

# CITY OF RICHMOND, VIRGINIA

## DEPARTMENT OF PUBLIC WORKS

### ENGINEERING & TECHNICAL SERVICES



# FOREST HILL AVENUE STREETScape DESIGN

## (FROM BLAND STREET TO MCDONOUGH STREET)

FHWA REGION	STATE	FEDERAL PROJECT NUMBER	STATE PROJECT NUMBER
	VA	PE:	
		CN:	

#### REVISIONS

NO.	DATE	COMMENTS

#### 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



BEFORE YOU DIG CALL  
811  
PROTECT YOURSELF, GIVE THREE  
WORKING DAYS NOTICE

**30% COMPLETE -  
NOT FOR  
CONSTRUCTION**

**CITY OF RICHMOND**  
DEPARTMENT OF PUBLIC WORKS  
RICHMOND, VIRGINIA

DRAWING NO.: X-XXXXX



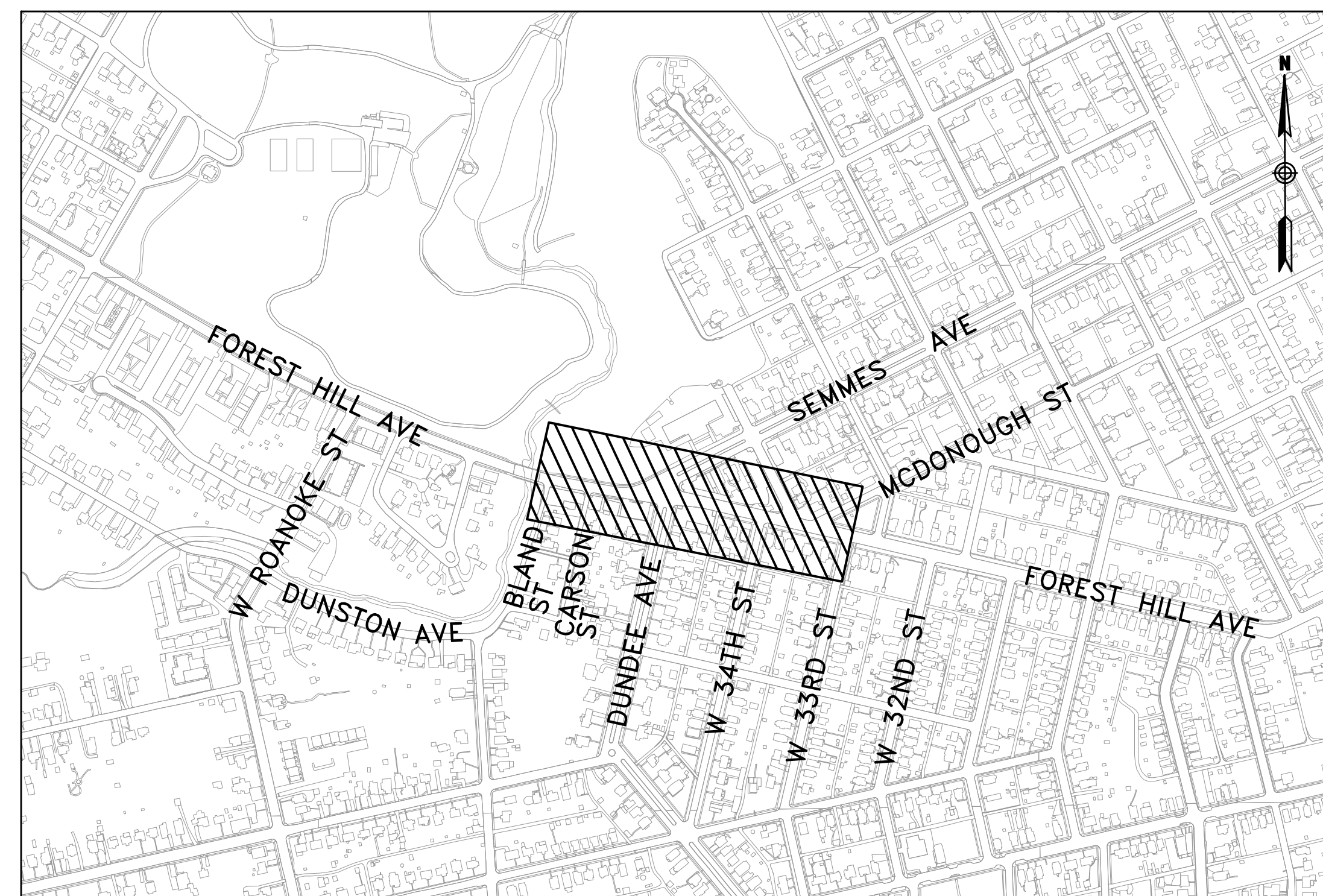
2100 EAST CARY STREET, SUITE 309  
RICHMOND, VIRGINIA 23223  
(P) 804 782-1903 (F) 804 782-2142

**RUMMEL, KLEPPER & KAHL, LLP**

#### INDEX OF SHEETS

SHEET TITLE	SHEET NO.
TITLE SHEET	1
LAYOUT PLAN	2A-3B
PEDESTRIAN CROSSING SIGNAL (HAWK) PLAN	4

LOCATION MAP



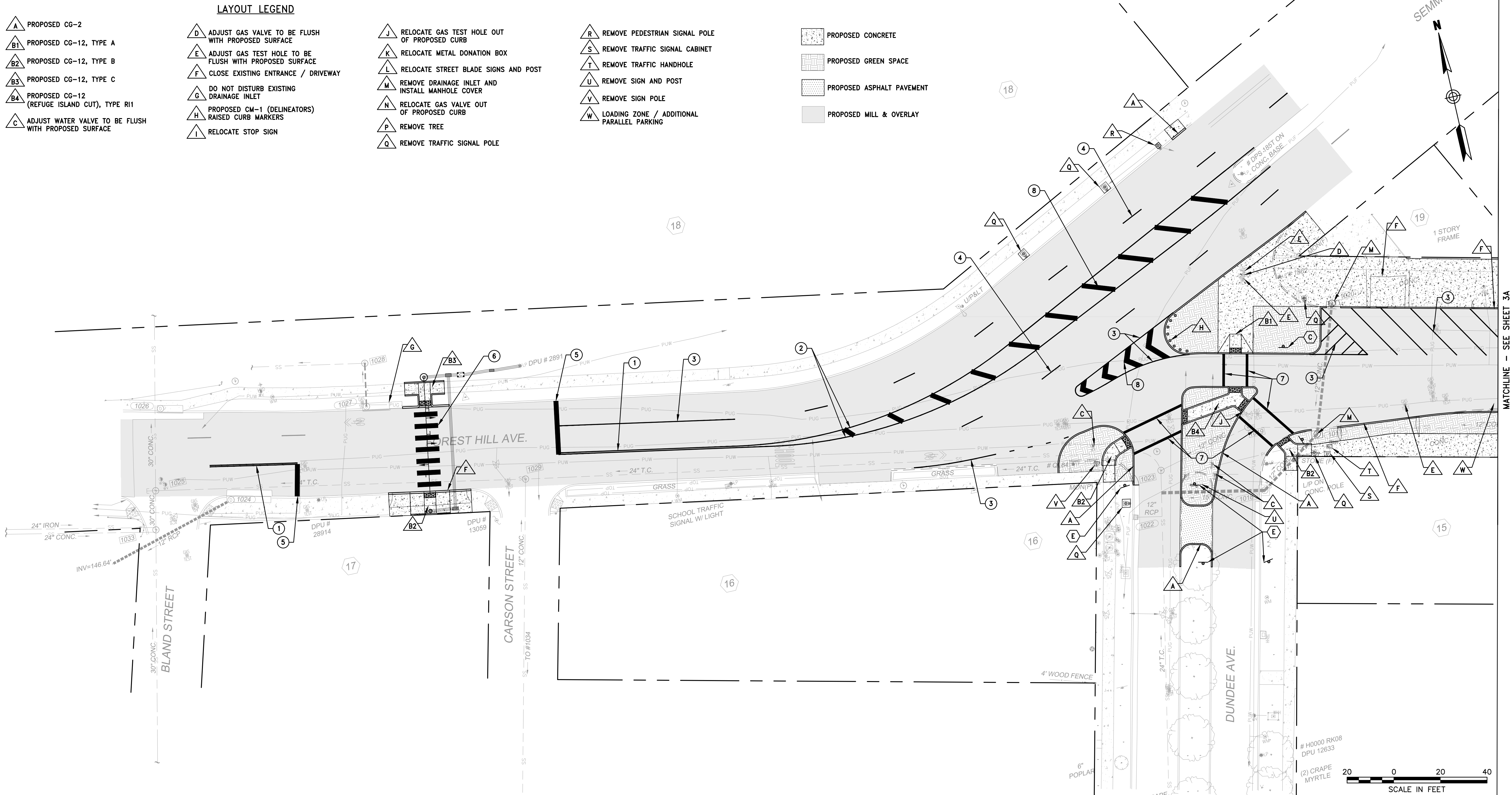
Not To Scale



DECEMBER 2020

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 2020 VDOT ROAD AND BRIDGE SPECIFICATIONS, 2016 VDOT ROAD AND BRIDGE STANDARDS, 2009 FHWA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) WITH REVISIONS 1 AND 2 DATED MAY 2012, 2011 VIRGINIA SUPPLEMENT TO THE MUTCD, 2011 VIRGINIA WORK AREA PROTECTION MANUAL (REVISION 2, DATED SEPTEMBER 1, 2019), APPLICABLE CITY OF RICHMOND STANDARDS AND SPECIFICATIONS, AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC VERSION OF THE PLAN ASSEMBLY.

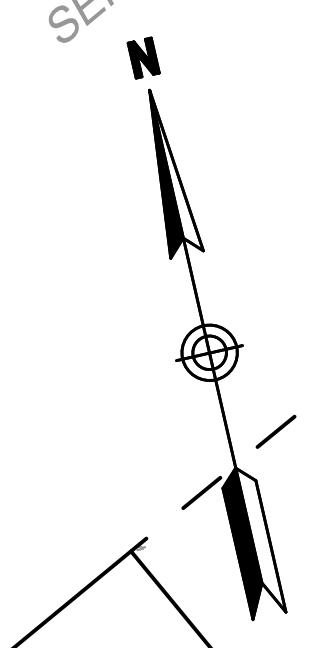
NO ADDITIONAL RIGHT OF WAY REQUIRED FOR THIS PROJECT.



**LAYOUT LEGEND**

- ▲ PROPOSED CG-2
- ▲ B1 PROPOSED CG-12, TYPE A
- ▲ B2 PROPOSED CG-12, TYPE B
- ▲ B3 PROPOSED CG-12, TYPE C
- ▲ B4 PROPOSED CG-12 (REFUGE ISLAND CUT), TYPE R1
- ▲ C ADJUST WATER VALVE TO BE FLUSH WITH PROPOSED SURFACE
- ▲ D ADJUST GAS VALVE TO BE FLUSH WITH PROPOSED SURFACE
- ▲ E ADJUST GAS TEST HOLE TO BE FLUSH WITH PROPOSED SURFACE
- ▲ F CLOSE EXISTING ENTRANCE / DRIVEWAY
- ▲ G DO NOT DISTURB EXISTING DRAINAGE INLET
- ▲ H PROPOSED CM-1 (DELINEATORS) RAISED CURB MARKERS
- ▲ I RELOCATE STOP SIGN
- ▲ J RELOCATE GAS TEST HOLE OUT OF PROPOSED CURB
- ▲ K RELOCATE METAL DONATION BOX
- ▲ L RELOCATE STREET BLADE SIGNS AND POST
- ▲ M REMOVE DRAINAGE INLET AND INSTALL MANHOLE COVER
- ▲ N RELOCATE GAS VALVE OUT OF PROPOSED CURB
- ▲ P REMOVE TREE
- ▲ Q REMOVE TRAFFIC SIGNAL POLE
- ▲ R REMOVE PEDESTRIAN SIGNAL POLE
- ▲ S REMOVE TRAFFIC SIGNAL CABINET
- ▲ T REMOVE SIGN AND POST
- ▲ U REMOVE SIGN POLE
- ▲ V LOADING ZONE / ADDITIONAL PARALLEL PARKING

- PROPOSED CONCRETE
- PROPOSED GREEN SPACE
- PROPOSED ASPHALT PAVEMENT
- PROPOSED MILL & OVERLAY



MATCHLINE - SEE SHEET 3A

**PAVEMENT MARKING LEGEND**

- \* ALL PAVEMENT MARKINGS ARE VDOT TYPE B, CLASS I
- ① 4" SOLID YELLOW LINE (DOUBLE) WITH 4" SPACE
- ② 4" SOLID YELLOW LINE
- ③ 4" SOLID WHITE LINE
- ④ 4" WHITE SKIP LINE (10' STRIPE, 30' SKIP)
- ⑤ 24" SOLID WHITE STOP BAR LINE
- ⑥ 24" SOLID WHITE CROSSWALK LADDER BAR
- ⑦ 12" SOLID WHITE CROSSWALK LINE
- ⑧ 24" SOLID WHITE CROSSHATCH LINE

**SIGNING LEGEND**

- ▲ A STOP SIGN (R1-1, 30" X 30")
- ▲ B STOP SIGN (R1-1, 30" X 30")
- ▲ C ONE WAY SIGN (R6-1R, 36" X 12")
- ▲ D ONE WAY SIGN (R6-1L, 36" X 12")
- ▲ E DO NOT ENTER SIGN (R5-1, 30" X 30")
- ▲ F KEEP RIGHT SIGN (R4-7, 24" X 30")
- ▲ G LEFT TURN PROHIBITION SIGN (R3-2, 24" X 24")
- ▲ H RIGHT TURN PROHIBITION SIGN (R3-1, 24" X 24")



**NOTES**

1. Lot dimensions in parentheses are from deed.
2. Property owners correct as of \_\_\_\_\_ 20\_\_
3. Ordinance Number \_\_\_\_\_
4. Adopted \_\_\_\_\_
5. Accepted \_\_\_\_\_

Existing Curb	Proposed Curb
Curb & Gutter	Proposed Curb
Sidewalk	Proposed Sidewalk
Basin	Proposed Basin
Storm Sewer	Proposed Storm Sewer
Sewer Manhole	Proposed Sewer Manhole
Sanitary Sewer (new)	Proposed Sanitary Sewer
Sanitary Sewer (new Man)	Proposed Sanitary Sewer Man
Gas Line	Proposed Gas Line
Electric Line	Proposed Electric Line
Telephone/Telegraph	Proposed Telephone/Telegraph
TV Cable	Proposed TV Cable
Water Line	Proposed Water Line
Tree / Exist. Tree To Be Removed / Slomp	Proposed Tree / Exist. Tree To Be Removed / Slomp
Property Line	Proposed Property Line

Existing	Proposed
Curb Cut Ramp	Proposed Curb Cut Ramp
Coping	Proposed Coping
Alley Crossing/Driveway	Proposed Alley Crossing/Driveway
Fire Hydrant	Proposed Fire Hydrant
Edge of Pavement	Proposed Edge of Pavement
Fence	Proposed Fence
Cornerstone	Proposed Cornerstone
Property Pin	Proposed Property Pin
Utility Pole	Proposed Utility Pole
Manhole	Proposed Manhole
Basin	Proposed Basin
Curb & Gutter	Proposed Curb & Gutter
Asphalt	Proposed Asphalt

Proposed Conc. Sidewalk	Proposed Curb Cut Ramp
Decorative Light	Proposed Decorative Light
Conduit (Conc. Encased)	Proposed Conduit (Conc. Encased)
Retaining Wall	Proposed Retaining Wall



Technical	Administrative
Surveys Superintendent	Capital Project Administrator
Project Manager	City Engineer
Maintenance Engineer	Director of Public Works
City Transportation Engineer	

**RK&K**  
Responsive People - Creative Solutions

DESIGN BY: BMR  
DRAWN BY: KJF  
CHECKED BY: MMM

REVIEWED BY: \_\_\_\_\_  
FIELD NOTES: \_\_\_\_\_

SCALE: 1"=20'  
DATE: DEC. 2020  
PROJECT: SHEET 2A  
DRAWING NO.: X-XXXXX

**FOREST HILL AVENUE STREETSCAPE DESIGN**  
OPTION C LAYOUT PLAN  
PARALLEL AND BACK-IN ANGLE PARKING

30% COMPLETE:  
NOT FOR CONSTRUCTION

VDOT PROJECT NO.: \_\_\_\_\_

\\p01hkh.com\Fys\Cad\Projects\2017\17141\_Richmond\Improvements\CADD\Phase 2- Forest Hill Avenue Streetscape\Construction Drawings\2A & 2B - DPTIDN C LAYOUT PLAN\_PARALLEL AND BACK-IN ANGLE PARKING.dwg/ 5/20/2021 1:59:37 PM by -----















**SIGNALIZATION/DESIGN NOTES:**

- (S) DENOTES CABLE TO BE SHIELDED. (M) DENOTES METAL CONDUIT.
- SIGNING AND STRIPING ITEMS SHALL BE INSTALLED AS DEPICTED ON THE LAYOUT PLAN SHEETS AND ARE INCLUDED IN THIS CONTRACT.
- CONTRACTOR SHALL REPLACE ALL SURFACES (DIRT, CONCRETE/BRICK SIDEWALK, PAVEMENT) AT ALL LOCATIONS WHERE IT IS REMOVED OR DAMAGED AS A RESULT OF THE INSTALLATION OR REMOVAL OF ANY AND ALL ITEMS RELATED TO CONSTRUCTION.
- ELECTRICAL SERVICE SHALL BE VDOT ST'D. SE-5.
- THE TOPS OF ALL SIGNAL POLE AND PEDESTAL POLE FOUNDATIONS SHALL BE INSTALLED TO BE FLUSH WITH THE FINAL SIDEWALK GRADE AND 2" TO 4" REVEAL IF IN DIRT.
- CONTRACTOR TO DEENERGIZE ALL CIRCUITS PRIOR TO PERFORMING WORK ON JOINT USE (RICHMOND DPW AND DPU) POLES.
- POWER HOOK CONNECTION TO NEW TRAFFIC SIGNAL EQUIPMENT INSTALLED SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND ALSO TO COORDINATE WITH DOMINION VIRGINIA POWER WHEN THERE IS A NEW POWER SOURCE LOCATION.
- ALL PROPOSED JUNCTION BOXES ARE VDOT ST'D. JB-S2 UNLESS OTHERWISE NOTED. ALL PROPOSED JUNCTION BOXES SHALL HAVE NON-SKID COVERS.
- CONTRACTOR TO INSTALL METER BASE AND SAFETY SWITCH WITH (2) PADLOCKS TO SIGNAL POLE (STEM).

**POLE LEGEND**

- (A)** SIGNAL POLE MP-3, ONE ARM  
50' MAST ARM, 90° ANGLE TO FOREST HILL AVENUE TRAVEL LANE  
- SIGNAL PLACEMENT: 17.5', 28.5', 37.5', 45.5'  
- SIGN PLACEMENT: 13.5', 24.5', 41.5'
- (B)** VDOT ST'D. PF-2, 8' PEDESTAL SIGNAL POLE

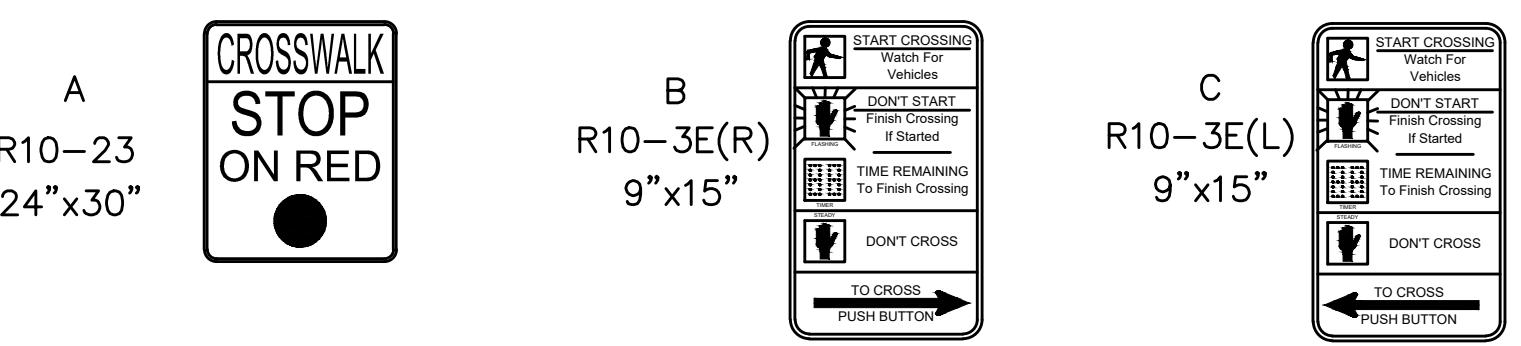
**CABLE AND CONDUIT RUN**

- (1)** 1 - 3" PVC CONDUIT (TRENCHED)  
1 - 8/2C (POWER FROM UTILITY)  
1 - 8/1C (EGC)
- (2)** 1 - 3" PVC CONDUIT (TRENCHED)  
1 - 8/2C (POWER FROM UTILITY)  
1 - 8/1C (EGC)
- (3)** 2 - 3" PVC CONDUIT (TRENCHED)  
2 - 14/7C (TRAFFIC SIGNAL)  
2 - 14/3C (PEDESTRIAN SIGNAL)  
2 - 14/2C (PUSH BUTTON)  
1 - 8/1C (EGC)
- (4)** 2 - 3" PVC CONDUIT (TRENCHED)  
2 - 14/7C (TRAFFIC SIGNAL)  
1 - 14/3C (PEDESTRIAN SIGNAL)  
1 - 14/2C (PUSH BUTTON)  
1 - 8/1C (EGC)
- (5)** 2 - 3" PVC CONDUIT (BORED)  
1 - 14/3C (PEDESTRIAN SIGNAL)  
1 - 14/2C (PUSH BUTTON)  
1 - 8/1C (EGC)
- (6)** 2 - 3" PVC CONDUIT (TRENCHED)  
1 - 14/3C (PEDESTRIAN SIGNAL)  
1 - 14/2C (PUSH BUTTON)  
1 - 8/1C (EGC)

NOTE: IF TYPICALLY REQUIRED CLEARANCES AND/OR SEPARATION WITH EXISTING DPU INFRASTRUCTURE CANNOT BE ACCOMPLISHED PLEASE CONTACT THE APPROPRIATE DPU SECTION TO REACH AN ACCEPTABLE RESOLUTION:

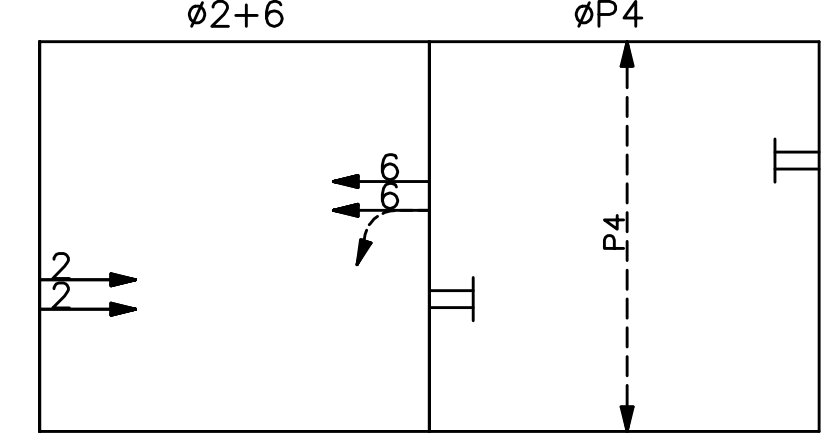
- WATER: 804.646.8316/804.646.8346/804.646.8327
- SEWER: 804.646.8247/804.646.8463
- GAS: 804.646.8342
- STREETLIGHTS: 804.646.8568/804.646.8565

**PROPOSED SIGNS AND SIGNALS**



\*\*\*NOTE: VDOT ST'D. SP-8 PEDESTRIAN SIGNALS TO INCLUDE 2 DIGIT NUMERIC COUNTDOWN TIMERS. PEDESTRIAN SIGNAL SYSTEM TO INCLUDE ACCESSIBLE PEDESTRIAN SIGNAL (APS) UNIT / STANDARD PUSHBUTTON WITH "WAIT" AUDIBLE MESSAGE AND INDICATOR LIGHT WHEN DEPRESSED.

**PHASING DIAGRAM**



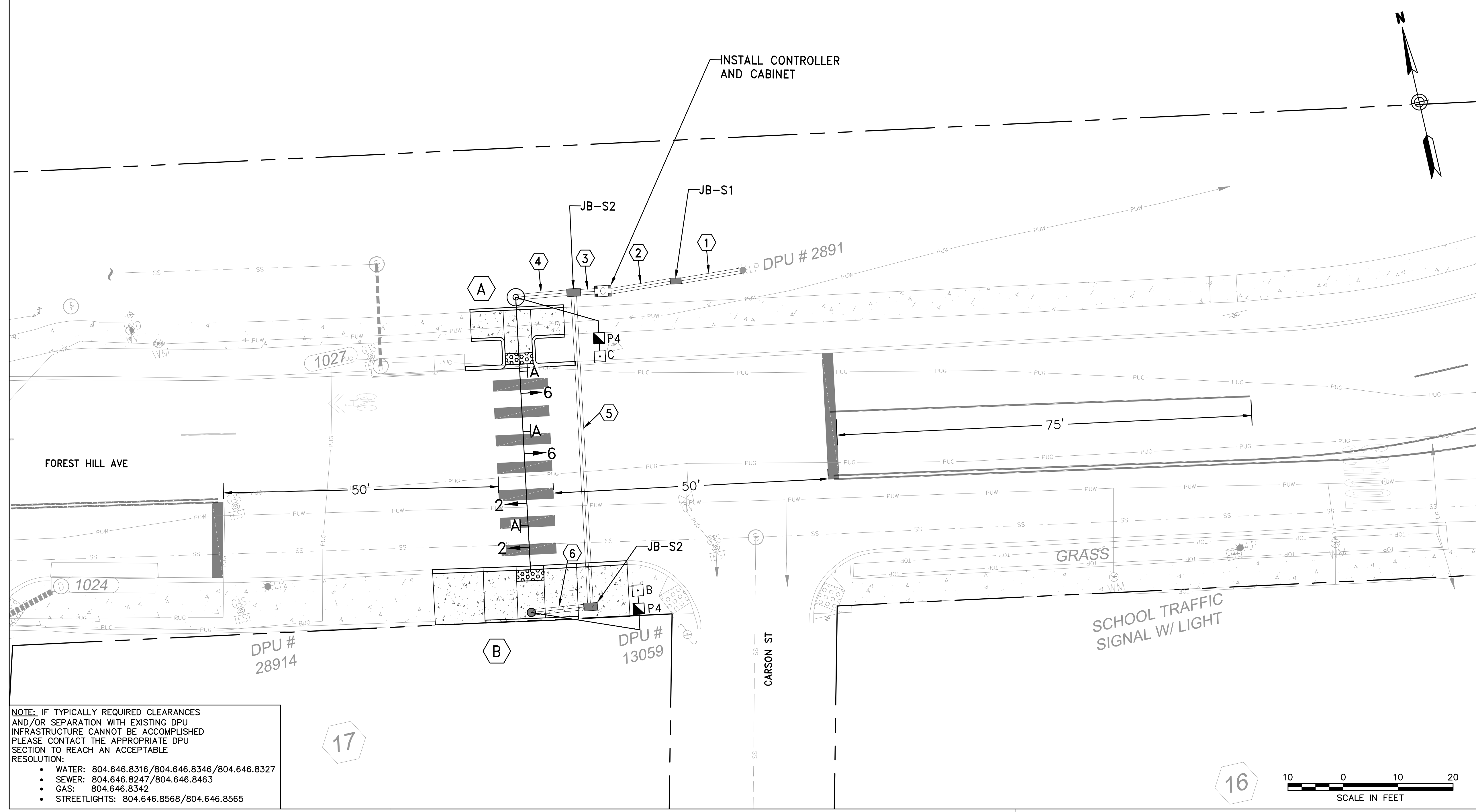
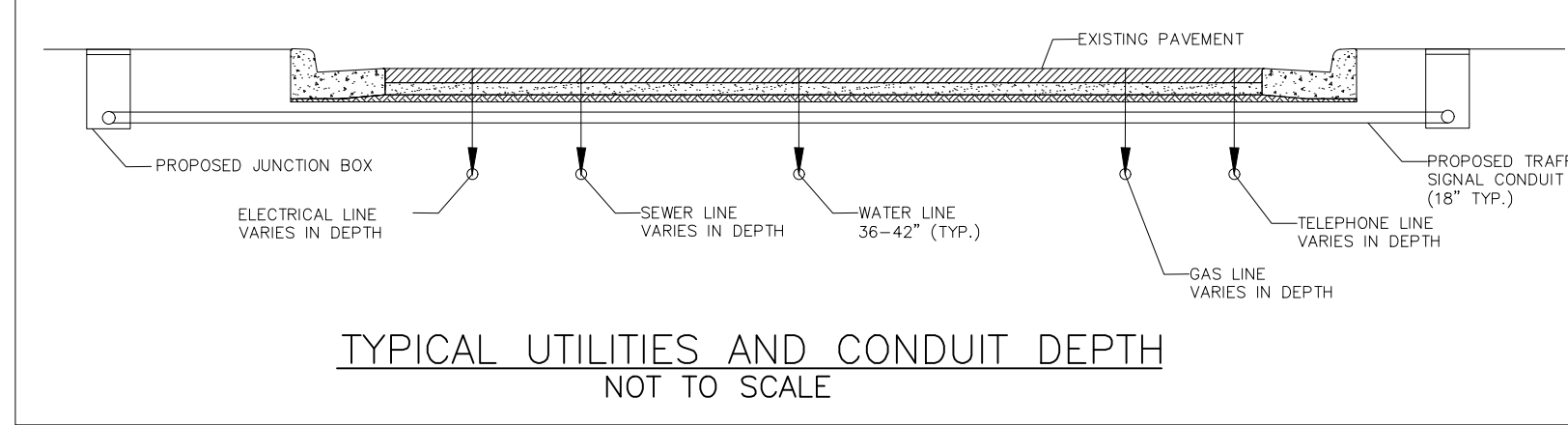
**COLOR SEQUENCE CHART**

PHASE SIGNAL	Ø2+6	ØP4	FLASH
2	BLANK	SR	FY
6	BLANK	SR	FY
P4	DW	W	BLANK

SY STEADY YELLOW  
FY FLASHING YELLOW  
SR STEADY RED  
FR FLASHING RED  
DW DON'T WALK  
W WALK  
CD COUNTDOWN

**CLEARANCE CHART**

R/W	CLEARANCE		NEXT Ø1	NEXT Ø2
	1	2		
FY	SY	SR	FR	DARK/BLANK
DW	DW	W	CD	DW



\\p01hkh.com\Fys\Cad\Projects\2017\17141\_RichCIP\25\_Semmes Ave Pedestrian Improvements\CAD\Phase 2 - Forest Hill Avenue Streetscape\Construction Drawings\4 - HAWK SIGNAL PLAN.dwg/ 11/30/2020 10:08:41 AM by [redacted]

30% COMPLETE:  
NOT FOR CONSTRUCTION

<p><b>NOTES</b></p> <ol style="list-style-type: none"> <li>Lot dimensions in parentheses are from deed.</li> <li>Property owners correct as of _____ 20__</li> <li>Ordinance Number _____</li> <li>Adopted _____</li> <li>Accepted _____</li> </ol>		<p><b>LEGEND</b></p> <p>Existing Curb Curb &amp; Gutter Sidewalk Basin Storm Sewer Sewer Manhole Sanitary Sewer (new main) Sanitary Sewer (new man) Gas Line Electric Line Telephone/Telegraph TV Cable Water Line Tree / Exist. Tree To Be Removed / Slump Property Line</p>		<p><b>LEGEND</b></p> <p>Existing Curb Cut Ramp Coping Alley Crossing/Driveway Fire Hydrant Edge of Pavement Fence Cornerstone Property Pin Utility Pole Proposed Sewer Manhole Basin Curb &amp; Gutter Asphalt</p>		<p><b>LEGEND</b></p> <p>Proposed Conc. Sidewalk Brick Sidewalk Castings: Water Valve Water Meter Gas Drip Gas Valve Telephone Manhole Electric Manhole Proposed Curb Cut Ramp Decorative Light Conduit (Conc Encased) Retaining Wall</p>		<p><b>Technical</b></p> <p>Surveys Superintendent Project Manager Maintenance Engineer City Transportation Engineer</p>		<p><b>Administrative</b></p> <p>Capital Project Administrator City Engineer Director of Public Works</p>		<p><b>DEPARTMENT OF PUBLIC WORKS</b> RICHMOND, VIRGINIA</p>		<p><b>RK&amp;K</b> Responsive People • Creative Solutions</p>		<p><b>FOREST HILL AVENUE STREETSCAPE DESIGN</b> HAWK SIGNAL PLAN</p>		<p>AUTHORITY: CITY OF RICHMOND DESIGN BY: BMR DRAWN BY: KJF CHECKED BY: MMM</p>		<p>REVIEWED BY FIELD NOTES</p>		<p>SCALE 1"=10'</p>		<p>DATE DEC. 2020</p>		<p>PROJECT SHEET 4</p>		<p>VDOT PROJECT NO.: DRAWING NO. X-XXXX</p>	
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