

Section Two **DESIGN GUIDELINES**

TYPICAL ARTERIAL STREET CROSSING  
PLAN

BIRD ROAD (SW 40TH ST.) CROSSING

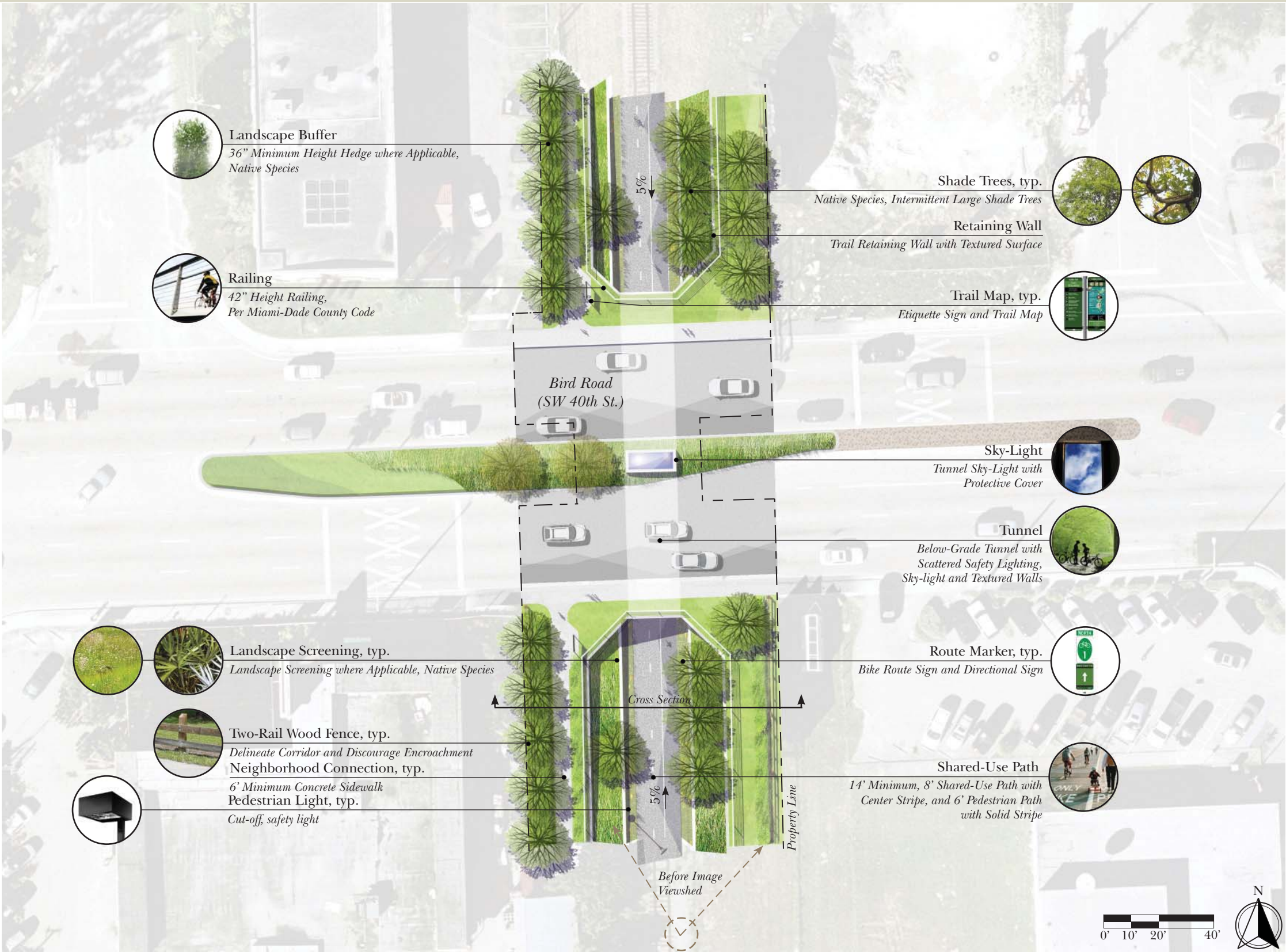
The Bird Road crossing is a unique opportunity to build upon the Miami-Dade County Parks and Open Space System Master Plan’s Great Greenways, Trails and Water Trail Vision and Great Streets Vision through the development of a safe road crossing and protection of Bird Road’s viewshed.

Located adjacent to A.D. Barnes Park, this crossing highlights the use of below-grade crossing techniques to ensure a safe pedestrian crossing of a major arterial road along with neighborhood connectivity.

With a 2008 Florida Department of Transportation Annual Average Daily Traffic count of 68,000 vehicles and a forecasted count of 90,000+ vehicles by 2017, Bird Road is the busiest street Ludlam Trail crosses within the 7.4 mile corridor.

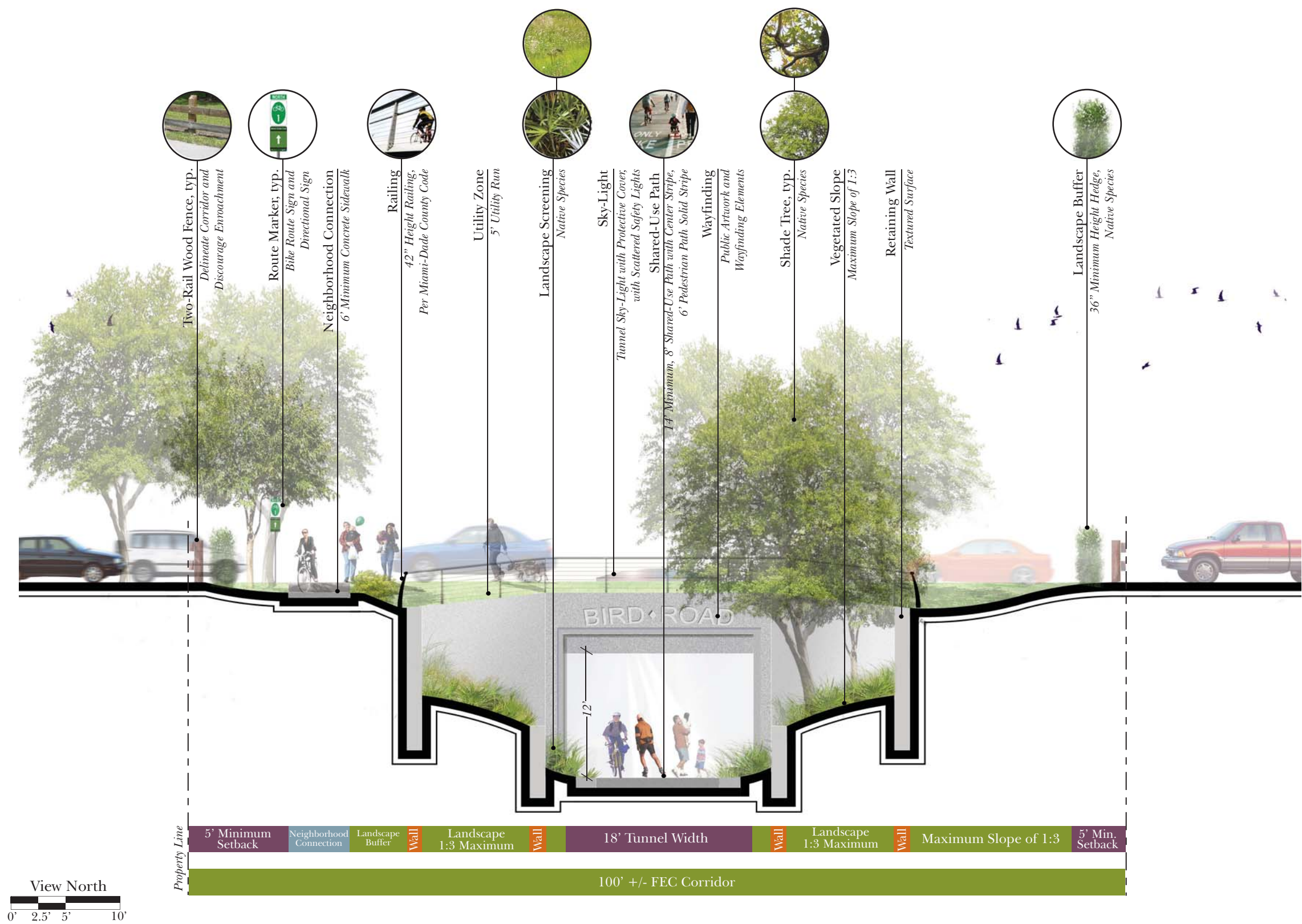
Highlights of the plan include:

- Typical below-grade crossing of an arterial road.
- Neighborhood and street sidewalk network connections.
- Non-residential zoning along trail corridor.
- Opportunity to incorporate public artwork.
- Protection of road viewshed.
- Limited visual impact on surrounding community.
- Wide vertical viewshed from trail for an open feel.
- Sky-light within median for maximum natural light.





Section Two DESIGN GUIDELINES



TYPICAL ARTERIAL STREET CROSSING  
CROSS-SECTION

BIRD ROAD (SW 40TH ST.) CROSSING

A below-grade crossing can pose several challenges with user safety being the most important. For Ludlam Trail, a below-grade crossing is utilized to preserve Bird Road's viewshed and have limited impact on the surrounding community while still providing for a safe pedestrian crossing of a six (6) lane divide roadway. For users, a tunnel means a drop in elevation to below the horizon. This condition can make trail users uncomfortable, however, for Ludlam Trail, efforts were taken to develop a standard below-grade crossing that will provide a brightly lit tunnel with surrounding vegetation, artwork and an overall feeling of openness.

The tunnel opening should be a minimum of eighteen (18) feet wide to allow for a fourteen (14) foot trail and a two (2) foot shoulder. Trail widths should not be constricted at tunnels, as this condition makes users feel uncomfortable. The minimum height of the tunnel should be twelve (12) feet to allow for maximum user capabilities and comfort. High intensity lighting is shown throughout the tunnel and a sky-light is located in the roadway median to provide maximum natural lighting and improve tunnel visibility.

Grading along the tunnel approach should allow for open views to the horizon. Where applicable, walls should be set back from the trail a minimum of five (5) feet with three (3) to four (4) foot walls utilized adjacent to the trail. Higher walls, those above four (4) feet should be located a minimum of fifteen (15) feet from the trail edge to allow for landscape screening and grading.





Section Two **DESIGN GUIDELINES**

TYPICAL ARTERIAL STREET CROSSING  
PLAN

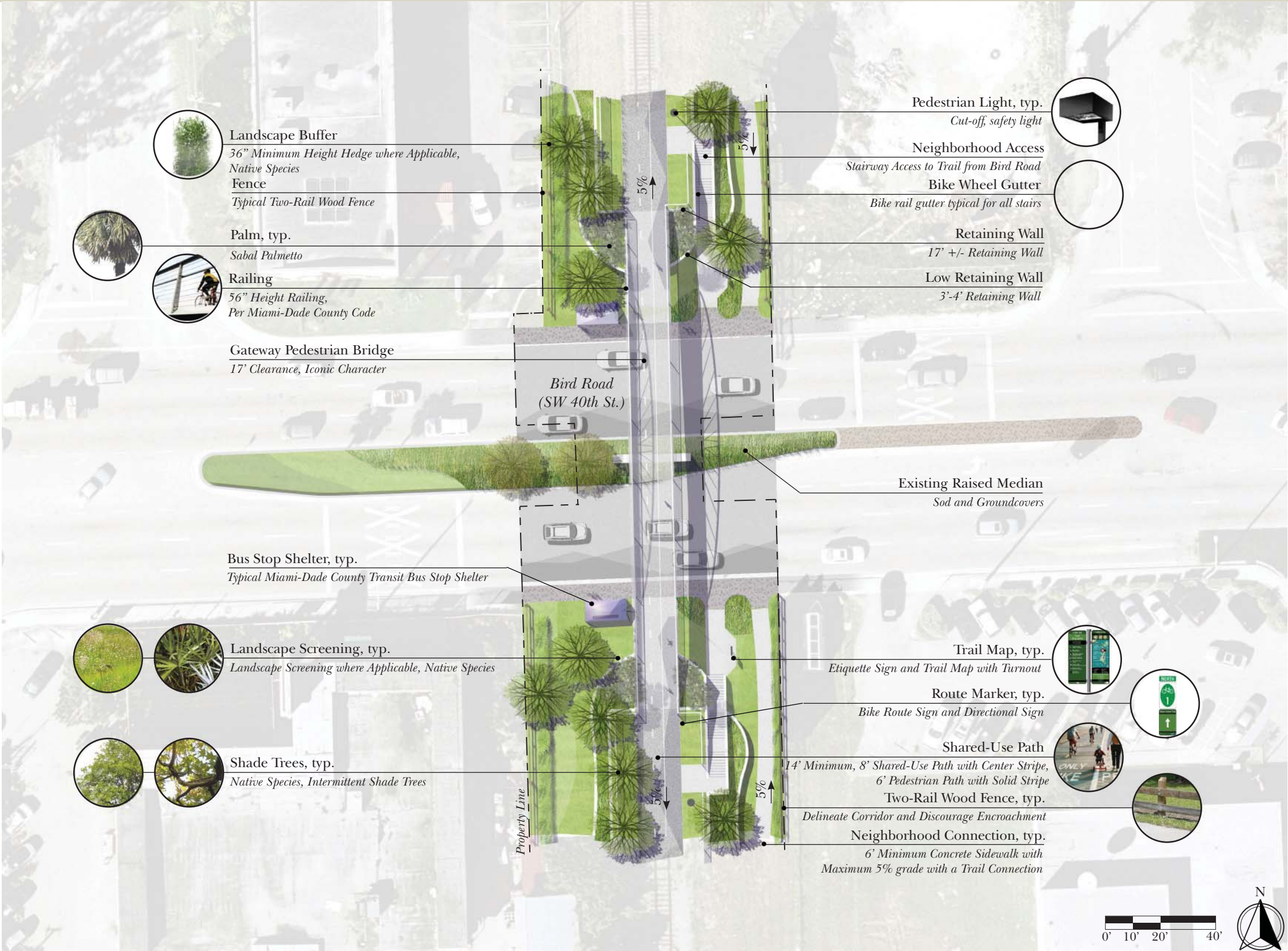
BIRD ROAD (SW 40TH ST.) CROSSING

With forecasted Annual Average Daily Traffic count of 90,000+ vehicles, the Bird Road highlights the need for a grade separated trail crossing to limit the potential impact to traffic flow. Near gridlock has been observed during morning commutes. Additional constraints such as a high water table and existing utilities, could underscore the potential need for an above-grade crossing.

Two (2) solutions are presented for Bird Road, both highlighting a specific principle. An above-grade crossing may be preferred due to an increased construction cost and the roadway impacts of a below-grade crossing. A below-grade crossing may be desired to preserve the roadway viewshed of nearby A.D. Barnes Park and nearby businesses.

Highlights of the plan include:

- Typical above-grade crossing of an arterial road.
- Neighborhood and street sidewalk network connections.
- Non-residential zoning along trail corridor.
- Aesthetically pleasing retaining wall system.
- Pedestrian connections at bridge.





Section Two **DESIGN GUIDELINES**

TYPICAL ARTERIAL STREET CROSSING

BIRD ROAD (SW 40TH ST.) CROSSING

**BEFORE IMAGE**

Maximum potential lays within the ‘before’ image of the Bird Road crossing to the right. Potential to spark redevelopment of the Bird Road corridor with transit oriented housing and businesses are matched with opportunities to provide a safe crossing of the six (6) lane road.





Section Two **DESIGN GUIDELINES**



*Ludlam Trail Below-Grade Crossing at Bird Road (SW 40th St.) looking north*

**TYPICAL ARTERIAL STREET CROSSING**

**BIRD ROAD (SW 40TH ST.) CROSSING**

**AFTER IMAGE**

The Bird Road 'after' image shows what a below-grade crossing of the highly trafficked roadway may look like from the trail. Emphasis is given to planning a safe yet comfort tunnel which provides an open feel for trail users with 'stepped' retaining walls and a balanced landscape of native shrubs, groundcovers and shade trees intended not to overwhelm trail users as they approach the tunnel.

