

III. Decision

Record of Decision

III) DECISION

A) Elements of Selected Alternative

1) Selected Alternative and Interchanges

The Selected Alternative (Green North + Spur Road, as identified in *Section II* (pages **II-1 to II-6**) of the Final EIS and depicted on *Figure 2* of this ROD) extends a new US 301 roadway approximately 13.0 miles from the Maryland/Delaware Line to SR 1, near the Biddles Toll Plaza and south of the C&D Canal, in southern New Castle County. The Spur Road extends approximately 4.5 miles from US 301, near Armstrong Corner Road, to SR 896, just south of the Summit Bridge crossing of the C&D Canal.

The Selected Alternative mainline is a limited access toll highway with a 66-foot median with four US 301 interchanges, located at Levels Road, existing US 301 north of Armstrong Corner Road, Jamison Corner Road, and SR 1 near the Biddles Toll Plaza, south of the C&D Canal. The Selected Alternative would provide a four-lane, limited access roadway on a new location, extending generally northward from the Maryland/Delaware state line, west of Middletown, along the Ridge Route, to the vicinity of Armstrong Corner Road. In the vicinity of Armstrong Corner Road, the new US 301 mainline alignment would curve and extend northeast, crossing over existing US 301, the Norfolk Southern Railroad, and existing SR 896 (Boyds Corner Road) before curving and extending east and tying into SR 1, north of the Biddles Corner Toll Plaza and south of the C&D Canal. The Spur Road portion of the Selected Alternative is a limited access toll highway with a 62-foot median with interchanges located at new US 301, Bethel Church Road Extended (north-serving only), and SR 896 south of Summit Bridge. Near Armstrong Corner Road, the two-lane Spur Road would extend north on a new location from new US 301, along the Ridge Route, to interchange with SR 15/SR 896 south of Summit Bridge and the C&D Canal. Proposed typical sections for the US 301 Mainline, Spur Road, ramps and local roads are shown on *Figure 2B*.

The Selected Alternative includes interchange Option 2A in the Armstrong Corner Road area, Interchange Option 3B at Summit Bridge, Alignment Option 4B Modified near the Ratledge Road/Boyds Corner Road area, and Alignment Option 1 Modified for the local road connection between Strawberry Lane and existing US 301. These and other options considered

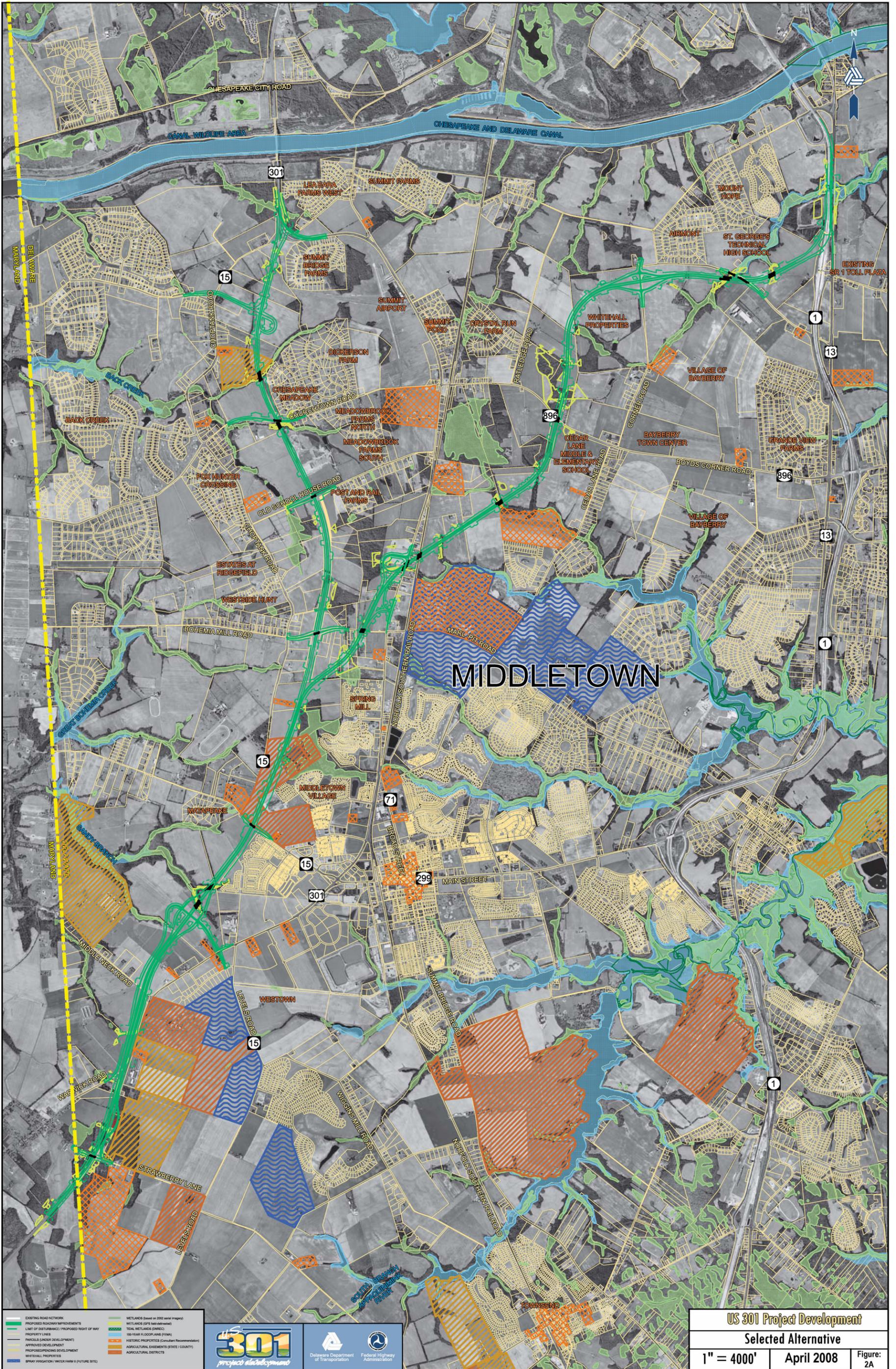
are presented in greater detail in *Section IV and V* of this ROD and *Section II (pages II-23 to II-37)* of the Final EIS.

The Selected Alternative includes associated improvements along intersecting highways in order to accommodate traffic operations. The most extensive of such improvements are the extension of Levels Road and Bethel Church Road to new interchanges with US 301 and the Spur Road, respectively. See *Section II (pages II-2 to II-3)* and *Appendix B, Engineering Sheets 2 of 9 and 8 of 9* of the Final EIS for additional information.

The Selected Alternative includes two traffic lanes in each direction for the new US 301 mainline, and one traffic lane in each direction for the Spur Road. US 301 would have a 66-foot median and the Spur Road would have a 62-foot median. The medians allow for construction of linear stormwater management treatment areas, where practicable. The medians provide a safety measure by separating oncoming traffic to reduce the probability of head-on collisions. The proposed median width would allow for providing an additional lane in each direction, if required, beyond the design year 2030. Long-term widening would require additional environmental analysis and preparation of an appropriate environmental document, along with public outreach and coordination, and consultation with the Resource Agencies.

The Selected Alternative would be a tolled 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 and Bethel Church Road Extended will be toll free. Traditional cash lanes may also be provided at the toll barriers.

There are two toll collection options currently under consideration by DelDOT. 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™).

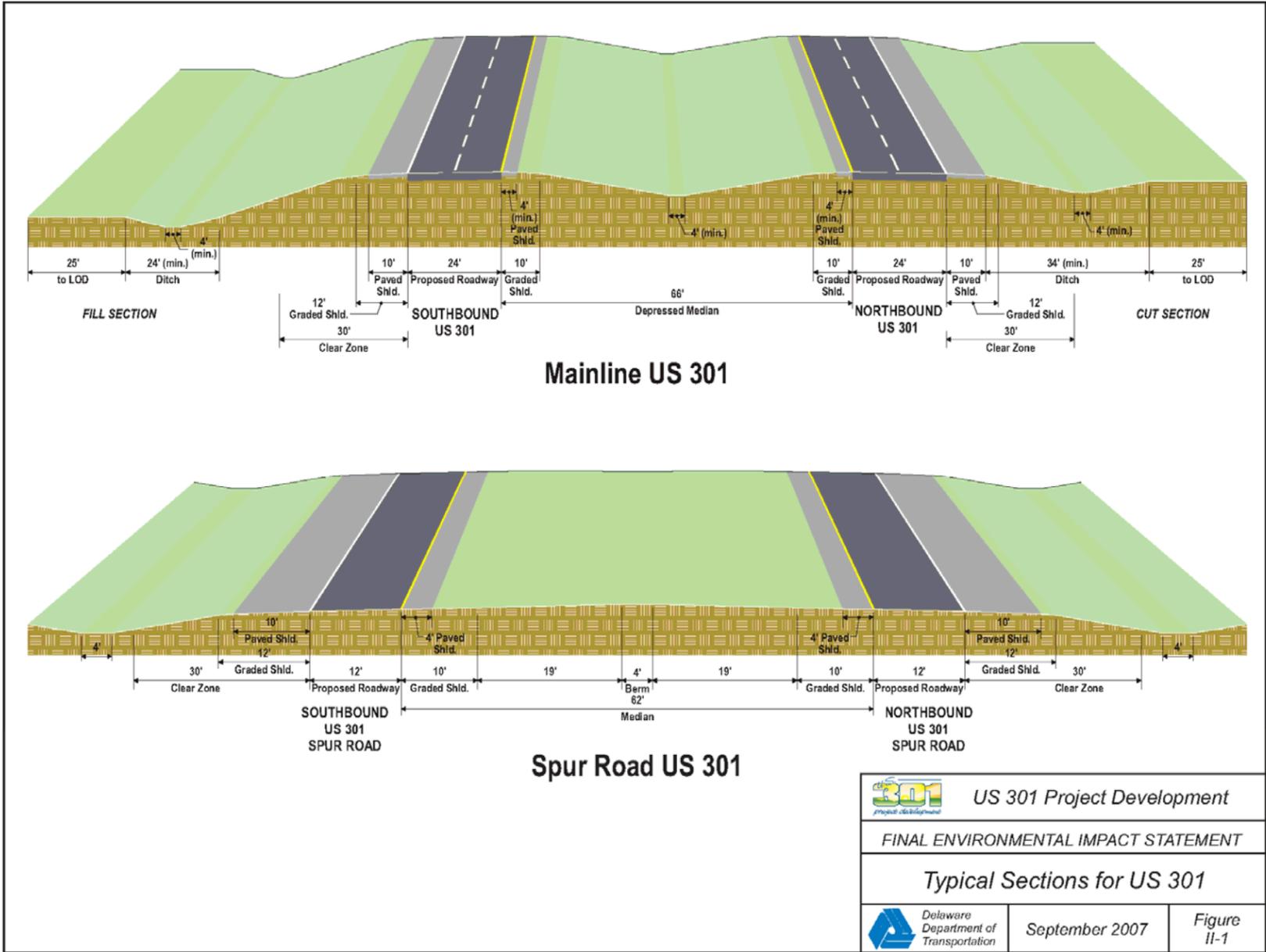


MIDDLETOWN

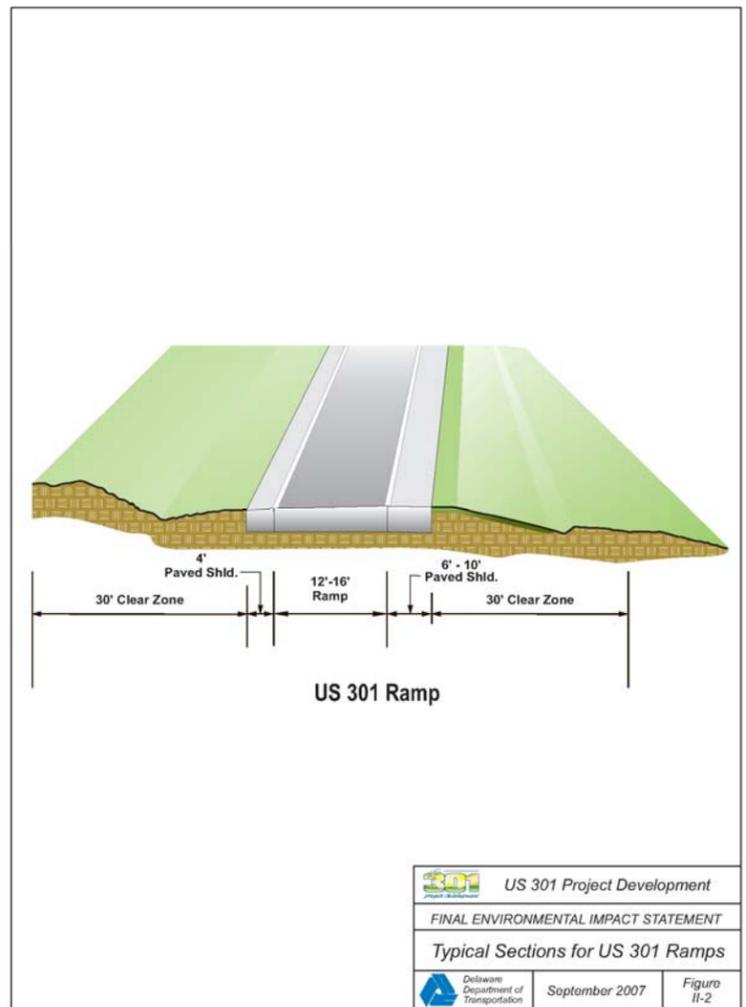
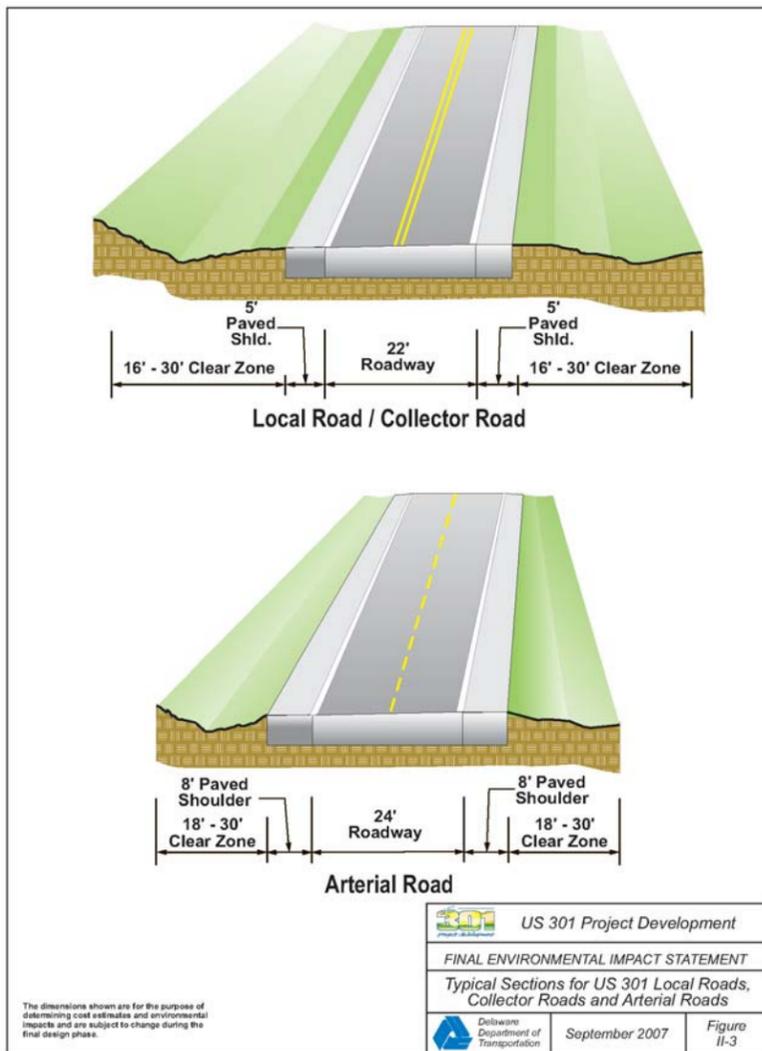
- EXISTING ROAD NETWORK
- PROPOSED ROADWAY IMPROVEMENTS
- LIMIT OF DISTURBANCE / PROPOSED RIGHT OF WAY
- PROPERTY LINES
- PARCELS (UNDER DEVELOPMENT)
- APPROVED DEVELOPMENT
- PROPOSED DEVELOPMENT
- WHITEHALL PROPERTIES
- SPRAY IRRIGATION / WATER FARM (FUTURE SITE)
- WETLANDS (Based on 2002 aerial imagery)
- WETLANDS (GPS field-derived)
- TIDAL WETLANDS (ENRIG)
- 100-YEAR FLOODLINE (FEMA)
- HISTORIC PROPERTIES (Consultant Recommendation)
- AGRICULTURAL EASEMENTS (STATE / COUNTY)
- AGRICULTURAL DISTRICTS



US 301 Project Development		
Selected Alternative		
1" = 4000'	April 2008	Figure: 2A



Selected Alternative Typical Sections for Mainline and Spur Road



Selected Alternative Ramp Typical Section

Selected Alternative Collector and Arterial Road Typical Sections

Figure 2B: Proposed Typical Sections (from Final EIS)

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.

The evaluation of the advantages and disadvantages of the two options, including construction and operating costs and effects on toll revenues, is continuing. The decision would, for the most part, be based on the economics of each option, input from the bond rating agencies, i.e., the potential effect of each option on the bond ratings and the projected bond interest rates for each alternative. The impacts and construction and real estate costs included in this ROD and the Final EIS assume the traditional toll collection option. ORT would reduce the area required for toll collection facilities by replacing toll plazas with overhead gantries, cameras and E-ZPass™ reading equipment.

The Green North + Spur Road Alternative is shown in *Appendix A* of the Final EIS. The preliminary engineering plans for the Preferred Alternative, including interchanges, are depicted in greater detail on **Engineering Sheets 1 through 9**, in *Appendix B* of the Final EIS.

The preliminary engineering plans will be refined during final design engineering, consistent with this ROD and the commitments herein. No significant increase in environmental impacts is expected during final design engineering, and the impacts may be reduced through additional efforts to minimize harm. Any change in impacts will be re-evaluated in accordance with 23 CFR Part 771.130 and through coordination with appropriate Resource Agencies.

2) Context-Sensitive Design

Context-sensitive design means using roadway design criteria that promote sensitivity to the surrounding social, cultural, and natural environment affected by the US 301 project, for both the highway and bridge facilities. Context-sensitive design is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility. Context-sensitive design considers the total context within which a transportation improvement project will exist.

The commitment to context-sensitive design has been incorporated into the concepts developed during the project development process and is reflected in a series of engineering evaluations and decisions that have avoided and minimized many environmental and community impacts. Measures to minimize the effects to visual and aesthetic quality include: creating the lowest practicable roadway profile, in order to reduce visual and noise impacts to adjacent communities, while accommodating necessary roadway drainage; shifting alignments to avoid communities and sensitive resources; providing earth berms, where practicable, to visually screen communities from the highway; providing steeper side slopes to minimize impacts to adjacent communities and sensitive resources; avoiding parallel stream crossings; providing longer bridges and sensitively located bridge substructure, where practicable, in order to minimize wetland and stream impacts; and providing retaining walls to minimize impacts on rare, threatened, and endangered (RTE) species' habitat. DeIDOT 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. Additional resource agency coordination meetings will be held to discuss further design refinements and potential additional minimization.

3) Environmental Oversight

Environmental oversight will be provided by DeIDOT, featuring careful review to ensure that the avoidance, minimization, and mitigation efforts to which the FHWA has committed through this 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 DeIDOT 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 this ROD, FHWA assures that the environmental oversight plan outlined above will be implemented.

4) Post-Final EIS Refinements Included in the Selected Alternative

Since publication of the Final EIS in December 2007, refinements to the Preferred Alternative have continued to be evaluated and incorporated into the project, in response to suggestions by Federal, State, and local Resource Agencies and the public. These refinements are generally minor modifications to the project's design. One such change, a refinement of the local roadway connection between Strawberry Lane and existing US 301, was adopted in a process consistent with normal highway project development. The refinement will enhance safety, further minimize overall environmental impacts, and address public comments received on the Final EIS regarding the Selected Alternative. Similar refinements will continue to be studied, and if warranted, will be adopted as part of the final design of the highway.

The design refinement, which is described and shown in *Section IV.D.4, pages 61 – 65* of this ROD, was carefully evaluated to identify any additional impacts to wetlands; streams; forests; RTE species; communities; historic resources; noise levels; air quality; residential and commercial properties; and cost. The refinement that was adopted reduces environmental impacts overall (forest impacts reduced from 63.7 to 61 acres; agricultural land impacts (eliminate one preservation easement impact) reduced by 9.1 acres; wetland acres impacted increased by 0.4 acre to 35.4 acres total) and does not alter any conclusions reached in the Final EIS or this ROD. Refinements will continue to be coordinated with the relevant Federal, State, and local Resource Agencies.

B) Mitigation Package

In recognition of the important resources that will be affected by the construction of the US 301 Project, a comprehensive package of natural resources mitigation activities is part of the Selected Alternative. The mitigation package is appended to this ROD as *Attachment A*. The package includes a minimum of 58 acres of wetland creation; 7 acres of wetland enhancement; 20 acres of wetland conservation; approximately 55 linear feet of stream restoration; approximately 162 acres of riparian buffer creation; approximately 67 acres of new forest; and wildlife passage improvements. The geographic location of each component is depicted on

Figure 3 and described in *Table 2*. *Figure 3* shows the extent of planned mitigation and illustrates that the mitigation package is spread along the entire Selected Alternative.

The Final EIS commitments and the commitments resulting from Final EIS comments are appended to this ROD as *Attachment B*. These commitments will be monitored and enforced through the environmental oversight plan as described on **page 14** of this ROD. The elements of the mitigation plan and Final EIS/Final EIS comments commitments are described in further detail below:

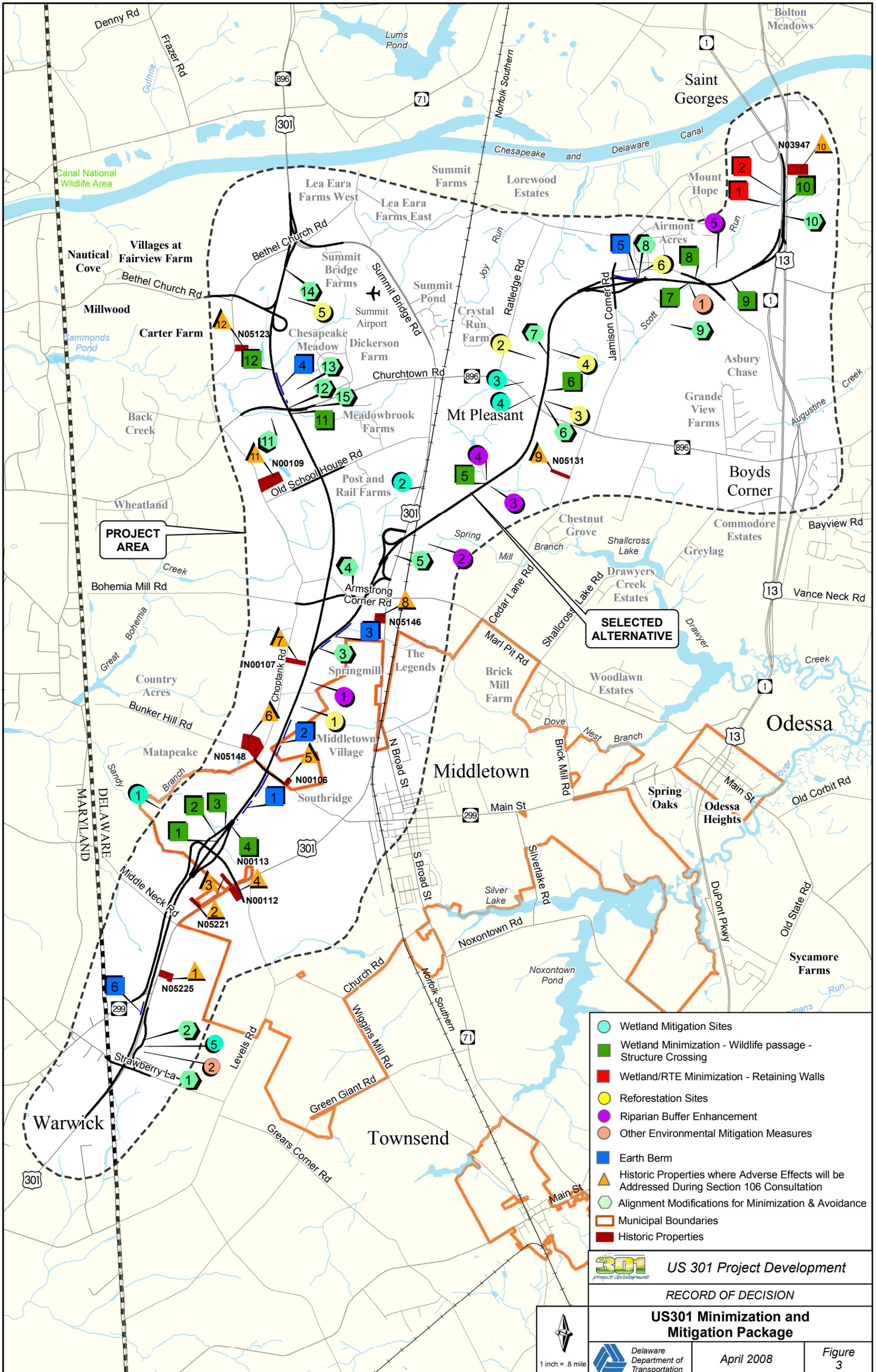
1) Design Modifications and Commitments

The entire project is being designed to avoid and minimize adverse impacts to wetland and stream resources, as outlined in the Final EIS. The Selected Alternative has been refined to avoid sensitive areas wherever practicable (see *Figure 3, Table 2* - Alignment Modifications for Avoidance and Minimization, and *Attachment B* – US 301 Commitments identified in Final EIS). In some locations, retaining walls have been incorporated to minimize impacts to critical wetland resources.

The roadway profile has been developed at the lowest practicable elevation to minimize noise and visual impacts on the adjacent communities and residences, while accommodating necessary roadway drainage. Additionally, visual screening berms have been located between proximal communities, where practicable, to further minimize visual and noise impacts. Streams and wetland crossings will be bridged, as noted in *Attachment C*, utilizing structure lengths that locate abutments in adjacent uplands. Bridge vertical clearances have been incorporated in the bridge concepts that provide hydrologic and habitat connectivity, as well as wildlife passage. The bridge locations can be viewed in *Appendix B, Engineering Sheets 1 to 9* of the Final EIS.

The efforts to be undertaken regarding the Spur Road early in the final design process include:

- An early contract to improve the sharp curve south of the Summit Bridge
- A study of the Spur Road design speed
- An evaluation of the Spur Road median width
- Advancing the construction of mitigation (berms and landscaping) ahead of the construction of the Spur Road.



- Wetland Mitigation Sites
- Wetland Minimization - Wildlife passage - Structure Crossing
- Wetland/RTE Minimization - Retaining Walls
- Reforestation Sites
- Riparian Buffer Enhancement
- Other Environmental Mitigation Measures
- Earth Berm
- ▲ Historic Properties where Adverse Effects will be Addressed During Section 106 Consultation
- ◻ Alignment Modifications for Minimization & Avoidance
- Municipal Boundaries
- Historic Properties

US 301 Project Development

RECORD OF DECISION

US301 Minimization and Mitigation Package

Delaware Department of Transportation

April 2008

Figure 3

1 inch = .8 mile

**Table 2: US 301 Project Development Environmental Minimization and Mitigation
Map Key**

Icon/ Item	Station	Description of Minimization or Mitigation
Alignment Modifications for Avoidance and Minimization		
1		US 301 Local Connection to Strawberry Lane provided to accommodate agricultural needs
2		US 301 Local Connection to Strawberry Lane modified to minimize impacts to Agricultural Easement
3		US 301 Mainline modifications to minimize impacts and increase distance to Springmill
4		US 301 Interchange and Mainline modifications to avoid impacts to Middletown Baptist Church
5		US 301 Interchange modifications to minimize impacts to Day Care
6		US 301 Mainline modifications to minimize impacts to Ratledge Road Community
7		US 301 Mainline modifications to minimize impacts to Hobson Residence
8		US 301 Mainline modifications to avoid impacts and increase distance to Airmont
9		Allowance for proposed greenway trail near Hyetts Corner Road
10		Northbound US 301 to northbound SR 1 ramp modifications to avoid and minimize impacts Scott Run, tidal wetlands, and State Resource Area
11		Churchtown Road modifications to minimize impacts to Zapata Residence
12		Churchtown Road modifications to minimize impacts and provide access to Tidewater Utilities
13		US 301 Spur Road modifications to minimize impacts and increase distance to Chesapeake Meadow
14		US 301 Spur Road modifications to minimize impacts and increase distance to Summit Bridge Farms
15		Churchtown Road modifications to maintain access during overpass construction
Wetland Mitigation Sites		
1		Wetland creation west of proposed Levels Road Interchange (Parcel No. 1302100013) – 90-acre site will provide approximately 80 acres of permanently saturated forested wetland with some open water and emergent areas
2		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
3		Wetland enhancement – Scott Run Watershed
4		Wetland preservation – Scott Run Watershed
Wetlands Minimization / Wildlife Passage – Structure Crossings		
1	264+00	US 301 Mainline Bridges (2) over wetlands and Sandy Branch Tributary
2	265+00 Lt.	Levels Road Interchange Ramp Bridge over wetlands and Sandy Branch Tributary
3	273+00 Lt.	Levels Road Interchange Ramp Bridge over wetlands and Sandy Branch Tributary
4	273+00	US 301 Mainline Bridges (2) over wetlands and Sandy Branch Tributary
5	497+00	US 301 Mainline Bridges (2) over wetlands and Drawyers Creek
6	555+00	Wildlife passage (deer or large mammal) east of Ratledge Road and north of Boyds Corner Road
7	669+00	US 301 Mainline Bridges (2) over wetlands and Scott Run
8	670+00 Lt.	Hyetts Corner Road over wetlands and Scott Run
9	689+00	US 301 Mainline Bridges (2) over wetlands and Scott Run
10	744+00	SR 1 Interchange Ramp Bridge over Scott Run
11	205+50	US 301 Spur Road Bridges (2) over wetlands and Back Creek
12	230+00	US 301 Spur Road Bridges (2) over wetlands and Back Creek
Wetland / RTE Minimization - Retaining Walls		
1	743+00 Lt.	SR 1 Interchange Ramp – 120' long retaining wall to minimize impacts to wetlands and Scott Run
2	745+00 Lt.	SR 1 Interchange Ramp – 650' long retaining wall to minimize impacts to wetlands and Scott Run
Reforestation Sites		
1		Reforestation east of Choptank Road and north of Bunker Hill Road, at Middletown Village
2		Reforestation north of Boyds Corner Road and east of Ratledge Road, west of the preferred alternative
3		Reforestation north of Boyds Corner Road and east of Ratledge Road, east of the preferred alternative
4		Reforestation between Ratledge Road and Jamison Corner Road
5		Reforestation at Summit Bridge Farms
6		Reforestation at Jamison Corner Road interchange
Riparian Buffer Enhancement		
1		Riparian buffer enhancement east of Choptank Road and west of Summit Bridge Road, at Springmill
2		Riparian buffer enhancement east of Norfolk Southern Railroad and north of Marl Pit Road
3		Riparian buffer enhancement south of Boyds Corner Road and west of Cedar Lane Road, east of the preferred alternative
4		Riparian buffer enhancement south of Boyds Corner Road and west of Cedar Lane Road, west of the preferred alternative
Other Environmental Mitigation Measures		
1	668+00	Stream restoration on Scott Run south of Hyetts Corner Road
Visual Mitigation for Affected Communities/Businesses		
1		Southridge – Visual impact to homes in the community – construct a 10' x 2,480' earth berm to screen residences from the new US 301
2		Middletown Village – Visual impact to homes in the community – construct a 16' x 2,000' earth berm to screen residences from the new US 301
3		Springmill – Visual impact to homes in the community – construct a 6' x 2,200' earth berm to screen residences from the new US 301
4		Chesapeake Meadow – Visual impact to homes in the community – construct an 11' x 1,600' earth berm to screen residences from the new US 301
5		Airmont – Visual impact to homes in the community – construct a 6' x 1,670' earth berm to screen residences from the new US 301 – if feasible and beneficial, lengthen berm across front of entire community
6		Middletown Veterinary - Visual impact to veterinary hospital – construct a 6' x 900' earth berm to screen hospital/residence
Historic Properties Affected by the Project – Standing Structures		
1		B.F. Hansen House (CRS No. N05225) – Visual impact – adverse effect - provide mitigation as agreed upon during consultation between SHPO, FHWA, DelDOT, and property owner per stipulation in the MOA
2		C. Polk House Estate (CRS No. N05221) – Visual impact – adverse effect - provide mitigation as agreed upon during consultation between SHPO, FHWA, DelDOT, and property owner per stipulation in the MOA
3		Rumsey Farm (CRS No. N00113) – Visual impact – adverse effect - provide mitigation as agreed upon during consultation between SHPO, FHWA, DelDOT, and property owner per stipulation in the MOA
4		Summerton (CRS No. N00112) – Visual impact – adverse effect - provide mitigation as agreed upon during consultation between SHPO, FHWA, DelDOT, and property owner per stipulation in the MOA
5		The Maples (CRS No. N00106) – Visual impact – adverse effect - provide mitigation as agreed upon during consultation between SHPO, FHWA, DelDOT, and property owner per stipulation in the MOA
6		Rosedale (CRS No. N05148) – Visual impact – adverse effect - provide mitigation as agreed upon during consultation between SHPO, FHWA, DelDOT, and property owner per stipulation in the MOA
7		S. Holton Farm (CRS No. N00107) – Visual and audible impacts – adverse effects – provide mitigation as agreed upon during consultation between SHPO, FHWA, DelDOT, and property owner per stipulation in the MOA
8		Armstrong-Walker House (CRS No. N05146) – Visual impact – adverse effect - provide mitigation as agreed upon during consultation between SHPO, FHWA, DelDOT, and property owner per stipulation in the MOA
9		T.J. Houston Farm (CRS No. 05131) – Visual impact – adverse effect - provide mitigation as agreed upon during consultation between SHPO, FHWA, DelDOT, and property owner per stipulation in the MOA
10		Idalia Manor (CRS No. N03947) – Visual impact – adverse effect - provide mitigation as agreed upon during consultation between SHPO, FHWA, DelDOT, and property owner per stipulation in the MOA
11		Choptank (CRS No. N00109) – Visual impact – adverse effect - provide mitigation as agreed upon during consultation between SHPO, FHWA, DelDOT, and property owner per stipulation in the MOA
12		Governor Benjamin T. Biggs Farm (CRS No. N05123) – Visual impact – adverse effect - provide mitigation as agreed upon during consultation between SHPO, FHWA, DelDOT, and property owner per stipulation in the MOA
Historic Archaeological Sites (not shown)		
		S. Burnham Farm Ruins (CRS No. N05151) – Physical impact – determine eligibility of site for listing on the National Register of Historic Places; if eligible, prepare and execute treatment plan as stipulated in the MOA
		Entire LOD – determine presence/absence of sites; if present, determine significance/eligibility; if significant/eligible, prepare and execute treatment plan as stipulated in the MOA. 'Priority' locations to be evaluated first

In addition, the Spur Road alignment in the vicinity of the Steele farm property (encumbered by perpetual agricultural easement), north of the Chesapeake Meadow community, will be evaluated early in the final design process in an effort to reduce impacts (see *Figure 2B* and *Engineering Sheets 8 and 9 of the Final EIS*).

2) Stormwater Management and Mitigation

Stormwater management (SWM) is an important component of the US 301 Project. SWM is a term used to describe actions taken to mitigate the effect of changed land use on stormwater runoff. The purpose of SWM is to mimic the preconstruction hydrology (surface and groundwater distribution of rainfall) and improve quality of stormwater through the implementation of Best Management Practices (BMPs). SWM is regulated by DNREC, who has delegated project review authority to DelDOT. SWM consists of three parts: quality control, groundwater recharge and quantity control. Quality control is provided through BMPs that provide filtration, uptake, or settling time to remove pollutants. Groundwater recharge is provided by maximizing contact between stormwater runoff and the soil, often through storing stormwater in contact with the soil, promoting infiltration and seepage into the subsoil. Quantity control is achieved through retention and slow release of prescribed volumes of stormwater by way of ponds and other storage facilities with restricted outlets.

Pending changes in DNREC's SWM regulations that will require management of the one-year storm volume have been anticipated, and the Selected Alternative will be designed to meet these potential new regulations. 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. The incorporation of LID BMPs should reduce the number of traditional "pond" facilities further decreasing impacts on the natural environment. During construction, sediment and erosion will be managed in accordance with DNREC's latest erosion and sediment control guidelines. In addition to the standard control elements, reinforced control elements will be utilized along stream corridors where flooding could occur. A short portion of the project is located in Maryland, where SWM is regulated by Maryland Department of the Environment (MDE), under guidelines similar to those anticipated to be implemented by DNREC. 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.

3) Wetlands and Streams

The FHWA anticipates that the USACE Section 404 permit and corresponding DNREC permits will require mitigation for impacts to aquatic resources. Compensatory mitigation is required above and beyond the avoidance and minimization measures already incorporated into the design. The Final EIS describes the general goals of compensatory wetland mitigation, with an emphasis on “in-kind” replacement. See *Attachment A* and *Attachment B* of this ROD and *Section III (pages III-157 to III-161)* of the Final EIS for greater details. This standard has resulted in the identification of two wetland replacement sites in the area, which could potentially yield up to 96 acres of created wetlands, well above the required mitigation estimate of 58 acres of new wetlands. The newly established wetlands will supply a host of important functions and values such as flood attenuation, nutrient production and export, a diversity of habitat types, and open space. FHWA expects that the USACE will require the following mitigation ratios for the approximately 36 acres of impacted wetlands identified along the Selected Alternative: forested wetlands – 2:1, scrub-shrub wetlands – 2:1, and emergent wetlands – 1:1. The proposed US 301 mitigation plan exceeds these ratios.

In addition, the US 301 mitigation plan includes a minimum of 27 acres of wetland preservation and enhancement, a minimum of 55 linear feet of stream restoration, and a minimum of 162 acres of riparian buffer creation/expansion. 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 this ROD.

4) Terrestrial Wildlife Passages

The US 301 mitigation package includes provisions to encourage safe wildlife passage across the highway. Bridges (rather than culverts or pipes) have been placed at all major stream/wetland crossings as indicated on *Attachment C*. In addition, a dedicated wildlife passage has been incorporated into the Selected Alternative, as indicated on *Figure 3* and described in *Table 2*. The dedicated wildlife passage is located within the only forested block bisected by the Selected Alternative. This passage will accommodate deer and small mammals,

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. In addition, grubbing under bridges will be minimized, to that necessary for construction, to promote the regeneration of natural vegetation and retaining natural substrates.

5) Reforestation

Approximately 67 acres of land will be reforested to create new forest habitat within the study area. Reforestation will be concentrated in farmlands adjacent to the Selected Alternative. In many cases, reforestation areas will provide added benefit beyond the addition of forest habitat. Some reforestation areas will provide visual screening and noise buffering for nearby communities. Other areas will extend or enlarge existing forest blocks to create larger forested headwaters and enhance forest interior dwelling bird species habitat. Reforestation will occur in the following locations:

- 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)

6) Community Mitigation

Community mitigation focuses on the reduction of visual effects and maintaining access in the development of a roadway near existing homes, public facilities and commercial properties. The roadway profile will be kept as low in elevation as practicable, in order to make the facility less noticeable. Visual landscaped earth berms will be located adjacent to the highway to screen the Middletown Veterinary Hospital and the communities of Southridge (under construction); Middletown Village; Springmill; Airmont; and Chesapeake Meadow. Agricultural community benefits are anticipated from inclusion of the Strawberry Lane connection to existing US 301, providing for the safe travel of large farm equipment from east to west of new US 301 for farm related services. Public benefit is anticipated through the establishment of a dedicated pedestrian crossing of new US 301 in the vicinity of Hyetts Corner Road, to accommodate the proposed greenway from Middletown to the C&D Canal. *Figure 3*

and **Table 2** locate the community mitigation features listed under Alignment Modifications for Avoidance and Minimization and Visual Mitigation of Affected Communities.

7) Air Quality

Several measures are planned to minimize mobile source emissions during construction. For example, contract specifications will not permit vehicles and equipment to idle during long periods of time. Most contractors already practice this as a practical measure. The measures will be monitored during project construction. Although not a commitment for the contract specifications, many contractors already use low or ultra-low sulfur fuels in their equipment to reduce the potential for diesel emissions during construction. Contractor specifications will include conformance with latest EPA requirements regarding low and ultra-low sulfur fuels. See **Section VII** of this ROD for more information on air quality analyses.

8) Cultural Resources

As part of the obligation pursuant to the National Historic Preservation Act of 1966 as amended (NHPA), DeIDOT and the FHWA entered into a Memorandum of Agreement (MOA) with the Delaware and Maryland SHPOs that reflects a series of stipulations regarding consultation to address and mitigate adverse effects to cultural resources in the study area (**Attachment D** of this ROD). 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

B.F. Hanson House, CRS No. N-5225.

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.

C) Next Steps

Following this ROD, DelDOT will proceed with the remaining steps of project development, i.e. right-of-way acquisition, final engineering, and construction. 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. DelDOT will obtain all required permits and Federal approvals for constructing the project. Following these approvals, DelDOT will complete procurement of the construction contractor(s).

DelDOT plans to promptly begin more detailed analysis and development of the environmental mitigation sites. 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.

FHWA will provide oversight commensurate with the level and use of Federal Highway funding in the procurement, design, and construction of the US 301 project, including the design and construction of environmental mitigation. In addition, FHWA will ensure, through its oversight role, that all commitments and mitigation measures outlined in this ROD are implemented. As stewards of the Federal portion of the public funds, FHWA will take necessary steps to keep the project on schedule and within budget, while fulfilling the requirements of the ROD. The FHWA will enter into an agreement with DelDOT, under 23 U.S.C. 129, authorizing the tolling of US 301 on the Federal-aid highway system.

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