MASTER PLAN GUIDELINES

OCTOBER 2018

- Financial
  - Capital renewal investment

- Map and establish the current hierarchy for on-campus vehicular circulation and campus entries.
- Map primary service routes, emergency access routes, and major building service points.
- Document transportation issues and modal conflict points, especially those where vehicular traffic affects pedestrian safety.
- Map existing on-campus parking facilities and identify the number of spaces allocated to students, faculty, staff and visitors. Document present utilization rates of these parking facilities (if data is available).
- Document significant accessibility challenges, especially areas where slope makes navigation difficult.
- Document the existing institutional parking policy and management approach.

- Describe and map existing political and jurisdictional entities surrounding the institution, along with any regulations that may effect on-campus development.
- Assess adjacent land use in adjoining neighborhoods and highlight character, issues and concerns (if applicable).
- Inventory major recreation assets or trail corridors that may influence campus development, even those not owned by the institution.
- Locate major commercial districts within walking distance of the campus.

- To the extent that data is available, map institutional land holdings, differentiating institution-owned, institution-leased, foundation-owned, and foundation-leased properties.
- Evaluate impact of leased facilities on the institution's operating budget, including cost per square foot if available.

- Describe adjacencies and relationships between academic programs. Document current program administrative, instructional, and research locations.
- Document potential areas of academic growth or change based on strategic plan directives.
- Describe research and sponsored-funding patterns. Document and map core facilities. (This task is data dependent.)
- Describe existing library facilities and operations, and the philosophy of library services.

- Document and map building condition information, using campus data where available. Evaluate functional suitability of space for current uses, with a focus on the long-term viability of specialized facilities, especially science-intensive buildings.

- Document and map space distribution by space type, academic unit, etc. Analysis should use codes aligned with the Facilities Inventory and Classification Manual (FICM) and USG methodology.
- Validate and advance space analysis metrics provided by REF staff, aligned with USG methodology .
- Investigate reasons for especially high or low utilization of key rooms and buildings.

- Document and map residential life patterns by number of beds per building, typology, student year, occupancy rates, etc. Include fraternities and sororities in the analysis. Indicate owned, P3, and PPV buildings.
- Evaluate major off-campus residential patterns and their impacts on other systems such as transportation.
- Document and map locations for student services and student life amenities, including food service, student center, bookstore, and student health center.
- Document any existing debt that will affect building reuse.
- Document student life and residential life goals that will influence future development.

- Document and map on-campus recreational sites, intercollegiate athletic facilities, intramural athletic facilities, and informal recreation spaces.
- Describe current control, management, and scheduling of facilities.
- Assess the adequacy of the existing intercollegiate sports and recreational facilities. Assess athletic facility compliance with NCAA and Title IX standards, if relevant.

- Map existing utility corridors (steam, chilled water, potable water, sanitary, natural gas, electrical, communications, etc.) and document potential issues of capacity and redundancy in the current system (based on existing data / stakeholder knowledge)

- Describe and map stormwater facilities and natural features, including detention and retention structures, drainage pipe systems, natural water features, etc.
- Describe existing stormwater management issues including impervious surface patterns, land use limitations, protection of natural drainage features, and other requirements.
- Describe usage patterns, including building EUI and water consumption, using existing data.

- Document key facilities issues for support services not outlined above such as business services, student services, enrollment management, alumni relations, development, public safety, specialty shops, etc.
- Document environmentally influenced safety concerns.

PHASE II—DELIVERABLES

- Graphics-driven presentations for each campus visit
- Meeting notes

PHASE III: SCENARIOS

The Scenarios phase integrates key analysis findings and posits future development concepts. The assessment of future ideas should evaluate how proposed changes will affect multiple systems: for this reason, key tasks are not differentiated by topic area, as they are in Analysis. This phase establishes long-term framework ideas and begins to test near-term capital priorities that address key needs. Additional focused analysis may be required to validate specific scenario concerns—this is especially true for space utilization. Before moving into the Implementation phase, the team must gain consensus and leadership approval on a long-term vision that will enable an in-depth exploration of near-term implementation considerations during the subsequent phase.

KEY TASKS IN ASSESSMENT OF ALTERNATIVES

These integrative, primary tasks are essential master plan components:

- Draft and refine planning principles to guide future development.
- Integrate analysis findings to improve the clarity and functionality of landscape, circulation, transportation, and parking systems. Propose framework adjustments that will clarify campus organization, promote safety and accessibility, and organize future development.
- Propose a long-term land-use framework that maintains its validity with a significant range of enrollment scenarios. Propose density guidelines and/or development sites that promote near-term placemaking and retain adequate long-term growth capacity. This should include zones for academic, residential, medical, conservation, support, athletic / recreation, and agricultural uses (where applicable); and location guidelines for key amenities, especially student life services such as dining.
- Explore near-term building renovation, construction, and/or demolition options that meet key academic or student life needs, improve space efficiency, address deferred maintenance concerns, acknowledge sustainability considerations, and respect historic campus resources.
- Create planning-level cost estimates to assess realistic near-term investment possibilities and evaluate key priorities.

SECONDARY TASKS IN ASSESSMENT OF ALTERNATIVES

The plan should also address these secondary tasks to inform the primary tasks identified above. The depth of these investigations may vary by institution depending on analysis findings and master plan priorities. The team may choose to advance additional elements investigated during analysis and not articulated below.

- Develop sections, sketches, renderings, district plans, etc. to illustrate potential interventions in key locations.
- Establish conservation corridors and explore natural solutions to significant stormwater system issues (focused primarily on-campus, but integrated with off-campuses systems).
- Incorporate land-use and site-selection recommendations that reduce impacts from potential natural disaster hazards such as flooding, storm surge, wind damage, and other weather events.
- Identify key plant species that support the institution's current landscape identity and ecology of the region.
- Assess whether existing parking configurations are efficient and located adjacent to appropriate uses.
- Assess alternative parking policies and demand-management practices to mitigate parking demand.
- Assess plan impacts to the broader community and ensure compliance with regulatory constraints.
- Evaluate long-term real estate needs and include any proposed acquisition or disposition of land. Draft criteria for evaluating future acquisition opportunities.
- Define locational criteria (adjacencies) for future academic buildings or expansion of current buildings.
- Propose changes and investment priorities for student life amenities, such as residence life facilities, dining or student services locations, recreational services, etc.

- Create building investment scenarios that incorporate institutional goals as well as building condition, suitability, energy use, and space utilization information. Propose building demolition where appropriate.
- Propose utility corridors that provide redundancy and easy long-term access (usually integrated with the circulation framework). Consider the cost of utility line extensions or capacity issues when evaluating potential building construction proposals.

PHASE III—DELIVERABLES

- Graphics-driven presentations for each campus visit

ADDITIONAL PHYSICAL PLANNING STUDIES

This section provides an overview of some potential planning activities that provide more in-depth investigations than those performed in a master plan, as described above. In certain situations, it may be appropriate to incorporate this level of detail into the scope of a master plan, or to study a key issue prior to master plan procurement. Institutions are strongly encouraged to communicate with REF staf when pursuing these studies and to share fnal deliverables for central archiving. Institutions should also share results of any internal modifcations to master plans occurring between formal consultant engagements. This will help prevent project delays during integrated review.

These specifc studies should not be considered substitutes for periodic comprehensive master planning.

PRE-MASTER PLAN ASSESSMENTS

Assessments are essentially data-collection or issue-identifcation exercises, often focused on technical data. These can include facility condition assessments, building suitability assessments, infrastructure capacity assessments, energy use intensity (EUI) calculations, ADA compliance assessments, environmental audits, parking counts, etc. REF generally recommends that institutions engage in such assessments prior to undertaking a master plan, because this information can be useful in evaluating capital priorities. REF staf will work with institutions during master plan procurement to assess data needs.

A Campus Historic Preservation Plan (CHPP) should be in place for campuses with architectural, landscape, or archaeological resources approaching 50 years old or older. The CHPP provides a framework for institutions to manage their historic facilities and grounds and make sound decisions concerning capital investment, renovation, and demolition as well as be good stewards of USG's historic resources.

POST-MASTER PLAN STUDIES

After a master plan, it may be appropriate to evaluate in-depth program and facility needs for an individual college within the university, or for a group of related disciplines. This work should engage the institution's provost and facilities personnel to maintain alignment with overall university goals. For R1 institutions with signifcant research outposts, periodic assessment of facility needs

Wayfinding Studies

The purpose of these studies are to design a system of campus navigational signage. A master plan and/or landscape master plan should generally precede a wayfinding effort to address navigational confusion caused by poor circulation-system clarity. Wayfinding studies incorporate significant accessibility considerations.

Transportation plans provide an additional level of design and operational detail that goes beyond the scope of a master plan. Institutions are strongly advised to incorporate multimodal needs into design and recommendations. Activities in transportation planning may include but are not limited to the following:

- Create operational strategies and concrete recommendations in areas such as transportation demand management, parking permitting/pricing structure, shuttle route and frequency alterations, parking demand projections, technology integration, etc.
- Solidify design recommendations such as street sections for key corridors, or proposals for key intersections
- Evaluate financial implications of various strategies.

ADDITIONAL STUDIES

Master plans should incorporate residential elements, including residential districts, bed typology distribution, and priorities for significant investment. Some institutions may seek additional detail, such as to evaluate demand for additional beds through a market study, clarify maintenance and annual investment strategies, or solidify the institution's residence life philosophy in terms of desired typologies or programming initiatives.

These studies evaluate dining amenities on campus, including amenity distribution, operational hours, and financial sustainability. These studies often lead to programming for facility construction or renovation.

Infrastructure plans investigate system conditions and capacity needs, solidify operational initiatives (especially related to maintenance or sustainability), and determine capital priorities. Plans may focus on a particular system, such as electrical distribution, water, sanitary sewer, stormwater, data networks, etc.

Campus security plans promote consistent implementation of security measures across the campus such as card access, locking systems, and facility security planning needs. Plans include evaluation of future investment strategies to ensure appropriate police staffing levels, security systems infrastructure needs, and vehicle traffic controls.

Environmental stewardship plans articulate policies related to sustainability issues such as energy production and consumption, waste minimization, transportation demand management, water systems, building construction, purchasing, academic integration of sustainability, etc.