

# METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY, TENNESSEE

## DOUGLAS AVENUE BIKEWAY IMPROVEMENTS FROM GALLATIN AVENUE TO SCOTT AVENUE

### OCTOBER, 2023



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

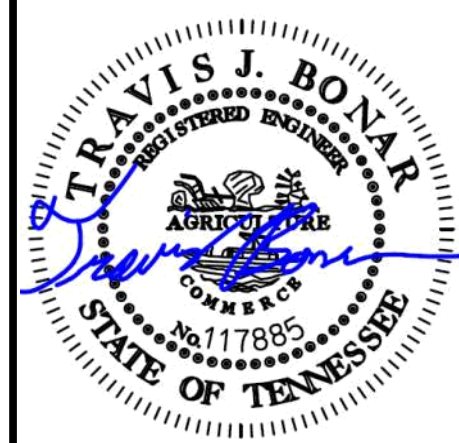


LOCATION MAP:  
SCALE: 1"=400"

#### DRAWING INDEX

1. COVER SHEET
2. TYPICAL DETAILS
3. TYPICAL DETAILS
4. TYPICAL DETAILS
5. SITE PLAN STA. 0+00 - STA. 10+40
6. SITE PLAN STA. 10+40 - STA. 21+00
7. SITE PLAN STA. 21+00 - STA. 32+35
8. SIGNAL SHEET DOUGLAS AVE AND GALLATIN AVE INTERSECTION

METROPOLITAN GOVERNMENT OF NASHVILLE  
AND DAVIDSON COUNTY, TENNESSEE  
DOUGLAS AVENUE BIKEWAY IMPROVEMENTS  
FROM GALLATIN AVENUE TO SCOTT AVENUE



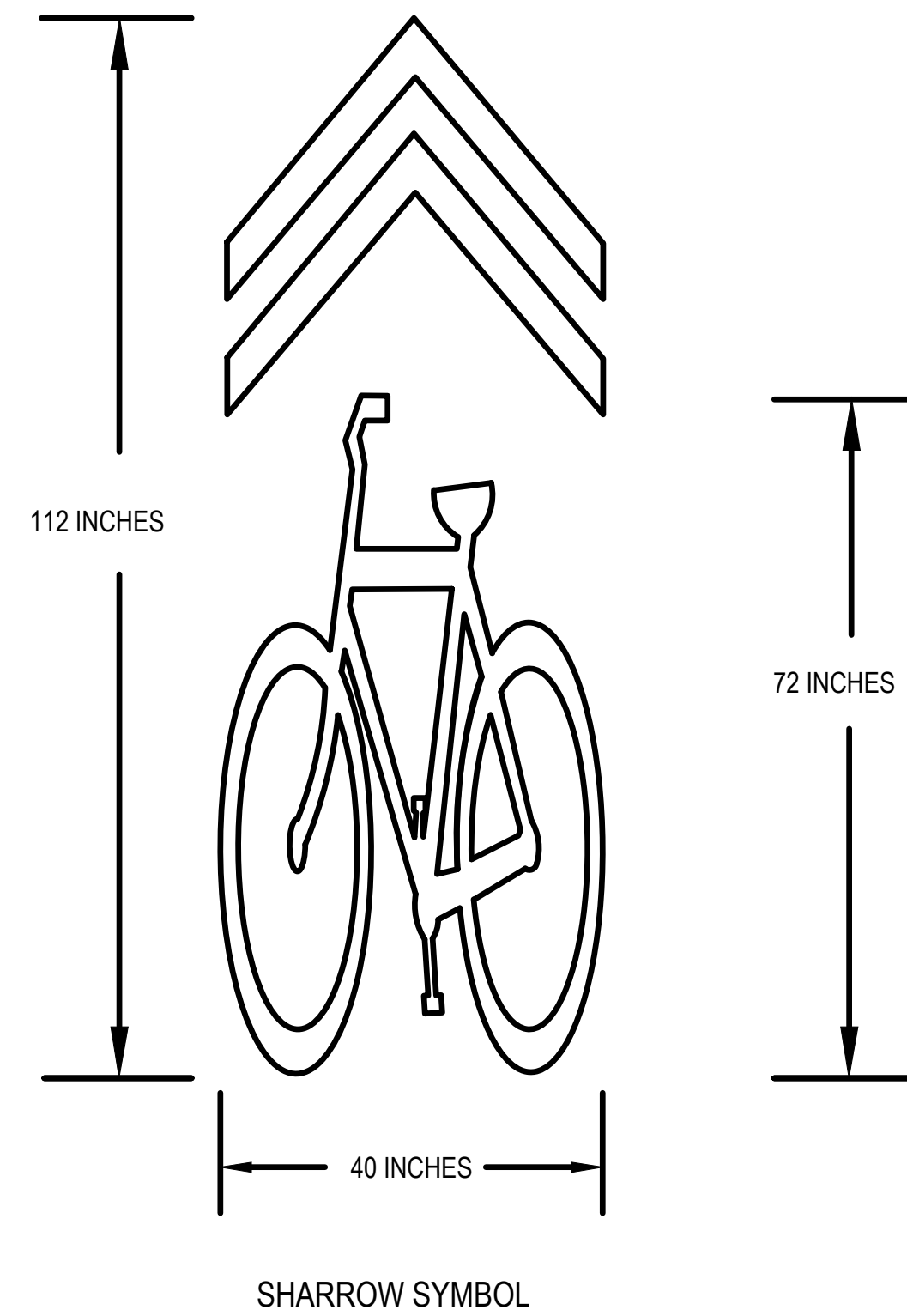
PROJECT NUMBER:	MET008
DATE:	10/2023
SCALE:	1"=20'
DRAWN BY:	MMY
DESIGNED BY:	TBR

SHEET TITLE:  
COVER SHEET

C:\DOUGLAS\_BIKWAY\DWG\_2023\142\CONCEPTUAL\_DESIGN\SHEET FILES\METHOD\_01\_DOUGLAS\_AVE\_LOWER\_SHEET.DWG, 10/25/2023 2:03 PM, TANNER HOPPER



LDA ENGINEERING  
402 BNA DRIVE SUITE 403  
NASHVILLE, TENNESSEE 37217  
TELEPHONE: 877-754-8254



**NOTES:**

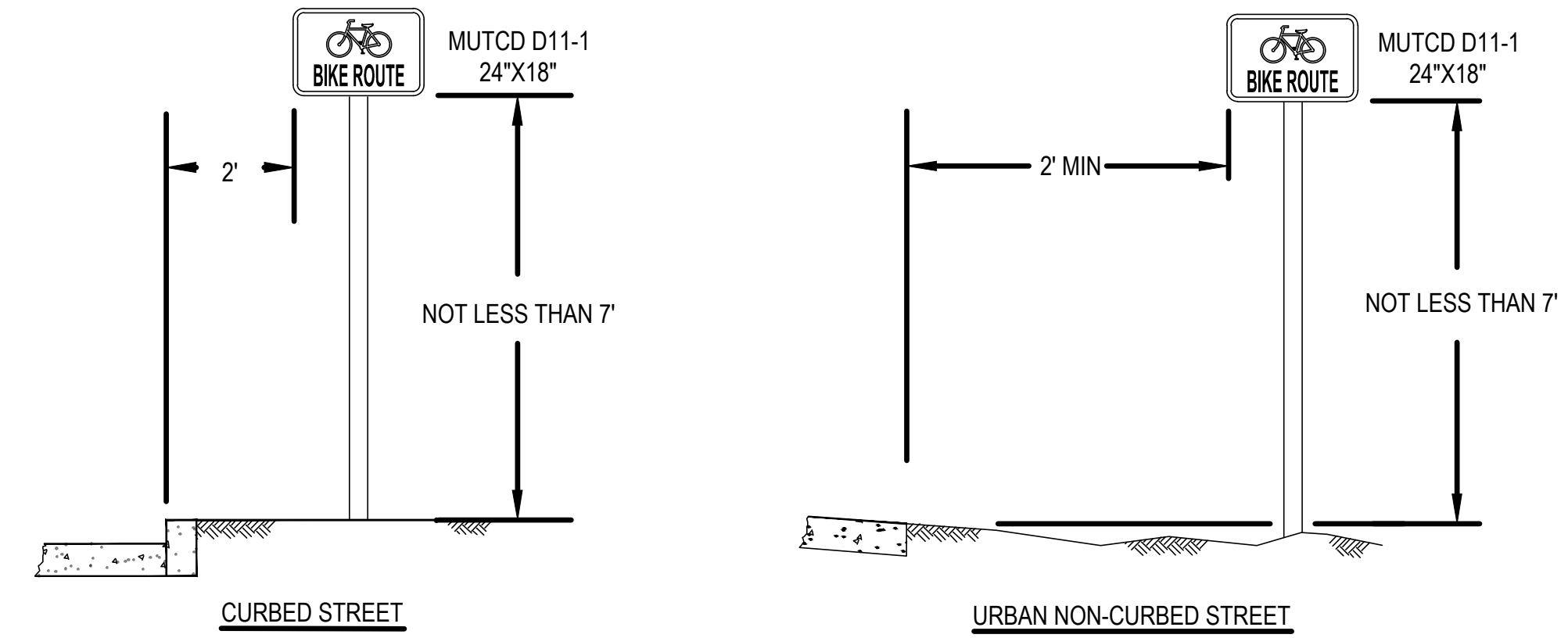
- REFER TO MUTCD 2009 EDITION PART 9 FIGURE 9C-3 WORD, SYMBOL, AND ARROW PAVEMENT MARKINGS FOR BICYCLE LANES. REDUCED SIZE MARKINGS TO BE USED WHERE REQUIRED IN THE FIELD. REFER TO FIGURE 9C-9 FOR SHARED LANE MARKINGS.
- IF USED IN A SHARED LANE WITH ON-STREET PARALLEL PARKING, SHARED LANE MARKINGS SHOULD BE PLACED SO THAT THE CENTERS OF THE MARKINGS ARE AT LEAST 11 FEET FROM THE FACE OF THE CURB, OR FROM THE EDGE OF THE PAVEMENT WHERE THERE IS NO CURB. (2009 MUTCD, SECTION 9C.07)
- IF USED ON A STREET WITHOUT ON-STREET PARKING THAT HAS AN OUTSIDE TRAVEL LANE THAT IS LESS THAN 14 FEET WIDE, THE CENTERS OF THE SHARED LANE MARKINGS SHOULD BE AT LEAST 4 FEET FROM THE FACE OF THE CURB, OR FROM THE EDGE OF THE PAVEMENT WHERE THERE IS NO CURB. (2009 MUTCD, SECTION 9C.07)

**GREEN PAVEMENT NOTE:**

GREEN TEXTURED BIKE LANES (MMA MATERIAL) AS NOTED ON THE PLANS. SUGGESTED MANUFACTURER (ENNIS-FLINT) OR APPROVED METRO PUBLIC WORKS ALTERNATIVE TO BE USED.

**SHARROW MARKING DETAIL**

NOT TO SCALE



HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATIONS

**SIGN INSTALLATION NOTES:**

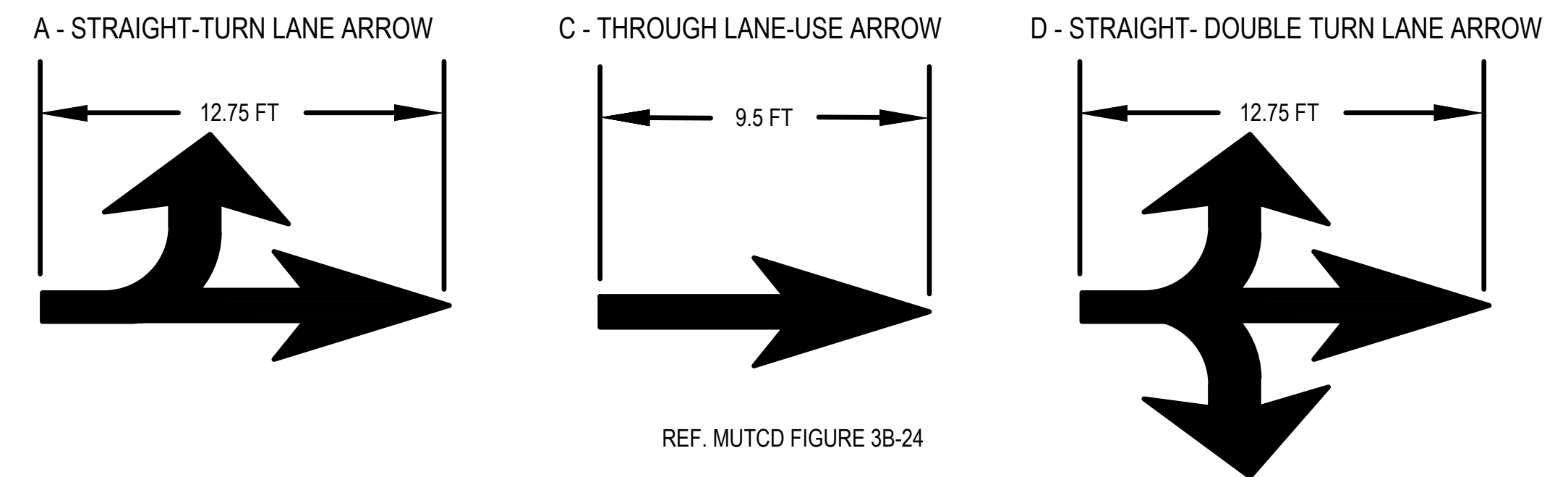
- ALL SIGNS SHALL BE INSTALLED IN THE APPROXIMATE LOCATIONS SHOWN ON PLAN SHEETS. ANY DEVIATION MUST BE APPROVED BY THE METROPOLITAN DEPARTMENT OF PUBLIC WORKS.
- SIGNS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (2009 MUTCD, WITH REVISIONS 1, 2, & 3), AND SHALL HAVE THE HEIGHT AND CLEARANCE SPECIFICATIONS SHOWN ON THIS SHEET.
- ALL SIGNING EQUIPMENT AND INSTALLATION PROCEDURES SHALL COMPLY WITH THE T.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 713 - HIGHWAY SIGNING, AND WITH THE SPECIFICATIONS OF METROPOLITAN NASHVILLE AND DAVIDSON COUNTY.

**HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATIONS**

NOT TO SCALE

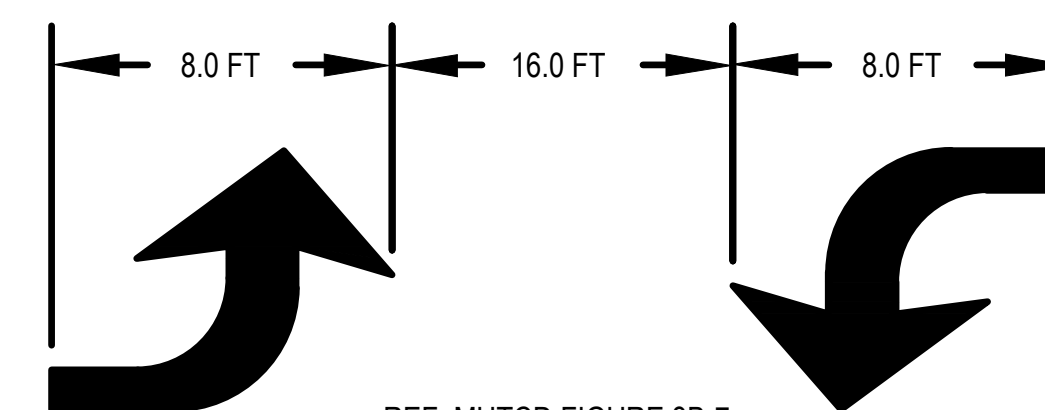
**\*\*SPECIAL NOTES:**

- ALL PAVEMENT MARKINGS AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (2009 MUTCD, WITH REVISIONS 1, 2, & 3)
- CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ROADWAY MARKINGS AND SIGNS.
- BIKEWAY SIGNAGE SHALL BE PLACED PER DIRECTION OF THE FIELD ENGINEER.
- SHARROW AND BIKE LANE PAVEMENT MARKING SHALL BE PLACED PER DIRECTION OF METRO REPRESENTATIVE.
- SHARROW AND BIKE LANE PAVEMENT MARKING SHALL NOT BE PLACED IN FRONT OF DRIVEWAYS.
- BIKEWAY PROJECTS SHALL COORDINATE WITH METRO TRAFFIC DEPARTMENT.



REF. MUTCD FIGURE 3B-24

**B - TWO-WAY LEFT TURN LANE ARROW COMBINATION LAYOUT**



REF. MUTCD FIGURE 3B-7

NOTE: TURN ARROWS SHALL BE PLACED IN THE STORAGE AREAS AT THE DISTANCES SPECIFIED IN THE PLANS.

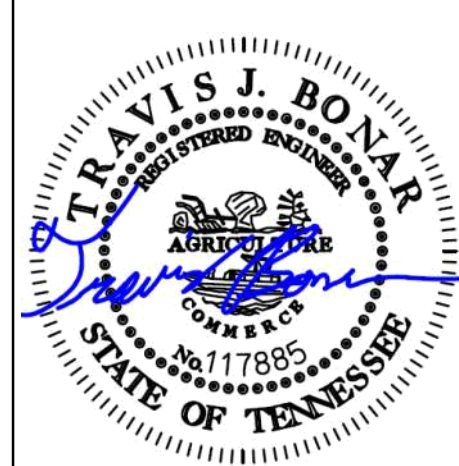
**TURN LANE ARROW DETAIL**

NOT TO SCALE



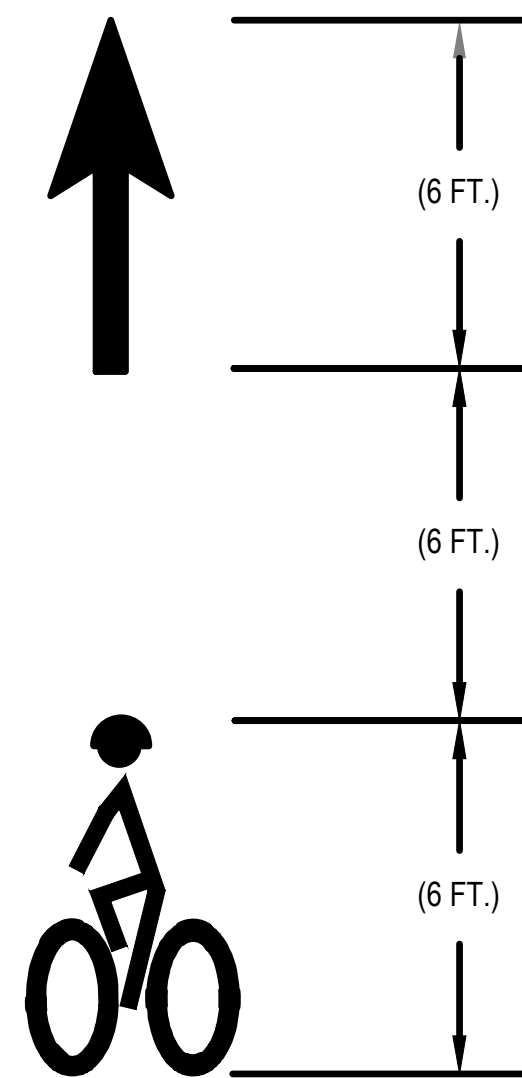
REV	DATE	REVISION DESCRIPTION

METROPOLITAN GOVERNMENT OF NASHVILLE  
AND DAVIDSON COUNTY, TENNESSEE  
DOUGLAS AVENUE BIKEWAY & TRAFFIC CALMING IMPROVEMENTS  
FROM GALLATIN AVENUE TO SCOTT AVENUE



PROJECT NUMBER: MET008	
DATE: 10/2023	SCALE:
DRAWN BY: TBR	DESIGNED BY: MMY
SHEET TITLE: TYPICAL DETAILS	

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NOTE:  
REFER TO MUTCD 2009 EDITION PART 9 FIGURE 9C-3 WORD, SYMBOL, AND ARROW PAVEMENT MARKINGS FOR BICYCLE LANES. REDUCED SIZE MARKINGS TO BE USED WHERE REQUIRED IN THE FIELD. SCALE AS NEEDED.

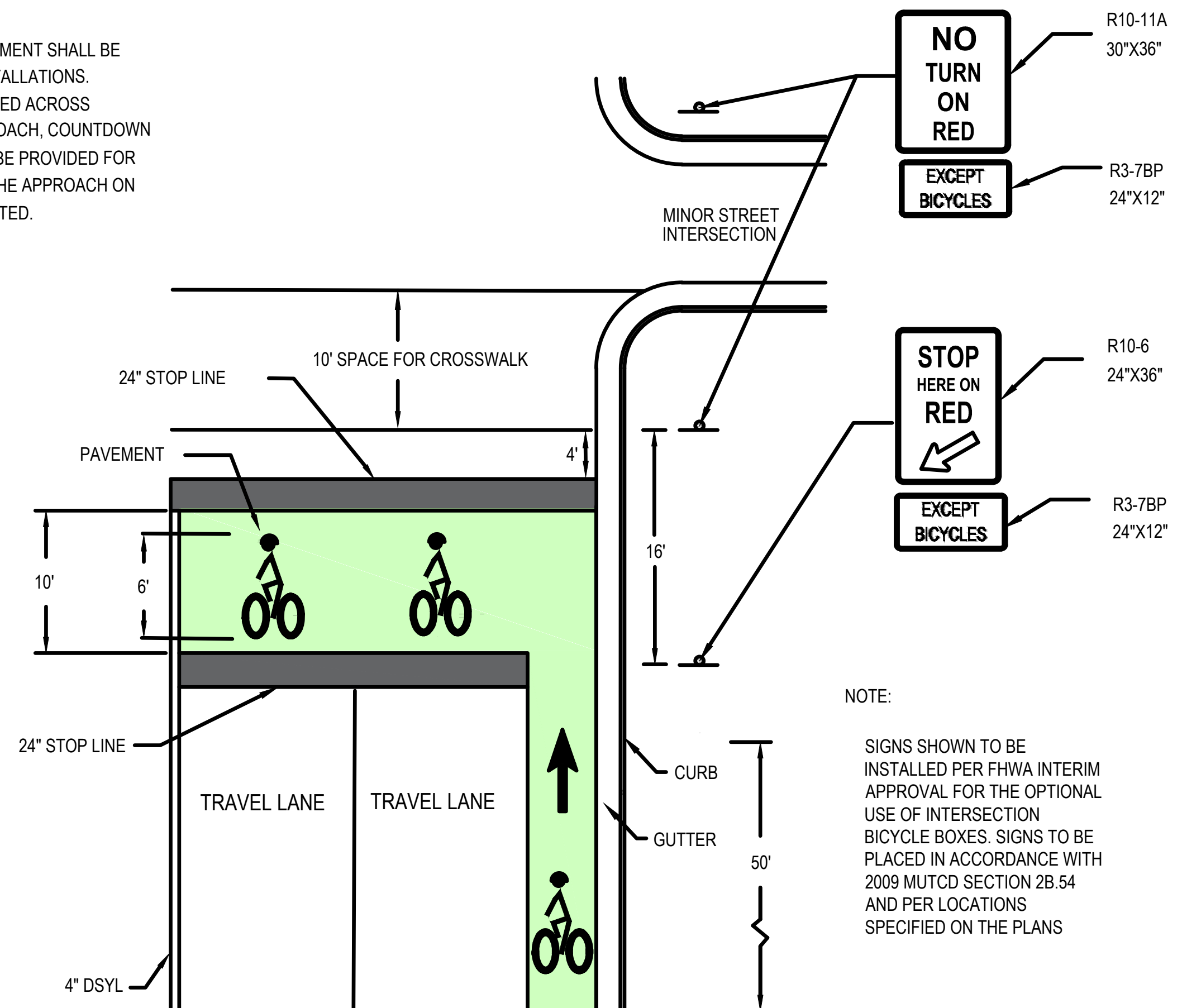
**HELMETED BICYCLIST PAVEMENT MARKING**

**DETAIL**

NOT TO SCALE

NOTES:

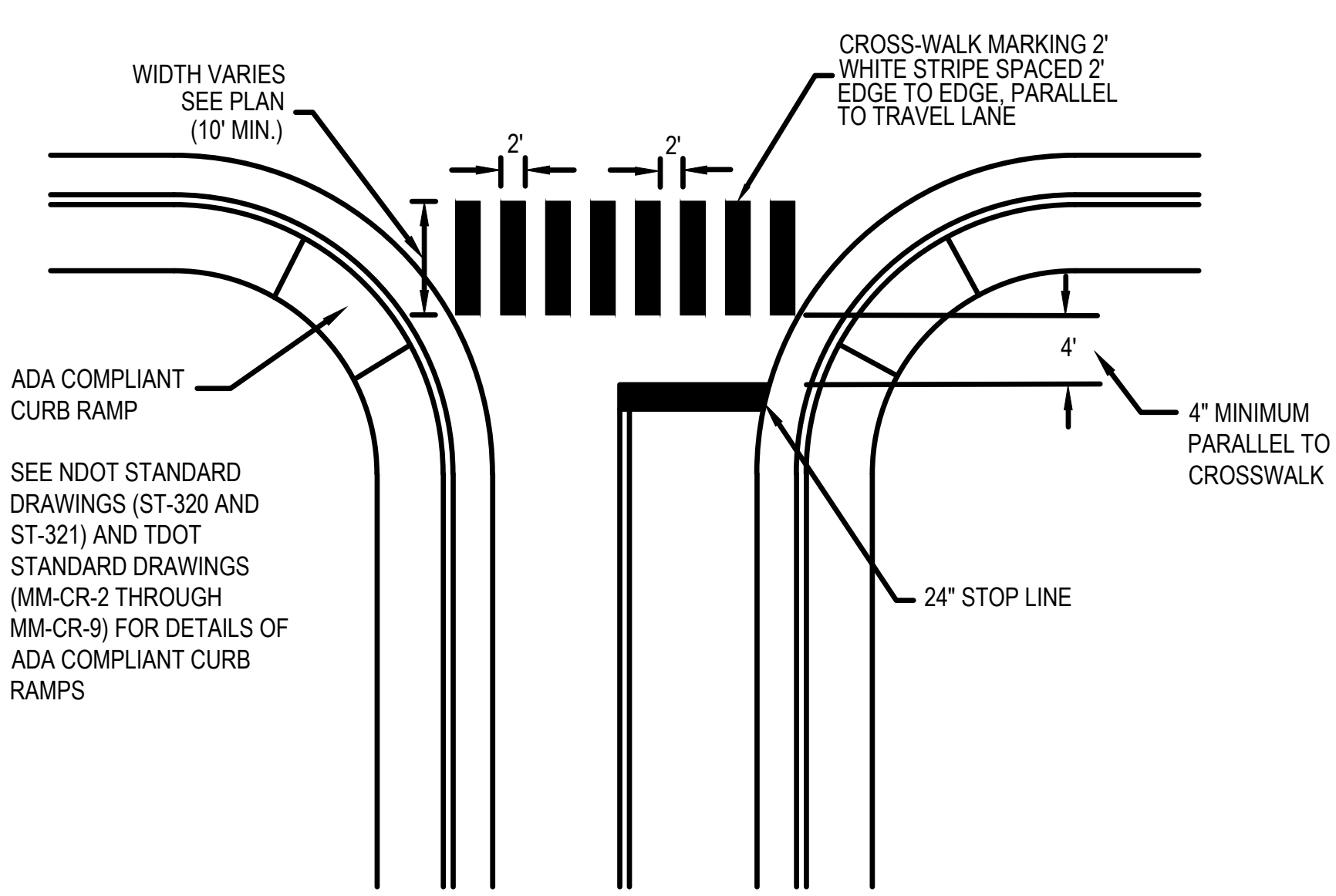
- SOLID GREEN COLORED PAVEMENT SHALL BE REQUIRED FOR BIKE BOX INSTALLATIONS.
- WHERE A BIKE BOX IS PROVIDED ACROSS MULTIPLE LANES OF AN APPROACH, COUNTDOWN PEDESTRIAN SIGNALS SHALL BE PROVIDED FOR THE CROSSWALKS ACROSS THE APPROACH ON WHICH THE BIKE BOX IS LOCATED.



NOTE:  
SIGNS SHOWN TO BE INSTALLED PER FHWA INTERIM APPROVAL FOR THE OPTIONAL USE OF INTERSECTION BICYCLE BOXES. SIGNS TO BE PLACED IN ACCORDANCE WITH 2009 MUTCD SECTION 2B.54 AND PER LOCATIONS SPECIFIED ON THE PLANS

**BIKE BOX DETAIL**

NOT TO SCALE

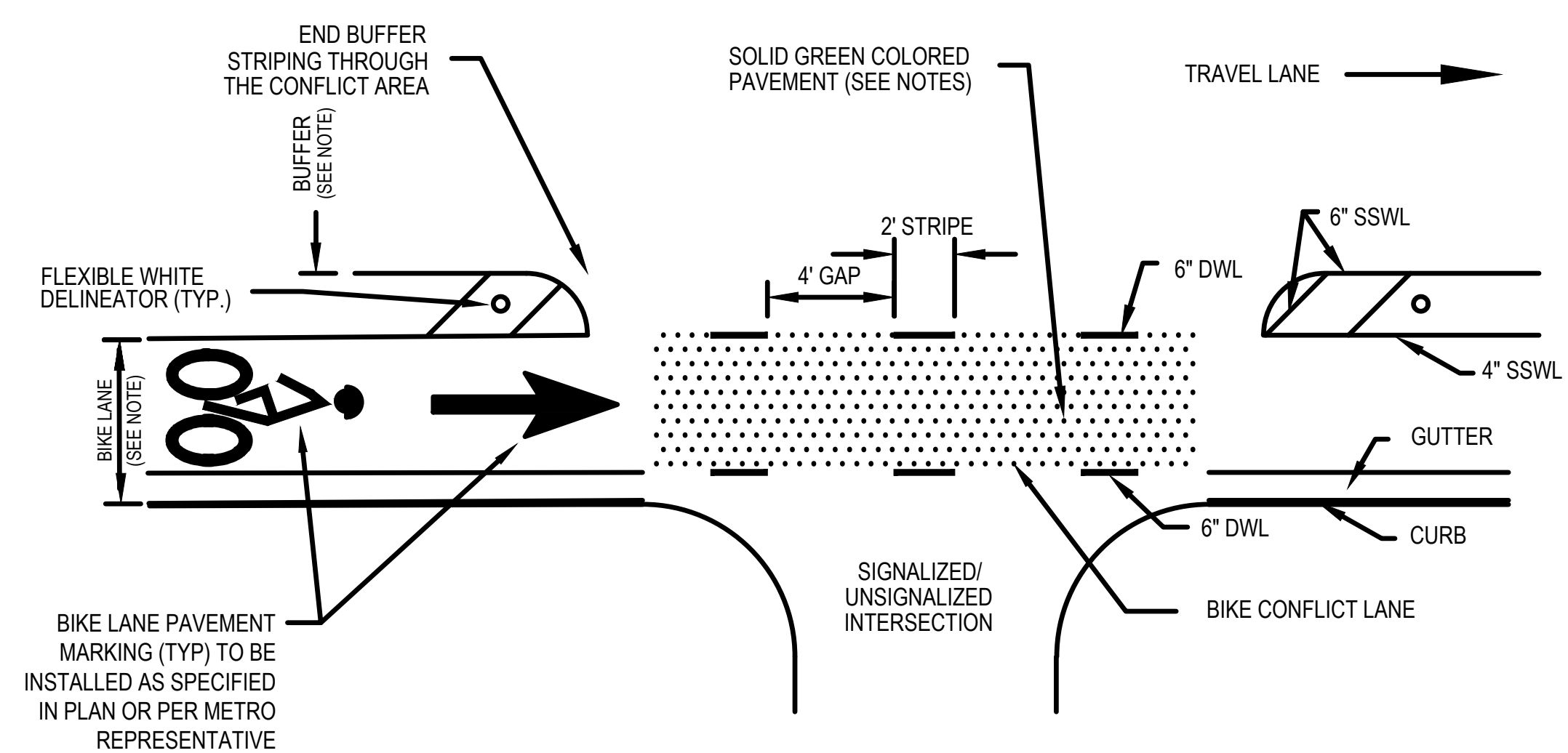


SEE NDOT STANDARD DRAWINGS (ST-320 AND ST-321) AND TDOT STANDARD DRAWINGS (MM-CR-2 THROUGH MM-CR-9) FOR DETAILS OF ADA COMPLIANT CURB RAMPS

**TYPICAL STOP LINE PLACEMENT AND CROSSWALK**

**MARKINGS**

NOT TO SCALE



NOTE:  
SOLID GREEN COLORED PAVEMENT SHALL BE REQUIRED AT ALL INTERSECTIONS

**BIKE CONFLICT LINE (BCL) AT INTERSECTIONS**

NOT TO SCALE

- NOTES:
- BIKE LANE WIDTH AND BUFFER WIDTH SPECIFIED ON THE PLANS. BIKE LANE WIDTH DIMENSION SHOWN ON THE PLANS INCLUDES THE EXIST. GUTTER PAN IF APPLICABLE.
  - 36" WHITE FLEXIBLE DELINEATOR POSTS TO BE INSTALLED WITHIN THE BUFFER AT 40' SPACING CONTRACTOR TO COORDINATE WITH MPW PRIOR TO INSTALLATION.

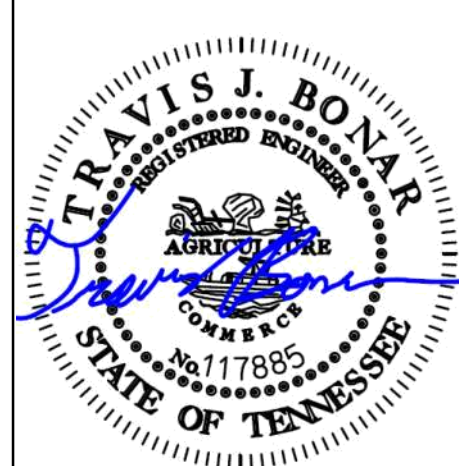
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LDA ENGINEERING

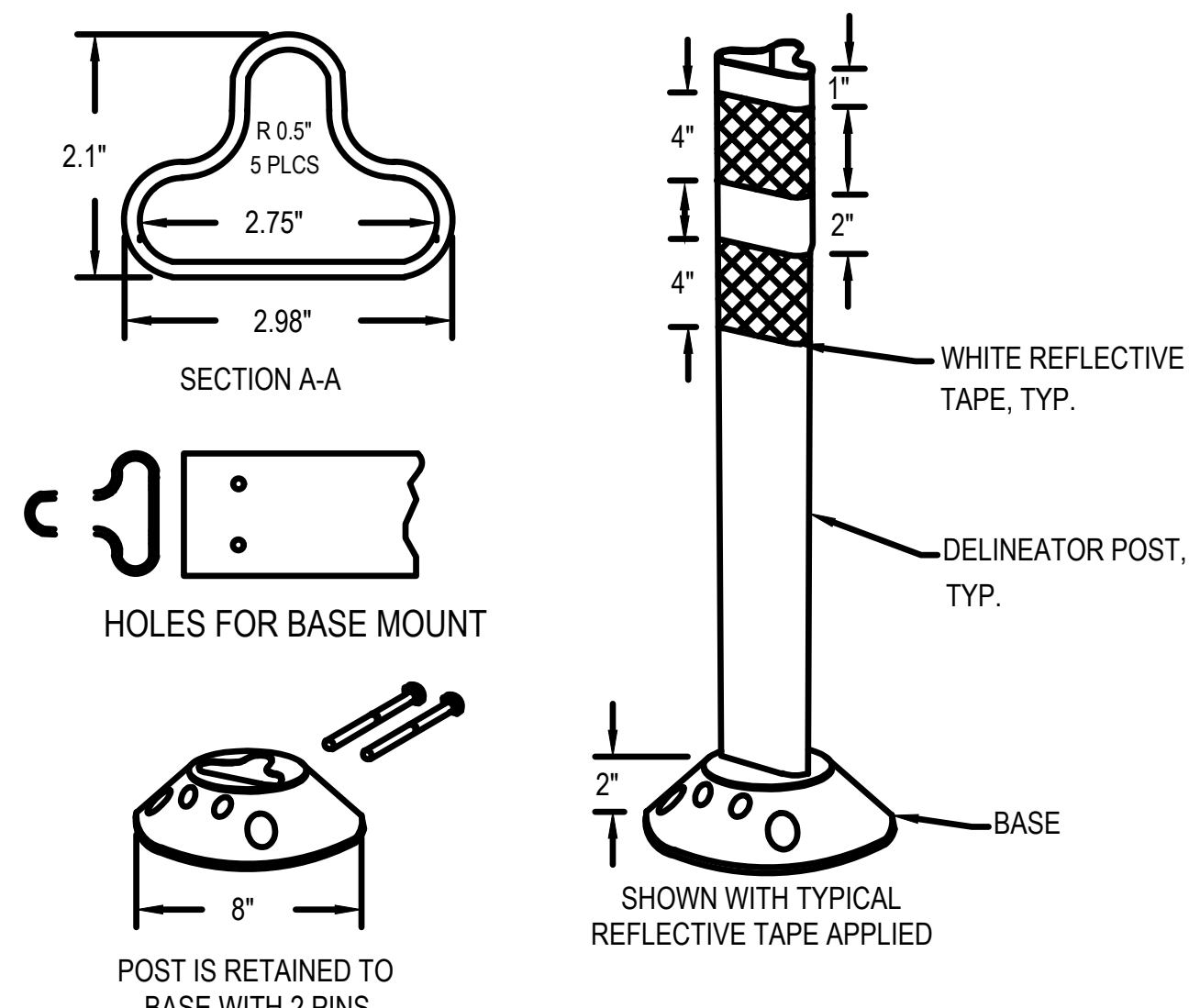
REV	DATE	REVISION DESCRIPTION

METROPOLITAN GOVERNMENT OF NASHVILLE  
AND DAVIDSON COUNTY, TENNESSEE  
DOUGLAS AVENUE BIKEWAY & TRAFFIC CALMING IMPROVEMENTS  
FROM GALLATIN AVENUE TO SCOTT AVENUE



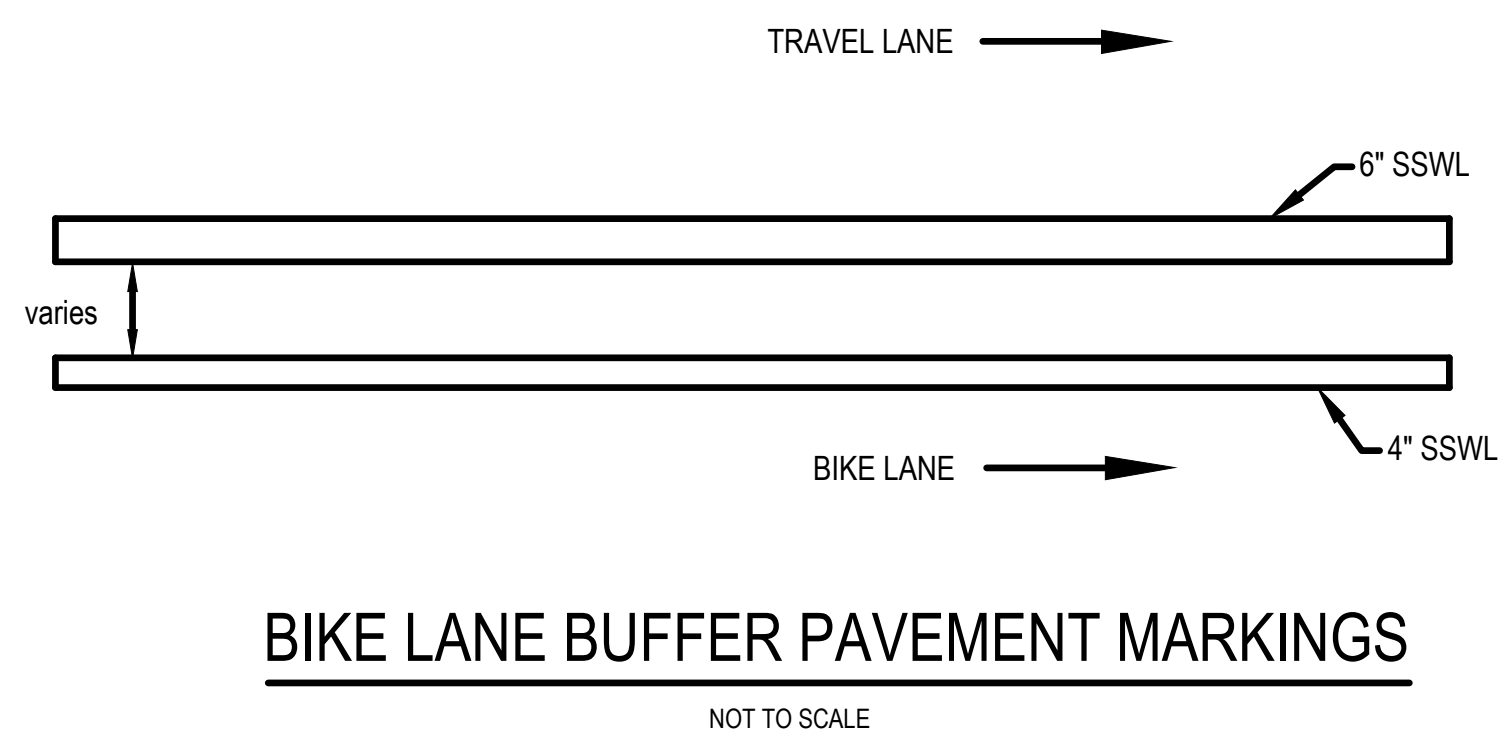
PROJECT NUMBER: MET008  
DATE: 10/2023 SCALE:  
DRAWN BY: TBR DESIGNED BY: MMY

SHEET TITLE:  
TYPICAL DETAILS

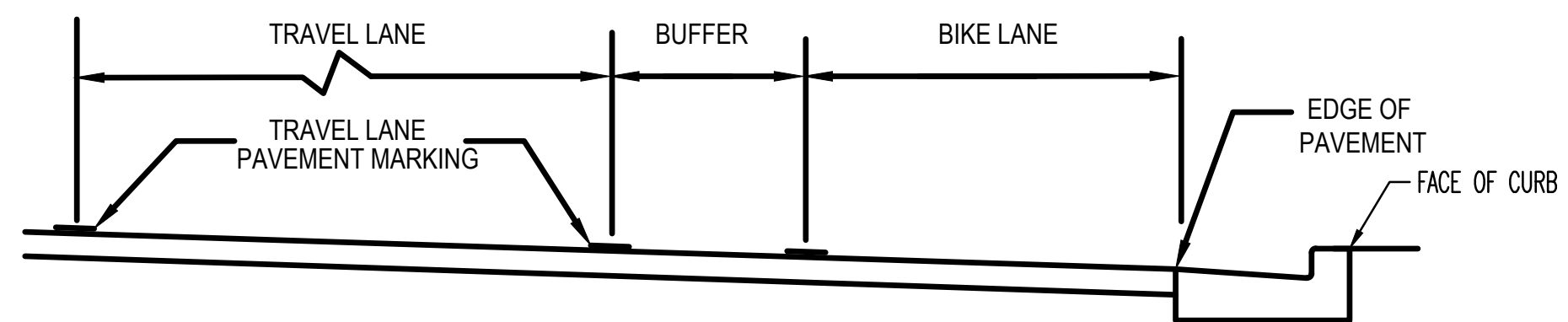


- NOTES:
- INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
  - DIMENSIONS, MATERIALS, AND ATTACHMENTS MAY VARY BETWEEN MANUFACTURERS.
  - COLOR OF POST SHALL MATCH COLOR OF APPLICABLE EDGE LINE AS NOTED IN PLANS.
  - SUGGESTED MANUFACTURERS INCLUDE: PEXCO DAVIDSON TRAFFIC CONTROL, SUPERIOR TRAFFIC CONTROL OR APPROVED BY METRO REPRESENTATIVE
  - DELINEATORS SHALL BE SPACED 40' CENTER-TO-CENTER IN THE PLANS
  - CONTRACTOR TO COORDINATE WITH MPW PRIOR TO INSTALLATION.

**36" FLEXIBLE DELINEATOR POST DETAIL**  
NOT TO SCALE

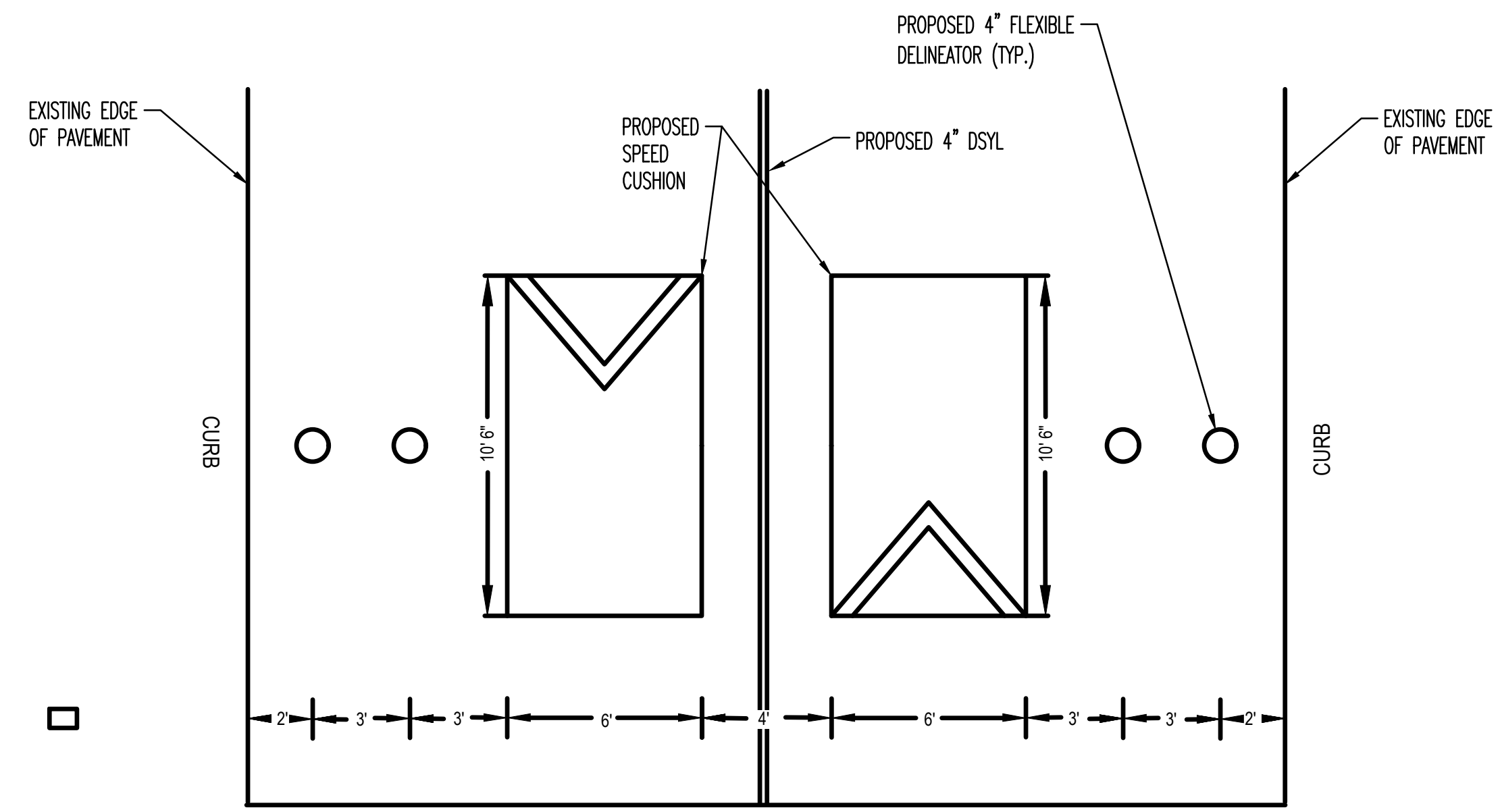


**BIKE LANE BUFFER PAVEMENT MARKINGS**  
NOT TO SCALE



NOTE:  
LATERAL PAVEMENT MARKING DIMENSIONS ARE TYPICALLY MEASURED TO AN ADJACENT EDGE OF PAVEMENT OR TO THE CENTERLINE OF AN ADJACENT PAVEMENT MARKING AS SHOWN IN THE PLANS.

**TYPICAL LATERAL STRIPING DIMENSIONS**  
NOT TO SCALE

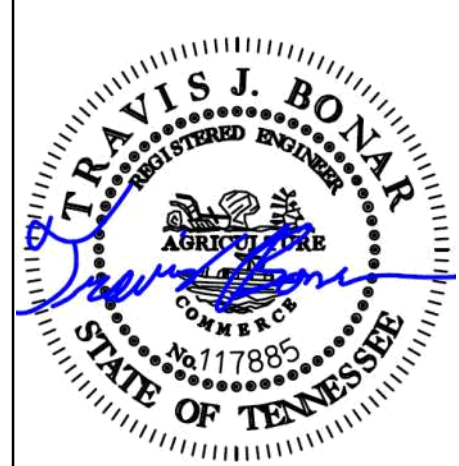


**TRAFFIC CUSHION DETAIL**  
NOT TO SCALE



REV	DATE	REVISION DESCRIPTION

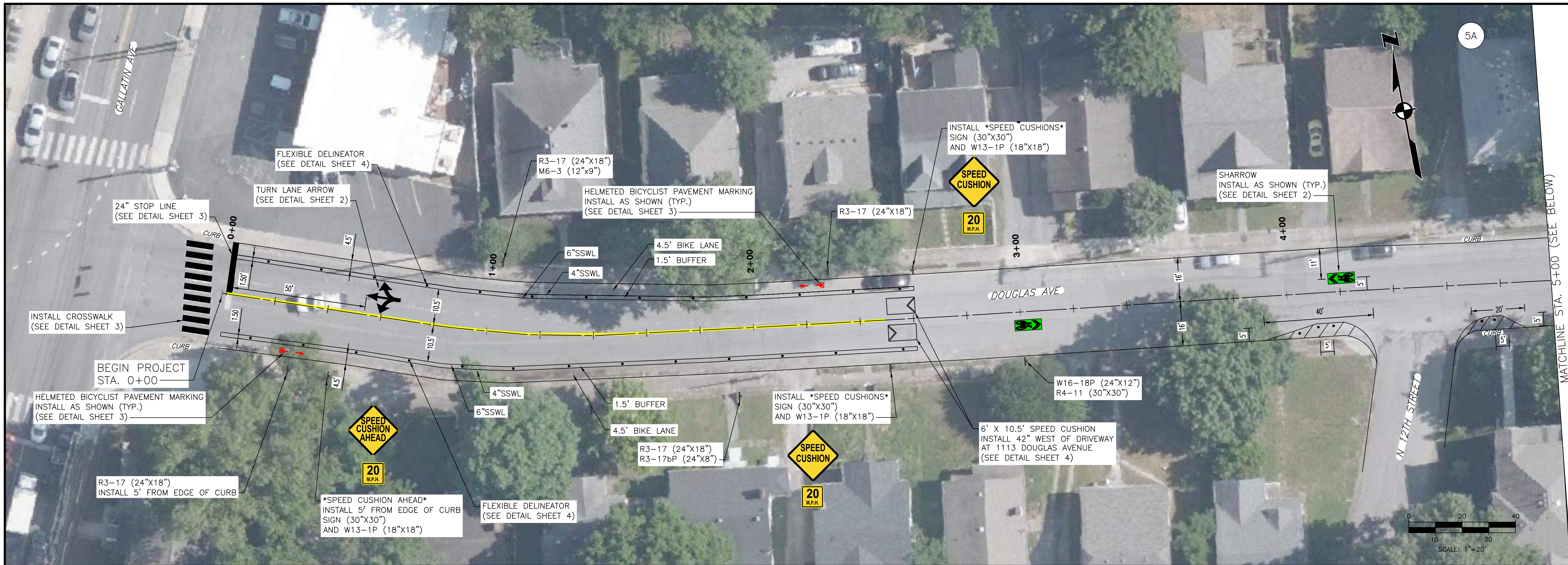
METROPOLITAN GOVERNMENT OF NASHVILLE  
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DOUGLAS AVENUE BIKEWAY & TRAFFIC CALMING IMPROVEMENTS  
FROM GALLATIN AVENUE TO SCOTT AVENUE



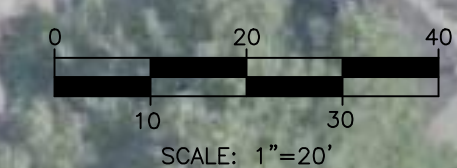
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DATE: 10/2023	SCALE:
DRAWN BY: TBR	DESIGNED BY: MMY
SHEET TITLE: TYPICAL DETAILS	

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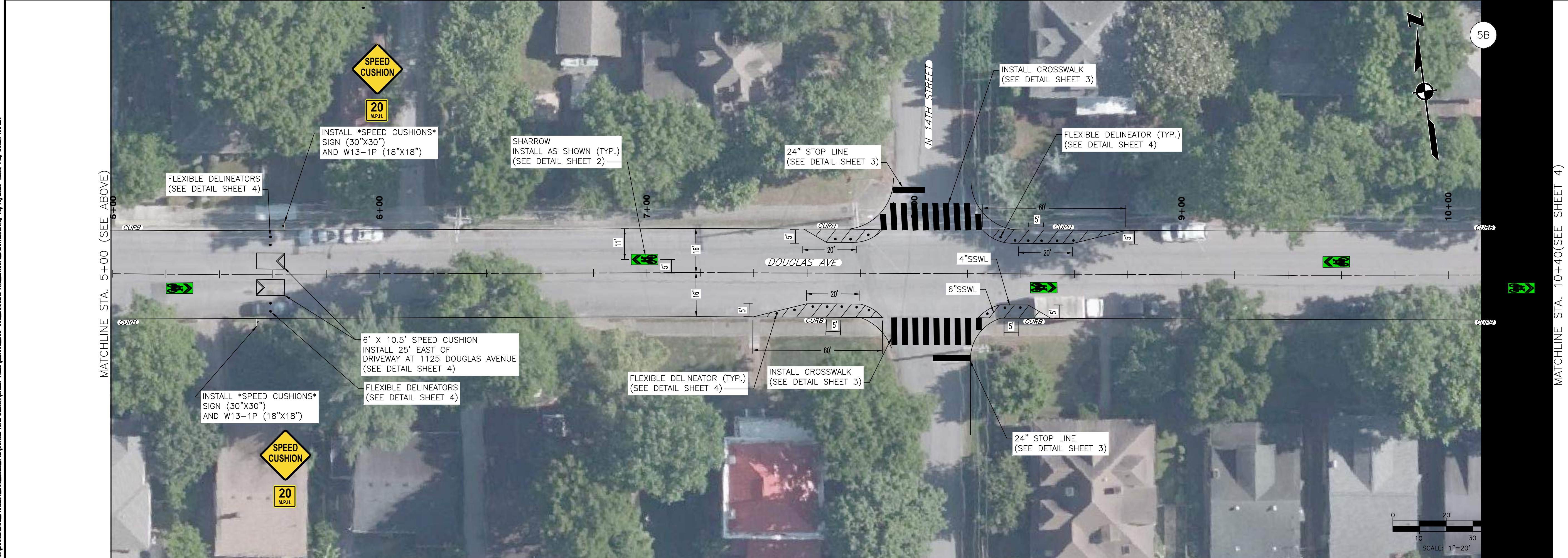
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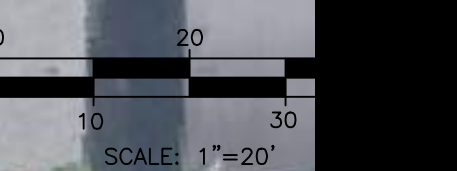
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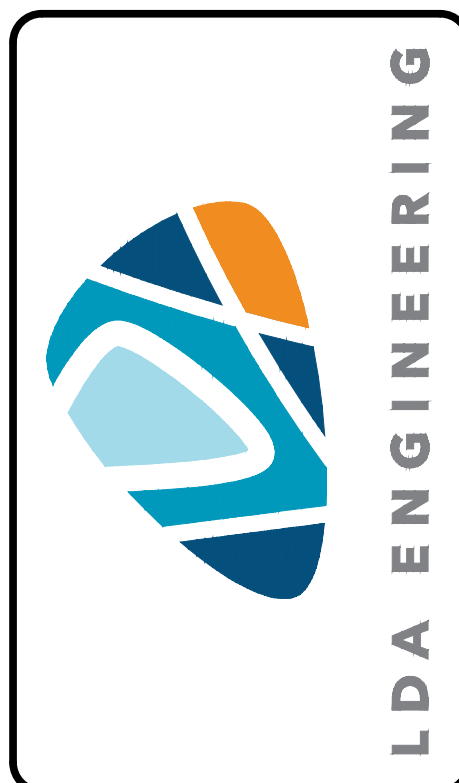
MATCHLINE STA. 5+00 (SEE BELOW)



5B

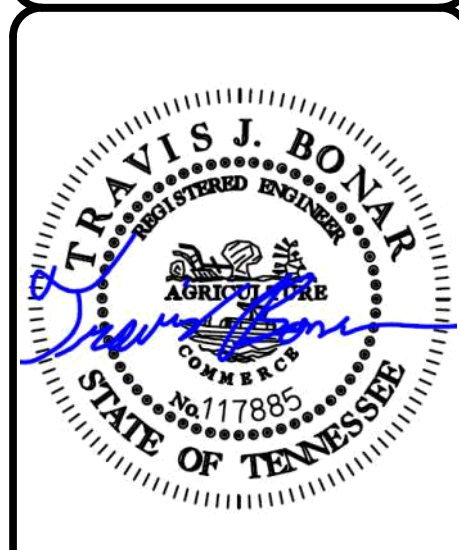


MATCHLINE STA. 10+40(SEE SHEET 4)



REV	DATE	REVISION DESCRIPTION

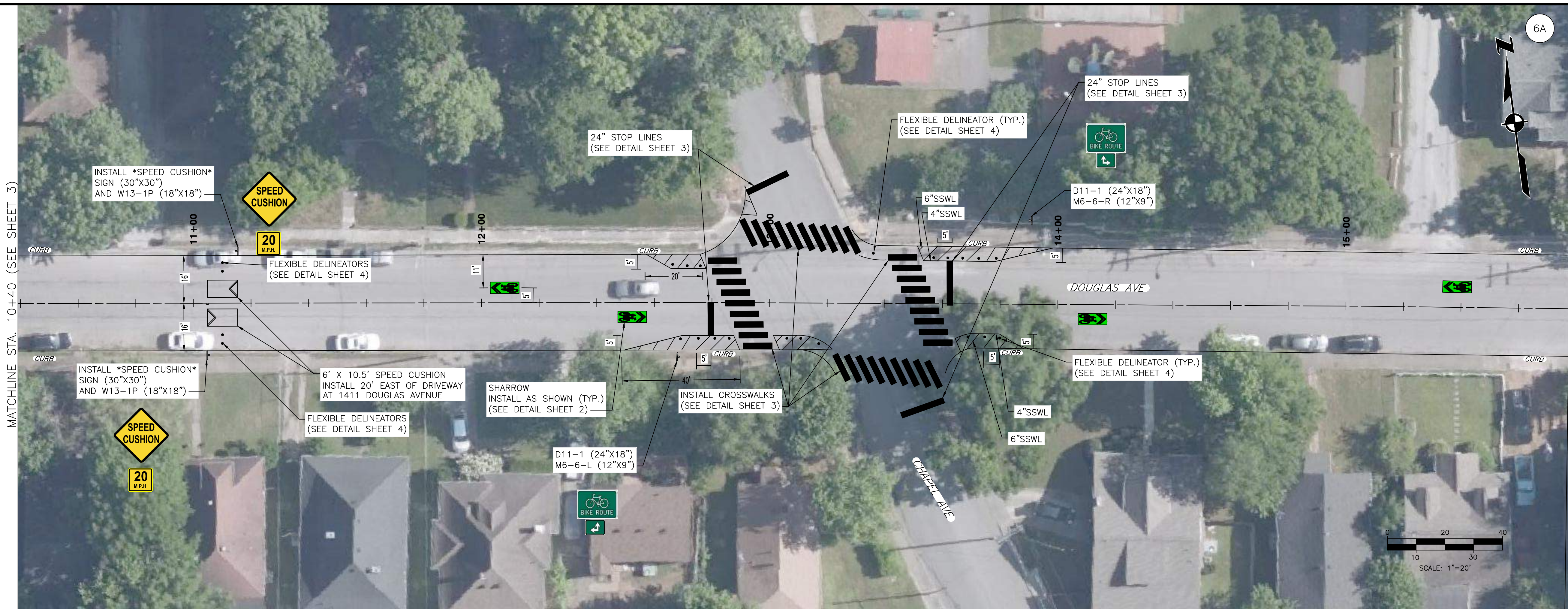
METROPOLITAN GOVERNMENT OF NASHVILLE  
AND DAVIDSON COUNTY, TENNESSEE  
DOUGLAS AVENUE BIKEWAY IMPROVEMENTS  
FROM GALLATIN AVENUE TO SCOTT AVENUE



PROJECT NUMBER: MET008  
DATE: 10/2023 SCALE: 1"=20'  
DRAWN BY: TBR DESIGNED BY: MMY

SHEET TITLE:  
SITE PLAN  
STA. 0+00 TO  
STA. 10+40

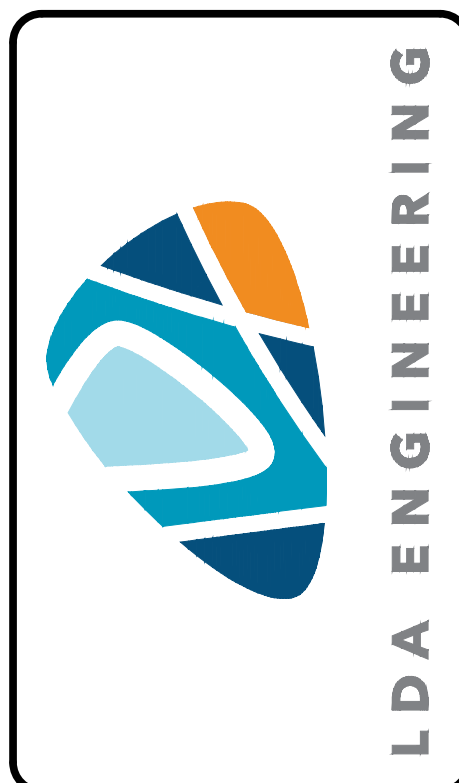
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6A

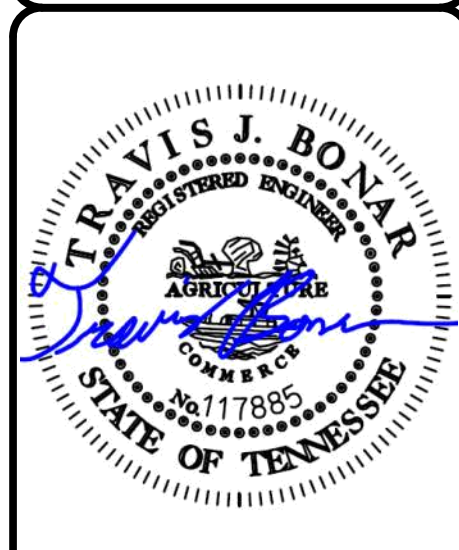


6B



REV	DATE	REVISION DESCRIPTION

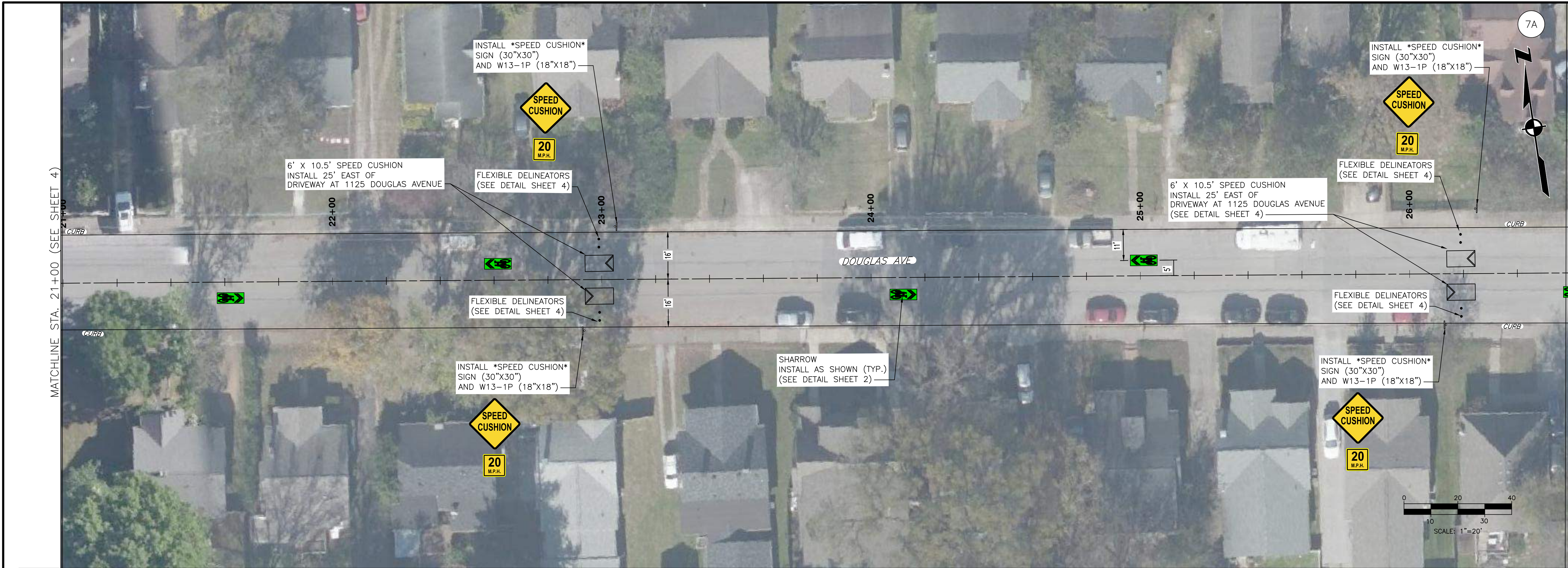
METROPOLITAN GOVERNMENT OF NASHVILLE  
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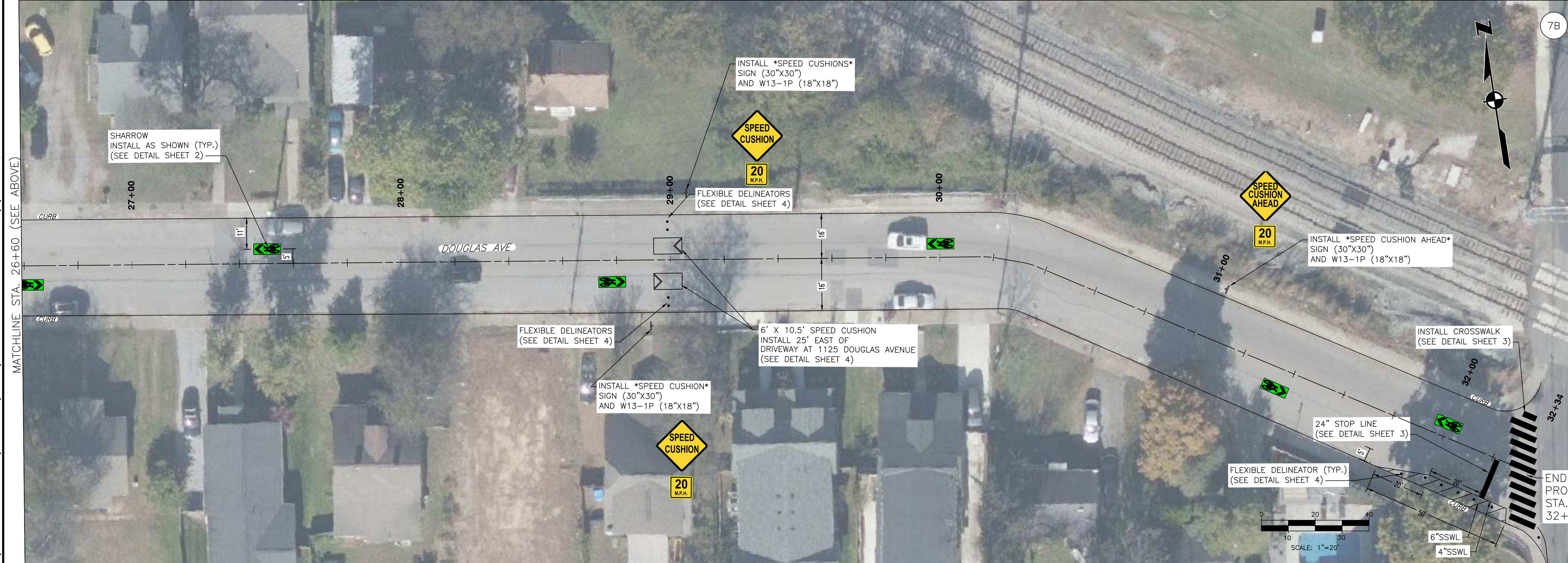
PROJECT NUMBER:	MET008
DATE:	10/2023
SCALE:	1"=20'
DRAWN BY:	TBR
DESIGNED BY:	MMY
SHEET TITLE:	SITE PLAN STA. 10+40 TO STA. 21+00
SHEET 6 OF 8	

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MATCHLINE STA. 26+60 (SEE BELOW)

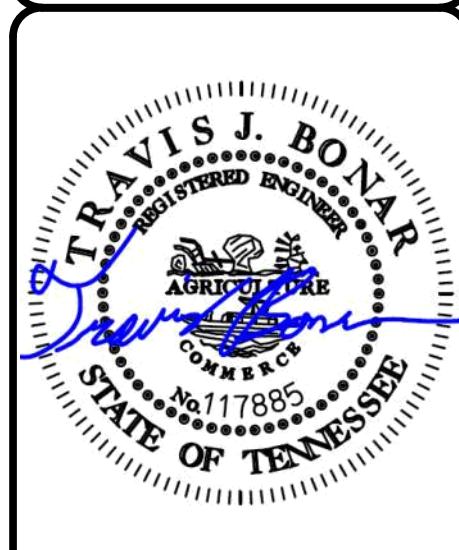


MATCHLINE STA. 26+60 (SEE ABOVE)



REV	DATE	REVISION DESCRIPTION

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DOUGLAS AVENUE BIKEWAY IMPROVEMENTS  
FROM GALLATIN AVENUE TO SCOTT AVENUE

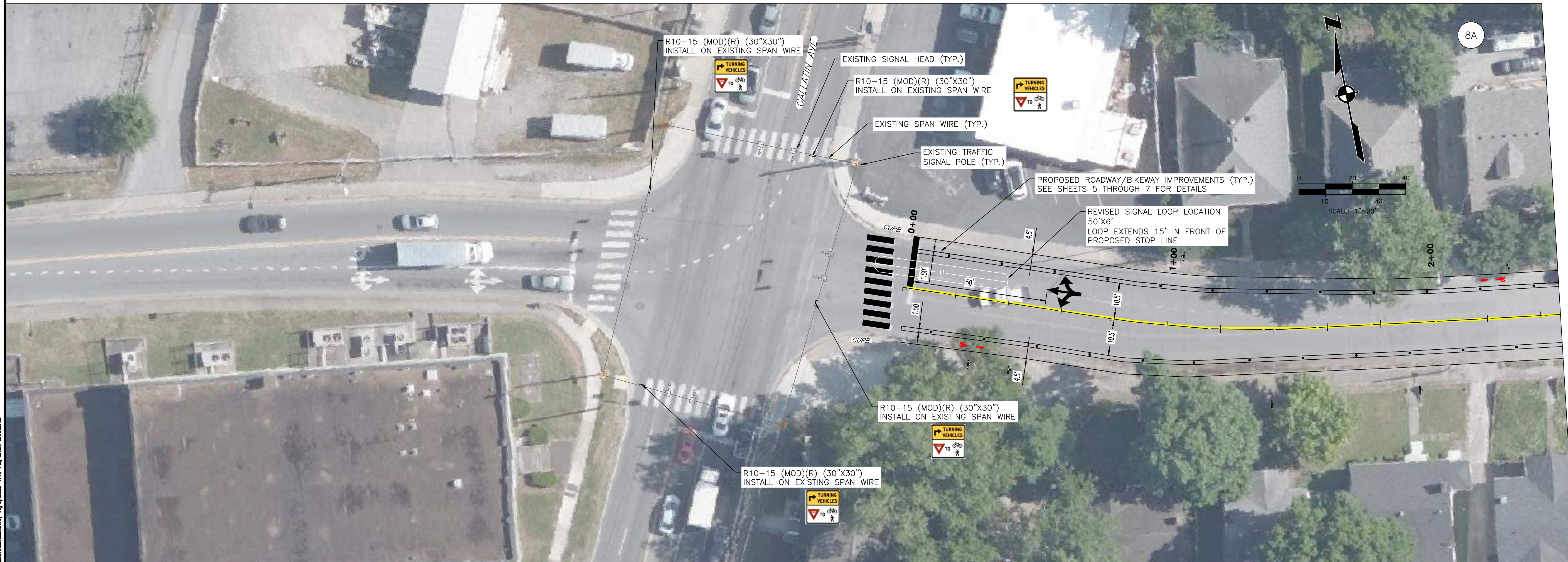


PROJECT NUMBER:	MET008
DATE:	10/2023
DRAWN BY:	TBR
DESIGNED BY:	MMY
SHEET TITLE:	SITE PLAN STA. 21+00 TO STA. 32+35

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PHASING			
1 	2 	3 	4 
5 	6 	7 	8 



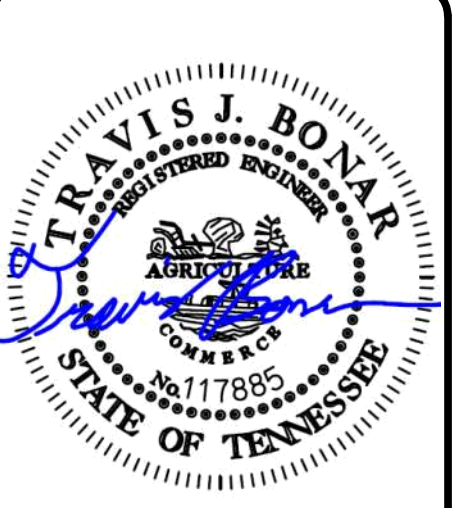
**NOTES:**

1. CONTRACTOR SHALL ADJUST LOCATION OF EXISTING SIGNAL HEADS TO BE CENTERED OVER THEIR RESPECTIVE LANES.
2. CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING DETECTION LOOPS. LOOPS SHOULD BE REPLACED AND RELOCATED IF THE EXISTING LOCATIONS CONFLICT WITH THE NEW LANE CONFIGURATION.
3. ALL EXISTING SIGNAGE SHALL BE RETAINED, UNLESS EXPLICITLY CALLED OUT TO BE REMOVED AS PART OF THIS PLAN SET.
4. R10-15 SIGN (R) SHALL BE INSTALLED AT THE INTERSECTIONS OF DOUGLAS AVE AND GALLATIN AVE.
5. TURN OFF LEFT TURN LOOP FOR EASTBOUND TRAFFIC LANE ON DOUGLAS AVE, EAST OF GALLATIN AVE. REPLACE RIGHT/THROUGH LOOP WIRE AS SHOWN ON PLANS.

C:\DOUGLAS\_PHSHEE\_DWG\_2023\_142\CONCEPTUAL DESIGN\SHEET FILES\METHOD\_005-D00-DOUGLAS\_AVE\_SIGN\SHEET.DWG, 10/27/2023 4:48 PM, ZACH BARNETTE

REV	DATE	REVISION DESCRIPTION

METROPOLITAN GOVERNMENT OF NASHVILLE  
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FROM GALLATIN AVENUE TO SCOTT AVENUE



PROJECT NUMBER: MET008	DATE: 10/2023	SCALE: 1"=20'
DRAWN BY: TBR	DESIGNED BY: MMY	
SHEET TITLE: SIGNAL SHEET DOUGLAS AVE AND GALLATIN AVE INTERSECTION		