



VDOT


Route 120 (Glebe Road) Over Route 50 Bridge Deck Replacement & Widening

Arlington County

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Office NOVA District Structure & Bridge
Date June 2, 2011

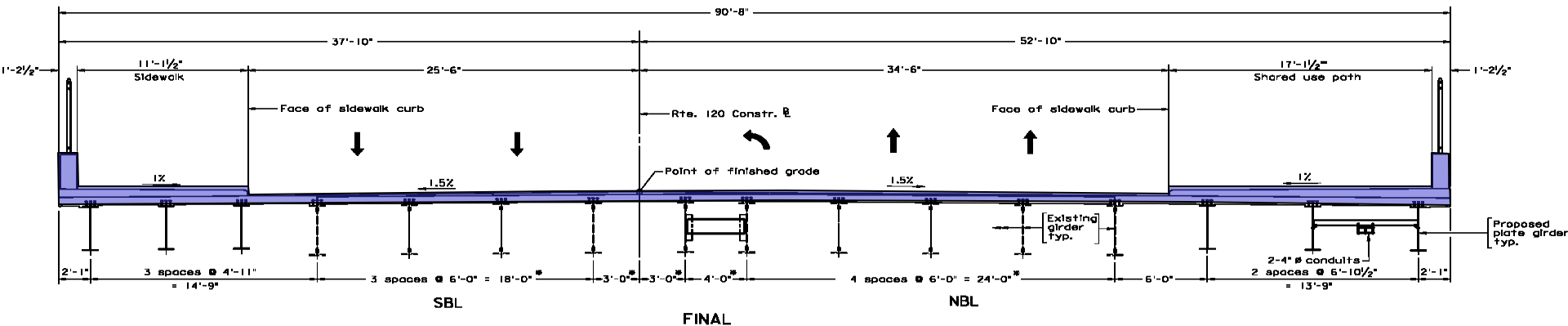
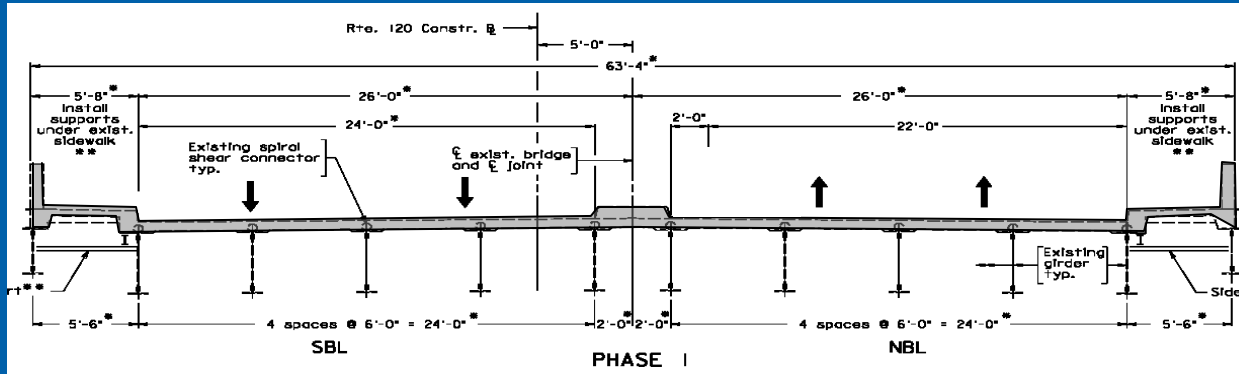
- **Introductions**
- **Cost Estimate, Schedule, and History**
- **Proposed Bridge Views**
 - **Top**
 - **Elevation**
 - **Plan**
- **Construction Concept**
- **Maintenance of Traffic and Sequence of Construction**
- **Questions**

Advertisement	February 8, 2011
Awarded	April 2011 to Fort Myer Construction
Construction Schedule	May 5, 2011 to October 11, 2012
Construction Cost	\$6,504,197
Overall Project Cost	\$7,467,205

- **Constructed in 1954**
- **Bridge was classified as Structurally Deficient in 1997**
- **Project for bridge replacement & widening was initiated in 2000, then deferred in 2003 due to insufficient funding** 
- **Funding was re-allocated in 2007**
- **The project was re-scoped in 2008 in coordination with Arlington County to accelerate bridge replacement after concrete debris fell from the bridge onto Rte 50**
 - ⇒ **Use Accelerated Bridge Construction methods to replace the deck**
 - ⇒ **Maintain full capacity during peak hours limiting traffic disruption to nighttime**
 - ⇒ **Require no additional Right of Way acquisition**
 - ⇒ **Initiate a separate project to study interchange improvements**
 - ⇒ **Rebuild the bridge with wider sidewalks and an additional lane for turning from northbound Glebe Rd to westbound Rte 50**

Existing and New Bridge

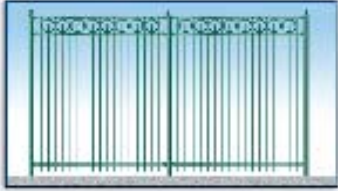
Cross Section



⇒ Bridge width increases by +27 feet -- from 63'-4" to 90'-8"

⇒ Features 4 through lanes, 1 NB turning lane, sidewalks exceeding 11 ft and 17 ft

Fence Detail



Decorative
Wrought Iron
Picket Fence

Decorative
LED Lighting

Recessed Concrete
Surface on Parapet

"Gateway" Pillar

11 ft Sidewalk

New Cantilever
Traffic Signals N & S

Improved Sight
Distance for Right
Turn on Red

60 ft curb to curb

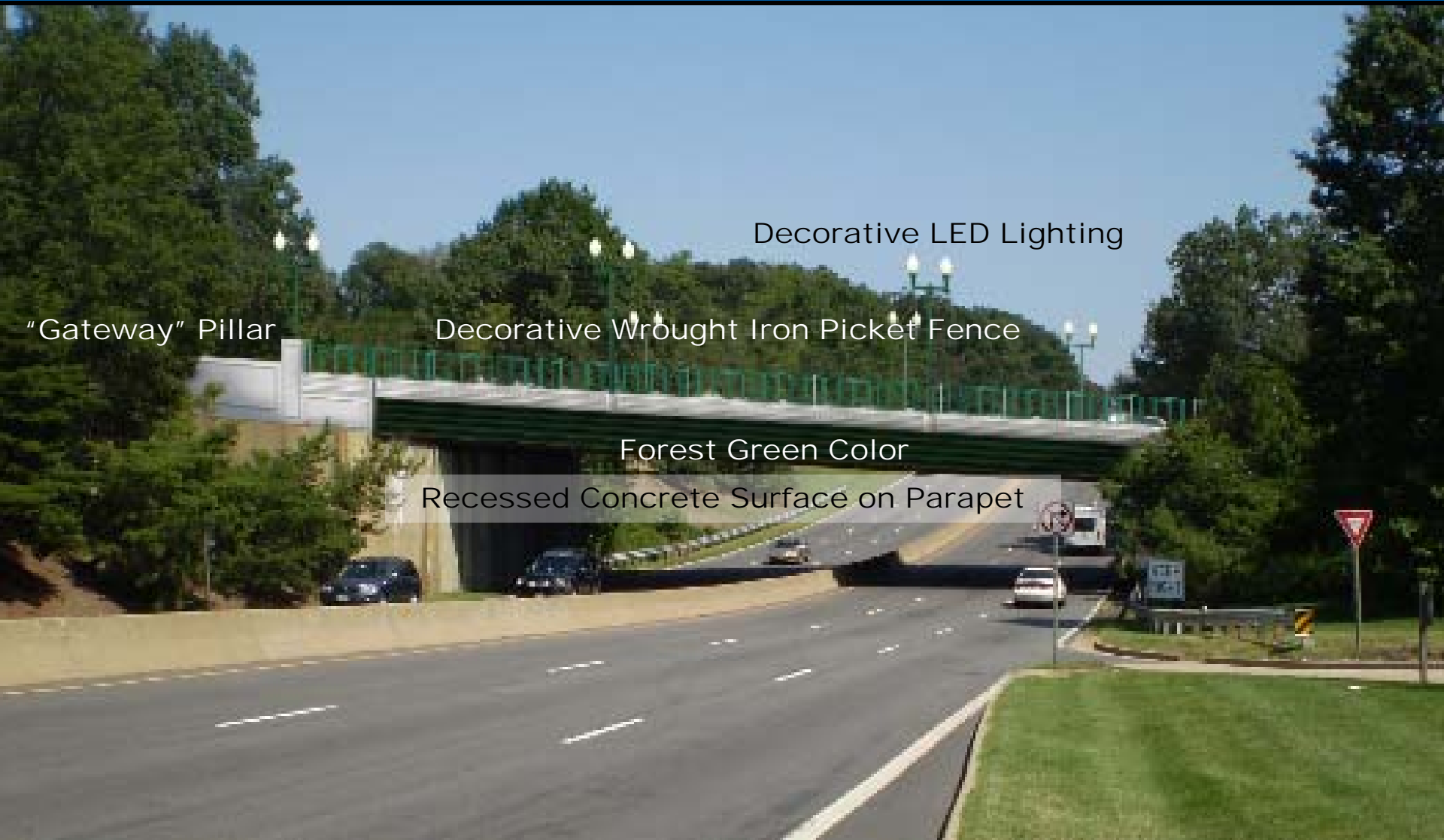
17 ft Sidewalk

Left-hand Turning
Lane for
Northbound onto
Rte 50 WB

Milled & Resurfaced
Pavement

Proposed Bridge Rendering

Elevation View



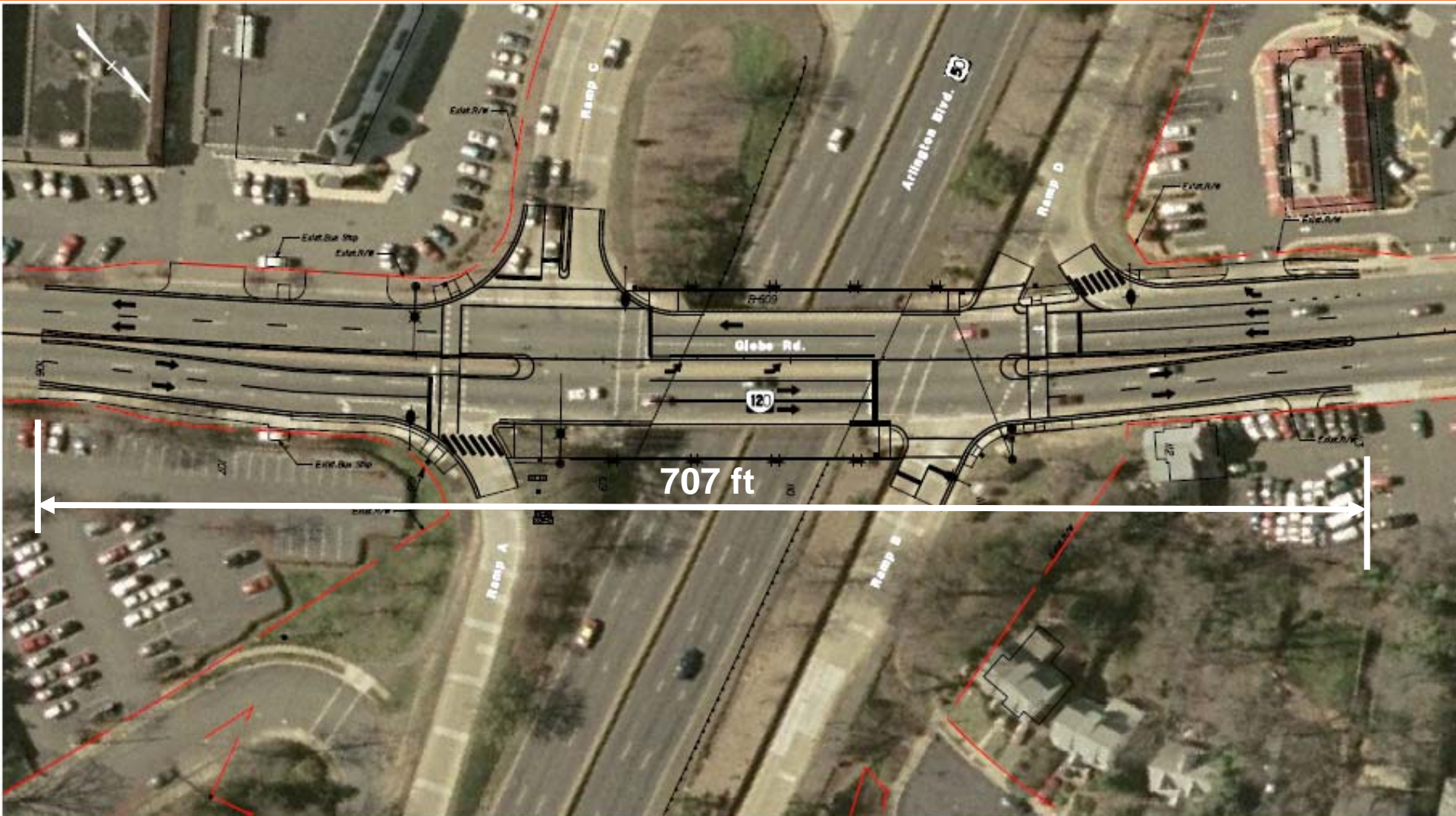
Decorative LED Lighting

"Gateway" Pillar

Decorative Wrought Iron Picket Fence

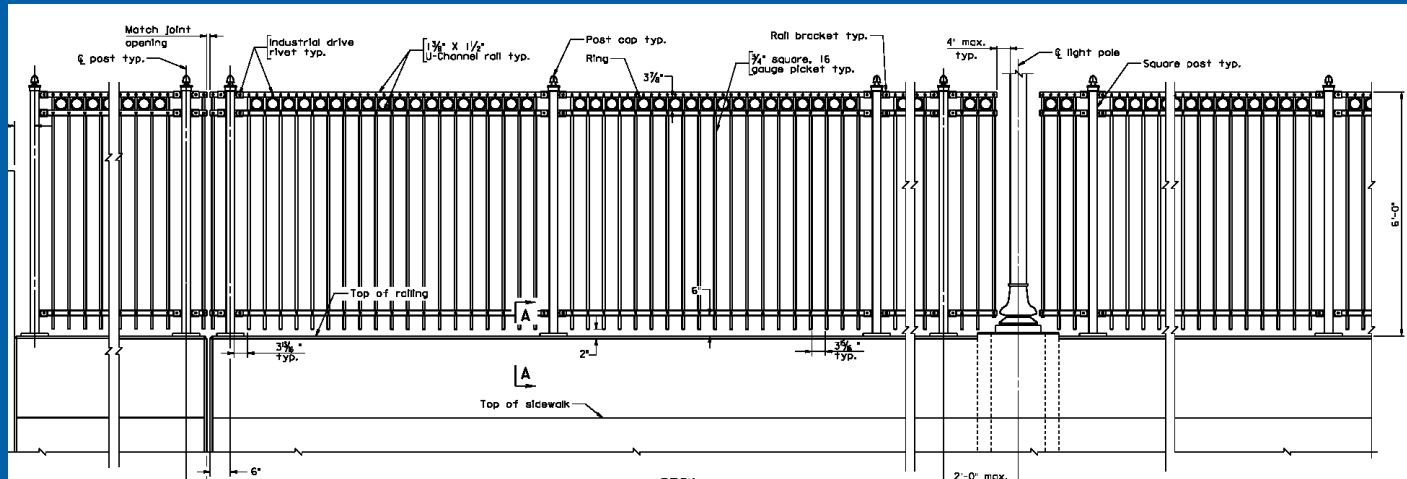
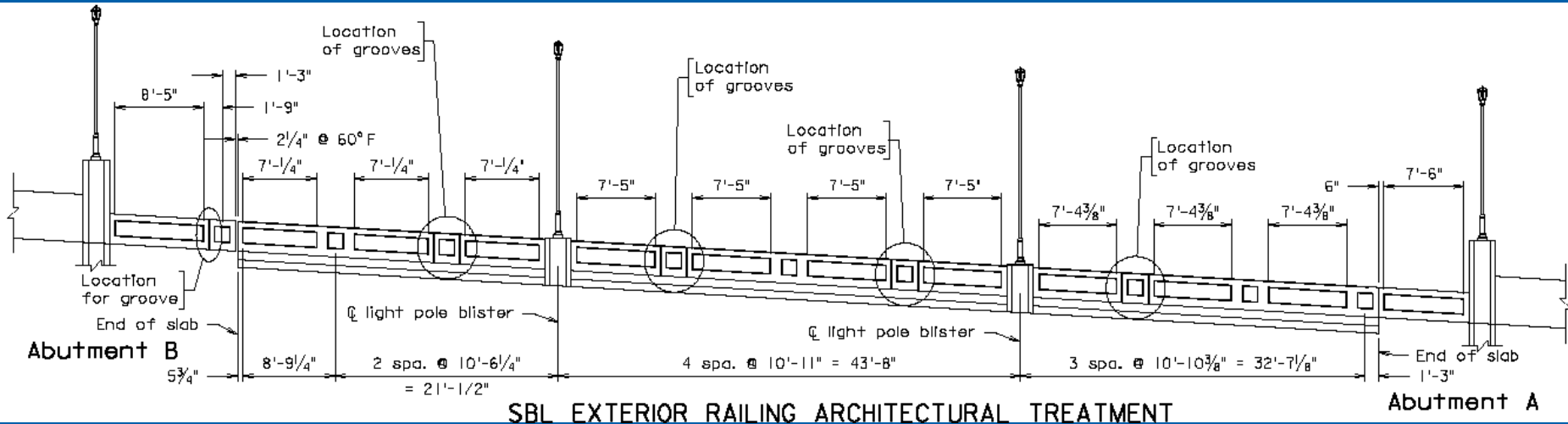
Forest Green Color

Recessed Concrete Surface on Parapet

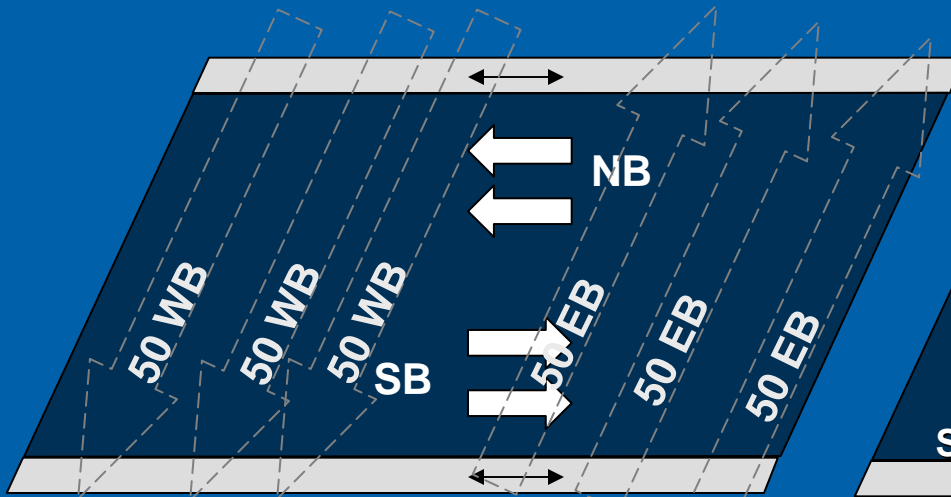


Architectural Features

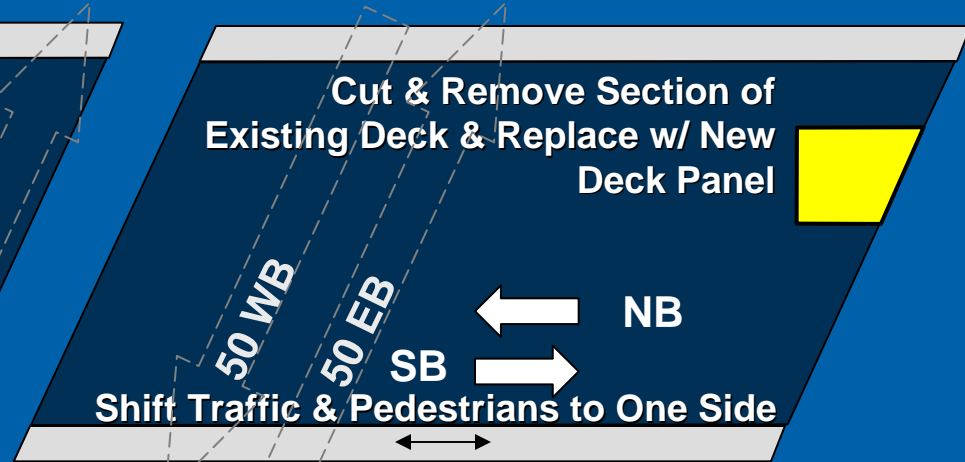
Railing & Parapet



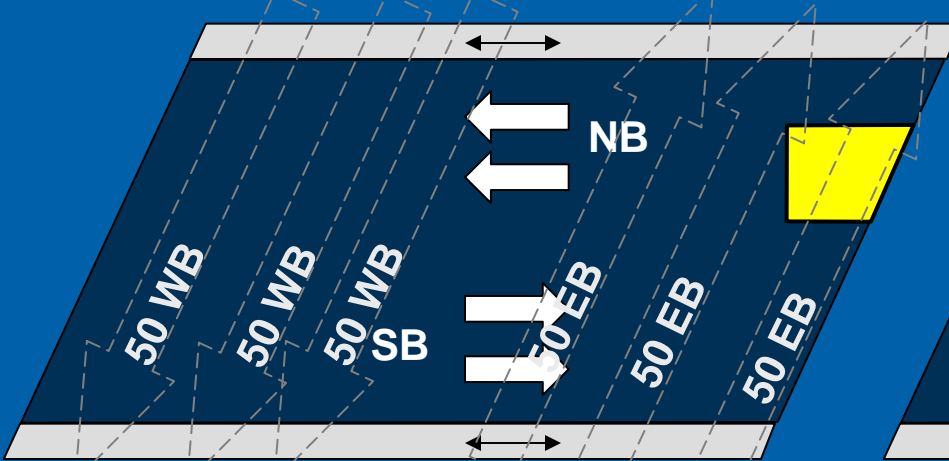
Concept for Construction Sequence & Maintenance of Traffic



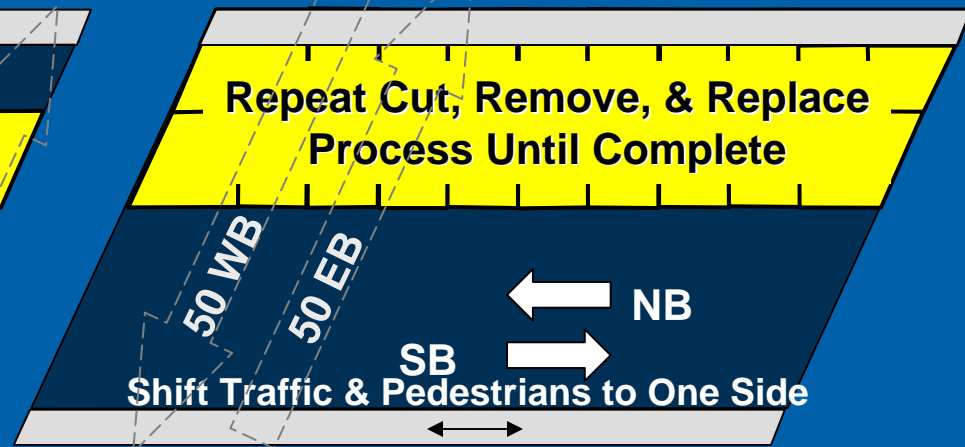
Daytime 5:00 a.m. to 9:00 p.m.



Night 9:00 p.m. to 5:00 a.m.

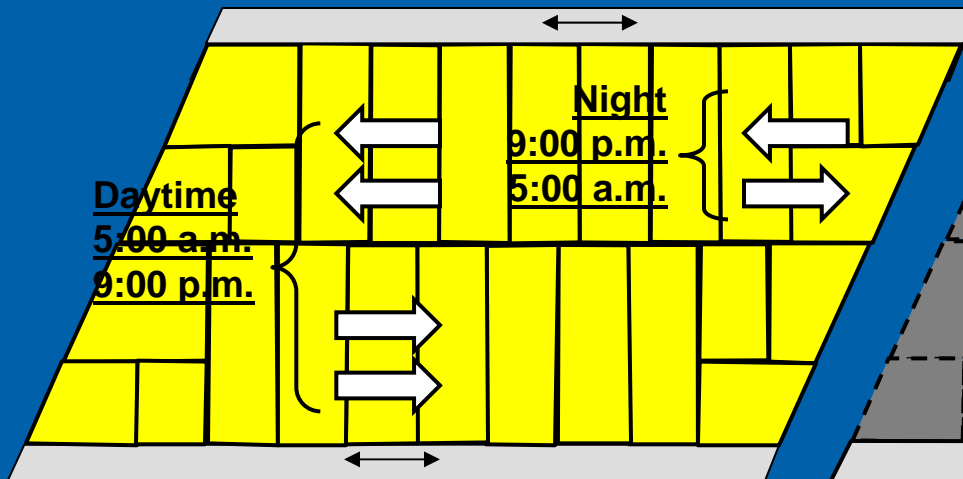


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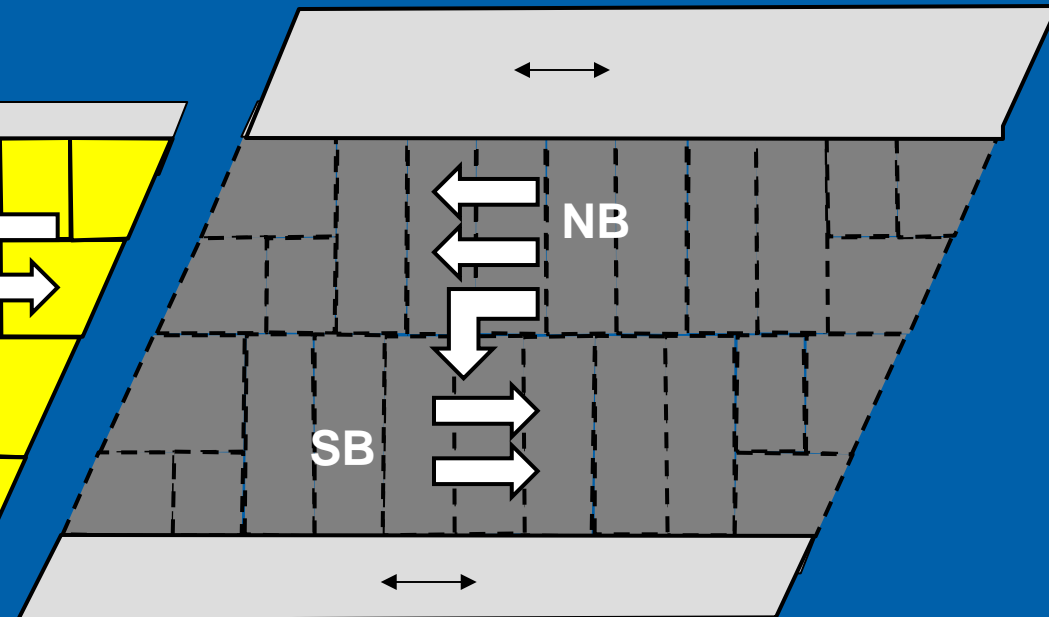


Night 9:00 p.m. to 5:00 a.m.

Concept for Construction Sequence & Maintenance of Traffic (Con't)



Repeat Cut, Remove, & Replace Process Until 2nd Half is Complete



Place Deck Overlay, Remove & Replace Sidewalks, Stripe for NB Turn Lane

- 10 Construction Phases & 8 Stages for Maintenance of Traffic
- Ramps from Rte 50 to Glebe Rd will be closed during deck replacement; detours on S. George Mason Dr., North Pershing, Washington Blvd & Columbia Pike
- Public Communications plan will be in effect ⇒ message signs, website, news releases

Maintenance of Traffic Stage 1

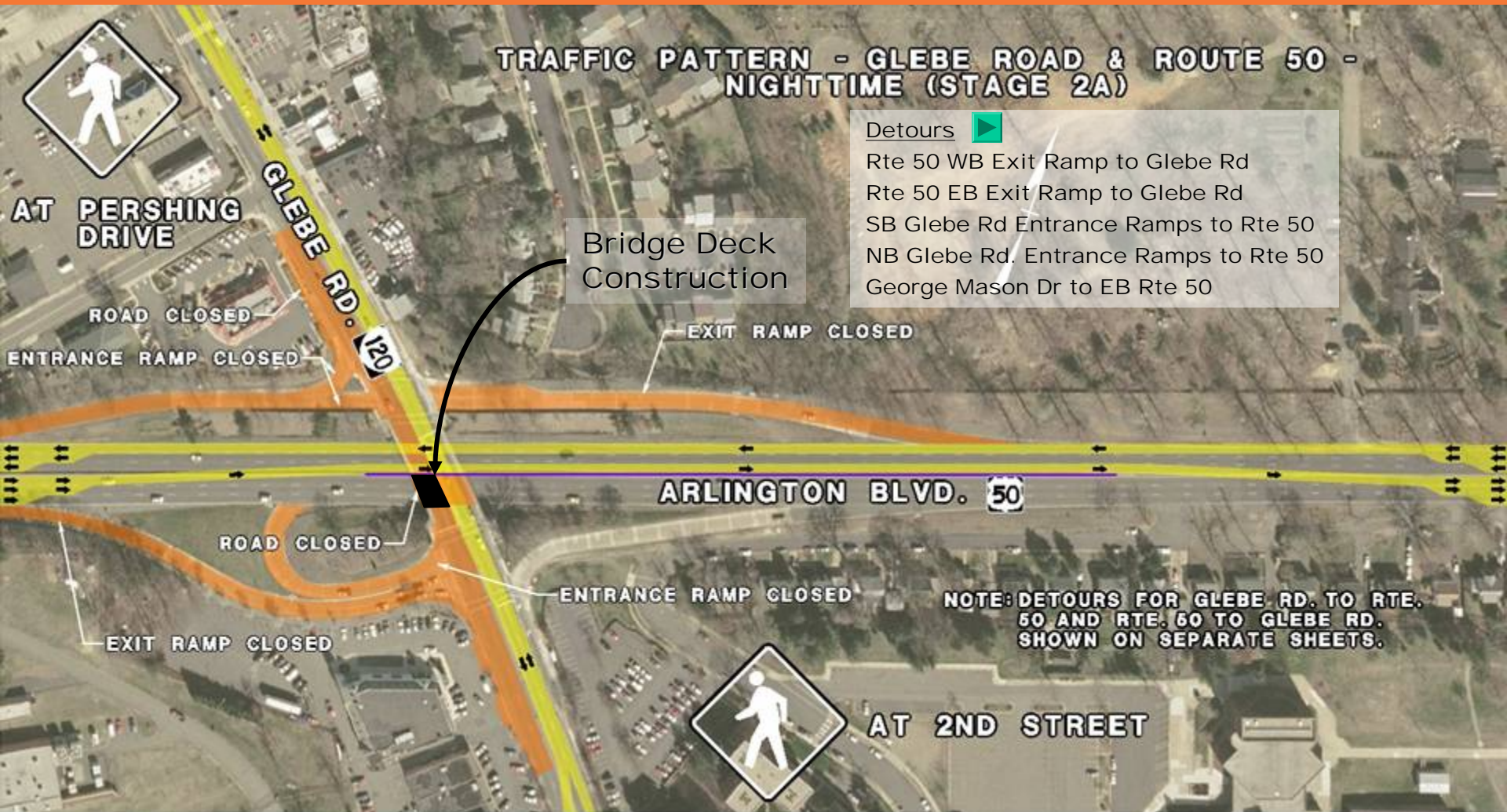
Remove Raised Median on Glebe Rd Approaches



- One lane open in each direction on Glebe Rd
- No Detours
- Time: 9 a.m. to 3 p.m. and/or 9 p.m. to 5 a.m.
- Duration: May 25 to August 18

Maintenance of Traffic Stage 2A

Replace Bridge Deck on SB Glebe Rd over EB Rte 50

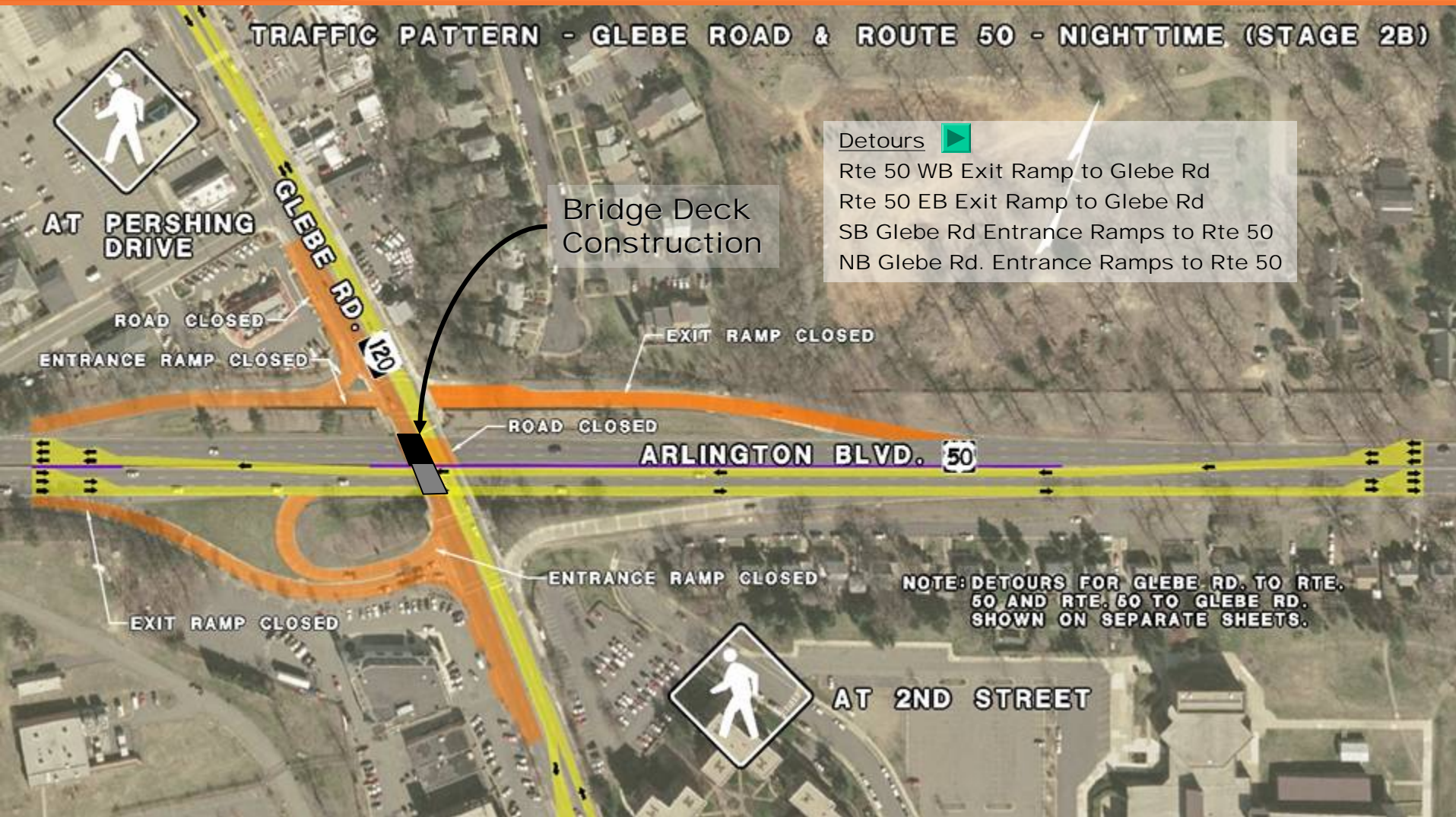


- One lane open in each direction on NB Glebe Rd & WB Rte 50
- Time: 9 p.m. to 5 a.m.
- Duration: August 4 – October 28

Maintenance of Traffic – Stage 2B

Replace Bridge Deck on SB Glebe Rd over WB Rte 50

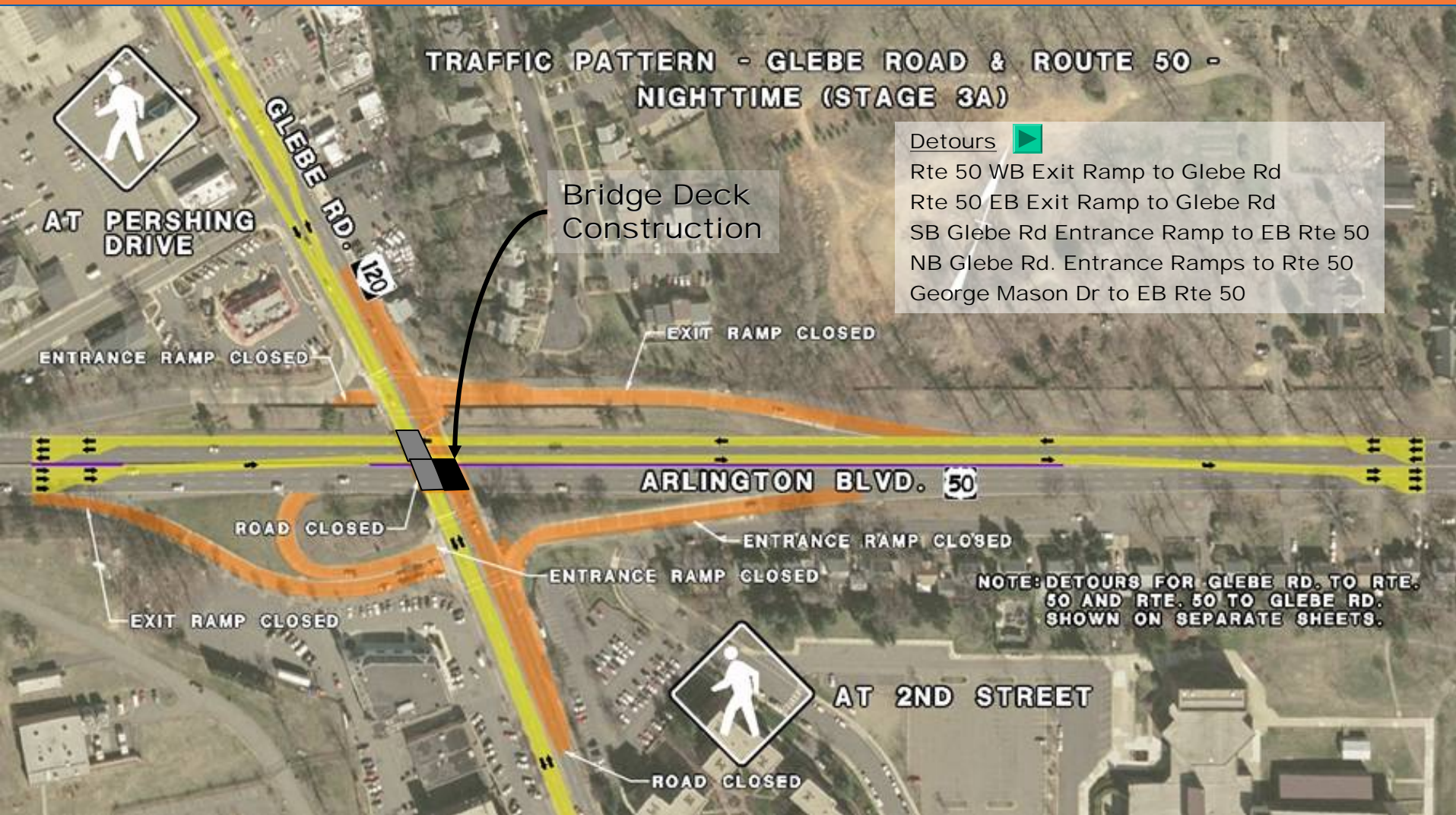
TRAFFIC PATTERN - GLEBE ROAD & ROUTE 50 - NIGHTTIME (STAGE 2B)



- One lane open in each direction on NB Glebe Rd & EB Rte 50
- Time: 9 p.m. to 5 a.m.
- Duration: August 4 – October 28

Maintenance of Traffic – Stage 3A

Replace Bridge Deck on NB Glebe Rd over EB Rte 50



- One lane open in each direction on SB Glebe Rd & WB Rte 50; SB Glebe to WB 50 open
- Time: 9 p.m. to 5 a.m.
- Duration: October 28, 2011 – January 19, 2012

Maintenance of Traffic – Stage 3B

Replace Bridge Deck on NB Glebe Rd over WB Rte 50



- One lane open in each direction on SB Glebe Rd & EB Rte 50
- Entrance Ramps from SB Glebe Rd to Rte 50 open
- Time: 9 p.m. to 5 a.m.
- Duration: October 28, 2011 – January 19, 2012

Maintenance of Traffic – Stage 4

Place Bridge Deck Overlay on SB Glebe Road

TRAFFIC PATTERN - GLEBE ROAD - NIGHTTIME (STAGE 4)



AT PERSHING DRIVE

EXIT RAMP CLOSED

Detours

- Rte 50 WB Exit Ramp to Glebe Rd
- Rte 50 EB Exit Ramp to Glebe Rd
- SB Glebe Rd Entrance Ramps to Rte 50
- NB Glebe Rd. Entrance Ramp to WB Rte 50

AT 2ND STREET

GLEBE RD. 120

ROAD CLOSED

ENTRANCE RAMP CLOSED

ENTRANCE RAMP CLOSED

EXIT RAMP CLOSED

ARLINGTON BLVD.

NOTE: DETOURS FOR GLEBE RD. TO RTE. 50 AND RTE. 50 TO GLEBE RD. SHOWN ON SEPARATE SHEETS.

- One lane open in each direction on NB Glebe Rd & all lanes open on Rte 50
- Entrance ramp from NB Glebe to EB Rte 50 open
- Time: 9 p.m. to 5 a.m.
- Duration: January 19 – February 3

Maintenance of Traffic – Stage 5

Place Bridge Deck Overlay on NB Glebe Road



- One lane open in each direction on SB Glebe Rd & all lanes open on Rte 50
- Entrance ramps from SB Glebe to Rte 50 open
- Time: 9 p.m. to 5 a.m.
- Duration: February 3 – February 17

TRAFFIC PATTERN - ROUTE 50 - NIGHTTIME (STAGES 6 AND 7)



- All traffic lanes open in each direction on Glebe Rd w/ pedestrian traffic on NB sidewalk
- All lanes open on Rte 50 during daytime construction, 9 a.m. to 3 p.m.
- Exterior lanes closed on Rte 50 during night construction, 9 p.m. to 5 a.m.
- Duration: February 17 – June 15

TRAFFIC PATTERN - ROUTE 50 - NIGHTTIME (STAGES 6 AND 7)



- All traffic lanes open in each direction on Glebe Rd w/ pedestrian traffic on SB sidewalk
- All lanes open on Rte 50 during daytime construction, 9 a.m. to 3 p.m.
- Exterior lanes closed on Rte 50 during night construction, 9 p.m. to 5 a.m.
- Duration: June 15 – September 20



- One lane open in each direction on Glebe Rd
- No Detours
- Time: 9 a.m. to 3 p.m. and/or 9 p.m. to 5 a.m.
- Duration: September 20 – October 11

Questions?

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