

NCPC File #: 7986 National Zoological Park Supplemental Perimeter Fencing

3001 Connecticut Ave, NW
Washington, DC

Smithsonian Institution

Site Development Plans

Commission meeting date: July 12, 2018

NCPC review authority: 40 U.S.C. 8722(b)(1) and (d)

Applicant request: Preliminary and final approval of site development plans

Delegated / consent / open / executive session: Consent calendar

NCPC review officer: Gerbich

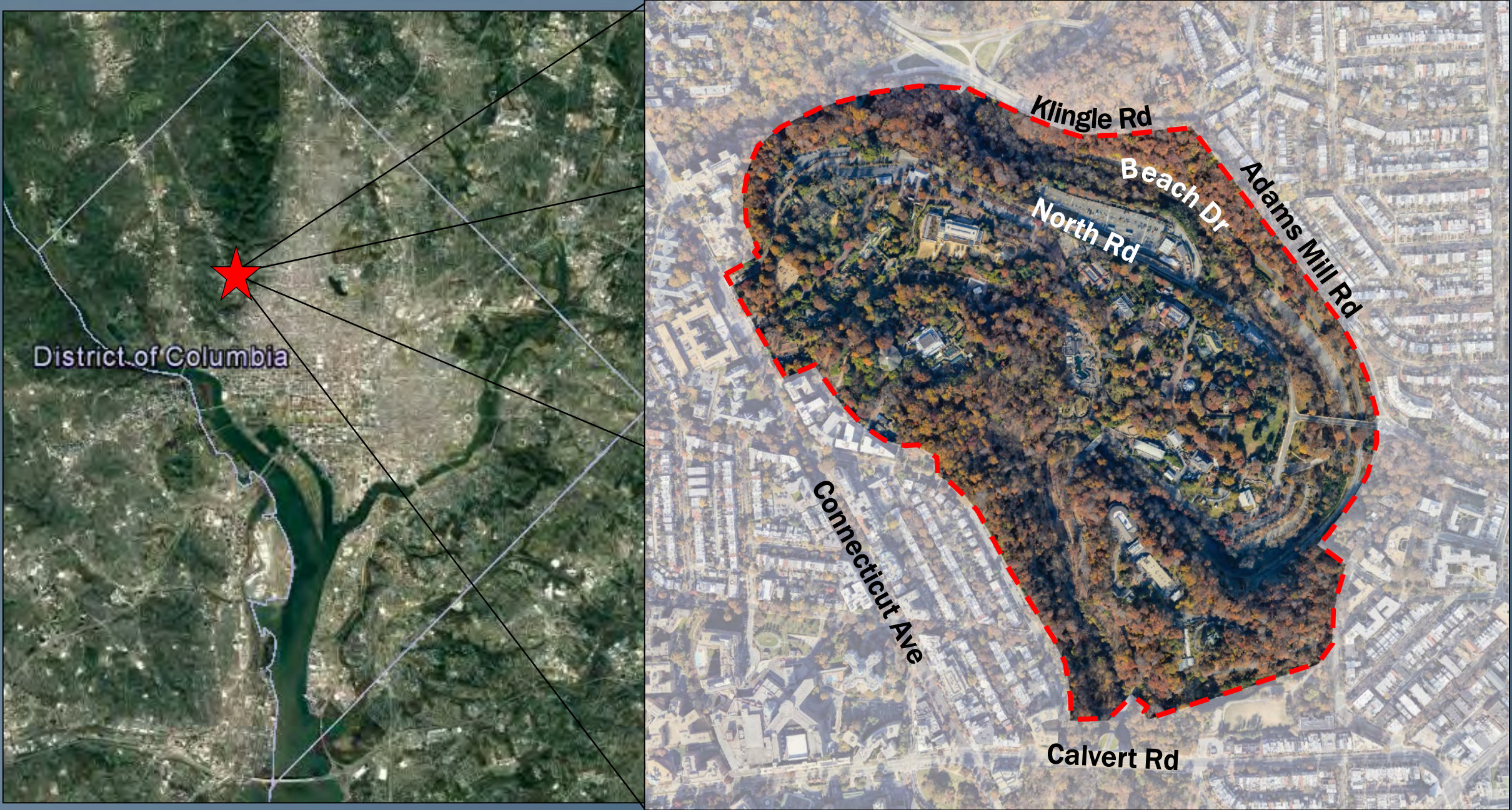
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Project summary:

The Smithsonian Institution (SI) has submitted for Commission review site development plans for supplemental perimeter fencing at the National Zoological Park in Washington, DC. The National Zoo currently has three public vehicular entrances, and 13 pedestrian entrances. In an effort to improve overall security and visitor safety, the SI is seeking to reduce the number of pedestrian entrances to three: 1) Connecticut Ave, 2) the Bus Lot Drop-off, and 3) the Lower Zoo. In the future, an entry would also be provided at the Central Parking Facility. Work began on this effort in 2012, when perimeter fencing was reviewed and approved by NCPC for much of the site (NCPC File #: 7039). The current Visitor Control and Security Checkpoint project seeks to expand this work—including the expansion of perimeter security and the construction of which will be submitted in multiple phases.

The current phase of the project includes supplemental security fencing. Three types of fencing are proposed: 1) eight-foot black ornamental pedestrian metal fencing, 2) eight-foot black ornamental vehicular-rated metal fencing, and 3) 12-foot, wire-topped, black vinyl-coated chain link fencing. The pedestrian metal fencing is used throughout the zoo, and are considered the campus standard. The vehicular-rated fence type is new. It is largely similar to the pedestrian ornamental fencing, with increased post sizes and horizontal reinforcing channels and cables to meet crash rating standards. Overall, ornamental fencing is being used in any area that can be observed by or comes into contact with zoo visitors. Chain link fencing is being used in heavily wooded areas or areas hidden from view. The fencing is not anticipated to impact archeological resources, and an engineering field study will be conducted prior to final design, ensuring that the fencing can be installed with minimal impact to existing mature trees or important vegetation. The Commission provided comments on the concept design for the project in June 2018, which have largely been addressed in the current submission.

The SI plans to submit the security checkpoints and associated fencing in a future phase of the Visitor Control and Security Checkpoint project.

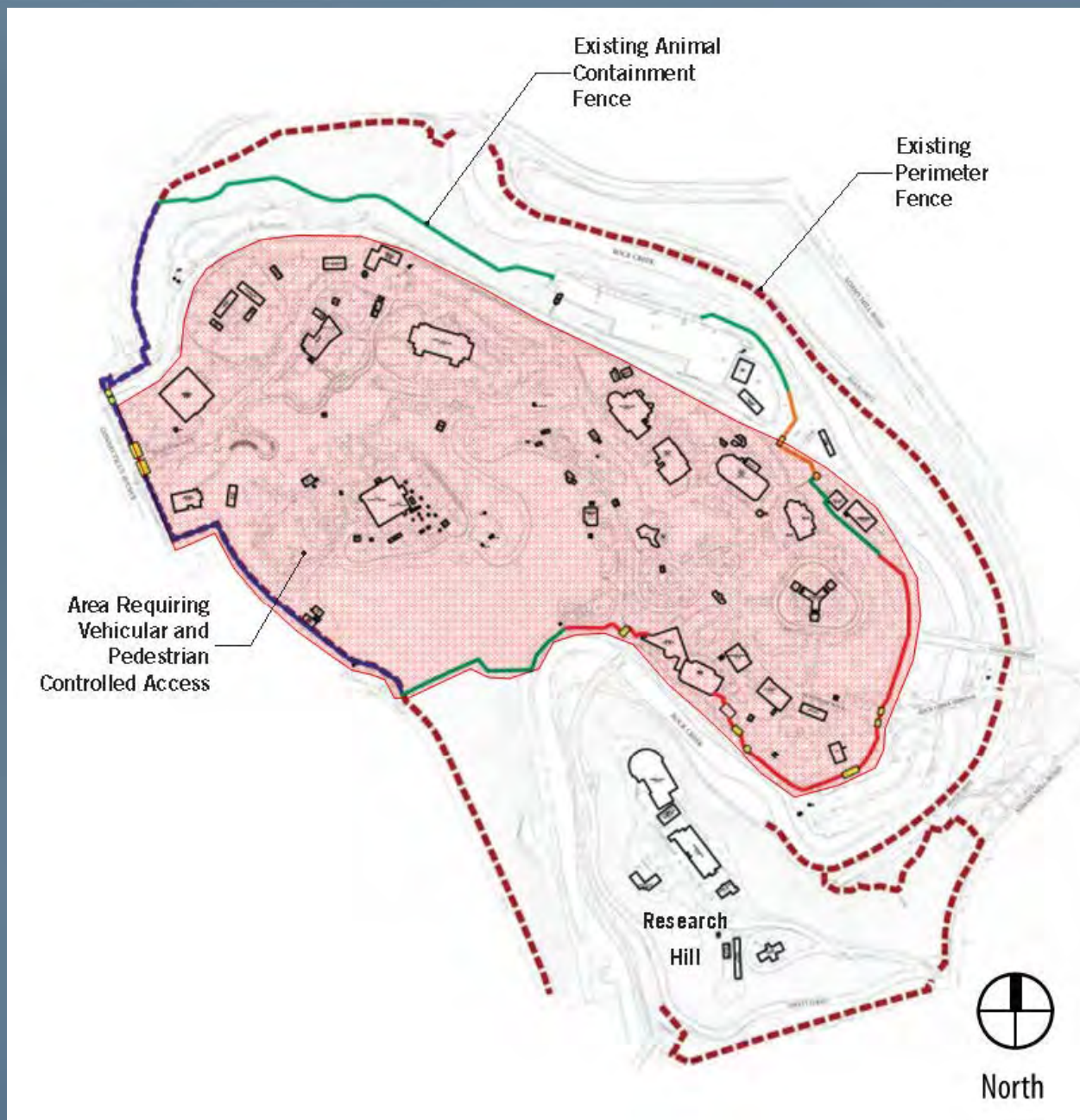


Existing



Future







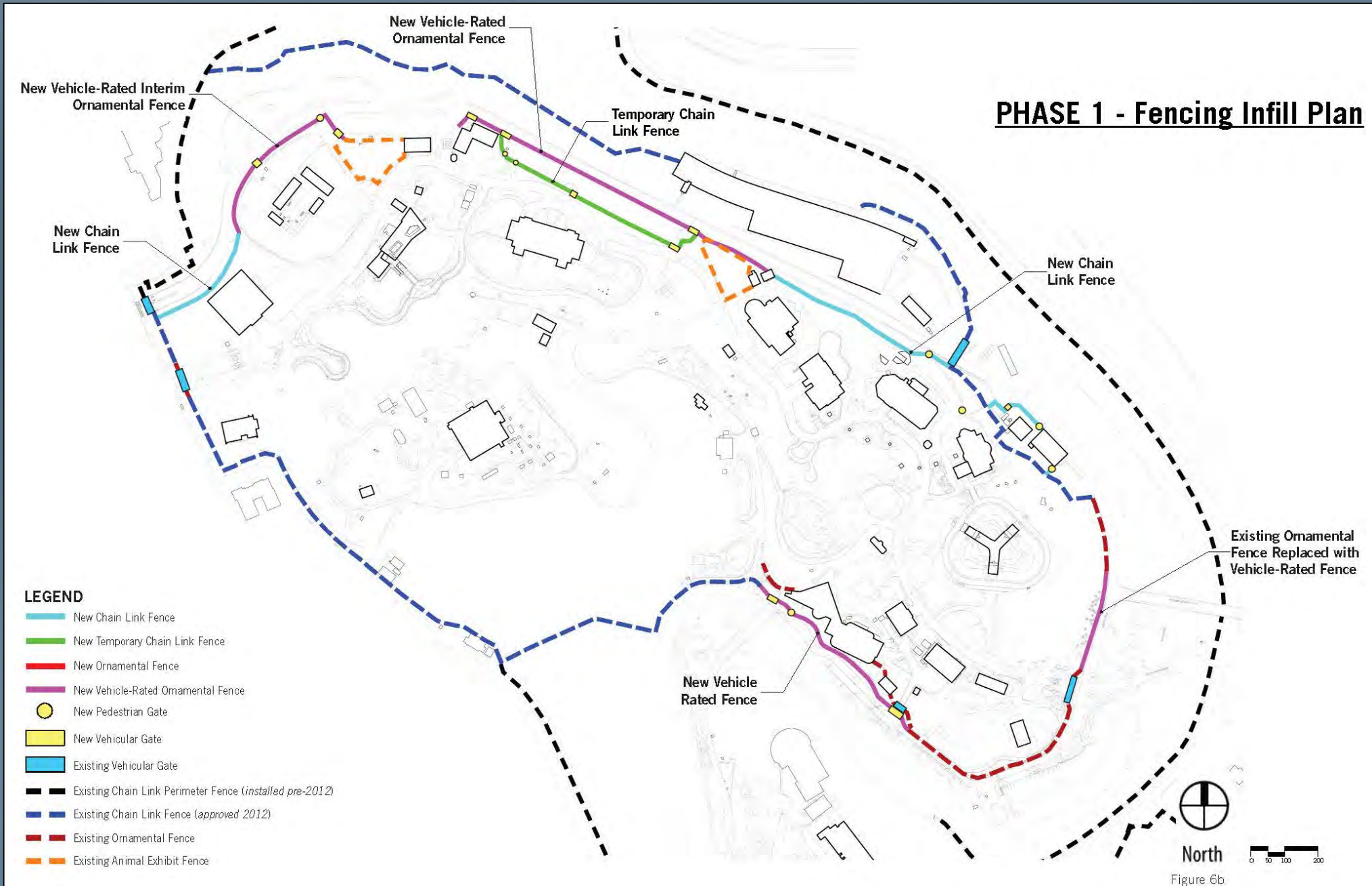
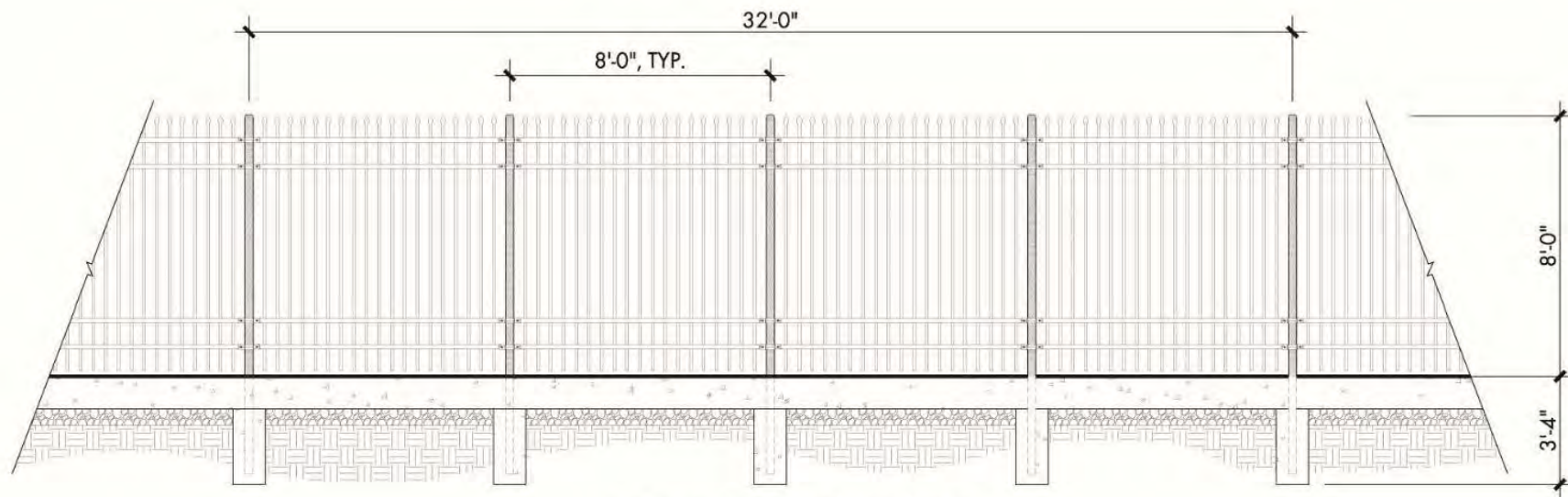
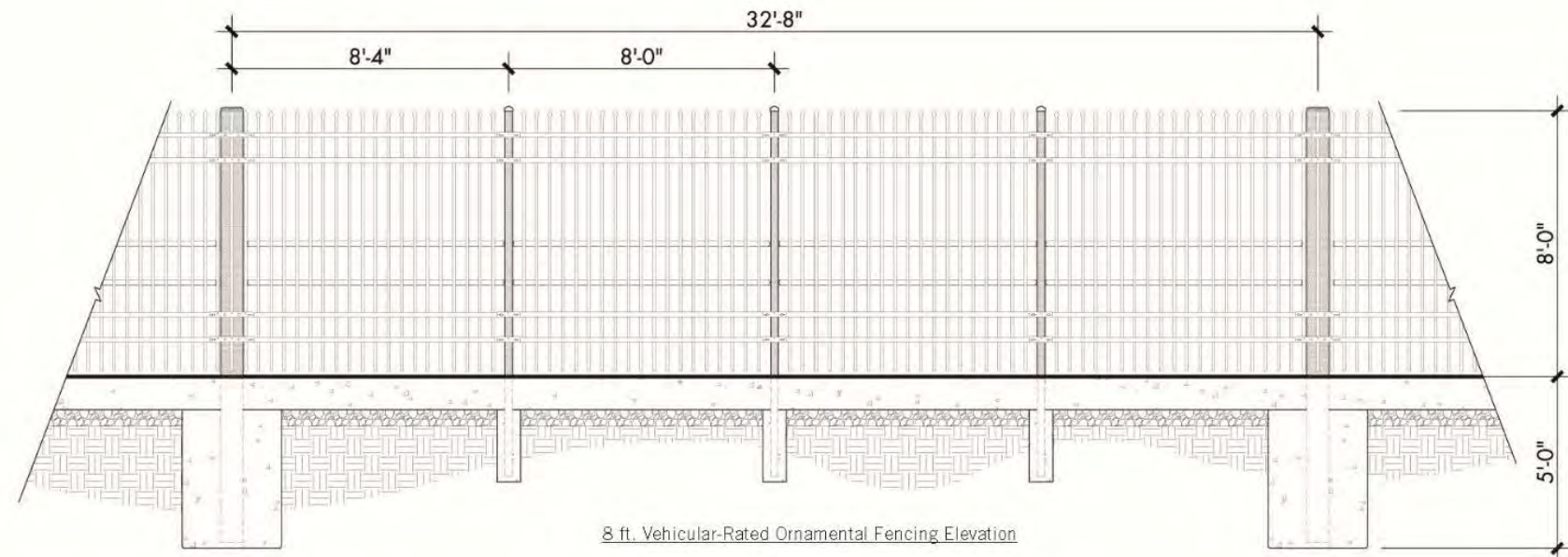


Figure 6b



8 ft. Pedestrian Ornamental Fencing Elevation



8 ft. Vehicular-Rated Ornamental Fencing Elevation

Pedestrian Fence

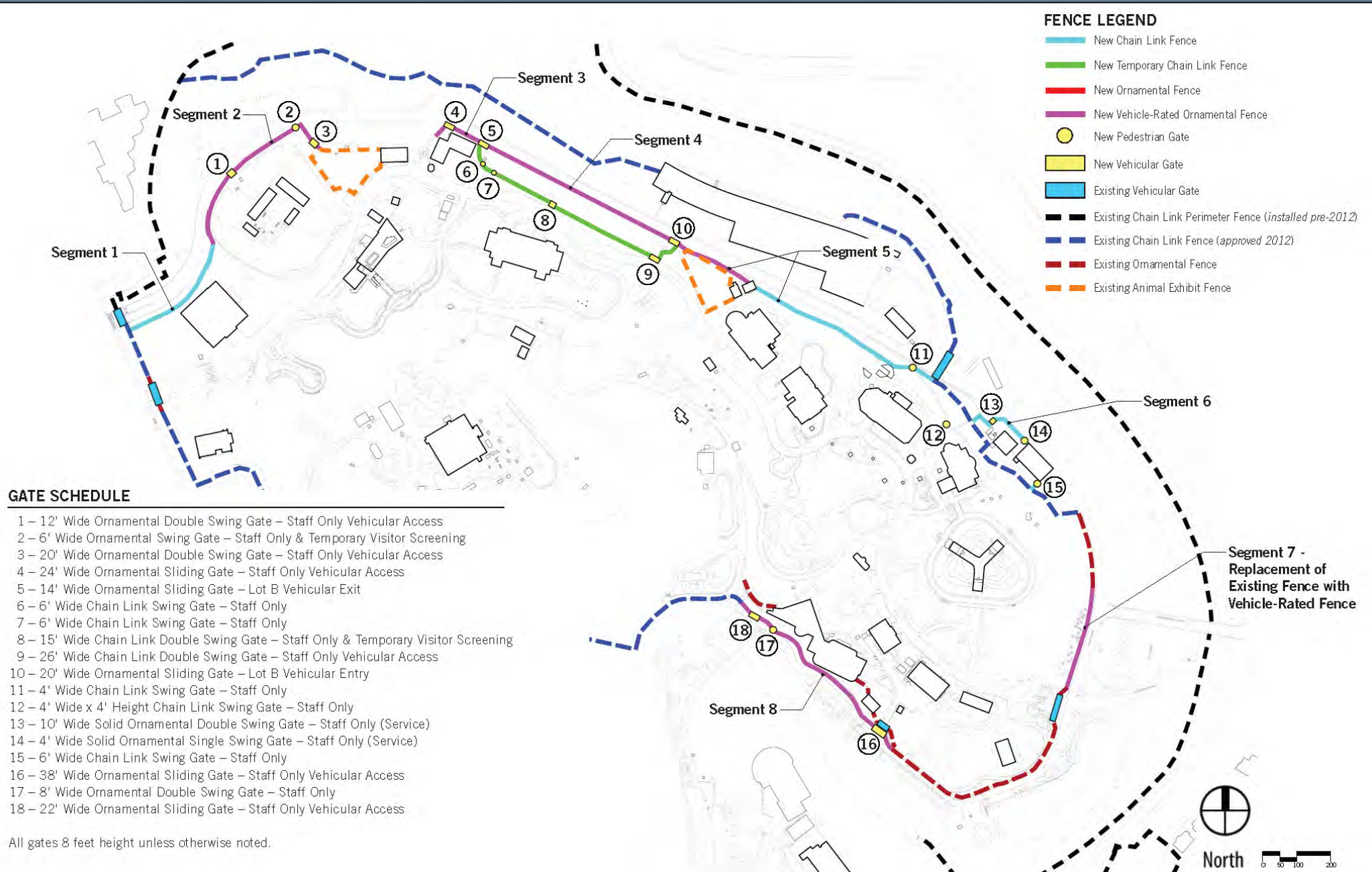


Figure 8b - Existing Pedestrian Ornamental Fencing next to Kids' Farm

Vehicular-Rated Fence



Figure 8d - Proposed Vehicular-Rated Ornamental Fencing



Swing Gate



Figure 1c - Double Leaf Swing Gate

Pedestrian Gate

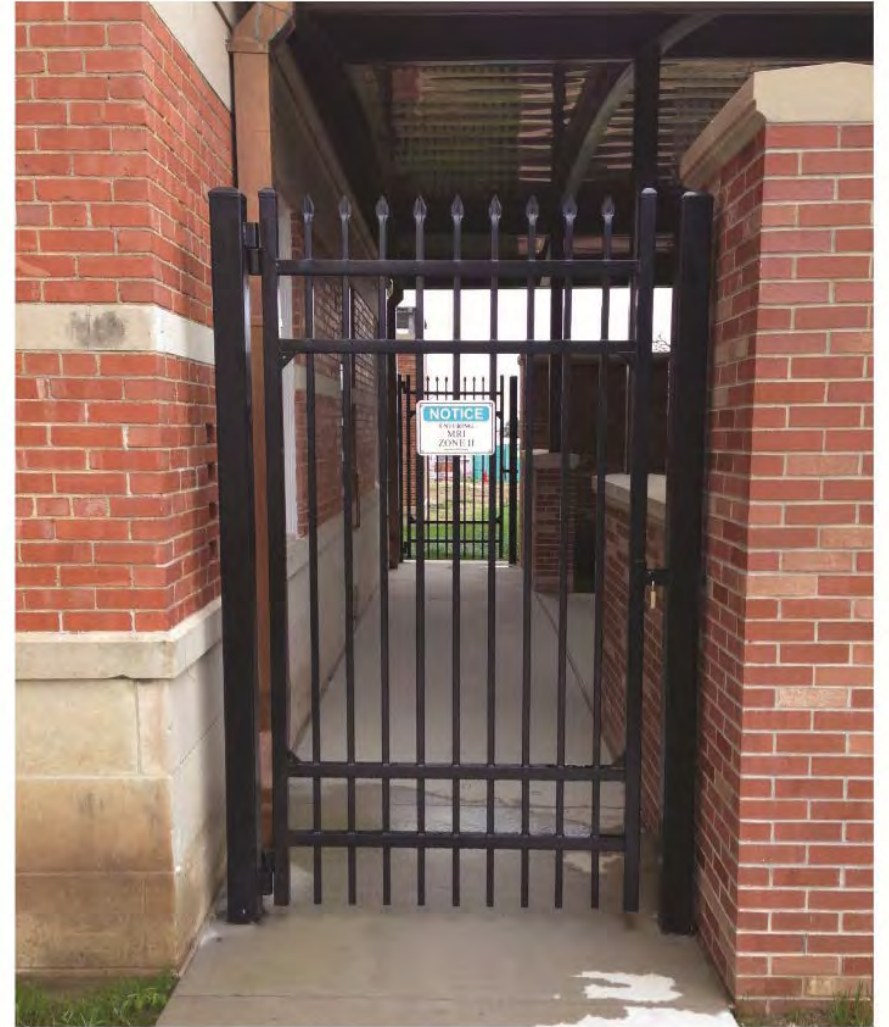


Figure 1d - Single Leaf Swing Gate

Slide Gate



Figure 8c - Existing Ornamental Sliding Gate

Phase 1 - Fencing Segments



Proposed Location of Ornamental Fence Looking Southwest Across North Road

LEGEND

- New Chain Link Fence
- New Temporary Chain Link Fence
- New Ornamental Fence
- New Vehicle-Rated Ornamental Fence
- New Pedestrian Gate
- New Vehicular Gate
- Existing Vehicular Gate
- - - Existing Chain Link Perimeter Fence (installed pre-2012)
- - - Existing Chain Link Fence (approved 2012)
- - - Existing Ornamental Fence
- - - Existing Animal Exhibit Fence
- Fence Segment Highlight
- Photograph View Location

Segment 1 - Connecticut Avenue to Visitor Center

A chain link fence will be placed along the top of the slope and continue to the Visitor Center garage access. The existing chain link section from the stone gateway pier at North Road to the Olmsted Walk entrance at Connecticut Avenue will remain. (Figure 24).

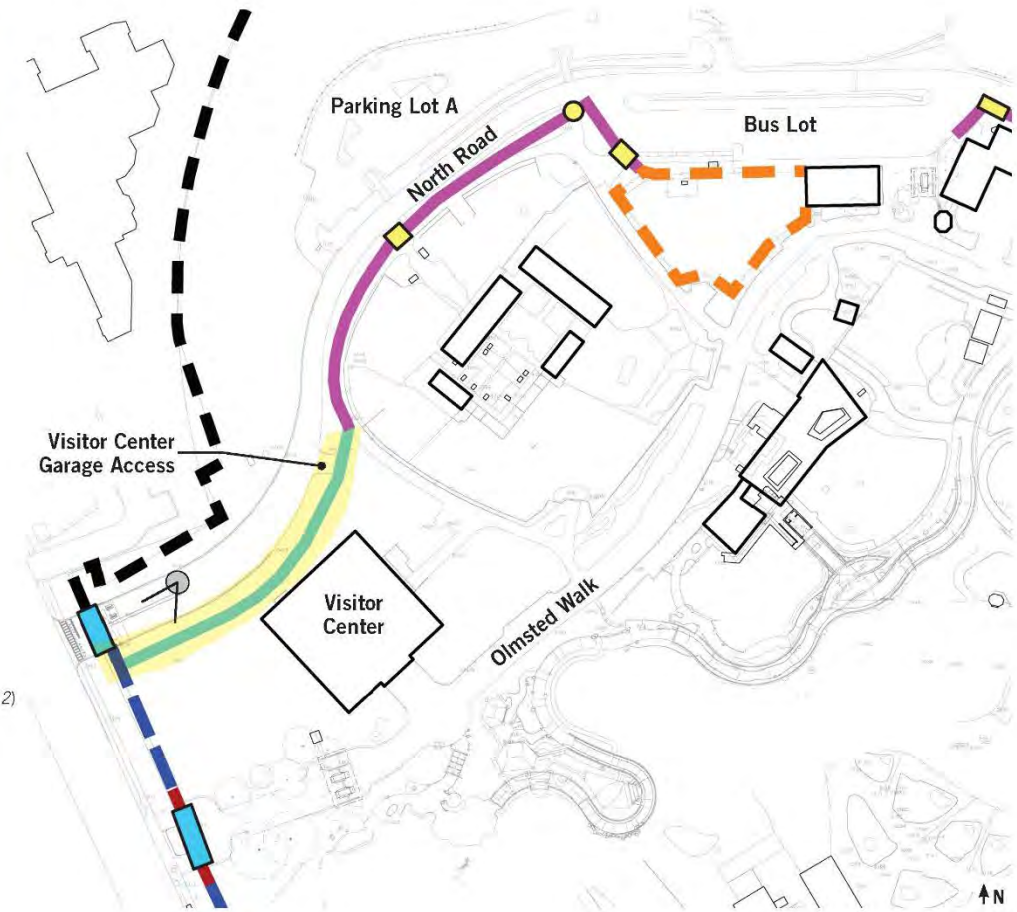
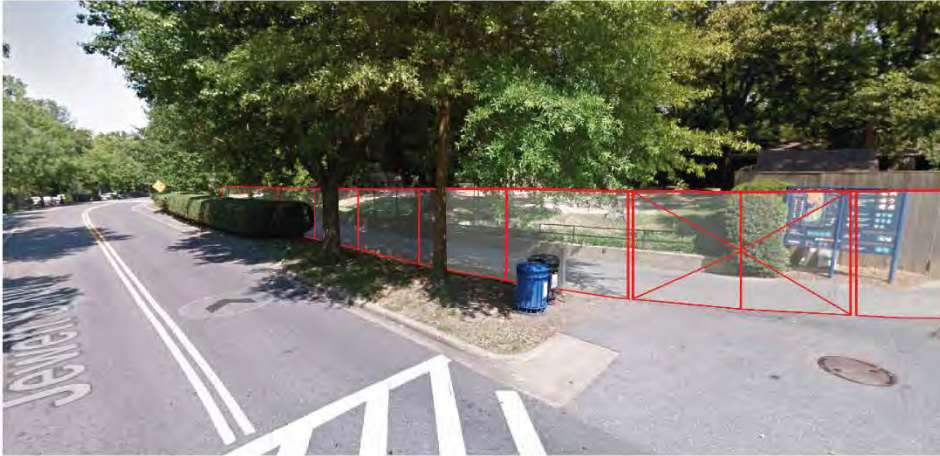


Figure 24

Segment 2 – Visitor Center to Bus Drop-Off



Proposed Location of Vehicle-Rated Ornamental Fence Looking Northeast Opposite Lot A



Proposed Location of Vehicle-Rated Ornamental Fence at North End of Bus Lot

LEGEND

- New Chain Link Fence
- New Temporary Chain Link Fence
- New Ornamental Fence
- New Vehicle-Rated Ornamental Fence
- New Pedestrian Gate
- New Vehicular Gate
- Existing Vehicular Gate
- Existing Chain Link Perimeter Fence (*installed pre-2012*)
- Existing Chain Link Fence (*approved 2012*)
- Existing Ornamental Fence
- Existing Animal Exhibit Fence
- Fence Segment Highlight
- Photograph View Location

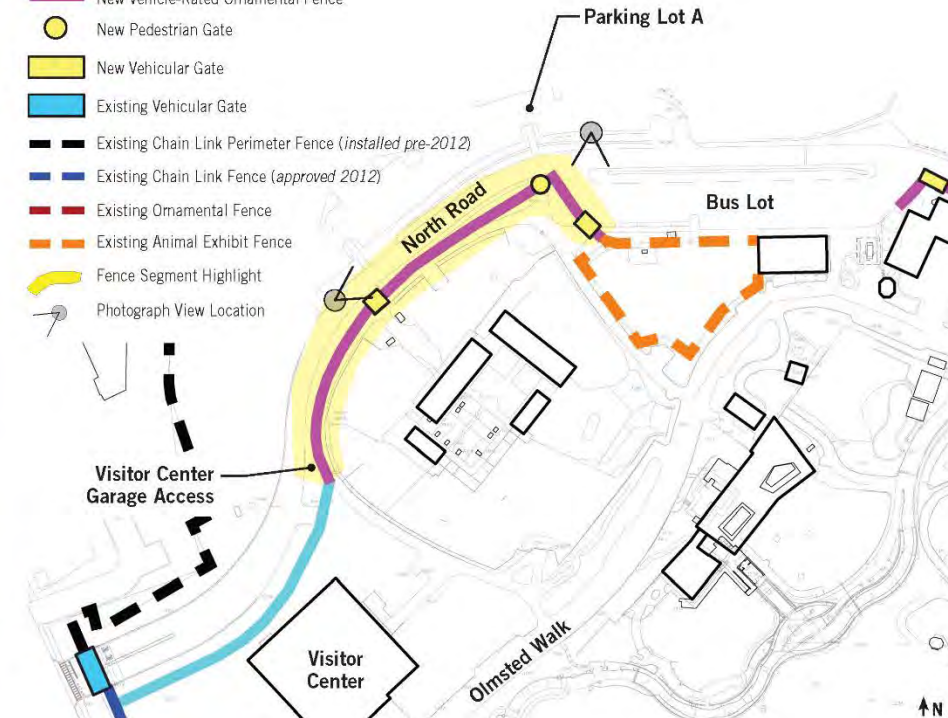


Figure 25

Segment 2 - Visitor Center to the Bus Drop-Off

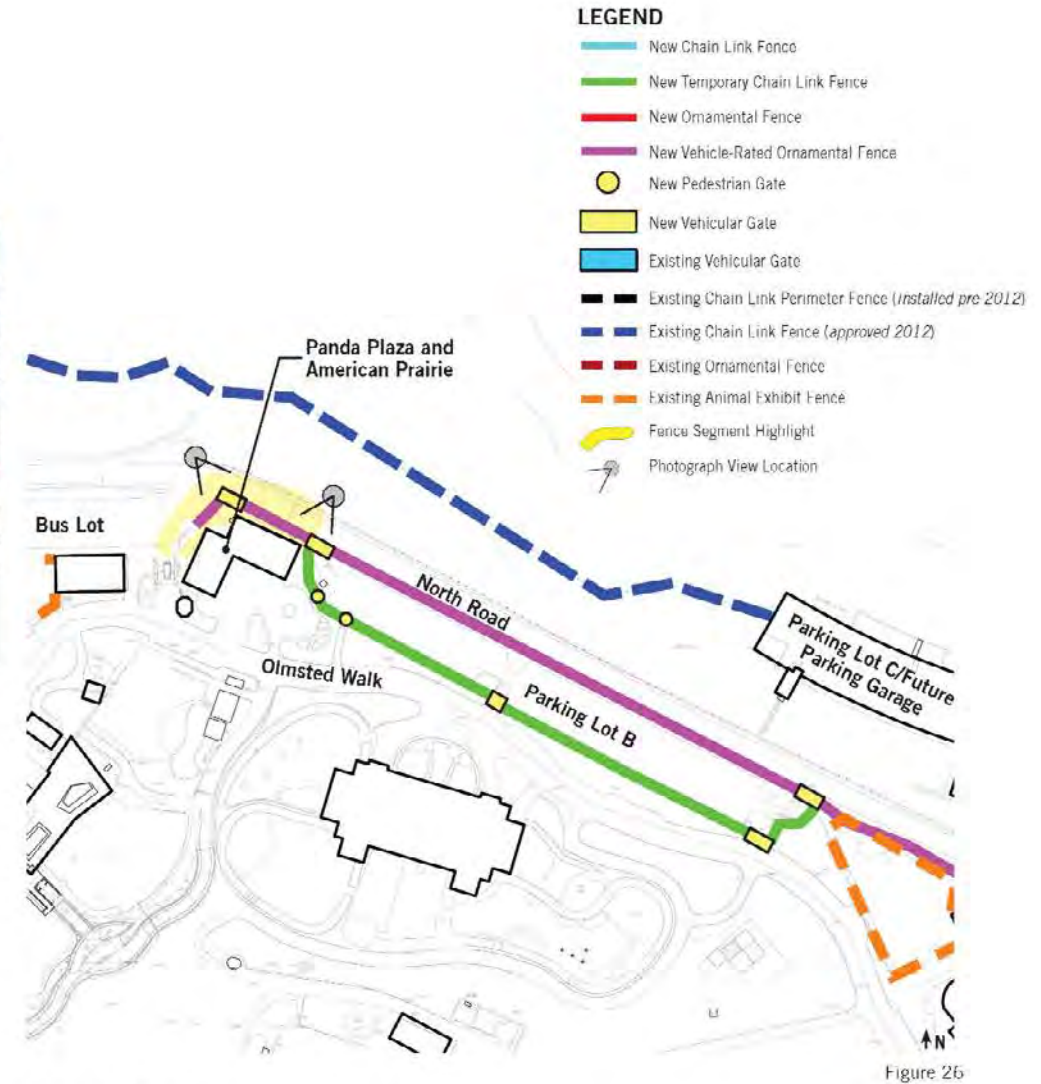
From the Visitor Center, an eight-foot (8) vehicle-rated ornamental metal fencing will follow the existing internal asphalt walkway to separate Zoo visitors from North Road and Parking Lot A. One double leaf swinging service gate will provide Zoo staff access into animal exhibit areas. A second double leaf swinging gate will be provided at the crosswalk near the entrance to the Bus Lot. This gate will provide visitor access from Parking Lot A and provide OPS the opportunity to screen visitors as needed. This is considered a temporary condition while the Central Parking Facility is under construction; once the CPF is open, Lot A will be decommissioned. The third gate directly off the Bus Lot will provide access for larger Zoo service trucks. From this point, an existing ten-foot height wood stockade fence secures the Zoo along the length of the Bus Drop-Off Area (Figure 25). The vehicle-rated fence along North Road will be considered an interim condition until the opening of the CPF and the decommissioning of Lot A allows the future animal exhibit expansion and reconfiguration of North Road.



Proposed Location of Vehicle Rated Ornamental Fence Looking Southeast Behind Panda Plaza at the Bus Lot Exit

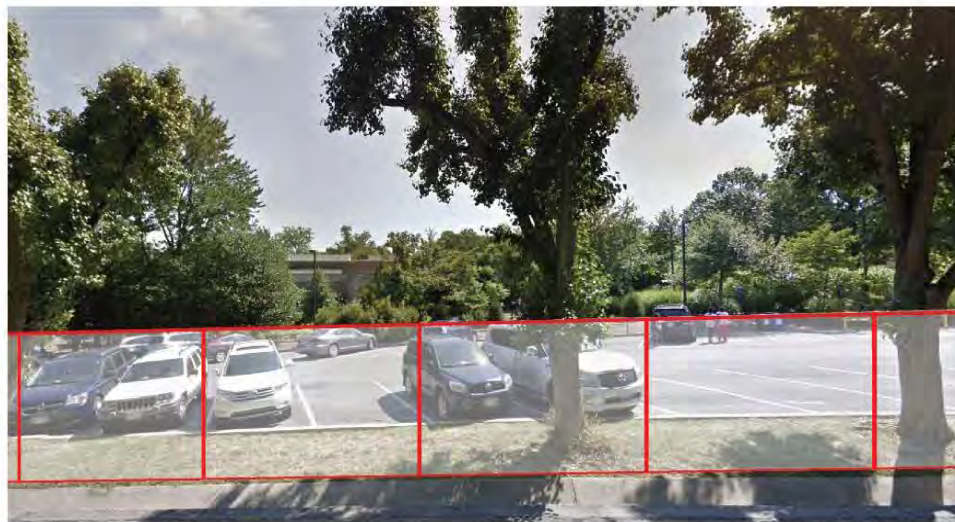


Proposed Location of Vehicle-Rated Ornamental Fence Looking Southwest Behind Panda Plaza at the Lot B Exit



Segment 3- Panda Plaza

An eight-foot (8) vehicular-rated ornamental metal fence will extend from the Bus Lot around the service buildings that provide food service for the Panda Plaza gift shop and American Prairie. A sliding metal gate, matching the vehicle-rated ornamental fencing, will be required to provide access to the service yard from North Road (Figure 26).



Proposed Location of Vehicle-Rated Ornamental Fence Looking Southwest Next to Lot B



Proposed Location of Vehicle-Rated Ornamental Fence and Matching Gate Looking Southwest at Lot B

LEGEND

- New Chain Link Fence
- New Temporary Chain Link Fence
- New Ornamental Fence
- New Vehicle-Rated Ornamental Fence
- New Pedestrian Gate
- New Vehicular Gate
- Existing Vehicular Gate
- Existing Chain Link Perimeter Fence (*installed pre-2012*)
- Existing Chain Link Fence (*approved 2012*)
- Existing Ornamental Fence
- Existing Animal Exhibit Fence
- Fence Segment Highlight
- Photograph View Location

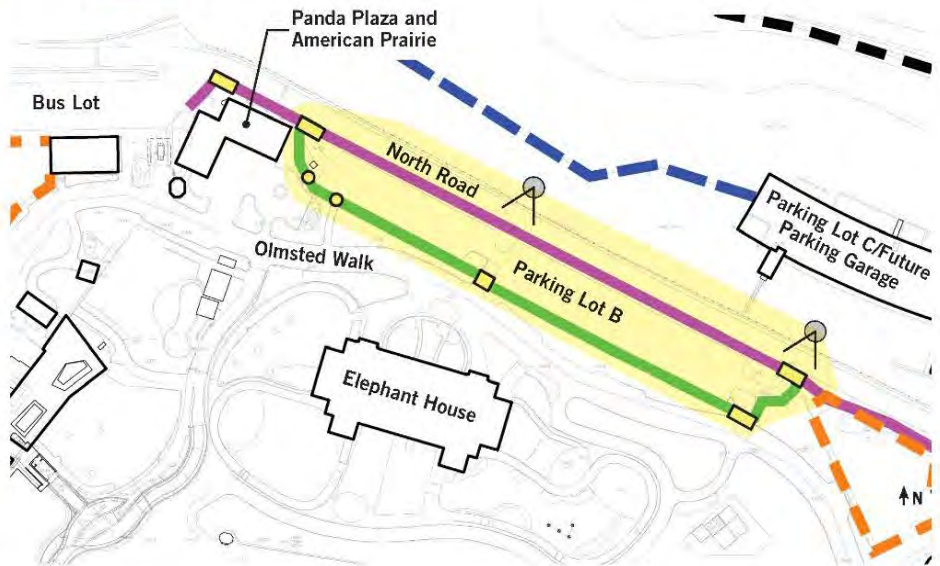


Figure 27

Segment 4 – Parking Lot B

An eight-foot (8) vehicle-rated ornamental metal fence will extend along North Road to secure Parking Lot B. This fencing will serve as the new and long-term permanent containment and security edge for the Zoo, as it is anticipated that Lot B will become animal exhibit space when the Central Parking Facility is completed. Two sliding metal gates, matching the vehicle-rated fencing, will be installed to provide access to and from Parking Lot B from North Road.

In addition to the ornamental fencing along North Road, a temporary chain link fence with swinging gates will provide access for Zoo staff, service vehicles and visitor access while Lot B is still in use. The fencing will be installed between Lot B and Olmsted Walk to provide additional security. The temporary fence will be removed upon completion of the CPF since Lot B will be decommissioned and converted to exhibit space shortly thereafter (Figure 27).



Proposed Location of Pedestrian Staff Gate Looking Southwest Opposite Lot C Entrance

Segment 5- Animal Exhibits to Lot C

From the sliding gate at the Lot B entrance, the eight-foot (8) ornamental vehicle-rated metal fence will continue along North Road until it meets the existing Zoo animal servicing buildings, which form the back of house operations for the Small Mammals. From here, the perimeter containment fencing will change from the ornamental type to chain-link, as this is a heavily vegetated and wooded portion of the Zoo that is not accessible to visitors and would not be visible from North Road. The chain-link will continue within the woods atop the steep embankment until it runs down the slope and ties into the existing chain-link fencing adjacent to the Power Plant (Figure 28).

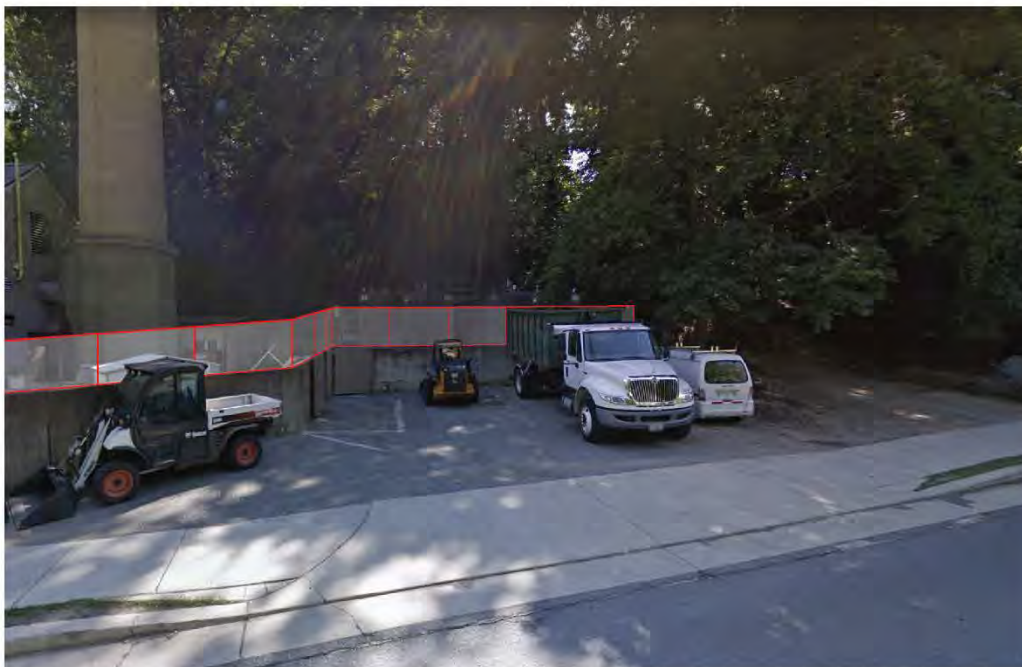
An 4' pedestrian gate will be installed in the fence where it crosses the base of the existing walkway opposite Lot C. The gate in this location will be secured with a magnetic card reader for Zoo staff. To prevent visitors from wandering down the path, a short 4' "Staff Only" gate will be placed at the top of the stairs to restrict access.



Figure 28

LEGEND

New Chain Link Fence	Existing Chain Link Perimeter Fence (<i>installed pre-2012</i>)
New Temporary Chain Link Fence	Existing Chain Link Fence (<i>approved 2012</i>)
New Ornamental Fence	Existing Ornamental Fence
New Vehicle-Rated Ornamental Fence	Existing Animal Exhibit Fence
New Pedestrian Gate	Fence Segment Highlight
New Vehicular Gate	Photograph View Location
Existing Vehicular Gate	



Proposed Location of Ornamental Fence Looking Southwest Next to the Power Plant

LEGEND

- New Chain Link Fence
- New Temporary Chain Link Fence
- New Ornamental Fence
- New Vehicle-Rated Ornamental Fence
- New Pedestrian Gate
- New Vehicular Gate
- Existing Vehicular Gate
- Existing Chain Link Perimeter Fence (installed pre-2012)
- Existing Chain Link Fence (approved 2012)
- Existing Ornamental Fence
- Existing Animal Exhibit Fence
- Fence Segment Highlight
- Photograph View Location

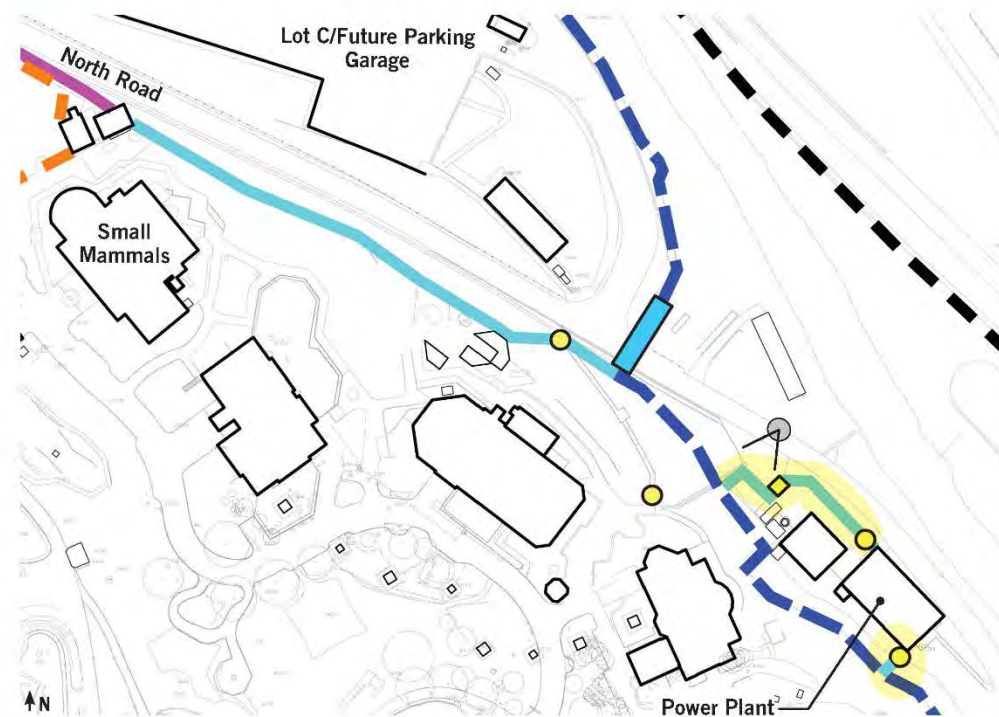


Figure 29

Segment 6- Power Plant

Supplemental chain link fencing will be used to secure the Power Plant area. Chain link fencing will follow along or be integrated into the existing flood control walls and gates that surround the Power Plant. The staff parking area will be left as is. Existing chain link fencing is located within the woodland area behind the Power Plant and ties into the existing eight-foot (8) ornamental metal fence that extends to the Lower Zoo entry point, thus securing and isolating the Power Plant from the main Zoo (Figure 29).

Segment 7 – Existing Fence Opposite Harvard Street Bridge



Proposed Location of Existing Ornamental Fence to be Replaced with Vehicle-Rated Fencing

Segment 7- Existing Ornamental Fence Opposite Harvard Street Bridge

The existing ornamental metal fence will be replaced with vehicle-rated ornamental fencing between the Lower Zoo entry plaza and the intersection of North Road and Harvard Street. The new fencing will be the same height and general configuration as the existing fencing to remain (Figure 30).

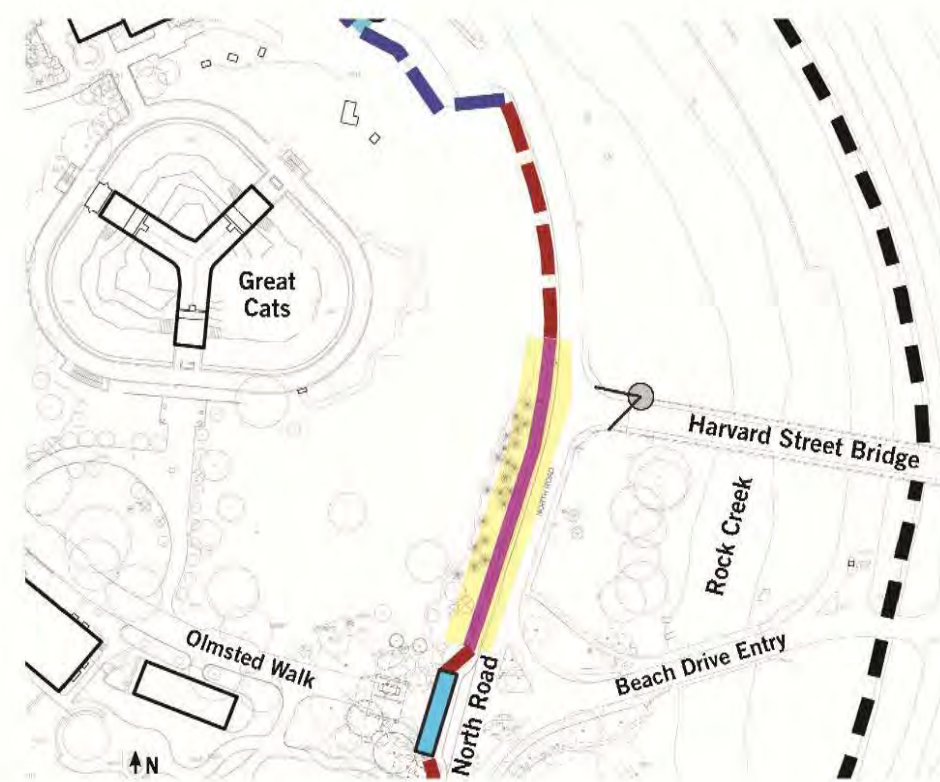


Figure 30

LEGEND

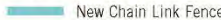
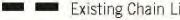
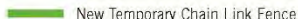
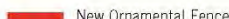
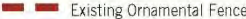
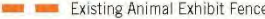
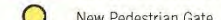
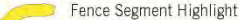
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|  New Chain Link Fence |  Existing Chain Link Perimeter Fence (<i>installed pre-2012</i>) |
|  New Temporary Chain Link Fence |  Existing Chain Link Fence (<i>approved 2012</i>) |
|  New Ornamental Fence |  Existing Ornamental Fence |
|  New Vehicle-Rated Ornamental Fence |  Existing Animal Exhibit Fence |
|  New Pedestrian Gate |  Fence Segment Highlight |
|  New Vehicular Gate |  Photograph View Location |
|  Existing Vehicular Gate | |

Segment 8 – Mane Service Yard to Amazonia



Proposed Location of Vehicle-Rated Ornamental Fence Looking Southeast Across North Road toward Amazonia

LEGEND

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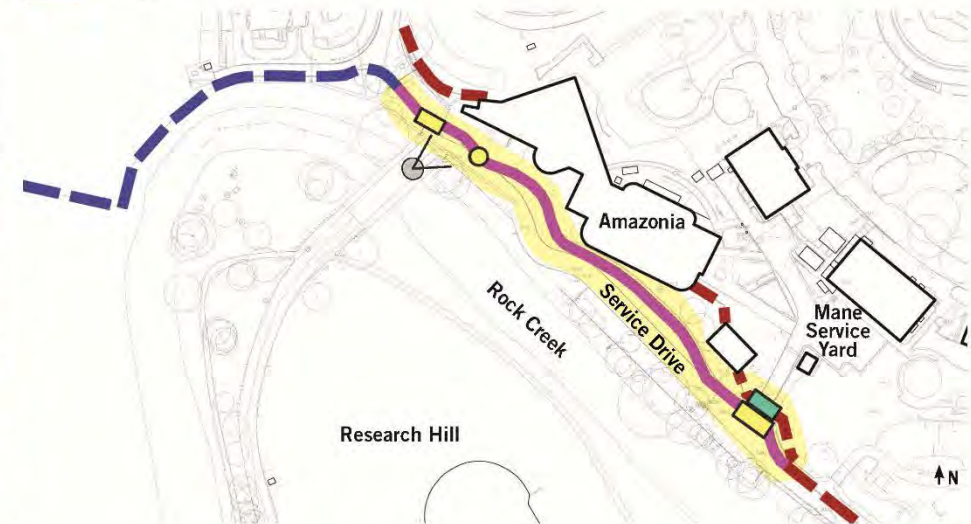


Figure 31

Segment 8- Mane Service Yard To Amazonia

The existing eight-foot (8) Ornamental metal fence that secures the Zoo along the Lower Service Drive to the Mane Service Yard vehicular gate from the Lower Zoo Entry will remain as is. However, the fencing will need to be extended and a new gate provided to maintain an internal pedestrian path while still controlling vehicular access. The existing black ornamental metal sliding gate will remain with a longer similar sliding gate added on the exterior. The parallel gates will restrict visitor access to the Mane Service Yard area as pedestrians move between Amazonia and the Kids Farm area, while still maintaining controlled vehicular access to this area.

From the new sliding gate the eight-foot (8) Ornamental metal fencing will continue along the existing walkway to the bridge over Rock Creek. Swinging metal gates and a new ornamental sliding gate will be placed for staff pedestrian and vehicular access to Amazonia and the valley portions of the Zoo from Research Hill (Figure 31). Visitor Access from this point will no longer be possible.