

EROSION CONTROL PLAN
ORCHARD ACRES LOTS 37 & 38
TAX MAP 55C, PARCEL A-37
TAX MAP 55C, PARCEL A-38
ALBEMARLE COUNTY, VIRGINIA

NARRATIVE

The property located at 405 Orchard Drive will be graded for construction of two single-family dwellings. The limits of disturbance for this work exceeds 10,000 square feet and thus requires an erosion and sediment control plan. An agreement in lieu of plan covers storm water management for this project.

GENERAL CONSTRUCTION NOTES FOR
EROSION AND SEDIMENT CONTROL PLANS

1. The plan approving authority must be notified one week prior to the pre-construction conference, one week prior to the commencement of land disturbing activity, and one week prior to the final inspection.
2. All erosion and sediment control measures will be constructed and maintained according to minimum standards and specifications of the Virginia Erosion and Sediment Control Handbook and Virginia Regulations VR 625-02-00 Erosion and Sediment Control Regulations.
3. All erosion and sediment control measures are to be placed prior to or as the first step in clearing.
4. A copy of the approved erosion and sediment control plan shall be maintained on the site at all times.
5. Prior to commencing land disturbing activities in areas other than indicated on these plans (including, but not limited to, off-site borrow or waste areas), the contractor shall submit a supplementary erosion control plan to the owner for review and approval by the plan approving authority.
6. The contractor is responsible for installation of any additional erosion control measures necessary to prevent erosion and sedimentation as determined by the plan approving authority.
7. All disturbed areas are to drain to approved sediment control measures at all times during land disturbing activities and during site development until final stabilization is achieved.
8. During dewatering operations, water will be pumped into an approved filtering device.
9. The contractor shall inspect all erosion control measures periodically and after each runoffproducing rainfall event. Any necessary repairs or cleanup to maintain the effectiveness of the erosion control devices shall be made immediately.
10. All fill material to be taken from an approved, designated borrow area.
11. All waste materials shall be taken to an approved waste area. Earth fill shall be inert materials only, free of roots, stumps, wood, rubbish, and other debris.
12. Borrow or waste areas are to be reclaimed within 7 days of completion per Zoning Ordinance section 5.1.28.
13. All inert materials shall be transported in compliance with section 13-301 of the Code of Albemarle.
14. Borrow, fill or waste activity involving industrial-type power equipment shall be limited to the hours of 7:00am to 9:00pm.
15. Borrow, fill or waste activity shall be conducted in a safe manner than maintains lateral support, or order to minimize any hazard to persons, physical damage to adjacent land and improvements, and damage to any public street because o slides, sinking, or collapse.
16. The developer shall reserve the right to install, maintain, remove or convert to permanent stormwater management facilities where applicable all erosion control measures required by this plan regardless of the sale of any lot, unit, building or other portion of the property.
17. Temporary stabilization shall be temporary seeding and mulching. Seeding is to be at 75 lbs/acre, and in the months of September to February to consist a 50/50 mix of Annual Ryegrass and Cereal Winter Rye, or in March and April to consist of Annual Rye, or May through August to consist of German Millet. Straw mulch is to be applied at 80lbs/100sf. Alternatives are subject to approved by the County erosion control inspector.
18. Permanent stabilization shall be lime and fertilizer, permanent seeding, and mulch. Agricultural grade limestone shall be applied at 90lbs/1000sf, incorporated into the top 4-6 inches of soil. Fertilizer shall be applied at 1000lbs/acre and consist of a 10-20-10 nutrient mix. Permanent seeding shall be applied at 180lbs/acre and consist of 95% Kentucky 31 or Tall Fescue and 0-5% Perennial Ryegrass or Kentucky Bluegrass. Straw mulch is to be applied at 80lbs/100sf. Alternatives are subject to approved by the County erosion control inspector.
19. Maintenance: All measures are to be inspected weekly and after each rainfall. Any damage or clogging to structural measures is to be repair immediately. Silt traps are to be cleaned when 50% of the wet storage volume is filled with sediment. All seeded areas are to be reseeded when necessary to achieve a good stand of grass. Silt fence and diversion dykes which are collecting sediment to half their height must be cleaned and repaired immediately.
20. All temporary erosion and sediment control measures are to be removed within 30 days of final site stabilization, when measu

OWNER

Orchard Acres Inc C/O Richard L Nunley
405 Oak Circle
Charlottesville, VA 22901

ZONING

R-2 Residential

MAGISTERIAL DISTRICT

White Hall

SOURCE OF TITLE

DB 554-339 Plat

SOURCE OF BOUNDARY AND TOPOGRAPHY

Boundary and physical survey provided by: Plat of Record DB 554, PG 339

Contours Provided by VGIN LiDAR Data. Year 2018 2' contours used.
Topography generally verified by Shimp Engineering on April 06, 2023

BENCHMARK

Datum for topography is NAVD 88

FLOODZONE

FEMA flood insurance rate map (community panel 51003C0229D), effective date February 4, 2005, shows that no portion of this property lies within Zone A or Zone AE 100-year regulatory floodplain.

RESERVOIR WATERSHED

This site is within the Lickinghole Creek Watershed.
This site is within a watershed of a public water supply.

WATER & SANITARY SERVICES

This project lies within the ACSA jurisdictional area for water and sewer.

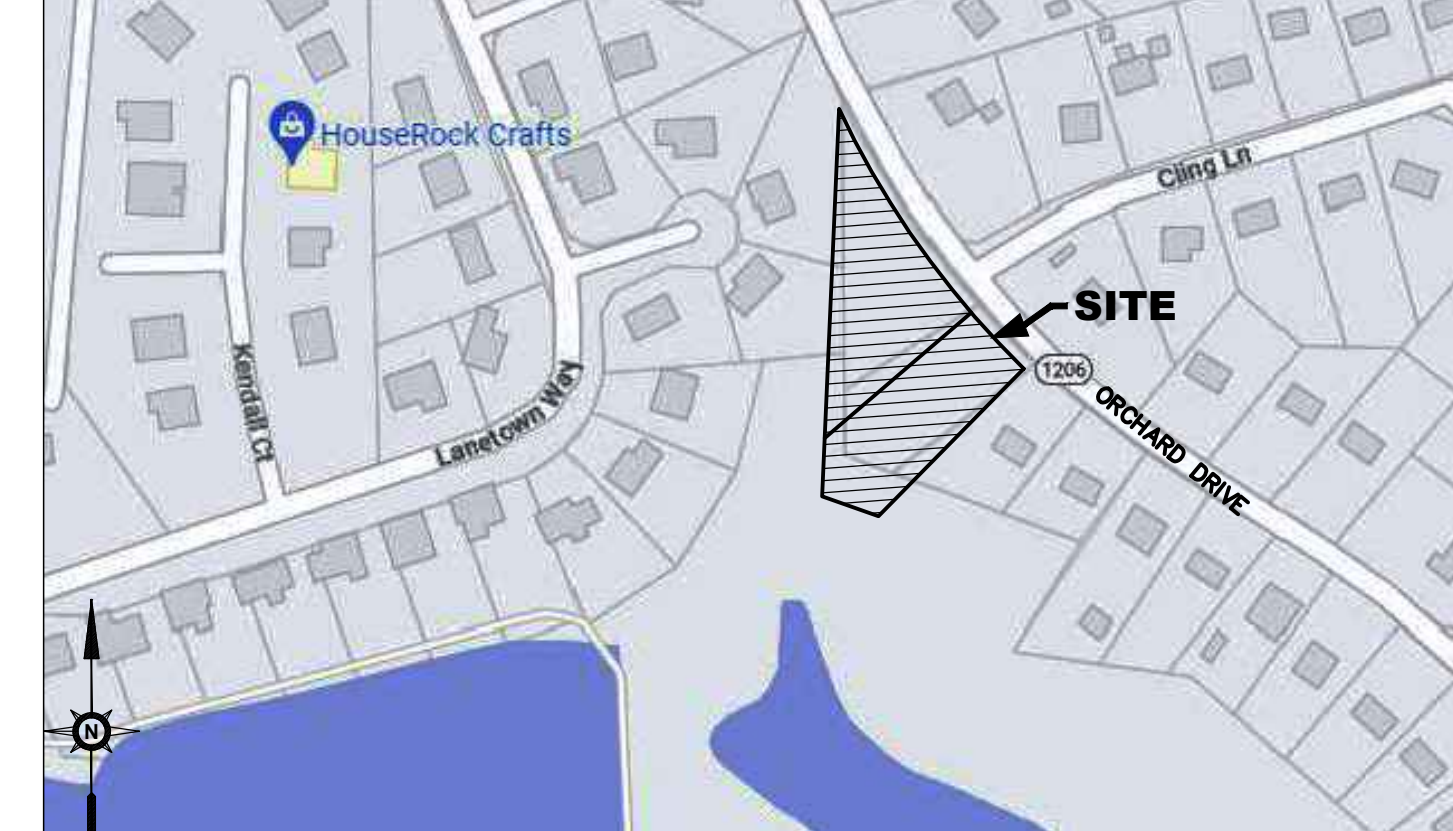
EROSION & SEDIMENT CONTROL NOTE

1. Prior to any construction, homebuilder must secure an Agreement. In Leiu of Plan for this single-family home construction. Contractor is responsible to implement and maintain all erosion control measures in that Agreement, including but not limited to silt fencing, temporary and permanent stabilization, construction entrance, concrete washout, and diversions.

LIMITS OF DISTURBANCE

Limits of Disturbance = 0.29 acres, 12,700 SF

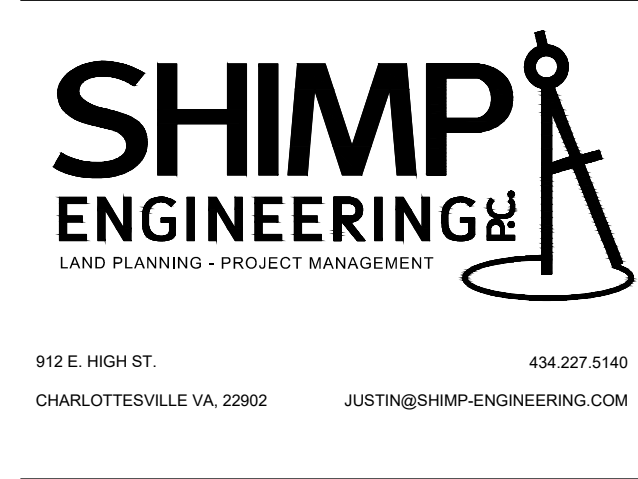
VICINITY MAP SCALE : 1"=200'



Map provided by Google

SHEET INDEX

- C1 COVER SHEET
- C2 SITE DETAILS
- C3 EROSION CONTROL PLAN
- C4 MITIGATION PLAN



DESIGNED BY
CHRIS WARRING

CHECKED BY
KEANE RUCKER, P.E.

EROSION CONTROL PLAN
**ORCHARD
ACRES LOTS
37 & 38**

COUNTY OF ALBEMARLE,
VIRGINIA

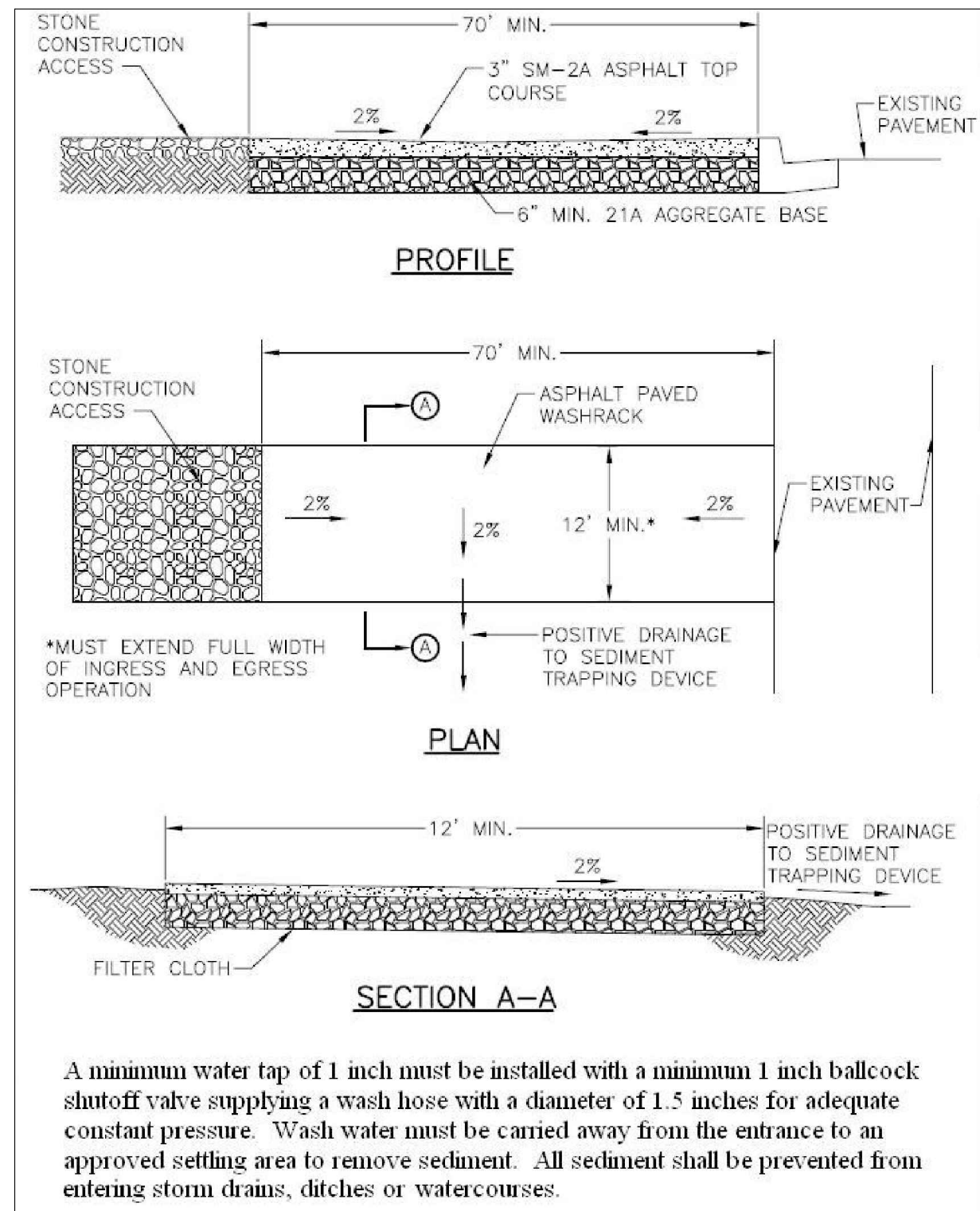
DATE:
2023.09.22
REVISION:
2024.02.09

FILE NO.

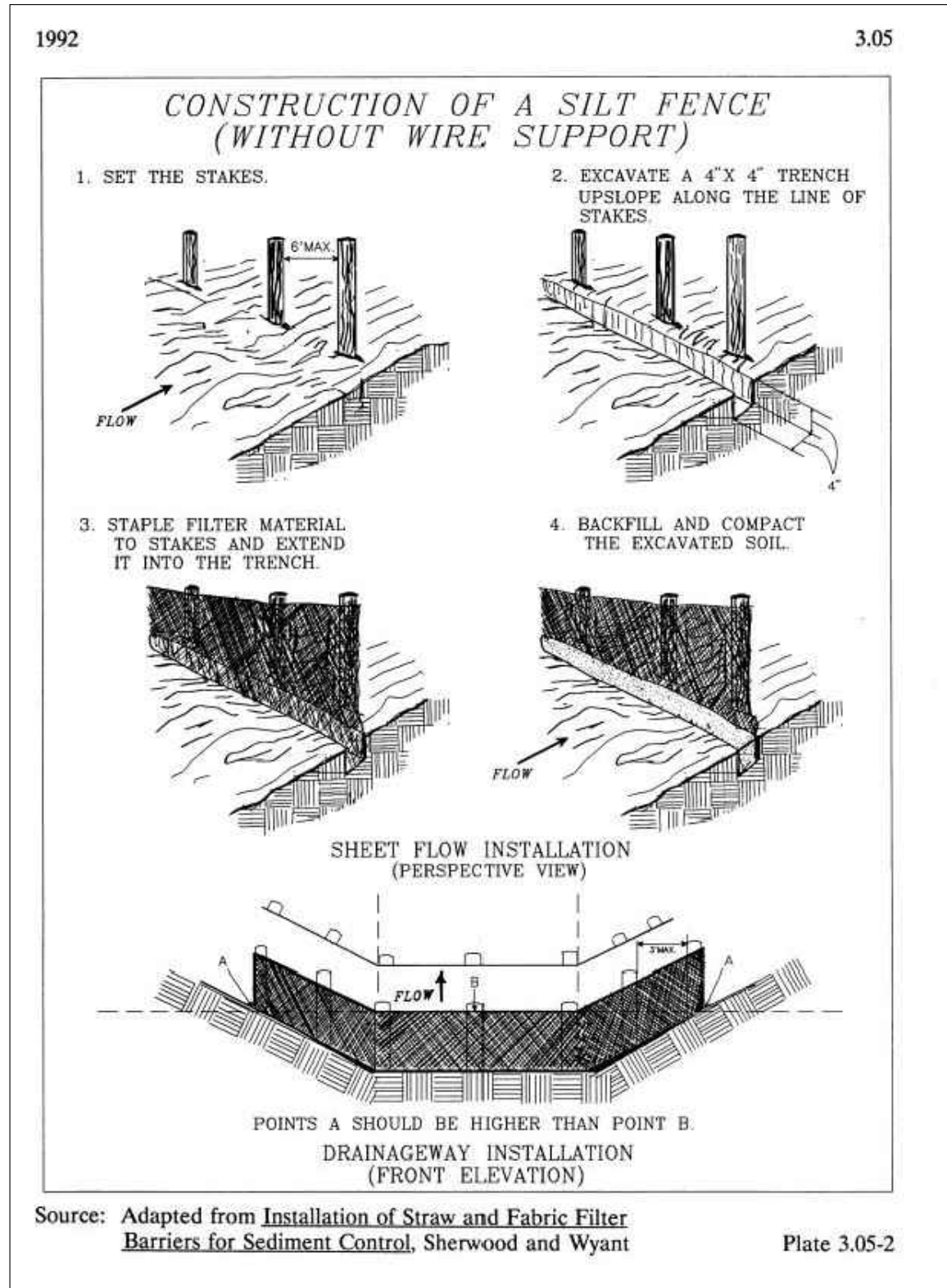
23.004

COVER SHEET

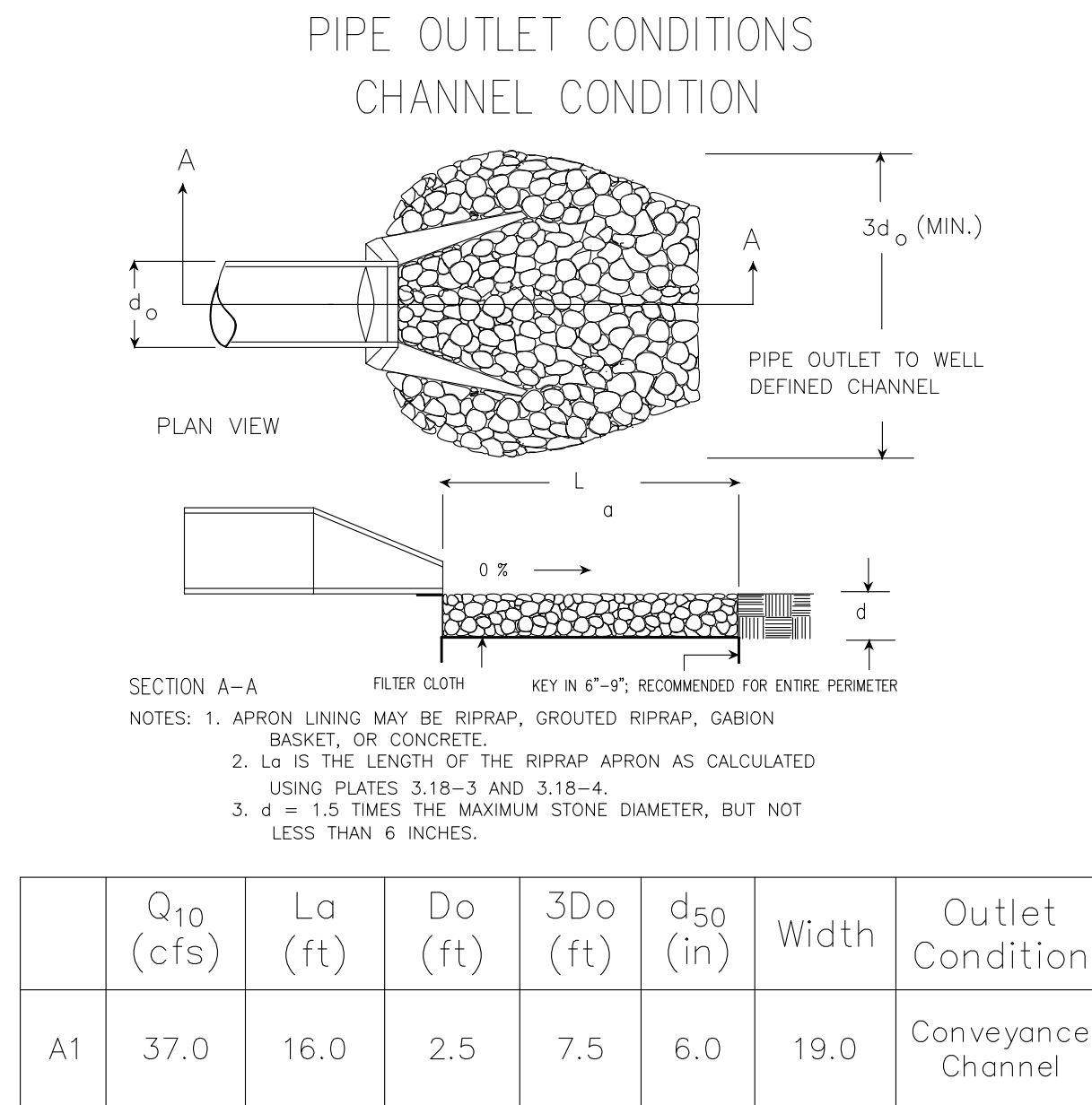
C1



1
C2 PAVED CONSTRUCTION ENTRANCE (PCE)
Not To Scale

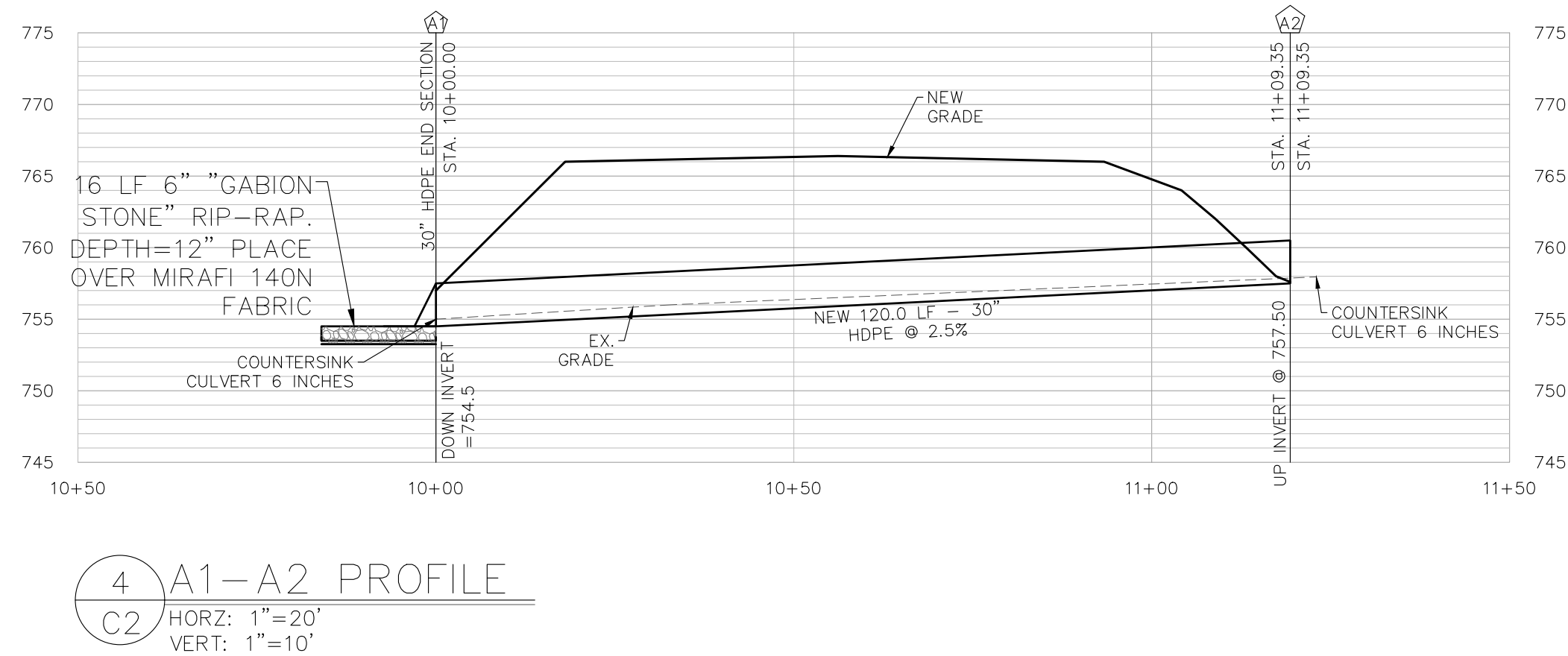
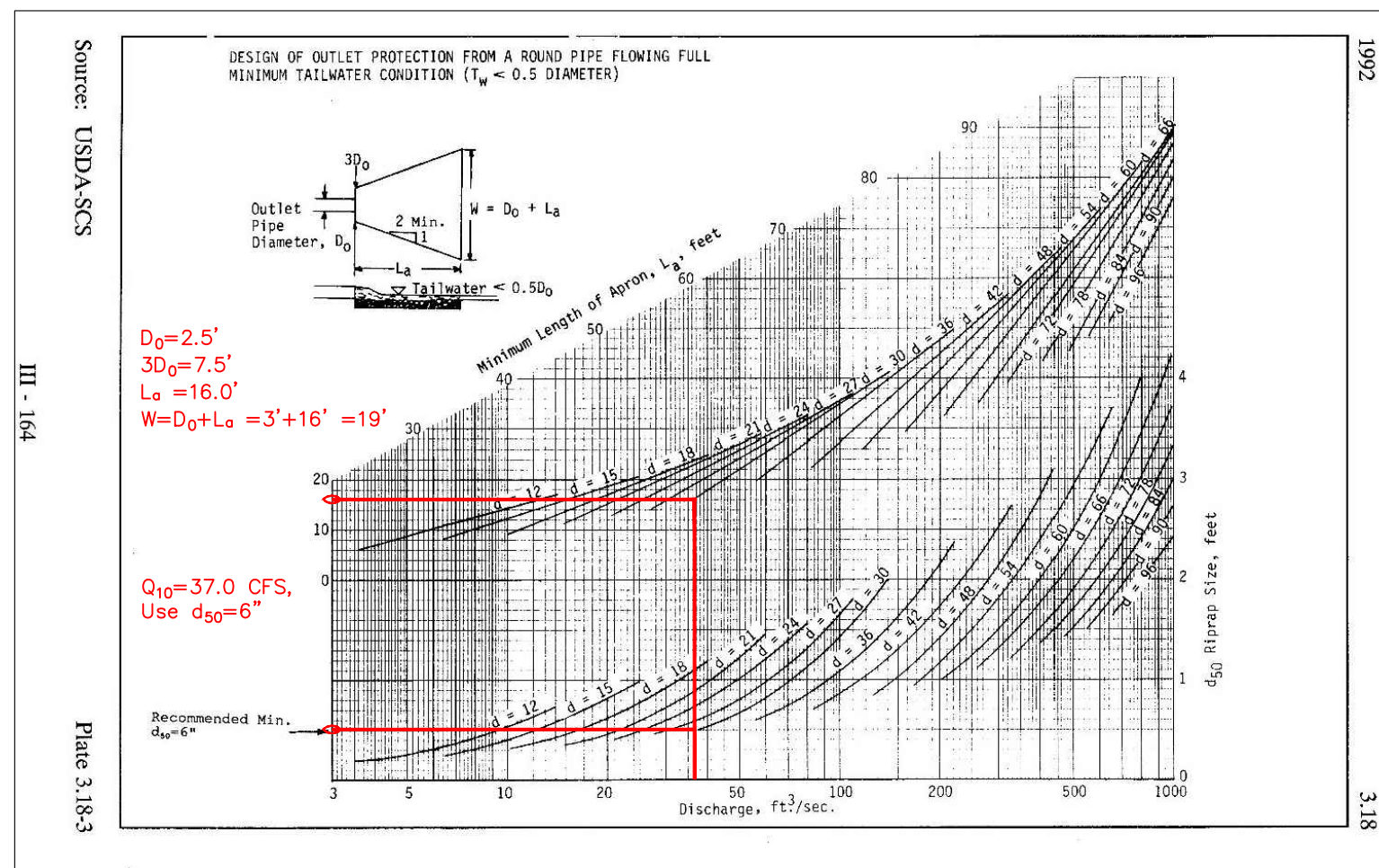
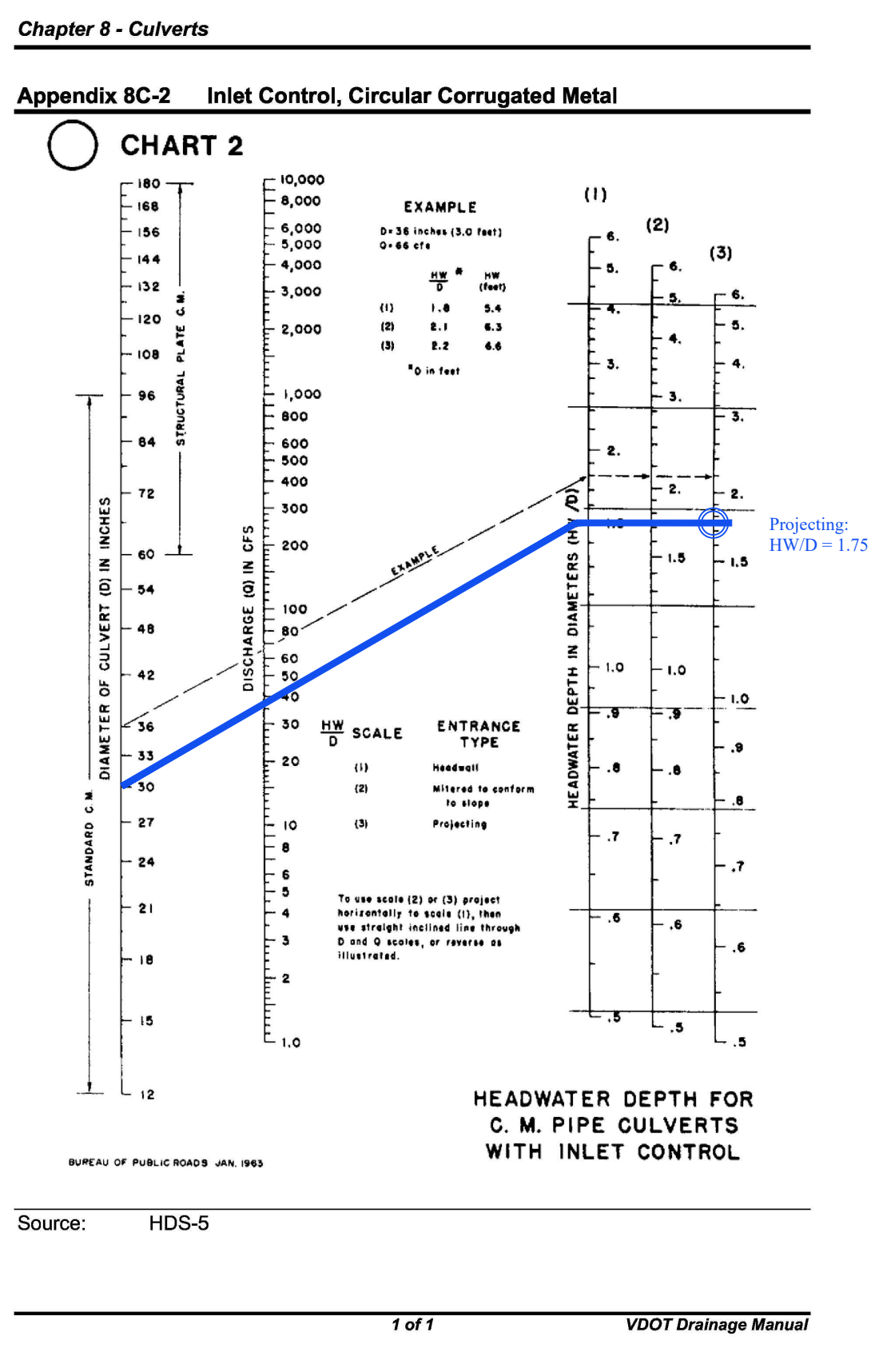


2
C2 SILT FENCE
Not To Scale



3
C2 OUTLET PROTECTION
Not To Scale

A1-A2:
A=25.0 ac
C=0.4
TOC=25 min.
 $R_{90}=161.60$
 $R_{95}=18.73$
 $I=R_{90}/(TOC+R_{90})$
 $I=3.70$ in/hr
 $Q=CIA$
 $Q=37.0$ cfs
 $\frac{HW}{D}=1.75$
 $HW=\frac{HW}{D} \times D$
 $HW=1.75 \times 2.5=4.4'$



SHIMP ENGINEERING
LAND PLANNING • PROJECT MANAGEMENT

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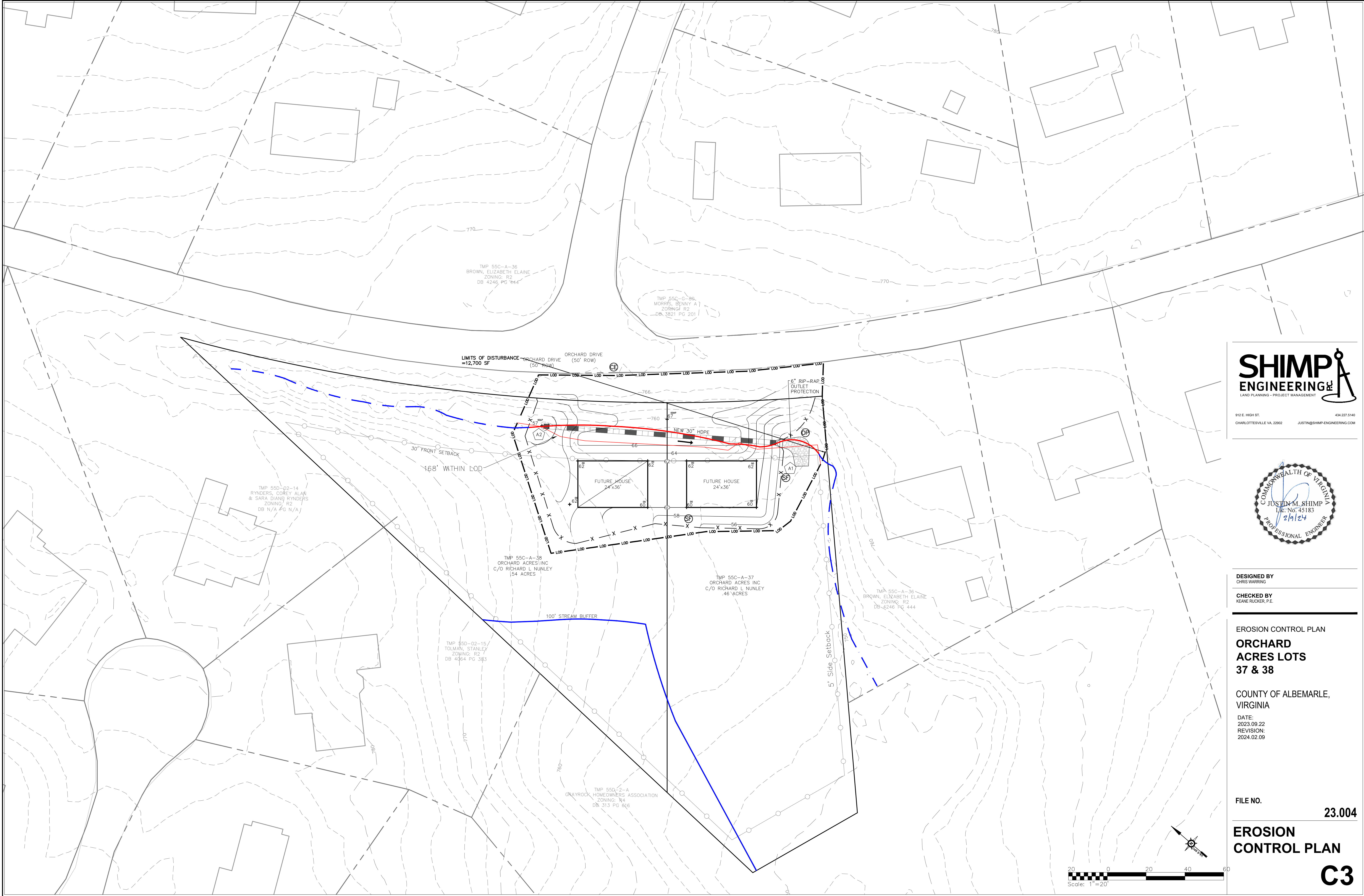
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SITE DETAILS

C2



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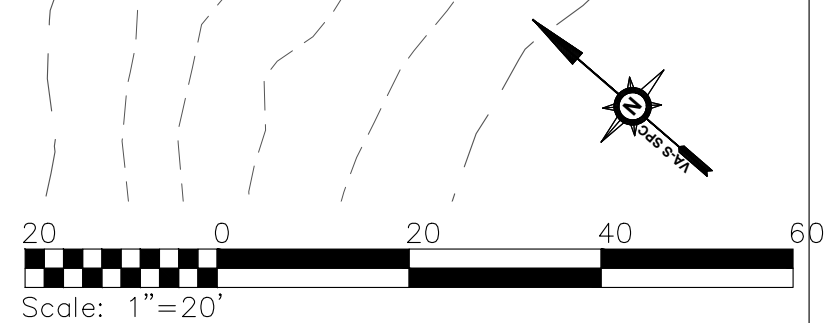
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**EROSION
CONTROL PLAN**

C3



MITIGATION PLANTING CALCULATIONS

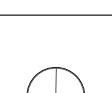
12,700 SF Buffer Disturbance
25,400 SF 2:1 Ratio Required Replanting Area
2,000 SF Available Replanting Area

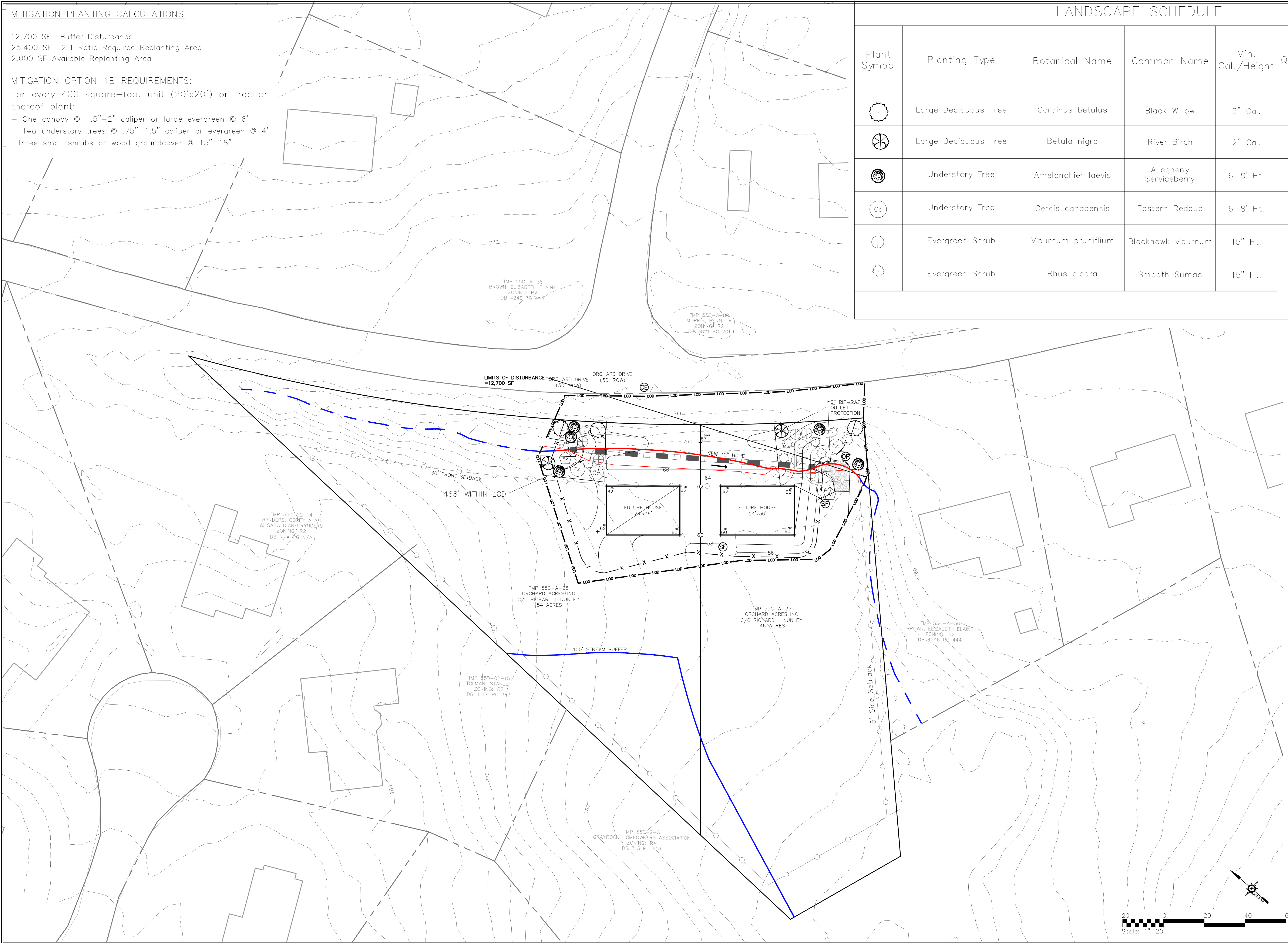
MITIGATION OPTION 1B REQUIREMENTS:

For every 400 square-foot unit (20'x20') or fraction thereof plant:

- One canopy @ 1.5"–2" caliper or large evergreen @ 6'
- Two understory trees @ .75"–1.5" caliper or evergreen @ 4'
- Three small shrubs or wood groundcover @ 15"–18"

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LANDSCAPE SCHEDULE							
Plant Symbol	Planting Type	Botanical Name	Common Name	Min. Cal./Height	Quantity	Canopy SF	Total Canopy SF
	Large Deciduous Tree	Carpinus betulus	Black Willow	2" Cal.	3	234	702
	Large Deciduous Tree	Betula nigra	River Birch	2" Cal.	2	464	928
	Understory Tree	Amelanchier laevis	Allegheny Serviceberry	6-8' Ht.	5	130	650
	Understory Tree	Cercis canadensis	Eastern Redbud	6-8' Ht.	5	124	620
	Evergreen Shrub	Viburnum prunifolium	Blackhawk viburnum	15" Ht.	7	64	448
	Evergreen Shrub	Rhus glabra	Smooth Sumac	15" Ht.	8	64	512
						TOTAL SF:	3860



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MITIGATION PLAN

C4