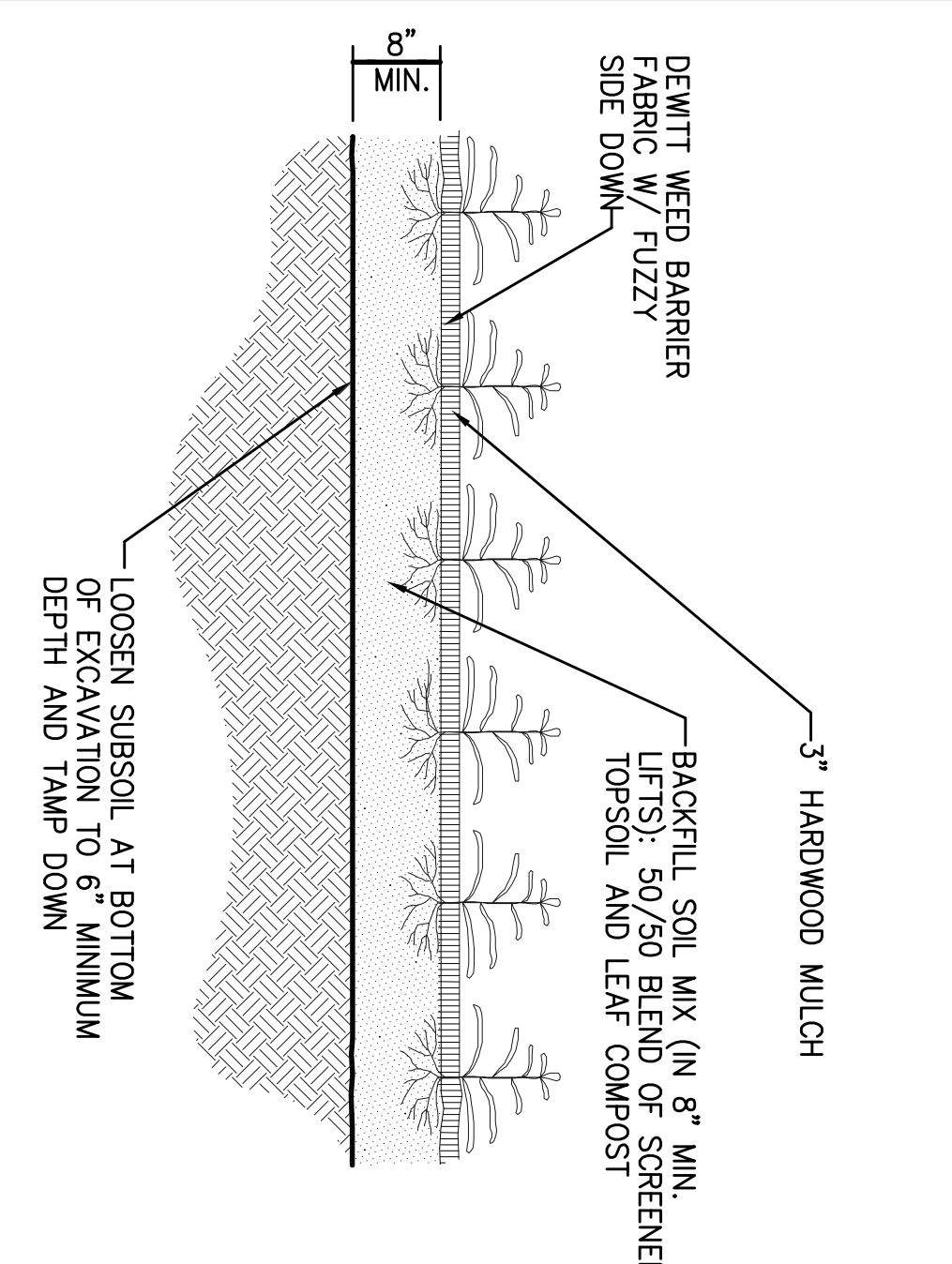
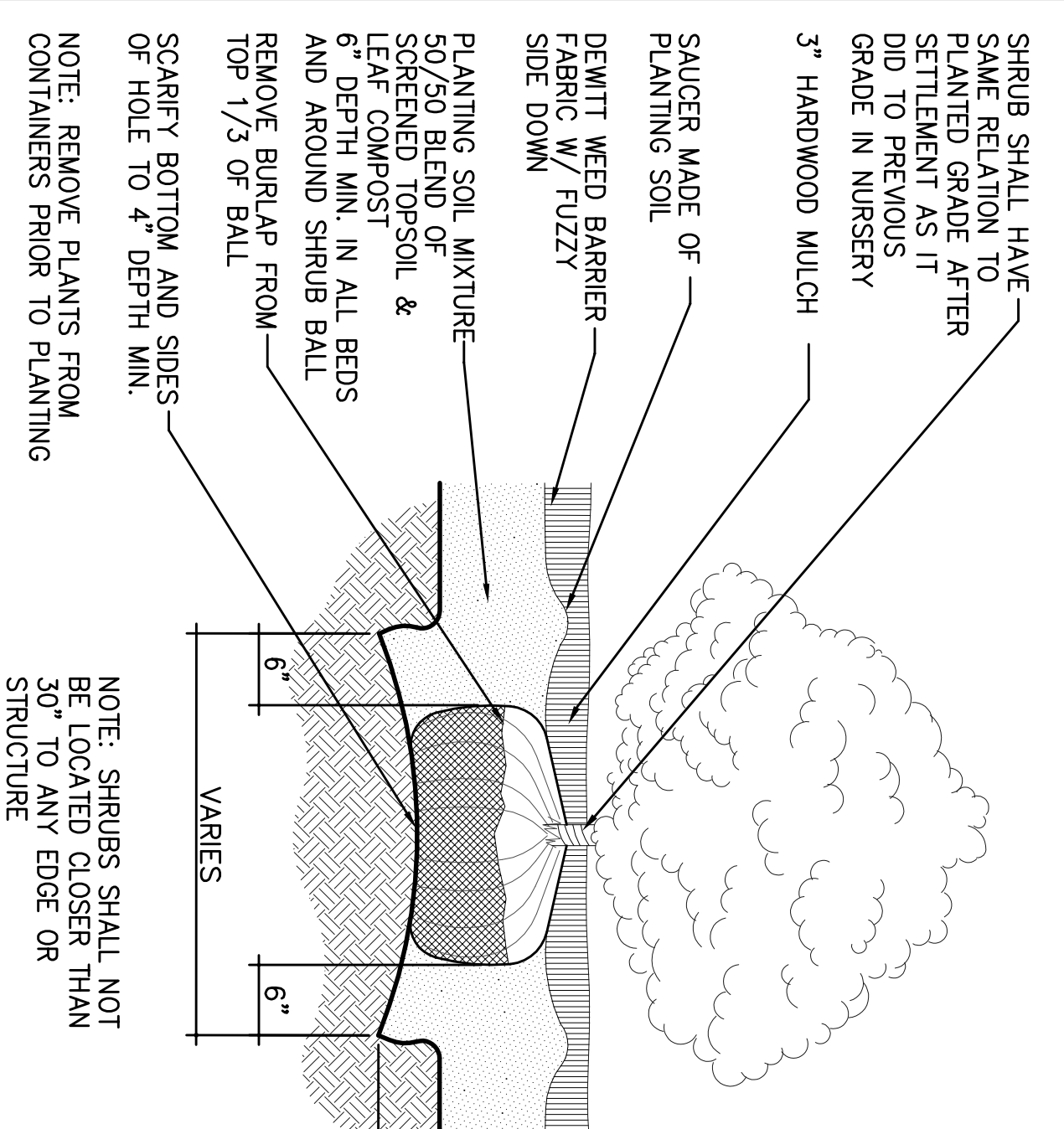


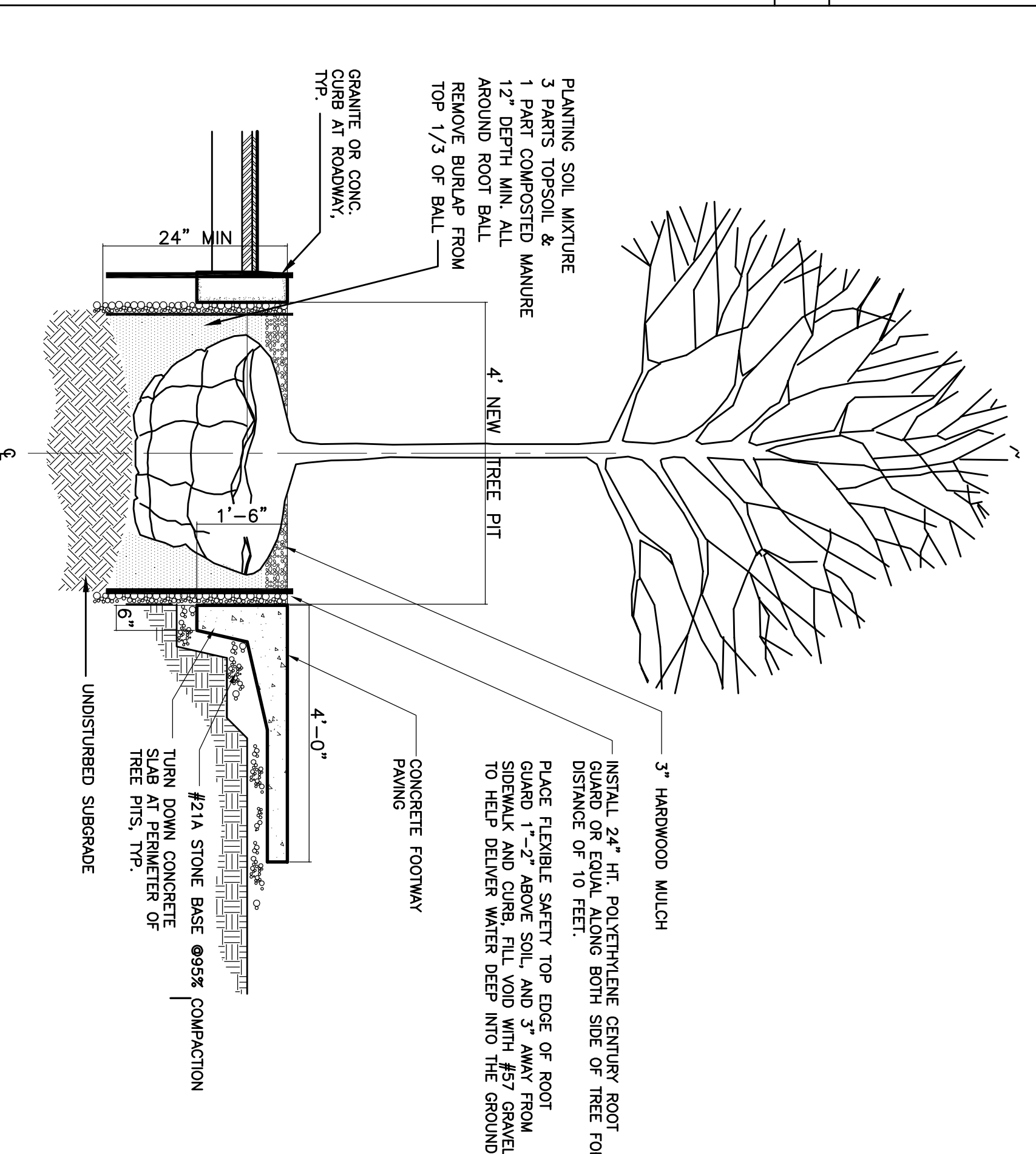
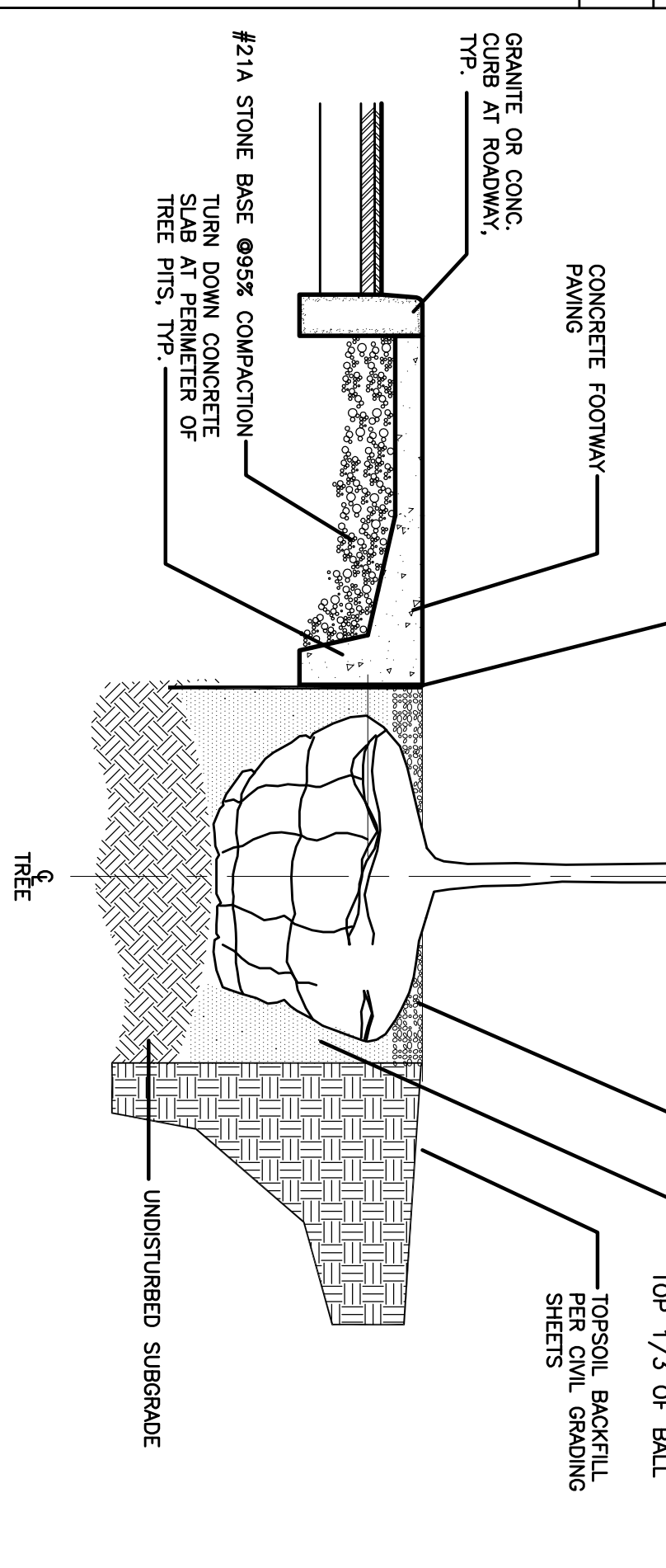
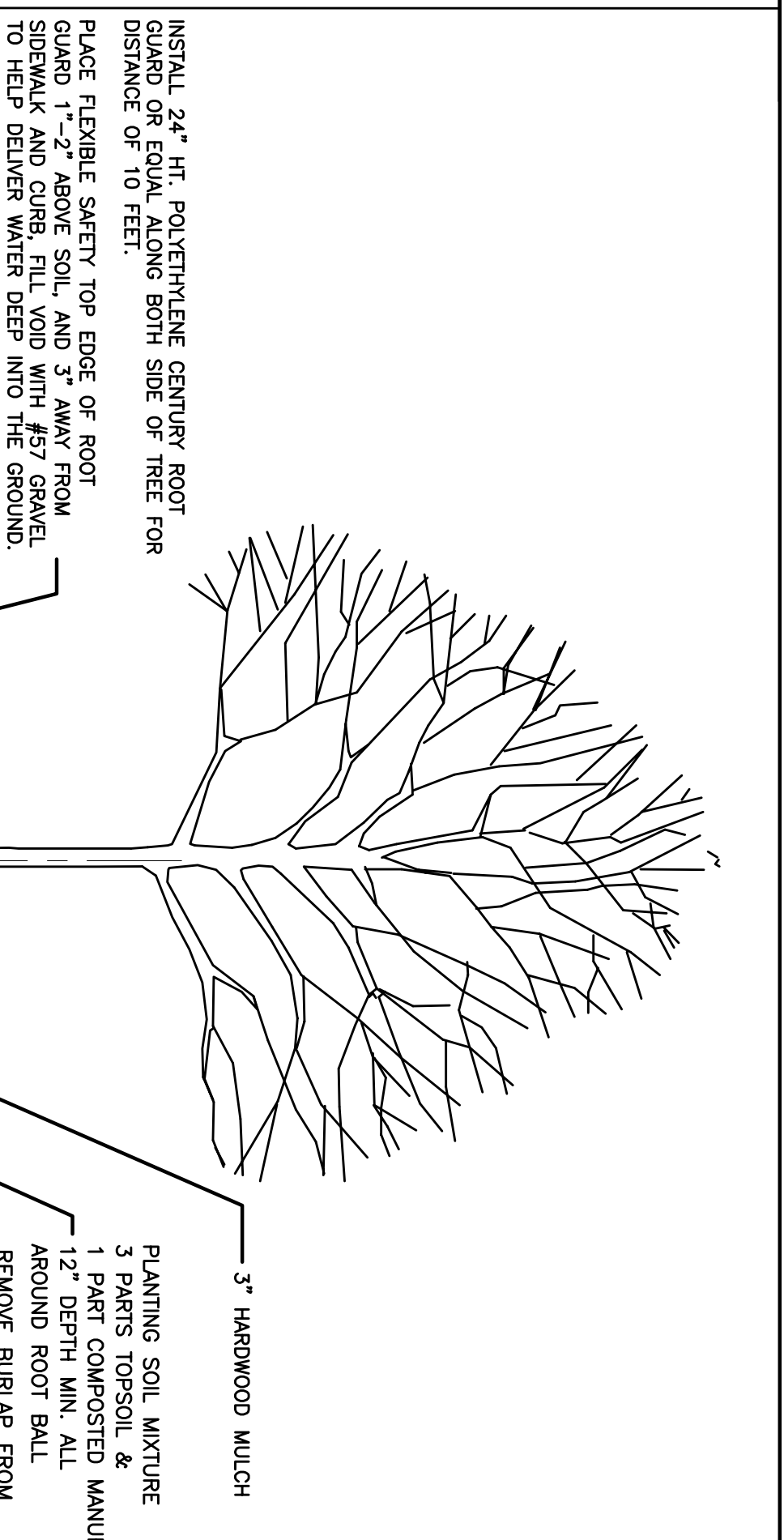
GROUNDCOVER SPACING PLAN
NOT TO SCALE



GROUNDCOVER PLANTING DETAIL
NOT TO SCALE



SHRUB PLANTING DETAIL
NOT TO SCALE



TREE PLANTING w/Root Barrier DETAILS
NOT TO SCALE

**CITY OF RICHMOND
PLANTING SPECIFICATIONS**
SECTION 1
SPECIFICATIONS

- A. Planting Schedule**
1. The planting schedule shall begin no earlier than September 1 and continue through April 15th with the exception of Crape Myrtles.
 2. The total quantity of trees and shrubs is shown on Sheet L2.
 3. Planting in temperatures that drop below 32 degrees Fahrenheit for the prolonged periods of time shall not be done, as this is injurious to the plant's root system.
- B. Tree Selection**
1. All trees shall be single stemmed unless otherwise specified.
 2. Trees shall be in good health, free of insects, disease or wounds.
 3. Root balls shall be dug.
 4. As some species are difficult to obtain, substitutions may be necessary, but must be approved by landscape architect and City of Richmond representative.
- Root balls shall be sufficient size to encompass enough of the root system to promote the health and survival of the tree. Placing soil around tree roots after the tree has been dug to create a root ball is no acceptable. ANSI A300 (part 6)-2005, 6.3.3.2.3, "The bottom of the trunk fibers shall be at or above finished grade."
- Container-grown plants shall not be root bound or girdled before planting.
- The City of Richmond reserves the right to inspect and reject all trees before acceptance.
- C. Transportation to Site**
1. All evergreens or plant material in full leaf shall be sprayed with an anti-desiccant or covered with shade cloths to prevent water loss.
 2. All trees shall be covered during transport to prevent windburn damage.
 3. Leaves shall not be removed from the trees as a substitute for anti-desiccant treatment.
 4. The utmost care shall be taken during unloading to prevent damage to the plant material.
 5. The City of Richmond reserves the right to refuse delivery of trees damaged during loading, transport, and unloading.
- D. Site Preparation**
1. No trees that grow larger than thirty feet tall (30') shall be selected for use under existing utility wires unless otherwise specified in writing.
 2. The planting area must be a shallow hole that is 2 to 3 times wider at the top than at the bottom, and large enough to accommodate the entire root ball.
 3. No loose dirt shall be placed at the bottom of the planting hole.
 4. The piling of excess dirt on top of the root ball shall not be allowed.
 5. Holes dug by machine shall have their sides scored to prevent glazing.
 6. The planting hole shall be dug to a depth that places the root fair of the tree even with the level of the surrounding ground.
 7. Excess soil and other material present in the planting site shall be removed by the contractor at the time of planting.
- E. Planting and Pruning.**
1. All trees shall be pruned according to ANSI A300 (Part 1)-2001 Pruning standards before planting to remove crossing, rubbing, and /or broken branches.
 2. Typically single-stemmed trees with no dominant stems should be pruned away to encourage dominance of one primary stem.
 3. All trees shall be planted according to ANSI A300 (Part 6) Transplanting.
 - a. The American Nursery and Landscape Association, American Society of Landscape Architects, and the Professional Grounds Maintenance Society are represented in the ANSI standards
 4. No tree roots shall be pruned at time of planting except to remove broken or girdling roots.
- Do Not:**
- * Use black plastic below mulch cover.
 - * Wrap the tree trunk with protective wraps.
 - * Stake the tree unless necessary to maintain the tree in an upright position.
 - * Create a mulch layer deeper than 3 inches
 - * Place mulch within 2 inches of tree's trunk.
- Do:**
- * Remove all tags and labels.
 - * Cut away baling rope
 - * Remove the top 1/3 of wire basket.
 - * Cut and remove the burlap from the top 1/3 of root ball.

Trees shall be watered in at time of planting to remove any pockets from around the root ball and allow for settling.

Once the soil in the planting pit has settled back fill holes with existing soil or with a better quality of soil so that it provides a dish to allow water to be transported to the root system.

F. Maintenance and Warranty

1. Unless otherwise specified all trees shall be watered, and given necessary maintenance to survive one year from time of planting.
2. All trees shall be watered during periods where there is no appreciable rainfall.
3. If stakes were used to support weak-stemmed trees, these stakes and stripping material shall be removed at the end of the One-year period. Use only slow release fertilizers e.g. Osmocote, or sulfur coated urea, or tree spikes if required.
4. The vendor is required to provide a one year warranty for all trees and shrubs supplied by the vendor. Any trees or shrubs which are dead or over 30% dead at the one year anniversary of planting shall be replaced at the vendor's expense.

**FOREST HILL AVENUE
IMPROVEMENT PROJECT**

Shand Associates, P.C.
Landscape Architecture
1000 Campbell Park Drive
Charlottesville, Virginia 22902

**DEPARTMENT OF PUBLIC WORKS
RICHMOND, VIRGINIA**

City Traffic Engineer
Maintenance Engineer
Project Engineer
Capital Project Administrator
Deputy Director for Transportation / Public Works
Director of Public Works

LANDSCAPE DETAILS & NOTES

Drawing # 0-28520
CIP: 040-291-8950

DESIGN BY: CDS
DRAWN BY: SP
CHECKED BY: CDS

REVIEWED BY: []
FIELD NOTES: []

SCALE: HORIZ. 1"=30'
VERT. 1"=3'

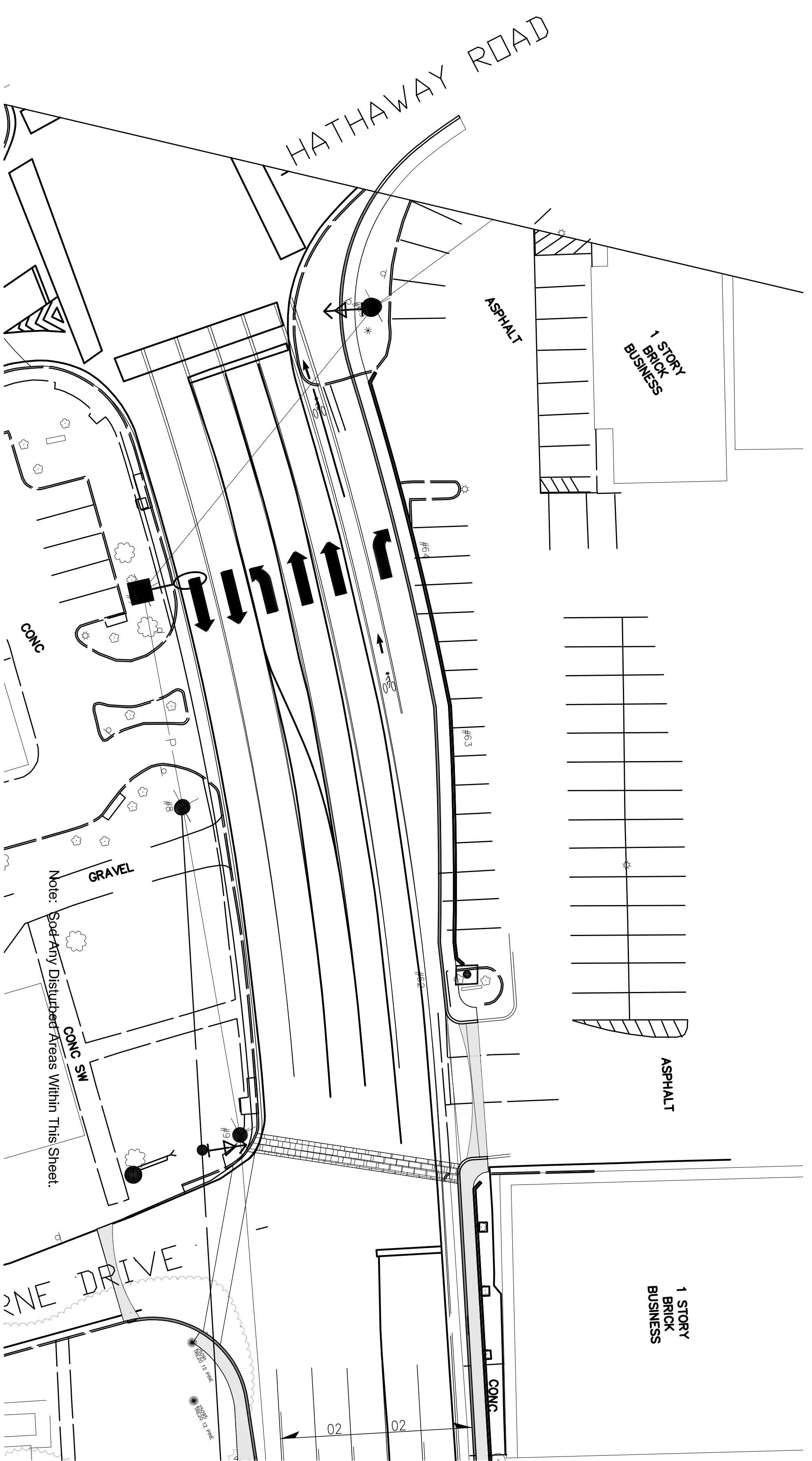
DATE: 11-10-2016

LANDSCAPE PLAN

DRAWING NO. L1 of 7

Technical

Administrative



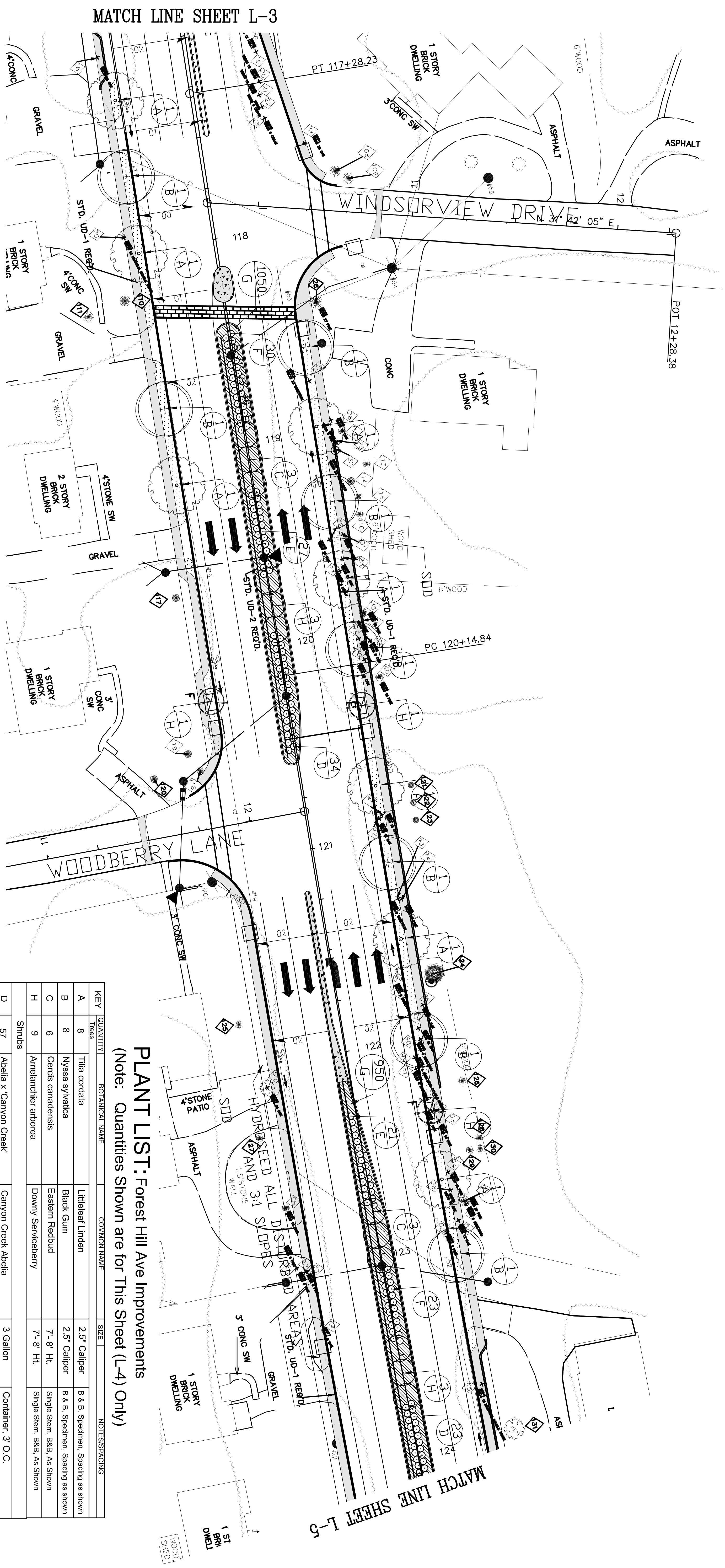
MATCH LINE SHEET L-3

PLANT LIST: Forest Hill Ave Improvements
 (Note: Quantities Shown are for TOTAL PROJECT.)

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES/SPACING
Trees					
A	43	Tilia cordata	Littleleaf Linden	2.5" Caliper	B & B, Specimen, Spacing as shown
B	43	Nyssa sylvatica	Black Gum	2.5" Caliper	B & B, Specimen, Spacing as shown
C	33	Cercis canadensis	Eastern Redbud	7"- 8" Ht.	Single Stem, B&B, As Shown
H	34	Amenanchier arborea	Dowry Serviceberry	7"- 8" Ht.	Single Stem, B&B, As Shown
I	26	Ilex x Nellies Stevens	Nellie Stevens Holly	8"- 10" Ht.	Single Stem, B&B, As Shown
Shrubs					
D	227	Abelia x Canyon Creek	Canyon Creek Abelia	3 Gallon	Container, 3' O.C.
E	444	Raphiolepis indica	Indian Hawthorne	5 Gallon	Container, 4' O.C.
F	241	Rosa spp. "Pink Knockout"	Pink Knockout Rose	3 Gallon	Container, 6' O.C.
Groundcovers					
G	10,050	Liriope muscari 'Royal Purple'	Royal Purple Green Liriope	1 Gallon Size,	Container, 12" O.C. Do Not Exceed 12" Spacing
SOD					
	2060 LF	Century Root Barrier (24" Ht.)	Install 10ft sections on both sides of street trees along roadway		
	1900 SY	Turf Type Tall Fescue SOD	Lime, Seed, Fertilize & Straw, All Disturbed Areas Not Designated As Sod		
		Double Shredded Hardwood Mulch	(Contractor to calculate quantity)		

F = Filterna Location

<h1 style="margin: 0;">FOREST HILL AVENUE IMPROVEMENT PROJECT</h1>	<p style="font-size: 8px; margin: 0;">Stead Associates, P.C. 10000 Westpark Drive, Suite 100 Richmond, VA 23234 (804) 781-1100 www.steadassoc.com</p>
<p style="font-size: 8px; margin: 0;">Surveys Superintendent Project Engineer Maintenance Engineer City Traffic Engineer</p>	<p style="font-size: 8px; margin: 0;">Capital Project Administrator Deputy Director for Transportation / Public Works Director of Public Works</p>
<p style="font-size: 12px; margin: 0;">LANDSCAPE PLAN</p>	
<p style="font-size: 8px; margin: 0;">Drawing # 0-28520 Design by: CS Checked by: CS</p>	
<p style="font-size: 8px; margin: 0;">APPROVED BY: [Signature Box] FIELD NOTES SCALE: 1/8" = 1'-0" DATE: 12-13-2016 DRAWING NO: L2 of 7</p>	



MATCH LINE SHEET L-3

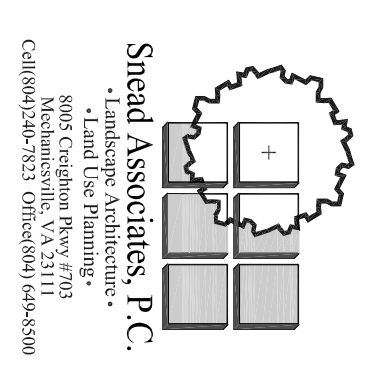
MATCH LINE SHEET L-5

PLANT LIST: Forest Hill Ave Improvements
 (Note: Quantities Shown are for This Sheet (L-4) Only)

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES/SPACING
A	8	Tilia cordata	Littleleaf Linden	2.5" Calliper	B & B. Specimen. Spacing as shown
B	8	Nyssa sylvatica	Black Gum	2.5" Calliper	B & B. Specimen. Spacing as shown
C	6	Cercis canadensis	Eastern Redbud	7-8" Ht.	Single Stem, B&B, As Shown
H	9	Ameiancher arborea	Downy Serviceberry	7-8" Ht.	Single Stem, B&B, As Shown
Shrubs					
D	57	Abelia x 'Canyon Creek'	Canyon Creek Abelia	3 Gallon	Container, 3' O.C.
E	48	Rhaphtolepis indica	Indian Hawthorne	5 Gallon	Container, 4' O.C.
F	53	Rosa spp. 'Pink Knockout'	Pink Knockout Rose	3 Gallon	Container, 6' O.C.
Groundcovers					
G	2000	Litlope muscari 'Royal Purple'	Royal Purple Green Litrope	1 Gallon Size,	Container, 12" O.C. Do Not Exceed 12" Spacing
SOD					
	400 SY	Century Root Barrier (24" Ht.)	Install 10ft sections on both sides of street trees along roadway		
		Turf Type Tall Fescue SOD	Lime, Seed, Fertilize & Straw. All Disturbed Areas Not Designated As Sod		
		Double Shredded Hardwood Mulch	(Contractor to calculate quantity)		

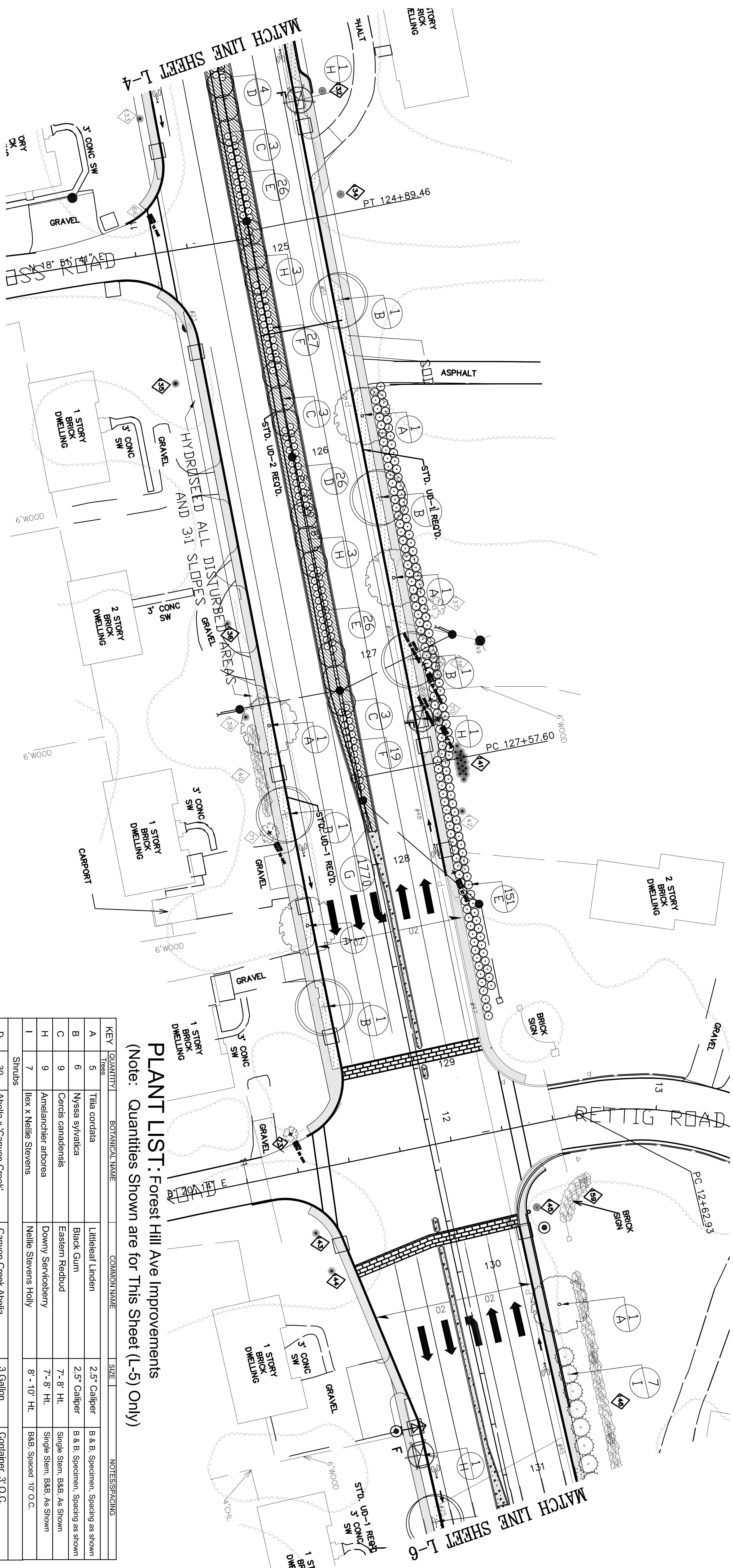
F = Filterra Location

**FOREST HILL AVENUE
IMPROVEMENT PROJECT**



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

LANDSCAPE PLAN	
Drawing # 0-28520	DESIGN BY: CS
CIP: 040-291-8950	REVIEWED BY:
DATE: 11-0-2016	SCALE: 1"=20'
LANDSCAPE PLAN	DATE: 11-0-2016
DRAWING NO. 14 OF 7	

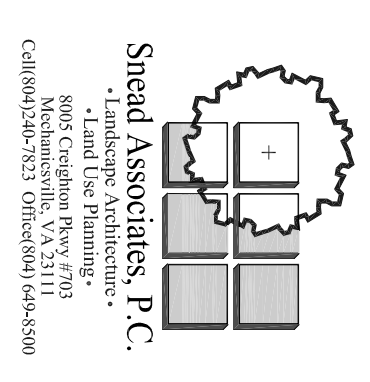


PLANT LIST: Forest Hill Ave Improvements
 (Note: Quantities Shown are for This Sheet (L-5) Only)

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES/SPACING
Trees					
A	5	Tilia cordata	Littleleaf Linden	2.5" Caliper	B & B, Specimen, Spacing as shown
B	6	Nyssa sylvatica	Black Gum	2.5" Caliper	B & B, Specimen, Spacing as shown
C	9	Cercis canadensis	Eastern Redbud	7'-8" Ht.	Single Stem, B&B As Shown
H	9	Araliancher arborea	Downy Serviceberry	7'-8" Ht.	Single Stem, B&B As Shown
I	7	Ilex x Nellie Stevens	Nellie Stevens Holly	8' - 10' Ht.	B&B, Spaced 10' O.C.
Shrubs					
D	30	Abelia x Canyon Creek	Canyon Creek Abelia	3 Gallon	Container, 3' O.C.
E	207	Rhaphitolepis indica	Indian Hawthorne	5 Gallon	Container, 4' O.C.
F	46	Rosa spp. "Pink Knockout"	Pink Knockout Rose	3 Gallon	Container, 6' O.C.
Groundcovers					
G	1770	Liriope muscari 'Royal Purple'	Royal Purple Green Liriope	1 Gallon Size	Container, 12" O.C. Do Not Exceed 12" Spacing
SOD					
	350 SY	Century Root Barrier (24" Ht.)	Century Root Barrier (24" Ht.)		Install 10ft sections on both sides of street trees along roadway
		Turf Type Tall Fescue SOD	Turf Type Tall Fescue SOD		Lime, Seed, Fertilize & Straw. All Disturbed Areas Not Designated As Sod
		Double Shredded Hardwood Mulch	Double Shredded Hardwood Mulch		(Contractor to calculate quantity)

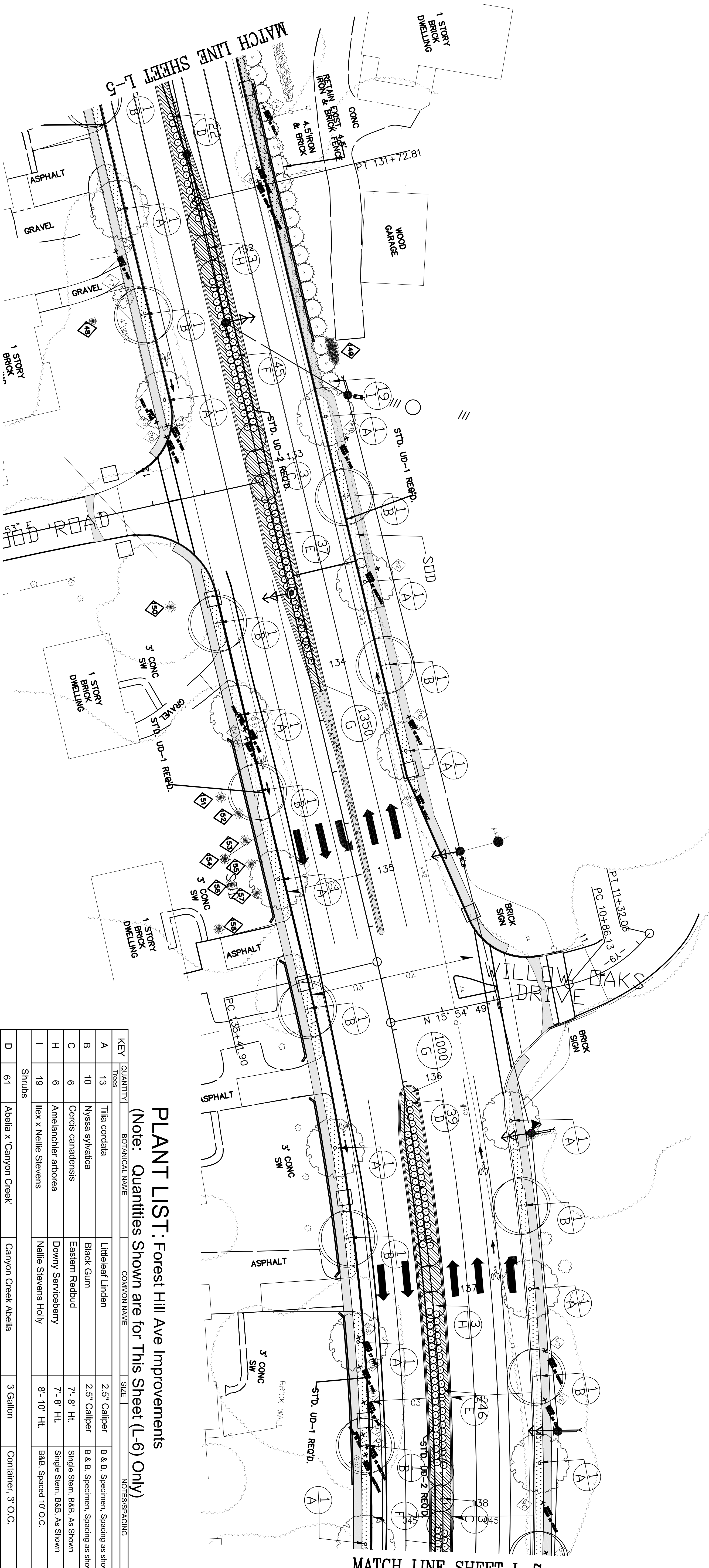
F = Filterra Location

**FOREST HILL AVENUE
IMPROVEMENT PROJECT**



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

Drawing # 0-285520		DESIGN BY: CS		REVIEWED BY:		FIELD NOTES		SCALE: 1"=20'		DATE: 11-10-2016		LANDSCAPE PLAN		DRAWING NO. 15 of 7	
CIP: 040-291-8950		DRAWN BY: SS		CHECKED BY:		DATE: 11-10-2016		SCALE: 1"=20'		DATE: 11-10-2016		LANDSCAPE PLAN		DRAWING NO. 15 of 7	

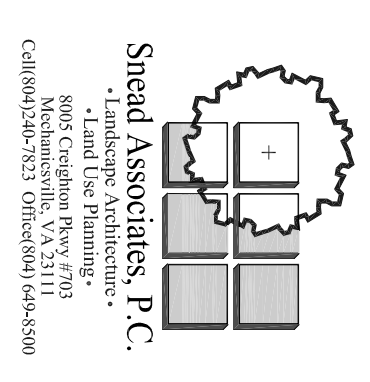


PLANT LIST: Forest Hill Ave Improvements
 (Note: Quantities Shown are for This Sheet (L-6) Only)

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES/SPACING
A	13	Tilia cordata	Littleleaf Linden	2.5" Caliper	B & B, Specimen, Spacing as shown
B	10	Nyssa sylvatica	Black Gum	2.5" Caliper	B & B, Specimen, Spacing as shown
C	6	Cercis canadensis	Eastern Redbud	7"-8" Ht.	Single Stem, B&B, As Shown
H	6	Amenanchier arborea	Downy Serviceberry	7"-8" Ht.	Single Stem, B&B, As Shown
I	19	Ilex x Nellie Stevens	Nellie Stevens Holly	8'-10' Ht.	B&B, Spaced 10' O.C.
Shrubs					
D	61	Abelia x Canyon Creek	Canyon Creek Abelia	3 Gallon	Container, 3' O.C.
E	83	Rhaphiolepis indica	Indian Hawthorne	5 Gallon	Container, 4' O.C.
F	52	Rosa spp. "Pink Knockout"	Pink Knockout Rose	3 Gallon	Container, 6' O.C.
Groundcovers					
G	2350	Litope muscari 'Royal Purple'	Royal Purple Green Litope	1 Gallon Size,	Container, 12" O.C. Do Not Exceed 12" Spacing
SOD					
	500 SY	Century Root Barrier (24" Ht.)	Install 10ft sections on both sides of street trees along roadway		
		Turf Type Tall Fescue SOD	Lime, Seed, Fertilize & Straw, All Disturbed Areas Not Designated As Sod		
		Double Shredded Hardwood Mulch	(Contractor to calculate quantity)		

F = Filterra Location

**FOREST HILL AVENUE
 IMPROVEMENT PROJECT**



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

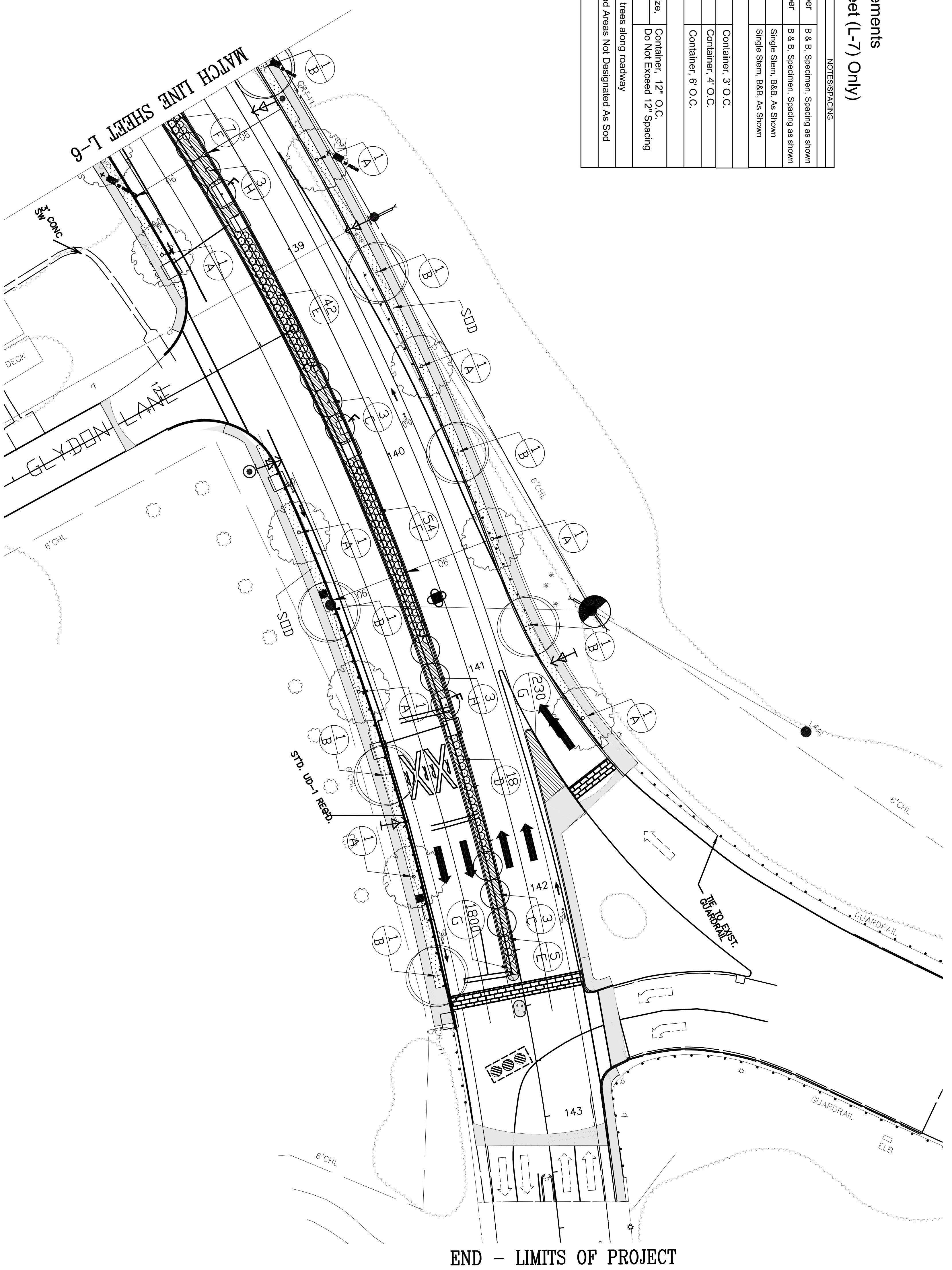
LANDSCAPE PLAN

Drawing # 0-28520	DESIGN BY: CS	REVIEWED BY:	FIELD NOTES:	SCALE: HORIZ 1"=25'	DATE: 11-10-2016	LANDSCAPE PLAN	DRAWING NO. 7
CIP: 040-291-8850	DRAWN BY: SS			VERT 1"=2'			LG of 7
	CHECKED BY: CS						

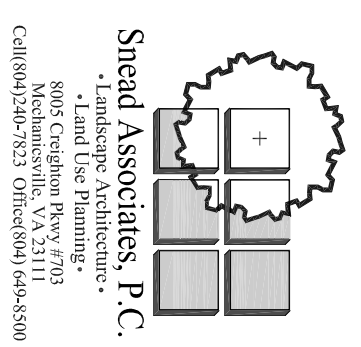
PLANT LIST: Forest Hill Ave Improvements
 (Note: Quantities Shown are for This Sheet (L-7) Only)

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES/SPACING
A	8	Tilia cordata	Littleleaf Linden	2.5" Caliper	B & B, Specimen, Spacing as shown
B	7	Nyssa sylvatica	Black Gum	2.5" Caliper	B & B, Specimen, Spacing as shown
C	6	Cercis canadensis	Eastern Redbud	7'-8" Ht.	Single Stem, B&B, As Shown
H	6	Amelanchier arborea	Downy Serviceberry	7'-8" Ht.	Single Stem, B&B, As Shown
Shrubs					
D	18	Abelia x 'Canyon Creek'	Canyon Creek Abelia	3 Gallon	Container, 3' O.C.
E	47	Rhaphiolepis indica	Indian Hawthorne	5 Gallon	Container, 4' O.C.
F	61	Rosa spp. 'Pink Knockout'	Pink Knockout Rose	3 Gallon	Container, 6' O.C.
Groundcovers					
G	2030	Litlope muscari 'Royal Purple'	Royal Purple Green Litlope	1 Gallon Size,	Container, 12" O.C. Do Not Exceed 12" Spacing
SOD					
	250 SY	Century Root Barrier (24" Ht.)	Install 10ft sections on both sides of street trees along roadway		
		Turf Type Tall Fescue SOD	Lime, Seed, Fertilize & Straw, All Disturbed Areas Not Designated As Sod		
		Double Shredded Hardwood Mulch	(Contractor to calculate quantity)		

F = Filterra Location



**FOREST HILL AVENUE
 IMPROVEMENT PROJECT**



Sned Associates, P.C.
 Landscape Architecture
 1800 Capital City Drive
 Charlottesville, Virginia 22904



RICHMOND VIRGINIA

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

Drawing # 0-28520		DESIGN BY: CS		REVIEWED BY:		FIELD NOTES		SCALE: HORIZ. 1"=20'		DATE: 11-10-2016		LANDSCAPE PLAN		DRAWING NO. L7 of 7	
CIP: 040-201-8850		DRAWN BY: SS		CHECKED BY: CS				11-10-2016		LANDSCAPE PLAN					

LANDSCAPE PLAN