Toms River Waterfront and Surrounding Area Concept Development Study

Public Information Center #2

April 8, 2021

Agenda

- **Project Delivery Process**
- Project Location/Background
- Existing & Future Conditions
- Purpose and Need
- Public Involvement Center #1 Feedback
- Concepts
- Public Involvement & Comments
- Schedule & Next Steps

Project Delivery Process

1. LOCAL CONCEPT DEVELOPMENT	2. LOCAL PRELIMINARY ENGINEERING	3. FINAL DESIGN/ROW ACQUISITION	4. CONSTRUCTION
Purpose & Need Statement	Approved Design Exception Report	Construction Contract Documents & PS&E Package	Completed Construction
Data Collection & Environmental Screening Report	Cost Estimates (Final Design, ROW & Construction)	Environmental Reevaluations	As-Built
Selection of Preliminary Preferred Alternative	Approved Environmental Document	Environmental Permits	Update & Finalize Design Communications Report
Concept Development Report	Approved Project Plan	Acquisition on ROW	Close-out Documentation
NEPA Classification	Preliminary Engineering Report	Update Design Communications Report	
Create Design Communications Report	Update Design Communications Report		
Initial Public Outreach & Involvement	Continued Public Outreach & Involvement	Continued Public Outreach & Involvement	Continued Public Outreach & Involvement

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Project Location

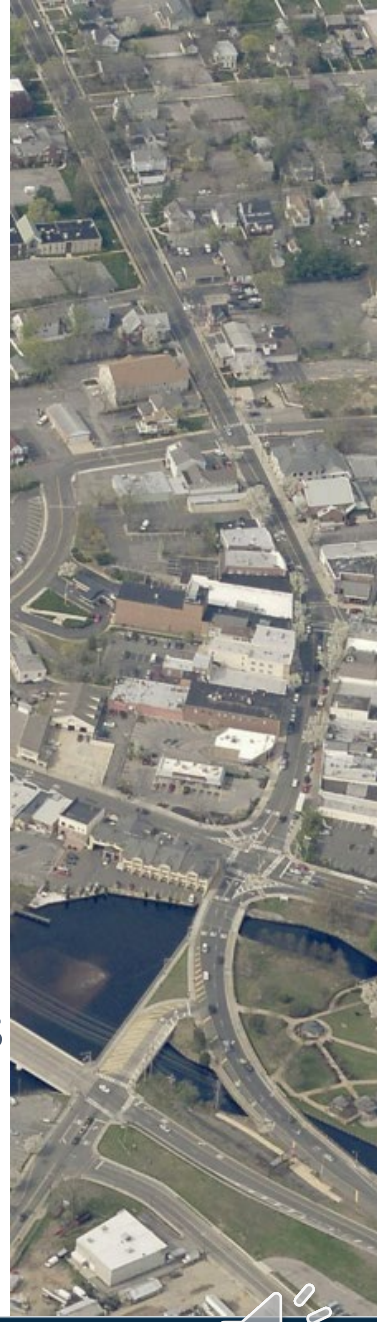
Toms River Township

Project Background

- Downtown Circulation Neighborhood Plan – June 2016
- Redevelopment Plan for Phase 1 Downtown Waterfront Redevelopment Area – November 2017
- USDOT awarded Toms River Federal BUILD Grant
  - BUILD = Better Utilizing Investments to Leverage Development
  - December 2018
  - $5.7 Million
  - Infrastructure improvements to support waterfront development

Project Background

- Water Street/Highland Parkway/GSP NB Ramps
  - Key safety problem location for Ocean County
  - Congestion and spillback towards GSP
- Existing congestion along Water Street during peak periods
  - County adjusted signal timings in 2017 to reduce extensive queuing
- Road Safety Audit (RSA) along Water Street completed in 2018
  - Need for improved pedestrian accessibility
  - Evaluate roundabout at Water Street/Highland Parkway/GSP NB Ramps



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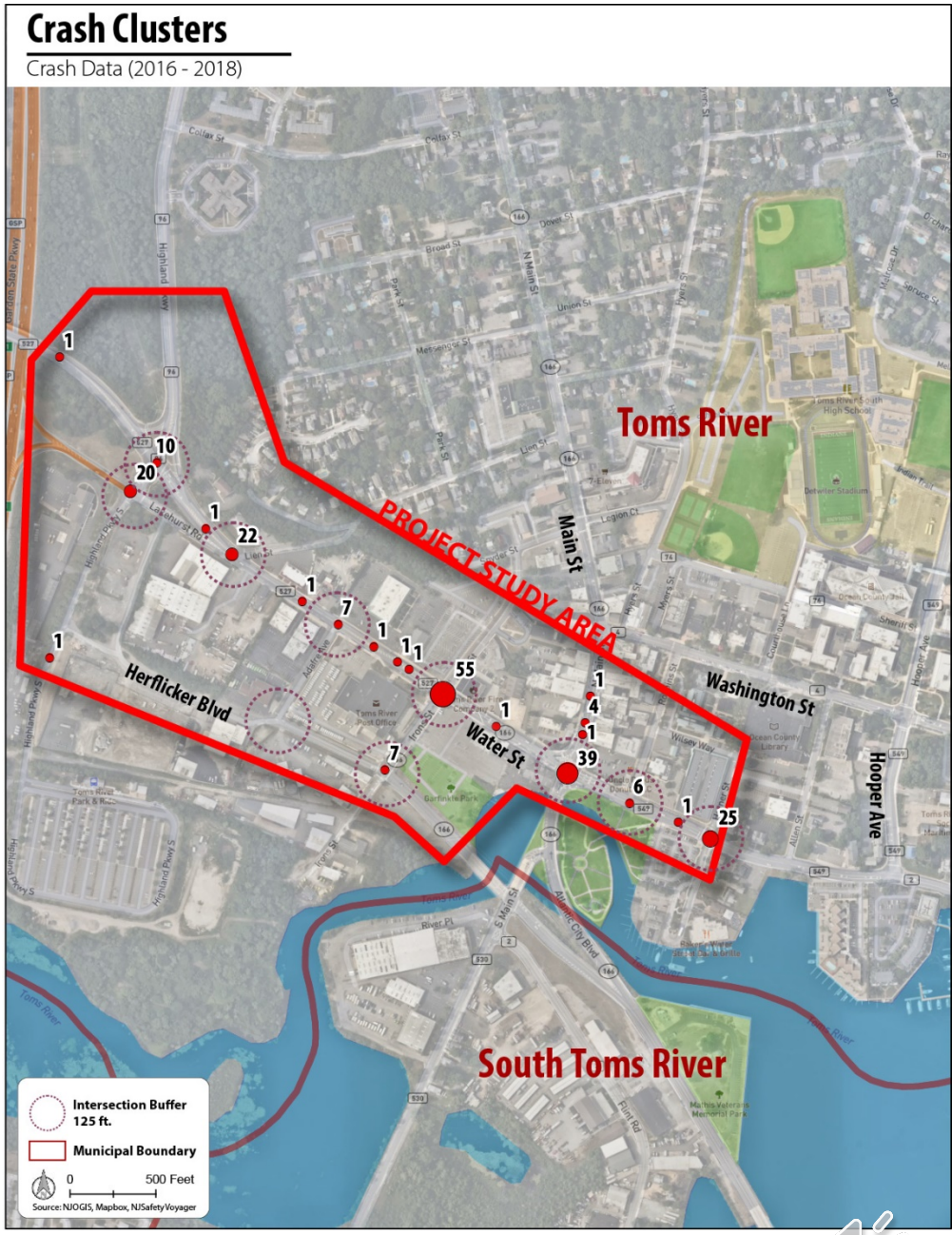
Existing Conditions Analysis

- Safety
  - Crash Data (2016-2018)
    - 208 **total** crashes within project study area
    - 18% resulted in some degree of injury
    - 2 fatalities (both pedestrians)
  - Key Problem Spots
    - Water Street/Irons Street = **55 crashes**
    - Water Street/RT 166 = **39 crashes**
    - Water Street/Highland Pkwy = **52 crashes**
      - ➢ ***GSP NB Ramp – 22 crashes***
  - High crash rate on Water Street



Existing Conditions Analysis

Water St/Irons St

- Water St EB AM/PM Queuing
- Water St WB PM Queuing to RT 166

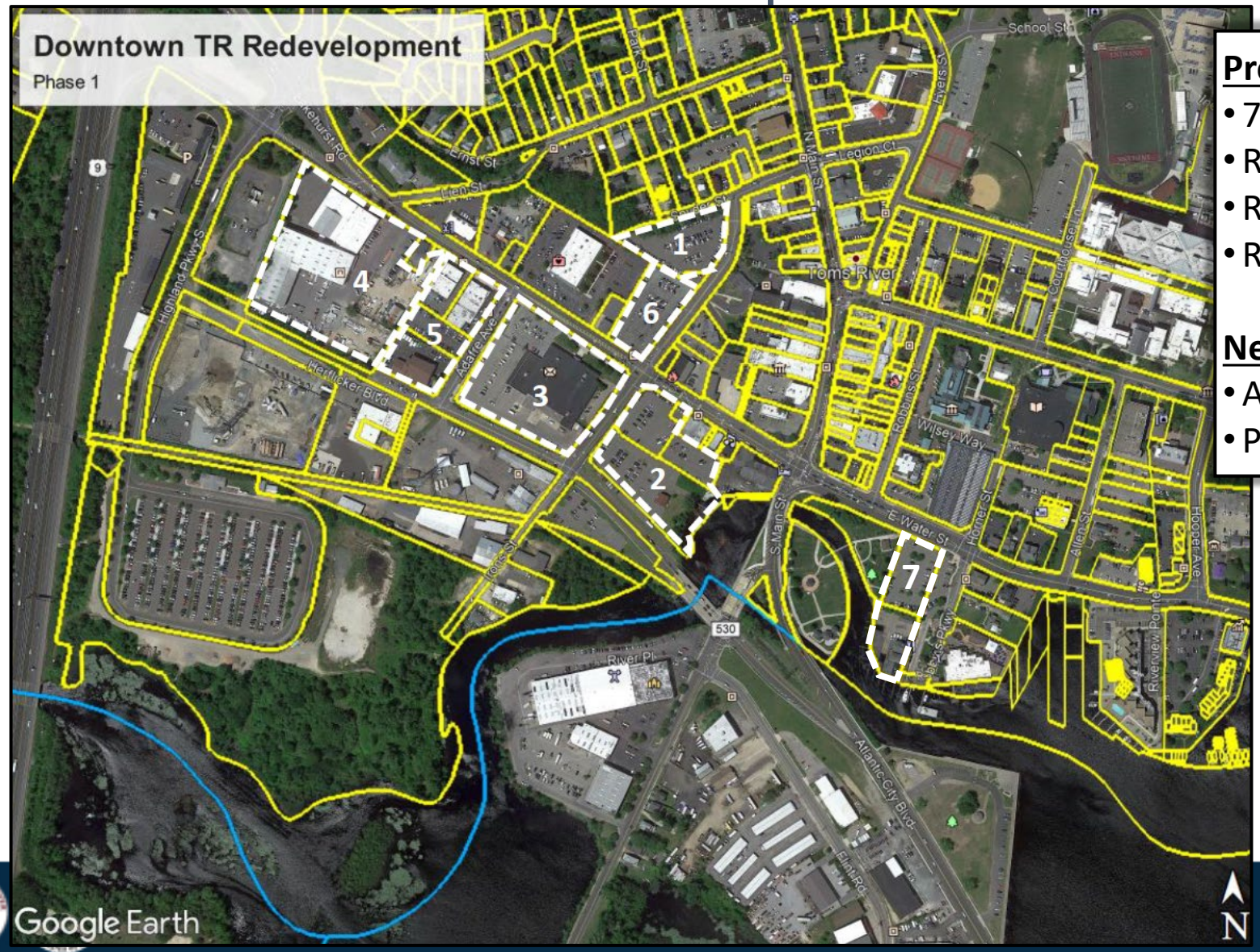
Water St/Highland Pkwy/GSP NB Ramps

- GSP NB Ramps heavier in AM
- Spillback onto GSP
- STOP and Signal closely spaced
- Minimal storage between intersections

Future Conditions

- Background growth rate
  - NJTPA population & employment data for Ocean County, Toms River & South Toms River
- Planned Development

Waterfront Redevelopment Plans



Proposed Development

- 7 Sites including Meridia 1/Robbins Ln
- Residential = 1529 Units
- Retail = 79,370 SF
- Restaurant = 31,000 SF

Net Traffic Trips Generated

- AM Peak = 711 trips
- PM Peak = 1088 trips

Future Conditions

- Background growth rate
  - NJTPA population & employment data for Ocean County, Toms River & South Toms River
- Planned Development
- Future year = 2025 Opening + 20 Years = 2045 Design
- **2045 No Build**
  - Background growth rate applied to the traffic from existing condition
- **2045 Base Build**
  - Includes background growth & projected development
  - No infrastructure improvements

Future Conditions – Key Intersections

Intersection	AM Peak														
	NB			SB			EB			WB			ALL		
	Existing	No Build	Base Build	Existing	No Build	Base Build	Existing	No Build	Base Build	Existing	No Build	Base Build	Existing	No Build	Base Build
Water/Highland/GSP	E	E	F	B	B	B	B	B	C	B	B	C	B	C	D
Water/Adafre	D	D	F				D	C	F	A	A	A	C	B	E
Water/Irons				C	E	E	D	C	D	B	C	D	C	C	D
Water/RT 166	A	B	B	A	A	A	B	B	C	D	E	F	B	C	D
RT 166/S Main	A	B	C				F	E	F				B	C	C
Herflicker/Irons (1)	C	A	A	A	A	A	B	B	E				A	A	A
Herflicker/S Main	F	E	F				B	B	B	E	E	F	C	C	D

Intersection	PM Peak														
	NB			SB			EB			WB			ALL		
	Existing	No Build	Base Build	Existing	No Build	Base Build	Existing	No Build	Base Build	Existing	No Build	Base Build	Existing	No Build	Base Build
Water/Highland/GSP	C	F	F	B	C	C	B	D	F	C	C	D	B	D	F
Water/Adafre	D	F	F				C	F	F	A	A	A	B	D	E
Water/Irons				D	D	F	E	E	E	B	C	C	C	D	D
Water/RT 166	B	B	C	A	A	B	A	A	A	D	D	E	C	C	D
RT 166/S Main	A	A	A				D	F	F				A	C	C
Herflicker/Irons (1)	F	F	A	A	A	B	F	F	F				A	C	C
Herflicker/S Main	E	F	F				C	D	E	E	E	E	C	E	F

(1) Base Build condition includes signalization of the Herflicker/Irons intersection

Future Conditions – Key Intersections

TRAVEL TIME (minutes)					
Roadway	Peak	Direction	Existing	No Build	Base Build
Water Street	AM	EB	3.7	3.4	5.6
		WB	3.1	4.8	11.4
	PM	EB	3.3	4.9	7.9
		WB	3.5	4.7	6.6

- Existing to Base Build Travel Time increase:
  - AM = 51% to 268%
  - PM = 89% to 139%

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Project Purpose & Need

Project Purpose

- The purpose of this project is to develop conceptual infrastructure improvements that address existing safety and operational issues while providing capacity for planned re-development of the waterfront area in Toms River.

Project Purpose & Need

Project Need

- Safety
  - Crash rate on Water Street is significantly higher than statewide average
  - Fatality rate is five (5) times higher than the statewide county roadway system
  - Same Direction – Rear End and Sideswipe crashes are 20% higher than statewide county roadway system
- Congestion
  - Existing Congestion and queueing at several locations within the project area
  - Future delays and travel times expected to increase significantly with or without planned redevelopment
    - **Travel times on Water Street increasing from 3.1 min to over 11 min with development**

Goals and Objectives

- Improve Bicycle and Pedestrian accessibility and accommodations
- Accommodate existing and future multimodal transportation networks
- Minimize environmental, utility and ROW impacts
- Mitigate the impacts of future storm events
- Promote redevelopment
- Help create a sense of place and support utilization of inactive areas of the Downtown Waterfront area

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PIC Feedback

- Seeking revitalization and more activity in the Waterfront Area
- Support for the Downtown Waterfront Area Redevelopment Plan
  - Create an economic hub/destination
- Concerns about flooding
- Support for bicycle-friendly, walk-friendly, multimodal infrastructure
- Seeking bicycle-pedestrian connections to Bus Terminal
- On & off-ramps to GSP are known hazardous locations

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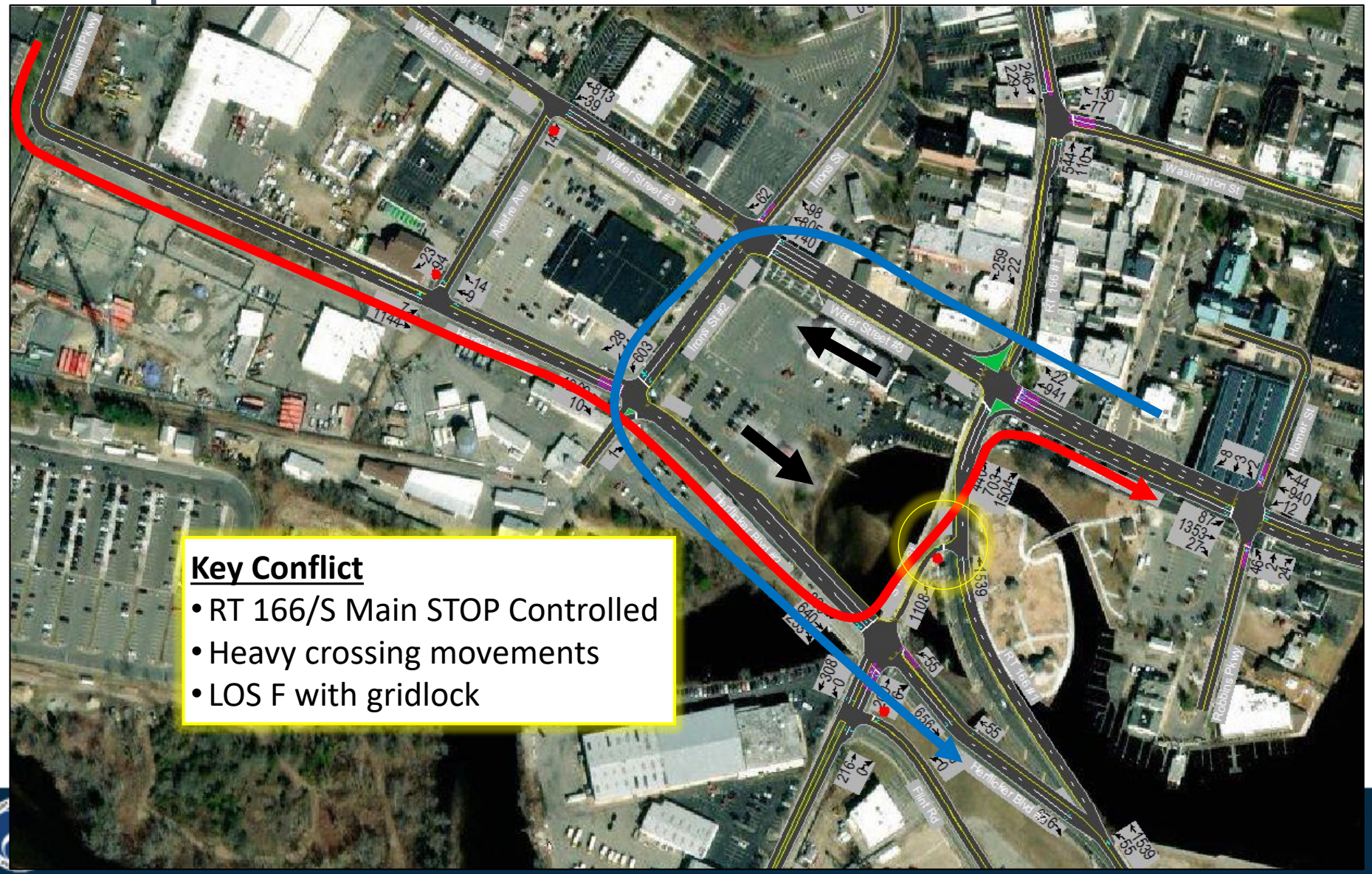
Concepts

1. The Loop Road
2. Water Street Widening
3. Intersection Improvement Plan

1. Loop Road


Highland Pkwy
Water Street #2
Water Street #3
Acadia Ave
Irons St
Washington St
Hamer St
Robbins Pkwy
Flint Rd
Hemlock Blvd
Key Conflict
• RT 166/S Main STOP Controlled
• Heavy crossing movements
• LOS F with gridlock

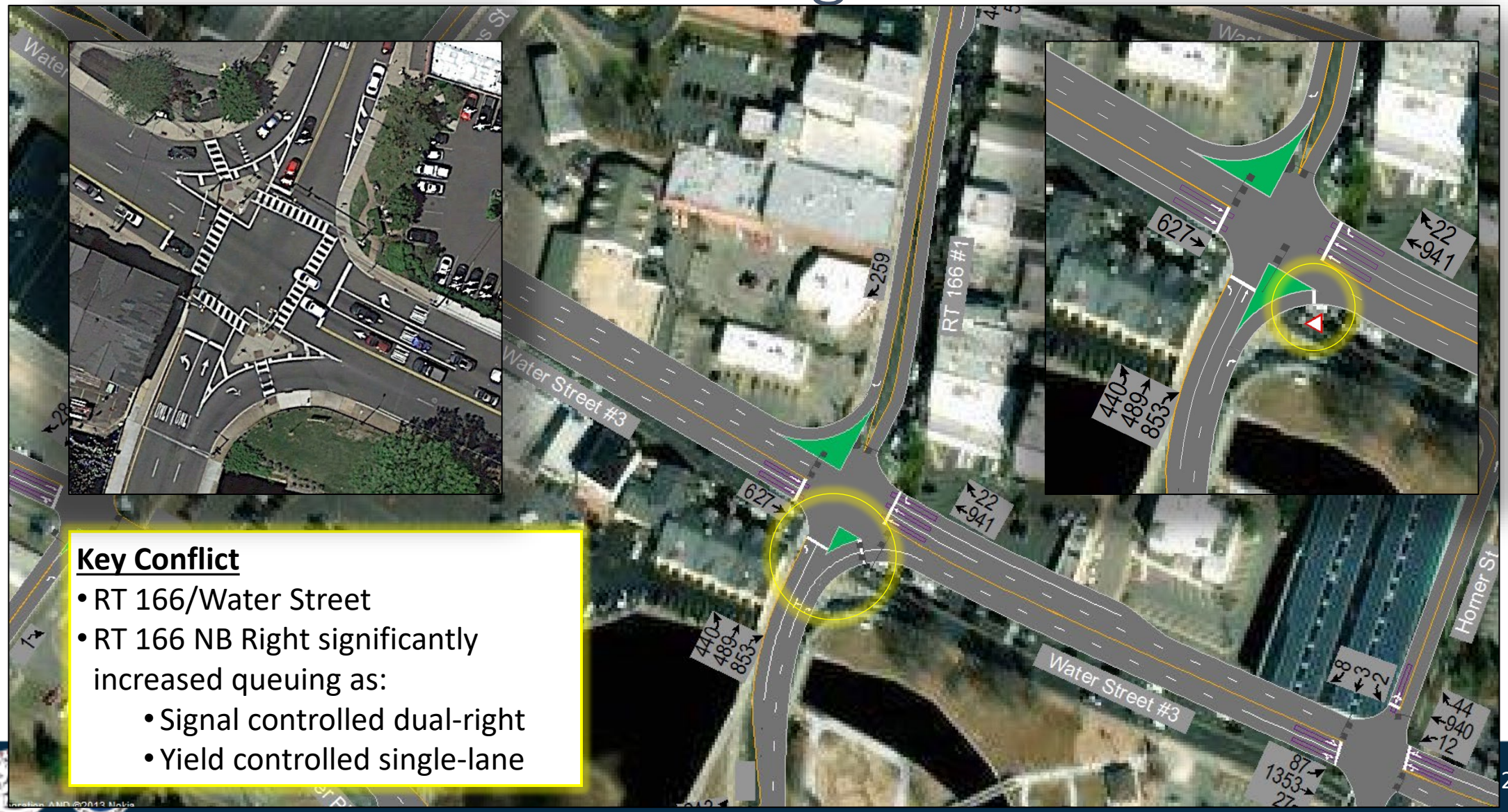
1. Loop Road

- Gridlock at RT 166/S. Main Street STOP sign
- Tested several additional modifications to alleviate this issue:
  - Signalize RT 166/S. Main Street
  - Irons Street 2-way
  - Utilizing Adafre Ave for RT 166 SB movement

Concepts

1. Loop Road
2. **Water Street Widening**
3. Intersection Improvement Plan

2. Water Street Widening



Key Conflict

- RT 166/Water Street
- RT 166 NB Right significantly increased queuing as:
  - Signal controlled dual-right
  - Yield controlled single-lane

Concepts

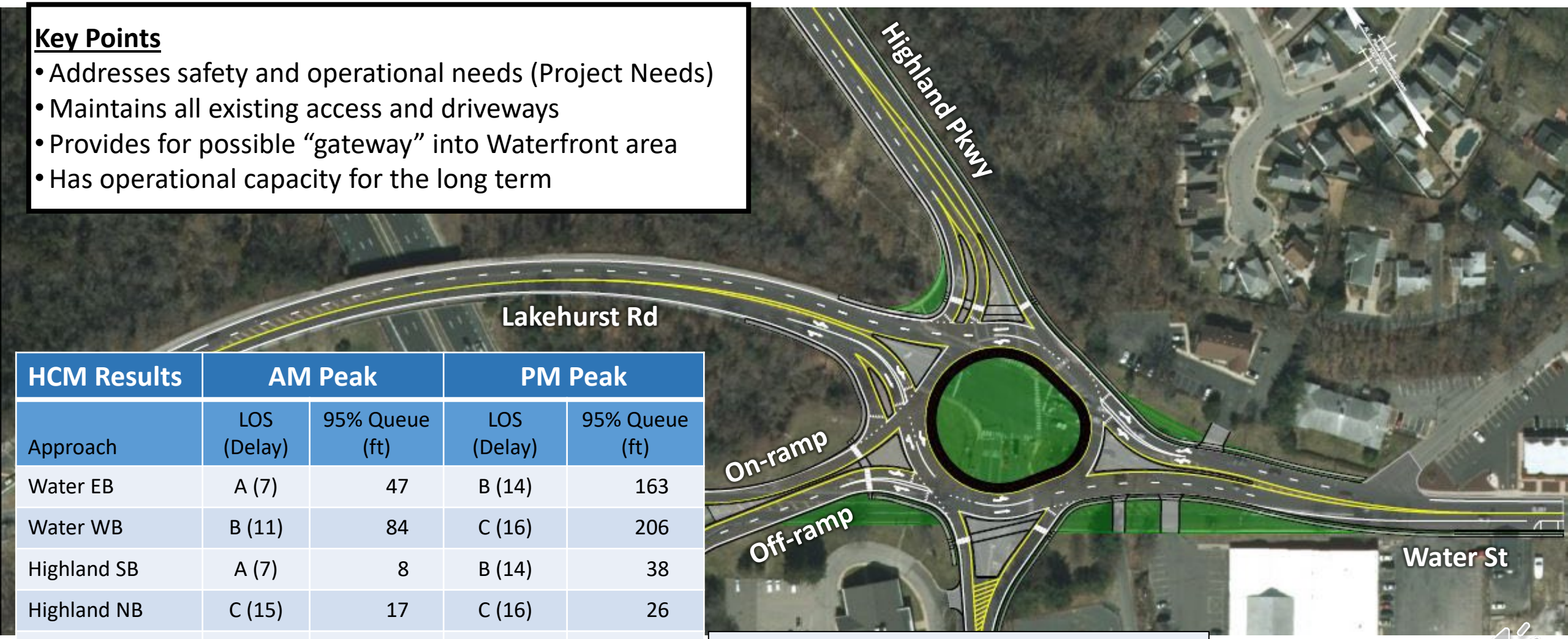
1. Loop Road
2. Water Street Widening
3. **Intersection Improvement Plan**

3. Intersection Improvement Plan

3. Intersection Improvement Plan

Key Points

- Addresses safety and operational needs (Project Needs)
- Maintains all existing access and driveways
- Provides for possible "gateway" into Waterfront area
- Has operational capacity for the long term



HCM Results	AM Peak		PM Peak	
Approach	LOS (Delay)	95% Queue (ft)	LOS (Delay)	95% Queue (ft)
Water EB	A (7)	47	B (14)	163
Water WB	B (11)	84	C (16)	206
Highland SB	A (7)	8	B (14)	38
Highland NB	C (15)	17	C (16)	26
GSP Off-Ramp*	D (30)	236	D (28)	107
Overall	C (17)	-	C (17)	-

**Note: GSP Off-Ramp 2-lane storage = ~260'*

Safety Benefits of a Modern Roundabout

FHWA PROVEN SAFETY COUNTERMEASURE

Conversion of a two-way stop-controlled intersection to a roundabout

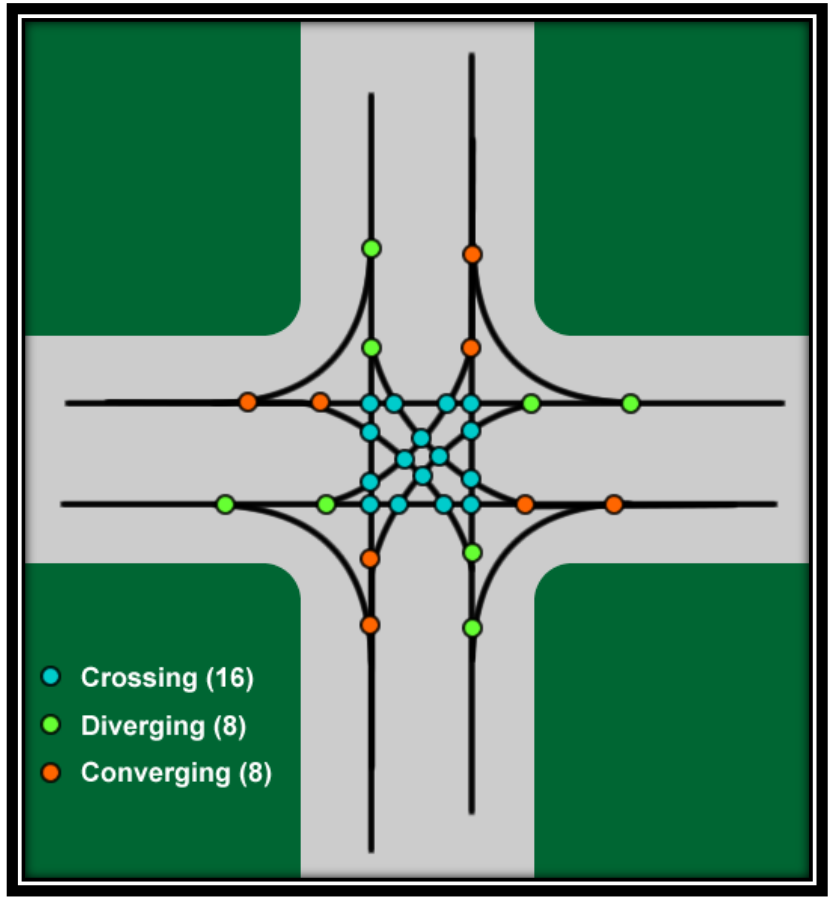
82%
Reduction in severe crashes

Conversion of a signalized intersection to a roundabout

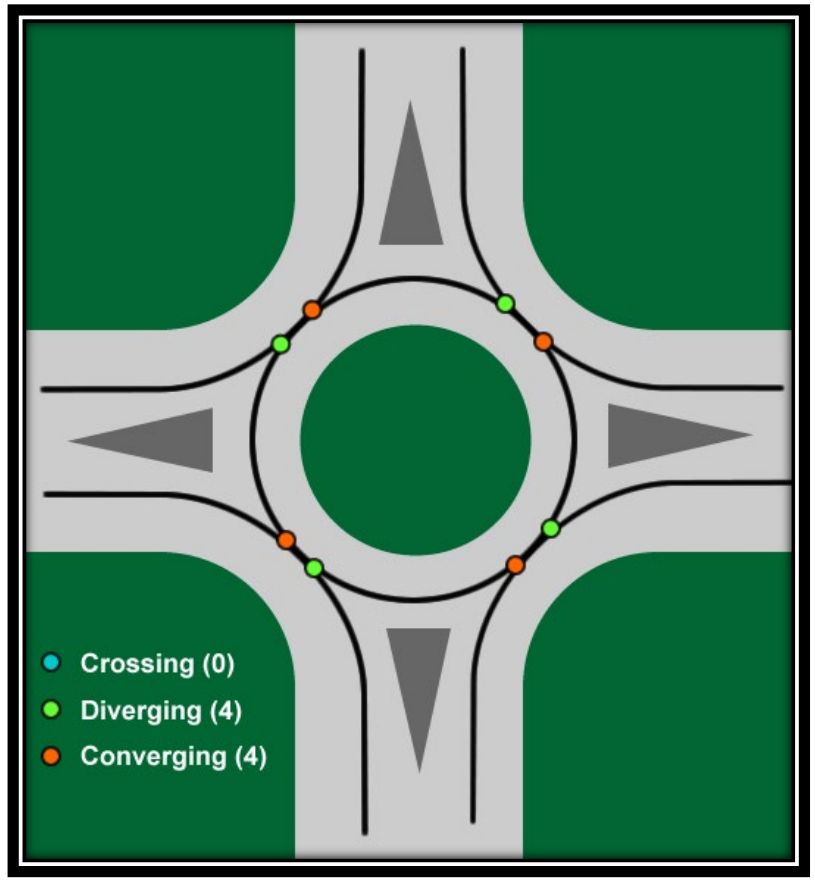
78%
Reduction in severe crashes

Reducing Vehicle Conflict Points

Traditional Intersection

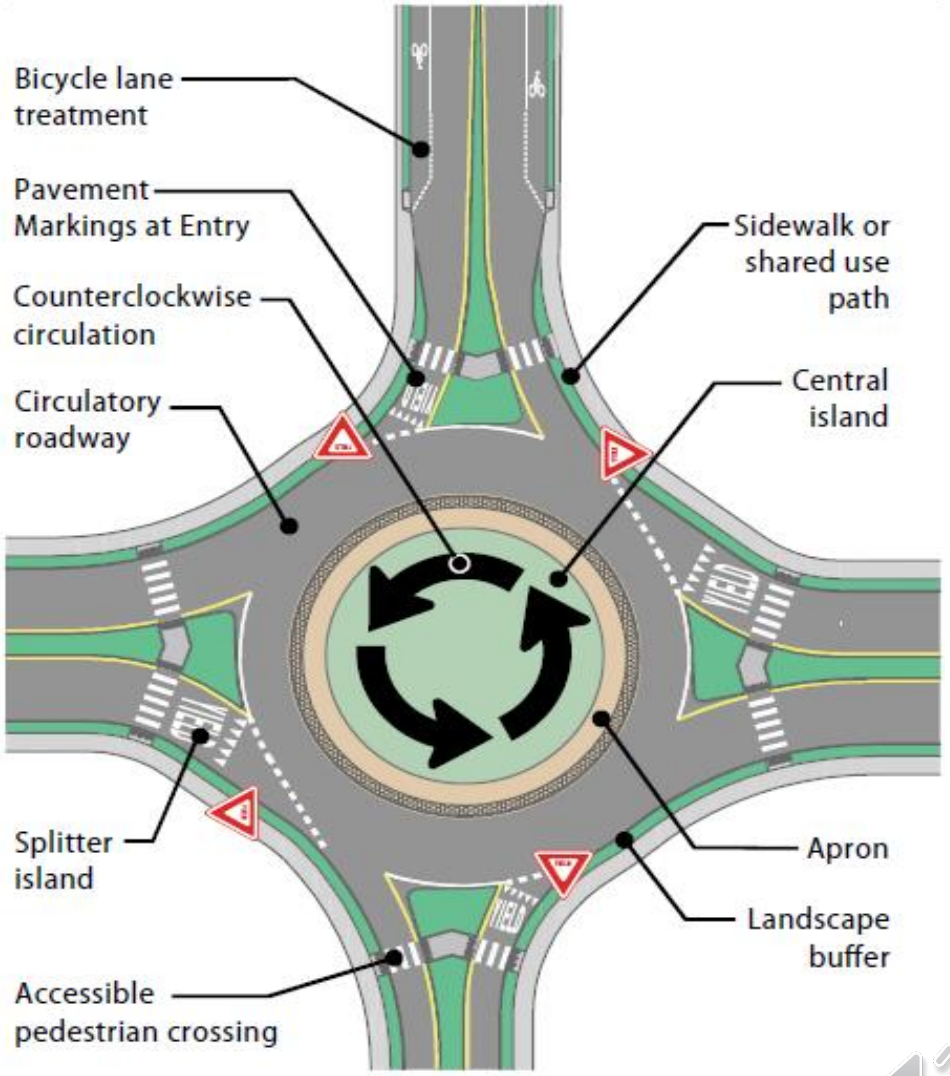


Modern Roundabout



Modern Roundabout Design

- Yield on Entry
- Deflection on Entry
- Splitter islands on approaches
- Slow circulating speeds
- Central Island with truck apron
- Signing and pavement markings
- No Parking or Driveways
- Pedestrian Accommodations
- Landscaping



3. Intersection Improvement Plan

3. Intersection Improvement Plan

- Water Street/Highland Parkway/GSP NB Ramps – Roundabout
- **Downtown Intersection Improvements**

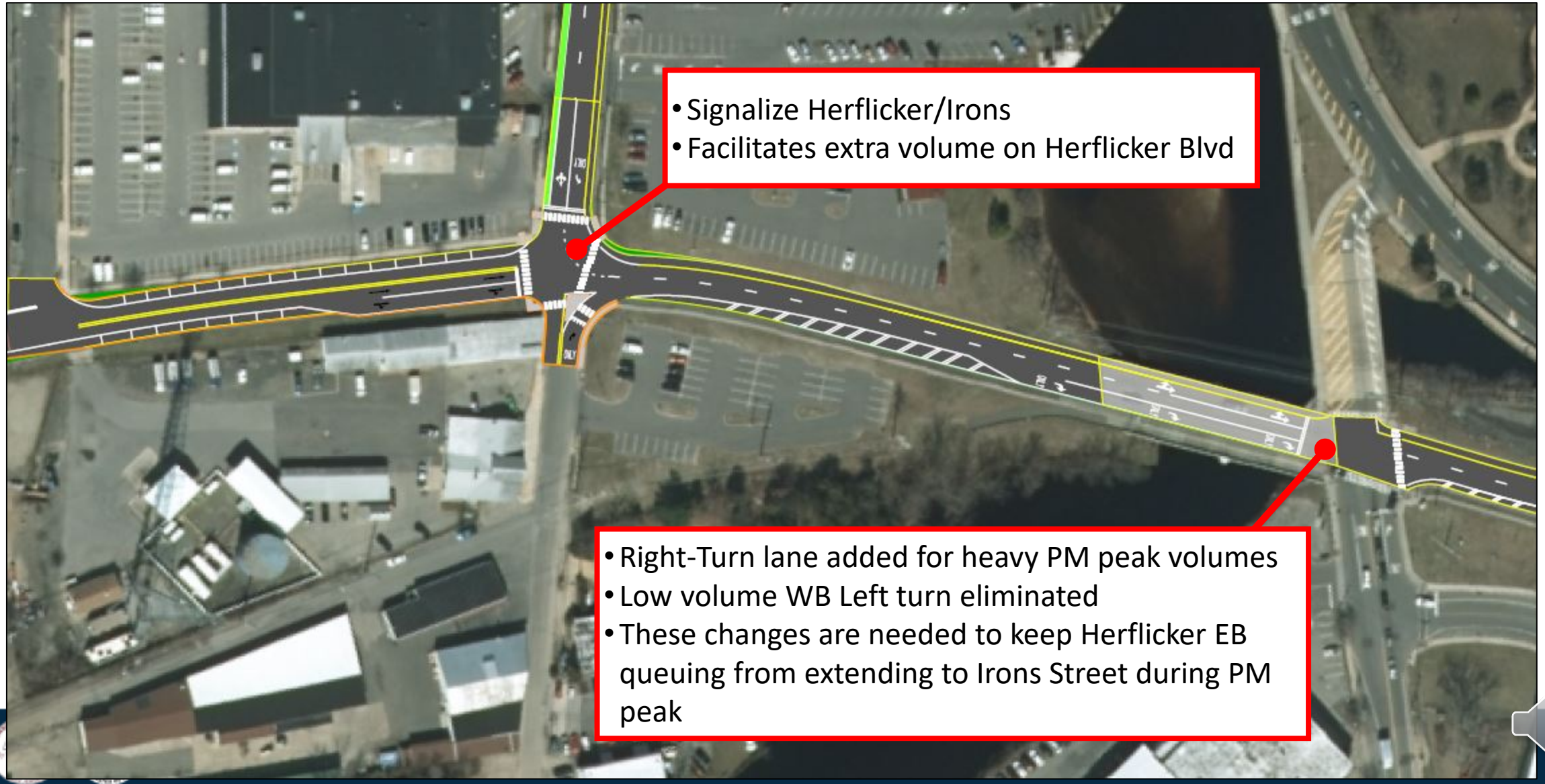
3. Intersection Improvement Plan

- SB Right Channelized
- Reduces time for this phase

- RT 166 SB Left removed, directed to Washington St
- Eliminates a phase from the signal

- Water Street phasing adjusted for more efficient Green Time usage

3. Intersection Improvement Plan



3. Intersection Impr. Plan – Herflicker Corridor

3. Intersection Improvement Plan

Intersection Name	Control	2045 AM Peak									
		Build No Mitigation					Build Concept 3				
		NB	SB	EB	WB	ALL	NB	SB	EB	WB	ALL
Water/Irons	Signal	-	F (93)	D	D	D	-	A	C	C	C
Water/RT 166	Signal	B	A	C	F (112)	D	C	A	C	C	C
Water/Horner/Robbins	Signal	F (103)	E	C	F (142)	E	D	C	C	B	C
RT 166/Washington	Signal	A	A	-	C	A	A	A	-	C	B
RT 166/S Main	Stop	B	-	F (54)	-	C	B	-	F (74)	-	C
Herflicker/Irons	Signal	A	A	E	-	A	A	A	E	-	B
Herflicker/S Main	Signal	F (97)	-	B	F (96)	D	F (96)	-	A	-	C
Water Street Travel Time *(Highland Pkwy to Hooper Ave)*	EB	**5.6 minutes**					**3.8 minutes**				
	WB	**11.4 minutes**					**3.8 minutes**				

3. Intersection Improvement Plan

Intersection Name	Control	2045 PM Peak									
		Build No Mitigation					Build Concept 3				
		NB	SB	EB	WB	ALL	NB	SB	EB	WB	ALL
Water/Irons	Signal	-	F (127)	E	C	D	-	B	D	C	C
Water/RT 166	Signal	C	B	A	E	C	C	A	D	D	C
Water/Horner/Robbins	Signal	E	D	B	F (118)	E	E	E	D	C	D
RT 166/Washington	Signal	B	A	-	D	B	B	A	-	D	B
RT 166/S Main	Stop	A	-	E	-	C	A	-	E	-	C
Herflicker/Irons	Signal	A	A	F (62)	-	A	A	A	D	-	B
Herflicker/S Main	Signal	F (129)	-	C	F (83)	D	F (125)	-	B	-	C
Water Street Travel Time *(Highland Pkwy to Hooper Ave)*	EB	**8.2 minutes**					**4.5 minutes**				
	WB	**7.2 minutes**					**4.5 minutes**				

Impact Summary

ROW Impacts

- 8 partial acquisitions (mostly in proximity to roundabout)

Access Impacts

- Parking
  - Loss of 8 on-street parking spots on Herflicker Blvd (Can be added on Herflicker Blvd Ext)
  - Herflicker Blvd Extension eliminates 14 spots in ServPro parking lot
- Driveways
  - 325 Water Street (NE Corner)
  - 320 Water Street
  - JCP&L lot

Utilities

- Irons & Herflicker – 2 Utility Poles
- Water & Irons – 1 Utility Pole
- Roundabout area – 2-3 Utility Poles

Purpose and Need

Concept 3	
P&N – Address Safety	☑
P&N – Address Operational Issues	☑
P&N – Provide capacity for future planned re-development	☑
Improve Bicycle and Pedestrian accessibility and accommodations	☑
Accommodate existing and future multimodal transportation networks	☑
Minimize environmental, ROW and Utility impacts	☑
Mitigate the impacts of future storm events	☑
Promote redevelopment	☑
Help create a sense of place and support utilization of inactive areas of the Downtown Waterfront area	☑

Concept for Advancement

1. Loop Road
2. Water Street Widening
3. **Intersection Improvement Plan**

Cost Summary

BUILD Grant

- Roundabout = ~$3 M
- Intersection Improvements = $2 M
- **TOTAL = ~$5 M (This project)**

Total Project Area

- Herflicker Extension = ~$0.9 M
- **TOTAL = ~$6 M (Invested in entire project area)**

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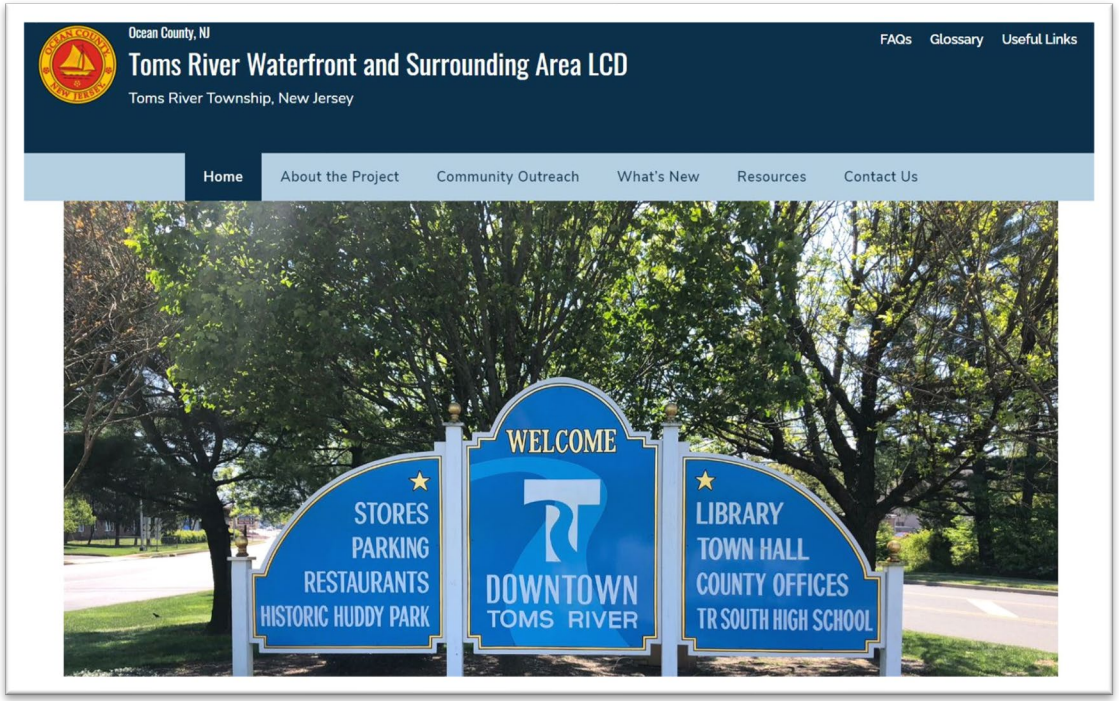
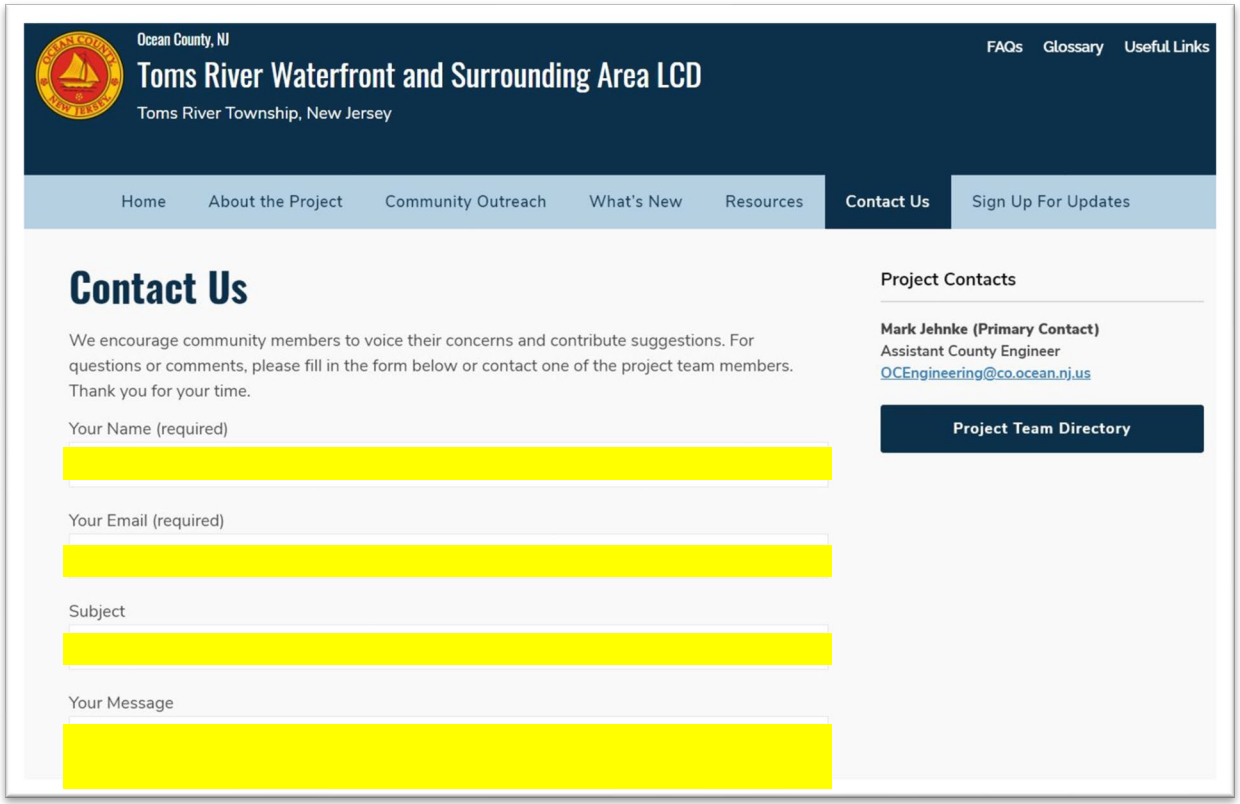
Public Involvement -- How you can get involved



- Visit the Project Website
- Sign-up for Updates
- View project materials
- Hear about the latest information

Project Website



- Best place to find…
  - Information on project
  - Project materials
  - Meeting recordings/minutes
  - Project schedule
- **Contact Us:** Use box to comment on project or ask us questions

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Schedule and Next Steps

Local Concept Development	
Public Information Center	April 8, 2021
Receive Public Input (7 Days)	April 8 – April 15
Final Refinement of Concepts & Selection of PPA	Apr 2021
Concept Development Plans & CD Report	Apr-May 2021
Draft and Final CD Report	Apr-May 2021

Questions?