BAKER PARK

Design Progress Presentation

12/19/16

PROGRESS PRESENTATION OUTLINE

- Knoll design update
- Path materials/routing/lighting
- Site grading and costs
- Schedule

EXISTING SITE AERIAL


FOUNDERS GARDEN
CAFE BUILDING & GARDENS (SOCIAL READING)
RIVERSIDE CIRCLE
PENINSULA
FORMAL LAWN
HP@+19'
DOG PARK
PIER
READING & PARENTS LAWN
PLAYGROUND
ART DISPLAYS
PAVILION
PARK ARRIVAL
SUNRISE TERRACE
GORDON RIVER
KAYAK LAUNCH

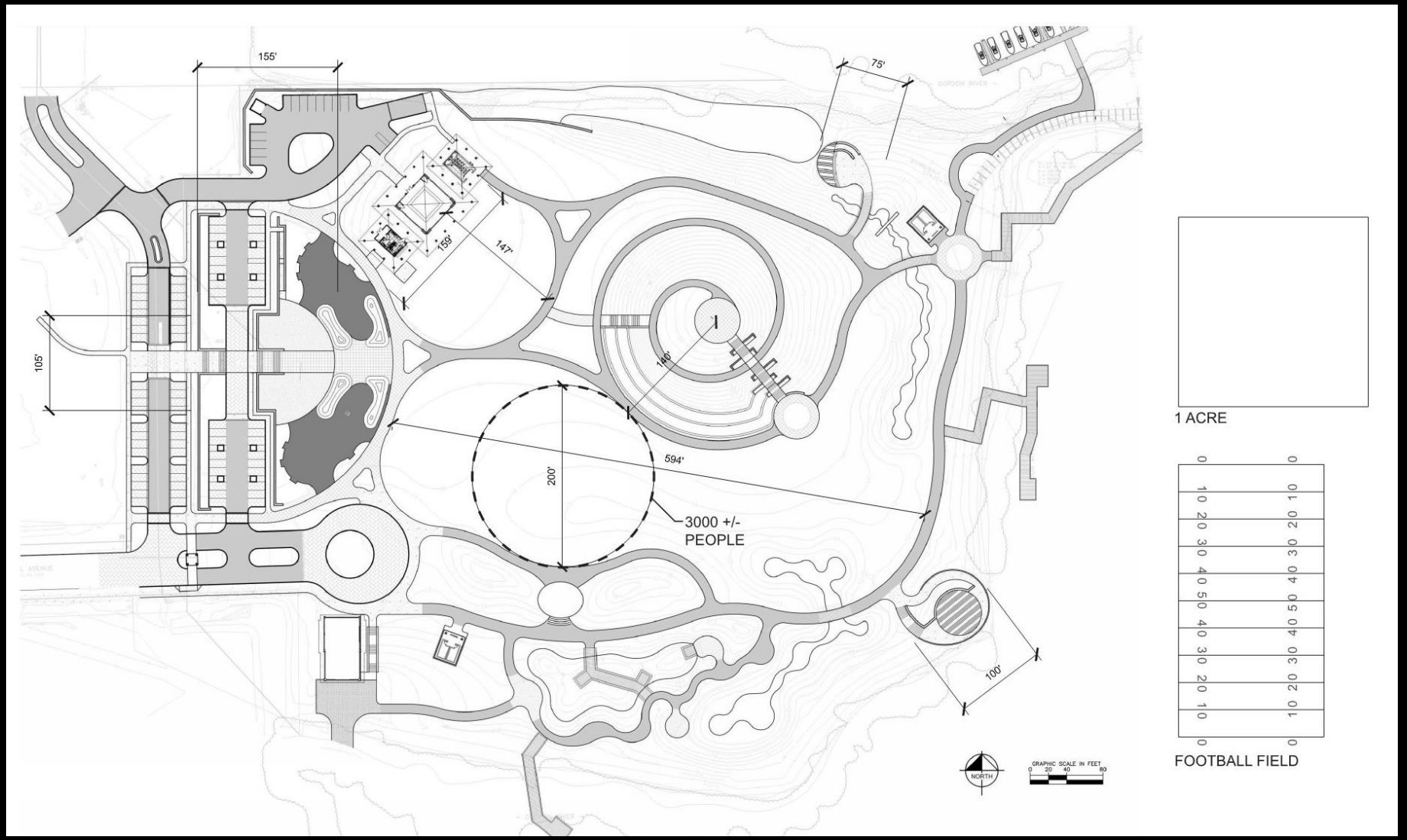
H2 PLAN

- PLANTED KNOLL AT ELEVATION 34' (12' above existing grade)

30% DESIGN PLAN

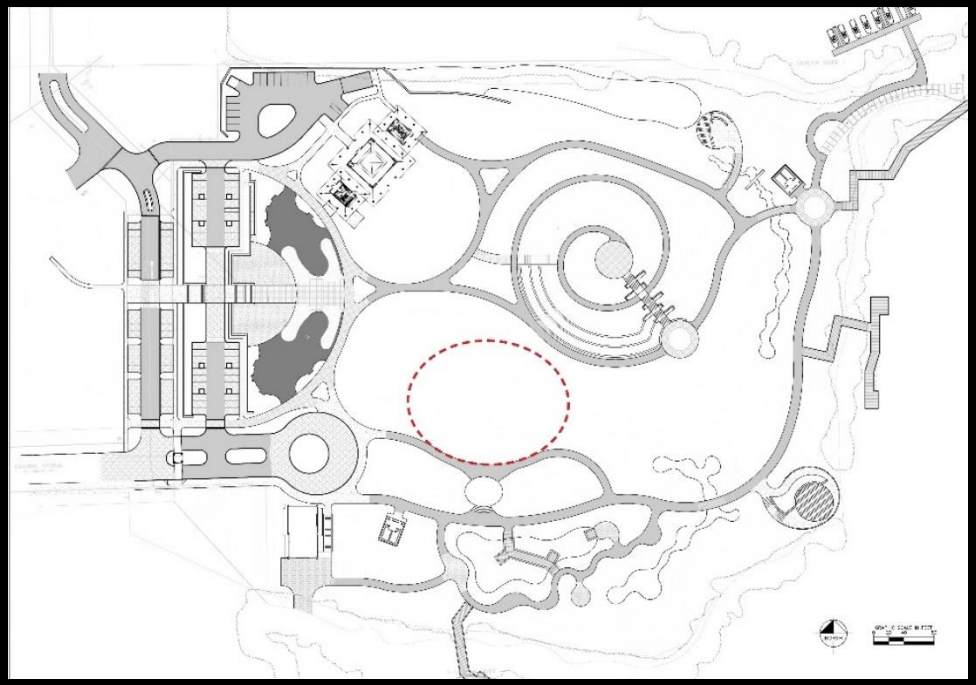
PROGRESS DESIGN PLAN - PLANTED KNOLL 12/19/16

PARK KNOLL DESIGN AND OPEN SPACE CASE STUDIES

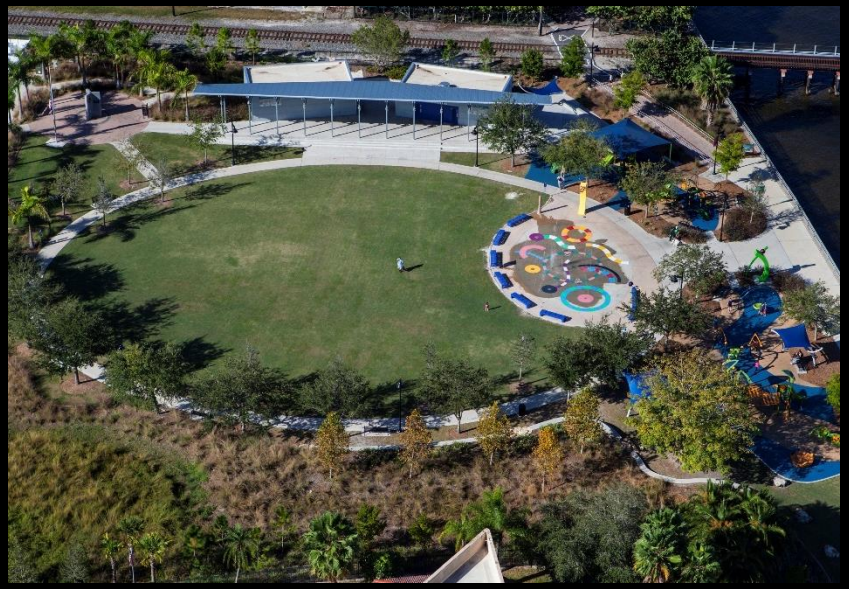


PARK DESIGN PLAN

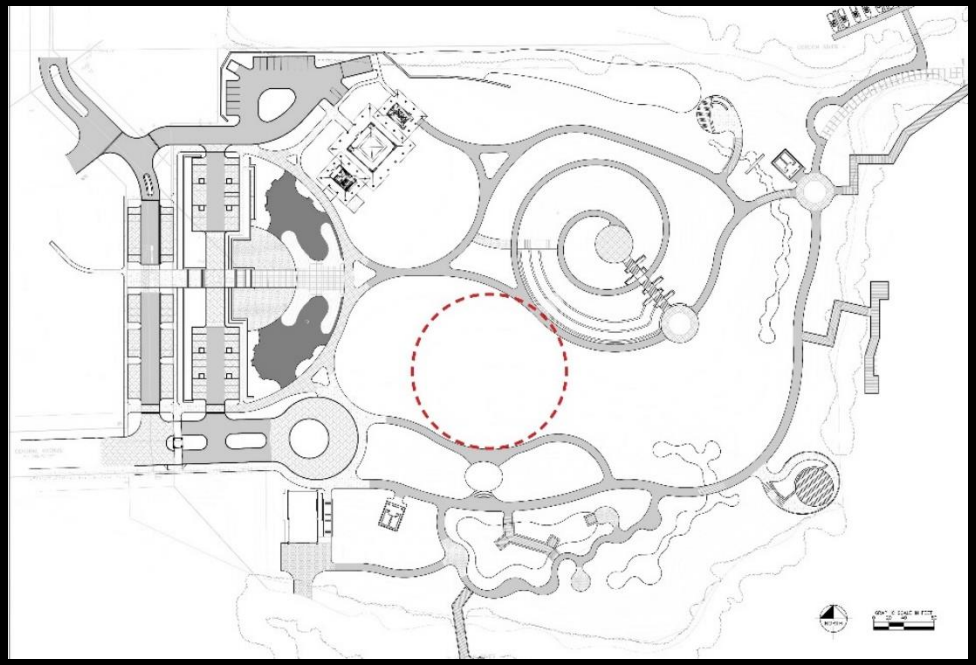
Design Dimensions



- 0.74 acres
- Accommodates 3,200 +/-

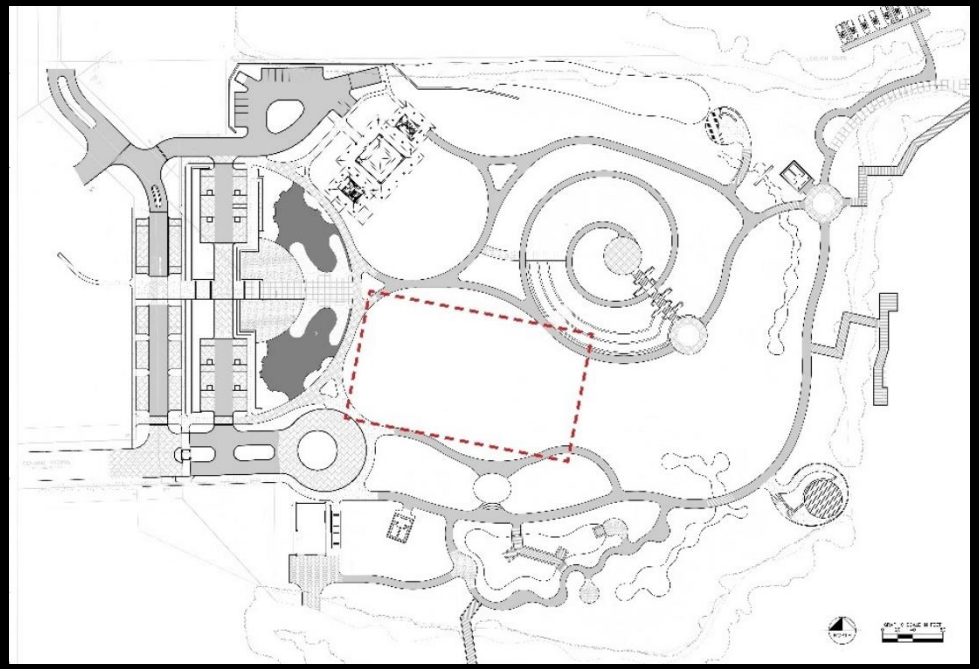


CASE STUDY Bradenton Riverwalk – Bradenton, FL



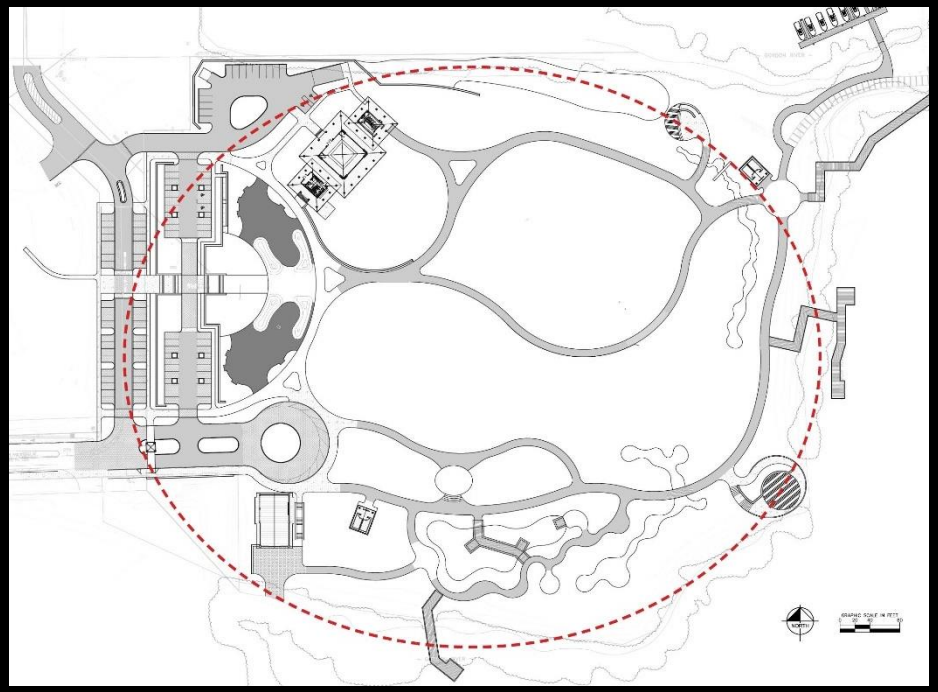
- 0.8 acres
- Accommodates 3,450 +/-

CASE STUDY Cambier Park – Naples, FL



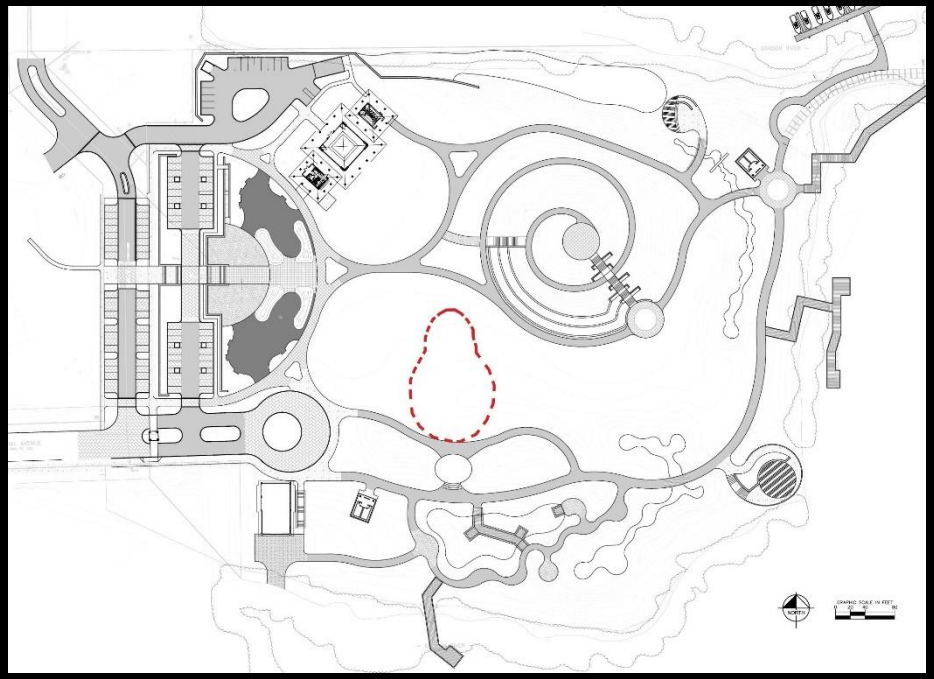
- 1.1 acres
- Accommodates 4,800 +/-

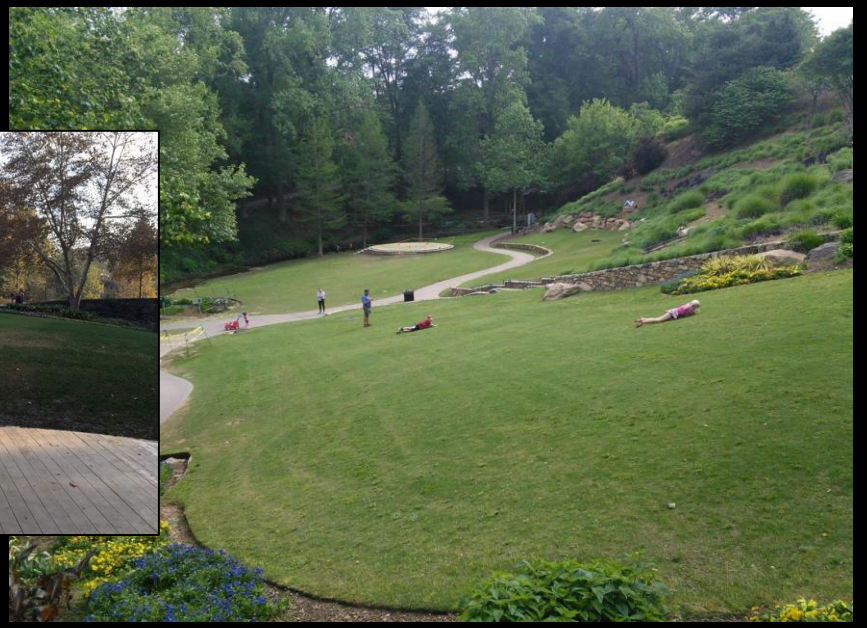
CASE STUDY Bryant Park– NY, NY



- 16 ac +/-
- Accommodates 56,300 +/-

CASE STUDY Sheep Meadow at Central Park– NY, NY





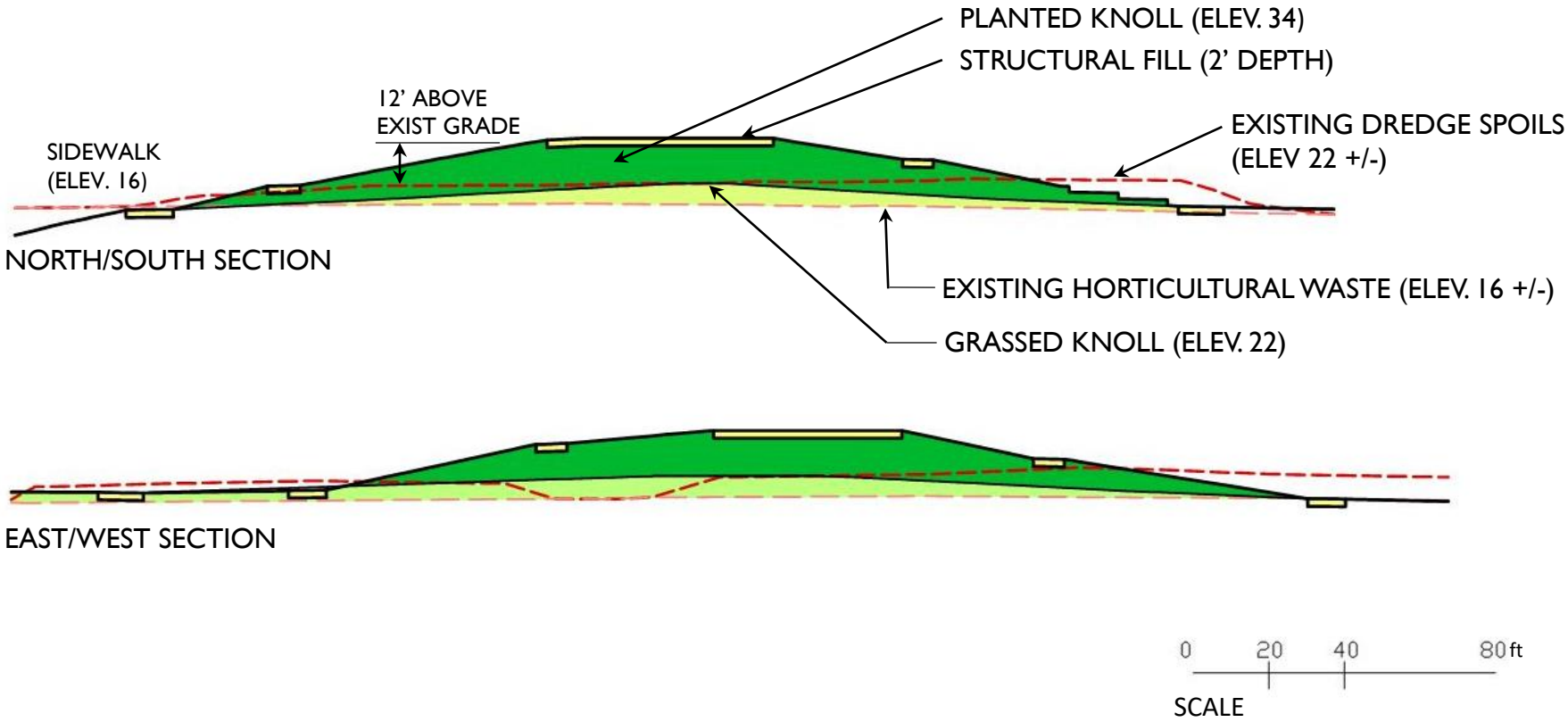
- 0.47 acres
- Accommodates 2,000 +/-

CASE STUDY Falls Park – Greenville, SC

KNOLL COMPARISON

KNOLL COMPARISON

KNOLL COMPARISON



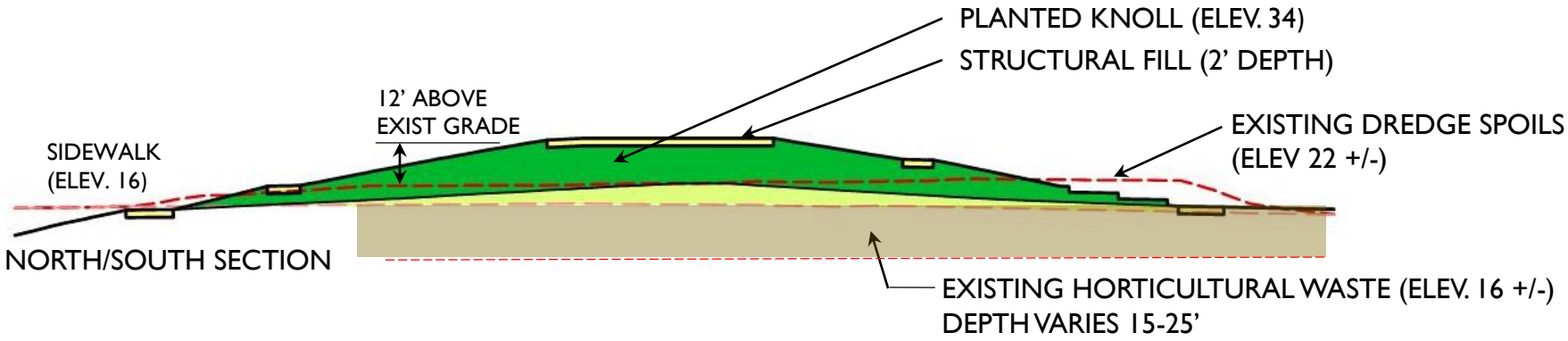
12' PLANTED KNOLL

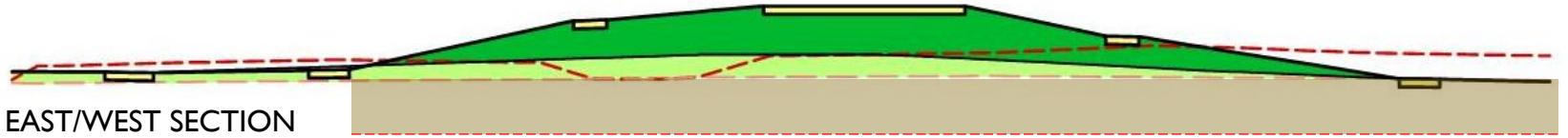
- Incorporates more site fill/results in less fill export

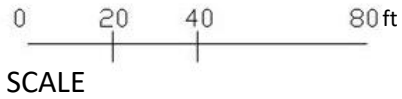
GRASSED KNOLL

- Requires 2,300 CY *additional* export
- Net add'l cost to soil management = $36,000+/-

KNOLL FILL COST COMPARISON







PLANTED KNOLL

- Adds 12' soil to existing grade
- Expected new fill settlement up to 13" first year, 1-2" next 50 years
- Dredge spoils have settled for 5 years, horticultural waste for decades
- Place/compact 12' fill early, monitor

KNOLL STRUCTURAL DESIGN

5.4.3 Knoll

The most recent conceptual Site plan shows a grassy knoll in the central portion of the Site with a top elevation of approximately 34 feet. Based on the conceptual geometry of this feature and assumptions made regarding the subsurface conditions below it, including an assumed 8-ft thick layer of dredged spoils that is in place on top of the horticultural debris (no borings were advanced within the footprint as part of this geotechnical investigation), settlement on the order of 1.1 feet may result within the first year of construction. Thereafter, settlement is anticipated to continue, but at a much lower rate, on the order of 1 to 2 inches over the next fifty years due to ongoing biological decomposition and creep of the underlying horticultural debris. One approach that can be considered to mitigate the impact of settlement on the grassy knoll design is to apply additional preload to the area to induce settlement prior to construction of surface features such as stairs and walkways. Preloading would involve the construction of the knoll feature to design grades, instrumenting with settlement plates, and monitoring settlement over the course of six to twelve months to evaluate when primary settlement has concluded. At that point, additional soil can be brought in to return elevations to design grades followed by construction of surface features.

5.7 Landfill Gas Control

Based on the landfill gas screening performed during drilling advancement of soil borings, concentrations of methane are variable, but at sufficient levels to indicate active gas generation is ongoing and warrant active gas mitigation for all enclosed buildings. The active gas mitigation system designs will be progressed concurrently with the development of the foundation system and structural design of each building.

6.0 GEOTECHNICAL SERVICES DURING DESIGN AND CONSTRUCTION

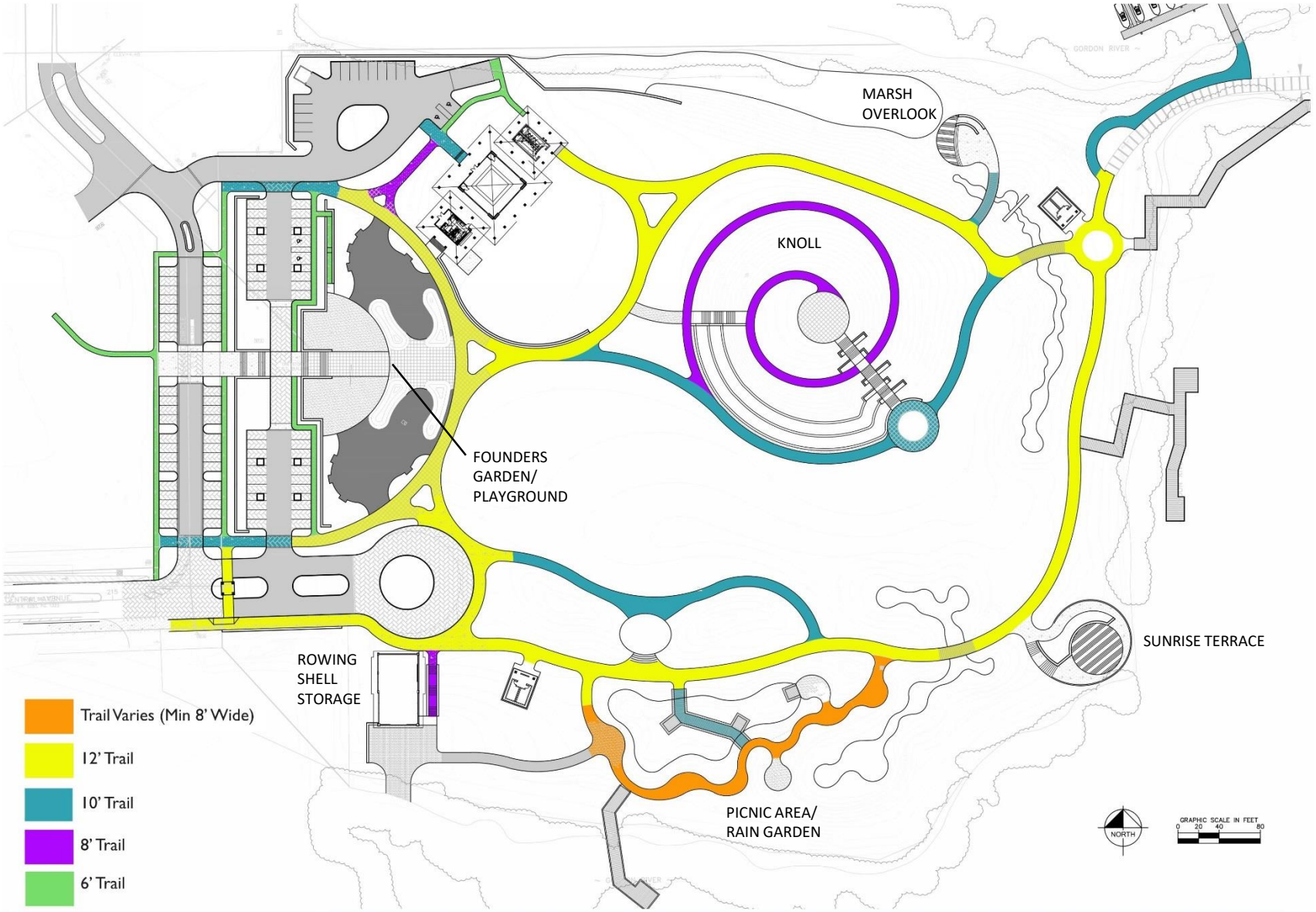
Geosyntec should be contacted during the design phase of the project if deviations from the recommendations of this report are proposed. Geosyntec should also be contacted to assist in the evaluation of foundation alternatives that may be suggested during the structural design phase or if significant modifications are proposed for the location of structures, type of construction, or loading conditions.

A regular program of in-situ density testing and associated laboratory work should be carried out for all engineered fill materials. All concrete should be tested to confirm conformance with specifications. Full-time monitoring by a representative of the Geotechnical Engineer should be performed during all of the following activities:

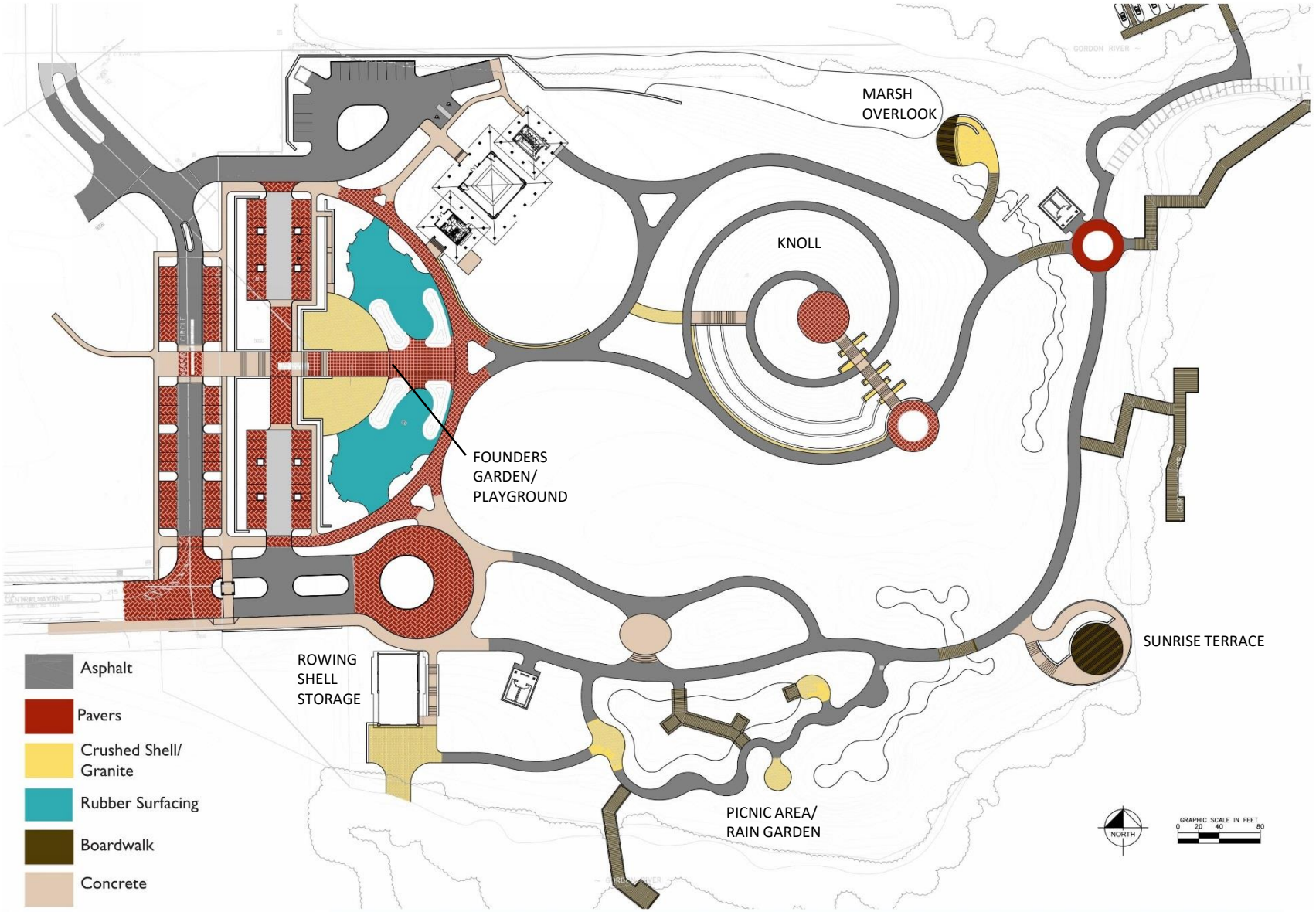
- Excavation activities of horticultural debris and replacement with granular fill;

GEOTECH REPORT

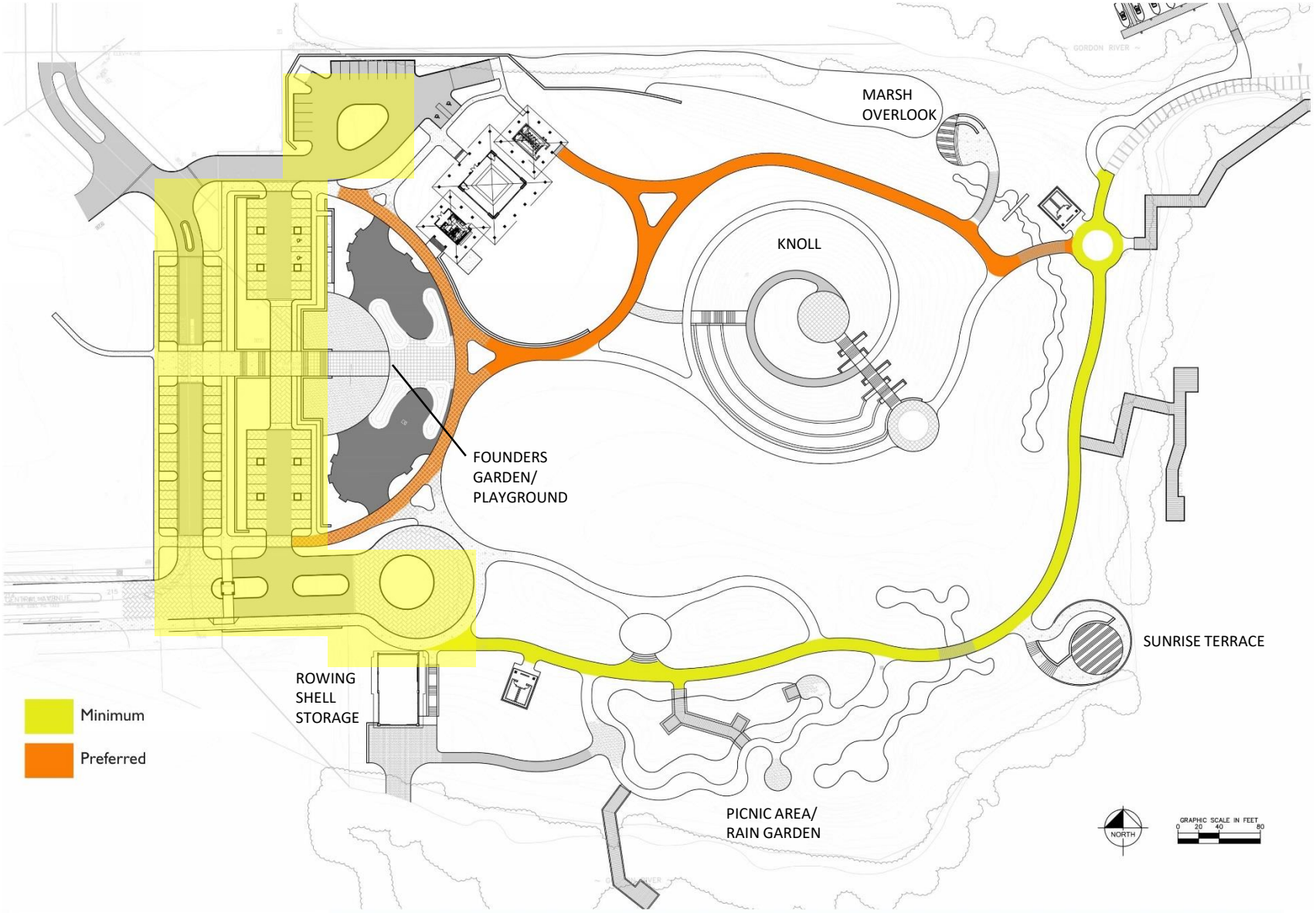
BIRD'S EYE VIEW



TRAIL/PATH HIERARCHY



TRAIL/SIDEWALK MATERIALS



Includes electric service for large events, courtesy outlets, etc.

PROPOSED LIGHTING LOCATIONS

SOIL MANAGEMENT APPROACH/COSTS*

- On site soil relocation/regrade (spoils/hort landfill) = $5/CY
- Dredge spoil export (local) = $9/CY
- Horticultural landfill debris removal (local landfill) = $20/CY
- Horticultural landfill export if contaminated (assume 5%) = $58/CY
- Structural soil import/mixing = $24/CY
- Planting soil supplement for spoils = $21/CY

Total – Site soil management = $1,380,000 +/-

*Unit costs noted are approximate and based on 60% progress design

UPDATED ESTIMATED COSTS – GRASSED KNOLL (12/19/16):

GRASSED KNOLL	H2 PLAN	30 % PLAN	PROGRESS PLAN
1. SITE FILL/SOIL MANAGEMENT	3.42 M	2.35 M	1.89M
2. SITE CIVIL MISC. (UTILITY, STORM,ETC.)	1.50 M	1.35 M	1.64M
3. HARDSCAPE (ROADWAYS, PARKING, SIDEWALKS, SPECIALTY PAVERS)	0.88 M	0.92 M	1.16M
4. LANDSCAPE/IRRIGATION	1.46 M	2.07 M	1.99M
5. SITE FURNISHINGS	0.65 M	1.22 M	1.25M
6. ARCHITECTURE	1.74 M	1.74 M	1.74M
SUBTOTAL	9.65 M	9.65 M	9.65M
CONTINGENCY 30%*	2.90 M	2.90 M	2.90M
TOTAL	**12.55 M**	**12.55 M**	**12.55M**

*CONTINGENCY LEFT AT 30% TO ACCOMMODATE ADD'L PLACEMAKING INVESTMENT REQ'D FOR THIS OPTION

ADDITIONAL UNFUNDED ITEMS

- 2nd, 3rd restrooms
- Rowing shell / storage building
- Bandshell Structure
- Public art

UPDATED ESTIMATED COSTS – PLANTED KNOLL (12/19/16):

PLANTED KNOLL	H2 PLAN	30 % PLAN	PROGRESS PLAN
1. SITE FILL/SOIL MANAGEMENT/WALLS/STAIRS	3.42 M	2.35 M	2.03M
2. SITE CIVIL MISC. (UTILITY, STORM,ETC.)	1.50 M	1.35 M	1.63M
3. HARDSCAPE (ROADWAYS, PARKING, SIDEWALKS, SPECIALTY PAVING)	0.88 M	0.92 M	1.14M
4. LANDSCAPE/IRRIGATION	1.46 M	2.07 M	2.19M
5. SITE FURNISHINGS	0.65 M	1.22 M	1.25M
6. ARCHITECTURE	1.74 M	1.74 M	1.73M
SUBTOTAL	9.65 M	9.65 M	9.97M
CONTINGENCY 25%*	2.90 M	2.90 M	2.58M
TOTAL	**12.55 M**	**12.55 M**	**12.55M**

* ARCHITECTURE CONTINGENCY RETAINED AT 30%

ADDITIONAL UNFUNDED ITEMS

- 2nd, 3rd restrooms
- Rowing shell / storage building
- Bandshell Structure
- Public art

CONSTRUCTION DELIVERY METHOD – CM AT RISK WITH GMP

- Staff requests Council approval to begin CM@Risk RFQ process
  - Contractor selection based on qualifications and subsequent negotiations
  - Assist with pricing at 60% stage
  - Collaborate on complicated soil management process
  - Open book procurement, negotiated guaranteed maximum price (GMP)

RECOMMENDATIONS / SCHEDULE

- Proceed with landscaped knoll design feature
- Proceed with CM at Risk
- Incorporate input into DEP permit plans, submit late Jan ‘17
- Return to City Council with complete 60% design deliverable March 2017
- Coordinate costs with CM between 60-90%
- Complete 100% plans, start construction late 2017

CITY COUNCIL QUESTIONS/COMMENTS