MONTGOMERY COUNTY PLANNING BOARD
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

October 7, 2021

Mr. Tim Smith, PE, Administrator
Maryland Department of Transportation
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

SUBJECT: **Montgomery Hills MD 97 Design Project Mandatory Referral MR2021033:** Proposed Road, Safety, Pedestrian and Bicycle Improvements, located in the 2020 *Forest Glen/Montgomery Hills Sector Plan*

Dear Mr. Smith:

At its regularly scheduled meeting on September 23, 2021, the Montgomery County Planning Board conducted a Mandatory Referral for the Montgomery Hills MD 97 Design Project. By a vote of 4:0, the Planning Board approved the project with comments, which are provided below:

1. The Planning Board recommends adding improved pedestrian and bicycle facilities on northbound 16th Street between Georgia Avenue and Grace Church consistent with approved Master Plans. This includes the construction of 8-foot-wide two-way separated bike lanes, a 2-foot-wide ped/bike buffer, a 6-foot-wide sidewalk and a 6-foot-wide street buffer. The separated bike lanes should be located at curb level (8 inches above the street) and the sidewalk should be located 3 inches above the separated bike lanes with a rolled curb. This is a critical bike facility recommended in the 2018 approved Montgomery County Bicycle Master Plan to connect bike users along Georgia Avenue with the Woodside Purple Line station (under construction) and into Downtown Silver Spring and points south into Washington, DC. These recommendations were included in the 2018 *Bicycle Master Plan*, the 2017 *Greater Lyttonsville Sector Plan*, and the 2020 *Forest Glen/Montgomery Hills Sector Plan*. While we recognize that this block of 16th Street has major right of way constraints, we also suggest that MDOT SHA reassess the need for the third travel lane on northbound 16th Street, as this could provide needed room for the above bicycle and pedestrian accommodations. Bicycle and pedestrian connectivity through this area should be an equal priority to vehicle throughput, to ensure that logical, connected, and safe facilities can be provided for all modes.

2. The separated bike lanes proposed to use the existing southbound 16th Street carriageway should be truncated and terminated at Luzerne Avenue. A bikeway is not master planned to the west of Luzerne Avenue, and the provision of the separated bike lanes on the south side of 16th Street, as stated in comment #1, is of paramount importance to the development of a cohesive bicycle network in this portion of Silver Spring.

3. The portion of land between 16th Street, MD 97 and Luzerne Avenue, will be conveyed in-fee to M-NCPPC as recommended in the *Forest Glen/Montgomery Hills Sector Plan* prior to substantial completion of the project. The design of the SHA improvements needs to accommodate the construction of a rectangular athletic field and other park amenities by

M-NCPPC. The land conveyance boundary and any project impacts to the future parkland need to be finalized through the Park Construction Permit review process. Planning staff request that unused portions of the southbound 16th Street Right-of-Way be included in that dedication.

4. In general, the provision of narrow sidewalks along arterial roadways with no buffers is incompatible with the Vision Zero/Context Driven/Complete Streets priorities of both MDOT SHA and Montgomery County. Montgomery County is developing a Pedestrian Master Plan, and Planning staff anticipate recommending, as a countywide policy, that new sidewalk construction or retrofits achieve a Pedestrian Level of Comfort score of 2 or better.[1] In the 16th Street context, with a 35 mph posted speed limit and a 5-foot sidewalk, the landscape buffer would need to be at least 8 feet to achieve this condition.

5. The radius provided at the southbound dual right-turn lanes on Georgia Avenue at 16th Street (estimated at 100 feet approximately) should be made tighter than the current design. There is no need to process southbound right turns at a high rate of speed, particularly given that a future park will be located adjacent to this corner. A radius of 50 feet or less is preferred.

6. Modify the west side of Georgia Avenue between Flora Lane and Luzerne Avenue as follows: provide a 6-foot-wide sidewalk, 8-foot-wide separated bike lanes and 6-foot-wide grass buffer. The separated bike lanes should be located at curb level (8 inches above the street) and the sidewalk should be located 3 inches above the separated bike lanes with a rolled curb. While the 6-foot-wide sidewalk (5-foot-wide sidewalk with one-foot-wide buffer) would be substandard for this street type (it would still meet ADA standards), it could be expanded with redevelopment, and the proposed separated bike lanes would have a comfortable level of traffic stress, per Appendix D of the 2018 *Bicycle Master Plan*. This modification would have safety benefits and would result in future design savings with the bike facility not needing to be reconstructed when redevelopment occurs.

7. With regard to complete parcels to be acquired by MDOT SHA (car wash and Shell gas station):

    a. Full width facilities should be provided, including an 8-foot-wide street buffer, 8-foot-wide separated bike lanes, a 3-foot-wide ped/bike buffer, and an 8-foot-wide sidewalk.

    b. Consideration should be given to requiring consolidated access with the adjacent shopping center parcel. Tying continuance of the existing curb cut at station 119+90 with an interparcel access agreement with the owner of the acquired properties should be considered. This is needed if MDOT SHA sells these parcels in the future.

8. The parcel located on the southwest quadrant of the MD 97/Seminary Road intersection has been designed with an extra access onto Columbia Boulevard. This driveway, as shown on plan PS-04, is too close to the intersection of Seminary Road with Columbia Boulevard, and this parcel already has one access point on Columbia Boulevard. This driveway should be removed from the design.

[1] Montgomery County evaluates pedestrian adequacy using a comprehensive methodology called the Pedestrian Level of Comfort (PLOC). This has been developed as part of the ongoing Pedestrian Master Plan and is described in detail in the PLOC methodology documentation. On a scale of 1 (very comfortable) to 4 (undesirable), a PLOC of 2 is defined as somewhat comfortable.

9. The two I-495 on-ramps from northbound MD 97 should have protected crossings (signals) for pedestrians and bicyclists.

10. Remove the island and tighten the turn radius at the intersection of MD 97 and Locust Grove Road.

11. Eliminate the median on Forest Glen Road east of Georgia Avenue and use the space to provide a buffer between the sidewalks and the street.

12. Bike signals should be included in the design for the separated bike lanes.

13. Protected intersections are needed to improve safety for pedestrians and bicyclists where the separated bike lanes and sidepaths intersect with Seminary Place, Seminary Lane and 16th Street.

14. MDOT SHA should coordinate with the Montgomery County Department of Transportation on the proposed floating bus stop on southbound MD 97 at Seminary Road. This coordination is essential to ensure consistency in the development of this new design treatment within Montgomery County given the lack of a definitive Federal standard. Additionally, MCDOT has implemented a floating bus stop successfully on 2nd Avenue in downtown Silver Spring and lessons learned from that experience could apply at this location, particularly in developing accommodations for individuals with visual and physical impairments.

15. The 35-mph design speed used for the MD 97 Montgomery Hills Design Project is inconsistent with the master planned 25 mph target speed. Staff urges MDOT SHA to modify the design to a lower speed threshold and in addressing a response to this comment, MDOT SHA should explain how the target speed of 25 mph will be achieved along this corridor due to specific design elements incorporated into the project, including narrow travel lanes, signal timing and other measures.

The Planning Board appreciates the opportunity to review this project and continue coordinating with MDOT SHA on future projects. If you have questions, please contact Stephen Aldrich at 301-495-4528 or Stephen.Aldrich@montgomeryplanning.org.

Sincerely,

Casey Anderson
Chair

cc: Stephen Aldrich, Master Planner, M-NCPPC
Jason Sartori, Chief, M-NCPPC
Barry Smith, MDOT SHA
MarieFrance Guiteau, MDOT SHA
Matthew Dowdle, MDOT SHA

Enclosure:
M-NCPPC Staff Briefing Staff Report

CA:SA:aj

MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

MCPB
Item No.: 4
Date: 09-23-21

Montgomery Hills MD 97 Design Project, Mandatory Referral, MR2021033

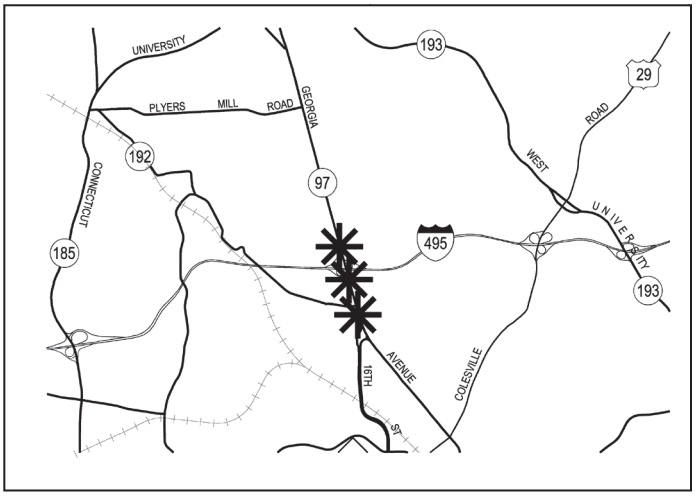
Stephen Aldrich, Master Planner, Stephen.Aldrich@montgomeryplanning.org, 301-495-4528

Jason Sartori, Chief, CP&P, Jason.Sartori@montgomeryplanning.org, 301-495-2172

Completed: 09-17-21

Description

Construction of new roadway, traffic signal, bicycle, and pedestrian improvements on MD 97 (Georgia Avenue) between 16th Street and Forest Glen Road (SHA Contract No. MO2245171) in Silver Spring, Maryland. The project elements are the elimination of the center, reversible travel lane, construction of a raised median, I-495 ramp modifications, traffic signal improvements, and pedestrian and bicycle facility improvements.



- Applicant: Maryland Department of Transportation – State Highway Administration (MDOT SHA)
- Forest Glen/Montgomery Hills Sector Plan (2020)

Staff Recommendation: Approval with Comments

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Summary

The Maryland Department of Transportation – State Highway Administration (MDOT SHA) is proposing to construct major road, pedestrian, bicycle, and transit improvements along MD 97 (Georgia Avenue) through the Montgomery Hills area in Silver Spring. The project includes the following improvements:

- Removal of the existing center, reversible travel lane on MD 97,
- Construction of a center median,
- Closure of the existing 16th Street southbound road alignment/carriageway between MD 97 and Columbia Boulevard/Grace Church Road and reconstruction of the northbound 16th alignment/carriageway to accommodate two-way traffic flow,
- Construction of 8-foot wide two-way separated bike lanes on the west side of MD 97 between Flora Lane and Grace Church Road,
- Sidewalk improvements on MD 97 along the project extents to provide sidewalks compatible with the Americans with Disability Act (ADA) requirements. This includes relocating sidewalks to avoid the placement of utility poles within the sidewalk area,
- Construction of 8-foot wide two-way separated bike lanes on the alignment of the current southbound 16th Street connecting into Columbia Boulevard near Hanover Street,
- Proposed floating bus stop on southbound MD 97 between Seminary Road and Seminary Place,
- Closure of the I-495 loop off-ramp from the Inner Loop to northbound MD 97 (southeast quadrant of interchange),
- Traffic signal and geometric modifications to the existing I-495 off-ramp from the Inner Loop to southbound MD 97 to accommodate all traffic exiting onto MD 97,
- New traffic signal on MD 97 at Flora Lane, and
- Traffic signal improvements on MD 97 at Forest Glen Road, the I-495 ramp signals, Seminary Place, Seminary Lane/Columbia Boulevard, and 16th Street.

The project location is along MD 97 and a portion of 16th Street between Forest Glen Road and Grace Church Road, depicted in Figure 1. The current project, which includes full design cost funding, is listed as Project No. MO2245171. This project is located in the Draft FY22-FY27 MDOT Comprehensive Transportation Program on page SHA-M-9. The planning and design budget listed is $7.9 million; however, this estimate does not include right-of-way, utilities, or construction costs. In the current FY22-FY27 CTP, this project is scheduled for design completion in FY23.

The 30 percent design plan presentation drawings are provided as Attachment A to this report.

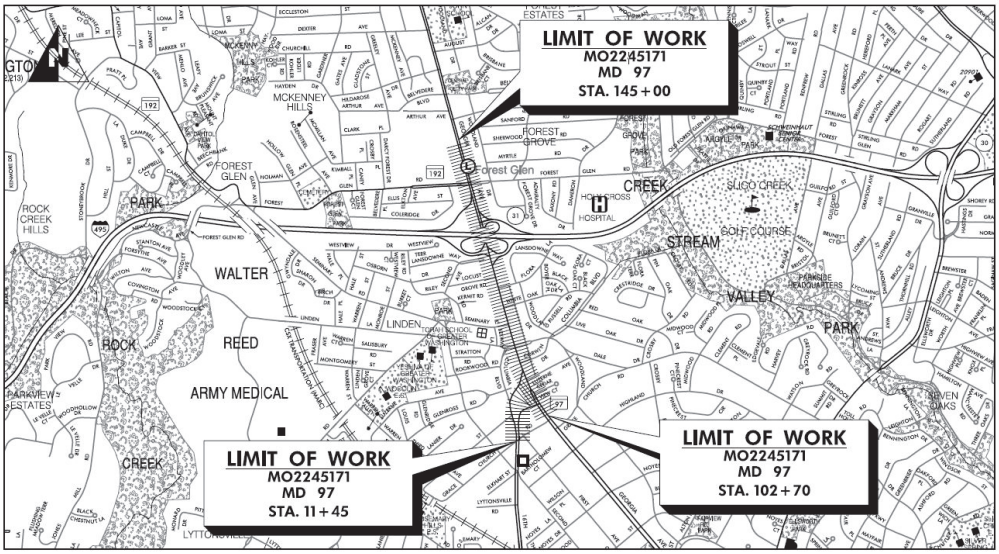

Figure 1: Project Limits and Site Vicinity

Mandatory Referral Review

This proposal for the construction of road, signal, ramp, pedestrian and bicycle improvements is required to undergo the Mandatory Referral review process under the Montgomery County Planning Department's Uniform Standards for Mandatory Referral Review. State law requires all federal, state, and local governments and public utilities to submit proposed projects for a Mandatory Referral review by the Commission. The law requires the Planning Board to review and approve the proposed location, character, grade and extent of any road, park, public way or ground, public (including federal) building or structure, or public utility (whether publicly or privately owned) prior to the project being located, constructed or authorized. This review is typically performed in context with the relevant master plans, guidelines and policies in effect.

Planning staff acknowledges that the implementation of master plan transportation recommendations is a challenge faced by the applicant in developing design plans to convert desired master plan recommendations into engineering design drawings. The design process up to 30/35 percent design typically brings clarity with considerably more detail than considered during a master plan, and issues such as environmental impacts, historic impacts, and construction costs may introduce new factors that need to be weighed in developing a final design solution. It is the intention of the Board that the Mandatory Referral process aids in this process to develop an optimal or at least an improved design solution.

Recommendations

Staff recommends **approval** to transmit the following comments to the Maryland Department of Transportation State Highway Administration:

1. Instead of constructing separated bike lanes on Georgia Avenue (MD 97) between 16th Street (MD 390) and Grace Church Road, the project should be modified as follows:

    a. Northbound 16th Street between Georgia Avenue and Grace Church Road: Shift 16th Street to the north and construct 8-foot wide two-way separated bike lanes, 2-foot wide

ped/bike buffer, 6-foot-wide sidewalk and 6-foot-wide street buffer on the south side of 16th Street. The separated bike lanes should be located at curb level (8 inches above the street) and the sidewalk should be located 3 inches above the separated bike lanes with a rolled curb. This is a critical bike facility recommended in the 2018 approved Montgomery County Bicycle Master Plan to connect bike users along Georgia Avenue with the Woodside Purple Line station (under construction) and into Downtown Silver Spring and points south into Washington DC. These recommendations were included in the 2018 *Bicycle Master Plan*, the 2017 *Greater Lyttonsville Sector Plan*, and the 2020 *Forest Glen/Montgomery Hills Sector Plan*.

b. Georgia Avenue between 16th Street and Grace Church Road: Construct a 6-foot-wide sidewalk with a 6-foot-wide buffer from traffic on the west side of the road.

2. The separated bike lanes proposed to use the existing southbound 16th Street carriageway should be truncated and terminated at Luzerne Avenue. A bikeway is not master planned to the west of Luzerne Avenue, and the provision of the separated bike lanes on the south side of 16th Street, as stated in comment #1, is of paramount importance to the development of a cohesive bicycle network in this portion of Silver Spring.

3. The portion of land between 16th Street, MD 97 and Luzerne Avenue, will be conveyed in-fee to M-NCPPC as recommended in the *Forest Glen/Montgomery Hills Sector Plan* prior to substantial completion of the project. The design of the SHA improvements need to accommodate the construction of a rectangular athletic field and other park amenities by M-NCPPC. The land conveyance boundary and any project impacts to the future parkland need to be finalized through the Park Construction Permit review process. Planning staff request that unused portions of the southbound 16th Street Right-of-Way be included in that dedication.

4. In general, the provision of narrow sidewalks along arterial roadways with no buffers is incompatible with the Vision Zero/Context Driven/Complete Streets priorities of both MDOT SHA and Montgomery County. Montgomery County is developing a Pedestrian Master Plan, and Planning staff anticipate recommending, as a countywide policy, that new sidewalk construction or retrofits achieve a Pedestrian Level of Comfort score of 2 or better.[1] In the 16th Street context, with a 35 mph posted speed limit and a 5-foot sidewalk, the landscape buffer would need to be at least 8 feet to achieve this condition.

5. The radius provided at the southbound dual right-turn lanes on Georgia Avenue at 16th Street (estimated at 100 feet approximately) should be made tighter than the current design. There is no need to process southbound right turns at a high rate of speed, particularly given that a future park will be located adjacent to this corner. A radius of 50 feet or less is preferred.

6. Modify the west side of Georgia Avenue between Flora Lane and Luzerne Avenue as follows: provide a 6-foot-wide sidewalk, 8-foot-wide separated bike lanes and 6-foot-wide grass buffer. The separated bike lanes should be located at curb level (8 inches above the street) and the

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    b. Consideration should be given to requiring consolidated access with the adjacent shopping center parcel. Tying continuance of the existing curb cut at station 119+90 with the agreement to an interparcel access agreement with the owner of the acquired properties should be considered. This is needed if MDOT SHA sells these parcels in the future.

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9. The two I-495 on-ramps from northbound MD 97 should have protected crossings (signals) for pedestrians and bicyclists.

10. Remove the island and tighten the turn radius at the intersection of MD 97 and Locust Grove Road.

11. Eliminate the median on Forest Glen Road east of Georgia Avenue and use the space to provide a buffer between the sidewalks and the street.

12. Bike signals should be included in the design for the separated bike lanes.

13. Protected intersections are needed to improve safety for pedestrians and bicyclists where the separated bike lanes and sidepaths intersect with Seminary Place, Seminary Lane and 16th Street.

14. MDOT SHA should coordinate with the Montgomery County Department of Transportation on the proposed floating bus stop on southbound MD 97 at Seminary Road. This coordination is essential to ensure consistency in the development of this new design treatment within Montgomery County given the lack of a definitive Federal standard. Additionally, MCDOT has implemented a floating bus stop successfully on 2nd Avenue in downtown Silver Spring and lessons learned from that experience could apply at this location, particularly in developing accommodations for individuals with visual and physical impairments.

15. The 35 mph design speed used for the MD 97 Montgomery Hills Design Project is inconsistent with the Master Planned 25 mph target speed. Staff urges MDOT SHA to modify the design to a

lower speed threshold and in addressing a response to this comment, MDOT SHA should explain how the target speed of 25 mph will be achieved along this corridor due to specific design elements incorporated into the project, including narrow travel lanes, signal timing and other measures.

Proposed Design

Project Description

The MD 97 Montgomery Hills Project is intended to improve vehicular safety and pedestrian and bicycle accessibility while balancing vehicular mobility. The project is located just north of downtown Silver Spring along a 0.7 mile stretch of MD 97 (Georgia Avenue) that extends from MD 390 (16th Street) to the south to MD 192 (Forest Glen Road) to the north. MD 97 is a closed section roadway with three through-lanes in the northbound (NB) and southbound (SB) directions, with a peak hour reversible lane serving as a two-way left-turn lane during off-peak hours. Left turns are prohibited during peak travel hours. MD 97 consists of a sidewalk on each side of the roadway, most of which is not Americans with Disabilities Act (ADA) compliant. There are numerous businesses along the corridor.

The needs for the corridor are evidenced by community input and data that show crash rates higher than the statewide average for similarly designed roadways. The corridor is an auto-dominated roadway that prioritizes motor vehicle mobility and capacity to the detriment of pedestrian and bicycle access. The community has cited a lack of continuous ADA-compliant pedestrian and bicycle facilities as a safety concern due to the presence of the Forest Glen Metro station, extensive residential network, and the number of key destinations within the corridor. One of the concerns is the existing roadway does not provide bicycle connectivity between the Forest Glen Metro Station and the extensive Silver Spring bicycle network directly to the south. The corridor is included in the Montgomery County Bicycle Master Plan and Montgomery County Planning Department *Forest Glen/Montgomery Hills Sector Plan* as a key bicycle connection. These plans visualize a separated-bike facility between Forest Glen Road and Grace Church Road to provide the necessary bicycle connectivity in the MD 97 corridor.

The MDOT SHA has a planned project to address the MD 97 corridor's need. The project's goals and objectives were determined in the planning phase and summarized in the MDOT Purpose and Need Statement (see Attachment B). The MDOT Purpose and Need Statement identified Measures of Effectiveness (MOEs) consistent with corridor concerns cited by the community, which were validated by engineering data and traffic analysis. The objectives for the MD 97 corridor are as follows:

Objective 1-1: Reduce the overall crash rate by 18 percent, so it is no longer significantly higher than the statewide average for similar roadways

Objective 2-1: Improve each Pedestrian Level of Service (PLOS) segment in the corridor to a level "D."

Objective 2-2: Improve Bicycle Level of Service (BLOS) to a level "C."

Objective 3-1: Ensure vehicular network delay, including latent delay, is no greater than 25 percent higher than the 2040 No-Build condition.

Objective 3-2: For I-495 interchange off-ramps, ensure that the 95th percentile queues are contained within the ramp storage. Where 2040 no-build queues exceed the storage, ensure that queues do not increase beyond the no-build length

The scope of work includes removing the existing center turn/reversible lane and replacing it with a raised landscaped median, providing three to four through lanes on MD 97 in the northbound and southbound

directions. The project also includes a new traffic signal on MD 97 at Flora Lane, relocation of the southbound 16th Street movement, and elimination of the loop off-ramp in the southeast quadrant of the MD 97 and I-495 interchange.

It includes two-way separated bike lanes along southbound MD 97 to meet Objective 2-2 of the MDOT Purpose and Need. The cycle track extends from south of Locust Grove Road to south of 16th Street. It will tie into the existing bicycle/pedestrian bridge that spans across the I-495 interchange ramps.

The design for utility poles for MDOT SHA projects will not be completed until the 90% (Final Design) stage. Currently, the utility pole design is in a very early stage. When MDOT SHA designs sidewalks they design with the intention to stay within ADA standards, such that the sidewalk has a minimum width of 5 feet. This means that all sidewalks are designed such that there is a clear, accessible pathway around utility poles. If there are places where placing a utility pole within the sidewalk cannot be avoided, the design includes a 36-inch passable width or additional width in the area of the pole.

The MDOT SHA has approved the 30% design. Currently, MDOT SHA is working on the post-30% design up to the advertisement and bid opening (100% design completion) that provides for the preparation of final plans, specifications, engineer's cost estimates and permit approvals.

There will be no impacts to parkland or land owned by the M-NCPPC. After the project is completed, MDOT SHA will be donating the land between 16th Street and MD 97 over to Montgomery County to be potentially be used as parkland as described in the *Forest Glen/Montgomery Hills Sector Plan*.

This project is subject to Forest Conservation approval through the Maryland Department of the Environment. This process typically occurs during the 60 percent design phase of the project.

MDOT SHA last held public meetings on this project on December 1, 2015. MDOT SHA did provide a project briefing to the Montgomery County Planning Board on March 21, 2019.

Georgia Avenue (MD 97)

Currently, Georgia Avenue is generally characterized as a six- to eight-lane roadway between 16th Street and Forest Glen Road (MD 192). Typical sections of the major highway include 12-foot lanes with a posted speed limit of 35 mph. Figures 3 through 7 display views of the road at different locations along Georgia Avenue.

Figure 3: Georgia Avenue at 16th Street (Looking North)

Figure 4: Georgia Avenue between 16th Street and Seminary Road/Columbia Boulevard (Looking North)

Figure 5: Georgia Avenue between Seminary Place and Flora Lane (Looking North)

Figure 6: Georgia Avenue approaching I-495 Interchange (Looking North)

Figure 7: Georgia Avenue between I-495 Interchange and Forest Glen Road (Looking North)

16th Street (MD 390)

16th Street (MD 390) is currently a five to six-lane roadway that connects south to the future Woodside Purple Line station, downtown Silver Spring and further south into Washington, DC. The road is divided with a median and typically has three travel lanes in each direction. Between Georgia Avenue and Columbia Boulevard/Grace Church Road, the southbound direction only has two travel lanes. Photos of this portion of 16th Street are shown below in Figures 8 and 9.

Figure 8: Southbound 16th Street between Georgia Avenue and Columbia Boulevard (Looking South)

Figure 9: Northbound 16th Street between Grace Church Road and Georgia Avenue (Looking North)

Proposed Plan View

The project design includes Georgia Avenue from Grace Church Road in the south and Forest Glen Road to the north. The project design on 16th Street extends a short distance from Georgia Avenue south to Grace Church Road. Figures 10 through 19 show the plan view of the proposed design improvements from south to north.

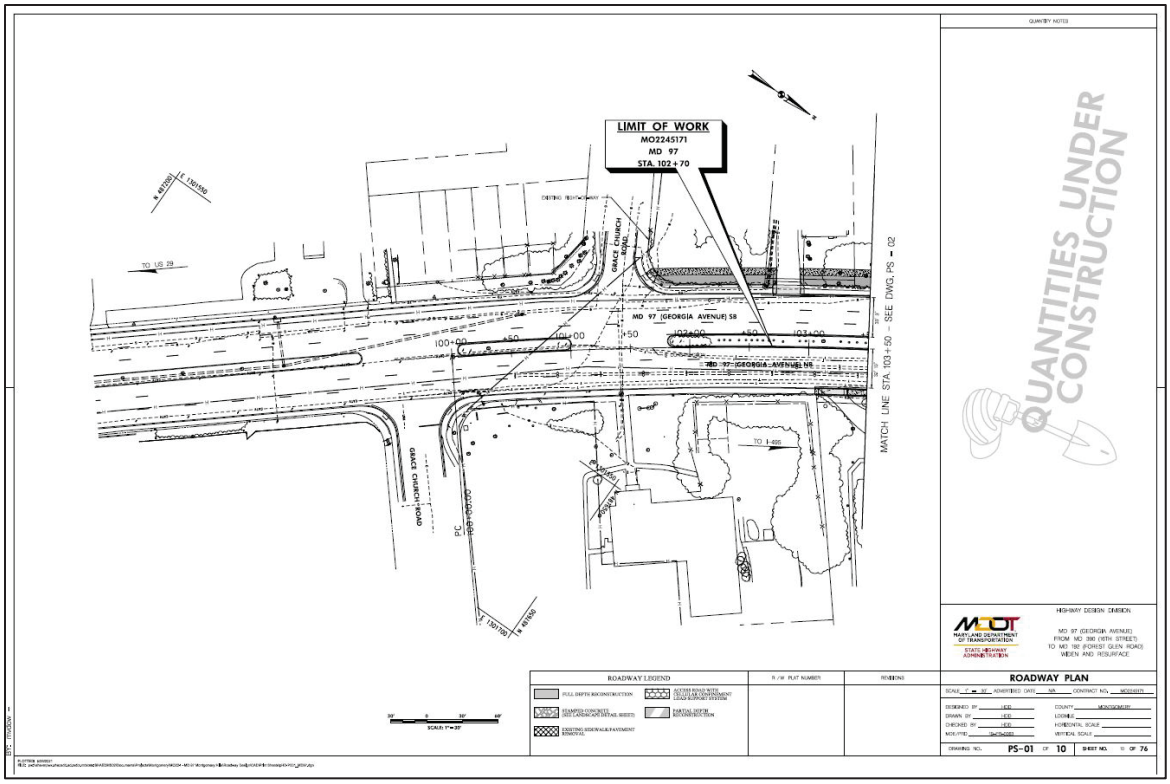


Figure 10: Plan View – South limit past Grace Church Road

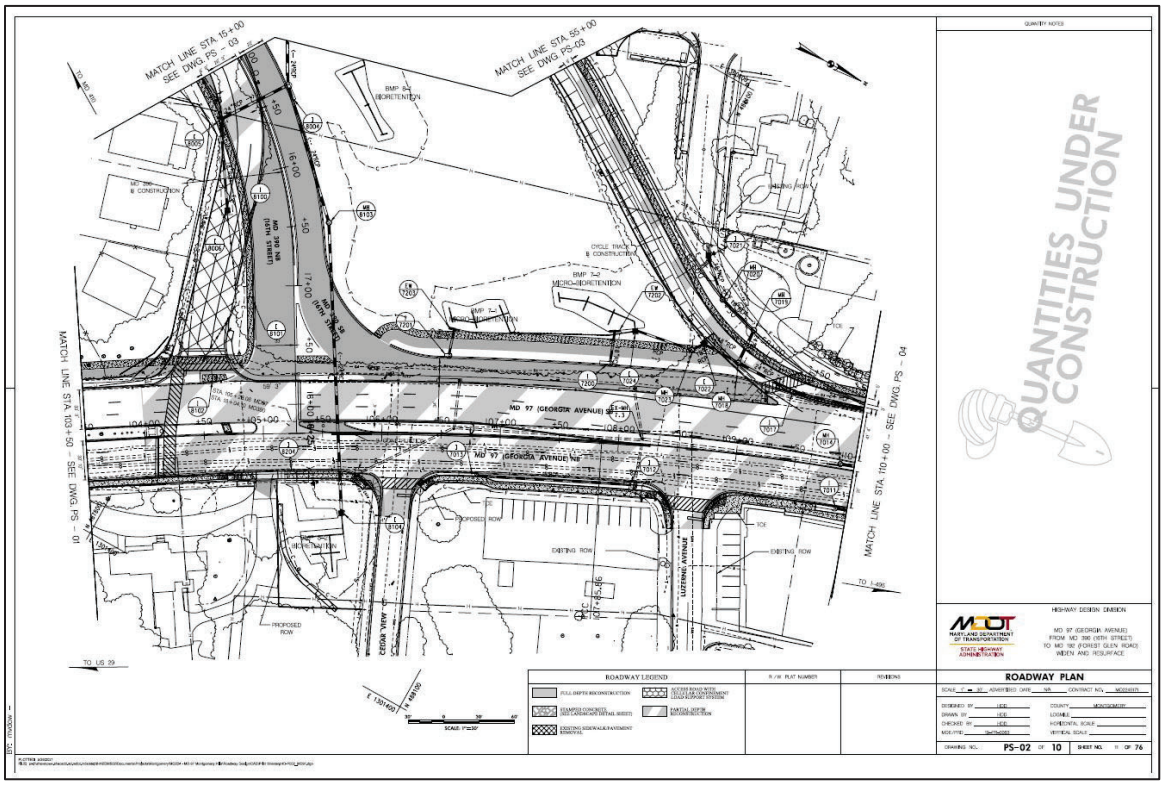


Figure 11: Plan View – Georgia Avenue at 16th Street

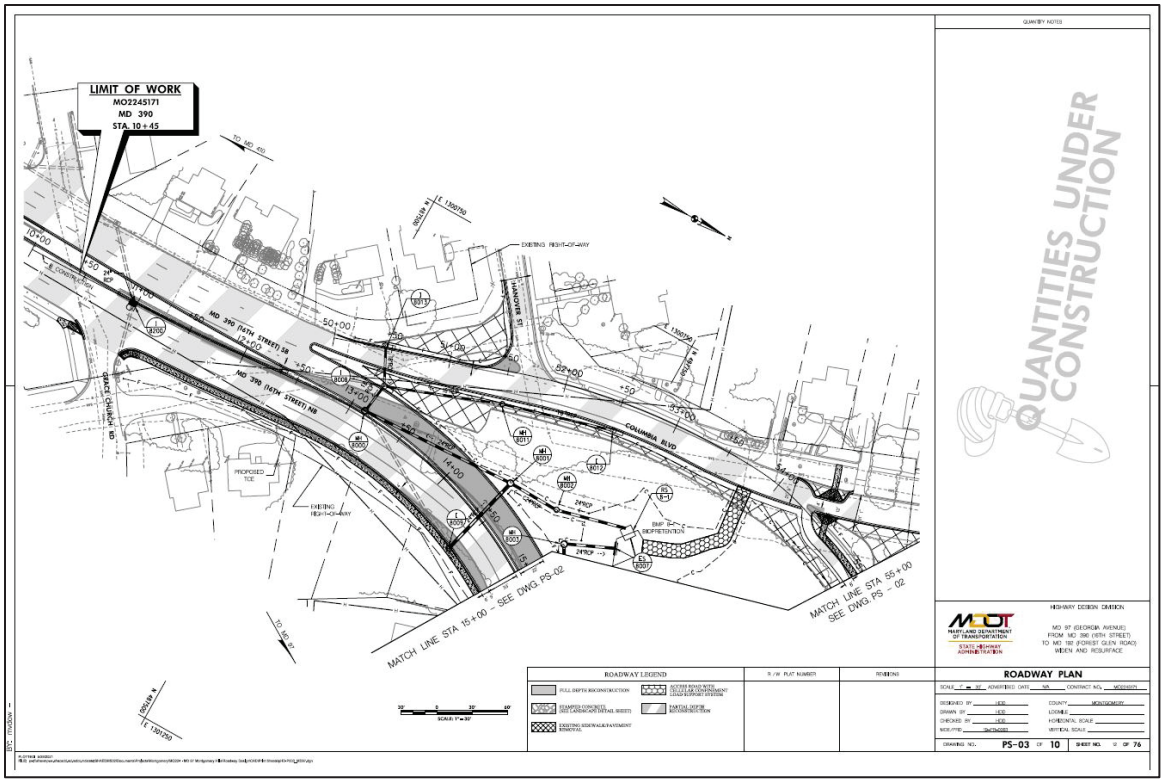


Figure 12: Plan View – 16th Street South to Grace Church Road

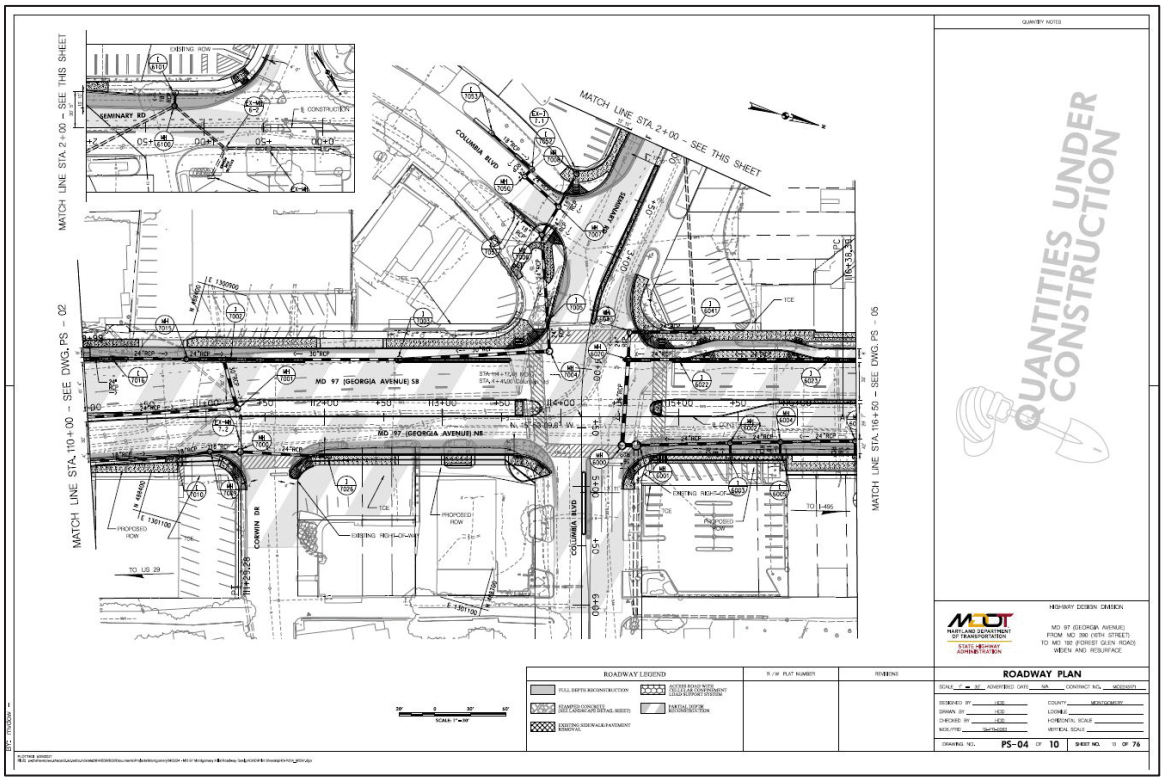


Figure 13: Plan View – Georgia Avenue at Columbia Boulevard/Seminary Road

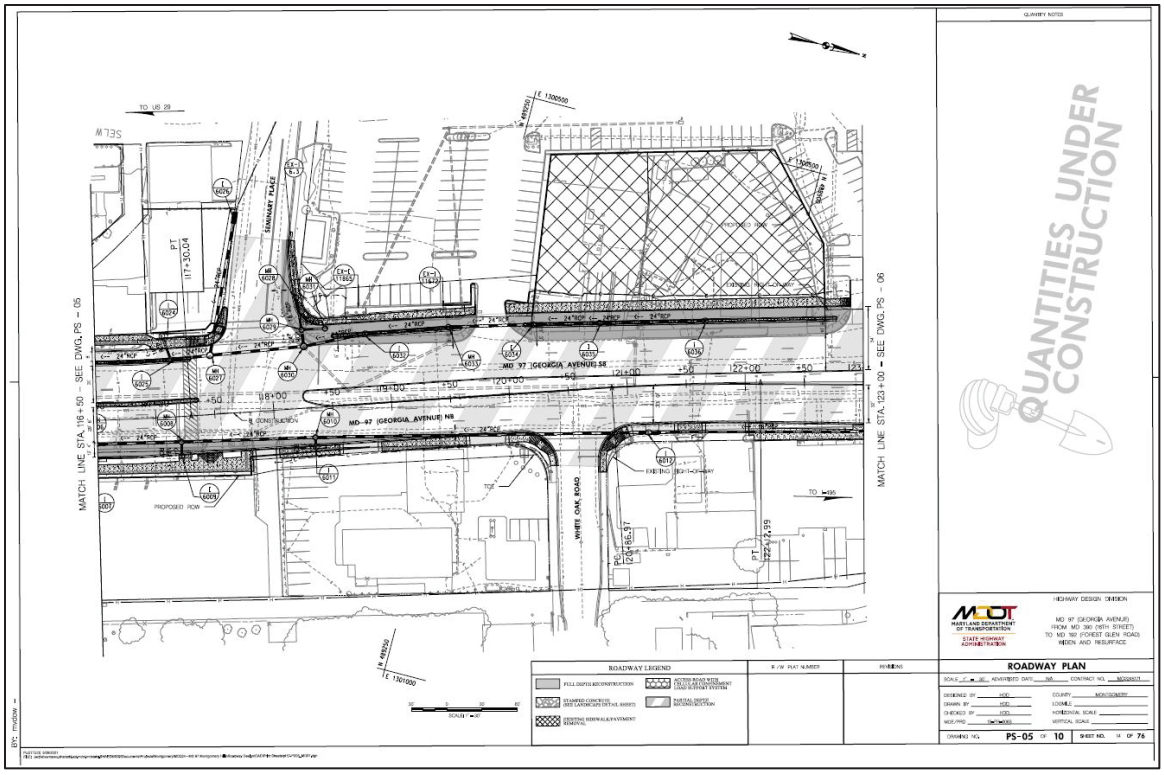


Figure 14: Plan View – Georgia Avenue at Seminary Place and White Oak Road

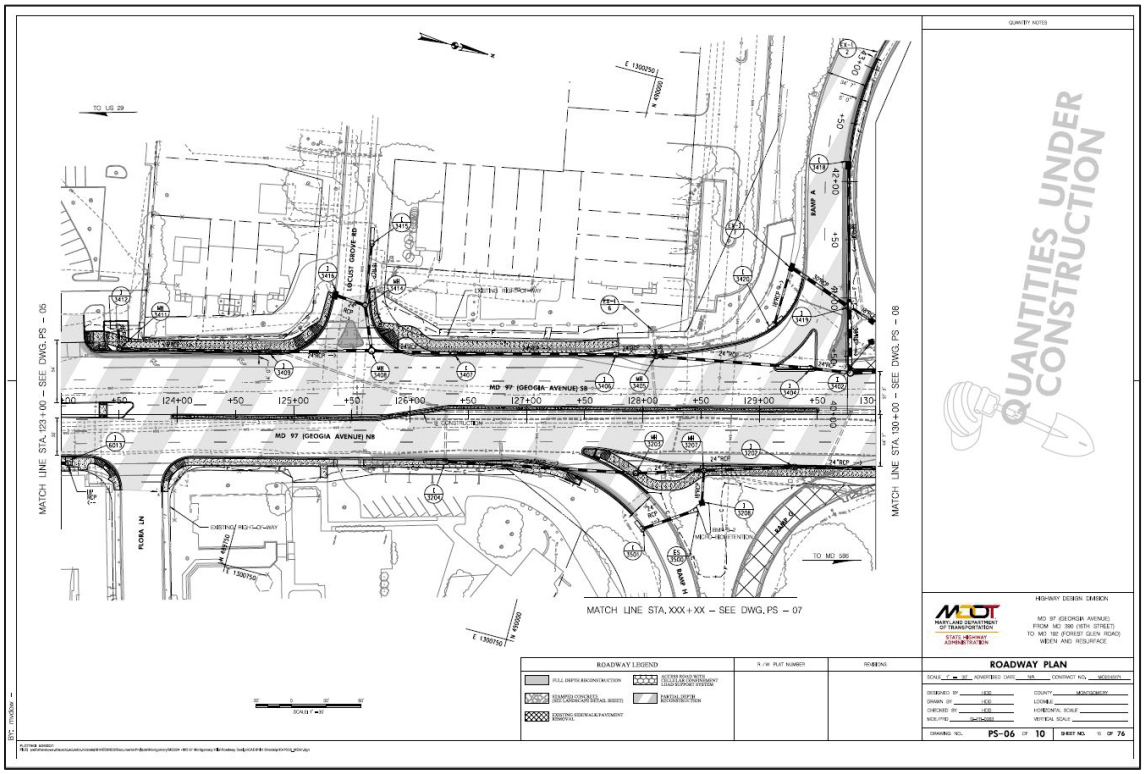


Figure 15: Plan View – Georgia Avenue between Flora Lane and I-495 Inner Loop Signal

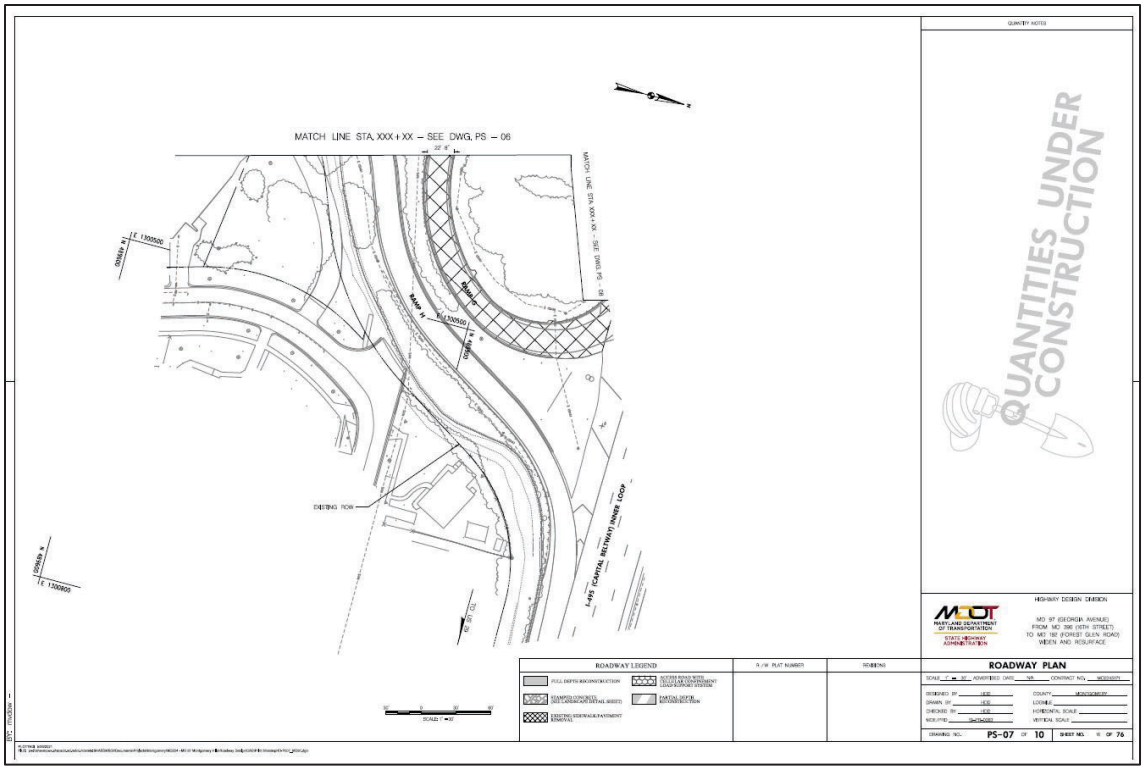


Figure 16: Plan View – I-495 Inner Loop On-Ramp

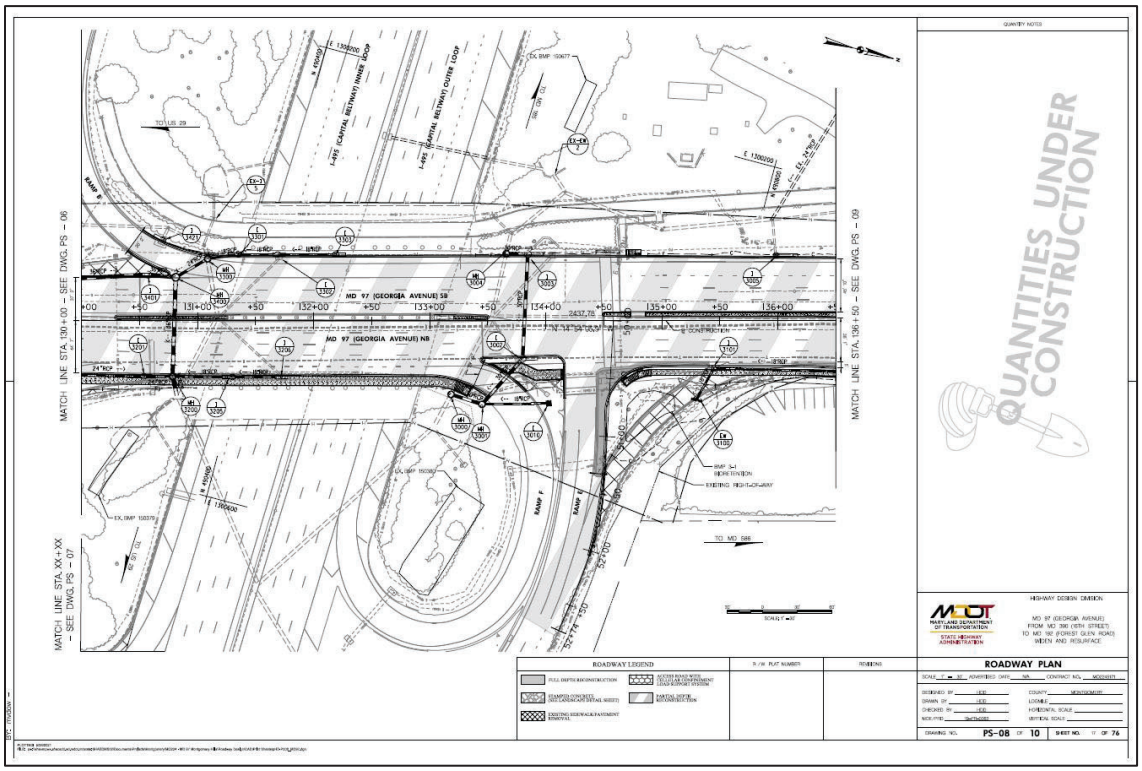


Figure 17: Plan View – I-495 Outer Loop Off-Ramp Signal

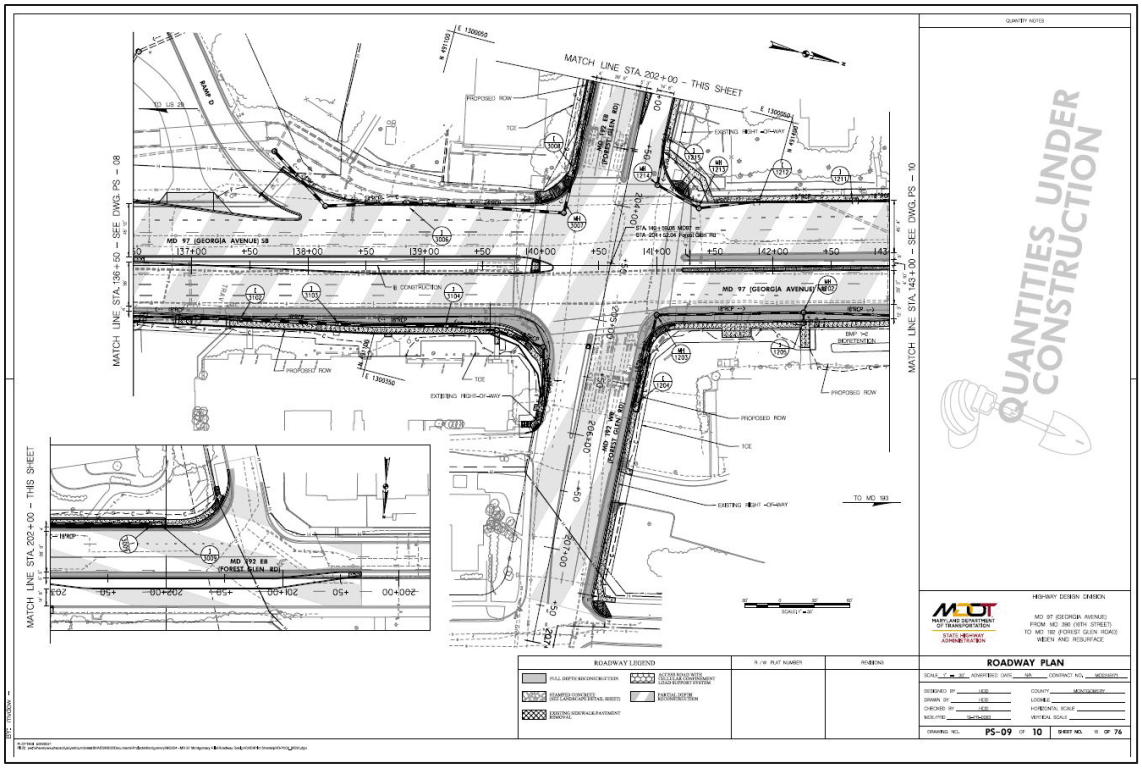


Figure 18: Plan View – Georgia Avenue at Forest Glen Road

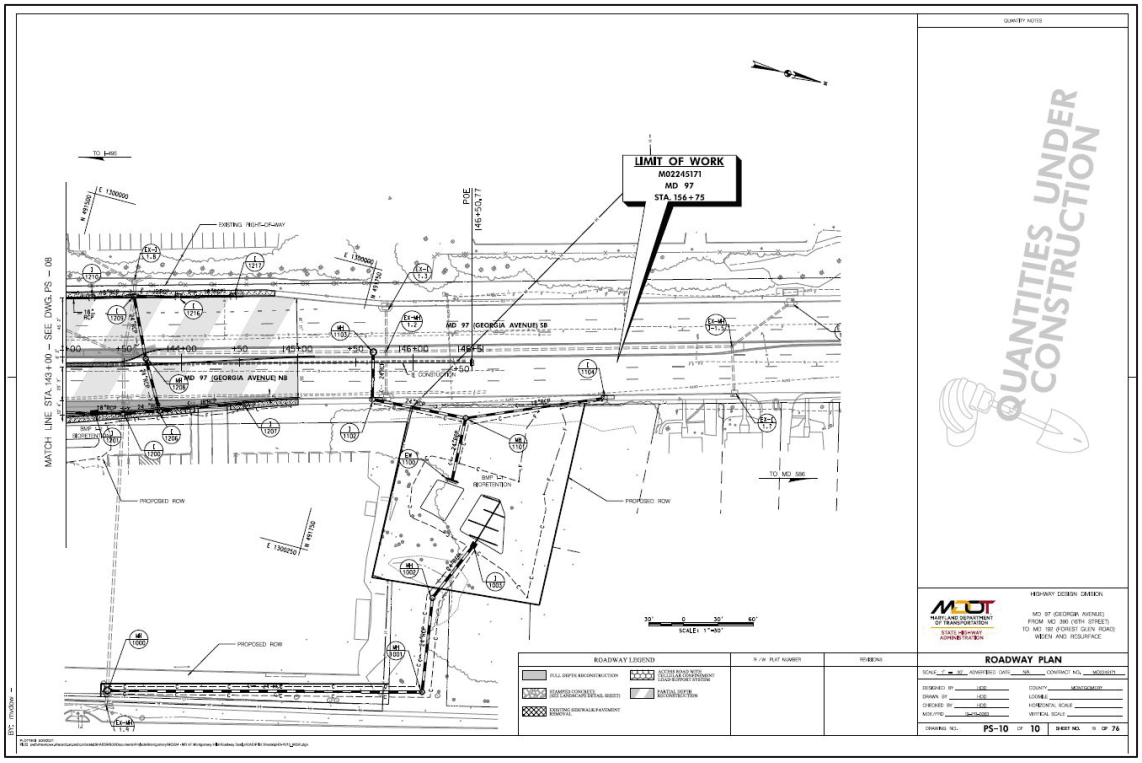


Figure 19: Plan View – Georgia Avenue north of Forest Glen Road

Typical Cross Sections – Georgia Avenue

Figures 20 through 24 show the proposed typical cross sections on Georgia Avenue. Sidewalks are proposed on both sides of Georgia Avenue through the project extents. The sidewalk widths are 5-feet wide with buffers varying from zero to three feet. Bicycle accommodations are provided on the west side of Georgia Avenue with a 10-foot wide sidepath (with no buffer) being provided from the Northern project limits to Flora Lane, and two-way separated bike lanes between Flora Lane and 16th Street.

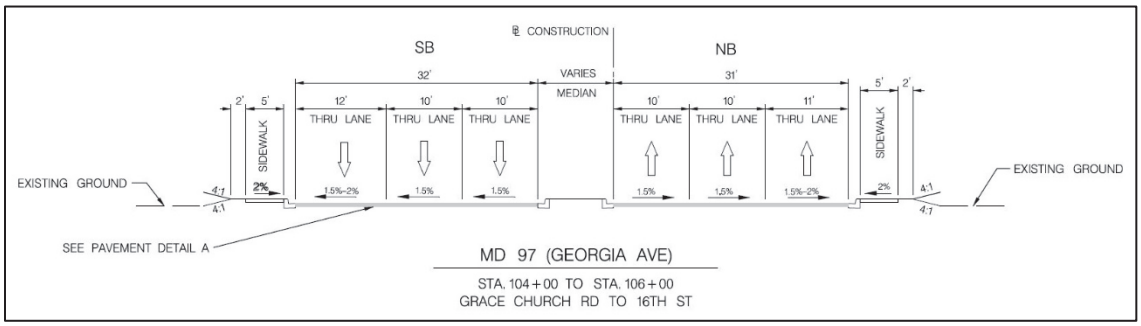


Figure 20: Existing/Proposed Typical Cross Section – South of 16th Street

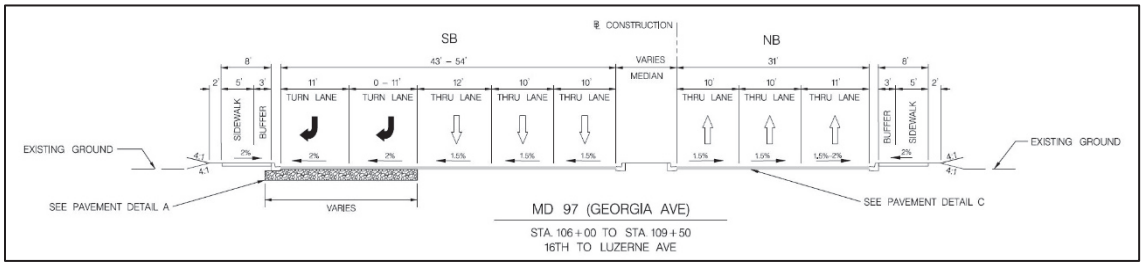


Figure 21: Proposed Typical Cross Section Design – 16th Street to Luzerne Avenue

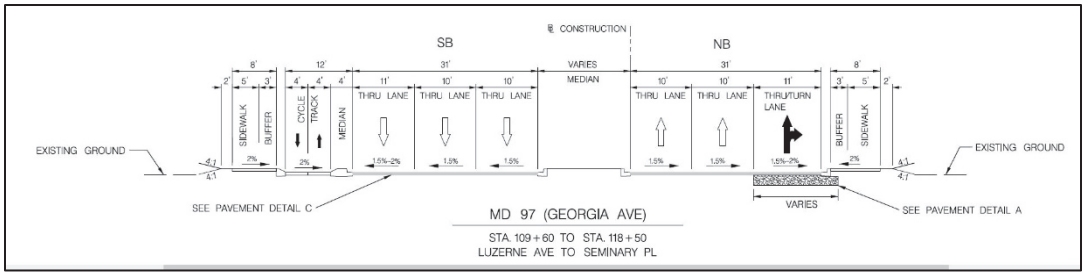


Figure 22: Proposed Typical Cross Section – Luzerne Avenue to Seminary Place

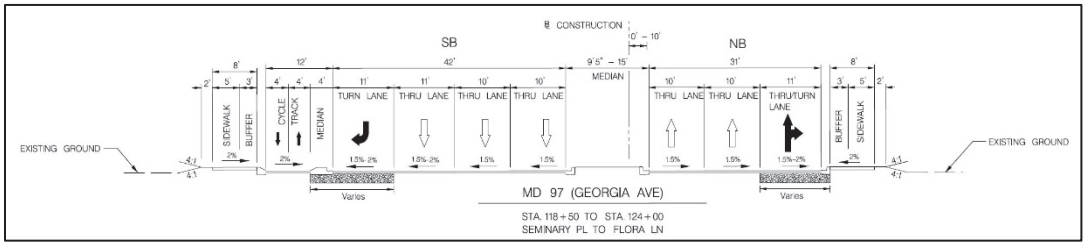


Figure 23: Proposed Typical Cross Section – Seminary Place to Flora Lane

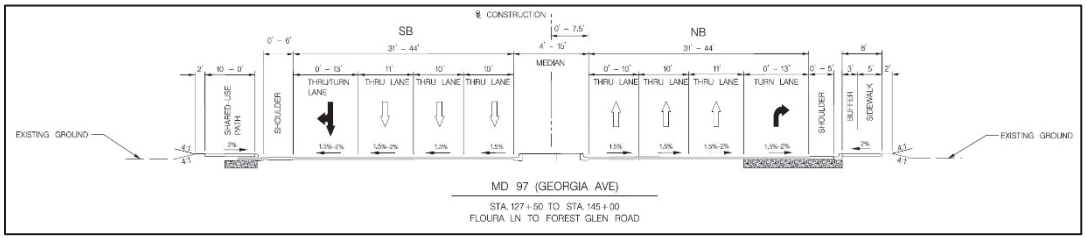


Figure 24: Proposed Typical Cross Section – Flora Lane to Forest Glen Road

Cross Sections on Other Roads

Typical cross sections are also provided for four connecting roadways: 16th Street, Forest Glen Road (East Side), and Forest Glen Road/MD 192 (West Side). These cross sections are displayed in Figures 25 through 28.

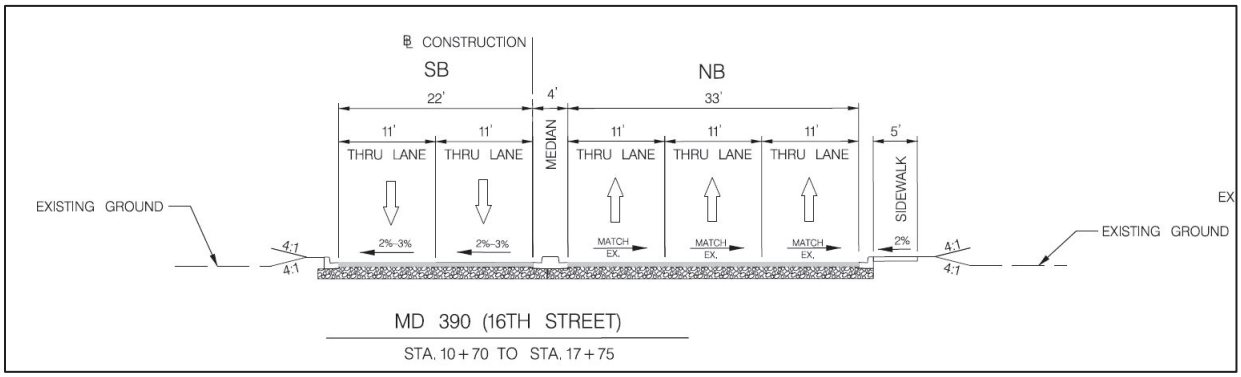


Figure 25: Proposed Cross Section – 16th Street between Georgia Avenue and Grace Church Road

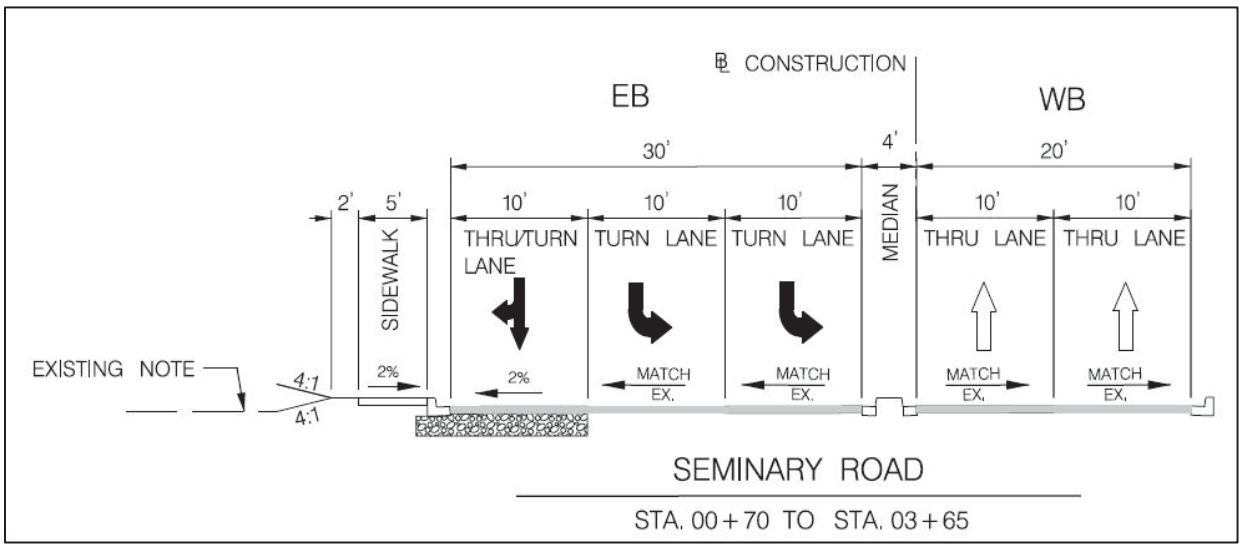


Figure 26: Proposed Cross Section – Seminary Road

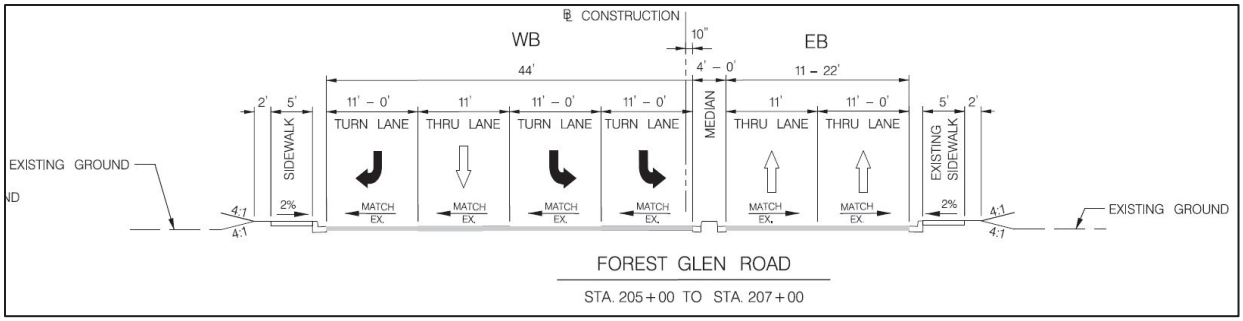


Figure 27: Proposed Cross Section – Forest Glen Road (East Side of MD 97)

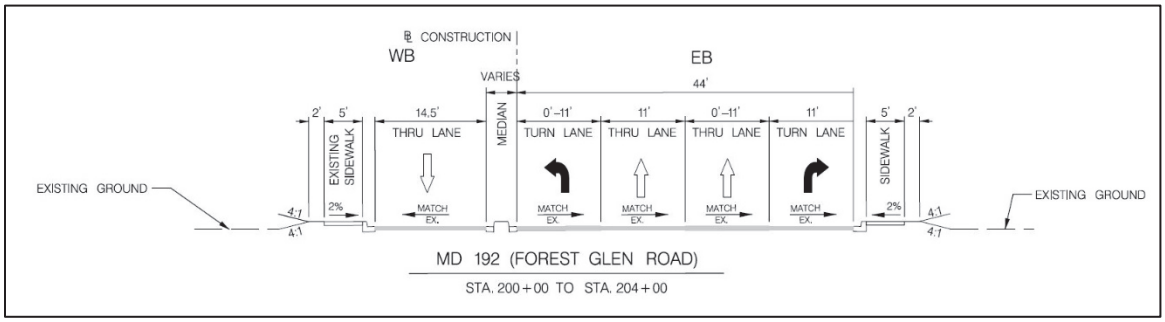


Figure 28: Proposed Cross Section – Forest Glen Road/MD 192 (West Side of MD 97)

Cross Sections for Separated Bike Lane Facilities

Separated bike facilities are being provided along MD 97 between Flora Lane and Grace Church Road, as shown in Figures 22 and 23. In addition, two-way separated bike lanes are also proposed along the alignment of the existing southbound 16th Street carriageway as shown below in Figure 29. These bike lanes connect to Columbia Boulevard midway between Luzerne Avenue and Hanover Street.

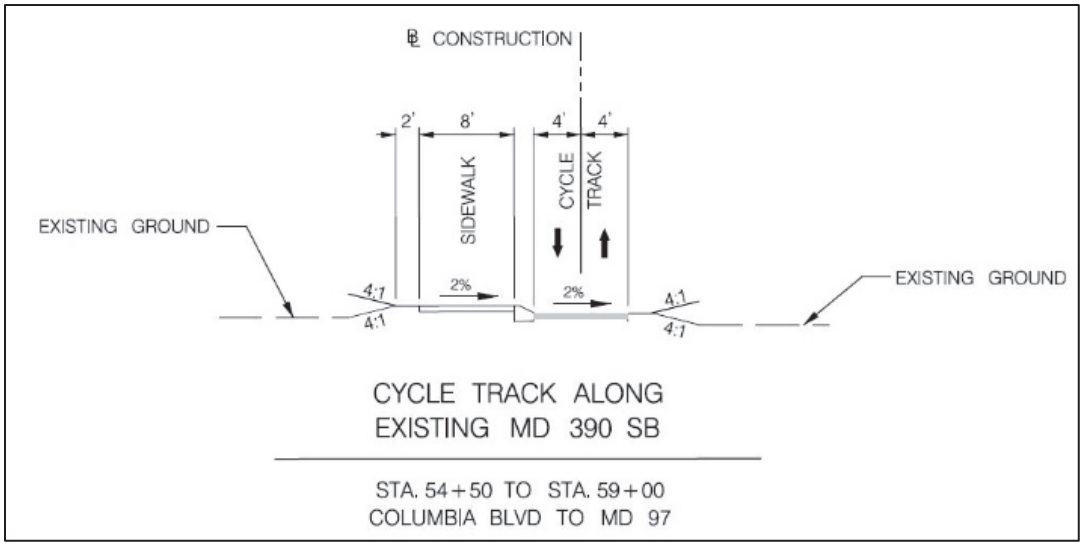


Figure 29: Proposed Cross Section – 16th Street Separated Bike Lanes

Transportation Analysis

Master Plan Conformance – Transportation

The 2018 Bicycle Master Plan recommends the following improvements within the project area:

1. Two-way separated bike lanes along the west side of MD 97 between 16th Street and Landsdowne Way,
2. A sidepath (existing) from Landsdowne Way to Forest Glen Road,
3. Two-way separated bike lanes on the northbound side of 16th Street between MD 97 and Columbia Boulevard,
4. Separated bike lanes along Seminary Road between Columbia Boulevard/Woodland Drive and 2nd Avenue,
5. Sidepath along north and south sides of Forest Glen Road (MD 192) between Georgia Avenue and Darcy Forest Drive/Belvedere Place, and
6. Sidepath along the south side of Forest Glen Road between Georgia Avenue and the Sligo Creek Parkway.

These recommendations were confirmed by the 2020 *Forest Glen/Montgomery Hills Sector Plan*. The project is implementing improvement 1 above, but only between 16th Street and Flora Lane. Improvements 3 through 6 above are not included in the project design. The Sector Plan also recommended wider sidewalks with adequate buffers from vehicular travel.

The 2020 *Forest Glen/Montgomery Hills Sector Plan* identifies Georgia Avenue between 16th Street and Forest Glen Road as a Major Highway with a master planned right of way of 120 feet and master planned target speed of 25 mph. Bus Rapid Transit in mixed traffic is planned for this road segment as well.

16th Street is an existing six-lane Major Highway with a master planned right of way of 120 feet and a master planned target speed of 25 mph. The planned number of lanes shows a reduction from six travel lanes to four travel lanes.

Design Elements – Transportation

Roadway Design: Georgia Avenue will likely be classified as a Town Center Boulevard per the 2020 *Forest Glen/Montgomery Hills Sector Plan* and Planning Board-approved Complete Streets Design Guidelines. The project is consistent with the road recommendations with the exception of the master planned target speed. The project is being designed with a 35 mph design speed, while the Sector Plan calls for a target speed of 25 mph. 16th Street will likely be classified as a Boulevard per the approved Complete Streets Design Guidelines. The project is being designed with a 30 mph design speed, while the Sector Plan calls for a target speed of 25 mph.

Separated Bike Lane Design: There is a mismatch between the project type (a full street reconstruction) and the bikeway type (a "retrofit"-style bikeway) that MDOT SHA proposes to construct on Georgia Avenue, resulting in a missed opportunity to provide a high-quality, "permanent" bikeway for the community. The challenge with "retrofit-style" bikeways is that they:

- are less aesthetically pleasing
- lead to trapped debris in the bikeway, creating hazards and requiring greater maintenance
- provide less separation from traffic at driveways

Additionally, per the 2018 *Bicycle Master Plan*, developers would be required to upgrade the "retrofit" separated bike lanes to "permanent" separated bike lanes as part of their conditions of approval, creating additional expense for redevelopment.

Instead, MDOT SHA should redesign the separated bike lanes as a "permanent" bikeway. The difference between retrofit and permanent bikeways can be seen in Figure 30.

MDOT / SHA Proposal (retrofit)

Montgomery Planning Proposal (permanent)

Figure 30: Comparison of "Retrofit" and "Permanent" Separated Bike Lanes

As shown in Figure 31 below, MDOT SHA's proposal includes a 4-foot-wide street buffer, 8-foot-wide two-way separated bike lanes and an 8-foot-wide sidewalk.

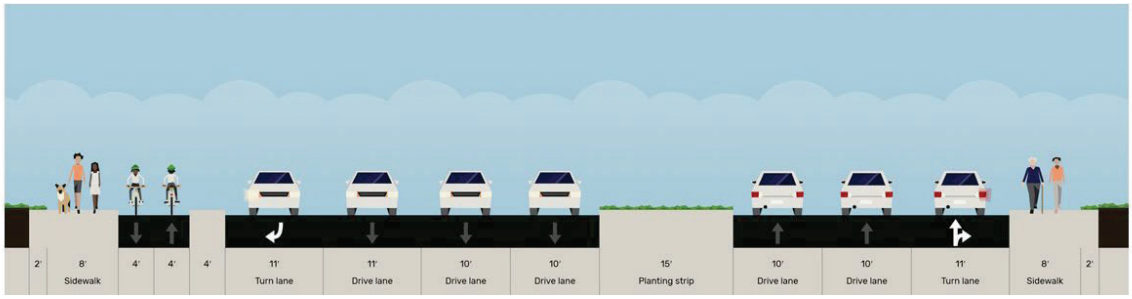


Figure 31: MDOT SHA's Proposed Section on Georgia Avenue

To improve the quality of the separated bike lanes from a "retrofit" to a "permanent" bikeway and to be consistent with the 2020 *Forest Glen/Montgomery Hills Sector Plan* and Complete Streets Design Guide, MDOT SHA should widen the street buffer 2 feet (from 4 feet to 6 feet), raise the separated bike lanes to the same level as the street buffer, reduce the sidewalk width by 2 feet (from 8 ft to 6 ft), and elevate the sidewalk 3 inches above the separated bike lanes using a rolled curb. See Figure 32 below.

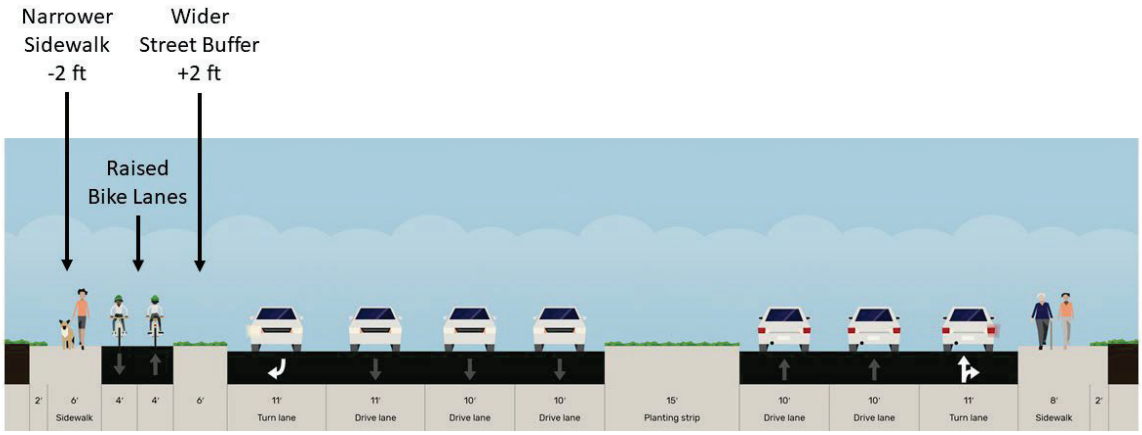


Figure 32: Montgomery Planning's Proposed Section on Georgia Avenue

The separated bike lanes in the southbound lanes of 16th Street are not recommendations by either the 2018 *Bicycle Master Plan* or the 2020 *Forest Glen/Montgomery Hills Sector Plan*. These bike lanes terminate at Columbia Boulevard and do not connect to any other existing or planned bike facility.

Protected Intersections: As currently designed, the project fails to extend the protection of the separated bike lanes through the intersections. To improve intersection safety for pedestrians and bicyclists, the project should be modified to include protected intersections at Seminary Place, Seminary Lane and 16th Street. MDOT SHA has previously stated that separated bike lanes along Georgia Avenue do not require protected intersections as they do not intersect other bikeways, but this is a misunderstanding of the purpose of protected intersections, which is to increase the safety of all intersections, not just those where two bikeways intersect. In this case, protected intersections will slow turning traffic, separate pedestrians from bicyclists, and reduce crossing distances.

Sidepath Design: In general, the sidepath width provided between Flora Lane and Landsdowne Way is 10 feet which is consistent with the 2018 *Bicycle Master Plan* and the Planning Board-approved Complete Streets Design Guidelines. This design does not provide a buffer between the sidepath and the travel lanes, however, it does provide a zero to 6-foot wide shoulder. Shoulders, while they may have safety benefits, are generally not considered as an acceptable buffer between travel lanes and either sidepaths or sidewalks.

Sidewalk Design: In the approved Complete Streets Design Guidelines, a Town Center Boulevard has a default sidewalk width of 10 feet (8 feet minimum). The proposed 5-foot wide sidewalks, while consistent with minimum widths required per the Americans with Disabilities Act (ADA), are deficient per new Montgomery County guidelines.

Historic Resources Analysis

The Maryland Historical Trust (MHT) conducts the Historic Preservation review for MDOT SHA projects. MHT identified four historic resources, two districts and two individual sites. These four resources are designated on the County Locational Atlas of Historic Sites and Districts as part of the Woodside Historic District. Historic Preservation Staff has evaluated the proposed work and determined that the project will have a minimal impact on the resources and does not constitute a 'substantial alteration' as defined by Chapter 24A of County Code. Therefore, this project does not require a Historic Area Work Permit.

Parkland Impacts

While there is currently no parkland affected by the proposed project, MDOT SHA has indicated that they will be donating the land between 16th Street and Georgia Avenue over to the M-NCPPC for use consistent with the recommendations of the 2020 *Forest Glen/Montgomery Hills Sector Plan*. The design of the MDOT SHA improvements needs to accommodate the construction of a rectangular athletic field and other park amenities by M-NCPPC. The land conveyance boundary and any project impacts to the future parkland need to be finalized through the Park Construction Permit review process.

Parks appreciates the effort made by MDOT SHA to revise the stormwater management facilities within this area to allow for as much opportunity for park land as possible while still providing important stormwater management treatment. Parks requests that any new cycling or pedestrian facilities not use the existing 16th Street south pavement, as it is not consistent with Master Plan recommendations.

Park looks forward to working with MDOT SHA to refine the transportation improvements in a manner that maximizes pedestrian and cyclist safety and provides the space for a much need park at this location in accordance with the *Forest Glen/Montgomery Hills Sector Plan*.

Environmental Guidelines

This project is located primarily within the Georgia Avenue right-of-way and within the Sligo Creek watershed, a tributary to the Anacostia River. An analysis of the natural resources of the project study area, which encompasses all the LOD of all considered design alternatives, has been prepared and shows that soils within the project area consist of Glenelg soil series which is characteristically well drained, silt loam soils. These soils are not considered highly erodible or otherwise sensitive or protected according to the Montgomery County Environmental Guidelines. There are no wetlands, streams and/or associated buffers, 100-year floodplains, or rare/threatened/endangered species within the study area.

Two forest stands were observed during the survey of the project area. The forest stands are generally early to mid-successional stands with trees sized between 12 and 24 inches in diameter-at-breast-height (DBH). Both stands were found to contain many invasive plant species, particularly in the form of vine cover. Eleven specimen trees, sized at 30 inches or greater in DBH, were identified and mapped in the inventory.

All of the project alternatives propose impact to one or both forest stands, however the forest stands are presently of low quality and health due to their proximity to their urban surroundings. Forest and individual tree impacts for this project are regulated under the Maryland Reforestation Law and Roadside Tree Law and will be mitigated under these statutes. While the Environmental Guidelines are designed to protect the environmental features by the restriction of development in environmentally sensitive areas, disturbance is allowed for necessary roadway and right-of-way work. In this case, the work is associated with a master plan recommended bikeway, sidewalk improvement, and stormwater facilities. Disturbance has been minimized to avoid major tree and environmental impacts, and the ultimate project will result in improved stormwater treatment as well as increased pedestrian and bicyclist safety. As proposed, the project complies with Chapter 22A, Forest Conservation Law, and is in conformance with the Montgomery County Environmental Guidelines.

Forest Conservation

This Application is subject to Chapter 22A Forest Conservation Law, but is exempt from the requirement to submit a Forest Conservation Plan per 22A-5(e) – "*the requirements of Article II do not apply to…a State,*

County, or municipal highway construction activity that is subject to Section 5-103 of the Natural Resources Article of the Maryland Code, or Section 22A-9."

This Application is for a State highway construction and is subject to review under state reforestation law as stated above.

While the project is exempt, the applicant is still required under section 22A-9 of the County code to:

a) Minimize forest cutting, clearing, and loss of specimen trees to the extent possible while balancing other design, construction, and environmental standards. The constructing agency must make a reasonable effort to minimize the cutting or clearing of trees and other woody plants.

b) If the forest to be cut or cleared for a county highway project equals or exceeds 20,000 square feet, the constructing agency must reforest a suitable area at the rate of one acre of reforestation for each acre of forest cleared.

c) Mitigate for loss of specimen or champion trees. Mitigation amounts are based on the size and character of the tree.

Stormwater Management

The LOD associated with the proposed design alternatives could affect stormwater management from temporary impacts related to construction and from longer term impacts associated with the addition of impervious surfaces required for the project. However, increases are expected to be minimal relative to the existing conditions and would be further minimized through Maryland Department of the Environment required use of approved sediment and erosion control measures during construction and implementation of stormwater environmental site design best management practices upon project completion.

At the time of plan review, final design for all stormwater treatment facilities were not yet available; however, updated design proposals for stormwater management will include both above ground and underground, covered, stormwater management facilities. Areas of underground treatment have been proposed in order to preserve and expand the amount of usable open space along the project boundaries. One particular area in which this has been proposed is the parcel of land bounded by MD 390 (16th Street), Columbia Boulevard, and MD 97. This parcel will be dedicated to Montgomery County Parks upon project completion, which will allow the area to be used for recreation while stormwater treatment is provided via an underground system.

Community Outreach and Notification

This application was noticed in accordance with the Uniform Standards for Mandatory Referral Review. Throughout the project design process, proposed concepts were presented to key stakeholders, as well as the community. This project last held a Location/Design Public Hearing on December 1, 2015. At that meeting, Alternative 5B with a cycle track option received the greatest public support. Based on that, MDOT SHA initiated a preliminary concept (30% design) of a refined version of that Alternative, which is being revised in this staff report. MDOT SHA did provide a project briefing to the Montgomery County Planning Board on March 21, 2019.

Conclusion

Based on information provided by the applicant and the analysis contained in this report, staff concludes that the proposed MD 97 Montgomery Hills Design project can be designed with some modifications to meet Master Plan and relevant design standards as specified in the Recommendations section of this staff report. Staff recommends approval of the mandatory referral and the transmission of comments to the applicant.

Attachments

A. Proposed Project Plans
B. MDOT SHA Purpose and Need

DRILL HOLES

DRILL HOLES

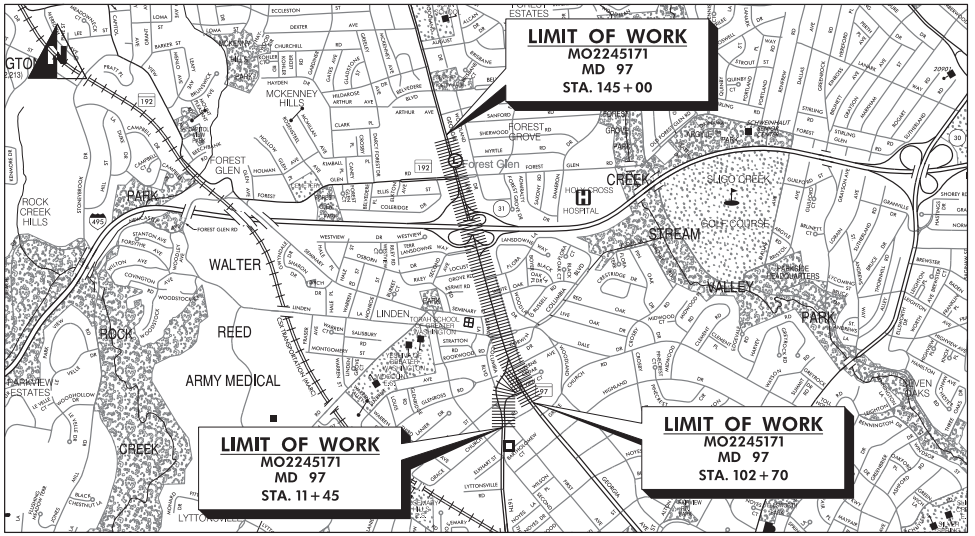
DRILL HOLES

BY: mvdow

MARYLAND DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY ADMINISTRATION

S.H.A. CONTRACT NO. – MO2245171
FEDERAL AID PROJECT NO. – TBD
MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET) TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE



MONTGOMERY COUNTY – SILVER SPRING – MONTGOMERY HILLS

LENGTH OF PROJECT:
MD RTE. 97 = 0.81 MILES

HORIZONTAL DATUM	NAD 83 /91
VERTICAL DATUM	NAVD 88

2000' 0 2000' 4000'
SCALE: 1" = 2000'

GEOMETRIC DESIGN CRITERIA
THIS PROJECT WAS DESIGNED IN ACCORDANCE WITH THE 2011 PUBLICATION OF AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) **"A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS." STANDARD SPECIFICATIONS BOOK, BOOK OF STANDARDS AND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)** ALL WORK ON THIS PROJECT SHALL CONFORM TO: THE LATEST APPROVED MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION (MDOT SHA) **"STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS"** REVISIONS THEREOF OR ADDITIONS THERETO, AS INDICATED IN THE PROJECT DESCRIPTION OF THE INVITATION FOR BIDS BOOK; THE SPECIAL PROVISIONS INCLUDED IN THE INVITATION FOR BIDS BOOK; THE ADMINISTRATION'S **"BOOK OF STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES"** AND THE LATEST ADOPTED MUTCD.

RIGHT OF WAY
RIGHT OF WAY AND EASEMENT LINES SHOWN ON THESE PLANS ARE FOR ASSISTANCE IN INTERPRETING THE PLANS. THEY ARE NOT OFFICIAL. FOR OFFICIAL FEE RIGHT OF WAY AND EASEMENT INFORMATION, SEE APPROPRIATE RIGHT OF WAY PLATS.

UTILITIES
THE LOCATION OF UTILITIES SHOWN ON THE PLANS ARE FOR INFORMATION AND GUIDANCE ONLY. NO GUARANTEE IS MADE OF THE ACCURACY OF SAID LOCATIONS.

ADA COMPLIANCE
THE DESIGN OF THIS PROJECT HAS INCORPORATED FACILITIES TO ACCOMMODATE PERSONS WITH DISABILITIES IN COMPLIANCE WITH STATE AND FEDERAL REQUIREMENTS.

ENVIRONMENTAL INFORMATION
ALL STORMWATER MANAGEMENT FACILITIES CONSTRUCTED FOR THIS CONTRACT SHALL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE MDOT SHA BEST MANAGEMENT PRACTICES (BMP) INSPECTION AND REMEDIATION PROGRAM.

STANDARD STABILIZATION NOTE:
FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1), AND SEVEN DAYS (7) AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

OWNERS / DEVELOPERS CERTIFICATION:
I / WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I HEREBY AUTHORIZE THE RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION BY MDE COMPLIANCE INSPECTORS.

EXISTING STRUCTURES PLANS
FOR THE CONVENIENCE AND INFORMATION OF BIDDERS, PRINTS OF PLANS OF EXISTING PERTINENT STRUCTURE(S) ARE INCLUDED WITH THIS CONTRACT. NO RESPONSIBILITY FOR THEIR ACCURACY OR COMPLETENESS IS ASSUMED BY THE MDOT SHA. DIMENSIONS, DETAILS, ETC., AS SHOWN THEREON MAY NOT BE AS BUILT.

OFFICE OF HIGHWAY DEVELOPMENT
MANDATORY REFERRAL
MAY 27, 2021

DESIGN DESIGNATION							SURVEY BOOK NUMBERS	RIGHT OF WAY PLAT NUMBERS	REVISIONS NOTE: SEE SHEET NO. 2 FOR LIST OF REVISED SHEET NUMBERS
ROADWAY	MD 97		MD 390		MD 192		–	–	
ROADWAY LENGTH (MILES)	0.81		0.13		X		–	–	
CONTROLS YEARS	2018	2040	2019	2039	20__	20__			
AVERAGE DAILY TRAFFIC (A.D.T.)	83,650	93,350	31,600	34,100	.	.			
DESIGN HOURLY VOLUME (D.H.V.)	7%	7%	8%	8%	.	.			
DIRECTIONAL DISTRIBUTION	51%	51%	58%	58%	.	.			
% TRUCKS (A.D.T.)	5%	5%	3%	3%	%	%			
% TRUCKS (D.H.V.)	4%	4%	2%	2%	%	%			
FUNCTIONAL CLASSIFICATION	URBAN OTHER PRINCIPAL ARTERIAL		URBAN OTHER PRINCIPAL ARTERIAL		URBAN COLLECTOR				
CONTROL OF ACCESS	NONE		NONE		NONE				
INTENSITY OF DEVELOPMENT	URBAN		URBAN		URBAN				
TERRAIN	ROLLING		ROLLING		LEVEL				
DESIGN SPEED (M. P. H.)	35 MPH		35 MPH		30 MPH				
ANTICIPATED POSTED SPEED (M. P. H.)	35 MPH		35 MPH		30 MPH				

STORMWATER AND SEDIMENT CONTROL FINAL APPROVAL

APPROVED _____ DATE _____
DIVISION CHIEF, PLAN REVIEW DIVISION
PRD NO: 19-PR-0063 EXPIRATION DATE: _____

MODIFICATIONS

APPROVED _____ DATE _____
DISTRICT ENGINEER, DISTRICT 3

APPROVED _____ DATE _____
DIRECTOR, OFFICE OF HIGHWAY DEVELOPMENT

APPROVED _____ DATE _____
DEPUTY ADMINISTRATOR / CHIEF ENGINEER FOR PLANNING, ENGINEERING, REAL ESTATE AND ENVIRONMENT

pw:\\shavmpwx.shacadd.ad.mdot.mdstate:SHAEDMS02\Documents\Projects\Montgomery\MO224 – MD 97 Montgomery Hills\Roadway Design\CAD\Print Sheets\pGN-T001_MD97.dgn
5/26/2021

STRUCTURE INVENTORY NO.:

CONTRACT NO.: MO2245171

INDEX OF SHEETS

SHEET NO.	DRAWING NO.	DESCRIPTION
1		TITLE SHEET
2	INDX-1	INDEX OF SHEETS
3	AB-1	NOTES AND ABBREVIATION SHEET
4	TS-1	TYPICAL SECTIONS
5	TS-2	TYPICAL SECTIONS
6	TS-3	TYPICAL SECTIONS
7	PD-1	PAVEMENT DETAIL SHEET
8	GS-1	GEOMETRIC LAYOUT
9	GS-2	GEOMETRIC LAYOUT
		ROADWAY PLANS
10	PS-1	ROADWAY PLAN SHEET - MD 97 - STA. 100+00 TO STA. 103+50
11	PS-2	ROADWAY PLAN SHEET - MD 97 - STA. 103+50 TO STA. 110+00
12	PS-3	ROADWAY PLAN SHEET - MD 390 - STA. 10+45 TO STA. 15+00
13	PS-4	ROADWAY PLAN SHEET - MD 97 - STA. 110+00 TO STA. 116+50
14	PS-5	ROADWAY PLAN SHEET - MD 97 - STA. 116+50 TO STA. 123+00
15	PS-6	ROADWAY PLAN SHEET - MD 97 - STA. 123+00 TO STA. 130+00
16	PS-7	ROADWAY PLAN SHEET - MD 97 - STA. XXX+XX
17	PS-8	ROADWAY PLAN SHEET - MD 97 - STA. 130+00 TO STA. 136+50
18	PS-9	ROADWAY PLAN SHEET - MD 97 - STA. 136+50 TO STA. 143+00
19	PS-10	ROADWAY PLAN SHEET - MD 97 - STA. 143+00 TO STA. 145+00
		ROADWAY PROFILES
20	HP-1	PROFILE SHEET - MD 97
21	HP-2	PROFILE SHEET - MD 97
22	HP-3	PROFILE SHEET - MD 390
		TRAFFIC CONTROL PLANS
23	MTN-01	MAINTENANCE OF TRAFFIC GENERAL NOTES
24-31	MT-01 - MT-08	MAINTENANCE OF TRAFFIC PLANS PHASE 1
32-35	MT-09 - MT-12	MAINTENANCE OF TRAFFIC PLANS PHASE 2
36-38	MT-13 - MT-15	MAINTENANCE OF TRAFFIC PLANS PHASE 3A
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65-69	MT-42 - MT-46	MAINTENANCE OF TRAFFIC PLANS PHASE 5B
70-76	MT-47 - MT-53	MAINTENANCE OF TRAFFIC PLANS PHASE 6

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

REVISIONS

INDEX OF SHEETS

SCALE NA ADVERTISED DATE NA CONTRACT NO. MO2245171

DESIGNED BY OHD
DRAWN BY OHD
CHECKED BY OHD
MDE/PRD 19-PR-0063

COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE
VERTICAL SCALE

DRAWING NO. **INDX-01** OF **01** SHEET NO. 2 OF **76**

BY: mvdow

PLOTTED: 5/26/2021
FILE: pw:\sharwmpw.sharacadd.ad.mdot.md.state:SHAEDMS02\Documents\Projects\Montgomery\MO224 - MD 97 Montgomery Hills\Roadway Design\CADD\Int Sheets\pGN-D00_MD97.dgn

ABBREVIATIONS

AASHTO ..... American Association of State Highway Transportation Officials
ADT ..... Average Daily Traffic
AHD ..... Ahead
APPROX. ..... Approximate
℄ or ℄L ..... Baseline
BK ..... Back /Book
BIT. ..... Bituminous
B.C. ..... Bituminous Concrete
B.M. ..... Bench Mark
BOT. ..... Bottom
C.C. ..... Center of Curve
CAP ..... Corrugated Aluminum Pipe
CAPA ..... Corrugated Aluminum Pipe Arch
CATV ..... Cable Television
C.B.R. ..... California Bearing Ratio
℄ or ℄L ..... Centerline
CL. ..... Class
CLF ..... Chainlink Fence
CMP ..... Corrugated Metal Pipe
C.O. ..... Cleanout
COMB. ..... Combination
CONC. ..... Concrete
CONSTR. ..... Construction
COR. ..... Corner
CORR. ..... Correction
CPP-S ..... Corrugated Polyethylene Pipe – Type 'S'
CSP ..... Corrugated Steel Pipe – Aluminized Type 2
CSPA ..... Corrugated Steel Pipe Arch – Aluminized Type 2
DC ..... Degree of Curve
D.H.V. ..... Design Hourly Volume
D.I. ..... Drop Inlet
DIA. ..... Diameter
D.O. ..... Double Opening
E ..... East
E ..... Electric
E ..... External Distance
EA ..... Each
EB ..... Eastbound
ELEV ..... Elevation
ES ..... End Section
EX or EXIST. Existing
FT ..... Feet
F or FL ..... Flowline
F.B.D. ..... Flat Bottom Ditch
F.H. ..... Fire Hydrant
FWD. ..... Forward
G ..... Gas
G.V. ..... Gas Valve
H.B. ..... Handbox
HDPE ..... High Density Polyetheylene
HDWL. ..... Headwall
HERCP ..... Horizontal Elliptical Reinforced Concrete Pipe
HP ..... High Point
IN ..... Inch
I.S.T. ..... Inlet Sediment Trap
INV. ..... Invert
J.B. ..... Junction Box
K ..... K Inlet
L ..... Length
LF ..... Linear Feet
L.L. ..... Liquid Limit
LP ..... Low Point
L.P. ..... Light Pole
LT. ..... Left
MAC. ..... Macadam
M.C. ..... Moisture Content
MAX. ..... Maximum
M.D.D. ..... Maximum Dry Content
MOD. ..... Modified
MIN. ..... Minimum
N. ..... North
NB ..... Northbound
NE ..... Northeast
N.P. ..... Non-Plastic
O.C. ..... On Center
OHE ..... Overhead Electric
O.M. ..... Optimum Moisture
PAV'T. ..... Pavement
PC ..... Point of Curvature
PCC ..... Point of Compound Curvature
P/C ..... Point of Crown
P/GE ..... Profile Grade Elevation
P.G.E. ..... Profile Ground Elevation
P.G.L. ..... Profile Grade Line
P/GL ..... Profile Ground Line
P/R ..... Point of Rotation
P.I. ..... Plasticity Index
PI ..... Point of Intersection
POC ..... Point On Curve
POT ..... Point On Tangent
PPWP ..... Polyvinyl Chloride Profile Wall Pipe
PROP ..... Proposed
PRC ..... Point of Reverse Curve
PT ..... Point
PT ..... Point of Tangency
PVC ..... Point of Vertical Curve
PVC ..... Polyvinyl Chloride
PVI ..... Point of Vertical Intersection
PVRC ..... Point of Vertical Reverse Curve
PVT ..... Point of Vertical Tangency
R ..... Radius
R.F. ..... Rock Fragments
RT ..... Right
RW or R/W ... Right of Way
RCP ..... Reinforced Concrete Pipe
RCPP ..... Reinforced Concrete Pressure Pipe
R.Q.D. ..... Rock Quality Designation
R.M. ..... Rootmat
S ..... South
SAN. ..... Sanitary Sewer
SB or S/B .... Southbound
S.D. ..... Storm Drain
S.D.D. ..... Surface Drain Ditch
S/E ..... Super Elevation
SF ..... Silt Fence
SF ..... Square Feet
SHT. ..... Sheet
SPP ..... Structural Steel Plate Pipe
SPPA ..... Structural Steel Plate Pipe Arch
S.P.T. ..... Standard Penetration Testing
SRP ..... Steel Spiral Rib Pipe – Aluminized Type 2
SRPA ..... Steel Spiral Rib Pipe Arch – Aluminized Type 2
SSD ..... Stopping Sight Distance
SSF ..... Super Silt Fence
STD. ..... Standard
STA. ..... Station
SO. ..... Single Opening
SY ..... Square Yards
SWM ..... Stormwater Management
T ..... Tangent
T ..... Telephone
T.C. ..... Top of Cover
T.G. ..... Top of Grate
T or TL ..... Traverse Line
T.M. ..... Top of Manhole
TRAV. ..... Traverse
TS ..... Temporary Swale
T.S. ..... Top of Slab
T.S. ..... Topsoil
TYP. ..... Typical
U.D. ..... Under Drain
U.G. ..... Underground
U.P. ..... Utility Pole
USDA ..... United States Department of Agriculture
VCL ..... Vertical Clearance
V.C.L. ..... Vertical Curve Length
W ..... Water
W ..... West
WB ..... Westbound
WB ..... Wetland Buffer
W.M. ..... Water Meter
W.S. ..... Wrapped Steel
WUS ..... Waters of the United States
W.V. ..... Water Valve

CONVENTIONAL SIGNS

PROPOSED MEDIAN BARRIER
ELECTRICAL HAND BOX - SIGNALS
FLOW LINE
STATE, COUNTY OR CITY LINES
PROPOSED TRAFFIC BARRIER
EXISTING TRAFFIC BARRIER
PROPOSED FENCE LINE
EXISTING FENCE LINE
RIGHT OF WAY LINE
EXISTING ROADWAY
RAILROAD
BASE LINE OR SURVEY LINE
FIRE HYDRANT
HISTORIC BOUNDARY
WATERS OF THE U.S.
WETLAND BOUNDARY

PROPOSED PIPE / CULVERT
EXISTING PIPE / CULVERT
EXISTING DROP INLET
UTILITY POLE
WETLAND
WETLAND BUFFER
WATERS OF THE U.S.
HEDGE /TREE LINE
BUSH /TREE
CONIFEROUS TREE
GROUND ELEVATION
GRADE ELEVATION

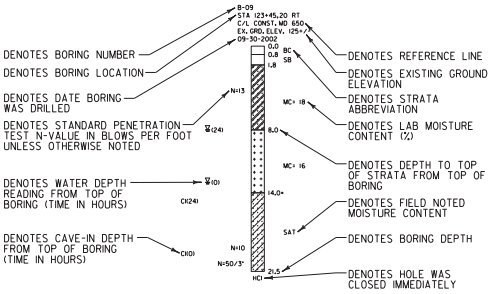
SOILS LEGEND

INFORMATION TO

BE RECEIVED FROM

OMT

SOIL BORING PROFILE EXAMPLE



SOILS TEST DATA

BORING NUMBER	SAMPLE DEPTH	LL	PI	USDA	USC	MDD	OMC	REMARKS
B-09	1.8 - 8.0	18	NP	Sandy Loam	-	-	-	with Gravel
B-09	8.0 - 14.0	41	22	Silty Clay Loam	CL	121	12	-

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

REVISIONS

NOTES AND ABBREVIATIONS SHEET

SCALE NTS ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY OHD
DRAWN BY OHD
CHECKED BY OHD
MDE/PRD 19-PR-0063

COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE
VERTICAL SCALE

DRAWING NO. AB-01 OF 01 SHEET NO. 3 OF 76

BY: mvdow -

PLOTTED: 5/26/2021
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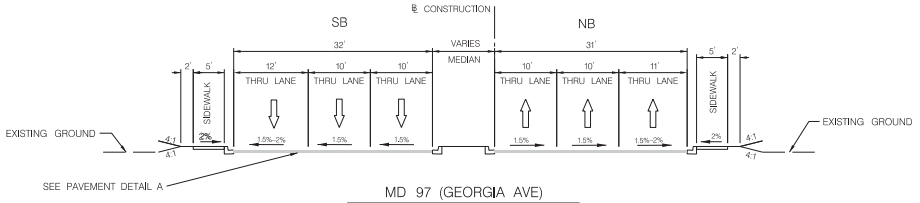
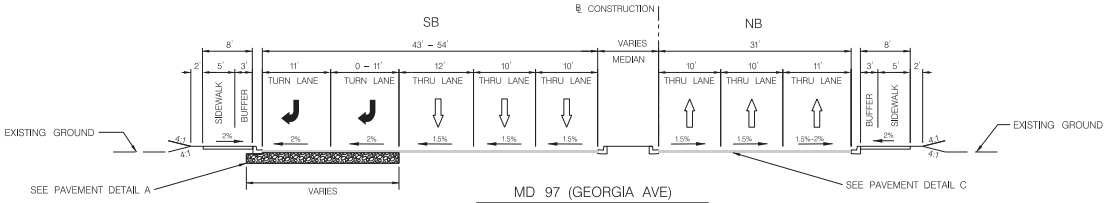


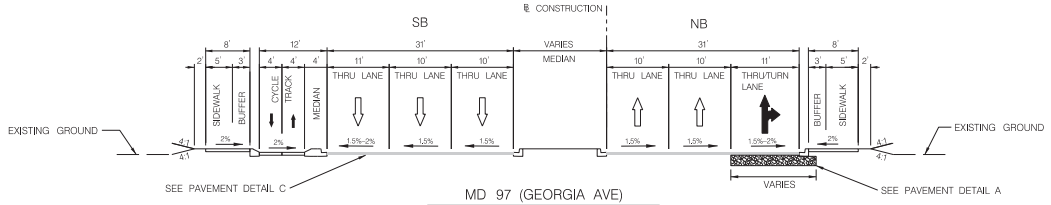
MD 97 (GEORGIA AVE)

STA. 104+00 TO STA. 106+00
GRACE CHURCH RD TO 16TH ST



MD 97 (GEORGIA AVE)

STA. 106+00 TO STA. 109+50
16TH TO LUZERNE AVE



MD 97 (GEORGIA AVE)

STA. 109+60 TO STA. 118+50
LUZERNE AVE TO SEMINARY PL

GENERAL NOTES

1. SEE SHEET PD-01 FOR PAVEMENT DETAILS 'A', 'B', 'C', & 'D'
2. THERE ARE SEVERAL UNDERGROUND UTILITIES IN THIS AREA, REFER TO THE CROSS SECTIONS FOR GENERAL GUIDANCE.

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

REVISIONS

TYPICAL SECTIONS

SCALE 1" = 10' ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY HDD
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MDE/PRD 19-PD-0063

COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE
VERTICAL SCALE

DRAWING NO. TS-01 OF 03 SHEET NO. 4 OF 76

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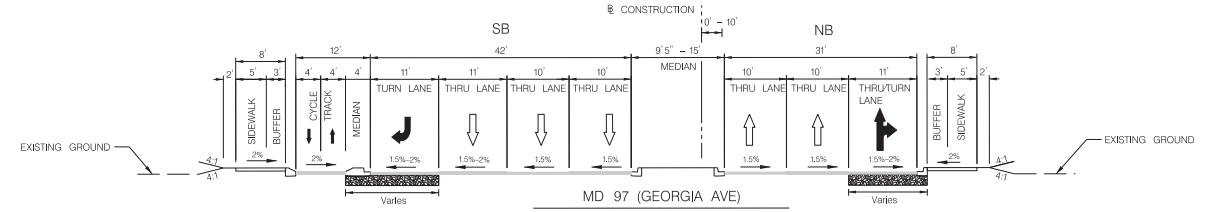
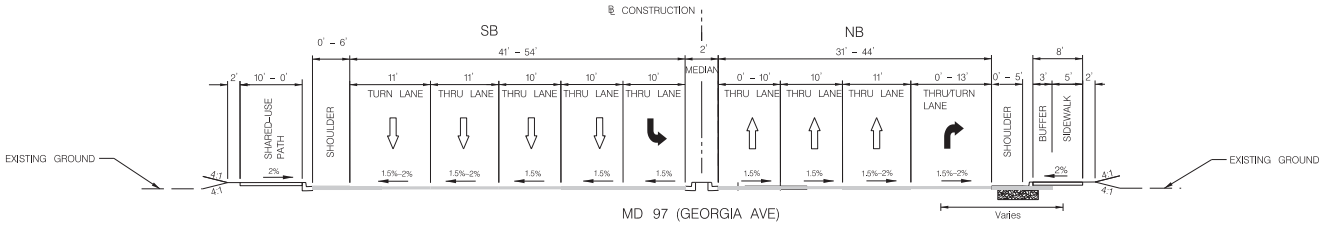


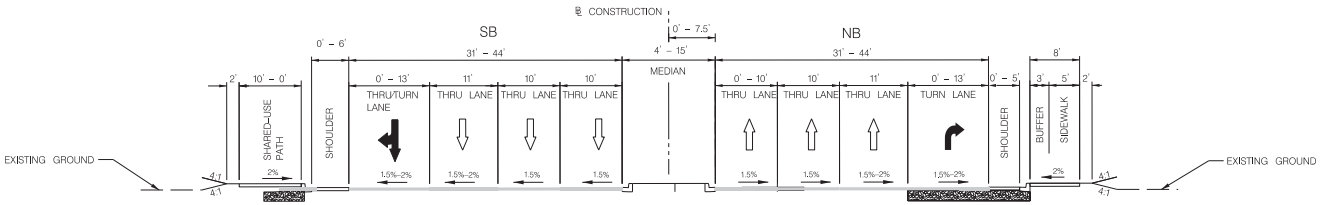
MD 97 (GEORGIA AVE)

STA. 118+50 TO STA. 124+00
SEMINARY PL TO FLORA LN



MD 97 (GEORGIA AVE)

STA. 124+00 TO STA. 127+50
FLORA LN TO FOREST GLEN ROAD



MD 97 (GEORGIA AVE)

STA. 127+50 TO STA. 145+00
FLOURA LN TO FOREST GLEN ROAD

GENERAL NOTES

1. SEE SHEET PD-01 FOR PAVEMENT DETAILS 'A', 'B', 'C', & 'D'
2. THERE ARE SEVERAL UNDERGROUND UTILITIES IN THIS AREA, REFER TO THE CROSS SECTIONS FOR GENERAL GUIDANCE.

BY: mvdow

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

REVISIONS

TYPICAL SECTIONS

SCALE 1" = 10' ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY OHD
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CHECKED BY OHD
MDE/PRD 19-PD-0063

COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE
VERTICAL SCALE

DRAWING NO. TS-02 OF 03 SHEET NO. 5 OF 76

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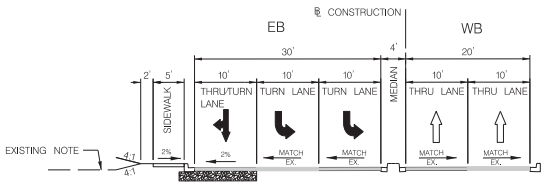
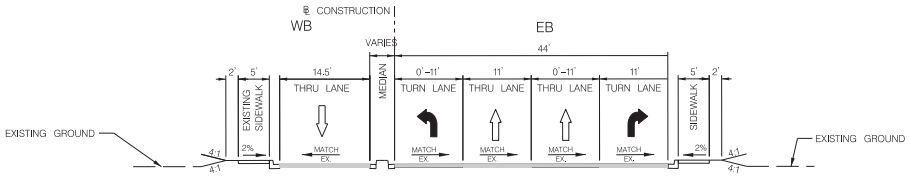


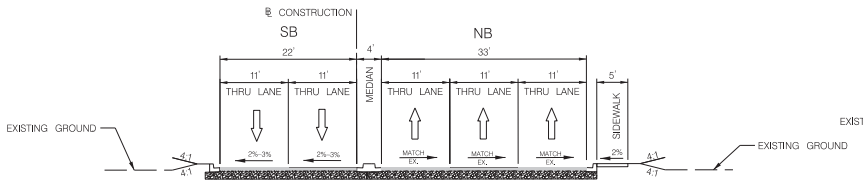
SEMINARY ROAD

STA. 00+70 TO STA. 03+65



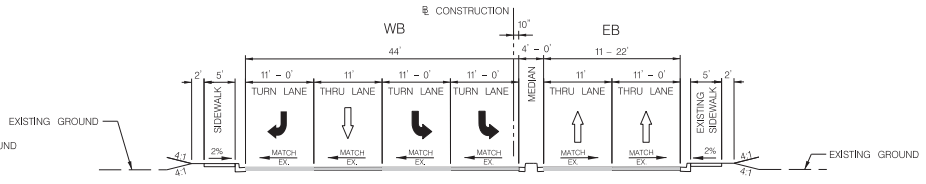
MD 192 (FOREST GLEN ROAD)

STA. 200+00 TO STA. 204+00



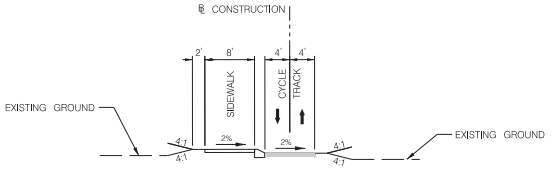
MD 390 (16TH STREET)

STA. 10+70 TO STA. 17+75



FOREST GLEN ROAD

STA. 205+00 TO STA. 207+00



CYCLE TRACK ALONG
EXISTING MD 390 SB

STA. 54+50 TO STA. 59+00
COLUMBIA BLVD TO MD 97

GENERAL NOTES

1. SEE SHEET PD-01 FOR PAVEMENT DETAILS 'A', 'B', 'C', & 'D'
2.
3.
4. THERE ARE SEVERAL UNDERGROUND UTILITIES IN THIS AREA, REFER TO THE CROSS SECTIONS FOR GENERAL GUIDANCE.

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

REVISIONS

TYPICAL SECTIONS

SCALE 1" = 10' ADVERTISED DATE N/A CONTRACT NO. MO2245171

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MDE/PRD 19-FD-0063

COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE
VERTICAL SCALE

DRAWING NO. TS-03 OF 03 SHEET NO. 06 OF 76

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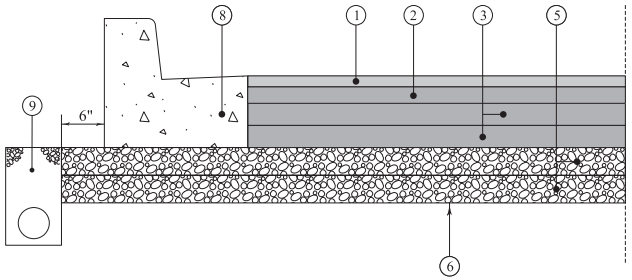
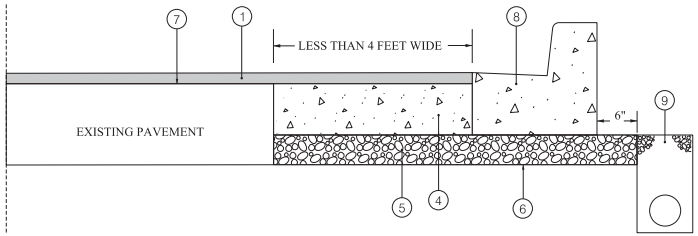
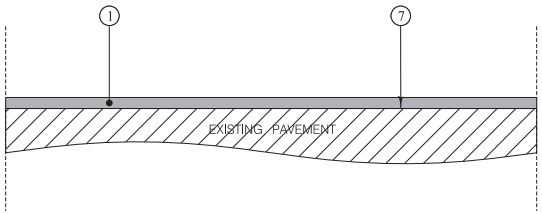
DETAIL A - BASE WIDENING CLOSED SECTION



DETAIL B - NARROW BASE WIDENING CLOSED SECTION



DETAIL C - FINE MILLING AND RESURFACING



PAVEMENT LEGEND

(1) 2" SUPERPAVE ASPHALT MIX 12.5 mm FOR SURFACE, HDFV, PG 64E-22, LEVEL 5 (SEE NOTE 8)

(2) 3" SUPERPAVE ASPHALT MIX 19.0 mm FOR BASE, PG 64S-22, LEVEL 2

(3) 4" SUPERPAVE ASPHALT MIX 19.0 mm FOR BASE, PG 64S-22, LEVEL 2

(4) 12" PLAIN PORTLAND CEMENT CONCRETE PAVEMENT USING MIX NO. 9

(5) 6" GRADED AGGREGATE BASE COURSE

(6) TOP OF SUBGRADE/LIMIT OF CLASS 1 EXCAVATION (SEE NOTE 4)

(7) TOP OF EXISTING PAVEMENT AFTER 2" FINE MILLING (SEE NOTE 1)

(8) CURB AND GUTTER (SEE NOTE 10)

(9) LONGITUDINAL UNDERDRAIN PER STANDARD NO. MD 387.11A (SEE NOTE 11)

NOTES:

1. FINE MILLING SHALL BE PERFORMED AFTER PATCHING AND BASE WINDENING ARE COMPLETED.

2. INFORMATION FROM CONSTRUCTION HISTORY INDICATE THE FOLLOWING PAVEMENT STRUCTURE ON MD 97 WITHIN THE PROJECT LIMITS:

   1.5" TO 3" ASPHALT CONCRETE OVER 9" JOINTED REINFORCED CONCRETE PAVEMENT OVER 6" STONE

3. REFER T0 STANDARDS NO. 578.03 AND 578.03-01 FOR PATCHING

   USE THE FOLLOWING FOR PARTIAL-DEPTH PATCHING:
   5" SUPERPAVE ASPHALT MIX 19.0 mm FOR PARTIAL-DEPTH PATCHING, PG64S-22, LEVEL 2 (MIN 2" AND MAX 4" LIFTS) (SEE NOTES 1, 2, AND 5)

   USE THE FOLLOWING FOR FULL-DEPTH PATCHING:
   9" PLAIN PORTLAND CEMENT CONCRETE PAVEMENT TYPE 1 REPAIRS USING MIX NO. 9 (SEE NOTES 1, 2, 6, AND 7)

4. IN AREAS WHERE THE EXISTING PAVEMENT IS BEING REMOVED, THE LIMIT OF CLASS 1 EXCAVATION SHALL BE AT THE BOTTOM OF THE BOUND MATERIALS IN THE EXISTING PAVEMENT OR AT THE TOP OF SUBGRADE, WHICHEVER IS LOWER.

5. PARTIAL-DEPTH PATCHING SHALL BE TO A DEPTH OF 5" OR TO THE TOP OF CONCRETE, WHICHEVER OCCURS FIRST.

6. IF THE UNDERLYING BASE MATERIAL IS DETERIORATED, REMOVE ANY UNSUITABLE MATERIAL AND BACKFILL WITH 6" GRADED AGGREGATE BASE.

7. ALL PORTLAND CEMENT CONCRETE REPAIRS SHALL BE IN ACCORDANCE WITH STANDARD NO. MD 572.21 AND MD 577.02 THROUGH 577.08 AND SECTION 522 OF THE MDSHA STANDARD SPECIFICATIONS FOR CONSTRUCTION MATERIALS MAY 2017.

8. AS PER SECTION 504.03.02 FO THE STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, PLACEMENT OF GAP-GRADED STONE MATRIX ASPHALT MIX WILL ONLY BE PERMITTED WHEN THE AMBIENT AND SURFACE TEMPERATURES ARE AT LEAST 50 F.

9. IF NEEDED USE ONE OF THE FOLLOWING ITEMS FOR WEDGE/LEVEL, AS DIRECTED BY THE ENGINEER:

   FOR WEDGE/LEVEL LAYER 2" THICK OR LESS:
   VARIABLE DEPTH SUPERPAVE ASPHALT MIX 9.5 mm FOR WEDGE/LEVEL, PG 64S-22, LEVEL 2
   (MIN 1" AND MAX 2" LIFTS)

   FOR WEDGE/LEVEL LAYER MORE THAN 2" THICK:
   VARIABLE DEPTH SUPERPAVE ASPAHLT MIX 19.0 mm FOR WEDGE/LEVEL, PG 64S-22, LEVEL 2
   (MIN 2" AND MAX 4" LIFTS)

10. REFER TO STANDARD MD 580.03 FOR CURB AND GUTTER REPLACEMENT.

11. REMOVAL OF EXISTING UNDERDRAIN PIPE AND BACKFILLING SHOULD NOT BE MEASURED BUT CONSIDERED INCIDENTAL TO ROADWAY EXCAVATION. NEW SECTIONS OF LUD SHALL BE PLACED AND CONNECTED PROPERLY TO THE EXISTING UNDERDRAINS OR OTHER DRAINAGE FACILITIES.

12. REFER TO STANDARD MD 580.08 FOR BIKE PATH FULL-DEPTH PAVEMENT SECTION.

MARYLAND DEPARTMENT OF TRANSPORTATION
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HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

REVISIONS

PAVEMENT DETAIL SHEET

SCALE N.T.S. ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY HDD
DRAWN BY HDD
CHECKED BY HDD
MDE/PRD 19-PR-0063

COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE
VERTICAL SCALE

DRAWING NO. PD-01 OF 01 SHEET NO. 7 OF 76

BY: mvdow -

PLOTTED: 5/26/2021
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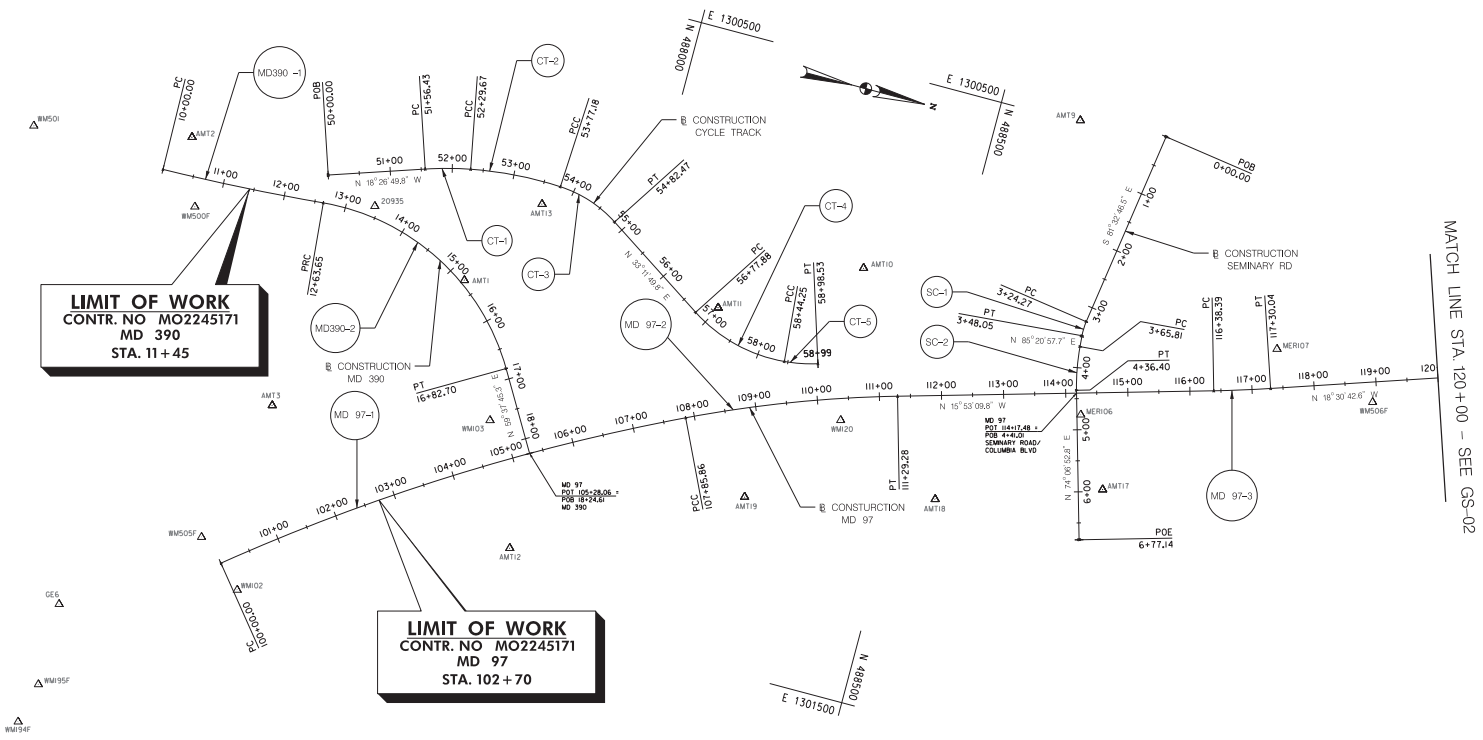
MD 97 CURVE DATA							
CURVE	PC STA.	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
97-1	100+00.00	13° 24'02.52" RT	1° 42'18.72"	3360.00	394.73	785.86	23.11
97-2	107+85.86	9° 40'42.96" RT	2° 49'05.88"	2033.00	172.12	343.42	7.27
97-3	116+38.39	2° 37'32.88" LT	2° 51'53.28"	2000.00	45.84	91.66	0.53

MD 390 CURVE DATA							
CURVE	PC STA.	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
390-1	10+27.41	6° 23'24.36" LT	4° 24'26.64"	1300.00	72.57	144.99	2.02
390-2	12+43.16	64° 42'10.80" RT	15° 26'36.96"	371.00	235.01	418.96	68.17

MD 97				
CURVE	POINT NO.	STATION	NORTH	EAST
97-1	PC	100+00.00	487476.1693	1301539.9254
	PI	103+94.73	487783.0817	1301291.6996
	CC		489589.1069	1304152.4136
	PCC	107+85.86	488139.1665	1301121.3621
97-2	PCC	107+85.86	488139.1665	1301121.3621
	PI	109+57.98	488294.4365	1301047.0868
	CC		489016.4668	1302955.3287
	PT	111+29.28	488459.9837	1300999.9730
97-3	PC	116+38.39	488949.6457	1300860.6180
	PI	116+84.22	488993.7316	1300848.0714
	CC		488402.1956	1298937.0021
	PT	117+30.04	489037.1965	1300833.5183

TRAVERSE POINTS			
POINT NO.	NORTH	EAST	ELEVATION
20935	487567.8563	1300920.6920	352.29
AMT2	487254.9380	1300889.0590	338.00
GE6	487241.4040	1301670.6200	374.84
AMT1	487737.8980	1300998.9070	361.10
MERI06	488752.6588	1300952.9018	354.97
MERI07	489030.7753	1300769.4601	356.82
WMI02	487512.6112	1301574.7963	384.32
WMI03	487835.7287	1301206.2062	373.80
WMI20	491343.8049	1300496.1577	347.60
WMI94F	487226.3118	1301870.5344	375.22
WMI95F	487242.3402	1301804.1271	375.49
WM500F	487288.0655	1300996.0890	342.56
WM505F	487435.2453	1301507.3663	381.67
WM506F	489201.5561	1300812.5531	361.17
AMT17	488817.6575	1301060.3542	346.96
AMT9	488630.0650	1300495.1400	369.26
AMT10	488353.9578	1300814.6862	362.97
AMT19	488263.6792	1301220.0024	356.66
AMT12	487919.4409	1301396.9914	374.05
AMT3	487490.7070	1301273.2140	370.75
WM501	487004.0192	1300936.8216	329.86
AMT13	487827.1969	1300848.2946	361.54
AMT11	488144.1520	1300936.6716	361.06



CYCLE TRACK CURVE DATA							
CURVE	PC STA.	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
CT-1	51+56.43	7° 37'45.84" RT	10° 25'02.64"	550.00	36.67	73.24	1.22
CT-2	52+29.67	13° 51'12.24" RT	9° 23'28.68"	610.10	74.12	147.51	4.49
CT-3	53+77.18	30° 09'41.40" RT	28° 38'52.44"	200.00	53.89	105.28	7.13
CT-4	56+77.88	51° 51'21.60" LT	32° 44'25.44"	175.00	85.08	158.39	19.59
CT-5	58+44.25	1° 17'7.08" LT	4° 7'19.20"	1390.00	15.59	31.18	0.09

SEMIANRY ROAD /COLUMBIA BLVD CURVE DATA							
CURVE	PC STA.	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
SC-1	3+24.27	13° 06'15.84" LT	55° 05'31.56"	104.00	11.95	23.79	0.68
SC-2	3+65.81	11° 14'04.92" LT	15° 54'55.80"	360.00	35.41	70.59	1.74

MARYLAND DEPARTMENT OF TRANSPORTATION
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FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

REVISIONS

GEOMETRY SHEET

SCALE 1" = 100' ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY HDD
DRAWN BY HDD
CHECKED BY HDD
MDE/PRD 19-FPD-0063

COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE
VERTICAL SCALE

DRAWING NO. GS-01 OF 02 SHEET NO. 8 OF 76

BY: mvdow

PLOTTED: 5/26/2021
FILE: pw:\sharepoint.sha.maryland.gov:mdot\mdstate\SHAEDMS02\Documents\Projects\Montgomery\MO224 - MD 97 Montgomery Hills\Roadway Design\CADD\Plot Sheets\pGS-P001_MD97.dgn

MD 97 CURVE DATA

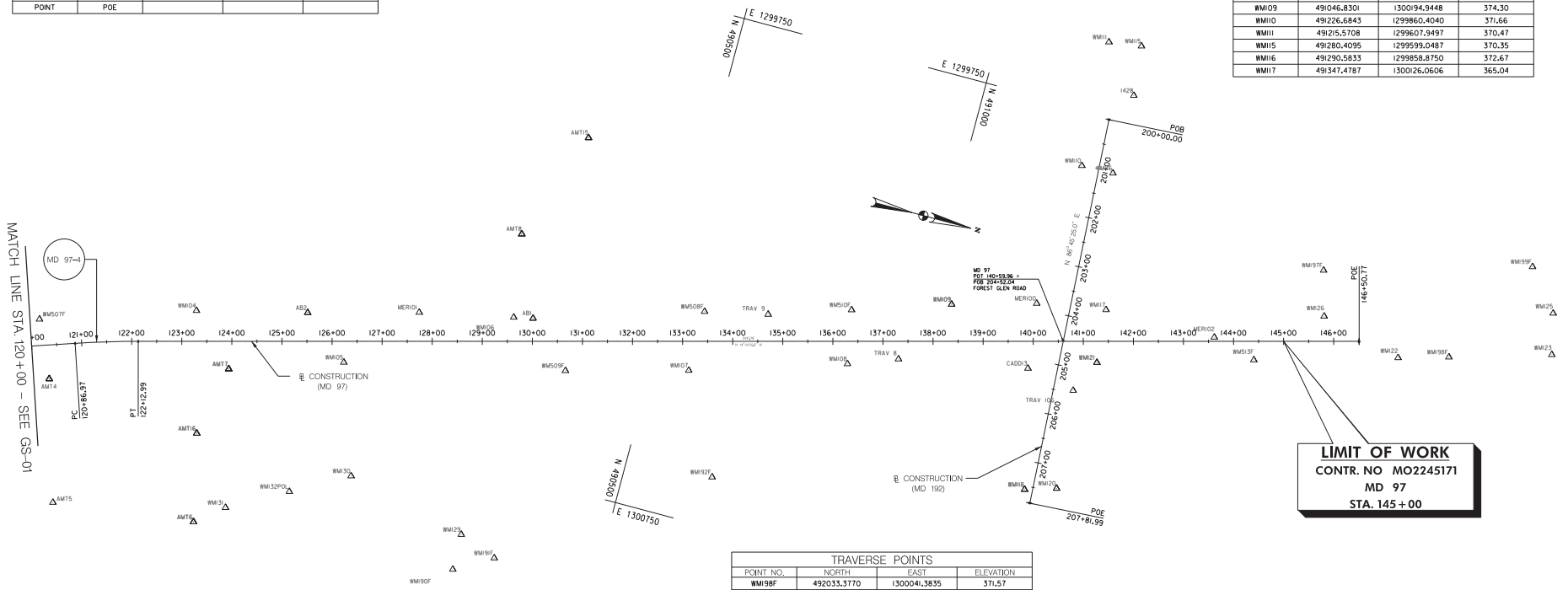
CURVE	PC STA.	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
97-4	120+86.97	3°36'36.72" RT	2°51'53.28"	2000.00	63.03	126.01	0.9930

MD 97

CURVE	POINT NO.	STATION	NORTH	EAST
97-4	PC	120+86.97	489375.6559	1300720.1937
	PI	121+50.00	489435.4252	1300700.1814
	CC		490010.6568	1302616.7099
	PT	122+12.99	489496.3361	1300683.9724
POINT	POE			

TRAVERSE POINTS

POINT NO.	NORTH	EAST	ELEVATION
MERI01	490023.6379	1300483.7143	350.81
AMT4	489343.8290	1300802.0130	362.87
AMT7	489685.0890	1300690.7040	365.08
MERI00	491210.5066	1300149.4528	368.19
MERI02	491570.4803	1300123.5489	361.96
CADDI3	491226.8890	1300279.3200	366.36
AMT6	489695.7510	1301004.1210	339.76
WMI04	489592.9030	1300594.6725	367.50
WMI05	489903.8407	1300618.9159	359.17
WMI06	490208.3744	1300444.6447	340.71
WMI07	490573.4656	1300457.3838	337.15
WMI08	490876.4630	1300363.2667	353.32
WMI09	491046.8301	1300194.9448	374.30
WMI10	491226.6843	1299860.4040	371.66
WMI11	491215.5708	1299607.9497	370.47
WMI15	491280.4095	1299599.0487	370.35
WMI16	491290.5833	1299858.8750	372.67
WMI17	491347.4787	1300126.0606	365.04



TRAVERSE POINTS

POINT NO.	NORTH	EAST	ELEVATION
WMI18	491282.6665	1300514.7608	347.05
WMI20	491343.8049	1300496.1577	347.60
WMI21	491356.9450	1300232.6463	365.81
WMI22	491935.6077	1300068.7982	370.09
WMI23	492230.6717	1299983.8453	372.95
WMI25	492212.0053	1299903.2950	373.03
WMI26	491771.6811	1300026.5950	366.18
WMI29	490218.7708	1300890.8782	341.13
WMI30	489976.1775	1300834.5241	347.65
WMI31	489750.0308	1300960.0122	339.20
WMI32	491115.7327	1300555.4403	0.00
WMI90F	490220.3437	1300962.4537	337.73
WMI91F	490294.5095	1300919.3209	335.95
WMI92F	490673.3438	1300651.2911	344.44

TRAVERSE POINTS

POINT NO.	NORTH	EAST	ELEVATION
WMI98F	492033.3770	1300041.3835	371.57
WMI99F	492148.2878	1299824.2012	376.36
WMI97F	491746.9724	1299938.1763	369.58
WM507F	489294.3942	1300691.9052	363.81
WM508F	490573.7443	1300335.5110	339.21
WM509F	490335.6365	1300521.3075	336.41
WM510F	490856.5743	1300257.0419	355.39
WM513F	491658.3898	1300147.0198	362.01
WMI32POL	489864.9475	1300896.2442	344.51
1428	490399.7204	1300495.7233	334.43
TRAVI06	491325.4660	1300298.7040	363.04
TRAV8	490972.2392	1300327.8114	357.73
TRAV 9	490697.8897	1300308.5363	343.79
AMT5	489414.4300	1301038.7140	357.18
AMTI6	489656.4453	1300831.4704	357.20
AB2	489808.5720	1300541.6039	361.85
ABI	490246.3600	1300436.8866	338.49
AMT8	490181.291	1300279.9680	344.22
AMTI5	490260.6136	1300059.9720	358.16

MARYLAND DEPARTMENT OF TRANSPORTATION
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WIDEN AND RESURFACE

REVISIONS

GEOMETRY SHEET

SCALE 1" = 100' ADVERTISED DATE NA CONTRACT NO. MO2245171

DESIGNED BY OHD
DRAWN BY OHD
CHECKED BY OHD
MDE/PRO 19-PP-0063

COUNTY MONTGOMERY
LOG MILE
HORIZONTAL SCALE
VERTICAL SCALE

DRAWING NO. GS-02 OF 02 SHEET NO. 9 OF 76

BY: mvdow

PLOTTED: 5/26/2021
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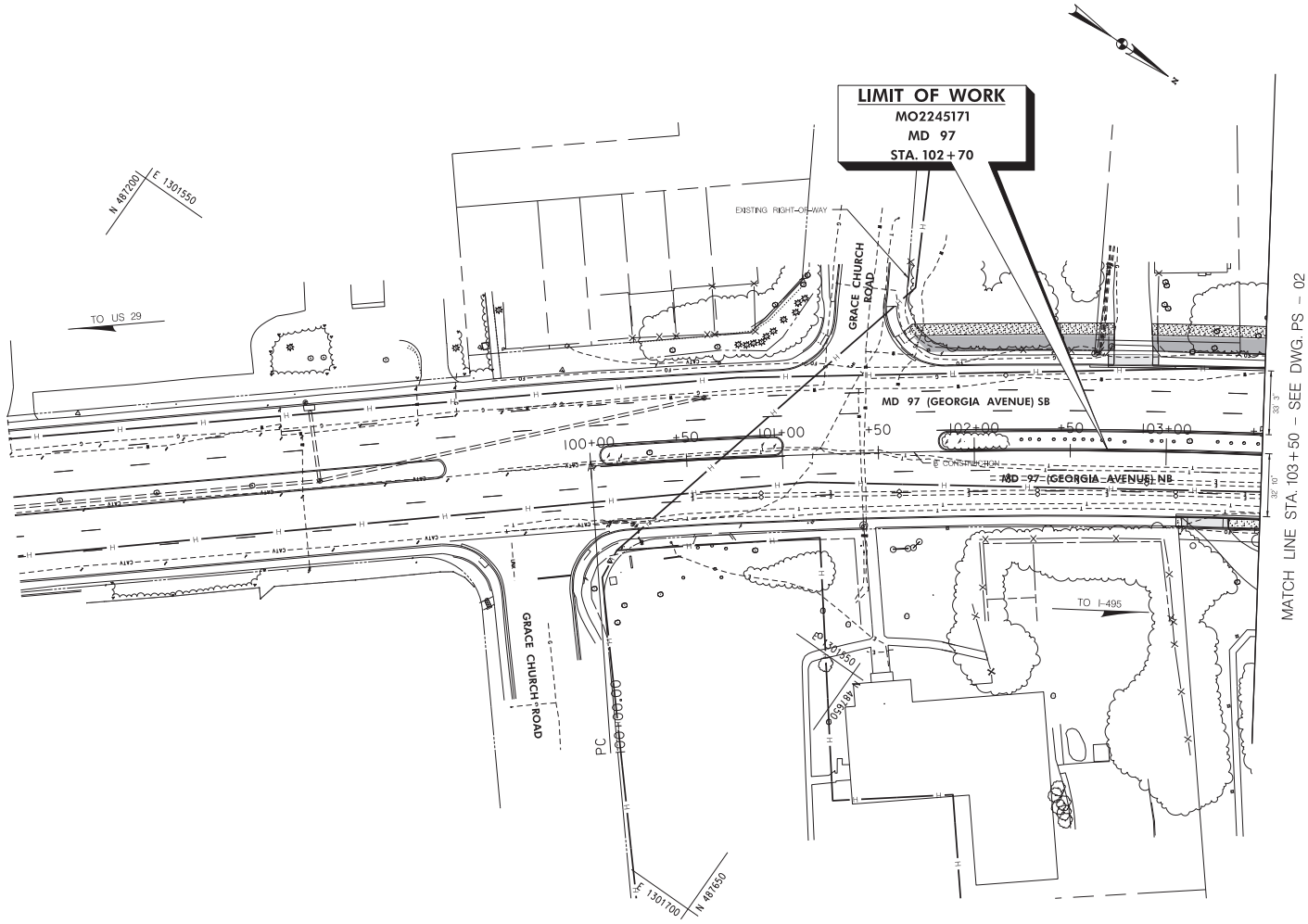

QUANTITY NOTES

QUANTITIES UNDER CONSTRUCTION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
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WIDEN AND RESURFACE

ROADWAY LEGEND

- FULL DEPTH RECONSTRUCTION
- ACCESS ROAD WITH CELLULAR CONFINEMENT LOAD SUPPORT SYSTEM
- STAMPED CONCRETE (SEE LANDSCAPE DETAIL SHEET)
- PARTIAL DEPTH RECONSTRUCTION
- EXISTING SIDEWALK/PAVEMENT REMOVAL

R / W PLAT NUMBER

REVISIONS

ROADWAY PLAN

SCALE 1" = 30' ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY HDD
DRAWN BY HDD
CHECKED BY HDD
MDE/PRD 19-PR-0063

COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE
VERTICAL SCALE

DRAWING NO. PS-01 OF 10 SHEET NO. 10 OF 76

BY: mvdow

PLOTTED: 5/26/2021
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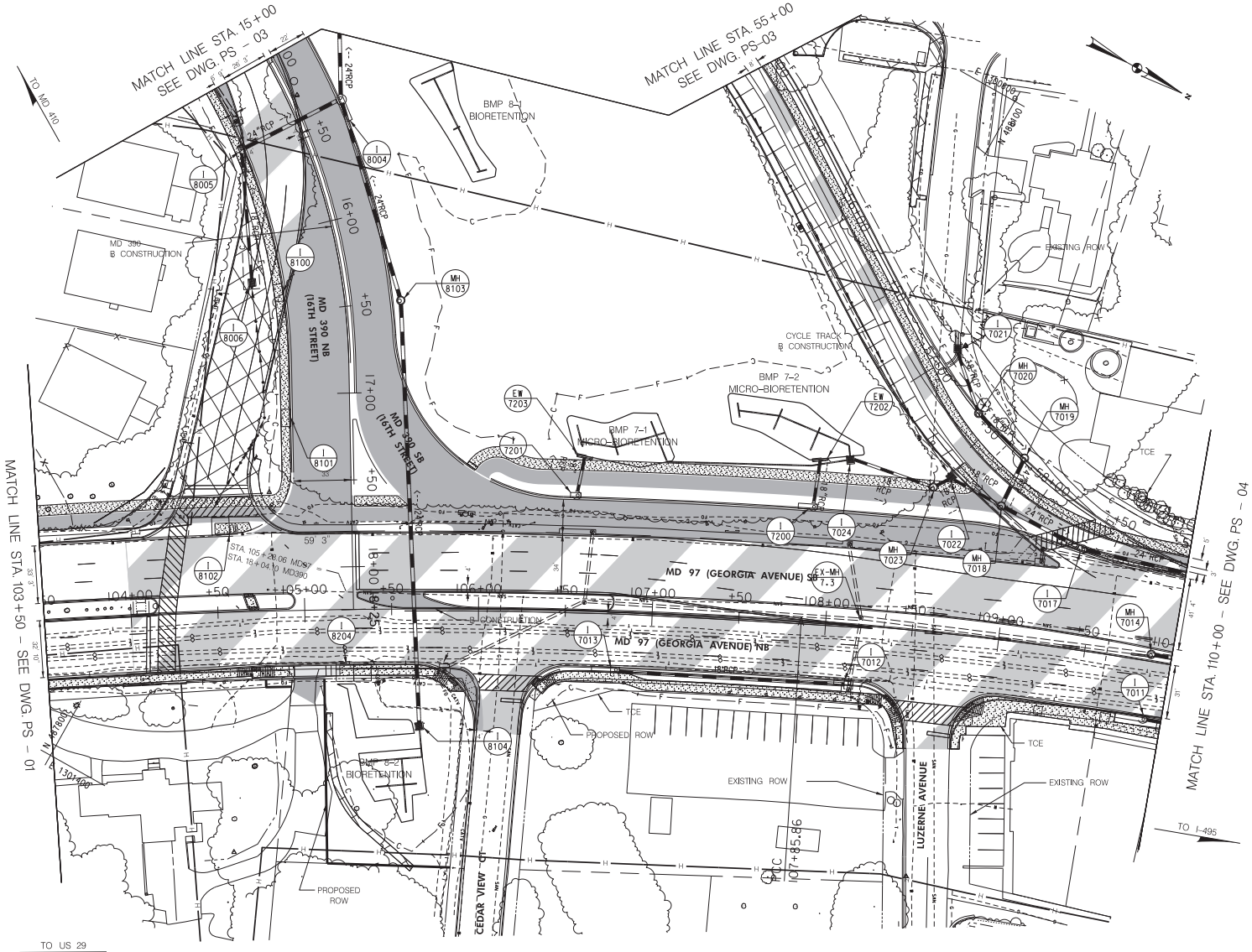

QUANTITY NOTES

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ROADWAY LEGEND

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REVISIONS

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STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

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ROADWAY PLAN

SCALE 1" = 30' ADVERTISED DATE N/A CONTRACT NO. MO2245171

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COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE
VERTICAL SCALE

DRAWING NO. PS-02 OF 10 SHEET NO. 11 OF 76

BY: mvdow –

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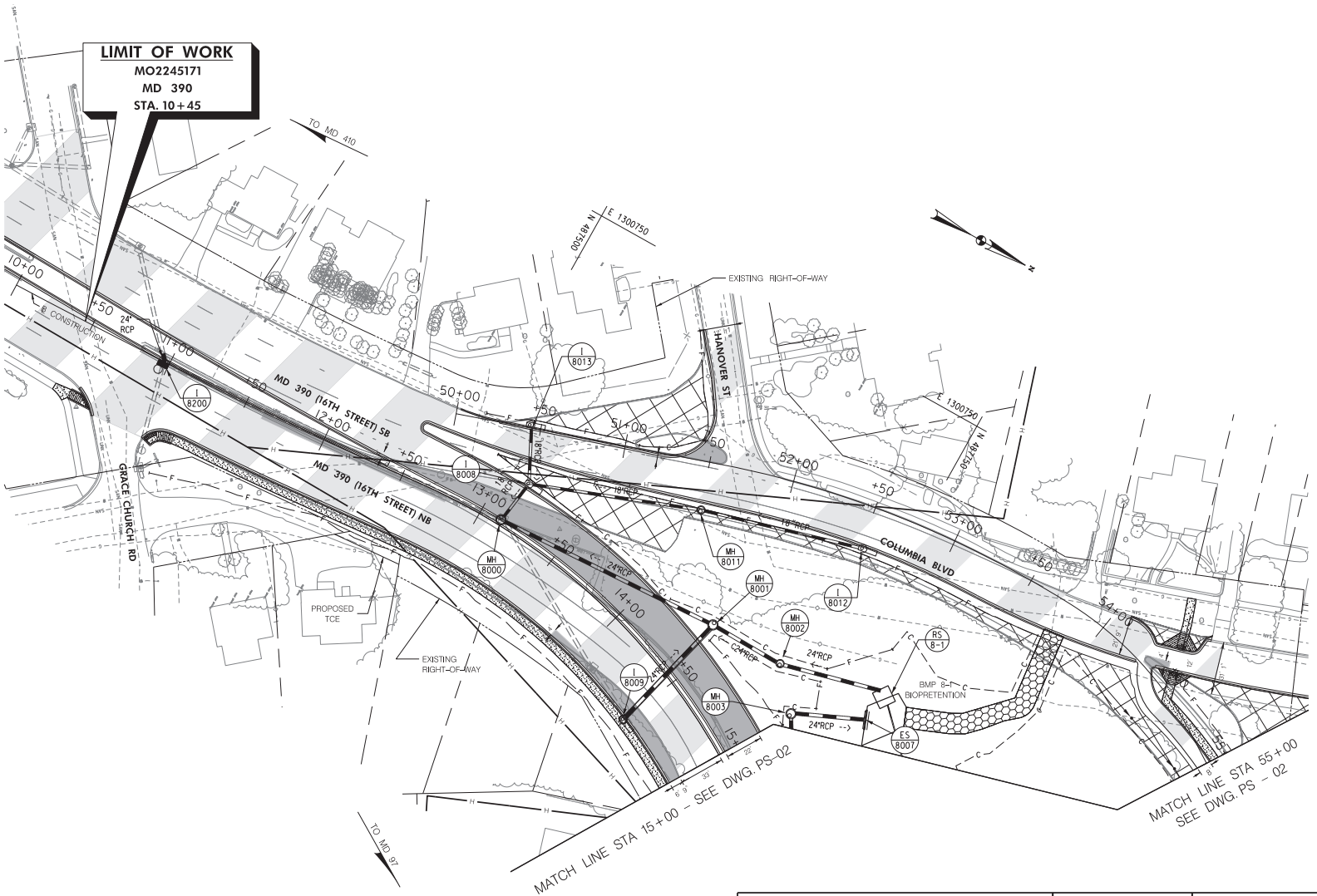

QUANTITY NOTES

QUANTITIES UNDER CONSTRUCTION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
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ROADWAY LEGEND

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R / W PLAT NUMBER

REVISIONS

ROADWAY PLAN

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COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE
VERTICAL SCALE

DRAWING NO. PS-03 OF 10 SHEET NO. 12 OF 76

BY: mvdow

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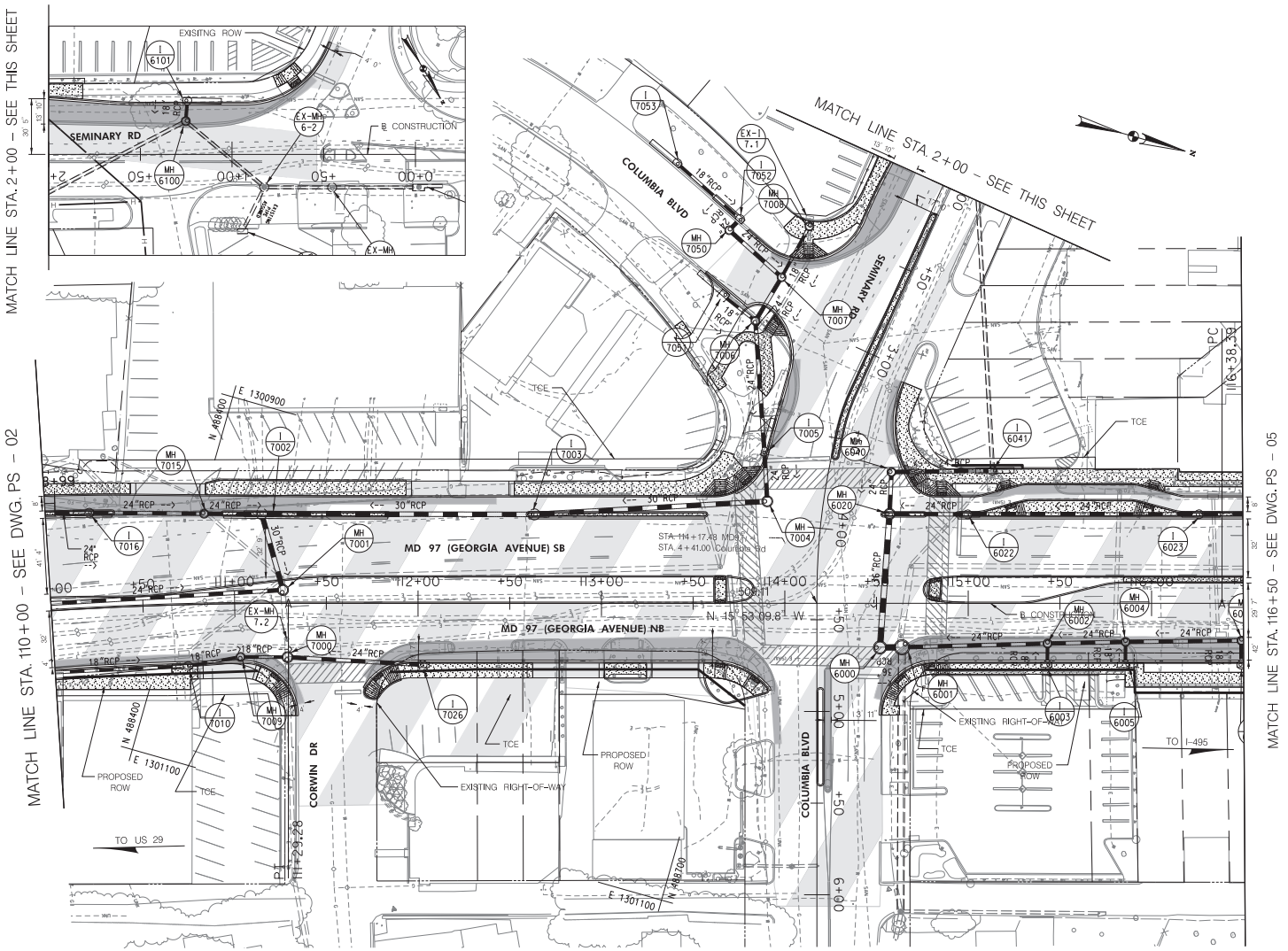

QUANTITY NOTES

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STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
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WIDEN AND RESURFACE

ROADWAY LEGEND

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R / W PLAT NUMBER

REVISIONS

ROADWAY PLAN

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COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE
VERTICAL SCALE

DRAWING NO. PS-04 OF 10 SHEET NO. 13 OF 76

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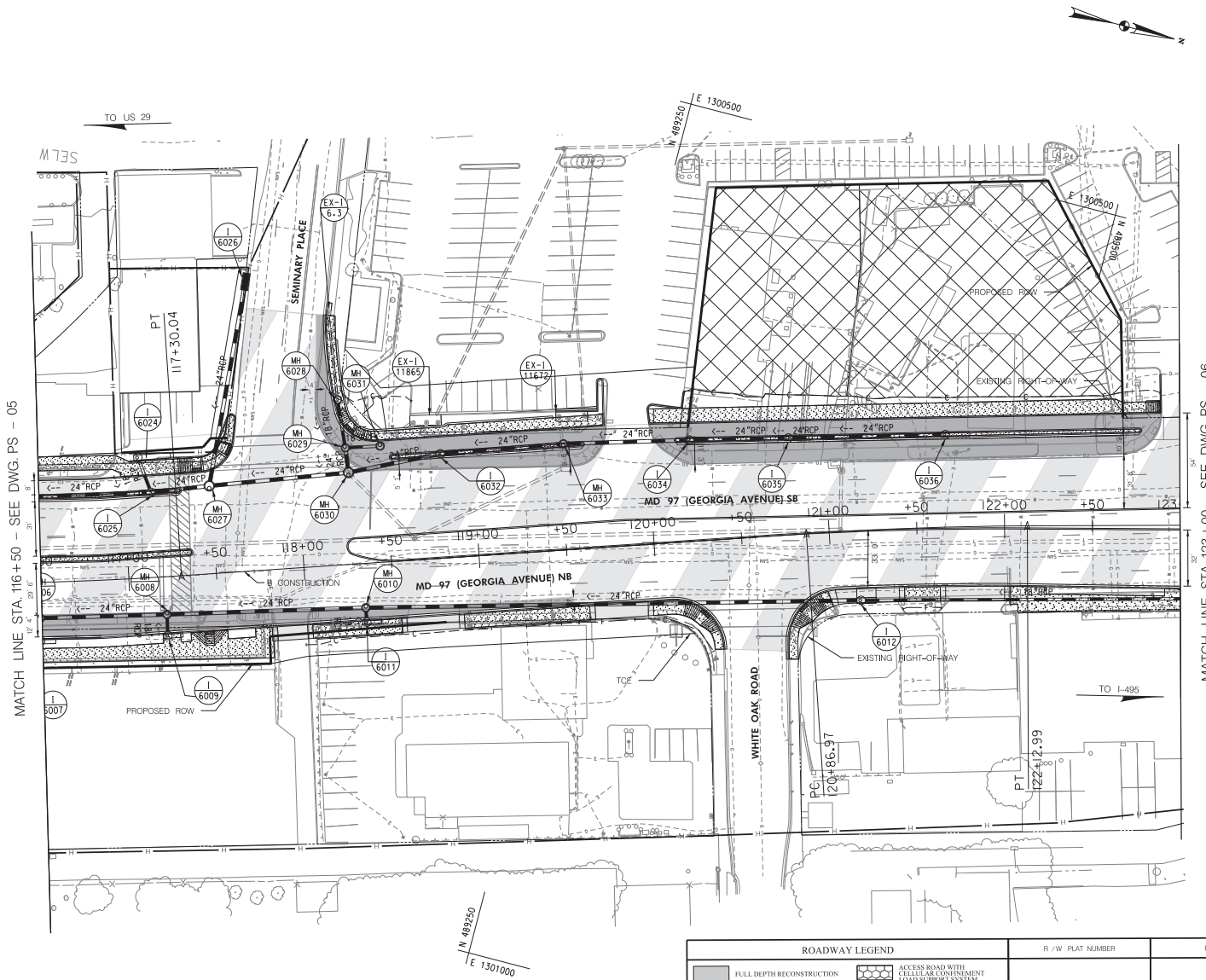

QUANTITY NOTES

QUANTITIES UNDER CONSTRUCTION

ROADWAY LEGEND		R/W PLAT NUMBER	REVISIONS
FULL DEPTH RECONSTRUCTION	ACCESS ROAD WITH CELLULAR CONFINEMENT LOAD SUPPORT SYSTEM		
STAMPED CONCRETE (SEE LANDSCAPE DETAIL SHEET)	PARTIAL DEPTH RECONSTRUCTION		
EXISTING SIDEWALK/PAVEMENT REMOVAL			

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

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ROADWAY PLAN

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COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE
VERTICAL SCALE

DRAWING NO. PS-05 OF 10

SHEET NO. 14 OF 76

BY: mvdow

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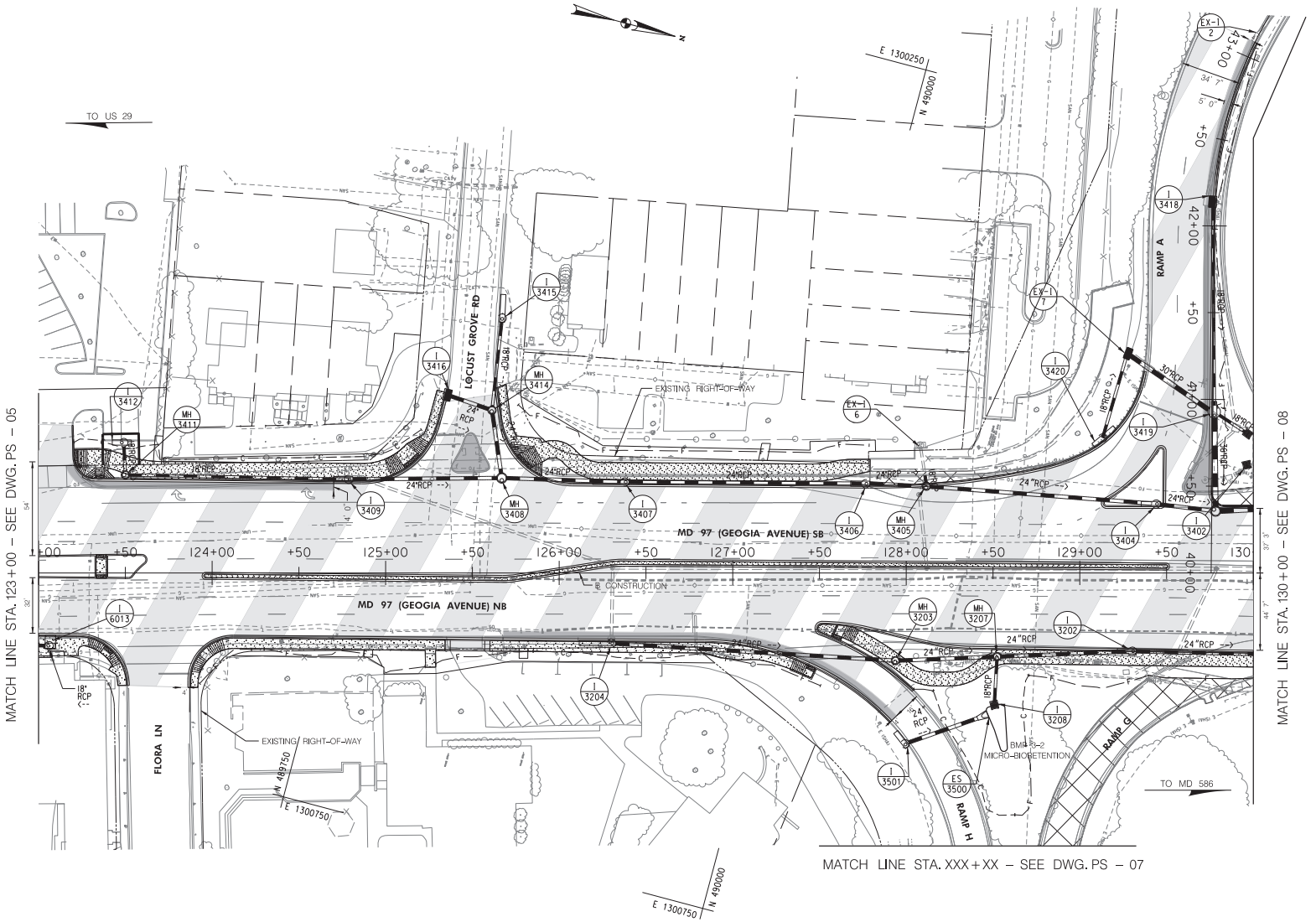

QUANTITY NOTES

QUANTITIES UNDER CONSTRUCTION

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
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ROADWAY LEGEND	R / W PLAT NUMBER	REVISIONS
FULL DEPTH RECONSTRUCTION		
ACCESS ROAD WITH CELLULAR CONFINEMENT LOAD SUPPORT SYSTEM		
STAMPED CONCRETE (SEE LANDSCAPE DETAIL SHEET)		
PARTIAL DEPTH RECONSTRUCTION		
EXISTING SIDEWALK/PAVEMENT REMOVAL		

30' 0 30' 60'
SCALE: 1" = 30'

ROADWAY PLAN

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COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE
VERTICAL SCALE

DRAWING NO. PS-06 OF 10 SHEET NO. 15 OF 76

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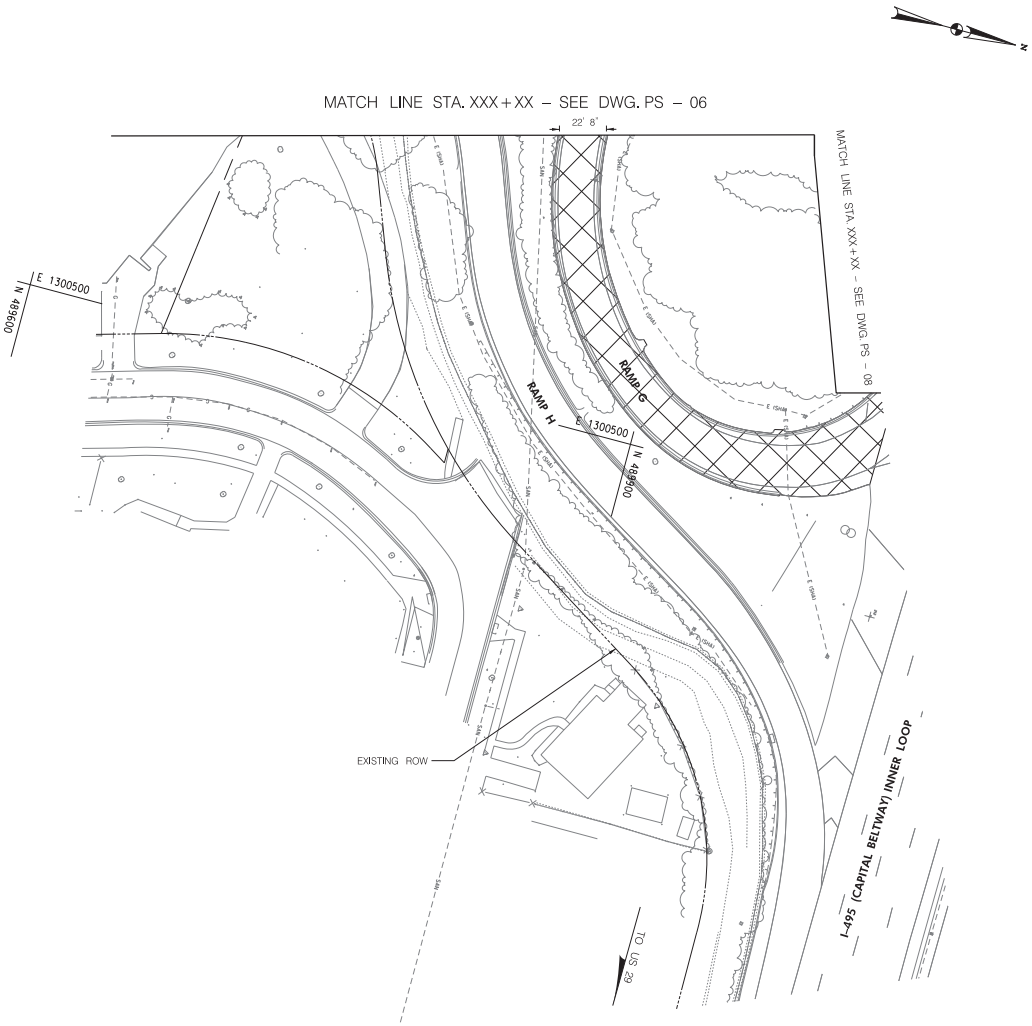
BY: mvdow –

QUANTITY NOTES

QUANTITIES UNDER CONSTRUCTION



ROADWAY LEGEND

- FULL DEPTH RECONSTRUCTION
- ACCESS ROAD WITH CELLULAR CONFINEMENT LOAD SUPPORT SYSTEM
- STAMPED CONCRETE (SEE LANDSCAPE DETAIL SHEET)
- PARTIAL DEPTH RECONSTRUCTION
- EXISTING SIDEWALK/PAVEMENT REMOVAL

R / W PLAT NUMBER

REVISIONS

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COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE
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DRAWING NO. PS-07 OF 10 SHEET NO. 16 OF 76

BY: mvdow

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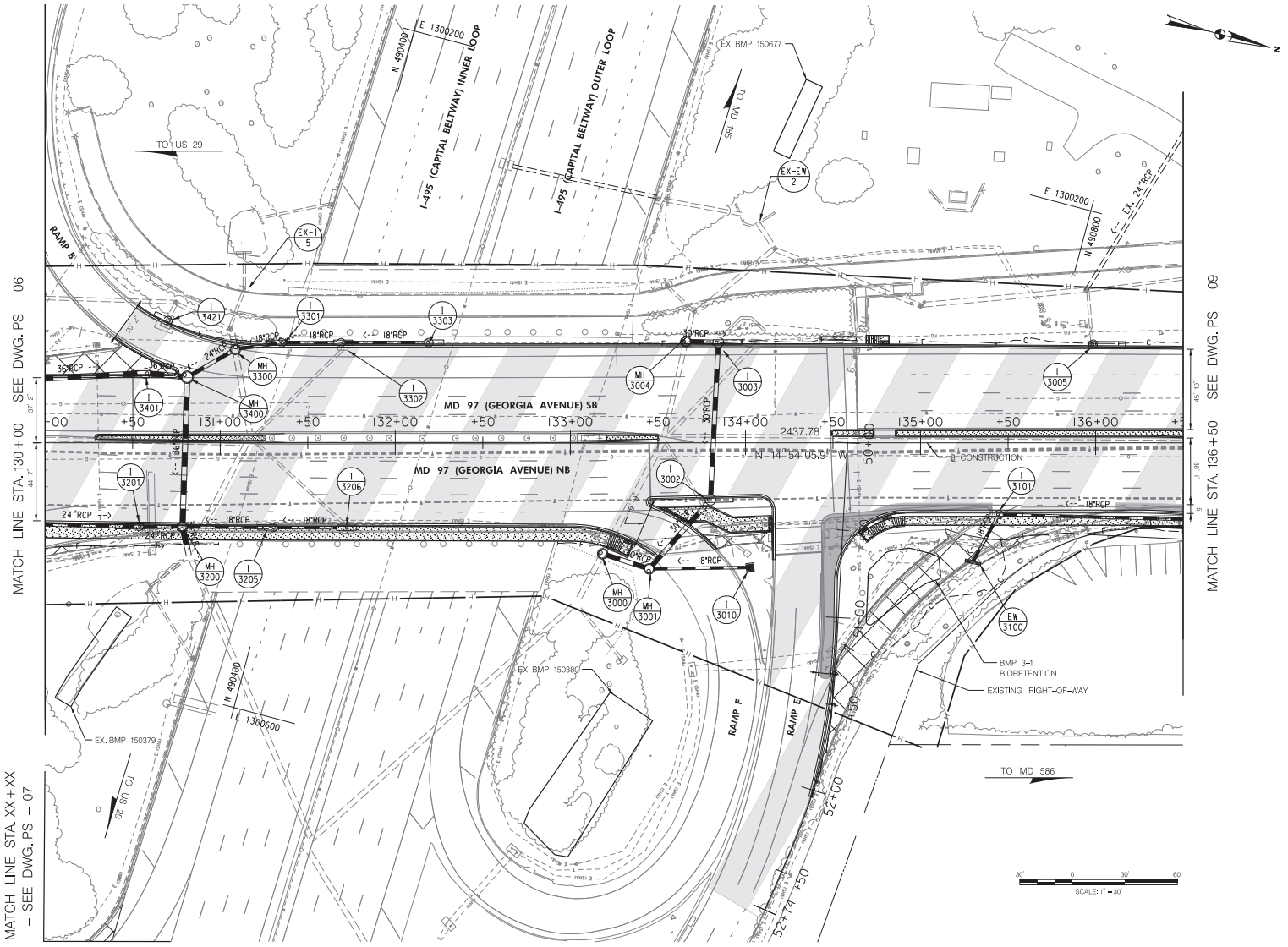

QUANTITY NOTES

QUANTITIES UNDER CONSTRUCTION

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
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ROADWAY LEGEND	R / W PLAT NUMBER	REVISIONS
FULL DEPTH RECONSTRUCTION; ACCESS ROAD WITH CELLULAR CONFINEMENT LOAD SUPPORT SYSTEM; STAMPED CONCRETE (SEE LANDSCAPE DETAIL SHEET); PARTIAL DEPTH RECONSTRUCTION; EXISTING SIDEWALK/PAVEMENT REMOVAL		

ROADWAY PLAN

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COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE
VERTICAL SCALE

DRAWING NO. PS-08 OF 10 SHEET NO. 17 OF 76

BY: mvdow –

PLOTTED: 5/26/2021
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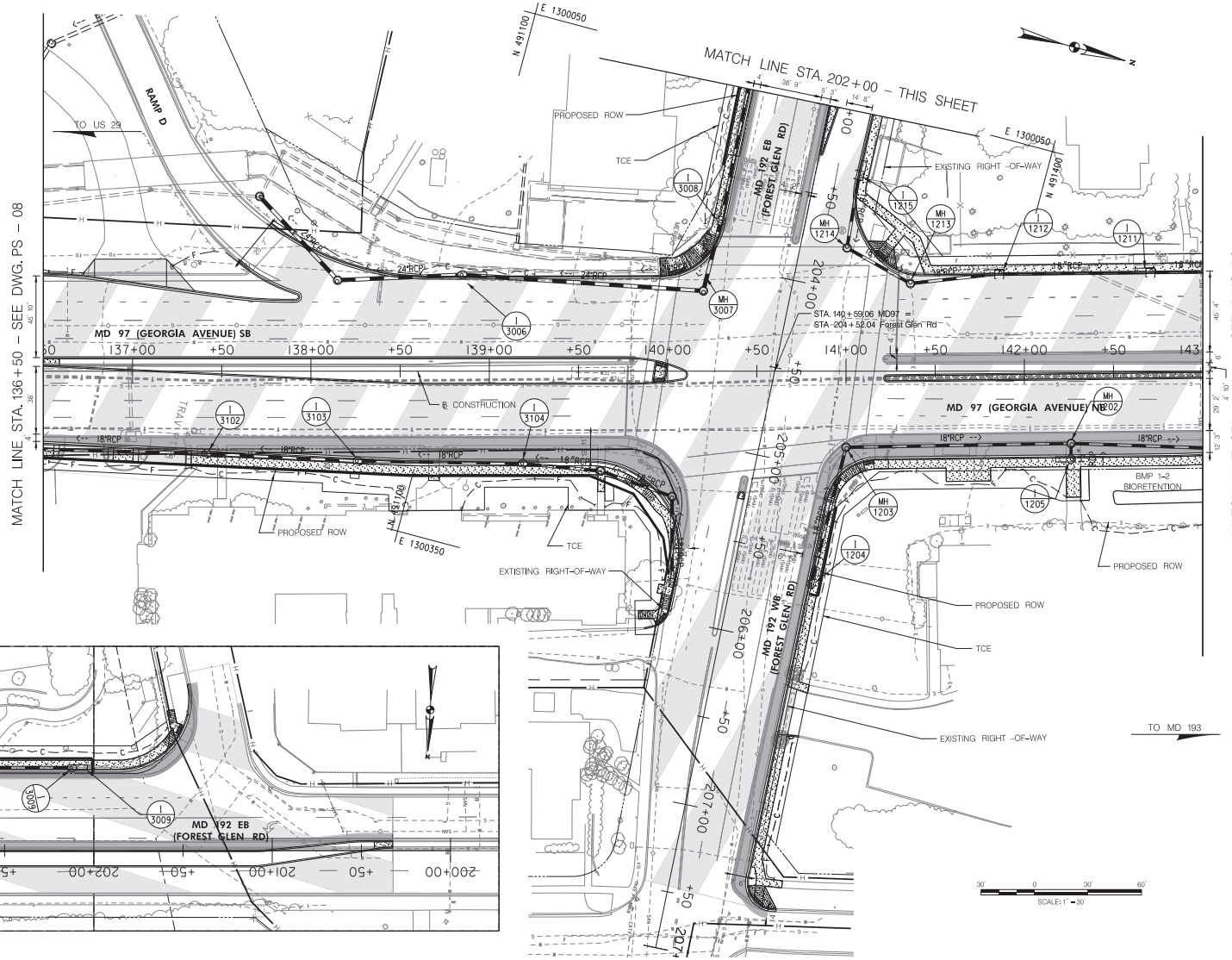

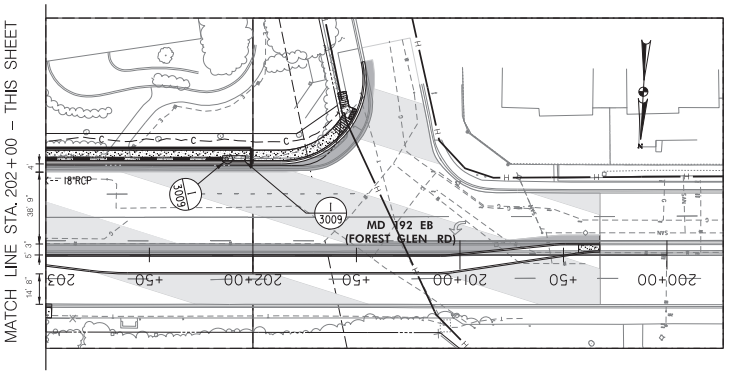

QUANTITY NOTES

QUANTITIES UNDER CONSTRUCTION

ROADWAY LEGEND

- FULL DEPTH RECONSTRUCTION
- ACCESS ROAD WITH CELLULAR CONFINEMENT LOAD SUPPORT SYSTEM
- STAMPED CONCRETE (SEE LANDSCAPE DETAIL SHEET)
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R / W PLAT NUMBER

REVISIONS

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STATE HIGHWAY ADMINISTRATION

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COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE
VERTICAL SCALE

DRAWING NO. PS-09 OF 10

SHEET NO. 18 OF 76

BY: mvdow –

PLOTTED: 5/26/2021
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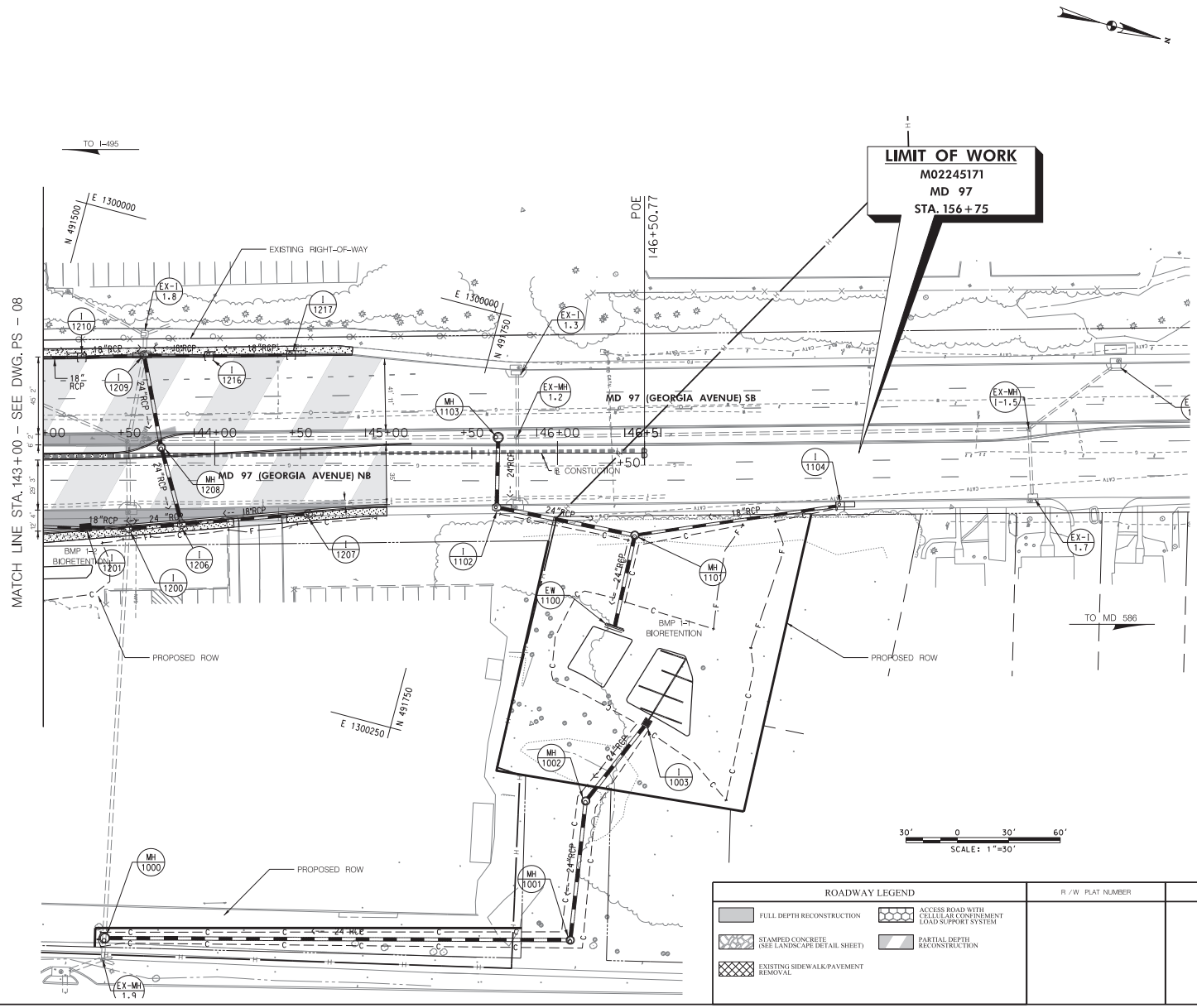

QUANTITY NOTES

QUANTITIES UNDER CONSTRUCTION

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

ROADWAY LEGEND

- FULL DEPTH RECONSTRUCTION
- ACCESS ROAD WITH CELLULAR CONFINEMENT LOAD SUPPORT SYSTEM
- STAMPED CONCRETE (SEE LANDSCAPE DETAIL SHEET)
- PARTIAL DEPTH RECONSTRUCTION
- EXISTING SIDEWALK/PAVEMENT REMOVAL

R / W PLAT NUMBER

REVISIONS

ROADWAY PLAN

SCALE 1" = 30' ADVERTISED DATE N/A CONTRACT NO. M02245171

DESIGNED BY HDD
DRAWN BY HDD
CHECKED BY HDD
MDE/PRD 19-PR-0063

COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE
VERTICAL SCALE

DRAWING NO. PS-10 OF 10 SHEET NO. 19 OF 76

PLOTTED: 5/26/2021
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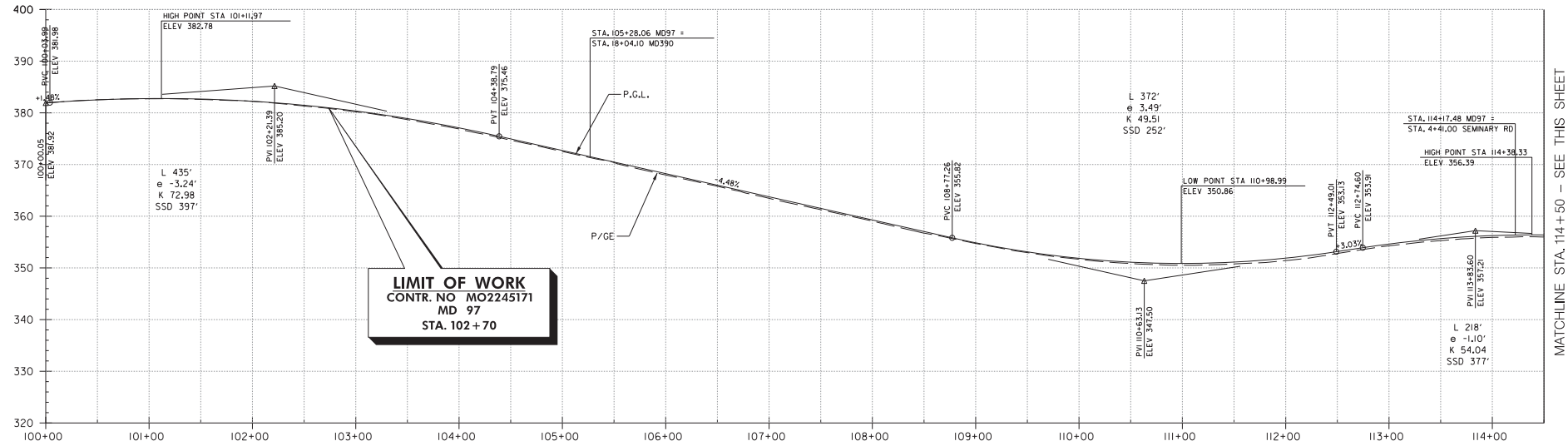
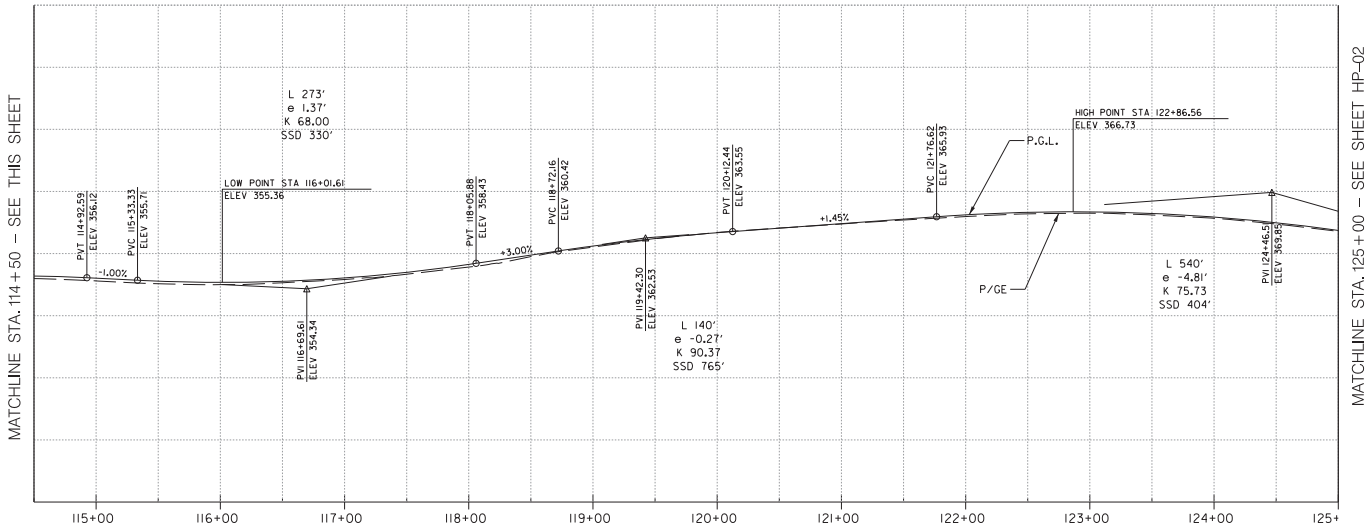
BY: mvdow



MD 97 (GEORGIA AVE) P.G.L. PROFILE

STA. 102+70 TO 114+50



MD 97 (GEORGIA AVE) P.G.L. PROFILE

STA. 114+50 TO 125+00

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

REVISIONS

PROFILE SHEET

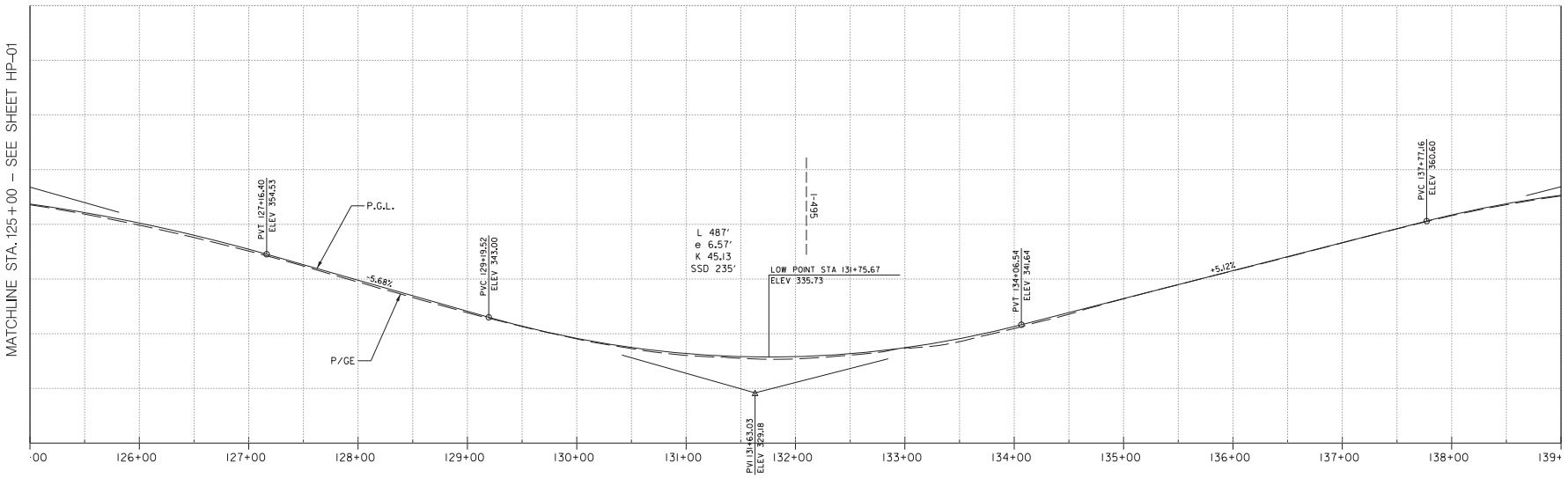
SCALE 1" = 50' ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY HDD COUNTY MONTGOMERY
DRAWN BY HDD LOGMILE
CHECKED BY HDD HORIZONTAL SCALE 1" = 50'
MDE/PPD 19-PM-0063 VERTICAL SCALE 1" = 10'

DRAWING NO. HP-01 OF 03 SHEET NO. 20 OF 76

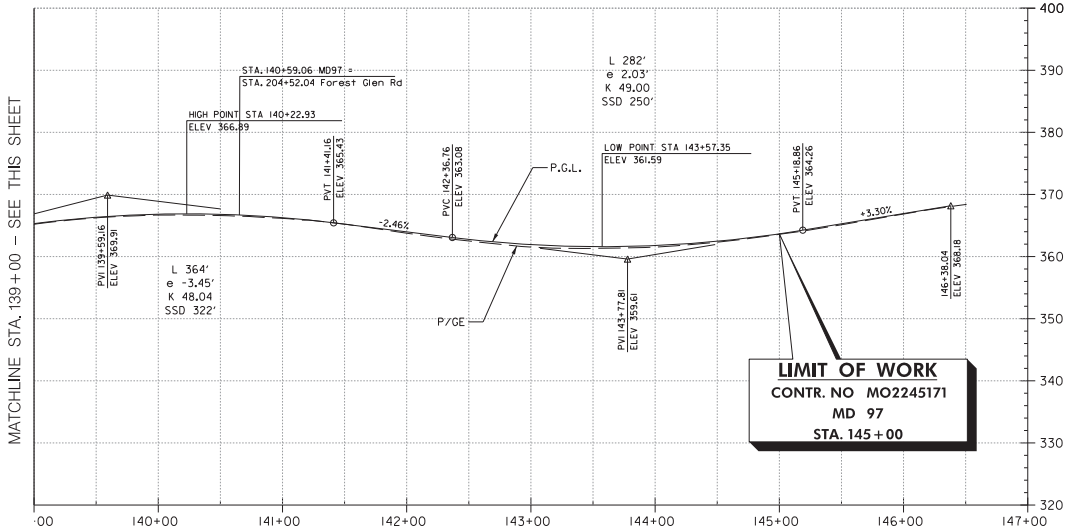
BY: mvdow -

PLOTTED: 5/26/2021
FILE: pw:\sharwmpws.sharcadd.sed.mdot.mdstate:SHAEDMS02\Documents\Projects\Montgomery\MO224 - MD 97 Montgomery Hills Roadway Design\CADD\Int Sheets\pHP-V001_MD97.dgn



MD 97 (GEORGIA AVE) P.G.L. PROFILE

STA. 125+00 TO 139+00



MD 97 (GEORGIA AVE) P.G.L. PROFILE

STA. 139+00 TO 145+00

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

REVISIONS

PROFILE SHEET

SCALE 1" = 50' ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY HDD
DRAWN BY HDD
CHECKED BY HDD
MDE/PRD 19-PR-0063

COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE 1" = 50'
VERTICAL SCALE 1" = 10'

DRAWING NO. **HP-02** OF **03** SHEET NO. 21 OF 76

BY: mvdow -

PLOTTED: 5/26/2021
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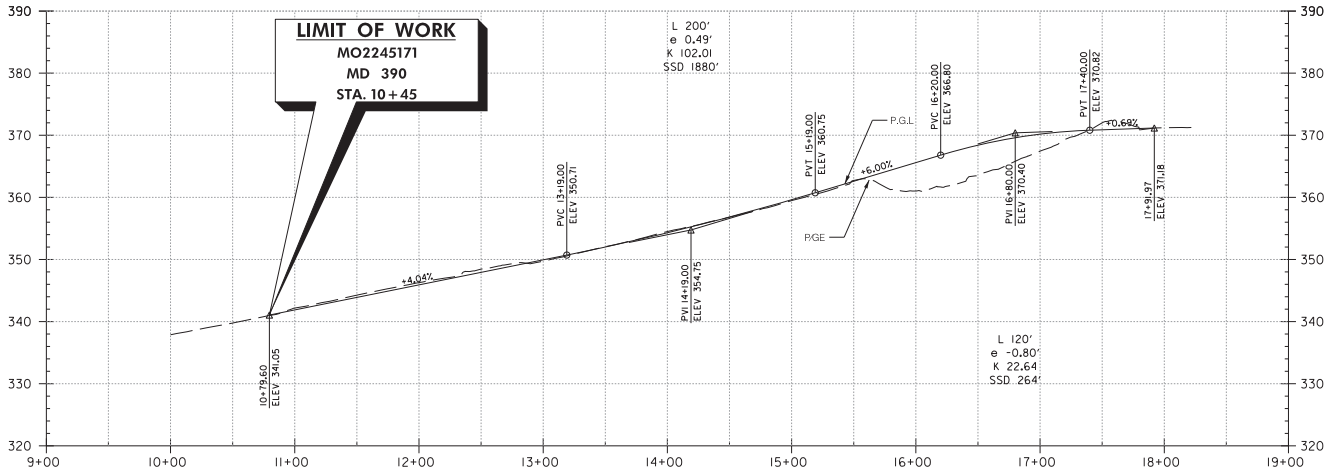

MD 390 (16TH STREET) P.G.L. PROFILE

STA. 10+45 TO 17+91.97

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

REVISIONS

PROFILE SHEET

SCALE 1" = 50' ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY HDD
DRAWN BY HDD
CHECKED BY HDD
MDE/PRD 19-PD-0063

COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE 1" = 50'
VERTICAL SCALE 1" = 10'

DRAWING NO. HP-03 OF 03 | SHEET NO. 22 OF 76

BY: mvdow -

PLOTTED: 5/26/2021
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MAINTENANCE OF TRAFFIC GENERAL CONSTRUCTION NOTES

1. PRIOR TO STARTING ANY LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL FIELDMARK THE LIMITS OF DISTURBANCE.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION WORK ZONE TRAFFIC CONTROL TYPICALS, THE MDMUTCD AND SUBSEQUENT REVISIONS ADOPTED BY THE STATE OF MARYLAND, AND THESE PLANS.
3. PRIOR TO BEGINNING WORK OR NEW CONSTRUCTION PHASE, THE CONTRACTOR SHALL REFER TO THE EROSION AND SEDIMENT CONTROL SHEETS FOR THE REQUIRED EROSION AND SEDIMENT CONTROL MEASURES TO BE INSTALLED.
4. THE CONTRACTOR SHALL INSTALL ALL REQUIRED TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLAN.
5. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL INSTALL ALL REQUIRED TRAFFIC CONTROL DEVICES FOR PEDESTRIAN AND TRANSIT TRAFFIC IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLAN.
6. CONSTRUCTION ACTIVITIES AND RELATED LANE CLOSURES SHALL ONLY OCCUR DURING TIME AND DAY SPECIFIED IN THE "TEMPORARY LANE OR SHOULDER CLOSURE SCHEDULE" IN SPECIAL PROVISIONS SECTION 104.01.
7. THE CONTRACTOR SHALL MAINTAIN SAFE ACCESS TO AND FROM I–495 INTERCHANGE RAMPS, ALL MINOR ROAD APPROACHES, AND DRIVEWAYS AT ALL TIMES UNLESS OTHERWISE SPECIFIED ON THE APPROVED TRAFFIC CONTROL LANE OR BY THE ENGINEER.
8. ALL PROPOSED PVMSs SHALL BE PLACED ACCORDING TO STD. MD. 104.01–22. ALL VARIABLE MESSAGE SIGNS (VMS) LOCATIONS AND MESSAGES MUST BE APPROVED BY MDOT SHA– DISTRICT 3.
9. THE PVMS SIGNS MAY BE DEACTIVATED AND/OR REMOVED FROM THE DESIGNATED LOCATIONS BASED ON PROJECT SCHEDULE AND AS APPROVED BY THE ENGINEER.
10. THE MAINTENANCE OF TRAFFIC DRAWINGS SHALL BE USED IN COMBINATION WITH THE GENERAL NOTES MD 104.00–01 TO MD 104.00–18, AND MOT STANDARDS 104.01–01 TO 104.06–27.
11. WHEN LANE CLOSURES ARE PROHIBITED, MAINTAIN A MINIMUM OF 3 TRAVEL LANES IN EACH DIRECTION ALONG NB AND SB MD 97. ALL LANES SHALL BE A MINIMUM WIDTH OF 10–FT.
12. ALL EXCAVATION WHICH RESULTS IN A PAVEMENT EDGE DROP–OFF SHALL BE IN ACCORDANCE WITH STD. NOS. MD 104.06–15 TO MD 104.06–19. TEMPORARY GAB AND HMA FOR MOT SHALL BE USED AS BACKFILL TO SATISFY THE PAVEMENT EDGE DROP–OFF STANDARDS.
13. ALL TEMPORARY SIGNAGE AND DEVICES USED DURING LANE CLOSURES SHALL BE REMOVED OR COVERED WHEN LANE CLOSURES ARE PROHIBITED.
14. WHEN INSTALLING OR REMOVING LANE CLOSURES, THE CONTRACTOR SHALL BE IN ACCORDANCE WITH STD. NOS. MD 104.06–01 TO MD 104.06–04.
15. DURING EACH CONSTRUCTION PHASE, THE CONTRACTOR SHALL MAINTAIN ALL APPLICABLE ROUTE MARKERS AND REMOVE OR COVER ANY NON–APPLICABLE SIGNS.
16. PAVEMENT MARKINGS NO LONGER APPLICABLE FOR A PARTICULAR PHASE SHALL BE REMOVED OR COVERED AS DIRECTED BY THE ENGINEER.
17. TEMPORARY PAINT SHALL BE USED ON PAVED SURFACES ONLY AND IS TO BE MAINTAINED TO ENSURE CONTINUOUS REFLECTIVITY AND VISIBILITY. BLACK PAINT SHALL NOT BE PERMITTED. TEMPORARY TAPE SHALL BE PERMITTED ON EITHER ASPHALT OR CONCRETE SURFACES.
18. STORAGE OF CONSTRUCTION EQUIPMENT AND MATERIAL SHALL BE LOCATED OFF THE TRAVEL LANES BEHIND PROTECTION AT ALL TIMES.
19. ALL STANDARD REGULATORY AND WARNING SIGNS FOR MAINTENANCE OF TRAFFIC SHALL CONFORM TO THE MD MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND MDSHA STANDARD SIGN BOOK.
20. THE CONTRACTOR SHALL USE STEEL PLATES TO COVER ANY AND ALL OPEN TRENCHES AT THE END OF THE WORKDAY OR WHEN ALL LANES OF TRAFFIC ARE TO BE OPENED TO TRAFFIC.
21. FOR OFF–PEAK HOUR WORK ZONES, TYPICAL APPLICATIONS FROM CATEGORY 1 OF THE MDSHA BOOK OF STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES IN ADDITION TO THOSE CITED ON THESE PLANS MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER.
22. TYPICAL APPLICATIONS TO BE USED FOR OFF–PEAK HOUR WORK MAY BE MODIFIED AS REQUIRED BASED ON FIELD CONDITIONS, AS DIRECTED BY THE ENGINEER.

TRANSIT COORDINATION

1. TWO (2) WEEKS PRIOR TO ANY WORK WHICH WILL IMPACT THE EXISTING BUS FACILITIES, THE CONTRACTOR SHALL CONTACT THE WASHINGTON AREA TRANSIT AUTHORITY (WMATA).

SEQUENCE OF CONSTRUCTION

PHASE 1 –NB MD 97 PAVEMENT WIDENING, STA. 108+77 TO STA. 120+25

1. INSTALL ALL ADVANCED WARNING SIGNS AND INFORMATION SIGNS.
2. DURING OFF–PEAK HOURS INSTALL CHANNELIZATION DEVICES FOR RIGHT LANE CLOSURE (AS PER STD. MD. 104.04–06) ALONG NORTHBOUND MD 97 AND ALONG EASTBOUND 16TH STREET AS SHOWN ON PLANS.
3. PEDESTRIANS ALONG NORTHBOUND MD 97 WILL BE DETOURED ALONG SOUTHBOUND MD 97 VIA THE EXISTING CROSSWALK AT THE INTERSECTION OF 16TH STREET AND MD 97.
4. DURING OFF–PEAK HOURS, CONSTRUCT THE PROPOSED WIDENING, STORMDRAIN PIPES AND ALL OTHER IMPROVEMENTS ALONG NORTHBOUND MD 97 FROM STA. 108+77 TO STA. 114+50 AS SHOWN ON PLANS.
5. OPEN NEWLY CONSTRUCTED SIDEWALKS BETWEEN STA. 108+77 AND 114+50 IN ORDER TO MAINTAIN PEDESTRIAN CONNECTIVITY USING EXISTING CROSSWALKS AT COLUMBIA BLVD. PEDESTRIANS WILL BE DETOURED TO THE SIDEWALK ALONG SOUTHBOUND MD 97 USING THE SOUTH X–WALK AT COLUMBIA BLVD.
6. DURING OFF–PEAK HOURS, SHIFT THE WORK AREA TO PERFORM PROPOSED IMPROVEMENTS ALONG NORTHBOUND MD 97 BETWEEN STA. 114+50 AND 120+25.
7. CONSTRUCT PROPOSED STORMDRAIN PIPE AT 114+60 DURING NIGHTTIME UNDER MULTI–LANE CLOSURE.
8. THE EXISTING REVERSIBLE LANE CONTROL SIGNS SHALL BE MAINTAINED THROUGHOUT THIS PHASE ON THE EXISTING/PROPOSED SIGNAL POLE IN THE NORTHEAST QUADRANT OF COLUMBIA BLVD INTERSECTIONS.

PHASE 2– NB MD 97 PAVEMENT WIDENING, STA. 103+00 TO STA. 108+50 AND MEDIAN REMOVAL

1. INSTALL ALL ADVANCED WARNING SIGNS AND INFORMATION SIGNS.
2. DURING OFF–PEAK HOURS INSTALL SIGNS AND CHANNELIZATION DEVICES FOR LEFT LANE CLOSURE ALONG NORTHBOUND AND SOUTHBOUND MD 97 USING STD. NO. MD 104.04–04.
3. REMOVE EXISTING CURBED MEDIAN ALONG MD 97 BETWEEN STA. 105+30 AND STA. 106+80 AND RECONSTRUCT THE PAVEMENT TO PROVIDE A PAINTED MEDIAN, UPON COMPLETION OF MEDIAN WORK, REMOVE THE LEFT LANE CLOSURES.
4. DURING OFF–PEAK HOURS INSTALL CHANNELIZATION DEVICES FOR RIGHT LANE CLOSURE (STD. NO. MD. 104.04–06) ALONG NORTHBOUND MD 97 AND ALONG EASTBOUND 16TH STREET AS SHOWN ON PLANS.
5. INSTALL TEMPORARY CROSSWALKS AT CROWN DRIVE AND COLUMBIA BLVD., AND ACROSS THE SOUTH LEG OF MD 97 AT THE INTERSECTION OF SEMINARY PLACE AS SHOWN ON PLANS.
6. PEDESTRIANS ALONG NORTHBOUND MD 97 WILL BE DETOURED ALONG SOUTHBOUND MD 97 VIA CROSSWALK AT THE INTERSECTION OF NOYES DRIVE AND MD 97. PEDESTRIANS NORTH OF THE WORK SHALL BE DETOURED ALONG SOUTHBOUND MD 97 VIA CROSSWALKS AT COLUMBIA BLVD.
7. CONSTRUCT THE PROPOSED SIDEWALK, CURB/GUTTER RECONSTRUCTION, STORMDRAIN PIPES AND ALL OTHER IMPROVEMENTS ALONG NORTHBOUND MD 97 FROM STA. 103+11 TO STA. 108+50 AS SHOWN ON PLANS.
8. DURING PEAK HOURS, CHANNELIZATION DEVICES SHALL BE MOVED OUTSIDE THE RIGHT LANE TO PROVIDE THREE (3) NORTHBOUND THROUGH LANES ALONG MD 97. THE CONSTRUCTION ACTIVITIES FOR THE SWM FACILITY MAY CONTINUE DURING PEAK HOURS.

PHASE 3A– SB MD 97 PAVEMENT WIDENING, STA. 105+00 TO STA. 109+50 AND REALIGNMENT OF 16TH STREET INTERSECTION)

1. INSTALL ALL ADVANCED WARNING SIGNS, INFORMATION SIGNS AND CHANNELIZATION DEVICES ALONG SOUTHBOUND MD 97 AND ALONG NORTHBOUND 16TH STREET AS SHOWN ON PLANS.
2. CLOSE EXISTING CROSSWALK AT SB 16TH STREET AND SB MD 97 SPLIT. DETOUR PEDESTRIAN TRAFFIC TO NB MD 97 SIDEWALK VIA CROSSWALK AT COLUMBIA BOULEVARD. CLOSE EXISTING CROSSWALK AT MD 97 AND NB 16TH STREET. DETOUR PEDESTRIAN TO NORTHBOUND SIDEWALK VIA THE CROSSWALK AT 16TH STREET.
3. CONSTRUCT PROPOSED ROADWAY IMPROVEMENTS AND STORMWATER FACILITIES WITHIN THE AREA SEPARATING NORTHBOUND AND SOUTHBOUND 16TH STREET ROADWAYS AS SHOWN ON PLANS.
4. CONSTRUCT THE MEDIAN ISLAND ALONG NORTHBOUND 16TH STREET BETWEEN STA. 10+45 AND STA. 11+40. PROPOSED MEDIAN ALONG 16TH STREET BETWEEN STA. 11+40 AND 17+45 SHALL BE CONSTRUCTED IN LATER PHASES.
5. REMOVE EXISTING MEDIAN AND REPAVE BETWEEN STA. 15+50 AND STA. 17+45 DURING OFF–PEAK HOURS UNDER LEFT LANE CLOSURE USING STD. NO. MD 104–04.04.
6. FINALIZE THE ROADWAY CONSTRUCTION ALONG NORTHBOUND 16TH STREET. THE PROPOSED IMPROVEMENTS FOR STORMWATER FACILITIES WITHIN THE MEDIAN AREA MAY CONTINUE INTO THE NEXT PHASE.

PHASE 3B – (SB MD 97 PAVEMENT WIDENING, STA. 105+00 TO STA. 109+50 AND REALIGNMENT OF 16TH STREET INTERSECTION)

1. INSTALL ALL ADVANCED WARNING SIGNS, INFORMATION SIGNS AND CHANNELIZATION DEVICES ALONG SOUTHBOUND MD 97 AND ALONG NORTHBOUND 16TH STREET AS SHOWN ON PLANS.
2. SHIFT NORTHBOUND 16TH STREET TRAFFIC ONTO NEWLY BUILT ROADWAY AND MAINTAIN A MINIMUM OF THREE (3) LANES ALONG 16TH STREET AND ALONG MD 97 NORTH OF 16TH STREET AT ALL TIMES DURING CONSTRUCTION.
3. CLOSE EXISTING SIDEWALK AT GRACE CHURCH ROAD AT SB MD 97 USING TYPE II BARRICADE AND DETOUR PEDESTRIAN TRAFFIC TO NB MD 97 SIDEWALK VIA CROSSWALK AT NOYES DRIVE. CLOSE EXISTING CROSSWALK AT SB 16TH STREET AND SB MD 97 SPLIT. DETOUR PEDESTRIAN TRAFFIC TO NB MD 97 SIDEWALK VIA CROSSWALK AT COLUMBIA BOULEVARD.
4. CONSTRUCT PROPOSED IMPROVEMENTS AND REMOVE EXISTING PAVEMENT ON THE SOUTH SIDE OF REALIGNED 16TH STREET AS SHOWN ON PLANS.
5. CONSTRUCT PROPOSED PIPE CROSSINGS ALONG 16TH STREET AT NIGHTTIME USING 2–LANE CLOSURES.
6. CONSTRUCT PROPOSED SIDEWALK, CURB AND GUTTER CONSTRUCTION ALONG SOUTHBOUND MD 97 BETWEEN STA. 102+50 AND 105+00 DURING OFF–PEAK HOURS UNDER A RIGHT LANE CLOSURE USING STD. NO. MD 104.04–06.
7. CONSTRUCT PROPOSED MEDIAN ALONG MD 97 BETWEEN STA. 104+00 AND STA. 105+00 DURING OFF–PEAK HOURS UNDER LEFT LANE CLOSURE USING STD. NO. MD 104–04–04.

PHASE 3C – (SB MD 97 PAVEMENT WIDENING, STA. 108+50 TO STA. 122+90, PAVEMENT WIDENING ALONG SEMINARY ROAD AND RECONSTRUCTION ALONG EXISTING SOUTHBOUND 16TH STREET)

1. DURING OFF–PEAK HOURS, INSTALL CHANNELIZATION DEVICES AND SIGNS ALONG NORTHBOUND 16TH STREET FOR LEFT LANE CLOSURE USING STD. NO. MD 104.04–04 AND CONSTRUCT THE PROPOSED MEDIAN FROM STA. 11+40 TO STA. 17+45.
2. UPON COMPLETION OF MEDIAN CONSTRUCTION ALONG 16TH STREET, INSTALL CHANNELIZATION DEVICES AND SIGNS ALONG COLUMBIA BOULEVARD AND CONSTRUCT THE PROPOSED IMPROVEMENTS ON THE EAST SIDE BETWEEN STA. 20+00 TO STA. 28+50.
3. REMOVE THE EXISTING PAVEMENT IN THE SOUTHWEST QUADRANT OF HANOVER STREET AND COLUMBIA BOULEVARD INTERSECTION AND RECONSTRUCT THE CURB RETURNS.
4. CONSTRUCT PROPOSED IMPROVEMENTS ALONG SOUTHBOUND MD 97 BETWEEN STA. 109+00 AND 114+00.
5. CONSTRUCT PROPOSED IMPROVEMENTS ALONG SEMINARY ROAD BETWEEN STA. 30+50 AND STA. 33+70 UNDER RIGHT LANE CLOSURE USING STD. NO. MD 104.04–06.
6. CONSTRUCT PROPOSED MEDIAN ALONG SEMINARY ROAD UNDER LEFT LANE CLOSURE USING STD. NO. MD 104.04–04.
7. UPON COMPLETION OF IMPROVEMENTS ALONG MD 97 SOUTH OF SEMINARY, MOVE CONSTRUCTION ACTIVITY TO THE NORTH OF SEMINARY ROAD.
8. CONSTRUCT PROPOSED IMPROVEMENTS ALONG SOUTHBOUND MD 97 BETWEEN STA. 114+50 AND STA. 122+90.
9. THE EXISTING CANTILEVER STRUCTURES MOUNTED WITH EXISTING REVERSIBLE LANE SIGNS AT STA. 119+30 AND 121+80 SHALL BE MAINTAINED THROUGHOUT THIS PHASE. THESE CANTILEVER STRUCTURES SHALL BE REMOVED PRIOR TO BEGINNING TO NEXT PHASE.

PHASE 4A – (SB MD 97 PAVEMENT WIDENING, STA. 122+90 TO STA. 128+20, ISLAND RECONSTRUCTION AT THE INTERSECTION OF EB I–495 OFF RAMP WITH MD 97 NB)

1. DURING NIGHTTIME, INSTALL TEMPORARY PAVEMENT MARKING LAYOUT ALONG MD 97 AS SHOWN ON PLANS.
2. INSTALL ADVANCED WARNING SIGNS, INFORMATION SIGNS, AND CHANNELIZATION DEVICES ALONG SOUTHBOUND MD 97 AND ALONG EB I–495 OFF RAMP.
3. CONSTRUCT PROPOSED IMPROVEMENTS FROM STA. 122+90 TO STA. 128+20 ALONG SOUTHBOUND MD 97. MAINTAIN THREE (3) LANES IN EACH DIRECTION AT ALL TIMES.
4. CONSTRUCT PROPOSED IMPROVEMENTS ALONG EB I–495 OFF RAMP TO MD 97.
5. DURING OFF–PEAK HOURS, CONSTRUCT THE PROPOSED CHANNELIZATION ISLAND UNDER A LEFT LANE CLOSURE USING STD. NO. MD 104.04–06.
6. THE PROPOSED PIPE CROSSING AT THE ON–RAMP FROM SB MD 97 TO EB I–495 SHALL BE CONSTRUCTED DURING NIGHTTIME UNDER FLAGGING OPERATION.

PHASE 4B– (CHANNELIZATION ISLAND AT MD 97/I–495 OFF RAMP INTERSECTION, STA. 40+50 TO STA. 41+60, SB MD 97 IMPROVEMENTS BETWEEN STA. 130+50 TO STA. 138+00)

1. PRIOR TO BEGINNING OF THIS PHASE, INSTALL NEW SIGNS ALONG EB I–495 TO NOTIFY THE DRIVERS OF THE CLOSURE OF EXISTING LOOP RAMP TO NB MD 97.
2. CLOSE EXISTING LOOP RAMP FROM EB I–495 TO NB MD 97 AND DIVERT TRAFFIC TO EXIST 31A.
3. DURING OFF–PEAK HOURS, INSTALL CHANNELIZATION DEVICES AND SIGNS ALONG SOUTHBOUND MD 97 FOR RIGHT LANE CLOSURE USING STD. MD NO. 104.04–06 AND CONSTRUCT THE PROPOSED CHANNELIZATION ISLAND FROM STA. 40+50 TO STA. 41+60.
4. THE PROPOSED PIPE CROSSINGS AT THE OFF–RAMP FROM EB I–495 TO SB MD 97, AT STA. 131+50 AND AT STA. 133+80 SHALL BE CONSTRUCTED DURING NIGHTTIME UNDER FLAGGING OPERATION.

PHASE 4C – (PROPOSED IMPROVEMENTS ALONG FOREST GLEN ROAD BETWEEN STA. 70+40 TO STA. 74+70 AND MD 97 SB IMPROVEMENTS BETWEEN STA. 137+80 AND STA. 140+00)

1. INSTALL ALL ADVANCED WARNING SIGNS, INFORMATION SIGNS AND CHANNELIZATION DEVICES ALONG FOREST GLEN ROAD FOR A RIGHT LANE CLOSURE USING STD. MD NO. 104.04–06.
2. CONSTRUCT THE PROPOSED IMPROVEMENTS ALONG FOREST GLEN ROAD BETWEEN STA. 70+40 AND STA. 73+00.
3. DETOUR PEDESTRIANS ALONG THE SOUTH SIDE OF FOREST GLEN ROAD BETWEEN COLERIDGE DRIVE AND MD 97 TO THE NORTH SIDE OF FOREST GLEN ROAD VIA THE CROSSWALK AT DARCY FOREST DRIVE.
4. DURING OFF–PEAK HOURS, CLOSE THE RIGHT LANE BETWEEN FOREST GLEN ROAD AND ON–RAMP TO WB I–495 AND PERFORM THE PROPOSED IMPROVEMENTS BETWEEN STA. 137+80 AND STA. 140+00

PHASE 5A– (PROPOSED IMPROVEMENTS ALONG NORTHBOUND MD 97 BETWEEN STA. 120+20 TO STA. 135+80 AND BETWEEN STA. 140+80 AND STA. 145+00)

1. INSTALL ADVANCED WARNING SIGNS, INFORMATION SIGNS AND CHANNELIZATION DEVICES ALONG NORTHBOUND MD 97 TO CLOSE THE RIGHT LANE BETWEEN STA. 120+50 AND STA. 136+00 AND ALONG WB I–495 OFF RAMP TO MD 97.
2. CLOSE EXISTING CROSSWALK AT WHITE OAK DRIVE AND DETOUR PEDESTRIANS TO THE SOUTHBOUND MD 97 SIDEWALK VIA THE CROSSWALK LOCATED AT THE SEMINARY PLACE INTERSECTION.
3. CLOSE THE EXISTING CROSSWALK AT THE INTERSECTION OF WB I–495 OFF–RAMP WITH NB MD 97 AND DETOUR THE PEDESTRIANS TO THE SOUTHBOUND SIDEWALK VIA THE CROSSWALK AT FOREST GLEN ROAD INTERSECTION.
4. CONSTRUCT PROPOSED IMPROVEMENTS, REMOVE EXISTING LOOP RAMP FROM EB I–495 TO NB MD 97 AND CONSTRUCT PROPOSED SWM FACILITIES WITHIN THE INTERCHANGE LOOPS.
5. CONSTRUCT PROPOSED CHANNELIZATION ISLANDS ALONG NB MD 97 BETWEEN STA. 133+40 AND 135+50 DURING OFF–PEAK HOURS BY CLOSING A RIGHT LANE USING STD. MD. 104.04–06
6. INSTALL ADVANCED WARNING SIGNS, INFORMATION SIGNS AND CHANNELIZATION DEVICES ALONG NORTHBOUND MD 97 TO CLOSE THE RIGHT LANE BETWEEN STA. 141+00 AND STA. 145+00 AND ALONG EAST FOREST GLEN ROAD.
7. CLOSE EXISTING MD 97 DRIVEWAY FOR 9801 GEORGIA AVENUE AND MAINTAIN ACCESS TO THIS PROPERTY FROM FOREST GLEN ROAD.
8. CONSTRUCT PROPOSED IMPROVEMENTS ALONG NB MD 97 FROM STA. 141+00 TO STA. 145+00 AS SHOWN ON PLANS.
9. CONSTRUCT PROPOSED SIDEWALK AND OTHER IMPROVEMENTS ALONG THE NORTH SIDE OF FOREST GLEN ROAD WHILE MAINTAINING EXISTING SIDEWALK. UPON COMPLETION OF THE PROPOSED IMPROVEMENTS, REMOVE EXISTING SIDEWALK AND REPAVE.
10. INSTALL ADVANCED WARNING SIGNS, INFORMATION SIGNS AND CHANNELIZATION DEVICES ALONG SOUTHBOUND MD 97 TO CLOSE THE RIGHT TURN LANE BETWEEN STA. 141+00 AND STA. 145+50.
11. CLOSE THE EXISTING NORTH SIDEWALK ALONG FOREST GLEN ROAD AND DETOUR PEDESTRIANS TO THE SOUTH SIDEWALK ALONG FOREST GLENN ROAD VIA THE CROSSWALK AT DORSEY FOREST DRIVE.
12. CONSTRUCT PROPOSED IMPROVEMENTS ALONG SOUTHBOUND MD 97 BETWEEN STA. 141+00 AND 144+00 AS SHOWN ON PLANS.

PHASE 5B– (PROPOSED IMPROVEMENTS ALONG NORTHBOUND MD 97 BETWEEN STA. 134+50 TO STA. 140+50 AND MEDIAN NOSE CONSTRUCTION AT MD 97 NB ON RAMP TO EB I–495)

1. DURING OFF–PEAK HOURS, INSTALL ADVANCED WARNING SIGNS, INFORMATION SIGNS AND CHANNELIZATION DEVICES ALONG NORTHBOUND MD 97 TO CLOSE THE RIGHT LANE BETWEEN STA. 122+00 AND STA. 128+00.
2. CONSTRUCT PROPOSED MEDIAN NOSE AND OTHER IMPROVEMENTS AS SHOWN ON PLANS.
3. INSTALL ADVANCED WARNING SIGNS, INFORMATION SIGNS AND CHANNELIZATION DEVICES ALONG NORTHBOUND MD 97 TO CLOSE THE RIGHT LANE BETWEEN STA. 134+50 AND STA. 140+00 AND ALONG THE EB I–495 OFF RAMP TO MD 97.
4. CONSTRUCT PROPOSED IMPROVEMENTS BETWEEN STA. 134+50 AND STA. 140+00 AS SHOWN ON PLANS. MAINTAIN A MINMUM OF 3 (THREE) LANES ALONG NB MD 97 AT ALL TIMES DURING CONSTRUCTION.

PHASE 6 –(CONSTRUCTION OF PROPOSED MEDIANS ALONG MD 97)

1. DURING OFF–PEAK HOURS, INSTALL ADVANCED WARNING SIGNS, INFORMATION SIGNS AND CHANNELIZATION DEVICES ALONG FOREST GLEN ROAD TO CLOSE THE LEFT LANE IN EACH DIRECTION BETWEEN STA. 70+00 AND STA. 73+00.
2. CONSTRUCT PROPOSED MEDIAN AS SHOWN ON PLANS.
3. DURING OFF–PEAK HOURS, INSTALL ADVANCED WARNING SIGNS, INFORMATION SIGNS AND CHANNELIZATION DEVICES ALONG MD 97 TO CLOSE THE LEFT LANES ONE BLOCK AT A TIME.
4. THE PROPOSED MEDIAN BETWEEN STA. 124+00 TO STA. 129+50 SHALL BE CONSTRUCTED AND THE SOUTHBOUND LEFT TURN LANE AT FLORA LANE SHALL BE OPERATIONAL PRIOR TO CONSTRUCTING THE MEDIAN BETWEEN STA. 114+70 AND STA. 117+20
5. THE PROPOSED MEDIAN BETWEEN STA. 114+70 AND STA. 117+20 SHALL BE CONSTRUCTED AND THE NORTHBOUND MD 97 LEFT TURN LANE AT SEMINARY PLACE SHALL BE OPERATIONAL PRIOR TO CONSTRUCTING THE MEDIAN BETWEEN STA. 105+80 AND STA. 143+70.
6. UPON COMPLETION OF MEDIAN CONSTRUCTION, PERFORM PAVEMENT RESURFACING OF MD 97, 16TH STREET, FOREST GLEN ROAD AND ALL OTHER CROSS STREETS WITHIN THE PROJECT LIMITS
7. INSTALL ALL ULTIMATE SIGNS AND PAVEMENT MARKINGS.

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

REVISIONS

MAINTENANCE OF TRAFFIC GENERAL NOTES

SCALE N.T.S. ADVERTISED DATE N/A CONTRACT NO. MO2245171

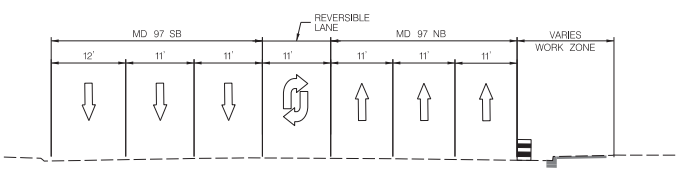
DESIGNED BY
DRAWN BY
CHECKED BY
MDE/PRD 19-PR-0063

COUNTY MONTGOMERY
LOGMILE
HORIZONTAL SCALE
VERTICAL SCALE

MTN 01 | 01 | SHEET NO. 23 OF 76

BY: loshi –

PLOTTED: 5/26/2021
FILE: pw:\\shawmpws.shacadd.us.mdot.mdstate:SHAEDMS02\Documents\Projects\Montgomery\MO224 - MD 97 Montgomery Hills\Roadway Design\CAD\Drawing Models\SFR Plans\plMT-M001_MD97.dgn



PHASE I– MOT TYPICAL – PEAK HOUR

MD 97 N.B.R. STA. 108+77 TO 120+25
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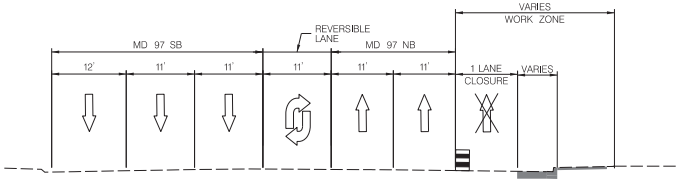

PHASE I– MOT TYPICAL – OFF PEAK HOUR

MD 97 N.B.R. STA. 108+77 TO 120+25
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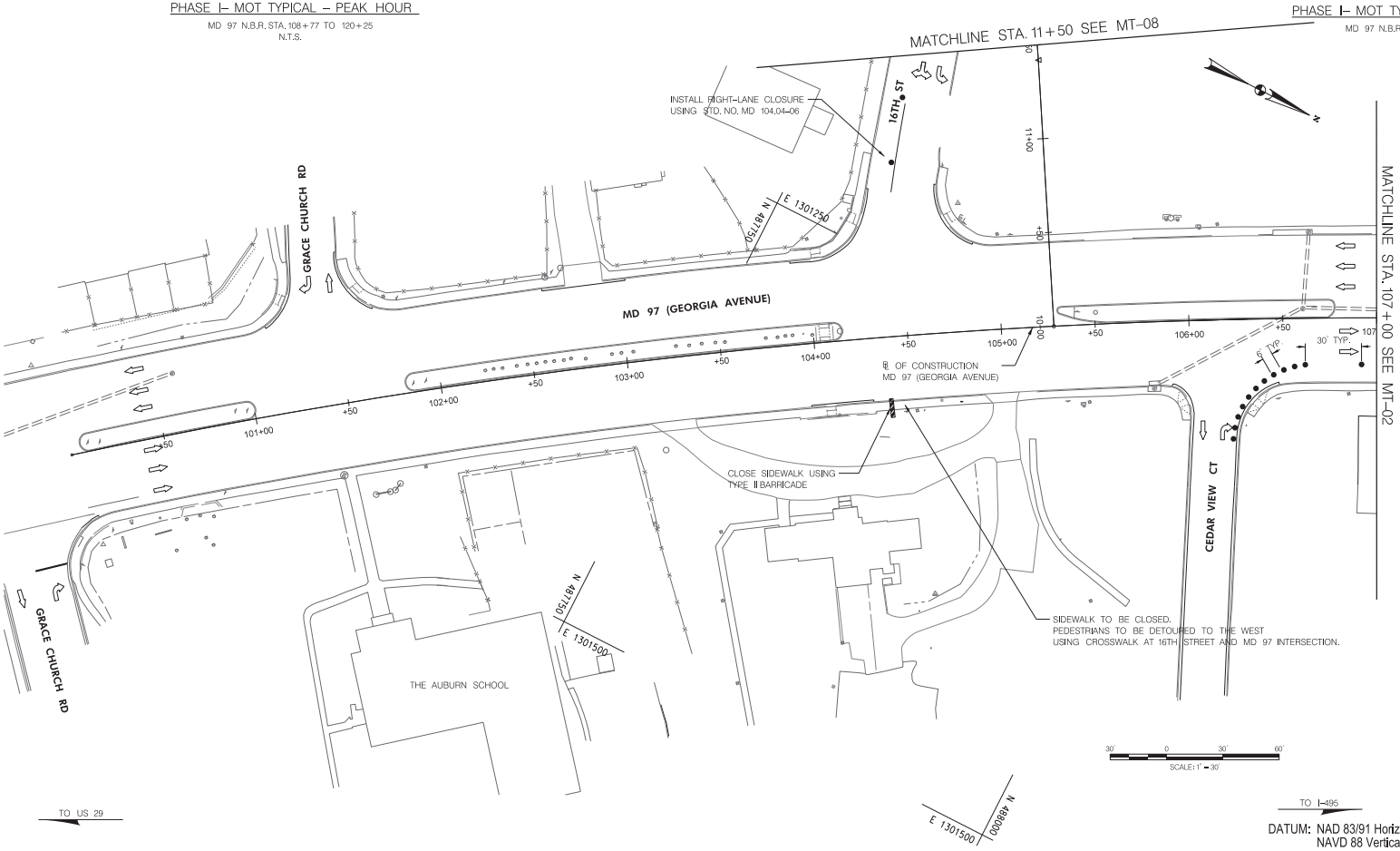

PHASE 1

SHEET 1 OF 8

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN – SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-01 OF 53 SHEET NO. 24 OF 76

BY: Ioshi

PLOTTED: 5/26/2021
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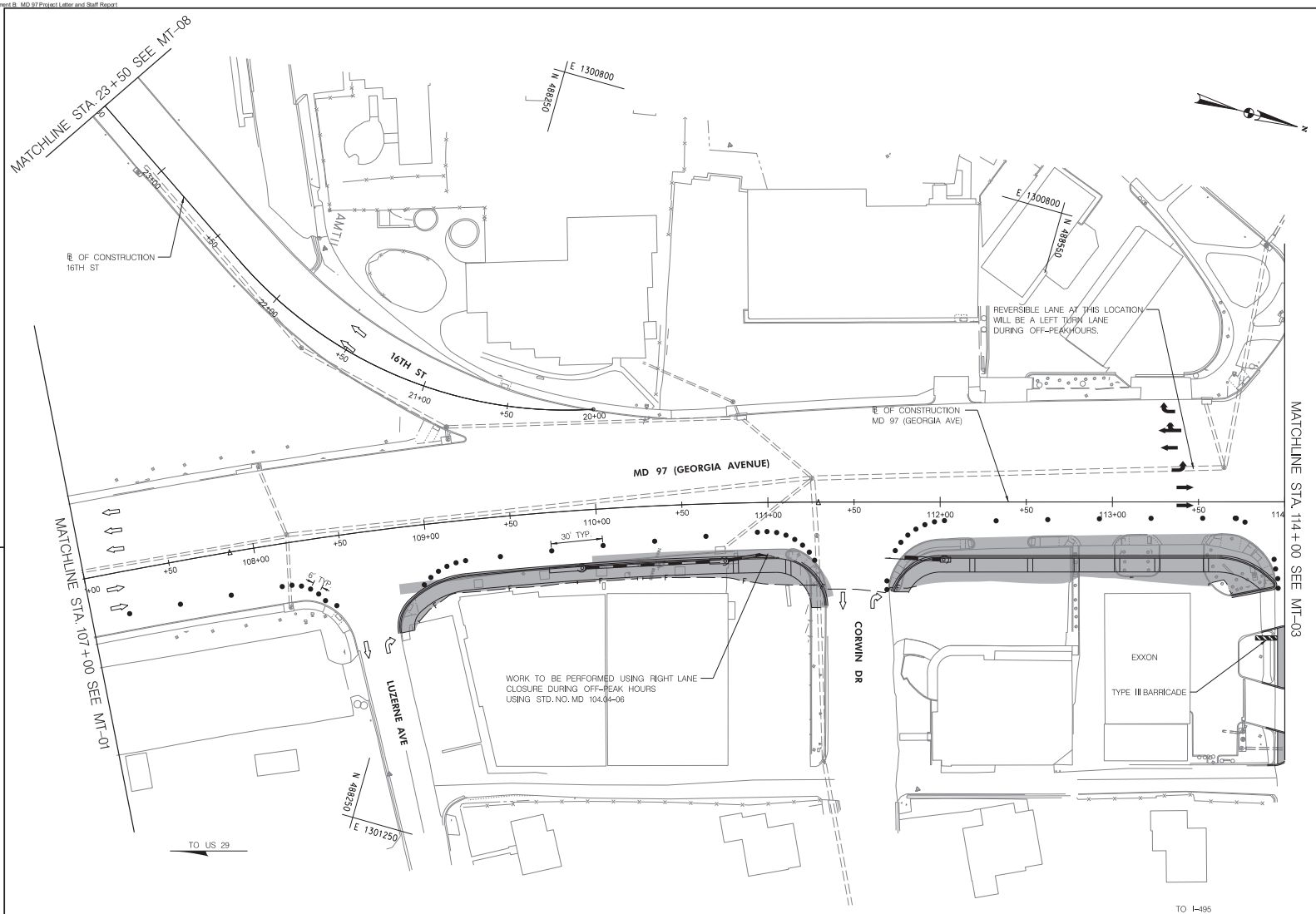

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 1

SHEET 2 OF 8

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

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- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
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MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE NA CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-02 OF 53 SHEET NO. 25 OF 76

BY: Ioshi

PLOTTED: 5/26/2021
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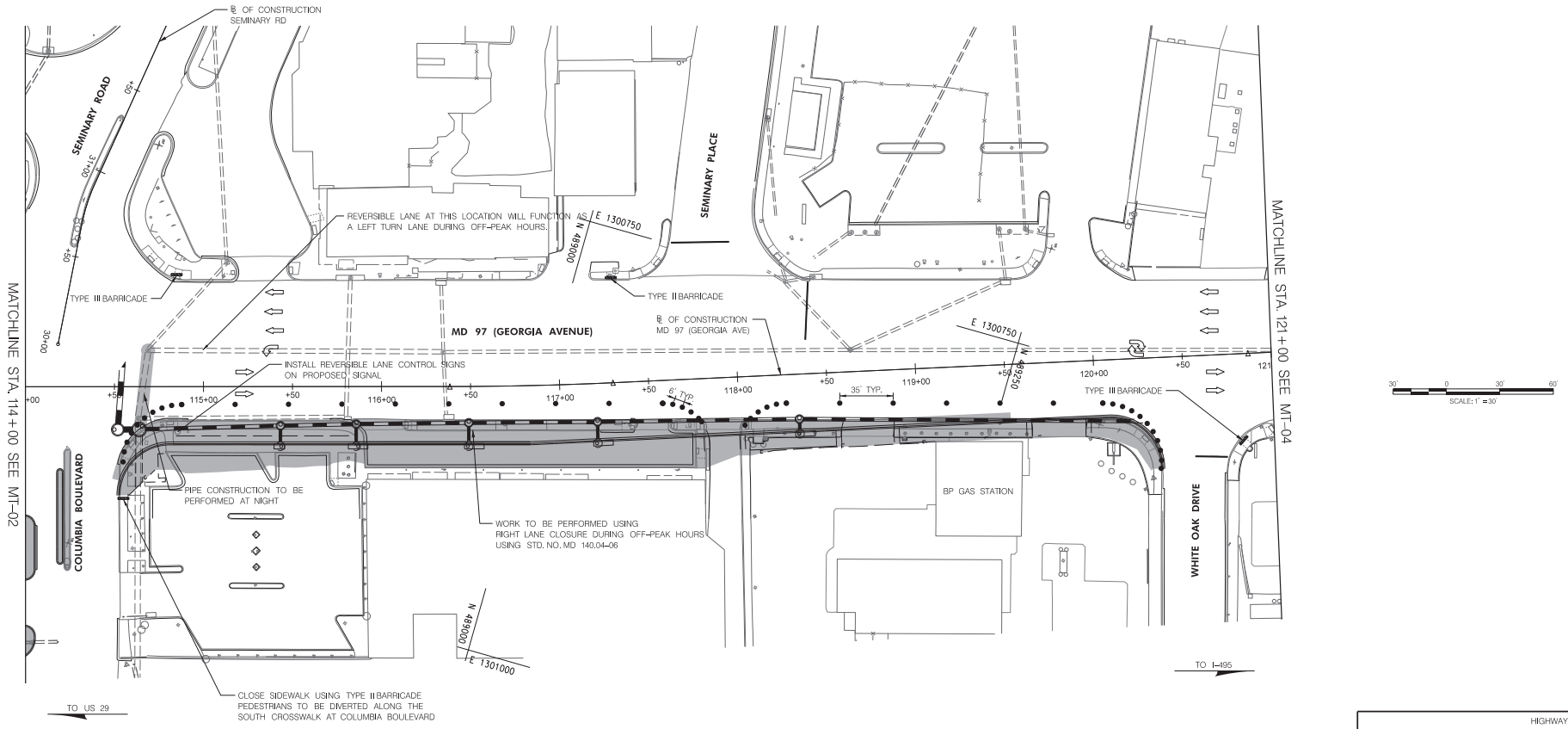

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 1

SHEET 3 OF 8

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

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- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS - DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-03 OF 53 SHEET NO. 26 OF 76

BY: loshI

PLOTTED: 5/26/2021
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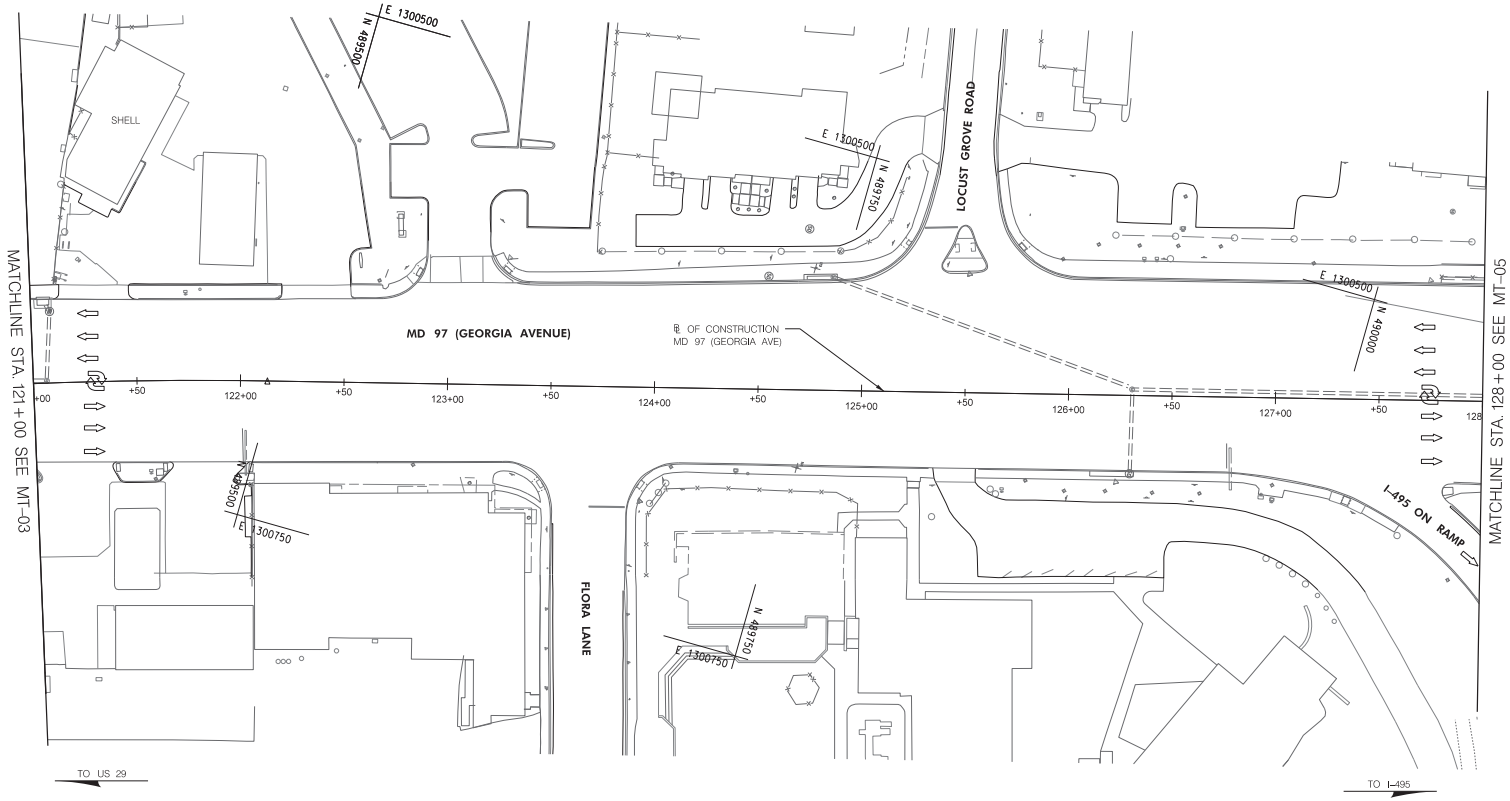

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SCALE: 1" = 30'

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 1

SHEET 4 OF 8

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

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MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
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- DIRECTION OF TRAFFIC
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- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT- 04 OF 53 SHEET NO. 27 OF 76

BY: loshI –

PLOTTED: 5/26/2021
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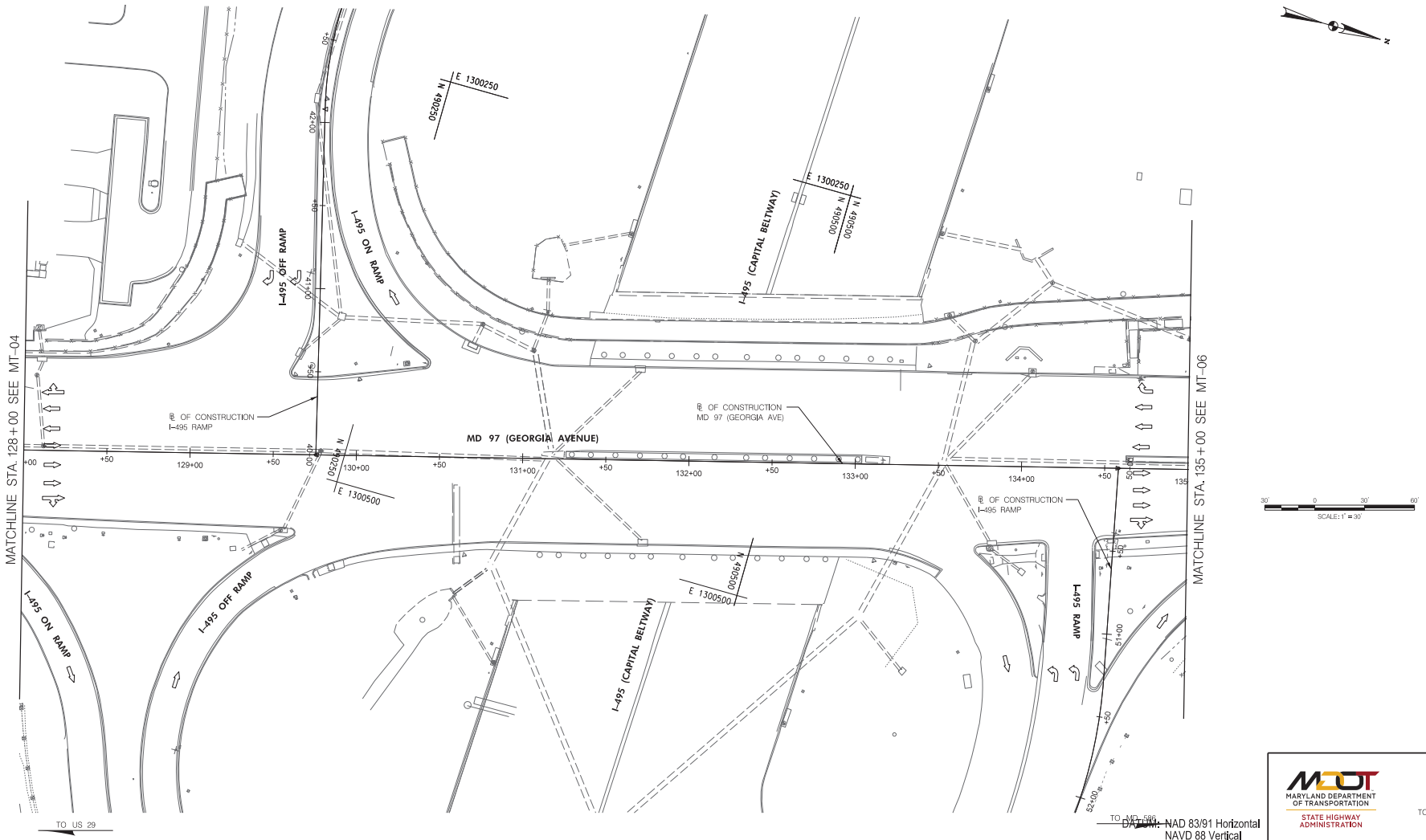

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PAHSE 1

SHEET 5 OF 8

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

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MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN – SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
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CHECKED BY _____ HORIZONTAL SCALE _____
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DRAWING NO. MT-05 OF 53 SHEET NO. 28 OF 76

BY: loshI

PLOTTED: 5/26/2021
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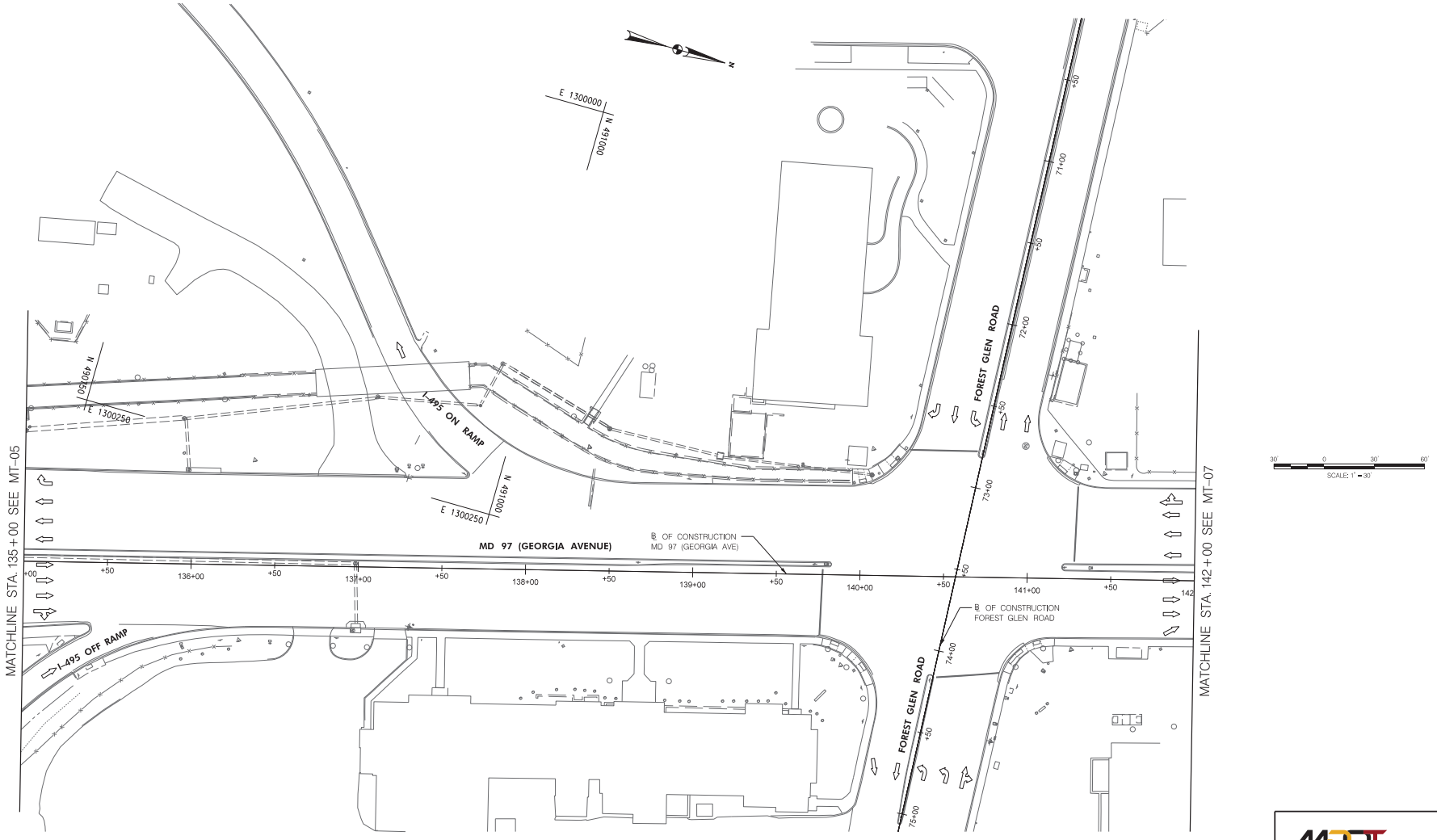

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 1

SHEET 6 OF 8

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
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- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-06 OF 53 SHEET NO. 29 OF 76

BY: loshI

PLOTTED: 5/26/2021
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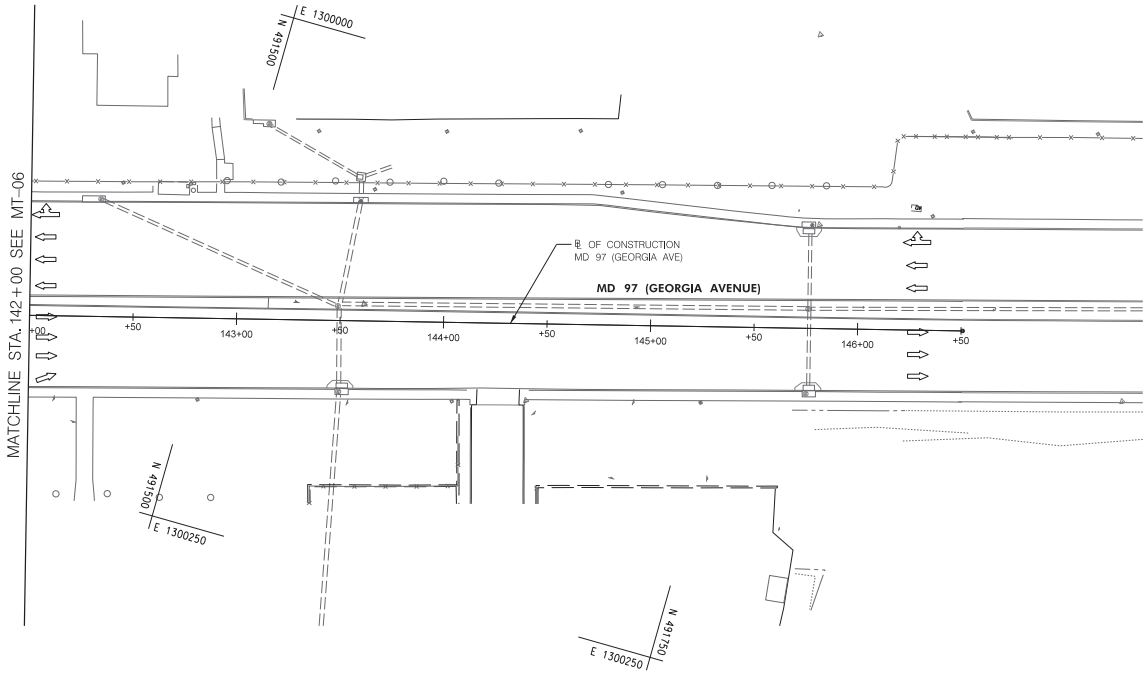

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 1

SHEET 7 OF 8

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

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MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-07 OF 53 SHEET NO. 30 OF 76

BY: loshI

PLOTTED: 5/26/2021
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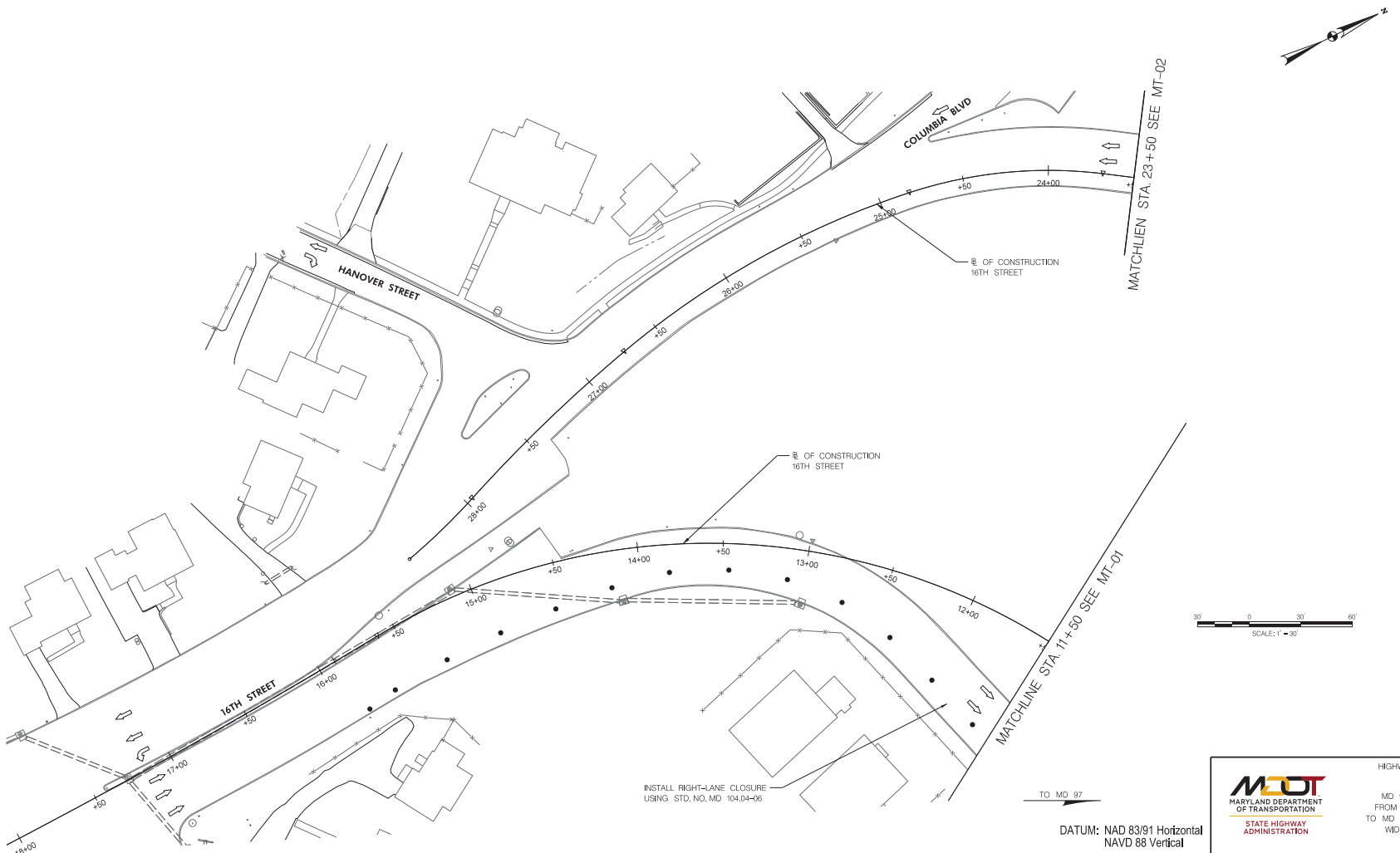

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 1

SHEET 8 OF 8

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
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MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-08 OF 53 SHEET NO. 31 OF 76

BY: loshI

PLOTTED: 5/26/2021
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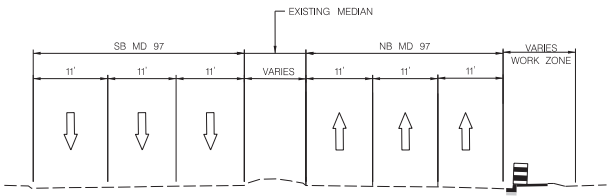

PHASE 2– MOT TYPICAL – PEAK HOUR

MD 97 N.B.R. STA. 103+11 TO 108+50
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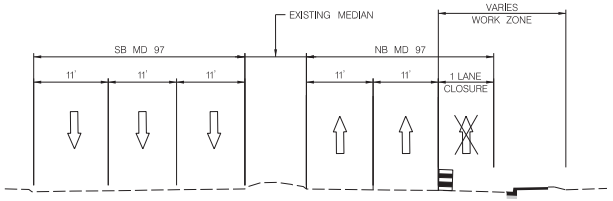

PHASE 2– MOT TYPICAL – OFF PEAK HOUR

MD 97 N.B.R. STA. 103+11 TO 108+50
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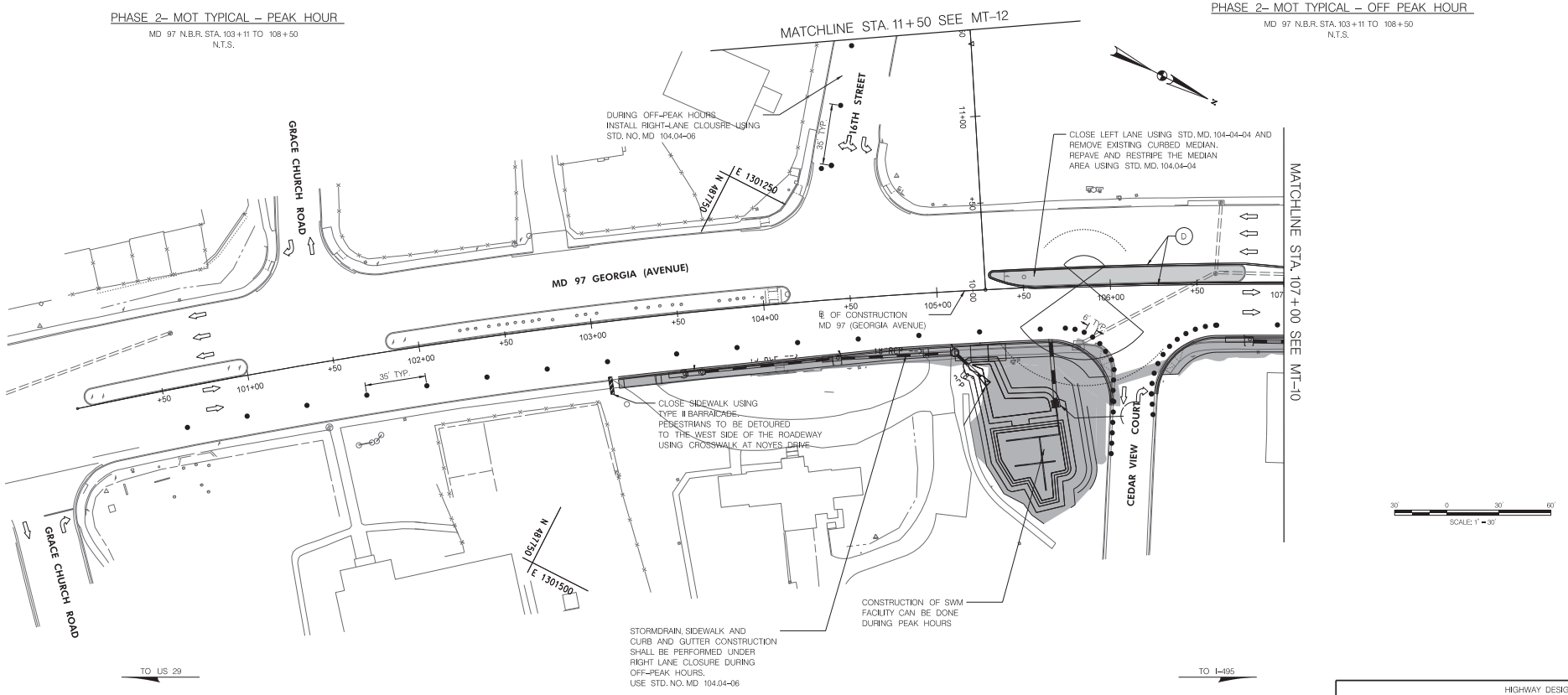


DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 2

SHEET 1 OF 4

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

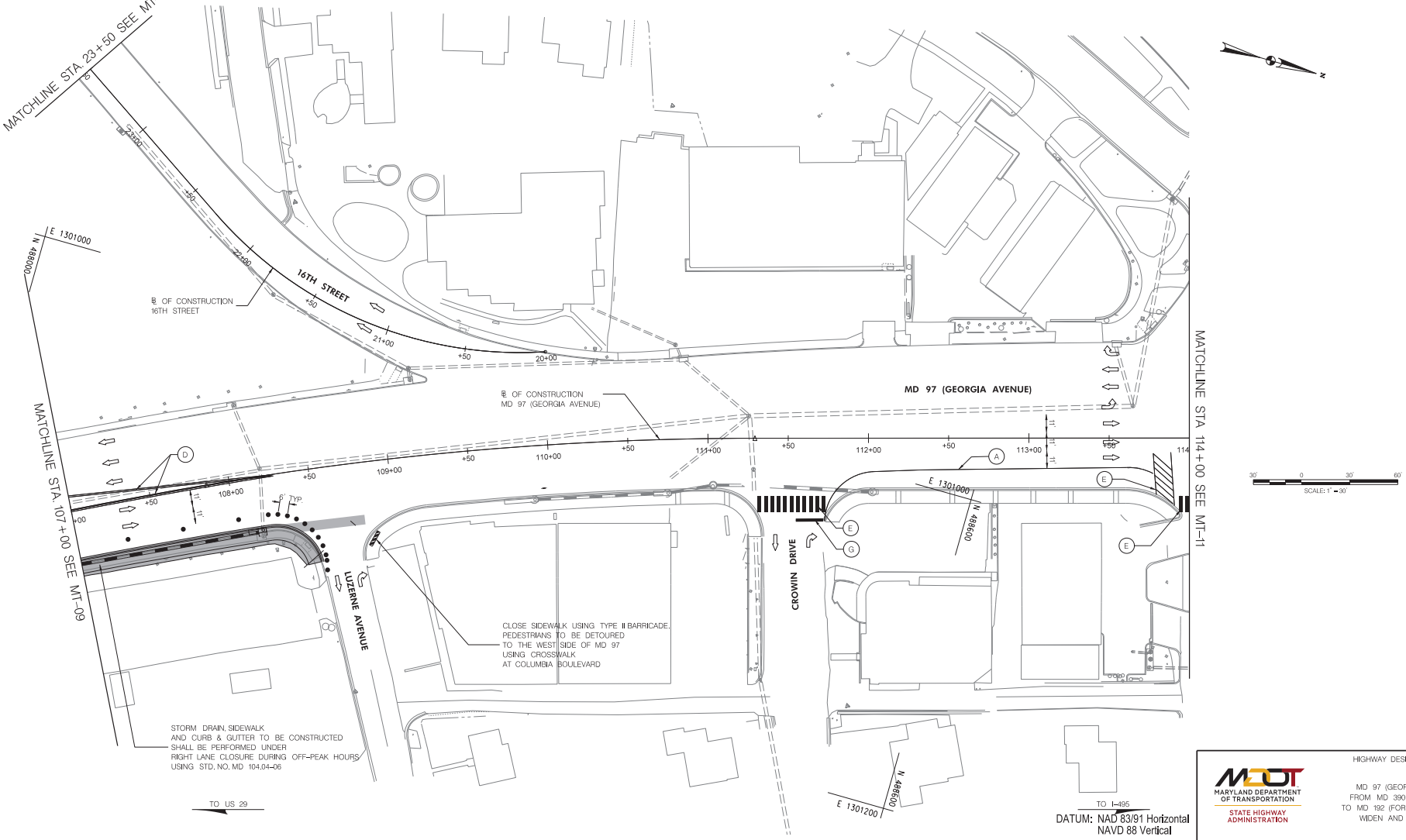
SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-09 OF 53 SHEET NO. 32 OF 76

BY: TOuzts

PLOTTED: 05/26/2021
FILE: pw:\\ahanmpww.ahacadd.ed.mdot.mdstate:SHAEDMS02\Documents\Projects\Montgomery\MO224 - MD 97 Montgomery Hills\Roadway Design\CAD\Drawing Models\SFR Plans\MT-P2A01_MD97.dgn



PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

PHASE 2

SHEET 2 OF 4

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

MAINTENANCE OF TRAFFIC PLAN

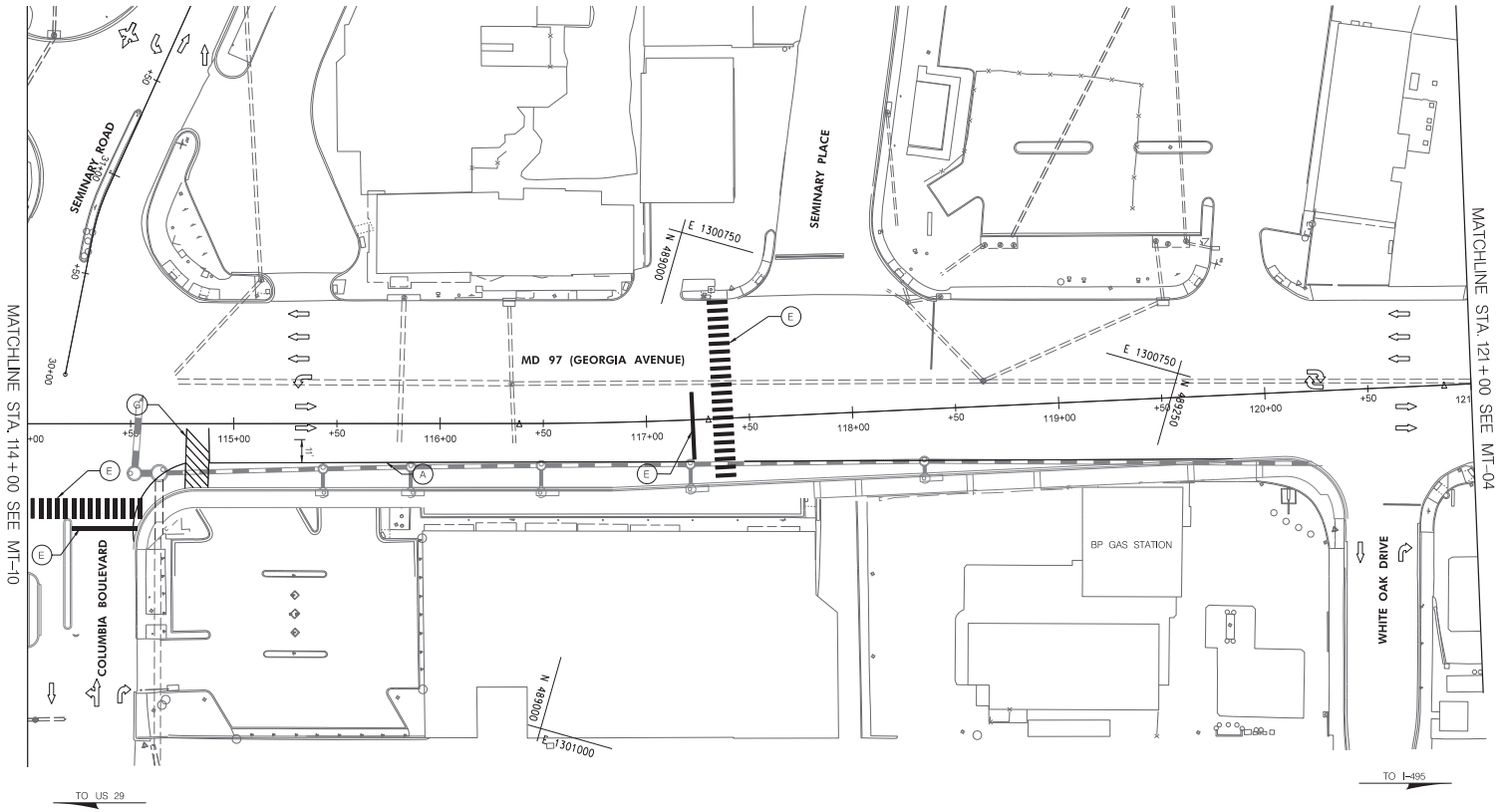
SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-10 OF 53 SHEET NO. 33 OF 76

BY: loshl

PLOTTED: 5/27/2021
FILE: pw:\sharwmpws.sharcadd.sed.mdot.mdstate:SHAEDMS02\Documents\Projects\Montgomery\MO224 - MD 97 Montgomery Hills\Roadway Design\CAD\Drawing Models\SFR Plans\pMT-P2A02_MD97.dgn



DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 2

SHEET 3 OF 4

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN / SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-11 OF 53 SHEET NO. 34 OF 76

BY: loshI

PLOTTED: 5/27/2021
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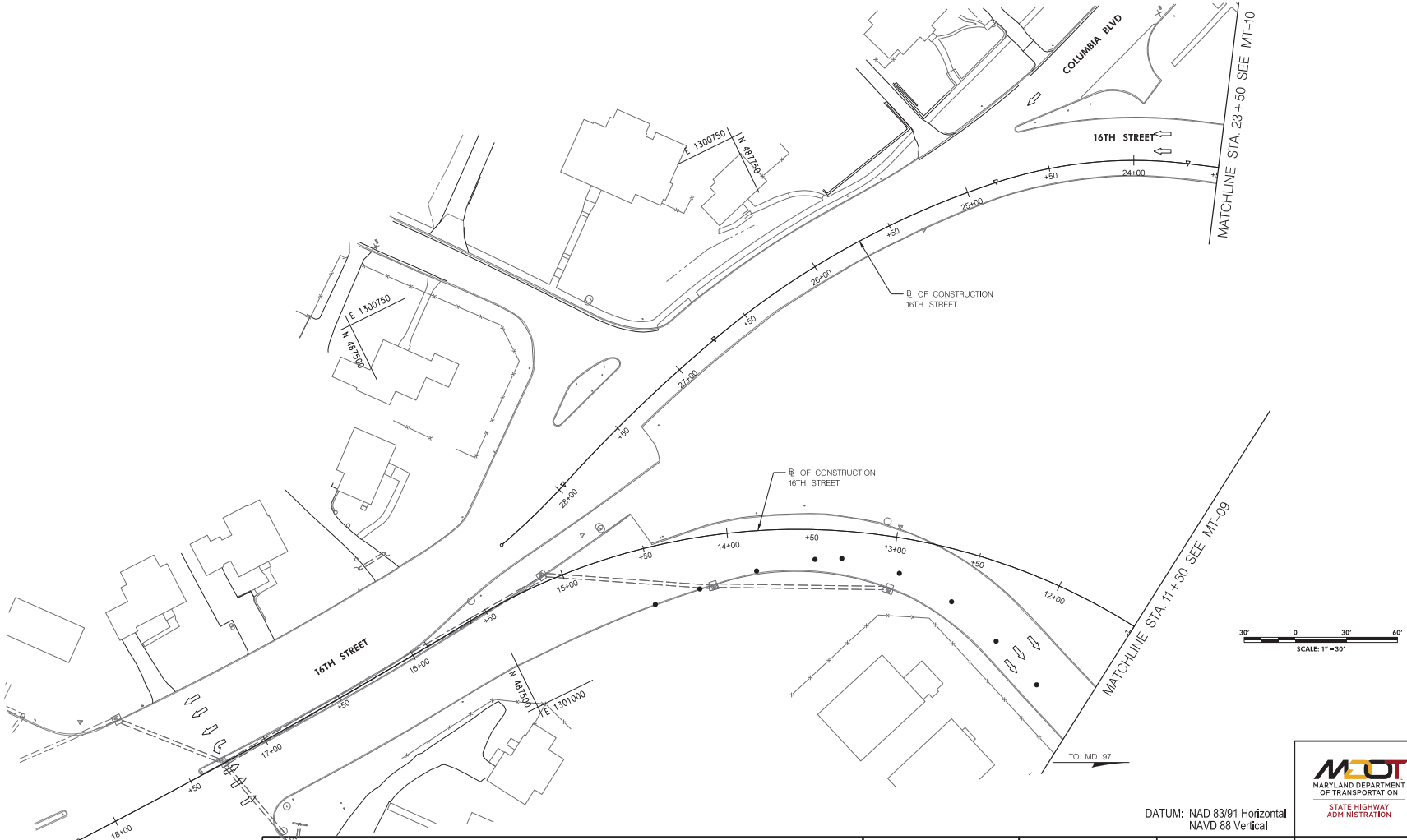

PAVEMENT MARKING LEGEND		MOT LEGEND	R / W PLAT NUMBER	REVISIONS
(A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID	(F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP	WORK ZONE		
(B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP	(G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID	TEMPORARY TRAFFIC SIGN – SIGN FACE		
(C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP	(H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED	DIRECTION OF TRAFFIC		
(D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID		CHANNELIZING DEVICES		
(E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID		CONCRETE TRAFFIC BARRIER		
		BARRIER END TREATMENT		

PHASE 2

SHEET 4 OF 4

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-12 OF 53 SHEET NO. 35 OF 76

BY: TOuzts –

PLOTTED: 05/26/2021
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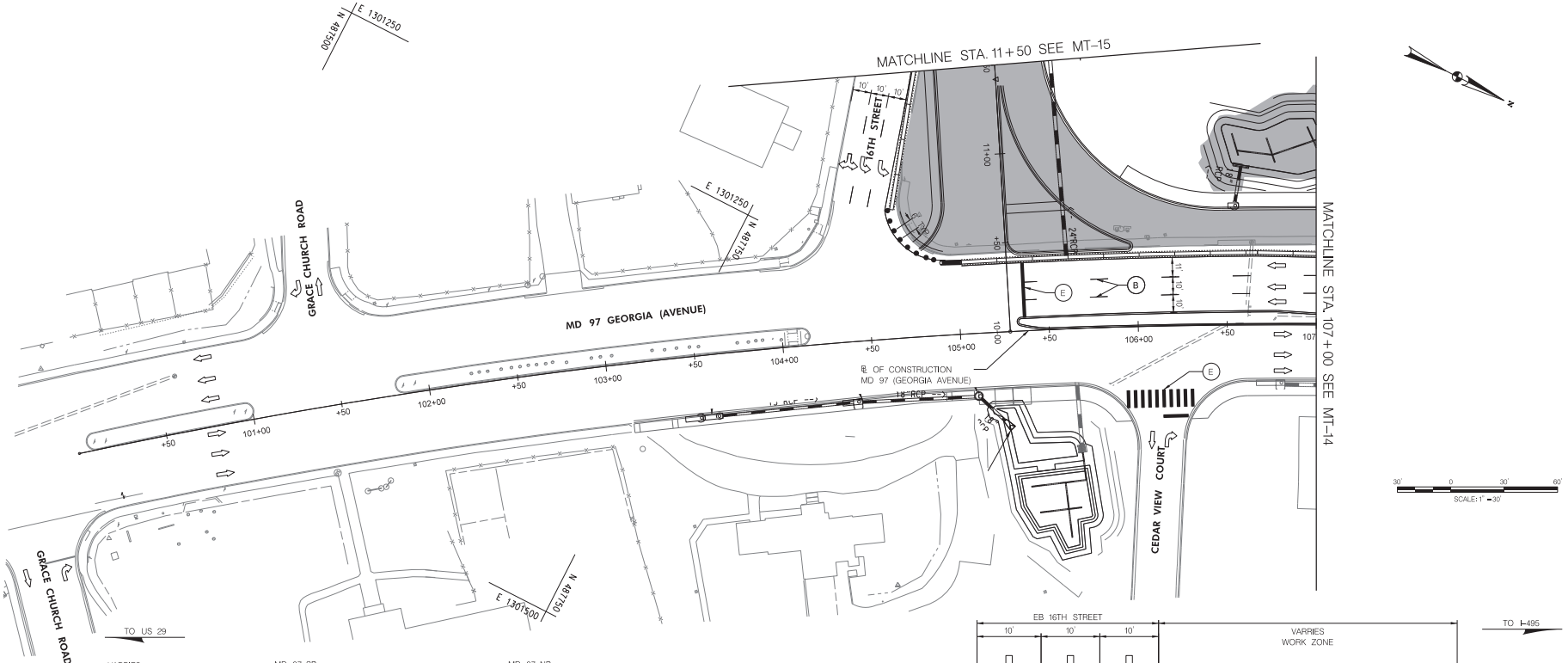
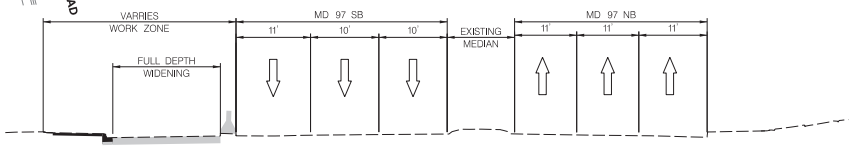
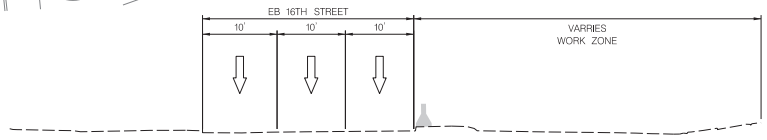




MOT TYPICAL

MD 97 N.B.R. STA. 105+00 TO 109+50
N.T.S.



MOT TYPICAL

16TH STREET N.B.R. STA. 10+50 TO 17+00
N.T.S.

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PAVEMENT MARKING LEGEND	
(A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID	(F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
(B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP	(G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
(C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP	(H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED
(D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID	
(E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID	

MOT LEGEND
WORK ZONE
TEMPORARY TRAFFIC SIGN / SIGN FACE
DIRECTION OF TRAFFIC
CHANNELIZING DEVICES
CONCRETE TRAFFIC BARRIER
BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

PHASE 3A

SHEET 1 OF 3

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

MAINTENANCE OF TRAFFIC PLAN

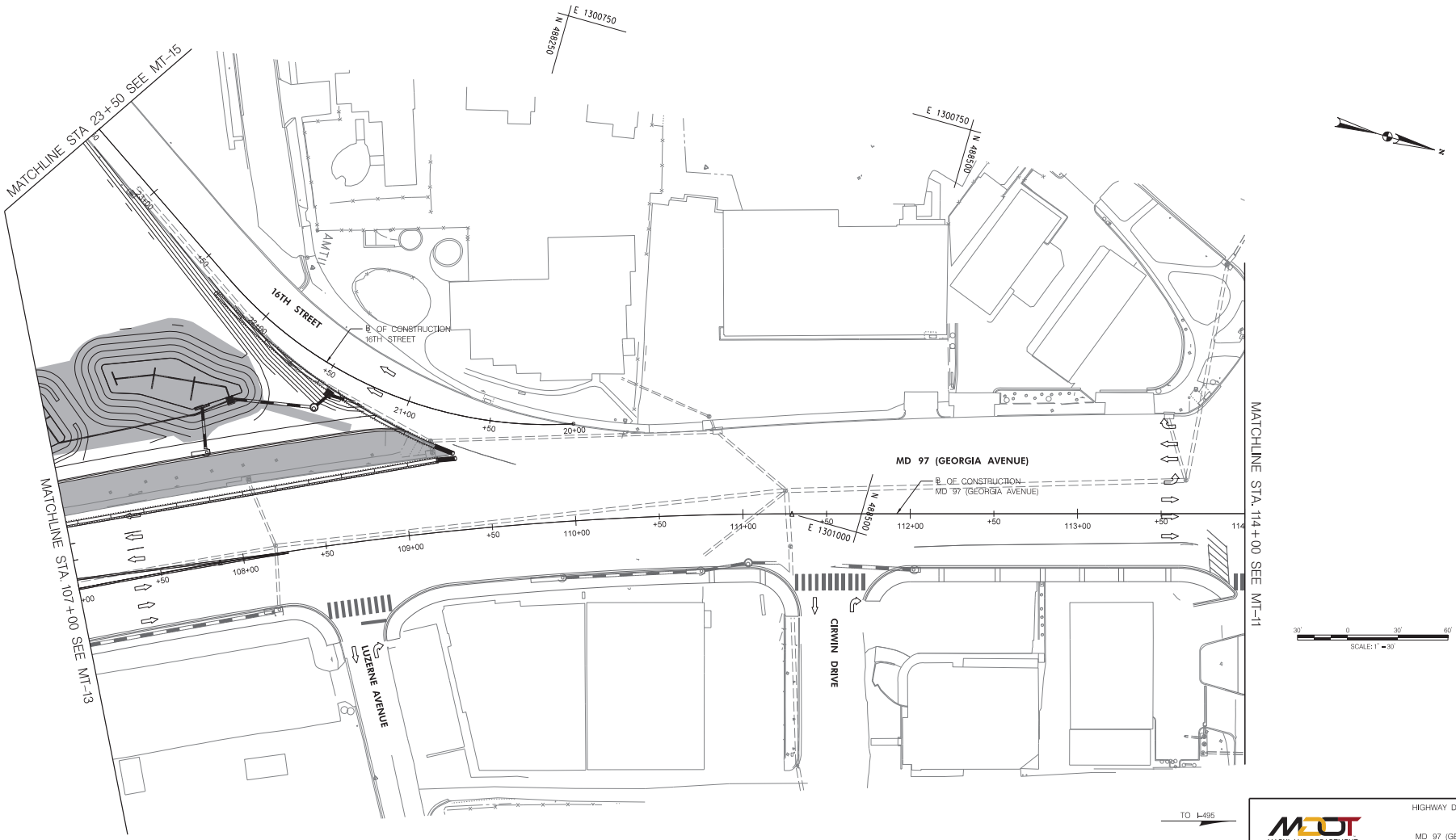
SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-13 OF 53 SHEET NO. 36 OF 76

BY: loshi

PLOTTED: 5/27/2021
FILE: pw:\sharwinpws.sharcadd.ad.mdot.md.state:SHAEDMS02\Documents\Projects\Montgomery\MO224 - MD 97 Montgomery Hills\Roadway Design\CAD\Drawing Models\SFR Plans\MT-PSA01_MD97.dgn



DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 3A

SHEET 2 OF 3

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

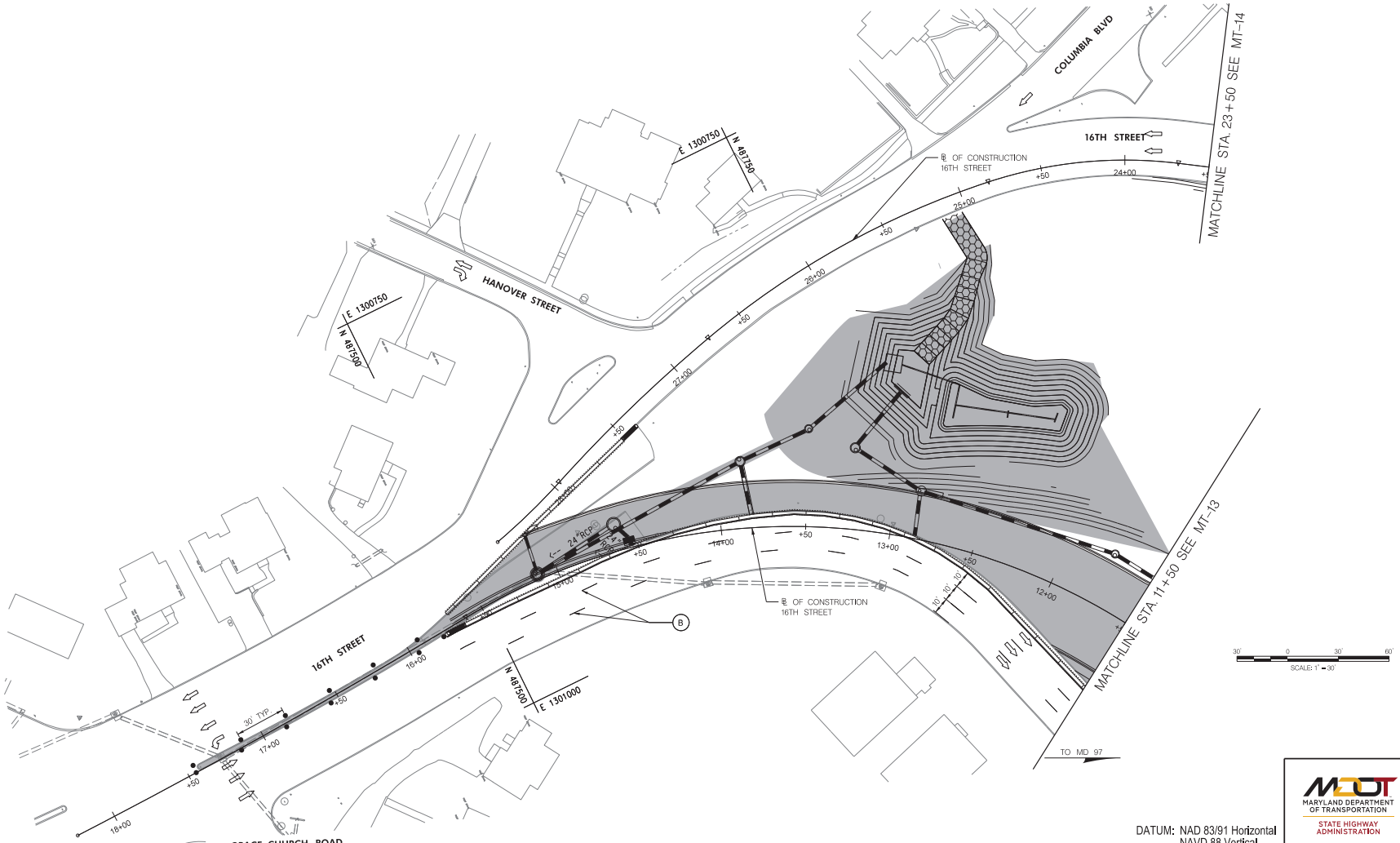
SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-14 OF 53 SHEET NO. 37 OF 76

BY: loshI

PLOTTED: 5/27/2021
FILE: pw:\sharwmpws.sharcadd.ad.mdot.md.state:SHAEDMS02\Documents\Projects\Montgomery\MO224 - MD 97 Montgomery Hills\Roadway Design\CAD\Drawing Models\SFR Plans\MT-PSA02_MD97.dgn



DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN / SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

PHASE 3A

SHEET 3 OF 3

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

MAINTENANCE OF TRAFFIC PLAN

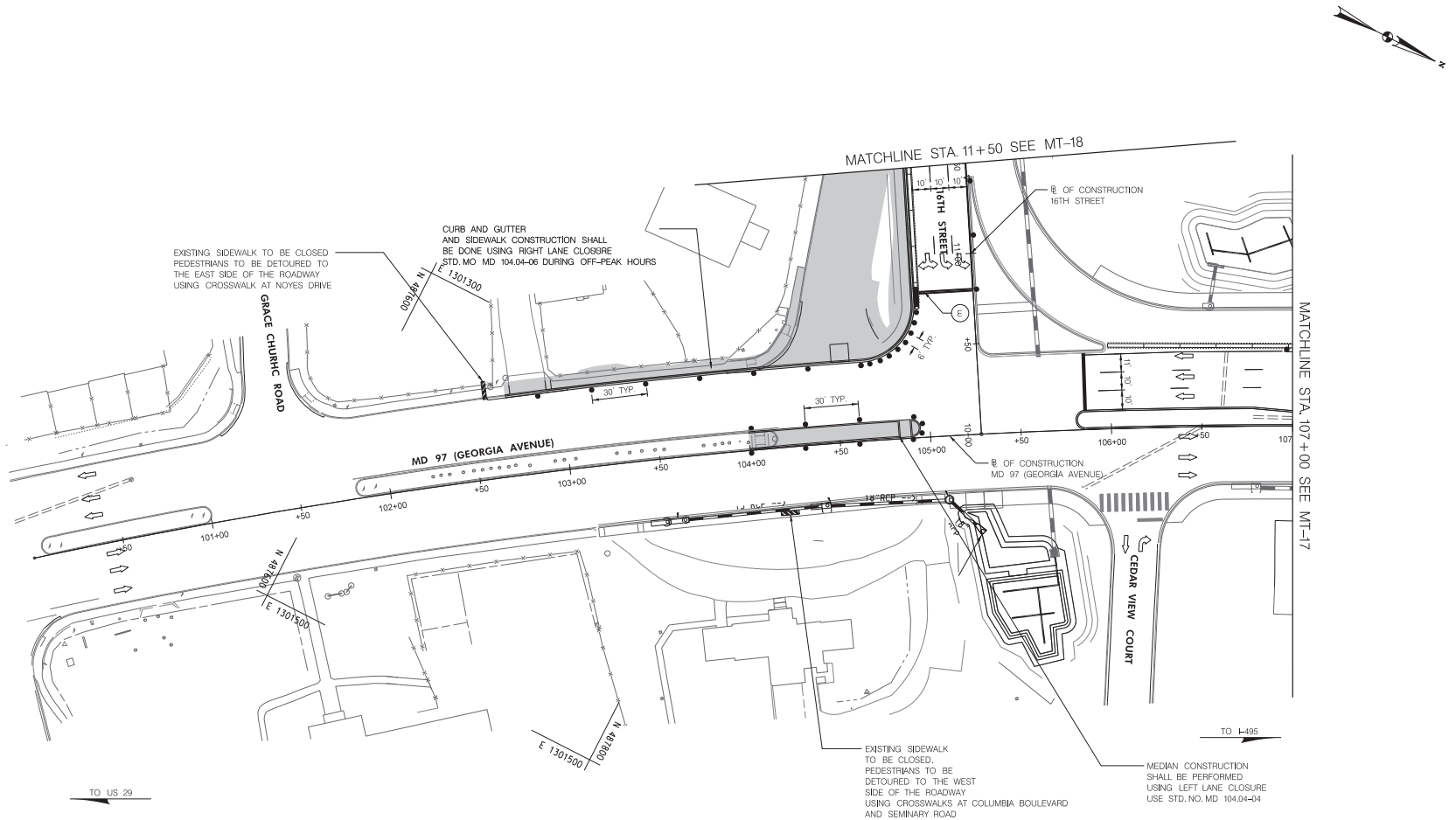
SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-15 OF 53 SHEET NO. 38 OF 76

BY: TOuzts –

PLOTTED: 05/26/2021
FILE: pw:\\sharwinpw.sharcadd.ad.mdot.md.state:SHAEDMS02\Documents\Projects\Montgomery\MO224 - MD 97 Montgomery Hills\Roadway Design\CAD\Drawing Models\SFR Plans\pMT-PSA03_MD97.dgn



DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 3B

SHEET 1 OF 3

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS - SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS - 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS - 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS - SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING - SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS - 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS - SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS - DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-16 OF 53 SHEET NO. 39 OF 76

BY: loshi

PLOTTED: 5/27/2021
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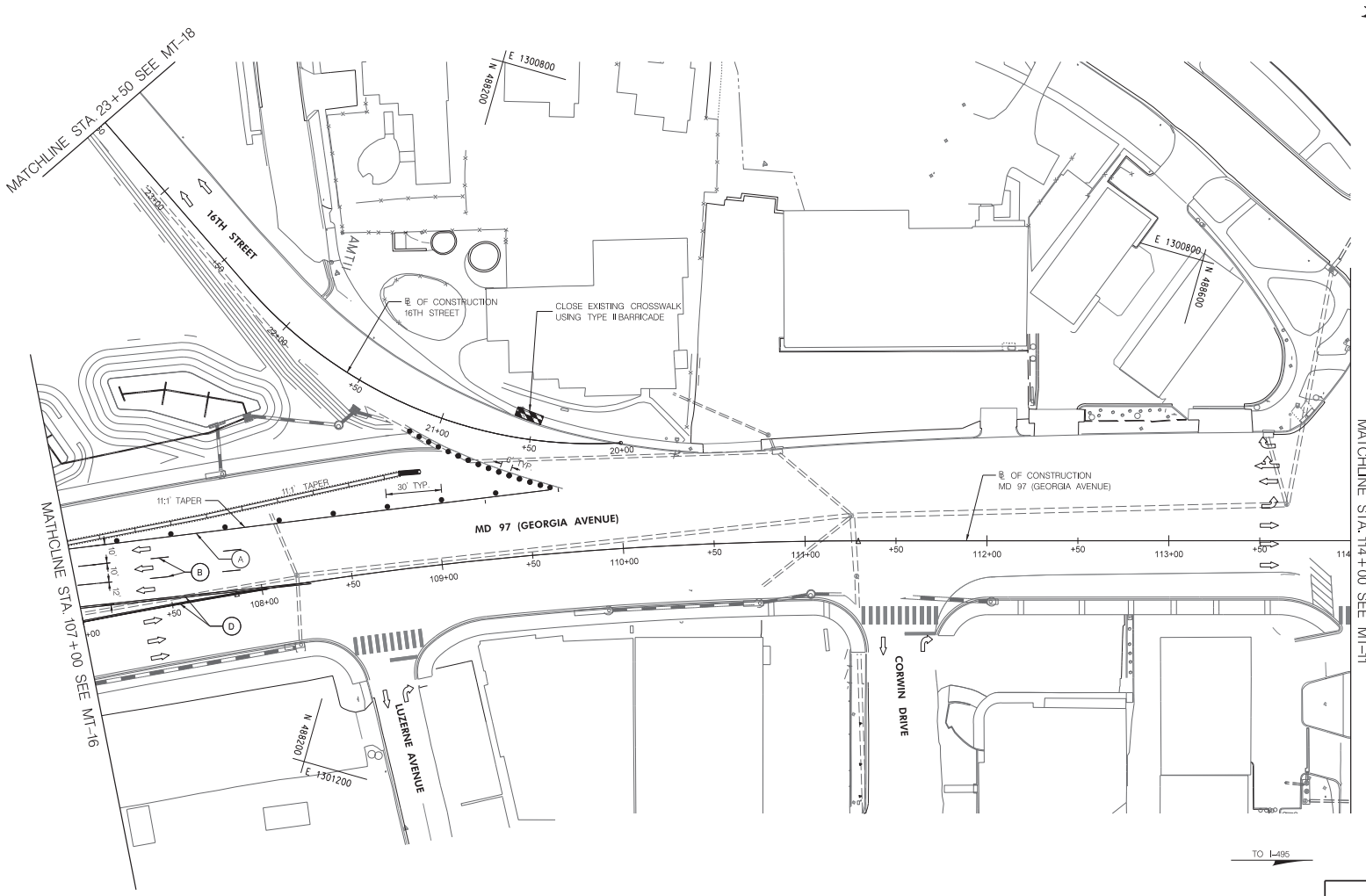


PAVEMENT MARKING LEGEND		MOT LEGEND	R / W PLAT NUMBER	REVISIONS
(A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID	(F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP	WORK ZONE		
(B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP	(G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID	TEMPORARY TRAFFIC SIGN SIGN FACE		
(C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP	(H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED	DIRECTION OF TRAFFIC		
(D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID		CHANNELIZING DEVICES		
(E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID		CONCRETE TRAFFIC BARRIER		
		BARRIER END TREATMENT		

PHASE 3B
SHEET 2 OF 3

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

MAINTENANCE OF TRAFFIC PLAN

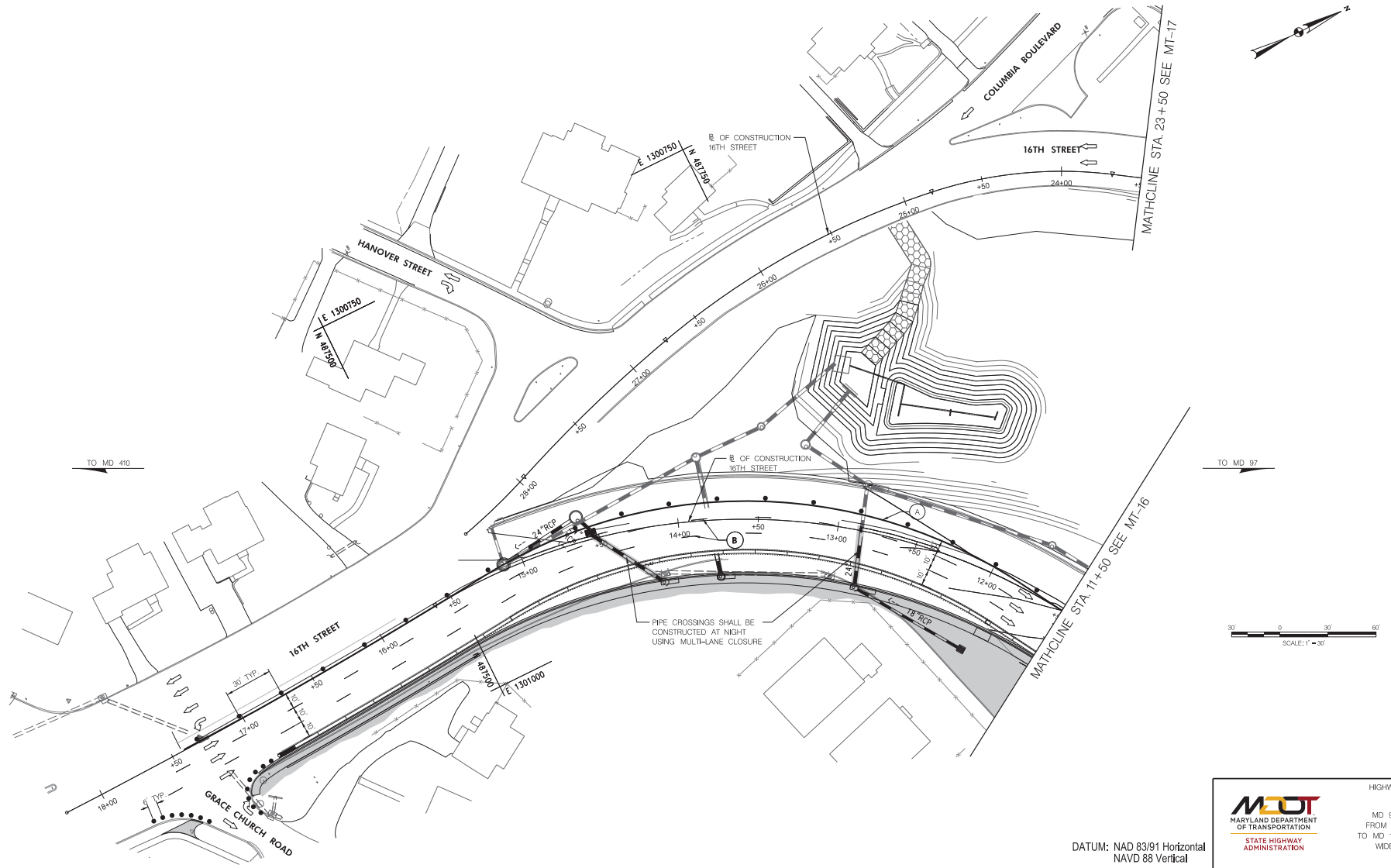
SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-17 OF 53 SHEET NO. 40 OF 76

BY: loshi

PLOTTED: 5/27/2021
FILE: pw:\sharwmpws.sharcadd.ad.mdot.md.state:SHAEDMS02\Documents\Projects\Montgomery\MO224 - MD 97 Montgomery Hills\Roadway Design\CAD\Drawing Models\SFR Plans\MT-P3B02_MD97.dgn



DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 3B

SHEET 3 OF 3

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN / SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-18 OF 53 SHEET NO. 41 OF 76

BY: TOuzts –

PLOTTED: 05/26/2021
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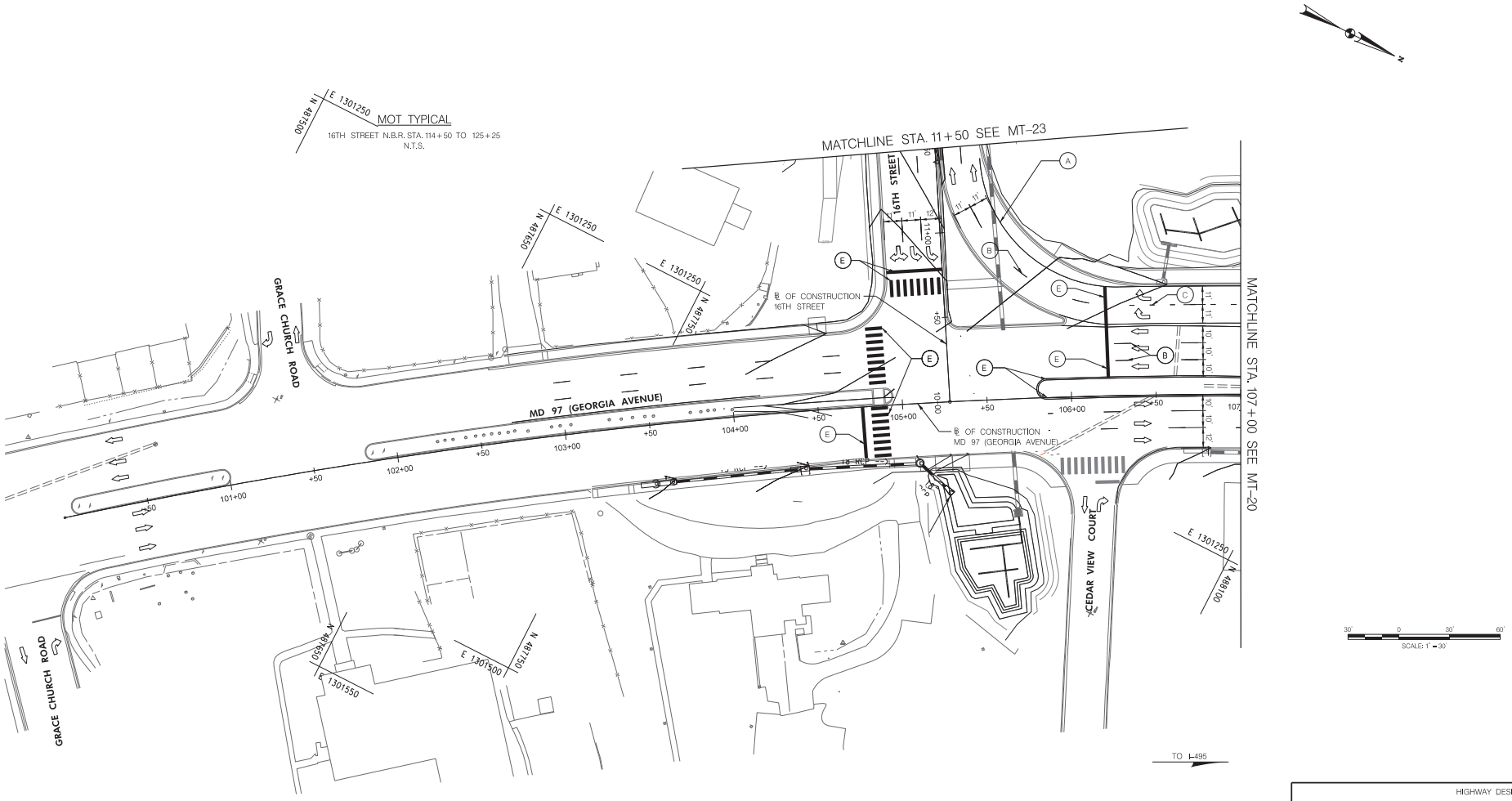

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 3C

SHEET 1 OF 5

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
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- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-19 OF 53 SHEET NO. 42 OF 76

BY: TOuzts

PLOTTED: 05/26/2021
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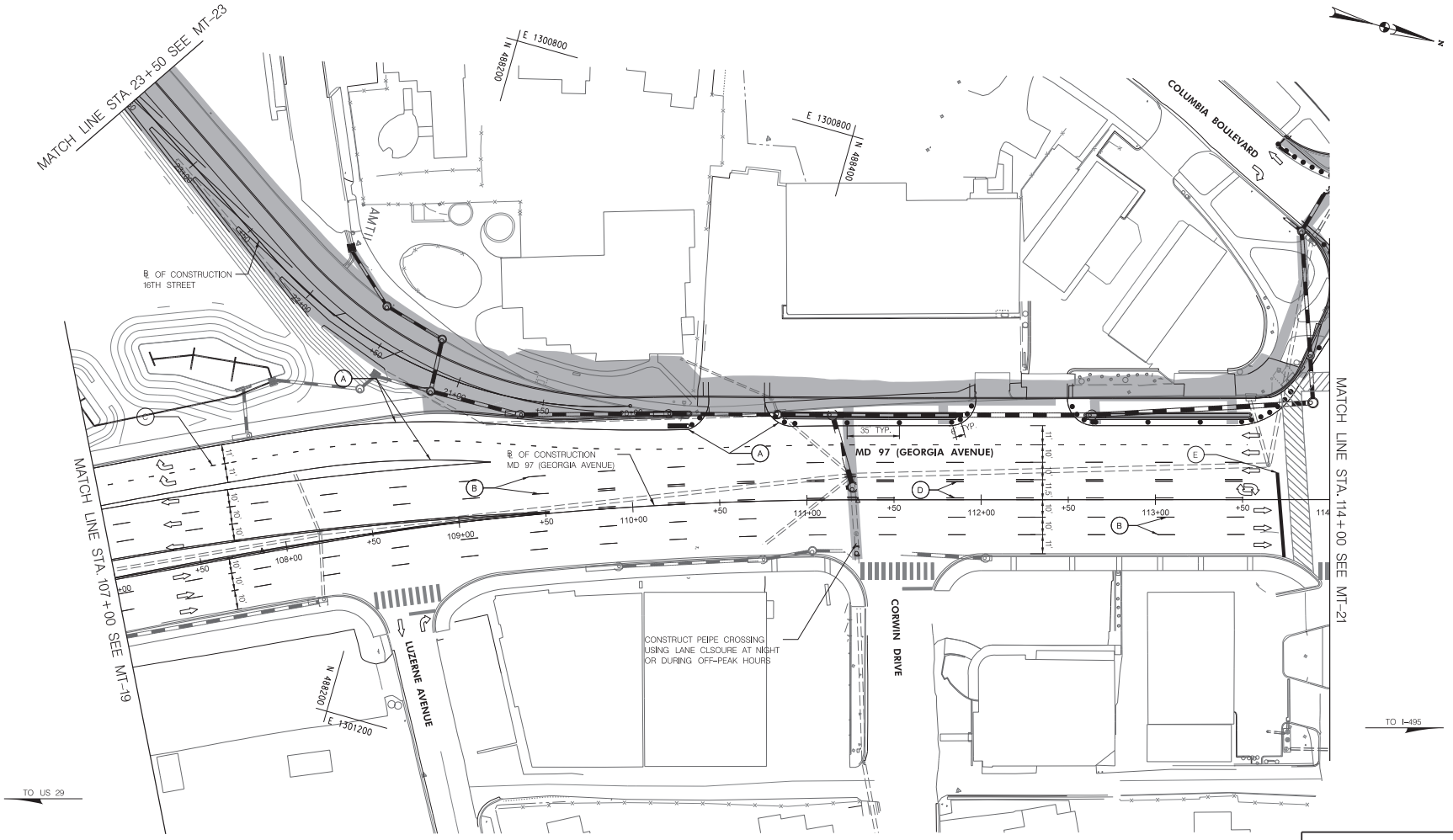

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 3C

SHEET 2 OF 5

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-20 OF 53 SHEET NO. 43 OF 76

BY: loshi

PLOTTED: 5/27/2021
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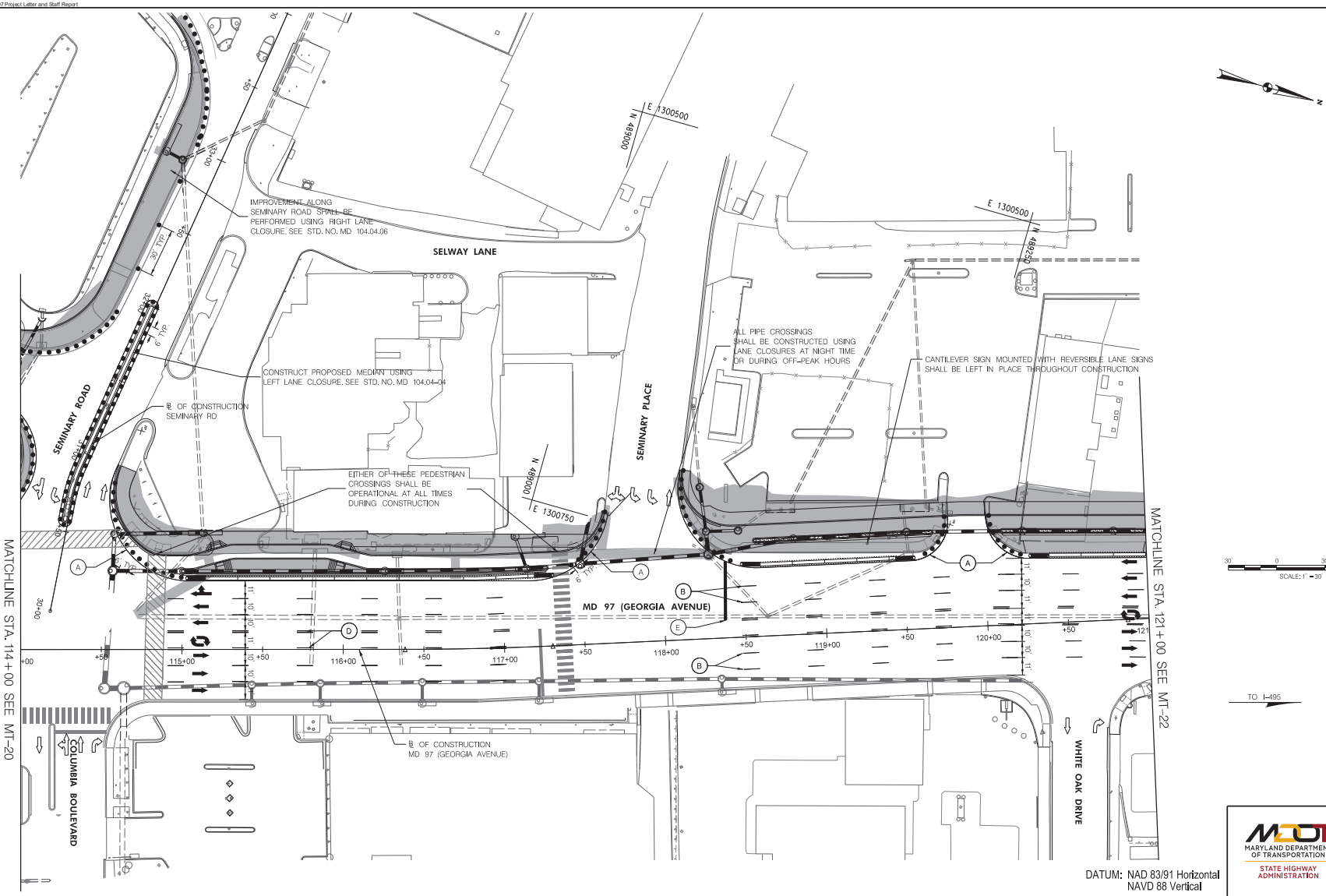

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 3C

SHEET 3 OF 5

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
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- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN / SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-21 OF 53 SHEET NO. 44 OF 76

BY: loshI

PLOTTED: 5/27/2021
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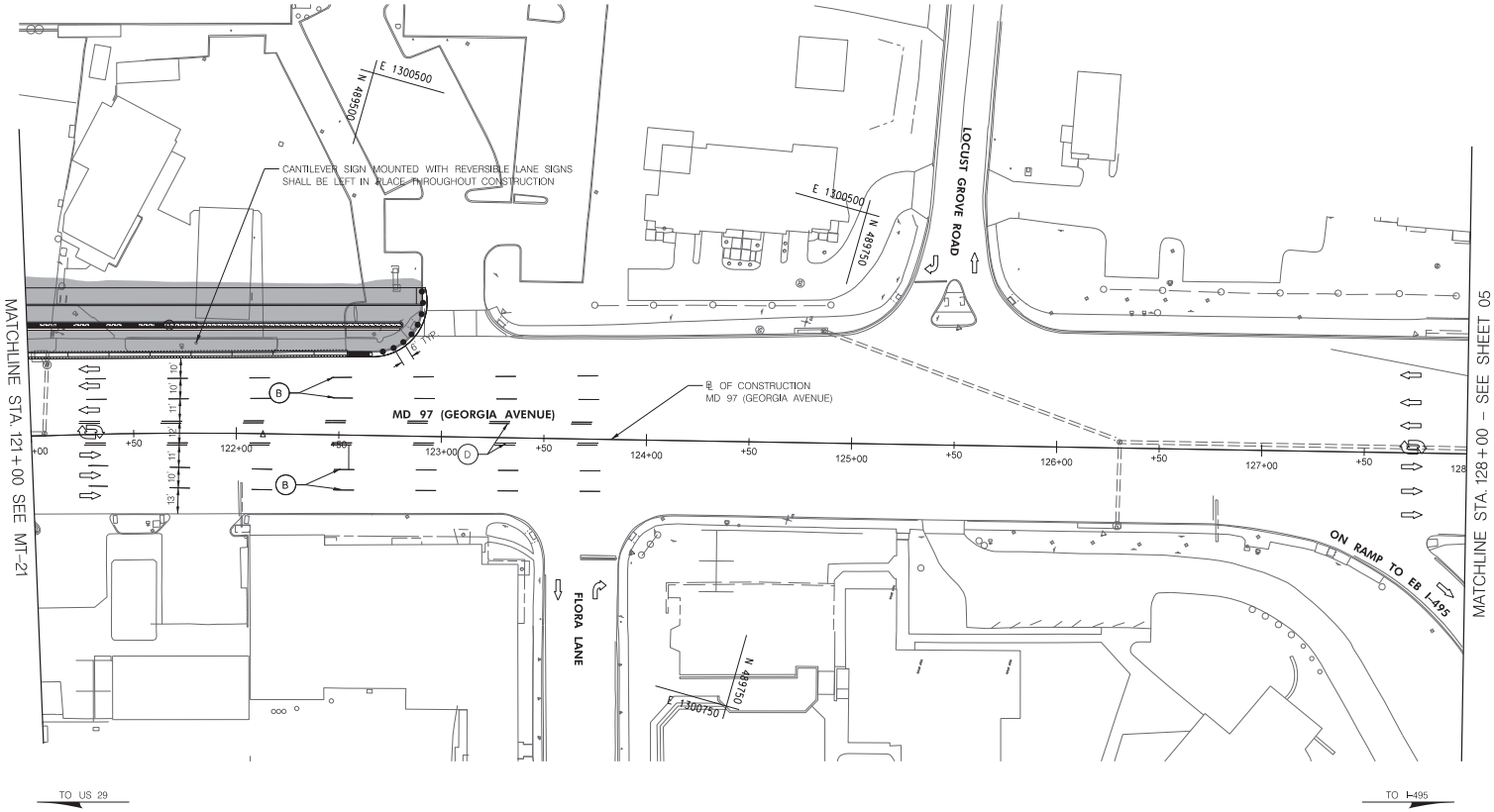

N

30′ 0 30′ 60′
SCALE: 1" = 30′

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 3C
SHEET 4 OF 5

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
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- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN – SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

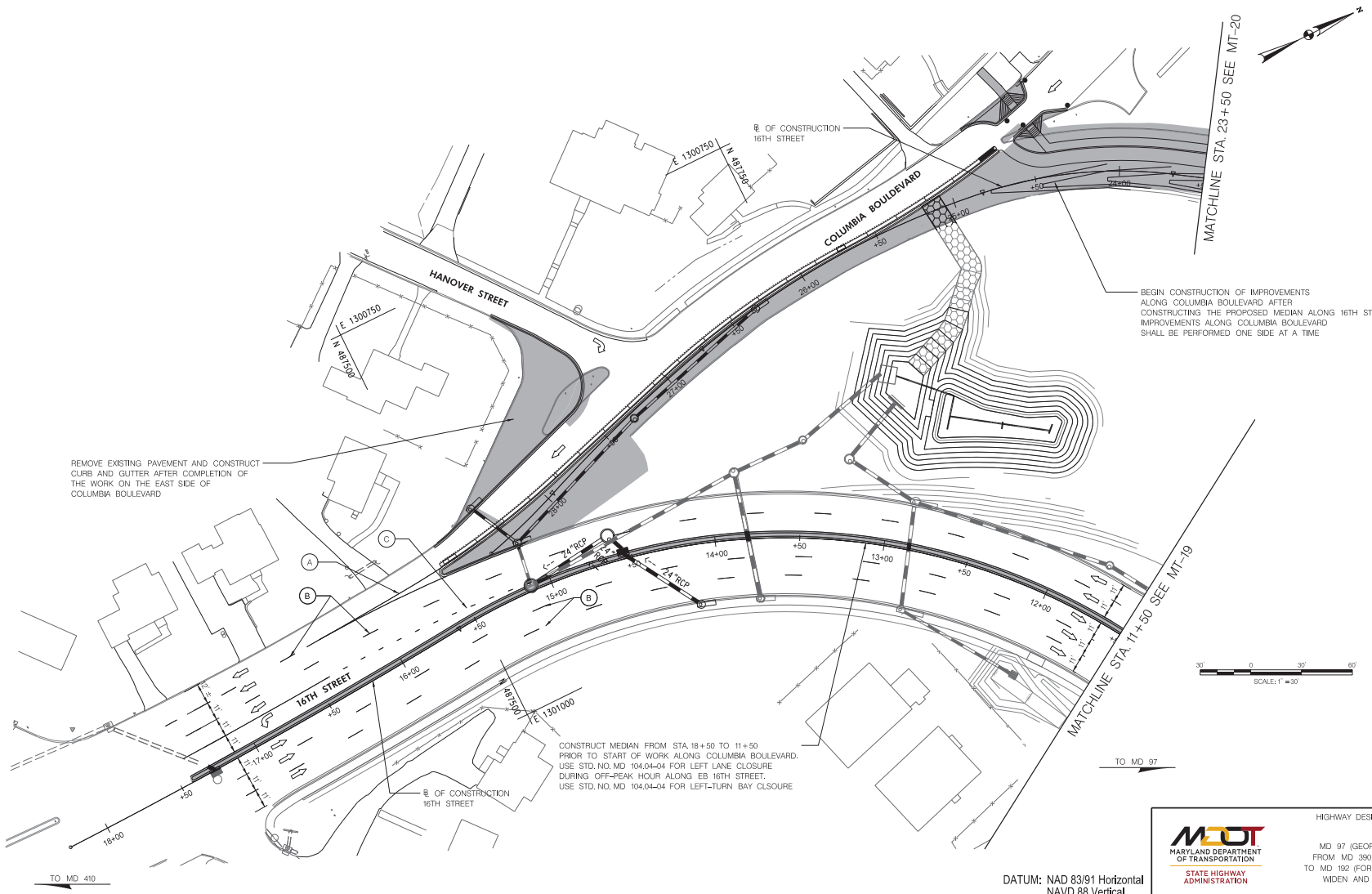
SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-22 OF 53 SHEET NO. 45 OF 76

BY: loshI –

PLOTTED: 5/27/2021
FILE: pw:\sharwmpws.sharcadd.ad.mdot.md.state:SHAEDMS02\Documents\Projects\Montgomery\MO224 - MD 97 Montgomery Hills\Roadway Design\CAD\Drawing Models\SFR Plans\pMT-PSC04_MD97.dgn



DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 3C

SHEET 5 OF 5

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
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- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN / SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-23 OF 53 SHEET NO. 46 OF 76

BY: loshl

PLOTTED: 5/27/2021
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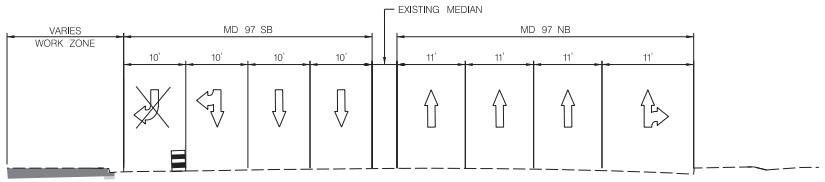

PHASE 4 MOT TYPICAL

MD 97 S.B.R. STA. 123+25 TO 141+50
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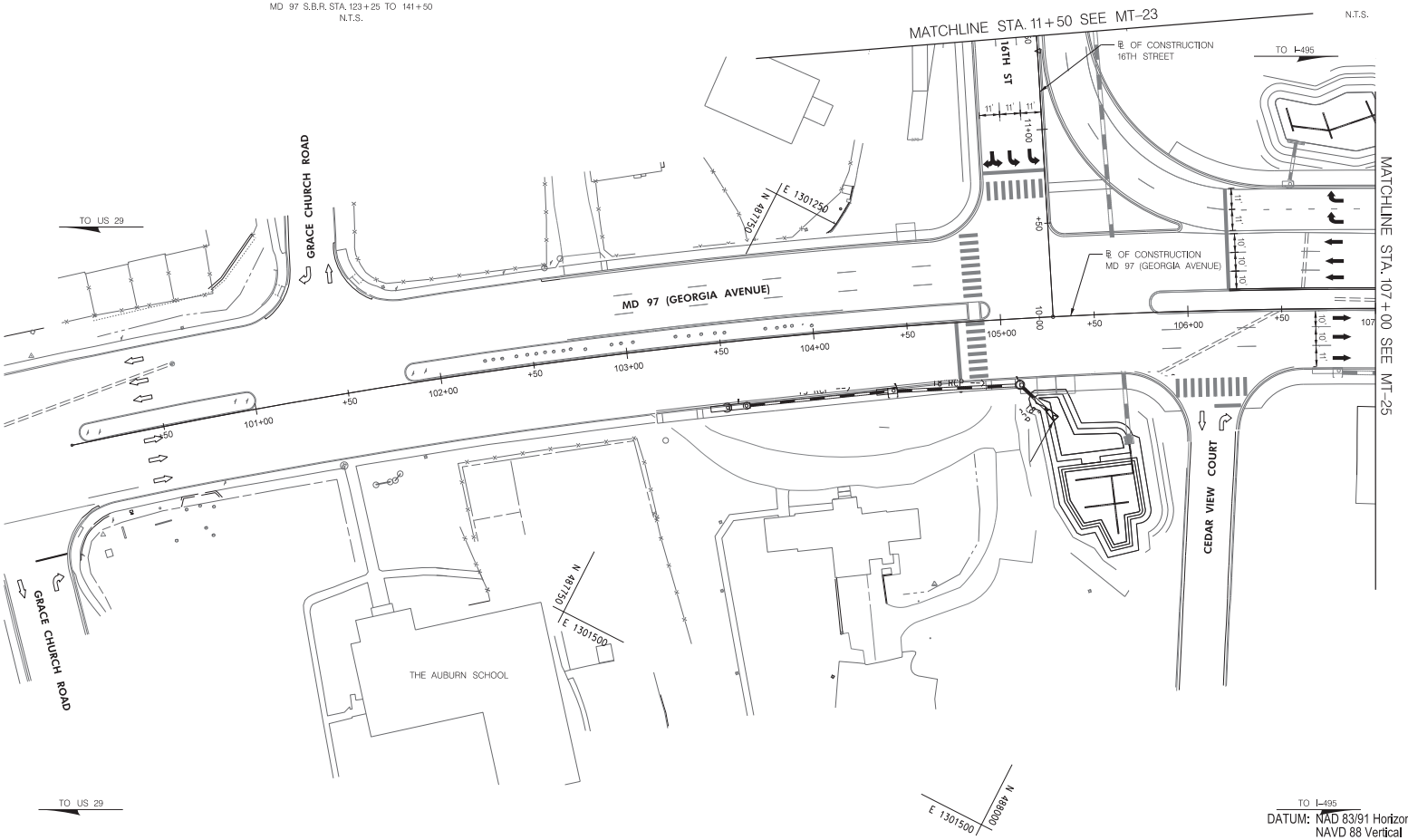

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 4A

SHEET 1 OF 6

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-24 OF 53 SHEET NO. 47 OF 76

BY: loshi

PLOTTED: 5/26/2021
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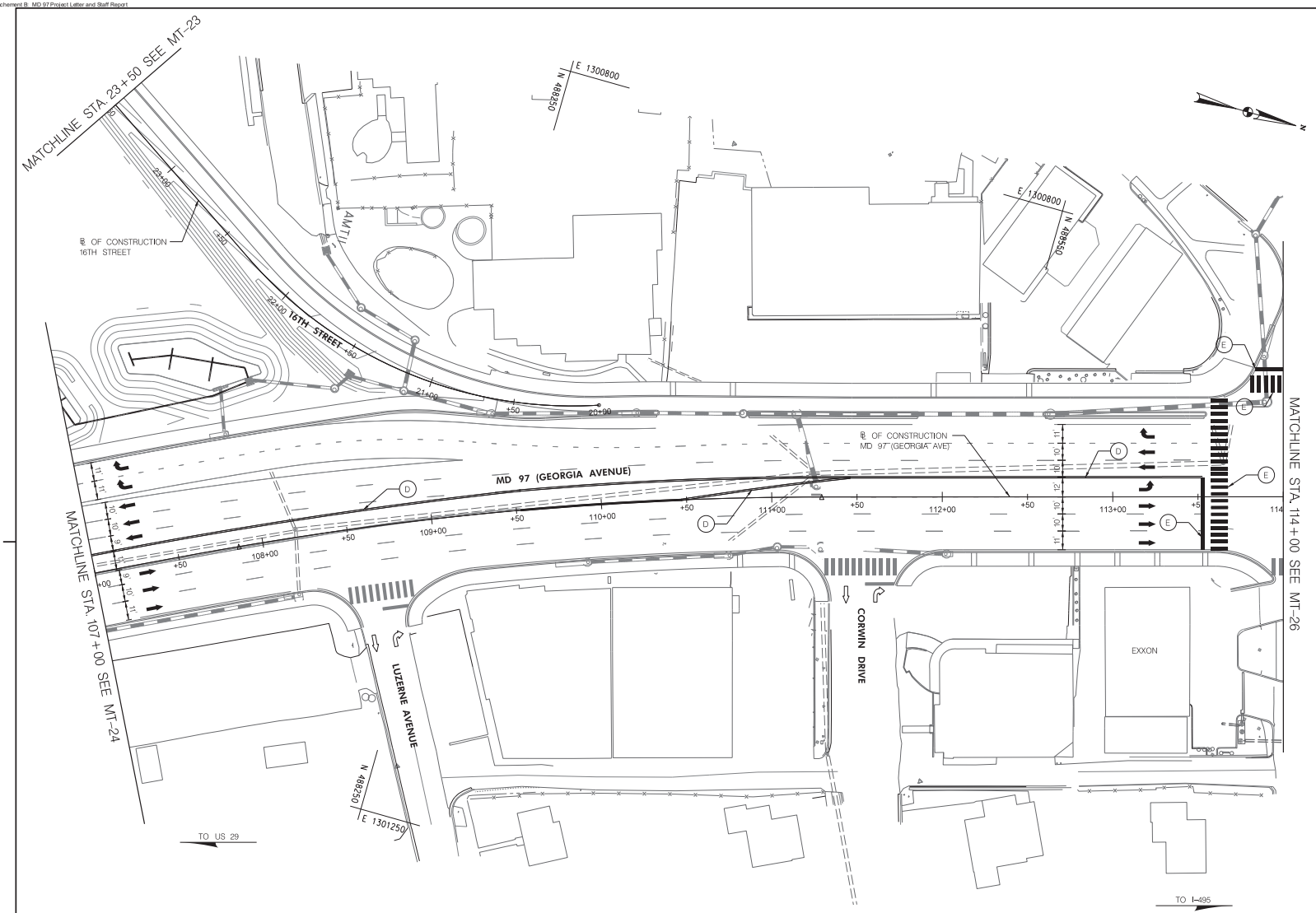

PAVEMENT MARKING LEGEND	
(A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID	(F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
(B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP	(G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
(C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP	(H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED
(D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID	
(E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID	

MOT LEGEND
WORK ZONE
TEMPORARY TRAFFIC SIGN – SIGN FACE
DIRECTION OF TRAFFIC
CHANNELIZING DEVICES
CONCRETE TRAFFIC BARRIER
BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

PHASE 4A

SHEET 2 OF 6

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-25 OF 53 SHEET NO. 48 OF 76

BY: loshi

PLOTTED: 5/26/2021
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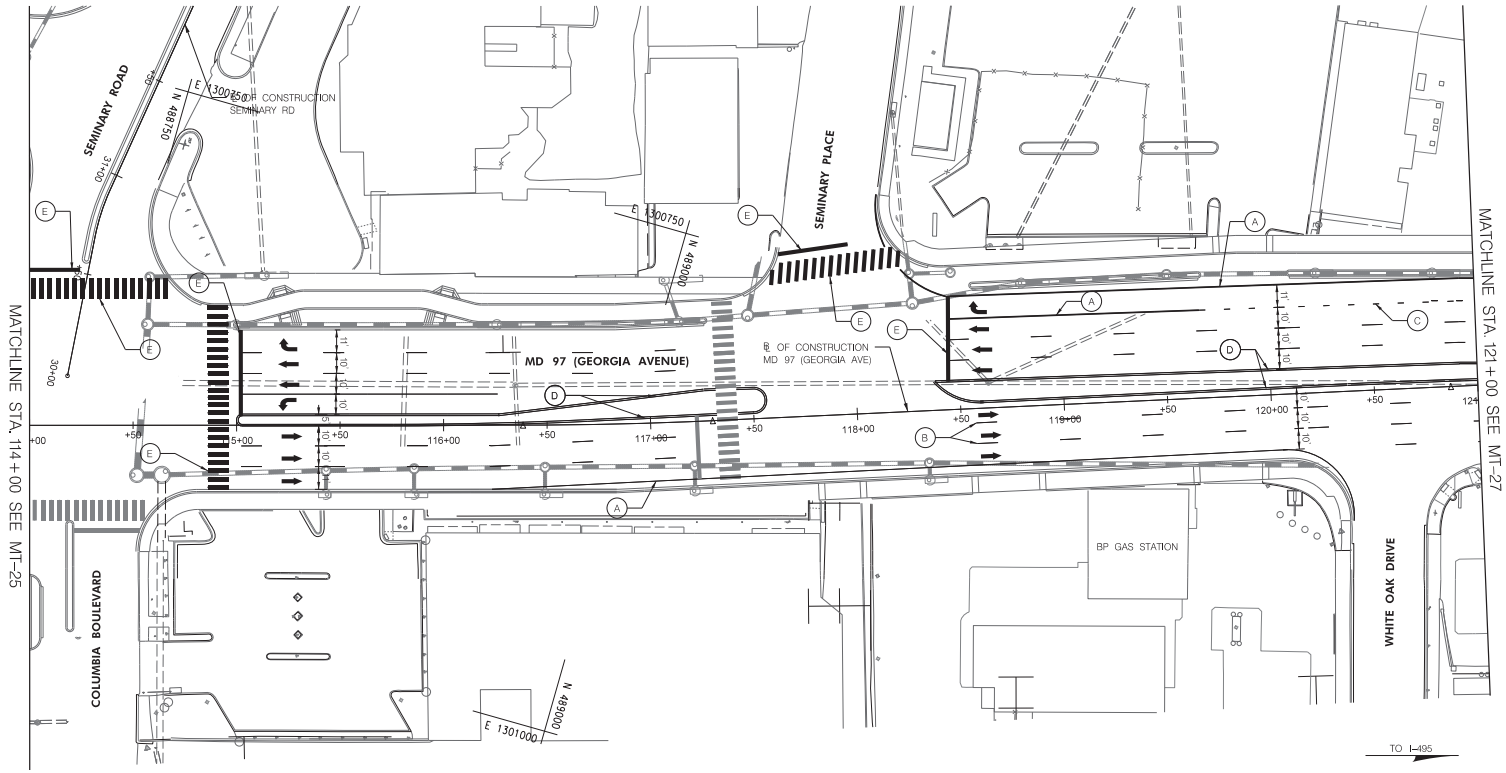

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 4A

SHEET 3 OF 6

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
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- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-26 OF 53 SHEET NO. 49 OF 76

BY: loshI

PLOTTED: 5/26/2021
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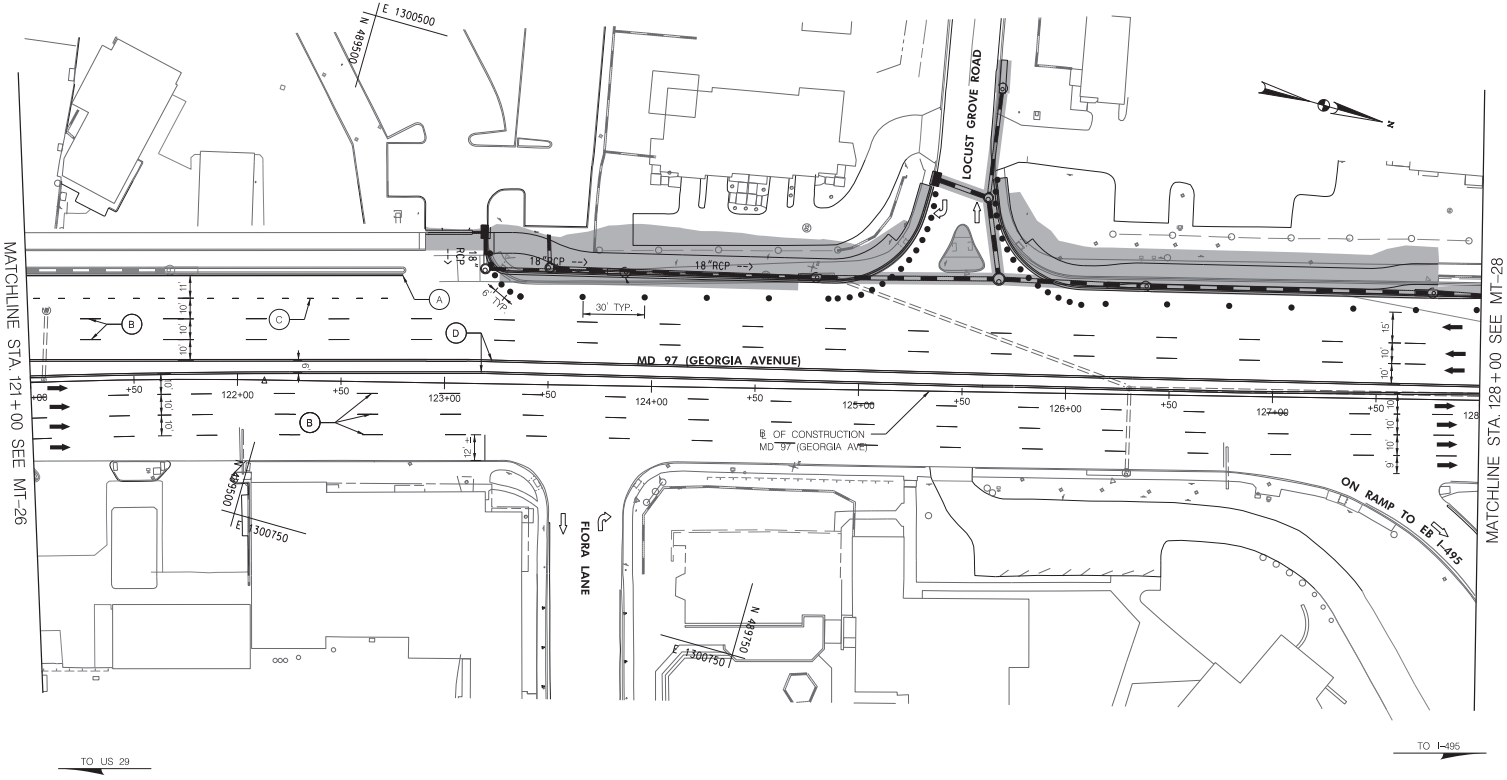

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 4A

SHEET 4 OF 6

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
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- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-27 OF 53 SHEET NO. 50 OF 76

BY: loshI

PLOTTED: 5/26/2021
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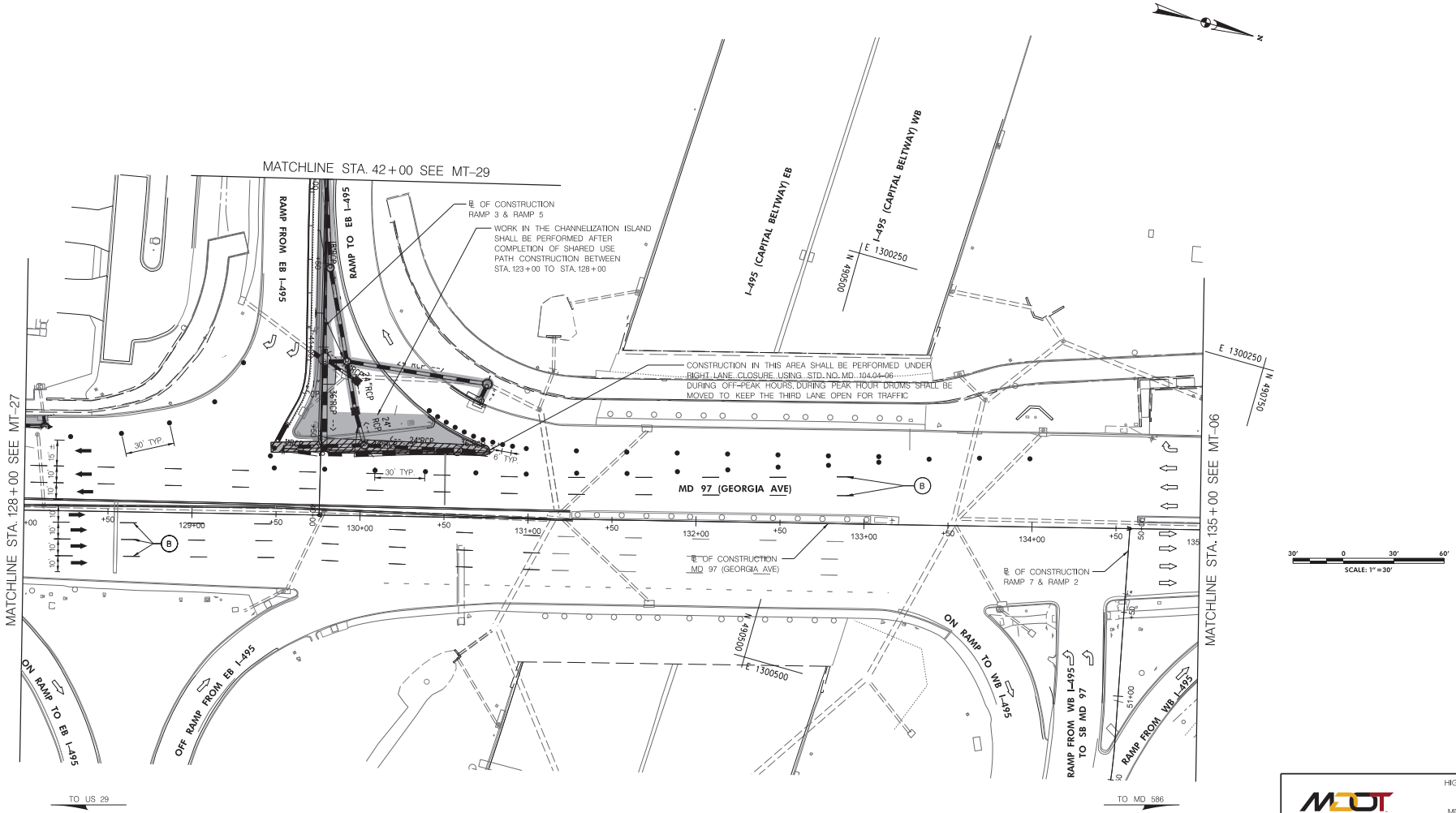


DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PAVEMENT MARKING LEGEND		MOT LEGEND	R / W PLAT NUMBER	REVISIONS
(A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID	(F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP	WORK ZONE		
(B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP	(G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID	TEMPORARY TRAFFIC SIGN SIGN FACE		
(C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP	(H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED	DIRECTION OF TRAFFIC		
(D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID		CHANNELIZING DEVICES		
(E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID		CONCRETE TRAFFIC BARRIER		
		BARRIER END TREATMENT		

PHASE 4A
SHEET 5 OF 6

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

MAINTENANCE OF TRAFFIC PLAN

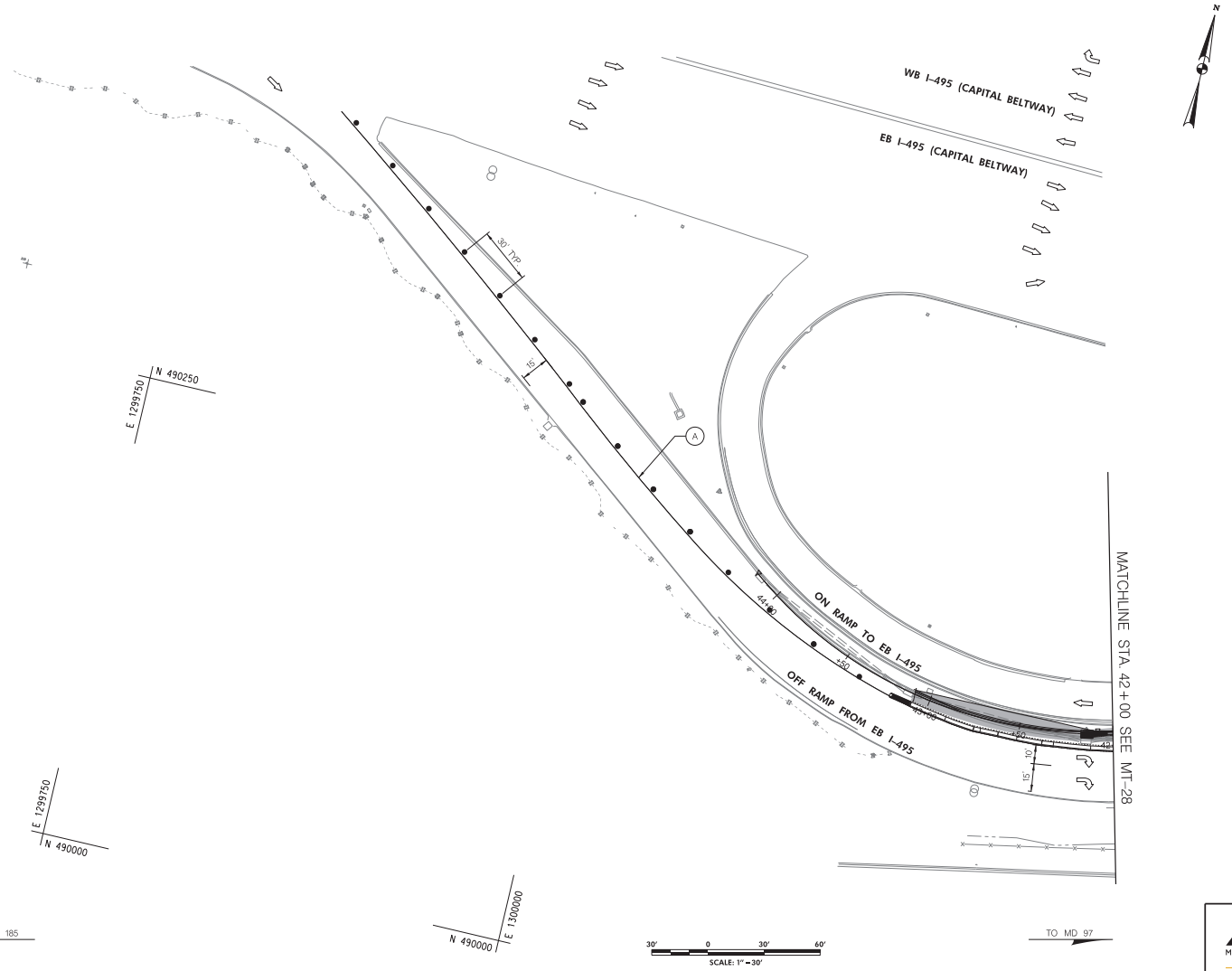
SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-28 OF 53 SHEET NO. 51 OF 76

BY: loshI

PLOTTED: 5/26/2021
FILE: pw:\shawmpw.shacaddLed.mdot.mdstate:SHAEDMS02\Documents\Projects\Montgomery\MO224 - MD 97 Montgomery Hills\Roadway Design\CAD\Drawing Models\SFR Plans\MT-P4405_MD97.dgn



DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PAHSE 4A

SHEET 6 OF 6

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
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- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-29 OF 53 SHEET NO. 52 OF 76

BY: loshI

PLOTTED: 5/26/2021
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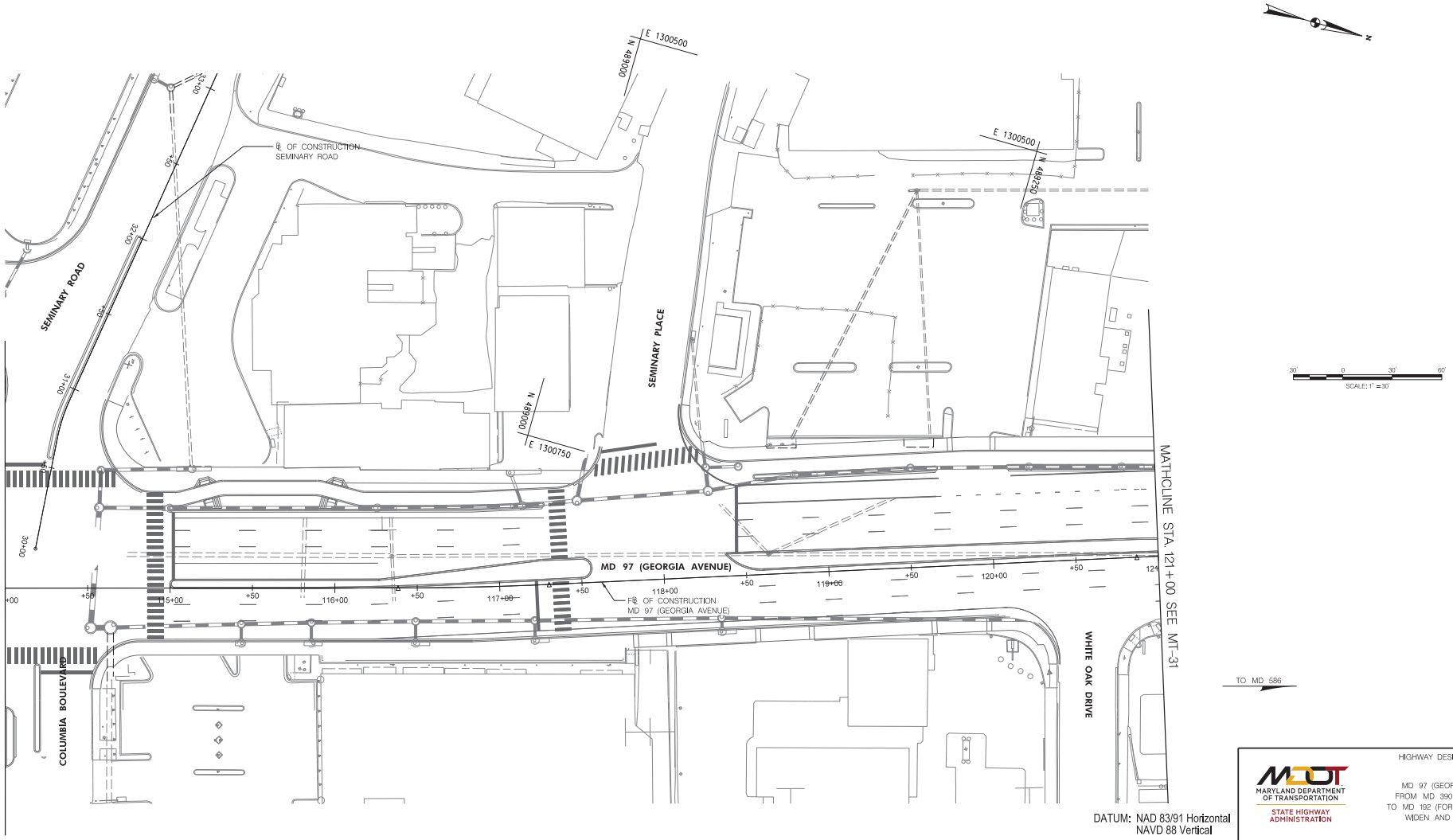

PAVEMENT MARKING LEGEND	
(A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID	(F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
(B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP	(G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
(C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP	(H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED
(D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID	
(E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID	

MOT LEGEND
WORK ZONE
TEMPORARY TRAFFIC SIGN / SIGN FACE
DIRECTION OF TRAFFIC
CHANNELIZING DEVICES
CONCRETE TRAFFIC BARRIER
BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

PHASE 4B

SHEET 1 OF 5

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-30 OF 53 SHEET NO. 53 OF 76

BY: loshi

PLOTTED: 5/26/2021
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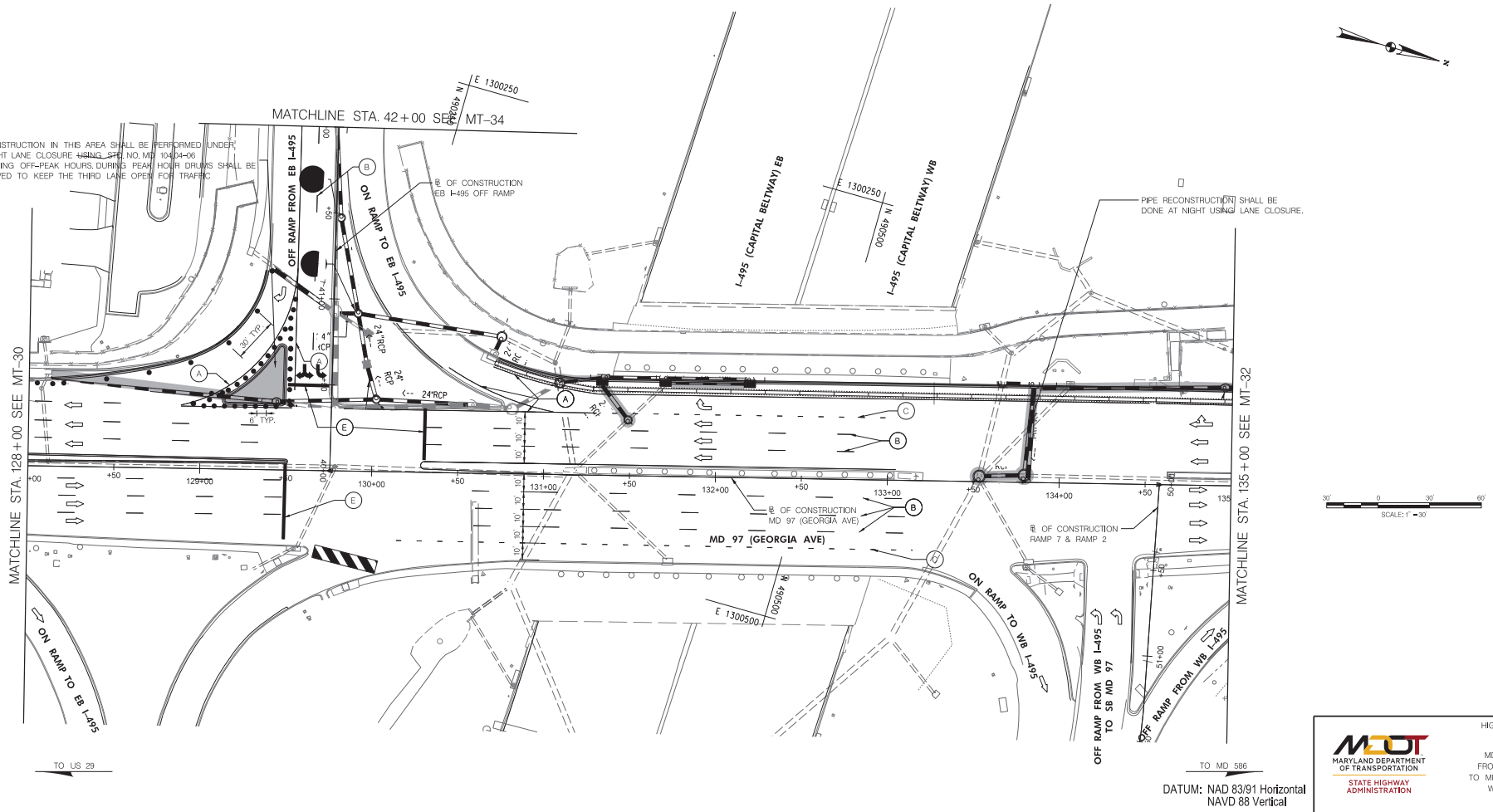

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 4B

SHEET 2 OF 5

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS - SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS - 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS - 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS - SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING - SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS - 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS - SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS - DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT- 31 OF 53 SHEET NO. 54 OF 76

BY: loshI

PLOTTED: 5/26/2021
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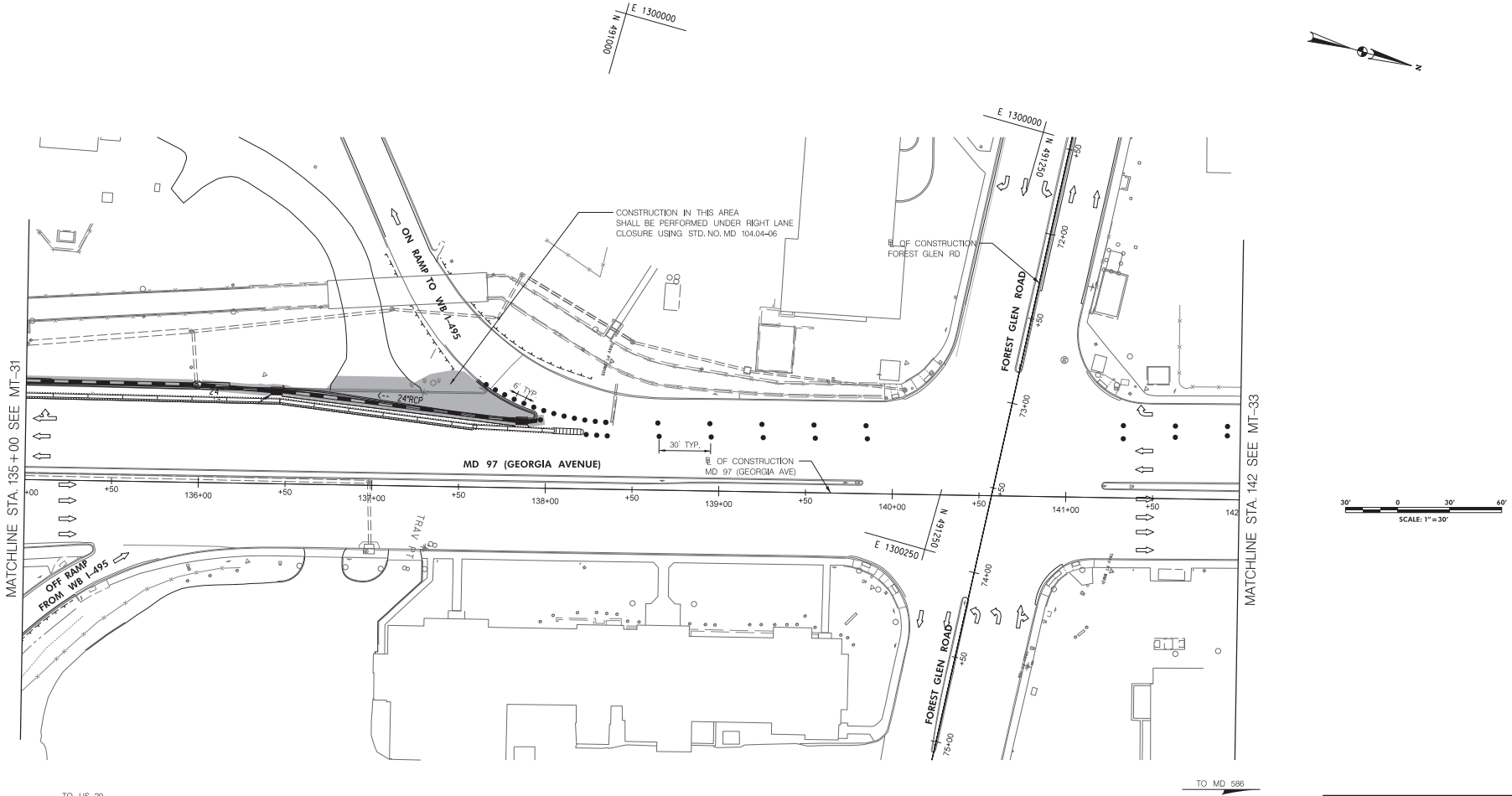

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 4B

SHEET 3 OF 5

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-32 OF 53 SHEET NO. 55 OF 76

BY: loshI

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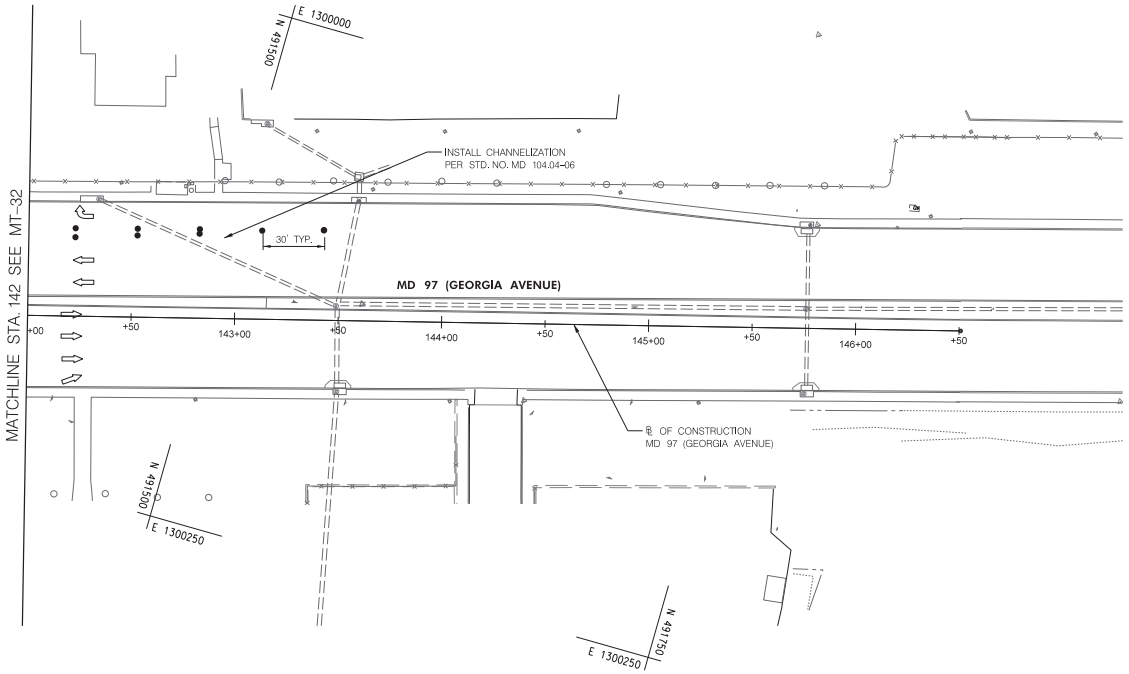

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 4B

SHEET 4 OF 5

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

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- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-33 OF 53 SHEET NO. 56 OF 76

BY: loshI

PLOTTED: 5/26/2021
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DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 4B

SHEET 5 OF 5

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

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- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-34 OF 53 SHEET NO. 57 OF 76

BY: loshI

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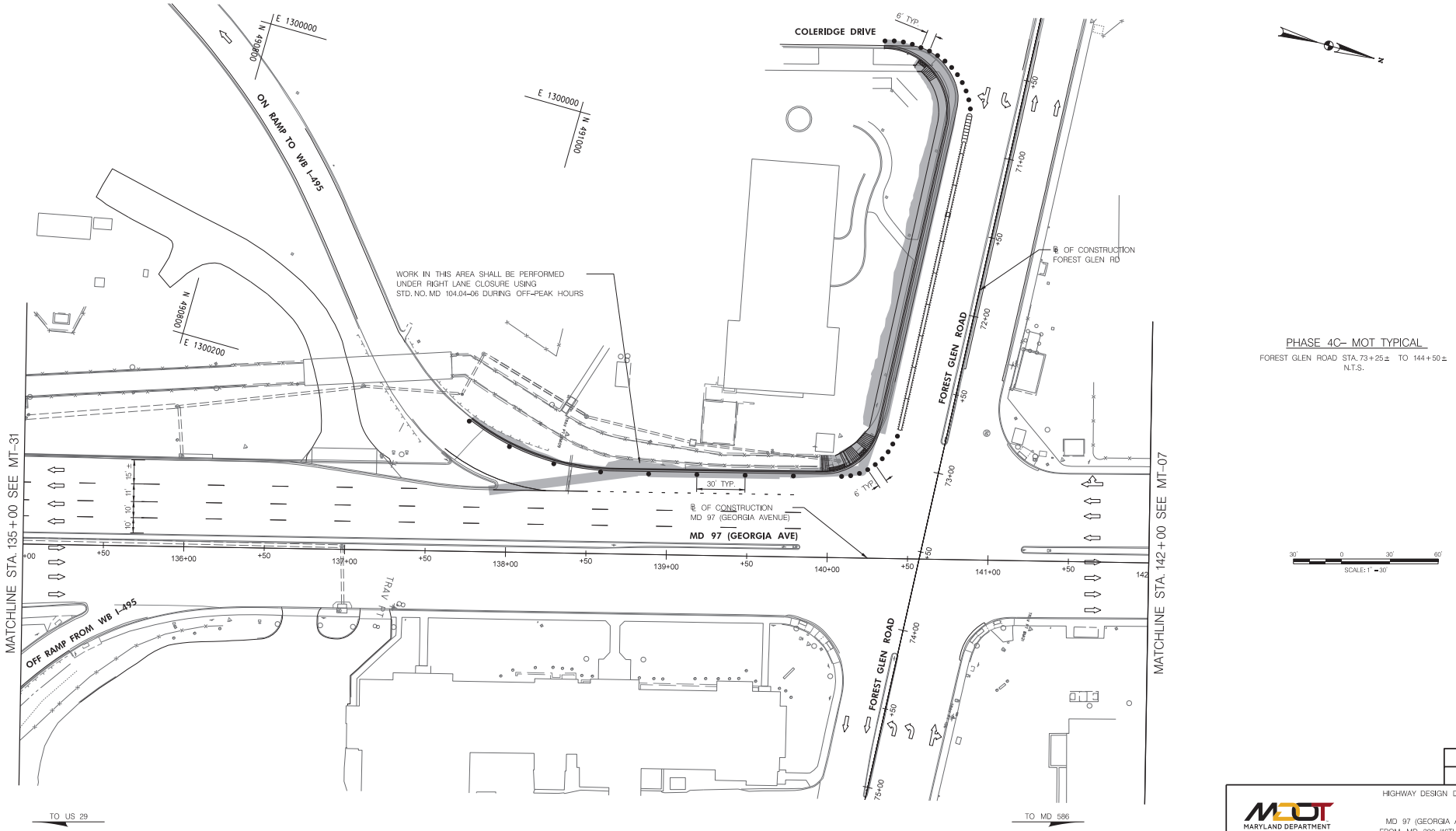

PHASE 4C– MOT TYPICAL

FOREST GLEN ROAD STA. 73+25± TO 144+50±
N.T.S.

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 4C
SHEET 1 OF 1

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
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- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-35 OF 53 SHEET NO. 58 OF 76

BY: loshi

PLOTTED: 5/26/2021
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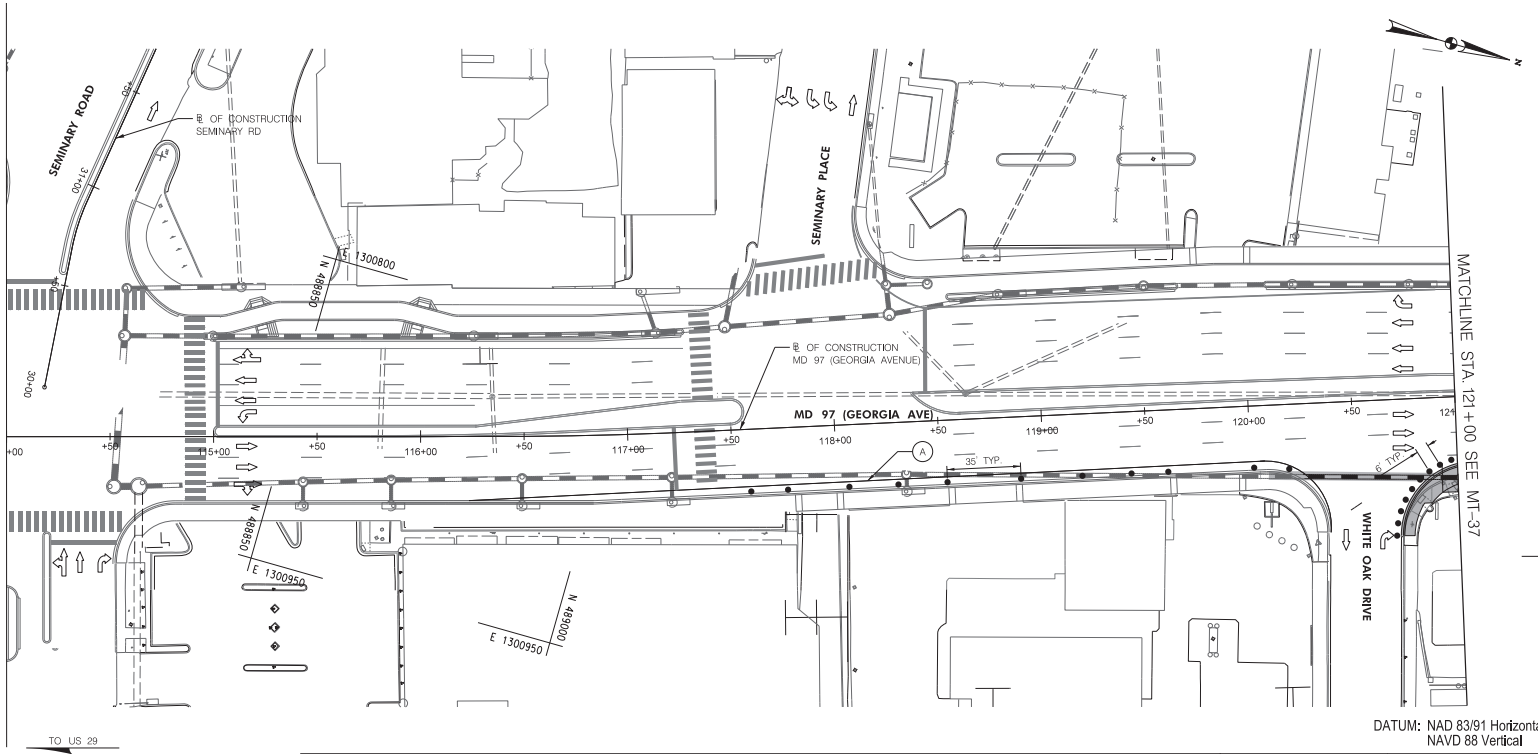

PAVEMENT MARKING LEGEND	
(A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID	(F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
(B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP	(G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
(C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP	(H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED
(D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID	
(E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID	

MOT LEGEND
WORK ZONE
TEMPORARY TRAFFIC SIGN – SIGN FACE
DIRECTION OF TRAFFIC
CHANNELIZING DEVICES
CONCRETE TRAFFIC BARRIER
BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

PHASE 5A

SHEET 1 OF 6

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-36 OF 53 SHEET NO. 59 OF 76

BY: loshi

PLOTTED: 5/26/2021
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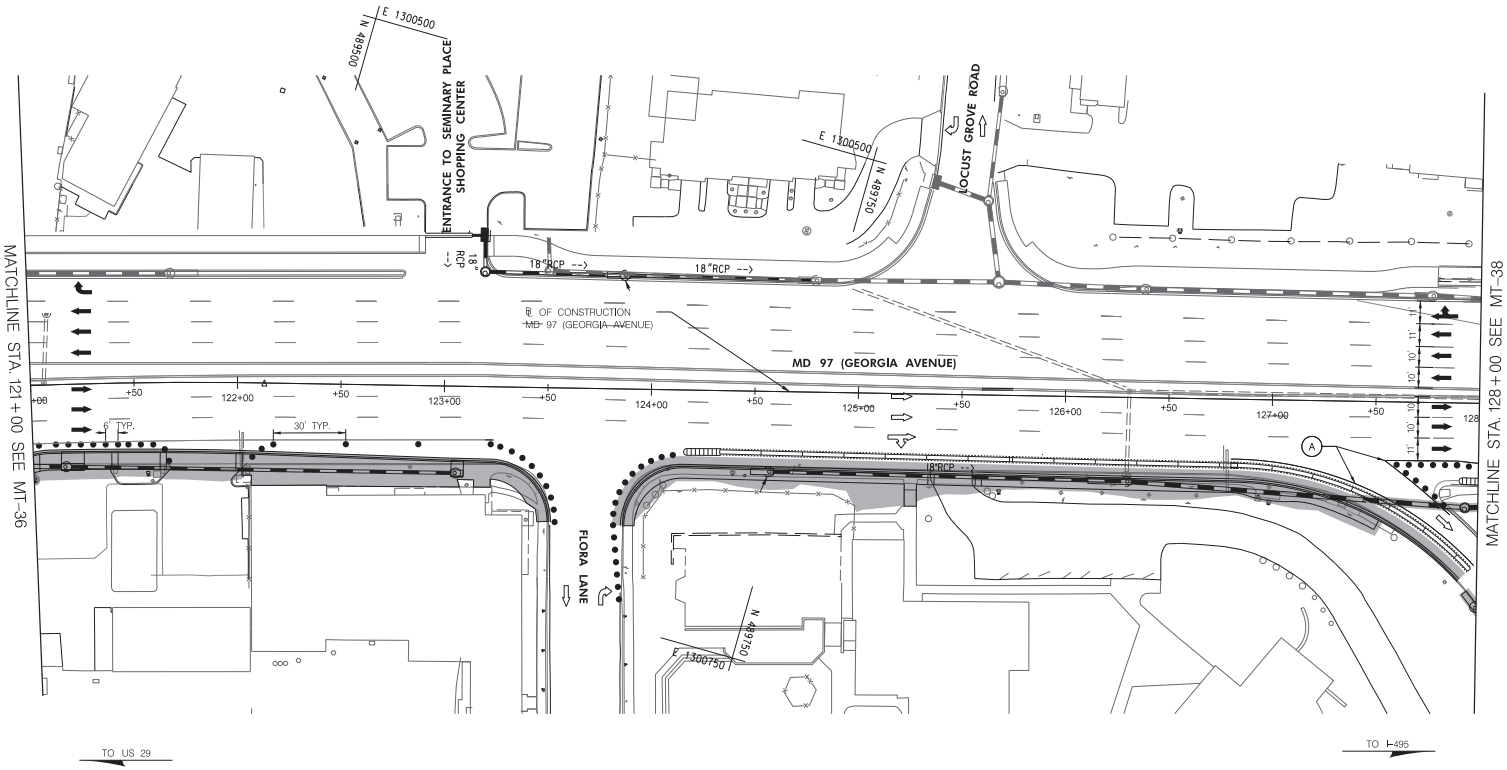
MOT TYPICAL

MD 97 STA. 133+50 TO 133+50
N.T.S.



DATUM: NAD 83/91 Horizontal
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PHASE 5A

SHEET 2 OF 6

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
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- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-37 OF 53 SHEET NO. 60 OF 76

BY: loshI

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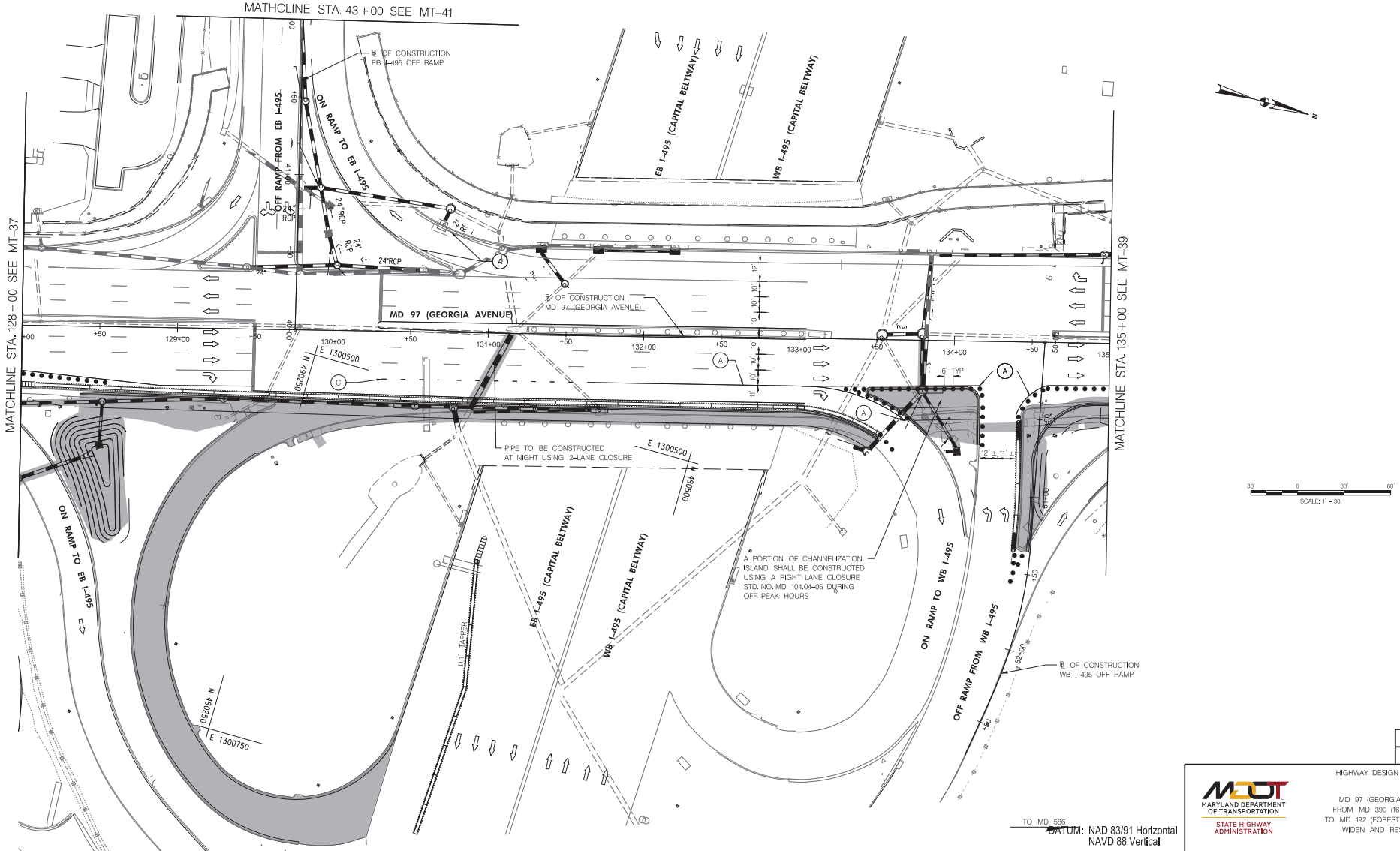

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS - SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS - 10' LINE, 30' GAP
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- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS - DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

PHASE 5A

SHEET 3 OF 6

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-38 OF 53 SHEET NO. 61 OF 76

BY: loshl

PLOTTED: 5/26/2021
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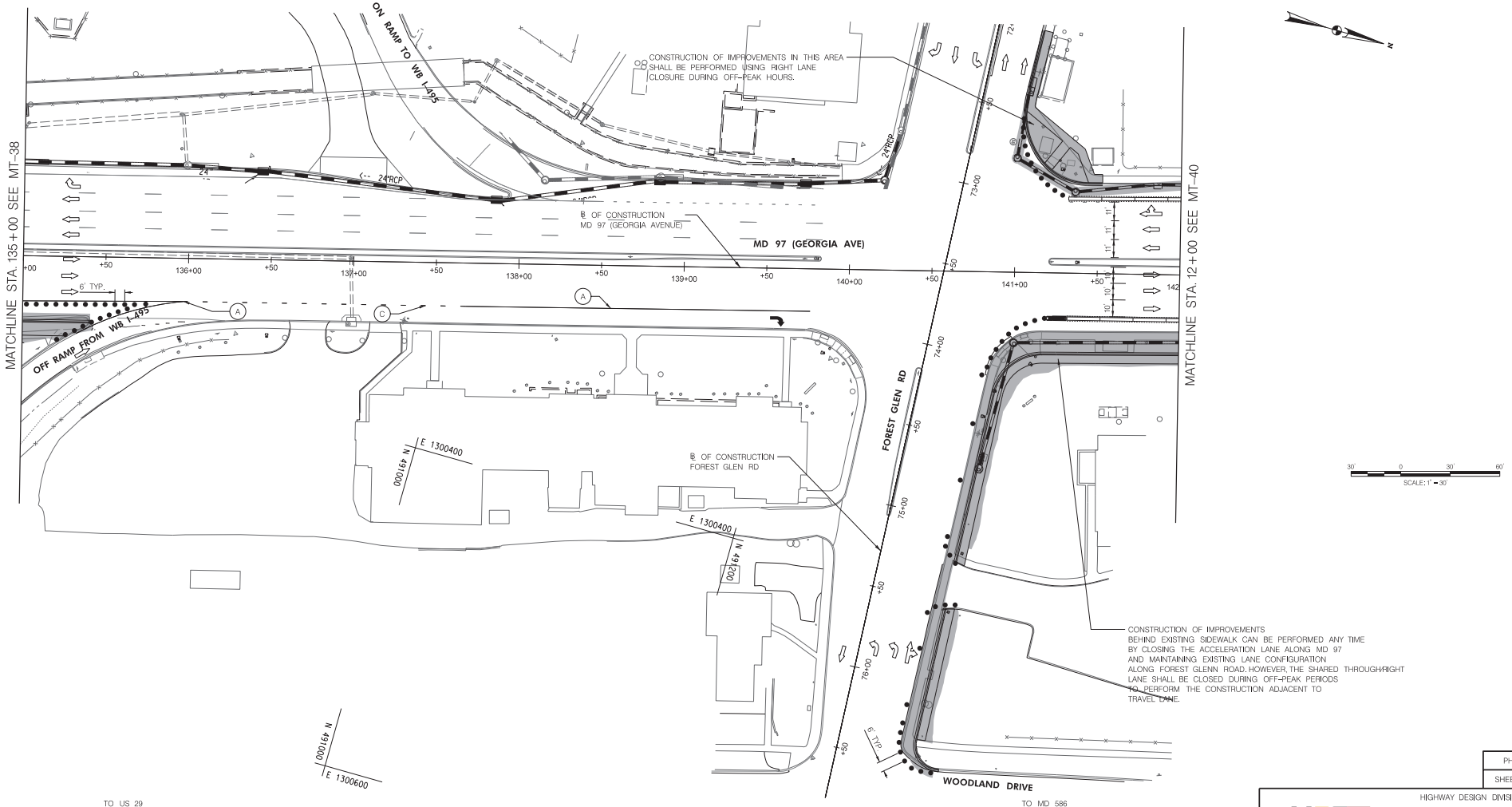

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PHASE 5A

SHEET 4 OF 6

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

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- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-39 OF 53 SHEET NO. 62 OF 76

BY: Ioshi

PLOTTED: 5/26/2021
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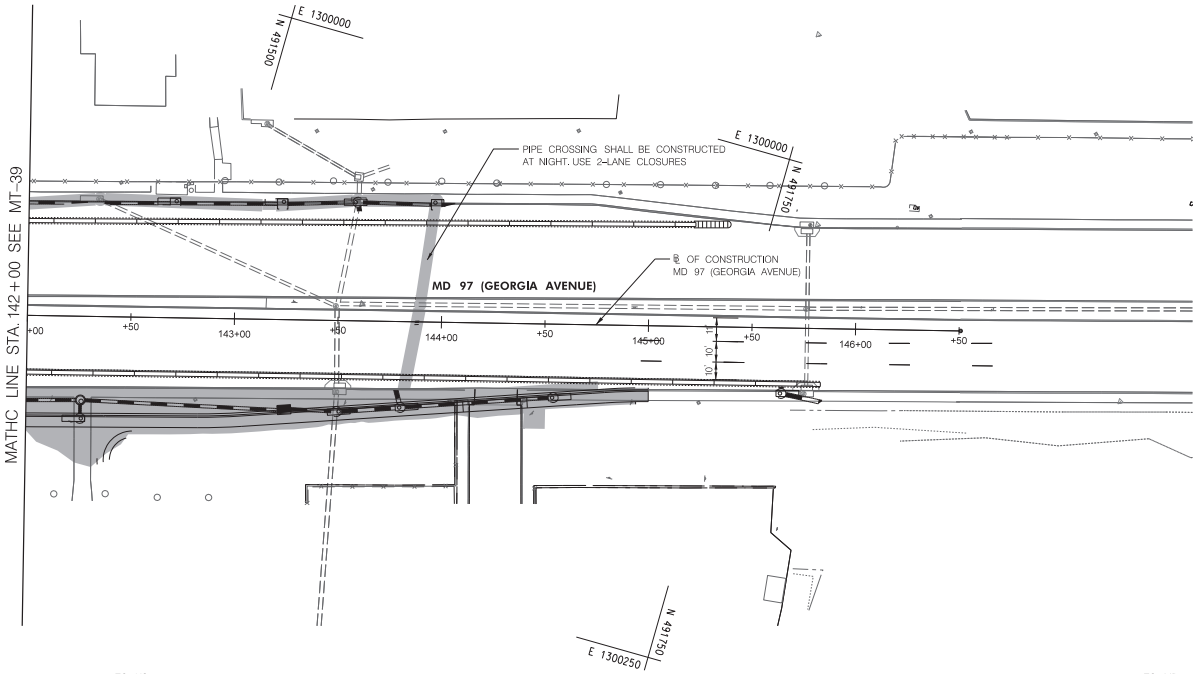

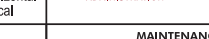

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 5A

SHEET 5 OF 6

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
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- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE NA CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-40 OF 53 SHEET NO. 63 OF 76

BY: Ioshi

PLOTTED: 5/26/2021
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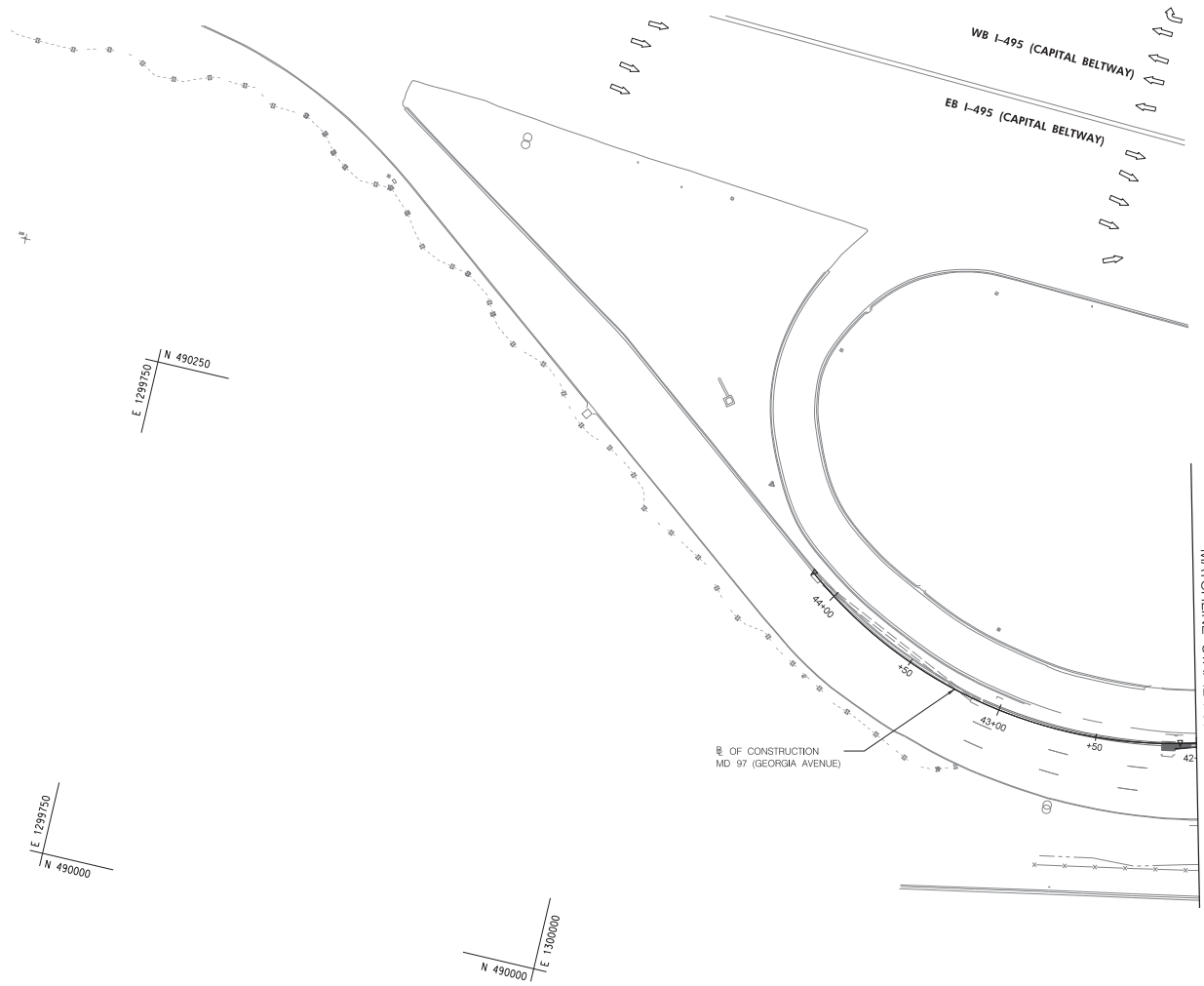

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 5A

SHEET 6 OF 6

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-41 OF 53 SHEET NO. 64 OF 76

BY: loshI –

PLOTTED: 5/26/2021
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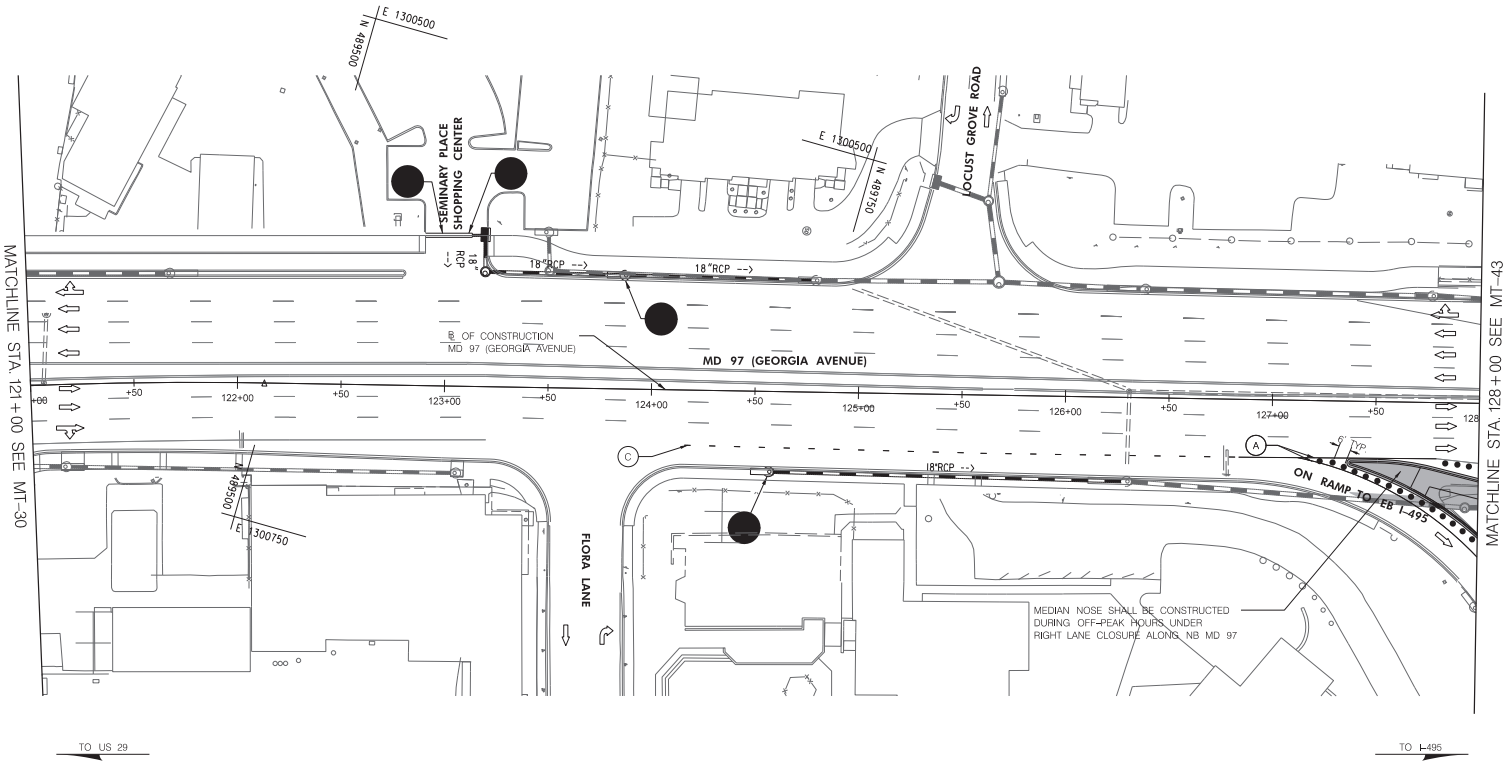
MOT TYPICAL

MD 97 STA. 133+00 TO 139+50
N.T.S.



DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PAVEMENT MARKING LEGEND		MOT LEGEND	R / W PLAT NUMBER	REVISIONS
(A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID	(F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP	WORK ZONE		
(B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP	(G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID	TEMPORARY TRAFFIC SIGN – SIGN FACE		
(C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP	(H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED	DIRECTION OF TRAFFIC		
(D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID		CHANNELIZING DEVICES		
(E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID		CONCRETE TRAFFIC BARRIER		
		BARRIER END TREATMENT		

PHASE 5B
SHEET 1 OF 5

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-42 OF 53 SHEET NO. 65 OF 76

BY: loshI

PLOTTED: 5/26/2021
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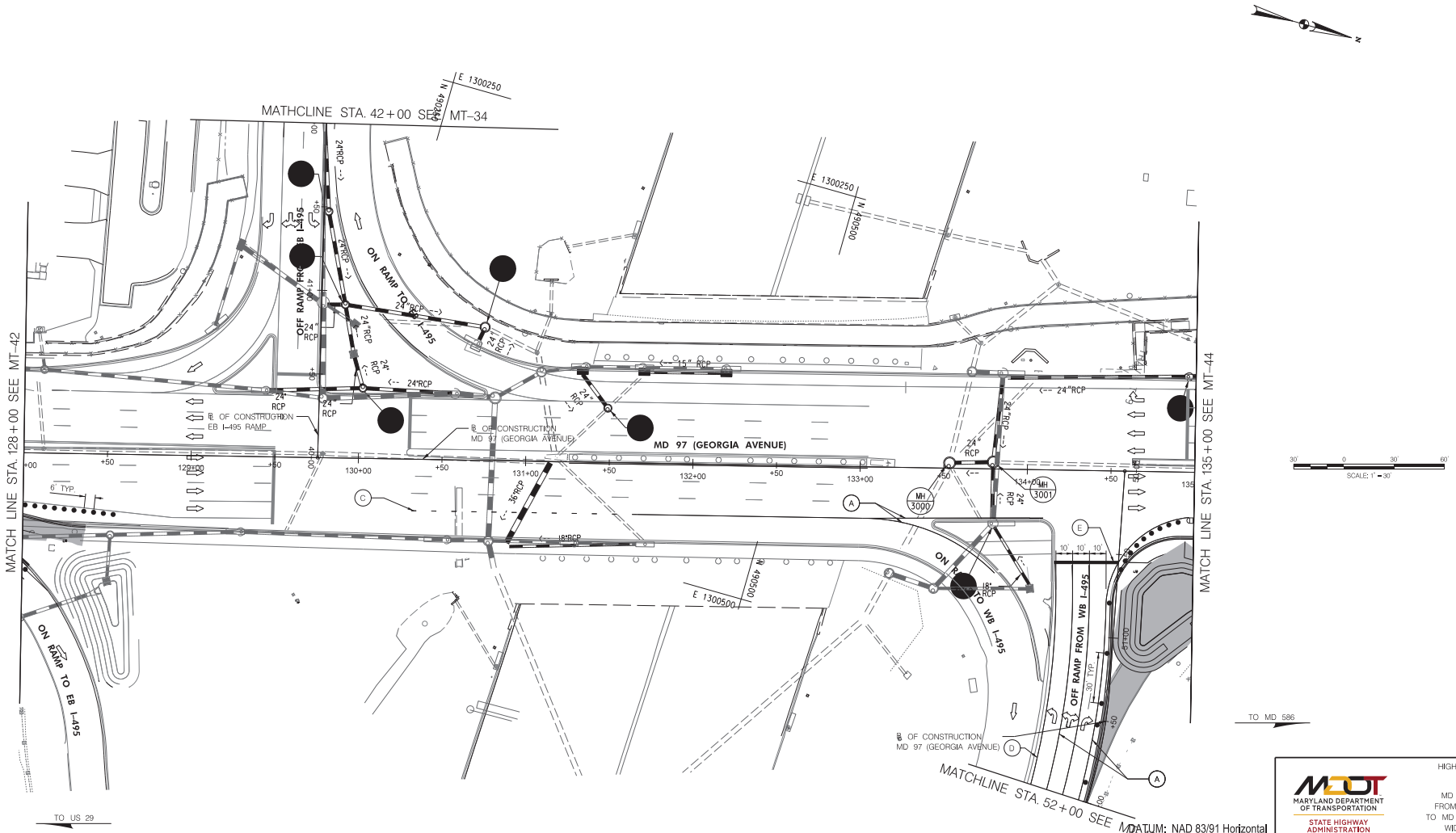

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 5B

SHEET 2 OF 5

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN / SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-43 OF 53 SHEET NO. 66 OF 76

BY: loshI

PLOTTED: 5/26/2021
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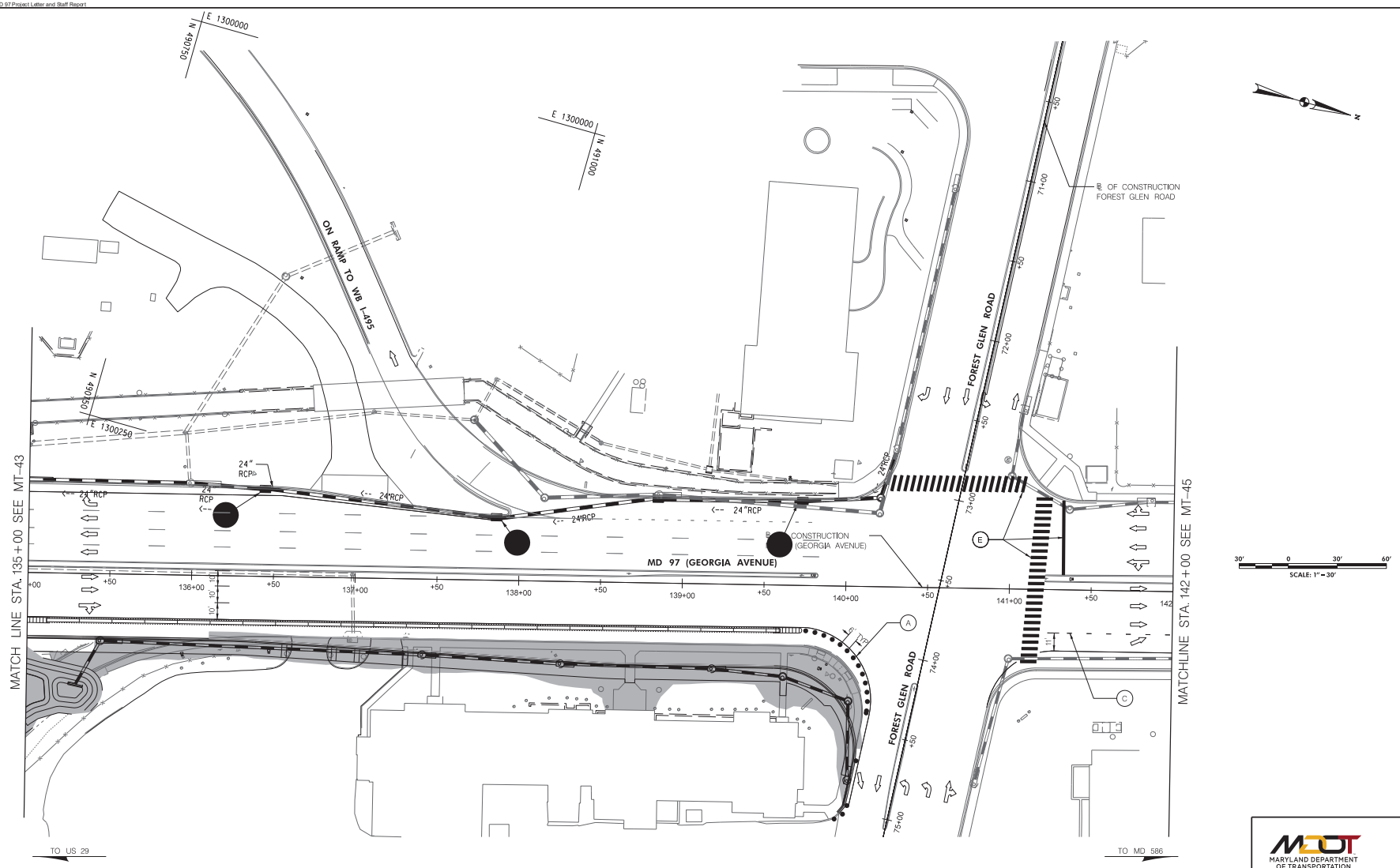

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PAVEMENT MARKING LEGEND	
(A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID	(F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
(B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP	(G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
(C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP	(H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED
(D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID	
(E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID	

MOT LEGEND
WORK ZONE
TEMPORARY TRAFFIC SIGN — SIGN FACE
DIRECTION OF TRAFFIC
CHANNELIZING DEVICES
CONCRETE TRAFFIC BARRIER
BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

PHASE 5B

SHEET 3 OF 5

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-44 OF 53 SHEET NO. 67 OF 76

BY: loshI

PLOTTED: 5/26/2021
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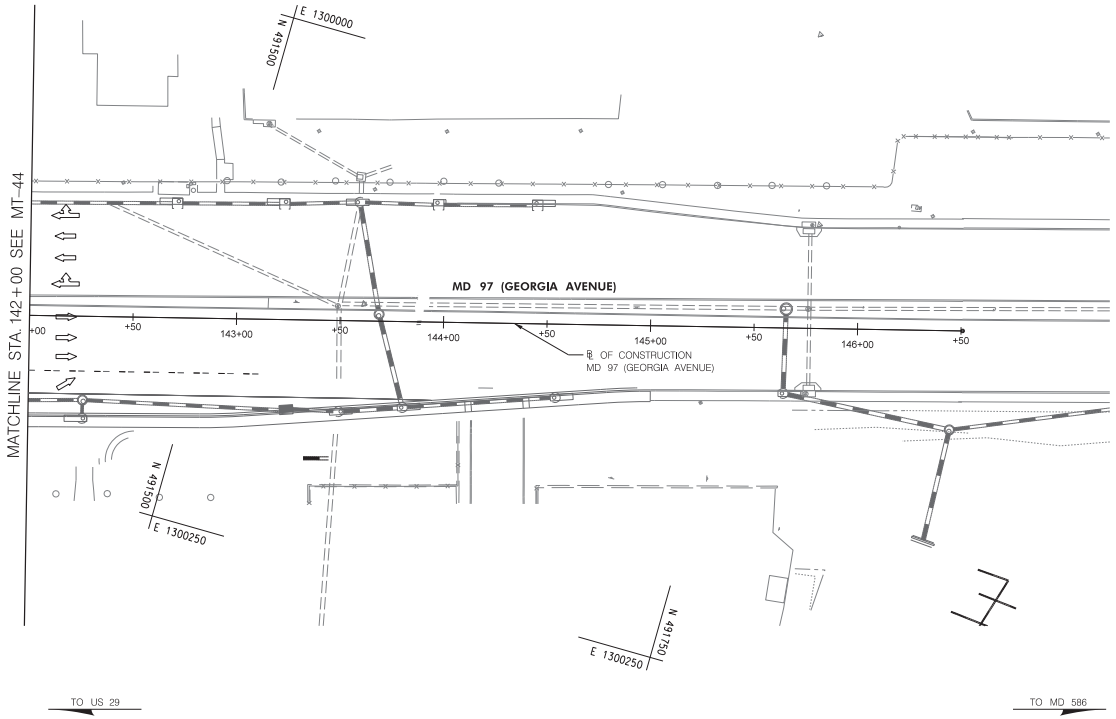

30' 0 30' 60'
SCALE: 1" = 30'

PHASE 5B

SHEET 4 OF 5

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-45 OF 53 SHEET NO. 68 OF 76

BY: loshI

PLOTTED: 5/26/2021
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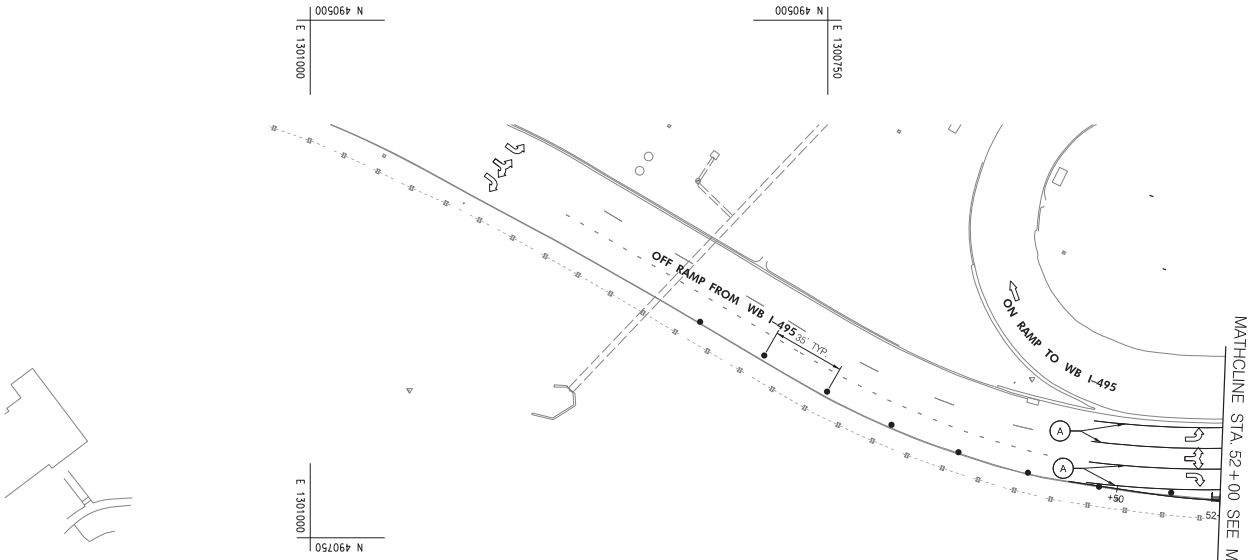

30' 0 30' 60'
SCALE: 1" = 30'

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 5B

SHEET 5 OF 5

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-46 OF 53 SHEET NO. 69 OF 76

BY: loshi

PLOTTED: 5/26/2021
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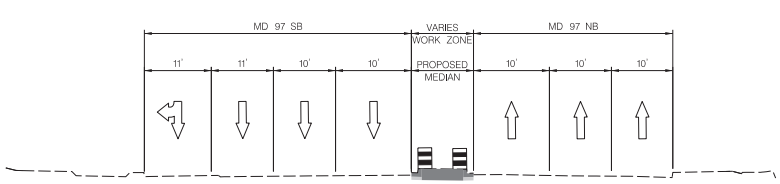

MOT TYPICAL – PEAK HOUR

MD 97 STA. 100+00 TO 146+50

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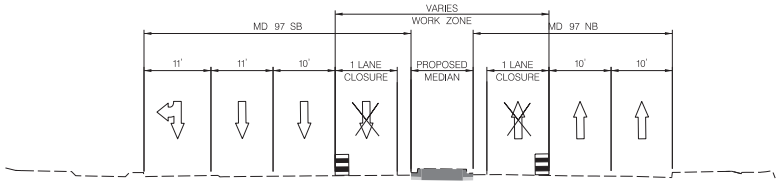

MOT TYPICAL – OFF PEAK HOUR

MD 97 STA. 123+25 TO 141+50

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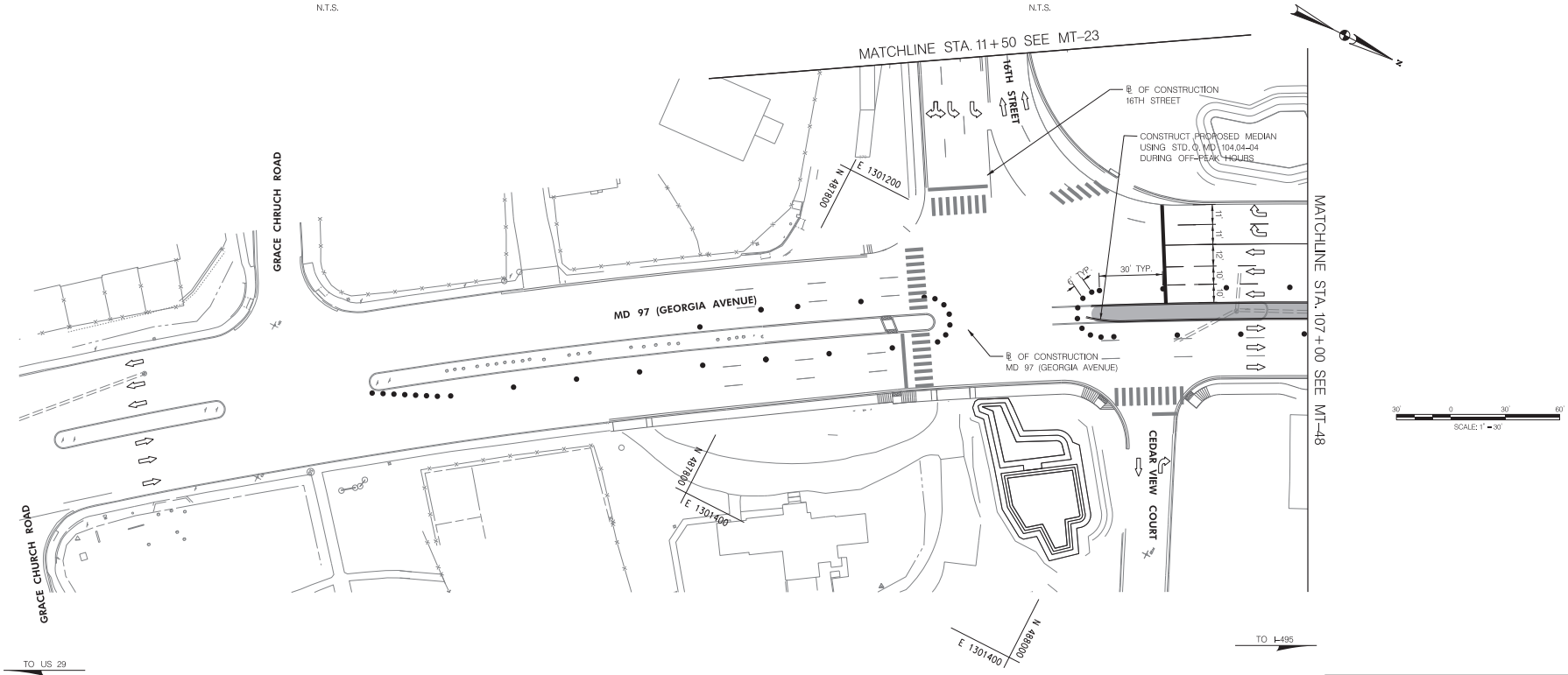

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 6

SHEET 1 OF 7

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY

DRAWN BY _____ LOGMILE _____

CHECKED BY _____ HORIZONTAL SCALE _____

MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-47 OF 53 SHEET NO. 48 OF 76

BY: loshI

PLOTTED: 5/26/2021
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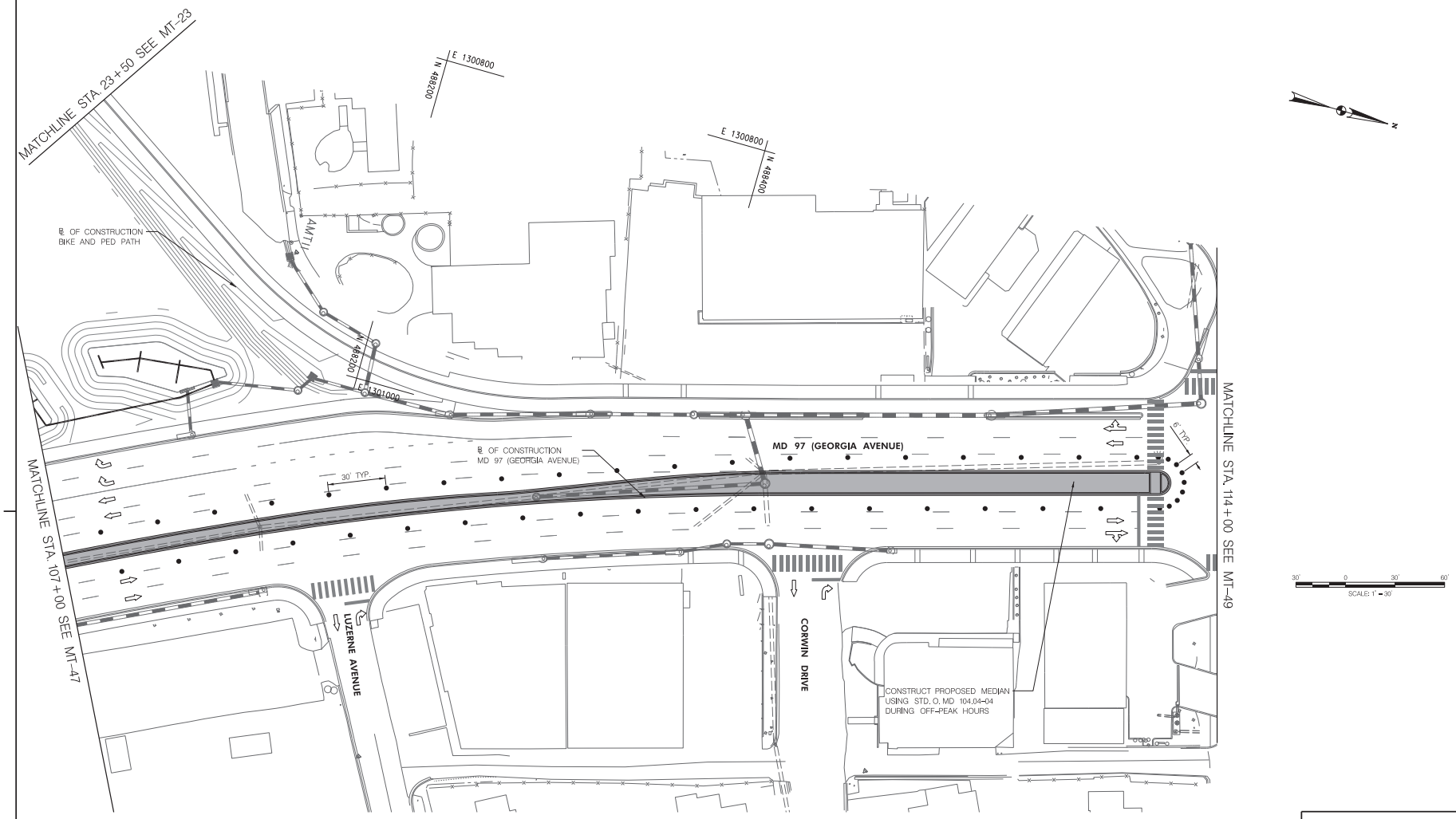

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PAVEMENT MARKING LEGEND	
(A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID	(F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP
(B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP	(G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
(C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP	(H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED
(D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID	
(E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID	

MOT LEGEND	
	WORK ZONE
	TEMPORARY TRAFFIC SIGN SIGN FACE
	DIRECTION OF TRAFFIC
	CHANNELIZING DEVICES
	CONCRETE TRAFFIC BARRIER
	BARRIER END TREATMENT

PHASE 6

SHEET 2 OF 7

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT – 48 OF 53 SHEET NO. 71 OF **76**

BY: Ioshi

PLOTTED: 5/26/2021
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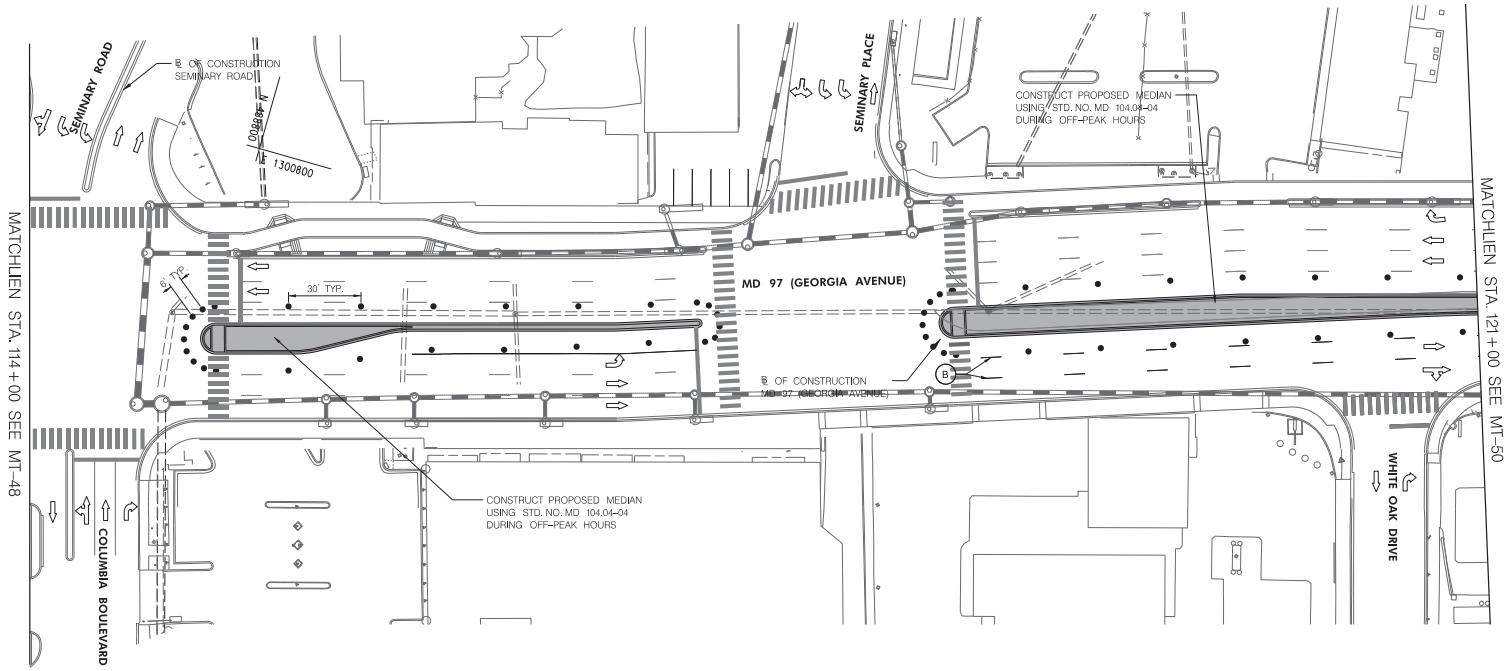

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PAVEMENT MARKING LEGEND		MOT LEGEND	R / W PLAT NUMBER	REVISIONS
(A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID	(F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – 10' LINE, 30' GAP	WORK ZONE		
(B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP	(G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID	TEMPORARY TRAFFIC SIGN – SIGN FACE		
(C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP	(H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED	DIRECTION OF TRAFFIC		
(D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID		CHANNELIZING DEVICES		
(E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID		CONCRETE TRAFFIC BARRIER		
		BARRIER END TREATMENT		

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

49

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT- 48 OF 53 SHEET NO. 72 OF 76

BY: loshI

PLOTTED: 5/27/2021
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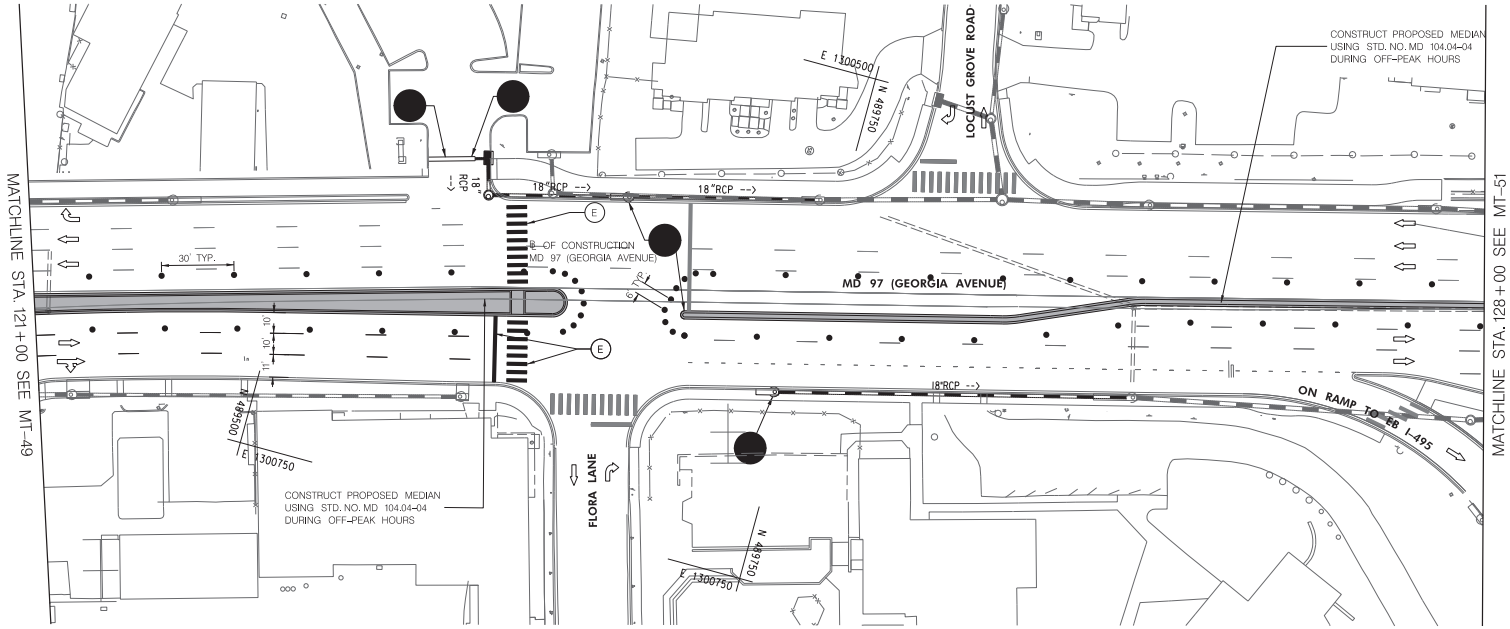

DATUM: NAD 83/91 Horizontal
NAVD 88 Vertical

PHASE 6

SHEET 4 OF 7

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS - SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS - 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS - 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS - SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING - SOLID
- (F) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS - 10' LINE, 30' GAP
- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS - SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS - DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN
- SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
- BARRIER END TREATMENT

R / W PLAT NUMBER

REVISIONS

MAINTENANCE OF TRAFFIC PLAN

SCALE _____ ADVERTISED DATE N/A CONTRACT NO. MO2245171

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT-50 OF 53 SHEET NO. 73 OF 76

BY: loshI

PLOTTED: 5/27/2021
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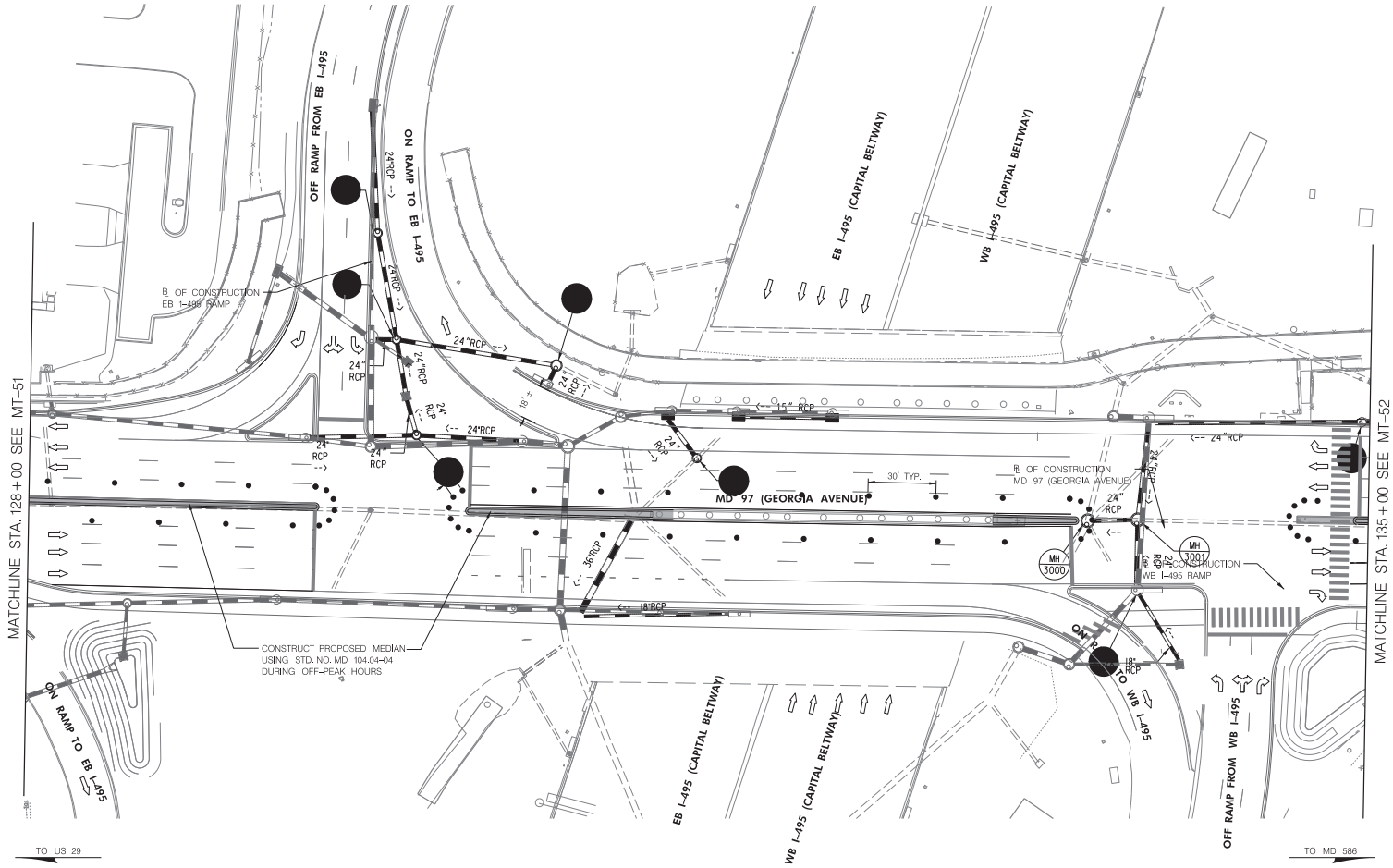

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MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

HIGHWAY DESIGN DIVISION

MD 97 (GEORGIA AVENUE)
FROM MD 390 (16TH STREET)
TO MD 192 (FOREST GLEN ROAD)
WIDEN AND RESURFACE

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (B) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 10' LINE, 30' GAP
- (C) 5 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – 3' LINE, 9' GAP
- (D) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT LINE MARKINGS – SOLID
- (E) 24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING – SOLID
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- (G) 12 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKINGS – SOLID
- (H) 5 INCH YELLOW REMOVABLE PREFORMED PAVEMENT MARKINGS – DASHED

MOT LEGEND

- WORK ZONE
- TEMPORARY TRAFFIC SIGN / SIGN FACE
- DIRECTION OF TRAFFIC
- CHANNELIZING DEVICES
- CONCRETE TRAFFIC BARRIER
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DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE 51

DRAWING NO. MT- 51 OF 53 SHEET NO. 74 OF 76

BY: loshi

PLOTTED: 5/27/2021
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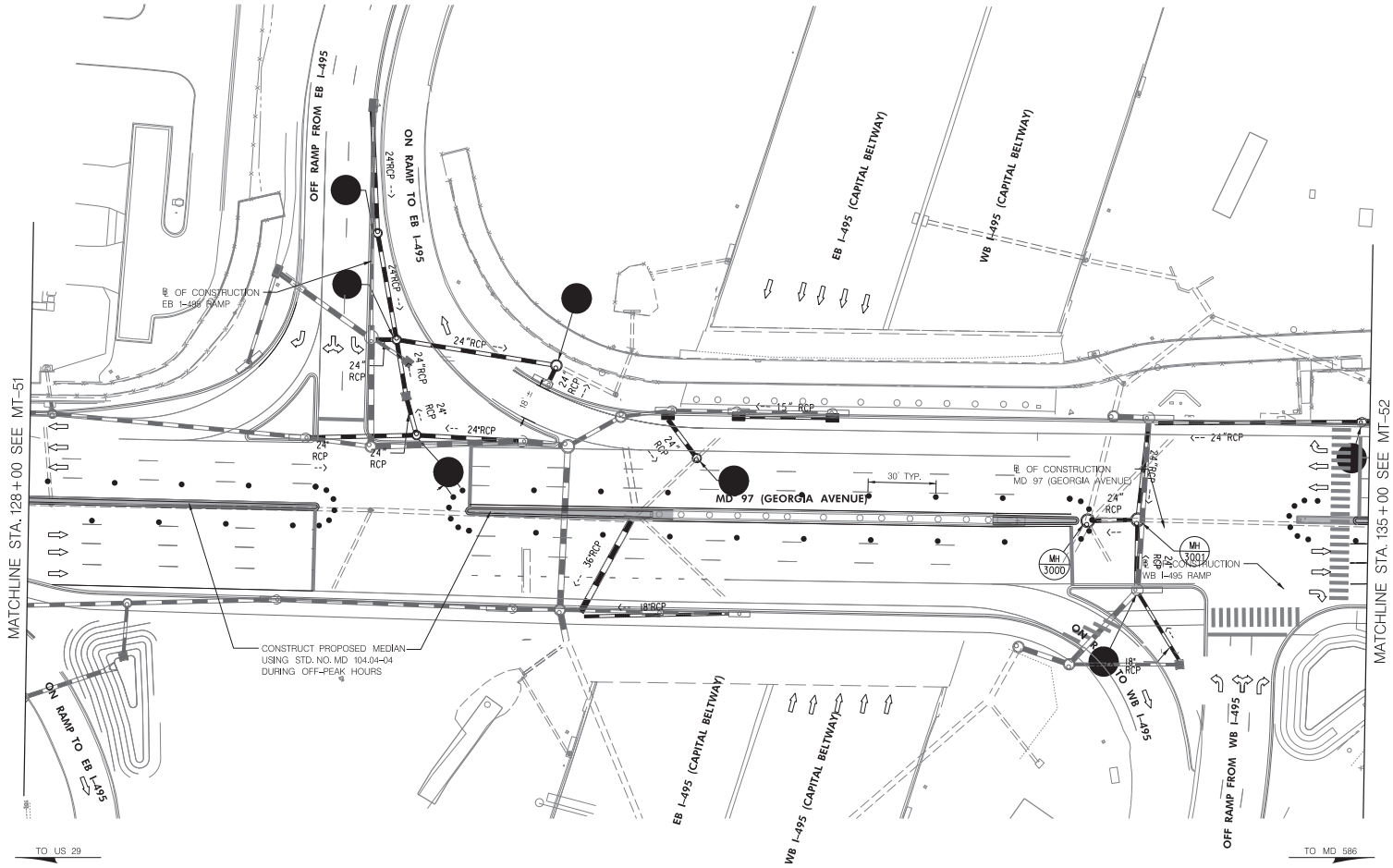

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MDE/PRD 19-PR-0063 VERTICAL SCALE 51

DRAWING NO. MT- 51 OF 53 SHEET NO. 74 OF 76

BY: loshi

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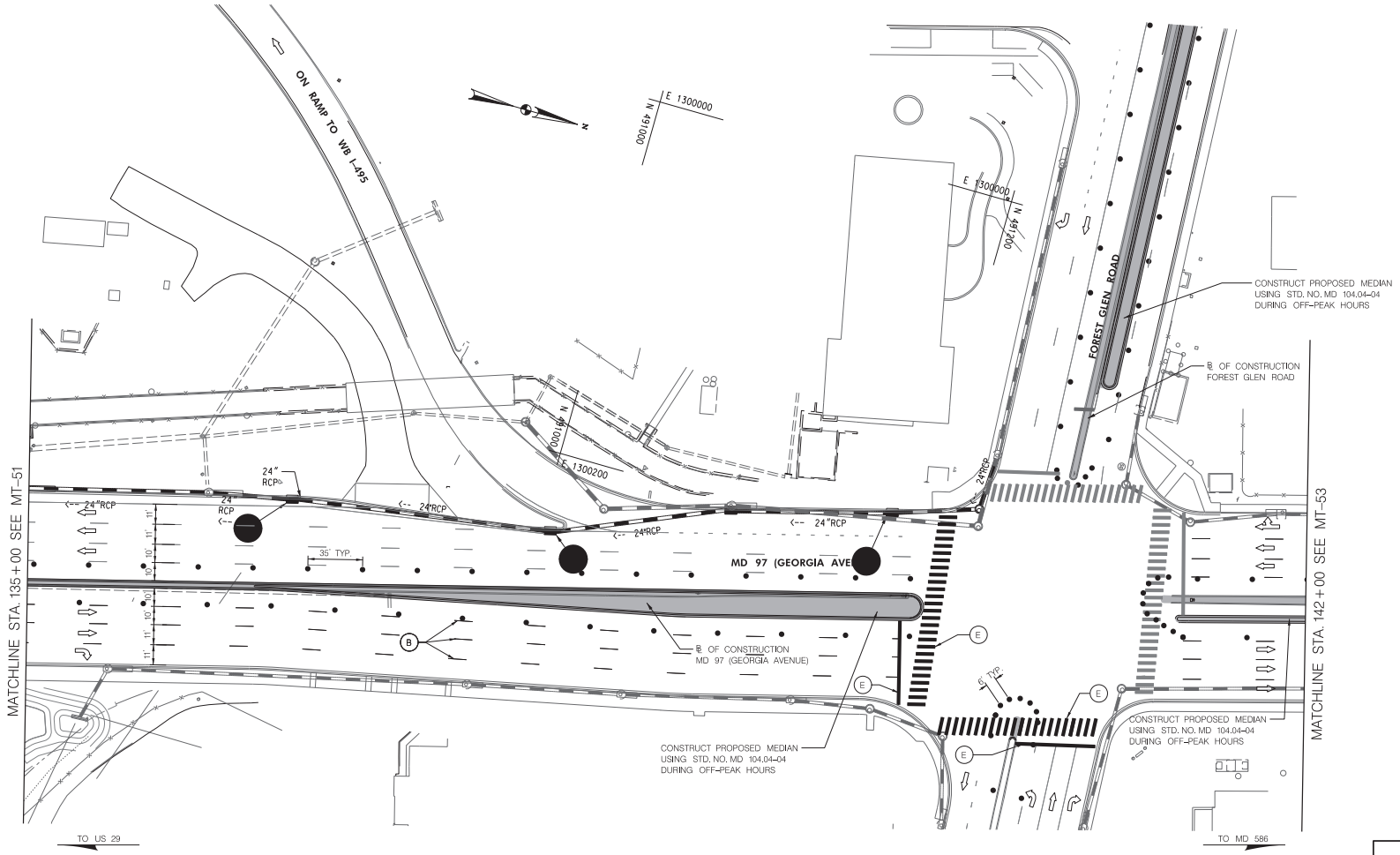

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MARYLAND DEPARTMENT OF TRANSPORTATION
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DRAWN BY _____ LOGMILE _____
CHECKED BY _____ HORIZONTAL SCALE _____
MDE/PRD 19-PR-0063 VERTICAL SCALE _____

DRAWING NO. MT- 52 OF 53 SHEET NO. 75 OF 76

BY: loshI

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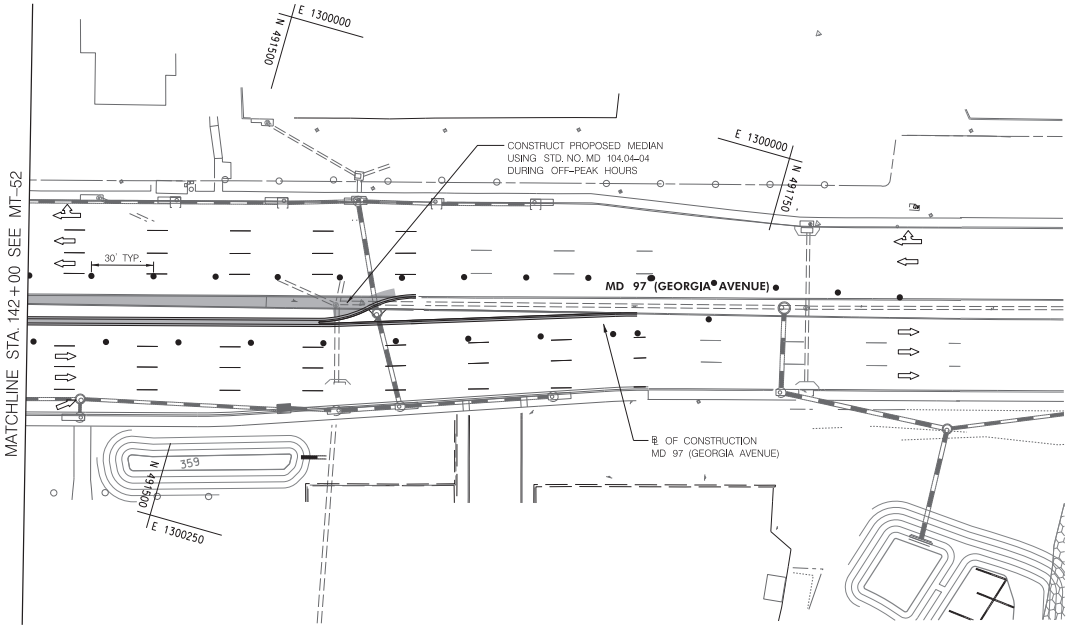

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PHASE 6

SHEET 7 OF 7

HIGHWAY DESIGN DIVISION

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

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BY: Ioshi

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MD 97 (Montgomery Hills) Project Planning Study
Purpose & Need

I. Introduction

The Maryland State Highway Administration (SHA) and Montgomery County are conducting a study of potential improvements along Georgia Avenue (MD 97) in Montgomery Hills. The project area encompasses 0.7 mile of MD 97 from Forest Glen Road (MD 192) to 16th Street (MD 390), including an interchange with the Capital Beltway (I-495) (Attachment 1). MD 97 is a major north-south artery that serves commuters, heavy trucks, and local traffic. The study section of MD 97 generally consists of seven lanes: three northbound lanes, three southbound lanes, and a center reversible lane. During off-peak periods this center lane acts as a two-way left-turn lane. The I-495 interchange introduces short acceleration and deceleration lanes. The posted speed limit for this section is 35 miles per hour. The majority of drivers on the corridor are traveling to and from downtown Silver Spring and Washington, D.C., both of which are located south of the project limits. Within the study limits, MD 97 is lined with commercial and office settings and includes medium-density residential neighborhoods, such as Montgomery Hills, and several institutions (Attachment 2). Numerous access points to the businesses and secondary streets cause conflicting turning movements from the MD 97 center lane during off-peak periods.

The study is currently in the Project Planning phase. This document describes the existing conditions along the MD 97 corridor in Montgomery Hills and defines the purpose and need for the proposed project.

II. Project History

The MD 97 Montgomery Hills Project Planning Study is the result of recommendations documented in Maryland-National Capital Park and Planning Commission's (M-NCPPC) *North and West Silver Spring Master Plan,* which was adopted in 2000. The Montgomery Hills Proposed Concept, included in the Master Plan, envisions the future appearance of the corridor as "a landscaped urban boulevard with a center median and wide, unobstructed, tree-lined sidewalks." It also recommends the transformation of the MD 97 corridor into a "pedestrian-friendly urban boulevard with improved local circulation that supports both residents and merchants."

The MD 97 (Montgomery Hills) Project Planning Study, a joint project between SHA and Montgomery County, began in July 2011. Project activities to date include efforts to determine the scope of the proposed project, initial data collection and analysis, and the initiation of the purpose and need process.

III. Purpose

The purpose of the MD 97 Montgomery Hills Project is to establish a balanced approach to transportation within the MD 97 corridor that addresses existing vehicular, pedestrian, and bicycle mobility and safety concerns, while accommodating proposed transit enhancements and establishing a sense of place within the corridor. The mix of local and regional (commuter) traffic, along with current roadway and sidewalk conditions in the study area, create an automobile-dominated environment that is not always conducive to other modes of transportation. As a result, access to local businesses, pedestrian accessibility, bicycle connectivity, and transit utilization have all become major challenges within the project area.

IV. Need for the Project

A. Vehicular Mobility and Traffic

The current typical section along MD 97 between I-495 and MD 390 consists of three 11-foot travel lanes in each direction, an 11-foot center reversible lane, and adjacent sidewalks of varying widths. The reversible lane provides a fourth travel lane southbound in the morning and northbound in the evening during peak periods to accommodate commuters. Although the reversible lane provides additional traffic capacity in the peak direction, it also hinders local mobility and business access by restricting left turns during peak periods. During off-peak hours, the center lane operates as a two-way left-turn lane to accommodate vehicles accessing businesses and neighborhoods. Five intersections along MD 97 within the project area are signalized (from north to south): MD 192, I-495 interchange, Seminary Place, Columbia Boulevard, and northbound MD 390. Along portions of MD 97 north and south of the project area, a center median separates the directional travel lanes.

MD 97 carries more vehicular traffic than any other non-interstate road in Montgomery County due to the project area's close proximity to the I-495/MD 97 interchange, which is one of the busiest interchanges in the state. Heavy traffic generated by the I-495 interchange, coupled with limited merge areas, reduces mobility in the corridor and impedes both local and regional traffic. Vehicular volumes along the corridor and the operating capacity at major intersections are summarized below in tables 1 and 2.

Table 1 shows 2011 existing and 2040 projected No-build Annual Average Daily Traffic (AADT) volumes for MD 97 within the study limits.

Table 1: Annual Average Daily Traffic

MD 97 Segment	2011 Existing	2040 No-Build
North of MD 192	65,000	75,000
MD 192 to I-495	73,000	84,000
I-495 to Seminary Place	81,000	93,000
Seminary Place to Columbia Boulevard	71,000	82,000
Columbia Boulevard to SB MD 390	66,000	76,000
SB MD 390 to NB MD 390	51,000	59,000
South of MD 390	35,000	41,000

Planners often use a simple grading system, referred to as Level of Service (LOS), to characterize the operations at intersections. LOS A means there is no delay or congestion, while LOS F means the intersection is failing and motorists experience long delays and high levels of congestion.

Table 2 shows the existing (2011) and projected (2040) No-build Level of Service at the major intersections within the study area. Several intersections are currently experiencing failing conditions or will fail in 2040 under the no-build condition.

Table 2: LOS & Avg. Delay	**2011 Existing**				**2040 No Build**			
	AM Peak Hour		**PM Peak Hour**		**AM Peak Hour**		**PM Peak Hour**	
	LOS	**Avg. Delay (sec)**	**LOS**	**Avg. Delay (sec)**	**LOS**	**Avg. Delay (sec)**	**LOS**	**Avg. Delay (sec)**
MD 192	F	87	E	64	F	113	F	107
I-495 WB Ramps	B	13	C	28	B	18	D	36
I-495 EB Ramps	E	66	C	24	F	112	C	28
Seminary Place	E	61	B	15	E	77	C	29
Seminary Road / Columbia Blvd.	D	38	C	34	E	58	D	49
MD 390 NB	C	24	C	28	C	26	C	32

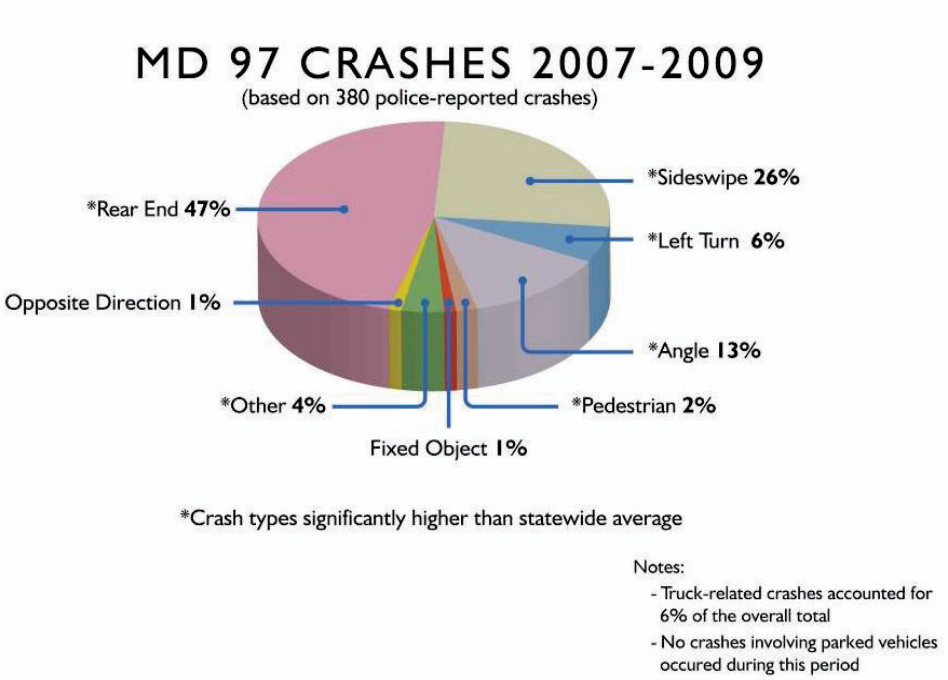
The LOS for each intersection is averaged over all approaches. Therefore, signalized intersections are generally timed to keep traffic moving along MD 97, the side street approaches typically operate at a lower LOS than the overall intersection.

Vehicular mobility in the area is hindered by a series of factors, including traffic volumes, the reversible center lane, numerous commercial access points, and turning restrictions. The most significant contributing factor along the corridor is the heavy volume of traffic, with over 80,000 vehicles traversing the roadway on a daily basis and over 90,000 forecasted through the year 2040. These high volumes impede access to commercial businesses and residential neighborhoods along the corridor and have economic and quality-of-life implications. As traffic volumes increase and intersection LOS deteriorates, these traffic-volume issues will worsen.

B. Safety

Data indicates that 380 police-reported crashes occurred during the three-year period from 2007 through 2009. Approximately 150 of those crashes (40 percent) resulted in injuries, but there were no documented fatalities. Rear-end, sideswipe, left-turn, angle, pedestrian, and truck-related crashes each occurred at a rate significantly higher than the statewide average for those types of crashes on similar roadways. **Figure 1** illustrates the distribution of crashes.

Heavy traffic volumes have the greatest impact on safety along the study corridor, as reflected in the high occurrence of sideswipe and rear-end collisions. Heavy traffic volumes decrease the following distance between vehicles, lessening driver reaction time and resulting in rear-end collisions, which account for almost half of all collisions along the corridor.



The safety of pedestrians, bicyclists, and motorists along the Montgomery Hills corridor is also adversely impacted by a large number of commercial access points and limited access consolidation in both directions. Almost half of all reported crashes resulted from angle and rear end collisions, which are commonly related to turning-movement conflicts and highly congested roadways. More than 25 percent of the crashes involved vehicle sideswipes, which are typically associated with a high volume of merging vehicles and lane changes.

During off-peak periods, the two-way center left-turn lane encourages unmanaged circulation patterns and increases safety concerns, as evidenced by the high proportion of sideswipe, left-turn, and angle crashes which account for just under half of all crashes along the corridor. These types of crashes typically reflect unsafe lane-change and turning-movement conditions. Because the center turn lane allows uncontrolled turning movements, motorists are unable to accurately anticipate when they may have to contend with turning vehicles. Motorists using the two-way center travel lane must make assumptions about the intentions of drivers of oncoming vehicles and determine whether those drivers are turning or continuing on their current paths.

C. Pedestrian and Bicycle Access

Due to the high volume of traffic along MD 97 and the roadway's proximity to a heavily traveled section of I-495, the roadway elements within Montgomery Hills have often supported motorized vehicular movements and capacity, sometimes to the detriment of pedestrian and bicycle mobility throughout the corridor. For approximately the last decade, a growing need for improved pedestrian and bicycle connectivity within the study area has resulted in part from (1) the extensive residential network of communities east and west of MD 97, (2) the presence of the Forest Glen Metro station, and (3) the number of key commercial destinations within the corridor. **Table 3** represents a pedestrian intersection study conducted in 2011 between the hours of 6:00 AM and 5:00 PM.

Table 3: Pedestrian Counts

Montgomery Hills Intersection Pedestrian Counts (2011)		
Pedestrian Counts along MD 97 @	MD 192	1263
	I-495 WB Ramps	89
	I-495 EB Ramps	6
	Seminary Place	418
	Seminary Road / Columbia Blvd.	548
	MD 390 NB	23

Sidewalks along this corridor are generally non-compliant with Americans with Disabilities Act (ADA) standards. Signs and utility poles on sidewalks in both directions along MD 97 present numerous obstacles and pinch points for wheelchair accessibility. Most of the ADA ramps do not meet current state or federal standards, and the pedestrian crossing phases at some signalized intersections are short. These limited crossing times, combined with an existing roadway configuration and few refuge areas, has made crossing MD 97 very difficult for pedestrians.

Sidewalks are typically located directly behind the curb, with little or no buffer separating the sidewalk from travel lanes. This situation requires pedestrians and bicyclists to travel directly adjacent to vehicular traffic, which presents safety concerns and may unnerve users.

The Forest Glen Metro Station at the northern project limit generates pedestrian traffic throughout the corridor. To accommodate this traffic, Montgomery County constructed a pedestrian overpass (over I-495) parallel to MD 97 along the west side of the roadway. No similar accommodations for pedestrians exist on the east side of the roadway, which has a greater number of interchange ramps for pedestrians to contend with and which ultimately leads to a higher number of potential conflicts and safety concerns.

Approximately half of the study area (0.35 mile of the 0.7 mile study area) lacks delineated crossing areas for pedestrians along MD 97, even though several side streets and businesses exist within the study area. Pedestrians traveling northbound on the east side of MD 97 are left with two unenviable choices: backtrack to a safe crossing in the opposite direction, or cross the numerous I-495 interchange ramps that provide inadequate sight distance for vehicles and pedestrians.

Another concern exists on the west side of MD 97, when pedestrians travel southbound to cross MD 390. The crosswalk extends over two lanes of traffic: the right lane (a dedicated right-turn lane), and the middle lane (a right/through lane). When crossing MD 390 at this location, pedestrians have their backs to oncoming traffic and must rely on motorists in the middle lane to signal if they are turning right onto MD 390.

The lack of dedicated bicycle lanes and road-sharing signage or markings has made it difficult for bicyclists to travel through the area. Safety concerns resulting from heavy traffic volumes and the lack of shoulders generally cause bicyclists to avoid the area.

The overall effect on persons walking or biking through the project study area is disorienting and unsettling. Individuals are forced to check constantly for approaching traffic, drivers exiting the access points, and drivers turning from the uncontrolled center turn lane during off-peak periods. This situation, coupled with other deterring factors (such as the lack of a buffer between the travel lanes and the sidewalk), negatively impacts the perception of Montgomery Hills as a walkable, bicycle-friendly community.

D. Transit Accessibility

Transit services on or directly adjacent to MD 97 include the Metro Ride On bus lines, and Washington Metropolitan Area Transit Authority (WMATA) Metrobus lines. The Forest Glen Metro Station at the northern project limit provides local and regional access to Maryland, Virginia, and Washington, D.C. The WMATA bus system primarily provides local access but also provides connections to outlying regions. The Ride On bus system provides local access including routes directly serving neighborhoods.

Transit accessibility within the study corridor is impeded by the high levels of traffic congestion along MD 97 and the lack of adequate pedestrian/bicyclist connectivity throughout the study area. The absence of dedicated bus lanes, queue-jump opportunities, and transit signal prioritization forces buses to operate in mixed traffic, subjects them to the same hindrances encountered by other modes of travel, and results in uncertain transit reliability and headways within the corridor. These conditions negatively affect the timeliness of bus service and may deter some persons from using transit.

Problems with transit accessibility along the corridor have been further exacerbated by certain pedestrian and bicycle access concerns highlighted in Section D. Individuals unable to access a transit connection safely and easily are likely to avoid the connection, use a more accessible location, or drive. For example, there is a pedestrian overpass along the west side of MD 97, which provides good access to the Forest Glen Metro Station. However, the lack of direct ADA access to the transit station, peak-period restrictions on left turns from MD 97 onto Forest Glen Road, and abbreviated signal times for pedestrians crossing MD 97, makes commuter access to the station difficult, especially during peak periods.

E. Establishing a Sense of Place

The project seeks to maintain the character of the community and establish of sense of place along the project corridor. Existing conditions create a disorienting environment for motorists, especially for those exiting and entering I-495. In particular, the reversible center turn lane is a source of apprehension for motorists unfamiliar with the corridor due to cluttered signage and unclear lane markings. Furthermore, deteriorating and insufficient pedestrian and bicycle facilities need to be improved to support the overall enhancement of the corridor envisioned in the *North and West Silver Spring Master Plan*. The use of aesthetic enhancements and upgraded facilities to establish a transportation system that is homogeneous in its appearance throughout the corridor will help to define the character of the community and distinguish it from the

neighboring communities. As a secondary goal, clearly delineated and consolidated access points to businesses, along with the promotion of aesthetics, would also be a key component in increasing the attractiveness of businesses and the corridor as a whole. All of these elements evaluated in consort will not only help to beautify the corridor, but will provide the infrastructure needed to help foster business revitalization, neighborhood cohesion and multimodal connectivity throughout Montgomery Hills.

F. Roadway Deficiencies

The MD 97 Montgomery Hills Corridor plays a major role in Montgomery County's overall transportation network and has for decades been viewed as a vital north-south link and a key connection to the Capital Beltway. As a result, the Montgomery Hills portion of MD 97 carries extremely high volumes of passenger vehicles and trucks, which has resulted in a significant amount of wear and tear on the existing infrastructure. Pavement fatigue is common along the study area corridor with hair line surface cracks, pot holes and larger roadway pavement cracks which are often indicative of a compromised sub grade material. Intersection crosswalk markings are faded in many areas and multiple resurfacing projects have resulted in a reduction in curb reveals at various locations.

MD 97 maintains a fairly consistent 11 foot lane roadway width, but some of MD 97's adjoining side streets have lanes as small as 9 feet in some locations. Deteriorating pavement, faded roadway markings and small lane widths coupled with the high volume of vehicles traveling throughout the study area could potentially result in higher safety concerns and property damage if not properly addressed.

V. Public Outreach

An Informational Public Workshop was held on March 13, 2012 at Woodlin Elementary School where comments were received from citizens on the Purpose and Need for the project. Display boards were used to highlight project purpose, history and timeline, safety and crash data, maps, project needs, and related studies. There were interactive stations for people to write on maps and identify project needs/areas of concern. Comment cards were also provided. More than 90 people attended the meeting.

A majority of the attendees supported some type of improvement along the corridor and seemed encouraged that things were moving forward. The two top concerns identified during the interactive exercises were safety and pedestrian access, but establishing a sense of place received a significant number of votes as well.

VI. Environmental Summary

Land use within the project's defined study area is characterized by dense commercial and institutional settings along MD 97, with medium-density residential use (single-family homes and townhouses) located directly behind the commercial areas. The project area is predominantly urban, comprising community and business-related resources that account for a majority of the environment. Future land use within the study area is expected to remain very similar to the existing land use; with commercial land uses immediately adjacent to MD 97 and predominantly residential land uses in behind the commercial areas.

MD 97 (Montgomery Hills) Project Planning Study
Purpose & Need

The local master plan for the study area is the *North and West Silver Spring Master Plan*, which was adopted by the Maryland-National Capital Park and Planning Commission (M-NCPPC) in 2000. The Montgomery Hills Proposed Concept, which is included in the plan, envisions the future appearance of the corridor as "a landscaped urban boulevard with a center median and wide, unobstructed, tree-lined sidewalks." It also recommends the transformation of the MD 97 corridor into a "pedestrian-friendly urban boulevard with improved local circulation that supports both residents and merchants."

The MD 97 Montgomery Hills study area is located entirely within a designated Priority Funding Area (PFA). Therefore, the project is consistent with Maryland's Smart Growth Legislation.

Numerous businesses are located immediately along MD 97 between Locust Grove Road and MD 390 (16th Street). These businesses include free-standing retail stores and several strip shopping centers. Major businesses in the area include Staples, CVS, Sniders Superfoods Market, several gas stations, and the Montgomery Hills Car Wash. A number of businesses, including the gas stations and carwash, are situated immediately adjacent to MD 97. Most of the businesses within the strip shopping centers, with the exception of those within the Montgomery Hills Shopping Center, are set back from the roadway.

Residential neighborhoods within the study area vary in size and housing types, with most composed of moderate-sized single-family homes. Although most of these neighborhoods are located behind the commercial and institutional development immediately along MD 97, one notable exception is a small community of single-family homes and townhomes located west of MD 97, just south of I-495. The townhomes located in the eastern portion of this neighborhood are situated adjacent to MD 97, with no commercial/institutional buffer between them and MD 97. One apartment complex is located in the northwest quadrant of the MD 97/MD 192 intersection at the northern end of the study area.

A preliminary review of census data reveals that there is the potential for minority and low-income populations to exist within the study area for the project. Further outreach and additional research of the demographic and economic characteristics of the study area will be completed as the study progresses and will determine if minority and/or low-income populations are present and how they may be affected by the project.

A number of community facilities are also located within the study area, including three large churches: Montgomery Hills Baptist Church, Calvary Evangelical Lutheran Church (which also hosts the Christ Lutheran Church of the Deaf), and Grace Episcopal Church. Montgomery Hills Baptist Church, Calvary Evangelical Lutheran Church, and Christ Lutheran Church of the Deaf are located in the northeastern portion of the study area. Grace Episcopal Church is located in the southeastern portion. Montgomery Hills Park is a small neighborhood park located along Seminary Road and Seminary Place several hundred feet west of MD 97. A water tower is located just east of Montgomery Hills Park along Seminary Place and a county-owned public parking lot is located on the east side of MD 97 just north of Columbia Boulevard. Silver Spring Volunteer Fire Department Station 19 is located just west of MD 97 at 1945 Seminary Road.

The Forest Glen Metro Station, a community/transit facility, is located in the southwestern quadrant of the MD 97/MD 192 intersection. The Park-and-Ride lot for the Metro station is located just west of the station on the north side of MD 192. An existing pedestrian tunnel connects the park-and-ride to the station.

A preliminary review of the project area was conducted to assess its potential to contain archeological resources. The project area is located in a highly developed urban region and has been impacted by road construction and development. This area was included in two previous archeological investigations; however, no archeological sites were recorded. The soils in the survey area, which are identified as urban land and urban land complexes, are unlikely to contain archeological remains. This preliminary review concluded that the survey area has very low potential for the occurrence of archeological sites.

A preliminary investigation was also conducted to determine if the project area contains standing structures or districts that are listed, eligible, or potentially eligible for inclusion in the National Register of Historic Places (NRHP). There are no properties in the study area that are currently listed in the NRHP. Seven previously identified standing structures or districts were noted within the study area. These include the following: Woodside Historic District (M:36-04); Woodside Park (M:36-18); Montgomery Hills Shopping Center (M:36-23); Louis C. and Charlotte E. Dismer Property (M:36-36); Calvary Evangelical Lutheran Church (M:36-37); Forest Grove Neighborhood (M:36-38); and Woodside Knolls/Carroll Springs (M:36-40). Of these, only the Woodside Historic District has previously been determined eligible for listing in the NRHP. Woodside Knolls/Carroll Springs has previously been determined not eligible for the NRHP and the remaining five properties require a Determination of Eligibility. In addition to the previously identified standing structures and districts, other previously unidentified commercial buildings were noted within the study area and will require additional evaluation.

Coordination with U.S. Fish and Wildlife Service (USFWS) and the Maryland Department of Natural Resources Wildlife and Heritage Service (DNR WHS) has been undertaken to identify any rare, threatened, or endangered species within the study area. The USFWS and DNR WHS indicated that no federal or state rare, threatened or endangered species are known to exist within the project area.

A preliminary investigation revealed that there are no streams, wetlands, or forests within the study area for this project. In addition, the study area is located entirely outside of any 100-year floodplains. There are no green infrastructure hubs or corridors located within the project area. The nearest green infrastructure corridor, Sligo Creek Park, is located approximately 0.5 mile to the east.

Due to anticipated increases in traffic volumes within the project area, increased traffic noise and increased discharge of carbon monoxide (CO) into the air are anticipated. Detailed traffic noise and air quality analyses will be completed once the project alternatives are developed.

There are four gas stations and three dry cleaners located within the study area. These facilities will be studied for potentially generating, handling, and/or storing hazardous materials.

VII. Related Studies

Montgomery County Bus Rapid Transit (BRT) Study

In July 2011, Montgomery County DOT released its Countywide Bus Rapid Transit Feasibility Study, which outlines a 150-mile BRT network of 16 routes throughout the county. Recommended improvements for various segments include dedicated bus lanes, traffic signal prioritization, bus queue jumps, and premium upgraded bus stations.

Although the initial feasibility study does not propose a dedicated bus lane along MD 97 through the Montgomery Hills Study limits, it recommends such amenities north and south of the corridor. For this project, the feasibility study recommends upgraded BRT stations at MD 192, Columbia Boulevard, and MD 390 and proposes transit signal prioritization at applicable intersections.

For a copy of the report go to:
http://www.montgomerycountymd.gov/content/dot/ mcbrtstudyfinalreport110728.pdf

Forest Glen Passageway Feasibility Study

To improve pedestrian access to the Forest Glen Metro Station, Montgomery County DOT is currently evaluating a number of options to address safety concerns, especially concerns related to crossing MD 97 at grade and overall ADA accessibility. Alternatives under consideration include pedestrian/bicyclist bridge alternatives across MD 97 at MD 192, and pedestrian/bicyclist tunnel alternatives under the MD 97 at MD 192 intersection. The county anticipates holding a workshop to present the alternatives to the public in Winter/Spring 2012.

Montgomery County's Seminary Road Project

Montgomery County DOT is conducting a separate project on Seminary Road at Seminary Place/Second Avenue, just west of MD 97. The project involves reducing the number of intersections from six to four and making a number of roadway improvements, including lane reductions, signage modifications, and additional bicycle and parking accommodations. The project is currently on hold pending funding decisions.

Georgia Avenue Study

The Montgomery County Planning Department completed the Georgia Avenue Study in 2008. This study is an urban design analysis of the Georgia Avenue Corridor throughout Montgomery County and contains a design vision for the corridor that is intended to guide future master and sector plans as well as infrastructure improvements. The recommendations within the Georgia Avenue Study will be considered when developing alternatives to address the needs identified for the MD 97 Montgomery Hills Project Planning Study.