

Delaware Department of Transportation  
Dover-Kent MPO  
Technical Advisory Committee  
February 18, 2020

DeIDOT

# Why consider changes now?

- ▶ Current process was adopted in December 2013
- ▶ DeIDOT's current investments in data collection allows the opportunity for more “data-driven” process
- ▶ **Other criteria have evolved**, possibly better able to “drive the CTP”

## PRIORITIZATION PROCESS REVISIONS & UPDATES

Existing Criteria	Current	Proposed	(Proposed New Element)
Safety	33.0%	35.0%	Safety <b>Crash Index</b> <b>Safety Score</b> <b>State Highway Safety Program</b>
System Operating Effectiveness	24.8%	19.1%	Existing Congestion Level <b>(TMC Data)</b>
Multi-Modal Mobility Flexibility & Access	15.6%	11.85%	(No Technical Changes at this Time.)
Revenue Generation Economic Development Jobs & Commerce	7.9%	13.11%	Economic Impact <b>(TREDIS)</b>
Impact on the Public Social Disruption Environmental Justice	7.2%	8.28%	Social and Health Impact <b>(EPA EJ Screen)</b>
Environmental Impact	6.5%	6.6%	(No Technical Changes at this Time.)
<b>System Preservation</b>	5.0%	6.06%	<b>Priority</b> <b>State (Strategic Investment Levels)</b> <b>Local (County / MPO Priority)</b>
	100%	100%	

# Safety

## Existing

- Safety (33%)
  - Identified in Safety Program – 26.4%
  - Address Strategies in State Highway Safety Program (SHSP) – 6.6%

## Proposed

- Safety (35%)
  - Critical Crash Ratio – 12.7%
  - Crash Index – 16.2%
  - Address Strategies in State Highway Safety Program (SHSP) – 6.1%

# System Operating Effectiveness

## Existing

- System Operating Effectiveness (24.8%)
  - Existing Level of Service – 12.4%
  - Identified as a Congested Corridor by the MPO/Comprehensive Plan/Studies – 12.4%

## Proposed

- System Operating Effectiveness (19.1%)
  - Existing Congestion Level – 12.4%
  - Identified as a Congested Corridor by the MPO/Comprehensive Plan/Studies – 6.7%

# Potential CTP Project Prioritization Criteria

## ▶ System Operating Effectiveness

### ○ Existing Congestion Level

- Studies, TIS, TMC , Traffic Count, and TDM

#### ○ Intersection

- Weekday Peak Hour Volume
- First week of June or Second Week of October
- Tuesday or Wednesday

- Identified as Congestion Corridors by MPO, County Comprehensive Plans, and/or Planning Studies

### ○ DeIDOT TMC Operation Data

- Bluetooth Readers
- Traffic Signal System Detectors

- TMC operations data is collected 24/7/365 to provide a more complete picture of traffic operations

- The traffic monitoring system is expanding every year, adding more and more devices

# Revenue Generation/Economic Development/Jobs & Commerce

## Existing

- Revenue Generation/Economic Development/Jobs & Commerce (7.9%)
  - Located in a Transportation Improvement District – 2.63%
  - Degree of Non-State/Non-Federal Contribution – 2.63%
  - Located in the Designated Freight Corridor – 2.63%

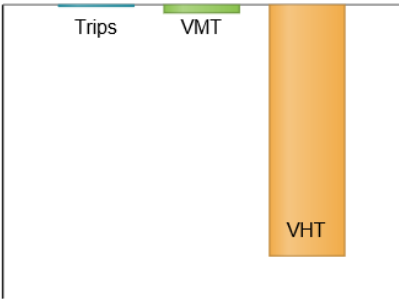
## Proposed

- Revenue Generation/Economic Development/Jobs & Commerce (13.1%)
  - Located in a Transportation Improvement District – 3.18%
  - Degree of Non-State/Non-Federal Contribution – 1.64%
  - Located in the Designated Freight Corridor – 2.59%
  - Economic Impact -- 5.7%

# TREDIS Example

## Travel Impact

Project investment of **\$250M** results in travel changes



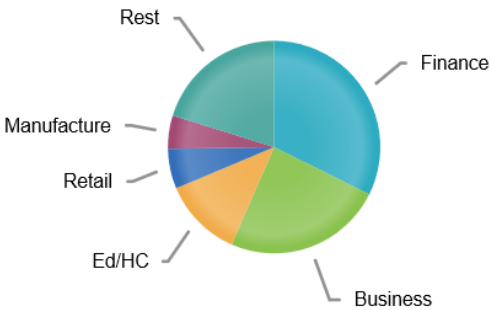
## Societal Benefit

Resulting changes in the transportation system yield benefits of **\$9.58M**



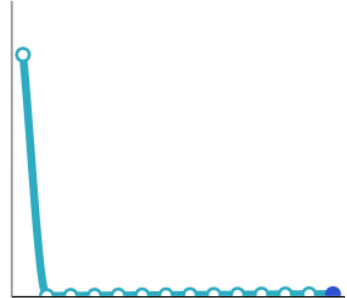
## Economic Impact

Project increases **Gross Regional Product** by **\$2M**



## Jobs by Year

Project creates **17 jobs, 32%** with above average wages





# Impact on the Public/Social Disruption/Environmental Justice Criteria Comparison

## Existing

- Impact on the Public/Social Disruption/Environmental Justice (7.2%)
  - Assess the extent to which the project supports investment in existing communities and provides community enhancements such as sidewalks, safe routes to school, etc. – 7.2%

## Proposed

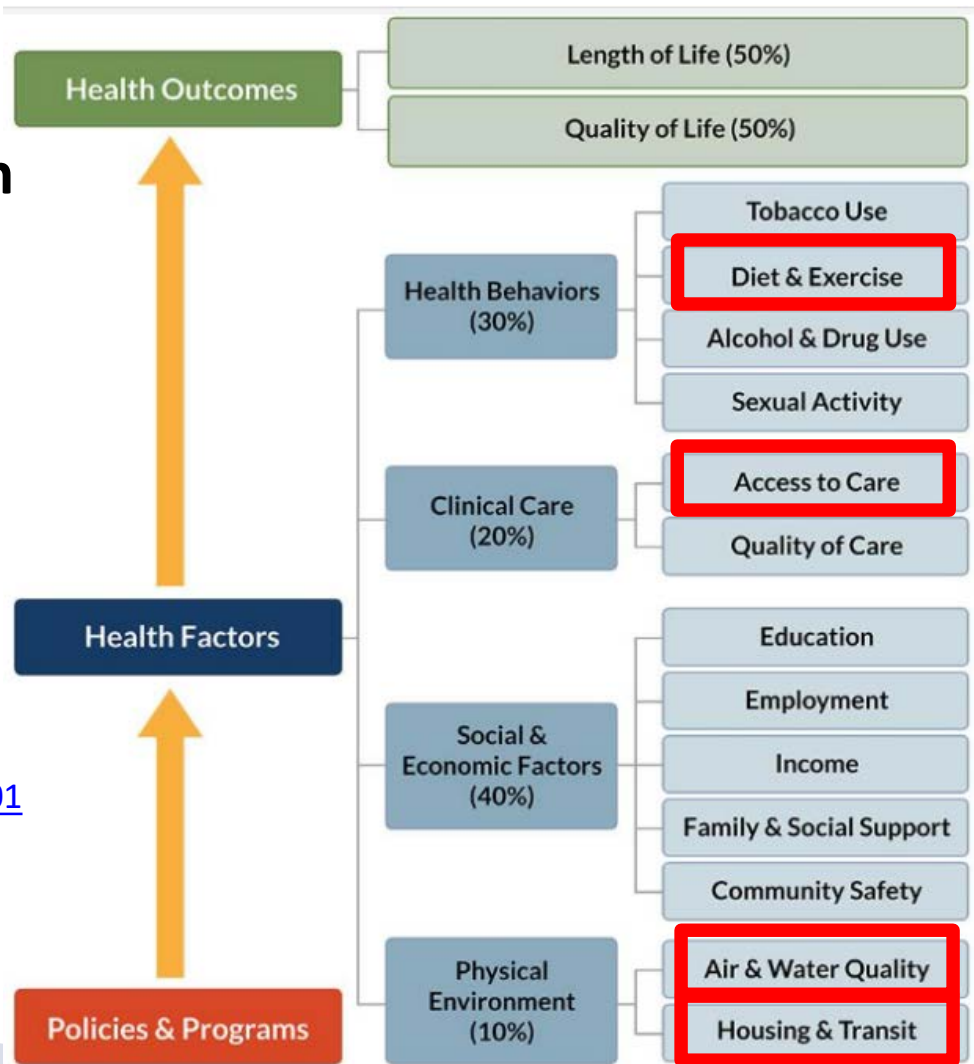
- Impact on the Public/Social Disruption/Environmental Justice (8.28%)
  - Assess the extent to which the project supports investment in existing communities and provides community enhancements such as sidewalks, safe routes to school, etc. – 4.33%
  - Social and Health Related Elements – 3.95%

# Social Determinants of Health (SDoH)

“State innovation models are exploring connections among health care, social services, . . . **transportation**, housing, and food with the assumption that outcomes and cost will improve.

Sources: “County Health Rankings & Roadmaps”.  
<https://www.countyhealthrankings.org/our-approach>.

National Academy of Medicine  
<https://www.nam.edu/social-determinants-of-health-101>



# Social and Health Related Elements

- **Scale for 50 – 100 percentile  
(Above State Average)**

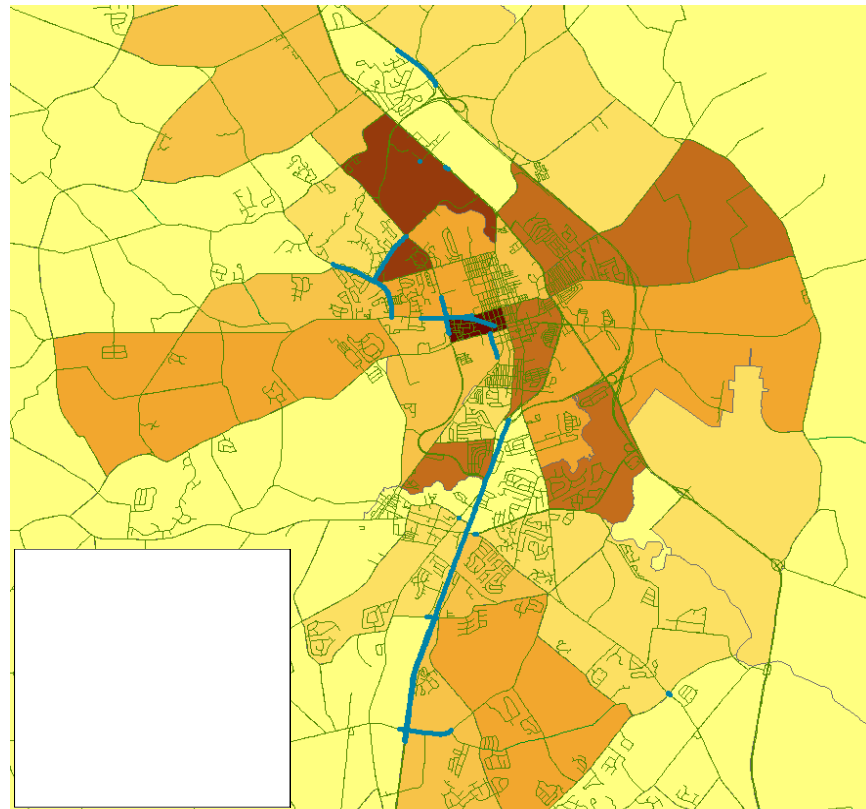
- 5 pt. for 90 – 100 percentile
- 4 pt. for 80 – 90 percentile
- 3 pt. for 70 – 80 percentile
- 2 pt. for 60 – 70 percentile
- 1 pt. for 50 – 60 percentile

- **Max. pt. = 10**

- 5 for Low Income Population
- 5 for Minority

- **Min. pt. = 0**

EPA EJ Screens Demographic Indicators  
(<https://ejscreen.epa.gov/mapper/>)



# Potential CTP Project Prioritization Criteria

(continued)

## ▶ ~~System Preservation (Delete)~~

- Assess the extent to which a project contributes towards system preservation and is identified through an existing preservation program
- DeIDOT currently has a system preservation program for bridge, roadway pavement, signage, etc.
  - Around 90% of the current projects not applying this criteria.

# Potential CTP Project Prioritization Criteria

(continued)

## State Priority (3.92%)

- Delaware Strategies for State Policies and Spending
  - Prepared by Delaware Office of State Planning Coordination
    - Project Type matches the State Investment Level
    - Scheduled to be updated in 2020.

## Local Priority (2.14%)

- Local Priority: Top 10 projects identified by Delaware MPOs and Sussex County that are supported by the local and/or state planning efforts could be given a higher weight in Decision Lens
  - Top ten (10) Local Priority Projects from each MPOs or Sussex County will be scored.

# Delaware Strategies for State Policies and Spending

Transportation Investment Type	Level 1 Urbanized Area	Level 2 Developed Area	Level 3 Developing Area	Level 4 Rural
Preserving Existing Facilities	X	X		X
Safety Improvement	X	X		X
Context-Sensitive Transportation	X	X		
System Capacity Enhancement	X	X		
Transit System Enhancement	X	X		
ADA Accessibility	X	X		
Bicycle Facilities	X	X		
Signal System Enhancement	X	X		
Interconnectivity of Neighborhoods and Public Facilities	X	X		
Focus on Regional Movements between towns and other population centers.			X	
Developers and property owners will make local roadway improvements.			X	
Lower priority to transportation system -- capacity improvements			X	
Lower priority to transportation system --transit system improvement			X	
Corridor-capacity preservation				X
Enhancement of transportation facilities to support agricultural business				X

# *Questions*

**Public Comment**

<https://deldot.gov/Publications/reports/CTP/index.shtml>

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