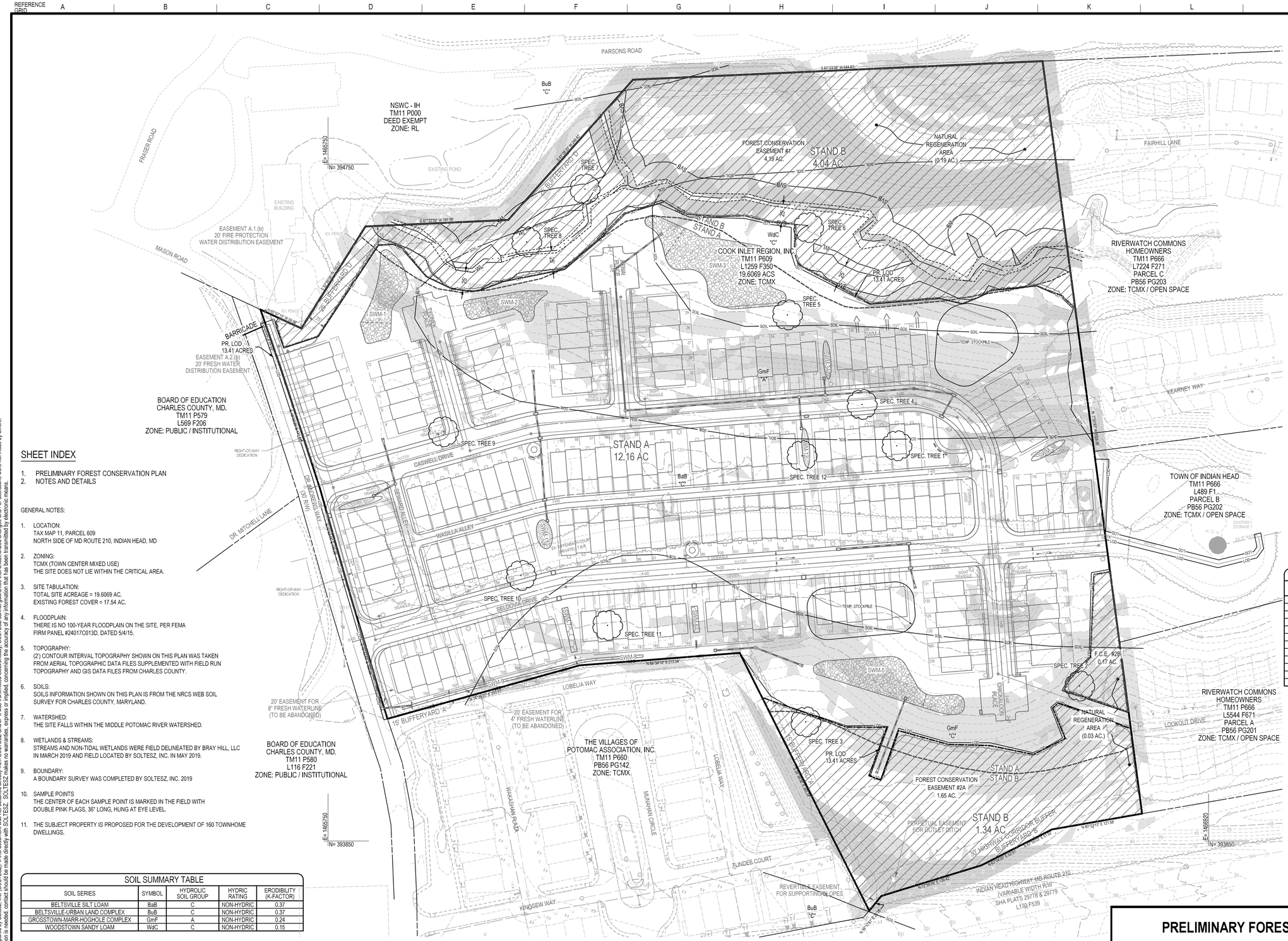

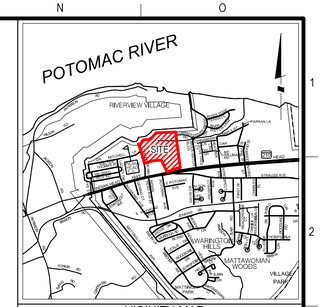

VICINITY MAP
SCALE: 1"=2000'

LEGEND

LOD	LIMIT OF DISTURBANCE
	SPECIMEN TREE
	STAND BOUNDARY
	SUBJECT PROPERTY BOUNDARY
SOIL	SOIL BOUNDARY
GmF "A"	SOIL TYPE
	EXISTING TREELINE
	CENTERLINE OF STREAM
	TOP OF STREAM EMBANKMENT
SVB	STREAM VALLEY BUFFER
WL	WETLANDS LIMIT
WB	WETLANDS BUFFER
	PROPOSED TREELINE
	SLOPES: 15% - 25%
	SLOPES: 25% & OVER
	FOREST CONSERVATION EASEMENT

SHEET INDEX

1. PRELIMINARY FOREST CONSERVATION PLAN
2. NOTES AND DETAILS

GENERAL NOTES:

1. LOCATION:
TAX MAP 11, PARCEL 609
NORTH SIDE OF MD ROUTE 210, INDIAN HEAD, MD

2. ZONING:
TCMX (TOWN CENTER MIXED USE)
THE SITE DOES NOT LIE WITHIN THE CRITICAL AREA.

3. SITE TABULATION:
TOTAL SITE ACREAGE = 19.6069 AC.
EXISTING FOREST COVER = 17.54 AC.

4. FLOODPLAIN:
THERE IS NO 100-YEAR FLOODPLAIN ON THE SITE, PER FEMA FIRM PANEL #24017C013D, DATED 5/4/15.

5. TOPOGRAPHY:
(2) CONTOUR INTERVAL TOPOGRAPHY SHOWN ON THIS PLAN WAS TAKEN FROM AERIAL TOPOGRAPHIC DATA FILES SUPPLEMENTED WITH FIELD RUN TOPOGRAPHY AND GIS DATA FILES FROM CHARLES COUNTY.

6. SOILS:
SOILS INFORMATION SHOWN ON THIS PLAN IS FROM THE NRCS WEB SOIL SURVEY FOR CHARLES COUNTY, MARYLAND.

7. WATERSHED:
THE SITE FALLS WITHIN THE MIDDLE POTOMAC RIVER WATERSHED.

8. WETLANDS & STREAMS:
STREAMS AND NON-TIDAL WETLANDS WERE FIELD DELINEATED BY BRAY HILL, LLC IN MARCH 2019 AND FIELD LOCATED BY SOLTESZ, INC. IN MAY 2019.

9. BOUNDARY:
A BOUNDARY SURVEY WAS COMPLETED BY SOLTESZ, INC. 2019

10. SAMPLE POINTS
THE CENTER OF EACH SAMPLE POINT IS MARKED IN THE FIELD WITH DOUBLE PINK FLAGS, 36" LONG, HUNG AT EYE LEVEL.

11. THE SUBJECT PROPERTY IS PROPOSED FOR THE DEVELOPMENT OF 160 TOWNHOME DWELLINGS.

SOIL SUMMARY TABLE

SOIL SERIES	SYMBOL	HYDROLIC SOIL GROUP	HYDRIC RATING	ERODIBILITY (K-FACTOR)
BELTSVILLE SILT LOAM	BaB	C	NON-HYDRIC	0.37
BELTSVILLE-URBAN LAND COMPLEX	BuB	C	NON-HYDRIC	0.37
GROSSTOWN-MARR-HOGHOLE COMPLEX	GmF	A	NON-HYDRIC	0.24
WOODSTOWN SANDY LOAM	WdC	C	NON-HYDRIC	0.15

STAND TABLE

STAND / ACRES	RETENTION VALUE	RETENTION CONSIDERATION
STAND A 12.16 ACRES	MODERATE PRIORITY	EXTENSIVE CANOPY DAMAGE
STAND B 5.38 ACRES	HIGH PRIORITY	SENSITIVE FEATURES PRESENT

SPECIMEN TREE TABLE

#	LOCATION	SPECIES & SIZE	CONDITION	RETENTION VALUE	RETENTION STATUS
1	STAND A	44" SOUTHERN RED OAK	FAIR	LOW	TO BE REMOVED
2	STAND A	46" WILLOW OAK	GOOD	MODERATE	RETAINED IN FC # 2B
3	STAND B	46" PIN OAK	FAIR	MODERATE	RETAINED IN FC # 2A
4	STAND A	42" WHITE OAK	FAIR	MODERATE	TO BE REMOVED
5	STAND B	36" YELLOW POPLAR	FAIR	MODERATE	TO BE REMOVED
6	STAND B	52" YELLOW POPLAR	GOOD	HIGH	RETAINED IN FC # 1
7	STAND B	38" SYCAMORE	GOOD	HIGH	RETAINED IN FC # 1
8	STAND A	37" WILLOW OAK	FAIR	LOW	RETAINED IN FC # 1
9	STAND A	36" SOUTHERN RED OAK	FAIR	MODERATE	TO BE REMOVED
10	STAND A	36" SOUHTERN RED OAK	FAIR	MODERATE	TO BE REMOVED
11	STAND A	48" WHITE OAK	POOR	LOW	TO BE REMOVED
12	STAND A	40" SOUTHERN RED OAK	GOOD	MODERATE	TO BE REMOVED

FOREST CONSERVATION EASEMENT TABLE

FC EASEMENT #1 RETENTION AREA = 4.00 AC. NATURAL REGENERATION AREA = 0.19 AC.	4.19 AC.
FC EASEMENT #2 (2A+2B) RETENTION AREA = 1.79 AC. NATURAL REGENERATION AREA = 0.03 AC.	1.82 AC.
TOTAL EASEMENT AREA	6.01 AC.

FOREST CONSERVATION SUMMARY TABLE

TOTAL TRACT AREA	19.61 AC.
NET TRACT AREA	19.61 AC.
TOTAL EXISTING FOREST AREA	17.54 AC.
AFFORESTATION THRESHOLD	15%
CONSERVATION THRESHOLD	15%
AREA OF PROPOSED CLEARING	11.75 AC.
AREA OF PROPOSED RETENTION	5.79 AC.
TOTAL PLANTING REQUIREMENT	0.09 AC.
AREA OF PROPOSED NATURAL REGENERATION	0.22 AC.
TOTAL ON-SITE FC EASEMENT AREA	6.01 AC.

PRELIMINARY FOREST CONSERVATION PLAN

SOLTESZ, INC.

Engineering
Surveying
Planning
Environmental Sciences

WALDORF OFFICE
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Waldorf, MD 20602
P. 301.870.2166 F. 301.870.2884

Rockville
Lanham
Waldorf
Leonardtown
Frederick
Soltesz DC, LLC

www.soltesz.com

NO.	REVISIONS	BY	DATE

DATE: OCTOBER 2019 | CAD STANDARDS VERSION: V8 - NCS
DESIGNED: CNF | TECHNICIAN: TCS | CHECKED: MFP

MISS UTILITY NOTE

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OWNER/DEVELOPER/APPLICANT

ELM STREET DEVELOPMENT
181 HARRY S TRUMAN PARKWAY
SUITE 275
ANNAPOLIS, MD 21401
PHONE # (410) 266-9700

CONTACT NAME: DOUG MEEKER

ZONING CATEGORY:	W&S CATEGORY:
TCMX	PUBLIC / TOIH
TAX MAP / PARCEL	GRID
11 / 609	15
SITE DATUM HORIZONTAL: VERTICAL:	LIBER / FOLIO
	1259 / 350

Catherine Flerlage 11/26/19
DATE: 11/26/2019

CATHERINE FLERLAGE, AICP
QUALIFIED PROFESSIONAL
COMAR 08.19.16.01

ANCHORAGE SUBDIVISION

FORMERLY KNOWN AS THE CIRI PROPERTY

SEVENTH (7th) ELECTION DISTRICT, CHARLES COUNTY, MARYLAND

1" = 60'

SHEET 1 OF 2

PROJECT NO. 0675-44-01

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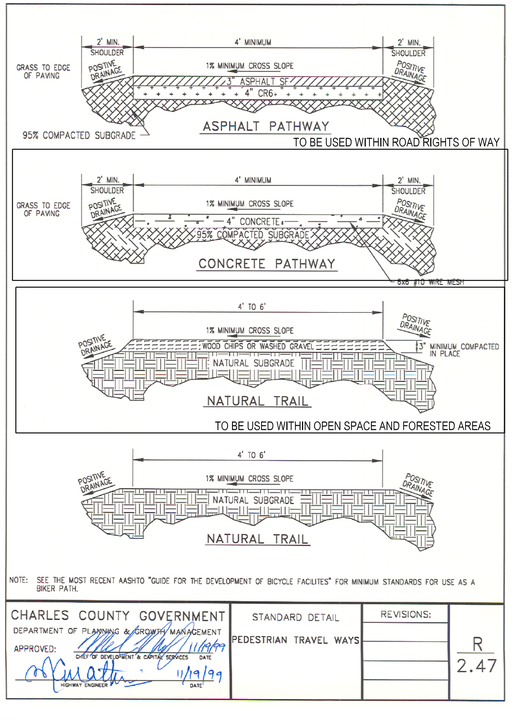
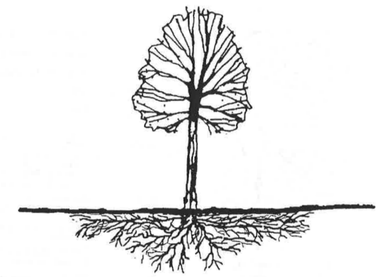


NOTE: SEE THE MOST RECENT AASHTO "GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITES" FOR MINIMUM STANDARDS FOR USE AS A BIKER PATH.

CHARLES COUNTY GOVERNMENT	STANDARD DETAIL	REVISIONS:	R
DEPARTMENT OF PLANNING & GROWTH MANAGEMENT	PEDESTRIAN TRAVEL WAYS		2.47
APPROVED: 11/19/99 CHIEF DEVELOPMENT & CAPITAL SERVICES DATE			
11/19/99 HIGHWAY ENGINEER DATE			



PREVENT THE FOLLOWING IMPACTS:

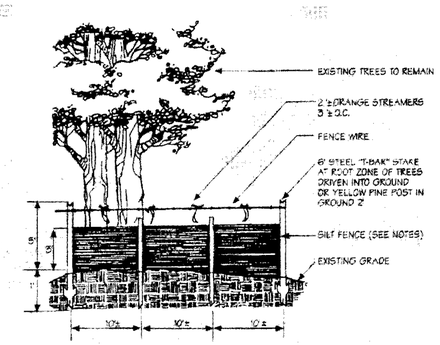
CROWN
- Broken or damaged limbs
- Wounds to bark
- Disease/insect infestation
- Upper crown dieback

TRUNK
- Sun scald
- Wounds to bark
- Disease/insect infestation
- Wind-throw

CRITICAL ROOT ZONE
- Tearing/removal/crushing/burial
- Soil compaction
- Flooding
- Dessication
- Toxins
- Changes in soil pH
- Removal of understory

Source: Adapted from Forest Conservation Manual, 1991

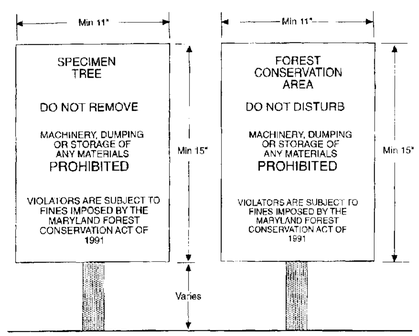
Protecting Trees During Construction — **Figure A:17**



Notes:
1. Silt fence to be keyed in 6" - 8".
2. Wire, snow fence, etc. for tree protection only.
3. Boundaries of Retention Area will be established as part of the forest conservation plan review process.
4. Boundaries of Retention Area should be staked and flagged prior to installing device.
5. Avoid root damage when placing anchor posts.
6. Device should be properly maintained throughout construction.
7. Protection signs are also required.
8. Locate fence outside the Critical Root Zone.

Source: Adapted from Steve Clark & Associates/ACRT, Inc.

Silt Fence and Tree Protection — **Figure D:8**



Notes:
1. Bottom of signs to be higher than top of tree protection fence.
2. Signs to be placed approximately 50' feet apart. Conditions on site affecting visibility may warrant placing signs closer or farther apart.
3. Attachment of signs to trees is prohibited.

Source: Adapted from Forest Conservation Manual, 1991

Construction Signs — **Figure D-4**

Proj. Name: Anchorage PFCP — Date: 21-Oct-19 — Prepared by: MP

Forest Conservation Worksheet 2.1

Note: Use 0 for all negative numbers that result from the calculations.

Net Tract Area				
A.	Total Tract Area	A =	19.61	Ac.
B.	Deductions (Critical Area, area restricted by local ordinance or program)	B =	0.00	Ac.
C.	Net Tract Area Net Tract Area = Total Tract(A) - Decuctions (B)	C =	19.61	Ac.
Land Use Category:				
D.	Afforestation Threshold (Net Tract Area [C] x 15%)	D =	2.94	
E.	Conservation Threshold (Net Tract Area [C] x 15%)	E =	2.94	
Existing Forest Cover				
F.	Existing Forest Cover within the Net Tract Area	F =	17.54	Ac.
G.	Area of Forest Above Conservation Threshold If the Existing Forest Cover (F) is geater than the Conservation Threshold (E), then G = F - E; Otherwise G = 0	G =	14.60	Ac.
Breakeven Point				
H.	Breakeven Point (amount of forest that must be retained so that no mitigation is required) 1. If the Area of Forest Above the Conservation Threshold (G) is greater than 0, then H = (0.2 x the Area of Forest Above the Conservation Threshold (G) + the Conservation Threshold (E); 2. If the Area of Forest Above the Conservation Threshold (G) is equal to 0, then H = Existing Forest Cover (F)	H =	5.86	Ac.
I.	Forest Clearing Permitted Without Mitigation I = Existing Forest Cover (F) - Breakeven Point (H)	I =	11.68	Ac.
Proposed Forest Clearing				
J.	Total Area of Forest to be Cleared (not protected)	J =	11.75	Ac.
K.	Total Area of Forest to be Retained (in protective esmt.) K = Existing Forest Cover (F) - Forest to be Cleared (J)	K =	5.79	Ac.
Planting Requirements				
	If the Total Area of Forest to be Retained (K) is at or above the Breakeven Point (H), no planting is required and no further calculations are necessary (L=0, M=0, N=0, P=0); Otherwise, calculate the planting requirement(s) as follows:			
L.	Reforestation for Clearing Above the Conservation Threshold (1) If the total area of Forest to be Retained (K) is greater than the Conservation Threshold (E), then L = the Area of Forest to be Cleared (J) x 0.25; (2) If the Forest to be Retained (K) is less than or equal to the Conservation Threshold (E), then L = Area of forest Above Conservation Threshold (G) x 0.25	L =	2.94 *CONTINUE*	Ac.
M.	Reforestation for Clearing Below the Conservation Threshold (1) If Existing Forest Cover (F) is greater than the Conservation Threshold (E) and the Forest to be Retained (K) is less than or equal to the Conservation Threshold (E), then M = 2.0 x (Conservation Threshold (E) - Forest to be Retained [K]) (2) If Existing Forest Cover (F) is less than or equal to the Conservation Threshold (E), then M = 2.0 x Forest to be Cleared (J).	M =	0.00	Ac.
N.	Credit for Retention Above the Conservation Threshold (E) If the area of Forest to be Retained (K) is greater than the Conservation Threshold (E), then N = K - E.	N =	2.85	Ac.
P.	Total Reforestation Required P = L + M - N	P =	0.09	Ac.
Q.	Total Afforestation Required If Existing Forest Cover (F) is less than the Afforestation Threshold (D), then Q = Afforestation Threshold (D) - Existing Forest Cover (F)	Q =	0.00	Ac.
R.	Total Planting Requirement R = P + Q	R =	0.09	Ac.
	ADDITIONAL ON-SITE FOREST CONSERVATION VIA NATURAL REGENERATION		0.22	Ac.
Notes:	**TOTAL ON-SITE FOREST CONSERVATION = 6.01 ACRES**			

PRELIMINARY FOREST CONSERVATION PLAN NOTES:

1. *PRIOR TO FFCP APPROVAL, THE BOUNDARY OF THE FOREST CONSERVATION EASEMENT SHALL BE DELINEATED WITH BLUE FLAGGING AND FOREST RETENTION SIGNAGE. FLAGGING TAPE SHALL BE AFFIXED TO THE PRIMARY TRUNK OF TREES 2 INCHES D.B.H. OR GREATER, ATTACHED TO STAKES FOUR FEET TALL OR GREATER, OR A COMBINATION OF THE TWO. FLAGS SHALL BE PLACED NO MORE THAN 40 FEET APART, WITH AT LEAST TWO FLAGS FOR EACH AFFECTED SFD LOT AND 2 FLAGS PER TOWNHOUSE STRING. FOREST RETENTION SIGNAGE SHALL BE THE TYPE SHOWN IN APPENDIX D OF THE 1997 FOREST CONSERVATION MANUAL. SIGNS SHALL BE PLACED AT THE EASEMENT BOUNDARY NO MORE THAN 120 FEET APART, WITH AT LEAST ONE SIGN PER AFFECTED LOT.*
2. *PRIOR TO THE START OF ANY CONSTRUCTION, FOREST PROTECTION FENCING, AS SHOWN IN APPENDIX D OF THE 1997 FOREST CONSERVATION MANUAL, SHALL BE INSTALLED AT THE LIMITS OF DISTURBANCE IN ALL LOCATIONS WHERE DISTURBANCE IS PROPOSED TO COME WITHIN 40 FEET OF THE FOREST CONSERVATION EASEMENT. LOCATIONS WHERE FOREST PROTECTION FENCING IS TO BE INSTALLED SHALL BE SHOWN ON THE FINAL FOREST CONSERVATION MAP.*

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NO.	REVISIONS	BY	DATE

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DESIGNED: CNF — TECHNICIAN: TCS — CHECKED: MFP

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PHONE # (410) 266-9700

CONTACT NAME: DOUG MEEKER

ZONING CATEGORY:	W&S CATEGORY:
TCMX	PUBLIC / TOIH
TAX MAP / PARCEL	GRID
11 / 609	15
SITE DATUM HORIZONTAL: VERTICAL:	LIBER / FOLIO
	1259 / 350

Catherine Flerlage 11/26/19
DATE: 11/26/2019

CATHERINE FLERLAGE, AICP
QUALIFIED PROFESSIONAL
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ONE INCH — 1" = N.T.S.
SHEET 2 OF 2
PROJECT NO. 0675-44-01