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Federal Highway Administration

Fed. Project No. BRM-0046(111)

**Route 1&9T (25)
St. Paul's Viaduct Replacement
Jersey City,
Hudson County, New Jersey**

**Addendum to
Environmental Assessment/
Draft Section 4(f) Evaluation**

May 2002

**U.S. Department of Transportation
Federal Highway Administration
and
New Jersey Department of Transportation**

A. INTRODUCTION TO ADDENDUM

This document is an Addendum to the Environmental Assessment/Draft Section 4(f) Evaluation for the Route 1&9T (25) St. Paul's Viaduct Replacement Project in Jersey City, New Jersey. The Environmental Assessment (EA) for this project was prepared by the New Jersey Department of Transportation (NJDOT), and it was approved for circulation by the Federal Highway Administration (FHWA) on October 29, 2001. The EA was circulated for public comment in November 2001, including distribution to a number of agencies and entities (listed in Appendix C of the EA).

An electronic version of the EA can be downloaded from the environmental portion of the NJDOT website <http://www.state.nj.us/dot/ea/> (The specific site for the EA is http://www.state.nj.us/dot/ea/1_9t_25/index.html.)

The EA/Section 4(f) was prepared to identify and evaluate the potential social, economic, and environmental impacts of the proposed project. The EA was prepared in compliance with the National Environmental Policy Act of 1969 (NEPA) as implemented by the Council on Environmental Quality Regulations, 40 CFR 1500, et seq., and FHWA Procedures, 23 CFR 771 and pursuant to 42 U.S.C. 4332(2)(c), 16 U.S.C. 470(f) and Section 4(f) of the Department of Transportation Act (49 U.S.C. 303 and 23 U.S.C. 138).

B. WHY AN ADDENDUM IS NECESSARY

This Addendum has been prepared to address the possible environmental effects of a new set of modifications to the proposed project alignment, designed after the EA was circulated in November 2001. Those modifications were developed as part of a regular "value engineering" (VE) review of the project.

The modified proposed project is the new "Preferred Alternative." It will be also referred to in this Addendum as the "VE scheme." The proposed alignment described in the EA of October 2001 will be referred to in this Addendum as the "original" alignment. The first several sections of the Addendum (Sections A through E) cover the portion of the project that is modified by the VE scheme. The later sections of the Addendum (Sections F through J) pertain to the entire project alignment, not just the portion modified by the VE scheme.

C. THE VALUE ENGINEERING PROCESS

A value engineering review was completed in March 2002 by NJDOT to provide better coordination and compatibility between this project and the proposed replacement of the Wittpenn Bridge on Route 7. NJDOT conducts VE review of many of its projects as a part of its Quality Management program. VE aims to obtain the optimum value of a project by providing an equal or improved product at a reduced life cycle cost, consistent

with requirements for quality, performance, operation, maintenance, safety and aesthetics.

The original alignment would have tied into the existing Wittpenn Bridge by widening five (5) spans of the existing Wittpenn structure. The widening of the five spans would have cost approximately \$2.3 million, and that expenditure will no longer be necessary in this project. The proposed Wittpenn Bridge project, which is a separate project by NJDOT in the Final Scope Development phase, would construct a new bridge parallel to the existing structure and demolish the existing Wittpenn Bridge. If the original alignment of this St. Paul's project had been built, the proposed construction of the new Wittpenn Bridge would have required structural re-work and roadway re-work.

The VE modification would reduce construction costs, structural re-work, roadway re-work, and traffic control work zones. The modification would make the phasing of the two projects work more smoothly. The modified St. Paul's project will be compatible with the proposed construction of the Wittpenn Bridge replacement regardless of whether the proposed Wittpenn project is constructed simultaneously or later. The design and proposed future construction of the Wittpenn Bridge will be simplified due to the compatibility of the revised profiles of Ramp A, Ramp B, Ramp G, Route 1&9T SB, and Route 7 EB in the modified St. Paul's Avenue project. Otherwise, the profiles would have needed to be constructed as part of the Proposed Wittpenn Bridge project through a series of stages under traffic.

D. VALUE ENGINEERING MODIFICATIONS TO PROJECT ALIGNMENT

Briefly, there are five primary modifications to the project's preferred alignment, which was previously described in the EA:

- Modification of the mainline alignment to avoid impacting the Wittpenn Bridge and approach, while utilizing the traffic signal at Route 7 and Charlotte Avenue, which is currently being constructed under the Operational Improvements.
- Realignment of loop Ramp "A" at the western end of the project to completely avoid any modifications to the existing Wittpenn Bridge structure. (Ramp A would ultimately be the Route 7 WB connection from Route 1&9T NB and from the local connection from St. Paul's Avenue.)
- Widening of loop Ramp "G" to accommodate two lanes of traffic. (Ramp G would lead from Route 1&9T SB to Charlotte/Route 1&9T SB.)
- Widening of Ramp "C" to accommodate two lanes of traffic. (Ramp C would replace the connection to the existing viaduct by collecting the traffic from Route 1&9T NB and from Route 7 EB.)
- Modifications to the vertical profile of the Route 1&9T mainline Ramps "A," "B," and "G" in order to better meet the future Wittpenn project.

A full description of the project and its alignment is found in Section G of this Addendum.

E. REDUCTION IN ENVIRONMENTAL EFFECTS

For a large portion of this project, the VE scheme alignment is exactly the same as the original alignment, and would have the same environmental effects as the original alignment. The EA covered all the environmental areas of concern for the original alignment, and that document adequately represents the range of environmental concerns that the VE scheme might produce.

When considering the overall project (including the VE modifications), the proposed project would improve traffic circulation and safety, while imposing minimal effects -- beneficial and/or adverse -- on environmental resources. The proposed project is not expected to result in any significant impacts to these environmental resources.

In the VE scheme, the alignment is modified primarily in the vicinity of the project's connection to the Wittpenn Bridge. For the portion of the project modified by the VE scheme, the modified alignment would produce less environmental effects in a few environmental discipline areas, compared to the original alignment. The following bullets pertain only to subject areas where the environmental effects of the VE alignment are different from the original alignment.

- **Wittpenn Bridge Historic Resource** - The modified alignment will now have no direct impact to the Wittpenn Bridge. The EA had described a direct impact involving the proposed widening of five (5) spans of the existing east approach of the bridge, to accommodate Ramp A and the Route 1&9T mainline traffic to Route 7. The current plan will avoid this widening as a consequence of a change in the scope of the project. (In the VE scheme, the Route 1&9T mainline is modified from a proposed free-flow condition to a signal-controlled intersection.)

The Wittpenn Bridge was found to be individually eligible for listing on the National Register of Historic Places in 1994, and it is also a contributing element within the Hackensack River Lift Bridges Historic District. The widening of the five spans called for previously would have resulted in the removal of the existing north parapet and railing, an action that would have constituted an adverse effect to the bridge. The modified plans, as noted above, will remove any direct impact to the bridge.

According to the FHWA and the New Jersey State Historic Preservation Office (SHPO), "as currently planned the project will have no effect on the Wittpenn Bridge" (statement from Amendment to the Memorandum of Agreement between FHWA and SHPO regarding U.S. Route 1&9T (25) Bridge, dated April 2002).

- **Right of Way** - The original alignment would have required a partial taking of a property at the intersection of Howell Street, west of Duffield Avenue, owned by Terminal Ventures, Inc. This is a bulk fuel storage company, and the property holds above-ground storage tanks containing several classes of oil and kerosene. The original alignment passed through an existing retention pond (for holding accidental spills of oil from the tanks), which would have required the project to redesign or relocate the retention pond.

The modified alignment of Ramp A would not require this partial taking of Terminal Ventures property. This will reduce the right-of-way costs and it will reduce the pre-construction schedule and cost because it is no longer necessary to relocate or modify the retention basin).

- **Hazardous Waste Screening Studies** - The elimination of the partial taking of Terminal Venture's property does not result in any change to the hazardous waste screening process for the project. However, it will result in a very small reduction in the amount of construction in areas of environmental concern.
- **Traffic** - Based on the Value Engineering analysis, the quality of traffic flow through the Route 1&9T intersections with Newark Ave. and Route 7 would improve compared to that under the Operational Improvements (26) project, currently under construction. While the Value Engineering configuration would retain the traffic signal at the Route 1&9T/Route 7 intersection (which would have been removed under the former original configuration), it allows for a simplification of the traffic movements at the intersection, which simplifies the signal operation and promotes better coordination with the adjacent Newark Ave. intersection. This will likely reduce the long queues at the signalized intersection approaches, which are currently anticipated under the Operational Improvements configuration.
- **Air Quality** – Under the VE scheme, the project is not expected to generate pollutant levels that exceed applicable State and Federal Standards in any of the years analyzed.

Under the VE scheme, an additional intersection has been selected for carbon monoxide (CO) microscale air quality modeling. In the original EA, 4 sites were analyzed. The traffic projections for the VE scheme show that the signalized intersection of Newark Avenue and Charlotte/Route 1 & 9T is predicted to have an overall Level of Service (LOS) of E for the 2007 AM peak period. This condition would occur from 2007 (the construction completion year) to 2008 (the year that the Wittpenn Bridge project is scheduled for completion). To determine if this increased congestion would cause an air quality violation, the intersection became the fifth air quality analysis site. Site #1 was also reanalyzed due to its proximity to the new analysis site. The air quality analysis sites are listed in Table E.1.

The results of the modeling show that no violations of the ambient air quality standards are predicted at the five sites analyzed. Maximum one-hour and eight-hour CO levels worst case levels at the analysis sites are shown in Tables E.2 and E.3. The highest CO levels are predicted to occur at the intersection of St. Paul's & JFK Boulevard.

The project is not predicted to cause or exacerbate a violation of the applicable State and Federal Standards.

**Table E.1
Air Quality Analysis Site Locations**

Site Number	Site Description
1	Broadway & Rte. 1&9T
2	St. Paul's Avenue & Charlotte/James
3	St. Paul's & Tonnele Avenue
4	St. Paul's & JFK
5	Newark Avenue & Charlotte Ave./ Rte. 1&9

**Table E.2
Predicted Worst-Case One Hour CO Levels (ppm)**

Site #	Description	1997		2007				2017			
		Existing		No Build		Build		No Build		Build	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	Broadway & Rte. 1&9T	8.7	8.3	7.5	7.8	9.2	9.1	7.7	7.4	9.3	9.2
2	St. Paul's Avenue & Charlotte/James	6.1	6.3	5.9	5.9	6.7	6.8	5.9	6.0	7.0	7.0
3	St. Paul's Avenue & Tonnele Avenue	11.0	10.5	9.2	8.7	9.2	8.5	9.4	9.2	9.1	8.7
4	St. Paul's Avenue & JFK	10.5	10.7	8.5	9.8	9.6	9.1	9.0	8.8	9.7	9.2
5	Newark Avenue & Charlotte Ave./ Rte. 1&9	7.8	7.8	6.9	7.2	7.9	7.9	7.2	7.3	8.3	8.3

National and State one-hour standard = 35 ppm
 Values include one-hour background = 5.0 ppm

**Table E.3
Predicted Worst-Case Eight Hour CO Levels (ppm)**

Site #	Description	1997	2007		2017	
		Existing	No Build	Build	No Build	Build
1	Broadway & Rte. 1&9T	5.7	5.2	6.0	5.1	6.1
2	St. Paul's Avenue & Charlotte/James	4.3	4.0	4.6	4.1	4.7
3	St. Paul's Avenue & Tonnele Avenue	7.1	6.0	6.0	6.1	6.0
4	St. Paul's Avenue & JFK	6.9	6.4	6.3	5.9	6.3
5	Newark Avenue & Charlotte Ave./ Rte. 1&9	5.2	4.8	5.2	4.9	5.5

National and State eight-hour standard = 9 ppm
 Values include eight-hour background = 3.5 ppm

F. NEED FOR THE PROJECT

All the following sections of the Addendum were extracted from the Executive Summary of the EA and follows the same format as that document.

The proposed action has been designed to address four major needs and goals. The VE modification does not alter these needs and goals.

- 1. Correct structural deficiencies and functional obsolescence of the 1&9T Viaduct.**
- 2. Provide an efficient and safe network of ramps and roadways that improves the movement of people and goods on Routes 1&9, 1&9T, 7, and 139 in the vicinity of the project site.**
- 3. Provide a more continuous flow of traffic from Route 1&9 southbound onto Route 7 and the Pulaski Skyway.**
- 4. Minimize social and environmental impacts, and meet the project needs in a cost-effective manner.**

G. DESCRIPTION OF THE PROPOSED ACTION

The proposed project, as shown in Figure G-1, would replace the Route 1&9T viaduct over St. Paul's Avenue with a new structure on a new alignment north of the present structure. The new alignment requires the construction of new approach roadways, which would provide connections to Route 1&9T, Route 7, Pulaski Skyway, Route 139, Route 1&9 north of Tonnele Circle, and local streets in Jersey City.

The approximate cost of the proposed action is estimated at \$197,000,000 (in 2001 dollars), including right-of-way acquisition, utility relocations, and construction costs. Right of way acquisition and relocation costs are currently estimated at \$38,000,000 (2000 dollars). Up to an additional \$35,000,000 in right-of-way contingency costs could be required, for potential structural damage or acquisitions of nearby buildings.

A number of structures, ramps, and other connections would be constructed or modified as part of the proposed project. All proposed ramp, lane, and shoulder widths would be designed in accordance with the NJDOT Roadway Design Manual. The components of the proposed project, as shown in Figure G-2, are as follows (with roadway directions abbreviated as NB, SB, EB, and WB). If a component description differs from that presented in the EA, the title is noted as “- (**Revised**).”

1. St. Paul's Avenue Viaduct – (Revised)

From west to east, the mainline alignment would begin at the vicinity of the intersection of Route 7 and Charlotte Avenue (constructed under the Operational Improvements Project), with connections to Route 7, Route 1&9T, and St. Paul's Avenue. The planned alignment would proceed on a viaduct over Charlotte Avenue, St. Paul's Avenue, Conrail, and ultimately reach Route 1&9 northbound on a flyover structure that

terminates in the vicinity of Spruce Street. The flyover structure would pass over Route 1&9 (Tonnele Avenue), NJ Transit tracks, and Conrail tracks.

The typical roadway section, in this direction, would consist of a 0.9m (3-foot) inner shoulder, 3.6m (12-foot) lanes, and a 3.6m (12-foot) outer shoulder where applicable. The typical roadway section for the NB flyover would consist primarily of a 12m (40-foot) wide, two-lane structure with a 3.0m (10-foot) inside shoulder, and two 4.5m (15-foot) lanes.

2. Route 7 EB to Tonnele Circle/Route 139 (Holland Tunnel) via Ramp B-(Revised)

From the mainline, Ramp B would exit west of Charlotte Avenue and pass over Charlotte Avenue and Ramp C, proceeding toward the existing connection at Tonnele Circle.

A typical roadway section for Ramp B would consist primarily of a 7.8m (26-foot) wide, one-lane structure until the connection is made with Ramp C. The connected Ramp B/C roadway typical would consist of one 3.9m (13-foot) lane, one 3.6m (12-foot) lane and one 3.9m (13-foot) lane, which proceed to the Tonnele circle. A typical ramp section is shown on Figure G-3.

3. Route 7 EB to Charlotte Ave. (Route 1&9T SB)/Newark Ave. Intersection

Traffic on Route 7 EB destined for Route 1&9T SB, Charlotte Avenue, or Newark Avenue would use a two-lane direct connection with a new left-turn lane at the signalized intersection. At the intersection, traffic would be distributed to the right 3.9m (13-foot) lane for Route 1&9T SB, straight ahead in the center 3.6m (12-foot) lane for Newark Avenue, and to the left 3.9m (13-foot) lane for local traffic on Charlotte Avenue, James Avenue and St. Paul's Avenue.

4. Intersection of Newark Avenue with Route 1&9T and the Route 7 EB Ramp-(Revised)

A traffic signal would process the heavy traffic flows at the intersection of Newark Avenue, Route 1&9T, and the Route 7 EB ramp. Currently, Charlotte Circle poorly serves these traffic movements. (Note that Charlotte Circle will undergo operational improvements, described in Section I.C.1 of the EA, before the proposed project takes place.) Two through-lanes would be provided in both directions on Route 1&9T and a left-turning lane onto Newark Avenue at the Route 1&9T SB approach would remain from the Operational Improvements Project. Single right- and left-turn lanes would be provided on Newark Avenue at the east approach of the intersection. The project calls for a three-lane approach to the intersection from the Route 7 EB ramp, with one lane each for left turns, through-movements, and right turns. The intersection is expected to operate at Level of Service E in the A.M. peak hours, and at Level of Service D in the P.M. peak hours.

Figure G-1Proposed Project

Figure G-2 Proposed Project Components

Figure G-3 Typical Section Route 7 / Route 1&9T

5. Route 1&9T NB to Route 1&9 NB or Tonnele Circle/Route 139 via Ramp C - (Revised)

Ramp C would replace the connection to the existing viaduct by collecting the traffic from Route 1&9T NB and from Route 7 EB. This replacement ramp would allow vehicles a choice of proceeding along the mainline to Route 1&9 NB (via the flyover ramp), or traveling into Tonnele Circle to connect with Route 139 EB (Holland Tunnel).

The typical section for Ramp C would consist of a 9.6m (32-foot) wide, two-lane structure adjacent to the mainline EB structure. When the grade separation is reduced between these two structures they would combine into one structure west of the Conrail railroad tracks. To the east of the Conrail tracks, Ramp C would combine with Ramp B and pass under Ramp I to lead vehicles to the Tonnele circle. A typical ramp section is shown on Figure G-3.

6. Route 1&9 over NJ Transit and Conrail Structures No. 0902-150 and No. 0902-151

A seismic retrofit study has concluded that complete replacement of both structures is warranted. The existing structures over the railroads would be reconstructed, creating a southbound shoulder, three southbound lanes, a median area, and one northbound lane and shoulder. Sidewalks will be provided for access to the cemetery and along Route 1&9.

The typical roadway section for this section of Route 1&9 SB would consist of a 0.9m (3-foot) inside shoulder, a 3.3m (11-foot) inner lane, a 3.6m (12-foot) middle lane and a 3.3m (11-foot) outer lane with a 3.6m (12-foot) outer shoulder. The typical section for Rte 1&9 NB would be comprised of a 0.9m (3-foot) inside shoulder, a 3.3m (11-foot) lane and a 3.6m (12-foot) outside shoulder.

7. Route 1&9T SB Loop Ramp (Ramp G) to Charlotte Avenue/Route 1&9T SB - (Revised)

The proposed alignment would pass over the PSE&G sub-station to connect with Charlotte Avenue/Route 1&9T SB. The alignment requires the entire taking of the PSE&G property (bordering St. Paul's Avenue, Duffield Avenue, Howell Street, and Charlotte Avenue), which contains known environmental concerns. The proposed ramp would connect to Charlotte Avenue SB immediately north of the Route 1&9T/Newark Avenue intersection.

The typical roadway section would consist of a 10.2m (34-foot) wide two-lane ramp on fill with retaining walls located between the loop ramp and Ramp A and also in the vicinity of the Charlotte Avenue SB Ramp.

8. Charlotte Avenue between St. Paul's Avenue and Newark Avenue/Route 1&9T - (Revised)

Charlotte Avenue between St. Paul's Avenue and Newark Avenue would be split in two directions with the SB movement originating from the intersection of Duffield Avenue and St. Paul's Avenue, and the NB movement terminating at the intersection of St. Paul's

Avenue and James Avenue. These two intersections would serve the local traffic movements while the portion of Charlotte Avenue that currently intersects St Paul's Avenue would be modified into an access road, serving the businesses on Dey Street. North of the intersection at Newark Avenue, the SB Charlotte Avenue roadway would meet the Route 1&9T SB loop ramp (Ramp G) from the proposed viaduct to form two Route 1&9T SB lanes and a right-turning lane for accessing Route 7 WB.

The northbound Charlotte Avenue roadway would be a continuation of the two lanes of Route 1&9T NB that cross under the PATH line. Route 1&9T NB and Newark Avenue WB traffic destined for Route 7 WB would use Ramp A, which would be a direct connector to the Wittpenn Bridge. Route 7 EB and Route 1&9T NB traffic, destined for Route 1&9 NB or Route 139 EB (Holland Tunnel), would use Ramp C and the proposed viaduct to access those destinations. Access to the industrialized areas of St. Paul's Avenue, Howell Street, and Duffield Avenue would be maintained by utilizing the NB Charlotte Avenue movement to the intersection of St. Paul's Avenue and James Avenue.

9. St. Paul's Avenue

St. Paul's Avenue will be re-striped and re-paved from the Conrail tracks area to the Duffield Avenue intersection. Left-turn lanes would be provided at the proposed St. Paul's Avenue intersections with James Avenue and Duffield Avenue to accommodate heavy volumes destined for Route 1&9T SB and Route 7 WB via St. Paul's Avenue as well as the additional traffic being diverted from JFK Boulevard destined for the Broadway entrance of the Pulaski Skyway. The proposed typical roadway section along St. Paul's Avenue would consist of a 3.6m (12-foot) left turn lane and a 3.9m (13-foot) through lane in the westbound direction, and a 4.5m (15-foot) lane in the eastbound direction. Widening of St. Paul's Avenue would not be required to attain the proposed section. For the forecasted traffic volumes, the improved St. Paul's Avenue/James Avenue and the St Paul's Avenue/Duffield Avenue intersections are expected to operate at Level of Service B during A.M. and P.M. peak hours.

10. Ramp A- (Revised)

Ramp A would ultimately be the Route 7 WB connection from Route 1&9T NB and from the local connection from St. Paul's Avenue. Ramp A would receive westbound traffic coming from St. Paul's Avenue via the new ramp (designated as "Charlotte Avenue NB Ramp") that starts at the intersection of James Avenue and St. Paul's Avenue. The new signalized intersection at St. Paul's Avenue and James Avenue would service the local Jersey City motorists destined for Route 7 WB. This portion of the relocated roadway is expected to carry a significant number of vehicles, which would access Route 7 WB and the Wittpenn Bridge via Ramp A.

The Ramp A roadway would be constructed primarily on fill with retaining walls located where required. The structural section of Ramp A would pass over the Charlotte SB Ramp. The typical roadway section would consist of a 10.2m (34-foot) two-lane ramp from James Avenue to the Charlotte SB Ramp and then transitions to a 7.2m (24-foot) one-lane ramp as it approaches Route 7 WB and the Wittpenn Bridge. The two-lane section Ramp A would be comprised of a 2.4m (8-foot) inside shoulder for horizontal

stopping sight distance, a 3.6m (12-foot) inner lane, a 3.6m (12-foot) outer lane, and a 0.6m (2-foot) outer shoulder.

11. Route 139 WB to Route 1&9T SB and Route 7 WB (via Ramp D)

The existing Route 139 ramp crosses over Tonnele Circle and serves traffic destined for Route 7 and Route 1&9T via the existing viaduct. This traffic would be rerouted onto the proposed loop Ramp D, allowing access to Route 1&9T SB and Route 7 WB.

The proposed Ramp D would pass over the Tonnele Circle, pass under Ramp I and the mainline Route 1&9T before tying into Route 1&9T SB lanes. The typical roadway section would consist of a 7.8m (26-foot) wide on-lane ramp, which would sit on both fill and on structure. A typical ramp section is shown on Figure G-3.

12. Covert Street and Access to the NJ Transit Signal Station

Covert Street would be vacated but continue to function as a two-way driveway, and would provide access to the NJ Transit signal station. Since this street would be converted to a driveway, no signal would be required at the intersection with St. Paul's and the Conrail tracks.

13. Route 1&9 SB to the Pulaski Skyway (via Ramp I)

Ramp I currently meets the Skyway at a stop condition, with little or no sight distance. This presents a safety hazard, as Ramp I traffic must extend into the right lane of the Pulaski Skyway in order to identify a gap in which to enter. The recommended solution is to improve the sight distance and safety by adding a yield-condition tapered lane, thereby eliminating the stop condition and minimizing the sight distance problem.

The proposed Ramp I structure would replace the existing ramp structure that connects to the Skyway. The recommended scheme would taper the acceleration lane prior to the trusses and will not require removal of the trusses. The design would not impact the remainder of the existing structure.

Ramp I would cross over loop Ramp D and the combined Ramp B/C before tying into the existing WB lanes of the Pulaski Skyway. The typical roadway section would consist of a 7.8m (26-foot) wide one-lane ramp, which would sit on both fill and on structure. A typical ramp section is shown on Figure G-3.

While several alternative schemes were considered for Ramp I, the proposed alternative provides an improvement of safety over the current "stop" conditions for vehicular traffic. The ramp and entrance to the Pulaski Skyway would be designed to meet the geometric standards of the American Association of State Highway and Transportation Officials (AASHTO) for yield conditions. It would meet NJDOT's Design Manual requirements for yield-controlled intersections. An advantage of this scheme is that it avoids the removal of the truss structure on the Pulaski Skyway, which is part of the U.S. Route 1&9 Corridor Historic District.

14. Tonnele Circle Revisions

The goal of the planned improvements to Tonnele Circle is to maximize the ability to accommodate the remaining traffic movements in the circle. Improvements include the elimination of the crossover movement for traffic from Route 139 and JFK Boulevard to the circle, as well as the cut-through from the existing Route 1&9T to Route 1&9 northbound. The Kennedy Blvd./Route 139 ramp would provide access only to Route 1&9 NB. Traffic traveling between Route 1&9T and Route 1&9 in both directions would be diverted to the proposed ramps and viaduct to the north. In addition, two lanes would be provided in the southern portion of the circle to accommodate heavy traffic exiting the Skyway to Route 1&9 NB. The second lane would end on Route 1&9 NB just south of the Conrail structure.

Under the proposal, the Ramp I connection to the Pulaski Skyway would remain. In lieu of the existing viaduct and Charlotte Circle, traffic from Route 139 would use Ramp D and the proposed viaduct to connect with Route 1&9T SB and Route 7 WB. Kennedy Boulevard and State Highway traffic normally using the JFK Boulevard ramp to access Tonnele Circle would use other routes (based on trip origin) to access the Pulaski Skyway, Route 1&9T, or Route 7. Such routes include Manhattan Avenue or Carlton Avenue for motorists from the north, Newark Avenue for motorists from the south, and St. Paul's Avenue for motorists from the east.

The proposed reconstruction scheme redirects approximately 33 percent of the forecasted traffic volumes from Tonnele Circle to the new traffic patterns. The removal of the crossover movement at the north end of the circle (from JFK Boulevard toward the Skyway and Route 1&9T) and the cut-through movement (from the existing viaduct to Route 1&9 NB) would allow for the elimination of the existing traffic signal in the northeast quadrant of the circle. That signal currently controls entry to and exit from the circle from Route 1&9. While this redirection of traffic would result in an improvement in the circle's operation over the existing condition, the operation of the circle, as a whole, is not expected to improve to an acceptable level of service.

Because of the improved lane configuration on Route 1&9 SB approaching the ramps for the proposed Route 1&9T and for the Pulaski Skyway SB, Tonnele Circle delays should be more manageable based on the distribution of green time to the remaining traffic flows through the circle. The third (outside) lane, which begins north of the Conrail structure, would be long enough to bypass any expected queues. The Route 1&9 northbound movement via the Pulaski Skyway is the dominant movement remaining in the circle, and controls the timing of the traffic signals in the circle. This approach also has a heavy flow of right turns from the ramp to Van Wagenen Ave. Ramp queues due to the traffic signal timing have the potential to extend onto the Skyway, affecting the flow of traffic on the highway.

15. Reconstruction of the Ramp D Structure Over Tonnele Circle

The existing Ramp D structure over the Tonnele Circle has a sufficiency rating of 44.8, making it eligible for Federal Bridge Replacement Funding. It has poor lateral clearance, a very low vertical clearance, and the inspection report indicates evidence of collision

damage. The substructure has a rating of 3 out of 10 and requires considerable rehabilitation. NJDOT Structural Evaluation Unit has recommended that replacement of the structure be added to the project, and that the vertical and lateral clearances be improved.

The proposed replacement of the structure would improve the underclearance at the Circle and would also allow for safety improvements by protecting the existing piers with new lane configurations and providing new locations for the proposed piers of the replacement structure. A typical section is shown on Figure G-3.

H. PERMITTING REQUIREMENTS

The revised project alignment proposed in the Value Engineering scheme will not change the environmental permits and approvals required for construction of the project, based upon the proposed alignments and impacts include the following:

- NJDEP Waterfront Development Permit
- NJDEP Stream Encroachment Permit
- NJDEP Freshwater Wetlands General Permit
- NJDEP Water Quality Certificate
- USACOE Section 10/Section 404 Permit
- Hackensack Meadowlands Development Commission (HMDC) Resolution of Support

I. PROJECT COORDINATION AND COMMENTS

Public involvement. The intent of the public involvement is to optimize the level of communication with the general public, appropriate governmental agencies, and the design team members, and to coordinate the public awareness activities with the entire process. Information pertaining to the project will be shared, presented, and made available for review and comments.

A public outreach program/community action plan and a public notification plan has been developed and implemented by the New Jersey Department of Transportation, Office of Community Relations. The outreach action plan includes the following actions:

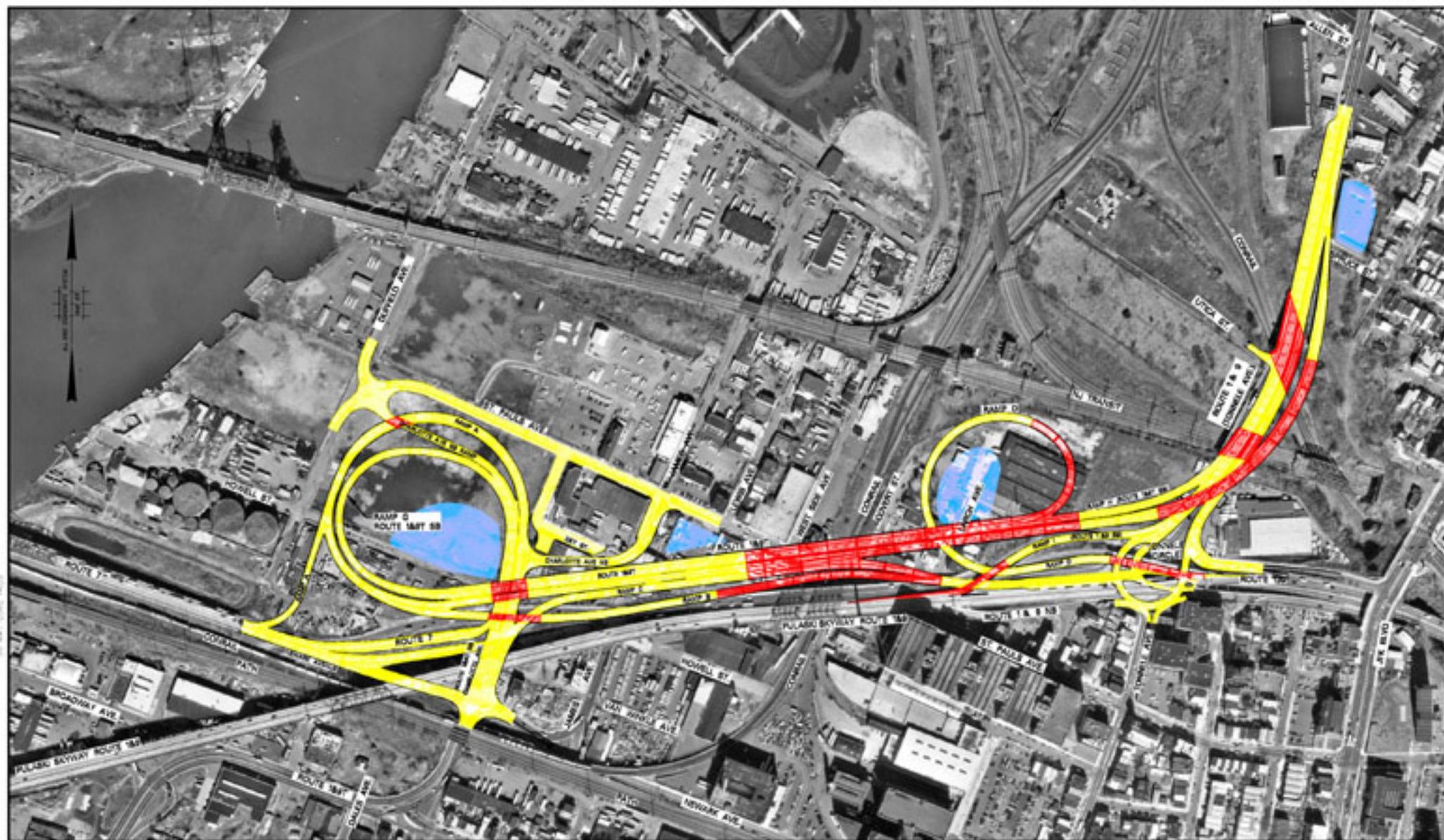
- Organized a meeting with the mayor and officials of the City of Jersey City (June 1, 1998)
- Organized a Notice of Planned Action (NOPA) meeting with relevant agencies and organizations (October 27, 1998)
- Organized a meeting with Jersey City Municipal Council (June 12, 2000)
- Conducted a Public Information Center in Jersey City (July 27, 2000)
- Circulated the EA and Draft Section 4(f) to agencies and appropriate public locations (November 2001)
- Conducted a Public Hearing and a concurrent Information Center after the EA was released (December 3, 2001)

- Submit the Addendum to the EA and Final Section 4(f) Statement to FHWA
- Conduct a Public Information Center.

There has been continuing interaction with local parties, including meetings with the Jersey City mayor, officials, Jersey City Municipal Council, other agencies, and the public. The Public Information Center in July 2000 was attended by about 100 people. The Public Hearing in December 2001 was attended by about 50 people. Generally, many of the people who attended expressed a positive reaction toward the project. Many were concerned about how the project would affect their own properties and businesses, and NJDOT representatives explained that there would be relocation assistance for those affected. An additional Public Information Center will be held after release of this Addendum.

J. CONCLUSION

The proposed project, the subject of this Addendum to the EA, best satisfies the project purpose and need while minimizing environmental and socioeconomic impacts. There would be no significant environmental impacts anticipated from implementation of the proposed project. Mitigation measures have been developed and will be undertaken to minimize any likely environmental impacts. In summary, the beneficial effects of the project, such as reduced congestion and improved travel safety, make the project both necessary and desirable.



LEGEND

- ROADWAYS
- BRIDGES
- DRAINAGE BASIN



State of New Jersey
Department of Transportation
 ROUTE 1 & 9T (25)

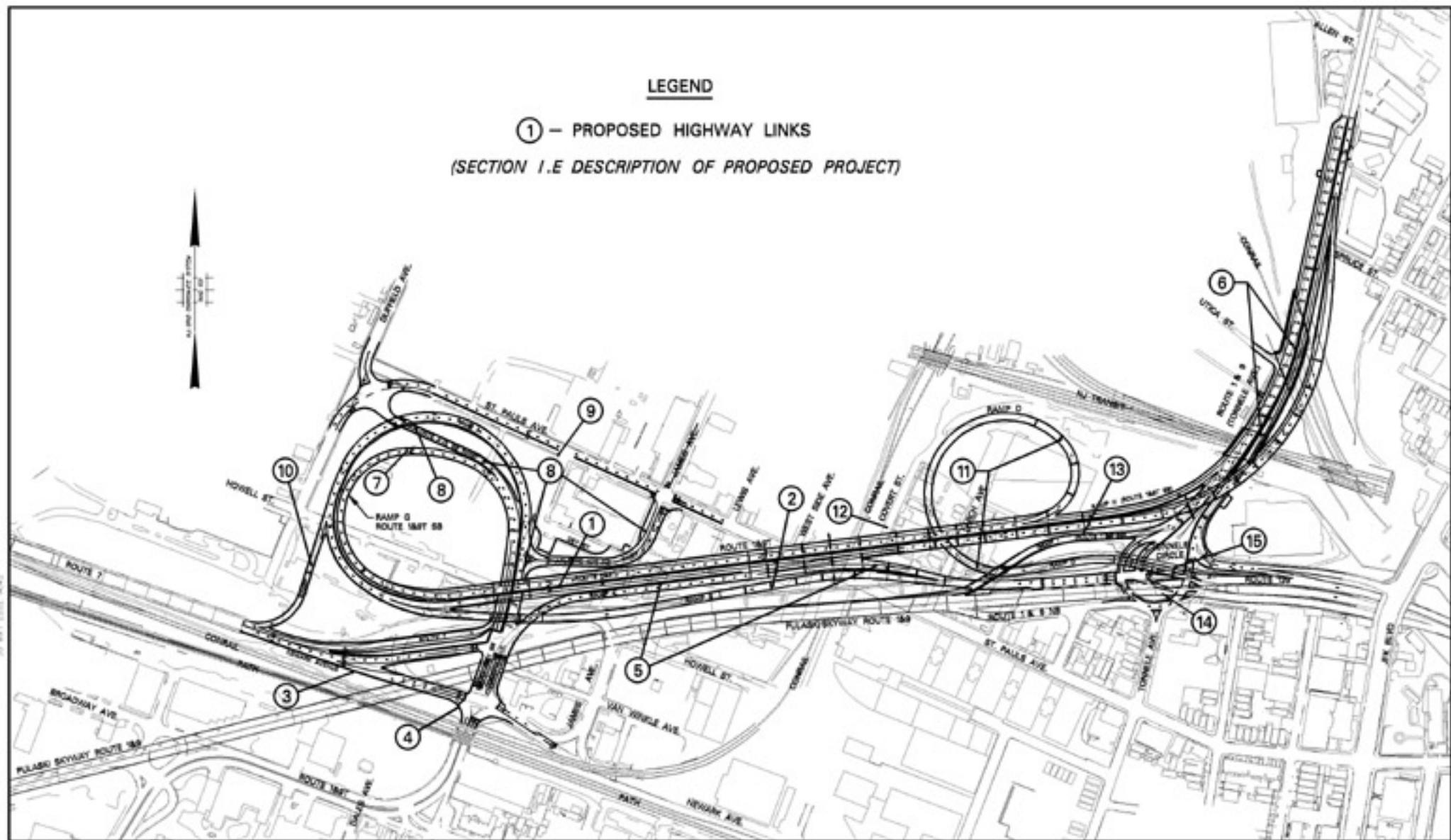


FIGURE G-1: PROPOSED PROJECT

Route 1 & 9T (25)

LEGEND

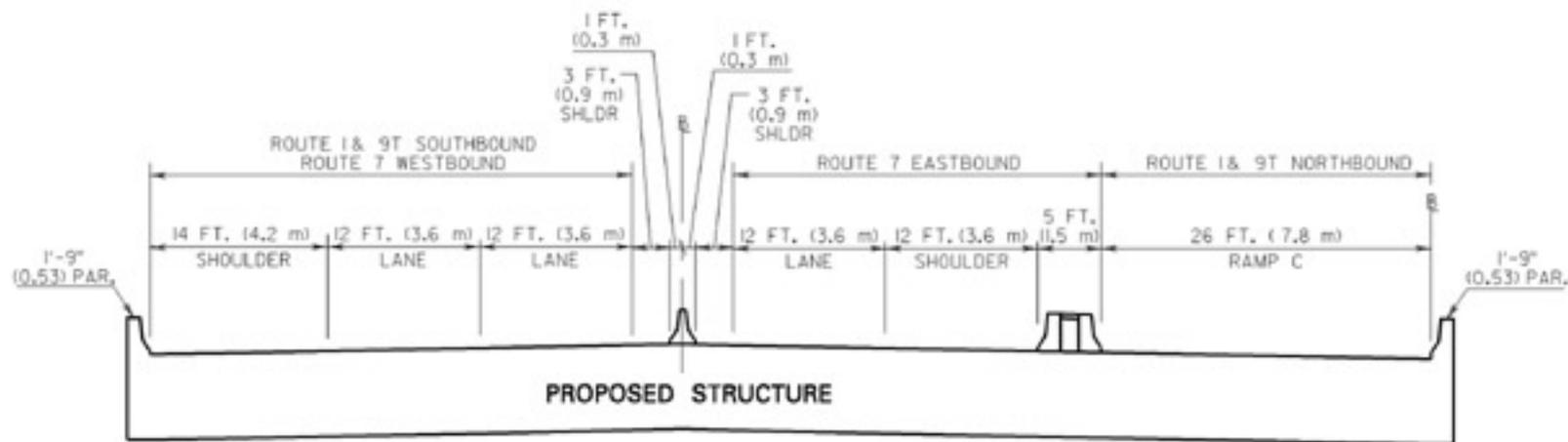
① — PROPOSED HIGHWAY LINKS
(SECTION I.E DESCRIPTION OF PROPOSED PROJECT)



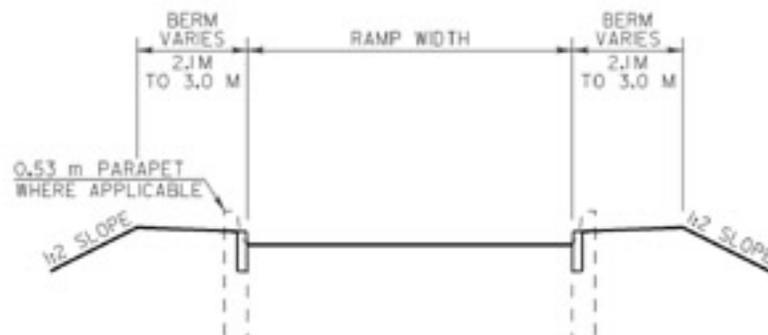
State of New Jersey
Department of Transportation
ROUTE 1 & 9T (25)



FIGURE G-2: PROPOSED PROJECT COMPONENTS
Route 1 & 9T (25)



TYPICAL SECTION
ST. PAULS VIADUCT IN VICINITY
OF JAMES AVENUE



TYPICAL RAMP SECTION

DESCRIPTION	RAMP WIDTH
RAMP A	7.2 M TO 10.2 M
RAMP B	7.8 M
RAMP C	9.6 M
RAMP D	7.8 M
RAMP F	7.2 M
RAMP G (RTE, I&9T SB)	10.2 M
CHARLOTTE SB RAMP	7.2 M
RAMP H (RTE, I&9T SB)	7.8 M
RAMP I (RTE, I&9 SB)	7.8 M



State of New Jersey
Department of Transportation
ROUTE 1 & 9T (SB)



FIGURE G-3
TYPICAL SECTION
ROUTE 7 / ROUTE 1 & 9T