

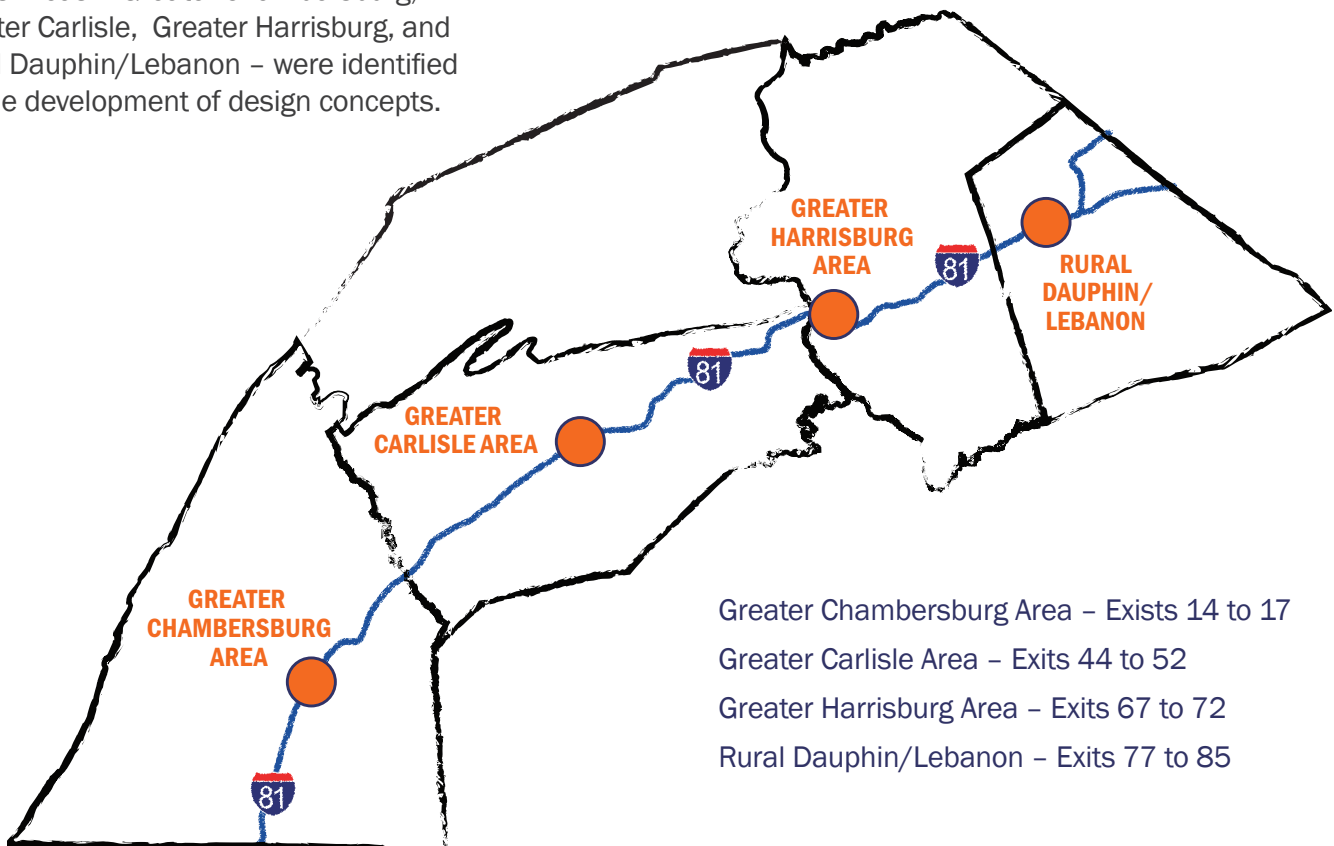


The I-81 Improvement Strategy was created to develop a corridor strategy to evaluate existing transportation needs (including highway safety, mobility, land use and access, and highway infrastructure conditions), consolidate needs into focus areas, develop a prioritized list of focus areas and identify improvement options to advance candidate projects onto the Transportation Improvement Program (TIP) and into the project delivery process.



## Top Four Focus Areas

Through a prioritization process, four Focus Areas – Greater Chambersburg, Greater Carlisle, Greater Harrisburg, and Rural Dauphin/Lebanon – were identified for the development of design concepts.



Greater Chambersburg Area – Exits 14 to 17

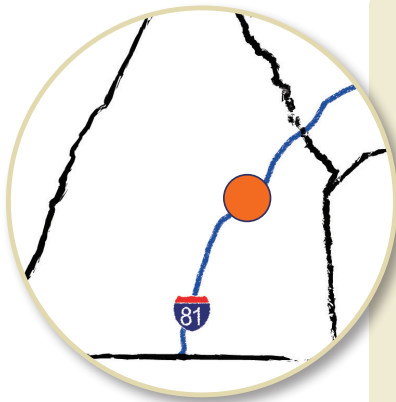
Greater Carlisle Area – Exits 44 to 52

Greater Harrisburg Area – Exits 67 to 72

Rural Dauphin/Lebanon – Exits 77 to 85

## GREATER CHAMBERSBURG FOCUS AREA NEEDS

Exits 14, 16, & 17	
Highway Safety	Exits 14 and 16 are experiencing ramp and ramp terminal (intersection) crashes in excess of similar roadways.
Mobility	The existing mainline I-81 routinely experiences minor travel delay between Exit 14 and Exit 16, which contributes to operational and safety concerns.
Land Use and Access	Beyond the existing industrial development in the area, additional commercial and residential development near Exits 14, 16, and 17 will increase traffic volumes at the interchanges.
Highway Infrastructure	The existing pavement and structures along several segments of existing I-81 corridor were constructed in the 1960s and are approaching the end of their serviceable life span. Gaps in ITS devices (specifically DMS) were identified at Exit 16.

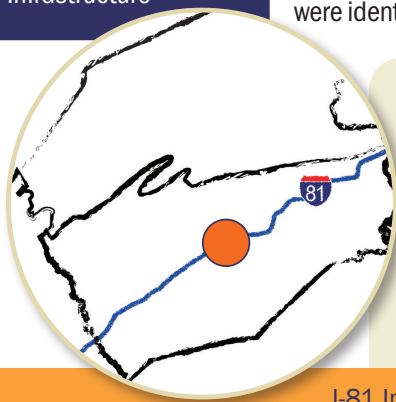


Chambersburg Area needs could be addressed with various improvements and candidate projects:

- Safety improvements at Exit 14:
  - Additional Curve Signs
  - High Friction Wearing Course
  - Realignment to Increase Curve Radii
- Safety and Congestion improvements at Exit 16:
  - Additional Left Turn Lanes at Off Ramps
  - Additional Left Turn Lanes on Ramps and Route 30
  - Interchange reconfigurations:
    - Diverging Diamond Interchange (DDI)
    - Single Point Urban Interchange (SPUI)

## GREATER CARLISLE FOCUS AREA NEEDS

Exits 44, 45, 47, 48, 49, & 52	
Highway Safety	Short ramps and acceleration lanes, inadequate merging sight distance, capacity issues, closely spaced interchanges causing speed differentials, inadequate interchange configuration at Exit 48 / Exit 49, and no direct access between I-81 and the PA Turnpike result in highway safety concerns.
Mobility	The existing mainline I-81 routinely experiences relatively high speeds in excess of the posted speed limit and travel delay at several sections of roadway which contribute to operational and safety issues.
Land Use and Access	Industrial, commercial, and residential development will continue in proximity to Exits 44, 45, 47, 48, and 49. With expected growth throughout the area in the future, traffic volumes will increase at the existing interchanges.
Highway Infrastructure	Portions of the existing pavement and all structures on the existing I-81 corridor were constructed in the 1960s and are approaching the end of their serviceable life span. Gaps in ITS devices (CCTV and DMS) were identified in five locations.



Carlisle Area needs could be addressed with various improvements and candidate projects:

- Auxiliary Lanes
- Collector-Distributor (C-D) Roads
- Interchange reconfigurations at Exits 47, 48/49 and 52
- New connections between I-81 and Pa Turnpike (I-76)

## GREATER HARRISBURG FOCUS AREA NEEDS

### Exits 67, 69, 70 & 72

Highway Safety	Ramp curve issues, confusing lane assignments and ramp orientations / configurations, the inadequate bottleneck configuration at Exit 70 (I-83) with unsafe lane drops and merges, and high congestion along the freeway result in highway safety implications.
Mobility	The existing mainline I-81 routinely experiences relatively high speeds in excess of the posted speed limit and substantial recurring congestion in both directions of I-81, particularly on weekdays from 3 to 6 PM, which contribute to operational and safety issues.
Land Use and Access	Commercial development will continue to increase between and south of I-81 Exits 67 and 69, increasing traffic volumes at both interchanges. Both exits provide access into the City of Harrisburg and surrounding communities.
Highway Infrastructure	The existing structures within the I-81 corridor were constructed in the 1960s and 1970s and are approaching the end of their serviceable life span. The existing pavement was reconstructed in the 1990s and 2000s and ride quality is beginning to degrade. Gaps in ITS devices (Closed Circuit TV) were identified in three locations (mile markers 69 SB, 69 and 71 SB).



Greater Harrisburg Area needs could be addressed with various improvements and candidate projects:

- Safety improvements at Exit 67:
  - Additional Curve Signs
  - Additional Dynamic Curve Signs
- Interchange reconfiguration options to address congestion and safety at Exit 70
- Interchange reconfiguration to address safety improvements at Exit 72

## RURAL DAUPHIN/LEBANON FOCUS AREA NEEDS

### Exits 77, 80, & 85

Highway Safety	High congestion, including high truck volumes, along I-81 particularly in the Southbound direction result in highway safety implications.
Mobility	The existing mainline I-81 routinely experiences travel delay at several sections of roadway which contribute to operational and safety issues. Southbound delays occur during weekday PM peak periods, especially on Fridays. To a lesser extent, Northbound delays occur during the same peaks, and particularly on Fridays.
Land Use and Access	Several parcels have been identified for potential development near Exit 85. While the type of development is not known at this time, it is anticipated that warehouse and industrial buildings will be constructed consistent with development patterns over the past 10 years. The increased development pressure will increase traffic volumes near Exits 80 and 85.
Highway Infrastructure	The existing structures on the I-81 corridor were constructed in the 1960s and are approaching the end of their serviceable life span. The existing pavement was reconstructed in the 1990s and ride quality is beginning to degrade. Gaps in ITS devices (Closed Circuit TV and Dynamic Message Sign) were identified in two locations (mile marker 76 and 80 Southbound).



Rural Dauphin/Lebanon needs could be addressed with various improvements and candidate projects:

- Mobility Improvements to address congestion mainly in the Southbound direction:
  - Hard Running Shoulder on Median Side
  - Additional Southbound Lane on the Median Side



# Near Term Systemic Improvements

Near Term Systemic Improvement Projects were developed to be systemic across the corridor. These systemic improvements address needs that occur in more than one Focus Area or relate to the adjacent highway network such as:

- Incident Management Strategies
- Intelligent Transportation Systems (ITS)/ Transportation System Management and Operations (TSMO)
- Signing and Pavement Marking Improvements
- Acceleration and Deceleration Lane Lengthening

## What We Heard

The Public Comment Period for the Greater Carlisle Area, Greater Chambersburg Area, Greater Harrisburg Area, and Rural Dauphin Lebanon was open from December 14, 2021 – January 28, 2022, and focused on the Phase 2 Conceptual Improvements. Two live-streamed virtual meetings allowed the public to learn about the focus areas, answer survey questions, and share feedback. Recordings of the meetings were made available on-demand for the remainder of the Public Comment Period at [i81SouthCentralPA.com](http://i81SouthCentralPA.com). The feedback collected from the public and stakeholders will be used to set priorities for funding as resources become available.

### Survey Responses by Focus Areas from the December 2021 – January 2022

Focus Area	Survey Responses
Greater Carlisle	836
Greater Chambersburg	440
Greater Harrisburg	194
Rural Dauphin/Lebanon	68
<b>Total</b>	<b>1,538</b>

### Public Comment Period Totals



**304**

Participants



**185**

Comments



**284**

Online Views

## The Final Playbook

The I-81 Improvement Strategy Playbook is a compilation of candidate projects and initiatives for setting priorities and funding future projects as resources become available through the Statewide Transportation Improvement Program (STIP). To view the Playbook and more details on these projects, please go to [i81SouthCentralPA.com](http://i81SouthCentralPA.com) or use the QR code below.

## Project Team

The I-81 Improvement Strategy is a collaborative effort among Harrisburg Area Transportation Study MPO, Franklin County MPO, Lebanon County MPO, PennDOT, and FHWA.



### FOR QUESTIONS, PLEASE CONTACT:

Steve Deck, AICP – Executive Director  
Tri-County Regional Planning Commission

✉ [feedback@i81SouthCentralPA.com](mailto:feedback@i81SouthCentralPA.com)



[www.i81SouthCentralPA.com](http://www.i81SouthCentralPA.com)

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