

**Route 93 & CR 501 (West Central Boulevard Intersection)  
Virtual Public Information Center  
Presentation Audio Transcript**

Slide 1 – Title

Welcome to this presentation for the New Jersey Department of Transportation Route 93 and County Route 501(West Central Boulevard) Intersection project. Advantage Engineering Associates has been retained by the Department of Transportation as the design consultant for the Concept Development phase of this project. This virtual Public Information Center will summarize the major components of the project and provide an opportunity for the public to comment and submit questions. At the end of the presentation, we will explain how to submit your comments and questions.

Slide 2 – Agenda

The project is located at the signalized intersection of Route 93, also known as Grand Avenue, and West Central Boulevard in Palisades Park Borough, Bergen County. This intersection is one half mile north of the Route 93 interchange with US Highway 46. The Agenda for this presentation will begin with identifying the purpose and need of the project. Design elements will then be discussed, followed by a description of the various improvements associated with the project. Impacts to traffic during construction, including detours, will also be discussed and the presentation will conclude with the project schedule.

Slide 3 – Purpose & Need, Crash History

The purpose of the project is to improve safety for all road users, with an emphasis on pedestrians, by minimizing collisions and applying comprehensive safety enhancements. Crash data at the project intersection was collected and analyzed to better understand the possible causes of these crashes. This slide includes a Crash Diagram, which represents the location and orientation of the crashes, as well as the types of crashes as shown by the symbols in the legend. A graph is shown on the right side of the slide, and depicts a comparison of the percentage of different types of crashes for this intersection versus the statewide average. Note that 14% of the crashes at this intersection involved pedestrians, compared to the Statewide Average of only 0.9%. The crash history supports the need for pedestrian safety improvements at this intersection.

Slide 4 – Purpose & Need, Truck Encroachments

The intersection experiences a high volume of both vehicular and pedestrian traffic. There are painted crosswalks on all four legs of the intersection, as well as sidewalk and curbing

in all four corners, as shown on the aerial image on the right side of the slide. Since both Route 93 and West Central Boulevard are designated truck routes, many trucks travel straight through or turn at the intersection. The existing corner curb radii are inadequate for some truck turns, resulting in the truck wheels encroaching onto the sidewalk where pedestrians may be waiting to cross. The short video on the left side of the slide shows a truck on Route 93 northbound turning right and encroaching onto the sidewalk. [start video] This same type of encroachment by turning trucks is an issue in the other 3 intersection corners as well.

#### Slide 5 – Purpose & Need, Pedestrian Crossing Conflicts

The existing traffic signal timing has protected left turn phases (recognizable by the green arrow) for Route 93 but not for West Central Boulevard. Currently, pedestrians with the right of way cross the roadway while in the path of right turning or left turning vehicles. The short video on the left side of this slide shows a pedestrian crossing Route 93 while left turning vehicles travel across the same crosswalk. [start video] The path of both the pedestrian and the vehicles are shown on the aerial image on the right side of the slide. The location where the paths cross represents the conflict area.

#### Slide 6 – Major Design Elements, Signal Timing and Left Turns

Various safety improvements were investigated to meet the purpose and needs of the project as identified on the previous slides. Protected left turn phases can be implemented at all approaches to the intersection. This phase of the traffic signal timing would be dedicated to left turning vehicles only, as signified by the steady green arrow. A flashing yellow arrow would follow, signifying drivers are permitted to turn left but must yield to oncoming traffic. Lead Pedestrian Intervals can also be implemented, which provide a “head start” for the pedestrian in the crosswalk while all approaches for vehicles are red during that time. The photograph on this slide shows the existing traffic signal equipment on West Central Boulevard, looking east.

#### Slide 7 – Major Design Elements, Signal Equipment

All existing traffic signal equipment at the intersection is aluminum. Replacing the aluminum traffic signal equipment with steel would allow for longer mast arms so the poles could be moved farther from the roadway. The stronger steel equipment would also allow for reflective backplates around the signal heads for improved visibility. The photograph on the left side shows the existing sun glare problem for vehicles traveling east on West Central Boulevard in the morning. The larger photograph on the right side of the slide shows a typical steel traffic signal installation.

### Slide 8 – Major Design Elements, Corner Radii for Truck Right Turns

The intersection experiences truck traffic of various sizes. This slide includes the dimensions of three common types of trucks. Larger trucks require more space for turning maneuvers. The diagram shows the right turn paths for the three different trucks, designated by color as shown in the Legend. Corner radii that are too small result in the rear wheels of trucks encroaching over the curb and onto the sidewalk area (as observed in the earlier video) or cause the truck to steer into the opposing lane of traffic. Both situations are safety concerns.

### Slide 9 – Major Design Elements, Left Turn Lane Alignment

As drivers familiar with the West Central Boulevard approaches to the intersection are aware, the opposing left turn lanes are not aligned. This condition is represented on the existing section and plan view with the red arrows and text box. Aligning the opposing left turn lanes as shown by the blue arrows and text box results in the left turn lanes shifted to the center of the roadway and wider 14-foot travel lanes. The aligned opposing left turn lanes provide for better visibility and traffic flow.

### Slide 10 – Additional Design Elements, Centerline Hardening

The data collected suggests that left-turning vehicles are frequently cutting corners and performing these turns at excessive/unsafe speeds, as shown by the illustration on the left. Centerline Hardening involves installing a physical, traversable device along the double yellow lines to discourage this unsafe turn path and reduce the exposure area where vehicles and pedestrians conflict. This device is similar to a rubber speed bump, is typically 2 to 3 inches in height and is marked with yellow striping, encouraging drivers to steer around it using a longer, more arcing path. The illustration on the right shows the placement of the Centerline Hardening device and its intended effect upon the vehicle path.

### Slide 11 – Additional Design Elements

NJ Transit bus stops are located along both sides of Route 93, just north of the intersection. Both bus stops are designated with standard NJ Transit signs but neither has amenities for transit users such as a covered sheltered, as pictured on the left. Restricting vehicular right turns during the red signal phase reduces the potential for vehicular/pedestrian conflicts. Currently, West Central Boulevard has the NO TURN ON RED signs on both approaches but Route 93 does not. Additionally, current signing standards recommend the R10-15a *Turning Vehicles Stop for Pedestrians* sign. Finally, the application of High Friction Surface Treatment to existing pavements provides improved traction on roadway surfaces where

stopping distance may be an issue, such as steep downhill slopes approaching a signalized intersection.

#### Slide 12 – Improvements, Roadway, Curb and Sidewalk

After analyzing all of the available data, presenting the findings and discussing potential solutions with different subject matter experts from the Department of Transportation, the improvements that best address the project purpose and need were identified. These improvements include increasing the radii in all four corners to accommodate truck traffic, constructing new curb ramps in compliance with the Americans with Disabilities Act (or ADA), reconstructing and widening sidewalks to a minimum width of 5 feet, providing a bus stop landing pad and shelter on Route 93 southbound, centerline hardening at all four approaches, high friction surface treatment on the downhill westbound approach of West Central Boulevard, and roadway paving within the project limits.

#### Slide 13 – Improvements, Signing

To enhance pedestrian safety, NO TURN ON RED and *Turning Vehicles Stop for Pedestrians* signs will be installed at all four approaches to the intersection. Lower speed limits have been proven to benefit the safety of all road users. The Route 93 speed limits will be reduced from 35 to 30 mph, matching the existing speed limit to the north.

#### Slide 14 – Improvements, Traffic Signal

New steel traffic signal equipment will replace the existing equipment. New 4-section traffic signal faces with green arrows and flashing yellow arrows will be installed for all left turn lanes. New 3-section traffic signal faces (the standard red, yellow and green) with retroreflective backplates will be installed over each through lane. The West Central Boulevard left turn lanes will be realigned at the center of the roadway and their length will be increased to provide storage for more vehicles. The timing of the traffic signal will be adjusted to provide protected/permissive left turns at all approaches and Leading Pedestrian Intervals to allow more time for pedestrian crossings and reduce conflicts with vehicles.

#### Slide 15 – Improvements, All Combined

Combining all the improvements identified on the previous slides, a composite plan view is shown here. This plan is referred to as the Preliminary Preferred Alternative, or PPA, and represents a consensus by the Department of Transportation and Local Officials for the improvements to be developed further in the design phase of the project.

#### Slide 16 – Impacts

The improvements associated with the PPA will result in some impacts to the project area. Due primarily to the larger corner radii, permanent Right of Way acquisitions are necessary in the northwest, southwest and southeast corners of the intersection. Temporary easements to provide area for construction operations in all four corners are also necessary. The realigned West Central Boulevard left turn lanes, and their increased length, is expected to result in a loss of 5 on-street parking spaces as identified in red on the plan graphic.

#### Slide 17 – Construction Staging/Detour

Major work efforts will occur in each of the four corners of the intersection. The work areas will extend into the existing roadway, as shown by the orange cross hatching pattern, and will result in traffic being temporarily shifted and reduced to single lane approaches. In order to maintain an acceptable Level of Service and prevent excessive traffic backups, only through and right turn movements will be allowed during construction. Left turns will be prohibited at the intersection.

#### Slide 18 – Construction Staging/Detour, Left Turn Detours

Left turn detour routes will be identified with roadway signing during construction. Because of the existing truck traffic and to minimize impacts to the surrounding community, the detour routes will include only streets designated as Truck Routes per the Borough Code, specifically Commercial Avenue and West Palisades Boulevard. The left turn detour route for each approach is shown with a different color on this aerial image street map.

#### Slide 19 – Project Schedule

This Public Information Center is part of the Concept Development phase for this project, which is nearing completion. The project will be further developed and detailed during the upcoming Preliminary Engineering and Final Design phases. The current project schedule anticipates construction beginning in 2032 and lasting about one year.

#### Slide 20 – Questions & Comments

Thank you for your interest in this project and for viewing this presentation. Please submit any questions or comments using the form or link at the bottom of the website page. We look forward to hearing from you and thank you again for your time.