



Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor

State Highway
Administration

John D. Porcari, Secretary
Neil J. Pedersen, Administrator

Maryland Department of Transportation

MEMORANDUM

TO: Mr. Gregory Slater
Director
Office of Planning and
Preliminary Engineering

FROM: Mr. Bruce M. Grey *Bmg*
Deputy Director
Office of Planning and
Preliminary Engineering

DATE: November 17, 2008

SUBJECT: Project No. PG288A11
US 301/MD 197 Transportation Study

RE: **Design Approval Package**

Project Planning activities to investigate highway improvements on US 301 from US 50 to Mt. Oak Road are complete. The Federal Highway Administration approved the Location and Design Public Hearing transcript and granted Location Approval on June 24, 2008 for Alternative 2 with Roundabouts. The project was approved as a Categorical Exclusion (CE).

Under this alternative US 301 is to be converted to a fully access controlled roadway between Mt. Oak Road and US 50, with three through lanes in each direction, eliminating the existing at-grade intersections. A diamond interchange is to be utilized at MD 197, with two double-lane roundabouts at the ends of the directional ramps providing access to the collector-distributor (CD) roadways. The one-way 1.5 mile parallel CD road is to be constructed on either side of US 301 that would maintain access to and from adjacent commercial and residential properties. At the north end of the project an overpass is to connect the Relocated Harbour Way on the west side of US 301 to Governor Bridge Road, which is to extend southward to function as a service road. At the south end, an overpass is to connect Excalibur Road to Mill Branch Road.

This office has reviewed the design features of the project and finds that they meet 2001 AASHTO highway standards. It would be appropriate for you to sign the attached Design Approval Memorandum.

cc: Ms. Heather Lowe, Environmental Manager, Project Planning Division
Ms. Felicia Alexander, Project Manager, Project Planning Division
Mr. Jeffrey Folden, Project Manager, Highway Design Division

My telephone number/toll-free number is _____
Maryland Relay Service for Impaired Hearing or Speech: 1.800.735.2258 Statewide Toll Free

Street Address: 707 North Calvert Street · Baltimore, Maryland 21202 · Phone: 410.545.0300 · www.marylandroads.com



Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*



John D. Porcari, *Secretary*
Neil J. Pedersen, *Administrator*

MEMORANDUM

TO: Mr. Kirk G. McClelland
Director
Office of Highway Development

FROM: Mr. Gregory Slater 
Director
Office of Planning and
Preliminary Engineering

DATE: November 17, 2008

SUBJECT: Project No. PG288A11
US 301/MD 197 Transportation Study

RE: **Initiate Design Approval Request**

The Federal Highway Administration approved and granted Location Approval on June 24, 2008 for Alternative 2 with Roundabouts. The project was approved as a Categorical Exclusion (CE).

We are also transmitting a Design Approval Memorandum, minutes of the selection meeting with the Administrator, a Project Summary, a Design Criteria Supplement, and the Environmental Compliance/Considerations checklist for your use in reviewing this design approval request.

Attachments

cc: Mr. Bruce M. Grey, Deputy Director, Office of Planning and Preliminary Engineering
Ms. Felicia Alexander, Acting Assistant Division, Project Management Division
Ms. Heather Lowe, Environmental Manager, Environmental Planning Division
Mr. Jeffrey Folden, Project Manager, Highway Design Division

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Maryland Department of Transportation

MEMORANDUM

TO: Mr. Neil J. Pedersen
Administrator

THROUGH: Mr. Douglas H. Simmons
Deputy Administrator/Chief Engineer for
Planning, Engineering, Real Estate and Environment

FROM: Kirk G. McClelland, Director
Office of Highway Development

DATE: November 17, 2008

SUBJECT: Project No. PG288A11
US 301/MD 197 Transportation Study

RE: **Design Approval Memorandum Summary**

A Project Planning evaluation has been done on highway alternatives designed to improve traffic operations within the US 301 / MD 197 from Mt. Oak Road to US 50 project study area. This is also to provide adequate roadway capacity to safely and effectively serve an increased traffic demand expected from future economic development.

The Federal Highway Administration approved and granted Location Approval on June 24, 2008 for Alternative 2 with Roundabouts. The project was approved as a Categorical Exclusion (CE). Under this alternative US 301 is to be converted to a fully access controlled roadway between Mt. Oak Road and US 50, with three through lanes in each direction, eliminating the existing at-grade intersections. A diamond interchange is to be utilized at MD 197, with two double-lane roundabouts at the ends of the directional ramps providing access to the collector-distributor (CD) roadways. A one-way 1.5 mile parallel CD road is to be constructed on either side of US 301 that would maintain access to and from adjacent commercial and residential properties. At the north end of the project an overpass is to connect the Relocated Harbour Way on the west side of US 301 to Governor Bridge Road, which is to extend southward to function as a service road. At the south end, an overpass is to connect Excalibur Road to Mill Branch Road.

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Maryland Department of Transportation

Mr. Neil J. Pedersen
Page Two

The design features of this project have been reviewed and they meet all design criteria. Included in this package is: a Project Summary, a Design Criteria Supplement, and the Environmental Compliance/Considerations Checklist. The Design Approval Memorandum is also enclosed for signature upon final review.

Attachments

cc: Ms. Norie Calvert, Deputy Director, Office of Highway Development
Ms. Theresa Christian, Environmental Manager, Environmental Planning Division
Mr. Bruce M. Grey, Deputy Director, Office of Planning and Preliminary Engineering
Ms. Felicia Alexander, Acting Assistant Division Chief, Project Management Division
Mr. Gregory Slater, Director, Office of Planning and Preliminary Engineering
Mr. Jeffrey Folden, Project Manager, Highway Design Division

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Neil J. Pedersen, Administrator

Maryland Department of Transportation

MEMORANDUM

TO: Mr. Bruce Grey
Deputy Director
Office of Planning and
Preliminary Engineering

FROM: Felicia Alexander 
Project Manager
Project Planning Division

DATE: April 10, 2007

SUBJECT: US 301 / MD 197 Project Planning Study
Project Number PG288A11

RE: Administrator's Selection/Project Update Meeting

On November 20, 2006, a meeting was held at the State Highway Administration (SHA) Headquarters in Room 400. The following individuals were in attendance:

Felicia Alexander	SHA – Project Planning	410 545 8511
Theresa Christian	SHA – Project Planning	410 545 8697
Mary Matzke	Century Engineering	410 823 8070
Heather Murphy	SHA – Project Planning	410 545 8537
Neil Pedersen	SHA – Administrator	410 545 0400
Doug Simmons	SHA – Deputy Administrator	410 545 0411
Matthew Snare	RK&K	410 728 2900
Vien Thai	Century Engineering	410 823 8070
Chanel Torsell	SHA – Project Planning	410 545 5644
Tom Turner	Century Engineering	410 823 8070
Chisa Winstead	SHA – Project Planning	410 545 8545

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Felicia Alexander presented an overview of the project status. Alternative 5A was developed several years ago and was previously preferred based on input from the Focus Group and the Public Hearing in November 2002. Alternative 5A shifts US 301 to the east with an urban diamond interchange at MD 197 and provides two-way service roads on both the east and west sides. Alternative 2 with Roundabouts was developed subsequently with the objectives of reducing cost at the request of the Bowie City Council. Alternative 2 with Roundabouts keeps US 301 on the existing alignment with a twin roundabout interchange at MD 197 and provides one-way service roads on the east and west sides. The estimated total construction costs for Alternative 5A and Alternative 2 with Roundabouts, including administration/overhead and right-of-way, are \$311 million and \$226 million, respectively.

Next, several key factors for consideration were discussed including: phasing, environmental impacts, costs, maintenance of traffic (MOT), traffic, and other issues/public support.

Phasing:

Phases for each alternative were developed with the purpose of spreading the costs out over time.

- Alternative 5A
Alternative 5A appears to be the more challenging of the two alternatives to construct in phases due to the access issues which come into play when US 301 is shifted to the east. This alternative consists of two phases: Phase I) includes the majority of the improvements to US 301, including the interchange with MD 197, it also includes the west side US 301 collector-distributor (C-D) road. Phase II) includes the Mitchellville Road/MD 197 intersection and the eastside US 301 C-D road.
- Alternative 2 with Roundabouts
The initial phasing for Alternative 2 with Roundabouts shows it being constructed in three phases. The phases consist of: Phase I) the US 301/Excalibur Road interchange; Phase II) the double roundabout interchange at US 301/MD 197 and US 301 widening ; and Phase III) the service roads and Relocated Harbour Way. The team is also considering a four phased alternative: Phase I) Governor Bridge Road and Mitchellville Road improvements; Phase II) MD 197 interchange, C-D roads, and the removal of two signals; Phase III) interchange at Excalibur Road/Mill Branch Road, more C-D road construction, and the removal of two additional signals; and Phase IV) improvements to US 301 mainline.

Traffic Analysis:

- *Existing and No-Build Level of Service (LOS) Analysis*

The Level of Service Analysis (LOS) for the existing and no-build conditions shows that the four signalized intersections with US 301 (e.g., Harbour Way, Heritage Boulevard, MD 197, and Excalibur Road) and the stop controlled intersection at Mount Oak Road will all have a LOS F for 2020 no-build conditions. All five intersections will fail before 2015, with Heritage Road failing today.

 - *Critical Lane Volume (CLV) Analysis*
 - Alternative 5A

A critical lane volume analysis (CLV) for Alternative 5A with 2020 traffic showed C or better for all intersections in the study area.
 - Alternative 2 with Roundabouts

Alternative 2 with Roundabouts was analyzed for each of the three phases using the Highway Capacity Software, CLV, and SIDRA. The LOS was evaluated for 2010 and 2020 traffic along with an estimated 'fail year'.

 - *Phase 1*, three intersections along US 301 are forecasted to fail by approximately 2012: Harbour Way, Excalibur Road, and Mount Oak Road. Also, in the study area, the Mitchellville Road at Heritage Boulevard and Governor Bridge Road at Harbor Way intersections are both forecasted to fail in 2010, and US 301 northbound, south of Mill Branch Road is forecasted to fail in 2017.
 - *Phase 2*, in addition to the above, Mitchellville Road at Heritage Road is forecasted to fail in 2010, Mitchellville Road and MD 197 is forecasted to fail in 2014, and US 301 southbound at US 50 and US 50 to southbound US 301 the proposed C-D road are both forecasted to fail by 2020.
 - *Phase 3* (full build out), in addition to the above, the proposed MD 197 ramp to southbound US 301 is forecasted to fail by 2012, both northbound and southbound US 301, south of Excalibur/Mill Branch Road, are forecasted to fail by 2020, and northbound US 301 C-D road from Harbour Way to US 50 is forecasted to fail by 2015.
- Several locations were noted for further evaluation/revision including: weaves entering and existing both C-D roads, southbound C-D road in the vicinity of Collington Plaza and Excalibur Road, widening US 301 south of Mount Oak Road, and Mitchellville Road at Heritage Boulevard and at MD 197. It was noted that 2030 traffic was being prepared and will be used to evaluate/refine the alternatives. The project team will also "re-order" the phasing for Alternative 2 with Roundabouts to get a more cost solution to potentially lengthen the life span of each phase.

Costs

The team then presented a summary of the cost for both alternatives as shown below:

Total Cost (with Adm./ Overhead)	Alternate 5A	Alternate 5A- Phase 1	Alternate 5A- Phase 2
Project Planning	\$2,118,000.00	\$2,118,000.00	\$0.00
Preliminary Engineering	\$32,913,600.00	\$6,443,100.00	\$26,470,500.00
Right-Of- Way	\$56,165,200.00	\$56,165,200.00	\$0.00
Construction	\$219,423,500.00	\$42,953,700.00	\$176,469,800.00
Approximate Total Cost	\$300M -330M	\$107,680,000.00	\$202,940,300.00

Total Cost (with Adm./ Overhead)	Alternate 2 with Roundabouts	Alternate 2 with Roundabouts- Phase 1	Alternate 2 with Roundabouts- Phase 2	Alternate 2 with Roundabouts- Phase 3
Project Planning	\$2,118,000.00	\$0.00	\$0.00	\$0.00
Preliminary Engineering	\$22,520,600.00	\$10,958,300.00	\$5,219,300.00	\$7,937,000.00
Right-Of- Way	\$51,085,300.00	\$35,029,000.00	\$2,118,300.00	\$13,937,000.00
Construction	\$150,137,000.00	\$73,055,000.00	\$34,794,900.00	\$52,912,900.00
Approximate Total Cost	\$230M -260M	\$119,042,300	\$42,132,500.00	\$74,786,900.00

Maintenance of Traffic (MOT):

A meeting was recently held to begin addressing MOT in accordance with the new FHWA requirements. A number of MOT issues were identified. The project team had previously developed a draft MOT plan for Alternative 5A. The team will now prepare a preliminary MOT plan for Alternative 2 with Roundabouts.

Public Support

Felicia then provided a brief summary of the current public support of both alternatives. Alternative 5A was received well at the public hearing and the communities. The Bowie City Council supported the alternative also, but felt that it was a very expensive improvement. Alternative 2 with Roundabouts has been presented to several communities and the Bowie City Council. It was well received by the Council, but the communities were concerned about their access to US 301 and the property impacts.

Environmental Impacts

The impacts for each alternative were then discussed in comparison. Below is a summary of the impacts for both alternatives:

ALTERNATIVE 5A	
ROW Required	42.88 AC
Affected Properties	31
Business Displacements	3
Wetlands	1.14 AC
Stream Crossings	3
Stream Impacts	1550 LF
Forest Impacts	17.1 AC
Length	1.9 Miles
Total Cost	\$300 – 330 Million

ALTERNATIVE 2 W/ ROUNDABOUTS	
ROW Required	54.69 AC
Affected Properties	52
Business Displacements	1
Wetlands	.36 AC
Stream Crossings	3
Stream Impacts	1390 LF
Forest Impacts	12.55 AC
Length	1.9 Miles
Total Cost	\$230 – 260 Million

Open Discussion

Next, Felicia open the meeting up for discussion of which alternative the team should proceed forward with as a Selected Alternative. Felicia described the access for Alternative 2 with Roundabouts from US 301 to the C-D roads (and businesses) as being limited to one exit in each direction at each end of the project. Enhanced signing would be required to address the limited access conditions. Alternative 5A provides improved access to businesses with: two way C-D roads, US 301 access at MD 197, and US 301 access to the C-D roads via a southbound slip ramp and exits at the north and south ends of the project. Limited access will likely be the largest comment from the public/business representatives for Alternative 2 with Roundabouts. The team would recommend moving forward with Alternative 2 with Roundabouts.

Team Recommendation

In conclusion, the Administrator concurred with the project team's recommendation, which is Alternative 2 with Roundabout with the following follow-ups:

Follow-ups:

- Continue traffic analyses and refinement of Alternative 2 with Roundabouts.
- Address the access issue for Alternative 2 with Roundabouts with a southbound slip ramp from US 301 to the southbound C-D road.
- Meet with the existing and new Elected Officials to present the alternatives.
- Meet with the Focus Group.
- Hold a Public Workshop meeting.
- Team will prepare a revised project schedule.
- RK&K will continue to evaluate various weave and LOS issues and coordinate with Century on phased construction. RK&K will send traffic data to Century. New traffic data (2030) will be evaluated.
- SHA will provide additional mapping at the southern termini
- Century will address various items including: Alternative 2 with Roundabouts – US 301 southbound lane drop, weaves, US 301 southbound slip ramp, shift to reduce business impacts on the west side in the vicinity of Excalibur, phased construction, MOT, cost estimates (each phase), refinements for 2030 traffic, SWM, and right-of-way needs.

If you have any questions or comments regarding the above meeting summary, please contact the project manager Felicia Alexander at 410-545-8511.

Attachments

cc: Attendees
US 301/MD 197 Project Team

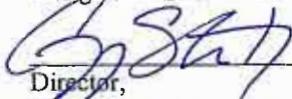
DESIGN APPROVAL MEMORANDUM

MEMORANDUM

TO: Mr. Neil J. Pedersen – State Highway Administrator
THROUGH: Douglas H. Simmons – Deputy Administrator/Chief Engineer for Planning, Engineering, Real Estate and Environment
FROM: Kirk G. McClelland – Director of Highway Development
SUBJECT: Project No. PG288A11
US 301 / MD 197 Transportation Study

This office has reviewed the design features of the subject project as presented in the attached copy of the Project Summary which is being submitted for your Design Approval Recommendation. Attached hereto and made a part hereof is the Design Approval References and supplement containing pertinent Design Criteria for your approval.

Design consistent with Planning Concepts and Commitments:



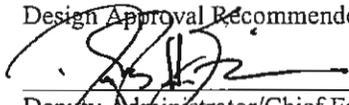
Director,
Office of Planning and Preliminary Engineering
11/19/08
Date

Approval Recommended:



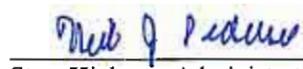
Director,
Office of Highway Development
12/22/08
Date

Design Approval Recommended:



Deputy Administrator/Chief Engineer for
Planning, Engineering, Real Estate and Environment
12/22/08
Date

Design Approval:



State Highway Administrator
12/20/08
Date

FROM: Neil J. Pederson – State Highway Administrator
TO: Mr. Douglas H. Simmons
Deputy Administrator/Chief Engineer for Planning, Engineering, Real Estate and Environment

Upon Location and Design Approval, Final Design may begin.

Mr. Gregory Slater, Director
Office of Planning and Preliminary Engineering
410-545-0412

Please place appropriate notice in accordance with FHPM 7.7.5, Par. 11

Attachments

cc: Ms. Felicia Alexander Mr. Douglas Simmons Mr. Joseph Kresslein Ms. Heather Lowe Mr. Kirk
G. McClelland Mr. Gregory Slater Mr. Bruce M. Grey Mr. Douglas Rose Mr. John Zanetti

PROJECT SUMMARY

Project No.: PG288A11

The purpose of the US 301/MD 197 Transportation Study is to improve traffic operations to effectively serve an increased traffic demand expected from future development, and also to address and provide adequate safety conditions due to the current high crash rates, which is expected to increase as a result of continued growth.

The project is located in Prince George's County. The study area is bounded on the north side by the US 301/ US 50 ramps, on the south side by Mount Oak Road, on the west side by Mitchellville Road, and on the east side by Prince George's Stadium. The preferred alternative will include: improved operations on mainline US 301; removal of four traffic signals Harbour Way, Heritage Boulevard, MD 197 and Excalibur Road on US 301; and conversion of US 301 to a fully access-controlled roadway between Mt. Oak Road and US 50 with three through lanes in each direction. The separation of local and through trips will involve the construction of one-way parallel CD roads on each side of US 301, which would maintain access to and from adjacent commercial and residential properties. MD 197 is to bridge over US 301 with two double lane roundabouts to improve the traffic flow.

The US 301/MD 197 Transportation Study is the first "breakout" project from the Tier 1 Environmental Impact Statement completed for the US 301 Northern Corridor/Access Management Study as part of the tiered National Environmental Policy Act (NEPA) Process. The rationale for the tiered approach is discussed in detail in the US 301 study. As documented in the 1996 US 301 Task Force Final Report, the existing conditions and expected growth within this corridor will significantly increase traffic congestion and vehicle crashes.

SHA held a Preferred Alternative Informational Workshop on May 9, 2007 at the Bowie City Hall in Bowie, Maryland.

The purpose of the workshop was to summarize recent progress in the US 301/MD 197 Transportation Study, and to provide details on the SHA Preferred Alternative including Traffic Analyses, Environmental Impacts, and costs. Approximately 27 people attended this workshop.

The State Highway Administration's preferred alternative is Alternative 2 with Roundabouts and received Location Approval from Federal Highway Administration on June 24, 2008.

DESIGN CRITERIA SUPPLEMENT

Project:	US 301 / MD 197 Project Planning Study
Limits:	From Mount Oak Road to US 50
Project No.:	PG 288A11
PDMS No.:	162167
Date:	

The purpose of the US 301 / MD 197 Transportation Study is to develop solutions that will address congestion, increase mobility, and improve safety conditions along this stretch of roadway.

In the US 301 / MD 197 study area, current and future traffic congestion is a contributing factor in the need for the project. Due to expansion of US 301 for recent development, especially the Prince George's Stadium, traffic at key intersections in the corridor currently operates at a Level-of-Service (LOS) ranging from acceptable to failing during the peak periods. "Rush hour" in this area lasts for two hours in the morning and at least two hours in the evening. There is also congestion on Saturday afternoons due to the large amount of commercial development recently built in the area.

The significant residential and commercial growth that has been occurring within the study area is expected to continue over the next 10 to 15 years, further increasing the traffic on this section of US 301. Traffic increases are expected to consist of local trips related to commercial development and commuting activities and of through trips related to regional activities. The future development and traffic increases will result in the majority of key intersections in the corridor operating at a failing LOS during the peak periods in the design year of 2030.

US 301 is a four-lane roadway to be expanded to a six-lane roadway, with a bridge carrying MD 197 over US 301 and eliminating existing at grade intersection. A traditional diamond intersection at MD 197 is to be utilized, with two double-lane roundabouts at the end of directional ramps providing access to the parallel collector-distributor (CD) roadways. A one-way CD road would be constructed on each side of US 301 from north of Mt. Oak Road to just south of the US 50 Interchange.

Alternative 2 with Roundabouts

Based on information and analyses contained herein and input from the public and government agencies, the State Highway Administration Preferred Alternative for the US 301 / MD 197 Project Planning Study is Alternative 2 with Roundabouts. This alternative was selected because it best meets the project's purpose and need. It is a more cost-effective alternative capable of being constructed in four phases arranged in a series that incrementally provide the traffic relief needed in the project area. This alternative also has fewer impacts than the previous designs, with a decrease from 64 acres to 54 acres of right-of-way. Only one business displacement is anticipated, compared to the two or four displacements with the previous alternatives. The impacts to the natural environmental features along the corridor have also been reduced. Wetland impacts are reduced by 0.17 acres, stream impacts are reduced by 117 linear feet, and forest impacts are reduced by 4.55 acres.

Alternative 2 with Roundabouts will provide improved operations on mainline US 301 which is to be converted to a fully-access-controlled facility between Mt. Oak Road and US 50 with three through lanes in each direction. This involves removing four traffic signals at Harbour Way, Heritage Boulevard, MD 197, and Excalibur Road on US 301. A 1.5 mile one-way CD roadway is to be constructed on both sides of US 301, which would maintain access to and from adjacent commercial and residential properties. MD 197 is to be widened from west of Mitchellville Road to the new east-side CD road.

Alternative 2 with Roundabouts can be split into four phases to make it more cost effective:

Phase 1 – Right-of-way acquisition and improvements for circulation and access.

- Acquire all required right-of-way. At locations where there are reasons to delay actual right-of-way acquisition, agreements for future acquisition should be addressed.
- Construct the east service road from Stadium Drive to Governor Bridge Road with improvements along Stadium Drive and the spur serving Rips, Chick-Fil-A, and the Mobil gas station. Construct the new overpass from the east service road to Mitchellville Road.

These improvements provide access and functional links for traffic to circulate without accessing US 301. Existing signalized intersections along US 301 remain in operation.

Phase 2 – MD 197 Interchange.

- Close MD 197 from US 301 to Mitchellville Road – (no exiting access points) – traffic will utilize other signalized intersections along US 301. Construct the double roundabout interchange with ramp tie-ins to existing US 301 and the spur east to Stadium Drive. The MD 197/Mitchellville Road intersection improvements may or may not be included in this phase based on consideration of funds and LOS. Acceleration and deceleration lanes would be extended / widened to allow for easy MOT for future widening and construction of the CD roads. Direct access to Rips from US 301 is eliminated.
- After the MD 197 interchange is in service eliminate the signal at Harbour Way / US 301 and allow right in/out only. Modify the signal at Heritage/US 301 to be two phases – 1) US 301 through traffic and 2) US 301 NB and SB left turn, (eliminate east/west movements).

Phase 3 –Excalibur/Mill Brand Road Interchange.

- Construct temporary Mill Branch Road to the north keeping the same intersection at US 301. Construct the Excalibur / Mill Branch interchange with ramp tie-ins to existing US 301. Acceleration and deceleration lanes would be extended / widened to allow for easy MOT for future widening and construction of the service roads. Excalibur Road may be closed during construction from US 301 to the Wal-Mart entrance.
- After the Excalibur interchange is in service, eliminate the signal at Heritage and allow right in/out only. There are no signals along US 301 in the project area at this stage.

Phase 4 – US 301 Widening and Service Roads

- Construct the widening of US 301 (median and outside) as well as the one way CD roads on the east and west sides. The intersection/signal and access issues which would make widening with service roads difficult have been addressed in Phase 1 to Phase 3.

Public Involvement:

On November 20, 2006 the Study Team's Preferred Alternative was presented to the State Highway Administration. As a result, the study was instructed to hold an Information Workshop which was held on May 9, 2007.

Prior to the SHA Preferred Alternative, SHA corresponded with and held several meetings with agencies and the public. Coordination meetings include the following:

- February 1, 2000 Focus Group – Roles and Responsibilities
- July 11, 2000 Focus Group – Traffic and Preliminary Concepts
- September 19, 2000 Focus Group – Economic Survey and Preliminary Concepts
- November 29, 2000 Informational Workshop – Preliminary Concepts
- January 2001 Bowie Chamber of Commerce Workshop – Preliminary Concepts
- April 2001 Focus Group – Preliminary Concepts
- November 29, 2001 Focus Group Alternates Retained for Detailed Study (ARDS)
- December 19, 2001 Interagency Review – ARDS Concurrence
- January 25, 2002 Interagency Field Review – Preliminary Alternates
- October 24, 2002 Focus Group Meeting – Preliminary Alternates
- November 20, 2002 Location / Design Public Hearing
- May 24, 2004 City Council for the City of Bowie – Preliminary Alternates
- June 16, 2004 Interagency Review – Preliminary Alternates
- August 18, 2004 Interagency Review – Preliminary Alternates
- May 25, 2005 Public Hearing (Saturn of Bowie) – Project Update
- June 30, 2005 Public Hearing (Longleaf HOA) – Update to Board of Directors
- July 20, 2005 Interagency Meeting – Project Update
- July 28, 2005 Public Hearing (Longleaf HOA) – Project Update
- February 15, 2007 Public Involvement Meeting – Purpose and Need
- March 15, 2007 Focus Group Meeting – Project Update
- March 19, 2007 City Council for City of Bowie – Project Update
- March 21, 2007 Interagency Meeting - Public Involvement Process
- March 29, 2007 Public Hearing (Covington HOA) – Project Update
- April 10, 2007 Interagency Meeting – Administrator's selection / Project Update
- April 16, 2007 Council Member Ingrid Turner (Prince George's County Council) – SHA Preferred Alternative
- April 17, 2007 Public Hearing (Longleaf HOA) – Project Update
- April 26, 2007 Full Project Team Meeting – Project Update
- May 3, 2007 Bowie Chamber of Commerce – SHA Preferred Alternative
- May 9, 2007 Informational Workshop
- June 4, 2007 City Council for the City of Bowie – Council makes final decision on SHA Preferred Alternative

Comments from these coordination efforts have been taken into consideration in the planning of the SHA's Preferred Alternative.

Design Elements – Table 1

Design Features	US 301		MD 197		EXCALIBUR ROAD		RELOCATED HARBOUR WAY		RAMPS		CD ROADS		REFERENCE
	Min / Max	Actual	Min / Max	Actual	Min / Max	Actual	Min / Max	Actual	Min / Max	Actual	Min / Max	Actual	
Design Year ADT (ADT values for a particular roadway vary depending on which specific segment is evaluated)	116,570		52,500		17,200		21,900				52,200		MD SHA Travel Forecasting
Design Speed (mph)	60		40		35		20		25 - 40		50		AASHTO Exhibit 10-56; P. 829
Design Vehicle	WB-50		WB-50		WB-50		WB-50		WB-50		WB-50		Input from SHA
Maximum Superelevation	6.0 %		6.0 %		4.0 %		4.0 %		8.0 %		6.0 %		2001 AASHTO; P. 141, 142; Exh. 3-22, 3-23
Maximum Relative Gradient	0.45 Max		0.58 Max		0.58 Max		0.58 Max		0.58 Max		0.50 Max		2001 AASHTO Exh. 3-27
Minimum Curve Radius (feet)	1340	4912	510	2875	510	510	510	875	170 - 465	185	835	4912	2001 AASHTO Exh. 3-14
Normal Cross Slope	2%		2%		2%		2%		2%		2%		2001 AASHTO Exh. 4-4
Normal Superelevation Break	7.0 %		7.0 %		7.0 %		7.0 %		7.0 %		7.0 %		Maryland SHA Policy and 2001 AASHTO
Maximum % Grade	2.67 %		3.01 %		6.0 %		4.95 %		6.0 %		2.67 %		2001 AASHTO
Minimum Vertical Clearance	16' 9"		16' 9"		16' 9"		16' 9"		16' 9"		16' 9"		Policy & Procedure Memo D-75-7(4) and 2001 AASHTO P. 389
Lane Width (feet)	12'		12'		12' to 16'		16'		15'		12'		2001 AASHTO P. 843
Shoulder Width (feet) – Right Left	14 14		10' Curb and Gutter		Curb and Gutter		Curb and Gutter		4' 8'		12' 6'		2001 AASHTO – P. 388, 509, 842 and SHA Bicycle Compatibility Guidelines
Median Width	30'		18'		Varies 4' to 16'		N/A		N/A		N/A		2001 AASHTO
Safety Grading – Desirable Minimum (with W-beam)	18' @ 6:1 6' @ 6:1		18' @ 6:1 6' @ 6:1		6' @ 6:1 6' @ 6:1		6' @ 6:1 6' @ 6:1		6' @ 6:1 6' @ 6:1		18' @ 6:1 6' @ 6:1		AASHTO 2006 Roadside Design Guide, Table 3.1
Side Slopes	2:1 Max		4:1 Max		4:1 Max		2:1 Max		4:1 Max		2:1 Max		AASHTO 2006 Roadside Design Guide (3)
Acceleration/Deceleration Lengths	Accel. 1500 + 300 Taper		N/A		N/A		N/A		See CD Roads		Accel. 1200 + 300 Taper Accel. 600 + 300 Taper		2001 AASHTO P. 851, 852, 855
Horizontal Sight Distance Stopping Sight Distance	Compliance with 2001 AASHTO Design Guidelines												
Vertical Curve K-values – Crest Sag	151 136	265 193	44 64	134 111	44 64	45 65	44 64	46 69	44 64	47 65	84 96	265 193	2001 AASHTO Exh. 3-76 and 3-79

Design Traffic Data:

Table 2: Average Daily Traffic Volumes		
US 301 / MD 197 Sections	2006 Daily Volume	2030 No-Build Daily Volume
US 301 from US 50 to Harbour Way	61,670	115,460
US 301 from Harbour Way to Heritage Boulevard	55,580	104,580
US 301 from Heritage Boulevard to MD 197	54,420	99,430
US 301 from MD 197 to Excalibur Road	65,330	116,570
US 301 south of Excalibur Road	62,220	108,920
MD 197 from US 301 to Mitchellville Road	21,000	47,950
MD 197 west of Mitchellville Road	32,940	56,730

Table 3: LOS Analysis					
Location	Analysis Type	2006 Existing		2030 No-Build	
		AM Peak	PM Peak	AM Peak	PM Peak
Mitchellville Road @ Harbour Way	Signalized Intersection	A	A	A	B
Mitchellville Road @ Heritage Boulevard	All-Way Stop	A	B	B	C
Mitchellville Road @ MD 197	Signalized Intersection	A	A	C	F
US 301 @ Harbour Way / Governor Bridge Road	Signalized Intersection	C	E	F	F
US 301 @ Heritage Boulevard / Ball Park Road	Signalized Intersection	D	F	F	F
US 301 @ MD 197	Signalized Intersection	B	B	F	F
US 301 @ Excalibur Road / Mill Branch Road	Signalized Intersection	D	E	F	F
US 301 @ Mount Oak Road	Stop Controlled	C	C	F	F

Reasons Alternatives were dropped from consideration:

Alternative 1 (No Build)

Alternative 1 (No Build) required minor intersection improvements including resurfacing, re-stripping, signage and light improvements. However, these proposed activities would not provide substantial improvement to congestion levels or safety concerns and therefore did not meet the project's purpose and need.

Alternative 2

Alternative 2 was not recommended for detailed study because there was no access provided to businesses at the Collington Plaza, and there is poor level of service at the ramp from Southbound US 301 to the service road.

Alternative 2 modified

Alternative 2 modified was retained for detailed study, and consideration was revised to a preferred alternative.

Alternative 3

Alternative 3 was not recommended for detailed study because it provided a lower level of local access with approximately the same environmental impacts as Alternatives 5 and 5A.

Alternative 4

Alternative 4 was not recommended for detailed study because it would require an unnecessary amount of right-of-way, and because it has the most environmental impacts.

Alternative 5

Alternative 5 was not recommended for detailed study because of significant environmental impacts including stream length, business displacements and high right-of-way and construction costs.

Alternative 5A

Alternative 5A was retained for detailed study, but dropped from consideration due to high cost, significant environmental impacts, and a large number of business displacement.

Alternative 5B

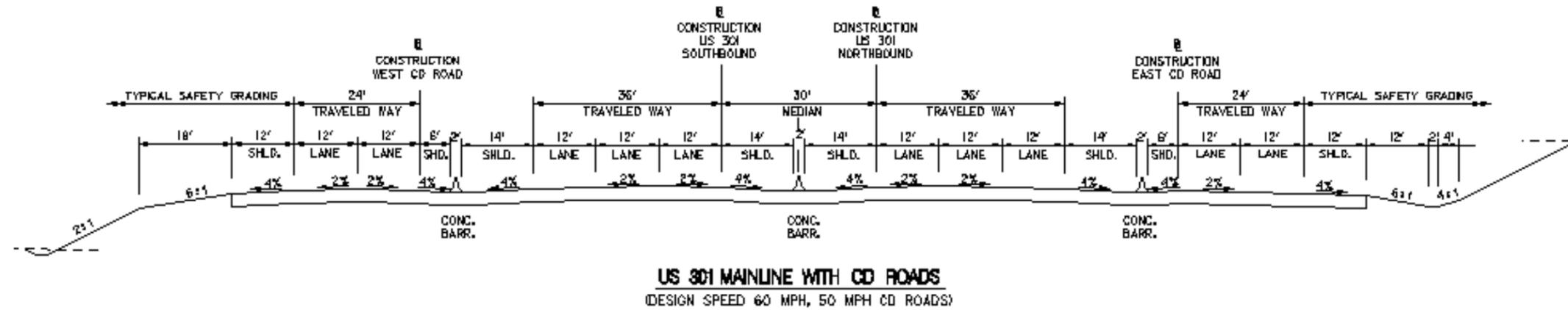
Alternative 5B is similar to 5A but with US 301 going over MD 197, also retained for detailed study, but dropped from consideration due to high cost, significant environmental impacts and a large number of business displacement.

Design Criteria/Guidelines/Typical Sections:

The proposed typical sections and geometric parameters have been developed in accordance with the design speeds and roadway segment functions, and were obtained from the 2001 AASHTO's Geometric Design of Highways and Streets supplemented by applicable SHA policies and directives.

The design criteria used in developing the Selected Alternate is summarized as follows:

US 301 & CD ROADS



US 301 Mainline

Design Speed: 60 mph

Lanes: Six travel lanes (three in each direction) – as shown above

Shoulder Width: 10'-14"

Traffic Barrier: Type – Concrete, Width – 2ft, As shown above

Maximum Super Elevation: 6.0 %

Maximum Grade: 2.67 %

Maximum Degree of Curvature: 1°-10'-00"

Median Width: 30'

Sidewalk: None

CD ROADS

Design Speed: 50 mph

Lanes: Two lanes – as shown above

Shoulder Width: 6' to 12"

Traffic Barrier: Type – Concrete, Width – 2ft

Maximum Super Elevation: 6.0 %

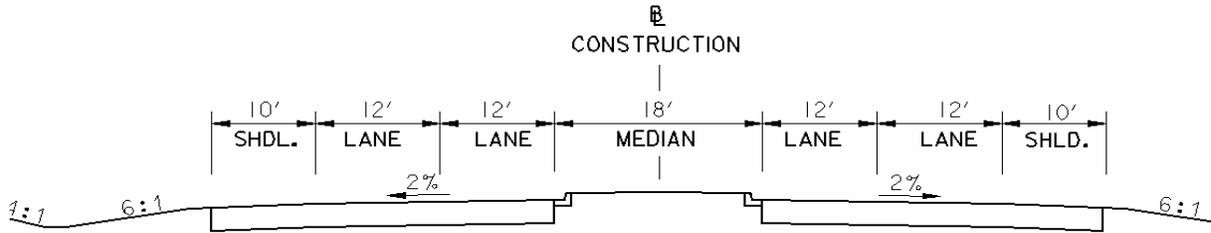
Maximum Grade: 2.67 %

Maximum Degree of Curvature: 1°-10'-00"

Median Width: None

Sidewalk: None

MD 197



Design Speed: 40 mph

Lanes: 4 travel lanes (2 in each direction) – as shown above

Maximum Super Elevation: 6.0%

Maximum Grade: 3.01%

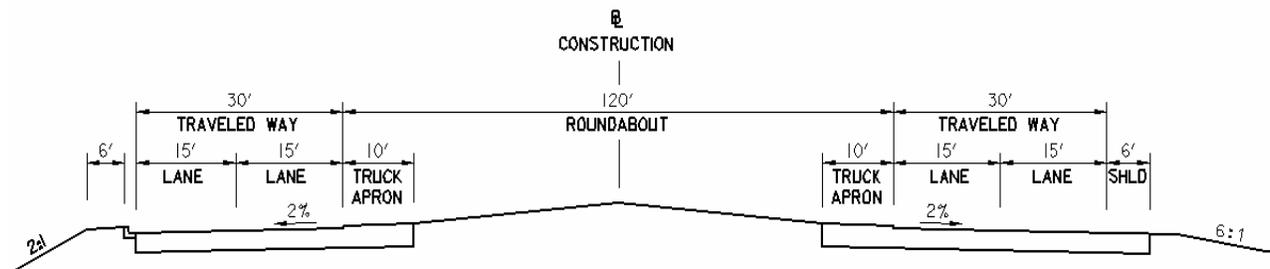
Maximum Degree of Curvature: 2°-00'-00"

Median: 18'

Shoulder Width: 10'

Note: Design speed is lower than existing posted speed. This is due to the roundabouts designs, which would not permit for higher speeds within this section of roadway; this portion of MD 197 will be posted at 35 MPH.

ROUNDABOUTS



Design Speed: 25 mph

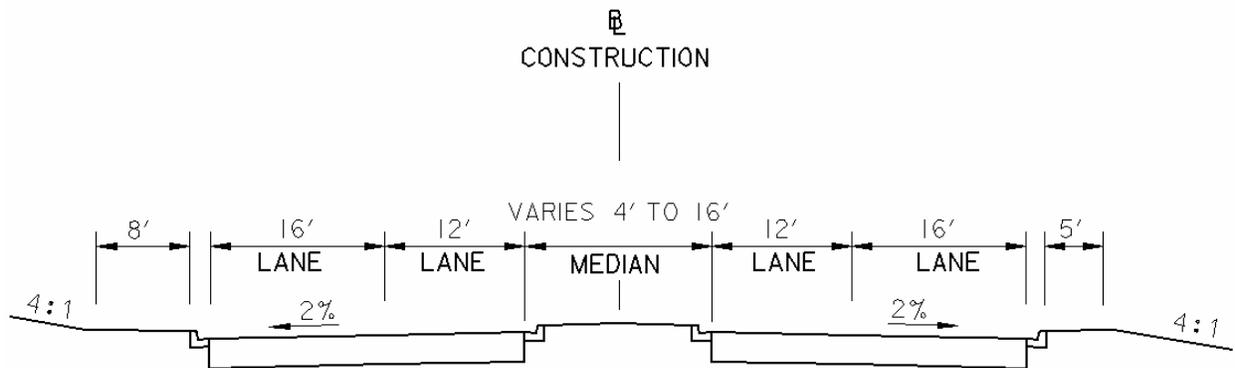
Lanes: 2 lanes – as shown above

Central Island: 120'

Truck Apron: 10'

Inscribed Circle Diameter: 180'

EXCALIBUR ROAD



Design Speed: 35 mph

Lanes: 4 travel lanes (2 in each direction) – as shown above

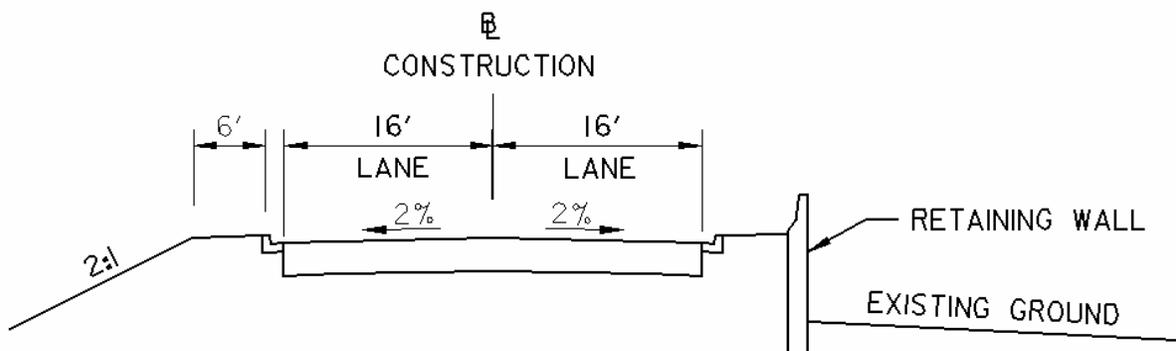
Maximum Super Elevation: 4.0%

Maximum Grade: 6.0%

Maximum Degree of Curvature: 11°-45'-00"

Sidewalk: 5'

RELOCATED HARBOUR WAY



Design Speed: 20 mph

Lanes: 2 lanes

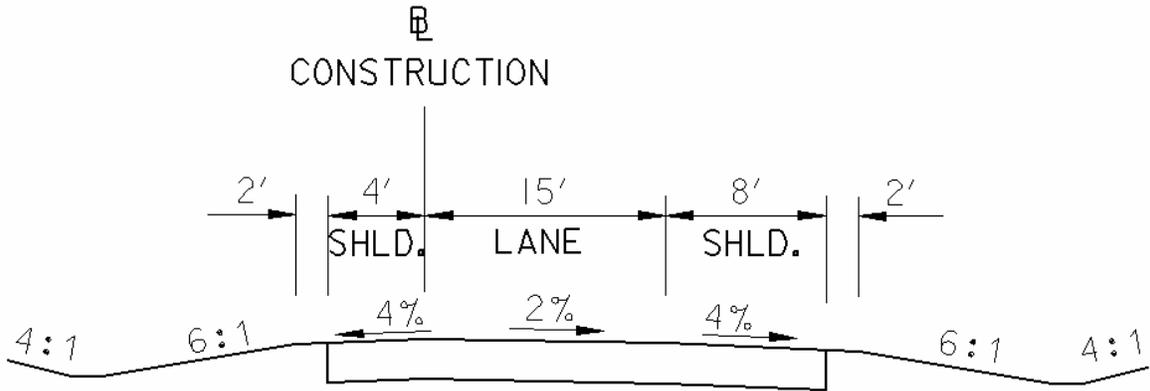
Maximum Super Elevation: 4.0 %

Maximum Grade: 4.95%

Maximum Degree of Curvature: 6°-32'-53"

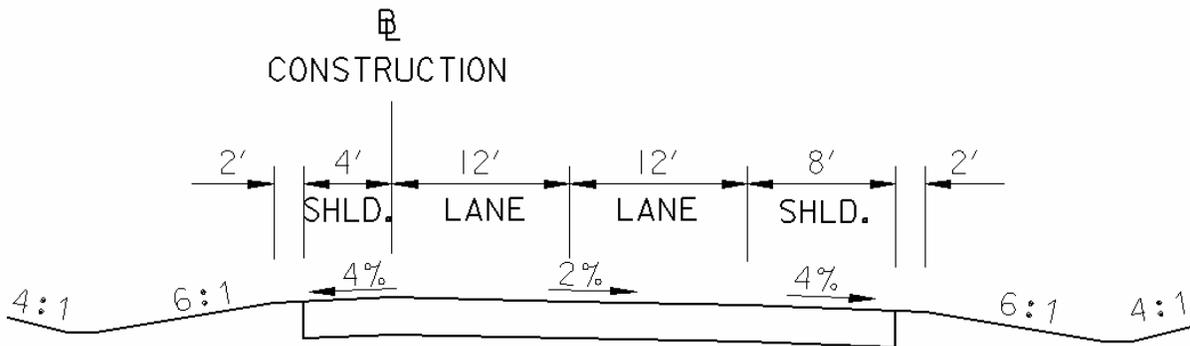
Pedestrian/Bicycle Path: 5'

ONE LANE RAMP



Design Speed: 25-40 mph
Lanes: 1 travel lane – as shown above
Maximum Super Elevation: 6.0%
Maximum Grade: 6.0%
Maximum Degree of Curvature: 11°-15'-00"

TWO LANE RAMP



Design Speed: 25-40 mph
Lanes: 2 travel lane – as shown above
Maximum Super Elevation: 6.0%

Maximum Grade: 6.0%

Maximum Degree of Curvature: 15°-04'-40"

RIGHT-OF-WAY REQUIREMENT

The Preferred Alternative 2 with Roundabouts will impact 52 properties of which only 1 is being displaced. The majority of the impacts are along the East & West CD roads. These properties will require plats for acquisition of fee simple right-of-way, revertible easement for supporting slopes, perpetual easement for drainage facilities and temporary construction easements. Final right-of-way needs will be forwarded to the plats and survey division and plats prepared in accordance with the proposed schedule.

US 301 / MD 197 Transportation Study
From North of Mt. Oak Road to US 50
Prince George's County, Maryland

Design Approval Memorandum
Errata Sheet
October 28, 2008

SHA- Laura Wachs/ Leo Sawada

No.	Section	Page	Comment	Comment Addressed	New Page
1	Typical Sections		<p>Comment from Jane Wagner (add date when comments received for all)</p> <p>Recommends that dimension of mainline typical show 2' median barrier and remaining 14' offsets to the shoulder.</p>	Adjusted typical section to reflect suggested changes	
2	Design Elements Table – Maximum Percent Grade		<p>Comment from Jeffrey Folden</p> <p>Clarify the maximum existing grade for US 301 and CD Roads.</p> <p>Include Kirk McClelland's middle initial where his name appears.</p>	<p>Appropriate grades shown on Elements Design – Table 1</p> <p>Done</p>	
	Design Elements Table – ADT		<p>Comment from Eric Marabello</p> <p>Discrepancy between tables</p>	Corrected ADT to 116,570	
	Design Elements Table – MD 197 K value		<p>Comment from Eric Marabello</p> <p>K value typo</p>	Corrected K value to 111	

	Design Elements Table – Maximum Superelevation		Comment from Eric Marabello Reference should include 2001 AASHTO	Reference added	
	Design Elements Table – Maximum Rate of Transition		Comment from Eric Marabello Refer to Maximum Relative Gradient	Replaced Max Rate of Transition for Superelevation to Max Relative Gradient based on AASHTO Exhibit 3-27	
	Design Elements Table – Maximum % grade		Comment from Eric Marabello Remove the interstate policy	Removed reference to Interstate Policy	
	Design Elements Table – Minimum Vertical Clearance		Comment from Eric Marabello Typo in clearance height	Heights corrected to 16’ 9”	
	Design Elements Table – Shoulder Width		Comment from Eric Marabello AASHTO misspelled	Corrected spelling error	
	Design Elements Table – SSD		Comment from Eric Marabello AASHTO not properly referenced	Changed text to state 2001 AASHTO Design Guidelines	
	Design Elements Table – Roadside Design Guide		Comment from Eric Marabello Referenced an outdated AASHTO Roadside Design Guide	Replaced 2002 with 2006 AASHTO Roadside Design Guide	
3	Work Zone Design Checklist		Comment from Jeffrey Folden Recommends that all issues where there is no documented reason for checking yes/no should be left blank with a note that those items will be revisited after Location/Design Approval.	Work Zone Design Checklist table was re-done to reflect only issues recognized during the project planning coordination; elements left blank will be revised after Location/Design Approval	