



Connecticut Department of
Transportation
Bureau of Policy & Planning
Performance Management Unit

CTDOT Performance Based Planning and Programming (PBPP) Initiative

By Ricky Milliner





The PBPP Journey

Timeline of PBPP

Photo Credit: CTDOT



Our Journey



2021



The Pilot



- ❖ Developed major project prioritization framework in compliance with *CT Gen Stat § 13b-13c*
- ❖ Major highway projects were evaluated
- ❖ Identified challenges and Performance-Based Planning and Programming (PBPP) best practices

2022



Getting to Version One



- ❖ Inclusive of bicycle and pedestrian benefits
- ❖ Enhancing criteria and methods
- ❖ Additional focus on Greenhouse gas emission and equity impacts
- ❖ Roadmap for performance data to inform the full project development lifecycle





Version One PBPP

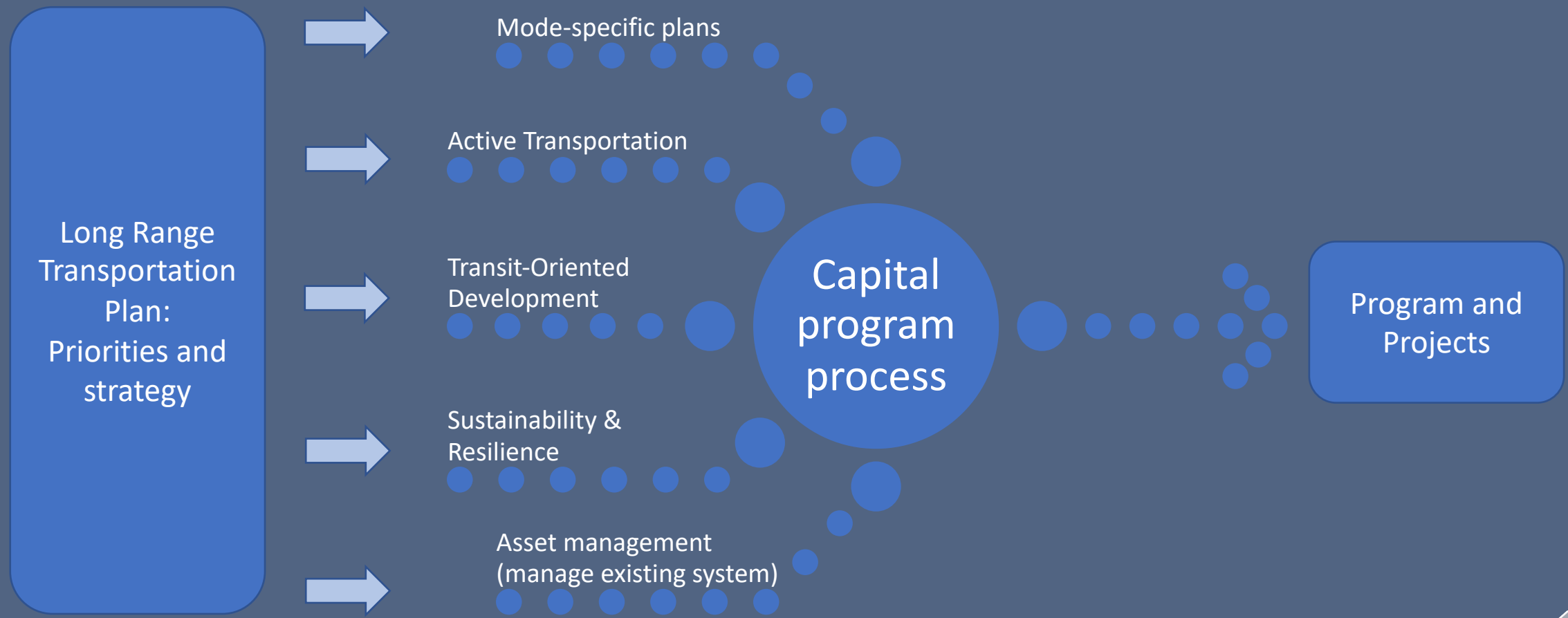
Overview of getting to version
one

Photo Credit: CTDOT



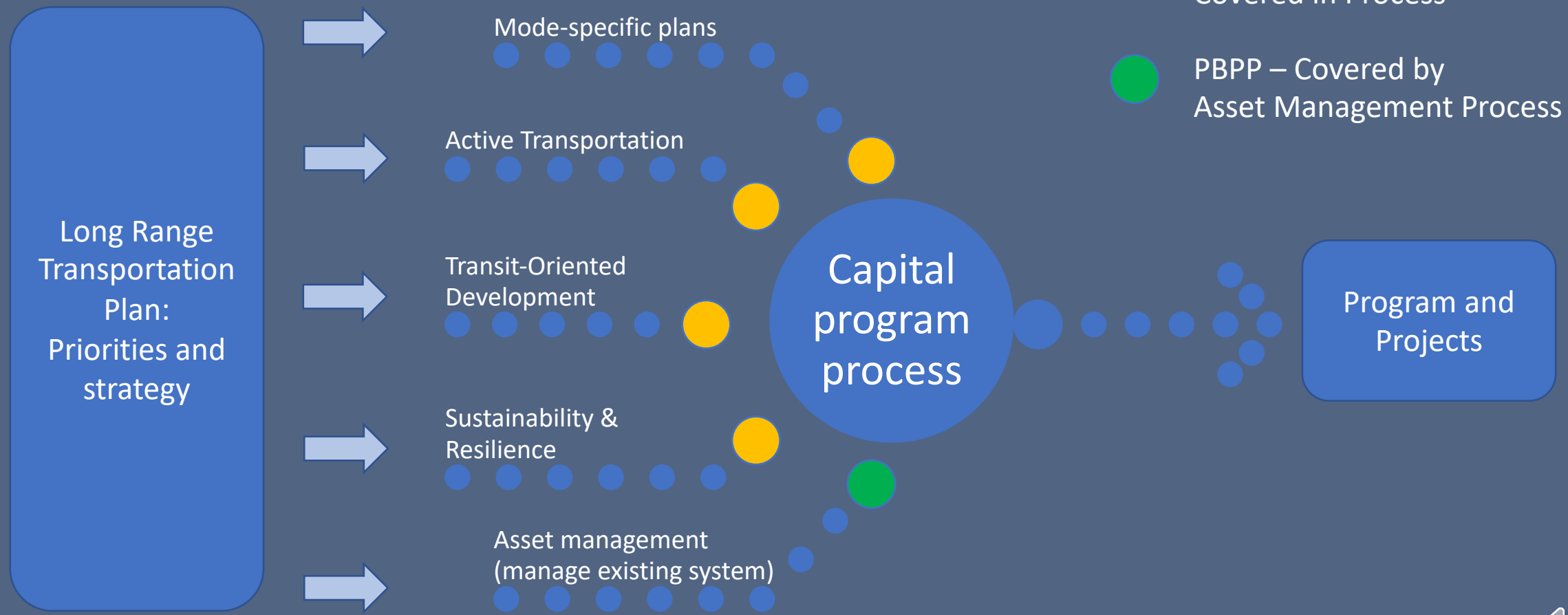




PBPP project in CT - “Project Prioritization Pilot”





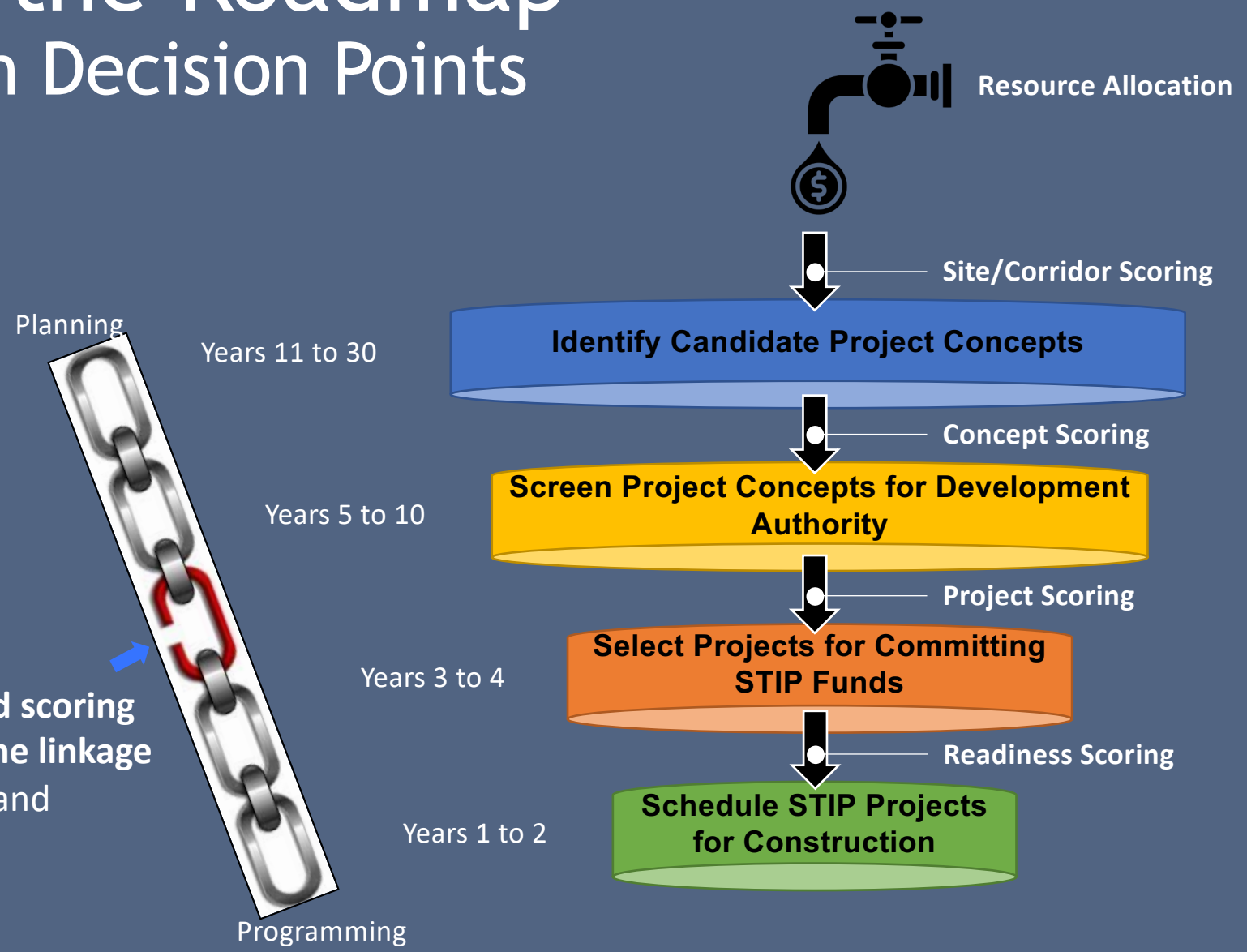
PBPP project in CT - "Project Prioritization Pilot"



-  PBPP – "Prioritized Needs" Covered in Process
-  PBPP – Covered by Asset Management Process



Building the Roadmap Focusing on Decision Points



Performance-based scoring helps strengthen the linkage between planning and programming

Enhancing Criteria & Methods



The following draft criteria were designed to align with CTDOT's strategic goals and objectives



Enhanced Safety

- Reduces Fatalities and Injuries



Environmental Stewardship

- Improves air quality
- Mitigates climate change



Economic Growth

- Creates jobs
- Increases productivity



Accessibility & Equity

- Encourages density
- Provides multimodal choices for low-income neighborhoods
- Improves commutes for transportation disadvantaged users



Bridge Preservation

- Improves structural health
- Mitigates structural risk



Pavement Preservation

- Reduces long-term costs



Congestion Relief

- Improves travel time reliability
- Reduces delay for all modes



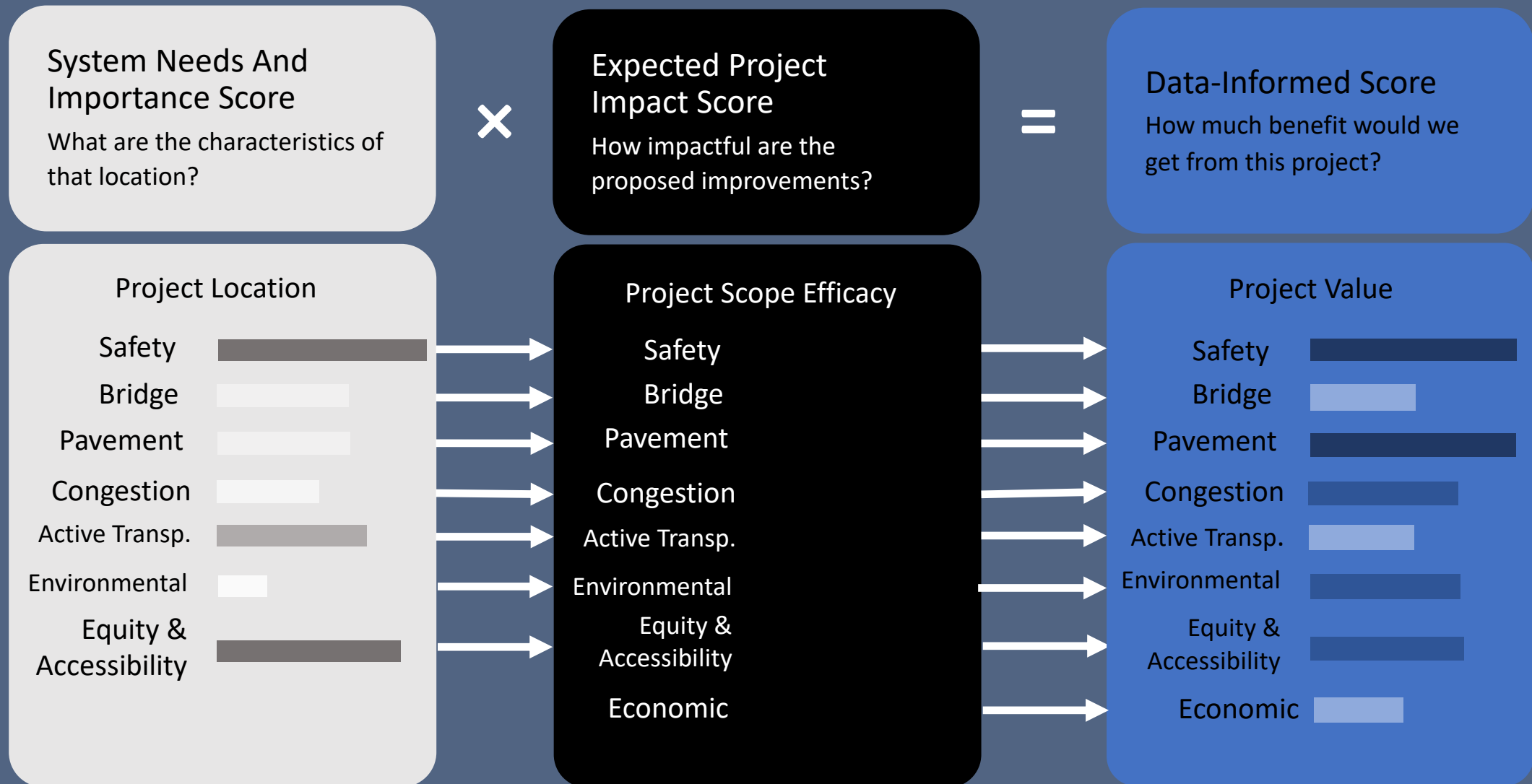
Active Transportation

- Enhances safety for bicyclists and pedestrians
- Expands network connectivity



2) Data Informed Score Calculation

Project scores are a blend of project site conditions and project impact, and their alignment to one another



Dataset Overview – Accessibility and Equity

Justice40 Initiative “Transportation Disadvantaged” Locations

Census tracts are identified as disadvantaged in one or more categories of criteria:

IF the census tract is above the threshold for one or more environmental or climate indicators

- Climate change
- Clean energy & energy efficiency
- Clean transit
- Affordable and sustainable housing
- Reduction and remediation of legacy pollution
- Critical clean water and wastewater infrastructure
- Health burdens
- Training and workforce development

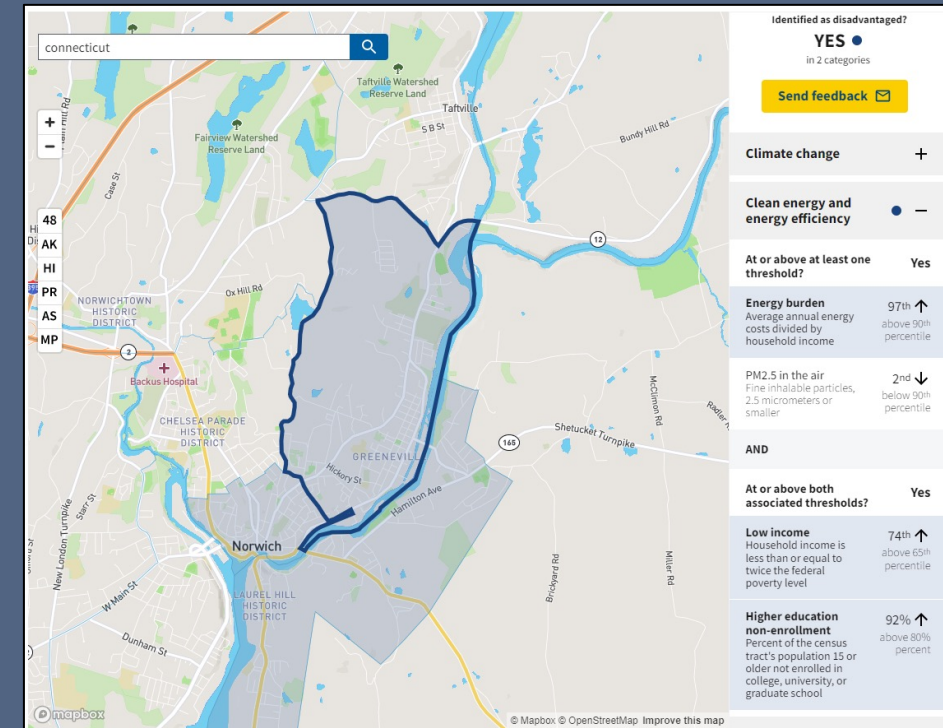
AND the census tract is above the threshold for the socioeconomic indicators

At or above the 65th percentile for **low income**

AND

80% or more of individuals 15 or older are not enrolled in **higher education**

Climate and Economic Justice Screening Tool



<https://screeningtool.geoplatform.gov/en/methodology#12.59/41.54263/-72.05898>



Dataset Overview – Accessibility and Equity

Longitudinal Employer-Household Dynamics Origin-Destination Employment Statistics

“The Longitudinal Employer-Household Dynamics (LEHD) program is part of the Center for Economic Studies at the U.S. Census Bureau. The LEHD program produces cost effective, public-use information combining federal, state and Census Bureau data on employers and employees”

LEHD Origin-Destination Employment Statistics (LODES)

- Workplace census block
- Home census block
- Total number of jobs; split by earnings, age, and sectors

Origin-Destination (OD) File Structure			
Pos	Variable	Type	Explanation
1	w_geocode	Char15	Workplace Census Block Code
2	h_geocode	Char15	Residence Census Block Code
3	S000	Num	Total number of jobs
4	SA01	Num	Number of jobs of workers age 29 or younger ¹⁸
5	SA02	Num	Number of jobs for workers age 30 to 54 ¹⁸
6	SA03	Num	Number of jobs for workers age 55 or older ¹⁸
7	SE01	Num	Number of jobs with earnings \$1250/month or less
8	SE02	Num	Number of jobs with earnings \$1251/month to \$3333/month
9	SE03	Num	Number of jobs with earnings greater than \$3333/month
10	SI01	Num	Number of jobs in Goods Producing industry sectors
11	SI02	Num	Number of jobs in Trade, Transportation, and Utilities industry sectors
12	SI03	Num	Number of jobs in All Other Services industry sectors
13	createdate	Char	Date on which data was created, formatted as YYYYMMDD

<https://lehd.ces.census.gov/data/#lodes>



Project Rankings and Weights

Preservation

Safety

Mobility

Criticality

ALTERNATIVE	VALUE	DISTRIBUTION
Interstate 76 Add Lane Capacity	.93	
Construct Park and Ride Facility along...	.85	
Interstate 10 Bridge Replacement and...	.84	
ATMS Implementation approaching...	.80	
Interstate 80 Corridor Reconstruction	.75	
Interstate 76 Managed Lanes	.74	
Interstate 70 Safety Enhancements	.72	
Interstate 70 Pavement Rehabilitation...	.67	
Interstate 280 Bridge Seismic Retrofit	.64	
State Route 43B Bridge Replacement	.62	
State Route 60 TWLTL Construction	.55	
US Route 101 River Bridge Reconstruction	.45	
Interstate 5 Major Rehabilitation	.31	
State Route 50 Deck Replacement and...	.22	





Thank you!





Questions?

Ricky Milliner | Ricky.Milliner@ct.gov | 860-594-2496

