



SPECIMEN TREE INVENTORY

KEY	BOTANICAL NAME COMMON NAME	DBH inches	CRZ FEET	CONDITION	INVASIVE	REMARKS	STATUS
#1	ACER PLATANOIDES NORWAY MAPLE	30"	45'	FAIR	YES	THREE CODOMINANT TRUNKS WIRE FENCE WITHIN TRUNK	RETAINED
#2	MORUS ALBA WHITE MULBERRY	33"	49.5'	POOR	YES	BASAL ROT / LEAN TO SW / BLEEDING CRACK WIRE FENCE WITHIN / POISON IVY COVERED	RETAINED
#3	MORUS ALBA WHITE MULBERRY	33"	49.5'	POOR	YES	CODOMINANT TRUNKS / TRUNK CRACKS/ DEAD BRANCHES IN CANOPY / BITTERSWEET COVERED	RETAINED
#4	PRUNUS SEROTINA BLACK CHERRY	34"	51'	FAIR	NO	BITTERSWEET INTO THE CANOPY MULTIPLE LEADERS	RETAINED

TREES WERE ASSIGNED ONE OF THREE CONDITIONS
GOOD CONDITION: IF THE TREE HAD MINOR TRUNK DAMAGE, SOME TIP DIEBACK, OR IF IT WAS IN GREAT CONDITION.
FAIR CONDITION: IF THE TREE HAD ±50% DEAD BRANCHES OR MAJOR TRUNK DAMAGE.
POOR CONDITION: IF THE TREE HAD SEVERE TRUNK DAMAGE, NUMEROUS DEAD BRANCHES, OR MAJOR CROWN DIEBACK.

KEY

- PROPERTY LINE
- SOILS BOUNDARY
- USE I-P STREAM
- WETLANDS BOUNDARY
- COMBINED BUFFER (STREAM/WETLAND)
- EXISTING TREE LINE
- EXISTING SPECIMEN TREE
- SPECIMEN TREE CRITICAL ROOT ZONE
- TREE PROTECTION FENCING
- FOREST CONSERVATION EASEMENT
- EXISTING FOREST RETAINED
- UPLAND REFORESTATION PLANTING
- LOWLAND REFORESTATION PLANTING
- LANDSCAPE AREA - FC CREDIT
- REFORESTATION FENCING
- FOREST PROTECTION SIGNAGE
- EXISTING LANDSCAPE TREE

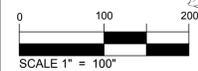
EASEMENT AREA CALCULATIONS

EASEMENT AREA (AC.)	RETENTION AREA (AC.)	REFORESTATION AREA (AC.)
FOREST CONSERVATION EASEMENT #1	1.98	1.98
FOREST CONSERVATION EASEMENT #2	8.31*	4.77
FOREST CONSERVATION EASEMENT #3	0.19	0.00
FOREST CONSERVATION EASEMENT #4	0.14	0.00
FOREST CONSERVATION EASEMENT #5	1.16	0.00
TOTAL	11.78	6.75

* EASEMENT #2 INCLUDES 0.02 AC OF ADDITIONAL AREA NOT COUNTED AS RETENTION OR REFORESTATION

FOREST CONSERVATION TRACKING DATA

INTENDED LAND USE	PROJECT LOCATION	NET TRACT AREA	AREA OF FLOODPLAIN	FOREST AREA	RETAINED FOREST	PLANTED FOREST	MISC. CREDIT
P/J	MD GRID N 1163075 E 640442	79.01	0	FOREST IN NET TRACT AREA (MINUS FLOODPLAIN) 6.93	ONSITE 6.75	ONSITE 5.01	1.11
OPEN SPACE	TAX MAP PARCEL # m:65 p:1 G7		FORESTED 0	FOREST TO BE CLEARED (INCLUDING FLOODPLAIN) 0.16	OFFSITE 0	OFFSITE 1.0	0
	WATERSHED (8-DIGIT #) 2140305			TOTAL 0	TOTAL 6.75	TOTAL 6.01	TOTAL 1.11



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OWNER / DEVELOPER	FOREST CONSERVATION PLAN	FC-1
FREDERICK COUNTY, MD. WINCHESTER HALL 12 EAST CHURCH STREET FREDERICK, MARYLAND 21701 PHONE: (301) 600-1100	CAPITAL PROJECT NO. _____ MIDDLETOWN PARK DEVELOPMENT & REHAB PROJECT FREDERICK COUNTY, MARYLAND ELECTION DISTRICT NO.03	SCALE: AS SHOWN EEV DRAWN BY DML CHECKED BY DATE: JANUARY 2020 SHEET 1 OF 4

FOREST CONSERVATION PLAN CONSTRUCTION SEQUENCE

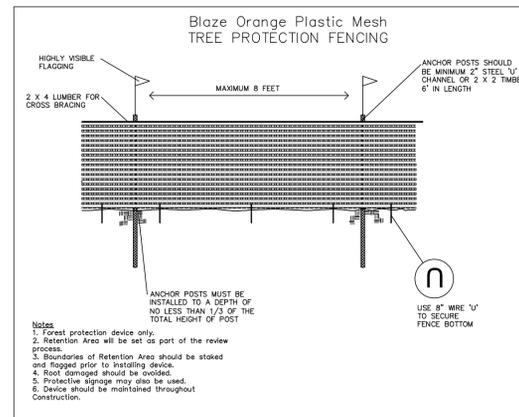
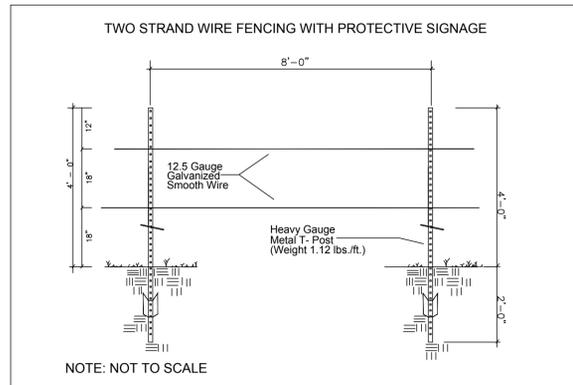
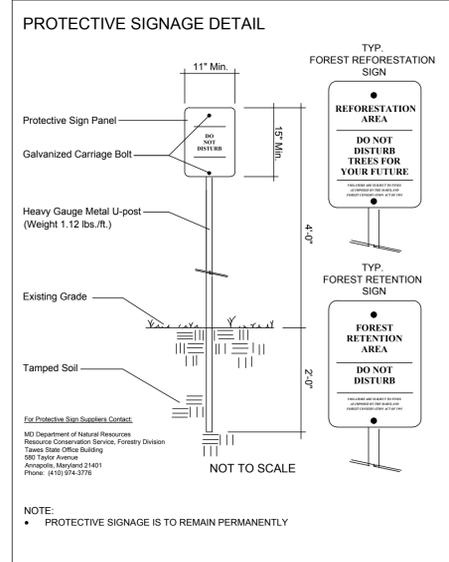
- FIELD LOCATE THE PROPOSED RETENTION BOUNDARY AS SHOWN ON THE FOREST CONSERVATION PLAN. THE CONTRACTOR IS TO STAKE AND FLAG THE SEDIMENT CONTROL MEASURES, LIMITS OF DISTURBANCE, FOREST RETENTION AREAS, AND PLANTING AREAS.
- FIELD LOCATE THE PROPOSED LIMIT OF DISTURBANCE. IF THIS DOES NOT AGREE WITH THE PRELIMINARY APPROVED RETENTION AREA, REVISE THE FCP MAP AND CALCULATIONS TO SHOW ADJUSTED RETENTION AREAS IF NEEDED.
- EVALUATE TREES WITHIN FOREST RETENTION AREA CONDITIONS AND CRITICAL ROOT ZONES.
- FIELD ADJUST AND STAKE THE RETENTION BOUNDARY. IN GENERAL, IF MORE THAN 30% OF THE CRITICAL ROOT ZONE IS TO BE DISTURBED, THE TREE SHOULD NOT BE INCLUDED IN THE RETENTION AREA. SOME SOIL DISTURBANCE MAY BE MITIGATED BY SELECTIVE STRESS REDUCTION PRUNING OR OTHER METHODS.
- OBTAIN FINAL FCP APPROVAL, IF NOT OBTAINED EARLIER. NOTIFY APPROVING AUTHORITY FOR INSPECTION APPROVAL OF INSTALLED DEVICES. THE CONTRACTOR IS TO NOTIFY THE MIDDLETOWN TOWN PLANNER, 48 HOURS IN ADVANCE, AT (301) 371-6171 FOR THE PRE-CONSTRUCTION MEETING, TO INCLUDE INSPECTION OF RETENTION LINE AND PROTECTIVE DEVICES.
- PROCEED WITH CONSTRUCTION SUBJECT TO FINAL APPROVALS.
- DURING CONSTRUCTION MONITOR THE CONDITION OF ANY TREES TO BE RETAINED AND MAKE CORRECTIVE MEASURES WHEN APPROPRIATE. DECISIONS ARE TO BE MADE WITH THE APPROVAL OF THE MIDDLETOWN TOWN PLANNER AND THE LANDSCAPE ARCHITECTS (HUMAN & ROHDE, INC.).
- BEGIN SITE PREPARATION. THIS IS TO INCLUDE THE SUPPRESSION OF INVASIVE VEGETATION IN ALL PLANTING, AND FOREST RETENTION AREAS. NOTIFY MIDDLETOWN TOWN PLANNER TO EXAMINE PLANT MATERIAL PRIOR TO INSTALLATION.
- PLANT AREAS PER STANDARDS AND SPECIFICATIONS.
- AFTER CONSTRUCTION IS COMPLETED, TWO WIRE FENCING IS TO REMAIN IN PLACE FOR TWO YEARS OR UNTIL GRADING AND CONSTRUCTION IS COMPLETED, WHICHEVER IS LONGER.
- NOTIFY APPROVING AUTHORITY FOLLOWING COMPLETION OF CONSTRUCTION FOR FINAL INSPECTION OF THE PLANTING AND PROPOSED RETENTION AREAS. PRIOR TO USE, MIDDLETOWN TOWN PLANNER SHALL INSPECT THE SITE TO ASCERTAIN CONDITION OF TREES IN RETENTION AREAS. IF NECESSARY, IMPLEMENT CORRECTIVE MEASURES FOR STRESS REDUCTION, REPAIR OF TREE DAMAGE, AND REMOVAL OF DEAD OR DYING TREES THAT POSE A SAFETY HAZARD.
- MONITOR PLANTING AND TAKE APPROPRIATE MAINTENANCE MEASURES TO INSURE SURVIVABILITY OF PLANTS. THIS IS TO INCLUDE SUPPRESSION OF INVASIVES.
- CALL FOR A FINAL INSPECTION BY THE MIDDLETOWN TOWN PLANNER AT THE END OF THE TWO YEAR MAINTENANCE PERIOD. A 75% SURVIVAL AMOUNT OF LIVING SEEDLINGS/TREES IS REQUIRED AT THE END OF THE TWO YEAR PERIOD.

FOREST PROTECTION NOTES:

- ANY CLEARING, GRADING OR CONSTRUCTION WITHIN 50 FEET OF THE RETENTION AREA WILL REQUIRE PROTECTIVE DEVICES, INCLUDING BUT NOT LIMITED TO, FENCING AND SIGNS AS INDICATED IN THE APPROVED FCP. ALL PROTECTION DEVICES SHALL REMAIN IN PLACE UNTIL CONSTRUCTION COMPLETION, FINAL INSPECTION, AND AN OCCUPANCY PERMIT, UNLESS WAIVED BY THE APPROVING AUTHORITY. MORE INFORMATION ON PROTECTION DEVICES CAN BE FOUND IN SECTION 3.2.2. OF THE STATE FOREST CONSERVATION TECHNICAL MANUAL.
- FURTHERMORE, THE EDGE OF THE RETENTION AREA WILL NEED TO BE STAKED BY THE APPLICANT AND APPROVED BY THE AUTHORITY PRIOR TO CLEARING. THIS FIELD EDGE SHOULD BE ADJUSTED ALONG THE CRITICAL ROOT ZONES OF THE TREES IN THE PROPOSED RETENTION AREA.
- NO EQUIPMENT, VEHICLES, MACHINERY, DUMPING, STORAGE, OTHER CONSTRUCTION ACTIVITIES, BURIAL, FIRE, OR OTHER DISPOSAL OF CONSTRUCTION MATERIALS SHALL BE LOCATED INSIDE FOREST BUFFER AREAS.
- PROTECTIVE SIGNAGE IS TO REMAIN IN PLACE PERMANENTLY.
- ATTACHMENT OF SIGNS OR ANY OTHER OBJECT TO TREES IS PROHIBITED.
- THIS PLAN IS TO BE USED FOR FOREST CONSERVATION PURPOSES ONLY.

TREE PROTECTION NOTES:

A STATE OF MARYLAND LICENSED TREE EXPERT AND/OR AN INTERNATIONAL SOCIETY OF ARBORICULTURE CERTIFIED ARBORIST MUST PERFORM ALL STRESS REDUCTION MEASURES. DOCUMENTATION OF STRESS REDUCTION MEASURES MUST BE EITHER OBSERVED BY THE INSPECTOR OR SENT TO THE INSPECTOR. THE TREE EXPERT OR ARBORIST WILL DETERMINE THE EXACT METHOD TO CONVEY THE STRESS REDUCTION MEASURES, NOTIFY THE INSPECTOR, AND PRESENT THEM DURING THE PRE-CONSTRUCTION MEETING. CONTRACTOR SHALL TAKE THE RECOMMENDED STEPS TO REDUCE STRESS TO SPECIMEN TREES TO BE SAVED. THESE MEASURES SHOULD BE TAKEN TO REDUCE STRESS AND TO INCREASE SURVIVAL OF TREES AFTER CONSTRUCTION. THESE MEASURES MUST BE TAKEN AS FAR IN ADVANCE OF CONSTRUCTION IN ORDER TO IMPROVE EACH OF THE TREES CHANCE OF SURVIVAL. APPROPRIATE MEASURES APPLIED BY A QUALIFIED TREE CARE PROFESSIONAL MAY INCLUDE AND ARE NOT LIMITED TO: ROOT PRUNING, CROWN REDUCTION OR PRUNING, WATERING, FERTILIZING, AND/OR ROOT AERATION



FOREST CONSERVATION WORKSHEET PER SECTION 16.40.043 (MIDDLETOWN, MD CODE OF ORDINANCES)

NET TRACT AREA:		
A. TOTAL (GROSS) TRACT AREA		A=79.01
B. DEDUCTIONS (CRITICAL AREA, 100 YR FLOODPLAIN, ROAD DEDICATION FOR EXISTING ROADS AND EASEMENTS)		B=10.56
I.D. DEDUCTIONS HERE:		
B.1: OPEN WATER OF POND = 3.23		
B.2: SANITARY SEWER EASEMENT = 1.55		
B.2: IMPERVIOUS SURFACES (PAVEMENT / BUILDINGS) = 5.78		
C. NET TRACT AREA	NET TRACT AREA = TOTAL TRACT (A) - DEDUCTIONS (B)	C=68.45
LAND USE CATEGORY: OPEN SPACE		
D. AFFORESTATION THRESHOLD	(NET TRACT AREA (C) X 20%) FOR ALL DEVELOPMENT PROJECTS IN FREDERICK CO.	D=13.69
E. CONSERVATION THRESHOLD	(NET TRACT AREA (C) X 25%) USE STANDARD METHOD % VALUES. (STANDARD METHOD % VALUES ARE THOSE ESTABLISHED BY THE MARYLAND STATE FOREST CONSERVATION ACT OF 1991)	E=17.11
EXISTING FOREST COVER:		
F. EXISTING FOREST WITHIN NET TRACT AREA		F=6.93
G. AREA OF FOREST ABOVE CONSERVATION THRESHOLD IF THE EXISTING FOREST COVER (F) IS GREATER THAN THE CONSERVATION THRESHOLD (E), THEN G = F - E; OTHERWISE G = 0.00		G=0.00
BREAK-EVEN POINT:		
H. BREAK-EVEN POINT (THE AMOUNT OF FOREST THAT MUST BE RETAINED SO THAT NO MITIGATION IS REQUIRED)		H=6.93
(1) IF THE AREA OF FOREST ABOVE THE CONSERVATION THRESHOLD (G) IS GREATER THAN 0.00, 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 0.00, THEN H = EXISTING FOREST COVER (F)		
I. FOREST CLEARING PERMITTED WITHOUT MITIGATION	I = EXISTING FOREST COVER (F) - BREAK-EVEN POINT (H)	I=0.00
PROPOSED FOREST CLEARING & RETENTION:		
J. TOTAL AREA OF FOREST TO BE CLEARED (ALL FOREST AREA NOT PROTECTED BY EASEMENT)		J=0.18
K. TOTAL AREA OF FOREST TO BE RETAINED	K = EXISTING FOREST COVER (F) - FOREST TO BE CLEARED (J) (ALL K MUST BE IN A PROTECTIVE FRO EASEMENT)	K=6.75
PLANTING CALCULATIONS: IF THE TOTAL AREA OF FOREST TO BE RETAINED (K) IS AT OR ABOVE THE BREAK-EVEN POINT (H); NO PLANTING IS REQUIRED, AND NO FURTHER CALCULATIONS ARE NECESSARY (L=0.00 ACRES, M=0.00 ACRES, N=0.00 ACRES, AND P=0.00 ACRES); 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		
M. REFORESTATION FOR CLEARING BELOW THE CONSERVATION THRESHOLD		M=0.36
(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)		
N. CREDIT FOR RETENTION ABOVE THE CONSERVATION THRESHOLD IF THE AREA OF FOREST TO BE RETAINED (K) IS GREATER THAN THE CONSERVATION THRESHOLD (E), THEN N = TOTAL AREA OF FOREST TO BE RETAINED (K) - EXISTING FOREST COVER (E)		N=0.00
PLANTING REQUIREMENTS:		
P. TOTAL REFORESTATION REQUIRED	P = L + M - N	P=0.36
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=6.76
R. TOTAL FORESTATION REQUIREMENT	R = P + Q	R=7.12
MISCELLANEOUS CREDITS: THESE CREDITS ARE ALLOWED AS PER THE CRITERIA AND LIMITATIONS LISTED IN 16.04.045(D) - MISCELLANEOUS PROVISIONS		
S1. LANDSCAPING AREAS (25,000 SF OR GREATER)		S1=0.60
S2. CANOPY AREA OF INDIVIDUAL RETAINED TREES (CANNOT EXCEED 20% OF TOTAL REQUIREMENT)		S2=0.00
S3. LANDSCAPE TREES NOT IN FOREST SETTING (S3=1/4 CANOPY COVER AREA AT 20 YR GROWTH)		S3=0.51
S4. TOTAL MISCELLANEOUS CREDITS	S4= S1+S2+S3	S4=1.11
MITIGATION SUMMARY:		
T. AREA OF EXISTING FOREST UNDER EASEMENT	T = TOTAL AREA OF FOREST TO BE RETAINED (K)	T=6.75
U. AREA OF PLANTED FOREST (FORESTATION) UNDER EASEMENT (TOTAL ACRES TO BE PLANTED IN FOREST)		U=5.01
V. TOTAL MISCELLANEOUS CREDITS (S4)		V=1.11
W. TOTAL ON-SITE MITIGATION	W=T+U+V	W=12.87
X. BALANCE OF MITIGATION OWED	X=R-U-V	X=1.00
Y. METHOD OF PROVIDING BALANCE OF MITIGATION OWED:		
1. TRANSFER OF FOREST BANKING CREDIT (NEW FOREST CREDIT @ 1:1 RATION OR EXISTING FOREST CREDIT @ 2:1 RATIO)		
2. PAYMENT OF FEE-IN-LIEU (\$0.54 PER SQ. FT. FOR PROPERTY OUTSIDE PRIORITY FUNDING AREAS, \$0.432 PER SQ. FT. FOR PROPERTY WITHIN PRIORITY FUNDING AREAS)		
3. OFF-SITE EASEMENT PROVIDED (NEW FOREST CREDIT @ 1:1 RATIO OR EXISTING FOREST CREDITS @ 2:1 RATIO)		
Z. TOTAL MITIGATION PROVIDED (Z=W+Y) (FOR Y2, USE ACRES OF MITIGATION PROVIDED VIA FEE)		Z=13.87

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OWNER / DEVELOPER	FOREST CONSERVATION PLAN	FC-2
FREDERICK COUNTY, MD. WINCHESTER HALL 12 EAST CHURCH STREET FREDERICK, MARYLAND 21701 PHONE: (301) 600-1100	CAPITAL PROJECT NO. _____ MIDDLETOWN PARK DEVELOPMENT & REHAB PROJECT FREDERICK COUNTY, MARYLAND ELECTION DISTRICT NO.03	SCALE: AS SHOWN EEV DRAWN BY DML CHECKED BY DATE: JANUARY 2020 SHEET 2 OF 4

LANDSCAPE PLAN NATIVE PLANT LIST

KEY	QTY.	BOTANICAL NAME COMMON NAME	SIZE	COND	REMARKS	CANOPY AREA @ 20 YRS.
○		SHADE TREES				
AF	26	ACER X FREEMANII 'AUTUMN BLAZE' AUTUMN BLAZE RED MAPLE	2" - 2 1/2" CAL.	B&B	FULL SPECIMEN, HEADED TO 6' HT.	(.03 AC.) x 26 = 0.78
QP	11	QUERCUS PHELLOS WILLOW OAK	2" - 2 1/2" CAL.	B&B	FULL SPECIMEN, HEADED TO 6' HT.	(.05 AC.) x 11 = 0.55
UA	14	ULMUS AMERICANA 'PRINCETON' PRINCETON AMERICAN ELM	2" - 2 1/2" CAL.	B&B	FULL SPECIMEN, HEADED TO 6' HT.	(.05 AC.) x 14 = 0.70

PER SECTION 16.40.045(D)(3) OF THE MIDDLETOWN MUNICIPAL CODE:
Landscaping or street trees not in forest settings will be credited towards
afforestation or reforestation requirements at a rate of one-fourth of an acre
credit for each acre of canopy cover of the landscaping or street trees at their
expected twenty (20) year growth.

TOTAL: 2.03AC.
x 0.25
= 0.51 AC. MITIGATION

CONTRACTOR NOTE:

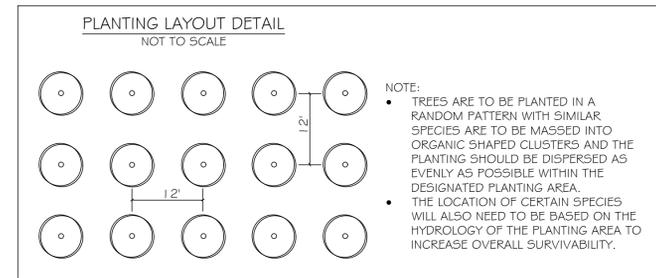
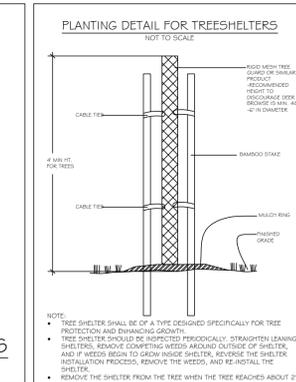
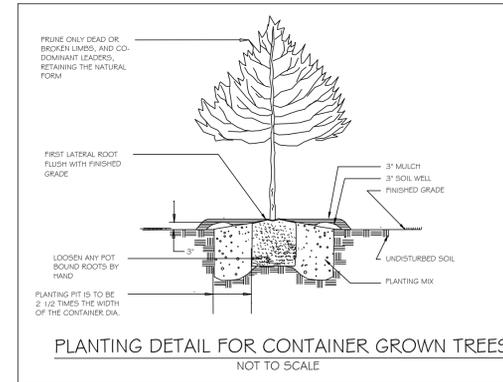
- SEE LANDSCAPE PLANS FOR FURTHER DETAIL AND SPECIFICATIONS
- LANDSCAPE TREES ARE TO BE BID WITH THE OVERALL LANDSCAPE PLANS
- ADDITIONAL QUANTITIES ARE PROPOSED ON LANDSCAPE PLAN

REFORESTATION PLANT LIST FOR LOWLAND PLANTINGS
CALCULATIONS
3.56 AC. @ 350 TREES / AC. = 1,246 TREES REQUIRED.

KEY	QTY	BOTANICAL NAME COMMON NAME	SIZE	COND	REMARKS	TYPE
▨	121	ACER RUBRUM RED MAPLE	2-3" HT.	WHIP	12' X 12' SPACING RANDOM CLUSTERS	OVERSTORY
	100	AMELANCHIER CANADENSIS SERVICEBERRY				UNDERSTORY
	115	BETULA NIGRA RIVER BIRCH				OVERSTORY
	100	ILEX OPACA AMERICAN HOLLY				EVERGREEN
	115	NYSSA SYLVATICA BLACK GUM				OVERSTORY
	250	PLATANUS OCCIDENTALIS SYCAMORE				OVERSTORY
	115	QUERCUS BICOLOR SWAMP WHITE OAK				OVERSTORY
	115	QUERCUS PALUSTRIS PIN OAK				OVERSTORY
	115	QUERCUS PHELLOS WILLOW OAK				OVERSTORY
	100	ULMUS FULVA SLIPPERY ELM				UNDERSTORY

REFORESTATION PLANT LIST FOR UPLAND PLANTINGS
CALCULATIONS
1.45 AC. @ 350 TREES / AC. = 508 TREES REQUIRED.

KEY	QTY	BOTANICAL NAME COMMON NAME	SIZE	COND	REMARKS	TYPE
▨	50	CARYA GLABRA FIGNUT HICKORY	2-3" HT.	WHIP	12' X 12' SPACING RANDOM CLUSTERS	OVERSTORY
	50	CELTIS OCCIDENTALIS HACKBERRY				OVERSTORY
	30	CERCIS CANADENSIS EASTERN REDBUD				UNDERSTORY
	50	DIOSPYROS VIRGINIANA PEKESIMMON				OVERSTORY
	30	JUNIPERUS VIRGINIANA EASTERN RED CEDAR				EVERGREEN
	100	LIRIODENDRON TULIPIFERA TULIP POPLAR				OVERSTORY
	30	PINUS STROBUS WHITE PINE				EVERGREEN
	68	QUERCUS FALCATA SOUTHERN RED OAK				OVERSTORY
	50	QUERCUS RUBRA NORTHERN RED OAK				OVERSTORY
	50	ROBINIA PSEUDOACACIA BLACK LOCUST				OVERSTORY



STANDARDS AND SPECIFICATIONS FOR FOREST CONSERVATION PLANTING

TIMETABLE FOR TREE PLANTING
ALL PLANTING SHALL BE DONE BETWEEN MARCH 25 AND APRIL 30, FOR SPRING PLANTING, AND BETWEEN OCTOBER 15 AND DECEMBER 1 FOR FALL PLANTING.

PLANT MATERIAL
WHIPS SHALL BE 1/4 - 1/2" CAL. WITH ROOTS 6" OR LONGER. CONIFER WHIPS MUST BE 1/8 - 1/4" CALIFER WITH ROOTS 6" OR LONGER WITH TOP GROWTH OF 6" OR MORE.

PLANTING SITE PREPARATION
CONTRACTOR SHALL PREPARE A PLANTING PIT FOR EACH TREE. THE AREA DISTURBED FOR THE PIT IS TO BE MULCHED WITH A SHREDDED HARDWOOD PRODUCT. SOIL TESTING IS RECOMMENDED FOR MACRONUTRIENT DEFICIENCIES AND pH LEVELS. PROPER SOIL AMENDMENTS SHOULD BE MADE IF DETERMINED NECESSARY. IMPLEMENT PROCEDURES FOR THE SUPPRESSION OF INVASIVE VEGETATION (SEE NOTES THIS SHEET).

PLANT MATERIAL STORAGE
IT IS RECOMMENDED THAT PLANTING OCCUR WITHIN 24 HOURS OF DELIVERY TO THE SITE. PLANT MATERIALS LEFT UNPLANTED FOR MORE THAN 24 HOURS SHALL BE PROTECTED FROM DIRECT SUN AND WEATHER AND KEPT MOIST. NURSERY STOCK SHOULD NOT BE LEFT UNPLANTED FOR MORE THAN TWO WEEKS.

PLANTING METHOD
TREE SPECIES ARE TO BE PLANTED IN A RANDOM PATTERN @ APPROXIMATELY 12' ON CENTER. SIMILAR SPECIES ARE TO BE MASSED INTO RANDOM GROUPINGS OF 5 TO 10 EA. HYDROLOGY OF THE PLANTING AREA SHOULD BE CONSIDERED WHEN SELECTING SPECIES FOR A CERTAIN AREA. PLANTINGS HAVE BEEN GROUPED INTO UPLAND AND LOWLAND PLANTINGS TO ASSIST IN THIS SELECTION. TREE SHELTERS SHALL BE INSTALLED FOR ALL TREE SPECIES. SHELTERS ARE TO BE STAKED IN PLACE WITH OAK STAKES.

MULCHING AND CONTROL OF COMPETING VEGETATION
PROPER MULCHING WILL DETER THE ESTABLISHMENT OF COMPETING VEGETATION AND HELP MAINTAIN THE SOIL MOISTURE LEVEL. EACH TREE SHALL RECEIVE AN 1 1/2" RING OF MULCH 2 - 4" IN DEPTH. AVOID CONTACT BETWEEN MULCH AND THE TRUNK OF THE TREE.

TWO YEAR MAINTENANCE AND MONITORING AGREEMENT:

- OWNER AGREES TO MONITOR AND MAINTAIN THE FOREST CONSERVATION PLANTING FOR TWO (2) YEARS
- THE TWO YEAR INSPECTION PERIOD BEGINS AT THE TIME ALL FOREST CONSERVATION IMPROVEMENTS ARE MADE (INCLUDING PLANTING)

MAINTENANCE TO INCLUDE:

- WATERING TO OCCUR WHEN PLANTED AND AS REQUIRED TO ASSURE GOOD PLANT GROWTH.
- FERTILIZER SHOULD ONLY BE APPLIED ON AN AS NEEDED BASIS IN CONJUNCTION WITH PROPER SOIL TESTING. THE USE OF SLOW RELEASE OR ORGANIC FERTILIZERS IS RECOMMENDED.
- SELECTIVE REMOVAL/CONTROL OF COMPETING UNWANTED VEGETATION, ESPECIALLY EXOTIC VINES AND SHRUBS.
- MULCH, SPREAD 2-4" LAYER, OVER THE ROOT AREA (AVOIDING DIRECT CONTACT WITH THE TRUNK) IS A DETERRENT TO COMPETING VEGETATION.
- MOWING OF THE PLANTING AREAS DURING THE FIRST TWO YEARS/GROWING SEASONS IS REQUIRED.
- PROTECTION FROM DISEASE, PESTS, AND MECHANICAL INJURY SHOULD BE HANDLED ON AN AS NEEDED BASIS IN CONJUNCTION WITH PERIODIC SITE MONITORING.
- THE PLANTINGS MUST MEET THE 75% SURVIVAL RATE AT THE END OF THE TWO YEAR INSPECTION PERIOD.
- REINFORCEMENT PLANTING OF SAME SIZE PLANTS AS ORIGINALLY USED WILL BE REQUIRED IF SURVIVAL RATES FALL BELOW ACCEPTABLE LEVELS (75%).
- A MAINTENANCE INSPECTION (BY THE OWNER) SHALL BE MADE OF THE PLANTING SITE THREE TIMES A YEAR (i.e. MARCH, JULY, NOVEMBER) TO ASSESS IMPACTS FROM COMPETING VEGETATION, PESTS, DISEASE, ETC.
- AN INSPECTION BY THE TOWN PLANNER (TO VERIFY MAINTENANCE AGREEMENT IS BEING MET BY THE OWNER) SHALL OCCUR ONCE A YEAR. IT IS THE RESPONSIBILITY OF THE OWNER TO CONTACT THE TOWN (CALL AT 301-371-6171) TO SCHEDULE AN INSPECTION.

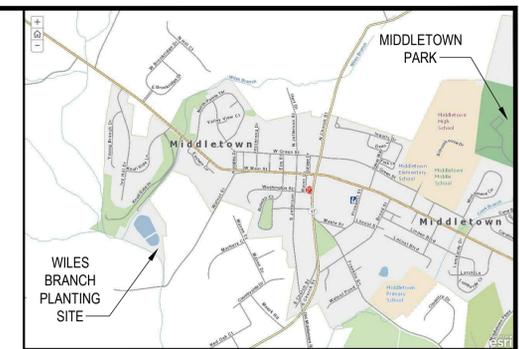
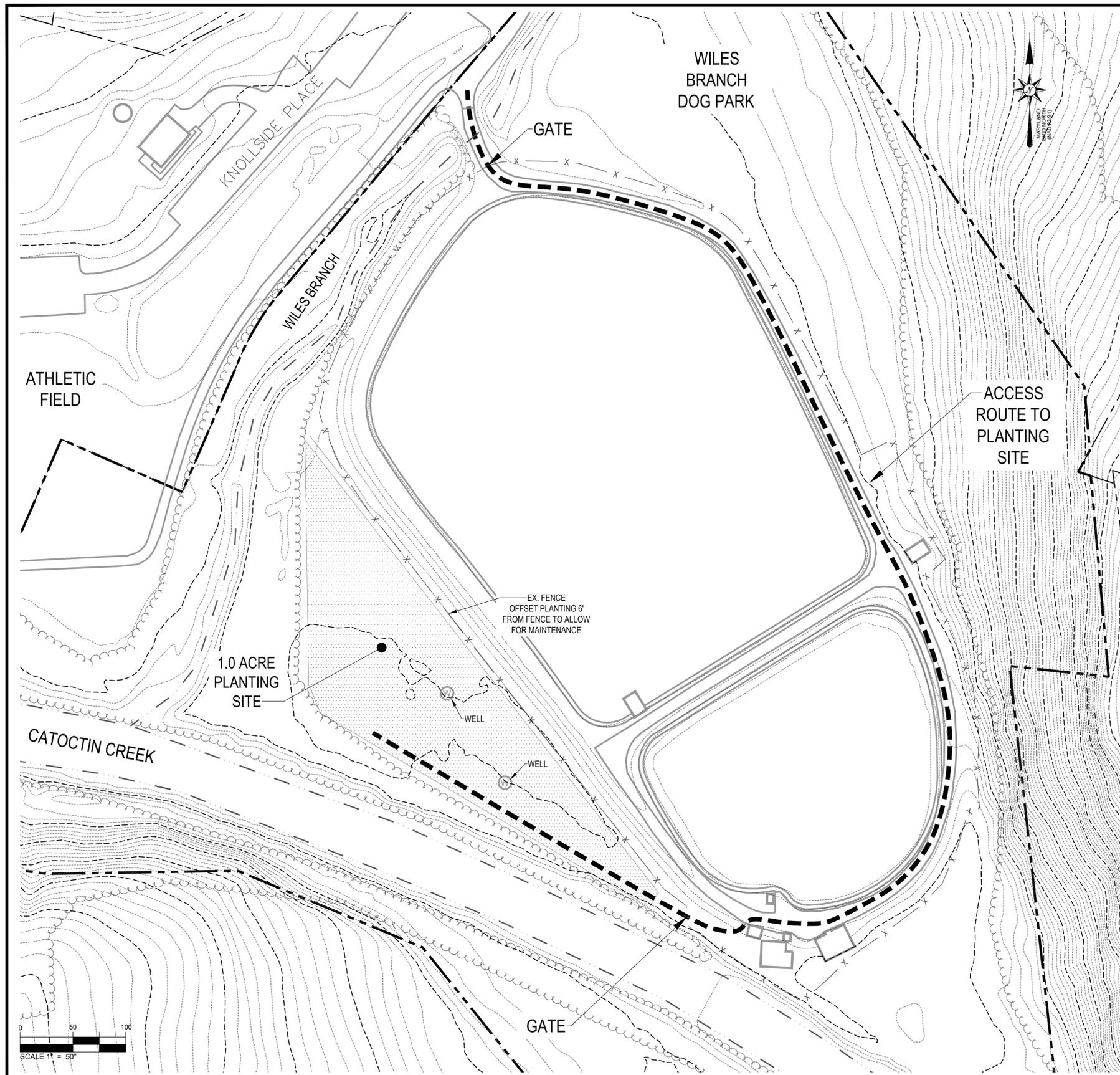
- A PLAN TO CONDUCT THE NEEDED TREATMENTS AND MONITOR RESULTS.
- EVIDENCE OF LEGAL RIGHT TO IMPLEMENT THE AGREEMENT ON THE SELECTED PLANTING SITE.
- CERTIFICATION OR AGREEMENT BY A PARTY RESPONSIBLE FOR CARE AND MONITORING. THIS CERTIFICATION IS REQUIRED FOR FINAL FCP APPROVAL AND SHALL BE BINDING ON THE PARTIES CONCERNED. THE APPLICANT MAY BE LISTED IF A CONTRACTOR IS NOT.
- THE APPROVING AUTHORITY AS A SIGNATORY OR THIRD PARTY BENEFICIARY OF THE AGREEMENT.
- PROVISION FOR ACCESS AND INSPECTION BY THE APPROVING AUTHORITY.

HUMAN & ROHDE, INC.
Landscape Architects
512 Virginia Ave.
Towson, Maryland 21286
(410) 825-3885 Phone
(410) 825-3887 Fax



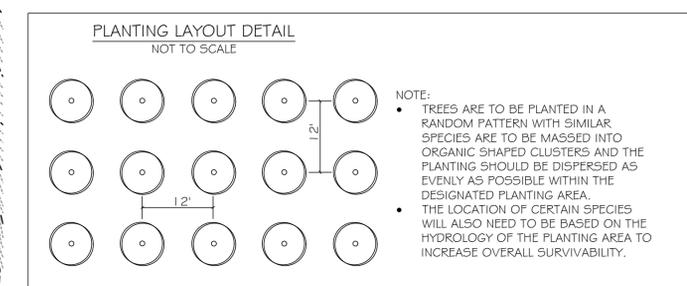
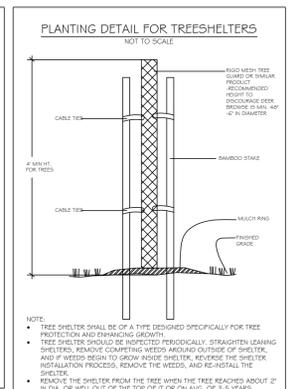
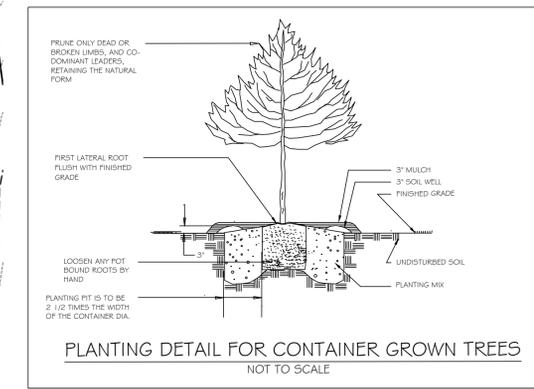
TRIAD ENGINEERING, INC.
1075D SHERMAN AVE.
HAGERSTOWN, MD 21740
(301) 797-6400 Phone
(301) 797-2424 Fax

OWNER / DEVELOPER	FOREST CONSERVATION PLAN	FC-3
FREDERICK COUNTY, MD. WINCHESTER HALL 12 EAST CHURCH STREET FREDERICK, MARYLAND 21701 PHONE: (301) 600-1100	CAPITAL PROJECT NO. _____ MIDDLETOWN PARK DEVELOPMENT & REHAB PROJECT FREDERICK COUNTY, MARYLAND ELECTION DISTRICT NO.03	SCALE: AS SHOWN EEV DRAWN BY DML CHECKED BY DATE: JANUARY 2020 SHEET 3 OF 4



REFORESTATION PLANT LIST FOR WILES BRANCH PLANTING SITE
 CALCULATIONS
 1.0 AC. @ 350 TREES / AC. = 350 TREES REQUIRED.

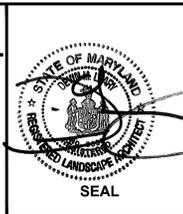
KEY	QTY	BOTANICAL NAME COMMON NAME	SIZE	COND	REMARKS	TYPE
	25	ACER RUBRUM RED MAPLE	2-3' HT.	WHIP	12' X 12' SPACING RANDOM CLUSTERS	OVERSTORY
	20	AMELANCHIER CANADENSIS SERVICEBERRY				UNDERSTORY
	25	BETULA NIGRA RIVER BIRCH				OVERSTORY
	20	ILEX OPACA AMERICAN HOLLY				EVERGREEN
	25	NYSSA SYLVATICA BLACK GUM				OVERSTORY
	100	PLATANUS OCCIDENTALIS SYCAMORE				OVERSTORY
	50	QUERCUS BICOLOR SWAMP WHITE OAK				OVERSTORY
	30	QUERCUS PALUSTRIS PIN OAK				OVERSTORY
	30	QUERCUS PHELLOS WILLOW OAK				OVERSTORY
	25	ULMUS FULVA SLIPPERY ELM				UNDERSTORY



KEY

PROPERTY LINE	
USE I-P STREAM	
EXISTING TREE LINE	
EXISTING FENCE LINE	
ACCESS TO PLANTING SITE	
PLANTING AREA - 1.0 AC.	

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OWNER / DEVELOPER
 FOREST CONSERVATION PLAN
FC-4

FREDERICK COUNTY, MD.
 WINCHESTER HALL
 12 EAST CHURCH STREET
 FREDERICK, MARYLAND 21701
 PHONE: (301) 600-1100

CAPITAL PROJECT NO. _____
**MIDDLETOWN PARK
 DEVELOPMENT & REHAB
 PROJECT**
 FREDERICK COUNTY, MARYLAND
 ELECTION DISTRICT NO.03

SCALE: 1" = 50'
 EEV DRAWN BY
 DML CHECKED BY
 DATE: JANUARY 2020
 SHEET 4 OF 4