

# Greening Richmond Public Libraries

IMPROVING THE HEALTH OF THE JAMES RIVER BY REDUCING STORMWATER POLLUTION

## North Avenue Branch Library

2901 North Avenue, Richmond, 23222

### Legend:

- Downspout locations
- Water Meter
- Gas Meter
- Electric Meter
- Site Pole Lights
- City Street Lights
- City Utility Pole
- City No Parking Sign
- Proposed Bioretention Basins

Existing Trees & Shrubs To Be Preserved:

Existing Shrubs and Trees To Be Removed:

### NOTES

THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES IS SHOWN ON THIS PLAN. CONTRACTOR TO CONTACT MISS UTILITY AS WELL.

CONTRACTOR TO ASSUME ALL RESPONSIBILITY FOR CONSTRUCTION METHODS EMPLOYED AND FIELD VERIFY ALL DIMENSIONS. ISSUES AND CONCERNS SHALL BE REPORTED TO FOUR WINDS.

CONTRACTOR TO ENSURE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS AT ALL TIMES DURING THE DEMOLITION AND BUILDING PROCESS.

NO PUBLIC THOROUGHFARES INCLUDING SIDEWALKS SHALL BE BLOCKED DURING DEMOLITION OR CONSTRUCTION WITHOUT PROPERLY DISPLAYED MUNICIPALITY PERMITS. NO HOLES SHALL BE LEFT OPEN OVERNIGHT WITHOUT SECURING PERIMETER FENCING OR INSTALLING CAUTION TAPE AROUND THE HOLE.

CONTRACTOR TO OBTAIN ALL BUILDING PERMITS, SOIL STUDIES, AND STRUCTURAL DETAILS AS REQUIRED BY THE MUNICIPALITY.

CONTRACTOR AND MASON AND/ OR PLANTING SUBCONTRACTORS IF APPLICABLE TO ATTEND A PRECONSTRUCTION MEETING WITH JRA REPRESENTATIVES AND FOUR WINDS DESIGN.

TEMPORARY E&S CONTROL MEASURES SHOULD BE INSTALLED IF STORM EVENTS OCCUR DURING CONSTRUCTION. THE PROJECT AREA SHALL BE ENCIRCLED WITH SILT FENCING AND A JUTE MAT ROLL INSTALLED AT THE STORM SEWER DRAIN INLET ON ESSEX STREET.

EXCAVATORS OR BACKHOES SHOULD WORK FROM THE SIDES TO EXCAVATE THE BIORETENTION AREA TO ITS APPROPRIATE DESIGN DEPTH AND DIMENSIONS. EXCAVATING EQUIPMENT SHOULD HAVE SCOOPS WITH ADEQUATE REACH SO THEY DO NOT HAVE TO SIT INSIDE THE FOOTPRINT OF THE BIORETENTION AREA. CONTRACTORS SHOULD USE A CELL CONSTRUCTION APPROACH IN LARGER BIORETENTION BASINS, WHEREBY THE BASIN IS SPLIT INTO 500 TO 1,000 SQ. FT. TEMPORARY CELLS WITH A 10-15 FOOT EARTH BRIDGE IN BETWEEN, SO THAT CELLS CAN BE EXCAVATED FROM THE SIDE.

THE BOTTOM OF THE BIORETENTION BASIN SHALL BE SCARIFIED BEFORE INSTALLATION OF SOIL IF THE BASIN HAS RECEIVED ANY FOOT TRAFFIC OR COMPACTION. MAINTAIN SOIL DEPTH AS NOTED.

CONTRACTOR TO DOCUMENT DEPTH OF BIORETENTION LAYER DEPTH WITH PHOTOGRAPHS OF A TAPE MEASURE IN THE FULLY EXCAVATED HOLE AND AT EACH SUCCESSIVE LAYER FOR SUBMISSION TO JRA. DELIVER THE SOIL MEDIA FROM AN APPROVED VENDOR, AND STORE IT ON AN ADJACENT IMPERVIOUS AREA OR PLASTIC SHEETING. APPLY THE MEDIA IN 12-INCH LIFTS UNTIL THE DESIRED TOP ELEVATION OF THE BIORETENTION AREA IS ACHIEVED.

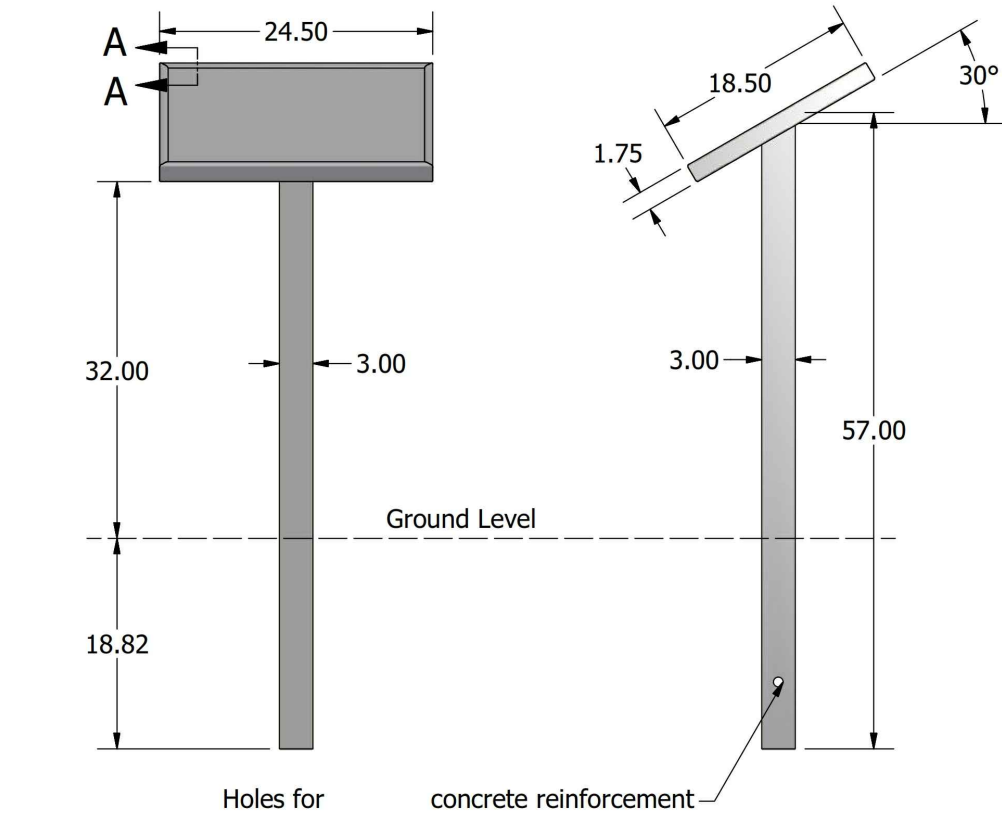
THE ENGINEERED SOIL IN THE TREE WELLS SHALL BE 50% LEAF OR MUSHROOM COMPOST AND 50% COARSE (MORTAR) SAND. LEAVE FINISHED GRADE 4" BELOW SIDEWALKS.

THE BIORETENTION SOIL SHALL BE 85% COARSE (MORTAR) SAND, 10% HIGH GRADE TOPSOIL, AND 5% LEAF OR MUSHROOM COMPOST.

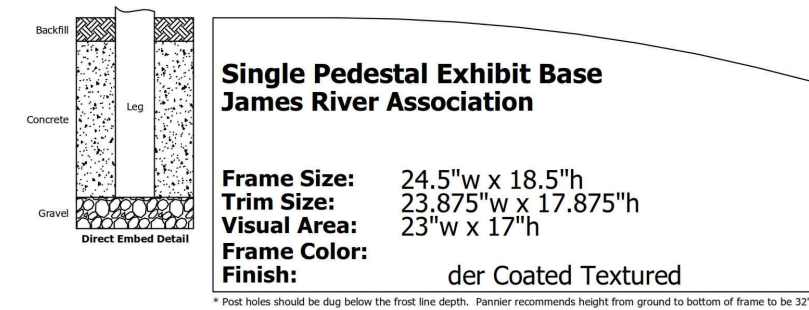
SOIL TESTING: CONTRACTOR TO PROVIDE TESTING OF THE BIORETENTION SOIL MIX FOR ACCEPTABLE PHOSPHOROUS LEVELS. THE MIX SHALL HAVE A PINDEX BETWEEN 10 AND 30 OR BETWEEN 7 AND 21 MG/ KG OF PHOSPHOROUS TOTAL IN THE SOIL MIX.

THE SPILLS WAYS SHALL BE MOSERI RECTANGULAR WATER SPOUT, CUSTOM DIMENSIONS 12" W x 15" D x 3" H, CUSTOM POWDER COAT COLOR TO MATCH SIGN FRAMES (SUBMITTAL REQUIRED). GRADED BACKING, PROVIDE 2" L BRACKET AT UNDERSIDE OF INLET FOR MOUNTING, 2" PROJECTION AT WALL FACE.

THE TRENCH GRATES SHALL BE BAR GRATING ITEM 6601 143632 BY MCMICHOOLS STEEL, (ADA COMPLIANT PRODUCT WHEN DIRECTION OF BEARING BARS INSTALLED PERPENDICULAR TO DOMINANT DIRECTION OF TRAVEL). PROVIDE FRAME IN MATCHING RECTANGULAR BAR AND L BRACKETS WITH COATED EMBEDDED ANCHORS FOR MOUNTING TO CONCRETE WALK EDGES. USE TYPE 304 BRACKET, GFSS-1 SADDLE CLIP, (3) PER L BRACKET TO SECURE GRATES. ALL COMPONENTS POWDER COATED TEXTURED BRONZE TO MATCH SPILLWAY AND SIGN.



HARDWARE INCLUDED		
Type	QTY	Image
1/4"-20 x 3/8" Stainless Steel Hex Drive Button Head Screws	4 each	
5/32" Hex Key	1 each	
1/4" Aluminum Drive Rivets	2 each	



THE CONCRETE RETAINING WALL SHALL BE COLORED WITH AN ADMIXTURE TO MARK BEE ZONE PERIMETER:

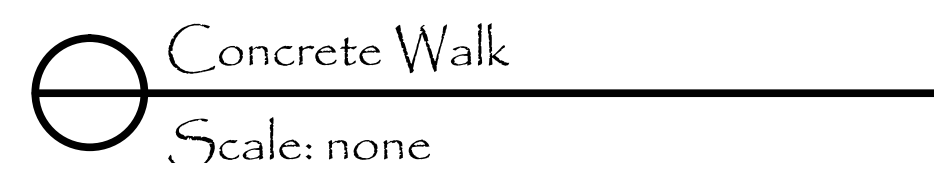
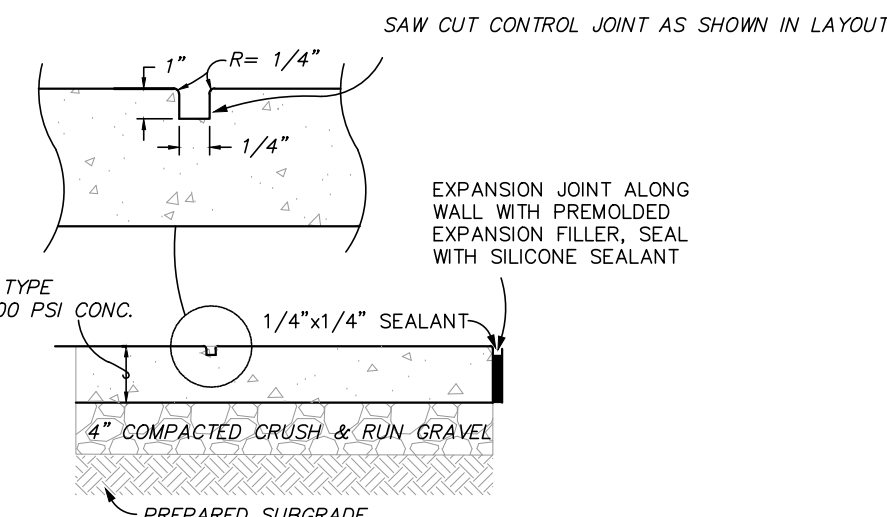
FINISH WALL FACES WITH DRYVIT FINISH OR SIMILAR ALSO IN THIS COLOR. TOOLED EDGES. NOTE WHERE WALL HAS FLAT TOP.



CONTRACTOR TO INSTALL CONDUIT FOR FUTURE OVERFLOW/ ACCESS PIPES. INSTALL 6" SCHEDULE 40 PVC PIPE THROUGH WALL AT TWO LOCATIONS SHOWN. CAP BOTH ENDS WITH SCREW IN PLUMBING CAPS. CAST PIPE WITHIN CONCRETE 18" BELOW GRADE AND SEAL WITH NON-SHRINK GROUT.

THERE SHALL BE A 2-4" DROP FROM ALL DOWNSPOUT, SPLASH BLOCK, OR CURB INLET INTO BIORETENTION DRAINAGE AREAS.

UPON COMPLETION OF MASONRY WORK, SOIL INSTALLATION, AND LARGER TREES AS NOTED (SEE PAGE TWO) A VOLUNTEER CREW WILL INSTALL THE REMAINDER OF THE PLANTS. AFTER THE VOLUNTEER WORK IS COMPLETE CONTRACTOR SHALL CHECK FINISHED GRADES OF THE BIORETENTION AREA, LOOSEN ANY COMPACTED SOIL, INSTALL MULCH, AND FULLY CLEAN UP THE SITE INCLUDING POWER WASHING MASONRY SURFACES.



Remove concrete, gravel, and soil to a depth of 36" from tree wells. Install engineered soil, see notes

North Avenue

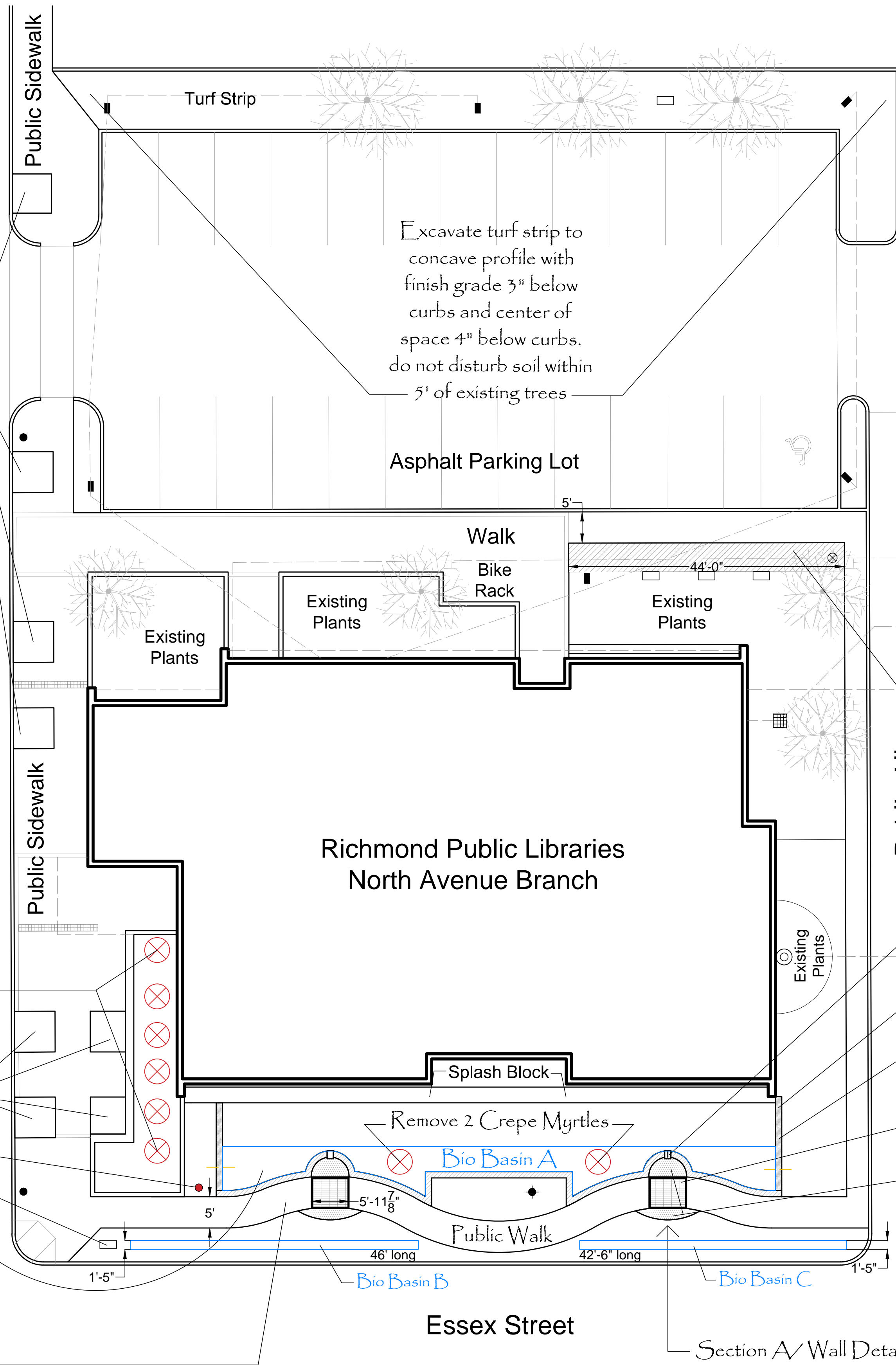
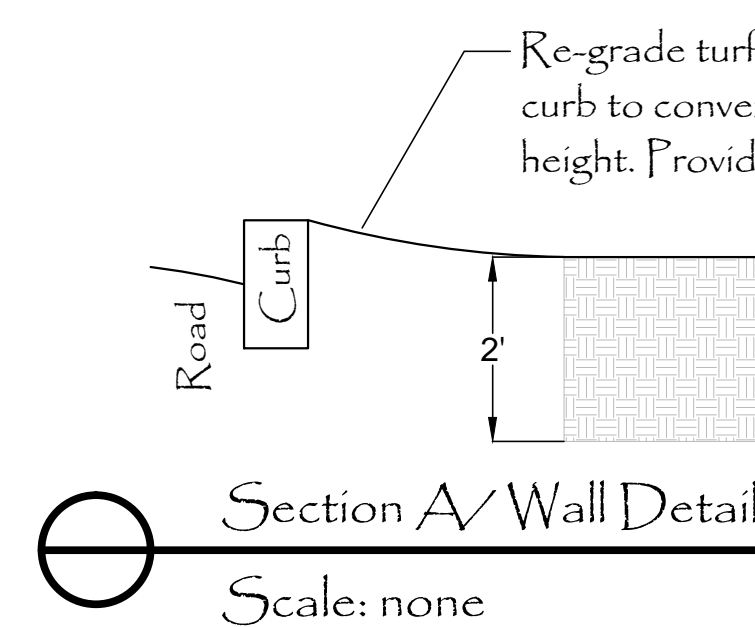
Remove Barberry shrubs & diseased Chinese hollies  
Remove concrete, gravel, and soil to a depth of 36" from tree wells. Install engineered soil, see notes

Interpretive sign, see notes and detail

Relocate No Parking sign

Bioretention basin, see sections and detail

Remove existing walk and pour realigned sidewalk with surface and finish styles to match existing



Remove portion of concrete and sub base to native soil leaving city standard minimum width. Remove liriopie. Note water meter location

Spillway, see notes for specifications

Flat top on wall these side sections.

Retaining wall, see detail. Set finished wall height flush with splash block elevation.

Trench grate, see notes for specifications

Conveyance channels, see detail.

SITE PLAN  
Not for construction

FOUR WINDS  
DESIGN, LC

12 0 12 24 36  
Scale: 1" = 12'

Date: 3-8-21  
Sheet 1 of 2



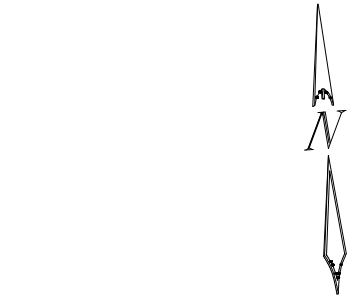


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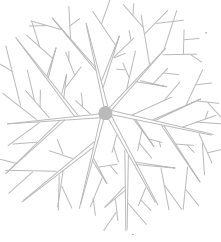
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Existing Trees & Shrubs To Be Preserved:



Perennial Planting  
Scale: none

### PLANTING NOTES

THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES ARE NOT SHOWN ON THIS PLAN, SEE CIVIL PLANS OR CONTACT MISS UTILITY.

CONTRACTOR TO ASSUME ALL RESPONSIBILITY FOR CONSTRUCTION METHODS EMPLOYED AND FIELD VERIFY ALL DIMENSIONS. ISSUES AND CONCERNS SHALL BE REPORTED TO FOUR WINDS.

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AN IRRIGATION SYSTEM IS TO BE INSTALLED OVER THE ENTIRE SOUTHERN SIDE OF THE SITE AND UP THE ALLEY TO COVER THE REDBUDS. MISTER HEADS ARE TO BE USED IN ALL AREAS WITH NO THROWS REACHING MASONRY SURFACES. LOCATE CONTROL BOX IN THE BUILDING. CONTRACTOR TO SUBMIT AN IRRIGATION SCHEMATIC TO FOUR WINDS AND HOMEOWNER FOR APPROVAL UPON BID AWARD. PROVIDE AN ADDIOTNAL VALVE BOX FOR FUTURE ZONES NORTH OF THE REDBUDS. UPON COMPLETION CONTRACTOR SHALL FILL OUT THE ZONE LABELS IN THE CONTROL BOX AND PROVIDE A MARKED UP AND LAMINATED IRRIGATION SCHEMATIC SHOWING ZONE LOCATIONS AT 8.5" x 11".

ALL TREES AND SHRUBS SHALL CONFORM TO THE MOST RECENT EDITION OF THE AMERICAN STANDARDS FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. LOCALLY GROWN NURSERY STOCK SHALL BE USED FOR THE B&B VARIETIES.

THE QUALITY OF THE PLANT MATERIAL MUST BE OF A HIGH STANDARD. NO PLANTS ARE TO BE STORED ON SITE FOR LONGER THAN 48 HRS, AND ALL STORED PLANTS MUST BE KEPT IN FULL SHADE AND WATERED DAILY. CONTRACTOR SHALL PROVIDE A GUARANTEE AGAINST PLANT MORTALITY FOR A PERIOD OF ONE YEAR.

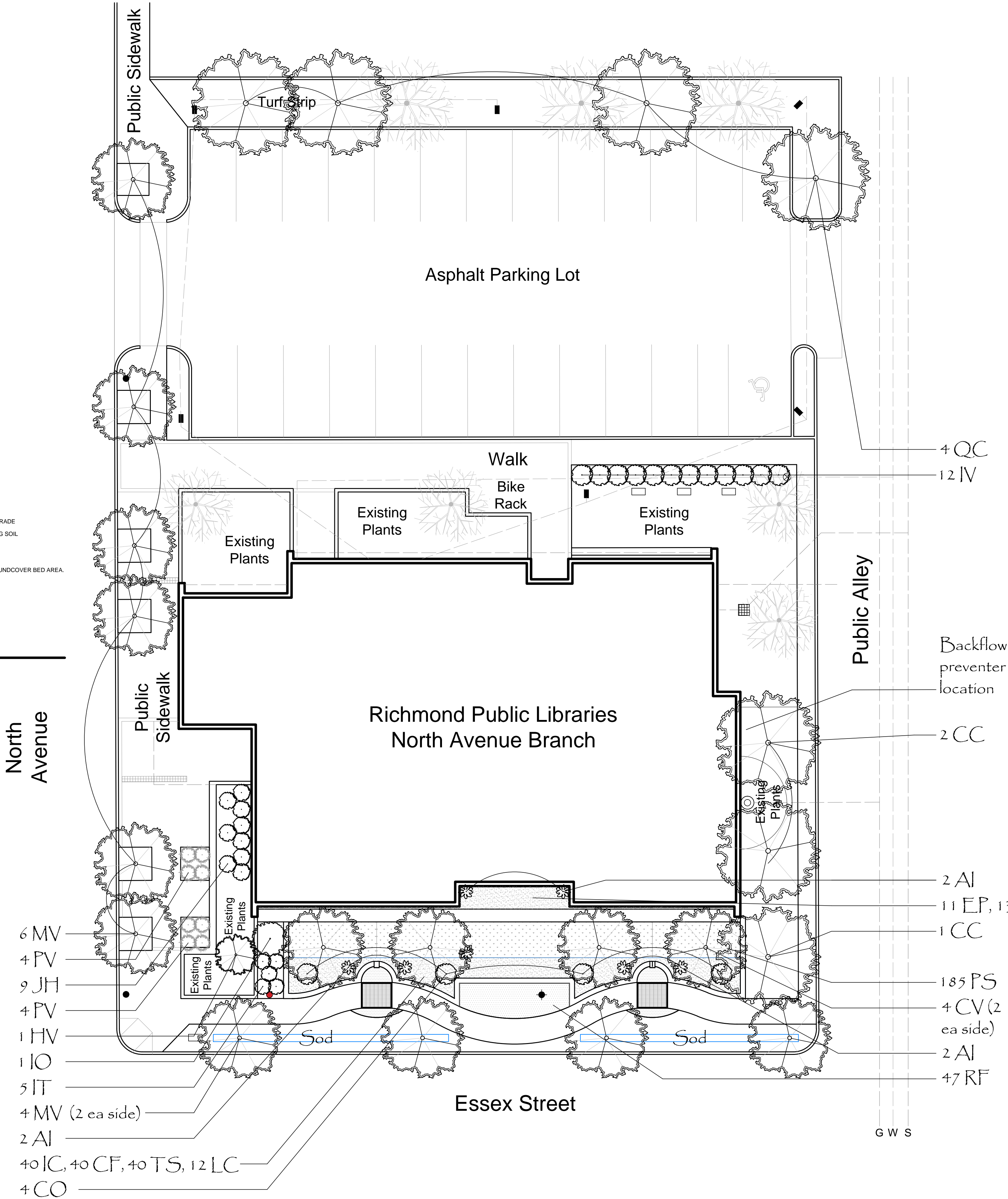
ALL PLANTING BEDS SHALL BE TREATED WITH THREE TO FOUR INCHES OF HARDWOOD DOUBLE SHREDDED MULCH DYED BROWN.

COMPOST OR A BEDDING MIX SHALL BE TILLED INTO THE SOIL A DEPTH OF 4" IN ALL PLANTING AREAS EXCEPT WHERE SOIL IS TO BE REMOVED (SEE BELOW). FINISHED GRADE OF ALL TOPSOIL SHALL BE 3" BELOW HARDSCAPE ELEVATIONS.

ALL DEBRIS SHALL BE REMOVED FROM THE SOIL IN ALL PLANTING AREAS.

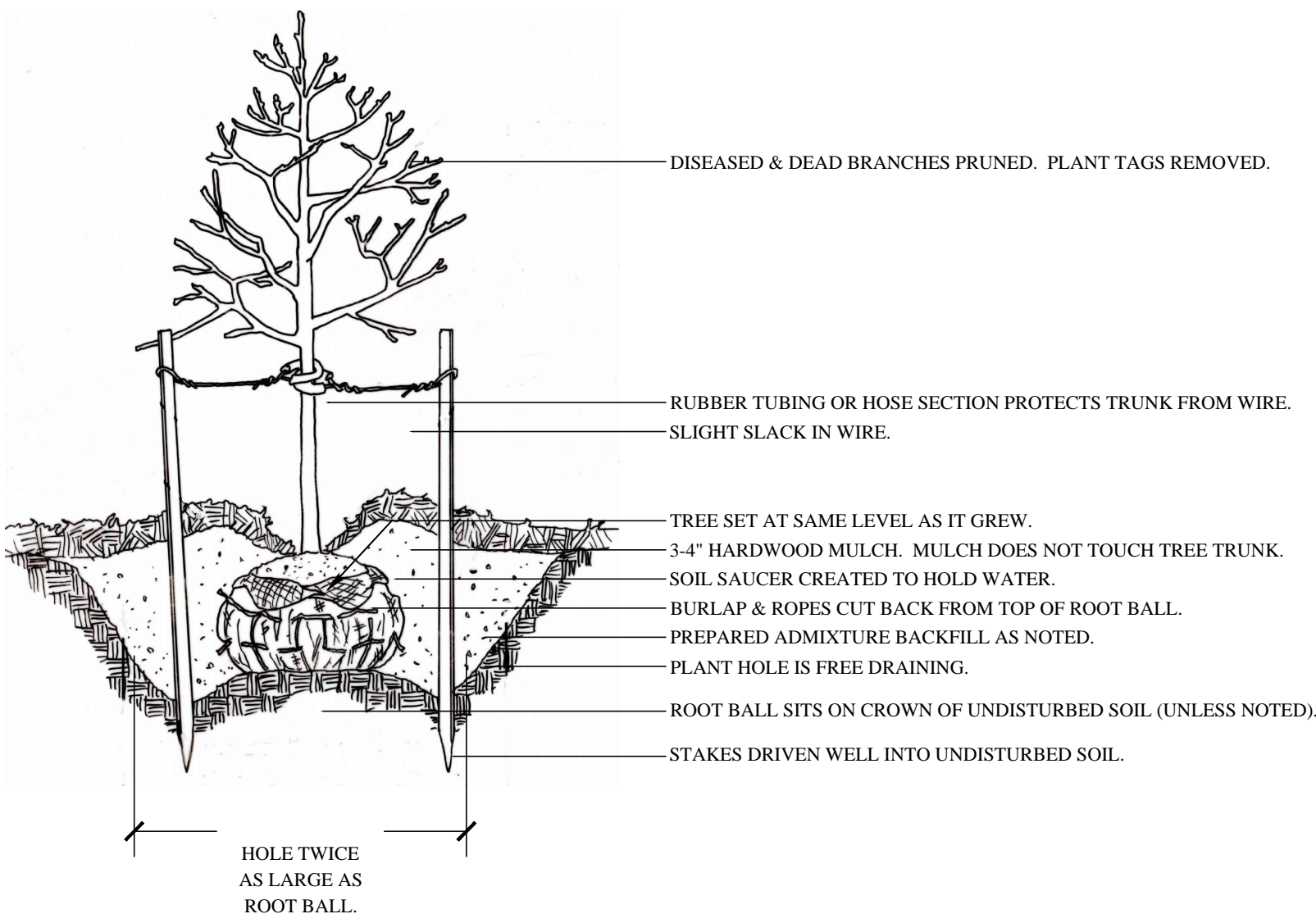
PLANT SUBSTITUTIONS MUST BE APPROVED BY FOUR WINDS. ONLY EASTERN NORTH AMERICAN NATIVE PLANTS MAY BE USED.

CONTRACTOR TO INSTALL A JUTE MAT IN PENSTEMON AREA PRIOR TO VOLUNTEER WORK DAY.

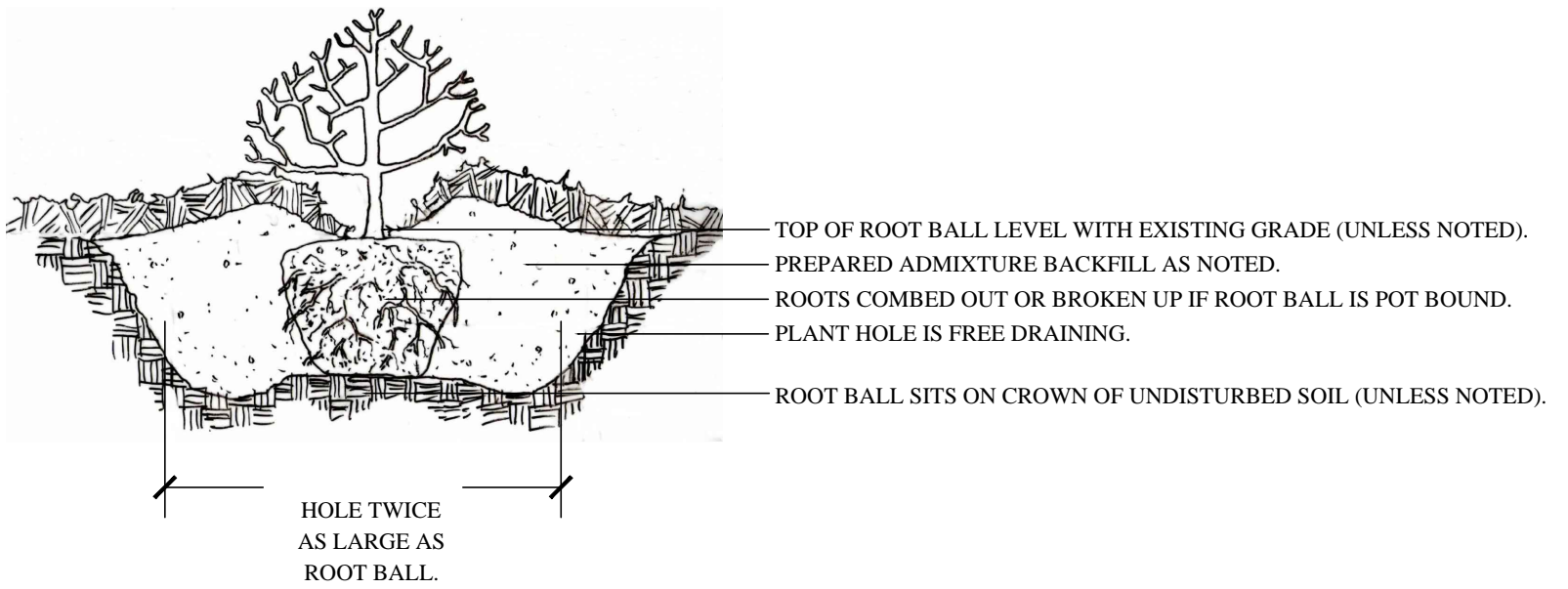


Plant Schedule				
Code	Botanical Name	Common Name	Quantity	Size
AI	Asclepias incarnata	Swamp Milkweed	6	1 Gal
CF	Iris louisiana	Sweetflag	45	3 Qrt
CO	Cephalanthus occidentalis 'Sugar Shack'	Buttonbush	4	3 Gal
CC	Cercis canadensis 'Hearts of Gold' *	Golden Redbud	3	2.5" Cal
CV	Chionanthus virginicus (limb up to 36")	White Fringetree	4	6-8'
EP	Echinacea purpurea 'PowWow'	Purple Coneflower	11	1 Gal
HV	Hamamelis vernalis (limb up to 30")	Witchazel	1	10 Gal
IO	Ilex opaca 'Maryland Dwarf'	American Holly	1	7 Gal
IV	Ilex vomitoria 'Bordeaux'	Dwarf Yaupon Holly	12	5 Gal
IC	Iris cristata	Iris	40	1 Gal
IT	Itea virginica 'Merlot'	Sweetspire	5	5 Gal
JH	Juniperus horizontalis 'Wiltonii'	Blue Rug Juniper	9	3 Gal
LC	Lobelia cardinalis	Cardinal Flower	12	1 Gal
MV	Magnolia virginiana (standard form)	Sweetbay Magnolia	10	15 Gal
PV	Panicum virgatum 'Shenandoah'	Switch Grass	8	3 Gal
PS	Penstemon sp 'Red Rocks'	Beard Tongue	185	1 Gal
QC	Quercus coccinea *	Scarlet Oak	4	2.5" Cal
RF	Rudbeckia fulgida 'Little Gold Star'	Black-eyed Susan	40	1 Gal
TS	Tradescantia sp 'Good Luck'	Spiderwort	40	1 Gal

\* Larger trees to be professionally installed by contractor



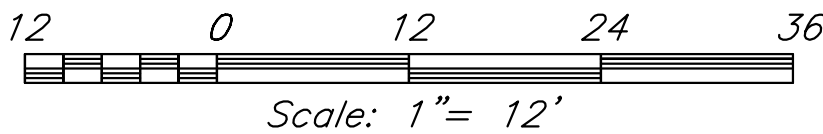
Tree Planting  
Scale: none



Shrub Planting  
Scale: none

PLANTING PLAN  
Not for construction

FOUR WINDS  
DESIGN, LC



Date: 3-8-21  
Sheet 2 of 2