EXISTING CONDITIONS

DECOVERLY DRIVE
(North of Diamondback Drive)

DECOVERLY DRIVE
(South of Diamondback Drive)

BELWARD CAMPUS DRIVE

JOHNS HOPKINS DRIVE

OSMEGA DRIVE
(Northern Segment)

OSMEGA DRIVE
(Southern Segment)

MEDICAL CENTER DRIVE

PSTA PROPERTY: NEW ROAD

Potential loop trail
Future CCT
Future CCT station
CCT/roadway reconstruction
Possible loop extension
Transit easement
Slope at inner edge
Mature trees
Structure
Missing connection
Major road crossing

DRAFT 05/26/15
OVERALL PLAN
• Trail is positioned on the inside of the LSC Loop
• Typical trail cross section includes a paved shared use path with planted buffers on each side
• Enhanced street crossings are recommended for all intersections
• Potential trail spurs should connect to routes and destinations beyond the LSC Loop Trail
AMENITIES & ENHANCEMENTS

- Enhancements along the Loop Trail include a distinctive paving treatment; a continuous line of street trees (preserved or planted in all possible locations); seating areas along the trail; signage/wayfinding elements; and public art in select locations.

- Urban/activity areas should incorporate special paving and furnishings, larger gathering areas, enhanced plantings, and public art elements.

- Gateways can use art pieces and informational signage to emphasize entry into new areas and direct users to their destinations.
TRAIL CROSS SECTIONS
SECTION TYPES

1 TYPICAL CROSS SECTION

2 WIDE TREE PANEL AND BUFFER

3 DUAL TWO-FOOT BUFFERS

4 SINGLE TWO-FOOT BUFFER

DRAFT 05/26/15
AMENITY AREAS IN TREE PANEL

TYPICAL AMENITY AREAS

- Bench and trash/recycling receptacles
- Multiple benches
- Bike racks

AMENITY AREAS IN WIDE TREE PANEL (MEDICAL CENTER DRIVE)

- Bench, bike racks and trash/recycling receptacles
- Bench and trash/recycling receptacles
- Bike racks

Precedent Images

DRAFT 05/26/15
AMENITY AREAS INSIDE THE LOOP

SMALL AMENITY AREA

LARGE AMENITY AREA/PLAZA

Benches and trash/recycling receptacles (may also include bike racks)

Benches, bike racks and trash/recycling receptacles (may also include tables and chairs, public art, etc.)
REQUIRED OFFSETS AND DIMENSIONS

- 2' clear
- 3' to tree centerline or signage
- 12' typical
- 10' minimum
- 6' typical
- 11' on Medical Center Drive
- 8' min. vertical clearance
URBAN/ACTIVITY AREAS

Plazas and outdoor seating along trail (outside of right-of-way)

Furnishings and public art in wide tree panel

Precedent Images
OPEN SPACE/NATURAL AREAS

Seating areas

Play or fitness equipment

Precedent Images
GATEWAYS

Public art, vibrant plantings, and informational signage at major intersections

Plantings and informational signage at transit nodes and entrances

Precedent Images

Major road intersections
Transit nodes & entrances
DESIGN LANGUAGE
The following section provides an overall design language for both common design elements and areas with special treatments. The recommended design elements constitute a suggested style language to guide subsequent phases of design, rather than specific design specifications.

Design elements most appropriate for Urban/Activity Areas (UA), Open Space/Natural Area (ON), and Gateways (G) are labeled as such, per the legend; however, if desired, these design treatments may be applied to other segments of the trail, as feasible.
Paving band at trail edges should be uniform in material, color, and dimensions along the entire length of the loop trail.

2 Paving field may be comprised of unit pavers or asphalt. Unit pavers should be used in urban/activity areas.

3 Dividing line at center of loop trail can be marked with unit pavers in paver field and painted striping in asphalt areas.

4 Permeable pavers or crushed stone should be used in amenity areas along the trail.

Special pavement markings should be used at merge zones and intersection approaches to alert users of potential conflict points.
• Tree panels should be planted with shade trees and turf grass. Shrubs and perennial plantings can be considered to enhance amenity areas, particularly within urban zones.

• When planted, the 2’ buffer should contain mown turf only, so as to not impede travel along the trail and for use as a pull-off shoulder.

• Plantings can vary within additional amenity spaces along the Loop Trail (within or outside of the right-of-way). Shrubs, perennial plantings, and additional shade trees can be considered to enhance amenity areas, particularly within urban zones. Where parking lots or secondary roadways are adjacent to the trail, wider planted buffers should be used.

TREE PRESERVATION (MEDICAL CENTER DRIVE)

To preserve existing trees on Medical Center Drive, tree panel should be widened to allow more space between tree and adjacent paving.
• Furnishings within the tree panel should include seating, trash and recycling receptacles, pedestrian lighting, and bike racks, and should be consistent to support the continuity of the loop trail.

• Custom furnishings may be used in urban/activity zones and in amenity spaces outside of the right-of-way.

LEGEND

UA Urban/Activity Areas

G Gateways
• Public art may be included along the entire trail, but particularly at urban/activity areas and gateways

• Art elements can be sculptural pieces or incorporated into walls, paving, etc.

LEGEND

UA Urban/Activity Areas
ON Open Space/Natural Area
G Gateways

Patterns or words embedded in paving
Art integrated into walls and other vertical elements
Organic sculptures
Art elements on light poles
Sculptural pieces as focal points
WALLS

- Where needed, retaining walls on the inner edge of the Loop Trail should reference existing site walls, if present.
- If required, guard railing should be simple and unobstructive.
- Seat walls may provide additional seating where feasible.

Existing walls in the Life Sciences Center

Metal guard rail

Potential retaining walls along the trail
SIGNAGE, WAYFINDING, & BRANDING

- Signage serves both a functional role and creates an identifiable visual image or brand for the trail.
- Highly visible and distinctive signage should be used to alert passers-by to the presence of the trail.

LEGEND

UA Urban/Activity Areas
G Gateways
**SIGNAGE, WAYFINDING, & BRANDING**

**Signage to identify LSC districts (names subject to change)**

- Loop and district wayfinding on the trail surface
- Wayfinding elements to identify trail and locate destinations

- Identifiable family of wayfinding elements can incorporate a repeating motif
- May be coordinated with vehicular and bicycle signage

**Example of wayfinding elements**
CROSSINGS

• Bright and high-visibility crossing treatments at entry drive should be used to reduce possibility of conflicts with vehicles.

• Distinctive roadway crossings should be considered to clearly identify Loop Trail route.

• Driveway crossings should be highlighted by distinctive paving treatments.
• LID should serve as both a stormwater management tool and a placemaking element
• Preserve existing trees as possible and plant a continuous line of shade trees along trail
• Permeable pavers should be used in seating areas along trail
• Bioretention may be incorporated in planting areas along the trail, including tree boxes, planting strips, and larger planted areas
LOW-IMPACT DEVELOPMENT OPPORTUNITIES

- Planted bioretention areas inside Loop Trail (may be outside of right-of-way)
- Bioretention in tree panel (where existing trees are not present)
- Preserve existing trees as feasible and plant continuous line of new street trees
- Permeable paving in amenity areas along the trail
- Planted bioretention areas in buffer adjacent to roadway
Where feasible, relocate utilities out of trail path or construct trail around utility covers.

Where utilities cannot be moved, trail may be narrowed or rerouted.
ADDITIONAL CONSIDERATIONS
EASEMENTS REQUIRED

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<th>KEY</th>
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<th>EASEMENT REQUIRED</th>
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<td>JPMCC 2005-CIBC13 Omega Drive LLC</td>
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<tr>
<td>2.5' - 6.25'</td>
<td>Jaeger, John F TR</td>
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Unused transit easements

Note: does not include easement requirements associated with CCT construction
Potential retaining wall locations:

- Key West Ave
- Research Blvd
- Shady Grove Rd
- Medical Center Way
- Diamondback Dr
- Decoverly Dr
- Fields Rd
- Route 28
- Medical Center Dr
- Center Medical Dr
- Great Seneca Hwy
- Johns Hopkins Dr
- Key West Ave
- OMEGA Dr
- Road
- Darkestown
- Blackwell Rd
- Broschart Rd
- Belward Campus Dr

Potential loop trail
Future CCT
↑ Slope at inner edge
Yellow: Potential retaining wall location
**BELWARD CAMPUS DRIVE CONNECTION**

- Missing roadway connection per GSSC Master Plan between Belward Campus Drive and Great Seneca Highway/Decoverly Drive leaves a gap in the Loop Trail
- If roadway is constructed per Master Plan recommendation, the Loop Trail should be incorporated according to the 15% Concept Design typical alignment and cross section
- Options A and B, below, provide alternatives to continue the trail which do not require construction of this roadway

**A LOOP CONTINUATION PER MASTER PLAN**

PROS:
- Achieves Master Plan loop trail alignment
- Provides direct connection between Belward Campus Drive and Decoverly Drive

CONS:
- Requires significant regrading and removal of existing vegetation
- May require encroachment into forest conservation easement
- No existing crossing at Great Seneca Highway (would need to be coordinated with SHA)*

* Crossing of Great Seneca Highway may be (1) two-stage unsignalized crossing utilizing existing median or (2) signalized with continuous crosswalk (if area-wide development necessitates a signal at this intersection). To be determined in consultation with SHA.

**B ALTERNATE OR INTERIM ROUTE**

PROS:
- Does not require significant regrading and removal of existing vegetation
- Does not require new crossing at Great Seneca Highway

CONS:
- Creates “dead end” at Belward Campus Drive
- Does not achieve Master Plan loop trail alignment
- Existing sidewalks may not be sufficient to support shared use
NEXT STEPS:

IMPLEMENTATION STRATEGY