

# CITY OF RICHMOND, VIRGINIA

## DEPARTMENT OF PUBLIC WORKS

### TRANSPORTATION ENGINEERING DIVISION



## BIKE LANE

# Williamsburg Avenue

VHB PROJECT NO. 33965.12

CITY OF RICHMOND	
APPROVED FOR CONSTRUCTION	
DATE	SURVEYS SUPERINTENDENT
DATE	PROJECT MANAGER
DATE	MAINTENANCE ENGINEER
DATE	CITY TRANSPORTATION ENGINEER
DATE	CAPITAL PROJECTS ADMINISTRATOR
DATE	CITY ENGINEER
DATE	DIRECTOR OF PUBLIC WORKS

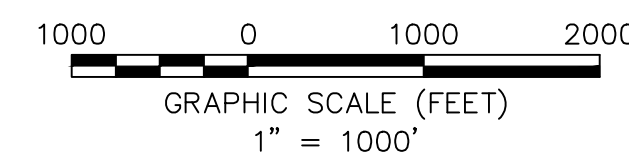
REVISIONS		
NO.	DATE	COMMENTS

#### INDEX OF SHEETS

Sheet Title	Sheet No.
LEGEND AND GENERAL NOTES	C1.00
OVERALL EXISTING CONDITIONS PLAN	C2.00
EXISTING CONDITIONS PLAN	C2.01 - C2.03
OVERALL PAVEMENT MARKING AND SIGNAGE PLAN	C3.00
PAVEMENT MARKING AND SIGNAGE PLAN	C3.01 - C3.03
DETAILS	C4.01
DETAILS	C4.02



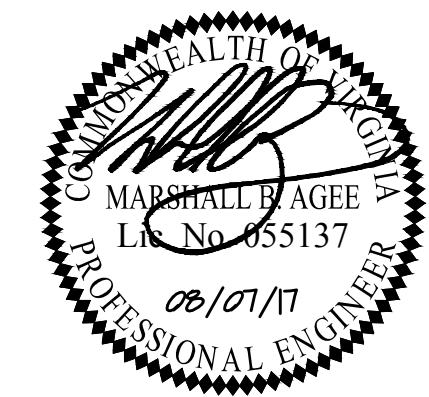
LOCATION MAP



August 7, 2017

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE CITY OF RICHMOND.

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE 2016 VDOT ROAD AND BRIDGE SPECIFICATIONS, 2016 VDOT ROAD AND BRIDGE STANDARDS, 2009 FHWA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 2011 VIRGINIA SUPPLEMENT TO THE MUTCD, 2011 VIRGINIA WORK AREA PROTECTION MANUAL, APPLICABLE CITY OF RICHMOND STANDARDS AND SPECIFICATIONS, AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC VERSION OF THE PLAN ASSEMBLY.



**CITY OF RICHMOND**  
 DEPARTMENT OF PUBLIC WORKS  
 RICHMOND, VIRGINIA  
 DRAWING NO: O-XXXXX



115 South 15th Street  
 Suite 200  
 Richmond, VA 23219  
 804.343.7100  
**vhb.com**

DESIGNED BY: .....Xonosse, Hengen, Brustlin, Inc., (804) 343-7100





115 South 15th Street  
Suite 200  
Richmond, VA 23219  
804.343.7100

Legend		
Exist.	Prop.	
		RIGHT-OF-WAY/PROPERTY LINE
		FACE OF CURB
		BUILDING
		FLEXIBLE DELINEATOR
		DUMPSTER PAD
		SIGN
		DOUBLE SIGN
		DOUBLE YELLOW LINE
		STOP LINE
		CROSSWALK
		CROSSBIKE
		ACCESSIBLE CURB RAMP
		ACCESSIBLE PARKING
		VAN-ACCESSIBLE PARKING
		FIRE HYDRANT
		TRAFFIC SIGNAL
		SIGNALLED INTERSECTION
		UTILITY POLE
		<b>Matchline</b> MATCHLINE

Abbreviations		
General		
ADJ	ADJUST	
APPROX	APPROXIMATE	
BWLL	BROKEN WHITE LANE LINE	
DYCL	DOUBLE YELLOW CENTER LINE	
EX	EXISTING	
EXIST	EXISTING	
MAX	MAXIMUM	
MIN	MINIMUM	
NIC	NOT IN CONTRACT	
NTS	NOT TO SCALE	
SWEL	SOLID WHITE EDGE LINE	
SWLL	SOLID WHITE LANE LINE	
TYP	TYPICAL	

- ### Notes
- General**
- CONTRACTOR SHALL CONTACT MISS UTILITY AT 811, 1-800-552-7100, OR [HTTP://WWW.MISSUTILITYOFVIRGINIA.COM](http://www.missutilityofvirginia.com) NO LESS THAN 72 HOURS PRIOR TO EXCAVATION AND SHALL NOT DISTURB THE SOIL UNTIL DIG TICKET HAS BEEN PROCESSED.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
  - ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
  - WORK WITHIN THE LOCAL RIGHT-OF-WAY SHALL CONFORM TO CITY OF RICHMOND STANDARDS.
  - UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
  - TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
  - CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
  - AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
  - DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
  - THIS PROJECT IS NOT SUBJECT TO THE CITY OF RICHMOND STORMWATER MANAGEMENT PERMIT (RSMP) AS THERE IS NO LAND DISTURBANCE.
  - CONTRACTOR SHALL PHASE WORK TO MINIMIZE TIME BETWEEN REMOVING EXISTING MARKINGS AND TRAFFIC CONTROL DEVICES AND INSTALLATION OF NEW MARKINGS AND TRAFFIC CONTROL DEVICES.
  - CONTRACTOR SHALL SEAL ALL ASPHALT AND REPAIR SURFACES AS NECESSARY ALONG BIKE LANES WHERE MINOR CRACKS AND JOINTS IMPEDE NORMAL BICYCLE FLOW. LARGE SURFACE REPAIRS OR LAND DISTURBANCE ACTIVITIES, IF REQUIRED, SHALL BE PERFORMED UNDER SEPARATE CONTRACT. PLEASE NOTIFY CITY ENGINEER WHERE MAJOR PAVEMENT REPAIRS ARE REQUIRED.
  - CONTRACTOR SHALL INSPECT ALL STOP BARS AT SIDE STREET INTERSECTIONS. ALL STOP BARS SHALL BE REFRESHED TO FULL VISIBILITY. IF A STOP BAR SHOWS SIGNS OF WEAR OR MISSING PAINT IT SHALL BE REPLACED IN ITS ENTIRETY.

- ### Layout and Materials
- DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
  - PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.
  - ALL CONCRETE IF NOT SPECIFICALLY CALLED OUT SHALL BE A MINIMUM OF 3,000 PSI.

- ### Maintenance of Traffic
- THE PURPOSE OF THESE NOTES IS TO DESCRIBE GENERAL TRAFFIC OPERATION DURING CONSTRUCTION. IT IS NOT INTENDED TO PROVIDE ALL DETAILS RELATED TO MAINTENANCE OF TRAFFIC.
  - ALL MAINTENANCE OF TRAFFIC OPERATIONS AND MATERIALS SHALL MEET THE REQUIREMENTS OF THE VIRGINIA WORK AREA PROTECTION MANUAL, AUGUST 2011, AND PART IV OF THE MUTCD, INCLUDING ALL CHANGES AND REVISIONS TO DATE FOR THESE DOCUMENTS.
  - CONSTRUCTION WARNING SIGNS SHALL BE PLACED IN THE ADVANCE WARNING AREA AND THE TERMINATION AREA OF THE WORK ZONE. CONTRACTOR SHALL PROVIDE SIGNS AND ANY NECESSARY STANDS TO ENSURE AN UNRESTRICTED VIEW OF THE WARNINGS.
  - CONSTRUCTION IS ALLOWED MONDAY THROUGH SATURDAY DURING THE CONTRACT PERIOD. NO SUNDAY CLOSURES WILL BE ALLOWED UNLESS DIRECTED BY THE CITY TRANSPORTATION ENGINEER.
  - ALONG ALL PROJECT ROADWAYS, NO TEMPORARY LANE CLOSURES OR FLAGMEN OPERATIONS ARE PERMITTED BETWEEN THE HOURS OF 6:00 AM TO 9:00 AM AND 3:30 PM TO 6:00 PM, MONDAY THROUGH FRIDAY, OR AS DIRECTED BY THE PROJECT ENGINEER.
  - LANE CLOSURES WILL NOT BE PERMITTED ON HOLIDAYS OR ON THE DAY BEFORE OR AFTER, UNLESS OTHERWISE DIRECTED BY THE CITY TRANSPORTATION ENGINEER.
  - CONTRACTOR MUST SUBMIT THE MAINTENANCE OF TRAFFIC PLAN TO THE CITY TRAFFIC ENGINEER TWO WEEKS IN ADVANCE OF CONSTRUCTION FOR REVIEW AND APPROVAL.
  - CONTRACTOR MUST MAINTAIN SAFE ACCESS TO ALL DRIVEWAYS AND MAINTAIN PEDESTRIAN ACCESS AT THE INTERSECTIONS.
  - ALL WORK WITHIN 15 FEET OF THE OUTSIDE EDGE OF PAVEMENT SHALL BE SIGNED. UNDER NO CIRCUMSTANCE WILL CONCURRENT WORK LEFT AND RIGHT OF ANY LANE OF TRAFFIC BE ALLOWED.
  - NO TEMPORARY TRAFFIC CONTROL MEASURES WILL BE ALLOWED TO BE PLACED WITHIN THE RIGHT OF WAY PRIOR TO THE START OF CONSTRUCTION.
  - ANY FLAGGERS USED DURING CONSTRUCTION SHALL BE STATE CERTIFIED. CERTIFICATION SHALL BE AVAILABLE ON SITE AT ALL TIMES.
  - THE SIGNING, BARRICADING, PAVEMENT MARKING, AND OTHER TRAFFIC CONTROLS MAY BE CHANGED DURING THE PROJECT WHEN DEEMED NECESSARY BY THE CITY FOR BEST INTEREST OF THE GENERAL PUBLIC AND THE SAFE AND ORDERLY FLOW OF TRAFFIC.
  - FAILURE TO PROVIDE TEMPORARY TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE VIRGINIA WORK AREA PROTECTION MANUAL SHALL RESULT IN IMMEDIATE CORRECTIVE MEASURES BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY.

- ### City of Richmond DPW (Related to Work within ROW)
- ALL WORK IN THE STREETS AND SIDEWALKS SHALL BE PERFORMED UNDER A PERMIT AND MONITORED BY THE PERMIT INSPECTOR.
  - WORK SHALL NOT COMMENCE UNTIL THE PERMIT INSPECTOR HAS BEEN NOTIFIED, A PRE-CONSTRUCTION CONFERENCE HELD, AND MISS UTILITY CLEARS.
  - ANY DISTURBED SIDEWALK OR CURB SHALL BE REPAIRED AND REPLACED IN ACCORDANCE WITH CITY STANDARDS AS SHOWN ON THE PLANS.

- ### Existing Conditions Information
- BASE PLAN: THE PROPERTY LINES AND OTHER EXISTING CONDITIONS SHOWN ARE BASED ON INFORMATION COMPILED FROM CITY OF RICHMOND GIS AND AERIAL PHOTOGRAPHY. THEY ARE NOT WARRANTED TO BE EXACT. FIELD VERIFICATIONS OF PAVEMENT WIDTHS AND EXISTING SIGNAGE LOCATIONS WERE PERFORMED BY VHB IN AUGUST 2016 AND AGAIN IN JANUARY 2017.

- ### Document Use
- THESE PLANS AND CORRESPONDING CADD DOCUMENTS ARE INSTRUMENTS OF PROFESSIONAL SERVICE, AND SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS CREATED WITHOUT THE EXPRESSED, WRITTEN CONSENT OF VHB. ANY UNAUTHORIZED USE, REUSE, MODIFICATION OR ALTERATION, INCLUDING AUTOMATED CONVERSION OF THIS DOCUMENT SHALL BE AT THE USER'S SOLE RISK WITHOUT LIABILITY OR LEGAL EXPOSURE TO VHB.
  - CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.
  - SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.

Existing Sign Summary							
Regulatory Sign Summary				Warning Sign Summary			
M.U.T.C.D. Number	Desc.	M.U.T.C.D. Number	Desc.	M.U.T.C.D. Number	Desc.	M.U.T.C.D. Number	Desc.
R1-1		R7-1		W1-7		W11-1	
R1-2		R7-6		W1-8L		W11-V3	
R2-1		R7-201a		W1-8R		W11-2	
R2-6(M)		R7-203		W2-4		W11-7	
R3-1		R7-2a		W3-3		W11-8	
R3-2		R7-8		W3-5		W12-2	
R3-4		R7-108		W5-2		W16-2a	
R3-5L		R8-3a		W5-2		W16-3a	
R3-5R		R8-3a(M)		W8-10		W16-5pl	
R3-7L		R8-3b		W9-1(MOD)		W16-6pR	
R3-7R		R9-6		W9-2L		W16-7pR	
R3-7LR		R10-3e		W9-xx		W16-7pL	
R3-7pP		R10-7		W10-1		W16-9p	
R3-17		R10-11a		W10-12			
R4-4		R10-11b					
R4-7		R10-13					
R4-11		R10-15					
R5-1		R10-15R					
R5-2		R10-22					
R5-2a		R12-1					
R5-V3(M)		R12-4					
R5-V3		R13-1					
R6-2R		R15-1					
R6-2L		R15-2					

Sign Summary			
M.U.T.C.D. Number	Desc.	M.U.T.C.D. Number	Desc.
Bike 1		M3-3	
D1-3		M3-4	
D-3		M4-5	
1-6 (N)		M5-1L	
1-6 (O)		M5-1R	
M1-1		M6-1L	
M1-4		M6-1R	
M1-5		M6-3	
M1-8		M6-4	
M1-9		OM-3L	
M3-1		S1-1	
M3-2		S5-2	

## Williamsburg Avenue Bike Lanes

City of Richmond, Virginia

No.	Revision	Date	Aspd.

Designed by: \_\_\_\_\_ Checked by: \_\_\_\_\_  
Issued for: \_\_\_\_\_ Date: \_\_\_\_\_  
**100% Package** August 7, 2017

## Legend and General Notes

Drawing Number: \_\_\_\_\_  
  
**C1.00**  
 Sheet \_\_\_\_\_ of \_\_\_\_\_  
 Project Number: 33965.12





115 South 15th Street  
Suite 200  
Richmond, VA 23219  
804.343.7100



### Williamsburg Avenue Bike Lanes

City of Richmond, Virginia

No.	Revision	Date	App'd.

Designed by	Checked by
Issued for	Date
<b>100% Package</b>	<b>August 7, 2017</b>

Drawing Title

**Overall Existing  
Conditions Plan**

Drawing Number

**C2.00**

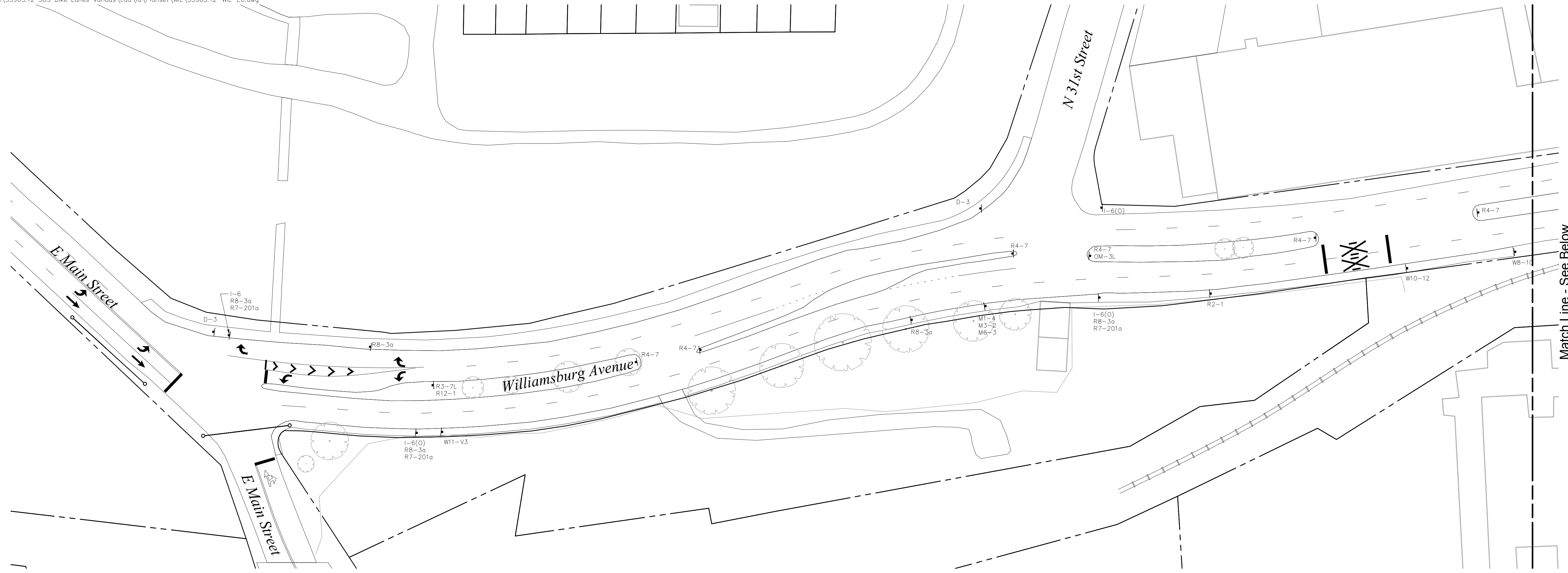
Sheet of

Project Number  
33965.12

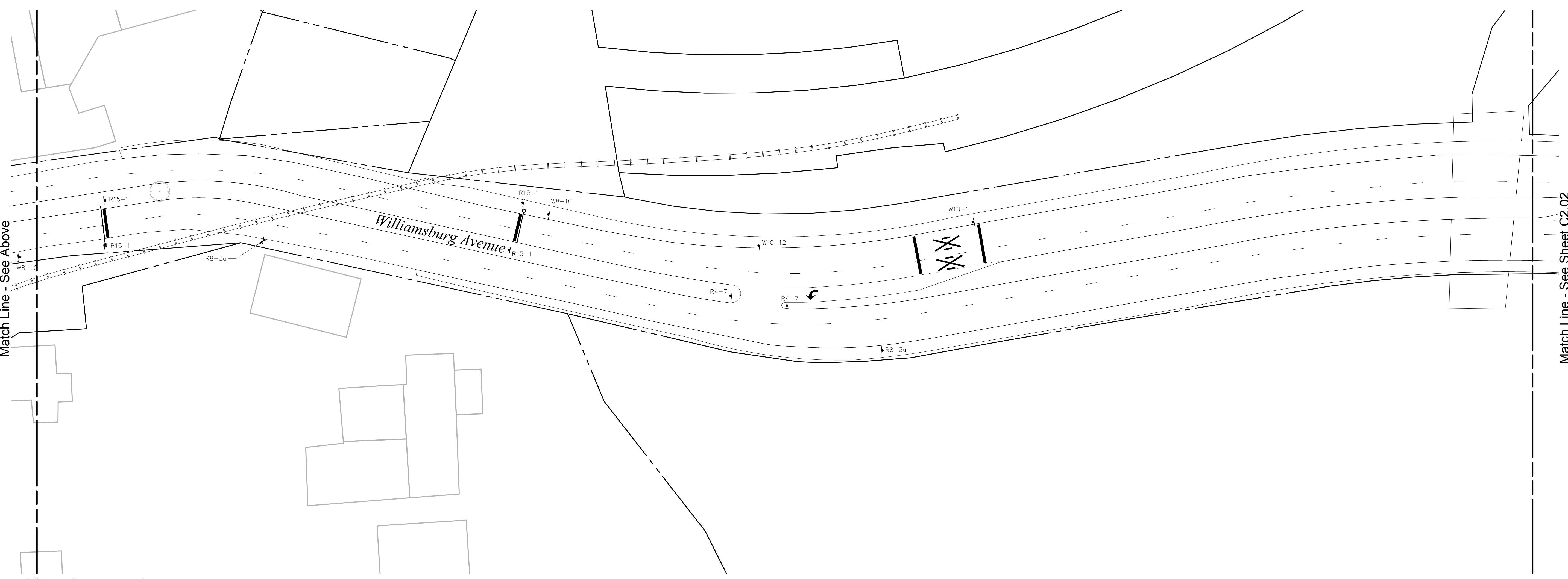




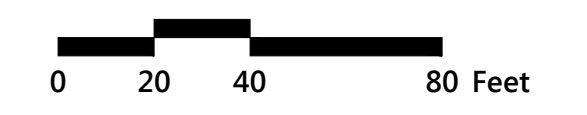
115 South 15th Street  
Suite 200  
Richmond, VA 23219  
804.343.7100



Williamsburg Road - East Main Street to W 31st Street



Williamsburg Road



### Williamsburg Avenue Bike Lanes

City of Richmond, Virginia

No.	Revision	Date	Aspd.

Designed by: \_\_\_\_\_ Checked by: \_\_\_\_\_  
 Issued for: \_\_\_\_\_ Date: \_\_\_\_\_  
**100% Package** August 7, 2017

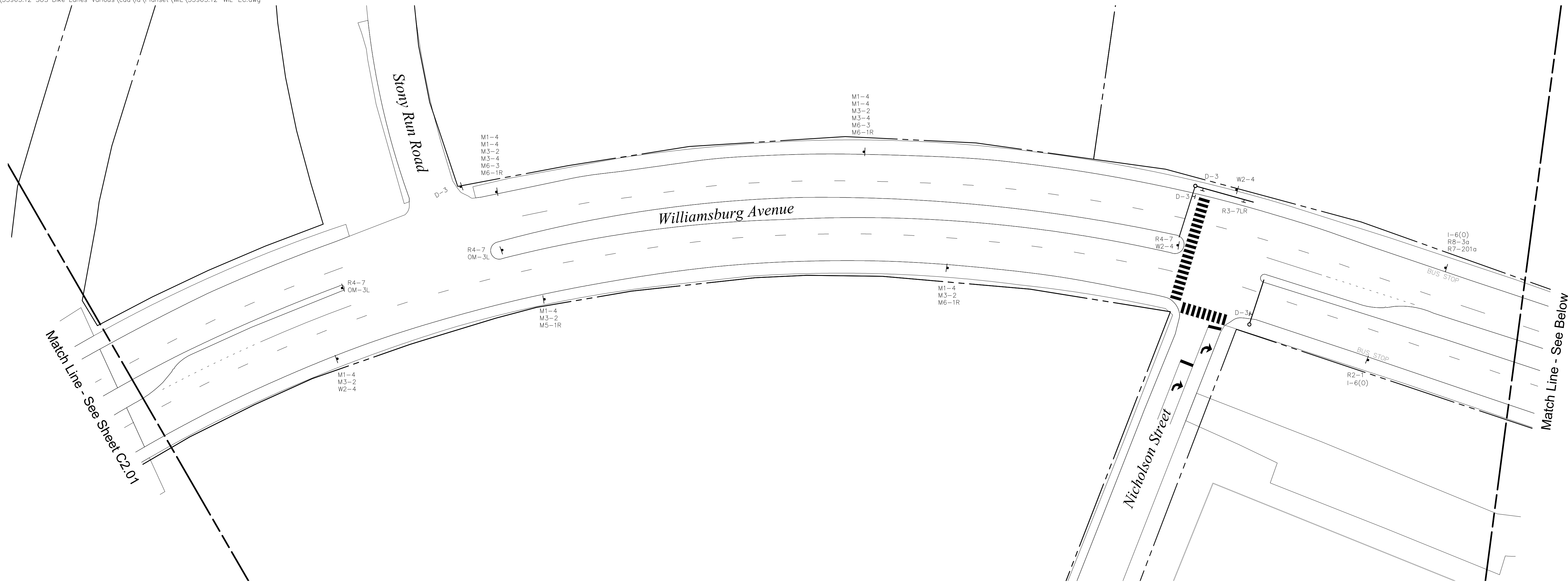
Existing Conditions Plan  
East Main Street



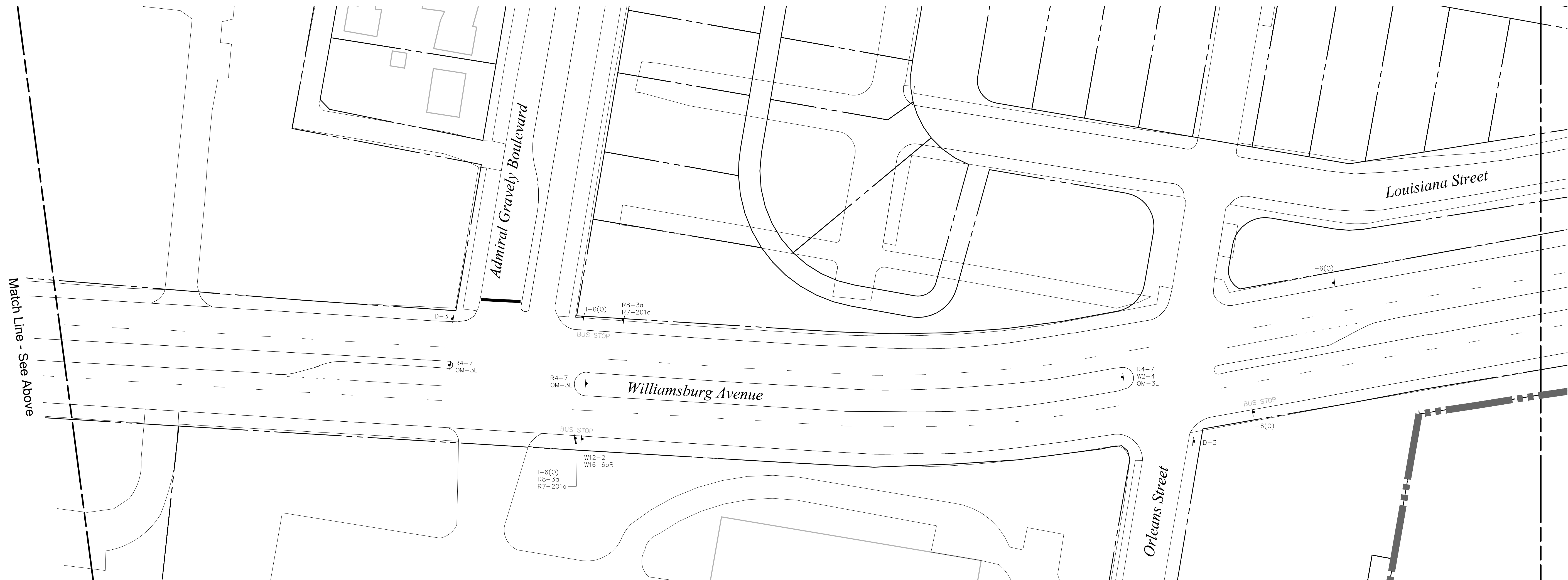
# C2.01

Sheet \_\_\_\_\_ of \_\_\_\_\_

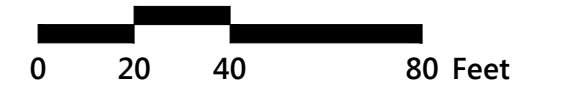
Project Number  
33965.12



**Williamsburg Road - Stony Run Road to Nicholson Street**



**Williamsburg Road - Admiral Gravelly Boulevard to Orleans Street**



**Williamsburg Avenue  
Bike Lanes**

City of Richmond, Virginia


No.	Revision	Date	App'd.

Designed by	Checked by
Issued for	Date

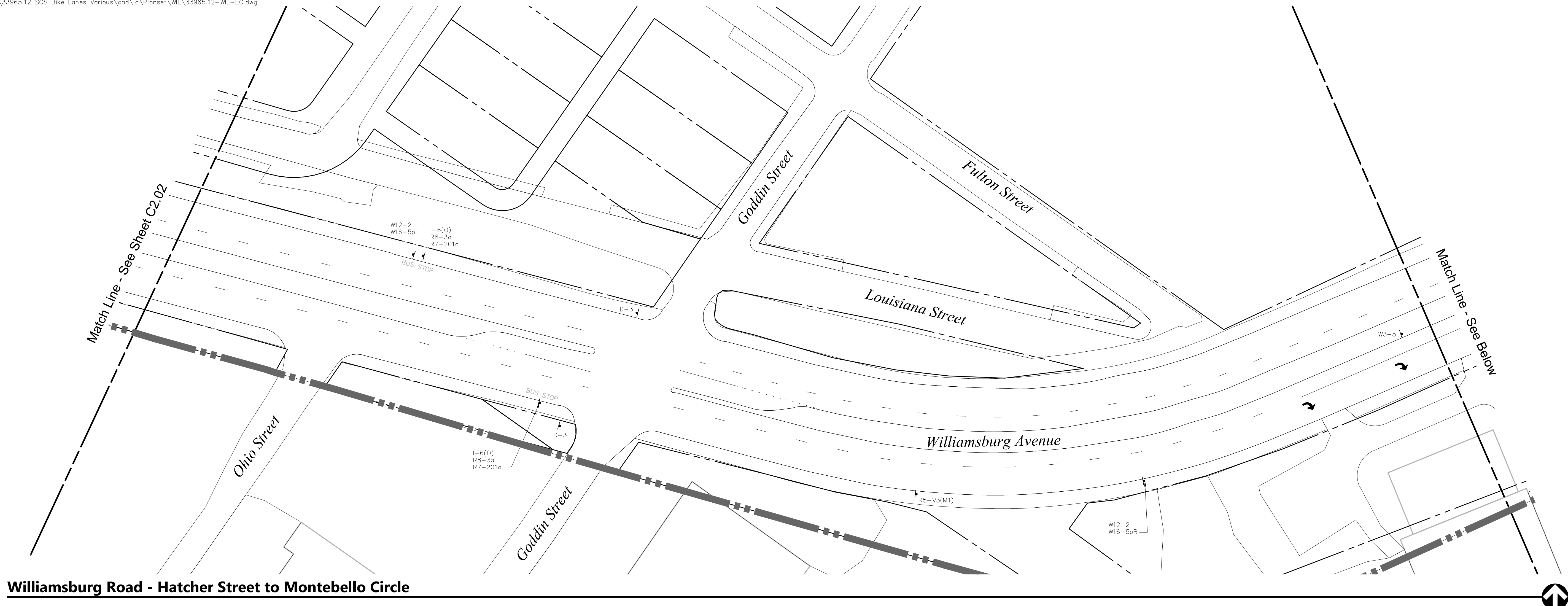
100% Package August 7, 2017

**Existing Conditions Plan  
Stony Run Road to  
Orleans Street**

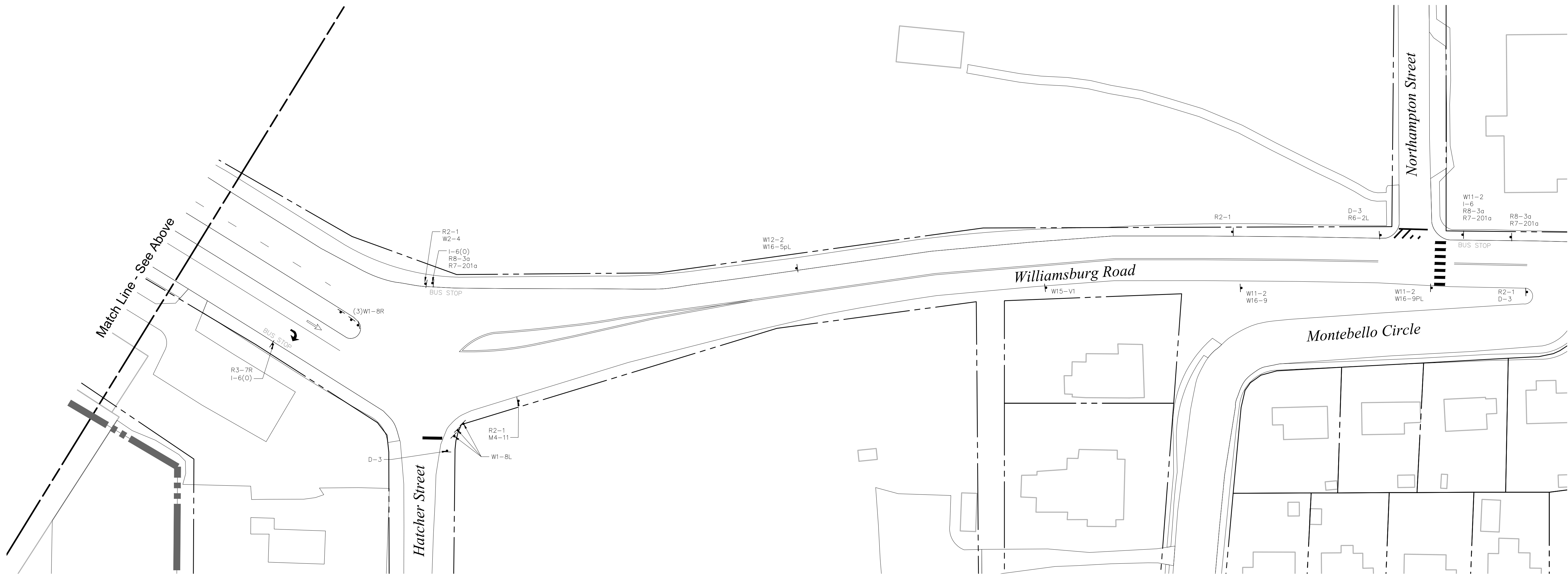
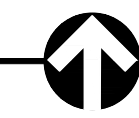
Drawing Number  
**C2.02**  
Sheet \_\_\_ of \_\_\_



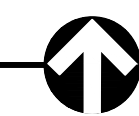




Williamsburg Road - Hatcher Street to Montebello Circle



Williamsburg Road - Hatcher Street to Montebello Circle



### Williamsburg Avenue Bike Lanes

City of Richmond, Virginia

No.	Revision	Date	Aspd.

Designed by: \_\_\_\_\_ Checked by: \_\_\_\_\_  
Issued for: \_\_\_\_\_ Date: August 7, 2017

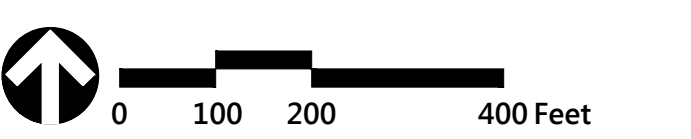
100% Package

Existing Conditions Plan  
Hatcher Sreet to  
Malone Street

Drawing Number  
**C2.03**  
Sheet \_\_\_\_\_ of \_\_\_\_\_



115 South 15th Street  
Suite 200  
Richmond, VA 23219  
804.343.7100



### Williamsburg Avenue Bike Lanes

City of Richmond, Virginia

No.	Revision	Date	App'd.

Designed by	Checked by
Issued for	Date
<b>100% Package</b>	<b>August 7, 2017</b>

### Overall Pavement Marking and Signage Plan

Drawing Number

# C3.00

Sheet \_\_\_\_\_ of \_\_\_\_\_

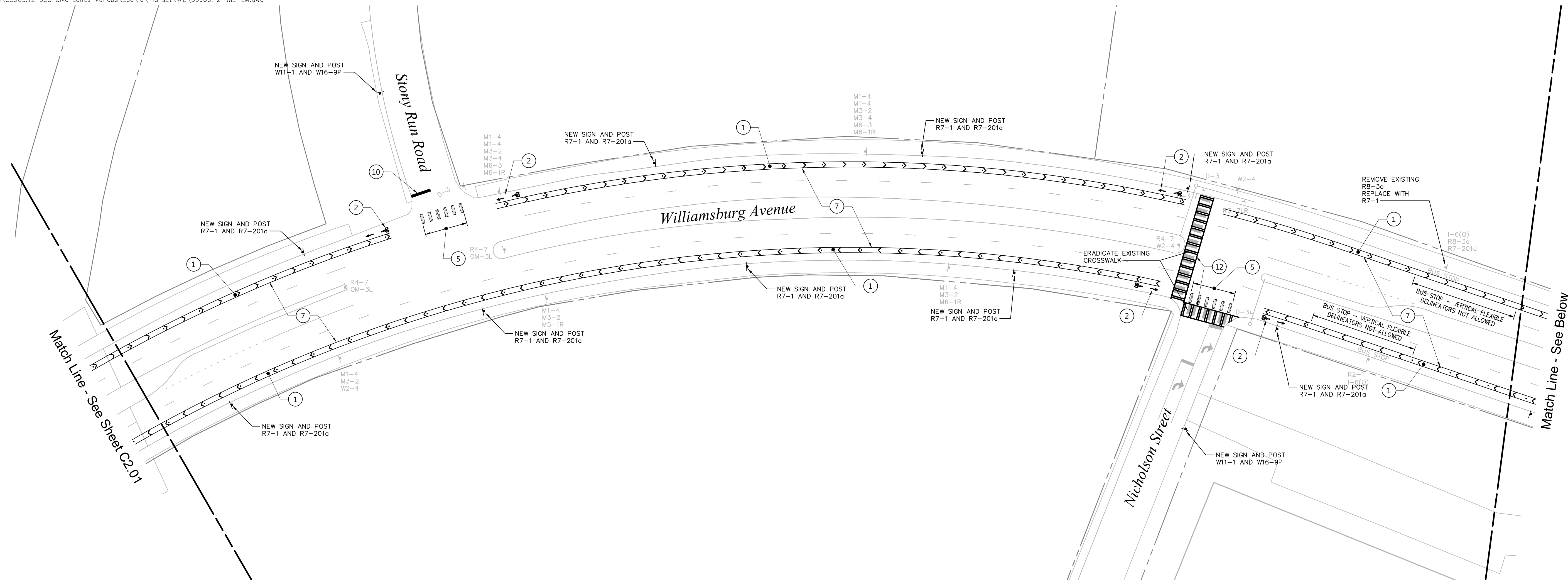
Project Number  
33965.12







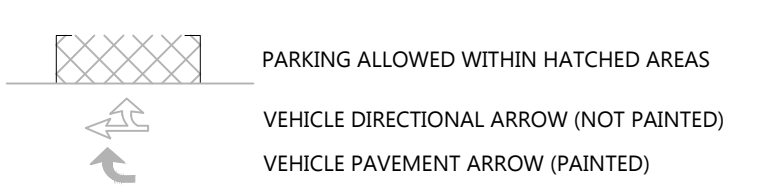
115 South 15th Street  
Suite 200  
Richmond, VA 23219  
804.343.7100



**Williamsburg Avenue - Stony Run Road to Nicholson Street**

**Pavement Marking Legend**

No.	Description	Color
1	BIKE LANE BUFFER	WHITE
2	HELMETED BICYCLIST SYMBOL AND ARROW	WHITE
3	SHARED LANE MARKING	WHITE
4	BICYCLE DETECTOR PAVEMENT MARKING	WHITE
5	CROSSBIKE	GREEN
6	BIKE LANE CROSSING WITHOUT CONFLICT PAINT	WHITE
7	SOLID LINE (4")	WHITE
8	DOUBLE SOLID LINE (4" EACH)	YELLOW
9	BIKE LANE STOP BAR (12")	WHITE
10	VEHICULAR STOP BAR (24")	WHITE
11	PAVEMENT ARROW	WHITE
12	CROSSWALK	WHITE
13	LANE MARKING - 10' DASH, 30' GAP (4" THICK)	WHITE
14	LANE MARKING - 3' DASH, 6' GAP (4" THICK)	WHITE
15	BIKE LANE YIELD LINE	WHITE
16	SOLID LINE (4")	YELLOW

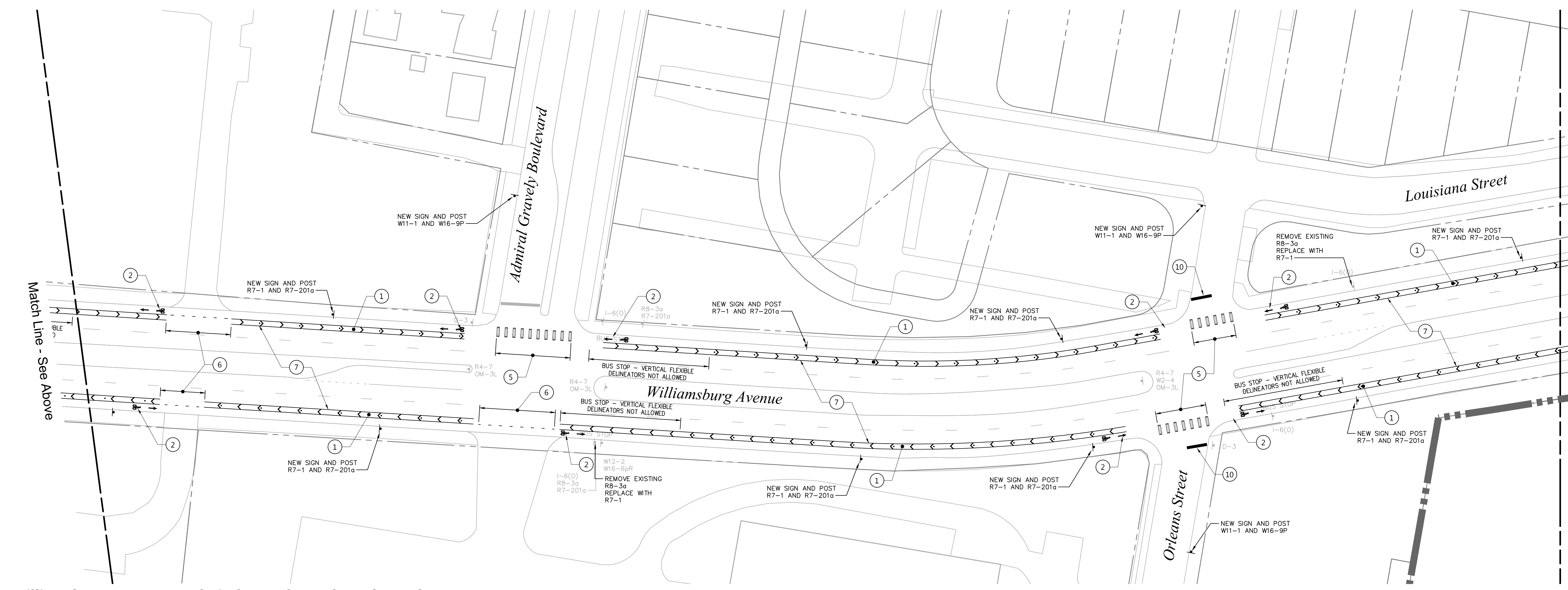


**Williamsburg Avenue Bike Lanes**

City of Richmond, Virginia

No.	Revision	Date	Aspd.

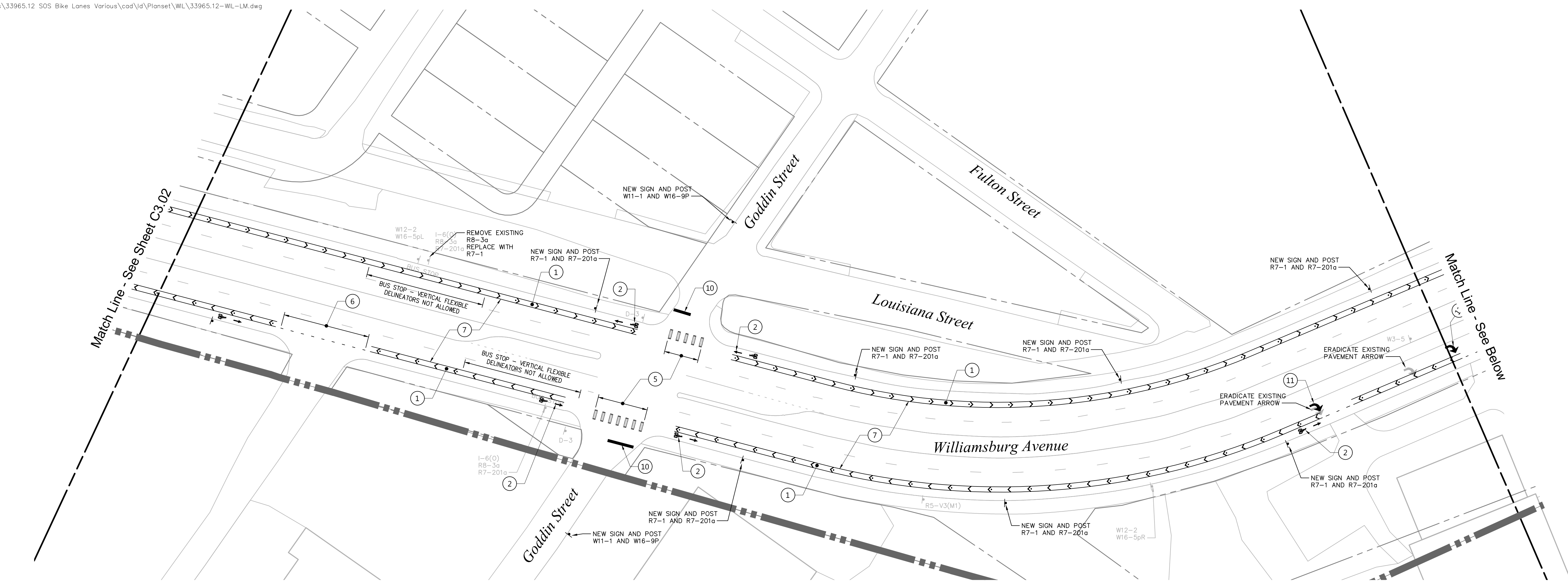
Designed by: \_\_\_\_\_ Checked by: \_\_\_\_\_  
Issued for: \_\_\_\_\_ Date: \_\_\_\_\_  
**100% Package** August 7, 2017



**Williamsburg Avenue - Admiral Gravelly Boulevard to Orleans Street**

**Pavement Marking and Signage Plan  
Stony Run Road to Orleans Street**

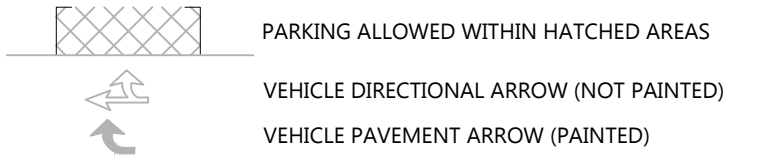
Drawing Number  
**C3.02**  
Sheet \_\_\_\_\_ of \_\_\_\_\_  
Project Number  
33965.12



**Williamsburg Avenue - Hatcher Street to Montebello Circle**

**Pavement Marking Legend**

No.	Description	Color
1	BIKE LANE BUFFER	WHITE
2	HELMETED BICYCLIST SYMBOL AND ARROW	WHITE
3	SHARED LANE MARKING	WHITE
4	BICYCLE DETECTOR PAVEMENT MARKING	WHITE
5	CROSSBIKE	GREEN
6	BIKE LANE CROSSING WITHOUT CONFLICT PAINT	WHITE
7	SOLID LINE (4")	WHITE
8	DOUBLE SOLID LINE (4" EACH)	YELLOW
9	BIKE LANE STOP BAR (12")	WHITE
10	VEHICULAR STOP BAR (24")	WHITE
11	PAVEMENT ARROW	WHITE
12	CROSSWALK	WHITE
13	LANE MARKING - 10' DASH, 30' GAP (4" THICK)	WHITE
14	LANE MARKING - 3' DASH, 6' GAP (4" THICK)	WHITE
15	BIKE LANE YIELD LINE	WHITE
16	SOLID LINE (4")	YELLOW



**Williamsburg Avenue Bike Lanes**


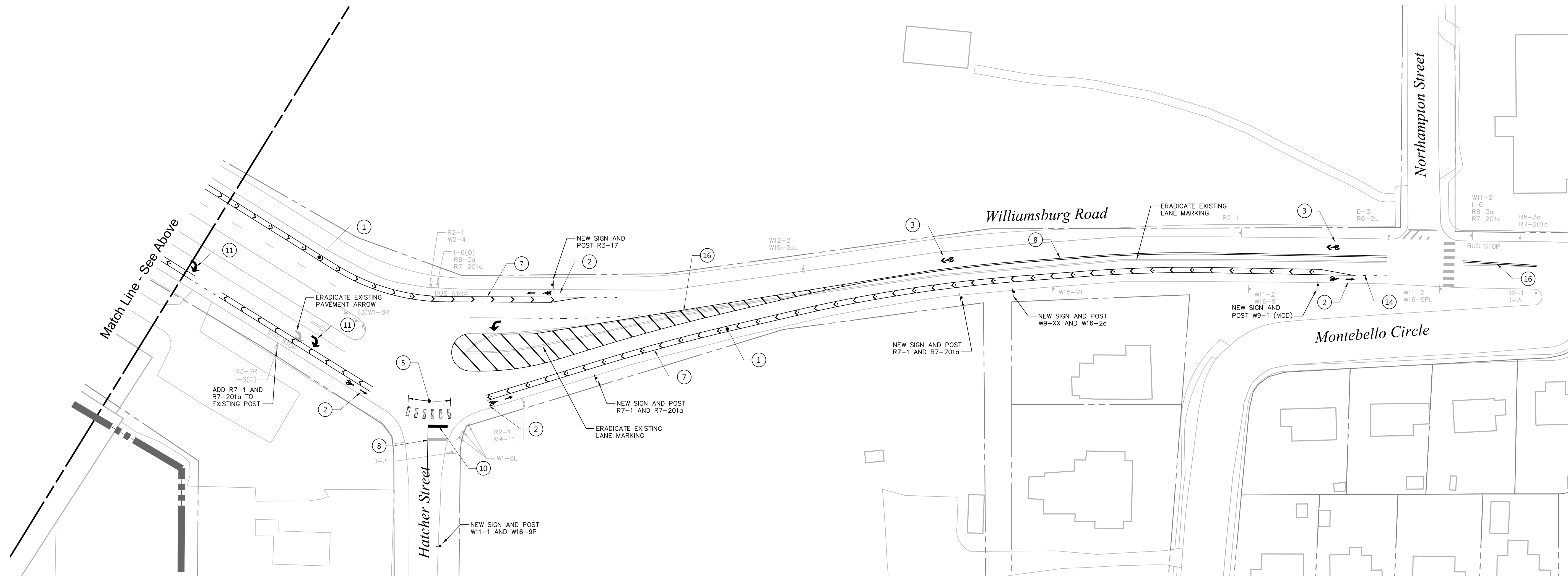
City of Richmond, Virginia

No.	Revision	Date	Aspd.

Designed by: \_\_\_\_\_ Checked by: \_\_\_\_\_  
 Issued for: \_\_\_\_\_ Date: \_\_\_\_\_  
**100% Package** August 7, 2017

**Pavement Marking and Signage Plan  
Orleans Sreet to Northampton Street**

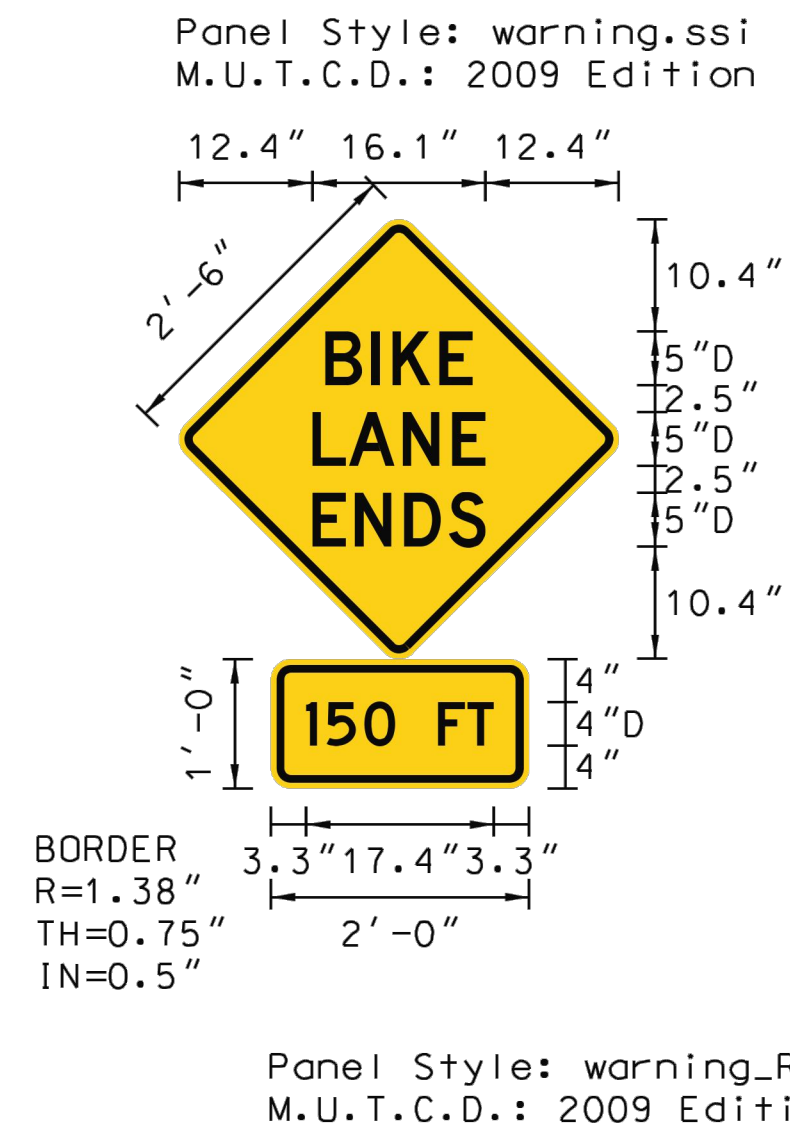
Drawing Number  
**C3.03**  
Sheet \_\_\_\_\_ of \_\_\_\_\_  
Project Number  
33965.12

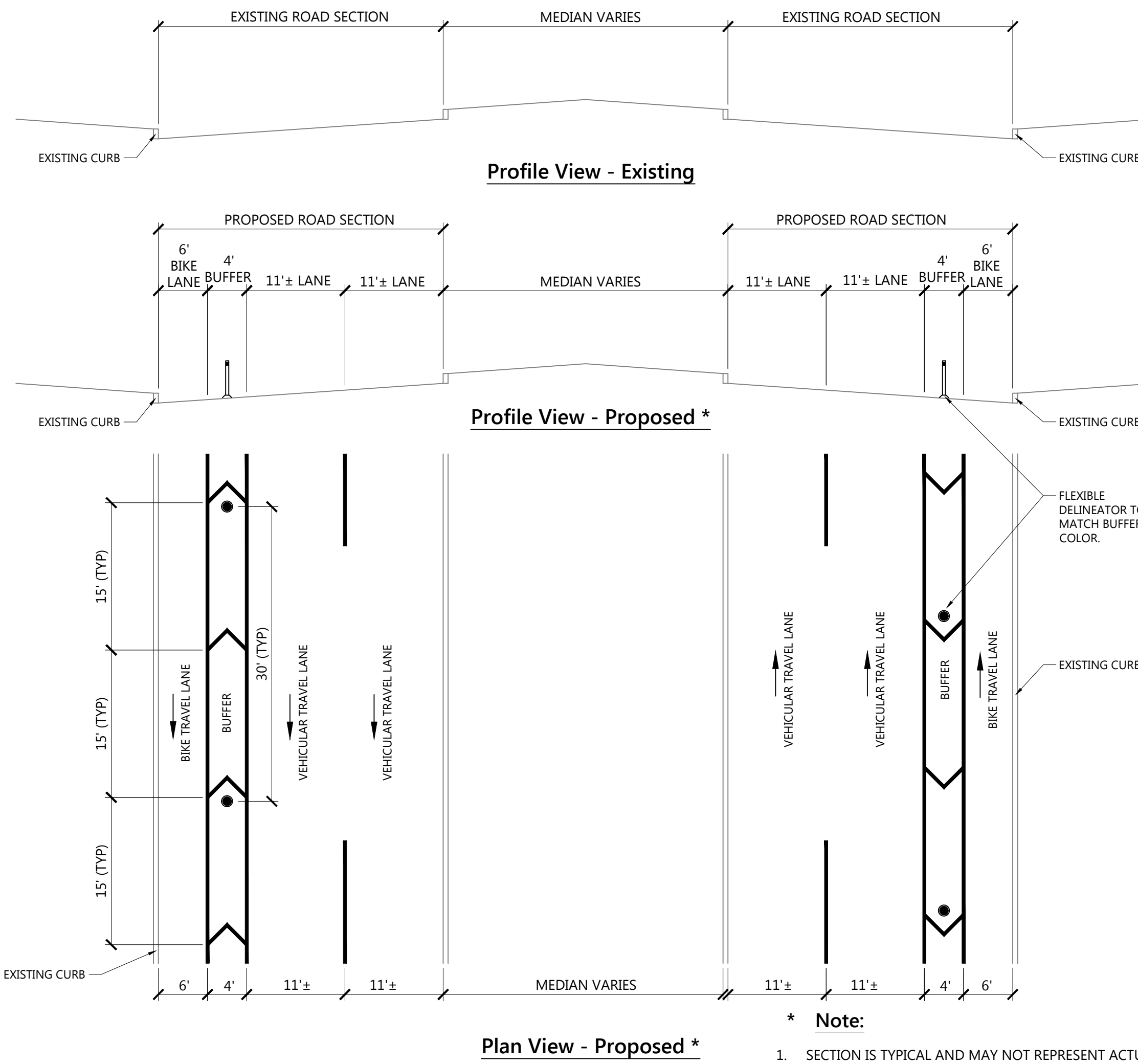
**Williamsburg Road - Hatcher Street to Montebello Circle**



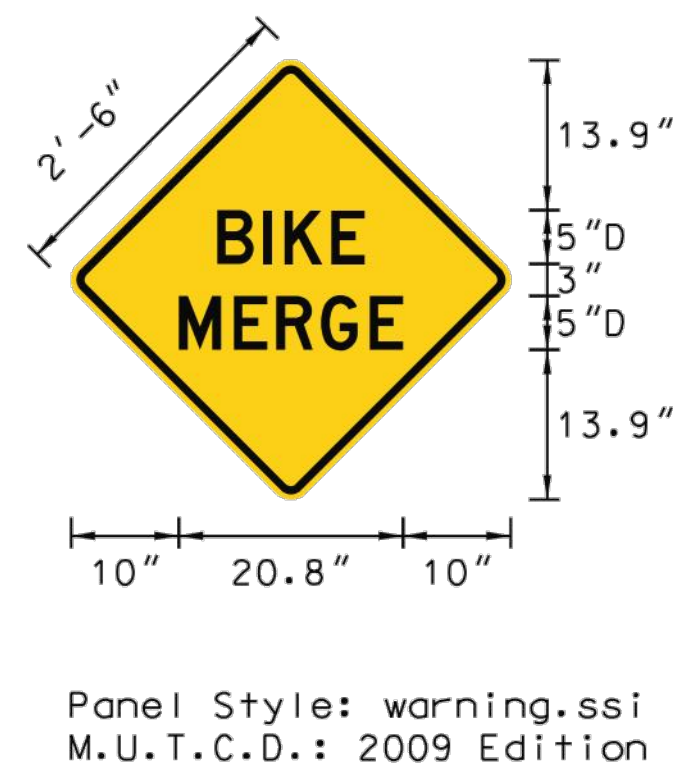
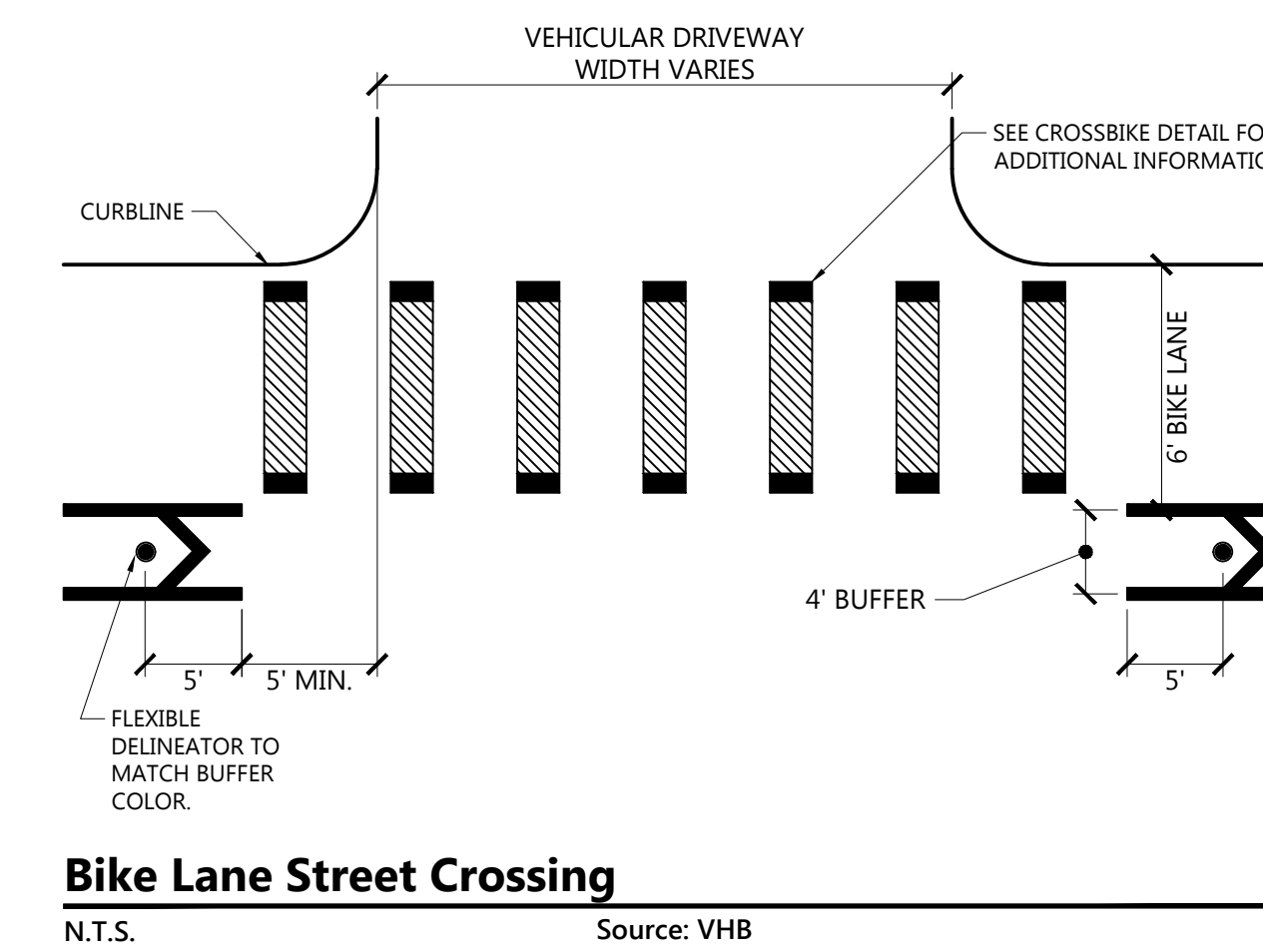
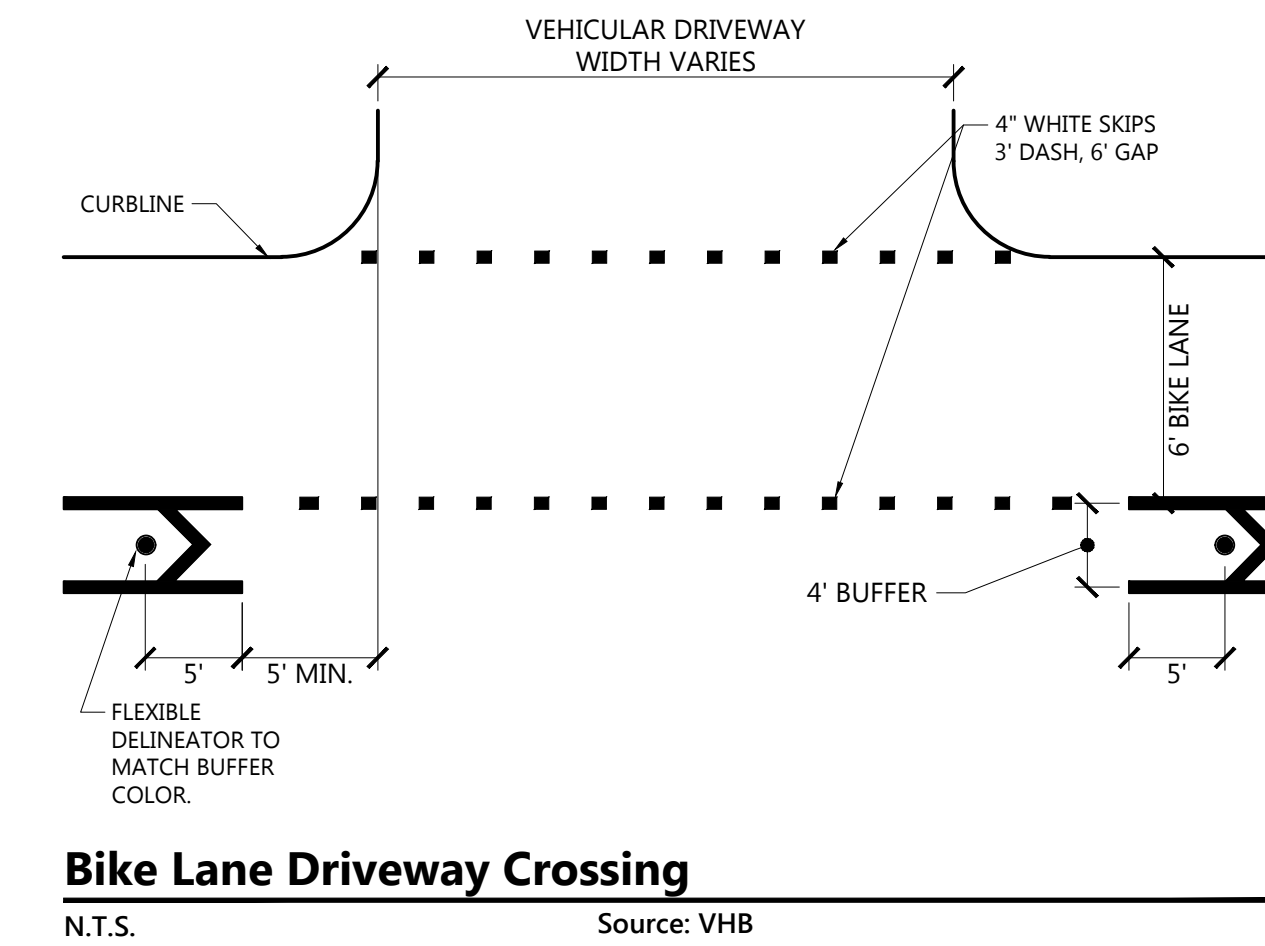




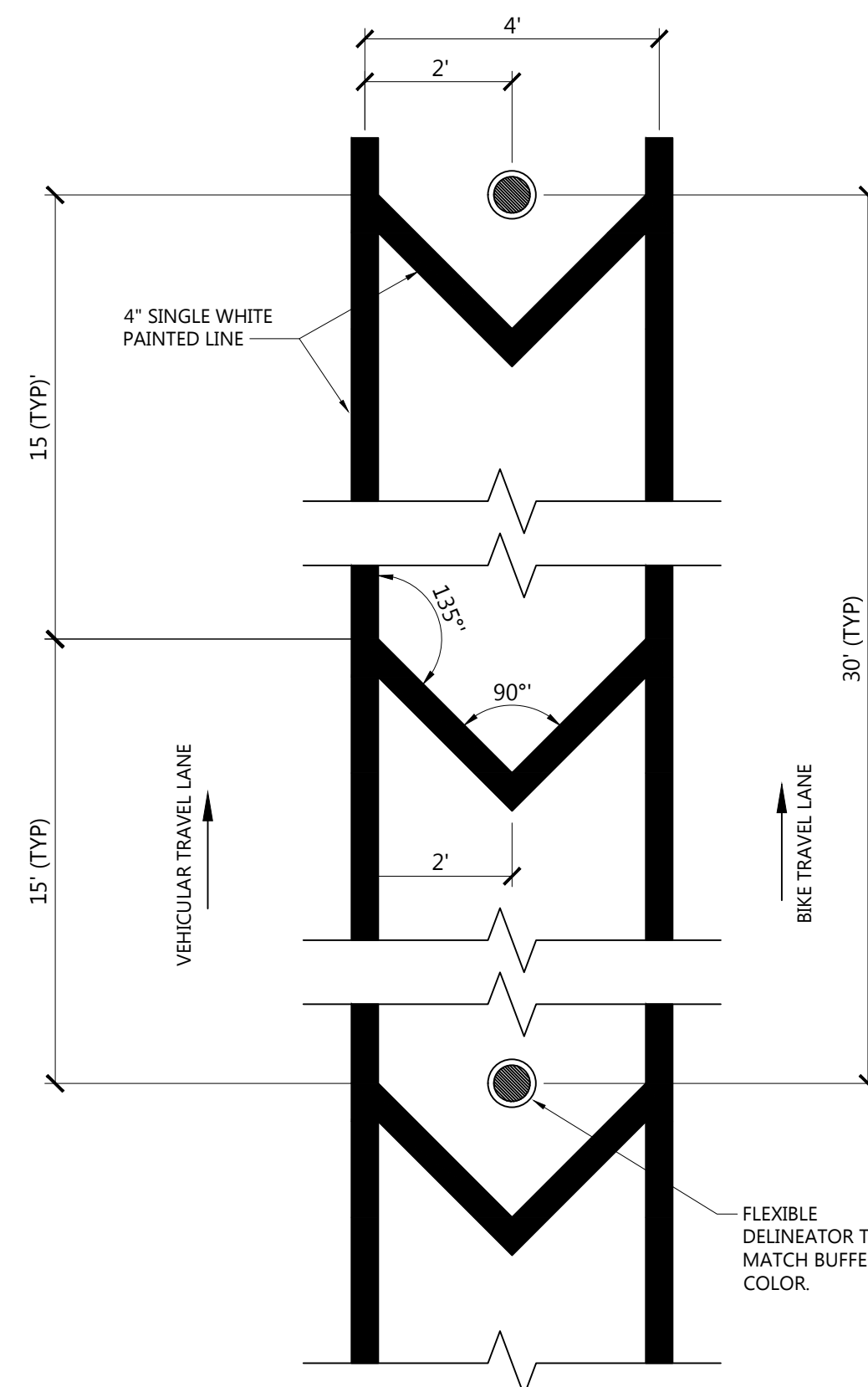
**W9-1(MOD) Bike Lane Ends Warning Sign** 01/17  
N.T.S. Source: NCTUCD 16-BIK-02



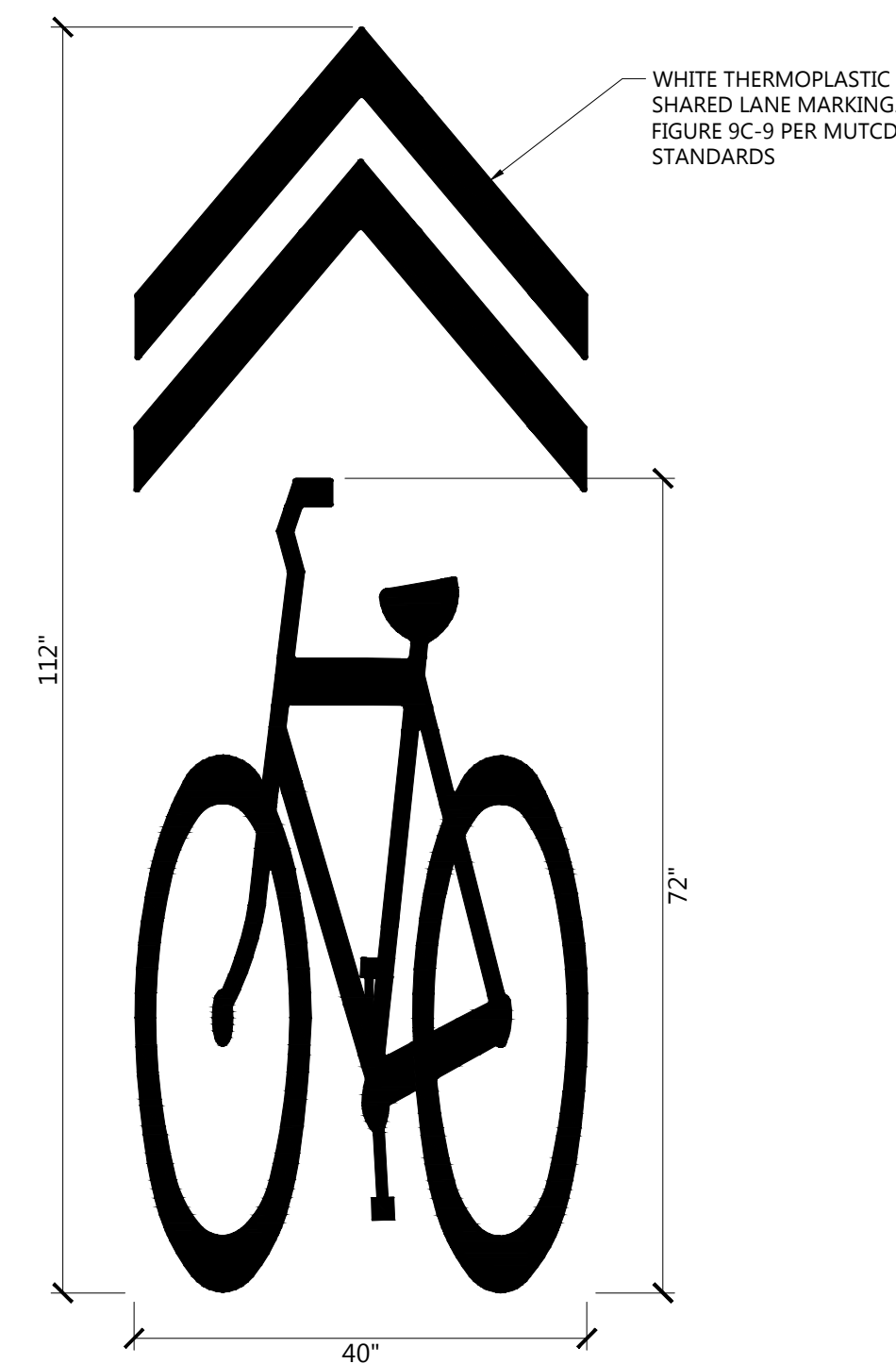
**Typical Roadway Dimensions and Section** 01/17  
N.T.S. Source: VHB



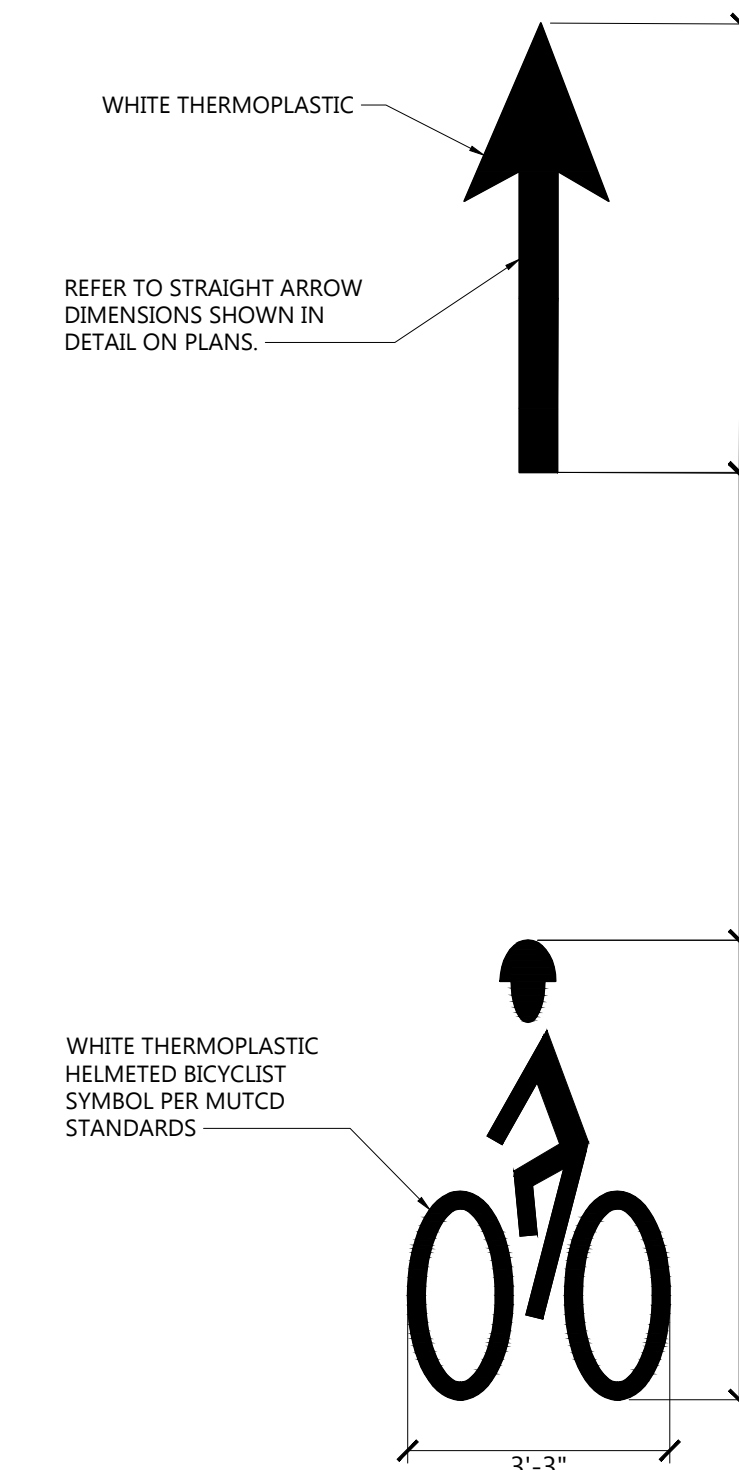
**W9-XX Bike Merge Warning Sign** 01/17  
N.T.S. Source: NCTUCD 16-BIK-02



**Bike Lane Buffer Striping** 01/17  
N.T.S. Source: VHB



**Shared Lane Marking** 01/17  
N.T.S. Source: VHB



**Helmeted Bicyclist and Arrow** 01/17  
N.T.S. Source: VHB

**Williamsburg Avenue Bike Lanes**

City of Richmond, Virginia

No.	Revision	Date	App'd.

Designed by: \_\_\_\_\_ Checked by: \_\_\_\_\_  
Issued for: \_\_\_\_\_ Date: \_\_\_\_\_  
**100% Package** August 7, 2017

Drawing Title  
**Details**  
Drawing Number



**C4.02**  
Sheet \_\_\_\_\_ of \_\_\_\_\_  
Project Number  
33965.12