

# Preliminary Evaluation Matrix



An Alternatives Evaluation Matrix was prepared for the two current Build Alternatives: **With** Powerline Road Local Access Ramps and **Without** Powerline Road Local Access Ramps as shown below. The evaluation matrix includes major categories from the Community Oversight Advisory Team (COAT) recommendations, as well as other evaluation criteria considered as part of this PD&E Study.

Legend:

Worst Best

Evaluation Category	COAT Rec #s	No Build	With Powerline Rd. Ramps	Without Powerline Rd. Ramps
<b>COAT Recommendation Categories</b>				
Safety	1, 2			
Aesthetics	4, 5, 11			
Improve Traffic Flow	1, 3, 16			
Accessibility / Local Traffic Volumes	6, 7			
Noise	9			
Environmental Impacts	12, 14			
Construction Disruption	10, 15, 17, 18			
Multi-Modal	8, 13			
<b>Additional Evaluation Criteria</b>				
R/W and Utility Impacts	-			
Resiliency	-			
Construction Cost (\$ million)	-	N/A	\$690 to \$760	\$625 to \$700



# Summary of Differences between Alternatives



## With Powerline Road Ramps

## Without Powerline Road Ramps

### Aesthetics

- ❖ Requires more pavement to accommodate the Powerline Road Ramps and therefore has less space available for aesthetics and landscaping

- ❖ Provides an additional 30 feet of green space in middle of corridor for landscaping and aesthetics
- ❖ Moves traffic further away from homes / residents

### Accessibility / Local Traffic Volumes

- ❖ Provides local access connections to Connector Lanes
  - Can exit westbound Connector Lanes prior to Powerline Road
  - Can enter eastbound Connector Lanes east of Powerline Road
- ❖ Reduces existing peak hour, peak direction traffic volumes on SW 10<sup>th</sup> Street between Powerline Road and Military Trail by 73% in the AM and 52% in the PM\*
- ❖ Reduces peak hour intersection signal delay by 8 to 11 minutes compared to the No Build Alternative\*

- ❖ Does not provide access to Connector Lanes between Powerline Road and Military Trail
- ❖ Reduces existing peak hour, peak direction traffic volumes on SW 10<sup>th</sup> Street between Powerline Road and Military Trail by 40% in the AM and 20% in the PM\*
- ❖ Reduces peak hour intersection signal delay by 8 to 11 minutes compared to the No Build Alternative\*

\* Reporting preliminary results. Final results will be documented in the Project Traffic Analysis Report.

### Construction Disruption

- ❖ Results in more construction disruption due to the depressed ramp construction (noise, vibration, visual)

- ❖ Less construction disruption (noise, vibration, visual)

### Right-of-Way and Utility Impacts

- ❖ Requires more utility and right-of-way impacts due to the larger roadway footprint associated with the Powerline Road access ramps

- ❖ No right-of-way required from Waterford Courtyards
- ❖ Existing transmission poles do not need to be relocated closer to residents

### Resiliency

- ❖ Requires pumping of the depressed westbound exit ramp
- ❖ Improves traffic operations for foreseeable future

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### Construction Cost

- ❖ Higher project costs (\$690 to \$760 million)

- ❖ Lower project costs (\$625 to \$700 million)



# Rendering Comparison

Renderings Shown East of SW 30<sup>th</sup> Ave – Looking East (shown without noise walls)

## With Powerline Road Ramps

- Four feet between curb and shared use path
- Requires additional right-of-way
- Approximate distance from curb to homes (\*):
  - Waterford Courtyard – 50 feet
  - Waterford Homes – 90 feet



## Without Powerline Road Ramps

- Provides for an additional 30 feet of green space and buffer area from homes
- Approximate distance from curb to homes (\*):
  - Waterford Courtyard – 95 feet
  - Waterford Homes – 125 feet

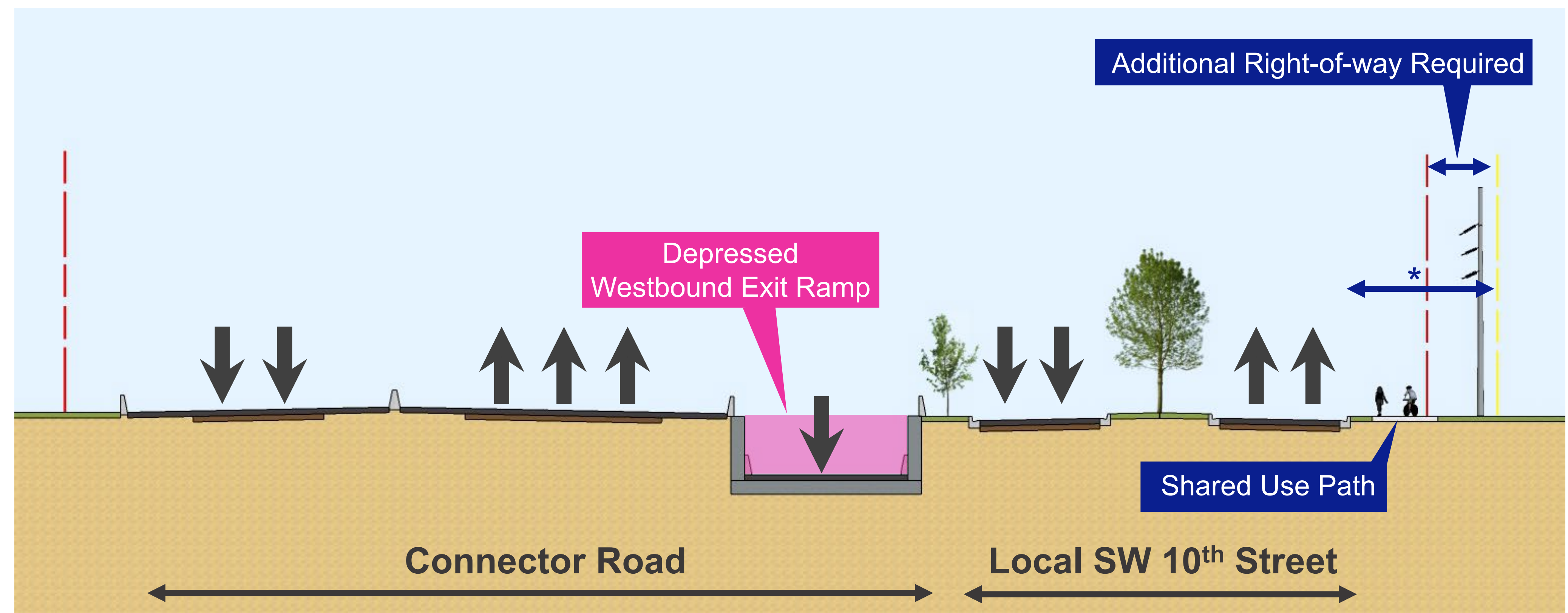




# Typical Section Comparison

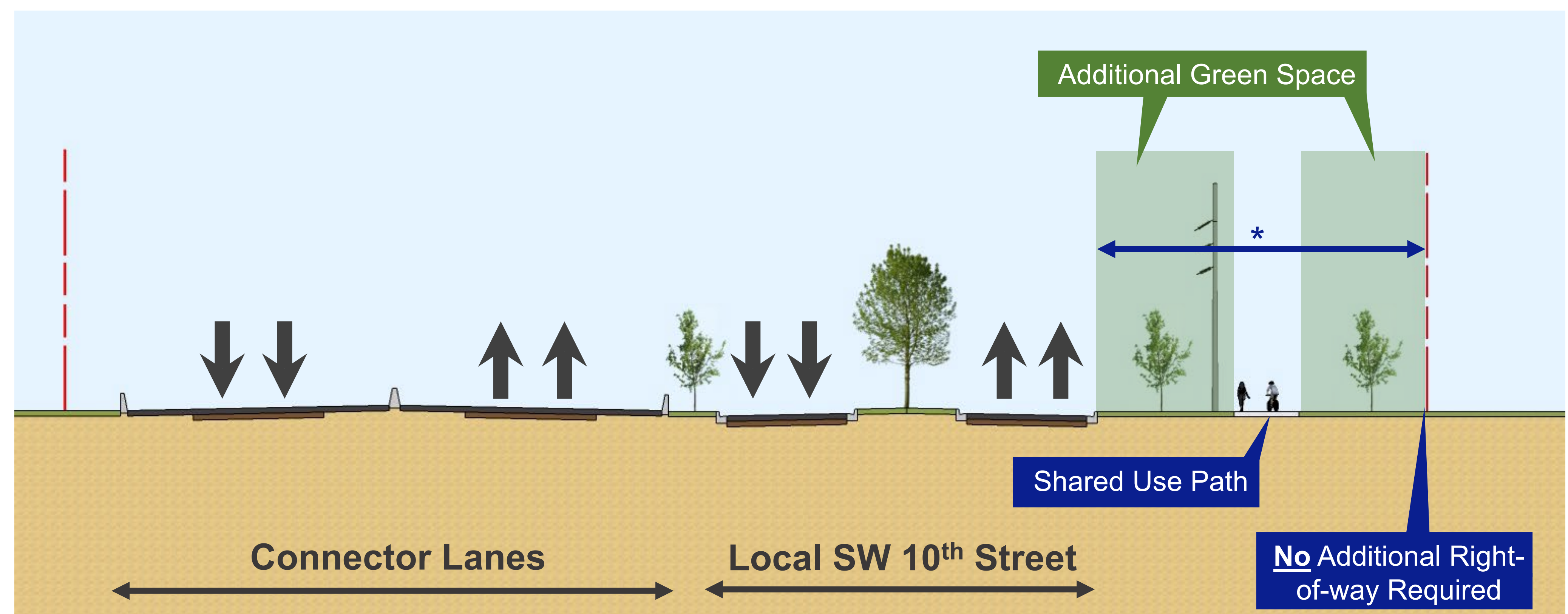
## With Powerline Road Ramps (between SW 30<sup>th</sup> Avenue and SW 24<sup>th</sup> Avenue)

- Four-lane Connector Road and four-lane local SW 10<sup>th</sup> Street
- 12-foot Shared Use Path
- Four feet between curb and shared use path
- Requires additional right-of-way
- Approximate distance from curb to homes (\*):
  - Waterford Courtyard – 50 feet
  - Waterford Homes – 90 feet



## Without Powerline Road Ramps (between SW 30<sup>th</sup> Avenue and SW 24<sup>th</sup> Avenue)

- Four-lane Connector Road and four-lane local SW 10<sup>th</sup> Street
- 12-foot Shared Use Path
- Provides for an additional 30 feet of green space and buffer area from homes
- Approximate distance from curb to homes (\*):
  - Waterford Courtyard – 95 feet
  - Waterford Homes – 125 feet





# Peak Hour Traffic Comparison (1 of 2)



## LEGEND

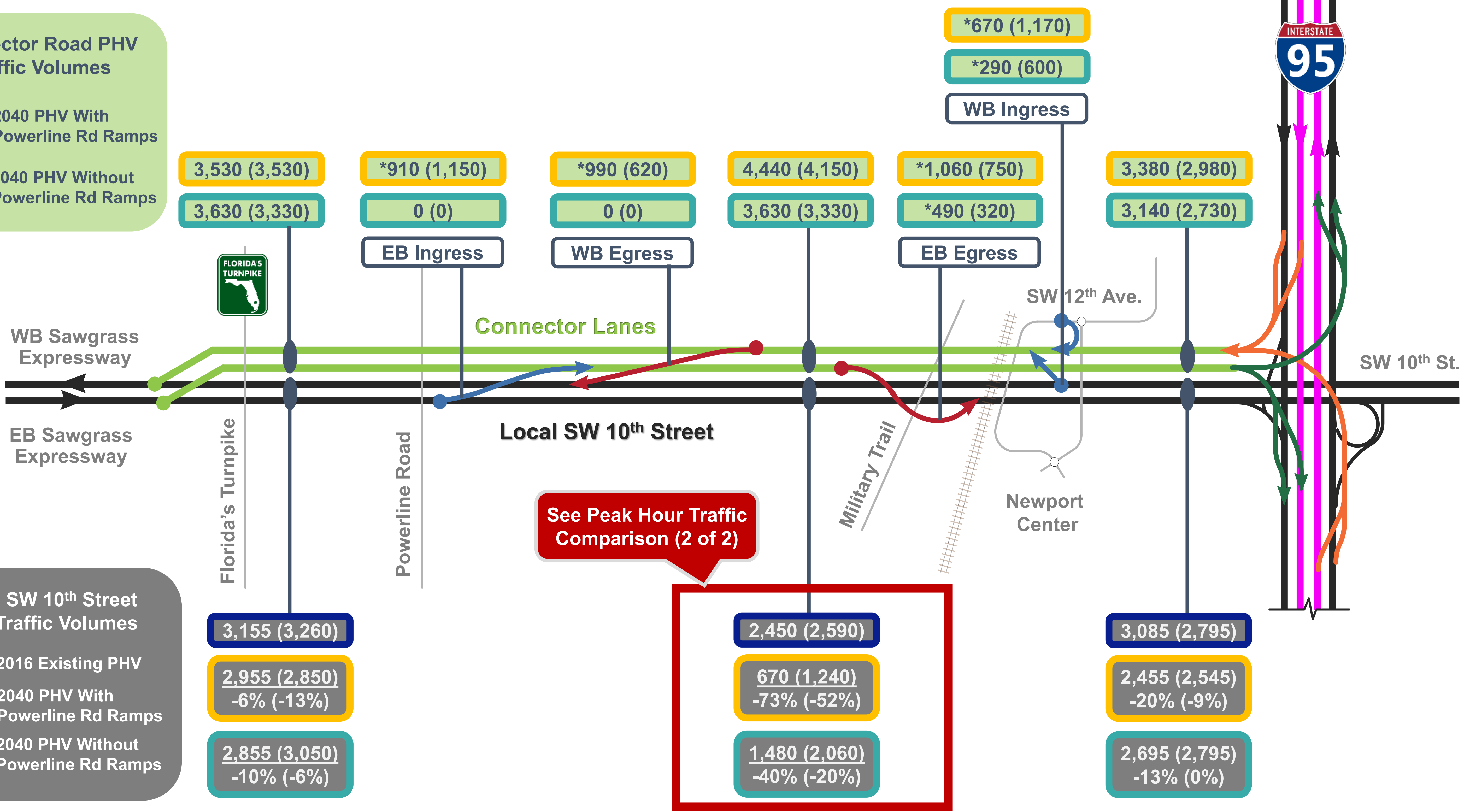
- █ Connector Lanes
- █ Local / General Use Lanes
- █ I-95 Express Lanes
- █ Connector Lanes Peak Hour Traffic Volume (PHV)
- █ Local SW 10<sup>th</sup> PHV
- XX (XX) Eastbound AM PHV (Westbound PM PHV)  
2040 Percent Decrease from Existing PHV AM (PM)
- \*XX (XX) Directional Ramps, AM 2040 PHV (PM 2040 PHV)

### Connector Road PHV Traffic Volumes

- 2040 PHV With Powerline Rd Ramps
- 2040 PHV Without Powerline Rd Ramps

### Local SW 10<sup>th</sup> Street PHV Traffic Volumes

- 2016 Existing PHV
- 2040 PHV With Powerline Rd Ramps
- 2040 PHV Without Powerline Rd Ramps



See Peak Hour Traffic Comparison (2 of 2)

## With Powerline Road Ramps

- ❖ Provides local access connections to Connector Lanes just east of Powerline Road and at the Newport Center Intersection
- ❖ The 2040 projected peak hour traffic volumes on local SW 10<sup>th</sup> Street are significantly less than the existing traffic between Powerline Road and Military Trail; traffic volumes are anticipated to decrease by **73%** in the AM and **52%** in the PM\*
- ❖ Traffic flow on the local lanes will not vary greatly between the build alternatives of With and Without Powerline Road Ramps. Both will significantly reduce travel times compared to the No-Build Alternative

## Without Powerline Road Ramps

- ❖ Does not provide local access connections to the Connector Lanes just east of Powerline Road (but will retain the local access connections proposed at the Newport Center Intersection)
- ❖ The 2040 projected peak hour traffic volumes on local SW 10<sup>th</sup> Street are significantly less than the existing traffic between Powerline Road and Military Trail; traffic volumes are anticipated to decrease by **40%** in the AM and **20%** in the PM\*
- ❖ Traffic flow on the local lanes will not vary greatly between the build alternatives of With and Without Powerline Road Ramps. Both will significantly reduce travel times compared to the No-Build Alternative

\* Reporting preliminary results.