

PUBLIC INFORMATION CENTER #2

September 12, 2018





PROJECT TEAM



















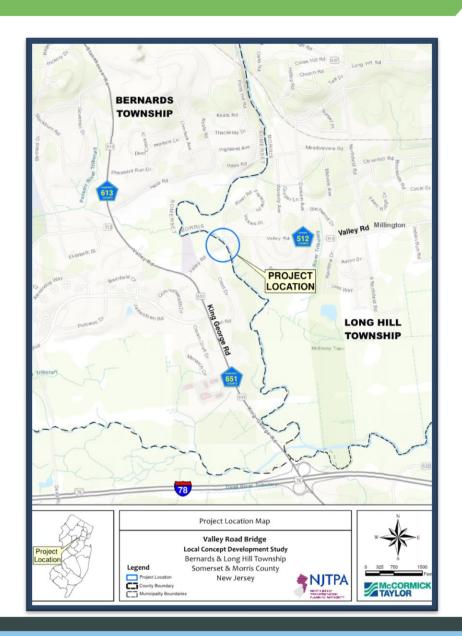
MEETING PURPOSE

- Provide a summary of the Local Capital Project Delivery Process
- Present a brief summary of the data collection effort
- Present the Project Purpose & Need and Goals and Objectives for the project
- Present the conceptual alternatives developed for the Valley Road Bridge
- Obtain input regarding the conceptual alternatives

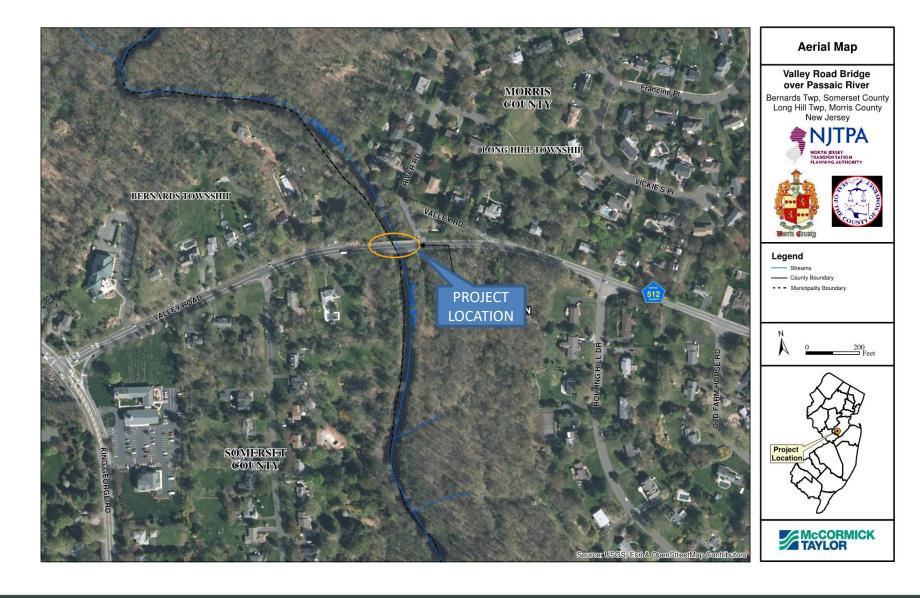
PROJECT OVERVIEW & BACKGROUND

- Valley Road (CR 512) Bridge over Passaic River is located in Bernards Township, Somerset County and Long Hill Township, Morris County
- Bridge was built in 1931
- Bridge is in need of rehabilitation or replacement
- NJTPA, Somerset County and Morris County Local Concept Development Study was initiated in November 2017
- Local Capital Project Delivery Process provides the opportunity to advance this project with public input and agency collaboration

PROJECT LOCATION MAP



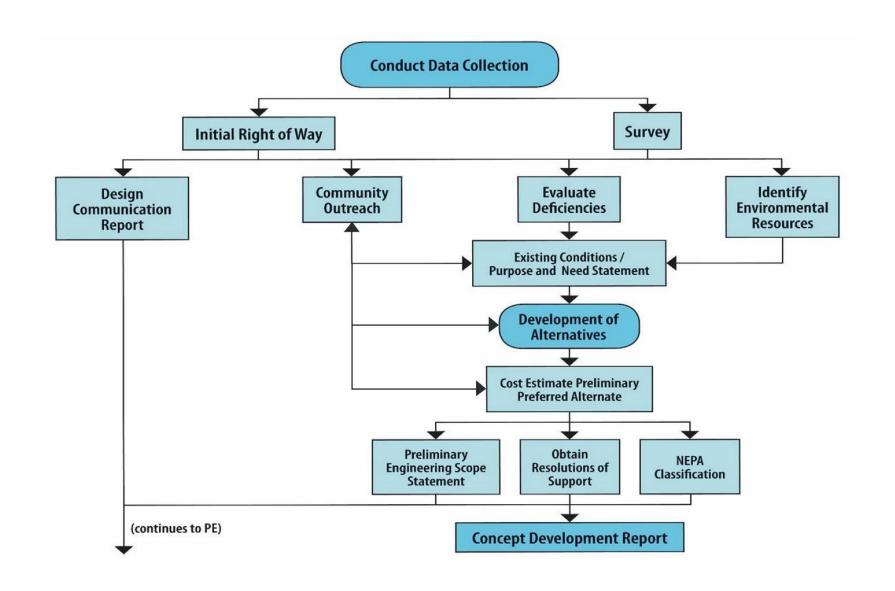
AERIAL MAP



LOCAL CAPITAL PROJECT DELIVERY PROCESS

Local Concept Development	Local Preliminary Engineering	Final Design/Right of Way Acquisition	Construction				
Data Collection	Continue Public Outreach Efforts	Continue Public Outreach Efforts	Continue Public Outreach Efforts				
Initiate Public Outreach Efforts	Preliminary Design	• Final Design	Complete Construction				
 Purpose and Need Statement 	Preliminary ROW Documents	Final ROW Documents and ROW Acquisition	• As-Built Plans				
 Alternatives Development and Analysis 	 Preliminary Engineering Plans 	 Final Contract Plans and PS&E Package 	Close-Out Documentation				
 Select Preliminary Preferred Alternative 	 Preliminary Construction Cost Estimate and Schedule 	Final Utility Relocation Schemes					
NEPA Classification	Approved Design Exception Report	Secure Environmental Permits					
 Local Concept Development Report 	Approved NEPA Environmental Document	Environmental Reevaluation					
	 Local Preliminary Engineering Report 						

LOCAL CONCEPT DEVELOPMENT PROCESS



VALLEY ROAD BRIDGE DATA

- Year Built: 1931
- Bridge Type: Three-span concrete encased multi-stringer
- Overall Bridge Length = 103 feet
- Bridge Roadway Width = 33'-4"
- Posted Speed Limit = 40 MPH
- Posted Weight Limit = 16 Tons
- One lane in each direction
- Outside shoulders: 2' wide WB, 4' wide EB
- 5'-6" Sidewalks in each direction
- 2018 AADT = 9,329 vehicles per day

VALLEY ROAD



Valley Road east approach to bridge, looking west



Valley Road west approach to bridge, looking east

- The bridge is in overall poor condition due to the condition of the substructure and low inventory ratings
- The substructure is in poor condition due to scaling and efflorescence throughout.
- The bridge is structurally deficient due to poor substructure condition and low inventory ratings (posted for 16 tons weight limit)
- Sufficiency Rating is 45.5 out of 100 (17th Cycle)

EXISTING BRIDGE PHOTOS



North fascia, looking southwest



South fascia, looking west



Top of deck, looking northeast



Concrete Pylon @ southeast corner





South fascia @ east pier

Under bridge, looking at north pier



North fascia @ east pier



West abutment, looking southwest

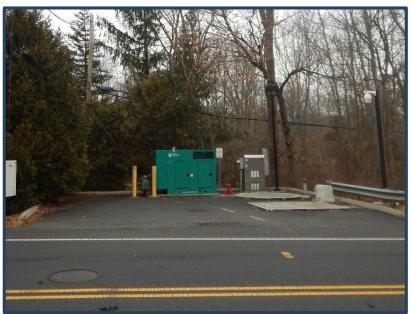
ENVIRONMENTAL CONSTRAINTS MAP



SITE CONSTRAINTS



NJ American Water Booster Station located east of bridge



Wastewater Pump/Generator located west of bridge

SITE CONSTRAINTS



Passaic River Park entrance

Trail entrance in Passaic River Park

PROJECT STATUS

- November 2017 LCD Study initiated
- Spring 2018 Data Collection completed
- Spring 2018 Held Local Officials Briefing #1, Stakeholders
 Meeting #1 and Public Information Center #1
- July 2018 Project Purpose and Need Statement finalized
- Summer 2018 Developed Conceptual Alternatives
- September 5, 2018 Local Officials Briefing #2
- September 12, 2018 Stakeholders Meeting #2 and Public Information Center #2

PURPOSE AND NEED

 The purpose of this project is to address the deficiencies of the Valley Road Bridge over the Passaic River and to provide an upgraded structure that meets current standards and maintains a safe means of transportation across the Passaic River for all users.

PURPOSE AND NEED

- The Valley Road Bridge is a Bi-County bridge connecting Somerset and Morris Counties. The bridge provides an important transportation link for residents and commuters connecting to major routes such as I-78 and I-287.
- The bridge is in overall poor condition due to the condition of the substructure and has been posted for 16 tons gross load since 1993. Due to low inventory ratings, the bridge is categorized as Structurally Deficient. The bridge has a Sufficiency Rating of 45.5 out of 100.

GOALS AND OBJECTIVES

- Upgrade the bridge structural capacity to meet AASHTO and NJDOT design standards
- Upgrade bridge and approach roadway conditions to meet AASHTO and NJDOT safety standards, including new parapets and guide rail
- Minimize environmental, social and economic impacts
- Minimize impacts to the Passaic River Park
- Minimize impacts to existing utilities including water and gas mains, aerial electric, as well as the water booster and pump stations
- Minimize disruptions to traffic operations during construction
- Maintain access to adjacent properties at all times during construction
- Minimize the use of detours; if detours are required, utilize the state and county roadway network to the greatest extent feasible
- Provide pedestrian and bicycle compatibility on the bridge and approach roadways
- Maintain the existing aesthetics of the bridge to the extent feasible

CRITICAL DESIGN PARAMETERS FOR STRUCTURAL ALTERNATIVES

STRUCTURAL LIFE CYCLE

Strong durability, cost effective, and minimal maintenance

HYDROLOGY & HYDRAULICS

- No flood water increases greater than 0.04'

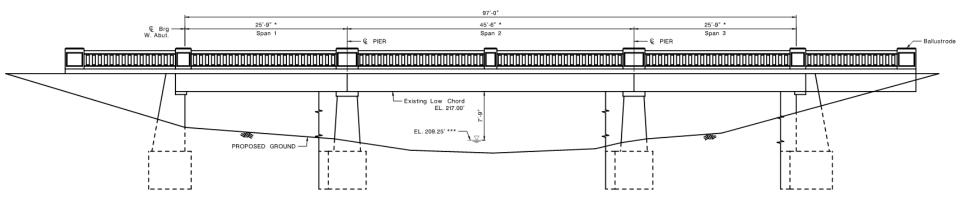
BRIDGE GEOMETRY

Wider bridge to include outside shoulder

WILDLIFE PASSAGES

Provide wildlife passage under bridge

EXISTING ELEVATION

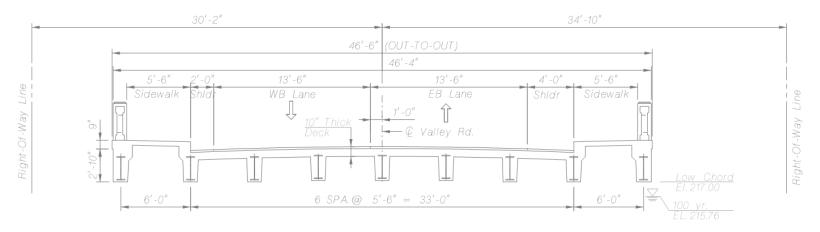


* DIMENSION IS MEASURED ALONG BRIDGE SKEW
** WILD LIFE PASSAGE - 4'(+/-) MEASURED NORMAL TO ABUTMENT

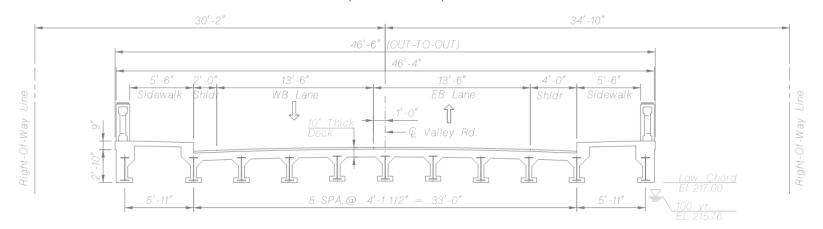
*** FROM 17th CYCLE INSPECTION REPORT 2015

EXISTING ELEVATION

EXISTING TYPICAL SECTION



EXISTING BRIDGE TYPICAL SECTION - SPAN 1 & 3



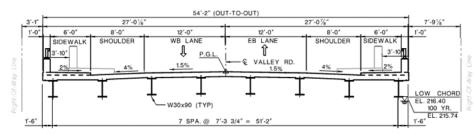
EXISTING BRIDGE TYPICAL SECTION - SPAN 2

(LOOKING EAST)

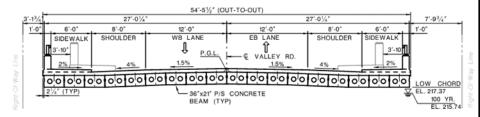
ALTERNATIVE 1 – EXISTING ALIGNMENT FULL DETOUR



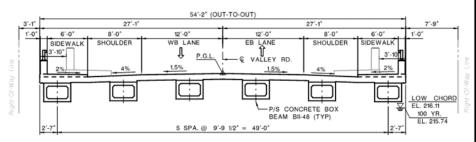
ALTERNATIVE 1 – PROPOSED TYPICAL SECTION ALTERNATIVES



TYPICAL SECTION - STEEL ROLLED BEAM ALTERNATIVE

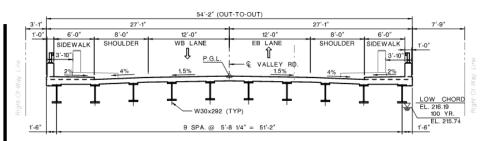


TYPICAL SECTION - CONCRETE SLAB BEAM ALTERNATIVE



TYPICAL SECTION - CONCRETE SPREAD BOX BEAM ALTERNATIVE (LOOKING EAST)

2-SPAN (50'-6" - 50'-6") CONFIGURATION



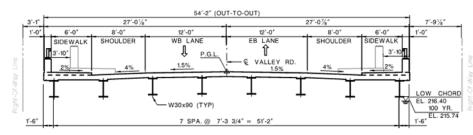
TYPICAL SECTION - STEEL ROLLED BEAM ALTERNATIVE

SINGLE SPAN CONFIGURATION (101'-0")

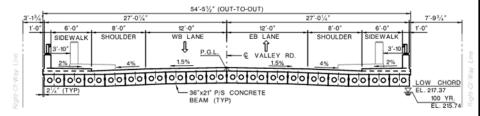
ALTERNATIVE 2 – EXISTING ALIGNMENT REALIGN RIVER ROAD FULL DETOUR



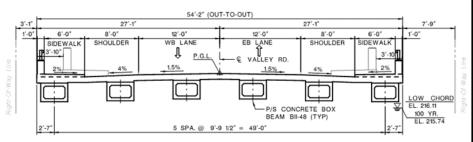
ALTERNATIVE 2 – PROPOSED TYPICAL SECTION ALTERNATIVES



TYPICAL SECTION - STEEL ROLLED BEAM ALTERNATIVE

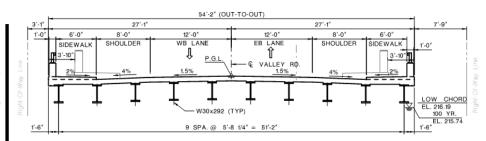


TYPICAL SECTION - CONCRETE SLAB BEAM ALTERNATIVE



TYPICAL SECTION - CONCRETE SPREAD BOX BEAM ALTERNATIVE (LOOKING EAST)

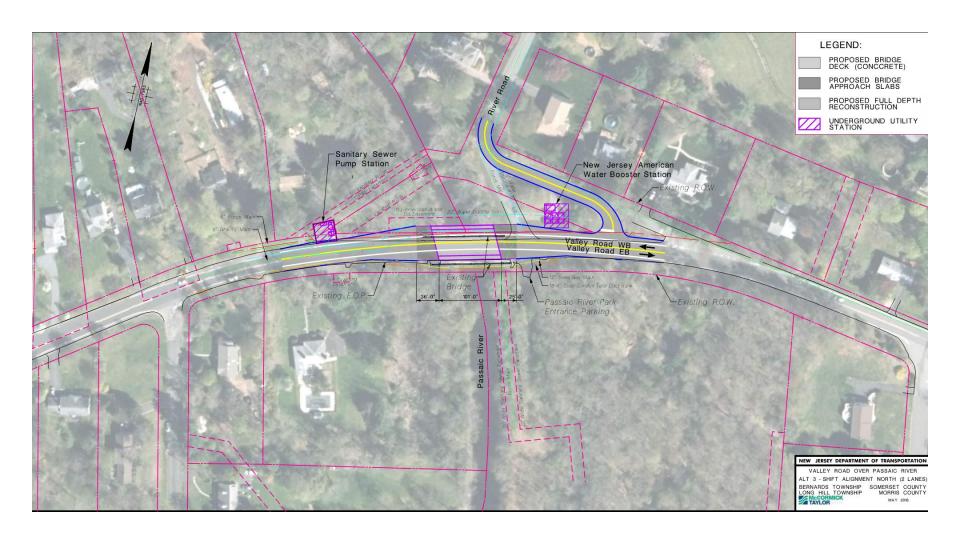
2-SPAN (50'-6" - 50'-6") CONFIGURATION

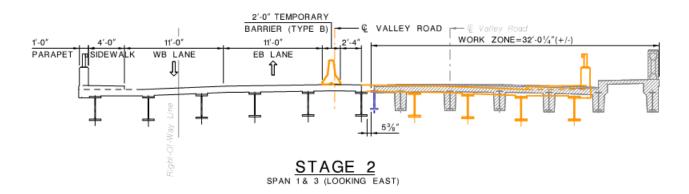


TYPICAL SECTION - STEEL ROLLED BEAM ALTERNATIVE

SINGLE SPAN CONFIGURATION (101'-0")

ALTERNATIVE 3 – SHIFT ALIGNMENT NORTH MAINTAIN ALL LANES DURING CONSTRUCTION





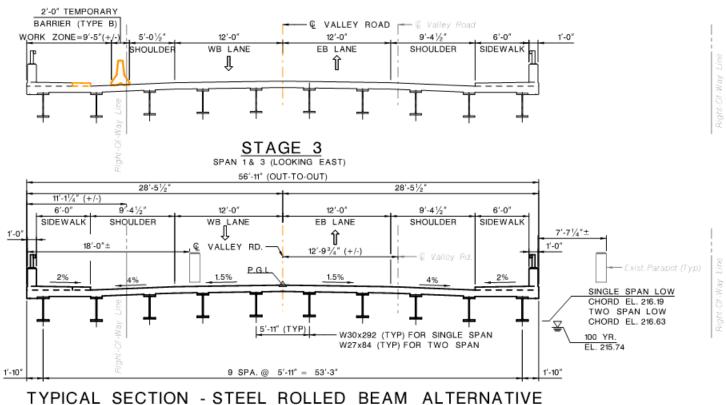
SINGLE SPAN CONFIGURATION (101'-0")

2-SPAN (50'-6" - 50'-6") CONFIGURATION

Right-Of-Way Line

Right-Of-Way Line

ALTERNATIVE 3 – PROPOSED STAGING PLAN PART 2 OF 2

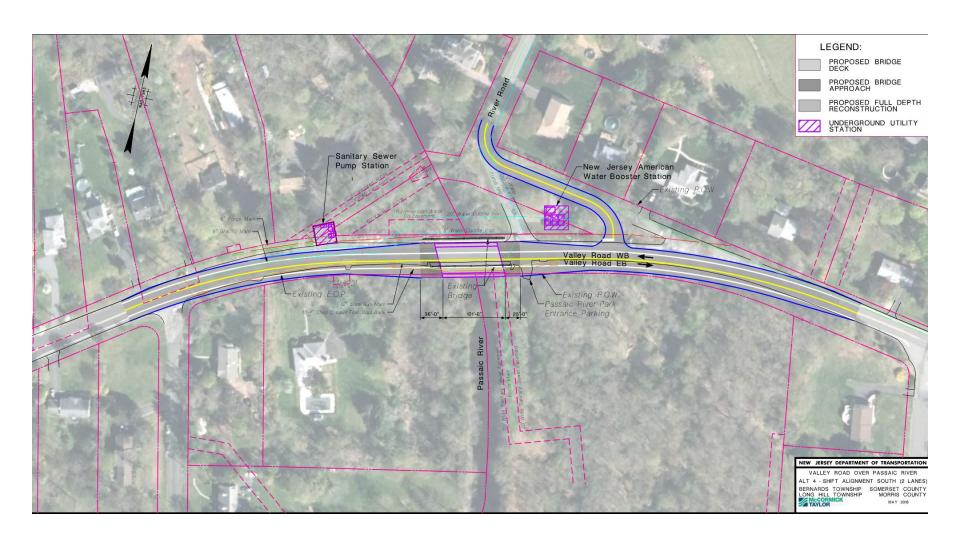


(LOOKING EAST)

SINGLE SPAN CONFIGURATION (101'-0")

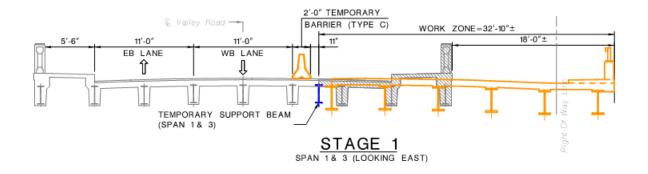
2-SPAN (50'-6" - 50'-6") CONFIGURATION

ALTERNATIVE 4 – SHIFT ALIGNMENT SOUTH MAINTAIN ALL LANES DURING CONSTRUCTION

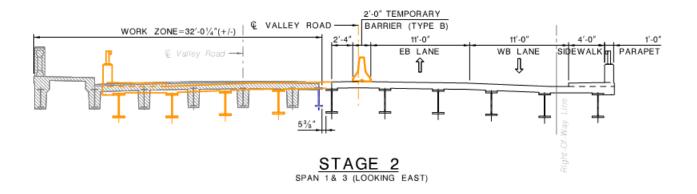


ALTERNATIVE 4 – PROPOSED STAGING PLAN PART 1 OF 2





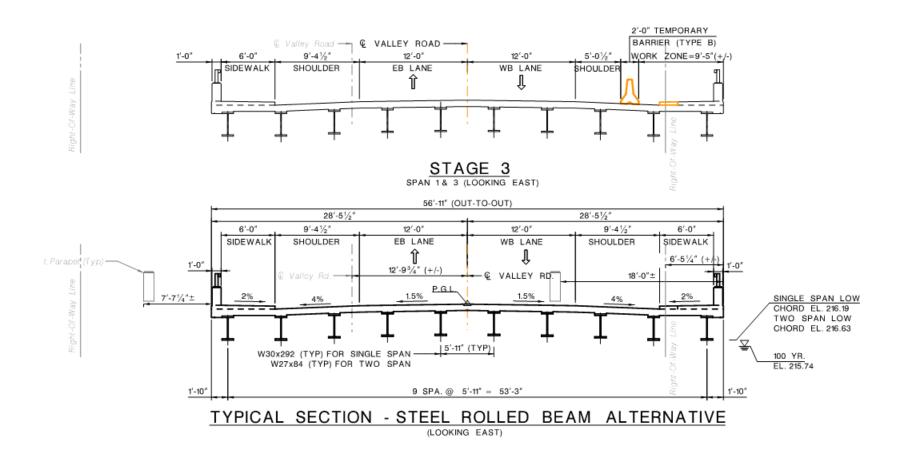




SINGLE SPAN CONFIGURATION (101'-0")

2-SPAN (50'-6" - 50'-6") CONFIGURATION

ALTERNATIVE 4 – PROPOSED STAGING PLAN PART 2 OF 2



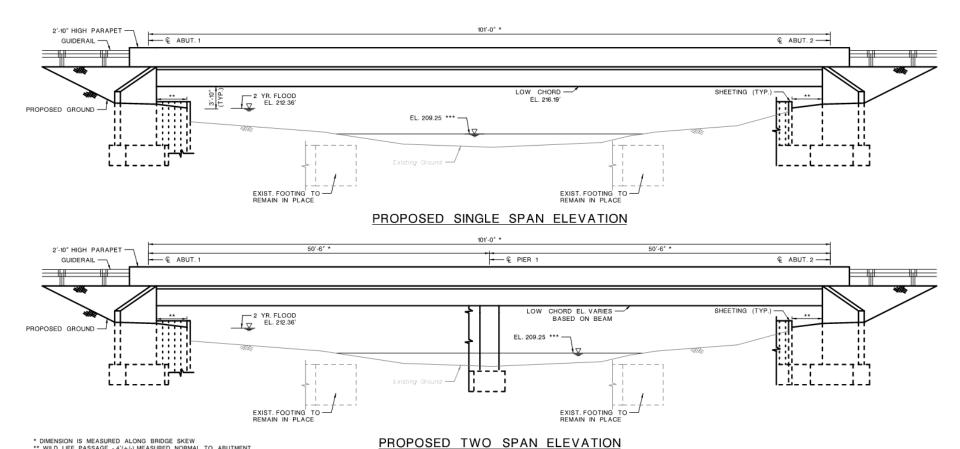
SINGLE SPAN CONFIGURATION (101'-0")

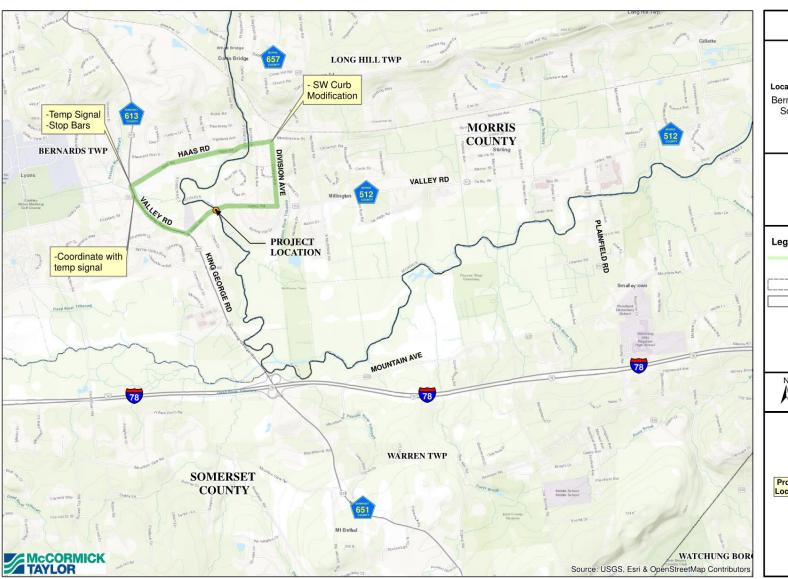
2-SPAN (50'-6" - 50'-6") CONFIGURATION

PROPOSED ELEVATIONS

** WILD LIFE PASSAGE - 4'(+/-) MEASURED NORMAL TO ABUTMENT

*** FROM 17th CYCLE INSPECTION REPORT 2015





DETOUR MAP

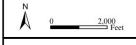
Valley Road Bridge

Local Concept Development Study
Bernards & Long Hill Township
Somerset & Morris County
New Jersey

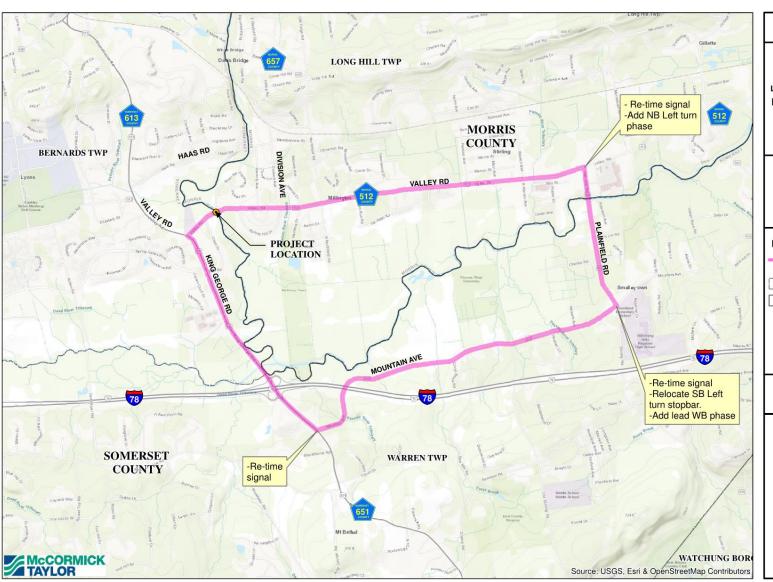


Legend

- Detour Route Option 1 Total Detour Length : 2.63 Miles
- Municipality Boundary
- County Boundary







DETOUR MAP

Valley Road Bridge

Local Concept Development Study
Bernards & Long Hill Township
Somerset & Morris County
New Jersey



Legend

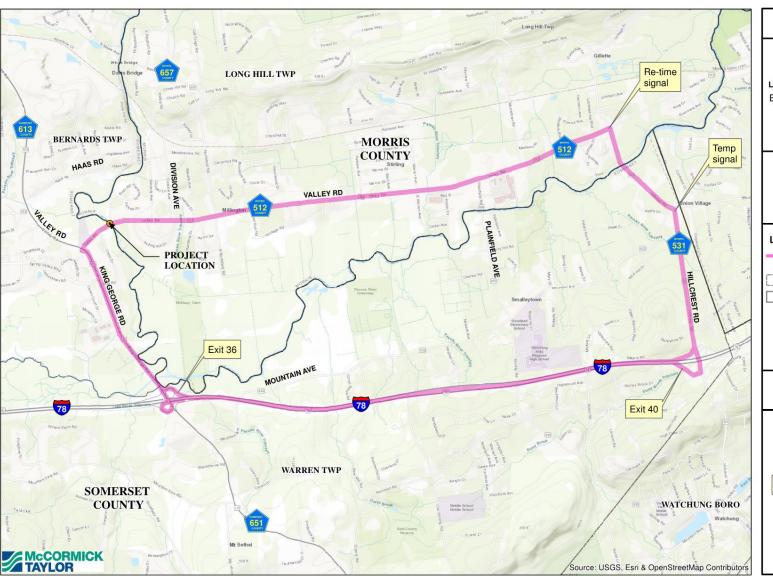
Detour Route - Option 2
 Total Detour Length: 7.67 Miles

Municipality Boundary

County Boundary







DETOUR MAP

Valley Road Bridge

Local Concept Development Study Bernards & Long Hill Township Somerset & Morris County New Jersey

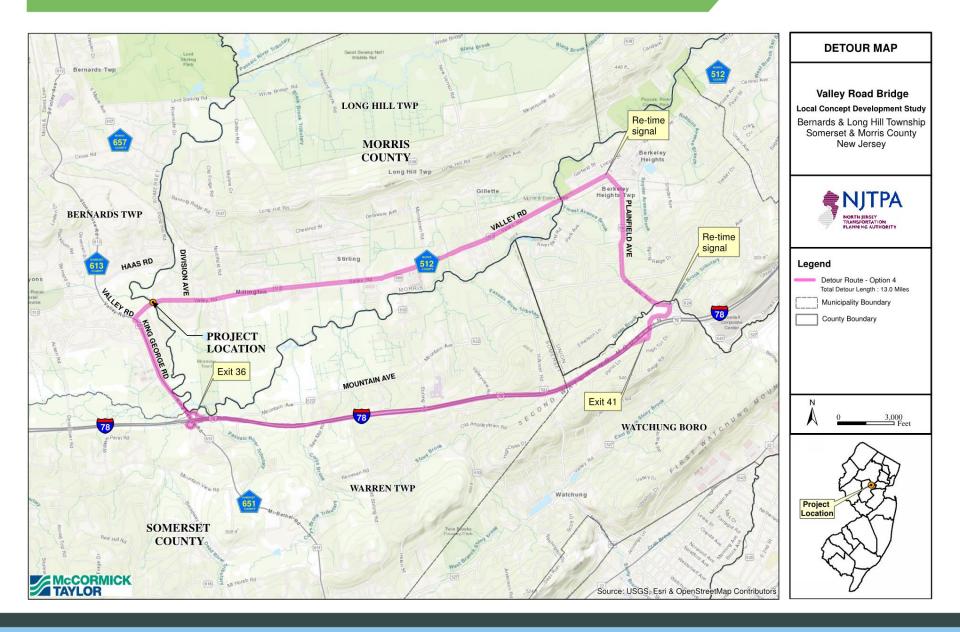


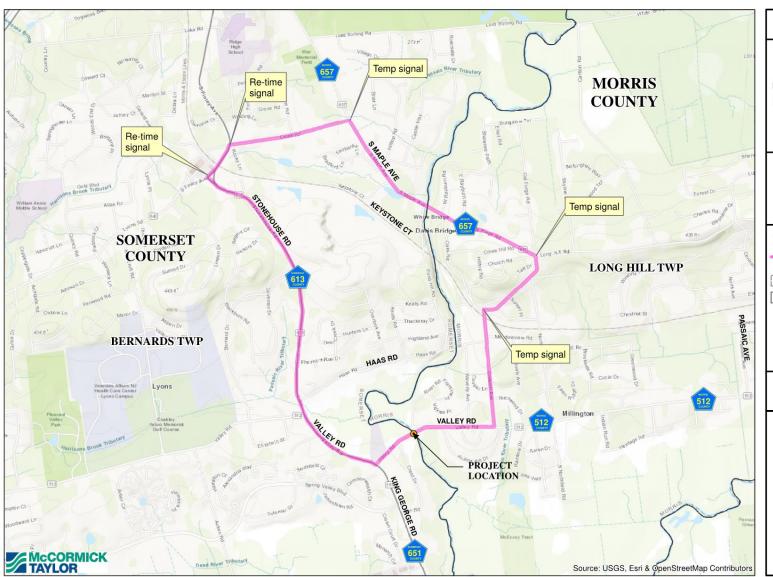
Legend

- Detour Route Option 3 Total Detour Length : 10.5 Miles
- Municipality Boundary
- County Boundary









DETOUR MAP

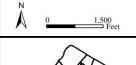
Valley Road Bridge

Local Concept Development Study
Bernards & Long Hill Township
Somerset & Morris County
New Jersey



Legend

- Detour Route Option 5 Total Detour Length : 5.55 Miles
- Municipality Boundary
- County Boundary





DRAFT ALTERNATIVES MATRIX

ALTERNATIVES COMPARISON MATRIX

Local Concept Development Study for Valley Road Bridge over the Passaic River Bernards Township, Somerset County and Long Hill Township, Morris County, NJ

VALLEY ROAD INFOCE OVER THE PASSAIC RIVER LOCAL CONCEPT DEVELOPMENT STUDY	No Build	Bridge Rehabilitation	Replace In-Kind	Concept 1				Concept 2				Concept 3 New Bridge on North Alignment with Staging				Concept4				
Semantia semantia Semina Sama Rena Semantia and Seminal Semina				New Bridge on Existing Alignment, Full Detour			New Bridge on North Alignment, Full Detour			New Bridge on South Alignment with Staging										
Alternatives				Alternative 1A - Single Span	Alternative 1B - 2-Span	Alternative 1C - 2-Span	Alternative 1D - 2-Span	Alternative 1A - Single Span	Alternative 1B - 2-Span	Alternative 1C - 2-Span	Alternative 1D - 2-Span	Alternative 1A - Single Span	Alternative 1B - 2-Span	Alternative 1C - 2-Span	Alternative 1D - 2-Span	Alternative 1A - Single Span	Alternative 1B - 2-Span	Alternative 1C - 2-Span	- Alternative 1D - 2-Span	
Superstructure Type	Concrete encased multi- stringer	Concrete encased multi- stringer	Steel Multigirders	Steel Rolled Beams; W30x292	Steel Rolled Beam; W30x90	Prestessed Slab Beam; 36"x21"	Prestessed Spread Box Beam; 48"x33"	Steel Rolled Beams; W30x292	Steel Rolled Beam; W30x90	Prestessed Slab Beam; 36"x21"	Prestessed Spread Box Beam; 48"x33"	Steel Rolled Beams; W30x292	Steel Rolled Beam; W30x90	Prestessed Slab Beam; 36"x21"	Prestessed Spread Box Beam; 48"x33"	Steel Rolled Beams; W30x292	Steel Rolled Beam; W30x90	Prestessed Slab Beam; 36"x21"	Prestessed Spread Box Beam; 48"x33"	
Criteria																				
Meets Project Purpose and Need	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Maintenance and Protection of Traffic																				
Number of lanes provided during construction	2	1	1	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	
Is Detour Required?/Length of detour	No	No	No	Yes, length varies from 2.6 to 13 miles	Yes, length varies from 2.6 to 13 miles	Yes, length varies from 2.6 to 13 miles	Yes, length varies from 2.6 to 13 miles	Yes, length varies from 2.6 to 13 miles	Yes, length varies from 2.6 to 13 miles	Yes, length varies from 2.6 to 13 miles	Yes, length varies from 2.6 to 13 miles	No	No	No	No	No	No	No	No	
Roadway																				
Controlling Substandard Design Elements Remaining	9	4	3	3	3	3	3	2	2	2	2	2	2	2	2	3	3	3	3	
Improves Lane Widths	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	
Improves Shoulder Widths	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Improves Sight Distance at River Road intersection	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Profile Raise at the Bridge	No	No	No	No	No	No	No													
Traffic Operations & Bicycle/Pedestrian																				
Accommodates design year traffic volumes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Bicycle/Pedestrian compatibility provided with connectivity to approach roadways	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Sidewalks provided	2	2	2	2	2	2	2	2	2	2	2	2 final / 1 during construction	2 final / 1 during construction	2 final / 1 during construction	2 final / 1 during construction	2 final / 1 during construction	2 final / 1 during construction	2 final / 1 during construction	2 final / 1 during construction	
Construction Duration																				
Duration (Month)	0	3	12	12	14	14	14	12	14	14	14	24	28	28	28	24	28	28	28	
Right of Way Impacts																				
Required ROW (Acres)	0	0																		
Number of Temporary construction easements	0	0																		
Number of partial property acquistions	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	
Number of entire property acquistions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Access																				
# of Access Impacts to adjacent properties during construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
# of Permanent Access Impacts to adjacent properties	0	0	0	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	
Structural Design																				
Accelerated Bridge Construction Methodology Bridge opening meets design year storm (H&H)	N/A Yes	N/A Yes	N/A Yes	No Yes	No Yes	No Yes	No Yes	No Yes	No Yes	No Yes	No Yes	No Yes	No Yes	No Yes	No Yes	No Yes	No Yes	No Yes	No Yes	
	No.	No No																		
Seismic Design addressed Bridge Approach Safety Upgraded	No No	No No	No No	Yes Yes	Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	
75 yr. Bridge Life Cycle	No.	No No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Wildlife Passage Compatible	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Environmental Impacts	103	163	163	165	165	165	165	163	165	165	163	165	165	163	165	165	165	165	165	
Passaic River County Park - Green Acres & Section 4(f)	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	
Total Wetlands Impacts (acres)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Threatened and Endangered Species Habitat	No	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	
Floodplain (acres)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Riparian Zone (acres)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Historic Resources (# of sites)	No	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	
Hazardous Waste/Contaminated Sites	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	
Seasonal restrictions	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Utilities																				
Anticipated relocations	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Cost																				
Construction Cost	\$0	\$1,175,000	\$2,350,000	\$4,160,000	\$3,440,000	\$3,707,000	\$3,307,000	\$4,230,000	\$3,510,000	\$3,777,000	\$3,377,000	\$5,405,000	\$4,606,000	\$4,360,000	\$3,960,000	\$5,815,000	\$5,016,000	\$5,068,000	\$4,668,000	
Estimated Utility Relocation Cost																				
Estimated Right of Way Cost																				
Life Cycle Cost (Present Value)																				
Detour Cost																				
Total Project Cost																				

PROJECT SCHEDULE

• 18 month completion schedule

Major Milestones

- Purpose and Need Statement July 2018
- Development of Conceptual Alternatives August/Sept. 2018
- Selection of Preliminary Preferred Alternative Dec 2018/Jan 2019
- Submission of Draft Local Concept Development Report March 2019
- Completion of Local Concept Development Phase June 2019

COMMUNITY INVOLVEMENT SCHEDULE

Project Introduction and Purpose & Need

- Local Officials Briefing #1 April 26, 2018
- Stakeholders Meeting #1 June 7, 2018
- Public Information Center #1 June 7, 2018

Obtain Input on Conceptual Alternatives

- Local Officials Briefing #2 September 5, 2018
- Stakeholders Meeting #2 September 12, 2018
- Public Information Center #2 September 12, 2018

Selection and Presentation of Preliminary Preferred Alternative

- Local Officials Briefing #3 Fall/Winter 2018
- Public Information Center #3 Fall/Winter 2018

PROJECT WEBSITE AND SOCIAL MEDIA

- PROJECT WEBSITE
 - http://www.valleyroadbridgenj.com/
- TWITTER
 - @ValleyRdBridge
 - https://twitter.com/ValleyRdBridge



POWERPOINT PRESENTATION

will be posted on the project website

PROJECT CONTACT INFORMATION

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THANK YOU

For more information or to contact us:



Visit our website: www.ValleyRoadBridgeNJ.com



Follow us on Twitter: @ValleyRdBridge