3.2.3 Crossing

In order to make a safe crossing, a redundancy of measures should be employed that provides advanced notice to both path and motorized vehicle users. To guide appropriate actions by path users and motorist, designs should utilize a number of treatments, including but not limited to standard engineering practices. Additional treatments may include:

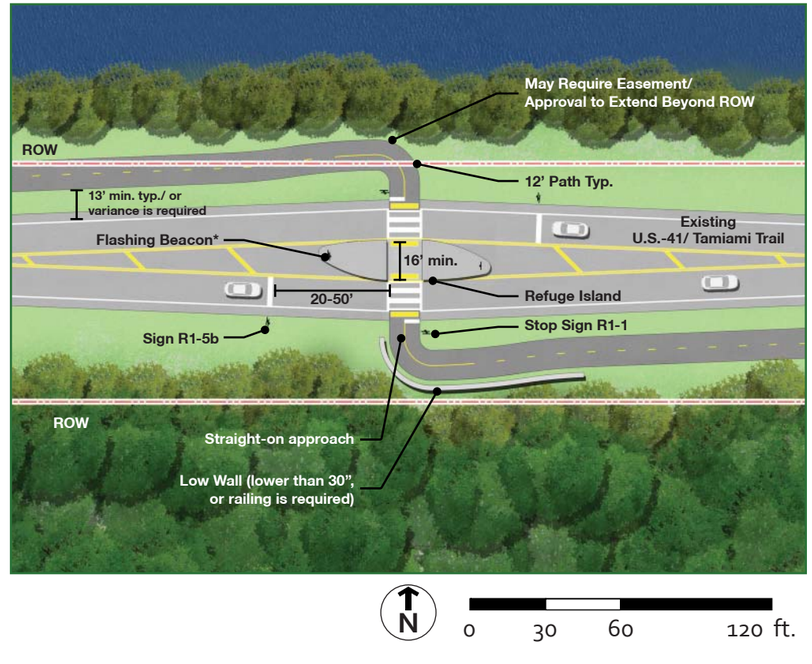
- Use of median/ refuge islands,
- Keep asphalt portion of roadway at ten (10) feet wide, then allow up to twelve (12) feet of actual space by using wider shoulders,
- Advance crossings signs,
- Multiple crossing signs at the crossing,
- Use of extra signs to create a redundancy of warnings in the crossing island,
- Use of mast arm crossing signals,
- Use of tactile color band as an identifier for crossings.

In a safe crossing, cyclists and pedestrians should be able to determine their approach and actions for each crossing, no matter how minor, at the earliest possible time and then complete a full search for traffic before making a crossing.

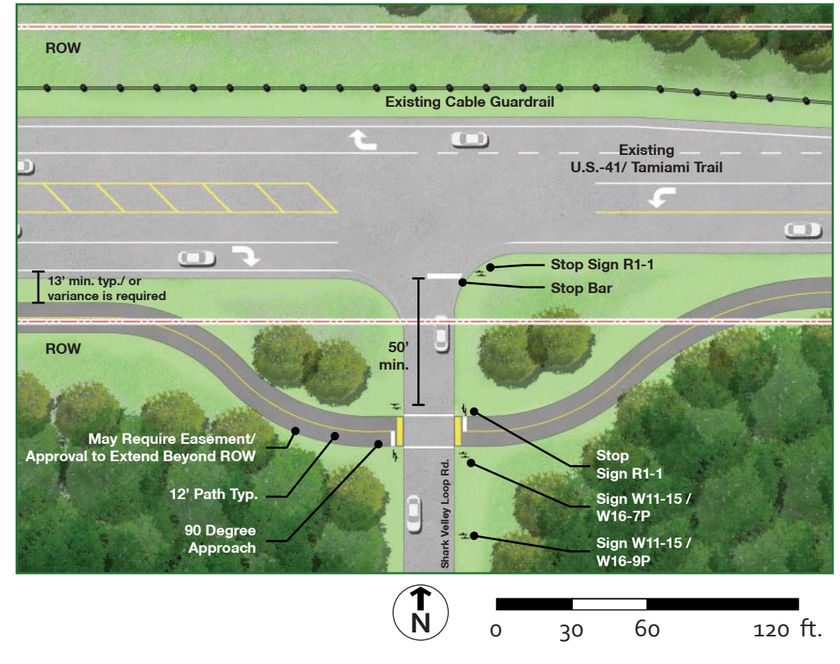
For most U.S. 41 crossings, motorized vehicle volumes will be higher than the path. In this condition, the path user is expected to yield to the motorist. In some cases, however, it is necessary to have the motorist yield such as driving crossings. These treatments are recommended for consideration to alert motorists to their approach and duties at a crossing:

- Provide motorists with advance information on a straight approach, allowing advance notice of a crossing at least six (6) seconds ahead;
- Provide signage in advance, as well as a second sign showing where the crossing can be expected;
- Eliminate any possible parking at least thirty (30) feet out with sixty (60) feet preferred;
- If a crossing is around a corner, use signage that illustrates where conflict can be expected;
- Provide high visibility markings indicating to the motorist where the crossing will occur such as high contrast lane markings;
- When possible, provide sign redundancy by placing added signs in a median or overhead location;
- Use of standard yellow warning signs is acceptable, but strong fluorescent yellow-green signing is preferred, in order to call attention to the crossing.

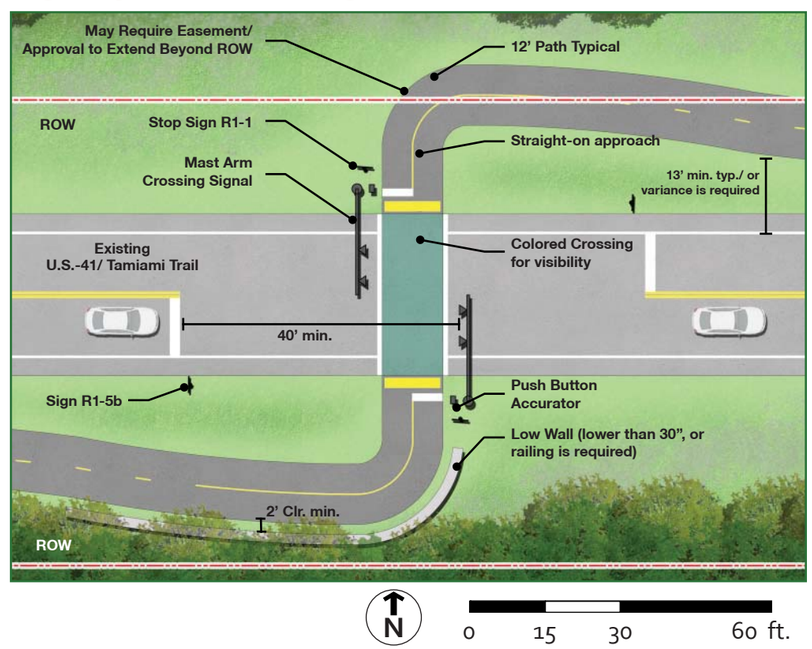
Highway/Street Crossing 'A'



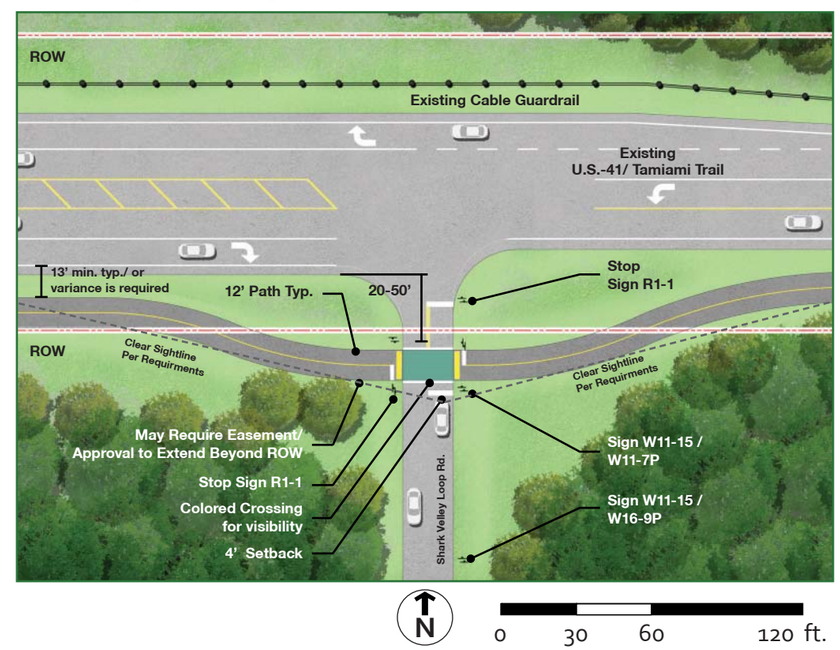
Driveway Crossing 'A'



Highway/Street Crossing 'B'



Driveway Crossing 'B'



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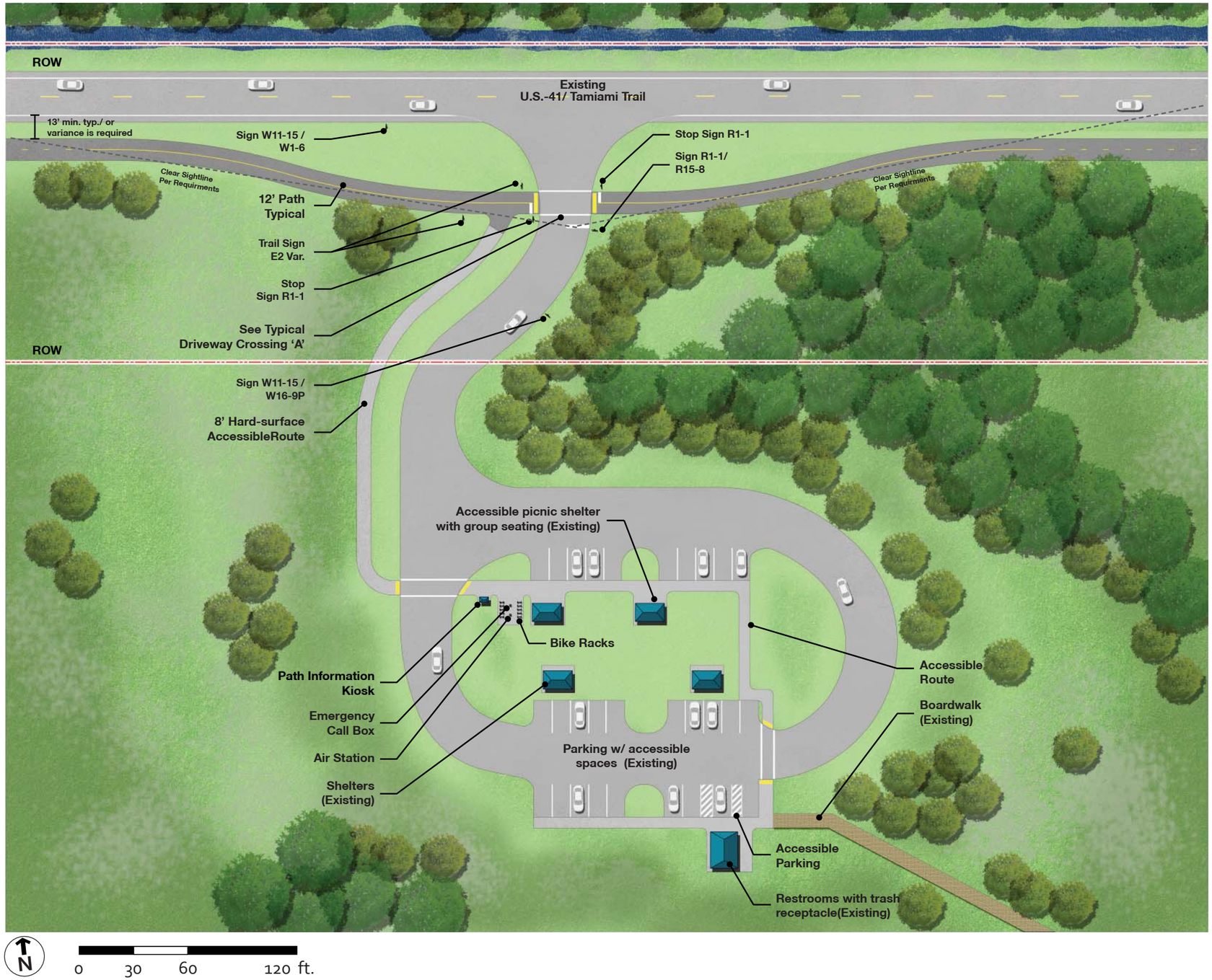
Typical Major Trailhead (Kirby Storter Roadside Park)



3.2.4 Trailheads

Successful pathways provide users with amenities and features that create a safe environment for all. Without such amenities as parking, access to water, or air for tires, projected use of a path may never be achieved. A challenge of planning a trail the length of ROGG is identifying and providing amenities and features for a wide array of potential users. In most locations, trailhead facilities already exist and are publicly accessible. Many of these facilities serve as campgrounds, tourist attractions and other points of interest along U.S. 41. In order to accomplish a complete system over an extended length, a hierarchy of trailheads is needed. This system provides most amenities and features within cycling distance while providing some amenities and features such as shelter and parking on a more regular interval. A map of trailhead types and locations is provided at the end of this section. The following is the hierarchy of trailheads used for ROGG:

- Major Trailheads
- Minor Trailheads
- Rest Areas
- Rest Stops

Major and Minor Trailheads

A series of full service trailheads may be provided along the ROGG spaced approximately 10 to 12-miles apart. Existing facilities, such as identified destinations along U.S. 41, could meet many of the services and amenities needed for ROGG. A full service trailhead should provide the following services:

- Parking for between 10-20+ automobiles,
- Drinking fountains (potable water, optional at minor),
- Trash receptacles (recycling if possible),
- Picnic shelters with shaded picnic tables (min. 3),
- Group and individual seating areas,
- Air station,
- Cellular or wire-line emergency call boxes,
- Wayfinding and interpretive signage,
- Vending machines (optional at minor trailheads),
- Toilets (optional at minor trailheads),
- Showers (optional),
- Bike Racks (minimum 3),

Rest Areas and Rest Stops

In addition to trailheads, rest areas and rest stops should also be developed throughout the ROGG Study Area. Rest areas and stops should include limited parking, storm shelters or picnic shelters, bench seating, trash receptacles, and potential emergency call boxes. At least one rest area or stop should be located between major and minor trailheads. Parking for rest stops may be parallel to U.S. 41.

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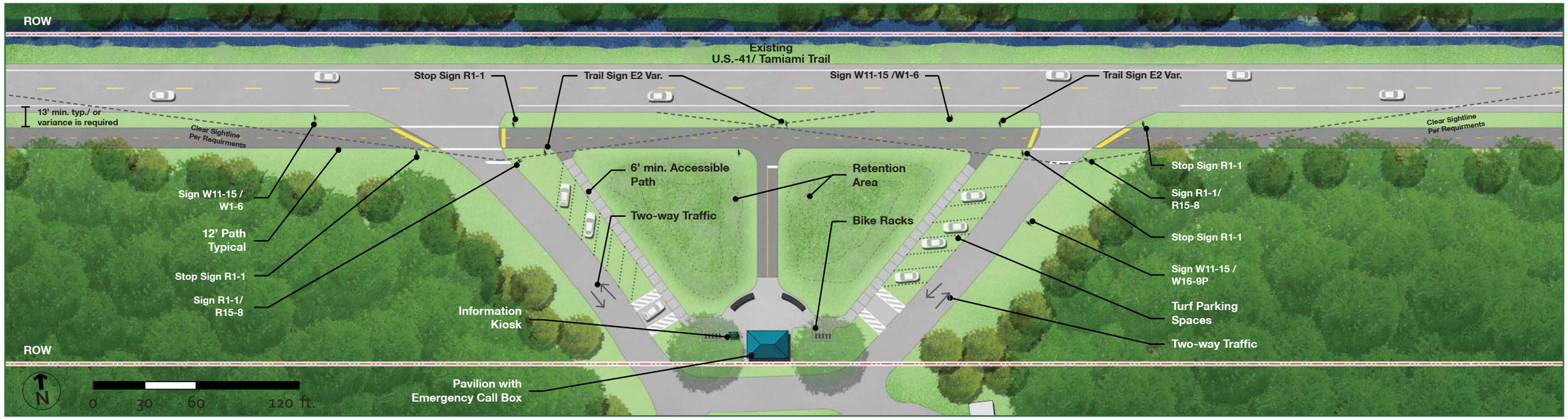
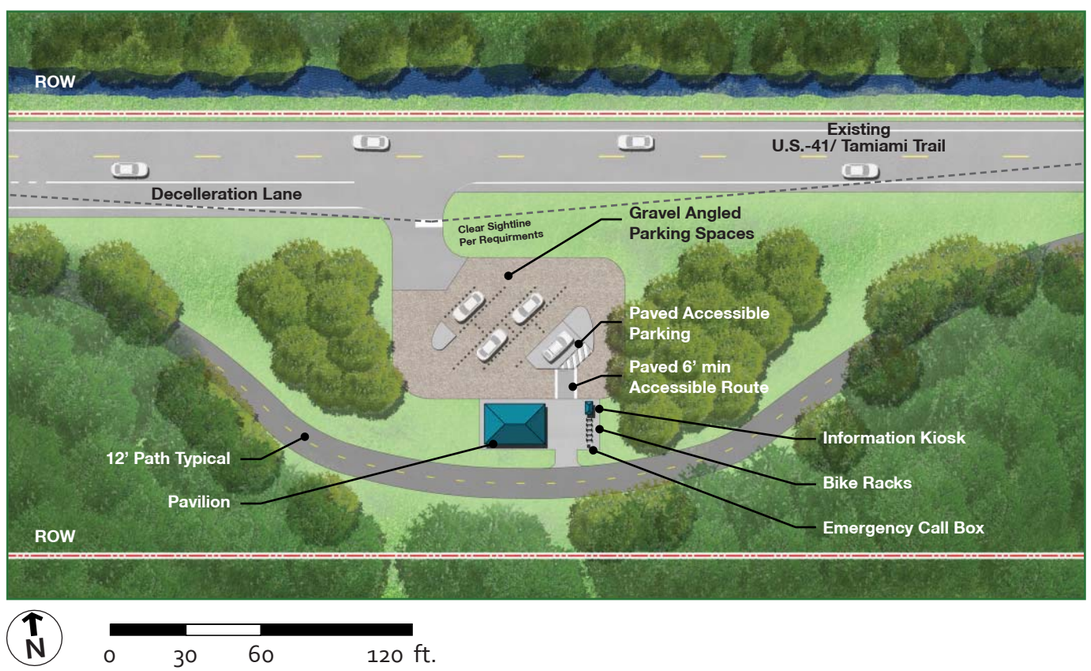
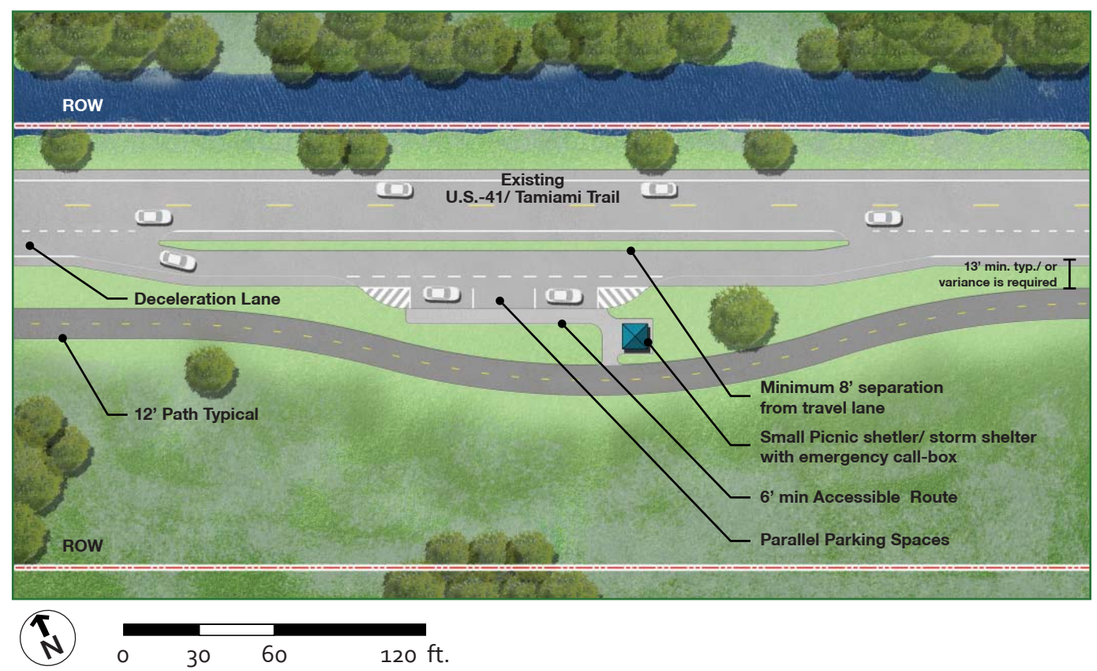
Typical Minor Trail Head (Midway Campground)



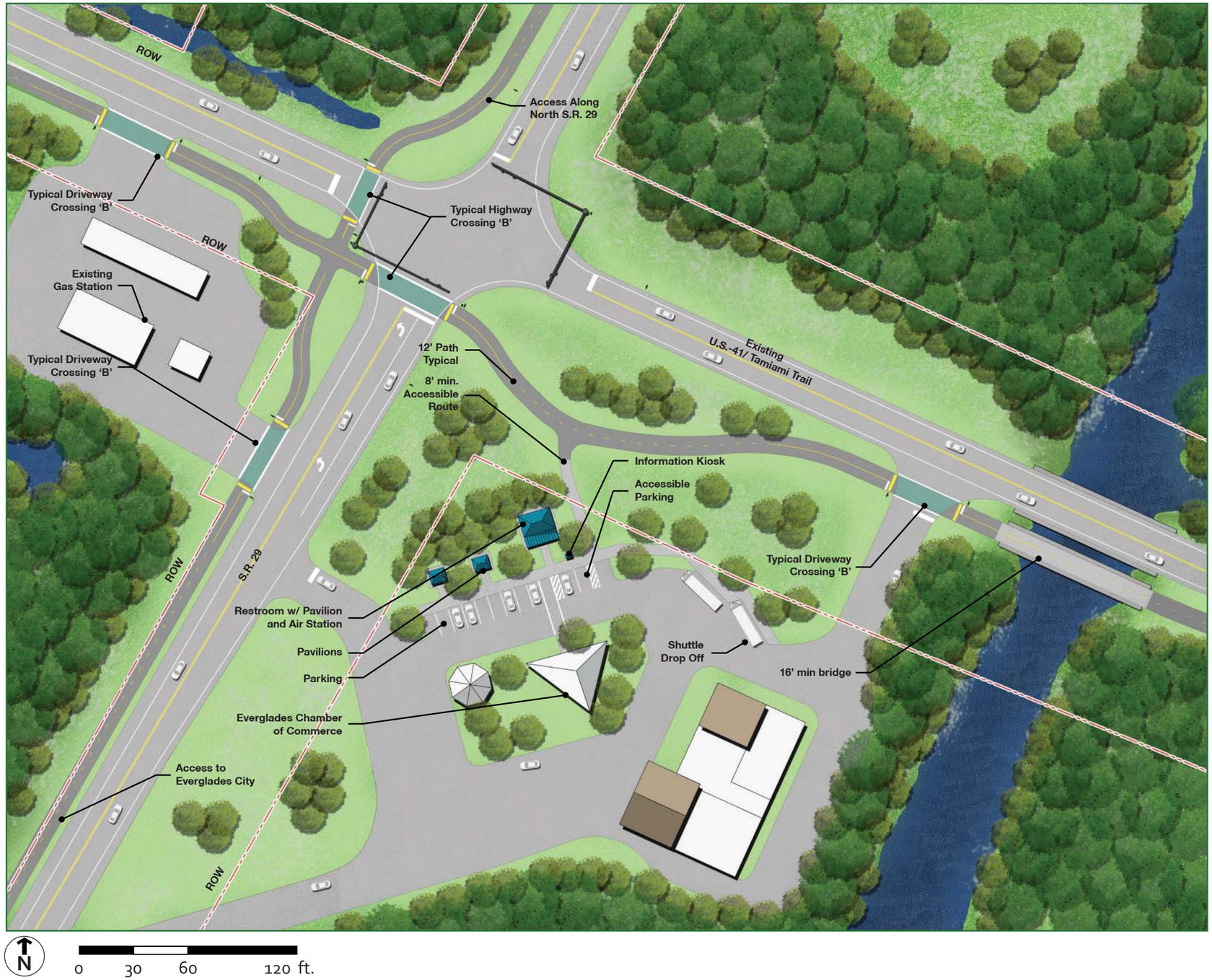
Typical Rest Area (Proposed)



Typical Rest Stop (Proposed Location)



Typical Hub (Everglades Area Chamber of Commerce - Chamber Welcome Station Site)



3.2.5 Hubs and Gateways

A complete pathway system, especially one with the length of ROGG, needs facilities that provide added amenities for users above and beyond typical trailhead offerings. These facilities may consist of food concessions, overnight accommodations, multimodal access or additional recreation opportunities. Several existing points of interest and destination facilities are located along U.S. 41 that can be sever as hubs and gateways with limited need for improvements.

Hubs

Through the ROGG Study Area, seven existing facilities may easily serve future needs of the ROGG with limited improvements. Hubs are typically facilities that include the minimum amenities of a major trailhead with added features such as transit access, visitor centers, food vending, and/or expanded parking capacity. Hubs serve as primary destinations along the path and normally experience significant numbers of visitors. Seven facilities have been identified as likely hubs and include:

- Shark Valley Entrance at Everglades National Park,
- Miccosukee Village,
- Big Cypress National Preserve - Oasis Visitor Center,
- Big Cypress Swamp Welcome Center,
- Everglades Chamber Welcome Station,
- Fakahatchee Strand Preserve State Park Welcome Center (under design),
- Port of the Island Marina.

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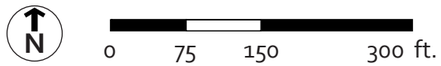
Multimodal Hubs

All path facilities should encourage multimodal use when accessing and using the ROGG, however, some facilities should be able to operate as a hub for multimodal access. A seamless connection between various modes of travel such as bicycle, shuttle, bus transit and motorized vehicles is the best way to encourage use of the ROGG with minimum impact to the environment and U.S. 41. Multimodal hubs should have easy access to bus transit routes with priority loading and unloading facilities, bus and shuttle parking, bike-share, car-share, vehicle parking and trail connectivity. A visitor center or educational facility may be appropriate due to the high number of visitors in one location.

Many paths fall short in providing this critical facility which in the case of the ROGG, will aid in reducing the impact of path users and existing visitors on U.S. 41. One facility location has been identified, near the eastern terminus of the ROGG Study Area at SW 157th Ave. This location is ideal due proximity of existing bus transit lines and availability of land for appropriate facilities and influx of parking demands during peak use periods or events.

Typical Multimodal Hub

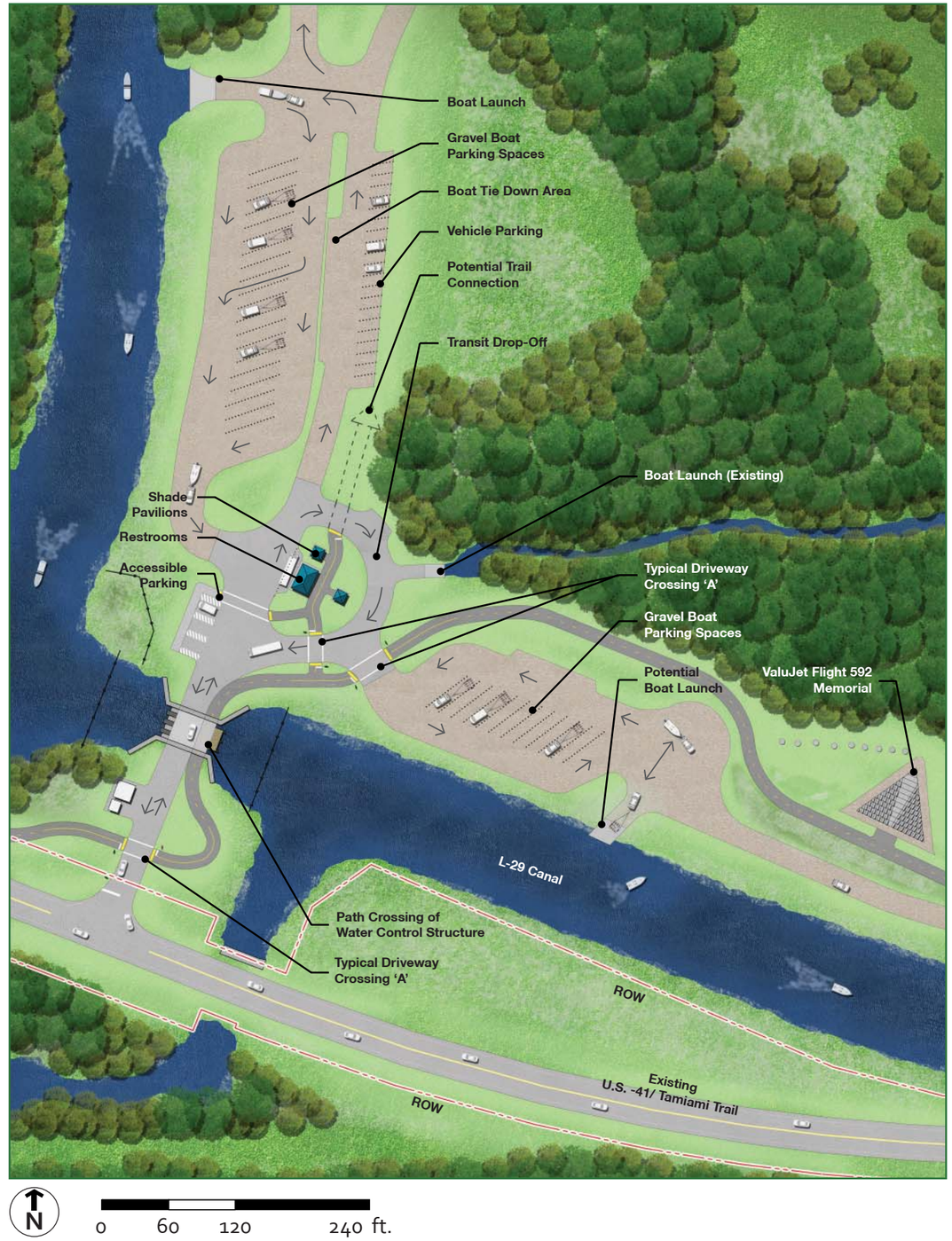


Gateways

Gateways should be planned and developed at key locations along the path where additional user amenities such as transit connectivity, additional parking capacity and recreation opportunities are present. An additional criterion is for a gateway to be located near a path's terminus or at a point of significant influx of potential users.

Two such locations exist along the U.S. 41 corridor; Collier-Seminole State Park, and Spillway S333/ ValuJet Flight 592 Memorial. SFWMD has planned facility improvements at the S333 location that are directly tied to proposed CEPP projects in the immediate area. These planned improvements include the addition of boat launch ramp(s), boat trailer parking, restrooms, shaded picnic shelters, and vehicle parking. Added features could make the facility a gateway for ROGG users with the addition of transit connectivity, emergency phone call box, informational kiosk, and accessible parking.

Typical Gateway (Spillway S333/ ValuJet Flight 592 Memorial)



3.2.6 Wayfinding

ROGG is required to incorporate standard MUTCD markings and signage at all intersections and crossings. These represent basic requirements to maximize user safety throughout the path. Beyond required safety signs and markings, ROGG should provide informational signs along the path that inform users about distance to trailheads, points of historical/ cultural/ environmental interest along the path, and adjacent uses. Signs should be consistent with the Miami-Dade County Park and Recreation Sign Implementation Manual wayfinding program for trails, example shown below.

Ideally, wayfinding signs will also identify nearby destinations including points of interest, public facilties and commercial centers, similar to roadway signage and inform users. While it is not desirable to litter the path with signs, the goal is to meet the needs of users for information. The proper placement of signage can have a dramatic affect on the pathway user's experience and should be carefully planned and executed.

Wayfind and signage example per the Miami Dade Parks and Recreation Sign Implementation Manual.

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