



*Kathryn A. DeFillippo, Chair*  
*Mary D. Ameen, Executive Director*

**KATHRYN A. DeFILLIPPO, CHAIR**

**This meeting will be held remotely via telephone and/or computer connection.  
Instructions for connecting are attached.**

**AGENDA**  
**September 14, 2020**  
**10:30 AM**

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- A. Open Public Meetings Act Compliance
  - B. Roll Call
  - C. Approval of Minutes
  - D. Chair's Remarks
  - E. Executive Director's Report
  - F. Committee Reports and Action Items\*
    - Project Prioritization – Freeholder John W. Bartlett, Chair
      - 1. Approval of the Initial Financial Plan for the Replacement of Bridge S-32 on County Route 520 (Rumson Road) over the Shrewsbury River (Attachments F.1.a., F.1.b., F.1.c.)
    - Planning and Economic Development – Freeholder John P. Kelly, Chair
    - Freight Initiatives – Freeholder Charles Kenny, Chair
  - G. Public Participation
  - H. Time and Place of Next Meeting: The next meeting of the NJTPA Board will be held on November 9, 2020, 10:30 a.m. Details for a virtual meeting will be provided.
  - I. Adjournment

\* Following the Committee Reports, there will be an opportunity for public comment prior to any Action Item vote.

**NJTPA Board Meeting  
Virtual Meeting Notice  
September 14, 2020. 10:30 AM  
(Agenda Package Attached)**

The agenda package for the September 14 Board meeting is attached. The meeting will be held via GoToMeeting. The log-in details are below. Please login 5-10 minutes early to ensure your connection works.

To participate please click on the meeting link at the bottom of this page from your computer, tablet or smartphone. (If participating by smartphone only, you will need to install the GoToMeeting app either in the Apple store or Google Play store.)

If your computer does not have a microphone, choose “phone call” after you log in via the link and you will be provided with call-in information. **Please be sure to enter the audio PIN number provided to properly connect your phone audio.**

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If you have any questions or concerns, don't hesitate to contact me at 973-639-8410.

**Log-In Details**

**Please join my meeting from your computer, tablet or smartphone.**

<https://global.gotomeeting.com/join/154901925>

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## KATHRYN A. DeFILLIPPO, CHAIR

### Board Meeting Minutes

July 13, 2020

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#### A. Open Public Meetings Act Compliance

Chair Kathy DeFillippo, Morris County called the online meeting to order at 10:30 a.m. Beverly Morris, Central Staff, reported that, in accordance with the Open Public Meetings Act, Chapter 231, P.L.1975, adequate notice of this meeting had been forwarded to the *Star Ledger*, the *Asbury Park Press*, the *Courier News*, the *Daily Record*, the *Home News Tribune*, the *Jersey Journal*, the *New Jersey Herald*, and *The Record*.

#### B. Roll Call

Ms. Morris called the roll, and 20 voting members were participating. (Attachment 1).

#### C. Approval of Minutes

A motion to approve the minutes of the May 11, 2020 meeting was made by Ocean County, seconded by Somerset County and carried with 18 affirmative votes. Middlesex County and the City of Newark abstained.

#### D. Chairman's Remarks

Chair DeFillippo said due to the ongoing uncertainty surrounding the pandemic, no reopening date for the NJTPA offices had been set. She noted that the NJTPA has been able to conduct all work remotely. Thus, given the current circumstances, all Board, Committee and RTAC meetings will continue to be held remotely until further notice. She thanked everyone who was able to participate in the June virtual Board retreat on the Long Range Transportation Plan that is now named "Plan 2050: Transportation, People, Opportunity."

The Chair said some important themes emerged from the discussion at the retreat. Equity is a key focus. She said recent incidents across the country have again put a spotlight on the racial and economic injustices that still exist. Equity she noted has long been central to the work of the NJTPA, where staff strives to ensure that outreach is inclusive and accessible. Along with NJDOT and NJ TRANSIT, she said, the NJTPA has sought to see that the benefits and burdens of the transportation system are shared equally. Chair DeFillippo said, while it is no simple task

to assess impacts and balance investments, Plan 2050 provides an opportunity to think about how the NJTPA can promote equity and make the region an even better place for all its residents.

On the topic of virtual public outreach, Chair DeFillippo said she had the pleasure of participating in the Dover & Rockaway Railroad Freight Concept Development Study meeting in May. She said several members of the public and local businesses attended the virtual meeting to hear about the preliminary preferred alternative, which will eliminate several ungated crossings, making the line safer and more efficient. To help the public stay involved and engaged with the project, all meeting materials were posted online in English and Spanish, and an interpreter was available. The Chair said virtual meetings are being planned for other concept development studies, including the Oceanic Bridge in Monmouth County and John F. Kennedy Boulevard in Hudson County.

Chair DeFillippo reported that several of the NJTPA's locally led projects have had their preliminary preferred alternatives approved by the Interagency Review Committee and are headed to the engineering phase of work. These projects include the East Anderson Street Bridge in Bergen County; the Chadwick Beach Bridge in Ocean County; the Picket Place Bridge in Somerset County; and the Martin Luther King Avenue Bridge in Morris County. She noted that three more bridge projects over the Passaic will be moving to the engineering phase soon – the Clay Street and Bridge Street bridges, both managed by Hudson County, and the Kingsland Avenue Bridge being led by Bergen County. She thanked the staff of the counties, NJDOT, and the NJTPA for keeping these projects moving forward.

Chair DeFillippo also announced the retirement of Gerry Rohsler, Morris County Director of Transportation, and highlighted an impressive record of his accomplishments in transportation planning. John Hayes will replace Mr. Rohsler as the County's Alternate NJTPA Board Trustee.

#### **E. Executive Director's Report**

NJTPA Executive Director Mary D. Ameen said the NJTPA continues to meet its requirements and obligations despite the many challenges of these unusual times. She said there is no established schedule for the agency's return to normal operations; it is closely following the lead of the Governor's Authorities Unit and its host agency, NJIT.

Ms. Ameen said the NJTPA held a second virtual discussion with its UpNext young adult advisory group in June, and it featured a presentation on communities opening streets for more walking, biking, and outdoor dining and retail, followed by a discussion on ways to improve walking and cycling -- all valuable input for Plan 2050.

Ms. Ameen reported that staff took part in the Metropolitan Area Planning (MAP) Forum spring meeting, where they shared information and collaborated on regional issues with nine other Metropolitan Planning Organizations from New Jersey, New York, Connecticut, and Pennsylvania. In June, NJTPA hosted a Together North Jersey virtual workshop on micromobility. A link to a recording of the insightful 90-minute discussion is on the NJTPA website.

Ms. Ameen noted that July 1 marked the end of the NJTPAs Fiscal Year (FY) 2020, and final reports will be issued from several FY 2020 efforts, including updated freight commodity profiles and two subregional studies: Paterson-Newark Transit Market Study and the Jersey City Parking Plan. She said staff is already moving ahead with projects for the new fiscal year – reviewing proposals for the next round of subregional studies and for initiatives funded with Congestion Mitigation Air Quality (CMAQ) funds, including support for local shuttles.

Ms. Ameen said one of the priorities for this year is to strengthen equity in the work of the NJTPA, particularly in better addressing the needs of minority and low-income communities. . She said, along with other institutions and agencies, the NJTPA recognizes that it must do its part to undo the legacy and continuing impacts of racism, which extend in many ways to the transportation sector. She said last year, the agency adopted a Title VI plan that guides its compliance with federal civil rights requirements. As a follow-up, an internal Title VI-Environmental Justice working group was formed to help implement the plan and undertake an equity assessment of all NJTPA plans and programs.

Ms. Ameen said the NJTPA is committed to providing guidance to subregions to better address the concerns of minority and low-income communities in their planning work and will be reporting to the Board on its progress while welcoming their input on other approaches and activities.

Ms. Ameen said the NJTPA will be funding another round of projects under its Local Safety and High Risk Rural Roads Programs for 2021. Proposed projects are now being evaluated. Selected projects will be on the Project Prioritization Committee agenda in August, with Board action planned for September. She said these are among the agency’s most successful programs, funding important improvements that have been proven to reduce crashes and enhance safety. These include upgraded traffic signals, high friction pavement, road diets, modern roundabouts, pedestrian countdown signals, high visibility crosswalks, bike lanes, signage improvements and more. The last allocation for these programs was two years ago, which reflects not only the limited funding available but also the fact that many projects in recent years have become larger and more complex.

She said staff is determined to see that selected projects get authorized and move forward satisfactorily prior to carefully adding more projects to the program. Therefore, solicitations will not be released annually but rather as program capacity allows, likely a minimum of two years. Ms. Ameen said the program has grown because of its success, and the NJTPA will need to adapt its business practices to ensure a more robust and extensive program of safety improvements.

Ms. Ameen said the latest issue of InTransition magazine, which was launched on its updated website, includes articles on electric vehicles and climate change. A link is on the NJTPA homepage, and feedback is welcomed. She also announced that the NJTPA will host a virtual meeting of the MAP Forum’s Multi-State Freight Working Group on September 10. The meeting will feature a discussion on truck parking.

## **F. Committee Reports/Action Items**

### **Project Prioritization – Freeholder John W. Bartlett, Chair**

Freeholder Bartlett said the Committee had considered three action items since the last Board meeting. First, during a special online meeting on May 12, the Committee considered a modification to the current Transportation Improvement Program (TIP), to add federal funds to the Route 78 Rockfall Mitigation, Bethlehem Township project, as requested by the New Jersey Department of Transportation. He said the project is ready for authorization and requires additional federal funding in the amounts of \$6.9 million for FY 2020 and \$1 million for 2022. The increase is due to updated costs for mobilization, excavation, environmental vibration monitoring, and construction engineering. Resources are available from the Rockfall Mitigation line item in the TIP.

The Freeholder noted that members of the Board have raised concerns about the rising costs of rockfall projects in the region. Members of Central Staff are currently working with NJDOT to learn more details about the rockfall mitigation program and will share additional information on this issue with the Board soon.

Freeholder Bartlett said that the Committee considered two action items at the June online joint meeting. The first was a modification to the current TIP to add federal funds to the Route 80, Riverview Drive to Polifly Road project, as requested by NJDOT. He said, based on recently updated schedule and cost estimates, the design phase of work can be advanced sooner than originally programmed. This action shifts \$36 million in design funds to FY 2022 from 2023, and adds \$7.7 million in federal National Highway Performance Program, or NHPP, funds to the project. These resources are available from unobligated prior year funds. Also, a spelling correction of Polifly Road in the title was needed.

The Freeholder said the Committee next considered a TIP modification to add federal funds to the Route 46, Main Street/Woodstone Road to Route 287, ITS project in Morris County, also requested by NJDOT. He said, based on recently updated schedule and cost estimates, half a million dollars in NHPP funding is needed for right-of-way in FY 2021. In addition, the construction phase of work must be reprogrammed into FY 2022, with an increase of nearly \$1 million for a total of \$9.7 million in NHPP funds. He said the funds are available from prior year unobligated funds. The Committee approved all three of these modifications and no further action is needed.

### **Planning and Economic Development – Freeholder John P. Kelly, Chair**

Freeholder Kelly said that, at the June joint meeting staff provided a recap of the June Board retreat, which focused on priorities for Plan 2050 and how the region can capitalize on its strengths and related opportunities.

On another issue, the Freeholder noted for the record the disappointment of Ocean County that the Route 9 widening project from Lakewood to Tom's River has been removed from the Study and Development Program and replaced with what is believed to be minor improvements.

Returning to the Long Range Transportation Plan, Freeholder Kelly said it is important to note that the Planning and Economic Development Committee will play a key role in directing the development of Plan 2050, and while 2050 may seem impossibly far off in the future, it should be recognized that projects conceived today often take years to develop and implement—and the resulting infrastructure can last for decades. He said much of the work repairing and upgrading the transportation network addresses facilities that are fifty, a hundred, or even more years old. On the regional rail system, the Hudson River Rail tunnels date back to 1910.

The Freeholder said the priorities and objectives set today will help shape the future of travel and regional development. He said, to this end, members of the Planning and Economic Development Committee will be tasked with reviewing interim products, such as the financial element, demographic forecasts, and more, and the Committee will also guide staff on the content and recommendations of the plan. He said he looks forward to working with the staff, the Committee and all members of the Board on these important tasks.

### **Freight Initiatives – Freeholder Charles Kenny, Chair**

Freeholder Kenny said the June Freight Initiatives Committee meeting featured the Annual Port and Maritime Update. Speakers discussed how goods have continued to move through the port during the COVID-19 pandemic, helping supply the state with food and other essentials. The Committee also heard about a current marine highway initiative involving Port Raritan in his home county of Middlesex.

The Freeholder said the first speaker was Bethann Rooney of the Port Authority of New York & New Jersey (PANYNJ), who said the pandemic has presented many challenges, including keeping workers safe and ensuring that goods were not stranded at the port due to warehouse closures. Ms. Rooney said container volumes at the port declined three to four percent through the end of April, which was much less than the 30 percent drop some expected, reflecting the port's strength in serving a vast multistate region that is home to some 45 million people. She did note, however, that other PANYNJ facilities had more drastic losses: airport travelers and PATH ridership fell by 90 percent, and there was a 60 to 70 percent decline in bridge and tunnel traffic. Ms. Rooney also said that, as the economy rebounds, the PANYNJ will continue to implement its Port Master Plan, which includes improving express rail, reducing greenhouse gas emissions from operations, and undertaking major projects such as upgrading the port's northern entrance and exit.

Freeholder Kenny said the next speaker was John Nardi, President of the New York Shipping Association, who spoke about the pandemic's effects on the workforce. Mr. Nardi said labor issues have proven especially challenging, noting that the Shipping Association joined with the International Longshoreman's Association to create joint guidance for workers and operators. He also said there has been extensive investment to provide workers with personal protective equipment and implement other safeguards. However, approximately 800 of the port's 3,500 workers have been unable to work due to reduced cargo volumes and disruptions related to the pandemic. The Shipping Association is working closely with the State of New Jersey, the Port

Authority, and various industry groups on economic recovery efforts, and he noted that volumes have begun to rebound.

Freeholder Kenny said the final presenter was Genevieve Clifton from NJDOT, who spoke about the prospects for expanding marine highway operations in the state. The current crisis has underlined the need for improving logistics redundancy, and marine highways can help with this. The U.S. Maritime Administration, or MARAD, has called for a marine highway along the Atlantic Coast, and Ms. Clifton said the Raritan Center Business Park in Woodbridge and Edison offers a prime opportunity for this. She said NJDOT will seek MARAD support for a public/private partnership to develop the area for expanded maritime services.

The Freeholder said the next meeting of the Freight Initiatives Committee, will focus on articulating, analyzing, and displaying supply chains critical to goods movement in the region. Her thanked NJTPA Freight Division staff who put the meeting together.

### **G) Key Discussion Item**

#### Planning for 2050: Turning Regional Strengths into Opportunities

A presentation and discussions led by Lois Goldman of NJTPA Central Staff focused on five key issues identified at the retreat that offer opportunities for progress in the region. They involved improvements in downtowns, diversity and equity, freight, transportation networks and technology. Several Board members raised the need to expand and improve public transit options to connect people to employment and other parts of the state. However, it was noted that expanding transit would require addressing funding needs in a realistic and long-term way. Among the transit suggestions were:

- Explore restoring service on former rail lines, such as the West Shore and interurban streetcars
- Improve transit to and from areas in the western part of the region to give people access to jobs
- Expand train service west of Dover to serve Sussex and Warren counties and northeastern Pennsylvania
- Improve intra-state and intercity travel as well as commuting to New York City
- Make transit and other improvements along corridors, such as Newark to Paterson, to help address needs of the region's minority and low-income communities
- Improve beneficial technology that provides transit information and schedules

Other points raised during the discussion:

- Towns should begin investigating how to reuse some of the extensive parking in downtowns for parks and other purposes, particularly as new technologies reduce dependence on personal vehicles
- Many of the experiments with reusing street space and encouraging walking during the pandemic should be made permanent
- Continued support for subregional planning is needed

- New funding mechanisms such as value-capture and public-private partnerships can underwrite needed transportation improvements
- Continued outreach to the state’s diverse communities is needed to understand needs in the region
- Changing zoning to improve housing options can promote equity in transportation as well
- Public-private partnerships have been valuable in improving rail freight infrastructure, such as addressing height and weight restrictions on rail lines
- Marine highways offer promise for improving freight and freight-related jobs
- Freight rail must be supported to reduce roadway congestion
- Connecting towns through improved trails, biking facilities and bus transit will give residents needed travel options
- Transportation improvement projects can incorporate technologies such as cabling needed for high speed internet
- Universities and others developing advance technologies should be encouraged to develop practical applications for communities

Following the discussion, Ted Ritter, Central Staff, briefed the Board on a “robust online outreach effort” supporting development of Plan 2050. It will include a virtual symposium series, beginning this fall with an event focusing on Adapting to Change. Mr. Ritter said an advisory committee reflecting the region’s diverse communities and outreach events for the public around the region are planned with the involvement of the NJTPA’s 15 subregions. He noted that meetings of the NJTPA’s UpNext group for young adults have been providing insights for the Plan. As the plan develops, information will be posted at [njtpa.org/Plan2050](http://njtpa.org/Plan2050).

## **H) Public Participation**

Tim Sevener, New Jersey Association of Rail Passengers, said he and several environmental groups are working with experts to determine the feasibility and resilience advantages of providing solar renewable energy to power the NJ TRANSIT grid as an alternative to the natural gas facility to be built Kearney. He said the group has identified potential sites for installing solar energy for trains, such as parking lots near transit-oriented developments. He said solar renewables plus energy storage are more affordable now, and pilot projects in India and Austria are setting examples.

Neile Weissman, Complete George, advocated for expanding recreational activities in New Jersey. He proposed permitting cycling in the South Mountain Reservation, which could generate revenue through user fees and an increased customer base for local restaurants, for example. He also proposed developing more bicycle routes across North Jersey through low intensity residential streets and industrial areas that get little traffic on the weekend. He said, as the routes gain acceptance, they can be enhanced with GPS apps, signage and on-street improvements. Mr. Weissman also reiterated his advocacy for widening the bicycle/pedestrian paths on the George Washington Bridge.

**I) Time and Place of Next Meeting**

Chair DeFillippo announced that the next virtual meeting of the NJTPA will be held on Monday, September 14, 2020 at 10:30 a.m.

**J) Adjournment**

At 12:05 p.m., motion to adjourn was made by Middlesex County seconded by Union County and carried unanimously.

## Attachment 1

**NORTH JERSEY TRANSPORTATION PLANNING AUTHORITY, INC.**  
**Meeting of the Board of Trustees**  
**Attendance Record: July 13, 2020**

<b>Subregion/Agency</b>	<b>Voting Members/Alternates</b>	<b>Staff &amp; Others</b>
Bergen County	Peter Botsolas	Joseph Baladi
Essex County	David Antonio	
Hudson County	Byron Nicholas	
Hunterdon County	Hon. Matthew Holt Hon. Zack Rich	Adam Bradford Carrie Fellows
Jersey City	Barkha Patel	Elias Guseman
Middlesex County	Hon. Charles Kenny Doug Greenfeld	Solomon Caviness Anthony Gambilonghi
Monmouth County	Teri O'Connor	Joseph Ettore
Morris County	Hon. Kathy DeFillippo Gerald Rohsler	John Hayes
Newark	Phillip Scott	Trevor Howard
Ocean County	Hon. John Kelly John Ernst	
Passaic County	Hon. John Bartlett	Mike Lysicatos
Somerset County	Walt Lane	Andras Holzmann
Sussex County	Tom Drabic	
Union County	Hon. Angel Estrada	Liza Betz
Warren County	Hon. Jason Sarnoski Dave Dech	
Governor's Office	Rudy Rodas	Vinn White
NJDOT	Mike Russo	Andrew Swords
NJ TRANSIT	Lou Millan	
Port Authority of NY & NJ	Steve Brown	Jay Shuffield
Citizen's Representative	Jared Rodriguez	

<b>Other Attendees</b>	
Anna Aleynick	AECOM
Robert Sobol	Brinkerhoff Environmental Services
Neile Weissman	Complete George
Michael DeLoreto	Gibbons
Tara Shepherd	goHunterdon
Bob Werkmeister	GPI
Nickitas Alexiades	HDR Inc.

Raymond Fusco	McLaren Engineering
Christina Arlt	McCormick Taylor
Bakari Lee	McManimon, Scotland & Baumann, LLC
Larry Higgs	NJ Advance Media
Various members of Central Staff	NJTPA
Dan Callas	TransOptions
Albert Maiocchi	
David Case	
Ellen2108	
Janet R. Keiser	
John Lane	
Mitch Erickson	

Attachment F.1.

**DRAFT RESOLUTION:**

**APPROVAL OF THE INITIAL FINANCIAL PLAN  
FOR THE REPLACEMENT OF BRIDGE S-32 ON  
COUNTY ROUTE 520 (RUMSON ROAD) OVER THE  
SHREWSBURY RIVER**

**WHEREAS**, the North Jersey Transportation Planning Authority (NJTPA), Inc. is the Metropolitan Planning Organization (MPO) responsible for updating the Transportation Improvement Program (TIP) for the northern part of New Jersey as required by 23 CFR 450 and CFR 613 B; and

**WHEREAS**, under federal law, recipients of federal financial assistance for projects with a total cost between \$100 million and \$500 million are required to prepare a financial plan; and

**WHEREAS**, a Financial Plan addresses the following elements:

- **Project Description:** A detailed description that presents the scope of the project. A graphic depicting the project location is recommended.
- **Cost Estimate:** The total cost and cost-to-complete for major project elements are presented in year of expenditure dollars.
- **Implementation Plan:** The project schedule is presented and the cost-to-complete is presented in annual increments in year of expenditure dollars.
- **Financing and Revenues:** Presented by funding source as annual elements available for project obligations.
- **Cash Flow:** An annualized presentation of cash income and outgo to illustrate how periodic bills will be paid.
- **Risk Identification and Mitigation Factors:** Identification of the likelihood of issues affecting project completion and sufficiency of revenues – such as cost escalation, construction schedules, and dependencies on future legislation – and strategies and actions to address these risks.
- **Phasing Plan:** Identification of fundable improvements that will address the short-term purpose and need of the project in the event there are insufficient financial resources to complete the entire project.
- **Public Private Partnership (P3):** Assessment of appropriateness of a public-private partnership to deliver the project.
- **Annual Update Cycle:** The submission dates and reporting periods should be proposed in the Initial Financial Plan and annual updated plans; and

**WHEREAS**, in addition to the financial plan, annual updates are required in order to provide information on actual cost, expenditure and revenue performance; and

**WHEREAS**, the Bridge S-32 project (DB# NS9706) involves the bridge replacement with a new parallel structure adjacent to the existing bridge, the reconfiguration of the intersections at both ends of the bridge, and the construction of new bulkhead walls; and

**WHEREAS**, Monmouth County Department of Engineering has submitted an Initial Financial Plan for the Replacement of Bridge S-32 on County Route 520 (Rumson Road) over the Shrewsbury River, with total costs of approximately \$115.978 million; and

**WHEREAS**, NJTPA Central Staff has reviewed the Initial Financial Plan and has found the elements listed above to be consistent with federal guidance; and

**WHEREAS**, NJTPA Central Staff has reviewed the Initial Financial Plan and has found the project to be consistent with the fiscal constraint requirements of the Long Range Transportation Plan and the FY 2020 – FY 2023 TIP as revised; and

**WHEREAS**, no action authorized by the NJTPA shall have force or effect until ten (10) days, Saturdays, Sundays and public holidays excepted, after a copy of the minutes of the meeting of the Board of Trustees has been delivered to the Governor for review, unless prior to expiration of the review period the Governor shall approve same, in which case the action shall become effective upon such approval.

**NOW, THEREFORE, BE IT RESOLVED**, that the North Jersey Transportation Planning Authority hereby approves the Initial Financial Plan for the Replacement of Bridge S-32 on County Route 520 (Rumson Road) over the Shrewsbury River.

**BE IT FURTHER RESOLVED**, that a copy of this resolution and attachments be forwarded to Monmouth County and the New Jersey Department of Transportation for submission to the Federal Highway Administration.

## Summary of Action

### Approval of the Initial Financial Plan for the Replacement of Bridge S-32 on County Route 520 (Rumson Road) over the Shrewsbury River

**Action:** Monmouth County is requesting approval of the proposed Initial Financial Plan for the Replacement of Bridge S-32 on County Route 520 (Rumson Road) over the Shrewsbury River project. The initial financial plan reflects a total project cost of \$115.978 million. The NJTPA Project Prioritization Committee and the NJTPA Board reviews and approves initial financial plans.

#### **Background:**

##### **Financial Plans**

Under federal law, recipients of federal financial assistance for projects with a total cost from \$100 million to \$500 million are required to prepare a financial plan that includes the following elements:

- **Project Description:** A detailed description that presents the scope of the project. A graphic depicting the project location is recommended.
- **Cost Estimate:** The total cost and cost-to-complete for major project elements are presented in year of expenditure dollars.
- **Implementation Plan:** The project schedule is presented and the cost-to-complete is presented in annual increments in year of expenditure dollars.
- **Financing and Revenues:** Presented by funding source as annual elements available for project obligations.
- **Cash Flow:** An annualized presentation of cash income and outgo to illustrate how periodic bills will be paid.
- **Risk Identification and Mitigation Factors:** Identification of the likelihood of issues affecting project completion and sufficiency of revenues – such as cost escalation, construction schedules, and dependencies on future legislation – and strategies and actions to address these risks.
- **Phasing Plan:** Identification of fundable improvements that will address the short-term purpose and need of the project in the event there are insufficient financial resources to complete the entire project.
- **Public Private Partnership (P3):** Assessment of appropriateness of a public-private partnership to deliver the project.
- **Annual Update Cycle:** The submission dates and reporting periods should be proposed in the Initial Financial Plan and annual updated plans.

The Bridge S-32 Initial Financial Plan must be updated annually. The annual updates should identify and resolve any cost and funding changes that have occurred since the previous

submission. This would include changes in project scope that impact the cost estimate and completion schedule of the project.

### **Project Description**

The Bridge S-32 on County Route 520 (Rumson Road) over the Shrewsbury River in Monmouth County (DB# NS9706) will be replaced with a new parallel structure adjacent to the existing bridge. The current bridge is structurally deficient due to poor condition of the superstructure. The proposed parallel replacement structure will be aligned adjacently to the south of the existing bridge and will be a movable double-leaf bascule bridge at the same profile.

The project includes the reconfiguration of the intersections at both ends of the bridge in the boroughs of Rumson and Sea Bright and the construction of new bulkhead walls. Other improvements will also be made such as the construction of a new pathway in West Park in Rumson as well as safety features for pedestrians and bicyclists, including enhanced crosswalks, ADA-compliant curb ramps, pedestrian push buttons, count down displays, enhanced sidewalk connectivity, and bicycle-compatible shoulders. Construction will be carried out in five stages and will begin in February 2021. The project is anticipated to be completed in October 2024. The total cost of the project is estimated at \$115.978 million.

**Justification for Action:** The Initial Financial Plan has been reviewed for consistency based on the elements listed above. The project is identified in the Long Range Transportation Plan and the FY 2020 – FY 2023 Transportation Improvement Program (TIP). The NJTPA Board, at its May meeting, approved a TIP Minor Amendment to add \$31 million of federal funds to the Construction phase of work, to cover the remaining anticipated costs reflected in the initial financial plan.

By approving the Initial Financial Plan, the project will be in compliance with federal guidelines, allowing NJDOT to request authorization for the construction phase of this project.

**Staff Recommendation:** Central Staff recommends approval of this action.

**Initial Financial Plan**

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Replacement of Bridge S-32 on  
County Route 520 (Rumson Road)  
Over the Shrewsbury River

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Prepared by:

County of Monmouth  
Division of Engineering  
Hall of Records Annex  
Freehold, New Jersey 07728

North Jersey Transportation Planning Authority  
One Newark Center, 17<sup>th</sup> Floor  
Newark, New Jersey 07102

Reconstruction of Bridge S-32 on County Route 520 (Rumson Road)  
Over The Shrewsbury River In The Boroughs Of  
Rumson And Sea Bright, Monmouth County, New Jersey

2020 INITIAL FINANCIAL PLAN  
LETTER OF CERTIFICATION

Monmouth County, in collaboration with North Jersey Transportation Planning Authority (NJTPA) and New Jersey Department of Transportation (NJDOT), has developed a comprehensive Initial Financial Plan (IFP) for the Replacement of Bridge S-32 on County Route 520 (Rumson Road) over the Shrewsbury River (aka Bridge S-32) project in accordance with the requirements of title 23, United States Code, section 106 and the Financial Plan guidance issued by the Federal Highway Administration. The plan provides detailed cost estimates to complete the project and the estimates of financial resources to be utilized to fully fund the project.

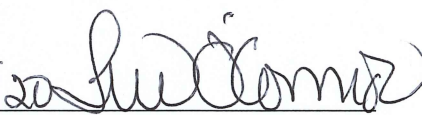
The cost data in the Financial Plan provide an accurate accounting of costs incurred to date and include a realistic estimate of future costs based on engineer's estimates and expected construction cost escalation factors. While the estimates of financial resources rely upon assumptions regarding future economic conditions and demographic variables, they represent realistic estimates of resources available to fund the project as described.

Monmouth County believes the Financial Plan provides an accurate basis upon which to schedule and fund the Bridge S-32 Project and commits to provide Annual Updates according to the schedule outlined in the Initial Financial Plan.

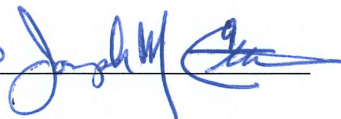
To the best of our knowledge and belief, the Financial Plan, as submitted herewith, fairly and accurately presents the financial position of the Bridge S-32 Project cash flows, and expected conditions for the project's life cycle. The financial forecasts in the Financial Plan are based on our judgment of the expected project conditions and our expected course of action. We believe that the assumptions underlying the Financial Plan are reasonable and appropriate. Further, we have made available all significant information that we believe is relevant to the Financial Plan and, to the best of our knowledge and belief, the documents and records supporting the assumptions are appropriate.

Respectfully submitted:

Teri O'Connor  
County Administrator

8/6/20   
Date

Joseph M. Ettore, P.E.  
County Engineer

8/6/2020   
Date

**Bridge S-32 Shrewsbury River Bridge  
Replacement  
Initial Financial Plan**

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## SUMMARY

Monmouth County, in coordination with the New Jersey Department of Transportation (NJDOT) and the Federal Highway Administration (FHWA), has proposed to construct a new parallel structure adjacent to the existing Shrewsbury River Bridge and to demolish the existing bridge, which connects the Boroughs of Rumson and Sea Bright in Monmouth County, New Jersey.

Contained in this Initial Financial Plan (IFP) document is the project estimate, expenditure, funding, and schedule data as of May 28, 2020. As of this date, the total cost to complete the Replacement of Bridge S-32 on County Route 520 (Rumson Road) Over the Shrewsbury River project is \$115.978 million.

This financial plan summarizes the projected cash flow requirements and acknowledges that the State of New Jersey will have the necessary funding in place to meet those cash flows.

This document is submitted as the Replacement of Bridge S-32 on County Route 520 (Rumson Road) Over the Shrewsbury River Initial Financial Plan, as agreed upon by the Federal Highway Administration. This detailed Financial Plan is being submitted by Monmouth County Division of Engineering & Public Works in order to define the methodology, resources, schedule of work completed and the work remaining to complete the project. The following topic areas as required by federal statute to be reviewed within a financial plan:

### **1. Background**

- Provides a description of the project.
- Provides a detailed history of the project.
- Explains the current project activities.

### **2. Cost Estimate**

- Identifies the key cost components.
- Explains the cost estimating methodology and assumptions.
- Identifies funds already expended and funds needed to complete the project.

### **3. Implementation Plan**

- Presents the project's implementation schedule.

### **4. Project Financing**

- Lists the committed and programmed project funding sources to date.
- Discusses the project's remaining anticipated funding requirements.
- Presents the projected cash expenditures and available fiscal year funding.

### **5. Public Private Partnership Issues**

- Discusses risk allocation.
- Discusses project revenue stream potential.
- Discusses legislative authorizations.

## **6. Phasing Plan**

- Discusses cost-increase risks.
- Discusses revenue sufficiency risks.

## **7. Risk Identification and Mitigation Factors**

- Discusses the cost increase risks.
- Discusses revenue sufficiency risks.
- Discusses design and construction risks.

## **8. Annual Updates**

- Discusses the purpose and need for annual updates to the Initial Financial Plan.
- Provides cost and revenue history and apparent trends.
- Summarizes significant cost reduction and increases.

This Financial Plan demonstrates and outlines the Monmouth County's commitment to sound financial planning and its commitment to providing the resources needed to complete the Project as per the approved schedule. This project is not a Major Project as defined by the Federal Highway Administration (FHWA). However, under federal law, recipients of federal financial assistance for projects with a total cost between \$100 million to \$500 million are required to prepare an annual financial plan and make it available to FHWA for review. The total estimated cost of this project is \$115.978 million. Construction activities are scheduled to begin in February 2021 and its anticipated completion is in October 2024.

## SECTION 1- BACKGROUND

### 1.1 Project Description

Replacement of Bridge S-32 on County Route 520 (Rumson Road) Over the Shrewsbury River project involves the construction of a new parallel structure adjacent to the existing Bridge S-32, Rumson Road (Monmouth C.R. 520) over the Shrewsbury River, connecting the Boroughs of Rumson and Sea Bright in Monmouth County, New Jersey. The existing bridge is structurally deficient due to poor condition of the superstructure. The bridge and its spans exhibit widespread deterioration on various structural elements, which will continue to deteriorate and malfunction in the future. See Appendix A (Overall Project Map).

The proposed parallel replacement structure will be aligned adjacently to the south of the existing bridge and will be a movable double-leaf bascule bridge at the same profile. The new bridge section will be 15.1 feet wider and 4 feet longer than the existing bridge and will include two eastbound lanes, one 11-foot lane and one 12-foot lane, and one 11-foot westbound lane with 9-foot shoulders and 6-foot sidewalks on either side.

West of the bridge, the C.R. 520 and Ward Avenue intersection in the Borough of Rumson, will be realigned and will feature exclusive left-turn lanes for eastbound and westbound C.R. 520 traffic as well as an improved sight distance for right turns onto C.R. 520 from Ward Avenue. Old Rumson Road, which represents the fifth leg of the intersection, will be preserved. Improvements will be made to West Park, including a new accessible walkway that will connect both sides of the park. A new bulkhead wall will be constructed to support the walkway and protect the west abutment of the bridge.

East of the bridge, the Ocean Avenue (NJ Route 36) and C.R. 520 signalized intersection in the Borough of Sea Bright, will be shifted to the south to accommodate the new alignment of the bridge. The driveway for the Sea Bright Beach Club will become the fourth leg of the new intersection. A new left-turn lane for Route 36 southbound will be incorporated for vehicles entering the Beach Club driveway. The existing configuration of the intersection for C.R. 520 eastbound and Route 36 northbound traffic movements will be maintained. The length of the Route 36 southbound right-turn and northbound left-turn lanes onto C.R. 520 will be increased to accommodate more vehicles. The right turn lane from C.R. 520 onto Route 36 will be extended, creating two eastbound lanes on the bridge. The deteriorating bulkhead wall in Sea Bright will be replaced to protect the east abutment of the bridge.

The project also involves the construction of several safety improvements for pedestrians and bicyclists, including: enhanced crosswalks, ADA-compliant curb ramps, pedestrian push buttons, count down displays, enhanced sidewalk connectivity, and bicycle-compatible shoulders.

Monmouth County Route 520 is an Urban Minor Arterial that is a critical transportation connection between the Boroughs of Rumson and Sea Bright. The road serves as a coastal storm and flood evacuation route for the Borough of Sea Bright. NJ Route 36 is a Principal Arterial in the Borough of Sea Bright. All traffic will be maintained during construction and detours will be temporary and limited in order to minimize disruption.

The major elements of the proposed construction project are tabulated as follows:

**Table 1: Elements of Proposed Construction**

Contract	Mileposts (MP)	Description
Construction	Monmouth County Route 520- MP 22.02 to MP 22.39 & New Jersey Route 36- MP 9.24 to MP 9.43	This contract includes the construction of a new parallel bridge approximately 85 feet to the south of the existing S-32 Shrewsbury River Bridge. It also includes improvements to the intersection of Rumson Road (C.R. 520) and Ward Avenue in the Borough of Rumson and the construction of a new intersection for Rumson Road and Route 36 in the Borough of Sea Bright. The existing Bridge S-32 will be demolished.
Inspection & Contract Administration		This contract involves the completion of administration items, geotechnical inspection, project meetings, inspection, as-built reviews, progress report and certifications, the project closeout, direct expenses paid, video and closed-circuit television monitoring, and materials testing.
Construction Support Services		This contract involves the completion of bid review, geotechnical design support, project meetings, site visits, schedule review, administration, roadway working drawings, bridge working drawings, landscaping items, continued community involvement facilitation, Requests for Information (RFIs) and Construction and Operations Plan (COP), traffic acceptance, the completion of the mitigation preparation report, direct expenses paid, and Licensed Site Remediation Professional (LSRP) services.

**1.2 Project History**

The current plan to improve Bridge S-32 began with a Local Concept Development (LCD) Study of the bridge in 2011. The LCD study of the bridge was completed in 2013 through the North Jersey Transportation Planning Authority (NJTPA) using federal funding in cooperation with the New Jersey Department of Transportation (NJDOT) and the Federal Highway Administration (FHWA), with Monmouth County as the project sponsor.

The bridge was built in 1950 and was rehabilitated in 2002. There have been no major alterations made to the original structure. The existing bridge is 661 feet long, 52 feet and 4 inches wide (out to out) with a curb-to-curb width of 40 feet. The deck maintains a 20-foot-wide roadway (C.R. 520) in each direction and a 5-foot-wide sidewalk on each side.

The LCD Study with a Preliminary Preferred Alternative (PPA) (Concept 3F) to replace the existing bridge was completed in Fall 2013. Monmouth County, in conjunction with the NJTPA, established a Public Involvement Action Plan (PIAP), in April 2016. The PIAP includes all project phases: Local Concept Development, Local Preliminary Engineering, Final Design, and Construction, allowing integration with planning and engineering efforts to facilitate the scheduling of contingent activities. The Design Communications Plan was developed in May 2013.

During the LCD phase, a Purpose and Need Statement was developed focusing on the need to improve safety and maintain the current crossing over the Shrewsbury River. Several conceptual

alternatives were developed to meet the project goals and objectives. Upon completion of an alternatives analysis, a concept to replace the bridge with a new structure to the south of the existing bridge was recommended.

Resolutions of Support were passed for the PPA by the Borough of Rumson (February 2013), the Borough of Sea Bright (March 2013), and the Monmouth County Board of Chosen Freeholders (April 2013). Improvements to the C.R. 520/Ward Avenue intersection were also proposed along with improvements to the C.R. 520 and Route 36 intersection in the vicinity of the bridge to accommodate pedestrians and bicyclists. The PPA was approved in June 2013. The Categorical Exclusion Documentation (CED) was updated in February 2014 to verify that the project qualifies for an exclusion from the requirement to prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS) in accordance with Federal Highway Administration (FHWA) requirements (23 CFR 771).

The Local Preliminary Engineering (LPE) Phase began in 2014 and was completed in 2017. This phase included additional engineering and environmental resources data collection; coordination with the NJTPA, NJDOT, FHWA, and permitting agencies; continued community and public involvement through local officials' briefings, stakeholders meetings, and public information centers. A Value Engineering (VE) analysis was conducted in 2015 in order to minimize the scope of work and to stay within available funding limits. Eighteen (18) proposals and design suggestions were developed for the project as a result of ideas generated by the VE Team.

The PPA for the proposed improvements to the C.R. 520 & Ward Avenue intersection was modified during this phase. Improvements to West Park were also proposed, which include a walkway connecting both sides of the park under the proposed bridge. Outreach meetings with affected property and business owners were also held during this phase.

The Final Design Phase is still active, and its anticipated completion is in Summer 2020. This phase involves securing construction contract documents, a plan specification and estimate (PS&E) package, environmental reevaluations, obtaining environmental permits, acquisition of Right-of-Way (ROW) parcels, updating the design communications report, and continued public outreach and involvement. During this phase it has been confirmed that the West Bulkhead Wall was determined to protect the abutment for the new bridge and the West Park Shoreline.

### **1.3 Current Project Activities**

#### **Construction Phase:**

The Construction phase will begin in February 2021 and will be completed in October 2024.

#### **Final Design Phase:**

The Final Design Phase began in Spring 2018 and will be completed in Summer 2020.

#### **Right of Way Acquisition:**

Right-of-Way (ROW) Acquisition began in 2014 and will be completed in Summer 2020.

A summary of the 36 ROW acquisitions required for the project is as follows:

**Table 2: ROW Summary**

Parcel Description	ROW
Riparian Parcels	6
ROW Parcels (In-Fee)	3
Easement Parcels	21
Business Displacements	2
Residential Displacements	0

**Jurisdictional Maps and Agreements:** The Jurisdictional Maps and Agreements are being prepared by the design consultant, Hardesty & Hanover. Although completion is not a stipulated requirement for construction authorization, the work will be completed prior to close out of the Final Design Phase.

**Utility Relocation Agreements:** Utility relocations are currently being conducted through coordination with the County, Hardesty & Hanover and the respective companies. It is anticipated that all utility relocations, except for New Jersey American Water (NJAW), will be complete prior to the construction phase of this project. A Utility Agreement is currently being negotiated with NJAW; and it is anticipated that it will be completed prior to construction authorization. The following utility companies have facilities within the project limits.

**Table 3: Utility Companies**

Utility Companies
Jersey Central Power & Light (Poles, Aerial Lines, Conduit)
New Jersey Natural Gas Co. (Gas Mains)
Verizon (Aerial Lines, Conduit)
Comcast (Aerial Lines, Conduit)
New Jersey American Water (Water Mains)
Borough of Rumson (Sewer Mains)
Borough of Sea Bright (Sewer Mains)

**Anticipated Permits:** The following anticipated permits are in the process of being approved:

**Table 4: Anticipated Permits**

<b>Environmental Permit</b>	<b>Date</b>
Freehold Soil Conservation District: Soil Erosion & Sediment Control Plan Certification	Early July 2020
US Army Corps of Engineers Nationwide 23 Permit	Early August 2020
New Jersey Department of Environmental Protection (NJDEP) Tidelands Grant & License	Mid-July 2020
Access Street Intersection Permit	Mid-July 2020
US Coast Guard Bridge Permit	Early August 2020
Department of Community Affairs Permit	Mid-August 2020
NJDEP Freshwater Wetlands General Permits 10	June 19, 2020
NJDEP Freshwater Wetlands General Permit 11	June 19, 2020
NJDEP Freshwater Wetlands General Permit 17A	June 19, 2020
NJDEP CAFRA Individual Permit	June 19, 2020
NJDEP Waterfront Development Permit	June 19, 2020
NJDEP Green Acres Approval	Mid-August 2020
NJDEP Historic Preservation Office: Memorandum of Agreement	August 22, 2017
National Oceanic and Atmospheric Administration Approval	Mid July 2020

**Community Involvement:** A Public Involvement Action Plan has been created to keep the community informed about the project and to become involved in the planning approach, engineering and design process, and decision-making process for the proposed bridge and approach roadway intersection improvements. It also seeks to provide opportunities for public comment regarding the identification and development of proposed improvements. A project website has been developed, [www.rumsonseabrightbridge.com](http://www.rumsonseabrightbridge.com), to notify the public of project issues and status.

To date, the following community outreach activities have been held:

**Table 5: Community Outreach Meetings**

<b>Meeting</b>	<b>Date</b>
Local Officials Meeting No. 1- Rumson Municipal Building	24-Jan-2012
Local Officials Meeting No. 1- Sea Bright Municipal Building	30-Jan-2012
Community Stakeholders Meeting No. 1- Rumson Municipal Building	15-Feb-2012
Public Information Center No. 1- Sea Bright Municipal Building and Rumson Municipal Building	27-Feb-2012
Community Stakeholders Meeting No. 2- Holy Cross School, Rumson	26-Jun-2012
Local Officials Meeting No. 2- Rumson Municipal Building	4-Oct-2012
Public Information Center No. 2- Sea Bright Municipal Building and Rumson- Fair Haven School, Rumson	23-Jan-2013
Local Officials Meeting No. 3- Rumson Municipal Building	30-Jan-2013
Local Officials Meeting No. 3- Sea Bright Municipal Building	4-Feb-2013
Local Officials Meeting No. 1- Rumson Municipal Building	24-Nov-2014
Local Officials Meeting No. 1- Sea Bright Municipal Building	4-Dec-2014
Community Stakeholders Meeting No. 1- Rumson Municipal Building	13-Jan-2015
Local Officials Meeting No. 2- Sea Bright Municipal Building	5-May-2015
Local Officials Meeting No. 2- Rumson Municipal Building	21-May-2015
Meeting with Clergy- St. George's Episcopal Church, Rumson	21-May-2015
Field Meeting- West Park Rumson	22-Jun-2015
Local Officials Meeting No. 3- Rumson Municipal Building and Sea Bright Municipal Building	29-Oct-2015
Community Stakeholders Meeting No. 2- Holy Cross Parish Gymnasium, Rumson	5-Apr-2016
Public Information Center- Sea Bright Municipal Building and Rumson- Fair Haven School, Rumson	8-Jun-2016
Local Officials Meeting No. 1- Sea Bright Municipal Building	10-Oct-2018
Local Officials Meeting No. 1- Rumson	12-Feb-2019
Community Stakeholders Meeting No. 1- Sea Bright Beach Pavilion	10-Apr-2019
Local Officials Meeting No. 1- Sea Bright Beach Pavilion	21-May-2019
Community Stakeholders Meeting No. 2- Forrestdale School, Rumson	18-Feb-2020
Local Officials Meeting No. 2 – Sea Bright Beach Pavilion	12-Mar-2020
Online Local Officials Meeting No. 2 – Rumson	4-Jun-2020
Online Public Information Center- Rumson-Sea Bright Bridge Project Website	9-Jun-2020 To 10-Jul-2020

## SECTION 2- COST ESTIMATE

### 2.1 Project Cost Estimate

As of May 28, 2020, the total cost to complete the Bridge S-32 Project is estimated at \$115.978 million dollars, expressed in year of expenditure (2020). The total cost includes all design, right-of-way acquisition, demolition, construction, construction engineering, construction administration and inspection, construction support, and contingencies. Utility relocation expenses will be covered by the involved utility companies. These major project element costs are summarized below and include both incurred and future costs in \$ millions. Project cost details are located in Appendix B (Cost-Loaded Report).

**Table 6: Project Cost Estimate**

<b>Project Cost Estimate (in \$ Millions)</b>	
Concept Development	\$0.480
Preliminary Engineering	\$1.001
Final Design	\$7.844
Right-of-Way Acquisition	\$2.096
Construction	\$97.227
Construction Administration & Inspection	\$4.178
Construction Support Services	\$3.152
<b>Total Project Cost</b>	<b>\$115.978</b>

### 2.2 Methodology

The construction costs were estimated using historical bid data based estimating and other methods outlined in the NJDOT “Construction Cost Estimating Guide”. For major precast/prefabricated items, prices were obtained from the fabricators. The construction cost estimates for this project include a two percent average escalation rate. The ROW acquisition cost estimates were developed by Monmouth County.

The construction cost estimate was prepared by the design consultant, Hardesty & Hanover, using AASHTO TRNS\*PORT system in accordance with the “NJDOT Construction Cost Estimating Guide.” The construction cost estimate for the project was developed by applying standard unit costs to the estimated quantities for each standard item.

The construction cost estimate, updated in March 2020, is representative of today’s difficult economic times and recent price trends. Inflationary pressures have been low over the last couple of years but cannot be ruled out for the year 2021 and beyond. Various agencies in the NJTPA region are anticipating billions of dollars in construction awards over the next several years when the Bridge S-32 contract is scheduled for construction. Projects in the NJTPA region include the Pulaski Skyway; Route 3/46 Valley Road and Notch/Rifle Camp Road Interchange; and Route 206.

### **2.3 Cost Containment Strategies**

As mentioned in Section 1.1, a VE analysis was conducted in 2015 to minimize the scope of work and stay within the available funding limits. The VE team made eighteen (18) proposals and design suggestions for the project.

All proposals and design suggestions generated by the VE Team were reviewed for their respective value, cost where possible, and merit. Several key design suggestions were accepted and incorporated into the design, including the following:

- Provide a dedicated left-turn lane at intersection from Rumson Road to Ward Street.
- Use enclosed counterweight box versus open.
- Use drilled shafts in lieu of pipe piles.
- Use Cast-in-place bridge deck in lieu of precast deck.

## SECTION 3- IMPLEMENTATION PLAN

### 3.1 Project Implementation

The Preliminary Project Implementation Schedule for this project is based on five primary traffic control stages and a Final Cleanup stage. The bridge construction will occur off-line in Stage 1 without any interference to the existing traffic pattern. While C.R. 520 pavement is being reconstructed in Stages 2 and 3, it will be necessary to reduce traffic to a single lane by utilizing flaggers. This work will be constructed utilizing flaggers and maintaining one lane, two-way traffic. A detour will not be implemented while C.R. 520 roadway approach work for the bridge is being completed. Detours for Ward Avenue and South Ward Avenue will be required to complete the intersection with Rumson Road. The following techniques have been or will be employed to ensure the schedule is achieved:

- Coordination with the U.S. Coast Guard to reduce the frequency of bridge openings for large vessels.
- Investigation of methods to accelerate construction, including:
  - High Performance Materials
  - Prefabricated Construction
  - Advance Purchase and Fabrication
  - Contractor's Input
- Electronic Shop Drawing Review
- Development of this Financial Plan
- Development of a resource-loaded schedule for the construction contract
- Interim Completion Dates for the construction contract where early completion is critical to maintaining the master schedule

#### 3.1.1 Project Implementation Schedule Breakdown

The construction schedule was developed using Primavera Project Planner P6 and the guidance and directives contained in the NJDOT Capital Program Management Construction Scheduling Coding and Procedures for Designers and Contractors Manual. The construction consists of five stages, which will be carried out over the course of 45 months. See Appendix C (Construction Schedule).

The schedule was developed based on the restrictions and traffic demands in the area, the commitments to the community, and environmental concerns to minimize impacts. The schedules include nighttime work, winter work, and multiple work crews. The schedule estimates production rates for the fabrication and erection rates. The project construction including environmental mitigation is anticipated to begin in 2021.

#### **Construction (Estimated Duration is 3 years, 9 Months or 45 months)**

**Stage 1-** All existing traffic patterns and pedestrian access will be maintained while the proposed bridge, including piers, abutments, bulkheads, fixed and moveable sections are being erected. A temporary wood stockade fence and construction driveways will be installed on both sides of West Park, to give the contractor access to the site. A temporary sidewalk will also be installed on the east side of State Route 36.

**Stage 2-** Full depth pavement and driveways along C.R. 520 west of the intersection with Ward Avenue will be constructed utilizing flaggers and maintaining one lane, two-way traffic. C.R. 520 traffic west of the bridge will then be shifted to the south and the existing traffic pattern on the existing bridge will be maintained while full depth pavement and temporary pavement is constructed along the north side. South Ward Avenue and Old Rumson Road will remain open. Drainage facilities and the outfall along Old Rumson Road will be installed. The pipe crossing C.R. 520 will be installed utilizing flaggers and maintaining one lane, two-way traffic. Ward Avenue will be detoured while full depth pavement, curb returns and drainage facilities are being constructed at the north section of the intersection. South Ward Avenue and Old Rumson Road will remain open. The proposed bridge including piers, abutments, superstructure spans for the fixed and moveable sections will continue to be constructed. The west bulkhead from bridge abutment south to Old Rumson road will be partially constructed. The existing traffic pattern along State Route 36 will be maintained while the existing south concrete island at the intersection of C.R. 520 and State Route 36 is removed and temporary pavement is installed. Pedestrians will use the sidewalk on the south side of C.R. 520 while temporary sidewalk is being constructed on the north side. Access to driveways will always be maintained throughout this stage.

**Stage 3-** C.R. 520 traffic will be shifted to the north while drainage facilities and full depth pavement are constructed along the south side. Easterly and westerly approaches to the proposed bridge and four retaining walls will be constructed. The proposed bridge including piers, abutments, superstructure spans for the fixed and moveable sections will continue to be constructed. The east bulkhead will be constructed from bridge abutment south to Old Rumson Road. South Ward Avenue will be detoured while full depth pavement, curb returns and driveway are being constructed. Old Rumson Road will remain open. After South Ward Avenue construction is completed and opened to traffic, Old Rumson Road will be detoured to complete full depth pavement, curb return and driveway construction at the intersection. Ward Avenue will remain open at all times during this stage. The path walkway in West Park will be completed in the south section. The existing traffic pattern along Route 36 will be maintained while west side drainage facilities, pavement, curb and driveways are constructed. Pipe crossing State Route 36 will be installed utilizing flaggers and maintaining one lane, two-way traffic. Pedestrian access will be located to the north side of C.R. 520 since the south side will be closed. Pedestrians will utilize the temporary sidewalk on the east side of Route 36 while the west side is being constructed. A proposed traffic signal will be installed except for the northwest pole and assembly. Temporary signal heads will be utilized.

**Stage 4-** C.R. 520 traffic will be shifted to the south on the new alignment and onto the proposed bridge. On the north side of C.R. 520, temporary pavement will be removed and the remaining full depth pavement will be installed. The path walkway in West Park will be completed in the north section. The State Route 36 existing traffic pattern will be maintained, utilizing the proposed signal. The State Route 36 southbound right turn lane will be constructed. Pedestrian access will be located to the south side of C.R. 520 since the north side will be closed. The existing bridge will be demolished, roadway approaches will be removed, and bulkheads at both approaches will be installed. River traffic will be maintained at all times during the removal of the existing bridge.

**Stage 5-** Traffic patterns from the previous stage will remain for C.R. 520. State Route 36 traffic will be shifted to the west. On the eastside, full depth pavement, curb, sidewalk, and drainage facilities will be constructed. Utility relocations, driveway access, and a parking area for the Sea Bright Beach Club will be constructed. Concrete Islands at the C.R. 520 and State Route 36 intersection and the remainder of the traffic signal assembly will be installed. Pedestrians will be directed to utilize the west side sidewalk along State Route 36 while the east side is being completed. State Route 36 will be resurfaced, and final pavement markings, signage, and landscaping will be installed throughout the project limits.

**Anticipated Construction Schedule**

The following table outlines the anticipated schedule for completing the project.

**Table 7: Anticipated Construction Schedule**

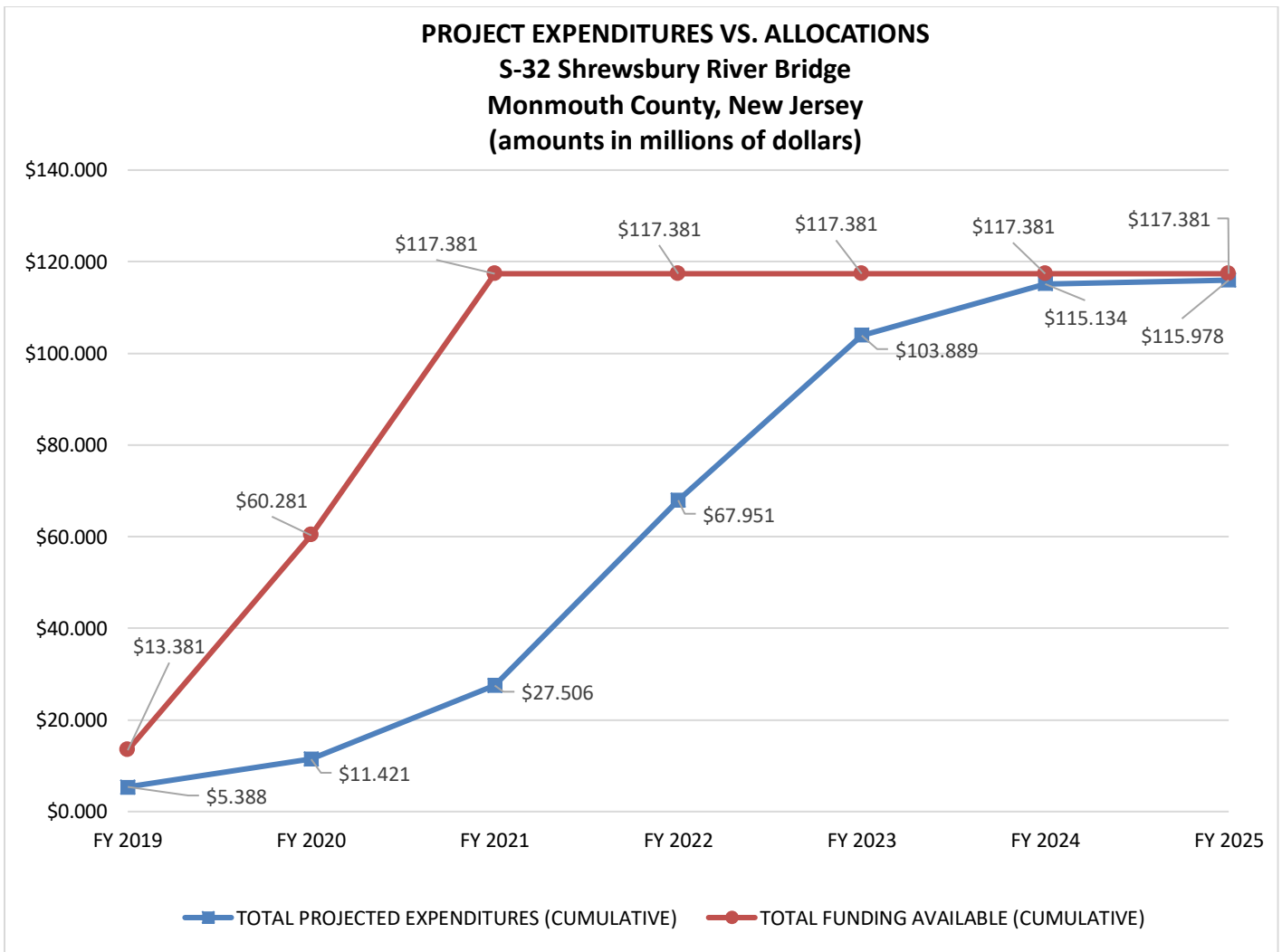
<b>Contract</b>	<b>Duration</b>	<b>Advertisement</b>	<b>Award</b>	<b>Construction Start</b>	<b>Final Completion</b>
Construction	45 Months	4-Nov-2020	16-Dec-2020	10-Feb-2021	21-Oct-2024

## SECTION 4- PROJECT FINANCING

### 4.1 Overall Financial Plan

Bridge S-32 project will be adequately funded with Surface Transportation Block Grant Program (STBGP-NJ) funds. The projected cash expenditure and available Fiscal Year (FY) funding are summarized in the following Projected Expenditures vs. Allocations Graph and Cash Flow Table. Available federal resources are detailed in Appendix D (STIP Documentation). Additional federal expenditures are detailed in Appendix E (NJDOT FMIS Documentation).

**Figure 1: Projected Expenditures vs. Allocations Graph**



**Figure 2: Cash Flow Table**

**Reconstruction of Bridge S-32 on County Route 520 (Rumson Road) over the Shrewsbury River**

**CASH FLOW TABLE**

ITEM	Approved Up to FY 2019		AVAILABILITY OF RESOURCES (Millions of Dollars)							TOTAL ESTIMATED RESOURCES
	STATE-NJTPA*	FEDERAL	STATE-NJTPA FY 2020	FEDERAL FY 2020	FEDERAL FY 2021	FEDERAL FY 2022	FEDERAL FY 2023	FEDERAL FY 2024	FEDERAL FY 2025	
Concept Development		\$0.480								\$0.480
Preliminary Engineering		\$1.001								\$1.001
Final Design	\$7.900									\$7.900
Right-of-Way	\$4.000									\$4.000
Construction				\$46.900	\$57.100					\$104.000
<b>Subtotal - Funding Allocation</b>	<b>\$11.900</b>	<b>\$1.481</b>	<b>\$0.000</b>	<b>\$46.900</b>	<b>\$57.100</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$117.381</b>
<b>Total Funding Available (Cumulative)</b>	<b>\$13.381</b>		<b>\$60.281</b>		<b>\$117.381</b>	<b>\$117.381</b>	<b>\$117.381</b>	<b>\$117.381</b>	<b>\$117.381</b>	<b>\$117.381</b>

ITEM	Incurred up to Sept. 30, 2019		PROJECTED EXPENDITURES (Millions of Dollars)							TOTAL ESTIMATED EXPENDITURES
	STATE-NJTPA*	FEDERAL	STATE-NJTPA FY 2020	FEDERAL FY 2020	FEDERAL FY 2021	FEDERAL FY 2022	FEDERAL FY 2023	FEDERAL FY 2024	FEDERAL FY 2025	
Concept Development		\$0.480								\$0.480
Preliminary Engineering		\$1.001								\$1.001
Final Design	\$3.907		\$3.937							\$7.844
Right-of-Way			\$2.096							\$2.096
Construction					\$13.185	\$38.249	\$34.809	\$10.334	\$0.650	\$97.227
Construction Administration & Inspection					\$1.416	\$1.050	\$0.831	\$0.721	\$0.160	\$4.178
Construction Support Services					\$1.484	\$1.146	\$0.298	\$0.190	\$0.034	\$3.152
<b>Subtotal - Projected Expenditures</b>	<b>\$3.907</b>	<b>\$1.481</b>	<b>\$6.033</b>	<b>\$0.000</b>	<b>\$16.085</b>	<b>\$40.445</b>	<b>\$35.938</b>	<b>\$11.245</b>	<b>\$0.844</b>	<b>\$115.978</b>
<b>Total Projected Expenditures (Cumulative)</b>	<b>\$5.388</b>		<b>\$11.421</b>		<b>\$27.506</b>	<b>\$67.951</b>	<b>\$103.889</b>	<b>\$115.134</b>	<b>\$115.978</b>	<b>\$115.978</b>

<b>Cumulative Surplus (Deficit)</b>	<b>\$7.993</b>		<b>\$48.860</b>		<b>\$89.875</b>	<b>\$49.430</b>	<b>\$13.492</b>	<b>\$2.247</b>	<b>\$1.403</b>	<b>\$1.403</b>
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*\*As part of a Memorandum of Understanding among the three New Jersey MPOs, NJ TRANSIT and NJDOT, there was a federal funds (STP-NJ funds in the NJTPA region) to state exchange of funds from FY 2014 to FY 2018 for local projects. The remaining state funds from this Funding exchange are listed in the NJTPA TIP as STATE-NJTPA.*

## **SECTION 5- PUBLIC PRIVATE PARTNERSHIP ISSUES**

### **5.1 Risk Allocation**

The guidance provided by the FHWA requests a risk allocation analysis as it pertains to delivering the project through a public-private partnership (P3), but a risk allocation analysis was not performed when the cost estimate review was completed prior to the issuance of the NEPA Decision Document. The Categorical Exclusion was approved on September 8, 2017. As such this provision is not applicable for the Bridge S-32 Project.

### **5.2 Effectiveness to Leverage the Revenue Stream for the Project**

The current project does not result in a revenue stream for the State of New Jersey. The current crossing is not tolled and is the only direct link from Rumson to Sea Bright. Potential revenue streams such as tax increment financing (TIF) or tolling are not feasible. The project does not introduce any new potential development to support a TIF. Tolling was not addressed during the project development phase and would likely result in lengthy review to assess governance, feasibility and cost effectiveness. This could significantly increase the project schedule and cost.

The only options for a revenue stream from Bridge S-32 would be from taxes on new development potential from the project or from tolling the facility. The project does not introduce any new development potential as such this is not a viable revenue stream. As such, the potential for tolling the facility would have significant public opposition. Tolling is not an option unless a public authority were to assume control of the facility.

With the total project cost well under \$500 Million, the needed investment versus potential return does not appear lucrative for a public private partnership. The ability to attract investors is very low.

### **5.3 State-Level Legislation**

New Jersey legislation is currently limited on public private partnerships. While some state agencies do allow for this type of procurement, Monmouth County does not have the current ability to utilize this type of funding mechanism. Monmouth County would require legislative and executive approvals to advance this type of funding.

The Bridge S-32 Project is not a viable candidate for a public private partnership delivery model, which is a design-build project delivery model that features upfront collaboration by parties in the design and construction of infrastructure assets. The project is significantly advanced, enabling legislation is not in place, there is no revenue stream, and tolling would induce significant public opposition.

## SECTION 6- PHASING PLAN

The purpose of this section is to identify fundable incremental improvements or phases that will address the purpose and the need of the project in the short term in the event there are insufficient financial resources to complete the entire project. The proposed improvements will be built in five stages in addition to completion, construction administration and inspection, and construction support, as tabulated below:

**Table 8: Proposed Project Phasing and Construction Costs**

Construction Phase	Description	Schedule	Total Project Construction Cost (in \$ Millions)
Stage 1	Roadway, Piers 1-5, East and West Abutments, Superstructure Spans 1-3 and 5-6, and Span 4	January 2021 to June 2024 (42 Months)	\$84.446
Stage 2	Roadway and Structure	April 2021 to June 2021 (3 Months)	\$0.386
Stage 3	Roadway and Retaining Walls	July 2022 to November 2022 (5 Months)	\$1.282
Stage 4	Roadway, Structure, and Existing Bridge Demolition	May 2023 to August 2024 (15 Months)	\$10.351
Stage 5	Roadway and Structure	August 2023 to November 2023 (4 Months)	\$0.112
<b>Construction Subtotal</b>			<b>\$96.577</b>
Completion	Performance and Payment Bonds, Cleanup	August 2024 to October 2024 (2 Months)	\$0.650
Inspection & Contract Administration	Administration Items, Inspections, Materials Testing, and Monitoring	FY 2021- FY 2025	\$4.178
Construction Support Services	Bid Reviews, Design Support, Drawings, Landscaping, community outreach, LSRP Services, Site Visits	FY 2020- FY 2025	\$3.152
<b>Total Project Construction Cost</b>			<b>\$104.557</b>

**Stage 1:** This phase involves the construction of temporary trestles, Piers 1-5 (including Piers 3 and 4 bascules), the East and West Abutments, Superstructure Spans 1-3 and 5-6, and Span 4 (bascule). Work shall include temporary sidewalk construction, miscellaneous roadway work, site clearing, concrete pouring, casing installation, rebar cage installations, drill shaft installation, cofferdam sheeting, bracing, excavation, and casing installation.

This phase will begin in January 2021 and will be completed in June 2024. This phase will take 42 months to complete.

**Stage 2:** This phase involves roadway work and the continuation of new bridge construction. Work shall include pavement construction, the removal of concrete islands, and the continuation of new bridge construction.

This phase will begin in April 2021 and will be completed in June 2021. This phase will take 3 months to complete.

**Stage 3:** This phase involves the continuation of roadway construction. Work shall include pavement construction, drainage facility installation, traffic signal installation, driveway construction, and retaining wall construction.

This phase will begin in July 2022 and will be completed in November 2022. This phase will take 5 months to complete.

**Stage 4:** This phase involves the continuation of roadway and bridge construction as well as the demolition of the existing bridge. Work shall include pavement construction, a walkway in West Park, construction of Route 36 Right Turn Lane, the removal of the existing bridge structures, Bulkhead completions, and the construction of Fender Systems.

This phase will begin in May 2023 and will be completed in August 2024. This phase will take 15 months to complete.

**Stage 5:** This phase involves the continuation of roadway and bridge construction. Work shall include the construction of the Route 36 East Side pavement, curb, sidewalk, drainage, utility, driveway construction, Northwest Island construction, Route 36 resurfacing, the installation of final pavement markings, and miscellaneous structural activities.

This phase will begin in August 2023 and will be completed in November 2023. This phase will take 4 months to complete.

**Completion:** This phase involves securing the performance and payment bonds, which will take place in October 2024. It will take 3 weeks to complete.

This phase also includes the final site cleanup, which is scheduled to begin in August 2024 and will be completed in October 2024. The final site cleanup will take 2 months to complete.

**Inspection & Contract Administration:** This phase involves the completion of administration items, geotechnical inspection, project meetings, inspection, as-built reviews, progress report and certifications, the project closeout, direct expenses paid, video and Closed-Circuit Television monitoring, and materials testing.

This phase will begin in FY 2021 and will be completed in FY 2025. The administration and inspection contract will be carried out over the course of the project.

**Construction Support Services:** This phase involves the completion of bid review, geotechnical design support, project meetings, site visits, schedule review, administration, roadway working drawings, bridge working drawings, landscaping items, continued community outreach, RFI and COPs, traffic acceptance, the completion of the mitigation preparation report, direct expenses paid, and LSRP services.

This phase will begin in FY 2020 and will be completed in FY 2025. The construction support services will be carried out over the course of the project.

## SECTION 7- RISK IDENTIFICATION AND MITIGATION FACTORS

This section of the Initial Financial Plan addresses the funding plan for this project, identifies risks that could impact this plan, and outlines mitigation measures to provide reasonable assurance that funds will be available to deliver the project through construction.

The Financial Plan risks fall under three broad categories: Cost Increase risks, Revenue Sufficiency risks, and Design and Construction risks. Understanding that this Financial Plan is focused on the construction phase, cost increase risks include such things as fuel price increases, material cost increases, and unknown site conditions. Revenue sufficiency risks in the context of this project include such things as funding availability and funding delays. Mitigating approaches will be identified, where applicable.

### 7.1 Cost Increase Risks

- Typically, utility relocations costs are estimated as a percentage of construction cost of the project. However, given the complexity of this project, a typical percentage is not accurate and the risk of exceeding it is high.

Currently, the project utility relocations by utility companies are estimated at \$1.0 million, which is approximately 0.9% of the total estimated cost for the project. Although the utility companies are paying for relocation, any delays could result in schedule extensions and claims for increase costs.

- This risk could be mitigated by having construction contractors and utility companies coordinate their respective work schedules so that their activities are properly sequenced and cost increases do not occur.
- Construction costs for this project represent approximately 90% of the overall project cost. As such, if bids come in high there will be significant impact to the needed funding. However, this is less of a risk than in the recent past. Bids have been fairly stable and predictable for the last five or so years; however, the construction industry has been impacted by the recent COVID-19 Pandemic, which has a significant impact on the cost of materials and the labor supply.
  - This risk could potentially be mitigated through:
    1. Pre-Advertisement meetings to highlight project elements and risk items to help contractors with their bidding process.
    2. Advertising in Engineering News Record (ENR) and the Monmouth County Purchasing Division website to encourage increased competition.
    3. Providing engineering reports on CDs to bidders to encourage value engineering proposals.
    4. Ensure that the contract complies with the Buy America requirements, which state that domestically manufactured steel and iron products must be used in federal aid projects.
  - Risk that unknown site conditions will increase project cost.
    - Construction projects of any type and size always have an inherent risk of encountering unknown site conditions.
  - In-water timing restrictions may constrain the construction schedule. There are several in-

water construction tasks that must be carefully planned and carried out in a timely fashion in order to avoid significant delays that could increase project costs.

- To protect finfish, shellfish, and winter flounder, the New Jersey Department of Environmental Protection (NJDEP) and the National Marine Fisheries Service (NMFS) may impose timing restrictions for in-water construction work between January 1 and June 30. The contractor will need to carefully plan the sequence of construction to ensure that critical work is accomplished during the allowable in-water periods.
- The sheeting for cofferdams must be offset from the pier walls to allow for interior bracing members to be installed and space for formwork. As a result, the cofferdam limits may encroach on the channel limits, which will result in a reduced width during this timeframe.
- The schedule for foundation construction and demolition is constrained by in-water restrictions. Significant resources in equipment, materials, and labor, as well as early submittals, are required to take full advantage of the in-water construction timetable.
- The installation of piles for the temporary trestle system can only be accomplished during allowable in-water season. In order to take full advantage of the in-water construction timeframe, the contractor must build out the trestle and follow the steel casing and cofferdam installation. Barges must be positioned properly to avoid interfering with heavy marine traffic.
- Construction of drilled shafts is generally a risky operation and construction delays are common; using an experienced contractor is necessary to avoid critical delays. Multiple equipment mobilizations and careful planning are required to follow the schedule.
- The U.S. Coast Guard prohibits long-term closure of the navigation channel. Therefore, the contractor must plan needs of fabrication, delivery, and erection of the bascule span over the channel to minimize impacts.
- Removal of the substructure within the in-water allowable periods may result in schedule delays depending on the timing of work. The south end of each bascule pier must be completely removed to allow the installation of the new fender system. Any obstructions left behind can conflict with the installation of new fender piles. The bascule span removal must be sequenced to minimize impacts to the navigation channel. The Shrewsbury River channel closures can be difficult to obtain.

## **7.2 Revenue Sufficiency Risks**

The FY 2020 NJ Statewide Transportation Improvement Program (STIP) funds the federal portion of this project through FY 2025. There are several major financing risks associated with this project's funding plan.

- Risk that project construction authorization may be delayed to FY 2021 due to design changes and/or Right-of-Way delays.
  - This could be mitigated by incorporating design changes and/or Right-of-Way acquisitions in advance of September 30, 2020.
- The FAST, Fixing America's Surface Transportation Act, was signed on December 4,

2015. The \$305 billion Act funds surface transportation programs and provides increased funding and reliability to federal funding for five years (FY 2016 to FY 2020). In September 2020, the FAST Act is scheduled to expire. There is a risk of potentially losing the funding if the FAST Act is not reauthorized and Congress is unable to find additional revenues to support the Highway Trust Fund.

- The COVID-19 Pandemic has resulted in decreased commuting, leading to reductions in state revenue from gas taxes and from new vehicle sales fees. This may cause New Jersey to delay road projects over the next five years as gas taxes are used to fund construction projects.
- The State of New Jersey potentially faces a combined revenue shortfall over the remainder of FY 2020 and through the end of FY 2021 and the inability to access borrowing facilities or secure additional federal funding may lead to additional funding cuts for FY 2021.
- Risks that costs will increase due to change orders in construction.
  - This could be mitigated by thorough reviews by the designer and owner prior to bid. Reviews by the designer cannot substitute for owner reviews, since the owner may have preferences that are unknown to the designer. An otherwise valid design may be unacceptable to the owner due to policy.

### **7.3 Design and Construction Risks**

- The design addressed various Geotechnical issues that must be carefully monitored during construction. The contract special provisions include stipulations protecting Monmouth County, including but not limited to, vibration monitoring, and award based on qualification of contractors in conjunction with the low-bid selection criteria.
- The design addressed various environmental issues that must be carefully monitored during construction. The Engineer of Record will be retained for construction support services, which will include monitoring issues including but not limited to groundwater quality, disposal of regulated materials, monitoring plantings for riparian zone mitigation and other environmental issues.
- During construction the contractor will be required to obtain a building construction permit from the local municipalities. The designer will seek plan approval prior to construction in order to avoid potential change orders from the contractor.

Additional design and construction related risks anticipated during construction have been documented in a risk register developed by the design consultant, Hardesty and Hanover, Inc., and detailed in Appendix F.

## **SECTION 8 - ANNUAL UPDATES**

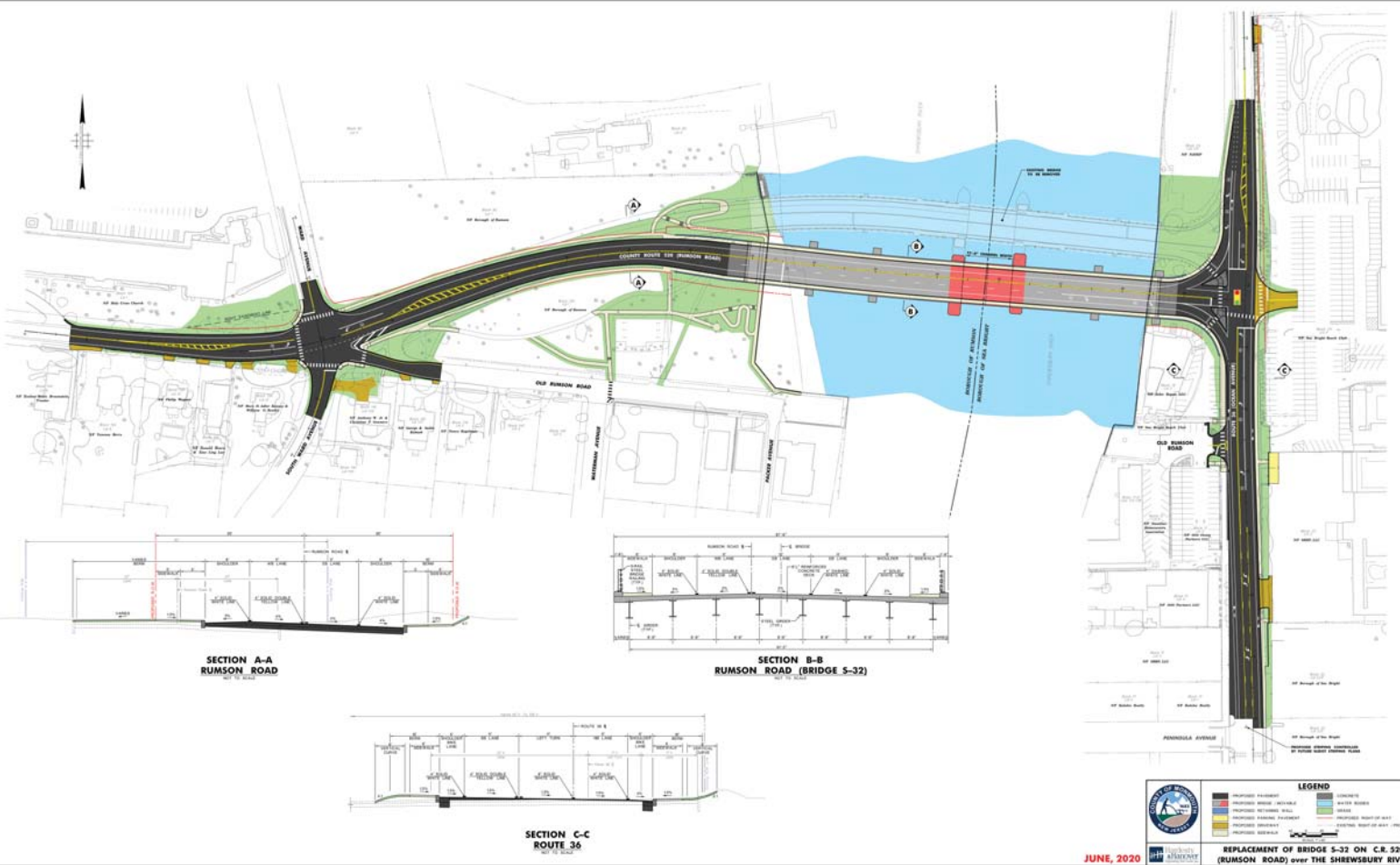
The Annual Updates of the Initial Financial Plan will provide information on the actual cost, expenditure, and revenue performance in comparison to initial estimates as well as updated estimates of future year's obligation and expenditures. The annual updates will provide information on cost and revenue trends, summaries of cost reductions and increases, current and potential funding shortfalls, and the financial adjustments necessary to assure completion of the Project.

Each Annual Update of this Financial Plan will be presented in actual cost to date and cost to complete estimates shown in year of expenditure dollars. These updates will use the same project elements to present the cost and revenues used in the Initial Financial Plan estimate. Any significant change in the total project cost or revenue since the last estimate will be clearly presented and the major reasons for these significant changes will be provided. Any required adjustments to the cost estimate will be computed in a manner consistent with the methodology established in this Financial Plan.

For annual updates, the Bridge S-32 Project Team will consider FHWA's fiscal year (October 1- September 30) as the Project's fiscal year. This timing will facilitate the development of compatible subsequent capital program updates. Annual updates to the Financial Plan will be updated and available for review by NJDOT and FHWA within 90 days following the end of FHWA's fiscal year (September 30). Therefore, the next annual update will be submitted on or before December 30, 2021.

# **Appendix A**

## **Overall Project Map**



JUNE, 2020



REPLACEMENT OF BRIDGE S-32 ON C.R. 520 (RUMSON ROAD) OVER THE SHREWSBURY RIVER

# **Appendix B**

## **Cost-Loaded Report**

	Federal Fiscal Year*					TOTAL
	2021 11/4/2020 - 9/30/2021 11 months	2022 10/1/2021 - 9/30/2022 12 months	2023 10/1/2022 - 9/30/2023 12 months	2024 10/1/2023 - 9/30/2024 12 months	2025 10/1/2024 - 10/21/2024 1 month	
Construction Activities						
Stage 1 (1/1/2021 - 6/30/2024) - 42 months	\$ 12,798,845.01	\$ 37,603,515.92	\$ 32,627,824.26	\$ 1,416,187.54		\$ 84,446,372.73
Stage 2 (4/7/2021 - 6/18/2021) - 2 months	\$ 385,758.19					\$ 385,758.19
Stage 3 (7/20/2022 - 11/16/2022) - 4 months		\$ 645,000.00	\$ 637,333.07			\$ 1,282,333.07
Stage 4 (5/24/2023 - 8/20/2024) - 3 months			\$ 1,488,000.00	\$ 8,862,581.91		\$ 10,350,581.91
Stage 5 (8/30/2023 - 11/2/2023) - 2 months			\$ 55,896.92	\$ 55,896.92		\$ 111,793.84
Completion (10/21/2024)					\$ 650,000.00	\$ 650,000.00
Construction Support Services	\$ 1,484,279.72	\$ 1,145,806.65	\$ 297,824.21	\$ 189,549.83	\$ 34,243.70	\$ 3,151,704.12
Contract Administration & Inspection	\$ 1,415,932.85	\$ 1,049,899.20	\$ 830,769.37	\$ 721,204.45	\$ 160,325.49	\$ 4,178,131.37
<b>TOTAL</b>	<b>\$ 16,084,815.77</b>	<b>\$ 40,444,221.78</b>	<b>\$ 35,937,647.83</b>	<b>\$ 11,245,420.65</b>	<b>\$ 844,569.19</b>	<b>\$ 104,556,675.22</b>

\* Federal Fiscal Year runs from October 1st through September 30th. Example: Federal Fiscal Year for 2021 is from October 1, 2020 through September 30, 2021.

**Stage 1 (1/1/2021 - 6/30/2024) - 42 months**

1. INSTALL TRAFFIC CONTROL DEVICES.
2. MAINTAIN ALL EXISTING TRAFFIC PATTERNS AND PEDESTRIAN ACCESS.
3. INSTALL SOIL EROSION AND SEDIMENT CONTROL DEVICES INCLUDING CONSTRUCTION DRIVEWAYS.
4. INSTALL TEMPORARY WOOD STOCKADE FENCE IN WEST PARK.
5. CONSTRUCT PROPOSED BRIDGE INCLUDING PIERS, ABUTMENTS, SUPERSTRUCTURE SPANS FOR THE FIXED AND MOVEABLE SECTIONS. RIVER TRAFFIC TO BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION OF THE NEW BRIDGE.
6. CONSTRUCT TEMPORARY SIDEWALK ON THE EAST SIDE OF ROUTE 36.

**Stage 2 (4/7/2021 - 6/18/2021) - 2 months**

1. INSTALL TRAFFIC CONTROL DEVICES.
2. INSTALL/MAINTAIN SOIL EROSION AND SEDIMENT CONTROL DEVICES.
3. DETOUR RUMSON ROAD WHILE FULL DEPTH PAVEMENT IS CONSTRUCTED WEST OF THE INTERSECTION WITH WARD AVENUE. CONSTRUCT DRIVEWAYS ON THE SOUTH SIDE OF RUMSON ROAD. MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES. WARD AVENUE, SOUTH WARD AVENUE AND OLD RUMSON ROAD TO REMAIN OPEN.
4. SHIFT RUMSON ROAD TRAFFIC SOUTH ONCE PAVEMENT IS CONSTRUCTED WEST OF THE INTERSECTION. MAINTAIN RUMSON ROAD EXISTING TRAFFIC PATTERN ON EXISTING BRIDGE. MAINTAIN ROUTE 36 EXISTING TRAFFIC PATTERN.
5. CONSTRUCT FULL DEPTH PAVEMENT, TEMPORARY PAVEMENT AND TEMPORARY SIDEWALK ALONG THE NORTH SIDE OF RUMSON ROAD FROM THE INTERSECTION WITH WARD AVENUE TO THE BRIDGE.
6. INSTALL PERMANENT AND TEMPORARY DRAINAGE FACILITIES ALONG RUMSON ROAD AND OUTFALL ALONG OLD RUMSON ROAD. PIPE CROSSING RUMSON ROAD TO BE INSTALLED UTILIZING FLAGGERS AND MAINTAINING ONE LANE, TWO-WAY TRAFFIC.
7. DETOUR WARD AVENUE WHILE FULL DEPTH PAVEMENT, CURB RETURNS AND DRAINAGE FACILITIES ARE BEING CONSTRUCTED. SOUTH WARD AVENUE AND OLD RUMSON ROAD TO REMAIN OPEN.
8. CONTINUE TO CONSTRUCT PROPOSED BRIDGE INCLUDING PIERS, ABUTMENTS, SUPERSTRUCTURE SPANS FOR THE FIXED AND MOVEABLE SECTIONS. CONSTRUCT PARTIAL WEST BULKHEAD FROM BRIDGE ABUTMENT SOUTH TO OLD RUMSON ROAD.
9. REMOVE EXISTING SOUTH CONCRETE ISLAND AT RUMSON ROAD AND ROUTE 36 INTERSECTION AND CONSTRUCT TEMPORARY PAVEMENT.
10. PEDESTRIAN ACCESS TO REMAIN ON THE SOUTH SIDE OF RUMSON ROAD AND EAST SIDE OF ROUTE 36 UTILIZING THE TEMPORARY SIDEWALK.

**Stage 3 (7/20/2022 - 11/16/2022) - 4 months**

1. INSTALL TRAFFIC CONTROL DEVICES.
2. INSTALL/MAINTAIN SOIL EROSION AND SEDIMENT CONTROL DEVICES.
3. SHIFT RUMSON ROAD TRAFFIC THROUGHOUT PROJECT LIMIT. MAINTAIN ROUTE 36 EXISTING TRAFFIC PATTERN.
4. CONSTRUCT FULL DEPTH PAVEMENT ALONG THE SOUTH SIDE OF RUMSON ROAD ALONG WITH THE EASTERLY AND WESTERLY APPROACHES TO THE PROPOSED BRIDGE. CONSTRUCT TEMPORARY PAVEMENT AT THE NORTH ISLAND AT RUMSON ROAD AND ROUTE 36 INTERSECTION.
5. INSTALL DRAINAGE FACILITIES ALONG THE SOUTH SIDE OF RUMSON ROAD.
6. DETOUR SOUTH WARD AVENUE WHILE FULL DEPTH PAVEMENT, CURB RETURNS AND DRIVEWAY ARE BEING CONSTRUCTED. WARD AVENUE AND OLD RUMSON ROAD TO REMAIN OPEN.
7. AFTER SOUTH WARD AVENUE CONSTRUCTION IS COMPLETED, OPEN TO TRAFFIC AND DETOUR OLD RUMSON ROAD. COMPLETE FULL DEPTH PAVEMENT, CURB RETURN AND DRIVEWAY CONSTRUCTION AT THE INTERSECTION. WARD AVENUE AND SOUTH WARD AVENUE TO REMAIN OPEN.
8. MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES.
9. CONTINUE TO CONSTRUCT PROPOSED BRIDGE INCLUDING PIERS, ABUTMENTS, SUPERSTRUCTURE SPANS FOR THE FIXED AND MOVEABLE SECTIONS. ERECT ALL RETAINING WALLS.
10. CONSTRUCT PARTIAL EAST BULKHEAD FROM BRIDGE ABUTMENT SOUTH TO OLD RUMSON ROAD.
11. CONSTRUCT PAVEMENT, CURB, PERMANENT AND TEMPORARY DRAINAGE FACILITIES AND DRIVEWAYS ON THE WEST SIDE OF ROUTE 36. OLD RUMSON ROAD TO REMAIN OPEN.
12. PEDESTRIAN ACCESS TO BE LOCATED TO THE NORTH SIDE OF RUMSON ROAD ON TEMPORARY SIDEWALK. PEDESTRIANS TO UTILIZE THE TEMPORARY SIDEWALK ON THE EAST SIDE OF ROUTE 36 WHILE THE WEST SIDE IS BEING CONSTRUCTED.
13. INSTALL PROPOSED TRAFFIC SIGNAL EXCEPT THE NORTHWEST POLE AND ASSEMBLY. TEMPORARY SIGNAL HEADS WILL BE INSTALLED.

**Stage 4 (5/24/2023 - 8/20/2024) - 3 months**

1. INSTALL TRAFFIC CONTROL DEVICES.
2. INSTALL/MAINTAIN SOIL EROSION AND SEDIMENT CONTROL DEVICES.
3. SHIFT RUMSON ROAD TRAFFIC TO THE SOUTH AND ONTO THE PROPOSED BRIDGE. MAINTAIN ROUTE 36 EXISTING TRAFFIC PATTERN UTILIZING THE PROPOSED SIGNAL.
4. ON THE NORTH SIDE OF RUMSON ROAD, REMOVE TEMPORARY PAVEMENT AND CONSTRUCT REMAINING FULL DEPTH PAVEMENT.
5. CONSTRUCT ROUTE 36 SOUTHBOUND RIGHT TURN LANE AND DRAINAGE FACILITIES.
6. CONSTRUCT PATH WALKWAY IN WEST PARK.
7. PEDESTRIAN ACCESS TO BE LOCATED TO THE SOUTH SIDE OF RUMSON ROAD. PEDESTRIANS CONTINUE TO UTILIZE THE TEMPORARY SIDEWALK ON THE EAST SIDE OF ROUTE 36.
8. REMOVE EXISTING BRIDGE AND ROADWAY APPROACHES. COMPLETE INSTALLATION OF BULKHEADS AT BOTH APPROACHES. RIVER TRAFFIC TO BE MAINTAINED AT ALL TIMES DURING THE REMOVAL OF THE EXISTING BRIDGE.

**Stage 5 (8/30/2023 - 11/2/2023) - 2 months**

1. INSTALL TRAFFIC CONTROL DEVICES.
2. INSTALL/MAINTAIN SOIL EROSION AND SEDIMENT CONTROL DEVICES.
3. MAINTAIN TRAFFIC PATTERN FROM PREVIOUS STAGE FOR RUMSON ROAD. ROUTE 36 TRAFFIC TO BE SHIFTED WEST.
4. CONSTRUCT FULL DEPTH PAVEMENT, CURB, SIDEWALK, DRAINAGE FACILITIES AND DRIVEWAYS ON THE EAST SIDE OF ROUTE 36. MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES.
5. CONSTRUCT NORTH ISLAND ALONG WITH THE NORTHWEST SIGNAL POLE AND ASSEMBLY AT RUMSON ROAD AND ROUTE 36 INTERSECTION.
6. PEDESTRIAN ACCESS ON BOTH SIDES OF RUMSON ROAD TO OPEN. MAINTAIN PEDESTRIAN ACCESS ON THE WEST SIDE OF ROUTE 36.
7. RESURFACE ROUTE 36.
8. INSTALL FINAL PAVEMENT MARKINGS AND SIGNAGE.
9. REMOVE ALL REMAINING SOIL EROSION AND SEDIMENT CONTROL DEVICES.

STAGE 1

1/1/2021

-

6/30/2024

DESCRIPTION	2021 1/1/2021 9/30/2021	2022 10/1/2021 9/30/2022	2023 10/1/2022 9/30/2023	2024 10/1/2023 6/30/2024	TOTAL
POLLUTION LIABILITY INSURANCE	\$ 15,500.00				\$ 15,500.00
PROGRESS SCHEDULE	\$ 100,000.00				\$ 100,000.00
PROGRESS SCHEDULE UPDATE	\$ 10,969.44				\$ 10,969.44
MOBILIZATION	\$ 8,743,338.00				\$ 8,743,338.00
FIELD OFFICE TYPE A SET UP	\$ 46,600.00				\$ 46,600.00
FIELD OFFICE TYPE A MAINTENANCE	\$ 24,937.54	\$ 24,937.54	\$ 24,937.54	\$ 24,937.54	\$ 99,750.15
CONSTRUCTION LAYOUT	\$ 212,500.00	\$ 212,500.00	\$ 212,500.00	\$ 212,500.00	\$ 850,000.00
MONUMENT	\$ 3,757.95				\$ 3,757.95
CAUTION FENCE	\$ 6,512.97				\$ 6,512.97
FUEL PRICE ADJUSTMENT	\$ 13,200.00				\$ 13,200.00
ASPHALT PRICE ADJUSTMENT	\$ 15,000.00				\$ 15,000.00
CLEARING SITE	\$ 50,000.00				\$ 50,000.00
EXCAVATION, UNCLASSIFIED	\$ 81,203.65				\$ 81,203.65
REMOVAL OF PAVEMENT	\$ 199,575.46				\$ 199,575.46
I-14 SOIL AGGREGATE			\$ 12,831.84		\$ 12,831.84
GEOTEXTILE, ROADWAY STABILIZATION			\$ 29,734.40		\$ 29,734.40
DENSE-GRADED AGGREGATE BASE COURSE, 8" THICK			\$ 135,151.31		\$ 135,151.31
DENSE-GRADED AGGREGATE BASE COURSE, 12" THICK			\$ 8,064.00		\$ 8,064.00
CONCRETE BASE COURSE, 8" THICK			\$ 28,660.76		\$ 28,660.76
HMA MILLING, 3" OR LESS			\$ 50,093.25		\$ 50,093.25
TACK COAT			\$ 933.49		\$ 933.49
PRIME COAT			\$ 113.13		\$ 113.13
HOT MIX ASPHALT 12.5 M E SURFACE COURSE			\$ 242,804.78		\$ 242,804.78
HOT MIX ASPHALT 19 M 64 BASE COURSE			\$ 483,475.69		\$ 483,475.69
UNDERLAYER PREPARATION			\$ 3,398.99		\$ 3,398.99
12" REINFORCED CONCRETE PIPE			\$ 5,197.32		\$ 5,197.32
15" REINFORCED CONCRETE PIPE			\$ 82,226.88		\$ 82,226.88
18" REINFORCED CONCRETE PIPE			\$ 31,112.17		\$ 31,112.17
24" REINFORCED CONCRETE PIPE			\$ 82,217.37		\$ 82,217.37
CONCRETE HEADWALL			\$ 7,842.79		\$ 7,842.79
INLET, TYPE A			\$ 6,773.98		\$ 6,773.98
INLET, TYPE B			\$ 75,380.81		\$ 75,380.81
INLET, TYPE DOUBLE B			\$ 20,250.64		\$ 20,250.64
INLET, TYPE E			\$ 5,340.05		\$ 5,340.05
MANHOLE, 4' DIAMETER			\$ 32,106.70		\$ 32,106.70
INLET CONVERTED TO MANHOLE			\$ 2,947.87		\$ 2,947.87
RESET EXISTING CASTING			\$ 1,615.18		\$ 1,615.18
SET INLET TYPE E, CASTING			\$ 3,749.38		\$ 3,749.38
RECONSTRUCTED INLET, TYPE B, USING EXISTING CASTING			\$ 6,495.59		\$ 6,495.59
RIPRAP STONE CHANNEL PROTECTION, 30" THICK (D50=15")			\$ 9,270.37		\$ 9,270.37
CHAIN-LINK FENCE, 6' HIGH			\$ 4,091.06		\$ 4,091.06
GATE, CHAIN-LINK FENCE, 6' WIDE			\$ 1,322.06		\$ 1,322.06
TEMPORARY CHAIN-LINK FENCE, 6' HIGH			\$ 28,282.72		\$ 28,282.72
WOOD STOCKADE FENCE, TEMPORARY			\$ 23,828.09		\$ 23,828.09
HOT MIX ASPHALT SIDEWALK, 5" THICK			\$ 117,121.58		\$ 117,121.58
CONCRETE SIDEWALK, 4" THICK			\$ 161,140.64		\$ 161,140.64
RESET PRECAST CONCRETE PAVERS			\$ 5,302.50		\$ 5,302.50
HOT MIX ASPHALT DRIVEWAY, 6" THICK			\$ 22,630.87		\$ 22,630.87
STONE OR GRAVEL DRIVEWAY, 6" THICK			\$ 4,858.45		\$ 4,858.45
CONCRETE DRIVEWAY, 6" THICK			\$ 8,610.49		\$ 8,610.49
CONCRETE DRIVEWAY, REINFORCED, 6" THICK			\$ 12,094.53		\$ 12,094.53
CONCRETE ISLAND, 4" THICK			\$ 8,568.10		\$ 8,568.10
DETECTABLE WARNING SURFACE			\$ 9,447.22		\$ 9,447.22
STAMPED COLORED CONCRETE SIDEWALKS, 4" THICK			\$ 10,999.13		\$ 10,999.13
9" X 16" CONCRETE VERTICAL CURB			\$ 80,639.79		\$ 80,639.79
6" X 8" X 20" CONCRETE VERTICAL CURB			\$ 92,202.56		\$ 92,202.56
9" X 6" HOT MIX ASPHALT CURB			\$ 8,213.33		\$ 8,213.33
NONVEGETATIVE SURFACE, HOT MIX ASPHALT			\$ 3,746.78		\$ 3,746.78
BEAM GUIDE RAIL			\$ 3,812.45		\$ 3,812.45
TANGENT GUIDE RAIL TERMINAL			\$ 2,948.57		\$ 2,948.57
APPROACH GUIDE RAIL TRANSITION TL-2			\$ 2,149.52		\$ 2,149.52
TRAFFIC STRIPES, 4"			\$ 10,390.96		\$ 10,390.96
TRAFFIC STRIPES, 8"			\$ 1,474.20		\$ 1,474.20
RPM, MONO-DIRECTIONAL, WHITE LENS			\$ 1,444.68		\$ 1,444.68
TRAFFIC MARKING LINES, 24"			\$ 5,840.91		\$ 5,840.91
RPM, MONO-DIRECTIONAL, AMBER LENS			\$ 1,623.82		\$ 1,623.82

RPM, BI-DIRECTIONAL, AMBER LENS			\$ 1,816.97	\$ 1,816.97
REMOVAL OF RPM			\$ 355.62	\$ 355.62
REMOVAL OF TRAFFIC STRIPES			\$ 8,952.15	\$ 8,952.15
REMOVAL OF TRAFFIC MARKINGS			\$ 258.11	\$ 258.11
TRAFFIC MARKINGS SYMBOLS			\$ 464.00	\$ 464.00
REGULATORY AND WARNING SIGN			\$ 15,629.27	\$ 15,629.27
RELOCATE SIGN			\$ 14,306.70	\$ 14,306.70
WATER SERVICE PIPE			\$ 25,410.95	\$ 25,410.95
RESET FIRE HYDRANT			\$ 2,249.46	\$ 2,249.46
RESET WATER VALVE BOX			\$ 4,760.74	\$ 4,760.74
SANITARY SEWER SERVICE PIPE			\$ 206,266.66	\$ 206,266.66
RESET MANHOLE, SANITARY SEWER, USING EXISTING CASTING			\$ 2,742.62	\$ 2,742.62
RESET GAS VALVE BOX			\$ 692.19	\$ 692.19
RESET ELECTRIC MANHOLE			\$ 7,954.97	\$ 7,954.97
2" RIGID METALLIC CONDUIT			\$ 190,322.11	\$ 190,322.11
3" RIGID METALLIC CONDUIT			\$ 32,038.35	\$ 32,038.35
17" X 30" JUNCTION BOX			\$ 38,500.00	\$ 38,500.00
18" X 36" JUNCTION BOX			\$ 19,211.38	\$ 19,211.38
FOUNDATION, TYPE SFT			\$ 5,137.81	\$ 5,137.81
FOUNDATION, TYPE MCF			\$ 3,492.31	\$ 3,492.31
FOUNDATION, TYPE P-MC			\$ 3,497.59	\$ 3,497.59
FOUNDATION, TYPE SFK			\$ 7,927.29	\$ 7,927.29
METER CABINET, TYPE TL			\$ 3,539.20	\$ 3,539.20
METER CABINET, TYPE L			\$ 5,684.48	\$ 5,684.48
GROUND WIRE, NO. 8 AWG			\$ 11,195.22	\$ 11,195.22
MULTIPLE LIGHTING WIRE, NO. 6 AWG			\$ 32,475.26	\$ 32,475.26
MULTIPLE LIGHTING WIRE, NO. 8 AWG			\$ 1,482.56	\$ 1,482.56
SERVICE WIRE, NO. 2 AWG			\$ 1,882.20	\$ 1,882.20
SERVICE WIRE, NO. 6 AWG			\$ 584.36	\$ 584.36
FOUNDATION DECORATIVE LIGHT STANDARD			\$ 28,966.07	\$ 28,966.07
CONTROLLER, 8 PHASE			\$ 18,884.14	\$ 18,884.14
TRAFFIC SIGNAL STANDARD, ALUMINUM			\$ 14,127.08	\$ 14,127.08
TRAFFIC SIGNAL MAST ARM, ALUMINUM			\$ 13,991.29	\$ 13,991.29
TRAFFIC SIGNAL CABLE, 2 CONDUCTOR			\$ 719.62	\$ 719.62
TRAFFIC SIGNAL CABLE, 5 CONDUCTOR			\$ 4,967.50	\$ 4,967.50
TRAFFIC SIGNAL CABLE, 10 CONDUCTOR			\$ 6,238.82	\$ 6,238.82
TRAFFIC SIGNAL HEAD			\$ 13,270.17	\$ 13,270.17
PEDESTRIAN SIGNAL HEAD			\$ 5,971.40	\$ 5,971.40
PUSH BUTTON			\$ 893.40	\$ 893.40
RADAR DETECTOR			\$ 30,260.37	\$ 30,260.37
GENERATOR AUXILIARY CABINET			\$ 3,897.59	\$ 3,897.59
INTERIM TRAFFIC SIGNAL SYSTEM, LOCATION NO. 1			\$ 12,000.00	\$ 12,000.00
CONTROLLER TURN-ON			\$ 5,216.92	\$ 5,216.92
SOLAR FLASHING BEACON			\$ 18,078.57	\$ 18,078.57
BLANK-OUT SIGN			\$ 13,500.00	\$ 13,500.00
LIGHTING STANDARD DECORATIVE			\$ 159,500.00	\$ 159,500.00
LIGHTING MAST ARM ALUMINUM			\$ 1,403.69	\$ 1,403.69
LUMINAIRE			\$ 2,792.33	\$ 2,792.33
LUMINAIRE DECORATIVE			\$ 93,381.28	\$ 93,381.28
JUNCTION BOX ITS TYPE C			\$ 4,503.26	\$ 4,503.26
METER CABINET ITS			\$ 4,081.43	\$ 4,081.43
FOUNDATION, ITS			\$ 1,852.47	\$ 1,852.47
FOUNDATION ITS TYPE D-MC			\$ 3,633.33	\$ 3,633.33
CONTROL CENTER SYSTEM, LOCATION TO S CHERRY HILL			\$ 6,000.00	\$ 6,000.00
FOUNDATION CSS TYPE B			\$ 7,500.00	\$ 7,500.00
CAMERA STANDARD TYPE B			\$ 35,790.20	\$ 35,790.20
CAMERA			\$ 7,064.61	\$ 7,064.61
CONTROLLER, CAMERA			\$ 23,082.26	\$ 23,082.26
ITS DETECTOR TYPE C			\$ 13,250.00	\$ 13,250.00
VIBRATION AND MOVEMENT MONITORING		\$ 350,000.00		\$ 350,000.00
CONSTRUCTION ACCESS	\$ 2,424,000.00			\$ 2,424,000.00
EXCAVATION, UNCLASSIFIED		\$ 180,879.40		\$ 180,879.40
EXCAVATION, REGULATED MATERIAL		\$ 504,092.16		\$ 504,092.16
DISPOSAL OF REGULATED MATERIAL		\$ 410,768.28		\$ 410,768.28
I-9 SOIL AGGREGATE		\$ 134,065.78		\$ 134,065.78
COARSE AGGREGATE, SIZE NO. 57		\$ 4,217.61		\$ 4,217.61
TEMPORARY SHEETING		\$ 741,000.00		\$ 741,000.00
TEMPORARY COFFERDAM		\$ 2,000,000.00		\$ 2,000,000.00
FURNISHING DRILLED SHAFT EQUIPMENT		\$ 2,500,000.00		\$ 2,500,000.00
DEMONSTRATION DRILLED SHAFT		\$ 533,617.99		\$ 533,617.99
LOAD TEST		\$ 254,111.11		\$ 254,111.11

CROSSHOLE SONIC LOGGING		\$ 110,022.21			\$ 110,022.21
SHAFT CORING		\$ 85,942.80			\$ 85,942.80
SHAFT INSPECTION DEVICE (MINI-SID)		\$ 72,800.00			\$ 72,800.00
DRILLED SHAFT IN SOIL 60" DIAMETER		\$ 13,968,712.53			\$ 13,968,712.53
OBSTRUCTION REMOVAL		\$ 485,397.60			\$ 485,397.60
TOMOGRAPHY		\$ 16,432.86			\$ 16,432.86
SONAR CALIPER PROFILING		\$ 89,600.00			\$ 89,600.00
REINFORCEMENT STEEL, GALVANIZED		\$ 2,764,215.48			\$ 2,764,215.48
CONCRETE FOOTING		\$ 970,208.83			\$ 970,208.83
CONCRETE ABUTMENT WALL		\$ 356,707.76			\$ 356,707.76
CONCRETE PIER COLUMN AND CAP		\$ 3,602,207.00			\$ 3,602,207.00
EPOXY WATERPROOFING		\$ 11,931.92			\$ 11,931.92
FORMLINER			\$ 283,333.36		\$ 283,333.36
STRUCTURAL STEEL		\$ 5,064,000.00			\$ 5,064,000.00
STRUCTURAL STEEL, BASCULE SPAN			\$ 6,990,000.00		\$ 6,990,000.00
REINFORCED ELASTOMERIC BEARING ASSEMBLY		\$ 174,199.20			\$ 174,199.20
SHEAR CONNECTOR		\$ 103,903.32			\$ 103,903.32
STRIP SEAL EXPANSION JOINT ASSEMBLY			\$ 108,948.00		\$ 108,948.00
CONCRETE BRIDGE DECK, HPC		\$ 1,025,294.54	\$ 683,529.70		\$ 1,708,824.24
CONCRETE BRIDGE SIDEWALK, HPC			\$ 168,904.32		\$ 168,904.32
CONCRETE BRIDGE DECK, LIGHTWEIGHT CONCRETE WITH CORROSION INHIBITOR			\$ 66,000.00		\$ 66,000.00
CONCRETE BRIDGE SIDEWALK, LIGHTWEIGHT CONCRETE WITH CORROSION INHIBITOR			\$ 35,200.00		\$ 35,200.00
STEEL 5 BAR BRIDGE RAILING			\$ 375,605.00		\$ 375,605.00
CONCRETE BRIDGE DECK, UHPC			\$ 534,819.20		\$ 534,819.20
FIBERGLASS REINFORCED PLASTIC PILE, 16" DIAMETER			\$ 2,002,725.00		\$ 2,002,725.00
PRECAST EXODERMIC BRIDGE DECK SYSTEM			\$ 705,000.00		\$ 705,000.00
OPERATING MACHINERY			\$ 3,734,269.00		\$ 3,734,269.00
TRUNNIONS AND BEARINGS			\$ 2,411,013.00		\$ 2,411,013.00
EMERGENCY DRIVE MACHINERY PIPING			\$ 20,000.00		\$ 20,000.00
SPAN LOCK MACHINERY			\$ 241,670.00		\$ 241,670.00
COUNTERWEIGHTS AND BRIDGE BALANCING, ADJUST BALANCE			\$ 150,000.00		\$ 150,000.00
COUNTERWEIGHTS AND BRIDGE BALANCING, BALANCE BLOCKS			\$ 168,000.00		\$ 168,000.00
COUNTERWEIGHTS AND BRIDGE BALANCING, STEEL BALLAST SLABS			\$ 301,000.00		\$ 301,000.00
COUNTERWEIGHTS AND BRIDGE BALANCING, CONCRETE FILL			\$ 248,200.00		\$ 248,200.00
MOVABLE BRIDGE PROJECT COORDINATOR	\$ 191,750.00	\$ 191,750.00	\$ 191,750.00	\$ 191,750.00	\$ 767,000.00
BRIDGE TEMPORARY OPERATION AND MAINTENANCE	\$ 660,000.00	\$ 660,000.00	\$ 660,000.00	\$ 660,000.00	\$ 2,640,000.00
POLYESTER POLYMER CONCRETE OVERLAY			\$ 213,360.00		\$ 213,360.00
WATER SERVICE PIPING SYSTEM (BRIDGE)			\$ 109,550.00		\$ 109,550.00
SEWAGE PUMPING SYSTEM (BRIDGE)			\$ 171,900.00		\$ 171,900.00
10" X 36" JUNCTION BOX			\$ 23,470.02		\$ 23,470.02
TRAFFIC SIGNAL STANDARD, ALUMINUM			\$ 7,000.00		\$ 7,000.00
TRAFFIC SIGNAL MAST ARM, ALUMINUM			\$ 5,000.00		\$ 5,000.00
TRAFFIC SIGNAL HEAD			\$ 3,981.05		\$ 3,981.05
TRAINING				\$ 62,000.00	\$ 62,000.00
OPERATION AND MAINTENANCE MANUALS				\$ 265,000.00	\$ 265,000.00
STANDBY ENGINE GENERATOR			\$ 263,000.00		\$ 263,000.00
CONTROL HOUSE			\$ 1,130,421.00		\$ 1,130,421.00
BIRD ENCLOSURE			\$ 8,500.00		\$ 8,500.00
MACHINERY HOUSE			\$ 100,000.00		\$ 100,000.00
GENERATOR HOUSE			\$ 65,016.00		\$ 65,016.00
TRAFFIC CONTROL EQUIPMENT			\$ 757,000.00		\$ 757,000.00
FINAL ACCEPTANCE TESTING			\$ 144,000.00		\$ 144,000.00
ELECTRICAL SERVICE			\$ 200,000.00		\$ 200,000.00
BRIDGE ELECTRICAL EQUIPMENT			\$ 2,644,000.00		\$ 2,644,000.00
SUBMARINE CABLE AND HDPE DUCTS			\$ 1,033,000.00		\$ 1,033,000.00
SUBMARINE CABLE AND HDPE DUCTS INSTALLATION			\$ 334,000.00		\$ 334,000.00
CONTROL SYSTEM VENDOR			\$ 1,893,000.00		\$ 1,893,000.00

TOTAL \$12,798,845.01 \$37,603,515.92 \$32,627,824.26 \$1,416,187.54 \$ 84,446,372.73

NEW BRIDGE ANTICIPATED COMPLETION: 5/30/23

## STAGE 2

4/7/2021 - 6/18/2021

DESCRIPTION	2021
	4/7/2021 6/18/2021
SILT FENCE	\$ 20,985.83
HEAVY DUTY SILT FENCE, ORANGE	\$ 2,308.30
INLET FILTER TYPE 2, 2' X 4'	\$ 4,755.83
INLET FILTER TYPE 2, 4' X 4'	\$ 308.91
FLOATING TURBIDITY BARRIER, TYPE 3	\$ 7,304.06
CONSTRUCTION DRIVEWAY	\$ 4,154.98
BIORETENTION SYSTEM	\$ 220,000.01
OIL ONLY EMERGENCY SPILL KIT, TYPE 1	\$ 1,531.70
BREAKAWAY BARRICADE	\$ 1,192.05
DRUM	\$ 741.72
CONSTRUCTION SIGNS	\$ 6,700.10
CONSTRUCTION IDENTIFICATION SIGN, 4' X 6'	\$ 3,754.87
CONSTRUCTION BARRIER CURB	\$ 46,148.88
PORTABLE VARIABLE MESSAGE SIGN	\$ 13,615.96
TEMPORARY CRASH CUSHION, INERTIAL BARRIER SYSTEM, 1	\$ 5,234.71
TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	\$ 30,275.43
TEMPORARY TRAFFIC STRIPES, 4"	\$ 16,017.30
TEMPORARY PAVEMENT MARKINGS	\$ 727.55
TOTAL	\$ 385,758.19

STAGE 3

7/20/2022

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11/16/2022

DESCRIPTION	2022	2023
	7/20/2022 9/30/2022	10/1/2022 11/16/2022
CONCRETE PYLON		\$ 34,208.07
RETAINING WALL, CAST-IN-PLACE, LOCATION NO. 2		\$ 603,125.00
RETAINING WALL, CAST-IN-PLACE, LOCATION NO. 3	\$ 285,625.00	
RETAINING WALL, CAST-IN-PLACE, LOCATION NO. 4	\$ 76,875.00	
RETAINING WALL, CAST-IN-PLACE, LOCATION NO. 5	\$ 282,500.00	

TOTAL

\$ 645,000.00 \$ 637,333.07

STAGE 4

5/24/2023

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8/20/2024

DESCRIPTION	2023	2024
	5/24/2023 9/30/2023	10/1/2023 8/20/2024
CONSTRUCTION ACCESS	\$ 388,000.00	\$ 388,000.00
CLEARING SITE, BRIDGE (1300S32)		\$ 3,400,000.00
CLEARING SITE, STRUCTURE (BULKHEAD)		\$ 550,000.00
CLEARING SITE, STRUCTURE (GABION WALL)		\$ 120,000.00
TIDE CLEARANCE GAUGE		\$ 8,281.91
FENDER SYSTEM	\$ 1,100,000.00	\$ 1,100,000.00
PERMANENT SHEETING - TYPE A		\$ 1,186,250.00
PERMANENT SHEETING - TYPE B		\$ 438,750.00
PERMANENT SHEETING - TYPE C		\$ 297,000.00
PERMANENT SHEETING - TYPE D		\$ 1,325,000.00
ANCHOR RODS (TIEBACKS) - TYPE A		\$ 30,400.00
ANCHOR RODS (TIEBACKS) - TYPE B		\$ 18,900.00

TOTAL

\$ 1,488,000.00 \$ 8,862,581.91

STAGE 5

8/30/2023

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11/2/2023

DESCRIPTION	2023	2024
	8/30/2023 9/30/2023	10/1/2023 11/2/2023
TOPSOIL SPREADING, 4" THICK	\$ 13,559.82	\$ 13,559.82
BORROW TOPSOIL	\$ 3,599.96	\$ 3,599.96
FERTILIZING AND SEEDING, TYPE A-3	\$ 4,119.16	\$ 4,119.16
FERTILIZING AND SEEDING, TYPE F	\$ 396.68	\$ 396.68
STRAW MULCHING	\$ 6,424.85	\$ 6,424.85
LARGE DECIDUOUS TREE, 3-3 1/2" CALIPER, B&B	\$ 12,856.25	\$ 12,856.25
SMALL DECIDUOUS TREE, 7-8' HIGH, B&B	\$ 1,277.00	\$ 1,277.00
SMALL DECIDUOUS TREE, 8-10' HIGH, B&B	\$ 678.08	\$ 678.08
EVERGREEN TREE, 8-9' HIGH, B&B	\$ 871.16	\$ 871.16
DECIDUOUS SHRUB, 18-24" HIGH, #3 CONTAINER	\$ 530.77	\$ 530.77
DECIDUOUS SHRUB, 15-18" HIGH, #2 CONTAINER	\$ 222.79	\$ 222.79
EVERGREEN SHRUB, 24-30" HIGH, B&B	\$ 320.27	\$ 320.27
EVERGREEN SHRUB, 12-15" SPREAD, #2 CONTAINER	\$ 322.61	\$ 322.61
PERENNIAL, #1 CONTAINER	\$ 5,717.55	\$ 5,717.55
PLANT ESTABLISHMENT PERIOD	\$ 5,000.00	\$ 5,000.00
TOTAL	\$ 55,896.92	\$ 55,896.92

COMPLETION

10/1/2024

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10/21/2024

DESCRIPTION	2025
	10/1/2024 10/21/2024
PERFORMANCE BOND AND PAYMENT BOND	\$ 500,000.00
FINAL CLEANUP	\$ 150,000.00

TOTAL

\$ 650,000.00

		Federal Fiscal Year*					TOTAL
		2021 11/4/2020 - 9/30/2021 11 months	2022 10/1/2021 - 9/30/2022 12 months	2023 10/1/2022 - 9/30/2023 12 months	2024 10/1/2023 - 9/30/2024 12 months	2025 10/1/2024 - 10/21/2024 1 month	
<b>Construction Administration Items</b>							
1	Administration	\$ 9,152.92	\$ 9,985.00	\$ 9,985.00	\$ 9,985.00	\$ 832.08	\$ 39,940.00
2	Geotechnical Inspector (Drilled Shafts)	\$ 242,808.00	\$ 121,404.00	\$ 40,468.00	\$ -	\$ -	\$ 404,680.00
3	Meetings	\$ 15,365.63	\$ 16,762.50	\$ 16,762.50	\$ 16,762.50	\$ 1,396.87	\$ 67,050.00
<b>Construction Inspection Items</b>							
1	Construction Inspection	\$ 153,110.83	\$ 167,030.00	\$ 167,030.00	\$ 167,030.00	\$ 13,919.17	\$ 668,120.00
2	Shop Drawings and RFI Logging	\$ 7,791.67	\$ 8,500.00	\$ 8,500.00	\$ 8,500.00	\$ 708.33	\$ 34,000.00
3	Testing	\$ 3,300.92	\$ 3,601.00	\$ 3,601.00	\$ 3,601.00	\$ 300.08	\$ 14,404.00
4	Change Orders	\$ 7,989.67	\$ 8,716.00	\$ 8,716.00	\$ 8,716.00	\$ 726.33	\$ 34,864.00
5	Contract Payments	\$ 7,021.67	\$ 7,660.00	\$ 7,660.00	\$ 7,660.00	\$ 638.33	\$ 30,640.00
6	As-Built Review	\$ -	\$ -	\$ -	\$ -	\$ 14,536.00	\$ 14,536.00
7	Progress Reports & Certifications	\$ 7,745.83	\$ 8,450.00	\$ 8,450.00	\$ 8,450.00	\$ 704.17	\$ 33,800.00
8	Project Close Out	\$ -	\$ -	\$ -	\$ -	\$ 12,002.00	\$ 12,002.00
<b>Surveying Items</b>							
9	Grade Checks	\$ 2,645.50	\$ 2,886.00	\$ 2,886.00	\$ 2,886.00	\$ 240.50	\$ 11,544.00
10	As-Built Survey	\$ -	\$ -	\$ -	\$ -	\$ 10,304.00	\$ 10,304.00
<b>Direct Expenses: Other</b>							
	Reproduction	\$ 114.58	\$ 125.00	\$ 125.00	\$ 125.00	\$ 10.42	\$ 500.00
	Postage/Delivery	\$ 114.58	\$ 125.00	\$ 125.00	\$ 125.00	\$ 10.42	\$ 500.00
	Transportation	\$ 458.33	\$ 500.00	\$ 500.00	\$ 500.00	\$ 41.67	\$ 2,000.00
	Video/CCTV Monitoring	\$ 126,562.50	\$ 31,770.83	\$ 31,770.83	\$ 31,770.83	\$ 3,125.00	\$ 225,000.00
	Materials Testing	\$ 51,562.50	\$ 56,250.00	\$ 56,250.00	\$ 56,250.00	\$ 4,687.50	\$ 225,000.00
<b>SUMMARY TOTALS</b>							
	Labor Total By FY	\$ 456,932.64	\$ 354,994.50	\$ 274,058.50	\$ 233,590.50	\$ 56,307.86	\$ 1,375,884.00
	Fixed Fee Total By FY	\$ 731,092.22	\$ 567,991.20	\$ 438,493.60	\$ 373,744.80	\$ 90,092.58	\$ 2,201,414.40
	Overhead Total By FY	\$ 49,095.50	\$ 38,142.67	\$ 29,446.44	\$ 25,098.32	\$ 6,050.04	\$ 147,832.97
	Subtotal BY FY	\$ 1,237,120.36	\$ 961,128.37	\$ 741,998.54	\$ 632,433.62	\$ 152,450.48	\$ 3,725,131.37
	Direct Expense Total By FY	\$ 178,812.49	\$ 88,770.83	\$ 88,770.83	\$ 88,770.83	\$ 7,875.01	\$ 453,000.00
	<b>Total By FY</b>	<b>\$ 1,415,932.85</b>	<b>\$ 1,049,899.20</b>	<b>\$ 830,769.37</b>	<b>\$ 721,204.45</b>	<b>\$ 160,325.49</b>	<b>\$ 4,178,131.37</b>

**Contract Administration & Inspection**

1. Administration items (evenly split FY2021-FY2025)
2. Geotechnical Inspector (FY2021-FY2023)
3. Meetings (evenly split FY2021-FY2025)
4. Inspection Items generally split evenly (FY2021-FY2025)
5. As-Built Review (FY2025)
6. Progress Report & Certifications (evenly split FY2021-FY2025)
7. Project Closeout (FY2025)
8. Direct Expenses (evenly split FY2021-FY2025)
9. Video/CCTV Monitoring (upfront \$75,000, then evenly split FY2021-FY2025)
10. Materials Testing (evenly split FY2021-FY2025)

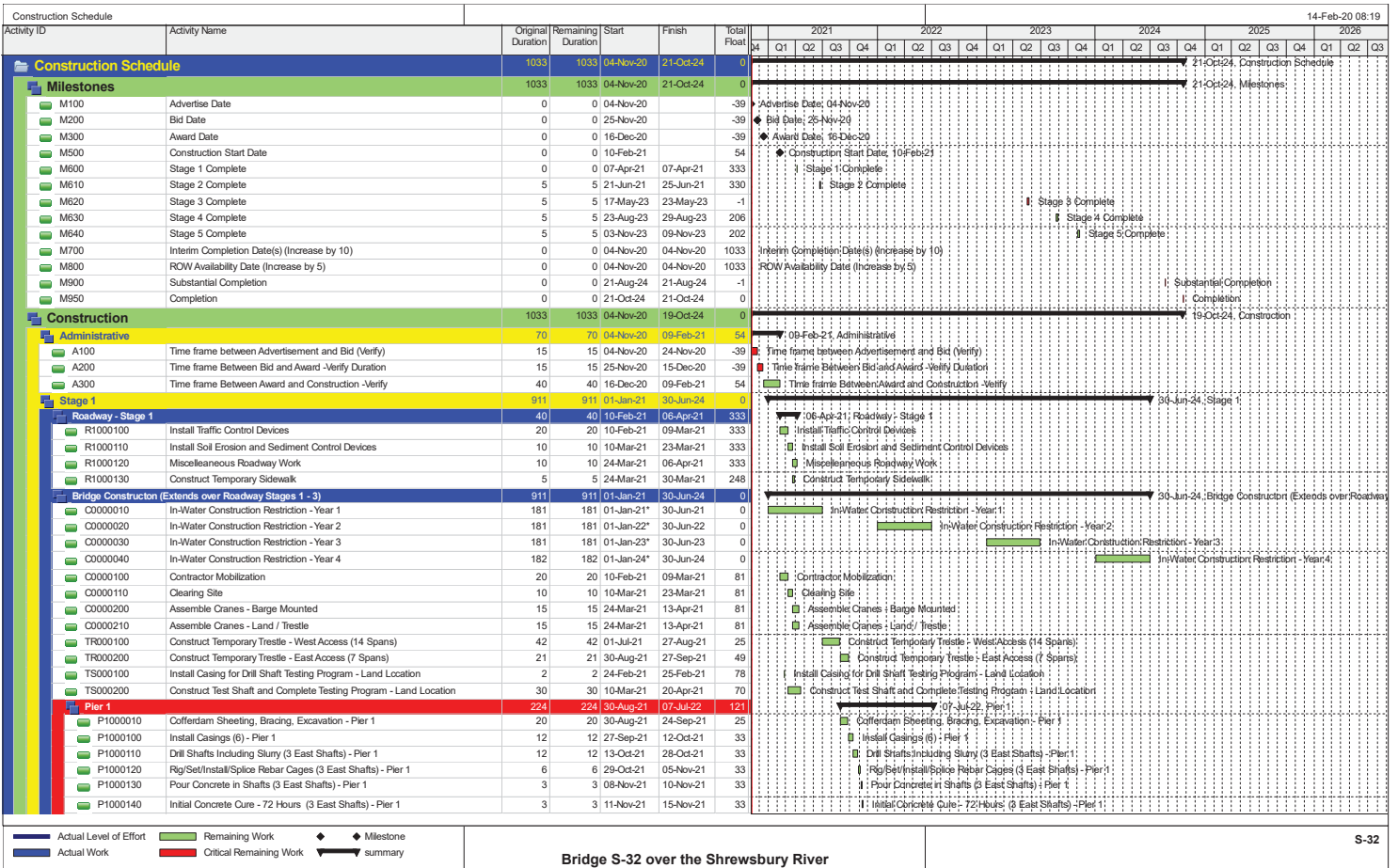
		Federal Fiscal Year*					TOTAL
		2021 11/4/2020 - 9/30/2021 11 months	2022 10/1/2021 - 9/30/2022 12 months	2023 10/1/2022 - 9/30/2023 12 months	2024 10/1/2023 - 9/30/2024 12 months	2025 10/1/2024 - 10/21/2024 1 month	
<b>Administrative Items</b>							
1	Bid Review	\$ 8,584.00	\$ -	\$ -	\$ -	\$ -	\$ 8,584.00
2	Design support- Geotechnical (DrilledShafts)	\$ 51,141.60	\$ 25,570.80	\$ 8,523.60	\$ -	\$ -	\$ 85,236.00
3	Meetings/ site visits	\$ 32,446.33	\$ 46,722.72	\$ 31,148.48	\$ 29,732.64	\$ 1,533.83	\$ 141,584.00
4	Schedule Review	\$ 35,455.00	\$ -	\$ -	\$ -	\$ -	\$ 35,455.00
5	Administration	\$ 32,391.33	\$ 25,240.00	\$ 21,201.60	\$ 20,192.00	\$ 1,935.07	\$ 100,960.00
<b>Shop Drawings</b>							
<b>Roadway Items</b>							
1	Breakaway I-Beam GA Sign Support Posts	\$ 2,196.00	\$ -	\$ -	\$ -	\$ -	\$ 2,196.00
2	Catalog Cuts	\$ 1,238.00	\$ 6,190.00	\$ 4,952.00	\$ -	\$ -	\$ 12,380.00
3	DMS Standard Ground Mounted	\$ 830.40	\$ 4,152.00	\$ 3,321.60	\$ -	\$ -	\$ 8,304.00
4	Electrical Items Not Pre-Qualified	\$ 1,155.00	\$ 5,775.00	\$ 4,620.00	\$ -	\$ -	\$ 11,550.00
5	Sign Legends	\$ 4,352.00	\$ -	\$ -	\$ -	\$ -	\$ 4,352.00
6	ITS System Drawings, including Block Diagrams	\$ 5,882.00	\$ -	\$ -	\$ -	\$ -	\$ 5,882.00
7	Inlets, Manholes, and Miscellaneous	\$ -	\$ 34,400.00	\$ -	\$ -	\$ -	\$ 34,400.00
8	Landscaping Items	\$ 34,400.00	\$ -	\$ -	\$ -	\$ -	\$ 34,400.00
<b>Bridge Items</b>							
1	Expansion Deck Joint Assembly Systems	\$ 15,970.00	\$ -	\$ -	\$ -	\$ -	\$ 15,970.00
2	Reinforced Elastomeric Bearings	\$ 18,824.00	\$ -	\$ -	\$ -	\$ -	\$ 18,824.00
3	Structural Steel Fabrication	\$ 50,630.00	\$ -	\$ -	\$ -	\$ -	\$ 50,630.00
4	Demolition Plans	\$ 28,011.00	\$ -	\$ -	\$ -	\$ -	\$ 28,011.00
5	Erection Plans	\$ 14,172.00	\$ -	\$ -	\$ -	\$ -	\$ 14,172.00
6	Temporary Sheeting and Cofferdams	\$ 13,884.00	\$ -	\$ -	\$ -	\$ -	\$ 13,884.00
7	Approach Span Decking	\$ 15,888.00	\$ -	\$ -	\$ -	\$ -	\$ 15,888.00
8	Bulkheads (West and East)	\$ -	\$ 12,140.00	\$ -	\$ -	\$ -	\$ 12,140.00
9	Retaining walls (NE, SE, NW, SW)	\$ -	\$ 5,408.00	\$ -	\$ -	\$ -	\$ 5,408.00
10	Reinforcement Bar Schedules	\$ 13,020.00	\$ -	\$ -	\$ -	\$ -	\$ 13,020.00
11	Architectural Formliner	\$ -	\$ 2,914.00	\$ -	\$ -	\$ -	\$ 2,914.00
12	Fender System	\$ -	\$ 15,888.00	\$ -	\$ -	\$ -	\$ 15,888.00
13	Building and Architectural	\$ -	\$ 50,630.00	\$ -	\$ -	\$ -	\$ 50,630.00
14	Temporary Structures	\$ 28,632.00	\$ -	\$ -	\$ -	\$ -	\$ 28,632.00
15	Value Engineering Plans	\$ 78,384.00	\$ -	\$ -	\$ -	\$ -	\$ 78,384.00
16	Miscellaneous Items	\$ 3,440.00	\$ 24,080.00	\$ 6,880.00	\$ -	\$ -	\$ 34,400.00
<b>Items Listed in Special Provisions - Lead Time Required</b>							
1	Specialized concrete mix designs	\$ 3,696.00	\$ -	\$ -	\$ -	\$ -	\$ 3,696.00
2	PPC Overlay	\$ -	\$ 1,154.00	\$ -	\$ -	\$ -	\$ 1,154.00
3	Bridge steel railing	\$ -	\$ 21,480.00	\$ -	\$ -	\$ -	\$ 21,480.00
4	Bascule span decking	\$ -	\$ 11,780.00	\$ -	\$ -	\$ -	\$ 11,780.00
5	Warning gates and Barrier gates	\$ -	\$ 3,944.00	\$ -	\$ -	\$ -	\$ 3,944.00
6	Bridge Control desk and cabinets	\$ -	\$ 9,980.00	\$ -	\$ -	\$ -	\$ 9,980.00
7	Span Motors	\$ -	\$ 25,240.00	\$ -	\$ -	\$ -	\$ 25,240.00
8	Machinery and motor brakes	\$ -	\$ 10,380.00	\$ -	\$ -	\$ -	\$ 10,380.00
9	Span lock assemblies	\$ -	\$ 5,452.00	\$ -	\$ -	\$ -	\$ 5,452.00
10	CCTV components	\$ -	\$ 9,140.00	\$ -	\$ -	\$ -	\$ 9,140.00
11	Aerial Cables	\$ -	\$ 7,340.00	\$ -	\$ -	\$ -	\$ 7,340.00
12	Standby Generator	\$ -	\$ 8,160.00	\$ -	\$ -	\$ -	\$ 8,160.00
13	Auxiliary Drive System	\$ -	\$ 11,220.00	\$ -	\$ -	\$ -	\$ 11,220.00
<b>Other Submissions and Support Services</b>							
1	RFI and COPs	\$ 35,622.00	\$ 26,716.50	\$ 17,811.00	\$ 8,905.50	\$ -	\$ 89,055.00
2	Traffic Signal Acceptance	\$ -	\$ -	\$ -	\$ -	\$ 2,574.00	\$ 2,574.00
3	Mitigation Site Report Preparation	\$ 14,167.80	\$ 8,972.94	\$ 8,972.94	\$ 8,972.94	\$ 6,139.38	\$ 47,226.00
<b>Direct Expenses: Other</b>							
	Reproduction	\$ 114.58	\$ 165.00	\$ 110.00	\$ 105.00	\$ 5.42	\$ 500.00
	Postage/Delivery	\$ 114.58	\$ 165.00	\$ 110.00	\$ 105.00	\$ 5.42	\$ 500.00
	Transportation	\$ 458.33	\$ 660.00	\$ 440.00	\$ 341.67	\$ 100.00	\$ 2,000.00
	LSRP services	\$ 9,625.00	\$ 7,500.00	\$ 6,300.00	\$ 5,425.00	\$ 1,150.00	\$ 30,000.00
<b>SUMMARY TOTALS</b>							
	Labor Total By FY	\$ 544,412.46	\$ 420,069.96	\$ 107,431.22	\$ 67,803.08	\$ 12,182.28	\$ 1,151,899.00
	Fixed Fee Total By FY	\$ 871,059.94	\$ 672,111.94	\$ 171,889.95	\$ 108,484.93	\$ 19,491.65	\$ 1,843,038.40
	Overhead Total By FY	\$ 58,494.84	\$ 45,134.76	\$ 11,543.03	\$ 7,285.16	\$ 1,308.93	\$ 123,766.72
	Subtotal BY FY	\$ 1,473,967.23	\$ 1,137,316.65	\$ 290,864.21	\$ 183,573.16	\$ 32,982.86	\$ 3,118,704.12
	Direct Expense Total By FY	\$ 10,312.49	\$ 8,490.00	\$ 6,960.00	\$ 5,976.67	\$ 1,260.84	\$ 33,000.00
	<b>Total By FY</b>	<b>\$ 1,484,279.72</b>	<b>\$ 1,145,806.65</b>	<b>\$ 297,824.21</b>	<b>\$ 189,549.83</b>	<b>\$ 34,243.70</b>	<b>\$ 3,151,704.12</b>

**Construction Support Services**

1. Bid Review (FY2021)
2. Design support Geotechnical (FY2021- FY2023)
3. Project meetings/site visits (evenly split FY2021-FY2025)
4. Schedule Review (FY2021)
5. Administration (Front loaded from FY2021-FY2025)
6. Roadway Working Drawings (FY2021-FY2023)
7. Bridge Working Drawings (FY2021-FY2023)
8. Landscaping Items (FY 2021)
9. RFI and COPs (Front loaded from FY2021-FY2024)
10. Traffic Acceptance (FY2025)
11. Mitigation Preparation Report (Front loaded from FY2021-FY2024)
12. Direct expenses is generally spread evenly (FY2020-2025)
13. LSRP services (Front loaded from FY2021-FY2025)

# **Appendix C**

## **Construction Schedule**



█ Actual Level of Effort    █ Remaining Work    ◆ Milestone  
█ Actual Work            █ Critical Remaining Work    ◀ summary

**Bridge S-32 over the Shrewsbury River**

Construction Schedule										14-Feb-20 08:19																					
Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	SI	2021			2022				2023				2024				2025			2026					
								Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
P1000210	Drill Shafts Including Slurry (3 West Shafts) - Pier 1	12	12	16-Nov-21	01-Dec-21	33																									
P1000220	Rig/Set/Install/Splice Rebar Cages (3 West Shafts) - Pier 1	6	6	02-Dec-21	09-Dec-21	93																									
P1000230	Pour Concrete in Shafts (3 West Shafts) - Pier 1	3	3	10-Dec-21	14-Dec-21	93																									
P1000240	Initial Concrete Cure - 72 Hours (3 West Shafts) - Pier 1	3	3	15-Dec-21	17-Dec-21	93																									
P1000510	Tremie Concrete - Pier 1	5	5	20-Dec-21	24-Dec-21	93																									
P1000520	De-Water, Clean and Level Tremie Concrete - Pier 1	3	3	27-Dec-21	29-Dec-21	93																									
P1000600	Form / Reinforcement / Pour / Cure Concrete Footing - Pier 1	15	15	30-Dec-21	19-Jan-22	93																									
P1000610	Form / Reinforcement / Pour / Cure Concrete Columns - Pier 1	15	15	20-Jan-22	09-Feb-22	93																									
P1000620	Form / Reinforcement / Pour / Cure Concrete Capbeam - Pier 1	15	15	10-Feb-22	02-Mar-22	93																									
P1000700	Remove Cofferdam Sheeting - Pier 1	5	5	01-Jul-22	07-Jul-22	121																									
<b>Pier 2</b>		<b>209</b>	<b>209</b>	<b>27-Sep-21</b>	<b>14-Jul-22</b>	<b>121</b>																									
P2000010	Cofferdam Sheeting, Bracing, Excavation - Pier 2	20	20	27-Sep-21	22-Oct-21	25																									
P2000010	Install Casings (6) - Pier 2	12	12	25-Oct-21	09-Nov-21	25																									
P2000110	Drill Shafts Including Slurry (3 East Shafts) - Pier 2	12	12	10-Nov-21	25-Nov-21	25																									
P2000120	Rig/Set/Install/Splice Rebar Cages (3 East Shafts) - Pier 2	6	6	26-Nov-21	03-Dec-21	25																									
P2000130	Pour Concrete in Shafts (3 East Shafts) - Pier 2	3	3	06-Dec-21	08-Dec-21	25																									
P2000140	Initial Concrete Cure - 72 Hours (3 East Shafts) - Pier 2	3	3	09-Dec-21	13-Dec-21	25																									
P2000210	Drill Shafts Including Slurry (3 West Shafts) - Pier 2	12	12	14-Dec-21	29-Dec-21	25																									
P2000220	Rig/Set/Install/Splice Rebar Cages (3 West Shafts) - Pier 2	6	6	30-Dec-21	06-Jan-22	88																									
P2000230	Pour Concrete in Shafts (3 West Shafts) - Pier 2	3	3	07-Jan-22	11-Jan-22	88																									
P2000240	Initial Concrete Cure - 72 Hours (3 West Shafts) - Pier 2	3	3	12-Jan-22	14-Jan-22	88																									
P2000510	Tremie Concrete - Pier 2	5	5	17-Jan-22	21-Jan-22	88																									
P2000520	De-Water, Clean and Level Tremie Concrete - Pier 2	3	3	24-Jan-22	26-Jan-22	88																									
P2000600	Form / Reinforcement / Pour / Cure Concrete Footing - Pier 2	15	15	27-Jan-22	16-Feb-22	88																									
P2000610	Form / Reinforcement / Pour / Cure Concrete Columns - Pier 2	15	15	17-Feb-22	09-Mar-22	88																									
P2000620	Form / Reinforcement / Pour / Cure Concrete Capbeam - Pier 2	15	15	10-Mar-22	30-Mar-22	88																									
P2000700	Remove Cofferdam Sheeting - Pier 2	5	5	08-Jul-22	14-Jul-22	121																									
<b>Pier 3 - Bascule</b>		<b>271</b>	<b>271</b>	<b>01-Jul-21</b>	<b>14-Jul-22</b>	<b>371</b>																									
BP300100	Install Casings (10 Shafts Channel Side) - Pier 3	20	20	01-Jul-21	28-Jul-21	-1																									
BP300110	Drill Shafts Including Slurry (5 Shafts - A) - Pier 3	10	10	29-Jul-21	25-Aug-21	-1																									
BP300120	Rig/Set/Install/Splice Rebar Cages (5 Shafts - A) - Pier 3	10	10	26-Aug-21	08-Sep-21	-1																									
BP300130	Pour Concrete in Shafts (5 Shafts - A) - Pier 3	5	5	09-Sep-21	15-Sep-21	-1																									
BP300140	Initial Concrete Cure - 72 Hours (5 Shafts - A) - Pier 3	3	3	16-Sep-21	20-Sep-21	-1																									
BP300210	Drill Shafts Including Slurry (5 Shafts - B) - Pier 3	20	20	21-Sep-21	18-Oct-21	-1																									
BP300220	Rig/Set/Install/Splice Rebar Cages (5 Shafts - B) - Pier 3	10	10	19-Oct-21	01-Nov-21	-1																									
BP300230	Pour Concrete in Shafts (5 Shafts - B) - Pier 3	5	5	02-Nov-21	08-Nov-21	-1																									
BP300240	Initial Concrete Cure - 72 Hours (5 Shafts - B) - Pier 3	3	3	09-Nov-21	11-Nov-21	-1																									
BP300300	Install Casings (4 Shafts Back Side) - Pier 3	8	8	12-Nov-21	23-Nov-21	-1																									
BP300310	Drill Shafts Including Slurry (2 Shafts Back Side - A) - Pier 3	8	8	24-Nov-21	03-Dec-21	-1																									
BP300320	Rig/Set/Install/Splice Rebar Cages (2 Shafts Back Side - A) - Pier 3	4	4	06-Dec-21	09-Dec-21	-1																									
BP300330	Pour Concrete in Shafts (2 Shafts Back Side - A) - Pier 3	2	2	10-Dec-21	13-Dec-21	-1																									
BP300340	Initial Concrete Cure - 72 Hours (2 Shafts Back Side - A) - Pier 3	3	3	14-Dec-21	16-Dec-21	-1																									
BP300410	Drill Shafts Including Slurry (2 Shafts Back Side - B) - Pier 3	8	8	17-Dec-21	28-Dec-21	-1																									
BP300420	Rig/Set/Install/Splice Rebar Cages (2 Shafts Back Side - B) - Pier 3	4	4	29-Dec-21	03-Jan-22	-1																									
BP300430	Pour Concrete in Shafts (2 Shafts Back Side - B) - Pier 3	2	2	04-Jan-22	05-Jan-22	-1																									
BP300440	Initial Concrete Cure - 72 Hours (2 Shafts Back Side - B) - Pier 3	3	3	06-Jan-22	10-Jan-22	-1																									
BP300500	Cofferdam Sheeting, Bracing, Excavation - Pier 3	20	20	12-Nov-21	09-Dec-21	16																									

█ Actual Level of Effort     █ Remaining Work     █ Critical Remaining Work     ◆ Milestone  
█ Actual Work                    █ Critical Remaining Work     ▶ summary

**Bridge S-32 over the Shrewsbury River**

Construction Schedule										14-Feb-20 08:19															
Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2021			2022			2023			2024			2025			2026			
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
BP300510	Tremie Concrete - Pier 3	5	5	11-Jan-22	17-Jan-22	-1																			
BP300520	De-Water, Clean and Level Tremie Concrete - Pier 3	5	5	18-Jan-22	24-Jan-22	-1																			
BP300600	Form / Reinforcement / Pour / Cure Concrete Footing - Pier 3	15	15	25-Jan-22	21-Mar-22	-1																			
BP300610	Form / Reinforcement / Pour / Cure Concrete Walls - Pier 3	30	30	22-Mar-22	10-May-22	-1																			
BP300620	Form / Reinforcement / Pour / Cure Concrete Floors - Pier 3	20	20	11-May-22	07-Jun-22	9																			
BP300700	Remove Cofferdam Sheeting - Pier 3	10	10	01-Jul-22	14-Jul-22	241																			
<b>Pier 4 - Bascule</b>		<b>264</b>	<b>264</b>	<b>29-Jul-21</b>	<b>02-Aug-22</b>	<b>368</b>																			
BP400100	Install Casings (10 Shafts Channel Side) - Pier 4	20	20	29-Jul-21	25-Aug-21	6																			
BP400110	Drill Shafts Including Slurry (5 Shafts-A) - Pier 4	20	20	26-Aug-21	22-Sep-21	6																			
BP400120	Rig/Set/Install/Splice Rebar Cages (5 Shafts -A) - Pier 4	10	10	23-Sep-21	06-Oct-21	6																			
BP400130	Pour Concrete in Shafts (5 Shafts -A) - Pier 4	5	5	07-Oct-21	13-Oct-21	6																			
BP400140	Initial Concrete Cure - 72 Hours (5 Shafts -A) - Pier 4	3	3	14-Oct-21	18-Oct-21	6																			
BP400210	Drill Shafts Including Slurry (5 Shafts -B) - Pier 4	20	20	19-Oct-21	15-Nov-21	6																			
BP400220	Rig/Set/Install/Splice Rebar Cages (5 Shafts -B) - Pier 4	10	10	16-Nov-21	29-Nov-21	6																			
BP400230	Pour Concrete in Shafts (5 Shafts -B) - Pier 4	5	5	30-Nov-21	06-Dec-21	6																			
BP400240	Initial Concrete Cure - 72 Hours (5 Shafts -B) - Pier 4	3	3	07-Dec-21	09-Dec-21	6																			
BP400300	Install Casings (4 Shafts Back Side) - Pier 4	8	8	10-Dec-21	21-Dec-21	8																			
BP400310	Drill Shafts Including Slurry (2 Shafts Back Side -A) - Pier 4	8	8	22-Dec-21	31-Dec-21	37																			
BP400320	Rig/Set/Install/Splice Rebar Cages (2 Shafts Back Side -A) - Pier 4	4	4	03-Jan-22	06-Jan-22	37																			
BP400330	Pour Concrete in Shafts (2 Shafts Back Side -A) - Pier 4	2	2	07-Jan-22	10-Jan-22	37																			
BP400340	Initial Concrete Cure - 72 Hours (2 Shafts Back Side -A) - Pier 4	3	3	11-Jan-22	13-Jan-22	37																			
BP400410	Drill Shafts Including Slurry (2 Shafts Back Side -B) - Pier 4	8	8	14-Jan-22	25-Jan-22	37																			
BP400420	Rig/Set/Install/Splice Rebar Cages (2 Shafts Back Side -B) - Pier 4	4	4	26-Jan-22	31-Jan-22	37																			
BP400430	Pour Concrete in Shafts (2 Shafts Back Side -B) - Pier 4	2	2	01-Feb-22	02-Feb-22	37																			
BP400440	Initial Concrete Cure - 72 Hours (2 Shafts Back Side -B) - Pier 4	3	3	03-Feb-22	07-Feb-22	37																			
BP400500	Cofferdam Sheeting - Pier 4	10	10	10-Dec-21	23-Dec-21	6																			
BP400505	Cofferdam Bracing, Excavation - Pier 4	10	10	24-Dec-21	06-Jan-22	59																			
BP400510	Tremie Concrete - Pier 4	5	5	08-Feb-22	14-Feb-22	37																			
BP400520	De-Water, Clean and Level Tremie Concrete - Pier 4	5	5	15-Feb-22	21-Feb-22	37																			
BP400600	Form / Reinforcement / Pour / Cure Concrete Footing - Pier 4	15	15	22-Mar-22	14-Apr-22	14																			
BP400610	Form / Reinforcement / Pour / Cure Concrete Walls - Pier 4	30	30	11-May-22	21-Jun-22	-1																			
BP400620	Form / Reinforcement / Pour / Cure Concrete Floors - Pier 4	20	20	22-Jun-22	19-Jul-22	-1																			
BP400700	Remove Cofferdam Sheeting - Pier 4	10	10	20-Jul-22	02-Aug-22	238																			
<b>Pier 5</b>		<b>205</b>	<b>205</b>	<b>28-Sep-21</b>	<b>11-Jul-22</b>	<b>124</b>																			
P5000010	Cofferdam Sheeting, Bracing, Excavation - Pier 5	20	20	28-Sep-21	25-Oct-21	49																			
P5000100	Install Casings (6) - Pier 5	12	12	26-Oct-21	10-Nov-21	92																			
P5000110	Drill Shafts Including Slurry (3 West Shafts) - Pier 5	12	12	14-Feb-22	01-Mar-22	25																			
P5000120	Rig/Set/Install/Splice Rebar Cages (3 West Shafts) - Pier 5	6	6	02-Mar-22	09-Mar-22	25																			
P5000130	Pour Concrete in Shafts (3 West Shafts) - Pier 5	3	3	10-Mar-22	14-Mar-22	25																			
P5000140	Initial Concrete Cure - 72 Hours (3 West Shafts) - Pier 5	3	3	15-Mar-22	17-Mar-22	25																			
P5000210	Drill Shafts Including Slurry (3 East Shafts) - Pier 5	12	12	18-Mar-22	04-Apr-22	25																			
P5000220	Rig/Set/Install/Splice Rebar Cages (3 East Shafts) - Pier 5	6	6	05-Apr-22	12-Apr-22	50																			
P5000230	Pour Concrete in Shafts (3 East Shafts) - Pier 5	3	3	13-Apr-22	15-Apr-22	50																			
P5000240	Initial Concrete Cure - 72 Hours (3 East Shafts) - Pier 5	3	3	18-Apr-22	20-Apr-22	50																			
P5000510	Tremie Concrete - Pier 5	5	5	21-Apr-22	27-Apr-22	50																			
P5000520	De-Water, Clean and Level Tremie Concrete - Pier 5	3	3	28-Apr-22	02-May-22	50																			
P5000600	Form / Reinforcement / Pour / Cure Concrete Footing - Pier 5	15	15	03-May-22	23-May-22	50																			

█ Actual Level of Effort     █ Remaining Work     █ Critical Remaining Work  
█ Actual Work                     █ Milestone                     █ summary

**Bridge S-32 over the Shrewsbury River**

Construction Schedule										14-Feb-20 08:19															
Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2021			2022			2023			2024			2025			2026			
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
P5000610	Form / Reinforcement / Pour / Cure Concrete Columns - Pier 5	15	15	24-May-22	13-Jun-22	50																			
P5000620	Form / Reinforcement / Pour / Cure Concrete Capbeam - Pier 5	15	15	14-Jun-22	04-Jul-22	50																			
P5000700	Remove Cofferdam Sheeting - Pier 5	5	5	05-Jul-22	11-Jul-22	124																			
<b>West Abutment</b>		<b>138</b>	<b>138</b>	<b>25-Oct-21</b>	<b>04-May-22</b>	<b>63</b>																			
WA000100	Install Casings (5) - W. Abut	5	5	23-Dec-21	29-Dec-21	25																			
WA000110	Drill Shafts Including Slurry (3 Shafts) - W. Abut	12	12	30-Dec-21	14-Jan-22	25																			
WA000120	Rig/Set/Install/Splice Rebar Cages (3 Shafts) - W. Abut	6	6	17-Jan-22	24-Jan-22	25																			
WA000130	Pour Concrete in Shafts (3 Shafts) - W. Abut	3	3	25-Jan-22	27-Jan-22	25																			
WA000140	Initial Concrete Cure - 72 Hours (3 Shafts) - W. Abut	3	3	28-Jan-22	01-Feb-22	25																			
WA000210	Drill Shafts Including Slurry (2 Shafts) - W. Abut	8	8	02-Feb-22	11-Feb-22	25																			
WA000220	Rig/Set/Install/Splice Rebar Cages (2 Shafts) - W. Abut	4	4	14-Feb-22	17-Feb-22	82																			
WA000230	Pour Concrete in Shafts (2 Shafts) - W. Abut	2	2	18-Feb-22	21-Feb-22	82																			
WA000240	Initial Concrete Cure - 72 Hours (2 Shafts) - W. Abut	3	3	22-Feb-22	24-Feb-22	82																			
WA000600	Form / Reinforcement / Pour / Cure Concrete Footing - W. Abut	15	15	25-Feb-22	07-Apr-22	63																			
WA000610	Form / Reinforcement / Pour / Cure Concrete Walls - W. Abut	15	15	11-Apr-22	04-May-22	63																			
WA000800	Construct Portion of West Bulkhead	40	40	25-Oct-21	17-Dec-21	32																			
<b>East Abutment</b>		<b>271</b>	<b>271</b>	<b>26-Oct-21</b>	<b>08-Nov-22</b>	<b>38</b>																			
EA000010	Cofferdam Sheeting, Bracing, Excavation - E. Abut	20	20	26-Oct-21	22-Nov-21	120																			
EA000100	Install Casings (5) - E. Abut	5	5	05-Apr-22	11-Apr-22	25																			
EA000110	Drill Shafts Including Slurry (3 Shafts) - E. Abut	12	12	12-Apr-22	27-Apr-22	25																			
EA000120	Rig/Set/Install/Splice Rebar Cages (3 Shafts) - E. Abut	6	6	28-Apr-22	05-May-22	25																			
EA000130	Pour Concrete in Shafts (3 Shafts) - E. Abut	3	3	06-May-22	10-May-22	25																			
EA000140	Initial Concrete Cure - 72 Hours (3 Shafts) - E. Abut	3	3	11-May-22	13-May-22	25																			
EA000210	Drill Shafts Including Slurry (2 Shafts) - E. Abut	8	8	16-May-22	25-May-22	25																			
EA000220	Rig/Set/Install/Splice Rebar Cages (2 Shafts) - E. Abut	4	4	26-May-22	31-May-22	25																			
EA000230	Pour Concrete in Shafts (2 Shafts) - E. Abut	2	2	01-Jun-22	02-Jun-22	25																			
EA000240	Initial Concrete Cure - 72 Hours (2 Shafts) - E. Abut	3	3	03-Jun-22	07-Jun-22	25																			
EA000600	Form / Reinforcement / Pour / Cure Concrete Footing - E. Abut	15	15	08-Jun-22	28-Jun-22	25																			
EA000610	Form / Reinforcement / Pour / Cure Concrete Walls - E. Abut	15	15	29-Jun-22	19-Jul-22	25																			
EA000700	Remove Cofferdam Sheeting - E. Abut	5	5	20-Jul-22	26-Jul-22	25																			
EA000800	Construct Portion of East Bulkhead in Front of East Abutment	15	15	27-Jul-22	16-Aug-22	25																			
EA000810	Construct Portion of East Bulkhead South of New Bridge	60	60	17-Aug-22	08-Nov-22	38																			
<b>Superstructure Spans 1-3</b>		<b>132</b>	<b>132</b>	<b>11-May-22</b>	<b>10-Nov-22</b>	<b>132</b>																			
SS100110	Install Bearings for Spans 1-3 (32 Bearings)	4	4	11-May-22	16-May-22	59																			
SS100120	Install Temporary Supports Spans 1-3	5	5	17-May-22	23-May-22	59																			
SS100130	Erect Girders at Pier 1 (8 Sections)	4	4	24-May-22	27-May-22	59																			
SS100140	Erect Girders at Pier 2 (8 Sections)	4	4	30-May-22	02-Jun-22	59																			
SS100150	Erect Girders at Span 1 (8 Sections)	4	4	03-Jun-22	08-Jun-22	59																			
SS100160	Erect Girders at Span 2 (8 Sections)	4	4	09-Jun-22	14-Jun-22	59																			
SS100170	Erect Girders at Span 3 (8 Sections)	4	4	15-Jun-22	20-Jun-22	59																			
SS100500	Install Shear Studs - Spans 1-3	6	6	21-Jun-22	28-Jun-22	59																			
SS100510	Install Deck Forms and Rebar - Spans 1-3	36	36	29-Jun-22	17-Aug-22	59																			
SS100520	Concrete Deck Pours - Spans 1-3	15	15	18-Aug-22	07-Sep-22	59																			
SS100530	Deck Concrete - Final Cure	28	28	08-Sep-22	05-Oct-22	189																			
SS100540	Set and Pour Deck Joints - Spans 1-3	5	5	08-Sep-22	14-Sep-22	71																			
SS100550	Form and Pour Sidewalks - Spans 1-3	10	10	06-Oct-22	24-Oct-22	56																			
SS100600	Install Steel Railings - Spans 1-3	10	10	25-Oct-22	10-Nov-22	75																			

█ Actual Level of Effort    █ Remaining Work    █ Critical Remaining Work    ◆ Milestone    ▬ summary  
█ Actual Work

**Bridge S-32 over the Shrewsbury River**

Construction Schedule										14-Feb-20 08:19																				
Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2021			2022			2023			2024			2025			2026								
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3					
<b>Superstructure Spans 5-6</b>							<ul style="list-style-type: none"> <li>24-Jun-23, Superstructure Span 5-6</li> <li>Install Bearings for Spans 5-6 (24 Bearings)</li> <li>Install Temporary Supports Spans 5-6</li> <li>Erect Girders at Pier 5 (8 Sections)</li> <li>Erect Girders at Span 5 (8 Sections)</li> <li>Erect Girders at Span 6 (8 Sections)</li> <li>Install Shear Studs - Spans 5-6</li> <li>Install Deck Forms and Rebar - Spans 5-6</li> <li>Concrete Deck Pours - Spans 5-6</li> <li>Deck Concrete - Final Cure</li> <li>Set and Pour Deck Joints - Spans 5-6</li> <li>Form and Pour Sidewalks - Spans 5-6</li> <li>Install Steel Railings - Spans 5-6</li> </ul>																							
SS200110	Install Bearings for Spans 5-6 (24 Bearings)	3	3	20-Jul-22	24-Jan-23	39																								
SS200120	Install Temporary Supports Spans 5-6	3	3	25-Jul-22	27-Jul-22	39																								
SS200130	Erect Girders at Pier 5 (8 Sections)	4	4	17-Aug-22	22-Aug-22	25																								
SS200140	Erect Girders at Span 5 (8 Sections)	4	4	23-Aug-22	26-Aug-22	25																								
SS200150	Erect Girders at Span 6 (8 Sections)	4	4	29-Aug-22	01-Sep-22	25																								
SS200500	Install Shear Studs - Spans 5-6	4	4	02-Sep-22	07-Sep-22	25																								
SS200510	Install Deck Forms and Rebar - Spans 5-6	24	24	08-Sep-22	12-Oct-22	25																								
SS200520	Concrete Deck Pours - Spans 5-6	10	10	13-Oct-22	01-Nov-22	25																								
SS200530	Deck Concrete - Final Cure	28	28	02-Nov-22	29-Nov-22	134																								
SS200540	Set and Pour Deck Joints - Spans 5-6	5	5	02-Nov-22	09-Nov-22	37																								
SS200550	Form and Pour Sidewalks - Spans 5-6	10	10	30-Nov-22	13-Dec-22	29																								
SS200600	Install Steel Railings - Spans 5-6	10	10	14-Dec-22	24-Jan-23	48																								
<b>Span 4 - Bascule Span</b>							<ul style="list-style-type: none"> <li>16-May-23, Span 4 - Bascule Span</li> <li>Assemble Forward Ends of Bascule Leaf Off Site</li> <li>Erect Trunnion Bearings</li> <li>Erect Rear Bascule Span Framing</li> <li>Erect Counter Weight Framing</li> <li>Pour Counter Weight Concrete</li> <li>Install Bascule Machinery</li> <li>Prepare Bascule Leaves for Float-In</li> <li>Float-In Forward Ends of Bascule Leaves</li> <li>Set Bascule Span in Open Position</li> <li>Balance and Test Bascule Span</li> <li>Construct Deck over Counter Weights</li> <li>Construct Control Houses and Gate Houses</li> </ul>																							
BS000100	Assemble Forward Ends of Bascule Leaf Off Site	60	60	20-Jul-22	11-Oct-22	36																								
BS000200	Erect Trunnion Bearings	10	10	20-Jul-22	02-Aug-22	-1																								
BS000210	Erect Rear Bascule Span Framing	10	10	03-Aug-22	16-Aug-22	-1																								
BS000220	Erect Counter Weight Framing	10	10	17-Aug-22	30-Aug-22	-1																								
BS000230	Pour Counter Weight Concrete	10	10	31-Aug-22	13-Sep-22	-1																								
BS000300	Install Bascule Machinery	40	40	14-Sep-22	17-Nov-22	-1																								
BS000500	Prepare Bascule Leaves for Float-In	5	5	21-Nov-22	01-Dec-22	-1																								
BS000520	Float-In Forward Ends of Bascule Leaves	5	5	02-Dec-22	08-Dec-22	-1																								
BS000540	Set Bascule Span in Open Position	2	2	09-Dec-22	12-Dec-22	-1																								
BS000600	Balance and Test Bascule Span	60	60	13-Dec-22	16-May-23	-1																								
BS000700	Construct Deck over Counter Weights	40	40	13-Dec-22	13-Apr-23	19																								
BS000800	Construct Control Houses and Gate Houses	50	50	13-Dec-22	02-May-23	9																								
<b>Stage 2</b>							<ul style="list-style-type: none"> <li>18-Jun-21, Stage 2</li> <li>18-Jun-21, Roadway</li> <li>Install Traffic Control Devices</li> <li>Install Soil Erosion and Sediment Control Devices</li> <li>Shift Traffic West of Bridge</li> <li>Construct Full Depth Pavement and Temporary Pavement</li> <li>Reconstruct Existing Pavement</li> <li>Install Drainage and Outflow</li> <li>Remove Concrete Islands</li> <li>Continue New Bridge Construction as Noted Above</li> </ul>																							
R2000100	Install Traffic Control Devices	2	2	07-Apr-21	08-Apr-21	333																								
R2000110	Install Soil Erosion and Sediment Control Devices	2	2	07-Apr-21	08-Apr-21	371																								
R2000120	Shift Traffic West of Bridge	1	1	09-Apr-21	09-Apr-21	333																								
R2000130	Construct Full Depth Pavement and Temporary Pavement	35	35	13-Apr-21	02-Jun-21	247																								
R2000140	Reconstruct Existing Pavement	10	10	03-Jun-21	16-Jun-21	247																								
R2000150	Install Drainage and Outflow	10	10	03-Jun-21	16-Jun-21	249																								
R2000170	Remove Concrete Islands	2	2	17-Jun-21	18-Jun-21	330																								
<b>Structure</b>							<ul style="list-style-type: none"> <li>13-Apr-21, Structure</li> <li>Continue New Bridge Construction as Noted Above</li> </ul>																							
C2000100	Continue New Bridge Construction as Noted Above	5	5	07-Apr-21	13-Apr-21	378																								
<b>Stage 3</b>							<ul style="list-style-type: none"> <li>16-Nov-22, Stage 3</li> <li>16-Nov-22, Roadway</li> <li>Install Traffic Control Devices</li> <li>Install Soil Erosion and Sediment Control Devices</li> <li>Shift Traffic to North</li> <li>Construct Full Depth Pavement Along South Side</li> <li>Reconstruct Existing Pavement</li> <li>Install Drainage Facilities</li> <li>Install Traffic Signals</li> <li>Construct Driveways</li> <li>Structure - Retaining Walls</li> </ul>																							
R3000100	Install Traffic Control Devices	2	2	20-Jul-22	21-Jul-22	53																								
R3000110	Install Soil Erosion and Sediment Control Devices	2	2	22-Jul-22	25-Jul-22	53																								
R3000120	Shift Traffic to North	1	1	26-Jul-22	26-Jul-22	53																								
R3000130	Construct Full Depth Pavement Along South Side	35	35	27-Jul-22	13-Sep-22	52																								
R3000140	Reconstruct Existing Pavement	10	10	14-Sep-22	27-Sep-22	52																								
R3000150	Install Drainage Facilities	10	10	28-Sep-22	11-Oct-22	129																								
R3000160	Install Traffic Signals	20	20	12-Oct-22	08-Nov-22	129																								
R3000170	Construct Driveways	5	5	09-Nov-22	16-Nov-22	53																								
<b>Structure - Retaining Walls</b>							<ul style="list-style-type: none"> <li>13-Oct-22, Structure - Retaining Walls</li> </ul>																							
		60	60	22-Jul-22	13-Oct-22	152																								

█ Actual Level of Effort     █ Remaining Work     ◆ Milestone  
█ Actual Work                █ Critical Remaining Work     ◀ summary

**Bridge S-32 over the Shrewsbury River**

Construction Schedule							14-Feb-20 08:19																		
Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2021			2022			2023			2024			2025			2026			
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
C3RW1000	Construct Retaining Wall (NW)	60	60	22-Jul-22	13-Oct-22	152																			
C3RW2000	Construct Retaining Wall (SW)	50	50	22-Jul-22	29-Sep-22	162																			
C3RW3000	Construct Retaining Wall (NE)	50	50	22-Jul-22	29-Sep-22	162																			
C3RW4000	Construct Retaining Wall (SE)	50	50	22-Jul-22	29-Sep-22	162																			
<b>Stage 4</b>		<b>325</b>	<b>325</b>	<b>24-May-23</b>	<b>20-Aug-24</b>	<b>-1</b>																			
<b>Roadway</b>		<b>65</b>	<b>65</b>	<b>24-May-23</b>	<b>22-Aug-23</b>	<b>206</b>																			
R4000100	Install Traffic Control Devices	2	2	24-May-23	25-May-23	-1																			
R4000110	Install Soil Erosion and Sediment Control Devices	2	2	26-May-23	29-May-23	-1																			
R4000120	Shift Traffic to South onto New Bridge	1	1	30-May-23	30-May-23	-1																			
R4000130	Construct Full Depth Pavement Along North Side of Rumson Road	30	30	31-May-23	11-Jul-23	122																			
R4000140	Construct Rt 36 Right Turn Lane and Drainage Facilities	10	10	12-Jul-23	25-Jul-23	122																			
R4000150	Construct Walkway in West Park	20	20	26-Jul-23	22-Aug-23	206																			
<b>Structure (Extends over Roadway Stages 4,5)</b>		<b>320</b>	<b>320</b>	<b>31-May-23</b>	<b>20-Aug-24</b>	<b>-1</b>																			
BULK1010	Complete West Bulkhead	40	40	01-Nov-23	26-Dec-23	39																			
BULK1020	Complete East Bulkhead	40	40	04-Oct-23	28-Nov-23	59																			
DEMO1010	Remove Existing Bridge - West Approach Spans - Superstructure	50	50	31-May-23	08-Aug-23	29																			
DEMO1020	Remove Existing Bridge - West Approach Spans - Substructure	60	60	09-Aug-23	31-Oct-23	29																			
DEMO2010	Remove Existing Bridge - East Approach Spans - Superstructure	40	40	09-Aug-23	03-Oct-23	49																			
DEMO2020	Remove Existing Bridge - East Approach Spans - Substructure	50	50	01-Nov-23	09-Jul-24	29																			
DEMO3010	Remove Existing Bridge - Bascule Span - Superstructure	30	30	31-May-23	11-Jul-23	-1																			
DEMO3020	Remove Existing Bridge - Bascule Span - Substructure - Above MHW	60	60	12-Jul-23	03-Oct-23	-1																			
DEMO3030	Remove Existing Bridge - Bascule Span - Substructure - Below MHW	60	60	04-Oct-23	26-Dec-23	-1																			
FEND1000	Construct Fender System South Side	60	60	03-Jul-23	22-Sep-23	66																			
FEND2000	Construct Fender System North Side	40	40	27-Dec-23	20-Aug-24	-1																			
<b>Stage 5</b>		<b>47</b>	<b>47</b>	<b>30-Aug-23</b>	<b>02-Nov-23</b>	<b>202</b>																			
<b>Roadway</b>		<b>47</b>	<b>47</b>	<b>30-Aug-23</b>	<b>02-Nov-23</b>	<b>202</b>																			
RS000100	Install Traffic Control Devices	2	2	30-Aug-23	31-Aug-23	206																			
RS000110	Install Soil Erosion and Sediment Control Devices	2	2	01-Sep-23	04-Sep-23	206																			
RS000120	Construct Rt 36 East Side Pavement/Curb/Sidewalk/Drainage/Utility/Driveway	30	30	05-Sep-23	19-Oct-23	122																			
RS000130	Construct NW Island	2	2	20-Oct-23	23-Oct-23	203																			
RS000140	Resurface Route 36	5	5	24-Oct-23	31-Oct-23	124																			
RS000150	Install Final Pavement Markings	2	2	01-Nov-23	02-Nov-23	124																			
<b>Structure</b>		<b>10</b>	<b>10</b>	<b>30-Aug-23</b>	<b>12-Sep-23</b>	<b>239</b>																			
CS000100	Miscellaneous Structural Activities	10	10	30-Aug-23	12-Sep-23	239																			
<b>Final Cleanup</b>		<b>60</b>	<b>60</b>	<b>21-Aug-24</b>	<b>19-Oct-24</b>	<b>-1</b>																			
F9000	Final Cleanup - Punch list - Submittals	60	60	21-Aug-24	19-Oct-24	-1																			
<b>Procurement</b>		<b>400</b>	<b>400</b>	<b>16-Dec-20</b>	<b>28-Jun-22</b>	<b>329</b>																			
<b>Contractor Submittals (Not Materials)</b>		<b>400</b>	<b>400</b>	<b>16-Dec-20</b>	<b>28-Jun-22</b>	<b>329</b>																			
<b>Safety Plan</b>		<b>20</b>	<b>20</b>	<b>16-Dec-20</b>	<b>12-Jan-21</b>	<b>74</b>																			
PS100	Safety Plan (For Display Purposes)	20	20	16-Dec-20	12-Jan-21	74																			
<b>Shop Drawing Review and Approval</b>		<b>220</b>	<b>220</b>	<b>16-Dec-20</b>	<b>19-Oct-21</b>	<b>469</b>																			
PWD00100	Drilled Shaft Shop Drawings	20	20	16-Dec-20	12-Jan-21	-39																			
PWD00110	Drilled Shaft Demonstration Test Procedure	30	30	16-Dec-20	26-Jan-21	70																			
PWD00200	Temporary Trestle System / Site Access	40	40	16-Dec-20	09-Feb-21	96																			
PWD00300	Cofferdams Piers 1, 2, 5	40	40	16-Dec-20	09-Feb-21	138																			
PWD00310	Cofferdams Piers 3 and 4	40	40	16-Dec-20	09-Feb-21	183																			
PWD00320	Cofferdam East Abutment	30	30	16-Dec-20	26-Jan-21	284																			

█ Actual Level of Effort    █ Remaining Work    █ Critical Remaining Work    ◆ Milestone    ▬ summary  
█ Actual Work

**Bridge S-32 over the Shrewsbury River**

Construction Schedule										14-Feb-20 08:19															
Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Gantt Chart																		
							2021			2022			2023			2024			2025			2026			
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
PWD00350	Temporary Sheeting	20	20	10-Feb-21	09-Mar-21	86	Temporary Sheeting																		
PWD00400	FRP Fender Piles	30	30	10-Feb-21	23-Mar-21	619	FRP Fender Piles																		
PWD00410	FRPP Fender System	40	40	10-Feb-21	06-Apr-21	609	FRPP Fender System																		
PWD00420	Bulkhead Details	40	40	10-Feb-21	06-Apr-21	135	Bulkhead Details																		
PWD00500	Structural Steel Spans 1-3	80	80	10-Feb-21	01-Jun-21	193	Structural Steel Spans 1-3																		
PWD00510	Structural Steel Spans 5-6	80	80	10-Feb-21	01-Jun-21	220	Structural Steel Spans 5-6																		
PWD00520	Elastomeric Bearings	15	15	10-Feb-21	02-Mar-21	329	Elastomeric Bearings																		
PWD00530	Deck Joints	15	15	10-Feb-21	02-Mar-21	504	Deck Joints																		
PWD00600	Structural Steel Bascule Span	150	150	10-Feb-21	07-Sep-21	81	Structural Steel Bascule Span																		
PWD00700	Demolition Plans and Procedures	120	120	10-Feb-21	27-Jul-21	479	Demolition Plans and Procedures																		
PWD00800	Mechanical / Machinery Submittals	180	180	10-Feb-21	19-Oct-21	54	Mechanical / Machinery Submittals																		
PWD00900	Electrical Submittals	180	180	10-Feb-21	19-Oct-21	54	Electrical Submittals																		
<b>Fabrication and Delivery</b>		<b>380</b>	<b>380</b>	<b>13-Jan-21</b>	<b>28-Jun-22</b>	<b>329</b>	<b>Fabrication and Delivery</b>																		
FAB00100	Fabricate / Deliver Drilled Shaft Casings	30	30	13-Jan-21	23-Feb-21	-39	Fabricate / Deliver Drilled Shaft Casings																		
FAB00110	Fabricate / Deliver Drilled Shaft Testing Materials	30	30	27-Jan-21	09-Mar-21	70	Fabricate / Deliver Drilled Shaft Testing Materials																		
FAB00200	Fabricate / Deliver Temporary Trestle Materials	30	30	10-Feb-21	23-Mar-21	96	Fabricate / Deliver Temporary Trestle Materials																		
FAB00300	Fabricate / Deliver Cofferdam Material Piers 1, 2, 5	30	30	10-Feb-21	23-Mar-21	138	Fabricate / Deliver Cofferdam Material Piers 1, 2, 5																		
FAB00310	Fabricate / Deliver Cofferdam Material Piers 3 and 4	30	30	10-Feb-21	23-Mar-21	183	Fabricate / Deliver Cofferdam Material Piers 3 and 4																		
FAB00320	Fabricate / Deliver Cofferdam Material East Abutment	30	30	27-Jan-21	09-Mar-21	284	Fabricate / Deliver Cofferdam Material East Abutment																		
FAB00350	Fabricate / Deliver Temporary Sheeting	20	20	10-Mar-21	06-Apr-21	86	Fabricate / Deliver Temporary Sheeting																		
FAB00400	Fabricate / Deliver FRP Fender Piles	40	40	24-Mar-21	18-May-21	619	Fabricate / Deliver FRP Fender Piles																		
FAB00410	Fabricate / Deliver FRPP Fender Material	40	40	07-Apr-21	01-Jun-21	609	Fabricate / Deliver FRPP Fender Material																		
FAB00420	Fabricate / Deliver Bulkhead Material	40	40	07-Apr-21	01-Jun-21	135	Fabricate / Deliver Bulkhead Material																		
FAB00500	Fabricate / Deliver Structural Steel Spans 1-3	120	120	02-Jun-21	16-Nov-21	193	Fabricate / Deliver Structural Steel Spans 1-3																		
FAB00510	Fabricate / Deliver Structural Steel Spans 5-6	120	120	02-Jun-21	16-Nov-21	220	Fabricate / Deliver Structural Steel Spans 5-6																		
FAB00520	Fabricate / Deliver Elastomeric Bearings	40	40	03-Mar-21	27-Apr-21	329	Fabricate / Deliver Elastomeric Bearings																		
FAB00530	Fabricate / Deliver Deck Joints	40	40	03-Mar-21	27-Apr-21	504	Fabricate / Deliver Deck Joints																		
FAB00600	Fabricate / Deliver Structural Steel Bascule Span	180	180	08-Sep-21	17-May-22	81	Fabricate / Deliver Structural Steel Bascule Span																		
FAB00800	Fabricate / Deliver Machinery	180	180	20-Oct-21	28-Jun-22	54	Fabricate / Deliver Machinery																		
FAB00900	Fabricate / Deliver Electrical Components	180	180	20-Oct-21	28-Jun-22	54	Fabricate / Deliver Electrical Components																		

█ Actual Level of Effort   
 █ Remaining Work   
 ◆ Milestone  
█ Actual Work   
 █ Critical Remaining Work   
 ▼ summary

Bridge S-32 over the Shrewsbury River

# **Appendix D**

## **STIP Documentation**

**FY 2020-2029 DRAFT STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM**  
**New Jersey Department of Transportation Project Descriptions**  
(\$ millions)

**Rumson Road over the Shrewsbury River, CR 520**

*DBNUM: NS9706 / UPC: 950628*

Bridge S-32 carries CR 520, Rumson Road, across the Shrewsbury River between the Boroughs of Rumson and Sea Bright. This bridge serves as one of two evacuation and emergency routes in times of tidal flooding and coastal storms. The existing structure is in poor condition, with deterioration of major bridge components. Monmouth County is proposing a movable structure to replace the current structure.

**COUNTY:** Monmouth

**LEGISLATIVE DISTRICT:** 13

**MUNICIPALITY:** Rumson Boro, Sea Bright Boro

**SPONSOR:** Monmouth County

**MILEPOSTS:** 22.31

**STRUCTURE NO.:** 1300S32

**FINANCIAL PLAN REQUIREMENT:** This project is part of a project with a total cost between \$100 and \$500 million programmed to receive federal financial

**AIR QUALITY CODE (NON-EXEMPT/EXEMPT):** O10A (Exempt)

**ASSET MANAGEMENT CATEGORY:** Infrastructure Preservation (Local System Support: Local Bridges)

MPO	Phase	Fund	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Total
NJTPA	CON	STBGP-NY/NWK	\$46.900	\$57.100									\$104.000

# **Appendix E**

## **NJDOT FMIS Documentation**

**NJDOT Stripped Activity Listing - FY 2016 to 2019**  
**For Job Number 6742301 - BRIDGE S-32**  
**Encumbrance Related Expenditures Detail by Cost Fiscal Year, Encumbrance and Account**

DOT-CH-013

05/05/2020  
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Cost Fiscal Year	Idn Encumb Num	Account Number	PE Date	Transaction Description	Base Cost
2016	O-62009912178-01	2014-480-078-6300-GOK-7310	07/31/15	FA1 07862009934646 MONMOUTH CO	\$37,894.47
		2014-480-078-6300-GOK-7310	10/31/15	FA1 07862009946442 MONMOUTH CO	\$217,816.68
		2014-480-078-6300-GOK-7310	01/31/16	FA1 07862009952729 MONMOUTH CO	\$225,629.32
<b>Total Encumb:</b>	<b>O-62009912178-01</b>				<b>\$481,340.47</b>
<b>Total Cost FY:</b>	<b>2016</b>				<b>\$481,340.47</b>
2017	O-62009912178-01	2014-480-078-6300-GOK-7310	08/31/16	FA1 07862009976416 MONMOUTH CO	\$208,951.40
		2014-480-078-6300-GOK-7310	12/31/16	FA1 07862009982895 MONMOUTH CO	\$26,811.13
<b>Total Encumb:</b>	<b>O-62009912178-01</b>				<b>\$235,762.53</b>
	O-62009953592-01	2014-480-078-6300-GOK-7310	12/31/16	FA1 07862009982895 MONMOUTH CO	\$11,239.72
		2014-480-078-6300-GOK-7310	05/31/17	FA1 07862002002029 MONMOUTH CO	\$62,615.66
<b>Total Encumb:</b>	<b>O-62009953592-01</b>				<b>\$73,855.38</b>
<b>Total Cost FY:</b>	<b>2017</b>				<b>\$309,617.91</b>
2018	O-62009953592-01	2014-480-078-6300-GOK-7310	03/31/18	FA1 07862003009082 MONMOUTH CO	\$11,081.21
<b>Total Encumb:</b>	<b>O-62009953592-01</b>				<b>\$11,081.21</b>
<b>Total Cost FY:</b>	<b>2018</b>				<b>\$11,081.21</b>
2019	O-62002003128-01	2014-480-078-6300-GOK-7310	01/31/19	FA1 07862003040391 MONMOUTH CO	\$129,866.49
<b>Total Encumb:</b>	<b>O-62002003128-01</b>				<b>\$129,866.49</b>
	O-62009953592-01	2014-480-078-6300-GOK-7310	01/31/19	FA1 07862003040391 MONMOUTH CO	\$14,804.41
<b>Total Encumb:</b>	<b>O-62009953592-01</b>				<b>\$14,804.41</b>
<b>Total Cost FY:</b>	<b>2019</b>				<b>\$144,670.90</b>
<b>Total for Job Number: 6742301</b>					<b>\$946,710.49</b>

**NJDOT Stripped Activity Listing - FY 2019 to 2020**  
**For Job Number 6742302 - RUMSON ROAD (BRIDGE S-32)**  
**Encumbrance Related Expenditures Detail by Cost Fiscal Year, Encumbrance and Account**

DOT-CH-013

05/05/2020  
page 1 of 1

Cost Fiscal Year	Idn Encumb Num	Account Number	PE Date	Transaction Description	Base Cost
2019	O-62003013046-01	2018-480-078-6300-DKH-7310	03/31/19	FA1 07862003048354 MONMOUTH CO	\$156,859.76
		2018-480-078-6300-DKH-7310	04/30/19	FA1 07862003054900 MONMOUTH CO	\$596,536.79
<b>Total Encumb:</b>	<b>O-62003013046-01</b>				<b>\$753,396.55</b>
<b>Total Cost FY:</b>	<b>2019</b>				<b>\$753,396.55</b>
2020	O-62003013046-01	2018-480-078-6300-DKH-7310	10/31/19	FA1 07862003075407 MONMOUTH CO	\$2,096,303.90
		2018-480-078-6300-DKH-7310	01/31/20	FA1 07862003082538 MONMOUTH CO	\$1,047,042.71
<b>Total Encumb:</b>	<b>O-62003013046-01</b>				<b>\$3,143,346.61</b>
<b>Total Cost FY:</b>	<b>2020</b>				<b>\$3,143,346.61</b>
<b>Total for Job Number: 6742302</b>					<b>\$3,896,743.16</b>

**NJDOT Stripped Activity Listing - FY 2020 to 2020**  
**For Job Number 6742303 - RUMSON ROAD (BRIDGE S-32) ROW**  
**Encumbrance Related Expenditures Detail by Cost Fiscal Year, Encumbrance and Account**

DOT-CH-013

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Cost Fiscal Year	Idn Encumb Num	Account Number	PE Date	Transaction Description	Base Cost
2020	O-62003042575-01	2018-480-078-6300-DKH-7310	10/31/19	FA1 07862003072778 MONMOUTH CO	\$4,955.40
<b>Total Encumb:</b>	<b>O-62003042575-01</b>				<b>\$4,955.40</b>
<b>Total Cost FY:</b>	<b>2020</b>				<b>\$4,955.40</b>
<b>Total for Job Number: 6742303</b>					<b>\$4,955.40</b>

05/05/20 12:48 HPT0

#06M PA20 FMM0586

Job Number : 6742301

Sel	Agreement ID	Agreement Type	Agreement Text
.	LS2R7201101	FEDERAL-(FHWA)	RUMSON (S-32)
.	L23E7201101	FEDERAL-(FHWA)	RUMSON ROAD (S-32)
.	MS6E7201101	FEDERAL-(FHWA)	RUMSON ROAD (S-32)

1-MENU

15-RETURN

FAST PATH =====>

05/05/20 12:49 HPT0

#06M PA20 FMM0589

Agreement Key

Job Number : 6742301 Agreement ID : LS2R7201101

Federal System	: SP SURFACE TRANSP	Authorized Date	: 09/08/14
Federal Approp Prefix	: STP	Agreement Date	: 09/08/14
Freeway	:	Step 7A Date	:
Unit Cost Agreement	:	Closing Date	:
Symbol	: PE PRELIMINARY ENGINEER	Old Agreement	:
Soft Match Pct	: .100	Fed Prj End Dte	: 12/22/2020
Agreement Text	: RUMSON (S-32)	Fed Prj End Orig	: 11/30/2018
Route	: LOC	Section	: MON
Status Codes			
Project Status	: W WITHDRAWN		
Stage	: 3 AUTHORIZED - AGREEME		
Step	: 6 UNDERWAY OR CONSTRU		
Step Date	: 09/08/14		
Step Prior Month	: 6		
Participation Pct	: 100.00000		

1-MENU

15-RETURN

17-NEXT

20-NXT-PGE

FAST PATH =====>

05/05/20 12:53 HPT0 FMIS #06M PA20 FMM0590  
 AGREEMENT INQUIRY : FEDERAL AGREEMENT DETAIL II

Agreement Key Job Number : 6742301 Agreement ID : LS2R7201101

Work Type					
Planned (Auth)	Total	Federal	Match	NP	
Constr:	.00	.00	.00	.00	
Conslt:	99741.00	99741.00	.00	.00	
Inhse :	62.67	.00	.00	62.67	
Total :	99803.67	99741.00	.00	62.67	
Incurrred	Total	Participating	NP	Suspense	
Constr:	.00	.00	.00	.00	
Conslt:	99741.00	99741.00	.00	.00	
Inhse :	62.67	.00	62.67	.00	
Total :	99803.67	99741.00	62.67	.00	
Billed Under Agreement		Invoiced FHWA	Cash Recvd.		
Constr:	.00	.00	.00		
Conslt:	99741.00	99741.00	99741.00		
Inhse :	.00	.00	.00		
Total :	99741.00	99741.00	99741.00		

1-MENU 15-RETURN 17-NEXT  
 19-PRV-PGE 20-NXT-PGE FAST PATH =====>

05/05/20 12:56 HPT0 FMIS #06M PA20 FMM0607  
 AGREEMENT INQUIRY : FEDERAL AGREEMENT DETAIL III

Agreement Key Job Number : 6742301 Agreement ID : LS2R7201101

Federal Agreements	Contract	State
Authorized		
Pending :	.00	.00
Booked :	.00	.00
Under Agreement		
Pending :	.00	.00
Booked :	99,741.00	.00
Total :	99,741.00	.00

Total (Contract and State) : 99,741.00

1-MENU 15-RETURN 17-NEXT  
 19-PRV-PGE 21-1ST-PGE FAST PAST =====>

05/05/20 12:49 HPT0

#06M PA20 FMM0589

Agreement Key

Job Number : 6742301 Agreement ID : L23E7201101

Federal System	: SP SURFACE TRANSP	Authorized Date	: 09/08/14
Federal Approp Prefix	: STP	Agreement Date	: 09/08/14
Freeway	:	Step 7A Date	:
Unit Cost Agreement	:	Closing Date	:
Symbol	: PE PRELIMINARY ENGINEER	Old Agreement	:
Soft Match Pct	: .200	Fed Prj End Dte	: 12/22/2020
Agreement Text	: RUMSON ROAD (S-32)	Fed Prj End Orig	: 11/30/2018
Route	: LOC	Section	: MON

Status Codes

Project Status	: W WITHDRAWN
Stage	: 3 AUTHORIZED - AGREEME
Step	: 6 UNDERWAY OR CONSTRUC
Step Date	: 09/08/14
Step Prior Month	: 6

Participation Pct : 100.00000

1-MENU		15-RETURN	16-PRIOR	17-NEXT	18-FIRST
	20-NXT-PGE			FAST PATH	=====>

05/05/20 12:53 HPT0 FMIS #06M PA20 FMM0590  
 AGREEMENT INQUIRY : FEDERAL AGREEMENT DETAIL II

Agreement Key Job Number : 6742301 Agreement ID : L23E7201101

Work Type

Planned (Auth)	Total	Federal	Match	NP
Constr:	.00	.00	.00	.00
Conslt:	717103.00	717103.00	.00	.00
Inhse :	450.64	.00	.00	450.64
Total :	717553.64	717103.00	.00	450.64
Incurred	Total	Participating	NP	Suspense
Constr:	.00	.00	.00	.00
Conslt:	717103.00	717103.00	.00	.00
Inhse :	450.64	.00	450.64	.00
Total :	717553.64	717103.00	450.64	.00
Billed Under Agreement		Invoiced FHWA	Cash Recvd.	
Constr:	.00	.00	.00	
Conslt:	717103.00	717103.00	717103.00	
Inhse :	.00	.00	.00	
Total :	717103.00	717103.00	717103.00	

1-MENU 15-RETURN 17-NEXT 18-FIRST  
 19-PRV-PGE 20-NXT-PGE FAST PATH =====>

05/05/20 12:57 HPT0 FMIS #06M PA20 FMM0607  
AGREEMENT INQUIRY : FEDERAL AGREEMENT DETAIL III

Agreement Key  
Job Number : 6742301 Agreement ID : L23E7201101

Federal Agreements	Contract	State
Authorized		
Pending :	.00	.00
Booked :	.00	.00
Under Agreement		
Pending :	.00	.00
Booked :	717,103.00	.00
Total :	717,103.00	.00

Total (Contract and State) : 717,103.00

1-MENU 15-RETURN 17-NEXT 18-FIRST  
19-PRV-PGE 21-1ST-PGE FAST PAST =====>  
05/05/20 12:50 HPT0 #06M PA20 FMM0589

Agreement Key  
Job Number : 6742301 Agreement ID : MS6E7201101

Federal System	: SP SURFACE TRANSP	Authorized Date	: 09/08/14
Federal Approp Prefix	: STP	Agreement Date	: 09/08/14
Freeway	:	Step 7A Date	:
Unit Cost Agreement	:	Closing Date	:
Symbol	: PE PRELIMINARY ENGINEER	Old Agreement	:
Soft Match Pct	: .100	Fed Prj End Dte	: 12/22/2020
Agreement Text	: RUMSON ROAD (S-32)	Fed Prj End Orig	: 11/30/2018
Route	: LOC	Section	: MON
Status Codes			
Project Status	: A ORIGINAL AGREEMENT		
Stage	: 3 AUTHORIZED - AGREEME		
Step	: 6 UNDERWAY OR CONSTRUC		
Step Date	: 09/08/14		
Step Prior Month	: 6		
Participation Pct	: 100.00000		

1-MENU 15-RETURN 16-PRIOR 18-FIRST  
20-NXT-PGE FAST PATH =====>

05/05/20 12:54 HPT0 FMIS #06M PA20 FMM0590  
 AGREEMENT INQUIRY : FEDERAL AGREEMENT DETAIL II

Agreement Key Job Number : 6742301 Agreement ID : MS6E7201101

Work Type		Total	Federal	Match	NP
Planned (Auth)					
Constr:		.00	.00	.00	.00
Conslt:	129866.49		129866.49	.00	.00
Inhse :	54395.61		54275.97	.00	119.64
Total :	184262.10		184142.46	.00	119.64
Incurring	Total		Participating	NP	Suspense
Constr:	.00		.00	.00	.00
Conslt:	129866.49		129866.49	.00	.00
Inhse :	54395.61		54275.97	119.64	.00
Total :	184262.10		184142.46	119.64	.00
Billed Under Agreement			Invoiced FHWA	Cash Recvd.	
Constr:	.00		.00	.00	
Conslt:	129866.49		129866.49	129866.49	
Inhse :	54275.97		54275.97	54275.97	
Total :	184142.46		184142.46	184142.46	

1-MENU 15-RETURN 18-FIRST  
 19-PRV-PGE 20-NXT-PGE FAST PATH =====>

05/05/20 12:57 HPT0 FMIS #06M PA20 FMM0607  
 AGREEMENT INQUIRY : FEDERAL AGREEMENT DETAIL III

Agreement Key Job Number : 6742301 Agreement ID : MS6E7201101

Federal Agreements	Contract	State
Authorized		
Pending :	.00	.00
Booked :	.00	.00
Under Agreement		
Pending :	.00	.00
Booked :	129,866.49	54,275.97
Total :	129,866.49	54,275.97

Total (Contract and State) : 184,142.46

1-MENU 15-RETURN 18-FIRST  
 19-PRV-PGE 21-1ST-PGE FAST PAST =====>

05/05/20 13:02 HPT0 FMIS #06M PA17 FMM0536  
JOB INQUIRY : DETAIL I

Job Number : 6742302  
Project ID : 950628  
Job Name : RUMSON ROAD (BRIDGE S-32)  
Job Type : FD DESIGN & FINAL DESIGN  
PEMS SJ Category:  
Job Location : SEA BRIGHT & RUMSON BOR.  
Job Description : BRIDGE ROPLEACEMENT

Job Status : A ACTIVE  
Route :  
Section : Section :  
Alternate Route :  
Section : Section :

1-MENU 15-RETURN  
20-NXT-PGE FAST PATH =====>

```
05/05/20 11:29 HPT0 FMIS #06M PA17 FMM0537
JOB INQUIRY : DETAIL II

Job Number : 6742302
County / Percent : MON MONMOUTH 100.00
County / Percent :
County / Percent :
District / Percent : 13 LEGISLATIVE DISTRICT 13 100.00
District / Percent :
District / Percent :
Roadway Type : 03 LOCAL ROAD
Region : 22
Job Manager Name : 3505 DESAI DEVAL
Job # Entry Date : 12/18/2017 Sub Job Required : X
Job # Inactive Date: Sub Function Req : N NO
Const Pgm FY/Fund : 18 480 100% State Funded : Y
Const Program Item : ZQ 18 0173 100% County Work :
Length(Miles) :
FHWA Func Class : 2 16 SMALL URBAN(POP.5,000-49,
FHWA Job Type : IB06 CAP. ADD./BRIDGE REPLACEM FHWA Off NBS: X

1-MENU 15-RETURN
19-PRV-PGE 20-NXT-PGE 21-1ST-PGE FAST PATH =====>
```

JOB INQUIRY : DETAIL III

Job Number : 6742302

Job Amount Information

Original Planned Amount :	.00
Modified Planned Amount :	.00
Incurring Amounts	
Net Salary Cost :	3,381.85
Leave Time Additives :	876.86
Fringe Benefit Add :	2,132.24
Gross Salary :	6,390.95
Indirect Costs :	3,550.12
Other In-house :	.00
Capital Cost :	3,896,743.16
Incurred Amount :	3,906,684.23

JOB INQUIRY : DETAIL I

Job Number : 6742303

Project ID : 950628

Job Name : RUMSON ROAD (BRIDGE S-32) ROW

Job Type : ROW RIGHT OF WAY ACQUISITION

PEMS SJ Category:

Job Location : RUMSON ROAD (BRIDGE S-32)

Job Description : BRIDGE REPLACEMENT

Job Status : A ACTIVE

Route :

Section : Section :

Alternate Route :

Section : Section :

JOB INQUIRY : DETAIL II

Job Number : 6742303  
 County / Percent : MON MONMOUTH 100.00  
 County / Percent :  
 County / Percent :  
 District / Percent : 13 LEGISLATIVE DISTRICT 13 100.00  
 District / Percent :  
 District / Percent :  
 Roadway Type : 02 COUNTY RD  
 Region : 22  
 Job Manager Name : 3505 DESAI DEVAL  
 Job # Entry Date : 08/18/2018 Sub Job Required : X  
 Job # Inactive Date: Sub Function Req : N NO  
 Const Pgm FY/Fund : 18 480 100% State Funded : Y  
 Const Program Item : ZQ 18 0173 100% County Work :  
 Length(Miles) :  
 FHWA Func Class : 2 16 SMALL URBAN (POP.5,000-49,  
 FHWA Job Type : IB06 CAP. ADD./BRIDGE REPLACEM FHWA Off NHS: X

1-MENU 15-RETURN  
 19-PRV-PGE 20-NXT-PGE 21-1ST-PGE FAST PATH =====> █

JOB INQUIRY : DETAIL III

Job Number : 6742303

Job Amount Information

Original Planned Amount :	.00
Modified Planned Amount :	.00
Incurred Amounts	
Net Salary Cost :	.00
Leave Time Additives :	.00
Fringe Benefit Add :	.00
Gross Salary :	.00
Indirect Costs :	.00
Other In-house :	.00
Capital Cost :	4,955.40
Incurred Amount :	4,955.40

1-MENU 15-RETURN  
 19-PRV-PGE 21-1ST-PGE FAST PATH =====> █

# **Appendix F**

## **Project Risk Register**



**NJTPA/NJDOT RISK MANAGEMENT**

PROJECT RISK REGISTER

Project Manager:	Sarbjit Kahlon	Municipality(ies):	Borough of Rumson and Borough of Sea Bright
Designer:	Hardesty & Hanover	County(ies):	Monmouth County
		Initial Register Date:	2/26/2020
		Last Register Update:	6/30/2020

Project Name: Replacement of Bridge S-32 on County Route 520 (Rumson Road) over the Shrewsbury River

Risk Rank & ID			Risk Statement & Category		Risk Analysis Matrix						Risk Response Strategy & Response Planning					
Risk Rank	ID #	Alternative ID #	Risk Statement	Risk Category		Risk Probability	Risk Impact		Schedule Score	Cost Score	Final Score	Risk Response Strategy	Risk Response Action Plan	Final Risk Owner	Action Plan Status	Risk Last Updated
				Initial Risk Owner	Risk May Occur In		Schedule	Cost								
1	51	P. SPECIFIC GEO 3	Settlement or damage of the existing bridge may occur during installation of the drilled shafts, cofferdam, trestle piles and bulkhead, resulting in repairs, and/or schedule delays.	Monmouth County	Construction	4 - High	7 - High	7 - High	28	28	56	Mitigate Threat	Drilled shafts which reduce the potential for vibrations or disturbance compared to other deep foundation options were selected. The Contract Documents will require the Contractor to exercise caution while selecting the means and methods of construction to avoid damages to the existing structure. The Contract Documents will also require the Contractor to implement Vibration Monitoring Program. The Resident Engineer (RE) will ensure that the Contractor's drilled shaft installation plan includes specific requirements to minimize vibration and settlement. RE to require the Contractor to have a mitigation plan to address bridge settlement - this may include installation of temporary supports. County to consider including allowance for remedial work in the project contingency.			
2	52	P. SPECIFIC GEO 4	Due to contractor's inexperience with drilled shaft construction, failed load test, damaged shaft during installation, or rejected shaft due to unacceptable concrete pour may occur, resulting in repairs, delays and claims	Monmouth County	Construction	3 - Moderate	7 - High	7 - High	21	21	42	Mitigate Threat	County to include prequalification requirements for Contractors installing the drilled shafts in the RFP. Award construction contract based on the drilled shaft Contractor qualifications in conjunction with the low-bid selection criteria. The Resident Engineer shall ensure that the drilled shafts are constructed by a Contractor specialized in drilled shaft construction meeting the requirements of the Contract Documents. The Designer will include requirements for the Contractor to verify means and methods by successful completion of a demonstration shaft.			
3	13	P. SPECIFIC ENVIRONMENTAL 1	Groundwater analytical results identified exceedances of select polynuclear aromatic hydrocarbons (PAHs) and metals above the NJDEP's Groundwater Quality Standards (GWQS). The project may require dewatering, treatment, and disposal from the excavation areas that extend below the water table (located on-site at approximately 4.5 ft below).	Monmouth County	Construction	5 - Very High	4 - Moderate	4 - Moderate	20	20	40	Mitigate Threat	The Designer is responsible for evaluating the potential need for dewatering, and for implementing such measures as appropriate, and will evaluate the effects on existing facilities resulting from any dewatering and draw down.			
4	7	SRL CRO 6	External stakeholders may reverse support due to construction activities (e.g., detours/noise/lighting/air pollutants) that are inconvenient/disruptive/objectionable to the community, resulting in changes.	Monmouth County	Construction	3 - Moderate	7 - High	4 - Moderate	21	12	33	Mitigate Threat	Include provisions in project specifications limiting work hours, controlling noise, monitoring vibration, and providing maintenance and protection of traffic to maintain community support.			
4	16	P. SPECIFIC ENVIRONMENTAL 4	Hazardous materials (asbestos, lead, PCB) could be present within buildings to be demolished on site. Such as the buildings on Block 18, Lot 2. This would require abatement prior to demolition.	Monmouth County	Construction	3 - Moderate	7 - High	4 - Moderate	21	12	33	Mitigate Threat	Complete hazardous materials testing for Block 18 Lot2 structures in Final Design Phase			
4	32	SRL CONSTR 8	Contractor may encounter unforeseen subsurface or differing site conditions, which may require corrective action or change of plan prior to completing the construction work.	Monmouth County	Construction	3 - Moderate	4 - Moderate	7 - High	12	21	33	Mitigate Threat	The designer will follow QA/QC procedures and accommodate the site conditions as accurately as possible.			
4	40	P. SPECIFIC CONSTR 7	Due to contractor's inexperience with movable bridge construction, work takes longer than initially scheduled, resulting in delays and claims	Monmouth County	Construction	3 - Moderate	7 - High	4 - Moderate	21	12	33	Mitigate Threat	Only prequalified contractors will be permitted to bid (Class 41 - Movable Bridges).			
4	53	P. SPECIFIC GEO 5	The project may encounter previously unidentified contaminated materials and groundwater at the site, resulting in new environmental impacts and/or changes.	Monmouth County	Construction	3 - Moderate	4 - Moderate	7 - High	12	21	33	Mitigate Threat	The Designer will provide project specific handling and disposal of contaminated soil and groundwater management plan and requirement in Special Provisions. The Designer will include cost of disposal of known contaminated materials and groundwater in the estimate. Allow flexibility for the Contractor to manage contaminated soil and groundwater within their schedule. Allocate a contingency allowance to manage excessive contaminated soil and groundwater.			
9	41	P. SPECIFIC CONSTR 8	Due to mechanical/electrical components not meeting the Buy America requirements, FHWA denies federal funding of these components, resulting in change orders and delays.	Monmouth County	Construction	4 - High	4 - Moderate	4 - Moderate	16	16	32	Mitigate Threat	The designer will discuss various methodologies to comply with Buy America with Monmouth County, NJDOT Local Aid, and the FHWA. The Calculated Compliance Method and FHWA's recent modification of sole source specification of products will be presented.			
9	55	P. SPECIFIC ARCH 1	The contractor will be required to obtain building plan approval from the local municipalities. If plans require modifications during construction, the contractor will most likely seek a change order.	Monmouth County	Construction	4 - High	4 - Moderate	4 - Moderate	16	16	32	Mitigate Threat	Obtain plan approval prior to construction in order to avoid potential change orders from the contractor.			
11	10	SRL ENV 1	Environmental permit conditions may require extensive mitigation, resulting in changes.	Monmouth County	Final Design	3 - Moderate	7 - High	2 - Low	21	6	27	Mitigate Threat	Prepare mitigation plans in Final Design phase.			



**NJTPA/NJDOT RISK MANAGEMENT**

PROJECT RISK REGISTER

Project Manager:	Sarbjit Kahlon	Municipality(ies):	Borough of Rumson and Borough of Sea Bright
Designer:	Hardesty & Hanover	County(ies):	Monmouth County
		Initial Register Date:	2/26/2020
		Last Register Update:	6/30/2020

Project Name: Replacement of Bridge S-32 on County Route 520 (Rumson Road) over the Shrewsbury River

Risk Rank & ID			Risk Statement & Category		Risk Analysis Matrix						Risk Response Strategy & Response Planning					
Risk Rank	ID #	Alternative ID #	Risk Statement	Risk Category		Risk Probability	Risk Impact		Schedule Score	Cost Score	Final Score	Risk Response Strategy	Risk Response Action Plan	Final Risk Owner	Action Plan Status	Risk Last Updated
				Initial Risk Owner	Risk May Occur In		Schedule	Cost								
11	26	SRL CONSTR 2	Seasonal impacts/restrictions on construction activities/schedule are not identified, resulting in changes.	Monmouth County	Construction	3 - Moderate	7 - High	2 - Low	21	6	27	Mitigate Threat	Take weather into account when setting working days per month. Take Permit restrictions, notably in-water work restrictions, into account when completing the construction schedule. Restrictions will be clearly defined in the bid documents.			
13	9	P. SPECIFIC CRO 1	Due to proximity of work to adjacent properties to the west and east of the existing bridge, loss of economic activity could occur.	Monmouth County	Construction	4 - High	2 - Low	4 - Moderate	8	16	24	Mitigate Threat	Construction signage will be installed during construction to alert the public that businesses are open during construction.			
13	12	SRL ENV 5	The project may encounter previously unidentified contaminated soils, which were to be used for on-site fill, resulting in new environmental impacts and/or changes.	Monmouth County	Construction	3 - Moderate	4 - Moderate	4 - Moderate	12	12	24	Mitigate Threat	Perform soil testing to properly identify contamination within the project limits during Final Design phase.			
13	28	SRL CONSTR 4	Contract documents are interpreted incorrectly and/or Contractor's means and methods cause schedule impacts.	Monmouth County	Construction	3 - Moderate	4 - Moderate	4 - Moderate	12	12	24	Mitigate Threat	The designer will follow QA/QC procedures to produce contract documents that are clear and minimize ambiguities.			
13	31	SRL CONSTR 7	Contract documents do not adequately/correctly identify a utility asset location, resulting in changes.	Monmouth County	Construction	3 - Moderate	4 - Moderate	4 - Moderate	12	12	24	Mitigate Threat	The designer will do their due diligence to capture all impacted utilities in the Contract plans. Plan sheet notes will also require that the contractor verify location of all utilities.			
13	33	SRL CONSTR 11	Extensive coordination with external agencies, such as Army Corps, Coast Guard, NJDEP, local municipalities, etc., will be required and any requirements addressed in final contract documents causing additional costs and delays.	Monmouth County	Construction	3 - Moderate	4 - Moderate	4 - Moderate	12	12	24	Mitigate Threat	Coordination with NJDEP, Coast Guard, and Army Corp of Engineers were conducted in Preliminary and Final Design phases.			
13	37	P. SPECIFIC CONSTR 4	Due to failure to consider long lead times required to procure movable span electrical control components and span machinery in scheduling, delays occur resulting in extended construction duration and delay claims.	Monmouth County	Construction	3 - Moderate	4 - Moderate	4 - Moderate	12	12	24	Mitigate Threat	Baseline schedule for construction will include sufficient float to capture potential long lead times for special items to ensure they lie on the critical path. The designer will coordinate with manufacturers or fabricators to determine likely schedule to more accurately estimate the lead time required for procurement.			
13	38	P. SPECIFIC CONSTR 5	Due to failure to consider long lead times required to procure large components of movable span structural steel in scheduling, delays occur resulting in extended construction duration and delay claims.	Monmouth County	Construction	3 - Moderate	4 - Moderate	4 - Moderate	12	12	24	Mitigate Threat	Baseline schedule for construction will include sufficient float to capture potential long lead times for special items to ensure they lie on the critical path. The designer will coordinate with manufacturers or fabricators to determine likely schedule to more accurately estimate the lead time required for procurement.			
13	49	P. SPECIFIC GEO 1	Due to buried obstructions such as rip rap and remnants of previous construction activities; and obstruction characteristic of the site geology such as "bog iron", installation of cofferdam sheeting, trestle piles, bulkhead and drilled shafts is hindered, resulting in claims and/or construction delays.	Monmouth County	Construction	3 - Moderate	4 - Moderate	4 - Moderate	12	12	24	Mitigate Threat	The boring logs will be made available to all bidders. The final contract documents will allocate a contingency allowance so that any unforeseen conditions can be accommodated.			
21	11	SRL ENV 2	Unforeseen environmental conditions may be identified late in design, resulting in new environmental impacts and/or changes.	Monmouth County	Final Design	2 - Low	7 - High	4 - Moderate	14	8	22	Mitigate Threat	The designer will follow QA/QC procedures while identifying environmental constraints in the Final Design phase of the project. Hazardous materials testing will be included in the Final Design phase.			
22	2	SRL PM 4A	Project may experience estimating and/or scheduling errors.	Monmouth County	Final Design	3 - Moderate	4 - Moderate	2 - Low	12	6	18	Mitigate Threat	The designer will follow QA/QC procedures while creating cost estimates and baseline schedules.			
22	4	SRL CRO 3	A previously unidentified external stakeholder may be identified late who is opposed to the project.	Monmouth County	Final Design	2 - Low	7 - High	2 - Low	14	4	18	Mitigate Threat	Incorporate comments from the Final Design submission into the Final PS&E submission. Hold local official briefings and public information centers in the Preliminary Engineering and Final Design phases and include a project website as part of the public outreach effort.			
22	18	SRL ROW 7	Maintaining adequate access during construction/staging may be difficult, resulting in businesses impacts.	Monmouth County	Construction	3 - Moderate	4 - Moderate	2 - Low	12	6	18	Mitigate Threat	Construction signage will be installed during construction to alert the public that businesses are open during construction.			
22	25	SRL CONSTR 1	Limitations on staging areas, site access, work-zones or equipment accommodation are not correctly or adequately identified, resulting in changes.	Monmouth County	Construction	3 - Moderate	4 - Moderate	2 - Low	12	6	18	Mitigate Threat	Staging plans will be included in the contract documents that identify any restrictions.			
22	27	SRL CONSTR 3	Weather sensitive impacts/restrictions on construction activities are not identified, resulting in changes.	Monmouth County	Construction	3 - Moderate	4 - Moderate	2 - Low	12	6	18	Mitigate Threat	The baseline construction schedule will include a recommended sequence of work that includes sufficient float in critical activities as to not force impacts due to seasonal or weather related interruptions. NJDOT Roadway and Bridge work calendars will be used in the development of the schedule when applicable.			
22	29	SRL CONSTR 5	Contractor may perform the work in a construction stage sequence different than the contract documents.	Monmouth County	Construction	3 - Moderate	4 - Moderate	2 - Low	12	6	18	Mitigate Threat	Contract documents will include language requiring certain major aspects of the staging concept. This may help to limit the amount of impact that this risk may pose.			