UNIVERSITY OF OREGON
SCIENCE BUILDING SITING STUDY

SEPTEMBER 2014

ACKNOWLEDGEMENTS

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EXECUTIVE SUMMARY

The intent of this Siting Study is to identify a comprehensive listing of factors for the project Advisory Group to consider as it makes recommendations about whether a proposed use is a good fit for a particular site.

The university has announced an initiative to add 150 new faculty to the campus. It is likely many of these new hires will require highly instrumented labs in the course of their research. The university's 2014 Capital Budget Request for the 2015 legislative session includes a 100,000-gross-square-foot building capable of housing thirty highly instrumented labs. This study includes three potential sites the university has identified for this facility. The accompanying evaluation matrix records the Advisory Group's ranking of these sites.

The Advisory Group looked at three sites. Two of the sites, Former Romania Dealership (Site B) and North of Agate (Site C), were determined by the Advisory Group not to meet the needs of the sponsor. Additionally, these two sites are identified for other university uses in the Space Needs Plan. The third site, Franklin (Site A), was determined by the Advisory Group to best fit the criteria when compared to the other sites.

EVALUATION MATRIX: SCIENCE BUILDING

SITE	CRITERIA CLUSTERS			
	I. Feasibility of Development	II. Campus Planning Framework	III. Space Needs Plan	IV. User Needs: Program & Facility Elements
A: Franklin	●	●	●	●
B. Former Romania Dealership	O	O	▬	▬
C. North of Agate	●	O	▬	▬

● = Fully Meets Criteria; O = Somewhat Meets Criteria; ▬ = Very Little or Nothing About the Site is Consistent with the Criteria;
N/A = Not Applicable

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APPENDICES

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APPROACH

METHODOLOGY

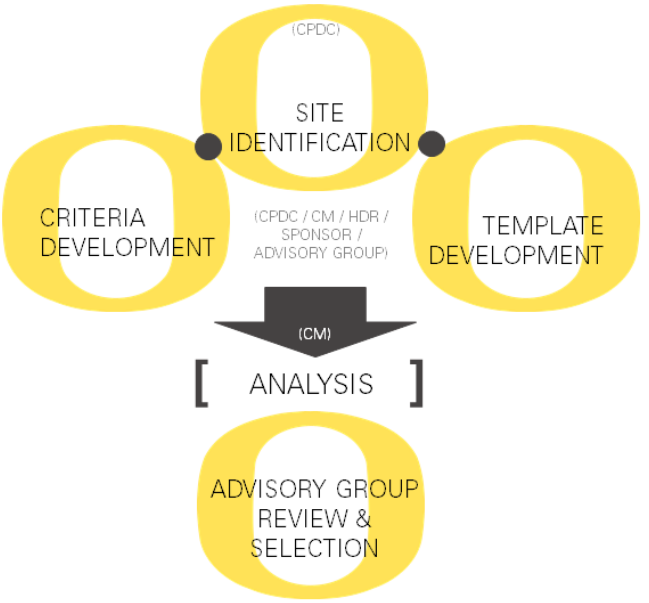
The process used to analyze potential site for a new science building included numerous participants and methods of analysis. This page captures that process.

TEMPLATE DEVELOPMENT

The development of a template includes understanding the project's conceptual program for a scientific research facility, its spatial requirements, and developing a diagrammatic footprint. To accomplish these outcomes, the consultant team met with Research and Innovation (the Project Sponsor) to acquire information on the programmatic needs of the new facility (See Appendix 1 for meeting outcomes). A set of preferred building configurations were identified and discussed at this meeting. Based on this input, HDR Inc. developed building templates that can be applied at each site (Appendix 2). Information on the templates used is described in the following section, Analysis Tools. With assistance from ArcGIS and AutoCAD, the template was overlaid on high resolution aerial imagery to examine the feasibility of the facility's space requirements on each site. The template that best met the criteria identified for this project was ultimately selected for the site. These preferred templates are shown on the site diagrams for each site within the Site Analysis section. All assessed template options are provided in Appendix 2.

CRITERIA DEVELOPMENT

Cameron McCarthy developed criteria to provide standards by which multiple sites could be compared and ranked by those involved in the selection process. Both Campus Planning, Design, and Construction (CPDC) and the Project Sponsor played integral roles in the development of these standards. Input was also provided by consultants working on this project to assure that optimal design and critical land use concerns were considered. All parties were provided opportunities to critique and edit the draft criteria prior to completion of the analysis. The resulting list of criteria are discussed in the following section, Analysis Tools.



SITE ANALYSIS

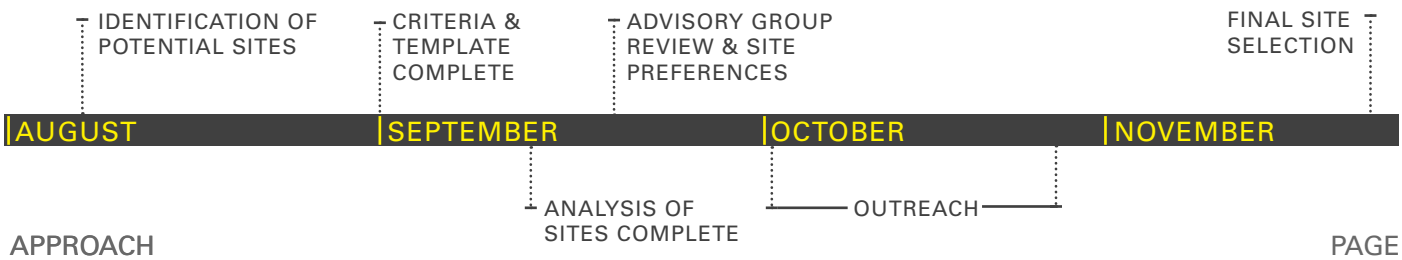
Once developed, the criteria and template were applied to each of the sites identified for analysis. Consultants used currently available information (including relevant planning documents, land use code, and GIS data) to obtain as much information as possible for each of the criteria. A summary of research findings is included in the Site Analysis Section.

ADVISORY GROUP RECOMMENDATION

The analysis in this document was provided to the Advisory Group, who was tasked with reviewing all potential sites and recommending 2 to 3 sites for selection.

NEXT STEPS:

Following a comment session and outreach phase, the Advisory Group, the UO Space Advisory Group, the Campus Planning Committee, and Vision consultants will review the Advisory Group's recommendations and provide comments and recommendations for selection to the University President. The UO President will make the final site selection.



ANALYSIS TOOLS

TEMPLATE

The templates developed and used for this study include the following program elements:

- A gross area of 100,000 sf and net area of approximately 55,000 sf
- Strategic Core Facilities to support advanced research
- Five stories including up to 6 PI's per floor in "highly instrumented labs"
- Faculty offices
- Conference rooms
- Shared public space

For the purposes of this study the building was designed to accommodate flexible lab spaces to allow for future modifications of the internal program of space. The project consultants note that the space program will need to be configured differently at each site to respond to the sites opportunities and constraints as best possible. At each site the building height was 5 stories to meet the University's preference for lower profile buildings. Additional information about the building program for each template is included in Appendix 2.

The templates used for this study are intended to provide a spatial analysis of the required building footprint for the space program at each site. Opportunity will exist for adjusting these configurations during the design process.

CRITERIA

Once identified, criteria were organized into four clusters, each representing a different focus. Individual criteria listed within these clusters have one or more questions used in the analysis of each site's ability to meet the criteria. To the extent feasible, these questions are intended to provide answers that are measurable and objective. This section introduces these criteria. It identifies the topics they address and how they are organized (i.e., into "clusters"). A full list of all criteria and their associated questions used for analysis are provided in Appendix 3.

No attention was given to the prioritization of these criteria prior to the Advisory Group's selection of preferred sites. Readers are advised to use their discretion in the prioritization (i.e., weighting) of the criteria based on identified values for this project, which will ultimately determine which sites are preferred.

Criteria Cluster I: Feasibility of Development

This cluster contains the largest number of criteria, all addressing very practical and potentially limiting factors of each site. These include: (1) the compatibility and cohesiveness of proposed improvements compared to the existing conditions of the site; and (2) the readiness of the site for development. These criteria apply to all sites in the analysis.

- Compatibility & Cohesiveness: Ideally, the proposed use of the site will be compatible with surrounding uses and infrastructure of the site. This criterion assesses many existing conditions and anticipated future development at or surrounding the site to: (1) identify how the development is or is not compatible with existing/anticipated adjacent uses; and (2) whether the proposed use and surrounding uses are mutually supporting. Questions for analysis address the following considerations: City-adopted refinement plans, neighborhood plans, or master plans to the site; transportation needs, building scale, visual and spatial transitions, and intensity of use.

- Readiness for Development: The project's timeline will vary with many of the considerations included in these criteria. Questions for analysis under these criteria examine the presence of historic and natural resources on the site (e.g., wetlands, floodways, and Goal 5 identified resources), existing and planned infrastructure on the site, development requirements for the site, and current ownership of the land. An evaluation of cost and time to develop the project on each site is also considered. A couple key factors that impact both time and cost include utility extensions and relocation of existing uses on the site.

Criteria Cluster II: Campus Planning Framework

The Campus Plan provides policies that guide the process, design, and development character of capital improvement projects and their surrounding contexts. Plan policies within this criteria cluster include: Open-space Framework; Densities, Space Use & Organization; Replacement of Displaced Uses; Architecture & Preservation; Transportation; Sustainable Development;

and Design Area Special Considerations (Conditions). These criteria identify whether the development of the proposed project will comply with each of these Campus Plan policies as applicable. Criteria in this cluster also respond to the policies in: (1) the 2003 Development Policy for the East Campus Area, a subject plan of the Campus Plan; and (2) the East Campus Open Space Framework.

Criteria Cluster III: The Space Needs Plan

The Space Needs Plan contains four theoretical scenarios for examining potential future space needs based on enrollment and faculty. This Plan provides a tool for evaluating possible sites to determine if future space needs identified in the Plan will be compromised (and to what degree) by selecting a site for a particular use now. This criterion identifies whether the site considered in this report is consistent with the long-term space needs for campus according to the various scenarios in the Space Needs Plan.

Based on advice from the President and Provost, the four theoretical scenarios used for examining potential future space needs include:

- Scenario 1: Space needs for the current enrollment (24,500 FTE) based on Space Advisory Group established ratios of space needed per student for 11 categories of space use. The increase of space relates to increases in faculty and staff. This Scenario includes an increase of 150 new faculty and 300 new PhD level students, raising the number of total Tenure Track Faculty to 869. 40 of the 150 new faculty are presumed to need highly complex and instrumented labs, 10 need labs of lesser complexity, and the remaining 100 will not need labs.

- Scenario 2: Space needs for a theoretical increase of enrollment to 28,000 FTE based on ratios of space needed per student (this increase in space accommodates an increase in Tenure Track Faculty to approximately 971).

- Scenario 3: Space needs for a theoretical increase of enrollment to 31,000 FTE based on ratios of space needed per student (this increase in space accommodates an increase in Tenure Track Faculty to approximately 1,059).

- Scenario 4: Space needs for a theoretical increase of enrollment to 34,000 FTE based on ratios of space needed per student (this increase in space accommodates an increase in Tenure Track Faculty to approximately 1,147).

Criteria Cluster IV: User Needs: Program & Facility Elements

This criteria cluster incorporates considerations from the perspective of the users of the site. It addresses experiential considerations and practical considerations such as limitations of siting the desired amenities within the study area. All criteria developed by the Project Sponsor are included here. This criteria cluster applies to all sites in the analysis.

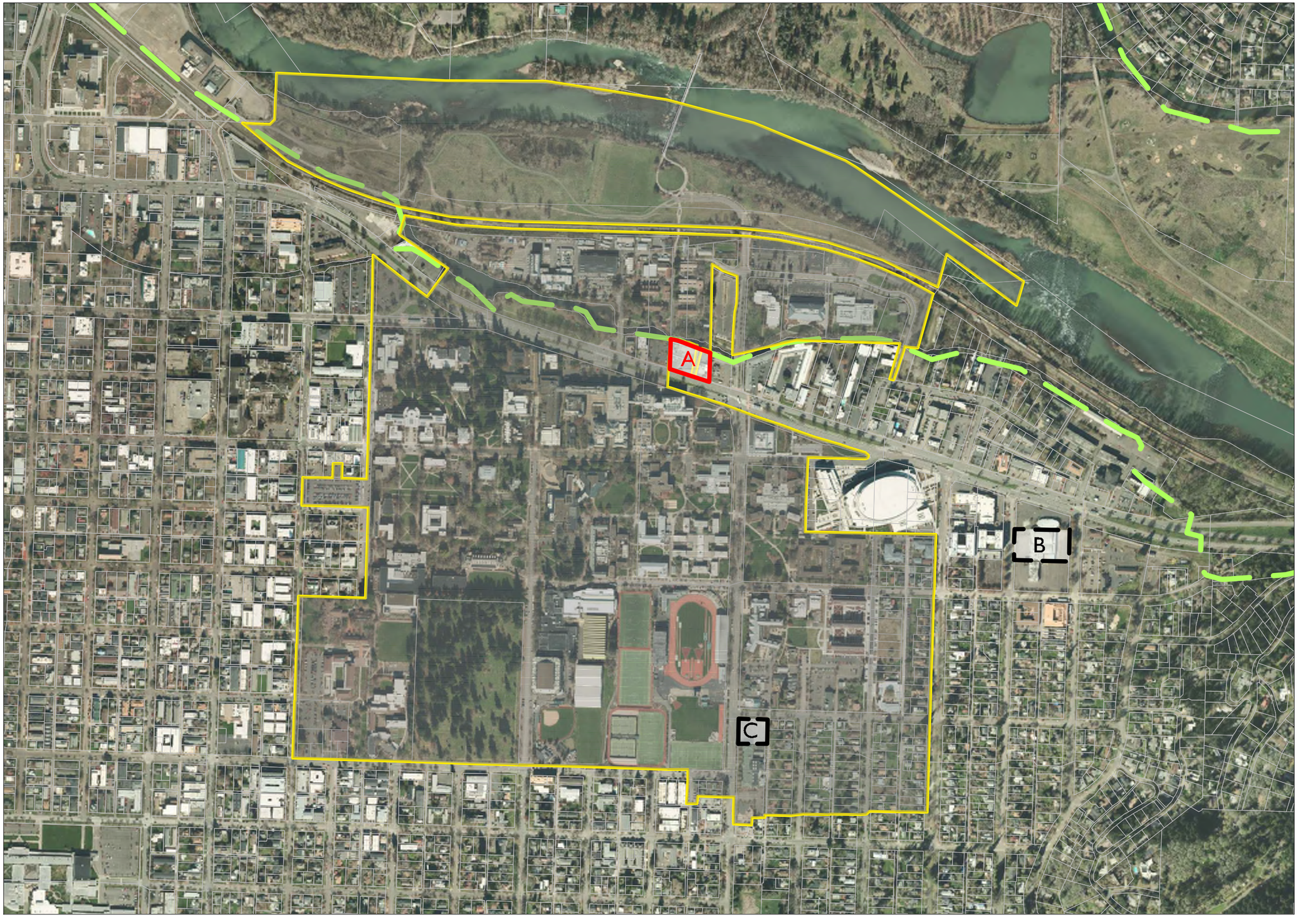
- Distance from the Lokey Science Complex: Developing adjacent to existing science facilities allows for both programmatic and cost efficiencies within the College of Arts and Sciences. In this evaluation it is assumed that an estimated 10,000 gsf of additional space may be needed to accommodate the additional support required to operate as a scientific research facility located away from the existing complex. The increased cost associated with this expanded footprint is accounted for in the Cost Evaluation (Appendix 4). Distance to the Lokey Science Complex is noted for each site in the Site Analysis.

- Utility Extensions: If the site is not currently served by utilities, UO will have to extend services to the site or provide stand-alone services. Each of these have their own associated costs. Extensions of the utility tunnels on campus cost roughly $5.5K per linear foot. Stand-alone services will require a larger building footprint to accommodate this infrastructure and will have higher operating costs per square foot than a building connected to the university's central utilities system. Due to these large associated costs, extensions of utilities should be avoided or minimized when possible.

- Relocation of Existing Uses: If there is an existing use on the site of a UO-owned property it will need to be relocated. Estimated costs for relocation of uses at each site are accounted for in Appendix 4 (Cost Evaluation).

PROJECT COSTS

Cost is a major consideration for any capital improvement. In addition to anticipated hard and soft costs of development, the presence of certain factors will invariably increase the cost of development at some of the sites. Factors affecting project costs may include: land acquisition, relocation of existing uses, required parking, development within areas requiring special permits or land use actions, or utility extensions to the site. The total quantity of additional expenses related to the development of the project on each site is identified as the "Cost Differential" in the Cost Evaluation (Appendix 4).



MAP INFORMATION*

- Site Boundary - Recommended
- Site Boundary - Not Recommended
- Greenway Boundary
- UO Planning Boundary

STUDY SITES

A = Franklin
B = Former Romania Dealership
C = North of Agate

*This map was derived from information provided by University of Oregon InfoGraphics Lab, August 2014.

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0' 150' 300' 600' NORTH

SCALE 1" = 600'-0"

Study Area Map

SITE ANALYSIS

FRANKLIN A

FORMER ROMANIA DEALERSHIP B

NORTH OF AGATE C

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SITE A: FRANKLIN

FEASIBILITY OF DEVELOPMENT

- Riverfront Parkway and the pathway along the north edge of the Millrace are heavily used by cyclists and pedestrians. These transportation routes are not adjacent to the site but are in proximity to the site. There is a marked and signaled crosswalk across Franklin Boulevard between Agate Street and Riverfront Parkway. To the west is a marked crosswalk across Franklin Boulevard along Onyx Street. Franklin Boulevard is a major arterial that has no bike lanes.
- Site A is within the boundaries of the Walnut Station Specific Area Plan (2010). The Walnut Station Specific Area Plan identifies Site A as appropriate for high-intensity development (page 14).
- All elements of the building's design comply with the development standards of the Special Area Zone.
- Site A is outside the floodway, floodplain, and Willamette Greenway boundaries.
- There are no historic resources on the site.
- There are no locally significant wetlands or riparian and upland wildlife corridors directly on the site. The Millrace is a City-identified and protected Goal 5 resource adjacent to the site to the north. The City's Goal 5 Inventory identifies the Millrace as a Category C Resource Site, which establishes a conservation area setback of 40 ft. from the ordinary high water line. The Millrace is also identified as a Category A Wetland, which establishes a conservation area setback of 50 ft. from the wetland boundary. The City's land use code does, however, allow development on previously developed impervious surfaces, which includes land within these setback distances on the subject site.

SITE INFORMATION

Study Area Size: 1.1 acres

Zoning: Walnut Station Special Area Zone; Water Resources Conservation Overlay Zone (/WR)

Metro Plan Designation: Commercial; Overlays: Mixed Use Area, Nodal Development Area

Owner: Oregon Future Expansion Franklin, LLC; University of Oregon

Relevant Plan Boundaries: Campus Plan; Walnut Station Specific Area Plan; Central Area Transportation Study (CATS); Water Resources Conservation Plan; Riverfront Park Study (Boundary Only, Walnut Station Specific Area Plan policies control

Current Use & Infrastructure: Surface parking, Looking Glass Riverfront School & Career Center (used by Architecture & Allied Arts)

Access: Franklin Blvd.

Distance from Campus Core: 0.33 mi.

Potential Timeline Extension: Unknown for land acquisition

Added Costs to Project Budget: $7,434,348

- Assuming the campus boundary will expand to include this site, no on-site parking will be required other than what is required to meet ADA standards and site development standards.
- The template shown on the accompanying site diagram will require a request for approval of a revocable permit for construction of the skybridge. This request is not a land use action but is processed through the City's Building Division (and therefore does not add substantial time to the project prior to submitting building permits).

- The timeline for the project must consider identifying funding sources, securing funding, and land acquisition.
- While development costs are provided within this criteria cluster, cost considerations are also important to the Project Sponsor. The development costs of this site include:
    1. Site demolition;
    2. Relocation of existing uses;
    3. UO utility tunnel extension (82 ft.);
    4. Construction of a skybridge.
- The total added development costs are estimated at $7,434,348. Refer to Appendix 4 for an itemized estimate of each cost.

CAMPUS PLANNING FRAMEWORK

Note: This site is beyond the boundaries of the Campus Plan, as such, the applicability of the Plan's policies will be established by the President based on recommendations from the Campus Planning Committee and consultation with the project Sponsor. Comments are included here to represent possible application of the policies listed based on their relevance to the site.

Open-space Framework

- Site A is directly adjacent to the Millrace Green—to the north of the site. Cyclists and pedestrians use this designated open space to travel from campus to the Fine Arts Studios and other uses within the North Campus Design Area and also use this path to travel to and from other areas within the surrounding community. As identified on page 99 of the Campus Plan, "proposals in this area should preserve and strengthen the Millrace Corridor." The Campus Plan specifies that planting should be consistent with the riparian features of this open space.
- The Gallery Walk bisects and stops at the Millrace Green at its southern terminus. If extended across the Millrace, the Gallery Walk (or other name for a newly-designated open space) would abut the site to the west. As noted on page 98 of the Campus Plan, no official crossing exists at the southern end at Franklin Boulevard, implying that the south end of this open space is not well-marked (as is the case with its north end). The Campus Plan explains that further work must be done to define the desired character of this axis.
- Development along Franklin Boulevard is highly visible to the public. Accordingly, the Campus Plan identifies desired visual improvements to University property along Franklin Boulevard to give passers-by a sense of driving "through" campus and not "by" campus.
- No trees of special significance will be impacted by development on this site.

Replacement of Displaced Uses

- Construction of the science building on Site A will not displace any campus buildings. The Matthew Knight Arena (Arena)'s parking inventory includes the parking lot within this site as a requirement of its Transportation Demand Management Plan. However, the Arena has a surplus of 897 vehicle parking spaces for Level 3 events; the amount of parking potentially displaced at this site by a new science building will not exceed this surplus.
- The School of Architecture & Allied Arts currently uses the existing building. [Note leases for kiosk and restaurant.]

Sustainable Development

- The site appears to be eligible to achieve LEED points regarding access to public transportation.

Design Area Special Considerations (Conditions) and Special Area or Subject Plans

- The North Campus Design Area is identified as an area where pedestrian crossings across Franklin Boulevard should be made as safe as possible and should also be minimized. (Design elements shown on the template in the accompanying site diagram may address this concern.)
- The Campus Plan's Density Policy does not apply given Site A's location outside the campus boundary.

SPACE NEEDS PLAN

- Scenario 1 contains a 100,000 gsf research/lab building identified by the Space Advisory Group for

inclusion on the Capital Budget Request for funding by the 2015 legislature. The project is also a part of Scenarios 2, 3 and 4.

USER NEEDS: PROGRAM & FACILITY ELEMENTS

- The Lokey Science Complex is across Franklin Boulevard to the south. The closest building dedicated to the sciences, the Lewis Integrative Science (Lewis) Building, is approximately 175 ft. (0.03 mi.) from the site. The Lewis structure was designed to connect to a future building across Franklin via pedestrian bridge, maintaining a connection to campus and connectivity between science buildings. The skybridge shown on the template would provide a third floor connection between the new building and existing Lewis building.

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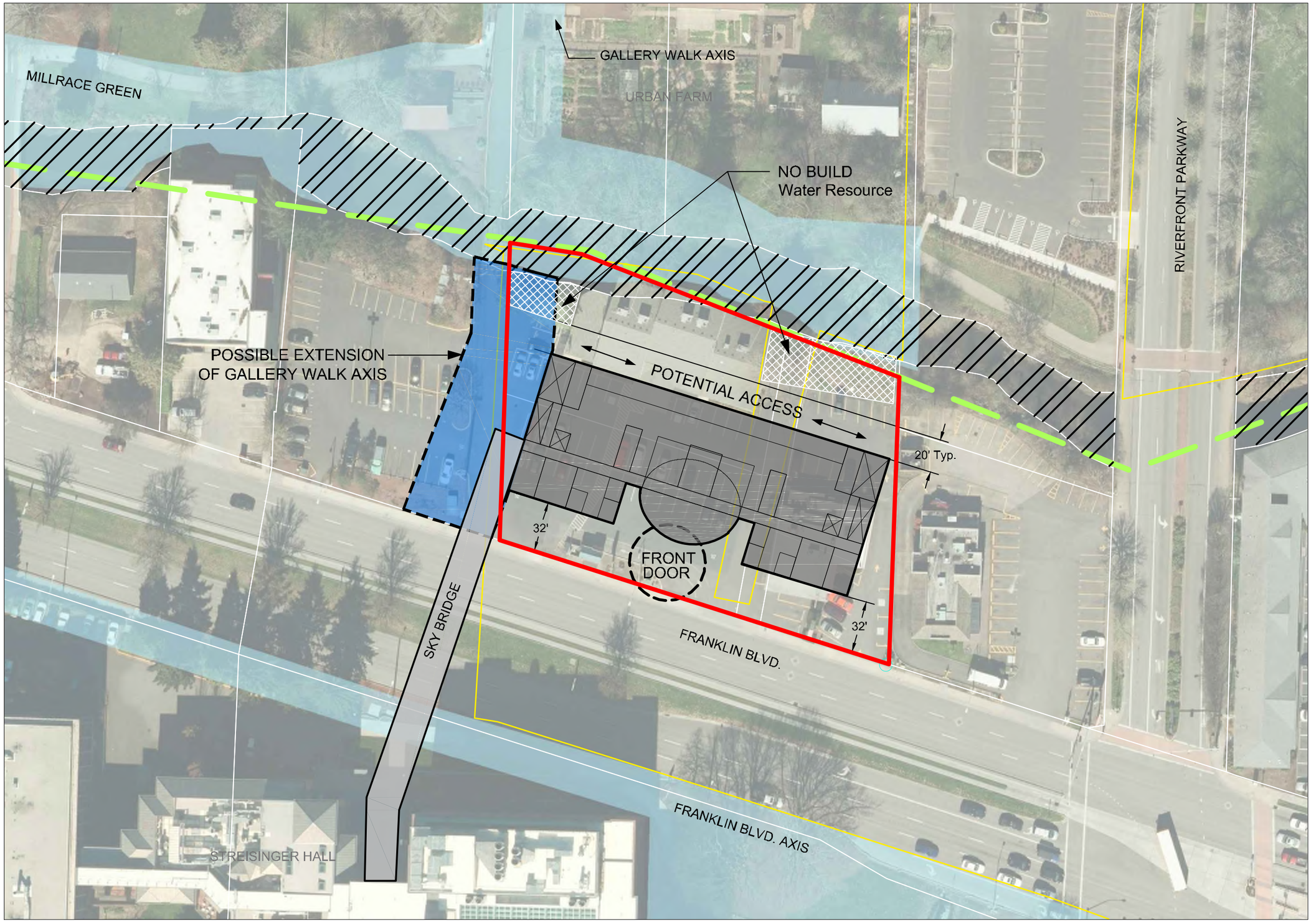

SCALE 1" = 60'-0"

0' 15' 30' 60' NORTH

MAP INFORMATION*

- Site Boundary
- Greenway Boundary
- UO Campus Plan Boundary
- Goal 5 Resource Site
- UO Designated Open Space

*This map was derived from information provided by University of Oregon InfoGraphics Lab, August 2014.

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Site A:
Franklin

SITE B: FORMER ROMANIA DEALERSHIP

FEASIBILITY OF DEVELOPMENT

- The site contains no City-designated, protected natural resource sites and is outside of the Willamette Greenway, floodway, and floodplain.
- The Walnut Station Specific Area Plan identifies Site B as appropriate for Medium to High Intensity Development.
- Site B affects a nationally-registered historic building, and the site is a nationally-registered historic site.
- Accordingly, development on this site requires review and approval of a Historic Alteration application by the City's Planning Director, which may take up to 4 months (assuming no appeals). In addition, the development standards of the Walnut Station SAZ (e.g., height standards and setback standards) may require approval of the project through the City's Design Review process, which may also take up to 4 months (assuming no appeals). A Traffic Impact Analysis may also be required for the project. Design Review, the City's Historic Alteration application, and TIA review can run concurrently. Approximately 2 months are required to prepare the applications.
- The use is permitted outright in the Walnut Station Special Area Zone (SAZ). Development on the site may be exempt from some of the Form Based Code requirements of the Walnut Station SAZ due to the historic nature of the property and the structure on the property.
- If the campus boundary is not extended to include this site, Site B will require compliance with the City of Eugene's parking standards. Assuming the parking standards of the Walnut Station SAZ apply, the minimum number of vehicle parking spaces allowed is 152 and the maximum allowed is 400 spaces. The project may provide these spaces within a quarter-mile of the site.
- While development costs are provided within this criteria cluster, cost considerations are also important to Research and Innovation (the Project Sponsor). The development costs of this site include:
  1. Site demolition;
  2. Relocation of existing uses;
  3. A stand-alone utility system and associated mechanical equipment;

SITE INFORMATION

Study Area Size: 1.6 acres

Zoning: Walnut Station Special Area Zone

Metro Plan Designation: Commercial; Overlays: Mixed Use, Nodal Development

Owner: University of Oregon

Relevant Plan Boundaries: Walnut Station Specific Area Plan, Fairmount/University of Oregon Special Area Study, Central Area Transportation Study

Current Use & Infrastructure: Romania Warehouse, UO Product Design

Access: Adjacent roads include Orchard St., Walnut St., and East 15th Ave.

Distance from Campus Core: 0.76 mi.

Potential Timeline Extension: 6 months (expedited)

Added Costs to Project Budget: $20,847,500

B

4. Cost to provide 152 parking spaces (unless the campus boundary is expanded to include this site); and
5. Land use entitlements.

- The total added development costs are estimated at $20,847,500. Refer to Appendix 4 for an itemized estimate of each cost.

CAMPUS PLANNING FRAMEWORK

Note: This site is beyond the boundaries of the Campus Plan, as such, the applicability of the Plan's policies will be established by the President based on recommendations from the Campus Planning Committee. Comments are included here to represent possible application of the policies listed based on their relevance to the site.

Open-space Framework

- There are no trees of special significance on the site.

Replacement of Displaced Uses

- Parts of the warehouse and spaces related to Architecture & Allied Arts' Product Design program uses are removed and will need to be relocated.

Transportation

- Site B is located on property fronting Franklin Boulevard, which is served by the Lane Transit District's EmX line.

Architecture and Preservation

- Site B is a nationally-registered historic site. As noted, any alteration, moving, or demolition of the structure will require City approval of a Historic Alteration application. Constructing the science building on this site and will follow the University's requirements for historic preservation in compliance with this Policy.

Sustainable Development

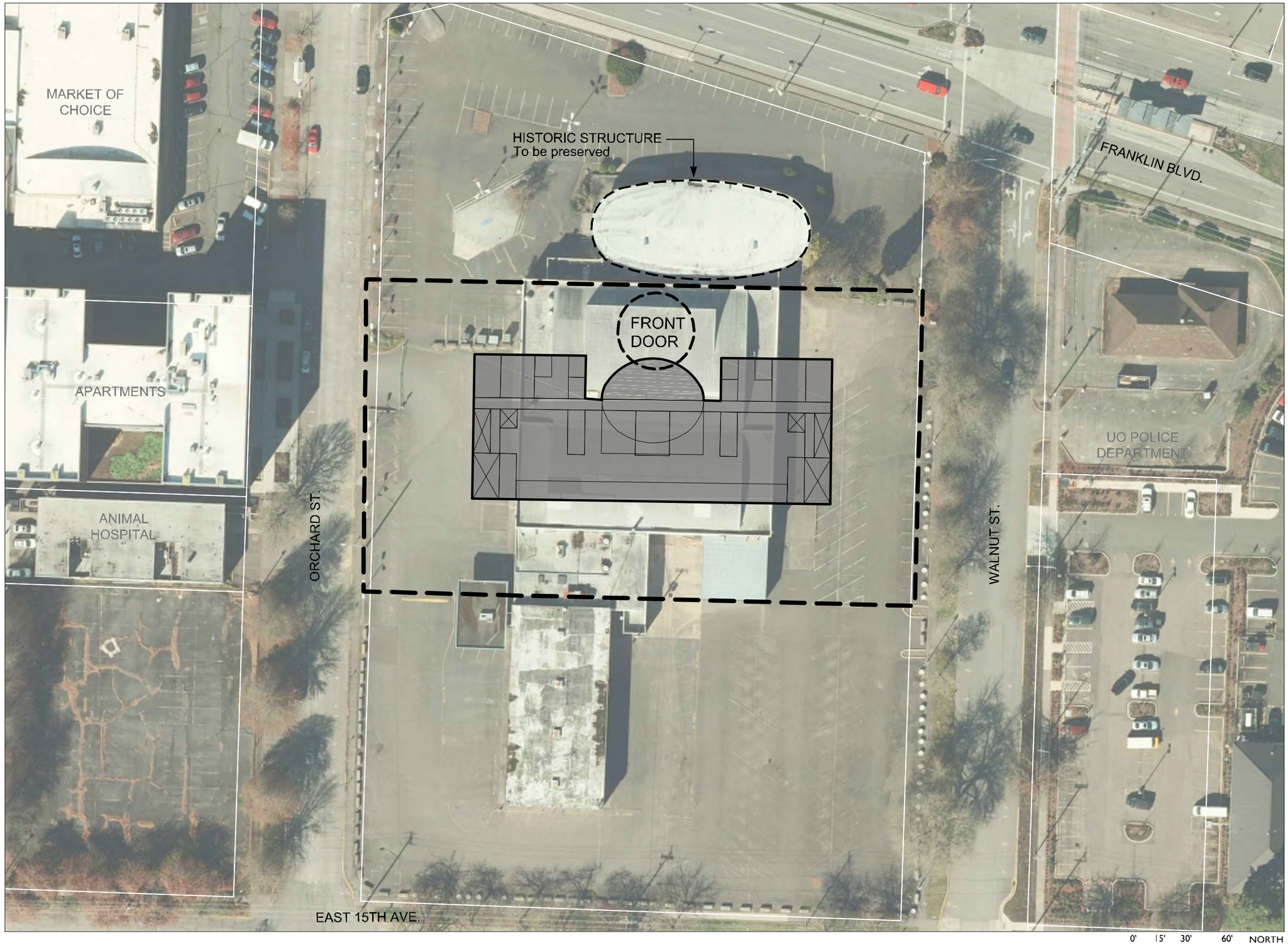
- Development on this site will likely meet the LEED criteria assessing access to public transportation and criteria assessing community density/connectivity.

SPACE NEEDS PLAN

- Scenarios 3 and 4 show Student Housing projects related to meeting the needs of gsf to student ratios for student enrollments of 31,000 and 34,000 FTE.

USER NEEDS: PROGRAM & FACILITY ELEMENTS

- The closest building to the site within the Lokey Science Complex is the Lewis Integrative Science Building, located approximately 2,482 ft. (0.47 mi.) to the west.



MAP INFORMATION*

Site Boundary

*This map was derived from information provided by University of Oregon InfoGraphics Lab, August 2014.

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Site B: Former Romania Dealership

SITE C: NORTH OF AGATE

FEASIBILITY OF DEVELOPMENT

- The site is within the boundaries of the Fairmount/ University of Oregon Special Area Study (Study). This Study recognizes the 2003 Development Policy for the East Campus Area (ECDP) as an official document that governs development of the University within areas of the Fairmount Neighborhood. Development in this area requires involvement with and review by the Fairmount Neighborhood.
- The site is within the "Institutional" area identified on the Study's Land Use Diagram (Map 6). All University uses are allowed in this area, with no density limits specified within the Institutional Area other than those that are established within the ECDP.
- The elements of the Study may be ensured through the University's management of motor vehicle parking, the University's proactive approach in its process for public involvement, and through specific elements of site and building design.
- The site contains no City-designated, protected Goal 5 natural resource sites and is outside of the Willamette Greenway, floodway, and floodplain.
- The project will not trigger any land use applications. The use is permitted in the Public Land Zone and should not require a Traffic Impact Analysis. Development must account for the time needed to provide notice to and receive comment from the Fairmount Neighbors (a requirement of the Campus Plan and the ECDP for an amendment to the Density Policy), which can occur concurrently with design.
- The building according to the desired program and as shown on the template will require an amendment to the Campus Plan because it exceeds the gross square footage limits within the Density Policy of the Plan.
- While development costs are provided within this criteria cluster, cost considerations are also important to Research and Innovation (the Project Sponsor). The development costs of this site include:
  1. UO utility tunnel extension (835 ft.);
  2. Cost to provide 78 parking spaces; and
  3. Additional costs of space and equipment requirements for stand-alone science functions.

SITE INFORMATION

Study Area Size: 0.66 acres

Zoning: Public Land

Metro Plan Designation: Government & Education

Owner: University of Oregon

Relevant Plan Boundaries: Campus Plan, 2003 Development Policy for the East Campus Area, East Campus Open Space Framework, Fairmount/University of Oregon Special Area Study

Current Use & Infrastructure: Surface parking

Access: East 17th Ave., Agate St.

Distance from Campus Core: 0.55 mi.

Campus Plan Design Area: East Campus

Design Area available building footprint (sf) for 31: 32,923 sf; 46,063 sf (if buildings are removed)

Design Area available gross square feet (gsf) for 31: 78,934 gsf; 95,209 gsf (if buildings are removed)

Potential Timeline Extension: Time required to amend the Density requirements of the Campus Plan (unknown)

Added Costs to Project Budget: $9,021,500

C

- The total added development costs are estimated at $9,021,500. Refer to Appendix 4 for an itemized estimate of each cost.

CAMPUS PLANNING FRAMEWORK

Open-space Framework

- The placement of this site does not allow for future enhancements to the open space network surrounding the site.
- There are no campus trees of significance on or near the site.

Densities

- This project shown on the template for Option C meets guidelines for coverage (sf). It does not meet guidelines for building gross square footage (gsf) and will require an amendment to the Campus Plan.
- The site is within the East Campus Design Area. The available coverage for this Design Area (31) is 46,063 sf if the existing residential structures are removed. The building requires 20,000 sf of coverage, which is within this limit.
- The available gsf for the East Campus Design Area (31) is 95,209 gsf if the existing structures are removed. The building requires 106,620 gsf, which exceeds this limit.

Space Use and Organization

- Nearby uses include the Knight Law Center, the Church Warehouse, and the planned Central Kitchen and Woodshop project. Recreational fields and Hayward Field are across Agate Street to the west. To the east are residences, and Agate Hall is directly to the south. To the north of the site are the fire station, Military Science, the Labor and Education Research Center, and residence halls.
- Portions of the building may not operate independently of the 50-minute class schedule.

Replacement of Displaced Uses

- 78 parking spaces to the north of Agate Hall would be displaced.

Transportation

- Not Applicable.

Architecture and Preservation

- The site avoids impacts to Agate Hall, a Secondary Ranked historic structure (likely eligible for listing in the National Register of Historic Places individually, and eligible as part of the Historic District).

Sustainable Development

- The site appears to not be eligible for LEED points regarding access to public transportation.

Design Area Special Considerations (Conditions) and Special Area or Subject Plans

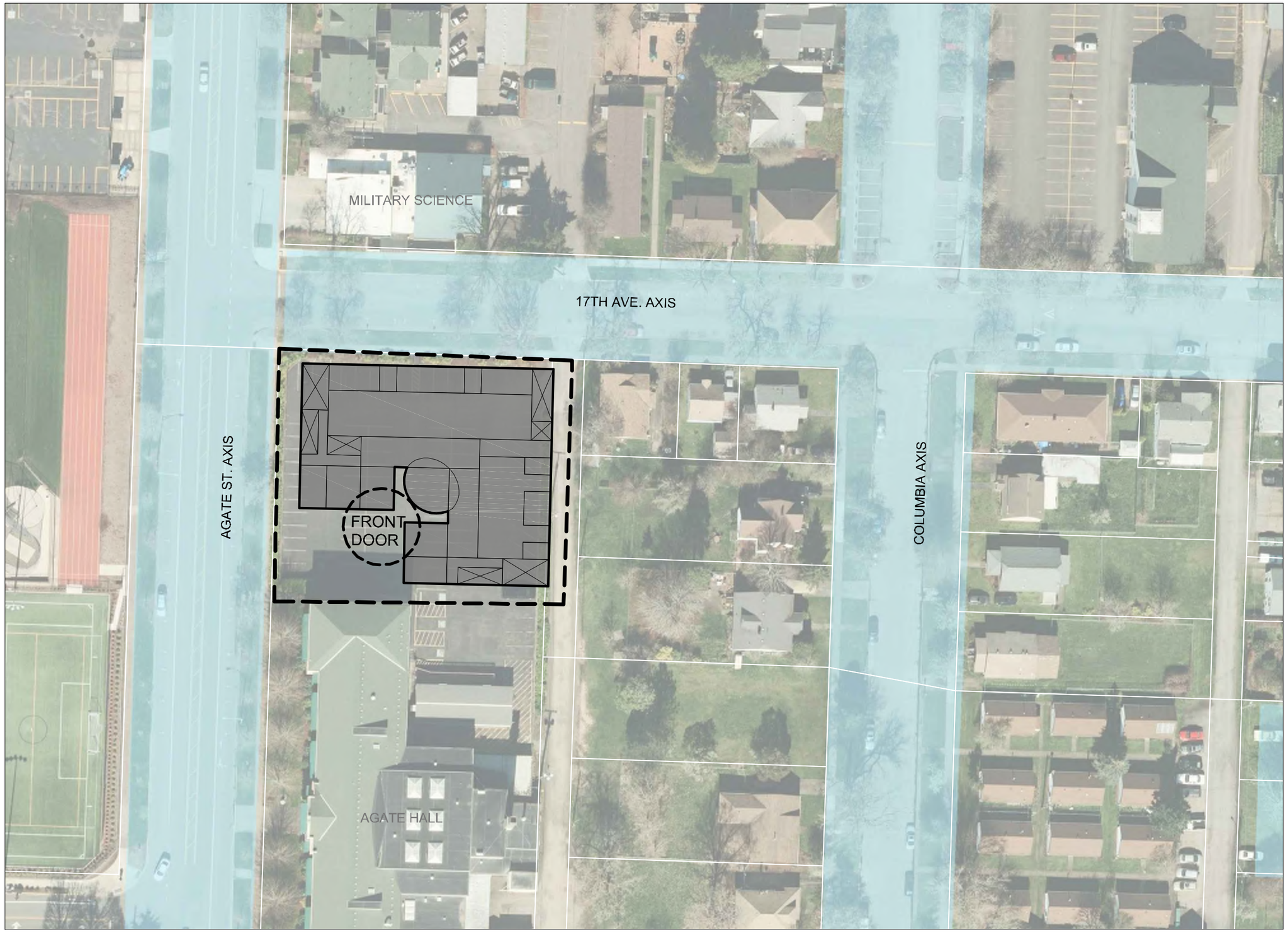
- The ECDP identifies Site C as appropriate for facilities with a high degree of public interaction (page 7).
- The East Campus Open Space Framework Study encourages the University to reduce or eliminate parking at the corner of Agate Street and East 17th Avenue. It identifies this intersection as a prime location for a building that will reinforce both Agate Street and East 17th Avenue. The study further states that this area, "contains significant potential for new institutional buildings… the parking lot in at least one of the parking lots next to Agate Hall should be moved to locations consistent with this plan, and resulting space considered for new intuitional buildings."
- The Campus Plan states that building edges and front doors facing East 17th Avenue can strengthen the form of the 17th Avenue Axis (page 126).

SPACE NEEDS PLAN

- Under Scenario 1, a project identified by the Space Advisory Group in the 2013 Space Needs Assessment is shown north of Agate Hall, partially within Agate Hall's parking lot. This 45,000 gsf project meets the academic needs of gsf to student ratios for current enrollment. This project is also shown as part of Scenarios 2, 3, and 4.

USER NEEDS: PROGRAM & FACILITY ELEMENTS

- Site C is on the same side of Franklin Boulevard as the existing science facilities, but the site is not contiguous with these facilities to the south or to the east. Site C is 2,218 ft. (0.42 mi.) from Deschutes Hall to the northwest. Deschutes Hall is the closest building within the Lokey Science Complex to the site.



SCALE 1" = 60'-0"

0' 15' 30' 60' NORTH

MAP INFORMATION*

Site Boundary

UO Designated Open Space

*This map was derived from information provided by University of Oregon InfoGraphics Lab, August 2014.

CAMERON McCARTHY
LANDSCAPE ARCHITECTURE & PLANNING

HDR

UNIVERSITY OF OREGON
SCIENCE BUILDING SITING STUDY

CAMPUS PLANNING, DESIGN, & CONSTRUCTION
1276 UNIVERSITY OF OREGON
EUGENE, OREGON 97403

Site C:
North of Agate

APPENDICES

1. SPONSOR MEETING NOTES
2. SPACE PROGRAM TEMPLATES
3. CRITERIA
4. COST EVALUATION
5. REFERENCES

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APPENDIX 1: SPONSOR MEETING NOTES

Meeting Notes: UO Science Building Site Selection

Meeting Date/Time: Thursday, September 4, 2014; 11:00 am

Location: Friendly Hall

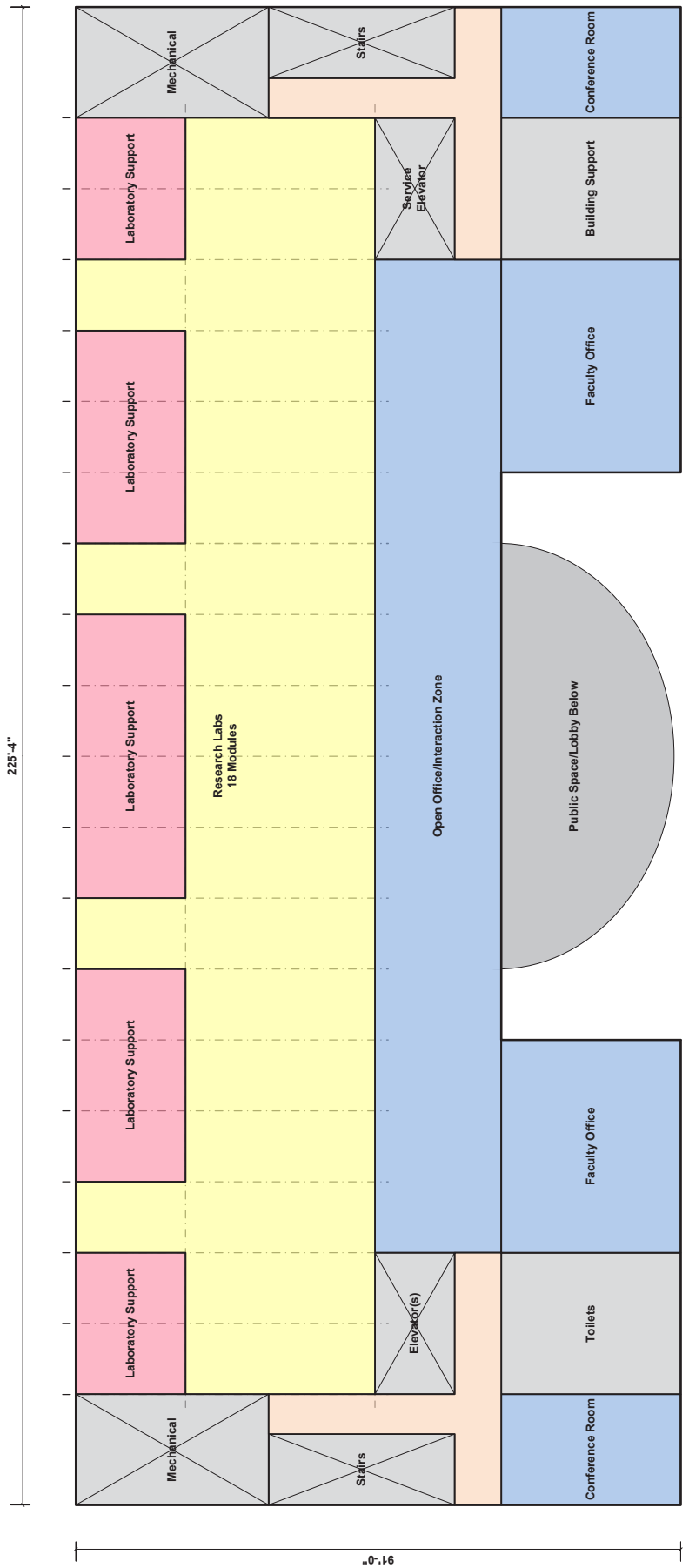
Attendees: Brad Shelton, Moira Kiltie, Patrick Phillips, Dave Landrum (Research); Hal Sadofsky, Cathy Souter (CAS); Darin Dehle, Jeff Madsen, Fred Tepfer, Chris Ramey, Phil Farrington (CPDC); Larry Gilbert , Kristina Koenig (CM); Chuck Cassell (HDR)

MEETING NOTES

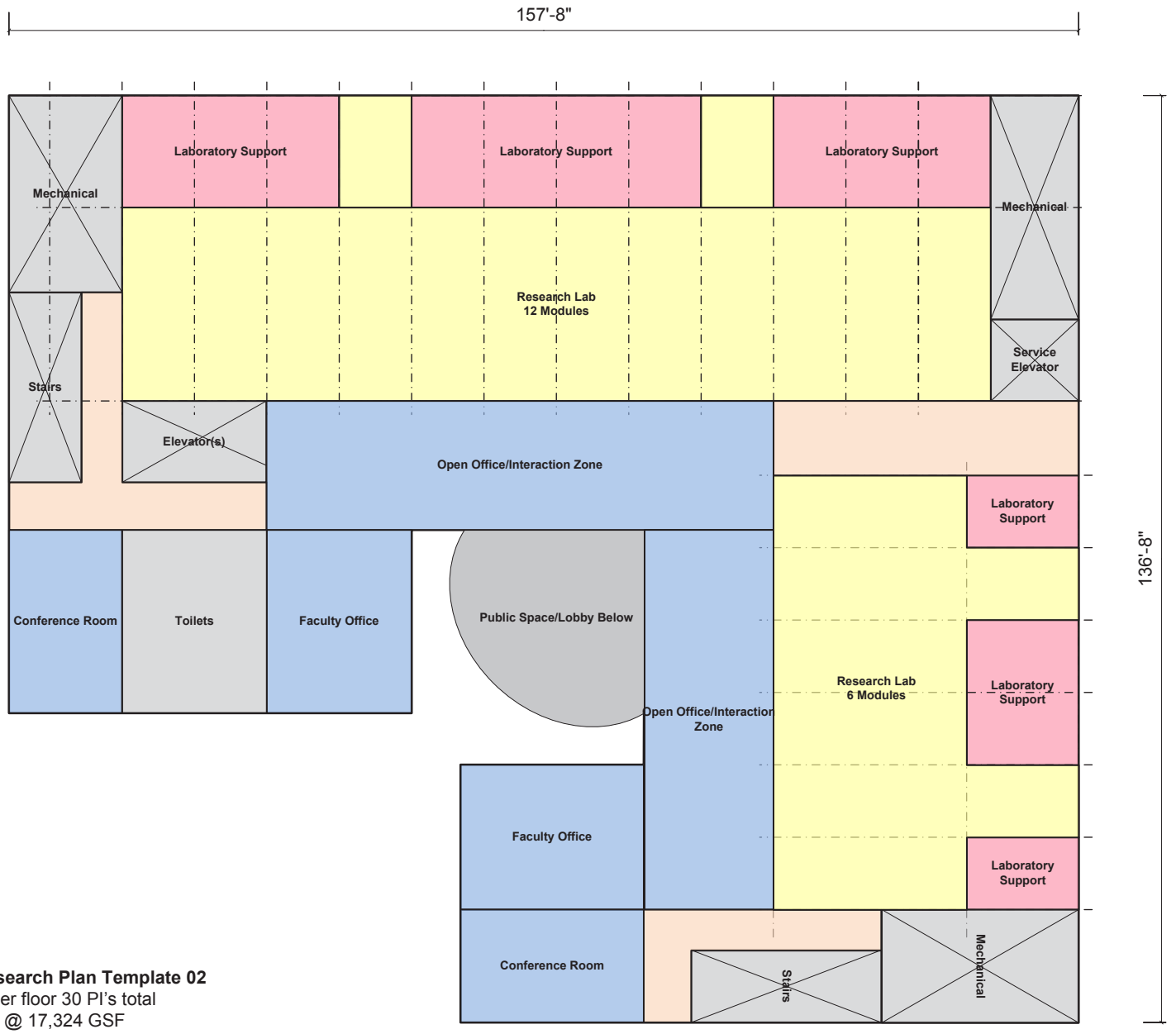
- Building Program to include:
    - Space for 30 P.I.s in "highly instrumented labs"
    - 100 k gsf building
    - To get to 50 P.I.s would require this project, rebuilding Onyx Bridge, and Klamath remodel
- Sponsor vision: maintaining/enhancing science campus is highest priority, develop a "science gate", make this project an attractive donor opportunity for development
- Factors to consider:
    - Proximity to existing science facilities (to avoid/reduce duplication of equipment/facilities, student/PI travel time reduction, foster collaboration)
    - Sites away from existing utilities will have greater costs to extend and/or have higher ongoing operating expense due to increasing retail power costs
    - Template/building envelope for sites should account for fact that specific need/type of space hasn't been identified yet (perhaps look at density of fume hoods, and potential to convert space from dry to wet labs, etc.
- Site A (North of Franklin)
    - Provides opportunity to bridge Franklin and benefit from adjacencies to existing science complex
    - Provides opportunity to benefit from Millrace views
    - Is consistent with the bigger vision for further development of a science complex]
    - Offers opportunity to transform both sides of Franklin, form a science gate
    - Potential to expand to east and west, and north of the Millrace
- Site B (Romania)
    - Would require 2 or more buildings to accommodate replicated facilities that would be not be available due to its distance from the existing science complex
    - Stand-alone heat/cooling would be required

    - Distance to amenities, other science facilities/campus is a concern
- Site C (Agate)
    - Would require 2 or more buildings to accommodate replicated facilities that would be not be available due to its distance from the existing science complex
- Design of facility
    - Find a middle ground for shared vs allocated space
    - Avoid or minimize unused space (i.e. atrium)
- Remaining needs: Any additional criteria to consider for siting the facility:
    - Proximity to existing science complex is ideal
    - Other desired proximities?
    - Other considerations?

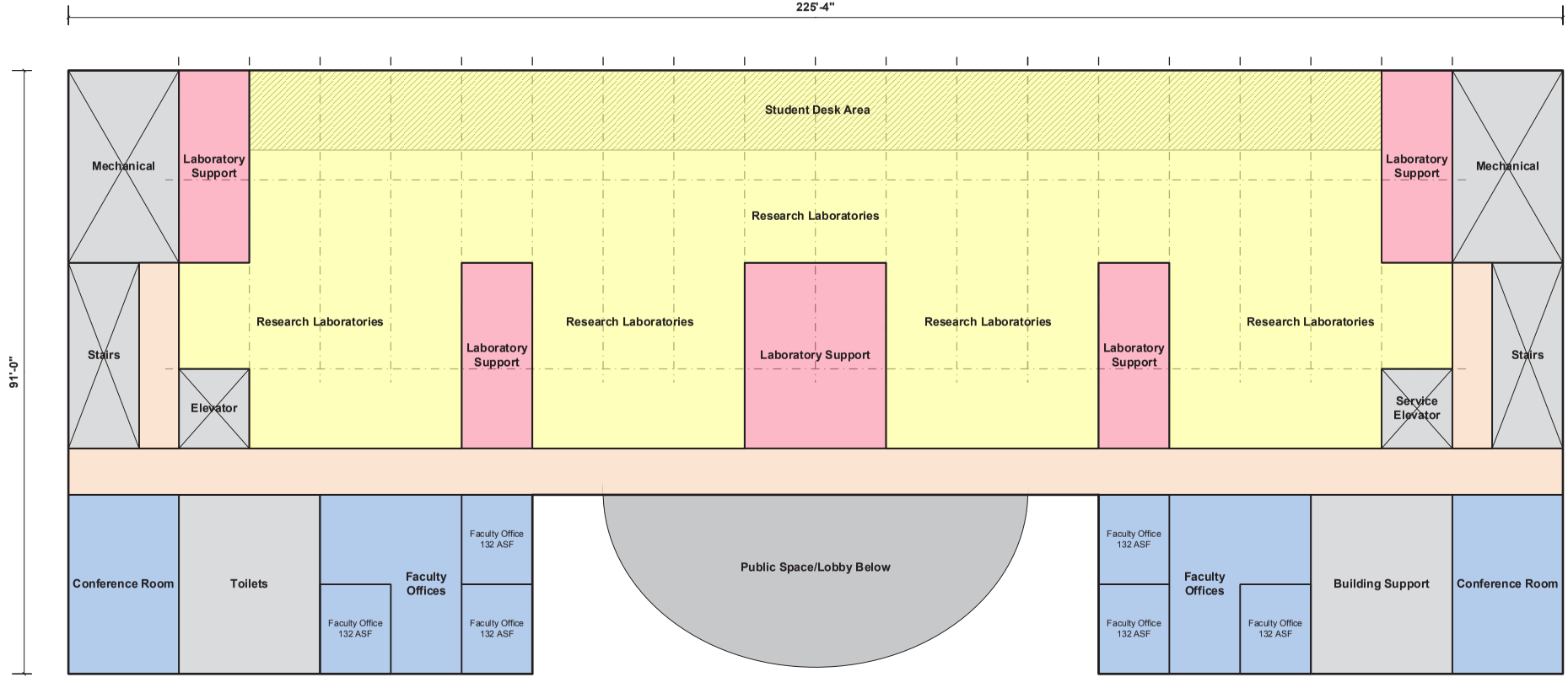
APPENDIX 2: SPACE PROGRAM TEMPLATES



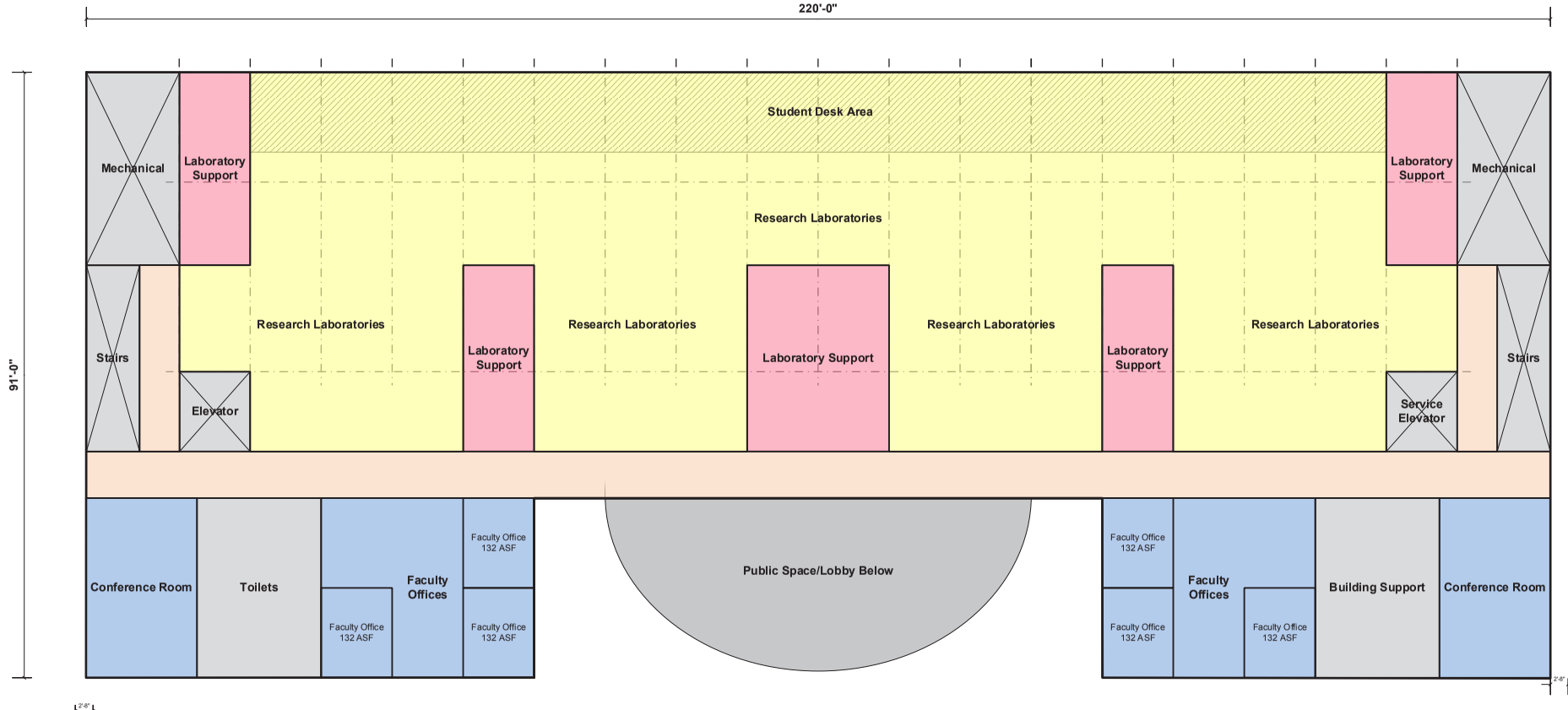
UO Research Plan Template 01
6 PI's per floor 30 PI's total
4 floors @ 18,202 GSF
1 floor @ 20,000 GSF
Basement @ 7192 GSF
Total: 100,000 GSF



UO Research Plan Template 02
6 PI's per floor 30 PI's total
4 floors @ 17,324 GSF
1 floor @ 20,000 GSF
Basement @ 17,324 GSF
Total: 106,620 GSF



UO Research Plan Template 03
6 PI's per floor 30 PI's total
4 floors @ 18,202 GSF
1 floor @ 20,000 GSF
Basement @ 7192 GSF
Total: 100,000 GSF



UO Research Plan Template 04
6 PI's per floor 30 PI's total
4 floors @ 18,202 GSF
1 floor @ 20,000 GSF
Basement @ 7192 GSF
Total: 100,000 GSF

APPENDIX 3: CRITERIA

SITE SELECTION CRITERIA: RESIDENCE HALL

A. FEASIBILITY OF DEVELOPMENT

1. COMPATIBILITY & COHESIVENESS

1.1. ALTERNATIVE TRANSPORTATION: Is the site easily accessible by modes of transportation other than the automobile?

1.1.1. Are bus stops located within a quarter-mile of the site?

1.1.2. Does the transportation network surrounding the site safely allow for use of bicycles?

1.2. REFINEMENT PLANS: Is the proposed site consistent with all applicable neighborhood refinement plans adopted by the City of Eugene?

1.3. BUILDING SCALE: Is the scale of the building as conceptually envisioned similar to surrounding buildings?

1.4. INTENSITY OF USE: Will the expected occupancy levels and type of activity associated with the project be similar to the amount and nature of activity in the area (e.g., noise, traffic, etc.)?

2. SITE READINESS

2.1. TOPOGRAPHY: Does the site have a slope that is less than 10%?

2.2. NO SIGNIFICANT WETLANDS: Are locally significant wetlands absent from the site?

2.3. OUTSIDE OF FLOODWAY: Is the site outside the floodway boundary?

2.4. OUTSIDE OF FLOODPLAIN: Is the site outside the floodplain boundary?

2.5. NO RIPARIAN CORRIDORS & HABITATS: Are locally significant riparian and upland wildlife habitat sites absent from the site?

2.6. NO HISTORIC RESOURCES: Are eligible or registered historic resources absent from the site?

2.7. NO LAND USE ACTIONS: Is the proposed use permitted outright in the base zone and any applicable overlay zones?

2.8. DEVELOPMENT TIMELINE: Do the known conditions of the site allow the project to be completed according to the desired schedule?

B. CAMPUS PLANNING FRAMEWORK

1. **CAMPUS PLAN, OPEN-SPACE FRAMEWORK:** Does the site comply with the requirements of the Open-space Framework Policy and Pattern (e.g., Main Gateways) (Policy 2)?

1.1. Does it ensure that no development occurs within a designated open-space (and that key pathways are not blocked)?

1.2. Does it have the potential to enhance the existing open-space framework (e.g., better-define open space edges), campus edges, and main campus entrances?

1.3. Does it allow room for future expansion of the open-space framework and pathway network as proposed in the design area?

1.4. Does it ensure that no significant trees are impacted?

2. **CAMPUS PLAN, DENSITIES:** Will proposed development comply with the Density Policy and Patterns (e.g., Use Wisely What We Have, floor coverages, and height limits) (Policy 3)?

   2.1. Is it within the maximum allowed density allowed within its Design Area, and does it comply with the requirements of the Design Area's building dimensions and scale in order to wisely use a limited amount of land?

3. **CAMPUS PLAN, SPACE USE & ORGANIZATION:** Does the site fulfill the intent of the Space Use and Organization Policy and Patterns (e.g., University Shape and Diameter and Expansion) (Policy 4)?

   3.1. Does it ensure that land needed closer to the campus core for academic uses is not developed?

   3.2. Is there room for future expansion plans in a manner that complies with all Campus Plan policies?

   3.3. Is the use compatible?

4. **CAMPUS PLAN, REPLACEMENT OF DISPLACED USES:** Will development on the site allow the project to comply with the refinements of the Replacement of Displaced Uses Policy (Policy 5)?

   4.1. Are there appropriate replacement locations for all displaced uses, and are there Campus Plan policies that would be unmet by relocating the use(s) in another area of campus?

5. **CAMPUS PLAN, ARCHITECTURE & PRESERVATION:** Does the site contain any resources that are eligible or listed in the National Register of Historic Places (Policy 7)?

6. **CAMPUS PLAN, TRANSPORTATION:** Will development on the site comply with the Campus Plan's Transportation Policy and Local Transport Area Pattern (Policy 9)?

   6.1. Does it preserve and enhance the pedestrian-character of campus?

   6.2. It is located on the periphery of the campus near a transportation route with identifiable visitor parking and easy access?

7. **CAMPUS PLAN, SUSTAINABLE DEVELOPMENT:** Would developing on this site preclude the project from meeting the LEED credit addressing access to public transit? Would

developing on this site prevent the project from achieving LEED credits regarding density and connectivity within the community?

8. **CAMPUS PLAN, DESIGN AREA SPECIAL CONSIDERATIONS:** Will the site strengthen the site elements of its Design Area, as identified by the Design Area Special Conditions Policy (Policy 12)?

9. **EAST CAMPUS DEVELOPMENT POLICY:** Is the proposed project consistent with the 2003 Development Policy for the East Campus Area (referred to as the East Campus Policy)? Consider:

   9.1. **UNIVERSITY MISSION:** Will development on this site comply with the University Mission Policy Element (1.A Patterns and 1.B Policies and Standards)?

   9.2. **GRACEFUL EDGE:** Will development on this site comply with the Graceful Edge Policy Element (2.A Patterns)?

   9.3. **CAMPUS-LIKE CHARACTER:** Will development on this site result in consistency with the Patterns, Policies, and Standards of the Campus-Like Character Policy Elements (3.A, 3.B, 3.C, and 3.D)?

   9.4. **TRANSPORTATION (TRAFFIC & PARKING):** Will developing on this site comply with the Patterns, Policies, and Standards of the Traffic element? Will developing on this site comply with the Patterns, Policies, and Standards of the Parking element?

10. **EAST CAMPUS OPEN SPACE FRAMEWORK:** Is the proposed project consistent with the East Campus Open Space Framework, completed in 2004? (Note: The East Campus Open Space Framework is not an adopted University policy, but it informs development and remains consistent with the East Campus Policy.) Consider:

    10.1. Will development allow for consistency with the Overall Framework, which describes the large-scale organizational principles of East Campus, addressing the following as appropriate?

    a. The project location's Design Area

    b. Open Space Network

    c. Pedestrian Network

    d. Buildings

    e. Streets and Parking

C. SPACE NEEDS PLAN

1. **SPACE NEEDS PLAN:** Is the site consistent with the long-term vision for campus uses identified in the Space Needs Plan?

D. USER NEEDS: PROGRAM & FACILITY ELEMENTS

1. **DESIRED ADJACENCIES:**

   1.1. Is the site near existing dining halls that have the capacity to accommodate an additional 500-750 students?

2. **RELOCATION:** Will there be minimal costs associated with removing and relocating existing uses?

3. **BUILDING FEATURES (NOTE: PROGRAM DOES NOT INCLUDE DINING HALL):**
    - **3.1.** Will the residence hall require parking?

    - **3.2.** Is the residence hall one building?

APPENDIX 4: COST EVALUATION

University of Oregon - Science Building Siting

Cost Differential Evaluation

26 September 2014

Cost evaluation assumes basic template program elements, access improvements, basic landscape improvements, and minimal parking (20 spaces) will be provided at each site. Costs shown are in addition to these basic costs. If existing uses need to be relocated, it is assumed that land exists within the campus boundary to accommodate this relocation and land acquisition will not be required. Unless specified within the evaluation, references for costs can be found in the Notes section at the end of this appendix.

SITE	Estimate
SITE A: FRANKLIN	
Anticipated Expenses	
Land Acquisition	N/A
Site Demolition: 9,883 gsf	$59,298
Relocation of Existing Uses: AAA use of building (9,883 gsf @ $350/gsf)	$3,459,050
Utilities: 82 ft. tunnel extension	$451,000
Parking	N/A
Land Use Entitlement Allowance	N/A
Other: Sky Bridge Construction: 4620 GSF x $750/GSF	$3,465,000
Note: The costs shown are for the sky bridge construction only. Including utility crossings at this location could be of great benefit to the University and would require additional utility costs. Those costs are not included in this estimate.	
Subtotal - Cost Differential	**$ 7,434,348**
SITE B: FORMER ROMANIA DEALERSHIP	
Anticipated Expenses	
Land Acquisition	N/A
Site Demolition: 41,500 gsf	$249,000
Relocation of Existing Uses:	—
AAA's Product Design space (8,000 gsf @ $350/sf)	$2,800,000
Warehouse space (47,500 gsf @ $225/gsf)	$10,687,500
Utilities:	—
Equipment required for standalone facility	$2,225,000
Additional GSF for mechanical equipment (10,000 sf @ $400/sf)	$4,000,000
Parking: 152 spaces, per Walnut Station SAZ	$836,000
Land Use Entitlement Allowance: Historic Alteration and Design Review	$50,000
Note: This cost is a rough estimate for the increased gsf required for operating as a science facility independently from the Lokey Science Complex	
Subtotal - Cost Differential	**$ 20,847,500**

University of Oregon - Science Building Siting

Cost Differential Evaluation

26 September 2014

Cost evaluation assumes basic template program elements, access improvements, basic landscape improvements, and minimal parking (20 spaces) will be provided at each site. Costs shown are in addition to these basic costs. If existing uses need to be relocated, it is assumed that land exists within the campus boundary to accommodate this relocation and land acquisition will not be required. Unless specified within the evaluation, references for costs can be found in the Notes section at the end of this appendix.

SITE	Estimate
SITE C: NORTH OF AGATE	
Anticipated Expenses	
Land Acquisition	N/A
Site Demolition	N/A
Relocation of Existing Uses	N/A
Utilities: 835 ft. tunnel extension	$4,592,500
Parking: 78 spaces	$429,000
Land Use Entitlement Allowance	N/A
Additional GSF for stand-alone science functions (10,000 sf @ $400/sf) ***Note: This cost is a rough estimate for the increased gsf required for operating as a science facility independently from the Lokey Science Complex***	$4,000,000
Subtotal - Cost Differential	**$ 9,021,500**

Cost Estimate Notes:

- *Site Demolition: Estimates for demolition are based on $6/sf for existing structures*
- *Relocation of Existing Uses: Cost and SF estimates provided by Campus Housing and CPDC*
- *Utilities: Estimates for utility tunnel extensions are based on estimate of $5,500 per linear foot (provided by CPDC); estimates for stand-alone utilities were provided by HDR Inc.*
- *Parking: Parking requirements are based on surface parking space estimate of $5.5K per space (provided by CPDC)*
- *Land Use Entitlement Allowance: Estimates are provided by Cameron McCarthy*
- *Additional equipment and building square footage is required for all sites distanced from the Lokey Science Complex, which have associated costs. This estimate was provided by HDR Inc.*

APPENDIX 5: REFERENCES

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LEED v3 (NC-2009), SSc4.1 (Sustainable Sites, Alternative Transportation—Public Transportation Access). SSc2 (Sustainable Sites, Development Density and Community Connectivity).

LEED v4 (NC-v4), LTc5 (Location & Transportation, Access to Quality Transit). LTc4 (Surrounding Density and Diverse Uses).

[1] A grace period for LEED v3 extends to June 2015 for projects that opt to apply for LEED credits under v3 rather than LEED v4.