AGER ROAD IMPROVEMENTS: FROM MD 410 (EAST WEST HWY) TO MD 500 (QUEENS CHAPEL RD)

Prince George's County
Department of Public Works and Transportation
Office of Engineering & Project Management

CEAM 2022 Large Project of the Year Award

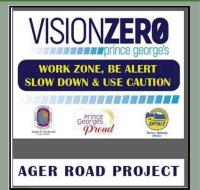








September 29, 2022



OVERVIEW









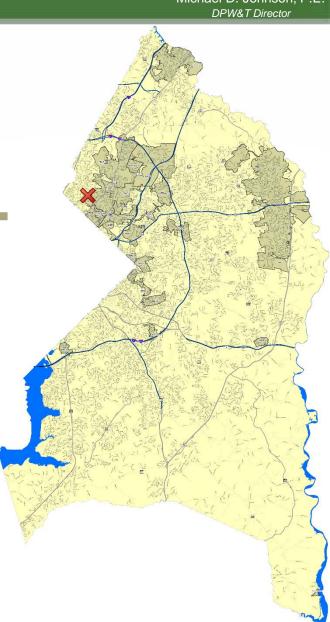








- PLANNING
- ENGINEERING
- ROW
- CONSTRUCTION
- Q&A SESSION



PLANNING – GREEN COMPLETE STREETS



Michael D. Johnson, P.E. DPW&T Director

Overarching Goals – Climate Action Plan

- Promote active recreation
- Reduce VMT and increase transit ridership
- Protect infrastructure from catastrophic events
- Improve access to jobs and community services, especially in lower income and minority communities
- Consult those directly impacted by infrastructure improvements
- Reduce Impervious Area

We wanted:

- Road Diet
- Pedestrian Safety / ADA
- Connectivity for bike/ped to Trails/Metro
- Upgrade Signals (spanwire)
- Upgrade to LED Lighting
- Green bike lanes
- Median fencing to channelize pedestrians
- Address Stormwater (SWM ESDv Credit)
- Bridge superstructure repairs



PLANNING – NEIGHBORHOOD DYNAMICS



Michael D. Johnson, P.E DPW&T Director

The project area is bordered by Chillum to the west and Hyattsville to the east.

Crashes ~800 latest 3 years

Urban Collector - 30 mph ADT 11,000 - 13,500



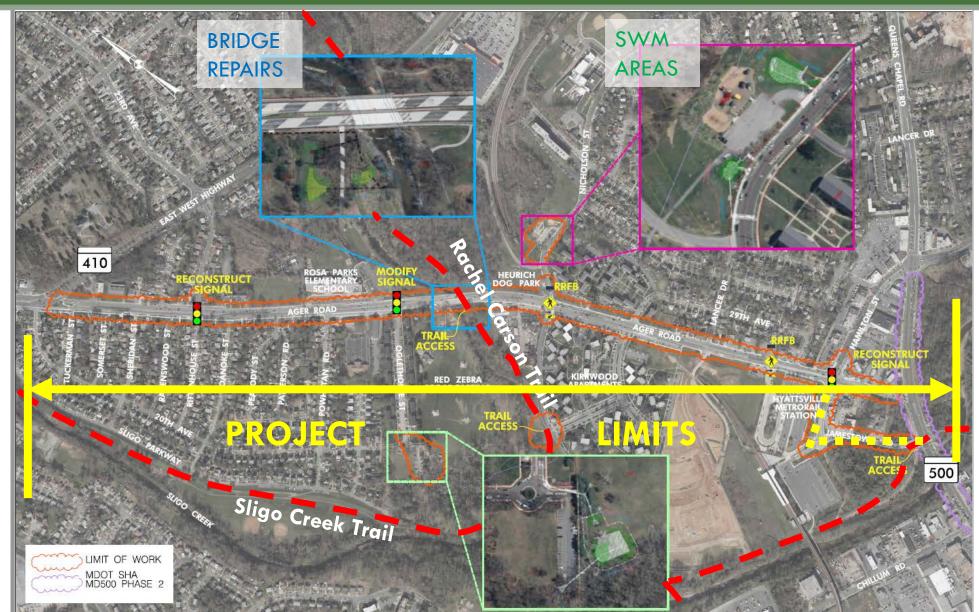


PROJECT AREA



Angela D. Alsobrooks

County Executive





GREEN-COMPLETE STREET ASPECTS

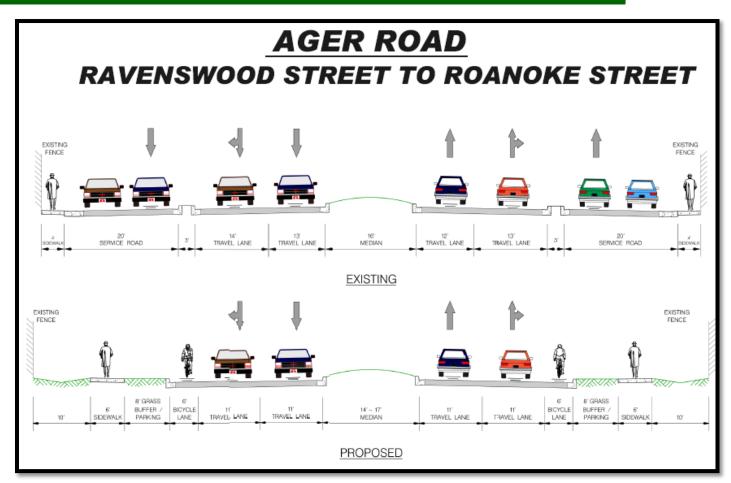


Michael D. Johnson, P.E. DPW&T Director

Ager Road Goes on a Diet – The five to six-lane roadway with parallel service roads is slimmed down to two 11-foot lanes, a six-foot wide on-road bike lane, and six-foot wide sidewalks in each direction. The bike lanes, parking pockets, and grass buffers provide a separation between pedestrians and moving vehicles.

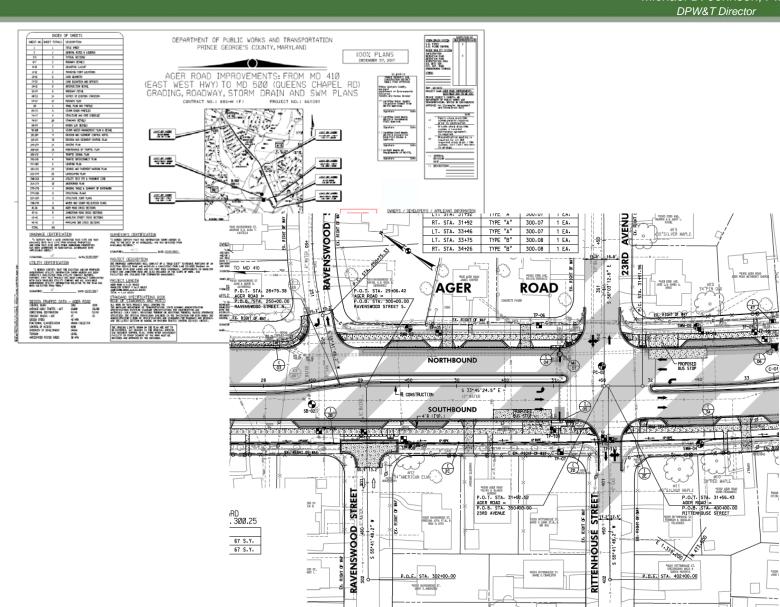






ENGINEERING

- Traffic
- Access Modification
- Stormwater Management
- Bridge Repair





TRAFFIC MODIFICATIONS





Ager Road at Oglethorpe St.

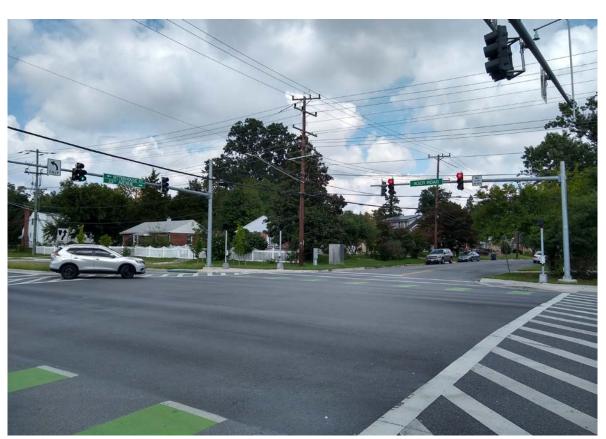


TRAFFIC DEVICES AND CONTROLS



Michael D. Johnson, P.E. DPW&T Director

Pedestrian Enhancements
Removing service roads
and providing bump-outs
shortens crossing distances
at intersections.



Rittenhouse St. & 23rd Avenue at Ager Rd.



GRIDSMART



CCTV



TRAFFIC DEVICES AND CONTROLS



Michael D. Johnson, P.E. DPW&T Director



RRFB USE

Solar-powered rectangular rapid-flash beacons (RRFBs) advise drivers that pedestrians are crossing Ager Road at unsignalized Nicholson Street (closest to Heurich Park) and the Metro Station (shown to the left)







BIKE & PEDESTRIAN ACCESS AT METRO

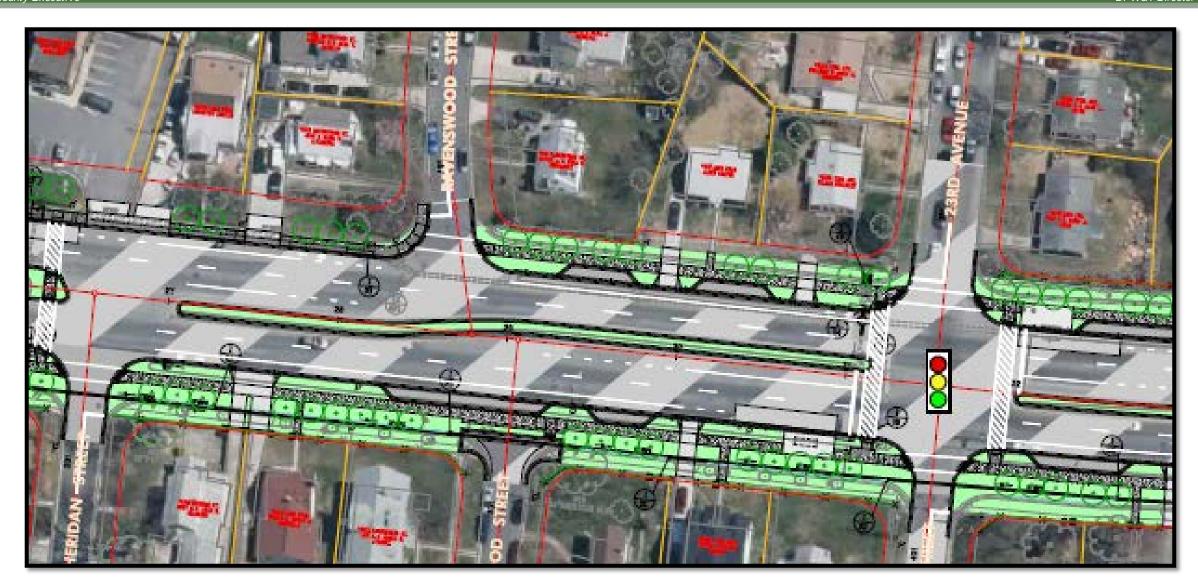


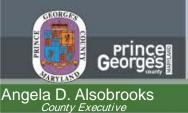




ACCESS MODIFICATION



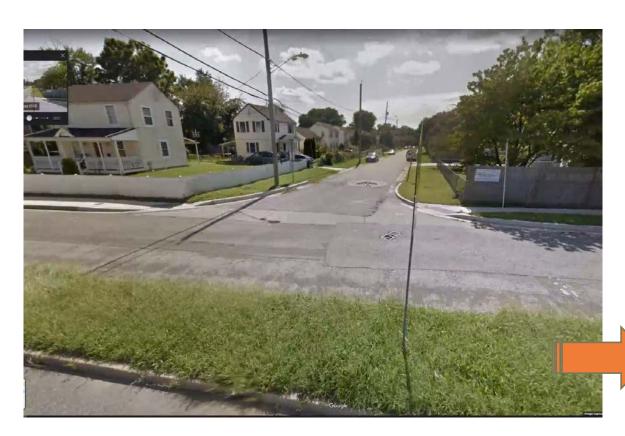




ACCESS MODIFICATION



Michael D. Johnson, P.E.



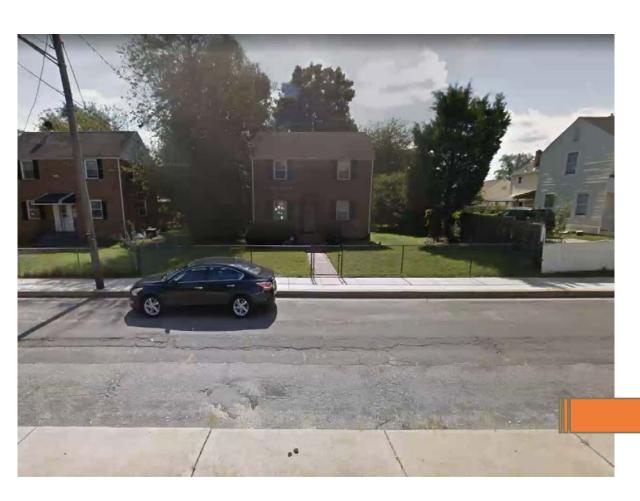


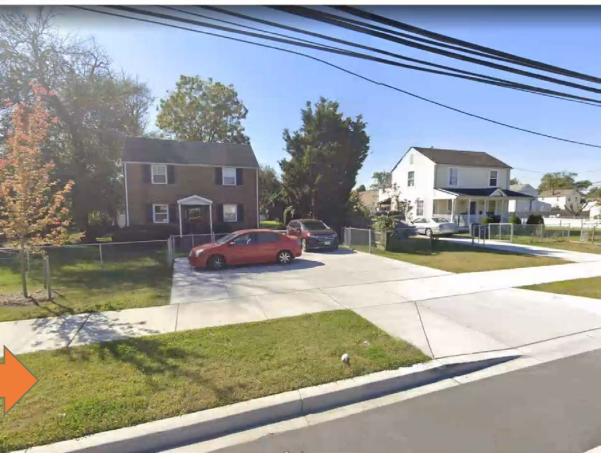
Ravenswood St. at Service Road



ACCESS MODIFICATION







RIGHT OF WAY



- Inlet Modifications
- Threading the Needle
- 60 Agreements (ROE)
- New Development

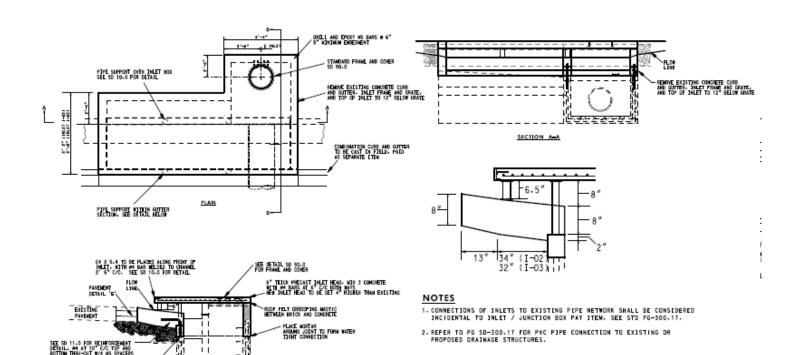
INLET MODIFICATIONS

Michael D. Johnson, P.E. DPW&T Director









SECTION B-B

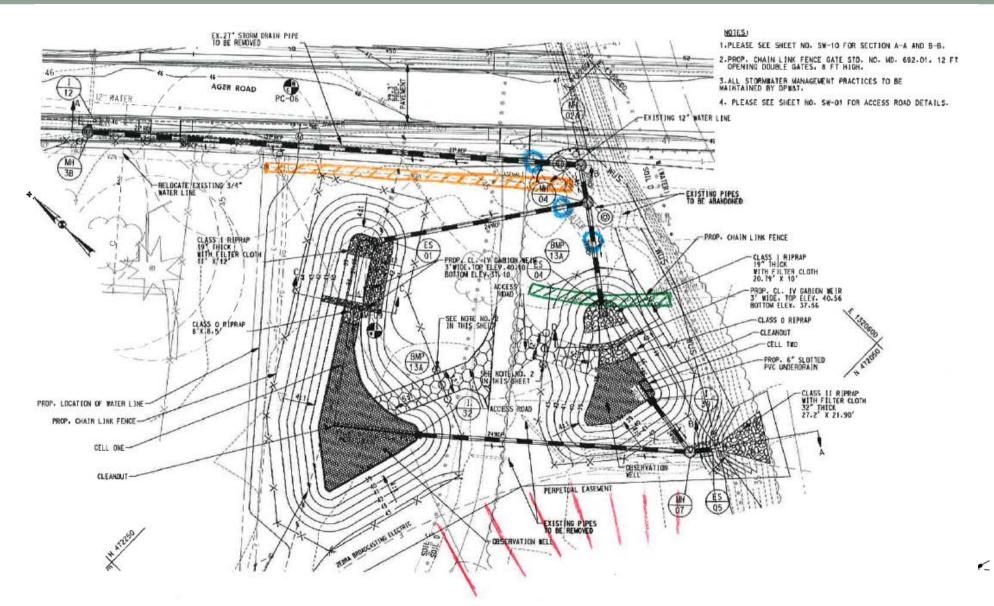
TYPE B INLET SLAB EXPANSION AND GUTTER SLAB DETAIL NOT TO SOLUL HEADING TOP SLAB AND TOP 12" OF JALET BOX

THREADING THE NEEDLE



Angela D. Alsobrooks

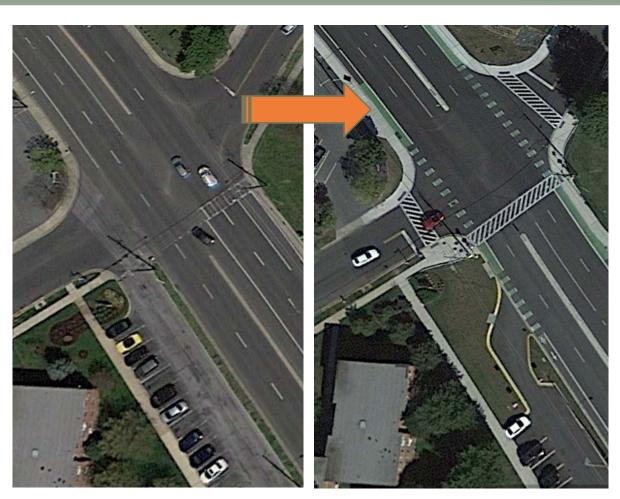
County Executive



RIGHT OF WAY



- Over 60 right-of-entry agreements
 - New driveways and extensions
 - Fence replacements
 - Adjacent landscaping
 - Access modifications
 Twice monthly meetings at DPW&T
- Red Zebra Broadcasting
- M-NCPPC/NCPC
 - SWM at Heurich Park
 - "Legacy" signal equipment
 - Capper-Cramton Act land
 - Trail improvements / Bike counter





RIGHT OF WAY – ADJACENT DEVELOPMENT











STORMWATER MANAGEMENT



Michael D. Johnson, P.E DPW&T Director



Submerged Gravel Wetland at Heurich Park – DPW&T, the City of Hyattsville, M-NCPPC, and NCPC partnered to identify locations for stormwater management adjacent to Northwest Branch (Rachel Carson Trail). The impervious area removal, submerged gravel wetlands, bioretention and bio-swales built along and adjacent to Ager Road reduce the amount of nutrients and pollution entering the Anacostia River and provide flood control.



TWIN SUBMERGED GRAVEL WETLANDS



Angela D. Alsobrooks

County Executive





IMPERVIOUS AREA REMOVAL



- The service road and concrete median had a section width over 25'
- Micro-contouring to prevent ponding or "birdbaths" in the green space







CONSTRUCTION



- Construction Challenges
 - Signal Construction, ADA, Drainage on-street tie-ins, Emergency Movements, Pavement Grades
- Property Coordination
 - Driveway Modification to accommodate loss for parking spaces
- Bridge Construction
 - Major Patching on pier caps and back walls, sidewalk modification, end treatment changes to accommodate traffic barrier, additional patch concrete beams once deck was removed
- Cost Savings One million dollars in cost savings



BRIDGE REPAIRS





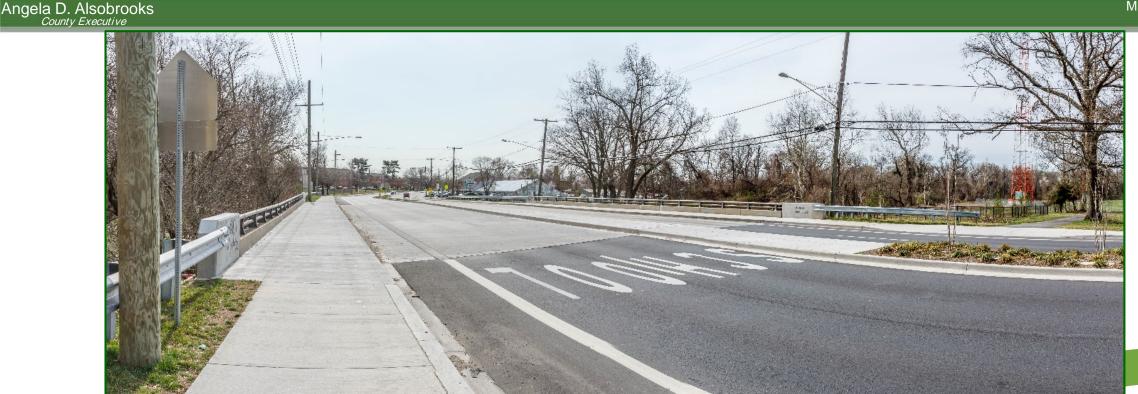




BRIDGE REPAIR AND REHABILITATION



Michael D. Johnson, P.E DPW&T Director



Ager Road Bridge over Northwest Branch — What started as a simple replacement of the joints, railings, and wearing surface on the structure grew to include deck replacement, beam repairs, new sidewalks, and a fully jointless riding surface with new approach slabs... right after the 90% design milestone. DPW&T, Wallace Montgomery, Sabra-Wang and Stantec collaborated to quickly include the additional work into the plans, specifications, and estimate prior to Advertisement.

CONSTRUCTION



UNIQUE PROJECT ELEMENTS & COST CONTROLS



- State of Good Repair
 - New pavement underdrain
 - Extensive pavement patching
 - Bridge repair and re-deck
- Pedestrian-Oriented
 - Solar-powered RRFBs
 - "Zone"-based MOT
 - LED lighting replacements







SUMMARY

- PLANNING
 - Road Diet, Climate Action
- ENGINEERING
 - Connectivity
 - Access management
 - Bridge Repairs
 - Stormwater
 - Pavement removal
 - Created channels and SWM
 - LED lighting
- ROW ROE
- CONSTRUCTION

We got:

The Ager Road Green Complete Streets Project Total Project length was 1.25 miles and cost \$12 Million The project provided:

- A road diet to reduce speeding (narrow lanes, continuous ADA)
 - Removal, in certain areas, of the service roadways to provide for greater greenspace and improved pedestrian facilities
 - On-street parking pockets
- Upgraded traffic signalization at three locations
- Improved LED street lighting
- Tree planting and storm water management (Submerged Gravel Wetlands at Heurich Park)
- Improved trail connectivity to the Northwest Branch (RCT) trail network and West Hyattsville Metro station
 - Green bike lanes
- Bridge Repairs
- Median fencing to channelize pedestrian crossings
- Rectangular Rapid Flashing Beacon (RRFB) at Nicholson St and WMATA Bus Loop



THANK YOU - QUESTION & ANSWER



Michael D. Johnson, P.E. DPW&T Director

Angela D. Alsobrooks County Executive



RKSK







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