APPROVED
Department of Permitting Services

GENERAL NOTES

1. Boundary information and two-foot contour data are based upon surveys performed by CAS Engineering, dated May, 2022.
2. Total lot area: Lot 3 = 41,917 sq. ft. (0.962 acres)
3. Property is located on Tax Map FP341 and WSSC 200' Sheet 211NW10.
4. Property is located on Soils Survey Map Number 23.
   Soil type(s): 2B, Glenelg silt loam, HSG "B".
   6A, Baile silt loam, HSG "C/D".
5. Flood zone "X" per F.E.M.A. Firm Maps, Community Panel Number 24031C0340D.
6. Property is located in the Lower Potomac Direct Watershed, Use Class I, P.
7. Water Category - 1, Sewer Category - 1
8. Local utilities include:
   Water / Sewer - Washington Suburban Sanitary Commission
   Electric - PEPCO
   Telephone - Verizon
   Gas - Washington Gas
9. Property is not located in an incorporated municipality.
10. Property is not located in a Special Protection Area.
11. Property is not a Historic Site or located in a Historic District.
12. This plan was created without the benefit of a title report.

ZONING DATA

1. **Zoning: R-200**
   Minimum Lot Area = 20,000 sq. ft. — Front B.R.L. = 40 ft [1] [2]
   Minimum Lot Width at R/W = 25 ft — Side B.R.L. = 12 ft min., 25 ft total
   Minimum Lot Width at B.R.L. = 100 ft — Rear B.R.L. = 30 ft

   [1] Per Montgomery County Code Section 4.4.1.A.4.c., the applicant may choose to use the front setback of the existing detached house that was established before demolition, excluding any approved variance, if the existing building meets the minimum front setback of the zone.

   [2] The existing house on Lot 3 was constructed in 1963, roughly 3 years before the construction of the public sewer extension in Logan Drive. Since the house was previously served by private septic, the existing-house established building line method may be used and the existing house may be excluded. As a result, a front setback of 40 feet applies.

2. **Verify lot coverage in accordance with the Zoning Ordinance.**
   Lot area equal to or greater than 16,000 square feet.

   Lot Coverage: The maximum area that may be covered by any building, including any accessory building and any weatherproofed floor area above a porch, but not including any bay window measuring 10 feet in width or less and 3 feet in depth or less, chimney, porch, or up to 240 square feet of a detached garage, if the garage is less than 350 square feet of floor area and less than 20 feet in height.

   Allowable lot coverage: 20% of total lot area
   Lot 3 = 41,917 sq. ft. (per plat)
   41,917 x 0.20 = 8,383.4 sq. ft.

   Maximum building lot coverage (including accessory buildings) = 8,383.4 sq. ft.

   Total area covered by buildings = 3,076.1 sq. ft.

3. **Verify main building height in accordance with the Zoning Ordinance.**
   First floor elevation 347.00 ft
   Mean height of building from first floor: 28.75 ft (28'-9")
   Elevation at mean height of building 375.75 ft
   Average elevation along front of building 340.12 ft
   Mean height of building = 375.75- 340.12 = 35.63 feet
   Allowable mean height of building = 50 feet

   Proposed mean height of building = 35.63 feet

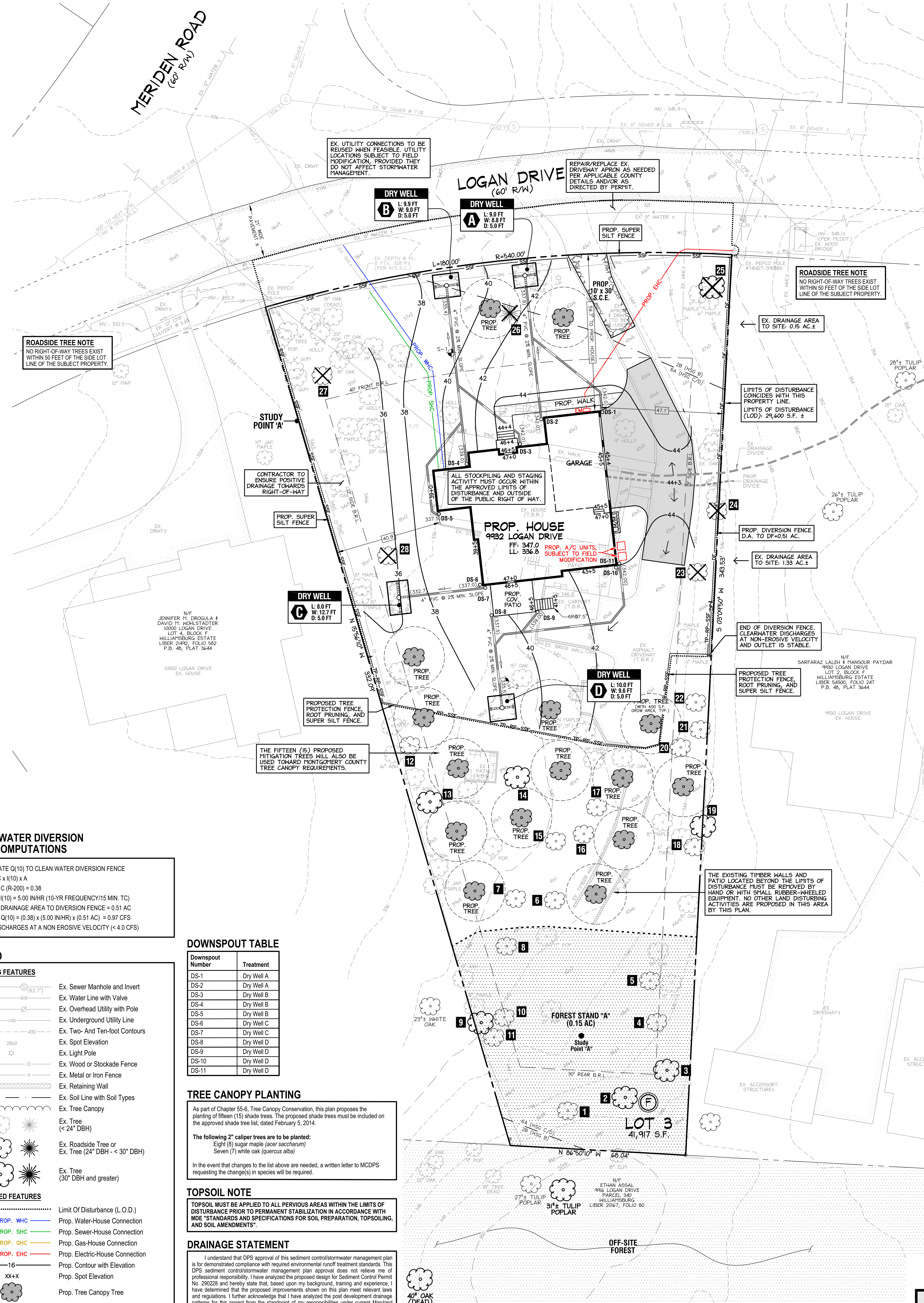
SEQUENCE OF CONSTRUCTION

1. Prior to clearing of trees, installing sediment control measures, or grading, a preconstruction meeting must be conducted on-site with the Montgomery County Department of Permitting Services (MCDPS) sediment control inspector (240) 777-0311 (48 hours notice) and the MNCPPC, Planning Department, Plans Enforcement inspector (301) 495-4550 (48 hours notice), the Owners representative, and the site Engineer. **In order for the meeting to occur, the applicant must provide one paper set of approved sediment control plans to the MCDPS sediment control inspector at the preconstruction meeting. If no plans are provided, the meeting shall not occur and will need to be rescheduled prior to commencing any work.**
2. The limits of disturbance must be field marked prior to clearing of trees, installation of sediment control measures, construction, or other land disturbing activities.
4. The permittee must obtain written approval form the MNCPPC inspector, certifying that the limits of disturbance and tree protection measures are correctly marked and installed prior to commencing any clearing.
3. Clear and grade for installation of sediment control devices.
4. Install sediment control devices (Stabilized Construction Fence and Super Silt Fence)
5. Install clean water Diversion Fence.
6. Once the sediment control devices are installed, the permittee must obtain written approval from the MCDPS Sediment Control Inspector before proceeding with any additional clearing, grubbing, or grading.
7. Staging, access, and stockpiling activities may not occur in the public right-of-way or beyond the approved limits of disturbance (L.O.D.) defined by this plan.
8. Raze existing structure(s).
9. The Stabilized Construction Entrance (SCE) is an erosion and sediment control practice and must remain in place until written permission is granted from the inspector for its removal.
10. Initiate rough grading. Temporarily seed any areas not to be re-graded within 7 days.
11. Install base courses for driveway, complete house construction, etc.
12. Gutters and downspouts to be installed early as possible, subject to availability of materials and labor.
13. Install stormwater management devices and associated piping but do not connect to downspouts at this time.
14. Pave driveway, install entrances per MCDOT permit, permanently stabilize all remaining areas.
15. Connect downspouts to roof drain piping and stormwater management devices.
16. Provide signed record set of plans to the sediment control inspector.
17. Obtain written approval from MCDPS inspector, prior to the removal of any sediment control device.

STANDARD TREE CANOPY NOTES

ANY SHADE TREE PLANTED TO COMPLY WITH CHAPTER 55 OF THE COUNTY CODE MUST CONFORM TO THE FOLLOWING:

1. Each shade tree must meet the requirements for plant material in ANSI Z60.1;
2. Each shade tree must be a minimum of 2" caliper;
3. Installation of each shade tree must meet all requirements of ANSI A300;
4. At the time of planting:
   a) tree guards to protect trees from deer rubbing, mowers, weed eaters, other equipment and large rodents must be installed on all shade trees;
   b) mulch must be applied;
   c) sufficient water must be applied to aid in proper planting.
5. Shade trees must be installed between October 15th and May 15th as long as the ground is not frozen, saturated, or covered with snow such that a suitable hole cannot be dug;
6. Shade trees must not be installed between May 16th and October 14th of each year. If installation cannot occur between October 15th and May 15th for any reason, or if proposed trees are not planted for any other reason, the permittee must pay the required fee in lieu.
7. If shade trees are installed prior to final stabilization of the land disturbing activity then no additional disturbance must occur within five feet of the stem of the tree. Protective fencing must be installed at the edge of this area at the same time the tree is installed and must remain in place until final stabilization occurs.
8. The location of growing zones and planting areas must be clearly marked in the field prior to installation of any shade tree.
9. A copy of the approved sediment control plan showing all approved growing zones and planting areas must be available on the site at all times.
10. At least one inspection must occur after all construction activities are completed to determine the level of compliance with shade tree planting requirements.



TREE DATA

TREES ≥ 24" WITHIN THE STUDY AREA

TREE NO.	COMMON NAME	BOTANICAL NAME	D.B.H. (INCHES)	CONDITION	COMMENTS
1	White Oak	Quercus alba	24.5	Fair	Decay, Dieback
2	Tulip Poplar	Lirodendron tulipifera	30.5	Good	
3	Tulip Poplar	Lirodendron tulipifera	30	Good	
4	Tulip Poplar	Lirodendron tulipifera	26.5	Good	
5	Tulip Poplar	Lirodendron tulipifera	29	Good	
6	Tulip Poplar	Lirodendron tulipifera	23.5	Poor	Severe Decay, Dieback
7	Tulip Poplar	Lirodendron tulipifera	24	Good	
8	Tulip Poplar	Lirodendron tulipifera	28	Good	
9	Tulip Poplar	Lirodendron tulipifera	31	Good	
10	Tulip Poplar	Lirodendron tulipifera	28.5	Fair	Cavity, Decay, High probability of failure
11	Tulip Poplar	Lirodendron tulipifera	24	Fair	Cavity, Decay, High probability of failure
12	Tulip Poplar	Lirodendron tulipifera	24	Good	Slight Decay
13	Tulip Poplar	Lirodendron tulipifera	30	Good	Root Decay
14	Tulip Poplar	Lirodendron tulipifera	50	Fair	Multi-stem, Included Bark, Seam, Hazard
15	Tulip Poplar	Lirodendron tulipifera	28	Good	
16	Tulip Poplar	Lirodendron tulipifera	25	Good	
17	Tulip Poplar	Lirodendron tulipifera	24	Good	
18	Tulip Poplar	Lirodendron tulipifera	26	Good	
19	Tulip Poplar	Lirodendron tulipifera	35	Good	
20	Tulip Poplar	Lirodendron tulipifera	28.5	Good	
21	Tulip Poplar	Lirodendron tulipifera	29	Good	
22	Tulip Poplar	Lirodendron tulipifera	25	Good	
23	White Oak	Quercus alba	29.5	Fair	Dieback in Canopy, Tree in Decline
24	White Oak	Quercus alba	28	Good	
25	White Oak	Quercus alba	30	Good	Crown Dieback
26	Japanese Cedar	N/A	25	Good	
27	Tulip Poplar	Lirodendron tulipifera	29.5	Good	
28	White Oak	Quercus alba	27	Good	

CAS ENGINEERING DRAINAGE NOTES

1. All storm drain pipe to be Schedule 40 PVC or of higher quality.
2. Downspout leaders originating directly from downspouts to be 4" diameter PVC, unless noted otherwise.
3. Maintain minimum 12" cover over all pipe. Pipe slopes to be 2% minimum.
4. All areaway and window well drains to sump pump - by plumber - unless noted otherwise.
5. Sump pump discharge to be located so as to avoid impact to the neighboring properties and to avoid recirculation of water.
6. The permittee shall install a splash block at the bottom of each downspout.
7. Maintenance of gutters, downspouts, leaf filters, inlets, drain pipes, drainage swales, drywells and other drainage related items should be performed as needed, but at least twice per year.
8. Drainage swales and drainage patterns shall not be impeded with trees, landscaping, fences, etc.
9. Window wells shall have a minimum freeboard of 6 inches and should be kept free of leaves and debris.
10. Ground cover (sod, seed, etc.) shall be selected based on soil conditions, drainage, sun exposure, final grade slopes, etc. per M.D.E. specifications.
11. Multi-Flow™ or equivalent drainage systems are recommended in lawn areas with a 3% slope or less.
12. Gutters and downspouts to be installed early as possible, subject to availability of materials and labor.
13. Sediment control devices must be inspected daily and with extra care before storm events. On disturbed sites they should be monitored during storm events.
14. Areas where construction is complete, such as side and rear yards, should be permanently stabilized as early as possible and in conformance with M.D.E. specifications.
15. Sump pumps serving driveways, patios, areaways, and other large open impervious surfaces must be sized for a 100-year storm event.

RELATED REQUIRED PERMITS

TO BE COMPLETED BY THE CONSULTANT AND PLACED ON THE FIRST SHEET OF THE SEDIMENT CONTROL/STORMWATER MANAGEMENT PLAN SET FOR ALL PROJECTS.

IT IS THE RESPONSIBILITY OF PERMITTEE/OWNER OF THIS SITE TO OBTAIN ALL REQUIRED PERMITS PRIOR TO ISSUANCE OF THE APPROVED SEDIMENT CONTROL PERMIT:

TYPE OF PERMIT	REQ'D	NOT REQ'D	PERMIT NUMBER	EXPIRATION DATE	WORK RESTRICTION DATES
MCDPS Floodplain District		X			
WATERWAYS/WETLAND(S):		X			
a. Corps of Engineers		X			
b. MDE		X			
c. MDE Water Quality Certification		X			
MDE Dam Safety		X			
DPS Roadside Trees Protection Plan * (* Copy of approved plan to be provided to SC inspector at the pre-construction meeting)		X		Approval Date	
N.P.D.E.S. - Notice of Intent		X			Date Filed
FEMA LOMR - (Letter of Map Revision) Required Post Construction		X			
OTHERS (Please List):					

CONSTRUCTION INSPECTION CHECK-OFF LIST FOR DRY WELL/RECHARGE CHAMBER

STAGE	MCDPS INSPECTOR	OWNER/ DEVELOPER
MANDATORY NOTIFICATION: Inspection and approval of each practice is required at these points prior to proceeding with construction. The permittee is required to give the MCDPS Inspector twenty-four (24) hours notice (DPS telephone 240-777-0311). The DPS inspector may waive an inspection, and allow the owner/developer to make the required inspection per a prior scheduled arrangement which has been confirmed with the DPS inspector in writing. Work completed without MCDPS approval may result in the permittee having to remove and reconstruct the unapproved work. **Upon completion of the project, a formal Stormwater Management As-Built must be submitted to MCDPS unless a Record Drawing Certification has been allowed instead.** Each of the steps listed below must be verified by either the MCDPS Inspector OR the Owner/Developer.	INITIALS/DATE	INITIALS/DATE
1. Excavation for Dry Well conforms to approved plans		
2. Placement of backfill, perforated inlet pipe and observation well conforms to approved plans		
3. Placement of geotextiles and filter media conforms to approved plans		
4. Connecting pipes, including connection to downspout, constructed per the approved plans		
5. Final grading and permanent stabilization conforms to approved plans		

TOTAL NUMBER OF DRY WELLS INSTALLED PER THIS PERMIT: APPROVED 4 CONSTRUCTED ____

RECORD DRAWING CERTIFICATION

A record set of approved Sediment Control/Stormwater Management plans must be maintained onsite at all times. In addition to stormwater management items, these plans must include the number and location of all trees proposed to be planted to comply with the Tree Canopy Law. Any approved modifications or deletions of stormwater practices or tree canopy plantings or information must be shown on this record set of plans and on the Tree Canopy Requirements table. Upon completion of the project, the record set of plans, including thereon this signed Record Drawing Certification, must be submitted to the MCDPS inspector. In addition to this Record Drawing Certification, a formal Stormwater Management As-Built submission ☐ **is required** ☒ **is not required** for this project.

If this project is subject to a *Stormwater Management Right of Entry and Maintenance Agreement*, that document is recorded at Book 67648 Page 428 . This Record Drawing will serve as referenced in the recorded document.

"This record drawing accurately and completely represents the stormwater management practices and tree canopy plantings as they were constructed or planted. All stormwater management practices were constructed per the approved Sediment Control / Stormwater Management plans or subsequent approved revisions."

Owner/Developer Signature ____ Date ____

FIELD CHECK OF RECORD DRAWING BY MCDPS INSPECTOR: INITIALS ____ DATE ____

FRONT YARD PARKING AREA COVERAGE

R-200: 30% MAXIMUM

FRONT YARD PARKING AREA: 755.3 SF
FRONT YARD AREA: 11,174.3 SF
COVERAGE: 6.8% (< 30%)

ROADSIDE TREE REQUIREMENTS

TO BE COMPLETED BY THE CONSULTANT AND PLACED ON THE FIRST SHEET OF THE SEDIMENT CONTROL/ STORMWATER MANAGEMENT PLAN SET FOR ALL PROJECTS.

# of Street Trees Removed	# of Street Trees Planted
0	0
Street Tree Removal Fee $000.00 ($500/tree)	Additional Required Fee $000.00 * ($250/tree)

Total Fees Required NONE

Major (Shade) Trees: Spacing: 50' (±5') O.C., min.; Height: 10' min; Caliper size 2" at 6" above the ground.
Minor (Flowering) Trees: Spacing: 30' (±5') O.C., min.; Height: 8' min; Caliper size 1.5" at 6" above the ground.
Street tree species to be approved by Montgomery County Department of Transportation (MC-703.01, .02)
Minimum Tree Clearances (MC-700.01):
a) 5' from water main
b) 5' from gas box
c) 5' from inlet of manhole
d) 10' from fire hydrant
e) 15' from streetlight
For additional planting requirements, please see:
MC-700.01: Tree Locations, Closed Section Roads
MC-701.01: Tree Locations, Open Section Roads
MC-702.01: Tree Planting Detail

TREE CANOPY REQUIREMENTS

TO BE COMPLETED BY THE CONSULTANT AND PLACED ON THE FIRST SHEET OF THE SEDIMENT CONTROL/ STORMWATER MANAGEMENT PLAN SET FOR ALL PROJECTS.

EXEMPT: YES ☐ NO ☒

If exempt under Section 55-5 of the code, please check the applicable exemption category below.

Total Property Area	Total Disturbed Area
41,917 S.F.	29,600 S.F.
Shade Trees Required 15	Shade Trees Proposed 15

Fee in Lieu: (Trees Required − Trees Proposed) x $250 = $ 0,000.00

Required Number of Shade Trees:

AREA OF THE LIMITS OF DISTURBANCE (SQUARE FEET) FROM	TO	NUMBER OF SHADE TREES REQUIRED
1 SQ. FT.	6,000 SQ. FT.	3
6,001 SQ. FT.	8,000 SQ. FT.	6
8,001 SQ. FT.	12,000 SQ. FT.	9
12,001 SQ. FT.	14,000 SQ. FT.	12
14,001 SQ. FT.	40,000 SQ. FT.	15

If the square footage of the limits of disturbance is more than 40,000 SF, then the number of shade trees required must be calculated using the following formula: (Number of Square Feet in LOD / 40,000) x 15

Exemption Categories:
☐ 55-5(a) any activity that is subject to Article II of Chapter 22A;
☐ 55-5(b) any commercial logging or timber harvesting operation with an approved exemption from Article II of Chapter 22A;
☐ 55-5(f) any activity conducted by the County Parks Department;
☐ 55-5(g) routine or emergency maintenance of an existing stormwater management facility, including an existing access road, if the person performing the maintenance has obtained all required permits;
☐ 55-5(h) any stream restoration project if the person performing the work has obtained all necessary permits;
☐ 55-5(i) cutting or clearing any tree to comply with applicable provisions of any federal, state, or local law governing safety of dams;
☐ OTHER: Specify per Section 55-5 of the Code: This property is located within the Montgomery County incorporated municipality of ________, therefore it is not subject to the Tree Canopy Law.

CLEAN WATER DIVERSION FLOW COMPUTATIONS

CALCULATE Q(10) TO CLEAN WATER DIVERSION FENCE
Q(10) = C x I(10) x A
C (R-200) = 0.38
I(10) = 5.00 IN/HR (10-YR FREQUENCY/15 MIN. TC)
DRAINAGE AREA TO DIVERSION FENCE = 0.51 AC
Q(10) = (0.38) x (5.00 IN/HR) x (0.51 AC) = 0.97 CFS
Q(10) DISCHARGES AT A NON EROSIVE VELOCITY (< 4.0 CFS)

LEGEND

EXISTING FEATURES
- Ex. Sewer Manhole and Invert
- Ex. Water Line with Valve
- Ex. Overhead Utility with Pole
- Ex. Underground Utility Line
- Ex. Two- And Ten-foot Contours
- Ex. Spot Elevation
- Ex. Light Pole
- Ex. Wood or Stockade Fence
- Ex. Metal or Iron Fence
- Ex. Retaining Wall
- Ex. Soil Line with Soil Types
- Ex. Tree Canopy
- Ex. Tree (< 24" DBH)
- Ex. Roadside Tree or Ex. Tree (24" DBH - < 30" DBH)
- Ex. Tree (30" DBH and greater)

PROPOSED FEATURES
- Limit Of Disturbance (L.O.D.)
- PROP. WHC — Prop. Water-House Connection
- PROP. SHC — Prop. Sewer-House Connection
- PROP. GHC — Prop. Gas-House Connection
- PROP. EHC — Prop. Electric-House Connection
- Prop. Contour with Elevation
- Prop. Spot Elevation
- Prop. Tree Canopy Tree
- Prop. 4" PVC Drain Pipe
- Prop. Drainage Divide
- Prop. Surface Flow Direction
- Prop. Pipe Flow Direction
- SSF — Prop. Super Silt Fence
- TP-RP-SSF — Tree Protection Fence / Root Pruning Trench / Super Silt Fence
- PROP. S.C.E. — Prop. Stabilized Construction Entrance
- Gravel Dry Well with the Perforated Pipe Layout, Downspout Leader, Pipe Flow Direction, and Pipe Invert Elevation

DOWNSPOUT TABLE

Downspout Number	Treatment
DS-1	Dry Well A
DS-2	Dry Well A
DS-3	Dry Well B
DS-4	Dry Well B
DS-5	Dry Well B
DS-6	Dry Well C
DS-7	Dry Well C
DS-8	Dry Well D
DS-9	Dry Well D
DS-10	Dry Well D
DS-11	Dry Well D

TREE CANOPY PLANTING

As part of Chapter 55-6, Tree Canopy Conservation, this plan proposes the planting of fifteen (15) shade trees. The proposed shade trees must be included on the approved shade tree list, dated February 5, 2014.

The following 2" caliper trees are to be planted:
Eight (8) sugar maple *(acer saccharum)*
Seven (7) white oak *(quercus alba)*

In the event that changes to the list above are needed, a written letter to MCDPS requesting the change(s) in species will be required.

TOPSOIL NOTE

TOPSOIL MUST BE APPLIED TO ALL PERVIOUS AREAS WITHIN THE LIMITS OF DISTURBANCE PRIOR TO PERMANENT STABILIZATION IN ACCORDANCE WITH MDE "STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS".

DRAINAGE STATEMENT

I understand that DPS approval of this sediment control/stormwater management plan is for demonstrated compliance with required environmental runoff treatment standards. This DPS sediment control/stormwater management plan approval does not relieve me of professional responsibility. I have analyzed the proposed design for Sediment Control Permit No. 290228 and hereby state that, based upon my background, training and experience, I have determined that the proposed improvements shown on this plan meet relevant laws and regulations. I further acknowledge that I have analyzed the post development drainage patterns for this project from the standpoint of my responsibilities under current Maryland Law and have determined that if permission is required from adjacent property owners, it has been obtained and copies of those permissions have been made available to DPS.

Curt A. Schreffler — 12/28/2023 (Date)

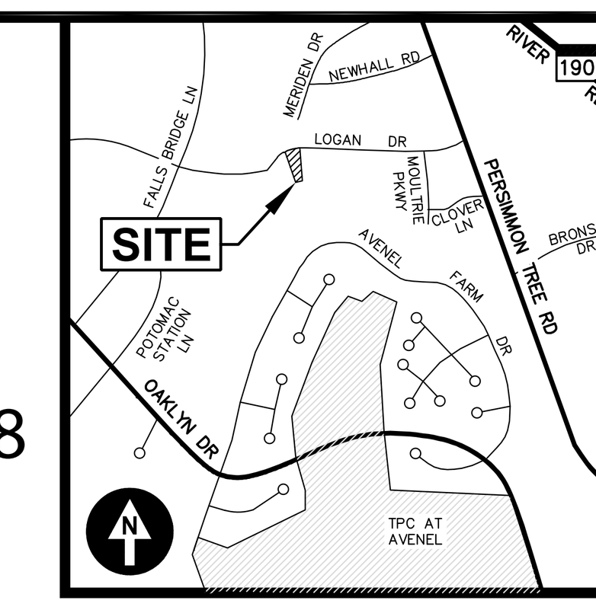
UTILITY INFORMATION

EXISTING UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE AND MUST BE FIELD VERIFIED. UTILITY LOCATIONS ARE BASED UPON AVAILABLE RECORDS AND ARE SHOWN TO THE BEST OF OUR ABILITY.

FOR LOCATION OF UTILITIES, CALL "MISS UTILITY" AT 1-800-257-7777, OR LOG ON TO WWW.MISSUTILITY.NET/ITIC 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDER GROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF CHAPTER 36A OF THE MONTGOMERY COUNTY CODE.

The Permittee must contact the sediment control area inspector for a preconstruction meeting 48 hours prior to the commencement of any land disturbing or construction activities.

Curt Schreffler
Digitally signed by Curt Schreffler
Date: 2023.12.28 14:49:39 -05'00'



VICINITY MAP

ADC MAP 5283, GRID G-9, SCALE: 1" = 2000'

Montgomery Planning
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
2425 Reedie Drive, Floor 14, Wheaton, MD 20902
MontgomeryPlanning.org

February 26, 2023

Mr. Sevag Balian
Tilden Partners, LLC
6110 Executive Blvd., Suite 310
Rockville, MD 20852

Re: Forest Conservation Exemption Request
Property Name: Lot 3, Blk F Williamsburg Estate; 9932 Logan Drive
Plan Number: 42023110E
Status: **Confirmed**

Dear Mr. Balian:

Based on the review by staff of the Montgomery County Planning Department, the Forest Conservation Exemption request submitted on January 11, 2023 for 9932 Logan Drive, Plan No. 42023110E, is confirmed. The project is exempt from Article II of the Montgomery County Code, Chapter 22A ("Forest Conservation Law").

The Forest Conservation Exemption requested under Section 22A-5(a) is applicable because the proposed activity being conducted on an existing single lot is for a dwelling house or an accessory structure for the owner's use, and does not require a special exception, and the activity will not result in removal of more than a total of 20,000 square feet of forest, any forest in a stream buffer, any forest on property located in a special protection area which must submit a water quality plan, any specimen or champion tree, or any tree or forest that is subject to the requirements of a previously approved forest conservation plan or tree save plan, and the request includes a Declaration of Intent stating that the lot will not be the subject of additional regulated activities under this Chapter within 5 years of the cutting, clearing, or grading of forest.

A pre-construction meeting is required after the limits of disturbance have been staked prior to clearing and grading to verify the limits of disturbance and tree protection measures are in place per the confirmed Forest Conservation Exemption Plan. The M-NCPPC forest conservation inspection staff may require additional tree protection measures. The project manager should contact inspector Domenic Bello at domenic.bello@montgomeryplanning.org or at 301-495-2107 at least 7 days prior to construction activity to schedule this pre-construction meeting. The site supervisor, construction superintendent, forest conservation inspector, a private Maryland licensed tree expert, and the Montgomery County Department of Permitting Services sediment control inspector must attend this pre-construction meeting.

Any changes from the approved exemption request may constitute grounds to rescind or amend any approval actions taken and to take appropriate enforcement actions. If there are any subsequent modifications planned to the confirmed plan, a new application must be submitted to M-NCPPC for review and confirmation prior to those activities occurring.

If you have any questions regarding these actions please feel free to contact me at 301-495-4559 or douglas.johnsen@montgomeryplanning.org.

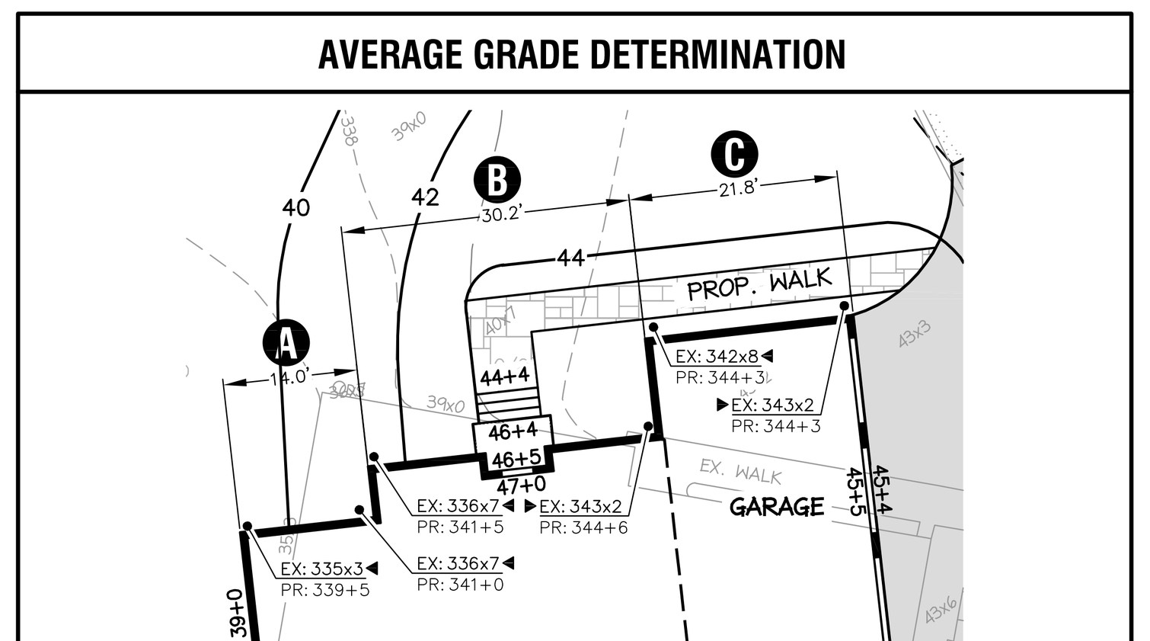
Sincerely,

Doug Johnsen, PLA
Senior Planner
Upcounty Planning Division

Cc: James Ochs (CAS Engineering, Inc.)
File 42023110E

Upcounty Planning Division: O: 301.495.4645 Fax: 301.495.1304
2425 Reedie Dr., Floor 13, Wheaton, Maryland 20902
www.MontgomeryPlanning.org

AVERAGE GRADE DETERMINATION



	ELEV @ POINT 1	ELEV @ POINT 2	AVERAGE GRADE	SECTION LENGTH	% LENGTH	AVERAGE GRADE x % LENGTH
Section A	335.30	336.70	336.00	14.0	21.21%	71.27
Section B	336.70	343.20	339.95	30.2	45.76%	155.56
Section C	342.80	343.20	343.00	21.8	33.03%	113.29

AVERAGE GRADE: 340.12

CAS JOB NO.: 22-0234
DATE: 12/2023

DATE	REVISION
11/16/23	SMF - Building Permit Site Plan Base Sheet to Tilden Partners, LLC.
11/29/23	SMF - SCP Uploaded to ePlans for Initial Plan Review by MCDPS-WRS.
12/28/23	JMO - SCP Uploaded for Final Approval by MCDPS-WRS.

CURT A. SCHREFFLER, PE
12/28/2023

PROFESSIONAL ENGINEER CERTIFICATION: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 19568, expiration date 3/8/2024, and that this plan meets MCDPS criteria for building and sediment control permit applications.

Lot 3, Block F, Williamsburg Estates
Plat Book 48, Plat No. 3644, Recorded 3/25/1954
Potomac (10th) Election District, Montgomery County, MD

9932 Logan Drive
Potomac, Maryland 20854

OWNER/APPLICANT
Tilden Partners, LLC
66110 Executive Boulevard, Suite 310
Rockville, MD 20852
Attn: Jeff Cohen
(240) 304-0815 Cell
jeff@haverfordhomes.com

ARCHITECT
Tirtanadi Architect
348 Tschiffely Square Road
Gaithersburg, MD 20878
Attn: Hendri Tirtanadi
(301) 938-0311 Cell
htarchitect@gmail.com

9932 Logan Drive
Lot 3, Block F, Williamsburg Estate
Building Permit Site Plan, Stormwater Management Plan, and Sediment Control Plan

CAS ENGINEERING

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TECHNICAL REVIEW OF SEDIMENT CONTROL	ADMINISTRATIVE REVIEW
Elvina Newton Tryer (REVIEWED) — 12/29/2023 (DATE)	Elvina Newton Tryer (REVIEWED) — 12/29/2023 (DATE)
TECHNICAL REVIEW OF STORMWATER MANAGEMENT	**SMALL LOT DRAINAGE APPROVAL**
Elvina Newton Tryer (REVIEWED) — 12/29/2023 (DATE)	N/A: ☒ OR ____ REVIEWED ____ DATE
MCDPS APPROVAL OF THIS PLAN WILL EXPIRE TWO YEARS FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED.	MCDPS APPROVAL DOES NOT NEGATE THE NEED FOR A MCDPS ACCESS PERMIT.

DPS approval of a sediment control or stormwater management plan is for demonstrated compliance with minimum environmental runoff treatment standards and does not create or imply any right to divert or concentrate runoff onto any adjacent property without that property owner's permission. It does not relieve the design engineer or other responsible person of professional liability or ethical responsibility for the adequacy of the drainage design as it affects uphill or downhill properties.

290228
SEDIMENT CONTROL PERMIT NO.

N/A
STORMWATER MANAGEMENT FILE NO.

ESD to the MEP. Full Site ESD.
DW (4)

SCALE: 1 INCH = 20 FEET

SHEET TITLE:
Building Permit Site Plan, SWM Plan, and Sediment Control Plan

APPROVED
Department of Permitting Services

STANDARD EROSION AND SEDIMENT CONTROL NOTES

1. The permittee shall notify the Department of Permitting Services (DPS) forty-eight (48) hours before commencing any land disturbing activity and, unless waived by the Department, shall be required to hold a pre-construction meeting between them or their representative, their engineer and an authorized representative of the Department.
2. The permittee must obtain inspection and approval by DPS at the following points:
   a. At the required pre-construction meeting.
   b. Following installation of sediment control measures and prior to any other land disturbing activity.
   c. During the installation of a sediment basin or stormwater management structure at the required inspection points (see inspection checklist on plan). Notification prior to commencing construction is mandatory.
   d. Prior to removal or modification of any sediment control structure(s).
   e. Prior to final acceptance.
3. The permittee shall construct all erosion and sediment control measures per the approved plan and construction sequence, shall have them inspected and approved by the Department prior to beginning any other land disturbances, shall ensure that all runoff from disturbed areas is directed to the sediment control devices, and shall not remove any erosion or sediment control measure without prior permission from the Department.
4. The permittee shall protect all points of construction ingress and egress to prevent the deposition of materials onto traversed public thoroughfare(s). All materials deposited onto public thoroughfare(s) shall be removed immediately.
5. The permittee shall inspect periodically and maintain continuously in effective operating condition, all erosion and sediment control measures until such time as they are removed with prior permission from the Department. The permittee is responsible for immediately repairing or replacing any sediment control measures which have been damaged or removed by the permittee or any other person.
6. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization must be completed within:
   a. Three (3) calendar days as to the surface of all perimeter dikes, swales, ditches, perimeter slopes and all slopes steeper than 3 horizontal to 1 vertical (3:1); and
   b. Seven (7) calendar days as to all other disturbed or graded areas on the project site not under active grading.

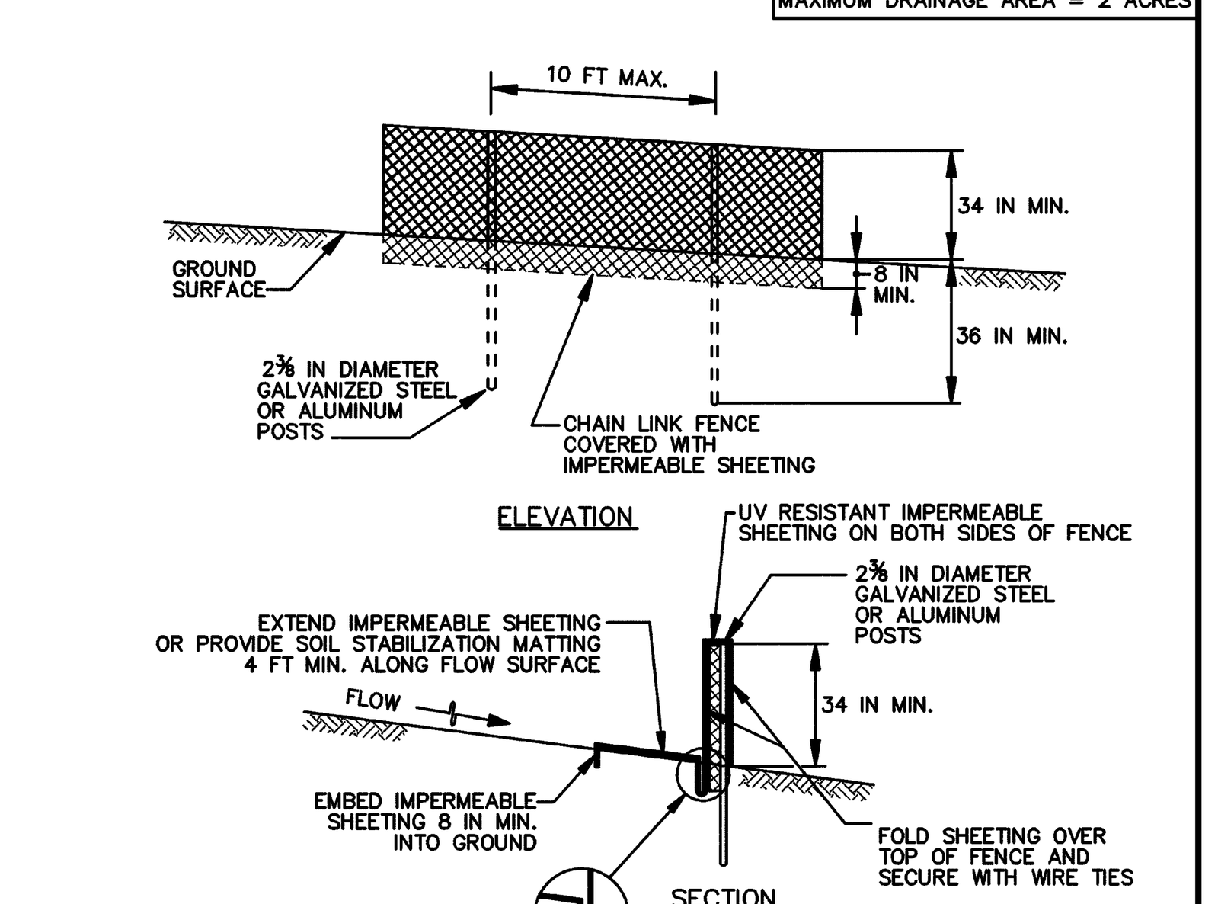
   All areas disturbed outside of the perimeter sediment control system must be minimized and stabilized immediately. maintenance must be performed as necessary to ensure continued stabilization.
7. The permittee shall apply sod, seed, and anchored straw mulch, or other approved stabilization measures to all disturbed areas within seven (7) calendar days after stripping and grading activities have ceased on that area. Maintenance shall be performed as necessary to ensure continued stabilization. Active construction areas such as borrow or stockpile areas, roadway improvements, and areas within fifty (50) feet of a building under construction may be exempt from this requirement, provided that erosion and sediment control measures are installed and maintained to protect those areas.
8. Prior to removal of sediment control measures, the permittee shall stabilize all contributory disturbed areas with required soil amendments and topsoil, using sod or an approved permanent seed mixture and an approved anchored mulch. Wood fiber mulch may only be used in seeding season when the slope does not exceed 10% and grading has been done to promote sheet flow drainage. Areas brought to finished grade during the seeding season shall be permanently stabilized within seven (7) calendar days of establishment. When property is brought to finished grade during the months of November through February, and permanent stabilization is found to be impractical, an approved temporary seed and straw anchored mulch shall be applied to disturbed areas. The final permanent stabilization of such property shall be completed prior to the following April 15.
9. The site permit, work, materials, approved SC/SWM plans, and test reports shall be available at the site for inspection by duly authorized officials of Montgomery County.
10. Surface drainage flows over unstabilized cut and fill slopes shall be controlled by either preventing drainage flows from traversing the slopes or by installing mechanical devices to lower the water down slope without causing erosion. Dikes shall be installed and maintained at the top of cut or fill slopes until the slope and drainage area to it are fully stabilized, at which time they must be removed and final grading done to promote sheet flow drainage. Mechanical devices must be provided at points of concentrated flow where erosion is likely to occur.
11. Permanent swales or other points of concentrated water flow shall be stabilized within 3 calendar days of establishment with sod or seed with an approved erosion control matting or by other approved stabilization measures.
12. Sediment control devices shall be removed, with permission of the Department, within thirty (30) calendar days following establishment of permanent stabilization in all contributory drainage areas. Stormwater management structures used temporarily for sediment control shall be converted to the permanent configuration within this time period as well.
13. No permanent cut or fill slope with a gradient steeper than 3:1 will be permitted in lawn maintenance areas or on residential lots. A slope gradient of up to 2:1 will be permitted in non- maintenance areas provided that those areas are indicated on the erosion and sediment control plan with a low-maintenance ground cover specified for permanent stabilization. Slope gradient steeper than 2:1 will not be permitted with vegetative stabilization.
14. The permittee shall install a splashblock at the bottom of each downspout unless the downspout is connected by a drain line to an acceptable outlet.
15. For finished grading, the permittee shall provide adequate gradients so as to prevent water from standing on the surface of lawns more than twenty-four (24) hours after the end of a rainfall, except in designated drainage courses and swale flow areas, which may drain as long as forty-eight (48) hours after the end of a rainfall.
16. Sediment traps or basins are not permitted within 20 feet of a building which is existing or under construction. No building may be constructed within 20 feet of a sediment trap or basin.
17. All inlets in non-sump areas shall have asphalt berms installed at the time of base paving establishment.
18. The sediment control inspector has the option of requiring additional sediment control measures, as deemed necessary.
19. All trap elevations are relative to the outlet elevation, which must be on existing undisturbed ground.
20. Vegetative stabilization shall be performed in accordance with the standards and specifications for soil erosion and sediment control.
21. Sediment trap(s)/basin(s) shall be cleaned out and restored to the original dimensions when sediment has accumulated to the point of one-half (1/2) the wet storage depth of the trap/basin (1/4 the wet storage depth for ST-III) or when required by the sediment control inspector.
22. Sediment removed from traps/basins shall be placed and stabilized in approved areas, but not within a floodplain.
23. All sediment basins and traps must be surrounded with a welded wire safety fence. The fence must be at least 42 inches high, have posts spaced no farther apart than 8 feet, have mesh openings no greater the two inches in width and four inches in height, with a minimum of 14 gauge wire. Safety fence must be maintained in good condition at all times.
24. No excavation in the areas of existing utilities is permitted unless their location has been determined. Call "Miss Utility" at 1-800-257-7777, 48 hours prior to the start of work.
25. Off-site spoil or borrow areas must have prior approval by DPS.
26. Sediment trap/basin dewatering for cleanout or repair may only be done with the DPS inspector's permission. The inspector must approve the dewatering method for each application. The following methods may be considered:
   a. Pump discharge may be directed to another on-site sediment trap or basin, provided it is of sufficient volume and the pump intake is floated to prevent agitation or suction of deposited sediments; or
   b. The pump intake may utilize a removable pumping station and must discharge into an undisturbed area through a non-erosive outlet; or
   c. The pump intake may be floated and discharge into a dirt bag (12 oz. non-woven fabric), or approved equivalent, located in an undisturbed buffer area.

   Remember: Dewatering operation and method must have prior approval by the DPS inspector.
27. The permittee must notify the Department of all utility construction activities within the permitted limits of disturbance prior to the commencement of those activities.
28. Topsoil must be applied to all pervious areas within the limits of disturbance prior to permanent stabilization in accordance with MDE "Standards and Specifications for Soil Preparation, Topsoiling, and Soil Amendments".

DETAIL C-9 DIVERSION FENCE

STANDARD SYMBOL: DF

MAXIMUM DRAINAGE AREA = 2 ACRES



CONSTRUCTION SPECIFICATIONS

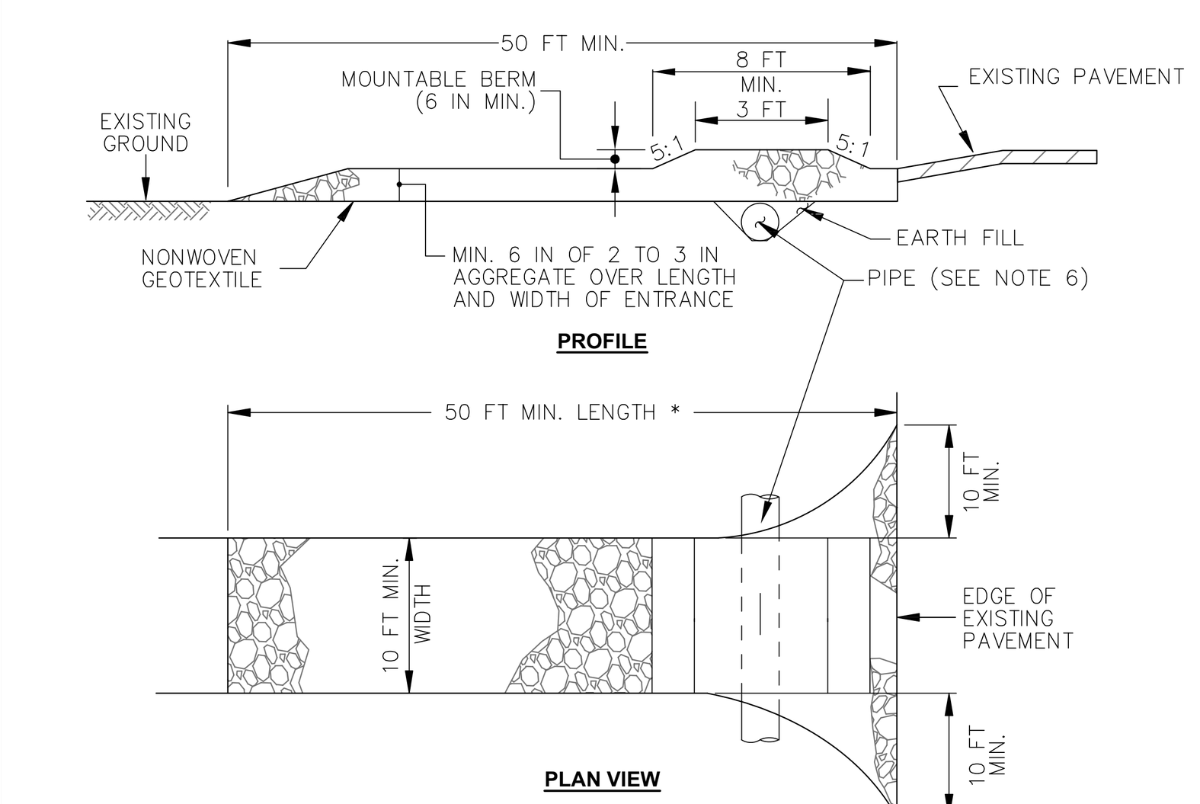
1. USE 42 INCH HIGH, 9 GAUGE OR THICKER CHAIN LINK FENCING (2⅜ INCH MAXIMUM OPENING).
2. USE 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. THE POSTS DO NOT NEED TO BE SET IN CONCRETE.
3. FASTEN CHAIN LINK FENCE SECURELY TO THE FENCE POSTS WITH WIRE TIES.
4. SECURE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING TO CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT TOP, MID SECTION, AND BELOW GROUND SURFACE.
5. EXTEND SHEETING A MINIMUM OF 4 FEET ALONG FLOW SURFACE AND EMBED END A MINIMUM OF 8 INCHES INTO GROUND. SOIL STABILIZATION MATTING MAY BE USED IN LIEU OF IMPERMEABLE SHEETING ALONG FLOW SURFACE.
6. WHEN TWO SECTIONS OF SHEETING ADJOIN EACH OTHER, OVERLAP BY 6 INCHES AND FOLD WITH SEAM FACING DOWNGRADE.
7. KEEP FLOW SURFACE ALONG DIVERSION FENCE AND POINT OF DISCHARGE FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE. REPLACE IMPERMEABLE SHEETING IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL: SCE



CONSTRUCTION SPECIFICATIONS

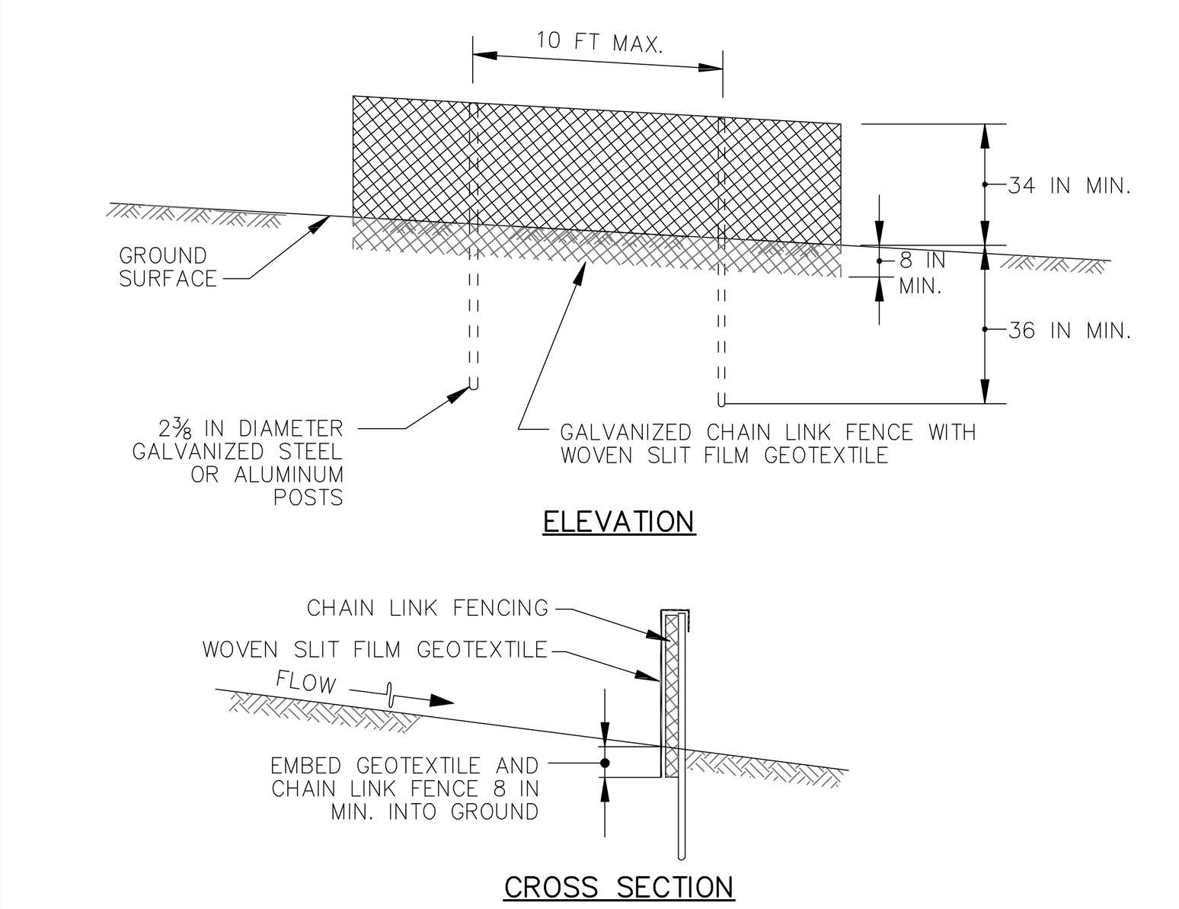
1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-3 SUPER SILT FENCE

STANDARD SYMBOL: SSF



CONSTRUCTION SPECIFICATIONS

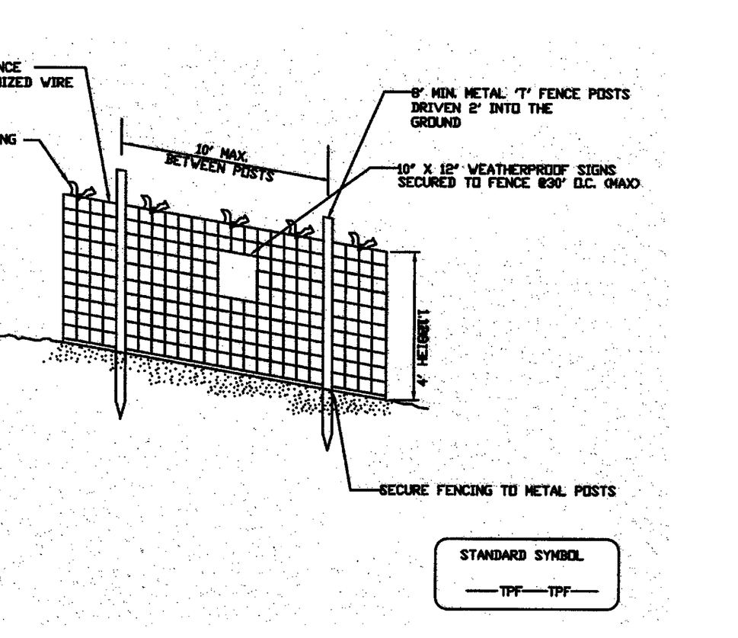
1. INSTALL 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2⅜ INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
6. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Tree Protection Fence Detail

Not to scale



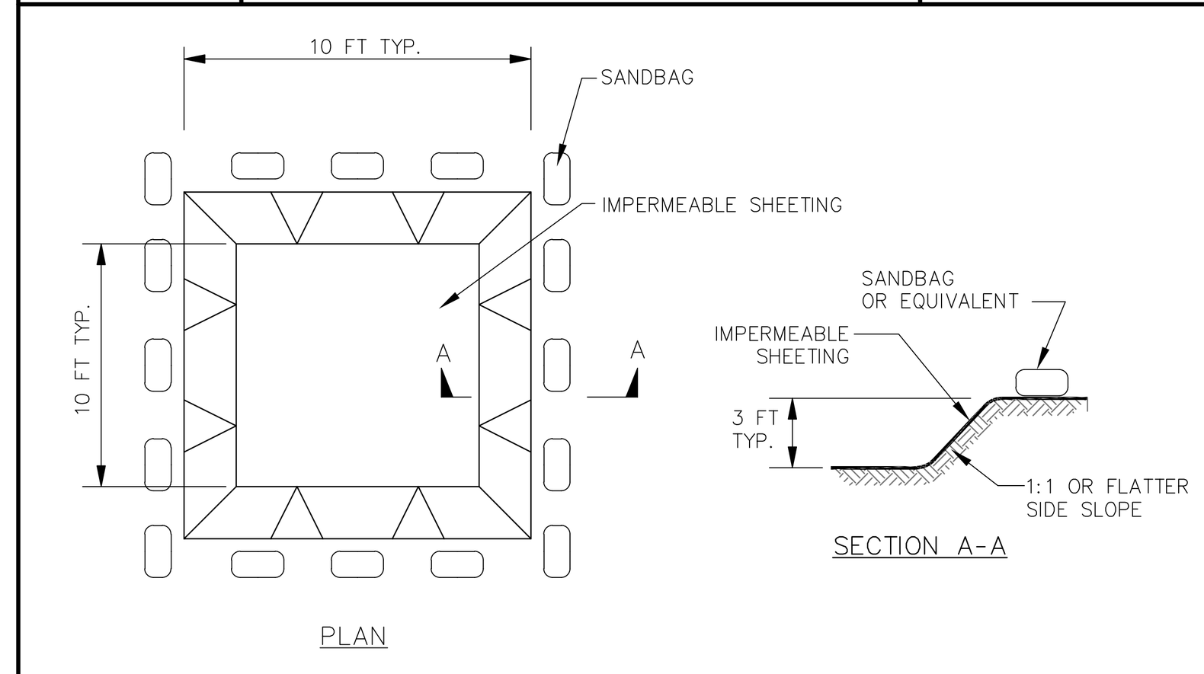
NOTES

1. Practice may be combined with sediment control fencing.
2. Location and limits of fencing should be coordinated in field with arborist.
3. Boundaries of protection area should be staked prior to installing protective device.
4. Root damage should be avoided.
5. Protection signage is required.
6. Fencing shall be maintained throughout construction.

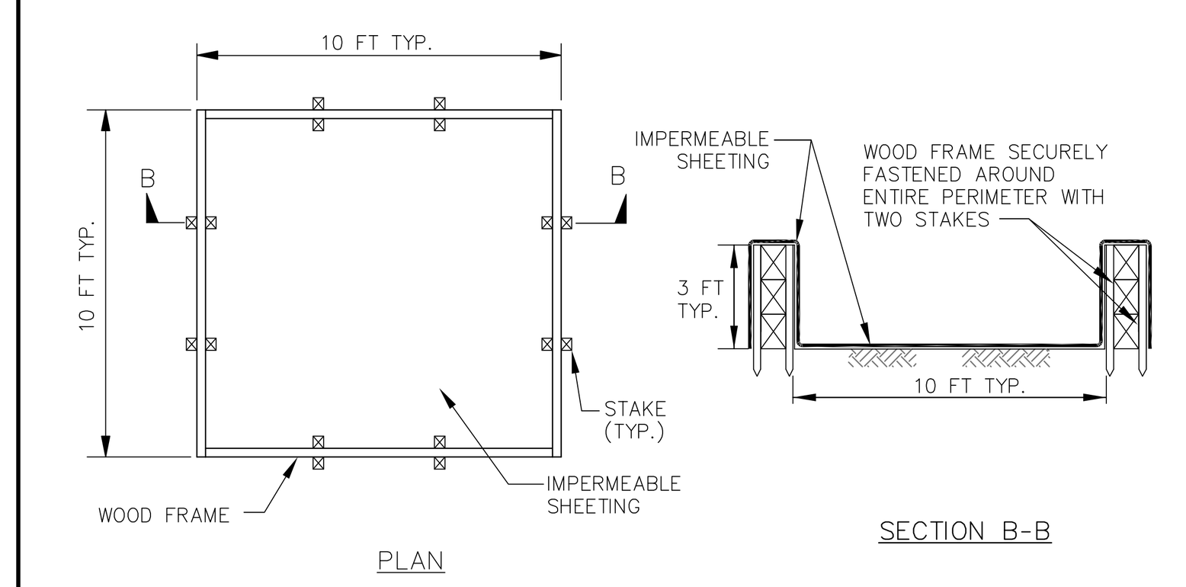
Montgomery County Planning Department • M-NCPPC
MontgomeryPlanning.org

DETAIL H-6 ONSITE CONCRETE WASHOUT STRUCTURE

STANDARD SYMBOL: CWS



EXCAVATED WASHOUT STRUCTURE



WASHOUT STRUCTURE WITH WOOD PLANKS

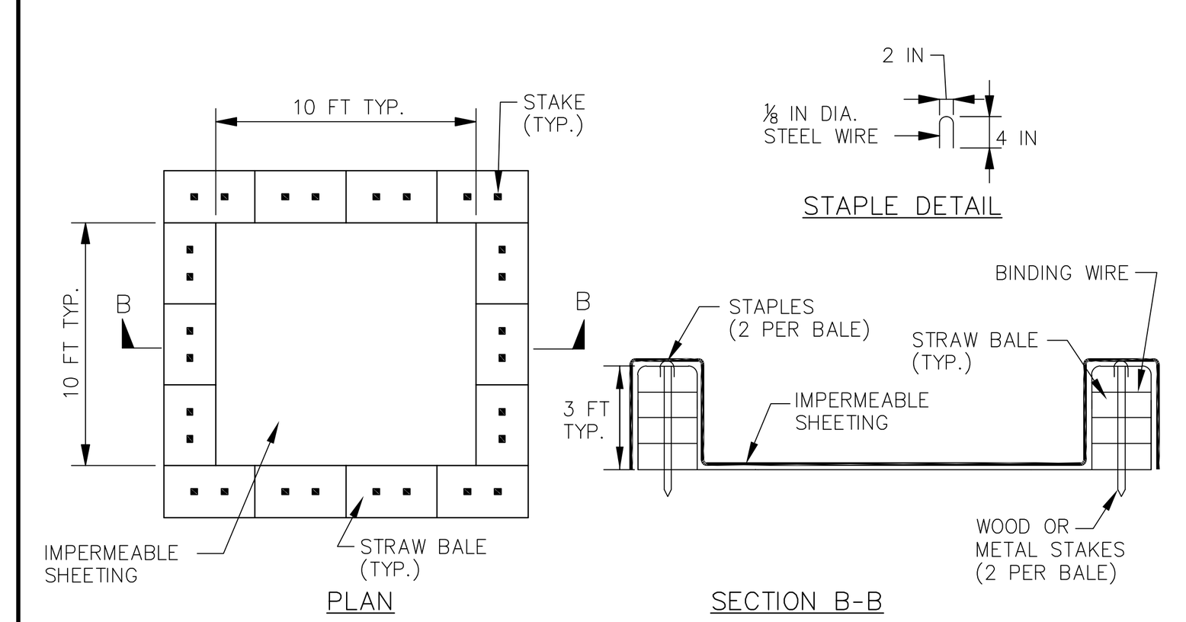
1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL H-6 ONSITE CONCRETE WASHOUT STRUCTURE

STANDARD SYMBOL: CWS



NOTE: CAN BE TWO STACKED BALES OR PARTIALLY EXCAVATED TO REACH 3 FT DEPTH

WASHOUT STRUCTURE WITH STRAW BALES

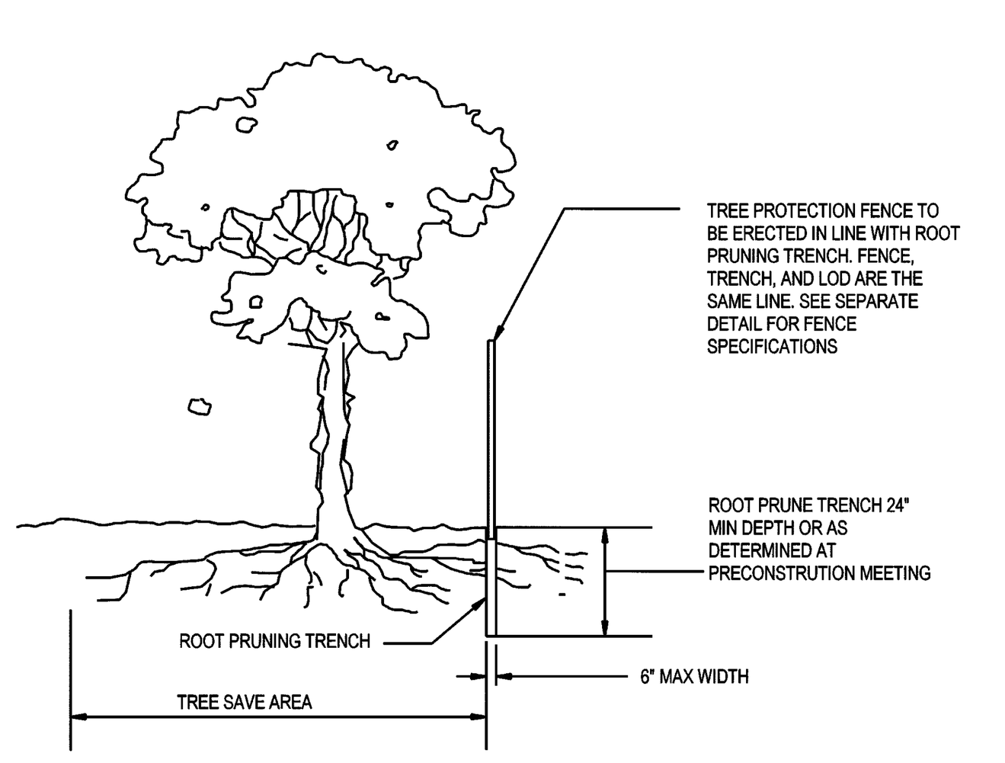
CONSTRUCTION SPECIFICATIONS

1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



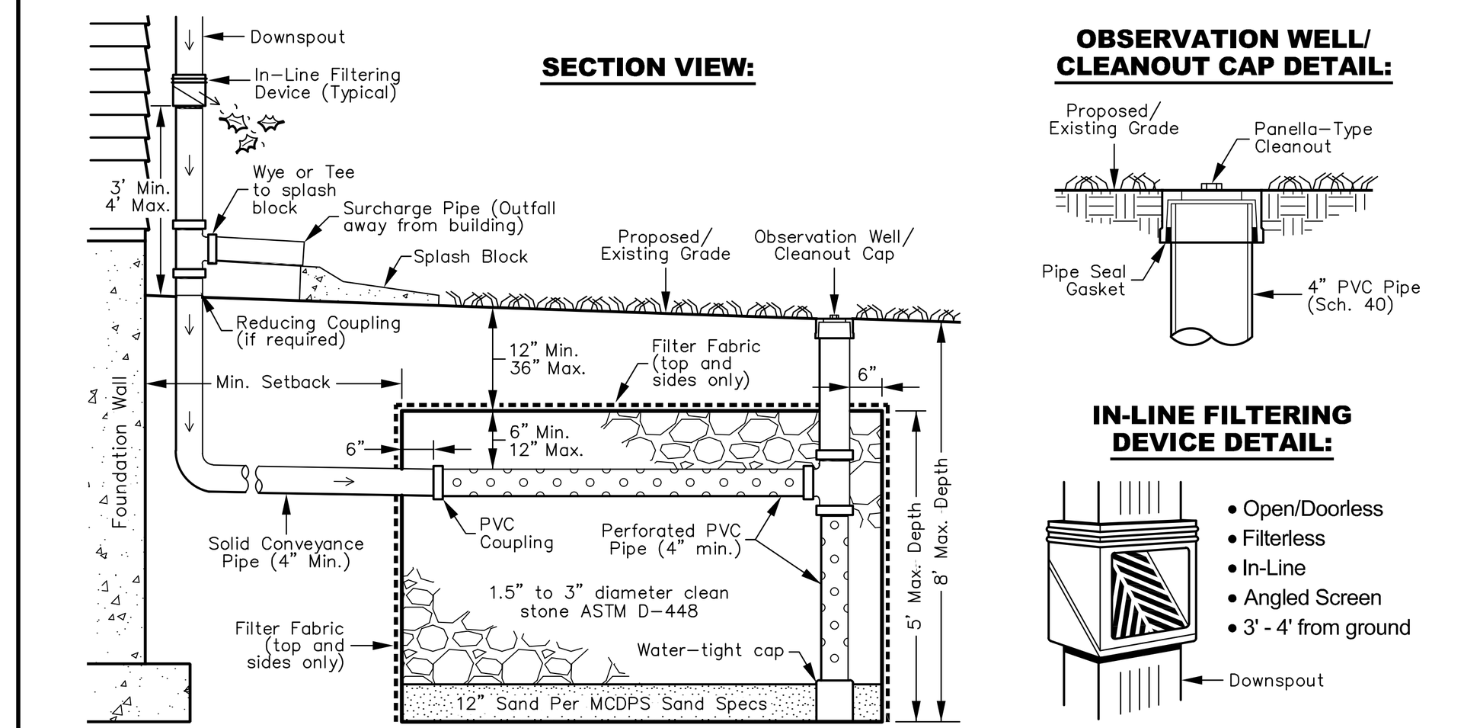
NOTES:
1. RETENTION AREAS WILL BE SET AS PART OF THE REVIEW PROCESS AND PRECONSTRUCTION MEETING.
2. BOUNDARIES OF RETENTION AREAS MUST BE STAKED AT THE PRECONSTRUCTION MEETING AND FLAGGED PRIOR TO TRENCHING.
3. EXACT LOCATION OF TRENCH SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE FOREST CONSERVATION (FC) INSPECTOR .
4. TRENCH SHOULD BE IMMEDIATELY BACKFILLED WITH EXCAVATED SOIL OR OTHER ORGANIC SOIL AS SPECIFIED PER PLAN OR BY THE FC INSPECTOR.
5. ROOTS SHALL BE CLEANLY CUT USING VIBRATORY KNIFE OR OTHER ACCEPTABLE EQUIPMENT.
6. ALL PRUNING MUST BE EXECUTED WITH LOD SHOWN ON PLANS OR AS AUTHORIZED IN WRITING BY THE FC INSPECTOR.

ROOT PRUNING DETAIL

NTS

GENERAL NOTES:

1. Dry wells may receive water from roof downspouts only.
2. Length, width, and depth of each dry well is to be as specified by the design engineer on the approved plan.
3. Manufactured sand is not acceptable. Refer to the MCDPS Sand Specifications.
4. With the inspector's approval, dry well locations may be field adjusted for site conditions. All adjustments must meet the minimum setbacks.
5. Impermeable liners may be used when specified by the design engineer and shown on the plan.
6. Overflow pipes may be used when specified by the design engineer and shown on the plan. They shall be set at a minimum 2% slope. If the outfall is to daylight the outfall invert shall be shown.
7. Pop-up emitters may be used when specified by the design engineer and shown on the plan.



LAYOUT GUIDANCE:

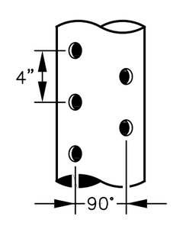
- Downspouts shall be shown on the plan view.
- Conveyance pipe(s) from the downspout(s) to the dry well shall be shown on the plan view, including connections from other downspouts. Standard, readily-available bends shall be used at couplings.
- When possible there should be only one conveyance pipe entering the dry well. It should be centered and should enter at 90 degrees.
- The interior 6" PVC perforated pipe shall be designed and shown on the plan to maximize distribution within the dry well.
- When a dry well's length is greater than its width, consider locating the perforated pipe along the longest dimension.
- The observation well with cleanout cap shall be shown on the plan view.

MINIMUM SETBACKS:

- 5 feet from property lines, Zero from R/W
- 10 feet from slab-on-grade buildings/pools
- 15 feet from buried foundations
- 15 feet from another dry well
- 30 feet from septic trench or tank
- 100 feet from primary well location or open loop geothermal well
- 50 feet from alternate well location or closed loop geothermal well
- So as to avoid basement seepage
- In accordance with other county requirements

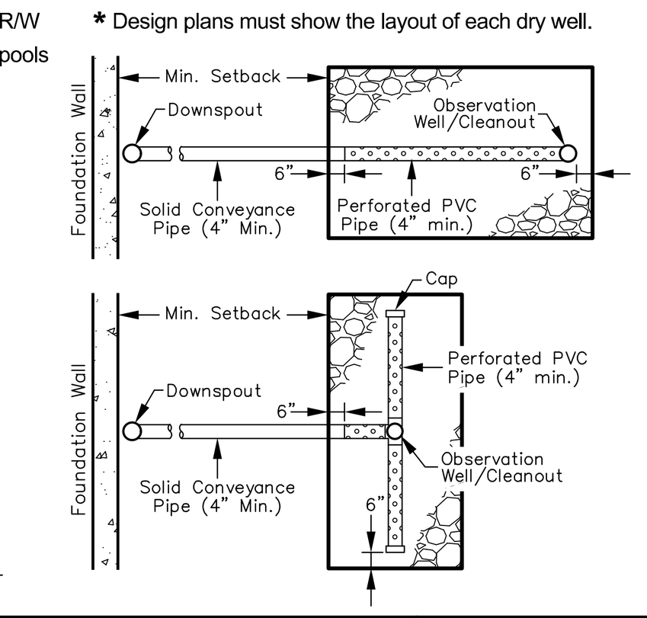
PERFORATED PVC PIPE:

- Schedule 40 PVC
- 3/8 Inch holes
- 4" on center
- 90° around pipe



EXAMPLE LAYOUTS* - PLAN VIEW:

* Design plans must show the layout of each dry well.



MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES WATER RESOURCES SECTION	DRY WELL FOR ROOF RUNOFF DETAIL	DATE: SEPTEMBER 2021 SCALE: NONE

SAND SPECIFICATIONS

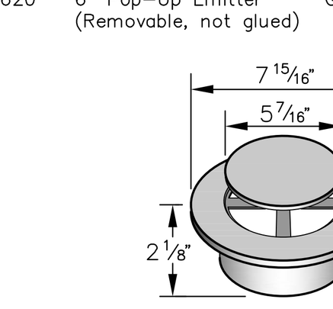
WASHED ASTM C33 FINE AGGREGATE CONCRETE SAND IS UTILIZED FOR STORMWATER MANAGEMENT APPLICATIONS IN MONTGOMERY COUNTY. IN ADDITION TO THE ASTM C33 SPECIFICATION, SAND MUST MEET ALL OF THE FOLLOWING CONDITIONS:

1. Sand must meet gradation requirements for ASTM C-33 Fine Aggregate Concrete Sand. AASHTO M-6 gradation is also acceptable.
2. Sand must be silica-based...no limestone based products may be used. If the material is white or gray in color, it is probably not acceptable.
3. Sand must be clean. Natural, unwashed sand deposits may not be used. Likewise, sand that has become contaminated by improper storage or installation practices will be rejected.
4. Manufactured sand or stone dust is not acceptable under any circumstance.

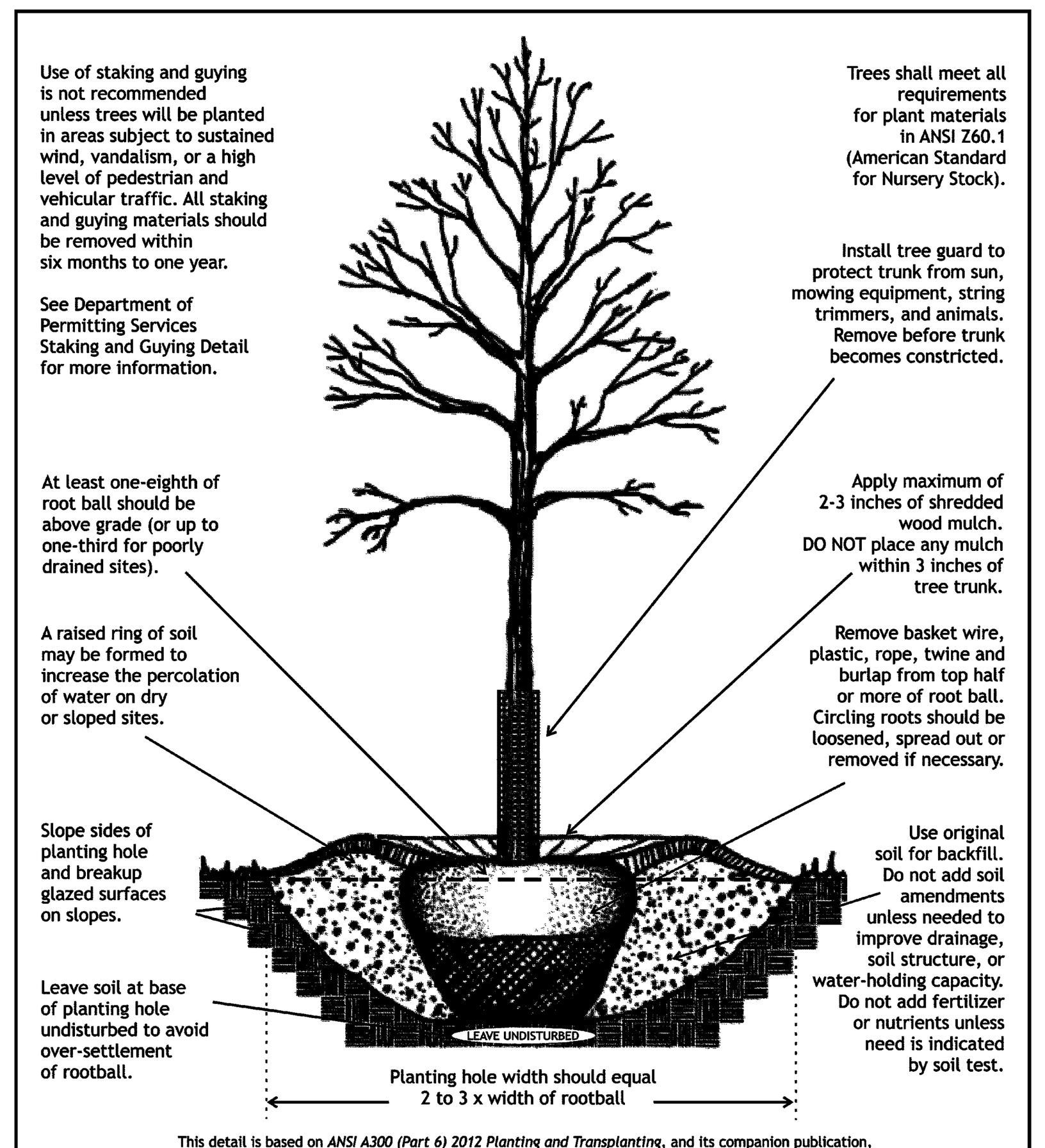
OBSERVATION WELL WITH REMOVABLE 6" POP-UP DRAINAGE EMITTER

NDS® 6" POP-UP DRAINAGE EMITTER

PART NO.	DESCRIPTION	COLOR	WT. EA. (LBS)	PRODUCT CLASS	SPECIFICATIONS
620	6" Pop-Up Emitter (Removable, not glued)	Green	0.61	10ND	NDS #620, 6" Polyolefin Drainage Pop-Up Drainage Emitter, Center Spring Loaded Drive Pop-Up with UV Inhibitor. 100 G.P.M.



www.ndspro.com/where-to-buy



This detail is based on ANSI A300 (Part 6) 2012 Planting and Transplanting, and its companion publication, Best Management Practices: Tree Planting, copyright 2005 by the International Society of Arboriculture

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES	TREE PLANTING DETAIL FOR BALLED AND BURLAP NURSERY STOCK	DATE: 5/16 SCALE: NONE

DESIGN CERTIFICATION

I hereby certify that this plan has been prepared in accordance with the "2011 Maryland Standards and Specification for Soil Erosion and Sediment Control," Montgomery County Department of Permitting Services Executive Regulations 5-90, 7-02AM and 36-90, and Montgomery County Department of Public Works and Transportation "Storm Drain Design Criteria" dated August 1988.

Curt A. Schreffler — DESIGN ENGINEER SIGNATURE — 12/28/2023 DATE

CURT A. SCHREFFLER, P.E. — PRINTED NAME AND TITLE — No. 19568 REGISTRATION NUMBER

CERTIFICATION OF THE QUANTITIES

I hereby certify that the estimated total amount of excavation and fill as shown on these plans has been computed to 1,100 cubic yards of excavation, 400 cubic yards of fill and the total area to be disturbed as shown on these plans has been determined to be 29,600 square feet.

Curt A. Schreffler — DESIGN ENGINEER SIGNATURE — 12/28/2023 DATE

CURT A. SCHREFFLER, P.E. — PRINTED NAME AND TITLE — No. 19568 REGISTRATION NUMBER

OWNER/DEVELOPER CERTIFICATION

I/We hereby certify that all clearing, grading, construction, and or development will be done pursuant to this plan and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Natural Resources approved training program for the control of sediment and erosion before beginning the project.

SIGNATURE — 12/26/2023 DATE

Jeff Cohen
Tilden Partners, LLC
66110 Executive Boulevard, Suite 310
Rockville, MD 20852

9932 Logan Drive
Lot 3, Block F, Williamsburg Estate
Building Permit Site Plan, Stormwater Management Plan, and Sediment Control Plan

CAS JOB NO.: 22-0234
DATE: 12/2023

DATE	REVISION
11/16/23	SMF - Building Permit Site Plan Base Sheet to Tilden Partners, LLC.
11/29/23	SMF - SCP Uploaded to ePlans for Initial Plan Review by MCDPS-WRS.
12/28/23	JMO - SCP Uploaded for Final Approval by MCDPS-WRS.

STATE OF MARYLAND — CURT A. SCHREFFLER — No. 19568 — REGISTERED PROFESSIONAL ENGINEER

CURT A. SCHREFFLER, PE
12/28/2023

PROFESSIONAL ENGINEER CERTIFICATION: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 19568, expiration date 3/8/2024, and that this plan meets MCDPS criteria for building and sediment control permit applications.

Lot 3, Block F, Williamsburg Estates
Plat Book 48, Plat No. 3644, Recorded 3/25/1954
Potomac (10th) Election District, Montgomery County, MD

9932 Logan Drive
Potomac, Maryland 20854

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0" 0.5" 1.0" 1.5" 2.0"
NOT TO SCALE OR AS NOTED

SHEET TITLE:
Building Permit Site Plan, SWM Plan, and Sediment Control Plan

APPROVED
Department of Permitting Services

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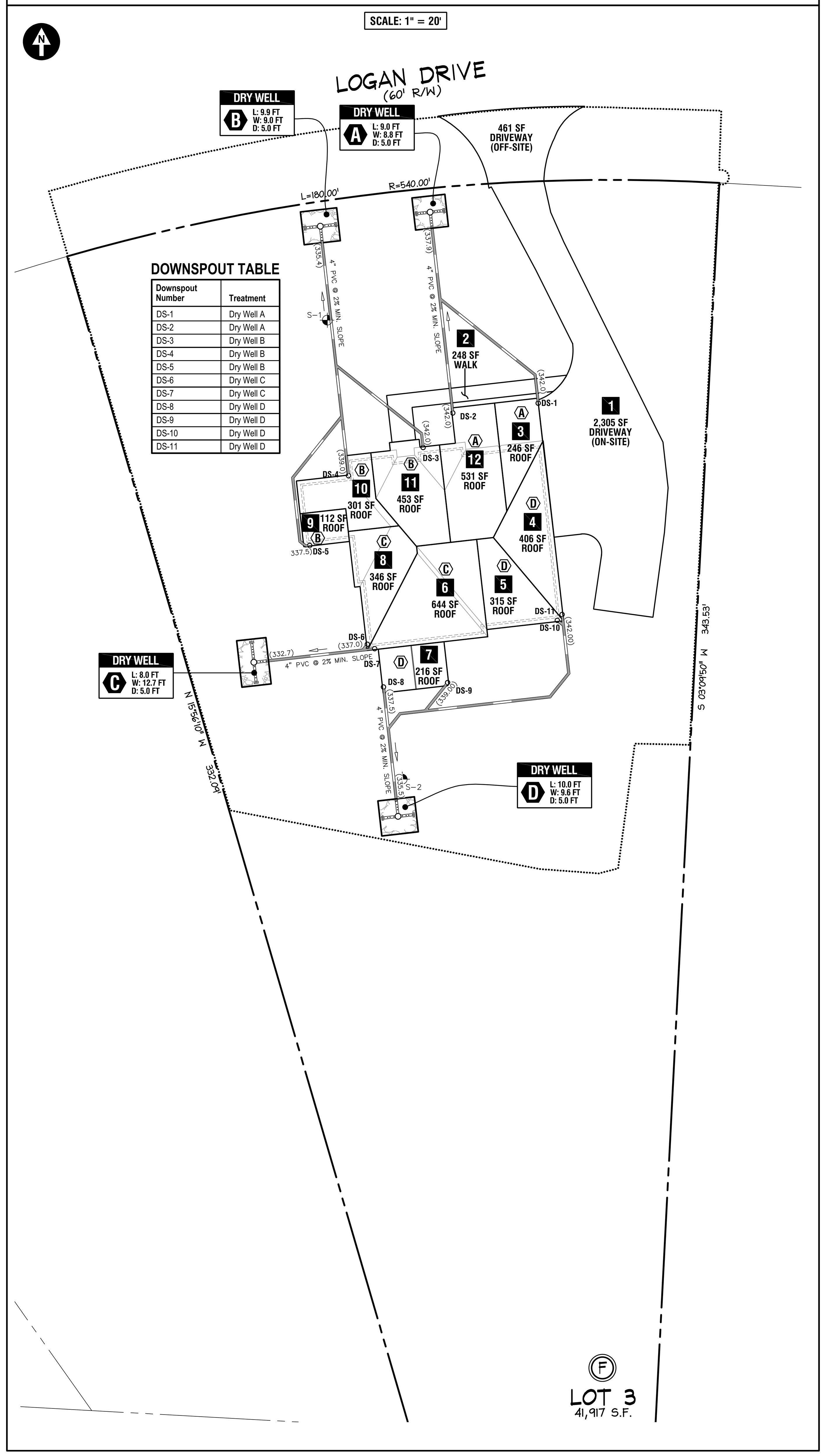
IMPERVIOUS SURFACE AND ROOF AREA DIAGRAM

SCALE: 1" = 20'

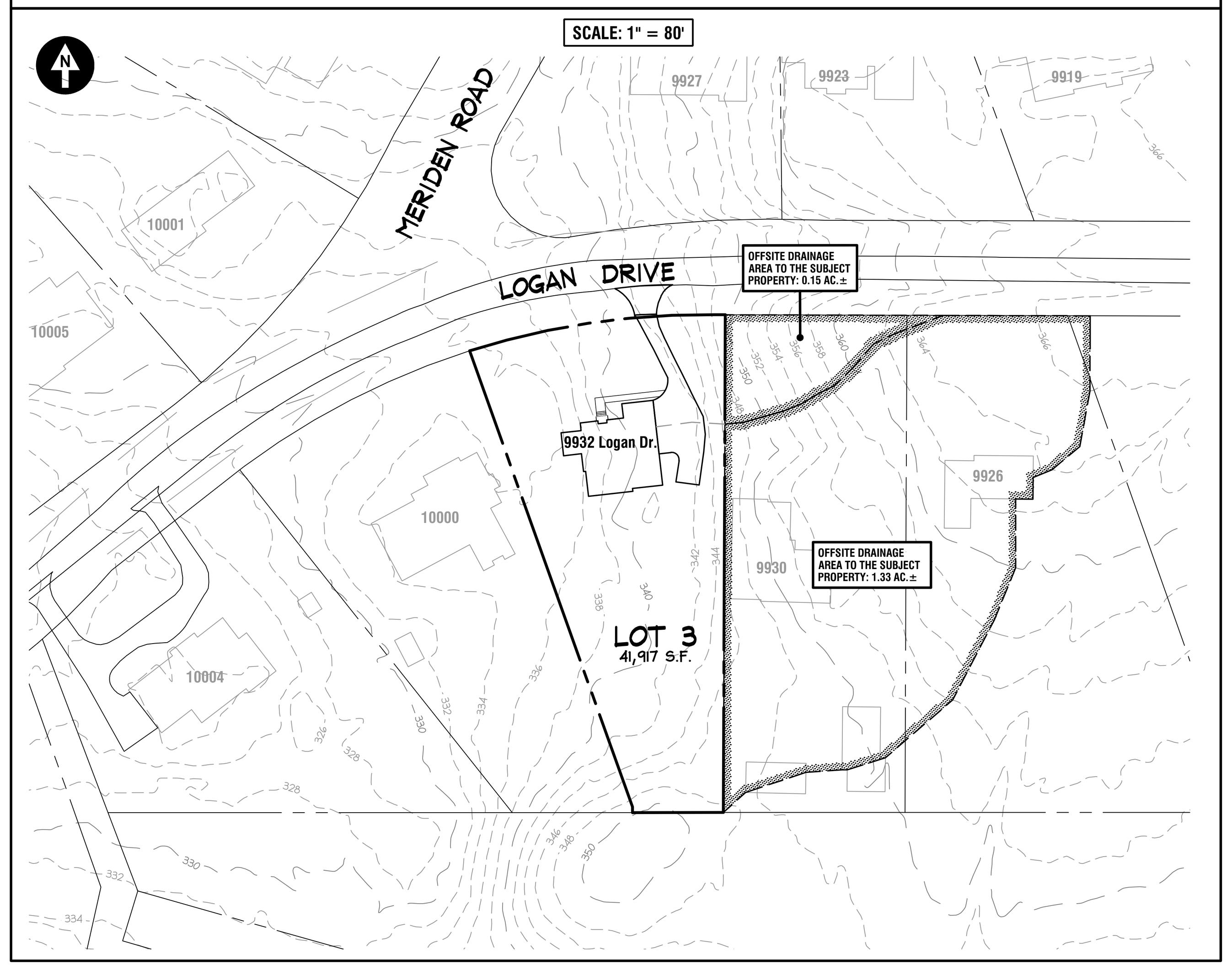


DOWNSPOUT TABLE

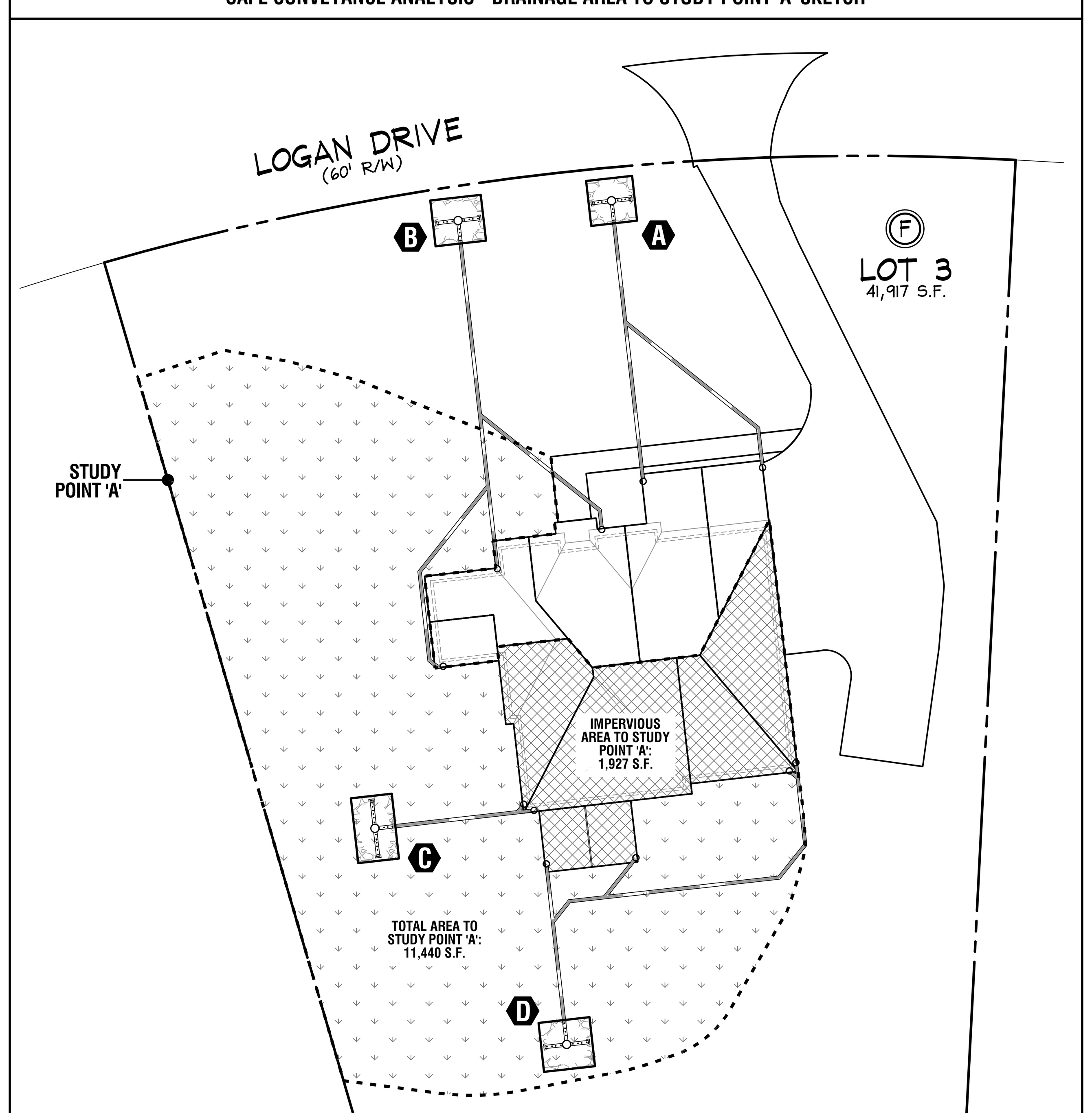
Downspout Number	Treatment
DS-1	Dry Well A
DS-2	Dry Well A
DS-3	Dry Well B
DS-4	Dry Well B
DS-5	Dry Well B
DS-6	Dry Well C
DS-7	Dry Well C
DS-8	Dry Well D
DS-9	Dry Well D
DS-10	Dry Well D
DS-11	Dry Well D

DRAINAGE AREA MAP

SCALE: 1" = 80'



SAFE CONVEYANCE ANALYSIS - DRAINAGE AREA TO STUDY POINT 'A' SKETCH



Q10 DETERMINATION

Drainage Area to Adjacent Lot =	11,440 S.F.
A, Ac	0.26 Ac
Impervious Area =	1,927 S.F.
Weighted C-Factor	0.35
C = 0.24 (Per MCDOT, dense grass)	
C = 0.9 (Per MCDOT, impervious)	
T_c (Per MCDOT)	15 Minutes
I_{10} (Per MCDOT)	5.00 In/Hr
$Q_{10} = C \times I_{10} \times A$	0.46 CFS

```
Triangular

Comment:

Solve For......Depth

Lt Side Slope..     8.00:1 (H:V)     Velocity........    0.88 fps
Rt Side Slope..     8.00:1 (H:V)     Flow Area.......    0.52 sf
Manning's n....     0.060            Flow Top Width..    4.08 ft
Channel Slope..     0.0200 ft/ft     Wetted Perimeter    4.11 ft
Depth..........     0.26 ft          Critical Depth..    0.18 ft
Discharge......     0.46 cfs         Critical Slope..    0.1177 ft/ft
                                     Froude Number...    0.44
```

SAFE CONVEYANCE STATEMENT

As shown above, there are approximately 0.26 acres of runoff exiting the subject property toward the front yard of the adjoining property.

To be conservative, the entire drainage area to the front of adjacent Lot 4, Block F was assumed to exit the subject property through a triangular channel at Study Point 'A'. Using Manning's equation and the post-development 10-year storm, 0.46 cfs will move through this channel at 0.88 fps, therefore the discharge is safely conveyed to the adjacent offsite lot.

ESD COMPUTATIONS - 9932 LOGAN DRIVE (HYDROLOGIC SOIL GROUP C)

TOTAL LOT AREA FOR P_E DETERMINATION	TOTAL LOT IMPERVIOUS AREA FOR P_E DETERMINATION	LOT IMPERVIOUS AREA PERCENTAGE (I) FOR P_E DETERMINATION	P_E = RAINFALL TARGET (INCHES) APPLY IMPERVIOUS COVER PERCENTAGE TO TABLE 5.3
41,917 SF	6,123 SF	14.61 %	1.0 IN
TOTAL L.O.D. AREA FOR R_V & ESD_V DETERMINATION	**TOTAL IMPERVIOUS AREA WITHIN L.O.D. FOR R_V DETERMINATION**	L.O.D. IMPERVIOUS AREA PERCENTAGE (I) FOR R_V DETERMINATION	R_V = RUNOFF VOLUME 0.05 + 0.009(I) (I = Impervious Percentage)
29,600 SF	6,584 SF	22.24%	0.25
DETERMINE ESD_V REQUIRED BASED ON THE L.O.D. (LIMIT OF DISTURBANCE)	TARGET ESD_V = (PE) x (RV) x (A) / 12 **TARGET ESD_V = 1 (PE) x 0.25 (Rv) x 29600 (Area) / 12**		
	TOTAL SITE ESD VOLUME REQUIRED: 616.7 CF		

PER SECTION 5.2.3, THE SIZE OF ANY PRACTICE IS LIMITED TO THE RUNOFF FROM THE 1-YEAR 24-HOUR STORM

(Q_E) VOLUME = (Area) x 2.6 in (Pe Max) x (R_V) / 12

VOLUME PROVIDED VIA ESD DEVICE NOT EXCEED THE Q_E MAXIMUM (1-YEAR STORM)

DRYWELL STRUCTURE	IMPERVIOUS AREA NUMBERS	DRAINAGE AREA (SQ. FT.)	MINIMUM REQUIRED ESD_V P_E = 1.0 IN (CUBIC FEET)	DRY WELL DIMENSIONS (FEET)	DRY WELL SURFACE AREA (SQUARE FEET)	TOTAL DRY WELL VOLUME (CUBIC FEET)	Q_E MAXIMUM VOLUME CHECK (1-YEAR STORM: 2.6 IN)	DRY WELL VOLUME PROVIDED (CUBIC FEET)
	DATA BELOW ROUNDED TO 1 DECIMAL PLACE; Rv FOR DRYWELLS IS 0.95 (100% IMPERVIOUS ROOF AREA)							
A ROOF	3	246 SF	ESDv = 777 (A) x 1.0 (Pe Min) x 0.95 (Rv) / 12 ESDv Min = 61.5 CF	9.0 (LENGTH) 8.8 (WIDTH) 5.0 (DEPTH)	A = 9 (L) x 8.8 (W) A = 79.2 SF	V = 79.2 (A) x 5 (D) x 0.4 V = 158.4 CF	ESDv = 777 (A) x 2.6 (Pe Max) x 0.95 (Rv) / 12 ESDv Max = 159.9 CF	158.4 CF
	12	531 SF						
	TOTAL	777 SF						
B ROOF	9	112 SF	ESDv = 866 (A) x 1.0 (Pe Min) x 0.95 (Rv) / 12 ESDv Min = 68.6 CF	9.9 (LENGTH) 9.0 (WIDTH) 5.0 (DEPTH)	A = 9.9 (L) x 9 (W) A = 89.1 SF	V = 89.1 (A) x 5 (D) x 0.4 V = 178.2 CF	ESDv = 866 (A) x 2.6 (Pe Max) x 0.95 (Rv) / 12 ESDv Max = 178.3 CF	178.2 CF
	10	301 SF						
	11	453 SF						
	TOTAL	866 SF						
C ROOF	6	644 SF	ESDv = 990 (A) x 1.0 (Pe Min) x 0.95 (Rv) / 12 ESDv Min = 78.4 CF	8.0 (LENGTH) 12.7 (WIDTH) 5.0 (DEPTH)	A = 8 (L) x 12.7 (W) A = 101.6 SF	V = 101.6 (A) x 5 (D) x 0.4 V = 203.2 CF	ESDv = 990 (A) x 2.6 (Pe Max) x 0.95 (Rv) / 12 ESDv Max = 203.8 CF	203.2 CF
	8	346 SF						
	TOTAL	990 SF						
D ROOF	4	406 SF	ESDv = 937 (A) x 1.0 (Pe Min) x 0.95 (Rv) / 12 ESDv Min = 74.2 CF	10.0 (LENGTH) 9.6 (WIDTH) 5.0 (DEPTH)	A = 10 (L) x 9.6 (W) A = 96.0 SF	V = 96 (A) x 5 (D) x 0.4 V = 192.0 CF	ESDv = 937 (A) x 2.6 (Pe Max) x 0.95 (Rv) / 12 ESDv Max = 192.9 CF	192.0 CF
	5	315 SF						
	7	216 SF						
	TOTAL	937 SF						

AREAS NOT TREATED			
AREAS NOT TREATED	1	2,305 SF	**DRIVEWAY -** NOT TREATED BY THIS PLAN DUE TO THE LOCATION OF UTILITIES, DRIVEWAY SLOPE IN EXCESS OF 5%, AND EXCESSIVE RUN-ON (>1:1)
	2	248 SF	**WALK -** NOT ABLE TO BE TREATED BY THIS PLAN DUE TO INSUFFICIENT YARD AREA FOR LONGER DISCONNECTS AND YARD SLOPES IN EXCESS OF 5%
	TOTAL	2,553 SF	

TOTAL SITE IMPERVIOUS AREA	6,123 SF
IMPERVIOUS AREA IN RIGHT-OF-WAY	461.0 SF

	ESDV PROVIDED VIA DRY WELLS	ESDV PROVIDED VIA DISCONNECTS	ESDV PROVIDED VIA MICRO-INFILTRATION TRENCH	ESDV PROVIDED VIA LANDSCAPE INFILTRATION	ESDV PROVIDED VIA PERMEABLE PAVEMENTS
TOTAL ESD_V PROVIDED	731.8 CF	0.0 CF	0.0 CF	0.0 CF	0.0 CF
IS ESD_V ADEQUATE	**731.8 CF** >	616.7 CF	ESD TO THE MEP, FULL ESD PROVIDED		
IS P_E ADEQUATE	**1.19 IN** >	1.00 IN			

DRYWELL SCHEDULE - 9932 LOGAN DRIVE

DRYWELL STRUCTURE	FINISHED GRADE (LOW SIDE)	FINISHED GRADE (HIGH SIDE)	ELEVATION AT TOP OF GRAVEL *(1'-3' cover)*	COVER DEPTH OVER DRY WELL ON HIGH SIDE *(3' MAX.)*	PIPE INVERT IN FROM DOWNSPOUTS	TOTAL DEPTH OF GRAVEL *(4' max. depth)*	ELEVATION AT BOTTOM OF GRAVEL	TOTAL DEPTH OF SAND	ELEVATION AT BOTTOM OF SAND	TOTAL DEPTH OF DRYWELL *(gravel + sand, 5' max. depth)*	TOTAL DEPTH OF DRYWELL FROM GRADE *(8' max. depth)*	RECOMMENDED OVERFLOW
A	340.9	341.7	338.9	2.8	337.9	4.0 ft	334.9	1.0 ft	333.9	5.0 ft	7.8 ft	POP UP EMITTER AT DRY WELL CLEANOUTS AND A SURCHARGE PIPE AT EACH DOWNSPOUT.
B	338.4	339.1	336.4	2.7	335.4	4.0 ft	332.4	1.0 ft	331.4	5.0 ft	7.7 ft	
C	335.7	336.7	333.7	3.0	332.7	4.0 ft	329.7	1.0 ft	328.7	5.0 ft	8.0 ft	
D	338.5	339.2	336.5	2.7	335.5	4.0 ft	332.5	1.0 ft	331.5	5.0 ft	7.7 ft	

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