

# US 52/SR 7 Safety Corridor Management Study

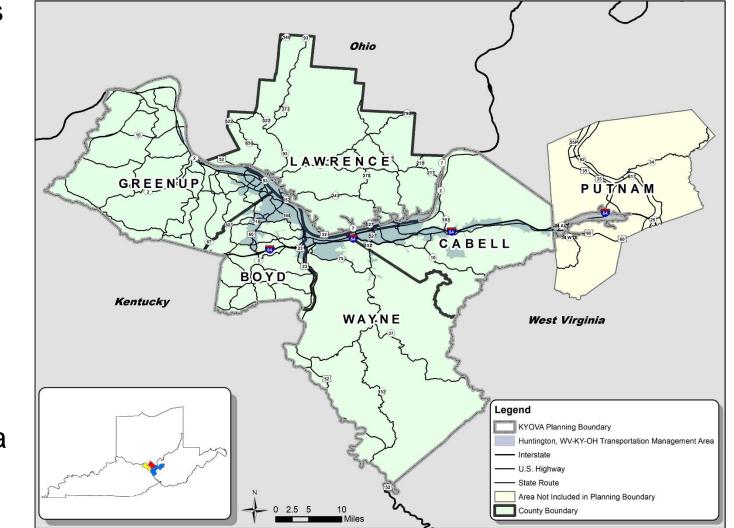


Saleem Salameh, PH.D., P.E., M.ASCE, KYOVA May 22, 2024

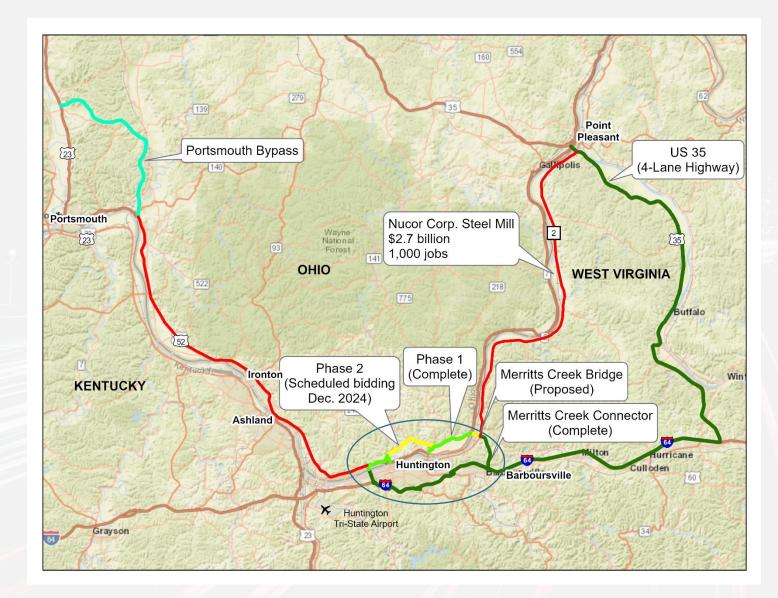


# **KYOVA Planning Area**

- KYOVA planning boundary spans 5 counties:
  - Cabell & Wayne in WV
  - Boyd and Greenup in KY
  - Urbanized Area in Lawrence County, OH
- Population in Urbanized Area 200,157
- MSA Population ~ 356,581 (also includes Putnam & Lincoln County, WV)
- Huntington, WV-KY-OH Urbanized Area designated a Transportation Management Area in 2012



#### **Regional Transportation Network**



## **Ohio River Bridge Crossing Feasibility Study**



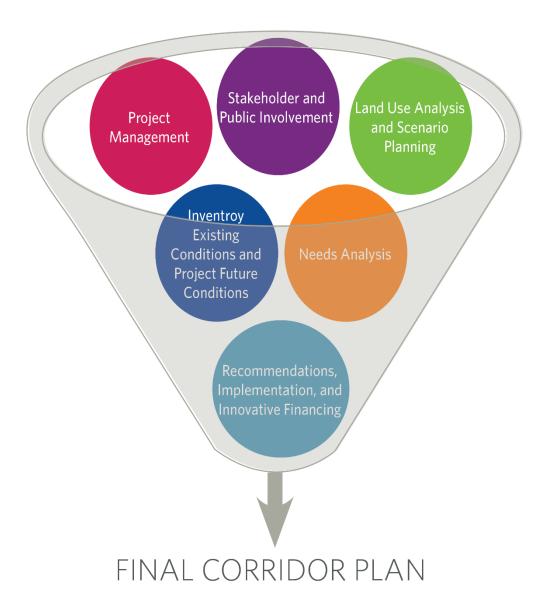
- Evaluate the need for a crossing between Ohio SR-7 and WV-193
- Identify potential corridors
  - Enhance regional transportation network
  - Improve safety, mobility, and system linkage
  - Support economic development
- PEL Study in Progress

## HISTORY AND PURPOSE

- Update to 2006 Safety Corridor Study
- o Began in 2020, Completed 2022
- Stakeholder meetings held throughout
- $\circ$  Virtual public meeting held in 2020
- Purpose:
  - $\circ~$  Address current safety, mobility, and connectivity issues
  - Link ongoing and planned projects with future needs
  - $\circ~$  Transform US 52 into a limited access freeway
  - Strategy for implementation

## PROJECT APPROACH

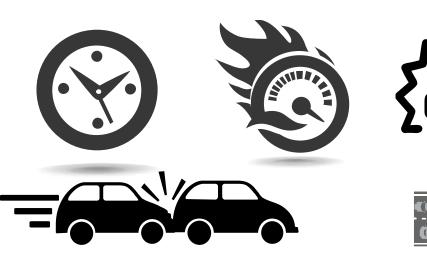
- Stakeholder and Public Involvement
- Land Use Analysis and Scenario Planning
- $\circ~$  Existing and Future Conditions
- Needs Analysis
- Recommendations and Implementation



## **EXISTING AND FUTURE CONDITIONS**

 $_{\odot}$  State of the Corridor Assessment

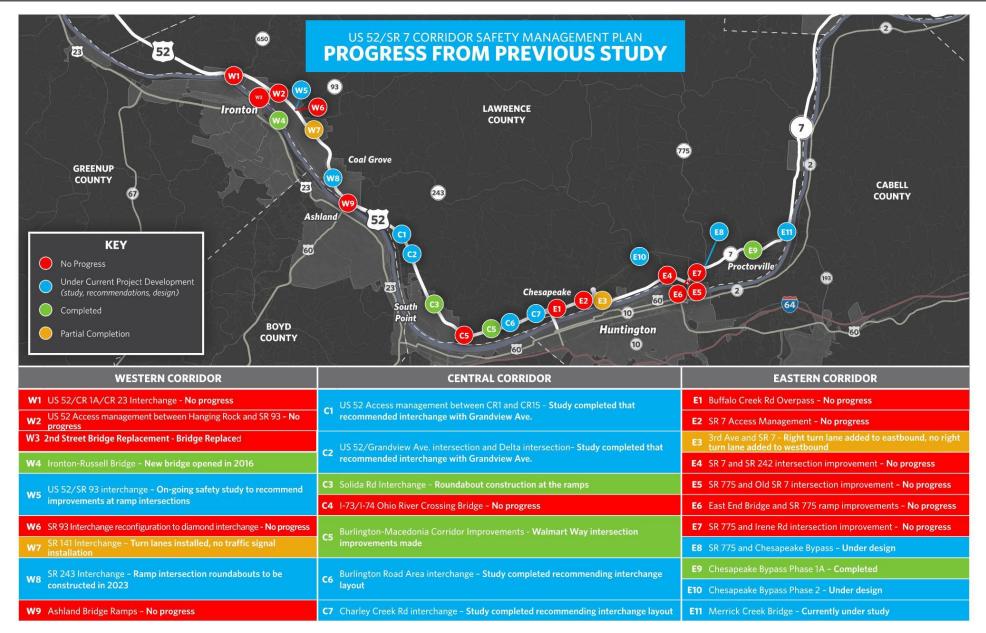
- Travel Characteristics
  Reliability and Safety
  Travel Time index
  - $\circ$  Speeds
  - $\circ \text{ Volumes}$
- $\circ$  Crash Analyses
- Capacity Analyses
- $\circ$  Geometric Deficiencies



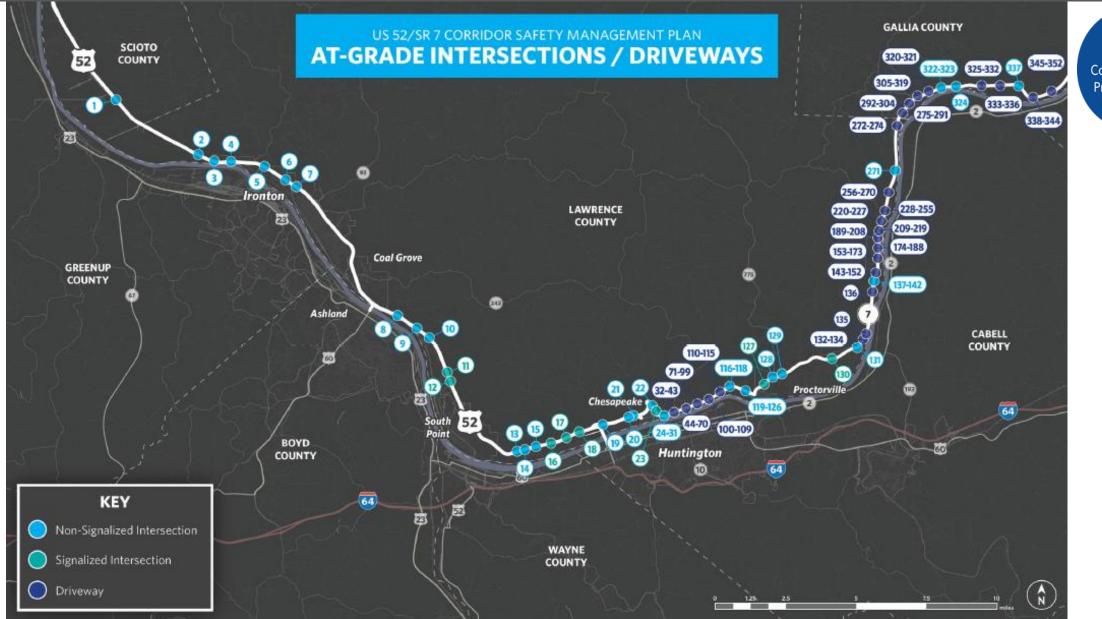
Inventroy Existing Conditions and Project Future Conditions



#### **CORRIDOR STUDY HISTORY**

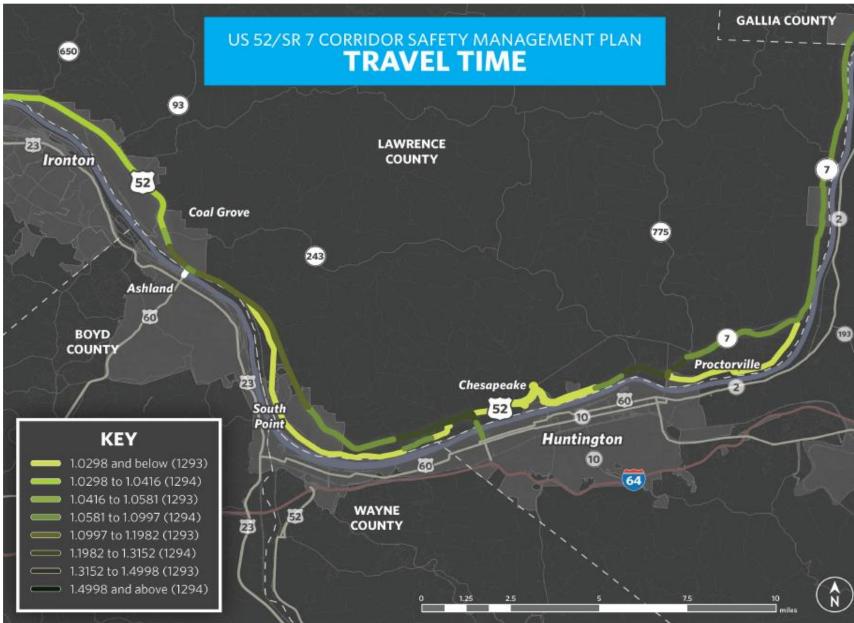


## EXISTING AT-GRADE INTERSECTIONS AND DRIVEWAYS



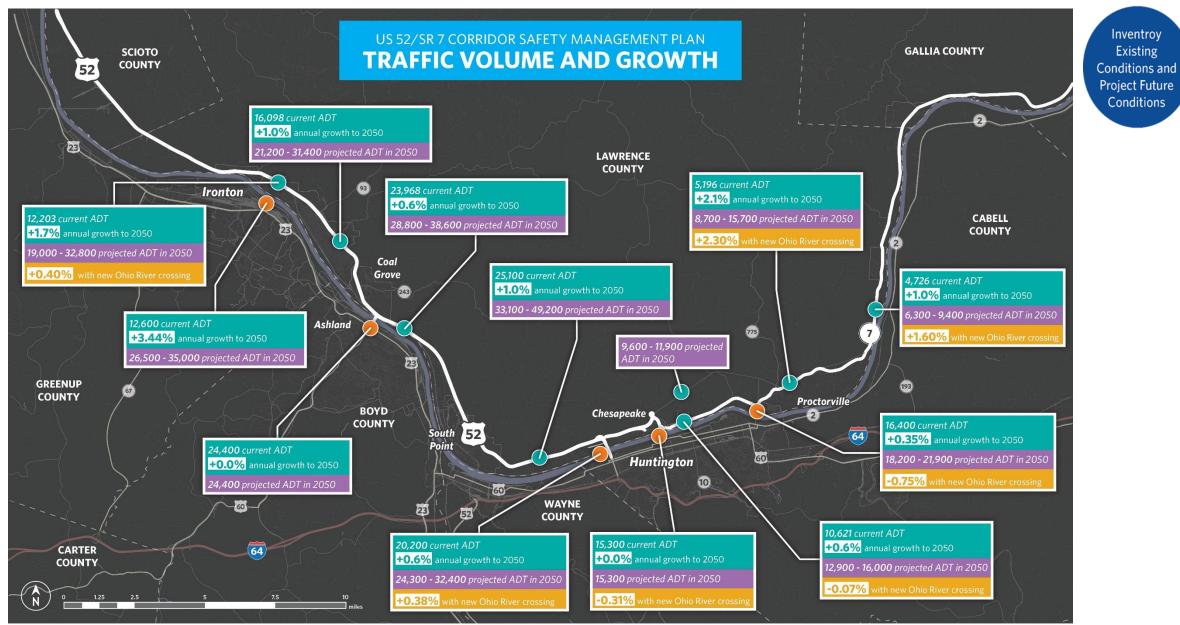
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# TRAVEL TIME RELIABILITY INDEX

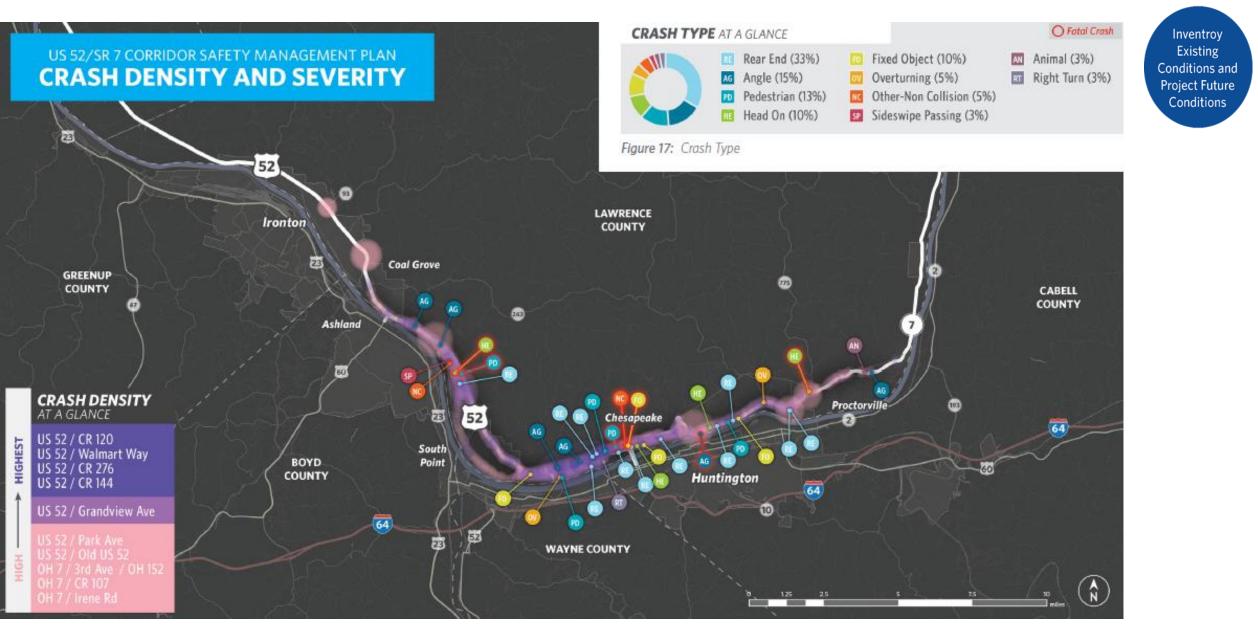


Inventroy Existing Conditions and Project Future Conditions

# TRAFFIC VOLUMES AND GROWTH



# **CRASH DENSITY AND SEVERITY**

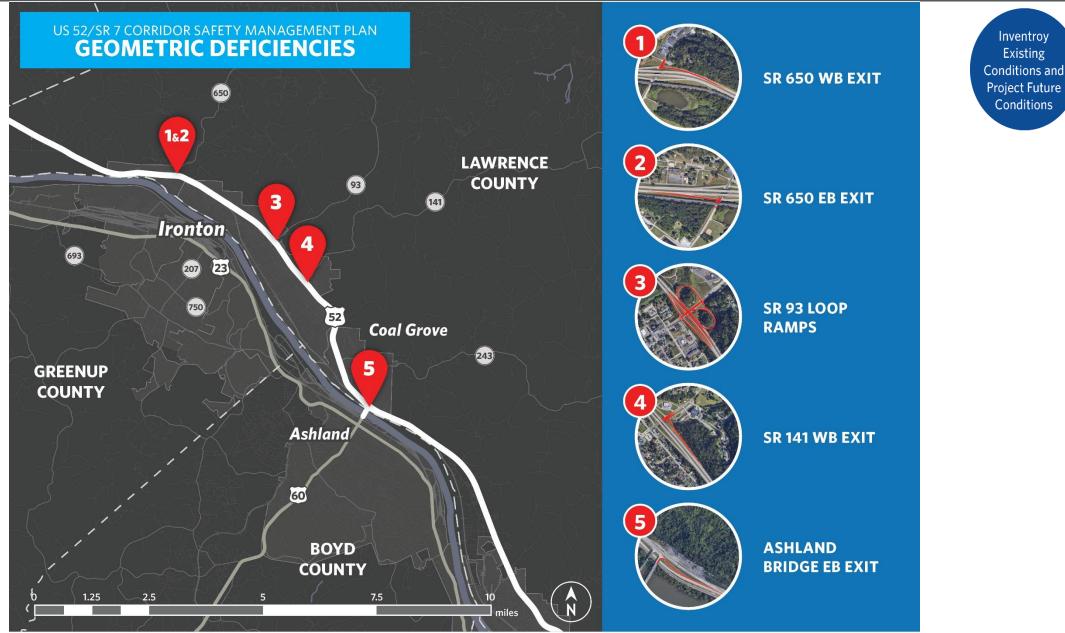


## ODOT SAFETY IMPROVEMENT PROGRAM

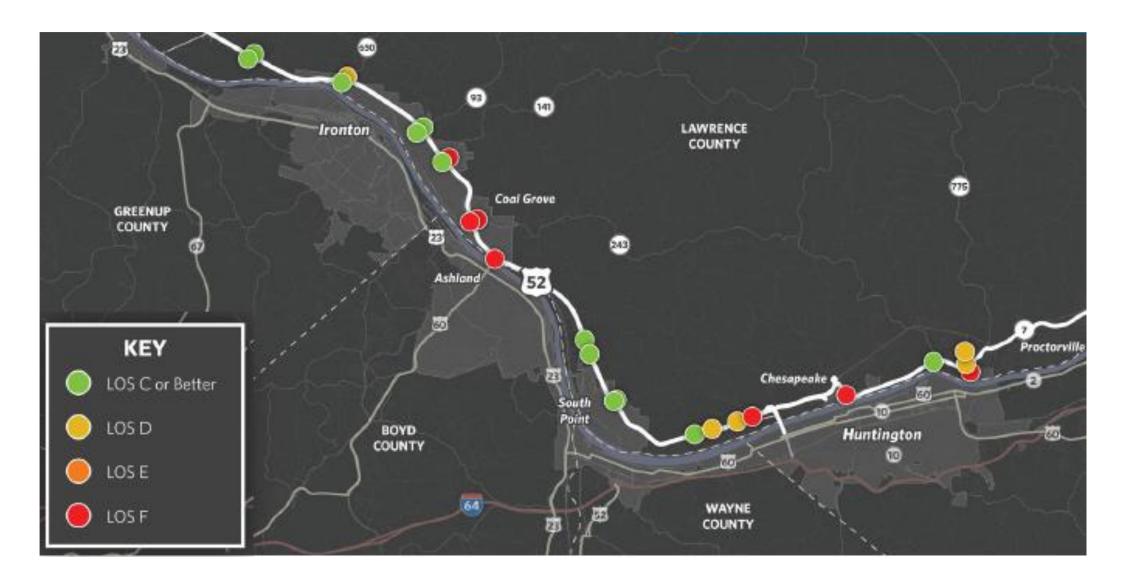


Inventroy Existing Conditions and Project Future Conditions

#### **GEOMETRIC DEFICIENCIES**



## TRAFFIC CONGESTION



Inventroy Existing Conditions and Project Future Conditions

# **DEVELOPMENT OPPORTUNITIES**



# PRELIMINARY DRAFT ASSESSMENT

	High Crash Density	Low Travel Time Reliability	At-Grade Intersections/ Driveways Present	Development Opportunities	Traffic Growth/Congestion Issues Present	Geometrics Deficiencies Present	Current Projects/ Studies
SR 650 Interchange Area				•	•	•	
Deep Cut Road			•		•		
SR 93 Interchange Area	•			•	•	•	٠
SR 141 Interchange					•	•	
SR 243	•				•	•	٠
12th/13th Street Bridge		•			•	•	
CR 1/CR 15	•	•	•				
Grandview Avenue	•	•	•	•			
Solida Road							
Burlington Macedonia Road Area	•	•	•	•	•		٠
Charley Creek Road Area	•	•	•		•		٠
Buffalo Creek Road Area			•				
SR 7/6th Street Bridge Intersection	•				•		
SR 7/SR 243		•	•				
SR 7/East Bridge Intersection Area	•	•	•	•	•		
SR 7/Irene Road	•	•	•		•		
SR 7/775	•	•	•		•		
SR 7/CR 7			•	•	•		
SR 7 East				•	•		

Issue or Opportunity Identified

2-3 Criteria Selected (including High Crash Density)

Issue or Opportunity Identified in Current Projects/Studies
 4 Criteria Selected (including High Crash Density)

Current Projects/Studies Criteria

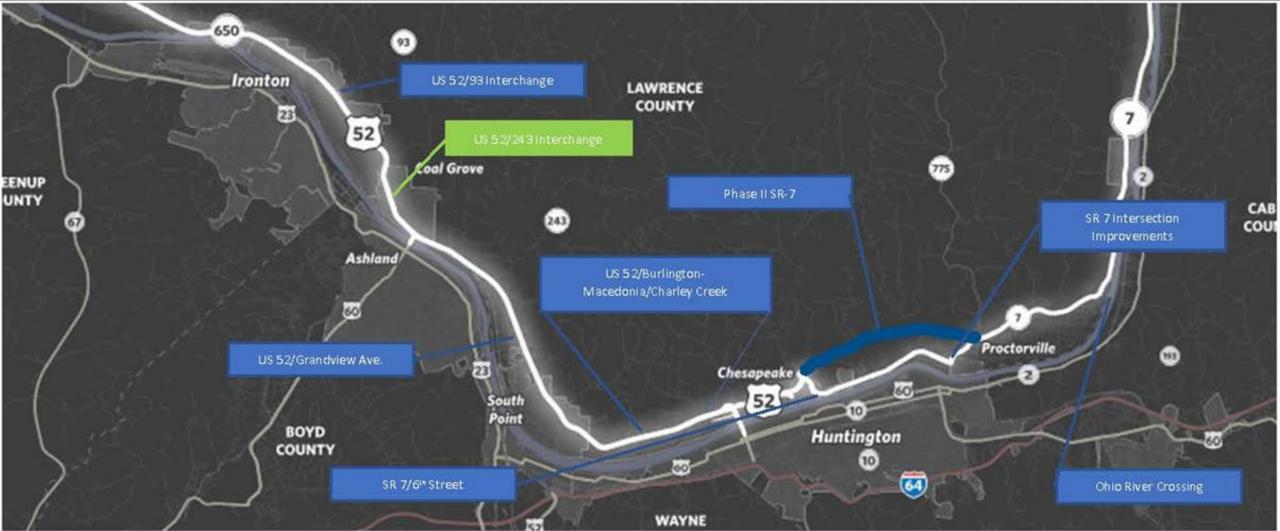
5+ Criteria Selected (including High Crash Density)

○ Prepare Alternatives



- Alternative Analysis Leading to a Preferred Alternative
- Connected-Automated Vehicle impacts Analyze technologies to "future proof" the corridor

## AREAS OF CONCENTRATION

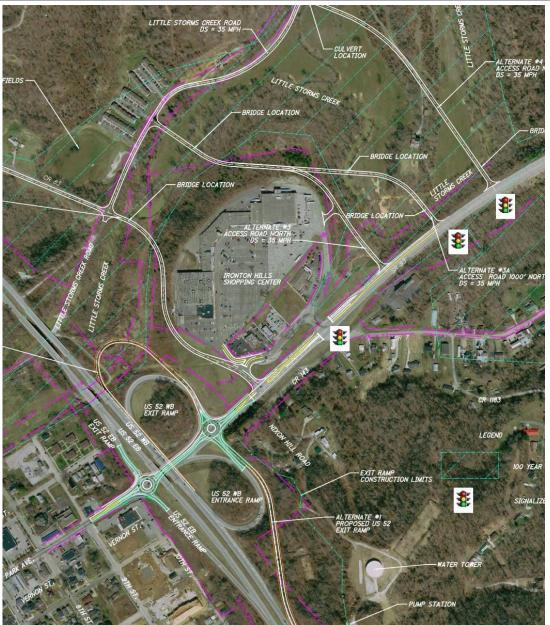


# **US 52/SR 93 INTERCHANGE**



Needs Analysis

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Needs Analysis

Alternative ramp improvements and Storms Creek crossings

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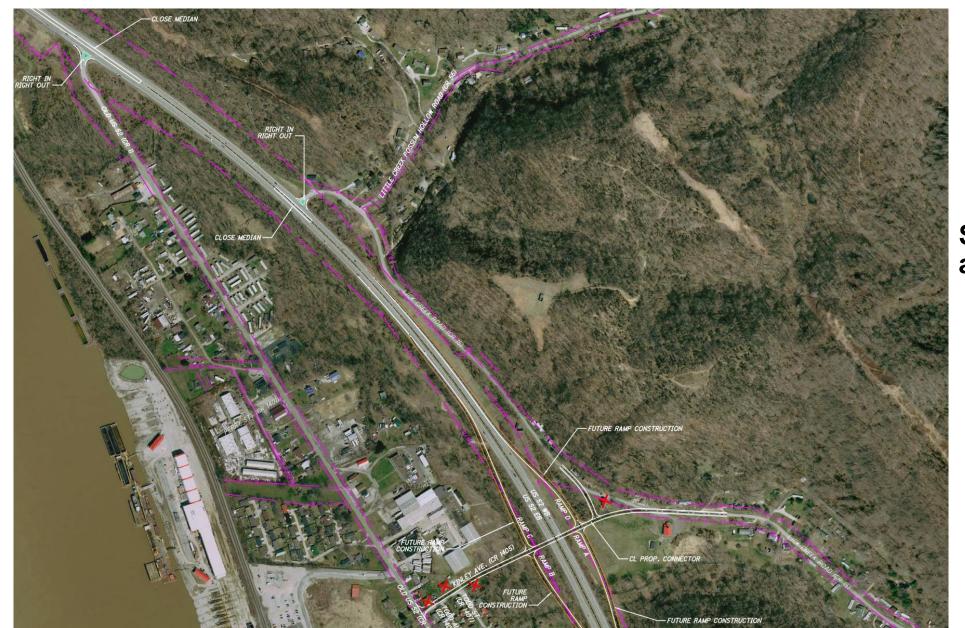
Alternative ramp improvements and Storms Creek crossings

## US 52/CR 1/CR 15/GRANDVIEW AVE





## US 52/CR 1/CR 15/GRANDVIEW AVE



Needs Analysis

Safety improvement alternatives: Right in-Right out Phasing of interchange R-cut intersection

## **US 52/CR 1/CR 15/GRANDVIEW AVE RECOMMENDATION**



Proposed New Interchange between Grandview and Delta

#### **US 52/BURLINGTON-MACEDONIA RECOMMENDATION**



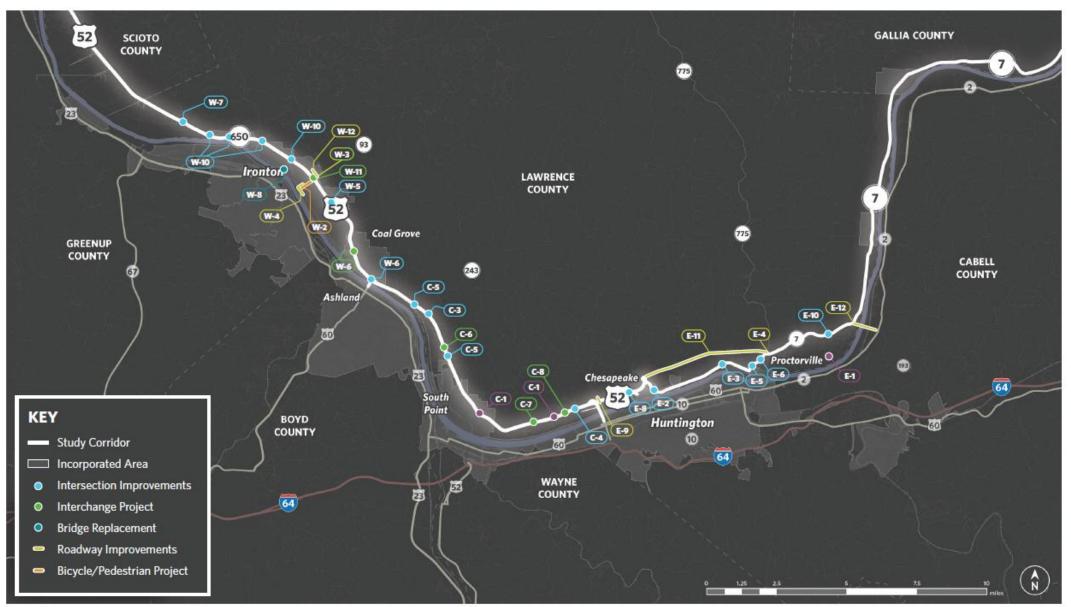
#### **US 52/BURLINGTON-MACEDONIA RECOMMENDATION**



#### **US 52/SANDUSKY/CHARLEY CREEK RECOMMENDATION**



# RECOMMENDATIONS



#### **RECOMMENDATIONS - PRIORITIES**

- #1 Chesapeake Bypass Phase 2
- o #2 Marion Pike Interchange (SR 243)
- o #3 Park Drive (SR 93) Interchange
- #4 Burlington Retail Area Interchange/Sandusky Road/Charley Creek Road (CR 144) Interchange
- #5 Grandview Avenue/Delta Lane Interchange
- #6 Ohio River Crossing (Merrick Creek)

# $\circ$ Construction Costs

- $\odot$  Near term \$104.6 million
- $_{\odot}$  Short term \$28.4 million
- $_{\odot}$  Medium term \$115.6 million
- $_{\odot}$  Long term \$209.2 million
  - $\circ$  Chesapeake Bypass
  - Burlington-Macedonia & Charley Creek
  - Grandview Avenue
  - $\circ$  Ohio River Crossing

### **RECOMMENDATIONS - PRIORITIES**

Implementation Plan included Project Development Phases in Near and Short term

C-6	Grandview Avenue/Delta Lane Interchange - County Priority #5	<b>\$\$</b>	Long Term (Greater than 20 years)	\$11,450,000
C-6	Grandview Avenue Interchange Design	<b>e</b>	Near Term (0 to 5 years)	\$1,000,000
C-6	Grandview Avenue Interchange R/W Acquisition	<b>e</b>	Short Term (5 to 10 years)	\$75,000

### NEAR TERM IMPROVEMENT – US 52/WALMART WAY



## NEAR TERM IMPROVEMENT – US 52/CR 15



#### NEAR TERM IMPROVEMENT – US 52/CR 1



#### NEAR TERM IMPROVEMENT – US 52/CHARLEY CREEK



# NEAR TERM IMPROVEMENTS – PARK AVENUE/8TH/9TH US 52/ASHLAND BRIDGE



#### NEXT STEPS

- Continue to analyze the "Hot Spots"
- Find Near and Short Term Improvements
- Advance Project Development

Information shown on KYOVA website – WWW.KYOVAIPC.ORG

#### QUESTIONS



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