferred
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	No special treatment
General Character of Room	Work area and office

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Desk work station with return, file storage, bookshelves, coat hooks, task chair, guest chairs, marker board



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D-1b — TBE
INDIVIDUAL PRIVATE OFFICE-CURRENT

- 120 NASF EACH # 8

D-1c — TBE
INDIVIDUAL PRIVATE OFFICE-GROWTH

- 120 NASF EACH # 2

Room Name: **TBE**
Individual Private Office

1. SPACE PROGRAM:

General Space Description	Individual private office
Total New SF Area	120 NSF
Purpose of Space	Office, work area
Number of Occupants	1
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

To be located on upper level (s) and adjacent to all TBE Department administration offices. Also close by Communication, English, and Foreign Languages administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

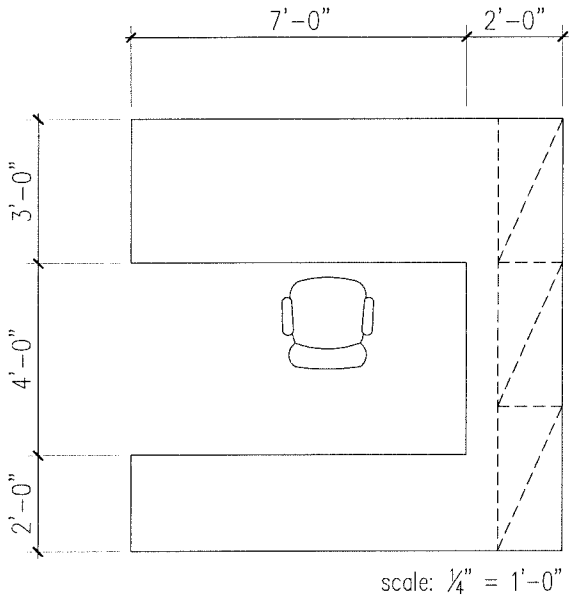
Window	Yes, view preferred
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	No special treatment
General Character of Room	Work area and office

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Desk work station with return, file storage, bookshelves, coat hooks, task chair, guest chairs, marker board



A-1d — ENGLISH & LITERATURE
SECRETARY WORK STATION
- 81 NASF EACH # 2

A-1g — ENGLISH & LITERATURE
WORK STATION FOR WORK STUDY-CURRENT
- 81 NASF # 1

A-1h — ENGLISH & LITERATURE
WORK STATION FOR WORK STUDY-GROWTH
- 81 NASF EACH # 2

A-3b — ENGLISH & LITERATURE
RECEPTIONIST
- 81 NASF # 1

A-3d — ENGLISH & LITERATURE
WORKSTATION FOR ESL WORK STUDY
- 81 NASF # 1

A-4d — ENGLISH & LITERATURE
WORKSTATION FOR OUTREACH PROGRAM
- 81 NASF EACH # 1

Room Name:

English & Literature
Secretary Work Station
Receptionist Work Station
Work Study Workstation
ESL Work Study Workstation
Outreach Program Workstation

1. SPACE PROGRAM:

General Space Description	Individual work station
Total New SF Area	81 NSF
Purpose of Space	Work area for 1 person
Number of Occupants	1
Hours and Days Used	8 am - 5 pm

2. PROXIMITY AND ACCESS REQUIREMENTS:

To be located on upper level (s) and adjacent to all English Department administration offices. Also close by Communication, Foreign Languages, and TBE administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

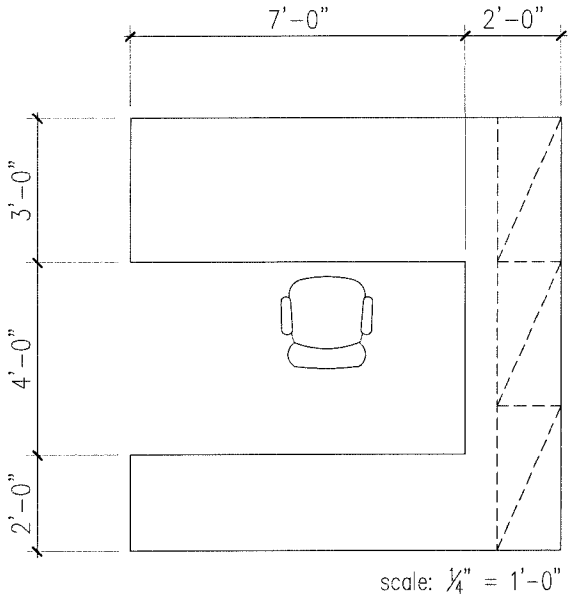
Window	None
Doors	None
Floor	Carpet
Wall	None
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Work station

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power distributed to systems furniture
Plumbing	None
Lighting	Low-glare fluorescent fixtures
Phone/Data	Phone & data distributed to systems furniture w/ wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Systems furniture w/ low panels, task chair



B-1d FOREIGN LANGUAGES & LITERATURE
SECRETARY WORK STATION

- 81 NASF # 1

B-1f FOREIGN LANGUAGES & LITERATURE
WORK STATION FOR WORK STUDY-CURRENT

- 81 NASF # 1

Room Name: **Foreign Languages & Literatures Secretary Work Station Work Study Work Station**

1. SPACE PROGRAM:

General Space Description	Individual work station
Total New SF Area	81 NSF
Purpose of Space	Work area for 1 person
Number of Occupants	1
Hours and Days Used	8 am - 5 pm

2. PROXIMITY AND ACCESS REQUIREMENTS:

To be located on upper level(s) and adjacent to all Foreign Laguages Department administration offices. Also close by Communication, English, and TBE administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

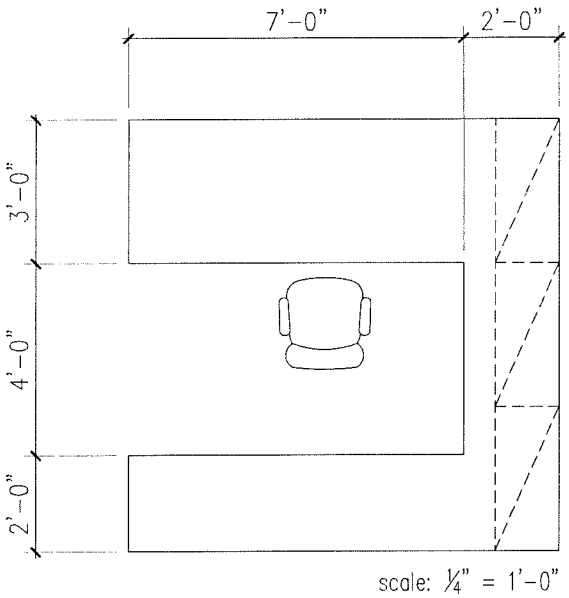
Window	None
Doors	None
Floor	Carpet
Wall	None
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Work station

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V distributed to systems furniture
Plumbing	None
Lighting	Low-glare fluorescent fixtures
Phone/Data	Phone & data distributed to systems furniture w/ wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Systems furniture w/ low panels, task chair



C-1d COMMUNICATION
SECRETARY WORK STATION

- 81 NASF # 1

C-1f COMMUNICATION
WORK STATION FOR WORK STUDY-CURRENT

- 81 NASF # 1

Room Name: **Communication Secretary Work Station Work Study Work Station**

1. SPACE PROGRAM:

General Space Description	Individual work station
Total New SF Area	81 NSF
Purpose of Space	Work area for 1 person
Number of Occupants	1
Hours and Days Used	8 am - 5 pm

2. PROXIMITY AND ACCESS REQUIREMENTS:

To be located on upper level (s) and adjacent to all Communication Department administration offices. Also close by English, Foreign Languages, and TBE administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

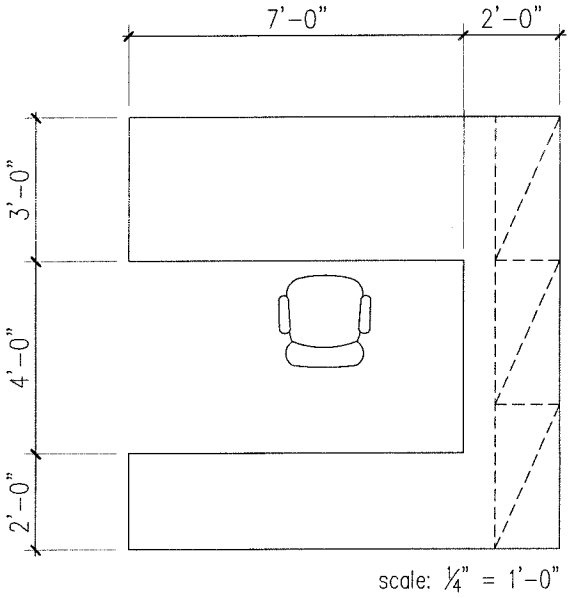
Window	None
Doors	None
Floor	Carpet
Wall	None
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Work station

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V distributed to systems furniture
Plumbing	None
Lighting	Low-glare fluorescent fixtures
Phone/Data	Phone & data distributed to systems furniture w/ wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Systems furniture w/ low panels, task chair



D-1d — TBE
SECRETARY WORK STATION
- 81 NASF EACH — # 1

D-1f — TBE
WORK STATION FOR WORK STUDY-CURRENT
- 81 NASF EACH — # 2

Room Name: **TBE**
Secretary Work Station
Work Study Work Station

1. SPACE PROGRAM:

General Space Description	Individual work station
Total New SF Area	81 NSF
Purpose of Space	Work area for 1 person
Number of Occupants	1
Hours and Days Used	8 am - 5 pm

2. PROXIMITY AND ACCESS REQUIREMENTS:

To be located on upper level (s) and adjacent to all TBE Department administration offices. Also close by Communication, Foreign Laguages, and English administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

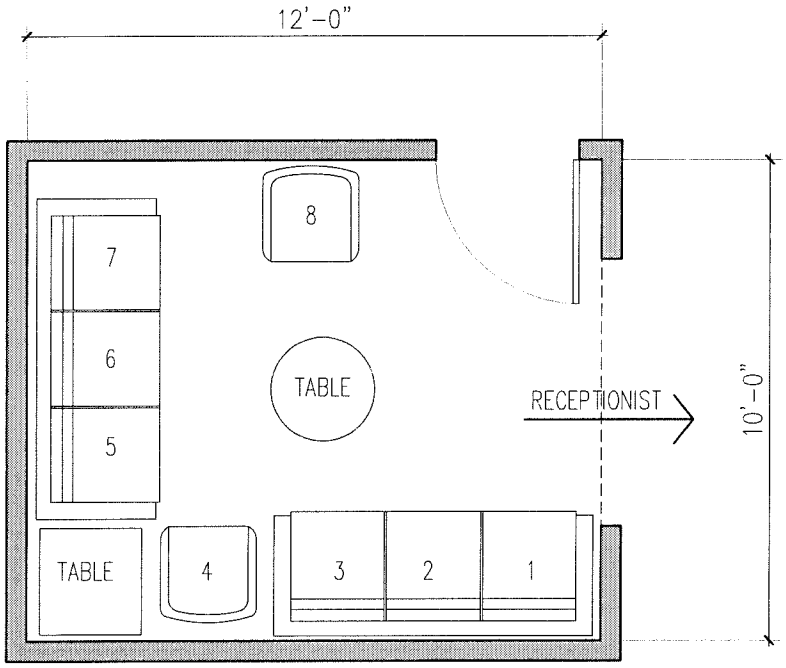
Window	None
Doors	None
Floor	Carpet
Wall	None
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Work station

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V distributed to systems furniture
Plumbing	None
Lighting	Low-glare fluorescent fixtures
Phone/Data	Phone & data distributed to systems furniture w/ wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Systerms furniture w/ low panels, task chair



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A-1e — ENGLISH, LITERATURE & ESL RECEPTION AREA

- 120 NASF — # 1
- OPEN SPACE W/ CHAIRS

A-3c — ENGLISH, LITERATURE & ESL RECEPTION AREA

- 120 NASF — # 1
- OPEN SPACE W/ CHAIRS

Room Name: **English & Literature**
Reception Waiting Area
English as a Second Language Reception Area

1. SPACE PROGRAM:

General Space Description	Open space with chairs & couches
Total New SF Area	120 NSF
Purpose of Space	Waiting area for students & visitors
Number of Occupants	8
Hours and Days Used	8 am - 5 pm

2. PROXIMITY AND ACCESS REQUIREMENTS:

Primary adjacency - Reception
To be located on upper level (s) and adjacent to all English Department administration offices. Also close by Communication, Foreign Languages, and TBE administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

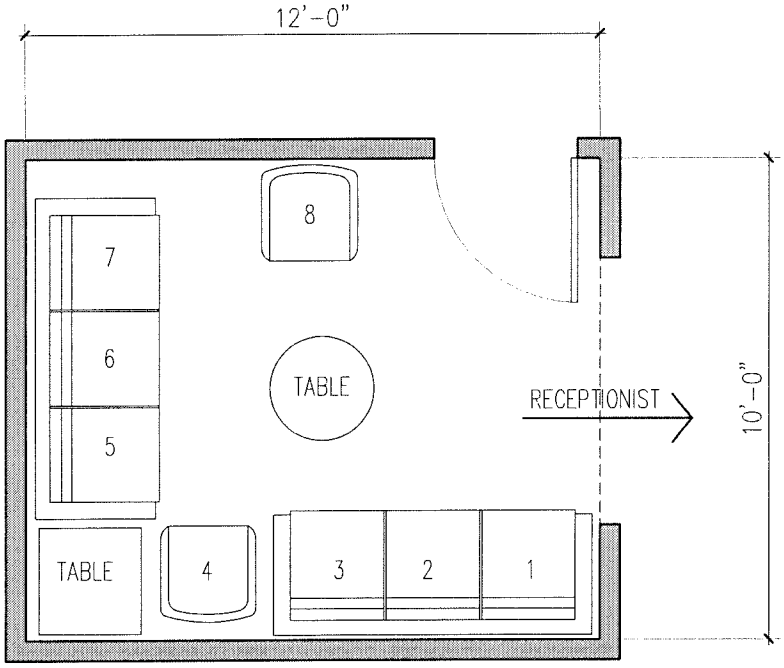
Window	If possible
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	No special treatment
General Character of Room	Open space, "Front Door" to department

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent downlight fixtures & decorative fixtures
Phone/Data	Wall outlets along w/ wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Upholstered chairs & couches, corner table, coffee table



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B-1e

FOREIGN LANGUAGES & LITERATURE
RECEPTION AREA

- 120 NASF # 1
- OPEN SPACE W/ CHAIRS

Room Name: **Foreign Languages & Literature Reception Waiting Area**

1. SPACE PROGRAM:

General Space Description	Open space with chairs & couches
Total New SF Area	120 NSF
Purpose of Space	Waiting area for students & visitors
Number of Occupants	8
Hours and Days Used	8 am - 5 pm

2. PROXIMITY AND ACCESS REQUIREMENTS:

Primary adjacency - Reception
To be located on upper level(s) and adjacent to all Foreign Laguages Department administration offices. Also close by Communication, English, and TBE administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

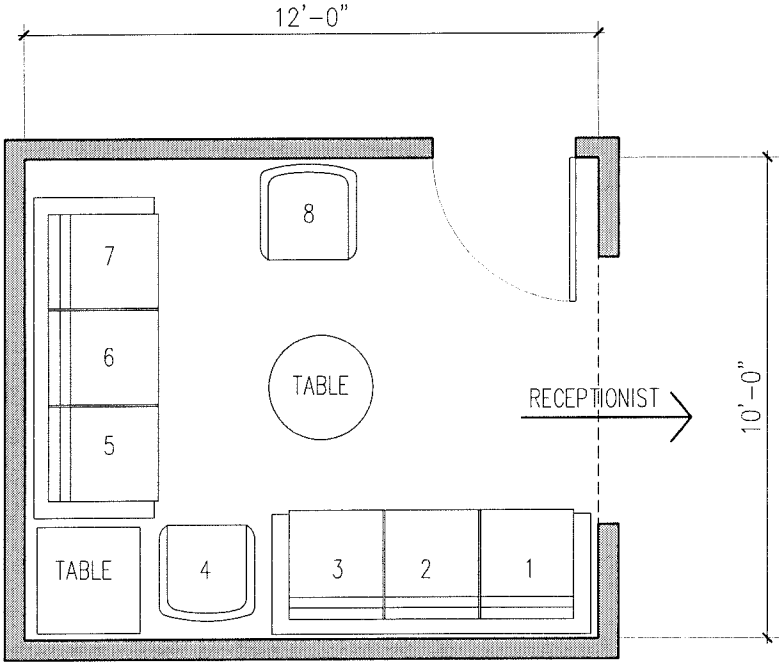
Window	If possible
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	No special treatment
General Character of Room	Open space, "Front Door" to department

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent downlight fixtures & decorative fixtures
Phone/Data	Wall outlets along w/ wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Upholstered chairs & couches, corner table, coffee table



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C-1e

COMMUNICATION
RECEPTION AREA

- 120 NASF # 1
- OPEN SPACE W/ CHAIRS

Room Name: **Communication Reception Waiting Area**

1. SPACE PROGRAM:

General Space Description	Open space with chairs & couches
Total New SF Area	120 NSF
Purpose of Space	Waiting area for students & visitors
Number of Occupants	8
Hours and Days Used	8 am - 5 pm

2. PROXIMITY AND ACCESS REQUIREMENTS:

Primary adjacency - Reception
To be located on upper level (s) and adjacent to all Communication Department administration offices. Also close by English, Foreign Languages, and TBE administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

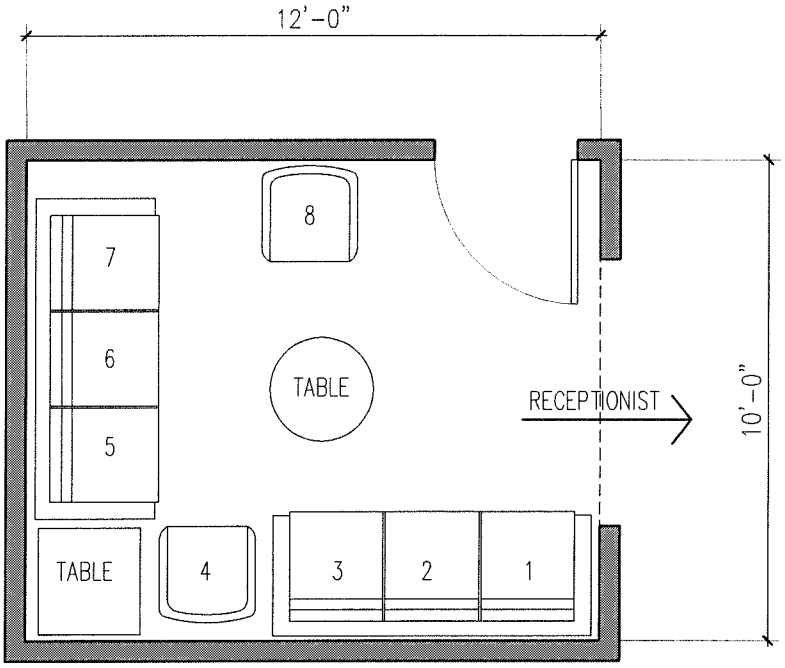
Window	If possible
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	No special treatment
General Character of Room	Open space, "Front Door" to department

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent downlight fixtures & decorative fixtures
Phone/Data	Wall outlets along w/ wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Upholstered chairs & couches, corner table, coffee table



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D-1e

TBE
RECEPTION AREA

- 120 NASF EACH # 1
- OPEN SPACE W/ CHAIRS

Room Name: **TBE**
Reception Waiting Area

1. SPACE PROGRAM:

General Space Description	Open space with chairs & couches
Total New SF Area	120 NSF
Purpose of Space	Waiting area for students & visitors
Number of Occupants	8
Hours and Days Used	8 am - 5 pm

2. PROXIMITY AND ACCESS REQUIREMENTS:

Primary adjacency - Reception
To be located on upper level (s) and adjacent to all TBE Department administration offices. Also close by Communication, Foreign Languages, and English administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

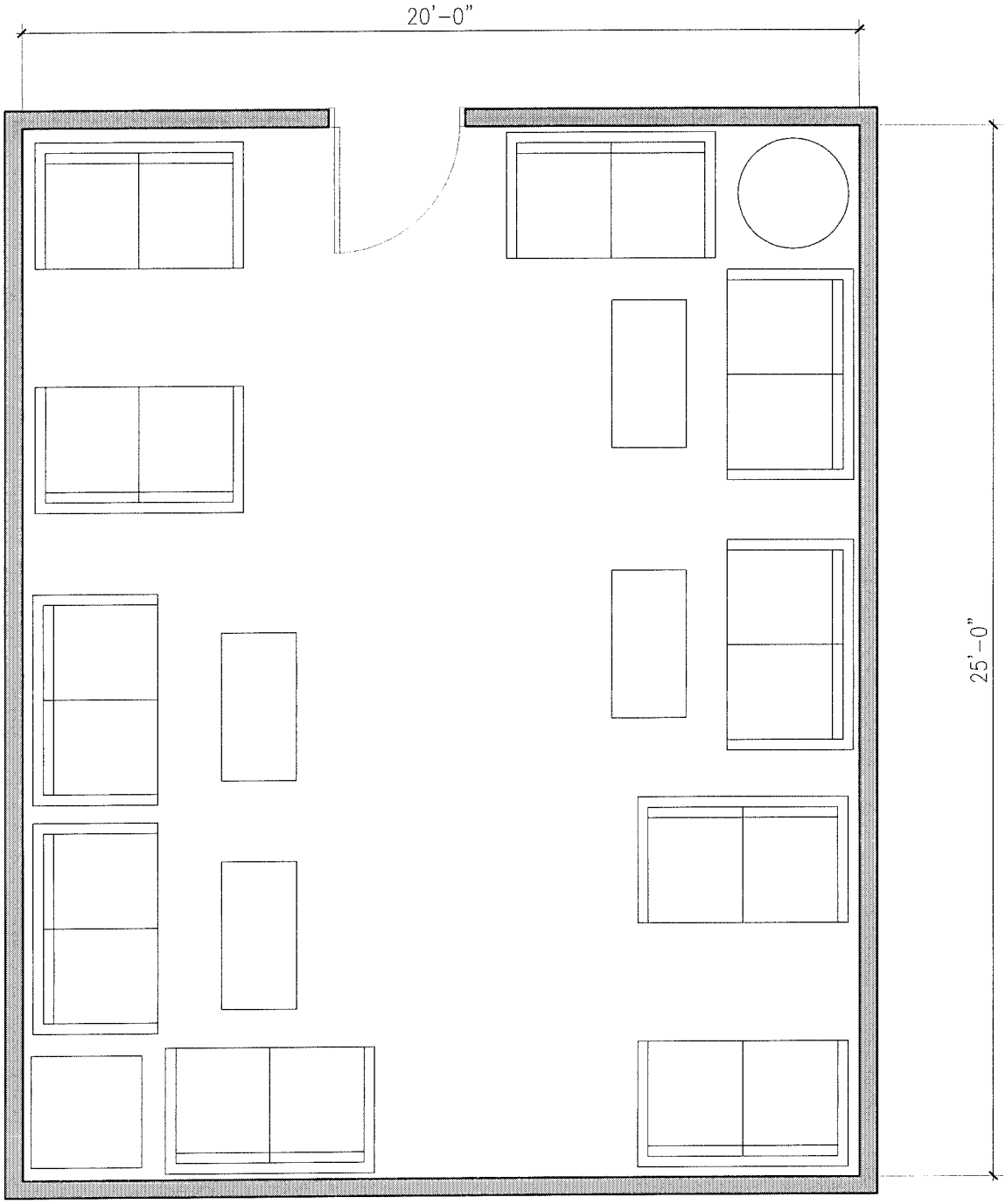
Window	If possible
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	No special treatment
General Character of Room	Open space, "Front Door" to department

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent downlight fixtures & decorative fixtures
Phone/Data	Wall outlets along with wireless capabilities
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Upholstered chairs & couches, corner table, coffee table



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E-1f STUDENT LOUNGE

- 500 NASF # 1

Room Name: **All Departments Student Lounge**

1. SPACE PROGRAM:

General Space Description	Informal gathering space
Total New SF Area	500 NSF
Purpose of Space	Large room w/ multiple seating areas for student gathering & interaction
Number of Occupants	20
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

Classrooms and Seminar rooms

3. ARCHITECTURAL CHARACTERISTICS:

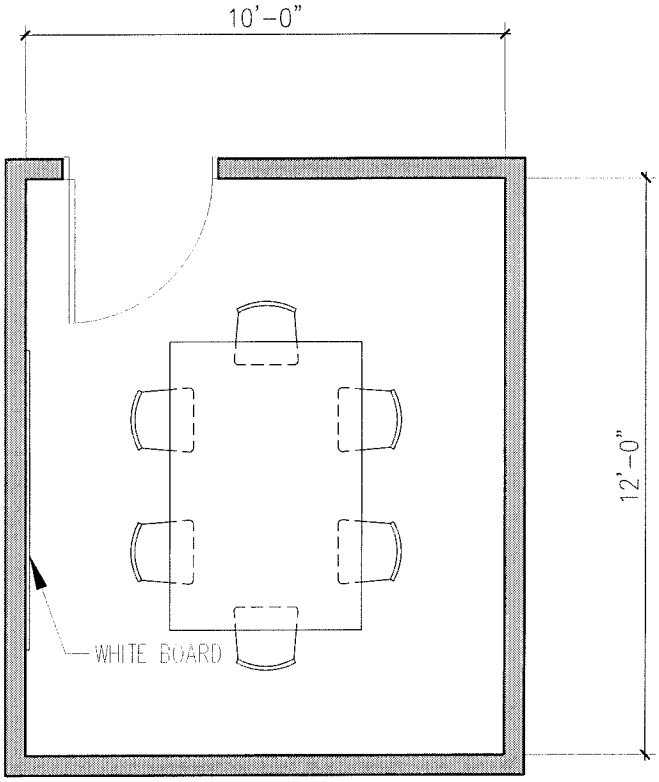
Window	Yes
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Student gathering and lounge area

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent downlight fixtures & decorative fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Upholstered chairs & couches, coffee tables



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E-1e ADJUNCT SMALL MEETING ROOM

- 120 NASF EACH # 3

Room Name: **Adjunct Small Meeting Room**
All Departments

1. SPACE PROGRAM:

General Space Description	Meeting room
Total New SF Area	120 NSF
Purpose of Space	Small meeting area for adjuncts to have private meetings
Number of Occupants	2 - 6
Hours and Days Used	8 am - 5 pm

2. PROXIMITY AND ACCESS REQUIREMENTS:

Primary adjacency - Adjunct offices (work stations)
All administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

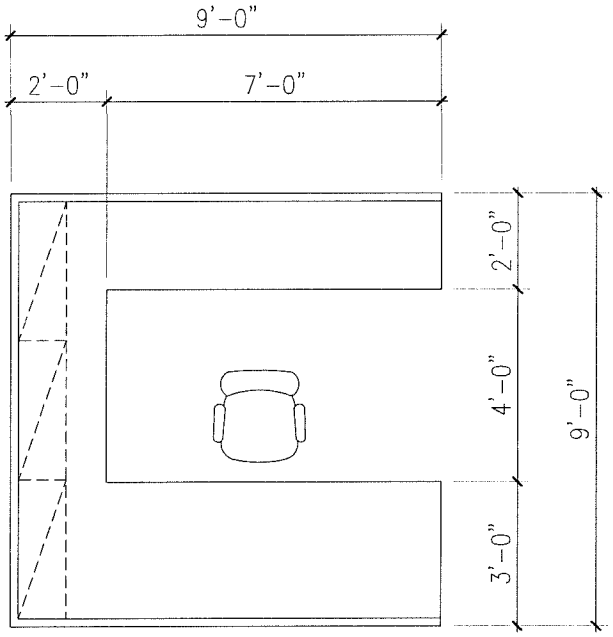
Window	Yes
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Private, quiet

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent downlight fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Small conference table with chairs, white board



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E-1d SHARED OFFICE

- 81 NASF EACH # 24

Room Name: **Adjunct Shared Office**

1. SPACE PROGRAM:

General Space Description	Adjunct Shared office area
Total New SF Area	81 NSF
Purpose of Space	Large open area for open offices
Number of Occupants	1 (total of 8 per space x 3 floors)
Hours and Days Used	8 am - 5 pm

2. PROXIMITY AND ACCESS REQUIREMENTS:

Primary adjacency - Adjunct small meeting room
All administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

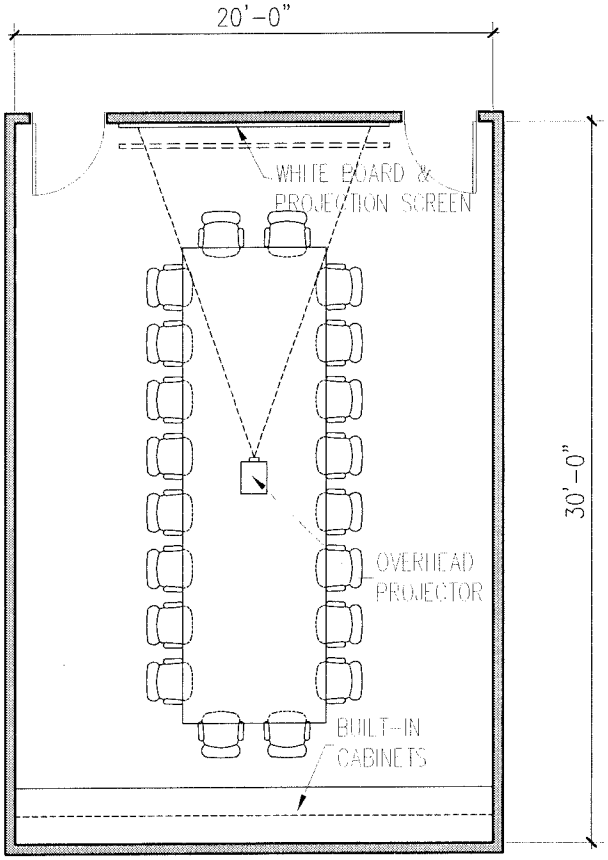
Window	Yes
Doors	Yes 3'-0" single leaf entry door into large open spaces
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	No special treatment
General Character of Room	Open space with workstation furniture systems

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent fixtures
Phone/Data	Phone & data distribution to systems furniture w/ wireless capabilities
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Systems furniture w/ privacy panels



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E-1c CONFERENCE ROOM

- 600 NASF EACH # 2

Room Name: **Conference Room**

1. SPACE PROGRAM:

General Space Description	Conference room
Total New SF Area	600 NSF
Purpose of Space	Conference room and meeting space
Number of Occupants	20
Hours and Days Used	8 am - 5 pm

2. PROXIMITY AND ACCESS REQUIREMENTS:

All administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

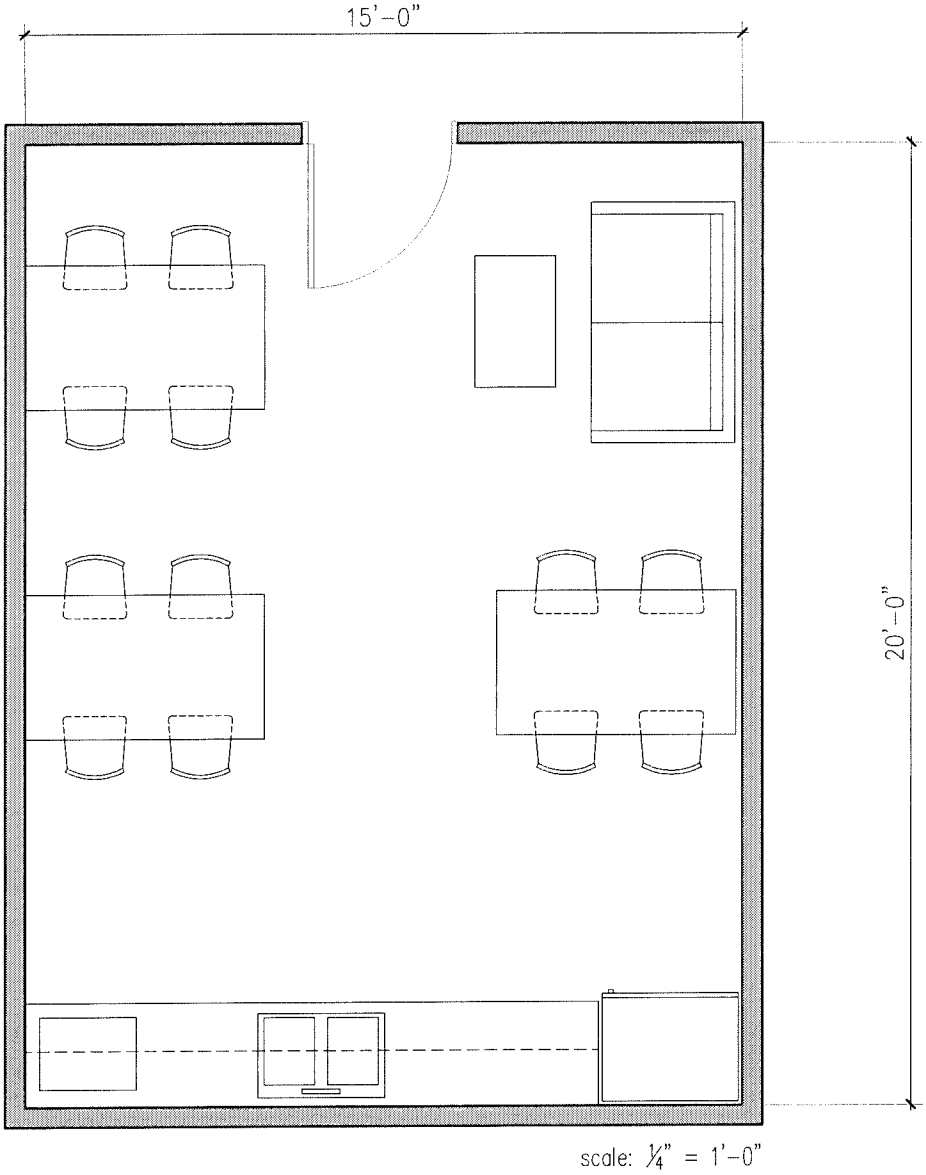
Window	Yes
Doors	Yes (2)3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	Sound insulation in walls
General Character of Room	Private, quiet

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent and incandescent dimmable downlight fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Conference table, conference chairs, white board, built in millwork/ cabinets, overhead projector, projector screen



E-1b BREAK ROOM

- 300 NASF EACH # 2

Room Name: **Break Room/Faculty Lounge**

1. SPACE PROGRAM:

General Space Description	Break room
Total New SF Area	300 NSF
Purpose of Space	Place to sit, eating area, general lounge
Number of Occupants	12
Hours and Days Used	8 am - 5 pm

2. PROXIMITY AND ACCESS REQUIREMENTS:

All administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

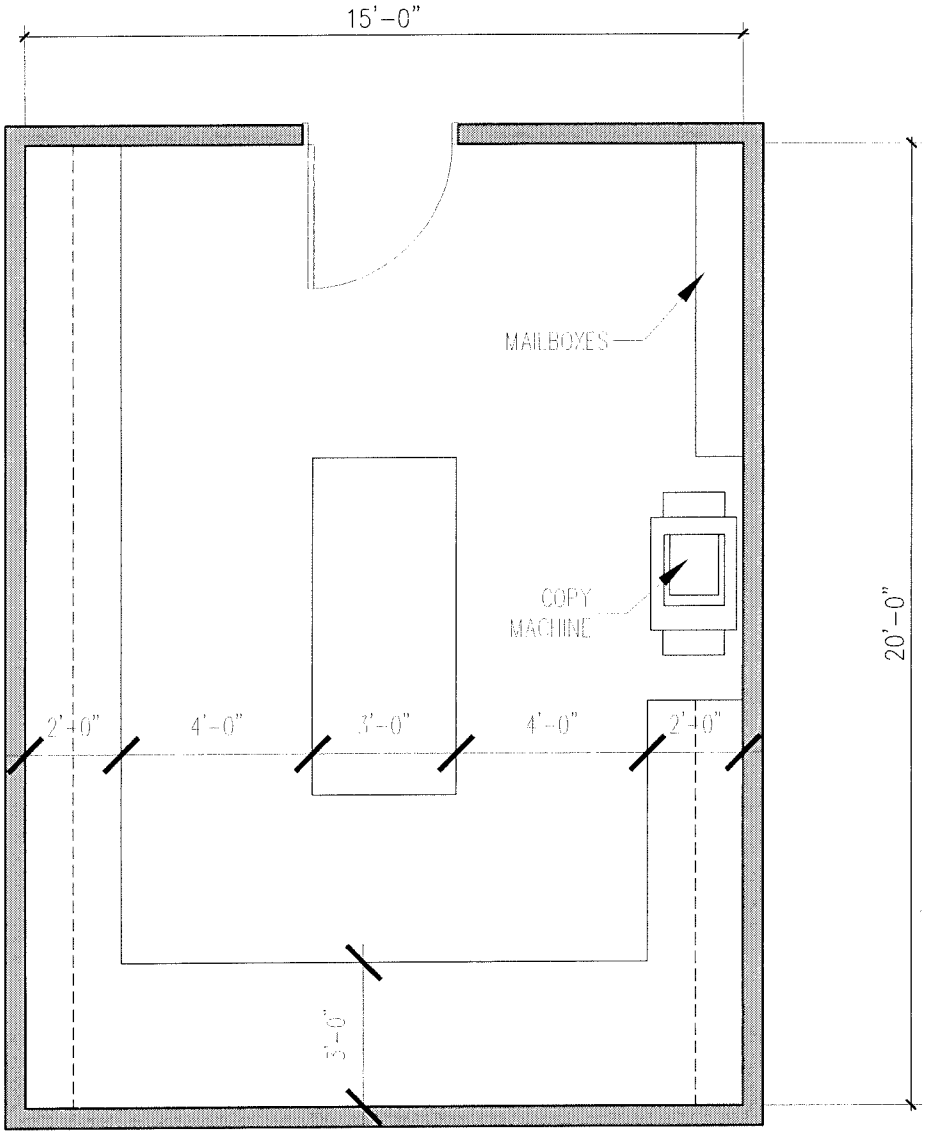
Window	Yes
Doors	Yes 3'-0" single leaf
Floor	Vinyl composition tile
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Open plan for table, chairs & couches, flexible space

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	Sink with hot and cold water, water supply line for the refrigerator
Lighting	Low-glare fluorescent downlight fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Tables, chairs, couches, microwave, refrigerator



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E-1a FACULTY WORKROOM

- 300 NASF EACH # 3

Room Name: **Faculty Work Room**

1. SPACE PROGRAM:

General Space Description	Room with work surfaces, cabinets and storage
Total New SF Area	300 NSF
Purpose of Space	Room for production, distribution and storage of documents, mail, copy & fax
Number of Occupants	12
Hours and Days Used	8 am - 5 pm

2. PROXIMITY AND ACCESS REQUIREMENTS:

All administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

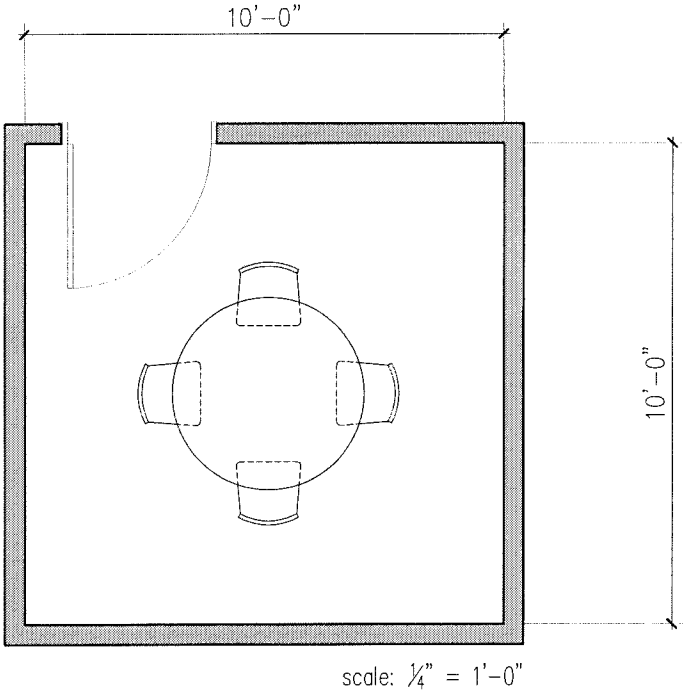
Window	Yes
Doors	Yes 3'-0" single leaf
Floor	Vinyl composition tile
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	General work room w/ large work surface areas & storage

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent downlight fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	Power for copy machine

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Copy machines, fax, printers, scanners, built in cabinets & work surfaces



C-3a SMALL MEETING ROOM

- 100 NASF # 1

Room Name: **Communication Small Meeting Room**

1. SPACE PROGRAM:

General Space Description	Meeting room adjacent to department chair's office
Total New SF Area	100 NSF
Purpose of Space	Private meeting room
Number of Occupants	2 - 6
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

Primary adjacency - Department chair's office
To be located on upper level(s) and adjacent to all Communication Department administration offices. Also close by English, Foreign Languages, and TBE Administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

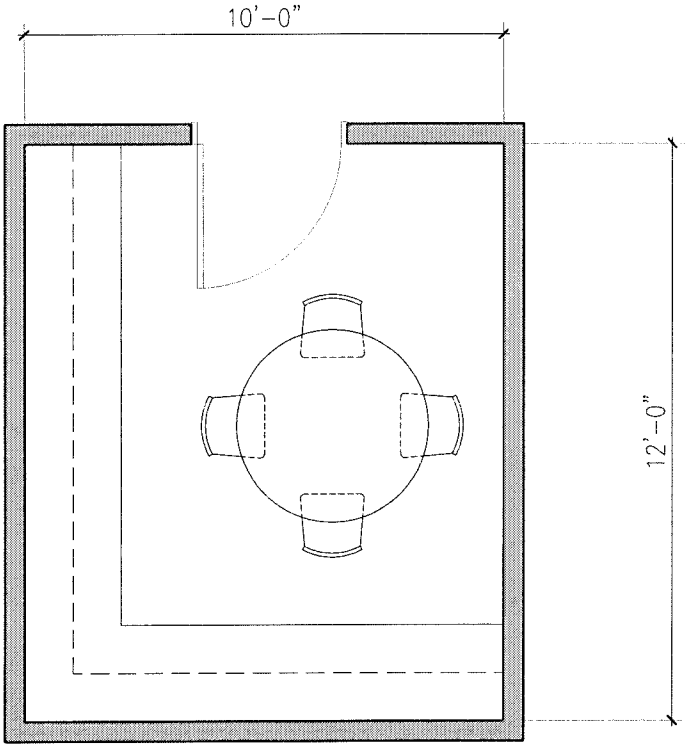
Window	Yes
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	Sound insulation in walls
General Character of Room	Private, quiet

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent downlight fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Small conference table and chairs



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A-4e OUTREACH PROGRAM WORKROOM

• 120 NASF # 1

Room Name: **Outreach Program Work Room**

1. SPACE PROGRAM:

General Space Description	Work room with work surface, cabinets and storage
Total New SF Area	120 NSF
Purpose of Space	Room for production, distribution and storage of documents
Number of Occupants	8
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

Primary adjacency - Outreach programs
To be located on upper level(s) and adjacent to all English Department administration offices. Also close by Communication, Foreign Languages, and TBE Administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

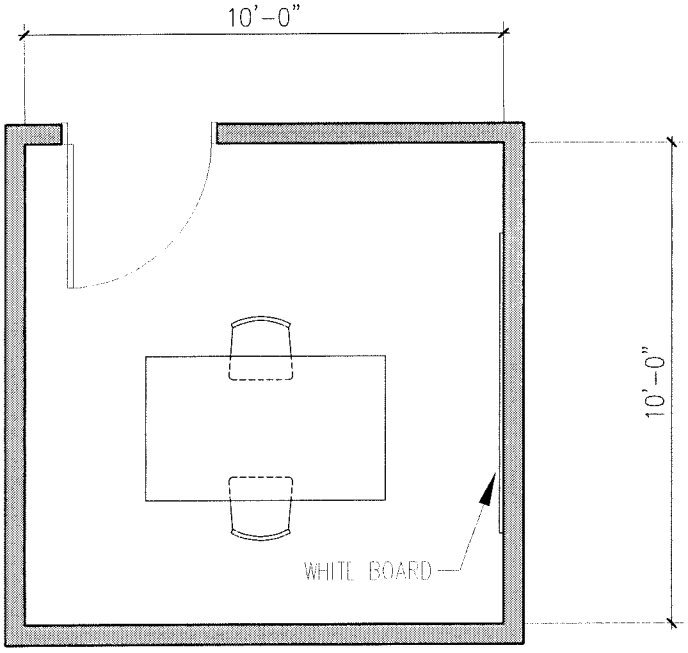
Window	Yes
Doors	Yes 3'-0" single leaf
Floor	Vinyl composition tile
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	General work room w/ storage capabilities

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent downlight fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Copy machines, fax, printers, scanners, work surfaces, built in cabinets, small meeting table, task chairs



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A-3e ENGLISH TUTORING ROOM

- 100 NASF EACH # 2

A-3e ENGLISH TUTORING ROOM - GROWTH

- 100 NASF EACH # 1

Room Name: **English & Literature Tutoring Room**

1. SPACE PROGRAM:

General Space Description	Tutoring room
Total New SF Area	100 NSF
Purpose of Space	Room for student tutoring
Number of Occupants	2
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

To be located on upper level(s) and adjacent to all English Department administration offices. Also close by Communication, Foreign Language, and TBE Administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

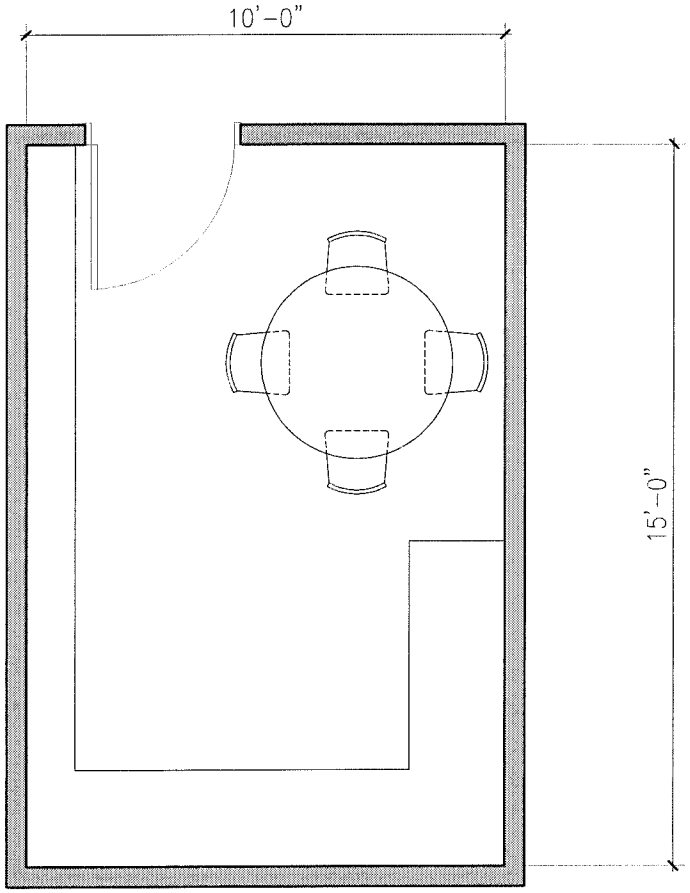
Window	Yes
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Private, quiet

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent downlight fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Table and task chairs, whiteboard



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A-2c ENGLISH LIBRARY

• 150 NASF # 1

Room Name: **English Library**

1. SPACE PROGRAM:

General Space Description	Library for storage & general distribution of resources
Total New SF Area	150 NSF
Purpose of Space	Small library for videos, textbooks and archives of old catalogs
Number of Occupants	6
Hours and Days Used	8 am - 5 pm

2. PROXIMITY AND ACCESS REQUIREMENTS:

To be located on upper level(s) and adjacent to all English Department administration offices. Also close by Communication, Foreign Language, and TBE administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

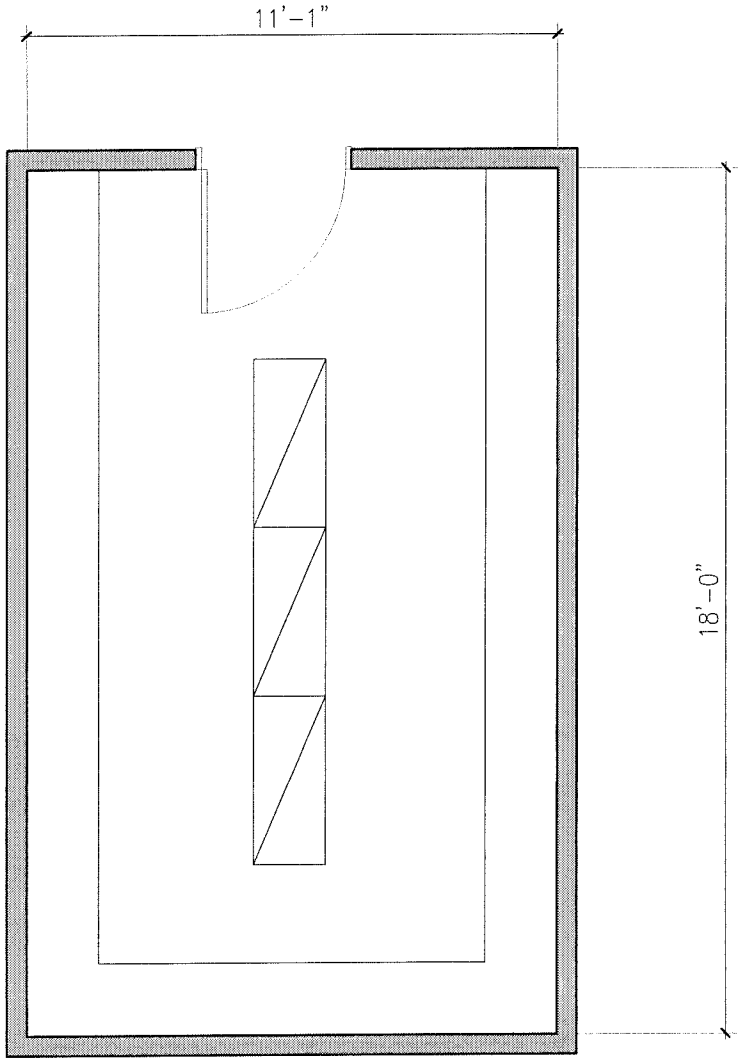
Window	Yes
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Quiet

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent downlight fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Storage cabinets & shelves for video tapes, books and catalogs, small table & chairs



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A-2b SECURE STORAGE ROOM
- 200 NASF # 1

C-2a SECURE STORAGE ROOM
- 200 NASF # 1

Room Name: **General Storage**

1. SPACE PROGRAM:

General Space Description	Secure storage room
Total New SF Area	200 NSF
Purpose of Space	Storage room for forms and files
Number of Occupants	N/A
Hours and Days Used	8 am - 5 pm

2. PROXIMITY AND ACCESS REQUIREMENTS:

To be located on upper level(s) and adjacent to all administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

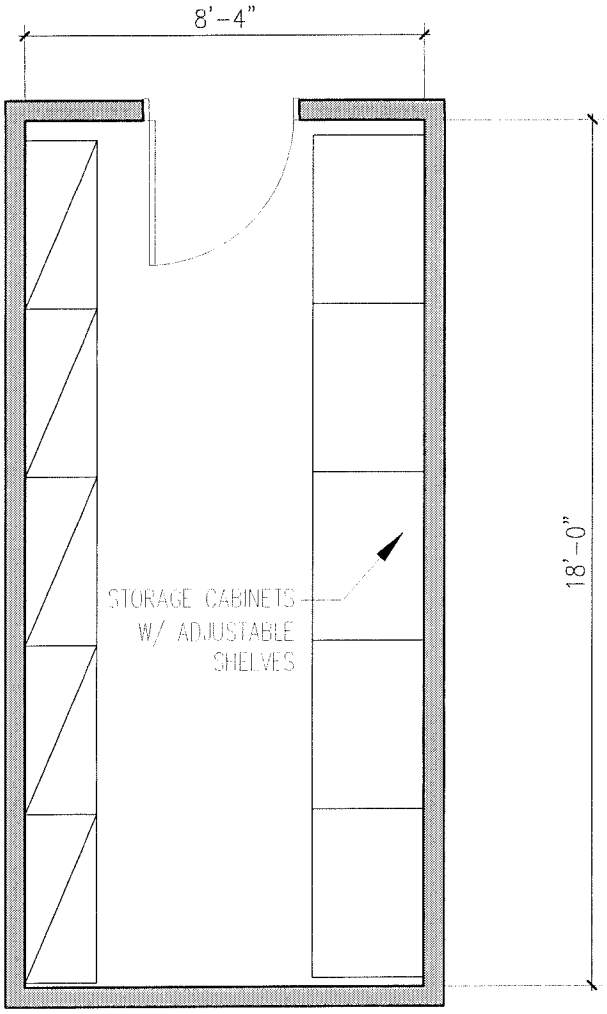
Window	None
Doors	Yes 3'-0" single leaf
Floor	Vinyl composition tile
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Secure storage

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent downlight fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Lateral files, storage cabinets, adjustable shelves



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A-2a	SECURE STORAGE ROOM	
	• 150 NASF	# 1
B-2a	SECURE STORAGE ROOM	
	• 150 NASF	# 1
D-2a	SECURE STORAGE ROOM	
	• 150 NASF	# 1
D-2b	SECURE STORAGE ROOM	
	• 150 NASF	# 1

Room Name: **General Storage**

1. SPACE PROGRAM:

General Space Description	Secure storage room
Total New SF Area	150 NSF
Purpose of Space	Storage room for records
Number of Occupants	1
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

To be located on upper level (s) and adjacent to all English Department administration offices. Also close by Communication, Foreign Language, and TBE administration spaces

3. ARCHITECTURAL CHARACTERISTICS:

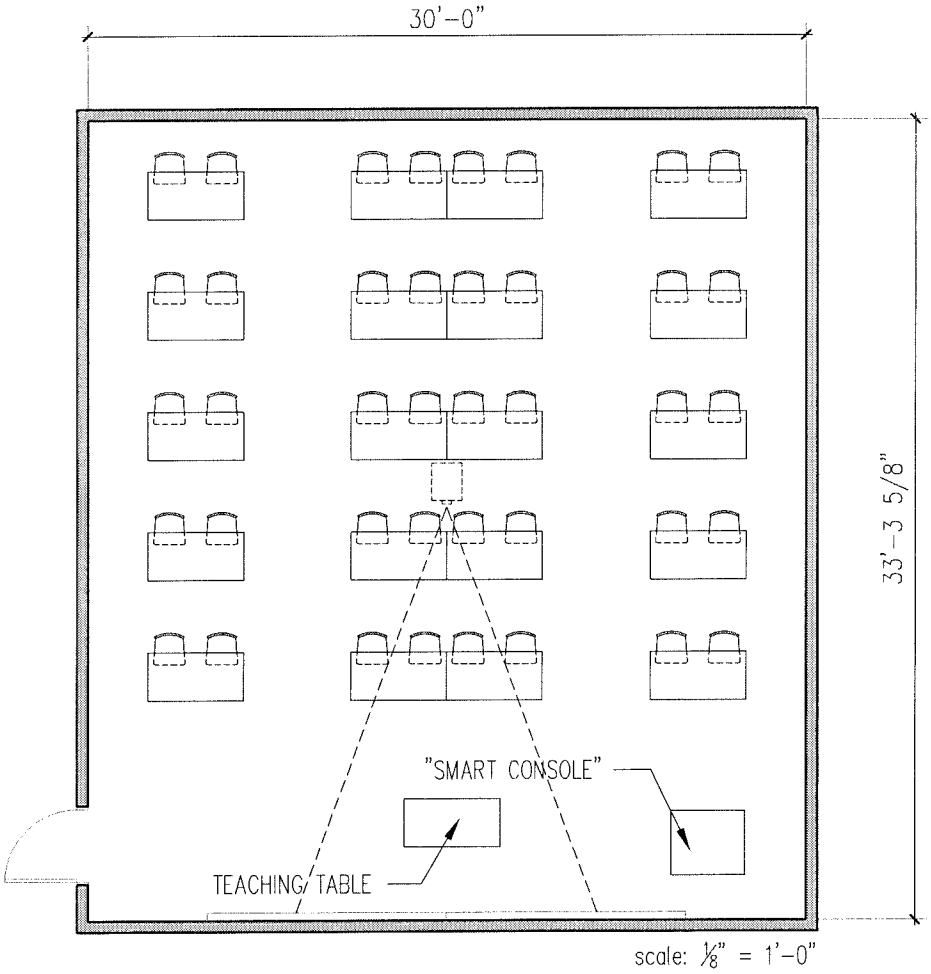
Window	None
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Secure storage

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent downlight fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Lateral files



F-1a

40 PERSON CLASSROOM

- 1000 NASF EACH # 4
- 40 STUDENTS
- 25 SF PER SEAT
- MOVEABLE SEATING AND TABLES

Room Name: **40 Person Classroom**

1. SPACE PROGRAM:

General Space Description	Classroom
Total New SF Area	1000 NSF
Purpose of Space	Classroom
Number of Occupants	40
Hours and Days Used	All day - evenings as required

2. PROXIMITY AND ACCESS REQUIREMENTS:

All classrooms, computer labs, seminar rooms and student spaces

3. ARCHITECTURAL CHARACTERISTICS:

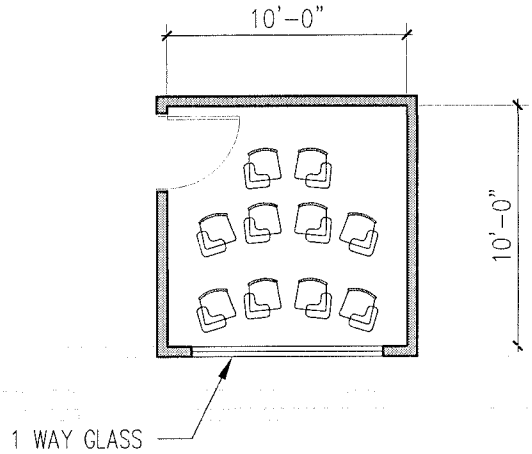
Window	Optional
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Open, flexible floor plan

4. ENGINEERING SYSTEM:

Security	Card key access, cameras
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent downlight fixtures, incandescent dimmable fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	International all-zone DVD player

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Movable seats and tables, marker boards, clock, overhead projector, projector screen, "smart" console (moveable) & teaching table w/ casters



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F-1b

10 PERSON OBSERVATION CLASSROOM

- 100 NASF
- 10 STUDENTS
- 10 SF PER SEAT

1

Room Name: **Observation Classroom**

1. SPACE PROGRAM:

General Space Description	Classroom
Total New SF Area	100 NSF
Purpose of Space	Observation classroom to support research in Communication
Number of Occupants	10
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

Adjacent to one of the 40 person classrooms

3. ARCHITECTURAL CHARACTERISTICS:

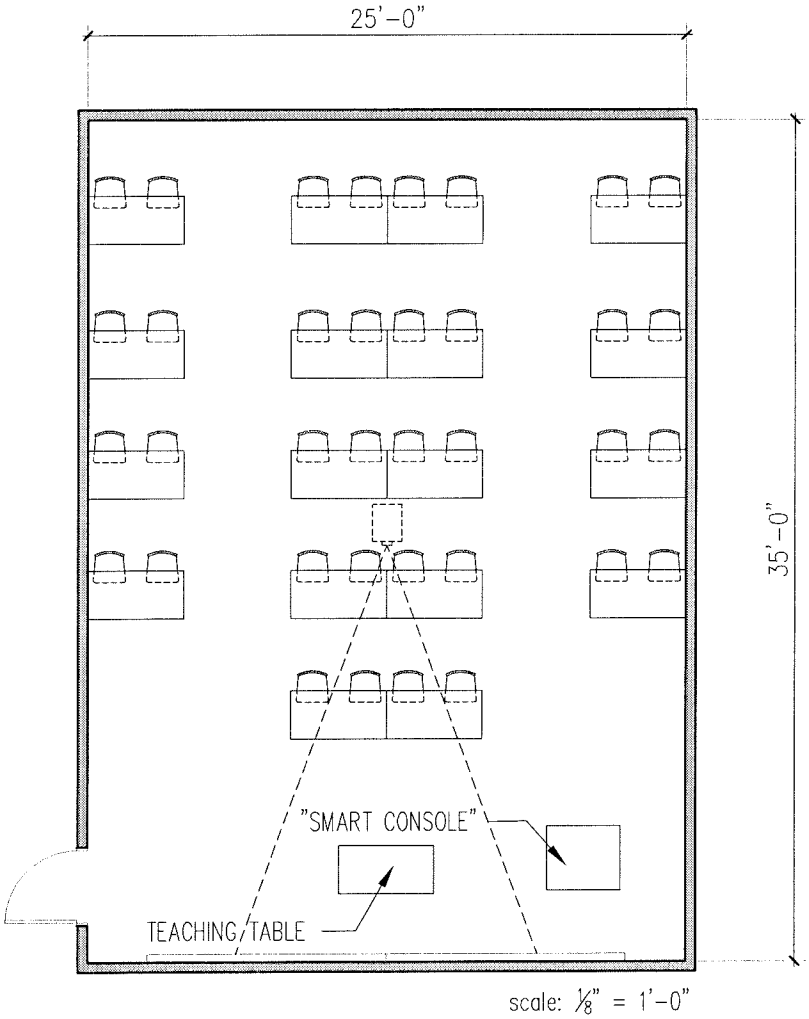
Window	Yes, 1-way into classroom
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	Sound insulation in walls
General Character of Room	Quiet

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Fluorescent downlight fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Chairs with built in task surface



F-1c

35 PERSON CLASSROOM

- 875 NASF EACH # 4
- 35 STUDENTS
- 25 SF PER SEAT
- MOVEABLE SEATING AND TABLES

Room Name: **35 Person Classroom**

1. SPACE PROGRAM:

General Space Description	Classroom
Total New SF Area	875 NSF
Purpose of Space	Classroom
Number of Occupants	35
Hours and Days Used	All day - evenings as required

2. PROXIMITY AND ACCESS REQUIREMENTS:

All classrooms, computer labs, seminar rooms and student spaces

3. ARCHITECTURAL CHARACTERISTICS:

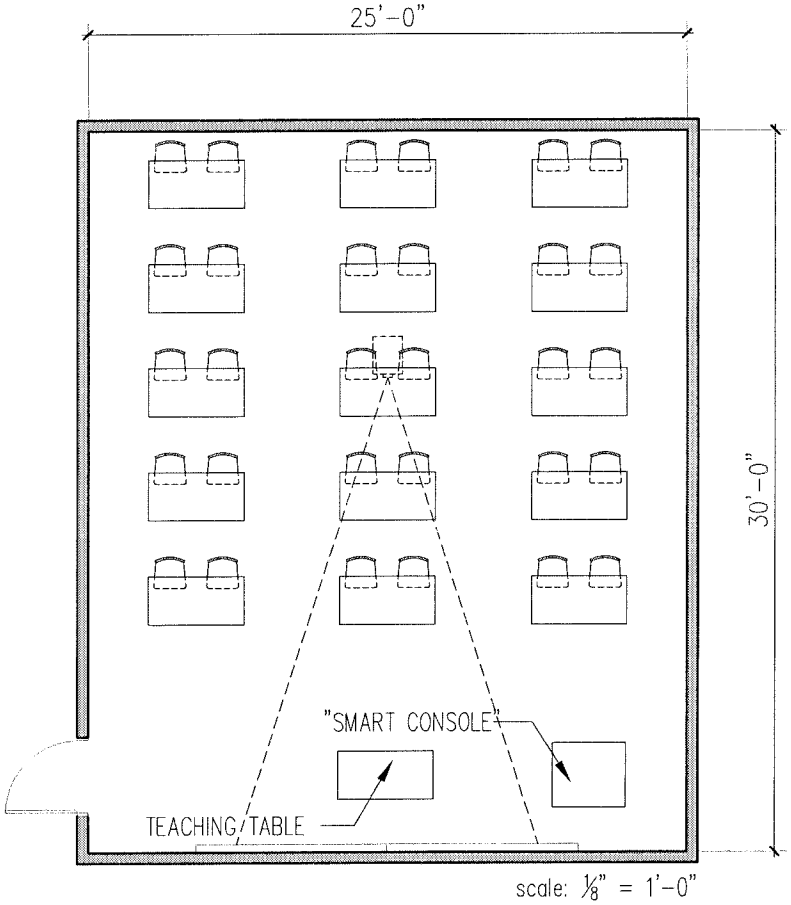
Window	Optional
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Open, flexible floor plan

4. ENGINEERING SYSTEM:

Security	Card key access, cameras
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent downlight fixtures, incandescent dimmable fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	International all-zone DVD player

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Movable seats and tables, marker boards, clock, overhead projector, projector screen, "smart" console (moveable) & teaching table w/ casters



F-1d

30 PERSON CLASSROOM

10

- 750 NASF EACH
- 30 STUDENTS
- 25 SF PER SEAT
- MOVEABLE SEATING AND TABLES

Room Name: **30 Person Classroom**

1. SPACE PROGRAM:

General Space Description	Classroom
Total New SF Area	750 NSF
Purpose of Space	Classroom
Number of Occupants	30
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

All classrooms, computer labs, seminar rooms and student spaces

3. ARCHITECTURAL CHARACTERISTICS:

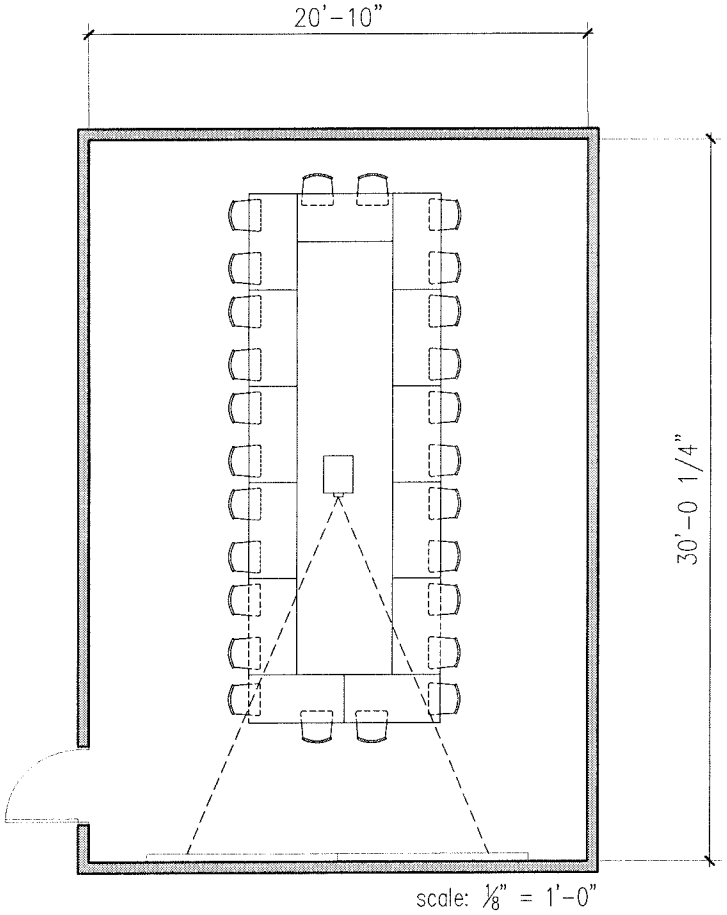
Window	Optional
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Open, flexible floor plan

4. ENGINEERING SYSTEM:

Security	Card key access, cameras
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent downlight fixtures & incandescent dimmable fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	International all-zone DVD player

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Movable seats and tables, marker boards, clock, overhead projector, projector screen, "smart" console (moveable), teaching table w/ casters



F-1e 25 PERSON CLASSROOM/SEMINAR/ALTERNATE LAYOUT

- 625 NASF # 9
- 25 STUDENTS
- 25 SF PER SEAT
- MOVEABLE SEATING AND TABLES

Room Name: **25 Person Classroom/Seminar**

1. SPACE PROGRAM:

General Space Description	Classroom
Total New SF Area	625 NSF
Purpose of Space	Classroom
Number of Occupants	25
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

All classrooms, computer labs, seminar rooms and student spaces

3. ARCHITECTURAL CHARACTERISTICS:

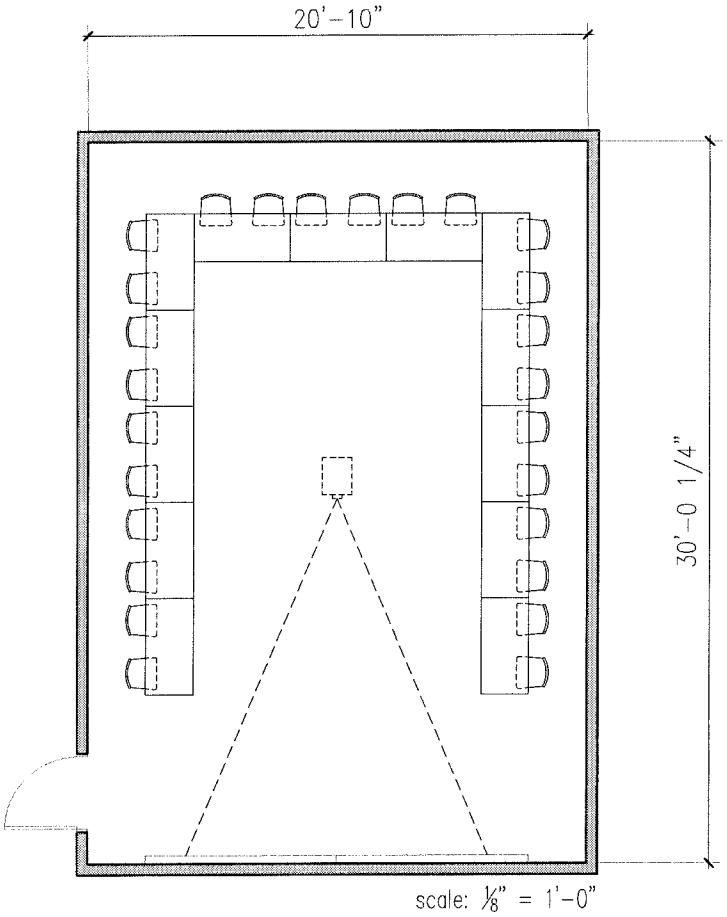
Window	Optional
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Open, flexible floor plan

4. ENGINEERING SYSTEM:

Security	Card key access, cameras
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent downlight fixtures & incandescent dimmable fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	International all-zone DVD player

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Movable seats and tables, marker boards, clock, overhead projector, projector screen, "smart" console



F-1e 25 PERSON CLASSROOM/SEMINAR/ALTERNATE LAYOUT

- 625 NASF # 9
- 25 STUDENTS
- 25 SF PER SEAT
- MOVEABLE SEATING AND TABLES

Room Name: **25 Person Classroom/Seminar**

1. SPACE PROGRAM:

General Space Description	Classroom
Total New SF Area	625 NSF
Purpose of Space	Classroom
Number of Occupants	25
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

All classrooms, computer labs, seminar rooms and student spaces

3. ARCHITECTURAL CHARACTERISTICS:

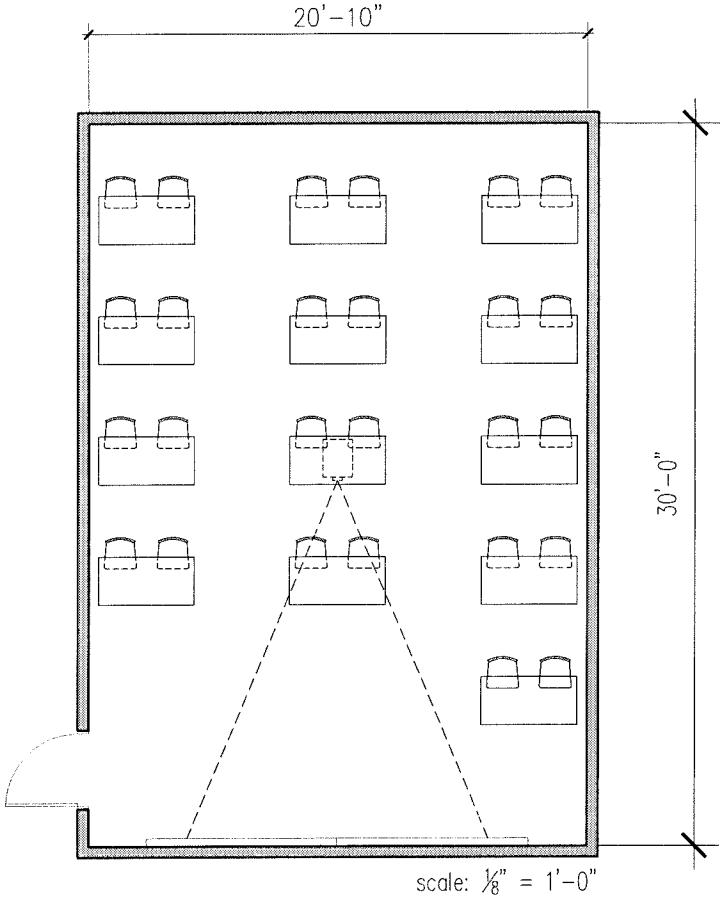
Window	Optional
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Open, flexible floor plan

4. ENGINEERING SYSTEM:

Security	Card key access, cameras
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent downlight fixtures & incandescent dimmable fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	International all-zone DVD player

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Movable seats and tables, marker boards, clock, overhead projector, projector screen, "smart" console



F-1e

25 PERSON CLASSROOM/SEMINAR

- 625 NASF # 9
- 25 STUDENTS
- 25 SF PER SEAT
- MOVEABLE SEATING AND TABLES

Room Name: **25 Person Classroom/Seminar**

1. SPACE PROGRAM:

General Space Description	Classroom
Total New SF Area	625 NSF
Purpose of Space	Classroom
Number of Occupants	25
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

All classrooms, computer labs, seminar rooms and student spaces

3. ARCHITECTURAL CHARACTERISTICS:

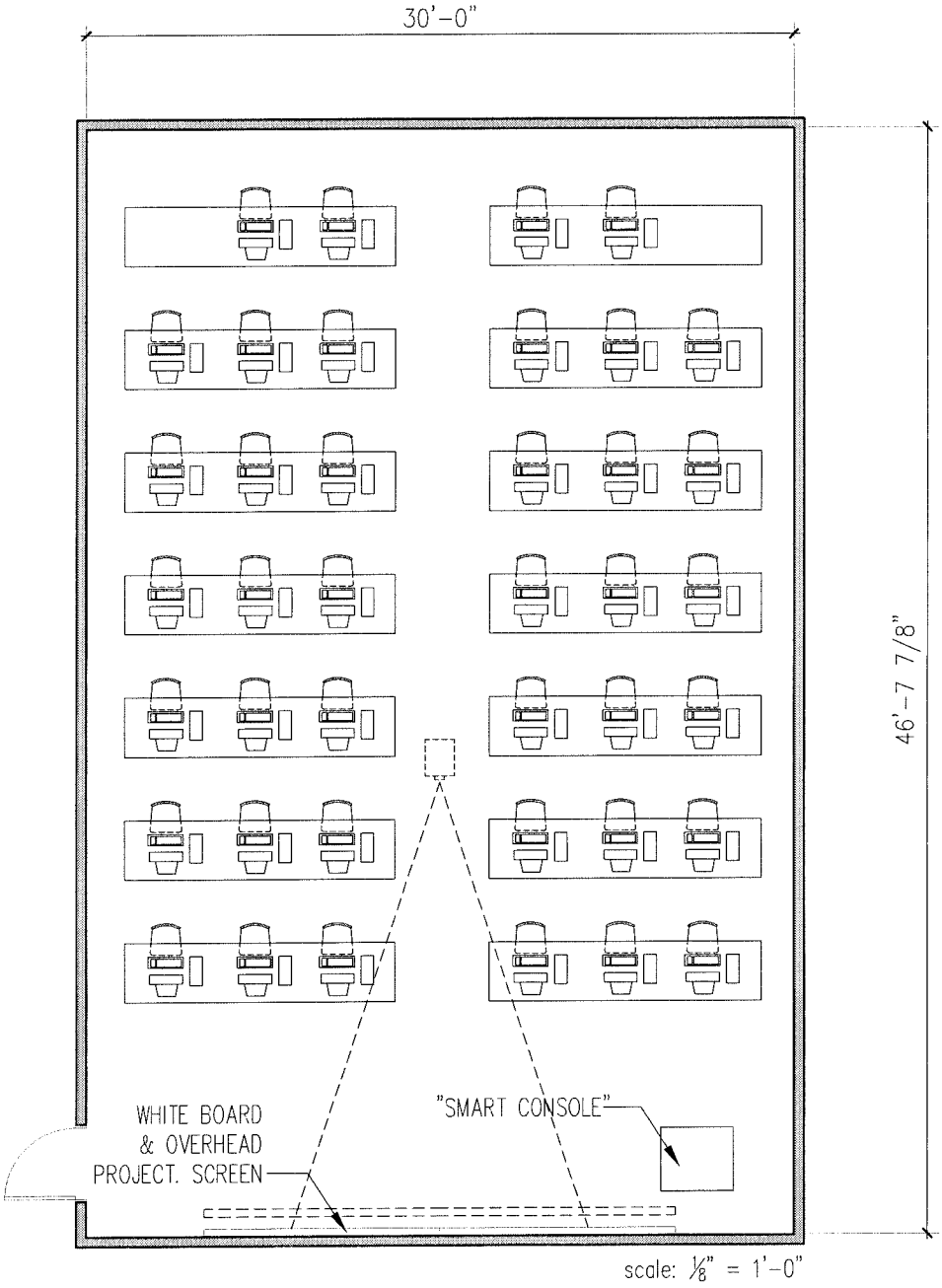
Window	Optional
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Open, flexible floor plan

4. ENGINEERING SYSTEM:

Security	Card key access, cameras
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent downlight fixtures & incandescent dimmable fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	International all-zone DVD player

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Movable seats and tables, marker boards, clock, overhead projector, projector screen, "smart" console



F-2a

40 PERSON ENGLISH/COMMUNICATION MULTI-MEDIA LAB

- 1400 NASF
- 40 STUDENTS
- 35 SF PER SEAT
- MOVEABLE SEATING AND TABLES

1

Room Name: **English/Communication Multi Media Lab**

1. SPACE PROGRAM:

General Space Description	Computer Lab
Total New SF Area	1400 NSF
Purpose of Space	Classroom & multi media lab - Media convergence to utilize this space
Number of Occupants	40
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

All classrooms, computer labs, seminar rooms and student spaces

3. ARCHITECTURAL CHARACTERISTICS:

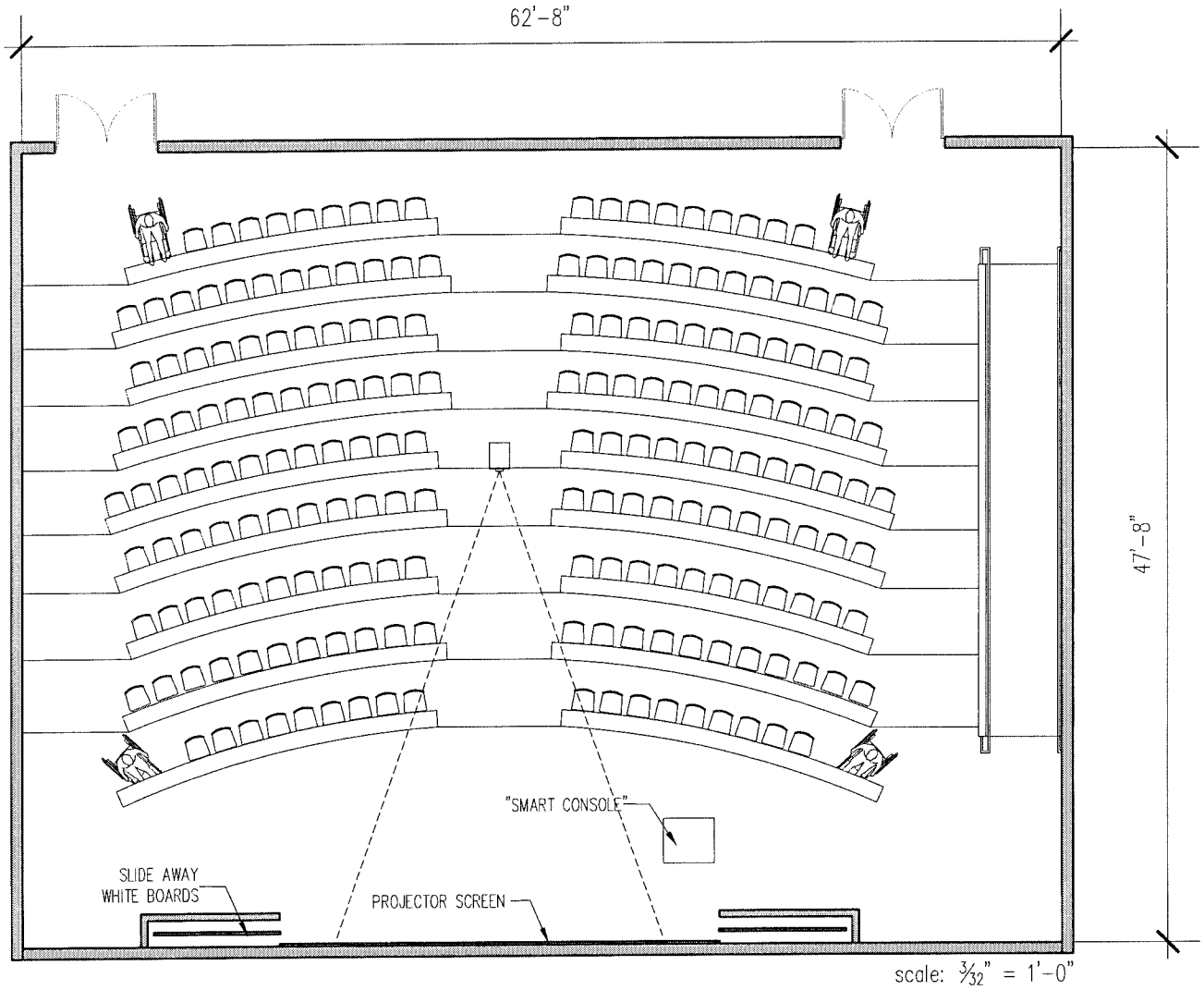
Window	Optional
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Open, flexible floor plan

4. ENGINEERING SYSTEM:

Security	Card key access, cameras
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent and incandescent dimmable fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Movable computer tables and chairs, marker boards, clock, overhead projector, projector screen, "smart" console



F-2b

200 PERSON TIERED CLASSROOM

- 3000 NASF # 1
- 200 STUDENTS
- 15 SF PER SEAT
- FIXED WORK SURFACE AND FIXED CHAIRS

Room Name: **200 Person Tiered Classroom**

1. SPACE PROGRAM:

General Space Description	Classroom
Total New SF Area	3000 NSF
Purpose of Space	Place to hold poetry jams, visiting writers
Number of Occupants	200
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

All classrooms, computer labs, seminar rooms and student spaces

3. ARCHITECTURAL CHARACTERISTICS:

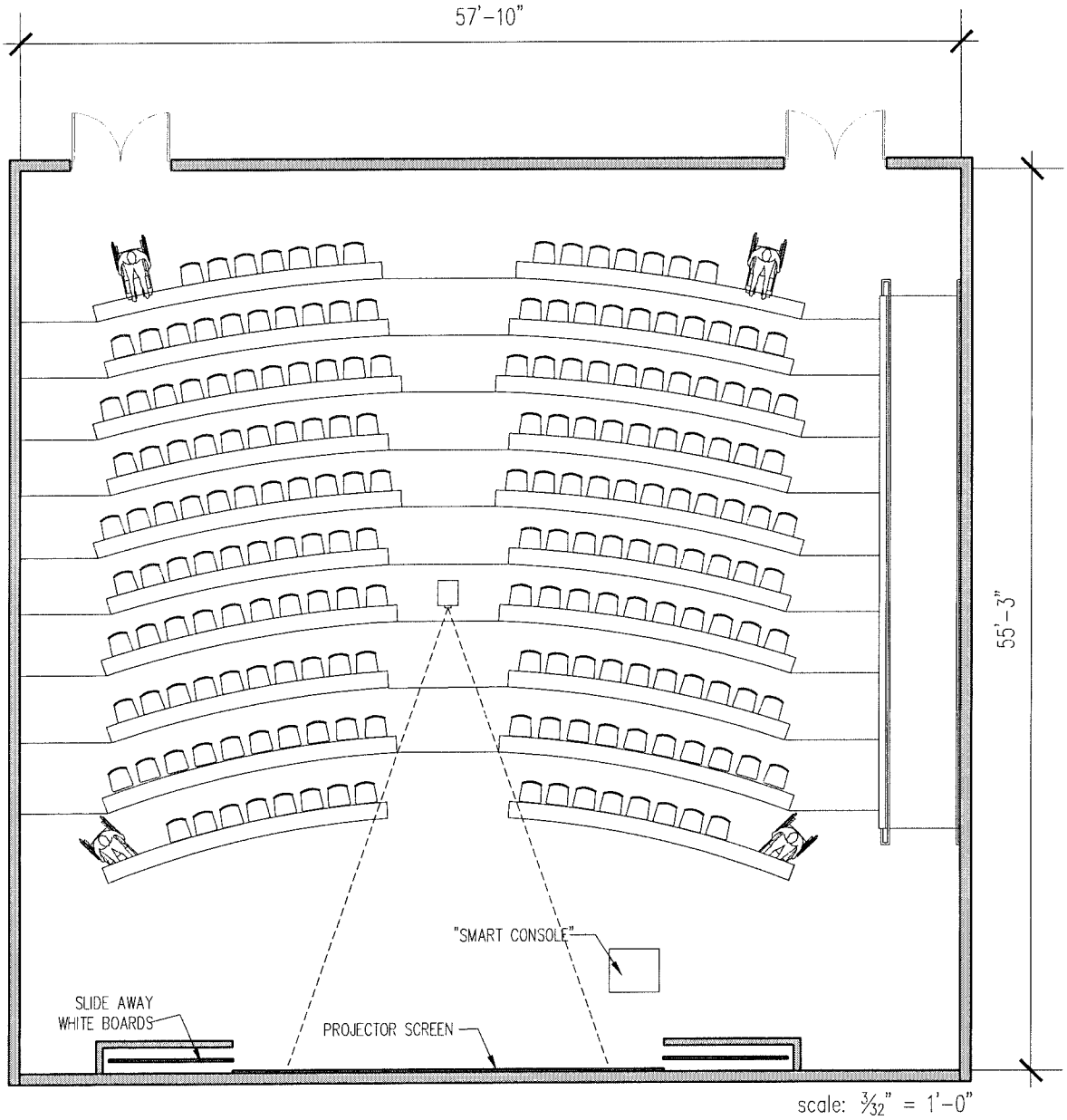
Window	Optional
Doors	Yes (2), 3'-0" double leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Ceiling to be sloped & acoustically treated
Ceiling Height	Varies
Acoustics	Wall surfaces to be acoustically treated
General Character of Room	Fixed, tiered seating

4. ENGINEERING SYSTEM:

Security	Card key access, cameras
HVAC	Standard air exchange
Electrical	120V power wall outlets, outlets @ each fixed seat
Plumbing	None
Lighting	Low-glare fluorescent and incandescent dimmable downlight fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Fixed work surface and fixed chairs, slide away marker boards, clock overhead projector, projector screen, "smart" console



F-2b

200 PERSON TIERED CLASSROOM

- 3000 NASF # 1
- 200 STUDENTS
- 15 SF PER SEAT
- FIXED WORK SURFACE AND FIXED CHAIRS

Room Name: **200 Person Tiered Classroom**

1. SPACE PROGRAM:

General Space Description	Classroom
Total New SF Area	3000 NSF
Purpose of Space	Place to hold poetry jams, visiting writers
Number of Occupants	200
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

All classrooms, computer labs, seminar rooms and student spaces

3. ARCHITECTURAL CHARACTERISTICS:

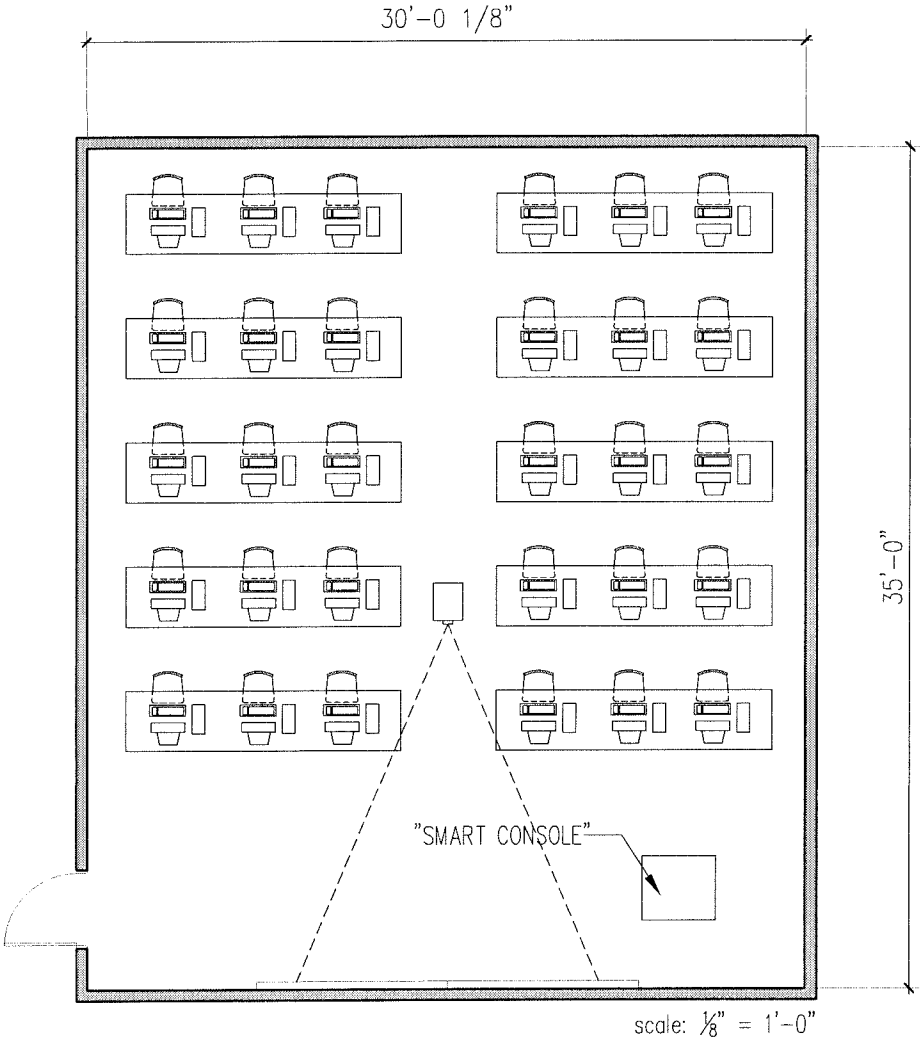
Window	Optional
Doors	Yes (2), 3'-0" double leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Ceiling to be sloped & acoustically treated
Ceiling Height	Varies
Acoustics	Wall surfaces to be acoustically treated
General Character of Room	Fixed, tiered seating

4. ENGINEERING SYSTEM:

Security	Card key access, cameras
HVAC	Standard air exchange
Electrical	120V power wall outlets, outlets @ each fixed seat
Plumbing	None
Lighting	Low-glare fluorescent and incandescent dimmable downlight fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Fixed work surface and fixed chairs, slide away marker boards, clock, overhead projector, projector screen, "smart" console



F-2c

30 PERSON FOREIGN LANGUAGE MEDIA COMPUTER LAB

- 1050 NASF # 1
- 30 STUDENTS
- 35 SF PER SEAT
- MOVEABLE SEATING AND TABLES

Room Name: **Foreign Languages Media Computer Lab**

1. SPACE PROGRAM:

General Space Description	Computer Lab
Total New SF Area	1050 NSF
Purpose of Space	Space to accommodate 30 students with 30 computers
Number of Occupants	30
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

All classrooms, computer labs, seminar rooms and student spaces

3. ARCHITECTURAL CHARACTERISTICS:

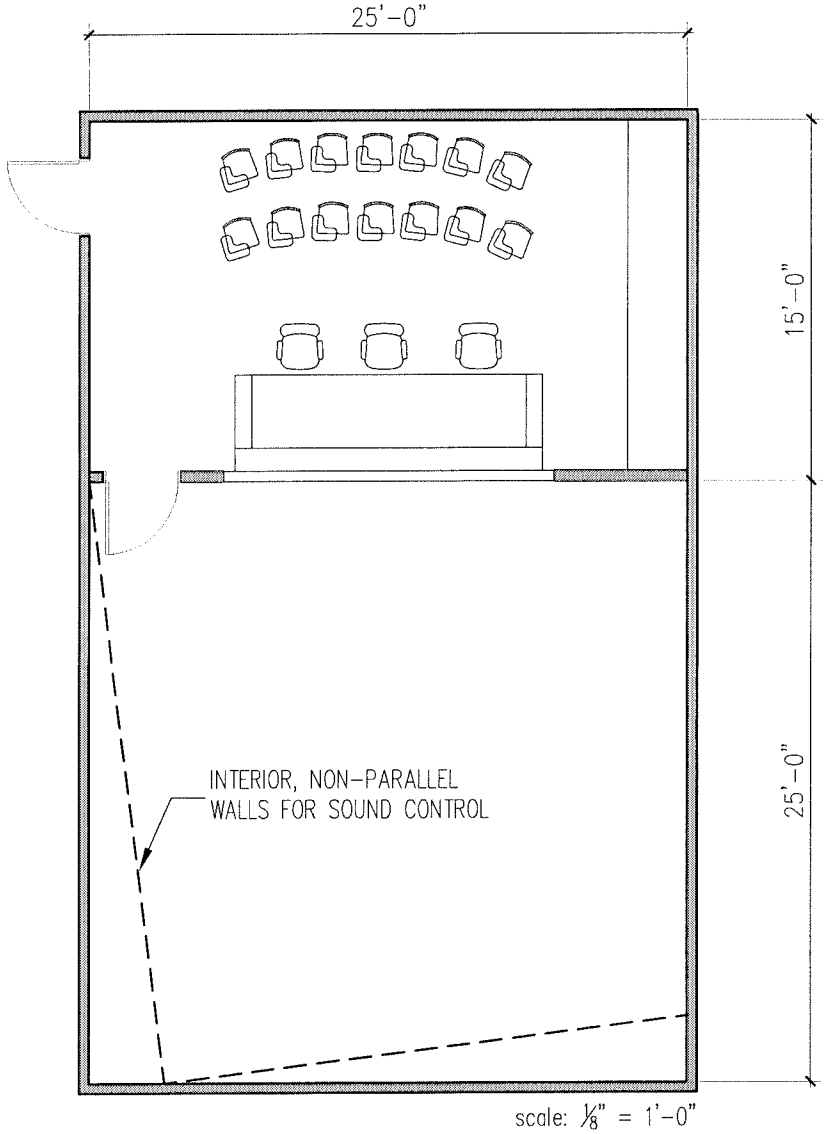
Window	Optional
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Open, flexible floor plan

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent and incandescent dimmable fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	International all-zone DVD player

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Movable computer tables and chairs, overhead projector, projector screen, "smart" console, white board



F-2d

ELECTRONIC MEDIA PRODUCTION
AUDIO RECORDING STUDIO

- 1000 NASF # 1
- RECORDING AND AUDIO CONTROL ROOM W/ 12-15 SEATS FOR OBSERVING STUDENTS

Room Name: **Electronic Media Production Audio Recording Studio**

1. SPACE PROGRAM:

General Space Description	Recording studio
Total New SF Area	1000 NSF
Purpose of Space	Space to accommodate recording and observation
Number of Occupants	12-15
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

Electronic media production video equipment storage, check out room, video edting room, student spaces and communication administration space

3. ARCHITECTURAL CHARACTERISTICS:

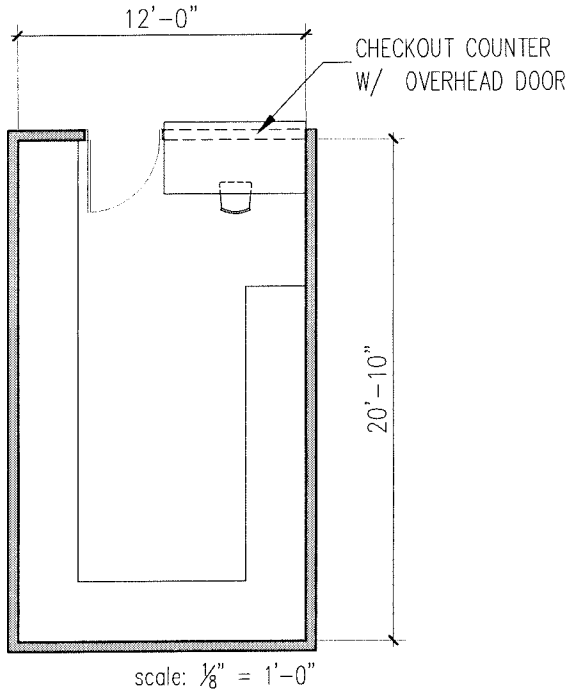
Window	None
Doors	Yes 2, 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	Sound insulation in walls and on the surface of walls
General Character of Room	Open, flexible floor plan

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent and incandescent dimmable fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	Recording equipment - Provide moveable, interior, non-parallel walls for sound control

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Movable tables and chairs, chairs with fixed work surface



F-2e

ELECTRONIC MEDIA PRODUCTION
VIDEO FIELD EQUIPMENT STORAGE ROOM

- 250 NASF # 1
- EQUIPMENT STORAGE AND TEST BENCH FOR MINOR REPAIRS.

Room Name: **Electronic Media Production**
Video Field Equipment Storage Check-Out Room

1. SPACE PROGRAM:

General Space Description	Video equipment storage
Total New SF Area	250 NSF
Purpose of Space	Storage area for media production equipments
Number of Occupants	1
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

Electronic media production audio recording studio, video edting room, student spaces and communication administration space

3. ARCHITECTURAL CHARACTERISTICS:

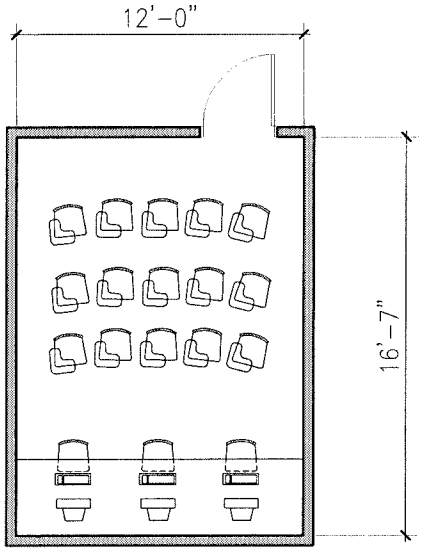
Window	None
Doors	Yes, 3'-0" single leaf
Floor	Vinyl composition tile
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Storage room with check out counter

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent fixtures
Phone/Data	Wall outlets
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Fixed wall storage shelves



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F-2f

ELECTRONIC MEDIA PRODUCTION
VIDEO EDITING ROOMS

- 200 NASF # 1
- VIDEO EDITING ROOM W/ UP TO 15 SEATS FOR OBSERVING STUDENTS

Room Name: **Electronic Media Production Video Editing Rooms**

1. SPACE PROGRAM:

General Space Description	Recording studio
Total New SF Area	200 NSF
Purpose of Space	Instruction classroom
Number of Occupants	15
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

Electronic media production video equipment storage, check out room, audio recording studio, student spaces and communication administration space

3. ARCHITECTURAL CHARACTERISTICS:

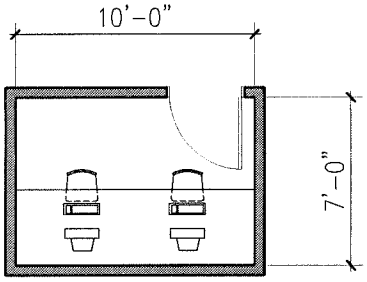
Window	None
Doors	Yes, 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Open, flexible floor plan

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent and incandescent dimmable fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	Recording equipments

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Chairs w/ tablets, built in computer table and chairs



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F-2g

ELECTRONIC MEDIA PRODUCTION
VIDEO EDITING

- 70 NASF # 2
- VIDEO EDITING ROOMS

Room Name: **Electronic Media Production Video Editing**

1. SPACE PROGRAM:

General Space Description	Recording studio
Total New SF Area	70 NSF
Purpose of Space	Space to accommodate video editing
Number of Occupants	2
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

Electronic media production video equipment storage, check out room, audio recording studio, student spaces and communication administration space

3. ARCHITECTURAL CHARACTERISTICS:

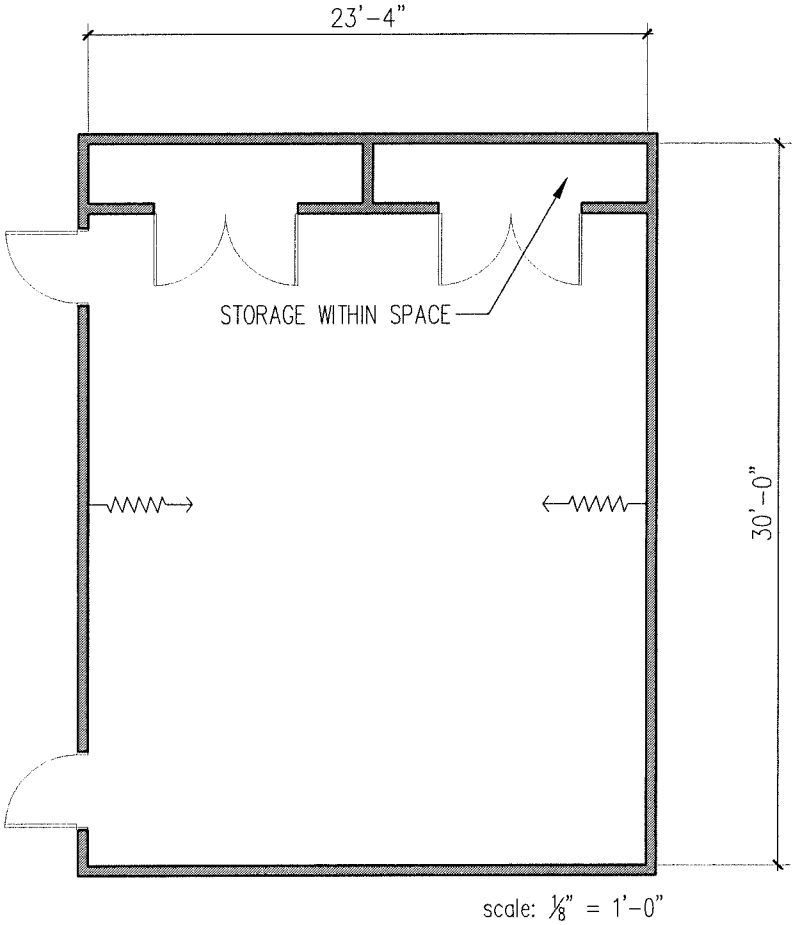
Window	None
Doors	Yes, 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	Sound insulation in walls
General Character of Room	small private studio

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent and incandescent dimmable fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	Video editing equipments

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Fixed table and chairs



F-2h

COMMUNICATION DEBATE LAB

- 700 NASF
- 12-20 STUDENTS

1

Room Name: **Special use Lab**
Communication Debate Lab

1. SPACE PROGRAM:

General Space Description	Communication Debate Lab
Total New SF Area	700 NSF
Purpose of Space	2 practice rooms and storage w/ dividable wall
Number of Occupants	12-20
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

All classrooms, computer labs, seminar rooms, student spaces and communication administration space
Exterior proximity to service area to allow van loading & unloading

3. ARCHITECTURAL CHARACTERISTICS:

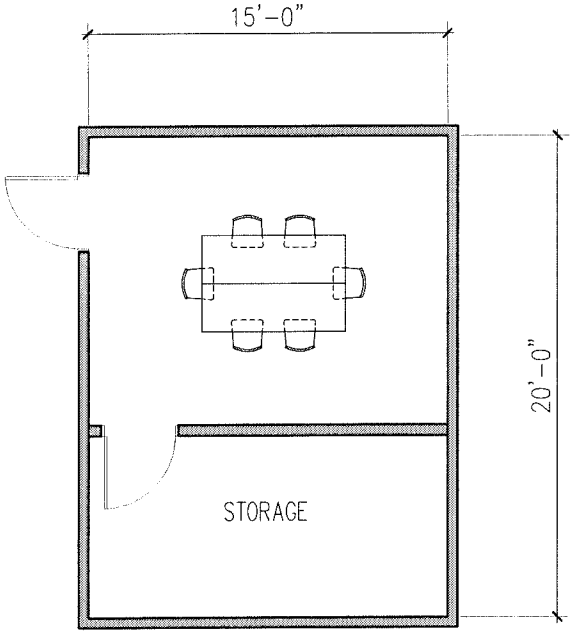
Window	Optional
Doors	Yes 2, 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
ceiling Height	10'-0"
Acoustics	None
General Character of Room	Open, flexible floor plan

4. ENGINEERING SYSTEM:

Security	Card key access, camers
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent fixtures, incandescent dimmable fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	Provide built in storage within room

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Manually operated partion wall, movable tables and chairs



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F-2i TBE AUDIO VISUAL RECORDING ROOM

- 300 NASF # 1
- 6 STUDENTS
- 50 SF PER SEAT
- RECORDING ROOM W/ STORAGE FOR AV EQUIPMENT

Room Name: **TBE Audio Visual Recording Room**

1. SPACE PROGRAM:

General Space Description	Audio visual recording
Total New SF Area	300 NSF
Purpose of Space	Recording room with storage
Number of Occupants	6
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

All classrooms, labs, seminar rooms and student spaces

3. ARCHITECTURAL CHARACTERISTICS:

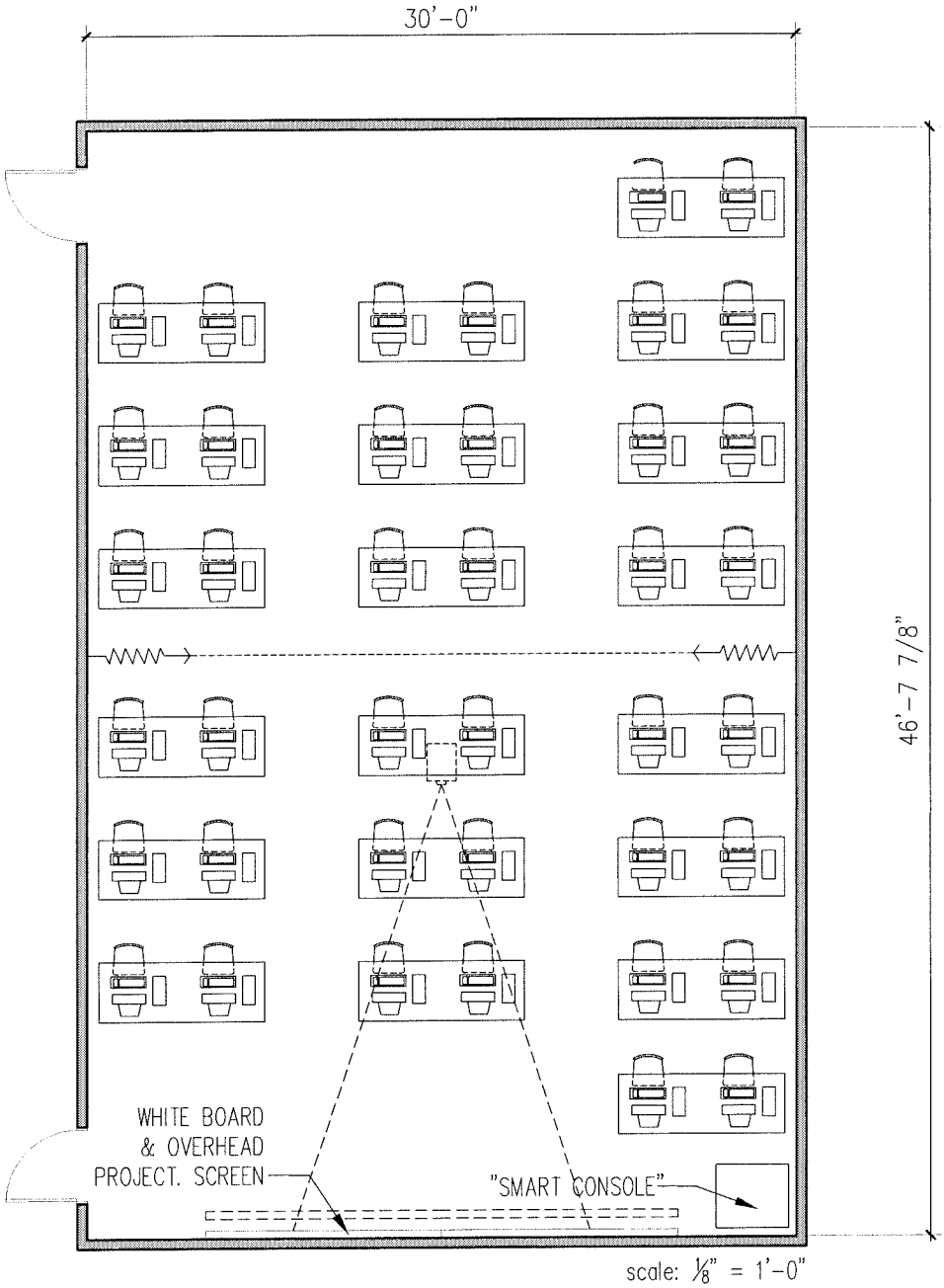
Window	None
Doors	Yes 2, 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	Sound insulation in walls and on the wall surfaces
General Character of Room	Private, quiet

4. ENGINEERING SYSTEM:

Security	None
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescen fixtures and incandescent dimmable fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Blue screen, storage for AV equipment



F-2j

TBE COMPUTER LAB

2

- 1400 NASF
- 40 STUDENTS
- 35 SF PER SEAT
- MOVEABLE SEATING AND TABLES

Room Name:	**TBE** **40 Person Computer Lab**

1. SPACE PROGRAM:

General Space Description	Computer lab
Total New SF Area	1400 NSF
Purpose of Space	Space to accommodate 40 students with 40 computers
Number of Occupants	40
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

All classrooms, labs, seminar rooms and close by student spaces

3. ARCHITECTURAL CHARACTERISTICS:

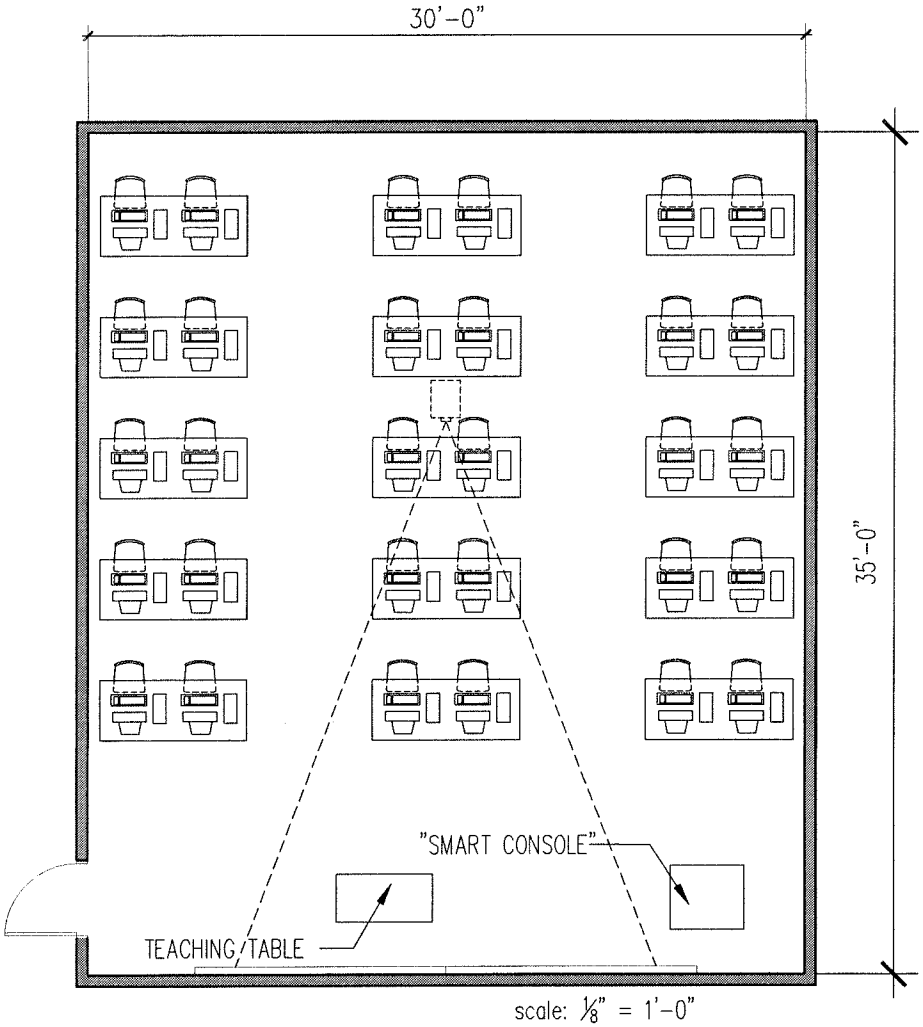
Window	Optional
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Open, flexible floor plan

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent and incandescent dimmable fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Movable computer tables and chairs, overhead projector, projector screen, "smart" console



F-2k

TBE COMPUTER LAB

- 1050 NASF # 1
- 30 STUDENTS
- 35 SF PER SEAT
- MOVEABLE SEATING AND TABLES

	TBE
Room Name:	**30 Person Computer Lab**

1. SPACE PROGRAM:

General Space Description	Computer lab
Total New SF Area	1050 NSF
Purpose of Space	Space to accommodate 30 students with 30 computers
Number of Occupants	30
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

All classrooms, labs, seminar rooms and close by student spaces

3. ARCHITECTURAL CHARACTERISTICS:

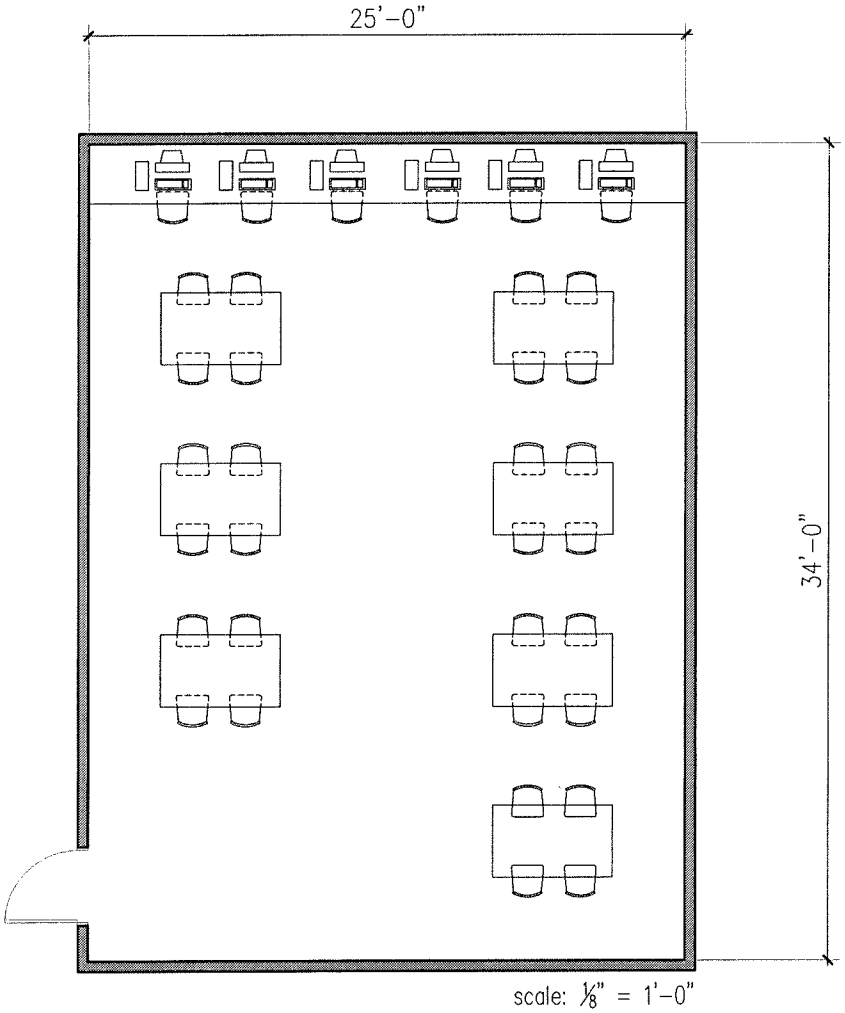
Window	Optional
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Open, flexible floor plan

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent and incandescent dimmable fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Movable computer tables and chairs, overhead projector, projector screen, "smart" console



F-3a WRITING CENTER

- 850 NASF # 1
- 7 TUTORS/28 STUDENTS
- 25 SF PER SEAT
- MOVEABLE SEATING AND TABLES

Room Name: **Writing Center**

1. SPACE PROGRAM:

General Space Description	Classroom/lab
Total New SF Area	850 NSF
Purpose of Space	Tutoring and computer lab
Number of Occupants	34
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

All classrooms, labs, seminar rooms and student spaces

3. ARCHITECTURAL CHARACTERISTICS:

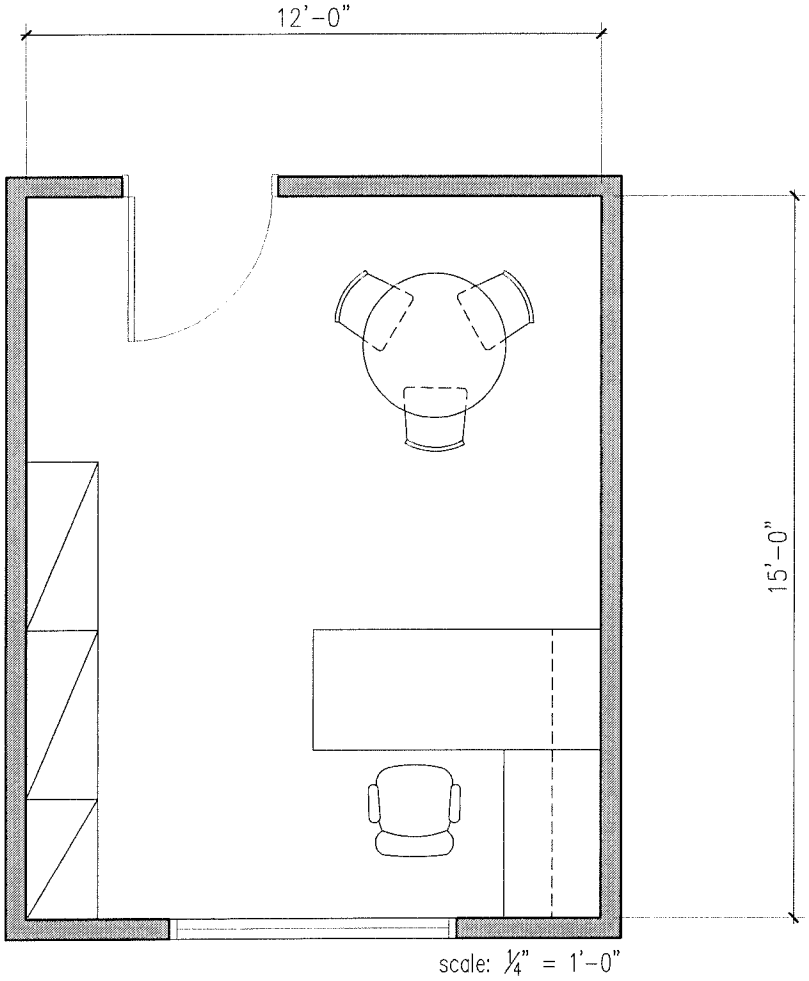
Window	Optional
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Open, flexible floor plan

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent and incandescent dimmable fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Movable tables and chairs, fixed computer stations



F-3b WRITTING CENTER DIRECTOR'S OFFICE

- 180 NASF # 1
- MOVEABLE SEATING AND TABLES

Room Name: **Writing Center Director's Office**

1. SPACE PROGRAM:

General Space Description	Private office for director of writing
Total New SF Area	180 NSF
Purpose of Space	Office, work area, and meeting for 2-3
Number of Occupants	1
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

All classrooms, labs, seminar rooms and student spaces

3. ARCHITECTURAL CHARACTERISTICS:

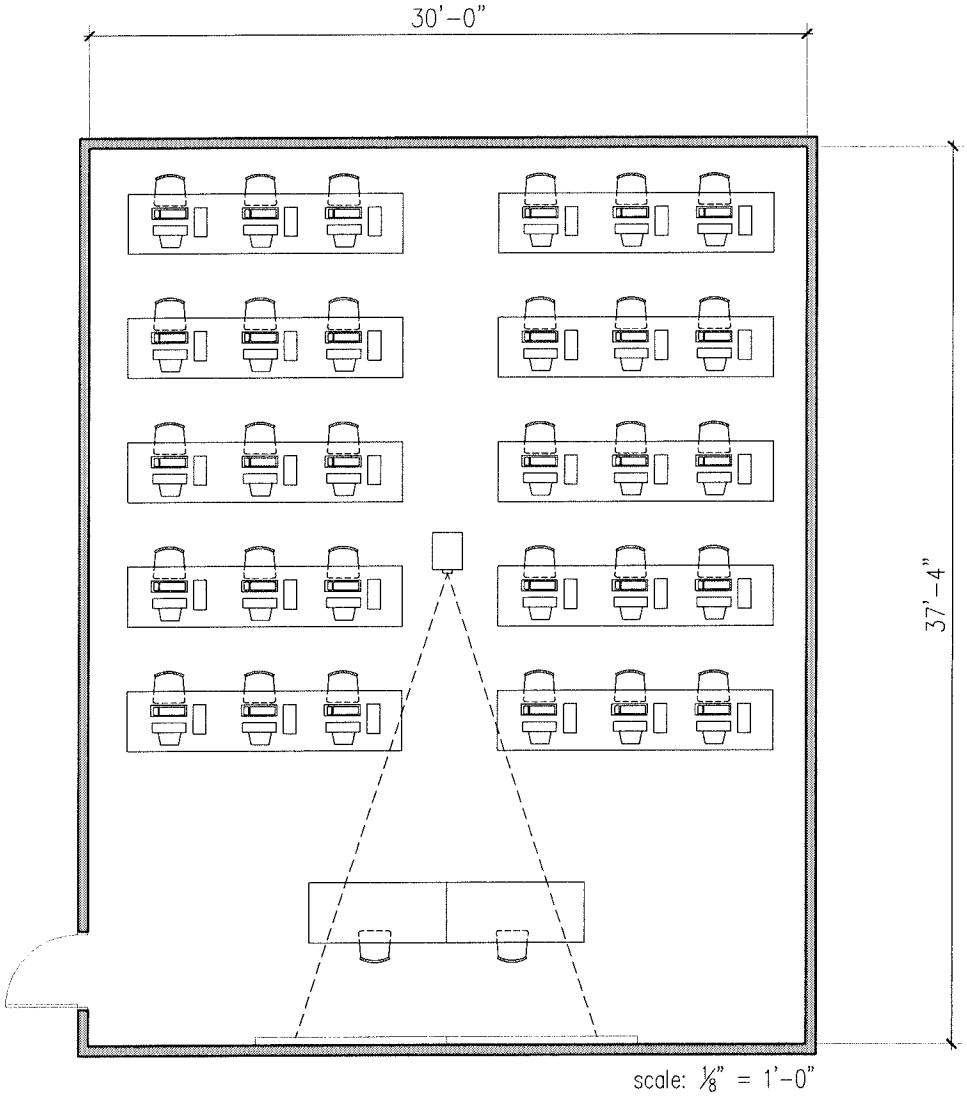
Window	Yes
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Work area and office

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Desk work station with return, file storage, small conference table, marker board, coat hooks, task chair and guest chairs



F-3c OPEN GENERAL COMPUTER LAB/CLASSROOM

- 1120 NASF # 1
- 30 STUDENTS/2 LAB AIDES
- 35 SF PER SEAT
- MOVEABLE SEATING AND TABLES

Room Name: **Open General Computer Lab/Classroom**

1. SPACE PROGRAM:

General Space Description	Open lab
Total New SF Area	1120 NSF
Purpose of Space	Space to accommodate 30 students with 30 computers, two lab aids
Number of Occupants	30
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

All classrooms, labs, seminar rooms and close by student spaces

3. ARCHITECTURAL CHARACTERISTICS:

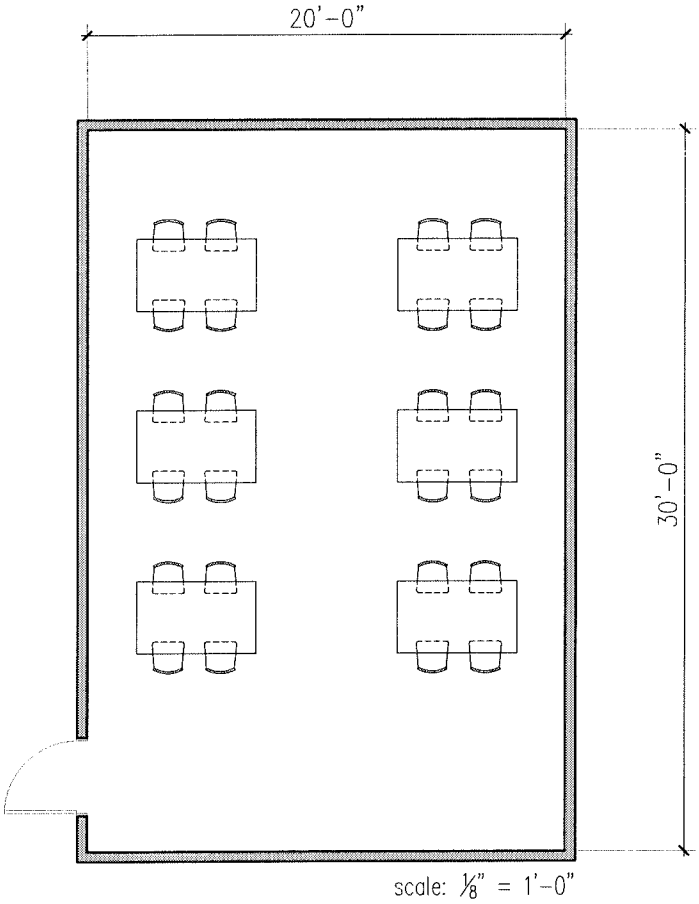
Window	Optional
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Open, flexible floor plan

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent and incandescent dimmable fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Movable computer tables and chairs, overhead projector, projector screen, "smart" console



F-3d GENERAL TUTORING

- 600 NASF # 1
- 6 TUTORS/18 STUDENTS
- 25 SF PER SEAT
- MOVEABLE SEATING AND TABLES

Room Name: **General Tutoring**

1. SPACE PROGRAM:

General Space Description	Open meeting space
Total New SF Area	600 NSF
Purpose of Space	Tutoring space for communications, foreign languages, etc
Number of Occupants	24
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

All classrooms, labs, seminar rooms and close by student spaces

3. ARCHITECTURAL CHARACTERISTICS:

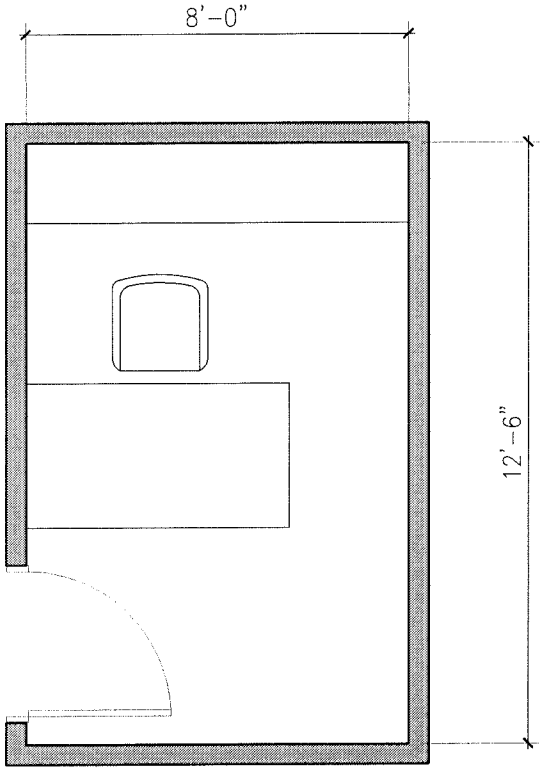
Window	Optional
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Open, flexible floor plan

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Low-glare fluorescent fixtures, incandescent dimmable fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Movable tables and chairs



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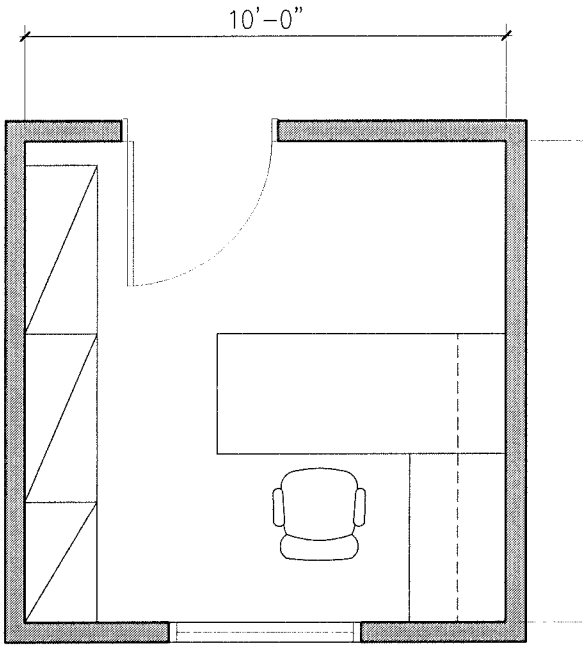

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F-3e OFFICE LAB TECH

- 100 NASF # 1
- MOVEABLE SEATING AND TABLES

Room Name: **Office Lab Tech**

1. SPACE PROGRAM:

General Space Description	Tech Office
Total New SF Area	100 NSF
Purpose of Space	Office
Number of Occupants	1
Hours and Days Used	Needs to accommodate extended hours

2. PROXIMITY AND ACCESS REQUIREMENTS:

Open and general lab/classroom

3. ARCHITECTURAL CHARACTERISTICS:

Window	Yes
Doors	Yes 3'-0" single leaf
Floor	Carpet
Wall	Gypsum board
Ceiling	Acoustical tile ceiling
Ceiling Height	10'-0"
Acoustics	None
General Character of Room	Work area and office

4. ENGINEERING SYSTEM:

Security	Standard
HVAC	Standard air exchange
Electrical	120V power wall outlets
Plumbing	None
Lighting	Fluorescent downlight fixtures
Phone/Data	Wall outlets, along with wireless capability
Special Requirements	None

5. EQUIPMENT, FURNITURE, AND AQCCESSORIES:

Desk work station with return, file storage, coat hooks, task chair

4.4 ADJACENCIES AND RELATIONSHIPS

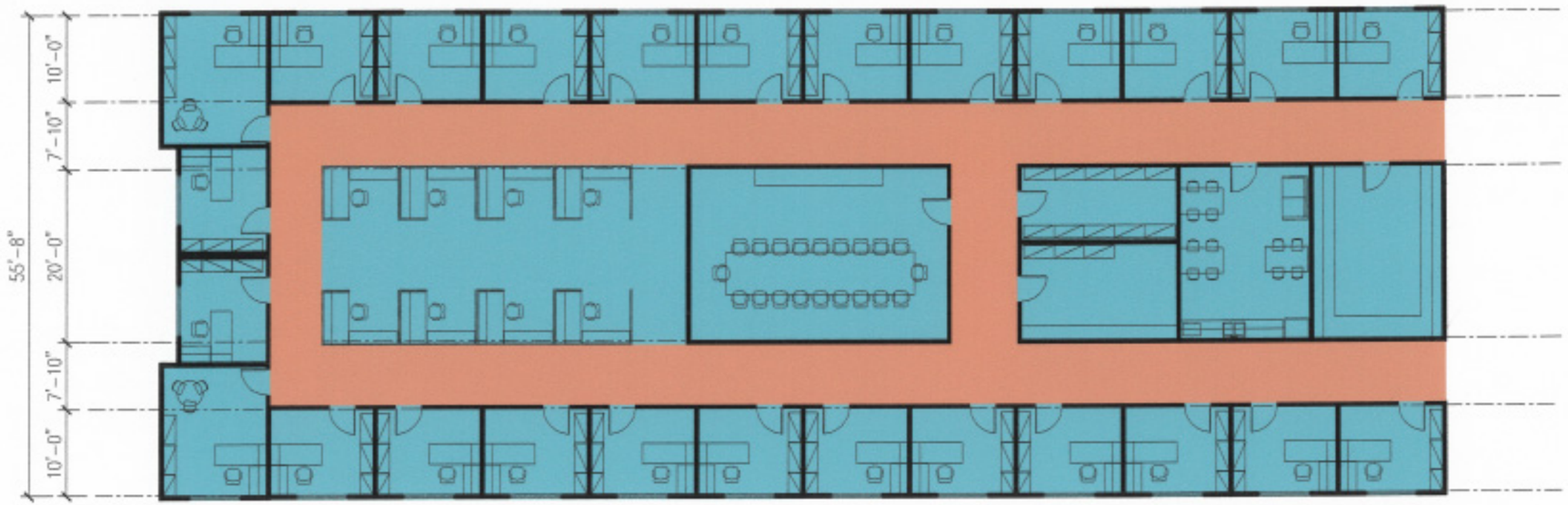
Public—Private Continuum
The most public program spaces should be located near entrances, lobbies, on lower floors, etc. More private spaces can be remote, on upper floors with elevator access, etc. In general, those spaces with large population flows, or public functions should be sited low in the building with walk-up access. Vertical circulation systems should support this concept with open, inviting stairs to access the classroom levels and levels with other public programs.

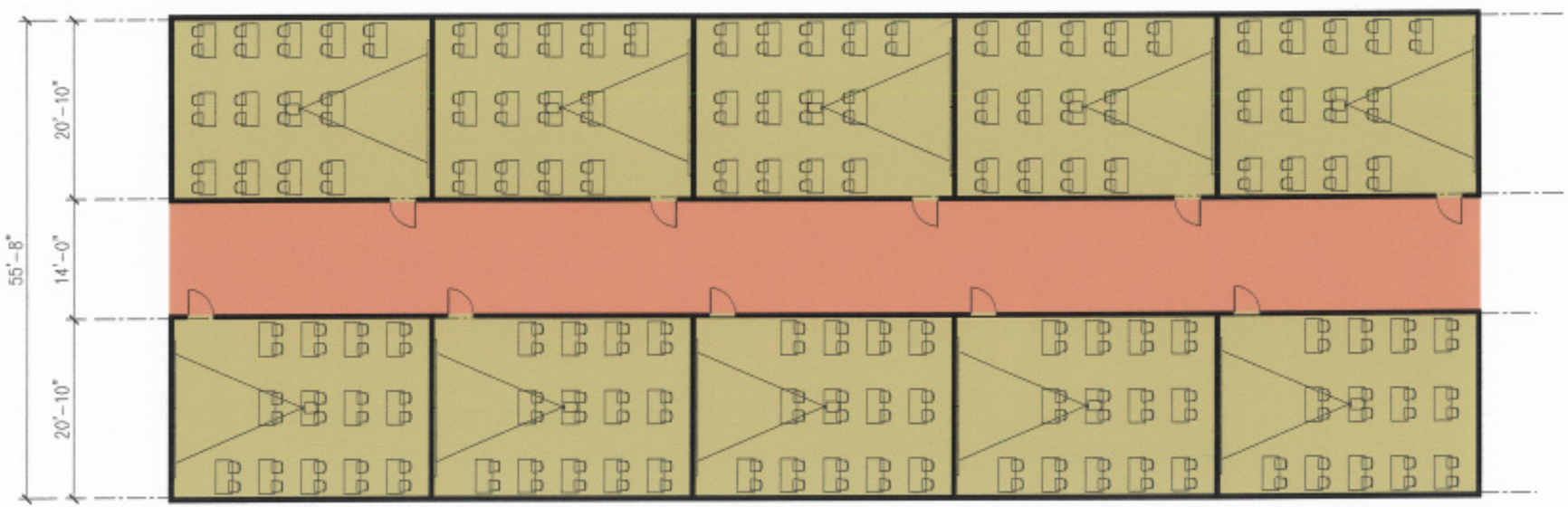
In order of Public (top) to Private (bottom):

Lobby
Classrooms
Seminar Rooms
Small Meeting Rooms and Tutoring Rooms
Student Lounges and Study Areas
Administration Offices and Administration Support Spaces

All adjacencies have been identified on the Program Spreadsheet and Individual Room Sheets.

The following **Conceptual Floor Plan Study** was created to determine appropriate dimensions for the building footprint that allows maximum natural light into interior spaces. It is by no means a floor plan design, and should be utilized by the Design Team as a starting point for the actual floor plan layout during the Schematic Design Stages of the project.





LEGEND

- CLASSROOMS
- ADMINISTRATION
- SURROUNDING BUILDINGS

N

10' 0' 10' 20'

Scale: 1" = 10'

ajc architects

CONCEPTUAL FLOOR PLAN STUDY

Humanities Building

Program Document

5.0 HUMANITIES BUILDING COST SUMMARY

5.1 PROJECT COST SUMMARY

5.2 PROJECT COMPARABLES

5.1 HUMANITIES BUILDING COST SUMMARY

This opinion of probable cost has been prepared to reflect the anticipated cost of the new Humanities Building at Weber State University.

This document is based on the Programmatic Information, including measurement and pricing of quantities wherever information has been provided. Unit rates have been obtained from historical records, along with discussions with contractors. The unit rates provided include labor, material and equipment that reflect current bid costs in the Salt Lake City area. All subcontractor unit rates include the subcontractor's overhead and profit unless otherwise stated.

Exclusions
The following items are excluded:

- Land acquisition costs
- Financing charges and expenses
- Site related environmental abatement measures
- Project phasing costs
- Limited/restricted working hours

Items affecting Opinion of Probable Cost
The following items may change the estimated construction costs, and are not limited to:

- Unforeseen or hidden site utility conditions and capacities
- Modifications to the scope of work represented by this opinion of probable costs
- Phasing of the construction
- Non-competitive bid situations

Assumptions
The following assumptions have been made:

- Construction takes place during normal working hours.
- The CM/GC and subcontractors will have sufficient/temporary site staging and site storage within or adjacent to the vicinity of construction.

Escalation
This opinion of probable costs reflects current costs. Inflation HAS NOT been added to the total costs. An inflation factor will be added by DFCM for the Total Project Cost.

Contingencies
This opinion of probable costs reflects a design contingency of 10%, to allow for items not included in the drawings and Program documentation undefined at this stage.

This opinion of probable costs has been based on a competitive open bid situation with a minimum of 3 bidders for all items of subcontracted work. Please note that Parametrix has no control over the costs of labor, materials, equipment, contractor's methods, or the current competitive bidding market. This represents Parametrix's best judgment as a professional construction consultant. Parametrix does not guarantee the proposals, bids or the overall construction cost will not vary from opinions of probable costs provided within this Program Document.

Construction Costs
The costs provided in this document are for construction costs only. For total project costs, additional soft costs need to be added. Possible soft costs include:

Soft Costs
Hazardous Materials
Pre-Design/Planning
Design
Furnishings and Equipment
Information Technology (Pull Wire)
Technology
Utah Art (1% of Construction Budget)
Testing and Inspection
Construction Contingency
Moving/Occupancy
Builder's Risk Insurance (0.15% of Construction Budget)
Legal Services (0.2% of Construction Budget)
DFCM Management
User Fees
Commissioning
CAD Services (0.07% of Construction Budget)
Miscellaneous Other Costs

The following is summary of the construction costs for the new Humanities Building.

CONSTRUCTION COST ESTIMATE

MASTER SUMMARY

SECTION	AREA	UNIT	COST/SF	COST
CURRENT CONSTRUCTION COST:				
SITE				$1,181,538
BUILDING	85,700	GSF	180.46	$15,465,162
TOTAL (Construction)				$16,646,700

NOTES: Costs are for Construction only.
Costs are based on a Competitive Bid Basis.
Costs are based on Current Costs and Do Not Included Inflation.

CONSTRUCTION COST ESTIMATE

SITE SUMMARY

SECTION		AREA	UNIT	COST/SF	COST
SITE					$960,600
SUB TOTAL					$960,600
GENERAL CONDITIONS	7.0%				$67,242
BONDING	1.0%				$9,606
OVERHEAD & PROFIT	5.0%				$48,030
SUB TOTAL					$1,085,478
DESIGN CONTINGENCY	10.0%				$96,060
TOTAL (Construction)					$1,181,538

NOTES: Costs are for Construction only.
Costs are based on a Competitive Bid Basis.
Costs are based on Current Costs and Do Not Included Inflation.

CONSTRUCTION COST ESTIMATE

BUILDING SUMMARY

SECTION		AREA	UNIT	COST/SF	COST
ARCHITECTURAL		85,700	GSF	58.88	$5,046,115
STRUCTURAL		85,700	GSF	39.70	$3,401,938
MECHANICAL		85,700	GSF	29.82	$2,555,375
ELECTRICAL		85,700	GSF	18.32	$1,569,875
SUB TOTAL		85,700	GSF	146.71	$12,573,303
GENERAL CONDITIONS	7.0%				$880,131
BONDING	1.0%				$125,733
OVERHEAD & PROFIT	5.0%				$628,665
SUB TOTAL		85,700	GSF	165.79	$14,207,832
DESIGN CONTINGENCY	10.0%				$1,257,330
TOTAL (Construction)		85,700	GSF	180.46	$15,465,162

NOTES: Costs are for Construction only.
Costs are based on a Competitive Bid Basis.
Costs are based on Current Costs and Do Not Included Inflation.

The following is a detailed breakdown of the site construction costs for the new Humanities Building.

CONSTRUCTION COST ESTIMATE

SITE DETAIL

SECTION	QUANTITY	UNIT	UNIT COST	COST
SITE				
ON-SITE				
Demolition, Existing Buildings	42,000	SF	6.00	$252,000
Demo, Clear & Grade	102,000	SF	1.50	$153,000
Landscaping & Irrigation	59,000	SF	3.50	$206,500
Concrete Paving	14,700	SF	6.00	$88,200
Concrete Retaining Walls	800	SF	33.00	$26,400
Natural Gas Line	450	LF	20.00	$9,000
Sanitary Sewer Line	600	LF	65.00	$39,000
Storm Sewer Line	750	LF	40.00	$30,000
Fire Line	100	LF	80.00	$8,000
Culinary Water Line	100	LF	35.00	$3,500

CONSTRUCTION COST ESTIMATE

SITE DETAIL

SECTION		QUANTITY	UNIT	UNIT COST	COST
SITE - Continued					
ON-SITE - Continued					
Power Ductbank		200	LF	200.00	$40,000
Telecom Ductbank		200	LF	75.00	$15,000
High Voltage Switch		1	EA	40,000	$40,000
Site Lighting		1	LS	50,000	$50,000
					$960,600
SUB TOTAL					$960,600
GENERAL CONDITIONS	7.0%				$67,242
BONDING	1.0%				$9,606
OVERHEAD & PROFIT	5.0%				$48,030
SUB TOTAL					$1,085,478
DESIGN CONTINGENCY	10.0%				$96,060
TOTAL (Construction)					$1,181,538

NOTES: Costs are for Construction only.
Costs are based on a Competitive Bid Basis
Costs are based on Current Costs and Do Not Included Inflation

The following is a detailed breakdown of the building construction costs for the new Humanities Building.

CONSTRUCTION COST ESTIMATE

BUILDING DETAIL

SECTION	QUANTITY	UNIT	UNIT COST	COST
ARCHITECTURAL				
ROOF				
Membrane Roofing System, Rigid Insulation & Flashings	28,565	SF	9.00	$257,085
Skylight System	1,400	SF	70.00	$98,000
			4.14	$355,085
EXTERIOR WALLS				
Foundation Dampproofing w/ Rigid Insulation	5,280	SF	3.00	$15,840
Brick Veneer, Metal Studs, Batt Insulation, Gypsum Bd	26,770	SF	22.00	$588,940
Metal Panels, Metal Studs, Batt Insulation & Gypsum Bd	14,410	SF	38.00	$547,580
			13.45	$1,152,360
INTERIOR WALLS				
Metal Studs, Sound Insulation & Gypsum Board	59,500	SF	7.00	$416,500
			4.86	$416,500
DOORS AND WINDOWS				
Aluminum Windows / Curtainwall w/ Glass	22,180	SF	50.00	$1,109,000
Sun Shading Devices	2,660	SF	90.00	$239,400
Man Doors w/ Hardware	180	LEAF	1,200	$216,000
			18.25	$1,564,400
FINISHES				
Floor Finishes	85,700	SF	5.00	$428,500
Wall Finishes	160,180	SF	1.50	$240,270
Ceiling Finishes	85,700	SF	3.00	$257,100
			10.80	$925,870

CONSTRUCTION COST ESTIMATE

BUILDING DETAIL

SECTION	QUANTITY	UNIT	UNIT COST	COST
ARCHITECTURAL - Continued				
SPECIALTIES				
Cabinets & Casework	975	LF	300.00	$292,500
Bath Accessories	9	EA	2,000	$18,000
Misc Specialties	85,700	SF	1.50	$128,550
			5.12	$439,050
EQUIPMENT				
Misc Equipment	85,700	SF	0.50	$42,850
			0.50	$42,850
CONVEYING SYSTEM				
Elevator, 3 Stop	2	EA	75,000	$150,000
			1.75	$150,000

CONSTRUCTION COST ESTIMATE

BUILDING DETAIL

SECTION	QUANTITY	UNIT	UNIT COST	COST
STRUCTURAL				
FOUNDATION				
Concrete Footings w/ Reinf	410	CY	450.00	$184,500
Concrete Foundation Wall w/ Reinf	5,280	SF	22.00	$116,160
Excavation and Backfill, Foundation	3,280	CY	20.00	$65,600
			4.27	$366,260
FLOORS				
Concrete Slab on Grade	28,565	SF	5.50	$157,108
Steel Structure, Decking, Fireproofing & Concrete Slab on Deck	57,135	SF	31.00	$1,771,185
Steel Pan Stairs w/ Railings	12	FLT	15,000	$180,000
			24.60	$2,108,293
COLUMNS				
Steel Columns w/ Fireproofing	85,700	SF	3.50	$299,950
			3.50	$299,950
ROOF				
Steel Structure, Decking & Fireproofing	28,565	SF	19.00	$542,735
			6.33	$542,735
INTERIOR WALLS				
CMU Interior Walls	7,700	SF	11.00	$84,700
			0.99	$84,700

CONSTRUCTION COST ESTIMATE

BUILDING DETAIL

SECTION	QUANTITY	UNIT	UNIT COST	COST
MECHANICAL				
FIRE PROTECTION				
Fire Sprinkler System	85,700	SF	2.25	$192,825
			2.25	$192,825
PLUMBING				
Plumbing Fixtures w/ Piping	162	EA	2,500	$405,000
Plumbing Equipment & Specialties	85,700	SF	1.50	$128,550
			6.23	$533,550
HVAC				
HVAC Ductwork & Insulation	76,500	LB	5.50	$420,750
HVAC Grilles, Registers & Diffusers	980	EA	120.00	$117,600
HVAC Equipment	85,700	SF	8.00	$685,600
HVAC Piping & Specialties	85,700	SF	3.00	$257,100
HVAC Control System	85,700	SF	3.50	$299,950
HVAC Test & Balance	640	HRS	75.00	$48,000
			21.34	$1,829,000

CONSTRUCTION COST ESTIMATE

BUILDING DETAIL

SECTION		QUANTITY	UNIT	UNIT COST	COST
ELECTRICAL					
ELECTRICAL					
Light Fixtures		1,340	EA	250.00	$335,000
Devices (Outlets & Switches)		2,010	EA	75.00	$150,750
Gear (Panels & Transformers)		85,700	SF	2.00	$171,400
Emergency Generator		1	EA	120,000	$120,000
Feeder & Branch Circuitry		85,700	SF	4.50	$385,650
Fire Alarm System		85,700	SF	1.75	$149,975
Phone / Data System		85,700	SF	2.25	$192,825
Electrical Specialties		85,700	SF	0.75	$64,275
Technology System					In Other Budget
				18.32	$1,569,875
SUB TOTAL		85,700	GSF	146.71	$12,573,303
GENERAL CONDITIONS	7.0%				$880,131
BONDING	1.0%				$125,733
OVERHEAD & PROFIT	5.0%				$628,665
SUB TOTAL		85,700	GSF	165.79	$14,207,832
DESIGN CONTINGENCY	10.0%				$1,257,330
TOTAL (Construction)		85,700	GSF	180.46	$15,465,162

NOTES: Costs are for Construction only.
Costs are based on a Competitive Bid Basis.
Costs are based on Current Costs and Do Not Included Inflation

5.2 PROJECT COMPARABLES

As part of the Programming effort, the Programming Team reviewed two similar projects that have completed construction in the past 3 years:

Project #1: Weber State University Davis Campus New Classroom Building

Year Construction Started:	2001
Year Construction Completed:	2003
Size of Building:	160,000 GSF
Total Construction Cost Building/Site:	$17,000,000
Cost Per SF:	$106/SF
Cost Per SF Escalated to 2005 (32%):	$140/SF
Inflation for 2002: 6%	
Inflation for 2003: 6%	
Inflation for 2004: 8%	
Inflation for 2005: 12%	

Project #2: University of Utah Health Sciences Education Building

Year Construction Completed:	2003
Year Construction Completed:	2005
Size of Building:	150,000 GSF
Total Construction Cost Building/Site:	$27,000,000
Cost per SF:	$180/SF
Cost per SF Escalated to 2005 (20%)	$216/SF
Inflation for 2004: 8%	
Inflation for 2005: 12%	

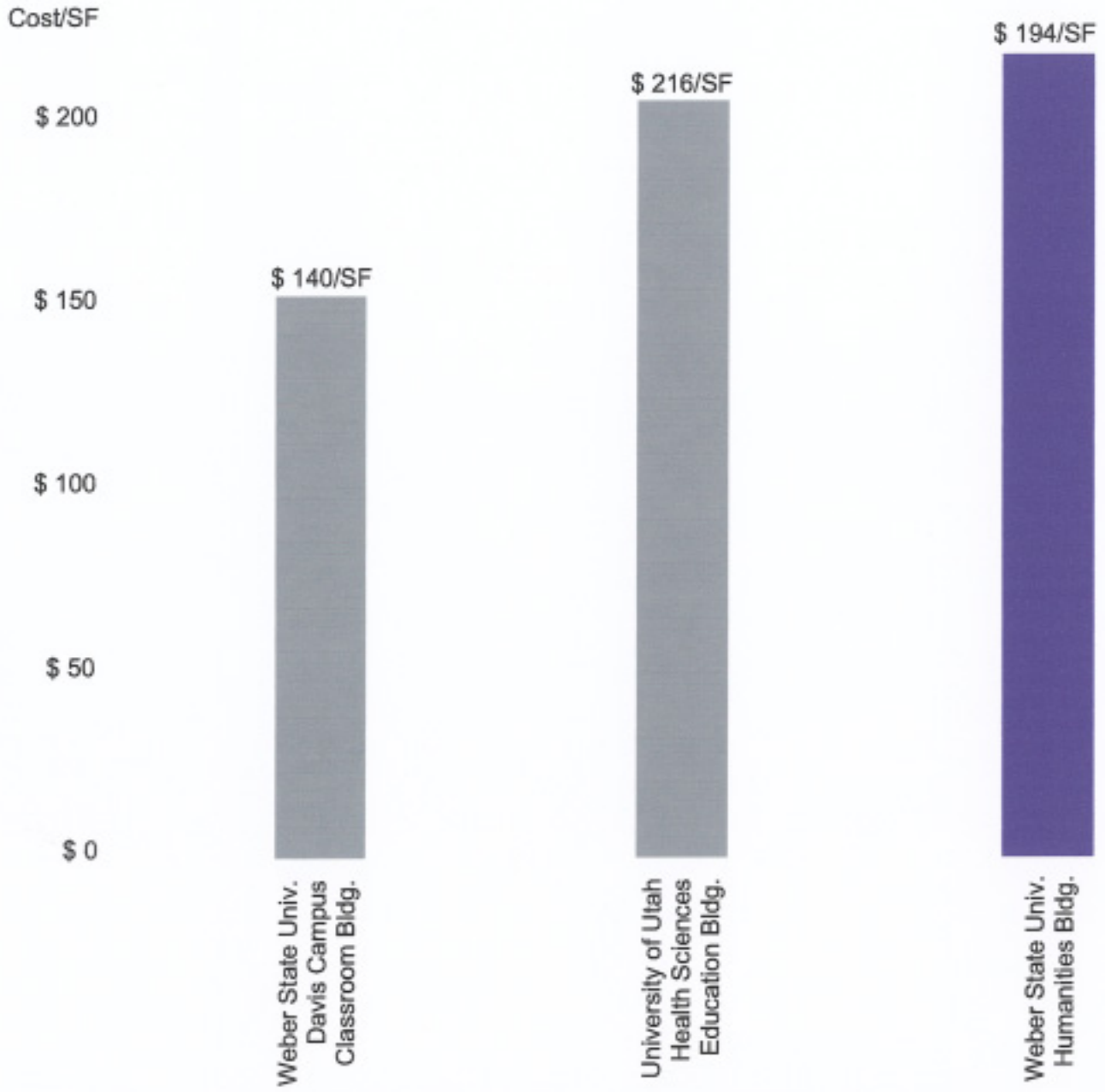
Weber State University New Humanities Building

Size of Building:	85,700 GSF
Construction Budget as of October 2005:	$16,646,700
(Inflation to start of construction not included)	
Cost per SF 2005	**$194.00/SF**

Cost Comparison Graph

Cost Comparison Graph Costs reflect the following:

- Building & Site Construction
- Comparables are inflated to 2005 dollars



6.0 NEW CHILLER

6.1 INTRODUCTION

6.2 MECHANICAL EXECUITVE SUMMARY

6.3 PHYSICAL CHARACTERISTICS OF THE SITE

- 6.3.1 SITE LOCATION
  - OVERALL CAMPUS MAP
- 6.3.2 PHOTOS OF THE SITE
  - VIEWS OF THE SITE
- 6.3.3 GEOTECHNICAL INVESTIGATION REPORT
- 6.3.4 TOPOGRAPHY AND SURVEY
  - EXISTING TOPOGRAPHY PLAN
- 6.3.5 UTLITIES
  - PROPOSED UTILITY PLAN

6.4 CHILLER BUILDING

- 6.4.1 ARCHITECTURAL
  - ARCHITECTURAL SITE PLAN
- 6.4.2 STRUCTURAL
- 6.4.3 MECHANICAL
- 6.4.4 ELECTRICAL

6.5 CHILLER PROJECT COST SUMMARY

6.1 Introduction

As part of the Programming effort for the new Humanities Building, the programming team was asked to also provide programming services for a new Chiller Building and Plant for Weber State University. A complete Chiller Feasibility Report is included in the Appendix (Section 7) of this Program Document.

This Section will identify the possible site for the new Chiller Building, identify utilities and infrastructure required, provide architectural, structural, mechanical and electrical programmatic requirements, and look at anticipated costs for the construction of this facility.

6.2 Mechanical Executive Summary

Included in Section 7 Appendix of this document is the **Weber State University Central Chilled Water Plant and Distribution System Study.** This study focuses on the existing and proposed chilled water systems for Weber State University. The study identifies existing chilled water distribution conditions, new and existing cooling requirements, and provides recommendations for the construction of a new central chilled water plant. The study will provides recommendations for new upgrades to the existing chilled water distribution systems. Capacities of existing and future buildings were taken from the Weber State University master plan. These capacities and totals can be found in Section 7 Appendix, **Weber State University Central Chilled Water Plant and Distribution System Study,** Sections 2 and 3.

Weber State University originally began as Weber State Academy in 1889. It was made a State Junior College in 1933. Weber State College was updated to University status in 1991. Weber State University has since experienced a steady growth of students and educational facilities. The University is comprised of thirty six (36) main on-campus buildings, and ten (10) auxiliary buildings. Among these buildings, twenty one (21) on-campus buildings are connected to the campus Central Chilled Water Plant. The study focuses on the cooling requirements of the existing buildings, future planned campus buildings, and projected load increases. All discovered and known information has been summarized and the findings incorporated into the design of a new Central Chilled Water Plant.

The following are the main concerns and recommendations for improving the Existing Chilled Water Distribution System and the construction of a new Future Central Chilled Water Plant. (All sections referenced are sections within the document located in Section 7 Appendix):

1. The capacities of the existing three chillers and piping are adequate to handle the existing connected demand. See Section 3.4. However, the existing campus pumping system has reached its' operating limits. Pumps must operate at full capacity to meet current campus needs, without adequate back-up. If a primary pump is lost, the campus capacity is reduced by 50% of one chiller. This could be as much as 625 tons. If a secondary pump is lost, the entire campus cooling capacity will be reduced by 50%.

2. The capacities of the existing three chillers, cooling tower and piping are adequate for the combined existing load and the projected summer 2006 load as long as all three chillers are operating. See Section 3.4. Pumping system will be inadequate as it is currently operating. A higher chilled water Delta T needs to be used to compensate for the lack of pump capacity at future peak demands.

3. The capacities of the existing three chillers, pumps, cooling tower and piping are <u>not</u> adequate for the combined existing connected load, projected summer 2006 load and the future projected load. See Sections 3.3 and 3.4.

4. The new projected central chiller plant should be designed so that a back-up chiller or combination of chillers will always provide the capacity to cover the connected load.

5. Two of the existing chillers are manufactured by The Trane Co, the third chiller by Carrier Corp. The Trane chillers are in good condition and should be relocated to the new

proposed central chiller plant. The Carrier chiller is beyond ASHRAE'S recommended service life and should be removed from service.

6. The different chiller combinations that are evaluated for the new central chiller plant in Section 5.2 are as follows:

Combination A:
1) Chiller #1 – New 1500 Ton with VFD
2) Chiller #2 – Existing 1250 Ton Trane Unit
3) Chiller #3 – New 1500 Ton with optional VFD
4) Chiller #4 – Existing 650 Ton Trane Unit

Combination B:
1) Chiller #1 – New 2000 ton with VFD
2) Chiller #2 – Existing 1250 Ton Trane Unit
3) Chiller #3 – New 1250 ton
4) Chiller #4 – Existing 650 Ton Trane Unit

Combination C:
1) Chiller #1 – New 1500 ton with VFD
2) Chiller #2 – Existing 1250 Ton Trane Unit
3) Chiller #3 – New 1250 ton with optional VFD
4) Chiller #4 – Existing 650 Ton Trane Unit

Combination D:
1) Chiller #1 – New 2000 ton with VFD
2) Chiller #2 – Existing 1250 Ton Trane Unit
3) Chiller #3 – New 1500 ton
4) Chiller #4 – Existing 650 Ton Trane Unit

Combination E:
1) Chiller #1 – New 2000 ton with VFD
2) Chiller #2 – Existing 1250 Ton Trane Unit
3) Chiller #3 – New 1700 ton
4) Chiller #4 – Existing 650 Ton Trane Unit

Combination F:
1) Chiller #1 – New 1700 ton with VFD
2) Chiller #2 – Existing 1250 Ton Trane Unit
3) Chiller #3 – New 1700 ton with optional VFD
4) Chiller #4 – Existing 650 Ton Trane Unit

7. Modify the campus chilled water loop as recommended in Section 4. This includes the following:
   a. Incorporate a primary chilled water circulation loop for each chiller.
   b. Provide a secondary loop with new pumps and variable frequency drives. Incorporate the campus loop pipe section modifications as part of the secondary loop.

c. Provide a separate "decoupled" chilled water loop for the skybox and its' associated loads. Provide a plate and frame heat exchanger and associated pumps and specialties in the old chiller plant room to serve this loop.

8. Provide a new plate and frame exchanger to provide free cooling by utilizing condenser water from the cooling tower without activating the chillers.

9. Provide all new chilled and condenser water pumps with stand by pumps for the chilled water and condenser water systems.

10. Provide an automated control system to match a sequence of control approved by WSU. An example of a sequence is as follows:

    a. The first stage of cooling when the outdoor temperature is below 60 degrees F, shall be provided by the "Free Cooling" ie. plate and frame exchanger and the cooling tower. This stage of cooling shall be provided until the return water temperature can no longer be maintained. At this point, the "Free Cooling" shall be terminated and the lead chiller shall start.

    b. The lead chiller shall start and maintain operation until the return water temperature continues to rise at which time a return water temperature controller (adjustable) will start the other chillers depending on the combination recommended or approved by WSU.

11. The existing five cell cooling tower is not large enough to handle the combination of the existing connected load, the projected summer 2006 load, and the future projected load.

12. Provide a refrigerant detection, evacuation and personnel safety system. See Section 6.4.

13. Design engineers shall use WSU and DFCM standards to Architects and Engineers defining design criteria, equipment approval, etc. for the new central chiller plant.

14. The new chilled water distribution system and condenser water system within the new central chiller plant should be balanced by an independent testing and balancing agency after the new systems are installed.

15. Based on Sections 3 and 5, we recommend for the new central chilled water plant one of the following chiller combinations with the associated equipment listed below:

    Combination A
    1) Chiller #1 – New 1500 ton with VFD
    2) Chiller #2 – Existing 1250 Ton
    3) Chiller #3 – New 1500 ton with optional VFD
    4) Chiller #4 – Existing 650 Ton

    Combination F
    1) Chiller #1 – New 1700 ton with VFD
    2) Chiller #2 – Existing 1250 Ton
    3) Chiller #3 – New 1700 ton with optional VFD

4) Chiller #4 – Existing 650 Ton
a. Central Air Eliminator – Remove all existing building air eliminators.
b. Central expansion tanks – Remove all existing building expansion tanks.
c. Four inline mounted, constant volume chilled water primary loop circulating pumps for the chillers.
d. Three main campus base mounted secondary distribution pumps with variable frequency drives.
e. Three main condenser water pumps with variable frequency drives.
f. Plate and frame exchanger for free cooling with and automatic change over to mechanical cooling.
g. Cell addition to the existing cooler tower.
h. Automation System.
i. Re-using the existing 24 inch condenser water piping as the new chilled water piping distribution system. See Existing Campus Distribution Map Section 4.2 C.

The recommendations included in this report are based off of WSU master plan information dated September 2005. Because many assumptions have been made concerning future buildings, i.e. future loads, locations, etc. Because of change in the future, as individual building designs are refined, this report shall only be used as a guide and not a finished design for future buildings. WHW Engineering, Inc. assumes no design liability for future modifications to the existing campus plan. Equipment sizing, pipe sizing, loop modifications, field verification of existing conditions, and all other associated recommendations are the responsibility of the future design teams to verify, calculate, and design at the time of the associated future projects.

The following paragraphs are not included in the executive summary of the actual study. These have been added to supplement the programming narrative. This is a summary of information contained in the body of the campus chilled water study, located in Section 7 Appendix of this document.

The following table includes the approximate costs for the two different recommended options. The reason that we recommend either option A or option F is that option A is the most cost effective, while option F provides the most redundancy. The owner should evaluate the options and determine whether redundancy or life cycle costs are a higher priority, and then select the associated chiller combination. A more detailed explanation of these two options can be found in the Appendix of this document, Section 6.1.a of the Chiller Feasibility Study.

WEBER STATE UNIVERSITY
CHILLED WATER STUDY COST ESTIMATE - Preliminary Opinion of Probable Costs
New Campus Chilled Water System Summary

7.4
Combination A

Item Description		Sub-Total		15% O & H		Total
Chiller Plant						
Chiller Plant - Combination A	$	2,797,224.00	$	419,583.60	$	3,216,807.60
Plate & Frame Recommendation						
Plate & Frame Exchanger (Free Cooling)	$	163,220.00	$	24,483.00	$	187,703.00
Campus Piping System For Future Connected Load						
Future Connected Load	$	189,400.00	$	28,410.00	$	217,810.00
	$	3,149,844.00	$	472,476.60	$	3,622,320.60

Sub-Total	$	3,149,844.00
15% O & H	$	472,476.60
Total	**$**	**3,622,320.60**

Combination F

Item Description		Sub-Total		15% O & H		Total
Chiller Plant						
Chiller Plant - Combination F	$	3,000,524.00	$	450,078.60	$	3,450,602.60
Plate & Frame Recommendation						
Plate & Frame Exchanger (Free Cooling)	$	163,220.00	$	24,483.00	$	187,703.00
Campus Piping System For Future Connected Load						
Future Connected Load	$	189,400.00	$	28,410.00	$	217,810.00
	$	3,353,144.00	$	502,971.60	$	3,856,115.60

Sub-Total	$	3,353,144.00
15% O & H	$	502,971.60
Total	**$**	**3,856,115.60**

The above costs are for the equipment associated with the new central chilled water system. This does not include the plumbing and HVAC costs associated with the building itself. The approximate HVAC and plumbing costs for the actual building are as follows:

WEBER STATE UNIVERSITY
CHILLED WATER STUDY COST ESTIMATE - Preliminary Opinion of Probable Costs
Chilled Water Plant Building HVAC and Plumbing Costs

Item Description	Sub-Total	15% O & H	Total
Plumbing for new chiller plant (including restroom, drinking fountain, water heater, service sink, compressed air piping, floor drains, etc.)	$25,000.00	$3,750.00	$28,750.00
HVAC for new plant (including fan coil with electric heat, restroom exhaust, etc.)	$45,000.00	$6,750.00	$51,750.00
TOTAL HVAC AND PLUMBING			**$80,500.00**

6.3 PHYSICAL CHARACTERISTICS OF THE SITE

6.3.1 Site Location

The proposed site location for this new facility is located west of the existing cooling tower facility, located adjacent to the stadium parking. See the **Overall Campus Map** for the location of the building on Campus.

CHILLER BUILDING SITE

TECHNICAL EDUCATION BUILDING

ENGINEERING TECH. BUILDING

ALLIED HEALTH BUILDING

GYMNASIUM

BUILDING 4

BUILDING 3

LIBRARY

GYMNASIUM

BUILDING 2

BUILDING 1

MCKAY EDU.

WATTIS BUSINESS

SHEPARD UNION

STUDENT SERVICES BUILDING

N

300' 0' 300' 600'

Scale: 1" = 300'

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OVERALL CAMPUS MAP
Humanities Building

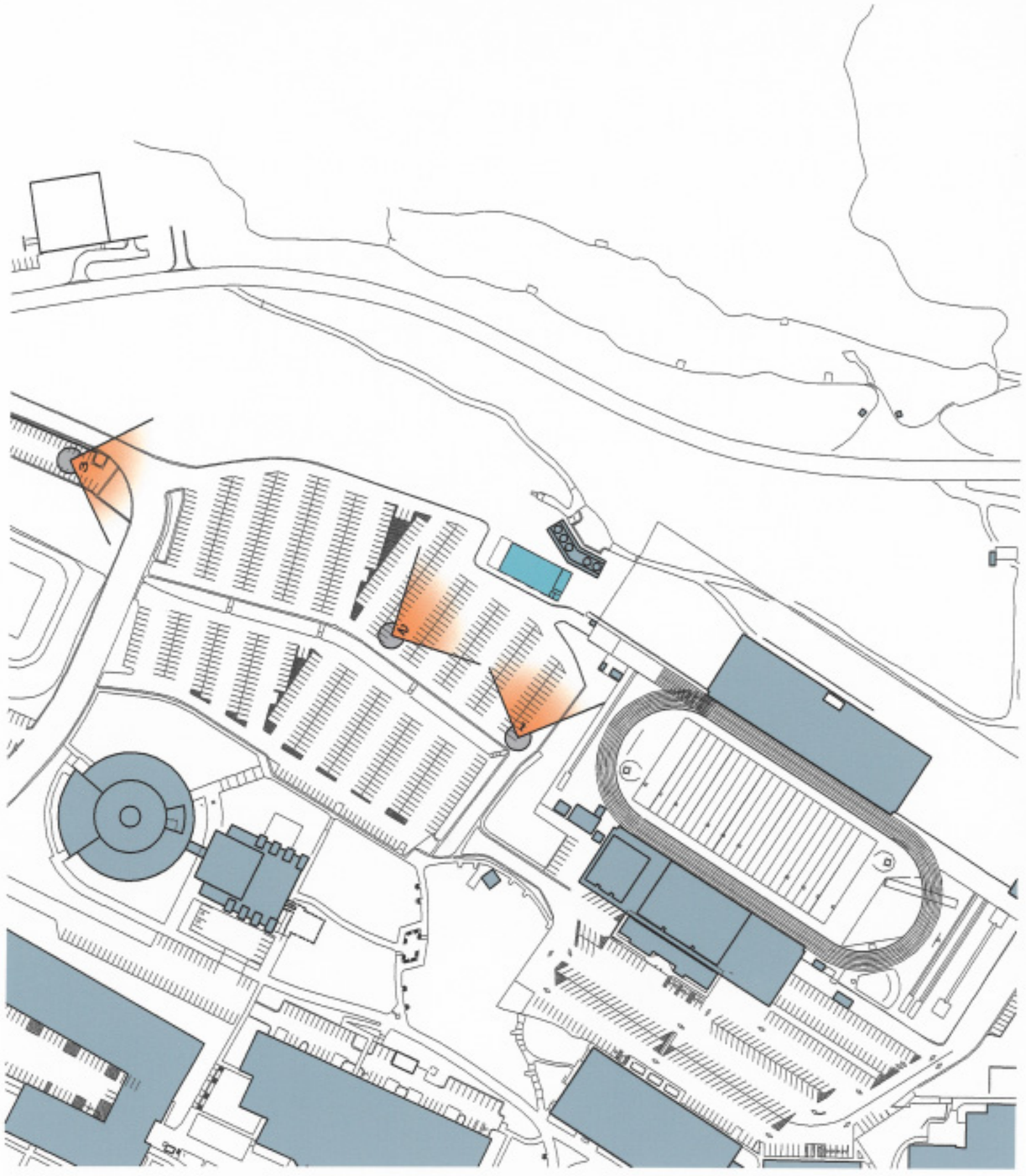
Program Document

6.3.2 Photos of the Site

Views of the Site

The proposed site for the new Chiller Building is in the hillside and parking area for the stadium.

See the following **Views of the Site** photos for views into the site and of the existing Cooling Tower Building.



VIEW #1

VIEW #2

VIEW #3

N

200' 0' 200' 400'

Scale: 1" = 200'

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VIEWS OF THE SITE
Chiller Building

Program Document

6.3.3 Geotechnical Investigation Report

A geotechnical report has not been provided during Programming and will need to be completed prior to the Design Phase.

Once the final building size, configuration, structural system, number of levels above and below grade, and column loads have been defined in more detail, the project geotechnical consultant shall provide guidance on the following design criteria as well as any other criteria deemed by the geotechnical consultant to be important.

- Soil bearing capacity
- Structural fill requirements
- Potential differential settlements
- Potential for expansion or collapse of soils due to moisture changes
- Liquefaction potential
- Groundwater characteristics and restrictions
- Seismic considerations, coefficients, fault traces, etc.
- Lateral bearing pressures – active and passive
- Alternate foundation systems
- Pavement sections

6.3.4 Topography and Survey

Prior to the start of design, a topographic survey of this site will be contracted by the State of Utah, Division of Facilities Construction and Management. It is anticipated that this survey will document all existing conditions of the site including surface and subsurface improvements. This survey will be made available for use during the design and construction phases of the project.

Weber State University has provided existing topography for use in the Program document. In general, the site slopes from east (high side) to west (low side), with approximately 16'-18' of fall across the site.

See the following **Existing Topography Plan.** This topography was provided by Weber State University and appears to be the topography of the site prior to the parking lot improvements.

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EXISTING TOPOGRAPHY PLAN
Chiller Building

6.3.5 UTILITIES

The location of the proposed Chiller Building is located west of the existing Cooling Tower Building and north of the Stadium. The site slopes down approximately 16'-18' feet from the existing Cooling Tower Building to the existing parking lot. Site work for the Chiller Building will require demolition of approximately 200-feet of curb and approximately 700 square yards of asphalt pavement. The existing chiller building remainder of the parking lot will be retained and protected during construction.

Existing utilities surround the proposed Chiller Building site to the East, North and South. On the East are overhead power lines; on the north are underground power lines; and on the south are culinary water, chilled water, sanitary sewer and irrigation lines. The existing utility lines should be retained and protect during construction of the new Chiller Building. The new Chiller Building will require culinary water and sanitary sewer services.

Water

Culinary water service for the new Chiller Building will be serviced by connecting to the existing culinary water main located adjacent to the south side of the proposed building location. Domestic water is existing serving the cooling tower. Provide make-up water prv for chilled water make-up. Provide domestic water PRV for restroom and utility sink. Provide backflow preventer for chiller and condenser make-up water to prevent contamination of domestic water.

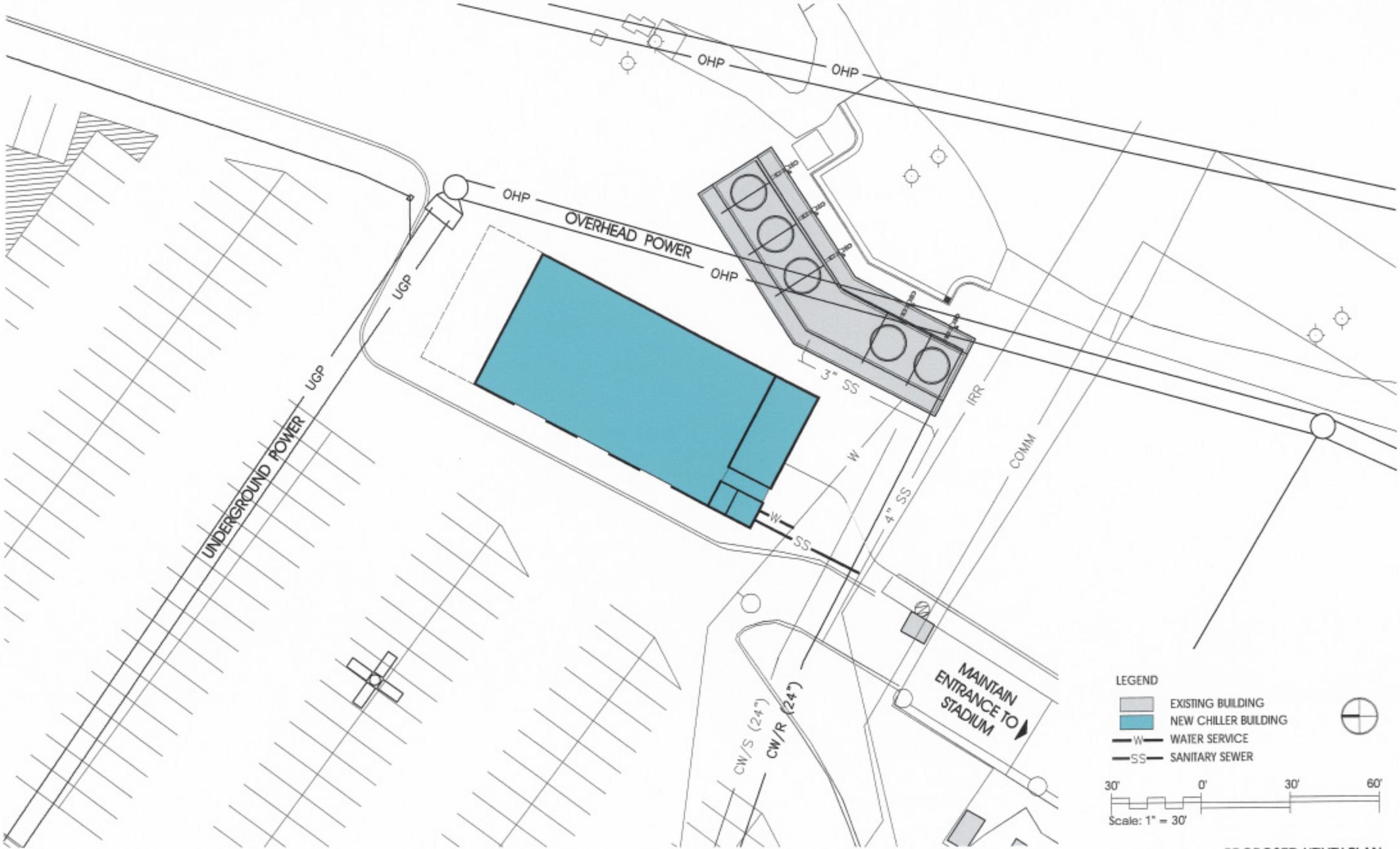
Sewer

The sanitary sewer service will be serviced by connecting to the existing 4-inch sanitary sewer located adjacent to the south side of the proposed building location. All waste piping shall be cast iron bell and spigot per DFCM standards.

Storm Drainage

The nearest storm drain line is approximately 200-feet west of the proposed building. Drainage from the roof could easily surface drain across the existing parking lot surface until the surface flow is intercepted by the existing storm drain system.

Building roof drain piping shall surface drain. Roof drain piping inside the building shall be insulated. Primary and secondary roof drain system shall be provided. Coordinate with Civil.



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PROPOSED UTILITY PLAN
Chiller Building

Program Document

6.4 CHILLER BUILDING

6.4.1 Architectural

The Program of Spaces to be included in the new Chiller Building are as follows:

Equipment Room	90' x 50'	4,500 GSF
Storage and Shop/Electrical	16' x 34'	544 GSF
Unisex Restroom	10' x 6'	60 GSF
Office	10' x 10'	100 GSF
Circulation	6' X 16'	96 GSF
Total Size of New Chiller Building		5,300 GSF

The functions of these spaces are as follows:

Equipment Room	Location for the 4 new Chillers and Associated Equipment. See the Chiller Feasibility Report for the layout of equipment for this space
Storage and Shop/Electrical	The Shop Area will include a work bench, utility sink, compressed air, location for a hot water heater, overhead hoisting system, open storage, small exhaust fan, and refrigerant (hazmat) storage.
Unisex Restroom	As required by code, 1 accessible unisex restroom with: (1) Lavatory (1) Water Closet
Office	Private Office
Circulation	Corridor as required for access to the Unisex Restroom, Office and Storage and Shop/Electrical spaces without having to enter the main Equipment Room.

It is anticipated that the building will be constructed of masonry and concrete. The east wall and portions of north and south walls will be retaining the existing hillside, and would be conducive to concrete retaining walls. The west wall will be fully exposed and can be masonry to tie into the existing masonry structures on the campus. The west wall will also have 3-4 large overhead (doors) openings. This exposure of the building will be highly visible; it is suggested that these overhead openings be "glass" to allow architectural interest in the building. This would provide an opportunity for the public to see into the new Chiller Building, (and require the inside to be kept clean for this "public viewing opportunity".)

Codes, Regulations and Safety

The governing codes for this project are listed below. The Design Team and Architect of Record will need to verify at the beginning of the design phase all required codes and regulations. It is the Design Team and Architect of Record's responsibility to utilize all latest revisions, editions and adopted versions. The following list presents currently applicable code issues and is not a complete list of applicable codes.

International Building Code (IBC) 2003 with Utah Amendments
International Plumbing Code (IPC) 2003
International Mechanical Code (IMC) 2003
International Fire Code (IFC) 2003
Life Safety Code NFPA 101 with Utah Amendments
National Electric Code (NEC) with Utah Amendments 2002
Laws, Rules and Regulations of the Utah State Fire Marshall
The Utah Code for Energy Conservation in New Building Construction (ASHRAE Standard 9.1-1989)
International Energy Conservation Code 2003
ASHREA Indoor Air Quality 62-2001 & Addendum 62n

Planning and Design Criteria to Prevent Architectural Barriers for Aged and Physically Handicapped (Fourth Revision, with lever hardware amendment)
Americans with Disabilities Act Title III, 1991 (ADA) 1998
DFCM Design Criteria for Architects and Engineers
Weber State University Design Standards
ANSI A117-119- 1968 Accessibility Design Standards 1998
American Society of Heating, Refrigeration and Air Conditioning (ASHREA)
Sheet Metal and Air Conditioning Contractor National Association (SMACNA)
Underwriters Laboratory (UL)
American Society of Testing Materials (ASTM)

In addition, the Design Team and Architect of Record will be required to coordinate their efforts with Weber State University Facilities Management and DFCM.

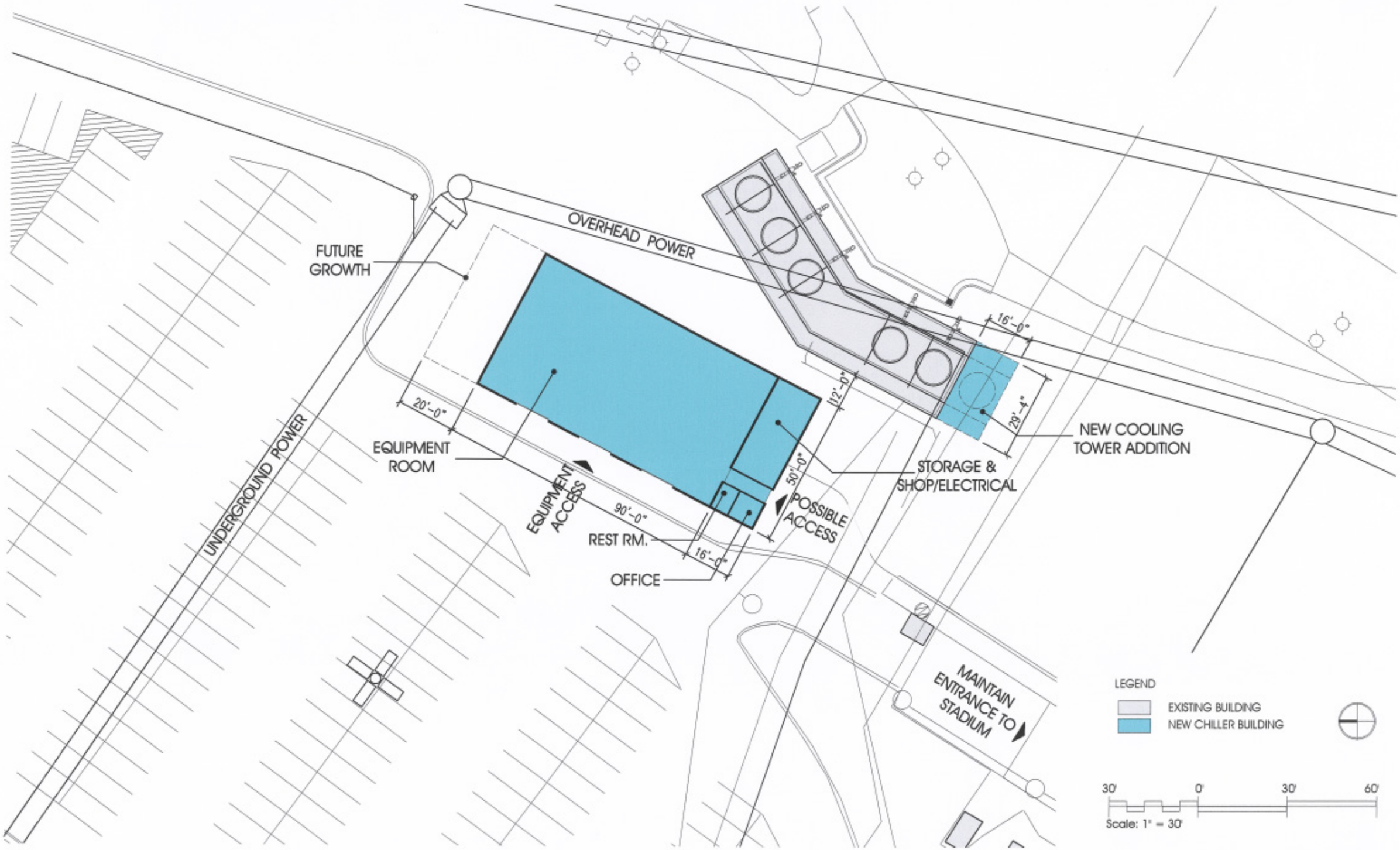
Recommended additional codes, standards and guidelines include:
ANSI/ASHRAE Z9.5
Weber State University Central Quad Master Plan

Occupancy Classification
The occupancy determination must be confirmed by the Architect of Record with the University Fire Marshall and the State Fire Marshall.

Weber State University Facilities Management is the representative of the University with authority over all aspects of the design and construction processes. All contact should be directed through the Project Manager from Weber State University.

Based on the 2003 IBC
Programmed Area: 5,300 gross SF, 1 stories

Item	Value	Section / Notes
Sprinklers	Fully Sprinkled	903
Occupancy	U* See "Other Applicable Codes" below. **Depending on the refrigerant classification the building may need to be an H occupancy.**	312.1 Utility
Construction Type	IIIB	602.2 Building elements are non-combustible.
Allowable Height / Area	U = 2/8500	Table 503
Increase in Height	Not used.	504.2
Area Increase	Not used.	302.3.1 Area increase based on assuming most restrictive occupancy is Group A-3 & applying it to the whole building to achieve "Nonseparated uses." Area increase and height increase not used since programmed area is well under basic allowable area.
Occupancy Separation	Not required.	302.3.1 See area calculations above.
Fire Rating of Building Elements	IIB **Element — Rating /hr** Structural frame — 0 Bearing walls — 0 Non-bearing walls — 0 Floor — 0 Roof — 0	Table 601
Stairs	1 hr = 3 stories 2 hr = 4 stories	1019.1
Shafts	1 hr = 3 stories 2 hr = 4 stories	707.2, 707.4
Occupant Load	18	1004.1. Accessory storage areas, mechanical equipment rooms.
Fixture Count	WC= 1/100= 1 Lavatories= 1/100= 1	Table 2902.1 Assuming Storage Occupancy.
*Other Applicable Codes.	Testing, controls & handling ***Classification dependant on type & amount of refrigerant.**	IFC Section 606 IMC Section 11 NFPA 704



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SITE LOCATION OPTION
Chiller Building

Program Document

6.4.2 Structural

Foundation System

A soils report for the project is not yet available. However, it is anticipated that the foundation system will be of conventional spot and continuous footings bearing on suitable, natural, undisturbed soils or on compacted fill extending to suitable, natural, undisturbed soils. The allowable soil bearing pressure will likely range from about 2,000 psf to 3,000 psf. The actual allowable soil bearing pressure will be determined by the Soils Engineer. The frost cover to be provided from final exterior grades to the bottom of exterior footings will be a minimum of 30 inches. Interior footings will likely have a minimum embedment depth of about 18 inches below final interior slab on grade elevations.

The slabs on grade will be a minimum of 6" thick to support the potentially heavy loads from mechanical equipment. Large equipment is to be placed on isolated mat footings. The slabs on grade will be reinforced with at least 0.001 ratio of deformed reinforcing steel in two directions based upon the gross section of concrete. The slab will likely be placed over 4" of free draining granular fill and appropriate moisture barriers. Slabs will be designed and detailed with control and construction joints spaced such that cracking is minimized.

Roof System

The roof system will be 1 ½ inch, 20 gauge, type "B" galvanized steel roof deck over open web steel joists and steel beams. The steel joists will be supported on steel girders. The steel girders and steel beams will be supported on steel columns, or reinforced masonry/reinforced concrete exterior walls. This is a very efficient and economical framing system. The roof will need to be designed to support snow loads, snow drifts and any miscellaneous mechanical loads. The structural roof system is to be designed to support an additional live load of 50 psf to account for the weight of suspended equipment.

Structural/Architectural Exterior Walls

The type of exterior walls to be used has not yet been determined but will likely be of brick veneer over steel studs. These walls are not load bearing and do not provide lateral support for the building. They will need to be detailed to accommodate lateral story drift caused by wind and seismic forces. The design and detailing of these walls will be covered by the architectural drawings.

Lateral Force Resisting System

The lateral force resisting system will be of the steel roof deck acting as a diaphragm. It will distribute the lateral loads to the vertical force resisting system. The vertical force resisting system will be three solid walls of reinforced masonry/reinforced concrete, with a moment resisting steel frame located on the west side where large overhead openings are required. The lateral forces will then be delivered into the foundation system by the vertical force resisting system. The redundancy factor for the project is to less than 1.1. The foundation system will be designed for both overturning and sliding forces.

The building is located approximately ¼ mile from a fault that runs along Skyline Drive.

Codes

The 2003 International Building Code will be used as the minimum code and standard for this project. This includes the current editions of the standards referenced by the 2003 International Building Code. The project will also need to conform to the design standards of the Division of Facilities and Construction Management (DFCM).

Structural Design Criteria and Material Strengths

The final design criteria and material strengths are to be clearly shown on the final structural documents.

Structural Design Criteria and Material Strengths

Listed below are the minimum required structural design criteria and material strengths. The criteria and strengths will continue to be evaluated as the design progresses. The structural design will be according to the 2003 International Building Code (IBC 2003). The building is to be classified as a Category III building per the IBC 2003.

Design Criteria:

1. Roof Snow Load

Snow Ground Load	P_g = 44 psf
Snow Importance Factor	I = 1.10
Exposure Factor	C_e = 1.0
Thermal Factor	Ct = 1.0
Flat Roof Snow Loads	P_f = .7*Pg*I*Ce*Ct

2. Seismic Loads

Short Period Mapped Acceleration	S_S = 1.80
Long Period Mapped Acceleration	S_1 = 0.78
Soil Site Class	D
Short Period Site Coefficient	F_a = 1.50
Long Period Site Coefficient	F_v = 1.00
Design Spectral Response Acceleration	S_{DS} = 2/3 * F_a * S_S
Design Spectral Response Acceleration	S_{D1} = 2/3 * Fv * S1
Seismic Importance Factor	I_e = 1.00
Response Modification Coefficient	R = 8
Seismic Response Coefficient	C_s = .161
W	Dead Loads of Structure
Building Seismic Design Category	E
Base Shear	V= C_S * W = (Strength Design)

3. Wind Loads:

Basic Wind Velocity (3 Second Gust)	110h
Exposure Type	C
Importance Factor	1.00

Working Stresses for Materials:

1. Concrete (28 day strength):

Footings	3,000 psi
Foundation Walls	4,000 psi
Interior Slabs on Grade	3,500 psi
Exterior Slabs on Grade	4,000 psi

2. Reinforcing Steel ASTM 615 Grade 60 — $F_y = 60$ ksi

3. Structural Steel

Wide Flange Shapes	ASTM A992 (50 ksi)
Other Shapes and Plates	ASTM A36
Steel Tube Columns	ASTM A500 Grade B (46 ksi)

Miscellaneous

Blast loading was not a required design parameter for this project.

The building should be designed for future expansion, as indicated to the north of the building.

6.4.3 Mechanical

General Mechanical

The design and construction of the new chiller plant at Weber State University shall comply with the current Utah State Division of Facilities and Construction Management's updated Design Criteria as well as the current Weber State University Design Standards.

The control system shall be an electronic DDC system tied into the Johnson Metasys central campus control system. The new controls shall be 100% compatible and integrated with the existing campus system.

Provide complete operation and maintenance manuals at the completion of the project as well as a complete set of record drawings and specifications.

All equipment shall be clearly labeled. Equipment, piping and ductwork shall be painted and labeled as required by the Weber State University design guidelines.

Design Conditions

The mechanical system shall be designed to maintain comfort condition in accordance with the Utah State Energy Code, DFCM A/E Design Guide, and WSU Design and Construction Standards.

Elevation:	4350 Ft.
Lat / Long.	41°15' N, 111°57' W
Ambient: (ASHRAE 2-1/2%, 97%)	
Summer	95°F DB 65°F WB
Winter	5°F DB
Indoor Conditions	
Summer	75°F
Winter	72°F

Envelope U-values

Building envelope shall be designed in coordination with mechanical systems in order to achieve energy performance of 20% better than ASHRAE 90.1 – 2001.

Ventilation Rates:	ASHRAE 62-1 – 2001, and ASHRAE 15 Safety Code for Mechanical Refrigeration
Internal Heat Gain:	
People:	ASHRAE Estimates for Level Activity
Equipment:	Provide adequate cooling to prevent overheating of the equipment (such as chillers and pumps)

Applicable Codes

The mechanical system throughout the building shall be designed and installed in accordance with the most recently adopted of the following codes and standards:

- Life Safety Code
- International Building Code (IBC) including all appendices
- International Mechanical Code (IMC)
- International Plumbing Code (IPC)
- International Energy Conservation Code (IECC)
- National Electrical Code (NEC)
- National Fire Protection Association (NFPA)
- ASHRAE 90.1 - 2001-2003
- ASHRAE Standard for Ventilation 62-1 2001
- ASHRAE 15 Safety Code for Mechanical Refrigeration
- ASHRAE Guides and Standards (ASHRAE)
- State of Utah Boiler and Pressure Vessel Rules and Regulations
- American Society of Mechanical Engineers (ASME)
- American Standards Association (ASA)
- American Society of Testing Materials (ASTM)
- Sheet Metal and Air conditioning Contractors National Association (SMACNA)
- Occupational Safety and Health Administration (OSHA)

- DFCM Indoor Air Quality Criteria
- Utah State Division of Facilities and Construction Management (DFCM) ~ Architect / Engineer Design Guide.
- Weber State University Design Guide

Heating, Ventilating and Air Conditioning
The building shall be heated, cooled, and ventilated with systems suitable for the building function and occupancy in accordance with ASHRAE and DFCM standards. HVAC systems must compare with other mechanical systems designed for workshop and equipment areas. The primary mechanical system for the chiller plant shall be fan coil units and electric unit heaters.

Heating System
Equipment Area:
The chiller equipment room shall be heated by electric unit heaters. Heating for the equipment area shall be adequately sized to prevent freezing by maintaining a minimum 60 degree F space temperature.

All Other Areas:
Provide an electric duct heater in the fan coil unit serving the storage, shop, restroom, office, and circulation areas. Heating in this zone shall be sized for occupant comfort.

Cooling System
Equipment Area:
The chiller equipment room shall be cooled by a fan coil unit with a chilled water coil. Cooling shall be sized to handle equipment heat produced, including the chillers, pumps, variable frequency drives, etc.

All Other Areas:
Provide a fan coil unit with a chilled water coil and electric duct heater for the storage, shop, restroom, office, and circulation areas. Cooling in this zone shall be sized for occupant comfort.

Air systems
Outside Air:
The fan coil units shall introduce outside air into the building per ASHRAE 62 ventilation guidelines. The outside air shall be brought in through wall louvers.

Exhaust Air:
The equipment area and storage area shall be equipped with a refrigerant leak detection system. This shall include the ability to monitor all the different refrigerants being used in the plant, as well as those being stored. The refrigerant leak detection system shall be tied into a refrigerant evacuation exhaust system that complies with ASHRAE Standard 15. The exhaust shall be a roof mounted belt driven fan.

Provide a smaller roof mounted direct drive exhaust fan for the electrical room and restroom. Size per ASHRAE guidelines, and electrical room requirements.

Make-up Air:
Provide a wall mounted automatic damper/louver and interlock with the refrigerant exhaust system. General building exhaust air shall be made up through the fan coil units.

Controls Systems
Provide a DDC controlled building management system. BMS shall be fully integrated with the campus Johnson Metasys system. All HVAC components, including can coils, electric unit heaters, exhaust fans, etc. shall be tied into the DDC system.

Provide a separate DDC system for the new chiller plant, and all equipment associated with the new central plant. See the chiller study for further detail. The chiller plant DDC system shall also be fully integrated into the central campus Johnson Metasys system.

Plumbing Systems
Plumbing systems shall be designed to meet the International Plumbing Code as adopted by the State of Utah, D.F.C.M. Guidelines and Weber State University Design and Construction Standards.

Provide ADA water closet and lavatory in uni-sex restroom. Provide utility sink in shop area. Provide electric tank type storage water heater for building, and locate in the shop area. Domestic water piping shall be type L copper, and waste piping shall be cast iron. Coordinate with civil site utilities to bring waste piping to building.

Provide air compressor and compressed air piping in shop area.

Other Mechanical Systems
Provide all equipment associated with new chilled water plant. See the detailed chilled water study for further information. Chiller plant equipment shall include the following:

- Four water cooled chillers (two existing chillers will be re-located, two chillers will be new, and accommodations shall be made for 1 additional new chiller in the future)
- Chiller circulating pumps (one dedicated pump for each chiller)
- Two campus distribution chilled water pumps with variable frequency drives
- Two main condenser water pumps with variable frequency drives
- Plate and frame heat exchanger with dedicated chilled water circulating pump to serve chilled water loop with condenser water when temperature will allow
- Chiller make-up water and chemical treatment system
- Cooling tower make-up water and chemical treatment system
- Refrigerant Leak detection and evacuation system

- Chilled water piping sized to accommodate future 5th chiller, and tied into existing 24" piping under parking lot. See chiller study.
- Condenser water piping from existing cooling tower to new condenser pumps and new chillers
- Additional cooling tower cell

6.4.4 Electrical

Codes and Standards

Codes, which are applicable to the design of the electrical systems, are listed below. Comply with each of the latest adopted publications:

ADA, Americans with Disabilities Act
ASHRAE 90.1 Energy Code
EIA/TIA, Electronics Industries Association/Telecommunications Industry Association
IBC 2003, International Building Code
IEEE 1100-1999, Recommended Practice for Power and Grounding Electronic Equipment
IESNA, Illuminating Engineering Society of North America
NFPA, National Fire Protection Association (applicable sections including but not limited to):
  NFPA 70, National Electrical Code
  NFPA 72, National Fire Alarm Code
UL, Underwriter's Laboratories
Utah State Fire Marshal Laws, Rules and Regulations
DFCM, Division of Facilities Construction and Management, Design Criteria
Weber State University Design Guidelines

Site Utilities

Medium Voltage Power Distribution System

A new S&C PMH 4-way pad-mounted medium-voltage switch should be provided. The new switch should be tied to the existing S & C switch located to the North of the existing cooling tower building. Medium-voltage conductors between two switches should be installed in conduit and one spare conduit.

The new medium voltage switch should provide power to a new oil-filled, air-cooled, pad-mounted transformer. Primary voltage for new transformer should be 12,470 volt Delta; secondary voltage should be 480/277 volts 3-phase WYE connection.

Telecommunication Distribution

Two (2) 2" conduit should be installed between telephone terminal board in existing cooling tower building and telephone terminal board in new chiller building.

Power Distribution Systems
A new 480/277 volt main distribution switchboard should be provided.

The 480/277 volt main distribution switchboard should be free standing and equipped with Square D. "Powerlogic"- type digital metering and should be tied to the campus central power monitoring system via a data line.

The 480/277 volt main distribution switchboard should be utilized to provide power to branch lighting panelboard, 480 volt mechanical equipment such as chillers, pumps, etc.

The 208/120 volt panelboard should provide power to computer equipment, owner furnished equipment, duplex outlets, small mechanical equipment, etc.

Transient voltage surge suppressors should be provided for 480/277 volt main distribution switchboard and 208/120-volt panelboard.

All conductors should be copper. Conductors for branch circuits should be sized to prevent voltage drop exceeding 3% at the farthest point with 80% of circuit breaker demand load (duplex outlets, equipment, etc.). The total voltage drop on both feeders and branch circuits should not exceed 5%.

All conductors shall be installed in conduit. Minimum size of conduit to be ¾". Type MC cable may be used for light fixtures whip. Provide pull strings in all empty conduit.

A fault current and selective device coordination study should be done to indicate available fault current at all points in the 15 kV and building power distribution system. New switchboards, panelboards, etc., should be adequately rated for the available fault current. Fuses and circuit breakers should be selected to ensure minimum system power outage due to overloads or faults. Circuit breakers with adjustable long time, short time, instantaneous and/or ground fault setting shall be set at levels for optimum system coordination.

Mechanical equipment requiring variable frequency drives (VFDs) should comply with DFCM standards for VFDs included in the "Design criteria for Architects and Engineers" posted on the DFCM website.

Standby Power Distribution System
Provide a standby diesel engine generator with a skid-mounted fuel tank and walk-around sound attenuated enclosure to support new building life safety equipment, mechanical control equipment, outlets by telephone terminal board, and other standby outlets as designated by Weber State University. Standby diesel engine generator should have approximately 20% excess capacity for future growth and flexibility.

New engine generator should be equipped with demand power meters alarm indicating control panel. Dry contacts should be available for remote monitoring of engine and fuel system alarms.

Fuel tank should be sized for 24 hours of engine operation at 100% load. University campus should have the ability to refill the tank during an extended commercial power outage.

Outlets
Locations and number of outlets should be coordinated for each space with Weber State University and comply with their needs and requirements. The following is to be used as general guidance:

Offices: For each workstation, provide two duplex outlets dedicated to computer terminals and one additional normal outlet for every 6' of wall space.

Counter tops (in general): One outlet every 4'; GFI where within 8' of a sink.

Telephone Terminal Board: Provide emergency outlets for equipment and a normal power duplex outlet for general-purpose use.

Restrooms: One GFI outlet near each lavatory counter top.

Storage Room: One duplex outlet.

Building Exterior: One WP/GFI outlet near each entrance.

Grounding: Grounding Conductors

Grounding conductors should be installed with all feeder and branch circuits.

A new isolated copper ground bus bar should be installed by telephone terminal board. Tie the copper bus bar to main ground bus bar in main distribution switchboard.

Lighting-General
Lighting design should comply with illuminance levels and uniformity criteria of IESNA and its recommended practices. Comply with RP1-93 "Office Lighting", RP3-00, and RP-33-99 "Lighting for Exterior Environments". Except for specialized applications, design lighting with a minimum efficacy of 64 lumens per watt. Specify maximum 20% THD electronic ballasts. In addition, design lighting with a CRI exceeding 86, except in storage, mechanical, electrical, and similar non-public applications. Where appropriate, different lamp types should be minimized. Use 4' T-8 lamps with CRI of 86 or greater wherever possible. Lamps should be specified to comply with EPA TCLP requirements.

Comply with ASHRAE 90.1 requirements, except that overall energy target requirements should be exceeded by 15%. Design lighting control to harvest day lighting where practical, to control based upon occupancy, and according to programmable scheduling as applicable to the application.

Only campus standard lighting fixtures should be used for walkways, compatible with the campus surroundings. Exterior lighting should be controlled by combination photocell and time schedule.

Interior Lighting

In general, fluorescent lighting with electronic ballasts should be utilized.

Pendant indirect lighting should be considered for the office.

Occupancy sensors should be used for the appropriate applications. Specify dual technology ceiling mounted directional sensors in private offices and classrooms with manual off-switches. Ultrasonic sensors should be in restrooms.

Provide exit lighting to comply with IBC. Emergency lighting should be designed for means of egress to 1 fc minimum to comply with IBC. Include emergency lighting in restrooms, electrical rooms, communication rooms, etc.

Provide emergency lighting in the exterior of the building by the entrance doors to illuminate path of egress.

Fire Alarm System

Fire alarm system should be designed to comply with Utah State Fire Marshall's "Rules and Regulations" and Weber State University Design Standards. Only Notifier as distributed by Mountain Alarm is allowed on campus. An addressable fire alarm system should be designed capable of networking with the campus system and reporting back to central campus fire alarm system. Design strobes visible from all locations except private offices.

Horn installation should comply with NFPA including for higher ambient noise requirements. Where smoke control systems are required, the integration of the fire alarm with the smoke control systems should be coordinated. Provide duct detectors and fan shutdown where required by NFPA and the IMC. Coordinate location of the building fire alarm control panel with the Campus fire marshal.

Telecommunication System

Telephone terminal board should be installed in location as directed by Weber State University. Two (2) 2 ½ " conduit should be installed between the new telephone terminal board and existing telephone terminal board in the cooling tower building.

J-boxes for all voice/data jacks should be 4" x 4" x 2 ⅜" with single gang mud rings. Two (2) 1" conduit should run from each J-box to telephone terminal board.

Pull box should be provided after total of 180° bend in each conduit run. Maximum conduit distance from each voice/data outlet to cable tray should not exceed 50 feet.

Security System

Boxes and conduit should be provided for card access and security cameras to protect entrance doors.

6.5 CHILLER PROJECT COST SUMMARY

This opinion of probable cost has been prepared to reflect the anticipated cost of the new Humanities Building at Weber State University.

This document is based on the Programmatic Information, including measurement and pricing of quantities wherever information has been provided. Unit rates have been obtained from historical records, along with discussions with contractors. The unit rates provided include labor, material and equipment that reflect current bid costs in the Salt Lake City area. All subcontractor unit rates include the subcontractor's overhead and profit unless otherwise stated.

Exclusions
The following items are excluded:

- Land acquisition costs
- Financing charges and expenses
- Site related environmental abatement measures
- Project phasing costs
- Limited/restricted working hours

Items affecting Opinion of Probable Cost
The following items may change the estimated construction costs, and are not limited to:

- Unforeseen or hidden site utility conditions and capacities
- Modifications to the scope of work represented by this opinion of probable costs
- Phasing of the construction
- Non-competitive bid situations

Assumptions
The following assumptions have been made:

- Construction takes place during normal working hours.
- The CM/GC and subcontractors will have sufficient/temporary site staging and site storage within or adjacent to the vicinity of construction.

Escalation
This opinion of probable costs reflects current costs. Escalation has been included to represent an anticipated start of construction by midpoint 2007, with a second option included for midpoint 2008.

Contingencies
This opinion of probable costs reflects a design contingency of 10%, to allow for items not included in the drawings and Program documentation undefined at this stage.

This opinion of probable costs has been based on a competitive open bid situation with a minimum of 3 bidders for all items of subcontracted work. Please note that Parametrix has no control over the costs of labor, materials, equipment, contractor's methods, or the current competitive bidding market. This represents Parametrix's best judgment as a professional construction consultant. Parametrix does not guarantee the proposals, bids or the overall construction cost will not vary from opinions of probable costs provided within this Program Document.

Construction Costs
The costs provided in this document are for construction costs only. For total project costs, additional soft costs need to be added. Possible soft costs include:

Soft Costs
Hazardous Materials
Pre-Design/Planning
Design
Furnishings and Equipment
Information Technology (Pull Wire)
Technology
Utah Art (1% of Construction Budget)
Testing and Inspection
Construction Contingency
Moving/Occupancy
Builder's Risk Insurance (0.15% of Construction Budget)
Legal Services (0.2% of Construction Budget)
DFCM Management
User Fees
Commissioning
CAD Services (0.07% of Construction Budget)
Miscellaneous Other Costs

The following is a detailed breakdown of the construction costs for the new Chiller.

CONSTRUCTION COST ESTIMATE

CHILLER BUILDING, COOLING TOWER AND SITE

SECTION	AREA	UNIT	COST/SF	COST
CIVIL				
SITE DEMOLITION				
Remove and Dispose of Curb Wall	200	LF	$10.00	$2,000.00
Remove and Dispose of Asphalt Paving	700	SY	$4.00	$2,800.00
Clear and Grub	1	LS	$5,000.00	$5,000.00
Curb Wall	250	LF	$25.00	$6,250.00
Asphalt Repair	1	LS	$500.00	$500.00
Site Excavation	1	LS	$6,000.00	$6,000.00
UTILITY CONNECTION				
New Water Service	1	LS	$5,000.00	$5,000.00
New Sanitary Sewer	1	LS	$5,000.00	$5,000.00
ARCHITECTURAL				
ROOF				
Membrane Roofing System, Rigid Insulation and Flashings	5,300	SF	$9.00	$47,700.00
EXTERIOR WALLS				
Foundation, Dampproofing w/ Rigid Insulation	5,300	SF	$9.00	$47,700.00
Brick Veneer, Metal Studs, Batt Insulation, Gypsum Bd	3,600	SF	$22.00	$79,200.00
INTERIOR WALLS				
Metal Studs, Sound Insulation and Gypsum Board	1,500	SF	$7.00	$10,500.00
DOORS AND WINDOWS				
Overhead Doors	4	EA	$6,500.00	$26,000.00
Man Doors w/ Hardware	6	EA	$1,200.00	$7,200.00

FINISHES			
Floor Finishes	5,300 SF	$4.00	$21,200.00
Wall Finishes	2,300 SF	$1.50	$3,450.00
Ceiling Finishes	800 SF	$3.00	$2,400.00
SPECIALTIES			
Cabinets and Casework	50 LF	$300.00	$15,000.00
Bath Accessories	1 EA	$2,000.00	$2,000.00
Misc. Specialties	5,300 SF	$1.50	$7,950.00
STRUCTURAL			
Concrete	1 LS	$85,000.00	$85,000.00
Metals	1 LS	$67,114.00	$67,114.00
MECHANICAL			
Mechanical Cooling Tower and Chiller (Option A)	1 LS	$3,662,320.00	$3,662,320.00
Mechanical HVAC and Plumbing	1 LS	$80,500.00	$80,500.00
ELECTRICAL			
4 Chillers at 1250 ton each with 4160 volt power and associated pumps at 480 volts	1 LS	$324,500.00	$324,500.00
Electrical at Cooling Tower Addition	1 LS	$15,000.00	$15,000.00
SUB TOTAL			$4,537,284.00
GENERAL CONDITIONS	7%		$317,609.88
BONDING	1%		$45,372.84
OVERHEAD AND PROFIT	5%		$226,864.20
SUB TOTAL			$5,127,130.92
DESIGN CONTINGENCY	10%		$512,713.09
TOTAL (Construction) As of October 2005			$5,639,844.01

Notes: Costs are for Construction Only
Costs are based on a Competitive Bid Basis
Costs DO NOT include Inflation to Start of Construction
Mechanical costs for additional cooling tower includes masonry/concrete structure

7.0 APPENDIX

7.1 SITE OPTIONS 1a, 1b, 2 and 3

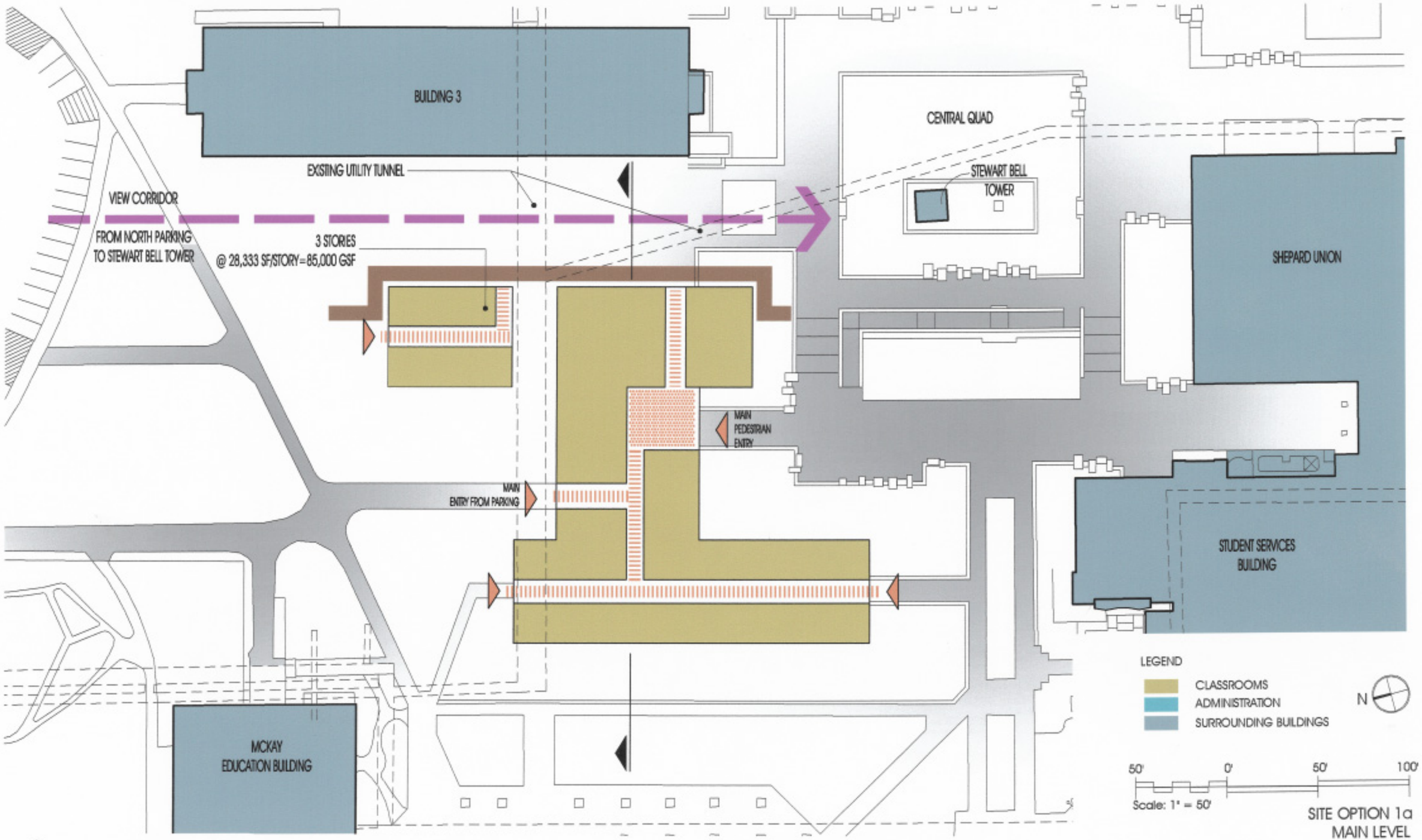
7.2 COSTS TO RELOCATE THE UTILITY TUNNEL

7.3 CHILLER FEASIBILITY STUDY

7.1 SITE OPTIONS 1a, 1b, 2 AND 3

The following are additional Site Options 1a, 1b, 2 and 3 that were reviewed by the Programming Steering Committee and determined not to be the preferred Site Option for the placement of the building. These are provided for reference only as to what was explored during the Program Phase.

These Options all included relocation of the existing Utility Tunnel.



SITE OPTION 1a
MAIN LEVEL

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Humanities Building

Program Document

BUILDING 3

EXISTING UTILITY TUNNEL

3 STORIES
@ 28,333 SF/STORY=85,000 GSF

ENTRY AT
PLAZA LEVEL

CENTRAL QUAD

STEWART BELL
TOWER

SHEPARD UNION

STUDENT SERVICES
BUILDING

MCKAY
EDUCATION BUILDING

LEGEND

CLASSROOMS
ADMINISTRATION
SURROUNDING BUILDINGS

N

50' 0' 50' 100'

Scale: 1" = 50'

SITE OPTION 1a
SECOND LEVEL

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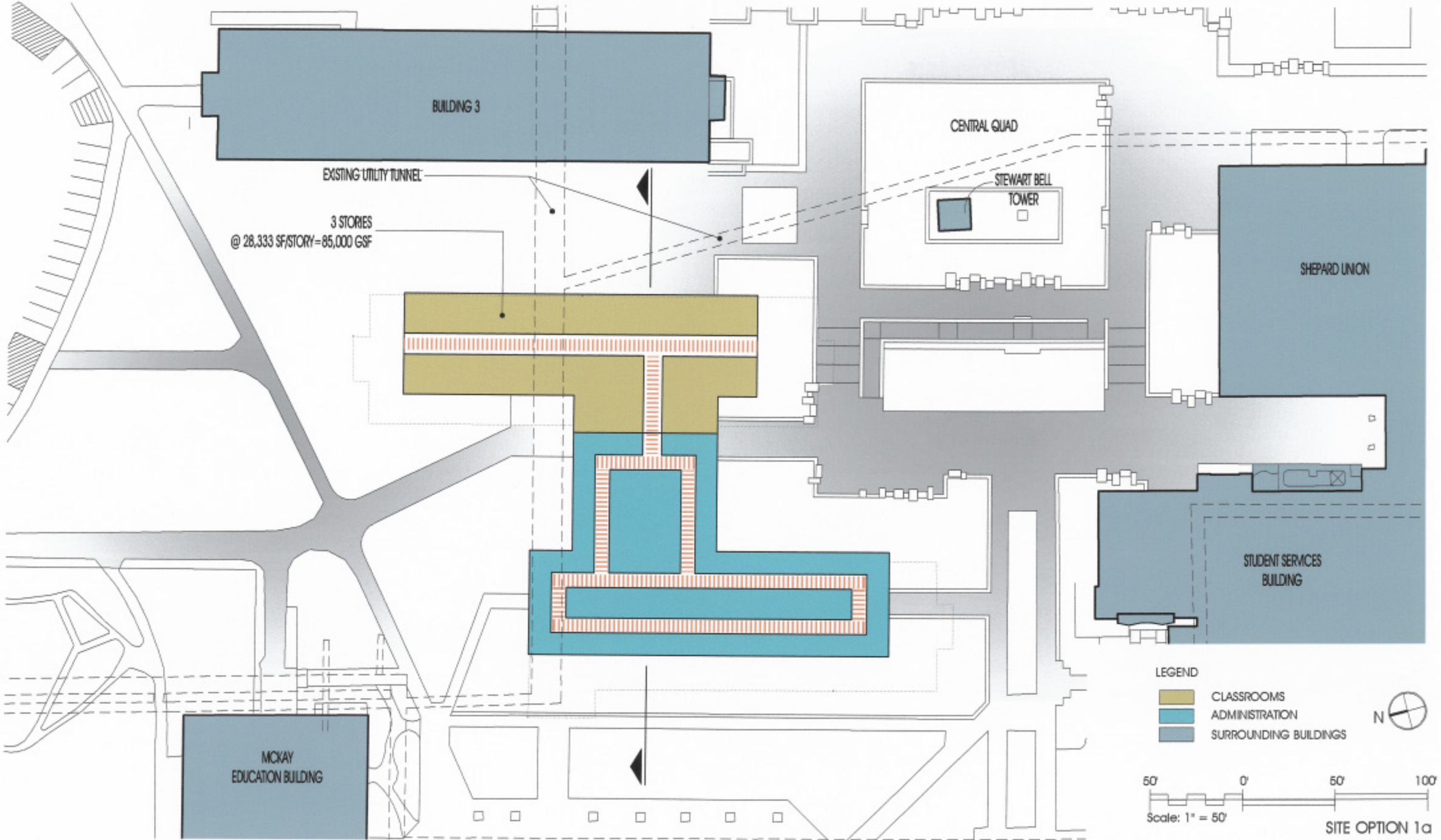
Humanities Building

Program Document



SITE OPTION 1a
THIRD LEVEL

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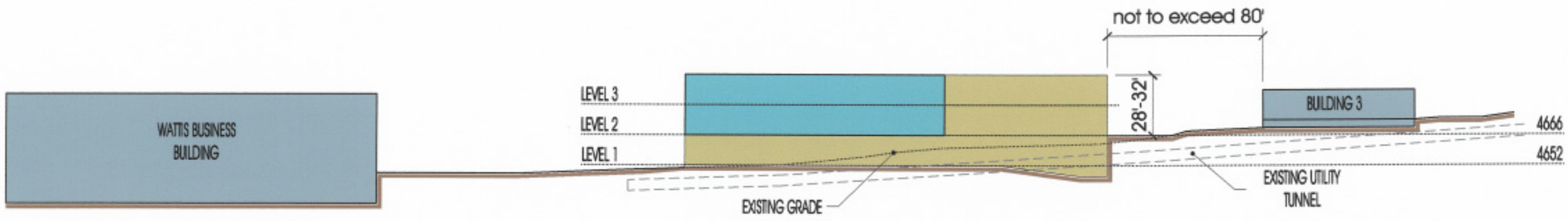
Program Document



LEGEND

- CLASSROOMS
- ADMINISTRATION
- SURROUNDING BUILDINGS

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BUILDING SECTION
OPTION 1a
Humanities Building

Program Document

BUILDING 3

EXISTING UTILITY TUNNEL

VIEW CORRIDOR

FROM NORTH PARKING
TO STEWART BELL TOWER

3 STORIES
@ 28,333 SF/STORY=85,000 GSF

CENTRAL QUAD

STEWART BELL
TOWER

SHEPARD UNION

MAIN
ENTRY FROM PARKING

MAIN
PEDESTRIAN
ENTRY

STUDENT SERVICES
BUILDING

MCKAY
EDUCATION BUILDING

LEGEND

CLASSROOMS
ADMINISTRATION
SURROUNDING BUILDINGS

N

50' 0' 50' 100'

Scale: 1" = 50'

SITE OPTION 1b
MAIN LEVEL

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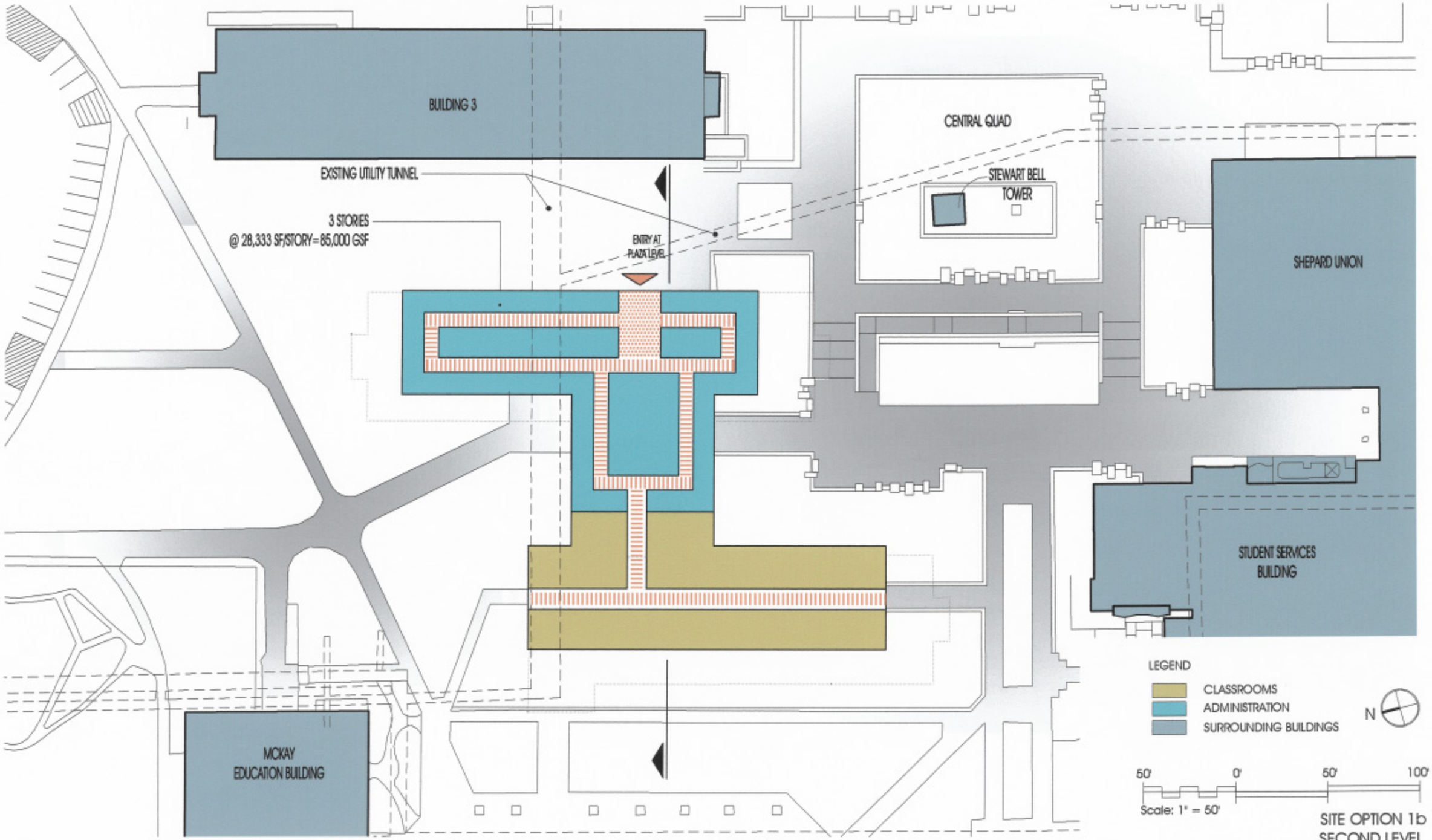
Humanities Building

Program Document



SITE OPTION 1b
SECOND LEVEL

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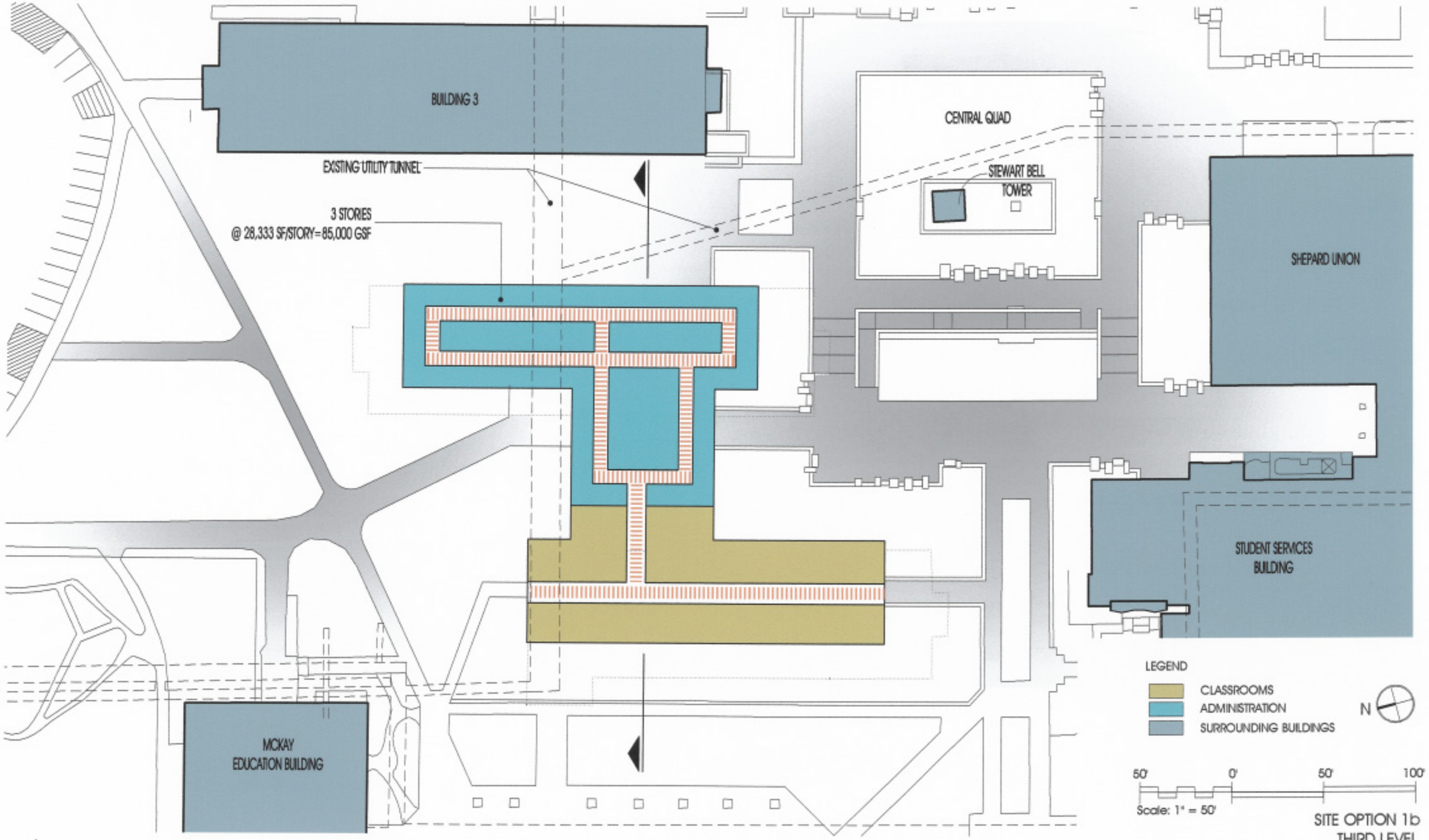
Program Document



SITE OPTION 1b
THIRD LEVEL

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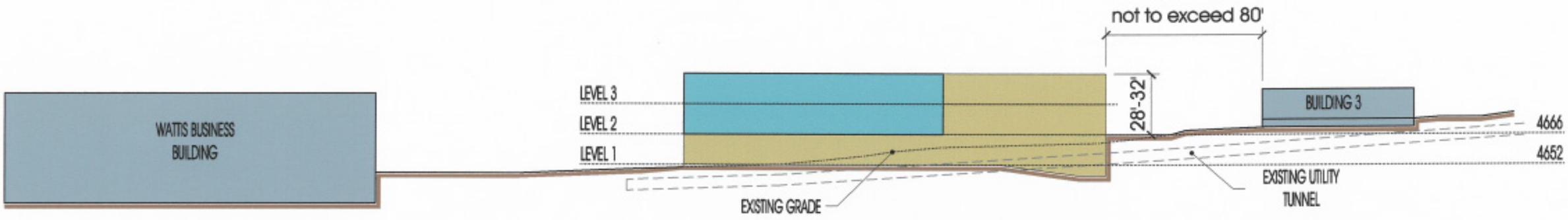
Humanities Building

Program Document



LEGEND

- CLASSROOMS
- ADMINISTRATION
- SURROUNDING BUILDINGS

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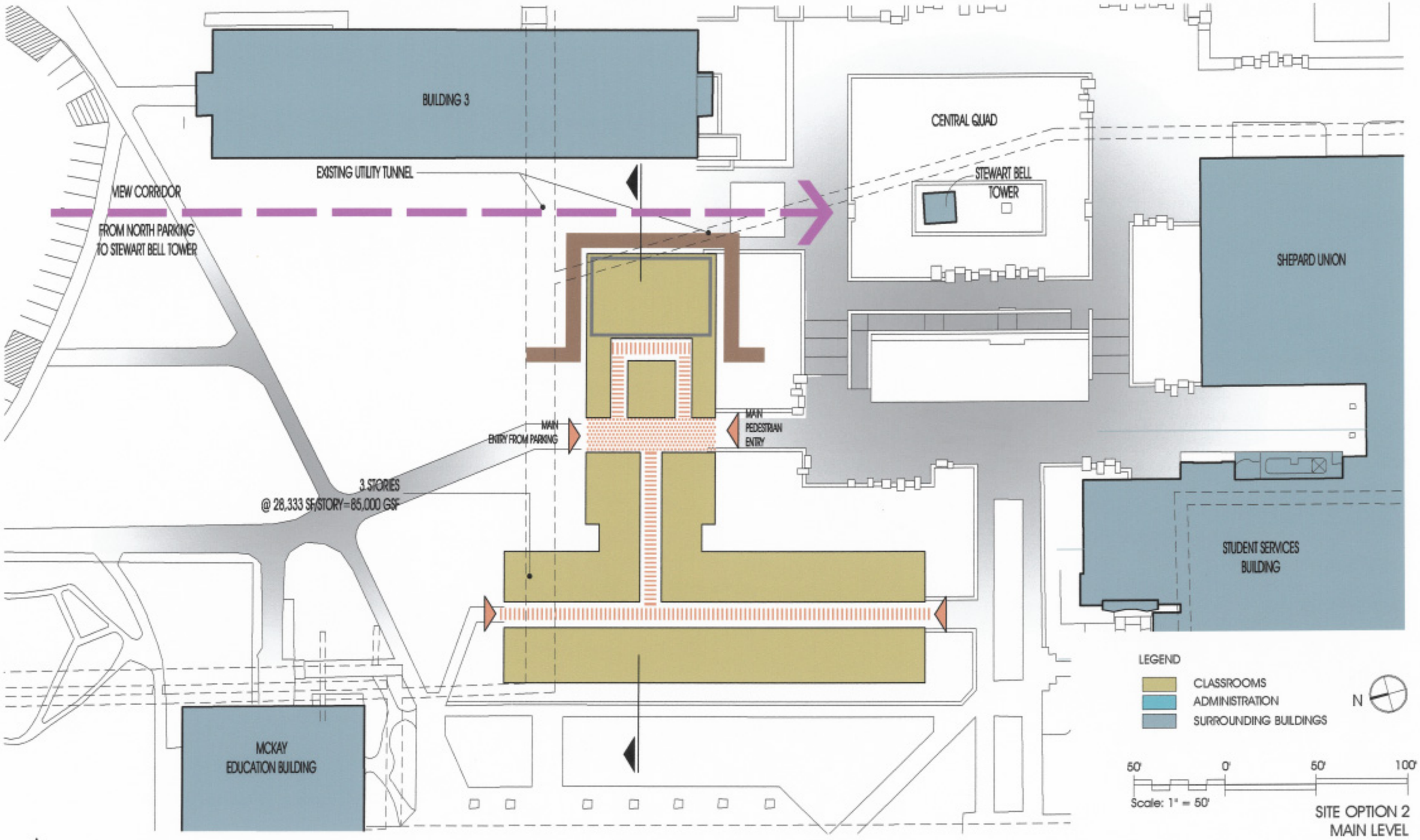
BUILDING SECTION
OPTION 1b
Humanities Building

Program Document



SITE OPTION 2
MAIN LEVEL

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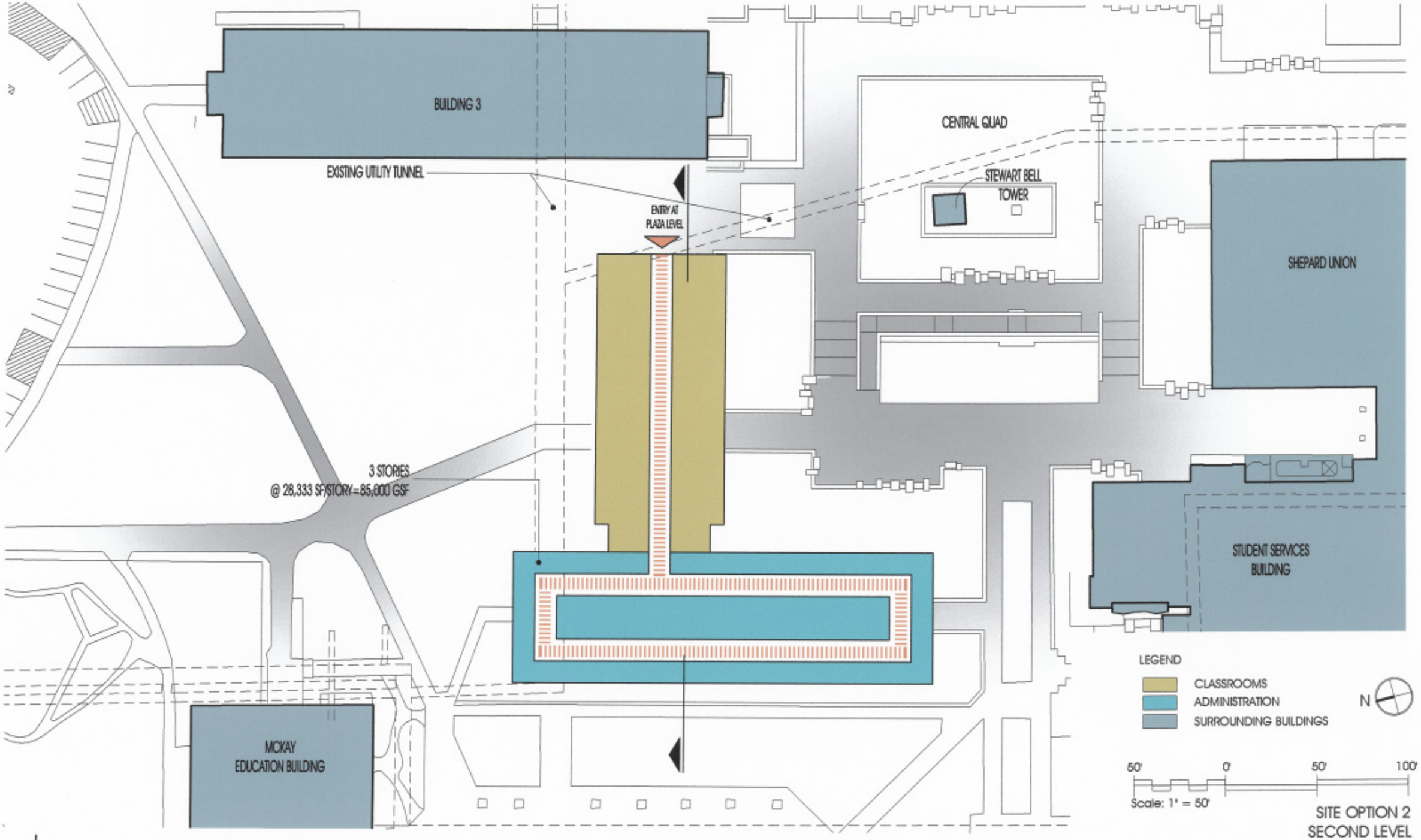
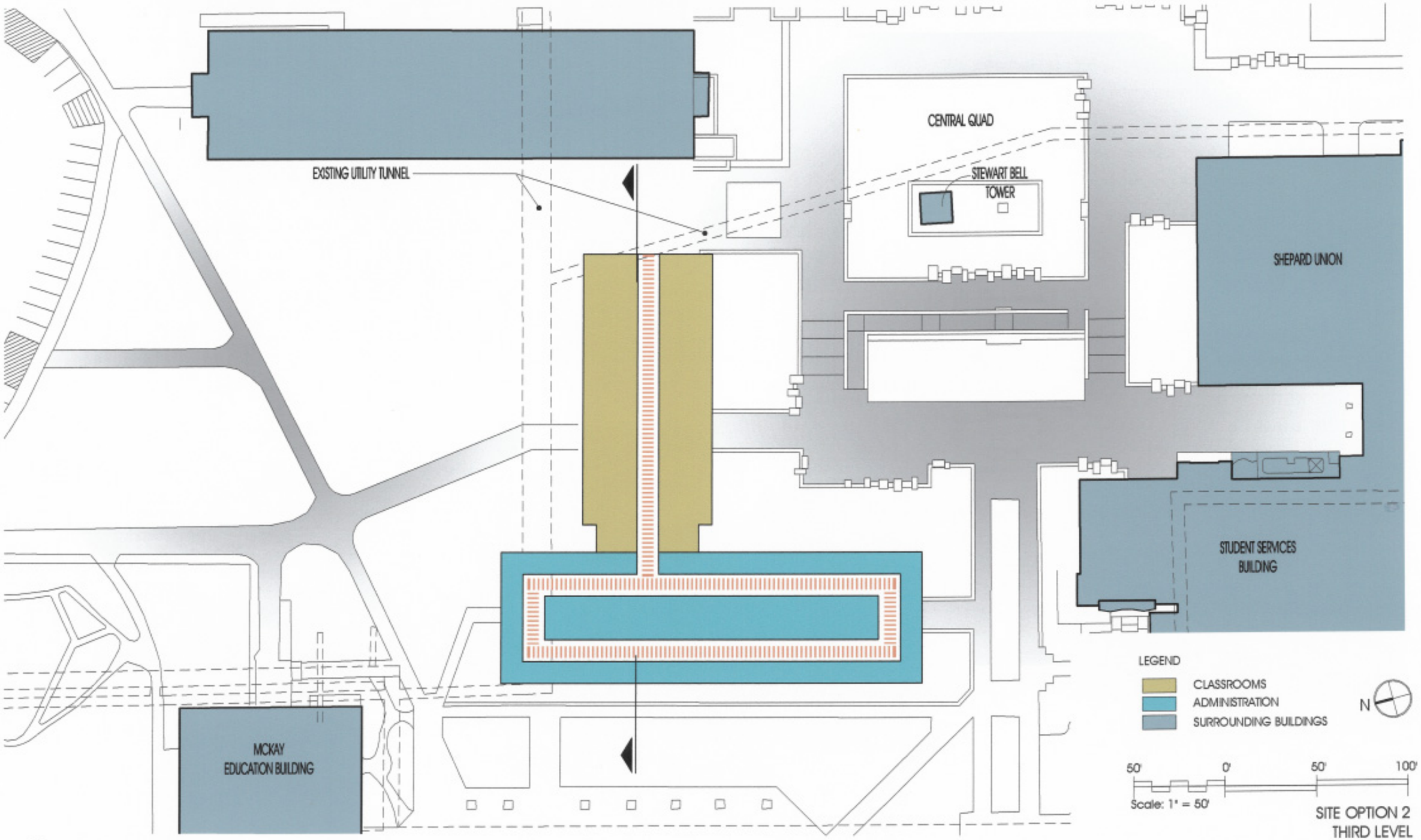
Humanities Building

Program Document



SITE OPTION 2
SECOND LEVEL



SITE OPTION 2
THIRD LEVEL

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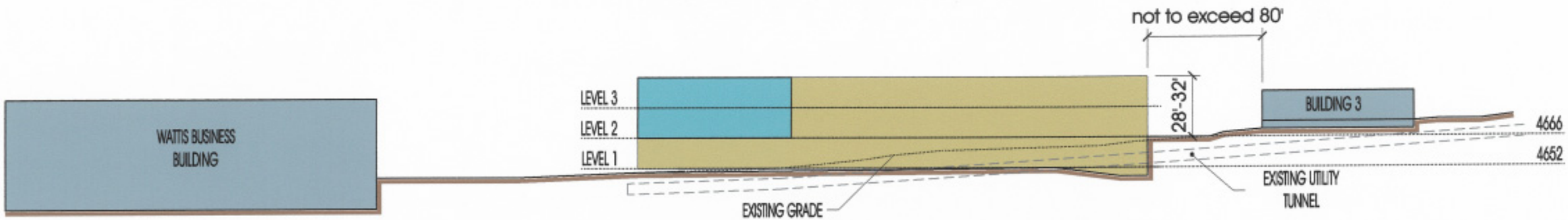
Humanities Building

Program Document



LEGEND

- CLASSROOMS
- ADMINISTRATION
- SURROUNDING BUILDINGS

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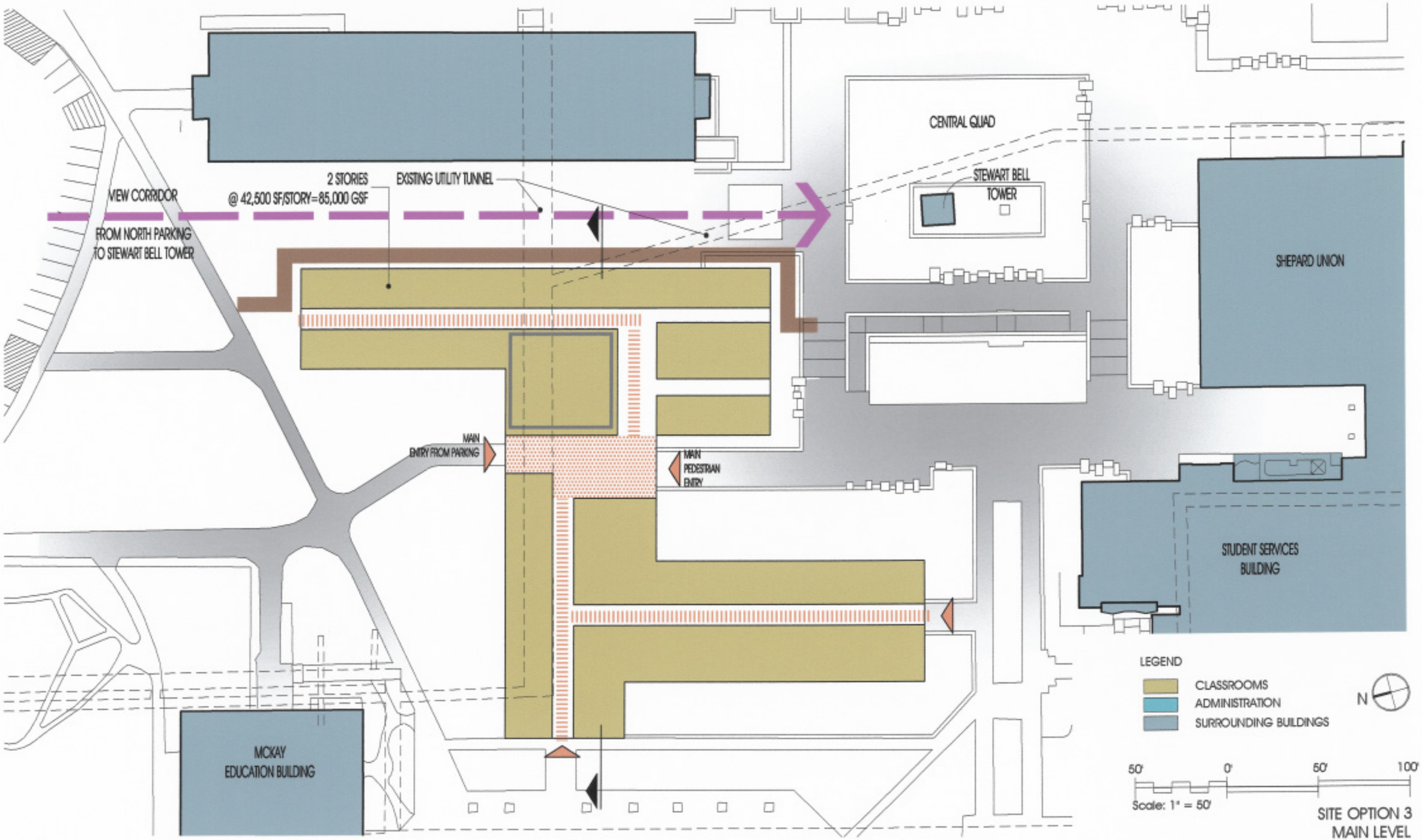
BUILDING SECTION
OPTION 2
Humanities Building

Program Document



SITE OPTION 3
MAIN LEVEL

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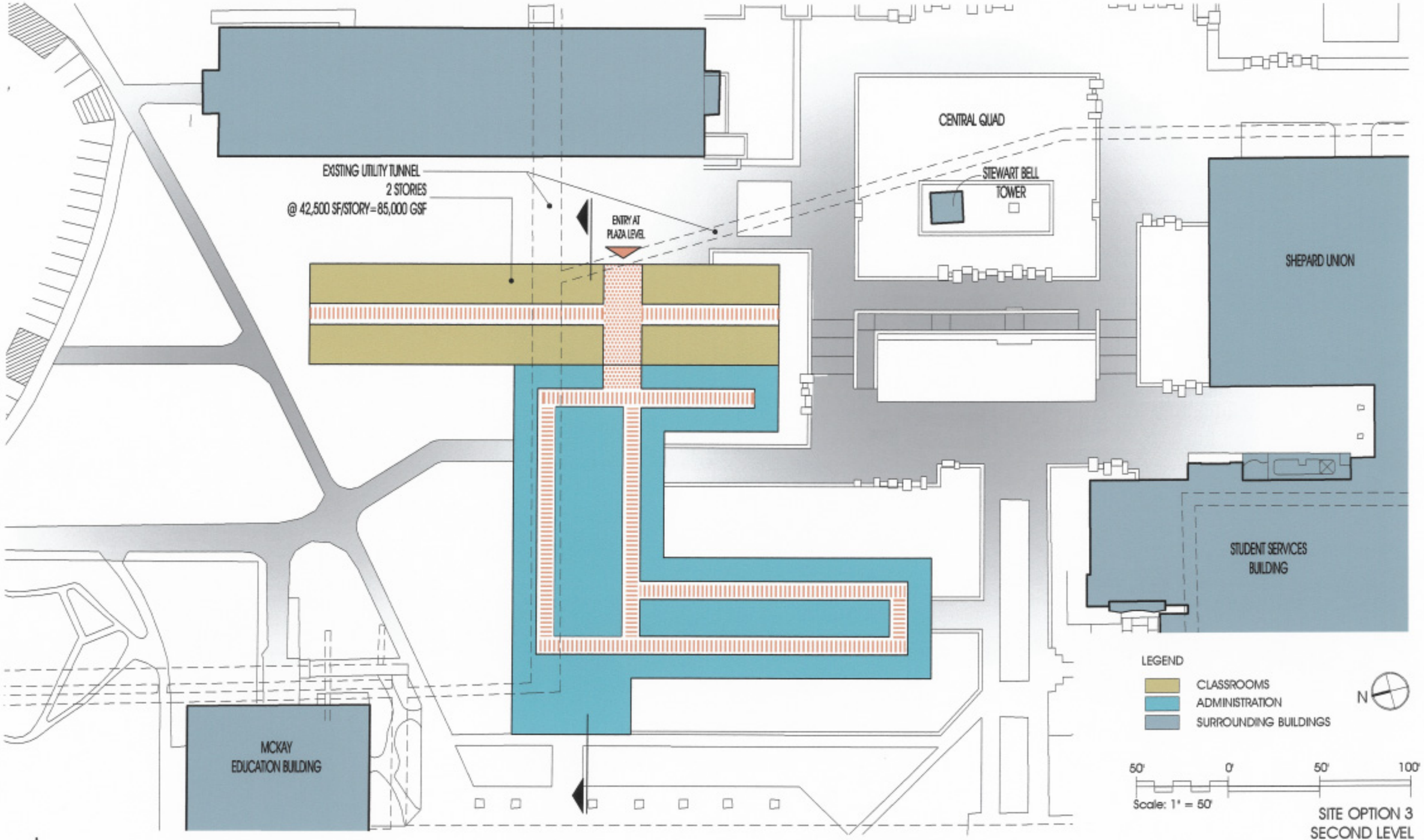
Humanities Building

Program Document



SITE OPTION 3
SECOND LEVEL

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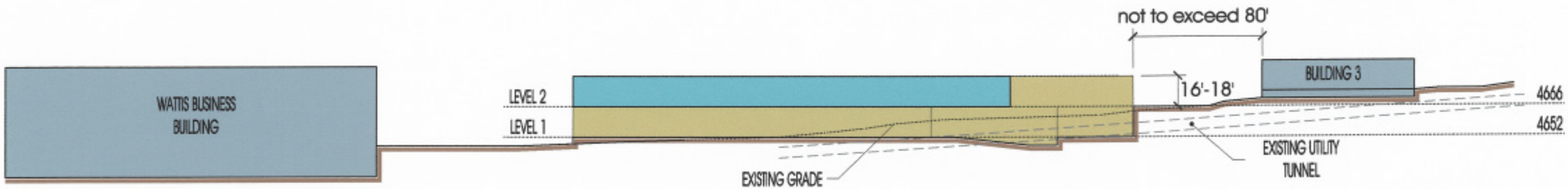
Humanities Building

Program Document



LEGEND

- CLASSROOMS
- ADMINISTRATION
- SURROUNDING BUILDINGS

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BUILDING SECTION
OPTION 3
Humanities Building

Program Document

7.2 COSTS TO RELOCATE THE EXISTING UTILITY TUNNEL

The following is the Cost Estimate for relocating the existing utility tunnel.

CONSTRUCTION COST ESTIMATE

MASTER SUMMARY

SECTION	AREA	UNIT	COST/SF	COST
CURRENT CONSTRUCTION COST:				
UTILITY TUNNEL RELOCATION				$735,540
TOTAL (Construction)				$735,540

NOTES: Costs are for Construction only.
Costs are based on a Competitive Bid Basis.
Costs are based on Current Costs and Do Not Included Inflation.

CONSTRUCTION COST ESTIMATE

SITE SUMMARY

SECTION		AREA	UNIT	COST/SF	COST
UTILITY TUNNEL RELOCATION					$598,000
SUB TOTAL					$598,000
GENERAL CONDITIONS	7.0%				$41,860
BONDING	1.0%				$5,980
OVERHEAD & PROFIT	5.0%				$29,900
SUB TOTAL					$675,740
DESIGN CONTINGENCY	10.0%				$59,800
TOTAL (Construction)					$735,540

NOTES: Costs are for Construction only.
Costs are based on a Competitive Bid Basis.
Costs are based on Current Costs and Do Not Included Inflation.

CONSTRUCTION COST ESTIMATE

SITE DETAIL

SECTION		QUANTITY	UNIT	UNIT COST	COST
UTILITY TUNNEL RELOCATION					
Concrete Utility Tunnel (New)		460	LF	800.00	$368,000
Chilled Water Line		460	LF	100.00	$46,000
High Temp Water Line		460	LF	250.00	$115,000
Condensate Line		920	LF	75.00	$69,000
					$598,000
SUB TOTAL					$598,000
GENERAL CONDITIONS	7.0%				$41,860
BONDING	1.0%				$5,980
OVERHEAD & PROFIT	5.0%				$29,900
SUB TOTAL					$675,740
DESIGN CONTINGENCY	10.0%				$59,800
TOTAL (Construction)					$735,540

NOTES: Costs are for Construction only.
Costs are based on a Competitive Bid Basis.
Costs are based on Current Costs and Do Not Included Inflation

7.3 CHILLER FEASIBILITY STUDY

The following is the complete Chiller Feasibility Study by WHW Engineers.