Initial Financial Plan

As of May 1, 2015

I-75 Modernization Project

From M-102 to South of M-59
Oakland County, Michigan

Square Lake Road Interchange

MDOT
Michigan Department of Transportation

U.S. Department of Transportation
Federal Highway Administration

Michigan Division

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Lansing, MI 48933
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February 3, 2016

In Reply Refer To:
HDA-MI

Mr. Kirk T. Steudle, P.E.
State Transportation Director
Michigan Department of Transportation
Lansing, MI

I-75 Modernization Project, M-102 to North of South Blvd.
Oakland County, Michigan

Dear Director Steudle:

The Federal Highway Administration (FHWA) hereby approves the Initial Financial Plan (IFP) for the I-75 Modernization Project as transmitted with your January 26, 2016 letter. Our office reviewed the submittal in coordination with our Headquarters' Office of Innovative Program Delivery. FHWA has determined that the IFP is in accordance with current guidance.

The first annual update to the Financial Plan should be as of May 1, 2016, and is due to FHWA by July 30, 2016.

Please contact Ms. Amelia (Millie) Hayes, specially designated Project Oversight Manager, at 517-702-1833 or amelia.hayes@dot.gov if you have any questions.

Sincerely,

Russell L. Jorgenson, P.E.
Division Administrator

RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF TRANSPORTATION
LANSING

KIRK T. STEUDLE
DIRECTOR

January 26, 2016

Michigan Department of Transportation

I-75 Modernization Project
From M-102 to South of M-59
Oakland County, Michigan
Initial Financial Plan

Letter of Certification

The Michigan Department of Transportation (MDOT) has developed a comprehensive Financial Plan for the I-75 Modernization Project, from M-102 to South of M-59, Oakland County, Michigan in accordance with the requirements of Section 106, Title 23, 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 finance 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 engineers' 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 available monies to fully fund the project.

We believe the Financial Plan provides an accurate basis upon which to schedule and fund the I-75 Modernization Project, from M-102 to South of M-59, Oakland County, Michigan. MDOT will review and update the financial plan on an annual basis.

To the best of our knowledge and belief, the Financial Plan as submitted herewith, fairly and accurately presents the financial position of the I-75 Modernization Project, from M-102 to South of M-59, Oakland County, Michigan, 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.

Date 1/26/16

Bureau of Finance and Administration

Enclosure

RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF TRANSPORTATION
LANSING

KIRK T. STEUDLE
DIRECTOR

December 15, 2015

To Whom It May Concern:

Delegated Authority of Certification of Initial Financial Plans
and Annual Updates for all Major Projects
Issued by the Michigan Department of Transportation

THIS AUTHORIZATION SUPERSEDES ALL PREVIOUS AUTHORIZATIONS

I, Kirk T. Steudle, Director of the Michigan Department of Transportation, by this document and my signature below, hereby authorize Laura J. Mester, Chief Administrative Officer, and Myron G. Frierson, Director, Bureau of Finance and Administration, whose signatures appear below, to sign and certify on my behalf to the reasonableness and accuracy of all documents related to the contents of all major project Initial Financial Plans and Annual Updates issued by the Michigan Department of Transportation. This delegation of authority is pursuant to Federal Highway Administration requirements that require written documentation of delegated authority to certify Financial Plans.

Kirk T. Steudle
Director
Michigan Department of Transportation

Laura J. Mester
Chief Administrative Officer

Myron G. Frierson, Director
Bureau of Finance and Administration

Initial Financial Plan

As of May 1, 2015

I-75 Modernization Project

From M-102 to South of M-59
Oakland County, Michigan

Square Lake Road Interchange

MDOT
Michigan Department of Transportation

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EXECUTIVE SUMMARY

This document is the Initial Financial Plan (IFP) for the I-75 Freeway Modernization Project from north of M-102 to south of M-59 in Oakland County, Michigan (the Project). This IFP is submitted by MDOT, as required by Section 106 of Title 23 of the United States Code as modified by the legislation Moving Ahead for Progress in the 21st Century Act (MAP-21), Public Law 112-141, as amended.

This IFP demonstrates the State's commitment to complete the Project and to follow sound financial planning for Major Projects, as defined by the FHWA Major Project Financial Plan Guidance issued on December 18, 2014. The IFP is a fully funded plan. Detailed funding information is presented for all segments of the Project. Overall, this IFP presents the entire Project scope, cost and schedule as defined by the National Environmental Policy Act (NEPA) Record of Decision (ROD) document approving the Project.

THE PROJECT

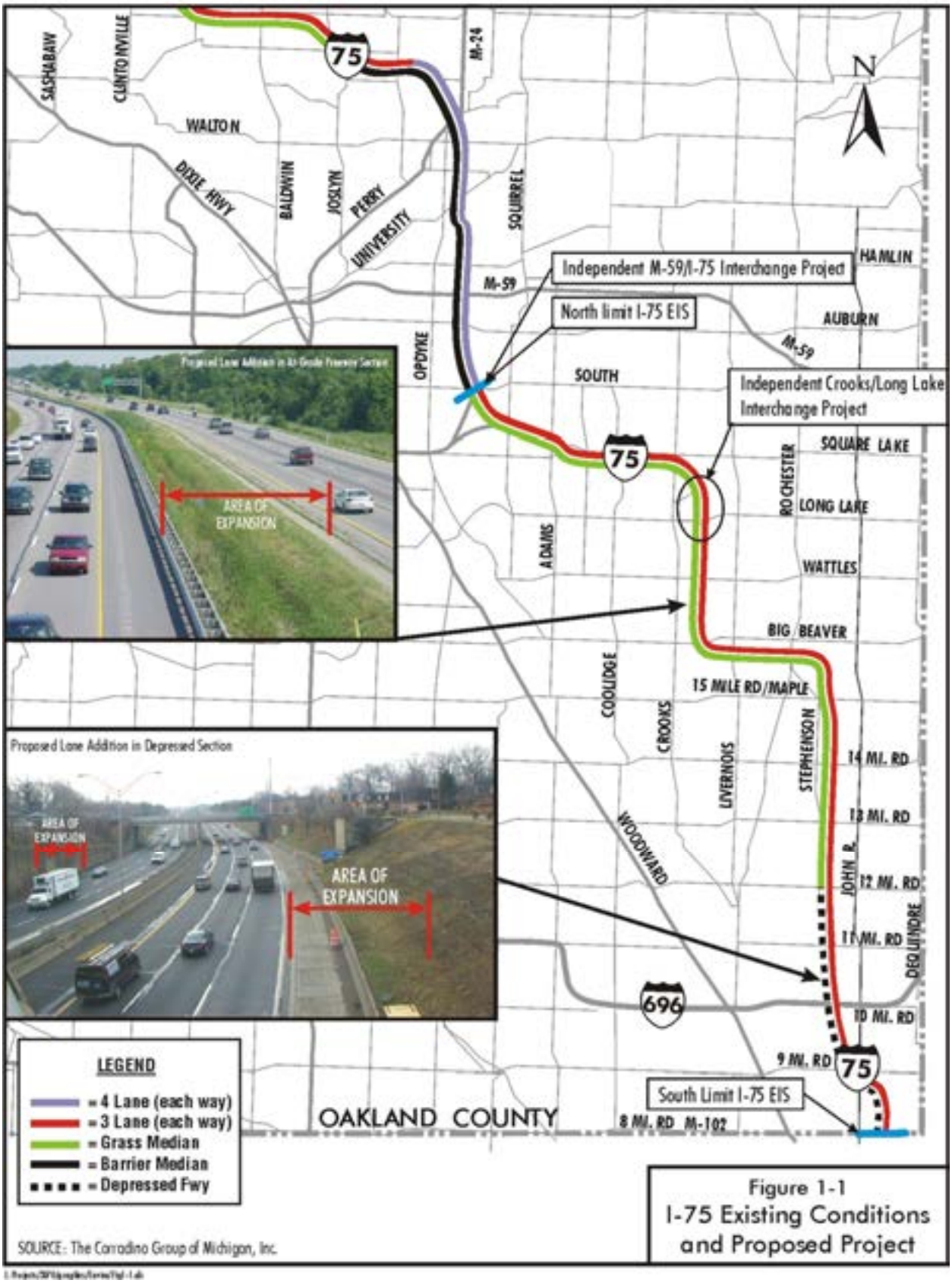
I-75 is an interstate freeway that runs from north to south from Sault Ste. Marie, Michigan to Miami, Florida. It is a vital transportation corridor in the United States and in the State of Michigan connecting with many freeways throughout the state. It serves as a gateway joining destinations previously separated by long distances.

The Project is located in Oakland County. The Project corridor is approximately 18 miles in length from M-102 to north of South Boulevard. It traverses through six communities: Auburn Hills, Bloomfield Township, Troy, Madison Heights, Royal Oak, and Hazel Park. I-75 is a critical route for local and intrastate goods movement and a key commercial and business route, a tourist route to northern Michigan, and a local residential artery. The Project corridor carries between 103,000 to 178,000 vehicles per day, which is projected to increase by 10 percent by 2035.

The freeway was built in the 1960s and has never had a major improvement since that time. The Project will add a lane that will operate as a High Occupancy Vehicle (HOV) lane in the peak hours of travel for carpoolers and transit vehicles, and then operate as a general lane for all to use, for the remaining hours. This will be the first HOV lane constructed in Michigan. The Project will also upgrade interchanges, reconstruct the existing freeway pavement, construct carpool lots, improve the drainage system, replace bridges, and add aesthetic enhancements to the corridor. These improvements will increase motorist safety, travel efficiency and reliability, address safety concerns, reduce congestion, relieve drainage problems, and improve the road and bridge condition.

On January 23, 2006, the Federal Highway Administration (FHWA) issued a ROD, which identified the preferred alternative in the Final Environmental Impact Statement (FEIS) as the selected alternative.

Figure ES-1. Project Map



PROJECT SPONSOR, PARTNERS, AND MANAGEMENT

The Project Sponsor is the Michigan Department of Transportation (MDOT). FHWA, Bloomfield Township, and the cities of Auburn Hills, Troy, Madison Heights, Royal Oak, and Hazel Park are the stakeholders. The cities of Troy, Madison Heights, and Royal Oak are cost-sharing partners. The overall management of the Project will be the responsibility of MDOT.

INITIAL FINANCIAL PLAN SUMMARY

This document is the Project's IFP. It is submitted by MDOT, as required by Section 106 of Title 23 of the United States Code as modified by MAP-21, Public Law 112-141, as amended.

This IFP demonstrates the State's commitment to complete the Project, and commitment to sound financial planning for Major Projects, as defined by the FHWA Major Project Financial Plan Guidance issued on December 18, 2014. The IFP is a fully funded plan. Detailed funding information is presented for all segments of the Project. Overall, this IFP presents the entire Project scope, cost and schedule as defined by the NEPA decision document approving the Project.

A technical memorandum entitled "Opinion of Probable Cost' was used as a basis to develop this financial plan.

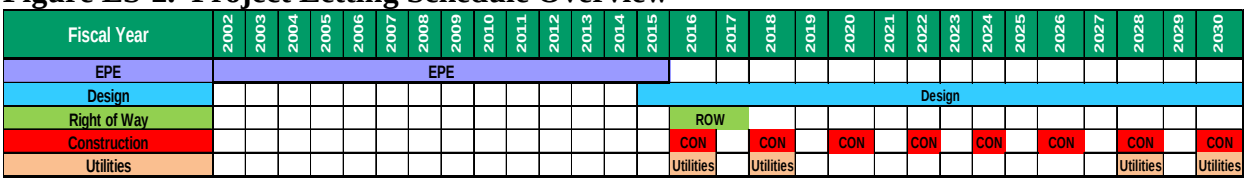
Within the IFP, the following topics are addressed (by chapter):

CHAPTER 1. PROJECT DESCRIPTION - This chapter provides an overview of the Project and the individual segments that together make up the Project, describes the management plan, and provides a history of the Project to date, including a review of the status of all ongoing activities.

CHAPTER 2. PROJECT SCHEDULE - This chapter provides information on the planned schedule for implementation of all the Project elements and establishes the Project completion date as November, 2032. This chapter provides information regarding the assignment of implementation responsibilities and provides a summary of the status of necessary permits and approvals.

Based on the current planned Project delivery approach, the Project is scheduled to be constructed in eight construction packages to be let over a 16-year build out period from Fiscal Year (FY) 2014 to FY 2030. (See Appendix A for a detailed Project schedule).

Figure ES-2. Project Letting Schedule Overview



CHAPTER 3. PROJECT COST - This chapter provides a detailed description of the cost elements of the Project and provides current estimates of those costs. It also summarizes the costs incurred to date and provides detail on key cost-related assumptions.

Federal FY and state FY are the same, therefore, all use of FY means October 1 through September 30.

The current cost estimate is based on the state FY 2014.

The total baseline estimated cost for the Project is $1,021.2 million in FY 2014 dollars. The projected year of expenditure (YOE) cost, inflated to year of letting, is $1,331.4 million. The YOE estimate reflects the current Project schedule and reasonable assumptions for future inflation. MDOT will continue to monitor and adjust the cost estimate based on new Project-specific information, as well as information on economic conditions that will affect Project costs. For purposes of this financial plan, unless otherwise noted, the YOE estimate is calculated to the year of the respective individual contract lettings.

Table ES-1 provides an overview of the Project costs. These costs are presented in YOE dollars based on the current Project schedule, current cost estimates, and reasonable estimates of inflation.

Table ES-1. Project Cost Estimate, by Segment (YOE dollars, in millions)

Project Segment	Total Project Cost
EPE	$8.9
Project Administration	57.9
2016-N. of Coolidge to N. of South Boulevard	127.4
2018-N. of I-696 to S. of 12 Mile	218.0
2020-N. of Wattles to N. of Coolidge	93.4
2022-N. of Rochester to N. of Wattles	128.7
2024-N. of 13 Mile to N. of Rochester	151.2
2026-S. of 12 Mile to N. of 13 Mile Road	157.8
2028-N. of 9 Mile Road to N. of I-696	121.0
2030-N. of M-102 to N. of 9 Mile Road	267.3
Total	**$1,331.4**

CHAPTER 4. PROJECT FUNDING - This chapter reviews MDOT's overall plan of finance for the Project, describes in detail the planned sources of funds, and reviews the funding plan in the context of the State's overall transportation program and available resources. The planned sources of funds in this chapter are shown in year of obligation.

As currently conceived and for the purposes of this IFP, the Project will be funded with traditional funding; approximately 81.85 percent federal funding and 18.15 percent state funding. Local Agencies will be responsible for contributing their required share of the state's portion.

Federal funding sources are from the National Highway Performance Program. State Transportation Funds are from the state restricted fund for transportation purposes as provided for in Michigan Public Act (PA) 51 of 1951, hereafter described as the State Trunkline Fund (STF). The Local Agencies provide local funds to meet their minimum participation amount, as required by Michigan PA 51 of 1951.

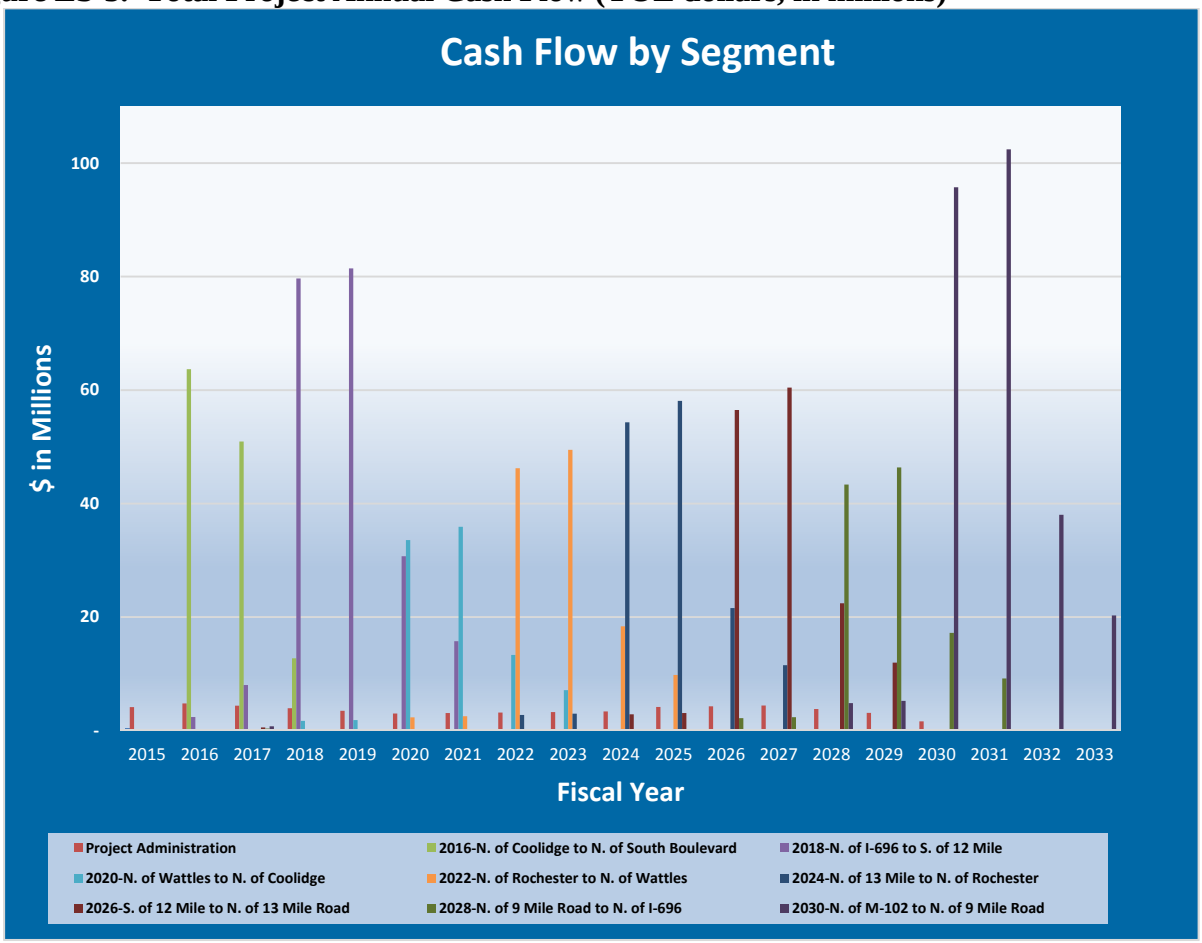
Table ES-2. Summary Project Funding by Source

Funding Source	Total Funding
Federal	$1,088.1
State	225.9
Local	17.4
TOTAL	$1,331.4

CHAPTER 5. FINANCING ISSUES - This chapter discusses MDOT's plan to fund the Project from program budgets. Financing with debt including revenue bonds or Grant Anticipation Revenue Vehicle (GARVEE) bonds is not being considered at this time.

CHAPTER 6. PROJECT CASH FLOW - This chapter demonstrates that sufficient cash will be available to fund obligations and expenditures based on the Project schedule and fiscally-constrained State Transportation Improvement Plan (STIP), Transportation Improvement Plan (TIP), and Local Road Program (LRP). Project cash needs are shown by year in Figure ES-3.

Figure ES-3. Total Project Annual Cash Flow (YOE dollars, in millions)



The planned sources and uses of funds at the summary level are shown in Figures ES-4 and ES-5 below.

Figure ES-4. Sources of Funds

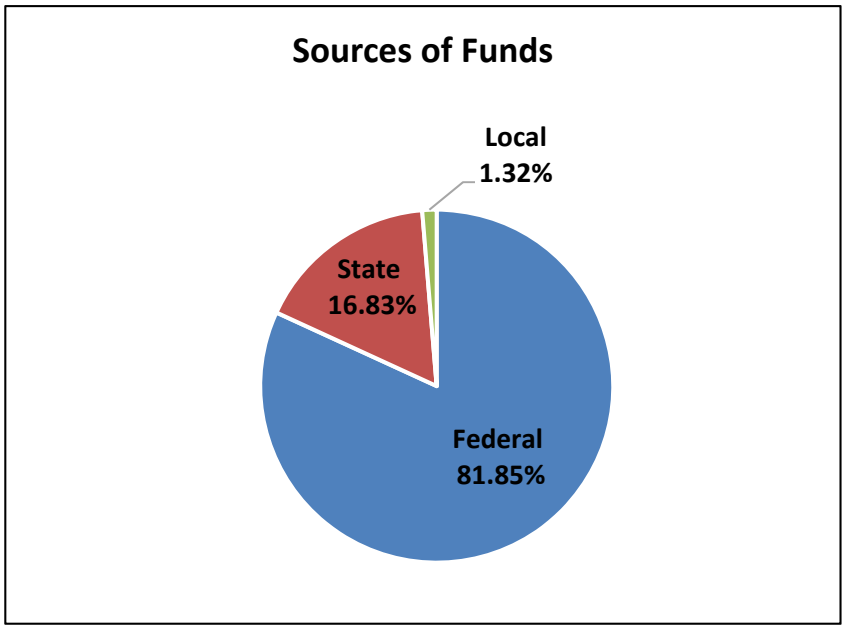
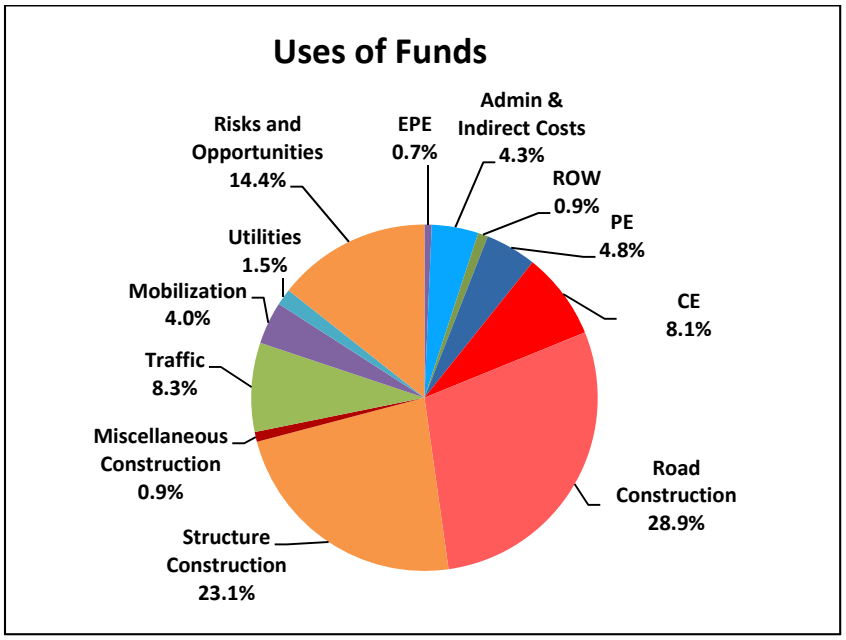


Figure ES-5. Uses of Funds



CHAPTER 7. PUBLIC PRIVATE PARTNERSHIP ASSESSMENT - At the current time, MDOT does not have legislative authority to enter into a public private partnership agreement for a project of this magnitude and duration, nor does MDOT have legislative authority to toll roadways including additions to existing road ways.

CHAPTER 8. RISK AND RESPONSE STRATEGIES - This chapter discusses the risks, opportunities, response, and mitigation strategies which have been identified for this Project during a comprehensive review held for this purpose. Any additional risks, opportunities, responses, and mitigation strategies discovered during the Cost Estimate Review (CER) are also presented. The monetary impact of risks and opportunities is provided as is MDOT's plan to fund reserves for these risks.

CHAPTER 9. ANNUAL UPDATE CYCLE - This chapter establishes MDOT's proposed annual submission dates and reporting periods.

MDOT has selected the anniversary date method to establish the date for which data will be refreshed and to establish the date for annual updates. The first anniversary date for the IFP will be May 1, 2016. MDOT will provide annual updates using data that is current as of each May 1, until all construction work is complete and accepted by MDOT. Each updated financial plan will be submitted within three months of the May 1 anniversary date in accordance with Major Project requirements.

Circumstances can change and alternatives may present themselves as superior to the baseline plan, as articulated in this document. Future annual updates will account for any such revisions to the Project's financial plan.

CONCLUSION

This IFP creates a record of planned expenditures and funding sources secured for the Project, and documents sources of funding for each fundable phase. The presentation of this IFP is based upon currently available information and, as such, MDOT is fully prepared to complete the Project on schedule and in accordance with the projected funding requirements.

CHAPTER 1 - PROJECT DESCRIPTION

INTRODUCTION

This chapter provides an overview of the Project and the individual segments that together encompass the Project, describes the management plan, and provides a history of the Project to date, including a review of the status of all ongoing activities

PROJECT DESCRIPTION

I-75 is an interstate freeway that runs from north to south from Sault Ste. Marie, Michigan to Miami, Florida. It is a vital transportation corridor in the United States and in Michigan connecting with many freeways throughout the state. It serves as a gateway joining destinations previously separated by long distances.

The Project is located in Oakland County and is approximately 18 miles in length from M-102 to north of South Boulevard. It traverses through Auburn Hills, Bloomfield Township, Troy, Madison Heights, Royal Oak, and Hazel Park. I-75 is a critical route for local and intrastate goods movement and is a key commercial and business route, a tourist route to northern Michigan and a local residential artery. The Project corridor carries between 103,000 to 178,000 vehicles per day, which is projected to increase by ten percent by 2035.

The freeway was built in the 1960s and has never had a major improvement. The Project will add a lane that will operate as a HOV lane in the peak hours of travel for carpoolers and transit vehicles, and then operate as a general lane for all to use, for the remaining hours. This will be the first HOV lane constructed in Michigan.

The Project will also upgrade interchanges, reconstruct the existing freeway pavement, construct carpool lots, improve the drainage system, replace bridges, and add aesthetic enhancements to the corridor. These improvements will increase motorist safety, travel efficiency and reliability, and address safety concerns, reduce congestion, relieve drainage problems, and improve the road and bridge condition.

Improvements in bicycle and pedestrian access are also included in the Project. Six pedestrian bridges will be replaced and will meet Americans with Disabilities Act requirements. Five are located in the southern portion of the Project and one is located near 12 Mile Road. An additional, existing pedestrian bridge will be combined with the vehicular bridge at Wattles Road. The other bridges in the northern segment will maintain or improve the existing conditions for pedestrians or bicyclists.

Two lanes of traffic will be maintained in both directions at all times, per the environmental document. A specific Motorist Information Plan will be developed and implemented during construction to identify lane closures and alternate routes. This will be an addition to the already operational and successful MDOT mobile application system, MI DRIVE.

I-75 is a depressed freeway section in the south and is at grade or elevated in the northern section of the Project. I-75 passes under Gardenia Avenue, then over 12 Mile Road, the next crossroad to the north, marking the northern limit of the depressed freeway section. The lane addition in this

section would be constructed in the existing median north as far as Square Lake Road. The left exit from northbound I-75 to westbound Square Lake Road, and the left entrance from eastbound Square Lake Road to northbound I-75 will be modified so all movements on and off the freeway will be on the right hand side.

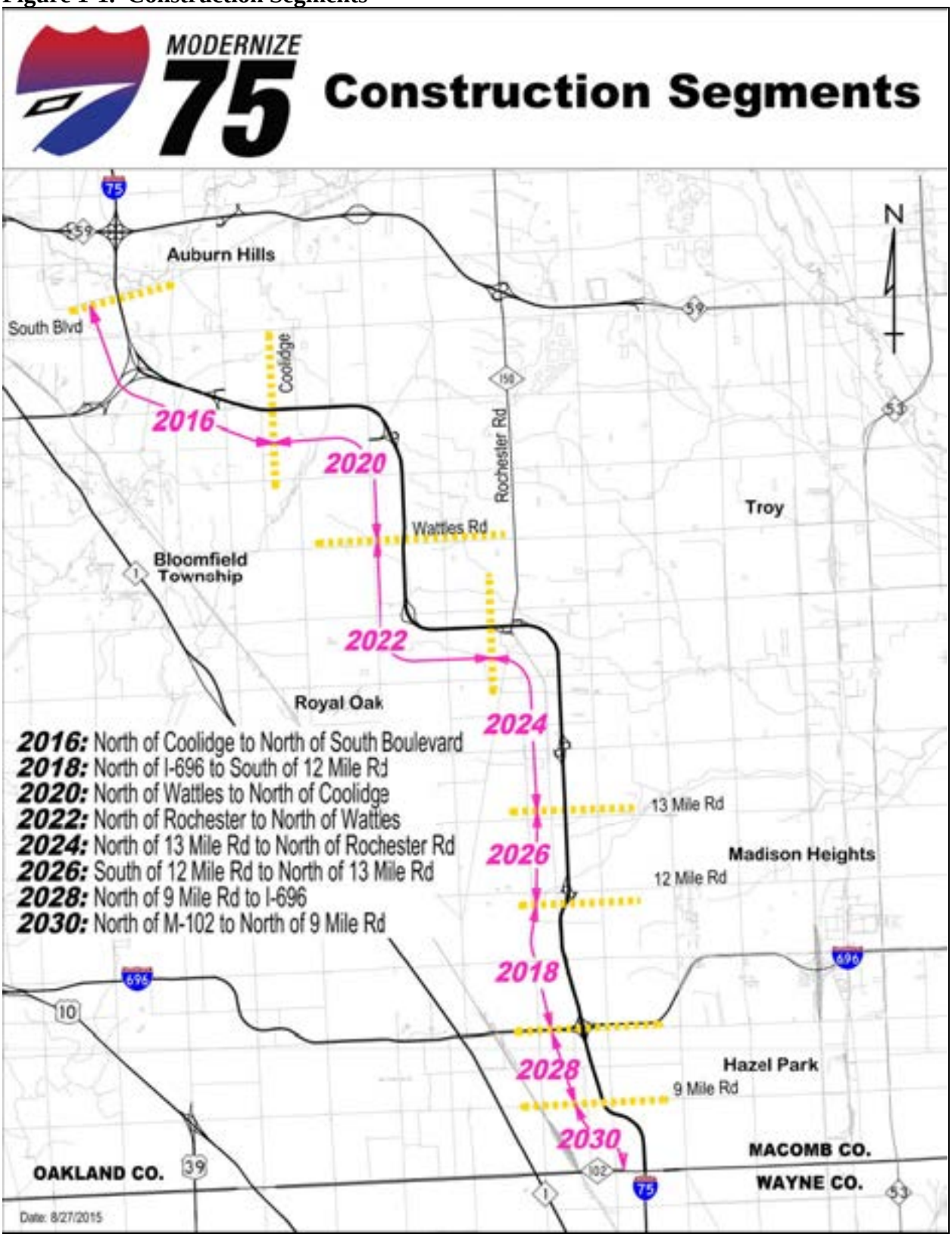
The lane addition in this northern segment will be constructed within existing MDOT right of way (ROW). Appendices E and F show typical proposed freeway cross-sections. The Project will modernize the freeway corridor to current design standards. This will be accomplished by changing the roadway profile, increasing super elevations in curves, making compatible changes to curve radii and lengths (minor changes only), and changing ramp profiles and lengths. A 75 mph design speed is planned in the northern and southern segments.

The northern most segment, North of Coolidge Road to North of South Boulevard, will be delivered as a Design Build (DB) contract. MDOT will seek requests from interested proposers in October 2015. All other segments will be delivered under the traditional Design-Bid-Build model.

The Project consists of eight separate construction segments.

- North of Coolidge Road to North of South Boulevard
- North of Wattles to North of Coolidge
- North of Rochester Road to North of Wattles
- North of 13 Mile Road to North of Rochester Road
- South of 12 Mile Road to North of 13 Mile Road
- North of I-696 to South of 12 Mile Road
- North of 9 Mile Road to North of I-696
- North of M-102 to North of 9 Mile Road

Figure 1-1. Construction Segments



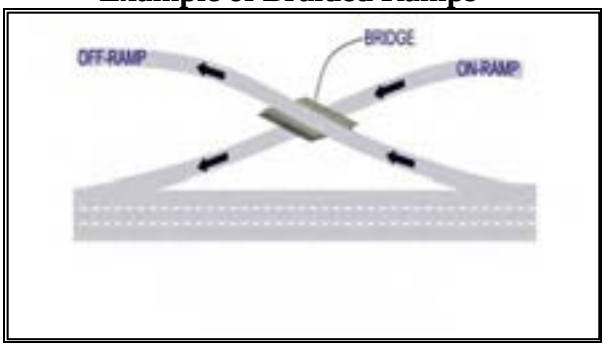
Job Numbers (JN) and description by segment are shown below.

JN 115576 - 2016 North of Coolidge Road to North of South Boulevard
Reconstruct approximately three miles and add a part time HOV lane in the median. Modernize the Square Lake interchange, improve the drainage, upgrade the carpool lot, replace the Squirrel Road bridge, reconstruct the Adams Road interchange, replace the I-75 structures over Square Lake Road (east of Adams Road), and construct the aesthetic enhancements.

Figure 3-12
I-696 Ramp Braiding

JN 122317 - 2018 North of I-696 to South of 12 Mile Road
Reconstruct and add a lane within the existing freeway "footprint" by using more retaining walls. Upgrade the geometrics, replace the bridges, improve the drainage, add noise walls, add aesthetic enhancements, modify the ramps from eastbound and westbound I-696 to northbound I-75 (ramp braiding), replace the existing pedestrian bridge over I-75, and separate the storm water from the combined sewer system.

Example of Braided Ramps



JN 126067 - 2020 North of Wattles to North of Coolidge
Reconstruct, and add a part time HOV lane within the existing median. Upgrade the geometrics, replace the bridges, add noise walls, improve the drainage, and add aesthetic enhancements.

JN TBD - 2022 North of Rochester Road to North of Wattles
Reconstruct and add a part time HOV lane within the existing median. Upgrade the geometrics, replace the bridges, remove the Wattles pedestrian bridge and combine with the road structure over Wattles Road, add noise walls, improve the drainage, and add aesthetic enhancements.

JN TBD - 2024 North of 13 Mile Road to North of Rochester Road
Reconstruct and add a part time HOV lane within the existing median. Upgrade the geometrics, replace the bridges, add noise walls, improve the drainage, add aesthetic enhancements, and improve the 14 Mile Road interchange.

JN TBD - 2026 South of 12 Mile Road to North of 13 Mile Road
Reconstruct and add a part time HOV lane within the existing median. Upgrade the geometrics, replace the bridges, add noise walls, improve the drainage, add aesthetic enhancements, add a carpool lot, replace the pedestrian bridge south of 12 Mile Road, and improve the 12 Mile Road interchange.

JN TBD - 2028 North of 9 Mile Road to I-696
Reconstruct and add a lane on the freeway by using more retaining walls. Upgrade the geometrics, replace the bridges, improve the drainage, add noise walls, add aesthetic enhancements, replace existing pedestrian bridges over I-75, and separate the storm water from the combined sewer system.

JN TBD - 2030 North of M-102 to North of 9 Mile Road
Reconstruct and add a lane on the freeway by using more retaining walls. Upgrade the geometrics, replace the bridges, improve the drainage, add noise walls, add aesthetic enhancements, replace existing pedestrian bridges over I-75, separate the storm water from the combined sewer system, and shift the northbound on and southbound off ramps serving M-102 (8 Mile Road) to improve safety.

PROJECT SPONSOR, PARTNERS, AND MANAGEMENT

The Project Sponsor is MDOT. FHWA, Bloomfield Township, and the cities of Auburn Hills, Troy, Madison Heights, Royal Oak, and Hazel Park are the stakeholders. The cities of Troy, Madison Heights, and Royal Oak are cost-sharing partners. The overall management of the Project will be the responsibility of MDOT.

MDOT is a separate state agency within the government of the State of Michigan. MDOT is self-funded with dedicated, legislatively restricted revenue sources. MDOT owns, operates, and maintains approximately 10,000 miles of trunkline. MDOT administers an annual budget of approximately $1.8 billion. The proposed Project is well within the capabilities of MDOT to manage successfully.

PROJECT MANAGEMENT AND OVERSIGHT

MDOT will oversee all Project activities from Early Preliminary Engineering (EPE) and environmental clearance phases through final construction. To assist with this endeavor, MDOT will retain a consultant firm as the Owners Representative (OR). Contractual agreements will not transfer the overall responsibility of Project oversight to the OR. The OR firm will act as technical experts and will be used in addition to MDOT staff. MDOT is responsible for developing the Project Management Plan (PMP) to prescribe the Project's management and oversight method, including scope, schedule, cost, and cost containment procedures.

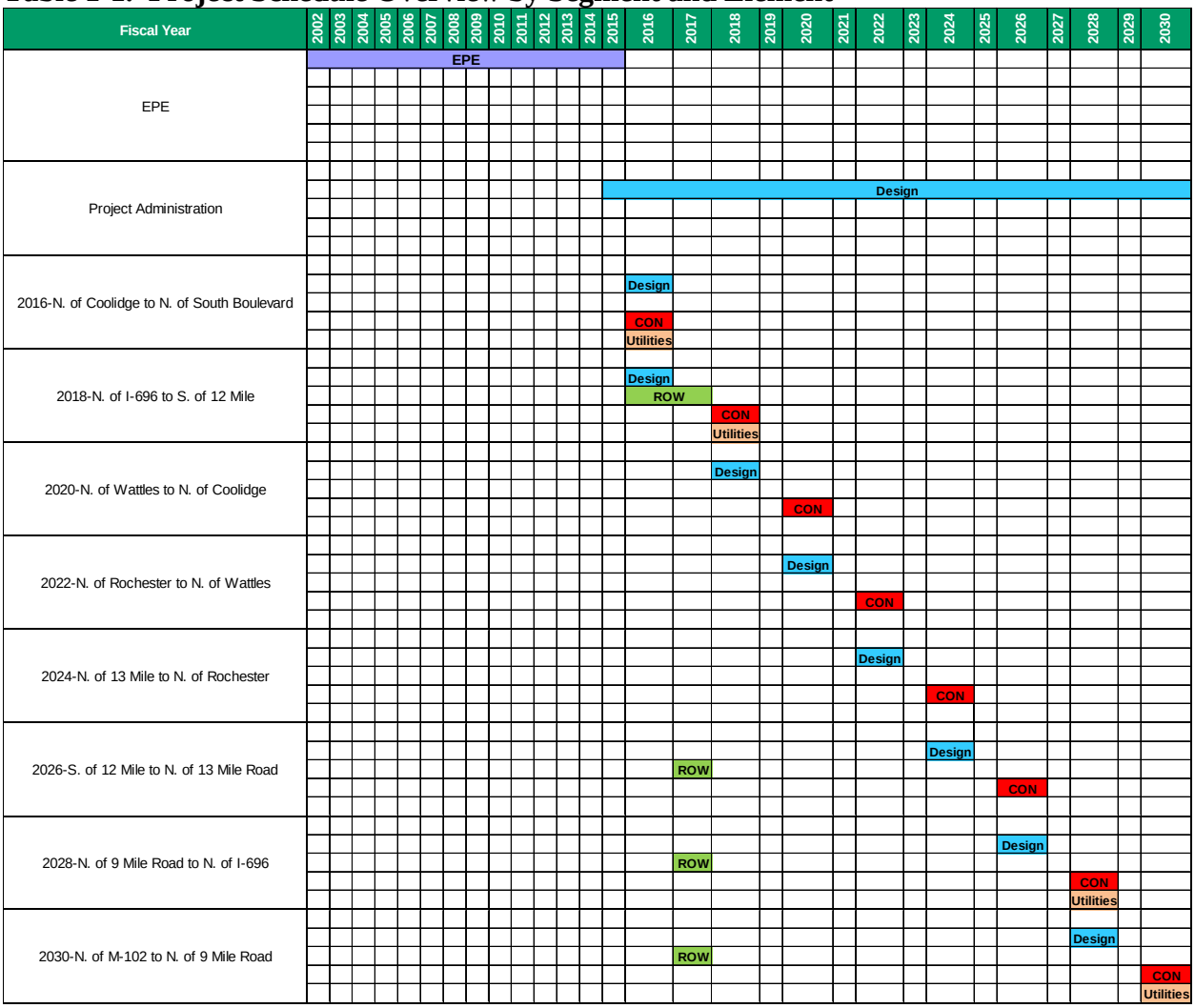
Due to the complexity of the Project, MDOT oversight will be exercised by MDOT's Leadership Team, which is comprised of the Director, Chief Operations Officer, Chief Administrative Officer, and the Bureau Directors and Region Engineers within MDOT.

The MDOT Senior Project Manager is Sue Datta. The role and responsibility of the Senior Project Manager is to provide overall administration, coordination, and technical oversight to the Project. Various levels of support staff and teams have been established with roles and responsibilities. The specific roles and responsibilities are defined in the PMP.

OVERVIEW OF ACTIVITIES AND PROJECT SCHEDULE

Table 1-1 presents an overview of the Project schedule. Project schedule is discussed more fully in Chapter 3.

Table 1-1. Project Schedule Overview by Segment and Element



CHAPTER 2 - PROJECT SCHEDULE

INTRODUCTION

This chapter provides information on the planned letting schedule for implementation of all elements of the Project. It also provides major milestones for completing the Project, completion date, additional information regarding the assignment of implementation responsibilities, and provides a summary of the status of necessary permits and approvals.

PROJECT DESCRIPTION/PHASING

As detailed in Chapter 1 of this IFP, the Project is comprised of eight segments which rehabilitate 18 miles of the I-75 corridor from south of M-59 to north of M-102. The Project segments in order of completion are:

- 2016 - NORTH OF COOLIDGE TO NORTH OF SOUTH BOULEVARD
- 2018 - NORTH OF I-696 TO SOUTH OF 12 MILE ROAD
- 2020 - NORTH OF WATTLES TO NORTH OF COOLIDGE
- 2022 - NORTH OF ROCHESTER TO NORTH OF WATTLES
- 2024 - NORTH OF 13 MILE ROAD TO NORTH OF ROCHESTER
- 2026 - SOUTH OF 12 MILE ROAD TO NORTH OF 13 MILE ROAD
- 2028 - NORTH OF 9 MILE ROAD TO NORTH OF I-696
- 2030 - NORTH OF M-102 TO NORTH OF 9 MILE ROAD

Given the structure of the Project as outlined above, it is clear that the coordination of design and construction sequencing among the various segments will be critical. Such sequencing also could have a significant impact on overall costs and financing requirements. The proposed scheduling of construction segments commencing every other year is very conservative with little risk of overruns. If additional funding should become available MDOT will make reasonable efforts to accelerate the schedule.

IMPLEMENTATION RESPONSIBILITY

Due to the magnitude and impact of this Project, MDOT oversight will be exercised by MDOT's Leadership Team which is comprised of the Director, Chief Operations Officer, Chief Administrative Officer, Bureau Directors, and Region Engineers within MDOT.

The MDOT Senior Project Manager is Sue Datta. The role and responsibility of the Senior Project Manager is to provide overall administration, coordination, and technical oversight to the Project. Support staff and teams have been established with roles and responsibilities. The specific roles and responsibilities are defined in the PMP. MDOT will use an OR for this Project due to the complexities and duration of a modernization Project in an established urban area of this magnitude. The OR will serve as an extension of the Senior Project Manager and will assist with design, management, cost, schedule, and quality.

Moving this Project from concept to completion will be very complex. Managing the process will be accomplished with a number of tools and software applications; such as MDOT's proprietary Program/Project Management software, and Primavera for scheduling and budget. MDOT's

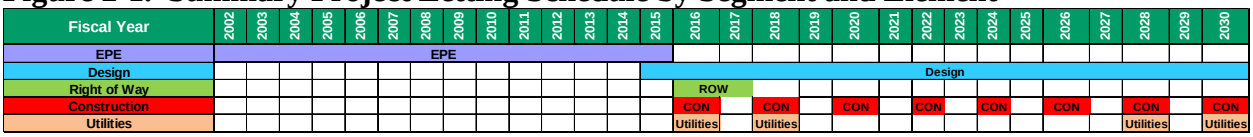
proprietary software, Field Manager, will be used to capture actual costs by activity, as they are incurred.

Additional information about the implementation strategy and management responsibilities can be found in the PMP on the Project.

SUMMARY PROJECT SCHEDULE

The delivery of the Project will consist of various design, ROW, and construction schedules with lettings planned throughout the future years. A summary schedule is shown below based on the anticipated letting schedules of the eight construction packages, the design and ROW required, and the anticipated duration of each phase. For purposes of the summary schedules shown below, the Design element includes the OR contract and PE. A complete Project schedule by quarter and year is provided as Appendix A, and a detailed schedule by month and year for the first Segment, 2016 - North of Coolidge to North of South Boulevard, is provided as Appendix B. Additional detailed segment schedules will be provided in future annual updates.

Figure 2-1. Summary Project Letting Schedule by Segment and Element



MAJOR MILESTONES AND COMPLETION DATES

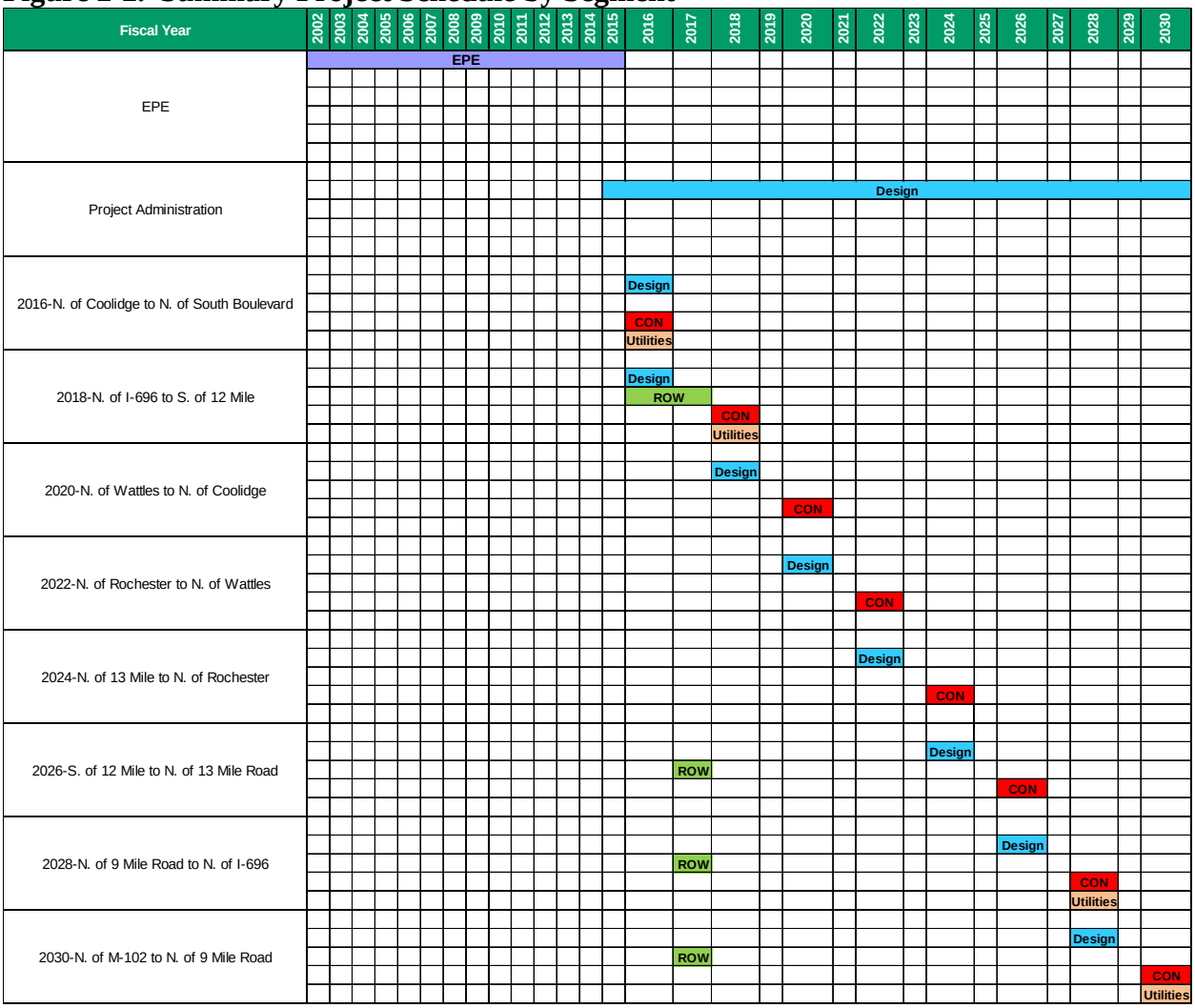
The completion date for the Project is November 2032. The last construction package for the final segment is anticipated to be let in 2030. Acceptance and completion of this final segment and all construction work should be reached in November 2032. A summary of major milestones and completion dates by project segment are presented below.

Table 2-1. Major Milestones

Project Segment	Forecasted Completion Month and Year
EPE	Completed in 2015
Project Administration	September 2030
2016-N. of Coolidge to N. of South Boulevard	September 2018
2018-N. of I-696 to S. of 12 Mile	May 2020
2020-N. of Wattles to N. of Coolidge	May 2022
2022-N. of Rochester to N. of Wattles	October 2023
2024-N. of 13 Mile to N. of Rochester	October 2025
2026-S. of 12 Mile to N. of 13 Mile Road	October 2027
2028-N. of 9 Mile Road to N. of I-696	October 2029
2030-N. of M-102 to N. of 9 Mile Road	November 2032
Final Acceptance of All Segments	**November 2032**

Individual Project schedules for each segment are shown below.

Figure 2-2. Summary Project Schedule by Segment



STATUS OF PERMITS AND APPROVALS

Timely communication and coordination with the permitting agencies will facilitate the process. At this time, permits are expected to be issued in a timely manner posing no risk to Project completion, scope or cost.

Those permits, as required in the FEIS, are outlined in Table 2-2.

Table 2-2. Required Permits and Status

Issuing Agency	Permit/Notification	Status
Michigan Department of Environmental Quality	National Pollution DES Permit	Application not submitted
Michigan Department of Environmental Quality	Act 451 Part 301 Inland Lakes and Streams	Application submitted
Michigan Department of Environmental Quality	Act 451 Part 303 Wetland Protection	Application submitted
US Fish and Wildlife Service	Federal Endangered Species Permit	Application not submitted
Michigan Department of Environmental Quality	Act 451 Part 31 Water Resource Protection	Application not submitted

CHAPTER 3 - PROJECT COST

INTRODUCTION

This chapter provides a detailed description of the cost elements of the Project and provides current estimates of those costs. It also summarizes the costs incurred to date, costs to complete, and provides detail on key cost-related assumptions.

COST ESTIMATE OVERVIEW

The current base cost estimate for the Project is $1,021.2 million in FY 2014 dollars. Total Project cost for past and future expenses is $1,331.4 million. Future costs only in YOE is $1,322.5 million. Estimates are based on the projected YOE (inflated to year of letting) and current expectations of construction-related inflation. The YOE estimate reflects the current Project letting schedule and reasonable assumptions for future inflation. MDOT will continue to monitor, adjust the cost estimate based on new information on underlying economic conditions, and to reflect any changes in annual updates to the financial plan. See Appendix C for the supporting spreadsheets.

It is likely the final cost of the Project will differ from the estimate. As this Project progresses to final design, the range should become narrower. It is typical to determine the cost of a Major Project such as this one at the 70 percent probability range. Considering all risks to Project costs, the 70 percent probability range determines what the cost of the Project will be if most of these risks occur. Conversely, the Project cost has a 30 percent probability to cost more than the estimate at this level. The 70 percent probability estimate for this Project is $1,319.6 million, based on the results of the CER held June 16-19, 2015. MDOT will fund the Project at the slightly higher level of $1,322.5 million.

COST ESTIMATING METHODOLOGIES AND KEY ASSUMPTIONS HISTORY

Baseline Cost Estimating Methodology by Cost Element

Two design firms were engaged to refine the design and develop preliminary cost estimates, one for the northern half of the Project from south of M-59 to 12 Mile Road and a second for the southern half of the Project from 12 Mile Road to north of M-102. These were completed in August 2010 and December 2009, respectively. Cost estimates were arrived at by summing the individual pay items in the design detail. Unit cost values for pay items were compiled from MDOT's pay item average unit process. For the freeway, ramp, and local road work the MDOT "Weighted Average Item Price Cost Report" was utilized. The bridge estimating was performed utilizing the procedures outlined in the MDOT Bridge Repair Cost Estimating manual. In some instances, where applicable, bid prices from recent construction projects were reviewed and used to adjust some of the higher unit price items. In all cases, the total cost estimate for this Project was completed using standard MDOT estimating procedures.

Unit prices were reviewed and updated in February 2015 using actual prices MDOT paid for similar work in the Metro area for the most recent construction season of 2014. The base cost estimate is therefore in 2014 dollars. Percentages were applied for PE and CE.

Baseline Inflation Assumption

A three percent annual inflation rate was applied to all elements including administration and indirect costs, ROW purchases, design, construction, construction engineering, and utilities for the eight construction packages. Inflation was applied to the year of obligation. The three percent inflation rate is slightly above the current Consumer Price Index rate for the region. MDOT will continue to monitor market conditions and adjust the inflation rates as appropriate. Adjustments for inflation will be reflected in the annual updates to the IFP.

COST ELEMENTS

The costs for each of the eight Project segments have been further detailed into Major Project elements as described below.

Early Preliminary Engineering - Planning and engineering costs necessary to develop the FEIS. Activities include to those needed to define purpose and need, scoping, selection of project limits and study area.

Preliminary Engineering Road and Bridge - Development of plans, specifications, and estimates necessary to let the Project for construction.

Administration and Indirect Costs - Total estimated cost for MDOT to review, approve, fund, make and receive payments, manage and oversee. Includes the total estimated cost of the designated official representative to serve as an extension of the Senior Project Manager. The OR will assist with design, management, cost, schedule, and quality.

Right of Way - Total costs to purchase ROW including appraisals, acquisition, and relocation costs.

Road Construction - Total estimated cost to construct the roadway portions of the Project. This category includes clearing, drainage, guardrail and other removals; earthwork; pavement and base materials; drainage and erosion control; sidewalk, curb and gutters, and other miscellaneous items of construction.

Structure Construcation - Total estimated cost to construct the structural portions of the Project. This category includes bridge deck, superstructure, substructure, and foundation items of construction.

Miscellaneous Construction - This category includes various Project-related activities such as; handling of hazardous materials, wetlands, and ROW acquisitions. Also includes all public and private utility relocation and new utility construction, such as telephone, electric, gas, fiber optics, water, sewer, and storm drainage. An allowance of one percent of road construction, structure

construction, and traffic was included in the base cost estimate for ascetic improvements and a half percent was included for remediation of unsuitable soils.

Construction Engineering - Engineering services required throughout the construction of the Project.

Traffic - Total estimated cost to construct the traffic and safety portions of the Project. This category includes maintaining traffic, permanent signing and striping, ITS, and freeway lighting items of construction.

Mobilization - Total estimated cost for preparatory work and operations items of construction.

Risks and Opportunities - The total range of events that may happen and produce risks or opportunities for the Project. Risks and opportunities have been identified and valued at several stages of project development. MDOT will manage the value of risks and opportunities as a separate element.

Early Completion Incentives - Construction contracts may include monetary incentives for early completion. Contracts for each construction package will be evaluated separately for opportunities for early construction incentives.

COSTS BY CONSTRUCTION SEGMENT AND PROJECT ELEMENT

Table 3-1 provides an overview of the Project costs by segment. These costs are presented in baseline and YOE dollars based on the current Project letting schedule, current cost estimates, and reasonable estimates of inflation.

Table 3-1. Project Cost Estimate by Segment (YOE dollars, in millions)

Project Segment	Total Project Cost
EPE	$8.9
Project Administration	57.9
2016-N. of Coolidge to N. of South Boulevard	127.4
2018-N. of I-696 to S. of 12 Mile	218.0
2020-N. of Wattles to N. of Coolidge	93.4
2022-N. of Rochester to N. of Wattles	128.7
2024-N. of 13 Mile to N. of Rochester	151.2
2026-S. of 12 Mile to N. of 13 Mile Road	157.8
2028-N. of 9 Mile Road to N. of I-696	121.0
2030-N. of M-102 to N. of 9 Mile Road	267.3
Total	**$1,331.4**

Table 3-2 provides a summary breakdown of Project costs by segment and Project element, in YOE dollars.

Table 3-2. Project Cost Estimate by Construction Segment and Project Element (YOE dollars, in millions)

Project Element	Cost by Segment										
	EPE	Project Administration	2016-N. of Coolidge to N. of South Boulevard	2018-N. of I-696 to S. of 12 Mile	2020-N. of Wattles to N. of Coolidge	2022-N. of Rochester to N. of Wattles	2024-N. of 13 Mile to N. of Rochester	2026-S. of 12 Mile to N. of 13 Mile Road	2028-N. of 9 Mile Road to N. of I-696	2030-N. of M-102 to N. of 9 Mile Road	Total
EPE	$8.9	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$8.9
Admin & Indirect Costs	-	57.9	-	-	-	-	-	-	-	-	57.9
ROW	-	-	-	10.9	-	-	-	0.5	0.3	0.7	12.5
PE	-	-	8.6	10.3	4.6	6.3	7.4	7.7	5.9	13.0	63.8
CE	-	-	10.8	17.9	8.1	11.1	13.1	13.6	10.4	23.0	108.0
Road Construction	-	-	48.0	63.4	32.7	41.0	52.9	48.5	30.2	68.5	385.2
Structure Construction	-	-	33.9	38.9	21.2	39.1	40.7	49.6	22.1	62.4	307.9
Miscellaneous Construction	-	-	1.3	1.8	0.9	1.3	1.6	1.6	1.0	2.5	12.1
Traffic	-	-	6.9	17.2	8.0	8.7	10.8	10.7	15.8	32.6	110.8
Mobilization	-	-	9.0	13.0	3.1	4.5	5.3	5.5	3.8	8.6	52.8
Utilities	-	-	0.1	8.2	-	-	-	-	6.2	6.0	20.5
Risks and Opportunities	-	-	8.7	36.5	14.9	16.7	19.4	20.0	25.3	49.9	191.1
Total	**$8.9**	**$57.9**	**$127.4**	**$218.0**	**$93.4**	**$128.7**	**$151.2**	**$157.8**	**$121.0**	**$267.3**	**$1,331.4**

FHWA Major Projects Cost Estimate Review

A Review Team consisting of FHWA, MDOT, and their consultants conducted a CER workshop to review the cost and schedule estimates for the I-75 Modernization Project. The workshop was held at the MDOT Horatio Earle Center in Lansing, Michigan from June 16 to 18, 2015. The objective of the review was to verify the accuracy and reasonableness of the Project's cost estimate and schedule, and develop a probability range for the cost estimate that represents the Project's current stage of development. A summary of the process and the results of the CER is documented in the CER Final Report.

Prior to the CER, MDOT submitted updated total project estimates for the I-75 Modernization Project. A few adjustments were made to the estimate during the CER. The pre-review project estimate was $956.4 million and the post-review estimate was $984.8 million.

The total estimate adjustment was an increase in the base estimate amount of $28.5 million as a result of the following:

- Addition of previously expended costs for wetland mitigation/banking
- Addition of $50,000 to the DB contract for waterline relocation
- Addition of ROW costs by $2.9 million
- Doubling the cost of temporary pavement for all segments
- Doubling the mobilization rate for the 2016 DB and 2018 I-696 to South of 12 Mile Road and evaluating for other segments in the future

The Senior Project Manager, together with subject matter experts (SMEs) from MDOT and OR, discussed and supported the decisions, assumptions and costs associated with scope, design, ROW, utilities, construction, and unit prices used to develop the cost estimates for the Project. The following documents were reviewed: I-75 Engineering Reports, Project Cost Estimate Spreadsheet, Project Schedule, draft Project Risk Assessment Report and Matrix, draft IFP, draft PMP, and the Engineers Estimate of Cost. Schedule and cost risks were identified and quantified. Unit prices, current and anticipated market conditions, and influences on inflation were discussed.

A risk register was developed to define the components of contingency and establish both cost and schedule risks. The risk register includes the event risk name, a description of the event, a probability measure of the likelihood the event will occur, as well as a probability distribution of costs if the event were to occur. The register also identifies if the risk event is a threat or opportunity for cost/schedule. Risk threats increase costs/schedule and opportunities decrease cost/schedule. There were three scenarios evaluated: worse than planned, as planned, and better than planned. Each scenario was assigned a likelihood of occurrence and range of associated costs. In addition to market conditions, inflationary risk was also modeled and used to project current year dollars to YOE.

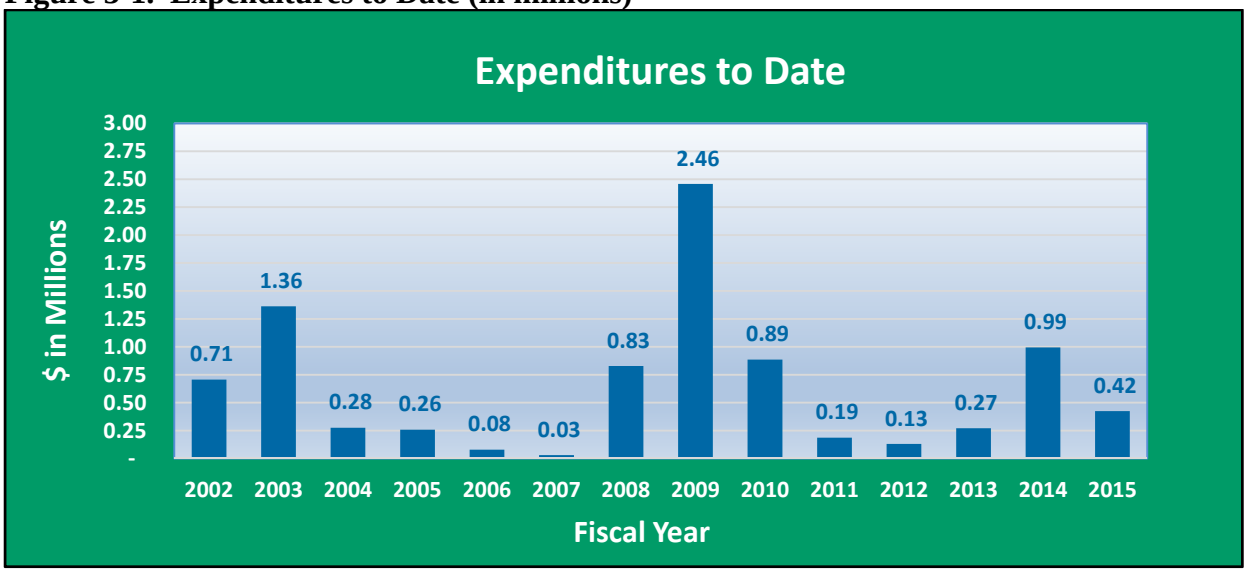
The total value of the uncertainties was determined to be $142.4 million and is referred to as Risks and Opportunities in the IFP. A Monte Carlo analysis was then used to model a probable cost range for the Project.

The FHWA recommended MDOT fund the Project at the 70 percent probability range. The resulting derived cost estimate at the 70 percent confidence level in YOE dollars is $1,319.6 million. The IFP has been updated to reflect the changes discussed and recommended during the CER and is funded at the 70 percent level. The resulting cost estimate as modeled by MDOT resulted in a slightly higher total of $1,322.5 million, with the difference due to slight variances in the models used to compute inflation. MDOT will fund at the higher level.

Costs to Date

Expenditures to date include those incurred between FY 2002 and April 2015. The costs were incurred for EPE related activities, specifically, studies, traffic modeling, engineering reports, evaluation of design modifications, and development of the PMP. Expenditures to date are $8.9 million and are shown in Figure 3-1 below. Any federally eligible costs have been billed to FHWA with reimbursement received.

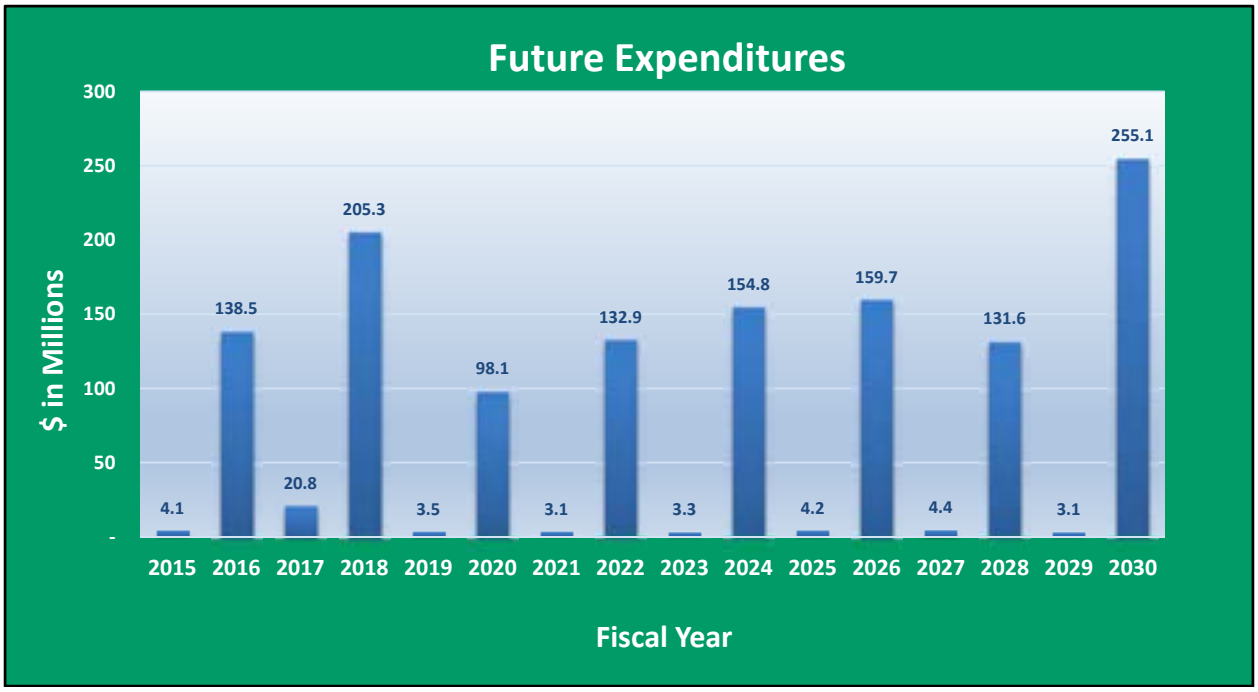
Figure 3-1. Expenditures to Date (in millions)



Future Expenditures

Future expenditures are shown as anticipated lettings, inflated to year of letting and total $1,322.5 million, which meets the FHWA Major Project requirement to fund the Project at the 70 percent level. The Project at the 70 percent level as a result of the CER is $1,319.6 million, due to slight differences between the financial models. MDOT will fund to the higher level of $1,322.5 million. Future expenditures are shown in Figure 3-2 below.

Figure 3-2. Future Expenditures by FY (YOE dollars, in millions)



MANAGEMENT RESPONSIBILITY

MDOT has ongoing responsibility for the oversight of the Project and, in particular, the management of Project costs and Project schedule. MDOT recognizes the importance of cost control for a Project of this scale. As such, the possibility of using new and/or innovative contracting strategies to build and finance the Project will be considered as opportunities present themselves. If MDOT does adopt an innovative contract strategy for this Project, this will be reflected in future updates of this financial plan.

Methods for estimating and monitoring the value of Project costs and the associated risks of potential variances in cost will be developed from MDOT's best past practices and industry best practices. Best practices include the implementation of an Earned Value Management System (EVMS), contingency management consistent with FHWA Major Project Guidelines, utilization of several of MDOT's cost tracking packages including Map Project Information System, Map Financial Obligation System (MFOS), Administrative Customizable Reporting System, and the Michigan Administrative Information Network (MAIN).

As part of the cost control process, risks and opportunities will be continually monitored to assess the potential for cost overruns, and opportunities for savings. Each design consultant will be required to provide constant updates and confirm the work can be secured within the target amount for each construction package.

Implementation of an EVMS is a key component of program and Project management to ensure cost, schedule, and technical aspects of the contract are truly integrated. An EVMS will be developed for this Project, as defined by the American National Standards Institute standard EIA 748-A-1998. The EVMS process can identify trends and forecasts of the Project.

Amounts for unknown costs are included as contingencies in the cost estimate consistent with FHWA Major Project Guidelines. Each contingency is managed by evaluating Project segment budgets and reallocating costs within the baseline to support the remaining segments and any other cost requirements. Similarly, modifications in scope will be evaluated within each segment to determine if the modifications can be accommodated within the allocation for that segment.

MDOT uses several software packages to manage projects, including:

Map Project Information System - Collects and tracks information about projects from scoping through obligation and electronically documents a project's change control.

Program/Project Management Software - Coordinates project tasks between staff and transmits Project changes for review and approval (for inclusion in MDOT's capital program).

Map Financial Obligation System - Used to manage the financing of approved job phases (elements), including coordination of federal fund obligation and disbursement, communication between program management and program control, project initiation, project accounting, and FHWA.

Administrative Customizable Reporting System - Allows MDOT employees to create their own reports that access data from the shared project databases.

Michigan Administrative Information Network (MAIN) - Is an integrated, automated, administrative information system for the State of Michigan. It is comprised of components and systems that support the State's accounting, payroll, purchasing, contracting, budgeting, personnel, revenue management activities, and requirements.

Primavera Version E/C - Is a commercially available project management software tool for task management.

All of these systems have a set of pre-packaged reports that address normal tracking needs, and they also have the ability to generate custom designed reports to address unusual needs. All of these systems (except Primavera) are integrated and share cost information. The distinguishing characteristics are the non-cost project information that can be retrieved from each system. In addition, the Primavera system allows for resource and cost loading of the master project schedule. Detailed reporting of the Project is available to show status with regard to schedule and budget.

CHAPTER 4 - PROJECT FUNDING

INTRODUCTION

This chapter reviews MDOT's plan of finance for the Project, describes in detail the planned sources of funds, and reviews the funding plan in the context of MDOT and regional transportation programs and available resources.

PROJECT PLAN OF FINANCE

As described in detail in Chapter 2, based on current estimates and the most up-to-date information on construction-related inflation, the Project will require an estimated $1,322.5 million (in YOE dollars) to fully fund all remaining elements over the planned horizon. As currently planned, the Project will be funded through traditional federal aid, state, and local match. Short and long term planning methodologies are utilized to reserve funds for the project in the following categories:

Expended - includes funds that have been spent. These are referred to in this IFP as the costs-to-date. For federally eligible expenses, expended means actual cash outlays provided as reimbursement for the federal share.

Obligated – refers to funds that have been reserved for the exclusive funding of the specific segments of the Project. Federal funds are obligated when the project is approved and the project agreement between MDOT and FHWA is executed. Obligations for all funding sources, federal, state, and local, are documented in publically available transportation plans such as the TIP, STIP and Five Year Plan.

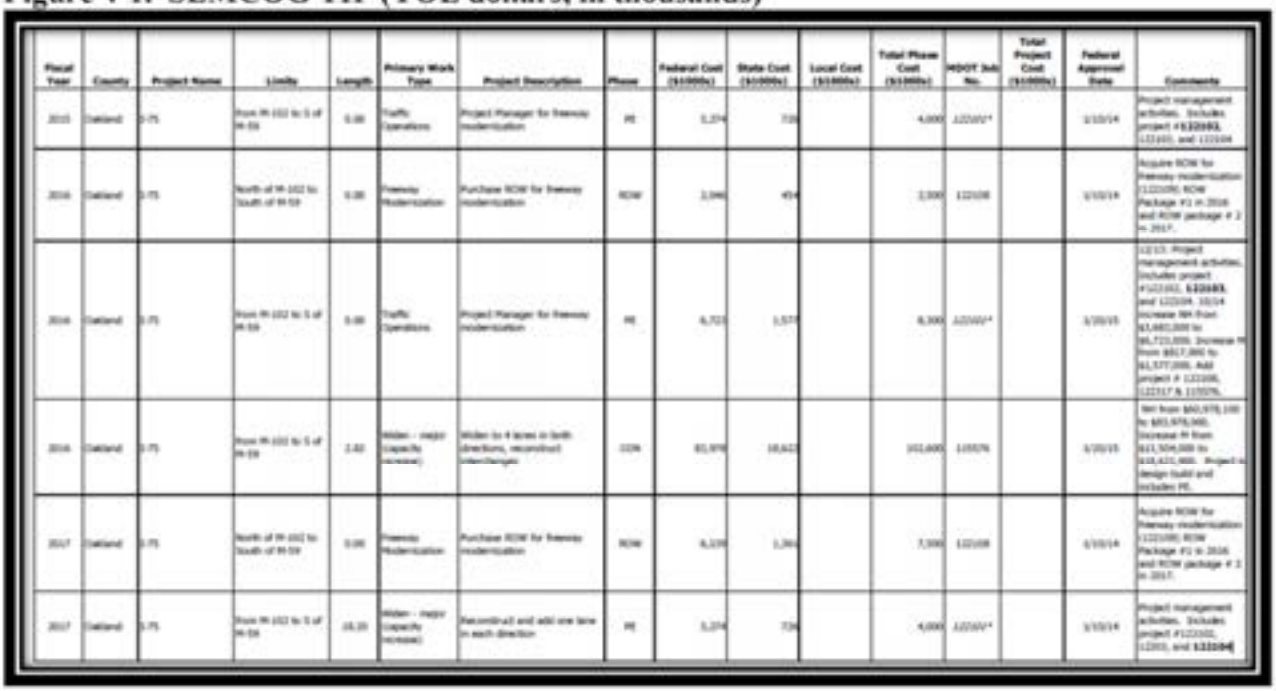
Budgeted Funds - refers to those funds for which there is a commitment but no actual obligations. Budgeted funds are financial commitments that may be included in long range planning documents such as the Regional Transportation Plan (RTP). Reasonable assumptions are made that federal, state, and local funds will be available as projected.

The Southeast Michigan Council of Governments (SEMCOG) is the MPO in which this Project physically resides. SEMCOG's 2014-2017 TIP and the 2040 RTP include the Project as fiscally constrained. The TIP constrains $128.9 million and the RTP constrains $1,205.8 million for a total of $1,334.6 million, however, the RTP includes some prior year costs for EPE, ROW and OR. The FHWA Michigan Division Administrator recognizes the LRP and TIP as the Plan of record for Southeast Michigan.

Both the SEMCOG TIP and LRP can be found in their entirety at the following website: http://www.semcog.org/2040RegionalTransportationPlan.aspx.

The *SEMCOG 2014-2017* TIP was adopted by SEMCOG's General Assembly on December 6, 2013. Subsequent administrative amendments to reflect updates to the project cost estimate, scheduling, and funding are currently in process. The most current version of the Project detail in the TIP and LRP are shown below. The figures below will be updated to reflect the administrative amendments when they become available on the SEMCOG website.

Figure 4-1. SEMCOG TIP (YOE dollars, in thousands)



Fiscal Year	County	Project Name	Limits	Length	Primary Work Type	Project Description	Phase	Federal Cost ($1000s)	State Cost ($1000s)	Local Cost ($1000s)	Total Phase Cost ($1000s)	MDOT Job No.	Total Project Cost ($1000s)	Federal Approval Date	Comments
2015	Oakland	I-75	from M-102 to S of M-59	0.00	Traffic Operations	Project Manager for freeway modernization	PE	1,274	726		4,000	122592*		1/15/14	Project management activities. Includes project #122592, 122593, and 122594
2016	Oakland	I-75	North of M-102 to South of M-59	0.00	Freeway Modernization	Purchase ROW for freeway modernization	ROW	2,046	454		2,500	122108		1/15/14	Acquire ROW for freeway modernization (122108). ROW Package #1 in 2016 and ROW package # 2 in 2017.
2016	Oakland	I-75	from M-102 to S of M-59	0.00	Traffic Operations	Project Manager for freeway modernization	PE	6,723	1,577		8,300	122592*		3/20/15	12/15: Project management activities, includes project #122592, 122593, and 122594. 10/14 increase NH from $1,680,000 to $8,723,000. Increase PE from $817,000 to $1,577,000. Add project # 122595, 122317 & 115076.
2016	Oakland	I-75	from M-102 to S of M-59	2.82	Widen - major capacity increase	Widen to 4 lanes in both directions, reconstruct interchanges	CON	82,979	18,622		102,600	115576		3/20/15	NH from $80,979,100 to $82,979,940. Increase PE from $13,504,000 to $18,621,600. Project is design build and includes PE.
2017	Oakland	I-75	North of M-102 to South of M-59	0.00	Freeway Modernization	Purchase ROW for freeway modernization	ROW	6,239	1,261		7,500	122108		1/15/14	Acquire ROW for freeway modernization (122108). ROW Package #1 in 2016 and ROW package # 2 in 2017.
2017	Oakland	I-75	from M-102 to S of M-59	15.23	Widen - major capacity increase	Reconstruct and add one lane in each direction	PE	1,274	726		4,000	122592*		1/15/14	Project management activities. Includes project #122592, 122593, and 122594

Figure 4-2. SEMCOG RTP (YOE dollars, in thousands)

Project ID	Project Name	Project Limits	Proposed Work	Jurisdiction	Year	Cost (in 1,000s)
Project 2514	I-75	from 8 Mile to M-59	Widen to 4 lanes in both directions, reconstruct interchanges	MDOT	2018 2020 2021-2025 2026-2030	1,050,863
Project 11549	I-75	from M-102 to S of M-59	Project manager for freeway modernization	MDOT	2014 2015 2016 2017	17,301
Project 11573	I-75	North of M-102 to South of M-59	Acquire ROW for freeway modernization	MDOT	2016 2017	10,000
Project 11580	I-75	from M-102 to M-59, Oakland County	Study to determine placement of noise walls.	MDOT	2014	244
Project 2011372	I-75	from N of Adams to S of M-59	Reconstruct and add one lane in each direction	MDOT	2016	127,359

SOURCES OF FUNDING

MDOT anticipates $1,322.5 million will be needed to complete the Project. This is net of the already expended federal and state funding of $8.9 million for EPE. Table 4-1 shows the current breakdown of overall funding for the total Project cost including those already expended of $8.9 million.

FEDERAL

Federal funds are a significant source of funding for the Project. It is anticipated that the future federal funds will be from the National Highway Performance Program. MDOT received a $100,000 grant from the federal institution, Strategic Highway Research Program for New Strategies for Managing Complex Projects (SHRP2 R10). The funding was split between this project and the I-94 Rehabilitation Mega-Project. To date, $41,323 of the grant amount was used for this Project for the development of the PMP utilizing new SHRP2 R10 methods conveyed and communicated through workshops.

STATE FUNDING

State Transportation Funds are from the state restricted fund for transportation purposes as provided for in PA 51 of 1951. The revenues are from motor vehicle fuel taxes, vehicle registration taxes, interest, and miscellaneous fees deposited into the Michigan Transportation Fund (MTF), and statutorily restricted for transportation purposes.

LOCAL FUNDING

Local match will be provided by the cities of Troy, Madison Heights, and Royal Oak. Cost participation is required by Michigan PA 51 of 1951. According to this law, incorporated cities and villages are required to participate with MDOT in the cost of improving highways. This Act gives MDOT the authority to withhold the distribution of motor fuel and registration revenues earned and due to the cities from the MTF for unpaid invoices for local match on participating construction projects.

Table 4-1. Summary Total Project Funding by Source (YOE dollars, in millions)

Funding Source	Expended	Obligated	Budgeted	Total
Federal				
National Highway Performance Program	5.6	385.0	697.5	1,088.1
SHRP2 R10 Grant*	-	-	-	-
Subtotal Federal	**$5.6**	**$385.0**	**$697.5**	**$1,088.1**
State				
State Transportation Fund	3.2	77.9	144.8	225.9
Subtotal State	**$3.2**	**$77.9**	**$144.8**	**$225.9**
Local				
Locally Raised Funds	-	7.5	9.9	17.4
Subtotal Local	**$ -**	**$7.5**	**$9.9**	**$17.4**
	$8.9	**$470.3**	**$852.2**	**$1,331.4**

*SHRP2 R10 grant funding of $41,323 does not appear due to rounding.

PROJECT FUNDING IN RELATION TO OVERALL TRANSPORTATION PROGRAM

MDOT's Statewide Transportation Improvement Program and Long Range Plan are broken into seven regions. Each region must stay within its own separate budget for project planning and selection. This Project is in the Metro Region, which is within the geographic limits of the SEMCOG Regional Transportation Planning Organization. MDOT's transportation program for the Metro Region is listed in its entirety in the SEMCOG RTP and as such is fiscally constrained. A complete list of MDOT's projects within the SEMCOG Municipal Planning Organization jurisdiction can be found at the following website http://www.semcog.org/2040RegionalTransportationPlan.aspx.

The RTP includes all the Major Projects for this region such as the I-94 Rehabilitation Project, the Blue Water Bridge Plaza and Interchange Project, and the Detroit Intermodal Freight Terminal Project.

POTENTIAL ALTERNATIVE FUNDING APPROACHES

While the State is fully committed to meet its obligations under this plan and based on its current legal authorities, MDOT recognizes that circumstances can change and alternative structures may present themselves as superior to the baseline plan, as articulated in this document. Future annual updates will account for any such revisions to the plan of finance and incorporate new funding capabilities for the Project. At this time, no alternative funding approaches have been identified as preferable to pay-as-you-go.

MDOT will consider offering monetary incentives for early completion. Contracts for each construction package will be evaluated separately for opportunities for early construction incentives. Funding will come from inflationary savings or other off-setting expenses.

KEY REVENUE-RELATED ASSUMPTIONS

Revenue assumptions used to complete the funding plan and cash flow plan for the Project include reduced amounts of Federal funding for FY 2017-2019, and conservative growth from FY 2020-2032. State funds are assumed to grow at conservative rates throughout.

CHAPTER 5 - FINANCING ISSUES

INTRODUCTION

This chapter is used to describe the financing plan for the Project. If MDOT should choose to finance the Project with debt, the additional costs associated with issuing, closing, and debt service will be presented in updates to this plan.

PLAN OF FINANCE

At this time, the Project is fiscally constrained with current and anticipated revenue from the Federal Transportation Trust Fund and the STF. MDOT has deemed this pay-as-you-go option to be the most cost effective.

CHAPTER 6 - PROJECT CASH

INTRODUCTION

This chapter provides a summary of the annual cash flow needs of the Project. Specific plans, contract packages, and resulting projections of actual cash outlays will be updated substantially in subsequent annual updates to the IFP. At a minimum, it is anticipated that such updates will address strategies to manage the timing of resource availability and cash flow requirements.

SOURCES AND USES OF FUNDS

As described in Chapter 4 of this IFP and based on current plans, the Project will be funded with federal, state, and local funds. Figure 6-1 provides a summary of the planned sources and uses of funds for the Project.

Figure 6-1. Sources and Uses of Funds - Total Project (YOE dollars, in millions)

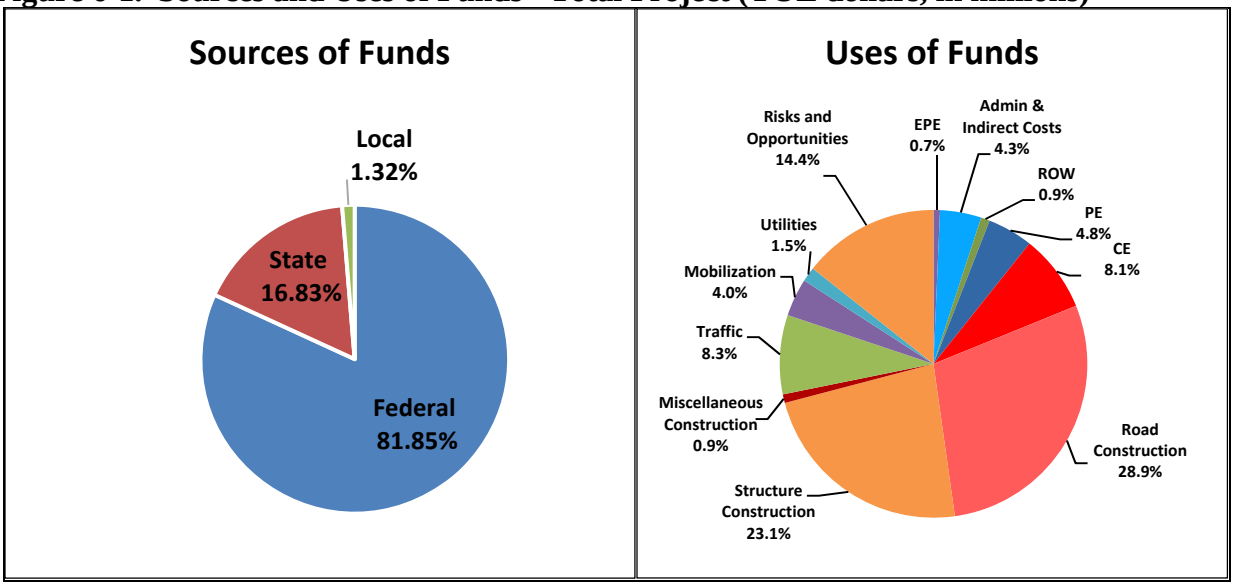
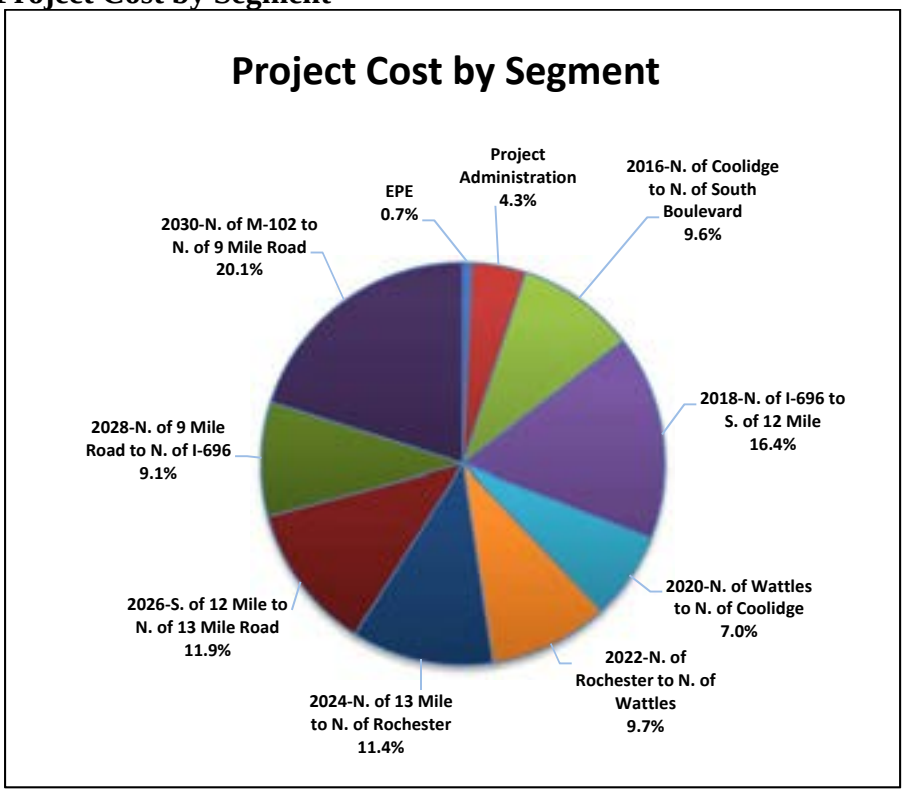


Figure 6-2. Project Cost by Segment



Obligations by segment are shown below in YOE dollars and total $1,322.5 million.

Table 6-1. Project Obligations by Segment (YOE dollars, in millions)

Total Project Obligations by Year (YOE Dollars, in millions)																	
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Project Administration	4.1	4.8	4.4	3.9	3.5	3.0	3.1	3.2	3.3	3.4	4.2	4.3	4.4	3.8	3.1	1.6	57.9
2016-N. of Coolidge to N. of South Blvd	-	127.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	127.4
2018-N. of I-696 to S. of 12 Mile	-	6.4	14.8	196.8	-	-	-	-	-	-	-	-	-	-	-	-	218.0
2020-N. of Wattles to N. of Coolidge	-	-	-	4.6	-	88.8	-	-	-	-	-	-	-	-	-	-	93.4
2022-N. of Rochester to N. of Wattles	-	-	-	-	-	6.3	-	122.4	-	-	-	-	-	-	-	-	128.7
2024-N. of 13 Mile to N. of Rochester	-	-	-	-	-	-	-	7.4	-	143.8	-	-	-	-	-	-	151.2
2026-S. of 12 Mile to N. of 13 Mile	-	-	0.5	-	-	-	-	-	-	7.7	-	149.5	-	-	-	-	157.8
2028-N. of 9 Mile to N. of I-696	-	-	0.3	-	-	-	-	-	-	-	-	5.9	-	114.8	-	-	121.0
2030-N. of M-102 to N. of 9 Mile	-	-	0.7	-	-	-	-	-	-	-	-	-	-	13.0	-	253.5	267.3
	$ 4.1	$ 138.5	$20.8	$ 205.3	$ 3.5	$98.1	$ 3.1	$ 132.9	$ 3.3	$154.8	$ 4.2	$ 159.7	$ 4.4	$131.6	$ 3.1	$ 255.1	$ 1,322.5

Figure 6-3 below shows MDOT's cumulative obligations for the Project, inflated to the year of obligation for the remaining $1,322.5 million. Past costs to date of $8.9 million are not included.

Figure 6-3. Cumulative Obligations (YOE dollars, in millions)

Planning for Cash Flow

For cash flow planning purposes, MDOT uses historical averages for cash outlays by project type. Significant improvements are being made to both the contractor payment and project close out processes. However, for purposes of this IFP, the outlay of cash for vendor payments for this Project uses the averages for construction projects as shown in Table 6-2 below. The percentages represent cash needs for all phases of a project including Design, ROW, and Construction, as well as adjustments for claims, audits, and all other accounting transactions through financial close. These averages were applied to the annual obligation totals to arrive at cash flows shown in Figure 6-4, Total Project Cash Flow.

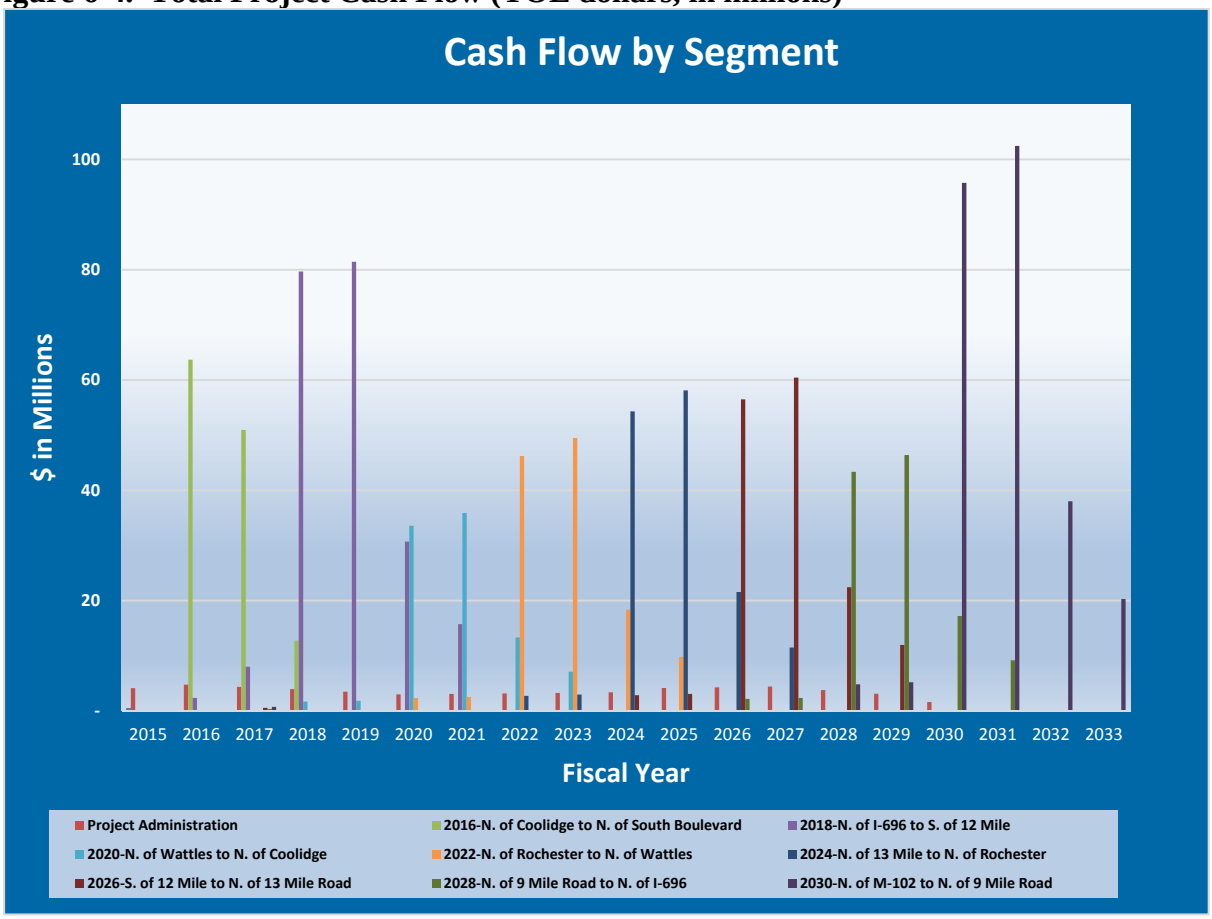
Cash flow for the 2016 DB segment North of Coolidge to North of South Boulevard (2016 DB Segment) is estimated to be 50 percent in the first year of construction, 40 percent the following year, with 10 percent in the third year for residual items. Estimates were based on MDOT's experience with other DB projects and recommendations from the OR.

Table 6-2. MDOT Cash Management Schedule for Payments

Cash Management Schedule for Payments				
Delivery Method	**Year 1**	**Year 2**	**Year 3**	**Year 4**
Owners Rep Contract	100%			
Advanced ROW	100%			
Design Build	50%	40%	10%	
Design Bid Build	37%	40%	15%	8%

Cash flow by segment for the Project is shown in the chart below in YOE dollars.

Figure 6-4. Total Project Cash Flow (YOE dollars, in millions)

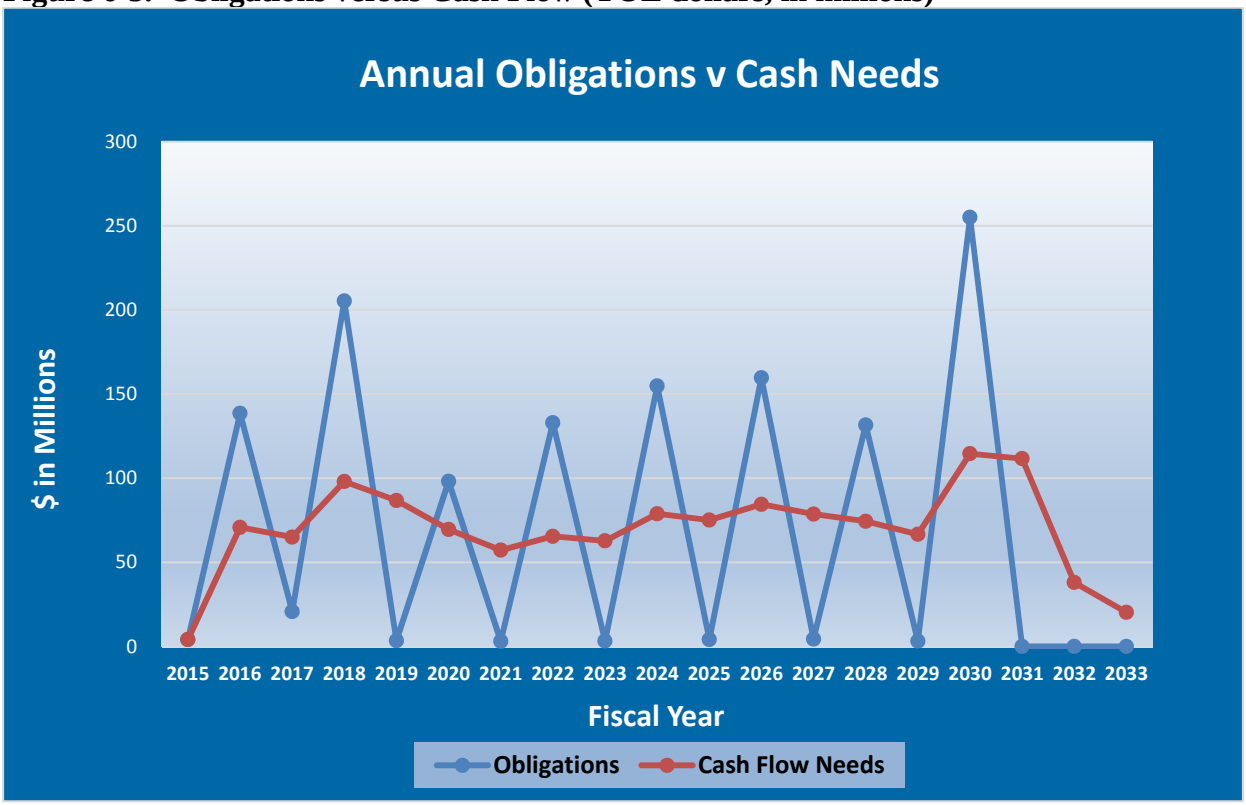


OBLIGATIONS VERSUS ANNUAL CASH OUTLAYS

The Project funding plan in Chapter 4 reflects obligations by Project segment on an annual basis. This is to ensure that MDOT meets its requirement that federal and state funds will be available and appropriated prior to making contractual commitments for lettings.

The graph below demonstrates the relationship between obligations and cash needs. Obligations precede the need for cash and as such, MDOT can ensure that cash is available to make contractor and consultant payments.

Figure 6-5. Obligations versus Cash Flow (YOE dollars, in millions)



Cash Management

MDOT uses the TRNS*Port Construction and Administration System and Project Accounting and Billing (PAB) software systems to manage vendor payments and the timing of cash needed for these payments against the availability of federal, state, and local funds. Each contract is obligated at the job number, category, and fund level detail within the MFOS and PAB systems. Each week, pay items earned are documented in the field at the job number level using MDOT's Field Manager (part of TRNS*Port) system. Vendor payments are reviewed, approved, and posted electronically to PAB. Through an interface between PAB and the State of Michigan's accounting system, MAIN, the payment is scheduled. The federal portion of the estimate report is billed to FHWA each week. The payments and billings are coordinated so the vendor payments are made and the federal funds are received on the same day.

Monitoring of state transportation revenues occur on a monthly basis. In addition, actual revenues versus budgeted revenues are reviewed as well as obligations for all planned projects. MDOT follows cash management practices required by the Federal Cash Management Improvement Act of 1990, as amended.

INTERACTIONS WITH STATE TRANSPORTATION PROGRAMS, BUDGETS, AND OTHER PROJECTS

As described in this IFP, MDOT has made specific commitments to the completion of the Project. Commitments are incorporated into the STIP, relevant TIPs, and the SEMCOG LRP according to this IFP, the needs of the Project, and available funding. The chart below shows the amount of funding needed for the Project in relation to all federal and state funding available for the total capital program.

Figure 6-6. Funding Available for Program (YOE dollars, in millions)

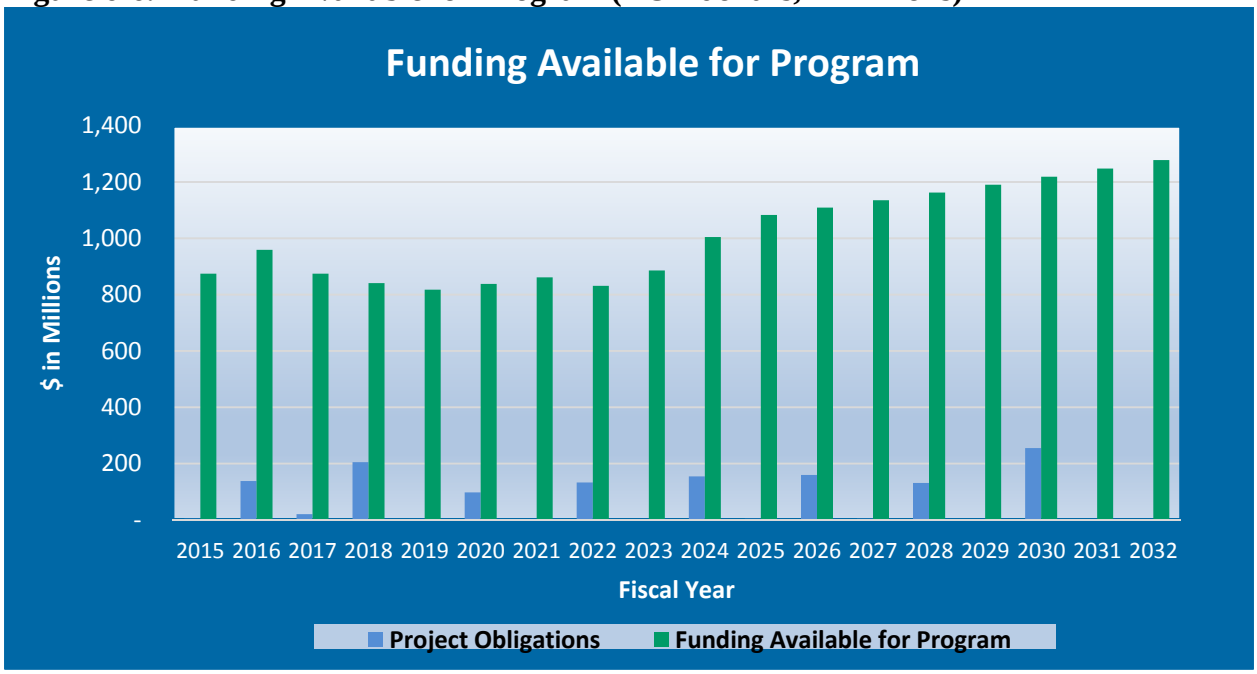
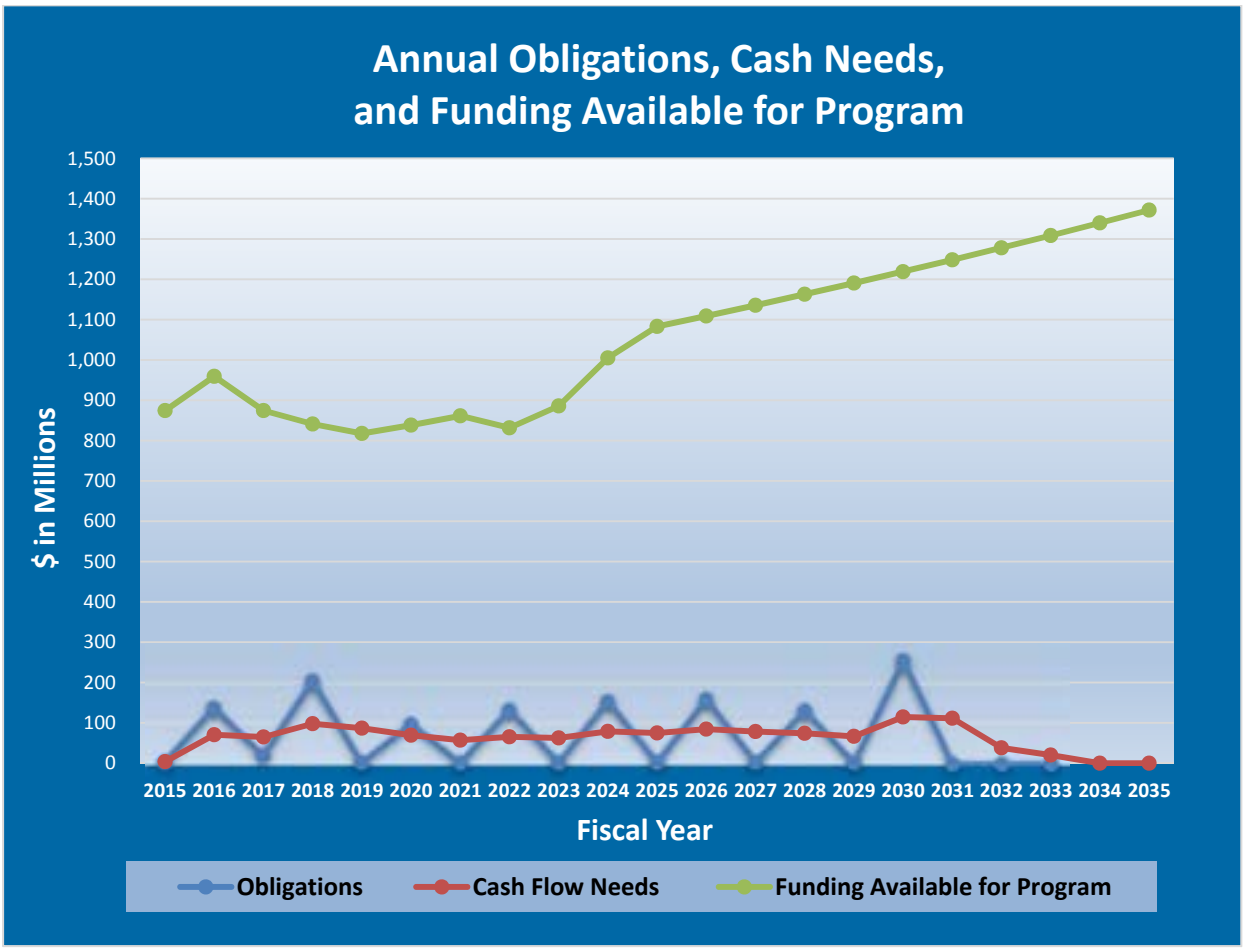


Figure 6-7. Annual Obligations, Cash Needs, and Funding Available for Program (YOE dollars, in millions)



CHAPTER 7 - PUBLIC PRIVATE PARTNERSHIP ASSESSMENT

At the current time, MDOT does not have legislative authority to enter into a public private partnership agreement for a project of this magnitude and duration nor does MDOT have legislative authority to toll roadways including additions to existing roadways.

CHAPTER 8 - RISK AND RESPONSE STRATEGIES

INTRODUCTION

This chapter addresses a number of important factors that could affect the Project and, in particular, the financial plan for the Project. The following discussion includes cost and funding related risks, and associated mitigation strategies, as well as interdependencies with the State's overall transportation program, budget, and other projects.

RISK AND RESPONSE STRATEGIES

A comprehensive and formal risk analysis was conducted for the Project to identify and quantify possible risks. Although this process is comprehensive, it is unlikely to have identified all possible risks. The identification of risks will continue as the Project develops through the various stages of delivery. Experience from other similar projects has been used in the characterization of risks, in making allowances for those risks, and in arriving at the conceivable maximum range of cost and schedule impacts, given the experience gleaned from past projects. Although the first Risk Workshop considered the entire corridor, the focus was on the 2016 DB Segment, as there are many risks that also are applicable throughout the corridor. Risks were discussed and cataloged for future discussions and will be reviewed at future risk workshops. Action items were created for each risk as needed and are discussed in the document I-75 Risk Report.

Risk Assessment Methodology

A Risk Workshop was held on October 27, 2014, to engage the technical expertise of participants as SMEs. Prior to the Risk Workshop, a risk questionnaire was sent to all participants asking them to identify their top five risks, based on discipline. This allowed them the opportunity to review project materials, and submit questions or discussion items prior to the workshop based on their areas of expertise and experience.

Risks identified from the questionnaires were added to the agenda and further discussed during the Risk Workshop and compiled into a formal project risk register (Appendix D). Each risk was analyzed to determine a best estimate of the likelihood of occurrence based on experience with similar projects and known project information. The potential impact for each risk, should it occur, was assessed to determine an estimate of the minimum, most likely and maximum costs.

Project Management
Addresses management elements of schedule and key staff requirements for the Project.

Items discussed included:

- Long lead times on materials
- Ensuring that the short listed proposers respond to the Request for Proposal (RFP) with a bid
- Trying to prevent delays/extensions to the release of the RFP in 2015

Third Party Agreements
Addresses the coordination with drainage agencies, Bloomfield Township, school districts, and emergency responders for the 2016 DB Segment.

Items discussed included:

- Permitting
- Access to local roads with Bloomfield Township, Bloomfield Hills Schools, and Road Commission for Oakland County (RCOC) needs to be coordinated
- Drainage (Oakland County Water Resource Commission)
- Communications to utility companies to see if any companies would like to include upgrades to their facilities during construction
- Environmental
- Maintenance of Traffic (MOT) with the closure of roads and ramps, etc.
- County Drains
- Local Businesses
- Coordination with emergency responders and school buses

Environmental

Discussion addressed air, noise, traffic, purpose and need, ROW, non-motorized, impacts to wetlands, and drains.

Landscaping

- Discussion addressed need for restoration and the methods to be used.
- No billboards in the 2016 DB Segment
- Tree removal and replacement is important
- Temporary seeding required
- Coordination with the environmental efforts

ROW and Land Surveying

Items discussed included:

- Permits needed for temporary staging
- Grading permits may be needed for construction near ROW lines and/or for installation of ROW fence
- No ROW survey
- Coordinate system has changed since the last survey
- There were no bridge surveys conducted as all bridges are being replaced
- The control has been obliterated and needs to be brought up to current control standards and densified
- Survey will be provided to DB teams
- Past projects in the vicinity may potentially have survey within the Project limits

Utilities

A meeting was held on March 30, 2015, to coordinate utility requests.

Items discussed included:

- Most utilities are located at the roadway crossings of I-75 Utility requests should be sent out and information collected before the request for qualification process and capital improvement plans review
- Overhead lines east/south of Adams may need to be temporarily relocated
- There is a 12-inch water main utility conflict in the City of Troy with Adams Road bridge
- The level of subsurface utility engineering needed was discussed and a locational utility map is needed
- Utilities with concerns regarding vibration are: 48-inch water main at Adams Road, 54-inch water main near South Boulevard, and a 12-inch encased water main under Squirrel Road

Signing, Pavement Marking, Signals, and Lighting

Items discussed included:

- Only one existing signal exists in the study area at Adams Road and the I-75 northbound interchange (fixed time)
- Temporary signals could be justified at Square Lake and I-75 BL and SB I-75 to Adams
- Opdyke Road and Squirrel Road might need additional signal retiming
- Traffic modeling will determine the extra needs for mobility under construction
- The need for durable pavement markings will be decided as we get closer to the RFP
- A lighting study will be conducted and a LED lighting assessment will be included
- Signage will be verified to be consistent throughout the corridor

Intelligent Transportation System

An overview of the existing Intelligent Transportation System (ITS) network and equipment was discussed:

- There is only one camera in the study area and it exists south of South Boulevard
- Temporary cameras would need to be added during construction to assist with congestion management
- Square Lake Road has blind spots, so additional ITS cameras might be desired for future permanent locations
- HOV changeable message signs would be needed
- Conduit is needed to be installed for the fiber line; there is a gap in the existing fiber optics line from this Project to the north
- HOV infrastructure needs to be identified for this Project and the overall operation within the entire corridor
- Concept of Operations for the whole corridor was discussed and held with the communities in May 2015

Geotechnical

A summary exhibit had been prepared from the data collected during the Engineering Report and some potential locations for future study were identified. A map of proposed borings locations was reviewed:

- Each culvert and bridge crossing are preliminary identified for boring locations, but sign truss locations are left to the DB teams
- Two borings are needed (one on each end of culverts) with additional borings in the middle of long culverts
- Borings for ITS, but a potential truss location
- Ramps had lacked pavement coring so new coring was suggested to be conducted every 1500 feet
- Risks were discussed in the Square Lake Road interchange area as a potential past dumping area for unnecessary soils
- Determine if geotechnical results are reference information documents and what liability will MDOT assume concerning the accuracy of the results
- Need borings and stream crossings
- Identify vibration monitoring within 100 feet of pile driving and 300 feet of sensitive receptors

Roadway and Grading

An overview of the roadway and grading were discussed:

- Once the borings are completed and the traffic information is provided a life cycle cost analysis can be prepared by MDOT
- Temporary pavement can be from the contractors design
- Horizontal sightline offset design exception (internal to MDOT, not FHWA)
- Adams Road roadway designation has changed since the Engineering Report to a National Highway System and has an increased the required under clearance from 14 feet 6 inches to 16 feet
- Identify areas where we may want specific slopes (i.e., 1:6)
- Lane widths and shoulder widths need to be set

Drainage

An overview of the drainage was discussed:

- All drainage areas appear to be under two-square miles; verify with Department of Environmental Quality (DEQ) and MDOT
- There are three drain areas in the 2016 DB Segment: Amy Drain, Sprague, and an unnamed drain (just north of South Boulevard)
- Determine areas for hydraulic survey; if less than two miles there is no need for a DEQ permit
- Determine impact to the road profile
- Oakland wants retention prior to going out into the Oakland County system
- Check for potential ROW impacts due to detention needs

- Drainage flows between segments
- Sizing would be initially completed and recorded into the DB documents, then the contractor would only update the permit if different flows are identified
- Verify flood plain within two-square miles
- MDOT to provide hydraulic survey requirements
- Existing spillways and downspouts have been problematic

Structures

There are numerous structures from pedestrian to vehicular along the corridor. An overview was presented but more time was spent on the 2016 DB Segment to address:

- There is one multi-level structure at the Square Lake Road BL interchange
- The Squirrel Road structure will be replaced over I-75, as well as both I-75 structures over Adams Road and Square Lake Road under I-75 will also be replaced
- Fabrication lead time for steel is approximately six months
- Complex beam construction due to curved beams
- Need to include the special provision for Complex Steel Erection
- There is a pier under the NB I-75 off-ramp to Square Lake Road BL that needs to be considered for the MOT scheme
- Ensure bridges have adequate stopping sight distance or wider structures may be needed
- Bridge rentals and drainage impacts need to be identified

Maintenance of Traffic

Two lanes of traffic are to be maintained on I-75 mainline at all times as part of the ROD commitment.

Items discussed included:

- Ramps will be closed during construction and a time frame and combination of ramps allowed to be closed at the same time needs to be identified; thus, set limits for closures and when they can occur
- Drainage flows would need to be identified and mobility would need to be maintained
- Potential detours should be addressed and coordinated with RCOC and Local Agencies so that they are aware of potential detours
- Provide accident bump outs and identify spacing
- Address how to handle law enforcement in the work zone
- No MOT materials should be stored over the winter
- Ensure study limits include safe areas for cross overs
- A minimal temporary acceleration or deceleration ramp standards should be established
- Provide drop off requirements
- Temporary pavement markings
- Allow for innovation by the contractor for MOT

Non-Motorized Facilities

There is a new non-motorized facility/sidewalk/safety path planned for Squirrel Road structure when it is rebuilt. All existing non-motorized facilities need to be maintained.

Items discussed included:

- Need to maintain pedestrian accessibility at Adams Road
- Build new sidewalk along Squirrel Road over I-75 to connect the Bloomfield Township Safety Paths

Project Maintenance

Maintaining the existing freeway under construction is important. Risk can be mitigated with a clear plan for maintenance activities.

Examples:

- Detours, temporary construction, guardrail, overall site, pot hole patching, shoulders, types of barriers, longitudinal joints, and rumble strip filling
- Address seasonal issues
- Plastic barrels versus Jersey barriers
- Winter maintenance plan or winter shutdowns (address snow removal)
- Grass length (mowing requirements), site distance requirements
- Should incentives be added for contractor to perform pre-work to ensure roadway lasts two construction seasons?

Public Information

Communication is key with the community and public stakeholders.

Items discussed included:

- MDOT will lead the public information effort
- Procurement documents should cite specific actions that may be expected of the DB team concerning support
- MDOT has a Project website that will be updated
- Contractor should budget for three public meetings to communicate with the public

Aesthetics

A draft Design Guide was developed for the corridor and can be used for the first phase. This design guide needs to be applied to the corridor consistently to maintain the theme.

RISKS AND OPPORTUNITIES IDENTIFIED DURING THE COST ESTIMATE REVIEW

Cost estimates, especially those for Major Projects, contain a degree of uncertainty due to unknowns and risks associated with the level of detail design completed. For this reason, it is logical to use a probabilistic approach and express the estimate as a range rather than a point value. During the CER, uncertainties in the Project estimate such as base variability, inflation, market conditions, and risk events were modeled by the Team to reflect the opinions of the SMEs interviewed. The Team used a Monte-Carlo simulation to incorporate the uncertainties into forecast curves that represents a range of costs and completion dates for the Project. The resulting most probable cost, at the 70 percent level, is summarized below by segment.

The baseline cost estimates were increased by $142.4 million for the risks as identified and valued during the CER, see Appendix D. The baseline cost estimate includes an element titled Risks and Opportunities for each segment. As design plans near completion and as the construction contracts for each segment are awarded, the amounts in the line item for Risks and Opportunities will be reduced or zeroed out entirely.

2016 - North of Coolidge to North of South Boulevard, $8.2 million

- Design exceptions
- Roadway construction and construction contingencies for costs associated with overruns and change orders
- Improvements to local roads
- Structures and structures contingency to cover risks for piling and soils, steel prices and innovative bridge construction techniques
- Poor soils, settlement and wetland areas
- Aggregate minor risks and unidentified risks

2018 - North of I-696 to South of 12 Mile, $32.4 million

- Increase of construction contingency from 20 percent to 30 percent
- Additional ROW purchases
- Unknown combined sewer condition
- Unknown stormwater system requirements
- Potential for additional corridor lighting costs

2020 - North of Wattles to North of Coolidge, $12.4 million

- Increase of construction contingency from 15 percent to 25 percent
- Additional ROW purchases
- Unknown stormwater system requirements
- Potential for additional corridor lighting costs

2022 - North of Rochester to North of Wattles, $13.2 million

2024 - North of 13 Mile Road to North of Rochester, $14.4 million

- Segment wide increase to contingencies from 15 percent to 30 percent
- Potential for additional corridor lighting costs

2026 - South of 12 Mile Road to North of 13 Mile Road, $14.0 million

- Segment wide increase to contingencies from 15 percent to 30 percent
- Potential for additional corridor lighting costs

2028 - North of 9 Mile Road to North of I-696, $16.7 million

2030 - North of M-102 to North of 9 Mile Road, $31.1 million

- Global increase to contingencies from 15 percent to 30 percent
- Potential for additional corridor lighting costs

RESERVE FUNDING FOR RISKS

A matrix showing the valuation of each risk and opportunity was created as a result of the Risk Workshop and CER. These are included as Appendix D. MDOT chose to apply the value of risk to each affected Project segment and include those values in the baseline and inflated cost estimate as a separate element. Risks will be monitored throughout the entire Project schedule and will be adjusted at the segment and element level as needed.

Throughout the CER process, the participant team felt very confident that this project could be delivered according to the delivery schedule with little risk. The delivery schedule is conservative and the funding plan assumes MDOT will pay-as-you-go. It seemed likely that additional funding would become available and that the delivery schedule could be accelerated. As a result the participant team felt it appropriate to rely on the planned delivery schedule without any schedule threats or opportunities.

REVENUE RISK AND MITIGATION STRATEGIES

From time to time, legislative proposals have been made which would amend the State sources of funding for MDOT's programs. MDOT staff evaluates legislative proposals as they are introduced for the economic impact on the transportation program. To the best of MDOT's knowledge, no current or proposed legislation would have a material adverse impact on MDOT's ability to fund its long range plans or this Project.

As with any project of this size and duration, there are a great number of uncertainties regarding the magnitude and timing of costs in relation to the availability of funding. The risks and the strategies to plan for potential unanticipated changes, delays or changes in expected revenue and the impact on the Project will be mitigated with the pay-as-you-go funding plan. The Project has been designed and segmented to provide adaptively and flexibility if funding should be reduced or delayed.

MDOT is proactively engaged in continuous improvement and has engaged consultants to review the Project for opportunities for design modifications and conversely, for acceleration should additional funding become available. MDOT will continue this practice of continuous improvement as needs require.

CHAPTER 9 - ANNUAL UPDATE CYCLE

FINANCIAL PLAN UPDATES

MDOT plans to provide Annual Updates to this financial plan based on the anniversary date method. The anniversary date of this IFP is May 1. Each annual update will be based on actual data from MDOT's internal data systems and on budgets and plans using an "as of date" of May 1. Each annual update will be submitted to FHWA no later than 90 days after the end of each reporting period.

MDOT will update and expand upon items as more current information becomes known. Examples of items that will be expanded upon in the Annual Updates, based on actual known information and anticipated progress on the Project, are:

- Updates to the Project schedule detailing those segments of the Project which will be advanced as funding becomes available
- Updates to cost estimates based on the completion of more detailed design work and re-estimation of unit costs, as well as continued monitoring of inflationary forces
- More detailed cash flow forecasting (i.e., of anticipated encumbrances/obligations as distinct from anticipated cash needs)
- Tracking of actual expenditures against projected cash flow needs
- Tracking of actual revenues against projected funding and updated Project costs as well as strategies to address any funding shortfalls, as necessary
- Incorporation of any additional funding sources and/or financing approaches to address any funding gaps that may have developed since this IFP

Given the importance of managing overall costs, MDOT will continue to make efforts to incorporate alternative funding and finance approaches to help manage the impact of inflation on overall Project costs.

GLOSSARY

2016 DB Segment - 2016 DB segment North of Coolidge to North of South Boulevard

CER - Cost Estimate Review

DB - Design Build

DEQ - Department of Environmental Quality

EPE - Early Preliminary Engineering

EVMS - Earned Value Management System

FEIS - Final Environmental Impact Statement

FHWA - Federal Highway Administration

FY - Fiscal Year

GARVEE - Grant Anticipation Revenue Vehicle

HOV - High Occupancy Vehicle

IFP - Initial Financial Plan

ITS - Intelligent Transportation System

JN – Job Number

LRP – Long Range Plan

MAIN - Michigan Administrative Information Network

MAP-21 - Moving Ahead for Progress in the 21st Century Act

MDOT - Michigan Department of Transportation

MFOS - Map Financial Obligation System

MOT - Maintenance of Traffic

MTF - Michigan Transportation Fund

NEPA - National Environmental Policy Act

OR - Owners Representative

PA - Public Act

PAB - Project Accounting and Billing System

PMP - Project Management Plan

Project - I-75 Freeway Modernization Project

RCOC - Road Commission for Oakland County

RFP - Request for Proposal

ROD - Record of Decision

ROW - Right of Way

RTP - Regional Transportation Plan

SEMCOG - The Southeast Michigan Council of Governments

SHRP2 R10 - Strategic Highway Research Program for New Strategies for Managing Complex Projects

SMEs - Subject Matter Experts

STF - State Trunkline Fund

STIP - State Transportation Improvement Plan

TIP - Transportation Improvement Plan

YOE - Year of Expenditure

I-75 MODERNIZATION PROGRAM

Fiscal Year	3	5	6	9	10		15				16				17				18				19				20					21	22	23	24	25	26	27	28	29	30
Quarter						3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4									
Calendar Year						14		15				16				17				18				19				20													

As of August 20, 2015 DRAFT

OVERALL SERVICES

- Draft Environmental Impact Statement (DEIS)
- Final Environmental Impact Statement (FEIS)
- Record of Decision (ROD)
- Engineering Reports (2009 & 2010)
- Project Management
- Project Controls and FHWA Compliance
- Community Relations/Outreach
- Establish a Design Development Plan
- Initial Financial Plan (IFP)/FHWA Approval & Updates
- Program Management Plan & Updates
- Cost Estimate Review (CER) & Updates
- Conduct Value Engineering (VE) Studies
- Review for possible Re-Evaluation

DESIGN BUILD PROCUREMENT--2016 SEGMENT

- Risk workshop for 2016 segment
- Conduct Program Level Risk workshop
- Utility Coordination
- Post Project Info Sheet
- Draft RFQ Development
- Draft 1 of Book 2 to MDOT
- Draft 1 of Book 1, ITP
- MDOT Review of Draft 1, Book 2
- MDOT Review of Draft RFQ
- MDOT Review Draft 1 of Book 1, ITP
- Final RFQ
- MDOT assign Core Team to project
- Post RFQ for Advertisement
- Develop Prelim Plans
- Draft 2 Book 2
- MDOT review of Draft Preliminary Plans
- MDOT Review of Draft 2
- Final Preliminary Plans
- Final Draft Book 1,2,3 & ITP to MDOT
- SOQ Due
- Final RID Development
- MDOT Review of SOQ Submittals
- Final RFP Draft Review/FHWA Review
- RFP Final Turn In to MDOT
- RFP Advertisement
- Meetings with Contractors

I-75 MODERNIZATION PROGRAM																																								
Fiscal Year	3	5	6	9	10		15				16				17				18				19				20					21	22	23	24	25	26	27	28	29	30
Quarter						3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4										
Calendar Year						14		15				16				17				18				19				20														
Proposal Due Date																																									
Technical Proposal Review																																									
CSRT Review/Approval																																									
Contract Award																																									
Design Development/RFC																																									
Start of Construction																																									

I-75 MODERNIZATION PROGRAM

Fiscal Year	3	5	6	9	10		15				16				17				18				19				20					21	22	23	24	25	26	27	28	29	30
Quarter						3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4									
Calendar Year						14		15				16				17				18				19				20													
Segments 2016 through 2030																																							
2016 - N of Coolidge to South Blvd.																																								
Design																																								
ROW																																								
Construction & Utilities																																								
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Construction & Utilities																																								
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ROW																																								
Construction & Utilities																																								

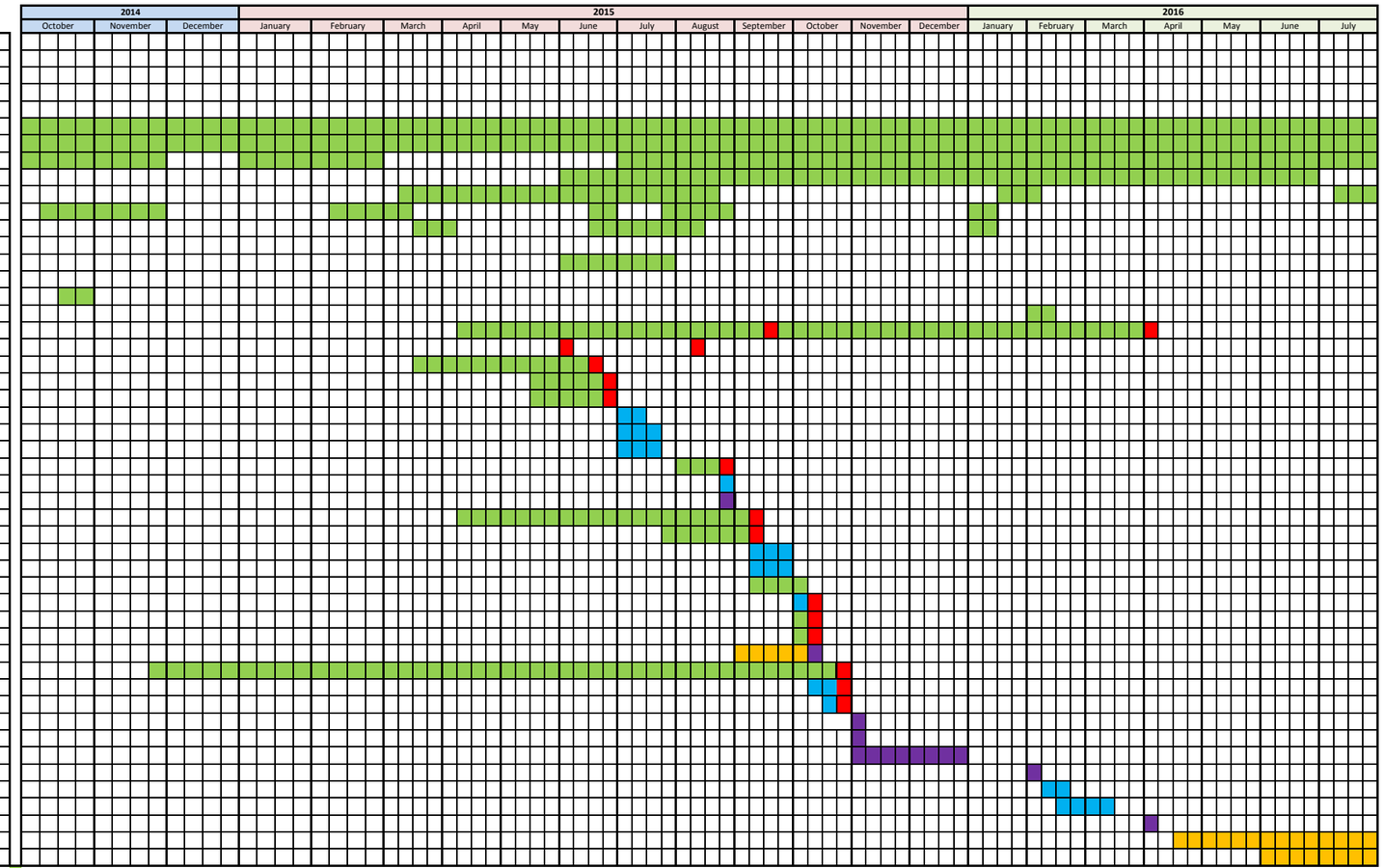
Legend: Preliminary Engineering/Design Services; ROW

Program Management and Owners Rep Items; Construction & Utilities

Design Build Team

I-75 from North of Coolidge to South Boulevard
Design Build Project Schedule

Draft Environmental Impact Statement (DEIS)	2003
Final Environmental Impact Statement (FEIS)	2005
Record of Decision (ROD)	2006
Engineering Reports (2009 & 2010)	2009 & 2010
Project Management	Continuous
Project Controls and FHWA Compliance	Continuous
Community Relations/Outreach	Continuous
Establish a Design Development Plan	Continuous
Initial Financial Plan (IFP)/FHWA Approval & Updates	Continuous
Program Management Plan & Updates	Continuous
Cost Estimate Review (CER) & Updates	Continuous
Conduct Value Engineering (VE) Studies	Post- July 2016
Review for Possible Re-Evaluation	Continuous
Risk workshop for 2016 segment	October 15, 2014
Conduct Program Level Risk workshop	February 15, 2016
Utility Coordination	April 2016
Post Project Info Sheet/Update based on pavement	June 8, 2015
ORC Draft RFQ Development	June 20, 2015
ORC to prepare Draft 1 of Book 2 to MDOT	June 30, 2015
ORC to prepare Draft 1 of Book 1, ITP	June 30, 2015
MDOT review of Draft 1, Book 2	July 17, 2015
MDOT review of Draft RFQ	July 17, 2015
MDOT Review Draft 1 of Book 1, ITP	July 17, 2015
ORC to prepare final RFQ	August 27, 2015
MDOT to assign Core Team to Project	August 31, 2015
MDOT post RFQ for advertisement	August 31, 2015
ORC to develop Prelim Plans	September 8, 2015
ORC to prepare Draft 2 Book 2	September 8, 2015
MDOT Review of Draft Preliminary Plans	September 29, 2015
MDOT Review of Draft 2	September 29, 2015
ORC to finalize RFP to give MDOT	October 2, 2015
MDOT/FHWA draft review of RFP	October 9, 2015
ORC Final Preliminary Plans	October 16, 2015
ORC Prepare Final Draft Book 1,2,3 & ITP to MDOT	October 16, 2015
SOQ Due	October 16, 2015
Final RID Development	October 30, 2015
Final MDOT Approval of Books, Plans, and RID	October 30, 2015
MDOT Review of SOQ Submittals	October 30, 2015
Notification of short-listed submitters	November 6, 2015
RFP Advertisement	November 6, 2015
Meetings with Contractors	Nov/December 2016
Proposal Due Date	February 5, 2016
Technical Proposal Review	February 19, 2016
CSRT Review/Approval	March 15, 2016
Contract Award	April 1, 2016
Design Development/RFC	April 15, 2016
Start of Construction	June 1, 2016



ORC Work
Milestone Date
MDOT review
Advertisement or Due Date
DB Team work

IFP Expended
As of May 1, 2015

Total by Element		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	TOTAL
EPE	8,889,451	705,752	1,362,087	275,181	257,969	78,417	29,712	828,835	2,458,735	885,506	186,490	130,459	270,834	994,862	424,612	-	-	-	-	-	-										8,889,451
Admin & Indirect Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										-
ROW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Road Construction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Structure Construction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous Construction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mobilization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Utilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Risks and Opportunities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GRAND TOTAL	**8,889,451**	**705,752**	**1,362,087**	**275,181**	**257,969**	**78,417**	**29,712**	**828,835**	**2,458,735**	**885,506**	**186,490**	**130,459**	**270,834**	**994,862**	**424,612**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**8,889,451**

Total by Segment		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	TOTAL
EPE	8,889,451	705,752	1,362,087	275,181	257,969	78,417	29,712	828,835	2,458,735	885,506	186,490	130,459	270,834	994,862	424,612	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,889,451
Project Administration	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2016-N. of Coolidge to N. of South Boulevard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2018-N. of I-696 to S. of 12 Mile	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020-N. of Wattles to N. of Coolidge	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2022-N. of Rochester to N. of Wattles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2024-N. of 13 Mile to N. of Rochester	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2026-S. of 12 Mile to N. of 13 Mile Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2028-N. of 9 Mile Road to N. of I-696	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2030-N. of M-102 to N. of 9 Mile Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GRAND TOTAL	**8,889,451**	**705,752**	**1,362,087**	**275,181**	**257,969**	**78,417**	**29,712**	**828,835**	**2,458,735**	**885,506**	**186,490**	**130,459**	**270,834**	**994,862**	**424,612**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**8,889,451**

I-75 Modernization Project

IFP Base Year

Major Project Cost Elements	IFP Base Year Cost	State & Federal Fiscal Year															
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
EPE																	
EPE	8,889,451	424,612															
Admin & Indirect Costs	-																
ROW	-																
PE	-																
CE	-																
Road Construction	-																
Structure Construction	-																
Miscellaneous Construction	-																
Traffic	-																
Mobilization	-																
Utilities	-																
Risks and Opportunities	-																
TOTAL	**8,889,451**	**424,612**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
check	8,889,451																
Project Administration																	
EPE	-																
Admin & Indirect Costs	46,000,000	4,000,000	4,500,000	4,000,000	3,500,000	3,000,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	3,000,000	3,000,000	3,000,000	2,500,000	2,000,000	1,000,000
ROW	-																
PE	-																
CE	-																
Road Construction	-																
Structure Construction	-																
Miscellaneous Construction	-																
Traffic	-																
Mobilization	-																
Utilities	-																
Risks and Opportunities	-																
TOTAL	**46,000,000**	**4,000,000**	**4,500,000**	**4,000,000**	**3,500,000**	**3,000,000**	**2,500,000**	**2,500,000**	**2,500,000**	**2,500,000**	**2,500,000**	**3,000,000**	**3,000,000**	**3,000,000**	**2,500,000**	**2,000,000**	**1,000,000**
check	-																
2016-N. of Coolidge to N. of South Boulevard																	
EPE	-																
Admin & Indirect Costs	-																
ROW	-																
PE	8,138,859		8,138,859														
CE	10,173,574		10,173,574														
Road Construction	45,228,859		45,228,859														
Structure Construction	31,984,000		31,984,000														
Miscellaneous Construction	1,256,388		1,256,388														
Traffic	6,546,336		6,546,336														
Mobilization	8,506,559		8,506,559														
Utilities	50,000		50,000														
Risks and Opportunities	8,163,600		8,163,600														
TOTAL	**120,048,176**	**0**	**120,048,176**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
check	-																
2018-N. of I-696 to S. of 12 Mile																	
EPE	-																
Admin & Indirect Costs	-																
ROW	10,000,000		2,400,000	7,600,000													
PE	9,537,724		3,624,335	5,913,389													
CE	15,896,207				15,896,207												
Road Construction	56,331,054				56,331,054												
Structure Construction	34,564,404				34,564,404												
Miscellaneous Construction	1,593,219				1,593,219												
Traffic	15,319,111				15,319,111												
Mobilization	11,506,780				11,506,780												
Utilities	7,260,000				7,260,000												
Risks and Opportunities	32,387,500				32,387,500												
TOTAL	**194,395,999**	**0**	**6,024,335**	**13,513,389**	**174,858,275**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Major Project Cost Elements	IFP Base Year Cost	State & Federal Fiscal Year															
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
check	-																
2020-N. of Wattles to N. of Coolidge																	
EPE	-																
Admin & Indirect Costs	-																
ROW	-																
PE	4,058,738				4,058,738												
CE	6,764,563						6,764,563										
Road Construction	27,381,980						27,381,980										
Structure Construction	17,722,000						17,722,000										
Miscellaneous Construction	776,997						776,997										
Traffic	6,695,817						6,695,817										
Mobilization	2,628,840						2,628,840										
Utilities	-																
Risks and Opportunities	12,440,000						12,440,000										
TOTAL	**78,468,935**	**0**	**0**	**0**	**4,058,738**	**0**	**74,410,197**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
check	-																
2022-N. of Rochester to N. of Wattles																	
EPE	-																
Admin & Indirect Costs	-																
ROW	-		0														
PE	5,269,649		0				5,269,649										
CE	8,782,749								8,782,749								
Road Construction	32,360,168								32,360,168								
Structure Construction	30,868,000								30,868,000								
Miscellaneous Construction	1,051,056								1,051,056								
Traffic	6,842,190								6,842,190								
Mobilization	3,556,071								3,556,071								
Utilities	-																
Risks and Opportunities	13,150,000								13,150,000								
TOTAL	**101,879,883**	**0**	**0**	**0**	**0**	**0**	**5,269,649**	**0**	**96,610,234**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
check	-																
2024-N. of 13 Mile to N. of Rochester																	
EPE	-																
Admin & Indirect Costs	-																
ROW	-			0													
PE	5,835,407								5,835,407								
CE	9,725,679										9,725,679						
Road Construction	39,375,436										39,375,436						
Structure Construction	30,309,000										30,309,000						
Miscellaneous Construction	1,166,177										1,166,177						
Traffic	8,060,616										8,060,616						
Mobilization	3,945,562										3,945,562						
Utilities	-																
Risks and Opportunities	14,400,000										14,400,000						
TOTAL	**112,817,878**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,835,407**	**0**	**106,982,470**	**0**	**0**	**0**	**0**	**0**	**0**
check	-																
2026-S. of 12 Mile to N. of 13 Mile Road																	
EPE	-																
Admin & Indirect Costs	-																
ROW	500,000			500,000													
PE	5,720,985										5,720,985						
CE	9,534,976												9,534,976				
Road Construction	34,027,754												34,027,754				
Structure Construction	34,789,000												34,789,000				
Miscellaneous Construction	1,144,965												1,144,965				
Traffic	7,514,239												7,514,239				
Mobilization	3,873,798												3,873,798				
Utilities	-																
Risks and Opportunities	14,000,000												14,000,000				
TOTAL	**111,105,717**	**0**	**0**	**500,000**	**0**	**0**	**0**	**0**	**0**	**0**	**5,720,985**	**0**	**104,884,732**	**0**	**0**	**0**	**0**

Major Project Cost Elements	IFP Base Year Cost	State & Federal Fiscal Year															
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
check	-																
2028-N. of 9 Mile Road to N. of I-696																	
EPE	-																
Admin & Indirect Costs	-																
ROW	320,000			320,000													
PE	4,138,735												4,138,735				
CE	6,897,892														6,897,892		
Road Construction	19,956,737														19,956,737		
Structure Construction	14,607,521														14,607,521		
Miscellaneous Construction	674,885														674,885		
Traffic	10,427,977														10,427,977		
Mobilization	2,489,525														2,489,525		
Utilities	4,123,350														4,123,350		
Risks and Opportunities	16,698,930														16,698,930		
TOTAL	**80,335,552**	**0**	**0**	**320,000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,138,735**	**0**	**75,876,817**	**0**	**0**
check	-																
2030-N. of M-102 to N. of 9 Mile Road																	
EPE	-																
Admin & Indirect Costs	-																
ROW	680,000			680,000													
PE	8,615,960														8,615,960		
CE	14,359,934																14,359,934
Road Construction	42,677,526																42,677,526
Structure Construction	38,877,945																38,877,945
Miscellaneous Construction	1,527,887																1,527,887
Traffic	20,303,596																20,303,596
Mobilization	5,356,433																5,356,433
Utilities	3,741,674																3,741,674
Risks and Opportunities	31,114,279																31,114,279
TOTAL	**167,255,235**	**0**	**0**	**680,000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8,615,960**	**0**	**157,959,274**
check	-																
Total by Element																	
EPE	8,889,451	424,612	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin & Indirect Costs	46,000,000	4,000,000	4,500,000	4,000,000	3,500,000	3,000,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	3,000,000	3,000,000	3,000,000	2,500,000	2,000,000	1,000,000
ROW	11,500,000	-	2,400,000	9,100,000	-	-	-	-	-	-	-	-	-	-	-	-	-
PE	51,316,059	-	11,763,195	5,913,389	4,058,738	-	5,269,649	-	5,835,407	-	5,720,985	-	4,138,735	-	8,615,960	-	-
CE	82,135,574	-	10,173,574	-	15,896,207	-	6,764,563	-	8,782,749	-	9,725,679	-	9,534,976	-	6,897,892	-	14,359,934
Road Construction	297,339,514	-	45,228,859	-	56,331,054	-	27,381,980	-	32,360,168	-	39,375,436	-	34,027,754	-	19,956,737	-	42,677,526
Structure Construction	233,721,870	-	31,984,000	-	34,564,404	-	17,722,000	-	30,868,000	-	30,309,000	-	34,789,000	-	14,607,521	-	38,877,945
Miscellaneous Construction	9,191,574	-	1,256,388	-	1,593,219	-	776,997	-	1,051,056	-	1,166,177	-	1,144,965	-	674,885	-	1,527,887
Traffic	81,709,883	-	6,546,336	-	15,319,111	-	6,695,817	-	6,842,190	-	8,060,616	-	7,514,239	-	10,427,977	-	20,303,596
Mobilization	41,863,568	-	8,506,559	-	11,506,780	-	2,628,840	-	3,556,071	-	3,945,562	-	3,873,798	-	2,489,525	-	5,356,433
Utilities	15,175,024	-	50,000	-	7,260,000	-	-	-	-	-	-	-	-	-	4,123,350	-	3,741,674
Risks and Opportunities	142,354,309	-	8,163,600	-	32,387,500	-	12,440,000	-	13,150,000	-	14,400,000	-	14,000,000	-	16,698,930	-	31,114,279
GRAND TOTAL	**1,021,196,826**	**4,424,612**	**130,572,511**	**19,013,389**	**182,417,013**	**3,000,000**	**82,179,847**	**2,500,000**	**104,945,641**	**2,500,000**	**115,203,456**	**3,000,000**	**112,023,467**	**3,000,000**	**86,992,777**	**2,000,000**	**158,959,274**
Total by Segment																	
EPE	8,889,451	424,612	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Project Administration	46,000,000	4,000,000	4,500,000	4,000,000	3,500,000	3,000,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	3,000,000	3,000,000	3,000,000	2,500,000	2,000,000	1,000,000
2016-N. of Coolidge to N. of South Boulevard	120,048,176	-	120,048,176	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2018-N. of I-696 to S. of 12 Mile	194,395,999	-	6,024,335	13,513,389	174,858,275	-	-	-	-	-	-	-	-	-	-	-	-
2020-N. of Wattles to N. of Coolidge	78,468,935	-	-	-	4,058,738	-	74,410,197	-	-	-	-	-	-	-	-	-	-
2022-N. of Rochester to N. of Wattles	101,879,883	-	-	-	-	-	5,269,649	-	96,610,234	-	-	-	-	-	-	-	-
2024-N. of 13 Mile to N. of Rochester	112,817,878	-	-	-	-	-	-	-	5,835,407	-	106,982,470	-	-	-	-	-	-
2026-S. of 12 Mile to N. of 13 Mile Road	111,105,717	-	-	500,000	-	-	-	-	-	-	5,720,985	-	104,884,732	-	-	-	-
2028-N. of 9 Mile Road to N. of I-696	80,335,552	-	-	320,000	-	-	-	-	-	-	-	-	4,138,735	-	75,876,817	-	-
2030-N. of M-102 to N. of 9 Mile Road	167,255,235	-	-	680,000	-	-	-	-	-	-	-	-	-	-	8,615,960	-	157,959,274
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GRAND TOTAL	**1,021,196,826**	**4,424,612**	**130,572,511**	**19,013,389**	**182,417,013**	**3,000,000**	**82,179,847**	**2,500,000**	**104,945,641**	**2,500,000**	**115,203,456**	**3,000,000**	**112,023,467**	**3,000,000**	**86,992,777**	**2,000,000**	**158,959,274**

I-75 Freeway Modernization Project

IFP YOE

Major Project Cost Elements	Annual Inflation / Escalation Rate	Current Year Cost Estimate to Complete	Inflation Cost	Total Y.O.E. Cost	State & Federal Fiscal Year 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
# of years to inflate from base year		2014			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
EPE																				
EPE	0%	-	-	8,889,451	424,612															
Admin & Indirect Costs	3%	-	-	-																
ROW	3%	-	-	-																
PE	3%	-	-	-																
CE	3%	-	-	-																
Road Construction	3%	-	-	-																
Structure Construction	3%	-	-	-																
Miscellaneous Construction	3%	-	-	-																
Traffic	3%	-	-	-																
Mobilization	3%	-	-	-																
Utilities	3%	-	-	-																
Risks and Opportunities	3%	-	-	-																
TOTAL		**-**	**-**	**8,889,451**	**424,612**	**-**	**-**	**-**	**-**	**-**	**-**									
check		-																		
Project Administration																				
EPE	0%	-	-	-																
Admin & Indirect Costs	3%	46,000,000	11,868,227	57,868,227	4,120,000	4,774,050	4,370,908	3,939,281	3,477,822	2,985,131	3,074,685	3,166,925	3,261,933	3,359,791	4,152,702	4,277,283	4,405,601	3,781,474	3,115,935	1,604,706
ROW	3%	-	-	-																
PE	3%	-	-	-																
CE	3%	-	-	-																
Road Construction	3%	-	-	-																
Structure Construction	3%	-	-	-																
Miscellaneous Construction	3%	-	-	-																
Traffic	3%	-	-	-																
Mobilization	3%	-	-	-																
Utilities	3%	-	-	-																
Risks and Opportunities	3%	-	-	-																
TOTAL		**46,000,000**	**11,868,227**	**57,868,227**	**4,120,000**	**4,774,050**	**4,370,908**	**3,939,281**	**3,477,822**	**2,985,131**	**3,074,685**	**3,166,925**	**3,261,933**	**3,359,791**	**4,152,702**	**4,277,283**	**4,405,601**	**3,781,474**	**3,115,935**	**1,604,706**
check		-																		
2016-N. of Coolidge to N. of South Boulevard																				
EPE	0%	-	-	-																
Admin & Indirect Costs	3%	-	-	-																
ROW	3%	-	-	-																
PE	3%	8,138,859	495,657	8,634,516		8,634,516														
CE	3%	10,173,574	619,571	10,793,145		10,793,145														
Road Construction	3%	45,228,859	2,754,437	47,983,296		47,983,296														
Structure Construction	3%	31,984,000	1,947,826	33,931,826		33,931,826														
Miscellaneous Construction	3%	1,256,388	76,514	1,332,902		1,332,902														
Traffic	3%	6,546,336	398,672	6,945,008		6,945,008														
Mobilization	3%	8,506,559	518,049	9,024,608		9,024,608														
Utilities	3%	50,000	3,045	53,045		53,045														
Risks and Opportunities	3%	8,163,600	497,163	8,660,763		8,660,763														
TOTAL		**120,048,176**	**7,310,934**	**127,359,110**	**-**	**127,359,110**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
check		-																		
2018-N. of I-696 to S. of 12 Mile						**2016**														
EPE	0%	-	-	-																
Admin & Indirect Costs	3%	-	-	-																
ROW	3%	10,000,000	850,885	10,850,885		2,546,160	8,304,725													
PE	3%	9,537,724	769,053	10,306,777		3,845,057	6,461,720													
CE	3%	15,896,207	1,995,114	17,891,321				17,891,321												
Road Construction	3%	56,331,054	7,070,044	63,401,098				63,401,098												
Structure Construction	3%	34,564,404	4,338,137	38,902,541				38,902,541												
Miscellaneous Construction	3%	1,593,219	199,963	1,793,182				1,793,182												
Traffic	3%	15,319,111	1,922,683	17,241,794				17,241,794												
Mobilization	3%	11,506,780	1,444,202	12,950,982				12,950,982												
Utilities	3%	7,260,000	911,194	8,171,194				8,171,194												
Risks and Opportunities	3%	32,387,500	4,064,917	36,452,417				36,452,417												
TOTAL		**194,395,999**	**23,566,192**	**217,962,191**	**-**	**6,391,217**	**14,766,445**	**196,804,529**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

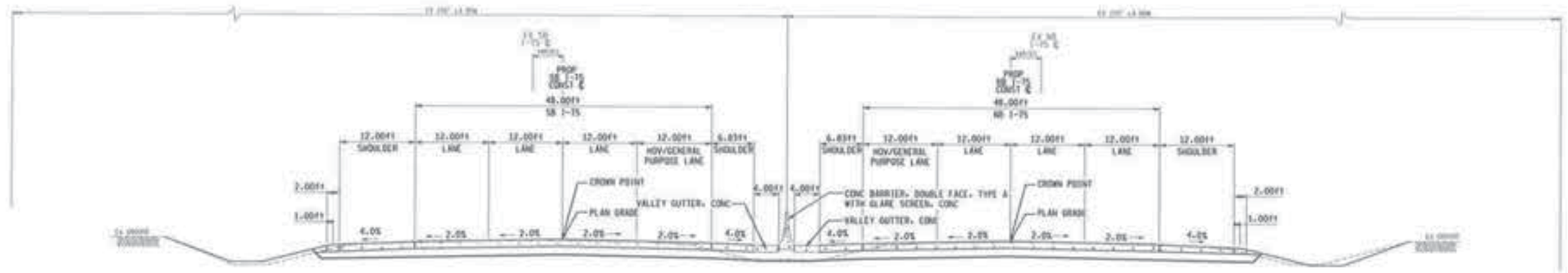
Major Project Cost Elements	Annual Inflation / Escalation Rate	Current Year Cost Estimate to Complete	Inflation Cost	Total Y.O.E. Cost	State & Federal Fiscal Year 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
check		-																		
2020-N. of Wattles to N. of Coolidge																				
EPE	0%	-	-	-																
Admin & Indirect Costs	3%	-	-	-																
ROW	3%	-	-	-																
PE	3%	4,058,738	509,407	4,568,145				4,568,145												
CE	3%	6,764,563	1,312,679	8,077,242						8,077,242										
Road Construction	3%	27,381,980	5,313,536	32,695,516						32,695,516										
Structure Construction	3%	17,722,000	3,438,995	21,160,995						21,160,995										
Miscellaneous Construction	3%	776,997	150,778	927,775						927,775										
Traffic	3%	6,695,817	1,299,339	7,995,156						7,995,156										
Mobilization	3%	2,628,840	510,132	3,138,972						3,138,972										
Utilities	3%	-	-	-																
Risks and Opportunities	3%	12,440,000	2,414,011	14,854,011						14,854,011										
TOTAL		**78,468,935**	**14,948,877**	**93,417,813**	**-**	**-**	**-**	**4,568,145**	**-**	**88,849,667**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
check		-																		
2022-N. of Rochester to N. of Wattles																				
EPE	0%	-	-	-																
Admin & Indirect Costs	3%	-	-	-																
ROW	3%	-	-	-		-														
PE	3%	5,269,649	1,022,588	6,292,237		-				6,292,237										
CE	3%	8,782,749	2,342,975	11,125,723								11,125,723								
Road Construction	3%	32,360,168	8,632,725	40,992,893								40,992,893								
Structure Construction	3%	30,868,000	8,234,659	39,102,659								39,102,659								
Miscellaneous Construction	3%	1,051,056	280,390	1,331,446								1,331,446								
Traffic	3%	6,842,190	1,825,292	8,667,482								8,667,482								
Mobilization	3%	3,556,071	948,653	4,504,724								4,504,724								
Utilities	3%	-	-	-																
Risks and Opportunities	3%	13,150,000	3,508,027	16,658,027								16,658,027								
TOTAL		**101,879,883**	**26,795,307**	**128,675,190**	**-**	**-**	**-**	**-**	**-**	**6,292,237**	**-**	**122,382,953**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
check		-																		
2024-N. of 13 Mile to N. of Rochester																				
EPE	0%	-	-	-																
Admin & Indirect Costs	3%	-	-	-																
ROW	3%	-	-	-			-													
PE	3%	5,835,407	1,556,712	7,392,120								7,392,120								
CE	3%	9,725,679	3,344,820	13,070,499										13,070,499						
Road Construction	3%	39,375,436	13,541,857	52,917,293										52,917,293						
Structure Construction	3%	30,309,000	10,423,762	40,732,762										40,732,762						
Miscellaneous Construction	3%	1,166,177	401,067	1,567,244										1,567,244						
Traffic	3%	8,060,616	2,772,178	10,832,794										10,832,794						
Mobilization	3%	3,945,562	1,356,943	5,302,505										5,302,505						
Utilities	3%	-	-	-																
Risks and Opportunities	3%	14,400,000	4,952,396	19,352,396										19,352,396						
TOTAL		**112,817,878**	**38,349,736**	**151,167,613**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**7,392,120**	**-**	**143,775,494**	**-**	**-**	**-**	**-**	**-**	**-**
check		-																		
2026-S. of 12 Mile to N. of 13 Mile Road																				
EPE	0%	-	-	-																
Admin & Indirect Costs	3%	-	-	-																
ROW	3%	500,000	46,364	546,364			546,364													
PE	3%	5,720,985	1,967,541	7,688,526										7,688,526						
CE	3%	9,534,976	4,059,620	13,594,595												13,594,595				
Road Construction	3%	34,027,754	14,487,687	48,515,441												48,515,441				
Structure Construction	3%	34,789,000	14,811,795	49,600,795												49,600,795				
Miscellaneous Construction	3%	1,144,965	487,481	1,632,446												1,632,446				
Traffic	3%	7,514,239	3,199,269	10,713,508												10,713,508				
Mobilization	3%	3,873,798	1,649,312	5,523,110												5,523,110				
Utilities	3%	-	-	-																
Risks and Opportunities	3%	14,000,000	5,960,652	19,960,652												19,960,652				
TOTAL		**111,105,717**	**46,669,721**	**157,775,438**	**-**	**-**	**546,364**	**-**	**-**	**-**	**-**	**-**	**-**	**7,688,526**	**-**	**149,540,549**	**-**	**-**	**-**	**-**

Major Project Cost Elements	Annual Inflation / Escalation Rate	Current Year Cost Estimate to Complete	Inflation Cost	Total Y.O.E. Cost	State & Federal Fiscal Year 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
check		-																		
2028-N. of 9 Mile Road to N. of I-696																				
EPE	0%	-	-	-																
Admin & Indirect Costs	3%	-	-	-																
ROW	3%	320,000	29,673	349,673			349,673													
PE	3%	4,138,735	1,762,112	5,900,847												5,900,847				
CE	3%	6,897,892	3,535,789	10,433,681														10,433,681		
Road Construction	3%	19,956,737	10,229,618	30,186,355														30,186,355		
Structure Construction	3%	14,607,521	7,487,665	22,095,186														22,095,186		
Miscellaneous Construction	3%	674,885	345,939	1,020,824														1,020,824		
Traffic	3%	10,427,977	5,345,274	15,773,251														15,773,251		
Mobilization	3%	2,489,525	1,276,105	3,765,630														3,765,630		
Utilities	3%	4,123,350	2,113,587	6,236,937														6,236,937		
Risks and Opportunities	3%	16,698,930	8,559,700	25,258,630														25,258,630		
TOTAL		**80,335,552**	**40,685,461**	**121,021,013**	**-**	**-**	**349,673**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5,900,847**	**-**	**114,770,494**	**-**	**-**
check		-																		
2030-N. of M-102 to N. of 9 Mile Road																				
EPE	0%	-	-	-																
Admin & Indirect Costs	3%	-	-	-																
ROW	3%	680,000	63,054	743,054			743,054													
PE	3%	8,615,960	4,416,453	13,032,413														13,032,413		
CE	3%	14,359,934	8,683,545	23,043,479																23,043,479
Road Construction	3%	42,677,526	25,807,375	68,484,901																68,484,901
Structure Construction	3%	38,877,945	23,509,744	62,387,689																62,387,689
Miscellaneous Construction	3%	1,527,887	923,923	2,451,810																2,451,810
Traffic	3%	20,303,596	12,277,715	32,581,311																32,581,311
Mobilization	3%	5,356,433	3,239,070	8,595,503																8,595,503
Utilities	3%	3,741,674	2,262,614	6,004,288																6,004,288
Risks and Opportunities	3%	31,114,279	18,815,005	49,929,284																49,929,284
TOTAL		**167,255,235**	**99,998,497**	**267,253,732**	**-**	**-**	**743,054**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**13,032,413**	**-**	**253,478,264**
check		-																		
check		-																		
check		-																		
Total by Element																				
EPE	0%	8,889,451	-	8,889,451	424,612	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin & Indirect Costs	3%	46,000,000	11,868,227	57,868,227	4,120,000	4,774,050	4,370,908	3,939,281	3,477,822	2,985,131	3,074,685	3,166,925	3,261,933	3,359,791	4,152,702	4,277,283	4,405,601	3,781,474	3,115,935	1,604,706
ROW	3%	11,500,000	989,976	12,489,976	-	2,546,160	9,943,816	-	-	-	-	-	-	-	-	-	-	-	-	-
PE	3%	51,316,059	12,499,521	63,815,581	-	12,479,573	6,461,720	4,568,145	-	6,292,237	-	7,392,120	-	7,688,526	-	5,900,847	-	13,032,413	-	-
CE	3%	82,135,574	25,894,112	108,029,686	-	10,793,145	-	17,891,321	-	8,077,242	-	11,125,723	-	13,070,499	-	13,594,595	-	10,433,681	-	23,043,479
Road Construction	3%	297,339,514	87,837,279	385,176,793	-	47,983,296	-	63,401,098	-	32,695,516	-	40,992,893	-	52,917,293	-	48,515,441	-	30,186,355	-	68,484,901
Structure Construction	3%	233,721,870	74,192,582	307,914,452	-	33,931,826	-	38,902,541	-	21,160,995	-	39,102,659	-	40,732,762	-	49,600,795	-	22,095,186	-	62,387,689
Miscellaneous Construction	3%	9,191,574	2,866,056	12,057,630	-	1,332,902	-	1,793,182	-	927,775	-	1,331,446	-	1,567,244	-	1,632,446	-	1,020,824	-	2,451,810
Traffic	3%	81,709,883	29,040,422	110,750,304	-	6,945,008	-	17,241,794	-	7,995,156	-	8,667,482	-	10,832,794	-	10,713,508	-	15,773,251	-	32,581,311
Mobilization	3%	41,863,568	10,942,467	52,806,035	-	9,024,608	-	12,950,982	-	3,138,972	-	4,504,724	-	5,302,505	-	5,523,110	-	3,765,630	-	8,595,503
Utilities	3%	15,175,024	5,290,440	20,465,464	-	53,045	-	8,171,194	-	-	-	-	-	-	-	-	-	6,236,937	-	6,004,288
Risks and Opportunities	3%	142,354,309	48,771,870	191,126,179	-	8,660,763	-	36,452,417	-	14,854,011	-	16,658,027	-	19,352,396	-	19,960,652	-	25,258,630	-	49,929,284
GRAND TOTAL		**1,021,196,826**	**310,192,952**	**1,331,389,777**	**4,544,612**	**138,524,377**	**20,776,443**	**205,311,955**	**3,477,822**	**98,127,034**	**3,074,685**	**132,941,998**	**3,261,933**	**154,823,811**	**4,152,702**	**159,718,678**	**4,405,601**	**131,584,381**	**3,115,935**	**255,082,971**
Total by Segment																				
EPE		8,889,451	-	8,889,451	424,612	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Project Administration		46,000,000	11,868,227	57,868,227	4,120,000	4,774,050	4,370,908	3,939,281	3,477,822	2,985,131	3,074,685	3,166,925	3,261,933	3,359,791	4,152,702	4,277,283	4,405,601	3,781,474	3,115,935	1,604,706
2016-N. of Coolidge to N. of South Boulevard		120,048,176	7,310,934	127,359,110	-	127,359,110	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2018-N. of I-696 to S. of 12 Mile		194,395,999	23,566,192	217,962,191	-	6,391,217	14,766,445	196,804,529	-	-	-	-	-	-	-	-	-	-	-	-
2020-N. of Wattles to N. of Coolidge		78,468,935	14,948,877	93,417,813	-	-	-	4,568,145	-	88,849,667	-	-	-	-	-	-	-	-	-	-
2022-N. of Rochester to N. of Wattles		101,879,883	26,795,307	128,675,190	-	-	-	-	-	6,292,237	-	122,382,953	-	-	-	-	-	-	-	-
2024-N. of 13 Mile to N. of Rochester		112,817,878	38,349,736	151,167,613	-	-	-	-	-	-	-	7,392,120	-	143,775,494	-	-	-	-	-	-
2026-S. of 12 Mile to N. of 13 Mile Road		111,105,717	46,669,721	157,775,438	-	-	546,364	-	-	-	-	-	-	7,688,526	-	149,540,549	-	-	-	-
2028-N. of 9 Mile Road to N. of I-696		80,335,552	40,685,461	121,021,013	-	-	349,673	-	-	-	-	-	-	-	-	5,900,847	-	114,770,494	-	-
2030-N. of M-102 to N. of 9 Mile Road		167,255,235	99,998,497	267,253,732	-	-	743,054	-	-	-	-	-	-	-	-	-	-	13,032,413	-	253,478,264
					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GRAND TOTAL		**1,021,196,826**	**310,192,952**	**1,331,389,777**	**4,544,612**	**138,524,377**	**20,776,443**	**205,311,955**	**3,477,822**	**98,127,034**	**3,074,685**	**132,941,998**	**3,261,933**	**154,823,811**	**4,152,702**	**159,718,678**	**4,405,601**	**131,584,381**	**3,115,935**	**255,082,971**
IFP Cumulative Cost					**13,009,451**	**151,533,828**	**172,310,271**	**377,622,226**	**381,100,048**	**479,227,083**	**482,301,768**	**615,243,766**	**618,505,699**	**773,329,509**	**777,482,211**	**937,200,889**	**941,606,491**	**1,073,190,872**	**1,076,306,807**	**1,331,389,777**
Total Remaining IFP				**1,322,500,326**																

** Fiscal Year 2015 Total includes $424,612 expended prior to the IFP 'as of' date, May 1, 2015*

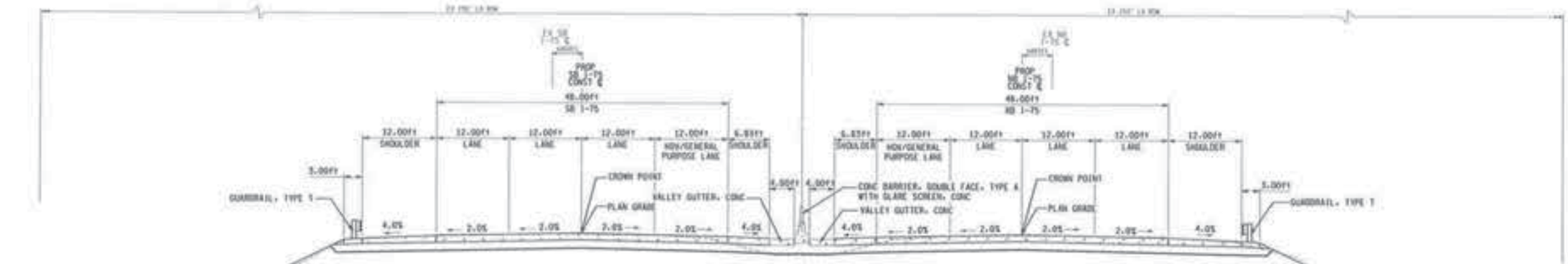
I-75 Freeway Modernization
Cost Estimate Review Summary Risk Register

Risk #	Risk Status	Risk Dependance	Functional Class	Segment/ Phase	TO E Lookup	Correlation	Cost Risk (Threat/	Probable Cost Impact ($$$)	Assumption Name	10% Schedule (Mo)	Most Likely Schedule (Mo)	90% Schedule (Mo)	Duration	Schedule Risk (Threat/	Correlation (Cost/	Parallel	Parallel Risks	Logical	Logical	Probable Schedule
1	Active	Independe	Prob<	PE+CE+CN	2016 D-B Contr	PE+CE+C	Nil	Threat	$ 200,000	si 1Design Exceptions - FHWA doesn't provide approval of design exceptions & geo	0.01	0.02	0.03	0.02	Threat				0.002		0.002
2	Active	Independe	Prob<	PE+CE+CN	2016 D-B Contr	PE+CE+C	Nil	Threat	$ 500,000	si 2Roadway Contingency - Costs associated with overruns & CO's, may include risk	0.01	0.02	0.03	0.02	Threat				0.01		0.01
3	Active	Independe	Prob<	PE+CE+CN	2016 D-B Contr	PE+CE+C	Nil	Threat	$ 375,000	si 3Segment 1	0.01	0.02	0.03	0.02	Opportunity				-0.01		-0.01
4	Active	Independe	Prob<	PE+CE+CN	2016 D-B Contract	PE+CE+C	Nil	Threat	$ 442,200	si 4Aggregate Minor Risks	0.01	0.02	0.03		Threat				0		0
5	Active	Independe	Prob<	PE+CE+CN	2016 D-B Contract	PE+CE+C	Nil	Threat	$ 3,300,000	si 5Unidentified Risks - max is about 8% of construction costs to bring total max co	0.01	0.02	0.03		Threat				0		0
6	Active	Independe	Prob<	PE+CE+CN	2016 D-B Contract	PE+CE+C	Nil	Threat	$ 300,000	si 6Improvements to local roadways	0.01	0.02	0.03	0.02	Threat				0.008		0.008
7	Active	Independe	Prob<	PE+CE+CN	2016 D-B Contract	PE+CE+C	Nil	Threat	$ 150,000	si 7Structures Contingency - Cover risks for longer/additional piling, high strength p	0.01	0.02	0.03	0.02	Threat				0.006		0.006
8	Active	Independe	Prob<	PE+CE+CN	2016 D-B Contract	PE+CE+C	Nil	Threat	$ 360,000	si 8Structures Contingency - Cover risks for increased steel prices.	0.01	0.02	0.03	0.02	Threat				0.006		0.006
9	Active	Independe	Prob<	PE+CE+CN	2016 D-B Contract	PE+CE+C	Nil	Threat	$ 466,400	si 9Structures - Additional costs due to innovative bridge construction techniques	0.01	0.02	0.03	0.02	Opportunity				-0.004		-0.004
10	Active	Independe	Prob<	PE+CE+CN	2016 D-B Contract	PE+CE+C	Nil	Threat	$ 100,000	si 10Poor Soils - Existing soils have low density granular soils (loose sands), liquefac	0.01	0.02	0.03	0.02	Threat				0.008		0.008
11	Active	Independe	Prob<	PE+CE+CN	2016 D-B Contract	PE+CE+C	Nil	Threat	$ 1,500,000	si 11Excessive settlement/consolidation due to raising of existing grade.	0.01	0.02	0.03	0.02	Threat				0.015		0.015
12	Active	Independe	Prob<	PE+CE+CN	2016 D-B Contract	PE+CE+C	Nil	Threat	$ 640,000	si 12Peat & marl in wetland areas	0.01	0.02	0.03	0.02	Threat				0.008		0.008
13	Active	Independe	Prob<	CE+CN+CO	2020 D-B-B Contract	CE+CN+C	Nil	Threat	$ 11,040,000	si 13Contingency to cover entire 2020 D-B-B contract, from 15% to 25% of construc	0.01	0.02	0.03		Threat				0		0
14	Active	Independe	Prob<	CE+CN+CO+UT	2018 D-B-B Contract	CE+CN+C	Nil	Threat	$ 21,225,000	si 14Contingency to cover entire 2018 D-B-B contract, from 20% to 30%.	0.01	0.02	0.03						0		0
15	Active	Independe	Prob<	Total Segment	2022 D-B-B Contract	Total Seg	Nil	Threat	$ 11,400,000	si 15Contingency to cover future segment, from 15% to 30%.	0.01	0.02	0.03		Threat				0		0
16	Active	Independe	Prob<	Total Segment	2024 D-B-B Contract	Total Seg	Nil	Threat	$ 13,400,000	si 16Contingency to cover future segment, from 15% to 30%.	0.01	0.02	0.03		Threat				0		0
17	Active	Independe	Prob<	Total Segment	2026 D-B-B Contract	Total Seg	Nil	Threat	$ 13,000,000	si 17Contingency to cover future segment, from 15% to 30%.	0.01	0.02	0.03		Threat				0		0
18	Active	Independe	Prob<	Total Segment	2028 D-B-B Contract	Total Seg	Nil	Threat	$ 11,573,930	si 18Contingency to cover future segment, from 15% to 30%.	0.01	0.02	0.03		Threat				0		0
19	Active	Independe	Prob<	Total Segment	2030 D-B-B Contract	Total Seg	Nil	Threat	$ 25,989,279	si 19Contingency to cover future segment, from 15% to 30%.	0.01	0.02	0.03		Threat				0		0
20	Active	Independe	Prob<	ROW	2018 D-B-B Contract	ROW-201	Nil	Threat	$ 1,312,500	si 20Potential additional ROW costs, e.g. condemnation cases.	0.01	0.02	0.03						0		0
21	Active	Independe	Prob<	PE+CE+CN	2016 D-B Contract	PE+CE+C	Nil	Threat	$ 80,000	si 21Larger drainage pipes/storage requirements	0.01	0.02	0.03						0		0
22	Active	Independe	Prob<	CE+CN+CO+UT	2018 D-B-B Contract	CE+CN+C	Nil	Threat	$ 8,250,000	si 22Potential tunnel to address existing combined sewer condition	0.01	0.02	0.03						0		0
23	Active	Independe	Prob<	Total Segment	2028 D-B-B Contract	Total Seg	Nil	Threat	$ 4,125,000	si 23Potential tunnel to address existing combined sewer condition	0.01	0.02	0.03						0		0
24	Active	Independe	Prob<	Total Segment	2030 D-B-B Contract	Total Seg	Nil	Threat	$ 4,125,000	si 24Potential tunnel to address existing combined sewer condition	0.01	0.02	0.03						0		0
25	Active	Independe	Prob<	CE+CN+CO+UT	2018 D-B-B Contract	CE+CN+C	Nil	Threat	$ 1,000,000	si 25Potential additional drainage and ROW costs to implement pending new storn	0.01	0.02	0.03						0		0
26	Active	Independe	Prob<	CE+CN+CO	2020 D-B-B Contract	CE+CN+C	Nil	Threat	$ 1,000,000	si 26Potential additional drainage and ROW costs to implement pending new storn	0.01	0.02	0.03						0		0
27	Active	Independe	Prob<	Total Segment	2022-2030 Contracts	Total Seg	Nil	Threat	$ 3,000,000	si 27Potential additional drainage and ROW costs to implement pending new storn	0.01	0.02	0.03						0		0
28	Active	Independe	Prob<	CE+CN+CO+UT	2018 D-B-B Contract	CE+CN+C	Nil	Threat	$ 600,000	si 28Corridor lighting	0.01	0.02	0.03						0		0
29	Active	Independe	Prob<	CE+CN+CO	2020 D-B-B Contract	CE+CN+C	Nil	Threat	$ 400,000	si 29Corridor lighting	0.01	0.02	0.03						0		0
30	Active	Independe	Prob<	Total Segment	2022-2030 Contracts	Total Seg	Nil	Threat	$ 2,000,000	si 30Corridor lighting	0.01	0.02	0.03						0		0
31	Active	Independe	Prob<	Total Segment	2022 D-B-B Contract	Total Seg	Nil	Threat	$ 750,000	si 31Additional costs to implement HOV lanes, i.e. out them into operation	0.01	0.02	0.03						0		0
32	Active	Independe	Prob<	PE+CE+CN	2016 D-B Contract	PE+CE+C	Nil	Opportunity	$ (250,000)	si 32Anticipated savings with ATCs.	0.01	0.02	0.03						0		0
33	Retired	Independe	Prob<1			-	Nil	Opportunity	$ -	si 33	0.01	0.02	0.03						0		0
34	Retired	Independe	Prob<1			-	Nil	Threat	$ -	si 34	0.01	0.02	0.03						0		0
									$142,354,309.14												



TYPICAL NORMAL CROWN SECTION
8-LANE I-75 FREEWAY

I-75 STA 961+00 TO STA 1007+00
I-75 STA 1066+00 TO STA 1080+00
I-75 STA 1081+00 TO STA 1098+00
I-75 STA 1123+00 TO STA 1186+00
I-75 STA 1301+00 TO STA 668+00
I-75 STA 646+00 TO STA 698+00
I-75 STA 708+00 TO STA 722+00
I-75 STA 739+00 TO STA 748+00

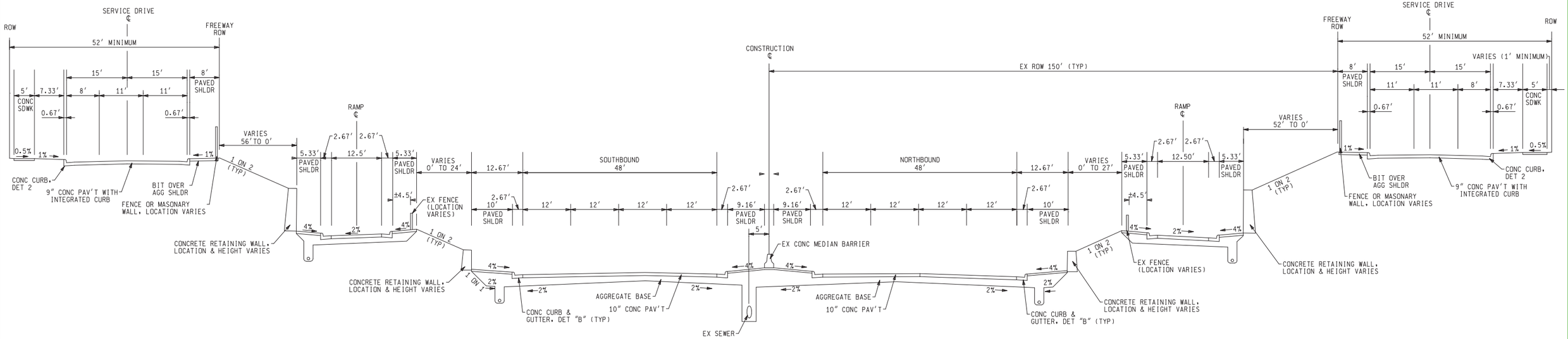


TYPICAL NORMAL CROWN SECTION
BRIDGE APPROACH
8-LANE I-75 FREEWAY

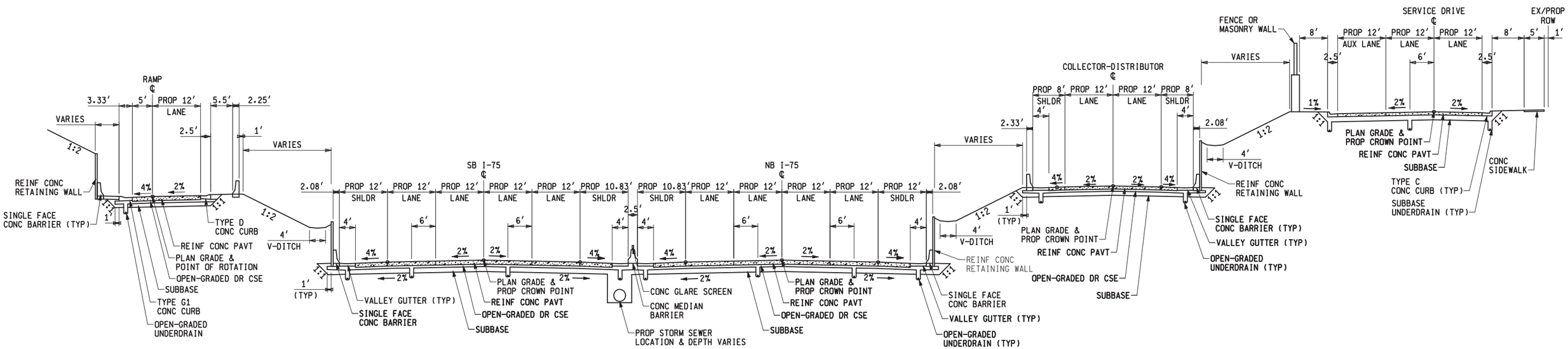
I-75 STA 921+00 TO STA 961+00
I-75 STA 1080+00 TO STA 1081+00
I-75 STA 1188+00 TO STA 1200+00
I-75 STA 686+00 TO STA 694+00
I-75 STA 698+00 TO STA 708+00

	SCALE	URS Corporation Grand Rapids, Michigan Traverse City	MDOT Michigan Department of Transportation	MDOT JOB NO 88166 MDOT CONTROL SECTION 4519a	MICHIGAN DEPARTMENT OF TRANSPORTATION I-75 SOUTH OF 12 MILE RD TO SOUTH OF M-59 ENGINEERING REPORT I-75 TYPICAL SECTIONS

			FINAL R.O.W.
AUTH	DATE	NO.	REVISION



TYPICAL EXISTING FREEWAY CROSS-SECTION FOR I-75
(4-LANE SECTION WITH RAMPS AND SERVICE DRIVES)



TYPICAL PROPOSED FREEWAY CROSS-SECTION FOR I-75
4-LANE SECTION WITH COLLECTOR DISTRIBUTOR ROAD, SLIP RAMP AND SERVICE DRIVE

I-75 FROM M-102 TO SOUTH OF 12 MILE RD

PARSONS BRINCKERHOFF, INC.
500 GRISWOLD ST, SUITE 2900
DETROIT, MICHIGAN 48226
313-963-5760

MDOT Michigan Department of Transportation

TYPICAL CROSS SECTIONS

DATE	CONT. SEC.	JOB NO.	DESIGN UNIT	SHEET NO. R.O.W	SHEET NO. CONST.
MAY 2010	63174	45700, 100948	DATTA		

DATE:
WORKED ON BY:
DATE:
CHECKED BY:
FILE NAME: