



# User Manual

November  
2016



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## Part 1: Introduction

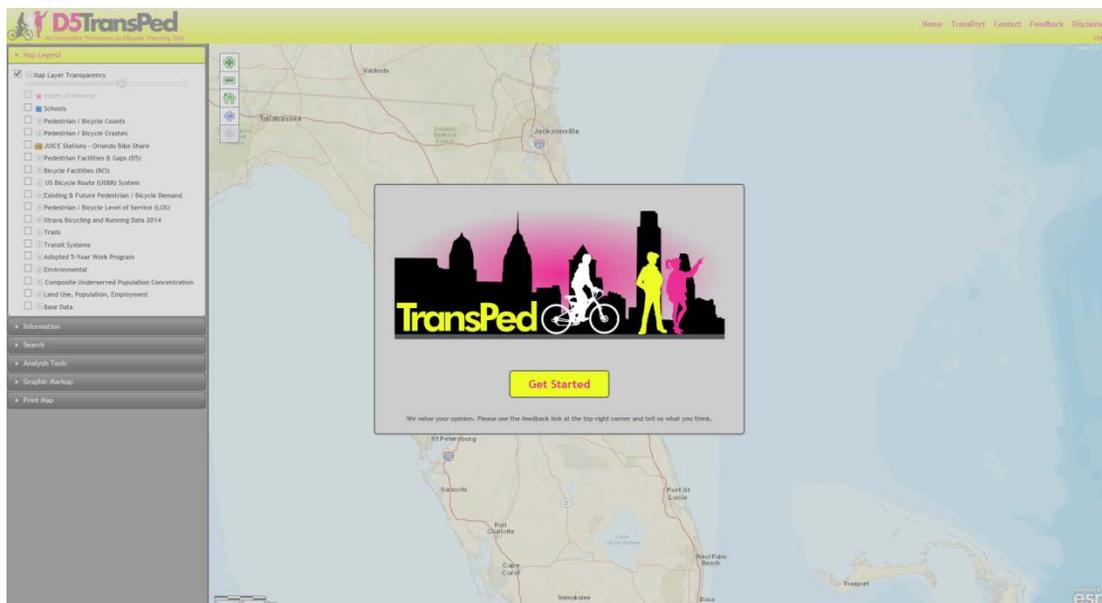
Welcome to D5TransPed, an interactive GIS based tool designed to assist in the planning and analysis of pedestrian and bicycle transportation. The objective of TransPed is to combine a comprehensive bank of data with applicable analysis features to create a holistic tool accessible to users of all abilities. The tool is equipped with three main components:

1. **Data Bank** - Featuring over 50 data layers including infrastructure, traffic counts, and US Census and socioeconomic data, the tool is a repository for all pedestrian and bicycle related information.
2. **Data Visualization** - TransPed allows users to clearly visualize travel patterns and demand for non-motorized modes of transport with the ability to easily export or print data and maps.
3. **Analysis & Prioritization** - Based on FDOT Florida Transportation Plan goals, various analysis features allow authorized users to create custom prioritization schedules for infrastructure improvements through spatial or attribute driven analyses.

TransPed marks a new paradigm for integrated multimodal transportation planning putting the resources essential to perform simple to complex analyses at everyone's fingertips. This manual documents the functions of the tool available to users.

### 1.1 Welcome Screen

In order to access the tool, go to <http://cfgis.org/FDOT-Resources/TransPed.aspx> in your web browser and click on TransPed Interactive Map. You are now at the welcome screen. From here, click **Get Started** which will take you to the default view.

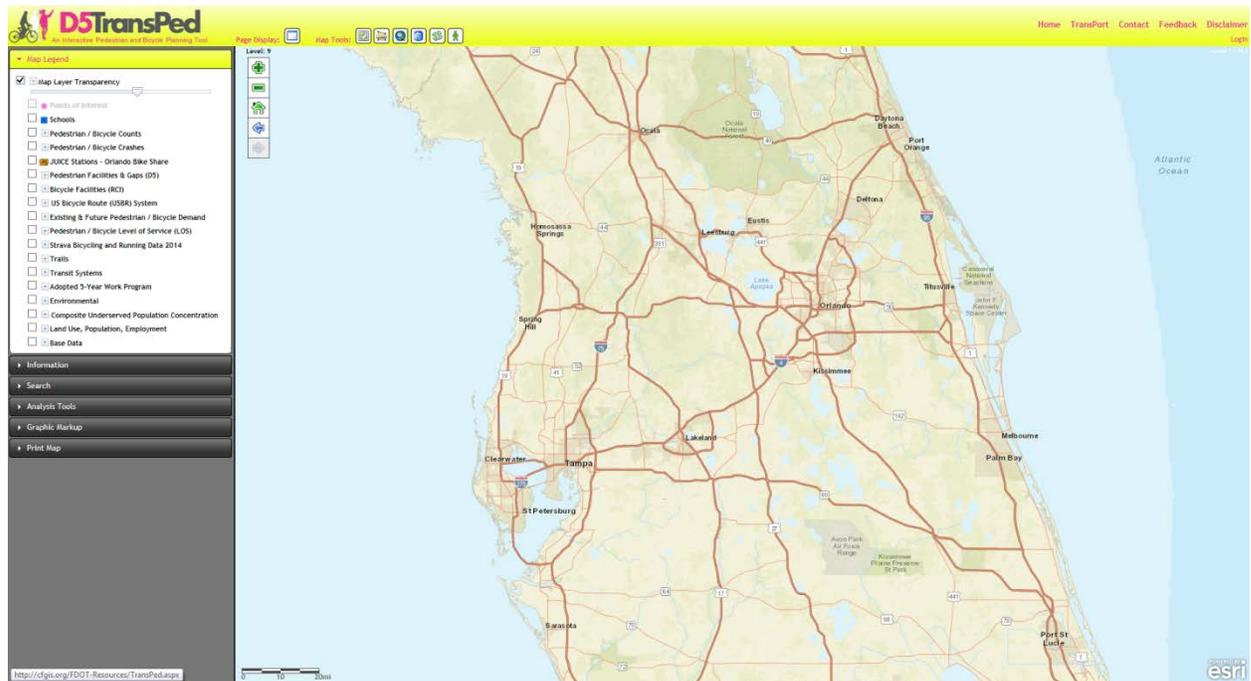




## 1.2 Default View

Once you click **Get Started** from the welcome screen, the splash screen will close and the **Default Map View** will be shown. From here the user will be able to access any general menu options available within the D5TransPed tool. Advanced feature access requires a user login (see Section 4).

Before we look into functionality available in the tool, let's take a moment to cover the basic areas and how they work.





## Part 2: Navigation

### 2.1 Navigating Within the Map

There are two ways to navigate around the map: using the navigation controls or using your mouse and keyboard.



Using the navigation controls:

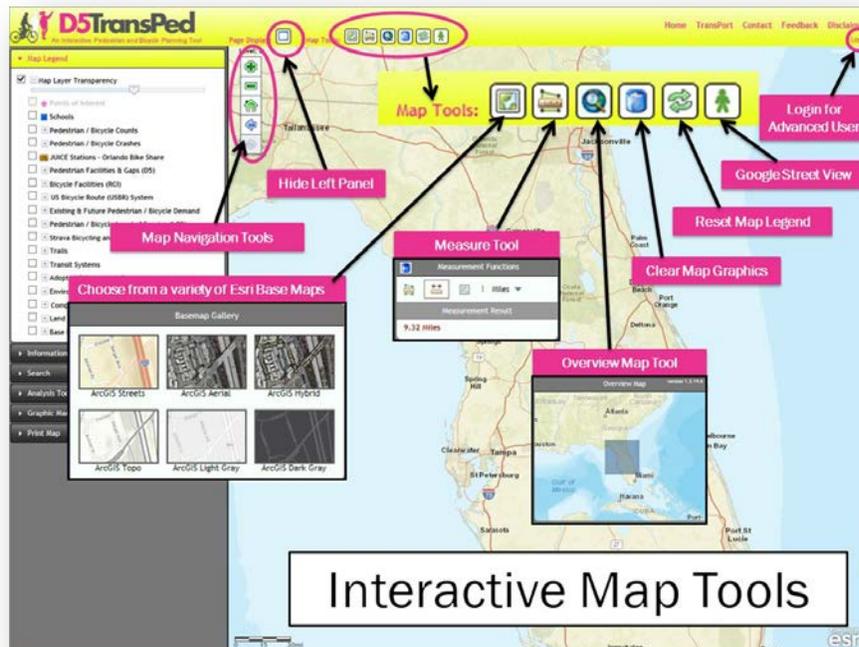
1. **Zoom In or Zoom Out:** Use the “+” or “-” buttons to zoom in/out
2. **Zoom to Map Center:** Use the home icon to zoom to full extent
3. **Go to Previous or Next Extent:** Use the arrows to zoom to previous or next extent

Using your mouse:

1. **Pan:** Click and hold left button to pan around the map
2. **Zoom:** Use mouse wheel to zoom in/out

### 2.2 Navigating the Map Tools Bar

The **Map Tools Bar** is found at the top center of the application and has six features that will be covered in this section.



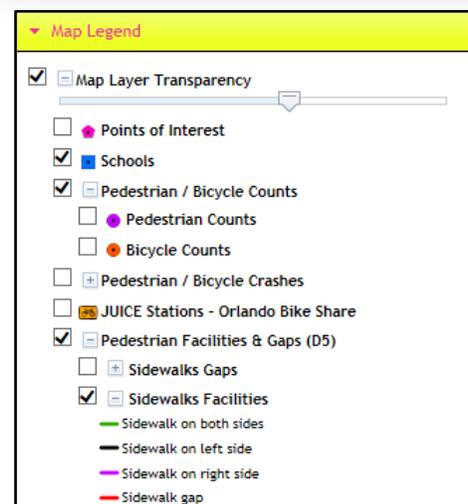
1. **Esri Base Map Gallery:** This tool allows the user to choose an appropriate base map upon which to display the other map features. Some of the maps to choose from are ArcGIS Streets, ArcGIS Aerial and ArcGIS Topo.
2. **Measure Tool:** This tool allows the user to measure distances and areas based on manually derived locations using the mouse. Results can be displayed in a variety of units, including feet, miles, square miles, etc.
3. **Overview Map Tool:** This tool allows the user to open a pop-up overview map that shows the current extent of the main map on a smaller scale map for reference purposes.
4. **Clear Map Graphics Tool:** This tool allows the user to clear any hand-drawn graphics or measures displayed in the current map extent.
5. **Reset Map Legend:** This tool turns off all data layers currently turned on in the map legend providing the user with a clean base map to continue with a fresh mapping exercise.
6. **Google Street View:** This tool allows the user to click on any road on the map and open a sub-window displaying the Google Street View for this location. The user can then use the pan tool within the sub-window to “look around” the location site and see features on the ground.

## 2.3 Navigating the Menu Bar

The **Menu Bar** can be found on the left side bar of the D5TransPed tool. There are six tool functions available to the user from this menu. Simply click on any of the Menu tabs to activate the menu control features. In this section we are going to discuss the functions of the **Menu Bar**.



1. **Map Legend:** The Map Legend menu allows you to toggle on/off any layers that you want to display using the check boxes. Some features are scale dependent, meaning they will only display when zoomed to a certain level.





2. **Information:** The Information menu allows the user to click on any feature to obtain attribute information, highlight the feature on the map, and print the attribute table.

Information

Click a map feature to see its attribute values.

Schools

[Highlight this feature on the map](#)

[Print attribute table](#)

School Name	Howard Middle School
School Type	Public
Grade Level	Middle
School District	Orange

3. **Search:** The Search menu provides the user with the option to search the map and data layers by either location or attribute.

**Search by Location Tool:** The Search by Location tool allows the user to search for a specific address, intersection, or landmark which will be displayed with a location marker on the map. Simply type an address (or landmark) in the search box and the tool will identify the location on the map with a marker and label.

Search

Location
Attribute

Enter an address or landmark and click the Find Address button to verify the address and zoom to that location.

Sample address: 1600 Seven Seas Dr

Sample intersection: Magnolia Palm & Floridian Way

Sample landmark: Disney World

Sample city: Orlando

Address, intersection or landmark:

City:  
 x

[Find Address](#)

**Search by Attribute:** The Search by Attribute tool allows the user to search for a specific feature in one specific map layer, the visible layers only, or all layers contained in the Map Legend based on the attributes defined in the search value box. The map will automatically zoom to the selected feature(s) which can also be highlighted by the user.

Search

Location
Attribute

Map layer:

Fields:

Search value:

[Search](#)

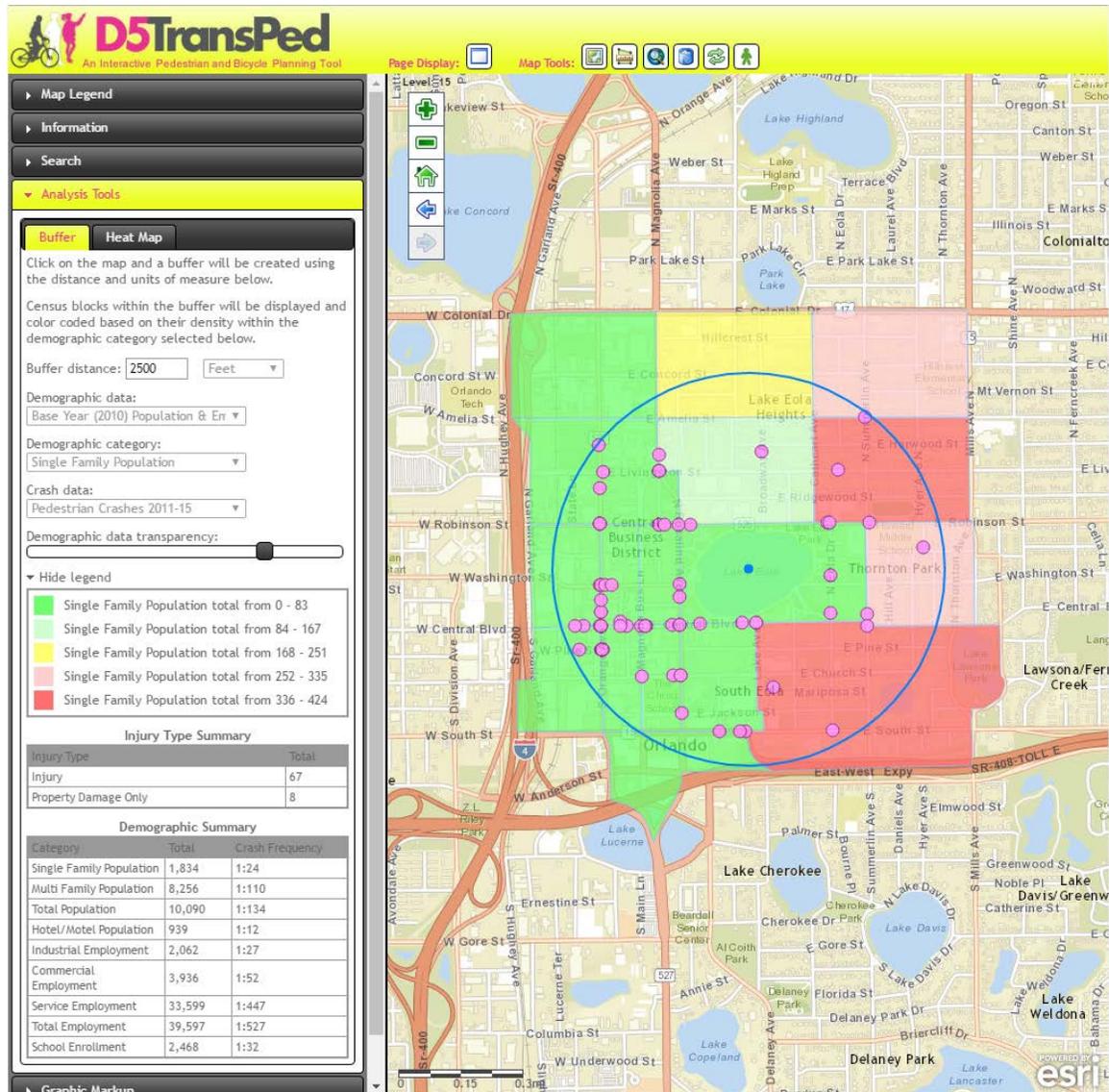
Schools (2 features)

#	School Name	Map Location
▶ 1)	Howard Middle School	<a href="#">Highlight</a>
▶ 2)	HOWARD MIDDLE SCHOOL	<a href="#">Highlight</a>

4. **Analysis Tools:** The Analysis tools allow the user to display and summarize socio-economic and crash statistics based on a specific set of parameters.



**Buffer:** The Buffer tool allows the user to display and summarize socio-economic and crash statistics for a desired location and buffer distance. The user can choose between existing (2010) and future (2040) population & employment data, pick the category for color-coded display of the zones on the map, and whether to include pedestrian or bicycle crash data in the analysis. Detailed results of the analysis are displayed in summary statistic tables.



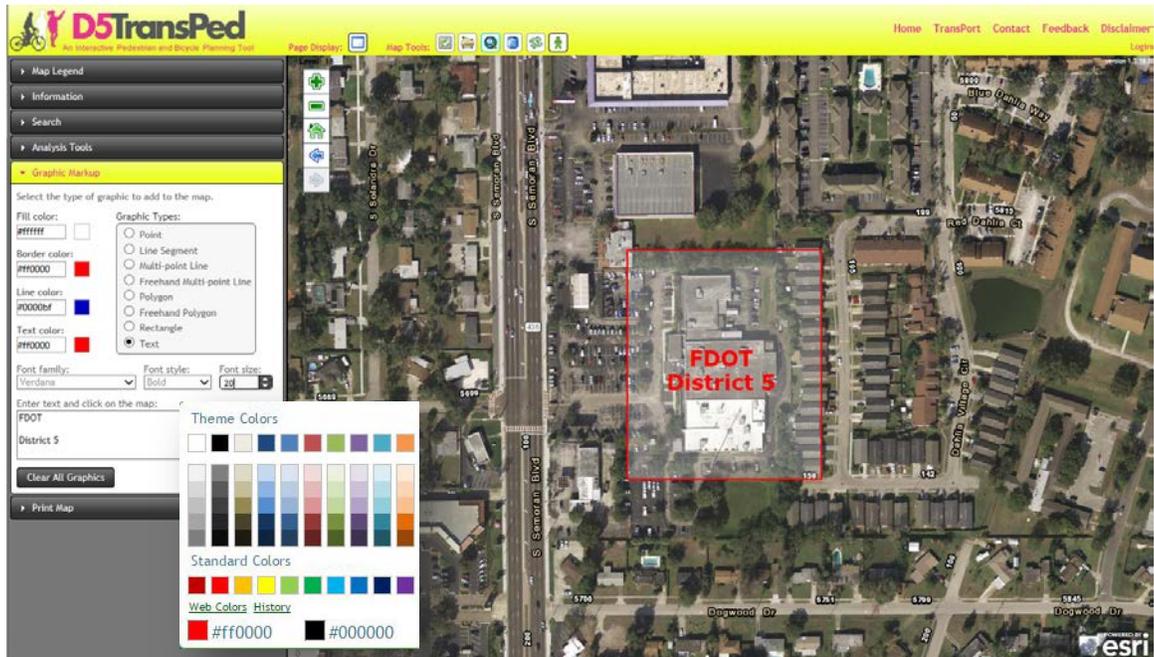


**Heat Map:** The Heat Map feature can be used to create a heat map based on the high crash-rate areas in the region. The user has the option of viewing either bicycle or pedestrian crashes, and can further sort the selection by Injury Type. Once selected, the user then has the option to choose the desired Blur Radius, Minimum Pixel Intensity, and Maximum Intensity; thus altering the displayed glow from the clustered crash heat-intensity.

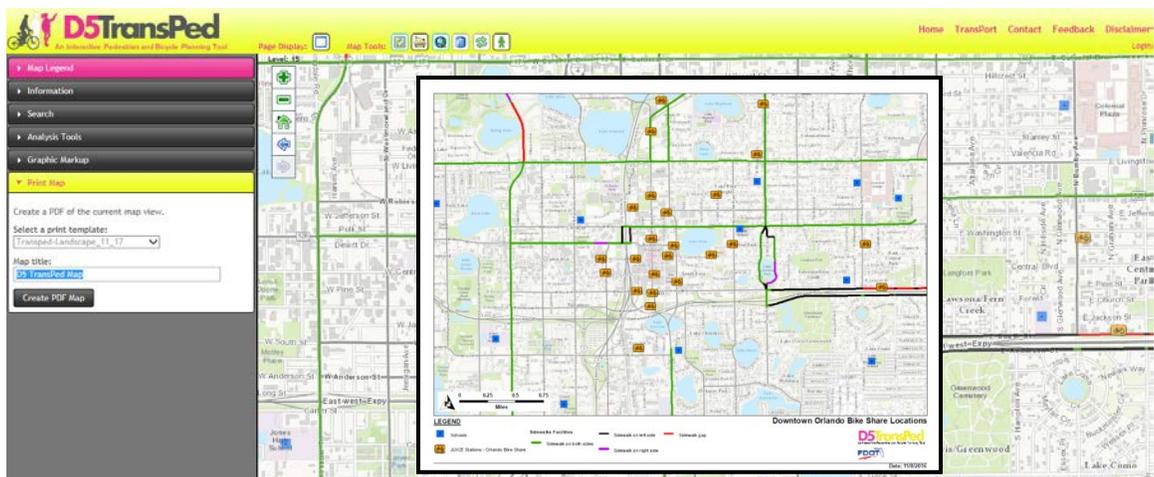
The screenshot displays the D5TransPed web application interface. The top navigation bar includes the logo, version information (1.3.18.8), and various tool icons. The left sidebar contains a menu with options: Map Legend, Information, Search, Analysis Tools, Graphic Markup, and Print Map. The 'Analysis Tools' section is expanded, showing the 'Heat Map' tab. Below this, there is a 'Hide Heat Map' button and a text box explaining the feature: 'Create a heat map to show high crash rate areas. The controls below can be used to adjust the intensity of the rendering.' The controls include a dropdown for 'Crash data' (set to 'Pedestrian Crashes 2011-15'), a dropdown for 'Injury type' (set to 'All Injury Types'), a 'Blur radius' slider, and two 'Minimum pixel intensity' and 'Maximum pixel intensity' sliders. The main map area shows a dark background with a grid and a heat map overlay of crash data, with red and orange hotspots indicating high crash rates. A scale bar and the ESRI logo are visible at the bottom of the map.



- 5. Graphic Markup:** The Graphic Markup feature allows the user to draw specific features on top of the map such as points, lines, and polygons, or custom text using an array of color and font choices from the Graphics Themes Menu.



- 6. Print Map:** The Print Map feature allows the user to create a static PDF map of the current extent that includes all layers, legend, graphics and selections present on the screen at the time of export. Simply zoom to the desired extent and features, select the map template/size, add a custom map title, and click on the Create PDF Map button. A separate window containing the PDF map will pop-up providing the user with option of saving the PDF to a local drive.

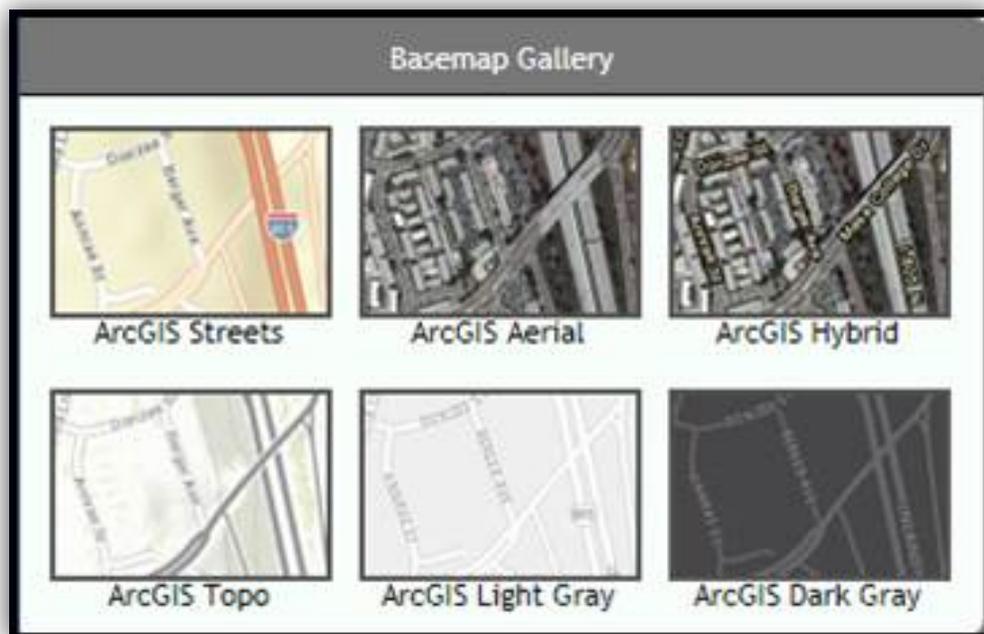




## Part 3: Exploring the Data Bank

### 3.1 Choosing a Base Map

The first step in beginning to explore the TransPed data bank is to identify and choose the most appropriate base map for the user's needs. There are six types of base maps to choose from within the Base Map Gallery: **ArcGIS Streets**, **ArcGIS Aerial**, **ArcGIS Hybrid**, **ArcGIS Topo**, **ArcGIS Light Gray**, and **ArcGIS Dark Gray**.



The base map selection determines how the main map will look, as well as what information is displayed:

- **ArcGIS Street:** This base map presents a street map with highway-level data. The street map includes highways, major roads, railways, water features, administrative boundaries, cities, major parks, and protected areas overlaid on shaded relief imagery for added context.
- **ArcGIS Aerial:** This base map provides one meter or better satellite and aerial imagery in many parts of the world and lower resolution satellite imagery worldwide. The map features 0.3m resolution imagery in the continental United States.
- **ArcGIS Hybrid:** The aerial imagery from the previous base map is enhanced with country boundaries, first order (State/Province) internal administrative boundaries for most countries, second order administrative boundaries for the United States.

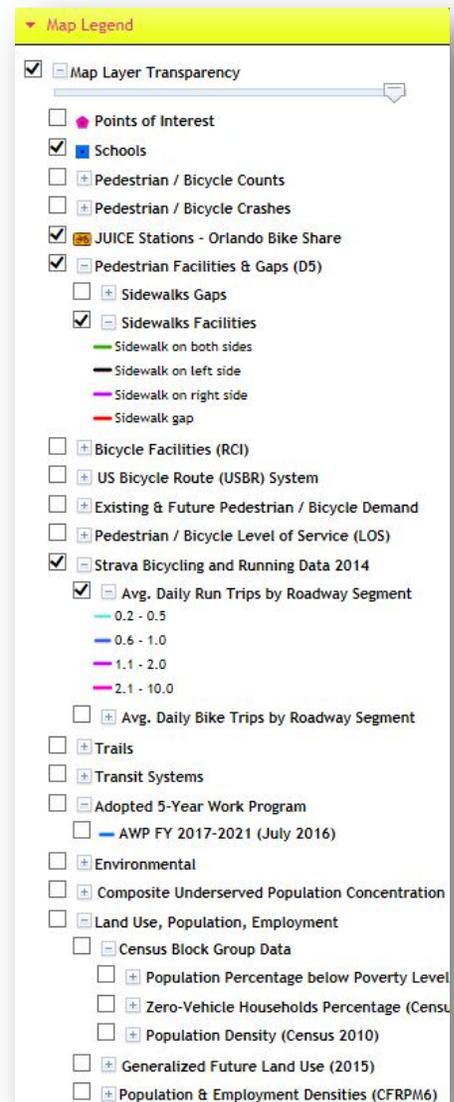


- **ArcGIS Topo:** This map is designed to be used as a base map by GIS professionals and as a reference map by anyone. The map includes administrative boundaries, cities, water features, physiographic features, parks, landmarks, highways, roads, railways, and airports overlaid on land cover and shaded relief imagery for added context.
- **ArcGIS Light Gray:** This base map draws attention to your thematic content by providing a neutral background with minimal colors, labels, and features. Only key information is represented to provide geographic context, allowing your data to come to the foreground. This light gray map supports any strong colors, creating a visually compelling map graphic which helps your reader see the patterns intended.
- **ArcGIS Dark Gray:** With the similar settings as the light gray base, this dark gray map supports bright colors.

### 3.2 Exploring the Contents of the Map Legend

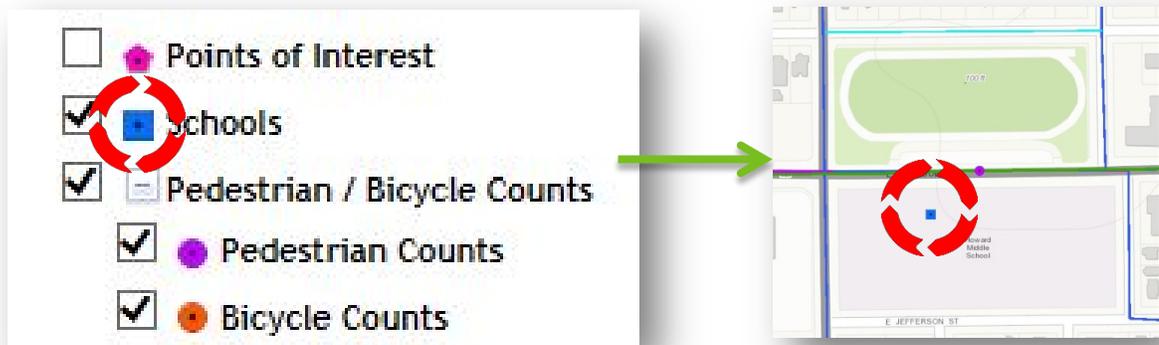
The most significant feature of TransPed is the content found within the Map Legend. The tool allows the user to view and explore key map layers featuring Bicycle and Pedestrian and other demographic/transportation related data in District Five and beyond. There are three main toggle options available to the user. This next section will discuss the use and functionality of these menu options.

Over 150 map layers are presented and the list grows constantly. The Florida Department of Transportation District Five developed D5TransPed to serve as a one-stop shop for bicycle and pedestrian and transportation planning. The layers presented have been gathered from numerous contributing agencies such as FDOT, MPOs and counties.





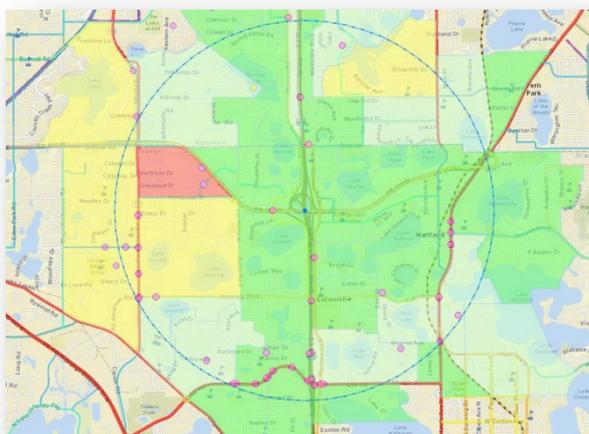
Once a layer is turned on with a "check" mark (figure on the left below), the layer is quickly made visible on the map (figure on the right below).



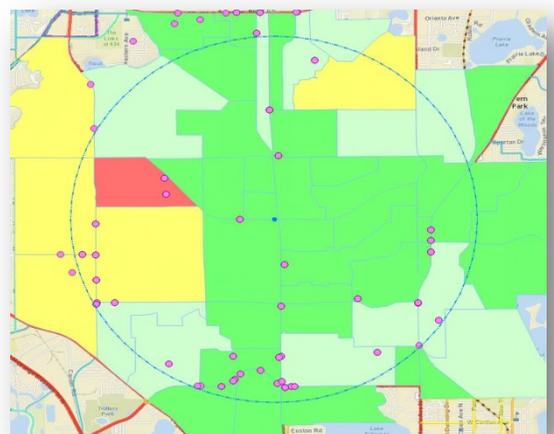
The **Map Layer Transparency** tool has also been enabled in order to allow the user the option to set the visible transparency of the overlaid layers. Simply adjust the slider with the click and drag of the mouse to increase or decrease the layer transparency.



**High Transparency**



**Low Transparency**





### 3.3 Print Map

▼ Print Map

Create a PDF of the current map view.

Select a print template:  
Letter ANSI A Landscape

Map title:  
D5 TransPed Map

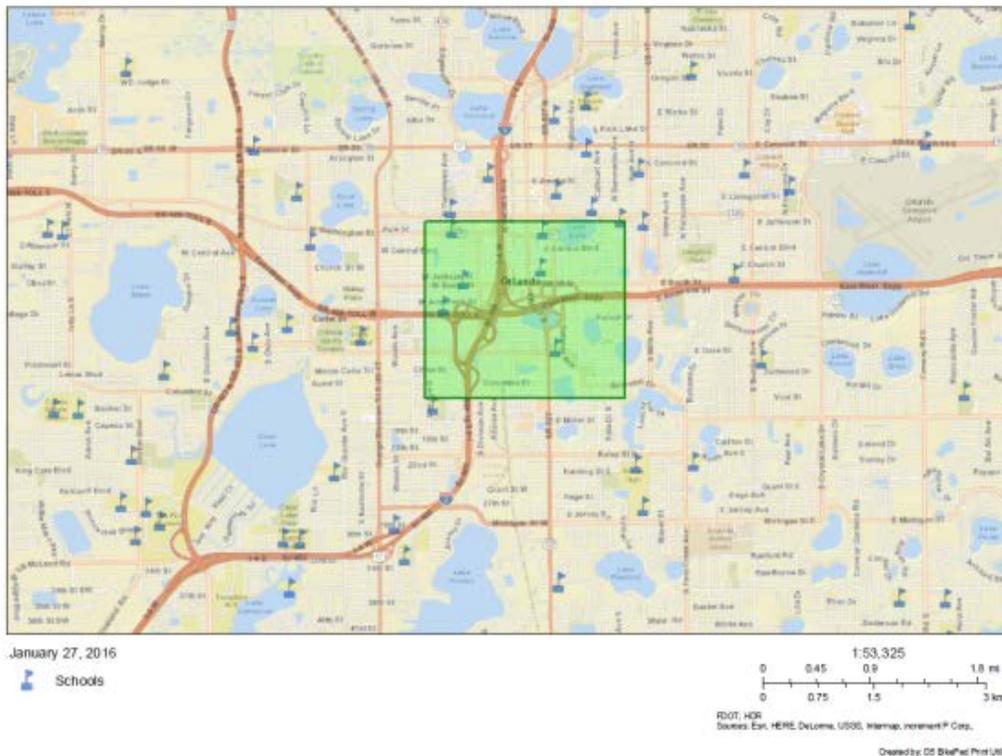
Creating PDF map...  
(This may take a minute or two)

Create PDF Map

The **Print Map** option allows the user to create a simple, printable map matching the contents displayed in the browser's map window. PDF is the default output type for the printed map, and the "Select a print template" dropdown menu gives the user the option to choose the document layout size (typical standard engineering report sizes).

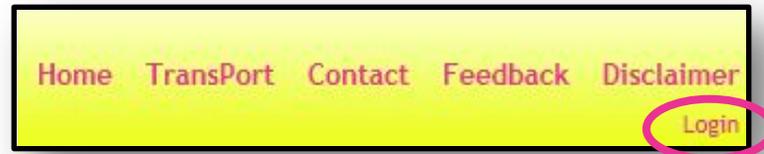
The user has the ability to enter a title and/or select a layout size. This map will have all of the selected features that the user has specified. Once the desired options are selected, simply press the "Create PDF Map" button to create a printable PDF map document in a new window, and then follow your internet browser's instructions for saving and printing.

D5 BikePed Map



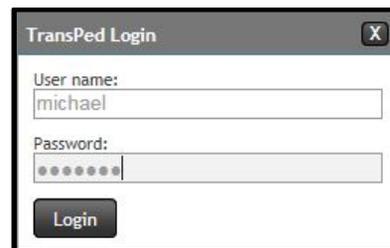


## Part 4: Advanced Features

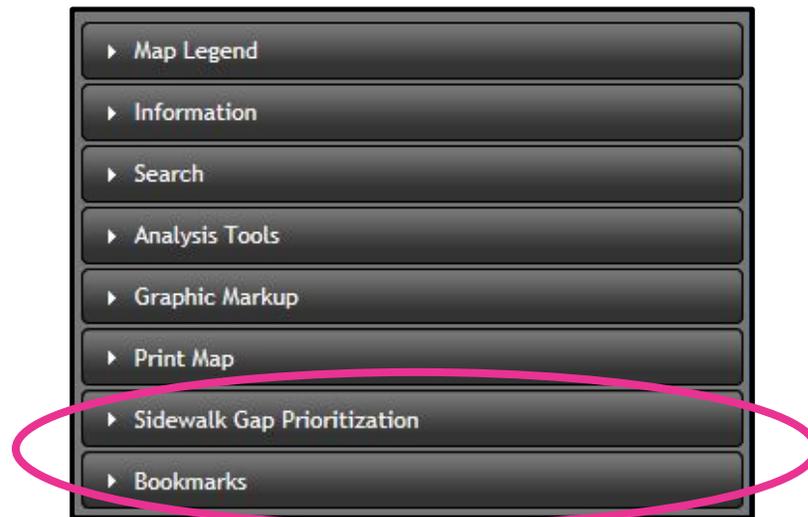


### 4.1 Login

The advanced features and capabilities of TransPed are intended for District staff only and require login credentials.



Once successfully logged in, two additional tools will appear in the menu bar on the left: Sidewalk Gap Prioritization and Bookmarks.





## 4.2 Sidewalk Gap Prioritization

The Prioritization feature is the most powerful feature of the TransPed tool. It allows the user to review prioritization scores for all sidewalk gaps within the District, change ranking criteria weights as desired, create/print prioritization and detail reports, and add new projects into the system. Each of these functions will be discussed in more detail below.

1. **Select Existing Gap.** The user can pick from an extensive list of pre-identified bike/ped gaps on state-maintained roads within the District. The map view will automatically zoom and center to the selected gap and highlight it. The user can then view the pre-calculated prioritization results by clicking the appropriate checkbox.

↓

Prioritization Results					
Gap Id: Brevard-010			County: Brevard		
Category	Criteria	Value	Points	Weight	Total
1. Safety and Security	Number of Pedestrian Crashes	4	40	25%	22.5
	Number of Pedestrian Fatalities	3	50		
2. Agile, Resilient and Quality	Closing System Gap	Full Gap	50	10%	7.5
	Pavement Condition	3.4	10		
	Pedestrian LOS (Level of Service)	D	15		
3. Efficient and Reliable Mobility	Pedestrian Demand 2010	7.1	20	15%	4.5
	Means of Transportation to Work	0.0	10		
4. More Transportation Choices	Near Regional Tranist (SunRail, Intercity/region)	No	0	20%	6.0
	Near Commuter Sites (Bus Stops, Trails, Bike Share, Park&Ride)	Yes	20		
	Underserved Populations	9.6	10		
5. Economic Competitiveness	Population Density 2010	2.373	15	10%	2.0
	Employment Density 2010	0.220	5		
	Hotel/Motel Density 2010	0.589	0		
6. Quality Places	Access to Schools	1 Mile	10	15%	12.7
	Access to Community Facilities	1/4 Mile	25		
	Pedestrian Friendly Land Use	Yes	25		
	Within an Urban Area	Yes	25		
7. Environment and Conservation	Floodplains or Wetlands	Inside	0	5%	1.0
	Traffic LOS	C	20		
<b>Prioritization Total</b>				<b>100%</b>	<b>56.25</b>

Change Weights    Reset Weights     Top priority



- Changing Weights.** Sometimes the user might want to make changes to prioritization criteria weight percentages and recalculate the prioritization score with the revised settings. Clicking on the “Change Weight Percentages” button will allow the user to do just that. Additionally, the user has the option to make a specific gap a top priority and thereby bringing it to the top of the ranking. Once the changes have been saved, the user can recalculate the scores based on the new settings which will be displayed in the Prioritization Results window.

Gap Id: Brevard-010 County: Brevard

Category	Criteria	Value	Points	Weight	Total
1. Safety and Security	Number of Pedestrian Crashes	4	40	25%	22.5
	Number of Pedestrian Fatalities	3	50		
2. Agile, Resilient and Quality	Closing System Gap	Full Gap	50	10%	7.5
	Pavement Condition	3.4	10		
	Pedestrian LOS (Level of Service)	D	15		
3. Efficient and Reliable Mobility	Pedestrian Demand 2010	7.1	20	15%	4.5
	Means of Transportation to Work	0.0	15		
4. More Transportation Choices	Near Regional Tranist (SunRail, Intercity/region)	No	0	20%	6.0
	Near Commuter Sites (Bus Stops, Trails, Bike Share, Park&Ride)	Yes	20		
	Underserved Populations	9.6	10		
5. Economic Competitiveness	Population Density 2010	2.373	15	10%	2.0
	Employment Density 2010	0.220	5		
	Hotel/Motel Density 2010	0.589	5		
6. Quality Places	Access to Schools	1 Mile	15	15%	12.7
	Access to Community Facilities	1/4 Mile	25		
	Pedestrian Friendly Land Use	Yes	25		
	Within an Urban Area	Yes	25		
7. Environment and Conservation	Floodplains or Wetlands	Inside	0	5%	1.0
	Traffic LOS	C	20		
<b>Prioritization Total</b>				<b>100%</b>	<b>56.25</b>

Top priority

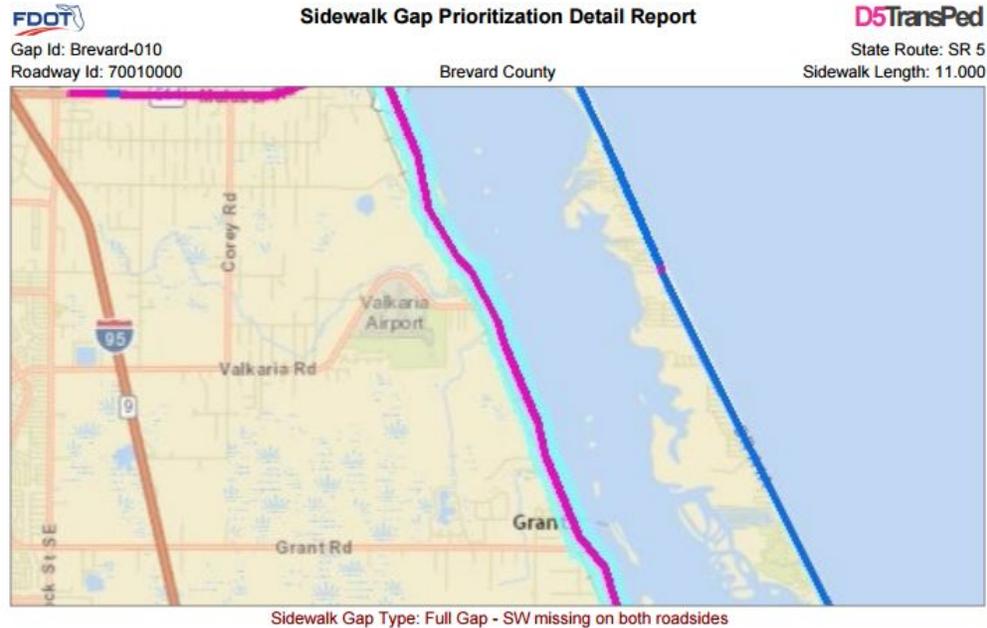
▼ Sidewalk Gap Prioritization

Sidewalk Gaps:

Show scores



- Detail Report.** The user can print a detail report for the selected gap which contains a map showing the gap along with some corridor statistics as well as the prioritization scores.



Overall Rank: 54 Project Prioritization Scores Priority override: false

Category	Criteria	Value	Points	Weight	Total
1. Safety and Security	Number of Pedestrian Crashes	4	40	25%	22.5
	Number of Pedestrian Fatalities	3	50		
2. Agile, Resilient and Quality	Closing System Gap	Full Gap	50	10%	7.5
	Pavement Condition	3.4	10		
	Pedestrian LOS (Level of Service)	D	15		
3. Efficient and Reliable Mobility	Pedestrian Demand 2010	7.1	20	15%	4.5
	Method of Commute to Work	0.0	10		
4. More Transportation Choices	Near Regional Tranist (SunRail, Intercity-region)	No	0	20%	6.0
	Near Commuter Sites (Bus Stops, Trails, Park&Ride)	Yes	20		
	Underserved Populations	9.6	10		
5. Economic Competitiveness	Population Density 2010	2.373	15	10%	2.0
	Employment Density 2010	0.220	5		
	Hotel/Motel Density 2010	0.589	0		
6. Quality Places	Access to Schools	1 Mile	10	15%	12.7
	Access to Community Facilities	1/4 Mile	25		
	Pedestrian Friendly Land Use	Yes	25		
	Within an Urban Area	Yes	25		
7. Environmental and Conservation	Floodplains or Wetlands	Inside	0	5%	1.0
	Traffic LOS (Level of Service)	C	20		
Prioritization Total				100%	<b>56.2</b>



- Prioritization Report.** The Prioritization Report shows the ranking of gaps relative to each other. By default, all gaps are contained in the report but the user can refine the selection by picking specific gaps from the list or directly from the map. The resulting report will only show the selected projects as well as their scores and ranking.

**D5 TransPed**  
Project Prioritization Report

#	Rank	County	County Gap ID	Score	Top Priority	Date Modified
1	88	Brevard	Brevard-010	56.5	False	Jan 28 2016 2:07PM
2	153	Brevard	Brevard-261	50.5	False	Dec 18 2015 2:08PM
3	816	Brevard	Brevard-011	31	False	Dec 18 2015 1:43PM
4	817	Brevard	Brevard-013	31	False	Jan 14 2016 9:12AM
5	842	Brevard	Brevard-012	30	False	Dec 18 2015 1:43PM

- Add New Gap.** The user also has the capability of adding new gaps into the list by either drawing a new gap straight into the map or copying a segment from an existing map layer. In order for a new gap being integrated into the prioritization report, the user will have to calculate the prioritization score as described in Step 2.

**Sidewalk Gap Prioritization**

Fill in the required fields below. Then navigate to the desired location on the map, click the 'Draw New Project on the Map' button and draw a line that will represent the new project.

**New Feature Values**  
(Required before drawing new feature)

Roadway Id:  Roadside:

State route#:

Begin post:  End post:

Sidewalk Gaps:

**Sidewalk Gap Prioritization**

Click the 'Select Feature on the Map' button, then click on a feature on the map that will be used to define the new project. The 'New Feature Values' fields will automatically be populated using the values from the selected feature.

Map layer to copy from:

**New Feature Values**  
(Automatically populated when feature selected)

Roadway Id:  Roadside:

State route#:

Begin post:  End post:

Sidewalk Gaps:



### 4.3 Bookmarks

The Bookmarks tool allows the user to save a working map with all current map extent and layer settings so it can be easily revisited in another session. The user can also add hyperlinks as needed and store as many bookmarks as desired.

▼ Bookmarks

+ Add Bookmark

Personal bookmarks:  
FDOT D5 Urban Office ▼ Edit Delete

Bookmark links:  
1. FDOT D5

Edit bookmark: FDOT D5 Urban Office

Bookmark name:  
FDOT D5 Urban Office

+ Add Link

Link 1:  
Name:  
FDOT D5 Remove This Link

Link:  
<http://www.dot.state.fl.us/publicinformatior>

Note: The bookmark extent will also be updated using the current map extent.

Update Bookmark Cancel Edit



## Part 5: Contact, Feedback, and Disclaimer



### 4.1 Home

Selecting **Home** returns the user to the D5TransPed home page on the Central Florida Geographical Information Systems website. This website can be found by visiting:

<http://cfgis.org/FDOT-Resources/TransPed.aspx>

### 4.2 TransPort

Selecting the TransPort link takes you directly to the parent TransPort tool, your one stop shop for transportation planning.

<http://fdot-d5-transport.hdrgateway.com/default.html>

### 4.3 Contact

Selecting the contact link will forward the user to the web form used to provide the TransPed team with your input or questions.

<http://cfgis.org/FDOT-Resources/TransHub/Contact-TransPort.aspx>

### 4.4 Feedback

User **Feedback** regarding the D5TransHub Interactive Transportation Portal can be provided through a Florida Department of Transportation (FDOT) Resources Survey. This survey can be accessed by selecting the Feedback hyperlink in the upper right corner of the portal, or by visiting:

<http://www.cfgis.org/getdoc/2cf7bf62-3233-4da4-a78b-df51f9ce51d2/FDOT-Resources-Survey.aspx>



#### 4.5 Disclaimer

All provided GIS data is to be considered a generalized spatial representation which is subject to revisions. The data is provided as is with no implied warranty for usability. The data used for this application were developed from various sources and scales. The map information is not a survey. This map is intended to be used for planning purposes only and is not to be construed as a legal document. The ECFRPC and associated agencies have taken reasonable efforts to ensure the accuracy of this map. However, the ECFRPC and associated agencies provide no warranty as to the map's accuracy or completeness, and assume no liability for losses or damages incurred by persons relying on the information it provides. Any reliance on the information contained herein is at the user's own risk. The features here represented are not to be used to establish legal boundaries or entitlements. For specific information, contact the appropriate department or agency. The user assumes all responsibility for determining whether this file is appropriate for a particular purpose.

Section 186.803 *Florida Statutes*; Use of geographic information by governmental entities. -- When state agencies, water management districts, regional planning councils, local governments, and other governmental entities use maps, including geographic information maps and other graphic information materials, as the source of data for planning or any other purposes, they must take into account that the accuracy and reliability of such maps and data may be limited by various factors, including the scale of the maps, the timeliness and accuracy of the underlying information, the availability of more accurate site-specific information, and the presence or absence of ground truthing or peer review of the underlying information contained in such maps and other graphic information. This section does not apply to maps adopted pursuant to part II of chapter 163.

This Disclaimer can also be found by selecting the **Disclaimer** hyperlink in the upper right hand corner of the portal.



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(407) 482-7897  
[deborah.tyrone@dot.state.fl.us](mailto:deborah.tyrone@dot.state.fl.us)