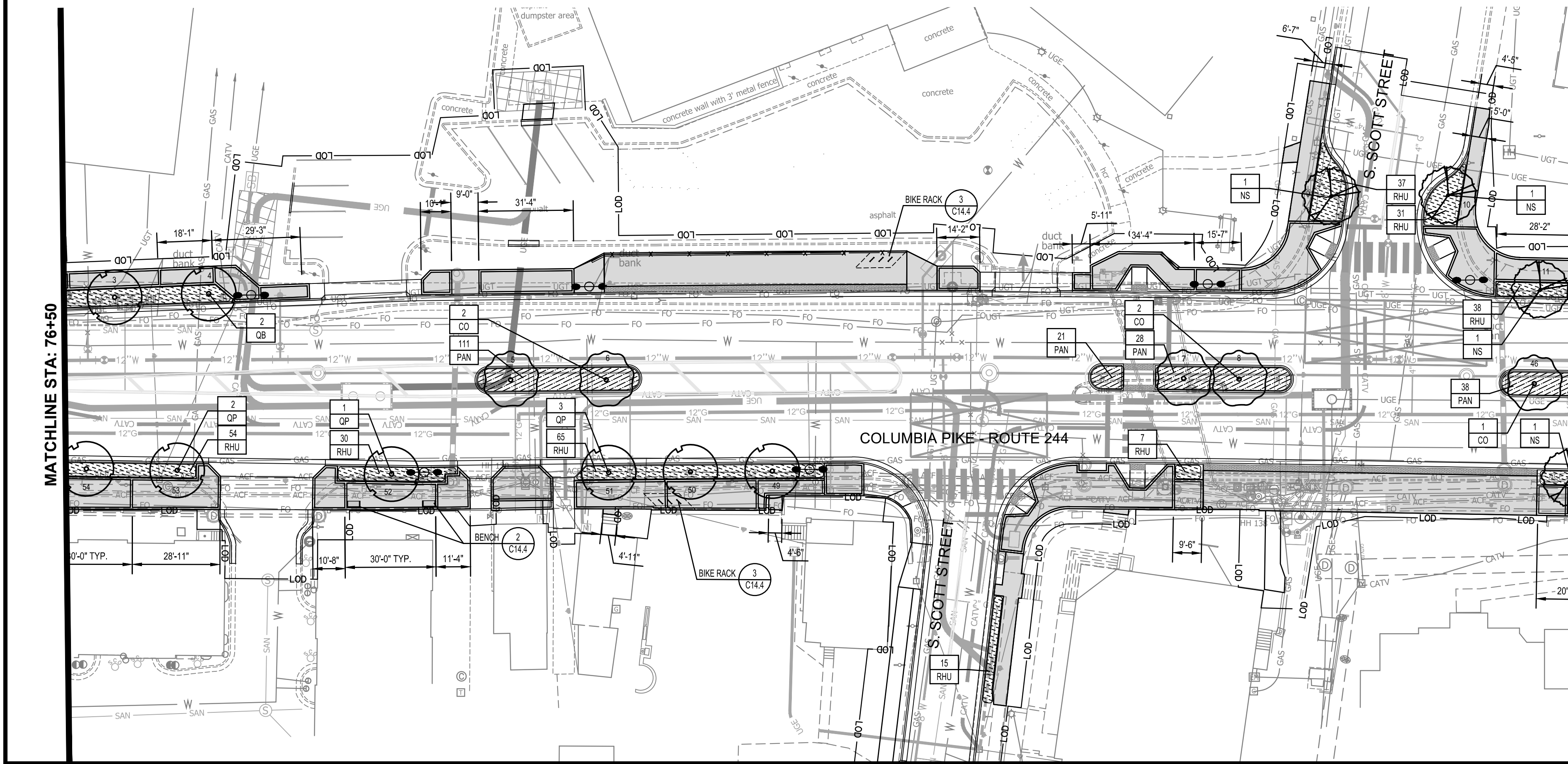


MATCHLINE STA: 76+50



MATCHLINE STA: 81+50 - SEE SHEET C14.2

**LANDSCAPE LEGEND**

**CANOPY TREES / EVERGREEN TREES**  
 NS *Nyssa sylvatica*  
 Black Gum  
 QB *Quercus bicolor*  
 Swamp White Oak  
 OP *Quercus phellos*  
 Willow Oak

**ORNAMENTAL TREES**  
 CO *Celtis occidentalis*  
 Hackberry

**SHRUBS & GRASSES**  
 PAN *Panicum virgatum 'Shenandoah'*  
 Shenandoah Switch Grass

**PERENNIALS & GROUNDCOVERS**  
 PAN *Panicum virgatum 'Shenandoah'*  
 Shenandoah Switch Grass  
 RHU *Rhus aromatica 'Gro-Low'*  
 Gro-Low Sumac

**HARDSCAPE LEGEND**

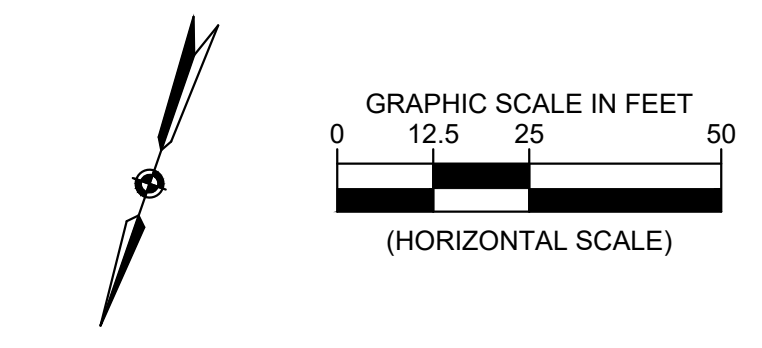
PROPOSED CONCRETE WALK  
 PROPOSED UNIT PAVER BANDING  
 PROPOSED LIGHTING LOCATION  
 PROPOSED BENCH  
 PROPOSED BIKE RACK

**HARDSCAPE NOTES:**  
 1. SEE SHEET C14.4 - SHEET C14.7 FOR HARDSCAPE DETAILS  
 2. SEE SHEET C14.5 & C14.6 FOR TYPICAL PAVING LAYOUTS.

**PLANTING LEGEND**

PROPOSED CANOPY TREE  
 PROPOSED ORNAMENTAL TREE  
 EXISTING TREE TO REMAIN  
 PROPOSED SHRUB AND / OR GROUNDCOVER

**LANDSCAPE NOTES:**  
 1. CONTRACTOR SHALL CALL MISS UTILITY OF VIRGINIA AT 800-552-7001. ALL UTILITIES MUST BE LOCATED PRIOR TO THE START OF CONSTRUCTION.  
 2. SEE SHEETS C14.3 & C14.7 FOR PLANTING DETAILS AND SHEET C14.8 FOR OVERALL PLANT LIST / TOTALS  
 3. SEE SHEET C15.5 - SHEET C15.7 FOR LIGHTING LAYOUT



**ARLINGTON VIRGINIA**

DEPARTMENT OF ENVIRONMENTAL SERVICES

Facilities & Engineering Division  
 Engineering Bureau  
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 Fax: 703-874-1590

Seal

EDWARD J. DELIO  
 Lic. No. 0402054356  
 09/30/2022  
 PROFESSIONAL ENGINEER

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

Designed: KWA  
 Drawn: WDW  
 Checked: EJD  
 Miss Utility Transmittal #:

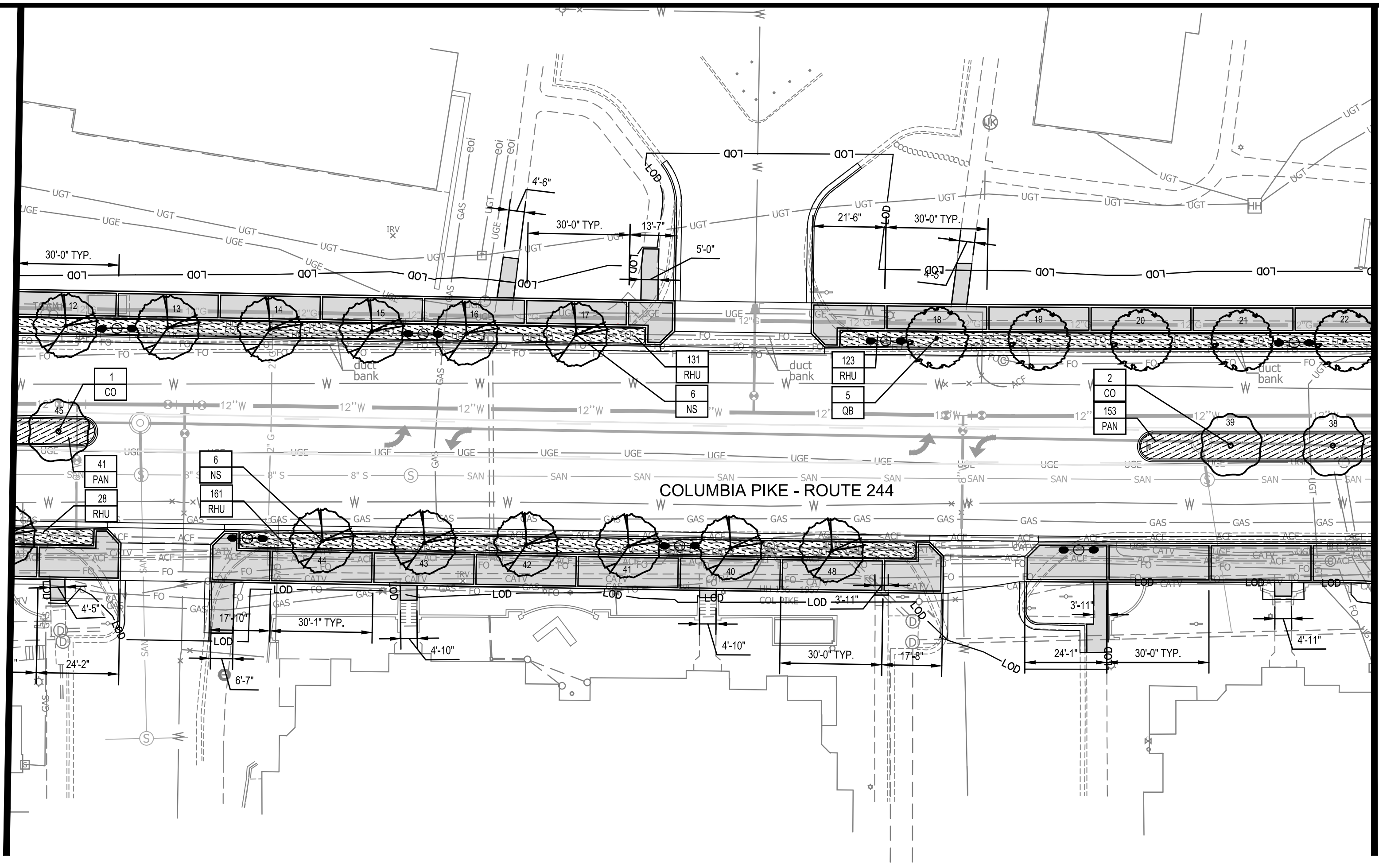
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 Plotted: September 30, 2022  
 Plotted by: Ted.DeLio

ARLINGTON COUNTY, VIRGINIA  
 DEPARTMENT OF ENVIRONMENTAL SERVICES

LANDSCAPE CONSERVATION PLAN  
 COLUMBIA PIKE - ROUTE 244  
 COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
 SEGMENT C  
 STA. 71+50 TO STA. 81+50

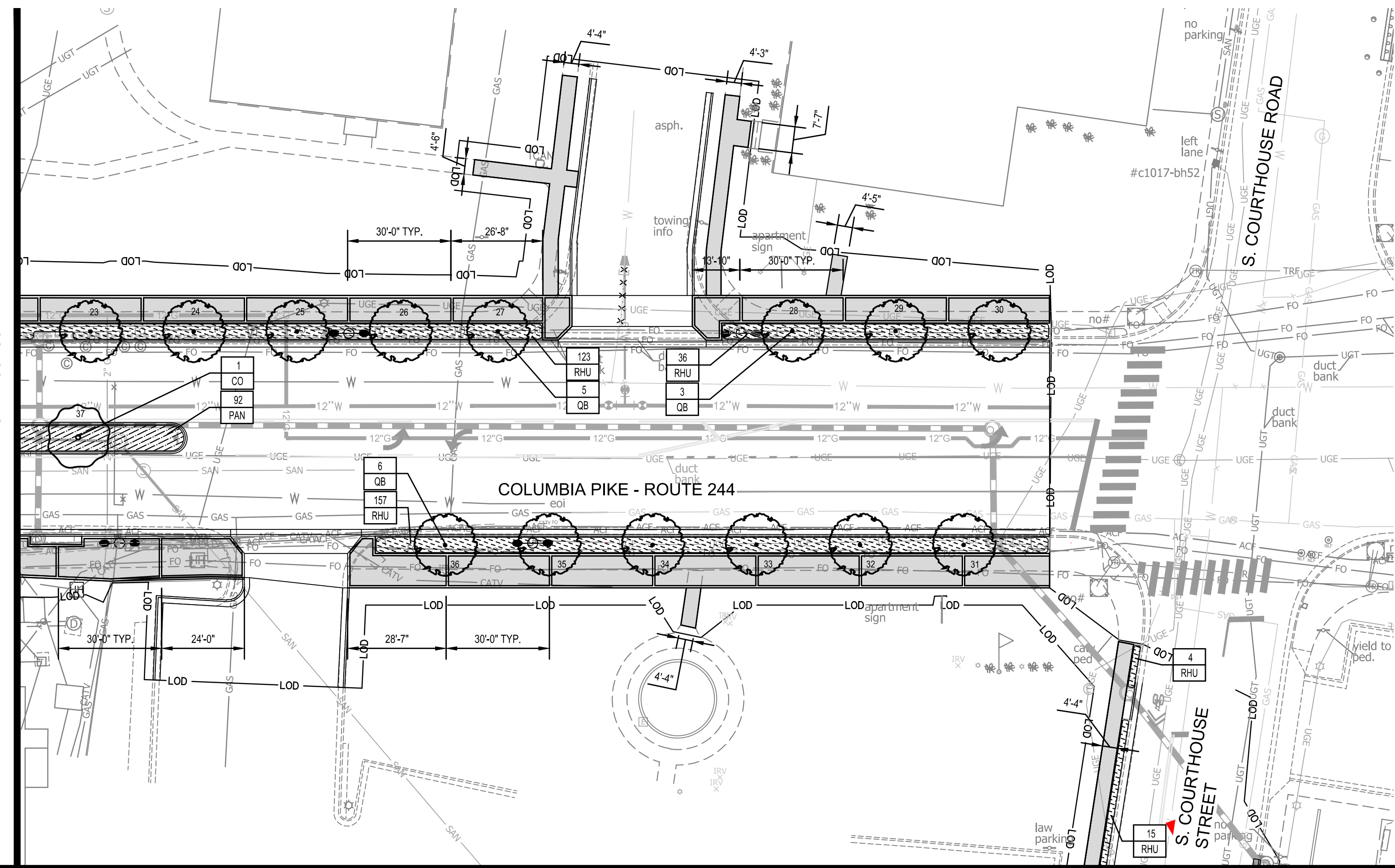
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MATCHLINE STA: 81+50 - SEE SHEET C14.1



MATCHLINE STA: 85+50

MATCHLINE STA: 85+50



**LANDSCAPE LEGEND**

**CANOPY TREES / EVERGREEN TREES**  
**NS** *Nyssa sylvatica*  
 Black Gum  
**QB** *Quercus bicolor*  
 Swamp White Oak  
**QP** *Quercus phellos*  
 Willow Oak

**ORNAMENTAL TREES**  
**CO** *Celtis occidentalis*  
 Hackberry

**SHRUBS & GRASSES**  
**PAN** *Panicum virgatum* 'Shenandoah'  
 Shenandoah Switch Grass

**PERENNIALS & GROUNDCOVERS**  
**PAN** *Panicum virgatum* 'Shenandoah'  
 Shenandoah Switch Grass  
**RHU** *Rhus aromatica* 'Gro-Low'  
 Gro-Low Sumac

---

**HARDSCAPE LEGEND**

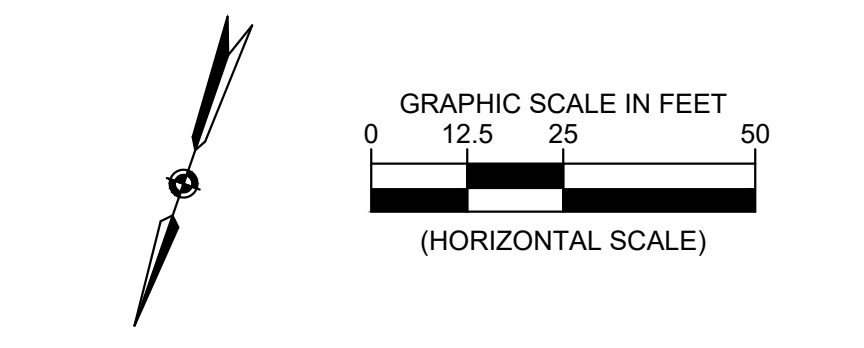
PROPOSED CONCRETE WALK  
 PROPOSED UNIT PAVER BANDING  
 PROPOSED LIGHTING LOCATION  
 PROPOSED BENCH  
 PROPOSED BIKE RACK

**HARDSCAPE NOTES:**  
 1. SEE SHEET C14.4 - SHEET C14.7 FOR HARDSCAPE DETAILS  
 2. SEE SHEET C14.5 & C14.6 FOR TYPICAL PAVING LAYOUTS.

**PLANTING LEGEND**

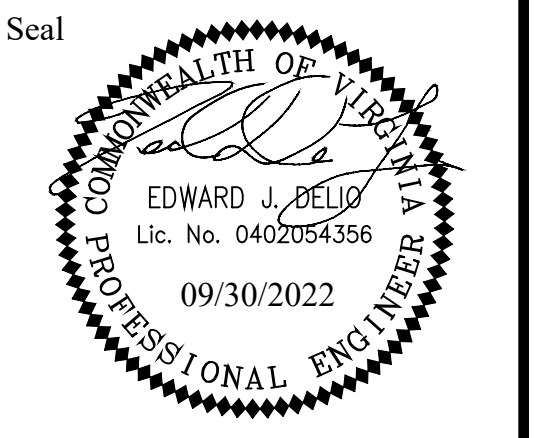
PROPOSED CANOPY TREE  
 PROPOSED ORNAMENTAL TREE  
 EXISTING TREE TO REMAIN  
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**LANDSCAPE NOTES:**  
 1. CONTRACTOR SHALL CALL MISS UTILITY OF VIRGINIA AT 800-552-7001. ALL UTILITIES MUST BE LOCATED PRIOR TO THE START OF CONSTRUCTION.  
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Approvals	Date
Design Team Engineer Supervisor	
Construction Management Supervisor	
Water, Sewer, Streets Bureau Chief	
Transportation Director	
Project Manager	
Revisions	Date

Designed: KWA  
 Drawn: WDW  
 Checked: EJD  
 Miss Utility Transmittal #:

Filename: 010073-C-LAND.dwg  
 Path: Z:\Final Design of Columbia Pike Segments\Project\C14.1 - 229.dwg  
 Plotted: September 30, 2022  
 Plotted by: Ted.DeLio

ARLINGTON COUNTY, VIRGINIA  
 DEPARTMENT OF ENVIRONMENTAL SERVICES

LANDSCAPE CONSERVATION PLAN  
 COLUMBIA PIKE - ROUTE 244  
 COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
 SEGMENT C  
 STA. 81+50 TO STA. 89+50

SCALE: HOR. 1" = 25' VERT. N/A SHEET: C14.2 of C14.12

**ARLINGTON VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL SERVICES

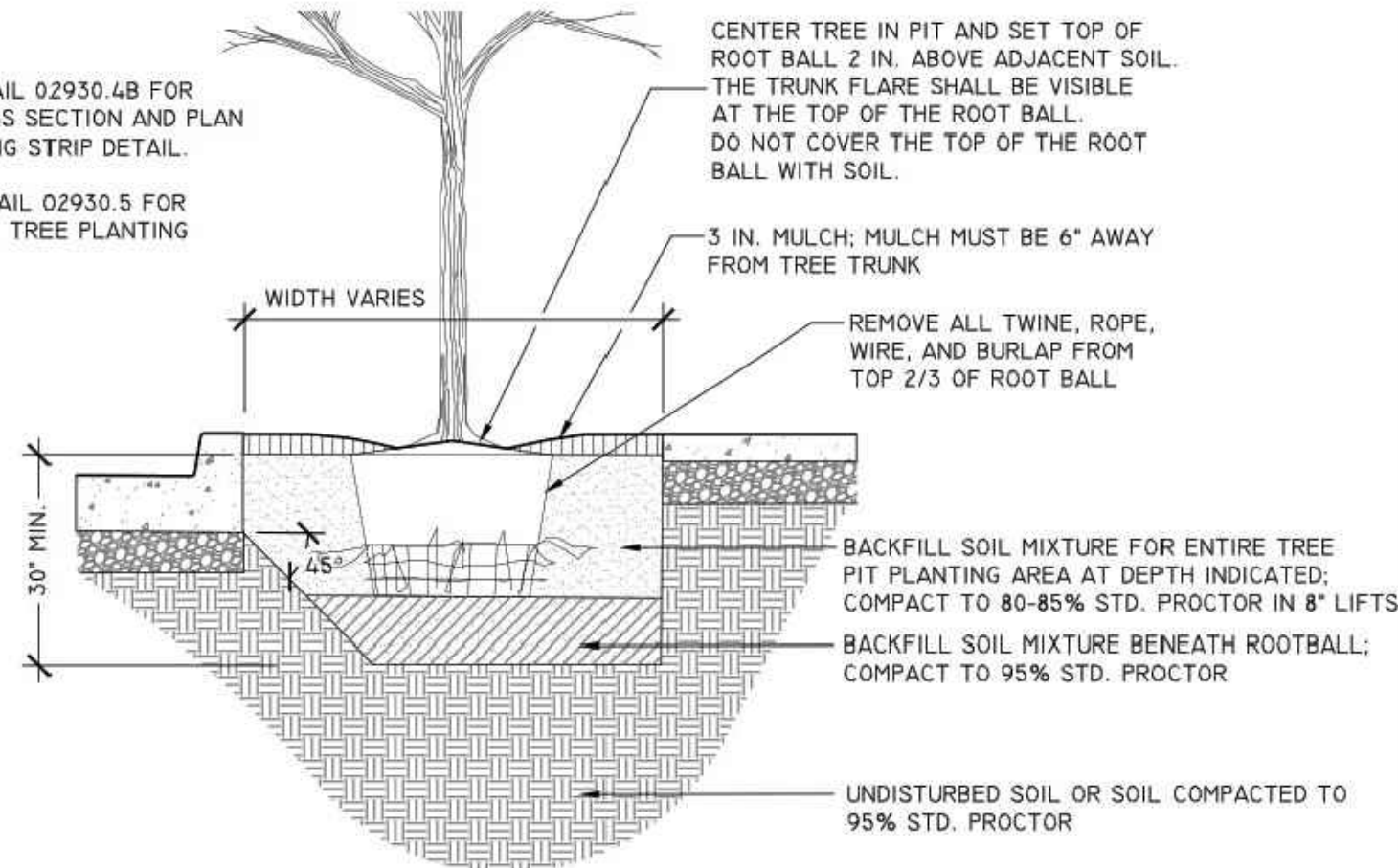
*Rita D. Araya*  
 LUIS ARAYA  
 BUREAU CHIEF, DES - DEVELOPMENT SERVICES

11/15/2022  
 APPROVAL DATE

THIS DETAIL SUPERSEDES ALL OTHER TREE STRIP PLANTING DETAILS IN ARLINGTON COUNTY.

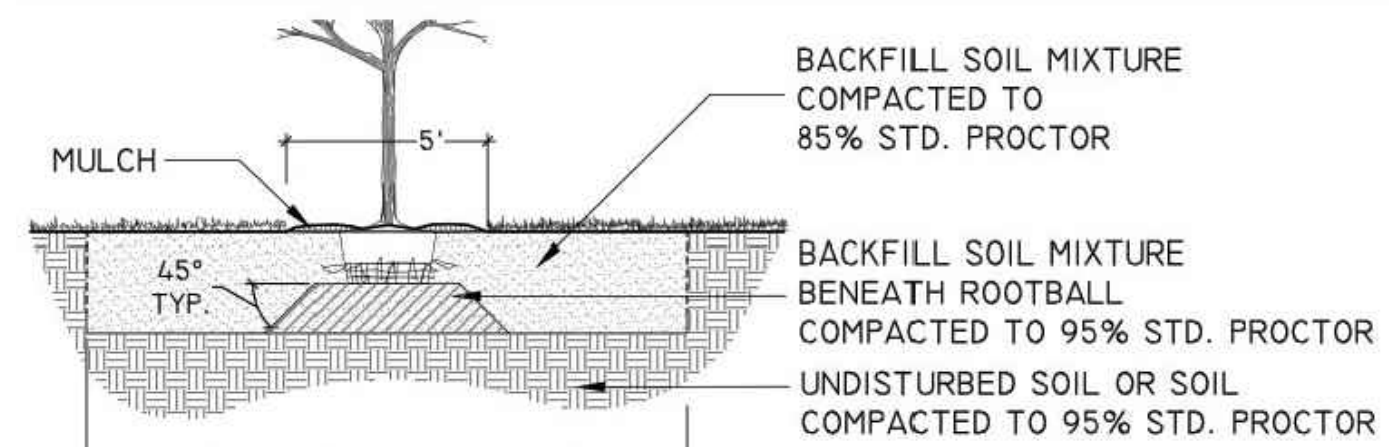
**NOTES**

1. REFER TO DETAIL 02930.4B FOR ADDITIONAL CROSS SECTION AND PLAN OF TREE PLANTING STRIP DETAIL.
2. REFER TO DETAIL 02930.5 FOR GENERAL STREET TREE PLANTING NOTES.



**1 TREE PLANTING STRIP (1 OF 2)**

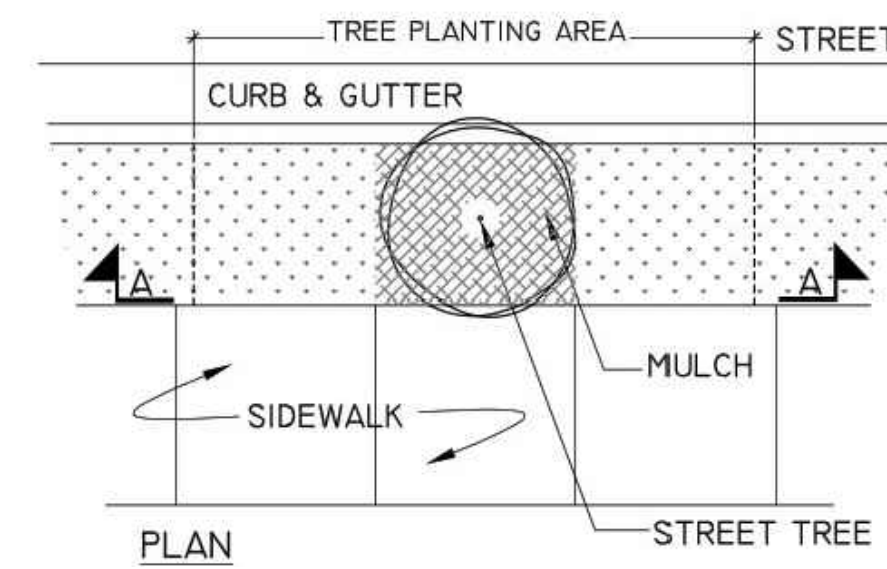
1/2" = 1'-0"



**A. CROSS SECTION**

**NOTES**

1. REFER TO DETAIL 1 FOR TREE STRIP PLANTING AREA INFORMATION.
2. REFER TO DETAIL 3 FOR GENERAL TREE PLANTING NOTES.



**2 TREE PLANTING STRIP (2 OF 2)**

NTS

**NOTES**

1. A PERMIT IS REQUIRED WHEN TREES ARE PLANTED IN PUBLIC RIGHT-OF-WAY OR IN A PUBLIC EASEMENT. THE DEPARTMENT OF ENVIRONMENTAL SERVICES SHALL ISSUE THE PERMIT ACCORDING TO THE PROVISIONS OF THE CURRENT ARLINGTON COUNTY ADMINISTRATIVE REGULATION 4.3.
2. TREE SPECIES SHALL BE SELECTED FROM THE 'ARLINGTON COUNTY STREET TREE LIST' OR PER SECTOR PLAN REQUIREMENTS.
3. TREES SHALL BE NURSERY GROWN SPECIMENS THAT MEET THE LATEST EDITION OF THE AMERICAN STANDARDS FOR NURSERY STOCK (ANSI Z60). BALLED AND BURLAPPED TREES SHALL BE SECURELY HELD IN PLACE BY UNTREATED BURLAP AND STOUT ROPE (NYLON ROPE IS NOT ACCEPTABLE). LOOSE, BROKEN OR MANUFACTURED BALLS ARE UNACCEPTABLE.
4. CALL MISS UTILITY AT (800) 552-7201 FOR UTILITY LOCATIONS PRIOR TO EXCAVATION.
5. AT TIME OF PLANTING PRUNE ONLY CROSSING LIMBS, BROKEN OR DEAD BRANCHES, AND ANY BRANCHES THAT POSE A HAZARD TO PEDESTRIANS. DO NOT PRUNE INTO OLD WOOD ON EVERGREENS.
6. TREE PIT AND TREE STRIP PLANTING AREA DIMENSIONS: (A) 5' X 12' OR LARGER IS STANDARD. (B) 4' X 15' MINIMUM IS ALLOWED PER SITE CONDITIONS AND COUNTY URBAN FORESTER'S APPROVAL.
7. SPACE TREES 25'-30' APART OR PER SECTOR PLAN REQUIREMENTS OR SITE CONDITIONS.
8. SITE CHARACTERISTICS, SUCH AS OVERHEAD POWER LINES, EXISTING VEGETATION, AND INFRASTRUCTURE ITEMS SUCH AS CURBS, SIDEWALKS AND UTILITIES SHALL BE CONSIDERED. TREES THAT GROW TALLER THAN 25 FEET SHOULD NOT BE PLANTED DIRECTLY UNDER POWER LINES. WHEN POSSIBLE THE TREE LEADER SHALL BE OFFSET FROM POWER LINES.
9. BACKFILL SOIL MIXTURE SHALL BE 3/4 EXISTING SOIL CLEANED OF DEBRIS (GRAVEL, ROCKS, STICKS, TRASH, ETC.) AND MIXED WITH 1/4 ORGANIC MATERIAL (COMPOSTED BARK, LEAF MULD, OR OTHER PLANT DEBRIS PROCESSED TO A POINT OF DECAY AND APPROVED BY THE COUNTY URBAN FORESTER. PEAT MOSS MAY NOT BE USED).
10. IF THE QUANTITY OF ACCEPTABLE EXISTING SOIL IS INSUFFICIENT FOR THE PLANTING REQUIREMENTS, THE CONTRACTOR MAY USE TOPSOIL. SOIL TEST REPORT RESULTS FOR THE TOPSOIL WILL BE MADE AVAILABLE TO THE COUNTY URBAN FORESTER UPON REQUEST. CONTRACTOR SHALL SUBMIT TOPSOIL FOR APPROVAL TO COUNTY URBAN FORESTER THAT MEETS THE FOLLOWING SPECIFICATIONS: (A.) TOPSOIL CONSISTS OF A SANDY LOAM WITH UNIFORM COMPOSITION AND IS FREE OF STONES, LUMPS, PLANTS, ROOTS, AND OTHER DEBRIS OVER 1/2" IN LENGTH. (B.) TOPSOIL HAS A PH RANGE OF 5.5 TO 6.5 AND A MINIMUM CONTENT OF 1.0% ORGANIC MATTER. (C.) TOPSOIL DOES NOT CONTAIN TOXIC SUBSTANCES HARMFUL TO PLANT GROWTH. SOLUBLE SALT LEVEL SHALL NOT EXCEED 3 MILLIGRAMS PER CENTIMETER.
11. TREES PLANTED WITHOUT THE TRUNK FLARE VISIBLE WILL BE REJECTED.
12. TREES MAY ONLY BE STAKED IF REQUIRED BY THE COUNTY URBAN FORESTER. REFER TO ARLINGTON COUNTY STANDARD STAKING DETAILS.
13. MULCH SHALL BE CLEAN, SCREENED, DOUBLE-HAMMERED HARDWOOD BARK MULCH, UNIFORM IN SIZE AND FREE OF STONES, CLOUDS, NON-ORGANIC DEBRIS AND OTHER FOREIGN MATERIAL.
14. ALL PLANTS SHALL BE WATERED TWICE: ONCE AT INSTALLATION AND AGAIN WITHIN 48 HOURS OF INSTALLATION. EACH WATERING WILL CONSIST OF 20 GALLONS PER TREE.
15. CONTRACTOR SHALL REMOVE EXCESS SOIL & DEBRIS FROM SITE.

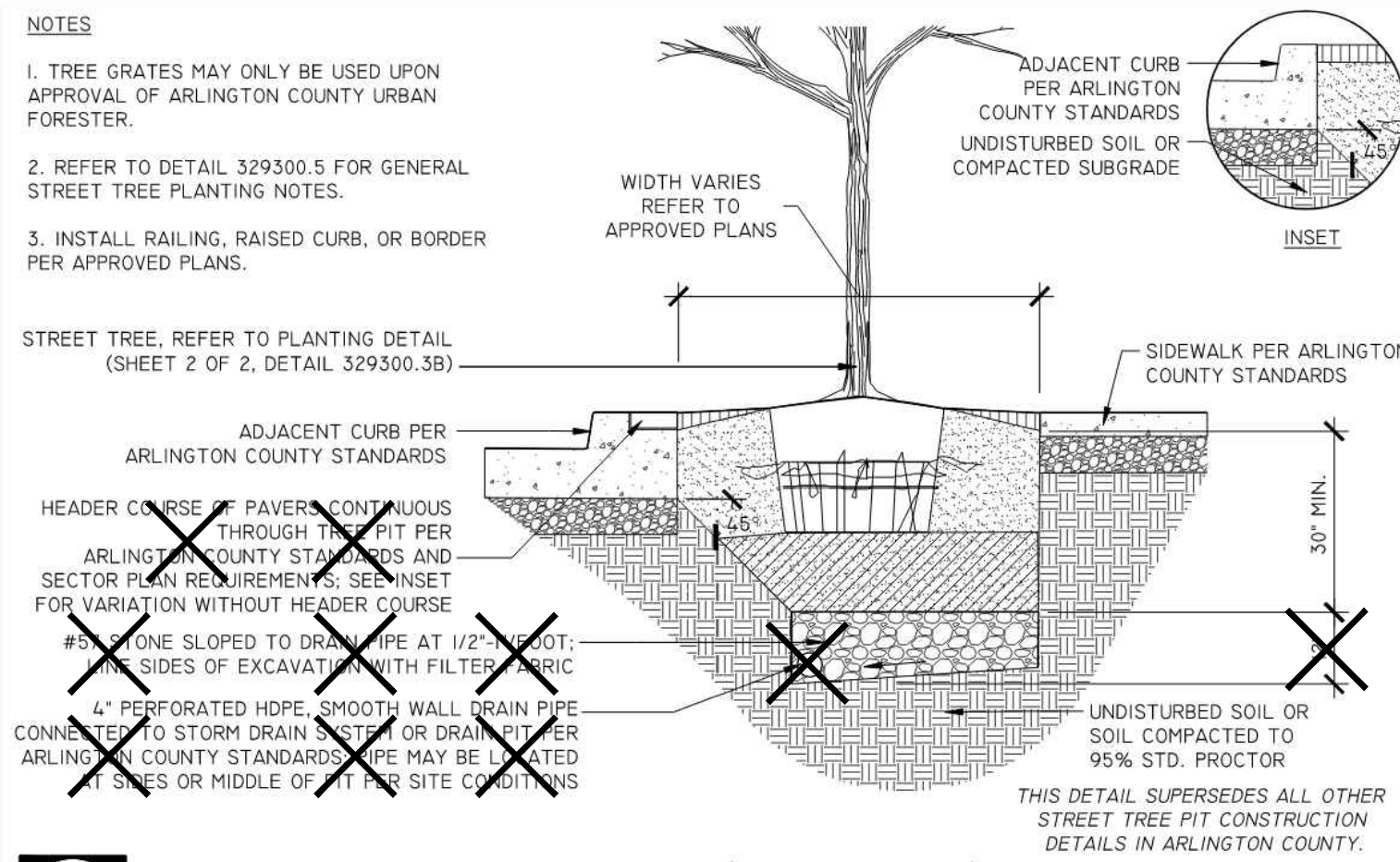
**3 GENERAL NOTES FOR STREET TREE PLANTINGS**

NTS

**NOTE:** REFER TO ROADWAY PLAN AND PROFILE DRAWINGS FOR LOCATION OF UD-4

**NOTES**

1. TREE GRATES MAY ONLY BE USED UPON APPROVAL OF ARLINGTON COUNTY URBAN FORESTER.
2. REFER TO DETAIL 329300.5 FOR GENERAL STREET TREE PLANTING NOTES.
3. INSTALL RAILING, RAISED CURB, OR BORDER PER APPROVED PLANS.



**STREET TREE PLANTING PIT (SHEET 1 OF 2)**

FOR TREE PLANTING PITS IN RIGHT-OF-WAY & ADJACENT TO PAVING 329300.3A (2020)

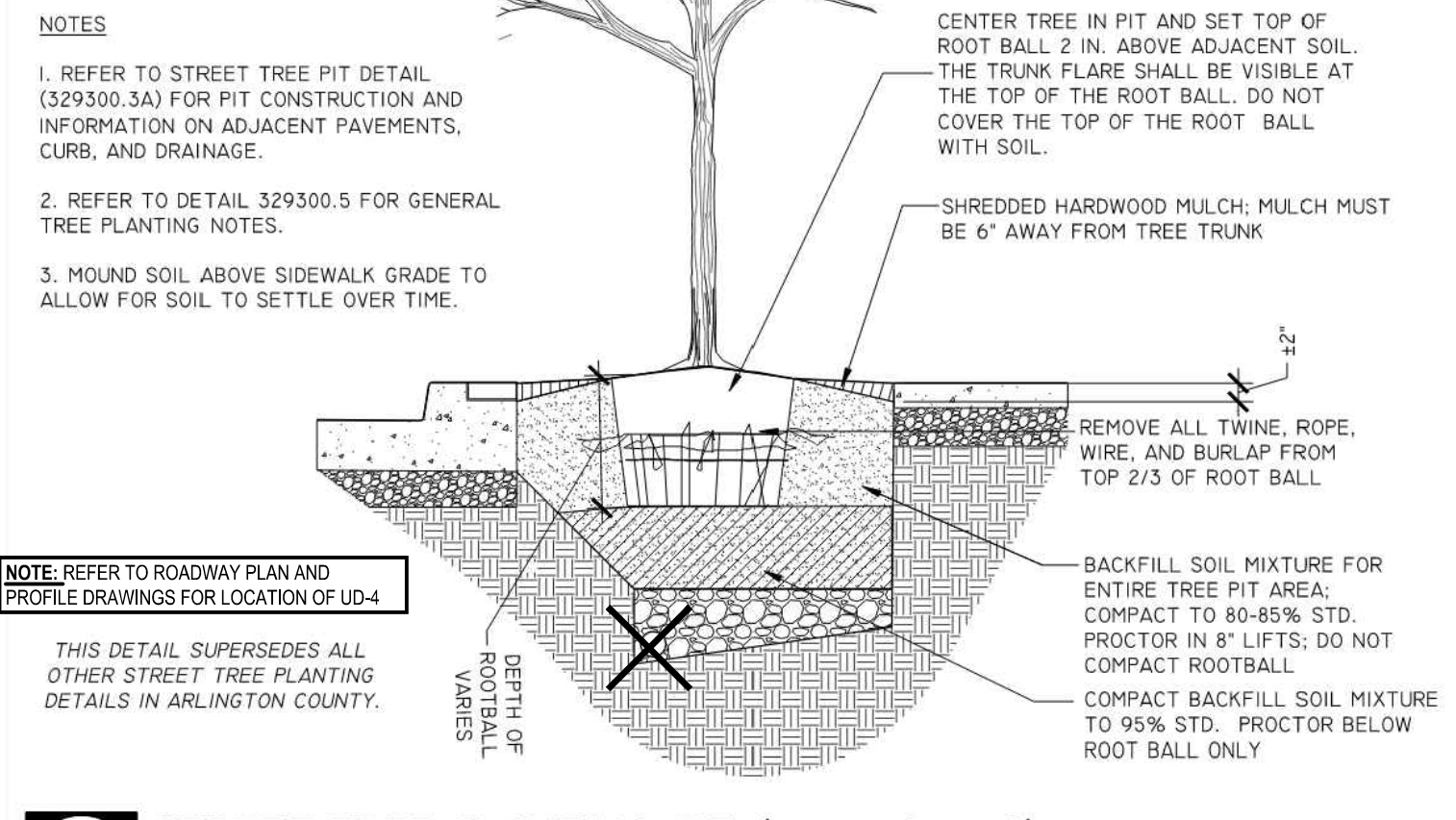
**NOTE:** REFER TO ROADWAY PLAN AND PROFILE DRAWINGS FOR LOCATION OF UD-4

**4 STREET TREE PLANTING PIT (1 OF 3)**

1/2" = 1'-0"

**NOTES**

1. REFER TO STREET TREE PIT DETAIL (329300.3A) FOR PIT CONSTRUCTION AND INFORMATION ON ADJACENT PAVEMENTS, CURB, AND DRAINAGE.
2. REFER TO DETAIL 329300.5 FOR GENERAL TREE PLANTING NOTES.
3. MOUND SOIL ABOVE SIDEWALK GRADE TO ALLOW FOR SOIL TO SETTLE OVER TIME.

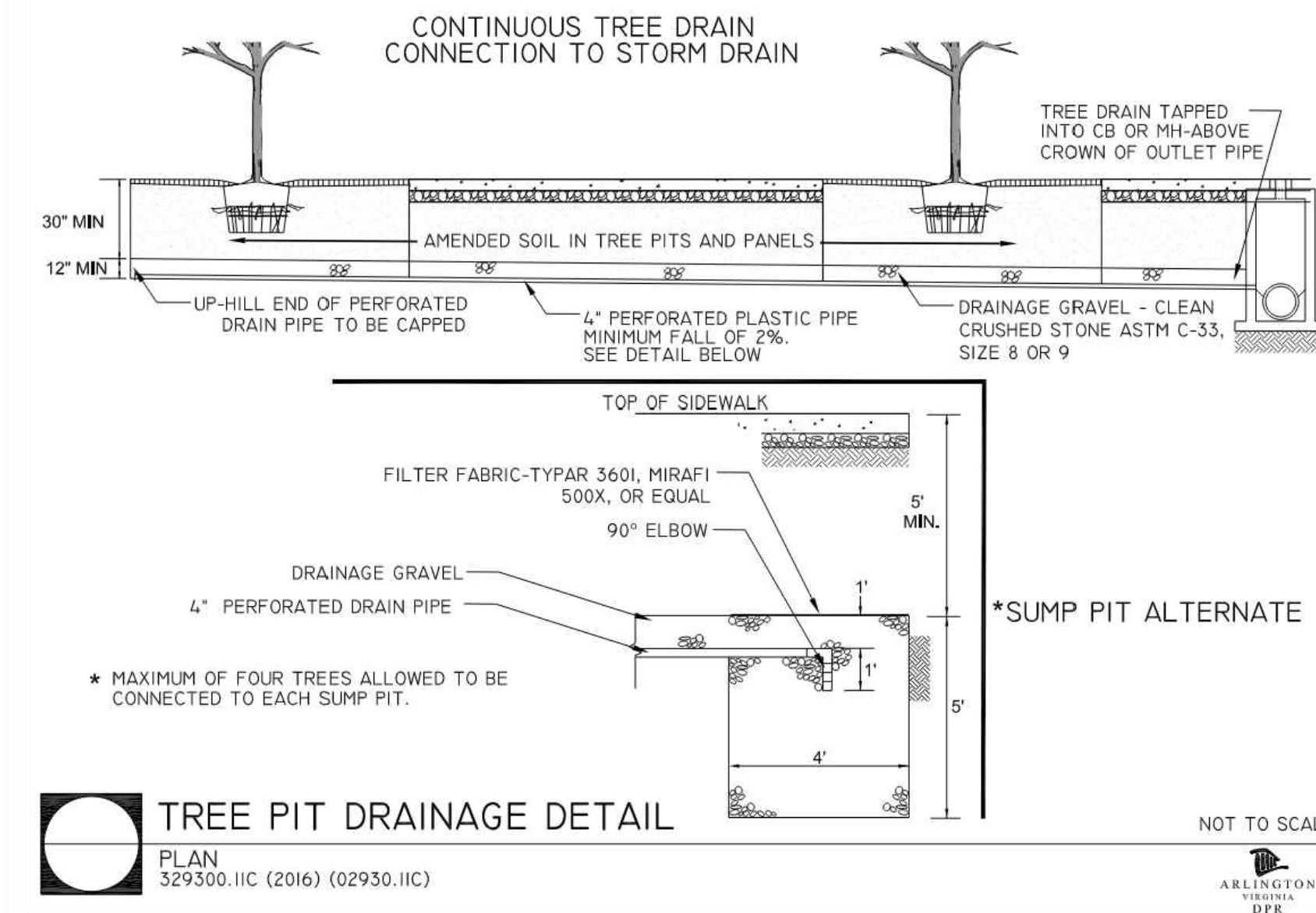


**STREET TREE PLANTING PIT (SHEET 2 OF 2)**

FOR TREE PLANTING PITS IN RIGHT-OF-WAY & ADJACENT TO PAVING 329300.3B (2020)

**5 STREET TREE PLANTING PIT (2 OF 3)**

1/2" = 1'-0"



**TREE PIT DRAINAGE DETAIL**

PLAN 329300.11C (2016) (02930.11C)

**6 STREET TREE PLANTING PIT (3 OF 3)**

1/2" = 1'-0"

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Seal  
EDWARD J. BELLO  
Lic. No. 0402054356  
09/30/2022  
PROFESSIONAL ENGINEER

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

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

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

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

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

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

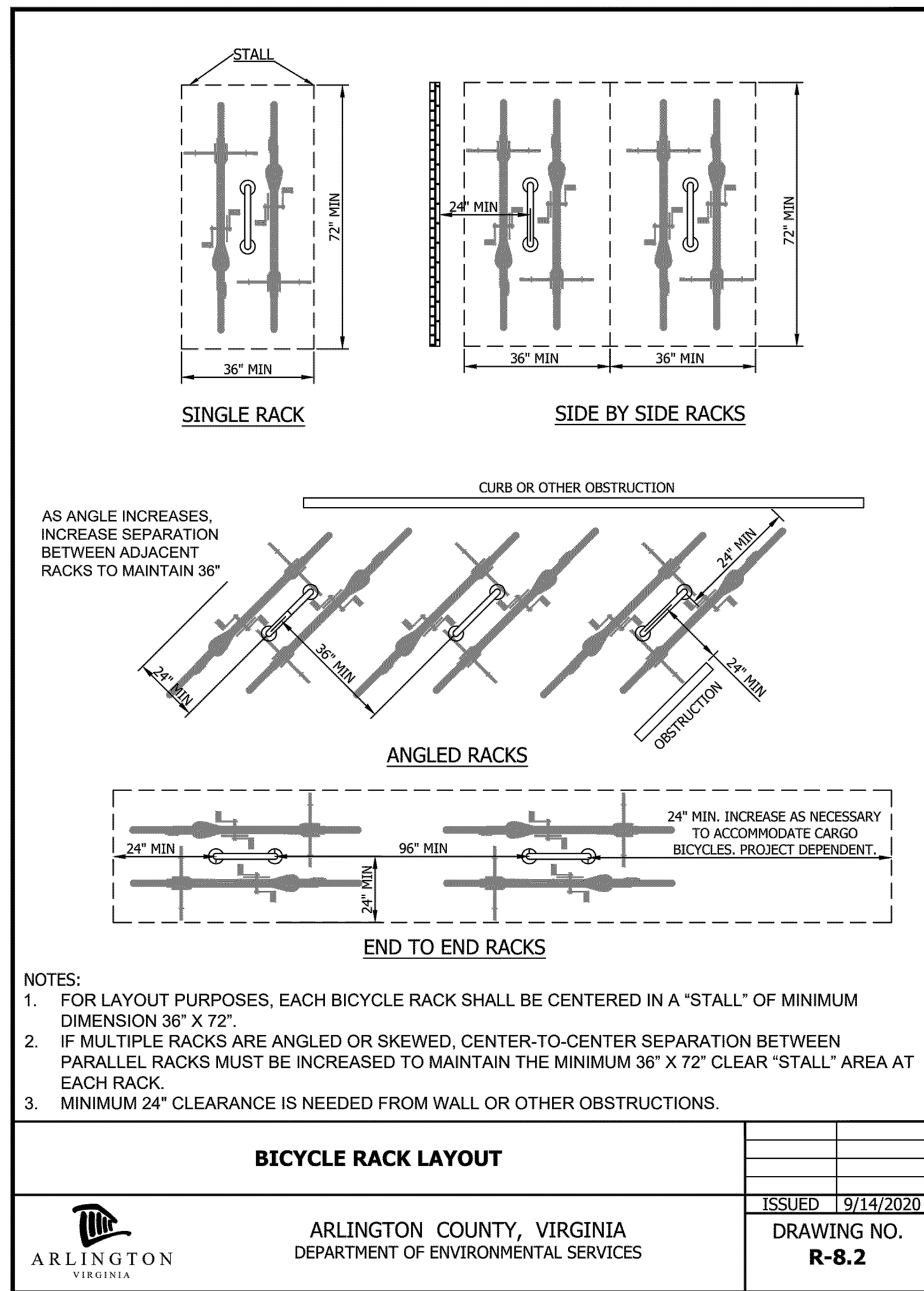
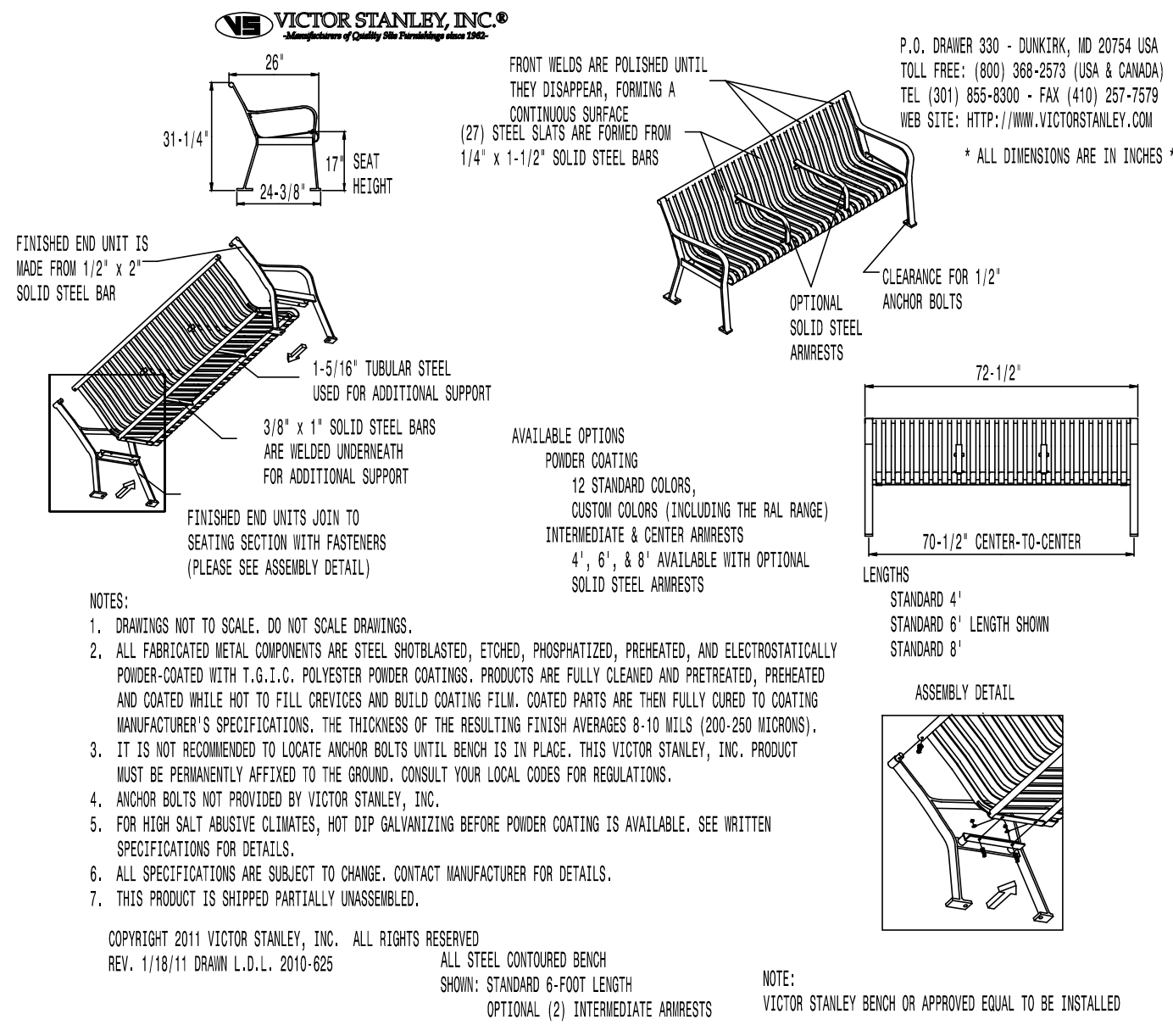
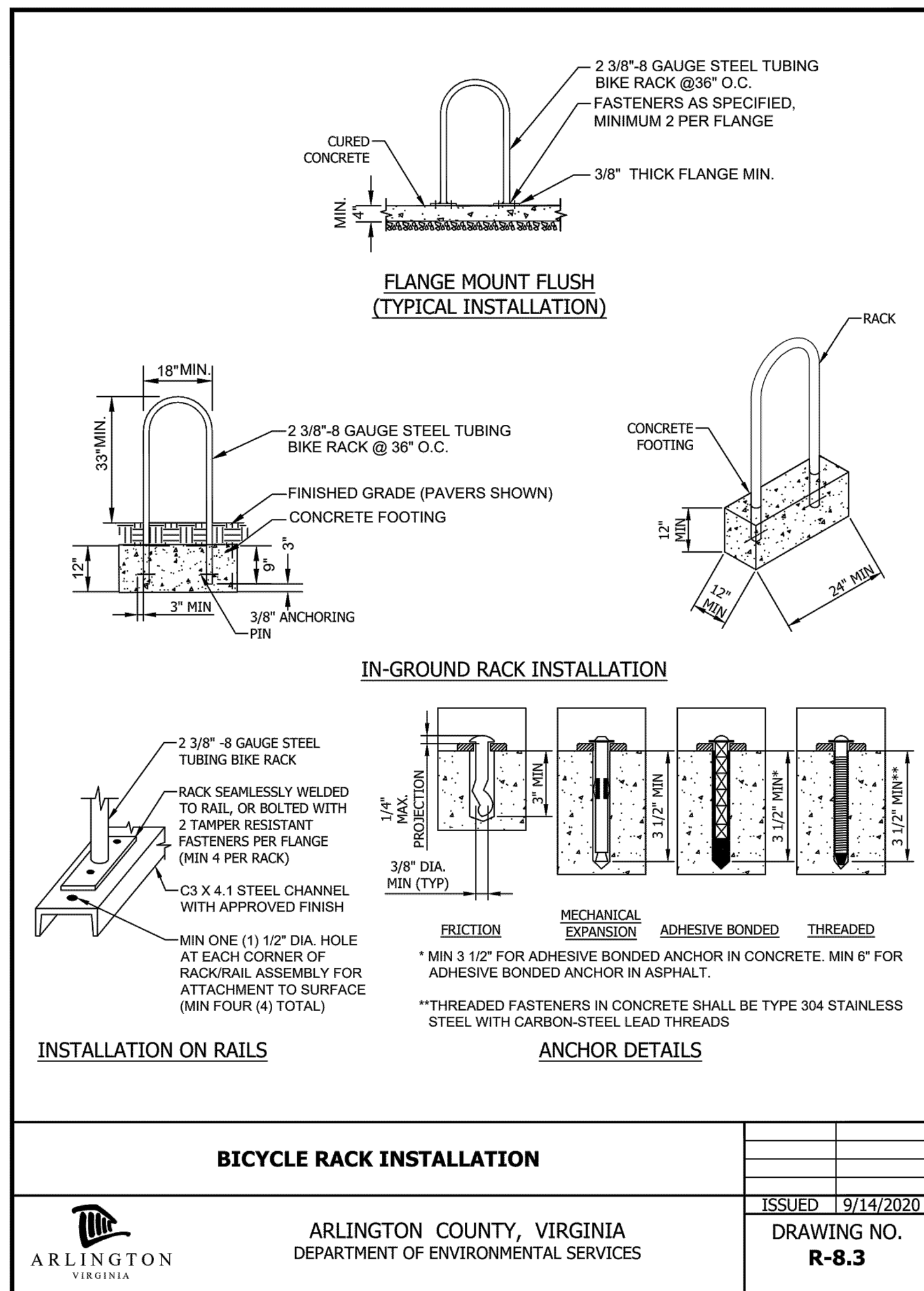
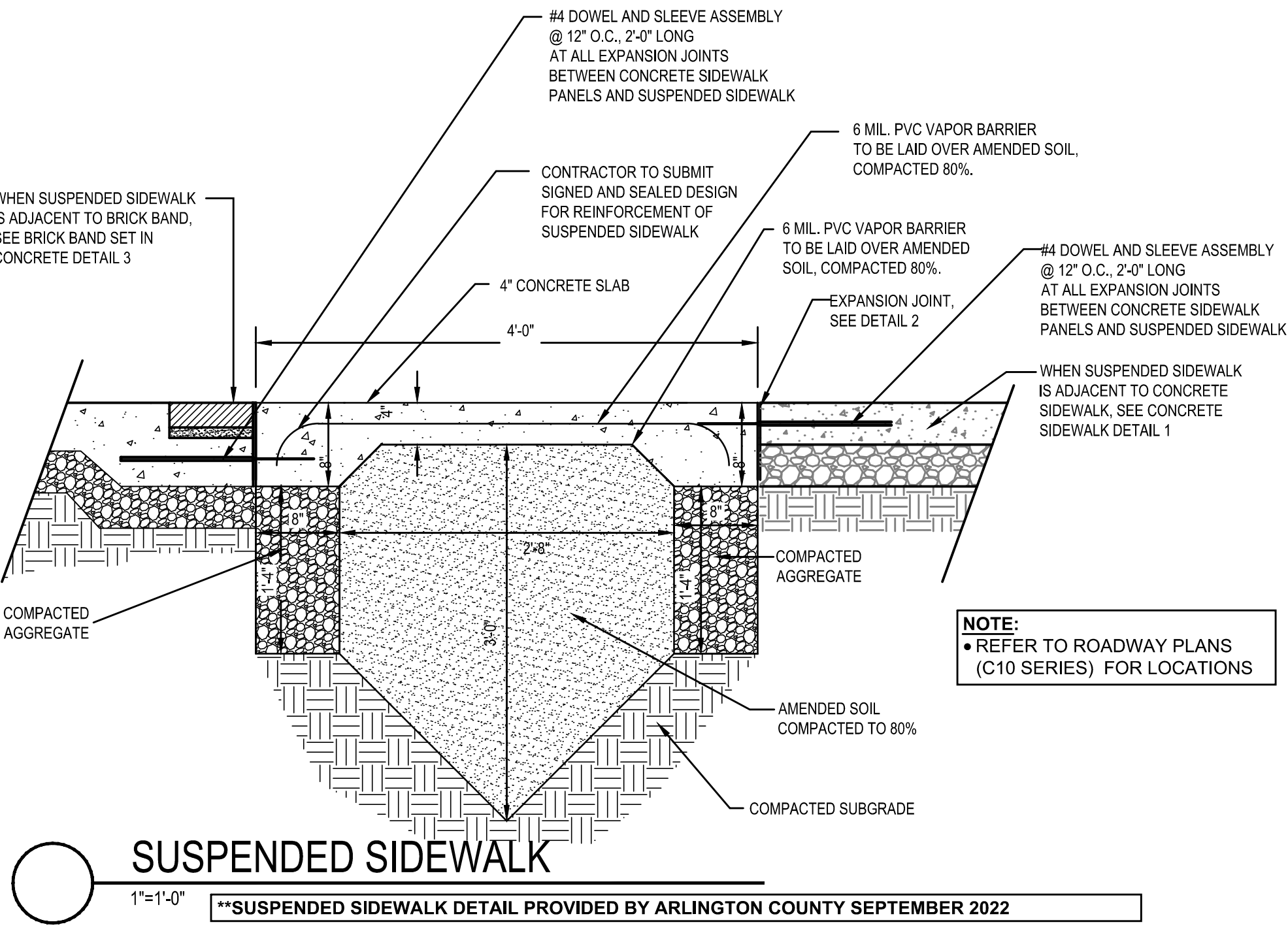
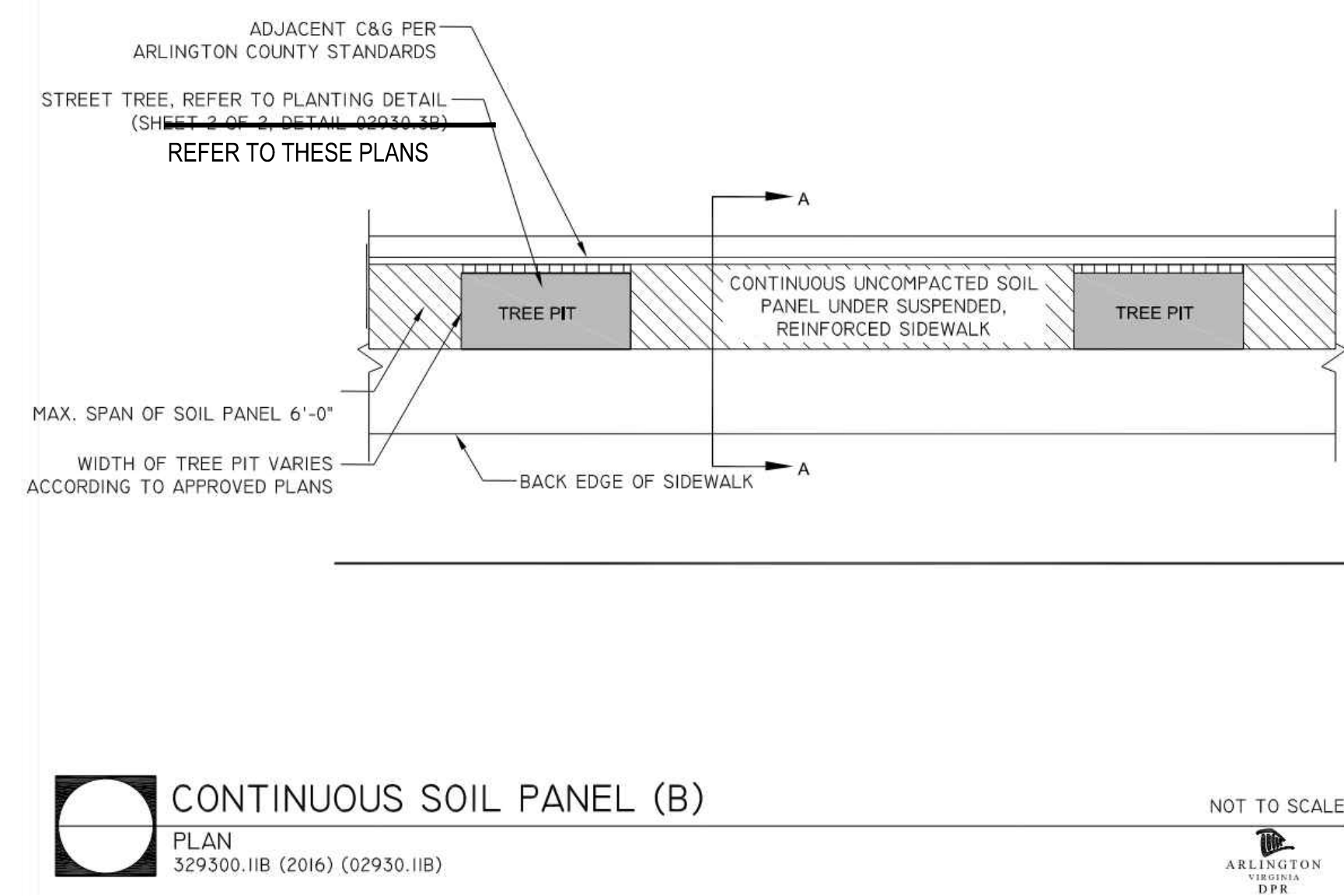
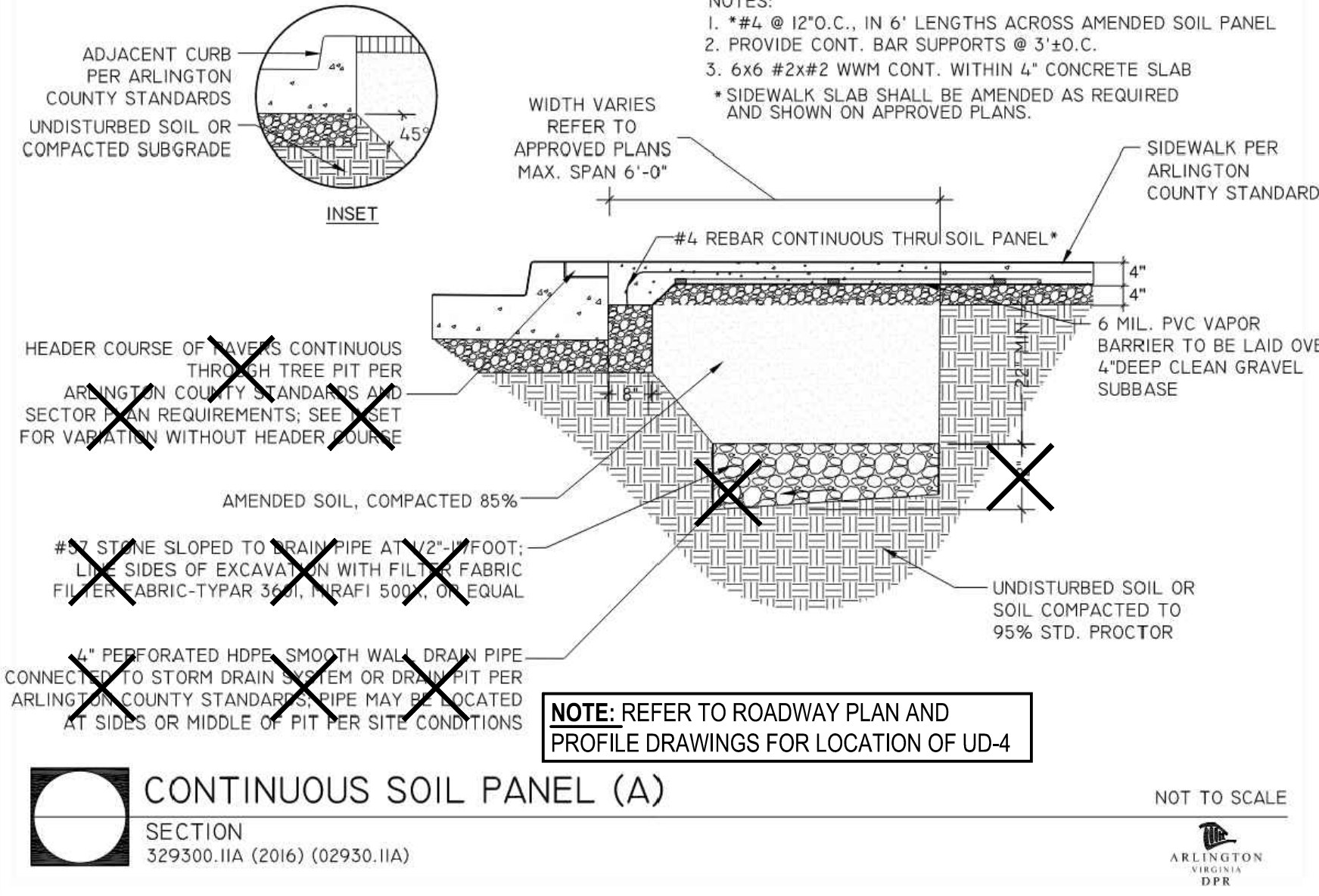
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Checked: EJD  
Miss Utility Transmittal #:

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Plotted: September 30, 2022  
Plotted by: Ted.DeLio

ARLINGTON COUNTY, VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL SERVICES  
LANDSCAPE DETAILS  
COLUMBIA PIKE - ROUTE 244  
COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
SEGMENT C  
SCALE: HOR. N/A VERT. N/A SHEET: C14.3 of C14.12

**ARLINGTON VIRGINIA**  
DEPARTMENT OF ENVIRONMENTAL SERVICES  
11/15/2022  
APPROVAL DATE



1 BIKE RACK  
NTS

2 BENCH  
NTS

3 ANGLED BIKE RACK LAYOUT  
NTS

**ARLINGTON VIRGINIA**

DEPARTMENT OF ENVIRONMENTAL SERVICES

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09/30/2022  
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: WDW  
Checked: EJD  
Miss Utility Transmittal #:

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Plotted: September 30, 2022  
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ARLINGTON COUNTY, VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL SERVICES

LANDSCAPE DETAILS  
COLUMBIA PIKE - ROUTE 244  
COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
SEGMENT C

SCALE: HOR. N/A VERT. N/A SHEET: C14.4 of C14.12

ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES

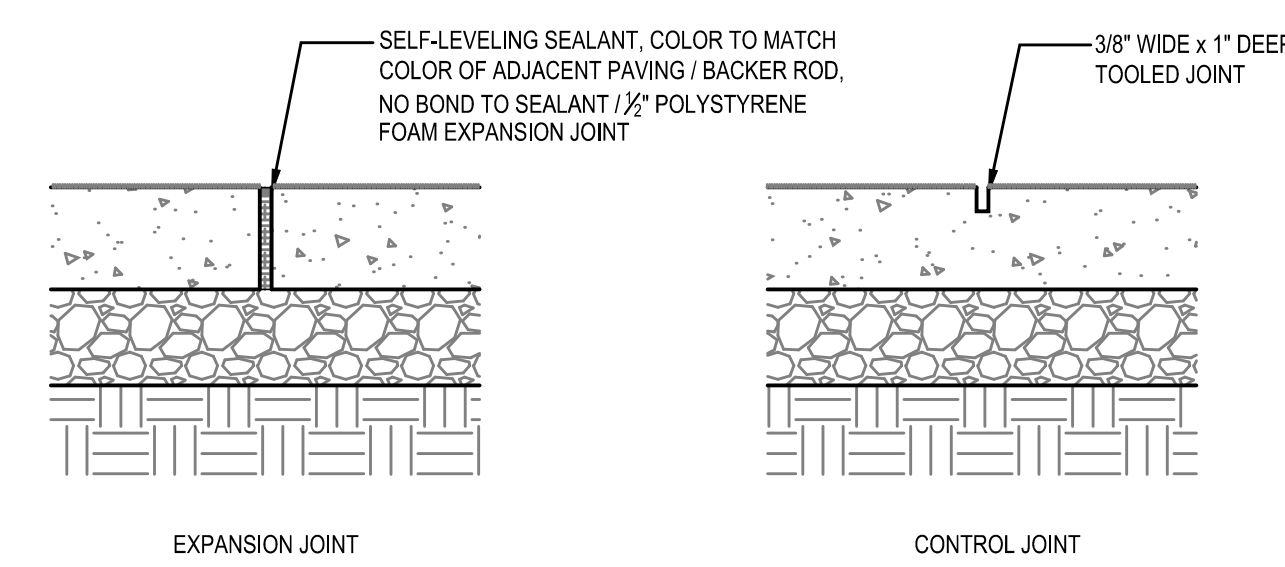
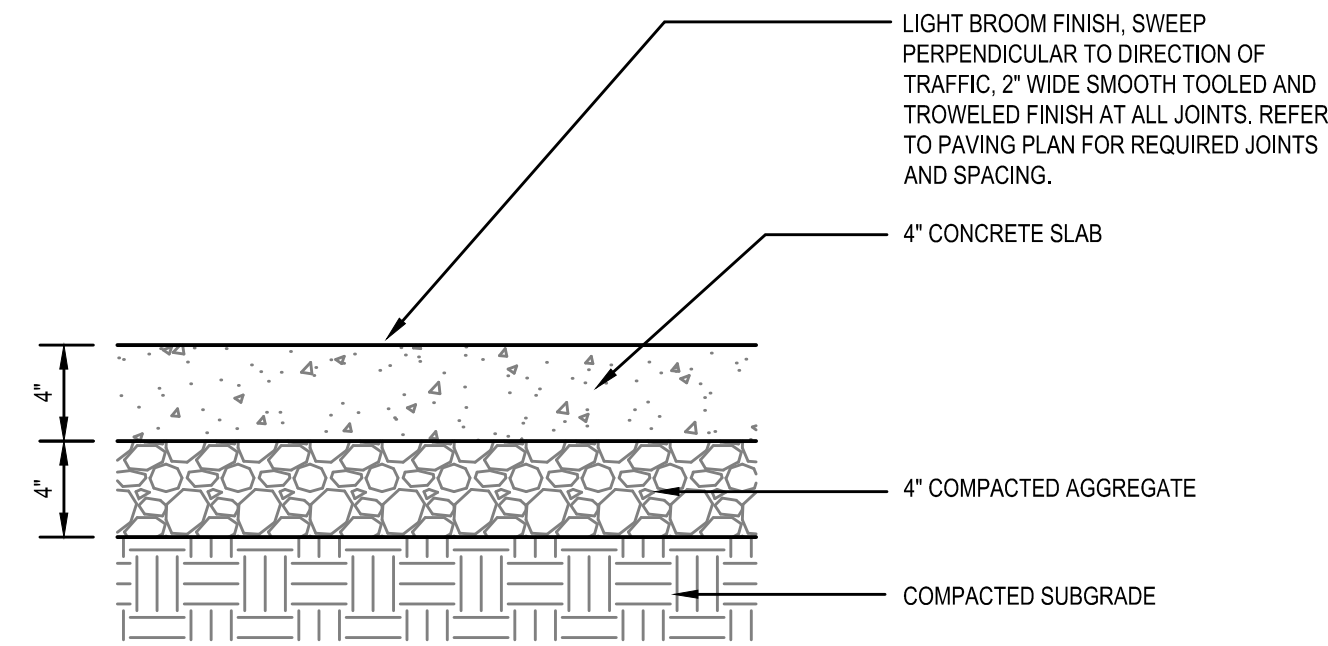
11/15/2022  
APPROVAL DATE

ARLINGTON VIRGINIA

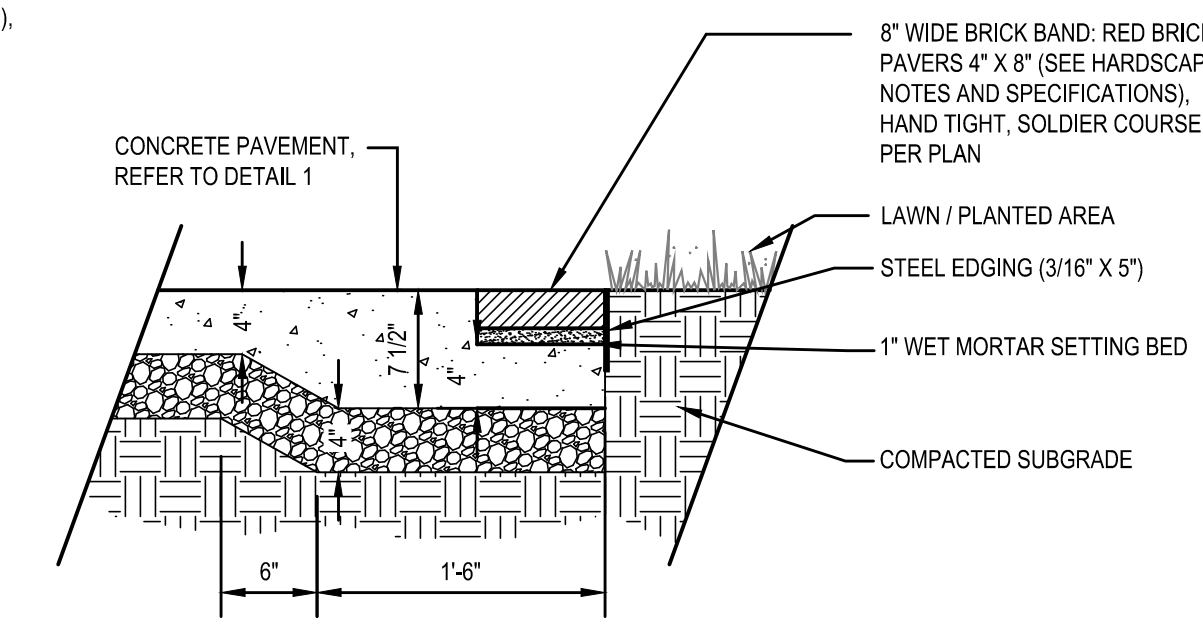
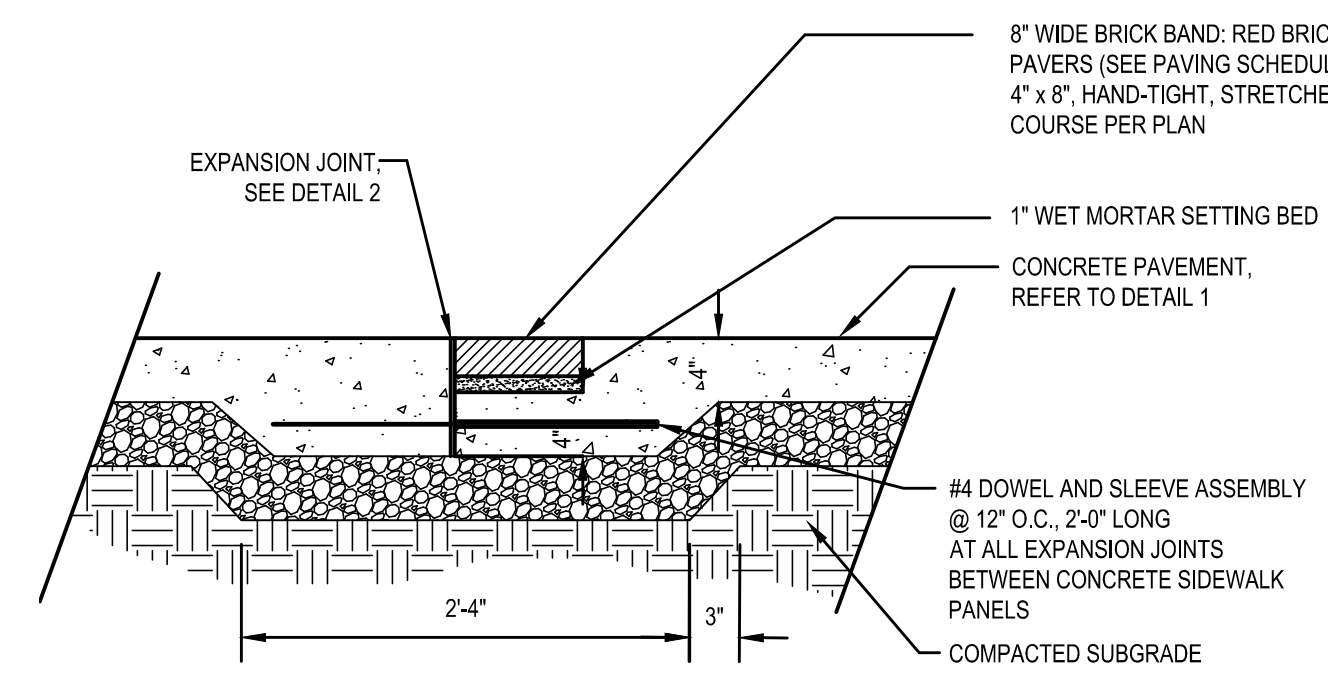
DEPARTMENT OF ENVIRONMENTAL SERVICES

LUIS ARAYA  
BUREAU CHIEF, DES - DEVELOPMENT SERVICES

11/15/2022  
APPROVAL DATE



- NOTES:
- CONTROL JOINTS SHALL BE PROVIDED APPROX. 4'-0" O.C.
  - EXPANSION JOINTS SHALL BE PROVIDED @ 30' INTERVALS MAX. AND AT MEETING OF ALL PAVEMENTS, WALLS, STEPS, VERTICAL SURFACES, ETC.
  - 1/4" RADIUS ON ALL TOOLED EDGES.
  - EXPANSION JOINTS FLUSH WITH FINISH GRADE OF WALK.
  - SMOOTH TROWELED FINISH AT ALL EDGES AND JOINTS

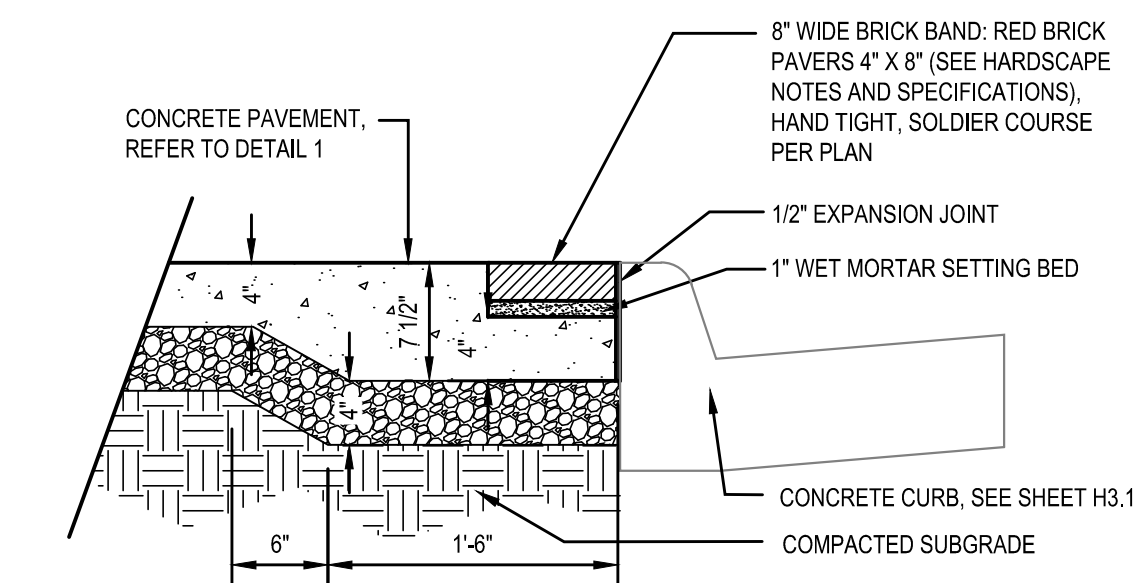
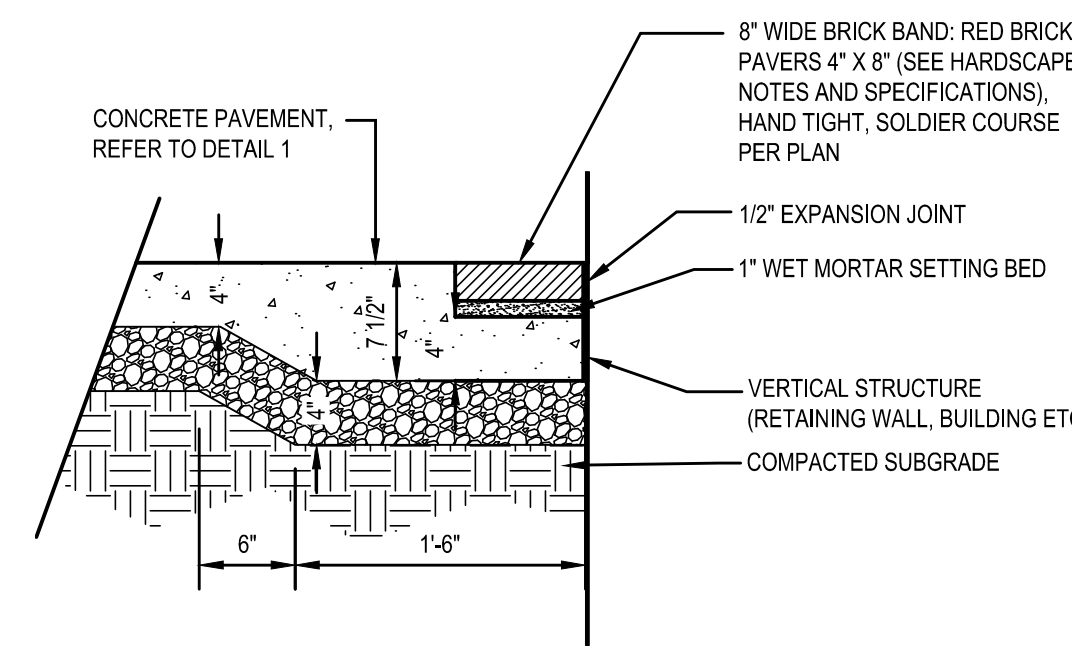
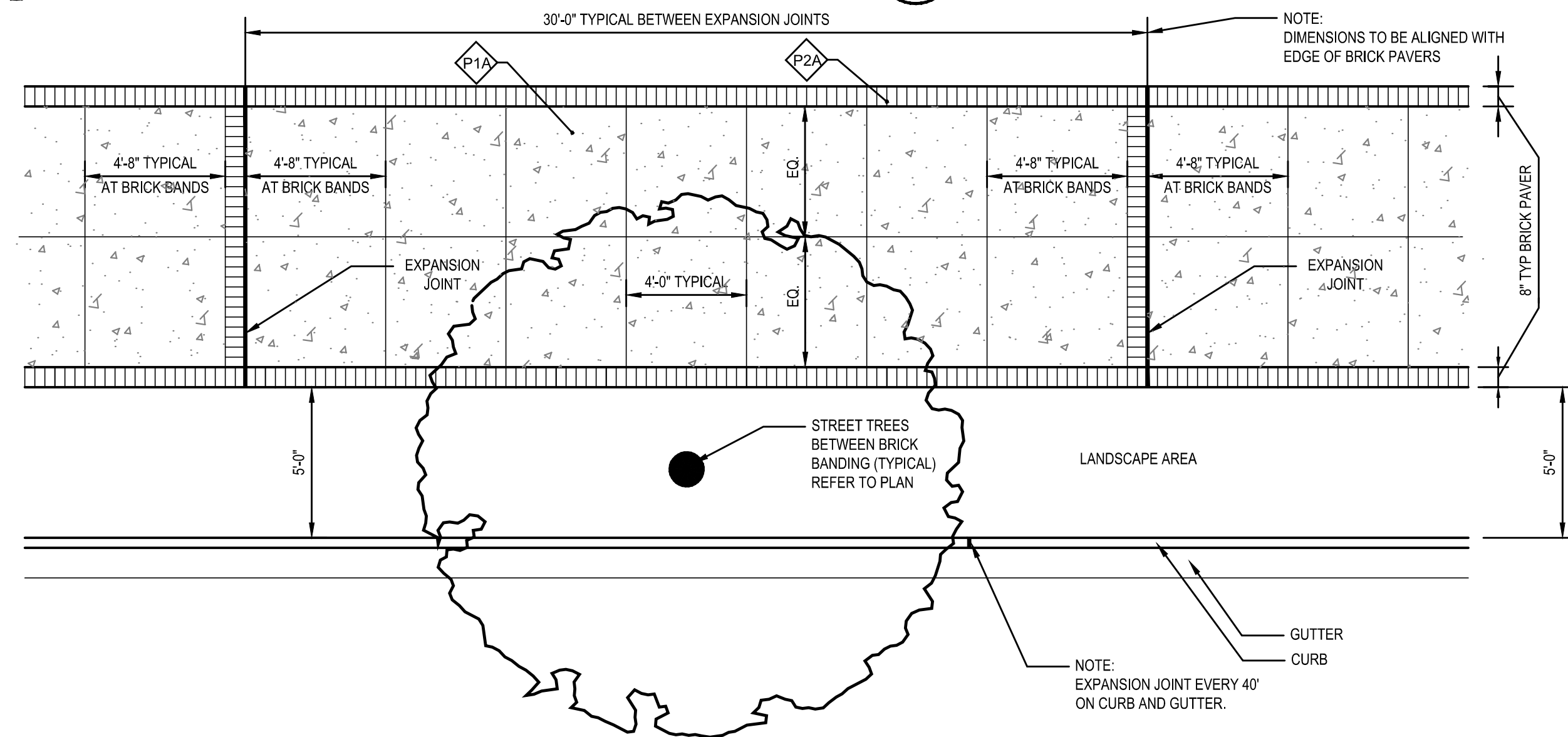


**1 CONCRETE PAVEMENT (SIDEWALKS)**  
Scale: 1 1/2"=1'-0"

**2 CONCRETE PAVING JOINTS**  
Scale: 1 1/2"=1'-0"

**3 BRICK BAND SET IN CONCRETE**  
1"=1'-0"

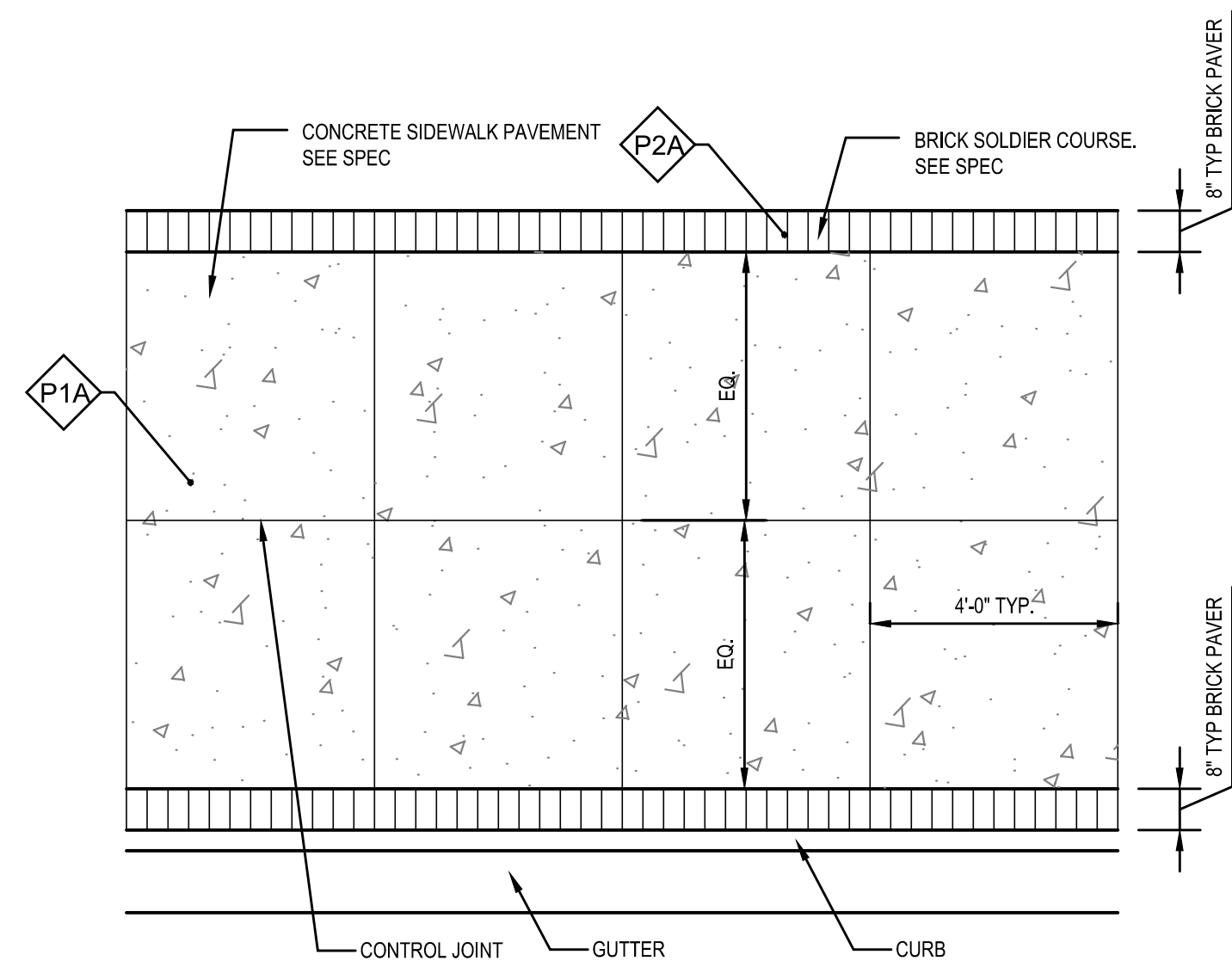
**4 BRICK BAND AT LAWN**  
1"=1'-0"



**5 TYPICAL PAVING AT CONTINUOUS TREE PIT**  
SCALE: 1/4" = 1'-0"

**6 BRICK BAND AT VERTICAL STRUCTURE**  
1"=1'-0"

**7 BRICK BAND AT CURB**  
1"=1'-0"



**8 SIDEWALK PAVING (TYP.)**  
SCALE: 3/8" = 1'-0"

NOTE:  
SEE SHEET C14.6 FOR PAVING SCHEDULE

ARLINGTON COUNTY, VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL SERVICES

LANDSCAPE DETAILS  
COLUMBIA PIKE - ROUTE 244  
COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
SEGMENT C

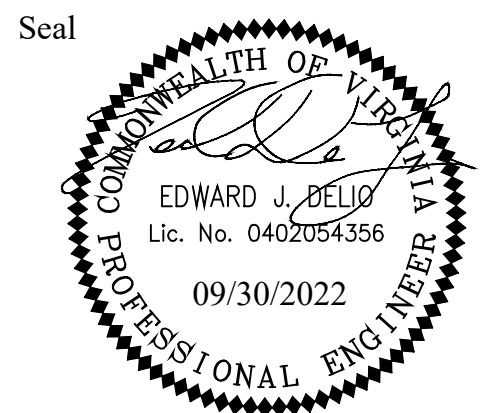
SCALE: HOR. N/A VERT. N/A SHEET: C14.5 of C14.12



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

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

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

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

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

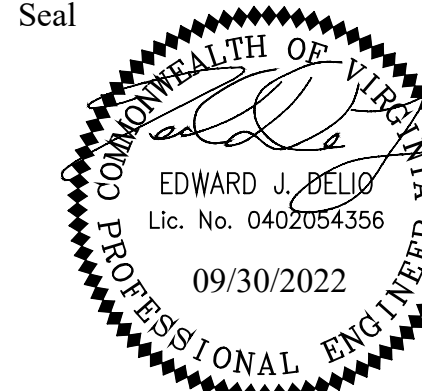
Project Manager \_\_\_\_\_

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

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Drawn: WDW  
Checked: EJD  
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Design\PlanSheet  
Plotted: September 30, 2022  
Plotted by: Ted.DeLio

Seal



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

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

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

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

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

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

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

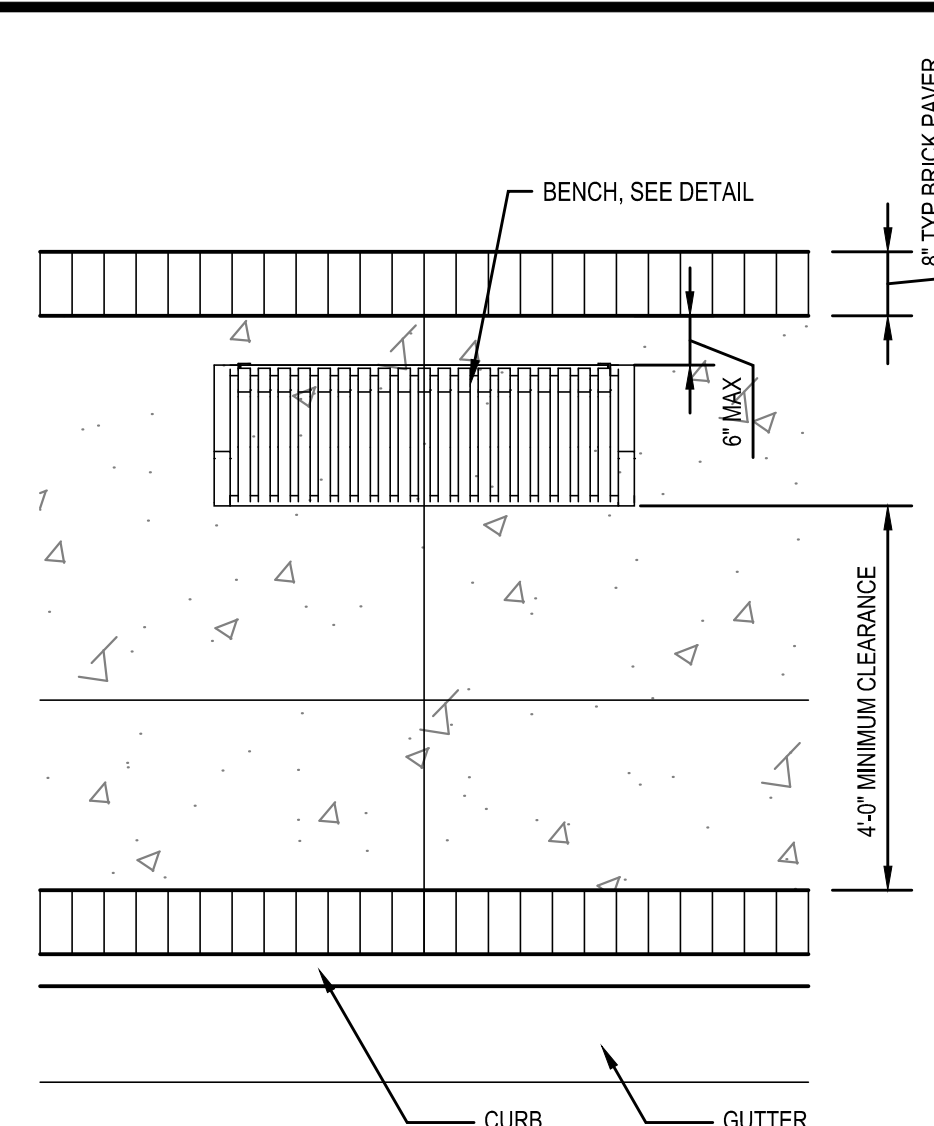
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Checked: EJD  
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Design: P:\deskm  
Plotted: September 30, 2022  
Plotted by: Ted.DeLio

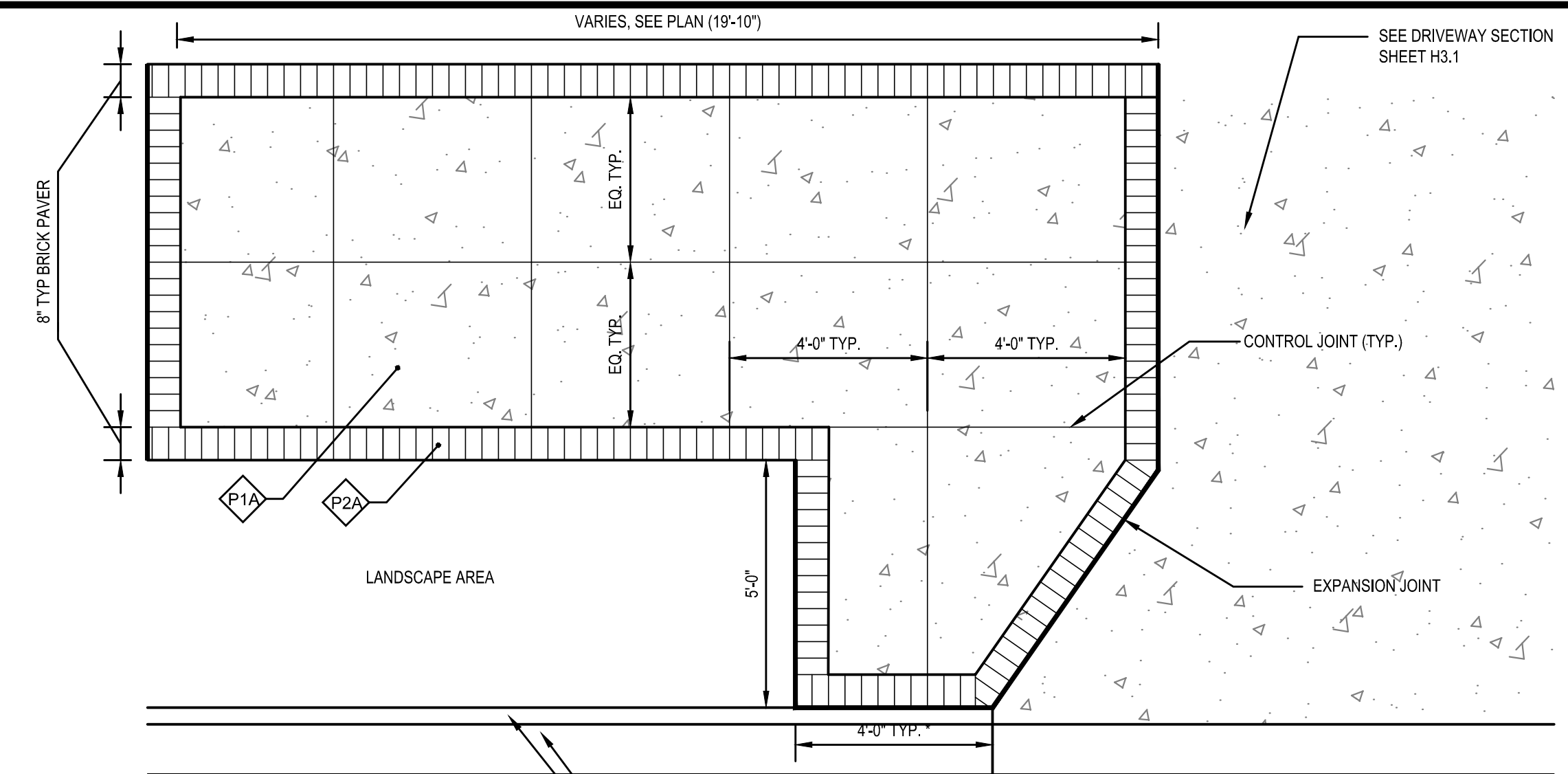
ARLINGTON COUNTY, VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL SERVICES

LANDSCAPE DETAILS  
COLUMBIA PIKE - ROUTE 244  
COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
SEGMENT C

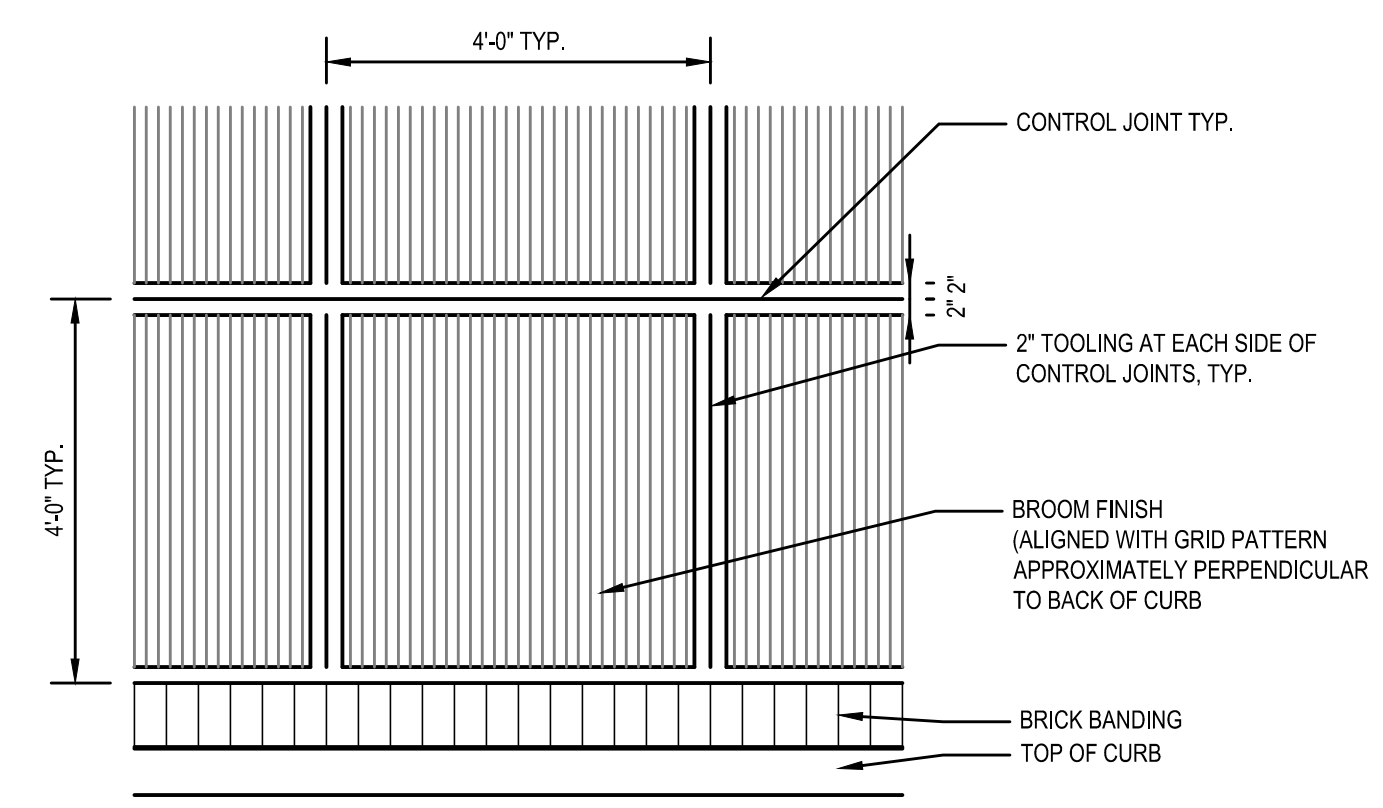
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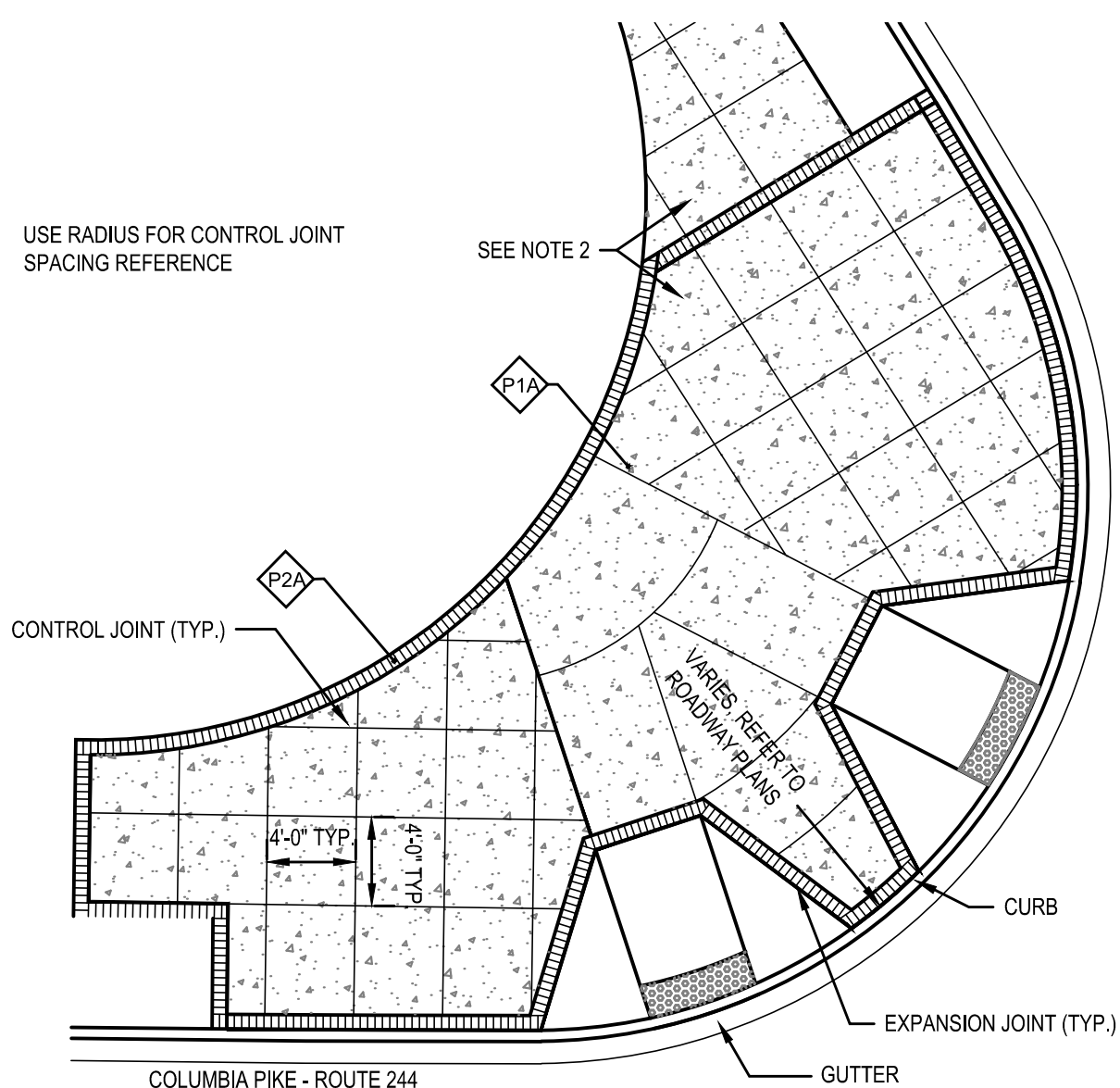
**1 TYPICAL BENCH LOCATION**  
1/2"=1'-0"



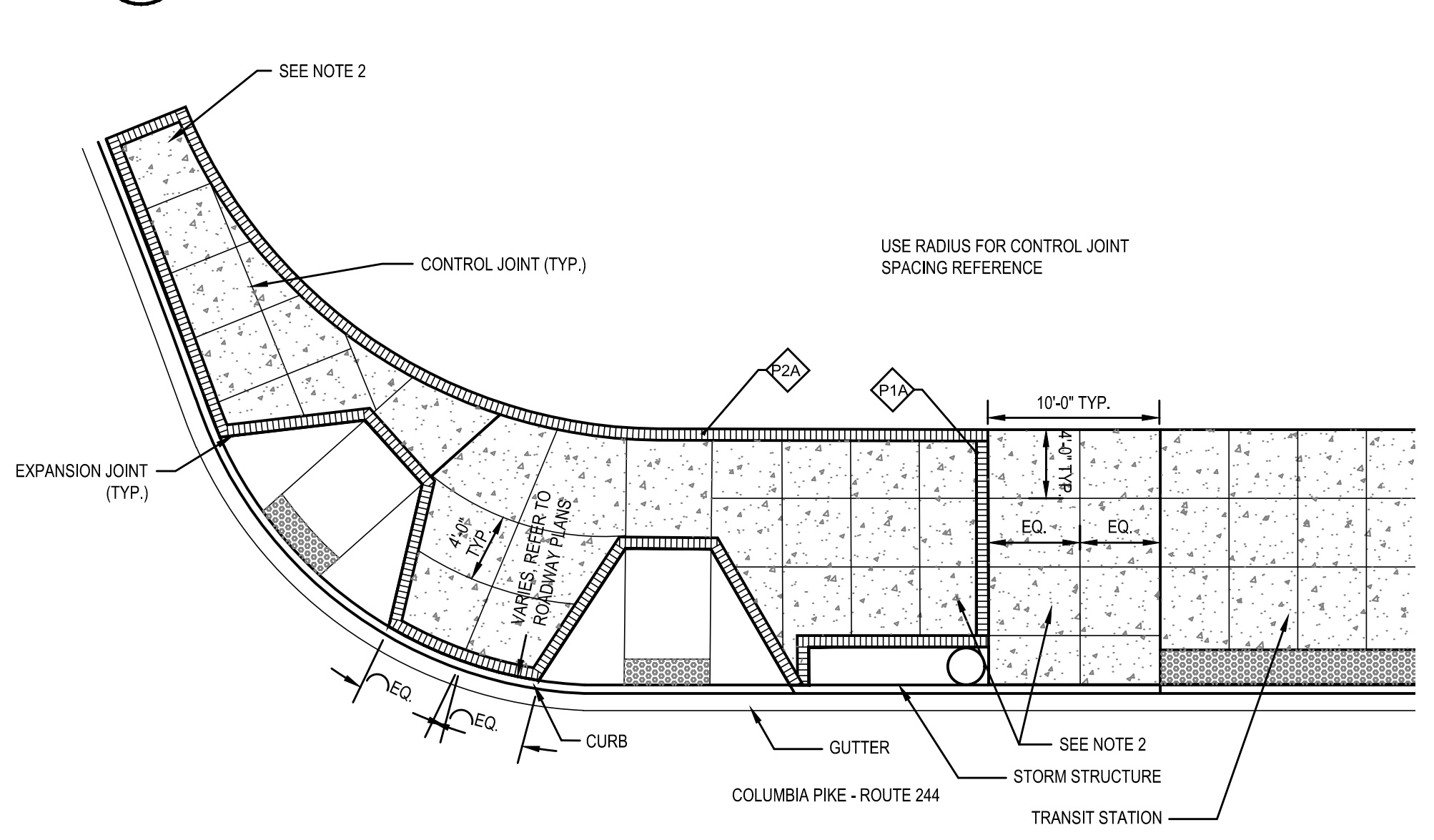
**2 TYPICAL PAVING AT DRIVEWAY**  
SCALE: 3/8"=1'-0"



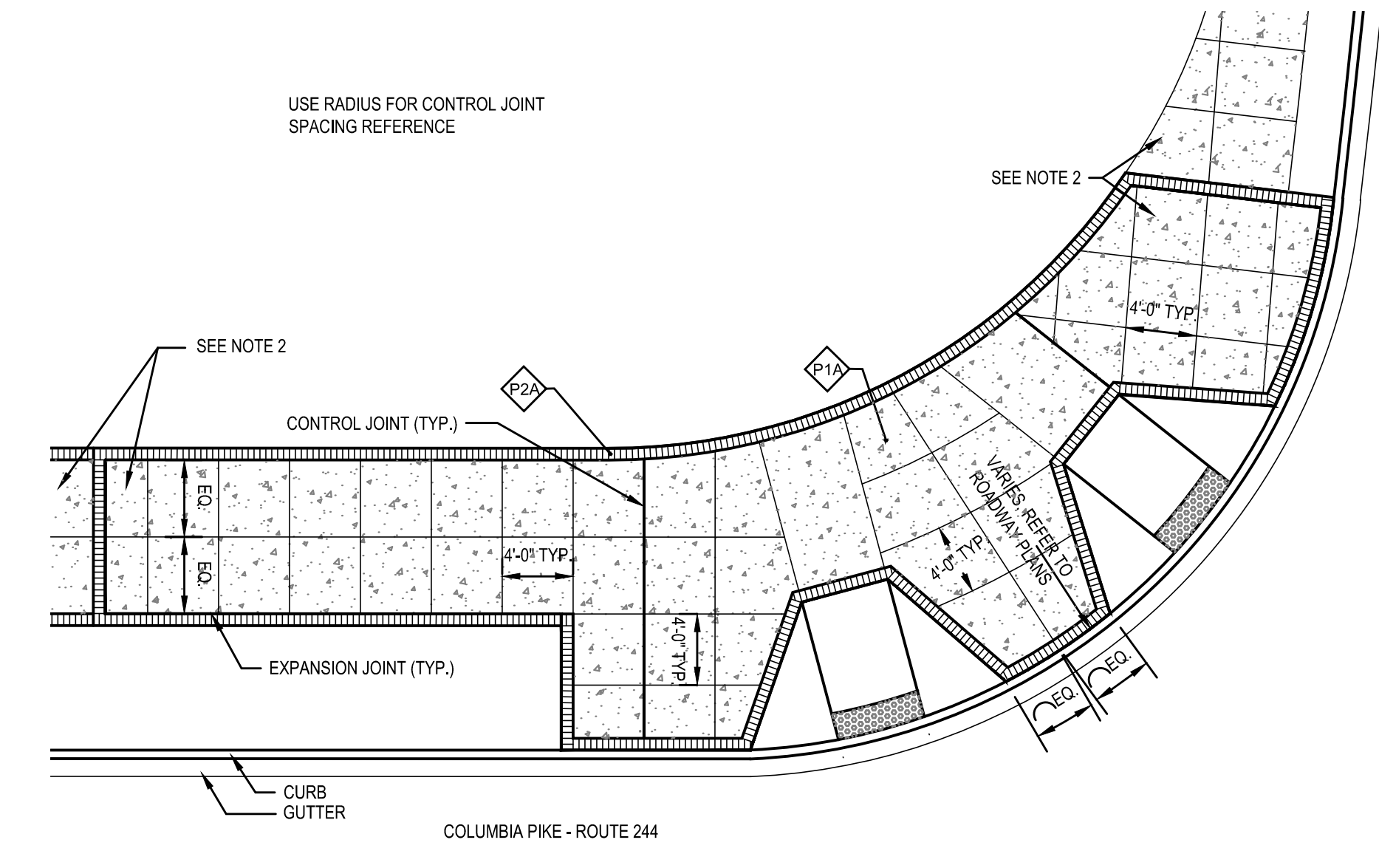
**3 TYPICAL TOOLING DETAIL**  
1/2"=1'-0"



**4 TYPICAL PAVING AT RAMP**  
1/8"=1'-0"



**5 TYPICAL PAVING AT RAMP**  
1/8"=1'-0"



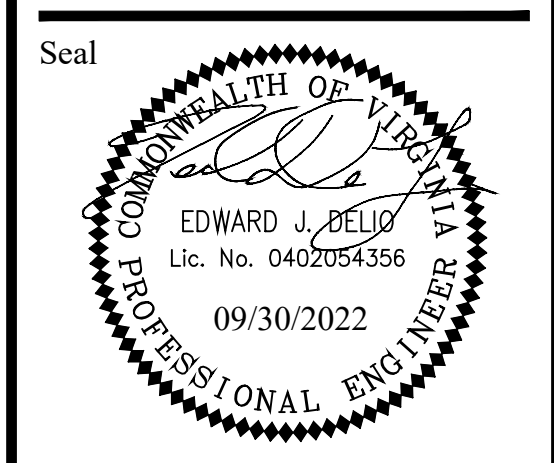
**6 TYPICAL PAVING AT RAMP**  
1/8"=1'-0"

- NOTE:
- CONTROL JOINTS BETWEEN RAMPS TO BE OFFSET FROM BACK OF CURB RADIUS
  - CONTROL JOINTS TO MATCH FROM PREVIOUS SEGMENTS
  - IF CONTROL JOINT WILL CREATE AREA LESS THAN 2'X2', NO CONTROL JOINT NECESSARY

PAVING MATERIALS LEGEND

KEY	TYPE	SIZE (NOMINAL)	COLOR	FINISH / TYPE	PATTERN	MANUFACTURER	DETAIL REF.
P1A	CONCRETE	-	-	LIGHT BROOM FINISH	-	-	-
P2A	PAVERS - SOLDIER COURSE	4" X 8"	RED	REGIMENTAL RED	SOLDIER COURSE	BELDEN, OR APPROVED EQUAL	-

**7 PAVING SCHEDULE**



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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\_\_\_\_\_

\_\_\_\_\_

Designed: KWA

Drawn: WDW

Checked: EJD

Miss Utility Transmittal #:

Filename: 010073-C-LAND-DTL.dwg

Path: \\S:\A\2022\11\08\0071 Columbia Pike Multimodal Improvements

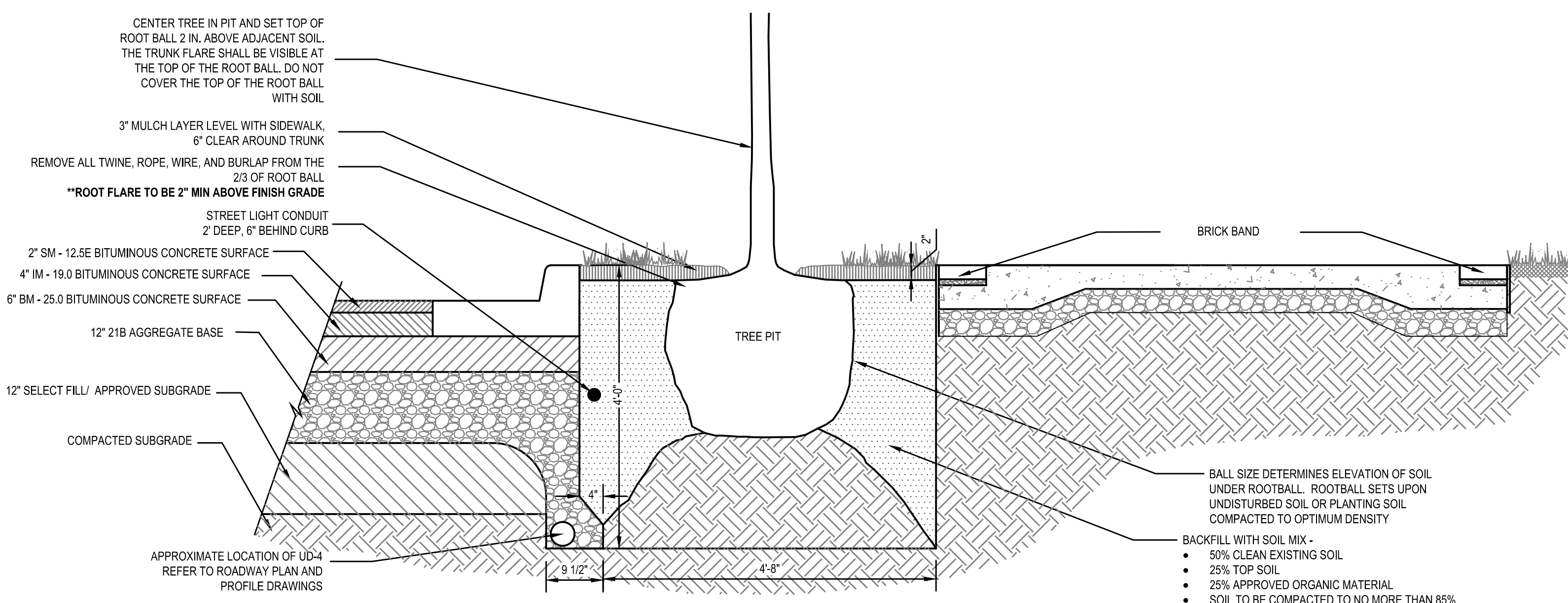
Plotted: September 30, 2022

Plotted by: Ted.DeLio

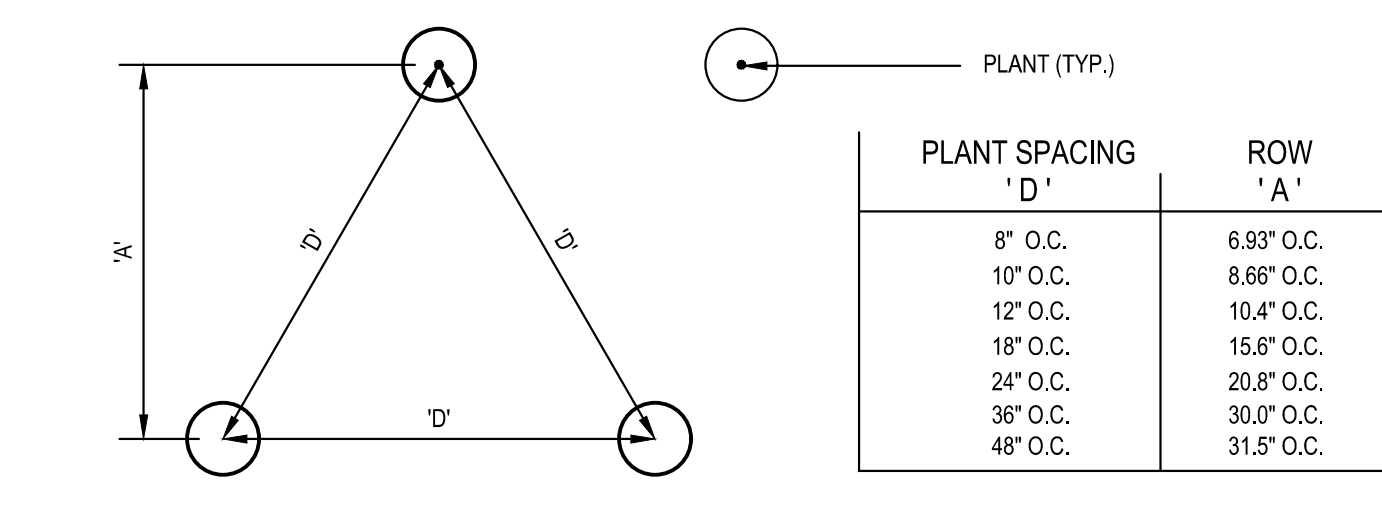
ARLINGTON COUNTY, VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL SERVICES

LANDSCAPE DETAILS  
COLUMBIA PIKE - ROUTE 244  
COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
SEGMENT C

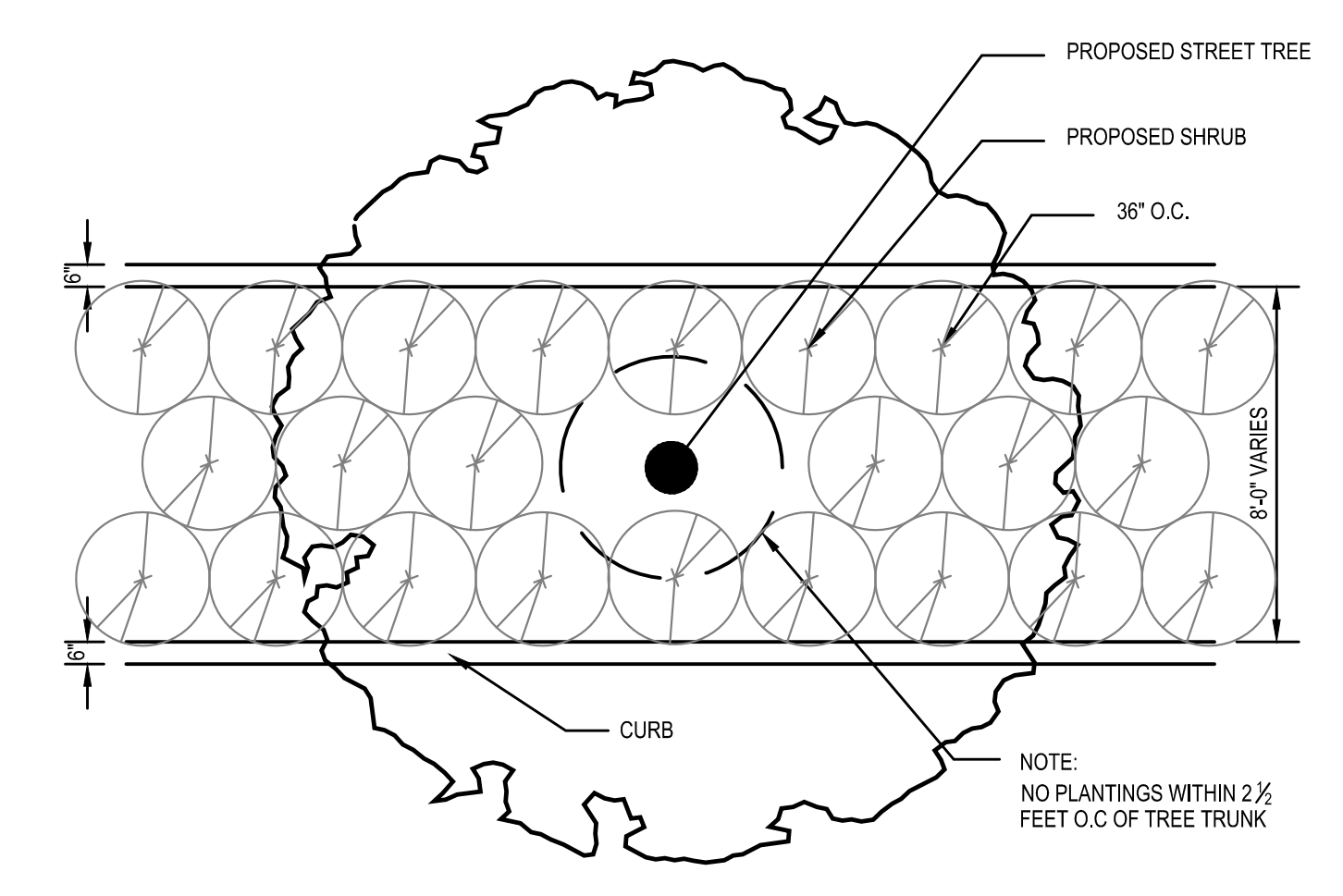
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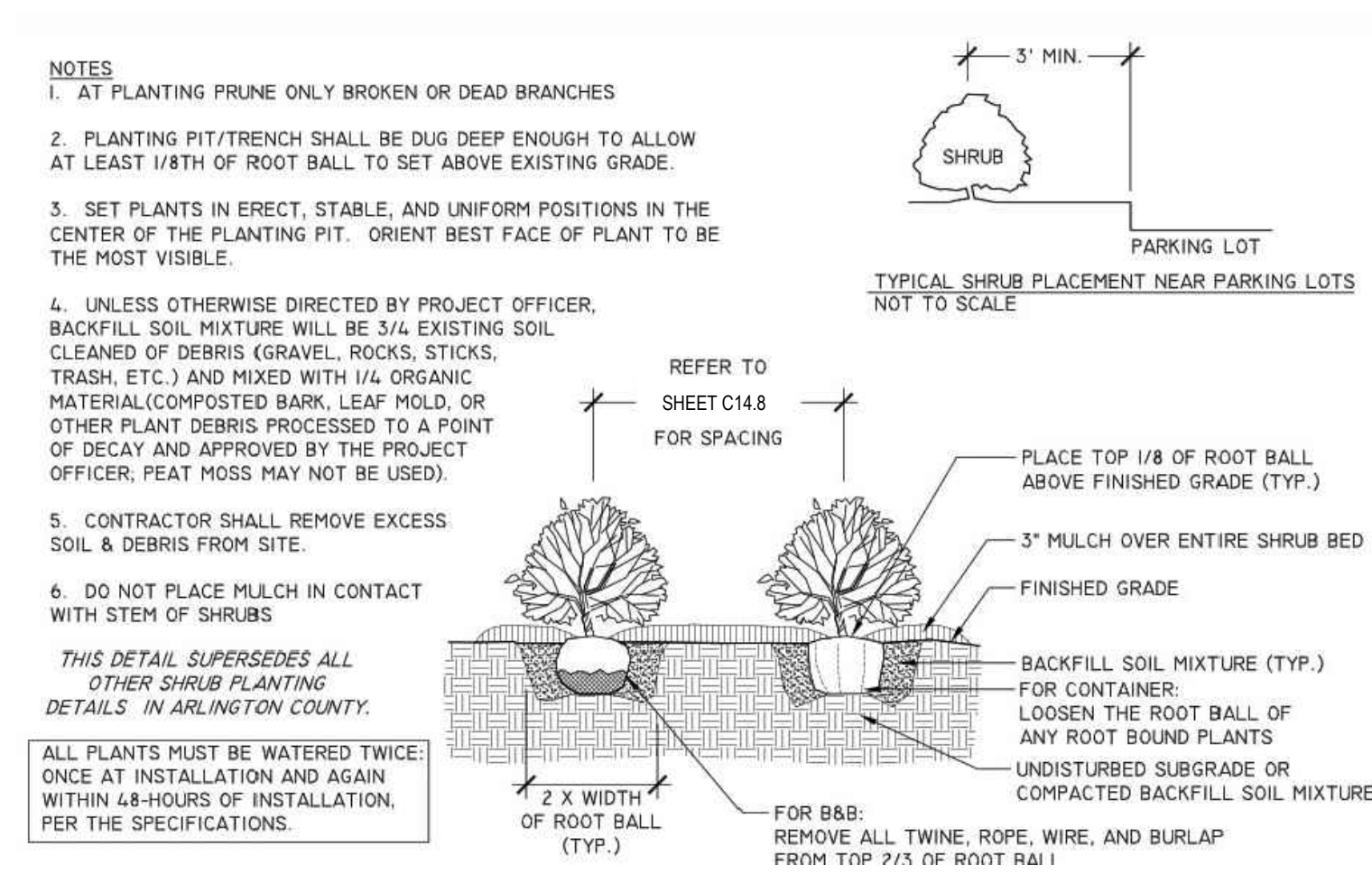
**1 STREET TREE PLANTING IN ADJACENT R.O.W.**  
Scale: 3/4"=1'-0"



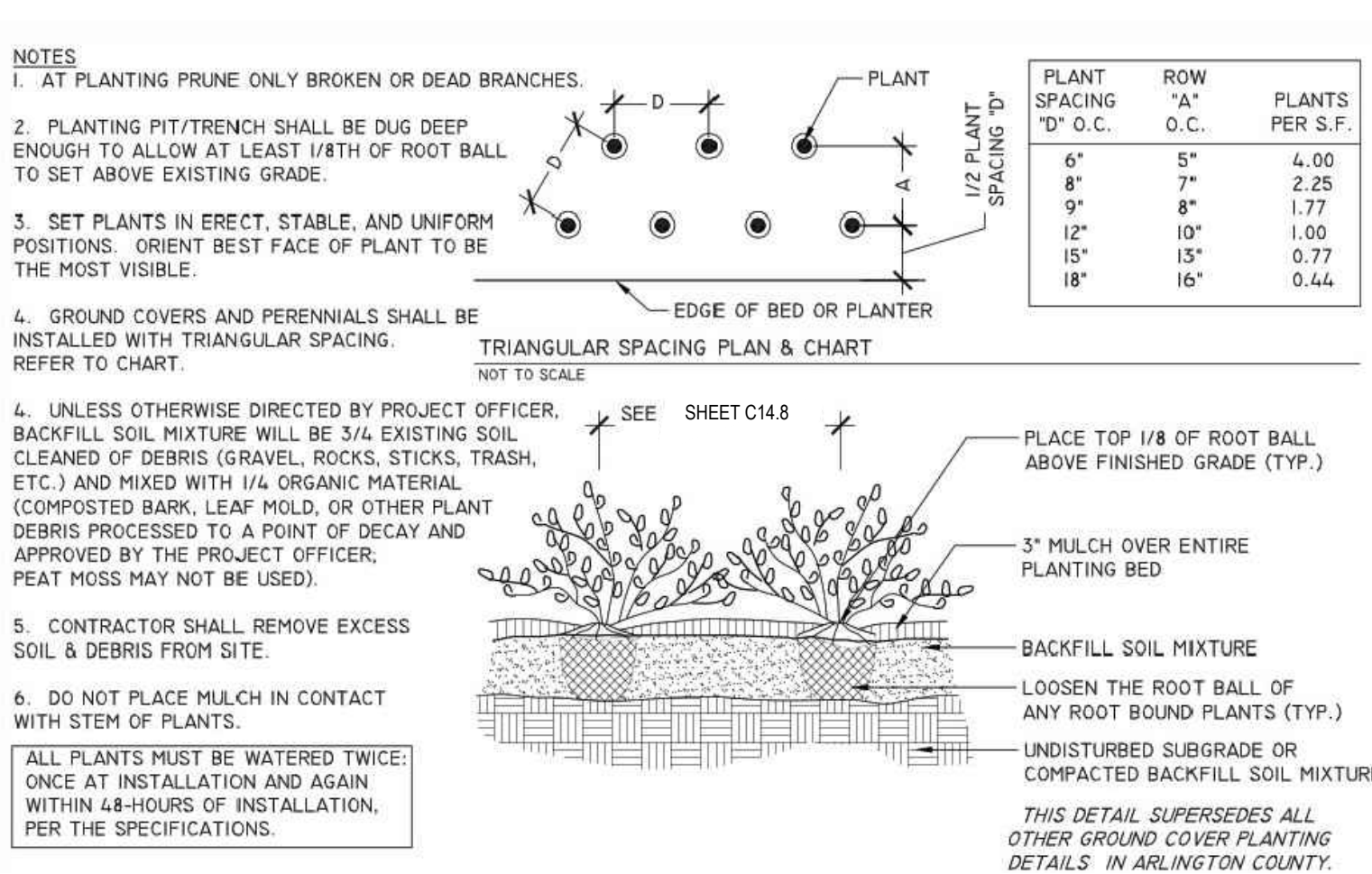
**2 TYPICAL SHRUB/GRASS PLANTING**  
1/2"=1'-0"



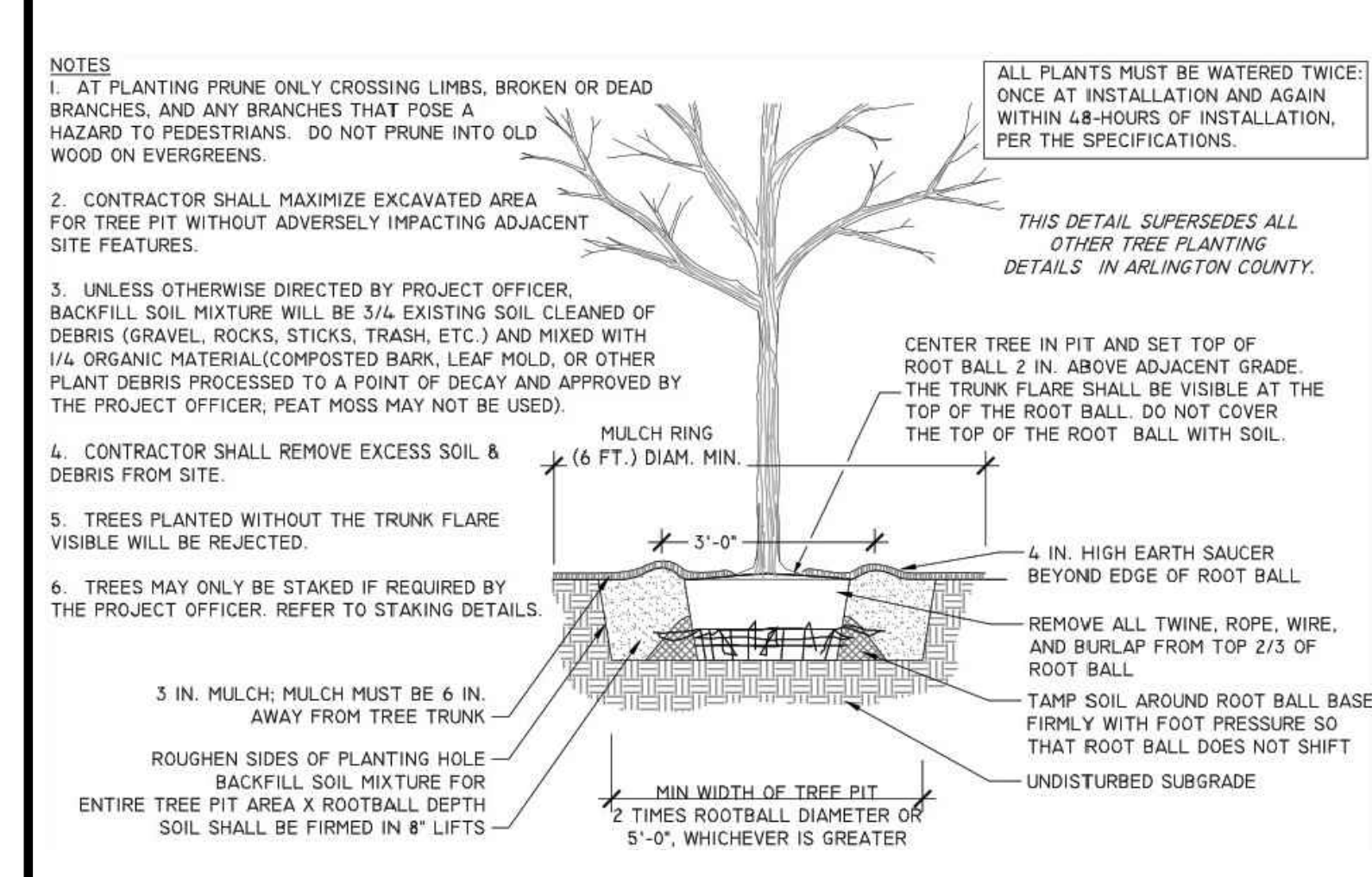
**3 TYPICAL PLANTING IN MEDIAN**  
SCALE: 1/4" = 1'-0"



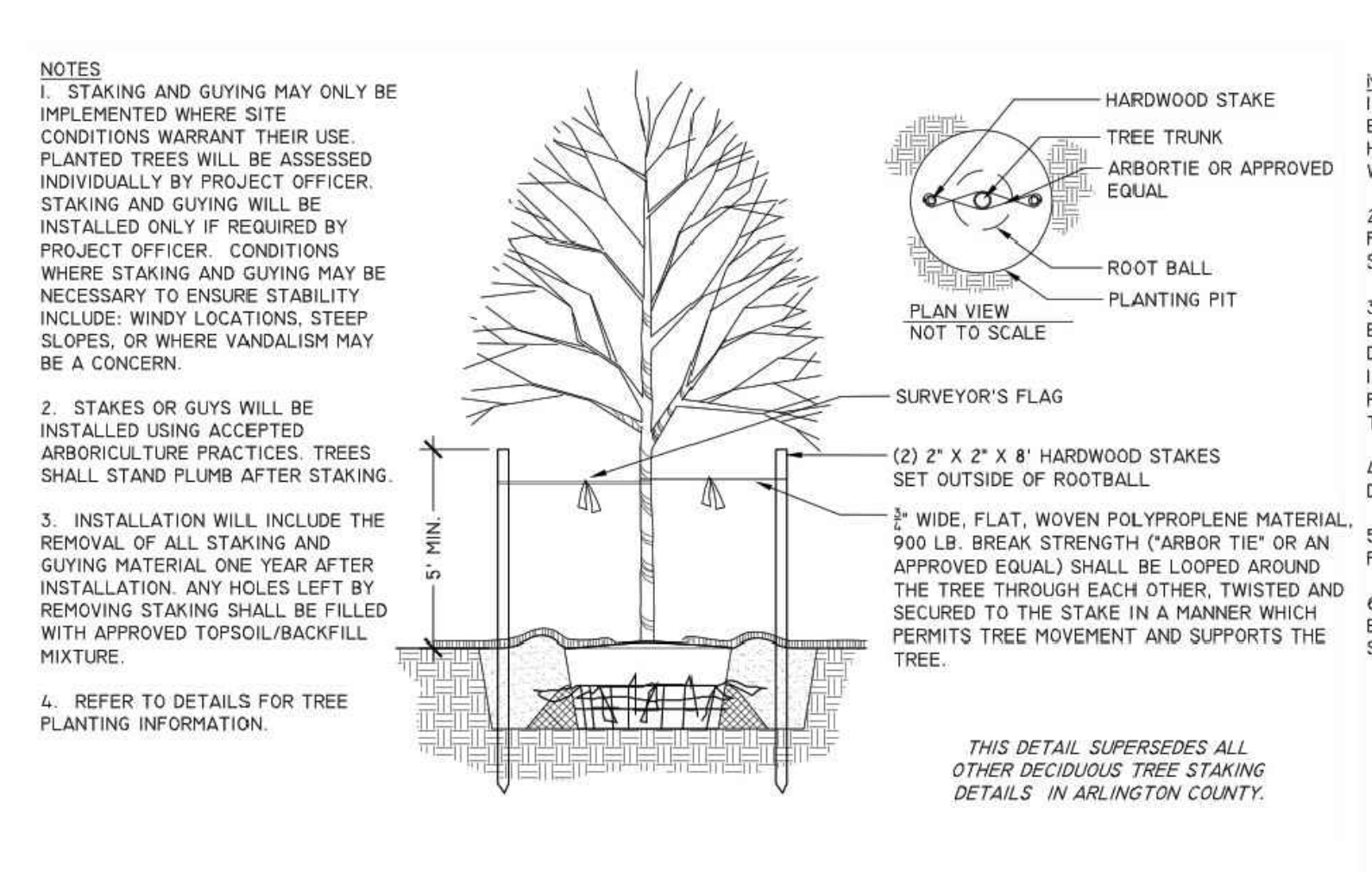
**4 SHRUB PLANTING**  
NTS



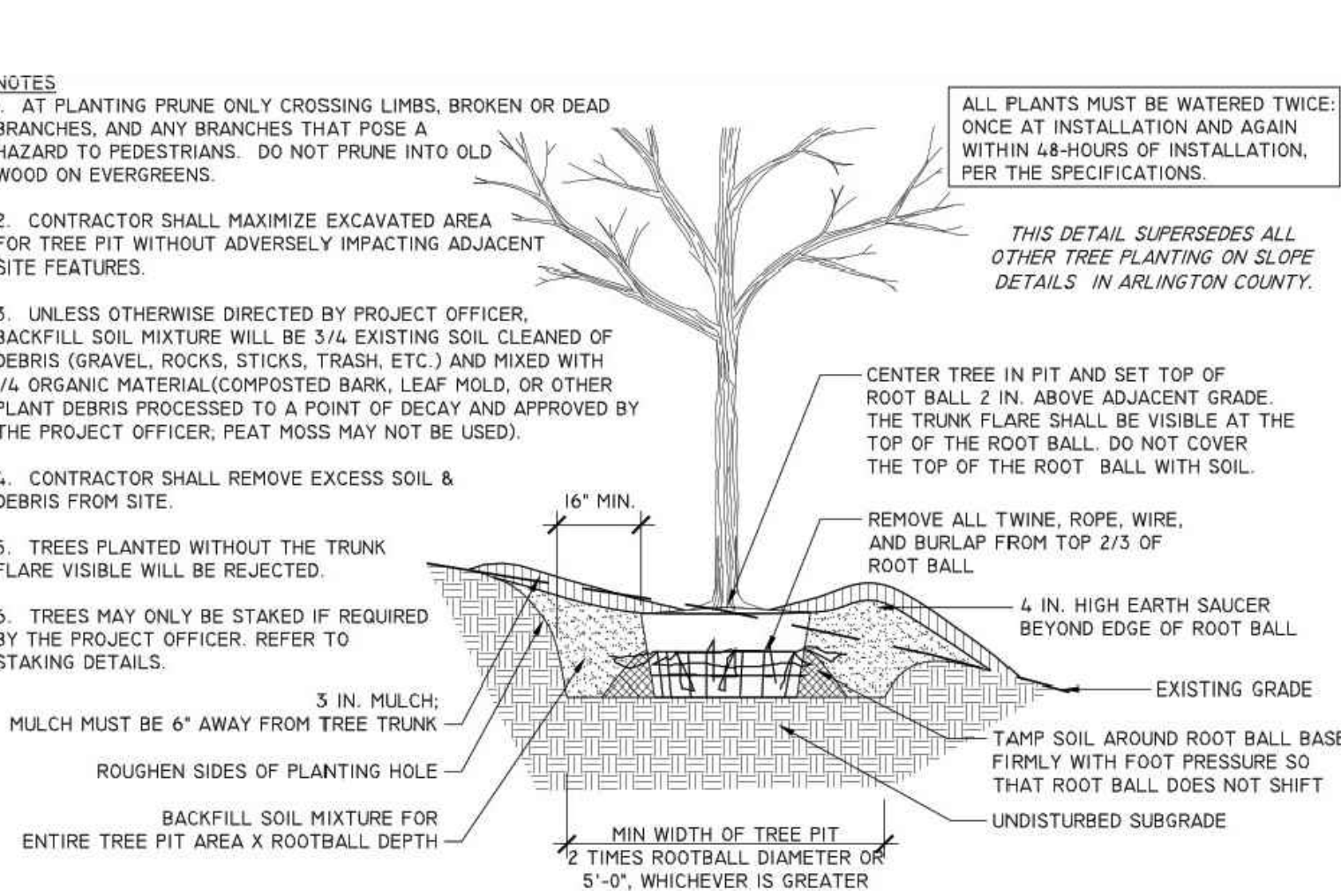
**5 GROUND COVER & PERENNIAL PLANTING**  
NTS



**6 TREE PLANTING DETAIL**  
NTS



**7 DECIDUOUS TREE STAKING**  
NTS



**8 TREE PLANTING ON SLOPE**  
NTS

OVERALL PLANT TABLE

Table with columns: KEY, QTY., BOTANICAL / COMMON NAME, SIZE, ROOT, COMMENTS. Rows include CANOPY TREES / EVERGREEN TREES (NS, QB, QP) and ORNAMENTAL TREES (CO). Below is a table for SHRUBS, GRASSES & PERENNIALS (PAN, RHU).

SEGMENT C TREE CALCULATIONS

Table with columns: Segment A, Segment C, Segment D, Segment F, Segment H, Total. Rows include Trees Removed, Trees Required for Reforestation, Trees Provided (Canopy, Ornamental & Evergreen), and Delta.

- 1. Overall Reforestation for Segment C is deficient by -8 Trees.
2. One Shade Tree or large Evergreen Tree shall be equivalent to One Reforestation Tree
3. Three Ornamental Trees or Small Evergreen Trees shall be equivalent to One Reforestation Tree

Soil Volume Tabulations

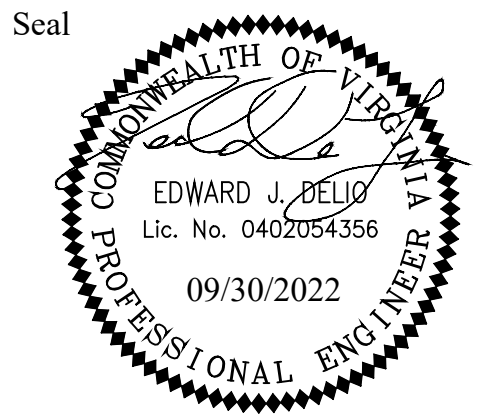
Large table with columns: Tree No., Tree Type, Surface Area, Depth, Total Soil Volume, Comments. Lists tree volumes and soil requirements for various tree types and sizes.

NOTE: SOIL VOLUME TABULATIONS PROVIDED BY ARLINGTON COUNTY SEPTEMBER 2022

PLANTING SPECIFICATIONS

- 1. QUALITY ASSURANCE: A. Landscape planning and related work shall be performed by a firm with a minimum of five years experience... B. Applicable Specifications and Standards: Arlington County Zoning Ordinance...
2. SUBMITTALS: Submit the following to the Owner's Representative prior to beginning work: A. Copies of manufacturer's data for all materials required...
3. DELIVERY, HANDLING, AND STORAGE: A. Deliver packaged materials in manufacturer's unopened containers or bundles, fully identified with name, brand, type, weight, and analysis...
4. DRAINAGE: Before planting, determine that areas to receive plant material have adequate subdrainage...
5. PLANTING DATES: Planting shall be done only within the following dates except as approved by Owner...
6. MATERIALS FOR PLANTING: A. Topsoil / Planting Soil shall be a fertile, friable natural loam, uniform in composition... B. Clay Loam to Sandy Clay Loam Soil shall be a fertile, friable natural loam...
7. PLANT MATERIALS: (Refer to the PLANT LIST on the drawings for specific types and quantities of plants).

- C. Plants shall be sound, healthy and vigorous, well branched and densely foliated when in leaf...
D. Trees, which have a damaged or crooked leader, or multiple leaders, unless specified in the plant list, will be rejected...
E. Plants shall conform to measurements specified in the plant schedules except that plants larger than specified may be used if acceptable to the Landscape Architect or owner...
8. SOIL MIXING PROCEDURES: A. Topsoil used in sand/soil mixes shall be screened or shredded prior to mixing in sands... B. SOIL INSTALLATION - GENERAL PROCEDURES: A. Examine the areas and conditions where soil mix is to be installed... B. Prepare the subgrade by roughening the top 3" of the subsoil...
9. INSPECTION: A. Examine the areas and conditions where soil mix is to be installed... B. Cooperate with other Contractors and trades working in and adjacent to other work areas...
10. SOIL INSTALLATION - GENERAL PROCEDURES: A. If subgrade soil compaction exceeds 80%, existing soil shall be ripped to a depth of 12 inch to alleviate compaction...
11. INSTALLATION OF SOIL MIX FOR LAWN AREAS ON GRADE: A. Soil Mix for Lawns on Grade shall consist of 10% compost and 90% topsoil... B. Loosen subgrade lawn areas to a minimum of 3"...
12. INSTALLATION OF SOIL MIX FOR TREE PITS ON GRADE: A. Confirm that native subsol drains at a rate of at least 1/2" per hour... B. Install 3/8" of Soil Mix for Tree Pit Backfill on Grade...
13. INSTALLATION OF SOIL MIX FOR MULCHED SHRUB AND PERENNIAL BEDS: A. Confirm that native subsol drains at a rate of at least 1/2" per hour... B. Install 14" of Soil Mix for Mulched Shrub and Perennial Beds on Grade...
14. EROSION CONTROL MATERIAL AND PLANTING ON STEEP SLOPES: A. Material meeting the requirements of the specifications shall be installed and maintained on the designated areas... B. Excavation: Excavate all tree pits and planting areas to the width and depth shown...
15. GENERAL PLANT INSTALLATION: A. Excavation: Excavate all tree pits and planting areas to the width and depth shown... B. Erosion control materials with one inch nominal openings in accordance with manufacturer's instructions...
16. PERMANENT SEEDING OR SODDING FOR GRASS AREAS: A. Lawn Seed or Sod varieties shall be an improved variety turf-type tall fescue blend... B. Refer to the Virginia Erosion and Sediment Control Handbook...



Approvals Date

Design Team Engineer Supervisor

Construction Management Supervisor

Water, Sewer, Streets Bureau Chief

Transportation Director

Project Manager

Revisions Date

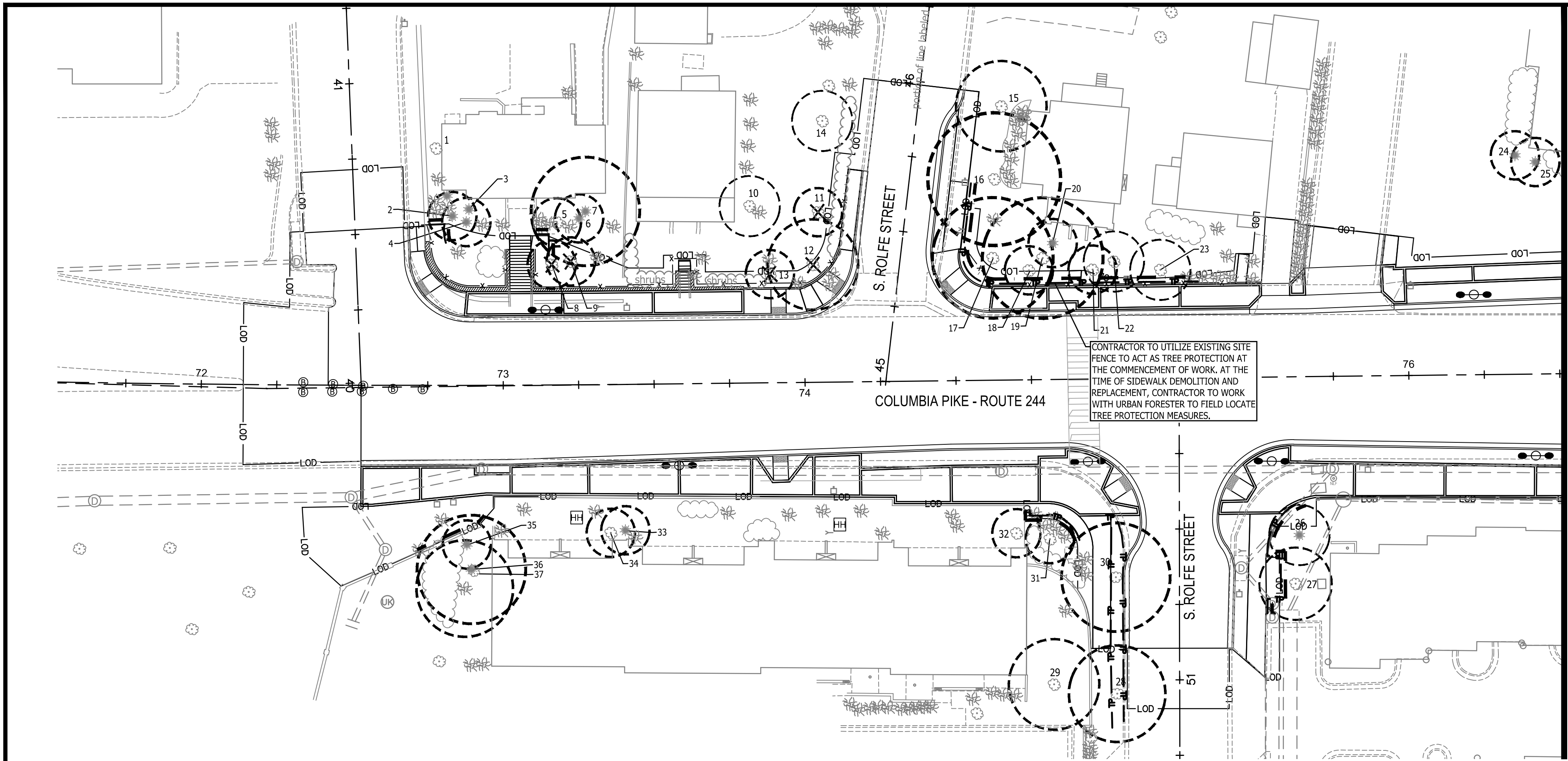
Designed: KWA
Drawn: WDW
Checked: EJD
Miss Utility Transmittal #:

Filename: 010073-C-LAND-PLNT-LST.dwg
Path: I:\Final Design of Columbia Pike Region\Projects\C11.1 - 12% Design\Planets
Plotted: September 30, 2022
Plotted by: Ted.DeLio

ARLINGTON COUNTY, VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES. PLANT LIST COLUMBIA PIKE - ROUTE 244 COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS SEGMENT C. SCALE: HOR, N/A VERT, N/A SHEET: C14.8 of C14.12

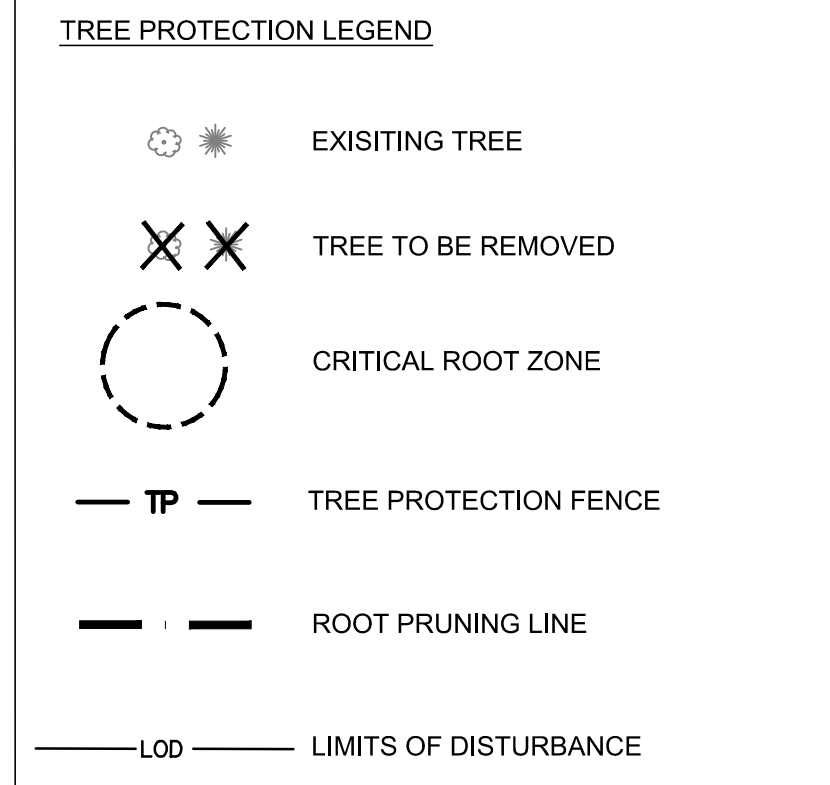
ARLINGTON VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES logo and signature of Luis Araya, Bureau Chief, Development Services, dated 11/15/2022.



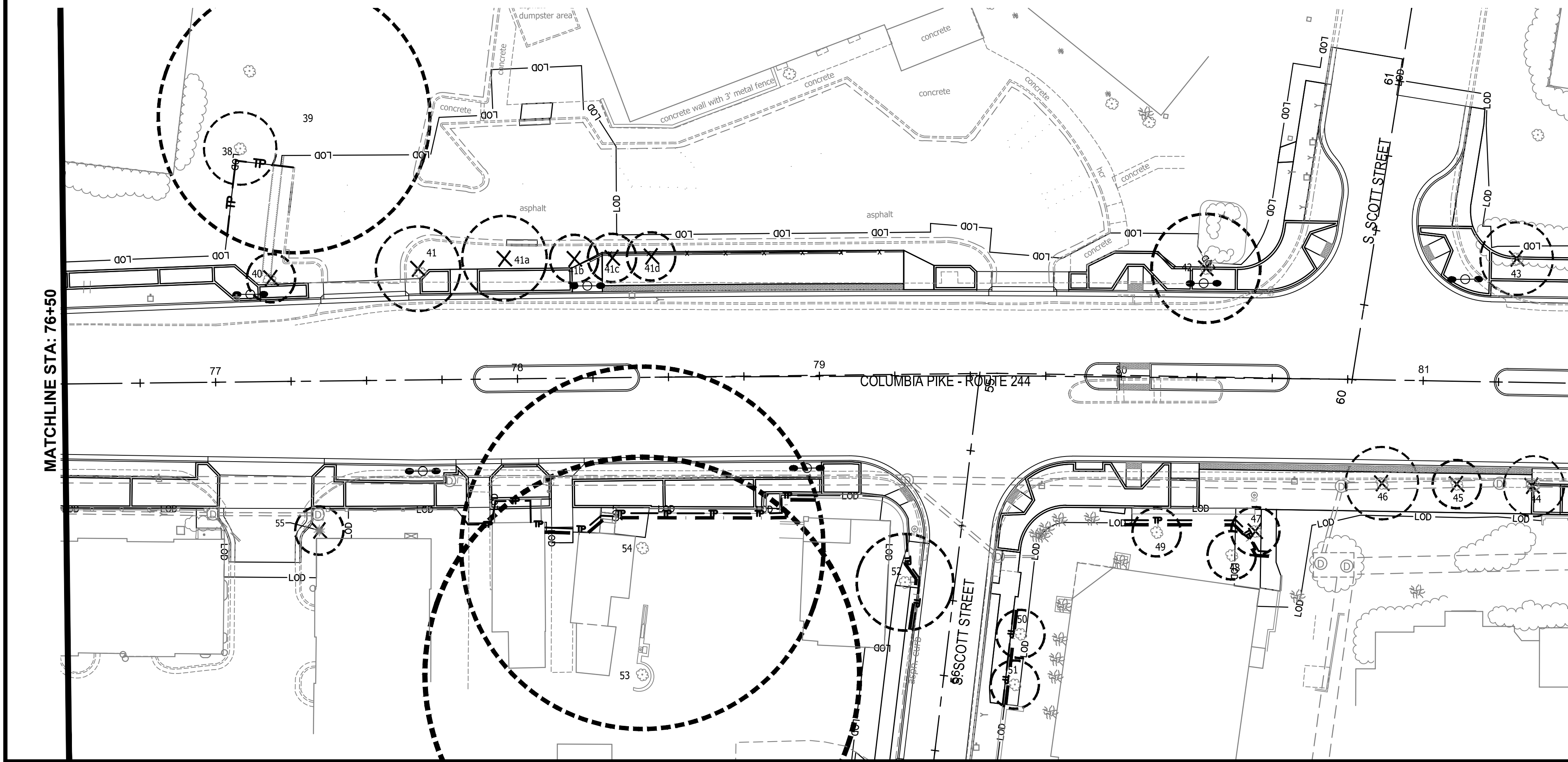


MATCHLINE STA: 76+50

CONTRACTOR TO UTILIZE EXISTING SITE FENCE TO ACT AS TREE PROTECTION AT THE COMMENCEMENT OF WORK. AT THE TIME OF SIDEWALK DEMOLITION AND REPLACEMENT, CONTRACTOR TO WORK WITH URBAN FORESTER TO FIELD LOCATE TREE PROTECTION MEASURES.

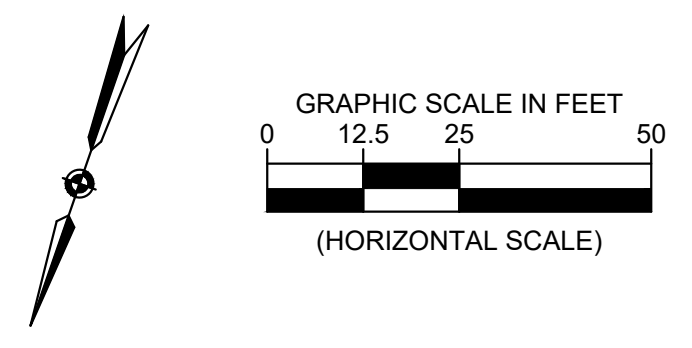


- TREE PROTECTION NOTES:**
- FOR ROOT PRUNING INFORMATION, SEE DETAIL 2 SHEET C14.11
  - URBAN FORESTER TO BE CALLED AT 703-228-1863, 72 HOURS BEFORE CONSTRUCTION, TO INSPECT TREE PROTECTION.
  - URBAN FORESTER MAY REQUEST NECESSARY ADJUSTMENTS TO THE TREE PROTECTION FENCES INSTALLED BY THE CONTRACTOR DURING CONSTRUCTION TO PROPERLY PROTECT THE EXISTING TREES. GRADING IN THE CRITICAL ROOT ZONE MAY BE ALLOWED AFTER CONSULTING WITH AND OBTAINING APPROVAL BY THE URBAN FORESTER.



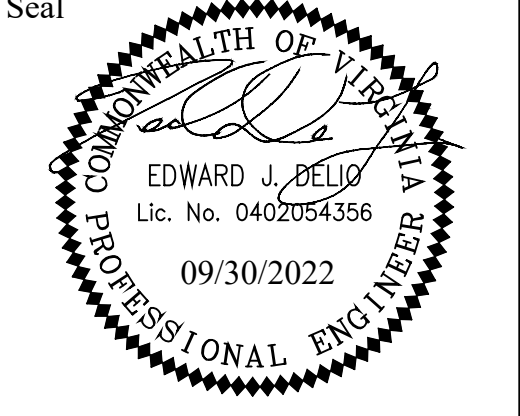
MATCHLINE STA: 76+50

MATCHLINE STA: 81+50 - SEE SHEET C14.10



**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»Horn**  
 Kimley-Horn and Associates, Inc.  
 © 2022 KIMLEY-HORN AND ASSOCIATES, INC.  
 11400 Commerce Park Drive, Suite 400  
 Reston, Virginia 20191  
 Phone: 703-674-1500  
 Fax: 703-674-1590



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

Revisions	Date

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

Filename: 010073-C-LAND-TREE PROTECTION.dwg  
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 Plotted: September 30, 2022  
 Plotted by: Ted.DeLio

ARLINGTON COUNTY, VIRGINIA  
 DEPARTMENT OF ENVIRONMENTAL SERVICES

LANDSCAPE CONSERVATION PLAN - TREE PROTECTION PLAN  
 COLUMBIA PIKE - ROUTE 244  
 COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
 SEGMENT C  
 STA. 71+50 TO STA. 81+50

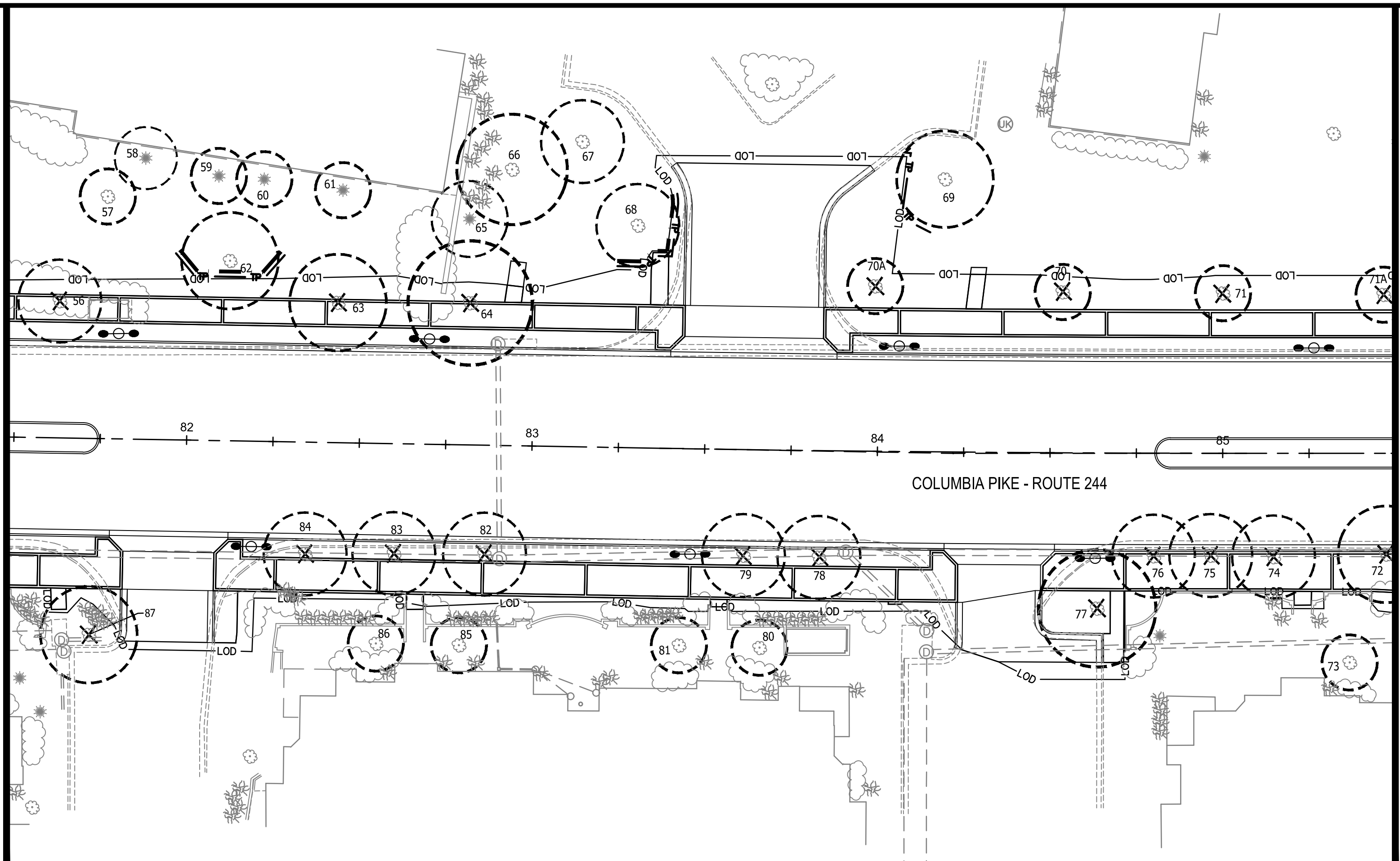
SCALE: HOR. N/A VERT. N/A	SHEET: C14.9 of C14.12
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**ARLINGTON VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL SERVICES

*Luis Araya*  
 LUIS ARAYA  
 BUREAU CHIEF, DES - DEVELOPMENT SERVICES

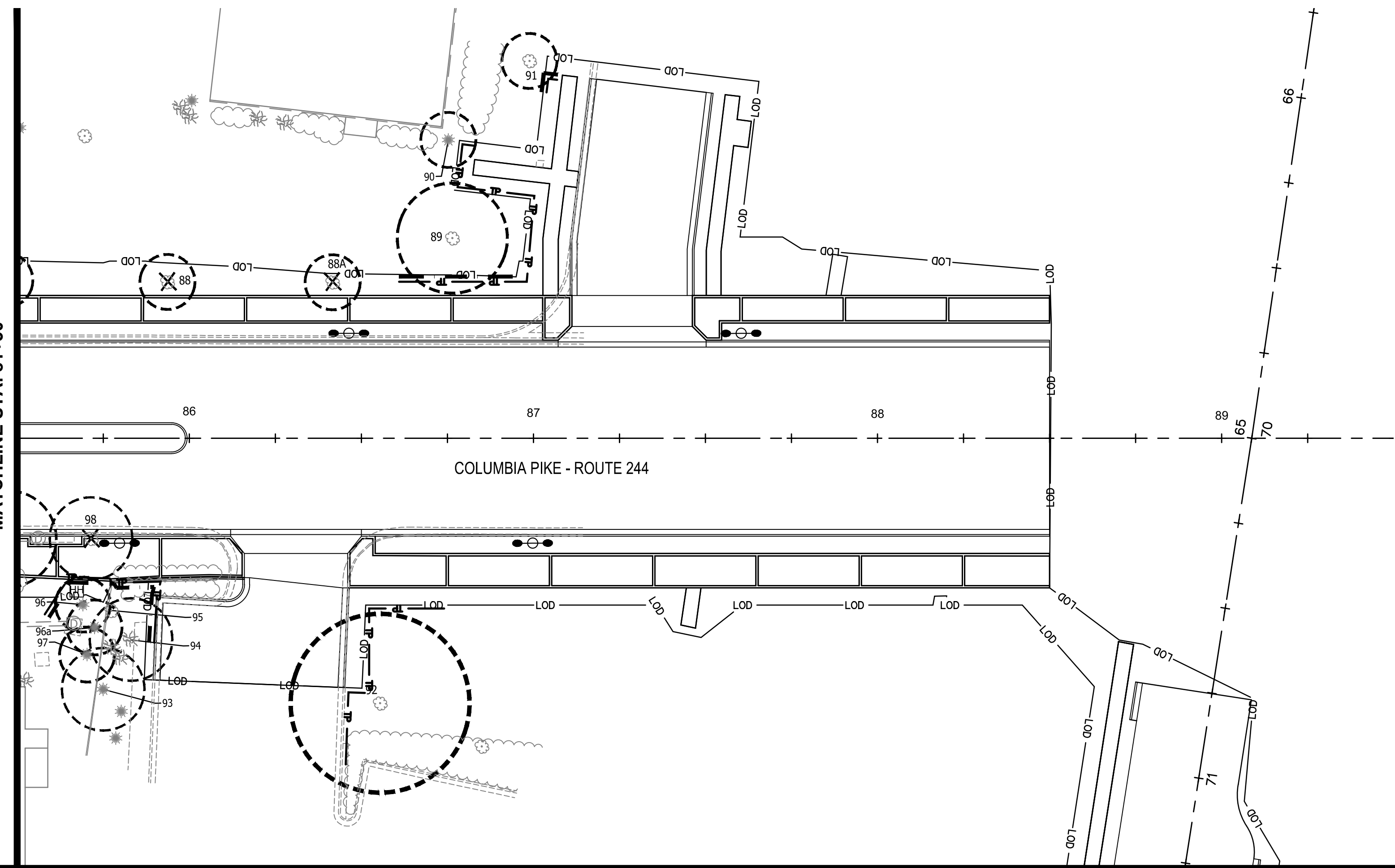
11/15/2022  
 APPROVAL DATE

MATCHLINE STA: 81+50 - SEE SHEET C14.9



MATCHLINE STA: 86+50

MATCHLINE STA: 81+50



**TREE PROTECTION LEGEND**

- EXISTING TREE
- TREE TO BE REMOVED
- CRITICAL ROOT ZONE
- TREE PROTECTION FENCE
- ROOT PRUNING LINE
- LIMITS OF DISTURBANCE

**TREE PROTECTION NOTES:**

- FOR ROOT PRUNING INFORMATION, SEE DETAIL 2 SHEET C14.11
- URBAN FORESTER TO BE CALLED AT 703-228-1863, 72 HOURS BEFORE CONSTRUCTION, TO INSPECT TREE PROTECTION.
- URBAN FORESTER MAY REQUEST NECESSARY ADJUSTMENTS TO THE TREE PROTECTION FENCES INSTALLED BY THE CONTRACTOR DURING CONSTRUCTION TO PROPERLY PROTECT THE EXISTING TREES. GRADING IN THE CRITICAL ROOT ZONE MAY BE ALLOWED AFTER CONSULTING WITH AND OBTAINING APPROVAL BY THE URBAN FORESTER.

**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-Horn and Associates, Inc.**  
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 11400 Commerce Park Drive, Suite 400  
 Reston, Virginia 20191  
 Phone: 703-674-1500  
 Fax: 703-674-1500

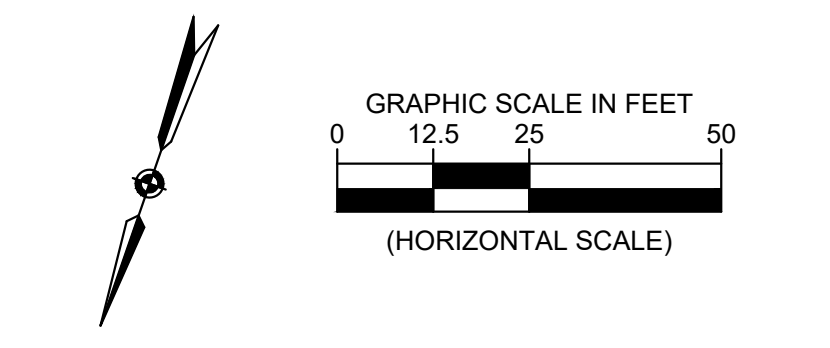
Seal  

 EDWARD J. DELIO  
 Lic. No. 0402054356  
 09/30/2022  
 PROFESSIONAL ENGINEER

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

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

Filename: 010073-C-LAND-TREE PROTECTION.dwg  
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 Design\PlanSheet  
 Plotted: September 30, 2022  
 Plotted by: Ted.DeLio



ARLINGTON COUNTY, VIRGINIA  
 DEPARTMENT OF ENVIRONMENTAL SERVICES

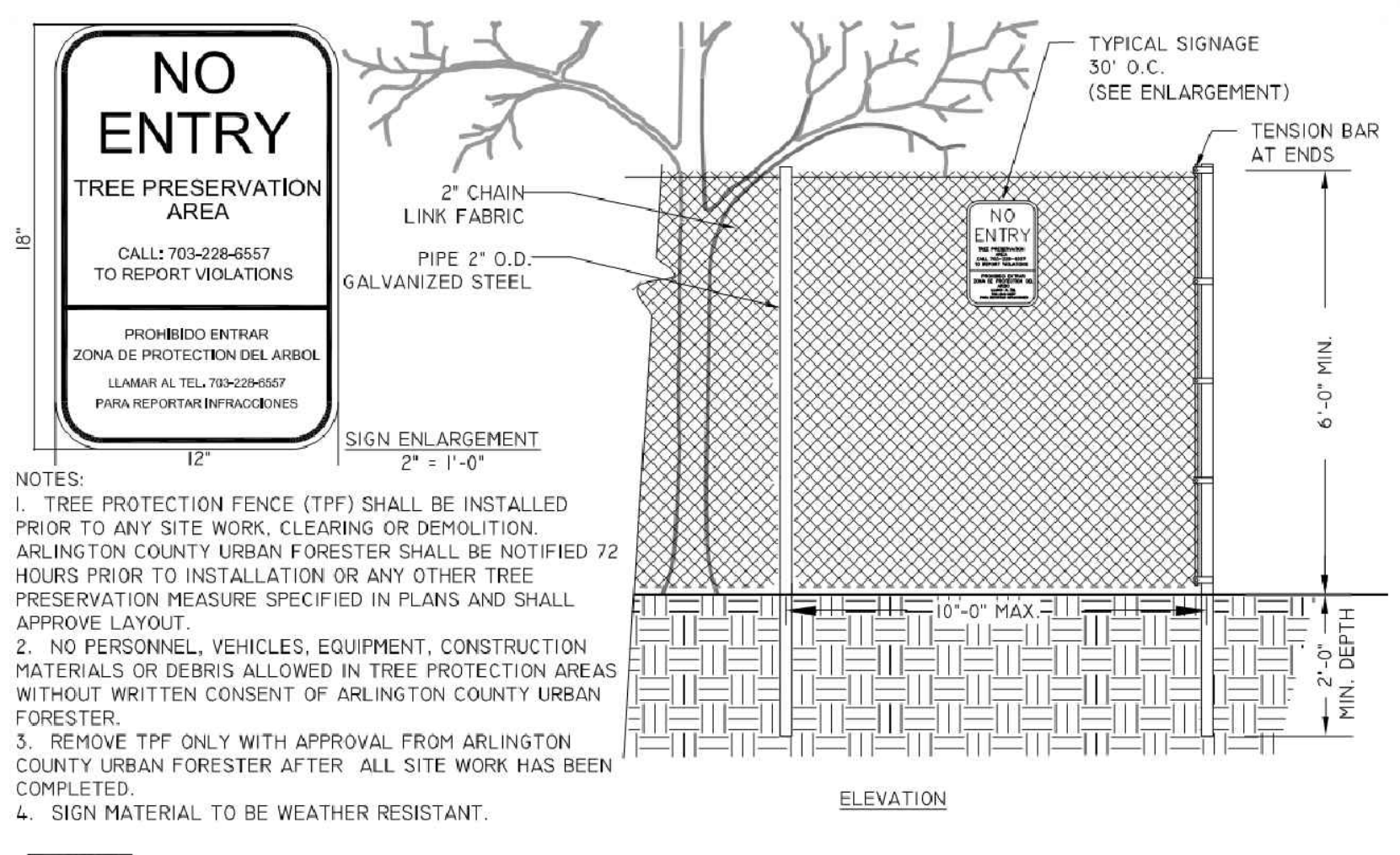
LANDSCAPE CONSERVATION PLAN - TREE PROTECTION PLAN  
 COLUMBIA PIKE - ROUTE 244  
 COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
 SEGMENT C  
 STA. 81+50 TO STA. 89+50

SCALE: HOR. 1" = 25' VERT. N/A	SHEET: C14.10 of C14.12
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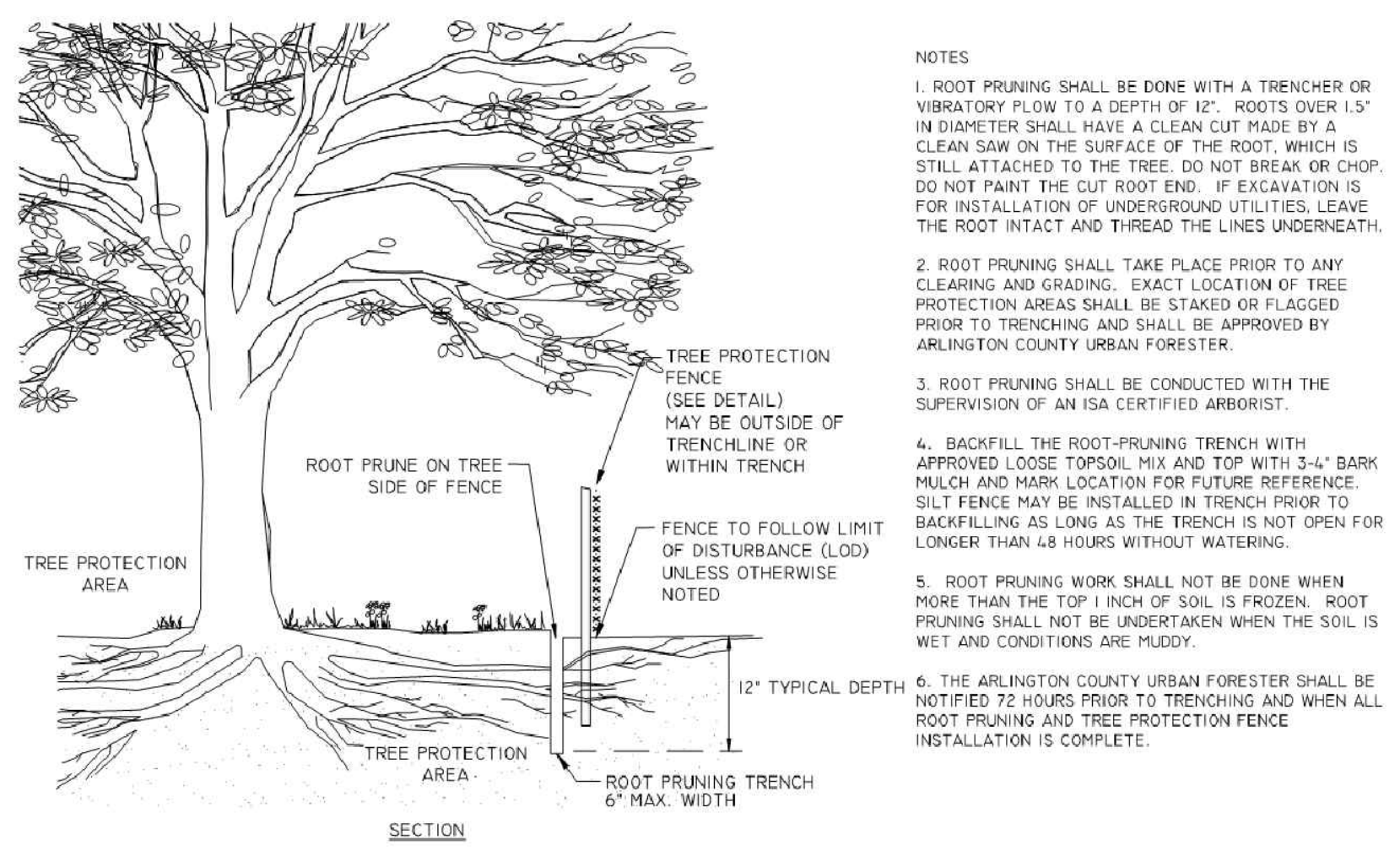
**ARLINGTON VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL SERVICES

*Rishi D. Aranya*  
 RISHI D. ARANYA  
 BUREAU CHIEF, DES. DEVELOPMENT SERVICES

11/15/2022  
 APPROVAL DATE



**6' CHAIN LINK TREE PROTECTION FENCE**  
 311300.1 (2016) (02231.1)  
 1/2" = 1'-0"  
 ARLINGTON DPR

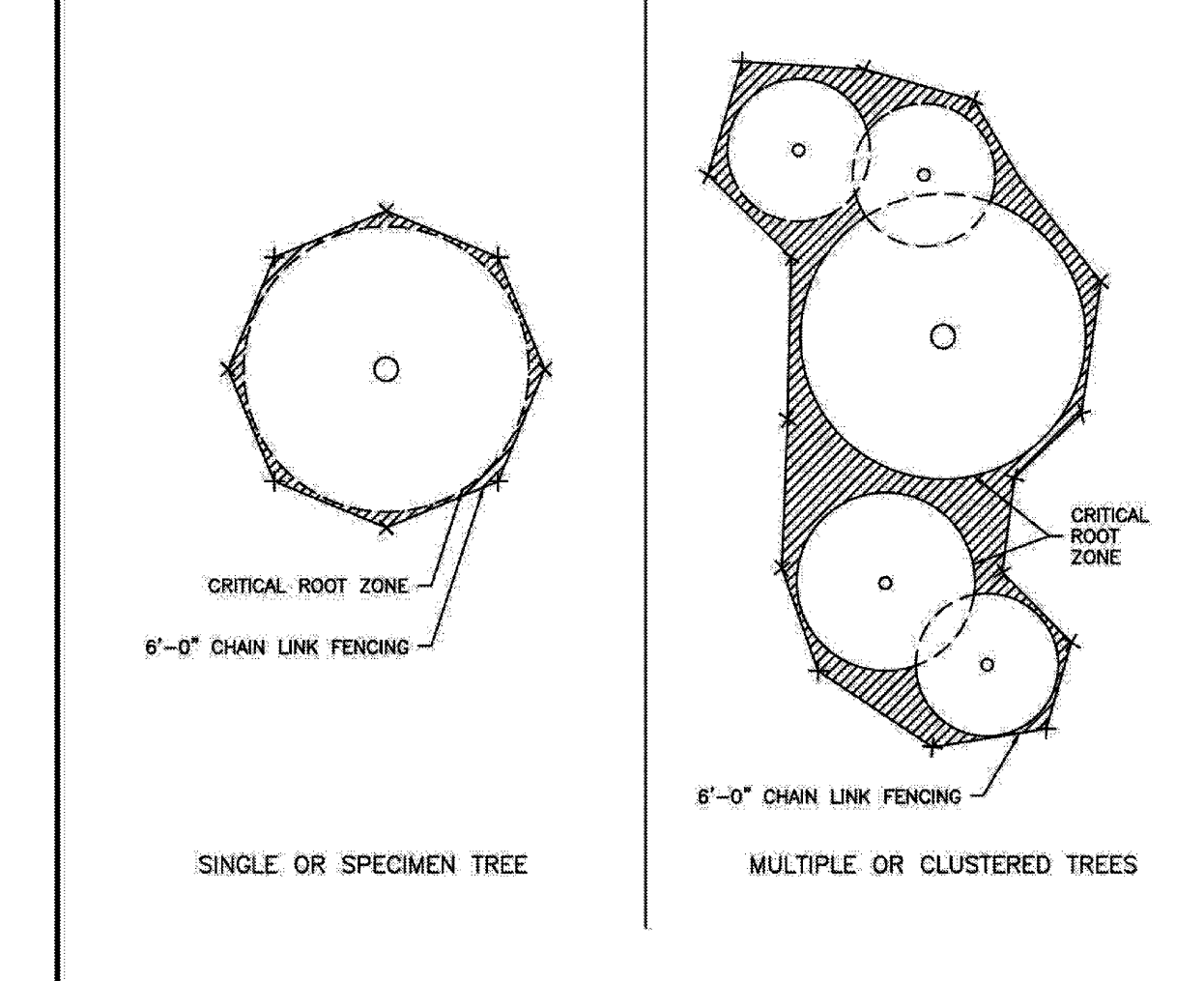


**ROOT PRUNING**  
 311300.5 (2019)  
 N.T.S.  
 ARLINGTON DPR

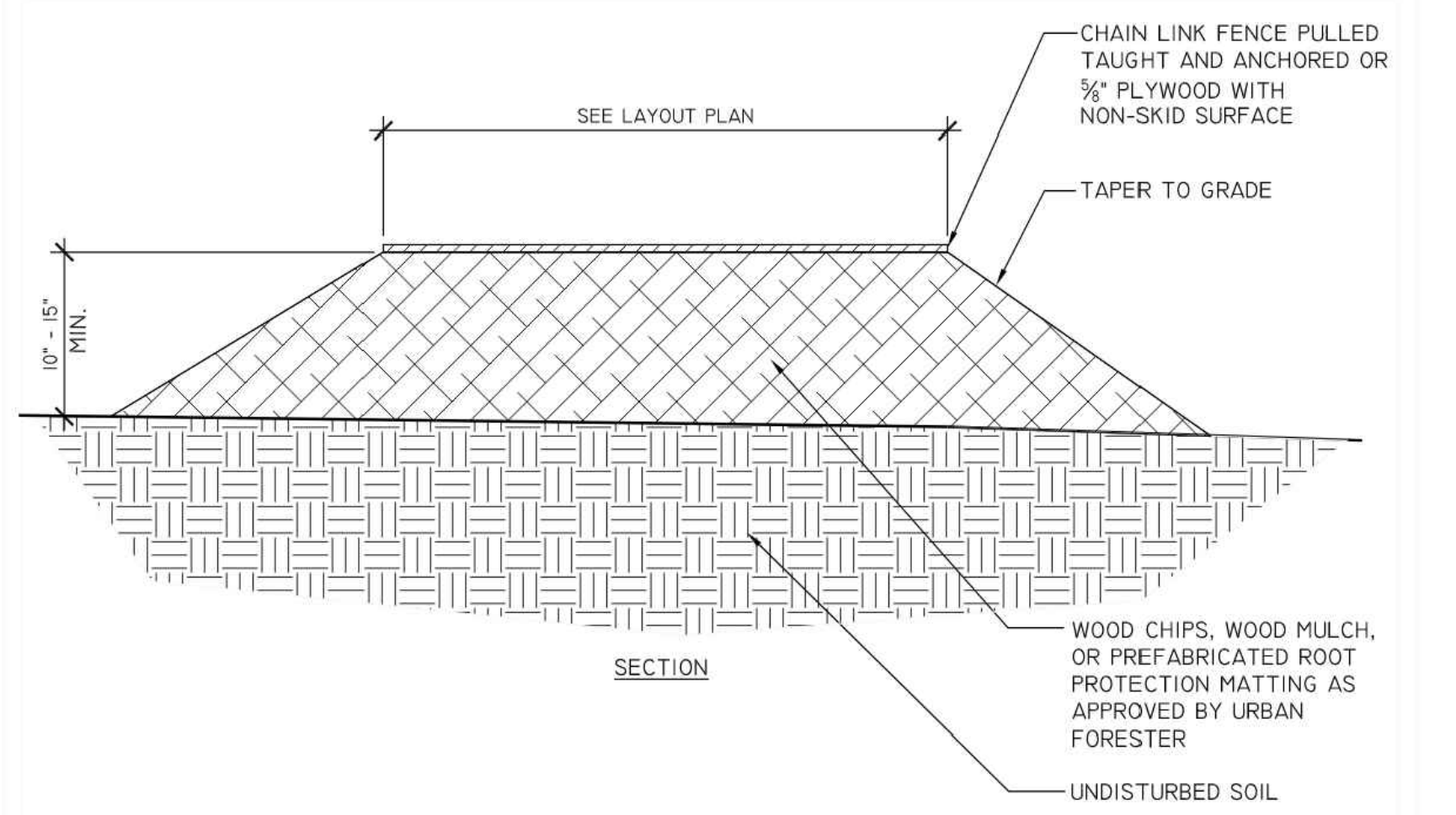
**TREE PROTECTION FENCING NOTES**

1. Tree protection shall be a minimum of 6'-0" high chain link fence mounted on vertical pipes driven 2'-0" into the ground, at approximately 8'-0" to 10'-0" (max.) on center, with no gates.
2. Tree protection fencing shall be erected at the critical root zone or beyond prior to start of any clearing, grading or other construction activity. Signs stating "No Entry, Tree Protection Area, Call 703-228-6557 to report violations" are to be posted in both English and Spanish. See Reference Detail II.A.5. Tree protection shall not be removed until completion of all construction activity.
3. For questions related to tree protection or for field inspection of tree protection, contact the County's Urban Forester at 703-228-6557.

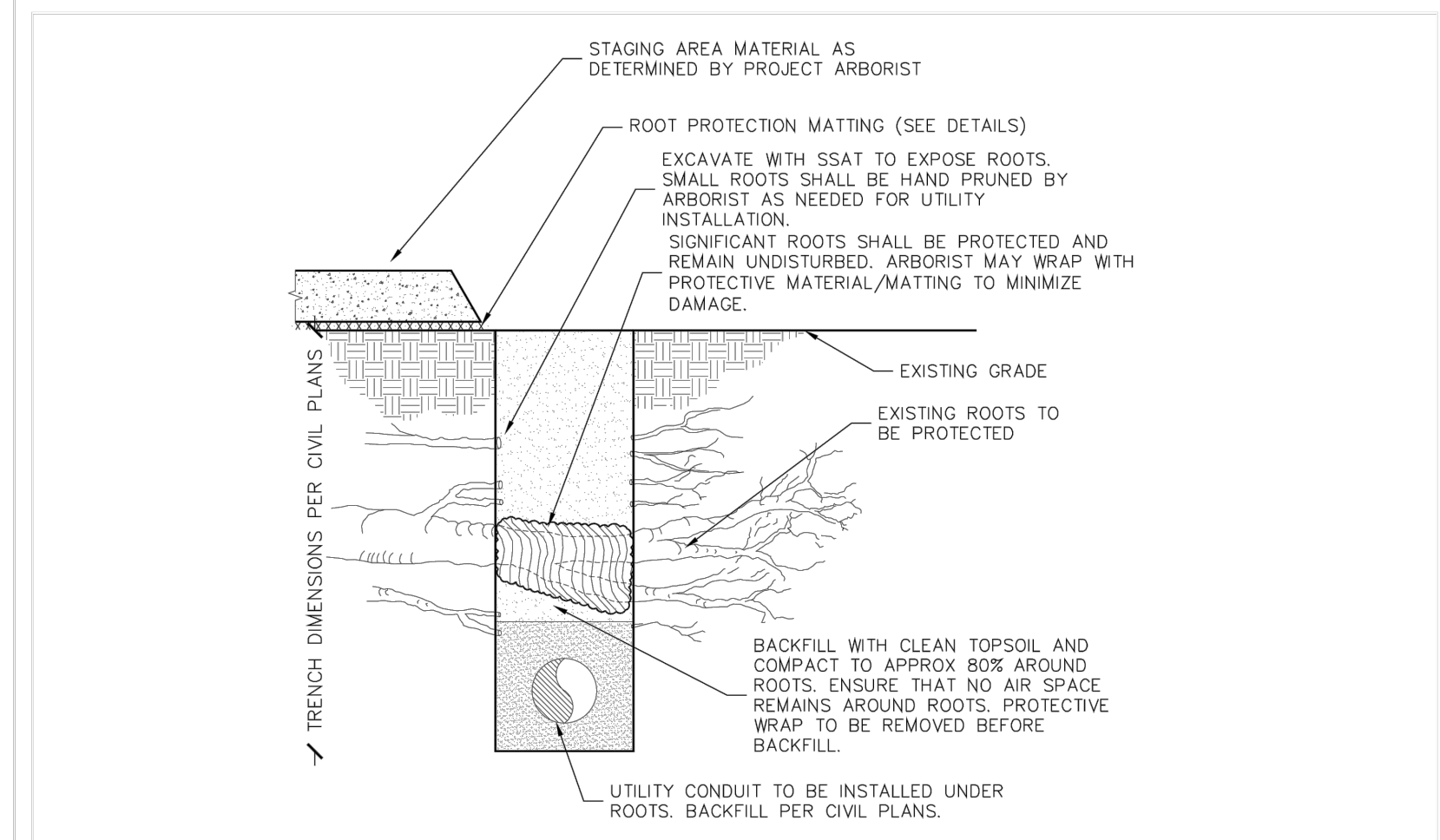
**NOTE:**  
 URBAN FORESTER TO BE CALLED AT 703-228-1083, 72 HOURS BEFORE CONSTRUCTION, TO INSPECT TREE PROTECTION.



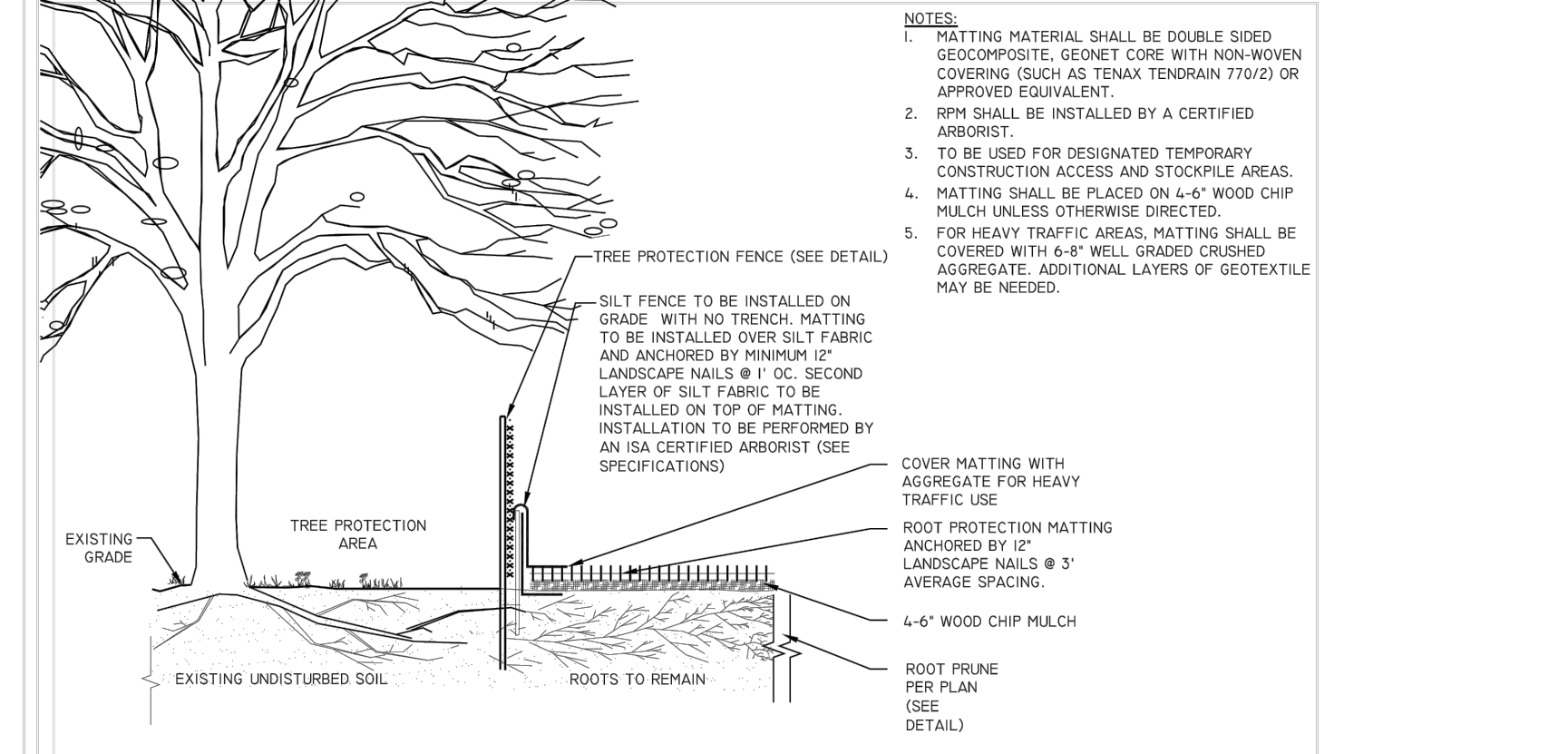
**TREE PROTECTION FENCE, PLAN**  
 DRAFT 11.07.03  
 ARLINGTON COUNTY, VIRGINIA  
 DEPARTMENT OF PUBLIC WORKS  
 DRAWING NO. \_\_\_\_\_  
 DIRECTOR DATE



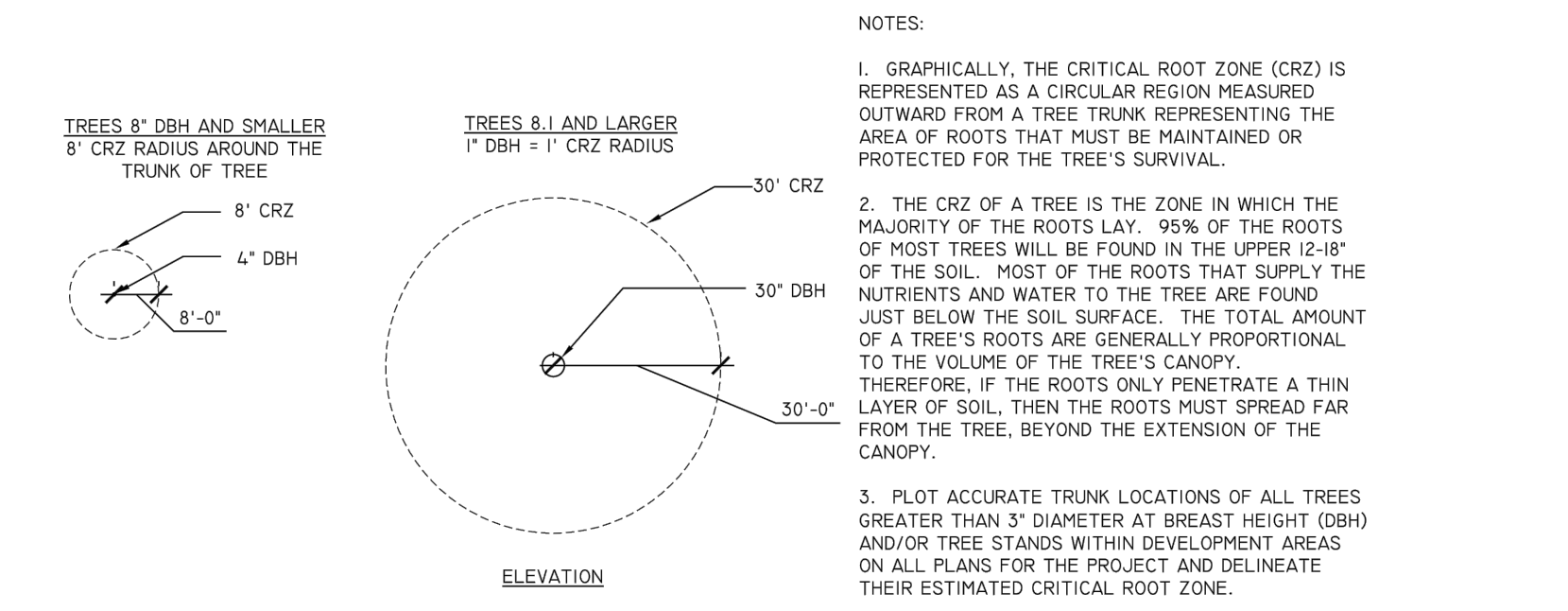
**ROOT PAD DETAIL**  
 311300.4 (2016) (02231.4)  
 1" = 1'-0"  
 ARLINGTON DPR



**TREE PROTECTION FOR UNDERGROUND UTILITY**  
 311300.20NS (2019)  
 N.T.S.  
 ARLINGTON DPR



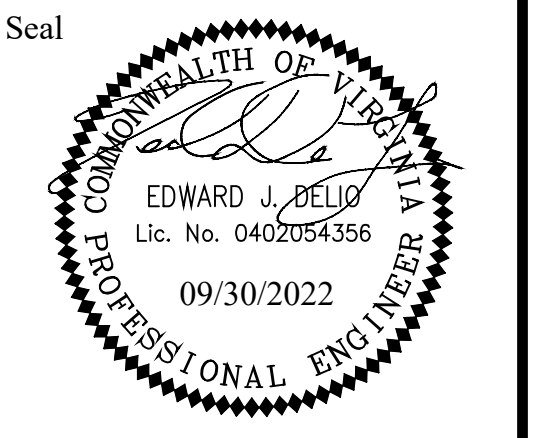
**TEMPORARY ROOT PROTECTION MATTING WITHIN CRZ**  
 311300.7NS  
 NOT TO SCALE  
 ARLINGTON DPR



**TREE PROTECTION DETAIL FOR DETERMINING CRITICAL ROOT ZONE**  
 311300.3 (2019)  
 N.T.S.  
 ARLINGTON DPR

**DETERMINING THE CRITICAL ROOT ZONE**

THE CRITICAL ROOT ZONE OF A TREE IS THE ZONE IN WHICH THE MAJORITY OF A TREE'S ROOTS LAY. ABOUT 95% OF THE ROOTS OF MOST TREES WILL BE FOUND IN THE UPPER 20% OF THE SOIL. MOST OF THE ROOTS THAT SUPPLY THE NUTRIENTS AND WATER TO THE TREE ARE FOUND JUST BELOW THE SOIL SURFACE. THE TOTAL AMOUNT OF A TREE'S ROOTS ARE GENERALLY PROPORTIONAL TO THE VOLUME OF THE TREE'S CANOPY. THEREFORE, IF THE ROOTS ONLY PENETRATE A THIN LAYER OF SOIL, THEN THE ROOTS MUST SPREAD FAR FROM THE TREE, BEYOND THE EXTENSION OF THE CANOPY. THEREFORE, IF THE ROOTS ONLY PENETRATE A THIN LAYER OF SOIL, THEN THE ROOTS MUST SPREAD FAR FROM THE TREE, BEYOND THE EXTENSION OF THE CANOPY. THEREFORE, IF THE ROOTS ONLY PENETRATE A THIN LAYER OF SOIL, THEN THE ROOTS MUST SPREAD FAR FROM THE TREE, BEYOND THE EXTENSION OF THE CANOPY.



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

Designed: \_\_\_\_\_  
 Drawn: WDW  
 Checked: EJD  
 Miss Utility Transmittal #:

Filename: 010073-C-LAND-TREE PROTECTION  
 Path: ...  
 Plotted: September 30, 2022  
 Plotted by: Ted.DeLio

**ARLINGTON COUNTY, VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL SERVICES

**TREE PROTECTION DETAILS**  
 COLUMBIA PIKE - ROUTE 244  
 COLUMBIA PIKE - MULTIMODAL STREET IMPROVEMENTS  
 SEGMENT C

SCALE:	HOR. N/A VERT. N/A	SHEET:	C14.11 of C14.12
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