

GENERAL NOTES:

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- SEE F3 SERIES SHEETS FOR TYPICAL SECTIONS.
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LEGEND

- 80 PARCEL NO. - REFER TO GEOMETRY PLAN SHEETS
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- PROP. STORM MANHOLE
- PROP. RCP STORM PIPE
- PROP. CB-2B OR PCB-2
- EXISTING STORM STRUCTURE NO.
- PROP. SANITARY STRUCTURE NO.
- EXISTING SANITARY STRUCTURE NO.
- VDOT STD. CG-12 TYPE A PEDESTRIAN CURB RAMP
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- ARL. CO. STD. C-2 CURB AND GUTTER
- ARL. CO. STD. C-3 CURB (MODIFIED IN PARKING AREAS, SEE DETAIL F3.3)
- ARL. CO. STD. CONCRETE VALLEY GUTTER (SEE DETAIL F3.3)
- ARL. CO. STD. CONC. COMMERCIAL ENTRANCE
- NOT IN USE
- VDOT STD. RW-3 RET. WALL WITH HANDRAIL
- VDOT STD. RW-3 RET. WALL NO HANDRAIL
- ARL. CO. STD. CONCRETE STEPS WITH VDOT STD. HR-1 HANDRAIL
- ARL. CO. STD. C-4 9.5" RAISED CURBSIDE TRANSIT STOP

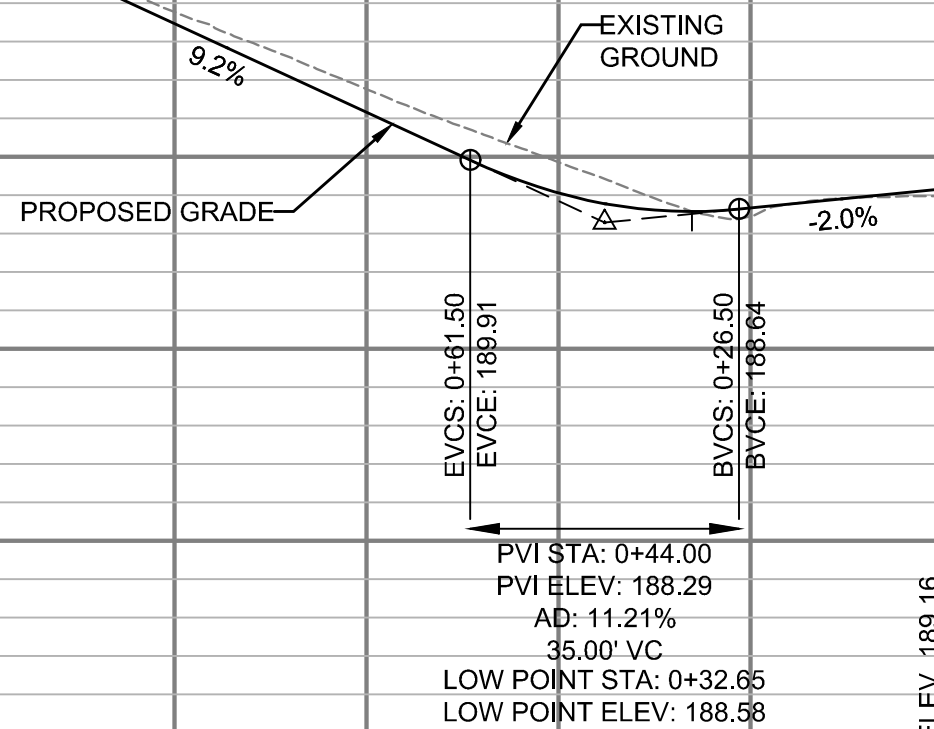
- PROP. FULL DEPTH PAVEMENT
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- PROP. VDOT STD. RW-3
- PROP. FENCE/ HANDRAIL
- LIMITS OF DISTURBANCE
- PROPOSED GAS LINE AS DONE BY WGL
- UNDERDRAIN (SHEET F14.6.4 FOR DETAILS)

ARLINGTON COUNTY, VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL SERVICES

ROADWAY PLAN AND PROFILE S. TAYLOR ST  
COLUMBIA PIKE - ROUTE 244  
COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
SEGMENT F

SCALE: HOR. 1" = 25' VERT. 1" = 5' SHEET: F10.9 of F10.13.4

S. TAYLOR STREET



DEPARTMENT OF  
ENVIRONMENTAL SERVICES

Facilities & Engineering Division  
Engineering Bureau  
2100 Clarendon Boulevard, Suite 813  
Arlington, VA 22201  
Phone: 703.228.3629  
Fax: 703.228.3606

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Seal



Approvals Date

Design Team Engineer Supervisor

Construction Management Supervisor

Water, Sewer, Streets Bureau Chief

Transportation Director

Project Manager

Revisions Date

Designed: EJD  
Drawn: JGJ  
Checked: MRA  
Miss Utility Transmittal #:

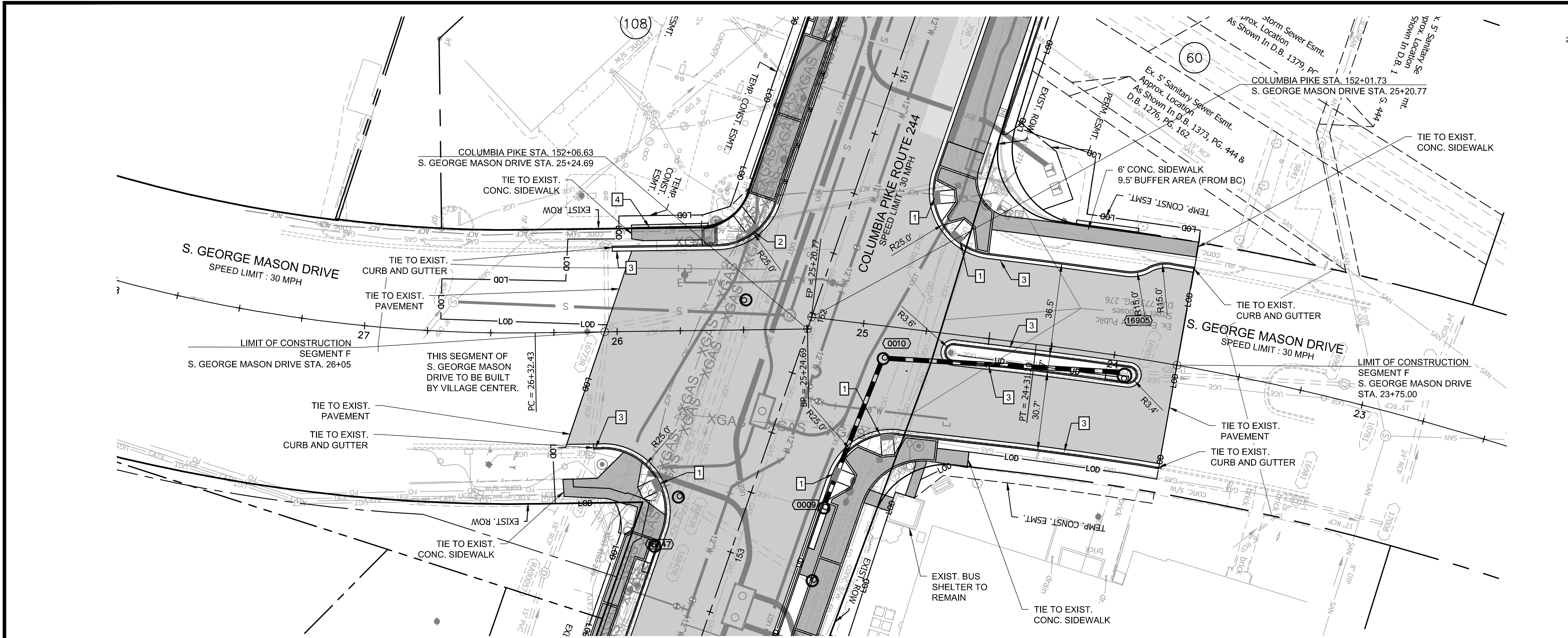
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Path: C:\Users\jgja\OneDrive\Documents\Projects\010073-F-R408.dwg  
Plotted: September 10, 2021  
Plotted by: patrick.husted



DEPARTMENT OF  
ENVIRONMENTAL SERVICES

10/19/2021  
APPROVAL DATE





GRAPHIC SCALE

(HORIZONTAL FEET)

(VERTICAL FEET)

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PROPOSED GAS LINE AS DONE BY WGL

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ARLINGTON COUNTY, VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES

ROADWAY PLAN AND PROFILE S. GEORGE MASON DR

COLUMBIA PIKE - ROUTE 244

COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS

SEGMENT F

SCALE: HOR. 1" = 25' VERT. 1" = 5'

SHEET: F10.10 of F10.13.4

Seal

ARLINGTON COUNTY, VIRGINIA

MICHAEL R. ALBRIGHT

Lic. No. 46643

09/10/2021

PROFESSIONAL ENGINEER

Approvals

Date

Design Team Engineer Supervisor

Construction Management Supervisor

Water, Sewer, Streets Bureau Chief

Transportation Director

Project Manager

Revisions

Date

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Drawn: JGJ

Checked: MRA

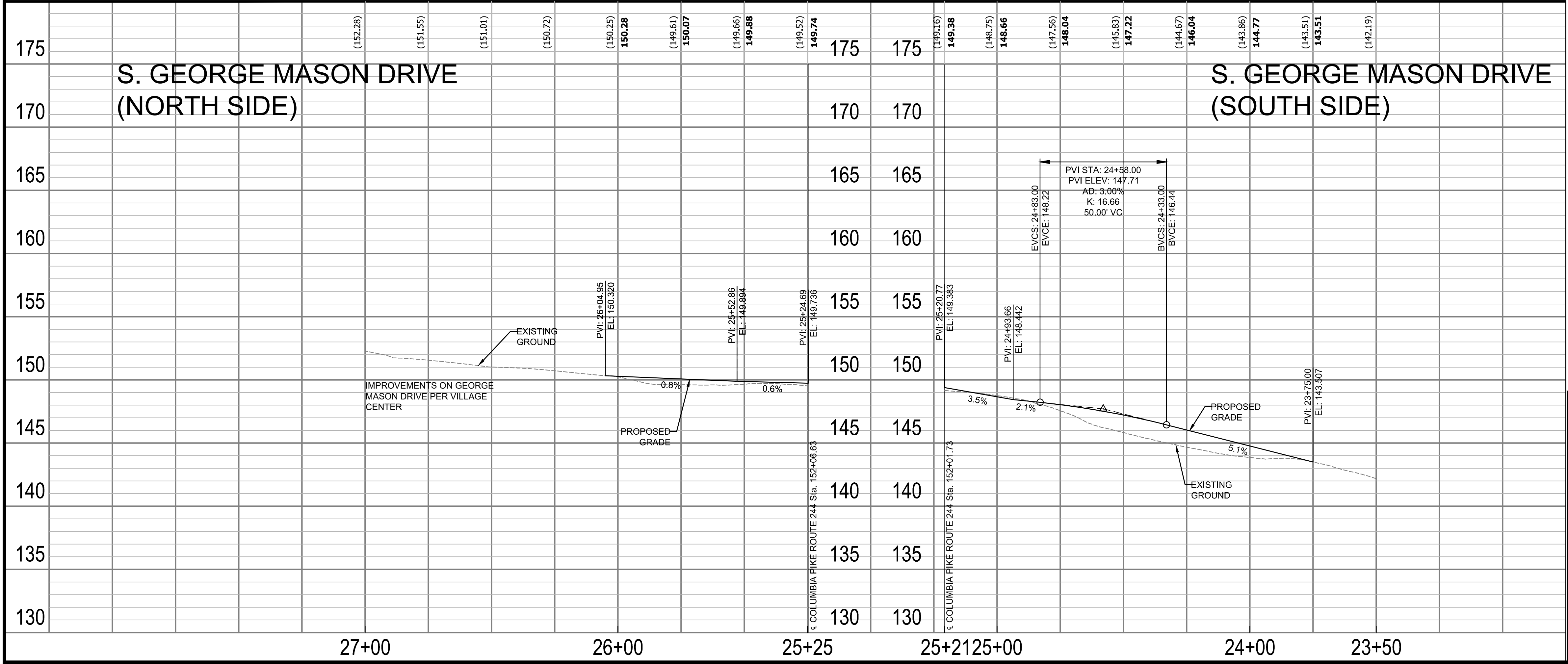
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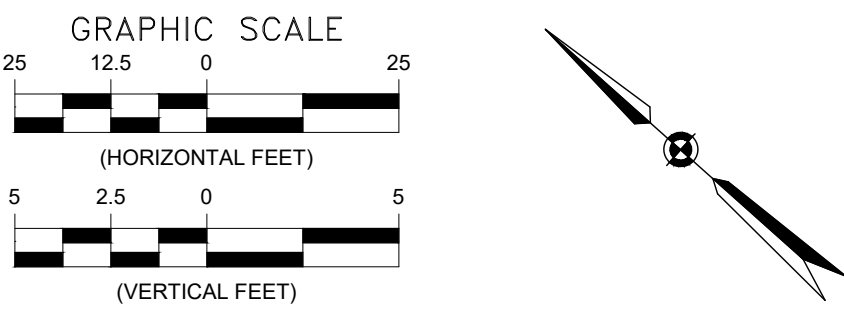
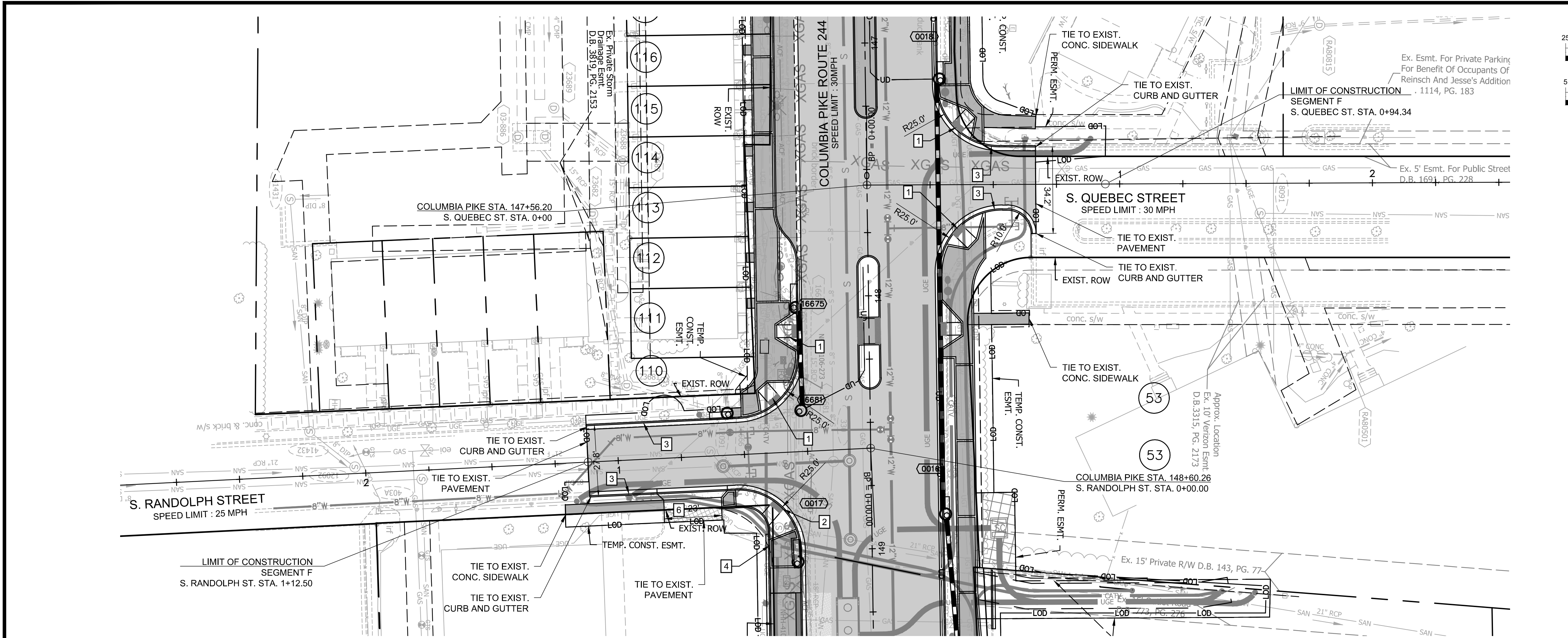
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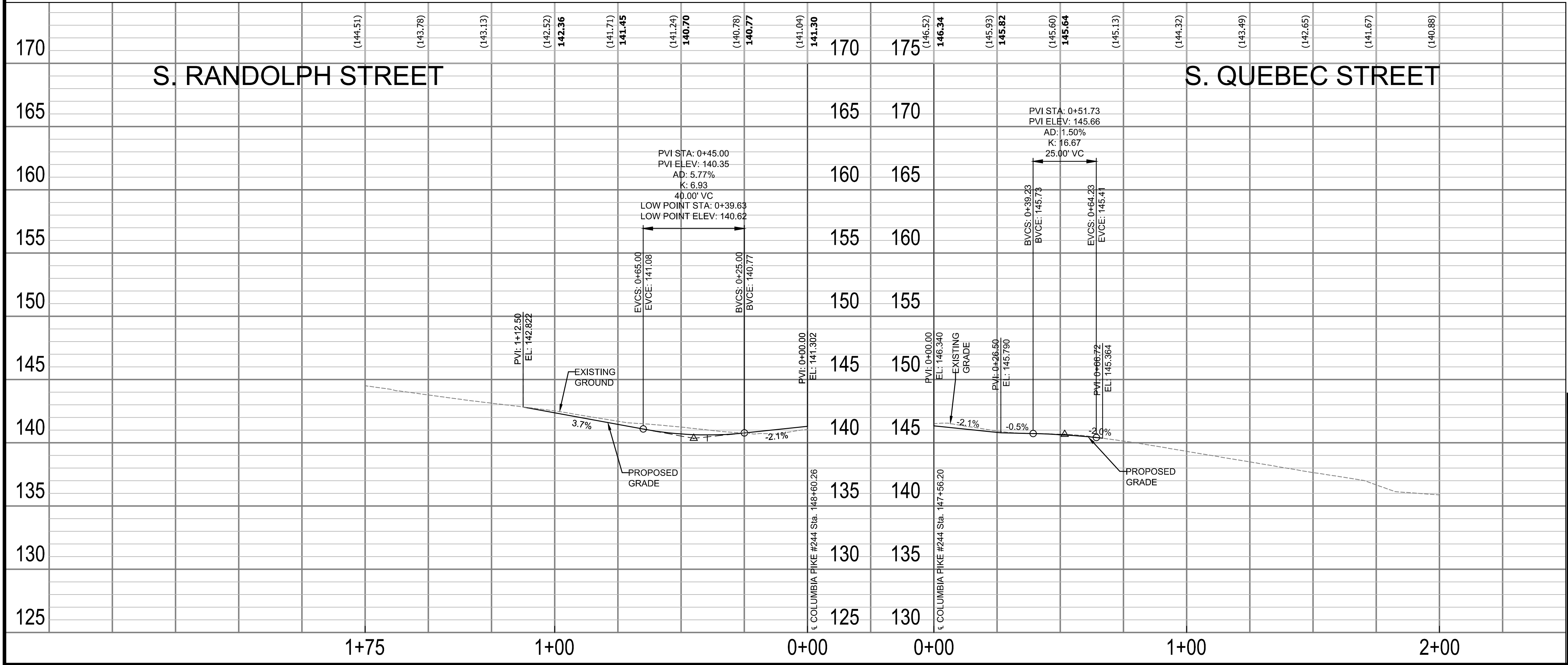
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ARLINGTON COUNTY, VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL SERVICES

ROADWAY PLAN AND PROFILE S. RANDOLPH ST AND S. QUEBEC ST  
COLUMBIA PIKE - ROUTE 244  
COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
SEGMENT F

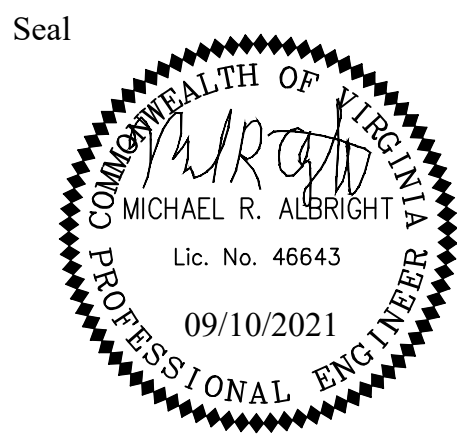
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Seal

Approvals Date

Design Team Engineer Supervisor

Construction Management Supervisor

Water, Sewer, Streets Bureau Chief

Transportation Director

Project Manager

Revisions Date

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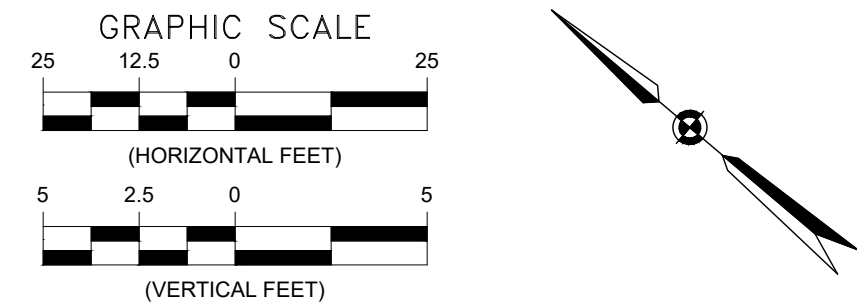
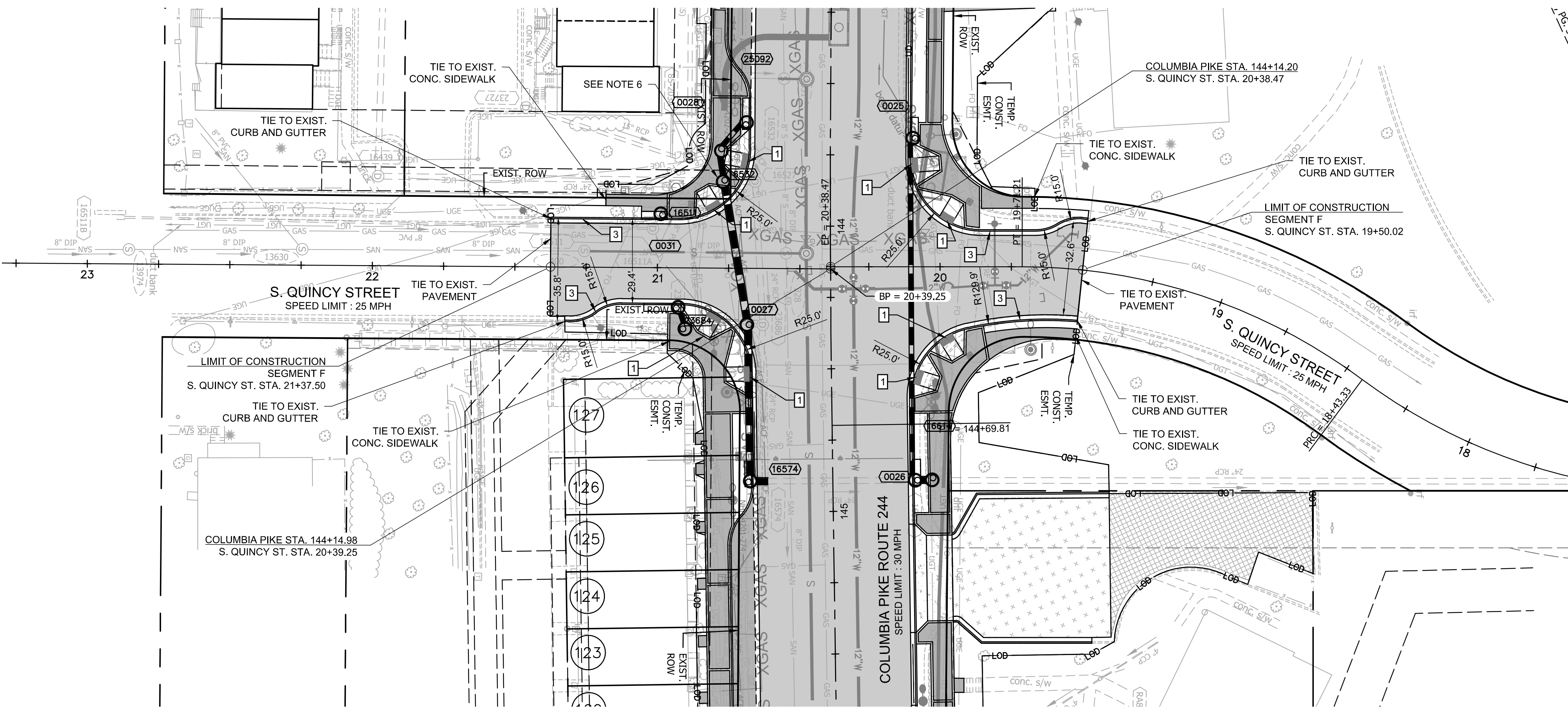
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Seal



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Design Team Engineer Supervisor

Construction Management Supervisor

Water, Sewer, Streets Bureau Chief

Transportation Director

Project Manager

Revisions Date

Designed: EJD  
Drawn: JGJ  
Checked: MRA  
Miss Utility Transmittal #:

Filename: 010073-F-R409.dwg  
Path: \\F:\Projects\010073-F-R409\010073-F-R409.dwg  
Plotted: September 10, 2021  
Plotted by: patrick.husted

ARLINGTON COUNTY, VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL SERVICES

ROADWAY PLAN AND PROFILE S. QUINCY ST  
COLUMBIA PIKE - ROUTE 244  
COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
SEGMENT F

SCALE: HOR. 1" = 25' VERT. 1" = 5' SHEET: F10.12 of F10.13.4

S. QUINCY STREET  
(NORTH SIDE)

S. QUINCY STREET  
(SOUTH SIDE)

PVI STA: 20+76.03  
PVI ELEV: 166.48  
AD: 8.30%  
K: 2.41  
20.00' VC  
EVCS: 20+66.03  
EVCE: 167.36  
BVCS: 20+86.03  
BVCE: 166.43

PVI STA: 19+90.00  
PVI ELEV: 166.00  
AD: 3.72%  
K: 12.11  
45.00' VC  
EVCS: 19+67.90  
EVCE: 166.46  
BVCS: 19+87.90  
BVCE: 164.71

PVI: 21+37.50  
EL: 171.892  
EXISTING GROUND  
PROPOSED GRADE  
8.8%  
0.5%  
-1.9%

PVI: 19+50.00  
EL: 163.705  
EXISTING GROUND  
PROPOSED GRADE  
2.0%  
5.7%

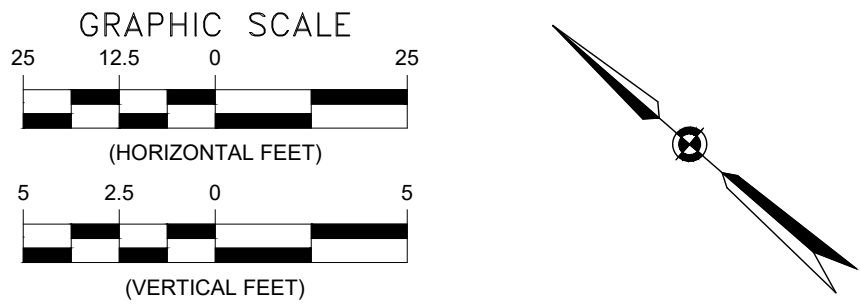
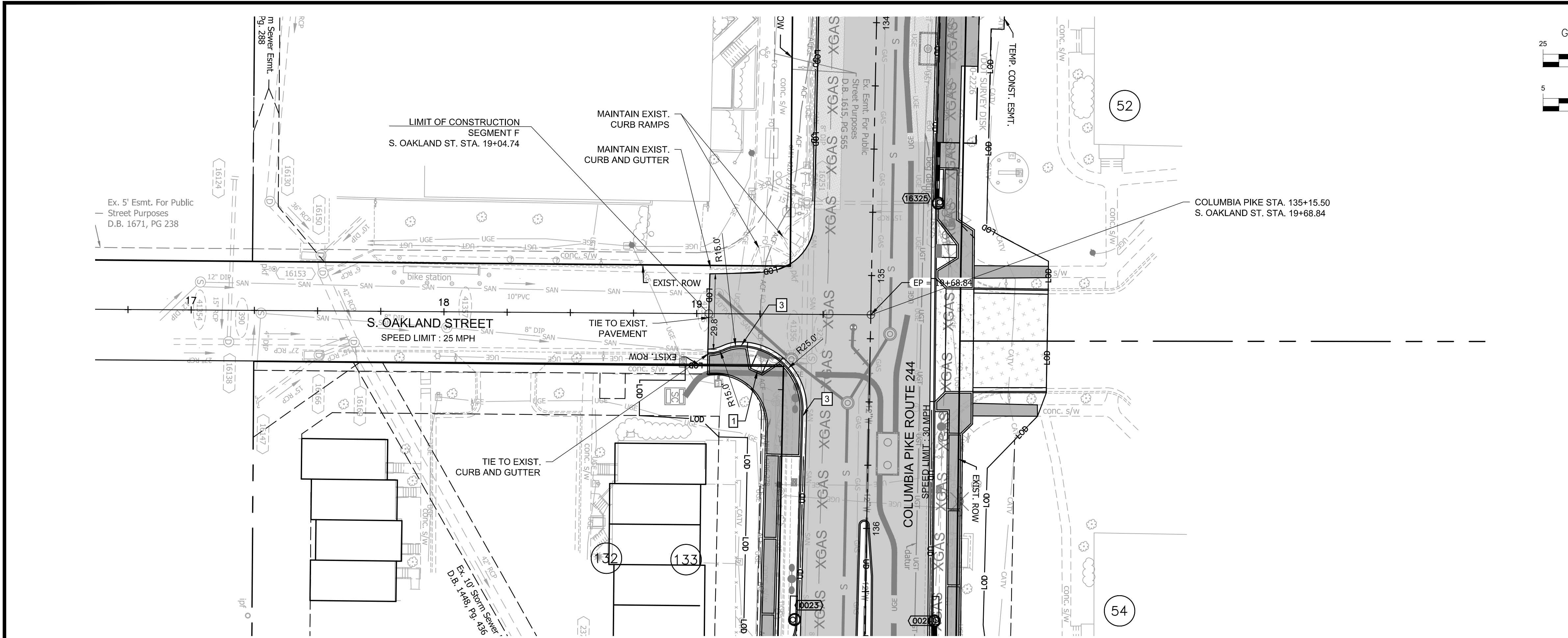


LUIS ARAYA  
BUREAU CHIEF, DES - DEVELOPMENT SERVICES

DEPARTMENT OF ENVIRONMENTAL SERVICES

10/19/2021  
APPROVAL DATE





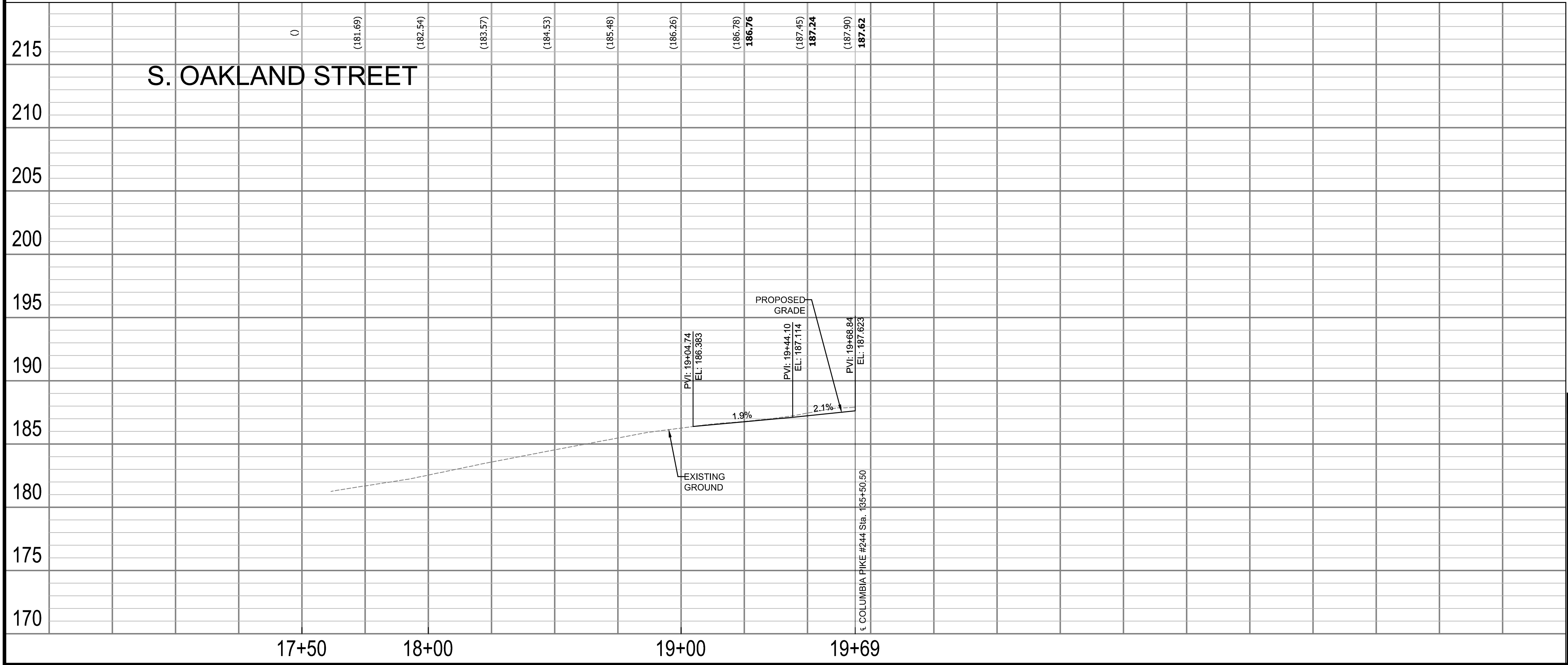
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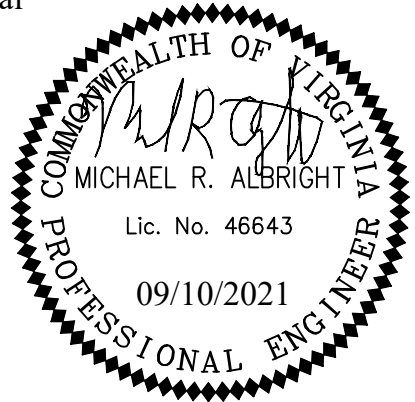
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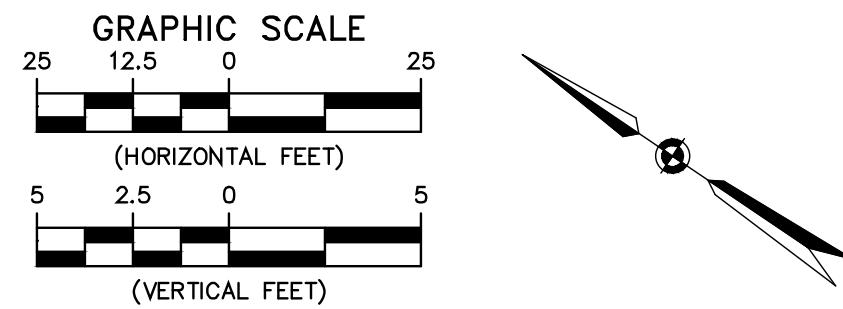
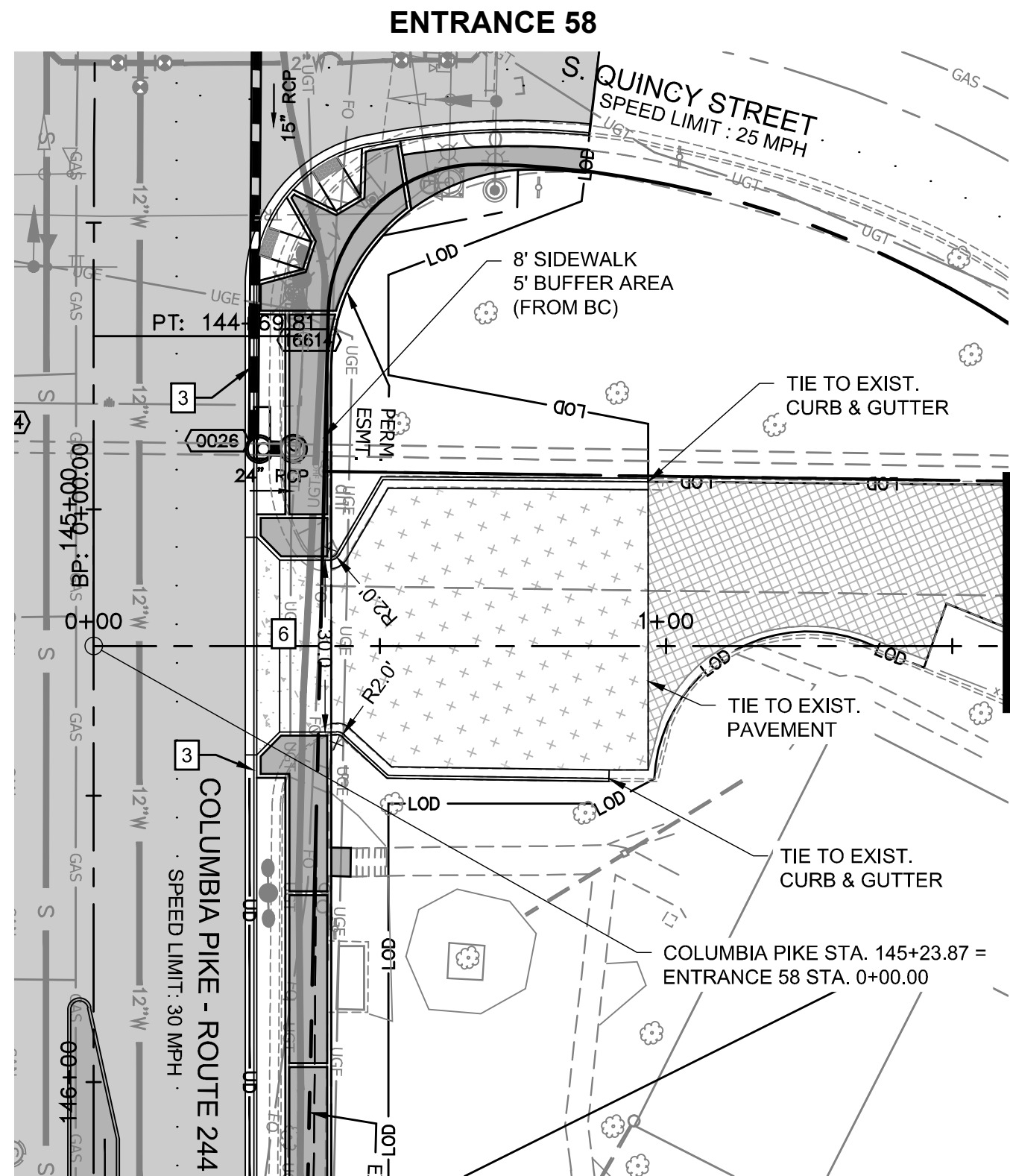
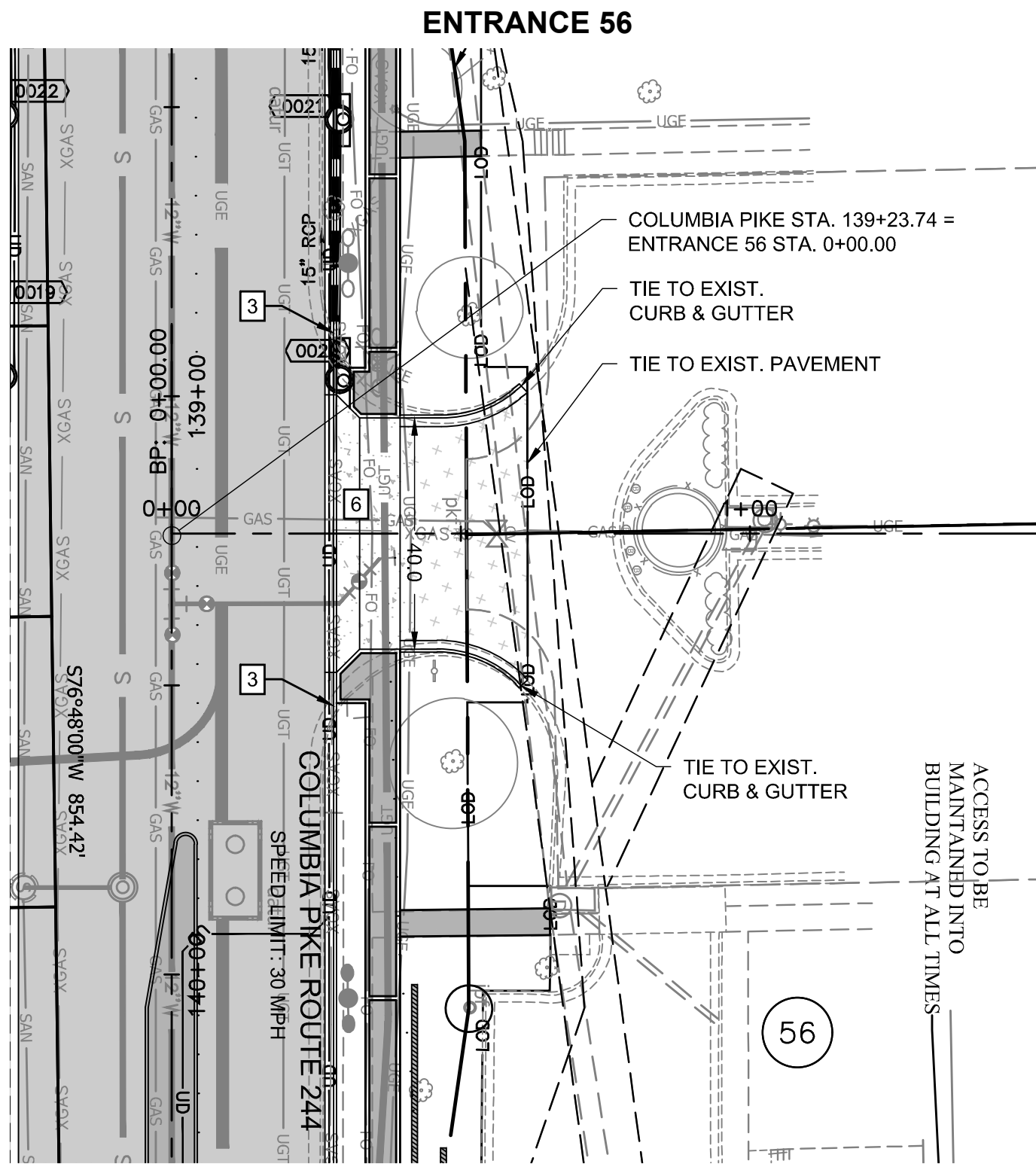
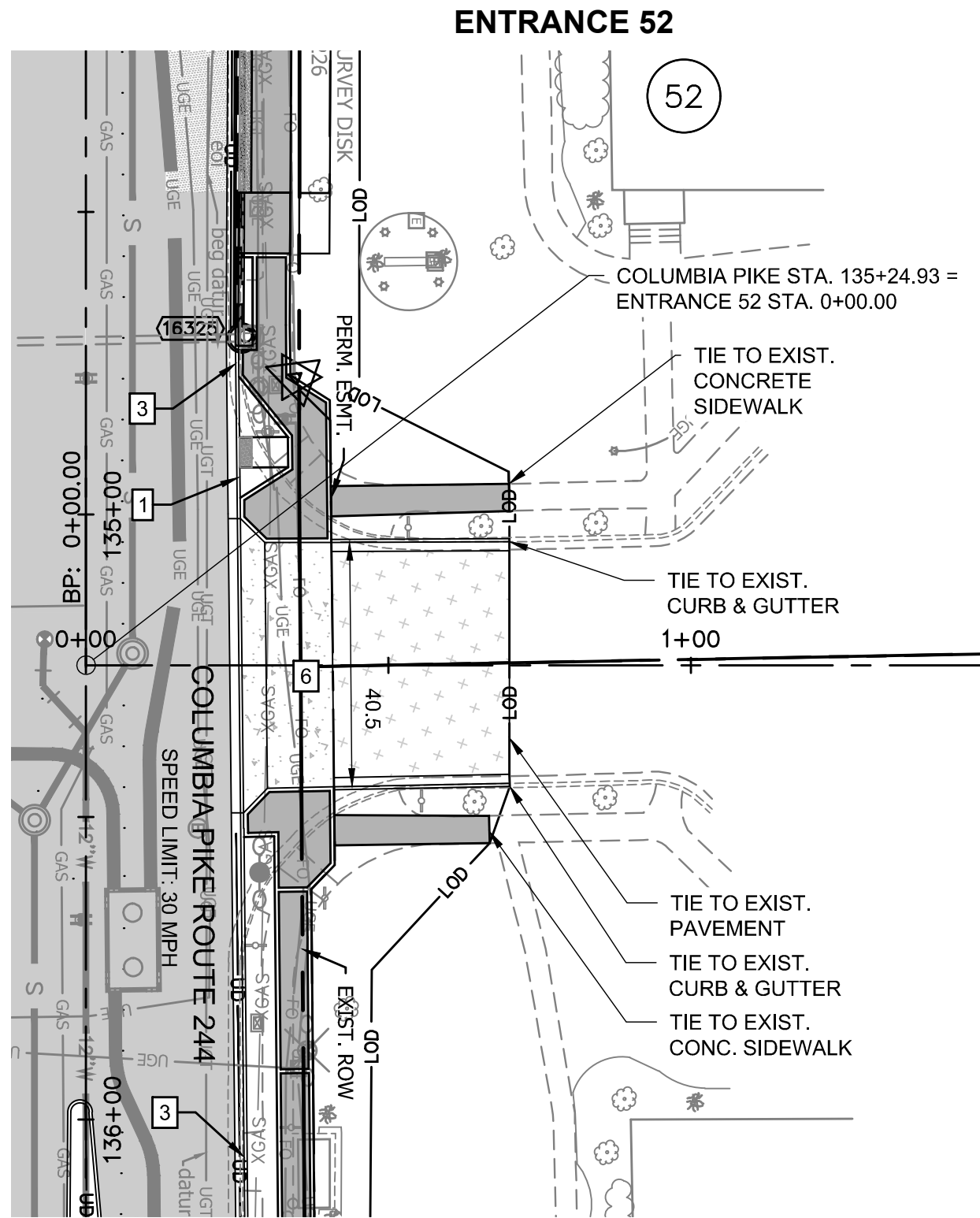
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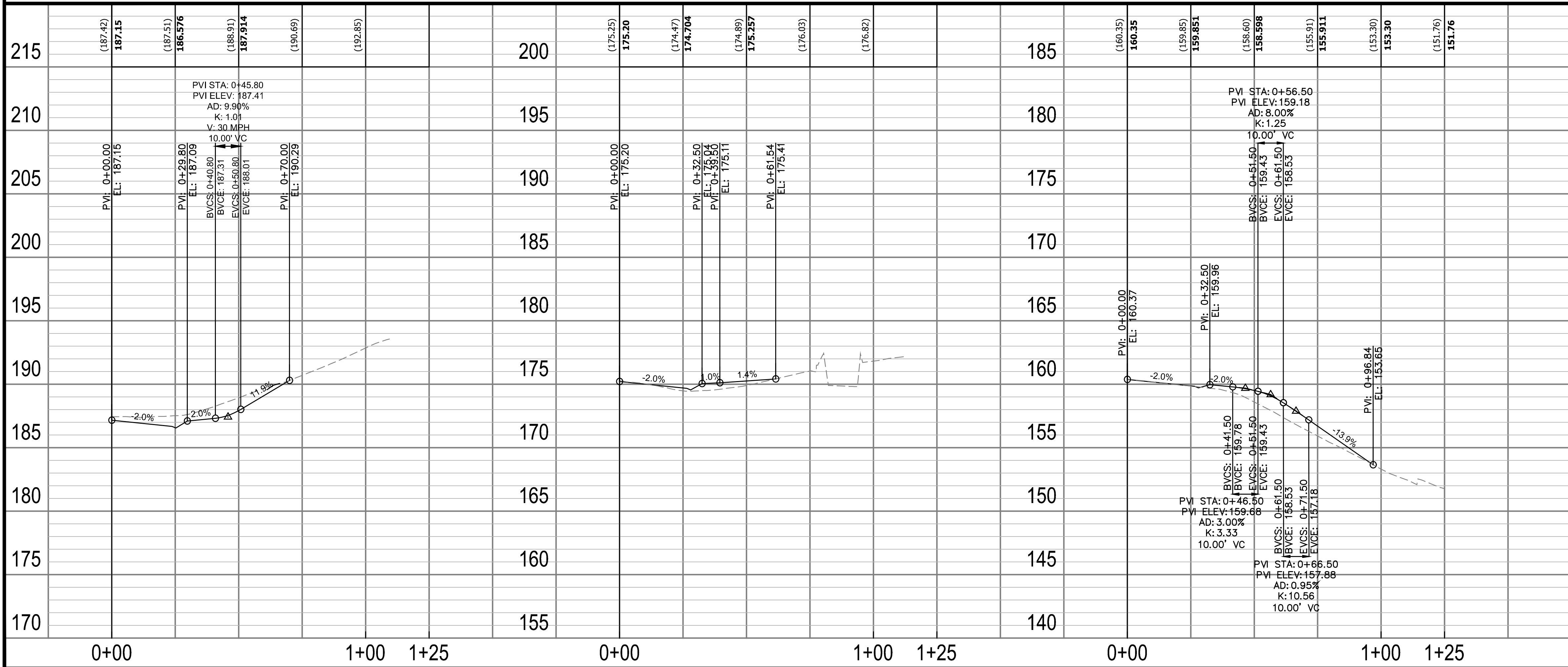
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- PROP. CONCRETE ENTRANCE
- PROP. VDOT STD. RW-3
- PROP. FENCE/ HANDRAIL
- LIMITS OF DISTURBANCE
- PROPOSED GAS LINE AS DONE BY WGL
- UNDERDRAIN (SHEET F14.6.4 FOR DETAILS)



ARLINGTON COUNTY, VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL SERVICES

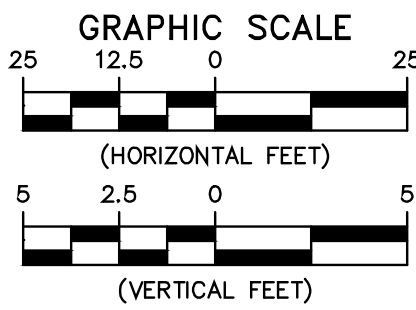
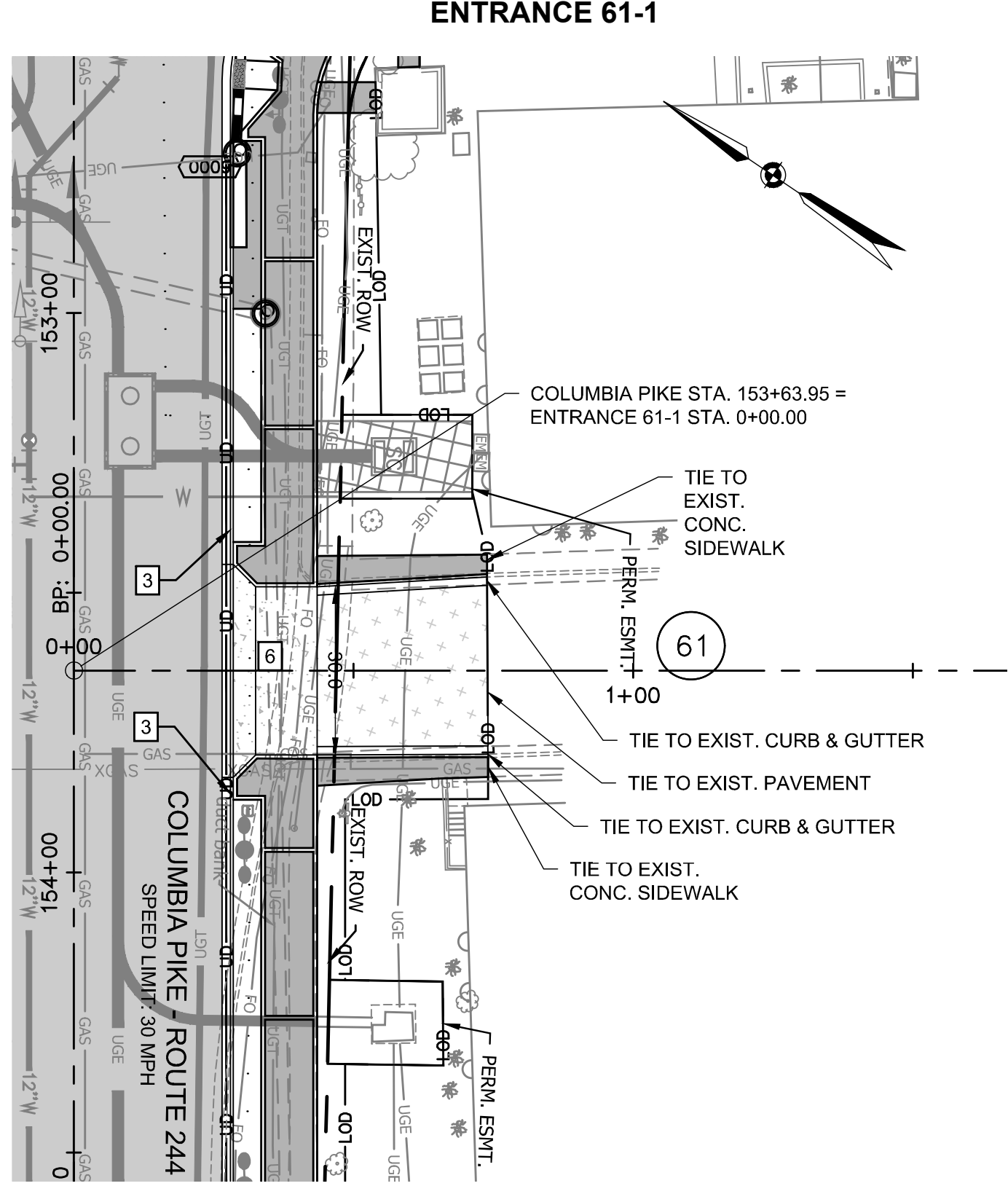
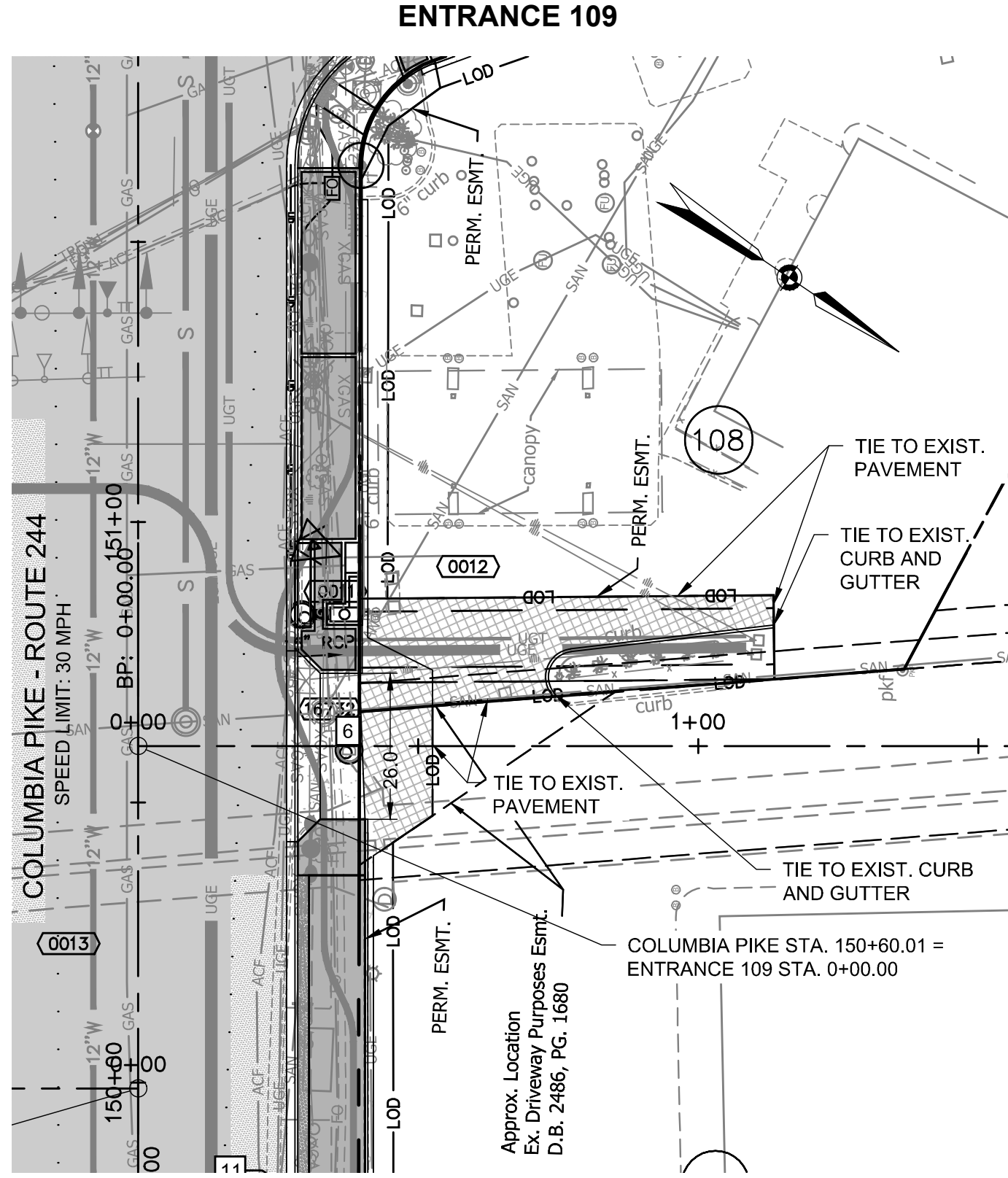
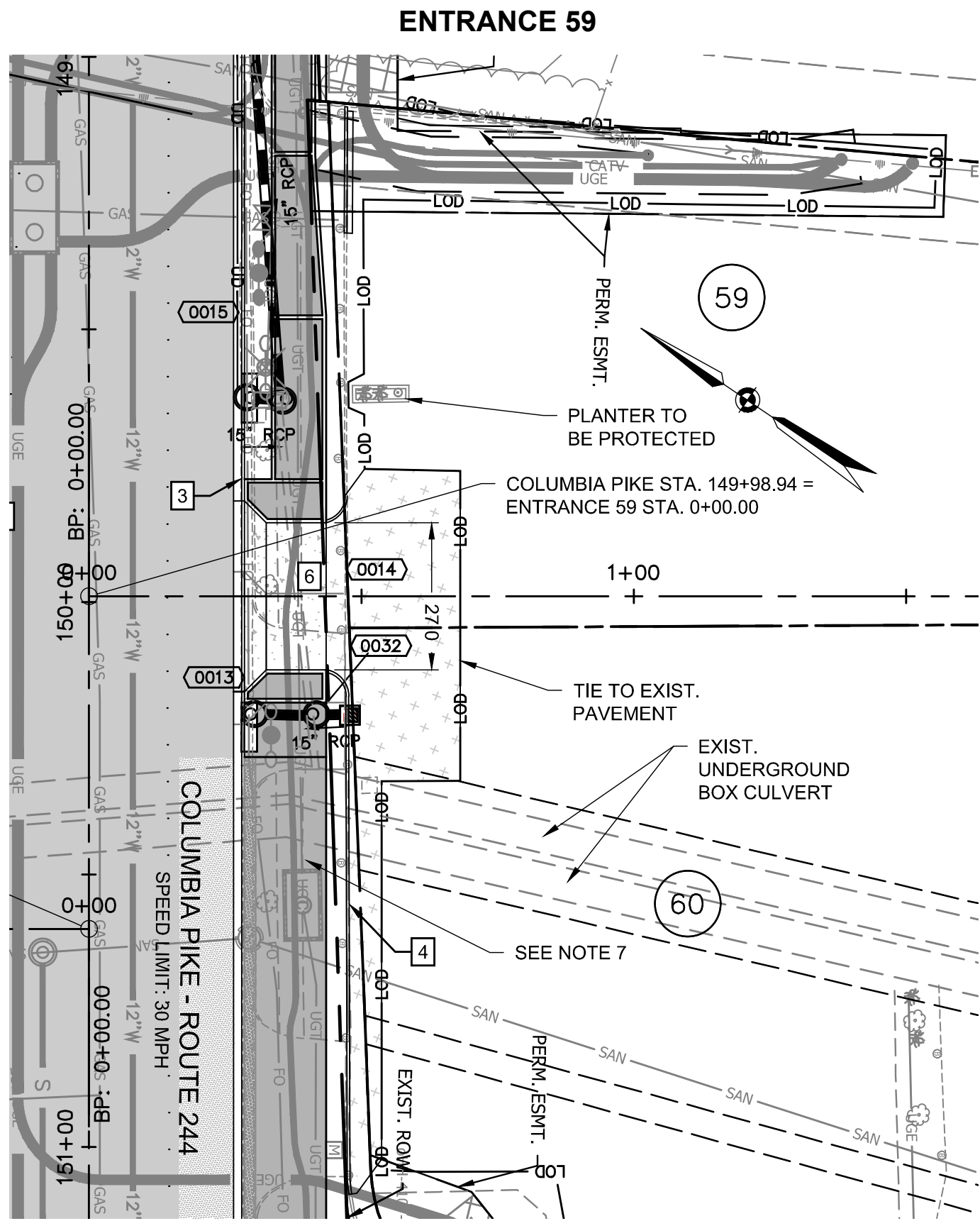
ENTRANCE PLAN AND PROFILE  
COLUMBIA PIKE - ROUTE 244  
COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
SEGMENT F

SCALE: HOR. 1" = 25' VERT. 1" = 5' SHEET: F10.13.1 of F10.13.4

Designed: EJD  
Drawn: TEC  
Checked: MRA  
Miss Utility Transmittal #:

Filename: 010073-F-DRIVEWAY PLAN AND PROFILE  
Path: K:\NA\_A\0073\F1010073 Columbia Pike Multimodal Production Task  
1: Final Design of Columbia Pike Segment Segment F10.13.1 - 100%  
Design/Production  
Plotted: September 10, 2021  
Plotted by: patrick.husted





GENERAL NOTES:

- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- SEE F3 SERIES SHEETS FOR TYPICAL SECTIONS.
- BC = BACK OF CURB.
- SEE LANDSCAPE PLANS (F14 SERIES) FOR BUFFER AND MEDIAN DETAILS.
- RFRB ON COLUMBIA PIKE AT S. OAKLAND STREET TO REMAIN ACTIVE DURING CONSTRUCTION.
- OFFSET OF EXISTING FIBER LINE MAY BE REQUIRED FOR PROPOSED IMPROVEMENTS. SEE DETAIL ON F2.1.
- SEE F23 SERIES SHEETS FOR PROPOSED TRANSIT STOP LAYOUT DETAILS.

LEGEND

- 80 PARCEL NO. - REFER TO GEOMETRY PLAN SHEETS
- 0001 PROP. STORM STRUCTURE NO.
- 0 PROP. STORM MANHOLE
- 0 PROP. RCP STORM PIPE
- 0 PROP. CB-2B OR PCB-2
- 0 EXISTING STORM STRUCTURE NO.
- 4 PROP. SANITARY STRUCTURE NO.
- 1005 EXISTING SANITARY STRUCTURE NO.

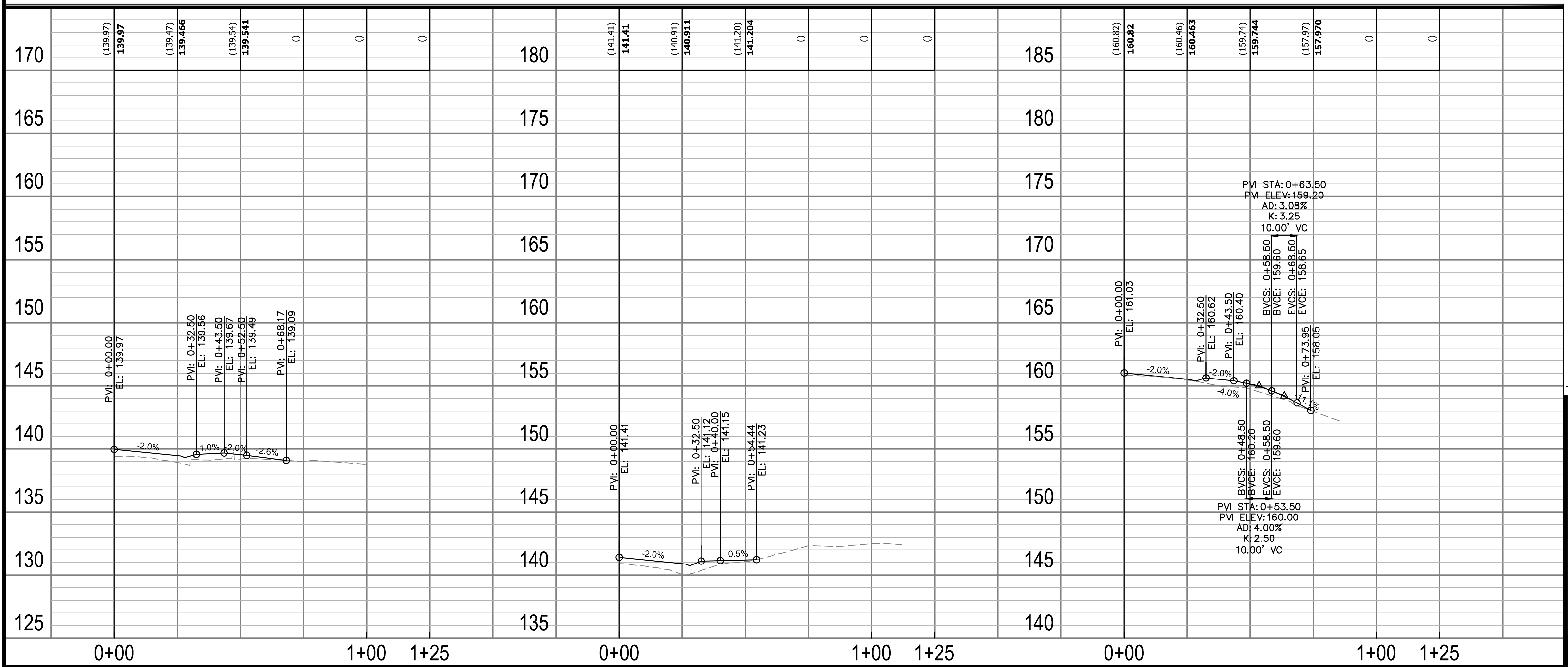
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- 2 VDOT STD. CG-12 TYPE B PEDESTRIAN CURB RAMP
- 3 ARL. CO. STD. C-2 CURB AND GUTTER
- 4 ARL. CO. STD. C-3 CURB (MODIFIED IN PARKING AREAS, SEE DETAIL F3.3)
- 5 ARL. CO. STD. CONCRETE VALLEY GUTTER (SEE DETAIL F3.3)
- 6 ARL. CO. STD. CONC. COMMERCIAL ENTRANCE
- 7 NOT IN USE
- 8 VDOT STD. RW-3 RET. WALL WITH HANDRAIL
- 9 VDOT STD. RW-3 RET. WALL NO HANDRAIL
- 10 ARL. CO. STD. CONCRETE STEPS WITH VDOT STD. HR-1 HANDRAIL
- 11 ARL. CO. STD. C-4 9.5" RAISED CURBSIDE TRANSIT STOP

- PROP. FULL DEPTH PAVEMENT
- PROP. FULL DEPTH PAVEMENT (PRIVATE)
- PROP. MILL & OVERLAY
- PROP. CONCRETE BUS PAD
- PROP. CONCRETE SIDEWALK
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- PROP. VDOT STD. RW-3
- PROP. FENCE/ HANDRAIL
- LIMITS OF DISTURBANCE
- PROPOSED GAS LINE AS DONE BY WGL
- UNDERDRAIN (SHEET F14.6.4 FOR DETAILS)

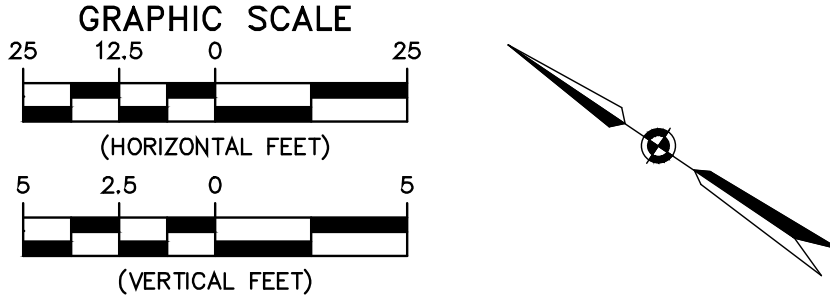
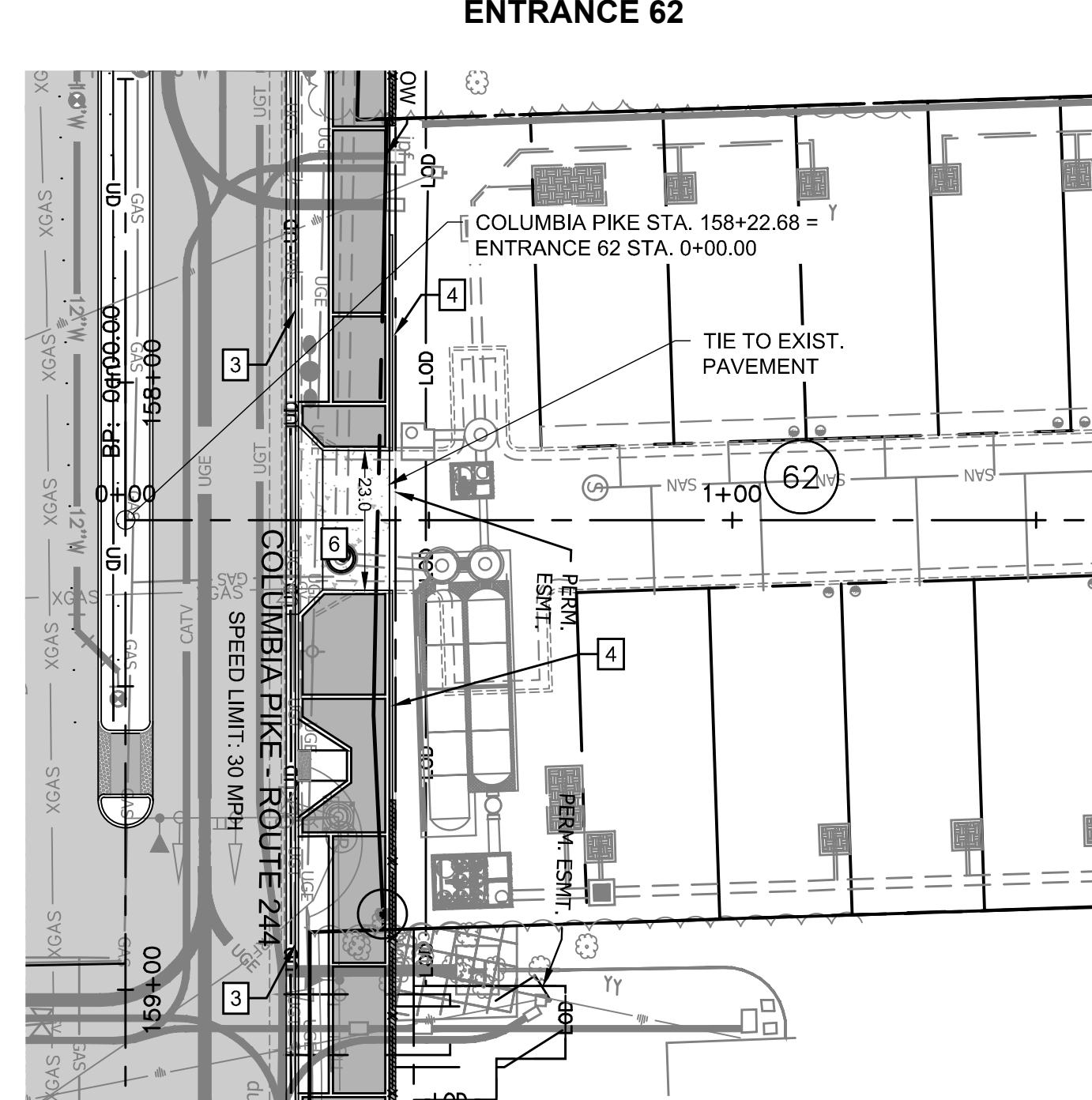
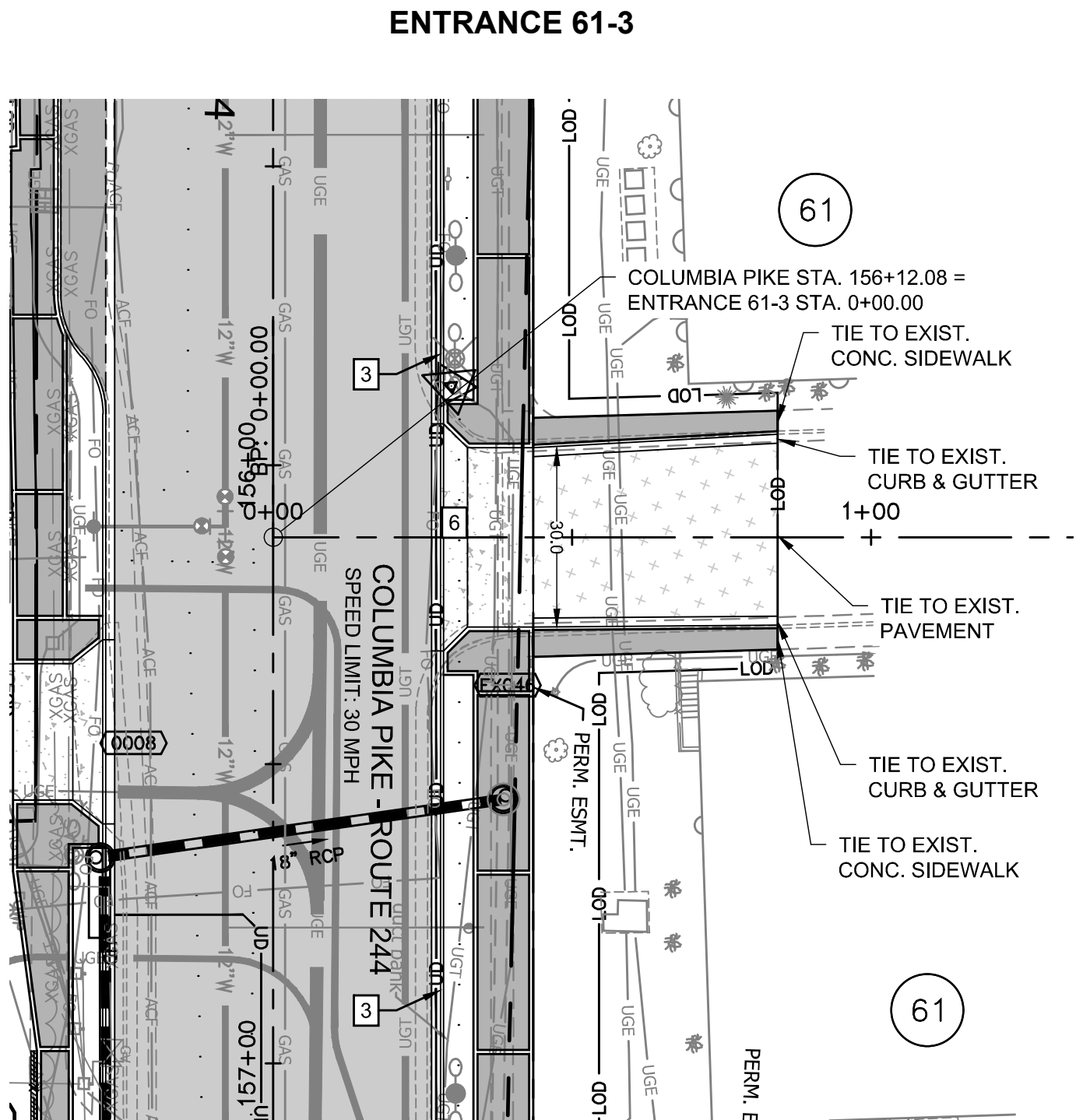
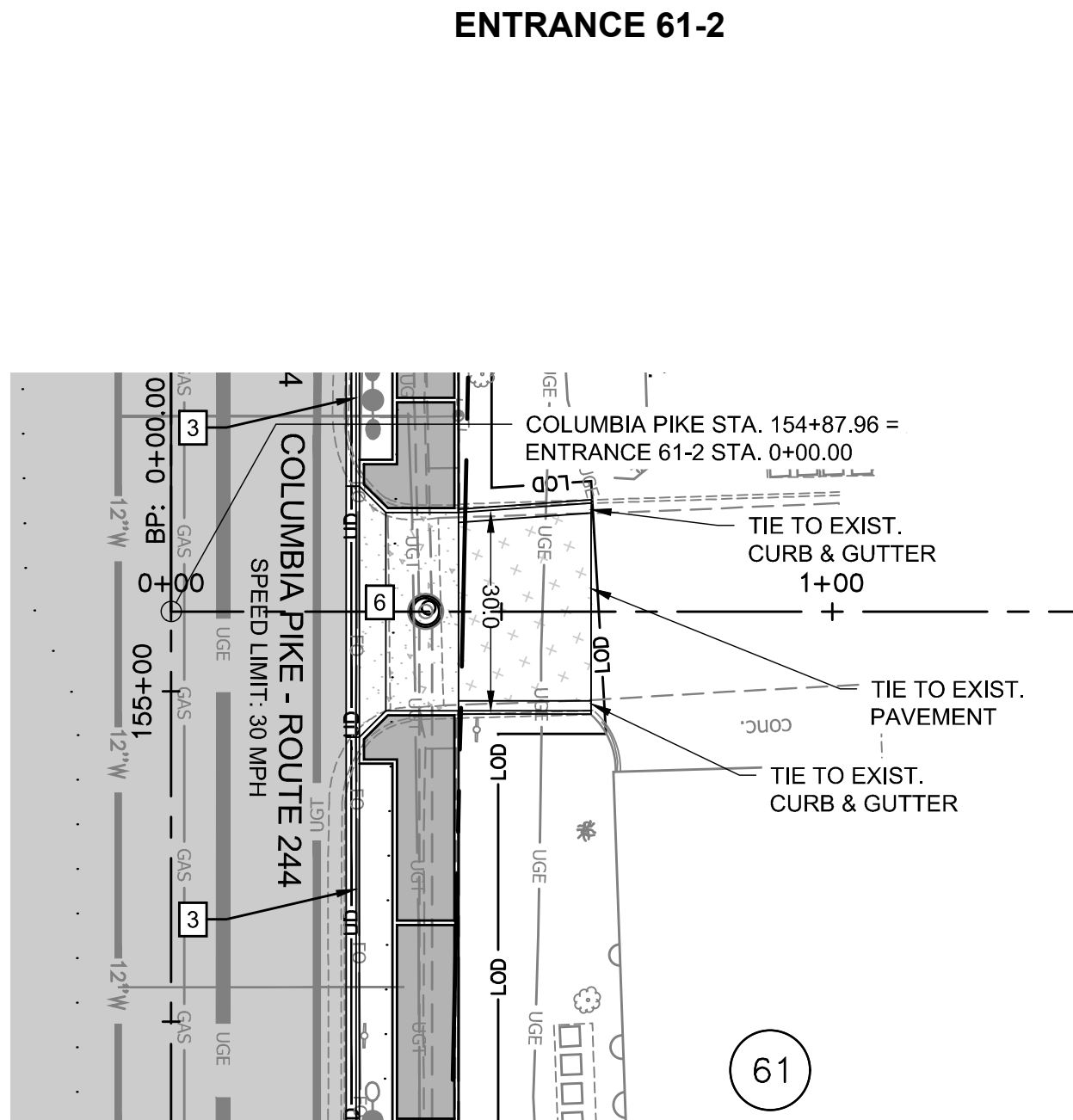
ARLINGTON COUNTY, VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL SERVICES

ENTRANCE PLAN AND PROFILE  
COLUMBIA PIKE - ROUTE 244  
COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
SEGMENT F

SCALE: HOR. 1" = 25' VERT. 1" = 5' SHEET: F10.13.2 of F10.13.4







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  - 0 PROP. RCP STORM PIPE
  - 0 PROP. CB-2B OR PCB-2
  - 0 EXISTING STORM STRUCTURE NO.
  - 4 PROP. SANITARY STRUCTURE NO.
  - 10105 EXISTING SANITARY STRUCTURE NO.
  - 1 VDOT STD. CG-12 TYPE A PEDESTRIAN CURB RAMP
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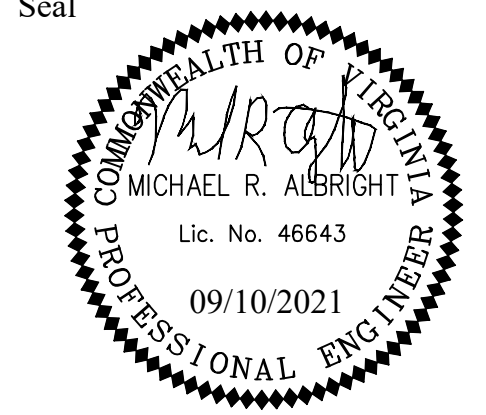
**ARLINGTON**  
VIRGINIA

DEPARTMENT OF  
ENVIRONMENTAL SERVICES

Facilities & Engineering Division  
Engineering Bureau  
2100 Clarendon Boulevard, Suite 813  
Arlington, VA 22201  
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Phone: 703-674-1500  
Fax: 703-674-1350



Approvals \_\_\_\_\_ Date \_\_\_\_\_

Design Team Engineer Supervisor \_\_\_\_\_

Construction Management Supervisor \_\_\_\_\_

Water, Sewer, Streets Bureau Chief \_\_\_\_\_

Transportation Director \_\_\_\_\_

Project Manager \_\_\_\_\_

Revisions	Date

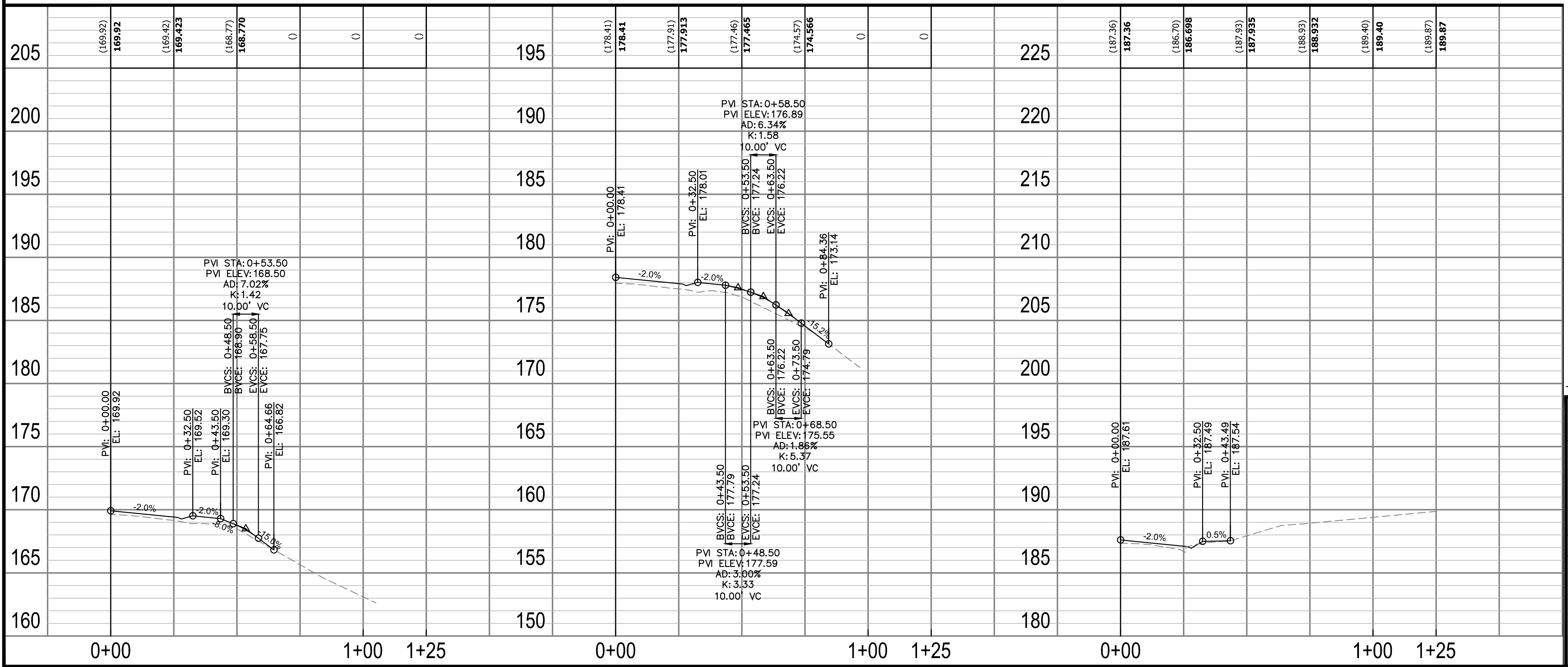
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Drawn: TED  
Checked: MRA  
Miss Utility Transmittal #:

Filename: 010073-F-DRIVEWAY PLAN AND PRO  
Path: C:\NVA\_KIMLEY\1000073 Columbia Pike Multimodal Production Task  
Design Project Sheets  
Plotted: September 10, 2021  
Plotted by: patrick.husted

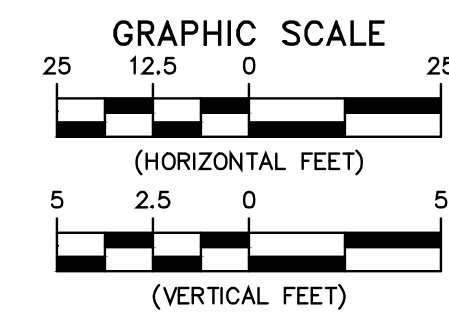
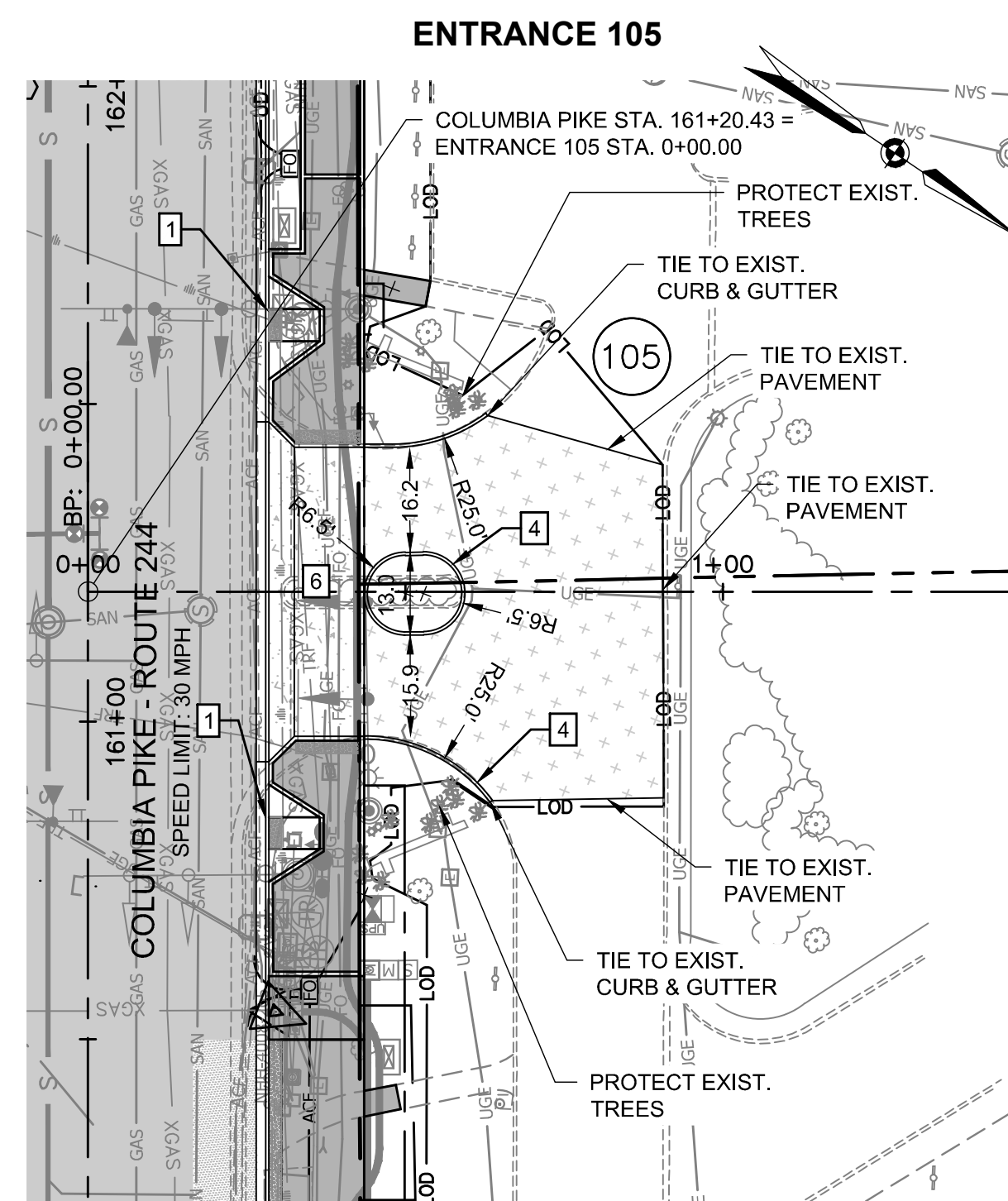
ARLINGTON COUNTY, VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL SERVICES

ENTRANCE PLAN AND PROFILE  
COLUMBIA PIKE - ROUTE 244  
COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
SEGMENT F

SCALE: HOR. 1" = 25' VERT. 1" = 5' SHEET: F10.13.3 of F10.13.4











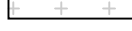




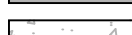






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LEGEND

- |   |   |
|---|---|
| <b>80</b>   | PARCEL NO. - REFER TO GEOMETRY PLAN SHEETS                          |
| <b>0001</b>   | PROP. FLOOD STRUCTURE NO.   |
|  | PROP. STORM MANHOLE   |
|  | PROP. RCP STORM PIPE  |
|  | PROP. CB-2B OR PCB-2  |
|  | EXISTING STORM STRUCTURE NO.  |
| <b>4</b>  | PROP. SANITARY STRUCTURE NO.  |
|  | EXISTING SANITARY STRUCTURE NO.                                     |
| <b>1</b>  | VDOT STD. CG-12 TYPE A PEDESTRIAN CURB RAMP                         |
| <b>2</b>  | VDOT STD. CG-12 TYPE B PEDESTRIAN CURB RAMP                         |
| <b>3</b>  | ARL. CO. STD. C-2 CURB AND GUTTER                                   |
| <b>4</b>  | ARL. CO. STD. C-3 CURB (MODIFIED IN PARKING AREAS. SEE DETAIL F3.3) |
| <b>5</b>  | ARL. CO. STD. CONCRETE VALLEY GUTTER (SEE DETAIL F3.3)              |
| <b>6</b>  | ARL. CO. STD. CONC. COMMERCIAL ENTRANCE                             |
| <b>7</b>  | NOT IN USE  |
| <b>8</b>  | VDOT STD. RW-3 RET. WALL WITH HANDRAIL                              |
| <b>9</b>  | VDOT STD. RW-3 RET. WALL NO HANDRAIL                                |
| <b>10</b>   | ARL. CO. STD. CONCRETE STEPS WITH VDOT STD. HR-1 HANDRAIL           |
| <b>11</b>   | ARL. CO. STD. C-4 9.5" RAISED CURBSIDE TRANSIT STOP                 |

- |   |  |
|---|--|
|                                | PROP. FULL DEPTH PAVEMENT              |
|                                | PROP. FULL DEPTH PAVEMENT (PRIVATE)    |
|                                | PROP. MILL & OVERLAY                   |
|                                | PROP. CONCRETE BUS PAD                 |
|                                | PROP. CONCRETE SIDEWALK                |
|                                | PROP. CONCRETE ENTRANCE                |
|                                | PROP. VDOT STD. RW-3                   |
|                                | PROP. FENCE/ HANDRAIL                  |
|                                | LIMITS OF DISTURBANCE                  |
|  | PROPOSED GAS LINE AS DONE BY WGL       |
|                                | UNDERDRAIN (SHEET F14.6.4 FOR DETAILS) |



ARLINGTON  
VIRGINIA

DEPARTMENT OF  
ENVIRONMENTAL SERVICES

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Reston Virginia 20191  
Phone: 703-674-1300  
Fax: 703-674-1350

Seal



Approvals	Date
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Design Team Engineer Supervisor

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Construction Management Supervisor

Water, Sewer, Streets Bureau Chief

Transportation Director

Project Manager

Revisions \_\_\_\_\_ Date \_\_\_\_\_

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Designed: EJD

Checked: MRA

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Path: K:\NVA\_RDWY\110010073 Columbia Pike Multimodal Production\Task  
7.5 Final Design of Columbia Pike Segments\Segment P7.5.2 - 100%

Plotted by: patrick husted

Downloaded from <http://ajphaphysocpharm.sagepub.com/> at 11:06 11 November 2014

ARLINGTON COUNTY, VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL SERVICES

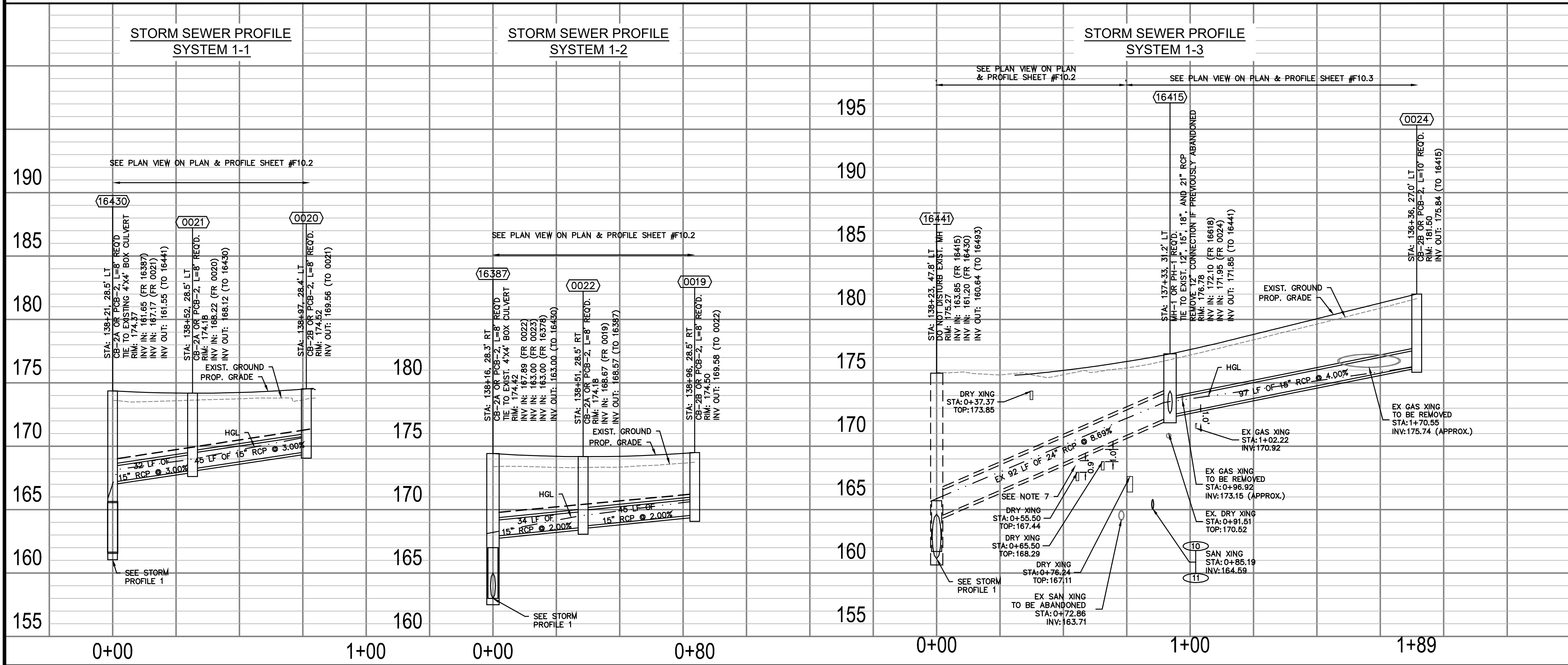
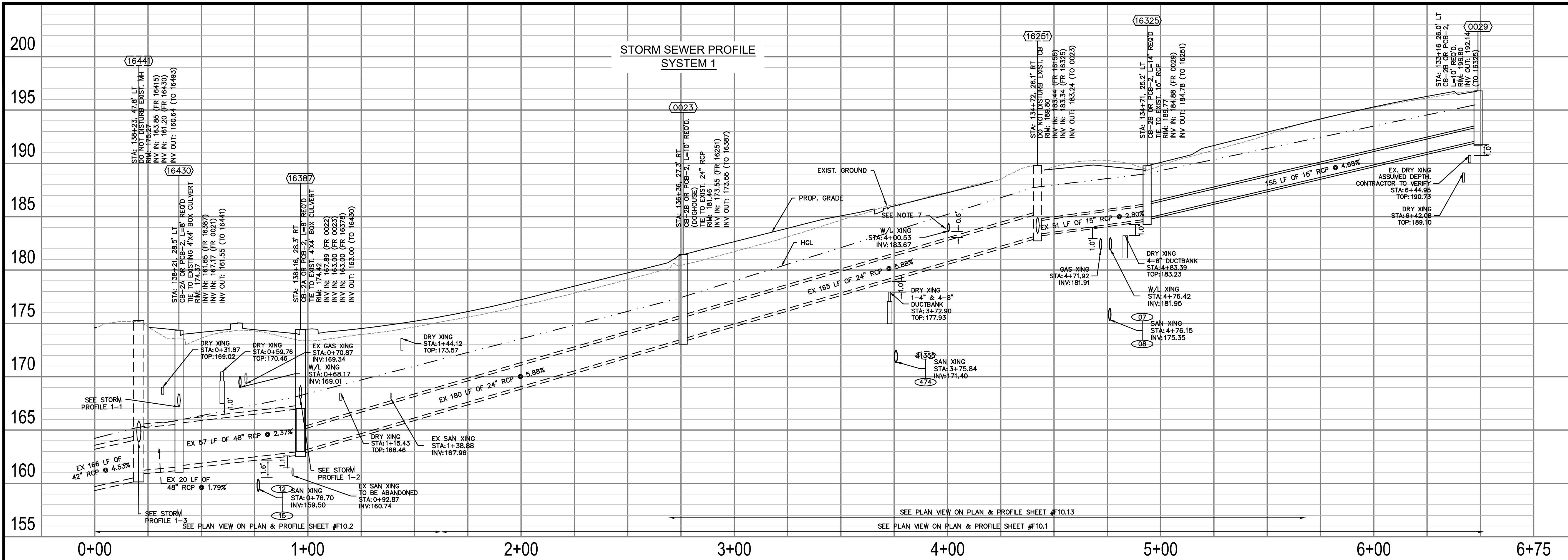
ENTRANCE PLAN AND PROFILE  
COLUMBIA PIKE - ROUTE 244  
COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
SEGMENT F

SCALE:	HOR. 1" = 25' VERT. 1" = 5'	SHEET:	F10.13.4 of F10.13.4
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DEPARTMENT OF  
ENVIRONMENTAL SERVICES

10/19/2021  
APPROVAL DATE





FOR STORM CONST. ONLY

- NOTES:
1. PROFILE STATIONING ALONG CENTERLINE OF PIPE
  2. SEE SERIES 10 FOR FULL UTILITY NETWORK PLAN VIEWS.
  3. WATERLINE TO BE INSTALLED, TESTED, AND PUT INTO SERVICE PRIOR TO STORM AND SANITARY PIPE INSTALLATION. CONTRACTOR TO CONFIRM EXISTING WATERLINE IS DECOMMISSIONED PRIOR TO REMOVAL. DESIGN ASSUMES THAT THE PROPOSED WATERLINE IS GENERALLY INSTALLED PRIOR TO OTHER UTILITIES TO MITIGATE CONFLICTS.
  4. CONTRACTOR TO MAINTAIN POSITIVE DRAINAGE THROUGHOUT THE PROJECT LIMITS TO THE EXTENT POSSIBLE AT ALL TIMES. STORM SEWER SHALL BE INSTALLED AND SEQUENCED TO MINIMIZE DOWN TIME REQUIRED FOR TIE-IN OR CUT-OVER OPERATIONS. SHOULD PUMP-AROUNDS BE REQUIRED TO COMPLETE STORM SEWER INSTALLATIONS, THEY WILL BE INCIDENTAL TO THE COST OF STORM PIPE AND STRUCTURE INSTALLATION.
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  7. WHERE MINIMUM VERTICAL CLEARANCES BETWEEN UTILITIES CANNOT BE MET, CONTRACTOR TO INSTALL CONCRETE PIERS AND/OR REINFORCED CONCRETE CRADLE PER ARLINGTON COUNTY STANDARD DRAWING M-7.0.

ARLINGTON COUNTY, VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL SERVICES

STORM PROFILES  
COLUMBIA PIKE - ROUTE 244  
COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
SEGMENT F

SCALE: HOR. 1" = 25' VERT. 1" = 5' SHEET: F11.1 of F11.6.3

ARLINGTON  
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Seal  
COMMONWEALTH OF VIRGINIA  
MICHAEL R. ALBRIGHT  
Lic. No. 46643  
10/13/2021  
PROFESSIONAL ENGINEER

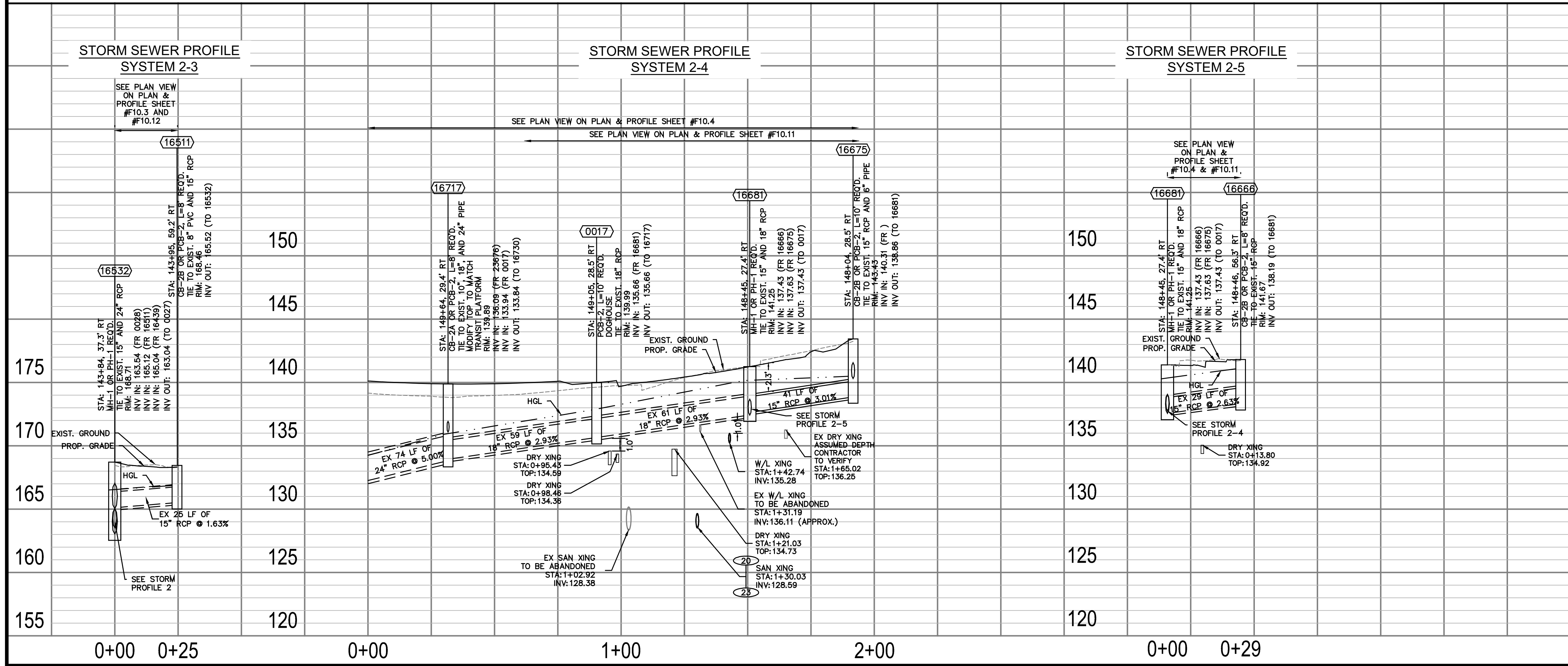
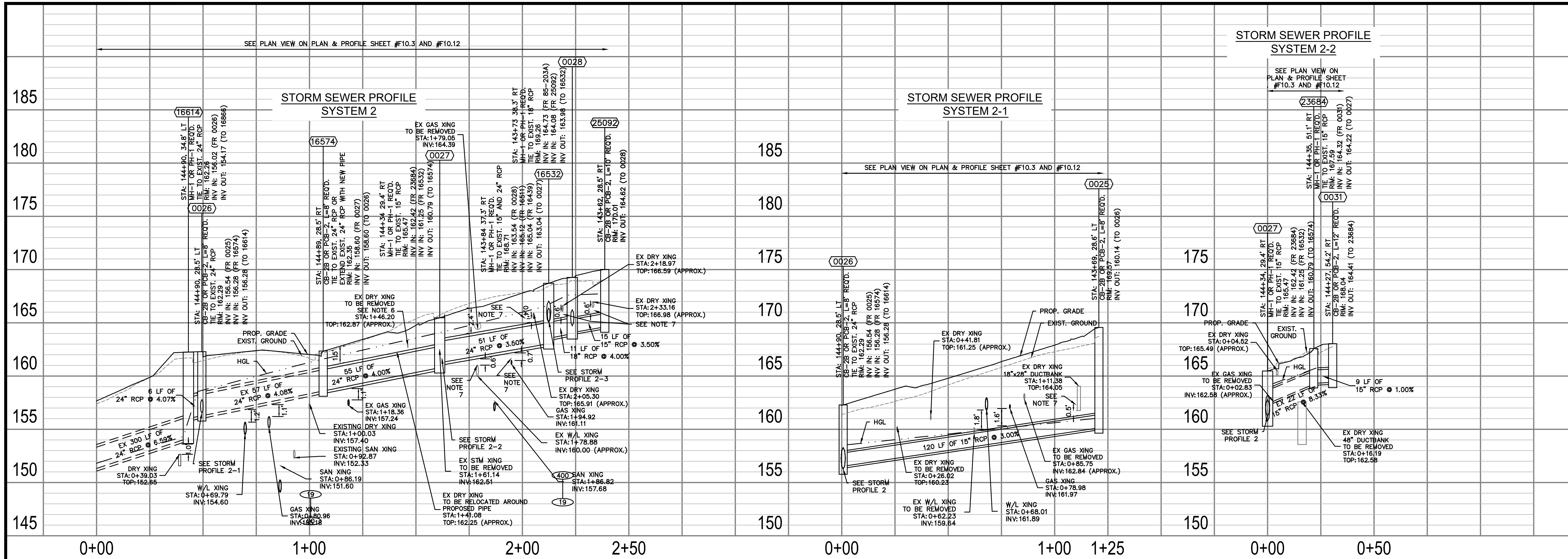
Approvals	Date
Design Team Engineer Supervisor	
Construction Management Supervisor	
Water, Sewer, Streets Bureau Chief	
Transportation Director	
Project Manager	

Revisions	Date

Designed: DCD  
Drawn: DCD  
Checked: MRA  
Miss Utility Transmittal #:

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Plotted: October 13, 2021  
Plotted by: Patrick.Husted





**FOR STORM CONST. ONLY**

**NOTES:**

1. PROFILE STATIONING ALONG CENTERLINE OF PIPE
2. SEE SERIES 10 FOR FULL UTILITY NETWORK PLAN VIEWS.
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Revisions	Date

Designed: DCD  
Drawn: DCD  
Checked: MRA  
Miss Utility Transmittal #:

Filename: 010073-F-STRM.dwg  
Path: C:\Users\BUREAU\Documents\010073-F-STRM.dwg  
Plotted: October 14, 2021  
Plotted by: Miguel.Tyshing

ARLINGTON COUNTY, VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL SERVICES

**STORM PROFILES  
COLUMBIA PIKE - ROUTE 244  
COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
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Seal

COMMONWEALTH OF VIRGINIA  
MICHAEL R. ALBRIGHT  
Lic. No. 46643  
10/14/2021  
PROFESSIONAL ENGINEER

Approvals \_\_\_\_\_ Date \_\_\_\_\_

Design Team Engineer Supervisor \_\_\_\_\_

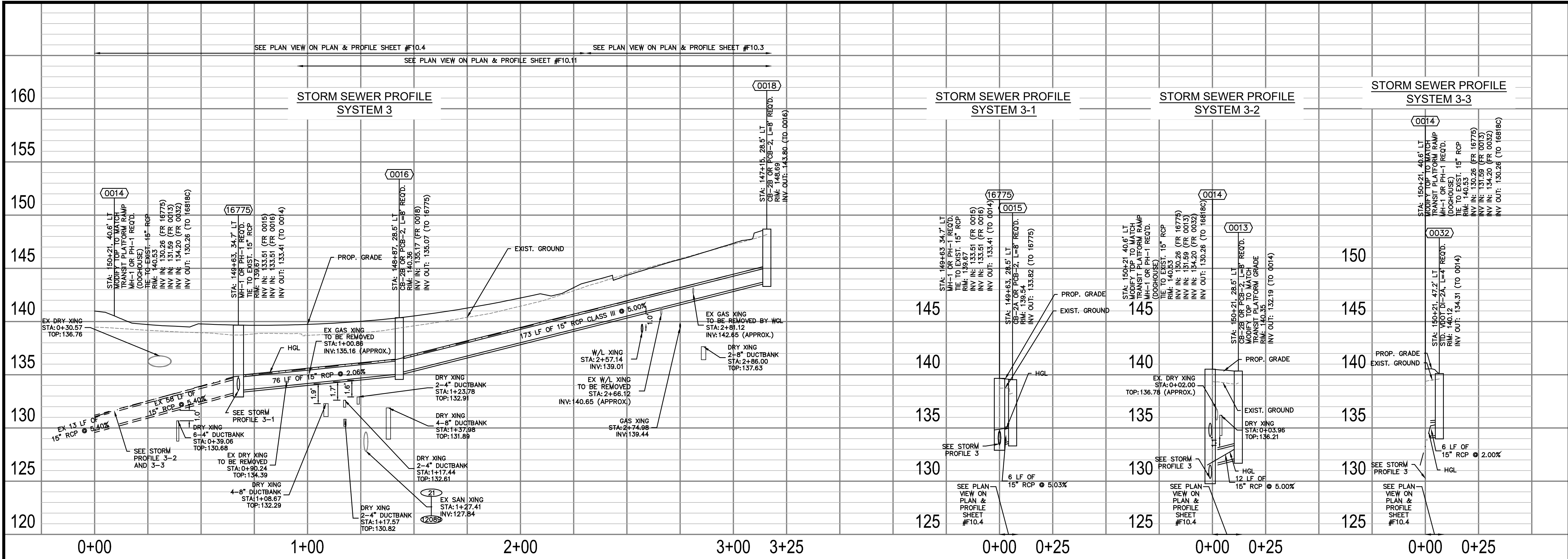
Construction Management Supervisor \_\_\_\_\_

Water, Sewer, Streets Bureau Chief \_\_\_\_\_

Transportation Director \_\_\_\_\_

Project Manager \_\_\_\_\_





FOR STORM CONST. ONLY

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ARLINGTON COUNTY, VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL SERVICES

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COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
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SCALE: HOR. 1" = 25' VERT. 1" = 5' SHEET: F11.3 of F11.6.3



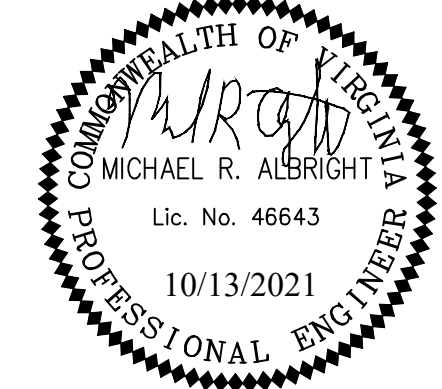
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2100 Clarendon Boulevard, Suite 813  
Arlington, VA 22201  
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**Kimley»Horn**  
Kimley-Horn  
and Associates, Inc.

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11400 Commerce Park Drive, Suite 400  
Reston, Virginia 20191  
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Fax: 703-674-1500

Seal



Approvals \_\_\_\_\_ Date \_\_\_\_\_

Design Team Engineer Supervisor \_\_\_\_\_

Construction Management Supervisor \_\_\_\_\_

Water, Sewer, Streets Bureau Chief \_\_\_\_\_

Transportation Director \_\_\_\_\_

Project Manager \_\_\_\_\_

Revisions \_\_\_\_\_ Date \_\_\_\_\_

Designed: DCD  
Drawn: DCD  
Checked: MRA  
Miss Utility Transmittal #:

Filename: 010073-F-STRM.dwg  
Path: C:\Users\paula\OneDrive\Documents\Projects\010073-F-STRM.dwg  
Plotted: October 13, 2021  
Plotted by: Patrick.Husted



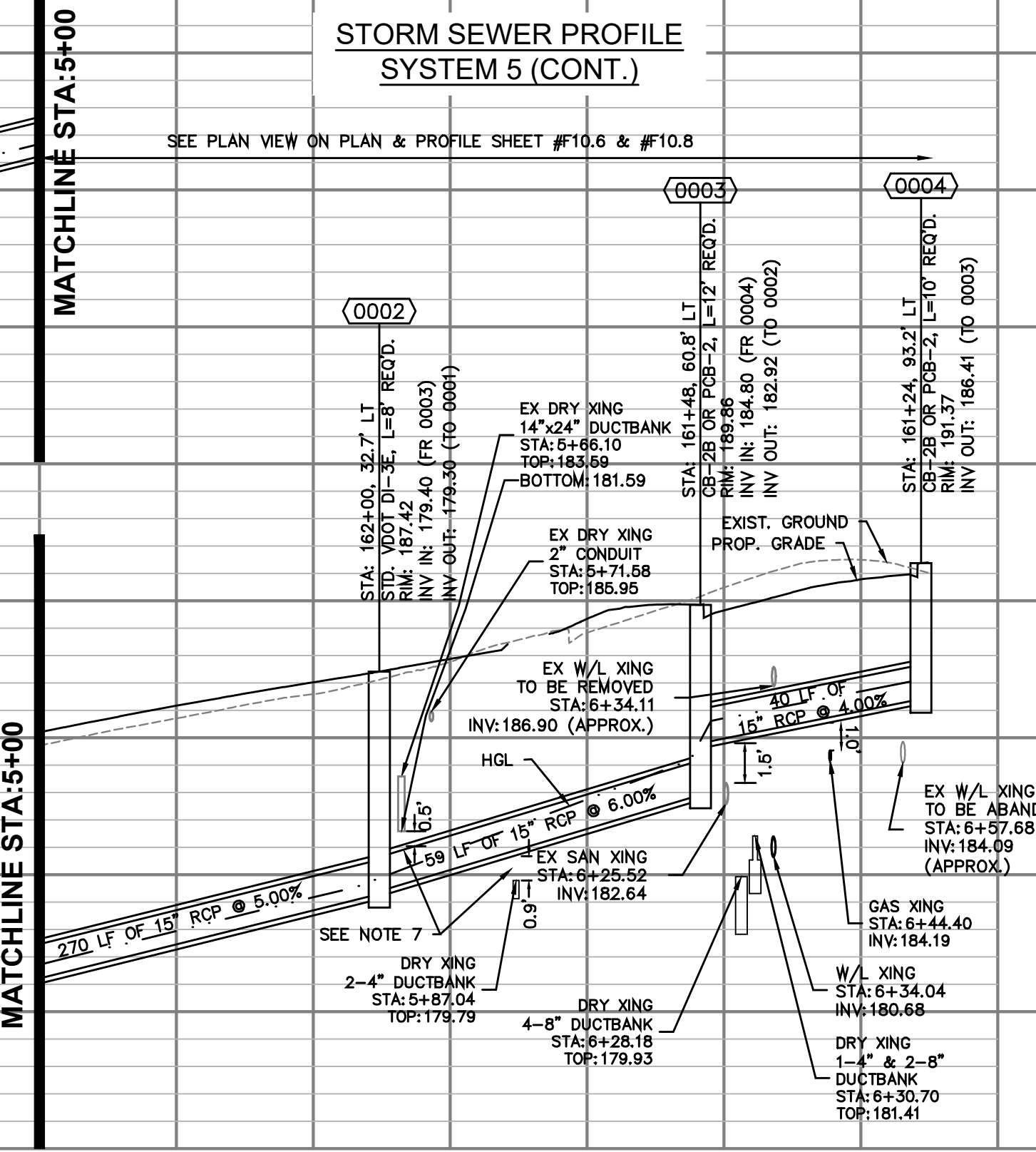
DEPARTMENT OF  
ENVIRONMENTAL SERVICES

10/19/2021  
APPROVAL DATE



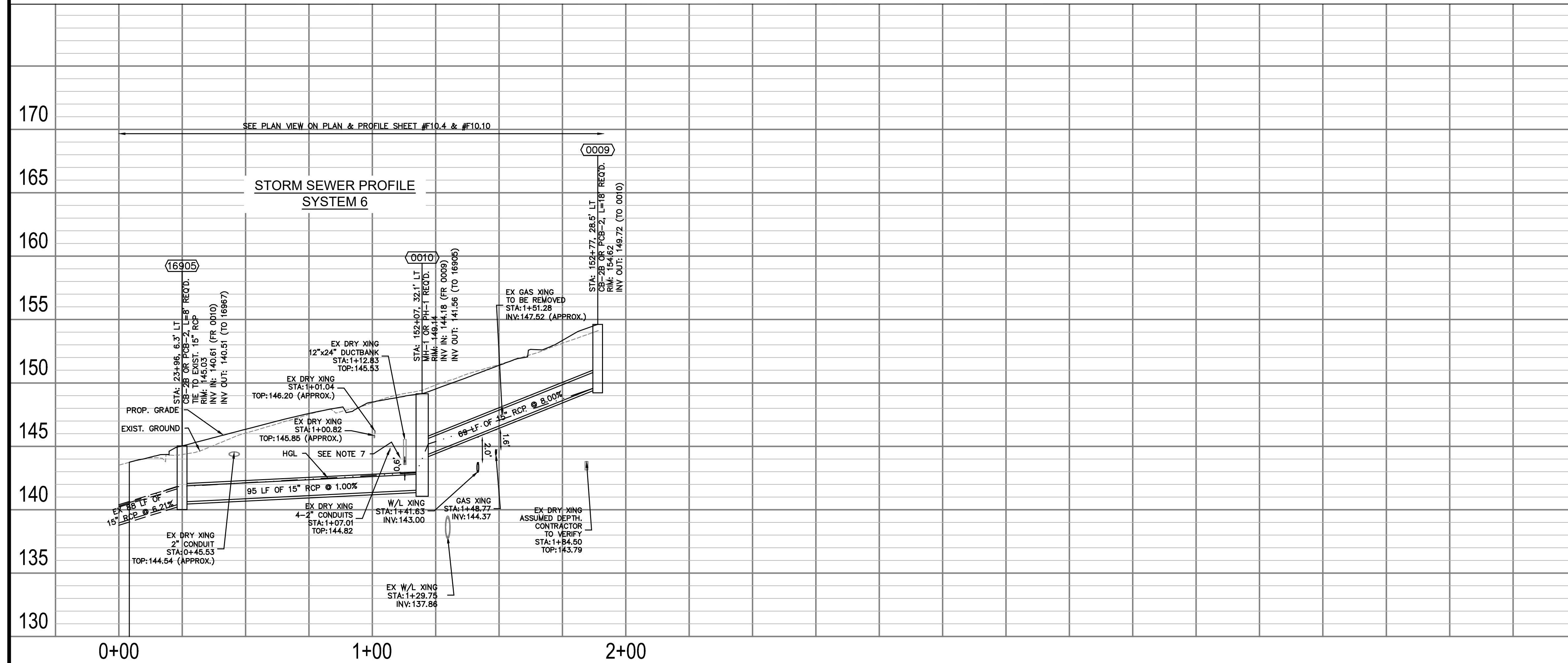






FOR STORM CONST. ONLY

- NOTES:**
1. PROFILE STATIONING ALONG CENTERLINE OF PIPE
  2. SEE SERIES 10 FOR FULL UTILITY NETWORK PLAN VIEWS.
  3. WATERLINE TO BE INSTALLED, TESTED, AND PUT INTO SERVICE PRIOR TO STORM AND SANITARY PIPE INSTALLATION. CONTRACTOR TO CONFIRM EXISTING WATERLINE IS DECOMMISSIONED PRIOR TO REMOVAL. DESIGN ASSUMES THAT THE PROPOSED WATERLINE IS GENERALLY INSTALLED PRIOR TO OTHER UTILITIES TO MITIGATE CONFLICTS.
  4. CONTRACTOR TO MAINTAIN POSITIVE DRAINAGE THROUGHOUT THE PROJECT LIMITS TO THE EXTENT POSSIBLE AT ALL TIMES. STORM SEWER SHALL BE INSTALLED AND SEQUENCED TO MINIMIZE DOWN TIME REQUIRED FOR TIE-IN OR CUT-OVER OPERATIONS. SHOULD PUMP-AROUNDS BE REQUIRED TO COMPLETE STORM SEWER INSTALLATIONS, THEY WILL BE INCIDENTAL TO THE COST OF STORM PIPE AND STRUCTURE INSTALLATION.
  5. CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES ADJACENT TO OR CROSSING PROPOSED STORM SEWER PIPE AND STRUCTURES PRIOR TO INSTALLATION.
  6. OFFSET OF EXIST. FIBER LINE AND LIGHTING LINE MAY BE REQUIRED FOR PROPOSED IMPROVEMENTS. SEE DETAIL SHEET F2.1.
  7. WHERE MINIMUM VERTICAL CLEARANCES BETWEEN UTILITIES CANNOT BE MET, CONTRACTOR TO INSTALL CONCRETE PIERS AND/OR REINFORCED CONCRETE CRADLE PER ARLINGTON COUNTY STANDARD DRAWING M-7.0.



DEPARTMENT OF  
ENVIRONMENTAL SERVICES

Facilities & Engineering Division  
Engineering Bureau  
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Seal



Approvals	Date
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Design Team Engineer Supervisor

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Construction Management Supervisor

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Water, Sewer, Streets Bureau Chief

Transportation Director

Project Manager

Revisions \_\_\_\_\_ Date \_\_\_\_\_

Designed: DCD  
 Drawn: DCD  
 Checked: MRA  
 Miss Utility Transmittal #:

Filename: 010073-F-STRM.dwg  
 Path: K:\NVA\_RDWY\110010073 Columbia Pike Multimodal Production\Task  
 7.5 Final Design of Columbia Pike Segments\Segment F7.5.2 - 100%  
 Design\PlanSheets  
 Plotted: October 13, 2021  
 Plotted by: Patrick.Husted

ARLINGTON COUNTY, VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL SERVICES

STORM PROFILES  
COLUMBIA PIKE - ROUTE 244  
COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
SEGMENT F

SCALE:	HOR. 1" = 25' VERT. 1" = 5'	SHEET:	F11.4.1 of F11.6.3
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DEPARTMENT OF  
ENVIRONMENTAL SERVICES

10/19/2021  
APPROVAL DATE



STORMWATER INLET CALCULATIONS

LD-204 Stormwater Inlet Computations																																	SHEET 1	
LD-204 Rev. 6-85		PPMS# 110010073		PROJ Columbia Pike Multimodal - Segment F		DATE May 26, 2021		OF 1																										
INLET																													Sag Inlets Only					
NUMBER	TYPE	LENGTH (FT)	STATION	DRAINAGE AREA (AC)	C	CA	sum CA	I (IN/HR)	Q INCR (CFS)	Q <sub>0</sub> , CARRYOVER (CFS)	Q <sub>1</sub> , GUTTER FLOW (CFS)	S <sub>1</sub> , GUTTER SLOPE (FT/FT)	S <sub>2</sub> , CROSS SLOPE (FT/FT)	T, SPREAD (FT)	W (FT)	W/T	S <sub>w</sub> , (FT/FT)	S <sub>w</sub> /S <sub>2</sub>	E <sub>0</sub>	a = 12W(S <sub>w</sub> - S <sub>2</sub> )/Local Depression	S <sub>w</sub> = a/(12w)	S <sub>0</sub> = S <sub>2</sub> + S <sub>w</sub> /E <sub>0</sub> , (FT/FT)	COMPUTED LENGTH, L <sub>r</sub> , (FT)	L, SPECIFIED LENGTH (FT)	L/L <sub>r</sub>	E	Q <sub>0</sub> , INTERCEPTED (CFS)	Q <sub>0</sub> , CARRYOVER (CFS)	d (FT)	h (FT)	d/h	T, SPREAD @ SAG (FT)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)		
INLETS - ON GRADE																																		
17300	New CB	20	167+48	1.36	0.60	0.816	0.816	4.0	3.264	0.000	3.264	0.0723	0.020	6.66	1.5	0.23	0.0833	4.17	0.64	3.14	0.174	0.131	19	20	1.05	1.00	3.26	0.000						
17232	Existing	14	167+01	1.38	0.80	1.104	1.104	4.0	4.416	0.000	4.416	0.0670	0.049	4.62	1.5	0.32	0.0833	1.69	0.70	2.61	0.145	0.150	20	14	0.70	0.89	3.91	0.506						
0001	New CB	14	164+70	0.82	0.60	0.492	0.492	4.0	1.968	0.022	1.990	0.0698	0.020	5.22	1.5	0.29	0.0833	4.17	0.76	3.14	0.174	0.152	14	14	1.00	1.00	1.99	0.000						
0002	New CB	8	162+00	0.36	0.80	0.288	0.288	4.0	1.152	0.000	1.152	0.0296	0.020	4.89	1.5	0.31	0.0833	4.17	0.79	3.14	0.174	0.157	9	8	0.89	0.98	1.13	0.022						
0003	New CB	12	161+48	0.54	0.60	0.324	0.324	4.0	1.296	0.000	1.296	0.0607	0.027	3.63	1.5	0.41	0.0833	3.11	0.87	3.02	0.168	0.173	11	12	1.09	1.00	1.30	0.000						
0004	New CB	10	161+24	0.55	0.60	0.330	0.330	4.0	1.320	0.000	1.320	0.0148	0.004	16.22	1.5	0.09	0.0833	18.94	0.47	3.42	0.190	0.093	10	10	1.00	1.00	1.32	0.000						
0005	New CB	8	159+16	0.14	0.90	0.126	0.126	4.0	0.504	0.000	0.504	0.0811	0.018	1.51	1.5	0.99	0.0833	4.63	1.00	3.18	0.176	0.194	8	8	1.00	1.00	0.50	0.000						
0006	New CB	12	158+79	1.05	0.80	0.840	0.840	4.0	3.360	0.000	3.360	0.0860	0.025	5.65	1.5	0.27	0.0833	3.31	0.68	3.05	0.169	0.141	20	12	0.60	0.81	2.71	0.646						
0008	New CB	14	156+67	0.49	0.70	0.343	0.343	4.0	1.372	0.646	2.018	0.0500	0.020	5.75	1.5	0.26	0.0833	4.17	0.71	3.14	0.174	0.144	14	14	1.00	1.00	2.02	0.000						
16847	New CB	12	153+08	0.43	0.90	0.387	0.387	4.0	1.548	0.000	1.548	0.0717	0.020	4.49	1.5	0.33	0.0833	4.17	0.82	3.14	0.174	0.163	13	12	0.92	0.99	1.53	0.015						
0009	New CB	18	152+77	0.73	0.80	0.584	0.584	4.0	2.336	0.000	2.336	0.0717	0.020	5.65	1.5	0.27	0.0833	4.17	0.72	3.14	0.174	0.145	16	18	1.13	1.00	2.34	0.000						
16905	New CB	8	151+82	0.14	0.90	0.126	0.126	4.0	0.504	0.000	0.504	0.0518	0.037	1.80	1.5	0.84	0.0833	2.23	1.00	2.83	0.157	0.194	7	8	1.14	1.00	0.50	0.000						
16967	Existing	8	151+58	0.08	0.90	0.072	0.072	4.0	0.288	0.000	0.288	0.0620	0.013	1.28	1.5	1.17	0.0833	6.41	1.00	3.27	0.181	0.194	6	8	1.33	1.00	0.29	0.000						
16981	Existing	8	152+08	0.30	0.70	0.210	0.210	4.0	0.840	0.000	0.840	0.0536	0.017	3.53	1.5	0.42	0.0833	4.84	0.92	3.19	0.177	0.181	9	8	0.89	0.98	0.82	0.016						
17161	Existing	8	151+16	0.40	0.90	0.360	0.360	4.0	1.440	0.000	1.440	0.0200	0.020	6.11	1.5	0.25	0.0833	4.17	0.68	3.14	0.174	0.138	9	8	0.89	0.98	1.41	0.028						
16784	Existing	12	152+81	0.25	0.90	0.225	0.225	4.0	0.900	0.000	0.900	0.0085	0.017	6.71	1.5	0.22	0.0833	5.05	0.66	3.20	0.178	0.135	6	12	2.00	1.00	0.90	0.000						
0011	Existing	14	150+84	0.68	0.90	0.522	0.522	4.0	2.088	0.203	2.291	0.0418	0.020	6.54	1.5	0.23	0.0833	4.17	0.65	3.14	0.174	0.133	14	14	1.00	1.00	2.29	0.000						
0013	New CB	8	150+21	0.19	0.90	0.171	0.171	4.0	0.684	0.000	0.684	0.0225	0.020	3.86	1.5	0.39	0.0833	4.17	0.88	3.14	0.174	0.174	6	8	1.33	1.00	0.68	0.000						
0016	New CB	8	148+87	0.19	0.90	0.171	0.171	4.0	0.684	0.000	0.684	0.0232	0.020	3.82	1.5	0.39	0.0833	4.17	0.88	3.14	0.174	0.174	6	8	1.33	1.00	0.68	0.000						
0017	New CB	10	149+05	0.34	0.90	0.306	0.306	4.0	1.224	0.000	1.224	0.0175	0.020	5.82	1.5	0.26	0.0833	4.17	0.70	3.14	0.174	0.143	8	10	1.25	1.00	1.22	0.000						
0018	New CB	8	147+15	0.20	0.90	0.180	0.180	4.0	0.720	0.000	0.720	0.0604	0.020	2.74	1.5	0.55	0.0833	4.17	0.97	3.14	0.174	0.189	8	8	1.00	1.00	0.72	0.000						
16675	New CB	10	148+04	0.34	0.80	0.272	0.272	4.0	1.088	0.000	1.088	0.0534	0.020	3.94	1.5	0.38	0.0833	4.17	0.87	3.14	0.174	0.172	10	10	1.00	1.00	1.09	0.000						
0025	New CB	8	143+69	0.22	0.80	0.176	0.176	4.0	0.704	0.000	0.704	0.0604	0.020	2.68	1.5	0.56	0.0833	4.17	0.97	3.14	0.174	0.189	8	8	1.00	1.00	0.70	0.000						
0026	New CB	8	144+90	0.07	0.90	0.063	0.063	4.0	0.252	0.000	0.252	0.0604	0.020	1.23	1.5	1.22	0.0833	4.17	1.00	3.14	0.174	0.194	5	8	1.60	1.00	0.25	0.000						
23684	New CB	12	144+27	0.46	0.60	0.276	0.276	4.0	1.104	0.000	1.104	0.0819	0.033	2.74	1.5	0.55	0.0833	2.55	0.94	2.91	0.162	0.185	11	12	1.09	1.00	1.10	0.000						
16511	New CB	8	143+95	0.19	0.70	0.133	0.133	4.0	0.532	0.000	0.532	0.0251	0.047	2.22	1.5	0.68	0.0833	1.78	0.97	2.66	0.148	0.190	6	8	1.33	1.00	0.53	0.000						
25092	New CB	10	143+64	0.28	0.80	0.224	0.224	4.0	0.896	0.000	0.896	0.0601	0.0200	3.29	1.5	0.46	0.0833	4.17	0.93	3.14	0.174	0.182	9	10	1.11	1.00	0.90	0.000						
16574	New CB	8	144+89	0.21	0.80	0.168	0.168	4.0	0.672	0.000	0.672	0.0604	0.0200	2.57	1.5	0.58	0.0833	4.17	0.98	3.14	0.174	0.190	8	8	1.00	1.00	0.67	0.000						
0019	New CB	8	138+96	0.22	0.90	0.198	0.198	4.0	0.792	0.000	0.792	0.0165	0.0200	4.66	1.5	0.32	0.0833	4.17	0.81	3.14	0.174	0.161	6	8	1.33	1.00	0.79	0.000						
0020	New CB	8	138+97	0.28	0.90	0.252	0.252	4.0	1.008	0.000	1.008	0.0161	0.0200	5.37	1.5	0.28	0.0833	4.17	0.74	3.14	0.174	0.149	7	8	1.14	1.00	1.01	0.000						
16387	New CB	8	138+16	0.20	0.90	0.180	0.180	4.0	0.720	0.000	0.720	0.0124	0.0200	4.79	1.5	0.31	0.0833	4.17	0.79	3.14	0.174	0.159	6	8	1.33	1.00	0.72	0.000						
16430	New CB	8	138+21	0.42	0.60	0.252	0.252	4.0	1.008	0.067	1.075	0.0110	0.0200	6.13	1.5	0.24	0.0833	4.17	0.68	3.14	0.174	0.138	7	8	1.14	1.00	1.07	0.000						
0023	New CB	10	136+36	0.13	0.90	0.117	0.117	4.0	0.468	0.446	0.914	0.0501	0.0200	3.58	1.5	0.42	0.0833	4.17	0.90	3.14	0.174	0.178	9	10	1.11	1.00	0.91	0.000						
0024	New CB	10	136+36	0.60	0.70	0.420	0.420	4.0	1.680	0.000	1.680	0.0502	0.0200	5.21	1.5	0.29	0.0833	4.17	0.76	3.14	0.174	0.152	12	10	0.83	0.96	1.61	0.067						
16325	New CB	14	134+71	0.27	0.70	0.189	0.189	4.0	0.756	1.195	1.951	0.0502	0.0200	5.84	1.5	0.27	0.0833	4.17	0.72	3.14	0.174	0.145	13	14	1.08	1.00	1.95	0.000						
16251	New CB	8	134+72	0.57	0.90	0.513	0.513	4.0	2.052	0.000	2.052	0.0496	0.0200	5.81	1.5	0.26	0.0833	4.17	0.70	3.14	0.174	0.143	14	8	0.57	0.78	1.61	0.446						
0029	Existing	10	133+16	1.30	0.80	1.040	1.040	4.0	4.160	0.000	4.160	0.0383	0.0200	8.61	1.5	0.17	0.0833	4.17	0.51	3.14	0.174	0.109	20	10	0.50	0.71	2.97	1.195						
0012	New CB	8	150+84	0.21	0.90	0.189	0.189	4.0	0.756	0.000	0.756	0.0600	0.0300	2.44	1.5	0.62	0.0833	2.78	0.97	2.96	0.164	0.190	8	8	1.00	1.00	0.76							



STORMWATER PIPE CALCULATIONS

Proposed Storm Drain Design Calculations										Project: Columbia Pike Multimodal - Segment F									
										Client: Arlington County									
VDOT LD-229										Project Number: 110010073									
Kimley»Horn										Date: 8/31/2021									
										Designed By/Checked: Derik Doughty, P.E. / Mike Albright, P.E.									
FROM POINT	TO POINT	DRAINAGE AREA	RUNOFF COEFFICIENT	CA		INLET TIME min	RAINFALL in/hr	RUNOFF cfs	INVERT ELEVATIONS		LENGTH ft	SLOPE %	SIZE in	PIPE CAPACITY cfs	Q / Qi %	VELOCITY fps	FLOW TIME		
		acres	C	inlet	accum				upper end	lower end							incr	accum	
0020	0021	0.280	0.900	0.25	0.252	5.000	6.789	1.72	169.56	168.22	44.9	0.030	15.0	11.19	15%	6.61	0.113	5.000	
0021	16430	0.140	(N/A)	0.00	0.336	5.000	6.751	2.29	168.12	167.17	31.5	0.030	15.0	11.18	20%	7.16	0.073	5.113	
0019	0022	0.220	0.900	0.20	0.198	5.000	6.789	1.36	169.58	168.67	45.4	0.020	15.0	9.14	15%	5.34	0.142	5.000	
0022	16387	0.130	(N/A)	0.00	0.315	5.000	6.741	2.14	168.57	167.89	34.2	0.020	15.0	9.13	23%	6.08	0.094	5.142	
0029	16325	1.300	0.800	1.04	1.040	5.000	6.789	7.12	192.14	184.88	155.4	0.047	15.0	13.97	51%	11.44	0.226	5.000	
16325	16251	0.270	0.700	0.19	1.229	5.000	6.713	8.32	184.78	183.34	51.0	0.028	15.0	10.85	77%	6.78	0.096	5.226	
16251	0023	3.440	(N/A)	0.00	4.038	5.000	6.671	27.15	183.24	173.55	165.0	0.059	24.0	54.82	50%	17.40	0.158	5.352	
0023	16387	0.130	0.900	0.12	4.155	5.000	6.620	27.72	173.55	163.00	179.8	0.059	24.0	54.79	51%	17.50	0.171	5.510	
16387	16430	44.560	(N/A)	0.00	31.266	24.000	3.689	116.26	163.00	161.65	57.0	0.024	4'x4'	281.52	41%	16.75	0.057	24.000	
16430	16441	0.420	0.600	0.25	31.854	5.000	3.684	118.30	161.55	161.20	19.5	0.018	4'x4'	244.82	48%	15.17	0.021	24.057	
0024	16415	0.600	0.700	0.42	0.420	5.000	6.789	2.87	175.84	171.95	97.4	0.040	15.0	12.91	22%	8.47	0.192	5.000	
16415	16441	6.900	0.700	4.83	5.250	5.000	6.724	35.58	171.85	163.85	92.4	0.087	24.0	66.57	53%	21.54	0.071	5.192	
16441	16493	0.940	0.700	0.66	37.762	5.000	3.683	140.17	160.64	153.13	166.0	0.045	42.0	213.98	66%	23.72	0.117	24.078	
16493	16535	1.220	0.900	1.10	38.860	5.000	3.673	143.89	153.11	149.25	89.2	0.043	42.0	209.25	69%	23.44	0.063	24.195	
0031	23684	0.460	0.600	0.28	0.276	5.000	6.789	1.89	164.41	164.32	9.0	0.010	15.0	6.46	29%	4.57	0.033	5.000	
23684	0027	(N/A)	(N/A)	0.00	0.276	5.000	6.778	1.89	164.22	162.42	21.7	0.083	15.0	18.60	10%	9.74	0.037	5.033	
16511	16532	0.630	(N/A)	0.00	0.353	5.000	6.789	2.42	165.52	165.12	24.6	0.016	15.0	8.24	29%	5.84	0.070	5.000	
25092	0028	0.280	0.800	0.22	0.224	5.000	6.789	1.53	164.62	164.08	15.3	0.035	15.0	12.08	13%	6.75	0.038	5.000	
85203A	0028	1.850	0.680	1.26	1.258	5.000	6.789	8.61	164.94	164.73	11.4	0.018	18.0	14.29	60%	8.46	0.022	5.000	
0028	16532	(N/A)	(N/A)	0.00	1.482	0.000	6.776	10.12	163.98	163.54	11.1	0.040	18.0	20.99	48%	11.78	0.016	5.038	
16532	0027	2.160	0.500	1.08	2.915	5.000	6.765	19.88	163.04	161.26	44.5	0.040	24.0	45.25	44%	13.94	0.053	5.070	
0027	16574	(N/A)	(N/A)	0.00	3.191	0.000	6.747	21.70	161.16	158.60	61.6	0.042	24.0	46.12	47%	14.45	0.071	5.123	
16574	0026	0.210	0.800	0.17	3.359	5.000	6.723	22.76	158.60	156.28	57.1	0.041	24.0	45.65	50%	14.52	0.066	5.194	
0025	0026	0.220	0.800	0.18	0.176	5.000	6.789	1.20	160.14	156.54	120.2	0.030	15.0	11.18	11%	5.95	0.336	5.000	
0026	16614	0.070	0.900	0.06	3.598	5.000	6.676	24.21	156.28	156.02	6.3	0.041	24.0	45.62	53%	14.74	0.007	5.336	
16614	16866	(N/A)	(N/A)	0.00	3.598	0.000	6.674	24.20	154.17	134.40	300.8	0.066	24.0	57.99	42%	17.63	0.284	5.343	
16981	17008	0.300	0.700	0.21	0.210	5.000	6.789	1.44	138.01	134.45	40.0	0.089	12.0	10.63	14%	9.45	0.071	5.000	
17008	16994	(N/A)	(N/A)	0.00	0.210	0.000	6.765	1.43	134.45	129.69	53.5	0.089	24.0	67.45	2%	8.65	0.103	5.071	
0009	0010	0.730	0.800	0.58	0.584	5.000	6.789	4.00	149.72	144.18	69.5	0.080	15.0	18.24	22%	11.91	0.097	5.000	
0010	16905	(N/A)	(N/A)	0.00	0.584	0.000	6.756	3.98	141.56	140.61	94.7	0.010	15.0	6.47	62%	5.54	0.285	5.097	
16905	16967	0.140	0.900	0.13	0.710	5.000	6.661	4.77	140.51	135.04	88.2	0.062	15.0	16.08	30%	11.42	0.129	5.382	
16967	16994	0.080	0.900	0.07	0.782	5.000	6.619	5.22	134.94	134.34	33.1	0.018	15.0	8.70	60%	7.41	0.074	5.511	
16994	16980	(N/A)	(N/A)	0.00	0.992	0.000	6.595	6.59	129.66	122.00	64.4	0.119	24.0	78.02	8%	15.12	0.071	5.585	
0011	0012	0.580	0.900	0.52	0.522	5.000	6.789	3.57	134.99	134.60	7.8	0.050	15.0	14.49	25%	9.77	0.013	5.000	
0005	0006	0.140	0.900	0.13	0.126	5.000	6.789	0.86	186.30	184.21	38.0	0.055	15.0	15.16	6%	6.69	0.095	5.000	
0006	0007	1.050	0.800	0.84	0.966	5.000	6.757	6.58	184.11	183.16	47.0	0.020	15.0	9.16	72%	8.12	0.097	5.095	
0007	0008	(N/A)	(N/A)	0.00	0.966	0.000	6.724	6.55	183.06	175.64	210.5	0.035	15.0	12.13	54%	10.07	0.348	5.191	
0008	EX046	0.490	0.700	0.34	1.309	5.000	6.610	8.72	175.39	172.01	68.0	0.050	18.0	23.41	37%	12.28	0.092	5.539	
EX046	EX045	(N/A)	(N/A)	0.00	1.309	0.000	6.580	18.44	168.82	161.16	168.1	0.046	18.0	22.42	82%	14.17	0.198	5.632	
EX045	EX044	(N/A)	(N/A)	0.00	1.309	0.000	6.518	18.36	160.56	151.17	188.1	0.050	18.0	23.47	78%	14.70	0.213	5.830	
EX044	16843	(N/A)	(N/A)	0.00	1.309	0.000	6.453	18.27	151.07	150.63	62.5	0.007	24.0	18.97	96%	6.88	0.152	6.043	
16847	16843	0.430	0.900	0.39	0.387	5.000	6.789	2.65	151.79	150.96	21.8	0.038	18.0	20.49	13%	7.99	0.045	5.000	
16843	16804	(N/A)	(N/A)	0.00	1.696	0.000	6.407	20.71	150.11	145.19	82.6	0.060	24.0	55.21	38%	16.32	0.084	6.194	
16804	0012	(N/A)	(N/A)	0.00	1.696	0.000	6.382	30.89	144.62	133.48	120.5	0.092	24.0	68.78	45%	21.31	0.094	6.279	
0012	16732	0.210	0.900	0.19	2.407	5.000	6.354	35.40	133.48	131.17	24.9	0.092	24.0	68.79	51%	22.06	0.019	6.373	
16732	16723	(N/A)	(N/A)	0.00	2.407	0.000	6.349	35.38	130.57	130.14	14.2	0.030	24.0	39.40	90%	14.19	0.017	6.392	
23676	16717	0.520	0.900	0.47	0.468	5.000	6.789	3.20	137.03	136.09	13.2	0.071	10.0	5.84	55%	10.96	0.020	5.000	
16666	16681	3.800	(N/A)	0.00	1.948	12.600	4.991	9.80	138.19	137.43	28.9	0.026	15.0	10.47	94%	7.99	0.057	12.600	
16675	16681	0.340	0.800	0.27	0.272	5.000	6.789	1.86	138.86	137.63	40.8	0.030	15.0	11.21	17%	6.77	0.101	5.000	
16681	0017	(N/A)	(N/A)	0.00	2.220	0.000	4.981	11.15	137.43	135.66	60.5	0.029	18.0	17.97	62%	10.71	0.094	12.660	
0017	16717	0.340	0.900	0.31	2.526	5.000	4.965	12.64	135.66	133.94	58.7	0.029	18.0	17.97	70%	11.01	0.089	12.755	
16717	16730	0.180	(N/A)	0.00	3.156	5.000	4.951	15.75	133.84	130.16	73.7	0.050	24.0	50.56	31%	14.21	0.086	12.843	
0013	0014	0.190	0.900	0.17	0.171	5.000	6.789	1.17	132.19	131.59	12.1	0.050	15.0	14.43	8%	7.07	0.029	5.000	
0018	0016	0.200	0.900	0.18	0.180	5.000	6.789	1.23	143.80	135.17	172.8	0.050	15.0	14.43	9%	7.18	0.401	5.000	
0016	16775	0.190	0.900	0.17	0.351	5.000	6.655	2.35	135.07	133.51	75.6	0.021	15.0	9.28	25%	6.31	0.200	5.401	
0015	16775	0.170	(N/A)	0.00	0.153	5.000	6.789	1.05	133.82	133.51	6.2	0.050	15.0	14.48	7%	6.86	0.015	5.000	
16775	0014	(N/A)	(N/A)	0.00	0.504	0.000	6.590	3.35	133.41	130.26	58.4	0.054	15.0	15.00	22%	9.84	0.099	5.601	
0032	0014	0.060	0.900	0.05	0.054	5.000	6.789	0.37	134.31	134.20	5.5	0.020	15.0	9.13	4%	3.64	0.025	5.000	
00140																			