

Orange County Prioritization Factors

INTRODUCTION

Orange County is developing a prioritization methodology for its Major Road Widening, Safety, and Operations Program. Because these three programs share common elements, individual projects may overlap or connect across multiple program areas.



The prioritization framework is guided by the following principles:

- A simple, repeatable process that can be applied consistently across corridors
- Reliance on accurate, up-to-date traffic counts
- A focus on existing conditions only, without applying growth factors
- Use of Synchro analysis to evaluate corridor performance
- Emphasis on safety, with particular attention to pedestrian-related crashes
- Leveraging the K-factor rather than relying solely on peak-hour volumes
- Recognition that context classification varies by segment, which can introduce complexity

PROCESS

The prioritization process follows a five-step sequence:

1. Develop and define evaluation factors and weighting,

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2. Apply weighted factors toward Orange County project list,
3. Identify and map candidate project corridors,
4. Apply weighted factors toward Orange County network and identify additional projects, and
5. Refine, adjust, and formally adopt the final prioritization.

PRIORITIZATION

Major Road Widening

Orange County's Capital Improvement Program (CIP) transportation policy is guided by a set of project-funding prioritization criteria, including:

- Safety for all transportation users, including drivers, pedestrians, and cyclists.
- Addressing capacity constraints or deficiencies in level of service.
- Availability and preservation of right-of-way needed for projects.
- Opportunities for partnerships with other agencies or organizations.
- Consistency with the County Comprehensive Plan and coordination with MetroPlan Orlando and FDOT programs.
- Support for alternative transit options and non-motorized transportation modes.
- Location within the County Urban Service Area, particularly designated Activity Centers.
- Relief of congestion on heavily used or backlogged facilities.
- Efficient and optimal use of existing transportation infrastructure.
- Support for emergency evacuation, response, and post-disaster recovery.

In addition to these County-level criteria, the prioritization framework incorporates federal merit criteria, recognizing that major road widening projects may require supplemental funding through state or federal grants. Current federal transportation policy emphasizes:

- Safety
- State of good repair and asset condition
- Economic competitiveness and mobility
- Environmental sustainability and climate resilience
- Project readiness and technical feasibility
- Funding strategy and cost effectiveness
- Innovation and technology

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These federal priorities are translated into quantifiable evaluation factors and integrated into the prioritization process.

The following table reflects the combined County and federal considerations and presents the recommended prioritization factors and associated weighting.

Category	Prioritization Factor / Metric	Evaluation / Scoring Scale	Weight
Safety	KSI Crash History	Quantified KSI rate per vehicle miles traveled	5
Mobility & Capacity	Existing Level of Service (LOS)	<ul style="list-style-type: none"> • 100 – LOS F • 80 – LOS E • 60 – LOS D • 40 – LOS C • 20 – LOS B • 0 – LOS A 	30
	Volume-to-Capacity (V/C) Ratio	<ul style="list-style-type: none"> • 100 – V/C > 2 • 50 – V/C 1-2 • 0 – V/C < 1 	20
State of Good Repair	Infrastructure Condition	Pavement/bridge condition rating (100 – Pavement Condition)	5
Right-of-Way & Feasibility	Right-of-Way Required	<ul style="list-style-type: none"> • 100 – No ROW needed • 0 – ROW required 	5
Freight & Emergency	Truck Volumes	<ul style="list-style-type: none"> • 100 – >10% • 80 – >8% • 60 – >5% 	5
	Evacuation Route	<ul style="list-style-type: none"> • 100 – Yes • 0 – No 	5
	Bridges	<ul style="list-style-type: none"> • 100 – No (bridge on corridor) • 0 – Yes 	5
Transit & Multimodal	Transit Routes	<ul style="list-style-type: none"> • 100 – 2+ routes • 50 – 1 route • 0 – none 	3

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Category	Prioritization Factor / Metric	Evaluation / Scoring Scale	Weight
	Support for Non-Motorized Modes	<ul style="list-style-type: none"> Enhances bike/ped connectivity 	2
Environmental & Resilience	Environmental Constraints / Benefits	<ul style="list-style-type: none"> 100 – No significant environmental impacts. 0 – Yes. Impacts to environmental factors. 	2
Land Use & Equity	County Comprehensive Plan Consistency	<ul style="list-style-type: none"> 100 – Yes 0 – No 	2
	Urban Service Area / Target Sector	<ul style="list-style-type: none"> 100 – Yes 0 – No 	2
	Disadvantaged Community / Area of Concern	<ul style="list-style-type: none"> 100 – Yes 0 – No 	2
Partnership & Funding	Partnership Potential	<ul style="list-style-type: none"> 100 – The project is located on a roadway owned by the County and a state/city agency. 0 – No partnership potential. 	2
	Cost Effectiveness	<ul style="list-style-type: none"> 100 – $BCA > 1.5$ 50 – $BCA > 1$, but < 1.5 0 $BCA < 1$ 	5

These factors were considered during the project prioritization evaluation; however, they were not included in the final scoring for the following reasons:

- AADT — Average Annual Daily Traffic is already incorporated within the Level of Service (LOS) analysis, which captures traffic volumes and operational performance.
- Regional Connectors — While corridors that function as regional connectors across multiple jurisdictions are important, additional emphasis on these corridors is applied during broader corridor planning rather than within the prioritization scoring.

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- Commissioner District — Commissioner districts are not included as a prioritization factor. Instead, district considerations are addressed during project level planning to ensure equitable distribution and coordination.
- Project Costs — Similar to commissioner districts, project costs are evaluated during project level planning. In the prioritization process, cost effectiveness is included through the Benefit Cost Analysis, which serves as a proxy to assess return on investment.
- Development — This factor was considered but ultimately not included in the prioritization scoring. While it can serve as a proactive measure for anticipating future growth, the current approach prioritizes addressing existing needs before allocating resources toward future development-driven demands.
- 85th or 50th Percentile Speeds — Major roadway widening projects aim to reduce congestion and improve mobility. Travel speeds are captured within the LOS analysis, which quantifies user delay and operational performance.
- Context Classification — This factor was excluded because a significant portion of the County's roadway network lacks an assigned context classification. According to the County's Vision Zero Action Plan, 50.3% of crashes and 49.9% of KSI (killed or seriously injured) crashes occurred on roadways without a context classification.

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Safety Projects

A review of Orange County’s Vision Zero Action Plan shows that 65.2% of all KSI (killed or seriously injured) crashes occur along the corridors. Among intersection related KSI crashes, 48.5% occur at signalized intersections, while 51.5% occur at unsignalized intersections.

Pedestrian involved crashes represent only 1.3% of all crashes, yet account for 12.0% of all KSI crashes. Bicycle involved crashes make up 0.8% of all crashes and 4.0% of KSI crashes. Motorcycle involved crashes represent 1.3% of all crashes, but 11.5% of KSI crashes.

Speed is a major contributing factor in fatal and serious injury outcomes. Corridors with posted speed limits ≤ 30 mph account for 14.7% of KSI crashes. Corridors posted at 35 mph account for 12.5%, 40 mph for 15.8%, and corridors posted ≥ 45 mph account for 53.8% of all KSI crashes. Higher posted speeds are strongly correlated with higher KSI crash rates, so posted speed limit will be included as a key evaluation factor in the prioritization process.

The Safety Prioritization Program uses these findings to recommend targeted safety initiatives across multiple facility types and user groups, including corridors, signalized intersections, unsignalized intersections, school zones, pedestrians, bicyclists, and motorcyclists.

The following tables present the recommended prioritization factors. With the creation of focused safety programs, the Safety Program budget should be allocated proportionally based on each category’s share of KSI crashes. The distribution of funding across these categories will need to be finalized.

Corridors

Metric	Evaluation	Weighting
Crash rate per VMT	Quantified KSI rate per vehicle miles traveled	50
Located on a HIN	<ul style="list-style-type: none"> • 100 – Yes • 0 – No 	5
Speed	<ul style="list-style-type: none"> • 100 – PSL ≥ 45 mph • 80 – PSL = 40 mph • 60 – PSL = 35 mph • 0 – PSL < 35 mph 	15
Pedestrian	5-year crash frequency	10
Bicycle	5-year crash frequency	10
Motorcycle	5-year crash frequency	10

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Signalized Intersections

Metric	Evaluation	Weighting
# fatal and severe injury crashes	KSI Crashes	70
Pedestrian	5-year crash frequency	10
Bicycle	5-year crash frequency	10
Motorcycle	5-year crash frequency	10

Unsignalized Intersections

Metric	Evaluation	Weighting
Crash rate per VMT	KSI Crashes	70
Pedestrian	5-year crash frequency	10
Bicycle	5-year crash frequency	10
Motorcycle	5-year crash frequency	10

Additional considerations are made for schools. Since addressing school safety is treated as a network of corridors and intersections, a separate safety program can be created to address school safety.

Operations Project

The Operations Projects focused on operational and safety improvements to improve traffic congestion. This applies for traffic, pedestrians, bicyclists, and transit users. Additionally, the overall pavement condition is important in maintaining a state of good repair.

Metric	Evaluation	Weighting
Pavement Condition Index	100 - PCI Score	40
Traffic Level of Service	<ul style="list-style-type: none"> • 100 - LOS F • 80 - LOS E • 60 - LOS D • 40 - LOS C • 20 - LOS B • 0 - LOS A 	12.5
Pedestrian Level of Service	<ul style="list-style-type: none"> • 100 - LOS F • 80 - LOS E • 60 - LOS D • 40 - LOS C • 20 - LOS B 	12.5

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	<ul style="list-style-type: none"> • 0 - LOS A 	
Bicycle Level of Service	<ul style="list-style-type: none"> • 100 - LOS F • 80 - LOS E • 60 - LOS D • 40 - LOS C • 20 - LOS B • 0 - LOS A 	12.5
Transit Level of Service	<ul style="list-style-type: none"> • 100 - LOS F • 80 - LOS E • 60 - LOS D • 40 - LOS C • 20 - LOS B • 0 - LOS A 	12.5
Right of Way Existing infrastructure	<p>100 – Project does not require additional ROW.</p> <p>0 – Project requires additional right of way.</p>	10

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