

Minnesota Ave Great Street  
PRELIMINARY CONCEPTS

WASHINGTON, DC

**PREPARED FOR:**

District Department of Transportation

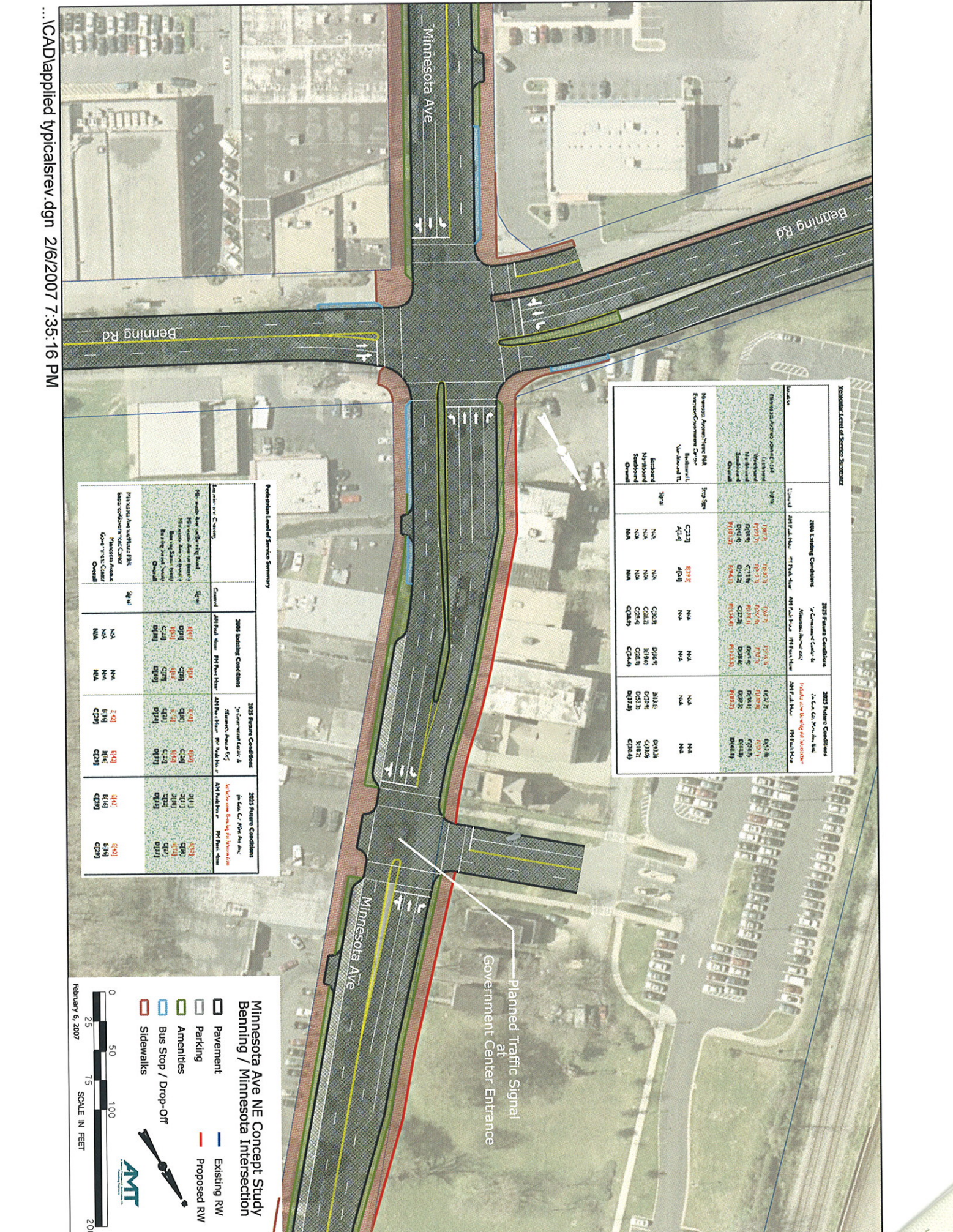
**PREPARED BY:**



A. Morton Thomas and Associates, Inc.  
Consulting Engineers



Location	2006 Existing Conditions	2025 Future Conditions	2035 Future Conditions
Minnesota Ave NE Concept Study	1807.2	7002.3	6021.2
Benning Rd	1807.2	7002.3	6021.2
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**Minnesota Ave NE Concept Study**  
**Benning / Minnesota Intersection**

Planned Traffic Signal at Government Center Entrance

0 25 50 100 200  
 SCALE IN FEET  
 February 6, 2007

Legend:  
 - Pavement (Grey)  
 - Parking (Light Grey)  
 - Amenities (Green)  
 - Bus Stop / Drop-Off (Blue)  
 - Sidewalks (Red)  
 - Existing RW (Blue line)  
 - Proposed RW (Red line)



Intersection Level of Service Summary <sup>1</sup>  
**Minnesota Avenue, NE Conceptual Design**

Location	Control	2006 Existing Conditions		2025 Future Conditions (w/ Government Center & Minnesota Avenue Exj)		2025 Future Conditions (w/ Gov. Ctr, Minn Ave Exj) <i>Includes new Benning Rd Intersection</i>		
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
1. Minnesota Avenue/East Capitol Street/Ames Street	Signal	Northbound	B(19.5)	B(17.6)	D(39.0)	C(20.4)	D(39.0)	C(20.4)
		Southbound	A(7.7)	A(9.2)	B(10.1)	B(16.8)	B(10.1)	B(16.8)
		Eastbound	C(32.6)	C(30.4)	C(34.2)	C(31.9)	C(34.2)	C(31.9)
		Westbound	D(39.3)	D(43.8)	D(41.4)	D(50.3)	D(41.4)	D(50.3)
<b>Overall</b>	<b>B(19.0)</b>	<b>B(16.9)</b>	<b>C(31.7)</b>	<b>C(22.0)</b>	<b>C(31.7)</b>	<b>C(22.0)</b>	<b>C(31.7)</b>	
2. Minnesota Avenue/Clay Place (eastbound)	Stop Sign	Northbound LT	A(0.1)	A(0.2)	A(0.1)	A(0.3)	A(0.1)	A(0.3)
		Eastbound LR	D(28.7)	E(47.3)	F(58.1)	F(117.7)	F(58.1)	F(117.7)
3. Minnesota Avenue/ Clay Place (westbound)	Stop Sign	Southbound TR	A(0.1)	A(0.1)	A(0.1)	A(0.1)	A(0.1)	A(0.1)
		Westbound LR	D(29.2)	D(34.5)	F(67.2)	F(69.4)	F(67.2)	F(69.4)
4. Minnesota Avenue/Dix Street	Signal	Eastbound	B(17.8)	B(19.9)	B(15.5)	C(21.5)	B(18.2)	D(52.4)
		Westbound	D(40.7)	F(173.1)	C(21.4)	D(43.0)	C(22.2)	D(47.3)
		Northbound	A(7.9)	A(6.8)	B(18.3)	A(8.5)	D(41.7)	B(17.6)
		Southbound	A(4.5)	B(17.8)	C(34.6)	E(73.0)	C(33.4)	C(34.5)
<b>Overall</b>	<b>B(10.9)</b>	<b>C(33.8)</b>	<b>C(24.6)</b>	<b>D(43.3)</b>	<b>D(35.5)</b>	<b>C(32.0)</b>	<b>C(32.0)</b>	
5. Minnesota Avenue/Benning Road	Signal	Eastbound	F(87.2)	F(109.3)	E(67.7)	F(205.9)	D(37.2)	D(52.8)
		Westbound	F(223.7)	F(212.3)	F(266.8)	F(82.3)	F(182.0)	F(82.3)
		Northbound	D(38.9)	C(33.9)	F(173.1)	D(43.4)	D(36.1)	C(24.7)
		Southbound	D(43.4)	D(43.2)	C(27.3)	D(38.6)	D(39.5)	D(44.8)
<b>Overall</b>	<b>F(101.2)</b>	<b>F(94.1)</b>	<b>F(136.4)</b>	<b>F(123.5)</b>	<b>F(83.7)</b>	<b>D(48.1)</b>	<b>D(48.1)</b>	
6. Minnesota Avenue/Metro P&R Entrance/Government Center	Stop Sign	Eastbound L	C(22.7)	E(39.3)	N/A	N/A	N/A	N/A
		Northbound TL	A(2.4)	A(0.1)	N/A	N/A	N/A	N/A
		Eastbound	N/A	N/A	C(30.9)	D(36.9)	B(13.6)	D(43.3)
Northbound	N/A	N/A	C(28.2)	B(18.6)	D(39.9)	C(33.0)		
Southbound	N/A	N/A	C(29.4)	C(28.9)	D(53.3)	B(18.2)		
<b>Overall</b>	<b>N/A</b>	<b>N/A</b>	<b>C(28.9)</b>	<b>C(24.4)</b>	<b>D(37.0)</b>	<b>C(30.6)</b>	<b>C(30.6)</b>	
7. Minnesota Avenue/New Metro Bus Entrance	Signal	Northbound	N/A	N/A	C(26.1)	D(52.9)	C(23.1)	C(31.4)
		Southbound	N/A	N/A	B(17.6)	A(1.2)	B(17.6)	A(1.2)
		Eastbound	N/A	N/A	B(19.4)	C(31.4)	B(19.4)	C(31.4)
		<b>Overall</b>	<b>N/A</b>	<b>N/A</b>	<b>C(20.5)</b>	<b>D(35.7)</b>	<b>B(19.5)</b>	<b>C(21.4)</b>
8. Minnesota Avenue/Metro Bus Entrance	Signal	Eastbound	N/A	N/A	B(19.7)	C(32.2)	B(19.7)	C(32.2)
		Westbound	C(31.9)	C(27.8)	C(26.1)	D(35.8)	C(26.1)	D(35.8)
		Northbound	A(9.3)	B(13.1)	A(7.2)	A(3.1)	A(7.9)	A(3.3)
		Southbound	A(10.6)	B(13.4)	D(38.2)	A(9.9)	D(38.2)	A(9.9)
<b>Overall</b>	<b>B(11.7)</b>	<b>B(13.7)</b>	<b>C(27.2)</b>	<b>A(6.5)</b>	<b>C(27.4)</b>	<b>A(6.6)</b>		
9. Minnesota Avenue/Nannie Helen Burroughs Avenue	Signal	Eastbound	D(37.6)	F(174.0)	C(34.7)	F(177.5)	C(34.7)	F(177.5)
		Westbound	C(24.0)	C(26.1)	C(29.9)	C(28.9)	C(29.9)	C(28.9)
		Northbound	F(212.8)	F(160.5)	D(51.1)	E(78.9)	D(51.1)	E(78.7)
		Southbound	F(179.9)	D(43.0)	F(140.1)	D(46.7)	F(140.1)	D(46.7)
<b>Overall</b>	<b>F(115.1)</b>	<b>F(129.5)</b>	<b>E(80.0)</b>	<b>F(98.9)</b>	<b>E(80.0)</b>	<b>F(98.8)</b>		
10. Benning Road/40th Street	Stop Sign	Northbound LR	C(15.7)	D(26.4)	C(19.3)	E(46.2)	C(19.3)	E(46.2)
		Westbound LT	A(0.7)	A(1.6)	A(0.9)	A(2.4)	A(0.9)	A(2.4)
11. Dix Street/Clay Place/ 40th Street <sup>2</sup>	Stop Sign	Northbound	A[-]	A[-]	A[-]	A[-]	A[-]	A[-]
		Southbound	A[-]	A[-]	A[-]	A[-]	A[-]	A[-]

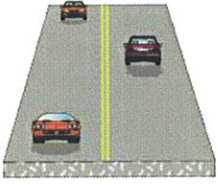
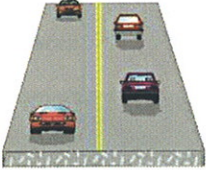
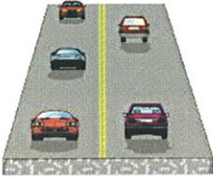
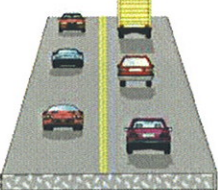
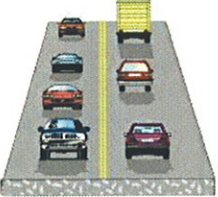

Notes:

<sup>1</sup> Analyses based on SynchroSimTraffic (Version 6.0) methodology

<sup>2</sup> Only Intersection Capacity Utilization (ICU) Level of Service reported due to existing intersection geometry and Synchro limitations.



## Traffic Analyses - Level of Service and Delay Definitions

Level of Service	Description	Delay per Vehicle (Seconds/Vehicle)
<p style="text-align: center;"><b>A</b></p> 	Free Flow	$\leq 10$
<p style="text-align: center;"><b>B</b></p> 	Stable Flow (slight delay)	$> 10 - 20$
<p style="text-align: center;"><b>C</b></p> 	Stable Flow (acceptable delay)	$> 20 - 35$
<p style="text-align: center;"><b>D</b></p> 	Approaching Unstable Flow (tolerable delay)	$> 35 - 55$
<p style="text-align: center;"><b>E</b></p> 	Unstable Flow (approaching intolerable delay)	$> 55 - 80$
<p style="text-align: center;"><b>F</b></p> 	Forced Flow (jammed)	$> 80$