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SECRETARY

February 17, 2009

Mr. Hassan Raza
Division Administrator
Federal Highway Administration
DelMar Division
300 South New Street, Room 2101
Dover, Delaware 19904

Dear Mr. Raza:

The purpose of this letter is to present a review and reevaluation of the environmental consequences of modifications to the proposed improvements to the I-95/SR 1 interchange as related to the Finding of No Significant Impact (FONSI) for the referenced project. The FONSI was issued on March 2, 2005, following the publication of an Environmental Assessment in January 2005.

DelDOT Contract Number: 95-090-01; Federal Aid Project Number: IM-N056(27)
I-95 Delaware Turnpike Improvements Project
I-95/SR 1 Interchange/I-95 Turnpike Mainline
Turnpike Mainline from SR 1 to SR 141; I-95/SR 1 Interchange; I-95 Northbound
Widening Extension
New Castle County, Delaware
Environmental Reevaluation [*Change in interchange design*]

A previous reevaluation was completed in June, 2006 which considered the extension of the project limits for the I-95 mainline widening portion of the project, in the northbound direction only, from the SR 141 interchange to the I-495 split. The additional 1.2 miles did not result in a significant increase in impacts, and the Federal Highway Administration (FHWA) concurred that the previously issued FONSI remained in effect (July 27, 2006).

The current reevaluation details modifications in the design of the I-95/SR 1 interchange portion of the project. The design changes are being incorporated into the project to provide additional traffic operational and safety improvements within the interchange. An environmental evaluation of the currently proposed design has been completed, and the changes would increase the impacts to wetlands by an additional 0.26 acres. Mitigation for this additional impact will be accommodated within the Cathcart wetland mitigation site (identified as Site 7 in the



Environmental Assessment (EA) for the project). The design changes will increase impacts to forests by 0.35 acre, and this additional impact will be mitigated through additional on site reforestation. The design changes will increase the amount of impervious surfaces by 1.05 acres; stormwater management facilities will be designed to accommodate the additional runoff. **Figure 1** shows the project location, **Figure 2** shows the FONSI-selected alternative design for the I-95/SR 1 interchange, and **Figure 3** shows the currently proposed design for the I-95/SR 1 interchange. The figures are included in Attachment A.

FONSI SELECTED ALTERNATIVE – MARCH 2, 2005

I-95/SR 1 Interchange/I-95 Turnpike Mainline

The I-95/SR 1 Interchange/I-95 Turnpike Mainline widening project involved the provision of an additional fifth lane in each direction on the I-95 mainline between the SR 1 interchange and the SR 141 interchange as well as modifications to the I-95/SR 1 interchange.

I-95/SR 1 Interchange

The FONSI Selected Alternative for the I-95/SR 1 interchange (Alternative 3), located at the southern end of the project area, included the construction of separated northbound-to-northbound and southbound-to-southbound directional ramps between I-95 and SR 1 that would separate freeway-to-freeway traffic from local traffic. The Selected Alternative also included modifications to the northbound SR 7 alignment, improved local access, and modifications to various ramps (as shown on **Figure 2**) to facilitate the flow of traffic. The following is a description of the original proposed interchange improvements (January 2005 EA/FONSI).

Overview

Two new ramp movements would be constructed: Ramp A would provide for the direct movement of traffic from southbound I-95 to southbound SR 1, and Ramp B would provide for direct movement of traffic from northbound SR 1 to northbound I-95. Local roads and ramps within the existing interchange would be reconstructed or relocated as appropriate.

Southbound

Beginning north of the Churchmans Road bridge, I-95 would widen to the outside, with two new outside lanes forming the new direct southbound Ramp A to SR 1. The southbound Ramp A would cross over I-95. As the ramp crosses the southeast quadrant of the existing I-95/SR 1 interchange, it widens to four lanes. The two inside (left) lanes would continue directly to SR 1. The two outside (right) lanes would serve local traffic wishing to access the Christiana Mall Road (Ramp R1) and the SR 1/Road A interchange area from the north.

Vehicles traveling southbound on existing SR 7 would continue to have the same options to access the Christiana Mall, the SR 1/Road A interchange, or continue to southbound SR 1. Southbound SR 7 and Ramp A would each provide two travel lanes that are physically separated

through the interchange. South of Road A, Ramp A and SR 7 would merge and then taper to match the existing three-lane southbound SR 1 roadway section.

Northbound

Beginning south of Road A, northbound SR 1 would widen into a four-lane roadway. The two left lanes (Ramp B) would provide a direct two-lane connection through the interchange to northbound I-95 that is physically separated from Ramp A, local roadways and SR 7. As Ramp B approaches I-95, north of the Christiana Mall Road, local traffic from existing SR 7, Christiana Mall Road, and Road A area would merge into a single ramp before merging with Ramp B. Ramp B would extend and become the outside lane (5th lane) of the northbound I-95 mainline. Local traffic on SR 7 northbound would continue to have the same options to access the Christiana Mall Road, Road A, I-95 or continue on SR 7 northbound.

POST FONSI MODIFICATIONS – JULY 27, 2006 REEVALUATION

An initial Application for Department of the Army Permit was submitted on April 26, 2005. U.S. Army Corps of Engineers (Corps) initial comments were received July 7, 2005, and the Delaware Department of Transportation (DelDOT) submitted responses and revised materials to these and subsequent comments on January 9, 2006, May 19, 2006, July 25, 2006, and October 9, 2006. The Department of the Army Permit was received on February 26, 2007. A minor permit modification of special condition 22 was requested on October 17, 2007 and granted on October 29, 2007. An additional 0.06 acre of non-tidal wetlands impact, above the need identified in the reevaluation, was incorporated into the permit.

In the June 28, 2006 Reevaluation (approved by FHWA on July 27, 2006), no changes were identified in the design of the I-95/SR 1 interchange; however, modifications were made to stormwater management ponds to be constructed within the interchange area. Engineering design changes for the I-95 widening provided for (1) the installation of sheet pile walls, rather than MSE walls, through the wetland areas associated with Christiana Marsh, and (2) added riprap scour protection to protect the abutments of the Christina River Bridge. The northern project limit of the mainline widening was extended an additional 1.2 miles, in the northbound direction only, from the SR 141 interchange through the I-95/I-295/I-495 interchange to just north of the I-95/I-495 split.

POST-FONSI MODIFICATIONS – OCTOBER 2008 REEVALUATION (CURRENT DESIGN)

The current design will modify the I-95/SR 1 interchange design in the following manner:

- The existing southeast quadrant loop ramp (from I-95 northbound to SR 7 northbound) has been eliminated and replaced by a semi-directional flyover ramp (identified on **Figure 3** as Ramp C) that extends from the southwest outer ramp from northbound I-95, passes over SR 7 and merges with northbound SR 7.

- The existing northbound lanes of I-95, north of the interchange, are shifted approximately 40 feet to the outside to accommodate Ramp B, which will fly over northbound I-95 and extend as the median lane of I-95.
- Ramp B (SR 1 northbound to I-95 northbound) will split in the vicinity of the southwest quadrant. The left lane will fly over northbound I-95, and become the median lane of the northbound I-95 mainline, as noted above. The right lane of Ramp B (Ramp B1) will extend along the outside of existing northbound I-95 and remain barrier-separated from the northbound I-95 mainline until north of the Churchmans Road bridge, where the lane merges with the existing outside mainline lane.
- The ramp (Ramp R1) to/from the Christiana Mall Road will be relocated approximately 150 feet south of its present location.

The design changes will provide operational and safety improvements along this portion of both I-95 and SR 1 in the following manner:

- The replacement of the southeast quadrant loop ramp with the directional flyover ramp from I-95 northbound to SR 7 northbound will eliminate the existing weave on northbound I-95, between the entry loop ramp to northbound I-95 from southbound SR 7 and the exit loop ramp from northbound I-95 to northbound SR 7.
- Shifting the I-95 mainline to the outside and bringing the split Ramp B (SR 1 northbound to I-95 northbound) into I-95 as the median lane of I-95 allows motorists from SR 1 destined for Wilmington to avoid having to weave across four lanes of I-95 within a distance of approximately four miles.
- The split Ramp B will accommodate 75 percent of the traffic from northbound SR 1 that was identified in an origin and destination study performed on June 8 and 9, 2008, as continuing directly to Wilmington.
- The split Ramp B1 will provide a safe distance for local traffic to merge together before merging onto I-95 northbound north of the Churchmans Road bridge after all of the other traffic movements have occurred.
- The relocation of the Ramp R1 bridge approximately 150 feet to the south will allow for a lower profile for the ramp bridge and the reconstructed Christiana Mall Road, thus reducing the impact to the mall parking lot and eliminating a proposed retaining wall. Shoulder reductions in some areas have been reduced from 16/24 feet to 12 feet to accommodate the changes and avoid additional property acquisition from the Mall.

ENVIRONMENTAL IMPACTS

Environmental impacts associated with the proposed design for the I-95/SR 1 interchange are evaluated and compared to those identified in the January 2005 Environmental Assessment for the interchange. Since the 2005 Environmental Assessment, the extended I-95 mainline widening to the I-95/I-495 split in the northbound direction increased the amount of new impervious surface (an additional 2.68 acres) and the number of acres of forest impacts (an additional 2.40 acres). The extended I-95 mainline widening decreased the net impacts to waters of the US (eliminated 0.15 acre). These changes were reported in the 2006 Environmental Reevaluation.

During permitting for the final design of the I-95 mainline widening, the ACOE permitted an additional 0.06 acre of wetlands impacts.

The proposed design for the I-95/SR 1 interchange described in this Environmental Reevaluation will increase the net acres of impacts to non-tidal wetlands (an additional 0.26 acre) and forests (an additional 0.35 acre) and will increase the amount of impervious surface (plus 1.05 acre). The amount of right-of-way to construct the I-95/SR 1 interchange will be decreased by 1.33 acres. **Table 1** summarizes the impacts to resources for the project.

There are no impacts to rare, threatened and endangered species; farmlands; or cultural resources. No Section 4(f) lands are impacted, there are no hazardous materials sites that would affect or be affected by the project, and there were no environmental justice issues identified.

Resource surveys were updated for the project area associated with the interchange. No additional resources were identified. There are no changes in impacts associated with air quality as a result of the design modifications; however, there have been changes in the air quality evaluation requirements. The design changes are not a capacity improvement, and will not increase or decrease the Average Annual Daily Traffic (AADT). However, the design changes will improve traffic operational and safety through the I-95/SR 1 interchange and on northbound I-95 from the I-95/SR 1 interchange to the I-95/I-495 split.

Table 1. Comparison of Resource Impacts of the I-95/SR 1 Interchange

Resource	I-95/SR 1 Interchange Only		Total (Interchange Plus Mainline) Project		
	January 2005 (Initial EA)	Current Design (2 nd Reevaluation)	January 2005 (Initial EA)	June 2006 ¹ (1 st Reevaluation)	February 2009 (2 nd Reevaluation)
Floodplains	<0.7% fill	<0.7% fill	<0.7% fill	<0.7% fill	<0.7% fill
Stormwater Management					
New Impervious Surface/ Required Treatment Capacity	19.25 acres	20.30 acres	26.36 acres	29.04 acres	30.09 acres
SWM Treatment Capacity Provided	35.29 acres	30.16 acres	35.29 acres	35.29 acres	30.16 acres
Waters of the US (Total ACOE)	0.51	0.77	2.17 acres	2.02 acres²	2.28 acres
Wetlands (non-tidal)	0.40 acre	0.66 acre	0.87 acre	0.62 acre	0.88 acre
Wetlands (tidal)	0 acres	0 acres	0 acres	0.09 acre	0.09 acre
Areas other than wetlands (tidal – Christina River)	0 acres	0 acres	0.26 acre (54 lf)	0.02 acre (30 lf)	0.02 acre (30 lf)
Areas other than wetlands (non-tidal channels, drainage ditches)	0.11 acre (743 lf)	0.11 acre (743 lf)	1.04 acres (6,163 lf)	1.29 acres (7,005 lf)	1.29 acres (6,960 lf)
Forest	1.60 acres	1.95 acres	1.60 acres	4.00 acres	4.35 acres
Air Quality	Conforms with SIP	Conforms with SIP	Conforms with SIP	Conforms with SIP	Conforms with SIP
Noise	No perceptible impact	No perceptible impact	No perceptible impact	No perceptible impact	Perceptible reduction ³
Residential or Business Relocations	None	No impact	None	None	No impact
Property Acquisition	9.41 acres	8.08 acres	9.41 acres	10.49 acres	9.16 acres

1. The June 2006 reevaluation detailed design changes for the I-95 Turnpike Mainline portion of the project. Construction of the I-95 Turnpike Mainline portion of the project is scheduled to be completed before the end of calendar year 2008.

2. The final permit for the June 2006 Reevaluation was permitted to impact an additional 0.06 acres of non-tidal wetlands. Thus, while the mainline design revision decreased wetlands impacts by 0.15 acre, to a total of 2.02 acres, the ACOE permit was for 2.08 acres.

3. For the remaining residences (75) still experiencing an impact, the 2030 build condition will reduce impacts by up to 5 dBA less than the 2030 No-Build and up to 3 dBA less than existing noise levels.

Floodplains

The design changes will not impact additional floodplains. The fill associated with the roadway embankment will remain unchanged at less than 0.7% of the storage volume associated with the floodplain.

Water Quality/Stormwater Management

There will be an added 1.05 acres of new impervious surface due to the design modification. When added to the previous new surface area of 29.04 acres, the revised interchange/mainline project will create a total of 30.09 acres of new impervious surface requiring treatment of stormwater runoff. Stormwater management (SWM) facilities, as shown on **Figure 3**, have been or will be provided to accommodate stormwater runoff from new impervious surfaces. SWM ponds A, B and F are included in the mainline design contract and are either completed or under construction. Ponds C and D will be designed with the I-95/SR 1 interchange. The combined facilities will collectively treat a total of 30.16 acres of stormwater. Stormwater facilities are summarized in **Table 2**.

Table 2: Stormwater Management Facilities and Capacity

I-95 Mainline Facilities (under construction)	Impervious Area Treated
Pond A	3.46 acres
Pond B	0.75 acre
Pond F	3.17 acres
Biofiltration Swale	2.49 acres
I-95/SR 1 Interchange Facilities (proposed)	Impervious Area Treated
Pond C	18.31 acres
Pond D	1.98 acres
TOTAL Stormwater Management Capacity	30.16 acres

See **Figure 3** for locations of Ponds A-F.

Waters of the US

There are no newly-identified streams or wetlands within the interchange project area. **Figure 4** shows the approximate locations of all Waters of the US, including wetlands, identified in the I-95/SR 1 interchange project area. Following the 2006 reevaluation, where the revised/extended design of the Turnpike mainline *reduced* the number of acres of impacts from 2.17 acres to 2.02 acres, the FHWA received an ACOE permit to impact a total of 2.08 acres of wetlands and other Waters of the US. There will be an additional 0.26-acre increase in impacts to Waters of the US due to the modifications of ramps and bridges in the current design. **Table 3** highlights the total impacts to Waters of the US, while **Table 4** details the changes due to the current design.

Table 3. Total Impacts to Waters of the US, including Wetlands

Resource	Total (Interchange Plus Mainline) Project		
	January 2005 (Initial EA)	June 2006 (1 st Reevaluation)	Current Design (2 nd Reevaluation)
Wetlands, non-tidal	0.87 acre	0.62 acre	0.88 acre
Wetlands, tidal	0.0 acre	0.09 acre	0.09 acre
Waters, tidal (Christina River)	0.26 acre (54 lf)	0.02 acre (30 lf)	0.02 acre (30 lf)
Waters, non-tidal (Channels, drainage ditches)	1.04 acres (6,163 lf)	1.29 acres (7,005 lf)	1.29 acres (6,960 lf)
TOTAL	2.17 acres	2.02 acres	2.28 acres

Table 4. Waters of the US Impacts of the I-95/SR 1 Interchange Design Only

Resource	I-95/SR 1 Interchange Only	
	January 2005 (Initial EA)	Current Design (2 nd Reevaluation)
Wetlands, non-tidal	0.40 acre	0.66 acre
Wetlands, tidal	0.0 acre	0.0 acre
Waters, tidal (Christina River)	0.0 acre	0.0 acre
Waters, non-tidal (Channels, drainage ditches)	0.11 acre (743 lf)	0.11 acre (743 lf)
TOTAL	0.51 acre	0.77 acre

The modifications to Ramp B will result in an increase of 0.10 acre of non-tidal wetland impacts (wetlands WD, NW9-2B, NW9-2C and NW9-2D as shown on *Figure 4*). The change in design from the loop ramp in the southeast quadrant to a semi-directional flyover ramp will result in no change to wetland impacts. The relocation of the Ramp R1 bridge approximately 150 feet to the south will result in an increase of 0.16 acres of impacts to non-tidal wetlands (wetland WL on *Figure 4*). The current design would change the total impacts to wetlands and other Waters of the US from the January 2006 impact of 2.02 acres to 2.28 acres. Wetlands would account for 1.02 acres, and waters (streams, channels and ditches) would account for the remaining 1.31 acres.

Mitigation for impacts to Waters of the US (channels and ditches) will be provided by adjacent in-kind replacement of channels and drainage ditches. Additional wetland mitigation above that provided by the construction of the Cathcart mitigation site will not be required, as the DelDOT portion of the site dedicated to this project provides approximately 1.82 acres of new wetlands. Using standard mitigation ratios on the additional impacts, the project would be required to provide 1.02 acres of wetland mitigation. Even with the additional impacts, the mitigation is

adequately provided for on the Cathcart site. The wetland mitigation site is currently under construction.

A meeting was held on October 15, 2008 with the ACOE and other agency representatives (EPA, DNREC, and FHWA) to discuss the revisions to the current design and the resulting increase in wetlands impacts. DelDOT presented the rationale for the improvements in the current design and the ACOE agreed that no additional mitigation would be required. Copies of the package sent to the agencies prior to the meeting and the meeting minutes are included as Attachment B.

Forests

There will be an additional 0.35 acres of forest impact due to the design modification. Forest Stand FS 5 (shown on **Figure 5**) will be impacted by Ramp B1 as it merges with I-95 along the outside of the southbound roadway. This will increase the total forest impacts to 4.35 acres. An area of reforestation is available following the removal of the loop ramp in the southwestern quadrant (southbound SR 7 to southbound I-95) that will accommodate a total of 4.97 acres of new forest, after some soil modification. An additional 0.40 acres is still available on the Cathcart mitigation site.

Right-of-Way Acquisition

Potential property impacts resulting from the current design of the I-95/SR 1 interchange are shown on **Figure 6**. The modified design of the interchange will result in a total acquisition of 8.08 acres as compared to 9.41 acres proposed to be acquired in the FONSI design.

Noise

In the vicinity of the I-95/SR 1 interchange, existing traffic noise levels greater than or equal to 66 decibels (dBA) impact 119 residences in the Cavalier Country Club Apartments and Brandywine Condominium Association. Under the Design Year 2030 No-Build condition, which includes the mainline widening as built, 123 residences will be impacted. The Design Year 2030 build condition will *reduce* noise levels by up to 5 dBA below Design Year 2030 No-Build noise levels at a number of residences, resulting in only 75 impacted residences (see **Table 5**).

Table 5: Noise Evaluation Summary for the Cavalier Country Club Apartments and Condominiums			
	Existing 2008	No-Build Design Year 2030	Modified Design Design Year 2030
Total Number of Impacts	119	123	75
Noise Range (dBA) at Impacted Residences	66 to 74 dBA	66 to 76 dBA	66 to 72 dBA

The characteristics of the modified design that will decrease the number of traffic noise impacts are:

- Although Ramp B1 will be approximately 100 feet closer to the impacted area than the 2005 EA alternative design, it is predicted to carry considerably less traffic than the EA alternative design.
- Ramp B is anticipated to carry two-thirds of the traffic traveling from SR 1 onto I-95 northbound approximately 60 feet farther away from the impacted area than in the EA alternative design.
- Ramp B retaining walls and the Ramp B1 cut-slope will shield the impacted area from I-95 southbound and adjacent ramp traffic noise, respectively.
- Solid concrete safety barriers (“Jersey barriers”) will prevent a significant amount of vehicle noise from being transmitted to the impact area.

Noise abatement analysis was conducted in compliance with DelDOT’s Transportation Noise Policy for the 75 residences that would be impacted by the modified design. Noise mitigation measures are not considered to be reasonable since the proposed build condition would create noise level reductions below the No-Build condition for all 75 of the remaining impacted residences. Type I highway improvement projects near noise-sensitive receptors typically result in an increase in traffic noise levels. However, the modified design will create the unusual result of a perceptible and significant reduction below Design Year 2030 No-Build condition traffic noise levels.

Further information is included in the December 2, 2008 *Memorandum of Noise Analysis* included as Attachment C.

Air Quality

The following discussion summarizes the technical information contained in the air quality report, *Air Quality Reevaluation: I-95/SR 1 Interchange/I-95 Turnpike Mainline*, December 2008. This assessment includes an update of the carbon monoxide (CO) analysis for the modified I-95/SR 1 interchange from that presented in the January 2004 *Air Quality Report for I-95: Delaware Turnpike from MD/DE Line to SR141*. Analyses of Mobile Source Air Toxics (MSATs) and fine particulate matter (PM_{2.5}) are also included for the I-95/SR 1 interchange and the I-95 mainline widening extension. These analyses were not required at the time that the January 2004 air quality analyses were completed, and they were not included in the 2006 reevaluation. These two analyses have been added to this assessment to provide a complete analysis of air quality.

CO Analysis

In the January 2004 air quality analysis, emission factors were predicted for 2010 and 2025 using the U.U. Environmental Protection Agency’s (EPA’s) MOBILE6 (Version 6.02.01) emissions model. These emissions factors have been recalculated for 2010 and 2030 using the current version of MOBILE6 (Version 6.02.03). A comparison of predicted idle emissions using the two versions show that emissions in the current Version 6.02.03 are 17 percent lower in 2010 and 13 percent lower in 2030, as compared to the values from Version 6.02.01 in 2025. Predicted

running source emissions are from 9 percent to 14 percent lower in the current version as compared to the values from Version 6.02.01. The maximum 1-hour CO concentration at the I-95/SR 1 interchange, determined by the January 2004 analysis, was 2.4 parts per million (ppm) in 2025. The value included a 1.6 ppm background concentration. The maximum 8-hour concentration was 1.7, which included a 1.2 ppm background concentration.

The 1-hour National Ambient Air Quality Standard (NAAQS) is 35.0 ppm, and the 8-hour NAAQS is 9.0 ppm. A review of the above demonstrates that the construction of the modified I-95/SR1 will not result in violations of the NAAQS for CO for the following reasons:

- No violations of the CO NAAQS were predicted to result from the No-Build or Build Alternative in the January 2004 air quality analysis. The maximum predicted 1-hour concentration was only 6.8 percent % of the 1-hour NAAQS, and the maximum predicted 8-hour concentration was only 18.8 percent of the 8-hour NAAQS.
- Predicted 2030 traffic volumes are not significantly greater (22 percent to 25 percent) than the 2025 predicted traffic volumes used in the January 2004 Air Quality Analysis.
- Predicted idle emission factors and running emission factors from the current MOBILE 6.02.03 for all speeds used in the analysis are less (9 percent to 17 percent) than the corresponding predicted emission factors from MOBILE 6.02.01 used in the January 2004 air quality analysis.
- The study area is not within a CO non-attainment or Maintenance area.

MSAT Analysis

FHWA *Guidance on Air Toxic Analysis in NEPA Documents*¹ requires the analysis of MSAT under specific conditions. The EPA has designated six prioritized MSAT, which are known or probable carcinogens or can cause chronic respiratory effects, be evaluated. The six prioritized MSAT are: benzene; acrolein; formaldehyde; 1,3-butadiene, acetaldehyde; and diesel exhaust (diesel exhaust gases and diesel particulate matter). The I-95/SR 1 Interchange/I-95/Turnpike Mainline project would be considered as a project that “*serve[s] to improve operations of highway, transit or freight without adding substantial new capacity or without creating a facility that is likely to meaningfully increase emissions*”². Therefore, the I-95/SR 1 Interchange/I-95 Turnpike Mainline would be considered a **Project with Low Potential MSAT Effects** as discussed in the referenced guidance. As demonstrated by traffic analysis, the 2030 Build traffic volumes (average daily traffic, or ADT) and truck percentages are equal to the 2030 No-Build traffic volumes (ADT) and truck percentages. Therefore, the project will not result in any meaningful changes in traffic volumes, vehicle mix, or any other factor that would cause an increase in emissions impacts. As such, it is determined that this project will generate minimal air quality impacts for the Clean Air Act criteria pollutants and has not been linked with any special MSAT concerns.

The following is a basic analysis of the likely MSAT emission impacts of this project. However, available technical tools do not enable us to predict the project-specific health impacts of the

¹ Interim Guidance on Air Toxic Analysis in NEPA Documents, February 3, 2006

² *ibid*

emission changes associated with the build alternative. Due to these limitations, the following discussion is included in accordance with CEQ regulations (40 CFR 1502.22(b)) regarding incomplete or unavailable information.

Evaluating the environmental and health impacts from MSAT on a proposed highway project would involve several key elements, including emissions modeling, dispersion modeling in order to estimate ambient concentrations resulting from the estimated emissions, exposure modeling in order to estimate human exposure to the estimated concentrations, and then final determination of health impacts based on the estimated exposure. Each of these steps is encumbered by technical shortcomings or uncertain science that prevents a more complete determination of the MSAT health impacts of this project. The EPA tools to estimate MSAT emissions from motor vehicles are not sensitive to key variables determining emissions in the context of highway project, and the tools to predict how MSAT disperse are limited. Finally, shortcomings in current techniques for exposure assessment and risk analysis preclude reaching meaningful conclusions about project-specific health impacts. Even though reliable methods do not exist to accurately estimate the health impacts of MSAT at the project level, it is possible to qualitatively assess the levels of future MSAT emissions under the project. Although this qualitative analysis cannot identify and measure health impacts from MSAT, it can give a basis for identifying and comparing the potential differences in MSAT emissions, if any, from alternatives.

The localized level of MSAT emissions for the I-95 build alternative could be higher relative to the No-Build Alternative due to slight changes in vehicle miles traveled (VMT) and alignment changes that move roadway lanes closer to sensitive receptors such as residences. However, these higher MSAT emissions would be offset due to increases in speeds and reductions in congestion, which are associated with lower MSAT emissions; and MSAT would be lower in other locations where traffic shifts away from receptors. Furthermore, both at the project location and regionally, MSAT concentrations will decrease in future years due to EPA's vehicle emission and fuel regulations. It has been shown that, as a result of EPA's national emissions control programs, MSAT emissions are projected to be reduced by 57 percent to 87 percent between 2000 and 2020. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures; however, the magnitude of the EPA-projected reductions is so great that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

As discussed above, there may be localized areas where ambient concentrations of MSAT are slightly higher in the build alternative relative to the No-Build Alternative. Dispersion studies have shown that concentrations of air toxics from the roadway start to drop off at about 100 meters. By 500 meters, most studies have found it very difficult to distinguish the roadway air toxic concentrations from background air toxic concentrations in any given area. Sensitive receptors include those facilities most likely to contain large concentrations of the more sensitive population (hospitals, schools, licensed day cares, and elder care facilities). An assessment of potential sensitive receptors within both 100 and 500 meters reveals that there are no sensitive receptors within 100 meters of the I-95/SR 1 Interchange, and there are two sensitive receptors (Christiana Hospital and Delaware Technical and Community College) within 500 meters of the interchange.

PM_{2.5} Analysis

This project is located in the PA-NJ-DE PM_{2.5} nonattainment area. The area was designated as nonattainment for PM_{2.5} on January 5, 2005 by the US EPA. This designation became effective on April 5, 2005, 90 days after EPA's published action in the Federal Register and transportation conformity for the PM_{2.5} standards applied on April 5, 2006. Although much of the overall I-95 construction is complete, phases of the project remain that still require FHWA additional authorization and or approval. As discussed on FHWA's frequently asked questions website for "PM_{2.5} Project-Level Conformity and Hot-Spot Analyses," if a project still requires a FHWA approval or authorization, a project-level conformity determination is required prior to the first such action on or after April 5, 2006, even if the project has already completed the NEPA process, or for multi-phase projects, even if other phases of the project have already been constructed. Therefore, the PM_{2.5} hot-spot analysis for this reevaluation focuses on the I-95 mainline widening and the I-95/SR 1 interchange portions of the project.

On March 10, 2006, EPA issued amendments to the Transportation Conformity Rule to address localized impacts of particulate matter: *PM_{2.5} and PM₁₀ Hot-Spot Analyses in Project-level Transportation Conformity Determinations for the New PM_{2.5} and Existing PM₁₀ National Ambient Air Quality Standards* (71 FR 12468). These rule amendments require the assessment of localized air quality impacts of federally funded or approved transportation projects in PM₁₀ and PM_{2.5} nonattainment and maintenance areas that are deemed to be *Projects of Air Quality Concern*. Projects of Air Quality Concern are enumerated in 40 CFR 93.123(b)(1).

DelDOT has prepared the following analysis of the proposed improvements:

- The I-95 fifth lane widening extension is considered under 40CFR 93.123(b)(1)(i) which includes "*New or expanded highway projects that have a significant number of or significant increase in diesel vehicles*".³
- The I-95 fifth lane widening extension does not meet the criteria set forth in 40 CFR 93.123(b)(1)(i), as amended, to be considered a *project of air quality concern* because it affects an expanded highway that does not have a significant increase in diesel vehicles.
- The I-95/SR 1 interchange is considered under 40CFR 93.123(b)(1)(ii) which includes "*Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project*"⁴

³ As discussed in the examples to the preamble to the March 10, 2006 *Final Rule for PM_{2.5} and PM₁₀ Hot-Spot Analyses in Project-Level Transportation Conformity Determinations* (71FR12491), for projects involving the expansion of an existing highway, 40 CFR 93.123(b)(1) has been interpreted as applying only to projects that would involve a significant increase in the number of diesel transit buses and diesel trucks on the existing facility. This has been further clarified in a proposed rule amendment as "*EPA is proposing to clarify this provision as "New highway projects that have a significant number of diesel vehicles, and expanded projects that have a significant increase in the number of diesel vehicles."* (72FR24489)

⁴ *ibid*

- The I-95/SR 1 interchange does not meet the criteria set forth in 40 CFR 93.123(b)(1)(ii), as amended, to be considered a *project of air quality concern* because it affects an interchange that will not change to Level of Service D, E or F because of increased traffic volumes from a significant increase in number of diesel vehicles related to the project.
- The I-95 widening extension and the I-95/SR 1 interchange reconstruction will improve traffic flow and reduce congestion as well as increase associated safety on the roadways. Thus, it would be expected to have a neutral or positive influence on PM_{2.5} emissions.
- The construction will not result in any meaningful changes between no-build and build traffic volumes, vehicle mix, or location of the existing facility.
- Section 176(c) of the Clean Air Act and the federal conformity rule requires that transportation plans and programs conform to the intent of the state air quality implementation plan (SIP) through a regional emissions analysis in PM_{2.5} nonattainment areas. The project is located in the PA-NJ-DE PM_{2.5} nonattainment area and is under the jurisdiction of the Wilmington Area Planning Council (WILMAPCO). WILMAPCO is the federally recognized Metropolitan Planning Organization (MPO) for transportation planning in New Castle County, Delaware and Cecil County, Maryland. The FY 2009-2012 Transportation Improvement Program (TIP) and the 2030 Regional Transportation Plan (RTP) were created by the WILMAPCO staff and member agencies. The 2030 RTP was adopted by the WILMAPCO Council on March 22, 2007, and the FY 2009-2012 TIP was adopted on April 10, 2008.⁵ Thus, there is a currently conforming transportation plan and TIP in accordance with 40 CFR 93.114. The current conformity determination is consistent with the final conformity rule found in 40 CFR Parts 51 and 93. The I-95 Turnpike Mainline/I-95/SR 1 Interchange project was included in the regional emissions analysis, and there have been no significant changes in the project's design concept or scope, as used in the conformity analyses. Therefore, this project comes from a conforming plan and program in accordance with 40 CFR 93.115.

Based on the above review and analysis, it is determined that the I-95 widening extension and the I-95/SR 1 interchange reconstruction meet the Clean Air Act and 40 CFR 93.109 requirements. These requirements are met for particulate matter (PM_{2.5}) without a project-level hot-spot analysis, since the project has been found **not to be a project of air quality concern** as defined under 40 CFR 93.123(b)(1)(i & ii). Since the project meets the Clean Air Act and 40 CFR 93.109 requirements, the project will not cause or contribute to a new violation of the PM_{2.5} NAAQS, or increase the frequency or severity of a violation.

This air quality assessment was sent to FHWA, WILMAPCO, the Delaware Department of Natural Resources and Environmental Control (DNREC) and EPA for interagency review and comment, and was placed on the I-95 web site on January 28, 2008 for public review. A summary of the assessment was presented and discussed at the December 18, 2008 WILMAPCO Technical Advisory Committee/Air Quality Subcommittee meeting. Representatives of FHWA,

⁵ New Castle County Air Quality Conformity Determination for the FY 2009-2012 Transportation Improvement Program and 2030 Regional Transportation Plan, WILMAPCO, April 10, 2008.

DNREC, Maryland Department of the Environment (MDE), DelDOT and EPA were present at this meeting. Copies of the meeting agenda and minutes are included as Attachment D.

MITIGATION

No changes are identified in the location or use of noise-sensitive receptors, and no new noise-sensitive receptors were identified for the proposed design. Noise abatement continues to be unwarranted. No additional stormwater management quantity is required for the proposed design. Although the current design of the I-95/SR 1 interchange has increased impacts to wetlands by 0.26 acre, the overall mitigation for impacts to wetlands can be accommodated at the Cathcart mitigation site, which provides approximately 1.82 acres of new wetlands. Mitigation for non-wetland impacts to Waters of the US will be provided by adjacent in-kind replacement of channels and drainage ditches. DelDOT is committed to providing 4.35 acres of reforestation to compensate for the impacts to forest resources. Most of the four acres of reforestation required for the mainline impacts (3.00 acres on site and 0.41 acre at the Cathcart site) is included in the I-95 mainline roadway construction contract. The additional 1.97 acres of reforestation (also on site) will be included in the I-95/SR 1 interchange construction contract.

CONCLUSION

Based on the information cited above, we have determined that the proposed current design, when compared with the initial design included in the I-95/SR 1 Interchange I-95 Turnpike Mainline EA/FONSI, will not result in a significant change in environmental impacts. Therefore, we believe the FONSI remains valid and no other supplemental environmental documentation is required. If you agree with this determination, please indicate your concurrence on the signature line provided below. This reevaluation has been prepared in accordance with 23 CFR 771.129.

Should you have any questions or comments please call me at 302-760-2280 or Mr. Darren O'Neill at 302-760-2274.

Sincerely,

Robert J. Taylor
Chief Engineer
Delaware Department of Transportation

Concur:
Federal Highway Administration

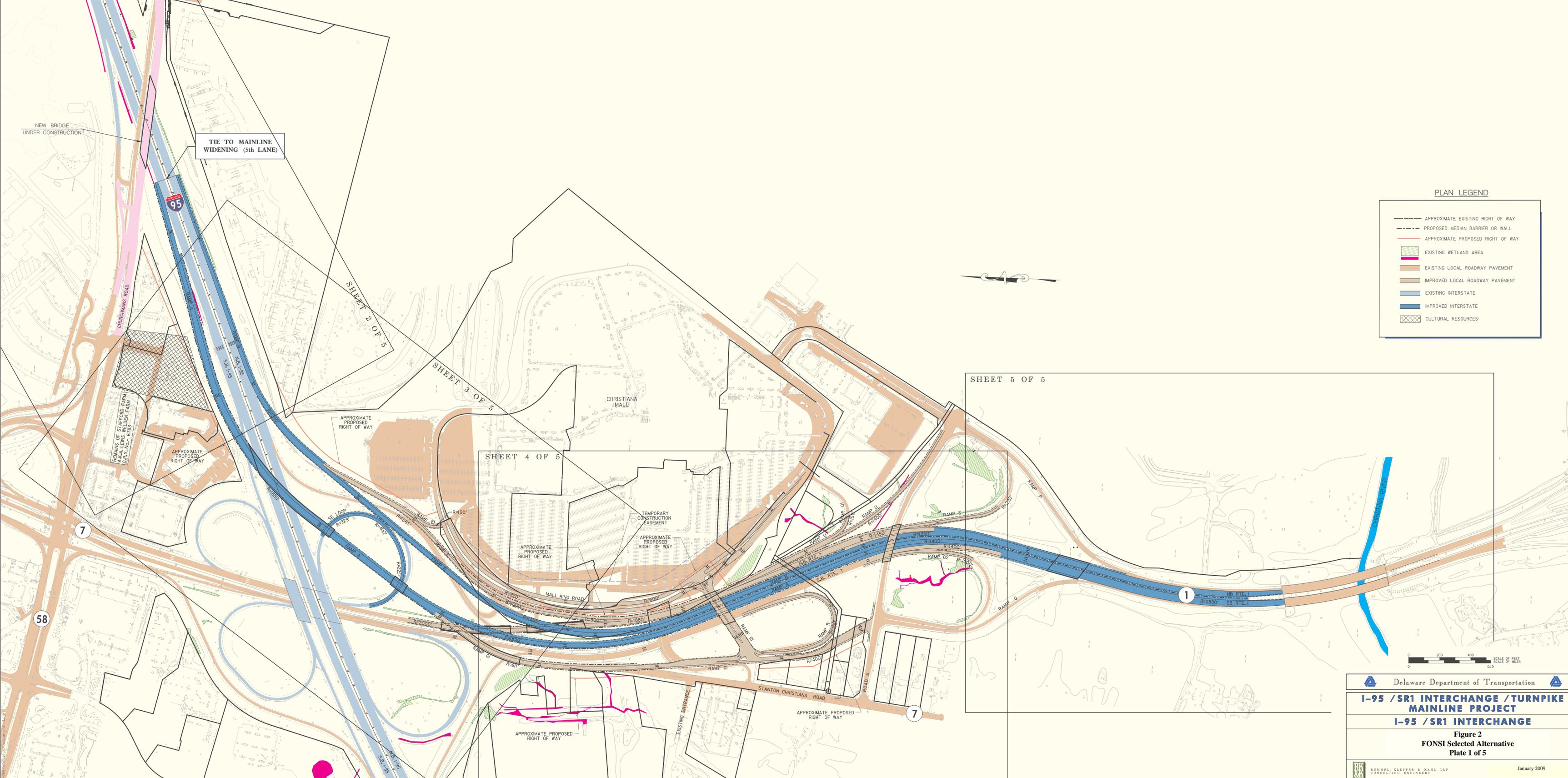
Attachments

- A: Figures 1 through 6
- B: October 15, 2008 Agency Meeting
- C: Memorandum of Noise Analysis
- D: December 18, 2008 WILMAPCO Air Quality Subcommittee Meeting

cc
Therese Fulmer, Environmental Manager
Darren O'Neill, I-95 Project Manager
William Hellmann, RK&K Project Manager

ATTACHMENT A

Figures 1 through 6



PLAN LEGEND

- APPROXIMATE EXISTING RIGHT OF WAY
- - - PROPOSED MEDIAN BARRIER OR WALL
- APPROXIMATE PROPOSED RIGHT OF WAY
- █ EXISTING WETLAND AREA
- █ EXISTING LOCAL ROADWAY PAVEMENT
- █ IMPROVED LOCAL ROADWAY PAVEMENT
- █ EXISTING INTERSTATE
- █ IMPROVED INTERSTATE
- █ CULTURAL RESOURCES



Delaware Department of Transportation

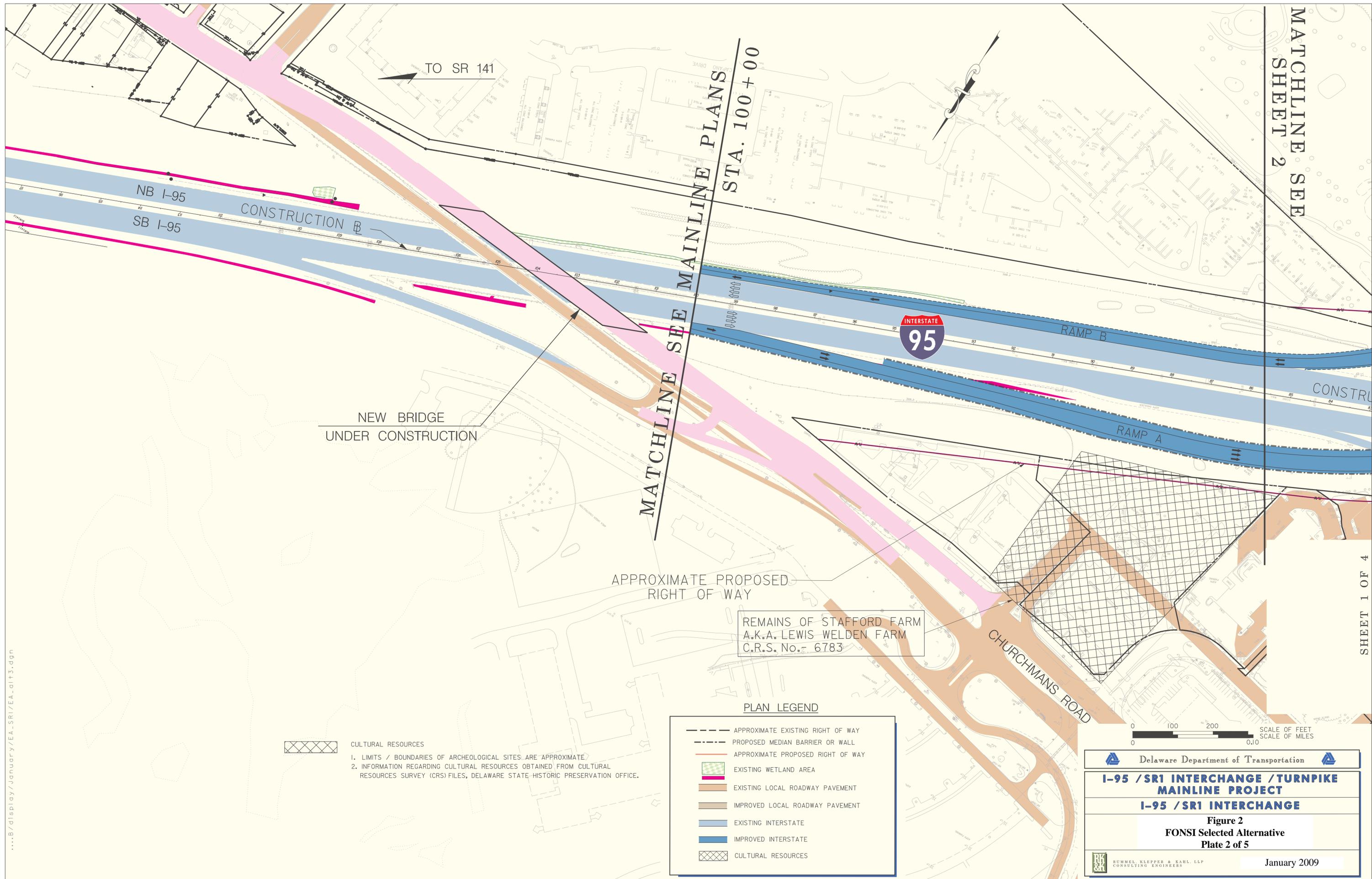
**I-95 / SR1 INTERCHANGE / TURNPIKE
MAINLINE PROJECT**

I-95 / SR1 INTERCHANGE

Figure 2
FONSI Selected Alternative
Plate 1 of 5

BURNS & MCKEE CONSULTING ENGINEERS

January 2009



....B/display/January/EA_SRI/EA_c1t3.dgn

TO SR 141

STA. 100 + 00

NB I-95

SB I-95

CONSTRUCTION

NEW BRIDGE UNDER CONSTRUCTION

MATCHLINE SEE MAINLINE PLANS

APPROXIMATE PROPOSED RIGHT OF WAY

REMAINS OF STAFFORD FARM
A.K.A. LEWIS WELDEN FARM
C.R.S. No. 6783

CHURCHMANS ROAD

INTERSTATE 95

RAMP B

RAMP A

CONSTR

PLAN LEGEND

- APPROXIMATE EXISTING RIGHT OF WAY
- - - PROPOSED MEDIAN BARRIER OR WALL
- APPROXIMATE PROPOSED RIGHT OF WAY
- [Green hatched box] EXISTING WETLAND AREA
- [Brown hatched box] EXISTING LOCAL ROADWAY PAVEMENT
- [Light brown hatched box] IMPROVED LOCAL ROADWAY PAVEMENT
- [Blue hatched box] EXISTING INTERSTATE
- [Dark blue hatched box] IMPROVED INTERSTATE
- [Cross-hatched box] CULTURAL RESOURCES



CULTURAL RESOURCES
1. LIMITS / BOUNDARIES OF ARCHEOLOGICAL SITES ARE APPROXIMATE
2. INFORMATION REGARDING CULTURAL RESOURCES OBTAINED FROM CULTURAL RESOURCES SURVEY (CRS) FILES, DELAWARE STATE HISTORIC PRESERVATION OFFICE.

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Delaware Department of Transportation

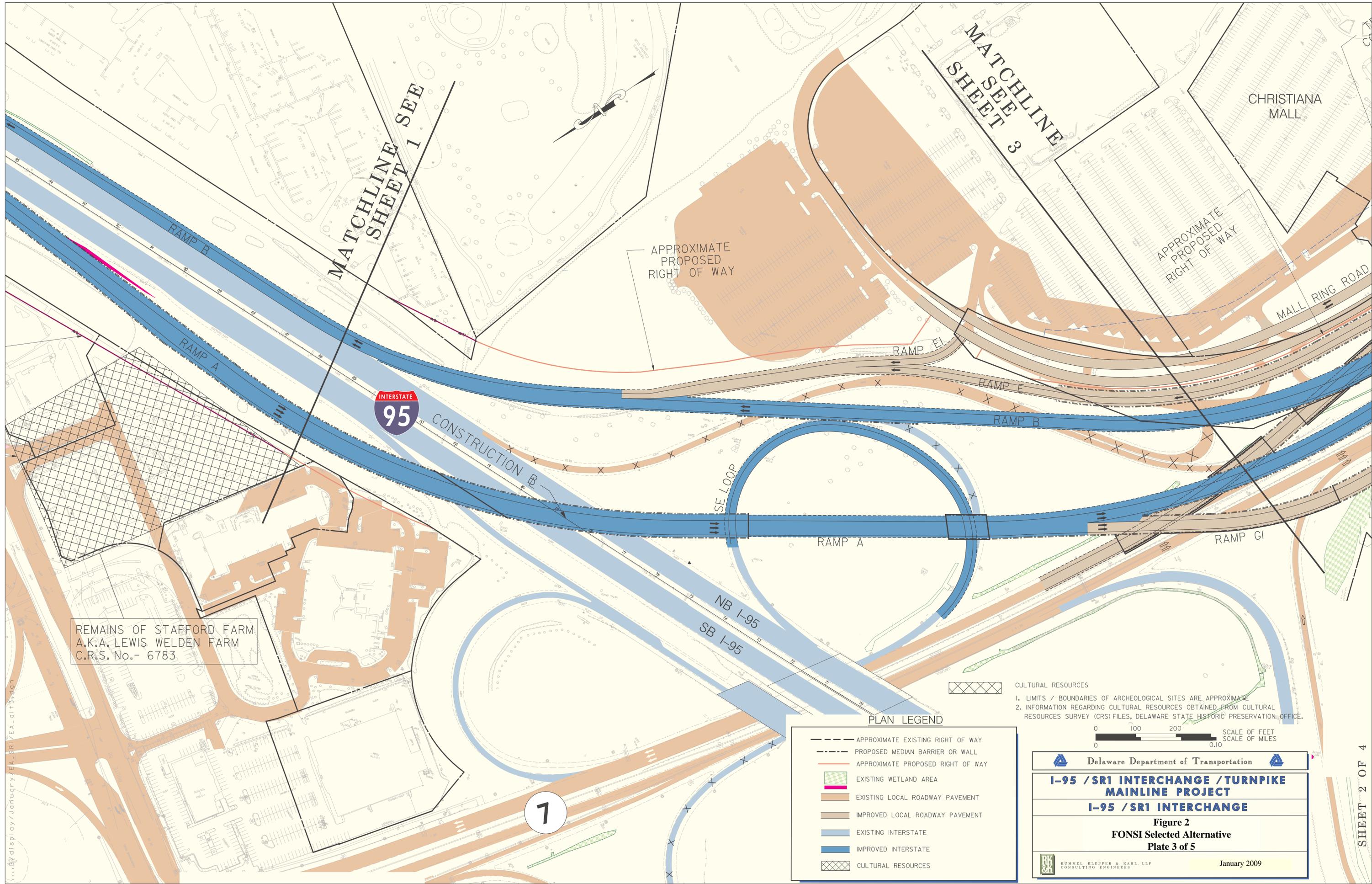
I-95 / SR1 INTERCHANGE / TURNPIKE MAINLINE PROJECT

I-95 / SR1 INTERCHANGE

Figure 2
FONSI Selected Alternative
Plate 2 of 5

Rummel, Klepper & Kahl, LLP
CONSULTING ENGINEERS

January 2009



REMAINS OF STAFFORD FARM
A.K.A. LEWIS WELDEN FARM
C.R.S. No. - 6783

MATCHLINE
SHEET 1 SEE

MATCHLINE
SHEET 3

CHRISTIANA
MALL

APPROXIMATE
PROPOSED
RIGHT OF WAY

MALL RING ROAD

INTERSTATE
95

CONSTRUCTION B

NB I-95
SB I-95

SE LOOP

RAMP A

RAMP B

RAMP EI

RAMP E

RAMP GI

PLAN LEGEND

- APPROXIMATE EXISTING RIGHT OF WAY
- - - PROPOSED MEDIAN BARRIER OR WALL
- APPROXIMATE PROPOSED RIGHT OF WAY
- EXISTING WETLAND AREA
- EXISTING LOCAL ROADWAY PAVEMENT
- IMPROVED LOCAL ROADWAY PAVEMENT
- EXISTING INTERSTATE
- IMPROVED INTERSTATE
- CULTURAL RESOURCES

- CULTURAL RESOURCES
1. LIMITS / BOUNDARIES OF ARCHEOLOGICAL SITES ARE APPROXIMATE
 2. INFORMATION REGARDING CULTURAL RESOURCES OBTAINED FROM CULTURAL RESOURCES SURVEY (CRS) FILES, DELAWARE STATE HISTORIC PRESERVATION OFFICE.



Delaware Department of Transportation

**I-95 / SR1 INTERCHANGE / TURNPIKE
MAINLINE PROJECT**

I-95 / SR1 INTERCHANGE

Figure 2
FONSI Selected Alternative
Plate 3 of 5

January 2009

RUMMEL, KLEPPER & KARL, LLP
CONSULTING ENGINEERS

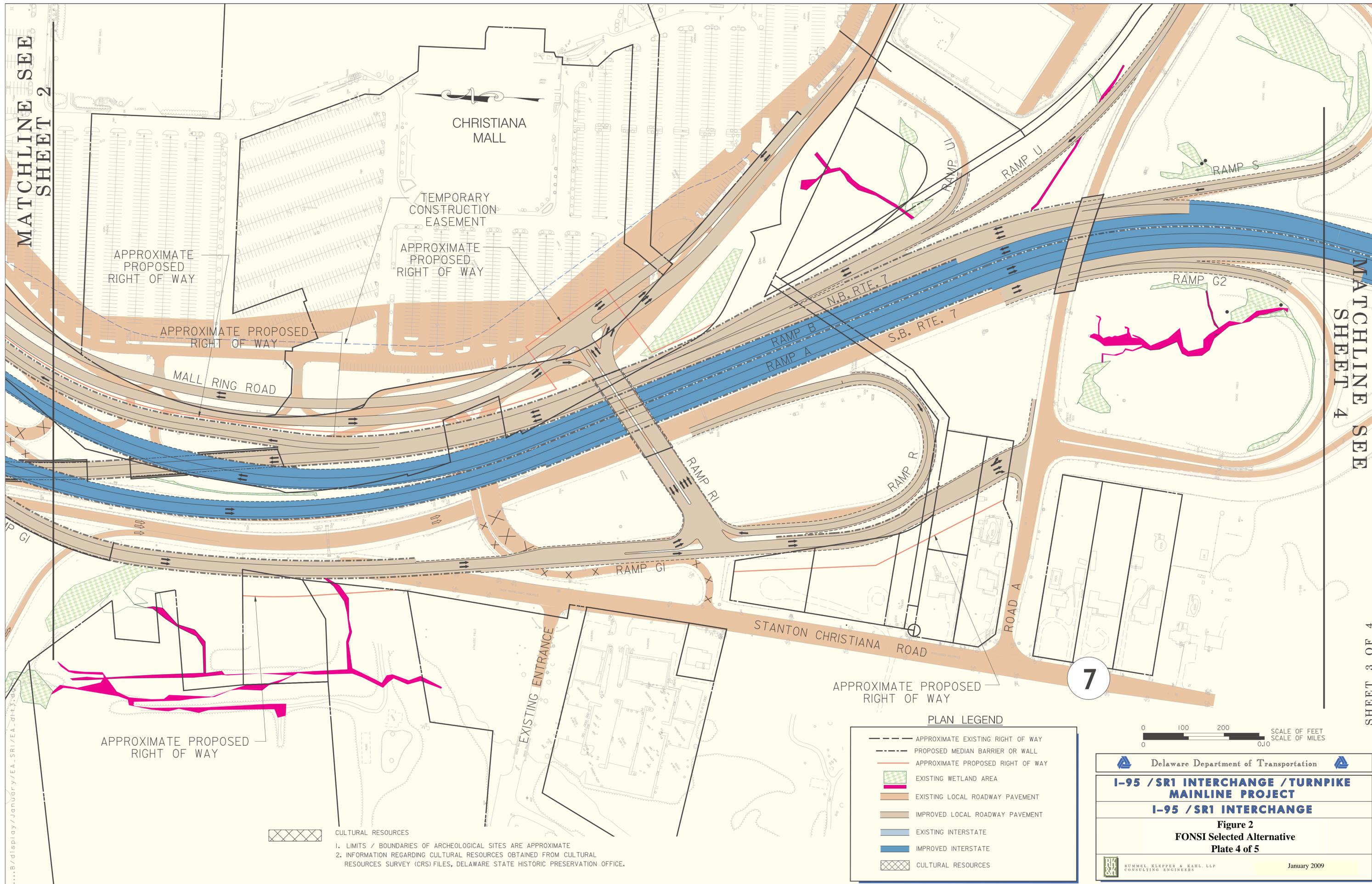
7

SHEET 2 OF 4

MATCHLINE SEE SHEET 2

MATCHLINE SEE SHEET 4

SHEET 3 OF 4



CHRISTIANA MALL

TEMPORARY CONSTRUCTION EASEMENT

APPROXIMATE PROPOSED RIGHT OF WAY

APPROXIMATE PROPOSED RIGHT OF WAY

APPROXIMATE PROPOSED RIGHT OF WAY

MALL RING ROAD

N.B. RTE. 7

S.B. RTE. 7

RAMP S

RAMP G2

RAMP RI

RAMP R

RAMP G1

STANTON CHRISTIANA ROAD

ROAD A

7

APPROXIMATE PROPOSED RIGHT OF WAY

APPROXIMATE PROPOSED RIGHT OF WAY

EXISTING ENTRANCE

PLAN LEGEND

- APPROXIMATE EXISTING RIGHT OF WAY
- - - PROPOSED MEDIAN BARRIER OR WALL
- APPROXIMATE PROPOSED RIGHT OF WAY
- [Green Hatched] EXISTING WETLAND AREA
- [Brown] EXISTING LOCAL ROADWAY PAVEMENT
- [Light Brown] IMPROVED LOCAL ROADWAY PAVEMENT
- [Blue] EXISTING INTERSTATE
- [Dark Blue] IMPROVED INTERSTATE
- [Hatched] CULTURAL RESOURCES



CULTURAL RESOURCES

1. LIMITS / BOUNDARIES OF ARCHEOLOGICAL SITES ARE APPROXIMATE
2. INFORMATION REGARDING CULTURAL RESOURCES OBTAINED FROM CULTURAL RESOURCES SURVEY (CRS) FILES, DELAWARE STATE HISTORIC PRESERVATION OFFICE.



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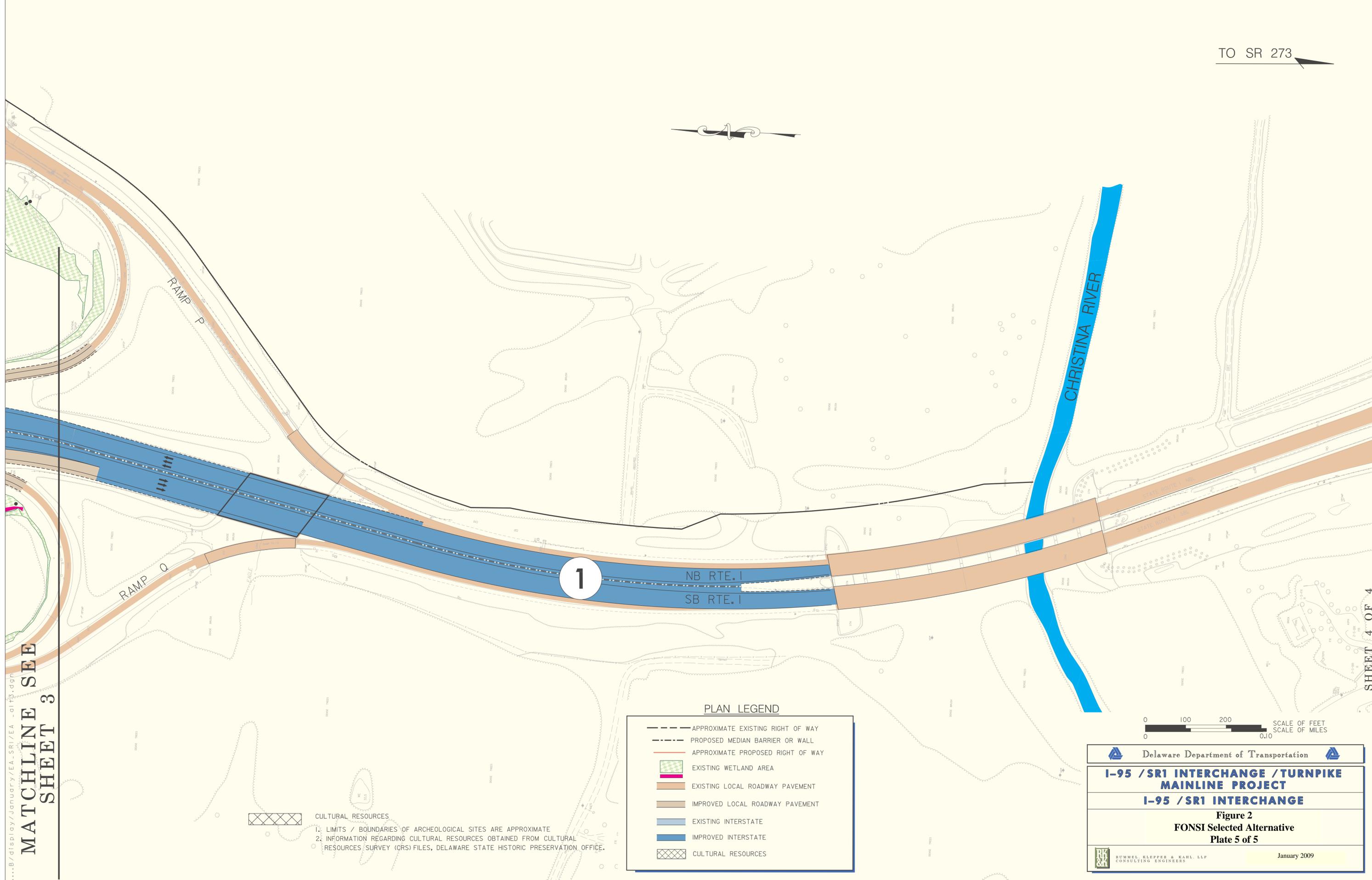
I-95 / SRI INTERCHANGE / TURNPIKE MAINLINE PROJECT

I-95 / SRI INTERCHANGE

Figure 2
FONSI Selected Alternative
Plate 4 of 5

RH & K
 RUMMEL, KLEPPER & KAHL, LLP
 CONSULTING ENGINEERS

January 2009



MATCHLINE SEE SHEET 3

SHEET 4 OF 4

1

NB RTE. 1
SB RTE. 1

CHRISTINA RIVER

RAMP P

RAMP Q

PLAN LEGEND

- APPROXIMATE EXISTING RIGHT OF WAY
- PROPOSED MEDIAN BARRIER OR WALL
- APPROXIMATE PROPOSED RIGHT OF WAY
- EXISTING WETLAND AREA
- EXISTING LOCAL ROADWAY PAVEMENT
- IMPROVED LOCAL ROADWAY PAVEMENT
- EXISTING INTERSTATE
- IMPROVED INTERSTATE
- CULTURAL RESOURCES

CULTURAL RESOURCES

1. LIMITS / BOUNDARIES OF ARCHEOLOGICAL SITES ARE APPROXIMATE

2. INFORMATION REGARDING CULTURAL RESOURCES OBTAINED FROM CULTURAL RESOURCES SURVEY (CRS) FILES, DELAWARE STATE HISTORIC PRESERVATION OFFICE.



Delaware Department of Transportation

I-95 / SR1 INTERCHANGE / TURNPIKE MAINLINE PROJECT

I-95 / SR1 INTERCHANGE

Figure 2
FONSI Selected Alternative
Plate 5 of 5

RUMMEL, KLEPPER & KAHL, LLP
CONSULTING ENGINEERS

January 2009

Legend

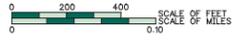
-  Cultural Resources
-  Existing Roadway
-  Mill & Overlay
-  Proposed Interstate
-  Proposed Ramps & Local Roads
-  Proposed SR 1 & SR 7
-  Proposed Ramp A & Ramp B
-  Proposed Mall Ring Road
-  Waters of the US, including Wetlands
-  Proposed Median Barrier
-  Ramps To Be Abandoned
-  Right of Way & Property Lines
-  Storm Water Management Facilities



Delaware Technical
&
Community College

SHEET 5 OF 5

CHRISTIANA
MALL

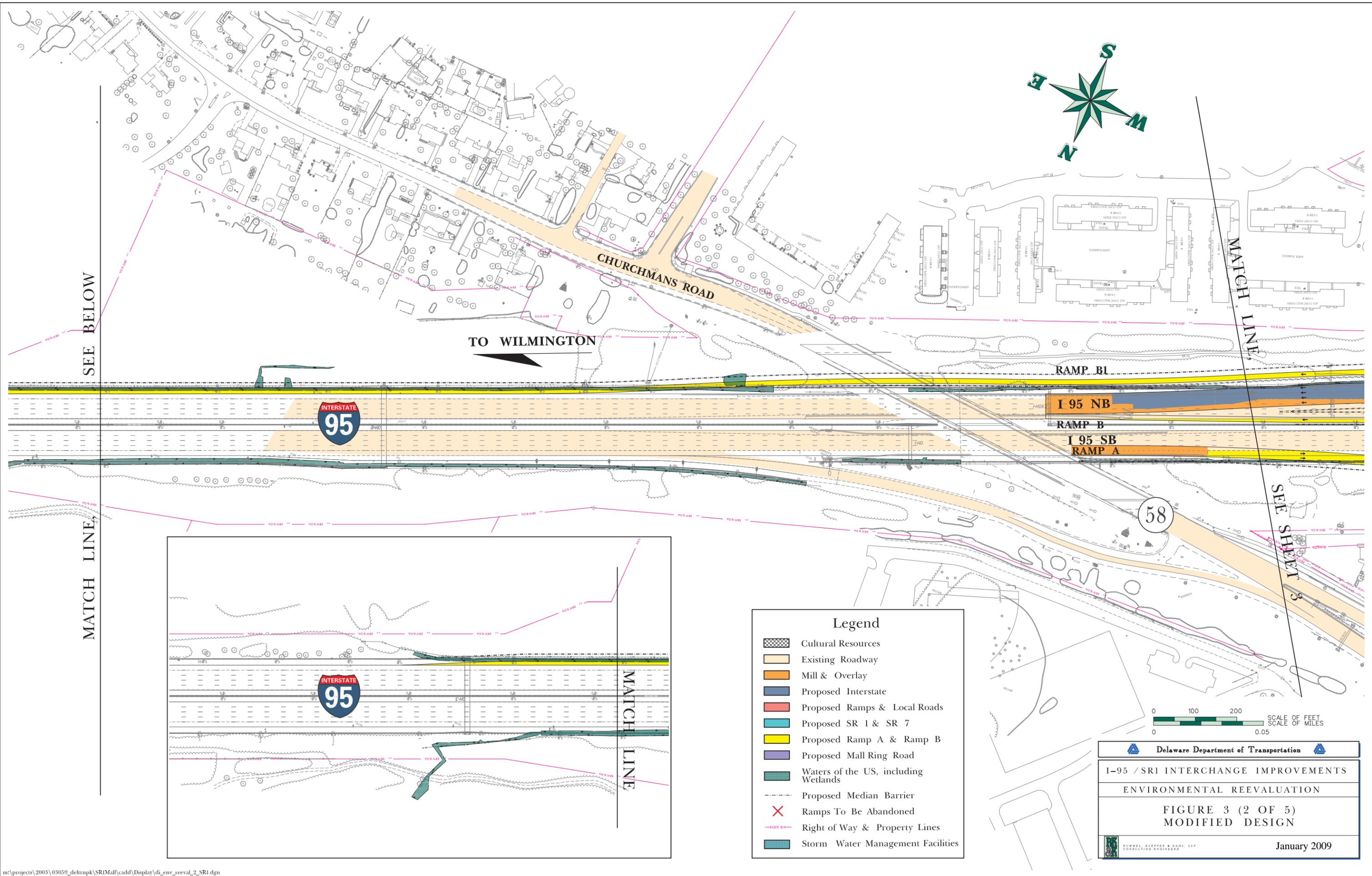


 Delaware Department of Transportation 

I-95 / SRI INTERCHANGE IMPROVEMENTS
 ENVIRONMENTAL REEVALUATION
FIGURE 3 (1 OF 5)
MODIFIED DESIGN

 HUMMEL, KLEPPER & PAUL, LLP
 CONSULTING ENGINEERS

January 2009



TO WILMINGTON

SEE BELOW

MATCH LINE

SEE SHEET 3

MATCH LINE

MATCH LINE

- Legend**
- Cultural Resources
 - Existing Roadway
 - Mill & Overlay
 - Proposed Interstate
 - Proposed Ramps & Local Roads
 - Proposed SR 1 & SR 7
 - Proposed Ramp A & Ramp B
 - Proposed Mall Ring Road
 - Waters of the US, including Wetlands
 - Proposed Median Barrier
 - Ramps To Be Abandoned
 - Right of Way & Property Lines
 - Storm Water Management Facilities

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SCALE OF FEET
SCALE OF MILES

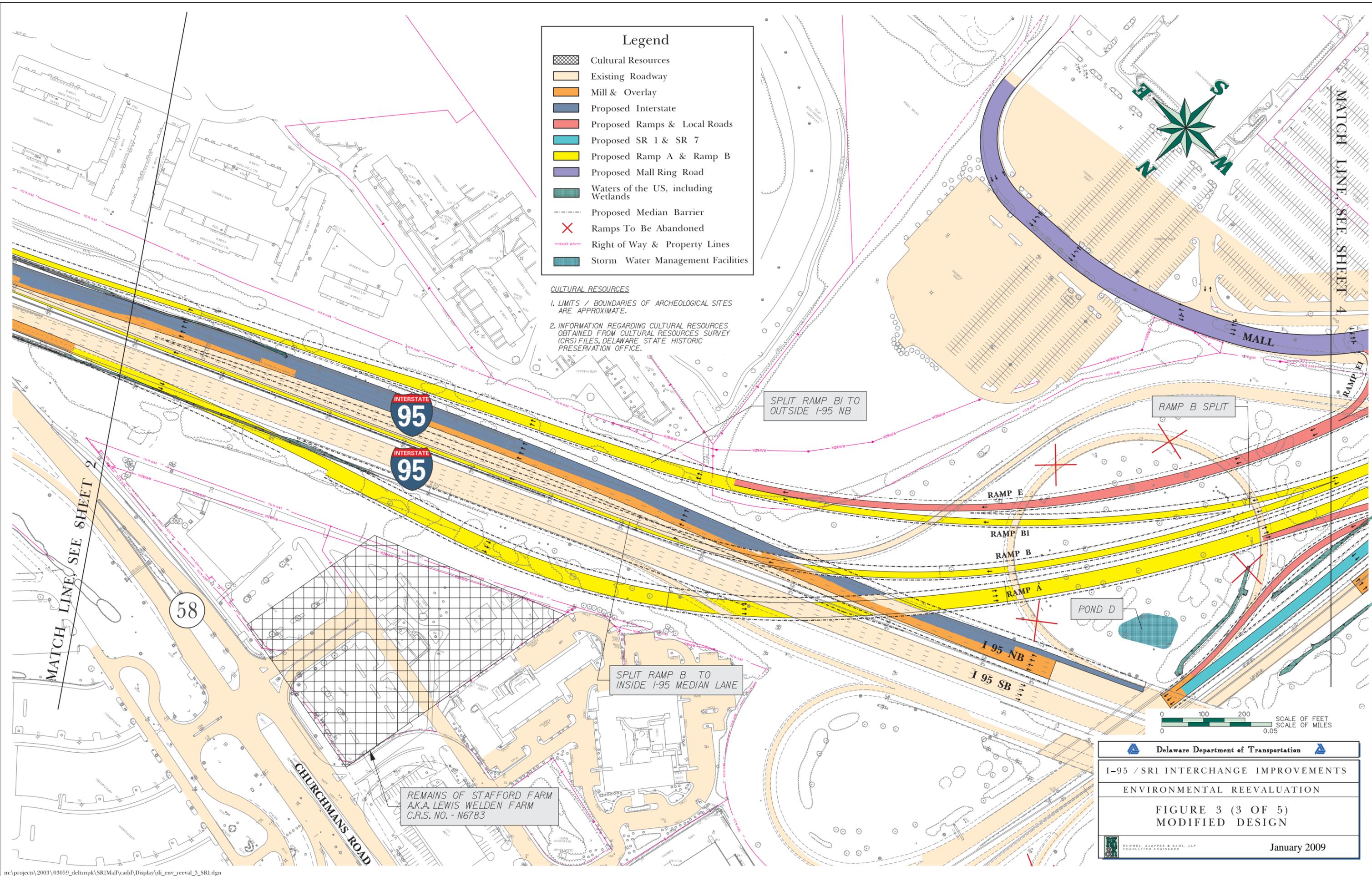
Delaware Department of Transportation

I-95 / SR1 INTERCHANGE IMPROVEMENTS
ENVIRONMENTAL REEVALUATION

**FIGURE 3 (2 OF 5)
MODIFIED DESIGN**

RUMRIL, KLEPPER & BARR, LLP
CONSULTING ENGINEERS

January 2009

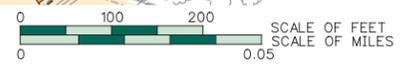


Legend

- Cultural Resources
- Existing Roadway
- Mill & Overlay
- Proposed Interstate
- Proposed Ramps & Local Roads
- Proposed SR 1 & SR 7
- Proposed Ramp A & Ramp B
- Proposed Mall Ring Road
- Waters of the US, including Wetlands
- Proposed Median Barrier
- Ramps To Be Abandoned
- Right of Way & Property Lines
- Storm Water Management Facilities

CULTURAL RESOURCES

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2. INFORMATION REGARDING CULTURAL RESOURCES OBTAINED FROM CULTURAL RESOURCES SURVEY (CRS) FILES, DELAWARE STATE HISTORIC PRESERVATION OFFICE.



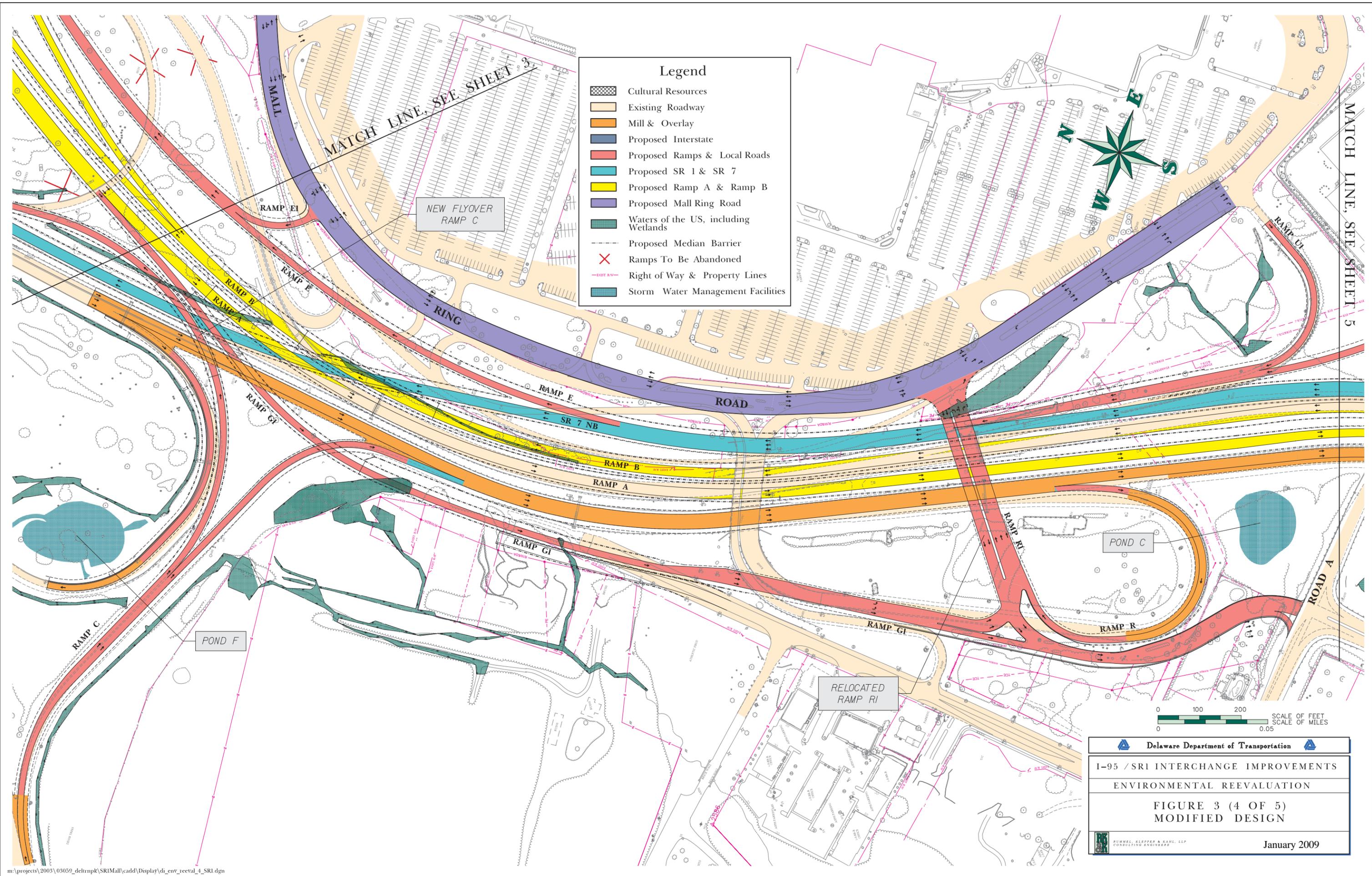
Delaware Department of Transportation

I-95 / SRI INTERCHANGE IMPROVEMENTS
 ENVIRONMENTAL REEVALUATION

FIGURE 3 (3 OF 5)
MODIFIED DESIGN

RUMMEL, KLEPPER & BELL, LLP
 CONSULTING ENGINEERS

January 2009



Legend

- Cultural Resources
- Existing Roadway
- Mill & Overlay
- Proposed Interstate
- Proposed Ramps & Local Roads
- Proposed SR 1 & SR 7
- Proposed Ramp A & Ramp B
- Proposed Mall Ring Road
- Waters of the US, including Wetlands
- Proposed Median Barrier
- Ramps To Be Abandoned
- Right of Way & Property Lines
- Storm Water Management Facilities

Delaware Department of Transportation

I-95 / SRI INTERCHANGE IMPROVEMENTS

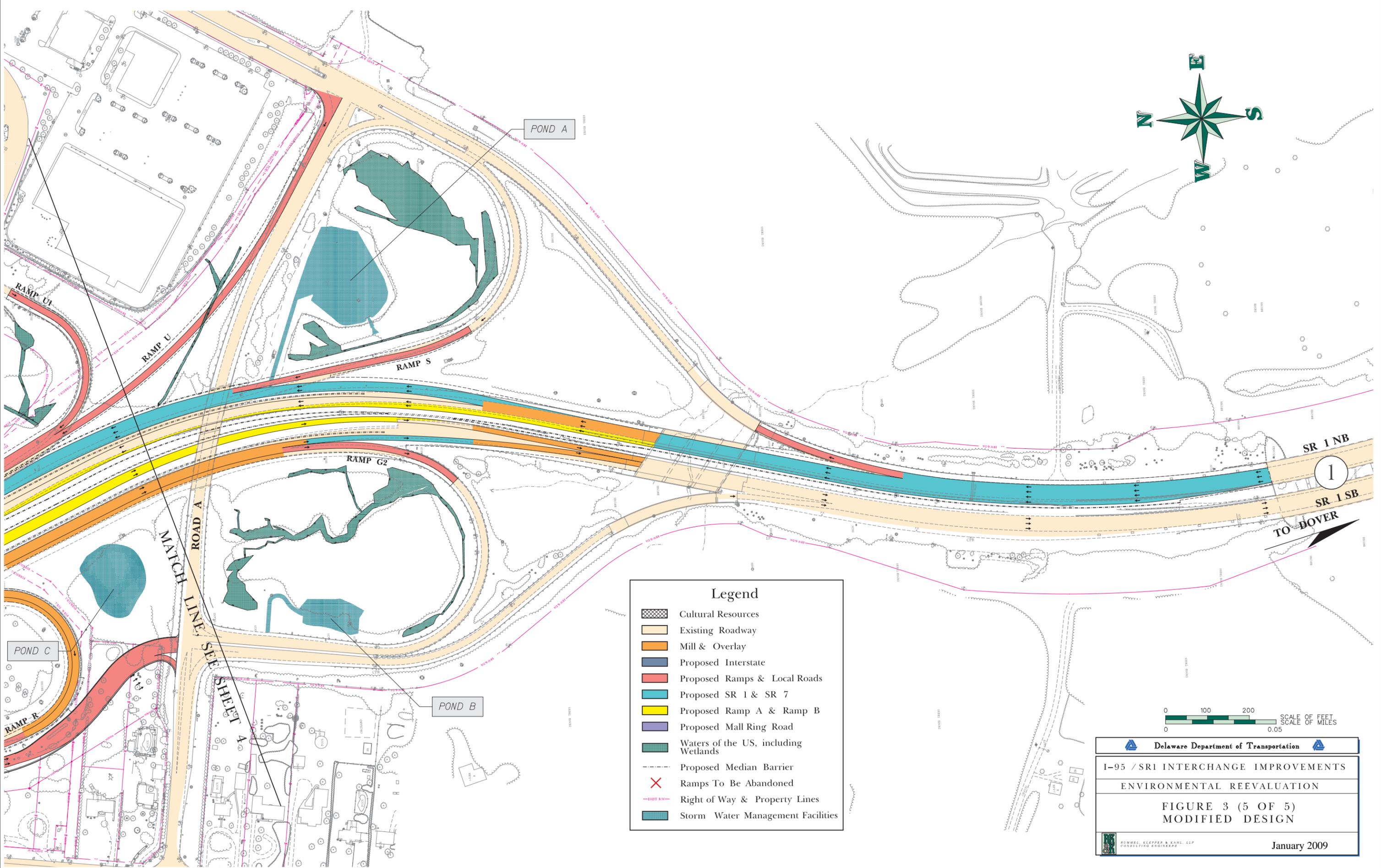
ENVIRONMENTAL REEVALUATION

FIGURE 3 (4 OF 5)

MODIFIED DESIGN

Summel, Klepper & Kahl, LLP
CONSULTING ENGINEERS

January 2009



Legend	
	Cultural Resources
	Existing Roadway
	Mill & Overlay
	Proposed Interstate
	Proposed Ramps & Local Roads
	Proposed SR 1 & SR 7
	Proposed Ramp A & Ramp B
	Proposed Mall Ring Road
	Waters of the US, including Wetlands
	Proposed Median Barrier
	Ramps To Be Abandoned
	Right of Way & Property Lines
	Storm Water Management Facilities

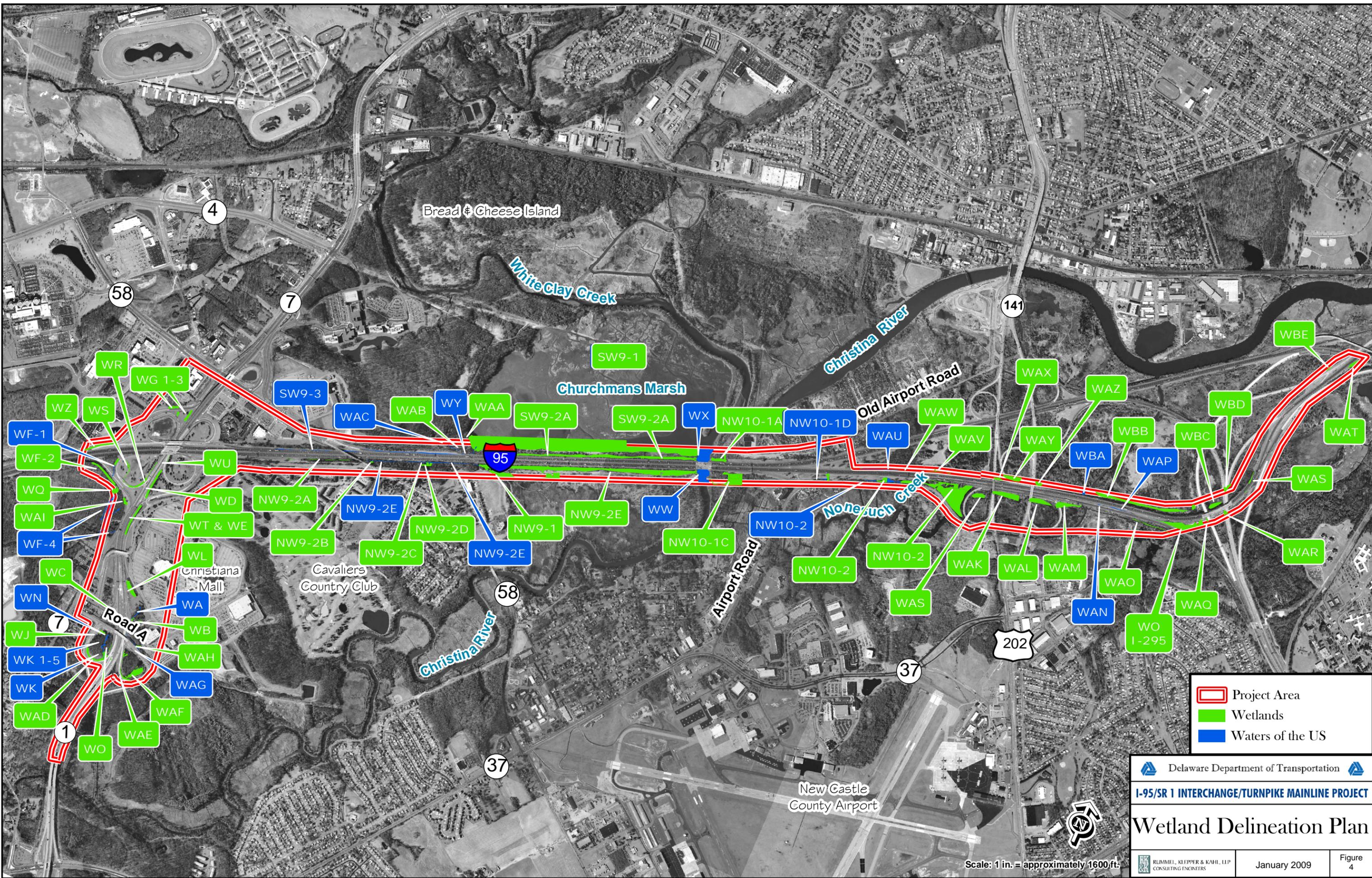
Delaware Department of Transportation

I-95 / SRI INTERCHANGE IMPROVEMENTS
ENVIRONMENTAL REEVALUATION

FIGURE 3 (5 OF 5)
MODIFIED DESIGN

Rummel, Klepper & Kahl, LLP
CONSULTING ENGINEERS

January 2009

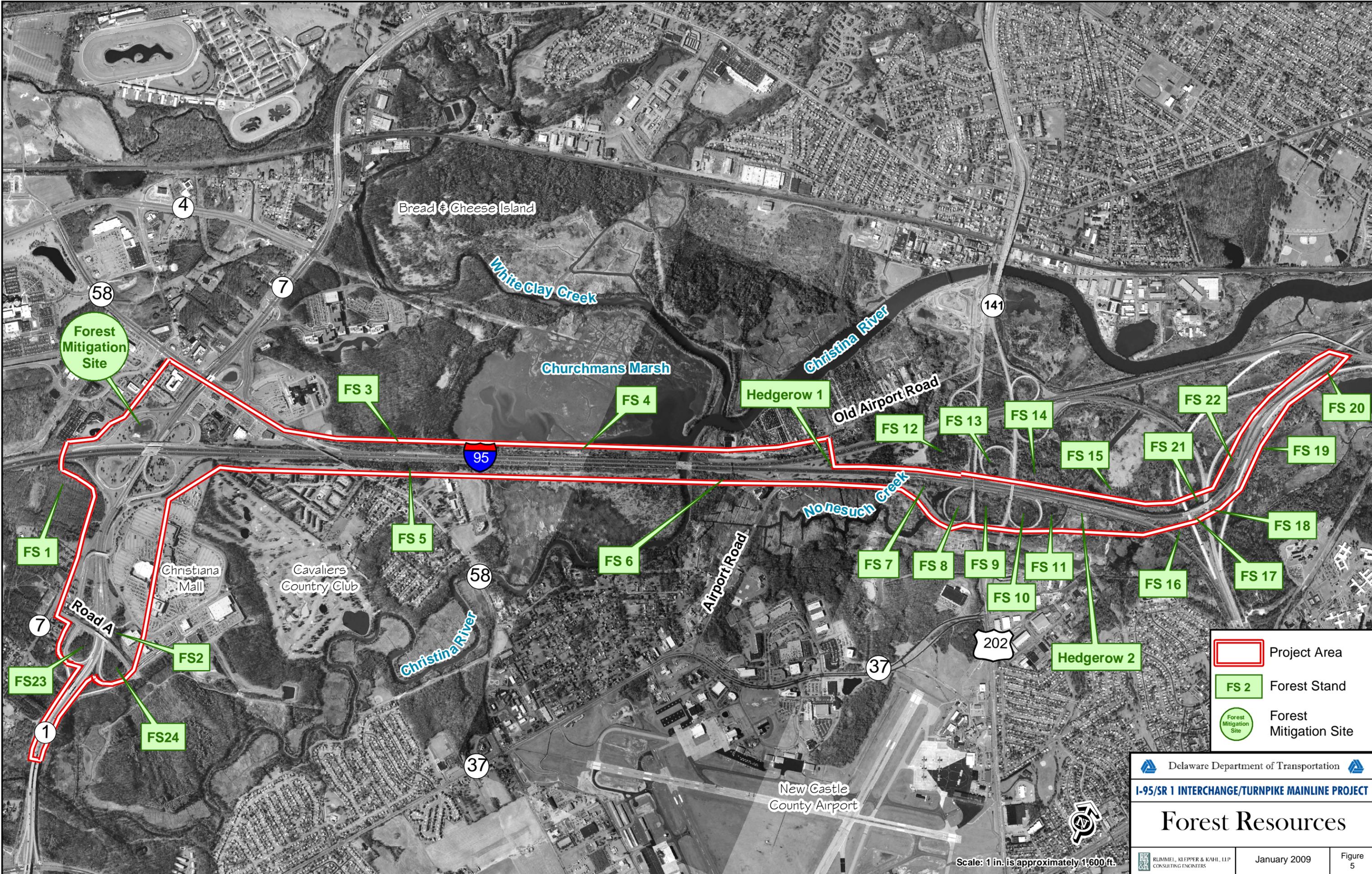


- Project Area
- Wetlands
- Waters of the US

Delaware Department of Transportation
I-95/SR 1 INTERCHANGE/TURNDPIKE MAINLINE PROJECT
Wetland Delineation Plan

Scale: 1 in. = approximately 1600 ft.





	Project Area
	Forest Stand
	Forest Mitigation Site

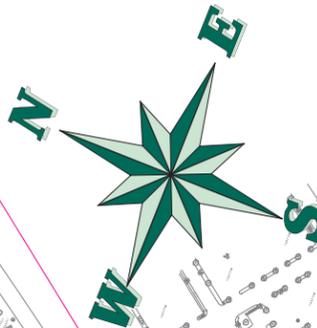
Delaware Department of Transportation
 I-95/SR 1 INTERCHANGE/TURNIPIKE MAINLINE PROJECT

Forest Resources

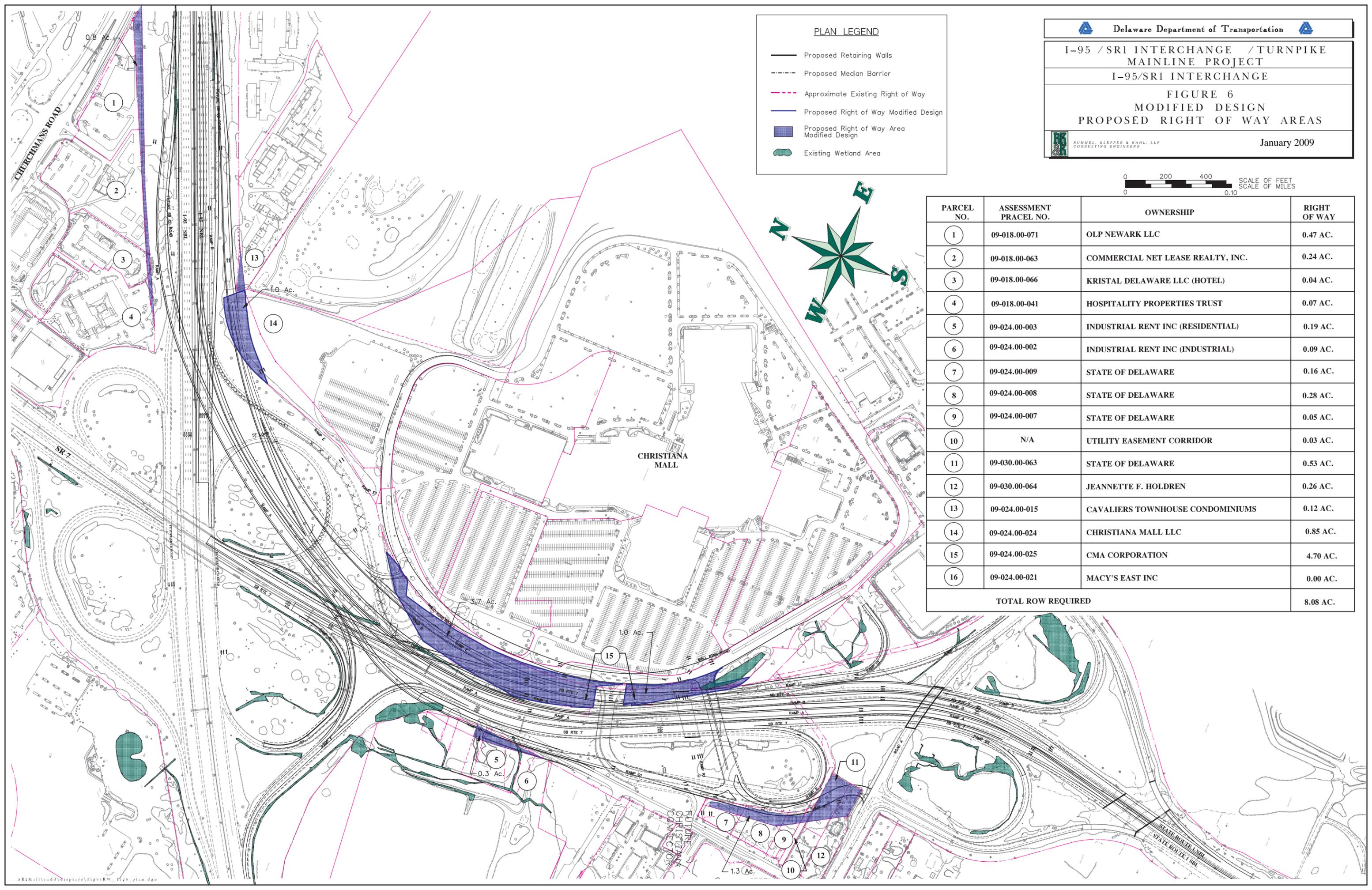
Scale: 1 in. is approximately 1,600 ft.

PLAN LEGEND

- Proposed Retaining Walls
- - - Proposed Median Barrier
- - - Approximate Existing Right of Way
- Proposed Right of Way Modified Design
- Proposed Right of Way Area Modified Design
- Existing Wetland Area



PARCEL NO.	ASSESSMENT PRCEL NO.	OWNERSHIP	RIGHT OF WAY
1	09-018.00-071	OLP NEWARK LLC	0.47 AC.
2	09-018.00-063	COMMERCIAL NET LEASE REALTY, INC.	0.24 AC.
3	09-018.00-066	KRISTAL DELAWARE LLC (HOTEL)	0.04 AC.
4	09-018.00-041	HOSPITALITY PROPERTIES TRUST	0.07 AC.
5	09-024.00-003	INDUSTRIAL RENT INC (RESIDENTIAL)	0.19 AC.
6	09-024.00-002	INDUSTRIAL RENT INC (INDUSTRIAL)	0.09 AC.
7	09-024.00-009	STATE OF DELAWARE	0.16 AC.
8	09-024.00-008	STATE OF DELAWARE	0.28 AC.
9	09-024.00-007	STATE OF DELAWARE	0.05 AC.
10	N/A	UTILITY EASEMENT CORRIDOR	0.03 AC.
11	09-030.00-063	STATE OF DELAWARE	0.53 AC.
12	09-030.00-064	JEANNETTE F. HOLDREN	0.26 AC.
13	09-024.00-015	CAVALIERS TOWNHOUSE CONDOMINIUMS	0.12 AC.
14	09-024.00-024	CHRISTIANA MALL LLC	0.85 AC.
15	09-024.00-025	CMA CORPORATION	4.70 AC.
16	09-024.00-021	MACY'S EAST INC	0.00 AC.
TOTAL ROW REQUIRED			8.08 AC.



ATTACHMENT B

October 15, 2008 Agency Meeting
Invitation and Minutes

From: O'Neill Darren (DelDOT) [mailto:Darren.ONeill@state.de.us]
Sent: Thursday, September 04, 2008 8:56 AM
To: Winkler, Jacqueline W NAP; Davis Gwen (DOS); bob; butch.jim@epa.gov; magerr.Kevin@epa.gov; Arndt Tricia K. (DNREC); Niederriter Holly (DNREC); Lee Joanne M. (DNREC); Pratt, Stephanie <FHWA>; Blendy, Nick; Bailey Matthew (DNREC)
Cc: Fulmer Terry (DelDOT); Nancy Bergeron; Bill Hellmann; Boyce Drew (DelDOT)
Subject: SR1/I-95 EA revision (minor additional wetland impact)
Importance: High

Hello Everyone,

Back in 2005 we had successfully completed the EA process for the I-95 Mainline Widening & SR1/I-95 Interchange Environmental Assessment. Some of you were a valuable part of that and others have recently taken over positions previously held by others. The I-95 Mainline Widening Project is moving forward to completion this winter. Everyone will be riding on the new 5th lanes by Christmas!

We are now moving forward into preliminary design of the second part, the SR1/I-95 interchange. As we finalize some of the technical details, we have had some minor increases in the wetland impacts along the job. We are trying to finalize a revised EA and the IJR with FHWA and need to discuss the additional wetlands impacted areas as part of that process. Specifically 2 areas are affected as shown on the attached map (online you will need to open the map to about 400 % to see the small area increases which are the colored hatched areas described on the map legend). The areas include:

1. The new bridge into the Christiana Mall has been slightly altered to improve operations and constructability. This increases permanent and temporary impacts to a nontidal PEM (wetland WL) described as a poorly maintained SWM facility dominated by phragmites.
2. The ramp that goes from Northbound SR 1 to Northbound I-95 has become a split ramp. What this means is the the ramp will now enter I-95 on both the right side and left side. Traffic from the south (Dover, Middletown etc) that wants to go to Wilmington (via 95 or 495) will fly over I-95 and enter I-95 on the left in its own lane. Traffic from the south (Dover, Middletown, etc) that wants to go to the 141 area or New Jersey/New York/295 area will enter on the right. This split ramp improves operations and safety tremendously as we eliminate 76 % of the merging traffic by allowing vehicles to enter in the lanes where they actually want to be. The split ramp increases permanent impacts to four wetlands. The left side split (traffic heading to Wilmington) increases permanent impacts to a nontidal PEM/OW wetland (wetland WD) described as a vegetated roadside channel dominated by phragmites and cattail. The right side split (traffic heading to New Jersey/New York) increases permanent impacts to three nontidal PFO wetlands (wetlands NW9-2B, NW9-2C, and NW9-2D) all described as forested hillside ground water seeps.

In total, permanent impacts to PEM have increased by 6,875 square feet (0.16 acres); permanent impacts to PEM/OW have increased by 2,508 square feet (0.06 acres); and permanent impacts to PFO have increased by 1,785 square feet (0.04 acres).

We would like to invite anyone who has participated in the process to a meeting we are having with the Army Corp of Engineers on September 17, 2008 at 1:00 in the DelDOT Bear Office (off of SR 7 near SR 273 in the basement conference room) to discuss the changes and the revisions necessary to the current EA. As you can see many of you are not affected but are more than welcomed to participate. The overall area of impact, project purpose, project description and project area has not changed.

Thanks and look forward to meeting.

Darren

MEETING MINUTES

OCTOBER 15, 2008

PAGE 1 OF 3

MEETING MINUTES

October 15, 2008

Attendees: Stephanie Pratt – FHWA
Nick Blendy – FHWA
Jackie Winkler – ACOE
Jim Butch – EPA
Joanne Lee – DNREC
Darren O’Neill – DelDOT
Terry Fulmer – DelDOT
Nancy Bergeron – RK&K
Justin Reel – RK&K

**Reference: SR 1 Mall Interchange
Revised Design and Additional Impacts**

The purpose of the meeting was to discuss operational and safety improvements for the SR 1 Interchange portion of the I-95 Mainline and SR 1 Interchange project, associated additional unavoidable impacts to waters of the United States, and the mitigation proposal to compensate for the additional impacts.

Background:

- The I-95 Mainline and SR 1 Interchange project is a single and complete project that is being constructed in two phases. The Environmental Assessment for the project was published in January 2005. An individual ACOE permit was granted to the project on February 26, 2007 based on final plans for the I-95 Mainline phase and preliminary plans for the SR 1 Interchange phase of the project. The I-95 Mainline phase of the project is under construction and nearing completion. Final design has begun on the SR 1 Interchange phase of the project.

Operational and Safety Improvements:

- Maps (4) showing the revised alignment, titled “Comprehensive Wetland Impacts” were handed out (attached) and large maps of the preliminary alignment, revised alignment and comprehensive wetland impact were displayed for discussion purposes.
- The preliminary design of the SR 1 Interchange included a NB SR1 to NB I-95 ramp that entered I-95 on the right. Traffic analysis indicates that 76% of the traffic making this movement needs to merge all the way to the left on I-95 to proceed north to the Wilmington area creating a dangerous weave on I-95. To eliminate this condition a split NB ramp is proposed that would allow Wilmington area traffic to enter I-95 on the left in a dedicated lane (becoming the 5th lane). Additionally, to avoid a “cattle shoot effect” of having merging traffic entering on both sides of I-95 at the same time,



MEETING MINUTES

OCTOBER 15, 2008

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the SR 141 and I-295 bound traffic will remain separated from I-95 until just east of the Churchmans Road Bridge.

- The existing NB I-95 to NB SR 7 movement is accomplished via a loop ramp following a weave on I-95. To eliminate this weave a semi-direct flyover ramp is proposed.
- Preliminary design included a flyover ramp to provide access to the Christiana Mall. To allow for adequate clearance over SR 1 this ramp has been shifted to the south a few hundred feet.

Additional Unavoidable Impacts:

- Comparison tables describing the impact changes and mitigation details, wetland descriptions, and wetland photographs were handed out to assist in the discussion (attached).
- The NB SR 1 to NB I-95 split ramp, in particular the separation of SR141 and I-295 bound traffic until east of Churchmans Bridge, will permanently impact an additional 1,758 square feet (0.04 acres) in three small forested wetlands. ACOE indicated that these small wetlands should be considered total takes since very little of the original wetland would remain following construction. *[Total take impacts were calculated after the meeting. Considering the three forested wetlands as total takes would increase the total additional permanent impact of this ramp to 2,480 square feet (0.06 acres).]*
- The NB I-95 to NB SR 7 semi-direct flyover ramp will permanently impact an additional 2,508 square feet (0.06 acres) of emergent/open water wetlands.
- The shift of the Mall access flyover will permanently impact an additional 6,875 square feet (0.16 acres) of emergent wetlands.
- In total, the design modifications will cause an additional 11,141 square feet (0.25 acres) of permanent impacts to wetlands and will reduce the total temporary impact to wetlands by 1,611 square feet (0.04 acres). *[After the meeting the additional impacts were calculated considering the three forested wetlands as total takes, the additional permanent impact is 11,863 square feet (0.27 acres) and the temporary impacts are reduced by 2,333 square feet (0.05 acres).]*

Compensatory Mitigation:

- The Cathcart mitigation site provided wetland creation for the I-95 Mainline and SR 1 Interchange project and for the Delaware River Bridge Authority I-295 project. 1.83 acres of wetlands were created and designated as compensation for impacts on the I-95 Mainline and SR 1 Interchange project. The Cathcart site was constructed under the I-95 Mainline phase of the project.
- Standard mitigation ratios of 2:1 replacement for forested and shrub/scrub wetlands and 1:1 replacement for emergent wetlands applied to the proposed impacts for the Project result in required mitigation of 54,232 square feet (1.25 acres).



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- *After the meeting, the mitigation ratios were applied to impacts that included the forested wetlands as total takes resulting in required mitigation of 55,676 square feet (1.28 acres).*
- DelDOT proposed that no additional mitigation was required since the required mitigation for the project is less than the mitigation provided for the project
- ACOE agreed that no additional mitigation would likely be required for the project. Further ACOE stated that no permit actions would be taken on this issue until a permit modification was requested by DelDOT. DelDOT should request this modification when plans and details of the SR1 phase of the project are available.

These meeting minutes are RK&K's interpretation of the meeting and were prepared by Justin Reel. If anyone feels that any part of the meeting was misinterpreted, please respond in writing within seven (7) business days, otherwise the minutes will remain as a record of the meeting.



Roadway Legend

- Proposed Interstate
- Proposed Ramps & Local Roads
- Proposed SR 1 & SR 7
- Proposed Ramp A & Ramp B
- Proposed Mall Ring Road
- ✕ Ramps To Be Abandoned
- Right of Way & Property Lines

Delaware Turnpike Improvements Wetland Impact Change Details								
Wetland Name	Wetland Type	Wetland Description	Permit Sheet	Original Impact			Proposed Impact	
				Label	Impact	Description	Impact	Description
WL	Nontidal PEM	Poorly maintained SWM facility dominated by phragmites	11	WT4	200 sf (temp)	E&S ramp U	6875 sf (perm)	Shift ramp R1 south
							666 sf (temp)	E&S adjacent to permanent impact
WD	Nontidal PEM/OW	Vegetated roadside channel dominated by phragmites and cattail	13	W12	2448 sf (perm)	Fill ramps G1 and A	2448 sf (perm)	No change (fill from ramps G1 and A)
				W13	243 sf (perm)	Crainage improvement	2751 sf (perm)	Fill from new ramp B1
				WT7	59 sf (temp)	E&S adjacent to drainage improvement		
				WT6	260 sf (temp)	E&S ramp A		
NW9-2B	Nontidal PFO	Forested ground water seep wetland vegetated by red maple, sweetgum, and wetland herbaceous species	19	WT10	1209 sf (temp)	Slope stabilization	1209 sf (perm)	Cut for new ramp B
NW9-2C	Nontidal PFO	Forested ground water seep wetland vegetated by red maple, sweetgum, and wetland herbaceous species	21	WT12	233 sf (temp)	Slope stabilization	233 sf (perm)	Cut for new ramp B
NW9-2D	Nontidal PFO	Forested ground water seep wetland vegetated by red maple, sweetgum, and wetland herbaceous species	21	W20	107 sf (perm)	Crainage improvement	423 sf (perm)	Drainage improvements and ramp B
				WT13	870 sf (temp)	Slope stabilization	554 sf (temp)	Sope stabilization

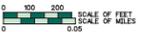
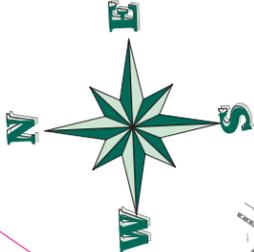
Wetland Legend

ORIGINAL PERMITTED IMPACTS

- Permanent
- Temporary

ADDITIONAL WETLAND IMPACTS

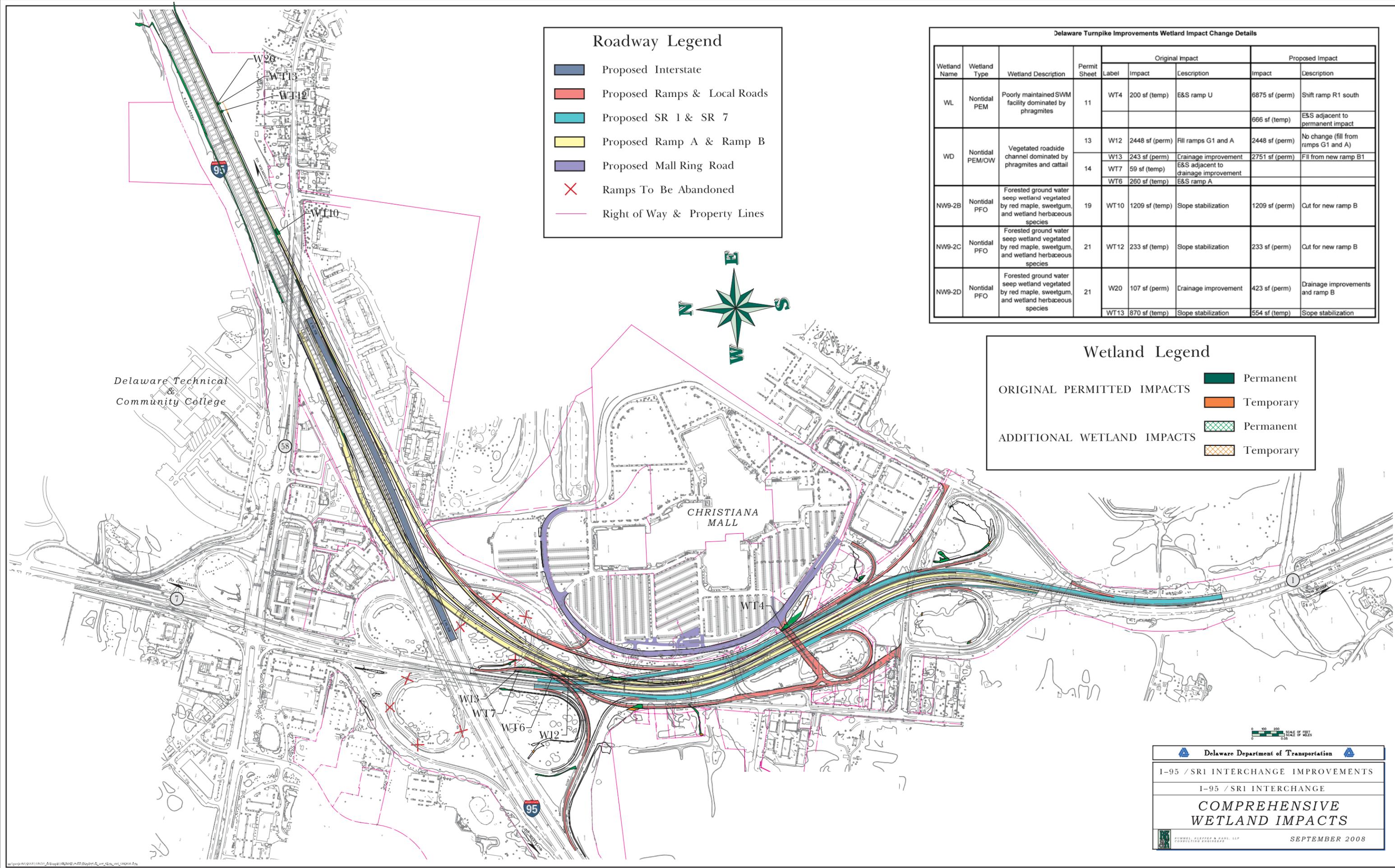
- Permanent
- Temporary



Delaware Department of Transportation

I-95 / SRI INTERCHANGE IMPROVEMENTS
 I-95 / SRI INTERCHANGE
COMPREHENSIVE WETLAND IMPACTS

HUMMEL, KLEPPER & PAUL, LLP
 CONSULTING ENGINEERS SEPTEMBER 2008



ATTACHMENT C

Memorandum of Noise Analysis

ATTACHMENT B: MEMORANDUM OF NOISE ANALYSIS

Existing Conditions / Assessment:

To obtain a representative sample of ambient noise, and in compliance with Delaware Department of Transportation (DelDOT) Noise Policy §IV.2.B and §IV.2.C, noise monitoring data was obtained and classified traffic counts were taken (from a synchronized digital video tape recording) over two 20-minute monitoring sessions on Wednesday, February 11, 2004, and over one 24-hour monitoring session from Wednesday, February 11 to Thursday, February 12, 2004. Existing traffic noise sources in the study area include I-95 traffic and SR-1 traffic. With regards to noise sources in this study area, noise from the Christiana Mall and other localized noise sources is negligible in comparison to highway traffic noise from the I-95 Turnpike and SR 1. Sensitive noise receptors, in the form of dwelling units, are centralized in the Cavalier Country Club Apartments and Brandywine Condominium townhomes south of the I-95 Turnpike, and southwest of Churchmans Road. Per Federal Highway Administration (FHWA) regulations for noise evaluation, *Procedures for Abatement of Highway Traffic Noise and Construction Noise*, and subsequent guidance¹, these noise sensitive receptors fall into Category “B” of the Noise Abatement Criteria (NAC). Per FHWA regulations and DelDOT Transportation Noise Policy, existing traffic noise is considered to impact the receptors in this study area if noise levels are equal to or greater than 66 A-weighted decibels (dBA).

Using the FHWA Traffic Noise Model software, version 2.1 (FHWA TNM v2.1), a calibrated computer traffic noise model was created for the noise-sensitive study area². After the computer traffic noise model was calibrated, existing loudest-hour traffic noise levels were predicted at 98 modeled receptor locations representing 201 residences, based upon existing traffic volume and speed data. Existing traffic noise levels at the modeled receptors range between 49 and 74 decibels (dBA). Existing traffic noise impacts 119 residences within the study area: buildings 4, 8, 9, 10, 12, 13, 18, 20, 21, and 36 of the Cavalier Country Club Apartments; and the Brandywine Condominium townhomes in the 3800, 4000, and 4100 blocks of Golfview Drive (refer to **Table A.2**, on page 4 for assessed existing loudest-hour noise levels, and to **Figure A.1**, on page 11 for a graphic showing the portion of the study area that is impacted by existing traffic noise).

¹ In December 1993, the FHWA issued a memorandum to provide guidance on interpreting the word “approach” in §772.5(g) of 23 CFR by defining noise levels, which “approach” the noise abatement criteria as 1 dBA less than the Noise Abatement Criteria. Per FHWA’s memorandum, a residence is considered impacted by noise if the loudest hour Leq equals or exceeds 66 dBA.

² Per FHWA guidelines and Delaware Department of Transportation Noise Policy §IV.3.C, receiver sound levels in the TNM computer model must be calculated to within ± 3 A-weighted decibels (dBA) of measured sound levels to be considered calibrated.

No-Build Condition Predicted Traffic Noise Levels:

Per FHWA regulations and DelDOT Transportation Noise Policy, future No-Build traffic noise is considered to impact the receptors in this study area if noise levels are equal to or greater than 66 A-weighted decibels (dBA). Using predicted loudest-hour traffic volume data for design year 2030, No-Build condition traffic noise levels at the modeled receptor locations are expected to range between 50 and 76 decibels (dBA). No-Build traffic noise will impact 123 residences within the study area with levels equal to or greater than 66 decibels (dBA). The four predicted design year 2030 No-Build condition traffic noise impacts not presently impacted by traffic noise are in the 3800 and 4000 blocks of Golf View Drive (refer to **Table A.3**, on page 7 for assessed design year 2030 No-Build condition traffic noise levels, and to **Figure A.2**, on page 12 for a graphic showing the portion of the study area that is predicted to be impacted by design year 2030 No-Build condition traffic noise).

Build Condition Predicted Traffic Noise Levels:

To predict design year 2030 Build condition traffic noise levels, the roadway elements of the existing highways and exit ramps of the calibrated traffic noise model were replaced with those of the Modified Design. Per FHWA regulations and DelDOT Transportation Noise Policy, Build condition traffic noise is considered to impact the receptors in this study area if noise levels are equal to or greater than 66 A-weighted decibels (dBA), or if the resulting Build condition noise levels will exceed existing traffic noise levels by ten decibels (10 dBA) or more. In the Build condition, design year 2030 traffic noise levels at the modeled receptor locations are predicted to range between 48 and 72 decibels (refer to **Table A.4**, on page 10 for predicted design year 2030 Build condition traffic noise levels, and to **Figure A.3**, on page 13 for a graphic showing the portion of the study area predicted to be impacted by design year 2030 Build condition traffic noise). Build condition traffic noise will impact only 75 residences within the study area, representing a 37 percent reduction in the number of existing traffic noise impacts (119), and a 39 percent reduction in the number of design year 2030 No-Build traffic noise impacts (123) (see **Table A.1** on the following page). The 48 predicted Build condition traffic noise impacts that will not be impacted under the design year 2030 Build condition are 3802, 3803, 3804, 4006, 4007, and 4008 Golf View Drive, and the 42 residences in buildings 4, 8, 9, 10, 12, 13, and 18 of the Cavalier Country Club Apartments that presently have an unobstructed view of the I-95 Turnpike.

Table A.1: Noise Evaluation Summary for the Cavalier Country Club Apartments and Condominiums			
	Existing 2008	No-Build Design Year 2030	Modified Design Design Year 2030
Total Number of Impacts	119	123	75
Noise Range (dBA) at Impacted Residences	66 to 74 dBA	66 to 76 dBA	66 to 72 dBA

Traffic Noise Impact Mitigation Assessment:

The Modified Design is predicted to reduce traffic noise levels at Build condition traffic noise impacted residences within the study area by up to five decibels (5 dBA), and by an average of 4 decibels (4 dBA), below noise levels of the No-Build condition. Per §V.2.C of DelDOT’s Transportation Noise Policy, “[a] benefited residence is a dwelling unit that would receive a noise reduction of at least 3 decibels from the installation of a noise barrier.” The acoustically beneficial characteristics of the modified design will result in de facto noise reduction benefits of 3 decibels (dBA) or more at 67 of the 75 predicted Build condition impacted residences. Additionally, 77 of the residences not predicted to be impacted by design year 2030 Build condition traffic noise will also experience at least a 3 decibel (3 dBA) reduction below No-Build levels (refer to **Table A.2**, on page 6 for assessed design year 2030 Build-Condition traffic noise level reductions at all modeled receptors, and to **Figure A.4**, on page 14 for a graphic image of the predicted Build condition traffic noise level reduction below No-Build levels throughout the study area).

Acoustically Rated Visual Screening Fence:

Although noise mitigation is not recommended in conjunction with the modified design, if constituted of materials certified and rated to reduce sound transmission, a visual screening fence constructed along the right-of-way limits would provide reductions below Build condition traffic noise levels to residences within the study area. Based on the predicted noise level reductions of an FHWA-approved solid noise wall, such a fence would provide at least five decibels of traffic noise level reduction to all design year 2030 Build condition traffic noise impacts, as shown in **Table A.3**, on page 9, if it were approximately 1,700 feet long and approximately 23,000 square feet, as shown in **Figure A.5** on page 15, and as described in **Table A.4**, on page 10.

Table A.2: I-95 Widening – “Modified Design” Noise Analysis Table
 (All Noise Levels Are Expressed In Units of A-Weighted Decibels (dBA))

Receptor	# Res.	Existing (2008) L _{eq(h)}	No-Build (2030) L _{eq(h)}	Build (2030) L _{eq(h)}	Build Noise Red'n.	Comment
3301 Golfview Drive	1	51	53	52	1	
3302 Golfview Drive	1	55	56	56	0	
3303 Golfview Drive	1	55	56	56	0	
3304 Golfview Drive	1	55	57	57	0	
3305 Golfview Drive	1	55	57	57	0	
3306 Golfview Drive	1	55	57	57	0	
3307 Golfview Drive	1	56	57	57	0	
3308 Golfview Drive	1	56	58	58	0	
3309 Golfview Drive	1	57	59	58	0	
3310 Golfview Drive	1	58	59	59	0	
3311 Golfview Drive	1	58	60	60	0	
3312 Golfview Drive	1	57	59	57	2	
3401 Golfview Drive	1	49	50	49	1	
3402 Golfview Drive	1	51	53	52	1	
3403 Golfview Drive	1	51	52	52	1	
3404 Golfview Drive	1	51	53	52	1	
3405 Golfview Drive	1	51	53	52	1	
3406 Golfview Drive	1	51	53	52	1	
3407 Golfview Drive	1	51	53	52	1	
3408 Golfview Drive	1	51	53	52	1	
3409 Golfview Drive	1	52	53	52	1	
3410 Golfview Drive	1	52	54	53	1	
3411 Golfview Drive	1	54	56	55	1	
3412 Golfview Drive	1	51	53	52	1	
3501 Golfview Drive	1	61	63	62	1	
3502 Golfview Drive	1	62	64	62	1	
3503 Golfview Drive	1	62	63	61	2	
3504 Golfview Drive	1	60	62	60	2	
3505 Golfview Drive	1	60	61	59	3	
3506 Golfview Drive	1	54	56	54	2	
3701 Golfview Drive	1	54	55	54	1	
3702 Golfview Drive	1	59	60	58	3	
3703 Golfview Drive	1	58	60	57	2	
3704 Golfview Drive	1	58	59	57	2	
3705 Golfview Drive	1	57	58	56	2	
3706 Golfview Drive	1	55	57	54	3	
3707 Golfview Drive	1	56	57	55	3	
3708 Golfview Drive	1	52	54	52	3	
3801 Golfview Drive	1	57	58	56	3	
3802 Golfview Drive	1	64	66	64	2	No-Build=Impacted Build = Not Impacted
3803 Golfview Drive	1	65	66	65	2	
3804 Golfview Drive	1	65	67	65	2	
3805 Golfview Drive	1	66	67	66	2	Existing, No-Build, & Build Condition Impacts
3806 Golfview Drive	1	67	68	66	2	
3807 Golfview Drive	1	67	69	67	2	
3808 Golfview Drive	1	68	70	68	2	Existing, No-Build, & Build Condition Impacts
3809 Golfview Drive	1	69	70	68	2	

Table A.2: I-95 Widening – “Modified Design” Noise Analysis Table
 (All Noise Levels Are Expressed In Units of A-Weighted Decibels (dBA))

Receptor	# Res.	Existing (2008) L _{eq(h)}	No-Build (2030) L _{eq(h)}	Build (2030) L _{eq(h)}	Build Noise Red'n.	Comment
3810 Golfview Drive	1	69	71	69	2	
3811 Golfview Drive	1	69	71	69	2	
3812 Golfview Drive	1	68	69	67	2	
3901 Golfview Drive	1	55	56	57	-1	
3902 Golfview Drive	1	55	57	56	1	
3903 Golfview Drive	1	53	55	54	1	
3904 Golfview Drive	1	53	55	54	1	
3905 Golfview Drive	1	54	55	55	1	
3906 Golfview Drive	1	54	56	55	1	
3907 Golfview Drive	1	55	57	56	1	
3908 Golfview Drive	1	56	58	57	1	
3909 Golfview Drive	1	57	58	57	1	
3910 Golfview Drive	1	57	58	58	1	
3911 Golfview Drive	1	59	60	60	1	
3912 Golfview Drive	1	57	58	58	1	
4001 Golfview Drive	1	68	70	67	3	Existing, No-Build, & Build Condition Impacts
4002 Golfview Drive	1	69	71	68	3	
4003 Golfview Drive	1	69	70	68	3	
4004 Golfview Drive	1	68	70	67	3	
4005 Golfview Drive	1	67	69	66	3	
4006 Golfview Drive	1	67	68	65	3	No-Build=Impacted Build = Not Impacted
4007 Golfview Drive	1	66	68	65	3	
4008 Golfview Drive	1	64	66	63	2	
4009 Golfview Drive	1	63	64	61	3	
4010 Golfview Drive	1	59	61	58	3	
4101 Golfview Drive	1	61	63	60	3	
4102 Golfview Drive	1	67	69	66	3	Existing, No-Build, & Build Condition Impacts
4103 Golfview Drive	1	68	69	66	3	
4104 Golfview Drive	1	68	70	67	3	
4105 Golfview Drive	1	69	71	67	4	
4106 Golfview Drive	1	70	71	67	4	
4107 Golfview Drive	1	70	72	68	4	
4108 Golfview Drive	1	71	73	68	5	
4109 Golfview Drive	1	72	74	69	5	
4110 Golfview Drive	1	73	75	70	5	
4111 Golfview Drive	1	73	75	70	5	
4112 Golfview Drive	1	72	74	69	5	
Bldg 36 - West	12	73	75	70	5	
Bldg 36 - East	12	74	76	71	5	
Bldg 20	3	74	76	71	5	
Bldg 21 - West	12	73	74	72	3	
Bldg 21 - East	12	69	70	68	3	
Bldg 12 & 18	6	66	67	64	4	
Bldg 13 - West	12	66	67	62	5	No-Build=Impacted Build = Not Impacted
Bldg 13 - East	12	69	69	64	5	
Bldg 10	3	69	69	64	5	No-Build=Impacted Build = Not Impacted
Bldg 09	3	68	68	63	5	

Table A.2: I-95 Widening – “Modified Design” Noise Analysis Table
 (All Noise Levels Are Expressed In Units of A-Weighted Decibels (dBA))

Receptor	# Res.	Existing (2008) L _{eq(h)}	No-Build (2030) L _{eq(h)}	Build (2030) L _{eq(h)}	Build Noise Red'n.	Comment
Bldg 08	3	68	68	64	4	
Bldg 04	3	67	68	63	5	
Bldg 02 - West	12	62	63	60	3	
Bldg 02 - East	12	56	57	48	9	

KEY:



66 - 69 dBA Impact
 ≥ 69 dBA Impact
 Build-Condition Impact



3 – 5 dBA Reduction
 5 – 8 dBA Reduction
 ≥ 8 dBA Reduction

Table A.3: I-95 Widening – “Modified Design” Visual Screening / Acoustic Fence Noise Level Table
 (All Noise Levels Are Expressed In Units of A-Weighted Decibels (dBA))

Receptor	# Res.	Build (2030) $L_{eq(h)}$	Build, w/Fence (2030) $L_{eq(h)}$	w/Fence Noise Red'n.	Noise Red'n Benefits (N = 126)	Comment
3301 Golfview Drive	1	52	49	3	1	Non-impacted benefit
3302 Golfview Drive	1	56	54	3	1	Non-impacted benefit
3303 Golfview Drive	1	56	54	2		
3304 Golfview Drive	1	57	54	2		
3305 Golfview Drive	1	57	54	3	1	Non-impacted benefit
3306 Golfview Drive	1	57	54	2		
3307 Golfview Drive	1	57	55	3	1	Non-impacted benefit
3308 Golfview Drive	1	58	55	3	1	Non-impacted benefit
3309 Golfview Drive	1	58	56	3	1	Non-impacted benefit
3310 Golfview Drive	1	59	56	3	1	Non-impacted benefit
3311 Golfview Drive	1	60	56	4	1	Non-impacted benefit
3312 Golfview Drive	1	57	53	4	1	Non-impacted benefit
3401 Golfview Drive	1	49	48	1		
3402 Golfview Drive	1	52	49	2		
3403 Golfview Drive	1	52	49	3	1	Non-impacted benefit
3404 Golfview Drive	1	52	49	3	1	Non-impacted benefit
3405 Golfview Drive	1	52	49	3	1	Non-impacted benefit
3406 Golfview Drive	1	52	49	3	1	Non-impacted benefit
3407 Golfview Drive	1	52	49	3	1	Non-impacted benefit
3408 Golfview Drive	1	52	49	3	1	Non-impacted benefit
3409 Golfview Drive	1	52	50	3	1	Non-impacted benefit
3410 Golfview Drive	1	53	50	3	1	Non-impacted benefit
3411 Golfview Drive	1	55	51	3	1	Non-impacted benefit
3412 Golfview Drive	1	52	50	2		
3501 Golfview Drive	1	62	57	4	1	Non-impacted benefit
3502 Golfview Drive	1	62	58	5	1	Non-impacted benefit
3503 Golfview Drive	1	61	57	5	1	Non-impacted benefit
3504 Golfview Drive	1	60	55	5	1	Non-impacted benefit
3505 Golfview Drive	1	59	55	4	1	Non-impacted benefit
3506 Golfview Drive	1	54	52	2		
3701 Golfview Drive	1	54	52	2		
3702 Golfview Drive	1	58	54	4	1	Non-impacted benefit
3703 Golfview Drive	1	57	54	3	1	Non-impacted benefit
3704 Golfview Drive	1	57	53	3	1	Non-impacted benefit
3705 Golfview Drive	1	56	53	4	1	Non-impacted benefit
3706 Golfview Drive	1	54	51	3	1	Non-impacted benefit
3707 Golfview Drive	1	55	52	3	1	Non-impacted benefit
3708 Golfview Drive	1	52	50	1		
3801 Golfview Drive	1	56	53	3	1	Non-impacted benefit
3802 Golfview Drive	1	64	59	5	1	Non-impacted benefit
3803 Golfview Drive	1	65	59	5	1	Non-impacted benefit
3804 Golfview Drive	1	65	60	5	1	Non-impacted benefit
3805 Golfview Drive	1	66	60	5	1	Impacted benefit
3806 Golfview Drive	1	66	61	6	1	Impacted benefit
3807 Golfview Drive	1	67	61	6	1	Impacted benefit

Table A.3: I-95 Widening – “Modified Design” Visual Screening / Acoustic Fence Noise Level Table
 (All Noise Levels Are Expressed In Units of A-Weighted Decibels (dBA))

Receptor	# Res.	Build (2030) L _{eq(h)}	Build, w/Fence (2030) L _{eq(h)}	w/Fence Noise Red'n.	Noise Red'n Benefits (N = 126)	Comment
3808 Golfview Drive	1	68	62	6	1	Impacted benefit
3809 Golfview Drive	1	68	62	6	1	Impacted benefit
3810 Golfview Drive	1	69	62	6	1	Impacted benefit
3811 Golfview Drive	1	69	63	6	1	Impacted benefit
3812 Golfview Drive	1	67	62	6	1	Impacted benefit
3901 Golfview Drive	1	57	49	8	1	Non-impacted benefit
3902 Golfview Drive	1	56	52	4	1	Non-impacted benefit
3903 Golfview Drive	1	54	51	3	1	Non-impacted benefit
3904 Golfview Drive	1	54	52	3	1	Non-impacted benefit
3905 Golfview Drive	1	55	52	3	1	Non-impacted benefit
3906 Golfview Drive	1	55	52	3	1	Non-impacted benefit
3907 Golfview Drive	1	56	53	3	1	Non-impacted benefit
3908 Golfview Drive	1	57	53	4	1	Non-impacted benefit
3909 Golfview Drive	1	57	53	4	1	Non-impacted benefit
3910 Golfview Drive	1	58	54	4	1	Non-impacted benefit
3911 Golfview Drive	1	60	56	4	1	Non-impacted benefit
3912 Golfview Drive	1	58	54	3	1	Non-impacted benefit
4001 Golfview Drive	1	67	62	5	1	Impacted benefit
4002 Golfview Drive	1	68	62	6	1	Impacted benefit
4003 Golfview Drive	1	68	62	6	1	Impacted benefit
4004 Golfview Drive	1	67	61	6	1	Impacted benefit
4005 Golfview Drive	1	66	61	5	1	Impacted benefit
4006 Golfview Drive	1	65	61	5	1	Non-impacted benefit
4007 Golfview Drive	1	65	61	4	1	Non-impacted benefit
4008 Golfview Drive	1	63	59	4	1	Non-impacted benefit
4009 Golfview Drive	1	61	58	3	1	Non-impacted benefit
4010 Golfview Drive	1	58	55	3	1	Non-impacted benefit
4101 Golfview Drive	1	60	57	3	1	Non-impacted benefit
4102 Golfview Drive	1	66	61	5	1	Impacted benefit
4103 Golfview Drive	1	66	61	5	1	Impacted benefit
4104 Golfview Drive	1	67	62	5	1	Impacted benefit
4105 Golfview Drive	1	67	62	5	1	Impacted benefit
4106 Golfview Drive	1	67	62	6	1	Impacted benefit
4107 Golfview Drive	1	68	62	6	1	Impacted benefit
4108 Golfview Drive	1	68	62	7	1	Impacted benefit
4109 Golfview Drive	1	69	62	8	1	Impacted benefit
4110 Golfview Drive	1	70	62	8	1	Impacted benefit
4111 Golfview Drive	1	70	61	10	1	Impacted benefit
4112 Golfview Drive	1	69	61	8	1	Impacted benefit
Bldg 36 - West	12	70	60	10	12	Impacted benefit
Bldg 36 - East	12	71	60	11	12	Impacted benefit
Bldg 20	3	71	60	11	3	Impacted benefit
Bldg 21 - West	12	72	61	11	12	Impacted benefit
Bldg 21 - East	12	68	62	6	12	Impacted benefit
Bldg 12 & 18	6	64	64	2		
Bldg 13 - West	12	62	62	0		

Table A.3: I-95 Widening – “Modified Design” Visual Screening / Acoustic Fence Noise Level Table
 (All Noise Levels Are Expressed In Units of A-Weighted Decibels (dBA))

Receptor	# Res.	Build (2030) L _{eq(h)}	Build, w/Fence (2030) L _{eq(h)}	w/Fence Noise Red'n.	Noise Red'n Benefits (N = 126)	Comment
Bldg 13 - East	12	64	64	0		
Bldg 10	3	64	64	0		
Bldg 09	3	63	63	0		
Bldg 08	3	64	64	0		
Bldg 04	3	63	63	0		
Bldg 02 - West	12	60	60	0		
Bldg 02 - East	12	48	48	0		

KEY:		66 - 69 dBA Impact		3 – 5 dBA Reduction
		≥ 69 dBA Impact		5 – 8 dBA Reduction
		Build-Condition Impact		≥ 8 dBA Reduction

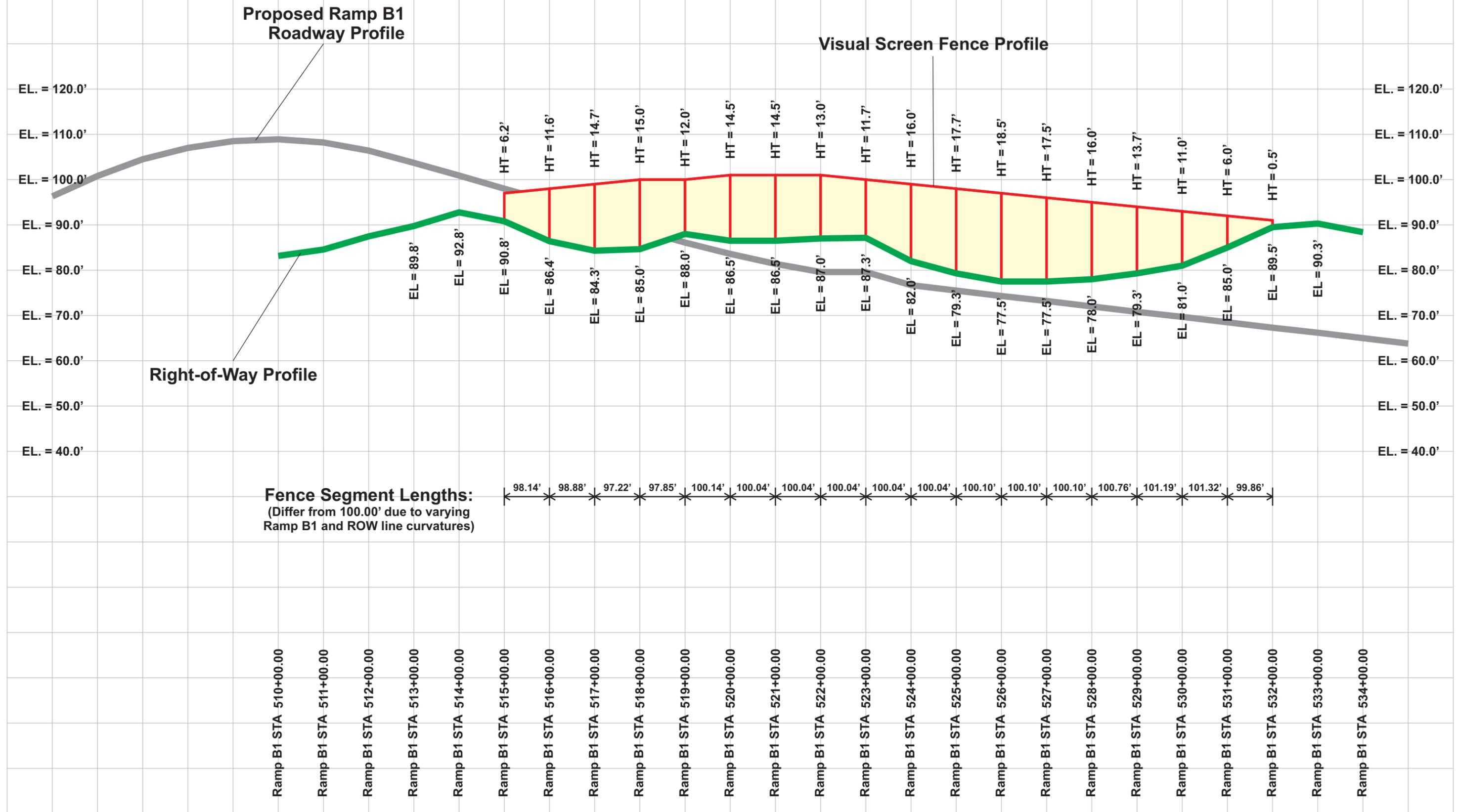
Table A.4: I-95 Widening Visual Screening Fence Data

Fence Segment Points (Relative to Ramp B1 Stations)	El.-Ground (ft)	Height (ft)	El.-Top (ft)	El.-Top - El.-Rd Δ (ft) ¹	%Slope (top) ²	Length (ft) ²	Area (ft ²) ²
ROW Fence STA 513+00.00 - RT 167.4200'	89.8	0.0	89.8	-11.1	---	---	---
ROW Fence STA 514+00.00 - RT 140.0000'	92.8	0.0	92.8	-5.2	---	---	---
ROW Fence STA 515+00.00 - RT 119.4105'	90.8	6.2	97.0	1.8	1.0%	98.2637	874.55
ROW Fence STA 516+00.00 - RT 100.0487'	86.4	11.6	98.0	6.2	1.0%	98.7778	1298.93
ROW Fence STA 517+00.00 - RT 082.6181'	84.3	14.7	99.0	7.2	1.0%	97.3323	1445.38
ROW Fence STA 518+00.00 - RT 079.7358'	85.0	15.0	100.0	11.1	0.0%	97.9505	1322.33
ROW Fence STA 519+00.00 - RT 073.5965'	88.0	12.0	100.0	13.9	1.0%	100.1151	1326.53
ROW Fence STA 520+00.00 - RT 072.3646'	86.5	14.5	101.0	17.4	0.0%	100.0340	1450.49
ROW Fence STA 521+00.00 - RT 075.1816'	86.5	14.5	101.0	19.6	-1.0%	100.0397	1375.55
ROW Fence STA 522+00.00 - RT 077.9985'	87.0	13.0	100.0	20.4	-1.0%	100.0397	1235.49
ROW Fence STA 523+00.00 - RT 080.8155'	87.3	11.7	99.0	19.4	-1.0%	100.0397	1385.55
ROW Fence STA 524+00.00 - RT 083.6324'	82.0 ¹	16.0 ¹	98.0 ¹	21.3 ¹	-1.0%	100.0414	1685.70
ROW Fence STA 525+00.00 - RT 086.5021'	79.3	17.7	97.0	21.5	-1.0%	100.0968	1811.75
ROW Fence STA 526+00.00 - RT 090.9041'	77.5	18.5	96.0	21.7	-1.0%	100.0968	1801.74
ROW Fence STA 527+00.00 - RT 095.3060'	77.5	17.5	95.0	21.8	-1.0%	100.0968	1676.62
ROW Fence STA 528+00.00 - RT 099.7080'	78.0	16.0	94.0	22.0	-1.0%	100.7377	1495.95
ROW Fence STA 529+00.00 - RT 104.5645'	79.3	13.7	93.0	22.2	-1.0%	101.1670	1249.41
ROW Fence STA 530+00.00 - RT 113.7509'	81.0	11.0	92.0	22.3	-1.0%	101.2986	861.04
ROW Fence STA 531+00.00 - RT 123.6415'	85.0	6.0	91.0	22.5	-1.0%	98.7940	321.08
ROW Fence STA 531+98.88 - RT 133.6309'	89.5 ³	0.5 ³	90.0 ³	22.7 ³	---	---	---
ROW Fence STA 533+00.00 - RT 136.4900'	90.3	0.0	90.3	24.1	---	---	---
ROW Fence STA 534+00.00 - RT 140.7400'	88.4	0.0	88.4	23.4	---	---	---
TOTALS:						1,694.92	22,618.09⁴

Notes:

1. The elevation of the top of the visual screening fence above the roadway is the primary determinant of the fence's ability to block line-of-sight of the roadway from the study area. E.g., the recommended fence height increases in the vicinity of STA 524+00.00 – RT 83.6324', and remains at or above 16.0' for approximately 400 linear feet so that a consistent top-of-fence elevation above the roadway will be maintained.
2. Segment Slope, Length, and Area are noted for the segment start points. E.g., there is no Slope, Length, or Area noted for the point at STA 531+98.88 – RT 133.6309' because it is the eastern terminus of the recommended fence. Fence segment lengths were measured along the ROW line path, and vary from 100 feet in length due to differing curvatures of Ramp B1 and the ROW line.
3. The short fence height recommended at the 531+98.88 – RT 133.6309' eastern terminus represents the transition of the fence vertical profile, decreasing elevation at a consistent -1.0% slope, into the rising ground elevation.
4. Recommended visual screening fence area is calculated based upon ROW line elevations taken at 100' intervals. Assessment of ROW elevations will need to be made at greater resolution prior to final estimation of the recommended Visual Screening Fence area.

Figure A.5: I-95 Widening “Modified Design” Visual Screen Fence Envelope Sketch



ATTACHMENT D

WILMAPCO Joint Technical Advisory
Air Quality Subcommittee
December 18, 2008 Agenda and Meeting Minutes

Wilmington Area Planning Council

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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

WILMAPCO Council:
Stephen Kingsberry, Chair
Delaware Transit Corporation
Executive Director

Joseph L. Fisona, Vice-chair
Mayor of Elkton

James M. Baker
Mayor of Wilmington

Christopher A. Coons
New Castle County
County Executive

Vance A. Funk III
Mayor of Newark

Donald A. Halligan
Maryland Dept. of Transportation
Director, Office of Planning and
Capital Programming

Brian Lockhart
Cecil County Commissioner

Lee Ann Walling
Delaware Office of the Governor
Policy Advisor for Environment
and Quality of Life Policy

Carolann Wicks
Delaware Dept. of Transportation
Secretary

WILMAPCO Executive Director
Tigist Zegeye

MEMORANDUM

To: Members of the Technical Advisory Committee (TAC)
From: Heather Dunigan, Principal Planner
Date: November 25, 2008

**Re: Joint Technical Advisory Committee (TAC)
Air Quality Subcommittee**
Date: Thursday, December 18, 2008
Time: 10:00 a.m.
Place: WILMAPCO Conference Room



AGENDA

1. **CALL TO ORDER**
2. **ROLL CALL**
3. **MINUTES** – Approval of the November 20, 2008 TAC Minutes
– Approval of the November 13, 2008 AQS Meeting Notes
4. **SUBCOMMITTEE UPDATES:**
 - a. Air Quality Subcommittee
 - b. Congestion Management Subcommittee
 - c. Data and Demographics Subcommittee
5. **PUBLIC ADVISORY COMMITTEE UPDATE**
6. **PUBLIC COMMENT PERIOD**

ACTION ITEMS:

7. **To Recommend Amending the WILMAPCO FY 2009-2012 Transportation Improvement Program (TIP), Cecil County Element – Tamika Graham**
Staff will present proposed amendments to the Transit Capital and Operating Assistance projects in the Cecil County element of the TIP.
8. **To Recommend Amending the Approved Use of FY 2009 STP and CMAQ – Bill Swiatek**
Staff will present DelDOT's revised proposed use of STP and CMAQ funding for the DelTRAC project.
9. **To Recommend Approving PM2.5 Analysis for the I-95/SR 1 Interchange and the I-95 Fifth Lane Widening Extension - DelDOT**
DelDOT will present PM2.5 hot-spot analysis for the I-95/SR 1 Interchange and the I-95 fifth lane widening extension.
10. **To Recommend the Release of the WILMAPCO FY 2010-2013 Transportation Improvement Program (TIP) for Public Comment – Tamika Graham**
Staff will present the draft FY 2010-2013 TIP, including changes from the FY 2009-2012 TIP. Following Council action, the public comment period will run from January 12 through February 27. The AQS will also review projects to determine if an air quality conformity analysis is triggered.

PRESENTATION/DISCUSSION ITEMS:

11. **Energy and Transportation Data** – *Dan Blevins*
12. **Delaware Energy Plan** – *Bill Osborne, Transportation Management Association of Delaware*
13. **Developing Demographic Projections** – *Mark Goldstein, Maryland Office of Planning*

INFORMATION ITEMS:

14. **Staff Report** – *Tigist Zegeye*

OTHER BUSINESS

ADJOURNMENT

Enclosures

3. Draft November 20, 2008 Minutes and November 13, 2008 AQS Meeting Notes
 7. Draft Resolution and Information To Recommend Amending the WILMAPCO FY 2009-2012 Transportation Improvement Program (TIP), Cecil County Element
 8. Draft Resolution and Information To Recommend Amending the Approved Use of FY 2009 STP and CMAQ
 9. Draft Resolution and Information To Recommend Approving PM2.5 Analysis for the I-95/SR 1 Interchange and the I-95 Fifth Lane Widening Extension
 10. Draft Resolution and Information To Recommend the Release of the WILMAPCO FY 2010-2013 Transportation Improvement Program (TIP) for Public Comment
- Holiday Luncheon Invitation

NEXT TAC MEETING IS JANUARY 15, 2009

**JOINT TECHNICAL ADVISORY COMMITTEE
& AIR QUALITY SUBCOMMITTEE MEETING
December 18, 2008**

A joint meeting of the Technical Advisory Committee (TAC) and Air Quality Subcommittee Meeting (AQS) was held on Thursday, December 18, 2008, at the office of WILMAPCO located at 850 Library Avenue, Newark, Delaware.

1. CALL TO ORDER: Ms. Cathy Smith, TAC Chairperson, brought the meeting to order at 10:12 a.m.

2. TAC Members present:

Dave Blankenship, City of Wilmington Department of Public Works
Suzan Doordan, Transportation Management Association of Delaware
Mark Glaze, DelDOT
Ian Beam, MDOT
Herbert Inden, Office of State Planning Coordination
John Janowski, New Castle County Department of Land Use
Gwineth Kaminsky, City of Wilmington Planning Office
Martin Kotsch, US EPA
Cathy Smith, Delaware Transit Corporation
James Thompson, MDOT/State Highway Administration
Phil Wheeler, DNREC

Air Quality Subcommittee Members present:

Kwame Arhin, U.S. Federal Highway Administration
Suzan Doordan, TMA Delaware
Mark Glaze, DelDOT Planning Division
Martin Kotsch, US EPA
Owen Robotino, New Castle County
Howard Simons, MDOT
Cathy Smith, Delaware Transit Corporation
Phil Wheeler, DNREC
Randall Carroll, MDE

TAC Members absent:

Cecil County Office of Planning & Zoning
City of Newark
Delaware Economic Development Office
Delaware River and Bay Authority
Maryland Department of Planning
Maryland Transit Administration
Town of Elkton

TAC Ex-Officio Members present:

Kwame Arhin, U.S. Federal Highway Administration

TAC Ex-Officio Members absent:

Amtrak
Diamond State Port Corporation
Federal Transit Administration

Guests and Invitees:

Nick Blendy, FHWA
Gene Donaldson, DelDOT
Jim Galvin, Dover/Kent MPO
Brenda Gardels, DelDOT
Mark Goldstein, MDP

Michael Kelly, The Wilson T. Ballard Company
John Leocha, MDP
Mike Nixon, MDOT
Kevin Racine, Transit Riders Action Council
Marion Stewart, Civic League for New Castle County
Earle Timpson, DelDOT
Juanita Wieczoreck, Dover/Kent MPO

Staff:

Dan Blevins, Principal Planner
Janet Butler, Executive Assistant
Kat Caudel, Intern
Tamika Graham, Transportation Planner
Dave Gula, Senior Planner
Janet Jasinski, Administrative Secretary
Randi Novakoff, Transportation Planner
Bill Swiatek, Senior Planner
Tigist Zegeye, Executive Director

Minutes prepared by: Janet Jasinski

3. MINUTES

The TAC Meeting minutes of November 20, 2008, were approved.

ACTION: On motion by Mr. Thompson, seconded by Mr. Wheeler, the minutes for the November 20, 2008 TAC Meeting were approved. (12-18-08 – 01)
Motion passed.
One abstention, Ian Beam

4. SUBCOMMITTEE UPDATES

a. Air Quality Subcommittee

Mr. Swiatek asked for acceptance of the AQS Meeting Notes from November 13. The notes were accepted by the AQS.

Mr. Swiatek turned the table over to Ms. Wieczoreck, with the Dover/Kent MPO, who requested time to finish business of the previous day's meeting in Dover concerning a conformity issue. She said that her MPO is in the process of updating its RTP and finalizing the list of projects to complete the associated conformity analysis. Two major corridor studies (DE 8 Concept Study and the US 13 Circulation Study) have generated some projects with new roadway proposals. The question is whether these are regionally significant. After reviewing each project, there was a consensus that these projects better redistributed existing traffic and were not regionally significant.

b. Congestion Management Subcommittee

Mr. Blevins said the Congestion Management Subcommittee met on December 11. The committee reviewed a presentation recapping thoughts and discussions about approaching this year's version of CMS. The big issue was the addition of the crash statistics and incorporating them into the congestion performance measure portion of the CMS. The re-occurring congestion during peak hour capacities represents 40 percent of all congestion and non re-occurring incidents of crashes represent a quarter of the congestion. By adding the crash data, we are encompassing more causes of congestion in our report. This can make mapping a challenge. The map will have roadway level service, intersection level service, our travel speed versus posted speeds as measures, and then add crash rate by segment and crash rate for intersections. The result is five measures that will determine our corridors. The CMS received an update of several data collection activities that are a part of CMS. A presentation was given by the Delaware Travel Monitoring Survey, which is research that is conducted through the University of Delaware. The census was designed to assist DelDOT with their Travel Demand Model. The next CMS meeting will be in January.

c. Data and Demographics Subcommittee

Mr. Blevins said the Data and Demographics Subcommittee met on December 8, and began the process of updating the Population, Household and Employment projects by traffic zone. We will be using the latest version adopted by the Delaware Population and Consortium from November 2008. Note: there are changes from the 2007 version. This is an annual process of data collection in order to keep up-to-date information. In Cecil County, there is a draft set of population numbers and we will have that presentation later. We discussed the same data collection activities previously in CMS, and DDS also viewed the same presentation on the Delaware Travel Monitoring Survey. The next meeting will be in January.

5. PUBLIC ADVISORY COMMITTEE (PAC) UPDATE

Mr. Gula said the PAC met on Monday, December 15 and there was a good turn out. There was a question/comment from a gentleman on traffic signals on Kirkwood Highway. Tamika Graham, presented the draft TIP, asking the PAC to consider recommending the release of the WILMAPCO FY 2010-2013 Transportation Improvement Program (TIP). The PAC agreed to release it for the public, but had a few questions and recommendations. The PAC members wanted more of an action sheet with specific parts of the county, and WILMAPCO will work on that request. There was a question about whether the TIP could be rejected by the new administration, and the answer was yes. The bottom line was how does the PAC get the best information out to the public, and which projects have lost funding. They would like some sort of depiction of the items in addition to the maps and descriptions that are already presented. They want to give good, accurate information to the public to get a good response. There was more focus on the information communications process to the public and less focus on the specifics of the individual projects. Staff will present the draft Environmental Justice report at the next meeting. PAC discussed the I-295 project and filling in the underpasses that are obstructing the New Castle County Industrial track. Transit advocate Scott Spencer discussed this at the urging of the PAC Chair, Tom Posatko. We had a motion to support the easement and the preservation of it for future use. The PAC wanted to know about the review process for roadways and signalization, and the time frame.

6. PUBLIC COMMENT PERIOD

None

ACTION ITEMS

7. To Recommend Amending the WILMAPCO FY2009-2012 Transportation Improvement Program (TIP)

Ms. Graham said that WILMAPCO received two submissions from the Maryland Transit Administration to amend the funding in the TIP. The first is for Transit System Operating Assistance to provide funding to Cecil County Department of Aging, so that they can provide transit services to the county. The proposed change is to increase the funding for the project from \$1.1 million to almost \$2.5 million dollars, which is over a 100 percent increase over the four years. The second is the Transit System Capital Assistance, which is to provide the Department of Aging funds for vehicle replacements and necessary purchases of equipment. The proposed amendment for this project is to increase funding from \$765 thousand to \$1.3 million dollars, which is about a 75 percent increase. Mr. Swiatek asked if AQS is in agreement with these projects that did not trigger a conformity analysis. The AQS agreed.

ACTION: On motion by Mr. Beam, seconded by Mr. Thompson, the TAC recommended amending the WILMAPCO FY2009-2012 Transportation Improvement Program (TIP).
Motion passed. **(12-18-08 – 02)**

8. To Recommend Amending the Approved Use of FY 2009 STP and CMAQ Funds

Mr. Swiatek referred to the revised letter from DelDOT, dated December 11 regarding CMAQ and STP funding. He reminded the TAC that the AQS had raised a concern over the eligibility of elements of the Deltrac program CMAQ funding. To address that concern, DelDOT has shifted about one million dollars of questionable Deltrac projects into STP funding. Only elements of the Deltrac program eligible for CMAQ funds remain funded through CMAQ. The AQS was

comfortable with the shift at their November meeting. Separately, Mr. Swiatek noted that CMAQ funding for Rideshare was increased to \$720 thousand dollars, a program already found eligible by the AQS.

ACTION: On motion by Mr. Wheeler, seconded by Mr. Beam, the TAC recommended amending the approved use of FY 2009 STP and CMAQ. Motion passed. **(12-18-08 – 03)**

9. To Recommend Approving PM2.5 Analysis for the I-95/SR1 Interchange and the I-95 Fifth Lane Widening Extension

Mr. Blendy, FHWA, said that before he turns the floor over to Mr. Kelly for a technical presentation, he would provide a brief history of the project. In early 2005, DelDOT processed an Environmental Assessment for the combined I-95 widening and the I-95/SR1 interchange proposal. FHWA issued a Finding of No Significant Impact (FONSI) in 2005. In 2006 the PM2.5 Hot-Spot Analysis requirement came into effect. Later that year, DelDOT and FHWA prepared an Environmental Reevaluation of the extension of the fifth lane widening northbound on I-95. Once again the FONSI was found to be valid. In 2007, contracts were awarded and construction of the fifth lane widening of I-95 proceeded. Last week there was a ribbon cutting ceremony because the project is complete and in operation. DelDOT would like to advance the I-95/SR1 interchange proposal, with some interchange modifications and minor increases in wetland impacts, which bring both projects into compliance with EPA rule making for PM2.5 Hot-Spot Analysis. We need a reevaluation, which FHWA is currently discussing with DelDOT. The NEPA requirement is for us to go back to the 2005 document to evaluate both projects.

Mr. Blendy said that he was advised today that WILMAPCO's formal approval of this process is not necessary, as previously thought. The requirements for PM2.5 Hot-Spot Analysis, are that they have to conduct inter-agencies consultations including WILMAPCO, EPA, DNREC and seek opinion as the technical AQ expertise, make them aware of the traffic analysis as occurred and bring the project into full AQ conformity. Mr. Blendy then introduced Michael Kelly.

Mr. Kelly said that he was a consultant with the Wilson T. Ballard Company, in Baltimore. He said they are working on the contract with DelDOT, on the AQ portion of this project. Mr. Blendy said the analysis that was performed included all phases of AQ: CO, MSAT and PM2.5. The original project was Widening of I-95 in each direction in modification to the I-95/SR1 Interchange with directional ramps, improved access and various other modifications. There was an Environmental Assessment in January 2005 and a FONSI was completed in March 2005. A reevaluation in 2006, which considered extending the I-95 widening from SR141 to I-495 split, was not included in the original FONSI; The original FONSI widening stopped at SR141. At that time there was no AQ analysis performed; therefore, the last AQ analysis was completed in 2005. This current reevaluation is making changes to the approved FONSI and the previous evaluation, with basic minor modifications to the Interchange. For every evaluation, they look at Carbon Monoxide (CO), Mobile Source Air Toxics (MSAT), and PM2.5 and PM10. The PM2.5 is a key element that we are discussing today.

CO emissions were reevaluated in 2004 for a determination 2010–2025, using MOBILE6 and there were no violations. For current reevaluation, they examined traffic for 2010–2030 and the current MOBILE6 model, which determines emissions factor. They did not do a full calculation of concentrations for CO, due to lack of significance; therefore, we did a comparison analysis. The previous concentrations were 17 to 19 percent of the standards.

Also considered, was MSAT in the reevaluation. There are 188 hazardous air pollutants and 21 MOBILE air pollutants. They have prioritized and determined the six most prevalent and hazardous MSATs which are: Benzene; Acrolein; Formaldehyde; 1,3-Butadiene, Acetaldehyde; and Diesel Exhaust. Mr. Kelly said he believed there is low MSAT potential with these projects. This assessment is based on a projected downward trend in MSAT in the future, minimal impact of the project to sensitivity receptors and operational improvements (which are not expected to add capacity) associated with the projects.

Finally, PM2.5 was considered. Again, Mr. Kelly said that the projects are not projected to increase the level of diesel vehicles (the primary culprits of PM2.5 emissions). Therefore, he concluded that the I-95 Fifth Lane Widening Extension and Interchange does not meet the criteria to be considered a project of air quality concern. Mr. Kelly's presentation, along with the associated report, can be viewed on the AQS homepage:

<http://www.wilmapco.org/aq/subcommittee.htm>

Ms. Zegeye said that this is not a formal approval process. For the record Mr. Blendy, with FHWA has indicated that formal approval is not necessary. It was agreed to make this a discussion item and to remove it as an action item. There is a consensus that this presentation was for informational purposes only.

ACTION: On motion by Mr. Blankenship, seconded by Mr. Simons, to make I-95/SR1 Interchange and the I-95 Fifth Lane Widening Extension a Discussion Item and to remove it as an Action Item, was approved.
Motion passed. **(12-18-08 – 04)**

10. To Recommend the Release of the WILMAPCO FY 2010-2013 Transportation Improvement Program (TIP) for Public Comment

Ms. Graham distributed a flyer for the WILMAPCO Public Workshop scheduled for February 23, 2009 (**Attachment A**). Ms. Graham said the spreadsheet is a comparison between our current FY 2009-2012 TIP with approved amendments versus the Draft FY 2010-2013 TIP. The areas that are highlighted in green indicate funding increase and the areas highlighted in peach indicate a decrease in funding. The funding for the Draft FY 2010-2013 TIP is about 1.77 billion, compared to the 2009 TIP, this document is slated to use \$2.6 million dollars in funding, or about 15 percent of funding that is in our current FY 2009 TIP. In the Draft FY 2010 TIP only four new projects have been added, which are highlighted in orange, and they are bridge preservation projects. The projects highlighted in yellow no longer have funding for FY 2010 and beyond. These projects are either complete, moved to HSIP, or have lost funding due to budget constraints. There are a total of five projects that will be considered complete for FY 2010, which is also indicated. In terms of funding changes by mode from FY 2009 to FY 2010: roadway projects are expected to receive a 10 percent increase; transit projects will drop funding by about 3 percent; bicycle and pedestrian projects by 55 percent; multimodal projects by 22 percent; and other modes projects by 8 percent. Ms. Graham said that at this point she will turn it over to Earle Timpson of DelDOT Finance to answer additional questions.

Mr. Timpson said School Bell Road is presently under construction and will be completed in the near future. The Tyler McConnell Bridge is being removed completely. The Carr Road and Marsh Road Interchange have been moved to Highway Safety Improvement Projects (HSIP).

Mr. Swiatek said that he wanted to review some of the possible conformity triggers with the new funding. Mr. Swiatek distributed two sheets: 1) a list of four projects that are possible triggers for a new conformity determination, and 2) excerpts from the previous TIP with project descriptions (**Attachment B**).

The initial projects identified as a potential trigger include projects in Southern New Castle County: Cedar Lane, Hyatts Corner Road, and Lorewood Grove Road East and West. These projects were last modeled as in-service by 2010, but the funding for these projects has been pushed back, which means the new in-service date is 2020. Mr. Swiatek said these projects are not likely to be regionally significant. The next one identified was the Eden Square Connector, again, modeled for 2010, which is now slated to be in service by 2020. This project is proposed for the stimulus package for Delaware and it could be in service by 2010, if the project is selected, but it is also not likely to be regionally significant. The third project identified is the Tyler McConnell Bridge. This project was modeled to be in service by 2020, and has been eliminated completely. The fourth project identified is Brackenville Road modeled for 2010 and the funding has been pushed back, which will put the project in service 2020. Mr. Swiatek said that this project may not be regionally significant. He asked if there was a consensus as to whether a conformity determination is triggered by one or more of these projects.

The Southern New Castle County improvements (Cedar Lane, Hyatts Corner Road, and Lorewood Grove Road East and West) are upgrades primarily to accommodate DelDOT's design standards. The Eden Square connector is a new road; The main issue is that we should use current funding or consider it a stimulus funding project.

The group decided that the removal of the Tyler McConnell Bridge project was a conformity trigger, while the other projects were not regionally significant. The draft TIP therefore triggers a conformity determination. It was also agreed that the three other projects will be modeled with their new in-service dates during the upcoming run.

ACTION: On motion by Mr. Glaze, seconded by Ms. Smith, recommending the Release of the WILMAPCO FY 2010-2013 Transportation Improvement Program (TIP) was approved.
Motion passed. **(12-18-08 – 05)**

PRESENTATION/DISCUSSION ITEMS:

Ms. Smith said that we no longer have additional presentations because the presenter from Maryland had to leave.

INFORMATION ITEMS

14. Staff Report

Ms. Zegeye said that WILMAPCO has been involved in many community outreach. Ms. Zegeye distributed the Southbridge Asthma Awareness Day flyer (**Attachment C**), the flyer for the Martin Luther King Jr. Celebration (**Attachment D**), and the Data Report summary (**Attachment E**).

OTHER BUSINESS

None

ADJOURNMENT

The meeting was adjourned at 12:25 p.m.

Attachments (5)