US 301 PROJECT
Maryland / Delaware Line to SR1
South of the C&D Canal
New Castle County, Delaware

PROJECT MANAGEMENT PLAN
December 2011 Update

Date Submitted: May 2008
Update Submitted : September 2010
: December 2011
Submitted By:
Delaware Department of Transportation

FHWA

DELAWARE DEPARTMENT OF TRANSPORTATION

Letter of Endorsement

Project Management Plan

Federal Highway Administration

DELAWARE DEPARTMENT OF TRANSPORTATION

US 301, MARYLAND/DELAWARE LINE TO SR1
South of C&D Canal
New Castle County, Delaware

PROJECT MANAGEMENT PLAN UPDATE
LETTER OF ENDORSEMENT

The Delaware Department of Transportation (DelDOT) and the Federal Highway Administration (FHWA) have developed a Project Management Plan for the US 301 Project to meet the requirements of SAFETEA-LU for major projects.

The May 2008 Project Management Plan, the September 2010 update and this December 2011 update have been developed in accordance with the guidelines set forth by the FHWA.

This document provides an update of the summary description of the organization, management systems, and processes that are guiding the full-range of activities required to complete the US 301 Project.

The Project Management Plan for the US 301 project continues to be a living document and will be reviewed, revised, and updated, as appropriate, as the project moves toward implementation in order to generate an effectively managed project meeting all the project goals and objectives.

The undersigned for the Delaware Department of Transportation and the Federal Highway Administration fully endorse this updated Project Management Plan and are committed to achieving the goals and objectives as set forth herein.

_____ _____

Shailen Bhatt, P.E. Date
Secretary
Delaware Department of Transportation

_____ _____

Hassan Raza, P.E. Date
Division Administrator
Federal Highway Administration

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[1] See December 2011 update of the Initial Financial Plan for additional GARVEE information.

ACRONYMS

1993 DEIS	1993 Draft Environmental Impact Statement for the US Route 301 Corridor Study
AADT	Average Annual Daily Traffic
ADA	American Disabilities Act
ADT	Average Daily Traffic
APE	Area of Potential Effect
ARDS	Alternatives Retained for Detailed Study
AVC	Automatic Vehicle Classification
AVI	Automatic Vehicle Identification
BMPs	Best Management Practices
CCTV	Closed Circuit Television
C&D	Chesapeake & Delaware
CFR	Code of Federal Regulations
CLRP	Constrained Long Range Transportation Plan
CO	Carbon Monoxide
CRS	Cultural Resource Survey
CTP	Capital Transportation Plan
DBE	Disadvantaged Business Enterprise
DelDOT	Delaware Department of Transportation
DMS	Dynamic Message Signs
DMS	Document Management System
DNREC	Delaware Department of Natural Resources and Environmental Control
DOA	Delaware Department of Agriculture
DOI	Department of the Interior
EAC	Estimate at Completion
EEO	Equal Employment Opportunity
EIS	Environmental Impact Statement
ENR	Engineering News Record
EPA	US Environmental Protection Agency
ETC	Estimate to Complete
ETC	Electronic Toll Collection
E-ZPass™	DelDOT's automated toll collection program
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FY	Fiscal Year
GARVEE	Grant Anticipation Revenue Vehicles
GEC	General Engineering Consultant
GPS	Global Positioning System
HSIP	Highway Safety Improvement Project
IFP	Initial Financial Plan

ITS	Intelligent Transportation System
LEP	Limited English Proficiency
lf	Linear feet
LID	Low Impact Development
LOD	Limit of Disturbance
LOS	Level of Service
MATE	Mid-Atlantic Transportation and Environmental Streamlining Process
MDE	Maryland Department of the Environment
MIS	Major Investment Study
MPO	Metropolitan Planning Organization
MSAT	Mobile Source Air Toxic
Maryland SHA	Maryland State Highway Administration
MVMT	Million Vehicle-Miles-Traveled
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NO_2	Nitrogen Dioxide
NOAA Fisheries	US National Marine Fisheries Service
O&D	Origin and Destination
O_3	Ozone
OFCC	Office of Federal Contract Compliance
OJT	On the Job Training
ORT	Open Road Tolling
OSPL	Office of State Planning Coordination
Pb	Lead
$PM_{2.5}$	Airborne particulate matter smaller than or equal to 2.5 microns in size
PM_{10}	Airborne particulate matter smaller than or equal to 10 microns in size
PMP	Project Management Plan
PS&E	Plan Specification & Estimate
PV	Planned Value
RFI	Request for Information
ROD	Record of Decision
ROW	Right-of-Way
RTE	Rare, Threatened and Endangered
RTP	Regional Transportation Plan
RWIS	Road Weather Information Systems
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SDC	Section Design Consultant
SHPO	State Historic Preservation Office
SIC	Section Inspection Consultant
S/NAAQS	State/National Ambient Air Quality Standards
SO_2	Sulfur Dioxide
SR	State Route
SWM	Stormwater management

TCC	Total Committed Cost
TIP	Transportation Improvement Program
TMP	Transportation Management Plan
US	United States
USACE	US Army Corps of Engineers
USC	United States Code
USDOL	US Department of Labor
USFWS	US Fish and Wildlife Services
VES	Video Enforcement System
VMT	Vehicle Miles Traveled
Vpd	Vehicles per day
WILMAPCO	Wilmington Area Planning Council
YOE	Year of Expenditure

1.0 Introduction

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1.0 INTRODUCTION

The 17.5-mile US 301 Project is a state-of-the-art limited access highway, on new location, that will connect existing US 301 at the Delaware/Maryland Line with SR 1, south of the C&D Canal, a distance of 13.0 miles. The project also includes a limited access Spur Road, on new location, from new US 301, in the vicinity of Armstrong Corner Road to the Summit Bridge crossing of the C&D Canal, a distance of 4.5 miles. US 301 will provide a four lane (two per direction) highway, while the Spur Road will provide 2 lanes (1 lane in each direction). The 17.5 -mile limited access highway is intended to:

- Manage traffic by shifting US 301 through traffic, including high volumes of truck traffic, from congested local roads to new US 301, thus,
- Reducing congestion and increasing community mobility, and
- Improving safety

The US 301 Project will consist of the following features:

- Limited access highways with interchanges spaced throughout the facility
- Four basic lanes (two per direction) with a 70 mph design speed for US 301 Mainline
- Two basic lanes (one per direction) with a 70 mph design speed for the US 301 Spur Road
- Variable typical sections, and a 54-foot wide median on US 301 and on the US 301 Spur Road
- Guardrail, retaining walls, and other roadside treatments to minimize the road's footprint
- Intelligent Transportation Systems (ITS), such as variable message signage
- Environmental mitigation features

US 301 will be owned and operated by the Delaware Department of Transportation.

1.1 PROJECT GOALS

The results of the US 301 Project Development effort will be a more efficient transportation system for the greater Middletown/Odessa Area that meets the following goals:

- Supports responsible and sustainable land development and economic growth, while accommodating the anticipated growth in local, seasonal and through traffic;
- Avoids adverse impacts from transportation improvements to natural, cultural and community resources;
- Provides a limited access, through traffic route to points northeast, north, and south of the project area;
- Separates through (regional) traffic, particularly trucks, from local traffic;
- Preserves and enhances capacity on the existing road system;
- Enhances the local road network and creates a comprehensive transportation system that accommodates the needs of all modes of transportation serving the residents of the greater Middletown/Odessa Area;
- Provides roadway improvements that minimize impacts on existing natural, cultural and community resources and that is compatible with existing and planned economic development; and

- Optimizes transportation improvements included in DelDOT's Capital Transportation Program (CTP) and WILMAPCO's Regional Transportation Plan in addressing project purpose and need.

The following "post-ROD" goals for the US 301 Project have been developed:

- Develop and achieve an acceptable Budget and Finance Plan;
- Complete the Project in a timely manner;
- Provide a safe project for workers;
- Provide a safe project for the traveling public during construction;
- Encourage design solutions that respond to community and environmental concerns, permits, and Record of Decision (ROD) commitments;
- Achieve environmental commitments and permit requirements;
- Provide a high-quality, aesthetic, durable, and maintainable highway;
- Minimize disruptions to existing traffic and local businesses and communities by implementing a Traffic Management Plan (TMP);
- Provide proactive public relations and maintain public trust and integrity; and
- Meet DBE and small business goals and provide an On-the-Job Training program.

1.2 MEASURING PERFORMANCE

The Project Team's success in meeting the above stated goals can be quantified by measuring actual performance versus the identified goals. During the course of the project design and construction the following actions will be taken:

- Deviation from the Financial Plan will be measured and monitored on a continuous basis. Corrective action will be taken as necessary, at the earliest prudent opportunity.
- Deviation from the current schedule for the project will be measured and monitored on a continuous basis. Corrective action will be taken as necessary.
- The intent is to experience no injuries, fatalities and no lost work days due to injuries during construction. Should injuries occur, corrective action will be taken and every effort will be made to keep accident rates less than the national accident rates for construction site accidents and injuries.
- Ideally, no accidents will occur while the project is under construction. The development and implementation of a Transportation Management Plan for the project, per FHWA requirements, is currently being prepared to provide a safe project for workers and a safe project for the traveling public. Accident rates on the project will be measured against the normal public accident rates in construction zones for the State of Delaware.
- A commitment tracking database has been developed by the GEC for community, environmental, permits and Record of Decision (ROD) commitments, which are identified in Attachments A and B of the ROD (see Appendix A of this document). These commitments will be used to encourage a context sensitive approach to design solutions. In addition, Working Sessions and Field Reviews with the Environmental Agencies will continue.
- Invite peer reviews and input from the public and outside technical experts during the development of the final design of the projects. A Public Workshop will be conducted to secure additional public input during the design phase of the project. Meetings will also be

conducted with individual communities and businesses. Comments and suggestions will be recorded and considered during the design and construction phases.

- Record the complaints received regarding the effect of construction on the traveling public, as well as, the corrective measures taken and the response time.
- Record the type and number of media and public complaints raised during project design and construction along with the action taken and the response time.
- Continuously monitor and measure directly against the stated goals of the project. Corrective action will be taken as necessary.

1.3 PROJECT PARTICIPANTS

The Delaware Department of Transportation (DelDOT), an agency of the State of Delaware, is authorized and empowered to finance, construct, operate, maintain and repair the US 301 facility. DelDOT will issue toll revenue bonds, as well as use state Transportation Trust Fund (TTF), and Federal Highway fund sources for the purpose of financing the cost of the US 301 Project and to perform any actions necessary to operate the facility as a toll roadway. DelDOT will be the principal agency for revenue generating studies and toll related issues. DelDOT will also manage, plan, secure environmental approvals, design, acquire right-of-way and construct the US 301 Project. DelDOT will be responsible for procurement activities necessary to advance the project in accordance with State and federal requirements.

The Federal Highway Administration (FHWA) will provide oversight from a federal perspective with respect to funding, project management, construction, and quality control. The Maryland State Highway Administration (Maryland SHA) will also review and provide comments/concurrence in the right-of-way and construction plans for the minor portion of the project located in Maryland (see Appendix B: DelDOT/Maryland SHA Agreement dated January 21, 2010).

When federal funds are used on a project or a phase of a project, federal rules and regulations will be followed. When state only funds are used on a project or a phase, then state regulations will be followed.

Federal, state, and local governments and agencies provide input and support to the Project in the form of technical reviews, providing permit review and approvals, and support to the US 301 Project. These groups include the Government of New Castle County and the Wilmington Area Planning Council (WILMAPCO) as well as Federal and State resource and regulatory agencies.

1.4 PROJECT MANAGEMENT PLAN PURPOSE AND SCOPE

This Project Management Plan (PMP) applies to the US 301 Project post-Record of Decision, and includes the qualification and selection process for the General Engineering Consultant (GEC), four Section Design Consultants (SDCs), Specialty Consultants, Section Inspection Consultants (SICs), Contractors, the construction process, and the final completion of the Project.

The PMP provides a summary description of the organization, management systems, and processes that will guide the full-range of activities required to complete the US 301 Project. This plan is consistent with the FHWA guidance document related to project management plans for major projects. The PMP is a living document and will be updated periodically.

The PMP also addresses internal management, effective Quality Assurance/Quality Control, comprehensive document management, public affairs, and a proactive DBE program.

The PMP:

- Presents the overall organization linking DelDOT, FHWA, and other parties participating in the Project;

- Identifies roles and responsibilities of participants in performing and managing work for the Project;
- Provides guidelines for issues key to the success of the Project;
- Provides procedures for reporting progress;
- Outlines quality assurance and quality control procedures; and,
- Defines communication channels among DelDOT, FHWA, and other participants and outside agencies.

2.0 Project Description and Scope of Work

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2.0 PROJECT DESCRIPTION, SCOPE AND STATUS

2.1 PROJECT OBJECTIVES

The US 301 Project is being developed to improve overall community mobility and safety by separating through traffic, especially large volumes of heavy truck traffic, from local traffic. The state-of-the-art northeast/north-south highway will accommodate planned growth and the resulting traffic while avoiding, minimizing and mitigating impacts to the community, natural and cultural environment to the extent practicable. The project is employing aesthetic design options and construction techniques to minimize and mitigate impacts. A comprehensive public outreach effort and a context sensitive design process is continuing throughout the design and will continue throughout the construction phases to obtain and sustain citizen input into shaping the final products.

The US 301 Project Development effort is pursuing the following objectives in order to achieve the long term Vision, Mission and Goals. The Objectives are being used to develop, evaluate, compare and refine the improvement options.

- Overall Transportation and Mobility/Accessibility
  - Separate local traffic from through traffic, especially truck traffic and seasonal traffic
  - Provide more travel options for residents
  - Enhance facilities and services for pedestrians, bicycles and transit
  - Provide improved operating conditions on area roadways
- Congestion
  - Provide additional capacity where needed to minimize traffic congestion
  - Designate appropriate roadways for local and through (regional) traffic to limit adverse traffic impacts on neighborhoods
  - Improve traffic ingress and egress
- Safety
  - Improve safety by providing effective truck routes, improving access management and accessibility for emergency services, and adding pedestrian and bicycle facilities
  - Separate through traffic, especially truck traffic, from local traffic, where possible
- Land Use Planning
  - Accommodate planned growth and the resulting traffic
  - Continue to coordinate transportation improvements with existing and proposed land use patterns and utility systems
  - Be consistent with Delaware's Strategies for State Policies and Spending, the Governor's Livable Delaware Initiative, DelDOT's Statewide Long-Range Transportation Plan, WILMAPCO's Metropolitan Transportation Plan, the New Castle County Comprehensive Plan, and Middletown and Odessa's Comprehensive Plans
- Intergovernmental Coordination
  - Maintain the high level of cooperation and coordination among New Castle County, WILMAPCO, Middletown, Odessa, DelDOT and other state agencies regarding the linkage between land use and transportation

- Comply with federal and state agency environmental and historic resource regulations and requirements
- Coordinate project efforts with the Maryland Department of Transportation, Cecil, Kent, and Queen Anne's Counties in Maryland

- Environment
  - Where feasible, avoid adverse effects to farmland, historic, archaeological and natural resources
  - Develop minimization and mitigation measures where avoidance is not feasible
  - Balance environmental, economic and transportation benefits and impacts in the refinement of improvements
- Aesthetics
  - Maintain and enhance the character of the greater Middletown/Odessa Area
  - Use aesthetic design and construction techniques to minimize and mitigate impacts
  - Employ a full range of aesthetic options in addressing transportation needs
- Public Outreach
  - Context Sensitive Design Process will be continued throughout the design and construction phases to obtain and sustain citizen input

This facility will satisfy a transportation need for the region and local area that has been recognized for more than 40 years and included in some form in planning documents since the early 1960's.

2.2 PROJECT BACKGROUND AND HISTORY

2.2.1 Early Planning Activities (1960's)

A U.S. 301 alignment study performed by Delaware State Highway Department in the 1950s resulted in the siting and subsequent construction of the existing Summit Bridge over the C&D Canal (US 301) by the US Army Corps of Engineers (USACE) in 1961. In the mid-1960s, recognition of the regional significance of the US 301 corridor led DelDOT to investigate opportunities to improve mobility in the corridor. In spite of these earlier efforts, the solution to improving mobility in southern New Castle County, Delaware remained elusive. Since that time, the Middletown area of southern New Castle County has been transformed from a rural and largely agricultural area to a suburban residential area for commuters employed in Newark, Wilmington, Philadelphia, and throughout the I-95 corridor in Delaware, northern Maryland, southern Pennsylvania, and southern New Jersey.

2.2.2 NEPA Efforts (1990's)

In recent years, DelDOT initiated two studies to address transportation needs in southern New Castle County and in the US 301 corridor. In the early 1990s, DelDOT prepared the *U.S. Route 301 Corridor Study – Draft Environmental Impact Statement* (DEIS). The 1993 DEIS evaluated the need, location, and design features of transportation alternatives to improve traffic service and operation in the US 301 corridor between the Maryland/Delaware state line and I-95. While the 1993 DEIS compared the environmental impacts of a variety of alternatives, it focused primarily on assessing alternative highway corridors in a relatively narrow study area, encompassing the US 301/SR 896 corridor, and did not address the overall transportation needs in southern New Castle County.

In December 1994, following completion of the 1993 DEIS, DelDOT made two announcements concerning the US 301 corridor. First, to bring some closure to the 1993 DEIS process, DelDOT

announced that if the implementation of a new north-south limited access highway was to be advanced on any of the alignments studied in the 1993 DEIS, the corridor for those improvements would be the Ridge Route (or Ridge Alignment) to the west of Middletown, south of the C&D Canal, and the existing SR 896 corridor, north of the Canal. The Ridge Alignment generally follows the ridgeline or drainage divide between the Delaware River watershed and the Chesapeake Bay watershed. Secondly, DelDOT announced that the area would be the subject of a Major Investment Study (MIS) that would assemble a package of land use measures, transportation uses, and design standards for both transportation and land use activities, transportation demand reduction strategies, financing and network management. The MIS was clearly designed to look at the needs for southern New Castle County without focusing on only the US 301 corridor.

2.2.3 Major Investment Study (2000)

The *Greater Route 301 Major Investment Study* (January 2000) recommended that, in addition to a full range of transit, pedestrian, and bicycle transportation demand management and local roadway improvements, a major increase in roadway capacity was required to meet the transportation needs of southern New Castle County. The MIS recommended alternatives for further study to address mobility in the US 301 corridor that differed substantially from the Preferred Alternative that emerged from the 1993 DEIS. More specifically, the MIS recommended that capacity improvements for the US 301 corridor be developed from the Maryland/Delaware state line to SR 1 south of the C&D Canal, rather than to the SR 896 corridor north of the Canal, as proposed in the 1993 DEIS. The MIS recommended that two build alternatives be retained for detailed study and evaluated in a new DEIS.

Efforts to implement the transit, pedestrian, and bicycle transportation demand management and local road improvement recommendations from the MIS are in various stages of implementation.

2.2.4 Recent NEPA Effort (2005 – 2008)

In 2005, Governor Minner designated the US 301 Corridor as a top priority and DelDOT initiated the current US 301 Project Development effort. The effort focuses on addressing the mobility and safety needs of this rapidly developing area. These needs were described in the 1993 DEIS and in the 2000 MIS, and became even more significant, subsequent to the completion of the MIS. The 2005 Project Purpose and Need builds upon and updates the previous Purpose and Need discussions presented in the 1993 DEIS and the 2000 MIS.

Throughout the US 301 Project's long history, virtually every interested party and Resource Agency has agreed on one point: there is a real need to separate through traffic, especially the large percentage of heavy truck traffic, from local traffic thus increasing transportation mobility and safety in the project area. In the decade between 1990 and 2000, the population in the study area grew by 60%. The population is expected to increase by an additional 106% by 2030. The mix of long distance, especially a significant volume of trucks, in combination with the increased traffic from the extraordinary development occurring in the Middletown area, has led to congestion and significant safety problems along existing US 301, especially at many key intersections. The existing congestion in the study area is expected to worsen considerably by 2030.

The current NEPA study was initiated with a series of listening tour interviews of elected officials, Resource Agency representatives, business owners, property owners, farmers, and community organizations in the project area. Public scoping and Resource Agency coordination meetings were also conducted. The current study has focused on early and continuous coordination with the public and Resource Agencies.

A comprehensive public involvement plan was implemented that offered all interested citizens and organizations an active role in the NEPA process. All possible steps were taken to work with the affected public and government agencies. DelDOT, with public and Resource Agency input, drafted the project's Purpose and Need Statement and presented it to the public for comment at three rounds of workshops,

attended by 2,400 people, in 2005. Public input was also solicited on a potential Range of Alternatives at the June 2005 public workshops; on the Range of Alternatives at the September 2005 public workshops; on the recommended Alternatives to be Retained for Detailed Study at the December 2005 public workshops; on identified issues and refinements to the Alternatives Retained for Detailed Study at the February and April 2006 public workshops; and on the Recommended Preferred Alternative and the Draft EIS at the January 2007 public hearing sessions.

Additional efforts to maximize public involvement included:

- Communities near each of the four retained alternatives were offered the opportunity to individually meet with the project team. The project team met with each of the 22 communities that requested a meeting (several times with a number of those communities). Over seventy-five individual community meetings have been held.
- The project team has employed a comprehensive interactive web site, www.deldot.gov/information/projects/us301/ (four million hits through September 2011), a toll-free "hotline" number, and mailed notices and newsletters to thousands, when appropriate.
- A Project Office was opened in Middletown on July 7, 2005 and was staffed for three days each week (Monday, Thursday and Saturday). This office provided residents with additional opportunities to talk to project team members, get additional information, and provide input. The office received over 500 visitors and was closed at the end of January 2007, following the Draft EIS comment period and after visits to the office fell to less than one or two per week.

2.2.5 Resource Agency Coordination (2005 – 2011)

DelDOT is engaged with the Federal and State Resource Agencies in a continuing collaborative review process [45 consultation/coordination meetings/field reviews over the 5½ year period (2005-2010)] of identifying and addressing issues. Perhaps most importantly, the sustained efforts of DelDOT and the FHWA with the Federal and State Environmental Resource and Regulatory Agencies led to a comprehensive mitigation package that all affected Resource Agencies agreed will compensate for the natural resource and community impacts of the Selected Alternative. The comprehensive mitigation package being incorporated into the US 301 project, and documented in the FHWA April 30, 2008 approved Record of Decision (ROD), was a key factor in the Resource Agencies' acceptance of the Preferred Alternative. The U.S. Army Corps of Engineers issued a Provisional Individual Permit for the US 301 project on August 18, 2009. Coordination with the Resource Agencies is continuing during the currently ongoing Final Design effort. This coordination primarily involves field reviews and design refinements in a continuing effort to minimize impacts to environmental resources.

2.2.6 March 2009 Public Workshop

In response to direction from the Delaware General Assembly, DelDOT conducted a public workshop on March 23, 2009 to present information and alternatives for the Spur Road portion of the project, including the possible upgrade of existing US 301. The latest traffic data was also presented.

As detailed in the April 30, 2009 Report to the General Assembly (April 30, 2009 Report to General Assembly), the Department developed, evaluated and presented the Spur Road, alternatives to the Spur Road, including the upgrade of existing US 301, and current traffic data at several pre-workshop community and stakeholder meetings and at the March 23, 2009 workshop. The comments received at the community and stakeholder meetings, as well as the public workshop and during the subsequent comment period, showed support for the Spur Road. There was less support for the upgrade of existing US 301 in lieu of building the Spur Road. There was virtually no support for a No Build Alternative. The Department recommended proceeding with the Selected Alternative, approved by FHWA in their April 30, 2008 Record of Decision. DelDOT recommended, subject to availability of funding, proceeding with Final

Design and Right-of-Way acquisition for the Spur Road. The General Assembly provided the following in the 2009 Bond Bill:

> "Section 102. Route 301 Spur Road Segment. The General Assembly directs the Department to implement the US 301 Corridor Project in Phases, beginning with the US 301 Mainline Section."

On March 11, 2010, the WILMAPCO Council approved an amendment to the approved FY 2010-2013 TIP and approved the FY 2011-2014 TIP, indicating the type of bonds (GARVEE) proposed to fund a portion of the preliminary engineering and ROW activities and incorporating the approved GARVEE debt service into the TIP, as required by FHWA. Governor Markell approved the change to the STIP on April 16, 2010 (See Appendix C.)

2.2.7 January 2010 Approval of GARVEE Bond Issue

On January 28, 2010, the Delaware General Assembly authorized the sale of $125 million in GARVEE bonds to complete preliminary engineering and ROW activities as noted in Tables E-1 and 3-1. A copy of Section 5 of Senate Bill 202, providing authority for DelDOT to issue $125 million in GARVEE bonds is included in Appendix C. The GARVEE Bonds were sold in June 2010.

At the same time the General Assembly authorized the sale of $125 million in GARVEE Bonds, the House of Representatives passed House Resolution No. 35., directing the Delaware Department of Transportation to "sit down over the next 6 weeks to develop and negotiate to final resolution a bill to amend the existing epilogue language, with such bill mandating certain trigger mechanisms for the Spur Road." As a result of that coordination the US 301 Spur Road Monitoring Program was developed to monitor growth in traffic and land use development, and to evaluate the operational characteristics of key roads and intersections. This monitoring program will provide decision makers with data to make an informed decision on the appropriate timing for the construction of the US 301 Spur Road.

The monitoring program consists of the annual collection and analysis of daily traffic volumes on select roadways, peak period intersection volumes, vehicular delay at un-signalized intersections, crash data, and land use development data. Each year, the data will be analyzed and compared with data and results from prior years. Appendix C includes a summary of the first year of the monitoring program based on data collected in 2010, and serves as a basis for comparison with data collected in future years.

DelDOT has always indicated that the construction of the US 301 project would be phased. This is a standard approach for major projects, example: SR 1 (Delaware) and the Woodrow Wilson Bridge and InterCounty Connector (ICC) (Maryland). DelDOT has noted the US 301 mainline would be the initial phase of the project to be constructed, followed by the initial Spur Road contract, (Spur Road/SR 896/Bethel Church Road Interchange - fix the sharp curve south of Summit Bridge and remove traffic signal – safety concern) and finally, the last two US 301 Spur Road contracts. This order of phasing is consistent with the Purpose and Need, i.e. the new US 301 mainline is projected to attract the greatest volume of traffic (2/3), particularly the removal of the high percentage of interstate truck traffic destined for the northeast, from local roadways, thus reducing congestion and improving safety. The initial Spur Road contract will improve the sharp curve and remove the traffic signal on that curve, thus improving safety. The remaining two Spur Road contracts (1/3 of traffic) will reduce traffic on Choptank Road and existing US 301, especially heavy truck traffic on existing US 301, from new US 301 to Summit Bridge. These are the key components of the Purpose and Need, to be addressed in the appropriate priority order, by the proposed phasing.

The traffic monitoring program is expected to support proceeding with construction of the final two Spur Road construction contracts, approximately 1-year after the US 301 mainline is open to traffic. The FY 2013-2018 CTP, currently being developed, will be based on the current schedule, which anticipates construction of the full US 301 project will begin during the six-year CTP period.

2.2.8 2010 WILMAPCO Approval: FY 2010 – 2013 TIP & FY 2011 – 2014 TIP

On March 11, 2010, the WILMAPCO Council approved an amendment to the approved FY 2010-2013 TIP and approved the FY 2011-2014 TIP, indicating the type of bonds (GARVEE) proposed to fund a portion of the preliminary engineering and ROW activities and incorporating the approved GARVEE debt service into the TIP, as required by FHWA. Governor Markell approved the change to the STIP on April 16, 2010.

2.2.9 June 2010 Initial Financial Plan (IFP)

DelDOT subsequently decided to use a combination of minimal State Transportation Trust Funds, along with Federal Aid Highway Funds, and GARVEE Bond proceeds to fund preliminary engineering and ROW activities. The Delaware General Assembly authorized the sale of $125 million in GARVEE Bonds on January 28, 2010.

DelDOT issued GARVEE Bonds in June 2010 to fund completion of final design and ROW activities. The importance of moving ahead now with these activities on this key transportation project was obvious:

- Completing final design assured that ROW needs were determined and construction bid documents are ready to go at the appropriate time.
- Removed the uncertainty and delay that property owners in the area have experienced over the past 40 years – a major complaint during the public outreach effort.
- An opportune time to acquire ROW (property values have remained stable over the past two years or so and are projected to remain stable over the next two years or so).
- Protects the highway corridor from future development.
- Provides clear direction and certainty for developers in working with New Castle County and the Town of Middletown.

2.2.10 August 2, 2011 US 301 Origin & Destination (O & D) Survey

The Department of Transportation (DelDOT) conducted a traffic survey to interview motorists along northbound US 301 on Tuesday, August 2, 2011 between 7:00 am and 8:00 pm. The survey was conducted to gain current information about the travel patterns of vehicles entering the state in the US 301 corridor, so the Department can make informed decisions about local and regional transportation improvements.

Motorists traveling northbound on US 301 were diverted into the Weigh & Inspection station located just north of the Delaware/Maryland Stateline for a brief, voluntary interview. Delaware State Police helped to direct traffic and, working with the survey staff, kept traffic delay minimal throughout the day. Most motorists experienced less than 2-3 minutes delay from their normal trip. During peak periods of arrivals, a small number of motorists were delayed up to 5 minutes.

General Findings:

- As expected, trucks represent more of the long distance trips, with more nearly three times the percentage of trucks passing over the Bay Bridge (66.8% for trucks versus 23.5% for autos)
- Similarly, relatively few trucks had both origins and destinations on the eastern shore (e.g., the Delmarva Peninsula): 17.8% of trucks versus 55.5% for autos
- Most autos (about 92%) had origins in DE, MD or VA, while those states represented about 71% of the truck origins.
- Most autos (about 88%) had destinations in DE, PA or NJ, while those states represented about 80% of the truck destinations.

- Trucks travel the US 301 route with slightly greater frequency than autos: trucks travel the corridor 2.2 times/week on average versus 1.9 times/week for autos

These general findings were used to further refine the regional transportation model used in the November 2011 Draft Level 3 Traffic and Revenue forecasts for the US 301 project.

2.2.11 September 6, 2011 Public Workshop

As the design of the US 301 Mainline advanced to the final phase, and as the Spur Road plans approached the preliminary phase, a second round of pre-workshop community meetings, elected official briefings and a second Public Workshop were held to update and inform the public of the status of the US 301 project and to secure additional public input. Pre-workshop community meetings were held with residents of Airmont and Mount Hope, Spring Arbor, Springmill and Summit Bridge Farms, where the current design refinements affecting each respective community were presented and residents' comments were heard and addressed. Notes of each meeting and responses to comments received at the meetings were posted on the project website, following each meeting. Several issues raised at the community meetings have been addressed by refinements in design.

Attendees, at the September 6, 2011 Public Workshop, were given an opportunity to view and comment on the four Section Designs, as well as all 16 of the Design Refinements that are included in the final design plans. A PowerPoint presentation, previewing the workshop and discussing the materials to be found on the displays, was given hourly beginning at 3:15 p.m. All workshop materials are noted on the project website (www.us301.deldot.gov) and have been provided in a notebook and on a CD to FHWA.

2.2.12 November 2011 Design Refinements Report

On March 29, 2011, DelDOT submitted the initial draft Design Refinements Report, prepared in accordance with 23 CFR 771.129-Reevaluations, for the US 301 project, to FHWA, who provided comments on May 23 and 25, 2011. On October 13, 2011, DelDOT submitted a revised Design Refinements Report, which responded to FHWA comments and incorporated the results of the September 6, 2011 Public Workshop and the September 19, 2011 Environmental Resource Agency meeting, to FHWA, who provided comments on November 10, 2011. The report evaluated and compared the environmental consequences of the post 2008 Record of Decision (ROD) design refinements to the US 301 Selected Alternative, Green North + Spur Road. All sixteen design refinements were presented to the public at the March 23, 2009 and/or the September 6, 2011 public workshops and public comments were considered in the development of the project's final design. All sixteen design refinements were recommended by, concurred in or not objected to by the Federal and State Environmental Resource Agencies. The report concluded that the post ROD design refinements, when compared to the Selected Alternative design identified in the FEIS and ROD would not result in a significant change in socio-economic or natural environmental impacts and thus the ROD remains valid and no other supplemental environmental documentation is required. FHWA provided comments on November 10, 2011; DelDOT submitted the final document on November 29, 2011. FHWA approved the November Design Refinements Report on December 7, 2011.

2.2.13 Draft December 2011 Financial Plan Update

2.2.13.1 Current Cost Estimate and Funding Sources (FY 2013 – 2018 CTP being prepared)

The estimated cost of the US 301 project, in year of expenditure dollars (YOE$), is $676.07 million. The December 2011 update proposes a combination of state Transportation Trust Funds, Federal Aid Highway Funds and two types of bonds (GARVEE and Toll Revenue) to fully fund the US 301 project as follows:

- Preliminary Engineering and ROW

- State Transportation Trust Fund (TTF) Revenues
- Federal Aid Highway Funds (FHWA)
- GARVEE Bond Proceeds (GARVEEs)

- Construction
  - GARVEE Bond Proceeds (Utility Adjustments/Relocations and Toll Integration)
  - Toll Revenue Bonds secured by a pledge of the tolls to be imposed on US 301 and by a lien on available State Transportation Trust Fund revenues

Exhibit 2.1: Current Cost Estimate by Cost Elements and Source of Funds (YOE$ millions)

US 301 Mainline, SR 896 / Bethel Church Road Interchange and US 301 Spur Road

	Type of Funding Source *($millions)*				
Phase	**TTF**	**FHWA**	**GARVEE Bonds**	**Toll Revenue Bonds**	**Total**
Planning	$ 11.13				$ 11.13
Design	$ 2.92	$ 42.32	$ 21.93	$ -	$ 67.17
ROW	$ 0.07	$ 21.18	$ 87.04	$ -	$ 108.28
Construction	$ 0.22	$ -	$ 16.03	$ 473.24	$ 489.49
Total	**$ 14.34**	**$ 63.50**	**$ 125.00**	**$ 473.24**	**$ 676.07**

2.3 PROJECT SCOPE

2.3.1 General Description

The US 301 Project will provide a 4-lane limited access US 301 Mainline on new location, from the MD/DE line to SR 1, south of the C&D Canal, and a 2-lane US 301 Spur Road from new US 301, in the vicinity of Armstrong Corner Road, to just south of the Summit Bridge crossing of the C&D Canal in southern New Castle County, Delaware. The 17.5-mile controlled access highway is intended to:

- Manage traffic by shifting US 301 through traffic, including high volumes of truck traffic, from congested local roads to new US 301, thus,
- Reducing congestion and increase community mobility, and
- Improving safety

The US 301 Project will consist of the following features:

- Controlled access highways with interchanges spaced throughout the facility
- Four basic lanes (two per direction) with a 70 mph design speed for the US 301 Mainline
- Two basic lanes (one per direction) with a 70 mph design speed for the US 301 Spur Road
- Variable typical sections, and a 54-foot wide median on US 301 and on the US 301 Spur Road
- Guardrail, retaining walls, and other roadside treatments to minimize the road's footprint
- Intelligent Transportation Systems (ITS), such as variable message signage
- Environmental mitigation features

In the 17.5 miles along new US 301 Mainline and the US 301 Spur Road, there are six grade separated interchanges. These are:

US 301 Mainline

- Levels Road
- Existing US 301 (Summit Bridge Road, north of Armstrong Corner Road)
- Jamison Corner Road
- SR 1

US 301 Spur Road:

- New US 301 Mainline
- SR 896/Bethel Church Road Interchanges

2.3.2 US 301 Toll Facility

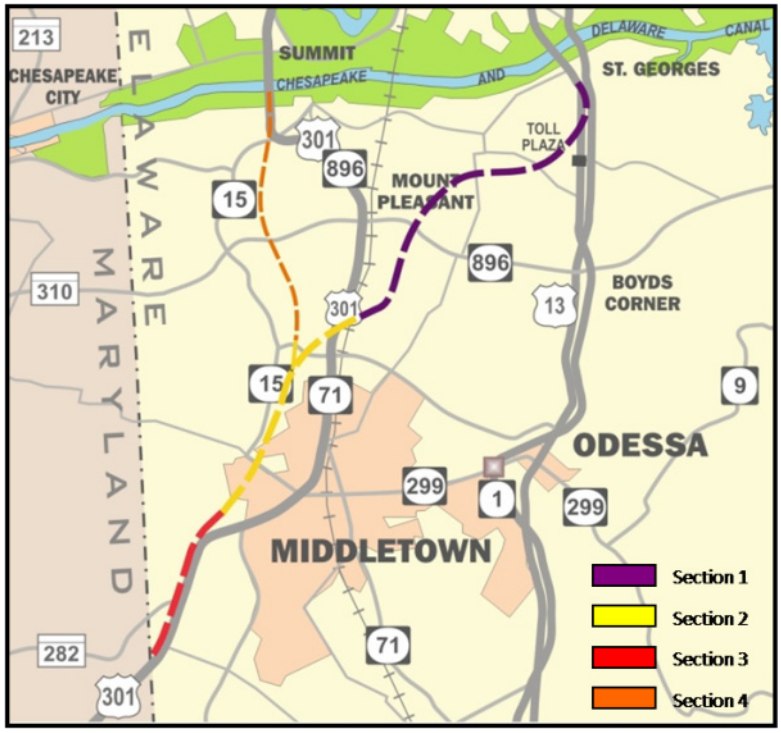
US 301 will be a toll facility. The Selected Alternative will be a managed highway facility utilizing electronic toll collection at highway speeds at the US 301 mainline toll barrier near the Maryland/Delaware state line and at the north-serving interchange ramps (Levels Road, existing US 301 north of Armstrong Corner Road, and Jamison Corner Road). The north-serving ramps at the Spur Road/SR 896/Bethel Church Interchange and will be toll free. Traditional cash lanes may also be provided at the toll barriers.

There are two toll collection options currently under consideration. The first option, traditional tolling, would consist of a mainline toll plaza with highway speed E-ZPass™ toll lanes and cash toll collection lanes (which would also accept E-ZPass™) in each direction. North serving ramps would include highway speed E-ZPass™ and cash toll collection lanes (which would also accept E-ZPass™).

The second toll collection option, Open Road Tolling (ORT), would use overhead gantries with cameras and E-ZPass™ reading equipment. Drivers would not be required to stop under the Open Road Tolling option. The overhead cameras would photograph the license plate of those vehicles not having E-ZPass™ and an invoice would be sent to those non- E-ZPass™ users of the US 301 facility.

DelDOT is continuing to evaluate the advantages and disadvantages of the two options, including construction and operating costs and effects on toll revenues. The impacts and construction and real estate costs included in this ROD and the Final EIS assume the traditional toll collection option. ORT would minimize the area required for toll collection facilities by replacing toll plazas with overhead gantries, cameras and E-ZPass™ reading equipment.

Figure 2.1: US 301 Location Map



2.4 FOUR DESIGN SECTIONS

The procurement process for the professional services for US 301 has been a quality based selection in accordance with the rules of the State of Delaware, as set forth in *Title 29, Chapter 69, Subchapter VI Professional Services,* and outlined in the "*DelDOT Professional Services Procurement Manual"*. A summary of the Professional Services Procurement Process is included in Section 5.1 of this document.

US 301 has been divided into four design sections, as noted on Exhibits 2.1 and 2.2. DelDOT has secured the services of a General Engineering Consultant (GEC) to support DelDOT in managing the overall US 301 project and a Section Design Consultant Team (SDC) for each of the four design sections. Design activities began on the new US 301 Mainline in September 2008 and on the US 301 Spur Road in July 2009, following the March 2009 public workshop noted previously herein.

Exhibit 2.2: Design Sections

Sections	Description	Road
1	SR 1 to East of Norfolk Southern Railroad	US 301
2	East of Norfolk Southern Railroad to North of Levels Road	US 301
3	North of Levels Road to DE/MD Line	US 301
4	US 301, Armstrong Road Area to South of Summit Bridge	Spur Road

2.4.1 Design Features to Minimize Impacts

One of the primary considerations during the planning and conceptual design of the US 301 was the environmental resources and the potential impacts of the roadway. A number of design features have been incorporated into the Basic Configuration to minimize impacts to the environment. These include:

- The entire project is being designed to avoid and minimize adverse impacts to wetland and stream resources, as outlined in the Final EIS. DelDOT has refined the Selected Alternative to avoid sensitive areas wherever practicable.
- In some locations, retaining walls have been incorporated to minimize impacts to critical wetland resources.
- The road profile is the lowest feasible elevation that will provide for adequate drainage, while mitigating noise and visual impacts on the adjacent communities and residences.
- Additionally, visual screening berms have been located between the proposed roadway and adjacent communities, where practicable, to further mitigate visual impacts.
- DelDOT commits to bridging all stream/wetland crossings, as described in Attachment D of the ROD and the November 2011 Design Refinements Report, utilizing structure lengths that locate abutments in adjacent uplands. Bridge heights have been incorporated in the bridge concepts that, along with longer structure lengths, ensure hydrologic and habitat connectivity, as well as wildlife passage.

Important project decisions and commitments are captured in the April 30, 2008 Record of Decision (ROD) and the November 2011 Design Refinements Report. DelDOT, FHWA, GEC and SDCs continue to work with the Environmental Resource Agencies and stakeholders to refine the selected alternative in order to reduce impacts.

2.4.2 Construction Contracts

The procurement process for US 301 construction contracts will be in accordance with laws and rules of the State of Delaware, using the Design-Bid-Build method of procurement (also known as "low bid" or "competitive sealed bidding") as set forth in *Title 29, Chapter 69, Subchapter III, Materials and Nonprofessional Services*. A summary of Materials and Nonprofessional Services Procurement Process is included in Section 5.1 of this document. The intent of DelDOT is to award each construction contract to the Contractor that submits the lowest responsive and responsible bid.

The US 301 Project Implementation Strategies Group, in which FHWA is participating, has developed the preliminary construction contracts in manner that reasonably balances local competition, contractor interfaces/coordination and construction management and inspection costs, all in an effort to complete construction as timely and cost effectively as reasonably possible. At the same time, the group has considered those

items with the greatest potential to impact project costs and schedule, i.e. earthwork, years of escalation/escalation rate, structures and right-of-way (see Section 8.7 for the effort to date regarding managing Project Risks and Opportunities).

The following are the currently anticipated construction contracts (see Appendix C for map of US 301 Project)

Exhibit 2.3: Construction Contracts

Contract #	Description	State Number
1A	US 301, SR 896 to SR 1	T200911308 (09-45698)
1B	US 301 & SR 1 Interchange	T200911302 (08-03012)
1C	US 301, Norfolk Southern RR to SR 896	T200911301 (08-03011)
1D	US 13 and Port Penn Road Intersection	T201011302 (10-03019)
2A	US 301, Levels Road to Norfolk Southern Railroad	T200911303 (08-03013)
2B	US 301, Bridges over Summit Bridge Road and Norfolk Southern Railroad	T200911304 (08-03014)
2C	Business US 301, Armstrong Corner Rd to US 301 Overpass	T201011301 (10-03020)
2D	US 301 Maintenance Facility	
2E	US 301/Armstrong Corner Road Park and Ride Facility	
3	US 301, Maryland State Line to Levels Rd	T200811301 (08-03015)
4A	US 301 Spur Road SR 896 and Bethel Church Interchange	T200911305 (08-03016)
4B	US 301 Spur Road, Churchtown Rd to SR 896/ Bethel Church Road Interchange	T200911306 (08-03017)
4C	US 301 Spur Road, US 301 to Churchtown Rd	T200911307 (08-03018)

2.5 AGREEMENTS

2.5.1 Local Agreements

Agreements are needed with a number of jurisdictions, agencies, organizations and private entities for the US 301 Project. These agreements are developed by DelDOT's Assistant Attorney General. These groups include:

- Potential agreements with property owners (real estate purchase agreements, conservation easements, etc.) – Agreements are being developed during the R/W acquisition process.

- Utility Companies (reimbursement agreements, installation permits, lateral crossing maintenance agreements, etc.) when demonstrated that the existing facilities are located on free simple real estate owned by the utility, or on a documented easement granted by a third party to the utility or otherwise where reimbursement is eligible per Delaware Code. Agreements with the following utility companies have been executed to date:
  - Delmarva Power, Gas Company
  - Delmarva Power, Electric Distribution
  - Delmarva Power, Electric Transmission (PEPCO)
  - Artesian Water Company
  - Town of Middletown and New Castle County- the agreements are in accordance with Title 17, Delaware Code, Subsection 143 that requires the State to reimburse for impacts to facilities that are owned and/or operated by a public utility of a municipality or of any governmental body or political subdivision.
    - New Castle County Utilities
      - Town of Middletown Utilities
  - Norfolk Southern Railroad (US 301 structures over) – PE 3/19/10
- Maryland State Highway Administration (US 301 tie-in at the MD/DE state line) – the agreement covering responsibilities for design, right-of-way acquisition, construction and construction oversight of the tie-in to existing US 301 in Maryland has been executed (see Appendix B). Maryland State Highway Administration (Maryland SHA) has agreed to acquire the necessary right-of-way in Maryland
- Norfolk Southern Railroad (Railroad Agreement for bridge crossing) – agreement to construct a bridge and permanently occupy space over the right of way of the Norfolk Southern Railroad. Current plans anticipate spanning the Norfolk Southern Railroad right-of-way with an elevated structure, i.e. aerial easement. No foundations or other US 301 facilities are currently anticipated within Norfolk Southern right-of-way. The agreement for Norfolk Southern to review the bridge construction contract documents was executed on 3/19/10. The agreement for construction of the bridge crossing is currently being developed.
- Town Agreement – As required by law, pursuant to Title 17, Section 134 of the Delaware Code, as amended, an Agreement with the Town of Middletown is required for the construction, reconstruction, improvements, and/or maintenance by the State of the portion of the project that is within the town limits. Meetings with the Town have been held throughout the project development. A Draft of this agreement will be submitted to the Town with the final road construction plans in the fall of 2011.
- Cecil County, MD—the US301 project will improve a short section of Wilson Street at the western end of the Strawberry Lane overpass. Wilson Street is maintained by Cecil County and an agreement will be executed covering responsibilities for design, construction and construction oversight of the Wilson Street improvements. Meetings have been held with representatives of Cecil County and a Draft of this agreement will be submitted in the fall of 2011.
- Others as needed

2.5.2 Legislation Pertaining to Project Financing

2.5.2.1 Annual DelDOT Budget

The annual budgets for capital and operating expenditures of DelDOT are subject to review and approval by the State Legislature. Each year DelDOT updates a six-year Capital Transportation Program for the State's transportation system. The first year of the CTP is reflected in DelDOT's annual capital budget and is submitted to the State Legislature for review and approval. This annual capital budget represents DelDOT's work program. DelDOT cannot undertake, or commit to, capital projects in excess of the amounts specifically authorized by the State Legislature. The State Legislature had provided the exact same direction to DelDOT in the FY 2010, FY 2011 and FY 2012 Bond Bills, i.e., "The General Assembly directs the Department to implement the US 301 Corridor Project in Phases, beginning with the US 301 Mainline Section."

2.5.2.2 GARVEE Authorization

On January 28, 2010, the Delaware General Assembly authorized the sale of $125 million in GARVEE bonds, which DelDOT will use to complete preliminary engineering and right-of-way activities for the US 301 project. A copy of Section 5 of Senate Bill 202, providing authority for DelDOT to issue $125 million in GARVEE bonds is included in Appendix C.

2.5.2.3 House Resolution No. 35

On January 28, 2010, the Delaware General Assembly authorized the sale of $125 million in GARVEE bonds to complete preliminary engineering and ROW activities as noted in Tables E-1 and 3-1. A copy of Section 5 of Senate Bill 202, providing authority for DelDOT to issue $125 million in GARVEE bonds is included in Appendix C. The GARVEE Bonds were sold in June 2010.

At the same time the General Assembly authorized the sale of $125 million in GARVEE Bonds, the House of Representatives passed House Resolution No. 35., directing the Delaware Department of Transportation to "sit down over the next 6 weeks to develop and negotiate to final resolution a bill to amend the existing epilogue language, with such bill mandating certain trigger mechanisms for the Spur Road." As a result of that coordination the US 301 Spur Road Monitoring Program was developed to monitor growth in traffic and land use development, and to evaluate the operational characteristics of key roads and intersections. This monitoring program will provide decision makers with data to make an informed decision on the appropriate timing for the construction of the US 301 Spur Road.

The monitoring program consists of the annual collection and analysis of daily traffic volumes on select roadways, peak period intersection volumes, vehicular delay at un-signalized intersections, crash data, and land use development data. Each year, the data will be analyzed and compared with data and results from prior years. Appendix C includes a summary of the first year of the monitoring program based on data collected in 2010, and serves as a basis for comparison with data collected in future years.

DelDOT has always indicated that the construction of the US 301 project would be phased. This is a standard approach for major projects, example: SR 1 (Delaware) and the Woodrow Wilson Bridge and InterCounty Connector (ICC) (Maryland). DelDOT has noted the US 301 mainline would be the initial phase of the project to be constructed, followed by the initial Spur Road contract, (Spur Road/SR 896/Bethel Church Road Interchange - fix the sharp curve south of Summit Bridge and remove traffic signal – safety concern) and finally, the last two US 301 Spur Road contracts. This order of phasing is consistent with the Purpose and Need, i.e. the new US 301 mainline is projected to attract the greatest volume of traffic (2/3), particularly the removal of the high percentage of interstate truck traffic destined for the northeast, from local roadways, thus reducing congestion and improving safety. The initial Spur Road contract will improve the sharp curve and remove the traffic signal on that curve, thus improving safety.

The remaining two Spur Road contracts (1/3 of traffic) will reduce traffic on Choptank Road and existing US 301, especially heavy truck traffic on existing US 301, from new US 301 to Summit Bridge. These are the key components of the Purpose and Need, to be addressed in the appropriate priority order, by the proposed phasing.

The traffic monitoring program is expected to support proceeding with construction of the final two Spur Road construction contracts, approximately 1-year after the US 301 mainline is open to traffic. The FY 2013-2018 CTP, currently being developed, will be based on the current schedule, which anticipates construction of the full US 301 project will begin during the six-year CTP period.

2.5.2.4 WILMAPCO Approvals: TIP & STIP

On March 11, 2010, the WILMAPCO Council approved a modification to the approved FY 2010-2013 TIP and approved the FY 2011-2014 TIP, indicating the type of bonds (GARVEE) proposed to fund a portion of the preliminary engineering and right-of-way activities and incorporating the approved GARVEE debt service into the TIP, as required by FHWA. Governor Markell approved the change to the STIP on April 16, 2010. The US 301 project is included in the current FY 2012 – 2015 TIP.

2.5.2.5 US 301 Toll Authorization

Section 1405 (l) of Title 2 requires the General Assembly to approve the project funding, and all bonds must be approved by the State's bond issuing officers. Once the funding of the US 301 project is approved by the General Assembly, Chapters 13 and 14 of Title 2 provide flexibility in putting together the finance plan. Section 1403(6) gives the Delaware Transportation Authority (DTA), the authority "to impose tolls at such places and at such times as it determines on a toll facility system comprised of the Delaware Turnpike, U.S. Route 301..." Under Section 1409 the General Assembly has already committed not to alter the rights and powers of the DTA in such a way as to inhibit or prevent the DTA from fulfilling its agreements with bondholders, or repealing, reducing or adversely altering any taxes or fees securing bonds. The language of Section 1405 is broad and flexible and provides sufficient authorization for a finance plan for US 301.

2.5.3 Need for Legislation

Although legislation is not required to collect tolls on US 301, General Assembly approval of funding for the US 301 project is required. A summary of the US 301 Plan of Finance will be provided and presented to the General Assembly (Bond Bill Committee).

2.6 PROJECT STATUS

2.6.1 Final Design

In summary, the final design of the US 301 Mainline construction contracts is nearing completion (100%). The SR 896/Bethel Church Road Interchange is at the semi-final plan stage (85% complete). The US 301 Spur Road is at the preliminary plan stage (50% complete). The current status of the final design effort is summarized in Exhibit 2.4.

Exhibit 2.4: Current Design Schedule

Contract #	Description	State Number	Preliminary 50% Complete	Semi-Final 85% Complete	Final 100% Complete	PS&E
1A	US 301, SR 896 to SR 1	T200911308 (09-45698)	Completed	Completed	Completed	Dec 2011
1B	US 301 & SR 1 Interchange	T200911302 (08-03012)	Completed	Completed	Completed	Jan 2012
1C	US 301, Norfolk Southern RR to SR 896	T200911301 (08-03011)	Completed	Completed	Completed	Nov 2011
1D	US 13 and Port Penn Road Intersection	T201011302 (10-03019)	Completed	Completed	Completed	Jan 2012
2A	US 301, Levels Road to Norfolk Southern Railroad	T200911303 (08-03013)	Completed	Completed	Completed	Mar 2012
2B	US 301, Bridges over Summit Bridge Road and Norfolk Southern Railroad	T200911304 (08-03014)	Completed	Completed	Completed	Mar 2012
2C	Business US 301, Armstrong Corner Rd to US 301 Overpass	T201011301 (10-03020)	Completed	Completed	Nov 2011	Jul 2012
2D	US 301 Maintenance Facility		Jan 2013	Jul 2013	Oct 2013	Dec 2013
2E	US 301/Armstrong Corner Road Park and Ride Facility		Jan 20131	Jul 2013	Oct 2013	Dec 2013
3	US 301, Maryland State Line to Levels Rd	T200811301 (08-03015)	Completed	Completed	Oct 2011	Nov 2011
4A	US 301 Spur Road SR 896 and Bethel Church Interchange	T200911305 (08-03016)	Completed	Jan 2012	Sep 2012	Jan 2013
4B	US 301 Spur Road, Churchtown Rd to SR 896/ Bethel Church Road Interchange	T200911306 (08-03017)	Completed	Mar 2012	Sep 2012	Jan 2013
4C	US 301 Spur Road, US 301 to Churchtown Rd	T200911307 (08-03018)	Completed	Mar 2012	Sep 2012	Jan 2013

2.6.2 Right-of-Way

A significant acquisition effort began in early 2011, with the availability of necessary ROW plans. The initial focus is on the US 301 Mainline, as directed by the General Assembly. The following table summarizes the status of ROW activities for the US 301 Mainline through September 2011.

US 301 Mainline ROW Acquisition Status As of November 21, 2011		
Activity	**Delaware**	**Maryland**
Total Number of Parcels	**139**	**6**
- DelDOT Owned Parcels	**35**	**0**
Subtotal	**104**	**6**
- Signed Agreements	**9**	**0**
Subtotal	**95**	**6**
- Offers Made	**24**	**6**
Subtotal	**71**	**0**

Appraisals for those parcels required for the US 301 Mainline are anticipated to be completed in January/February 2012, with offers made in February/March 2012 and a goal to complete acquisitions in August 2012. The number of relocations required for the US 301 Mainline has been reduced from 21 to 19, with 10 relocations completed through September 30, 2011.

The acquisition of the necessary ROW for the US 301 Mainline is projected to be completed by August 2012 and for the US 301 Spur Road by December 2013.

A Financial Plan, acceptable to the Secretary of Transportation, the Governor and the General Assembly, and the time to acquire the ROW necessary for the project are on the critical path to US 301 Mainline construction.

2.6.3 Construction Contracts

The US 301 Project Implementation Strategies Group, in which FHWA is participating, has refined design concepts, potential construction contract limits and schedules, to ensure the implementation of this major contract occurs in an effective and efficient manner, minimizing risks and maximizing opportunities. A goal of this on-going effort is to accelerate schedules and cash flow, thus reducing overall inflation costs, capitalized interest payments, and accelerating the toll revenue service date.

The Project Team has identified convenient borrow sites for the proposed construction contracts. The borrow material will be provided from joint borrow/mitigation sites and from land-locked/uneconomic remnant parcels. By providing excellent quality borrow material, at locations convenient to the construction contracts (short haul distances), the Project Team anticipates excellent bid prices for this critical item. See November 2011 Design Refinements Report and Section 2 of this document for engineering efficiencies.

Figure 1-4: US 301 Construction Contracts

Exhibit 2.5: Current Construction Schedule

Contract #	Description	State Number	PS&E	ADV	Bid	NTP Constr.	Complete Constr.
1A	US 301, SR 896 to SR 1	T200911308 (09-45698)	Dec 2011	Sep 2012	Nov 2012	Mar 2013	Feb 2016
1B	US 301 & SR 1 Interchange	T200911302 (08-03012)	Jan 2012	Oct 2012	Dec 2012	Mar 2013	Feb 2015
1C	US 301, Norfolk Southern RR to SR 896	T200911301 (08-03011)	Nov 2011	Sep 2012	Nov 2012	Mar 2013	Feb 2015
1D	US 13 and Port Penn Road Intersection	T201011302 (10-03019)	Jan 2012	Aug 2012	Oct 2012	Mar 2013	Jul 2015
2A	US 301, Levels Road to Norfolk Southern Railroad	T200911303 (08-03013)	Mar 2012	Aug 2012	Oct 2012	Mar 2013	Feb 2016
2B	US 301, Bridges over Summit Bridge Road and Norfolk Southern Railroad	T200911304 (08-03014)	Jul 2012	Oct 2013	Jul 2014	Apr 2014	Apr 2015
2C	Business US 301, Armstrong Corner Rd to US 301 Overpass	T201011301 (10-03020)	Mar 2012	Jul 2013	Oct 2013	Dec 2013	May 2015
2D	US 301 Maintenance Facility		Dec 2013	Sep 2014	Nov 2014	Jan 2015	Dec 2015
2E	US 301/Armstrong Corner Road Park and Ride Facility		Dec 2013	Sep 2014	Nov 2014	Jan 2015	Dec 2015
3	US 301, Maryland State Line to Levels Rd	T200811301 (08-03015)	Nov 2011	Oct 2012	Dec 2012	Mar 2013	Jul 2015
4A	US 301 Spur Road SR 896 and Bethel Church Interchange	T200911305 (08-03016)	Jan 2013	Jun 2016	Sep 2016	Jan 2017	Dec 2018
4B	US 301 Spur Road, Churchtown Rd to SR 896/ Bethel Church Road Interchange	T200911306 (08-03017)	Jan 2013	Jun 2016	Sep 2016	Jan 2017	Dec 2018
4C	US 301 Spur Road, US 301 to Churchtown Rd	T200911307 (08-03018)	Jan 2013	Aug 2016	Nov 2016	Feb 2017	Dec 2018

See Appendix C (update) for more detailed map of the proposed construction contracts. See Appendix E for the current Project Schedule.

3.0 Project Quality

Project Management Plan

Federal Highway Administration

3.0 PROJECT QUALITY

One measure of success or quality of this project will be determined by how well the project goals and objectives are met. These goals and objectives, identified in Chapters 1 and 2, include schedule, budget, safety, scope, protection of the environment, quality, minimizing disruptions, and public trust and confidence. Chapter 1 also discusses how the Project Team will quantify and measure the degree of success in meeting the project's goals and objectives.

The progress towards achieving these goals will be evaluated throughout the project life so as to ensure that all goals are met.

Information on the methods to track, measure progress and report progress is included in the following chapters.

The US 301 Mainline is currently anticipated to be opened to traffic in February 2016 and the US 301 Spur Road in December 2018. The overall project schedule is maintained by DelDOT and the GEC on a monthly basis.

The budget is fully described in the draft December 2011 update of the Initial Financial Plan and cost control systems are designed to provide up to date information at an individual contract level and at the total project level.

Safety plans for each contract will provide for implementation of measures to ensure that a safe work place is maintained for both workers and the public. These plans include measurement and reporting of accidents and injuries as well as evaluation of these incidents to improve the safety of the project.

The project requirements include an extensive quality control program by the four Section Design Consultants (SDCs) as well as a thorough systematic Quality Assurance and verification process by DelDOT and the GEC.

A public information and outreach program is included in the project to maintain the public trust and provide citizen input.

In addition, specific measures on the quality of the engineering plans produced will be measured through the number of addendums and construction change orders necessitated due to design errors or omissions. In construction, an indication of quality will be the achievement of performance specifications identified within the DelDOT Construction Specifications.

See the following chapters for information on the procedures to be used to monitor and control the project so that all goals are met and a quality project is provided for the traveling public.

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4.0 Project Organization Roles and Responsibilities

Project Management Plan

Federal Highway Administration

4.0 PROJECT ORGANIZATION ROLES AND RESPONSIBILITIES

US 301 will be financed and owned by the Delaware Department of Transportation (DelDOT), which owns and operates Delaware's other existing toll facilities (I-95 and SR 1). DelDOT is responsible for securing the environmental approvals for US 301, and will take the lead in acquiring all property, preparing and executing contracts, administering design and construction of US 301, and implementing the Compensatory Mitigation Package and commitments noted in the Final EIS and Record of Decision.

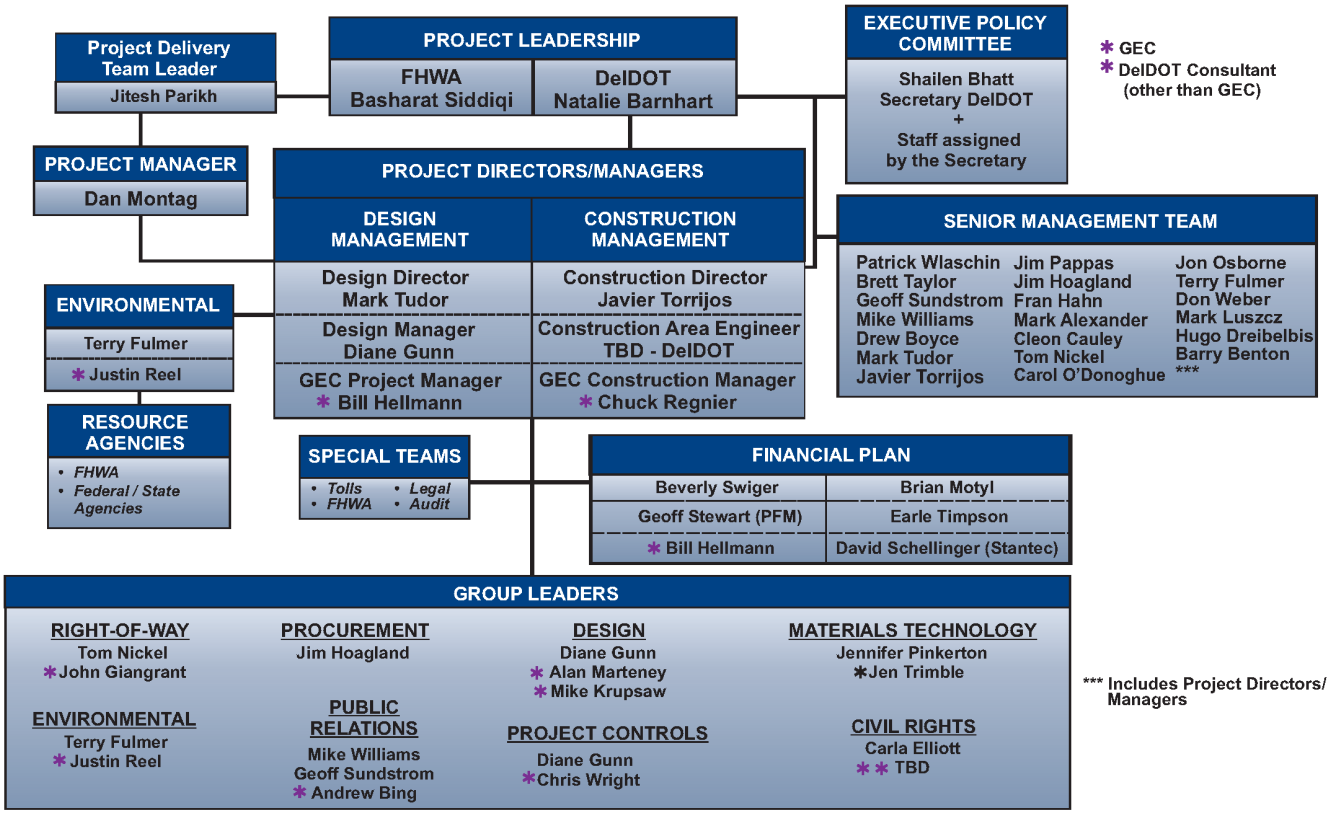
A US 301 Management Team (US 301 Team) has been organized to insure the successful completion of US 301 Project. This Team is under the leadership of the DelDOT personnel and will be staffed with department personnel and personnel from Rummel, Klepper & Kahl, LLP and Century Engineering, the General Engineering Consultant Team, who is acting as an extension of DelDOT staff in managing the US 301 project.

4.1 ORGANIZATIONAL OVERVIEW

The US 301 Team is under the project leadership of the DelDOT Secretary (and other DelDOT senior executives). The Design Manager and Construction Area Engineer are performing day to day project management and with direction as needed from the Design and Construction Project Directors, the key liaison with the Chief Engineer and the Senior Management Team.

Group leaders are responsible for specific managerial, administrative, financial, engineering, design, construction, and technical areas of the Project.

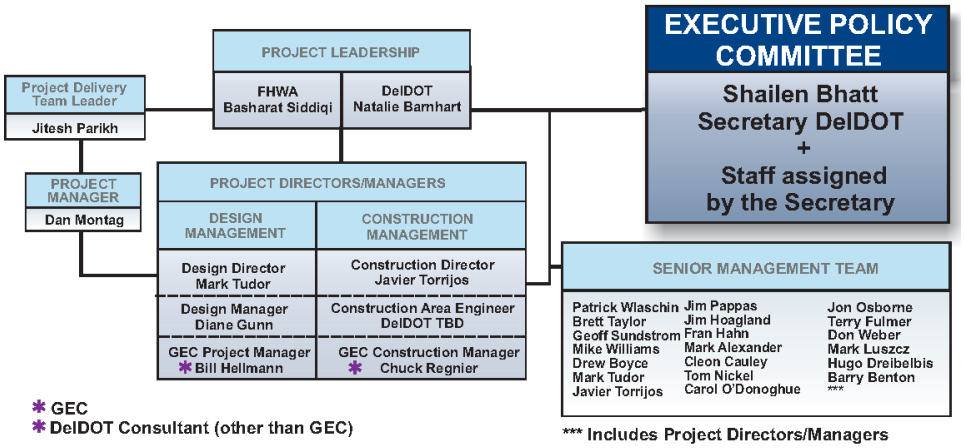
Exhibit 4.1: Organizational Overview



The US 301 Team is working closely in partnership with the local entities that are affected by the Project.

4.2 EXECUTIVE POLICY COMMITTEE

Exhibit 4.2: Executive Policy Committee



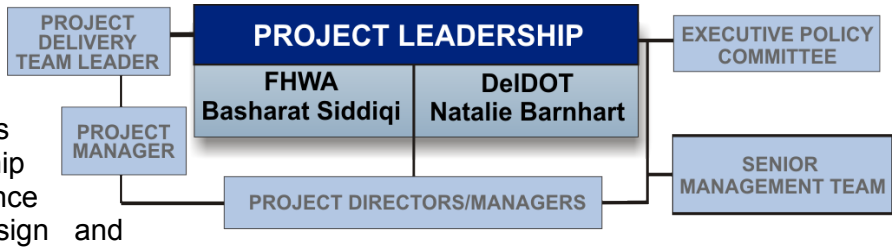
The Executive Policy Committee meets weekly and is known as DelDOT's Director's Meeting. The members of the Executive Policy Committee are the Secretary of Transportation, the Chief Engineer, all other Department Directors and other DelDOT senior managers, as determined by the Secretary. The Director's Meeting is chaired by the Secretary and establishes all policies for DelDOT. As part of this overall responsibility, the Executive Policy Committee provides overall policy direction for the U.S. 301 Project. For the U.S. 301 Project, the primary function of this Executive Policy Committee is to:

- Make policy decisions for the Project.
- Assure that adequate resources are provided from each respective organization to support the Project.
- Provide support to the Project Team in relations with regional and national stakeholders.
- Discuss and provide direction on major policy issues impacting the project
- Monitor the progress of the Project

The DelDOT Secretary has ultimate decision-making authority for the Project. This assures that the Project receives a high level of support and attention from the Administration.

4.3 PROJECT LEADERSHIP TEAM

Exhibit 4.3: Project Leadership

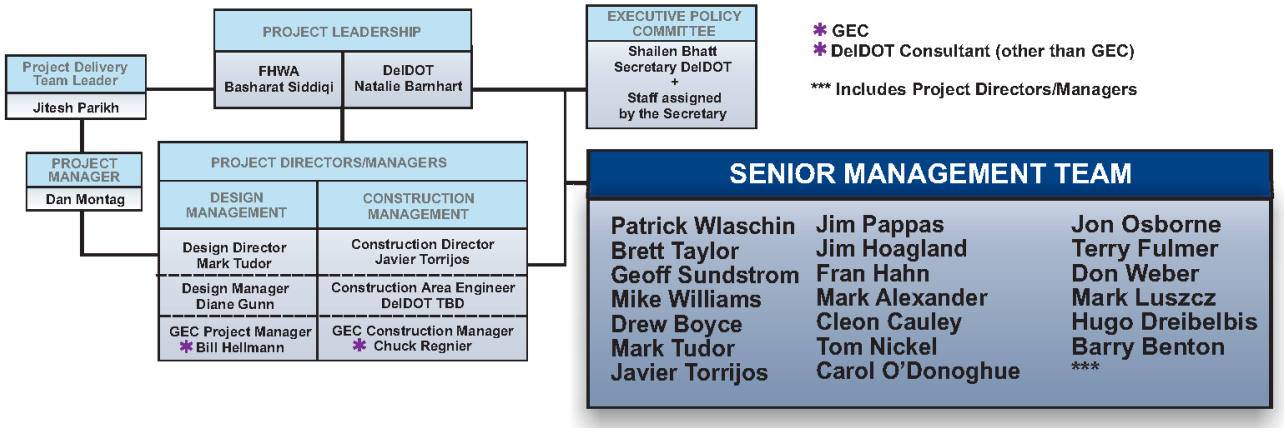


The Project Leadership Team includes DelDOT Chief Engineer, and the FHWA Assistant Division Administrator. The Project Leadership Team meets on a bi-weekly basis and discuss/resolve US 301 project issues as necessary. The Project Leadership Team is providing high level guidance and direction to the DelDOT Design and Construction Project Directors, Design Manager and Construction Area Engineer, the FHWA Project Delivery Team Leader, and FHWA Project Manager on issues that require consideration in the context of statewide concerns and federal matters.

4.4 SENIOR MANAGEMENT TEAM

The Senior Management Team includes key individuals from DelDOT with experience in the technical and administrative requirements of a large multifaceted project. The primary functions of this group are to:

Exhibit 4.4: Senior Management Team



- Provide advice to the Design and Construction Project Directors, Design Manager, and Construction Area Engineer;
- Assure that timely support from DelDOT personnel and resources are provided when needed; and
- Discuss and provide direction on potential major issues, based on risk and opportunity, identification process by GEC and SDC's, which may impact project scope, budget, schedule, etc.
- Monitor progress of the Project.

The Senior Management Team is regularly involved with the Design and Construction Project Directors, Design Manager, Construction Area Engineer, and other members of the US 301 Management Team to address/resolve issues.

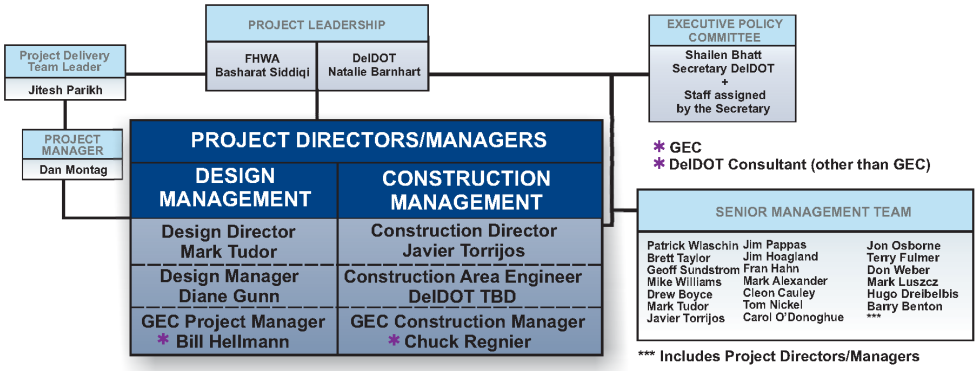
4.5 PROJECT DIRECTION

4.5.1 Design and Construction Project Directors and Project Managers

The Design and Construction Project Directors are providing Project direction, policy decisions and assistance to the Design Manager and Construction Area Engineer, and to the remaining US 301 Management Team, as necessary.

The Design Manager and Construction Area Engineer are responsible for the day-to-day management of the Project. The Design Manager and Construction Area Engineer chair the bi-weekly Project Management Team meetings/conference calls and the monthly conference calls with the individual SDCs, define Project priorities, determine Project assignments and assure that the Project Goals are achieved.

Exhibit 4.5: Project Directors/Manager



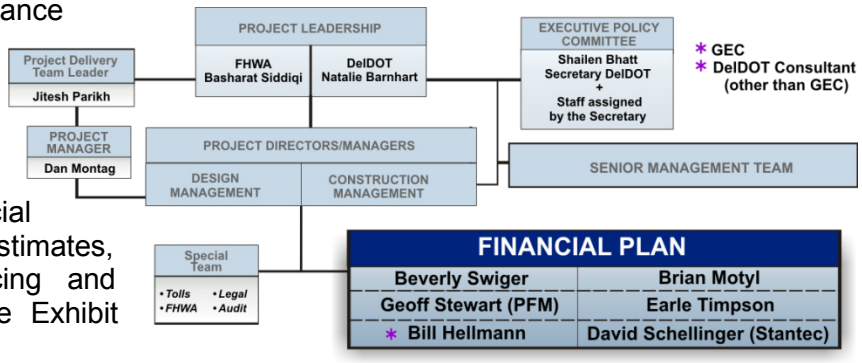
4.5.2 Project Director Team

The Project Director Team is an ad hoc team made up of the DelDOT Design and Construction Project Directors and Design Manager and Construction Area Engineer along with the FHWA Project Delivery Team Leader and FHWA Project Manager, assisted by others as needed. This team is established to facilitate coordination of project–wide issues. The team is responsible for overall project coordination and putting in place mechanisms and procedures for monitoring the project and budget, finance plan, schedule and quality of work products accepted. The team meets on an as needed basis.

4.5.3 Financial Plan Manager

DelDOT's Transportation Trust Fund (TTF) Administrator is responsible for the management of the Financial Plan for the Project in accordance with FHWA guidelines and monitoring of project finances through final construction to assure that the Plan is implemented properly. The TTF Administrator provides oversight to modifications and updates to the Financial Plan. The Financial Plan includes cost estimates, implementation planning, project financing and revenue, and cash flow projections (see Exhibit 4.5.3 in the June 2010 IFP).

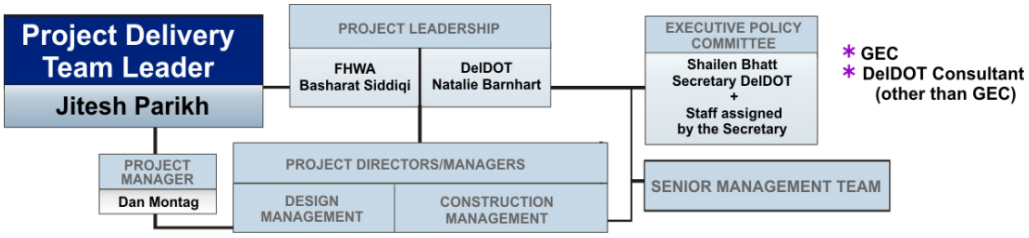
Exhibit 4.6: Financial Plan Management



4.5.4 FHWA Project Delivery Team Leader

The FHWA Project Delivery Team Leader provides policy direction and decisions from the federal prospective. This person provides direction to the FHWA Project Manager. The FHWA Project Delivery Team Leader is serving as the primary spokesperson for the FHWA on all federal policy matters relating to the Project. The FHWA Project Delivery Team Leader Project Team Leader recommends approval of the Initial Financial Plan, and annual updates, and this Project Management Plan and updates.

Exhibit 4.7: FHWA Project Delivery



The FHWA Project Manager provides stewardship, oversight, and project related federal approvals. This person is the FHWA representative on contract administration issues. The FHWA Project Manager is a first line of contact for the US 301 Project Management Team. The FHWA Project Manager participates in the scheduled project progress meetings (see Exhibit 4.7: FHWA Project Delivery).

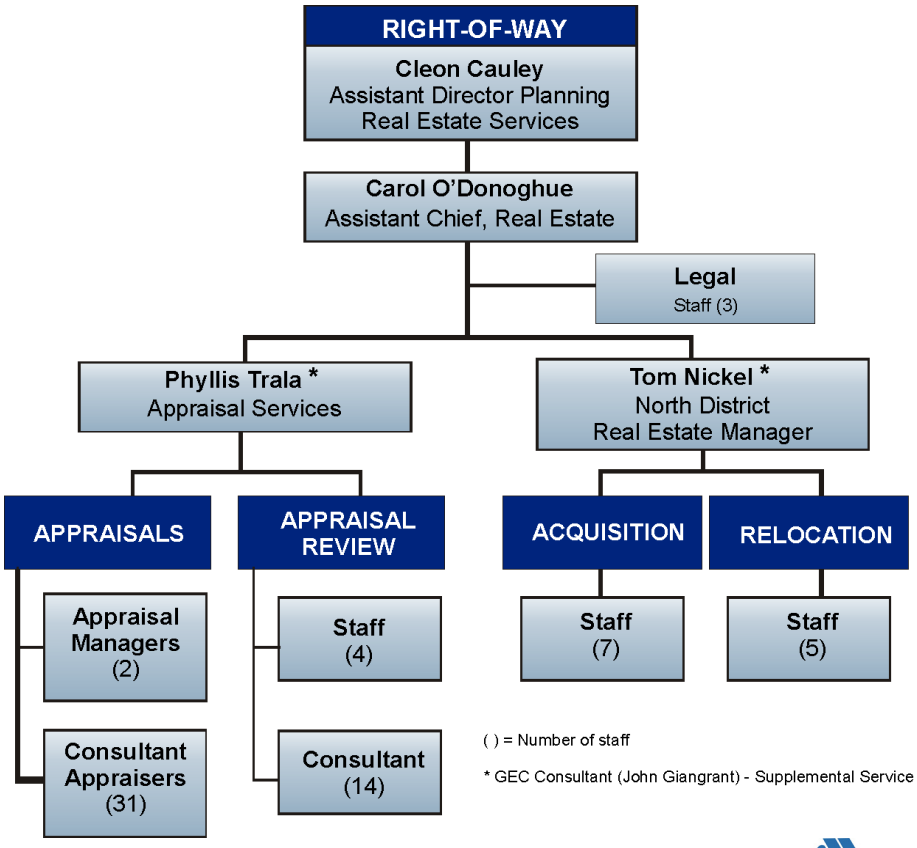
4.6 GROUP LEADERS

Group Leaders are designated in the areas of Right-of-Way, Procurement, Design, Materials Technology, Environmental, Construction Management, Public Relations, Project Controls, Civil Rights, and DBE Program. The Design and Construction Project Directors, Design Manager, Construction Area Engineer, Group Leaders, along with the GEC Project Manager and Design and Construction Managers, make up the US 301 Management Team. Regular meetings are held for the Group Leaders to review Project issues and to maintain communication and coordination between groups.

4.6.1 Group Leader, Right-of-Way

The Group Leader for Right-of-Way is responsible for providing management and oversight of the activities necessary to acquire the right-of-way needed for the Project. The Right-of-Way team consists of a DelDOT lead and support provided by the GEC. DelDOT is acquiring all property for the project. The Right-of-Way Group is also responsible for discussions with all property owners concerning property issues (see Exhibit 4.8: Right-of-Way).

Exhibit 4.8: Right-of-Way

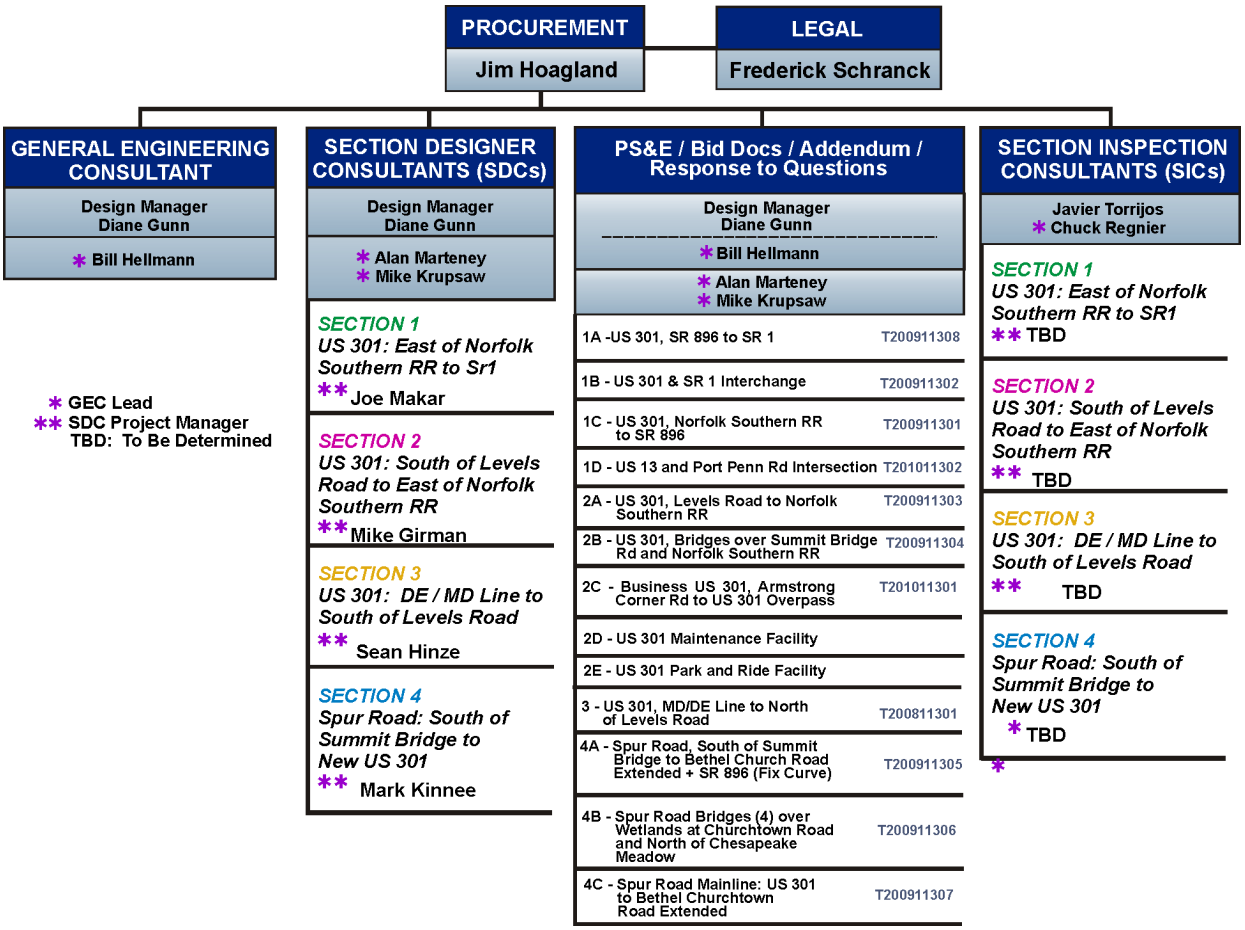


4.6.2 Group Leader, Procurement

The Group Leader for Procurement is responsible for management and oversight of the procurement effort to place the GEC, SDCs and Construction under contract. The primary responsibility is to select the General Engineering Consultant (GEC) (completed), the four section design consultants (completed) and the Contractors (future) for the anticipated thirteen contracts. The Procurement Group includes the Manager Contract Administration, the Assistant Attorney General for DelDOT, the Design and Construction Project Directors, and Design Manager and Construction Area Engineer, and the GEC Project Manager. See Exhibit 4.9: Procurement.

The Procurement Group is working with all the other groups to assure that the total requirements for the Contracts are included in the Procurement Documents.

Exhibit 4.9: Procurement



4.6.3 Group Leader, Design – US 301 Design Manager

US 301 Design Manager is Design Group Leader and responsible for managing the GEC discipline lead/technical staff in overseeing and auditing design compliance by the SDCs.

Technical areas within the Design Group include: Aesthetics, Air Quality, Noise, Computer Systems, Geotechnical, Highway Engineering, Right-of-Way plans, Hydraulics and Hydrology, Pavements, Structures, Surveys, Toll/ITS, ETC systems, Traffic, and Utilities, among others.

The GEC Project Manager provides engineering personnel to facilitate design oversight and resolution of design issues during construction (see Exhibit 4.10: Design Group).

Exhibit 4.10: Design Group

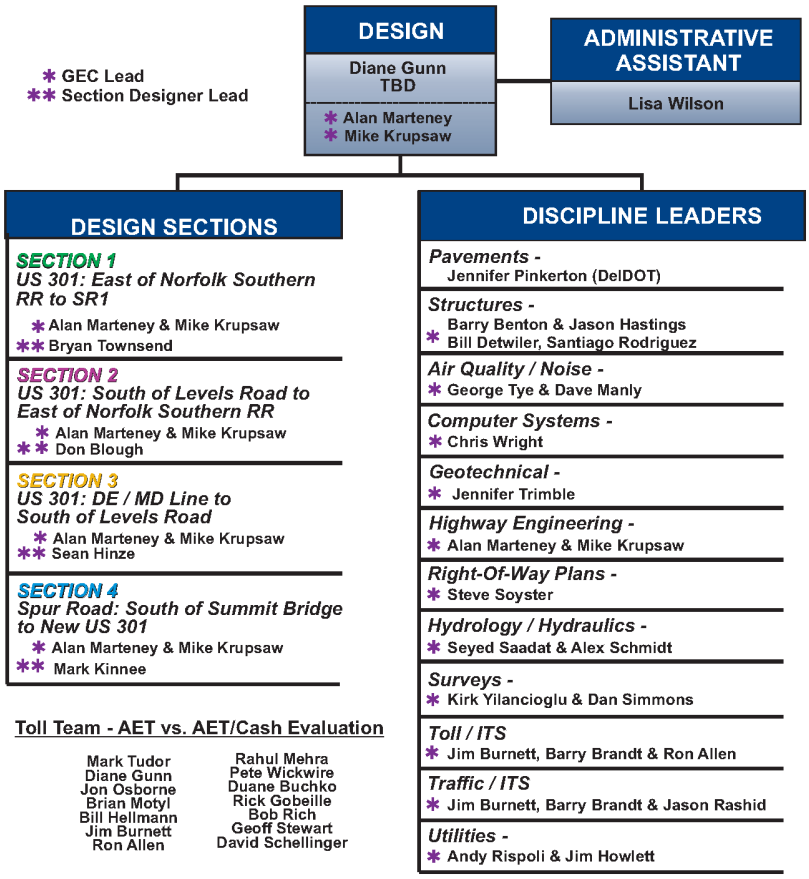
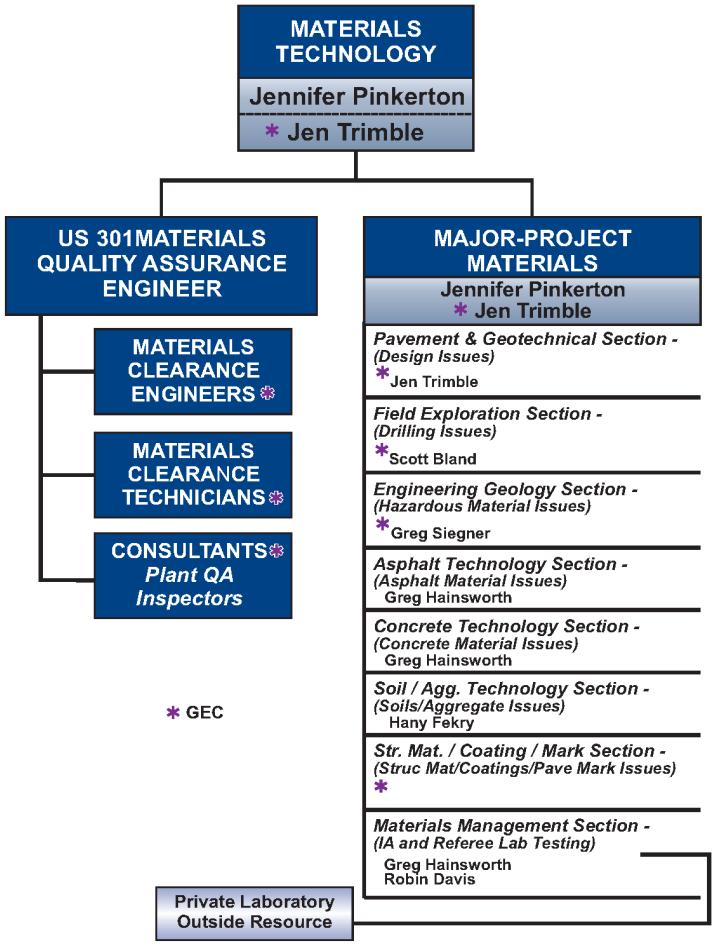


Exhibit 4.11: Materials Technology

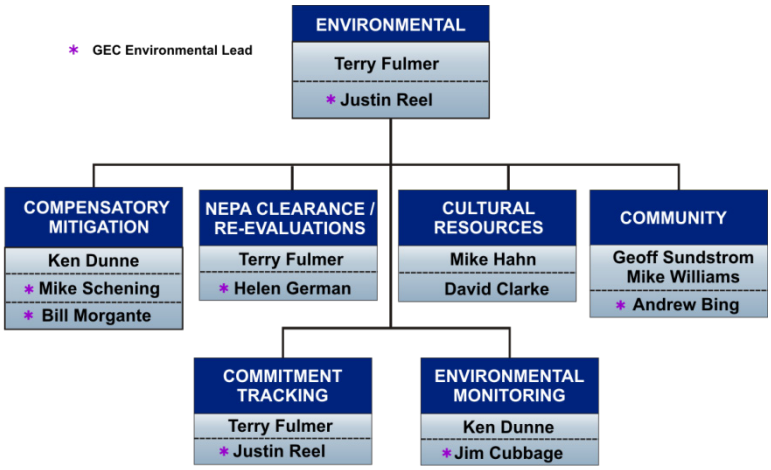


4.6.4 Group Leader, Materials Technology

The Group Leader for Materials Technology is responsible for management and oversight of the Quality Assurance efforts for the materials used in the construction of the Project. The Materials Technology Group provides quality assurance testing of materials as a check of the Contractor testing as well as review and monitoring of results of tests by the Contractor. Materials testing will be provided by DelDOT or by certified laboratories through DelDOT task order materials inspection contracts or through the Section Construction Inspection Consultants (SICs) from the US 301 Project.

The Group Leader is assisted by the Materials Quality Assurance Engineer whose staff of Material Clearance Engineers and Technicians provide review and testing of materials used in construction. In addition, the Materials Technology Group has a number of subgroups charged with providing technical assistance during the design phase when technical requirements and specifications are developed and during construction of the project These subgroups include: Pavement & Geotechnical, Field Exploration, Geology, Asphalt Technology, Concrete Technology, Soils & Aggregates, Structural Materials and Coatings including Pavement Markings, and Materials Management with an independent testing laboratory (see Exhibit 4.11: Materials Technology).

Exhibit 4.12: Environmental



4.6.5 Group Leader, Environmental

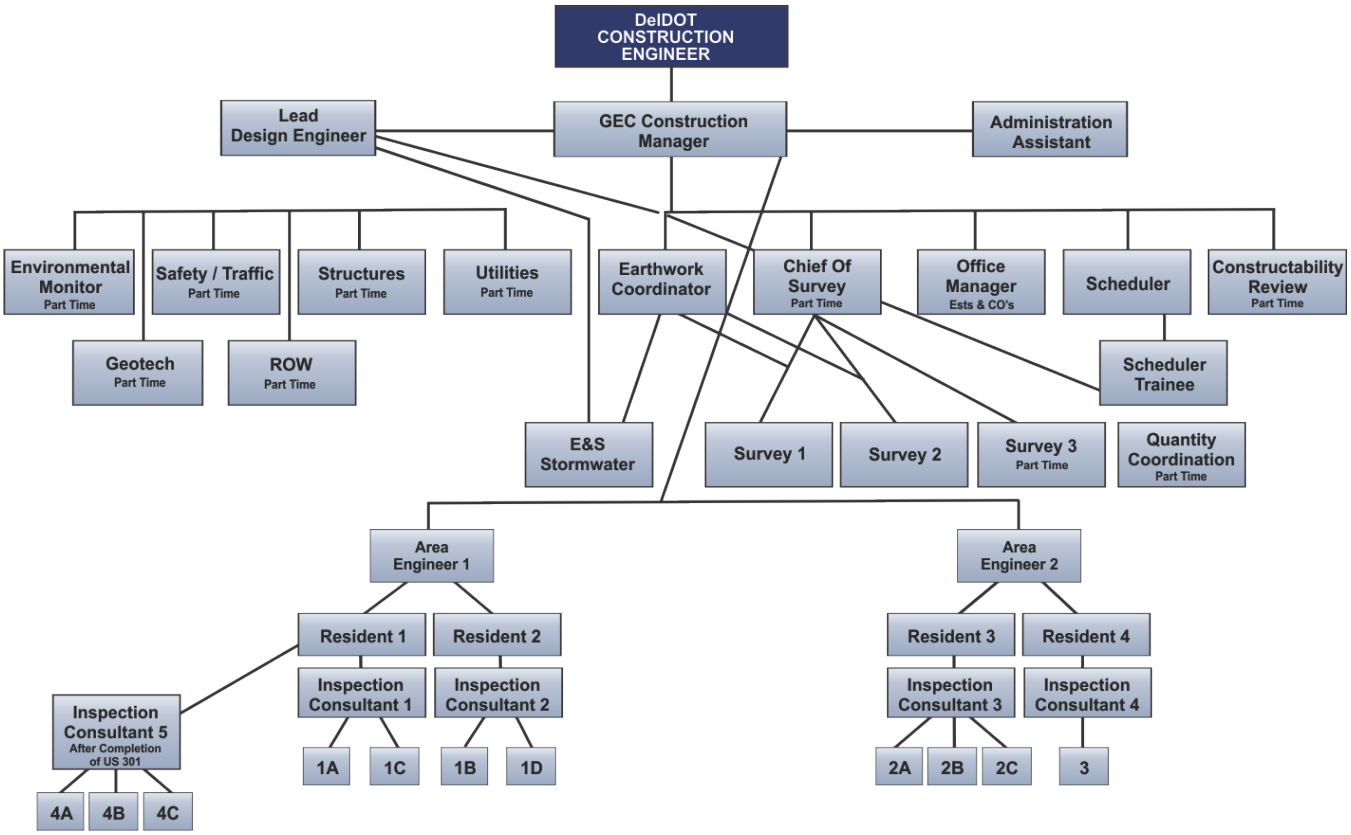
The Group Leader for Environmental is responsible for the coordination of the Environmental Management Team and managing the processes, as well as monitoring the construction products of the environmental portions of the Project. The Environmental Group is responsible for oversight and monitoring of the Contractors construction efforts on the various contracts. In addition to the US 301 Mainline construction contracts, there are a number of Compensatory Mitigation items that are included within the overall US 301 Project. The conceptual development, design permitting, procurement and oversight during construction are all the responsibility of the Environmental Group (see Exhibit 4.12: Environmental).

4.6.6 Group Leader, Construction Management

The Group Leader for Construction Management is the DelDOT Construction Director, responsible for oversight of the Contractors Construction activities. The DelDOT Construction Area Engineer manages the individual Contract Project Residents who are assigned with their own staff to each construction contact. Each Contract Project Resident provides day-to-day interface with the Contractor for that contract and manages the Section Inspection Consultant (SIC) staff.

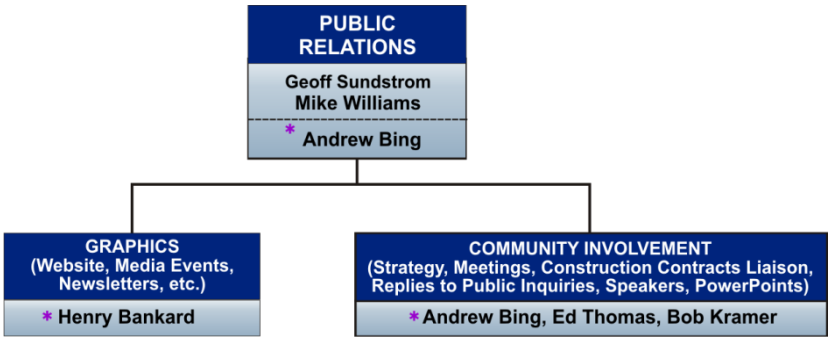
The Construction Area Engineer has a staff of office engineers and administrative aides, as well as a Construction Engineer who assists in management of the Resident Engineers and performs other construction management activities (see Exhibit 4.13: Construction Management).

Exhibit 4.13: Construction Management



4.6.7 Group Leader, Public Relations

Exhibit 4.14: Public Relations



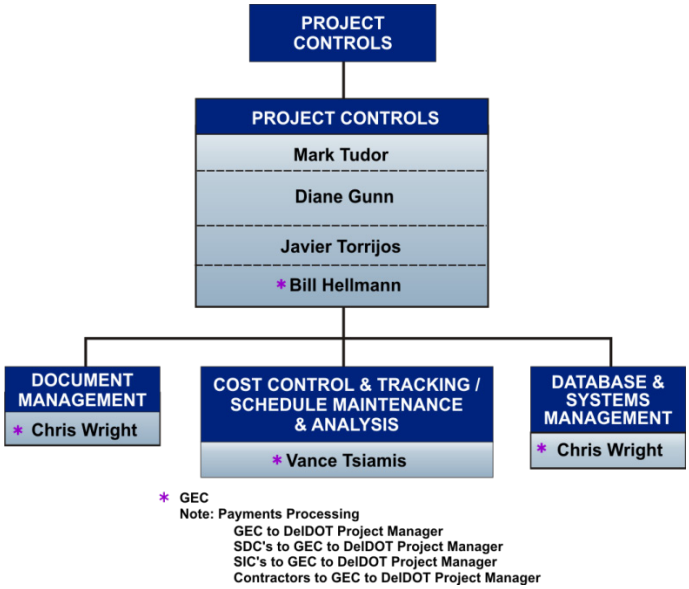
The Group Leader for Public Relations is responsible for managing the Public Relations efforts of the entire Project Team, including the Contractors. The effort includes elected official updates, public information, community and public outreach, media relations and governmental relations. The Group Leader is responsible for coordinating with, and providing oversight for, the different Contractors on the Project. Specific Responsibilities of the Group include:

- Preparing and keeping the Public Information Plan up to-date;
- Planning and making arrangements for public meetings;
- Preparing information such as newsletters for distribution;
- Maintaining information on the Project website;
- Assisting with the development of the Contractor's Public Information Program and monitoring the Program;
- Receiving and responding to public input; and
- Maintaining a database of all public correspondence.

(See Exhibit 4.14: Public Relations)

4.6.8 Group Leader, Controls

Exhibit 4.15: Project Controls



The Group Leader for Controls, the DelDOT Design Manager, and the GEC Project Manager are responsible for tracking Project Control areas for the Project as a whole as well as each individual contract. Specific functions include:

- Cost control and management of cost tracking system;
- Funds Management;
- Schedule maintenance, analysis, and updates;Document Control;
- Progress Reports;
- Cost and schedule analysis for Change Orders; and
- Review of contracts.
- Processing Progress Payments

The Controls Group interfaces with all groups on US 301 Project to assure that accurate and up to date information is available for Project reports and cost and schedule analysis (see Exhibit 4.15: Project Controls).

4.6.9 Group Leader, Civil Rights – US 301 Civil Rights Manager

US 301 Civil Rights Manager is responsible for oversight and audit of all Project activities to assure that all equal opportunity and non-discrimination requirements are met. In addition, US 301 Civil Rights Manager is responsible for oversight and monitoring of the DBE goals and requirements for the entire Project.

US 301 Civil Rights Manager is assisted by the Civil Rights Compliance Manager and the DBE Oversight Manager as well as support staff.

Specific responsibilities include:

- Monitor all Contractors including the Contractor's internal processes for employment and external processes for subcontracting;
- Review all subcontracting;
- Insure labor compliance for all craft workers;
- Investigate complaints related to discrimination, prompt pay, labor violations, etc.; and
- Advise, conduct outreach, train and increase awareness regarding Equal Employment Opportunities (EEO).

4.7 PARTNERING

Design partnering for the U.S. 301 project is the responsibility of the Design Manager, the Group/Discipline Leaders and the GEC. The regularly scheduled meetings/conference calls between the DelDOT Design Manager, the GEC Team and the individual SDCs are used to discuss potential issues and solutions. Contract or design standards issues are resolved early and information will be communicated to all SDCs to insure consistent application on all contracts and on each specific contract.

The construction partnering concept for U.S. 301 is based on trust between DelDOT and the successful Contractors. To this end, the DelDOT Construction Director and Construction Area Engineer will meet shortly after award of each contract (prior to the formal preconstruction meeting) with the Contractor to review key project issues and to establish an open line of communication on each contract. DelDOT will commit to prompt resolution of contract issues as they occur and will encourage the Contractor share creative solutions and suggestions to improve contract schedules, with no compromise in quality, as the project progress through construction. Monthly Progress Meetings will be held on the individual contracts at which time all open issues and potential problems will be reviewed. For any contractors not familiar with the DelDOT approach to contract management and partnering, separate Partnering Meetings may need to be scheduled on a regular basis.

4.8 MEETING STRUCTURE

Meetings/conference calls are being conducted to facilitate decision-making and the flow of information. The Project Management Plan (PMP) is flexible in recognizing that the type and frequency of meetings may change as the Project progresses and the needs of the Project change.

4.8.1 Executive Policy Committee Meetings

The Executive Policy Committee is an existing group which meets weekly, known as the Director's Meeting, and decides policy matters for the entire Department. As part of this overall responsibility, this Committee provides overall Program direction to the U.S. 301 Project Team.

When direction from the Executive Policy Committee is required, the Design and Construction Directors, with input from Design Manager and Construction Area Engineer, develops a list of agenda items in advance of the Director's Meeting and forwards them to the Chief Engineer. The agenda items cover the current major activities and issues, and also address any requested direction from the Committee. Members of the US 301 Project Management Team attend this meeting, as required. In addition, members of the US 301 Project Management Team or other US 301 Team members may also be requested to attend, depending upon the subject matter for discussion.

4.8.2 Project Leadership Team Meetings

The Project Leadership Team is described above. This team provides overall guidance and direction to the Project Director, Design Manager and Construction Area Engineer. The team is meeting whenever issues arise that require their consideration and direction to the project.

4.8.3 Project Director Steering Committee Meetings

The Project Director, Design Manager, Construction Area Engineer, GEC Project Manager and FHWA Project Manager confer, as required to insure that project wide issues are fully coordinated. Subjects include review and monitoring of overall project budget and schedules as well as issues that arise on individual contracts. These meetings involve other team members, such as SDCs, as appropriate. .. Special meetings are held as needed. Approximately ten (10) Project Director Steering Committee meetings have been held to date.

4.8.4 Project Management Team Meetings

Project Management Team conference calls are held every two weeks to review major ongoing Project issues. The GEC Project Manager and the Design Group Discipline Leads, along with the FHWA Project Manager, bring agenda items to the Design Manager and Construction Area Engineers who chair the conference calls. Attendees are drawn from diverse areas of the US 301 Team to assure that any critical issues are brought forward, discussed and a path forward determined. Other US 301 Team members may be requested to participate, as required.

Pending and possible Change Orders are reviewed by the Design Manager and FHWA Project Manager, if necessary, to assure timely action. Change Orders requiring approval of the Project Director are discussed and approved (or rejected) as necessary.

In addition to the Project Management conference calls, individual Design Group Discipline Leads may call informal meetings to address and resolve technical issues and to provide a forum for coordination among different groups. Group Leaders and key support staff would attend these meetings.

Monthly conference calls are conducted with the individual SDCs by the Project Management Team to review schedules, budgets and project issues associated with each design segment.

The Project Management Team has determined that conference calls are preferable to meetings, being just as productive and far more cost effective, due to the elimination of travel time. Computers and the document management system support this approach. Face to face meetings still occur, when deemed necessary by the Design Manager.

5.0 Procurement and Contract Administration

Project Management Plan

Federal Highway Administration

5.0 PROCUREMENT AND CONTRACT ADMINISTRATION

5.1 PROCUREMENT

5.1.1 Overview

The procurement process for the professional services for US 301 was a quality based selection in accordance with the rules of the State of Delaware, as set forth in *Title 29, Chapter 69, Subchapter VI Professional Services,* and outlined in the *DelDOT Professional Services Procurement Manual*.

The US 301 Project involves one General Engineering Consultant (GEC) contract, which is serving as an extension of DelDOT's staff and is responsible for the daily oversight, coordination and administration of the US 301 Project, and four Design Section Contracts. The four selected Section Design Consultants (SDCs) are responsible for preparing all contract documents for projects within their assigned section and report to DelDOT through the GEC. It is anticipated that these four SDCs will produce a total of thirteen (13) construction bid packages for US 301.

The thirteen (13) currently anticipated construction contracts for US 301 will be delivered using Design-Bid-Build Process, which is defined in the Delaware Code as the "Competitive Sealed Bid" Process. The procurement process for US 301 construction contracts will be in accordance with laws and rules of the State of Delaware, as set forth in *Title 29, Chapter 69, Subchapter III, Materials and Nonprofessional Services*.

5.1.2 Professional Services Procurement

The GEC and four SDC's were selected under the rules established by DelDOT to conform to Delaware Law for the selection of Professional Services. DelDOT's selection process is a quality based selection process and cost cannot be a consideration until a final ranking of consultants is completed and negotiations with the highest ranked firm begin. The DelDOT selection and contracting process for professional services is summarized in the following paragraphs.

Once the need to hire a consultant was documented and approved within DelDOT, the selection process for Professional Services began. Under the oversight and guidance of a Consultant Control Coordinator and the appointed Project Director, a Request for Professional Services (RFP) was advertised. The RFP included basic administrative contract information, a description of the project, types of services being requested, areas of expertise in which a firm must be preregistered with DelDOT, need for subconsultants, the identification of the Disadvantaged Business Enterprise (DBE) goals for the project, rating criteria and the time and place for submission of the EOI. Firms meeting DelDOT's pre-registration requirements responded to the RFP with an Expression of Interest (EOI) meeting all the requirements of the RFP.

Following receipt of the EOI, a project appointed Shortlist Committee evaluated each EOI submitted and determined a project "shortlist". An appointed Selection Committee of experienced DelDOT staff received the technical proposals, evaluated them and then conducted formal presentations and interviews with each shortlisted firm. The Selection Committee members can not be the same individuals who participated in the Shortlist Process. Upon the completion of interviews, the Selection Committee determined the ranking of the shortlisted firms, listing all firms reviewed and interviewed in order from best to worst.

The Selection Ranking was approved by the DelDOT Secretary and negotiations began between the Project Director and the highest ranked firms. The firms were requested to submit a priced proposal, which was subjected to an evaluation of cost by the Project Director and the Consultant Control Coordinator. The price proposal was also subjected to a DelDOT Pre-Award Audit. Comments from the Project Director and the findings of the Pre-Award Audit were returned to the consultant firms for

modification of their proposal. Once the agreements were reached, a "Notice to Proceed" was issued by the Project Director and the Consultant Control Coordinator.

The selected consultants are:

GEC: Rummel, Klepper & Kahl, LLP (Prime)

Century Engineering (Major Subconsultant)

Section Design Consultants:

Section 1: Whitman, Requardt & Associates (Prime)

McCormick Taylor & Associates (Major Subconsultant)

Section 2: AECOM (Prime)

URS (Major Subconsultant)

Section 3: Jacobs Engineering (Prime)

Penoni (Major Subconsultant)

Section 4: Urban Engineers (Prime)

Johnson, Mirmiran & Thompson, Inc. (Major Subconsultant)

Delaware State Law and DelDOT regulations also provide for abbreviated professional selection procedures for small contracts (currently defined as less than $50,000), specialized services and emergency contracts. These procedures will be followed for any of the US 301 contracts, where it may be appropriate. Detailed requirements for the abbreviated professional selection process, as well as the standard selection process, are listed in the *DelDOT Professional Services Procurement Manual*.

5.1.3 Construction and Nonprofessional Services Procurement

The Section Design Consultants (SDCs) will prepare contract documents ready for advertisement for the 13 anticipated construction contracts, each of which will be awarded through a "Competitive Sealed Bid" process. These contracts are scheduled for award over a four year period. The delivery schedule for each contract will be re-evaluated periodically.

The procurement process for the construction contracts includes contractor outreach, advanced notification of project lettings, advertisement of contract packages, bid openings, verification of bid documents, award, and Notice to Proceed. After all necessary project approvals are obtained, the first major construction activity is anticipated to commence in 2012. Exhibit 5-1 summarizes when each contract will be submitted for concurrence to advertise for bids (PS&E), when each project is anticipated to be advertised for bids, when the notice to proceed (NTP) is anticipated, and the estimated completion date. Based on these projected milestones, the completion of the US 301 Mainline and the US 301 Spur Road projects is anticipated July 2015 and June 2019, respectively.

Exhibit 5.1: Contract Milestones

Contract #	Description	State Number	PS&E	ADV	Bid	NTP Constr.	Complete Constr.
1A	US 301, SR 896 to SR 1	T200911308 (09-45698)	Dec 2011	Sep 2012	Nov 2012	Mar 2013	Feb 2016
1B	US 301 & SR 1 Interchange	T200911302 (08-03012)	Jan 2012	Oct 2012	Dec 2012	Mar 2013	Feb 2015
1C	US 301, Norfolk Southern RR to SR 896	T200911301 (08-03011)	Nov 2011	Sep 2012	Nov 2012	Mar 2013	Feb 2015
1D	US 13 and Port Penn Road Intersection	T201011302 (10-03019)	Jan 2012	Aug 2012	Oct 2012	Mar 2013	Jul 2015
2A	US 301, Levels Road to Norfolk Southern Railroad	T200911303 (08-03013)	Mar 2012	Aug 2012	Oct 2012	Mar 2013	Feb 2016
2B	US 301, Bridges over Summit Bridge Road and Norfolk Southern Railroad	T200911304 (08-03014)	Jul 2012	Oct 2013	Jul 2014	Apr 2014	Apr 2015
2C	Business US 301, Armstrong Corner Rd to US 301 Overpass	T201011301 (10-03020)	Mar 2012	Jul 2013	Oct 2013	Dec 2013	May 2015
2D	US 301 Maintenance Facility		Dec 2013	Sep 2014	Nov 2014	Jan 2015	Dec 2015
2E	US 301/Armstrong Corner Road Park and Ride Facility		Dec 2013	Sep 2014	Nov 2014	Jan 2015	Dec 2015
3	US 301, Maryland State Line to Levels Rd	T200811301 (08-03015)	Nov 2011	Oct 2012	Dec 2012	Mar 2013	Jul 2015
4A	US 301 Spur Road SR 896 and Bethel Church Interchange	T200911305 (08-03016)	Jan 2013	Jun 2016	Sep 2016	Jan 2017	Dec 2018
4B	US 301 Spur Road, Churchtown Rd to SR 896/ Bethel Church Road Interchange	T200911306 (08-03017)	Jan 2013	Jun 2016	Sep 2016	Jan 2017	Dec 2018
4C	US 301 Spur Road, US 301 to Churchtown Rd	T200911307 (08-03018)	Jan 2013	Aug 2016	Nov 2016	Feb 2017	Dec 2018

DelDOT's Competitive Sealed Bid process begins with the public advertisement of a Request for Bids. Firms pre-registered with the Department to provide the needed services purchase bid packages from the Department. The bid package generally contains a description of the project and work required, construction plans of the proposed project, special provisions for the specific work required, DBE requirements, a list of estimated material quantities, identification of materials to be provided, bid forms on which proposed prices are to be listed, a time frame for completion of the work, and the time and the place for receipt of the bid proposal.

Following review of the site and the information contained in the bid package, interested contractors submit sealed competitive bids to DelDOT at the prescribed time and place specified in the advertisement for bids. Sealed competitive bids shall contain the contractor's proposed prices on the provided bid forms in either hard copy or on magnetic media accompanied by a hard copy of the information provided on the magnetic media. All bid proposals shall be accompanied by the deposit of a good and sufficient bid bond (normally 10% of the bid price) to the State for the benefit of DelDOT. Bids are opened and read aloud publicly on the date and at the time listed in the bid package.

Following evaluation of the bids, through the use of Trns*port Suite computer software, by DelDOT, the GEC and the Section Design Consultant, and concurrence by FHWA, award of the contract is made by DelDOT to the lowest responsive and responsible bidder. Award of the project must occur within 30 days of the receipt of bids. Upon award, a firm has 20 days in which to execute the contract documents and provide all required contract information to DelDOT. Once the contract documents are fully executed, DelDOT schedules the Partnering Meeting, if recommended, the Preconstruction Meeting and issues the contractor a "Notice to Proceed".

Delaware State Law provides for the use of competitive sealed proposals (letter bids), sole source procurement, and multiple source contracting, if certain conditions are met. These procedures will be followed on US 301, when and if necessary.

5.2 CONTRACT ADMINISTRATION

5.2.1 General

The DelDOT Design Manager is responsible for administration of the GEC Contract and, with support from the GEC, the four Section Design Consultants (SDCs) contracts. The Construction Manager, with support from the GEC, is responsible for administration of the Section Inspection Consultants (SICs) and Construction Contracts. Contract Administration responsibilities include the fostering of relationships within the US 301 Project Team and between the US 301 Project Team and Contractors from the time the Construction Contracts are awarded until the work has been completed and accepted and Contract closeout has occurred.

5.2.1.1 Responsibilities

Contract Administration responsibilities include support to other areas of the US 301 Project to help ensure that the US 301 Project obtains the Project work on time and at the quality level called for by the Contracts. The exercise of skill and good judgment is paramount in the effort to ensure that all parties fulfill their Contractual obligations.

The Procurement Group provides lead direction on Contractual issues related to the US 301 Project working closely with other management and technical groups. Specific Contract Administration responsibilities include the following:

- Assist in modifying Contract specifications if they no longer reflect the requirements of the Project.

- Assist in the resolution of situations if a Designer or Contractor is unable to carry out part of the Contract or has failed (or, is in danger of failing) to meet one of its Contract obligations.
- Assist in helping Designers or Contractors when difficulties are encountered in meeting the Contract requirements.
- Provide input to the development of Contract Documents.
- Support the US 301 Project Team through the negotiation process.
- Prepare Contract supplemental agreements and Contract changes.
- Participate in meetings with the Contractor where Contractual issues are decided.
- Facilitate the development of mutual confidence and respect between the US 301 Project Team and Contractor officials.
- Properly document Contract events, timely identify problems, and work out mutually agreeable solutions.
- Be constantly aware of the obligation of Contracts Administration to protect the public interest.

5.2.2 Administering the US 301 Project Design-Bid-Build Contracts

5.2.2.1 General

The administration of the GEC, SDC, SIC and Construction Contracts involves many different subject areas, each with clearly delineated rules and procedures and focusing on specific Contract provisions. Contract Administration is also governed by a great number of rules emanating from statutes, regulations, and decisions. The structures of the Contracts are based on these rules. Personnel responsible for administering the US 301 Project Contracts will adhere to these guidelines established by the several areas of the Contracts.

US 301 Project Contract Administration includes all interactions between DelDOT and the GEC, SDCs, SICs and Contractors that arise out of Contract performance. It also encompasses all dealings between DelDOT and the contracting parties from Contract award until the Contract completion and acceptance, payment has been made, disputes and claims have been resolved, and Contract warranties' periods have been successfully completed.

The goal of Contract Administration is to ensure that the Project obtains the Contract work on time and at the quality required by the Contracts, and that the Contracting Parties receive proper compensation. DelDOT understands that during the life of the Contracts, this will involve ensuring that both the Contracting Parties and DelDOT meet their respective Contractual obligations. In all of these efforts, the goal is to obtain the completed Contract work in full accord with the requirements of the Contracts and in the most efficient and effective manner.

The success of the Contract Administration function will depend upon the development of mutual confidence and respect between DelDOT and the Contracting Parties. However, the US 301 Project Team understands that even the best of working relationships will not result in good Contract Administration unless the parties properly document Contract events, timely identify problems, and work out mutually agreeable solutions. It is understood that failure to have effective communication between the parties will lead to misunderstandings and, ultimately, disputes. The majority of the US 301 Project's Contract Administration actions will involve the identification and resolution of problems before they escalate. DelDOT's right to insist upon complete compliance with Contract requirements, and to enforce all GEC, SDC, SIC and Contractor obligations, does not relieve DelDOT from its duty to cooperate with the GEC, SDCs, SICs, and Contractors in the performance of the Contract work. Similarly, the Contracting parties are obligated to meet the US 301 Project's expectations.

DelDOT understands that poor Contract Administration; i.e., failure to promptly and properly resolve problems, can lead to disputes and, ultimately, litigation. Accordingly, once the US 301 Project Team has identified a problem, the goal is to resolve the problem in a manner that is clear to all parties. It is a goal of US 301 Project Contract Administration to identify problems in a timely manner and to arrive at mutually acceptable solutions to such problems.

See Section 9 for Section Design Consultants (SDC's) Oversight and Section 10 for Section Inspection Consultants (SIC's) and Contractor Oversight.

5.2.3 Contract Closeout Responsibilities

Contract Closeout responsibilities for each type of contract executed for the US 301 project are discussed in Section 16.0 Project Close-out.

6.0 Cost, Budget and Schedule

Project Management Plan

Federal Highway Administration

6.0 COST, BUDGET AND SCHEDULE

6.1 COST

The current estimated cost of the US 301 project, in year of expenditure dollars (YOE$), is **$667** million. The State of Delaware has developed an a November 2011 update of the Financial Plan that proposes a combination of State Transportation Trust Funds, Federal Aid Highway Funds and two types of bonds (GARVEE and Toll Revenue) and a TIFIA Loan to fully fund the US 301 project as follows and noted in Exhibit 6.1:

- Preliminary Engineering and Right-of-Way
  - State Transportation Trust Fund (TTF) Revenues
  - Federal Aid Highway Funds (FHWA)
  - GARVEE Bond Proceeds (GARVEEs)
- Construction
  - Toll Revenue Bonds are secured by a pledge of the tolls to be imposed on US 301 and by a lien on available TTF revenues
  - A TIFIA Loan of $154 million by FHWA – see Footnote 5 for details, and see the Draft December 2011 Financial Plan Update

The estimated cost of the project is $676.07 million from Planning through the completion of the US 301 Spur Road construction in December 2018 (FY 2019). These projected expenditures are based on the FY 2013-FY 2018 CTP, currently being prepared. FY 2013 Toll Revenue Bonds would fund the US 301 Mainline ($363.79 million) and the FY 2017 Toll Revenue Bonds would fund the construction costs of the US 301 Spur Road ($103.23 million).

The FY 2012 – 2015 TIP indicates a ROW estimate of $125.05 million. However, the total available funds include: $93,201 in TTF $'s (FY 2009), $15,000,000 in FHWA $'s (FY 2009), $6,180,000 in FHWA $'s (FY 2010) and $104,000,000 in GARVEE proceeds results in total ROW funds available of $125.23 million. The current ROW cost estimate is $108.28 million, which includes $14.5 million, 20% of the estimated cost of remaining parcels to be acquired, for contingencies. The $16.72 million difference ($125 - $108.28) is proposed to be transferred from ROW to fund an increase of $0.92 million in the PE budget ($66.25M to $67.17M), to fund $10.00M in utility adjustments/relocations ($2.5 million advance utility work in FY 2012 and $7.5 million in utility work during roadway construction in FY 2013) and $6.03 million for Toll Integration services and equipment.

A change will be processed to the FY 2012-2015 TIP to incorporate approximately $2.5 million in construction funds (GARVEE Bond proceeds) for advance utility work in FY 2012. Should State/Federal funding become available, the SR 896/Bethel Church Road Interchange (Contract 4A - $29.03 million) may be constructed in advance of the US 301 Spur Road (Contracts 4B and 4C - $74.43 million).

Exhibit 6-1: Funding Sources by Cost Element and State Fiscal Year (YOE$ millions)
Construction Funding – Existing GARVEE Bonds & Toll Revenue Bonds

Funding Source	Cost Element	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	TOTAL
State TTF	Planning	10.690[1]	0.430	0.010										11.130
	PE	0.980	1.690	0.004	0.007	0.239								2.920
	RW	0.066	0.001	0.002										0.069
	C				0.216[2]									0.216
	TTF Total	**11.736**	**2.121**	**0.016**	**0.223**	**0.239**								**14.335**
FHWA	PE		5.240	17.350	10.791	8.940								42.321
	RW	1.002	14.150	3.858	0.069	2.101								21.180
	C													
	FHWA Total	**1.002**	**19.390**	**21.208**	**10.860**	**11.041**								**63.501**
FY 2010 GARVEE Bonds	PE				13.211	5.221	3.000	0.050	0.050	0.400				21.932
	RW				0.623	74.152	9.840	2.420						87.035
	C					2.500[3]	13.533[4]							16.033
	GARVEE Total				**13.834**	**81.873**	**26.373**	**2.470**	**0.050**	**0.400**				**125.000**
FY 2013 Toll Revenue Bonds	PE													
	RW													
	C						40.568	140.021	144.448	44.743				369.780
	Toll Revenue Total US 301 Mainline						**40.568**	**140.021**	**144.448**	**44.743**				**369.780**[5]
FY 2017 Toll Revenue Bonds	PE													
	RW													
	C										24.397	51.932	27.127	103.456
	Toll Revenue Total Spur Road										**24.397**	**51.932**	**27.127**	**103.456**
TOTALS	Planning	10.690[1]	0.430	0.010										11.130
	PE	0.980	6.930	17.354	24.009	14.400	3.000	0.050	0.050	0.400				67.173
	RW	1.068	14.151	3.860	0.692	76.253	9.840	2.420						108.284
	C				0.216	2.500	54.101	140.021	144.448	44.743	24.397	51.932	27.127	489.486
TOTALS		**12.738**	**21.511**	**21.224**	**24.917**	**93.153**	**66.941**	**142.491**	**144.498**	**45.143**	**24.397**	**51.932**	**27.127**	**676.073**

[1] Includes FY's 2005 - 2008

[2] Advanced Utility (FY 2011)

[3] GARVEE (C): $2.5M Advance Uility Work (FY 2012)

[4] GARVEE (C): $7.5M for Utility Work during Roadway Construction (FY 2013) & $6.033 Toll Integration (FY 2013)

[5] DelDOT has submitted a Letter of Interest (LOI), requesting $154M in TIFIA Loan funds, which, if approved, would reduce the FY 2013 Toll Revenue Bonds by the same amount.

NOTE: The figures shown in the table above include the funding sources for planning, preliminary engineering, right-of-way, and construction, but do not include the increase in the amount of bonds to be sold in order to fund capitalized interest during construction, the debt service reserve fund, and issuance costs.

On December 30, 2011, DelDOT submitted an LOI to FHWA requesting a TIFIA loan of $154 million to fund the US 301 Mainline construction. If approved, the Toll Revenue Bonds (FY 2013) would be reduced to $215.78 million, increasing the coverage factor on the Toll Revenue Bonds and reducing the risk to the State Transportation Trust Fund and the State-wide Capital Transportation Program.

Exhibit 6-2: Funding Sources by Cost Element and State Fiscal Year (YOE$ millions)
Construction Funding – Existing GARVEE Bonds, TIFIA Loan, & Toll Revenue Bonds

Funding Source	Cost Element	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	TOTAL
State TTF	Planning	10.690[1]	0.430	0.010										11.130
	PE	0.980	1.690	0.004	0.007	0.239								2.920
	RW	0.066	0.001	0.002										0.069
	C				0.216[2]									0.216
	TTF Total	**11.736**	**2.121**	**0.016**	**0.223**	**0.239**								**14.335**
FHWA	PE		5.240	17.350	10.791	8.940								42.321
	RW	1.002	14.150	3.858	0.069	2.101								21.180
	C													
FHWA Total		**1.002**	**19.390**	**21.208**	**10.860**	**11.041**								**63.501**
FY 2010 GARVEE Bonds	PE				13.211	5.221	3.000	0.050	0.050	0.400				21.932
	RW				0.623	74.152	9.840	2.420						87.035
	C					2.500[3]	7.500[3]	3.033[4]	3.000[4]					16.033
GARVEE Total					**13.834**	**81.873**	**20.340**	**5.503**	**3.050**	**0.400**				**125.000**
FY 2013 Toll Revenue Bonds	PE													
	RW													
	C						28.051	79.839	81.996	25.894				215.780
Toll Revenue Total US 301 Mainline							**28.051**	**79.839**	**81.996**	**25.894**				**215.780**[5]
FY 2012 TIFIA Loan	PE													
	RW													
	C						18.550	57.149	59.452	18.849				154.000
Toll Revenue Total Spur Road							**18.550**	**57.149**	**59.452**	**18.849**				**154.000**
FY 2017 Toll Revenue Bonds	PE													
	RW													
	C										24.397	51.932	27.127	103.456
Toll Revenue Total Spur Road											**24.397**	**51.932**	**27.127**	**103.456**
TOTALS	Planning	10.690[1]	0.430	0.010										11.130
	PE	0.980	6.930	17.354	24.009	14.400	3.000	0.050	0.050	0.400				67.173
	RW	1.068	14.151	3.860	0.692	76.253	9.840	2.420						108.284
	C				0.216	2.500	54.101	140.021	144.448	44.743	24.397	51.932	27.127	489.485
TOTALS		**12.738**	**21.511**	**21.224**	**24.917**	**93.153**	**66.941**	**142.491**	**144.498**	**45.143**	**24.397**	**51.932**	**27.127**	**676.072**

(1) Includes FY's 2005 - 2008
(2) Advanced Utility (FY 2011)
(3) GARVEE (C): $2.5M Advance Uility Work (FY 2012) & $7.5M for Utility Work during Roadway Construction (FY 2013)
(4) GARVEE (C): $6.033 Toll Integrator (FY 2013 & FY 2014)
(5) DelDOT has submitted a Letter of Interest (LOI), requesting $154 million in TIFIA Loan funds

NOTE: The figures shown in the table above include the funding sources for planning, preliminary engineering, right-of-way, and construction, but do not include the increase in the amount of toll revenue bonds to be sold in order to fund capitalized interest during construction, the debt service reserve fund, and issuance costs.

6.1.1 Potential Benefits of the TIFIA Loan to the U.S. 301 Project as Compared to the U.S. 301 Initial Financial Plan

A TIFIA financing offers several potential benefits to the U.S. 301 financing, including enhanced debt service coverage for the DTA's toll revenue bonds, additional structuring and timing flexibility for the overall Financial Plan and debt service savings. DelDOT, like many state DOTs, is currently projecting a decreasing capital program and the need for additional revenues for the TTF. While it is important to move ahead with the implementation of the U.S. 301 project and its benefits from a national, regional and local perspective, it is important that the project stand on its own, i.e. be financially independent and minimize potential risk to the State TTF, which will provide the subordinate back up to the US 301 toll revenue bond.

A number of TIFIA loan terms, which are not offered by the capital markets, could assist the DTA in structuring its financing, thus helping to support the US 301 toll revenue bond rating, thereby resulting in savings in debt service cost. In this regard, DelDOT will explore the potential TIFIA benefits related to possible deferral of principal and interest payments during early ramp up years and the improved coverage on or increasing capacity for issuing US 301 Mainline Toll Revenue Bond debt.

An additional potential benefit of a TIFIA loan is the interest rate on the loan could be lower than that of the toll revenue bonds. As indicated above, DelDOT's current Financial Plan anticipates the sale of Toll Revenue Bonds for the US 301 mainline in State Fiscal year 2013. Assuming approval of a TIFIA secured loan agreement, with a locked in rate in 2013, the TIFIA loan rate might be less than tax exempt debt rates in current or future years, resulting in a reduction in the cost of capital and corresponding improvement in debt service coverage and debt capacity . In this regard, DelDOT will explore timing options, including: execution of a TIFIA secured loan agreement, drawing on the loan and paying debt service immediately; execution of the TIFIA loan agreement and drawing on the loan and deferring debt service payments for up to five years after substantial completion of construction.Financial Plan

The Draft Initial Financial Plan (IFP) was submitted to the Federal Highway Administration in December 2007 and the Initial Financial Plan in June 2010. The US 301 Project's Financial Plan update will be submitted to the Federal Highway Administration in December 2011.

The December 2011 Financial Plan update will be developed in accordance with legislation passed by the Delaware General Assembly in its 2006 session, which endorsed the project as a toll facility (reference Section 1403(6) of Title 2), its 2010 session, which authorized the sale of $125 million in GARVEE Bonds to fund the remaining portion of the final design/preparation of construction contract documents and right-of-way acquisition activities and the General Assembly's FY 2010, FY 2011 and FY 2012 direction to implement the US 301 project, with the US 301 Mainline as the initial section.

The December 2007 Draft Initial Financial Plan, the June 2010 Initial Financial Plan and the December 2011 update of the Initial Financial Plan are consistent with the funding goals and objectives established for the project to:

- Minimize the use of state transportation trust funds (TTF);
- Maintain/preserve DelDOT's excellent credit rating and capacity to sell TTF Bonds to fund other CTP projects;
- Have those who use new US 301 pay for the construction; and
- Provide "due diligence" with respect to funding options before proceeding with construction.

6.1.2 Financial Plan Updates

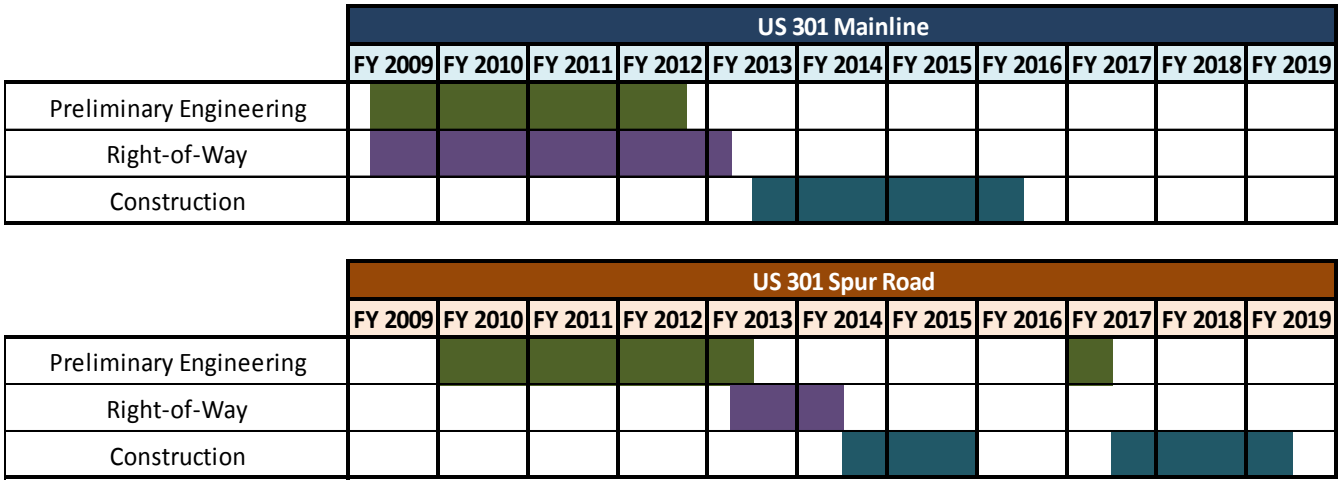
Adjustments to the cost estimates have been computed in a manner consistent with the methodology established in the June 2010 Initial Financial Plan. The December 2011 update considers Delaware's fiscal year (July 1 – June 30) as the project's fiscal year. Using the State fiscal year as the benchmark for future annual updates is particularly appropriate given that the majority of the funding for the project is coming from the State. This timing will facilitate the development of compatible subsequent six-year capital program updates. The ongoing monthly budget reports provide a basis to enable the timely preparation of annual updates to the Financial Plan. In this light, a 90-day period allows ample development time for a comprehensive and accurate update to be completed. Therefore, annual updates to the financial plan will be submitted to FHWA in the fall of each year, following the end of the fiscal year. The December 2011 update of the Financial Plan was delayed slightly by the desire to use cost estimates, based on final design documents, for the US 301 Mainline Contracts in developing the update.

The December 2011 update of the June 2010 Initial Financial Plan includes an updated "Investment Grade" Level 3 Traffic and Revenue Report, based on current land use projections and recent toll increases on Maryland's toll facilities, i.e. John F. Kennedy Highway (I-95), the Chesapeake Bay Bridge (US 301/US 50) and the three Baltimore Harbor crossings (I-95, I-695 and I-895).

6.2 PROJECT SCHEDULE

The current schedule anticipates the US 301 Mainline to open in February 2016 and the US 301 Spur Road to open in December 2018. See Appendix E for detailed schedule.

Exhibit 6.3: US 301 Project Schedule



See Exhibits 2.3 and 2.4 and Appendix E for detailed information.

6.3 COST ESTIMATE AND SCHEDULE VALIDATION

6.3.1 Cost Estimate Update

The Cost of the project is updated whenever there is a major change in scope and annually as required for the Financial Plan. Refer to the Financial Plan and Chapter on Project Management Control in this PMP for details.

6.3.1.1 Preliminary Engineering Cost Estimate

The current preliminary engineering (PE) cost estimate has increased from $66.25 million (September 2010) to $67.17 million (November 2011) and is based on the cost to date, since the major portion of PE for the US 301 Mainline is approaching completion with most of PS&E packages scheduled for completion by early 2012 (see Exhibit 2.3). The SR 896/Bethel Church Road Interchange is approaching semi-final plans (85% complete) and the US 301 Spur Road is at the preliminary plan stage (50% complete). DelDOT is closely monitoring archeology expenditures. Significant archeology expenditures for Phases 2 and 3 activities could result in a slight increase in the current PE cost estimate.

Exhibit 6.4: US 301 Mainline, SR 896/Bethel Church Road Interchange and Spur Road

	Prior FYs	2012	2013	2014	2015	2016	Total
PRELIMINARY ENGINEERING							
2013 - 2016 TIP (being prepared)	$ 49.27	$ 14.40	$ 3.00	$ 0.05	$ 0.05	$ 0.40	$ 67.17
Note: PE Spend through September 2011 is $52.80 million.							

6.3.1.2 Right-of-Way Cost Estimate

The current right-of-way cost estimate of $108.28 has decreased from $125 million (September 2010) and is based on individual parcels and includes acquisition and relocation assistance costs along with projected costs for appraisal preparation, review and approval, negotiations, settlement, administration, legal fees and 20% of the estimated cost of properties remaining to be acquired, for contingencies.

DelDOT has committed $108.28 million for US 301 project ROW, i.e., $.069 million in TTF $'s (FY 2009), $15.0 million in FHWA $'s (FY 2009 – toll credits match), $6.1 million in FHWA $'s (FY 2010 – toll credits match) and $87.04 million in GARVEE bond proceeds. The majority of the right-of-way will be acquired for the US 301 Mainline in 2012 and for the US 301 Spur Road in 2012 and 2013.

Exhibit 6.5: Right-of-Way Expenditures (YOE$'s) - US 301 Mainline, SR 896 / Bethel Church Road Interchange and Spur Road

	Prior FYs	2012	2013	2014	Total
RIGHT-OF-WAY					
2013 - 2016 TIP (being prepared)	$ 19.77	$ 76.25	$ 9.84	$ 2.42	$ 108.28
Note: ROW spend through September 2011 is $20.71 million.					

6.3.1.3 Construction Cost Estimate

The construction cost estimate for the US 301 project is $489.49 million in YOE dollars (reduced from $553 million) and includes $386.03 million for the US 301 Mainline and $103.46 million for the US 301 Spur Road. The construction of the US 301 Mainline (initial priority) is proposed to be funded with $0.216 million of State TTF funds, $16.03 GARVEEs (FY 2010) and $369.78 million of Toll Revenue Bonds (FY 2013). The construction of the US 301 Spur Road is proposed to be funded with $103.46 million in Toll Revenue Bonds (FY 2017) Should State/Federal funding become available, the SR 896/Bethel Church Road Interchange (Contract 4A - $29.03 million) may be constructed in advance of the US 301 Spur Road (Contracts 4B and 4C - $74.43 million).

The $59 million reduction ($445 million to $386 million in YOE$s) in the estimated construction cost of the US 301 Mainline is summarized in the following table. Funding the $16.03 million of the US 301 Mainline construction with 2010 GARVEE Bond proceeds, reduces the US 301 Mainline construction costs to be funded with FY 2013 Toll Revenue Bond from $386 million to $370 million.

Exhibit 6.6: US 301 Mainline Construction – Cost Estimate Comparison (Mar 2011 – Nov 2011)

Item	Mar 2011 Est. *($M)*	Nov 2011 Est. *($M)*	△	Comments
A - Neat Construction	305	282	-23	November estimate based on Final Plans, including numerous design refinements to reduce costs (see Design Refinements Report). Prior estimate based on Preliminary / Semi-final Plans.
B - MOT	5	2	-3	MOT based on % of A – adjusted based on final plans, all traffic bid items and prior bid experience (recent bids + SR 1 experience).
C - Misc Bid Items	13	-	-13	Eliminated by final estimates, which include all bid items.
D - Contractor's CE	14	5	-9	Reduced from 5% to 2% of contractors bid, based on recent bids and SR 1 experience.
E - Contractor's Initial Expense	14	13	-1	5% of A (both November and March).
F - Construction Contingency	31	14	-17	Reduced from 10% to 5% of A, based on SR 1 experience.
G - DelDOT CE	57	47	-10	15% of A + B + C + D +E + F (both November and March).
H - Utilities	6	10	+4	$4M added, in case project does not proceed within 2 years (non-reimbursable items become reimbursable).
DelDOT Traffic	-	3	+3	Estimate available with Final Plans.
I - Claims / Adj Factors	-	9	+9	Added to provide for adjustment factors (asphalt, E&S, etc. - $1.5M) + additional construction contingency ($7.5M) and potential to haul borrow material from Levels Mitigation Site to Spur Road.
Sub Total	**445**	**385**	**-59**	
J - GARVEE $'s			-16	As a result of ROW cost estimate reduction, GARVEE $'s available to fund construction ($10 million utility work [$2.5 million for advanced utility work and $7.5 million for utility work during roadway construction] and $6 million toll integration facilities)
			-75	**TOTAL REDUCTION**

The following table indicates the different cash flows for construction in YOE $'s in the 2008 constrained long-range plan (CLRP) versus FY 2012-2015 TIP, the June 2010 IFP and the November 2011 IFP update.

Exhibit 6.7: Construction Expenditures (YOE$'s) - US 301 Mainline, SR 896 / Bethel Church Road Interchange and Spur Road

Document	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
2011 CLRP	$10.00	$57.50	$144.00	$172.00	$112.00	$21.00	$22.00	$14.50		$553.00
2010 IFP		$67.50	$144.00	$172.00	$112.00	$21.00	$22.00	$14.50		$553.00
FY 2012 - 2015 TIP			$144.00	$172.00	$112.00	$21.00				$449.00
2012 Dec. Update - Financial Plan	$0.22	$2.50	$54.10	$140.02	$144.45	$44.74	$24.40	$51.93	$27.13	$489.49

The estimated construction costs in the December 2011 Financial plan update are based on cost estimates for final construction plan submissions for the US 301 Mainline contracts, semi-final plans for the SR 896/Bethel Church Road Interchange and Preliminary Plans for the US 301 Spur Road.

6.3.2 Schedule Validation and Updates

The current design and construction schedule is included in Appendix E and maintained monthly. The construction schedule will be monitored using Primavera Project Planner scheduling software. A Master Schedule, as well as detailed schedules for each Construction Contract, will be monitored and maintained. Each contractor is required to prepare and periodically submit updated schedules which are reviewed and information is incorporated into the contract schedules and Master Construction Schedule as appropriate. Refer to the chapter on Project Management Controls in this PMP for details.

7.0 Project Reporting and Tracking

Project Management Plan

Federal Highway Administration

7.0 PROJECT REPORTING AND TRACKING

7.1 PROJECT REPORTING AND TRACKING

The project reporting and tracking system will collect, assess and maintain project status information and data that is timely, independent, and accurate. Data will be maintained to assess status and track progress on procurement, costs, budgets, schedules, property acquisitions, design status, construction progress, change orders, payments, DBE utilization and other items for the project. Additionally, special information and data concerning a particular topic will be prepared when necessary.

The schedule and status of various items and issues is being reviewed and assessed during the bi-weekly Project Management Team/Design Group Discipline Lead conference calls and monthly conference calls by the Project Management Team/Design Group Leads with each of the SDCs. The GEC and each SDC are responsible for preparing the status reports/action item lists, which are made available to the appropriate DelDOT, FHWA, GEC and SDC staff and placed on the document management system, prior to each conference call. During the conference calls, progress, schedules, quality issues, compliance with project requirements and other issues are discussed and addressed, as appropriate. Issues occurring between regularly scheduled conference calls are also being discussed and addressed by the Project Management Team members/Design Group Discipline Leads, the Environmental Group and the SDCs. Each conference call involves an action/punch list prepared by the GEC or SDCs that document items to be discussed, along with the status, suggested path forward, responsible person or parties, and target completion date, as appropriate.

7.1.1 Bi-Weekly and Monthly Conference Calls

7.1.1.1 Action Items/Outstanding Issues

An updated list of Action Items with status, responsible party and target deadline is distributed prior to each bi-weekly Project Management Team/Design Group Discipline Lead conference call and each monthly conference call between the Project Management Team, the Design Group Discipline Leads, as required, and the individual SDCs. The status reports/action items document for each conference call is located on the Project's Document Management System. Action items are also dealt with on almost a daily basis, through contact between the Project Management Team, the Design Group Discipline Leads and the individual SDCs. In addition, the GEC and SDCs provide monthly progress reports with their invoices that include: work performed during the reporting period; meetings/conference calls attended; unusual problems; delays in prosecuting work; approval actions required and anticipated progress for the next reporting period.

Coordination and consultation by the Environmental Group and the federal and state Environmental Resource Agencies regarding mitigation design, permit conditions, design and construction details, etc. are occurring on a weekly basis. In addition, work sessions and field reviews with the Design Group Discipline Leads, the Environmental Group and all Resource Agencies occur on an as needed basis, normally about every two months. For example, all design refinements, occurring after the ROD, have been reviewed (many in the field) with the Resource Agencies, before proceeding with final design. All of the Post-ROD refinements were presented for public comment at the March 23, 2008 Public Workshop and/or the September 6, 2011 Public Workshop.

Finally, the Project Management Team/Design Group Discipline Leads meet, as required, with appropriate GEC and SDC discipline leaders to address issues, as required, e.g. construction contract limits, construction contract interfaces, borrow sites, constructability issues, design coordination, details and refinements, etc.

7.1.1.2 Project Schedule

The project schedule is reviewed and maintained on a monthly basis by the Project Management Team with input from the individual SDCs. See Appendix E for current Schedule.

7.1.1.3 Project Cost

The cost estimate for preliminary engineering is reviewed and updated, if required, on a monthly basis, by the DelDOT Design Manager through the review of GEC, SDC and Specialty Consultant progress reports and invoices. Formal preliminary engineering updates occur annually with the preparation of DelDOT's 6-year Capital Transportation Program (CTP) and the Project's Financial Plan. The current preliminary engineering budget is $67.17 million. The preliminary engineering/preparation of construction contract documents for the US 301 Mainline will be completed, for the most part, by the end of calendar year 2011. The remaining significant effort is archaeology. Expenditures through September 30, 2011 are $52.80 million.

The right-of-way cost estimates are reviewed and updated on a yearly basis, as part of the preparation of the 6-year Capital Transportation Program (CTP) or more frequently, if required as a result of recent acquisition results, changes in the real estate market/local assessments, etc. The current right-of-way estimate (October 2011) is $108.28 million. Available right-of-way funds are $108.28 million, including $14.5 million for contingencies. Expenditures to date are $20.71 million.

The construction cost estimates were updated in October 2011, based on: final plans (100% complete), for the most part, for the US 301 Mainline contracts; semi-final plans for the SR 896/Bethel Church Road Interchange (85% complete); and preliminary plans (50% complete) for the US 301 Spur Road (see Exhibit 2.4 on page 2.13). Due to the national recession, escalation has been minimal over the past two years. In addition, construction activity on major projects such as US 301 has been limited and construction bids received by DelDOT over the past 2 years have been, for the most part, under the engineers estimate.

The construction cost estimate for the US 301 project is $489.49 million in YOE dollars (reduced from $553 million) and includes $386.03 million for the US 301 Mainline and $103.46 million for the US 301 Spur Road. The construction of the US 301 Mainline (initial priority) is proposed to be funded with $0.216 million of State TTF funds, $16.03 GARVEEs (FY 2010) and $369.78 million of Toll Revenue Bonds (FY 2013). The construction of the US 301 Spur Road is proposed to be funded with $103.46 million in Toll Revenue Bonds (FY 2017) Should State/Federal funding become available, the SR 896/Bethel Church Road Interchange (Contract 4A - $29.03 million) may be constructed in advance of the US 301 Spur Road (Contracts 4B and 4C - $74.43 million).

The updated cost estimates will form the basis for preparation of the FY 2013 – 2016 TIP and the FY 2013 – 2018 CTP, which will occur during the winter of 2012.

The Operation and Maintenance costs for US 301, both roadway and toll facilities were also updated in October 2011. These costs are an important component of the financial analysis of the toll revenue bonds proposed to fund construction. In addition, major maintenance costs over the life of the toll facility, have also been updated. All updated costs, along with updated traffic [taking into consideration the results of the August 2, 2011 northbound existing US 301 Origin & Destination (O&D) Survey, with the assistance of the Delaware State Police, at the MD/DE line], and revenue projections and escalation, have been considered in the December 2011 update of the June 2010 Initial Financial Plan.

7.1.1.4 Project Quality

The Quality activities during the reporting period and any significant items identified as being deficient in quality will be reviewed. Deficient items noted will be accompanied by reasons and specifics concerning the deficiencies, and corrective actions taken or planned.

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8.0 Project Management Controls

Project Management Plan

Federal Highway Administration

8.0 PROJECT MANAGEMENT CONTROLS

8.1 PROJECT CONTROLS OVERVIEW

The purpose of Project Controls is to facilitate the management, cost, and schedule integration through all phases of the US 301 Project. Project Control systems have been established to ensure compliance with the Project goals and plan, including scope, budget, schedule, and quality.

The Controls Group is responsible for this function for both the design contracts and the low bid construction contracts. The Controls Group organization and staffing is described in Section 4.8 and on Exhibit 4.9.

8.2 SCHEDULE CONTROL

This section describes how the DelDOT Design Manager, Construction Area Engineers, the GEC Project Manager and the Controls Group are monitoring and maintaining progress on the Project. It also describes the various elements that constitute the Schedule Management Plan for the Project. In addition, it describes the types of schedule reports being generated and used to communicate schedule information to the US 301 Team and outside organizations.

8.2.1 Schedule System

The Project is being scheduled and monitored using Primavera Project Planner Version 3.1 scheduling software (PS). This software package meets the needs of the Project and provides the capabilities necessary to control and monitor the work. All Critical Path Method (CPM) schedules generated by Controls and other Project groups are utilizing the same scheduling software to assure uniformity and compatibility. Controls works closely with the Contractors to ensure that schedule submittals meet the contractual requirements.

8.2.2 Overall Master Construction Schedule

The Master Schedule encompasses the entire US 301 Project. This schedule is an evolving document and is being revised, as necessary, to reflect the current scope and organization of the Project. The Master Schedule is developed and maintained by the Controls Group and has been adopted by the Project Team as the official plan for the Project.

During design and construction, the schedules for particular elements of work are/will be developed by the organizations responsible for that work element. Assistance is provided by the Controls Group. Each schedule conforms to the scheduling requirements of the particular contract. Additionally, progress from these schedules is monitored and integrated into the Master Schedule by the Controls Group.

The Master Schedule is the primary tool for assessing overall Project.

8.2.2.1 Contractor Schedules

Prior to award of the Low Bid Contract (s), and other contracts, the Master Schedule will reflect general summary level estimates of the contract schedules. The US 301 Team will review the scheduling specifications for the contracts and make recommendations prior to issuance of the bid documents. Upon award of a contract, each Contractor prepares a detailed schedule and submits it for acceptance.

8.2.2.2 Schedule Analyses

Schedule reviews are conducted on a monthly and on an as-needed basis to assure adherence to the schedule requirements. Any schedule changes are analyzed to model "what-if" scenarios, and to evaluate potential delays.

8.3 SCHEDULE UPDATES AND REVISIONS

The goal of the Schedule Updating process is to reflect the most accurate information available of the progress achieved by all levels and organizations involved in the Project, and to demonstrate the impact of this progress on the overall Master Schedule. The Controls Group has the primary responsibility for coordinating the Project status information. The Controls Group also reviews schedule updates received from the SDC's and incorporates this information into the Project schedule updates. The Controls Group will use scheduling software for construction schedule monitoring and analysis. Team members in the Project organization supply information to Controls in accordance with the schedule update procedures developed by the Controls Group.

As changes or potential delays become apparent, the US 301 Controls Group performs a schedule analyses to evaluate the situation and determine the impacts of the changes and/or delays. The Team enlists the aid of the responsible Project participants to research and analyze changes, and to recommend how changes to the originally anticipated schedule logic and sequence should be reflected. In the case of a potential delay, the US 301 Team analyzes the probability of recovering lost time and determines possible recover strategies. Information is obtained from the SDC's and Contractors for the specifics of an individual contract. A recovery plan takes into account all time extensions approved through the Change Order procedure and becomes the basis for a revision of the Project Master Schedule.

8.3.1 Schedule Monitoring and Reporting

Schedule Monitoring provides a clear indication of Project performance. Part of the Schedule Monitoring process is to detect adverse trends in administrative, design, or construction activities early enough to initiate corrective action.

If a delay to the critical path of the Project is identified, the Controls Group provides the Project Director with the information necessary to determine corrective action.

Project status, schedule conflicts, changes, and delays are monitored and reported on a regular basis, during the bi-weekly Project Management Team/Design Group Discipline Leads conference calls and the monthly conference calls of this same group with the individual SDCs. The conference calls noted above provide a consistent basis for evaluating progress and allow managers to focus on exceptional events or negative trends.

8.4 COST CONTROL

8.4.1 Cost Control Procedures

An effective cost control system is required to manage a project such as the US 301 Project.

Proper controls must be implemented in the cost control system to ensure accurate and timely information regarding actual cost, forecasted cost, and revisions that occur to the baseline budget throughout the Project. The cost control system reflects the budget information developed for the Project as presented in the Financial Plan.

The cost control system described below is used to monitor Project costs and the information must be reported in a timely and effective manner.

8.4.2 Cost Tracking System

The Controls Group is responsible for monitoring the Project budgets, commitments, forecasts, and actual costs. The Control Group utilizes the DelDOT Project Payment Tracking (PPT) cost tracking system. This system facilitates the gathering and analysis of cost information. The cost tracking system is broken down into various elements listed in the Project chart of accounts.

The cost control system tracks the following basic elements:

Actual Costs (Period) – Costs paid for work performed for the reporting period.

Actual Costs (To Date) – Cumulative costs paid to date for the Project.

Open Commitments – The amount that remains committed against a Purchase Order, Blanket Purchase Order, Work Order, Contract, etc., less any payments (actuals to date) that have been paid.

Total Commitments – The total amount of commitments that have been made up to the current period. Commitments are Purchase Orders, Blanket Purchase Orders, Work Orders, Contracts, etc. that have been executed with vendors or contractors, which obligate the Project for payment of the services or goods to be provided.

Estimate To Complete – The Estimate to Complete (ETC) amount is the forecast of the cost remaining before the Project is complete. It is defined as the difference between the Estimate at Completion (EAC) and Total Committed Cost (TCC). The ETC value reflects the amount of Purchase Orders, contracts, etc. not yet placed.

Estimate at Completion (Current) – The EAC is the forecast of the cost at the end of the Project. If applicable, pending changes are added to the system each reporting period so that it always reflects current information and progress to date. At the end of the Project, the EAC equals the actual cost.

Estimate at Completion (Previous) – The amount that was reported in the previous period. A variance will occur when the current EAC and the previous EAC are different, a result of pending and/or approved changes that occurred in the current period.

Estimate at Completion (Variance) – This variance reflects cost between the current period EAC and the previous period EAC, or the forecast change that has taken place in the current period.

Budget at Completion (Approved) – The baseline budget plus all approved changes. This value is equivalent to the approved budget.

Original Budget – The original budget that was established for the Project.

Variance at Completion – Defined as the difference between the approved budget and the current EAC.

Planned Value (PV) – Amount of work that should have been done through a given point in time.

Earned Value (EV) – The value of the work accomplished on the project through a point in time. The value is based on the budget.

8.4.3 Project Budget

The Project budget has been established and a funding plan established (see December 2011 update of the Initial Financial Plan – IFP).

In order to maintain the budget, the Project cost estimates are monitored and adjusted based on the actual awarded and pending contract amounts. The purpose of closely monitoring the budget is to allow for early identification and rectification of potential variances from the established budgets.

Contract changes are closely monitored to maintain the Project budget. Contract changes are funded from the Project contingency or transfers from other budget areas. All budget transfers are documented in order to track changes and explain variances from the baseline budget.

8.5 PROGRESS REPORTING

The Controls Group develops standard cost updates through the cost control program and spreadsheets developed, as appropriate.

The standard cost and schedule reviews include:

- Monthly Cost Reviews – This is a comprehensive cost review of the US 301 Project. It includes cost data for each element of the Project. It also compares actual costs versus budgeted and considers contract cost status, variances and forecasts.
- Review of Monthly Progress Reports – This provides a monthly review of the narrative summary and financial information from the GEC and SDC progress reports and invoices, along with the results of the bi-weekly Project Management Team/Design Group Leads conference calls and the monthly conference calls of the same group with the individual SDCs, plus any additional conference call//meeting results on the US 301 Project. It also includes a review of all SDC quantities and unit prices for the cost estimates provided by the SDCs as part of each plan review submission.

8.6 FINANCIAL PLAN MANAGEMENT

Details regarding the cost estimates, schedules, fund sources, timing of the funds, projected cash flows and other funding factors are included in the Draft December 2011 update of the Financial Plan developed for this Project in accordance with FHWA requirements. The December 2011 update of the IFP will be reviewed and updated annually, as required by FHWA.

8.7 COST ESTIMATES

8.7.1 January 7 – 10, 2008 Joint FHWA / DelDOT Major Project Cost Estimate Review

The January 7-10, 2008 Joint FHWA/DelDOT major project cost estimate review identified a number of project risks and opportunities. The US 301 Project Team including DelDOT, FHWA, the GEC, and the SDCs have and are addressing these issues. For example, the joint FHWA/DelDOT review conducted a sensitivity analysis that identified the following five items that have the greatest potential to impact the total project costs.

8.7.1.1 Grading/Borrow Unit Cost

The geotechnical program has been completed for the US 301 mainline and indicates excellent and consistent material throughout the project. The subsurface exploration conducted for the US 301 project consists of approximately 450-SPT borings. The results of the subsurface exploration north of SR 896 (Boyds Corner Road) consists of predominately one stratum, a medium dense sand with an AASHTO classification of A-1-a, A-1-b, A-2-4, A-3, and A-4(0). South of SR 896 (Boyds Corner Road) the subsurface conditions consists of two strata; the medium dense sand stratum as indicated above and a lower dense sand stratum with an AASHTO classification of A-2-4 and A-4(0). The geotechnical program for the US 301 Spur Road has been completed.

The Project Management Team has identified convenient borrow sites for the thirteen proposed construction contracts. The borrow material will be provided from joint borrow/mitigation sites and from land-locked/uneconomic remnant parcels. By providing excellent quality borrow material, at locations convenient to the construction contracts (short haul distances), the Project Team

anticipates excellent bid prices for an item initially estimated at $37 million, second only to the cost of structures in the overall construction cost estimate.

8.7.1.2 Structure Costs

A test pile program contract has been completed and additional geotechnical resistance and driving data provided for use in economizing the length of piles driven for each bridge.

The SDCs, with input from the Project Management Team, have taken the following action to provide cost effective structures throughout the project.

Design Section 1

- MSE wall type abutments have been used at both ends of the Bridge 1-5 (Hyetts Corner Road over US 301), Bridge 1-8 (Jamison Corner Road over US 301), the dual Bridge 1-9 (US 301 over SR 896) as well as at the west end of the dual Bridge 1-7 (US 301 over Scott Run) to lower initial construction costs and future maintenance costs.
- Dual Bridge 1-7 has been evaluated to determine the most cost-effective method of bridging Scott Run, a gravity sewer main, and a force main. Alternatives to shorten the bridge but still provide adequate right of way utility clearance for New Castle County sewer access have been evaluated to save on initial construction costs and future maintenance costs.
- The Jamison Corner Road interchange has been revised to include the use of roundabouts instead of signalized intersections, which allows Jamison Corner Road to cross over US 301 on a two-lane bridge (Bridge 1-8), instead of a three-lane bridge. [Three lanes would have been required for left turn lanes onto US 301.]
- The length of Bridge 1-10 (dual US 301 bridges over a tributary to Drawyers Creek) has been reduced by refining the alignment of US 301, also reducing the number of bridge spans; thus resulting in lower initial construction costs and future maintenance costs.
- Prestressed concrete girders and deck-over abutment detailing are being utilized, where possible, to minimize future maintenance costs. High performance materials will be evaluated on a case-by-case basis. The least expensive workable pile option will be utilized for the foundations.
- Results of the US 301 Design Phase Test Pile Program have been evaluated as part of the foundation design for the project bridges. Economical and efficient pile types have been designed and selected for each project bridge, and when appropriate and cost effective alternate pile types will be included for select project bridges, to enhance the potential for competitive bids on this project.
- Alignment revisions have eliminated the need to widen Bridge 1-1N (SR 1 over Scott Run.)
- Detailed alignment analysis has identified that retaining walls are not required along SR 1 southbound to avoid sensitive wetland conflicts – bifurcated concrete barrier will be used instead, for a limited distance.
- Alignment refinements have significantly reduced the length of Bridge 1-3 (US 301 northbound over SR 1) and eliminated three spans of the bridge (down to four spans from seven spans), reducing initial and maintenance costs.

Design Section 2

- Prestressed concrete girders and deck-over abutment details are being utilized, wherever possible, minimizing future maintenance costs.

- Where possible, due to similar bridge geometrics, the same beam sizes are being used to achieve an economy of scale.
- Where possible, due to similar soil conditions and bridge types, the same foundation pile types are being used to achieve an economy of scale. In addition, in some locations alternative pile types have been analyzed and provided for the Contractor's to bid upon to provide more competitive bids.
- High performance materials are being evaluated on a case-by-case basis.
- MSE wall type abutments have been utilized to lower initial construction costs and future maintenance costs.
- Span lengths were minimized by locating the front face of abutments 16 feet (14 foot offset plus 2 foot barrier) off the edge of travel lane.
- By reconfiguring the Business 301 Interchange the width of the southbound bridge over Business 301 has been reduced from three lanes to two lanes
- By reconfiguring the Levels Road Interchange a southbound off-ramp bridge has been eliminated and the bridge deck area of the northbound on-ramp bridge has been significantly reduced

Design Section 3

- Design efforts have been carefully coordinated between the two bridges within Section 3 to offer cost effective design and construction solutions. Where practical, the use of similar components for both structures is being used to achieve an economy of scale. Due to the similar bridge geometries, the same pre-cast concrete beam type and size are being used on both bridges. Similarly, the pile type and size will be the same on both bridges. There are ongoing efforts to utilize similar details for other bridge components (where practical) on both bridges including abutments, bearings, pier details, diaphragms, deck slabs, approach slabs and reinforcement bars.
- There are eleven (11) overhead span truss structures in Section 3 with varying span configurations. These structures have been consolidated and grouped by span lengths to achieve an economy of scale. The same details are being used for all sign structures, as appropriate.

Design Section 4

- The alignment at the SR 896/Bethel Church Road interchange has been refined to reduce the amount of retaining walls needed at the merge between the NB US 301 Spur Road and Bethel Church Road bridge over the SB US 301 Spur Road.
- The use of integral abutments eliminates bridge joints and reduces maintenance costs, is being proposed.
- Cost analysis for different superstructure types for each bridge has been conducted
- The bridge spans for the dual structure 4-3 over the Back Creek wetlands have been reduced as a result of coordination with the environmental resource agencies
- Abutments have been shifted in to 14' off the edge of travel lane, replacing the mid-height abutments proposed in the FEIS TS&Ls, thus reducing the span lengths of the overpasses.
- The number of spans of the Churchtown Rd. overpass has been reduced from 3 to 2 by shifting the utility access road to the north side of Churchtown Rd.

8.7.1.3 Environmental Agreements

The provisional Section 404 permit has been received from the Corps of Engineers for the project. Most details associated with the environmental permits have been or are being resolved. Coordination with the Resource Agencies has continued throughout the Final Design effort, which is nearing completion for the US 301 Mainline. This coordination primarily involves field reviews and design refinements in a continuing effort to minimize impacts to environmental resources.

8.7.1.4 Right-of-Way Cost Estimates

The Joint FHWA/DelDOT cost estimate review resulted in comments regarding the lack of contingencies for right-of-way. The right-of-way cost estimates have been updated (October 2011) and include approximately 20% for contingencies.

8.7.1.5 Pavement Design

The joint FHWA/DelDOT cost estimate review effort suggested the pavement design be based on life cycle cost analysis and the need to balance industry workload. The final pavement decision is based on these two factors with PCC recommended for the US 301 mainline and asphalt recommended for the US 301 Spur Road.

8.7.1.6 Contractor Competition

DelDOT intends to maximize competition by conducting contractor outreach activities. DelDOT is also, thru the Project Management Team applying lessons learned and experience of staff from SR 1 on the new US 301 project. Finally, the Project Management Team has refined the construction contract limits to minimize and manage construction risks, optimize project opportunities and complete construction as timely and cost effectively as reasonably possible. The group's objectives are to reasonably balance local competition and minimize the level of contractor interfaces and construction coordination and construction management and inspection costs.

8.7.1.7 Advanced Technology

Under DelDOT's direction, the SDCs are developing plans that will allow for the use of advanced technology on the project, such as GPS for automated construction equipment.

8.7.1.8 Toll Facilities

DelDOT has incorporated the toll facilities into the Section 3 US 301 Mainline contract in order to gain efficiencies for grading, drainage, and paving.

8.7.1.9 Early Utility/Railroad Coordination

Early coordination is underway with utility companies and the Norfolk Southern Railroad to assure the project schedule is maintained.

8.7.1.10 Incentives/Disincentives

DelDOT intends to evaluate the advantages and disadvantages of incentives and disincentives to expedite the project revenue date.

8.7.1.11 Future Market Conditions

DelDOT will monitor future market conditions regarding materials (steel, concrete, asphalt, and fuel) and adjust project cost estimates and contract specifications, as appropriate.

8.7.1.12 Heavy Wage Rates

DelDOT is working with the Delaware Department of Labor to secure a determination as to whether heavy wage rates will be required. If so, this would increase the overall cost of the project.

8.7.2 Project-wide Cost Efficiencies

The following design refinements have been developed by the US 301 Project Management Team and the SDCs as part of their design efforts:

8.7.2.1 US 301 and Spur Road Median Width

The typical section for the US 301 Mainline has been refined by reducing the proposed median width from 66 feet to 54 feet. The Spur Road median width has been reduced from 62 feet to 54 feet. This refinement was presented at the March 23, 2009 public workshop. No public objections were received regarding this refinement. The refinement will provide a reduction in earthwork and right-of-way requirements.

8.7.2.2 Bridge Abutments Location

Abutments have been moved in to 14' off the edge of travel lane, replacing the mid-height abutments proposed in the FEIS TS&L's, thus reducing the span lengths at overpass bridges (compared to the FEIS/ROD).

8.7.3 Design Section Cost Efficiencies

The following design refinements have been developed by the US 301 Management Team and the SDCs as part of their design efforts.

8.7.3.1 Design Section 1

- The existing shoulder width along US 13 SB at Scott Run and SR 1 south of Scott Run has been reduced from as much as 24' to 10', to reduce stormwater management (SWM) requirements. This will help address SWM near Scott Run, which is constrained by surrounding wetlands, alignment locations, and limited right of way.
- Traffic analysis and reconfiguration of lane assignments determined an acceptable lane configuration at the northbound US 301 / Ramp R merge point which retained the existing three lane roadway section across the William V. Roth bridge over the Chesapeake and Delaware Canal. A four-lane section on the bridge would require significant and potential expensive restriping due to the surface treatment on the bridge, as well as widening along northbound SR 1 for up to a mile north of the Canal (to the SR 72 interchange).
- The profile throughout the Section 1 Mainline has been optimized to reduce earthwork along US 301 and by lowering the profile of Hyetts Corner Road over US 301 (Bridge 1-5). These changes yielded about 270,000 CY in reduced embankment, and increased excavation by 90,000 CY. It should be noted that increased project-related excavation results in potential cost savings, as the excavated earth would either be moved without the use of haul vehicles and excavators (grading equipment only), or the haul distance would be reduced.
- Independent Borrow Sites are provided for each major contract. Most significantly, Contract T200911301 (1C) has been provided a series of borrow sites to satisfy borrow requirements adjacent to the roadway construction, reducing haul distances from the primary Section 1 borrow sites substantially. The primary sites have been divided with minor separation between the borrow sites for Contracts T200911308 (1A) and T200911302 (1B).

- Excess topsoil will be used to construct a visual berm for the Airmont community. This provides the dual benefits of not requiring borrow site material and minimizing the amount of material the Contractor will need to waste off-site.
- Hyetts Corner Road will be closed during construction to reduce the potential for conflicts between the travelling public and construction vehicles; this decision also eliminates the need for an expensive runaround road.
- A diversion ditch will be constructed on Contract T200911302 (1B) to reduce the sizing of the stormwater management facility while providing significant earthwork for the contract.
- Utility layouts were guided to minimize relocation lengths, reducing costs and right of way / easement needs.

8.7.3.2 Design Section 2

- US 301/Levels Road Interchange: As result of a field review with the environmental resource agencies, the US 301/Levels Road Interchange has been shifted 125 feet to the south to reduce impacts of the proposed north serving (ramps to and from the north) on Sandy Branch. This refinement was presented at the March 23, 2009 Public Workshop. No public objections were received regarding this refinement.
- Provide Right Exit Ramp from Northbound US 301 to Northbound Spur Road, Rather Than Left Exit: This refinement improves traffic operation and safety based on slower right lane speeds and driver expectations, simplifies advanced signing, improves the skew for the ramp bridge over US 301 and reduces construction costs by over $5 million. However, additional right-of-way is required and wetland and forest impacts are increased somewhat. This refinement was presented at the March 23, 2009 Public Workshop. No public objections were received regarding this refinement.
- Improved Interchange Configuration – New/Existing US 301 Interchange: This refinement provided a simple diamond interchange, similar to the other two interchanges on new US 301, resulting in improved operations and safety. The cost of this refinement is similar to the cost of the partial cloverleaf configuration presented in the ROD. The refined configuration also results in reduced environmental impacts. This refinement was presented at the March 23, 2009 public workshop and further refined in response to comments received from the Middletown Baptist Church.
- Use of Right-of-way Remnants: Drainage and stormwater management mitigation features have been placed on land locked and right-of-way remnants to the greatest extent possible to reduce the number and extent of right-of-way impacts.

8.7.3.3 Design Section 3

- Utility Conflict: A major utility conflict identified during the joint FHWA/DelDOT cost review, involving the relocation of major power transmission lines near the Maryland/Delaware line has been avoided by a minor shift in the US 301 mainline alignment in this area. This refinement was presented at the March 23, 2009 public workshop. No public objections were received regarding this refinement. This action resulted in an estimate $1.2 million reduction in utility costs.
- Advanced Utility Coordination: Early design collaboration between the project team and utility company (Pepco Holdings) has resulted in effectively scheduling significant relocation efforts at two (2) locations prior to construction of the US 301 Mainline. Early coordination has also resulted in an anticipated cost savings for the 138kV relocation at Strawberry Lane since it was determined that this facility was scheduled for system upgrades in early 2010. Upon

learning this information, Section 3 design was advanced to determine the necessary roadway/structure clearances needed during and after construction. This accelerated work has allowed the utility company to maintain their schedule and incorporate DelDOT's project needs. As a result, the US 301 project incurred only a differential cost for obtaining necessary roadway clearances, versus a total cost of relocation, a cost savings of $315,000.

- Refinement of Traffic Operations for the Existing US 301 Northbound Weigh Station, US 301 Mainline Toll Plaza, and Levels Road Interchange: The roadway configuration has been modified to provide weigh station truck access to the highway speed E-ZPass lanes or cash lanes at the US 301 Mainline Toll Plaza. In addition, northbound US 301 traffic exiting at Levels Road can utilize the highway speed E-Z Pass lanes or the cash lanes. The Levels Road on-ramp to southbound US 301 can use the highway speed E-Z Pass lanes or cash lanes. This refinement resulted in reductions of nearly 50,000 square yards of pavement, 3 acres of right-of-way, and nearly $3 million in construction costs. This refinement was presented at the March 23, 2009 public workshop. No public objections were received regarding this refinement.
- Closed Drainage System on Levels Road: As part of R/W evaluations, the proposed drainage system on Levels Road was evaluated to determine the most cost effective solution with respect to current real estate acquisition costs for commercially zoned land and the potential development along proposed Levels Road between the intersection with existing US 301 and the proposed interchange with new mainline. Several open system options with varying side slopes were evaluated along with a closed system and several combinations of each. Ultimately, a completely closed system was deemed the most cost efficient with the real estate savings outweighing the additional infrastructure costs by nearly $1.6 million over the original open drainage system design.

8.7.3.4 Design Section 4

- Bethel Church Interchange: The "trumpet" interchange between Bethel Church Road Extended and the US 301 Spur Road, presented in the ROD, has been replaced with simpler more direct ramps from Bethel Church Road to SR 896 (Summit Bridge Road) resulting in reduced right-of-way needs.
- Median width: Reduced the median width proposed in the FEIS from 62' to 54'
- Spur alignment: Refined the FEIS alignment to decrease impacts to the properties, including Rhoadesdale Farm, Steele Farm, Yaiser Farm and Zapata.
- Optimized Stormwater management design: Reduced the amount of stormwater management facilities from FEIS (from 38 to 14) reducing construction and future maintenance costs.
- Churchtown Rd. alignment: Refined the design of Churchtown Road to allow for access to the Tidewater Utilities parcel on the north side of Churchtown allowing the overpass to be reduced from 3 spans to 2. The utility access road will be used to maintain EMS access during construction, saving construction costs.
- Armstrong Corner Rd. alignment: Reduced the construction limits on Armstrong Corner Rd.; tying back to existing Armstrong Corner Road further west of the original FEIS contract limit, reducing impacts and costs.

8.8 VALUE ENGINEERING

DelDOT and FHWA conducted a Value Engineering (VE) Study of the US 301 Project in September 2009. The VE Team provided a number of recommendations that will be implemented.

8.8.1.1 Provide access to landlocked properties via Boyds Corner Road.

Access from the landlocked parcels was evaluated and found to be not cost effective, due to the length of roadway required, additional property acquisition required, and wetland crossings required. However, DelDOT will remain vigilant of opportunities to sell or lease property to adjacent owners as they arise (see below.)

8.8.1.2 Donate/sell landlocked/limited access properties to The Nature Conservancy.

8.8.1.3 Use landlocked/limited access properties as alternate wetland mitigation sites.

8.8.1.4 Use landlocked/limited access properties as additional borrow sites.

Landlocked/limited access properties have been utilized to the maximum benefit of the project. Seven borrow site locations have been identified for Contracts 1A, 1B, 1C, 2A, and 3 based on parcels that will be landlocked, where environmental impacts would be minimal. Use of these sites is anticipated to reduce construction costs by providing borrow material to the contractors and by reducing haul distances from the borrow source to the locations of need. In addition, these borrow sites properties along with eight additional properties will be used to mitigate the unavoidable environmental impacts of the project. These properties will be turned in to wetland creation sites, riparian buffer enhancement sites, and reforestation sites as well as wetland and forest preservation sites. These properties will provide all the necessary mitigation required by the USACE, DNREC Wetlands and Subaqueous Lands Section, DNREC Coastal Zone Management Section, and the Delaware Reforestation Law.

8.8.1.5 Sell/lease to neighboring land owners/farmers.

The US301 Team continues to consider beneficial uses for these and all other landlocked parcels, though acquisition of any additional RW to provide access to these parcels would have to be obtained on a voluntary seller basis since laws do not allow condemnation of RW from one private property in order to make another private property whole. However, it was mentioned that in the future when the excess lands must be sold off, it would be more profitable if access could be provided to the lands so they could be sold rather than being auctioned off to the neighboring properties for less than the market value of the lands. Also, another possible option for the excess lands would be to consult with the Department of Natural Resources and Environmental Control (DNREC) to see if they have any uses for them.

8.8.1.6 Narrow distance between Proposed Warwick Road and Proposed US 301 Mainline.

The US301 Team has reduced the distance of land between Proposed Warwick Road and Proposed US301 while still meeting the roadway geometry and safety objectives. This refinement has reduced the required ROW and associated costs.

8.8.1.7 Eliminate Uncertainty

This recommendation concerns the sale of bonds to fund the project construction. Minimizing uncertainty over the actual cost of the project will reduce risk to the State TTF and potential bond holders resulting in a reduced cost of the bonds. DelDOT plans on phasing the bidding of construction contracts so that construction bids for six major US 301 Mainline contracts are known prior to selling the toll revenue bonds:

- Contracts 1A, 1B, 1C, and 1D
- Contract 2A
- Contract 3

As a result, 90% of the total cost of the US 301 Mainline would be known, prior to a "go/no go" decision on selling the toll revenue bonds for the US 301 Mainline. Bid prices would be used to update the cost estimates of the remaining four US 301 Mainline construction contracts remaining to be bid in order to finalize the pre-construction financial plan. This approach would provide "due diligence" with respect to funding before proceeding with construction by reducing:

- Potential risk to the State TTF and bond purchasers
- Amount of capitalized interest to be paid
- Overall costs of capital for the US 301 financing plan

See Implementation Plan, Section 3.

8.8.1.8 Eliminate Structure BR4-6 (Old School House Road over the Spur Road) and Cul-de-Sac Old School House Road on each side of the proposed Spur Road

The US301 Team will investigate the potential traffic impacts of eliminating this structure and placing cul-de-sacs on Old School House Road. If pursued further, this option would be presented to the public for comment. A final decision on whether or not to eliminate this structure will be made by DelDOT based on the effects to traffic operations and public input.

8.8.1.9 Compare Use of Materials/Wall Types/Spread Footings

The types of materials to be used for structures, wall types, and foundations have been evaluated in detail through DelDOT's Type, Size & Location (TS&L) process. The TS&L identified the most cost effective structure type, including materials, foundations, spans arrangements, etc., based on the particular conditions at each respective site. In addition, design elements were standardized to the degree possible throughout the US 301 project to reduce costs by minimizing the requirements for different equipment, tools and construction methods. This approach will reduce total labor costs.

8.9 RISK MANAGEMENT

DelDOT design and construction directors and managers are working with the GEC Design and Construction Managers and SDCs to identify (both early on and during the design process) and manage potential project risks and opportunities.

While the Toll Revenue Bond funding, backed by the State Transportation Trust Fund, has significant advantages, it is not without some risk. DelDOT has/is undertaking efforts to mitigate that risk, as noted below:

8.9.1 Final Construction Costs Exceeding Engineers Estimates and Bid Amounts

The potential risk for final construction costs exceeding bid amounts and engineers estimates, has been reduced by the proposed "Due Diligence" Approach, described in Section 3, i.e. the final Financial Plan will be based on actual construction bids for six US 301 Mainline contracts, equivalent to approximately 90% of the total bid cost of the US 301 Mainline. As noted in Section 3 (Page 3-3), DelDOT will conduct a pre-advertisement effort, including project briefing meeting with interested contractors, in June 2012, and make construction plans available to contractors for informational purposes. In addition, the cost estimates of the remaining four US 301 Mainline contracts will be updated based on the bids for the six contracts. The final pre-construction Financial Plan, would be prepared prior to the sale of the Toll Revenue Bonds, will also be based on an updated "Investment Grade" Level 3 Traffic and Revenue (T&R) Report, final bond rating, and the consideration of the then current market conditions. The project cost estimate, included in the final pre-construction Financial Plan, will be based on the final engineering and right-of-way costs for the US 301 Mainline. The final right-of-way cost estimate may provide the potential to further increase construction contingencies or reduce the amount of Toll Revenue Bonds issued / resulting debt service, should the $14.5 million, contained in the current cost estimate for right-of-way contingencies, not be required. A similar, but smaller, potential exists with respect to the $10 million established for advanced utilities, which includes $6 million for reimbursable utility adjustments and $4 million for non-reimbursable utility adjustments, which would become reimbursable, should the project not proceed to construction within two years. Assuming the project does proceed to construction within two years, the $4 million figure, or a portion thereof, could be available for other uses.

The potential risk for final construction costs exceeding bid amounts has been reduced by the Department's significant Geotechnical Program, the provision of borrow sites immediately adjacent to the US 301 corridor, and the cost efficiencies developed by the Section Design Consultants during the final design of the US 301 Mainline project. Many of these activities are the result of the recommendations and Project Team follow-up from the Joint FHWA/DelDOT Major Project Cost Estimate Review (January 7 – 10, 2008). See Section 2 (Pages 2-8 through 2-11) and the Project-Wide Cost Efficiencies and Design Efficiencies (Pages 2-11 through 2-14) and the Value Engineering Effort (Pages 2-14 and 2-15). In addition, the US 301 Mainline construction traverses, for the most part, a corridor involving open farmland. The major construction activities are earthwork and structures.

8.9.2 Interest Rate Risk

If interest rates are higher than assumed, a larger amount of toll revenues would be required to service the assumed level of debt for the toll revenue bonds. The final pre-construction Financial Plan will be based on interest rates and market conditions immediately prior to the bond sale and after receiving receipt of bids on six US 301 Mainline Contracts (90% of the US 301 construction cost). This "Due Diligence" approach should minimize, but would not eliminate, the potential risk of actual interest rates being higher than those assumed in the final pre-construction Financial Plan. Interest rate assumptions in the financial analysis are conservative, based on prevailing market rates for 'A' rated toll revenue bonds as of November 15, 2011, plus 100 basis points (1%).

8.9.3 Extended Recession

The "Investment Grade" Traffic and Revenue Report has taken into consideration the effects of the recession with future conservative projections. See Section 5 (Pages 5-4 to 5-7 and Figures 5-1 through 5-4, which indicate the effect of the recession and the projected recovery on traffic projections and toll revenues). As noted in Section 5, US 301 is an existing regional highway, extending from Florida to Delaware, with a solid traffic history. US 301 is an important interstate corridor for travel and commerce, especially in view of congestion along I-95, the east coast's "Main Street". Since July 2008, DelDOT has been collecting data at a permanent count station located at the Maryland/Delaware line, the approximate location of the US 301 Mainline toll plaza, where the majority of toll revenues will be collected. Updating the Traffic and Revenue Report immediately prior to the Toll Revenue Bond sale will provide additional traffic history in the existing US 301 corridor and should enhance confidence in the traffic and revenue projections.

In August 2011, DelDOT conducted an O&D traffic survey on northbound existing US 301 to gain current information about the travel patterns of vehicles at the DE/MD state line, the approximate location of the proposed new US 301 Mainline toll plaza. The data generated from the O&D survey has been used to further refine the regional transportation model used in the November 2011 Draft Investment Grade Level 3 Traffic & Revenue (T&R) Forecast for the US 301 project (see Section 5).

8.9.4 Delay in the Projected Opening Date, Beyond the Capitalized Interest Date

The three-year construction period for the US 301 Mainline is based on detailed CPM analyses. In addition, the "Due Diligence" Approach proposes to have the successful bidder complete all award through Notice to Proceed activities during the period between the award and the sale of the Toll Revenue Bonds. See Section 3 (Pages 3-4, Bidding Major US 301 Mainline Construction Contracts and Pages 3-8 and 3-9, Advanced Contractor Activities). This approach will result in the contractor being able to "hit the ground running".

The Financial Plan provides for capitalized interest for four months beyond the anticipated three-year construction period for the US 301 Mainline. This period is considered conservative. The US 301 Mainline construction contracts will also include significant liquidated damages, at key milestones during construction, as well as for a specific completion date. Significant liquidated damages will be based on loss of toll revenues and additional capitalized interest payments.

8.9.5 Related Risk to DelDOT's Capital Transportation Program (CTP), should a Subsidy Payment from the State Transportation Trust Fund (TTF) be Required, since the Toll Revenue Bonds will be Supported by Lien on Available TTF Revenues

The Financial Plan projections indicate a debt service coverage factor of 1.79 on the Toll Revenue Bonds. The coverage factor, when taking into account Operations and Maintenance Costs and anticipated major capital expenditures during the term of the bonds, is 1.47. Were projected gross revenues to decrease by 20%, no contribution would be necessary from the TTF to cover debt service. Should projected gross revenues decrease by 30%, gross revenues would still be adequate to cover debt service; however a projected contribution of approximately $970,000 to $317,000, would be required between fiscal years 2017 and 2021, from the debt reserve fund. See Section 5 (Pages 5-11 and 5-12) and Appendix L for details of financial analysis.

The Financial Plan includes a debt service reserve fund of $46.6 million, to be used to cover any revenue shortfalls, before there is a need for a subsidy payment from the State TTF (See Table 5-10, Page 5-15). Finally, the Financial Plan calls for a rate stabilization account to be established from excess toll revenues

in an amount yet to be determined. This account would further reduce the potential for a TTF subsidy. See Appendix L.

8.9.6 Potential Toll Diversions

Potential toll diversions have been included in the "Investment Grade" T&R analysis (see Section 5). Toll rates assumed for new US 301 are similar to the toll rates at the I-95 Newark Toll Plaza (see Section 5, page 5-6). The toll savings for round trip via US 301 versus I-95, remains significant (see Section 5, page 5-7).

New US 301 improvements in Delaware will reduce the travel time between Washington, DC and Wilmington, making it similar to the travel time on I-95

In 2006, DelDOT formed a Toll Diversion Working Group consisting of local elected officials, community representatives, and highway officials from Maryland to discuss potential traffic diversion issues. The Working Group developed a program of the following actions to minimize toll diversion and keep traffic on new US 301. The Maryland State Highway Administration and DelDOT have approved these actions, which are commitments in the US 301 Final Environmental Impact Statement and will be implemented at the appropriate time.

- Commence a Traffic Monitoring Program to collect traffic data at 13 specific locations on roads in both Delaware and Maryland before and after the opening of each of the Weigh and Inspection Stations on US 301 (southbound 2009 - complete, northbound 2010 - complete) and before (conducted annually) and after the opening of the proposed Mainline US 301 toll plaza (future)
- Evaluation and implementation of additional truck restrictions on ten (10) specific local roads in Maryland and Delaware [PENDING]
- Enhance the existing truck restriction signing on three specific routes [PENDING]
- Consider various measures along MD 282 from Cecilton to Warwick to address excessive traffic speeds [COMPLETED]
- Construct and operate a reasonable number of Virtual Weigh Stations (VWS) at appropriate locations as determined by the traffic monitoring program. (At a minimum VWS's should be installed in both directions on MD 213 south of Cecilton) [UNDERWAY]
- Provide enhanced truck enforcement [UNDERWAY]
- Consider closing the median opening on US 301 at MD 299, providing U-turn locations on US 301 north and south of the intersection [PENDING]
- Consider posting truck length restrictions on MD 213 [PENDING]

Unforeseen events are being and will continue to be addressed in the bi-weekly project teleconference, which includes the FHWA, DelDOT and GEC project managers, during the monthly DelDOT/GEC/SDC conference calls, the scheduled plan review meetings, and/or the meetings/conference calls of the implementation strategies group (project directors / project managers) or by the Senior Management Team.

8.10 Document Control Management

The management of the Document Management System (DMS) for the US 301 Project is the responsibility of Project Controls. Project Controls administers the Document Management System (DMS), including the routing and distribution of Project documentation. See Section 17.

8.11 Audit Plan

8.11.1 General Objectives of the Audit Plan

Overall Audit Oversight - The audit team and a coordinating group consist of the DelDOT Audit Unit, DelDOT Project Management, and FHWA. The overall audit objectives are to:

- Integrate and support project management oversight by US 301 Project Management Team;
- Provide independent audit assurance that GEC, SDCs, SICs and Contractors are compensated in accordance with the agreement and contract terms;
- Identify potential financial-compliance issues in early stages of the Project to facilitate timely corrective action;
- Support US 301 Management Team as needed.

The Delaware Department of Transportation's Audit section performed an interim audit, which covers the results of the audit of costs associated with the US 301, Maryland State Line to SR 1, State Project No T200511301, and Federal Aid Project No. NH-2006(018) for the period of July 1, 2004 to June 30, 2011. Work papers and findings associated with both the Prime Consultants and Sub Consultants are included in Audit Report No. 12-003, issued October 10, 2011. This report has been provided to the Federal Highway Administration.

Prior audit work, consisting primarily of pre-award risk assessments and pre-award memorandums, were considered individually, on a vendor by vendor basis, in the planning step and risk analysis of this project. In all prior audits, no findings were significant enough to alter the audit program or scope. Each Consultant was evaluated for the dates included in the supporting audit. This evaluation consisted of a review of direct labor, overhead, fixed fee, and expense documentation for every Prime and Subconsultant. DelDOT Audit reviewed the Terms of Agreement, DBE Status, and Notice to Proceeds for each Consultant pertaining to their particular agreement.

The conclusion of the Interim Audit report was that internal controls were adequately followed. The Audit Report covered $80,939,629.76 in expenditures and only had $19,586.47 in questioned costs. This represents 0.02% of the total expenditures. The next interim Audit report will be issued September 30, 2012.

8.11.2 Training for Project, Contract and Task Managers and Consulting Firm Staff

DelDOT's Audit Unit will regularly assess if formal or informal training on audit requirements and procedures would be beneficial to overall project administration, and if necessary coordinate or conduct such training. The Audit Unit will develop and document a comprehensive audit program for the construction phase of the project that addresses areas of compliance. The document will be provided to all project personnel.

On October 13, 2011, DelDOT Audit met with DelDOT Project Managers to discuss the Interim Audit Report. The Audit section provided guidance to Project Managers on the administration of the contract.

8.11.3 Construction Activities

8.11.3.1 Contractor Activities

- Agency Oversight:
  - Review of quantities as related to the fourteen (13) construction contracts as listed on Exhibit 2-3.
    - M&R Lab determines if the quality of the project materials meet the specifications and if the vendor is registered to provide the required materials.
    - The Construction Inspector records receipt of materials in the construction diary.
    - The Estimator maintains an inventory of materials and updates the Project Payment Tracking system.

- The Audit Unit verifies all above activities at the time of the audit or review.

- Review of DelDOT GEC, SDCs, SICs and Contractors payments:
  - Review of payments is made to ensure compliance with the contract terms.
    - Project payments are made based on percentage complete.
    - The US 301 Construction Director verifies the validity of contractor invoices and approved payments.
    - Finance processes payments.
    - The Unit group verifies payment accuracy at the time of the audit or review.

- DelDOT Audit Oversight:

DelDOT's Audit Unit will perform compliance audits annually and at the end of each construction contract.

Various DelDOT personnel ensure that the following activities occur throughout the project:

- Invoices are valid and mathematically accurate;
- Proper security is in place in project offices/trailers where Contractor estimates are prepared;
- GEC, SDC, SIC and Contractor records are maintained in accordance with US 301 Project policies and procedures;
- Activities performed and recorded by SIC staff and QA Oversight Engineers are properly reviewed;
- Payments are in accordance with procedures outlined in the Contract Documents;
- Project expenditures are appropriate and are properly coded as to federal/state participation;
- Contractors comply with Davis-Bacon Act;
- DBE participation is monitored and goals are being met;
- GEC, SDCs, SICs and Contractors comply with Federal and state public ethics provisions.

- DelDOT Audit staff will be assigned to work on the Project, annually, during the construction phase to perform the following activities:
  - Perform regular on-site reviews related to the construction effort;
  - Make recommendations for areas where improvements may be needed;
  - Communicate all findings and observations noted during the annual reviews and audits to the Construction Director, who will take action that may be deemed necessary.

- Project diaries will be reviewed quarterly by the US 301 Construction Director to determine the status of any issues and ensure that issues are resolved.

- Training for project managers, and construction managers on audit related requirements is provided as necessary.

8.11.3.2 Change Orders

- *Review and Approval Process:*

  Should Federal Funds be involved in the change order or should the change order affect the NEPA or the Record of Decision (ROD) aspects of the project or commitments, the US 301 Construction Director will notify FHWA of any change order requests. The change order request will be executed according to DelDOT's documented change order process.

- *Independent Audit Oversight:*

A review of the change order process is performed during the regular construction audits and reviews.

8.11.3.3 Claims

All claims will be submitted to DelDOT and follow the procedures outlined in the DelDOT standard specifications for road and bridge construction. Should Federal Funds be involved in the claim, the Construction Director will coordinate each decision with FHWA.

A summary of the claims procedure is outlined in Chapter 10.13 on page 10-11 of this document.

8.11.4 DBE Compliance

8.11.4.1 Agency Oversight

DBE compliance personnel will address all EEO issues that may arise on this Project. This includes, but is not limited to, the following:

- Reviewing requirements with the GEC, SDCs, SICs and Contractors, including subs;
- Taking appropriate action if fraud is suspected, including notification to DBE Compliance Manager;
- Verifying payroll checks performed by the GEC's Resident Engineer and staff.
- Resolving issues raised by Contractor employees with respect to treatment and pay.

The Construction Director provides oversight for all construction activities.

The Resident Engineers and Quality Oversight Engineers monitor DBE subcontractors on each contract to ensure the DBE's presence on the job and that they are supervising their own workforce in accordance with the terms and conditions of their approved subcontract.

US 301 Civil Rights Manager and staff perform periodic compliance reviews, ensures DBE goals are attained, investigates allegations of discrimination, and compares payments reported on Quarterly DBE reports to DBE canceled checks.

Additionally, payments made by DBE's to non DBE's are monitored for compliance with the DBE requirements.

The Interim Audit Report No. 12-003 issued October 10, 2011 provides a status of the DBE participation in the design phase as of June 30, 2011. The work on the design agreements is on-going and progress is being made on achieving the DBE goals. The status report indicates that the consultants are on track with meeting the goals.

8.11.5 Utility Audits

8.11.5.1 Agency Oversight

The US 301 Construction Manager in conjunction with the Utility Section of Engineering Support is responsible for processing any utility relocation tasks on the Project. This includes review of utility relocation project plans and budgets. DelDOT ensures that the relocation work is performed according to state and Federal requirements and that bills are timely submitted in the proper format.

Costs of any Utility relocations deemed reimbursable by DelDOT will be monitored in the field by the construction inspection staff. Subsequent billing by the Utilities to DelDOT will be reviewed by Construction and returned for payment with any comments to DelDOT's Utility Section.

8.11.5.2 Independent Audit Oversight

DelDOT's Audit Unit performs utility relocation project cost reviews and audits of bills,' for compliance with state and Federal requirements, when the utilities work is completed.

9.0 Design Management and Oversight

Project Management Plan

Federal Highway Administration

9.0 DESIGN MANAGEMENT AND OVERSIGHT

This section describes the approach, process, and responsibilities associated with managing the design activities of the US 301 Project.

9.1 ORGANIZATION

The Executive Policy Committee is providing the overall policy direction for the US 301 Project while the Senior Management Team is providing general project oversight along with administrative and technical advice to the Design Director, the key liaisons with the Senior Management Team, and the Design Manager. The principle responsibility for design management and oversight; however, falls on the Design Manager and the US 301 GEC, Rummel, Klepper & Kahl, LLP serving as the extended staff of the Design Manager. Under the general direction of the Design Manager, the Design Group is performing oversight, coordination, and management on a daily basis to assure all project design requirements are achieved. In addition, the US 301 Design Group will provide design support to the US 301 Construction Management Group personnel during the construction phase. DelDOT personnel may be assigned to work in the Design Group to augment project staff or for training purposes.

Specific organization for the management and oversight of the design elements of the US 301 Project are described herein.

9.2 DESIGN APPROACH

The Design Approach for the US 301 Project is a traditional Design-Bid-Build Approach and is following the traditional design, contracting and award processes established by DelDOT. The major difference from the US 301 Design Approach and a normal DelDOT project will be that the Project Manager is primarily utilizing consultant personnel under the US 301 GEC, instead of in-house DelDOT personnel, as her extended staff to oversee, coordinate and manage the Section Design Consultants (SDCs). The GEC and SDC services were procured in accordance with Delaware's Professional Services Negotiation Act, 29 Del C. Chapter 69, which is on the DelDOT website, at http://www.deldot.gov/information/pubs_forms/manuals/professional_services/index.shtml.

9.3 DESIGN STANDARDS AND CRITERIA

During the Project Development Phase of US 301, the Project Team and DelDOT developed and adopted Design Criteria and Standards for this Project. These standards and criteria provide a working foundation for design.

The design criteria define requirements for the SDCs design for all facilities including roadway, structures, utilities, landscaping, signals, lighting, signing, toll facilities, ITS and other components of the Project. The criteria and standards are provided in the various parts of the Road Design Manual, located at http://www.deldot.gov/information/pubs_forms/manuals/road_design/index.shtml, the Bridge Design Manual, located at http://www.deldot.gov/information/pubs_forms/manuals/bridge_design/index.shtml, and other appropriate DelDOT documents, located at http://www.deldot.gov/information/pubs_forms/, and project specific guidelines found in the US 301 Design Manual.

9.4 QUALITY ASSURANCE/QUALITY CONTROL

Quality Assurance/Quality Control (QA/QC) is not only an integral part of the design process by the SDCs but is also an important part of the overall design management process. The DelDOT *Quality Assurance/Quality Control Plan,* located on the DelDOT website, is the basis for a Design Quality Plan (DQP) for the project. The DelDOT Plan is being augmented by the GEC, Design Group and the SDCs,

as necessary, to ensure efficient and documented QA/QC of all the products produced during the design process.

9.5 DESIGN OVERSIGHT

Design Oversight is a primary responsibility of the Design Manager and the Design Group. The SDCs are responsible for the preparation of all construction plans for the section of US 301 assigned to each of them, while the oversight, coordination and management of all four firms is the responsibility of the Design Group. The Design Group works to ensure the SDCs apply the established uniform design standards, follow the established DelDOT Project Development and Design Process and produce all of the products required for a DelDOT design project.

9.5.1 Design Management

The GEC Consultant is providing an experienced project manager, design managers, and construction manager to DelDOT who are overseeing, coordinating and managing the design projects developed by the SDCs. These four GEC key staff are expected to represent DelDOT in a lead role for all phases of project management, design and construction. These managers are being assisted by discipline leaders for technical guidance in the areas of environmental and cultural resources, utility coordination, stormwater and drainage design, structure design, geotechnical design, traffic engineering, toll plaza design, and other specialty technical services, as required. The four GEC Managers and discipline leaders are known collectively as the Design Group. Specific duties of the Design Group include but are not limited to the following:

Project Administration

- Request Project Numbers from DelDOT's Finance Division.
- Request Project Funding from DelDOT's Finance Division.
- Provide project scopes and cost estimates to DelDOT's Finance Division for preparation of the annual CTP (Capital Transportation Program).
- Provide project cash flow projections to DelDOT's Finance Division, as required.
- Present projects to the PDC (Project Development Committee) to change the scope of a project or to advance a project from project development to final design (concept plan presentation).
- Prepare and review project schedules and forward them to Executive Policy Committee and Senior Management team, as required.
- Prepare project progress reports and forward them to the Executive Policy Committee and the Senior Management Team, as required.
- Serve as the DelDOT point of contact for any project related questions on cost estimates, funding or project schedules.
- Serve as the DelDOT mentor for new engineers and/or interns assigned by the Department to learn project management.

Consultant Administration

- Provide a review of SDC proposals for DelDOT by reviewing consultant contract scopes, man-hour requirements, and fee derivation.
- Provide a review of monthly SDC invoices for DelDOT by reviewing project progress, man-hours expended and calculation of the total cost.

- Ensure that the procedures followed by the SDC in hiring subconsultants, initiating work, purchasing material as a direct cost, and in conducting extra work, follow DelDOT's Consultant Control Procedures.
- Coordinate the technical work of the SDCs by holding regular meetings with the consultant, checking on project progress through conference calls and email, and, when necessary, scheduling meetings with various units within DelDOT, such as:

  - Planning
  - Traffic Engineering
  - Environmental
  - Real Estate
  - Quality Review
  - Construction
  - Materials and Research
  - Maintenance
  - Utilities
  - Hazmat Review
  - DTC
  - Others, as necessary

Management of Project Design

- Develop and coordinate the approval of the project concept plan package for each section design project by the PDC.
- Coordinate project public involvement activities during design.
- Serve as the DelDOT technical point of contact for all project related questions from the general public.
- Serve as the DelDOT point of contact for questions from residents who may be impacted by the project.
- Provide information to the appropriate DelDOT managers for responses to public officials, and the press. Serve as the DelDOT point of contact for these inquiries, if instructed to do so by DelDOT.
- Make presentations at meetings, workshops and to individuals.
- Make presentations of the project at the Resource Agency Meetings, as necessary.
- Represent DelDOT at meetings with outside agencies, such as:
  - State Historic Preservation Office (SHPO)
  - Department of Natural Resources and Environmental Control (DNREC)
  - US Army Corps of Engineers (USACE)
  - US Fish and Wildlife Service (USFWS)
  - Department of the Interior (DOI)
  - US National Marine Fisheries (NOAA Fisheries Service)
  - Environmental Protection Agency (EPA)
  - Delaware Department of Agriculture (DDA)
  - Office of State Planning Coordination (OSPC)
  - Local Governments
  - Metropolitan Planning Organization (MPO)
  - Federal Highway Administration (FHWA)

  - Utility Companies
  - Others, as necessary

- Prepare Technical Guidance Memoranda and Design Decision Guidance.
- Coordinate the preparation of plan submissions required by environmental permits.
- Coordinate the development of Preliminary Construction and R/W Plans.
- Review the Preliminary Plans, compile comments from all reviewers and organize the review meeting for the Project.
- Coordinate the development of the Semi-Final Construction and R/W Plans.
- Review the Semi-Final Plans, compile comments from all reviewers and organize the review meeting for the Project.
- Coordinate the development of the Final Construction and R/W Plans.
- Coordinate the preparation of design exception documentation, as necessary.
- Review and coordinate ADA compliance approval.
- Review and confirm that the project cost remains within the planned funding contained in the latest copy of the CTP and the US 301 Project Finance Plan.
- Coordinate the preparation of the Utility Statement, the Traffic Statement, and the Environmental Compliance Statement (and plan).
- Coordinate the preparation of the Right-of-Way Certificate.
- Review and Coordinate Stormwater Permit Approval.
- Coordinate the establishment of the contract construction time and schedule.
- Review project plan notes, specifications and statements for consistency.
- Submit project PS&E (Plans, Specifications and Estimate) to Contract Administration for advertisement of the project.

9.5.2 Design Coordination

Design coordination by the Design Manager and the Design Group is critical to insure DelDOT that the design for US 301 is prepared with consistent design practices and standards for all four design sections. It is DelDOT's desire that all design products match DelDOT's Model Plan Format and that all products produced, both in design and construction, have a similar appearance. To keep all the SDCs informed of the design standards to be applied and design practices being employed by each other, the Design Group has developed an Administrative and Technical Management Manual for the US 301 Project. This Manual contains contact information for the Design Group, each Section Design Consultant, and appropriate DelDOT and FHWA personnel. The Manual identifies the established design standards to be applied to the project and the procedures to be followed when questions on the application of standards arise. As questions on the interpretation of standards are answered, or if modifications of standards are necessary, Technical Memorandums are being prepared and distributed and to the SDCs and the Senior Management Team to make certain that all are aware and follow consistent guidance. Likewise, should guidance be needed on the design approach to be taken on various aspects of the project, Technical Memorandums are approved by the Design Manager.

The US 301 Administrative and Technical Manual was developed by the Design Group following initiation of the GEC contract and was distributed to the SDCs.. Technical Memorandums are issued electronically to make certain information is transmitted as soon as it is prepared. The Manual and the Technical

Memorandums generated by the project are available on the US 301 Document Management System (see Section 17) website.

9.6 PROJECT DESIGN

Project Design by the four SDCs is following the DelDOT Context Sensitive Design Process initiated during the Project Development Phase of the US 301 Project. Contact is being maintained with affected stakeholders through an open public process throughout design. Community, environmental and cultural resource issues are being considered and addressed along with technical engineering issues throughout the design process. Meetings are held to keep in touch with the community and small working groups will be appointed to work on specific design issues, if appropriate. The SDCs will participate in meetings as requested during the design process. The public process runs concurrently with the technical design process identified in the following paragraphs. The Context Sensitive Design Process is documented in Policy Implement is included on DelDOT's website, at http://www.deldot.gov/information/pubs_forms/manuals/livable_delaware/pdf/context_sensitive_design.pdf.

9.6.1 Preliminary Design

SDCs were provided a Concept Plan Package by the Design Group that contains a Concept Plan, Preliminary Cost Estimate and Preliminary Schedule for their design section. Using the US 301 Design Manual and the computed horizontal and vertical geometrics, the SDCs started their work with detailed ground surveys and developed Line and Grade (L&G) Plans that contain all existing topographical features, along with any existing surface facilities of governments or utilities, both within the proposed R/W and within 100 feet of each side of the proposed R/W. L&G Plans will contain all the information outlined in the DelDOT Plan Submission Checklist and the Model Plans.

In addition to topographic surveys, the SDCs developed the following for Structural Survey Plans:

1. Foundation Report – develop a boring location plan for each proposed structure, obtain structural soil borings and soil tests, perform a foundation analysis and prepare a Foundation Report recommending a foundation for the structure.
2. Hydraulic Report – a stream analysis to determine structural needs, waterway openings and bridge scour protection for all structures over water. Consideration must be given to 25, 50, 100 and 500 year events and the report must be submitted to DelDOT and other agencies for review and concurrence before preparation of the Type, Size and Location (TS&L) Plan for each structure.

Once approved by the Design Manager and the Design Group, the SDCs will distribute the L&G Plans to all identified governments and utilities and request they identify their underground facilities in the area of the topographic mapping. If necessary, the SDC obtains utility test pits to supplement the information provided by the governments and utility companies.

Upon completion of the L&G Plans and approval of the Design Group, the SDCs prepare Preliminary Construction Plans containing all information outlined in the DelDOT Plan Development Checklist, the Plan Development Process and the Model Plans. Included with the Preliminary Construction Plans is the Preliminary Cost Estimate which takes into account the major quantity items shown in the Preliminary Construction Plans. Also shown on the Preliminary Construction Plans is the preliminary right-of-way information and areas of proposed acquisition. Specific information on the property limits and areas of acquisition are not calculated at this stage of the process.

If Preliminary Structural Plans are included in the Preliminary Construction Plans, the SDC will submit the Type, Size and Location (TS&L) Plans for all structures. Prior to submission of the TS&L Plans, the SDC shall have already submitted and received DelDOT approval of the Foundation Report, the Hydraulics

Report and the Bridge Engineering Report on the most feasible structural solution for each location. All Structure Plans will be assembled utilizing the standards and procedures identified in the DelDOT *Bridge Design Manual*, which is on the DelDOT web site. www.deldot.gov/information/pub_forms/.

Preliminary Construction Plans are considered to be plans that are 50% complete. Once approved by the Design Group, distribution of the Preliminary Plans is made by the GEC to the DelDOT Preliminary Plan distribution list, local governments and utility companies with facilities in the project area. The SDCs also upload the plans to the US 301 Document Management System. Owners of utility lines are requested to design their relocation plans at this stage of the plan development process.

The final step in the Preliminary Plan Process is the Preliminary Plan Review. The Preliminary Plan Review Meeting is scheduled by the Design Group and is attended by the Section Design Consultant and appropriate DelDOT staff. Written comments are compiled by the GEC on the DelDOT comment form. Comments made both verbally or on marked plans are added to the comment form by the SDC and addressed in the preparation of the Semi-Final Construction and Semi-Final R/W Plans.

9.6.2 Semi – Final Design

SDCs continue to develop the project construction plans addressing all comments made in the Preliminary Plan Review. The SDCs maintain a list of all comments and record how the comment was addressed. If a comment cannot be accommodated, concurrence is received from the Design Manager and the Design Group and the reason is indicated in the response column on the list of Preliminary Plan Review Comments.

Semi-Final R/W Plans in accordance with the DelDOT Right-of-Way Manual and the Plan Development Process are completed first. These plans show the extent and character of any acquisition of right-of-way to the degree of accuracy required by DelDOT. All baselines, centerlines and right-of-way work will have been computed and shown on the plans. Semi-Final R/W Plans will be distributed in accordance with the DelDOT standard Semi-Final R/W Plan distribution list.

A meeting will be held with the Utility companies between the Preliminary and Semi-Final Plans to review utility relocation plans so proposed utility relocations and draft utility statements can be included in the Semi-Final Plan Submission.

Semi-Final Construction Plans are to be complete, containing all information outlined in the DelDOT Plan Submission Checklist, the Plan Development Process, and as shown on the Model Plans. Included with the Semi-Final Construction Plans is the Semi-Final Construction Cost Estimate developed from detailed quantity calculations, the Semi-Final Special Provisions, a CPM bar chart schedule following the DelDOT Scheduling Process, Semi-Final Design of all structures included in the project, a draft utility statement, and Semi-Final Stormwater Plans and Calculations.

Semi-Final Construction Plans are considered to be plans that are 85% complete. Distribution of the Semi-Final Construction Plans, once approved by the Design Group, is made by the GEC to the DelDOT Semi-Final Plan distribution list, local governments and utility companies with facilities in the project area. Owners of utility lines are requested to confirm their relocation schedule at this stage of the plan development process and submit their Utility Statement.

The final step in the Semi-Final Plan Process is the Semi-Final Plan Review. The Semi-Final Plan Review Meeting is scheduled by the Design Group and is attended by the Section Design Consultant and appropriate DelDOT staff. Written comments are compiled by the GEC on the DelDOT comment form. Comments made both verbally or on marked plans are added to the comment form by the Section Design Consultant and addressed in the preparation of the Final Construction and Final R/W Plans.

9.6.3 Final Design

SDCs complete the project construction plans addressing all comments made in the Semi-Final Plan Review. The SDCs maintain a list of all comments and record how the comment was addressed. If a comment cannot be accommodated, concurrence is received from the Design Group and the reason is indicated in the response column on the list of Semi-Final Plan Review Comments.

Final R/W Plans in accordance with the DelDOT Right-of-Way Manual and the Plan Development Process are completed first. These plans are approved for R/W Acquisition. During Acquisition the Design Section Consultant provides right-of-way property stake-outs, when requested. If a large number of comments are made on the Semi-Final R/W Plans, the DelDOT Plan Development Process allows for a resubmission of the Semi-Final R/W Plans, as Revised Semi-Final R/W Plans, before the Final R/W Plans are submitted. Should this additional submission be required, the Semi-Final Plan Review Process is repeated prior to the submission of Final R/W Plans. Final R/W Plans will be distributed in accordance with the DelDOT standard Semi-Final R/W Plan distribution list.

Final Construction Plans are completed containing all information outlined in the DelDOT Plan Submission Checklist, the Plan Development Process, and as shown on the Model Plans. Included with the Final Construction Plans is the Final Construction Cost Estimate developed from detailed quantity calculations, the Final Special Provisions, a Final CPM bar chart schedule following the DelDOT Scheduling Process and the Final Design of all structures included in the project.

Final Construction Plans are considered to be plans that are 100% complete. Distribution of the Final Construction Plans is made by the GEC to the DelDOT Final Plan distribution list along with a list of the comments made at the Semi-Final Plan review and notes on how each comment was resolved. A Final Plan Review is not normally held, unless there were substantial comments made at the Semi-Final Plan Review. A time period is allowed for final comments and, once addressed; the Final Plans are resubmitted as the Final Plans, Specifications and Estimate (PS&E) Package to be advertised by the DelDOT's Contract Administration Section.

9.6.4 Construction Consultation

Once the project is advertised for bids the SDCs are expected to provide construction consultation and review of working drawing services. These services typically include the following services:

- Preparation of plan addenda
- Analysis of bids.
- Attendance at Preconstruction and Construction progress meetings, as required.
- Responding to requests for information and/or interpretation of the project plans.
- Preparation of plan revisions
- Continuing to participate in public information and outreach.
- Review of contractor submitted shop drawings, which can include:
  - Review of contractor submitted fabrication drawings of structural steel, mechanical and electrical drawings, bar reinforcement lists, working drawings, designs, computations, details, etc.
  - Stamping contractor submitted plans to document that the fabrication drawings have been reviewed for conformance with the project plans and specifications.
- Review of Value Engineering proposals.
- Analysis of Construction Claims.
- Attendance a field meetings, as requested.

- Attendance at the Semi-Final Construction and Final Construction Field Inspections.

9.7 US 301 Project Implementation Strategies Group

The US 301 Project Implementation Strategies Group (Directors and Managers), in which FHWA is participating, is continuing to review project design and data to ensure the implementation of this major project occurs in an effective and efficient manner (see Project Management Plan – Design & Construction Project Managers and Project Directors). DelDOT proposes to fund the construction cost of the new US 301 Mainline with available GARVEE bond proceeds and toll revenue bonds (FY 2013) secured by a pledge of available TTF revenues.

9.8 Due Diligence Approach to US 301 Mainline Construction

9.8.1 Two-Step "Due Diligence" Approach

A two-step "Due Diligence" approach to the construction of the US 301 Mainline Toll Project is recommended. This "Due Diligence" approach involves securing bids on six US 301 Mainline construction contracts and updating the project Financial Plan based on these construction bids; updated traffic and revenue figures; updated cost estimates for the remaining four Mainline contracts, based on the six bids received; final bond rating; and market conditions, all prior to the sale of the Toll Revenue Bonds for the US 301 Mainline construction. This approach is consistent with funding goals and objectives established for the project to:

- Minimize the use of state transportation trust funds (TTF);
- Maintain/preserve DelDOT's excellent credit rating and capacity to sell TTF Bonds to fund CTP projects;
- Have those who use new US 301 pay for its construction; and
- Provide "due diligence" with respect to funding options before proceeding with construction.

9.8.2 Step 1 – "Due Diligence" Activities (September 2011 – December 2011):

Sep-Nov	Update cost estimates (completed)
Oct/Nov	Submit Design Refinements Report and secure FHWA approval (secured 12/7/11)
Nov	Updated Level 3 "Investment Grade" Traffic and Revenue (T&R) Report (completed 11/4/11)
Dec	Present updated Financial Plan, along with project and next steps/path forward to Secretary Bhatt (completed 12/1/11)
Dec	Present updated Traffic, Financial Plan and Next Steps / Path Forward to OMB/Finance (completed 12/6/11) and then Governor's office (completed 12/8/11)
Dec	Advise General Assembly of intent to use GARVEE proceeds to clear US 301 Mainline corridor of utilities, along with Next Steps including Peer Review of US 301 Mainline traffic projections and Financial Plan (completed 12/20/11)
Dec/Jan	Submit updated Project Management Plan to FHWA and secure FHWA approval (submitted 12/30/2011)
Dec/Jan	Submit updated Draft Financial Plan and secure FHWA approval (submitted 12/30/11) *Note: Approval subject to TIP modification*
Dec/Jan	Revise GARVEE Financing Agreement and Trust Agreement to permit use of GARVEE bond proceeds for construction – advanced utility relocations

9.8.3 Step 2 – "Due Diligence" (January 2012 – March 2013):

Jan 2012	Submit TIP change to WILMAPCO (use of $2.5 million GARVEEs for advanced utilities - construction)
Jan 2012– Feb 2012	Complete actions necessary to use GARVEE proceeds to fund advanced utility work ($2.5 million)
Jan 2012 – Jan 2013	Acquire Right-of-Way / Relocate Utilities
Jan 2012 – Apr 2012	Conduct Peer Review of US 301 Mainline Traffic Projections and Financial Plan
May 2012 - Jun 2012	Secretary provides General Assembly with time tables for project financing and construction

For purposes of the Draft Financial Plan update, it was assumed that the six US 301 Mainline contracts would be bid during the August – December 2012 period and that construction of the US 301 Mainline would begin in March 2013.

Jun 2012	Secure funding approval for US 301 Mainline construction
Aug 2012 - Dec 2012	Advertise / receive bids for six US 301 mainline contracts. Award Contract and conduct pre-NTP activities. See Section 9.9. Do not issue NTP. Contractors advised that NTP contingent upon approval of Final Financial Plan. Prepare to sell Toll Revenue Bonds during the construction bidding period.
Jan 2013 – Feb 2013	Upon receipt of bids for US 301 mainline contracts, complete Final Pre-Construction Plan of Finance (based on updated Traffic and Revenue Report, updated cost estimates, current Bond Market Conditions and final bond rating). If found acceptable by Secretary, sell Toll Revenue Bonds.
Mar 2013	Issue Notices to Proceed to six successful US 301 Mainline contractors.
2013 / 2014	Bid remaining four US 301 Mainline contracts

9.8.4 Bidding Major US 301 Mainline Construction Contracts

For purposes of the draft December 2011 Financial Plan update, it was assumed that the six US 301 Mainline contracts would be bid during the August – December 2012 period and that construction of the US 301 Mainline would begin in March 2012.

Contract	1D	2A	1A	1C	3	1B
Constr. Bid Est ($m)	$7	$87	$66	$20	$56	$33
Advertise	Aug 15 '12	Aug 15 '12	Sep 15 '12	Sep 15 '12	Oct 16 '12	Oct 16 '12
Open Bids	Oct 1 '12	Oct 1 '12	Nov 1 '12	Nov 1 '12	Dec 1 '12	Dec 1 '12
Sell Bonds / Award	Feb '13	→	→	→	→	→
Notice to Proceed	Mar '13	→	→	→	→	→

Notes:

- Advertise/open bids, at same time, for a large contract and a small contract.
- Bid larger contracts early (2A and 1A) - provides earlier indication of final Financial Plan feasibility.
- 90% of US 301 Mainline construction bids known prior to selling Toll Revenue Bonds.

9.9 PS&E TO CONTRACTOR NTP ACTIVITIES

9.9.1 PS&E Submissions (Project Team / Contract Administration)

- Final Plans and Engineers Estimate to PS&E coordinator for final bid package preparation. Goal is to have the PS&E packages ready for advertisement by August 2011, so that all efforts can be focused on contractor questions and award letters.
  - Transport package to be developed by DelDOT, based on PS&E submission.
  - Final Review of Engineer's Estimate by Section Designer and GEC.
  - Final Transport package developed by DelDOT and sent to PS&E coordinator, SDC and GEC.
  - Obtain concurrence on Wage Rates from Department of Labor (2012).
  - Assume that demolition of buildings (which could require heavy construction wage rates) will occur under DelDOT Real Estate process prior to and not as part of US 301 Mainline contracts.
- Any changes that occur between the Final Plan submission and submission to PS&E, or after PS&E throughout the advertisement process, will require that the plans be re-submitted to the sections affected by the change (to be re-submitted to Construction in all cases). After awarding the project, a complete set of plans including any revisions is to be re-submitted to the GEC for distribution to utility companies.

9.9.2 Advertisement / Bidding Period (Project Team / Contract Administration)

- GEC to provide support personnel to Contract Administration and Construction, during the period between PS&E and contractor NTP (Jul 2012 – Feb 2013). GEC to provide personnel to Contract Administration to be trained to conduct quality check of bids – maybe someone who is handling the contractor questions.
- Do not want US 301 to affect other CTP projects.
- Do not use the term "must submit at time of bid", unless absolutely necessary. Do not want a contractor disqualified for not submitting an item that is not important at the time of bid submission and could be submitted within 10 days of the bid submission (this does not apply to breakout sheets.
- Any requirements regarding "special/unique experience" needs - to be shown upfront in the Notices to Bidders.
- Need to check statutes regarding availability of bid tabs.
- Pre-bid meeting. This meeting is held for the benefit of prospective bidders to discuss complex tasks included in the contract plans. The pre-bid meeting will be held as part of the January pre-advertisement meeting to inform the contracting community about the US 301 Mainline construction contracts. This meeting will address and satisfy all pre-bid meeting requirements, including those associated with building structures, toll facility cabinets, etc. It is further

anticipated that plans for the US 301 major Mainline construction contracts will be made available to the contractors in electronic form, for informational purposes only.

- After the project has been advertised it is important for the Design Manager, Construction Administration, GEC, Section Designer to be available to Contract Administration to answer any questions prospective bidders may have with regards to the plans. It is important for any questions to be answered immediately as any delay may result in a delay in taking bids for the project. Should any questions result in the need for an addendum to the project, it is important for the Project Team to closely coordinate with Contract Administration to determine when the addendum needs to be completed to avoid a delay in taking bids.
  - Need to develop a process to handle the questions that will come from the contractor since a large number of questions is expected for these jobs.
  - Do we provide a cut-off date for contractor questions, in order to avoid a bid opening delay?
  - Determine personnel needed to coordinate the influx of questions and route to the proper person
  - In the case that an addendum is contemplated, the GEC and DelDOT (with input from Section Designer) must perform a cost benefit analysis to determine if it is cost effective to do an addendum. Alternately, make responses to bid questions part of contract documents and include confirmation requirement in bid documents that contractor has reviewed responses and considered them in his bid.
  - Contractor to submit bid on paper and on a disc.

9.9.3 Evaluation of Bids

- Once the bids are received and opened, Contract Administration forwards the bids to the Project Team for their review. The bids are forwarded with a date that the review is required to be completed by. It is important to complete the review by this date, so that no delay in awarding the contract will be incurred, so that unsuccessful bidders have maximum opportunity to bid other US 301 Contracts. (Also see discussion below under Project Development regarding the bid review process).
- Upon receipt of the bid tabulations, the Project Team will perform a bid tabulation analysis. This analysis must be performed in a timely manner. This analysis is performed to insure that awarding the project to the low bidder is in the best interest of the Department, and that the bid is not considered unbalanced. This analysis should include a comparison of the low bidder's unit prices with the other bidders for the project, as well as a comparison with historical bid data to insure the low bidders unit prices are within the historic range. Any irregularities in the low bid prices require a check of the calculated quantity for that item to insure the quantity is true and correct. The bid tabulations should also be provided to the appropriate construction personnel for their review and concurrence.
  - Establish a Committee to review the bids consisting of representatives from DelDOT Project Development, DelDOT Construction, GEC and SDC.
  - Bid tabulations from Contract Administration due within one week from bid receipt, including identification of any irregular bids.
  - Review and recommendation to award completed within one week.
  - Deputy AG must be available to assist, in a timely fashion, in the resolution of irregularities, etc.

- Project Team Leader will publish (post to website?) list of bidders, TOTAL price only, and identifying apparent low bidder prior to next bid due date.

- When it is determined that the bids are acceptable, the Project Team Leader will send a recommendation to award letter to the Finance section, and copy the Contract Administration section. Award letters should be completed as soon as possible. If the bids are determined to be unacceptable, immediate consultation with the Contract Administration section is required to determine the appropriate path forward.
  - The GEC will develop the award letter to be reviewed by DelDOT.
- If any stipulated statements were required to advertise the project, it is the Design Manager's responsibility, in conjunction with the appropriate section, to make sure any outstanding right of way or environmental issues are addressed. Revised statements are required to remove or address all stipulations, and the revised statement must then be agreed to by the successful bidder and added to the award package as soon as possible.

9.9.4 Award

- Award must occur within 30 days of bid opening.
  - Title 29, "*The contracting agency shall award any public works contract within 30 days of the bid opening to the lowest responsive and responsible bidder……."*
  - DelDOT Specifications: *103.02* ***Award of Contract.*** *The award of the Contract will be made within 30 days after the opening of the proposals to the responsible bidder who submits the lowest responsive proposal. The successful bidder will be notified In writing, mailed to the address indicated on the proposal, of the acceptance of the proposal and the award of the Contract. ….*
  - *Need to review contract language in Section 108.11 to ensure limited financial liability if project is canceled (see below).*
  - *Need to review code requirements regarding bid tabulation availability.*

9.9.5 Bid Bond & Performance Bond

- DelDOT Specifications: *103.04:* ***Return of Proposal Security.*** *Proposal securities, except that of the lowest bidder, will be returned upon award of the Contract, but in no event, later than 30 days after opening of the bid proposals. The retained proposal guaranty of the lowest bidder will be returned after satisfactory Contract performance and payment bond has been furnished and the Contract has been executed. A Contractor will not be released from this obligation because of an alleged error in the presentation of the proposal unless the Department retains the proposal guaranty.*
- Title 29, "*The successful bidder shall execute a formal contract within 20 days of the award of the contract……. The successful bidder shall also provide a bond as required in Subsection (d)(8) of this section within 20 days of being notified, in writing, of the acceptance of the proposal of the successful bidder after the award of the contract."*
- DelDOT Specifications: *103.05:* ***Performance and Payment Bonds.*** *Simultaneous with the execution of the Contract the successful bidder shall furnish a surety bond or bonds in a sum equal to 100% of the Contract price to the State……..*
- DelDOT Specifications: *103.06:* ***Execution and Approval of Contract.*** *The successful low bidder shall return the signed Contract and Contract Bond to the Department within 20 days after the notice that the Contract has been awarded. If the Contract is not executed by the Department within 15 days following receipt of the signed Contracts and Bonds, the bidder has the right to*

withdraw the bid without penalty. The Contract will not be considered effective until it has been fully executed by all parties to the Contract.

- DelDOT Specifications: *103.07:* ***Failure to Execute Contract.*** *Failure by the successful bidder to execute the Contract and file an acceptable bond within 20 days after notice of award shall be considered a revocation of the notice of award and forfeiture of the proposal guaranty to the Department. Contract award may then be made to the next lowest responsive bidder or the work may be readvertised.*

9.9.6 Termination of Contract

108.11 Termination of Contract. The Department may, by written order to the Contractor, terminate the Contract or any portion of the Contract when such termination would be in the best interest of the Department. In the event such termination occurs without fault and for reasons beyond the control of the Contractor, all completed items as of the date of termination will be paid for at the Contract price. Payment for partially completed and eliminated work will be paid for as provided in Subsection 109.06. Acceptable materials, obtained by the Contractor for the work, but which have not been incorporated therein, may, at the option of the Department, be purchased from the Contractor at actual cost delivered to a prescribed location, or otherwise disposed of as mutually agreed. After receipt of notice of termination from the Department, the Contractor shall submit, within 60 days of the effective termination date, its claim for additional damages or costs not covered above or elsewhere in these Specifications. Such claim may include such cost items as reasonable idle Equipment time, mobilization efforts, uncompensated bidding and project investigation costs, overhead expenses attributable to the Project terminated, legal and accounting charges involved in claim preparation, subcontractor costs not otherwise paid for, actual idle labor costs if work is stopped in advance of the termination date, guaranteed payments for private land usage as part of original Contract, and any other cost or damage item for which the Contractor feels reimbursement should be made. The intent of negotiating this claim would be that an adjusted figure be reached with the Contractor. In no event, however, will loss of anticipated profits be considered as part of any settlement. The Contractor agrees to make its cost records available to the extent necessary to determine the validity and amount of each item claimed. Termination of the Contract or portion thereof shall not relieve the Contractor of its contractual responsibilities for the work completed, nor shall it relieve the surety of its obligation for and concerning any just claim arising out of the work performed.

SUGGESTED CHANGES

- The highlighted text above is a concern, i.e. if there is a decision not to proceed with the project, at this time, after the contractor has completed requested Award to NTP activities, the language requires negotiation of costs due to contractor. To address this concern, it is recommended that a fixed cost bid item be included in the contract for advance work, i.e. those activities DelDOT wants the contractor to undertake between Award and NTP. Need to develop language / have reviewed by Deputy AG, et al.
- One of the advance work items is shop drawing and material submittals, so would need to make sure that either these are approved but purchase is not approved or hold issuing the final approval until get the final concurrence from the Secretary.
- Will need to review and possibly revise the Field Office Spec also, since it indicates that it has to be in place before work begins and getting that set up in a short period of time may be difficult.

9.9.7 Construction

- Upon completion of the advertisement process, an apparent low bidder is recognized, and executed contract and performance and payment bonds are finalized, a preconstruction meeting will be scheduled by the Regional Group Engineer for Construction. The preconstruction meeting

will involve Construction personnel, the project team leader for project development, GEC, Section Designer, the selected Construction Inspection firm, if applicable, utility companies, all required support sections, and the contractor. A separate Utility Preconstruction Meeting will be scheduled, if appropriate. This meeting will serve as a transition of project team leader responsibilities from Project Development to Construction. The project team leader for project development and GEC will need to remain available to attend progress meetings, answer construction questions, or provide assistance to complete the construction of the project.

- Contractor's schedule of work (CPM)
- Other items that can be completed before the Notice to Proceed (see Successful Contractor – Bid Opening to Award/NTP Activities below).

9.9.8 Advance Contractor Activities

- A Special Provision item would be developed to identify those activities that should be completed by the successful contractor between Award and NTP (Notice to Proceed). This item would be the only work that the contractor would be authorized to perform prior to the Final Financial Plan Approval.
- The extent of staffing & costs required by DelDOT, GEC, SDC's and Consultant Inspection will depend in part on the extent of the advance contract services to be performed.
  - Look-ahead CPMS (60 days) submitted/approved
  - Completed CPMS (Entire Contract) begin preparation
    - Milestones and key dates identified
  - Subcontractors submitted or a statement that No Subcontractors are to be used – DelDOT Approvals of Submitted Subcontractors
  - Material sources of supply submitted - DelDOT Approvals and Requirements
  - Contractor staging areas identified
  - Contractor monthly payment charts (Spend Plans) provided
  - Contractor to provide key staff list with phone numbers, email, and cell phone numbers
  - Contractor to identify disposal sites, have DNREC approvals
  - Contractor to request and receive ½ size and full size plan sets as needed
  - Contractor to request and receive electronic files as provided for on the contract plans
  - Contractor to attend pre-construction meeting held prior to NTP
  - If FHWA participation
    - Trainees identified
    - DBE goals met
  - ATSSA persons or person – Identifies and Confirmed
  - CCR persons or person – Identified and Confirmed
  - Contractor to obtain all hard copies of the required permits from DelDOT
  - Contractor must review Right of Way Statements provided in the Special Provisions
  - Contractor need to attend a Pre Construction Utility Meeting with the various utilities within their contract prior to NTP

- Contractor provides MOT Compliance Statement for these devices. Provide an opportunity for DelDOT or Consultant Inspections of those devices
- Contractor to submit proposed changes to the Construction sequence plans
- Contractor set up Advance Notice VMS's, Detour Signs, and MOT Signs as required—discuss with regards to timing of available funds and NTP.
- Contractor submits shop drawings for Long Lead Time Items. DelDOT should establish a procedure of shop drawing review – Flow Chart, Number of Copies, Key Staff, Etc. Goal is to have approved shop drawings. Order materials after Final Financial Plan approval.
- Contractor to work with the GEC and DelDOT to set up secure websites for review of shop drawings, responses to RFI's, change orders, etc.
- Contractor to have borrow sources site plans approved.
- Contractor to work with the GEC and DelDOT to assign Estimate Close Out Dates
- Survey
    - Contractor to agree with original ground as shown in the cross sections and contour grading plans
    - Contractor must notify GEC and DelDOT of any discrepancies
    - Contractor should inform the Inspection Staff of their intent to use or not use Automated Grade Control Equipment
- Inspection Consultant must have been selected and the contract staffed.
- Contractors shall submit the ten (10) days work schedule.
- Field Offices – Contractor will provide the following per field office's special provisions:

    - Computers
    - Copiers
    - Electric
    - Furniture
    - Paved Parking
    - Site Plan
    - Trailers
    - Phones
    - Sanitary
    - Water

    - The contractor would not establish a field office until sale of Toll Revenue Bonds.

9.10 UTILITY COORDINATION

Since private and public utilities share the public highway right-of-way, adjustment of utility lines is almost always required in a major highway project. Design coordination of the project with area utility lines begins early in the design process, as soon as L&G Plans are complete. Information is gathered on existing and planned facilities and the impact of the project on the surrounding utility lines is a strong consideration at each phase of the design process. A design objective for each of the Section Design Consultants will be to minimize the cost of utility relocation and the disruption of utility service, whenever possible, regardless of whether the relocations are project costs or private utility costs. Detailed information on the Utility coordination process can be found in the DelDOT *Utility Design Manual*, which is on the DelDOT web site. www.deldot.gov/information/pub_forms/.

On the US 301 Project, a member of the Design Group will be responsible for coordinating with the Utilities Section and ensuring that utility companies provide information on existing facilities at the L&G

Plan stage and proposed relocation designs at the Semi-Final stage as required by DelDOT coordination procedures. As much as possible, the Design Group will attempt to secure advance utility relocations to ease highway construction at a later date.

9.11 CONSULTANT AGREEMENTS / PAYMENTS

The GEC Consultant and the SDCs will be paid based on negotiated Consultant Agreements. The Agreements are Cost/Plus Agreements, which means payment is being made based on actual labor costs, direct costs, company overhead and a negotiated fixed fee or profit. Costs are being paid on a monthly basis and profit paid as a percentage of the work completed. All Agreements are governed by an Upset Limit based on DelDOT's estimate of the total cost of the services requested of the consultant.

Work required of the GEC or the SDCs that is outside the terms of the original Agreement requires an executed Supplemental Agreement to cover the additional work. When approved, the cost of the Supplemental Agreement is added to the upset limit of the Agreement and the additional work paid monthly, as part of the monthly payment to the consultant. DelDOT's normal consultant contract negotiation and contract administration process is being followed for all agreements and this process is detailed in DelDOT's *Professional Services Procurement Manual* which is found on the DelDOT web site. www.deldot.gov/information/pub_forms/.

10.0 Construction Management and Oversight

Project Management Plan

Federal Highway Administration

10.0 CONSTRUCTION MANAGEMENT AND OVERSIGHT

This Section describes the approach, process, and responsibilities associated with managing the construction activities of the US 301 Project.

Should construction not be funded with Federal Aid then FHWA involvement will be limited to assuring project compliance with the NEPA and the ROD documents (see Appendix A).

10.1 ORGANIZATION

The Executive Policy Committee provides the overall policy direction for the US 301 Project while the Senior Management Team provides general project oversight along with administrative and technical advice to the Design and Construction Project Director and Design and Construction Managers. The Design and Construction Project Directors are the key liaisons with the Senior Management Team and key advisors to the Managers. The principle responsibility for construction management, however, falls to the Construction Area Engineer and the General Engineering Consultant (GEC) hired to serve as the extended staff of DelDOT. Under the day to day direction of the Project Manager, the Construction Management Group performs oversight, coordination and management of the construction projects. Section Inspection Consultants selected by DelDOT provide on-site construction inspection staff to supplement the DelDOT inspection staff with support from the DelDOT and the Construction Management Group.

In addition to construction oversight, the US 301 Construction Management Group provides design support to the US 301 Design Group personnel during the design phase by providing early input to construction plans, participating in the writing of special provisions, assisting with the development of construction phasing and timing, and reviewing plans for constructability.

Specific organization for the management and oversight of the construction management elements of the US 301 Project is shown in Section 4 on Exhibit 4.7 and are described herein.

10.2 CONSTRUCTION MANAGEMENT APPROACH

The Construction Management Approach for the US 301 Project will be a traditional Design-Bid-Build Approach and will follow the design, contracting, award and construction processes established in DelDOT. The major difference from the US 301 Design Approach and a normal DelDOT project will be that the Design and Construction Project Directors will utilize GEC personnel, instead of in-house DelDOT personnel, as extended staff to oversee, coordinate and manage the Project Construction. DelDOT personnel may be assigned to work with either the Construction Management Group or the Section Inspection Consultants.

10.3 CONSTRUCTION MANAGEMENT PROCEDURES

Construction Management Procedures for the US 301 Project will follow the DelDOT *Construction Manual* (http://www.deldot.gov/information/pubs_forms/manuals/construction_manual/index.shtml) and the *Delaware Standard Specifications 2001* (http://www.deldot.gov/information/pubs_forms/manuals/standard_specifications/index.shtml), including all *Supplemental Specifications*. All of these documents are available on the DelDOT web site www.deldot.gov under the Publications folder.

10.4 QUALITY ASSURANCE/QUALITY CONTROL

Quality Assurance/Quality Control (QA/QC) is not only an integral part of the construction process by the Project Contractors but is also an important part of the overall construction management process. DelDOT's Materials and Research Section will coordinate with DelDOT's Construction Inspection staff to enforce applicable QA/QC testing procedures on site and in the producer's plants. This will involve

testing and placement of all construction materials including hotmix, concrete, soil cement, aggregates, soils, structural steel, precast concrete elements, etc. Established specifications and procedures are anticipated to be followed on the US 301 corridor projects with no major changes. The testing procedures are documented in the Materials and Research Manual.

10.5 CONSTRUCTION OVERSIGHT

Construction Oversight is a primary responsibility of the DelDOT Construction Director, Construction Area Engineers and the Construction Management Group. The GEC consultant or DelDOT will be responsible for providing Resident Engineers/Project Supervisors for each of the projects to be constructed. The individual, on-site, construction inspection staff will be provided by the Section Inspection Consultants (SICs) and will report to the Project Resident. The Project Resident will be responsible for the on-site oversight, coordination and management of the Project Contractor and the Section Inspection Consultant staff assigned to the project.

10.5.1 Construction Management

The GEC provides central office project managers, technical specialists and on-site Resident Engineers/Project Supervisors to DelDOT to oversee, coordinate and manage the construction projects. The GEC is supported by the Section Design Consultants. The Construction Director, Construction Area Engineer and Project Resident will provide a lead role in managing all phases of project construction from award of the project to completion of construction and project close out. The Project Resident will be supported by other Discipline Leaders or technical personnel, in the areas of stormwater and drainage, structures, geotechnical, traffic engineering, toll plaza electronic systems, and other specialty technical services, as required. The Construction Management Group includes DelDOT and GEC personnel. The Construction Group includes DelDOT, GEC and SIC. Specific duties of the Construction Management Group will include but will not be limited to the following:

<u>Project Administration</u>

- Process monthly progress payments submitted by Section Inspection Consultant field staff.
- Negotiate project change orders and unit prices for new materials.
- Request Project Funding from DelDOT's Financial Plan Manager for construction change orders.
- Provide project cash flow projections to DelDOT's Financial Plan Manager, as required.
- Prepare and review project construction schedules and forward them to Executive Policy Committee and Senior Management team, as required.
- Prepare project progress reports and forward them to DelDOT management and the Corps of Engineers, as required.
- Serve as the DelDOT point of contact for any project related questions on construction issues and construction schedules.
- Serve as the DelDOT mentor for new engineers and/or interns assigned by the Department to learn construction management.

<u>Consultant Administration</u>

- Provide a review of Section Inspection Consultant proposals for DelDOT by reviewing consultant contract scopes, man-hour requirements, and cost derivation.
- Provide a review of monthly Section Inspection Consultant invoices for DelDOT by reviewing project progress, man-hours expended and calculation of the total cost.

- Ensure that the procedures followed by the Section Inspection Consultant in hiring subconsultants, initiating work, purchasing material as a direct cost, and in conducting extra work, follow DelDOT's Consultant Control Procedures.

Management of Project Construction

- Direct and coordinate project inspection personnel through the on-site Resident Engineer.
- Provide guidance through Technical Specialists to the construction field personnel.
- Coordinate project public involvement activities, with Public Relations Manager.
- Serve as the DelDOT technical point of contact for all project construction related questions from the general public.
- Provide information to the Public Relations Manager for responses to public officials, and the press. Serve as the DelDOT point of contact for these inquiries, if instructed to do so.
- Make presentations at meetings, workshops and to individuals.
- Coordinate the preparation of project progress reports required by environmental permits.
- Coordinate with utility companies to make necessary utility adjustments during construction.
- Coordinate with DelDOT M&R for material testing and inspection during construction.
- Review and confirm that the project cost remains within the planned funding contained in the latest CTP and the US 301 Project Finance Plan.
- Oversee the Contractor's compliance with provisions contained in the Utility Statement, the Traffic Statement, and the Environmental Compliance Statement (and plan).
- Review and Coordinate adherence to the provisions of the Stormwater Permit.
- Coordinate Partnering meetings with the contractor and inspection personnel.
- Identify and document potential claim issues.
- Schedule and coordinate the Semi-Final Inspection.
- Prepare and monitor the completion of the project's Final Punch List.
- Schedule and coordinate the Final Inspection.
- Coordinate the preparation of the final audit and payment.

10.5.2 Design Coordination

During the design phase of the project, the Construction Management Group works with DelDOT and the Design Group by reviewing construction plans for constructability, reviewing construction quantities, reviewing and/or writing construction specifications, and in estimating the time period required for construction operations. The Construction Management Group and the Design Group work together with DelDOT staff and the Design and Construction Project Directors to produce a comprehensive set of bid documents that permit an efficient and timely completion of the project.

10.5.3 Project Construction Inspection

Project construction inspection is a joint effort between the Construction Management Group and the Section Inspection Consultants. The Construction Management Group or DelDOT will provide five Resident Engineers/Project Supervisors to serve as the five on-site construction inspection managers. Working for the Project Resident staff, the four Section Inspection Consultants will be assigned to the

individual projects within their assigned section. Discipline Leaders or general technical specialists will assist the field staff as needed. Discipline Leaders or technical engineering specialists may be GEC Consultant personnel, Section Inspection Consultant personnel or DelDOT personnel.

10.5.3.1 Project Start-up

The Construction Phase of a DelDOT project begins with Award of the project and execution of the Contract by the Contractor. In Delaware the Contractor has 20 days to sign the Contract and return it to DelDOT. Once all parties have executed the Contract, it is considered effective, and a Partnering Meeting, if recommended, and a Preconstruction Meeting is scheduled by the Construction Area Engineer.

The Preconstruction Meeting is a prerequisite for issuance of the Notice to Proceed with the work. The Preconstruction Meeting allows the Construction Area Engineer and the Construction Management Group to discuss the following:

- Briefly review the scope of the project,
- Advise the Contractor of State policies and specifications that may be unfamiliar,
- Discuss potential construction difficulties and specialty items,
- Review the Contractor's proposed method and schedule of operations, and
- Coordinate the Contract activities with utility companies and other interested parties.

The Contractor is required to submit its Schedule of Work to the DelDOT Construction Area Engineer, prior to the Preconstruction Meeting. The Contractor's Traffic Control Plan is usually submitted at the Preconstruction Meeting and must be submitted prior to the start of any work. In general, the Contractor also submits a list of proposed material sources and anticipated subcontractors at the Preconstruction Meeting. A list of normal attendees along with the standard agenda and procedure for recording minutes appear in the DelDOT *Construction Manua*l.

Following the Preconstruction Meeting, providing that all requirements are met, the Project Construction Area Engineer issues the Notice to Proceed. The items that must be complete in order for DelDOT to issue a Notice to Proceed are as follows:

- Contract must be executed.
- Preconstruction Meeting must have been held and the minutes on file.
- Right-of-Way Provisions on file.
- Utility Issues on record.
- Contractor's Schedule of Work on file and approved.
- Submission of material sources and approval of the sources.
- Submission of proposed subcontractors and documentation that DBE goals have been met.
- Completion of any special preliminary requirements for a particular contract.

Once the above listed items have been completed the official Notice to Proceed can be issued. The Notice to Proceed specifies the date, on or before, which the Contractor is expected to begin work. Time charges will be based on the date work begins or the date specified in the letter, whichever comes first.

10.5.3.2 Project Construction Inspection

Once Construction begins the work is governed by the Bid Proposal, the construction plans, standard detail plans and the DelDOT *Standard Specifications for Road and Bridge Construction 2001* as amended. The Bid Proposal is a bound book that contains the General Description, General Notices, Supplemental Specifications, Special Provisions, and the Bid Proposal Form. Should a discrepancy between two or more Contract documents occur, governing ranking is:

- General Notices
- Pay Units in the Bid Proposal
- Plans
- Cross Sections
- Special Provisions
- Supplemental Specifications
- Standard Construction Details
- Standard Specifications

Upon the initiation of construction activities, the on-site construction staff, consisting of the Project Resident and the project inspectors from the Section Inspection Consultant, begins their work. Starting with the first chargeable day, the daily events are recorded in the Construction Diary, which is considered the official record of the project. The daily reports in the Diary are compiled by the individual inspectors from the Section Inspection Consultant and the on-site Project Resident. Usually the Diary includes the following information:

- Weather information,
- The nature and location of all work
- Personnel and equipment employed,
- Materials received or approved,
- Oral and written instructions or approvals given to the Contractor,
- Milestone dates, such as traffic pattern shifts or partial opening of the Project,
- Visitations to the Project site by Department personnel,
- Important Contract dates, such as Award Date and first day of work,
- Other important information.

In addition to the Construction Diary other important records are to be kept by the field personnel assigned to the project. These records are as follows:

- Preliminary Records – these include the Bid Package, the Plans, the Standard Specifications, Environmental Permits and other preliminary records developed or obtained in the field.
- Progressive Records - these include formal procedure records such as the Award letter, minutes of the Preconstruction Meeting, Notice to Proceed, Weekly Reports, Change Orders, etc. plus material delivery records and performance records.
- Production Records – these include pay item measurements such as the Source Documents, Computation Books, Estimate Books, Ticket Books, etc.
- Final Records – these records include the Construction Diaries, the As-Built Plans, Change Orders, Source documents, and the final Progressive and Production Records listed above.

As work progresses on the project, the project inspection team, headed by the Project Resident, inspects the Contractor's work on a full time basis, prepares daily reports of project activities and maintains all official records identified above. Project inspectors will be expected to spend most of

their time in the field inspecting the Contractor's work and enforcing all applicable plans, specifications and other contract provisions. Inspectors are expected to exercise "construction control", which means using a combination of experience, training, judgment and common sense in inspecting the construction of a project from beginning of construction until the end. When needed, project inspectors call in Discipline Leaders or Technical Specialists to assist them in making unusual or complex field decisions. Inspectors are encouraged to photograph progress on all phases of the construction and are expected to enforce the DelDOT rules for personal safety.

In addition to the daily oversight of the construction activity, the field staff will also serve a role in the public relations effort for the project. Field personnel will be in constant contact with the public and will play an important role in identifying issues and channeling them to the appropriate individuals to answer or resolve them. On larger projects, as part of the Department's "Context Sensitive Solutions" process, it is possible that a Construction Working Group will be appointed. If one is appointed, it is likely that the group will meet on the project site, usually in the construction field office, on a regular basis. The Project Resident will schedule and chair the Working Group regular meetings.

10.5.3.3 Project Closeout

Once the Contractor believes it has completed all items of work in accordance with the Contract, it will inform the Department. The Department through the Construction Area Engineer and the Construction Management Group will conduct a Semi-Final Inspection of the work completed. During this inspection the Project Resident will develop a list of items that require correction. Once the corrections identified during the Semi-Final Inspection are corrected, the Construction Area Engineer schedules the Final Inspection to verify that the project can be occupied and used as intended. Attendees and procedures for the Final Inspection are listed in the DelDOT *Construction Manual*.

Following the Final Inspection the Construction Area Engineer prepares a Letter of Acceptance for the signature of the DelDOT Director of Maintenance and Operations. This acceptance relieves the Contractor of any further construction and maintenance responsibilities. The Acceptance Letter will be issued when all Final Punch List items have been completed to the satisfaction of the project Resident. Final payment to the Contractor will subsequently be made upon receipt of all Subcontractor Releases, a release from the Contractor's Bonding Company, submission of a General Contractor's Release, and agreement on all final quantities and outstanding contractual issues. Issuance of a "Final Estimate" will signal DelDOT Finance Section to perform any necessary audits and un-encumber any remaining contract funds.

10.6 CONTROL OF MATERIALS

Materials are defined in the DelDOT *Standard Specifications for Road and Bridge Construction* as "any substances other than equipment used in the construction of the project." This includes both temporary materials used for construction and materials that become a permanent part of the project. For US 301, as with all DelDOT projects, material approval is given by the Materials and Research Section and is categorized into four general types:

- Approval of the source of materials.
- Satisfactorily passing preliminary tests or approval of certified analysis.
- Satisfactorily passing of job control tests.
- Satisfactorily passing random sampling tests.

Sources of materials should be approved well in advance of the time of use and ideally are approved prior to the Notice to Proceed. The Materials and Research Section approves the source of materials by letter to the Contractor. Copies of this letter should be maintained in the project records by the inspection staff. After the source has been approved and before they are delivered to the project, the materials will undergo preliminary testing. Test results along with the Materials and Research approval should become part of the project records maintained by the inspection staff. Final approval of all materials, however, is always dependent upon satisfactory performance in the field. Proof of a materials satisfactory performance comes from field testing which can be classified into the following categories:

- General observation of the material's performance as witnessed by the inspector or other qualified DelDOT employee.
- Job control tests
- Random sampling tests

The Project Resident is responsible for making certain that inspectors keep detailed records of all tests, procedures used, results and the relationship of each test to others. A graphical record must be maintained identifying the location of all tests, whether passing or failing, and whether the test was a job control test or a random test. Marking test locations and results on a separate set of plans is the preferred DelDOT method for recording these tests. Detailed policies and procedures relating to material approval are found in the DelDOT *Materials and Research Manual,* which can be found on the DelDOT web site at www.deldot.gov/information/pubs_forms/.

10.7 SUBCONTRACTING

The Contractor may secure an additional contracting firm (subcontractor) to perform a portion of the project construction. If a Contract requires DBE participation, it is generally through the use of a subcontractor. When a contractor desires to sublet a portion of its contract, the subcontractor must be approved by the DelDOT Construction Project Supervisor. DelDOT must have satisfactory evidence of the subcontractor's competency and must be certain that the value of the work does not exceed the maximum allowable in the specifications governing the project. Responsibility for proper performance of the subcontractor remains with the Contractor, as a condition of his Contract with DelDOT. Specific requirements for subcontracting can be found in the DelDOT *Construction Manual,* which can be found on the DelDOT web site. www.deldot.gov/information/pubs_forms/

10.8 UTILITY ADJUSTMENTS

Since private and public utilities share the public highway right-of-way, adjustment of utility lines is almost always required in a major highway project. Since the private utility companies enjoy free use of the public right-of-way, when the installations of a private utility company are affected by highway construction, the company is obligated to relocate and protect their installation during the highway construction. In some cases DelDOT may be required to reimburse a private utility. For public owned utilities, such as city or county owned water and sewer lines, the Department is responsible for relocating the utility installation as a project cost. When a payment for utility work is required, an agreement is negotiated with the utility owner by the DelDOT Utility Section. Detailed information on the Utility coordination process can be found in the DelDOT *Utility Design Manual*, which is on the DelDOT web site. www.deldot.gov/information/pub_forms/

10.9 PROGRESS PAYMENTS

Payments to the Contractor for work performed on the Contract are based on progress estimates. Progress estimates are normally prepared on a monthly basis, and they are representative of the amount of work completed during the preceding period. Information for the progress estimates is obtained by the

field inspection force. The initial recordings of measurements made for progress estimates are called source documents unless placed directly into Estimate Books. This information may be recorded by the Project Resident, the Section Inspection Consultant staff, the survey party chief, or the Estimator.

Estimate Books are an important part of the project records. All entries must be dated and initialed on each page by the person responsible for the data. All sketches and computations must be accurate. No erasures are permitted in the Estimate Book and pages are not allowed to be removed. All corrections must be initialed and dated.

The following procedure must be used in preparing progress estimates:

- The Estimate Book is used to show the quantities to be paid on the current estimate.
- In addition to the Estimate Book, some projects also use Computation Books.
- No final figures should be shown in the Estimate Book until approved and initialed by the Construction Estimator in the central office. They must remain estimates until final approval.
- After calculating all quantities and corresponding payments for the monthly estimate, the Project Resident submits the field estimate form, the Estimate Book and any pay tickets to the Construction Estimator in the central office.
- The Construction Estimator obtains approval from the DelDOT Construction Area Engineer, and the estimate is forwarded to the Department's Finance Division for payment.

The Contractor's signature is also required on progress and final payment estimates. Within 30 days of receipt of a monthly estimate payment, the Contractor must pay its subcontractors and suppliers. The Contractor is required to submit a signed and notarized CN-91 form confirming that payment has been made to all Subcontractors and Suppliers in accordance with Delaware Law. Subsequent payments will be withhold until the required CN-91 form for the previous estimate has been received the District Construction Estimator. Details of the DelDOT progress payment process is found in the DelDOT *Construction Manual*.

10.10 CONTRACT CHANGES

Contract changes refer to any authorized revisions the affect the Contract after the project has been awarded and are called Change Orders in the DelDOT construction management process. Contract Change Orders include any modification of items, quantities, material requirements, specifications, changes in allotted contract time, or any other deviation from the scope of the original Contract. Change Orders pertain to both increases and decreases in units of work and can require the negotiation of new item prices. On Federal projects FHWA must be advised of changes on all Federal-Aid projects and must approve all changes to Federal-Aid oversight projects. Change orders, involving federal funds will be processed in accordance with the current FHWA/DelDOT Change Order Memorandum of Agreement.

Change Orders arise for a number of reasons. The most common causes are discussed in the *Standard Specifications for Road and Bridge Construction* and are as follows:

- Owner Directed Extra Work
- Change in Design
- Change in the Character of the Work
- Differing Site Condition
- Suspension of the Work
- Value Engineering Proposal

- Settlement of Claim
- Delays to the Project Completion Date

Differing Site Conditions are conditions in any site that meet the definition listed in the *Standard Specifications for Road and Bridge Construction.* In general, these conditions are:

- Conditions that differ materially from those indicated in the Contract, such as rock being lower or higher than anticipated, encountering water in the soil where none was expected, or discovering portions of old roadway or structures that prevent the driving of piles as planned.
- Unknown physical conditions of an unusual nature, such as the discovery of contaminated soil in an area where there was no indication that contamination may be a problem.

The Contractor is required to notify the Department any time it encounters differing site conditions. The inspector is charged with keeping detailed records of the Change Order recording date, time, location, and condition as soon as differing site conditions are identified. The inspector is also to note all equipment and labor that is idled due to the stoppage of work due to the differing site conditions.

Likewise when it becomes necessary for the Project Resident to suspend work, the inspector must keep detailed records and note all equipment and labor that is idled as well as conditions of the project site, such as stockpiled materials completion percentages for all work completed. When work is ready to resume the negotiated Change Order reimburses the Contractor costs incurred due to the suspension. Change Orders are also used to make payment to the Contractor due to the settlement of a claim or delays to the project completion date. Value Engineering Proposals, discussed below, also require payment through a Change Order, if accepted.

The DelDOT Change Order Process requires the Contractor to provide written notice to the DelDOT Construction Area Engineer any time it believes there has been a change in the character of the work. Any time an inspector believes there has been a change, the Project Resident must be informed and documentation of the change, from its origin through its resolution, must be kept. Before the Contractor performs any work that is considered a change, a Change Order must be negotiated. The items in a Change Order are paid in one of three ways: Unit Prices, Lump Sum, or Force Account. Definitions of these terms and detailed procedures are found in the DelDOT *Construction Manual* and the *Standard Specifications for Road and Bridge Construction.*

10.10.1 Value Engineering Proposals

A Value Engineering Proposal is a proposal submitted by the Contractor to modify one or more aspects of the Contract and result in a savings to the Department. When a Contractor submits a Value Engineering Proposal, it is reviewed by the Department and, if accepted, the Contractor is required to proceed with the work in accordance with the original Contract. As an incentive to offer cost saving alternatives, savings are normally split between the Department and the Contractor. To prevent Value Engineering Proposals from delaying construction, the on-site inspection staff and the Construction Management Group must evaluate the proposal quickly and recommend a decision to the Construction Area Engineer. The Construction Area Engineer, after consultation with the Senior Management Team, issues the decision to the Contractor and makes any adjustments to the Contract through the issuance of a Change Order. FHWA must be advised of all VE proposals on Federal-aid projects and must approve all VE proposals on Federal-aid oversight projects.

10.10.2 Change Order Processing

The Project Resident has the responsibility of preparing the Change Order when one is needed. The DelDOT standard format for Change Orders, outlined in the *Construction Manual*, is followed by the Project Resident and all back-up information is attached. The completed Change Order is forwarded to the Construction Group and the DelDOT Construction Area Engineer for approval.

The DelDOT Construction Area Engineer verifies that funds are available in the project contingency funds and then authorizes input into the DelDOT Project Payment Tracking System. If sufficient funds are not available, a contingency increase must be requested and approved by the Division of Financial Management and Budget before the Change Order can be approved and submitted to the Contractor for approval. Change Orders must be approved by both parties to the Contract, DelDOT and the Contractor.

Payment for work done through Change Orders can be by the unit prices contained in the Contract or renegotiated unit prices, if justified, by single price for the change or Lump Sum payment, or by Force Account. Force Account payments are costs based on the actual labor, equipment and materials needed to complete the work contained in the Change Order.

10.11 QUALITY OVERSIGHT

The US 301 construction procurement documents clearly place the primary responsibility for Quality Control with the Contractor, including products, subcontractors, fabricators, suppliers and vendors. The Construction Management Group role in the construction management process for US 301 is to provide Quality Assurance and Owner Verification Testing. All construction processes, procedures, materials and workmanship will be inspected by DelDOT, the GEC or the Section Inspection Consultant.

On a daily basis, the Project Resident and the Section Inspection Consultant personnel will assure project quality through full time inspection of the work and field testing. It is clearly the duty of the on-site construction management staff to determine the Contractor's compliance with the project requirements, contract specifications and the quality requirements specified in the contract documents and to immediately take action to correct any item which is found to be contrary with the contract documents, DelDOT and FHWA requirements.

An Independent Assurance Program will be conducted by the DelDOT Materials and Research Section to validate that the Quality Assurance Process is in compliance with the contract documents, DelDOT and FHWA requirements. The Independent Assurance Program will be accomplished by conducting systematic and random tests in accordance with the DelDOT *Materials and Research Manual*. Oversight of the Materials Research Section and its testing procedures is done on an annual basis by the FHWA certification review of the DelDOT testing laboratory.

It is expected that any issues that arise from the project inspections or the Independent Assurance Program will be addressed immediately by the Contractor and the on-site inspection staff. More complex issues will be addressed by the Construction Management Team, the Construction Area Engineer or through discussions described below.

10.12 PARTNERING

The construction partnering concept for U.S. 301 is based on trust between DelDOT and the successful Contractors. To this end, the DelDOT Construction Director and Construction Area Engineer will meet shortly after award of each contract (prior to the formal preconstruction meeting) with the Contractor to review key project issues and to establish an open line of communication on each contract. DelDOT will commit to prompt resolution of contract issues as they occur and will encourage the Contractor share creative solutions and suggestions to improve contract schedules, with no compromise in quality, as the project progress through construction. Monthly Progress Meetings will be held on the individual contracts at which time all open issues and potential problems will be reviewed. For any contractors not familiar with the DelDOT approach to contract management and partnering, separate Partnering Meetings may need to be scheduled on a regular basis.

10.13 CLAIMS MANAGEMENT

One objective of a good Quality Management Program is the avoidance of Contractor Claims during construction. Despite the best efforts of both parties, however, there will be times when formal Claims will be submitted to the Department. The DelDOT Claims Procedure is detailed in Section 105 of the DelDOT *Standard Specifications for Road and Bridge Construction.* A brief summary of this process follows:

- Contractor written notification is submitted to the Department detailing the Contractor's claim for additional compensation for work and/or materials not clearly covered in the Contract.
- Within 10 calendar days the DelDOT Construction Area Engineer will respond to the Contractor and either confirm or deny the Claim.
- If the Claim is denied, the Contractor must submit a Formal Claim to the Department in writing with 60 calendar days of receipt of the Department's response letter.
- The Formal Claim is first reviewed by the US 301 Construction Director and a decision is transmitted back to the Contractor within 30 days of the Formal Claim submittal.
- Rejection of the Formal Claim may be appealed to DelDOT Claims Committee for review within 10 days of the rejection.
- Within 45 days of receipt of the Contractor's appeal, the Claims Committee will hold a formal Claims Hearing recorded by a Court Reporter.
- Within 15 calendar days of the Claims Hearing, the Committee's Chairperson will notify the Contractor of the decision in writing.
- The Contractor may appeal the Claims Committee's decision to the Chief Engineer and request to proceed to an Arbitration Hearing.
- The Chief Engineer will review the record of the Claim and respond to the Contractor with the Department's final decision.
- In the absence of agreement by the Contractor of the Chief Engineer's final decision, a demand for an Arbitration Hearing can be submitted within 30 days of the Chief Engineer's response.
- The Formal Claim will be finally decided in an Arbitration Hearing under the Construction Industry Arbitration Rules of the American Arbitration Association.

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11.0 Environmental Monitoring

Project Management Plan

Federal Highway Administration

11.0 ENVIRONMENTAL MONITORING

11.1 GENERAL

As described in Chapter 2 of this PMP, the US 301 Project has a long history. The project is going forward largely as a result of an extraordinary effort by DelDOT to avoid, minimize, and mitigate the impacts of the highway as described in the Record of Decision. The ROD further describes how the route was selected to minimize potential harm, that context sensitive design is being used, and a comprehensive mitigation package have all been utilized in development of the final project.

Therefore, environment oversight and continued coordination is critical to the success of the project.

Environmental oversight will be provided through the Environmental Group to ensure that the avoidance, minimization, and mitigation efforts are achieved during the design, construction and monitoring of the project. The Environmental Group will continue Resource Agency coordination through regularly scheduled project working sessions and field reviews.

11.2 ENVIRONMENTAL MANAGEMENT PLAN

The Record of Decision (ROD) documents the policies and procedures put in place to ensure that the environmental measures included in the project and the permit requirements and commitments are upheld and maintained.

11.2.1 Key Components

The Key Components of Environmental Management include:

- Creation and management of the ROD/permit commitment tracking database (CTB)
- Description, implementation plan and establishment of roles and responsibilities of the Environmental Group.

11.2.1.1 Commitment Tracking Database (CTD)

In order to track and ensure compliance with the project commitments, a database has been created to organize and store all US 301 Project commitments including ROD, environmental permits, Section 106 MOA, and community commitments (see Appendix A).

The database is being used to track compliance during the design and will be utilized to document that the commitments are kept, as designs are finalized and the project moves into construction. Compliance reports have been generated at design milestones; and will be generated throughout the construction of the project with final reports prepared at the conclusion of each contract.

11.2.1.2 Design Review

The Environmental Group is coordinating design reviews in order to ensure that the project commitments and conditions are incorporated into the design of the project.

11.2.1.3 Mitigation Implementation Team

The Environmental Group will ensure that the multiple mitigation projects adhere to all commitments and conditions during the design and construction.

11.2.1.4 Resource Agency coordination

The Environmental Group is conducting regular US 301 project working sessions and field reviews with Resource Agency representatives, Section Designers, and Construction Leads. These meetings provide updates on design, construction, mitigation, and environmental compliance. Issues and complications are also being discussed, as well as any required design or construction changes. Resource Agency approvals required by project permits are introduced during the meeting. Field reviews of the project and mitigation sites are also being conducted in this forum. Meeting notes serve to document continued avoidance and minimization.

11.2.2 Adaptive Management

Adaptive Management is a key strategy that is being utilized for the US 301 Project.

Adaptive Management is an iterative process for resource protection that examines existing conditions and monitors the effectiveness of protection measures that are employed. As a result of evaluation of the effectiveness of existing measures, modifications to programs or actions are being made to enhance the overall protection of the various resources. Adaptive management incorporates ongoing efforts throughout and in some cases beyond the active phase of the Project.

12.0 Safety and Security

Project Management Plan

Federal Highway Administration

12.0 SAFETY AND SECURITY

12.1 GENERAL

The Delaware Department of Transportation is committed to a safe construction of the US 301 Project and emphasizing the safety and security of the Contractor's staff, the traveling public, adjacent property owners, DelDOT staff, and the staff of numerous other agencies associated with the US 301 Project.

For the US 301 Project, the contract documents require that the Contractor(s) perform all actions necessary for safety and be solely and completely responsible for conditions on the Site, including safety and security of all persons and property on the Site during the Contract. This requirement applies continuously for the duration of the Contract and is not limited to normal business hours or other time constraints or to be minimized or diminished in any way because the Contractor is not given sole possession of the Site. The Contractor is fully responsible for the safety of workers engaged upon the Project and all other persons working at or visiting the Site and the protection of the public in the vicinity.

12.2 PROJECT SAFETY PLAN

DelDOT and the Contractor will meet prior to the initiation of work and review the Contractor's internal rules and procedures for ensuring safety and security on the jobsite. Safety goals will be identified and the following items will be discussed:

- Planning, management, and design to avoid hazards;
- Detection of potential hazards;
- Timely correction of hazards;
- Dedication to the protection of the public and the workers;
- The identification of all persons on the Contractor's staff who will oversee compliance with the Safety Plan;
- Any planned safety training and safety meetings.

Since each individual construction contract could have different operations, different traffic conditions, handle different materials, utilize different equipment and have site conditions unique to that particular contract, the result of the safety meeting will be an outline of a Project Safety Plan for each specific contract. The Project Safety Plan will be attached and included in the minutes of the safety meeting.

DelDOT has already developed a Transportation Management Plan (TMP) for the US 301 project. The intent of that document is to ensure that the construction activities associated with the US 301 project provide for the mobility and safety needs of road users, construction workers and communities in the areas impacted by construction of the US 301 improvements. The TMP provides a set of strategies and describes how these strategies will be implemented, in order to manage the work zone impacts of the project. The TMP includes a Traffic Control Plan (TCP), as well as Transportation Operations (TO) and Public Information (PI) Strategies to address the work zone impacts of the project. This document, in particular, should be carefully reviewed and accounted for in the Project Safety Plan.

The Project Safety Plan will consider all required actions, activities, rules, and mitigation relative to the safety of the work. The following items will be reviewed and accounted for in the Project Safety Plan:

- The US 301 Transportation Management Plan (TMP)
- The Contractor's commitment to safety, as contained in the Contractor's company-wide safety procedures, including goals stated as maximum lost hours, and no loss of life goals;

- Identification of DelDOT and Contractor safety officers, including responsibility definitions, reporting procedures, and safety inspection procedures;
- References to all applicable Governmental Rules;
- Any planned education for training for workers, including a separate program and Hazardous Materials Communications Plan for workers involved with hazardous and contaminated substances remediation, required toolbox meetings, and required posting of information;
- Procedures to address Project health and safety concerns, including housekeeping, material handling and storage, personal protective equipment, wall and floor openings, scaffolds, ladders, welding, flame cutting, electrical equipment, lock-out or tag-out, motor vehicles, heavy equipment, small tools, concrete forms, steel erection, cranes and hoisting, work platforms, fire prevention and protection, sanitation, confined space entry, blasting and explosives, and other items;
- Procedures for industrial hygiene, including respiratory protection, noise, Hazardous Materials requirements, and lists of hazardous chemicals present;
- Procedures for fire protection and prevention;
- Emergency and rescue procedures, including detailed procedures for all types of emergencies, such as, medical, fire, chemical spill, property damage, bomb threat, severe weather, flooding, explosion, and earthquakes;
- Procedures for incident investigation, reporting, and record keeping;
- Contractor's policy for substance abuse;
- Contractor's security provisions;
- Any special safety requirements and procedures for surveyors and engineering personnel conducting Site investigations and Verification Sampling and Testing; and
- Procedures for compelling worker compliance with the Contractor's health and safety requirements.

DelDOT, the Project Resident and the SIC will monitor the Contractor's compliance with the TMP and the PMP as well as their safety performance during the construction of the project.

It will be the Contractor's responsibility to ensure that all its employees and those of the Subcontractors are under an obligation at all times to fully conform to the provisions of the Project Safety Plan. In the event that the Contractor's or Subcontractor employees fail to conform to the provisions of the Safety Plan, the Contractor will be responsible to take appropriate corrective measures.

13.0 Traffic Management

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Federal Highway Administration

13.0 TRAFFIC MANAGEMENT

13.1 GENERAL

The US 301 Roadway Contractors are responsible to implement the Maintenance of Traffic plans for each contract. Any modifications to the Maintenance of Traffic plan must be approved by DelDOT, who through the GEC Team will be managing the corridor-wide Transportation Management Plan (TMP). The US 301 Contractors are responsible for becoming thoroughly familiar with the TMP document and adhering to it throughout construction.

13.2 DESIGN SPECIFICATIONS

The following design elements will be included in the Maintenance of Traffic plans and specifications:

- Standards to be implemented.
- Corridor-wide MOT initiatives.
- Contract-specific phased MOT requirements.
- Requirements for coordination with other contractors, police, emergency services and other agencies.
- Limitations for road closures, detours and lane closures for area roadways.
- Requirements for incident management plan for incidents occurring within the project corridor.

Maintenance of Traffic plans must follow DelDOT's Work Zone Safety and Mobility Procedures and Guidelines to comply with FHWA's Final Rule on Work Zone Safety.

13.3 ROLES AND RESPONSIBILITIES OF TRAFFIC MANAGEMENT STAFF (TMS):

The US 301 GEC Team and/or DelDOT are providing reviews of the Designer's MOT plans. Proposed traffic phasing, traffic shifts, and lane closures are being reviewed to ensure compliance with the corridor-wide traffic management initiatives and conformance with approved standards. Coordination meetings are being conducted with State, Local and Federal Agency representatives as appropriate to discuss the MOT plan prior to implementation.

During construction, the US 301 GEC Team and/or DelDOT will be responsible for oversight of corridor-wide MOT activities, including coordination with all contractors for the implementation of temporary signing and traffic control devices throughout the various contracts, which may have overlapping work space. The US 301 GEC Team will verify that approved MOT plans are implemented correctly and safely.

The GEC Team and/or DelDOT will conduct regular work zone safety inspections to verify the proper maintenance of temporary traffic control devices and to review the activities of the Contractor's Traffic Control Manager (TCM). The TCM is responsible for supervision and continuous monitoring of all maintenance of traffic activities. The US 301 GEC Team will be on-site frequently, including during night-time activities, to observe traffic operations during construction and advise the Contractor's TCM of any non-compliance issues or safety concerns. The US 301 GEC Team will notify the Contractor of any traffic control deficiencies observed.

The US 301 GEC Team and/or DelDOT will assist the Contractor with coordination activities with State and local agencies for reviews and/or necessary cooperation and to coordinate installation of MOT devices on local roadways. The US 301 GEC Team and/or DelDOT will attend all MOT coordination meetings arranged by the Contractor before each major traffic switch.

The US 301 GEC Team and/or DelDOT will be responsible for coordinating with public relations and community outreach activities to provide advanced information to the public before each major traffic switch.

The US 301 GEC Team and/or DelDOT will verify that the Contractor has worked appropriately with DelDOT staff to coordinate broadcasting messages to the traveling public through the DelDOT TMC. The US 301 GEC Team will also verify that the Contractor has coordinated with local and state emergency management agencies to notify them of all temporary access issues and maintain emergency response times.

The US 301 GEC Team and/or DelDOT will verify that the Contractor has coordinated MOT activities with local schools, churches, and special event activities during construction.

The US 301 GEC team and/or DelDOT will verify that the Contractor has developed and implemented an appropriate incident management plan for accidents occurring within the project limits, including accident prevention strategies, emergency procedures, reporting requirements, and mitigation strategies.

13.4 REPORTING

A monthly report of ongoing and upcoming MOT activities and coordination efforts will be prepared by the US 301 GEC Team. Immediate notification of all issues, incidents, major traffic delays, etc., will also be provided.

During construction, a weekly report listing all current and anticipated lane restrictions, closures, or other MOT activities will be submitted to DelDOT's Public Relations Section by the District Construction Engineer.

14.0 Public Relations

Project Management Plan

Federal Highway Administration

14.0 PUBLIC RELATIONS

14.1 OVERVIEW

The US 301 Project recognizes the importance of public relations in all phases of the Project including the need to identify, respond, and resolve issues and concerns of the public. Though the Project goals are interrelated, the public information effort concentrated on minimizing inconvenience to the public and meeting the goal to provide proactive public relations and maintain public trust and integrity. DelDOT has accomplished that goal to date by developing and maintaining a high level of communication that has created an informed public that is knowledgeable about the US 301 Project.

Given the long history of the US 301 Project, the engagement of residents, businesses, elected officials, communities, motorists, the environmental resource agencies and many other interested groups within the US 301 corridor was critical to the successful completion of the Pre-ROD process. In fact, the success of the Project thus far is due, in part, to the unprecedented level of involvement of these various parties.

Continuing a successful Public Information/ Public Outreach Program requires that the US 301 Management Team, with assistance from the SDC's and Contractors, be prepared to respond to public comment and concerns in an accurate, consistent, and timely manner. Continuing an effective partnership with the various stakeholders and the general public is critical to the continued success of the Project.

DelDOT's Program involves several components such as public outreach, community involvement and meetings, communication with the public, public notices, website, and media relations.

14.2 VISION, MISSION AND GOALS

14.2.1 Vision

The vision for the US 301 Public Relations Group is to minimize the inconvenience to residents, businesses and commuters by building trust and credibility between the US 301 Team and all of the stakeholders within the community during the course of construction.

The US 301 Project is unique and of critical importance to the Town of Middletown, Southern New Castle County and the State. In order for the Project to be viewed as a complete success, all stakeholder groups must be satisfied with the level of communication regarding the Project and its direct impacts. In order to retain credibility and trust within the community, the US 301 Public Relations Group will be responsive and accessible, proactive, honest, forthright and knowledgeable about all aspects of the project.

14.2.2 Mission

The mission of the Public Relations Group is to develop and maintain a high level of communication, creating an informed public knowledgeable about the US 301 Project.

Continuing a collaborative public relations effort conducted by public relations professionals from the US 301 Public Relations Group, the SDC's and the Contractors is essential to achieve this mission.

14.2.3 Goals

- Inform Stakeholders - To assure all stakeholder groups continue to be well informed about the Project prior to and during construction. Corresponding Strategies will:
- Assure effectiveness of the Public Relations program by conducting frequent and thorough audits.
- Work with the Contractor's Public Relations Program to design an extensive program that will convey the types of information stakeholders want, as well as when and where they want it.
- Build and maintain awareness of the Project, its vision, goals, and benefits with all stakeholder groups.
- Routinely survey and evaluate the Public Relations Program and stakeholder groups as to how well the goal is being met.
- Continue to build and maintain a single, sortable, report-generating database to identify stakeholders and their needs for information.
- Develop the Project to resonate with the community so that stakeholders identify with the Project, and understand its benefits.
- Prompt Response to Stakeholders - To assure opportunities for stakeholders to receive input and feedback about the Project, the US 301 Management Team will continue to provide prompt response to stakeholder requests for information, and provide expedient solutions to concerns/problems whenever possible. Corresponding Strategies will:
- Verify and incorporate methods for stakeholder feedback and public input into all communications pieces and programs.
- Take a proactive and responsive approach to Project issues and concerns.
- Maintain and expand a system for documenting, quickly responding to, and reasonably addressing questions and concerns from Stakeholders.
- Coordinate with the Contractor's methods of communicating information about construction events, delays and detours, and evaluate the effectiveness of such programs throughout the Project.
- Partnered Approach - To continue to keep the internal US 301 Project Team and partner agencies informed of the Public Relations Program and its progress and enable it to effectively communicate externally with "one voice" regarding Project messages and information. Corresponding Strategies will:
- Implement and maintain an Internal Communications Plan, Structure, and Program for ongoing, reciprocal communication among internal participants.

14.3 ROLES FOR US 301 PUBLIC RELATIONS GROUP AND CONTRACTOR

The US 301 Public Relations Group and the Contractor's Public Outreach representative will work closely as a single unit to assure consistency of message and approach. The US 301 Public Relations Group will be the lead on the Public Relations activities with support and input from the Contractor. The responsibility is shared.

14.3.1 US 301 Public Information Team

US 301 Public Information Team responsibilities include the following:

- Develop Public Relations Plan. Revise and update as necessary and see to its implementation.
- Coordinate efforts with Contractor.
- Maintain QA of any approved communication effort of the Contractor.
- Maintain information on the US 301 website.

14.3.2 Contractor Public Outreach Responsibilities

Contractor responsibilities include the following:

- Support the US 301 Public Relations Group in meetings with individual land owners, local officials, and community groups as well as in public meetings.
- Prepare information on activities and events during construction for the US 301 Public Relations Group to disseminate to the public and media.
- Make a good faith effort to address any concerns the public has and consider suggestions or wishes that are reasonable with regard to cost, time, or construction effort. The requests are provided with appropriate evaluation or comment to the US 301 Public Relations Group for consideration.
- Refer questions, comments, complaints etc received from residents, businesses or other members of the public to the US 301 Public Relations Group in a timely fashion.
- Provide notices to the affected parties about lane closures, roadway, and driveway closures, changes in access and utility shutdowns. Also provide construction updates.
- Maintain documentation of all contacts with residents, business owners, property owners, the media, and all others who are in contact with the Contractor.
- Provide immediate response to any emergency situation utilizing an incident response team. Notify authorities, such as police and fire departments as well as the US 301 Public Relations Group.
- Provide information signage for the Project.

14.3.3 Media Relations

On-going media relations is handled by the US 301 Public Relations Group. The Contractor will assist and provide information to the US 301 Project Team regarding construction activities for use by the US 301 Project Team.

14.4 COMMUNICATIONS FRAMEWORK

The US 301 Public Relations Communications Management framework consists of several different components designed to maintain credibility and trust within the community. The US 301 Public Relations Group will use a number of components to manage the program. They include the following:

- Community Relations – continue to establish a strategic approach to educate the communities on the Project and provide information and concerns regarding how the impacts of construction are addressed.

- Business Relations – provide business relations strategies and implement strategies to communicate vision and progress to businesses along the Corridor.
- Media Relations – continue to develop effective working relationships with the print, television, and radio media.
- Government Relations – continue to implement a strategy for interacting with state and local elected/appointed officials, their staff, and others related to the government affairs field and work closely with the Contractor in providing information to these officials.
- Internal Communications – build consensus and focus among the internal team members and help set the tone for external communications.
- Project Website – continue to enhance Project website and work closely with the Contractor to ensure integration of information.
- Project identity/Education Outreach – continue to implement targeted programs to effectively communicate the Project's identity, vision, benefits, and primary issues.
- Establish Tracking Plan – to record public comments and Project Team responses during final design and construction.

15.0 Civil Rights

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Federal Highway Administration

15.0 CIVIL RIGHTS

The Delaware Department of Transportation does not discriminate on the basis of race, color, national origin or sex in the award and performance of any US Department of Transportation assisted contract. The US 301 Project incorporates the applicable provisions of 49 CFR 26. The Contractors are required to take necessary and reasonable steps to ensure that businesses owned and controlled by socially and economically disadvantaged individuals are provided with a fair opportunity to participate in the Project.

DelDOT's Civil Rights Administrator serves as part of the US 301 Management Team organization. The performance of identified civil rights related functions pursuant to federal regulations and Executive Orders prohibiting discrimination is the responsibility of the Civil Rights Manager. This Consultant provides for the US 301 Project's Civil Rights Contract Compliance as well as the monitoring of the Disadvantaged Business Enterprise (DBE) Program and the various Workforce Development Employment and Training Programs.

The Civil Rights Program adheres to Title VI of the Civil Rights Act, which prohibits discrimination on the basis of race, color or national origin in programs or activities receiving federal financial assistance (23 CFR 200.9 and 49 CFR 21). Presidential Executive Order 12898 addresses environmental justice in minority and low-income populations. Presidential Executive Order 13166 addresses services to those individuals with limited English proficiency. In addition, reference to Title VI includes other civil rights provisions of Federal statutes and related authorities to the extent that they also prohibit discrimination in programs and activities receiving Federal assistance.

Federal-aid recipients, sub recipients and contractors are required to prevent discrimination and ensure nondiscrimination in all programs, activities and services. The DelDOT Civil Rights Administrator is responsible for providing leadership, direction and policy to ensure compliance with Title VI of the 1964 Civil Rights Act and environmental justice principles.

The various components of the Civil Rights Program are:

Title VI of the Civil Rights Act: Title VI of the Civil Rights Act of 1964 (42 U.S.C. 200d), and related statutes is the Federal law that protects individuals from discrimination on the basis of their race, color, or national origin in programs that receive Federal financial assistance.

Limited English Proficiency: Limited English Proficiency is a term used to describe individuals who are not proficient in the English language. Executive Order (E.O.) 13166, Improving Access to Services for Persons with Limited English Proficiency, August 2000, is directed at implementation of protections afforded by Title VI of the Civil Rights Act of 1964.

Contractor Compliance: Reviews are conducted on construction contractors and subcontractors if their contracts include $10,000 or more in Federal-aid. These reviews are conducted to ensure compliance with the EEO Provision of Title 23, which requires contractors with contracts or subcontracts of $10,000 or more to employ and advance individuals without regard to race, sex, color, religion or national origin.

On-the-Job Training: goal is to increase employment, training and advancement opportunities for minorities, females and disadvantaged individuals. Based on several criteria, training slots are assigned to federal-aid construction projects during the preparation of the bid package.

Section 504/Americans with Disabilities: is intended to protect qualified individuals with disabilities from discrimination on the basis of disability in the services, programs, or activities of all State and local governments.

Construction of the Project provides a variety of long-term contract opportunities. Challenging contracts for companies with different skill levels and expertise are available throughout the Project's duration. The US 301 Management Team assists with the development of programs designed to increase the capacity

of disadvantaged certified contractors. Training on bidding procedures and the Design-Bid-Build Project delivery method is offered along with business development assistance such as methods to establish relationships with financial institutions and bonding agencies, etc.

15.1 DBE PROGRAM

15.1.1 Contractor Requirements

The Contractor is required to demonstrate a good faith effort to achieve the DBE participation goal established in the Contract Documents and provide evidence of such efforts throughout the entire Project. Goals are established for design and construction. Design includes supplemental geotechnical investigations, surveying and other preliminary engineering, quality control, environmental compliance, utility coordination, permitting, and public information, etc.

The Contract establishes the following requirements, policies, and procedures.

- The DBE participation goals are established in the Contract Documents.
- Only DelDOT certified DBEs can be utilized to achieve the Project's DBE participation goal(s).
- A DBE utilization affidavit is submitted in response to the Request for Proposals, certifying that the Contractor has made a pre-Proposal good faith effort to achieve the established Project's DBE participation goal(s).
- A DBE participation schedule is submitted documenting the good faith efforts made by the Contractor in preparing and submitting the Proposal, which includes the name of each DBE, the items of Work to be performed, and the percentage of the Contract to be paid to each DBE. The DBE participation schedule is updated to reflect any changes throughout the course of the Contract. All changes in scope of work and DBE participation are approved by the US 301 Project Director and the Civil Rights Administrator of DelDOT.
- Where a good faith pre-Proposal effort falls short of the Project's DBE participation goals(s), the DBE goal may be deemed to have been met by Good Faith Efforts pursuant to DelDOT's DBE Program Plan. If the failure to achieve the DBE participation goal(s) is due to certain construction activities not having been designed at the time of Proposal submission, this unavailability is documented in the Good Faith Efforts documentation. The good faith effort requirements designated in 49 CFR part 26 serve as the criteria upon which deemed goal accomplishment determinations are made.
- A DBE Plan is submitted detailing the Contractor's continuing responsibility to meet its DBE commitments.
- The DBE Plan includes a system of reports and procedures that document adjustments and maintenance of the DBE participation schedule, achievement of the Project's DBE goal(s) and compliance with the requirements.
- Third tier contracting is not allowed by DelDOT.

15.1.2 Organization

The Project organization for the US 301 Management Team is described in Section 4.0. The following provides additional information for the Civil Rights Manager.

The Civil Rights Manager reports to the US 301 Project Director. This position is responsible for the development, management, administration, and oversight of compliance reviews and Commercial Useful Function (CUF) reviews to the DBE requirements of the Design-Bid-Build Contract. The Consultant

designates a DBE Compliance Manager who provides reports regarding Civil Rights/DBE to the Project Director. They work closely with the Contractor to assist in utilizing and developing local resources to ensure that DBE goals are met.

The Civil Rights Manager is knowledgeable in the area of DBE Compliance, and is familiar with local resources for small businesses. The Civil Rights Manager is also responsible for locally reporting the DBE participation in non-Design-Bid-Build contracts that are part of the Project.

The Civil Rights/Consultant has the authority to investigate any aspect of the administration of the DBE Program as deemed necessary to ensure that the Contractor is in compliance with the requirements of 49 CFR Part 26.

The Civil Rights Manager is responsible for every aspect of the contract compliance monitoring process on the project, including the re-design and implementation of a comprehensive contract, workforce, and OJT compliance monitoring and reporting system. This includes the development of necessary operating procedures, associated forms and reports, as required by DelDOT. The DelDOT's Civil Rights Administrator shall have oversight and approval authority.

15.1.3 Responsibility Matrix

The responsibilities of the Contractor are defined in the Contract. The following summarizes the roles and responsibilities of the Contractor and the US 301 Civil Rights Manager:

Table 15.1: Civil Rights Manager's Roles & Responsibilities

Time Period	Contractors Staff	Project Civil Rights Manager	DelDOT Staff & Others Involved
Pre-Award	Provide DBE Performance Plan	Review and approved by Civil Rights Manager.	Final approval by DelDOT Civil Rights Administrator
Contract Award	Identify estimated dollar amounts of DBE subcontracts to be awarded and paid during the first year and the areas of anticipated work to be subcontracted to DBE firms for each year of Project	Notify staff of upcoming opportunities so that all agencies and Contractors can begin to prepare and work with appropriate firms. Determine if Contractor has met or made good faith efforts to meet the goals. Assist in identifying available DBEs. Verify DBE eligibility. Report to DelDOT Civil Rights Administrator	DelDOT staff utilizes DBE and resources to identify potential subcontractors and technical assistance needed
	When subcontract is signed by DBE, information required in contract specifications is gathered and sent to US 301 Civil Rights/Consultant	Process information from Contractor and set audit schedule for each subcontractor. Report quarterly to DelDOT Civil Rights Manager	Review and approval by DelDOT Civil Rights Section
Monthly	Keep records regarding the progress of DBE participation per contract specifications and submit to US 301 Civil Rights Manager	Process these reports and send to US 301 Project Director. Process includes verification/ validation of payments made to DBE's. Report quarterly to DelDOT Civil Rights Administrator	Review and approval by DelDOT Civil Rights Section
	Provide evidence of good faith effort documents to US 301 Civil Rights/Consultant if needed. Have available certification of payment to US 301 Civil Rights/Consultant for each DBE subcontractor.	Review good faith efforts and determine status. Determine if progress payments need to be held and report to Project Director and Finance. Review payments; resolve any problems in prompt payment requirements for DBEs. Report any prompt payment problems to DelDOT Civil Rights Administrator	Review by DelDOT Civil Rights Section to insure resolution
As Needed	Revision of Plan(s), if requested.	Work with Contractor on any necessary revisions to DBE Plan. Final approval of plan(s). Report to DelDOT Civil Rights Administrator quarterly	Review and approval by DelDOT Civil Rights Section

Time Period	Contractors Staff	Project Civil Rights Manager	DelDOT Staff & Others Involved
	Report upcoming Change Orders; contract Amendments and how DBE subcontractors will be affected. Provide written justification and get US 301 Civil Rights/Consultant prior approval.	Approve or renegotiate upcoming Change Orders, Contract Amendments based on effect on DBEs and DBE participation Assist in assuring that DBEs are included in added work needs.	
Ongoing	Make site visits.	Make site visits and receive reports from site US 301 Construction Managers to verify DBE participation and compliance. Report quarterly to DelDOT Civil Rights Administrator	Review and approval by DelDOT Civil Rights Section
As Needed	DBE substitutions – report any problems with DBE subcontractor to US 301 Civil Rights/Consultant. Provide plan and justification of how to either resolve problem or replace subcontractor with another DBE. Provide good faith effort documentation if needed.	Work with Contractor and DBE subcontractor in resolving problems; utilize resources of DelDOT to address problems. Review and approve substitutions or good faith efforts. Work with Contractor in providing technical assistance to improve DBE performance or provide needed assistance to DBE. Report immediately and DBE substitutions to DelDOT Civil Rights Administrator	DelDOT Civil Rights Section to approve any DBE substitutions in advance
Ongoing	Actively utilize and implement outreach plan, technical assistance plan, financial plan, and training plan for DBEs as outlined in DBE plan.	Work cooperatively with Contractor in finding resources, defining assistance needed, etc. Utilize community resources. Keep record of events, resources utilized.	DelDOT staff provide already established resources
Monthly		Audit, by written form, DBE subcontractors to verify reported payment amounts	
Quarterly	Provide reports as requested or required in contract to US 301 Civil Rights/Consultant	Report Civil Rights/DBE Compliance to US 301 Project Director and DelDOT Civil Rights Administrator.	Review and approval by DelDOT Civil Rights Section
Bi-Annually		Report DBE participation to FHWA.	

Time Period	Contractors Staff	Project Civil Rights Manager	DelDOT Staff & Others Involved
Annually	Provide estimated dollar amounts of DBE subcontracts to be awarded and paid during the next year, and any changes from the previously reported areas of anticipated work to be subcontracted to DBE firms for each following year of Project.	Notify DelDOT staff of upcoming opportunities so that all agencies and Contractor can begin to prepare and work with appropriate firms. Determine if Contractor has met or made good faith effort to meet goal. Verify DBE Certification.	DelDOTstaff utilizes DBE and resources to identify potential subcontractors and technical assistance needed.
	Provide summary of past year and project-to-date of DBE participation.	Verify with previous reports. Make recommendation to Project Director regarding local Incentive Program.	

15.1.4

15.1.5 Internal Interfaces

The Civil Rights/Consultant interfaces with the US 301 Management Team, Procurement, and Contract Management staff to audit subcontractor prompt payment requirements, commercially useful function requirements, and to approve Change Orders and Amendments regarding DBE participation. The Civil Rights/Consultant also interfaces with Public Information staff to ensure that minority and women-owned businesses receive information on subcontracting opportunities and requirements for the US 301 Project.

15.2 CIVIL RIGHTS/CONTRACT COMPLIANCE

The US 301 Management Team is responsible for ensuring compliance with specific Civil Rights Programs and Contract Provisions for federal-aid construction projects.

The DelDOT Civil Rights Administrator and/or the Civil Rights Manager will utilize a comprehensive compliance monitoring and reporting system that will track commitments, awards, payments, ethnicity, gender, geographical location of firm, good faith efforts, commercially useful function issues, subcontractor schedules and progress, and deficiency reporting notifications as and integral component of the oversight and management of the DBE, workforce, On-the-Job Training (OJT) and apprentice utilization programs.

The Civil Rights Manager will conduct periodic compliance reviews of the Contractor's and contractors, with construction contracts in excess of $10,000, compliance with the Equal Employment Opportunity and Affirmative Action requirements, including Title VI of the Civil Rights Act of 1964, Limited English Proficiency (LEP), On-the-Job Training (OJT), Davis Bacon and the Americans with Disabilities Act (ADA). All compliance review findings, determinations and corrective action plans will be forwarded to DelDOT's Civil Rights Administrator for approval and be further forwarded to FHWA within thirty (30) days.

The compliance monitoring process will include collection, review and analysis of the Contractor's and contractors reports, verification and validation of information reported utilizing desk and field monitoring for discrepancies and periodic audits to ensure compliance with all Civil Rights Programs.

Significant elements of the Contractor's requirements include: Equal Employment Opportunity and Affirmative Action (Title VII of the Civil Rights Act of 1964), Environmental Justice, Disadvantaged

Business Enterprise Program (DBE), Contractor Compliance, On-the-Job Training (OJT) and Limited English Proficiency (LEP) and the Americans with Disabilities Act (ADA).

The required Contract Provisions for federal-aid projects requires for nondiscrimination, requests for sublet approvals for all subcontractors, and labor compliance.

The Contractor is required to provide several reports for these areas. The reports include a monthly report on all subcontractors, semi-annual reports on labor underpayments, quarterly and annual EEO reports, and monthly reports for On-the-Job Trainees.

One report on workforce information will be developed for each active or current contractor's annual EEO Report which will represent figures of the project workforce in all or any part of the last payroll period preceding the end of July. One master report (1392) with supporting individual contractor report (1391) will be submitted to FHWA by September 25. Periodic monitoring (quarterly) of the project workforce will be the responsibility of the Civil Rights Manager and staff. The Civil Rights Manager reviews and analyzes the reports for accuracy and compliance with Contract Provisions, state/federal laws, and regulations. The Civil Rights Manager forwards all reports to the DelDOT Civil Rights Administrator for review and concurrence.

15.2.1 Staff Organization

The Project Organization for the US 301 Management Team is discussed in Section 4. The Civil Rights Manager reports to the US 301 Project Director and the DelDOT Civil Rights Administrator. The DelDOT Civil Rights Administrator is responsible for the development, management, administration, oversight, and reporting of compliance of the Civil Rights Compliance Programs for the US 301 Project.

The Civil Rights Manager provides reports about compliance reviews to the Project Director, DelDOT Civil Rights Administrator, and FHWA. This Consultant works closely with the Contractors EEO/Compliance Manager, Business Manager, Contract Administrator, DelDOT staff, FHWA, and the United States Department of Labor (USDOL) to assist in monitoring and achieving compliance.

The DelDOT Civil Rights Administrator conducts training, responds to requests for information about the Federal-aid Contract Construction Provisions, interpretations, conducts contract compliance reviews (compliance reviews reports are submitted to FHWA for concurrence thirty (30) days after the completion of the review), and determines compliance by the Contractor and subcontractors. The position interfaces with Project Management, Contracts Management, and Construction Management of the US 301 Project. The DelDOT Civil Rights Manager is knowledgeable in the area of Civil Rights (Title II, VI, and VII), Equal Opportunity practices for subcontractors and individuals, On-the-Job-Trainee Programs, Federal-Aid Contract Provisions, and USDOL interpretations for labor compliance.

The Contractor Employment Compliance Specialist is part of the Civil Rights Manager staff. The position provides support and is responsible for the oversight and auditing of subcontractors in the field and through required submittals for contract requirements.

The Contractor's EEO/Compliance Manager is responsible for implementing and monitoring the Civil Rights and Contract Compliance Provisions as specified in the Design-Bid-Build Contract. This person is knowledgeable in EEO and Labor Compliance as applied to federal-aid projects. This person works with, provide reports, and communicate EEO issues to the US 301 Civil Rights Manager.

The Contractor has the fundamental role and responsibility to take all reasonable and necessary steps to ensure that the terms and conditions of its contracts are fully met. This includes but is not limited to its employment policy and its selection and retention of subcontractors, material suppliers and vendors to avoid of discrimination. The contractor is responsible for having in place and implementing an equal opportunity policy that ensures equal access to employment, training, and business opportunities to minorities and females. The contractor is required to cooperate fully with DelDOT and FHWA in meeting

the EO requirements of Federal and federally assisted contracts including providing ready access to all files and records and submitting all required and requested reports to assist them in determining and where necessary obtaining compliance.

DelDOT is primarily responsible for developing and implementing effective processes to monitor and determine the contractor's compliance with the contract non-discrimination, EO, and EEO requirements. DelDOT is required to take reasonable and necessary steps to implement a Federal-aid Highway Program consistent with its EEO Assurances. DelDOT needs to have the necessary information, data collection, and tracking system to ensure accurate and timely reporting and analysis of critical employment and contracting utilization data. DelDOT is required to cooperate and coordinate with FHWA in its conduct of its contractor compliance reviews. Each year the DelDOT prepares an annual work plan outlining the specific goals it intends to achieve through the project to meet program goals.

15.2.2 Responsibilities

The responsibilities of the Contractor are defined in the Contract. The following summarizes the roles and responsibilities of the Contractor and the US 301 Civil Rights Compliance staff.

15.2.2.1 Equal Employment Opportunity; Subcontracts

The Contractor is required to have an overall EEO Policy and implement the Policy to ensure nondiscrimination, equal opportunity and equal employment opportunity in employment and subcontracting. The Contractor is required to ensure that the Policy and Contract Provisions are included in all subcontracts so that such provisions are binding upon each subcontractor. The requirements include provisions for the amount of work subcontracted out for construction and design, the amount withheld for retainage on subcontractors, advance notice of subcontractors and data of subcontractors.

The US 301 Civil Rights Manager is responsible for the oversight of the Contractor in performance of these requirements. Information is obtained from the Contractor to monitor, review and verify compliance with these requirements. Subcontractor information is obtained and provided to the Project Director in quarterly reports.

- Affirmative Action Requirements and Equal Employment Opportunity.

  The Contractor is required to implement Affirmative Action requirements and Equal Employment Opportunity requirements to ensure nondiscrimination in employment and subcontracting. The affirmative action requirements are standard requirements for all Federal-Aid Contracts issued by the USDOL Office of Federal Contract Compliance (OFCC). The requirements outline goals for minority and women utilization in the skilled crafts for construction work and notification of contracts to OFCC. OFCC requires additional quarterly reporting of all subcontracts.

  The Contractor is required to implement the standards of the Equal Employment Opportunity Construction Contract Specification. The standard requirements include implementing an EEO Policy for employment and, applying goals to craft positions. The requirements also include maintaining a harassment free environment, using recruiting resources for minorities and females, monitoring applicant flow, providing On-the-Job-Training opportunities, and providing equal opportunity in bid solicitations for subcontracts from minority and female owned construction contractors.

  Specific EEO responsibilities are included within respective US 301 Design-Bid-Build contracts as required in Contract Provisions Federal-Aid construction contracts (1273). The additional requirements include identifying an EEO Officer (referred as a Civil Rights Compliance Manager), disseminating the Contractor's EEO policy, monitoring personnel

actions, investigating all internal complaints of discrimination and monitor and maintain documentation to ensure compliance with EEO policy.

The requirements also outline specific requirements for subcontracting, including soliciting and utilizing minority and women subcontractors and insuring compliance regarding EEO policy requirements by its subcontractors and maintaining records. The Contractor is required to submit a monthly report and certification setting forth required information of all subcontractors. The Contractor is also required to promptly provide notice and information when a subcontract is proposed for award for review and approval.

The Contractor submits quarterly EEO reports. For each quarter of the year, the Contractor will be required to submit the DelDOT Disadvantaged Business Enterprise Participation Report for each contract. The information in each report indicates the overall percentage complete on the contract, the percentage complete of the DBE items of work, the dollar amount of each M/DBE subcontract, the total dollars paid to each DBE subcontractor during the identified quarter and the total dollars paid to date to each DBE subcontractor.

Enforcement for noncompliance with any of these requirements is to withhold all or part of the monthly progress payments until the Contractor comes into compliance.

The US 301 Civil Rights Manager is responsible for development of processes, oversight, evaluation, and reporting of compliance for the Contractor with the above requirements. Monthly, quarterly, semi-annual, and annual reports are received and analyzed. The Contractor's efforts and processes are evaluated for consistency and compliance. Information is obtained from the Contractor to evaluate compliance. Reports are provided to the, Project Director, DelDOT Civil Rights Section, and FHWA as required by 23 CFR Part 230.

- Contract Provisions for Federal-Aid Construction Projects

  The Contract Provisions require implementation and compliance for the Contractor and all tiers of subcontractors performing construction activities. The provisions include but are not limited to requirements for nondiscrimination, Payment of Predetermined Minimum Wages (Davis-Bacon), statements and certified payrolls, subletting the contract false statements concerning highway contracts certification regarding debarment and lobbying.

  The Contractor's EEO/Compliance Manager is responsible for monitoring and ensuring compliance by all tiers of subcontractors. This position is also responsible for investigating complaints for non-payment of minimum wages, determining compliance by subcontractors, and enforcing compliance against subcontractors. Compliance for payment of predetermined minimum wages and reporting is not optional.

  The US 301 Civil Rights Manager provides oversight and works closely with the Contractor's Manager to develop processes to ensure compliance. Compliance with these requirements is not optional. If a complaint is received by US 301 it is referred to the Contractor or subcontractors and determinations of noncompliance may be issued if the Contractor is unable to verify compliance and timely resolution. This position reports all labor underpayments and complaints to the DelDOT, FHWA and USDOL. All Title VI complaint reports are due within 60 days from the date of the receipt of the complaint. The Annual EEO report on all subcontractors is reported to DelDOT's Civil Rights Section.

  Enforcement for noncompliance with any of these requirements is to withhold all or part of the monthly progress payments, impose penalties, or the Contractor may appeal to the USDOL.

- Title VI and Title II Compliance

The procedures will be followed to process discrimination complaints contained in the DelDOT External Non-Discrimination Complaint Procedures administered by the DelDOT Civil Rights Section. This external complaint procedure provides the means through which complaints are processed and investigated, while ensuring due process for Complainants and Respondents. Anyone who feels he or she has been discriminated against because of his/her race, national origin, color, gender, age, physical and/or mental disability has the right to file a complaint of discrimination. Any complaints relating to the Americans with Disabilities Act will be forwarded to DelDOT's Civil rights Administrator for review and processing. They will also be processed using the avenues indicted in the External Complaint Manual.

This procedure also provides a system for processing and investigating complaints of discrimination through which the Complainant may receive prompt, fair and impartial considerations to their allegations. It is also the intent and belief that it is in the best interest of all parties involved in a complaint to resolve the issues at the lowest level possible.

The Design-Bid-Build Contract requires compliance with the state and federal laws, including Title II and VI. Compliance with these areas is not optional. Title VI is evaluated on a case-by-case basis for complaints received by subcontractors and individuals. Title VI Complaints are the responsibility of DelDOT and FHWA. Reports are provided to the US 301 outlining the investigation process, findings, and timely resolutions. Complainants are advised of their right to appeal to US 301 Management Team. Please refer to DelDOT complaint process and the Title II complaint process.

Complaints are first investigated by the Contractor's EEO/Compliance Manager. Reports are provided to US 301 outlining the investigation process, findings, and timely resolutions. Complainants are advised of their right to appeal to US 301 Management Team.

The Civil Rights Manager will conduct compliance reviews. These reviews are to determine whether the Contractor, subcontractor or material supplier maintains a workplace that is free from discrimination and to insure that their employment practices are nondiscriminatory. The review shall identify whether the Contractor is making a good faith effort to take affirmative action to ensure that employees and applicants are placed, trained, upgraded, promoted, otherwise treated fairly during employment with regards to race, color, religion, sex, or national origin, physical or mental disability and sexual preference.

The US 301 Civil Rights/Consultant works with the Contractor's EEO/Compliance Manager to evaluate the adequacy of its investigation. If an appeal is submitted to US 301 Project Management Team, the Civil Rights Manager conducts an investigation, issues findings, and makes a recommendation to the Project Director, DelDOT Civil Rights Section, and FHWA for resolution. Investigative reports are submitted 60 days from the date received of the complaint in accordance with FHWA Title V1 regulation 23 CFR Part 200 to DelDOT and FHWA.

The US 301 Civil Rights Manager advises the Contractors and US 301 Project staff on Project design standards related to compliance with the Section 504 Americans with Disabilities Act (ADA).

15.2.3 Internal Interfaces

The Civil Rights Manager interfaces with the US 301 Management Team, Contract Management, Construction Management, and Project Controls staff to monitor construction activities, subcontractor issues, public and employee individual issues, and prompt payment to all subcontractors and CUF. The manager also interfaces with Public Information to ensure information is available for individuals and subcontractors and released for public outreach.

16.0 Closeout Plan

Project Management Plan

Federal Highway Administration

16.0 CLOSEOUT PLAN

The Closeout Plan for the various contracts executed during the Real Estate, Design and Construction phases of the US 301 Project will follow existing DelDOT procedures. Each of the following disciplines have existing procedures identified in procedural manuals covering their area of work. The processes used in the closeout of contracts will follow the steps outlined in these manuals and will only vary if the procedural manuals are changed during the course of the US 301 Project. In summary, the closeout procedures for each major section are as follows:

16.1 CONSULTANT CONTRACTS

The Closeout Plan for consultant contracts will follow existing DelDOT procedures outlined in the Department's *Professional Service Procurement Manual*. The DelDOT Project Manager will notify the consultant in writing that the terms of the contract have been satisfied and that a final invoice shall be submitted. Once received, the important steps in the project closeout will be as follows:

- Final Invoice
- Final Disadvantaged Business Enterprise (DBE) Utilization Form
- Final Summary Consultant Tracking Form.
- Final Performance Evaluation Report
- Certification that all Subconsultants have been paid.
- Certification by Department's Project Manager that all work has been satisfactorily completed and there are no pending supplemental agreements.
- Final Audit
- Release of retention, if any.

16.2 REAL ESTATE CONTRACTS

The Closeout Plan for Real Estate will follow the procedures outlined in the DelDOT *Real Estate Manual*. In general this process will include the following:

- Notification from construction that the project is complete and accepted for maintenance by the DelDOT District.
- Submission of all R/W documents created for the project (deeds, permanent easements, etc.) to the Team Support unit to verify that the actual acquisition was in agreement with the R/W Plans.
- Once verified, submission of the R/W Plans to the Chief of Real Estate for approval and recording of the R/W Plans as "As Acquired" Plans.
- Notification of the completion of the project to the Finance Division for the initiation of final audits and clearing all remaining funds from the R/W accounts.

16.3 UTILITY CONTRACTS

The Closeout Plan for the Utility Contracts will follow the procedures outlined in the DelDOT *Utility Manual.* In general this process will include the following:

- Notification from construction that the project is complete and accepted for maintenance by the DelDOT District.
- Letter notification to all involved utility companies that the project is complete and final invoices should be submitted.
- Upon receipt of the final invoice, notification to the Division of Finance to initiate a final audit and closeout all remaining funds.

16.4 CONSTRUCTION CONTRACTS

The Construction Project Closeout Plan will follow existing DelDOT procedures detailed in the DelDOT *Construction Manual.*

Approximately 6 weeks prior to "Substantial Completion", a walk through inspection will be held to establish all items that need to be concluded to achieve "Substantial Completion". Upon completion of these established items, Contract time charges will cease. Participants in the walk through include the Project Resident, the DelDOT Area Engineer, GEC, SIC staff, the Contractor's Project Manager and an FHWA representative (if project is Federal-Aid).

On or about the time of Substantial Completion, a formal Semi-Final Inspection will be held. DelDOT standard form letters will be sent announcing the inspection and notifying all appropriate attendees. In addition to the Project Resident, the DelDOT Area Engineer, GEC, SIC staff, the Contractor's representatives and the FHWA representative (if the project is Federal-Aid), other representatives from the Design Group, Traffic, M&R and other sections throughout the Department are included. The formal list of invitees is included in the Department's *Construction Manual*. The final product of the Semi-Final Inspection is the generation of a "Punch List" of items to be completed and a time frame in which the changes are to be completed. Failure to complete the "Punch List" items in the required time frame will result in a resumption of the Contract Time Charges.

Upon completion of the Semi-Final Inspection "Punch List", a Final Inspection will be scheduled in accordance with DelDOT standard procedures. Attendance will be similar to the Semi-Final Inspection except less attendance is expected, since all items should now be complete. The formal list of invitees to the Final Inspection is included in the Department's *Construction Manual*. Any items identified during the Final Inspection are listed in a Final Inspection "Punch List" and, once again, a time frame in which the corrections are to be made is identified.

Upon completion of the Final Inspection "Punch List", the District Construction Engineer, with the concurrence of the District Maintenance Engineer, will recommend the project for acceptance into the DelDOT maintenance system, except for any warranty items. Following resolution of all quantities, issues and the submission of required Releases from the Contractor a "Final Estimate" and Letter of Acceptance will be prepared in accordance to the DelDOT procedures outlined in the DelDOT *Construction Manual*. Issuance of the "Final Estimate" will trigger the Department's Finance Division to close out the project, initiate final audits and release remaining encumbered funds.

The closeout effort will include a "Lessons Learned" report, documenting what went well, potential improvements for future projects and verification that the project goals were met.

17.0 Project Documentation

Project Management Plan

Federal Highway Administration

17.0 PROJECT DOCUMENTATION

17.1 GENERAL

Project Controls maintains original Project files consisting of a records file and corresponding records index. The US 301 Project Controls group has implemented the use of a web based software package to provide for document archival functions and work flow processing. All correspondence including DelDOT and FHWA documents will be stored, tracked, and available for research and retrieval through the Document Control System.

To facilitate Design-Bid-Build Contract administration, the US 301 Project Controls group will use the selected Document Control software applications for all Contract administrative functions, including but not limited to scheduling, document control, payment processing, and other functions of a similar nature, and will provide a web-interface portal allowing secure access to the system. The Contractors will submit using the said web-interface portal, and in a format acceptable to Project Controls, all documents, plans, schedules, RFIs, and all other similar submissions required pursuant to the terms of the Contract Contracts.

17.2 DOCUMENT CONTROL PLAN

- Project Controls maintain original Project files consisting of a records file and corresponding records index.
- The Document Control system is being maintained on the Project servers. All correspondence including DelDOT and FHWA documents are being stored electronically within that system. Additionally, hard copies of final and other critical documents are being maintained as appropriate.
- To support proper cataloging of outgoing documents, the originators of such documents are responsible for including certain information on outgoing documents, as well as conforming to certain documentation standards. These standards are set forth in the Document Control Procedures Manual. For incoming documents, the recipients are responsible for providing a minimum level of information to Document Control to ensure proper cataloging.
- Search and retrieval of Project documentation is being accomplished through the use of the Project Document Control System. All documents are available either by hard copy or via the web-interface for use by the US 301 Project Team. Researchers, auditors, and others in need of Project Documentation request information by listing the documentation requested using the unique document record number. Controls respond to these requests by making copies of the requested documents. This process varies slightly for specialized documents such as drawings, reports, and certain submittal information.
- In addition to these fundamental cataloging, storage, and retrieval functions, Controls serves the Project Team by tracking and reporting the status of critical documents. The file index database includes information regarding the response requirements of incoming and outgoing correspondence, as well as for submittal reviews. Reports identify required responses and the responsible parties are supplied to the US 301 Management Team.

17.3 RECORD KEEPING AND DOCUMENT RETENTION

In adherence with the "keep it simple" philosophy established for the US 301 Project, DelDOT and the GEC have implemented the following procedures and systems for US 301 Document Control, Storage and Retrieval:

Document Storage & Retrieval:

A web based document management system (DMS) is being utilized for file sharing. The system is accessible via http://dms.us301.com. A login name and password has been provided to system users granting them access to the relevant files and folders. A folder structure has been developed where project team members are asked to file (upload) their documents in the appropriate folder(s). Additionally they will have the ability to retrieve (download) documents from the document management system.

Email Storage & Retrieval:

Each project team member is sending and receiving email from their individual email domain (e.g.state.de.us). In order to provide for the required central storage repository for project related emails, a project email address (dc@us301.com) is being utilized, which has been added as a "to" or "cc" to all project related emails both incoming and outgoing. As with Document storage, a simple folder structure has been developed (i.e., Section 1 – General, PSE, Final Design, etc.). The sender is requested to include the folder designation in the email's subject line; this assists the Document Manager with the filing and aids in quicker future retrieval. Direct access to the central email account will not be available; however document control periodically generates PDF files containing project emails and file this information in the aforementioned DMS allowing broad access. Documents forwarded as attachments to emails are also stored in the DMS folders established for document storage and retrieval (if not deposited by the originator) as appropriate.

Example Process Flow:

The Section Designer for Section 2 is ready to submit their PS&E package for DelDOT review. The SDC deposits the documents in the DMS under the "Section Designers/Section 2/Plans Submissions" folder. The SDC then prepares an email to DelDOT, with a "cc" to dc@us301.com and indicates that the package is ready for review, noting the DMS location under which the documents have been stored. The Document Manager receives the email, files it in the appropriate folder and records the submittal of the PS&E package in the tracking spreadsheet. After discussion with the Project Manager, the package is assigned to the appropriate DelDOT and GEC staff for review and comment. As comments are transmitted directly back to the SDC, these emails are also copied to the document control email account and filed in the proper.

US 301: MD/DE LINE TO SR 1
DOCUMENT CONTROLS

Projectwide

Archives
- As-Builts

Guidelines
- Design Manual
- Pavement

Project Information
- Contact List
- Schedule
- Record of Decision
- FEIS
- Project Management Plan
- Cost Estimate

Submissions

Section 1

4 Survey Plans
- Plans
- Cost Estimate
- Comments

7. TS&L
- Plans
- Commentrs

13. Preliminary
- Plans
- Cost Estimate
- Comments

17. Semi-Final R/W

18. Semi-Final Plans
- Plans
- Cost Estimate
- Specifications
- Comments

20. Final R/W

23. Final Plans
- Plans
- Cost Estimate
- Specifications
- Comments

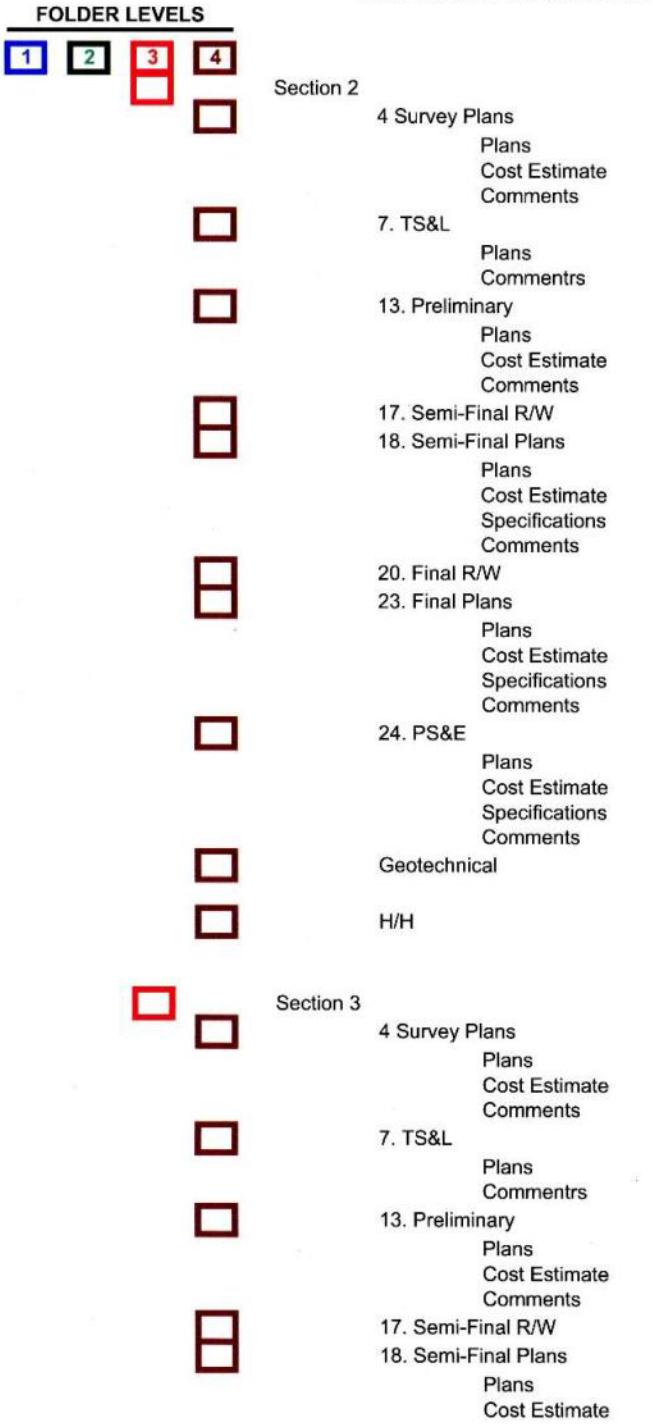
24. PS&E
- Plans
- Cost Estimate
- Specifications
- Comments

Geotechnical

H/H

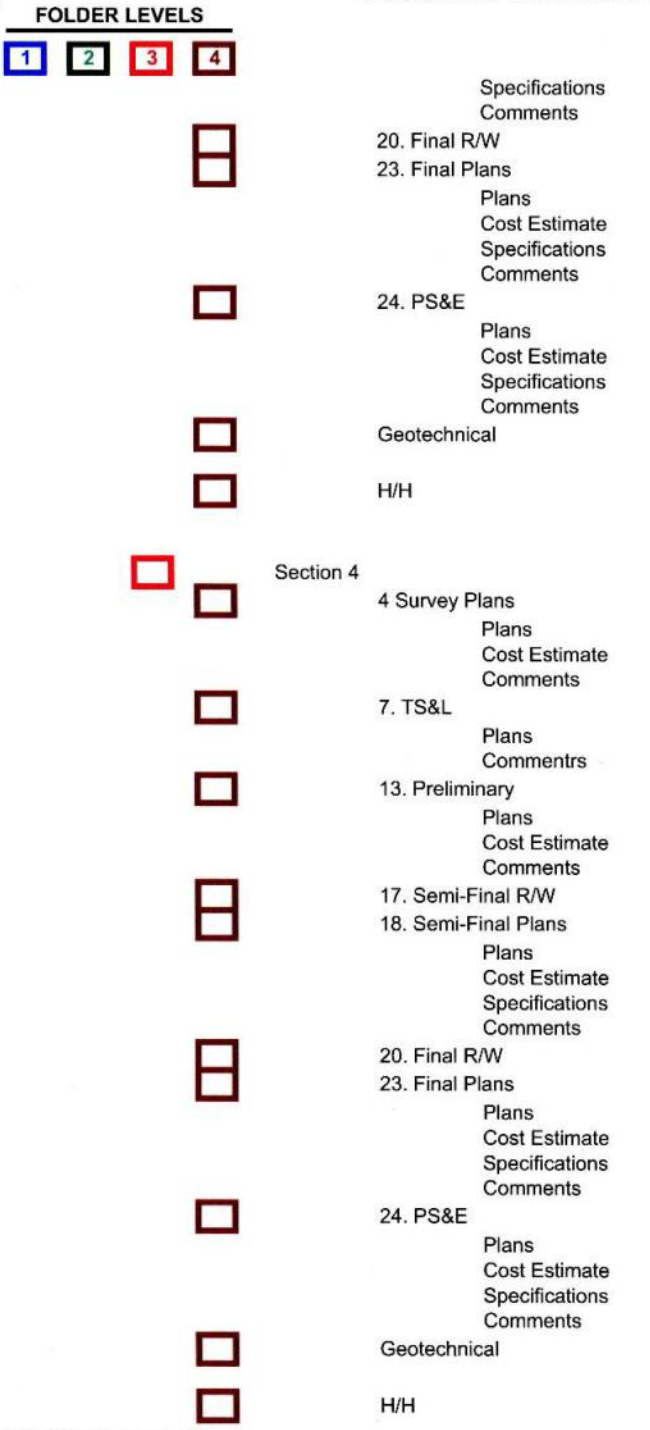
US 301 File Folder Structure
http://dms.us301.com

DOCUMENT CONTROLS



US 301 File Folder Structure
http://dms.us301.com

DOCUMENT CONTROLS



US 301 File Folder Structure
http://dms.us301.com

DOCUMENT CONTROLS

SECTION DESIGNERS ONLY

Section 1
- Plans Submissions
- Geotechnical
- SWM
- Environmental
- Right of Way

Section 2
- Plans Submissions
- Geotechnical
- SWM
- Environmental
- Right of Way

Section 3
- Plans Submissions
- Geotechnical
- SWM
- Environmental
- Right of Way

Section 4
- Plans Submissions
- Geotechnical
- SWM
- Environmental
- Right of Way

US 301 File Folder Structure
http://dms.us301.com

17.4 PROJECT OFFICES

Controls functions as a centralized processing and control department for most Project activities. During all phases of the US 301 Project, the Document Control procedures and functions are replicated in the Project offices and tailored for the specialized area of Project documentation.

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18.0 Real Estate Right-of-Way

Project Management Plan

Federal Highway Administration

18.0 REAL ESTATE RIGHT-OF-WAY

This section discusses the real estate acquisition plan and process for the US 301 Project.

18.1 INTRODUCTION

The development and construction of the US 301 Project requires the acquisition of real estate including the displacement of some residential and non-residential occupants. Approximately 168 (27 full acquisitions and 141 partial acquisitions) parcels totaling 1,371 acres with an estimated value of $121 million are required for the Project. These include approximately 21 residential or non-residential displacements.

The property will be acquired in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, applicable Delaware law and normal DelDOT policies and procedures.

18.2 ACQUISITION

DelDOT is in the process of finalizing the properties needed for the Project, the boundaries of which are depicted on approved Right-of-Way Plans prepared by the SDCs and reviewed by the GEC prior to submission to DelDOT for approval. DelDOT is acquiring the ROW required in Delaware and the Maryland State Highway Administration (Maryland SHA) is acquiring the right-of-way required in Maryland, including easements and other property rights. DelDOT and Maryland SHA are staffing the ROW teams that are/will be available in the Project area to acquire ROW and deal with all ROW issues that arise.

Notification – Property owners and tenants are being notified by DelDOT and Maryland SHA by real estate representatives who will provide information about the project and answer questions.

Appraisal – As mandated by law, property owners will receive fair market value for any land and/or buildings that they are required to sell. A qualified, licensed independent appraiser will visit the property and consider recent sales in the same community or neighborhood, as well as current building costs and land values. Property owners can also provide the appraiser with information they feel may help estimate the value. The appraisal is then completed and approved by an independent review. Property owners may, at their own cost, obtain their own appraisal.

Negotiations – After the appraisal, a DelDOT or Maryland SHA real estate representative will contact the property owner with information on the amount of the land needed, the approved real estate appraisal, and the amount of compensation being offered. The property owner will also receive a written confirmation of the offer and be given time to consider the offer.

When an offer is accepted, both parties (DelDOT/Maryland SHA and the seller) sign a binding contract. The deed is signed over when the check is delivered at settlement (usually within 90 days).

If the offer is not accepted, Delaware and Maryland state law recognize the owners right to refuse the purchase offer and to have the value of the property established by the courts. However, DelDOT and Maryland SHA still have the right to acquire property needed for the project. The right of a government to take private property for public use is called “eminent domain.” Application will be made to the court in the respective county, indicating the need for DelDOT or Maryland SHA to obtain possession of property needed for project construction. This allows DelDOT to proceed with the project. Meanwhile, negotiations between the property owner and DelDOT/Maryland SHA continue. If a settlement still is not reached, just compensation will be determined through the Delaware or Maryland court system, as appropriate.

18.3 DEMOLITIONS

DelDOT Real Estate Services will handle demolition in advance of construction. No improvements are anticipated for acquisition and no demolition is anticipated in Maryland, only partial/strip acquisitions are required along existing US 301 in Maryland. All demolition not complete in advance will be performed by the Contractor during construction. The General Provisions and Special Provisions provide requirements for handling and disposal for any contaminated or hazardous materials found.

18.4 SCHEDULING

A schedule for right-of-way acquisition and relocation activities for each individual needed parcel is currently being developed and will be included in the Progress Schedule for each anticipated construction contract.

The schedule tracks the status of acquisition for the properties and the timing for those properties not yet acquired for each construction contract.

The status of property acquisitions is reviewed and discussed during each bi-weekly DelDOT/FHWA/GEC US 301 Management Team Conference Call.

DelDOT and Maryland SHA, as appropriate, Real Estate Services ensures all right-of-way needs are secure prior to issuance of construction contractor's a notice to proceed. In the event that the Contractor determines that the Critical Path is affected because a property is not available, the Contractor notifies DelDOT immediately to determine the best course of action to avoid such delay through alternative design or construction methods or revisions to the Baseline Progress Schedule or ROW Acquisition Schedule.

If properties are not available by the dates shown in the ROW Acquisition Schedule, the Contractor agrees to exercise good faith efforts to work around any delay and to minimize any time or cost impacts associated with changes in the ROW Acquisition Schedule.

19.0 ETC and ITS System Testing and Start-up

Project Management Plan

Federal Highway Administration

19.0 ETC AND ITS SYSTEM TESTING AND START-UP

19.1 ELECTRONIC TOLL COLLECTION SYSTEM: CONTRACTOR RESPONSIBILITIES

19.1.1 General

The Project will be constructed with an Electronic Toll Collection (ETC) system, including a mainline toll plaza as well as tolling facilities on north-serving ramps. The overall ETC system will be installed through multiple contracts, including US 301 Roadway Contracts, DelDOT's Traffic Engineering On-Call Contract, and a stand-alone ETC Contract.

The ETC system will consist of all technology components required for payment of highway tolls. The US 301 Roadway Contracts will construct the necessary structural, power, and communication infrastructure within their contract limits to establish a functional local network for electronic toll collection and violation enforcement. Work also includes the construction of toll gantries consisting of foundations, structural supports, sign structures, aesthetic treatments, and miscellaneous accessories. Gantries will be designed to support all electronic toll collection equipment, violation enforcement equipment, and non-toll ITS equipment.

The DelDOT On-Call Contract will install the communication network throughout the corridor while the ETC Contract will install the actual equipment and be responsible for integration. ETC Contract responsibilities include installation of automatic vehicle identification (AVI), automatic vehicle classification (AVC), and video enforcement systems (VES) equipment, including antennas, cameras, camera related illumination equipment, speed sensors, and overhead laser scanners, at each toll gantry.

Once the ETC system is locally functional, the ETC Contract will coordinate with DelDOT for data transmission from the Project Corridor to DelDOT's selected facility for toll collection and violation enforcement transactions for US 301. It is assumed that the US 301 ETC system will not require software upgrades to the existing DelDOT Host computer system. .

19.1.2 Testing

The ETC Contract will be required to develop a test plan for review and comment by DelDOT for all testing. The following tests shall be conducted, passed, fully documented, and sent to DelDOT for review:

- Subsystem Communication throughout test area and over the communication path between each field device and connection to the backbone/backhaul communication networkFactory Acceptance Test
- Site test for proper communications for a period of 30 days.
- Retests of system after any malfunctions or failures are corrected.
- Local field operations for ETC systems.
- A 30 day burn in test.

19.2 INTELLIGENT TRANSPORTATION SYSTEMS (NON-ETC)

19.2.1 General

An intelligent transportation system (ITS) will be constructed in an effort to improve the capability to manage and operate the transportation network for US 301 and the intersecting roadways in the Project area. All ITS work will be completed using a systems engineering approach. Design will be based on the Concept of Operations to be developed by the US 301 GEC.

All permanent equipment will be furnished and installed by DelDOT's on-call traffic engineering contracts, including closed circuit television cameras (CCTV), dynamic message signs (DMS), traffic sensors, and road weather information systems (RWIS). Devices will communicate via ISDN lines, fiber links, or wireless systems to allow maintained operations throughout construction. Electrical feeds and communication raceways will be installed by US 301 Contracts; communication equipment and network paths will be installed by the On-Call Contract.

All ITS elements will be operated by DelDOT and will be fully integrated into the TMC by DelDOT. The completed ITS network will be integrated with the statewide ITS deployment to provide continuous and uninterrupted service and associated communications throughout the region.

19.2.2 Testing

All testing will be performed and completed by DelDOT's on-call traffic engineering contract. All tests will be fully documented and sent to DelDOT for review.

Efforts Completed

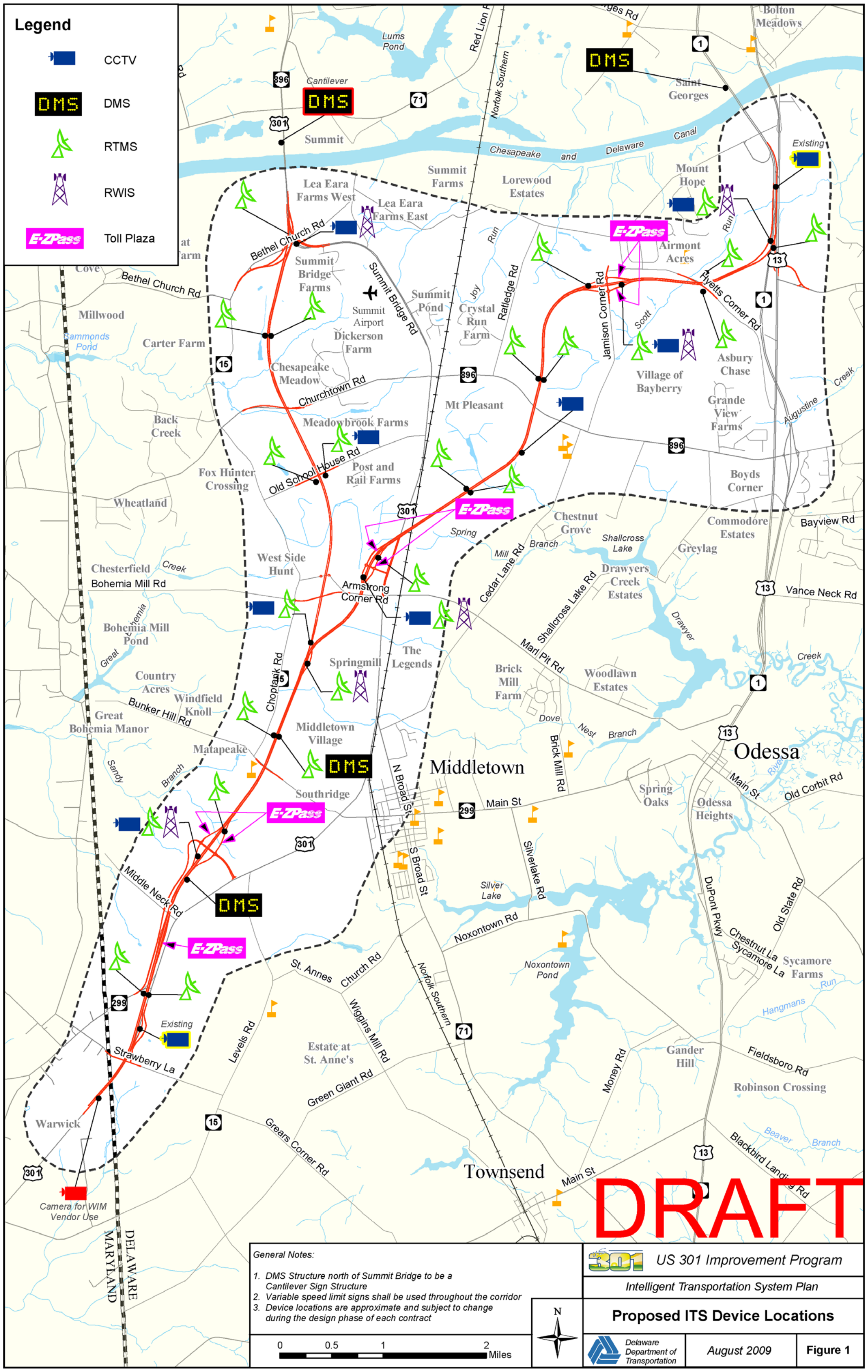
- Met with DelDOT to define the ITS functionality required for US 301.
- Developed a conceptual plan to location of ITS devices.
- Provided design details for ITS devices to the section designers.
- Defined specific communications needs with DelDOT

Efforts Underway

- Developing the Concept of Operations for submittal to FHWA.
- Reviewing design plans for compliance with the conceptual plan and for compliance with DelDOT practices.

Efforts to be Performed

- Define construction contracts to be used for ITS devices.
- Define responsibilities for field and TMC integration.



Legend
CCTV
DMS
RTMS
RWIS
E-ZPass
Toll Plaza
General Notes:
1. DMS Structure north of Summit Bridge to be a Cantilever Sign Structure
2. Variable speed limit signs shall be used throughout the corridor
3. Device locations are approximate and subject to change during the design phase of each contract
0 0.5 1 2 Miles
N
US 301 Improvement Program
Intelligent Transportation System Plan
Proposed ITS Device Locations
Delaware Department of Transportation
August 2009
Figure 1
DRAFT
Cantilever
Existing
Camera for WIM Vendor Use
Chesapeake and Delaware Canal
Summit
Saint Georges
Lums Pond
Mount Hope
Lea Eara Farms West
Lea Eara Farms East
Summit Farms
Lorewood Estates
Airmont Acres
Bethel Church Rd
Summit Bridge Farms
Summit Airport
Summit Bridge Rd
Summit Pond
Crystal Run Farm
Dickerson Farm
Millwood
Carter Farm
Chesapeake Meadow
Churchtown Rd
Mt Pleasant
Jamison Corner Rd
Ratledge Rd
Village of Bayberry
Asbury Chase
Grande View Farms
Boyds Corner
Lynetts Corner Rd
Back Creek
Meadowbrook Farms
Fox Hunter Crossing
Old School House Rd
Post and Rail Farms
Wheatland
Chestnut Grove
Commodore Estates
Bayview Rd
Shallcross Lake
Greylag
Drawyers Creek Estates
Vance Neck Rd
Chesterfield
Bohemia Mill Rd
West Side Hunt
Armstrong Corner Rd
Cedar Lane Rd
Shallcross Lake Rd
Marl Pit Rd
Bohemia Mill Pond
The Legends
Springmill
Brick Mill Farm
Woodlawn Estates
Country Acres
Windfield Knoll
Bunker Hill Rd
Choptank Rd
Great Bohemia Manor
Middletown Village
Matapeake
Middletown
Odessa
Brick Mill Rd
Main St
Old Corbit Rd
Southridge
N Broad St
S Broad St
Spring Oaks
Odessa Heights
Silverlake Rd
Silver Lake
Middle Neck Rd
Noxontown Rd
Noxontown Pond
DuPont Pkwy
Old State Rd
Chestnut La
Sycamore La
Sycamore Farms
St. Annes Church Rd
Wiggins Mill Rd
Norfolk Southern
Levels Rd
Estate at St. Anne's
Strawberry La
Green Giant Rd
Money Rd
Gander Hill
Fieldsboro Rd
Robinson Crossing
Warwick
Grears Corner Rd
Blackbird Landing Rd
Townsend
MARYLAND
DELAWARE

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Appendix A

Project Management Plan

Federal Highway Administration

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 1

External ID:

Categories
- Avoidance and Minimizaton
- Community
- Farmland
- Site Specific

Responsible Parties
- Builder
- Designer

References

Orig -
- FEIS : Chapter 4, Section 3, Page 27, 28 (of 44)
- FEIS : Chapter 4, Section 3, Page 8 (of 44)
- FEIS : Chapter 4, Section 4, Page 21 (of 65)
- ROD : Chapter 5, pages 72 and 73
- ROD : Appendix B, page 1

Original - No direct impact to Wooleyhan & Emerson Farms parcels as well as the proposed high school parcel north of Boyds Corner Road and east of Ratledge Road.

Modified -

ComID: 2

External ID:

Categories
- Community
- Mitigation
- Noise
- Site Specific
- Visual Screening Berm

Responsible Parties
- Builder
- Designer

References

Orig -
- ROD : Chapter 3, Page 21
- FEIS : Chapter 2, page 5
- ROD : Appendix B, page 1

Original - Visual screening berm for Middletown Veterinary Hospital 6' x 900'.

Modified -

ComID: 3

External ID:

Categories
- Community
- Community Outreach & Coordination
- Construction
- Farmland
- Site Specific

Responsible Parties
- Designer
- GEC/DelDOT

References

Orig -
- FEIS : Appendix G, Page 12
- ROD : Chapter 4, page 61
- FEIS : Chapter 4, Section 8. Page 48, 49 (of 54)
- FEIS : Chapter 3, Page 24
- FEIS : Chapter 2, Page 5
- ROD : Attachment I, Page 7
- ROD : Appendix B, page 1

Original - Roadway connection between Strawberry Lane and existing US 301 - Alignment Option 1 Modified. The roadway connection will provide a safe, direct passage for oversized farm vehicles between the farming community west of US 301 and other farms and agriculturally oriented businesses located east of US 301.

Modified -

ComID: 4

External ID:

Categories
- BMP
- SWM

Responsible Parties
- Designer
- GEC/DelDOT

References

Orig -
- ROD : Chapter 5, page 80
- ROD : Chapter 3, page 19
- ROD : Appendix B, page 1

Original - Evaluate and utilize Low Impact Development (LID) technologies for SWM wherever possible; In addition, state-of-the-art Low Impact Development (LID) design and BMPs will be incorporated to the maximum extent practicable with particular emphasis on using linear ground water recharge facilities to treat SWM close to the source.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 5

External ID:

Categories
- Groundwater
- SWM

Responsible Parties
- Designer

References

Orig -
- FEIS : Chapter 3, Page 132
- ROD : Appendix B, page 1

Original - SWM facilities will be properly designed to prevent groundwater contamination in shallow aquifers and to manage stormwater runoff in accordance with Delaware's Sediment & Stormwater Regulations.

Modified -

ComID: 6

External ID:

Categories
- Avoidance and Minimizaton
- Retaining Walls
- RTE
- Site Specific

Responsible Parties
- Designer

References

Orig -
- FEIS : Chapter 2, page 6
- ROD : Appendix B, page 1

Original - Proposed retaining walls along SB ramp from SR 1 to US 301 to minimize impacts to Scott Run wetlands identified as potential bog turtle habitat.

Modified -

ComID: 7

External ID:

Categories
- Access
- Avoidance and Minimizaton
- Community
- Community Outreach & Coordination
- Design Considerations
- Site Specific

Responsible Parties
- Designer

References

Orig -
- FEIS : Chapter 4, Section 7. Page 14 (of 35)
- FEIS : Chapter 4, Section 1, Page 12 (of 26)
- FEIS : Chapter 4, Section 8, Page 33 (of 54)
- FEIS : Chapter 4, Section 7, Page 15 (of 35)
- FEIS : Chapter 4, Section 2, Pages 23, 24 (of 26)
- FEIS : Chapter 4, Section 1, Page 15 (of 26)
- FEIS : Chapter 2, page 6
- ROD : Appendix B, page 1

Original - Churchtown Road overpass shifted slightly north to minimize stream and wetlands impacts to minimize residential impacts and provide access for Tidewater Utilities.

Modified -

ComID: 8

External ID:

Categories
- Access
- Community
- Construction
- Design Considerations
- Traffic

Responsible Parties
- Builder
- Designer

References

Orig -
- Design Refinements Report October 2011 : Design Refinements 4 and 15
- FEIS : Chapter 4,Section 1. Page 12 (of 26)
- FEIS : Chapter 2, page 6
- ROD : Appendix B, page 1

Original - MOT concepts to allow crossroads to remain open during overpass construction (Old Schoolhouse Road, Churchtown Road, Bohemia Mill Road, Bunker Hill Road, Jamison Corner Road, Hyetts Corner Road).

Modified - MOT concepts to allow most crossroads to remain open during overpass construction (Old Schoolhouse Road, Bohemia Mill Road, Bunker Hill Road, Jamison Corner Road). Churchtown Road will only remain open for emergency access and Hyetts Corner Road will be closed during construction.

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 9

Categories

- Avoidance and Minimizaton
- Community
- Construction
- Cultural Resources
- Design Considerations
- Design Review

References

Orig -
- FEIS : Chapter 4, Section 3. Page 10 (of 44)
- ROD : Appendix B, page 1
- FEIS : Chapter 4, Section 6, Page 3 (of 28)
- FEIS : Chapter 4, Section 4, Page 21 (of 65)
- FEIS : Chapter 4, Section 4, Page 2 (of 65)
- FEIS : Chapter 4, Section 4. Page 20 (of 65)
- FEIS : Chapter 4, Section 4. Page 13 & 14 (of 65)
- FEIS : Chapter 4, Section 4. Page 10 (of 65)
- FEIS : Chapter 4, Section 6, Page 9, 10 & 11 (of 28)
- FEIS : Chapter 4, Section 4. Page 4 (of 65)
- FEIS : Chapter 4, Section 6, Page 24 (of 28)
- FEIS : Chapter 4, Section 2. Page 8 (of 26)
- FEIS : Chapter 4, Section 2. Page 3 (of 26)
- FEIS : Chapter 4, Section 2. Page 2 (of 26)
- FEIS : Chapter 3, page 157
- FEIS : Chapter 2, page 6
- ROD : Attachment I, page 18
- ROD : Chapter 5, page 77
- FEIS : Chapter 4, Section 4. Page 9 (of 65)
- FEIS : Chapter 4, Section 9. Page 7 (of 37)
- FEIS : Chapter 4, Section 5. Page 6 (of 23)
- FEIS : Chapter 4, Section 5. Page 4 (of 23)
- FEIS : Chapter 4, Section 4. Page 7 (of 65)
- FEIS : Chapter 3, Page 67
- FEIS : Chapter 3, Page 40
- ROD : Attachment I, page 4
- FEIS : Appendix H, Page 8
- FEIS : Chapter 4, Section 6, Page 5 (of 28)
- FEIS : Chapter 4, Section 9. Page 25 (of 37)
- FEIS : Chapter 4, Section 6. Page 17 (of 28)
- FEIS : Chapter 4, Section 8. Page 37 (of 54)
- FEIS : Chapter 4, Section 8. Page 31 (of 54)
- FEIS : Chapter 4, Section 8. Page 16 (of 54)
- FEIS : Chapter 4, Section 8. Page 14 (of 54)
- FEIS : Chapter 4, Section 8. Page 6 (of 54)
- FEIS : Chapter 4, Section 7, Page 26 (of 35)
- FEIS : Chapter 4, Section 7, Page 14 (of 35)
- FEIS : Chapter 4, Section 9. Page 34 (of 37)

External ID:

Responsible Parties

- Designer

Original - Refinements to avoid or minimize community, property, social, economic, cultural and natural resources impacts will continue during final design.

Project: US 301

Description: The project consists of the construction of a new limited access highway

	GEC/DelDOT	**Modified -**

ComID: 10

External ID:

Categories	References
Avoidance and Minimizaton	**Orig -** * ROD : Appendix B, page 1
Community	
Site Specific	

Responsible Parties	
Builder	**Original -** Avoid direct impacts to Middletown Baptist Church and parking lot.
Designer	**Modified -**

ComID: 11

External ID:

Categories	References
Avoidance and Minimizaton	**Orig -** * ROD : Appendix B, page 1
Community Outreach & Coordination	
Construction	
Design Considerations	

Responsible Parties	
GEC/DelDOT	**Original -** Continue to consult with developers regarding the impacts of US 301 on planned developments.
	Modified -

ComID: 12

External ID:

Categories	References
Community	**Orig -** * ROD : Appendix B, page 1
Community Outreach & Coordination	
Farmland	
Property Acquisition	

Responsible Parties	
GEC/DelDOT	**Original -** Fair compensation for farmland acquired; also compensation provided for remainder portions left unsuitable or inaccessible for farming.
	Modified -

ComID: 13

External ID:

Categories	References
Community	**Orig -** * FEIS : Chapter 4, Section 2. Page 10 (of 26)
Property Acquisition	* FEIS : Chapter 3, page 44
Relocation Assistance	* FEIS : Chapter 3, page 40
	* ROD : Appendix B, page 1

Responsible Parties	
GEC/DelDOT	**Original -** Fair compensation and relocation assistance for residential and business displacements.
	Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 14

Categories

- Aesthetics
- Community
- Mitigation
- Noise
- Site Specific
- Visual Screening Berm

References

Orig -

- FEIS : Chapter 4, Section 5, Page 14 (of 23)
- ROD : Chapter 3, Page 21
- ROD : Chapter 5, Page 83
- ROD : Attachment I, Page 1
- ROD : Attachment I, Page 2
- ROD : Attachment I, Page 7
- ROD : Attachment I, Page 17
- FEIS : Chapter 3, page 46
- FEIS : Chapter 4, Section 1. Page 6 (of 26)
- FEIS : Chapter 4, Section 1. Page 21 (of 26)
- FEIS : Chapter 4, Section 3. Page 25 (of 44)
- FEIS : Chapter 4, Section 3. Page 31 (of 44)
- FEIS : Chapter 4, Section 3. Page 44 (of 44)
- ROD : Appendix B, page 1
- FEIS : Chapter 4, Section 5, Page 2 (of 23)
- FEIS : Chapter 4, Section 4, Page 18 (of 65)
- FEIS : Chapter 4, Section 5, Page 22 (of 23)
- FEIS : Chapter 4, Section 6, Page 13 (of 28)
- FEIS : Chapter 4, Section 7, Page 10 (of 35)
- FEIS : Chapter 4, Section 7, Page 14 (of 35)
- FEIS : Chapter 4, Section 8. Page 2 (of 54)
- FEIS : Chapter 4, Section 8. Page 8 (of 54)
- FEIS : Chapter 4, Section 8. Page 10 (of 54)
- FEIS : Chapter 4, Section 8. Page 46 (of 54)
- ROD : Chapter 3, Page 21
- FEIS : Chapter 3, page 34
- FEIS : Chapter 3, Page 35, 36, 37, 38
- FEIS : Chapter 4, Section 1, page 11 (of 26)
- FEIS : Chapter 4, Section 4, Page 34 (of 65)

External ID:

Responsible Parties

- Builder
- Designer

Original - Provide visual screening earth berms for the Middletown Veterinary Hospital, Southridge, Middletown Village, Springmill, Chesapeake Meadow, and Airmont communities.

Modified -

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 15

External ID:

Categories
- Aesthetics
- Community
- Landscaping

Responsible Parties
- Builder
- Design/Builder

References

Orig -
- FEIS : Chapter 3, Page 35
- FEIS : Chapter 4, Section 7. Page 16 (of 35)
- FEIS : Chapter 4, Section 2. Page 17 (of 26)
- FEIS : Chapter 4, Section 2. Page 13 (of 26)
- ROD : Attachment I, Page 7
- ROD : Attachment I, Page 2
- ROD : Attachment I, page 1
- ROD : Chapter 3, page 16
- ROD : Appendix B, page 2

Original - Develop visual screening landscaping where practicable for affected communities, adjacent to new US 301 and the Spur Road, during final design, implement during construction.

Modified -

ComID: 16

External ID:

Categories
- Bicycle and Pedestrian
- Community
- Easement
- Parkland
- Site Specific

Responsible Parties
- Designer

References

Orig -
- ROD : Appendix B, page 2

Original - Design new US 301 roadway to accommodate the proposed Scott Run Greenway to provide full connectivity of the greenway paths.

Modified -

ComID: 17

External ID:

Categories
- Construction
- Visual Screening Berm

Responsible Parties
- Builder

References

Orig -
- FEIS : Chapter 4, Section 4. Page 19 (of 65)
- FEIS : Appendix H, Page 8
- FEIS : Chapter 4, Section 8. Page 10 (of 54)
- FEIS : Chapter 4, Section 8. Page 2 (of 54)
- FEIS : Chapter 4, Section 7. Page 6 (of 35)
- FEIS : Chapter 4, Section 7. Page 4 (of 35)
- FEIS : Chapter 4, Section 3. Page 25 (of 44)
- FEIS : Chapter 4, Section 1. Page 21 (of 26)
- FEIS : Chapter 3, page 46
- ROD : Attachment I, Page 17
- ROD : Attachment I, Page 2
- ROD : Attachment I, page 1
- ROD : Chapter 4, Page 61
- ROD : Appendix B, page 2

Original - Construct visual berms and other landscape screening prior to roadway construction, if practicable.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 18

Categories
- Community
- Design Considerations
- Lighting

References

Orig -
- FEIS : Chapter 4, Section 6, Page 13 (of 28)
- FEIS : Chapter 4, Section 5, Page 14 (of 23)
- FEIS : Chapter 4, Section 4, Page 35 (of 65)
- FEIS : Chapter 3, page 46
- ROD : Appendix B, page 2

External ID:

Responsible Parties
- Designer

Original - Design roadway lighting wherever practicable to focus on roadway and away from communities and surrounding landscape to minimize effects.

Modified -

ComID: 19

Categories
- Avoidance and Minimizaton
- Community
- Construction
- Cultural Resources
- Design Considerations
- Mitigation
- Noise

References

Orig -
- FEIS : Appendix H, Page 8
- FEIS : Chapter 4, Section 9. Page 15 (of 37)
- FEIS : Chapter 3, page 46
- ROD : Attachment D, Page 8
- ROD : Chapter 5, page 84
- ROD : Appendix B, page 2

External ID:

Responsible Parties
- Designer
- GEC/DelDOT
- Lead Agency
- Permitting Agency

Original - Provide visual and/or noise mitigation for historic properties as determined in consultation with SHPO and other consulting parties, as practicable. DelDOT will also seek ways to avoid and minimize adverse effects in the design of the project such as but not limited to, decreasing grades, creating cuts or otherwise manipulating the elevation of the roadway and ramps where deemed appropriate.
To the degree practicable, FHWA and DelDOT will ensure that any mitigation elements installed are complementary to the surrounding environment and/or natural vegetation, without introducing additional visual effects that may be considered cumulative in nature.

Modified -

ComID: 20

Categories
- Cultural Resources

References

Orig -
- FEIS : Appendix H, Page 4
- FEIS : Chapter 4, Section 9. Page 11 (of 37)
- ROD : Attachment D, Page 8
- ROD : Attachment D, Page 4
- ROD : Chapter 5, Page 85
- ROD : Appendix B, page 2

External ID:

Responsible Parties
- GEC/DelDOT

Original - Conduct Phase I/II archaeological testing of LOD/APE prior to commencement of construction, using the predictive model as a tool to determine levels of testing required, in accordance with stipulations in the Memorandum of Agreement.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 21

External ID:

Categories	References
Air Quality	Orig - * ROD : Appendix B, page 2
Construction	
Monitoring	
Responsible Parties	**Original -** Include project in regional air quality conformity analysis through construction and operation.
Builder	**Modified -**

ComID: 22

External ID:

Categories	References
BMP	Orig - * FEIS : Chapter 3, page 212
Construction	* FEIS : Chapter 3, Page 128
Environmental Compliance Implementation	* FEIS : Chapter 3, Pages 141 and 142
ESC	* ROD : Chapter 5, page 80
Revegetation and Replanting	* ROD : Appendix B, page 2
Responsible Parties	**Original -** Lessen impacts to soils through BMPs (erosion & sediment control, comprehensive grading plans, sediment & soil stabilization techniques) and a comprehensive re-vegetation effort during construction to quickly reestablish vegetative cover for erosion control and to establish long-term tree & shrub revegetation.
Builder	**Modified -**
Designer	

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 23

External ID:

Categories

Avoidance and Minimizaton
Bridges
Site Specific
Waters of the US
Wetlands
Wildlife
Wildlife Passage

Responsible Parties

Designer

References

Orig -
* Agency Meeting Minutes 091509 : Page 4
* ROD : Attachment A, Page 2
* ROD : Chapter 3, page 16
* ROD : Appendix B, page 2

Original - Bridge surface water features and wetlands to minimize impacts to waters and wetlands and adjacent resources, and allow wildlife passage. Wetland/wildlife bridges listed in Attachment A, page 2:
US 301 Mainline Bridges (2) over wetlands and Sandy Branch Tributary (STA 264+00)
Levels Road Interchange Ramp Bridge over wetlands and Sandy Branch Tributary (STA 265+00 Lt.)
Levels Road Interchange Ramp Bridge over wetlands and Sandy Branch Tributary (STA 273+00 Lt.)
US 301 Mainline Bridges (2) over wetlands and Sandy Branch Tributary (STA 273+00)
US 301 Mainline Bridges (2) over wetlands and Drawyer Creek (STA 497+00)
Wildlife passage (deer or large mammal) east of Ratledge Road and north of Boyds Corner Road (STA 555+00)
US 301 Mainline Bridges (2) over wetlands and Scott Run (STA 669+00)
Hyetts Corner Road over wetlands and Scott Run (STA 670+00 Lt.)
US 301 Mainline Bridges (2) over wetlands and Scott Run (STA 689+00)
SR 1 Interchange Ramp Bridge over Scott Run (STA 774+00)
US 301 Mainline Bridges (2) over wetlands and Back Creek (STA 205+50)
US 301 Mainline Bridges (2) over wetlands and Back Creek (STA 230+00)

Modified - Bridge surface water features and wetlands to minimize impacts to waters and wetlands and adjacent resources, and allow wildlife passage. Wetland/wildlife bridges listed in Attachment A, page 2:
US 301 Mainline Bridges (2) over wetlands and Sandy Branch Tributary (STA 264+00)
Levels Road Interchange Ramp Bridge over wetlands and Sandy Branch Tributary (STA 265+00 Lt.)
Levels Road Interchange Ramp Bridge over wetlands and Sandy Branch Tributary (STA 273+00 Lt.)
US 301 Mainline Bridges (2) over wetlands and Sandy Branch Tributary (STA 273+00)
US 301 Mainline Bridges (2) over wetlands and Drawyer Creek (STA 497+00)
Wildlife passage (deer or large mammal) east of Ratledge Road and north of Boyds Corner Road (STA 555+00)
US 301 Mainline Bridges (2) over wetlands and Scott Run (STA 669+00)
Hyetts Corner Road over wetlands and Scott Run (STA 670+00 Lt.)
SR 1 Interchange Ramp Bridge over Scott Run (STA 774+00)
US 301 Mainline Bridges (2) over wetlands and Back Creek (STA 205+50)
US 301 Mainline Bridges (2) over wetlands and Back Creek (STA 230+00)

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 24

Categories

Aquatic Biota
Floodplains
Forest
Revegetation and Replanting
Site Specific
Stream Restoration
Streams
Surface Water

Responsible Parties

GEC/DelDOT

References

Orig -
* ROD : Chapter 5, page 81
* FEIS : Chapter 3, page 142
* ROD : Attachment A, Page 1
* ROD : Appendix B, page 2

External ID:

Original - Riparian buffer restoration and enhancement (riparian vegetation plantings) along stream corridors and/or adjacent to existing vegetation buffers:
-East of Choptank Road and west of Summit Bridge Road, at Springmill, approximately 48 acres in the Dove Nest Branch headwaters
-East of Norfolk Southern Railroad and north of Marl Pit Road, approximately 21 acres in the Spring Mill Branch headwaters
-South of Boyds Corner Road and west of Cedar Lane Road, east of the preferred alternative, approximately 14 acres in the Drawyer Creek headwaters
-South of Boyds Corner Road and west of Cedar Lane Road, west of the preferred alternative, approximately 33 acres in the Drawyer Creek headwaters
-North of Hyetts Corner Road and west of SR 1 west of the preferred alternative, pursue approximately 46 acres in the Scott Run Watershed

Modified -

ComID: 25

Categories

Agency Coordination

Responsible Parties

GEC/DelDOT
Lead Agency
Permitting Agency

References

Orig -
* FEIS : Chapter 4, Section 9. Page 26 (of 37)
* FEIS : Chapter 4, Section 9. Page 20 (of 37)
* FEIS : Chapter 4, Section 9. Page 7 (of 37)
* FEIS : Chapter 4, Section 6, Page 17 (of 28)
* FEIS : Chapter 3, page 160
* ROD : Attachment I, page 26
* ROD : Appendix B, page 2

External ID:

Original - Continued coordinated review by the regulatory agencies of the project through final design (including DNREC, USACE, SHPO, FHWA, etc).

Modified -

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 26

External ID:

Categories
- Avoidance and Minimizaton
- Design Considerations
- Retaining Walls
- Waters of the US
- Wetlands

Responsible Parties
- Designer
- GEC/DelDOT

References

Orig -
- FEIS : Chapter 3, Page 157
- FEIS : Chapter 3, Page 173
- ROD : Appendix B, page 2

Original - Evaluate retaining walls and alignment changes to further reduce impacts to wetlands/Waters of the US during final design.

Modified -

ComID: 27

External ID:

Categories
- Mitigation
- Site Specific
- Wetlands

Responsible Parties
- GEC/DelDOT

References

Orig -
- FEIS : Summary, Page 20
- FEIS : Chapter 4, Section 9. Page 32 (of 37)
- FEIS : Chapter 4, Section 9. Page 30 (of 37)
- FEIS : Chapter 4, Section 9. Page 20 (of 37)
- FEIS : Chapter 3, page 157
- FEIS : Chapter 3, page 160
- ROD : Attachment A, Page 1
- ROD : Chapter 5, Page 81
- ROD : Chapter 3, page 15
- ROD : Appendix B, page 3

Original - Provide a minimum of 58 acres of wetland mitigation (creation) including forested and emergent areas, some of which must be permanently saturated and some seasonally saturated, on two selected sites (Levels Road site and Pleasanton site). Concept plans will include site specific water budgets and hydrogeomorphic modeling.

Modified -

ComID: 28

External ID:

Categories
- Environmental Stewardship
- Mitigation
- Site Specific
- Wetlands

Responsible Parties
- GEC/DelDOT

References

Orig -
- FEIS : Summary, Page 20
- ROD : Chapter 3, Page 20
- FEIS : Chapter 4, Section 9. Page 32 (of 37)
- FEIS : Chapter 4, Section 9. Page 30 (of 37)
- FEIS : Chapter 4, Section 9. Page 20 (of 37)
- FEIS : Chapter 3, page 160
- FEIS : Chapter 3, page 157
- ROD : Attachment A, Page 1
- ROD : Chapter 5, Page 81
- ROD : Appendix B, page 3

Original - Provide an additional seven acres of wetland enhancement (by converting farmed emergent wetlands to a forested wetland) and 20 acres of high quality forested wetland conservation in the Scott Run watershed.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 29

External ID:

Categories

- Environmental Stewardship
- Reforestation
- Site Specific
- Stream Restoration
- Waters of the US

Responsible Parties

- Designer
- GEC/DelDOT

References

Orig -
- FEIS : Summary, Page 20
- ROD : Chapter 3, page 20
- FEIS : Chapter 3, page 161
- FEIS : Chapter 3, page 157
- ROD : Attachment A, Page 1
- ROD : Chapter 5, Page 81
- ROD : Chapter 3, page 15
- ROD : Appendix B, page 3

Original - Provide approximately 55 linear feet of stream restoration (on Scott Run where Hyetts Corner Road crosses Scott Run) and create approximately 50 acres of new riparian buffer along the northern & southern tributaries of Drawyers Creek.

Modified -

ComID: 30

External ID:

Categories

- Construction
- Floodplains

Responsible Parties

- Builder
- Permitting Agency

References

Orig -
- FEIS : Chapter 3, page 165
- ROD : Appendix B, page 3

Original - All construction within the 100-year floodplain will comply with FEMA-approved local floodplain construction requirements.

Modified -

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 31

External ID:

Categories
- Forest
- Mitigation
- Reforestation
- Site Specific

Responsible Parties
- GEC/DelDOT

References

Orig -
- FEIS : Chapter 3, Page 229
- FEIS : Summary, page 20
- FEIS : Chapter 4, Section 4, Page 34 (of 65)
- FEIS : Chapter 3, page 174
- FEIS : Chapter 3, page 173
- ROD : Attachment A, Page 1
- ROD : Chapter 5, Page 81
- ROD : Chapter 3, Page 21
- ROD : Chapter 3, page 15
- ROD : Appendix B, page 3

Original - Provide forest mitigation in accordance with Delaware Forest Conservation Act –

Mitigation Requirements are:
- 1-10 trees removed = 1:1 tree replacement ratio;
- 11-49 trees removed = 2:1 tree replacement ratio;
- 50 or more trees removed = acre for acre forest area replacement ratio.

Approximately 67 acres of forest will be planted on six selected sites
- North of Bunker Hill Road (5 acres)
- Ratledge Road Area (24 acres in three locations)
- Hyetts Corner Road (22 acres)
- Summit Bridge Farms (16 acres)

These sites will be reforested with deciduous hardwood and climax tree species such as oak, hickory and maple.

Modified -

ComID: 32

External ID:

Categories
- Forest
- Mitigation
- Reforestation

Responsible Parties
- Designer
- GEC/DelDOT
- Permitting Agency

References

Orig -
- FEIS : Chapter 3, Page 229
- FEIS : Chapter 3, page 174
- ROD : Appendix B, page 3

Original - Provide forest replacement for impacts in Maryland according to the Maryland Reforestation Law and Roadside Tree Law in coordination with Maryland state agencies. 1:1 replacement of forest will be required for any forest areas removed by implementation of the Preferred Alternative. Coordination with Maryland State Agencies will determine the solution to compensate for the impacted forest.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 33

External ID:

Categories
- Aquatic Biota
- BMP
- Design Considerations
- Non-Native Species Removal
- Revegetation and Replanting

Responsible Parties
- Builder
- Designer

References

Orig -
- FEIS : Chapter 4, Section 9. Page 27 (of 37)
- FEIS : Chapter 3, Page 177
- ROD : Appendix B, page 3

Original - Minimize impacts to aquatic biota through BMPs & design modifications in sensitive areas; eliminate/reduce non-native species; re-establish native populations in areas where they are removed for construction.

Modified -

ComID: 34

External ID:

Categories
- Agency Coordination
- Permits

Responsible Parties
- GEC/DelDOT
- Permitting Agency

References

Orig -
- FEIS : Chapter 3, page 185
- ROD : Appendix B, page 3

Original - Obtain a Coastal Zone Consistency Statement before conducting federally permitted activities.

Modified -

ComID: 35

External ID:

Categories
- Agency Coordination
- Avoidance and Minimizaton
- Parkland

Responsible Parties
- GEC/DelDOT
- Permitting Agency

References

Orig -
- FEIS : Chapter 3, page 189
- ROD : Appendix B, page 3

Original - Continue coordination with DNREC to avoid, minimize or mitigate impacts to “unique and sensitive areas” such as State Resource Areas and Natural Areas.

Modified -

ComID: 36

External ID:

Categories
- Agency Coordination
- Monitoring
- Site Specific
- Traffic

Responsible Parties
- GEC/DelDOT

References

Orig -
- ROD : Appendix B, page 3

Original - Coordination between MDSHA and DE DOT to provide a traffic monitoring program to include traffic counts before and after the opening of each of the US 301 weigh stations (in MD at US 301/MD 299 intersection and in DE on northbound US 301 just north of the state line).

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 37

External ID:

Categories
- Design Considerations
- Monitoring
- Site Specific
- Traffic

Responsible Parties
- Designer
- GEC/DelDOT

References

Orig - * ROD : Appendix B, page 4

Original - Continued evaluation of traffic toll diversions, including:
- evaluation and implementation of truck restrictions and enhanced enforcement efforts on local MD and DE roads
- provision of virtual weigh stations on roadways identified as having potential truck diversions due to weigh & inspection stations.
- consideration of truck length restrictions on MD 213
- consideration of engineering measures on MD 282 to address excessive speed
- consideration of Sassafrass Road/US 301 median closure

Modified -

ComID: 38

External ID:

Categories
- Air Quality
- Community
- Construction

Responsible Parties
- Builder

References

Orig - * Design Refinements Report October 2011 : Page 36
* FEIS : Chapter 3, page 211
* ROD : Appendix B, page 4

Original - Limit construction activities to weekday daylight hours in accordance with local ordinances; control emissions from construction equipment in accordance with state & federal regulations.

Modified - Limit construction activities to weekday daylight hours, except when construction at night would result in benefits to motorist safety and maintenance of traffic. Control emissions from construction equipment in accordance with state & federal regulations.

ComID: 39

External ID:

Categories
- Avoidance and Minimizaton
- Design Considerations

Responsible Parties
- Designer

References

Orig - * FEIS : Chapter 4, Section 4, Page 28 (of 65)
* FEIS : Chapter 4, Section 4, Page 26 (of 65)
* ROD : Appendix B, page 4

Original - Continue to adjust and refine the alignment to avoid and/or minimize impacts to individual properties and communities.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 40

External ID:

Categories
- Community
- Design Considerations
- Visual Screening Berm

Responsible Parties
- Designer

References

Orig -
- FEIS : Chapter 4, Section 25 (of 44)
- FEIS : Chapter 4, Section 1, Page 21 (of 26)
- FEIS : Chapter 4, Section 8. Page 10 (of 54)
- FEIS : Chapter 4, Section 8. Page 2 (of 54)
- FEIS : Chapter 4, Section 7, Page 6 (of 35)
- FEIS : Chapter 4, Section 7, Page 4 (of 35)
- FEIS : Chapter 4, Section 4. Page 19 (of 65)
- ROD : Appendix B, page 4

Original - Examine the design/length of the earth berm at Airmont to determine whether extending the length of the berm would be feasible/cost effective.

Modified -

ComID: 41

External ID:

Categories
- Design Considerations
- Visual Screening Berm

Responsible Parties
- Designer

References

Orig -
- FEIS : Chapter 4, Section 8. Page 15 (of 54)
- ROD : Appendix B, page 4

Original - Optimize the design of all berms during final design.

Modified -

ComID: 42

External ID:

Categories
- Aesthetics
- Community
- Community Outreach & Coordination
- Design Considerations

Responsible Parties
- Designer
- GEC/DelDOT

References

Orig -
- FEIS : Chapter 3, Page 35
- FEIS : Chapter 4, Section 5, Page 22 (of 23)
- FEIS : Chapter 4, Section 4, Page 34 (of 65)
- ROD : Appendix B, page 4

Original - Continue outreach to affected parties and adjacent communities during final design of the Selected Alternative and its associated landscaping and other mitigations where feasible, to develop concepts; landscaping to be included in final design.

Modified -

ComID: 43

External ID:

Categories
- Aesthetics
- Avoidance and Minimizaton
- Environmental Stewardship
- Forest
- Site Specific

Responsible Parties
- Builder

References

Orig -
- FEIS : Chapter 4, Section 4, Page 36 (of 65)
- FEIS : Chapter 4, Section 4, Page 34 (of 65)
- ROD : Appendix B, page 4

Original - Do not take the row of trees behind Woodline Drive in Middletown Village.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 44

Categories
Community
Design Considerations
Site Specific
Surface Water

Responsible Parties
Builder

References
Orig - * ROD : Appendix B, page 4

External ID:

Original - Do not alter existing pond in Middletown Village near Woodline Drive.

Modified -

ComID: 45

Categories
Community
Community Outreach & Coordination

Responsible Parties
GEC/DelDOT

References
Orig - * ROD : Appendix B, page 4

External ID:

Original - Schedule the advanced acquisition reviews in a more timely manner to address advanced acquisition requests.

Modified -

ComID: 46

Categories
Construction
Design Considerations
Site Specific

Responsible Parties
GEC/DelDOT

References
Orig - * FEIS : Chapter 4, Section 7. Page 12 (of 35)
* ROD : Attachment I, page 23
* ROD : Chapter 6, page 103
* ROD : Chapter 3, page 16
* ROD : Appendix B, page 5

External ID:

Original - Provide an early contract to improve the sharp curve south of the Summit Bridge.

Modified -

ComID: 47

Categories
Design Considerations
Traffic

Responsible Parties
Designer
GEC/DelDOT

References
Orig - * ROD : Attachment I, page 23
* ROD : Attachment E, page 5
* ROD : Chapter 6, page 103
* ROD : Chapter 3, page 16
* ROD : Appendix B, page 5

External ID:

Original - Undertake a study of the Spur Road design speed.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 48

Categories
- Design Considerations
- Traffic

References

Orig -
- ROD : Attachment I, Page 13
- ROD : Attachment J, Page 10
- ROD : Attachment I, Page 23
- ROD : Attachment E, page 5
- ROD : Chapter 6, page 103
- ROD : Chapter 3, page 16
- ROD : Appendix B, page 5

External ID:

Responsible Parties
- Designer
- GEC/DelDOT

Original - Undertake an evaluation of the Spur Road median width.

Modified -

ComID: 49

Categories
- Construction
- Landscaping
- Mitigation
- Visual Screening Berm

References

Orig -
- ROD : Attachment I, Page 17
- ROD : Attachment E, page 5
- ROD : Chapter 6, page 103
- ROD : Chapter 3, page 16
- ROD : Appendix B, page 5

External ID:

Responsible Parties
- Builder
- Designer

Original - The construction of mitigation (berms and landscaping) will be an early activity in the roadway construction contracts.

Modified -

ComID: 50

Categories
- Avoidance and Minimizaton
- Design Review
- Farmland
- Site Specific

References

Orig -
- ROD : Attachment J, page 3
- ROD : Attachment E, page 5
- ROD : Chapter 6, page 103
- ROD : Chapter 3, page 19
- ROD : Appendix B, page 5

External ID:

Responsible Parties
- Designer
- GEC/DelDOT

Original - Evaluate the Spur Road alignment in the vicinity of the Steele farm property (encumbered by perpetual agricultural easement), north of the Chesapeake Meadow community, in an effort to reduce impacts.

Modified -

ComID: 51

Categories
- Avoidance and Minimizaton
- Bridges
- Environmental Stewardship

References

Orig -
- USACE Provisional Permit 081909 : Page 5, Special Condition 12
- ROD : Chapted 3, page 21
- ROD : Appendix B, page 5

External ID:

Responsible Parties
- Builder

Original - Minimize grubbing under bridges to the minimum necessary for construction.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 53

External ID:

Categories
- Construction
- Visual Screening Berm

Responsible Parties
- Builder

References

Orig -
- ROD : Appendix I, page 17
- ROD : Appendix B, page 5

Original - Use clean fill (Standard F Borrow Material, meeting current DelDOT specifications) to construct berms.

Modified -

ComID: 54

External ID:

Categories
- Avoidance and Minimizaton
- Environmental Stewardship
- Forest
- Mitigation
- Site Specific
- Wetlands

Responsible Parties
- GEC/DelDOT

References

Orig -
- ROD : Attachment A, page 1
- ROD : Chapter 4, Page 62
- ROD : Appendix B, page 5

Original - Provide an additional one acre of wetland creation and preserve approximately 6.5 acres of habitat (approximately 3.0 acres of forest and 3.5 acres of medium quality forested wetland) in the vicinity of the Strawberry Lane connector to mitigate impacts of Strawberry Lane Connection Option 1 Modified.

Modified -

ComID: 55

External ID:

Categories
- SWM

Responsible Parties
- Designer

References

Orig -
- ROD : Chapter 3, Page 19

Original - Reinforced SWM control elements will be utilized along stream corridors where flooding could occur.

Modified -

ComID: 56

External ID:

Categories
- Agency Coordination
- Design Considerations
- Permits
- SWM

Responsible Parties
- Designer

References

Orig -
- ROD : Chapter 3, Pages 19 & 20

Original - The Maryland Portion of the project will be designed in compliance with current MDE SWM regulations and the required MDE approvals will be obtained prior to construction.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 57

Categories
- Bridges
- Culverts
- Fence
- Wetlands
- Wildlife
- Wildlife Passage

References

Orig -
- USACE Provisional Permit 081909 : Page 4, Special Condition 9
- FEIS : Chapter 4, Section 9. Page 31 (of 37)
- FEIS : Chapter 4, Section 9. Page 26 (of 37)
- FEIS : Chapter 4, Section 9. Page 21 (of 37)
- FEIS : Chapter 4, Section 5, Page 5 (of 23)
- ROD : Attachement A, Page 2
- ROD : Chapter 3, pages 21 and 22

External ID:

Responsible Parties
- Builder
- Designer

Original - A dedicated wildlife passage has been incorporated into the Selected Alternative. The dedicated wildlife passage is located within the only forested block bisected by the Selected Alternative. This passage will accommodate deer and small mammals, US 301 Record of Decision 21 will be as short as possible, and will have funneling devices to encourage use. Other bridges over major stream/wetland crossings are designed to promote wildlife passage with minimum clearance requirements and longer spans.
The dedicated wildlife passage corridor will be approximately 10 feet high by 10 feet wide, and is located adjacent to the southern tributary of Scott Run, just north of Boyds Corner Road. The corridor will provide safe connectivity between high quality wetlands and forests placed under conservation and the downstream portions of Scott Run

Modified - A culvert will be designed to accommodate deer passage near Station 555+00. The culvert will be no longer than 180 feet. Because this culvert is being constructed specifically to accommodate deer passage, the interior dimensions will be 12-foot by 12-foot. Upon completion, there shall be a minimum of 6 inches of earth on the culvert floor. There shall be no riprap in either the bottom of the culvert or on the approaches to the culvert that would make the culvert inaccessible by deer, unless the riprap is buried. The deer cells will not be used to convey the baseflow of the stream. If other than a rectangular shape is used, the cross section of the alternative-shaped culvert shall be large enough that a 12-foot by 12-foot square could fit inside it. Chain-link wildlife exclusion fencing shall be used to funnel deer and other wildlife to the wildlife crossings. The top of the chain-link fencing shall be a minimum of 8 feet above the ground elevation, and the fence mesh shall penetrate the ground to a depth of one foot. A three foot high fence, constructed of 0.25" x 0.25" square wire mesh hardware cloth material shall be attached to the outside of the chain-link fencing where the fencing is adjacent to forested areas, stream valleys and SWM ponds, and buried to a depth of at least 6 inches, to form an impenetrable barrier to reptiles and amphibians. The wildlife exclusion fencing shall extend along the highway approximately one-half mile in each direction from each wildlife passage culvert or bridge, except where noise barriers or retaining walls are present and sufficient to exclude wildlife from the highway.

ComID: 58

Categories
- Aesthetics
- Design Considerations

References

Orig -
- FEIS : Chapter 4, Section 7. Page 16 (of 35)
- FEIS : Chapter 4, Section 7. Page 6 (of 35)
- FEIS : Chapter 4, Section 7. Page 4 (of 35)
- FEIS : Chapter 4, Section 3. Page 44 (of 44)
- FEIS : Chapter 4, Section 3. Page 25 (of 44)
- FEIS : Chapter 4, Section 1. Page 21 (of 26)
- ROD : Chapter 5, page 79
- ROD : Chapter 3, page 21

External ID:

Responsible Parties
- Designer

Original - The roadway profile will be kept as low in elevation as practicable, in order to make the facility less noticeable.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 59

External ID:

Categories
- Air Quality
- Construction
- Monitoring

Responsible Parties
- Builder

References

Orig - * ROD : Appendix B, page 5
* FEIS : Chapter 4, Section 9. Page 34 (of 37)
* ROD : Chapter 3, page 22

Original - The contract specifications will include the following to minimize mobile source emissions during construction:
-Vehicles and equipment will not be permitted to idle during long periods of time
-The measures utilized to prevent idling will be monitored during project construction
-Contractor specifications will include conformance with the latest EPA requirements regarding low and ultra-low sulfur fuels

Modified -

ComID: 60

External ID:

Categories
- Aesthetics
- Cultural Resources
- Mitigation
- Site Specific

Responsible Parties
- GEC/DelDOT

References

Orig - * ROD : Chapter 3, pages 22 and 23

Original - Mitigation measures will be developed to address audible and visual effects to historic resources through landscaping and/or other treatments at the following resources:
The Maples, Cultural Resource Survey (CRS) No. N-106;
S. Holton Farm, CRS No. N-107;
Choptank, CRS No. N-109;
Rumsey Farm, CRS No. N-113;
Summerton, CRS No. N-112;
Idalia Manor, CRS No. N-3947
Governor Benjamin T. Biggs Farm, CRS No. N-5123;
T.J. Houston Farm, N-5131;
Armstrong-Walker House, CRS No. N-5146;
Rosedale, CRS No. N-5148;
C. Polk House, CRS No. N-5221; and
US 301 Record of Decision 23
B.F. Hanson House, CRS No. N-5225.

Modified -

ComID: 61

External ID:

Categories
- Avoidance and Minimizaton
- Cultural Resources
- Mitigation

Responsible Parties
- GEC/DelDOT
- Permitting Agency

References

Orig - * ROD : Chapter 3, page 23

Original - Any archaeological resources (known or unexpectedly identified during project construction) will be addressed in accordance with NHPA and Section 4(f) regulations to avoid, minimize, or mitigate adverse effects to any such properties, as stipulated in the MOA.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 64

External ID:

Categories
- Mitigation

Responsible Parties
- Builder
- Designer
- GEC/DelDOT

References

Orig -
- FEIS : Summary, Page 20
- FEIS : Chapter 3, page 157
- ROD : Chapter 5, Page 81

Original - Ditch impacts will be mitigated in-kind by the creation of new ditches along the roadway.

Modified -

ComID: 66

External ID:

Categories
- Community
- Relocation Assistance

Responsible Parties
- GEC/DelDOT

References

Orig -
- FEIS : Summary, Page 15
- FEIS : Chapter 3, page 40
- FEIS : Chapter 3, Page 30
- ROD : Chapter 5, Page 82

Original - Relocation assistance will be provided to all residents and businesses as well as owners of properties as necessary in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act (1970) and Amendments (1987).

Modified -

ComID: 67

External ID:

Categories
- Community
- Community Outreach & Coordination
- Design Considerations
- Site Specific

Responsible Parties
- Designer
- GEC/DelDOT

References

Orig -
- ROD : Chapter 5, pages 83 and 84

Original - Cooperative efforts with the Appoquinimink School District will continue during design and implementation of US 301 to ensure the compatibility of the US 301 Project and the Appoquinimink High School Project.

Modified -

ComID: 68

External ID:

Categories
- Environmental Stewardship
- Forest
- Site Specific

Responsible Parties
- GEC/DelDOT

References

Orig -
- ROD : Attachemnt B, page 5
- ROD : Attachment A, page 1

Original - Approximately 3 acres of forest preservation at Strawberry Lane.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 69

External ID:

Categories
- Agency Coordination
- Cultural Resources

Responsible Parties
- GEC/DelDOT
- Lead Agency
- Permitting Agency

References

Orig -
- FEIS : Appendix H, Page 4
- ROD : Attachment D, Page 9
- ROD : Attachment D, page 7
- ROD : Attachment D, Page 4

Original - DelDOT shall prepare reports on findings of the archaeological identification/evaluation surveys and shall submit the reports to the DE SHPO and MD SHPO, as appropriate, for their review and concurrence. DelDOT shall ensure that all records and materials resulting from the archaeological investigations conducted for this undertaking in the State of Delaware are processed, prepared for, and curated in accordance with 36 CFR Part 79 and the Division of Historical & Cultural Affairs' (the Division) "Guidelines and Standards for the Curation of Archaeological Collections" (2001). These records and materials shall be curated at the Division, or its designee, following the policies of the institution, except as may be provided for under the following paragraph. As part of the Public Outreach efforts outlined in Stipulation LC. of the Agreement, the FHWA, DelDOT and DE SHPO will consult to determine if any archaeological materials may be loaned to a public museum or other public institution for the purposes of exhibit or research, following the Division's loan policy and procedures. Such loans and exhibits may occur only after the curatorial procedures, referenced in the first paragraph in this stipulation, have been completed. All materials and records resulting from cultural resources investigations conducted in the State of Maryland for the Project will be processed in accordance with the MD SHPO's Revised Technical Update No. 1 of the Standards and Guidelines for Archeological Investigations in Maryland - Collections and Conservation Standards (2005) and curated in accordance with 36 CFR 79 at the Maryland Archeological Conservation Laboratory, unless clear title or Deed of Gift to the collection cannot be obtained.

Modified -

ComID: 70

External ID:

Categories
- Agency Coordination
- Cultural Resources

Responsible Parties
- GEC/DelDOT
- Lead Agency
- Permitting Agency

References

Orig -
- FEIS : Appendix H, Pages 4 and 5
- ROD : Attachment D, Pages 4 & 5

Original - During the Evaluation Studies (Phase II), FHWA and DelDOT shall apply the National Register criteria (36 CFR 60.4) in accordance with 36 CFR 800.4 (c), taking into account applicable historic contexts and management plans developed for Delaware or Maryland's historic and prehistoric archaeological resources. If FHWA and DelDOT determine that any of the National Register criteria are met, and the DE SHPO and/or the MD SHPO agrees, as applicable, the archaeological site(s) shall be considered eligible for the National Register. If FHWA and DelDOT determine that the National Register criteria are not met, and the DE SHPO and or the MD SHPO agrees, as applicable, the archaeological site(s) shall be considered not eligible for the National Register. Based on the Evaluation Studies (Phase DI, should a signatory to this agreement not agree on the eligibility determination of an archaeological site(s), the DelDOT or FHWA shall obtain a determination from the Secretary of the Interior, pursuant to 36 CFR 800.4(~)(2)3, 6 CFR 63.2(c) and 63.3(d).

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 71

External ID:

Categories

Agency Coordination
Avoidance and Minimizaton
Community

Responsible Parties

GEC/DelDOT
Permitting Agency

References

Orig -
* FEIS : Appendix H, page 5, 6
* FEIS : Chapter 3, page 67
* ROD : Attachment D, pages 5 and 6

Original - If eligible archaeological sites are identified and affected within the APE, DelDOT will make a reasonable effort to avoid these sites or to minimize impacts to them. If the project will have an adverse effect on archaeological sites, DelDOT in consultation with the DE SHPO and/or MD SHPO, shall develop a treatment plan. The treatment plan may include elements of data recovery or an alternative mitigation plan. The treatment plan will be submitted to the relevant SHPO and other consulting parties. The data recovery plan will specify at a minimum:

• the property, properties, or portions of properties where data recovery is to be carried out, and any property that will or may be destroyed without data recovery;
• research questions to be addressed through data recovery, with an explanation of their relevance and importance;
• the research methods to be used, with an explanation of their relevance to the research questions;
• the methods to be used in analysis, data management, and data dissemination, including a schedule;
• a provision for assessing materials that may be in need of conservation
• proposed disposition of recovered materials and records;
• proposed methods for involving the interested public in the data recovery, and for disseminating the results of the work to the interested public;
• a proposed schedule for the submission of progress reports to the relevant SHPO; and
• provisions to meet on-site in order to evaluate the success of the initial fieldwork phase of any data recovery program, and near the end of the fieldwork efforts to validate substantial completion.

When and/or if an alternative mitigation strategy is chosen and approved by the DE SHPO, MD SHPO, FHWA, and DelDOT, it may include but is not limited to: analysis and synthesis of past data accumulated through either SHPO, FHWA, and DelDOT projects, updating the relevant SHPO and DelDOT archaeological websites and GIS databases, development of historic and prehistoric contexts and preservation priorities, statewide predictive models, development of travel or informational displays with the cultural resource work for this Project, and improved archaeological data management and access for both SHPO and DelDOT. DelDOT will complete all necessary data recovery field work prior to commencing construction in the site areas; alternative mitigation may or may not be completed prior to commencing construction in the site areas. DelDOT shall provide all draft and final archaeological reports and public information materials to the appropriate SHPO for review and comment. All final reports shall meet the Secretary of the Interior's standards and Guidelines for Archaeological Documentation (48 FR 44734-37), while also satisfying the necessary SHPO's guidelines for archaeological surveys or investigations.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 72

External ID:

Categories
- Agency Coordination
- Community Outreach & Coordination
- Cultural Resources
- Mitigation

Responsible Parties
- GEC/DelDOT
- Lead Agency
- Permitting Agency

References

Orig -
- FEIS : Appendix H, Page 6
- ROD : Attachment D, Page 6

Original - If mitigation is necessary, DelDOT will prepare a public participation plan and public information materials. DelDOT shall submit the plan and materials to the FHWA, DE SHPO, MD SHPO, and other consulting parties that may be identified for their review and comment. Upon receipt of the materials, the review period will be thirty (30) days. Following 30 days, DelDOT will take into account any comments received, and will recommend any next steps. The public participation plan may include, but is not limited to archaeological site tours for the public and educational groups. The specific public outreach materials produced will be determined individually for each site for which mitigation is necessary and may include, but are not limited to pamphlets, videos, historical markers, brochures, exhibits, displays for public buildings booklets on the history or prehistory of the project area, lectures and or presentations at academic conferences, and/or public institutions such as schools and historical societies. DelDOT shall distribute the public informational materials to consulting parties, local schools, historical societies, libraries, museums and/or other venues and individuals deemed pertinent in consultation with the DE SHPO, MD SHPO, and FHWA.

Modified -

ComID: 73

External ID:

Categories
- Agency Coordination
- Cultural Resources

Responsible Parties
- GEC/DelDOT
- Lead Agency
- Permitting Agency

References

Orig -
- FEIS : Appendix H, Page 7
- ROD : Attachment D, pages 6 and 7

Original - In the State of Delaware, DelDOT shall immediately notify the DE SHPO of the discovery of any human remains encountered during the archaeological investigations or the project construction. DelDOT shall cease all activities that may disturb or damage the remains, and comply with the Delaware Unmarked Human Remains Act (7DE code Chapter 54). In the State of Maryland, DelDOT shall follow the Maryland State burial law: Title 10 Subtitle 4 $5 10-401 through 10-404 of the Annotated Code of Maryland. Upon discovery, DelDOT shall cease all activities that may disturb or damage the remains. If the human remains are of Native American affiliation, then FHWA will determine an appropriate course of action, in accordance with 36 CFR 800, and the above cited state laws. The FHWA will include the DE SHPO and/or MD SHPO in such consultation. The DE SHPO or MD SHPO will comply with the Native American Graves Protection and Repatriation Act of 1990 (PL 101-601) with regard to disposition of the remains and/or associated funerary objects, as applicable.

Modified -

ComID: 74

External ID:

Categories
- Community Outreach & Coordination
- Cultural Resources

Responsible Parties
- GEC/DelDOT

References

Orig -
- FEIS : Appendix H, Page 8-9
- FEIS : Appendix H, page 6
- ROD : Attachment D, page 8

Original - As part of the public outreach efforts, DelDOT shall disseminate information on Delaware's architectural history, in relationship to the project and the APE.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 75

External ID:

Categories
- Agency Coordination
- Construction
- Cultural Resources
- Disposal
- Fill

Responsible Parties
- GEC/DelDOT
- Permitting Agency

References

Orig -
- FEIS : Attachment H, Page 9
- ROD : Attachment D, page 8 & 9

Original - DelDOT shall consult with the DE SHPO or the MD SHPO concerning the location for disposal of materials produced by any demolition, construction, excavation, and or dredging.
DelDOT shall not use any such locations if the DE SHPO or MD SHPO objects to proposed disposal sites.

Modified -

ComID: 76

External ID:

Categories
- Agency Coordination
- Cultural Resources

Responsible Parties
- GEC/DelDOT

References

Orig -
- FEIS : Appendix H, Page 9-10
- ROD : Attachment D, Page 9

Original - DelDOT shall ensure all cultural resource work carried out will be by or under the direct supervision of a person or persons meeting at a minimum the "Secretary of the Interior's Standards and Guidelines" (http://www.cr.nps.gov/local-law/Arch Standards.htm), formerly 61CFR Appendix A. DelDOT's Environmental Studies personnel will have direct authority to choose and authorize any qualified cultural resource management firms or subconsultant to carry out this work on an as-needed basis throughout the duration of the Project.

Modified -

ComID: 77

External ID:

Categories
- Agency Coordination
- Cultural Resources

Responsible Parties
- GEC/DelDOT
- Permitting Agency

References

Orig -
- FEIS : Appendix H, Page 10
- FEIS : Appendix H, page 6
- ROD : Attachment D, Pages 9 and 10

Original - All cultural resource surveys and data recovery plans will be done in accordance with Secretary of the Interior's Standards and Guidelines for Identification and Evaluation, and for Archaeological Documentation, and in accordance with the DE SHPO's Guidelines for Architectural and Archaeological Surveys in Delaware (1993) or the MD SHPO's Standards and Guidelines for Archeological Investigations in Maryland (Shaffer and Cole 1994), as applicable. Survey proposals and data recovery plans shall include a research design that stipulates: objectives, methods, and expected results; production of draft and final reports; and preparation of materials for curation in accordance with Stipulation I.E., including budgeting for initial conservation assessments and treatment. Additional requirements for data recovery plans are found in Stipulation I.B. of this Agreement. All data recovery plans shall also take into account the Advisory Council on Historic Preservation's guidance Recommended Approach for Consultation on Recovery of Significant Information from Archaeological Sites, and reports will meet professional standards set forth by the Department of the Interior's "Format Standards for Final Reports of Data Recovery Program" (42 FR 5377-79).
All data recovery plans, public outreach, or future consultation shall also follow and/or consider any supplemental guidance and provisions provided by, but not limited to, the American Association of State Highway Transportation Officials, FHWA, Transportation Research Boards, National Park Service, Advisory Council on Historic Preservation or recognized academic journals or professional organizations as identified by DelDOT and/or the SHPOs. DelDOT shall ensure that all draft and final cultural resource reports are provided to the FHWA and appropriate SHPO within two (2) years of the completion of fieldwork.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 78

External ID:

Categories
- Agency Coordination
- Cultural Resources

Responsible Parties
- GEC/DelDOT
- Lead Agency
- Permitting Agency

References

Orig - * FEIS : Appendix H, Page 10-11
* ROD : Attachment D, page 10

Original - If any unanticipated discoveries of cultural resources occur during construction, DelDOT shall immediately suspend work in the area of discovery, and FHWA shall comply with 36 CFR Part 800.13 by consulting with the DE SHPO or MD SHPO. The FHWA will notify the DE SHPO or MD SHPO within one working day of the discovery.
The FHWA, DelDOT, and the DE SHPO or MD SHPO will meet at the location of the discovery within forty-eight (48) hours of the initial notification to determine appropriate treatment of the discovery prior to resumption of construction activities within the area of discovery.

Modified -

ComID: 79

External ID:

Categories
- Agency Coordination
- Cultural Resources

Responsible Parties
- GEC/DelDOT
- Lead Agency
- Permitting Agency

References

Orig - * FEIS : Appendix H, Page 11
* ROD : Attachment D, pages 10-12

Original - Any amendments, objections (and resolutions to objections), reviews, extensions to the Cultural Resource memorandum of agreement require that FHWA consult with all other parties before any changes are made.

Modified -

ComID: 80

External ID:

Categories
- Community
- Community Outreach & Coordination
- Soils
- Visual Screening Berm

Responsible Parties
- GEC/DelDOT

References

Orig - * ROD : Attachment I, page 17

Original - DelDOT will provide Middletown Corridor Coalition (MCC) with berm soil samples for MCC analysis

Modified -

ComID: 82

External ID:

Categories
- Bridges
- Culverts
- Tax Ditch

Responsible Parties
- Designer

References

Orig - * FEIS : Chapter 3, page 165

Original - Affected tax ditches will be relocated along the toe of the highway embankment, or passed beneath the proposed highway culverts, in order to maintain present ditch flow patterns

Modified -

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 83

External ID:

Categories
- Avoidance and Minimizaton
- BMP
- Forest
- SWM

Responsible Parties
- Designer

References

Orig -
- * ROD : Attachment I, page 4
- * FEIS : Chapter 4, Section 9. Page 31 (of 37)
- * FEIS : Chapter 3, pages 173, 174

Original - Stormwater management pond locations have been refined to avoid forest resources where possible, and final design may replace many of the ponds with alternative "green technology" BMPs. Avoidance and minimization measures to reduce impacts to upland forest will continue to be implemented for all phases of the project through final design.

Modified -

ComID: 84

External ID:

Categories
- Mitigation
- Non-Native Species Removal
- Revegetation and Replanting

Responsible Parties
- Designer
- GEC/DelDOT

References

Orig -
- * FEIS : Chapter 3, page 177

Original - Proper steps will be taken to eliminate or reduce non-native species. A program to remove non-native plants and reestablish native populations would be implemented to mitigate those areas where native species have been removed due to construction activities.

Modified -

ComID: 85

External ID:

Categories
- Avoidance and Minimizaton
- Environmental Stewardship
- Fence
- RTE
- Wildlife

Responsible Parties
- Builder
- GEC/DelDOT

References

Orig -
- * FEIS : Chapter 3, page 181

Original - Other measures to ensure minimal bog turtle mortality during construction include installing silt fencing around the construction area within the potentially occupied watershed's wetlands and having a qualified bog turtle surveyor present to conduct a pre-construction survey of the construction area for turtles. This exclusionary fence and the construction area could also be monitored by a qualified bog turtle surveyor for the duration of the construction.
Solid barriers or fencing will be used to keep potential bog turtles off of the new roadway.

Modified -

ComID: 86

External ID:

Categories
- Avoidance and Minimizaton
- RTE
- Time of Year Restrictions

Responsible Parties
- Builder
- Designer

References

Orig -
- * FEIS : Summary, Page 20-21
- * FEIS : Chapter 4, Section 6, Page 13 (of 28)
- * FEIS : Chapter 3, pages 182 and 183

Original - Bald eagle nests and the surrounding area will be avoided. A year round buffer of 750 feet will be maintained at all times. A time of year restriction (December 15-June 15) will require a 1/4 mile buffer which will be observed.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 87

External ID:

Categories
- Construction
- Revegetation and Replanting
- Soils

Responsible Parties
- Builder

References

Orig - * FEIS : Chapter 3, page 211

Original - Measures would be taken to reduce levels of fugitive dust and windblown soil generated during construction by wetting disturbed soils, staging soil disturbing activities, and prompt revegetation of disturbed areas.

Modified -

ComID: 88

External ID:

Categories
- Avoidance and Minimizaton
- SWM
- Wetlands

Responsible Parties
- Designer

References

Orig - * FEIS : Chapter 3, page 157

Original - Stormwater management ponds will be located to avoid wetland resources

Modified -

ComID: 90

External ID:

Categories
- Access
- Community
- Community Outreach & Coordination
- Construction
- Traffic

Responsible Parties
- Builder

References

Orig - * FEIS : Chapter 3, page 211

Original - Traffic detours and road closures during construction of any build alternative (including the Preferred Alternative), would create temporary inconveniences for residents, business owners and travelers. Maintenance of traffic plans will be developed during final design of a build alternative to mitigate access impacts and minimize traffic delays throughout the construction zones. These plans would include appropriate signs, pavement markings, worker safety barriers, and media announcements. Access to all businesses and residences would be maintained throughout the scheduled construction periods.

Modified -

ComID: 91

External ID:

Categories
- Cleanup
- Construction
- Mitigation
- Revegetation and Replanting

Responsible Parties
- Builder

References

Orig - * FEIS : Chapter 3, page 212

Original - Temporary staging areas will be restored to their previous condition upon completion of the project.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 92

Categories
Avoidance and Minimizaton
Construction
Environmental Stewardship
Fill

Responsible Parties
Builder

External ID:

References
Orig - * FEIS : Chapter 3, page 212

Original - The use of surface mats, clean rock fills and other measures will be determined during final design to minimize temporary impact areas.

Modified -

ComID: 93

Categories
Avoidance and Minimizaton
ESC
Mitigation
Permits
Streams

Responsible Parties
Builder
Designer

External ID:

References
Orig - * FEIS : Chapter 3, page 141
* FEIS : Chapter 3, page 212

Original - During final design, efforts to avoid stream impacts will include design of structures to limit the amount of work needed to be performed in streams. Erosion and sediment control measures would limit the amount of runoff from disturbed areas. Restoration and mitigation of temporary impacts to surface waters following completion of construction activities would be completed in accordance with the requirements of the Section 404 permit.

Modified -

ComID: 94

Categories
Community Outreach & Coordination
Design Considerations
Design Review

Responsible Parties
Builder
Designer
GEC/DelDOT

External ID:

References
Orig - * FEIS : Chapter 4, Section 7, Page 15 (of 35)
* FEIS : Chapter 4, Section 6, Page 2 (of 28)
* FEIS : Chapter 4, Section 5, Page 18 (of 23)
* FEIS : Chapter 4, Section 5, Page 17 (of 23)
* FEIS : Chapter 4, Section 5, Page 14 (of 23)
* FEIS : Chapter 4, Section 1 page 15 (of 26)

Original - Final engineering and design of the roadway will be guided by commitments in the ROD, as will construction. During final design, DelDOT will meet with those directly and indirectly affected by the project to secure their input.

Modified -

ComID: 95

Categories
Community
Property Acquisition

Responsible Parties
GEC/DelDOT

External ID:

References
Orig - * FEIS : Chapter 4, Section 2. Page 10 (of 26)

Original - Generally, right-of-way acquisition is anticipated to begin in fiscal year 2008, following the receipt of the Record of Decision (ROD) and the announcement of the Selected Alternative. In the case of hardship or protective buying, early acquisition will be accomplished following application and review of the request by the Department on a case-by-case basis.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 96

Categories
- Access
- Avoidance and Minimizaton
- Community
- Design Considerations
- Site Specific

Responsible Parties
- Builder
- Designer

External ID:

References

Orig -
- FEIS : Chapter 4, Section 7. Page 14 & 15 (of 35)
- FEIS : Chapter 3, Section 4. Page 33 (of 44)
- FEIS : Chapter 3, Section 2. Page 22, 23, 24 (of 26)

Original - The Churchtown Road overpass will be placed to minimize property (including community, open space and SWM) impacts and allow access during construction.

Modified -

ComID: 97

Categories
- Access
- Bicycle and Pedestrian
- Community
- Fence
- Site Specific

Responsible Parties
- Builder

External ID:

References

Orig -
- FEIS : Chapter 4, Section 7, Page 10 (of 35)
- FEIS : Chapter 4, Section 3, Page 31 (of 44)
- FEIS : Chapter 4, Section 1, Page 7 (of 26)
- FEIS : Chapter 4, Section 5, Page 2 (of 23)

Original - Continuous safety fencing will also be installed on both sides of the Spur Road to prevent pedestrian access to the highway.

Modified -

ComID: 98

Categories
- Aesthetics
- Landscaping
- Mitigation
- Site Specific

Responsible Parties
- Designer

External ID:

References

Orig -
- FEIS : Chapter 4, Section 7. Page 14 (of 35)
- FEIS : Chapter 4, Section 3. Page 34 (of 44)

Original - A landscaping plan will be prepared during final design to mitigate the removal of the existing [Cheasapeake Medow community] berm and trees adjacent to the new 301 [in the Churchtown Road area]

Modified -

ComID: 99

Categories
- Design Considerations
- SWM
- Visual Screening Berm

Responsible Parties
- Designer

External ID:

References

Orig -
- FEIS : Chapter 4, Section 4. Page 35, 36 (of 65)

Original - Stormwater management facilities will be designed and constructed to manage roadway runoff and hydrology altered by the construction of screening berms. During final design, more specifics regarding the potential stormwater management facilities and drainage features will be developed to ensure the proposed roadway will not increase the potential for flooding in the area.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 100

External ID:

Categories
- Agency Coordination
- Design Considerations
- Wildlife Passage

Responsible Parties
- GEC/DelDOT
- Permitting Agency

References

Orig - * FEIS : Chapter 3, Page 173
* FEIS : Chapter 4, Section 7, Page 7 (of 35)

Original - DelDOT will work with DNREC to develop concepts for wildlife passages that will be constructed as part of the project. During Final Design, further evaluation will occur in the locations where wildlife passage may be problematic.

Modified -

ComID: 101

External ID:

Categories
- Fence
- Wildlife

Responsible Parties
- Builder

References

Orig - * FEIS : Chapter 3, Page 173
* FEIS : Chapter 4, Section 7, Page 7 (of 35)

Original - The roadway will have safety fencing on either side to protect larger animals from entering the highway right of way.

Modified -

ComID: 102

External ID:

Categories
- Avoidance and Minimizaton
- Community

Responsible Parties
- Designer
- GEC/DelDOT

References

Orig - * FEIS : Chapter 4, Section 7. Page 16 (of 35)

Original - DelDot will design 301 to avoid or minimize the effects of the new highway on property values to the best extent possible.

Modified -

ComID: 103

External ID:

Categories
- Avoidance and Minimizaton
- Community
- Site Specific

Responsible Parties
- Designer
- GEC/DelDOT

References

Orig - * FEIS : Chapter 4, Section 7. Page 17 (of 35)

Original - US 301 Project is not adjacent to nor will it impact properties in Back Creek

Modified -

ComID: 104

External ID:

Categories
- Construction
- Design Considerations
- Site Specific

Responsible Parties
- Builder
- Designer

References

Orig - * FEIS : Chapter 4, Section 7, Page 23 (of 35)

Original - Bunker Hill Road will be elevated over the new US 301

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 105

External ID:

Categories
- Air Quality
- Monitoring

Responsible Parties
- GEC/DelDOT

References

Orig - * FEIS : Chapter 4, Section 9. Page 8 (of 37)

Original - The project will be included in the WILMAPCO regional air quality conformity analysis following the completion of the Record of Decision.

Modified -

ComID: 106

External ID:

Categories
- Agency Coordination
- Cultural Resources

Responsible Parties
- GEC/DelDOT

References

Orig - * FEIS : Chapter 4, Section 9. Page 10 (of 37)

Original - Keep the State of Delaware Historical and Cultural Affairs office informed of consultation with the Maryland Historical Trust.

Modified -

ComID: 107

External ID:

Categories
- Environmental Compliance Implementation
- Environmental Management Plan
- Forest
- Mitigation
- Reforestation
- Stream Restoration
- Wetlands

Responsible Parties
- GEC/DelDOT

References

Orig - * FEIS : Summary, Page 20

* FEIS : Chapter 4, Section 9. Page 25 (of 37)

Original - DelDOT is committed to providing a compensatory mitigation package for the natural environmental impacts associated with the Green North Alternative that includes wetland replacement, wetland enhancement, wetland conservation, reforestation, riparian buffer restoration, and stream restoration, as described fully in the FEIS and will be memorialized in the Record of Decision for the project.

Modified -

ComID: 108

External ID:

Categories
- Access
- Community
- Construction
- Design Considerations
- Property Acquisition
- Site Specific

Responsible Parties
- GEC/DelDOT

References

Orig - * FEIS : Chapter 4, Section 9. Page 25 (of 37)

Original - DelDOT is committed to the limited access route for the new US 301 as it is described in the DEIS and FEIS. As described, the new US 301 would provide access at only 6 locations: Levels Road, existing US 301, Jamison Corner Road, at SR 1, Bethel Church Road extended, and US301/SR 896 at the base of Summit Bridge. No additional access points will be considered. The purchase of access rights from adjacent properties to the new roadway will be a part of the right-of- way acquisition process for the new roadway.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 109

External ID:

Categories
- Bridges
- Floodplains

Responsible Parties
- GEC/DelDOT

References

Orig - * FEIS : Chapter 4, Section 9. Page 25 (of 37)

Original - DelDOT is committed to minimal incursions into floodplains, as demonstrated by our design to bridge significant waterways.

Modified -

ComID: 110

External ID:

Categories
- Bridges
- Culverts
- Site Specific
- Stream Restoration

Responsible Parties
- GEC/DelDOT

References

Orig - * FEIS : Chapter 4, Section 9. Page 25 (of 37)

Original - DelDOT will be improving waterway habitat connectivity by removing the culverts under Hyetts Corner Road at Scott Run and restoring the stream under this roadway crossing.

Modified -

ComID: 111

External ID:

Categories
- Mitigation
- Monitoring

Responsible Parties
- GEC/DelDOT

References

Orig - * FEIS : Chapter 4, Section 9. Page 31 (of 37)

* FEIS : Chapter 4, Section 9. Page 26 (of 37)

Original - Monitoring and assessment of habitat creation will be included for all created areas.

Modified -

ComID: 112

External ID:

Categories
- Avoidance and Minimizaton
- Bridges
- Forest
- Mitigation
- Reforestation
- Wetlands

Responsible Parties
- Builder
- Designer
- GEC/DelDOT

References

Orig - * FEIS : Chapter 4, Section 9. Page 26 (of 37)

Original - Upland forest buffers will be included around created wetlands. Riparian buffer enhancement has been included as a specific component of the mitigation package.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 113

External ID:

Categories
- Avoidance and Minimizaton
- Forest
- Mitigation
- Reforestation
- Revegetation and Replanting
- Site Specific
- Wetlands

Responsible Parties
- GEC/DelDOT

References

Orig - * FEIS : Chapter 4, Section 9. Page 26 (of 37)

Original - To the extent possible DelDOT has avoided and minimized forest impacts. Forested wetland mitigation in the Levels Road intersection area will create a 90 acre forest block between two tributaries to Sandy Branch. Forested wetland mitigation and riparian buffer enhancement will create a nearly contiguous 80 acre forested block along a tributary to Drawyer Creek. In the Boyds Corner/Ratledge Road area, enhancement and reforestation opportuniities will be targeted at increasing the size of contiguous forest blocks.

Modified -

ComID: 114

External ID:

Categories
- Mitigation
- Wetlands

Responsible Parties
- GEC/DelDOT

References

Orig - * FEIS : Chapter 4, Section 9. Page 26 (of 37)

Original - DelDOT's wetland compensation package goes well beyond the standard Section 404 requirements of approximately 54 acres (based on 2:1 replacement of shrub and forested wetlands and a 1:1 replacement of emergent wetlands). DelDOT will be creating approximately 92 acres of wetland between two sites, enhancing seven acres of wetlands, and conserving approximately 20 acres of wetlands.

Modified -

ComID: 115

External ID:

Categories
- Avoidance and Minimizaton
- Groundwater
- Mitigation
- Wetlands

Responsible Parties
- GEC/DelDOT

References

Orig - * FEIS : Chapter 4, Section 9. Page 26 (of 37)

Original - DelDOT will avoid negative effects on ground water recharge through wetland creation, however these effects can not be eliminated as the interception of some ground water will be required to maintain the Levels Road interchange mitigation site hydrology. The wetland will be designed to discharge into both the tributaries to Sandy Branch at the upstream end of the mitigation site.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 116

External ID:

Categories
- Agency Coordination
- Groundwater
- Mitigation
- Monitoring
- Reforestation
- Wetlands

Responsible Parties
- GEC/DelDOT
- Permitting Agency

References

Orig - * FEIS : Chapter 4, Section 9. Page 27 (of 37)

Original - DelDOT is committed to monitoring the success of created wetlands and reforestation areas. Specific success criteria and monitoring periods will be determined in consultation with DNREC and ACOE and included in the Conceptual Mitigation Package as a requirement of the ACOE permit. At a minimum DelDOT anticipates monitoring created wetland vegetation and hydrology for five years. Additional monitoring elements and/or extended monitoring periods will likely be included in the Conceptual Mitigation Package.

Modified -

ComID: 117

External ID:

Categories
- Agency Coordination
- ESC
- Monitoring
- SWM

Responsible Parties
- GEC/DelDOT

References

Orig - * FEIS : Chapter 4, Section 9. Page 27 (of 37)

Original - DelDOT recognizes that portions of the project are within the Chesapeake Bay Drainage and may be subject to TMDL limits. DelDOT is committed to treating runoff in accordance with DelDOT's Erosion and Sediment Control and Stormwater Management (ES2M) Design Guide and using "green technologies" whenever possible.

Modified -

ComID: 118

External ID:

Categories
- Farmland
- Property Acquisition
- Site Specific

Responsible Parties
- GEC/DelDOT

References

Orig - * FEIS : Chapter 4, Section 9. Page 32 (of 37)
* FEIS : Chapter 4, Section 9. Page 30 (of 37)
* FEIS : Chapter 4, Section 9. Page 27 (of 37)

Original - DelDOT will pursue a potential agricultural district in the Boyds Corner Road/Ratledge Road Area.

Modified -

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 120

External ID:

Categories
- Agency Coordination
- Environmental Stewardship
- Forest
- Mitigation
- Reforestation
- Site Specific
- Wetlands

Responsible Parties
- GEC/DelDOT
- Permitting Agency

References

Orig - * FEIS : Chapter 4, Section 9. Page 31 (of 37)

Original - DelDOT is committed to working with DNREC to identify the appropriate protection language to conserve the wetlands and forest in the Ratledge Road area and looks forward to designing reforestation and enhancement that meets DNREC's approval.

Modified -

ComID: 121

External ID:

Categories
- Community Outreach & Coordination
- Environmental Stewardship
- Mitigation
- Property Acquisition
- Site Specific

Responsible Parties
- GEC/DelDOT

References

Orig - * FEIS : Chapter 4, Section 9. Page 31 (of 37)

Original - DelDOT is committed to pursuing additional conservation of areas in the Scott Run Watershed through conservation easement deed restrictions, however, DelDOT can not guarantee success as it depends largely on the individual property owners willingness to cooperate. DelDOT may not be able to condemn properties through eminent domain in this situation.

Modified -

ComID: 122

External ID:

Categories
- Fence
- Mitigation
- Reforestation
- Revegetation and Replanting
- Wildlife

Responsible Parties
- Builder
- GEC/DelDOT

References

Orig - * FEIS : Chapter 4, Section 9, Page 32 (of 37)

Original - DelDOT recognizes the reforestation problems created by heavy deer populations and will employ deer fencing, tree cages, or other measures of protection to ensure the success of reforestation and forested creation sites.

Modified -

ComID: 123

External ID:

Categories
- Agency Coordination
- Floodplains
- Permits

Responsible Parties
- Designer
- GEC/DelDOT

References

Orig - * ROD : Chapter 5, Page 81
* FEIS : Summary, Page 20

Original - A detailed survey of floodplain limits will be conducted during the design phase of the project, and a floodplain permit will be obtained from New Castle County.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 124

External ID:

Categories

Agency Coordination
Cultural Resources
Floodplains
Permits
Reforestation
Wetlands

Responsible Parties

GEC/DelDOT
Lead Agency
Permitting Agency

References

Orig -
* FEIS : Chapter 3, page 185
* ROD : Chapter 5, Page 81
* FEIS : Summary, Page 23

Original - The following permits, approvals and agreements will be completed prior to commencement of the construction of a build alternative:
• National Environmental Policy Act Process, including the Final Environmental Impact Statement, Record of Decision, and Reevaluations;
• Section 106 of the National Historic Preservation Act as memorialized in the Memorandum of Agreement among FHWA, DelDOT, the DE State Historic
Preservation Officer, the Maryland Historic Trust (MD SHPO) and any consulting parties that may be identified;
• Biological Assessment and Informal Consultation with the USFWS and DNREC;
• ACOE Individual Permit for Impacts to Waters of the US, including wetlands, under Section 404 of the Clean Water Act;
• DNREC Wetlands and Subaqueous Lands Permit;
• DNREC Water Quality Certification under Section 401 of the Clean Water Act;
• DNREC Coastal Zone Management Program Federal Consistency Determination;
• Delaware Forest Conservation Act;
• Maryland Reforestation Law;
• National Pollution Discharge Elimination System permit;
• DNREC Erosion and Sediment Certification (DelDOT is designated agency);
• Floodplain determination and assessment under Federal Executive Order 11988, US Department of Transportation Order 5650.2, National Flood Insurance Act of 1968;
• New Castle County Floodplain Permit; and
• Joint Federal/State Permit for the Alteration of any Floodplain, Waterway, Tidal, or Non-Tidal Wetland in Maryland.

Modified -

ComID: 127

External ID:

Categories

Agency Coordination
Cultural Resources

Responsible Parties

GEC/DelDOT
Permitting Agency

References

Orig -
* FEIS : Appendix H, Page 7

Original - All materials and records resulting from cultural resources investigations conducted in the State of Maryland for the Project will be processed in accordance with the MD SHPO's Revised Technical Update No. 1 of the Standards and Guidelines for Archeological Investigations in Maryland – Collections and Conservation Standards (2005) and curated in accordance with 36 CFR 79 at the Maryland Archeological Conservation Laboratory, unless clear title or Deed of Gift to the collection cannot be obtained

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 130

External ID:

Categories
Agency Coordination
Cultural Resources

Responsible Parties
GEC/DelDOT
Permitting Agency

References
Orig - * FEIS : Appendix H, Page 9

Original - DelDOT shall provide relevant sections of preliminary, semi-final, and final project plans to the DE SHPO, MD SHPO, and any other party deemed appropriate for review and comment. Upon circulation and assurance that relevant sections have been distributed, the DE SHPO, MD SHPO, and any other reviewing party will have 30 days to provide comments. DelDOT shall take into account any comments.

Modified -

ComID: 131

External ID:

Categories
Agency Coordination
Cultural Resources
Design Considerations

Responsible Parties
GEC/DelDOT
Lead Agency
Permitting Agency

References
Orig - * FEIS : Appendix H, Page 9

Original - If DelDOT proposes any significant changes to the Project affecting location, design, methods of construction, materials, or relative footprint of the Project, DelDOT shall provide FHWA, DE SHPO, MD SHPO, and any other party deemed appropriate with information concerning the proposed changes. The DE SHPO, the MD SHPO, and any other party deemed appropriate will have 30 days from the receipt of this information to comment on the proposed changes. DelDOT shall take into account any comments, prior to implementing such changes.

Modified -

ComID: 133

External ID:

Categories
Agency Coordination
Cultural Resources

Responsible Parties
GEC/DelDOT
Lead Agency
Permitting Agency

References
Orig - * FEIS : Appendix H, Page 10

Original - All data recovery plans shall also take into account the Advisory Council on Historic Preservation's guidance Recommended Approach for Consultation on Recovery of Significant Information from Archaeological Sites, and reports will meet professional standards set forth by the Department of the Interior's "Format Standards for Final Reports of Data Recovery Program" (42 FR 5377-79). All data recovery plans, public outreach, or future consultation shall also follow and/or consider any supplemental guidance and provisions provided by, but not limited to, the American Association of State Highway Transportation Officials, FHWA, Transportation Research Boards, National Park Service, Advisory Council on Historic Preservation or recognized academic journals or professional organizations as identified by DelDOT and/or the SHPOs.

Modified -

ComID: 134

External ID:

Categories
Agency Coordination
Cultural Resources

Responsible Parties
GEC/DelDOT
Lead Agency
Permitting Agency

References
Orig - * FEIS : Appendix H, Page 10

Original - DelDOT shall ensure that all draft and final cultural resource reports are provided to the FHWA and appropriate SHPO within two (2) years of the completion of fieldwork.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 135

External ID:

Categories
- Agency Coordination
- Cultural Resources

Responsible Parties
- Lead Agency

References

Orig - * FEIS : Appendix H, Page 11

Original - FHWA will consult with the other parties of the MOA if it is amended.

Modified -

ComID: 136

External ID:

Categories
- Agency Coordination
- Cultural Resources

Responsible Parties
- GEC/DelDOT
- Lead Agency
- Permitting Agency

References

Orig - * FEIS : Appendix H, Page 11

Original - 1. Should any party to the MOA object in writing to FHWA regarding any action carried out or proposed with respect to the Project or implementation of the MOA, FHWA shall consult with the objecting party to resolve the objection. If after initiating such consultation FHWA determines that the objection cannot be resolved through consultation, FHWA shall forward all documentation relevant to the objection to the Council, including FHWA's proposed response to the objection. Within thirty (30) days after receipt of all pertinent documentation, the Council shall exercise one of the following options:
a. Advise FHWA that the Council concurs in FHWA's proposed response to the objection, whereupon FHWA shall respond to the objection accordingly;
b. Provide FHWA with recommendations, which FHWA shall take into account in reaching a final decision regarding its response to the objection; or
c. Notify FHWA that it will comment pursuant to 36 CFR 800.7(a) and proceed to comment. Any Council comment provided in response to such a request will be taken
into account by FHWA in accordance with 36 CFR 800.7(c)(4). Should the Council not exercise one of the above options within thirty (30) days after receipt of
all pertinent documentation, FHWA may assume the Council's concurrence in its proposed response to the objection. FHWA shall take into account any Council recommendation or comment provided in accordance with this stipulation with reference only to the subject of the objection; FHWA's responsibility to carry out all actions under the MOA that are not the subjects of the objection shall remain unchanged.

Modified -

ComID: 137

External ID:

Categories
- Agency Coordination
- Community Outreach & Coordination
- Cultural Resources

Responsible Parties
- GEC/DelDOT
- Lead Agency
- Permitting Agency

References

Orig - * FEIS : Appendix H, Page 12

Original - At any time during implementation of the measures stipulated in this MOA, should any objection pertaining to any such measure or its manner of implementation be raised by a member of the public, FHWA shall notify the parties of this MOA and take the objection into account consulting with the objector and, should the objector so request, with any of the parties to this MOA to resolve the objection.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 138

External ID:

Categories
Agency Coordination
Cultural Resources

Responsible Parties
GEC/DelDOT
Lead Agency
Permitting Agency

References
Orig - * FEIS : Appendix H, Page 12

Original - FHWA, DelDOT, DE SHPO and MD SHPO shall review the project annually, to monitor progress of the implementation of the terms of this MOA. This review should occur in January of each year following execution of the MOA.

Modified -

ComID: 139

External ID:

Categories
Agency Coordination
Cultural Resources

Responsible Parties
GEC/DelDOT
Lead Agency
Permitting Agency

References
Orig - * FEIS : Appendix H, Page 12

Original - The MOA shall be null and void if its terms are not carried out within six (6) years from the date of its execution. Within six months of the end of this period, the FHWA may request in writing that the signatories consider an extension of this MOA. Should all parties deem an extension to this MOA necessary, such extension shall be treated as an amendment under Stipulation VI.D. above. No extension or amendment will be effective unless all signatories to the MOA have agreed to it in writing.

Modified -

ComID: 140

External ID:

Categories
Agency Coordination
Cultural Resources

Responsible Parties
GEC/DelDOT
Lead Agency

References
Orig - * FEIS : Appendix H, Page 12-13

Original - 1. If FHWA determines that it cannot implement the terms of this MOA, or the DE SHPO, or the MD SHPO determines that the MOA is not being properly implemented, FHWA,
DelDOT, the DE SHPO, or the MD SHPO may propose to the other parties that this MOA be terminated.
2. The party proposing to terminate this MOA shall so notify all parties to this MOA, explaining the reasons for termination and affording them at least thirty (30) days to consult and seek alternatives to termination. The parties shall then consult.
3. Should such consultation fail, FHWA, DelDOT, DE SHPO, or the MD SHPO may terminate the MOA by so notifying all parties in writing.
4. Should this MOA be terminated, FHWA shall either:
a. Consult in accordance with 36 CFR Part 800.6(a)(1) to develop a new MOA; or
b. Request the comments of the Council pursuant to 36 CFR Part 800.7(a)(1). The Council shall have forty-five (45) days to respond with comments.
5. FHWA and the Council may conclude the Section 106 process with an MOA between them if the DE SHPO and/or the MD SHPO terminates consultation in accordance with 36 CFR Part 800.7(a)(2).

Modified -

ComID: 141

External ID:

Categories
Community Outreach & Coordination
Property Acquisition
Relocation Assistance

Responsible Parties
GEC/DelDOT

References
Orig - * FEIS : Appendix F (ALL)

Original - All relocations associated with the project will be in accordance with the Relocation Plan, located in Appendix F of the FEIS

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 142

External ID:

Categories
- Agency Coordination
- Mitigation

Responsible Parties
- GEC/DelDOT
- Lead Agency
- Permitting Agency

References

Orig - * ROD : Chapter 3, page 13

Original - Any change in impacts will be re-evaluated in accordance with 23 CFR Part 771.130 and through coordination with appropriate Resource Agencies.

Modified -

ComID: 143

External ID:

Categories
- Avoidance and Minimizaton
- Environmental Compliance Implementatior
- Environmental Management Plan
- Mitigation
- Monitoring

Responsible Parties
- GEC/DelDOT

References

Orig - * ROD : Chapter 3, page 15

Original - Environmental oversight will be provided by DelDOT, featuring careful review to ensure that the avoidance, minimization, and mitigation efforts to which the FHWA has committed through the ROD are realized during the design, construction, and post-construction monitoring of the Selected Alternative. The oversight includes the creation and management of a ROD and permit commitment tracking database and the designation of an environmental management team that will coordinate design reviews and permit modification issues with the permitting agencies during design. During both design and construction, the environmental management team will ensure that the mitigation commitments are adhered to and will conduct mitigation monitoring following construction. Contract specifications and administrative measures will assist DelDOT in ensuring that construction impacts are minimized. A General Engineering Consultant (GEC) has been retained to coordinate all contract sections. The GEC has an experienced environmental compliance staff. By issuance of the ROD, FHWA assures that the environmental oversight plan will be implemented.

Modified -

ComID: 144

External ID:

Categories
- Construction
- ESC

Responsible Parties
- Builder
- GEC/DelDOT
- Permitting Agency

References

Orig - * ROD : Chapter 3, Page 19

Original - During construction, sediment and erosion will be managed in accordance with DNREC's latest erosion and sediment control guidelines.

Modified -

ComID: 145

External ID:

Categories
- Construction
- Design Review

Responsible Parties
- GEC/DelDOT

References

Orig - * ROD : Chapter 3, page 23

Original - A draft initial financial plan and a draft project management plan have been prepared and are under review, and will be completed and updated annually until the project is completed.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 146

External ID:

Categories	References
Agency Coordination	Orig - * ROD : Chapter 3, page 23
Permits	
Responsible Parties	**Original -** DelDOT will obtain all required permits and Federal approvals for constructing the project.
GEC/DelDOT	**Modified -**

ComID: 147

External ID:

Categories	References
Agency Coordination	Orig - * ROD : Chapter 3, Page 23
Mitigation	
Monitoring	
Responsible Parties	**Original -** Until the project construction is complete, including environmental commitments, DelDOT will continue coordination with the environmental Resource Agencies. The Resource Agencies will have opportunities to review and comment on the environmental mitigation design as it is developed. The environmental mitigation will be subject to all applicable environmental regulations.
GEC/DelDOT	**Modified -**
Lead Agency	
Permitting Agency	

ComID: 148

External ID:

Categories	References
Agency Coordination	Orig - * ROD : Chapter 3, page 20
Mitigation	
Monitoring	
Responsible Parties	**Original -** To ensure success and appropriate replacement value at the mitigation sites, FHWA and DelDOT are committed to working collaboratively with USACE and DNREC throughout the mitigation design, construction, and monitoring phases as described on page 14 of the ROD.
GEC/DelDOT	**Modified -**
Lead Agency	
Permitting Agency	

ComID: 149

External ID:

Categories	References
Forest	Orig - * ROD : Chapter 3, page 20
Mitigation	
Reforestation	
Revegetation and Replanting	
Responsible Parties	**Original -** The mitigation plan will create or expand at a minimum 162 acres of riparian buffer.
GEC/DelDOT	**Modified -**

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 150

External ID:

Categories

Bridges
Culverts
Site Specific
Waters of the US
Wildlife
Wildlife Passage

Responsible Parties

Builder
Designer
GEC/DelDOT

References

Orig -
* ROD : Attachment A, page 2
* ROD : Attachment C (all)
* ROD : Chapter 3, page 20

Original - Bridges (Rather than culverts or pipes) have been placed at all stream/wetland crossings as indicated below (and in ROD Attachment C) to allow for safe wildlife passage.

Road-Crossing-Approximate Length-Approximate Minimum Clearance

SR-1 Widening -Wetland (Scott Run)- 130'- Match Existing
SR-1- Wetland (Scott Run) -130'- 2.0-3.0
US 301 Mainline -SR1 -1324'- 16.5-18.5
US 301 Mainline- Wetland (Scott Run Tributary)-228'- 8.0-10.0
US 301 Mainline- Wetland (Scott Run Tributary) -226' -5.0-7.0
Hyetts Corner- US 301Mainline- 352'- 16.5-18.5
Hyetts Corner- Wetland (Scott Run)- 240' -11.0-13.0
US 301 Mainline- Wetland (Scott Run)- 210' -14.0-16.0
US 301 Mainline- Wetland (Scott Run)- 278'- 11.0-13.0
Jamison Corner -US 301Mainline- 180' -17.0-19.0
US 301 Mainline- SR 896 -102'-16.5-18.5
US 301 Mainline- SR 896 -102' -16.5-18.5
US 301 Mainline- Wetland (Drawyers Creek)- 147'- 9.0-11.0
US 301 Mainline -Wetland (Drawyers Creek)- 240' -7.0-9.0
US 301 Mainline -Norfolk Southern Railroad-131'- 24.0-26.0
US 301 Mainline- Norfolk Southern Railroad -131' -24.0-26.0
US 301 Mainline- US 301 Mainline- 148' -16.5-18.5
US 301 Mainline- US 301 Mainline- 147' -16.5-18.5
US 301 Mainline- Armstrong Corner- 94'- 16.5-18.5
US 301 Mainline- Armstrong Corner- 94' -16.5-18.5
Bunker Hill Rd -US 301 Mainline -184' -16.5-18.5
US 301 Mainline- Wetland- (Sandy Branch Tributary)- 208'- 7.0-9.0
US 301 Mainline- Wetland- (Sandy Branch Tributary) -145' -7.0-9.0
Levels Rd Interchange- Wetland (Sandy Branch Tributary) -240'- 7.0-9.0
Levels Rd Interchange -Wetland (Sandy Branch Tributary)- 152'- 6.0-8.0
US 301 Mainline -Wetland (Sandy Branch-) 268'- 8.0-10.0
US 301 Mainline -Wetland (Sandy Branch)- 265'- 7.0-9.0
Levels Rd US -301Mainline- 180' -16.5-18.5
Strawberry Lane- US 301 Mainline-193'- 16.5-18.5
Spur North Flyover -SR 896- 166'- 16.5-18.5
Bethel Church- Spur- 137'- 16.5-18.5
Spur- Wetland (Back Creek)- 345'- 9.0-11.0
Spur- Wetland (Back Creek)- 317'- 6.0-8.0
Churchtown Rd- Spur- 245'- 16.5-18.5
Spur- Wetland (Back Creek) -176'- 8.0-10.0
Spur- Wetland (Back Creek)- 240'- 7.0-9.0
Old School House -Spur -150'- 16.5-18.5

Project: US 301

Description: The project consists of the construction of a new limited access highway

Armstrong Corner -Spur- 164' -16.5-18.5
Spur South Flyover- US 301 Mainline- 306'- 16.5-18.5

Modified -

ComID: 151

External ID:

Categories
Agency Coordination
Avoidance and Minimizaton
Design Considerations

Responsible Parties
GEC/DelDOT
Lead Agency
Permitting Agency

References
Orig - * ROD : Chapter 3, Page 14

Original - Additional resource agency coordination meetings will be held to discuss further design refinements and potential additional minimization.

Modified -

ComID: 152

External ID:

Categories
Aesthetics
Avoidance and Minimizaton
Community
Community Outreach & Coordination
Landscaping

Responsible Parties
GEC/DelDOT

References
Orig - * ROD : Chapter 3, Page 14
* ROD : Attachment E, page 5

Original - DelDOT is committed to working with communities adjacent to the Selected Alternative during final design, in developing other appropriate context sensitive solutions and landscaping concepts. Additional public involvement during the design phase of the project will include additional public workshops at the preliminary plan stage of final design and meetings with affected communities to discuss design options as they apply to their particular community.

Modified -

ComID: 153

External ID:

Categories
Design Considerations
ESC
Waters of the US

Responsible Parties
Builder

References
Orig - * FEIS : Summary, Page 19
* ROD : Chapter 5, Page 80

Original - Proper erosion and sediment control measures will be employed to limit the amount of erosion and the influx of sediment loads into adjacent surface waters.

Modified -

ComID: 154

External ID:

Categories
Design Considerations
Mitigation

Responsible Parties
GEC/DelDOT

References
Orig - * FEIS : Summary, Page 20
* ROD : Chapter 5, page 81

Original - Evaluation of the potential sites and design of the mitigation is still under development and will be completed during final design.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 155

External ID:

Categories
- Mitigation
- Site Specific
- Wetlands

Responsible Parties
- GEC/DelDOT

References

Orig -
- Agency Meeting Minutes 092409 : Page 3 of 4
- ROD : Attachment A, page 1

Original - Wetland creation east of Norfolk Southern Railroad and south of Old School House Road (Parcel No. 1301200121) – 29-acre site will provide between 8 and 16 acres of seasonally saturated forested wetland

Modified - Wetland creation east of Norfolk Southern Railroad and south of Old School House Road (Parcel No. 1301200121) – 29-acre site will provide 10 acres of seasonally saturated forested wetland.

ComID: 156

External ID:

Categories
- Agency Coordination
- Cultural Resources

Responsible Parties
- GEC/DelDOT
- Lead Agency
- Permitting Agency

References

Orig -
- ROD : Attachment D, pages 8, 9

Original - Should DelDOT, in consultation with the DE SHPO and MD SHPO, redefine the Area of Potential Effect beyond the areas depicted in Exhibit B of the MOA, DelDOT shall consult with the DE SHPO and MD SHPO to identify and evaluate historic buildings, structures, and/or districts in the newly affected areas, and assess the effects of the project thereon, following the process outlined for Archaeological Resources in Stipulations LA. and 1.B of the MOA, as applicable.

Modified -

ComID: 158

External ID:

Categories
- Community Outreach & Coordination
- Farmland

Responsible Parties
- Builder
- GEC/DelDOT

References

Orig -
- FEIS : Chapter 3, page 24
- FEIS : Appendix G, Page 12

Original - The project will not cause the cessation of any available farm services.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 159

External ID:

Categories
BMP
Property Acquisition
SWM

Responsible Parties
Builder
Designer
GEC/DelDOT
Permitting Agency

References
Orig - * FEIS : Chapter 3, page 138

Original - In order to meet the stormwater management requirements for the project, a combination of structural and non-structural stormwater management facilities will be utilized. To the extent practicable, the project will incorporate the use of "Green Technology" Best Management Practices (BMPs) in fulfilling the stormwater management requirements for the project. Green Technology practices include filter strips, biofiltration swales, bioretention, and infiltration trenches. More traditional facilities such as wet and dry ponds will be utilized where the use of Green Technologies is not feasible to meet the stormwater management requirements. Due to right-of-way, utility or environmental constraints, the use of underground stormwater treatment structures, such as filtration structures, hydraulic separators and catch basin inserts may be utilized.
In order to prevent stream degradation, water quality impairment, and flooding associated with construction projects, Delaware's Sediment and Stormwater Regulations require that stormwater management measures (BMPs) be implemented. DNREC has delegated approval authority for stormwater management to DelDOT for DelDOT projects. South of the C&D Canal, runoff must be limited to predevelopment levels for the 2-year and 10-year design storms to prevent flooding and channel erosion, referred to as quantity management. To address water quality impacts of construction, the runoff from the lesser of the one-year, 24-hour design storm, or one inch, must be treated in BMPs to reduce sediment, nutrient, and toxics loadings to waterways. Stormwater management BMPs require additional right-of-way and may sometimes need to be located within wetland or other sensitive areas. Therefore, the build alternatives were assessed to determine stormwater management requirements for each, and identify the size and location of potential stormwater management sites, and resulting effects on the project limits of disturbance.

Modified -

ComID: 160

External ID:

Categories
Forest
Mitigation
Reforestation

Responsible Parties
Designer
GEC/DelDOT

References
Orig - * FEIS : Chapter 3, page 173

Original - Mitigation for impacts to forest areas will be determined during the design phase of the project following detailed delineation of forest stands.

Modified -

ComID: 161

External ID:

Categories
Agency Coordination
RTE

Responsible Parties
GEC/DelDOT
Lead Agency

References
Orig - * FEIS : Chapter 3, Page 178

Original - Rare, threatened and endangered species coordination for this project will continue throughout the project development process.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 162

External ID:

Categories
Community Outreach & Coordination
Property Acquisition

Responsible Parties
GEC/DelDOT

References
Orig - * FEIS : Chapter 4, Section 2, Page 16 (of 26)

Original - DelDOT will continue to interact with property owners and developers throughout the balance of the planning process to acquire the needed right-of-way.

Modified -

ComID: 163

External ID:

Categories
Construction
Permits

Responsible Parties
GEC/DelDOT

References
Orig - * USACE Provisional Permit 081909 : Page 2, General Condition 1

Original - The time limit for completing the work authorized ends on 31 December 2019. If DelDOT finds that it needs more time to complete the authorized activity, it must submit a request for a time extension to the U.S. Army Corps of Engineers, Philadelphia District office for consideration at least three months before the above date is reached.

Modified -

ComID: 164

External ID:

Categories
Agency Coordination
Cultural Resources

Responsible Parties
GEC/DelDOT
Permitting Agency

References
Orig - * USACE Provisional Permit 081909 : Page 2, General Condition 3

Original - If DelDOT discovers any previously unknown historic or archaeological remains, it must immediatedly notify the U.S. Army Corps of Engineers, Philadelphia District office of what was found. USACE will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

Modified -

ComID: 165

External ID:

Categories
Permits

Responsible Parties
GEC/DelDOT

References
Orig - * USACE Provisional Permit 081909 : Page 2, General Condition 4

Original - If DelDOT sells property associated with the USACE permit, it must obtain the signature of the new owner in the space provided and forward a copy of the permit to the U.S. Army Corps of Engineers, Philadelphia District office to validate the transfer of this authorization.

Modified -

ComID: 166

External ID:

Categories
Permits

Responsible Parties
GEC/DelDOT

References
Orig - * USACE Provisional Permit 081909 : Page 2, General Condition 5

Original - If a conditioned water quality certification is issued for this project, DelDOT must comply with conditions specified in the certification as special conditions to the USACE permit.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 167

External ID:

Categories
- Construction
- Waters of the US
- Wetlands

Responsible Parties
- Design/Builder
- GEC/DelDOT
- Ind. Environmental Monitor

References

Orig - * USACE Provisional Permit 081909 : Page 3, Special Condition 2

Original - Construction activities shall not result in the disturbance or alteration of more than 35.5 acres of wetlands and waters of the United States.

Modified -

ComID: 168

External ID:

Categories
- Agency Coordination
- Construction
- Design Review
- Permits

Responsible Parties
- Designer
- GEC/DelDOT
- Permitting Agency

References

Orig - * USACE Provisional Permit 081909 : Page 3, Special Condition 3

Original - Any deviation in construction methodology or project design of the regulated activities from that shown on the drawings approved by the U.S. Army Corps of Engineers, Philadelphia District office must be approved by the U.S. Army Corps of Engineers, Philadelphia District office, in writing, prior to performance of the work. All modifications to the above noted project plans shall be approved, in writing, by the U.S. Army Corps of Engineers, Philadelphia District office. No work shall be performed prior to written approval of the U.S. Army Corps of Engineers, Philadelphia District office.

Modified -

ComID: 169

External ID:

Categories
- Agency Coordination
- Permits

Responsible Parties
- GEC/DelDOT

References

Orig - * USACE Provisional Permit 081909 : Page 3, Special Condition 4

Original - The U.S. Army Corps of Engineers, Philadelphia District office shall be notified at least 10 days prior to the commencement of authorized work by completing and signing the Notification/Certification of Work Commencement Form. The U.S. Army Corps of Engineers, Philadelphia District office shall also be notified within 10 days of the completion of the authorized work by completing and signing the Notification/Certification of Work Completion/Compliance Form. All notifications required by this condition shall be in writing and shall be transmitted to this office by registered mail. Oral notifications are not acceptable. Similar notification is required each time maintenance work is to be done under the terms of the USACE permit.

Modified -

ComID: 170

External ID:

Categories
- Agency Coordination
- Permits

Responsible Parties
- GEC/DelDOT
- Permitting Agency

References

Orig - * USACE Provisional Permit 081909 : Page 2, General Condition 6

Original - DelDOT must allow representatives from the U.S. Army Corps of Engineers, Philadelphia District office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of the USACE permit.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 171

Categories
Fill
Revegetation and Replanting
Streams
Temporary Impacts
Waters of the US
Wetlands

Responsible Parties
Builder
Designer
GEC/DelDOT
Permitting Agency

References
Orig - * USACE Provisional Permit 081909 : Page 3, Special Condition 5

External ID:

Original - Prior to the placement of temporary fill in any Waters of the United States including wetlands a removal and restoration plan must be submitted to and approved by the Corps of Engineers. This plan should include but shall not be limited to: reason for temporary fill; location, quantity and type of temporary fill; methods of installation and removal; restoration procedures; and Corps of Engineers final inspection provisions. This condition does not apply to temporary fills associated with erosion and sediment controls. The following shall be considered when utilizing temporary fills:
a. Earthen materials shall not be used in the deployment of temporary stream diversions, crossings or cofferdams, due to the potential for washout during storm events.
b. Any temporary stream crossings will be completely removed when no longer needed and the stream banks restored by planting native woody vegetation.
c. Any pre-existing riparian vegetation that is disturbed will be replanted after the removal of temporary disturbance.
d. Temporary stream crossings shall be located within the approved limits of disturbance.

Modified -

ComID: 172

Categories
Avoidance and Minimizaton
Waters of the US
Wetlands

Responsible Parties
GEC/DelDOT

References
Orig - * USACE Provisional Permit 081909 : Page 3, Special Condition 6

External ID:

Original - DelDOT will continue to coordinate project plan development for work in regulated wetlands and waters of the United States to assure that the identified impacts remain the same, and that if possible, further reductions in impacts to the aquatic environment may be identified.

Modified -

ComID: 173

Categories
Agency Coordination
Permits

Responsible Parties
GEC/DelDOT

References
Orig - * USACE Provisional Permit 081909 : Page 3, Special Condition 7

External ID:

Original - Prior to conducting any authorized work, DelDOT must obtain a Water Quality Certificate (WQC) from the Delaware Department of Natural Resources and Environmental Control for the work in the State of Delaware and a WQC from the Maryland Department of the Environment for the work in the State of Maryland.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 174

External ID:

Categories
- Environmental Compliance Implementation
- Permits

Responsible Parties
- Builder
- GEC/DelDOT

References

Orig - * USACE Provisional Permit 081909 : Page 4, Special Condition 8

Original - DelDOT is responsible for ensuring that the contractor and/or workers executing the activity(s) authorized by the USACE permit have knowledge of the terms and conditions of the authorization and that a copy of the permit document is at the project site throughout the period the work is underway.

Modified -

ComID: 176

External ID:

Categories
- Aquatic Biota
- Culverts
- Streams

Responsible Parties
- Designer
- GEC/DelDOT

References

Orig - * USACE Provisional Permit 081909 : Page 4, Special Condition 10

Original - Culverts conveying the stream base flow, and capable of passing aquatic life, will be depressed so that a natural substrate will accumulate in the culvert. DelDOT shall design culverts to address the specific geomorphic characteristics of the stream to avoid downstream scour and channel degradation, and to maintain ecological functions such as aquatic habitat, flood attenuation, sediment transport, and stream channel stability.

Modified -

ComID: 177

External ID:

Categories
- Bridges
- Streams
- Wildlife Passage

Responsible Parties
- Builder
- Designer

References

Orig - * USACE Provisional Permit 081909 : Page 5, Special Condition 13

Original - If riprap is determined necessary on the floodplain floor under any bridges, the riprap will be buried with material that is easily traversable by wildlife, preferably soil. Likewise, the use of slope protection under bridges will be minimized to retain as much of the natural terrain as possible for wildlife movement, and to minimize the disturbance of earthwork in the vicinity of streams.

Modified -

ComID: 178

External ID:

Categories
- Culverts
- Fish
- Streams
- Utilities

Responsible Parties
- Builder
- Designer

References

Orig - * USACE Provisional Permit 081909 : Page 5, Special Condition 14

Original - If riprap is needed in a stream channel for energy dissipation at either end of a stream culvert, or to protect a buried utility, riprap and stream substrate material shall be placed together, to establish a stream invert that will not impede fish passage during low flows.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 179

External ID:

Categories
- ESC
- Waters of the US
- Wetlands

Responsible Parties
- Builder
- GEC/DelDOT

References

Orig - * USACE Provisional Permit 081909 : Page 5, Special Condition 15

Original - No stockpiling or storage of equipment, materials, or structural steel; no staging areas; and no installation of ancillary facilities such as concrete or asphalt plants or construction trailers shall be permitted within any wetland or stream areas outside of identified storage areas as approved by the Corps of Engineers. No construction materials, aggregates or earth shall be stockpiled or stored in a manner that would affect wetlands or streams, and such stockpiles shall have erosion and sediment controls approved by DelDOT.

Modified -

ComID: 180

External ID:

Categories
- ESC
- Fence
- Waters of the US
- Wetlands

Responsible Parties
- Builder

References

Orig - * USACE Provisional Permit 081909 : Page 5, Special Condition 16

Original - In order to preclude accidental encroachment into wetlands that are beyond the permitted limit of construction (LOC), orange plastic fencing and signage shall be installed along the LOC. This plastic fencing shall be placed at any location where the LOC is adjacent to any streams, regulated ditches, or wetlands and shall extend a distance of 50 feet beyond the stream or wetland boundaries. The LOC will be established as shown on the project plans identified in special condition 1 of the USACOE permit. The installation of fencing shall be accomplished immediately after stakeout of the LOC and prior to installation of erosion and sediment controls.

Modified -

ComID: 181

External ID:

Categories
- Fill
- Utilities
- Waters of the US
- Wetlands

Responsible Parties
- Builder
- Designer

References

Orig - * USACE Provisional Permit 081909 : Page 5, Special Condition 17

Original - Where utility lines are being relocated by DelDOT and pass through or along the boundaries of wetland areas, measures must be taken to prevent the porous bedding and backfill material from acting as a French drain that would drain the wetland. Examples of acceptable measures would be clay collars or trench plugs installed, at a minimum, every 100 feet, with a collar located at the entrance point and exit point of the utility lines into and out of the wetland area.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 182

External ID:

Categories
- ESC
- Waters of the US
- Wetlands

Responsible Parties
- Builder
- Designer
- GEC/DelDOT
- Permitting Agency

References

Orig - * USACE Provisional Permit 081909 : Page 6, Special Condition 18

Original - As a part of the earthen grading activities associated with surface water management and runoff, and/or the restoration of temporary drainage and diversion activities associated with project construction, DelDOT shall assure that any wetlands or waters of the United States outside of the approved limit of disturbance (LOD) are not adversely affected by the project. These adverse effects would include, but are not limited to, the removal of wetland hydrology (surface or subsurface), and the increased scour and erosion of stream channels within the project area. In the event that any adverse effects are identified, DelDOT will immediately contact the U.S. Army Corps of Engineers, Philadelphia District office and coordinate with this office to develop and implement corrective or remedial measures.

Modified -

ComID: 183

External ID:

Categories
- Disposal
- Fill
- Waters of the US

Responsible Parties
- Builder
- GEC/DelDOT
- Permitting Agency

References

Orig - * USACE Provisional Permit 081909 : Page 6, Special Condition 19

Original - All excess excavated material not used in highway or compensatory mitigation site construction shall be disposed of at upland, non-wetland disposal site(s). The excavated material shall be properly contained and stabilized to prevent its intry into any adjacent wetlands or waterways. No disposal/wasting operation shall commence until DelDOT obtains written approval of any disposal site(s) from the Corps of Engineers to ensure that there are no unauthorized discharges of fill into Waters of the United States, including jurisdictional wetlands.

Modified -

ComID: 184

External ID:

Categories
- Mitigation
- Monitoring
- Waters of the US
- Wetlands

Responsible Parties
- Designer
- GEC/DelDOT
- Permitting Agency

References

Orig - * USACE Provisional Permit 081909 : Page 6, Special Condition 22

Original - The final comprehensive wetland mitigation and monitoring plan must be submitted to and approved by the Corps of Engineers within one year of the issuance of this permit and prior to any work within Waters of the United States, including wetlands. At a minimum this plan shall provide the following: specific acreage of wetlands at each wetland mitigation site, targeted habitat types at each mitigation site, elevations and grading details at each mitigation site, planting and seeding measures at each mitigation site, performance standards for each mitigation site, and a monitoring plan of the mitigation sites to assure that sites achieve their targeted goals. The final comprehensive wetland mitigation and monitoring plan must be submitted to and approved by the Corps of Engineers within one year of the issuance of this permit and prior to any work within Waters of the United States, including wetlands.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 185

External ID:

Categories
- Environmental Stewardship
- Mitigation
- Wetlands

Responsible Parties
- Designer
- GEC/DelDOT
- Permitting Agency

References

Orig - * USACE Provisional Permit 081909 : Page 7, Special Condition 23

Original - The final wetland mitigation/compensation plan shall also include provisions to assure the perpetual maintenance and protection of the approved wetland mitigation sites. These measures may include deed restrictions, conservation easements, or other real estate mechanisms. These measures must also be approved by the Corps of Engineers.

Modified -

ComID: 186

External ID:

Categories
- Agency Coordination
- Environmental Compliance Implementation

Responsible Parties
- GEC/DelDOT
- Ind. Environmental Monitor

References

Orig - * USACE Provisional Permit 081909 : Page 7, Special Condition 24

Original - DelDOT shall provide an Environmental Monitor who shall ensure environmental compliance on this project. This individual shall function as a point of contact at the construction sites between the Corps of Engineers and all contractors and subcontractors who are performing the authorized activities.

Modified -

ComID: 187

External ID:

Categories
- Permits

Responsible Parties
- GEC/DelDOT

References

Orig - * USACE Provisional Permit 081909 : Page 2, Special Condition 1

Original - All regulated work performed in association with this project shall be conducted in accordance with the project plans identified as U.S. 301 Wetland Impact Plates, sheets 1 - 36 of 36, dated September 2008, and unrevised.

Modified -

ComID: 188

External ID:

Categories
- SWM

Responsible Parties
- Builder
- Designer

References

Orig - * USACE Provisional Permit 081909 : Page 6, Special Condition 20

Original - All stormwater will be managed. Stormwater shall be managed in accordance with DelDOT's current Erosion and Sediment Control and Stormwater Management (ES2M) Design Guide. SWM shall be treated using innovative Low Impact Development techniques wherever possible, and traditional treatment options shall be employed only after analysis determines LID techniques are not adequate. LID techniques that may be considered but are not limited to are: linear groundwater recharge/infiltration trenches, bio-retention facilities, and hydrologic disconnectivity.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 189

External ID:

Categories

ESC

Fence

Responsible Parties

Builder

References

Orig - * USACE Provisional Permit 081909 : Page 6, Special Condition 21

Original - All areas of soil and earth disturbance shall be controlled to prevent erosion. Erosion and sediment shall be controlled in accordance with DelDOT's Erosion and Sediment Control (ES2M) Design Guide. In the following locations reinforced silt fencing shall be used due to the high probability of overbank flooding:

a) Scott Run from mainline Station 741+00 to Station 750+00
b) Scott Run at mainline Station 665+00 to Station 671+00
c) Drawyer Creek at mainline Station 495+00 to Station 500+00
d) Sandy Branch at mainline Station 261+00 to Station 266+00
e) Back Creek at Spur Station 227+00 to Statioin 232+00

Modified -

ComID: 190

External ID:

Categories

Permits

Responsible Parties

GEC/DelDOT

References

Orig - * USACE Provisional Permit 081909 : Page 7, Special Condition 25

Original - If modifications to the USACE permit are necessary, those modification requests shall only come from DelDOT and shall be reviewed by DelDOT prior to submission to the Corps of Engineers.

Modified -

CTD - Commitment Tracking Database - Commitment Listing

Project: US 301

Description: The project consists of the construction of a new limited access highway

ComID: 191

External ID:

Categories
Bridges
Streams

Responsible Parties
Builder
Designer
GEC/DelDOT

References
Orig - * USACE Provisional Permit 081909 : Page 4, Special Condition 11

Original - Bridges will be constructed at the major stream crossings listed below. No bridge piers will be constructed in any stream without a site specific approval by the U.S. Army Corps of Engineers, Philadelphia District office. The bridges will be constructed to the dimensions discussed below. All vertical dimensions referenced below will be permitted to decrease by two feet or increase without further coordination with the Corps.

a) The bridges over Sandy Branch shall be constructed such that the profile grade line (PGL) near centerline Station 264+00 is 16 feet above the water surface elevation immediately below, and shall be approximately 268 feet long.

b) The bridges over Drawyers Creek shall be constructed such that the PGL near centerline Station 497+00 is 15 feet above the elevation of the floodplain floor immediately below, shall be approximately 240 feet long.

c) The mainline bridges over Scott Run shall be constructed such that the PGL near centerline Station 669+00 is 18 feet above the elevation of the floodplain floor immediately below, shall be approximately 285 feet long.

d) The Hyetts Corner Road bridge over Scott Run near mainline Station 670+70, shall be constructed such that the PGL near Hyetts Corner Road centerline Station 118+60 is 15 feet above the elevation of the floodplain floor immediately below, shall be approximately 240 feet long.

e) The mainline bridges over Scott Run near Station 689+00, shall be constructed such that the PGL near centerline Station 689+00 is 14 feet above the elevation of the floodplain floor immediately below, shall be approximately 228 feet long.

f) The northbound ramp to SR 1 bridge over Scott Run near Station 743+00, shall be constructed such that the PGL near centerline Station 743+00 is 10 feet above the elevation of the floodplain floor immediately below, shall be approximately 130 feet long.

g) The Spur Road bridges over Back Creek near Station 205+50, shall be constructed such that the PGL near centerline Station 205+00 is 14 feet above the elevation of the floodplain floor immediately below, shall be approximately 236 feet long.

h) The Spur Road bridges over Back Creek near Station 230+00 shall be constructed such that the PGL near centerline Station 230+00 is 14 feet above the elevation of the floodplain floor immediately below, shall be approximately 345 feet long.

Modified -

ComID: 192

External ID:

Categories
Avoidance and Minimizaton
Bridges
Streams

Responsible Parties
Builder
Designer
GEC/DelDOT

References
Orig - * FEIS : Chapter 4, Section 9, Page 26 (of 37)

Original - Impacts to stream buffers have been minimized to the greatest extent possible at each stream crossing.

Modified -

Appendix B

Project Management Plan

Federal Highway Administration

Appendix C

Project Management Plan

Federal Highway Administration

See back pocket of binder for US 301 Project Map

Appendix D

Project Management Plan

Federal Highway Administration

GARVEE Bond Material

SPONSOR: Sen. Venables & Rep. Keeley

Cook	Mulrooney
McDowell	Schooley
Sokola	Viola
Simpson	Carey
Sorenson	

DELAWARE STATE SENATE
145th GENERAL ASSEMBLY

SENATE SUBSTITUTE NO. 1

FOR

SENATE BILL NO. 202

AN ACT TO AMEND THE FISCAL YEAR 2010 BOND AND CAPITAL IMPROVEMENTS ACT; AMENDING TITLE 29 OF THE DELAWARE CODE RELATING TO DRAINAGE; AND AMENDING THE LAWS OF DELAWARE.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF DELAWARE (Three-fourths of all members elected to each house thereof concurring therein):

…..

Section 5. Amend 77 Del. Laws, c. 87, §83 by adding a new subsection (c) to read as follows:

"(c) New Transportation Trust Fund Debt Authorizations. To fund a portion of the projects authorized herein, the Delaware Transportation Authority is hereby authorized to issue GARVEE bonds in an amount not to exceed $125,000,000 pursuant to the provisions of 2 Del. C. c. 13 and 14. All proceeds (net of issuance costs) from the GARVEE bond sale shall be used for the US301 Maryland State Line capital improvement project. Annual obligational authority from the Federal Highway Administration shall be used to repay debt associated with the term of the GARVEE bonds. The Secretary of Transportation is hereby authorized to pledge the State's annual obligational authority from the Federal Highway Administration as security for the GARVEE bonds, and is authorized to take any further action and execute any other documents necessary or convenient to consummate the issuance of the GARVEE bonds. A fifteen year amortization schedule shall be made available for the review and approval of the Director of Office of Management & Budget and Controller General annually."

Section 6. Amend 29 Del. C. §6102A (h)(6) by deleting said subsection in its entirety.

Section 7. State Video Lottery. Notwithstanding the provisions of any other law, including chapter 48 of title 29, the State Lottery Office shall be entitled to impose a one-time reimbursement from the video lottery agents in an amount equal to the costs incurred by the State related to the research, drafting and filing of a petition for certiorari in Office of the Commissioner of Baseball, et al. v. Markell, et al., provided that such reimbursement shall not exceed $250,000 in total,

and that the $250,000 reimbursement shall be divided among the video lottery agents in proportion to their respective proceeds attributable to the sports lottery, as determined by the State Lottery Office, during the fiscal year ending June 30, 2010 as of the effective date of this act, and further provided that such reimbursement shall be deducted from the amounts otherwise payable to video lottery agents pursuant to 29 Del. C. § 4815 as soon as practicable and without regard for the disposition of the petition for certiorari.

Ssynopsis

This Act provides the Milford school district flexibility in transferring capital funds and changes project names; provides authority for the Department of Transportation to issue $125 million in GARVEE bonds, speeds up permitting requirements for Delaware Tech's Energy House, modifies drainage provisions for Resource Conservation and Development projects and provides for a one-time reimbursement from video lottery agents.

Author: Joint Legislative Committee on the Capital Improvement Program

SPONSOR: Rep. Keeley & Rep. Cathcart

HOUSE OF REPRESENTATIVES
145th GENERAL ASSEMBLY

HOUSE RESOLUTION NO. 35

A RESOLUTION RELATING TO THE ROUTE 301 PROJECT.

WHEREAS, the 301 project is important to the economic infrastructure for the State of Delaware;

WHEREAS, there is a desire to ensure that the construction of the Spur Road part of the 301 project does not begin until such time as the anticipated traffic congestion in the surrounding area warrants its construction; and

WHEREAS, the House Majority Leadership, the Minority Leadership, DelDOT and the Administration desire to negotiate, to a final resolution, a bill that will effectuate this goal;

NOW, THEREFORE:

BE IT RESOLVED by the House of Representatives of the 145th General Assembly of the State of Delaware that DelDOT, the Administration, WILMAPCO, the Minority Leadership of the House, the Majority Leadership of the House and the House Chair of the Bond Bill agree to sit down over the next 6 weeks to develop and negotiate to final resolution a bill to amend the existing epilogue language, with such bill mandating certain trigger mechanisms for the Spur Road. These mechanisms will tie the initiation of the construction of the Spur Road part of the 301 project to the traffic congestion in the surrounding area.

SYNOPSIS

This resolution relates to the Route 301 project.

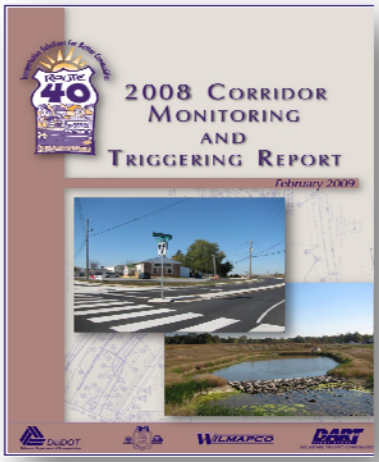
HD : WGB : SES
3941450302

Released: 01/28/2010 06:27 PM

TRIGGERS FOR CONSTRUCTION OF THE US 301 SPUR ROAD

MARCH 17, 2010

- Purpose: To determine the appropriate time to construct the US 301 Spur Road based on existing and anticipated traffic conditions in the surrounding area.
- Previous examples of triggering programs in Delaware:
  - US 40 Corridor Improvements
  - Tyler McConnell Bridge



- Triggers for the US 301 Spur construction should be based on a collective understanding of traffic and safety characteristics and conditions of the surrounding regional roadway network.
- Triggers should be selected that focus on the US 301 Project's Purpose and Need:
  - Reduce Traffic Congestion
  - Improve Safety
  - Manage Truck Traffic
- US 301 Spur Road Triggering Program based on three elements:
  - An annual Monitoring Program
    - Report developed annually by DelDOT in cooperation with WILMAPCO, New Castle County and local municipalities
    - Results of Monitoring Program summarized in report and posted on the internet
    - Results of Monitoring Program presented annually at February WILMAPCO meeting
    - Begin annual monitoring of traffic characteristics and conditions in Fall 2010
  - Additional public involvement at key decision points, such as when the Secretary of Transportation decides to recommend that construction of the Spur should begin.
  - An annual report to the General Assembly in April
- When existing and anticipated traffic conditions indicate the need, the Report will provide a recommendation for the appropriate time to construct the US 301 Spur Road

- US 301 Spur – Key Decision Considerations
  - Decision of when to build the US 301 Spur would not be rigidly tied to specific quantitative thresholds
  - Rather, it would be based on a collective understanding of traffic flow characteristics and conditions, including congestion levels, safety data and land use / development activity
    - For Example, if 3 intersections along existing US 301 were approaching the UDC LOS thresholds, ADT volumes on key local roads were growing faster than the projections, and a segment of roadway had a crash rate higher than the statewide average, the Secretary of Transportation may decide to recommend that construction of the Spur Road should begin, as part of the report to the General Assembly.
- The proposed annual monitoring and reporting program described on the remaining slides was developed to cost-effectively measure traffic flow conditions pertaining to the Purpose and Need for the US 301 Spur
- As a new north-south roadway connecting southern Middletown and points south with the Summit Bridge and points north, the US 301 Spur is projected to:
  - Reduce traffic and congestion on parallel north-south roads including existing US 301 and Choptank Road
  - Reduce the likelihood of crashes on Existing US 301 and other local roads in the region, and provide an alternative travel route when major incidents occur on other north-south roads
  - Manage truck traffic by eliminating conflicts with local traffic by providing a new roadway without intersections
- Therefore, the proposed annual monitoring and reporting program is based on the following :
  - Collecting traffic volumes on key roadways
    - To track total traffic volumes over time
    - To track truck volumes over time
    - To compare measured traffic with projected traffic
  - Collecting intersection volumes and delay
    - To calculate signalized and unsignalized intersection Levels of Service (congestion)
  - Collecting crash data
    - To track crash records of key roads over time
    - To identify locations with crash rates exceeding the statewide average for similar roads

- Collecting data on land use / development activity
  - To track the pace of development in the Middletown area
  - To monitor the magnitude of potential near-term (within 5 years) development in the Middletown region
- Reporting on regional activity that may affect the timing of the US 301 Spur, such as BRAC

- Key Roadway Volumes (Average Daily Traffic)
  - Choptank Road, North of Churchtown Road
  - Roth Bridge (SR 1)

    Consideration should also be given to other routes to(ex: SR 72 and SR 273) that could potentially serve north-south traffic as an alternative to the US 301 Spur
  - St. George's Bridge (US 13)
  - Summit Bridge (US 301)
  - Existing US 301, North of Mt. Pleasant
  - Existing US 301, between Armstrong Corner Road and Mt. Pleasant
  - New US 301 Bypass north of Jamison Corner Road

NOTE: All Traffic Data to be collected annually during the 1st two weeks of October

- Average Daily Traffic (ADT) Volumes
  - Track traffic volumes over time
  - Compare existing and projected traffic volumes
    - Monitor pace of traffic growth
    - Compare existing traffic volumes to estimated daily capacities of key roadways
- Truck Volumes
  - Track volume of trucks over time at specific locations
  - Compare to existing truck traffic volumes

- Peak Hour Signalized Intersection Volumes
  - ★ US 301 / Old Summit Bridge Road
  - ★ US 301 / SR 896 (Boyds Corner Road)
  - ★ US 301 / Armstrong Corner Road
  - ★ US 301 / SR 71 (Broad Street)
  - ★ US 301 / SR 299

NOTE: All Traffic Data to be collected annually during the 1st two weeks of October

- Peak Hour Signalized Intersection Levels of Service (LOS)
  - Tied to UDC Requirements
    - LOS D/E Border in Sewer Service Areas (same as US 40)
  - Analysis Based on Highway Capacity Manual Methodology

New Castle County Sewer Service Area

Example:

	2010	2011	2012	2013	2014	2015	2016
US 301 at Old Summit Bridge	B	B	C	C	D	D	E
US 301 at SR 896							
US 301 at Armstrong Corner Rd							
US 301 at SR 71							
US 301 at SR 299							

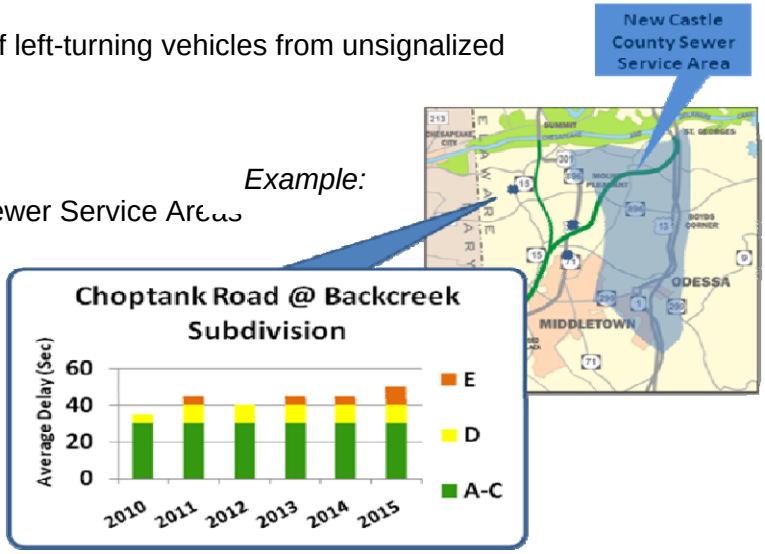
Peak Hour Unsignalized Intersection Delay

- Existing US 301 @ Old Schoolhouse Road
- Existing US 301 @ Keenan Auto Body
- Choptank Road @ Back Creek Subdivision

NOTE: All Traffic Data to be collected annually during the 1st two weeks of October

- Unsignalized Intersection Delay
  - Report average delay for sample of left-turning vehicles from unsignalized streets and driveways
  - Tied to UDC Requirements
    - LOS C/D Border outside Sewer Service Areas
    - LOS D/E Border in Sewer Service Areas

Example:



- Crash Data – Data to be Collected
  - Crash totals and rates for two key roadways
    - Choptank Road
    - Existing US 301
  - Statewide Average Crash Rates for Similar Roadways
  - Locations on DelDOT's Highway Safety Improvement Program (HSIP) list
- Crash Data – Proposed Reporting Methods
  - Summarize and Compare crash data annually for key roadway segments
  - Compare crash rates to statewide averages

- Land Use / Development Activity
  - DelDOT, WILMAPCO, New Castle County and local municipalities will provide comments regarding existing and anticipated near-term (5 years or less) land use and development activity in Southern New Castle County to the Secretary of Transportation to be included in the annual report to the General Assembly.

Transportation Improvement Plan (TIP) and Capital Transportation Program (CTP) Material

Wilmington Area Planning Council

850 Library Avenue, Suite 100
Newark, Delaware 19711
302-737-6205; Fax 302-737-9584
From Cecil County: 888-808-7088
e-mail: wilmapco@wilmapco.org
web site: www.wilmapco.org

RESOLUTION
BY THE WILMINGTON AREA PLANNING COUNCIL (WILMAPCO)

AMENDING THE FY2010-FY2013 TRANSPORTATION IMPROVEMENT PROGRAM NEW CASTLE COUNTY ELEMENT

WHEREAS, the Wilmington Area Planning Council (WILMAPCO) has been designated the Metropolitan Planning Organization for Cecil County, Maryland and New Castle County, Delaware by the Governors of Maryland and Delaware, respectively; and

WHEREAS, the United States Department of Transportation's (USDOT) Regulations of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Metropolitan Planning Requirements, require that, in air quality non-attainment areas, the MPO, in cooperation with participants in the planning process, develop and, at least every four years, updates the Transportation Improvement Program (TIP); and

WHEREAS, the WILMAPCO TIP format incorporates a four-year period for the listing of priority projects to be implemented, as well as a list of program development projects; and

WHEREAS, the FY2010-2013 TIP has undergone appropriate community and technical reviews; and

WHEREAS, the TIP must be determined to be air quality conforming in accordance with SAFETEA-LU and Clean Air Act and Amendments (CAAA) of 1990 requirements; and;

WHEREAS, the FY2010-2013 TIP has been found to be financially constrained, as directed by 23 CFR 450.324 (e), and consistent with the Regional Transportation Plan;

NOW, THEREFORE, BE IT RESOLVED that the Wilmington Area Planning Council does hereby amend the FY2010-2013 Transportation Improvement Program to include amended funding for US301, Maryland State Line to SR 1.

March 11, 2010
Date:

Stephen Kingsberry Chairperson
Wilmington Area Planning Council

WILMAPCO

Partners with you in transportation planning

TRANSPORTATION IMPROVEMENT PROGRAM AMENDMENT FORM

This form must be completed and all questions must be answered in order to process this request.

Date of Submission 01/21/2010

TIP to be Amended: FY 2010-2013

Sponsoring Agency: ~~DelDOT~~

Project Name: ~~: US301, Maryland State Line to SR 1~~

Project Category: Arterials

Project Description:

Upgrade of US301 to a four lane limited access highway, from the Maryland State Line to SR 1 South of the C&D Canal and a Spur to the Summit Bridge, with interchanges at key locations.

Project Justification:

Need for the project is founded in an existing roadway system that lacks capacity for current and future Volumes and that has had sections appear almost yearly on DelDOT's list of High Accident locations, including 2007 HSIP Sites O and R. While a corridor to upgrade US301 has been looked at off and on for the past forty years or so, it no longer meets the needs of the corridor and a new limited access highway will need to be constructed

Funding:

Federal 137,050 State 14,167.5 *OTHER[1] 125,000 *OTHER[2] 553,000 Total 829,217.5

Funding	Phase	FY 10	FY 11	FY 12	FY 13	FY 14	FY15-17	Total
ST	PD	0	0	0	0	0	0	11,167.5
GARVEE, ST, FHWA	PE	24,250	25,000	7,700	1,400	0	0	66,250
GARVEE, FHWA	RW	1,000	60,000	25,000	19,000	0	0	119,000
ST, Toll Revenue Bonds	C	0	0	76,784	144,000	172,000	160,000	553,000
GARVEE	GARVEE DEBT	0	11,400	11,400	11,400	11,400	34,200	79,800
TOTAL		25,250	96,400	120,884	175,800	183,400	194,200	

***OTHER[1]: Garvee Bonds; *OTHER[2] : Toll Revenue Bonds**

Wilmington Area Planning Council

850 Library Avenue, Suite 100
Newark, Delaware 19711
302-737-6205; Fax 302-737-9584
From Cecil County: 888-808-7088
e-mail: wilmapco@wilmapco.org
web site: www.wilmapco.org

RESOLUTION
BY THE WILMINGTON AREA PLANNING COUNCIL (WILMAPCO)

ADOPTING THE FY2011-FY2014
TRANSPORTATION IMPROVEMENT PROGRAM

WHEREAS, the Wilmington Area Planning Council (WILMAPCO) has been designated the Metropolitan Planning Organization for Cecil County, Maryland and New Castle County, Delaware by the Governors of Maryland and Delaware, respectively; and

WHEREAS, the United States Department of Transportation's (USDOT) Regulations of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Metropolitan Planning Requirements, require that, in air quality non-attainment areas, the MPO, in cooperation with participants in the planning process, develop and, at least every four years, updates the Transportation Improvement Program (TIP); and

WHEREAS, the WILMAPCO TIP format incorporates a four-year period for the listing of priority projects to be implemented, as well as a list of program development projects; and

WHEREAS, the FY2011-2014 TIP has undergone appropriate community and technical reviews; and

WHEREAS, the TIP must be determined to be air quality conforming in accordance with SAFETEA-LU and Clean Air Act and Amendments (CAAA) of 1990 requirements; and; and

WHEREAS, the FY2011-2014 TIP has been found to be financially constrained, as directed by 23 CFR 450.324 (e), and consistent with the Regional Transportation Plan;

NOW, THEREFORE, BE IT RESOLVED that the Wilmington Area Planning Council does hereby adopt the FY2011-2014 Transportation Improvement Program.

March 11, 2010
Date:

Stephen Kingsberry, Chairperson
Wilmington Area Planning Council

US 301: MARYLAND STATE LINE TO SR 1 (CONTINUED)

A. Existing funding proposal-Toll Bonds

PHASE	FUNDING	CURRENT 7/09-10	FY 2011 7/10-6/11	FY 2012 7/11-6/12	FY 2013 7/12-6/13	FY 2014 7/13-6/14	**FY 2011-14 TOTAL**	FY 2015-16 TOTAL
PE	FHWA toll credit	$ 24,250.0	$ 13,100.0				**$ 13,100.0**	
	Toll Bond GARVEE		$ 11,900.0	$ 7,700.0	$ 1,400.0		**$ 21,000.0**	
ROW	GARVEE	$ 1,000.0	$ 60,000.0	$ 25,000.0	$ 19,000.0		**$ 104,000.0**	
C	Toll Bond			$ 76,784.0	$ 144,000.0	$ 172,000.0	**$ 392,784.0**	$ 133,000.0
GARVEE Debt	FHWA		$ 11,400.0	$ 11,400.0	$ 11,400.0	$ 11,400.0	**$ 45,600.0**	$ 22,800.0
TOTAL		**$ 25,250.0**	**$ 96,400.0**	**$ 120,884.0**	**$ 175,800.0**	**$ 183,400.0**	**$ 576,484.0**	$ 155,800.0

All $ X 1,000

FHWA: Federal Aid Highway Funds (restrictions on use)
GARVEE: Bonds supported by annual apportionment of federal aid highway funds, subject to approval by the General Assembly
Toll Revenue Bonds: Bonds supported by US 301 toll revenues, subject to approval by the General Assembly

US 301, Maryland State Line to SR 1

PROJECT AUTHORIZATION SCHEDULE

IN ($000)

PROJECT NUMBER	PHASE	FUNDING SOURCE		CURRENT ESTIMATE	FY 2011			FY 2012			FY 2013			FY 2014			State Total	Federal Total
					STATE	FEDERAL	FUND TYPE	STATE	FEDERAL	FUND TYPE	STATE	FEDERAL	FUND TYPE	STATE	FEDERAL	FUND TYPE		
25-113-01	PD	STATE	100%	11,167.0	-	-		-	-		-	-		-	-		$ -	$ -
25-113-01	PE	STATE	100%	1,622.0	-	-		-	-		-	-		-	-		$ -	$ -
25-113-01	PE	OTHER	100%	21,000.0	-	-		-	-		-	-		-	-		$ -	$ -
25-113-01	PE	FHWA	80%	6,573.0	-	-		-	-		-	-		-	-		$ -	$ -
25-113-01	PE	FHWA (Toll Credit)	80%	37,065.0	-	-		-	-		-	-		-	-		$ -	$ -
25-113-01	RW	FHWA	80%	15,000.0	-	-		-	-		-	-		-	-		$ -	$ -
25-113-01	RW	OTHER	100%	104,000.0	-	-		-	-		-	-		-	-		$ -	$ -
25-113-01	C	OTHER	100%	553,000.0	-	-		-	-		-	-		-	-		$ -	$ -
25-113-01	DEBT	GARVEE	100%	165,000.0	-	11,400.0	L050	-	11,400.0	L050	-	11,400.0	L050	-	11,400.0	L050	$ -	$ 45,600.0
			0%	-	-	-		-	-		-	-		-	-		$ -	$ -
Total				914,427.0	-	11,400.0		-	11,400.0		-	11,400.0		-	11,400.0		$ -	$ 45,600.0

US 301, Maryland State Line to SR 1

PROJECT FUNDING SCHEDULE

IN ($000)

PROJECT NUMBER	PHASE	FUNDING SOURCE		CURRENT ESTIMATE	FY 2011			FY 2012			FY 2013			FY 2014			FY 2015	FY 2016
					STATE	FEDERAL	OTHER	STATE	FEDERAL	OTHER	STATE	FEDERAL	OTHER	STATE	FEDERAL	OTHER	TOTAL	TOTAL
25-113-01	PD	STATE	100%	11,167.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25-113-01	PE	STATE	100%	1,617.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25-113-01	PE	OTHER	100%	21,000.0	-	-	11,900.0	-	-	7,700.0	-	-	1,400.0	-	-	-	-	-
25-113-01	PE	FHWA	80%	6,568.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25-113-01	PE	FHWA (Toll Credit)	80%	37,065.0	-	13,100.0	-	-	-	-	-	-	-	-	-	-	-	-
25-113-01	RW	FHWA	80%	15,000.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25-113-01	RW	OTHER	100%	104,000.0	-	-	60,000.0	-	-	25,000.0	-	-	19,000.0	-	-	-	-	-
25-113-01	C	OTHER	100%	553,000.0	-	-	-	-	-	76,784.0	-	-	144,000.0	-	-	172,000.0	112,000.0	21,000.0
25-113-01	DEBT	GARVEE	100%	165,000.0	-	11,400.0	-	-	11,400.0	-	-	11,400.0	-	-	11,400.0	-	11,400.0	11,400.0
			0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total				914,417.5	-	24,500.0	71,900.0	-	11,400.0	109,484.0	-	11,400.0	164,400.0	-	11,400.0	172,000.0	123,400.0	32,400.0

STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
P.O. BOX 778
DOVER, DELAWARE 19903

CAROLANN WICKS, P.E.
SECRETARY

April 16, 2010

The Honorable Jack A. Markell
William Penn Street
Tatnall Building
Dover, Delaware 19901

Dear Governor Markell:

In accordance with 23 CFR 450.326 and/or 23 CFR 450.216 the State of Delaware's State Transportation Improvement Program for Fiscal Years 2010 – 2013 is being amended to reflect a change in funding source and estimate for the US301, Maryland State Line to SR 1 project.

The amendment to the STIP complied with the 30-day public comment review (February 2010 – March 2010) and has been approved by the Wilmington Area Planning Organization (WILMAPCO).

This letter serves as a formal request for your concurrence.

If you have any questions, please do not hesitate to contact Kathy S. English, Director of Finance at (302) 760-2688.

Sincerely,

Carolann Wicks
Carolann Wicks
Secretary

Jack Markell
Jack A. Markell, Governor

4/16/2010
Date

CW:KE:jla

DelDOT

Addendum to FHWA DelDOT MOA Garvee Bond Sale 2010

Delaware Department of Transportation
US 301 Maryland State Line to SR1 Project Authorization Management System
April 2010

Delaware Department of Transportation (DelDOT) will be requesting authorization of a new Federal Highway Administration (FHWA) federally participating project in the FHWA FMIS system to process the GARVEE debt payments associated with the US 301 project and GARVEE Bond issuance in 2010. This project will have an estimated cost of $165 million and will be identified/obligated as Advanced Construction (AC) when authorized in FMIS. The project will be recorded in DelDOT's accounting system and managed in the accounting system's Phase 9, which will track the total cost of the project and the debt service payments and allow DelDOT to reconcile Federal apportionments and the GARVEE debt service payments. The $165 million represents the anticipated GARVEE proceeds ($125 million) and the $40 million interest payments over the fifteen (15) year repayment period of the Bond. At the beginning of each federal fiscal year DelDOT will obligate $11.4 million ($1/15^{th}$ of the cost) via conversion of AC. The expected Federal apportionment will be National Highway System as long as future transportation legislation authorizes a National Highway System category and the project is eligible for that funding category. The project will be matched with Toll Credits at an 80/20 pro rata to account for the required matching share. Twice a year through the customary billing process DelDOT will bill FHWA the amount due for the debt service to the Bond Trustee. The payment will be expected to be received three to five business days prior to the date that such payment is due to the Trustee. The payment will be made directly to the Trustee from the United States Treasury. The sum of the debt payments requested to date will not exceed the sum of the charges incurred since the sale of the Bonds. We believe that this project and process corresponds with what FHWA envisioned for a debt re-payment project.

DelDOT has an active federally participating project, State project number 25-113-01, Federal aid project number 2006(018) which has several active phases and contains all the current allotments and expenditures on the US 301 Maryland State Line to SR1 project since calendar 2005. The project contains three phases, Program Development (PD), Preliminary Engineering (PE) and Rights of Way (ROW). The PE and ROW phases are currently active. The proceeds from the GARVEE Bond sale will increase the funding for PE by $21 million and ROW by $104 million. Expenses will be tracked and reconciled on this project to ensure that they exceed the amount of the semi-annual debt payment to be made from the above described Debt Service project. This State/Federal project will record and track the actual project costs and account for the official encumbrance (obligation) and payment records. DelDOT will maintain the current federally authorized project 25-113-01 to track all expenditures associated with the overall project prior to Construction.

In 2010, DelDOT is finalizing an Initial Financial Plan for the US 301 project to be submitted prior to authorization of the construction project. The plan will identify the GARVEE Bond sale and repayment schedule. Prior to entering into any contracts for Construction on the project, DelDOT will submit the required Financial Plan for review and approval by FHWA. We anticipate that several separate Construction projects will be initiated in addition to the current project 25-113-01 and the Debt Service project. All projects will be identified and described in the Financial Plan. The Financial Plan will be updated on an annual basis.

April 6, 2010

MEMORANDUM OF AGREEMENT BETWEEN FEDERAL HIGHWAY ADMINISTRATION AND DELAWARE DEPARTMENT OF TRANSPORTATION AND DELAWARE TRANSPORTATION AUTHORITY

ACCOUNTING FOR DEBT SERVICE PAYMENT ON GARVEE BONDS FOR THE US 301 PROJECT

BACKGROUND

The State of Delaware intends to construct the US 301 Maryland State Line capital improvement project., which is a 17.5 mile limited-access highway, on new location, with two lanes in each direction, that will connect existing US 301 at the Delaware/Maryland line with SR 1, south of the C & D Canal, a distance of 13.5 miles and a limited-access Spur Road, on new location, with one lane in each direction, from new US 301, in the vicinity of Armstrong Corner Road, to the Summit Bridge crossing of the C & D Canal, a distance of four miles (the "Project"). The Delaware Department of Transportation (DelDOT) is administering environmental approvals, design and construction of the Project, and, as federal grant recipient for the Project, will be responsible for federal aid management. DelDOT will also own and operate the facility. On behalf of DelDOT, the Delaware Transportation Authority (DTA) will issue GARVEE Bonds (Bonds) to provide funds for a portion of pre-construction (design completion and real estate acquisition) and construction activities for the Project. However, DelDOT reserves the right to use the GARVEE proceeds to fund other projects as approved by the Federal Highway Administration (and approved by the Delaware General Assembly) that would qualify as Federal aid eligible. These GARVEE Bonds are being issued in anticipation of future funds being made available by the Federal Highway Administration (FHWA) for debt service and costs incurred for these Bonds, including principal, interest and other Bond-related costs which are reasonable, necessary and customary. The Federal legislation that enables reimbursement of such costs is found in Title 23, Sec. 122 U.S. Code. DelDOT, DTA, and FHWA have jointly developed this Memorandum of Agreement (MOA) which documents the procedures for programming and authorizing projects; distribution, billing and payment of debt service and other Bond related costs; and close-out procedures for the program/projects.

DEBT SERVICE PROJECTS AGREEMENT AND AUTHORIZATION

DelDOT will establish the US 301 Federal Aid Project for one or more Individual Contracts, which will be funded with Bond issuances. The Federal Aid Project will be authorized and budgeted using Federal advance construction (AC) procedures and DelDOT's current Federal aid authorization/obligation process. AC conversions will be authorized for the designated amount equal to the sum of all debt service payments as scheduled on the pricing of the Bond(s), and other Bond-related costs attributable to the Bonds over the life of that instrument. Bond related and issuance costs are those considered reasonable, necessary and customary for GARVEE issuances. The AC authorization will ensure that the Project follows Federal aid procedures and will preserve the eligibility to reimburse debt-related costs with future Federal aid funds. The request for the Federal aid agreement for the Project will include a preliminary list of the Individual Contracts being funded and a statement that project authorization is requested under the provisions of Title 23 Sec. 122 U.S. Code. The list of Individual Contracts may be amended from time to time. Pursuant to 23 USC 115 and 122, eligibility of a debt financing instrument does not constitute a commitment, guarantee or obligation of the United States to provide for payment of principal or interest on the eligible debt financing instrument, nor create a right of a third party against the United States for payment under the debt financing instrument. The approval of the request for Federal aid agreement by FHWA will be appended to this Agreement and incorporated herein by this reference.

BUDGETING BOND PROCEEDS AND AUTHORIZING OF INDIVIDUAL PROJECT COSTS

Each Individual Contract will be authorized using the normal authorization/obligation process. Required statistical data will be provided to FHWA at the time each Individual Contract is submitted for FHWA approval. In the DelDOT financial system, each Individual Contract will be accounted for in a manner that will accumulate specific cost data associated with that Contract. Each Individual Contract will be cross-referenced to the US 301 Federal Aid Project via a Federal project number. Interest, issuance costs, and other Bond-related costs will be allocated to the Individual Contract through a methodology subject to the review and approval of FHWA. DelDOT will maintain documentation of individual project costs for not less than three years after closure of the US 301 projects.

DEBT SERVICE PAYMENTS, BILLING FHWA

DelDOT will establish the US 301 Federal Aid Project as an advance construction project within the Statewide Accounting System (Project Costing Module) and/or BACIS Accounting system.

At the beginning of each Federal fiscal year, DelDOT will obligate and convert the amount of advance construction necessary to pay debt service and other Bond related costs scheduled for that fiscal year for Bonds that have been issued. Pursuant to the terms of the Master Trust Agreement for the Bonds, the conversion of advance construction for debt service on the Bonds must be obligated in the first month in that fiscal year of funds legally available for that purpose. DelDOT will not request obligation for any other Federal aid projects until the Bonds' debt service obligation is met. In any event, DelDOT will set aside OA sufficient for scheduled payments of debt service and other Bond-related costs.

DelDOT, through the customary billing process, will bill FHWA the amount due for debt service and other bond related costs due to the Bond Trustee (to be named by the Authority), with a payment date that is in accordance with the Federal Cash Management Improvement Act, generally expected to be received 3 to 5 business days prior to the date such payment is due to the Trustee. The payment will be made directly to the Trustee electronically from the United States Treasury.

INDIVIDUAL PROJECT COSTS

Each Individual Contract will accumulate costs in DelDOT's financial system in accordance with DelDOT's customary accounting procedures. DelDOT will process all transactions for payment and will maintain all documentation for Individual Contracts in the same manner as any eligible Federal aid project. DelDOT will maintain all documentation for individual projects in the same manner as any eligible Federal aid project, and all procedures and rules currently in place to ensure that costs are eligible for Federal aid funding will be adhered to for all projects funded with GARVEE Bonds. DelDOT affirms and attests that it can establish and maintain an accounting system that accurately allocates eligible principal, interest and issuance expenses back to the individual Federal aid projects being financed under 23 USC 115 and 122. The Division Office affirms its authority to review DelDOT's accounting procedures and process to ensure the State's accounting system can support the allocation of eligible principal, interest and issuance expenses back to the individual Federal aid projects being financed under 23 USC 115 and 122 on an annual basis. The Division Office affirms its authority to authorize an audit of the Federal aid projects being financed under 23 USC 115 and 122 by an independent auditor at the expense of the State's apportionments at least every two years, but as frequent as an annual basis.

CLOSURE OF PROJECTS

The closure of Contracts will follow the normal process for project closure. The US 301 Federal Aid Project will remain open until all of the related Individual Contracts have been closed and all payments for debt service and other Bond-related costs have been made in full for the Project and have been audited in accordance with DelDOT audit requirements. At closure, the principal and interest amount paid for debt service will not exceed the total of all eligible expenditures incurred by the related Individual Contracts, and issuance costs related to the Bonds. Conventional project closure paperwork will also be submitted to FHWA for each Individual Contract. FHWA's DelMar Division has the authority to approve and/or review all of the costs incurred and billed by DelDOT. The DelMar Division affirms its authority to authorize an audit of the Federal aid projects.

CONCURRENCE:

Federal Highway Administration
Division Administrator

Hassan Raza

5 | 12 | 2010
Date

Delaware Department of Transportation
Cabinet Secretary

Carolann D. Wicks, P.E.

5/13/10
Date

Delaware Transportation Authority
Secretary of Delaware Department of Transportation

Carolann D. Wicks, P.E.

5/13/10
Date

Delaware Department of Transportation
Director of Finance

Kathy S. English

5/12/10
Date

Delaware Department of Transportation
Transportation Trust Fund Administrator

Brian G. Motyl

05-12-10
Date

Approved as to Form:

Frederick H. Schranck
Deputy Attorney General
Delaware Department of Transportation

5/12/10
Date

Appendix E

Project Management Plan

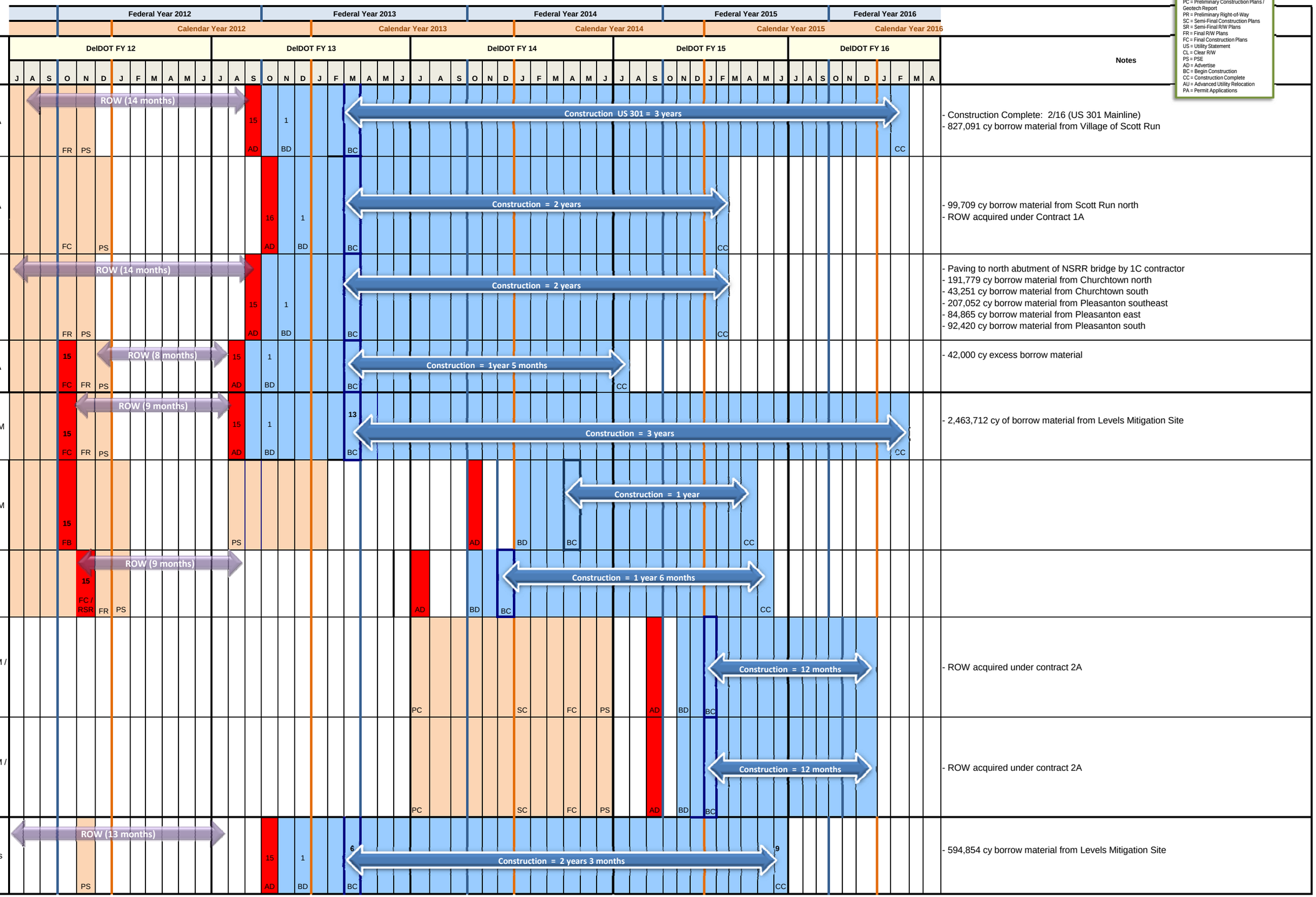
Federal Highway Administration

SCHEDULE

December 30, 2011

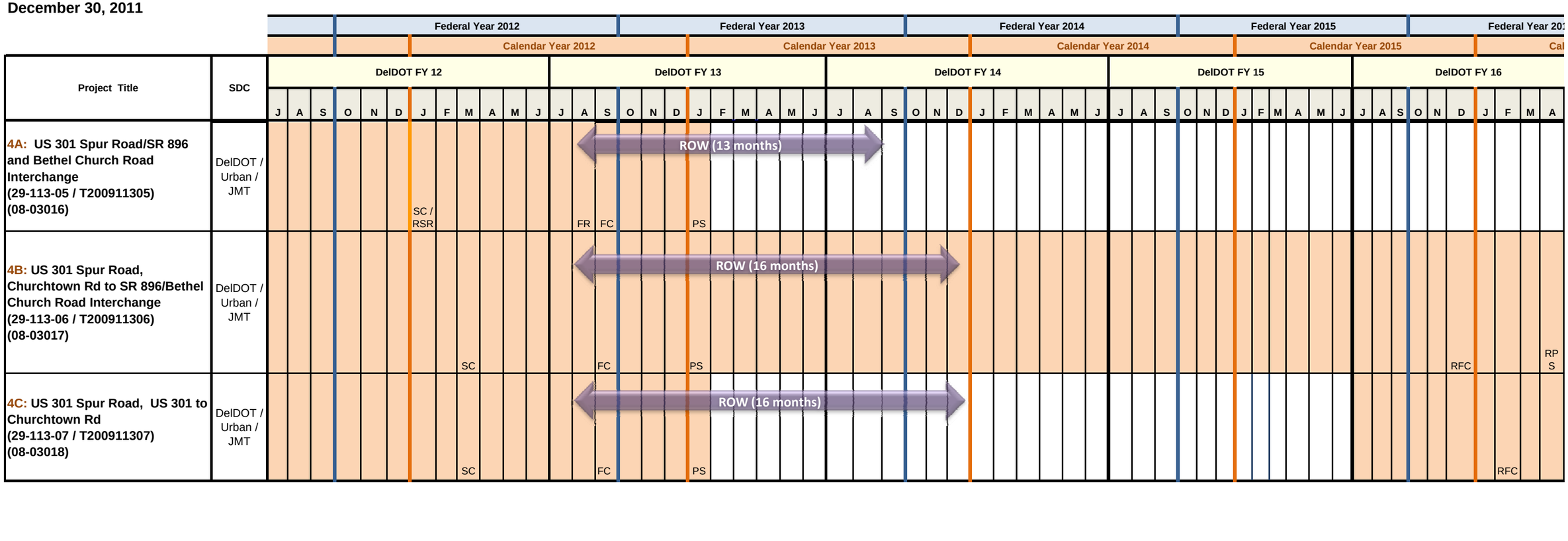
TS = TS&L Plans
LG = Line and Grade Plans
PC = Preliminary Construction Plans / Geotech Report
PR = Preliminary Right-of-Way
SC = Semi-Final Construction Plans
SR = Semi-Final R/W Plans
FR = Final R/W Plans
FC = Final Construction Plans
US = Utility Statement
CL = Clear R/W
PS = PSE
AD = Advertise
BC = Begin Construction
CC = Construction Complete
AU = Advanced Utility Relocation
PA = Permit Applications

Project Title	SDC	Notes
1A: US 301, SR 896 to SR 1 (29-113-08 / T200911308) (09-45698)	WRA	- Construction Complete: 2/16 (US 301 Mainline) - 827,091 cy borrow material from Village of Scott Run
1B: US 301 & SR 1 Interchange (29-113-02 / T200911302) (08-03012)	WRA	- 99,709 cy borrow material from Scott Run north - ROW acquired under Contract 1A
1C: US 301, Norfolk Southern RR to SR 896 (29-113-01 / T200911301) (08-03011)	MT	- Paving to north abutment of NSRR bridge by 1C contractor - 191,779 cy borrow material from Churchtown north - 43,251 cy borrow material from Churchtown south - 207,052 cy borrow material from Pleasanton southeast - 84,865 cy borrow material from Pleasanton east - 92,420 cy borrow material from Pleasanton south
1D: US 13 and Port Penn Rd Intersection (30-113-02 / T201011302)	WRA	- 42,000 cy excess borrow material
2A: US 301, Levels Rd to Norfolk Southern Railroad (29-113-03 / T200911303) (08-03013)	AECOM	- 2,463,712 cy of borrow material from Levels Mitigation Site
2B: US 301: Bridges 1-468N and 1-468S over Norfolk Southern Railroad; and 1-470N and 1-470S over Summit Bridge Road (29-113-04 / T200911304) (08-03014)	AECOM	
2C: Armstrong Corner Rd and Summit Bridge Rd. Intersection Improvements (30-113-01 / T201011301)	URS	
2D: US 301 Maintenance Facility (xx-xxx-xx)	AECOM / URS	- ROW acquired under contract 2A
2E: US 301/Armstrong Corner Road Park and Ride Facility (xx-xxx-xx)	AECOM / URS	- ROW acquired under contract 2A
3: US 301, Maryland State Line to Levels Rd (28-113-01 / T200811301) (08-03015)	Jacobs	- 594,854 cy borrow material from Levels Mitigation Site



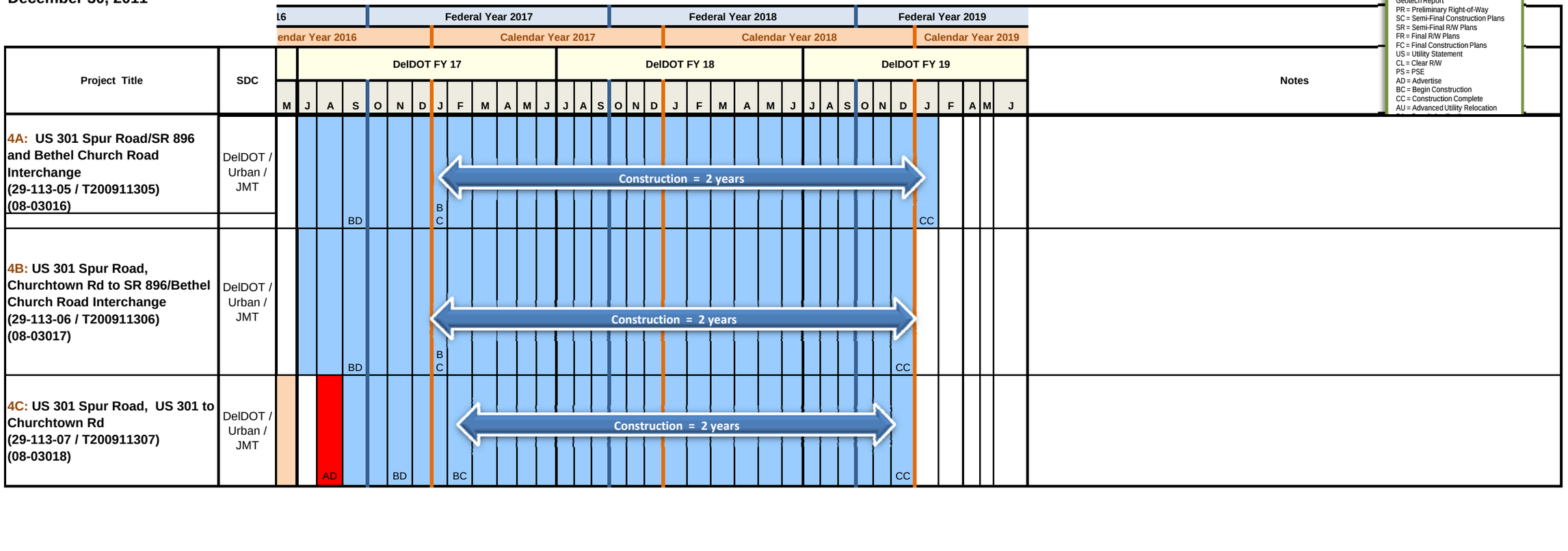
SCHEDULE

December 30, 2011



SCHEDULE

December 30, 2011



Project Title	SDC	Notes
4A: US 301 Spur Road/SR 896 and Bethel Church Road Interchange (29-113-05 / T200911305) (08-03016)	DelDOT / Urban / JMT	
4B: US 301 Spur Road, Churchtown Rd to SR 896/Bethel Church Road Interchange (29-113-06 / T200911306) (08-03017)	DelDOT / Urban / JMT	
4C: US 301 Spur Road, US 301 to Churchtown Rd (29-113-07 / T200911307) (08-03018)	DelDOT / Urban / JMT	

TS = TS&L Plans
LG = Line and Grade Plans
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PR = Preliminary Right-of-Way
SC = Semi-Final Construction Plans
SR = Semi-Final R/W Plans
FR = Final R/W Plans
FC = Final Construction Plans
US = Utility Statement
CL = Clear R/W
PS = PSE
AD = Advertise
BC = Begin Construction
CC = Construction Complete
AU = Advanced Utility Relocation