



METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY

**FREDDIE O'CONNELL
MAYOR**

**NASHVILLE DEPARTMENT OF TRANSPORTATION
AND MULTIMODAL INFRASTRUCTURE**

MEMORANDUM

TO: Metropolitan Traffic and Parking Commission

FROM: Jason Oldham, Assistant Chief of Engineering,
Nashville Department of Transportation

DATE: December 5, 2023

SUBJECT: December 11, 2023, Traffic and Parking Commission Agenda Analysis

PURPOSE:

Provide an overview of all items on the upcoming Metropolitan Traffic and Parking Commission agenda to ensure that commission members have the information necessary for discussion and action prior to the commission meeting.

Commissioners are encouraged to contact Nashville Department of Transportation (NDOT) staff prior to the meeting with any questions.

STAFF ANALYSIS:

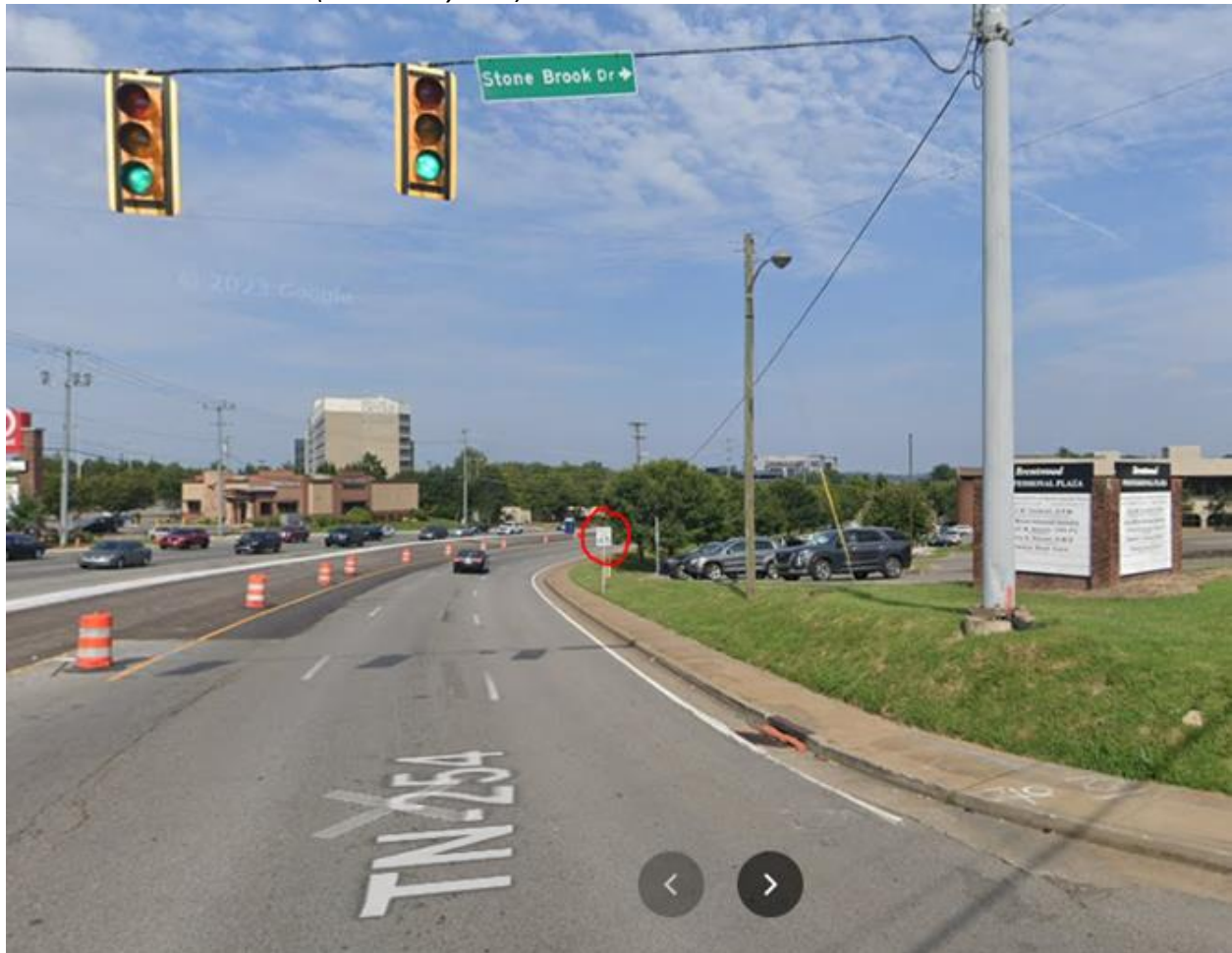
Consent Agenda

5.1 CD 26: Authorization to reduce posted speed limit from 45 mph to 40 mph on Old Hickory Blvd between the I-65 interchange and Seven Springs Way/Cloverland Drive, requested by TDOT.

Analysis: TDOT is modifying the I-65 northbound exit ramp as part of a ramp queuing project to address traffic capacity issues along SR-254 (Old Hickory Blvd) near Brentwood. The northbound exit ramp is being reconfigured from a yield/stop condition for eastbound traffic into a free flow lane that drops as a right turn lane into a business park and apartments access across from Brentwood Commons Way. As the ramp queuing project developed, TDOT identified the need to shift the existing 40 mph speed zone on SR-254 through the I-65 interchange to the end of the project limits at the intersection with Seven Springs Way/Cloverland Dr. The purpose of the speed limit reduction is to enhance operational safety by allowing more gradual lane shifts as well as lower speeds for the trio of right-in/right-out entrances within the TDOT project limits. NDOT supports this request for lower speeds on Old Hickory Blvd.

Recommendation: Authorize reduction of posted speed limit on Old Hickory Blvd between I-65 and Seven Springs Way/Cloverland Drive from 45 mph to 40 mph.

Consent item 5.1—SR-254 (Old Hickory Blvd)



Consent item 5.1—Aerial view of TDOT project limits on Old Hickory Blvd near Brentwood



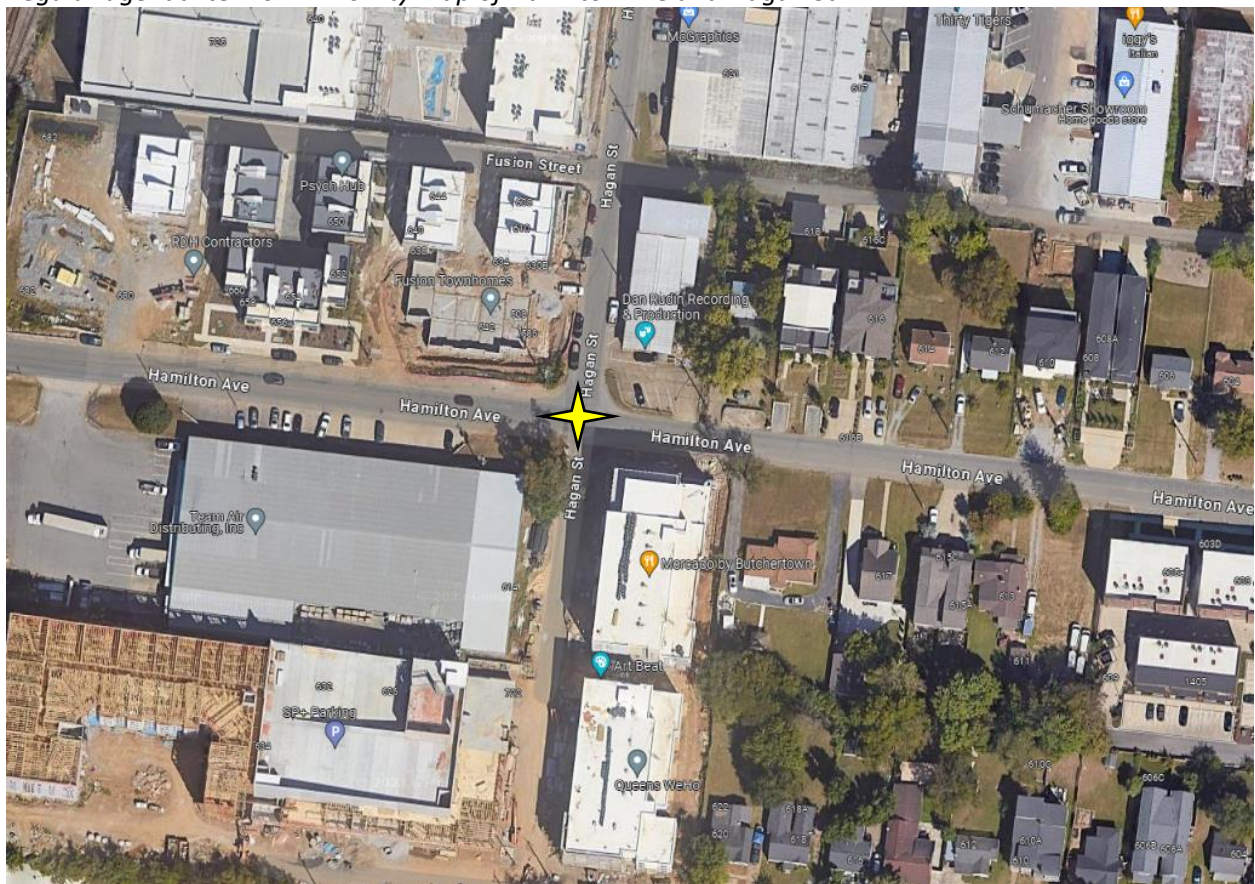
Regular Agenda

6.1 CD 17: Authorization for an All-Way Stop at Hamilton Ave and Hagan St, requested by NDOT.

Analysis: The intersection at Hamilton and Hagan is a 4-way intersection currently configured with a 2-way stop condition for northbound and southbound traffic on Hagan St. This neighborhood has seen significant redevelopment from light industrial uses into residential and mixed uses with a commensurate increase in traffic volumes. The intersection was studied by NDOT, and it was determined that it met warrants for an all-way stop due to both traffic volumes and due to site topographical conditions impeding sight distances at the intersection.

Recommendation: Authorize all-way stop condition for Hamilton Ave and Hagan St.

Regular agenda item 6.1—Vicinity map of Hamilton Ave and Hagan St.



Regular agenda item 6.1—NDOT warrant analysis for all-way stop condition

MULTI-WAY STOP WARRANT ANALYSIS

NASHVILLE DEPARTMENT of TRANSPORTATION
& MULTIMODAL INFRASTRUCTURE

Date: 12/1/2023
Major Approach: Hamilton Ave
Minor Approach: Hagan St


CRITERIA	CRITERIA MET?	
	YES	NO
A. Interim Traffic Control Measure		
Would a multi-way stop serve as an interim traffic control measure for an intersection that has met a traffic signal warrant and scheduled for a traffic signal installation at a later time?		X
B. Accidents		
Has there been five or more reported collision within a twelve (12) month period that would be susceptible to correction by a multi-way stop?		X
Crash Data Date Range: 11/01/2022-11/01/2023		
Total # of Qualifying Crashes: 3		
Qualifying Crash Types Experienced at Location: Angle		
C. Volumes		
Entering volume of all traffic (vehicles, pedestrians, and bicycles) shall be analyzed during the peak eight (8) hours on an average day. These hours do not have to be consecutive.		
Volume Date: 11/28/2023		
Volume Hours: 7-8,8-9,11-12,12-1,2-3,3-4,4-5,5-6		
85th Percentile Speed of Major Approach:		
If ≥40 mph, then the minimum volume thresholds used shall be 70% of their current value, shown as values in parenthesis.		
Certain minimum volume thresholds must be met for consideration:		
1. Vehicle volume on major approaches must average ≥300 (210) vehicle per hour (vph); and	X	
Vehicular Volume on Major Approaches: 308		
2. All traffic volume on the minor approaches must average ≥200 (140) units per hour, for the same time period.		X
Vehicular Volume on Minor Approaches: 96		
Bicycle Volume on Minor Approaches: 0		
Pedestrian Volume on Minor Approaches: 6		
Total Volume on Minor Approaches: 102		
D. Multiple Criteria at Lesser Levels		
Where no single criterion has been satisfied, but where Criteria B, C.1, and C.2 are satisfied to 80% of the original (non-reduced) values.		
E. Other Conditions		
1. There is a need to control left turn conflicts by a road user; or	X	
2. There is a need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes; or		
3. Locations where a road user, when stopped, cannot see conflicting traffic and is not able to negotiate the intersection unless cross traffic is also required to stop; or	X	
4. Locations where two (2) residential, collector (through) streets of similar design and characteristics intersect and where a multi-way stop would improve traffic operational characteristics of the intersection.		

RECOMMENDATION

<input checked="" type="checkbox"/>	YES, the findings above do support a recommendation for the installation of a multi-way stop; or
<input type="checkbox"/>	NO, the findings above do not support a recommendation for the installation of a multi-way stop.

Reviewed By: Piro Meleby Date: 12/1/2023

<input checked="" type="checkbox"/>	This location has met the necessary criteria and installation of a multi-way stop is approved; or
<input type="checkbox"/>	This location has not met the necessary criteria and installation of a multi-way stop is not approved.

Approved By:  Date: 12/1/2023

Comments:

6.2 CD 17: Authorization for new traffic signal at Nolensville Pike (SR 31) and Wingrove Street, requested by NDOT.

Analysis: Nolensville Pike (SR 31) is a 5-lane arterial roadway combined with a bus/bike lane on each side with a 40 mph speed limit. Nolensville Pike intersects with Wingrove Street to the west to form a 3-approach intersection. Wingrove Street (local) serves as a primary access point to the Nashville Fairground and Flea Market and is a route taken by many visitors to Geodis Park. In addition, there is an unprotected marked crosswalk crossing Nolensville Pike. This crosswalk is used by pedestrians going to/from the fairgrounds and those using the nearby WeGo transit stop.

A signal warrant analysis, conducted by Barge Design Solutions, indicates that a traffic signal is warranted based MUTCD warrant 2 (Four Hour Vehicle Volume). The installation of a traffic signal will also provide a protected crossing for pedestrians.

This proposed signal would lie within a coordinated traffic signal system. Therefore, the signal timing should incorporate appropriate data to maintain traffic signal progression along Nolensville Pike. The nearest adjacent signal is approximately 650' to the south at Nolensville and Craighead Street. With accurate signal timing and traffic signal detection, the installation of a traffic signal at Nolensville Pike and Wingrove Street would not negatively impact traffic signal operation along the corridor.

Recommendation: Authorize new traffic signal at Nolensville Pk and Wingrove St.

Regular agenda item 6.2—Vicinity map of Nolensville Pk and Wingrove St



6.3 CD 02: Authorization for new traffic signal at Buena Vista Pike at Cliff Drive, requested by NDOT.

Analysis: Buena Vista Pike is a 5-lane arterial roadway bounded by curb and gutter on each side with sidewalks. on each side with a 40 mph speed limit. Buena Vista Pike intersects with Cliff Drive to the east and west to form a 4-approach intersection. Cliff Drive (local) serves as a primary access point to residential developments. The intersection is currently controlled with stop signs on Cliff Drive. There are no existing marked crosswalks.

Buena Vista Pike is listed in the High Injury Network within the Vision Zero program. This corridor has a history of injury and fatal vehicular and pedestrian crashes. This specific intersection has had two pedestrian fatalities within the past 2-years. Buena Vista Pike also serves as a “transit corridor” with numerous WeGo transit stops.

The nearest signalized intersection is located to the south approximately 1500’, at Buena Vista Pike and Clarksville Pike.

A signal warrant analysis, conducted by Fischbach Transportation Group at the request of the NDOT Vision Zero Program, indicates that a traffic signal is warranted based MUTCD warrant 2 (Four Hour Vehicle Volume). The installation of a traffic signal will also provide a protected crossing for pedestrians. This proposed signal would not lie within a coordinated traffic signal system. The signal timing should incorporate appropriate data to provide safe ingress for Cliff Drive motorists and protected pedestrian crossing timing. With accurate signal timing and traffic signal detection, the installation of a traffic signal at Buena Vista Pike and Cliff Drive would not negatively impact traffic movement along the corridor.

It should be noted that nearby development will be contributing \$50,000 towards to construction of the traffic signal.

Based on meeting MUTCD warrant two and the presence of fatal pedestrian crashes, a traffic signal is recommended at the intersection of Buena Vista Pike and Cliff Drive.

Recommendation: Authorize new traffic signal at the intersection of Buena Vista Pike and Cliff Drive.

Regular agenda item 6.3—Study area of Buena Vista Pk & Cliff Dr



6.4 CD 19: Authorization for a new 24/7 loading zone on the north side of Grundy St between 11th Ave N and 12th Ave N, requested by Pins Mechanical.

Analysis: Pins Mechanical is a bar and entertainment venue located at the corner of 11th Ave N and Grundy St. This business requested a loading zone in 2022, but the request was deferred due to the Connect Downtown curb moratorium. At this time, the requested loading zone is presented to the Commission for consideration on the north side of Grundy St, west of 11th Ave N.

Grundy St was recently reconstructed by others as part of the Nashville Yards redevelopment. Grundy was measured at 31 ft 6 in with an offset double solid yellow line. The lane width on the Pins Mechanical side measures 19 ft 6 in from the curb to the DSYL. There is sufficient pavement width to support an 8-ft parking or loading lane with a 11-ft travel lane, and there's sufficient separation from 11th Ave N and Comers Alley to support a curbside parking/loading lane. Pins Mechanical requests a loading zone on Grundy St for daytime delivery trucks and nighttime food trucks. Because Comers Alley has no outlet, it is not a suitable alternative location for a loading zone.

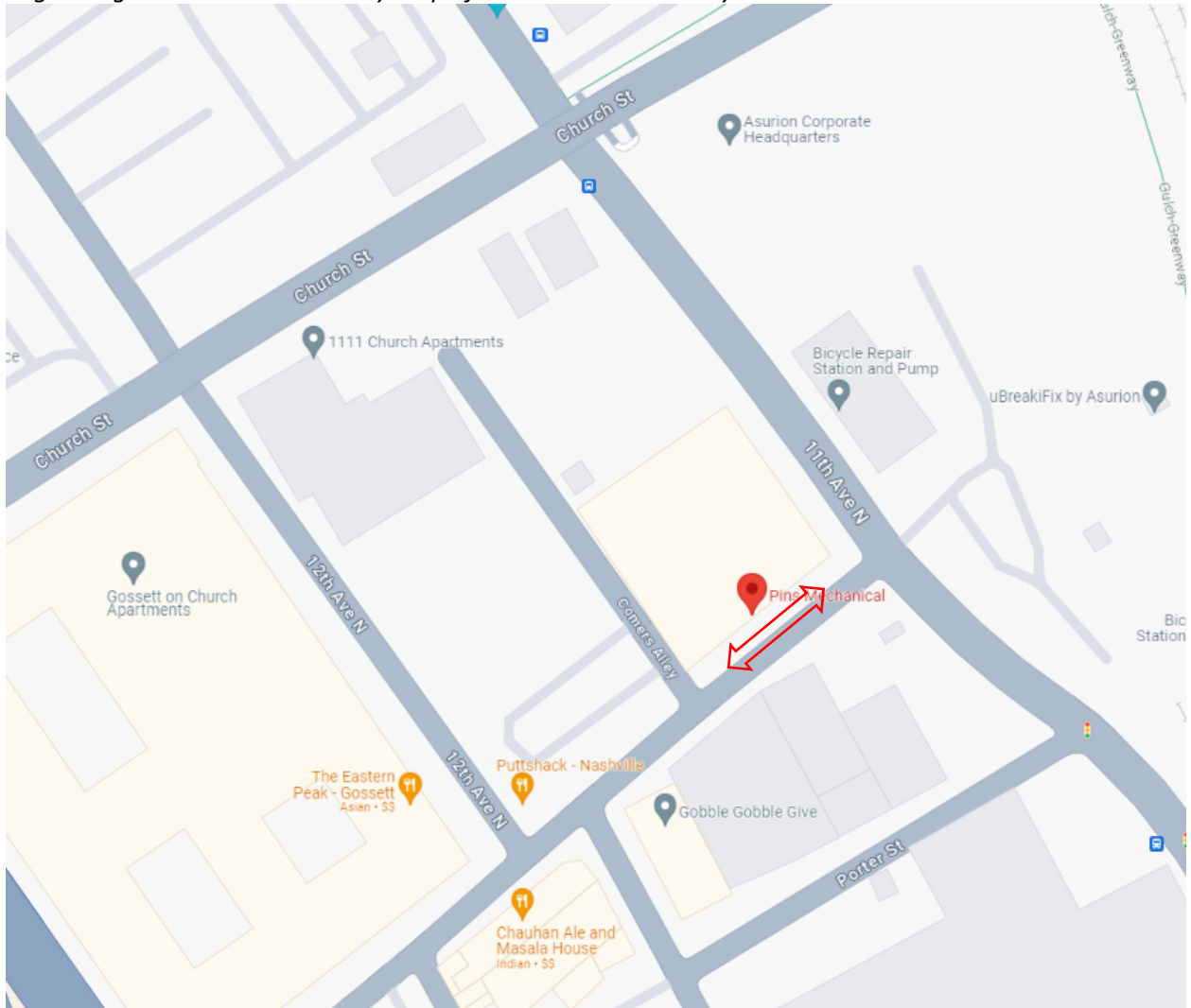
At the time of the original loading zone request, Grundy St was closed for reconstruction. Road construction has been completed, and the northern side of Grundy St is currently signed No Parking or Standing Anytime.

Recommendation: Approve 24/7 loading zone for one truck space on the north side of Grundy St between 11th Ave N and Comers Alley.

Regular agenda item 6.4—Grundy St towards 12th Ave N with Pins Mechanical on the left



Regular agenda item 6.4—Vicinity map of 11th Ave N and Grundy St

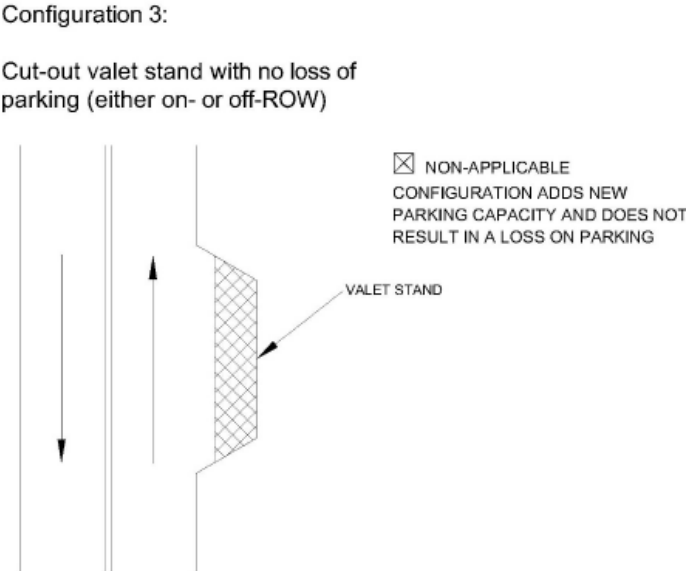


6.5 Valet Fee Policy update.

Analysis: The existing valet fee policy was approved by the Traffic & Parking Commission at the July 2021 meeting. Since this policy was approved, NDOT has determined that some amendments to the policy are desirable. The existing valet fee policy and the revised policy are provided as a separate pdf documents. This analysis will highlight the proposed changes:

- *Valet Configuration 3 is deleted from the policy.*

Configuration 3: Cut-out valet stand with no loss of parking (either on- or off-ROW). Here, a similar roadway cut-out is used, but on a street that does not otherwise have on-street parking. Since no parking is displaced, this configuration is not subject to the lost revenue portion of the fee.



- *The lost parking determination on page 4 is amended as shown below:*

Determining whether “lost parking revenue” applies

The issuance of a valet permit may or may not result in physical removal of a parking meter, but generally does result in loss of public parking opportunities or other curbside functions to the benefit of the private business. The valet applicant will be assessed the lost parking revenue (calculated in the following section) if all of the following conditions are true:

1. The curb scenario of the proposed valet is defined as either Configuration 1 or 2, as shown above.
2. The proposed valet is located within Metro’s meter zone, as shown in Attachment A. The blue area defines the central business district (CBD), and the green area defines the non-CBD.
3. The proposed valet is located on a street that has at least one parking meter elsewhere on that street. A list of streets with meters is provided as Attachment B. This listing may change if new meters are added on a street.

METRO PUBLIC WORKS
PAGE 4

1. The curb scenario of the proposed valet is defined as either Configuration 1 or 2, as shown above.
2. The proposed valet is located within Metro’s meter zone, as shown in Attachment A; **but not limited to these zones.** The blue area defines the central business district (CBD), and the green area defines the non-CBD.
3. The proposed valet is located on a street that has at least one parking meter elsewhere on that street. A list of streets with meters is provided as Attachment B; **but not limited to these streets only.** ~~This listing may change if new meters are added on a street.~~

Recommendation: Approve the amended valet fee policy.

6.6 CD 30: Authorization to reduce posted speed limit on Apache Trail from 40 mph to 30 mph between Haywood Ln and Packard Dr, requested by NDOT.

Analysis: Apache Trail between Haywood Ln and Packard Dr is a two-lane collector street with a posted speed limit of 40 mph. Local residential street speed limits within the GSB were recently lowered to 25 mph. Because this segment of Apache Trail is a residential collector street, it was not included in the lowering of residential local streets.

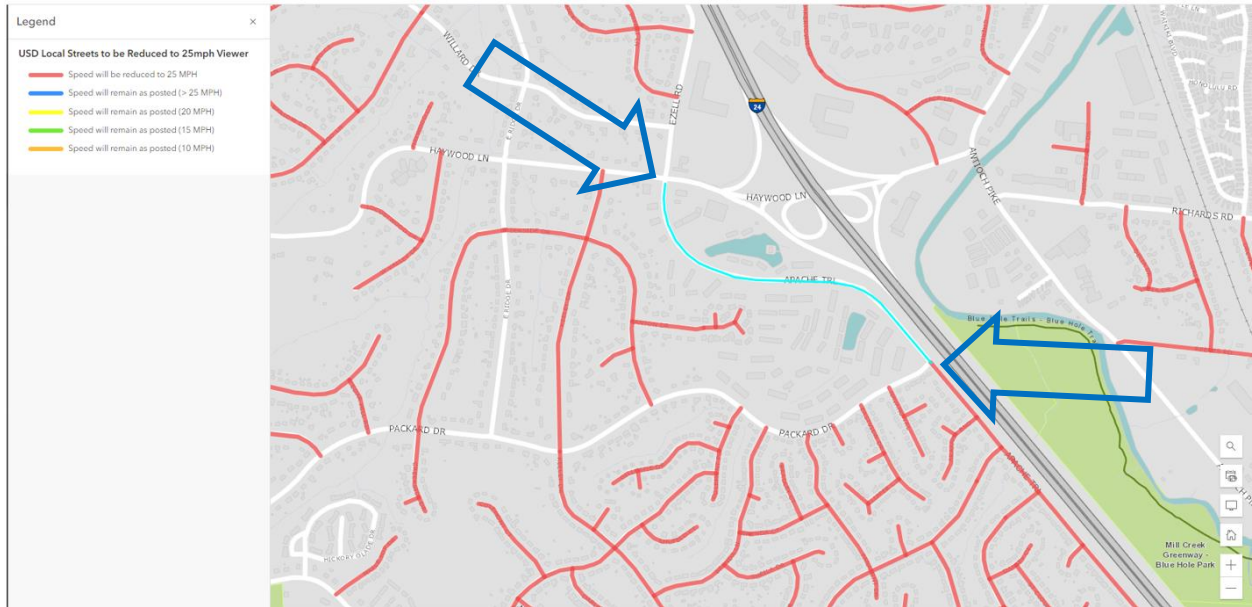
Regular agenda item 6.6—Google street view of existing speed limit on Apache Trail



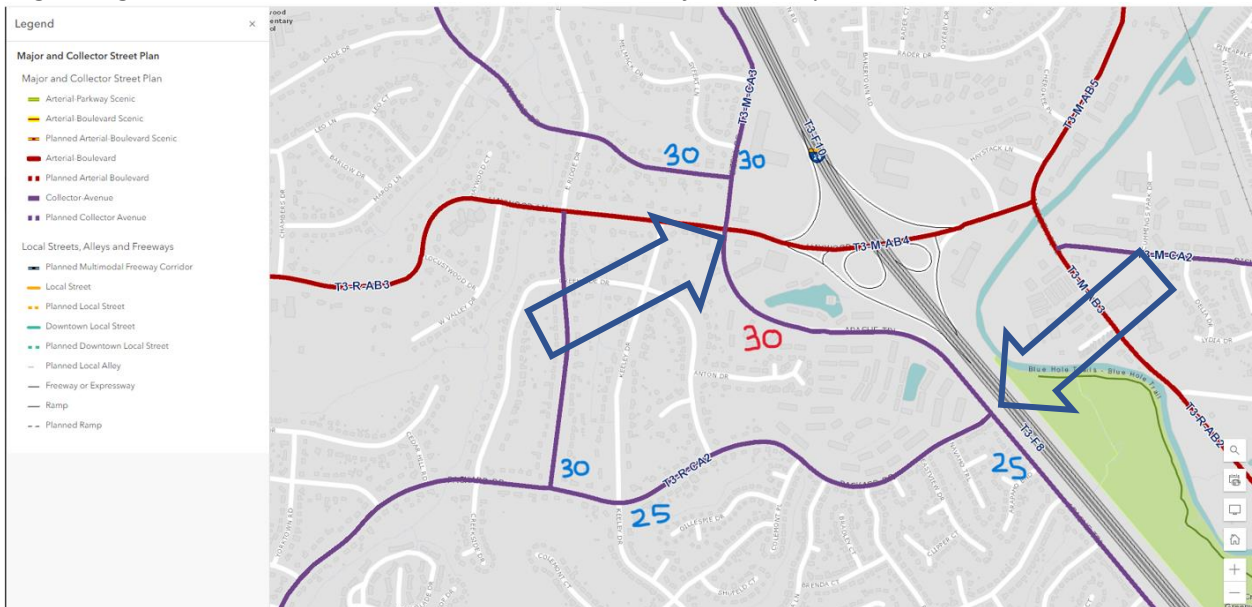
Using the NCHRP 17-76 speed limit setting tool, NDOT performed a speed study of Apache Trail and determined that 40 mph is too high for this roadway. The software tool recommended a maximum speed limit of 35 mph. However, when the adjacent speed limits of the surrounding streets are also considered, NDOT has determined that a posted speed limit of 30 mph would be more consistent with the neighborhood streets and recommends 30 mph to the Commission. This road already has lower posted speed limits north of Haywood Ln and south of Packard Dr. This particular segment's 40 mph speed limit is a peculiar neighborhood outlier, especially given its reverse curves.

Recommendation: Authorize 30 mph posted speed limit on Apache Trail between Haywood Ln and Packard Dr.

Regular agenda item 6.6—Residential local streets (25 mph) in red, adjacent to Apache Trail



Regular agenda item 6.6—Residential collector streets adjacent to Apache Trail



6.7 CD 26: Authorization to reduce posted speed limit on Hogan Rd from 35 mph to 30 mph between Franklin Pk and Darlington Dr, requested by NDOT.

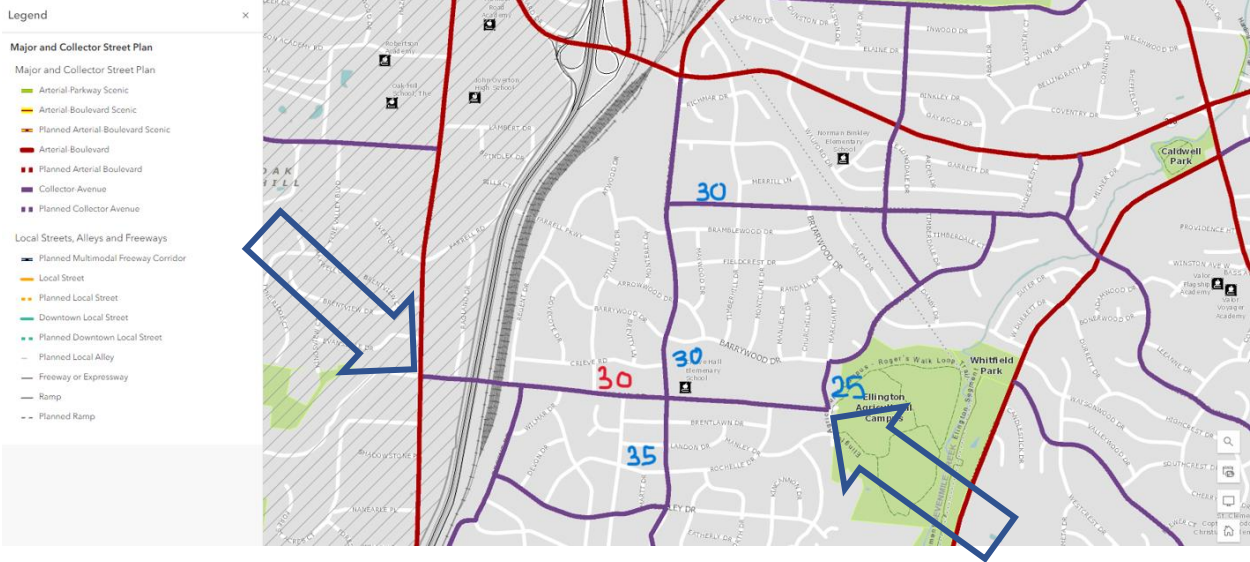
Analysis: Hogan Rd is another residential collector with a posted 35 mph speed limit. Like Apache Trail, the speed limit of this collector was not changed with the lowering of residential local roads in the GSD. Using the same NCHRP 17-76 speed limit tool, the suggested maximum speed limit was 30 mph. A review of the adjacent neighborhood streets, including both collectors and local roads have similar posted speed limits.

Recommendation: Authorize 30 mph posted speed limit on Hogan Rd between Franklin Pk and Darlington Dr.

Regular agenda item 6.7—Residential local streets adjacent to Hogan Rd with 25 mph speed limits



Regular agenda item 6.7—Residential collector streets adjacent to Hogan Rd & their posted speed limits



6.8 CD 19: Introduction to proposed expansion of downtown No Vending zone between Korean Veterans Blvd and Peabody St and also between 8th Ave S and 9th Ave S, requested by CM Kupin.

Analysis: As the December agenda was being finalized, NDOT received a request from CM Kupin to consider extending the current downtown No Vending zone for sidewalk vendors southward from Korean Veterans Blvd to Peabody St and westward from the 8th Ave S roundabout to encompass the area bounded by Lea Ave, 9th Ave S, and Clark Pl. NDOT committed to introduce this item for discussion at the December T&P Commission meeting.

Regular agenda item 6.8—Vicinity map of downtown No Vending area with proposed expansions



Recommendation: At this time, this item is introduced to the Commission as a topic for discussion.