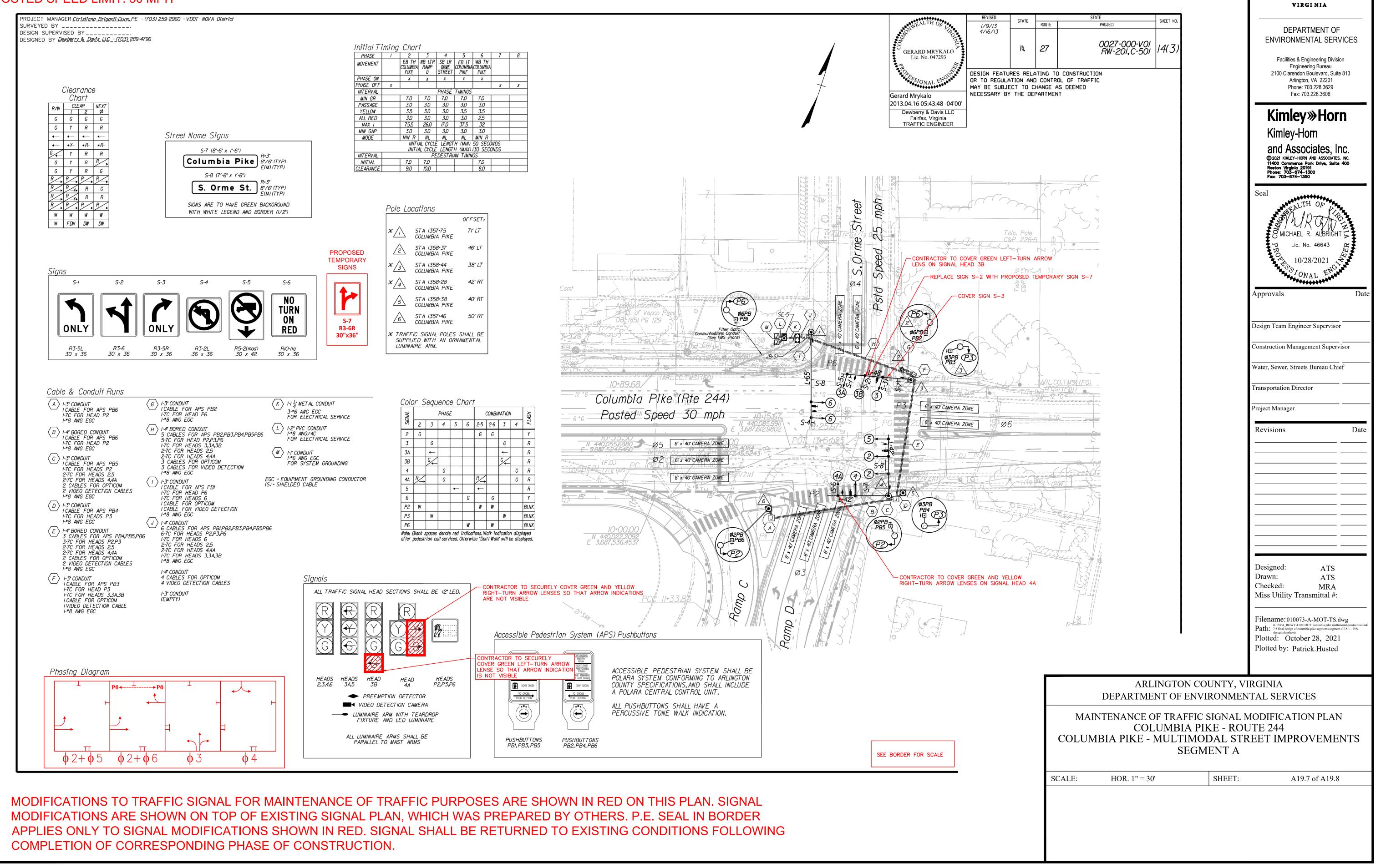
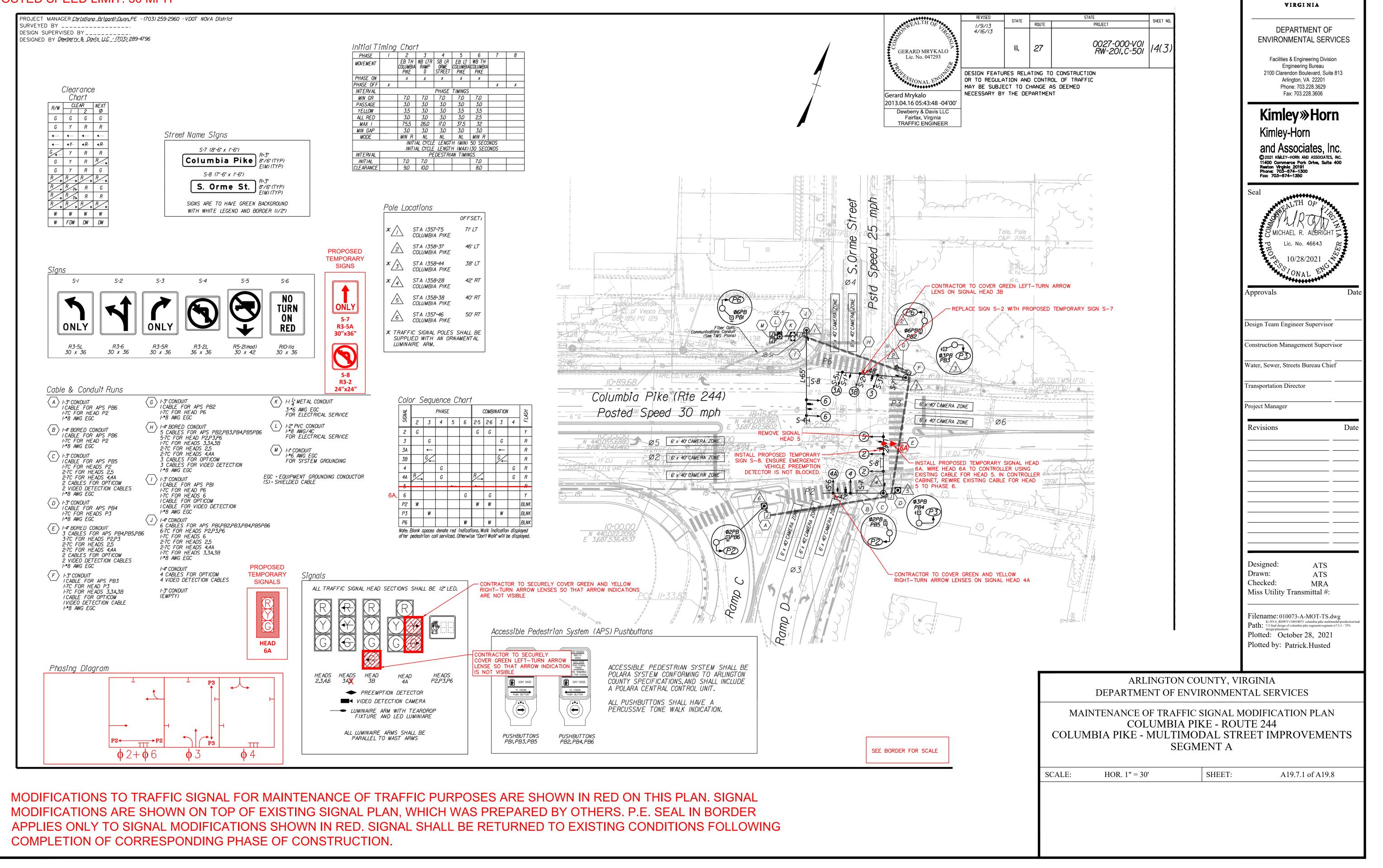
TRAFFIC SIGNAL MODIFICATION PLAN - PHASE 2 - COLUMBIA PIKE AND S. ORME STREET SEE NOTE 11 ON SHEET A19.1 FOR WORKING HOURS POSTED SPEED LIMIT: 30 MPH



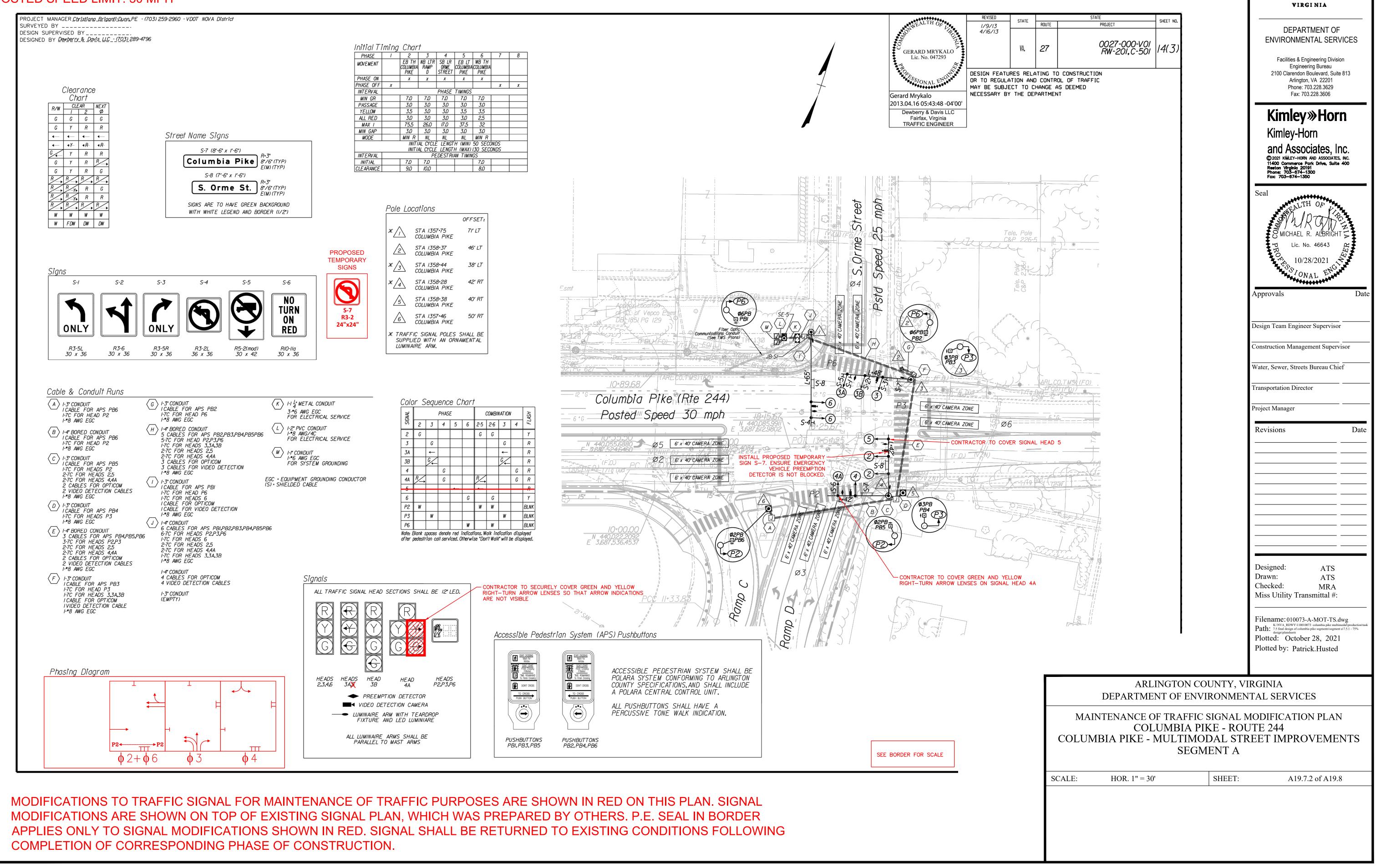
ARLINGTON

TRAFFIC SIGNAL MODIFICATION PLAN - PHASE 3A - COLUMBIA PIKE AND S. ORME STREET SEE NOTE 11 ON SHEET A19.1 FOR WORKING HOURS POSTED SPEED LIMIT: 30 MPH

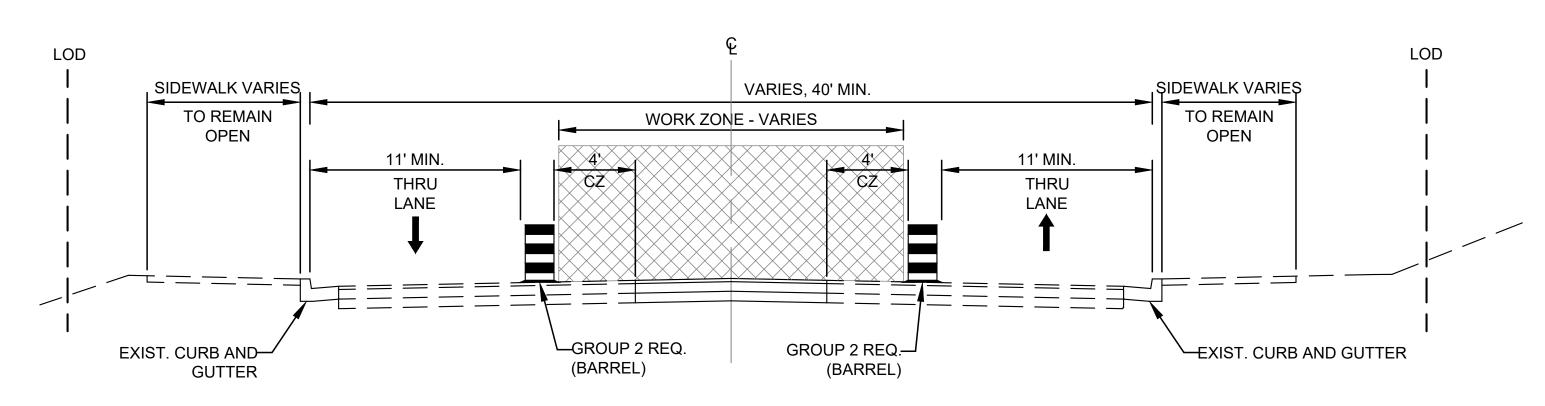


ARLINGTON

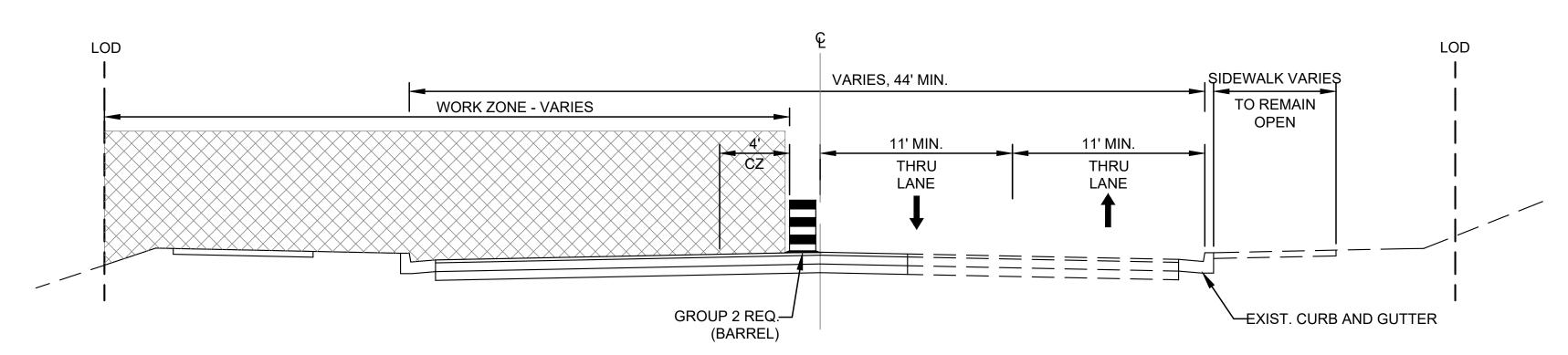
TRAFFIC SIGNAL MODIFICATION PLAN - PHASE 3B - COLUMBIA PIKE AND S. ORME STREET SEE NOTE 11 ON SHEET A19.1 FOR WORKING HOURS POSTED SPEED LIMIT: 30 MPH



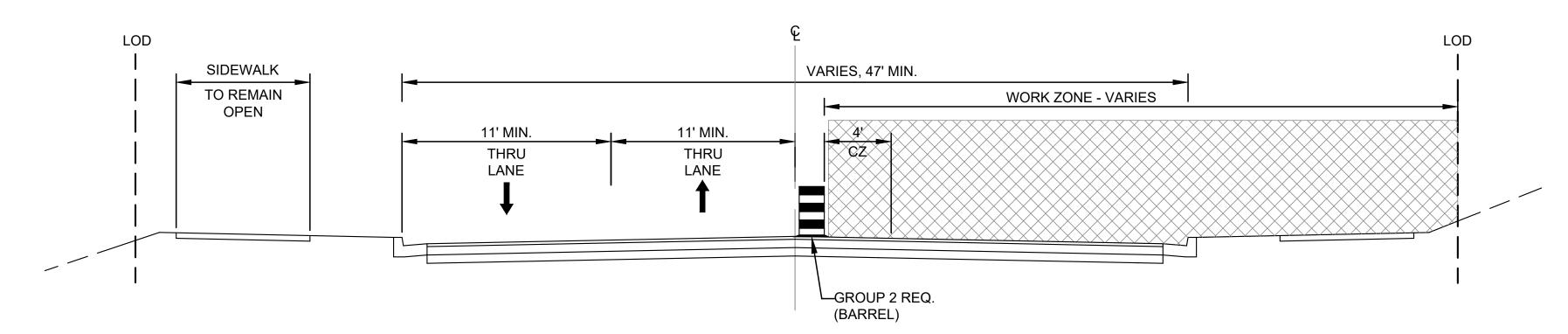
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## TYPICAL SECTION - COLUMBIA PIKE - PHASE 1 MEDIAN/CENTER LANES



## TYPICAL SECTION - COLUMBIA PIKE - PHASE 2 SOUTH/EASTBOUND LANES



TYPICAL SECTION - COLUMBIA PIKE - PHASE 3A, 3B NORTH/WESTBOUND LANES

### <u>NOTES</u>

- NO CONSTRUCTION PHASE MAY BE COMBINED WITH ANY OTHER PHASE TO CREATE LARGER WORK AREAS THAN SHOWN IN THE PLANS. NO CONSTRUCTION PHASE MAY BE IMPLEMENTED/ACTIVE AT THE SAME TIME AS ANOTHER PHASE TO AVOID MULTIPLE LANE SHIFTS WITHIN THE PROJECT AREA AT ONE TIME.
- CONSTRUCTION PHASES MUST BE LIMITED TO THE AREAS DESCRIBED HEREIN AND SHOWN IN THE PLANS. WORK AREAS MAY NOT BE EXPANDED BEYOND THE LIMITS SHOWN IN THE PLANS.
- SHOULD THE CONTRACTOR WISH TO MODIFY, COMBINE, AND/OR OTHERWISE ALTER THE MAINTENANCE OF TRAFFIC OR CONSTRUCTION PHASING SHOWN HEREIN, THE CONTRACTOR SHALL SUBMIT A REQUEST FOR THIS CHANGE ALONG WITH A PROPOSED PLAN SIGNED BY A QUALIFIED AND LICENSED ENGINEER TO ARLINGTON COUNTY FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PROCEED ONLY FOLLOWING APPROVAL OF THE REQUESTED CHANGE AND WRITTEN AUTHORIZATION FROM ARLINGTON COUNTY.
- 4. REFER TO CONSTRUCTION NOTES ON SHEET A19.1 FOR ALLOWABLE WORK HOURS

### SUGGESTED SEQUENCE OF CONSTRUCTION

UNLESS OTHERWISE APPROVED BY THE ENGINEER AND/OR COUNTY, THE CONTRACTOR IS TO PLAN AND EXECUTE THE WORK ACCORDING TO THE FOLLOWING: PHASE 1

- INSTALL EROSION AND SEDIMENT CONTROL (ESC) MEASURES AS REQUIRED FOR THIS PHASE. APPROVAL OF ESC INSTALLATIONS BY ARLINGTON COUNTY IS REQUIRED.
- IDENTIFY CONSTRUCTION ACCESS POINTS. INSTALL MOT PHASE 1.
- CONSTRUCT SANITARY SEWER, PARTICULARLY WHERE IN CLOSE PROXIMITY TO PROPOSED GAS LINES.
- COORDINATE WITH AND SCHEDULE WASHINGTON GAS CONTRACTOR TO INSTALL PROPOSED GAS MAIN.
- CONSTRUCT UTILITY DUCT BANKS AND OTHER UTILITIES WITHIN THE WORK ZONE. UTILITY DUCT BANK TO BE EXTENDED IN FUTURE PHASES SHALL BE CAPPED PRIOR TO BACKFILL IN PREPARATION FOR COMPLETION IN SUBSEQUENT PHASES.
- CONSTRUCT ROADWAY SECTION, LESS TOP COURSE OF PAVEMENT, WITHIN THE WORK ZONE. TEMPORARY RECOVERY AREAS AND OTHER SAFETY MEASURES AS REQUIRED BY THE VA WAPM SHALL BE INSTALLED AS NECESSARY.

## PHASE 2

- INSTALL ESC MEASURES AS REQUIRED FOR THIS PHASE. APPROVAL OF ESC INSTALLATIONS BY ARLINGTON COUNTY IS REQUIRED.
- IDENTIFY CONSTRUCTION ACCESS POINTS.
- INSTALL MOT PHASE 2
- INSTALL TEMPORARY EASTBOUND BUS STOP IN LOCATION SHOWN ON THE PLANS. TEMPORARY BUS STOP SHALL REMAIN CLEAR AND ACCESSIBLE FOR THE DURATION OF THIS PHASE. TEMPORARY BUS STOP MAY BE REMOVED UPON OPENING OF PROPOSED EASTBOUND TRANSIT STOP.
- CONSTRUCT UTILITY DUCT BANK AND OTHER UTILITIES WITHIN THE WORK ZONE, INCLUDING OUTSIDE THE ROADWAY.
- CONSTRUCT ROADWAY SECTION, LESS TOP COURSE OF PAVEMENT, WITHIN THE WORK ZONE. CONSTRUCT CURB AND GUTTER, SIDEWALK, AND OTHER PROPOSED IMPROVEMENTS ON THE SOUTH SIDE OF COLUMBIA PIKE.

### PHASE 3A

INSTALL ESC MEASURES AS REQUIRED FOR THIS PHASE. APPROVAL OF ESC

- INSTALLATIONS BY ARLINGTON COUNTY IS REQUIRED.
- IDENTIFY CONSTRUCTION ACCESS POINTS.
- INSTALL MOT PHASE 3A.
- INSTALL TEMPORARY BUS STOP IN LOCATION SHOWN ON THE PLANS. TEMPORARY BUS
- STOP SHALL REMAIN CLEAR AND ACCESSIBLE FOR THE DURATION OF THIS PHASE. CONSTRUCT UTILITY DUCT BANK AND OTHER UTILITIES WITHIN THE WORK ZONE, INCLUDING OUTSIDE THE ROADWAY.
- CONSTRUCT ROADWAY SECTION, LESS TOP COURSE OF PAVEMENT, WITHIN THE WORK ZONE. CONSTRUCT CURB AND GUTTER, SIDEWALK, AND OTHER PROPOSED IMPROVEMENTS ON THE NORTH SIDE OF COLUMBIA PIKE WITHIN THE WORK AREAS

### PHASE 3B

- INSTALL ESC MEASURES AS REQUIRED FOR THIS PHASE. APPROVAL OF ESC
- INSTALLATIONS BY ARLINGTON COUNTY IS REQUIRED.
- IDENTIFY CONSTRUCTION ACCESS POINTS.
- INSTALL MOT PHASE 3B.

IDENTIFIED.

- TEMPORARY BUS STOP INSTALLED FOR PHASE 3A MAY BE REMOVED UPON OPENING OF PROPOSED WESTBOUND TRANSIT STOP. TRANSIT STOP SHALL REMAIN CLEAR AND ACCESSIBLE FOR THE DURATION OF THIS PHASE.
- COMPLETE UTILITY DUCT BANK AND OTHER UTILITY INSTALLATIONS WITHIN THE WORK ZONE INCLUDING OUTSIDE THE ROADWAY.
- CONSTRUCT ROADWAY SECTION, LESS TOP COURSE OF PAVEMENT, WITHIN THE WORK ZONE. COMPLETE CURB AND GUTTER, SIDEWALK, AND OTHER PROPOSED IMPROVEMENTS ON THE NORTH SIDE OF COLUMBIA PIKE WITHIN THE WORK AREAS
- INSTALL TOP COURSE OF PAVEMENT, PLACE ALL REMAINING SIGNING AND MARKING, AND COMPLETE PROJECT.

# ARLINGTON VIRGINIA

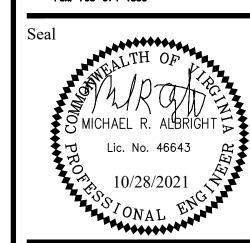
DEPARTMENT OF **ENVIRONMENTAL SERVICES** 

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

# **Kimley** Whorn

Kimley-Horn

and Associates, Inc. © 2021 KIMLEY-HORN AND ASSOCIATES, INC. 11400 Commerce Park Drive, Suite 400 Reston Virginia 20191 Phone: 703-674-1300 Fax: 703-674-1350



Approvals

Design Team Engineer Supervisor

onstruction Management Supervisor

Water, Sewer, Streets Bureau Chief

Transportation Director

roject Manager

Revisions

Designed: EJD Drawn: OCDChecked: MRA

Filename: 010073-A-MOT-TYP.dwg Path: 7.5 final design of columbia pike segments\segment a\7.5.1 -Plotted: October 28, 2021 Plotted by: Patrick.Husted

Miss Utility Transmittal #:

ARLINGTON COUNTY, VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES

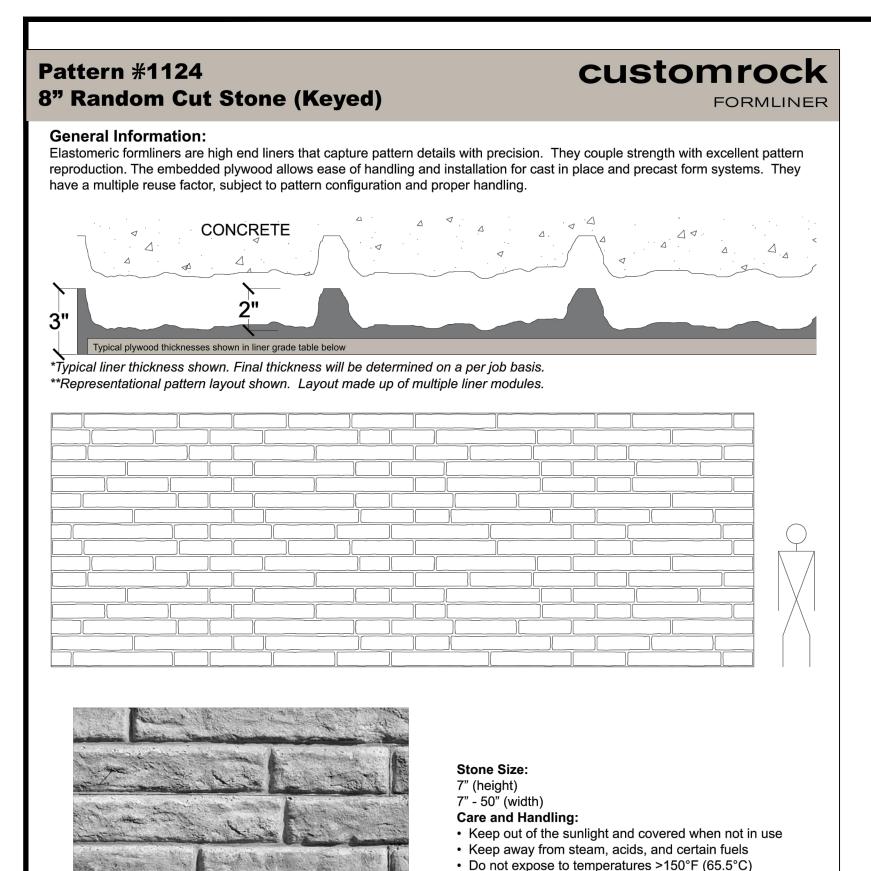
MOT TYPICAL SECTIONS COLUMBIA PIKE - ROUTE 244 COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS SEGMENT A

SHEET: A19.8 of A19.8 SCALE: NOT TO SCALE



11/23/2021





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Hi-Lite

High reuse /

Lightweight /

1/2" Plywood Typical

**Available Grades:** 

**Description:** 

Duraform

High reuse /

Heavy Weight /

3/4" Plywood Typical

• For further instructions refer to the application guide

Cut-Lite

Low reuse /

Lightweight /

/2" Plywood Typical

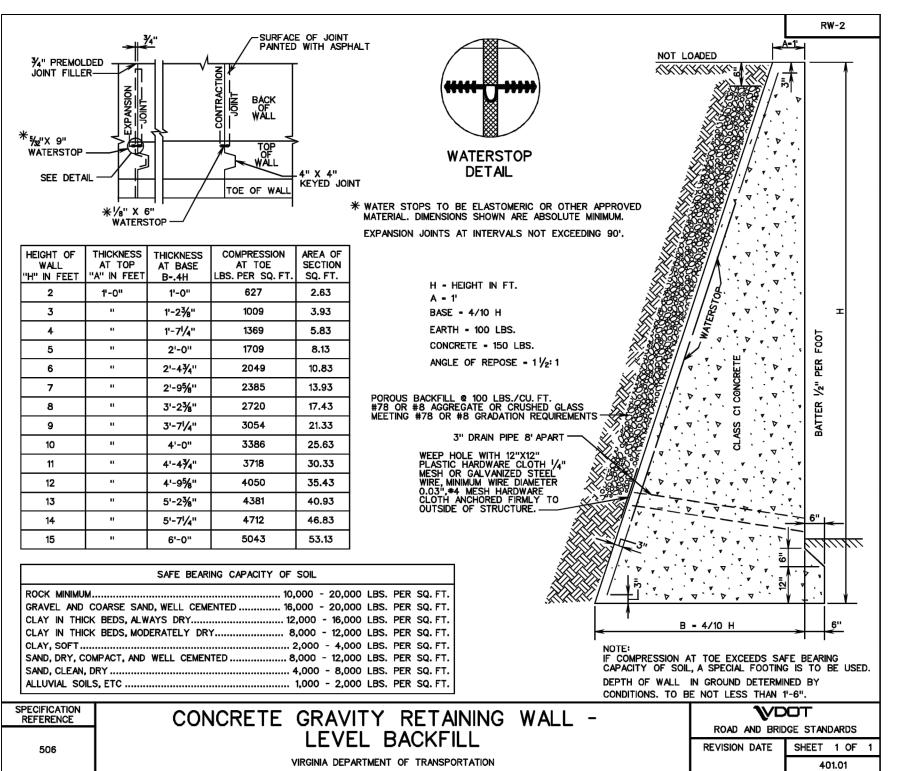
**Multi-Lite** 

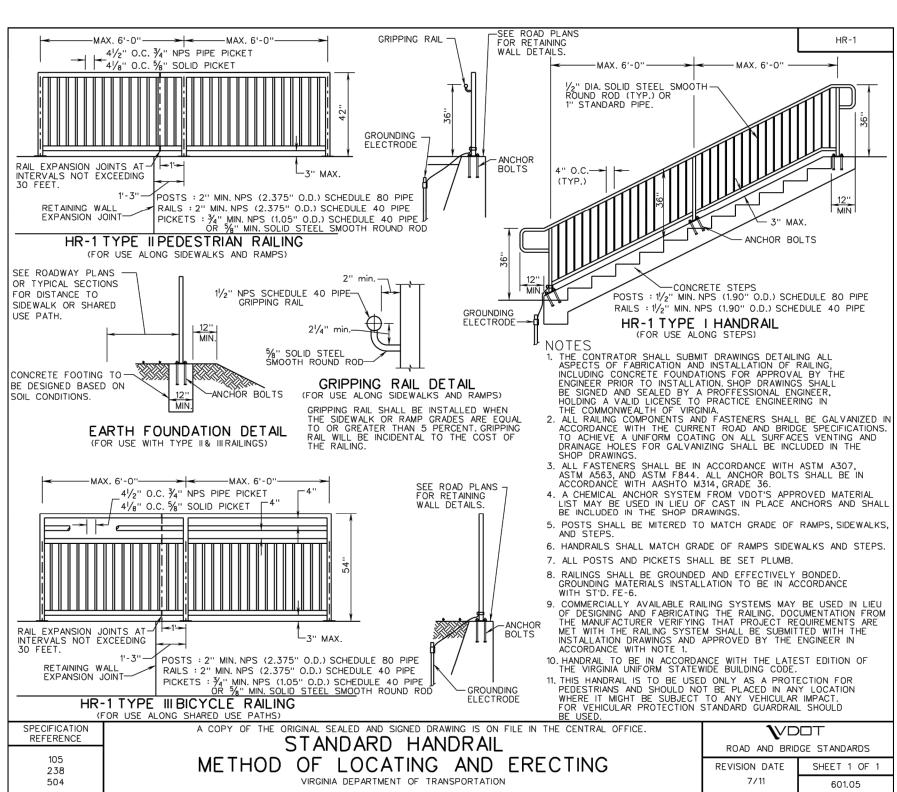
Medium reuse /

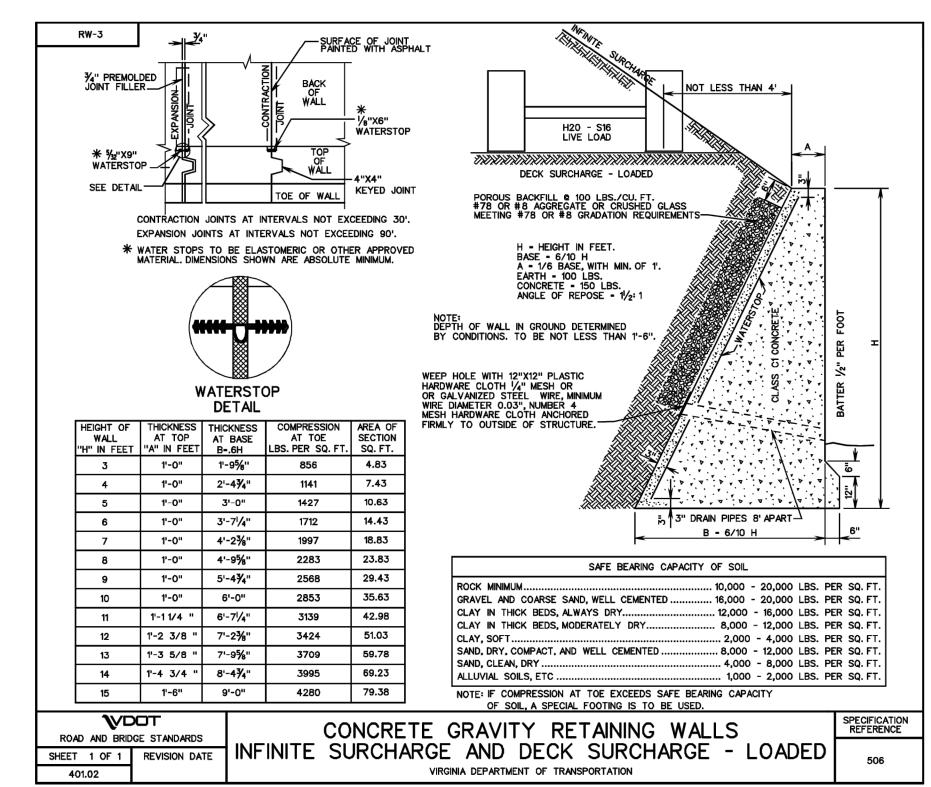
Lightweight /

1/2" Plywood Typical

NOTE: HORIZONTAL GROUT LINES IN FORMLINER SHALL BE LAID LEVEL REGARDLESS OF GRADE AT FACE OF WALL. HORIZONTAL GROUT LINES SHALL BE CONTINUOUS ACROSS ALL EXPANSION AND CONTROL JOINTS.







#### IOTES:

- 1. RETAINING WALLS TO BE VDOT STANDARD RW-2 OR RW-3 CONCRETE GRAVITY RETAINING WALLS WHERE EXISTING CONDITIONS AND AVAILABLE RIGHT OF WAY OR EASEMENTS ALLOW (SEE VDOT STANDARD DRAWINGS 401.01 AND 401.02 THIS SHEET). IN CONSTRAINED AREAS AND WHERE APPROPRIATE, H-PILE GRATED WALLS WITH LAGGING SHALL BE INSTALLED USING TOP-DOWN CONSTRUCTION.
- IN CONSTRAINED AREAS AND WHERE APPROPRIATE, CONTRACTOR MAY ELECT TO UTILIZE H-PILE GRATED WALLS WITH LAGGING USING TOP-DOWN CONSTRUCTION. H-PILE WALLS, IF UTILIZED, SHALL BE DESIGNED AND PLANS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE COMMONWEALTH OF VIRGINIA. SEALED PLANS AND CALCULATIONS SHALL BE SUBMITTED TO ARLINGTON COUNTY FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION.
- ALL PROPOSED RETAINING WALLS, INCLUDING CONCRETE GRAVITY WALLS AND H-PILE GRATED WALLS, SHALL INCLUDE CUSTOM ROCK® FORMLINER, "RUNNING BOND STONE PATTERN #1106-R2 (SEE SPECIFICATION THIS SHEET), OR APPROVED EQUAL. SHOULD THE CONTRACTOR ELECT TO USE AN ALTERNATIVE RETAINING WALL FORMLINER, SHOP DRAWINGS AND SPECIFICATIONS FOR THE ALTERNATE FORMLINER SHALL BE SUBMITTED TO ARLINGTON COUNTY FOR REVIEW AND APPROVAL.
- 4. FORMLINER TO BE APPLIED TO ALL PROPOSED RETAINING WALLS (SEE NOTE 3) SHALL HAVE 2" RELIEF AND 12" COURSING.
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING ITEMS TO BE IMPACTED BY CONSTRUCTION OF ALL RETAINING WALLS, AND SHALL NOTIFY ARLINGTON COUNTY BEFORE RETAINING WALL INSTALLATION OF ANY ITEMS TO BE IMPACTED BY INSTALLATION THAT ARE NOT EXPLICITLY CALLED OUT FOR REMOVAL OR RELOCATION IN THE PLANS.
- 6. LIMITS OF DISTURBANCE ARE GENERALLY TIGHT, AND RETAINING WALL INSTALLATION MAY REQUIRE SLOPE STABILIZATION DEPENDING ON TECHNIQUES USED FOR WALL CONSTRUCTION. NO ADDITIONAL EASEMENTS OR DISTURBANCE AREA BEYOND THOSE SHOWN ON THE PLANS SHALL BE PERMITTED WITHOUT ARLINGTON COUNTY APPROVAL AND PROPERTY OWNER APPROVAL.
- BASE OF RETAINING WALLS SHALL BE EMBEDDED FOR FROST PROTECTION. EMBEDMENT DEPTH SHALL NOT BE LESS THAN 1'-6" PER VDOT STANDARD RW-2 AND RW-3 (SEE DETAILS THIS SHEET). CONTRACTOR SHALL VERIFY EMBEDMENT DEPTH BASED ON FIELD SOIL CONDITIONS PRIOR TO WALL CONSTRUCTION.
- CONTRACTOR SHALL VERIFY REQUIRED BEARING CAPACITY AND BACKFILL REQUIREMENTS.

  CALCULATIONS SEALED BY A PROFESSIONAL ENGINEER SHALL BE SUBMITTED TO THE OWNER FOR APPROVAL PRIOR TO WALL CONSTRUCTION.
- 9. RETAINING WALLS TO USE CLASS A-3 CONCRETE.

# ARLINGTON VIRGINIA

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

TH OF

MICHAEL R. ALBRIGHT

D Lic. No. 46643

10/28/2021

Design Team Engineer Supervisor

Construction Management Supervisor

Water, Sewer, Streets Bureau Chief

Transportation Director

Approvals

Project Manager

Revisions

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

Filename: 010073-A-WALL-DETL.dwg
Path: K-NVA\_RDWY/110010073 columbia pike multimodal/productic
7.5 final design of columbia pike segments/segment a/7.5.1 - 75%
design/plansheets
Plotted: October 28, 2021
Plotted by: Patrick.Husted

ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

RETAINING WALL DETAILS
COLUMBIA PIKE - ROUTE 244
COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS
SEGMENT A

SCALE: N/A SHEET: A20.1 of A20.3

ARLINGTON
VIRGINIA
DEPARTMENT OF
ENVIRONMENTAL SERVICES

11/23/2021

APPROVAL DATE

