DRAFT

AIR QUALITY CONFORMITY ASSESSMENT

VIRGINIA DEPARTMENT OF TRANSPORTATION
AMENDMENTS TO THE 2010 CONSTRAINED LONG RANGE PLAN
FOR THE
WASHINGTON METROPOLITAN REGION

June 15, 2011

NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD
METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS

EXECUTIVE SUMMARY

In February 2011 the Virginia Department of Transportation (VDOT) submitted a request for an amendment to the 2010 Constrained Long Range Plan (CLRP) because the scope of a project, already in the 2010 CLRP, had been modified. This project, I-95/I-395 HOT lanes, is on a fast-track schedule with construction envisioned as early as 2012, which requires an air quality conformity determination by September 2011.

In March 2011 VDOT submitted a request for a second project, a modification to I-66, to be included in the 2010 CLRP Amendment and the 2011 CLRP. This project is also on a fast-track, thus requiring VDOT to be in a position to obligate federal funds prior to September 2011, which also requires an air quality conformity determination by that time. The project inputs included in the networks are as follows:

I-95/I-395

- Removal of HOV to HOT lane conversion from Turkeycock Run (n. of Edsall Rd.) to Eads St.
- Removal of construction of 3rd lane from Turkeycock Run to Eads St. and from VA 234 (Dumfries Rd.) to VA 3000 (Prince William Pkwy.)
- Removal of I-95/I-395 HOT lanes bus improvements, including 4 direct access BRT stations along the facility
- Addition of a reversible ramp from the HOV lanes of I-395 to/from Seminary Rd.

I-66

- Extension of the existing HOV/SOV lanes on I-66 between US 29 in Gainesville and Route 15 in Haymarket to provide 8 lanes including HOV.

This report documents the air quality conformity assessment of the amended 2010 CLRP. The assessment was carried out under the regulations contained in the Environmental Protection Agency's (EPA) final rule (November 24, 1993), with subsequent amendments and additional federal guidance by EPA, the Federal Highway Administration (FHWA), and the Federal Transit Administration (FTA). The process involved interagency consultation with EPA, FHWA, FTA, the Metropolitan Washington Air Quality Committee (MWAQC) and the public. The air quality conformity assessment is the responsibility of the National Capital Region Transportation Planning Board.

The air quality conformity assessment for ozone season volatile organic compounds (VOC) and precursor Nitrogen Oxides (NOx) consisted of a comparison of modeled mobile source emissions estimates to motor vehicle emissions budgets. The emissions budgets of 70.8 tons/day for VOC and 159.8 tons/day for NOx were set by the Metropolitan Washington Air Quality Committee (MWAQC) as part of a 2007 State Implementation Plan (SIP), and found adequate by EPA in September 2009.

The air quality conformity assessment for fine particles pollutants (direct $PM_{2.5}$ and precursor NOx) consisted of a demonstration that mobile emissions estimates for the various years analyzed are less than a 2002 base level. Such "reduction from base year" approach applies because $PM_{2.5}$ budgets submitted to EPA have not yet been found adequate for use in conformity.

The analysis shows that the emissions levels for ozone season VOC and NOx are below budgets for all analysis years (2020, 2030, 2040), and that the $PM_{2.5}$ levels are below the base year 2002 level, thus providing a basis for a determination of conformity of the amended 2010 CLRP.

BACKGROUND

In February 2011 the Virginia Department of Transportation (VDOT) submitted a request for an amendment to the 2010 Constrained Long Range Plan (CLRP) because the scope of a project, already in the 2010 CLRP, had been modified. This project, I-95/I-395 HOT lanes, is on a fast-track schedule with construction envisioned as early as 2012, which requires an air quality conformity determination by September 2011.

In March 2011 VDOT submitted a request for a second project, a modification to I-66, to be included in the 2010 CLRP Amendment and the 2011 CLRP. This project is also on a fast-track, thus requiring VDOT to be in a position to obligate federal funds prior to September 2011, which also requires an air quality conformity determination by that time. VDOT's correspondence is included as Attachment A.

The project inputs included in the networks are as follows:

I-95/I-395

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I-66

- Extension of the existing HOV/SOV lanes on I-66 between US 29 in Gainesville and Route 15 in Haymarket to provide 8 lanes including HOV.

APPROACH

Staff designed a scope of work for the conformity assessment to address all current technical and consultation requirements. These included requirements contained in the air quality conformity regulations: (1) as originally published by the Environmental Protection Agency (EPA) in the November 24, 1993 Federal Register, and (2) as subsequently amended, most recently on March 24, 2010 and (3) as detailed in periodic FHWA / FTA and EPA guidance. These regulations specify both technical criteria and consultation procedures to follow in performing the assessment. The scope is included as Attachment B.

Consistent with the above requirements, the analytical approach involves incorporating the two projects into the highway and transit networks for forecast years 2020, 2030 and 2040. The effort utilizes the same land activity assumptions (Round 8.0 Cooperative Forecasts), travel demand model (Version 2.2), and emissions factor model (EPA MOBILE6.2) as applied in the conformity assessment of the 2010 CLRP, which was approved by TPB on November 17, 2010. TPB's consultation procedures were applied to solicit public comment and interagency consultation on the project.

TECHNICAL METHODS

Network Development

The 2010 CLRP networks were updated in order to include the amended projects. 2020, 2030 and 2040 highway networks were prepared. Transit mode files were updated to reflect the removal of transit service associated with the I-95/I-395 project.

Travel Modeling Process

TPB's Version 2.2 model was run using the updated networks. Exhibit 1 shows the geographical area represented in the analyses. Exhibit 2A tabulates regional travel statistics for work related travel (i.e., Home Based Work (HBW)) and Exhibit 2B summarizes regional travel statistics for all other trip purposes. Exhibit 3 presents the average annual weekday vehicle trips and vehicle miles traveled for all the milestone years of the analysis.

Emissions

Emissions estimates were developed using the same emission factors used for the air quality conformity determination of the 2010 CLRP. Emissions estimates were developed for each of the required pollutants for each milestone year.

Exhibit 4 summarizes ozone season VOC and NOx emissions. Exhibits 5 and 6 show data for these same pollutants in a bar chart format to provide a graphic representation of emissions relative to the budget for that pollutant.

Exhibits 7 and 8 show daily, seasonal, and annual totals for direct $PM_{2.5}$ and precursor NOx, respectively. Exhibits 9 and 10 show a graphical presentation of these emissions relative to the 2002 base.

CONFORMITY ASSESSMENT CRITERIA

Each pollutant is assessed based on varying criteria. Ozone season pollutants must adhere to EPA approved totals from the Metropolitan Washington Air Quality Committee's (MWAQC's) May, 2007 8-hour ozone State Implementation Plan (SIP). On September 4, 2009, EPA found adequate the 2008 Reasonable Further Progress (RFP) Motor Vehicle Emissions Budgets (MVEBs), and stated that the Metropolitan Washington, DC area must use these budgets for

future conformity determinations for the 8-hour ozone standard. The budget for VOC is 70.8 tons/day, and the budget for NOx is 159.8 tons/day.

Criteria and procedures for demonstrating conformity with respect to $PM_{2.5}$ differ from ozone assessments in that there are no approved budgets which can be applied. In this case EPA allows for an assessment that shows emissions in "action" scenarios are no greater than those in a 2002 base. This criterion was established and applied, with the concurrence of MWAQC, in prior $PM_{2.5}$ conformity assessments.

The exhibits show that mobile emissions are well within the mobile budgets for VOC and NOx, and are well below the 2002 base year levels for the PM2.5 pollutants.

COMPARISON TO ORIGINAL 2010 CLRP ANALYSIS

When comparing travel demand results for the amended 2010 CLRP analysis with those of the original 2010 CLRP (November 2010), the following information is shown (supporting data are shown in exhibits 11 and 12):

- VMT decreases due to significant decrease in capacity from removal of 3rd lane and change in trip lengths due to shorter trips
- Arlington, Alexandria, Fairfax, and Prince William show a decrease in VMT on freeway links, while showing a small increase in VMT on other facilities, suggesting some diversion of traffic from freeway to arterials in those jurisdictions
- Vehicle trips increase due to shift of trips from I95/I395 corridor to less HOV friendly corridors (HOV trips became LOV trips)
- Transit trips decrease slightly due to decrease in transit service and changes to trip distribution
- Due to the reduced accessibility to Arlington, Alexandria, and downtown Washington, many of the longer trips from Prince William County and Stafford have been diverted / shortened and now end in Prince William, Stafford, and Fairfax (as opposed to DC Core).

FINDINGS

The analytical results described in this air quality assessment provide a basis for a determination by the TPB of conformity of the 2010 CLRP as amended to include the three projects described above.

EXHIBIT 1
Washington, D.C.- Maryland - Virginia
Planning Areas

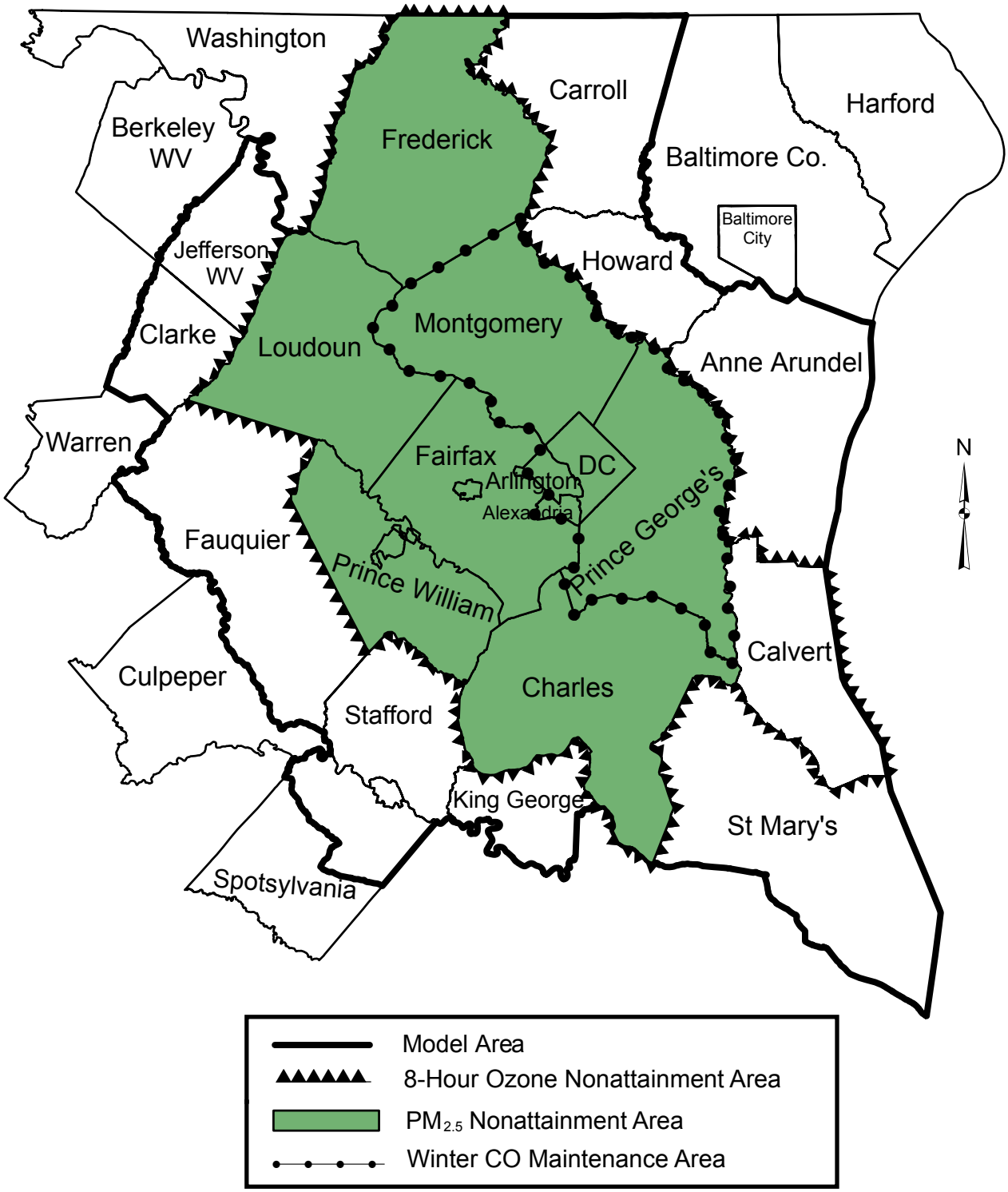


EXHIBIT 2A

2010 CLRP AIR QUALITY CONFORMITY
VDOT AMENDMENTS
DAILY REGIONAL HOME BASED WORK PURPOSE MODE ANALYSIS BY YEAR
(Based on Mode Choice Output- 6th Iteration)

YEAR	HBW MOTORIZED PERSON	TOTAL HBW AUTO PSN	HBW LOV AUTO DRV	HBW HOV AUTO DRV	TOTAL HBW AUTO DRV	HBW CAROCC	HBW TRANSIT	HBW TRANSIT (%)
2002	4,199,210	3,609,023	3,194,248	23,010	3,217,258	1.120	590,187	14.1%
2011	4,756,097	4,145,724	3,655,238	28,992	3,684,230	1.130	610,373	12.8%
2020	5,294,370	4,557,618	3,978,631	42,279	4,020,910	1.130	736,752	13.9%
2030	5,784,405	4,981,167	4,345,206	48,346	4,393,551	1.130	803,239	13.9%
2040	6,186,898	5,324,555	4,644,317	52,938	4,697,255	1.130	862,343	13.9%

EXHIBIT 2B

2010 CLRP AIR QUALITY CONFORMITY
VDOT AMENDMENTS
DAILY REGIONAL ANALYSIS BY YEAR FOR ALL TRIP PURPOSES
(Based on Mode Choice Output- 6th Iteration)

YEAR	TOTAL MOTORIZED PERSON	TOTAL AUTO PSN	LOV AUTO DRV	HOV AUTO DRV	TOTAL AUTO DRV	TOTAL CAROCC	TOTAL TRANSIT	TRANSIT (%)
2002	22,893,277	21,837,557	17,181,148	23,010	17,204,158	1.270	1,055,720	4.6%
2011	25,838,152	24,741,472	19,561,937	28,992	19,590,929	1.260	1,096,680	4.2%
2020	28,587,056	27,214,384	21,539,912	42,279	21,582,191	1.260	1,372,672	4.8%
2030	31,212,502	29,703,986	23,553,521	48,346	23,601,867	1.260	1,508,515	4.8%
2040	33,283,039	31,677,250	25,178,929	52,938	25,231,867	1.260	1,615,789	4.9%

*Note: Starting in 2020, all HOV facilities are HOV3+

EXHIBIT 3

2010 CLRP AIR QUALITY CONFORMITY
VDOT AMENDMENTS
MODELED AREA TRIPS AND VEHICLE MILES TRAVELED (000's)
AVERAGE WEEKDAY TRAFFIC (AWDT)
(Based on Final Iteration)

YEAR	WORK AND NON-WORK AUTO DRV	TRUCKS (Med + Hvy)	MISC + THRU TRIPS	COMMERCIAL VEHICLES	TOTAL VEH. TRIPS	TOTAL VMT
2002	17,204,769	471,602	725,872	1,133,484	19,535,727	145,504,947
2011	19,591,441	538,791	823,940	1,282,625	22,236,797	160,327,029
2020	21,582,943	610,980	940,972	1,440,223	24,575,118	177,530,270
2030	23,602,350	678,399	1,050,262	1,575,609	26,906,620	190,421,575
2040	25,232,500	734,733	1,137,913	1,688,699	28,793,845	199,463,681

Adjustment Factors to Convert AAWDT to Appropriate Season:

Ozone Season AWDT: 1.05

Winter Season AWDT: 0.97

$PM_{2.5}$ Annual:

Season (ADT)	Factor
Season 1 (Jan- Apr)	0.9216
Season 2 (May- Sept)	0.9873
Season 3 (Oct- Dec)	0.9282

NOTE: AWDT reflects a five day average
ADT reflects a seven day average

AIR QUALITY CONFORMITY

Summary Table - 8-Hour Ozone Nonattainment Area

Mobile Source Emissions Inventories

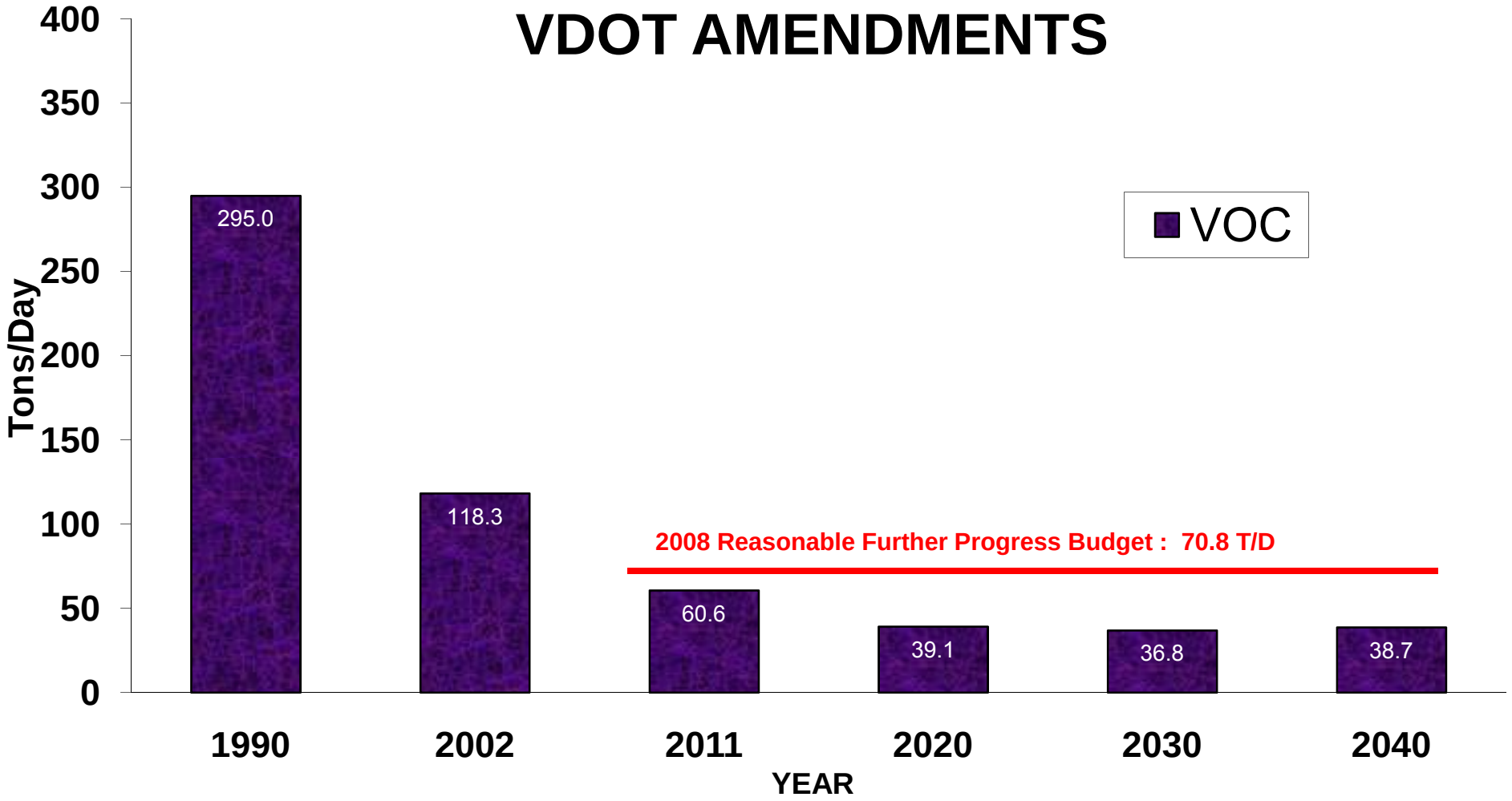
for 2010 CLRP

VDOT Amendments

(Tons/Day)

	2002		2011		2020		2030		2040	
	VOC	NOx	VOC	NOx	VOC	NOx	VOC	NOx	VOC	NOx
I Network										
Start 24.9930		12.6910	10.4080	6.0550	6.6920	2.8130	6.3760	2.2310	6.537	2.279
Running 57.1530		222.5620	27.0680	100.8910	19.0960	36.3310	19.4170	26.6150	20.474	26.621
Soak 11.3330		---	9.0040	---	5.2910	---	4.4160	---	4.601	---
II Off-Network										
Diurnal	2.3600	---	1.5246	---	0.8819	---	0.6385	---	0.69514	---
Resting Loss	11.9300	---	7.5710	---	3.6598	---	2.5344	---	2.80516	---
Local Roads	8.7490	10.3830	3.9790	5.2580	2.7710	2.2470	2.7820	1.9230	2.893	1.975
School Buses	0.4200	5.9700	0.3277	4.0010	0.2152	1.6817	0.1675	0.4888	0.163	0.2663
Transit Buses	0.3800	6.5115	0.1886	3.7308	0.1300	1.0310	0.1305	0.3645	0.1305	0.2753
Auto Access	1.2900	1.4900	0.6695	0.7906	0.4901	0.4231	0.4776	0.3860	0.5108	0.4122
Total	118.6080	259.6075	60.7403	120.7264	39.2270	44.5268	36.9394	32.0083	38.8096	31.8288
TCMs	-0.36	-0.078	-0.18	-0.41	-0.13	-0.28	-0.13	-0.27	-0.13	-0.27
Net Emissions	118.25	259.53	60.57	120.32	39.10	44.25	36.81	31.74	38.68	31.56
Mobile Emissions Budgets:			70.80	159.80	70.80	159.80	70.80	159.80	70.80	159.80
Budget Adherence Margin: 10.23				39.48	31.70	115.55	33.99	128.06	32.12	128.24

EXHIBIT 5
Mobile Source VOC Emissions
for the 8-Hour Ozone Nonattainment Area
2010 CLRP
VDOT AMENDMENTS



Values include TCMs, but not TERMs

EXHIBIT 6
Mobile Source NOx Emissions
for the 8-Hour Ozone Nonattainment Area
2010 CLRP
VDOT AMENDMENTS

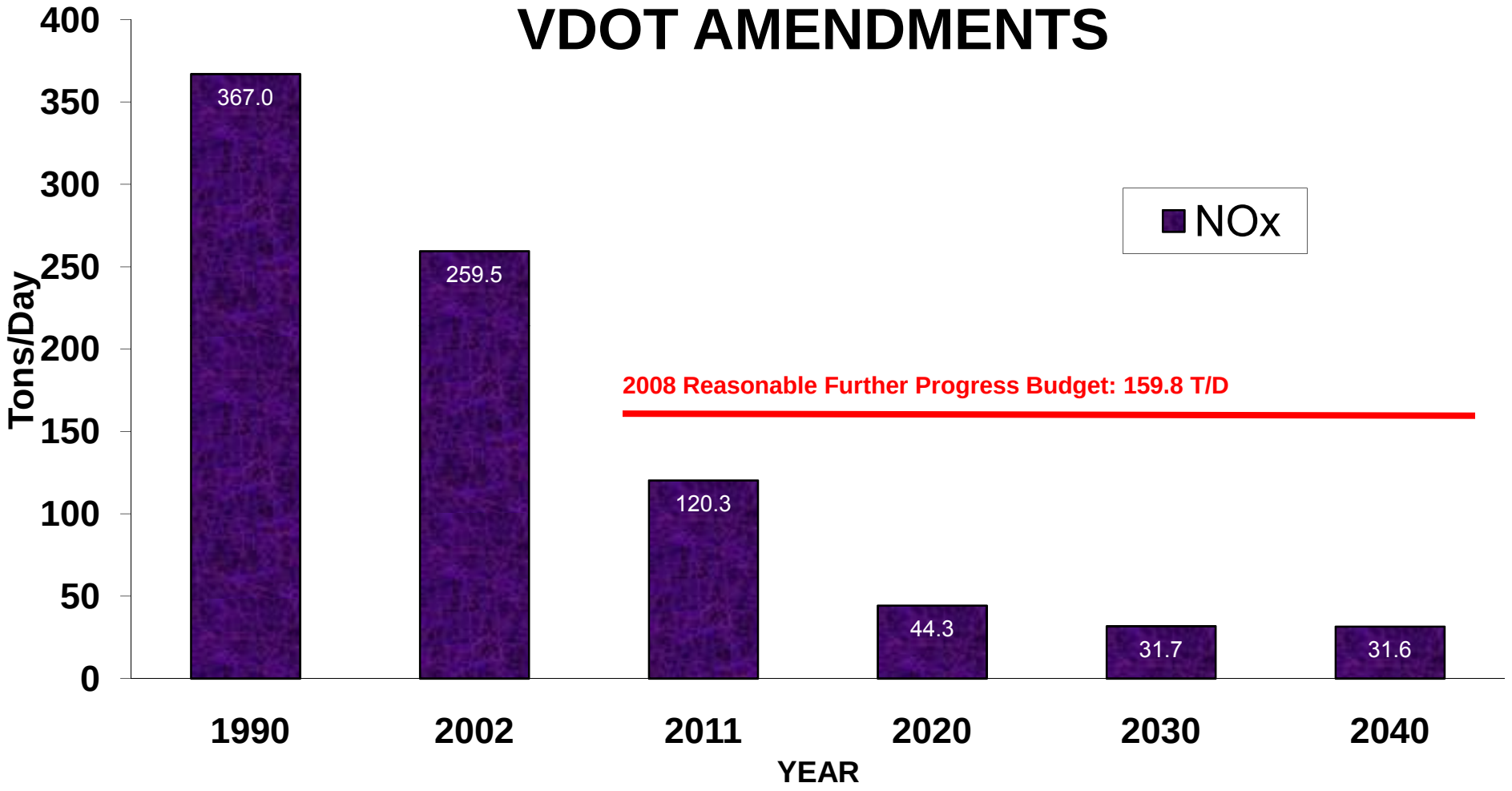


EXHIBIT 7
AIR QUALITY CONFORMITY SUMMARY TABLE
Direct $PM_{2.5}$ Emissions
Mobile Source Emissions Inventories
for 2010 CLRP
VDOT AMENDMENTS
(Tons)

			Direct $PM_{2.5}$									
			2002		2011		2020		2030		2040	
		Days	Daily	seasonal	Daily	seasonal	Daily	seasonal	Daily	seasonal	Daily	seasonal
SEASON 1 (JAN-APR)	Major Roads	120	4.09	490.56	2.31	277.56	1.68	201.72	1.69	203.16	1.74	208.56
	Local Roads	120	0.19	23.28	0.13	15.96	0.13	15.36	0.13	15.96	0.14	16.80
	School Buses	76	0.33	25.08	0.23	17.25	0.03	2.17	0.02	1.30	0.01	1.02
	Transit Buses	120	0.25	30.00	0.08	9.08	0.01	1.58	0.01	1.18	0.01	1.10
	Auto Access	83	0.01	0.83	0.01	0.84	0.01	1.04	0.01	1.16	0.01	1.24
	Total (Daily)		4.87		2.76		1.86		1.87			
	TOTAL			569.75		320.69		221.87		222.75		228.73

			Direct $PM_{2.5}$									
			2002		2011		2020		2030		2040	
		Days	Daily	seasonal	Daily	seasonal	Daily	seasonal	Daily	seasonal	Daily	seasonal
SEASON 2 (MAY-SEP)	Major Roads	153	4.05	619.80	2.42	369.65	1.79	273.41	1.81	276.93	1.87	286.7
	Local Roads	153	0.19	28.61	0.14	21.73	0.13	20.50	0.14	21.88	0.15	23.1
	School Buses	83	0.32	26.56	0.21	17.28	0.03	2.25	0.02	1.39	0.01	1.12
	Transit Buses	153	0.25	38.25	0.07	10.85	0.01	1.96	0.01	1.48	0.01	1.40
	Auto Access	107	0.01	1.07	0.01	1.16	0.01	1.44	0.01	1.60	0.02	1.72
	Total (Daily)		4.82		2.85		1.97		1.99		2.06	
	TOTAL			714.29		420.66		299.56		303.28		314.06

			Direct $PM_{2.5}$									
			2002		2011		2020		2030		2040	
		Days	Daily	seasonal	Daily	seasonal	Daily	seasonal	Daily	seasonal	Daily	seasonal
SEASON 3 (OCT-DEC)	Major Roads	92	3.87	355.67	2.18	200.19	1.67	153.55	1.68	154.65	1.76	162.10
	Local Roads	92	0.19	17.30	0.13	11.96	0.13	11.78	0.13	12.33	0.14	12.88
	School Buses	55	0.27	14.85	0.17	9.09	0.03	1.49	0.01	0.74	0.01	0.74
	Transit Buses	92	0.22	20.24	0.06	5.87	0.01	1.16	0.01	0.84	0.01	0.84
	Auto Access	61	0.01	0.61	0.01	0.62	0.01	0.77	0.01	0.86	0.02	0.92
	Total (Daily)		4.55		2.55		1.85		1.85		1.94	
	TOTAL			408.67		227.74		168.74		169.42		177.49

ANNUAL TOTAL			**1,692.71**		**969.09**		**690.17**		**695.45**		**720.27**

Mobile Emissions Budgets:	1105.4
Budget Adherence Margin:	136.31

EXHIBIT 8
AIR QUALITY CONFORMITY SUMMARY TABLE
$PM_{2.5}$ Precursor Emissions: NOx
Mobile Source Emissions Inventories
for 2010 CLRP
VDOT AMENDMENTS
(Tons)

SEASON 1 (JAN-APR)

		Precursor NOx									
		2002		2011		2020		2030		2040	
	Days	Daily	seasonal	Daily	seasonal	Daily	seasonal	Daily	seasonal	Daily	seasonal
Major Roads-Starts	120	20.99	2518.80	9.30	1115.88	4.11	493.56	3.15	377.52	3.18	381.96
Major Roads-VMT	120	252.32	30,278.28	106.26	12751.32	37.45	4494.24	27.26	3270.72	27.30	3276.00
Local Roads	120	12.89	1547.16	5.71	685.20	2.26	271.56	1.87	224.40	1.93	231.12
School Buses	76	4.86	369.36	3.51	266.96	1.48	112.33	0.41	31.24	0.21	16.31
Transit Buses	120	6.04	724.80	3.67	440.49	1.00	120.04	0.34	40.95	0.25	30.36
Auto Access	83	2.09	173.47	0.64	53.11	0.31	25.53	0.27	22.63	0.39	32.11
Total (Daily)		299.19		129.09		46.61		33.30			
SEASON 1 TOTAL			35,612.87		5,517.27				3,967.47		3,967.87

SEASON 2 (MAY-SEP)

		Precursor NOx									
		2002		2011		2020		2030		2040	
	Days	Daily	seasonal	Daily	seasonal	Daily	seasonal	Daily	seasonal	Daily	seasonal
Major Roads-Starts	153	13.83	2115.84	6.62	1013.47	3.02	462.21	2.36	361.08	2.39	366.13
Major Roads-VMT	153	217.60	33293.11	93.69	14334.11	33.47	5120.76	24.32	3720.96	24.57	3758.90
Local Roads	153	10.20	1560.60	4.69	716.96	1.97	300.65	1.66	253.83	1.71	261.78
School Buses	83	4.81	399.23	3.22	267.62	1.36	112.49	0.39	32.70	0.21	17.81
Transit Buses	153	5.99	916.47	3.43	524.78	0.95	145.01	0.34	51.27	0.25	38.71
Auto Access	107	1.48	158.36	0.48	51.50	0.25	26.39	0.22	24.05	0.32	34.20
Total (Daily)		253.91		112.13		41.00		29.29			
SEASON 2 TOTAL			38,403.80		6,167.49				4,443.88		4,477.54

SEASON 3 (OCT-DEC)

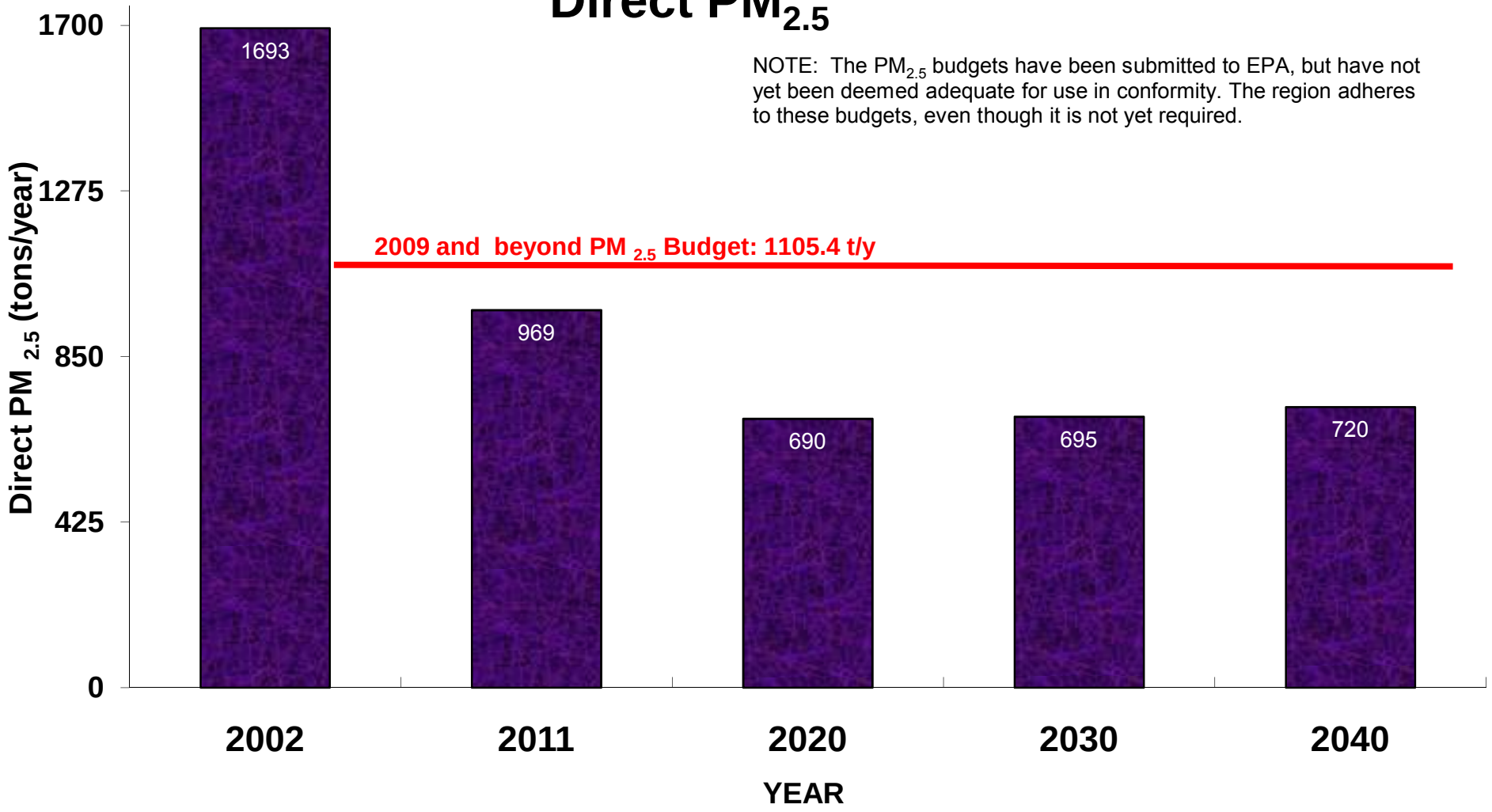
		Precursor NOx									
		2002		2011		2020		2030		2040	
	Days	Daily	seasonal	Daily	seasonal	Daily	seasonal	Daily	seasonal	Daily	seasonal
Major Roads-Starts	92	19.48	1792.34	8.37	770.13	3.75	345.00	2.97	273.24	3.01	277.01
Major Roads-VMT	92	237.27	21828.38	89.88	8268.68	34.25	3150.82	25.96	2388.32	26.78	2464.04
Local Roads	92	12.21	1123.32	4.80	441.88	2.08	190.99	1.78	164.04	1.86	170.66
School Buses	55	4.77	262.35	3.37	185.15	1.30	71.60	0.31	17.04	0.21	11.80
Transit Buses	92	5.78	531.76	3.21	295.34	0.84	77.42	0.29	26.98	0.25	23.28
Auto Access	61	1.99	121.39	0.54	33.14	0.28	17.30	0.26	15.91	0.37	22.66
Total (Daily)		281.50		110.17		42.50		31.58			
SEASON 3 TOTAL			25,983.54				3,853.13		2,885.53		2,969.45

ANNUAL TOTAL			**99,715.02**		**42,215.72**		**15,537.88**		**11,296.87**		**11,414.86**

Mobile Emissions Budget: 51,359.90

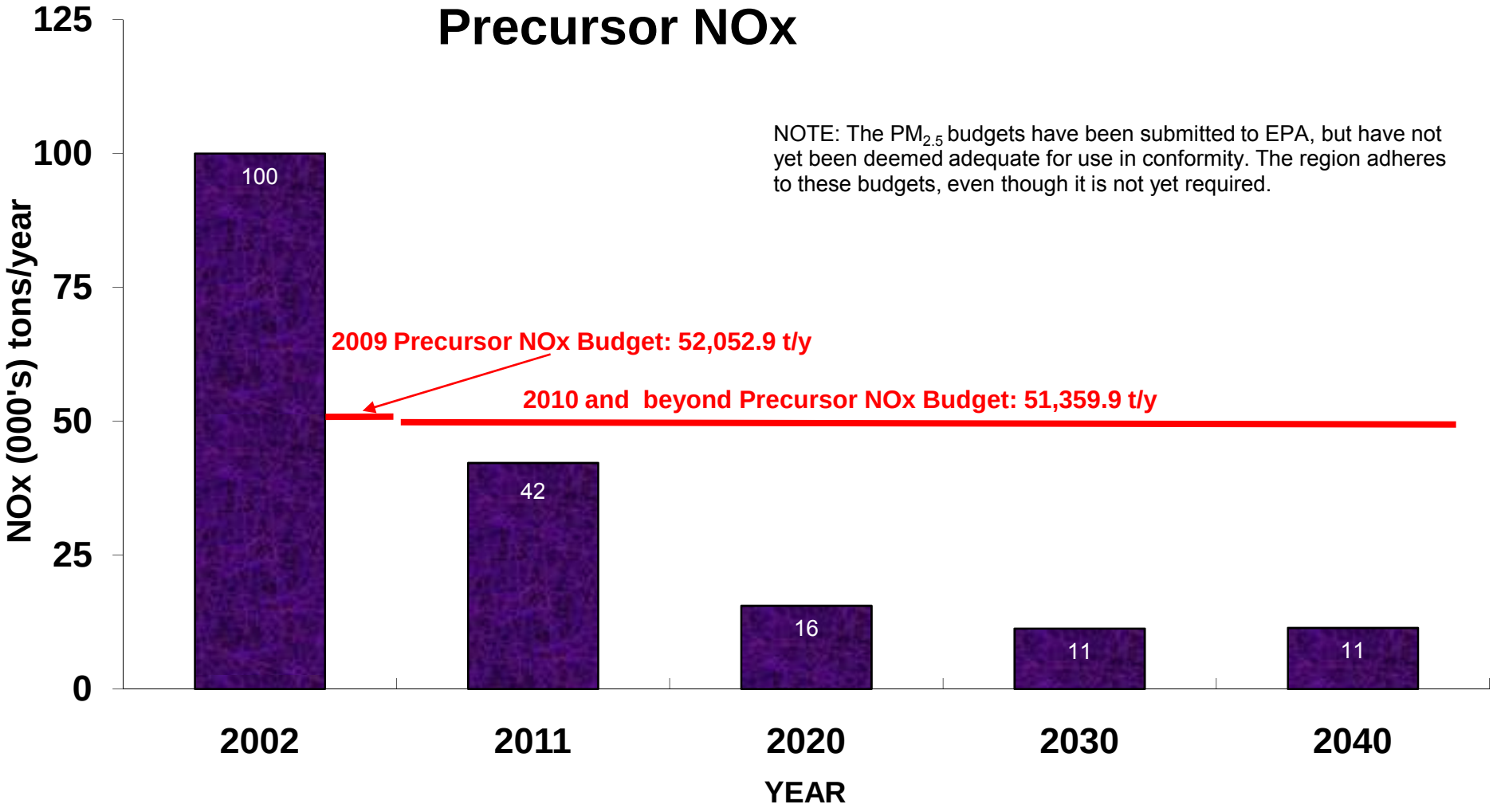
Budget Adherence Margin: 9,144.18

EXHIBIT 9
Mobile Source Emissions
2010 CLRP
VDOT AMENDMENTS
Direct $PM_{2.5}$



NOTE: The $PM_{2.5}$ budgets have been submitted to EPA, but have not yet been deemed adequate for use in conformity. The region adheres to these budgets, even though it is not yet required.

EXHIBIT 10
Mobile Source Emissions
2010 CLRP
VDOT AMENDMENTS
Precursor NOx



NOTE: The $PM_{2.5}$ budgets have been submitted to EPA, but have not yet been deemed adequate for use in conformity. The region adheres to these budgets, even though it is not yet required.

EXHIBIT 11

2010 CLRP ORIGINAL vs. 2010 CLRP VA AMENDMENTS

YEAR	VMT				VHD			
	original	amendment	diff	pct. diff.	original	amendment	diff	pct. diff.
2020	177,817,000	177,530,000	-287,000	-0.2%	4,215,000	4,257,000	42,000	1.0%
2030	190,672,000	190,422,000	-250,000	-0.1%	5,088,000	5,113,000	25,000	0.5%
2040	199,814,000	199,464,000	-350,000	-0.2%	5,960,000	5,974,000	14,000	0.2%

YEAR	Total Vehicle Trips				Transit Trips			
	original	amendment	diff.	pct. diff.	original	amendment	diff.	pct. diff.
2020	24,560,000	24,574,000	14,000	0.1%	1,378,000	1,373,000	-5,000	-0.4%
2030	26,887,000	26,906,000	19,000	0.1%	1,517,000	1,509,000	-8,000	-0.5%
2040	28,777,000	28,793,000	16,000	0.1%	1,625,000	1,616,000	-9,000	-0.6%

EXHIBIT 12

2010 CLRP ORIGINAL vs. 2010 CLRP AMENDMENTS
2040 Vehicle Miles Traveled (VMT)
(I-95/I-395 Corridor)

Jurisdiction	2040 Freeway VMT				2040 Non-Freeway VMT			
	original	amend.	diff	% diff	original	amend.	diff	% diff
Arlington County	2,555,000	2,388,000	-167,000	-7.0%	2,397,000	2,431,000	34,000	1.4%
City of Alexandria	1,168,500	1,067,000	-101,500	-9.5%	1,517,500	1,539,000	21,500	1.4%
Fairfax County	15,000,500	14,918,500	-82,000	-0.5%	17,477,000	17,482,000	5,000	0.0%
Prince William County	4,007,000	3,970,000	-37,000	-0.9%	8,633,000	8,651,000	18,000	0.2%
Stafford County	2,937,000	2,899,500	-37,500	-1.3%	2,793,500	2,799,500	6,000	0.2%

ATTACHMENT A

COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
4975 Alliance Drive
Fairfax, VA 22030

GREGORY A. WHIRLEY
COMMISSIONER

February 2, 2011

The Honorable Muriel Browser, Chairman
National Capital Region Transportation Planning Board
Metropolitan Washington Council of Governments
777 North Capitol Street, N.E., Suite 300
Washington, DC 20002-4201

RE: National Capital Region 2010 CLRP Amendment

Dear Chairman Browser:

The Virginia Department of Transportation's (VDOT) Northern Virginia District Office requests the National Capital Region Transportation Planning Board (TPB) to amend the 2010 Constrained Long Range Plan (CLRP) and the air quality conformity analyses to reflect the following changes proposed by VDOT:

- Remove the I-95/395 HOV//HOT lanes project and all its components in its entirety from the 2010 CLRP and the air quality conformity analyses;
- Add a HOV/HOT lanes project on I-95 between I-495 and Garrisonville Road/Route. 610 in Stafford County as described in the attached CLRP form; and,
- Add a new reversible one lane ramp from the HOV lanes of I-395 to and from Seminary Road.

The I-95/395 HOV/HOT lanes project as reflected in the current 2010 CLRP and air quality conformity analyses is currently under litigation and the specifics of its resolution and the time needed for this remains uncertain. The Commonwealth believes that addressing the congestion, mobility, and accessibility needs in the I-95 corridor is critical for the area's quality of life and economy and for attracting and keeping businesses in Virginia which is home to major Virginia employment centers and military sites. Additionally the impact of the litigation on the project has already been significant and the continued uncertainty has undermined the financial ability to deliver this project.

The new HOV/HOT lanes project can move forward quickly to address critical transportation needs. The project will create approximately 29 miles of HOV/HOT lanes on I-95 connecting it with the HOV/HOT lanes on the Capital Beltway to better connect HOV/Transit travelers to Virginia-based destinations such as Tysons Corner, Fort Belvoir, and Quantico. The project also includes:

- Constructing two new reversible HOV/HOT lanes for nine miles from Route 610/Garrisonville in Stafford County to Route 234 in Dumfries to where the existing HOV lanes begin;

- Widening the existing HOV lanes from two lanes to three lanes for 12 miles from the Prince William Parkway to the Springfield Interchange;

- Improvements to the existing two HOV lanes for six miles from Route 234 to the Prince William Parkway and for two miles from the Springfield Interchange to Edsall Road. Adding new or improved access points in the areas of Garrisonville Road, Joplin Road, Prince William Parkway, Fairfax County Parkway, Franconia-Springfield Parkway and the Springfield Interchange;

- Employing active traffic management for the first time to provide reliable and predictable travel times and improved incident response and enforcement along this network of HOV/HOT lanes.

Additionally the Commonwealth remains committed to Park and Ride lots, and transit improvements in this corridor. VDOT will work with local jurisdictions to address specific needs, whether that is expanded bus service or Park and Ride lots, and develop this element in the coming months.

The new ramp from the HOV lanes of I-395 and Seminary Road is a critically needed improvement to address the significant traffic demand expected to be realized due to the location of BRAC related Department of Defense (DoD) offices at Marc Center. The development site, while located in the City of Alexandria, has a significant impact on Fairfax and Arlington Counties and impacts Virginia residents as far south as Spotsylvania County and beyond. VDOT has been working closely with the DoD and the jurisdictions and started work on an operational analysis of the proposed ramp. A draft Interchange Modification Report will be underway later this year. Environmental reviews are expected to begin in 2011. This project has been identified by the Secretary of Defense as the top road project that would most benefit DoD installations in the Commonwealth. The Commonwealth remains committed to doing everything it can to help realize this project at the earliest. The Marc Center site is scheduled to become operational in late 2011.

The Commonwealth is poised to move forward quickly on this project and deliver congestion relief and new choices. VDOT will be initiating the environmental review process for the project. In order to complete the project development work and secure all needed federal and Commonwealth

approval so as to be able to begin construction as early as 2012, the MPO's CLRP amendment and revisions to regional air quality conformity analyses has to be complete by September of this year. As such, VDOT requests the MPO to initiate an amendment to the 2010 CLRP. VDOT has also proposed the above two changes as part of its input for the 2011 CLRP that the MPO is working towards but on a later schedule.

The proposed change has been determined to be regionally significant for air quality conformity purposes as per the TPB's process of applying federal air quality conformity regulations in conducting regional air quality conformity analyses for the Plan and TIP. As such VDOT recognizes that the requested Plan/TIP amendment will warrant revisions to the currently federally approved regional air quality conformity analyses. VDOT requests the MPO to initiate a public comment period on this proposed amendment at its February 10, 2011 Citizen's Advisory Committee meeting and to subsequently act on the amendment request at its March 16, 2011 Board meeting. VDOT agrees to reimburse the MPO for the costs incurred in processing this Plan/TIP amendment including those for revising the regional air quality conformity analyses under VDOT's Technical Assistance portion of the approved FY 2011 UPWP.

Thank you for your consideration of and action on this request. Should you have any questions on this request, please call me at 703-259-12737.

Sincerely,

Garrett W. Moore

Garrett W. Moore, P.E.
District Administrator
Northern Virginia District

FINANCIALLY CONSTRAINED LONG-RANGE TRANSPORTATION PLAN FOR 2030
PROJECT DESCRIPTION FORM

BASIC PROJECT INFORMATION **(February 2011)**

1. Agency Project ID: VDOT
2. Secondary Agency:
3. Agency Project ID:
4. Project Type: ✓ Freeway; _ Primary; _ Secondary; ✓ Urban; _ Bridge; _ Bike/Ped; _ Transit; _ CMAQ; _ ITS; _ Enhancement; _ Other _ Federal Lands Highway Program _ Human Service Transportation Coordination _ TERMs
5. Category: ✓ System Expansion; _ System Maintenance; _ Operational Program; _ Study; _ Other
6. Project Title: I-95 HOV/HOT Lanes Project
7. Facility: I-95
8. From (_ at): Approximately 2 miles north of I-495 Capital Beltway, Fairfax County
9. To: Route 610 (Garrisonville Road), Stafford County

The following are the proposed new or modified access points:

No.	Route	Connection Location:	Morning connections:	Evening connections:	Type of Modification:
1	I - 395	Between VA 648 (Edsall Road) and Turkeycock Run	NB HOV/HOT Lanes to NB general purpose lanes	N/A	New
2	I - 95	VA 7100 (Fairfax County Parkway)	NB HOV/HOT Lanes to Fairfax County Parkway (Alban Rd.)	Fairfax County Parkway (Alban Rd.) to SB HOV/HOT Lanes	New
3	I - 95	Between VA 7100 (Fairfax County Pkwy) and VA 638 (Pohick Road)	N/A	SB HOV/HOT Lanes to SB general purpose lanes	Deleted (to accommodate No. 2 above)
4	I - 95	Between VA 642 (Lorton Road) and Rt 1	N/A	SB GP to SB HOV/HOT Lanes	New
5	I - 95	Between VA 123 (Gordon Road) and VA 3000 (Prince William County Parkway)	NB HOV/HOT Lanes to NB general purpose lanes	N/A	New
6	I - 95	Between Optiz and Dale Blvd	N/A	SB GP to SB HOV/HOT Lanes	New
7	I - 95	Between US 234 (Dumfries Road) and VA 619 (Joplin Road)	N/A	SB HOV/HOT Lanes to SB general purpose lanes	Expanded – replace slip ramp with flyover
8	I - 95	Between VA 619 (Joplin Road) and VA 610 (Garrisonville Road)	NB general purpose lanes to NB HOV/HOT lanes	SB HOV/HOT Lanes to SB general purpose lanes	New

10. Description:

The Commonwealth's I 95 HOV/HOT Lanes Project ("Project") entails expanding and extending the existing reversible High Occupancy Vehicle ("HOV") lanes from approximately 2 miles north of I-495 (Capital Beltway) to Route 17/Route 1 exit (Massaponax), south of Fredericksburg. The Project is divided into two sections – Northern and Southern.

The Northern Section expands the current HOV lanes between approximately 2 miles north of Capital Beltway (near Turkeycock Run) and Prince William Parkway from two to three lanes, maintaining the existing two lanes from Prince William Parkway to south of the Town of Dumfries , extending new HOV Lanes about 9 miles by building two lanes up to Garrisonville Road (VA 610) in Stafford County, with new entry/exit points into and out of the HOV lanes, and converting the HOV lanes and ramps between Springfield Interchange and Garrisonville Road to include High Occupancy Toll ("HOT") traffic. New entry/exit points into and out of the HOV/HOT lanes, as listed in Item 6 of the access point table, will be added along the corridor. All existing entry/exit points between 2 miles north of I-495 (including Turkeycock Run SB HOV ramp) and south of the Town of Dumfries will be converted to HOV/HOT unless modified as identified in Item 9.

The Southern Section will extend the two HOV/HOT lanes to Route 17/Route 1 Massaponax exit in Spotsylvania County, with new entry/exit points into and out of the HOV/HOT lanes. The Southern Section update will be coordinated with the Fredericksburg area MPO (FAMPO) for inclusion in the air quality conformity analyses of its 2035 CLRP.

The region's CLRP and air quality conformity analyses have assumed adding a third HOV lane on I-395 and part of I-95 since 1994. That project was assumed to be accomplished by re-striping the existing pavement with no other modifications to access, egress, without any enhancements to transit services and or any new/improved incident management services. That project was assumed to be complete by 2010.

This Project provides a funding mechanism for expanding the HOV/HOT Lanes network by connecting to the I-495 HOV/HOT Lanes Project, which is currently under construction and to be completed by the end of 2012, to the I-95 corridor. The Project adds capacity to the current HOV facility and upgrades access/egress locations, improves current bottlenecks and provides a dedicated, performance based, computer aided incident management system.

A private consortium led by Fluor Enterprises, Inc. and Transurban (USA) Inc. (together "FTU") has been selected to construct this and operate the entire facility as a system of High Occupancy Toll Lanes. In October 2006, VDOT and FTU signed an Interim Agreement to commence development activities on the Project.

The Project also proposes to address traffic operational issues noted with the existing HOV system. During peak pm periods, traffic traveling in a southbound ("SB") direction in the current HOV system is often congested at the point where the HOV lanes terminate and merge into the general purpose ("GP") lanes at Dumfries. This Project proposes to relieve the current congestion problem by both expanding the current merge point, and providing for the extension of HOV/HOT lanes south of the current merge to Route 610 (Garrisonville Road) in Stafford County. Under the proposed design, vehicles exiting at Route 234 would be merged into the GP lanes north of the exit. The remaining two HOV/HOT lanes would extend south of Quantico Creek. At a point south of Quantico Creek, a single-lane fly-over will be provided from the SB HOV/HOT lanes to the SB GP lanes. This fly-over would service vehicles exiting to Route 619 (Joplin Road) and Russell Road. The fly-over lane would merge into a newly constructed GP auxiliary lane running between the ramp and Route 619. The remaining HOV/HOT lanes would continue south with a flyover into the SB GP lanes just north of Route 610 (Garrisonville Road).

Access to the HOV/HOT lanes would be available to automobiles, motorcycles, light-trucks, buses and transit vehicles only. Vehicles with three or more occupants would travel on the HOV/HOT lanes for free, as per the code of the Commonwealth of Virginia and Federal law. The facility will be operated and HOV occupancy and toll payment enforced in a manner that complies with the statutory requirements of the Commonwealth. Buses, transit vehicles, and emergency response vehicles would also travel on the HOV/HOT lanes for free. Other vehicles not meeting the occupancy requirement would pay a toll, using electronic toll collection equipment, at a rate that would vary by time of day, day of week and level of congestion, to ensure the level of free-flow conditions as specified by Federal SAFE-TEA-LU regulations at a minimum.

Once the I-95 HOV lanes have been converted into HOV/HOT lanes, traffic operations will be monitored and managed such that they will continue to be classified as "fixed guideway miles" for purposes of the transit funding formulas, in accordance with FTA's final policy statement on when HOT lanes shall be classified as fixed guideway miles, published in the January 11, 2007 Federal Register (Vol. 72, pages 1366-1372) ("FTA Policy"). The current FTA Policy references the performance standards and monitoring methods it will use in determining eligibility of HOT lanes to be classified as fixed guideway miles. The proposed project will implement plans to meet these standards and follow the prescribed methodology so as to preserve the facility's current eligibility in accordance with the current FTA policy. The standards and monitoring requirements will be included in the Comprehensive Agreement between VDOT and FTU. In the event that the implementation of the project fails to comply with the FTA's 2/11/07 Federal Register applicable requirements for considering HOT lanes as fixed guideway and results in loss of associated FTA revenue, the Project will reimburse the current designated recipients for this lost revenue.

Tolling Policy

HOT lanes use dynamic pricing to maintain free-flowing conditions for all users, even during rush hour. The toll rates will vary throughout the day with time of day and with day of week corresponding to demand and congestion levels. Toll prices will be adjusted in response to the level of traffic to ensure free flowing operations. There will be no price caps on the level of tolls.

SAFETEA-LU mandates strict performance standards which are intended to ensure free-flowing conditions on the HOV/HOT lanes. The proposed HOV/HOT lanes project will include performance monitoring as an integral part of the project and ensure that the SAFETEA-LU mandated performance standards are complied with as a minimum. These requirements will be included in the Comprehensive Agreement between VDOT and FTU.

Dynamic message signs will provide drivers with current toll rates so they can choose whether or not to use the lanes. Toll collection on the HOV/HOT lanes will be totally electronic. There will be no toll booths. The dynamic message signs will be supplemented by other notification/communications methods to insure all users, including transit operators, have as much advance knowledge of traffic conditions as is possible.

Incident Management

Engineering design of the Project will focus on the safety aspects of the facility including cross section layout (lane width and shoulders), operations and incident management. The design and operational features of the project will be integrated with and supported by a performance based, computer aided incident management system. The incident management system will provide 24/7 monitoring and surveillance of the facility and have dedicated motorists assistance equipment and personnel. This system will allow for a rapid detection of incidents that occur within the facility. As transit will be a significant component of the traffic, specific response procedures plans will be in place for dealing with transit specific incidents. The Incident Management Plan developed for the project will be shared with the CTB and NVTA for their review.

Schedule
Construction for the Project is projected to begin in 2012, with an estimated construction completion time of three years. The facility is expected to enter operations in early 2015. The current schedule calls for environmental review in compliance with Federal (NEPA) and state regulations. FHWA has further conditioned environmental approval to the Project being included in a conforming Transportation Improvement Program ("TIP") and Constrained Long Range Plan ("CLRP") for construction.

Federal Environmental Review ("NEPA") Process
The environmental review is currently being conducted in full accordance and compliance with Federal and state law. The NEPA guidelines require the Project to be part of a conforming CLRP prior to receiving environmental clearance. One NEPA document will be prepared for the project from I-495 to Massaponax. It is anticipated that the NEPA document will be an Environmental Assessment.

Transportation Management Plan
As a matter of policy, practice and a reflection the agency's commitment to safety, VDOT adopts Transportation Management Plans for its construction projects. The congestion mitigation plan used for the Springfield Interchange project has been widely acclaimed as successful. VDOT and FTU will similarly have a robust Transportation Management Plan for the Project. The Transportation Management Plan developed for the project will be shared with the CTB, TPB and NVTA for their review.

Recognizing that the construction of this project could overlap with the construction of other significant projects, such as the Beltway HOV/HOT lanes and Dulles Corridor Rail, VDOT/VDRPT will coordinate the implementation of all of these congestion management plans under a Regional Transportation Management Plan.

Coordination with Other Projects in the Corridor

The project team is working with the Army, the Marines, and their respective teams of consultants to coordinate the transportation project needs related to the BRAC actions with the Project. The proposed elements of this Project reflect the latest discussions with the Army relative to their planned transportation-related activities at the Engineering Proving Ground in Fairfax County, the Mark Center in the City of Alexandria, and at Russell Road near the Quantico Reservation. Close coordination with the BRAC consultants will continue as they further develop their road improvement plans, and reasonable transportation needs related to this Project are not precluded.

Financial Plan
The total cost for the proposed Project is estimated to be $ 1.01 billion (in year of expenditure dollars, PE-$ 70 million, ROW-$ 10 million, CN-$ 680, and Other Costs-$250 million). This estimate includes the cost of constructing the third HOV/HOT lane, all additional entry/exit connections, and the nine mile extension at the southern terminus. Funding sources for the Project includes a combination of private and public equity and third party debt, including private bank loans and/or Private Activity Bonds, with the potential for TIFIA funding as a form of subordinated debt. As the Project progresses, FTU will explore all avenues of funding to ensure the lowest cost of capital for the Project. The Project will require public funds for the construction component.

FTU will be fully authorized to toll the facility, which will serve to pay debt service, operating and maintenance costs and return on equity. Toll revenue will be the main source of revenue. The Commonwealth will enter into a Comprehensive Agreement with FTU, which will authorize FTU to raise the necessary funds to construct the Project.

Stakeholder Outreach
VDOT and FTU will continue to put a great deal of effort into communicating with local stakeholders. The stakeholder outreach program provides the opportunity for direct

engagement with various groups along the corridor, including all the local political leadership, transit service providers, various other special interest groups, and business and community leaders. There are also opportunities for the public to learn more about the Project, as well as provide comments, both through the CLRP process and the NEPA process.

11. Projected Completion Year: 2015
12. Project Manager: – John Lynch, VDOT
13. Project Manager E-Mail: John.Lynch@VDOT.Virginia.gov
14. Project Information URL: http://www.vamegaprojects.com/about-megaprojects/i95395-hot-lanes/#overview
15. Total Miles: 27
16. Schematic:
17. Documentation:
18. Bicycle or Pedestrian Accommodations: _Not Included; ✓Included;_Primarily a Bike/Ped Project _ N/A
Design work for the proposed Project, in accordance with VDOT's Policy for Integrating Bicycle and Pedestrian Accommodations, will be initiated with the presumption that the Project shall accommodate the bicycle and pedestrians needs, as appropriate.
19. Jurisdiction(s): Fairfax County, Prince William County, Town of Dumfries, Stafford County
20. Total cost (in Thousands): $ 1.01 billion (PE-$ 70 million, ROW-$ 10 million, Construction-$ 680 million, Other-$ 250 million)
21. Remaining cost (in Thousands):
22. Funding Sources: ✓ Federal; ✓ State; _ Local; ✓ Private; ✓ Bonds; ✓ Other

SAFETEA-LU PLANNING FACTORS

23. Please identify any and all planning factors that are addressed by this project:

✓ Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.

✓ Increase the safety of the transportation system for all motorized and non-motorized users.

a. Is this project being proposed specifically to address a safety issue? _ Yes; ✓ No

b. Please identify issues: _ High accident location; _ Pedestrian safety; _ Other
_ Truck or freight safety; _ Engineer-identified problem

c. Briefly describe (in quantifiable terms, where possible) the nature of the safety problem:

✓ Increase the ability of the transportation system to support homeland security and to safeguard the personal security of all motorized and non-motorized users.

✓ Increase accessibility and mobility of people and freight.

✓ Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.

✓ Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.

✓ Promote efficient system management and operation.

_ Emphasize the preservation of the existing transportation system.

ENVIRONMENTAL MITIGATION

24. Have any potential mitigation activities been identified for this project? _ Yes; ✓No (Currently being investigated)

a. If yes, what types of mitigation activities have been identified?

_ Air Quality; _ Floodplains; _ Socioeconomics; _ Geology, Soils and Groundwater; Vibrations;

_ Energy; _ Noise; _ Surface Water; _ Hazardous and Contaminated Materials; _ Wetlands

CONGESTION MANAGEMENT INFORMATION

25. Do traffic congestion conditions necessitate the proposed project? ✓ Yes; _ No
    a. If so, is the congestion recurring or non-recurring? ✓ Recurring congestion; _ Non-recurring
    b. If the congestion is on another facility, please identify it:
    c. What is the measured or estimate Level of Service on this facility? __ Measured; __ Estimated
26. Is this a capacity-increasing project on a limited access highway or other arterial highway of a functional class higher than minor arterial? ✓ Yes; __ No
    a. If yes, does this project require a Congestion Management Documentation form under the given criteria (see *Call for Projects* document)? ✓ Yes; _ No
    b. If not, please identify the criteria that exempt the project here:
       _ The number of lane-miles added to the highway system by the project totals less than 1 lane-mile
       _ The project is an intersection reconstruction or other traffic engineering improvement, including replacement of an at-grade intersection with an interchange
       _ The project will not allow motor vehicles, such as a bicycle or pedestrian facility
       _ The project consists of preliminary studies or engineering only, and is not funded for construction
       _ The project received NEPA approval on or before April 6, 1992
       _ The project was already under construction on or before September 30, 1997, or construction funds were already committed in the FY98-03 TIP.
       _ The construction costs for the project are less than $5 million.

INTELLIGENT TRANSPORTATION SYSTEMS

28. Is this an Intelligent Transportation Systems (ITS) project as defined in federal law and regulation, and therefore subject to Federal Rule 940 Requirements? ✓ Yes; _ No
    Although the I 95 HOV/HOT Lane project itself is not an ITS project, the project will include various ITS elements as part its operations and toll collection. All ITS components of the project will comply with the applicable requirements of rule 940. Should the Commonwealth be nominated as an Urban Partner under the FHWA's Urban Partnership program, ITS components of this project will be part of the Commonwealth's effort under the Urban Partnership program.
29. If yes, what is the status of the systems engineering analysis compliant with Federal Rule 940 for the project? _ Not Started; ✓ Ongoing, not complete; _ Complete N/A
    The operations concept for the HOV/HOT lanes (HOT-OC), including the Traffic Management and Tolling systems, have been described in a draft Concept of Operations, along with a System Interface Specification that details interaction between NRO ATMS and HOT-OC. As part of the ongoing project development activities, coordination of the HOT-OC with the VDOT Northern Region Architecture and COG/TPB Regional architecture will be addressed.
30. Under which Architecture: N/A
    _ DC, Maryland or Virginia State Architecture
    _ WMATA Architecture
    ✓ COG/TPB Regional ITS Architecture
    ✓ Other, please specify: VDOT Northern Region Architecture
31. Other Comments

FINANCIALLY CONSTRAINED LONG-RANGE TRANSPORTATION PLAN FOR 2030
PROJECT DESCRIPTION FORM

BASIC PROJECT INFORMATION

1. Submitting Agency: VDOT
2. Secondary Agency:
3. Agency Project ID: UPC 96261
4. Project Type: X Interstate _ Primary _ Secondary _ Urban _ Bridge _ Bike/Ped _ Transit _ CMAQ _ ITS _ Enhancement _ Other _ Federal Lands Highways Program _ Human Service Transportation Coordination _ TERMs
5. Category: X_ System Expansion; _ System Maintenance; _ Operational Program; _ Study; _ Other

6. Project Name: I 395 / Seminary Road New reversible lane ramp

	Prefix	Route	Name	Modifier
7. Facility:	I	395	Shirley Memorial Highway	
8. From (_ at):			High Occupancy Vehicle Lanes	
9. To:	VA	420	Seminary	

10. Description: Constructs new single lane, reversible HOV ramp on I-395 HOV lanes to the third level of the Seminary Road interchange. The project adds ramp capacity to accommodate HOV and transit for the additional 6,400 employees of the Department of Defense - Washington Headquarters Services locating to Mark Center as part of the 2005 Base Realignment and Closure. An operational study is underway and a draft Interchange Modification Report will begin later this year. Environmental Reviews are expected to be underway in 2011. Project funding will be included in VDOT's FY 12-17 Six Year Improvement Program scheduled to be adopted by the Commonwealth Transportation Board in June 2011.

11. Projected Completion Date: 2015
12. Project Manager: Tom Fahrney
13. Project Manager E-Mail: Tom.Fahrney@VDOT.Virginia.Gov
14. Project Information URL: UPC 96261
15. Total Miles: 0.4 miles
16. Schematic: Yes - Attached
17. Documentation: None at this time.
18. Bicycle or Pedestrian Accommodations: X_ Not Included; _ Included; _ Primarily a Bike/Ped Project; _ N/A
19. Jurisdictions: City of Alexandria
20. Total cost (in Thousands): $80,000
21. Remaining cost (in Thousands): $76,998
22. Funding Sources: X_ Federal; X_ State; _ Local; _ Private; _ Bonds; _ Other

SAFETEA-LU PLANNING FACTORS

23. Please identify any and all planning factors that are addressed by this project:

X Support the **economic vitality** of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.

X Increase the **safety** of the transportation system for all motorized and non-motorized users.

a. Is this project being proposed specifically to address a safety issue? _ Yes; X No

b. If yes, briefly describe (in quantifiable terms, where possible) the nature of the safety problem:

X Increase the ability of the transportation system to support **homeland security** and to safeguard the personal security of all motorized and non-motorized users.

X Increase **accessibility and mobility** of people and freight.

X Protect and enhance the **environment**, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.

_ Enhance the **integration and connectivity** of the transportation system, across and between modes, for people and freight.

X Promote efficient system **management and operation**.

_ Emphasize the **preservation** of the existing transportation system.

ENVIRONMENTAL MITIGATION

24. Have any potential mitigation activities been identified for this project? _ Yes; X No

a. If yes, what types of mitigation activities have been identified?

_ Air Quality; _ Floodplains; _ Socioeconomics; _ Geology, Soils and Groundwater; Vibrations;

_ Energy; _ Noise; _ Surface Water; _ Hazardous and Contaminated Materials; _ Wetlands

CONGESTION MANAGEMENT INFORMATION

25. Do traffic congestion conditions necessitate the proposed project? X Yes; _ No

a. If so, is the congestion recurring or non-recurring? X Recurring; _ Non-recurring

b. If the congestion is on another facility, please identify it: Existing I-395/Seminary Road NB off-ramp and SB on ramp

c. What is the measured or estimated Level of Service on this facility? Measured; "F" Estimated

26. Is this a capacity-increasing project on a limited access highway or other arterial highway of a functional class higher than minor arterial? X Yes; _ No

a. If yes, does this project require a Congestion Management Documentation form under the given criteria (see *Call for Projects* document)? _ Yes; X No

b. If not, please identify the criteria that exempt the project here:

X The number of lane-miles added to the highway system by the project totals less than 1 lane-mile

X The project is an intersection reconstruction or other traffic engineering improvement, including replacement of an at-grade intersection with an interchange

_ The project, such as a transit, bicycle or pedestrian facility, will not allow private single-occupant motor vehicles.

_ The project consists of preliminary studies or engineering only, and is not funded for construction

_ The project will not use federal funds in any phase of development or construction (100% state, local and/or private funding).

_ The construction costs for the project are less than $10 million.

INTELLIGENT TRANSPORTATION SYSTEMS

27. Is this an Intelligent Transportation Systems (ITS) project as defined in federal law and regulation, and therefore subject to Federal Rule 940 Requirements? _ Yes; X No
28. If yes, what is the status of the systems engineering analysis compliant with Federal Rule 940 for the project? _ Not Started; _ Ongoing, not complete; _ Complete
29. Under which Architecture:

    _ DC, Maryland or Virginia State Architecture

    _ WMATA Architecture

    _ COG/TPB Regional ITS Architecture

    _ Other, please specify:

COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
4975 Alliance Drive
Fairfax, VA 22030

GREGORY A. WHIRLEY
COMMISSIONER

March 4, 2011

National Capital Region: 2010 CLRP Amendment

The Honorable Muriel Bowser
Chairman, National Capital Region
Transportation Planning Board
Metropolitan Washington Council of Governments
777 North Capitol Street, N.E.; Suite 300
Washington, DC 20002-4201

Dear Chairman Bowser:

I am writing to inform you, on behalf of Prince William County, and VDOT's Northern Virginia District Office, that we plan to request the Board to add another project to the proposed amendment to the 2010 CLRP and its air quality conformity analyses. We ask that this proposed addition be made before the Board acts on the proposed amendment at its March 16, 2011 meeting. You will recall that the Board released VDOT's request to amend the 2010 CLRP and its air quality conformity analyses for a 30-day public comment period on February 10, 2011. That amendment included changes to the I 95/395 HOV/HOT lanes project and the new HOV lanes ramp at Seminary Road. We plan to request the TPB to add to that amendment the proposed extension of I 66 between US 29 in Gainesville and Rte. 15 in Haymarket. The extension will include both the high occupancy vehicle (HOV) and single occupancy vehicle (SOV) lanes . The I 66 HOV/SOV lane extension project has previously been proposed to be included in the 2011 CLRP and its air quality conformity analyses. The proposed 2011 CLRP project list, including the I 66 HOV/SOV lanes extension project, was also released for a 30-day public comment period on February 10, 2011.

The purpose of our request to include this project in the air quality conformity analyses of not just the 2011 CLRP but also in the analyses for the amended 2010 CLRP is for VDOT to be in the position to obligate anticipated federal funds for all the phases of this project prior to the end of federal fiscal year in September. The TPB's schedule for adopting the 2011 CLRP is November of this year which would be after the end of federal fiscal year 2011. Being able to obligate the funds before the end of federal fiscal year 2011 is critical to securing the construction funds for this project and being able to start construction of this project at the earliest opportunity.

This project is a top priority for Prince William County and one of the priority projects for Northern Virginia. I 66 is one of the most heavily traveled corridors in Northern Virginia and supports a significant socio-economic system. Over the past several years, VDOT has made a series of major improvements on I-66 in the Manassas /Gainesville area: completing construction of University Boulevard, a 1.3-mile, four-lane road connecting Route 29 and Wellington Road; adding HOV/SOV lanes on I-66 to eight lanes for 3.8 miles from Route 234 Business/Sudley Road to the Route 234 Bypass and extending these new HOV/SOV lanes on I 66 another 3.3 miles between Route 234 Bypass to Route 29 at Gainesville. This proposed improvement in addition to the I 66/ Rte. 29/Linton Hall Road Interchange in Gainesville which will start construction this spring, are the last projects to complete the I 66 corridor improvements.

Representatives of Prince William County and I plan to attend the Board meeting. Thank you for your advance consideration of our proposal.

Sincerely,

Garrett W. Moore

Garrett W. Moore, P.E.
District Administrator
Northern Virginia District

3. I-395/I-95 HOV and HOT Lanes Project Limit Changes

PROJECT INFORMATION

1. Agency Project ID: VDOT
2. Secondary Agency:
3. Agency Project ID:
4. Project Type: ✓ Freeway; _ Primary; _ Secondary; ✓ Urban; _ Bridge; _ Bike/Ped; _ Transit; _ CMAQ; _ ITS; _ Enhancement; _ Other _ Federal Lands Highway Program _ Human Service Transportation Coordination _ TERMs
5. Category: ✓ System Expansion; _ System Maintenance; _ Operational Program; _ Study; _ Other
6. Project Title: I-95 HOV/HOT Lanes Project
7. Facility: I-95
8. From (_ at): Approximately 2 miles north of I-495 Capital Beltway, Fairfax County
9. To: Route 610 (Garrisonville Road), Stafford County

The following are the proposed new or modified access points:

No.	Route	Connection Location:	Morning connections:	Evening connections:	Type of Modification:
1	I - 395	Between VA 648 (Edsall Road) and Turkeycock Run	NB HOV/HOT Lanes to NB general purpose lanes	N/A	New
2	I - 95	VA 7100 (Fairfax County Parkway)	NB HOV/HOT Lanes to Fairfax County Parkway (Alban Rd.)	Fairfax County Parkway (Alban Rd.) to SB HOV/HOT Lanes	New
3	I - 95	Between VA 7100 (Fairfax County Pkwy) and VA 638 (Pohick Road)	N/A	SB HOV/HOT Lanes to SB general purpose lanes	Deleted (to accommodate No. 2 above)
4	I - 95	Between VA 642 (Lorton Road) and Rt 1	N/A	SB GP to SB HOV/HOT Lanes	New
5	I - 95	Between VA 123 (Gordon Road) and VA 3000 (Prince William County Parkway)	NB HOV/HOT Lanes to NB general purpose lanes	N/A	New
6	I - 95	Between Optiz and Dale Blvd	N/A	SB GP to SB HOV/HOT Lanes	New
7	I - 95	Between US 234 (Dumfries Road) and VA 619 (Joplin Road)	N/A	SB HOV/HOT Lanes to SB general purpose lanes	Expanded – replace slip ramp with flyover
8	I - 95	Between VA 619 (Joplin Road) and VA 610 (Garrisonville Road)	NB general purpose lanes to NB HOV/HOT lanes	SB HOV/HOT Lanes to SB general purpose lanes	New

10. Description:

The Commonwealth's I 95 HOV/HOT Lanes Project ("Project") entails expanding and extending the existing reversible High Occupancy Vehicle ("HOV") lanes from approximately 2 miles north of I-495 (Capital Beltway) to Route 17/Route 1 exit (Massaponax), south of Fredericksburg. The Project is divided into two sections – Northern and Southern.

The Northern Section expands the current HOV lanes between approximately 2 miles north of Capital Beltway (near Turkeycock Run) and Prince William Parkway from two to three lanes, maintaining the existing two lanes from Prince William Parkway to south of the Town of Dumfries , extending new HOV Lanes about 9 miles by building two lanes up to Garrisonville Road (VA 610) in Stafford County, with new entry/exit points into and out of the HOV lanes, and converting the HOV lanes and ramps between Springfield Interchange and Garrisonville Road to include High Occupancy Toll ("HOT") traffic. New entry/exit points into and out of the HOV/HOT lanes, as listed in Item 6 of the access point table, will be added along the corridor. All existing entry/exit points between 2 miles north of I-495 (including Turkeycock Run SB HOV ramp) and south of the Town of Dumfries will be converted to HOV/HOT unless modified as identified in Item 9.

The Southern Section will extend the two HOV/HOT lanes to Route 17/Route 1 Massaponax exit in Spotsylvania County, with new entry/exit points into and out of the HOV/HOT lanes. The Southern Section update will be coordinated with the Fredericksburg area MPO (FAMPO) for inclusion in the air quality conformity analyses of its 2035 CLRP.

The region's CLRP and air quality conformity analyses have assumed adding a third HOV lane on I-395 and part of I-95 since 1994. That project was assumed to be accomplished by re-striping the existing pavement with no other modifications to access, egress, without any enhancements to transit services and or any new/improved incident management services. That project was assumed to be complete by 2010.

This Project provides a funding mechanism for expanding the HOV/HOT Lanes network by connecting to the I-495 HOV/HOT Lanes Project, which is currently under construction and to be completed by the end of 2012, to the I-95 corridor. The Project adds capacity to the current HOV facility and upgrades access/egress locations, improves current bottlenecks and provides a dedicated, performance based, computer aided incident management system.

A private consortium led by Fluor Enterprises, Inc. and Transurban (USA) Inc. (together "FTU") has been selected to construct this and operate the entire facility as a system of High Occupancy Toll Lanes. In October 2006, VDOT and FTU signed an Interim Agreement to commence development activities on the Project.

The Project also proposes to address traffic operational issues noted with the existing HOV system. During peak pm periods, traffic traveling in a southbound ("SB") direction in the current HOV system is often congested at the point where the HOV lanes terminate and merge into the general purpose ("GP") lanes at Dumfries. This Project proposes to relieve the current congestion problem by both expanding the current merge point, and providing for the extension of HOV/HOT lanes south of the current merge to Route 610 (Garrisonville Road) in Stafford County. Under the proposed design, vehicles exiting at Route 234 would be merged into the GP lanes north of the exit. The remaining two HOV/HOT lanes would extend south of Quantico Creek. At a point south of Quantico Creek, a single-lane fly-over will be provided from the SB HOV/HOT lanes to the SB GP lanes. This fly-over would service vehicles exiting to Route 619 (Joplin Road) and Russell Road. The fly-over lane would merge into a newly constructed GP auxiliary lane running between the ramp and Route 619.

The remaining HOV/HOT lanes would continue south with a flyover into the SB GP lanes just north of Route 610 (Garrisonville Road).

Access to the HOV/HOT lanes would be available to automobiles, motorcycles, light-trucks, buses and transit vehicles only. Vehicles with three or more occupants would travel on the HOV/HOT lanes for free, as per the code of the Commonwealth of Virginia and Federal law. The facility will be operated and HOV occupancy and toll payment enforced in a manner that complies with the statutory requirements of the Commonwealth**.** Buses, transit vehicles, and emergency response vehicles would also travel on the HOV/HOT lanes for free. Other vehicles not meeting the occupancy requirement would pay a toll, using electronic toll collection equipment, at a rate that would vary by time of day, day of week and level of congestion, to ensure the level of free-flow conditions as specified by Federal SAFE-TEA-LU regulations at a minimum.

Once the I-95 HOV lanes have been converted into HOV/HOT lanes, traffic operations will be monitored and managed such that they will continue to be classified as "fixed guideway miles" for purposes of the transit funding formulas, in accordance with FTA's final policy statement on when HOT lanes shall be classified as fixed guideway miles, published in the January 11, 2007 Federal Register (Vol. 72, pages 1366-1372) ("FTA Policy"). The current FTA Policy references the performance standards and monitoring methods it will use in determining eligibility of HOT lanes to be classified as fixed guideway miles. The proposed project will implement plans to meet these standards and follow the prescribed methodology so as to preserve the facility's current eligibility in accordance with the current FTA policy. The standards and monitoring requirements will be included in the Comprehensive Agreement between VDOT and FTU. In the event that the implementation of the project fails to comply with the FTA's 2/11/07 Federal Register applicable requirements for considering HOT lanes as fixed guideway and results in loss of associated FTA revenue, the Project will reimburse the current designated recipients for this lost revenue.

Additionally the Commonwealth remains committed to park and Ride lots and transit improvements in this corridor. VDOT will work with local jurisdictions to address specific needs, whether that is expanded bus service or Park and Ride lots, and develop these elements in the coming months.

Tolling Policy

HOT lanes use dynamic pricing to maintain free-flowing conditions for all users, even during rush hour. The toll rates will vary throughout the day with time of day and with day of week corresponding to demand and congestion levels. Toll prices will be adjusted in response to the level of traffic to ensure free flowing operations. There will be no price caps on the level of tolls.

SAFETEA-LU mandates strict performance standards which are intended to ensure free-flowing conditions on the HOV/HOT lanes. The proposed HOV/HOT lanes project will include performance monitoring as an integral part of the project and ensure that the SAFETEA-LU mandated performance standards are complied with as a minimum. These requirements will be included in the Comprehensive Agreement between VDOT and FTU.

Dynamic message signs will provide drivers with current toll rates so they can choose whether or not to use the lanes. Toll collection on the HOV/HOT lanes will be totally electronic. There will be no toll booths. The dynamic message signs will be supplemented by other notification/communications methods to insure all users, including transit operators, have as much advance knowledge of traffic conditions as is possible.

Incident Management

Engineering design of the Project will focus on the safety aspects of the facility including cross section layout (lane width and shoulders), operations and incident management. The design and operational features of the project will be integrated with and supported by a performance based, computer aided incident management system. The incident

management system will provide 24/7 monitoring and surveillance of the facility and have dedicated motorists assistance equipment and personnel. This system will allow for a rapid detection of incidents that occur within the facility. As transit will be a significant component of the traffic, specific response procedures plans will be in place for dealing with transit specific incidents. The Incident Management Plan developed for the project will be shared with the CTB and NVTA for their review.

Schedule

Construction for the Project is projected to begin in 2012, with an estimated construction completion time of three years. The facility is expected to enter operations in early 2015. The current schedule calls for environmental review in compliance with Federal (NEPA) and state regulations. FHWA has further conditioned environmental approval to the Project being included in a conforming Transportation Improvement Program ("TIP") and Constrained Long Range Plan ("CLRP") for construction.

Federal Environmental Review ("NEPA") Process

The environmental review is currently being conducted in full accordance and compliance with Federal and state law. The NEPA guidelines require the Project to be part of a conforming CLRP prior to receiving environmental clearance. One NEPA document will be prepared for the project from I-495 to Massaponax. It is anticipated that the NEPA document will be an Environmental Assessment.

Transportation Management Plan

As a matter of policy, practice and a reflection the agency's commitment to safety, VDOT adopts Transportation Management Plans for its construction projects. The congestion mitigation plan used for the Springfield Interchange project has been widely acclaimed as successful. VDOT and FTU will similarly have a robust Transportation Management Plan for the Project. The Transportation Management Plan developed for the project will be shared with the CTB, TPB and NVTA for their review.

Recognizing that the construction of this project could overlap with the construction of other significant projects, such as the Beltway HOV/HOT lanes and Dulles Corridor Rail, VDOT/VDRPT will coordinate the implementation of all of these congestion management plans under a Regional Transportation Management Plan.

Coordination with Other Projects in the Corridor

The project team is working with the Army, the Marines, and their respective teams of consultants to coordinate the transportation project needs related to the BRAC actions with the Project. The proposed elements of this Project reflect the latest discussions with the Army relative to their planned transportation-related activities at the Engineering Proving Ground in Fairfax County, the Mark Center in the City of Alexandria, and at Russell Road near the Quantico Reservation. Close coordination with the BRAC consultants will continue as they further develop their road improvement plans, and reasonable transportation needs related to this Project are not precluded.

Financial Plan

The total cost for the proposed Project is estimated to be $ 1.01 billion (in year of expenditure dollars, PE-$ 70 million, ROW-$ 10 million, CN-$ 680, and Other Costs-$250 million). This estimate includes the cost of constructing the third HOV/HOT lane, all additional entry/exit connections, and the nine mile extension at the southern terminus. Funding sources for the Project includes a combination of private and public equity and third party debt, including private bank loans and/or Private Activity Bonds, with the potential for TIFIA funding as a form of subordinated debt. As the Project progresses, FTU will explore all avenues of funding to ensure the lowest cost of capital for the Project. The Project will require public funds for the construction component.

FTU will be fully authorized to toll the facility, which will serve to pay debt service, operating and maintenance costs and return on equity. Toll revenue will be the main source of revenue. The Commonwealth will enter into a Comprehensive Agreement with FTU, which will authorize FTU to raise the necessary funds to construct the Project.

Stakeholder Outreach

VDOT and FTU will continue to put a great deal of effort into communicating with local stakeholders. The stakeholder outreach program provides the opportunity for direct engagement with various groups along the corridor, including all the local political leadership, transit service providers, various other special interest groups, and business and community leaders. There are also opportunities for the public to learn more about the Project, as well as provide comments, both through the CLRP process and the NEPA process.

11. Projected Completion Year: 2015
12. Project Manager: – John Lynch, VDOT
13. Project Manager E-Mail: John.Lynch@VDOT.Virginia.gov
14. Project Information URL: http://www.vamegaprojects.com/about-megaprojects/i95395-hot-lanes/#overview
15. Total Miles: 27
16. Schematic:
17. Documentation:
18. Bicycle or Pedestrian Accommodations: _Not Included; ✓Included;_Primarily a Bike/Ped Project _ N/A
    Design work for the proposed Project, in accordance with VDOT's Policy for Integrating Bicycle and Pedestrian Accommodations, will be initiated with the presumption that the Project shall accommodate the bicycle and pedestrians needs, as appropriate.
19. Jurisdiction(s): Fairfax County, Prince William County, Town of Dumfries, Stafford County
20. Total cost (in Thousands): $ 1.01 billion (PE-$ 70 million, ROW-$ 10 million, Construction-$ 680 million, Other-$ 250 million)
21. Remaining cost (in Thousands):
22. Funding Sources: ✓ Federal; ✓ State; _ Local; ✓ Private; ✓ Bonds; ✓ Other

SAFETEA-LU PLANNING FACTORS

23. Please identify any and all planning factors that are addressed by this project:

    ✓ Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.

    ✓ Increase the safety of the transportation system for all motorized and non-motorized users.

    a. Is this project being proposed specifically to address a safety issue? _ Yes; ✓ No

    b. Please identify issues: _ High accident location; _ Pedestrian safety; _ Other
    _ Truck or freight safety; _ Engineer-identified problem

    c. Briefly describe (in quantifiable terms, where possible) the nature of the safety problem:

    ✓ Increase the ability of the transportation system to support homeland security and to safeguard the personal security of all motorized and non-motorized users.

    ✓ Increase accessibility and mobility of people and freight.

    ✓ Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.

    ✓ Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.

    ✓ Promote efficient system management and operation.

    _ Emphasize the preservation of the existing transportation system.

ENVIRONMENTAL MITIGATION

24. Have any potential mitigation activities been identified for this project? _ Yes; ✓No (Currently being investigated)
    a. If yes, what types of mitigation activities have been identified?
    _ Air Quality; _ Floodplains; _ Socioeconomics; _ Geology, Soils and Groundwater; Vibrations;
    _ Energy; _ Noise; _ Surface Water; _ Hazardous and Contaminated Materials; _ Wetlands

CONGESTION MANAGEMENT INFORMATION

25. Do traffic congestion conditions necessitate the proposed project? ✓ Yes; _ No
    a. If so, is the congestion recurring or non-recurring? ✓ Recurring congestion; _ Non-recurring
    b. If the congestion is on another facility, please identify it:
    c. What is the measured or estimate Level of Service on this facility? __ Measured; __ Estimated
26. Is this a capacity-increasing project on a limited access highway or other arterial highway of a functional class higher than minor arterial? ✓ Yes; __ No
    a. If yes, does this project require a Congestion Management Documentation form under the given criteria (see *Call for Projects* document)? ✓ Yes; _ No
    b. If not, please identify the criteria that exempt the project here:
    _ The number of lane-miles added to the highway system by the project totals less than 1 lane-mile
    _ The project is an intersection reconstruction or other traffic engineering improvement, including replacement of an at-grade intersection with an interchange
    _ The project will not allow motor vehicles, such as a bicycle or pedestrian facility
    _ The project consists of preliminary studies or engineering only, and is not funded for construction
    _ The project received NEPA approval on or before April 6, 1992
    _ The project was already under construction on or before September 30, 1997, or construction funds were already committed in the FY98-03 TIP.
    _ The construction costs for the project are less than $5 million.

INTELLIGENT TRANSPORTATION SYSTEMS

28. Is this an Intelligent Transportation Systems (ITS) project as defined in federal law and regulation, and therefore subject to Federal Rule 940 Requirements? ✓ Yes; _ No
    Although the I 95 HOV/HOT Lane project itself is not an ITS project, the project will include various ITS elements as part its operations and toll collection. All ITS components of the project will comply with the applicable requirements of rule 940. Should the Commonwealth be nominated as an Urban Partner under the FHWA's Urban Partnership program, ITS components of this project will be part of the Commonwealth's effort under the Urban Partnership program.
29. If yes, what is the status of the systems engineering analysis compliant with Federal Rule 940 for the project? _ Not Started; ✓ Ongoing, not complete; _ Complete N/A
    The operations concept for the HOV/HOT lanes (HOT-OC), including the Traffic Management and Tolling systems, have been described in a draft Concept of Operations, along with a System Interface Specification that details interaction between NRO ATMS and HOT-OC. As part of the ongoing project development activities, coordination of the HOT-OC with the VDOT Northern Region Architecture and COG/TPB Regional architecture will be addressed.
30. Under which Architecture: N/A
    _ DC, Maryland or Virginia State Architecture
    _ WMATA Architecture
    ✓ COG/TPB Regional ITS Architecture
    ✓ Other, please specify: VDOT Northern Region Architecture
31. Other Comments

VDOT is proposing to remove the following elements of the transit service plan from the I-395/I-95 HOV/HOT Lanes project. VDOT is working with local jurisdictions and transit agencies to develop a revised set of transit and transportation demand management (TDM) improvements for the corridor.

Proposed HOT Lanes Frequency Improvements to Existing Routes			2006 Base Hdwy in Min.	2015 HOT Hdwy in Min.	2020 HOT Hdwy in Min.	2030 HOT Hdwy in Min.
	Origin	Destination				
WMATA 7B	Southern Towers	Pentagon	35	17	17	17
ART 41	Columbia Pike-Ballston	Courthouse Metro Station	20	15	15	15
PRTC OmniiRide	Dale City	Navy Yard	40	30	30	30
PRTC OmniiRide	Dale City/Woodbridge	Downtown DC	60	60	30	30

Proposed HOT Lanes Service Improvements and New Routes			2006 Base Hdwy in Min.	2015 HOT Hdwy in Min.	2020 HOT Hdwy in Min.	2030 HOT Hdwy in Min.
	Origin	Destination				
Route Extension/Increases in VRE Train Size						
PRTC MetroDirect	PRTC Transit Center [1]	Franconia-Springfield Metro Station area	35	35	35	35
PRTC OmniLink	Quantico/Woodbridge [2]	Ft. Belvoir (was to Woodbridge VRE)	50	50	50	50
VRE	Fredericksburg [3]	Union Station	25	25	25	25
New Routes						
Fairfax Connector	Lorton VRE	EPG/Ft. Belvoir	NA	15	15	15
ART	Shirlington	Rosslyn	NA	20	20	20
PRTC	Central Prince William County	Downtown Alexandria	NA	30	30	30
WMATA	Kingstowne-Shirlington	Pentagon	NA	30	30	30
PRTC	Woodbridge	Tysons - Merrifield	NA	30	30	30
PRTC OmniRide	Lake Ridge	Seminary Road area	NA	NA	45	45
FAMPO	Fredericksburg	Pentagon/Crystal City	NA	NA	30	30
FAMPO	Fredericksburg	Downtown Washington	NA	30	30	30
FAMPO	Massaponax	Downtown Washington	NA	NA	30	30

Proposed HOT Lanes Fixed Facility Improvements		Implementation Year			
	Fixed Facility Improvement	2006	2015	2020	2030
WMATA	Improvements to Pentagon Metrorail Transit Center	NA			
WMATA	Improvements to Franconia-Springfield Metrorail Transit Center	NA			
	Additional Park-and-Ride lot capacity at various locations	NA			
VRE	Platform extension at selected stations	NA	X		
FAMPO	Transit Center at Massaponax	NA		X	
	BRT stations - 4 stations but only 3 paid for by the project (Fluor/TransUrban is building Lorton) [4]	NA		X	
VRE	Overnight Storage in Fredericksburg	NA	X		

Additional vehicle hours over the 20 year period (over 2006 baseline - in thousands) = 1,480

1. Same frequency as in base year - route extension to circulate after stopping at Metro
2. Same frequency as in base year - route extension to Ft. Belvoir

3. Same frequency as in base year - increase size of trains

4. The I-95/I395 Corridor Transit Plan includes funding for 4 new BRT transit stations. Three of these stations are within the limits of the project included in the TPB's CLRP. The fourth station is in the southern segment of the HOT lanes project which is in the Fredericksburg area MPO (FAMPO). This fourth BRT station will be included in TPB's CLRP conformity analyses when the southern segment of the HOT lanes project is included in FAMPO's CLRP.

4. I-395 HOV Lanes Reversible Ramp from / to Seminary Road

PROJECT INFORMATION

1. Submitting Agency: VDOT
2. Secondary Agency:
3. Agency Project ID: UPC 96261
4. Project Type: X Interstate _ Primary _ Secondary _ Urban _ Bridge _ Bike/Ped _ Transit _ CMAQ _ ITS _ Enhancement _ Other _ Federal Lands Highways Program _ Human Service Transportation Coordination _ TERMs
5. Category: X_ System Expansion; _ System Maintenance; _ Operational Program; _ Study; _ Other

6. Project Name: I 395 / Seminary Road New reversible lane ramp

	Prefix	Route	Name	Modifier
7. Facility:	I	395	Shirley Memorial Highway	
8. From (_ at):			High Occupancy Vehicle Lanes	
9. To:	VA	420	Seminary	

10. Description: Constructs new single lane, reversible HOV ramp on I-395 HOV lanes to the third level of the Seminary Road interchange. The project adds ramp capacity to accommodate HOV and transit for the additional 6,400 employees of the Department of Defense - Washington Headquarters Services locating to Mark Center as part of the 2005 Base Realignment and Closure. An operational study is underway and a draft Interchange Modification Report will begin later this year. Environmental Reviews are expected to be underway in 2011. Project funding will be included in VDOT's FY 12-17 Six Year Improvement Program scheduled to be adopted by the Commonwealth Transportation Board in June 2011.

11. Projected Completion Date: 2015
12. Project Manager: Tom Fahrney
13. Project Manager E-Mail: Tom.Fahrney@VDOT.Virginia.Gov
14. Project Information URL: UPC 96261
15. Total Miles: 0.4 miles
16. Schematic: Yes - Attached
17. Documentation: None at this time.
18. Bicycle or Pedestrian Accommodations: X_ Not Included; _ Included; _ Primarily a Bike/Ped Project; _ N/A
19. Jurisdictions: City of Alexandria
20. Total cost (in Thousands): $80,000
21. Remaining cost (in Thousands): $76,998
22. Funding Sources: X_ Federal; X_ State; _ Local; _ Private; _ Bonds; _ Other

SAFETEA-LU PLANNING FACTORS

23. Please identify any and all planning factors that are addressed by this project:

X Support the **economic vitality** of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.

X Increase the **safety** of the transportation system for all motorized and non-motorized users.

a. Is this project being proposed specifically to address a safety issue? _ Yes; X No

b. If yes, briefly describe (in quantifiable terms, where possible) the nature of the safety problem:

X Increase the ability of the transportation system to support **homeland security** and to safeguard the personal security of all motorized and non-motorized users.

X Increase **accessibility and mobility** of people and freight.

X Protect and enhance the **environment**, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.

_ Enhance the **integration and connectivity** of the transportation system, across and between modes, for people and freight.

X Promote efficient system **management and operation**.

_ Emphasize the **preservation** of the existing transportation system.

ENVIRONMENTAL MITIGATION

24. Have any potential mitigation activities been identified for this project? _ Yes; X No

a. If yes, what types of mitigation activities have been identified?

_ Air Quality; _ Floodplains; _ Socioeconomics; _ Geology, Soils and Groundwater; Vibrations;

_ Energy; _ Noise; _ Surface Water; _ Hazardous and Contaminated Materials; _ Wetlands

CONGESTION MANAGEMENT INFORMATION

25. Do traffic congestion conditions necessitate the proposed project? X Yes; _ No

a. If so, is the congestion recurring or non-recurring? X Recurring; _ Non-recurring

b. If the congestion is on another facility, please identify it: Existing I-395/Seminary Road NB off-ramp and SB on ramp

c. What is the measured or estimated Level of Service on this facility? Measured; "F" Estimated

26. Is this a capacity-increasing project on a limited access highway or other arterial highway of a functional class higher than minor arterial? X Yes; _ No

a. If yes, does this project require a Congestion Management Documentation form under the given criteria (see *Call for Projects* document)? _ Yes; X No

b. If not, please identify the criteria that exempt the project here:

X The number of lane-miles added to the highway system by the project totals less than 1 lane-mile

X The project is an intersection reconstruction or other traffic engineering improvement, including replacement of an at-grade intersection with an interchange

_ The project, such as a transit, bicycle or pedestrian facility, will not allow private single-occupant motor vehicles.

_ The project consists of preliminary studies or engineering only, and is not funded for construction

_ The project will not use federal funds in any phase of development or construction (100% state, local and/or private funding).

_ The construction costs for the project are less than $10 million.

INTELLIGENT TRANSPORTATION SYSTEMS

27. Is this an Intelligent Transportation Systems (ITS) project as defined in federal law and regulation, and therefore subject to Federal Rule 940 Requirements? _ Yes; X No
28. If yes, what is the status of the systems engineering analysis compliant with Federal Rule 940 for the project? _ Not Started; _ Ongoing, not complete; _ Complete
29. Under which Architecture:
    _ DC, Maryland or Virginia State Architecture
    _ WMATA Architecture
    _ COG/TPB Regional ITS Architecture
    _ Other, please specify:

6. Widen I-66 General Purpose and HOV Lanes

PROJECT INFORMATION

1. Submitting Agency: Virginia Department of Transportation
2. Secondary Agency:
3. Agency Project ID: 93577
4. Project Type: X **Interstate** _ Primary _ Secondary _ Urban _ Bridge _ Bike/Ped _ Transit _ CMAQ _ ITS _ Enhancement _ Other _ Federal Lands Highways Program _ Human Service Transportation Coordination _ TERMs
5. Category: _X System Expansion; _ System Maintenance; _ Operational Program; _ Study; _ Other

6. Project Name: I-66 HOV & General Purpose (GP) widening and Reconstruction of Interchange at Rte 15

	Prefix	Route	Name	Modifier
7. Facility:	I	66		Add a HOV and a GP lane, in each direction between the limits noted.
8. From (_ at):	Rte	15	James Madison Highway	
9. To:	Rte	29	Lee Highway (Gainesville)	

10. Description: Over the past seven years, VDOT has made a series on major improvements on I-66 in the Manassas /Gainesville area. The first was the construction of University Boulevard, a 1.3-mile, four-lane road connecting Route 29 and Wellington Road. The second was widening I-66 to eight lanes (adding a HOV and a GP lane in each direction to the existing four lane divided roadway) for 3.8 miles from Route 234 Business/Sudley Road to the Route 234 Bypass. Both projects were completed in 2006. The third was winding of I-66 to eight lanes (adding a HOV and a GP lane in each direction to the existing four lane divided roadway) from the Route 234 Bypass to Route 29 at Gainesville. The 3.3 miles widening was completed in August 2010.

The I-66 corridors is one of the heavily traveled corridors in Northern Virginia and this region and has a significant impact on the social and economic development of its adjoining areas. Extending the HOV lanes on I-66 beyond its current terminus and providing for improved mobility and accessibility on this roadway has been one of the priority projects for Prince William County and VDOT. The extension of HOV lanes along I 66 has been in the region's CLRP for a number of years. This update to the project reflects the current plan and priority of adding a general purpose lane (in each direction) as well.

11. Projected Completion Date: 2018
12. Project Manager: Amir Salahshoor, P.E.
13. Project Manager E-Mail: a.salahshoor@vdot.virginia.gov
14. Project Information URL:
15. Total Miles: 2.5 miles
16. Schematic: See attached project location map.
17. Documentation: We are just starting this project back up. We are at scoping phase.
18. Bicycle or Pedestrian Accommodations: _ Not Included; _ Included; _ Primarily a Bike/Ped Project; X_ N/A
19. Jurisdictions: Prince William County

20. Total cost (in Thousands):$131,881
21. Remaining cost (in Thousands):
22. Funding Sources: _X Federal; _ State; _ Local; _ Private; _ Bonds; _ Other

SAFETEA-LU PLANNING FACTORS

23. Please identify any and all planning factors that are addressed by this project:

X Support the **economic vitality** of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.

X Increase the **safety** of the transportation system for all motorized and non-motorized users.

a. Is this project being proposed specifically to address a safety issue? _ Yes; X No

b. If yes, briefly describe (in quantifiable terms, where possible) the nature of the safety problem:

_ Increase the ability of the transportation system to support **homeland security** and to safeguard the personal security of all motorized and non-motorized users.

X Increase **accessibility and mobility** of people and freight.

X Protect and enhance the **environment**, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.

X Enhance the **integration and connectivity** of the transportation system, across and between modes, for people and freight.

_ Promote efficient system **management and operation**.

_ Emphasize the **preservation** of the existing transportation system.

ENVIRONMENTAL MITIGATION

24. Have any potential mitigation activities been identified for this project? _ Yes; X No

a. If yes, what types of mitigation activities have been identified?

_ Air Quality; _ Floodplains; _ Socioeconomics; _ Geology, Soils and Groundwater; Vibrations;

_ Energy; _ Noise; _ Surface Water; _ Hazardous and Contaminated Materials; _ Wetlands

CONGESTION MANAGEMENT INFORMATION

25. Do traffic congestion conditions necessitate the proposed project? X Yes; _ No

a. If so, is the congestion recurring or non-recurring? X Recurring; _ Non-recurring

b. If the congestion is on another facility, please identify it:

c. What is the measured or estimated Level of Service on this facility? ___ ; _ Measured; _ Estimated

26. Is this a capacity-increasing project on a limited access highway or other arterial highway of a functional class higher than minor arterial? X Yes; _ No

a. If yes, does this project require a Congestion Management Documentation form under the given criteria (see *Call for Projects* document)? X Yes; _ No

b. If not, please identify the criteria that exempt the project here:

_ The number of lane-miles added to the highway system by the project totals less than 1 lane-mile

_ The project is an intersection reconstruction or other traffic engineering improvement, including replacement of an at-grade intersection with an interchange

_ The project, such as a transit, bicycle or pedestrian facility, will not allow private single-occupant motor vehicles.

_ The project consists of preliminary studies or engineering only, and is not funded for construction

_ The project will not use federal funds in any phase of development or construction (100% state, local and/or private funding).

_ The construction costs for the project are less than $10 million.

INTELLIGENT TRANSPORTATION SYSTEMS

27. Is this an Intelligent Transportation Systems (ITS) project as defined in federal law and regulation, and therefore subject to Federal Rule 940 Requirements? _ Yes; X No
28. If yes, what is the status of the systems engineering analysis compliant with Federal Rule 940 for the project? _ Not Started; _ Ongoing, not complete; _ Complete
29. Under which Architecture:
    _ DC, Maryland or Virginia State Architecture
    _ WMATA Architecture
    _ COG/TPB Regional ITS Architecture
    _ Other, please specify:

ATTACHMENT B

AIR QUALITY CONFORMITY ASSESSMENT: 2010 CONSTRAINED LONG RANGE PLAN VIRGINIA I95/I395 HOT LANES & I-66 AMENDMENTS

SCOPE OF WORK

I. INTRODUCTION

The Virginia Department of Transportation (VDOT) has requested amendments to the 2010 Constrained Long Range Plan (CLRP). The first amendment modifies the I-95/ I-395 HOT lanes project as described in the attached materials. The second amendment modifies the widening of I-66 project between US 29 in Gainesville and Route 15 in Haymarket, so that the completed facility will be 8 lanes including HOV. The proposed changes affect the air quality conformity analysis, and will therefore require a new demonstration of air quality conformity before they can be adopted as plan elements by the Transportation Planning Board (TPB).

This scope of work reflects the tasks and schedule designed for the air quality conformity assessment leading to adoption of the amended plan. This work effort addresses requirements associated with attainment of the ozone standards (volatile organic compounds (VOC) and nitrogen oxides (NOx) as ozone precursor pollutants), and fine particles ($PM_{2.5}$) standards (direct particles and precursor NOx), as well as maintenance of the wintertime carbon monoxide (CO) standard.

The amended plan must meet air quality conformity regulations: (1) as originally published by the Environmental Protection Agency (EPA) in the November 24, 1993 Federal Register, and (2) as subsequently amended, most recently on March 24, 2010 and (3) as detailed in periodic FHWA / FTA and EPA guidance. These regulations specify both technical criteria and consultation procedures to follow in performing the assessment.

This scope of work provides a context in which to perform the conformity analyses and presents an outline of the work tasks required to address all regulations currently applicable.

II. REQUIREMENTS AND APPROACH

A. **Criteria** (See Exhibit 1)

As described in the 1990 Clean Air Act Amendments, conformity is demonstrated if transportation plans and programs:

1. Are consistent with most recent estimates of mobile source emissions,

2. Provide expeditious implementation of TCMs, and

3. Contribute to annual emissions reductions.

Assessment criteria for ozone, CO, and $PM_{2.5}$ are discussed below.

Ozone season pollutants will be assessed by comparing the "action" scenarios to the 8-hour ozone area 2008 Reasonable Further Progress (RFP) VOC and NOx emissions budgets which were deemed adequate for use in conformity by EPA in September 2009.

$PM_{2.5}$ pollutants will be assessed both by comparing the "action" scenarios to a 2002 base and by comparing the pollutant levels to the budgets submitted by the MWAQC to EPA in April, 2008. $PM_{2.5}$ emissions will be inventoried for yearly totals (instead of on a daily basis as performed for Ozone).

B. Approach (See Table 1 – Summary of Technical Approach)

The analytical approach is similar to that applied and documented in the air quality conformity assessment of the 2010 CLRP and the FY2011-2016 TIP. In addition to the highlighted elements below, explicit inputs include: a summary list of major policy and technical input assumptions, shown as Attachment A; and all transportation network elements which will be finalized at the March 16, 2011 TPB meeting.

TABLE 1 – Summary of Technical Approach

	Ozone	Wintertime CO	$PM_{2.5}$
Pollutant:	VOC, NOx	CO	Direct particles, Precursor NOx
Emissions Assessment Criteria:	8-hour 2008 Reasonable Further Progress (RFP) ozone budgets	Approved wintertime CO emissions budget	Reductions from base 2002 inventory & comparison to budgets
Emissions Analysis Time-frame:	Daily	Daily	Annual
Geography:	8-hour ozone non-attainment area	DC, Arl., Alex., Mont., Pr. Geo.	8-hr. area less Calvert County
Network Inputs:	Regionally significant projects		
Land Activity:	Round 8.0		
Modeled Area:	Current Cordon (2191 zone)		
Travel Demand Model:	Version 2.2		
Mobile Model:	MOBILE6.2 emissions factors, consistent with the procedures utilized to establish the VOC and NOx mobile source emissions budgets	MOBILE6.2 Consistent with procedures used to establish the budget	MOBILE6.2 'Seasonal' approach, consistent with procedures used to establish the budget
Emissions Factor Refinements:	Use of 2008 vehicle registration data for all jurisdictions		

III. CONSULTATION

A 30 day public comment / interagency consultation period followed by response to comments will be provided for the following milestones:

- Project review
- Air quality conformity scope of work
- Conformity report

IV. WORK TASKS

1. Prepare forecast year highway and transit networks

   - 2020, 2030, 2040

2. Review tolling inputs/algorithm

3. Prepare 2020 travel and emissions estimates
   - Execute travel demand modeling using Version 2.2 travel model
   - Calculate emissions (daily for ozone season VOC and NOx for ozone standard requirements; yearly for PM2.5 direct particles and precursor NOx)

4. Prepare 2030 travel and emissions estimates

   - Execute tasks as in 2020 analysis
   - Apply "transit constraint" using 2020 levels

5. Prepare 2040 travel and emissions estimates

   - Execute tasks as in 2030 analysis
   - Apply "transit constraint" using 2020 levels

6. Analyze results of above technical analysis

   - Reductions from 1990 (ozone season VOC and NOx) and 2002 base (ozone season VOC and NOx, and $PM_{2.5}$)
   - 8-hour ozone season 2008 RFP VOC and NOx budgets, and direct $PM_{2.5}$ and precursor NOx budgets,

7. Assess conformity and document results in a report

   - Document methods
   - Draft conformity report
   - Forward to technical committees, policy committees
   - Make available for public comment and interagency consultation
   - Receive comments
   - Address comments and present to TPB for action
   - Finalize report and forward to FHWA and FTA

V. SCHEDULE

The schedule for the execution of these work activities is shown in Exhibit 2. The time line shows completion of the analytical tasks, preparation of a draft report, public and interagency review, response to comments and action by the TPB on July 20, 2011.

AIR QUALITY CONFORMITY ASSESSMENT:
2010 CONSTRAINED LONG RANGE PLAN AND
VIRGINIA I95/I395 HOT LANES & I-66 AMENDMENTS

SCHEDULE

February 4, 2011	TPB Technical Committee briefed on proposed amendments
February 10, 2011	Project description and conformity analysis scope of work released for public comment
*February 16, 2011	TPB briefed on proposed amendment and conformity analysis scope of work
March 12, 2011	Public comment period ends
*March 16, 2011	TPB approves proposed project inputs and conformity analysis scope of work
June 4, 2011	TPB Technical Committee receives status report
June 15, 2011	Draft conformity results for amendment released for public comment
*June 15, 2011	TPB briefed on draft conformity results
July 15, 2011	Public comment period ends
*July 20, 2011	TPB reviews public comments and responses to comments, and adopts conformity analysis, 2010 CLRP amendments

* TPB meeting