

# City of Richmond Department of Planning & Development Review

## Location, Character and Extent Review

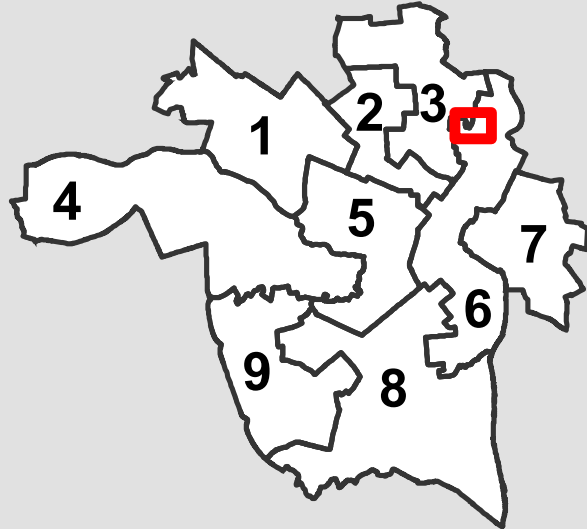
**LOCATION:** City right-of-way along Richmond-Henrico Turnpike between Dove Street and Fourqurean Lane

**COUNCIL DISTRICTS:** 3,6

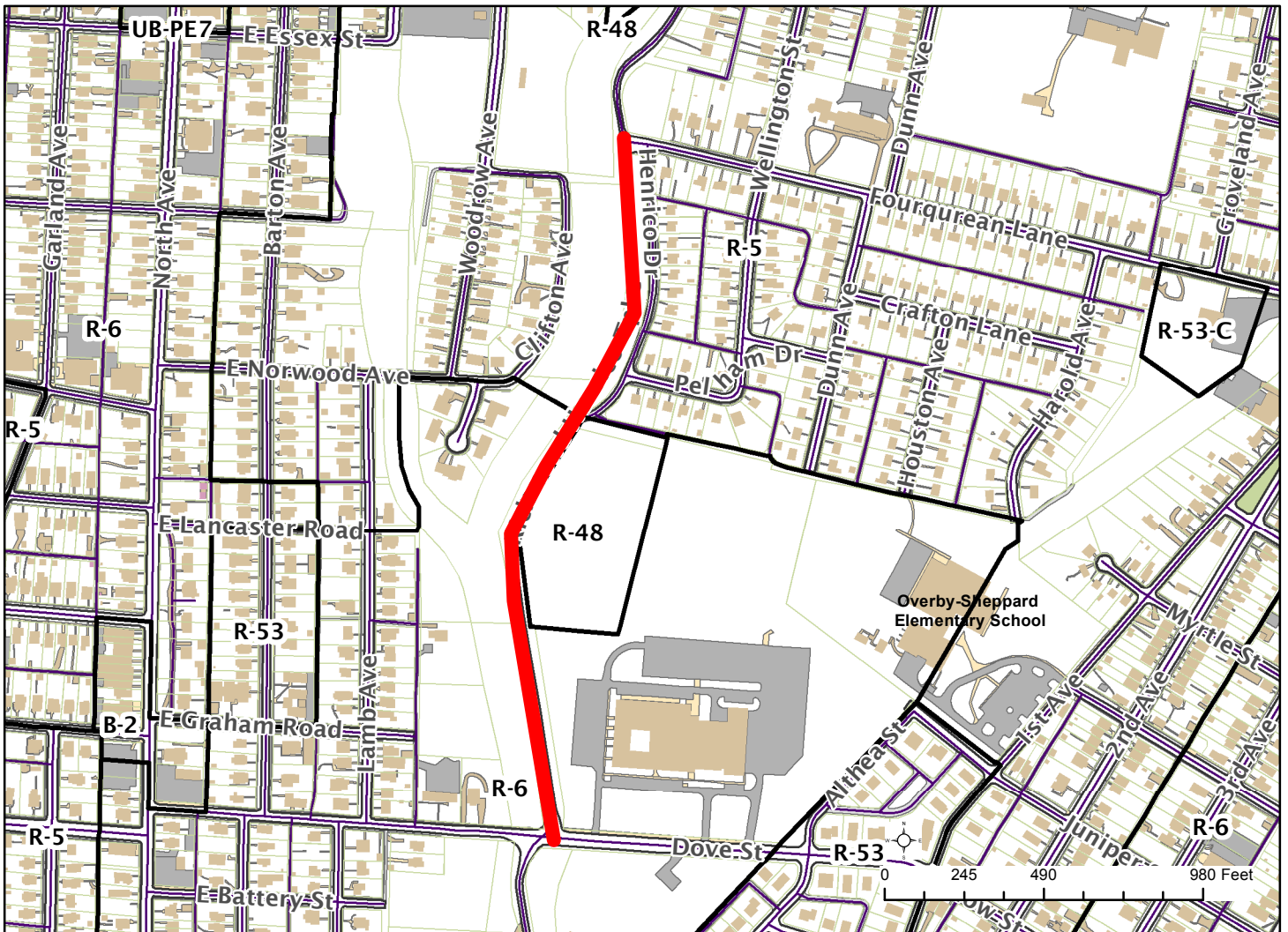
**APPLICANT:** Manouchehr Nosrati, DPW

**EXISTING USE:** City right-of-way

**PROJECT DESCRIPTION:** Final Location, Character and Extent review of the widening of Richmond-Henrico Turnpike between Dove Street and Fourqurean Lane.



*For questions, please contact Josh Son  
at 646-3741 or [josh.son@richmondgov.com](mailto:josh.son@richmondgov.com)*





## Application for URBAN DESIGN COMMITTEE Review

Department of Planning and Development Review  
Planning & Preservation Division  
900 E. Broad Street, Room 510  
Richmond, Virginia 23219  
(804) 646-6335

<http://www.richmondgov.com/CommitteeUrbanDesign>

### Application Type

- Addition/Alteration to Existing Structure  
 New Construction  
 Streetscape  
 Site Amenity

- Encroachment  
 Master Plan  
 Sign  
 Other

### Review Type

- Conceptual  
 Final

Project Name: Richmond-Henrico TnPk Roadway Improvement

Project Address: From Dove Street to Fourquare Lane

Brief Project Description (this is not a replacement for the required detailed narrative) : \_\_\_\_\_

Approximately 1/2 mile of proposed roadway improvements along Richmond Henrico Turnpike, from Dove Street to Fourquare Lane.

Improve roadway alignments (vertical and horizontal), place guardrail, improve drainage, signing/stripping,  
install retaining walls and landscape / tree planting.

### Applicant Information

(on all applications other than encroachments, a City agency representative must be the applicant)

Name: Manouchehr Nosrati Email: nosratms@ci.richmond.va.us

City Agency: Department of Public Works - Phone: 646-6319

Address: City Hall, Room 600

Main Contact (if different from Applicant): \_\_\_\_\_

Company: \_\_\_\_\_ Phone: \_\_\_\_\_

Email: \_\_\_\_\_

### Submittal Deadlines

All applications and support materials must be filed no later than 21 days prior to the scheduled meeting of the Urban Design Committee (UDC). Please see the schedule on page 3 as actual deadlines are adjusted due to City holidays. **Late or incomplete submissions will be deferred to the next meeting.**

### Filing

Applications can be mailed or delivered to the attention of "Urban Design Committee" at the address listed at the top of this page. **It is important that the applicant discuss the proposal with appropriate City agencies, Zoning Administration staff, and area civic associations and residents prior to filing the application with the UDC.**

### UDC Background

The UDC is a ten member committee created by City Council in 1968 whose purpose is to advise the City Planning Commission on the design of projects on City property or right-of-way. The UDC provides advice of an aesthetic nature in connection with the performance of the duties of the Commission under Sections 17.05, 17.06 and 17.07 of the City Charter. The UDC also advises the Department of Public Works in regards to private encroachments in the public right-of-way.



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### Submission Requirements

- 9 copies of the application cover sheet and all support materials (see below), unless the application is for an encroachment, in which case only 4 copies are required. Plan sheets should be 11" x 17", folded to 8 1/2" x 11". If it is not possible to scale plans to these dimensions, please provide one set of larger, scaled plans.
- An electronic copy (PDF preferred) of all application materials, which can be burned to disc, emailed, or delivered by FTP.

All applications must include the attached cover sheet and the following support materials, as applicable to the project:

#### For Conceptual Review

- A detailed project narrative which includes the following: purpose of the project, project background, project budget and funding sources, description of construction program and estimated construction start date (description should also provide information on the surrounding area to provide context).
- A site plan for the project indicating site characteristics which include: building footprints, parking areas, pedestrian routes, recreation areas, open areas and areas of future expansion.
- A set of floor plans and elevations, as detailed as possible.
- A landscaping plan which shows the general location and character of plant materials and notes any existing tree to be removed.

#### For Final Review

- A detailed project narrative which includes the following: purpose of the project, project background, project budget and funding sources, description of construction program and estimated construction start date (description should also provide information on the surrounding area to provide context).
- A site plan for the project indicating site characteristics which include: building footprints, parking areas, pedestrian routes, recreation areas, open areas and areas of future expansion.
- A set of floor plans and elevations, as detailed as possible.
- A landscaping plan that includes a complete plant schedule, the precise location of all plant materials, and a landscape maintenance analysis. The plant schedule must show number, size and type of each planting proposed. If existing trees are to be removed, their size, type and location must be noted on the landscape plan.
- The location of all lighting units should be noted on a site plan, including wall-mounted, site and parking lot lighting. Other site details, such as benches, trash containers and special paving materials, should also be located. Include specification sheets for each item.
- Samples of all proposed exterior building materials, including but not limited to brick, mortar, shingles, siding, glass, paint and stain colors. When an actual sample cannot be provided, a product information sheet that shows the item or a photo of an existing item may be substituted.

### Review and Processing

Once an application is received, it is reviewed by staff, who compiles a report that is sent to the UDC. A copy of the report and the meeting agenda will be sent to the applicant prior to the meeting. The applicant or a representative should be present at the UDC meeting or the application may be deferred to the next regularly scheduled meeting. It is also strongly suggested that a representative of the City Agency which will have final responsibility for the item be present at the meeting (if the applicant and the representative are not the same). Once the UDC recommends action on the application, it is automatically placed on the agenda for the next City Planning Commission (CPC) meeting. An exception to this is encroachment applications, recommendations for which are forwarded to the Department of Public Works. The applicant or a representative must be present at the CPC meeting or the application may be deferred to the next regularly scheduled meeting.



## Application for URBAN DESIGN COMMITTEE Review

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### MEETING SCHEDULE 2015-2016

UDC Meetings	UDC Submission Deadlines	Anticipated Date of Planning Commission Following the UDC Meeting
<b>December 10, 2015</b>	November 12, 2015*	January 4, 2016
<b>January 7, 2016</b>	December 10, 2015**	January 19, 2016 <sup>1</sup>
<b>February 4, 2016</b>	January 14, 2016	February 16, 2016 <sup>2</sup>
<b>March 10, 2016</b>	February 18, 2016	March 21, 2016
<b>April 7, 2016</b>	March 17, 2016	April 18, 2016
<b>May 5, 2016</b>	April 14, 2016	May 16, 2016
<b>June 9, 2016</b>	May 19, 2016	June 20, 2016
<b>July 7, 2016</b>	June 16, 2016	July 18, 2016
<b>August 4, 2016</b>	July 14, 2016	September 6, 2016 <sup>3</sup>
<b>September 8, 2016</b>	August 18, 2016	September 19, 2016
<b>October 6, 2016</b>	September 15, 2016	October 17, 2016
<b>November 10, 2016</b>	October 20, 2016	November 21, 2016
<b>December 8, 2016</b>	November 10, 2016*	January 3, 2017 <sup>4</sup>

<sup>1</sup> Monday, January 18<sup>th</sup> is a City of Richmond Holiday

<sup>2</sup> Monday, February 15<sup>th</sup> is a City of Richmond Holiday

<sup>3</sup> Monday, September 5<sup>th</sup> is a City of Richmond Holiday

<sup>4</sup> Monday, January 2<sup>nd</sup>, 2017 is a City of Richmond Holiday

\* Moved forward to account for Thanksgiving Holiday Schedule

\*\* Moved forward to account for Winter Holiday Schedule

For further information or assistance, please contact the Planning and Preservation Division by phone at (804) 646-6335 or by email at [DCDCCompPlan@RichmondGov.com](mailto:DCDCCompPlan@RichmondGov.com).

Information about the UDC along with the application and meeting schedule is available at the City of Richmond website, <http://www.richmondgov.com/CommitteeUrbanDesign>



**Project Name:** Richmond-Henrico Tnpk Roadway Improvement

**Location:** Dove Street to Fourquaren Lane

**Preliminary Estimated Project Cost:** \$1,400,000.00

**Anticipated Funding Source:** City and State Revenue Sharing

**Current Available Fund:** \$110,000 (FY2015 CIP adopted fund)

**Project Schedule:** Currently 90% design completed by WRA Consultant

**Justification:** Richmond Henrico Turnpike is a two-lane road with minimal shoulders and deteriorated pavement. Deep wooded ravine adjacent to the roadway is a hazard in its current condition. Currently no guardrail exists between Dove Street and Fourquaren Drive. The installation of guardrail and new pavement will make the roadway safe for the travelling public.

**Project Scope of Work:**

Project consists of approximately ½ mile of proposed roadway improvements along Richmond Henrico Turnpike, from Dove Street to Fourquaren Lane. These improvements consist of full-depth reconstruction of this two-lane/two-way facility to meet applicable standards of AASTHO and VDOT for a 25 mph Urban-Local facility. Proposed design included in the project are: improve roadway alignments (vertical and horizontal), guardrail, improve drainage, signing/stripping, retaining walls and landscape / tree planting. The design's intent will shift the roadway slightly east to minimize slope impacts to the ravine area. The design also will require placing retaining wall in some area on the east side of the roadway to minimize impacts to the cut slopes and the existing Cannon Creek Trail – Phase II.

**RETAINING WALL 'A' ALIGNMENT DATA**

Beginning chain RETWALLA description

**Curve RETWALLA-I**

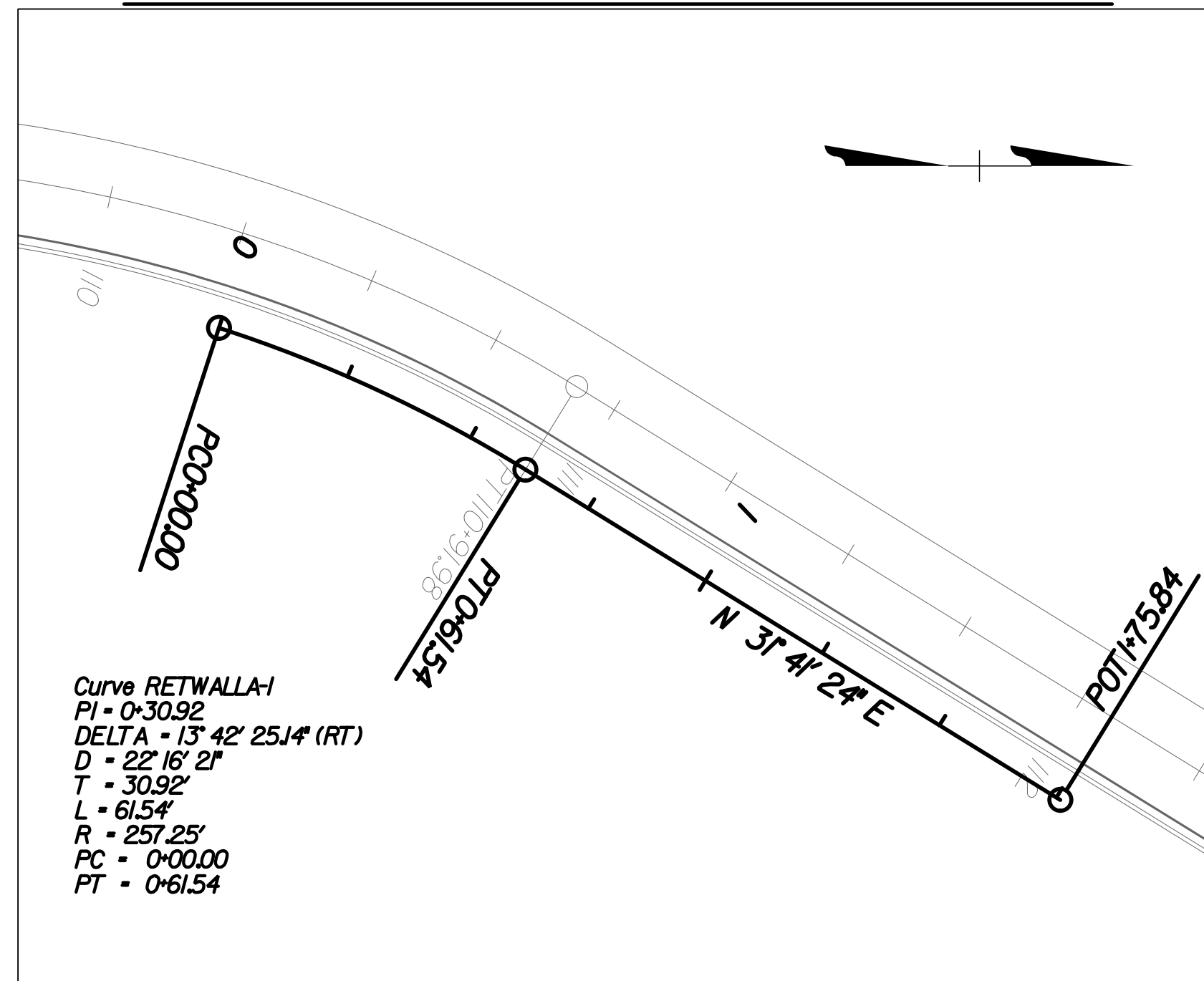
P.I. Station	0+30.92 N	3,731,346.29 E	11,793,275.15
Delta	= 13° 42' 25.142" (RT)		
Degree	= 22° 16' 20.6827"		
Tangent	= 30.92		
Length	= 61.54		
Radius	= 257.25		
External	= 1.85		
Long Chord	= 61.40		
Mid.Ord.	= 1.84		
P.C. Station	0+00.00 N	3,731,316.89 E	11,793,265.60
P.T. Station	0+61.54 N	3,731,372.60 E	11,793,291.39
C.C.	N 3,731,237.46 E	11,793,510.28	
Back	= N 17° 58' 58.5529" E		
Ahead	= N 31° 41' 23.6940" E		
Chord Bear	= N 24° 50' 11.1234" E		

Course from PT RETWALLA-I to RW2 N 31° 41' 23.694" E Dist 114.30

Point RW2	N	3,731,469.86 E	11,793,351.43 Sta	1+75.84
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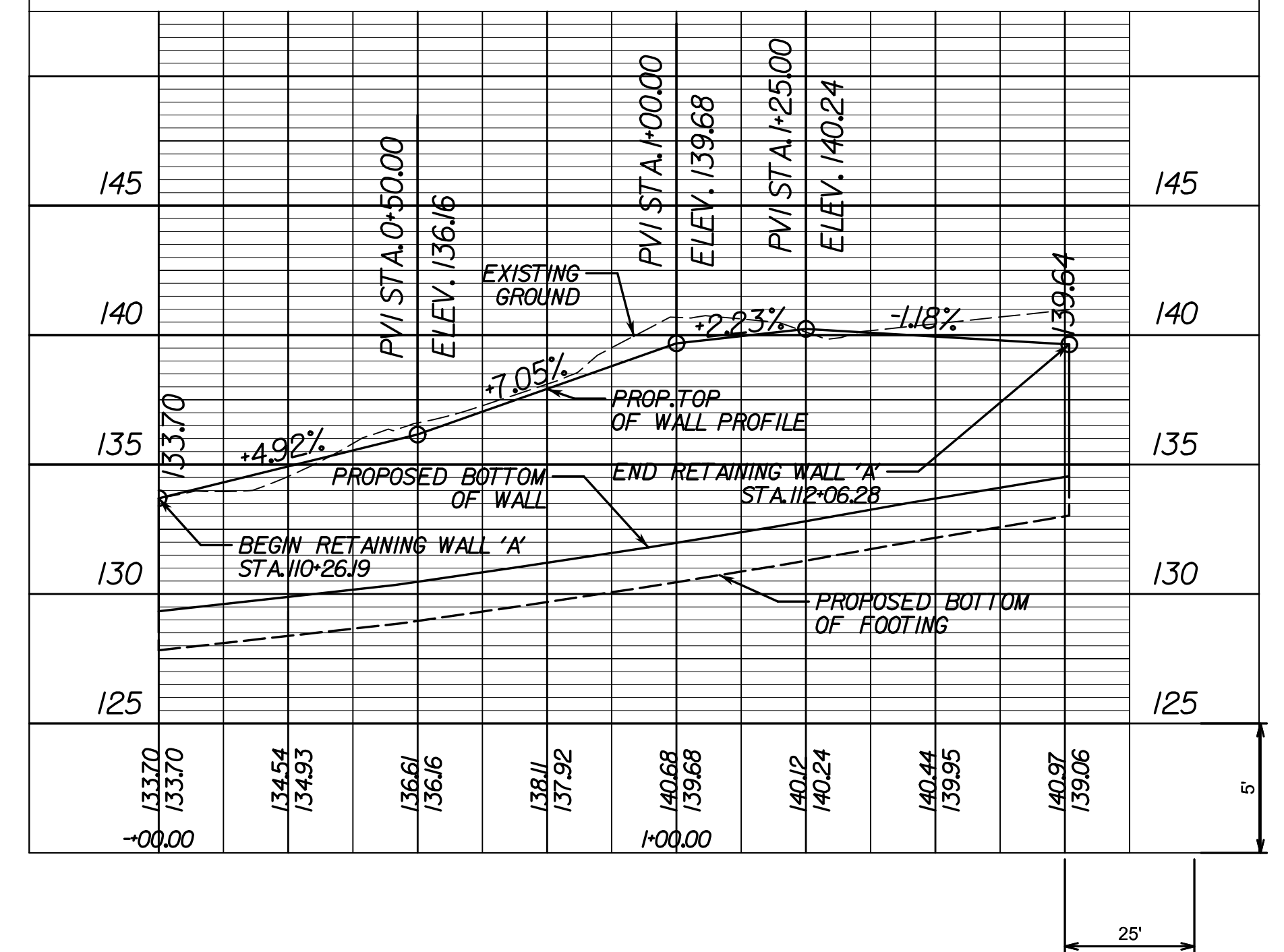
Ending chain RETWALLA description

**RETAINING WALL 'A' ALIGNMENT**



**RETAINING WALL 'A' PROFILE**

RICHMOND-HENRICO TURNPIKE  
STA. 110+26.19 TO STA. 112+06.28



**RETAINING WALL 'B' ALIGNMENT DATA**

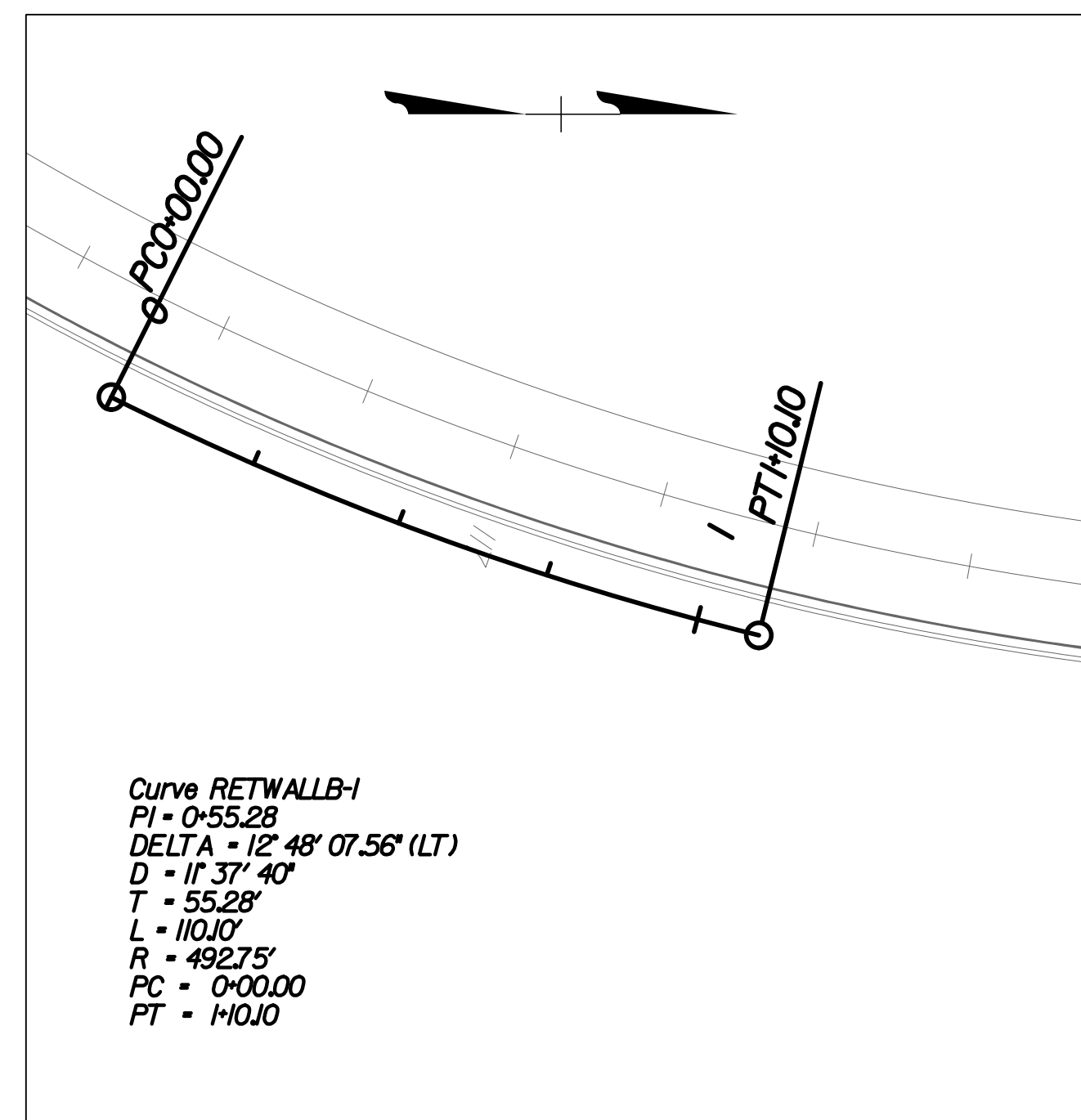
Beginning chain RETWALLB description

**Curve RETWALLB-I**

P.I. Station	0+55.28 N	3,731,889.71 E	11,793,602.60
Delta	= 12° 48' 07.5568" (LT)		
Degree	= 11° 37' 39.9302"		
Tangent	= 55.28		
Length	= 110.10		
Radius	= 492.75		
External	= 3.09		
Long Chord	= 109.87		
Mid.Ord.	= 3.07		
P.C. Station	0+00.00 N	3,731,840.28 E	11,793,577.84
P.T. Station	1+10.10 N	3,731,943.39 E	11,793,615.79
C.C.	N 3,732,060.96 E	11,793,137.27	
Back	= N 26° 36' 21.5646" E		
Ahead	= N 13° 48' 14.0077" E		
Chord Bear	= N 20° 12' 17.7862" E		

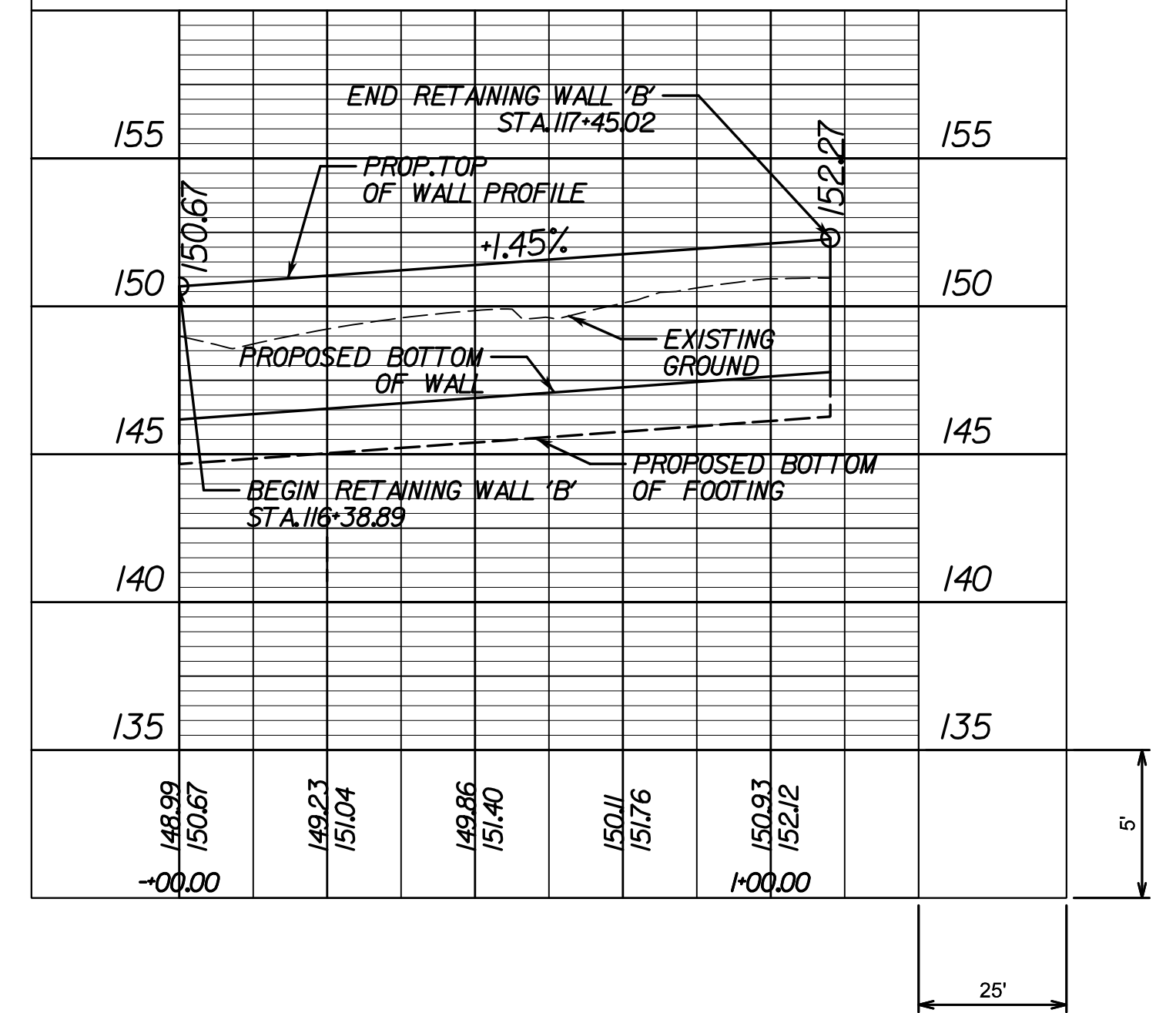
Ending chain RETWALLB description

**RETAINING WALL 'B' ALIGNMENT**



**RETAINING WALL 'B' PROFILE**

RICHMOND-HENRICO TURNPIKE  
STA. 116+38.89 TO STA. 117+45.02



**90% PLANS**

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SURVEYED BY: CITY OF RICHMOND, SUPERVISED BY: MSV, DESIGNED BY: DG

**NOTES**

- Lot dimensions in parentheses are from deed.
- Property owners correct as of . 20
- Ordinance Number
- Adopted
- Accepted

**REFERENCES**

REVISIONS

**LEGEND**

Existing Curb	Existing Curb Cut Ramp	Proposed Conc. Sidewalk
Curb & Gutter	Coping	Brick Sidewalk
Sidewalk	Alley Crossing/Driveway	Castings Water Valve
Basin	Fire Hydrant	Water Meter
Storm Sewer	Edge of Pavement	Gas Drip
Sewer Manhole	Fence	Gas Valve
Sanitary Sewer Manhole	Cornerstone	Telephone Manhole
Sanitary Sewer	Property Pin	Electric Manhole
Gas Line	Utility Pole	Proposed Curb Cut Ramp
Electric Line	Manhole	Decorative Light
Telephone/Telegraph	Basin	Conduit
TV Cable	Curb & Gutter	Conduit (Conc. Encased)
Water Line	Asphalt	Retaining Wall
Tree / Exist. Tree To Be Removed / Stump		
Property Line		

Richmond-VIRGINIA

<b>Technical</b>	<b>Administrative</b>
Surveys Superintendent	Capital Project Administrator
Project Engineer	Deputy Director for Transportation / Public Works
Maintenance Engineer	Director of Public Works
City Traffic Engineer	

DEPARTMENT OF PUBLIC WORKS  
RICHMOND, VIRGINIA

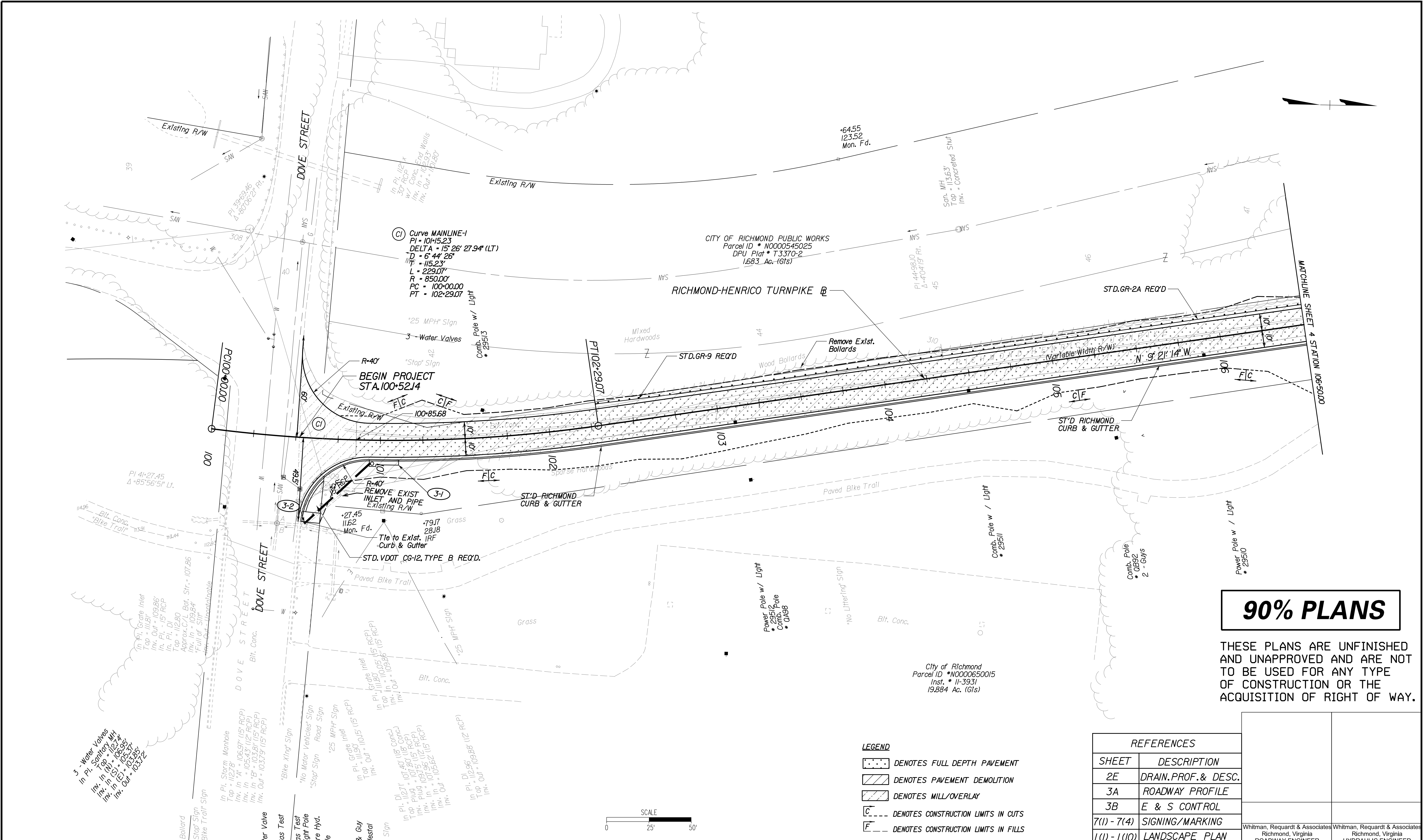
Richmond-Henrico Turnpike  
Roadway Improvements

# RETAINING WALL DETAILS

Whitman, Reardon & Associates  
Richmond, Virginia  
ROADWAY ENGINEER

DESIGN BY: DG	REVIEWED BY:	FIELD NOTES:	SCALE: 1"=25'	DATE: December 2016	SHEET: 2D	DRAWING NO.: 0-28703
DRAWN BY: DG	CHECKED BY: MSV					

SURVEYED BY: CITY OF RICHMOND...  
 SUPERVISED BY: MSV...  
 DESIGNED BY: DG...



## 90% PLANS

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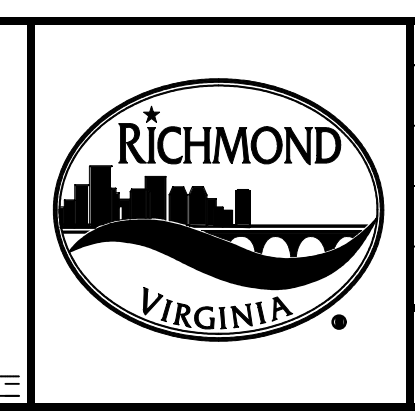
- LEGEND**
- DENOTES FULL DEPTH PAVEMENT
  - DENOTES PAVEMENT DEMOLITION
  - DENOTES MILL/OVERLAY
  - DENOTES CONSTRUCTION LIMITS IN CUTS
  - DENOTES CONSTRUCTION LIMITS IN FILLS

REFERENCES	
SHEET	DESCRIPTION
2E	DRAIN, PROF. & DESC.
3A	ROADWAY PROFILE
3B	E & S CONTROL
7(1) - 7(4)	SIGNING/MARKING
L(1) - L(10)	LANDSCAPE PLAN

**NOTES**

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

REVISIONS	LEGEND				
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"> <ul style="list-style-type: none"> <li>Existing Curb &amp; Gutter</li> <li>Sidewalk</li> <li>Basin</li> <li>Storm Sewer</li> <li>Sewer Manhole</li> <li>Sanitary Sewer Manhole</li> <li>Sanitary Sewer</li> <li>Gas Line</li> <li>Electric Line</li> <li>Telephone/Telegraph</li> <li>TV Cable</li> <li>Water Line</li> <li>Tree / Exist. Tree To Be Removed / Stump</li> <li>Property Line</li> </ul> </td> <td style="width: 50%;"> <ul style="list-style-type: none"> <li>Existing Curb Cut Ramp</li> <li>Coping</li> <li>Alley Crossing/Driveway</li> <li>Fire Hydrant</li> <li>Edge of Pavement</li> <li>Fence</li> <li>Cornerstone</li> <li>Property Pin</li> <li>Utility Pole</li> <li>Proposed Sewer Manhole</li> <li>Basin</li> <li>Curb &amp; Gutter</li> <li>Asphalt</li> </ul> </td> </tr> </table>	<ul style="list-style-type: none"> <li>Existing Curb &amp; Gutter</li> <li>Sidewalk</li> <li>Basin</li> <li>Storm Sewer</li> <li>Sewer Manhole</li> <li>Sanitary Sewer Manhole</li> <li>Sanitary Sewer</li> <li>Gas Line</li> <li>Electric Line</li> <li>Telephone/Telegraph</li> <li>TV Cable</li> <li>Water Line</li> <li>Tree / Exist. Tree To Be Removed / Stump</li> <li>Property Line</li> </ul>	<ul style="list-style-type: none"> <li>Existing Curb Cut Ramp</li> <li>Coping</li> <li>Alley Crossing/Driveway</li> <li>Fire Hydrant</li> <li>Edge of Pavement</li> <li>Fence</li> <li>Cornerstone</li> <li>Property Pin</li> <li>Utility Pole</li> <li>Proposed Sewer Manhole</li> <li>Basin</li> <li>Curb &amp; Gutter</li> <li>Asphalt</li> </ul>	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"> <ul style="list-style-type: none"> <li>Proposed Conc. Sidewalk</li> <li>Proposed Brick Sidewalk</li> <li>Castings</li> <li>Water Valve</li> <li>Water Meter</li> <li>Gas Drip</li> <li>Gas Valve</li> <li>Telephone Manhole</li> <li>Electric Manhole</li> <li>Proposed Curb Cut Ramp</li> <li>Decorative Light</li> <li>Conduit</li> <li>Conduit (Conc. Encased)</li> <li>Retaining Wall</li> </ul> </td> <td style="width: 50%;"> <ul style="list-style-type: none"> <li>Sanitary Sewer</li> <li>Storm Sewer</li> <li>Gas</li> <li>Electric</li> <li>Telephone</li> <li>TV</li> <li>Water</li> <li>Tree</li> <li>Property Line</li> </ul> </td> </tr> </table>	<ul style="list-style-type: none"> <li>Proposed Conc. Sidewalk</li> <li>Proposed Brick Sidewalk</li> <li>Castings</li> <li>Water Valve</li> <li>Water Meter</li> <li>Gas Drip</li> <li>Gas Valve</li> <li>Telephone Manhole</li> <li>Electric Manhole</li> <li>Proposed Curb Cut Ramp</li> <li>Decorative Light</li> <li>Conduit</li> <li>Conduit (Conc. Encased)</li> <li>Retaining Wall</li> </ul>	<ul style="list-style-type: none"> <li>Sanitary Sewer</li> <li>Storm Sewer</li> <li>Gas</li> <li>Electric</li> <li>Telephone</li> <li>TV</li> <li>Water</li> <li>Tree</li> <li>Property Line</li> </ul>
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Technical	Administrative
<ul style="list-style-type: none"> <li>Surveys Superintendent</li> <li>Project Engineer</li> <li>Maintenance Engineer</li> <li>City Traffic Engineer</li> </ul>	<ul style="list-style-type: none"> <li>Capital Project Administrator</li> <li>Deputy Director for Transportation / Public Works</li> <li>Director of Public Works</li> </ul>

Richmond-Henrico Turnpike  
Roadway Improvements

# PLAN

DESIGN BY: DG	REVIEWED BY:	FIELD NOTES	SCALE: 1"=25'	DATE: December 2016	SHEET: 3	DRAWING NO.: 0-28703
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SURVEYED BY: ..CITY OF RICHMOND..  
 SUPERVISED BY:.....MSV.....  
 DESIGNED BY:.....GK.....

### Phase II Tree Table

501 24" RED OAK	596 22" RED OAK	691 Omitted	786 8" MAPLE	900 28" UNIDENTIFIABLE	996 15" GUM
502 18" GUM	597 24" RED OAK	692 Omitted	787 16" TWIN MAPLE	901 18" AMERICAN BASSWOOD	997 18" TWIN GUM
503 18" GUM	598 12" OAK	693 Omitted	788 16" TWIN OAK	902 18" UNIDENTIFIABLE (DEAD)	998 42" HOPHORNBEAM
504 15" GUM	599 12" OAK	694 Omitted	789 18" MAPLE	903 52" SYCAMORE	999 9" UNIDENTIFIABLE
505 15" GUM	600 8" WHITE OAK	695 Omitted	790 8" OAK	904 8" UNIDENTIFIABLE	1000 Omitted
506 18" GUM	601 Omitted	696 Omitted	791 16" MAPLE	905 20" TRIPLE UNIDENTIFIABLE (DEAD)	1001 Omitted
507 20" RED OAK	602 Omitted	697 Omitted	792 10" GUM	906 26" UNIDENTIFIABLE	1002 8" UNIDENTIFIABLE
508 24" RED OAK	603 Omitted	698 Omitted	793 12" GUM	907 9" GUM	1003 14" UNIDENTIFIABLE
509 12" RED OAK	604 Omitted	699 Omitted	794 14" GUM	908 10" GUM	1004 8" MAPLE
510 24" RED OAK	605 Omitted	700 Omitted	795 10" GUM	909 14" GUM	1005 38" POPLAR
511 15" GUM	606 12" WHITE OAK	701 Omitted	796 10" PINE	910 19" GUM	1006 26" OAK
512 12" CHERRY	607 Omitted	702 Omitted	797 14" PINE	911 22" GUM	1007 32" OAK
513 26" GUM	608 15" WHITE OAK	703 Omitted	798 14" PINE	912 11" GUM	1008 25" POPLAR
514 15" GUM	609 Omitted	704 Omitted	799 12" OAK	913 11" GUM	1009 14" OAK
515 24" RED OAK	610 Omitted	705 Omitted	800 10" GUM	914 14" GUM	1010 33" GUM
516 18" GUM	611 Omitted	706 Omitted	801 12" OAK	915 27" POPLAR	1011 26" GUM
517 12" RED OAK	612 Omitted	708 Omitted	802 12" OAK	916 14" GUM	1012 24" GUM
518 12" OSAGE ORANGE	613 8" POPLAR	709 Omitted	803 Omitted	917 17" UNIDENTIFIABLE	1013 27" GUM
519 38" GUM	614 15" MAPLE	710 Omitted	804 Omitted	918 12" TWIN UNIDENTIFIABLE	1014 33" GUM
520 26" RED OAK	615 8" OAK	711 Omitted	805 12" TWIN OAK	919 12" GUM	1015 38" OAK
521 20" POPLAR	616 8" TWIN UNIDENTIFIABLE	712 Omitted	806 10" OAK	920 16" GUM	1016 36" OAK
522 12" BEECH	617 10" OAK	713 Omitted	807 10" OAK	921 14" GUM	1017 15" GUM
523 18" WHITE OAK	618 8" OAK	714 Omitted	808 12" OAK	922 24" TRIPLE OAK	1018 19" OAK (DEAD)
524 20" BEECH	619 10" OAK	715 Omitted	809 18" PINE	923 8" GUM	1019 16" POPLAR
525 15" GUM	620 15" BEECH	716 Omitted	810 16" OAK	924 24" OAK	1020 24" GUM
526 30" RED OAK	621 20" TWIN GUM	717 Omitted	811 16" OAK	925 23" UNIDENTIFIABLE	
527 10" GUM	622 8" OAK	718 Omitted	812 12" OAK	926 22" POPLAR	
528 20" TWIN GUM	623 10" OAK	719 Omitted	813 18" GUM	927 27" OAK	
529 12" LOCUST	624 10" MAPLE	720 Omitted	814 18" GUM	928 15" OAK	
530 8" GUM	625 18" GUM	721 Omitted	815 16" TWIN OAK	929 19" GUM	
531 8" GUM	626 12" GUM	722 36" UNIDENTIFIABLE	816 16" OAK	930 36" OAK	
532 12" GUM	627 32" OAK	723 18" UNIDENTIFIABLE	817 14" GUM	931 33" OAK	
533 24" RED OAK	628 12" BEECH	724 18" UNIDENTIFIABLE	818 10" OAK	932 34" GUM	
534 10" GUM	629 15" BEECH	725 12" UNIDENTIFIABLE	819 10" OAK	933 8" UNIDENTIFIABLE	
535 10" GUM	630 15" BEECH	726 18" OAK	820 16" GUM	934 24" GUM	
536 10" GUM	631 24" GUM	727 15" GUM	821 12" OAK	935 32" OAK	
537 20" WHITE OAK	632 10" MAPLE	728 18" POPLAR	822 20" TRIPLE GUM	936 14" OAK	
538 18" RED OAK	633 15" BEECH	729 18" POPLAR	823 18" GUM	937 39" GUM	
539 27" RED OAK	634 15" BEECH	730 12" OAK	824 26" MAPLE	938 22" UNIDENTIFIABLE	
540 20" RED OAK	635 10" UNIDENTIFIABLE	731 16" POPLAR	825 14" GUM	939 30" GUM	
541 8" BEECH	636 15" TRIPLE MAPLE	732 15" OAK	826 10" GUM	940 23" GUM	
542 18" RED OAK	637 15" GUM	733 14" OAK	827 10" GUM	941 12" OAK	
543 8" GUM	638 10" UNIDENTIFIABLE	734 Omitted	828 20" OAK	942 20" UNIDENTIFIABLE	
544 Omitted	639 18" GUM	735 Omitted	829 18" OAK	943 24" OAK	
545 12" GUM	640 10" OAK	736 Omitted	830 Omitted	944 31" MAPLE	
546 Omitted	641 15" BEECH	737 Omitted	831 Omitted	945 15" OAK	
547 27" RED OAK	642 20" GUM	738 Omitted	832 16" OAK	946 39" GUM	
548 12" RED OAK	643 18" BEECH	739 Omitted	833 10" OAK	947 12" POPLAR	
549 Omitted	644 18" MAPLE	740 Omitted	834 10" BEECH	948 36" OAK	
550 24" GUM	645 10" MAPLE	741 Omitted	835 12" OAK	949 18" UNIDENTIFIABLE	
552 Omitted	646 10" GUM	742 Omitted	836 20" OAK	950 11" UNIDENTIFIABLE	
551 22" GUM	647 30" OAK	743 Omitted	837 8" OAK	951 30" OAK	
553 Omitted	648 18" MAPLE	744 Omitted	838 14" OAK	952 42" OAK	
554 Omitted	649 30" LOCUST	745 Omitted	839 24" OAK	953 8" UNIDENTIFIABLE	
555 Omitted	650 24" LOCUST	746 Omitted	840 10" OAK	954 15" POPLAR	
556 Omitted	651 15" GUM	747 Omitted	841 12" OAK	955 35" GUM	
557 Omitted	652 15" GUM	748 Omitted	842 8" OAK	956 41" OAK	
558 Omitted	653 24" GUM	749 Omitted	843 10" OAK	957 30" GUM	
559 Omitted	654 18" GUM	750 Omitted	844 8" OAK	958 12" GUM	
560 10" GUM	655 8" MAPLE	751 Omitted	845 10" OAK	959 20" TWIN GUM	
561 22" GUM	656 12" DOUBLE MAPLE	752 Omitted	846 12" OAK	960 20" GUM	
562 Omitted	657 10" OAK	753 Omitted	847 Omitted	961 17" GUM	
563 Omitted	658 8" UNIDENTIFIABLE	754 Omitted	848 Omitted	962 8" POPLAR	
564 Omitted	659 8" HICKORY	755 Omitted	849 Omitted	963 17" POPLAR	
565 15" RED OAK	660 10" OAK	756 Omitted	850 Omitted	964 14" UNIDENTIFIABLE	
566 12" RED OAK	661 8" OAK	757 Omitted	851 14" OAK	965 20" GUM	
567 15" UNIDENTIFIABLE	662 8" HICKORY	758 Omitted	852 12" MAGNOLIA	966 15" OAK	
568 24" GUM	663 8" HICKORY	759 Omitted	853 12" OAK	967 11" OAK	
569 Omitted	664 8" OAK	760 Omitted	854 32" GUM	968 30" POPLAR	
570 Omitted	665 8" MAPLE	761 Omitted	855 10" CHERRY	969 8" MAPLE	
571 10" UNIDENTIFIABLE	666 24" GUM	762 Omitted	856 18" CEDAR	970 30" POPLAR	
572 Omitted	667 18" GUM	763 Omitted	857 Omitted	971 12" OAK	
573 12" ROYAL PAULOWNIA	668 24" GUM	764 Omitted	858 Omitted	972 26" POPLAR	
574 20" RED OAK	669 8" OAK	765 Omitted	859 Omitted	973 15" GUM	
575 Omitted	670 18" GUM	766 Omitted	860 Omitted	974 26" MAPLE	
576 Omitted	671 30" GUM	767 Omitted	861 Omitted	975 14" MAPLE	
577 Omitted	672 48" TWIN GUM	768 8" OAK	862 Omitted	976 8" HICKORY	
578 Omitted	673 18" TWIN UNIDENTIFIABLE	769 # Not Used	863 Omitted	977 18" HICKORY	
579 Omitted	674 12" UNIDENTIFIABLE	770 # Not Used	864 Omitted	978 15" GUM	
580 Omitted	675 30" GUM	771 12" TWIN CEDAR	865 Omitted	979 28" POPLAR	
581 10" RED OAK	676 15" UNIDENTIFIABLE	772 8" GUM	866 Omitted	980 12" POPLAR	
582 Omitted	677 24" GUM	773 12" TWIN OAK	867 16" CEDAR	981 8" GUM	
583 Omitted	678 30" OAK	774 10" GUM	868 12" TWIN DOGWOOD	982 37" POPLAR	
584 10" CHERRY	679 8" PINE	775 8" GUM	869 40" OAK	983 24" MAPLE	
585 15" TWIN GUM	680 15" CRYPE MYRTLE	776 8" GUM	870 12" MULBERRY	984 12" GUM	
586 10" ROYAL PAULOWNIA	681 15" CRYPE MYRTLE	777 10" PINE	871 8" DOGWOOD	985 9" POPLAR	
587 8" ROYAL PAULOWNIA	682 18" GUM	778 10" GUM		986 13" HOPHORNBEAM	
588 8" ROYAL PAULOWNIA	684 Omitted	779 10" TWIN MAPLE		987 24" GUM	
589 12" GUM	683 8" GUM	780 8" MAPLE		988 18" GUM	
590 18" GUM	685 8" GUM	781 10" OAK		989 22" GUM	
591 10" ROYAL PAULOWNIA	686 8" GUM	782 12" CHERRY		990 30" GUM	
592 Omitted	687 Omitted	783 12" MAPLE		991 26" POPLAR	
593 18" GUM	688 Omitted	784 14" MAPLE		992 12" GUM	
594 24" GUM	689 Omitted	785 8" MAPLE		993 12" GUM	
595 12" RED OAK	690 Omitted			994 23" GUM	
				995 8" GUM	

Note: Trees Without Numbers Are Newly Planted As A Part Of The Cannon Creek Bike Trail Project

90% plans Not for Construction



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

**REFERENCES**  
 REC: XX'X'X' NE, SW, SE

**REVISIONS**

**LEGEND**

Existing Curb  
 - Curb & Gutter  
 - Sidewalk  
 - Basin  
 - Storm Sewer  
 - Sewer Manhole  
 - Sanitary Sewer  
 - Sanitary Sewer (See Note)  
 - Gas Line  
 - Electric Line  
 - Telephone/Telegraph  
 - TV Cable  
 - Water Line  
 - Tree / Exist. Tree To Be Removed / Stump  
 - Property Line

Existing Conc. Sidewalk  
 - Brick Sidewalk  
 - Castings: Water Valve  
 - Water Meter  
 - Gas Valve  
 - Gas Valve  
 - Telephone Manhole  
 - Electric Manhole  
 - Proposed Curb Out Ramp  
 - Decorative Light  
 - Conduit (Conc. Encased)  
 - Retaining Wall

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



Technical	Administrative
Surveys Superintendent	Capital Project Administrator
Project Engineer	Deputy Director for Transportation / Public Works
Maintenance Engineer	Director of Public Works
City Traffic Engineer	

DEPARTMENT OF PUBLIC WORKS  
 RICHMOND, VIRGINIA

Richmond-Henrico Turnpike Roadway Improvements

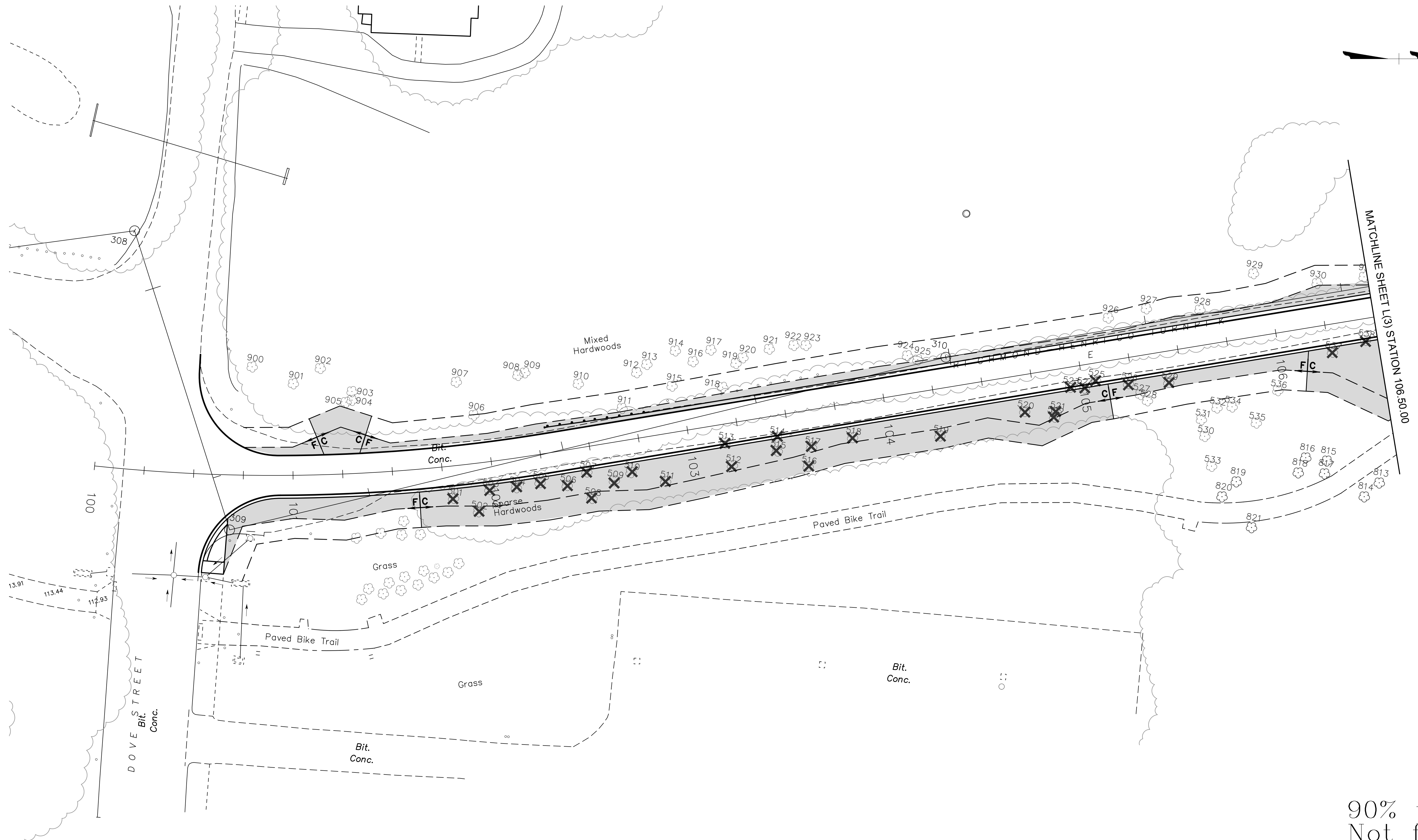
## TREE PROTECTION/PLANTING

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 CHECKED BY: XX

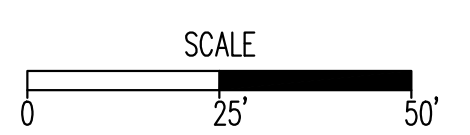
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SURVEYED BY: ..CITY OF RICHMOND..  
 SUPERVISED BY:.....MSV.....  
 DESIGNED BY:.....GK.....



90% plans  
Not for  
Construction



**NOTES**

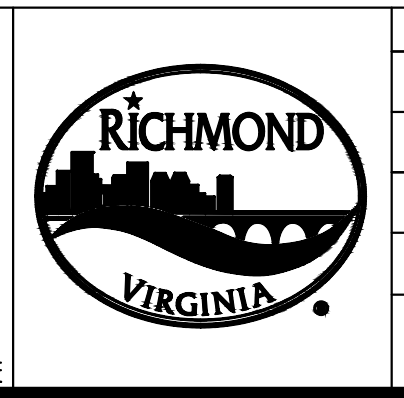
- Lot dimensions in parentheses are from deed.
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- Adopted
- Accepted

**REFERENCES**  
 REC: XX N/A NE SW SE

**REVISIONS**

**LEGEND**

<ul style="list-style-type: none"> <li>Existing Curb</li> <li>Curb &amp; Gutter</li> <li>Sidewalk</li> <li>Basin</li> <li>Storm Sewer</li> <li>Sewer Manhole</li> <li>Sanitary Sewer</li> <li>Sanitary Sewer (Base Wall)</li> <li>Gas Line</li> <li>Electric Line</li> <li>Telephone/Telegraph</li> <li>TV Cable</li> <li>Water Line</li> <li>Tree / Exist. Tree To Be Removed</li> <li>Property Line</li> </ul>	<ul style="list-style-type: none"> <li>15"</li> <li>12"SW</li> <li>10"SW</li> <li>2"</li> <li>E</li> <li>1/19</li> <li>6"</li> <li>Stump</li> </ul>	<ul style="list-style-type: none"> <li>Existing Curb Cut Ramp</li> <li>Alley Crossing/Driveway</li> <li>Edge of Pavement</li> <li>Fence</li> <li>Cornerstone</li> <li>Property Pin</li> <li>Utility Pole</li> <li>Proposed Sewer</li> <li>Manhole</li> <li>Basin</li> <li>Curb &amp; Gutter</li> <li>Asphalt</li> </ul>	<ul style="list-style-type: none"> <li>Proposed Conc. Sidewalk</li> <li>Brick Sidewalk</li> <li>Castings: Water Valve</li> <li>Water Meter</li> <li>Gas Drip</li> <li>Gas Valve</li> <li>Telephone Manhole</li> <li>Electric Manhole</li> <li>Proposed Curb Cut Ramp</li> <li>Decorative Light</li> <li>Conduit</li> <li>Conduit (Conc. Encased)</li> <li>Retaining Wall</li> </ul>
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Technical	Administrative
Surveys Superintendent	
Project Engineer	Capital Project Administrator
Maintenance Engineer	Deputy Director for Transportation / Public Works
City Traffic Engineer	Director of Public Works

DEPARTMENT OF PUBLIC WORKS  
RICHMOND, VIRGINIA

Richmond-Henrico Turnpike  
Roadway Improvements

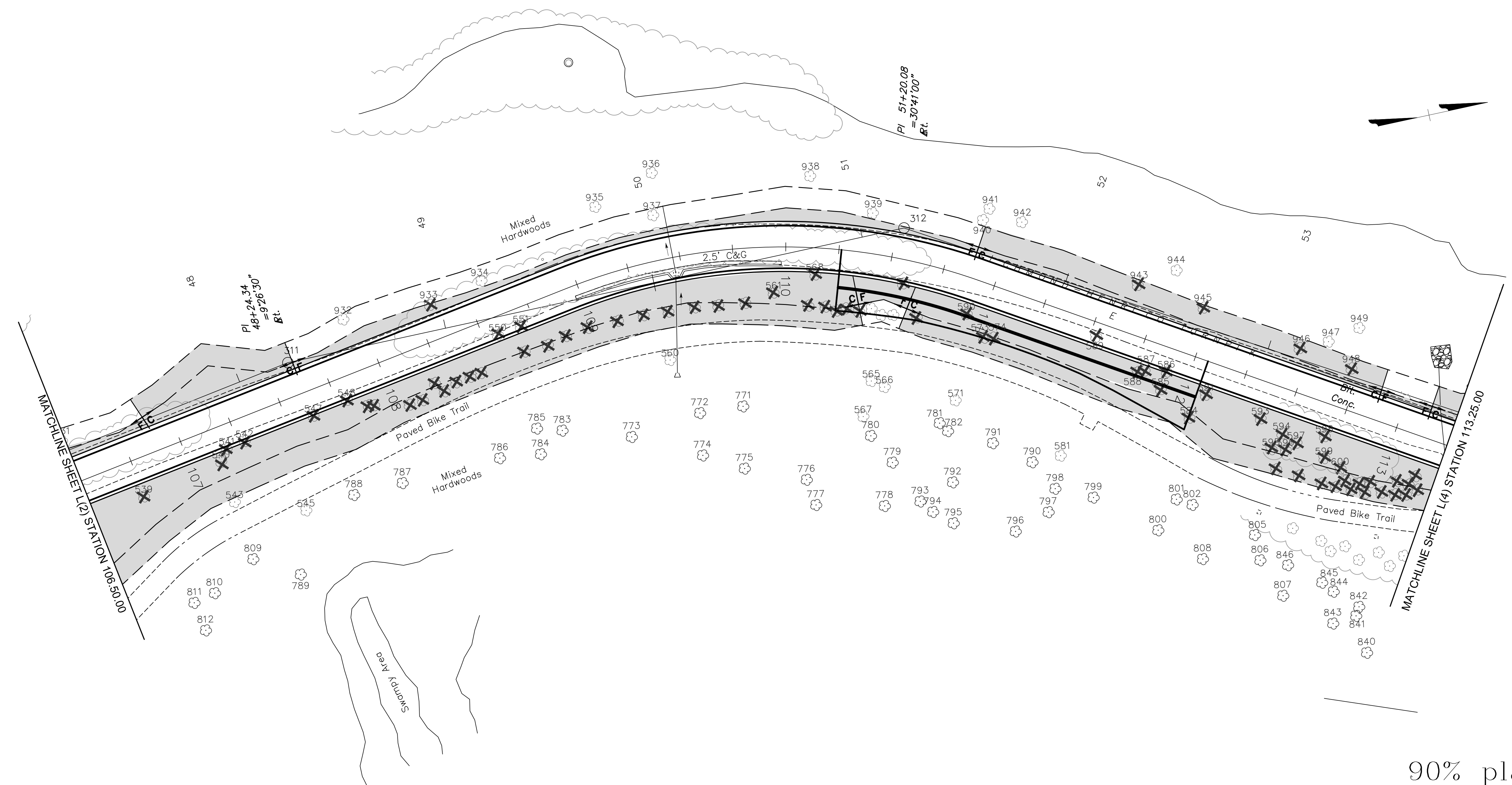
## TREE PROTECTION/PLANTING

CIP: \_\_\_\_\_

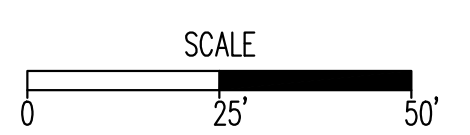
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DRAWN BY: XX	CHECKED BY: XX					



SURVEYED BY: ..CITY OF RICHMOND..  
 SUPERVISED BY:.....MSV.....  
 DESIGNED BY:.....GK.....



90% plans  
Not for  
Construction



**NOTES**

- Lot dimensions in parentheses are from deed.
- Property owners correct as of . 20
- Ordinance Number
- Adopted
- Accepted

**REFERENCES**  
 REC: XX/XX/XX NE, SW, SE

**REVISIONS**

NO.	DESCRIPTION	DATE

**Existing Curb**

- Curb & Gutter
- Sidewalk
- Basin
- Storm Sewer
- Sewer Manhole
- Sanitary Sewer
- Sanitary Sewer (Base Mat)
- Gas Line
- Electric Line
- Telephone/Telegraph
- TV Cable
- Water Line
- Tree / Exist. Tree To Be Removed
- Property Line

**LEGEND**

**Existing Curb Out Ramp**

- Coping
- Alley Crossing/Driveway
- Edge of Pavement
- Fence
- Cornerstone
- Property Pin
- Utility Pole

**Proposed Sewer**

- Manhole
- Basin
- Curb & Gutter
- Asphalt

**Proposed Conc. Sidewalk**

- Brick Sidewalk

**Castings: Water Valve**

- Water Meter
- Gas Valve
- Telephone Manhole
- Electric Manhole

**Proposed Curb Out Ramp**

- Decorative Light
- Conduit
- Conduit (Conc. Encased)
- Retaining Wall



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DEPARTMENT OF PUBLIC WORKS  
RICHMOND, VIRGINIA

Richmond-Henrico Turnpike  
Roadway Improvements

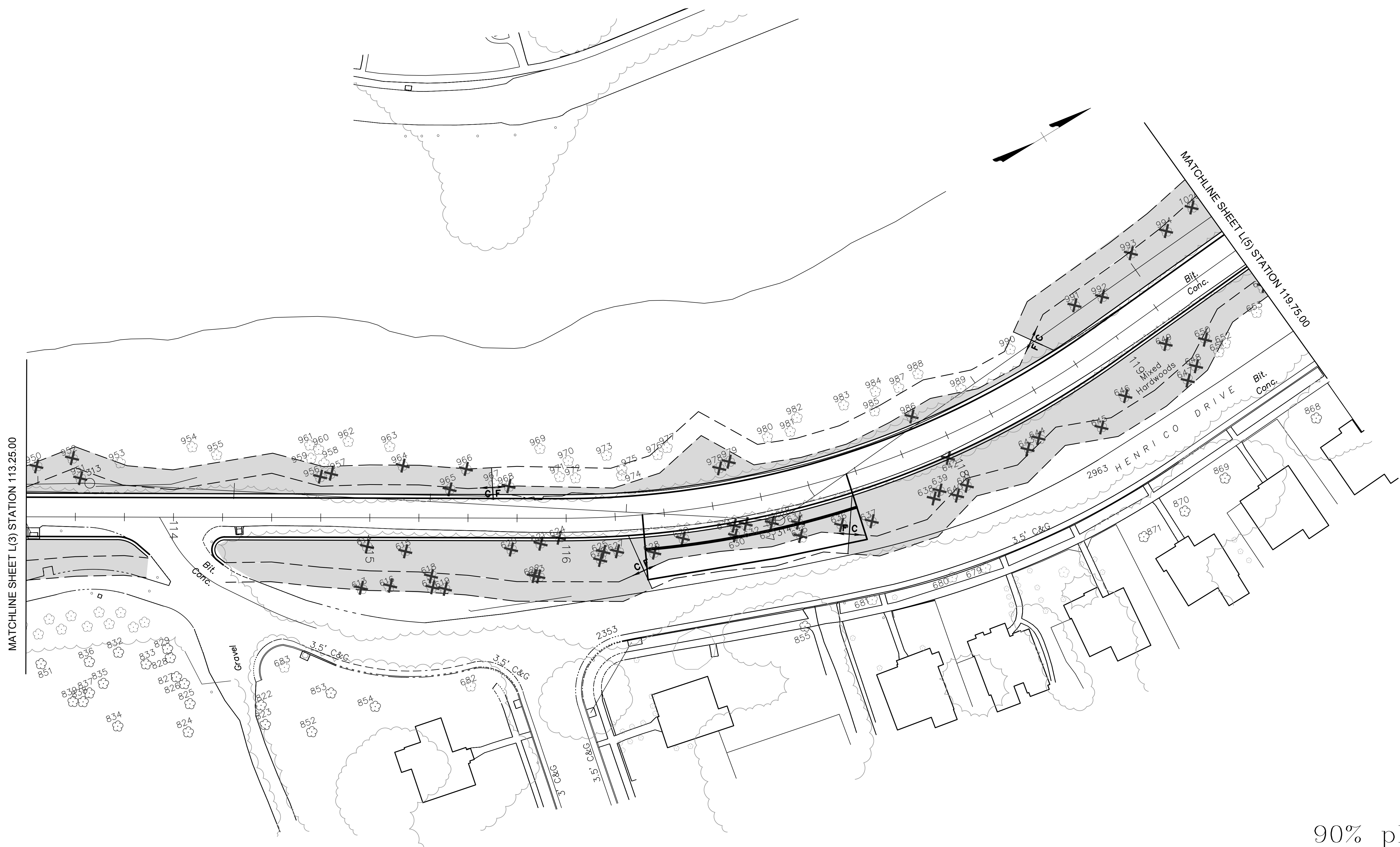
## TREE PROTECTION/PLANTING

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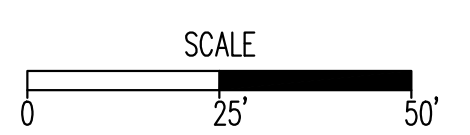
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DRAWN BY: XX						
CHECKED BY: XX						



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 5. Accepted

**REVISIONS**

NO.	DESCRIPTION	DATE

**EXISTING CURB**

Existing Curb	---
Curb & Gutter	---
Sidewalk	---
Basin	---
Storm Sewer	---
Sewer Manhole	---
Sanitary Sewer	---
Sanitary Sewer (12" SW)	---
Sanitary Sewer (10" SW)	---
Gas Line	---
Electric Line	---
Telephone/Telegraph	---
TV Cable	---
Water Line	---
Tree / Exist. Tree To Be Removed	---
Property Line	---

**LEGEND**

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

**PROPOSED CONC. SIDEWALK**

Proposed Conc. Sidewalk	---
Brick Sidewalk	---
Castings: Water Valve	---
Water Meter	---
Gas Drip	---
Gas Valve	---
Telephone Manhole	---
Electric Manhole	---
Proposed Curb Out Ramp	---
Decorative Light	---
Conduit	---
Conduit (Conc. Enclosed)	---
Retaining Wall	---



Technical	Administrative
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City Traffic Engineer	Director of Public Works

DEPARTMENT OF PUBLIC WORKS  
 RICHMOND, VIRGINIA

Richmond-Henrico Turnpike  
 Roadway Improvements

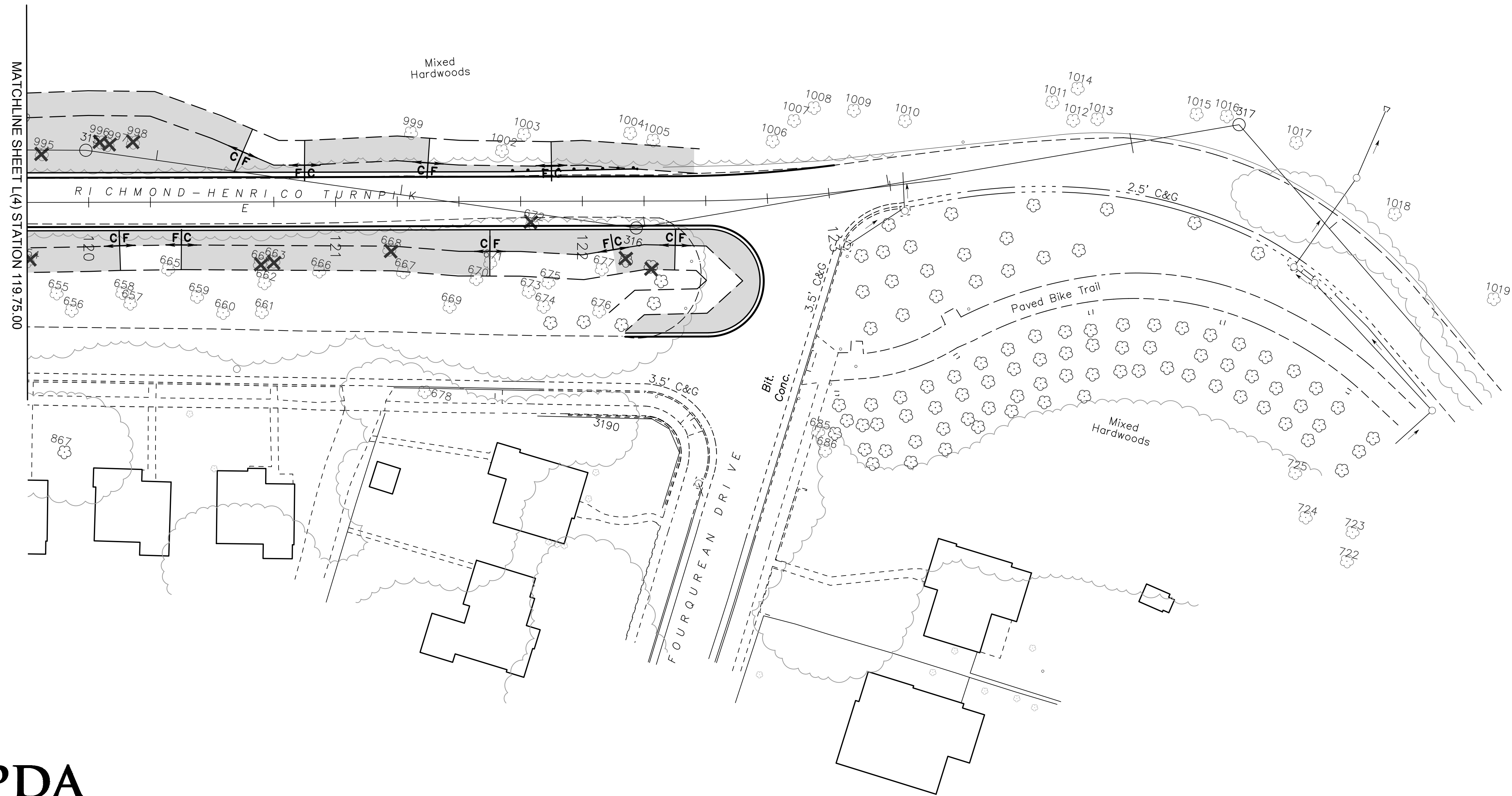
## TREE PROTECTION/PLANTING

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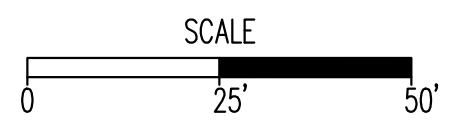
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DRAWN BY: XX						
CHECKED BY: XX						



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**REFERENCES**  
 REC: XX/XX/XX NE, SW, SE

**REVISIONS**

NO.	DATE	DESCRIPTION

**Existing Curb**

Curb & Gutter	---
Sidewalk	----
Basin	○
Storm Sewer	---
Sewer Manhole	○
Sanitary Sewer	---
Sanitary Sewer (see M&S)	---
Gas Line	---
Electric Line	---
Telephone/Telegraph	---
TV Cable	---
Water Line	---
Tree / Exist. Tree To Be Removed	⊗ / ⊗
Property Line	---

**LEGEND**

**Existing Curb Out Ramp**

- Coping
- Alley Crossing/Driveway
- Fire Hydrant
- Edge of Pavement
- Fence
- Cornerstone
- Property Pin
- Utility Pole

**Proposed Sewer**

- Manhole
- Basin
- Curb & Gutter
- Asphalt

**Proposed Conc. Sidewalk**

- Brick Sidewalk

**Castings: Water Valve**

- Water Meter
- Gas Drop
- Gas Valve
- Telephone Manhole
- Electric Manhole

**Proposed Curb Out Ramp**

- Decorative Light
- Conduit
- Conduit (Conc. Encased)
- Retaining Wall



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DEPARTMENT OF PUBLIC WORKS  
RICHMOND, VIRGINIA

Richmond-Henrico Turnpike  
Roadway Improvements

## TREE PROTECTION/PLANTING

CIP: \_\_\_\_\_

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XX	XX		1"=25'	December, 2016	L(5)	0-28703

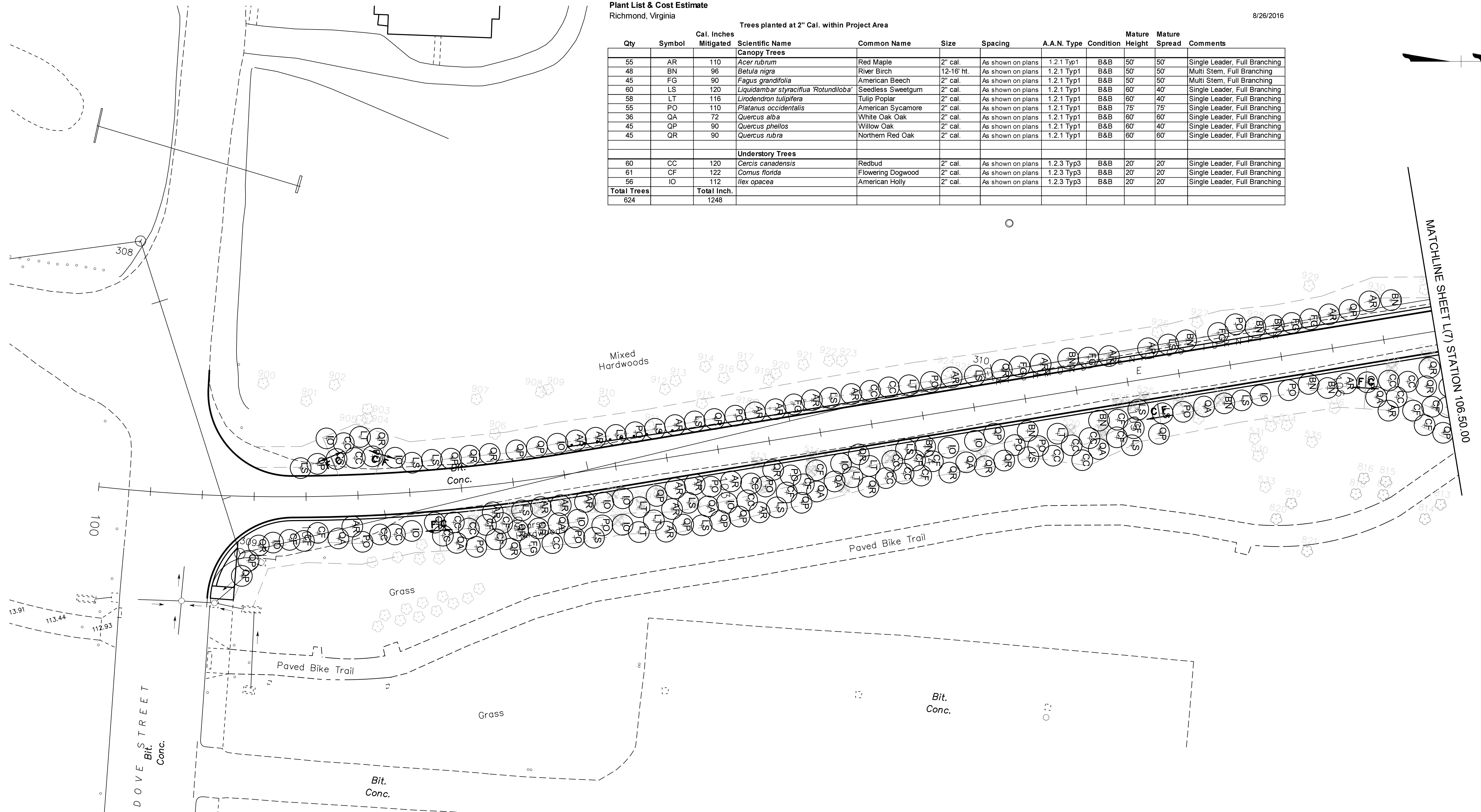


**Richmond Henrico Turnpike  
Plant List & Cost Estimate**  
Richmond, Virginia

Prepared By: Land Planning & Design Associates, Inc.

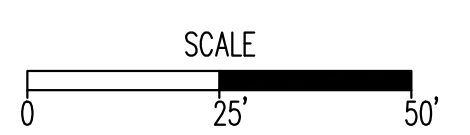
8/26/2016

Trees planted at 2" Cal. within Project Area											
Qty	Symbol	Cal. Inches	Scientific Name	Common Name	Size	Spacing	A.A.N. Type	Condition	Mature Height	Mature Spread	Comments
55	AR	110	<i>Acer rubrum</i>	Red Maple	2" cal.	As shown on plans	1.2.1 Typ1	B&B	50'	50'	Single Leader, Full Branching
48	BN	96	<i>Betula nigra</i>	River Birch	12-16' ht.	As shown on plans	1.2.1 Typ1	B&B	50'	50'	Multi Stem, Full Branching
45	FG	90	<i>Fagus grandifolia</i>	American Beech	2" cal.	As shown on plans	1.2.1 Typ1	B&B	50'	50'	Multi Stem, Full Branching
60	LS	120	<i>Liquidambar styraciflua 'Rotundiloba'</i>	Seedless Sweetgum	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	40'	Single Leader, Full Branching
58	LT	116	<i>Liriodendron tulipifera</i>	Tulip Poplar	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	40'	Single Leader, Full Branching
55	PO	110	<i>Platanus occidentalis</i>	American Sycamore	2" cal.	As shown on plans	1.2.1 Typ1	B&B	75'	75'	Single Leader, Full Branching
36	QA	72	<i>Quercus alba</i>	White Oak Oak	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	60'	Single Leader, Full Branching
45	QP	90	<i>Quercus phellos</i>	Willow Oak	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	40'	Single Leader, Full Branching
45	QR	90	<i>Quercus rubra</i>	Northern Red Oak	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	60'	Single Leader, Full Branching
<b>Understory Trees</b>											
60	CC	120	<i>Cercis canadensis</i>	Redbud	2" cal.	As shown on plans	1.2.3 Typ3	B&B	20'	20'	Single Leader, Full Branching
61	CF	122	<i>Cornus florida</i>	Flowering Dogwood	2" cal.	As shown on plans	1.2.3 Typ3	B&B	20'	20'	Single Leader, Full Branching
56	IO	112	<i>Ilex opaca</i>	American Holly	2" cal.	As shown on plans	1.2.3 Typ3	B&B	20'	20'	Single Leader, Full Branching
<b>Total Trees</b>		<b>Total Inch.</b>									
624		1248									



SURVEYED BY: ..CITY OF RICHMOND..  
 SUPERVISED BY:.....MSV.....  
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90% plans  
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Construction



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**Existing Curb**  
 • Curb & Gutter  
 • Sidewalk  
 • Basin  
 • Storm Sewer  
 • Sewer Manhole  
 • Sanitary Sewer  
 • Sanitary Sewer (New Mat)  
 • Gas Line  
 • Electric Line  
 • Telephone/Telegraph  
 • TV Cable  
 • Water Line  
 • Tree / Exist. Tree To Be Removed  
 • Property Line

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

**Proposed Conc. Sidewalk**  
 • Brick Sidewalk  
 Castings: Water Valve  
 • Water Meter  
 • Gas Drip  
 • Gas Valve  
 • Telephone Manhole  
 • Electric Manhole  
 Proposed Curb Out Ramp  
 • Decorative Light  
 • Conduit  
 • Conduit (Conc. Encased)  
 • Retaining Wall



Technical	Administrative
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DEPARTMENT OF PUBLIC WORKS  
RICHMOND, VIRGINIA

Richmond-Henrico Turnpike  
Roadway Improvements

## TREE PROTECTION/PLANTING

CIP: \_\_\_\_\_

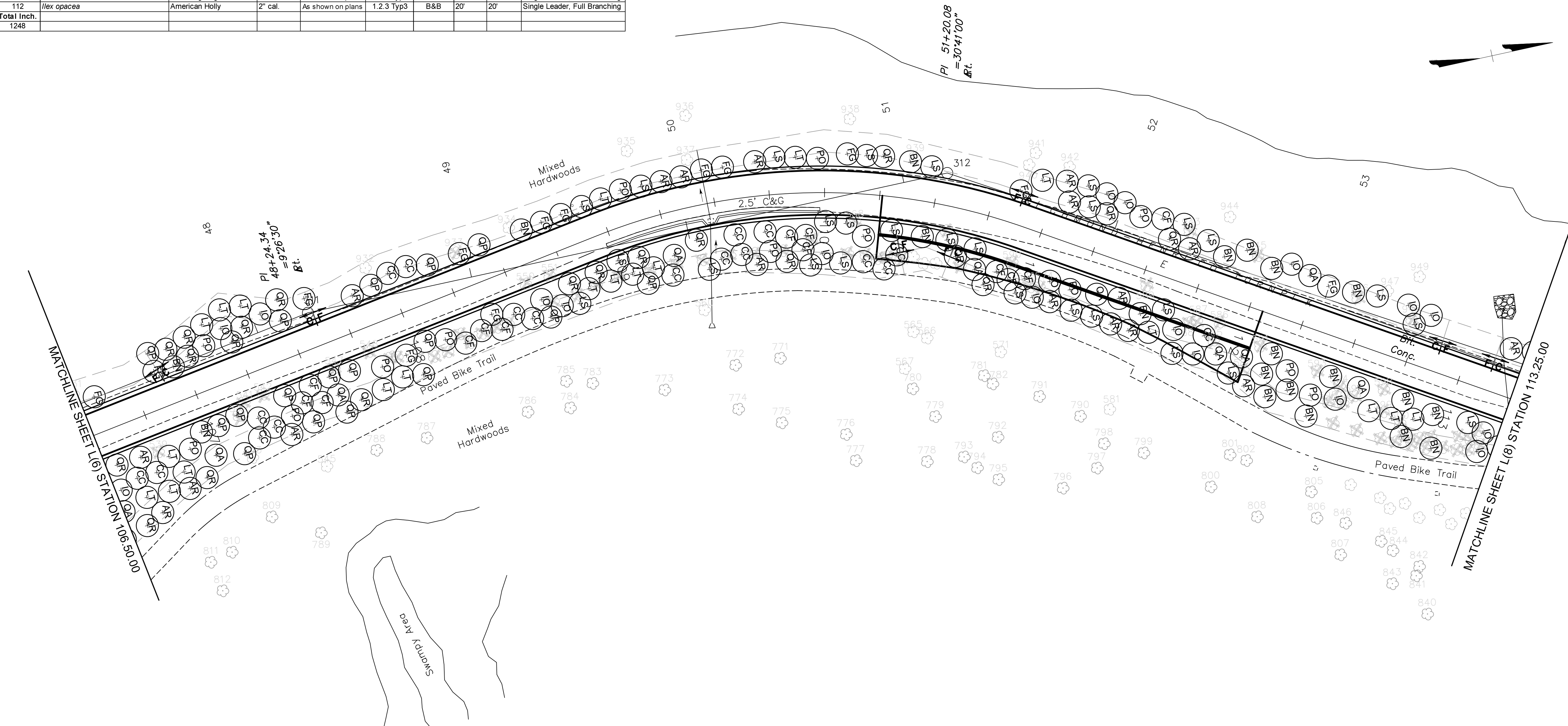
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CHECKED BY: XX						



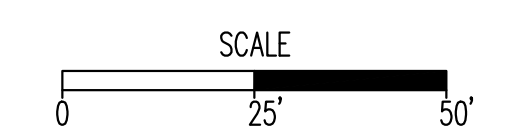
Trees planted at 2" Cal. within Project Area

Qty	Symbol	Cal. Inches	Scientific Name	Common Name	Size	Spacing	A.A.N. Type	Condition	Mature Height	Mature Spread	Comments
<b>Canopy Trees</b>											
55	AR	110	<i>Acer rubrum</i>	Red Maple	2" cal.	As shown on plans	1.2.1 Typ1	B&B	50'	50'	Single Leader, Full Branching
48	BN	96	<i>Betula nigra</i>	River Birch	12-16' ht.	As shown on plans	1.2.1 Typ1	B&B	50'	50'	Multi Stem, Full Branching
45	FG	90	<i>Fagus grandifolia</i>	American Beech	2" cal.	As shown on plans	1.2.1 Typ1	B&B	50'	50'	Multi Stem, Full Branching
60	LS	120	<i>Liquidambar styraciflua 'Rotundiloba'</i>	Seedless Sweetgum	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	40'	Single Leader, Full Branching
58	LT	116	<i>Liriodendron tulipifera</i>	Tulip Poplar	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	40'	Single Leader, Full Branching
55	PO	110	<i>Platanus occidentalis</i>	American Sycamore	2" cal.	As shown on plans	1.2.1 Typ1	B&B	75'	75'	Single Leader, Full Branching
36	QA	72	<i>Quercus alba</i>	White Oak	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	60'	Single Leader, Full Branching
45	QP	90	<i>Quercus phellos</i>	Willow Oak	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	40'	Single Leader, Full Branching
45	QR	90	<i>Quercus rubra</i>	Northern Red Oak	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	60'	Single Leader, Full Branching
<b>Understory Trees</b>											
60	CC	120	<i>Cercis canadensis</i>	Redbud	2" cal.	As shown on plans	1.2.3 Typ3	B&B	20'	20'	Single Leader, Full Branching
61	CF	122	<i>Cornus florida</i>	Flowering Dogwood	2" cal.	As shown on plans	1.2.3 Typ3	B&B	20'	20'	Single Leader, Full Branching
56	IO	112	<i>Ilex opacea</i>	American Holly	2" cal.	As shown on plans	1.2.3 Typ3	B&B	20'	20'	Single Leader, Full Branching
<b>Total Trees</b>		<b>Total Inch.</b>									
624		1248									

SURVEYED BY: ..CITY OF RICHMOND..  
 SUPERVISED BY:.....MSV.....  
 DESIGNED BY:.....GK.....



90% plans  
 Not for  
 Construction



**NOTES**

- Lot dimensions in parentheses are from deed.
- Property owners correct as of . 20
- Ordinance Number
- Adopted
- Accepted

**REFERENCES**  
 REC: XX' N/A' NE, SW, SE

**REVISIONS**

NO.	DESCRIPTION	DATE

**LEGEND**

Existing Curb	Proposed Conc. Sidewalk	Proposed Curb Out Ramp
• Curb & Gutter	• Brick Sidewalk	• Manhole
• Sidewalk	• Water Meter	• Basin
• Basin	• Gas Drip	• Curb & Gutter
• Storm Sewer	• Gas Valve	• Asphalt
• Sewer Manhole	• Telephone Manhole	
• Sanitary Sewer	• Electric Manhole	
• Sanitary Sewer (New)	• Property Pin	
• Gas Line	• Utility Pole	
• Electric Line	• Proposed Sewer	
• Telephone/Telegraph	• Manhole	
• TV Cable	• Basin	
• Water Line	• Curb & Gutter	
• Tree / Exist. Tree To Be Removed	• Stump	
• Property Line		



Technical	Administrative
Surveys Superintendent	Capital Project Administrator
Project Engineer	Deputy Director for Transportation / Public Works
Maintenance Engineer	City Traffic Engineer
City Traffic Engineer	Director of Public Works

DEPARTMENT OF PUBLIC WORKS  
 RICHMOND, VIRGINIA

Richmond-Henrico Turnpike  
 Roadway Improvements

## TREE PROTECTION/PLANTING

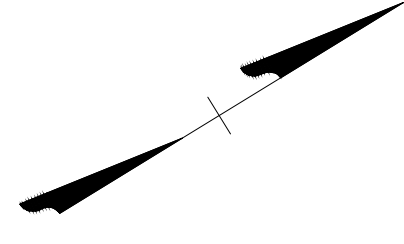
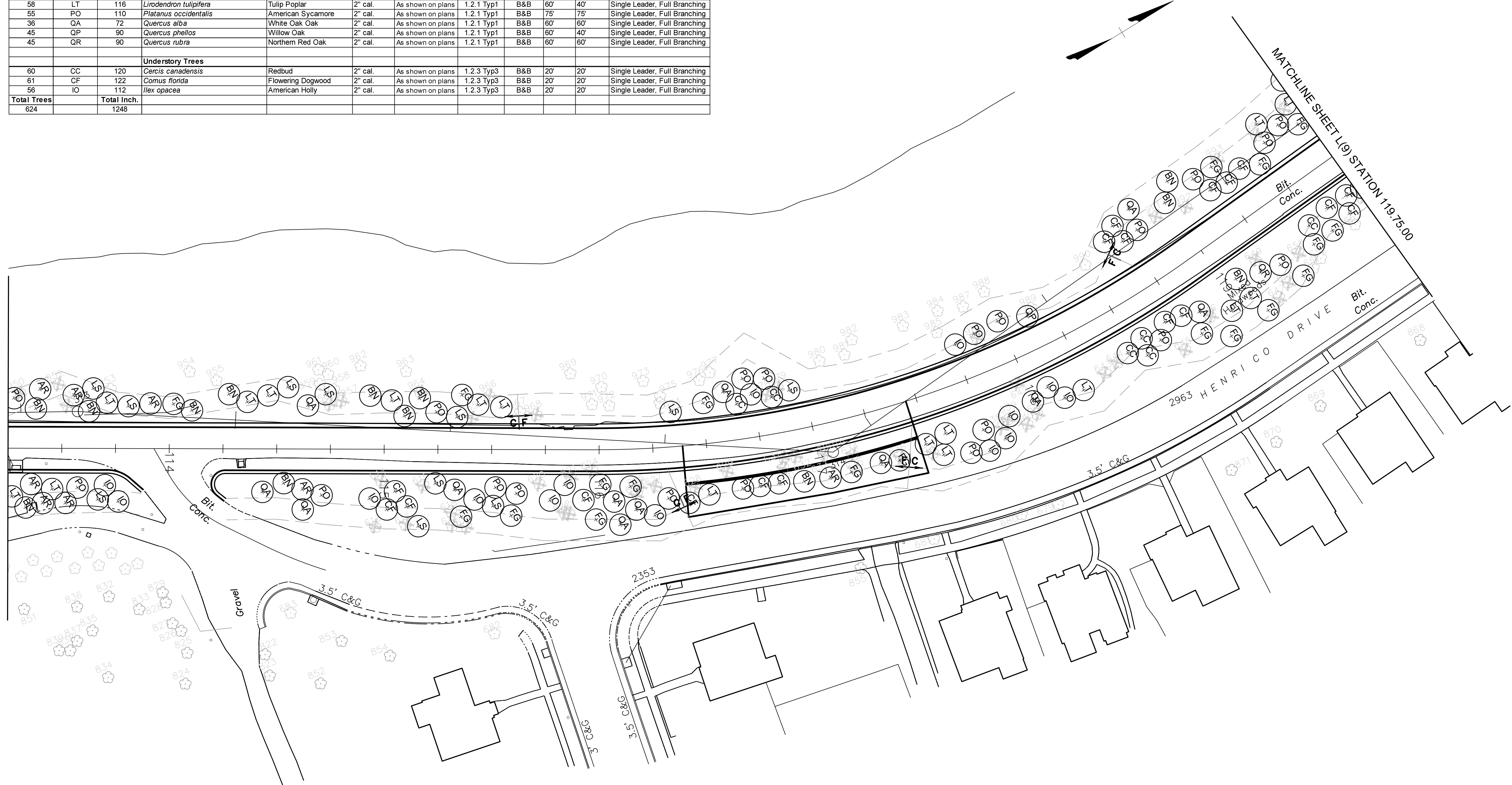
CIP: \_\_\_\_\_

DESIGN BY: XX	REVIEWED BY:	FIELD NOTES:	SCALE: 1"=25'	DATE: December, 2016	SHEET: L(7)	DRAWING NO.: 0-28703
DRAWN BY: XX						
CHECKED BY: XX						



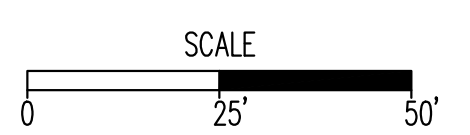
Trees planted at 2" Cal. within Project Area

Qty	Symbol	Cal. Inches Mitigated	Scientific Name	Common Name	Size	Spacing	A.A.N. Type	Condition	Mature Height	Mature Spread	Comments
<b>Canopy Trees</b>											
55	AR	110	<i>Acer rubrum</i>	Red Maple	2" cal.	As shown on plans	1.2.1 Typ1	B&B	50'	50'	Single Leader, Full Branching
48	BN	96	<i>Betula nigra</i>	River Birch	12-16' ht.	As shown on plans	1.2.1 Typ1	B&B	50'	50'	Multi Stem, Full Branching
45	FG	90	<i>Fagus grandifolia</i>	American Beech	2" cal.	As shown on plans	1.2.1 Typ1	B&B	50'	50'	Multi Stem, Full Branching
60	LS	120	<i>Liquidambar styraciflua 'Rotundiloba'</i>	Seedless Sweetgum	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	40'	Single Leader, Full Branching
58	LT	116	<i>Liriodendron tulipifera</i>	Tulip Poplar	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	40'	Single Leader, Full Branching
55	PO	110	<i>Platanus occidentalis</i>	American Sycamore	2" cal.	As shown on plans	1.2.1 Typ1	B&B	75'	75'	Single Leader, Full Branching
36	QA	72	<i>Quercus alba</i>	White Oak Oak	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	60'	Single Leader, Full Branching
45	QP	90	<i>Quercus phellos</i>	Willow Oak	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	40'	Single Leader, Full Branching
45	QR	90	<i>Quercus rubra</i>	Northern Red Oak	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	60'	Single Leader, Full Branching
<b>Understory Trees</b>											
60	CC	120	<i>Cercis canadensis</i>	Redbud	2" cal.	As shown on plans	1.2.3 Typ3	B&B	20'	20'	Single Leader, Full Branching
61	CF	122	<i>Cornus florida</i>	Flowering Dogwood	2" cal.	As shown on plans	1.2.3 Typ3	B&B	20'	20'	Single Leader, Full Branching
56	IO	112	<i>Ilex opacea</i>	American Holly	2" cal.	As shown on plans	1.2.3 Typ3	B&B	20'	20'	Single Leader, Full Branching
<b>Total Trees</b>		<b>Total Inch.</b>									
624		1248									



SURVEYED BY: ..CITY OF RICHMOND..  
 SUPERVISED BY:.....MSV.....  
 DESIGNED BY:.....GK.....

90% plans  
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Construction



**NOTES**

- Lot dimensions in parentheses are from deed.
- Property owners correct as of . 20
- Ordinance Number
- Adopted
- Accepted

**REFERENCES**  
 REC: XX N/A NE SW SE

**REVISIONS**

No.	Description

**LEGEND**

Existing Curb	Existing Curb Cut Ramp	Proposed Conc. Sidewalk	Proposed Curb Cut Ramp
• Curb & Gutter	• Capping	• Brick Sidewalk	• Decorative Light
• Sidewalk	• Alley Crossing/Driveway	• Water Meter	• Conduit
• Basin	• Edge of Pavement	• Gas Drip	• Conduit (Conc. Enclosed)
• Storm Sewer	• Fence	• Gas Valve	• Retaining Wall
• Sewer Manhole	• Cornerstone	• Telephone Manhole	
• Sanitary Sewer	• Property Pin	• Electric Manhole	
• Sanitary Sewer (New)	• Utility Pole	• Proposed Curb Cut Ramp	
• Gas Line	• Proposed Sewer	• Manhole	
• Electric Line	• Manhole	• Basin	
• Telephone/Telegraph	• Basin	• Curb & Gutter	
• TV Cable	• Tree / Exist. Tree To Be Removed	• Asphalt	
• Water Line	• Stump		
• Tree / Exist. Tree To Be Removed			
• Property Line			



Technical	Administrative
Surveys Superintendent	Capital Project Administrator
Project Engineer	Deputy Director for Transportation / Public Works
Maintenance Engineer	City Traffic Engineer
City Traffic Engineer	Director of Public Works

DEPARTMENT OF PUBLIC WORKS  
RICHMOND, VIRGINIA

Richmond-Henrico Turnpike  
Roadway Improvements

## TREE PROTECTION/PLANTING

CIP: \_\_\_\_\_

DESIGN BY: XX	REVIEWED BY:	FIELD NOTES:	SCALE: 1"=25'	DATE: December, 2016	SHEET: L(8)	DRAWING NO.: 0-28703
DRAWN BY: XX	CHECKED BY: XX					



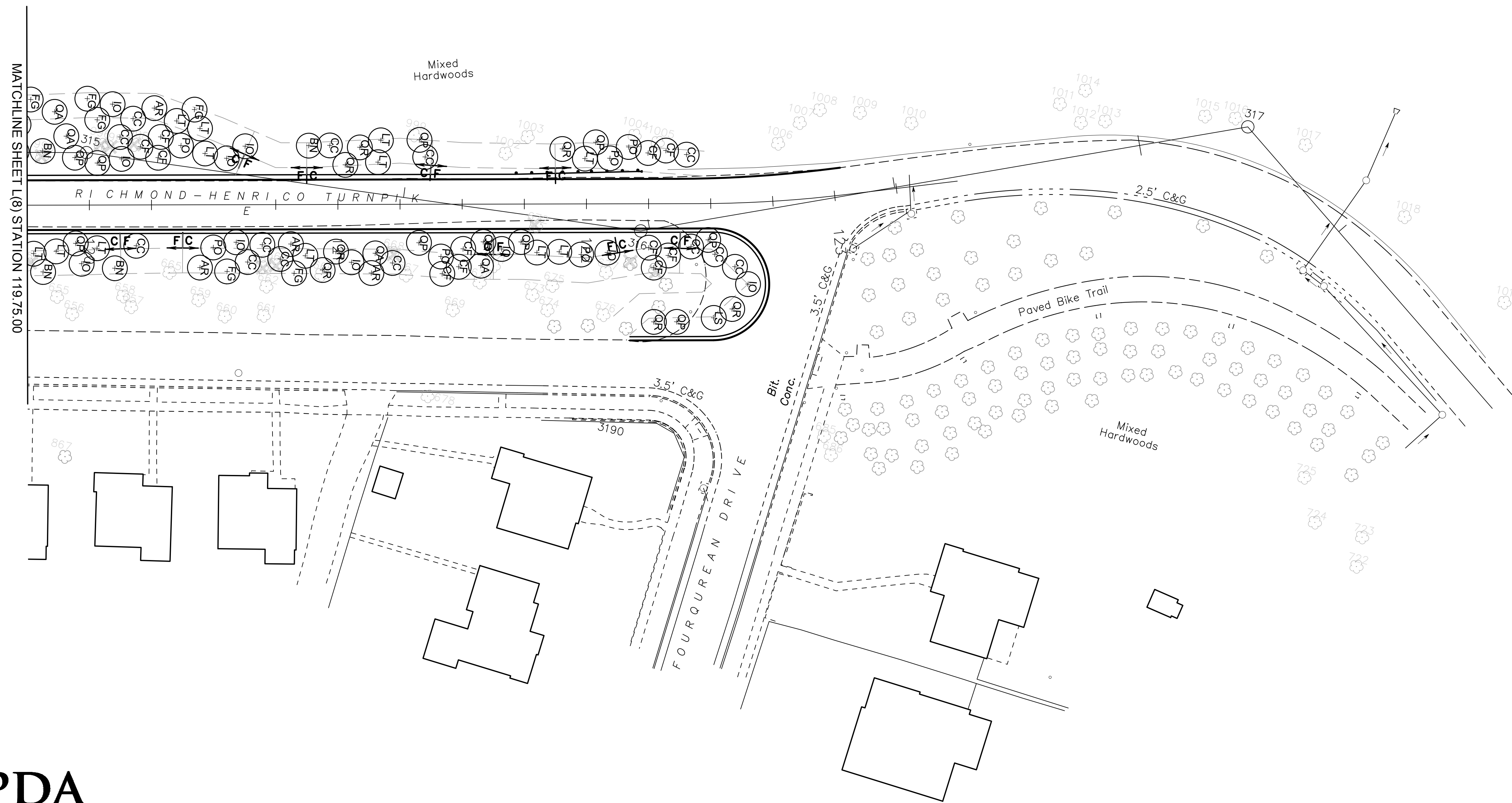
**Richmond Henrico Turnpike  
Plant List & Cost Estimate**  
Richmond, Virginia

Prepared By: Land Planning & Design Associates, Inc.

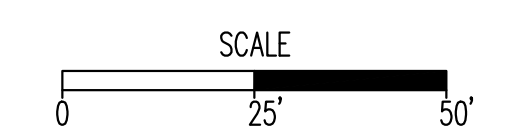
8/26/2016

Trees planted at 2" Cal. within Project Area

Qty	Symbol	Cal. Inches Mitigated	Scientific Name	Common Name	Size	Spacing	A.A.N. Type	Condition	Mature Height	Mature Spread	Comments
<b>Canopy Trees</b>											
55	AR	110	<i>Acer rubrum</i>	Red Maple	2" cal.	As shown on plans	1.2.1 Typ1	B&B	50'	50'	Single Leader, Full Branching
48	BN	96	<i>Betula nigra</i>	River Birch	12-16' ht.	As shown on plans	1.2.1 Typ1	B&B	50'	50'	Multi Stem, Full Branching
45	FG	90	<i>Fagus grandifolia</i>	American Beech	2" cal.	As shown on plans	1.2.1 Typ1	B&B	50'	50'	Multi Stem, Full Branching
60	LS	120	<i>Liquidambar styraciflua 'Rotundiloba'</i>	Seedless Sweetgum	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	40'	Single Leader, Full Branching
58	LT	116	<i>Liriodendron tulipifera</i>	Tulip Poplar	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	40'	Single Leader, Full Branching
55	PO	110	<i>Platanus occidentalis</i>	American Sycamore	2" cal.	As shown on plans	1.2.1 Typ1	B&B	75'	75'	Single Leader, Full Branching
36	QA	72	<i>Quercus alba</i>	White Oak Oak	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	60'	Single Leader, Full Branching
45	QP	90	<i>Quercus phellos</i>	Willow Oak	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	40'	Single Leader, Full Branching
45	QR	90	<i>Quercus rubra</i>	Northern Red Oak	2" cal.	As shown on plans	1.2.1 Typ1	B&B	60'	60'	Single Leader, Full Branching
<b>Understory Trees</b>											
60	CC	120	<i>Cercis canadensis</i>	Redbud	2" cal.	As shown on plans	1.2.3 Typ3	B&B	20'	20'	Single Leader, Full Branching
61	CF	122	<i>Cornus florida</i>	Flowering Dogwood	2" cal.	As shown on plans	1.2.3 Typ3	B&B	20'	20'	Single Leader, Full Branching
56	IO	112	<i>Ilex opaca</i>	American Holly	2" cal.	As shown on plans	1.2.3 Typ3	B&B	20'	20'	Single Leader, Full Branching
<b>Total Trees</b>		<b>Total Inch.</b>									
624		1248									



90% plans  
Not for  
Construction



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

**LEGEND**

Existing Curb	Existing Curb Out Ramp	Proposed Conc. Sidewalk	Proposed Brick Sidewalk
• Curb & Gutter	• Curb & Gutter	• Water Meter	• Gas Valve
• Sidewalk	• Sidewalk	• Telephone Manhole	• Electric Manhole
• Basin	• Basin	• Electric Manhole	• Property Pin
• Storm Sewer	• Storm Sewer	• Utility Pole	• Utility Pole
• Sewer Manhole	• Sewer Manhole	• Manhole	• Manhole
• Sanitary Sewer	• Sanitary Sewer	• Basin	• Basin
• Sanitary Sewer (New)	• Sanitary Sewer (New)	• Curb & Gutter	• Curb & Gutter
• Gas Line	• Gas Line	• Asphalt	• Asphalt
• Electric Line	• Electric Line		
• Telephone/Telegraph	• Telephone/Telegraph		
• TV Cable	• TV Cable		
• Tree / Exist. Tree To Be Removed	• Tree / Exist. Tree To Be Removed		
• Property Line	• Property Line		



Technical	Administrative
Surveys Superintendent	
Project Engineer	Capital Project Administrator
Maintenance Engineer	Deputy Director for Transportation / Public Works
City Traffic Engineer	Director of Public Works

DEPARTMENT OF PUBLIC WORKS  
RICHMOND, VIRGINIA

Richmond-Henrico Turnpike  
Roadway Improvements

## TREE PROTECTION/PLANTING

CIP: \_\_\_\_\_

DESIGN BY: XX	REVIEWED BY:	FIELD NOTES:	SCALE: 1"=25'	DATE: December, 2016	SHEET: L(9)	DRAWING NO.: 0-28703
DRAWN BY: XX						
CHECKED BY: XX						

SURVEYED BY: ..CITY OF RICHMOND..  
 SUPERVISED BY:.....MSV.....  
 DESIGNED BY:.....GK.....



8/22/2016

Trees to be Removed within Grading Area

ID #	Caliper Size(")	Species	Removed	Location	Cut/Fill area
<b>Mature (in grade)</b>					
933	8	Unknown?	1	W	F
968	30	poplar	1	W	F
978	15	gum	1	W	F
979	28	poplar	1	W	F
986	13	hop hombeam	1	W	F
526	30	red oak	1	E	F
529	12	locust	1	E	F
628	12	beech	1	E	F
629	15	beech	1	E	F
630	15	beech	1	E	F
631	24	gum	1	E	F
632	10	maple	1	E	F
633	15	beech	1	E	F
634	15	beech	1	E	F
635	10	unknown?	1	E	F
636	15	triple maple	1	E	F
951	30	oak	1	W	C
965	20	gum	1	W	C
991	26	poplar	1	W	C
992	12	gum	1	W	C
993	12	gum	1	W	C
994	23	gum	1	W	C
995	8	gum	1	W	C
996	15	gum	1	W	C
997	18	twin gum	1	W	C
998	42	hop hombeam	1	W	C
1020	24	gum	1	W	C
<b>Mature (in grade)</b>					
501	24	red oak	1	E	C
503	18	gum	1	E	C
504	15	gum	1	E	C
505	15	gum	1	E	C
506	18	gum	1	E	C
507	20	red oak	1	E	C
509	12	red oak	1	E	C
510	24	red oak	1	E	C
511	15	gum	1	E	C
512	12	cherry	1	E	C
513	26	gum	1	E	C
514	15	gum	1	E	C
515	24	red oak	1	E	C
517	12	red oak	1	E	C
518	12	osage orange	1	E	C
520	26	red oak	1	E	C
521	20	poplar	1	E	C
522	12	beech	1	E	C
523	18	white oak	1	E	C
524	20	beech	1	E	C
525	15	gum	1	E	C
537	20	white oak	1	E	C
538	18	red oak	1	E	C
539	27	red oak	1	E	C
540	20	red oak	1	E	C
541	8	beech	1	E	C
542	18	red oak	1	E	C
547	27	red oak	1	E	C
548	12	red oak	1	E	C
550	24	gum	1	E	C
551	22	gum	1	E	C
561	22	gum	1	E	C
568	24	gum	1	E	C
585	15	twin gum	1	E	C
586	10	royal paulownia	1	E	C
587	8	royal paulownia	1	E	C
588	8	royal paulownia	1	E	C
589	12	gum	1	E	C
590	18	gum	1	E	C
591	10	royal paulownia	1	E	C
593	18	gum	1	E	C
594	24	gum	1	E	C
595	12	red oak	1	E	C
596	22	red oak	1	E	C
597	24	red oak	1	E	C
598	12	oak	1	E	C
599	12	oak	1	E	C
600	8	white oak	1	E	C
614	15	maple	1	E	C
615	8	oak	1	E	C
620	15	beech	1	E	C
621	20	twin gum	1	E	C
622	8	oak	1	E	C
623	10	oak	1	E	C
624	10	maple	1	E	C
625	18	gum	1	E	C
626	12	gum	1	E	C
627	32	oak	1	E	C
637	15	gum	1	E	C
638	10	unknown?	1	E	C
639	18	gum	1	E	C
642	20	gum	1	E	C
643	18	beech	1	E	C
644	18	maple	1	E	C
646	10	gum	1	E	C
649	30	locust	1	E	C
672	48	twin gum	1	E	C
<b>Cannon Creek Trail (in grade)</b>					
			13	E	
<b>Cannon Creek Trail (in grade)</b>					
			0	W	
<b>Total</b>					
	1660		107		

Trees within 10' Buffer Area

ID #	Caliper Size(")	Species	Quantity	Removed	Location	Cut/Fill area	Probable Impact on root zone
<b>Mature (in buffer)</b>							
906	26	unknown?	1		W	F	
911	22	gum	1		W	F	
915	27	poplar	1		W	F	
918	12	twin unknown?	1		W	F	
924	24	oak	1		W	F	
925	23	unknown?	1		W	F	
926	22	poplar	1		W	F	
927	27	oak	1		W	F	
928	15	oak	1		W	F	
930	36	oak	1		W	F	
931	13	oak	1		W	F	
932	34	gum	1		W	F	
934	24	gum	1		W	F	
937	39	gum	1		W	F	
939	30	gum	1		W	F	
967	11	oak	1		W	F	
971	12	oak	1		W	F	
972	26	poplar	1		W	F	
974	26	maple	1		W	F	
975	14	maple	1		W	F	
976	8	hickory	1		W	F	
977	18	hickory	1		W	F	
985	9	poplar	1		W	F	
989	22	gum	1		W	F	
990	30	gum	1		W	F	
1002	8	unknown?	1		W	F	
<b>Mature (in buffer)</b>							
527	10	gum	1		E	F	
528	20	twin gum	1		E	F	
665	8	maple	1		E	F	
677	24	gum	1		E	F	
<b>Cannon Creek Trail (in buffer)</b>							
			8	0	E	F	
<b>Cannon Creek Trail (in buffer)</b>							
				0	W		
<b>Mature (in buffer)</b>							
943	24	oak	1	1	W	C	x
945	15	oak	1	1	W	C	x
946	39	gum	1	1	W	C	x
948	36	oak	1	1	W	C	x
950	11	unknown?	1	1	W	C	x
952	42	oak	1	1	W	C	x
956	41	oak	1	1	W	C	x
957	30	gum	1	1	W	C	x
964	14	unknown?	1	1	W	C	x
966	15	oak	1	1	W	C	x
502	18	gum	1	1	E	C	x
<b>Mature (in buffer)</b>							
508	24	red oak	1	1	E	C	x
516	18	gum	1	1	E	C	x
519	38	gum	1	1	E	C	x
573	12	royal paulownia	1	1	E	C	x
574	20	red oak	1	1	E	C	x
584	10	cherry	1	1	E	C	x
613	8	poplar	1	1	E	C	x
616	8	twin unknown?	1	1	E	C	x
617	10	oak	1	1	E	C	x
618	8	oak	1	1	E	C	x
619	10	oak	1	1	E	C	x
640	10	oak	1	1	E	C	x
641	15	beech	1	1	E	C	x
645	10	maple	1	1	E	C	x
647	30	oak	1	1	E	C	x
648	18	maple	1	1	E	C	x
650	24	locust	1	1	E	C	x
654	18	gum	1	1	E	C	x
663	8	hickory	1	1	E	C	x
664	8	oak	1	1	E	C	x
668	24	gum	1	1	E	C	x
671	30	gum	1	1	E	C	x
<b>Cannon Creek Trail (in buffer)</b>							
			29	29	E	C	x
<b>Cannon Creek Trail (in buffer)</b>							
				0	W		
<b>Total</b>							
	646		62				

Total trees within grading area 107  
 Total trees within 10' buffer 100  
 Total number of trees removed: 169  
 Total Stem Caliper Removed: 2306  
 (Excluding Cannon Creek Trees)

Planting Mitigation Formula:

**Trees within grading area**

Total Lost Caliper Diameter ("): 1660  
 Half of Lost Diameter ("): 830  
 Number of 2" Caliper trees Required: 415  
 Cannon Creek Trees impacted: 13

Number of trees specified: 428

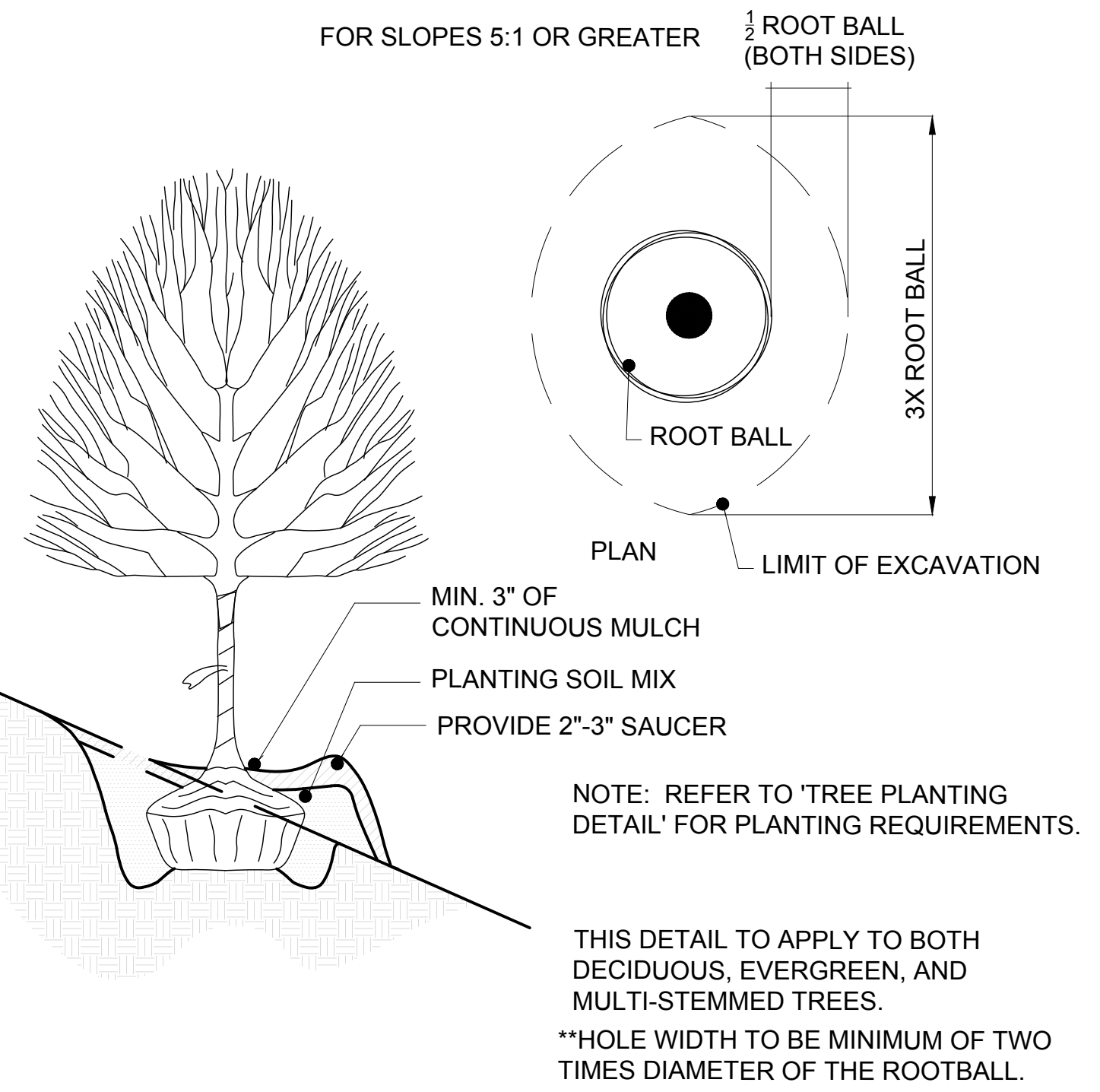
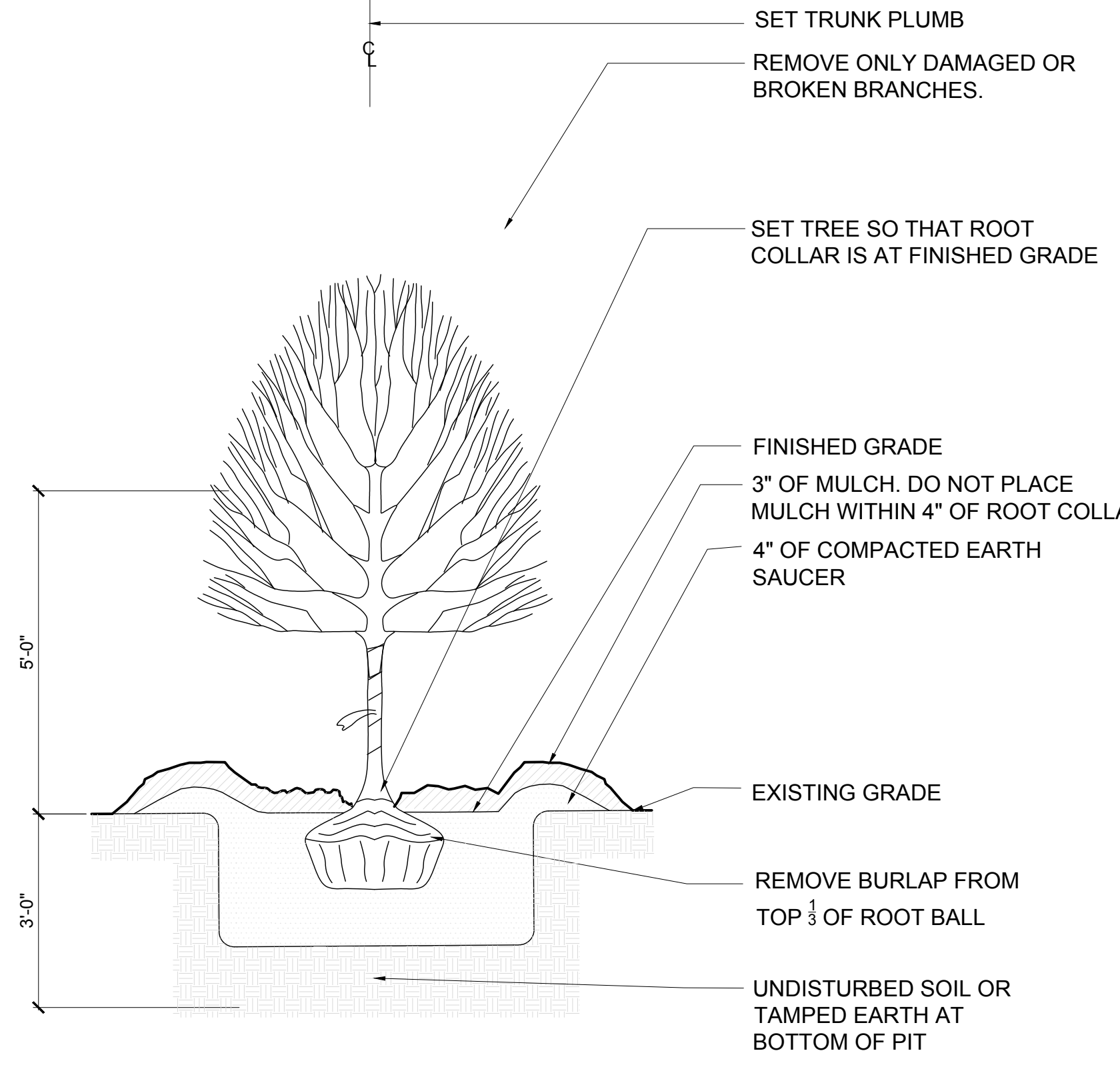
**Trees within 10' buffer area**

Total Lost Caliper Diameter ("): 646  
 Half of Lost Diameter ("): 323  
 Number of 2" Caliper trees Required: 162  
 Cannon Creek Trees impacted: 34

Number of trees specified: 196

Total Number of trees specified: 624

1 TREE PLANTING - OVERSIZED PIT  
 1/2" = 1'



2 TREE PLANTING ON SLOPE - OVERSIZED PIT  
 NTS

90% plans Not for Construction



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

LEGEND

Existing	Proposed
Curb & Gutter	Proposed Conc. Sidewalk
Sidewalk	Brick Sidewalk
Basin	Castings: Water Valve
Storm Sewer	Water Meter
Sewer Manhole	Gas Drip
Sanitary Sewer	Gas Valve
Sanitary Sewer (See 614)	Telephone Manhole
Gas Line	Electric Manhole
Electric Line	Proposed Curb Out Ramp
Telephone/Telegraph	Decorative Light
TV Cable	Conduit
Water Line	Conduit (Conc. Encased)
Tree / Exst. Tree To Be Removed	Retaining Wall
Property Line	



Technical	Administrative
Surveys Superintendent	
Project Engineer	Capital Project Administrator
Maintenance Engineer	Deputy Director for Transportation / Public Works
City Traffic Engineer	Director of Public Works

Richmond-Henrico Turnpike Roadway Improvements

**TREE PROTECTION/PLANTING**

DESIGN BY: XX  
 DRAWN BY: XX  
 CHECKED BY: XX

REVIEWED BY: \_\_\_\_\_

FIELD NOTES: \_\_\_\_\_

SCALE: As Shown

DATE: December, 2016

SHEET: L(10)

DRAWING NO.: 0-28703

SURVEYED BY: ..CITY OF RICHMOND..  
 SUPERVISED BY:.....MSV.....  
 DESIGNED BY:.....GK.....