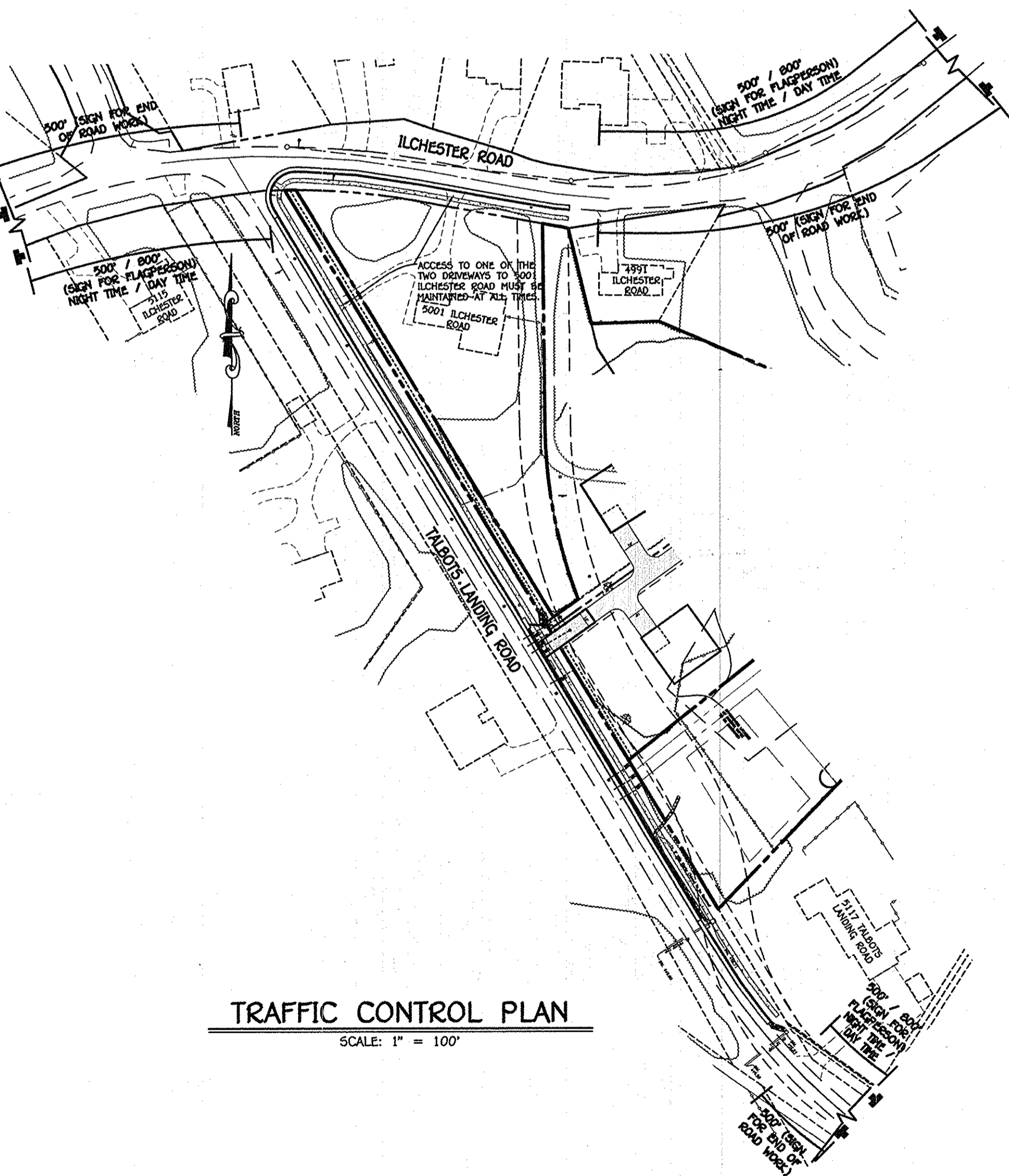


SHEET INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	TALBOTS LANDING WIDENING - PLAN & PROFILE
3	CROSS SECTIONS
4	ILCHESTER WIDENING - PLAN, PROFILE, & CROSS SECTIONS
5	SUPPLEMENTAL & LANDSCAPE PLAN
6	STORMWATER MANAGEMENT DETAILS & NOTES
7	SEDIMENT & EROSION CONTROL AND SOILS PLAN
8	SEDIMENT & EROSION CONTROL NOTES & DETAILS
9	OFF-SITE FOREST CONSERVATION PLAN

LOT NUMBER	ADDRESS	DISCONNECTION OF ROOFTOP RUN-OFF N-1 (NUMBER)	DISCONNECTION OF NON-ROOFTOP RUN-OFF N-2 (Y/N)	MICRO-BIO-RETENTION M-6 (NUMBER)
1	TALBOTS LANDING	N/A	Y	1
2	TALBOTS LANDING	N/A	Y	1
3	TALBOTS LANDING	N/A	Y	1
4*	TALBOTS LANDING	N/A	Y	N/A

* EXISTING HOUSE TO REMAIN



TRAFFIC CONTROL PLAN
SCALE: 1" = 100'

APPROVED: DEPARTMENT OF PUBLIC WORKS
W. J. ... 11-6-13
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
... 11-13-13
CHIEF, DIVISION OF LAND DEVELOPMENT

... 11-12-13
CHIEF, DEVELOPMENT ENGINEERING DIVISION

PROFESSIONAL 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. 38396, EXPIRATION DATE: 01/12/2014.

Mechanic Suite 10/19/13
Signature of Professional Engineer DATE



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE: PARC - 10272 BALTIMORE NATIONAL PARK
2010 12TH TERRACE, E. SUITE 102
PARCROT, FLORIDA 34219
(410) 461-2995

OWNER

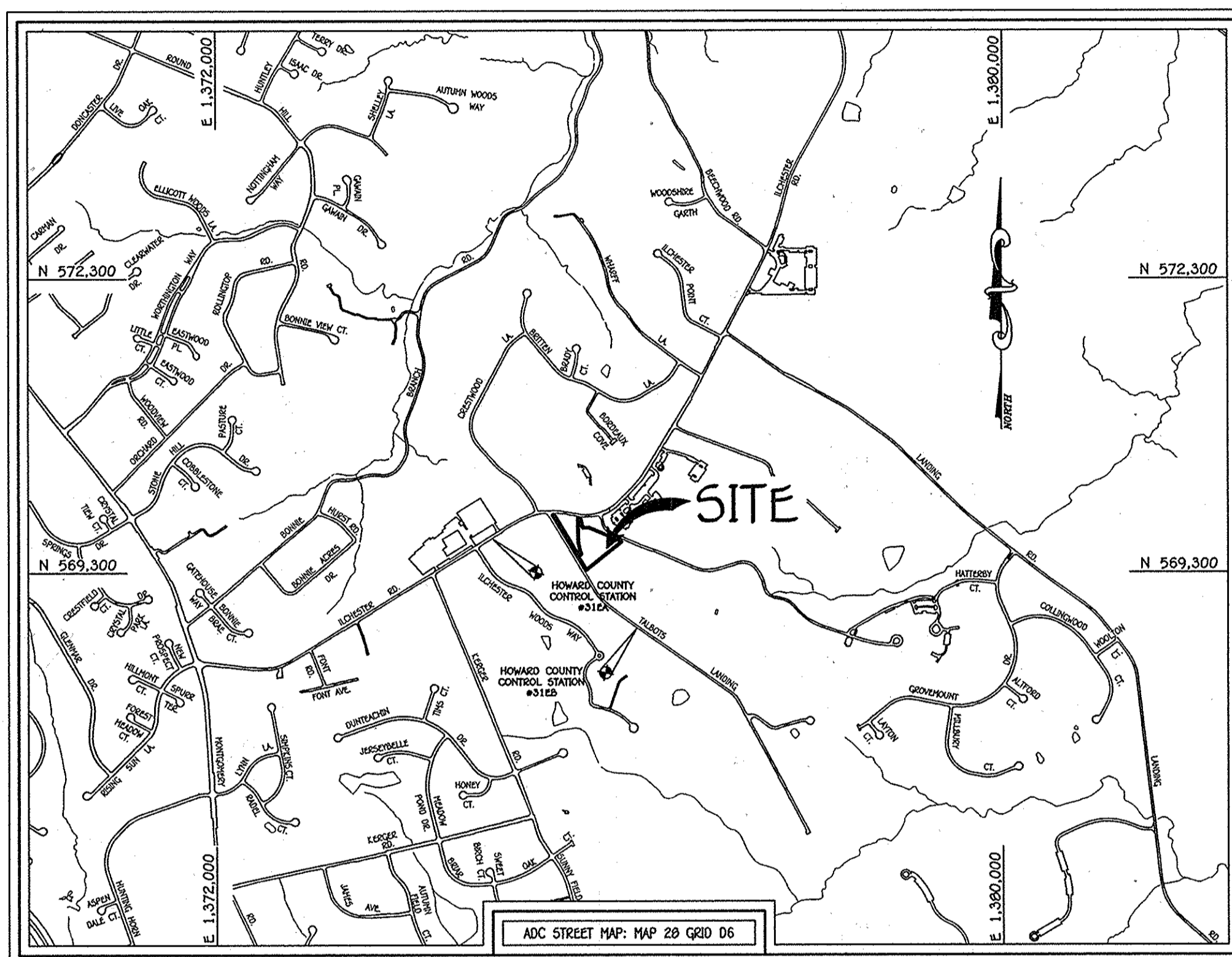
ALFRED P. TURLEY & SUSAN M. TURLEY
2010 12TH TERRACE, E. SUITE 102
PARCROT, FLORIDA 34219
941-776-9615

DEVELOPER

BURKARD HOMES LLC
5300 DORSEY HALL DRIVE
SUITE 102
ELLCOTT CITY, MARYLAND 21042
443-367-0422

FINAL PLANS TURLEY'S MEADOW LOTS 1 THRU 4, NON-BUILDABLE PARCEL 'A' AND NON-BUILDABLE BULK PARCEL 'B'

TAX MAP No. 0031 GRID No. 0016 PARCEL NOS. 737, 738 & 739
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 1200'

BENCHMARK INFORMATION
B.M.#1 - HOWARD COUNTY CONTROL STATION #31E4 - HORIZONTAL - NAD '83
(LOCATED ALONG THE SOUTH SIDE OF ILCHESTER ROAD, APPROX. 2' BEHIND EDGE OF WALK, 20.7' NORTH OF WIRE FENCE ALONG TRANSMISSION LINE RIGHT-OF-WAY)
N 569,841.124
E 1,374,919.936
ELEVATION = 468.842 - VERTICAL - (NAVD '88)

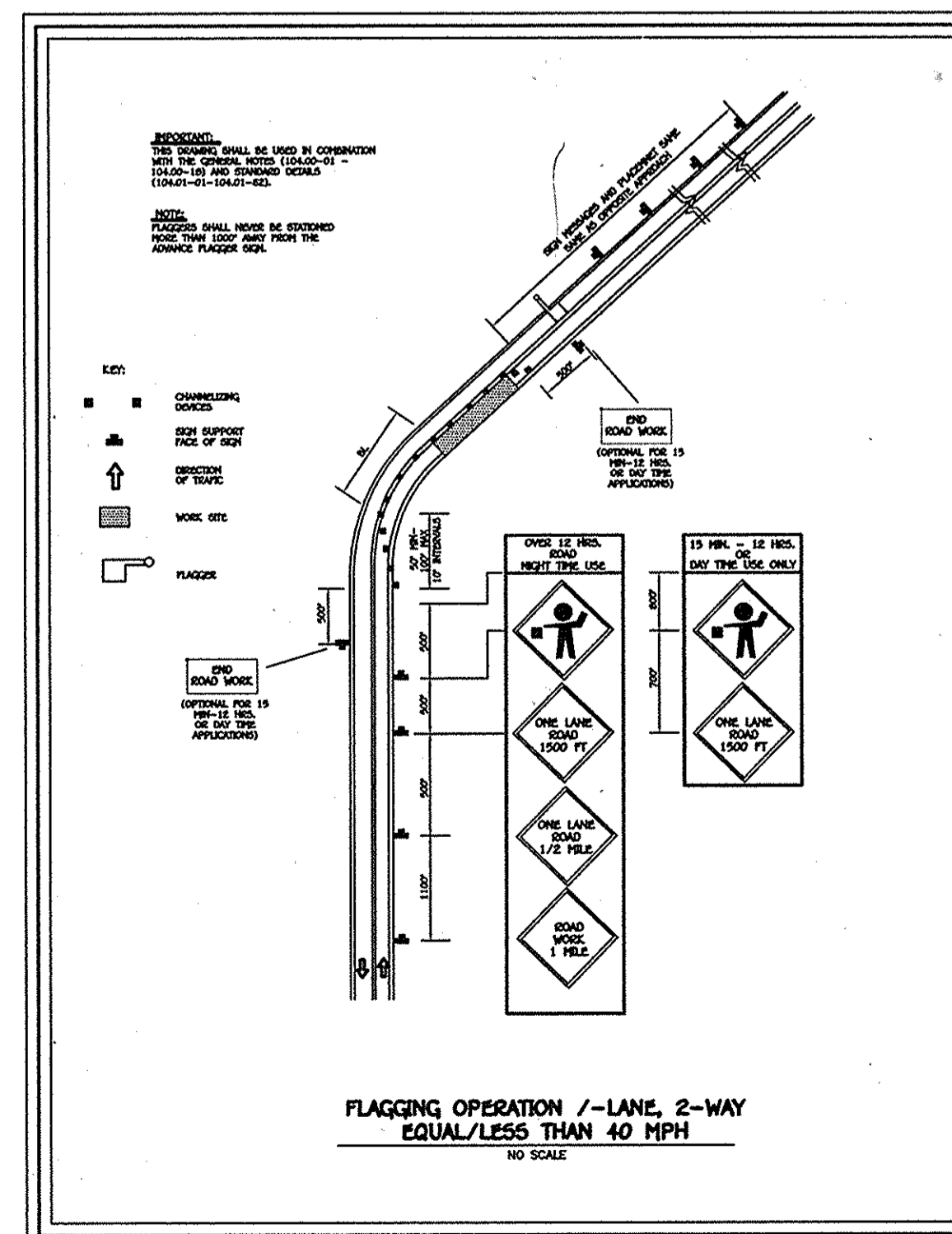
B.M.#2 - HOWARD COUNTY CONTROL STATION #31E5 - HORIZONTAL - (NAD '83)
(LOCATED ALONG THE SOUTH SIDE OF TALBOTS LANDING, APPROX. 19' FROM CENTERLINE OF ROAD & APPROX. 196' WEST OF DRIVE WAY ENTRANCE #5160)
N 568,730.984
E 1,372,273.491
ELEVATION = 452.628 - VERTICAL - (NAVD '88)

LANDSCAPE NOTES

The Owner, Tenants And/Or Their Agents Shall Be Responsible For Maintenance Of The Required Landscaping Including Both Plant Materials And Berms, Fences And Walls. All Plant Materials Shall Be Maintained In Good Growing Conditions, And When Necessary, Replaced With New Materials To Ensure Continued Compliance With Applicable Regulations. All Other Required Landscaping Shall Be Permanently Maintained In Good Condition, And When Necessary, Repaired Or Replaced.

No Clearing Of Existing Vegetation Is Permitted Within The Landscape Edge For Which Credit Is Being Taken; However, Landscape Maintenance Is Authorized.

At The Time Of Plant Installation All Shrubs And Trees Listed And Approved On The Landscape Plan, Shall Comply With The Proper Height Requirement In Accordance With The Howard County Landscape Manual. In Addition, No Substitutions Or Relocations Of The Required Plantings May Be Made Without Prior Review And Approval From The Department Of Planning And Zoning. Any Deviation From The Approved Landscape Plan May Result In Denial Or Delay In The Release Of Landscape Surety Until Such Time As All Required Materials Are Planted And/Or Revisions Are Made To Applicable Plans Or Certificates.



FLAGGING OPERATION /-LANE, 2-WAY
EQUAL/LESS THAN 40 MPH
NO SCALE

GENERAL NOTES

- Subject Property Zoned R-20 Per 10/06/2013 Comprehensive Zoning Plan.
- Coordinates Based On NAD '83, Maryland Coordinate System As Projected By Howard County Geodetic Control Stations No. 31EA And No. 31EB.
- This Plan Is Based On Field Run Monumented Boundary Survey Performed On Or About March, 2011, By Fisher, Collins & Carter, Inc.
- B.R.L. Denotes Building Restriction Line.
- Denotes Iron Pin Set With Cap "F.C.C." #.
- Denotes Iron Pipe Or Iron Bolt Found.
- Denotes Angular Change In Bearing Or Right-Of-Way.
- Denotes Concrete Monument Set With Cap "F.C.C." #.
- Denotes Concrete Monument Or Stone Foundation.
- Flag Or Pipestem Lots, Refuse Collection, Snow Removal And Road Maintenance Are Provided To The Junction Of The Flag Or Pipestem And Road Right-Of-Way Line And Not Onto The Pipestem Lot Driveway. Driveways Shall Be Provided Prior To Issuance Of A Use And Occupancy Permit For Any New Driveways To Ensure Site Access For Fire And Emergency Vehicles Per The Following (Minimum) Requirements:
 - Width - 12 Feet (16 Feet Serving More Than One Residence);
 - Surface - Six (6") Inches Of Compacted Crusher Run Base With Tar And Chip Coating, (1.5" Min.) Geotextile, Maximum 15% Grade Change And 45-Foot Turning Radius;
 - Structures (Culverts/Bridges) - Capable Of Supporting 25 Gross Tons (H25-Loading);
 - Drainage Elements - Capable Of Safely Passing 100 Year Flood With No More Than 1 Foot Depth Over Surfaces;
 - Structural Clearances - Minimum 12 Feet.
 - Maintenance - Sufficient To Ensure All Weather Use.
- All Lot Areas Are More Or Less (±).
- Stormwater Management Requirements For Lots 1 Thru 4 Will Be Met Using Environmental Site Design To The Maximum Extent Possible In Accordance With The Maryland Stormwater Design Manual, Volumes I & II, Effective In May Of 2010. The Proposed Practices Will Be Located On The Individual Lots As Follows:
 - Lot 1: Micro-Bioretenion (M-6) For The Proposed House And Non-Rooftop Disconnection (N-2) For The Proposed Driveway.
 - Lot 2: Micro-Bioretenion (M-6) For The Proposed House And Non-Rooftop Disconnection (N-2) For The Proposed Driveway.
 - Lot 3: Micro-Bioretenion (M-6) For The Proposed House And Portion Of The Proposed Driveway And Non-Rooftop Disconnection (N-2) For The Remaining Portion Of The Proposed Driveway.
 - Lot 4: Non-Rooftop Disconnection (N-2) For The Proposed Driveway And The Existing House And Portions Of The Existing Driveway Will Remain For Which No SWM Is Required.

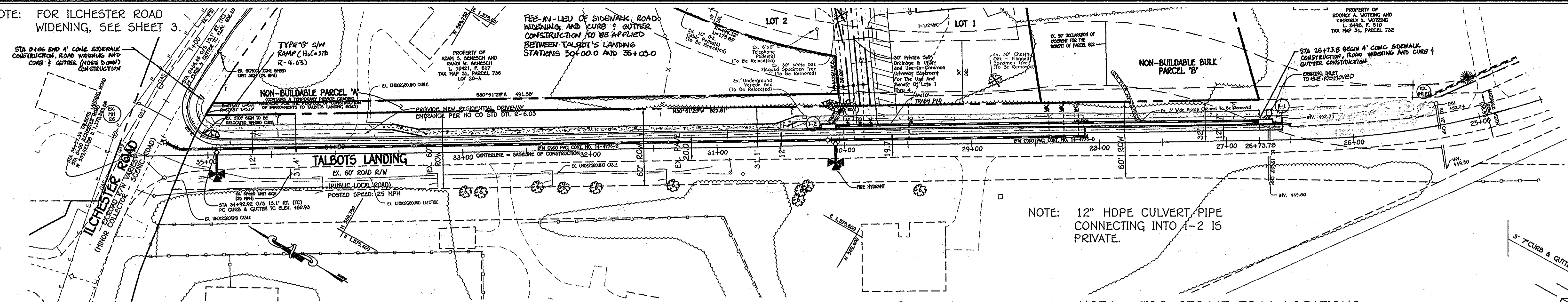
These Practices Shall Be Privately Owned And Maintained In Accordance With Individual Declarations Of Conveyance.

- A Traffic Study Is Not Required For This Project Since It Is A Minor Subdivision.
- No Cemeteries Exist On This Site Based On A Visual Site Visit And Based On An Examination Of The Howard County Cemetery Inventory Map And No Historic Structures Exist On The Subject Property.
- The Forest Conservation Requirements Of Section 16.1200 Of The Howard County Code And Forest Conservation Act For This Subdivision Will Be Fulfilled By Purchase Of 1.36 Acres Of Reforestation From A Forest Stand. Non-Buildable Parcel 'B' Was Excluded From The Forest Conservation Calculations And Requirements With This Subdivision Plan. However, Upon Resubdivision Of The Parcel, Then Separate Forest Conservation Calculations And Requirements Will Be Provided Based On Its Acreage Size.
- Non-Buildable Parcel 'A' Contains A Private Grading Easement For Roadway Improvements To Talbots Landing.
- The Forest Conservation Requirements Of Section 16.1200 Of The Howard County Code And Forest Conservation Act For Turley's Meadow, Lots 1 Thru 4, Non-Buildable Parcel 'A' And Non-Buildable Bulk Parcel 'B' Is Provided By Offs Replantation Of 1.36 Acres On Roadway Property, Preservation Parcel 'A', Tax Map No. 14, Tax Parcel No. 221. Financial Surety In The Amount Of \$29,621.00 (1.36 Acres x 43,560 Sq. Ft./Acres x \$4050/Sq. Ft.) For Replantation Was Provided With Developers Agreement For Turley's Meadow, F-13-024.
- Landscaping For Lots 1 Thru 3 Is Provided In Accordance With Section 16.124 of The Howard County Code and the Landscape Manual. A Landscape Surety For The Required Landscaping In The Amount Of \$7,600.00 (15 Shade Trees @ \$1500/Tree + 2 Evergreen Trees @ \$1500/Tree + 6 Shrub @ \$30/Shrub) Has Been Posted As Part Of The DFW Developer's Agreement.
- This Subdivision Is Subject To Section 18.122B Of The Howard County Code. Public Water And/Or Sewer Service Will Be Granted Under The Developers Agreement Associated With Contract #14-4775-D.
- Approval Of A Site Development Plan Is Required For The Development Of All Residential Lots Within This Subdivision Prior To Issuance Of Any Grading Or Building Permits For New House Construction In Accordance With Section 18.155 Of The Subdivision And Land Development Regulations.
- There Is An Existing Structure On Lot 4 To Remain. No New Buildings, Extensions Or Additions To The Existing Dwelling Are To Be Constructed At A Distance Less Than The Zoning Regulation Requirements.
- The Lots Created By This Subdivision Plat Are Subject To A Fee Or Assessment To Cover Or Defray All Or Part Of The Developer's Cost Of The Installation Of The Water And Sewer Facilities, Pursuant To The Howard County Code Section 18.115. This Fee Or Assessment, Which Runs With The Land, Is A Contractual Obligation Between The Developer And Each Owner Of This Property And Is Not In Any Way A Fee Or Assessment Of Howard County.
- Non-Buildable Bulk Parcel 'A' Will Be Conveyed To Adjoining Property Identified As Tax Parcel #736, Tax Map #31 At The Time Of Recordation Of The Final Plat.
- Non-Buildable Bulk Parcel 'B' Reserves The Right To Be Further Subdivided In Accordance With R-20 Zoning Regulations, Section 18.09 Of The Howard County Zoning Regulations.
- This Property Is Located Within The Metropolitan District.
- A Wetland Delineation, Forest Stand Delineation Report & Preliminary Forest Conservation Plan For This Project Dated September 28, 2012 Was Prepared By Eco-Science Professionals. Per Report, No Wetlands Exist On-Site.
- This Plan Is In Compliance With The Amended Fifth Edition Of The Subdivision And Land Development Regulations Per Council Bill 45-2003 And The Zoning Regulations As Amended By Council Bill 32-2013. Development Or Construction On These Lots Must Comply With Setback And Buffer Regulations In Effect At The Time Of Submission Of The Site Development Plan, Waiver Petition Application, Or Building/Grading Permit And Per The Comprehensive Zoning Regulations Dated October 6, 2013.
- The 30' Private Use-Common Driveway Easement Agreement For Lots 1 Thru 4 Will Be Recorded In The Howard County Land Records Office Simultaneously With The Recording Of The Subdivision Plat.
- Open Space Requirements Are Provided By A Fee-In-Lieu Payment Of \$4,500.00.
- This Development Is Designed To Be In Accordance With Section 16.127-Residential Infill Development -Of Subdivision And Land Development Regulations. The Developer Of This Project Shall Create Compatibility With The Existing Neighborhood Through The Use Of Enhanced Perimeter Landscaping, Berms, Fences, Similar Housing Unit Types And The Directional Orientation Of The Proposed Houses.
- Noise Study Is Not Required For This Project Per Howard County Design Manual, Volume III, Section 5.2(f).
- A Community Meeting Was Conducted On July 10, 2012 For The Purpose Of The Developer To Provide Information To The Community Regarding The Proposed Residential Development And To Allow The Community To Ask Questions And To Make Comments, Per Section 16.128(d), Of The Subdivision Regulations.
- All Construction Shall Be In Accordance With The Latest Standards And Specifications Of Howard County.
- The Contractor Shall Notify The Department Of Public Works/Bureau Of Engineering/Construction Inspection Division At (410) 313-1880 At Least Five (5) Working Days Prior To The Start Of Work.
- The Contractor Shall Notify "Miss Utility" At 1-800-257-7777 At Least 48 Hours Prior To Any Excavation Work Being Done.
- Traffic Control Devices, Markings, And Signage Shall Be In Accordance With The Latest Edition Of The Manual Of Traffic Control Devices (MUTCD). All Street And Regulatory Signs Shall Be In Place Prior To The Placement Of Any Asphalt.
- The Existing Topography Is Taken From Field Run Survey With Contour Intervals Prepared By Fisher, Collins and Carter, Inc. Dated September 2012 And Supplemented With Howard County GIS Information.
- Existing Utilities Shown Are Based On Available Construction Drawings.
- A Private Range Of Addresses Sign Shall Be Fabricated And Installed By Howard County Bureau Of Highways At The Developer's/Owners Expense. Contact Howard County Traffic Division At 410-313-2430 For Details And Cost Estimate.
- All Sign Posts Used For Traffic Control Signs Installed In The County Right-Of-Way Shall Be Mounted On A 2" Galvanized Steel, Perforated, Square Tube Post (14 Gauge) Inserted Into A 2-1/2" Galvanized Steel, Perforated, Square Tube Sleeve (12 Gauge) - 3' Long. A Galvanized Steel Pole Cap Shall Be Mounted On Top Of Each Post.
- There Are No Floodplains, 15-24.9% Slopes, 25% Or Greater Slopes, Wetlands, Streams, Or Their Buffers On This Site.
- There Are No Disturbances To Environmental Features As There Are No Environmental Features Located On This Property.
- Gross Site Area: 4,209 Ac.
- Limit Of Disturbed Area: 1.35 Ac. (LOD Associated With The Construction Of Road Improvement And On-Site Sewer).
- Residential Driveway Entrance Shall Be Constructed In Accordance With Howard County Standard Detail 2-603 For The Proposed Use-In-Common Driveway.
- Water Meters Will Not Be Released By Howard County To Any New Building Until The Existing Septic System Has Been Abandoned In Accordance With Howard County Health Department Regulations And The Existing House Is Connected To The Public Water And Sewer Main.
- Plan Is Subject To WF-13-175, Approved On August 21, 2013, Waiving Sections 16.1205(a)(7) & (10) Of The Subdivision Regulations Which Requires The Retention Of State Champion Trees, Trees 75% Of The State Champion Trees, And Trees 30" In Diameter Or Larger. Approval Is Subject To The Following Conditions:
 - Approval Of This Waiver Is For The Removal Of Six Specimen Trees As Shown On The Waiver Petition Exhibit. No Other Specimen Trees May Be Removed.
 - Removal Of The Six Specimen Trees Will Require Mitigation At A Ratio Of One 3"-4" Caliper Tree Per Each Specimen Tree Removed. The Mitigation Plantings Shall Be Evenly Distributed Between The Lots, With Two Trees Each On Lots 1-3, And Be Planted In An Area That Will Provide A Sustainable Location For Growth And An Adequate Usable Yard For The Property Owner. The Specimen Trees Shall Be Shown As Part Of The Landscape Plan With The Subdivision Plat And Shall Be Bonded With The Landscaping Obligation.
- Property Subject To Department Of Planning And Zoning File No. ECP-13-021; WF-13-175.

TITLE SHEET

TURLEY'S MEADOW
LOTS 1 THRU 4, NON-BUILDABLE
PARCEL 'A' AND NON-BUILDABLE
BULK PARCEL 'B'
ZONED R-20 TAX MAP NO.: 31 GRID NO.: 16
PARCEL NOS.: 737, 738 & 739
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: SEPTEMBER, 2013
SHEET 1 OF 9 F-13-084

NOTE: FOR ILCHESTER ROAD WIDENING, SEE SHEET 3.



DATE	REVISIONS DESCRIPTION
11/26/14	REMOVED PROPOSED SIDEWALK ROAD WIDENING AND CURB AND GUTTER FROM TALBOT'S LANDING STATIONS 35+00 TO 34+55 AND ILCHESTER ROAD STATIONS 0+00 TO 3+34.5 ADD TYPE 'B' SIDEWALK RAMP (15% STD R-4.05) ON TALBOT'S LANDING.
9/14/15	RELOCATE A PORTION OF SIDEWALK NEXT TO CURB & GUTTER AT 'B' WIDE ALONG CURB & GET INLET BACK 'B' DUE TO CONFLICT WITH CONDUIT.

APPROVED: DEPARTMENT OF PUBLIC WORKS
W. R. ... 11-6-13
 CHIEF, BUREAU OF HIGHWAYS DATE

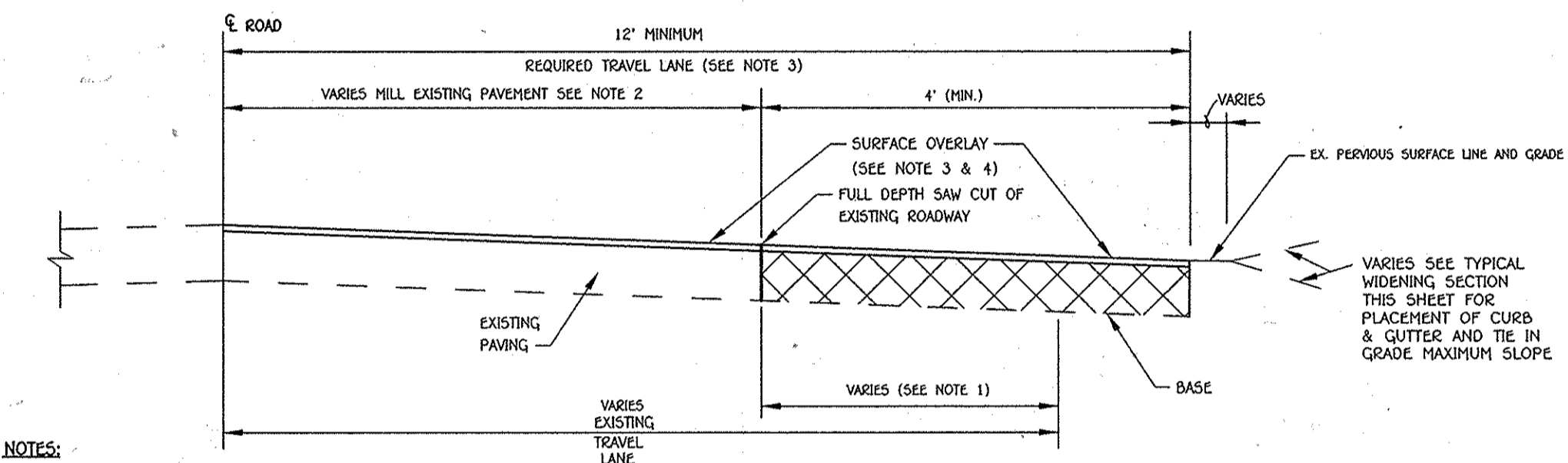
APPROVED: DEPARTMENT OF PLANNING AND ZONING
V. ... 1-13-13
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

... 11-12-13
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)				PAVEMENT MATERIAL (INCHES)			
		3 TO <5	5 TO <7	>7	3 TO <5	5 TO <7	>7	MIN HMA WITH GAB	HMA WITH CONSTANT GAB
P-2	PARKING DRIVE ALLEYS: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY LOCAL ROADS: ACCESS PLACE, ACCESS STREET CUL-DE-SACS: RESIDENTIAL	HMA SUPERPAVE FINAL SURFACE							
		9.5 MM, PG 64-22, LEVEL 1 (ESAL)							
		HMA SUPERPAVE INTERMEDIATE SURFACE							
		9.5 MM, PG 64-22, LEVEL 1 (ESAL)							
		HMA SUPERPAVE BASE							
		19.0 MM, PG 64-22, LEVEL 1 (ESAL)							
		GRADED AGGREGATE BASE (GAB)							
		8.0 4.0 3.0 4.0 4.0 4.0							

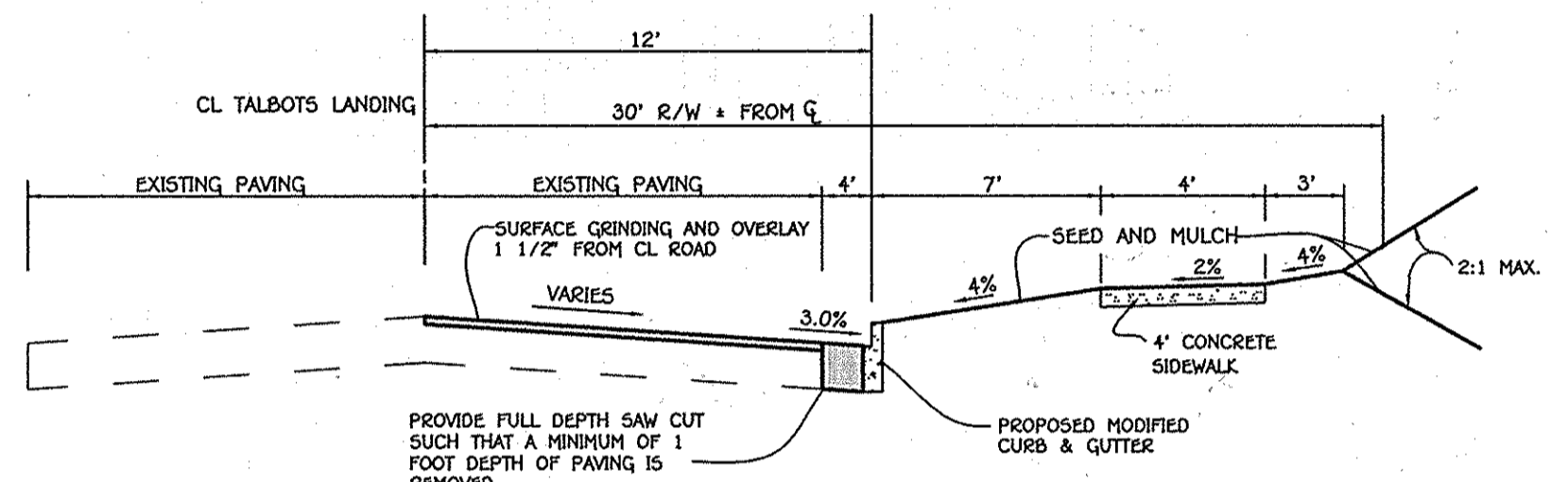
PLAN
 SCALE: 1" = 50'

NOTE: FOR STREET TREE LOCATIONS AND QUANTITY, SEE SHEET 5.

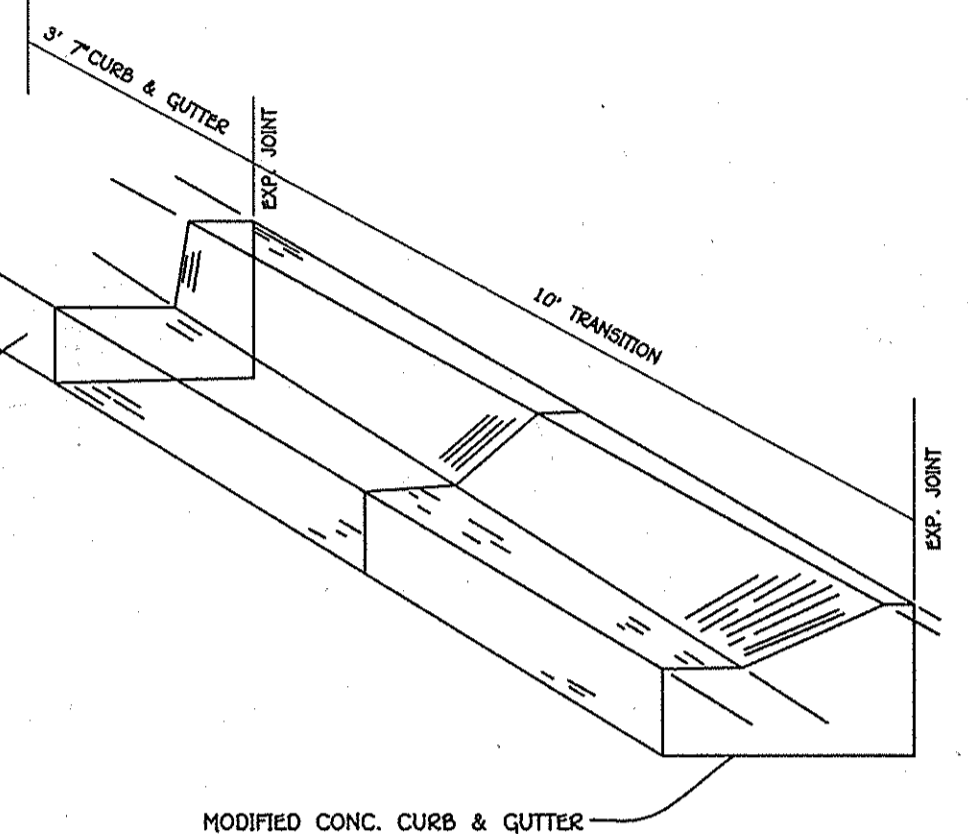


- NOTES:
1. WHEN EXISTING TRAVEL LANE IS LESS THAN THE REQUIRED 12' LANE CONTRACTOR SHALL REMOVE A MINIMUM OF 1" FULL DEPTH OF THE EXISTING ROADWAY. IF CURB AND GUTTER IS INSTALLED, PROVIDE A MINIMUM OF 4" OF WIDENING FROM FACE OF GUTTER PAN.
 2. THE EXISTING PAVEMENT TO BE RESURFACED SHALL BE MILLED AT DEPTH OF 1 1/2" (MINIMUM).
 3. THE RESURFACING SHALL BE PLACED TO THE CENTERLINE OF THE ROADWAY (UPON COMPLETION OF INSTALLATION OF WATER MAIN).
 4. RESURFACING COURSE TO BE EQUAL TO THE SURFACE COURSE OF THE TYPICAL PAVEMENT SECTION.

EXISTING ROADWAY WIDENING STRIP (R-1.00)
 NO SCALE



TALBOT'S LANDING TYPICAL ROAD WIDENING DETAIL
 NO SCALE
 FROM CL STA 26+73.6 TO CL STA 50+00.0



(TALBOT'S LANDING ROAD) CONCRETE CURB & GUTTER TRANSITION
 NO SCALE
 STA 26+10.29 TO 26+50.29
 STA 26+79.63 TO 26+89.63
 STA 29+91.77 TO 30+01.77
 STA 30+23.10 TO 30+33.10



PROFESSIONAL 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. 38386, EXPIRATION DATE: 01/12/2014.

Stephanie ... 10/14/13
 Signature of Professional Engineer DATE

TURLEY'S MEADOW
 LOTS 1 THRU 4, NON-BUILDABLE PARCEL 'A' AND NON-BUILDABLE BULK PARCEL 'B'
 ZONED R-20 TAX MAP NO.: 31 GRID NO.: 16
 PARCEL NOS.: 737, 738 & 739
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

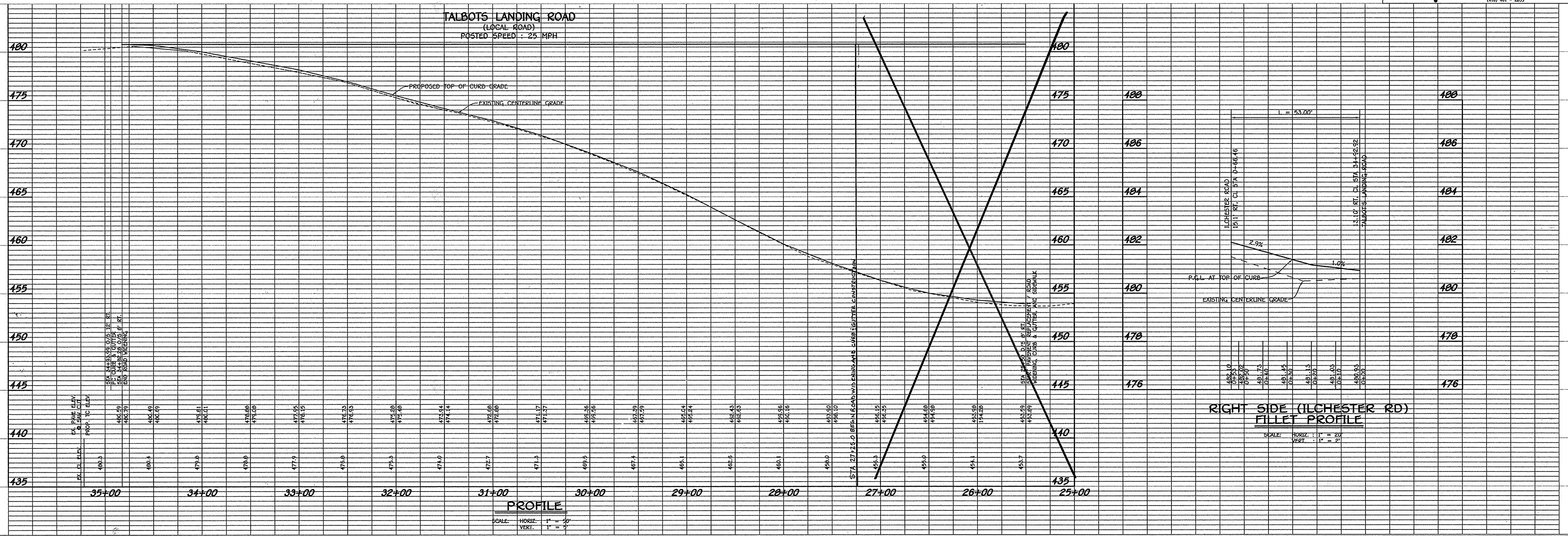
TALBOT'S LANDING WIDENING
 PLAN AND PROFILE

OWNER
 ALFRED P. TURLEY & SUSAN M. TURLEY
 2019 127TH TERRACE E
 PARKRISH, FLORIDA 34219
 941-776-8615

DEVELOPER
 BURGARD HOMES LLC
 5300 DORSEY HALL DRIVE
 SUITE 102
 ELLICOTT CITY, MARYLAND 21042
 443-367-0422

SCALE: AS SHOWN DATE: SEPTEMBER 2013 DWG. NO. 2 OF 9
 DES. SJT DRN. SJT CHK. -

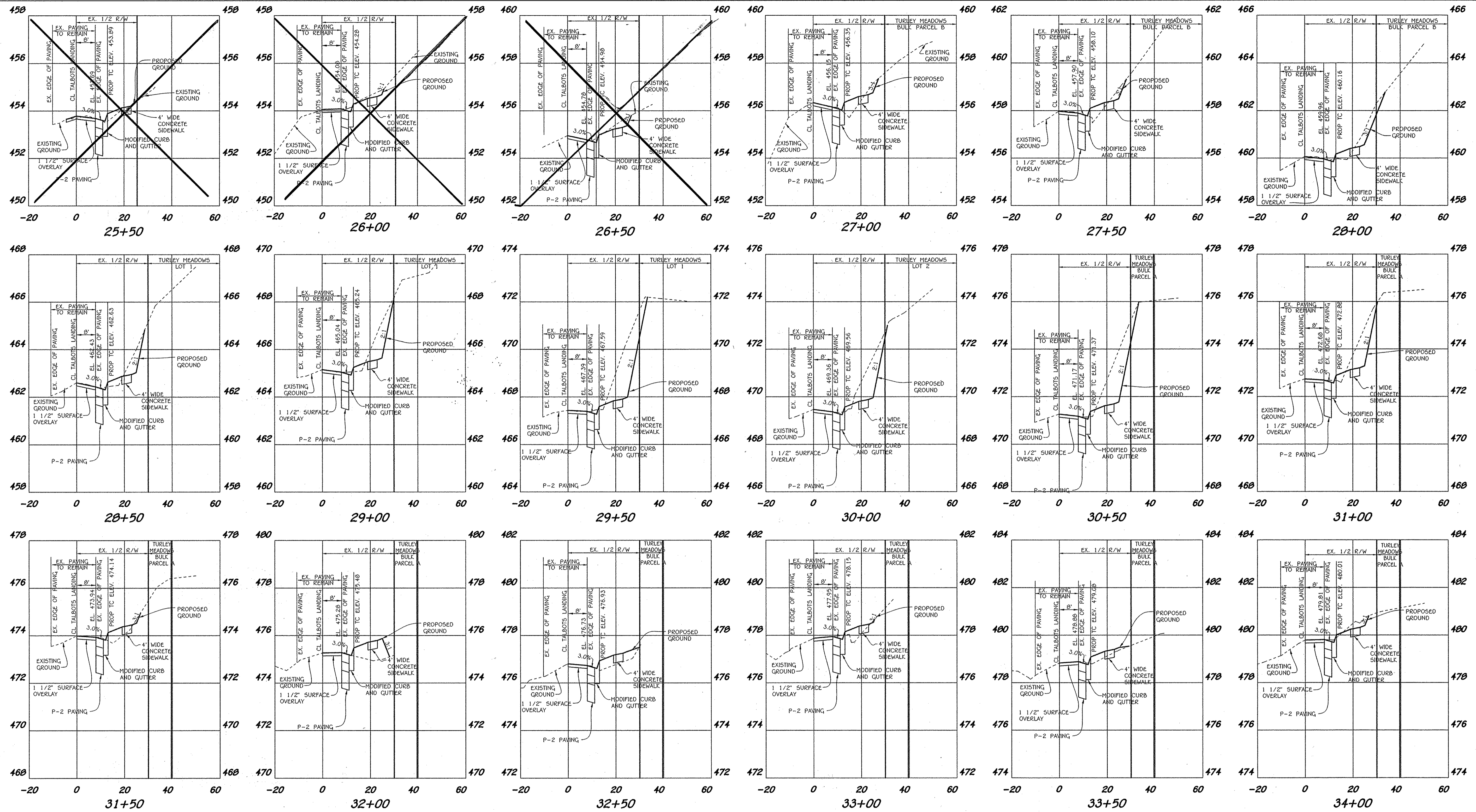
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SOURCE OFFICE PARK - 10722 BALTIMORE NATIONAL PLACE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2855



PROFILE
 SCALE: HORIZ. 1" = 50'
 VERT. 1" = 2'

RIGHT SIDE (ILCHESTER RD) FILLET PROFILE
 SCALE: HORIZ. 1" = 20'
 VERT. 1" = 2'

I:\2006\06053.dwg\06053-3004 Turley's Meadow-Lots 1 thru 4\F-13-084\06053-3004 Sheet 2 WIDENING PLAN.dwg, SHEET 2, 9/18/2013 12:56:45 PM, 1:1



Cross-Sections

SCALE: HORIZ. : 1" = 20'
VERT. : 1" = 2'



PROFESSIONAL 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. 38386, EXPIRATION DATE: 01/12/2014.
Stephanie Suite 10/14/13
Signature of Professional Engineer DATE



APPROVED: DEPARTMENT OF PUBLIC WORKS
W. J. ... 11-6-13
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
... 11-13-13
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

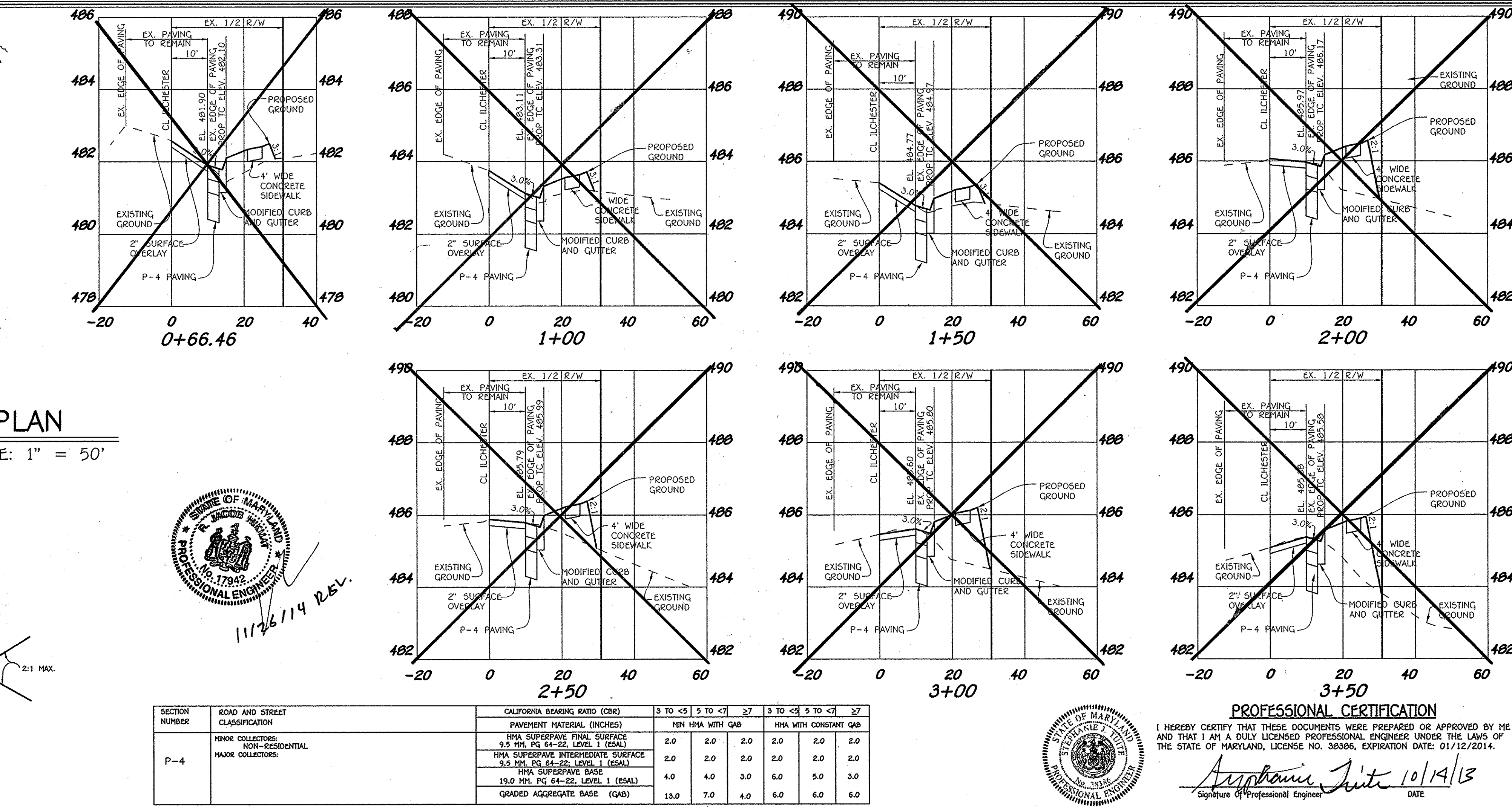
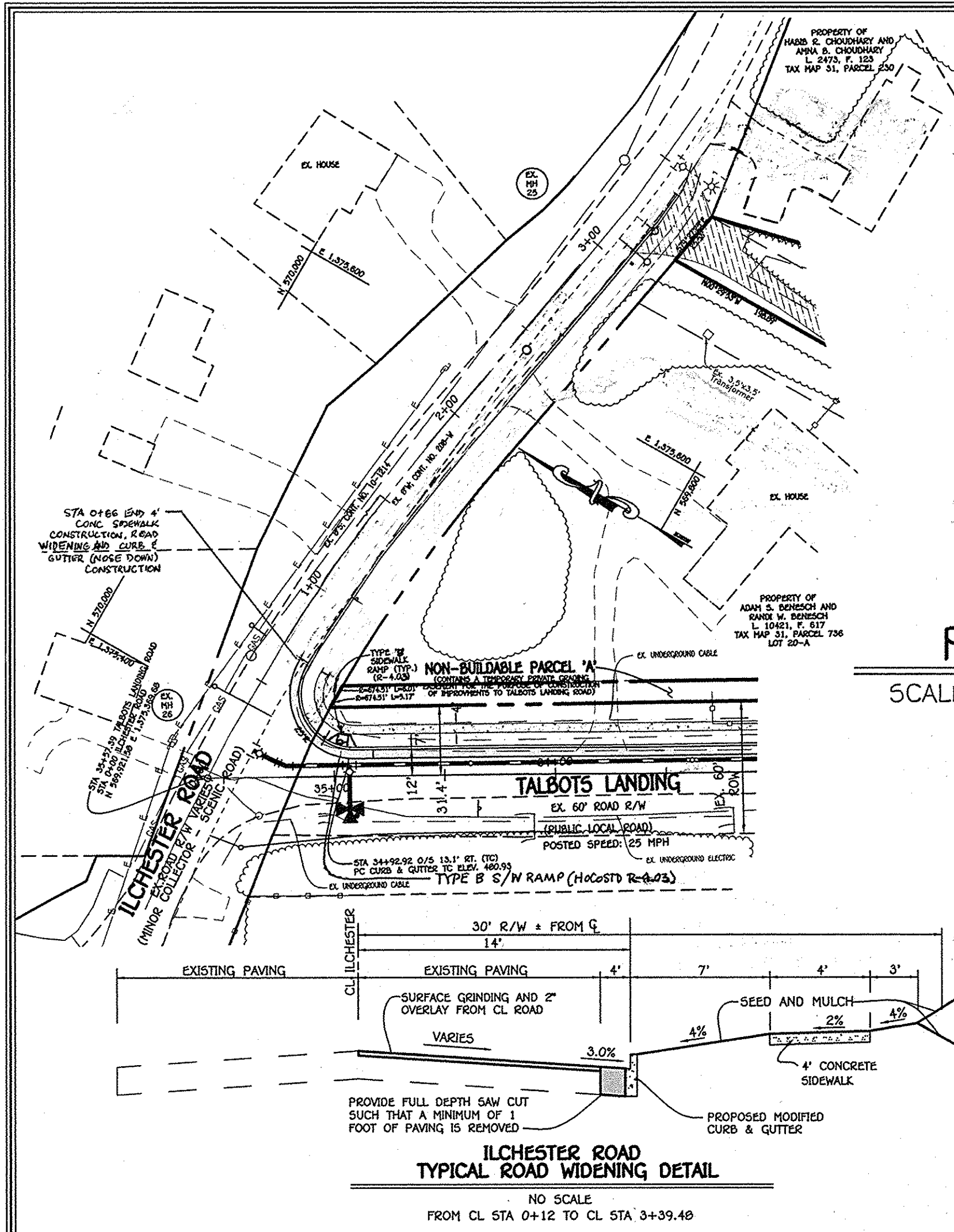
... 11-12-13
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PARK
ELLCOTT CITY, MARYLAND 21042
(410) 461-2995

OWNER
ALFRED P. TURLEY &
SUSAN M. TURLEY
2018 127th TERRACE E.
PARRISH, FLORIDA 34219
443-367-0422

DEVELOPER
BUICKARD HOMES LLC
5300 DORSEY HALL DRIVE
SUITE 102
CITY, MARYLAND 21042
443-367-0422

**TALBOTS LANDING ROAD WIDENING
CROSS SECTIONS
TURLEY'S MEADOW
LOTS 1 THRU 4, NON-BUILDABLE
PARCEL 'A' AND NON-BUILDABLE
BULK PARCEL 'B'**
ZONED R-20 TAX MAP NO.: 31 GRID NO.: 16
PARCEL NOS.: 737, 738 & 739
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: SEPTEMBER, 2013
SHEET 3 OF 9



SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)					
		3 TO <4	5 TO <7	>7	3 TO <4	5 TO <7	>7
P-4	MINOR COLLECTORS: NON-RESIDENTIAL MAJOR COLLECTORS:	PAVEMENT MATERIAL (INCHES)					
		HMA SUPERPAVE FINAL SURFACE					
		HMA SUPERPAVE INTERMEDIATE SURFACE					
		HMA SUPERPAVE BASE					
		2.0	2.0	2.0	2.0	2.0	2.0
		2.0	2.0	2.0	2.0	2.0	2.0
		4.0	4.0	3.0	6.0	5.0	3.0
		13.0	7.0	4.0	6.0	6.0	6.0



PROFESSIONAL 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. 30306, EXPIRATION DATE: 01/12/2014.

Stephen J. Jurek 10/14/13
Signature of Professional Engineer DATE

REVISIONS

DATE	DESCRIPTION
11/16/14	REMOVED PROPOSED SIDEWALK, ROAD WIDENING AND CURB AND GUTTER FROM TALBOT'S LANDING STATIONS 2+15 TO 2+17.5 AND ILCHESTER ROAD STATIONS 0+00 TO 3+39.5. ADDED TYPE B SIDEWALK PLAN (10:000 R-4-93) AND TALBOT'S LANDING

APPROVED: DEPARTMENT OF PUBLIC WORKS
W. J. ... 11-6-13
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
K. ... 4-13-13
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

D. ... 11-12-13
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

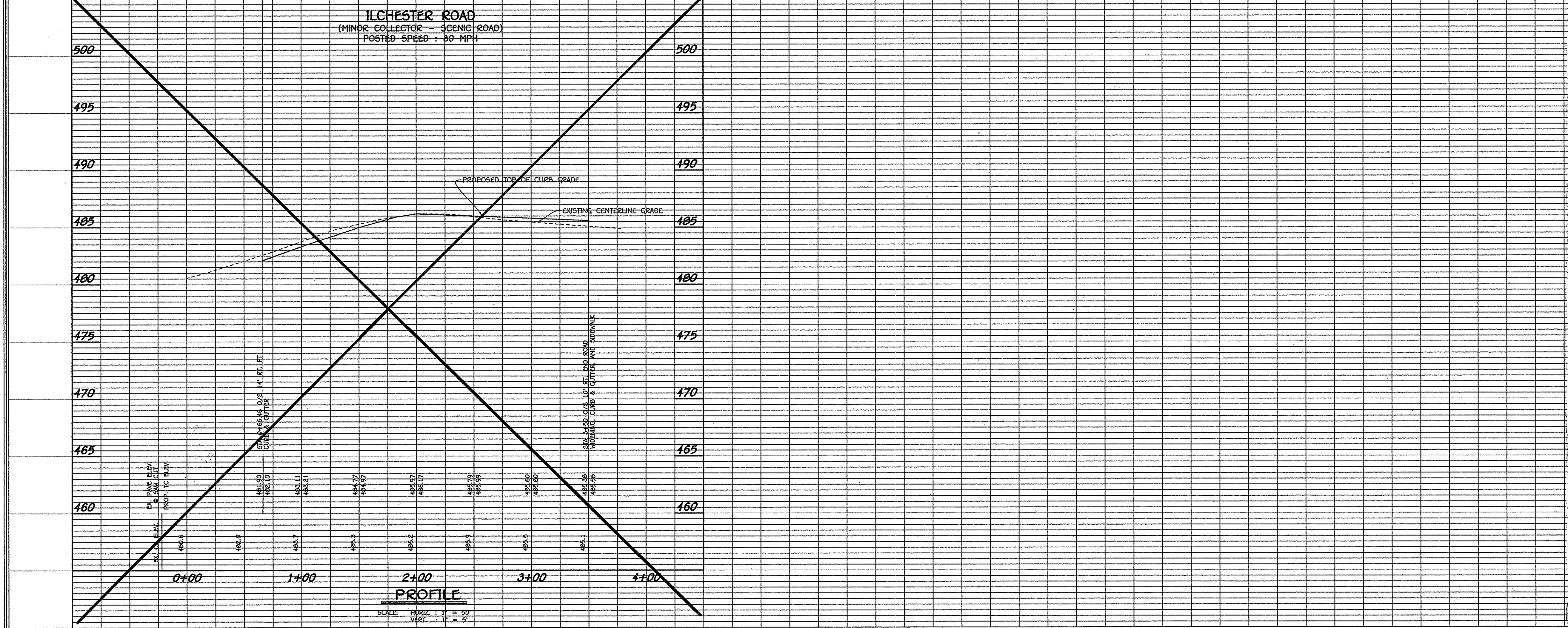
TURLEY'S MEADOW
LOTS 1 THRU 4, NON-BUILDABLE PARCEL 'A' AND NON-BUILDABLE BULK PARCEL 'B'
ZONED R-20 TAX MAP NO.: 31 GRID NO.: 16
PARCEL NOS.: 737, 738 & 739
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

OWNER
ALFRED P. TURLEY & SUSAN M. TURLEY
2018 127th TERRACE E.
PARRISH, FLORIDA 34219
941-776-8615

DEVELOPER
BURKARD HOMES LLC
5300 DORSEY HALL DRIVE
SUITE 102
ELLCOTT CITY, MARYLAND 21042
443-367-0422

SCALE: AS SHOWN DATE: SEPTEMBER 2013 DWG. NO. 4 OF 9
DES. SJT DRN. SJT CHK. -

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10726 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21042
(410) 461-2895



DETAIL C-6 CLEAR WATER DIVERSION PIPE

STANDARD SYMBOL
CWD - 12
DESIGNATION CWD-12 REFERS TO 12 INCH CLEAR WATER DIVERSION

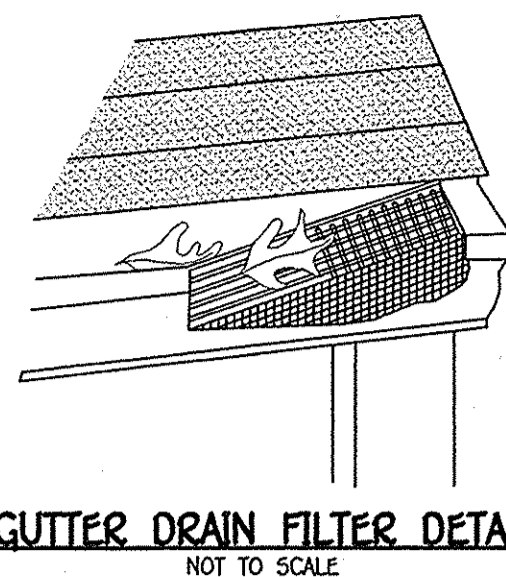
CONSTRUCTION SPECIFICATIONS

- FLEXIBLE PIPE IS PREFERRED. HOWEVER, CORRUGATED METAL PIPE OR EQUIVALENT PVC PIPE CAN BE USED. MAKE ALL JOINTS WATERTIGHT.
- FOR SANDBAG USE MATERIALS THAT ARE RESISTANT TO ULTRA-VIOLENT RADIATION, TEARS, AND PUNCTURE AND WOVEN TIGHTLY ENOUGH TO PREVENT LEAKAGE OF FILL MATERIAL.
- USE 10 MIL OR THICKER UV RESISTANT IMPERMEABLE SHEETING OR OTHER APPROVED MATERIAL THAT IS IMPERMEABLE AND RESISTANT TO PUNCTURING AND TEARING.
- PLACE IMPERMEABLE SHEETING SUCH THAT UPGRADE PORTION OVERLAPS DOWNGRADE PORTION BY A MINIMUM OF 18 INCHES.
- SET HEIGHT OF SANDBAG DIKE AT TWICE THE PIPE DIAMETER. MAINTAIN HEIGHT ALONG LENGTH OF SANDBAG DIKE. PLACE DOUBLE ROW OF SANDBAGS.
- AT A MINIMUM, SECURELY ANCHOR DIVERSION PIPE AT EACH DOWNGRADE JOINT.
- SET OUTLET END OF DIVERSION PIPE LOWER THAN INLET END.
- PROVIDE OUTLET PROTECTION AS REQUIRED ON APPROVED PLAN.
- DEWATER WORK AREA USING AN APPROVED EROSION AND SEDIMENT CONTROL PRACTICE AS SPECIFIED ON APPROVED PLAN.
- KEEP POINT OF DISCHARGE FREE OF EROSION. MAINTAIN WATER TIGHT CONNECTIONS AND POSITIVE DRAINAGE. REPLACE SANDBAGS AND IMPERMEABLE SHEETING IF TORN.

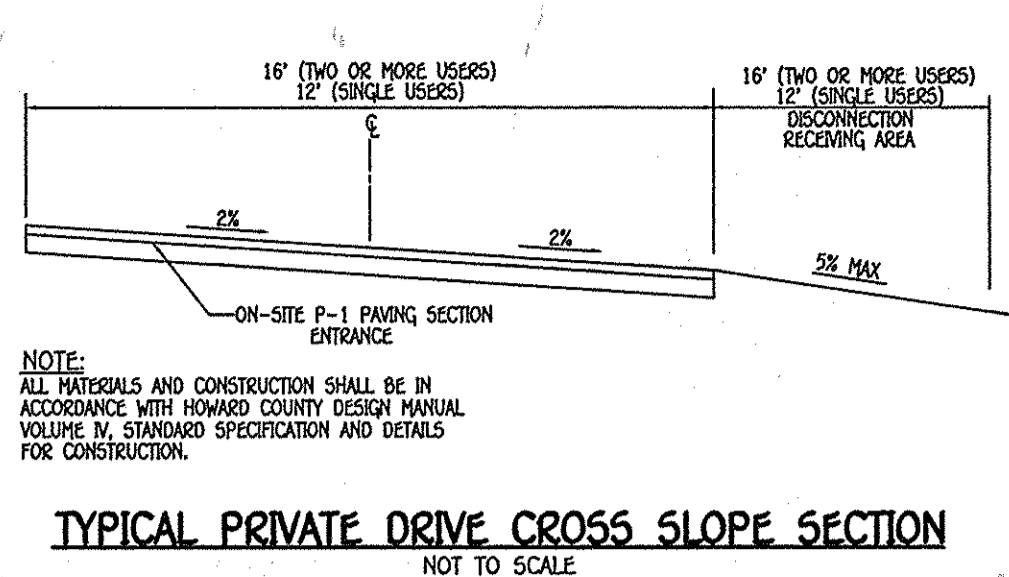
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

DS DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE 2011

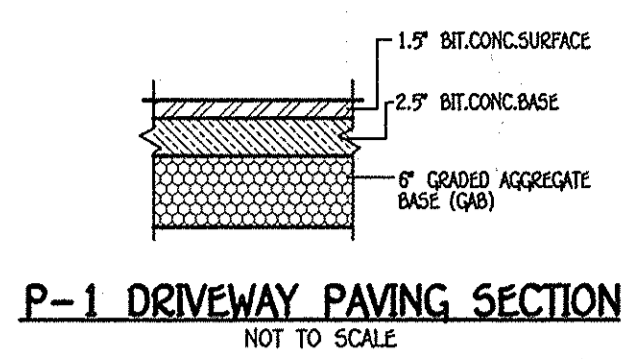
MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION



GUTTER DRAIN FILTER DETAIL
NOT TO SCALE



TYPICAL PRIVATE DRIVE CROSS SLOPE SECTION
NOT TO SCALE

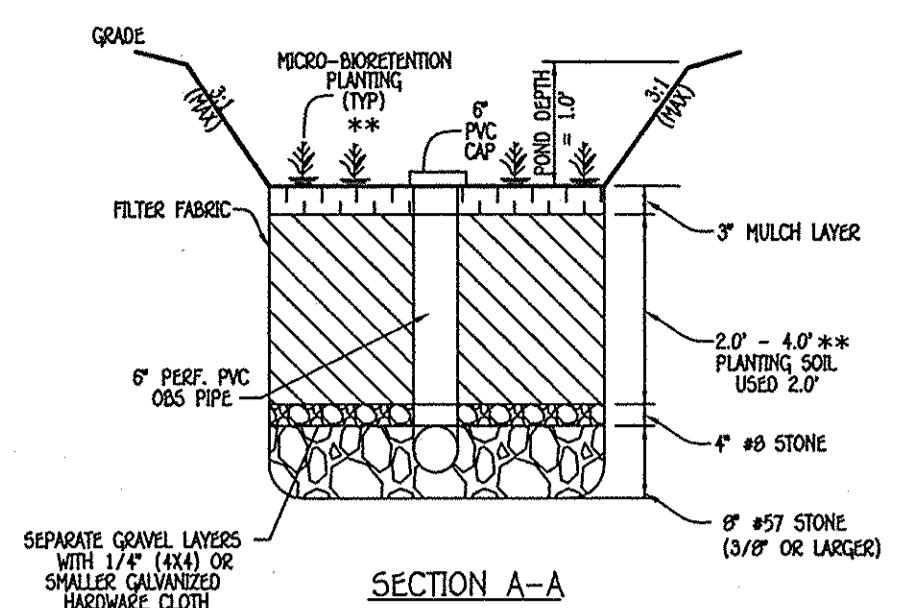


P-1 DRIVEWAY PAVING SECTION
NOT TO SCALE

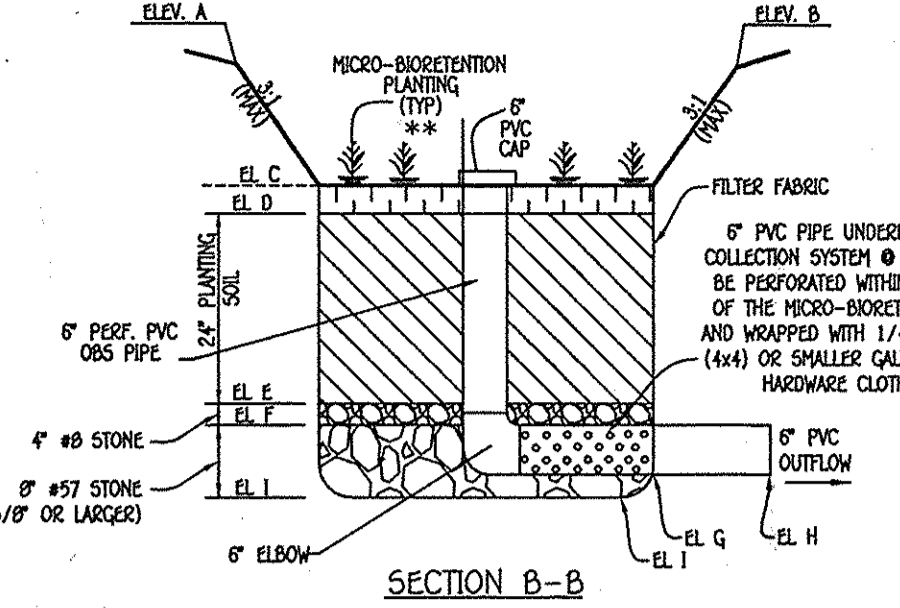
STORMWATER MANAGEMENT SUMMARY CHART

AREA = 4.209 ACRES
TARGET PE = 1.3"

AREA ID	ESDV REQ. cu.ft.	ESDV Pvd. cu.ft.	REMARKS
LOT 1	491	392	MICRO-BIORETENTION (M-6) & NON-ROOFTOP DISCONNECTION (N-2)
LOT 2	407	398	MICRO-BIORETENTION (M-6) & NON-ROOFTOP DISCONNECTION (N-2)
LOT 3	479	408	MICRO-BIORETENTION (M-6) & NON-ROOFTOP DISCONNECTION (N-2)
LOT 4	0	0	N/A
USE-IN-COMMON DRIVEWAY	339	339	NON-ROOFTOP DISCONNECTION (N-2)
TOTALS	1,716	1,537	



SECTION A-A



SECTION B-B

MICRO-BIORETENTION DETAIL (M-6)
NOT TO SCALE

STORMWATER MANAGEMENT NOTES

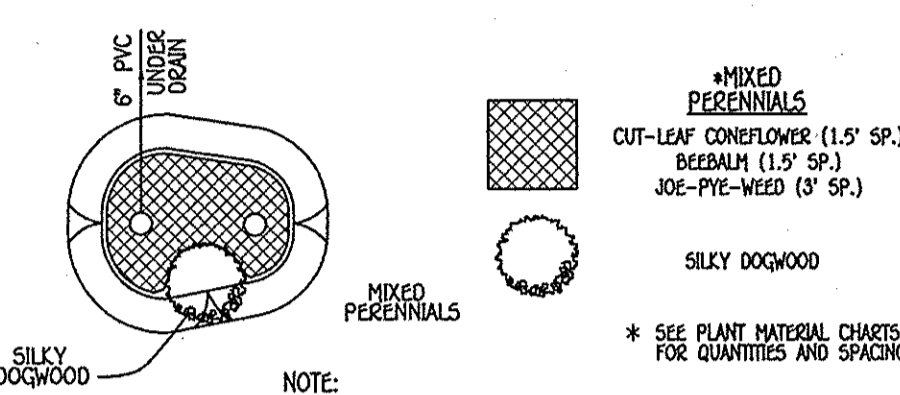
1. STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010.
2. MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 1,000 SQ. FT. OR LESS.
3. DOWNSPOUTS SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5% SLOPE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE DETAIL SHOWN ON THIS SHEET.
4. FINAL GRADING IS SHOWN ON THE SITE DEVELOPMENT PLAN.

OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED, DISCONNECTION OF NONROOFTOP RUNOFF (N-2)

1. MAINTENANCE OF AREAS RECEIVING DISCONNECTION RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE AREAS RECEIVING RUNOFF SHOULD BE PROTECTED FROM FUTURE COMPACTION OR DEVELOPMENT OF IMPERVIOUS AREA. IN COMMERCIAL AREAS FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

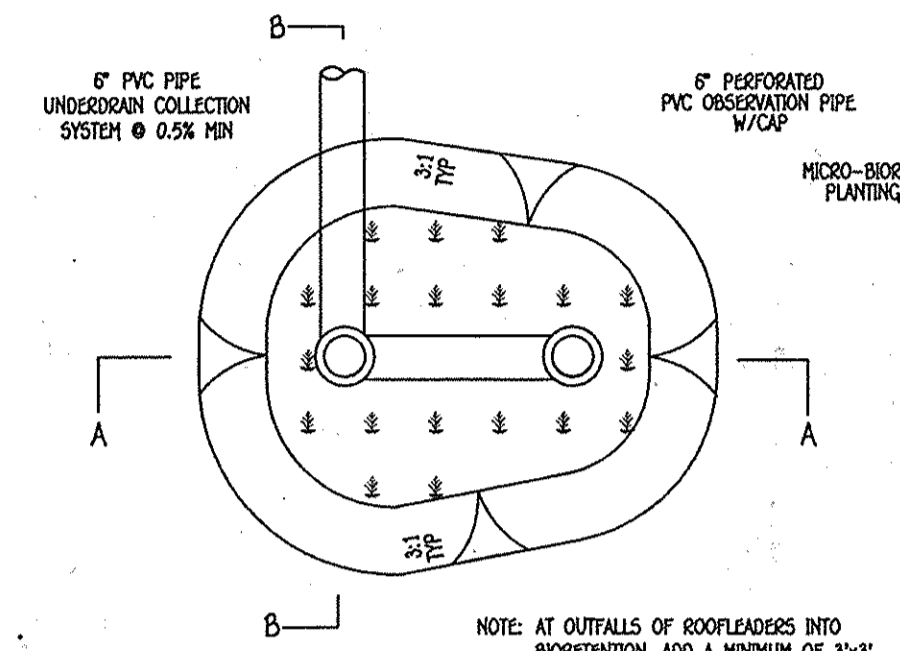
OPERATION & MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)

1. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME I, TABLE A.4.1 AND 2.
2. THE OWNER SHALL PERFORM A PLANT INSPECTION IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS AND REPLACE ALL DEFICIENT STAKES AND WIRES.
3. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
4. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.



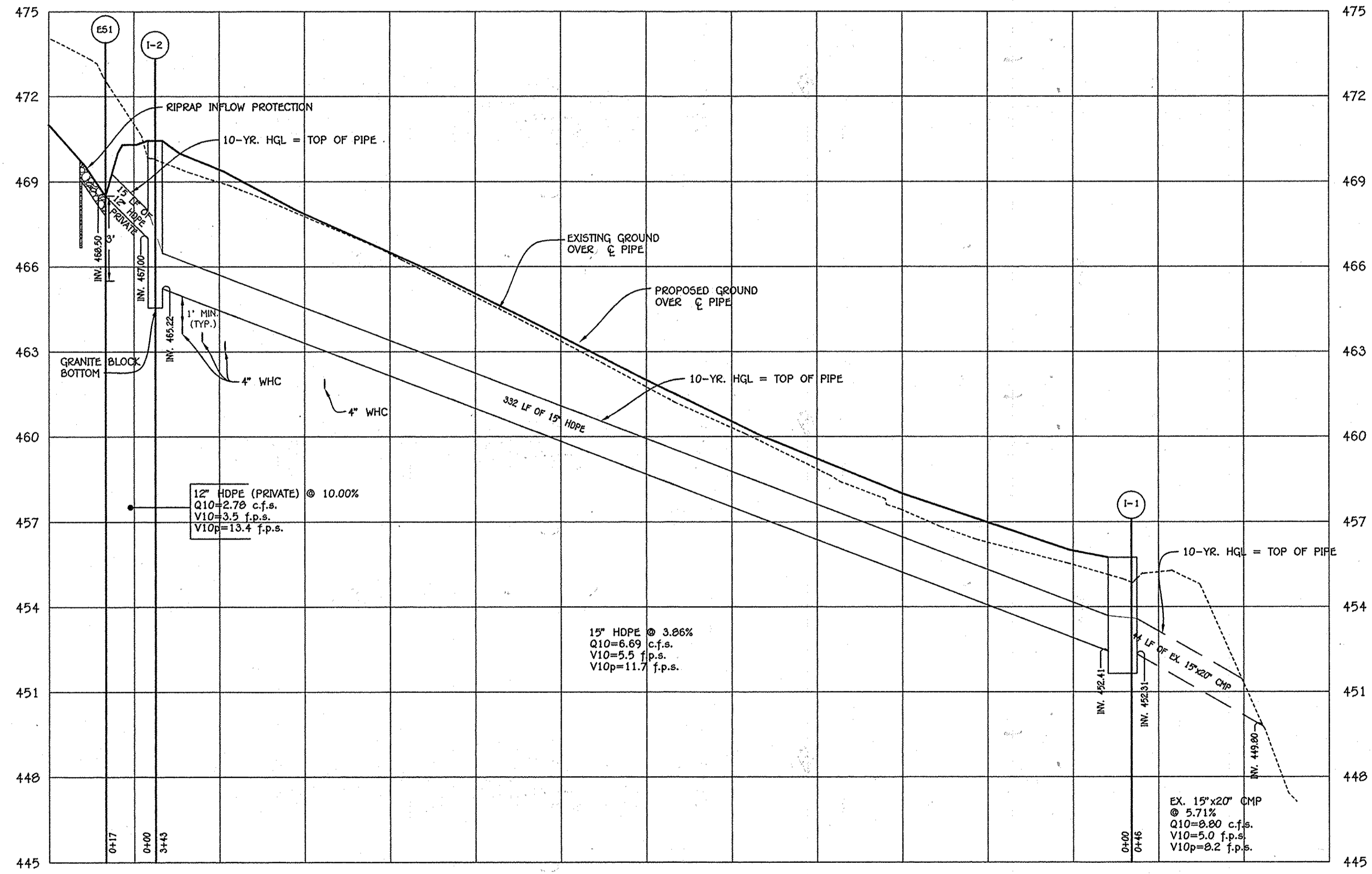
MICRO-BIORETENTION PLANTING DETAIL
NOT TO SCALE

QUANTITY	NAME	MAXIMUM SPACING (FT.)
12	MIXED PERENNIALS	1.5 TO 3.0 FT.
1	SILKY DOGWOOD	PLANT AWAY FROM INFLOW LOCATION



PLAN
NOT TO SCALE

MICRO-BIORETENTION									
BIORETENTION FILTER	A	B	C	D	E	F	G	H	I
1 (LOT 1)	467.00	467.00	466.00	465.75	463.75	463.42	462.92	462.81	462.76
2 (LOT 2)	477.00	477.00	476.00	475.75	473.75	473.42	472.92	472.50	472.76
3 (LOT 3)	475.50	475.50	474.50	474.25	472.25	471.92	471.42	471.20	471.26



STORM DRAIN PROFILE
SCALE: HOR. : 1"=30'
VER. : 1"=3'

PIPE SCHEDULE - TALBOT'S LANDING		
TYPE	SIZE	QUANTITY
HDPE, PRIVATE	12"	15 LF
HDPE	15"	332 LF

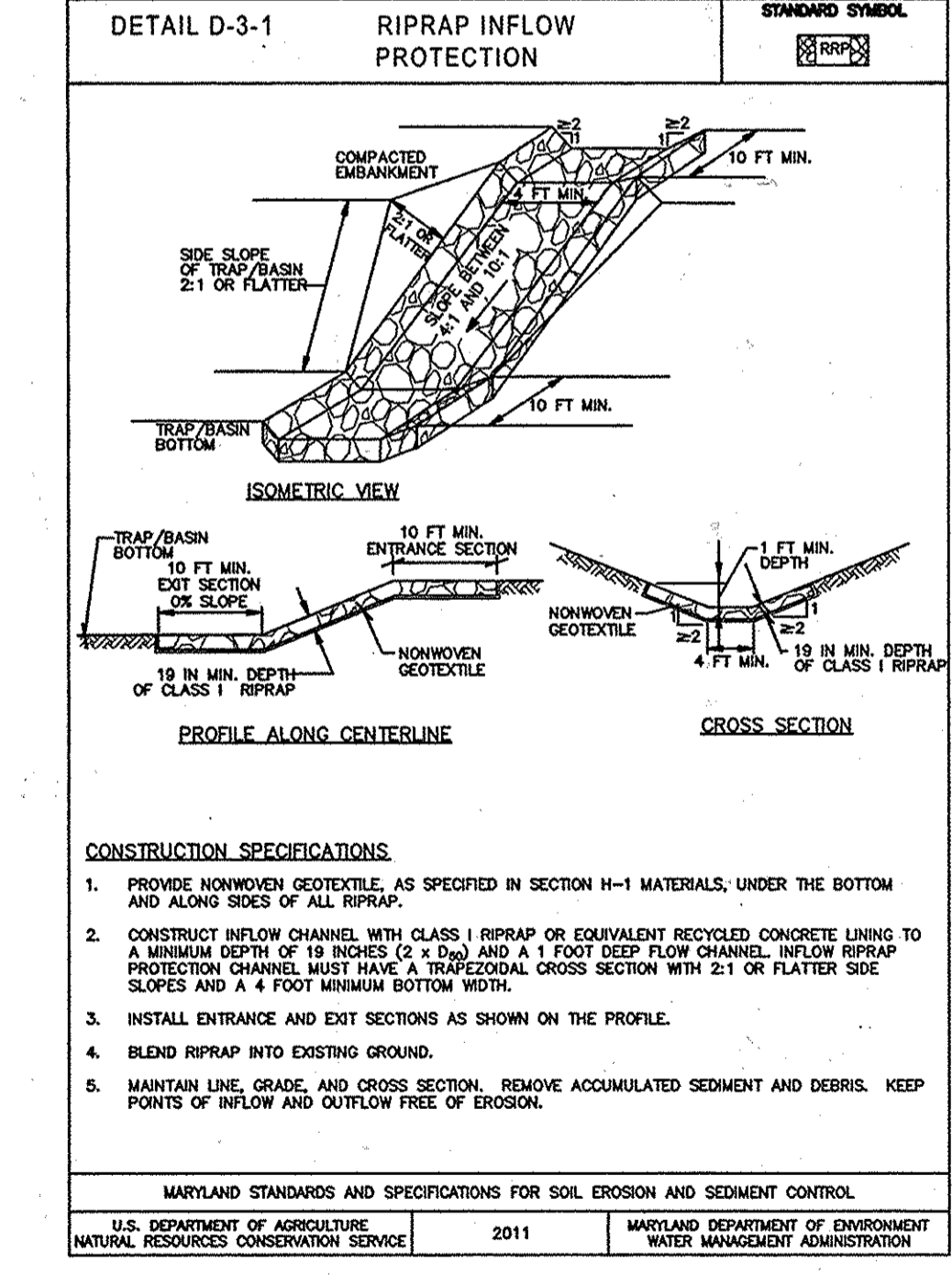
PIPE SCHEDULE - MICRO-BIORETENTIONS		
TYPE	SIZE	QUANTITY
PVC, SCHEDULE 40, PERFORATED	6"	49 LF
PVC, SCHEDULE 40, SOLID	6"	132 LF

STRUCTURE SCHEDULE						
STRUCTURE NO.	TOP ELEVATION	INV. IN	INV. OUT	LOCATION	TYPE	REMARKS
I-2	470.44	467.00	465.22	N 569,461.07 E 1,375,601.42	A-10 INLET	GRANITE BLOCK BOTTOM
I-1	455.74	452.41	452.31	N 569,168.99 E 1,375,836.90	A-10 INLET	
ES1 (PRIVATELY OWNED & MAINTAINED)	-----	-----	468.50	N 569,459.23 E 1,375,679.27	12" HDPE END SECTION	

* NOTE: LOCATION FOR INLET IS AT CENTER FACE OF CURB AND LOCATION FOR END SECTION IS CENTER AT CONNECTION WITH PIPE.

Table B.4. Materials Specifications for Micro-Bioretentation, Rain Gardens & Landscape Infiltration

Material	Specification	Size	Notes
Plantings	see Appendix A, Table A.4	n/a	plantings are site-specific
Planting soil (2' to 4' deep)	loamy sand 60-65% compost 35-40% or sandy loam 30% coarse sand 30% compost 40%		USDA soil types loamy sand or sandy loam; clay content <5%
Organic Content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum
Pea gravel diaphragm	pea gravel: ASTM-D-448	No. 8 or No. 9 (1/8" to 3/8")	
Curtain drain	ornamental stone: washed cobbles	stone: 2" to 5"	
Geotextile		n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	ASHTO M-43	No. 57 or No. Aggregate (3/8" to 3/4")	
Underdrain piping	F 750, Type PS 2B or ASHTO N-27B	4" to 6" rigid schedule 40 PVC or 50835	Slotted or perforated pipe; 3/8" perf. @ 6" on center. 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with 1/4 inch galvanized hardware cloth
Poured in place concrete (if required)	MSHA Mix No. 3; f = 3500 psi at 28 days, normal weight, air-entrained; reinforcing to meet ASTM-615-60	n.a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved site or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACI Code 350R/89; vertical loading (H-10 or H-20); allowable horizontal loading (based on soil pressures); and analysis of potential cracking
Sand	ASHTO M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone (ASHTO #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.



STORMWATER MANAGEMENT NOTES & DETAILS
TURLEY'S MEADOW
LOTS 1 THRU 4, NON-BUILDABLE PARCEL 'A' AND NON-BUILDABLE BULK PARCEL 'B'
ZONED R-20 TAX MAP NO.: 31 GRID NO.: 16
PARCEL NOS.: 737, 738 & 739
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: SEPTEMBER, 2013
SHEET 6 OF 9

APPROVED: DEPARTMENT OF PUBLIC WORKS
APPROVED: DEPARTMENT OF PLANNING AND ZONING

PROFESSIONAL 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. 38386, EXPIRATION DATE: 01/12/2014.
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
OWNER: ALFRED P. TURLEY & SUSAN M. TURLEY
DEVELOPER: BURKARD HOMES LLC

APPROVED: DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011
APPROVED: MARYLAND DEPARTMENT OF ENVIRONMENTAL WATER MANAGEMENT ADMINISTRATION

1:2006\06053\dwg\06053-3004 Turley's Meadow Lots 1 thru 4\13-084\06053-3004 Sheet 6 SWM Notes & Dets.dwg, SHEET 6, 9/19/2013 1:01:23 PM, 1:1

ENGINEER'S CERTIFICATE

I hereby certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site condition and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Signature of Engineer: Stephen J. Jantz 10/24/13 Date

DEVELOPER'S CERTIFICATE

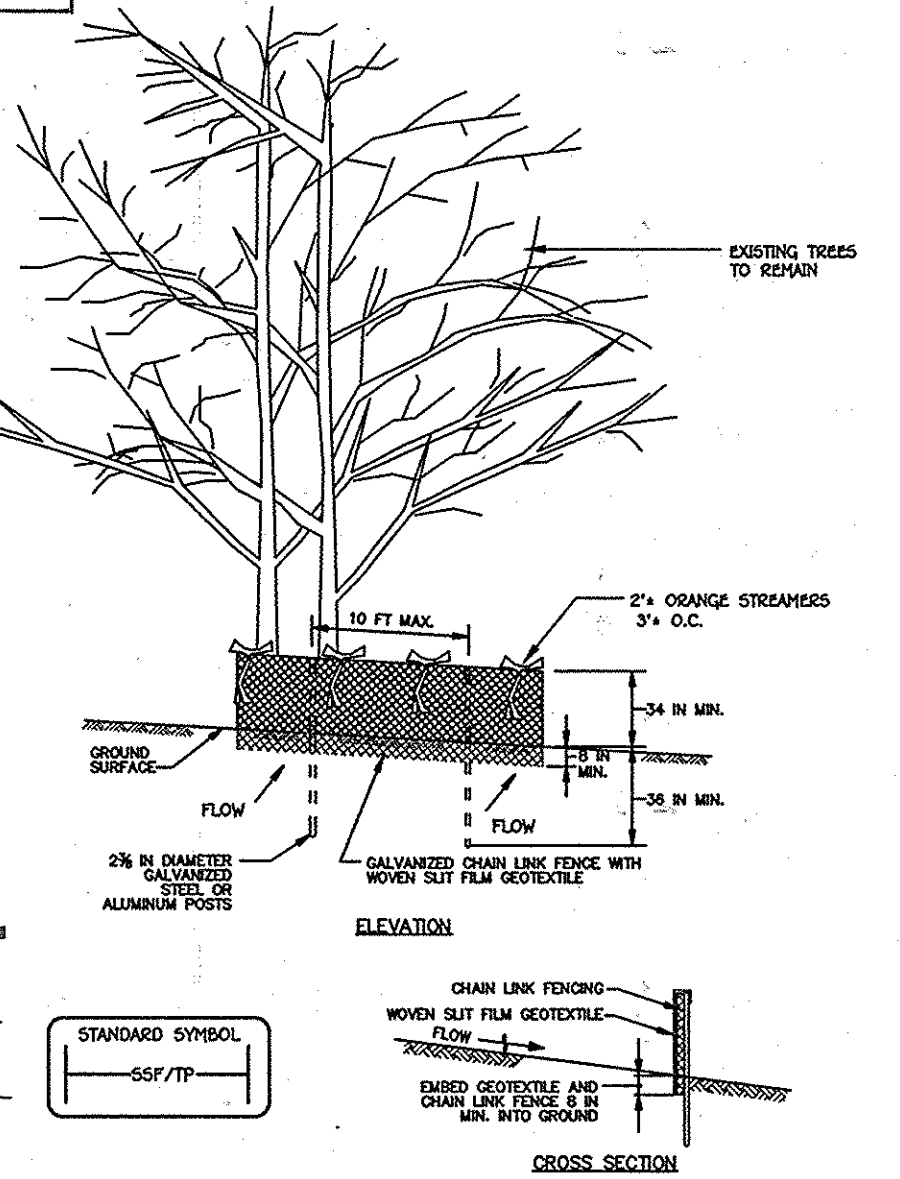
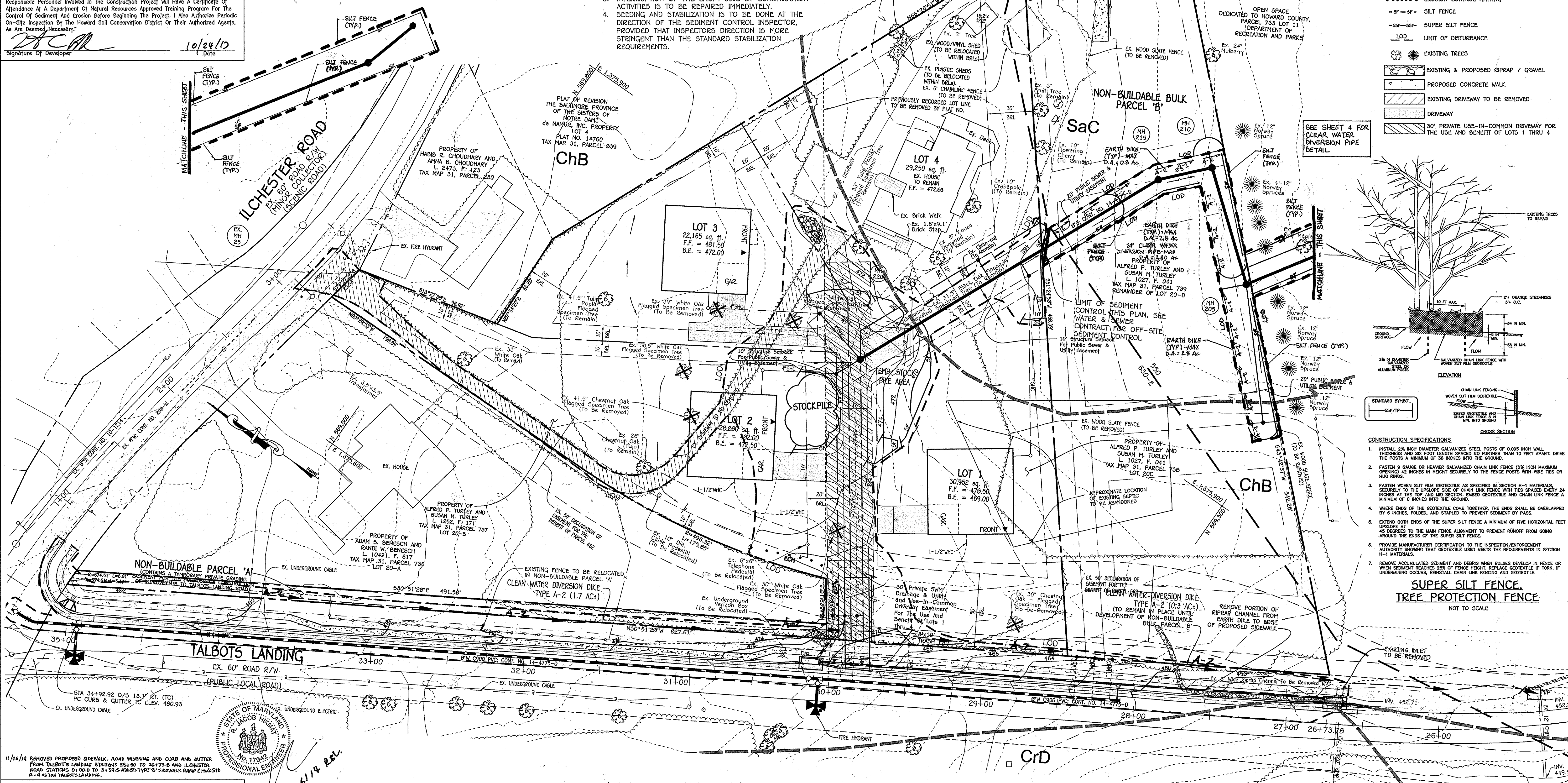
I/we certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a certificate of attendance at a department of natural resources approved training program for the control of sediment and erosion before beginning the project.

Signature of Developer: [Signature] 10/24/13 Date

SOILS LEGEND table with columns SOIL, NAME, CLASS. Includes ChB, ChC, SaC soil types.

NOTE: 1. GRADING SHOWN IS THAT NECESSARY TO CONSTRUCT WATER, SEWER, AND ROAD/COMMON DRIVEWAY IMPROVEMENTS... 2. TREE PROTECTIVE FENCING HAS NOT BEEN SHOWN SINCE SPECIMEN TREES BEING RETAINED ARE NOT NEAR LOD...

LEGEND table listing symbols for EXISTING 2' CONTOURS, EXISTING 10' CONTOURS, SOIL LINES AND TYPES, DENOTES PROPOSED HOUSE, etc.



- CONSTRUCTION SPECIFICATIONS: 1. INSTALL 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS... 2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE... 3. FASTEN WOVEN SILT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1...

SUPER SILT FENCE TREE PROTECTION FENCE

- PHASING OF CONSTRUCTION: PHASE 1 - CONSTRUCT TALBOTS LANDING ROAD IMPROVEMENTS PHASE 2 - REMOVE EARTH DIKE, CONSTRUCT COMMON DRIVEWAY PHASE 3 - REMOVE EXISTING DRIVEWAY TO ILCHESTER ROAD IMPROVEMENTS

NOTE: SUPER SILT FENCE IS TO BE INSTALLED ALONG TALBOTS LANDING ROAD AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

SEDIMENT & EROSION CONTROL PLAN TURLEY'S MEADOW LOTS 1 THRU 4, NON-BUILDABLE PARCEL 'A' AND NON-BUILDABLE BULK PARCEL 'B' ZONED R-20 TAX MAP NO.: 31 GRID NO.: 16

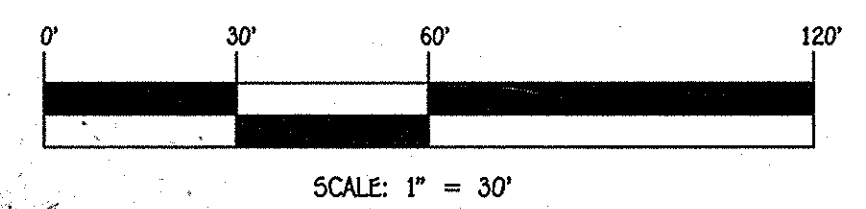
Professional Engineer seal for Stephen J. Jantz, State of Maryland, License No. 17942. Includes approval stamps from Department of Public Works, Planning and Zoning, and Department of Land Development.

Professional Certification for Stephen J. Jantz, dated 10/24/13. Includes contact information for Fisher, Collins & Carter, Inc.

OWNER: ALFRED P. TURLEY & SUSAN M. TURLEY, 2019 12TH TERRACE E, PARRISH, FLORIDA 34219

DEVELOPER: BUREKARD HOMES LLC, 5300 DORSEY HALL DRIVE, SUITE 102, ELLICOTT CITY, MARYLAND 21042

REVISION: 9/11/13 RELOCATE A PORTION OF SIDEWALK NEXT TO CURB & SHOW UP WIRE ALONG CURB, SET INLAY BACK & DUE TO CONFLICT WITH CONDUIT & MOPNY ASSOCIATED CABLES



Vertical text on the far right edge: 1:2016/06/053.dwg/06/053-3004 Turley's Meadow Lots 1 thru 4/F-13-084/06/053-3004 Sheet 7 of 9

SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS (B-4-2)

A. Soil Preparation

- Temporary stabilization
 - Seeded preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
 - Apply fertilizer and lime as prescribed on the plans.
 - Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.
- Permanent stabilization
 - A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
 - Soil pH between 6.0 and 7.0.
 - Soluble salts less than 500 parts per million (ppm).
 - Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if loesslike soil will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.
 - Soil contains 1.5 percent minimum organic matter by weight.
 - Soil contains sufficient pore space to permit adequate root penetration.
 - Application of amendments or topsoil is required if on-site soils do not meet the above conditions.
 - Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.
- Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.

- Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seeded preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seeded loosening may be unnecessary on newly disturbed areas.

B. Topsoiling

- Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.
- Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.
- Topsoiling is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.
 - Areas having slopes steeper than 2:1 require special consideration and design.
- Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:
 - Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2 inches in diameter.
 - Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.
 - Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
- Topsoil Application
 - Erosion and sediment control practices must be maintained when applying topsoil.
 - Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed by spreading or spreading can. A minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.
 - Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation.

- Soil Amendments (Fertilizer and Lime Specifications)
 - Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
 - Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.
 - Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when high purity lime is required) which contains at least 50 percent total oxide (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve.
 - Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means.
 - Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

TEMPORARY SEEDING NOTES (B-4-4)

- Definition**
To stabilize disturbed soils with vegetation for up to 6 months.
- Purpose**
To use fast growing vegetation that provides cover on disturbed soils.
- Conditions Where Practice Applies**
Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.
- Criteria**
- Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.
 - For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.
 - When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

Temporary Seeding Summary				Fertilizer Rate (10-20-20)	Lime Rate (2 tons/ac (90 lb/1000 sf))
Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depth		
BARLEY	96	3/1 - 5/15	1"	436 lb/ac (90 lb/1000 sf)	2 tons/ac (90 lb/1000 sf)
OATS	72	8/15 - 10/15	1"		
RYE	112		1"		

PERMANENT SEEDING NOTES (B-4-5)

- #### A. Seed Mixtures
- General Use
 - Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table E.2, enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.
 - Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planning.
 - For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency.
 - For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 1/2 pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.
 - Turfgrass Mixtures
 - Areas where turfgrasses may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.
 - Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.

- Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
 - Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
 - Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes: Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 10 pounds per 1000 square feet. One or more cultivars may be blended.
 - Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in bluegrass lawns. For establishment in high quality, intensively managed turf area. Shade Includes: Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1 1/2 to 3 pounds per 1000 square feet.
- Notes:**
Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland"
- Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.
- Ideal Times of Seeding for Turf Grass Mixtures Western MD: March 15 to June 1; August 1 to October 1 (Hardiness Zones: 5b, 6b) Central MD: March 1 to May 15; August 15 to October 15 (Hardiness Zone: 6b) Southern MD, Eastern Shore: March 1 to May 15; August 15 to October 15 (Hardiness Zones: 7a, 7b)
 - Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1 1/2 inches in diameter the resulting seedbed must be in such condition that future mowing of grasses will prove no difficulty.
 - If soil moisture is deficient, supply new seedlings with adequate water for plant growth (1/2 to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedlings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

Permanent Seeding Summary						Fertilizer Rate (10-20-20)	Lime Rate
Hardness Zone (from Figure B.3):	Seed Mixture (from Table B.3):	Application Rate (lb/ac)	Seeding Dates	Seeding Depth	No.		
6b	TALL FESCUE	100	Mar. 1-May 15 Aug. 15-Oct. 15	1 1/2-1 1/2"	45	90 lb/ac (2 lb/1000 sf)	2 tons/ac (90 lb/1000 sf)

B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREAS					
Definition A mound or pile of soil protected by appropriately designed erosion and sediment control measures.					
Purpose To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.					
Conditions Where Practice Applies Stockpile areas are utilized when it is necessary to salvage and store soil for later use.					
Criteria					
1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.					
2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.					
3. Runoff from the stockpile area must drain to a suitable sediment control practice.					
4. Access the stockpile area from the upslope side.					
5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.					
6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge.					
7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as standard B-4-1 Incremental Stabilization and standard B-4-4 Temporary Stabilization.					
8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable sheeting.					
Maintenance					
The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.					

- #### PROFESSIONAL CERTIFICATION
- I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED AND APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38386, EXPIRATION DATE: 01/12/2014.
- Stephanie Antie* 10/24/13
Signature of Professional Engineer DATE
- OWNER**
ALFRED P. TURLEY & SUSAN M. TURLEY
2018 127th TERRACE E.
PARISH, FLORIDA 32419
941-776-8615
- DEVELOPER**
BURKARD HOMES LLC
500 DODDLEY HALL DRIVE
SUITE 102
ELLIOTT CITY, MARYLAND 21042
443-367-0422

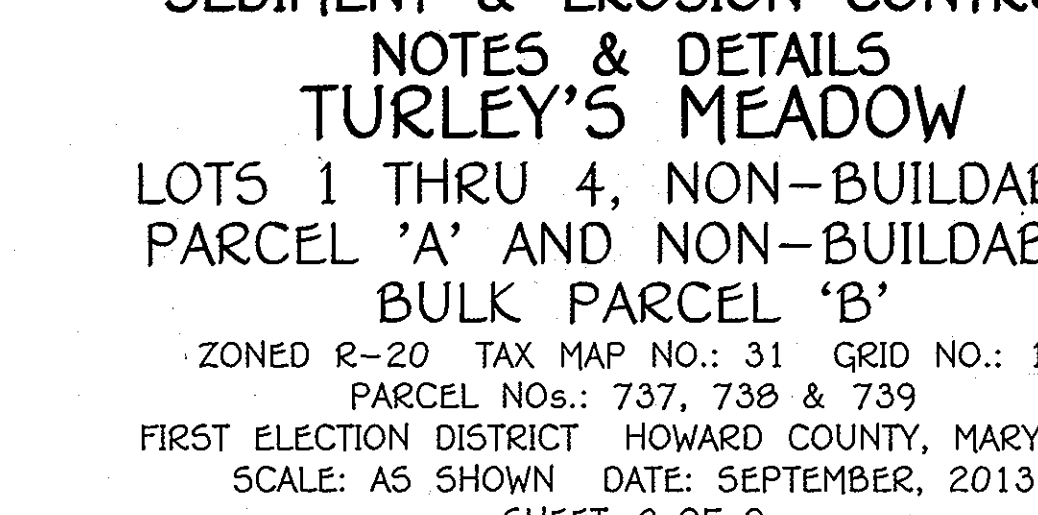
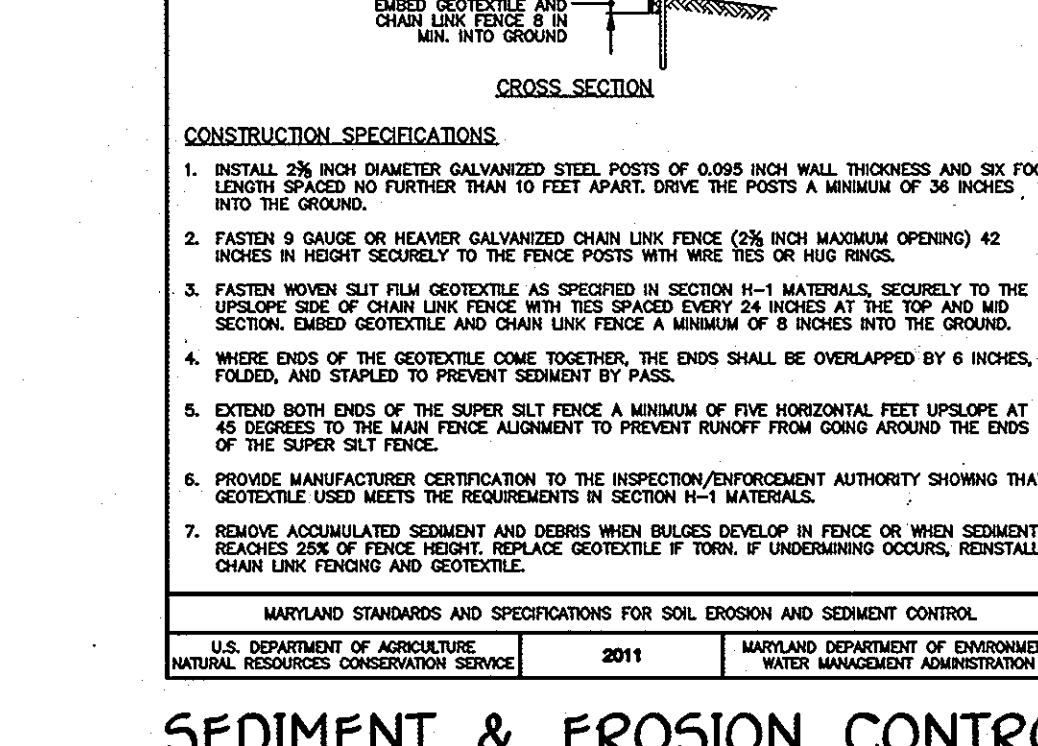
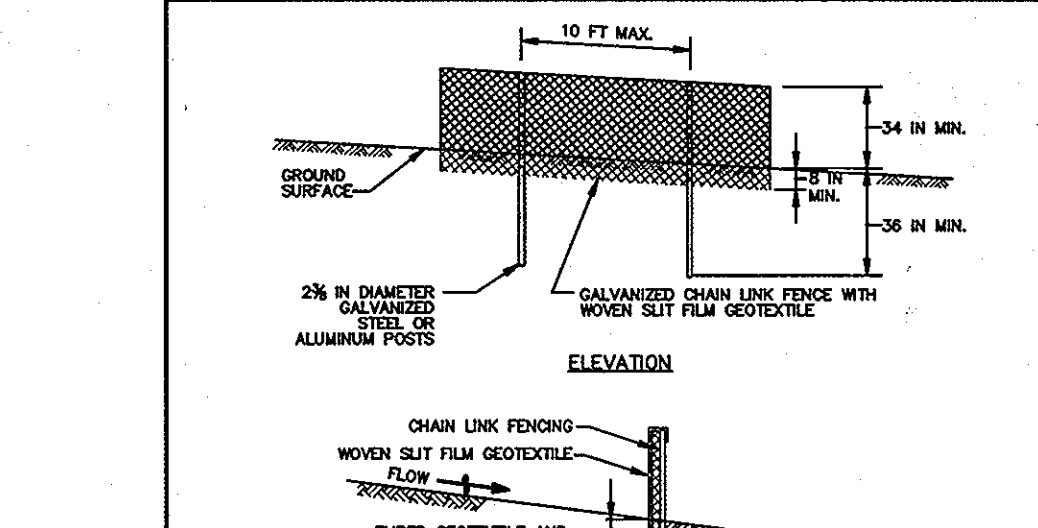
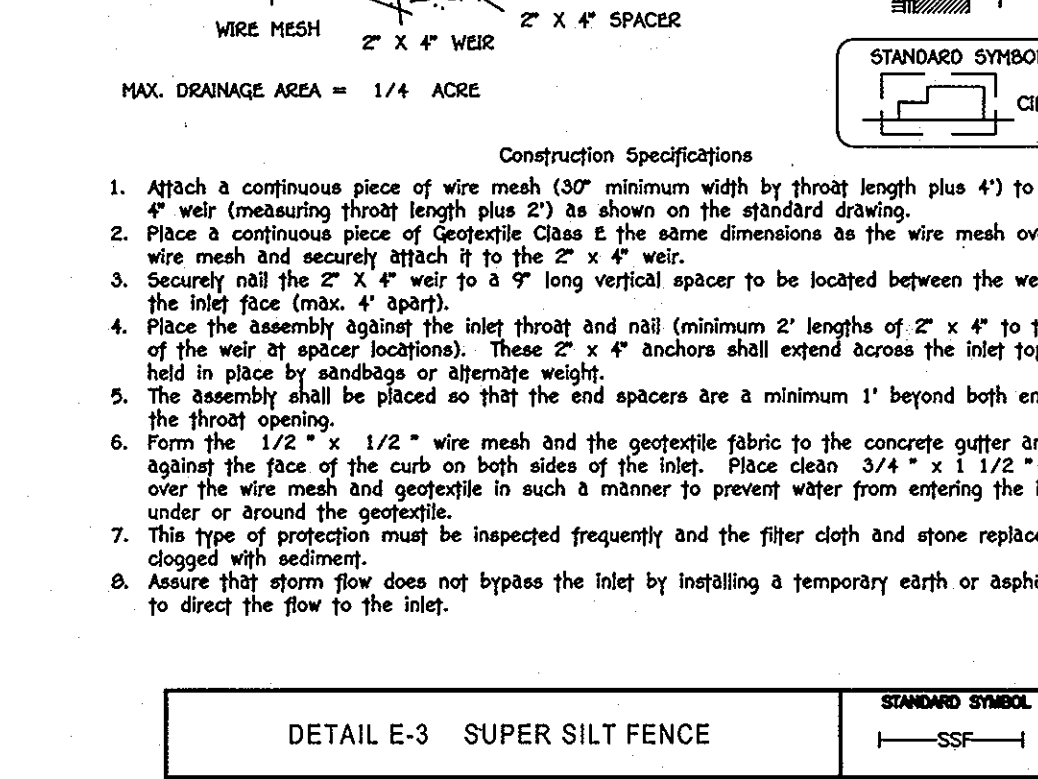
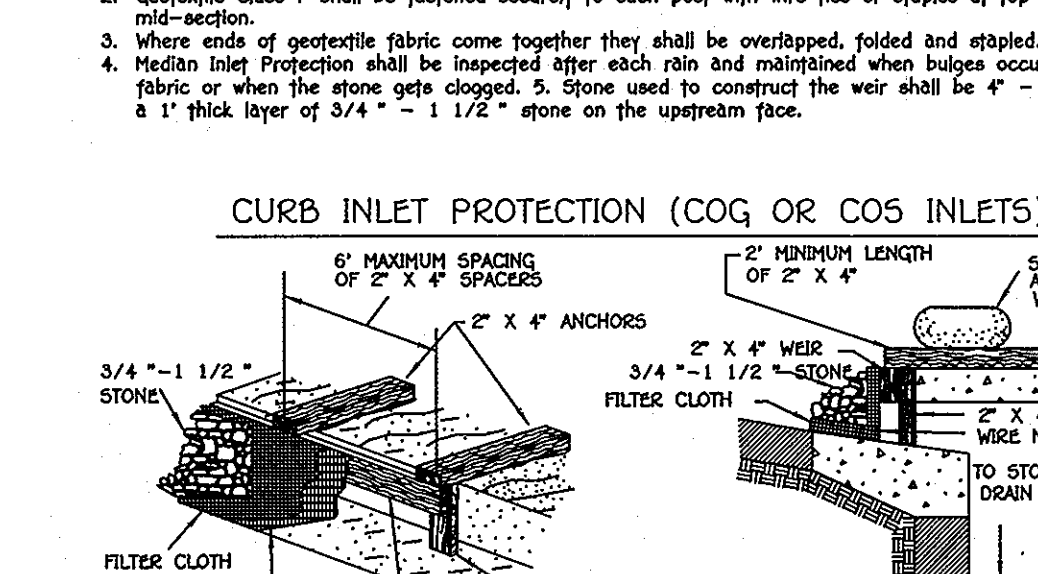
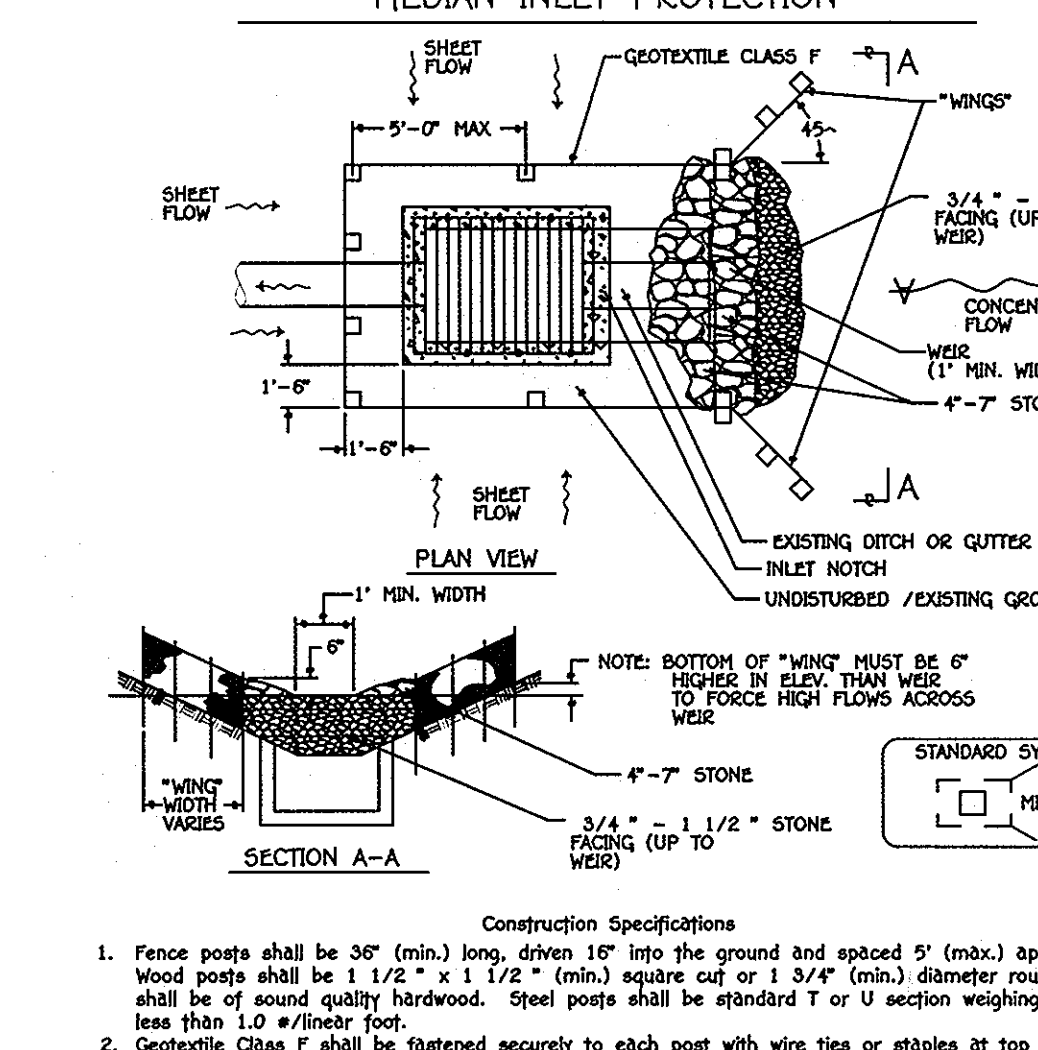
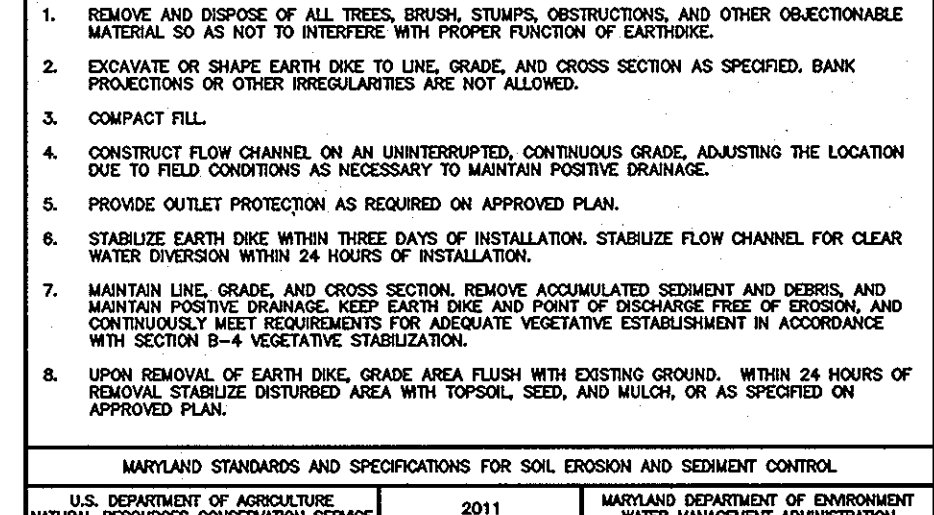
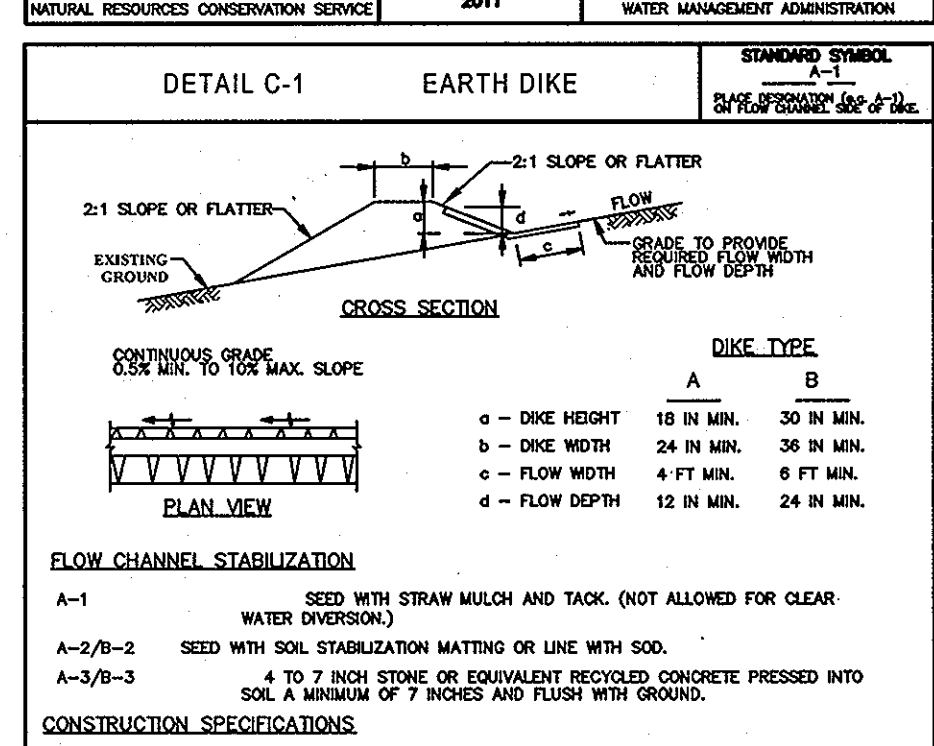
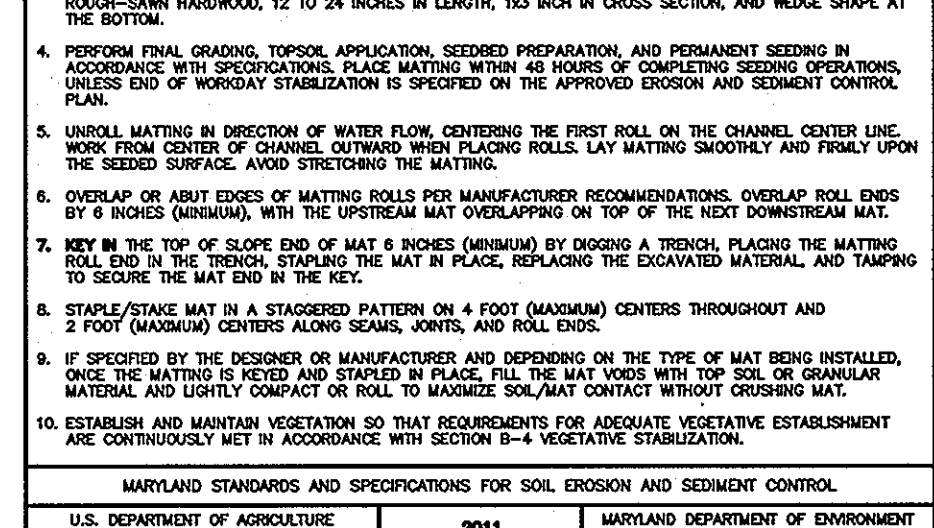
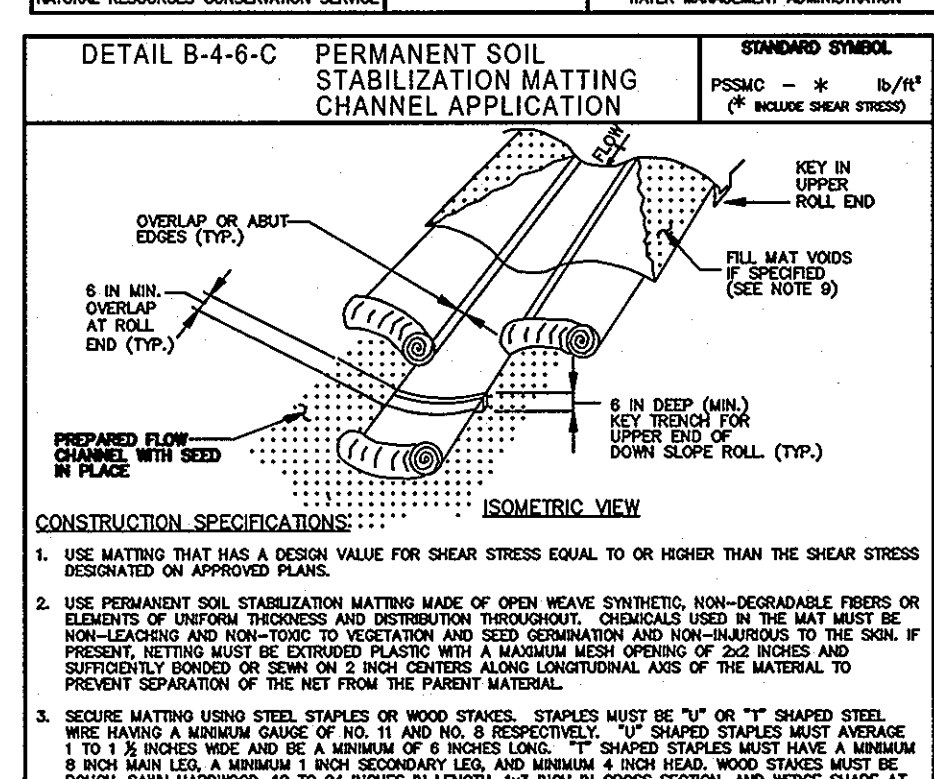
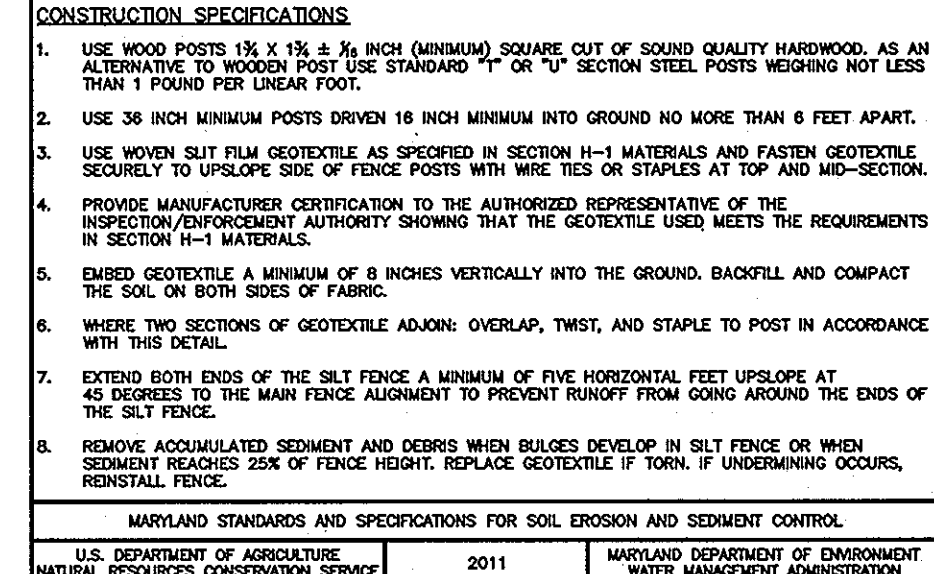
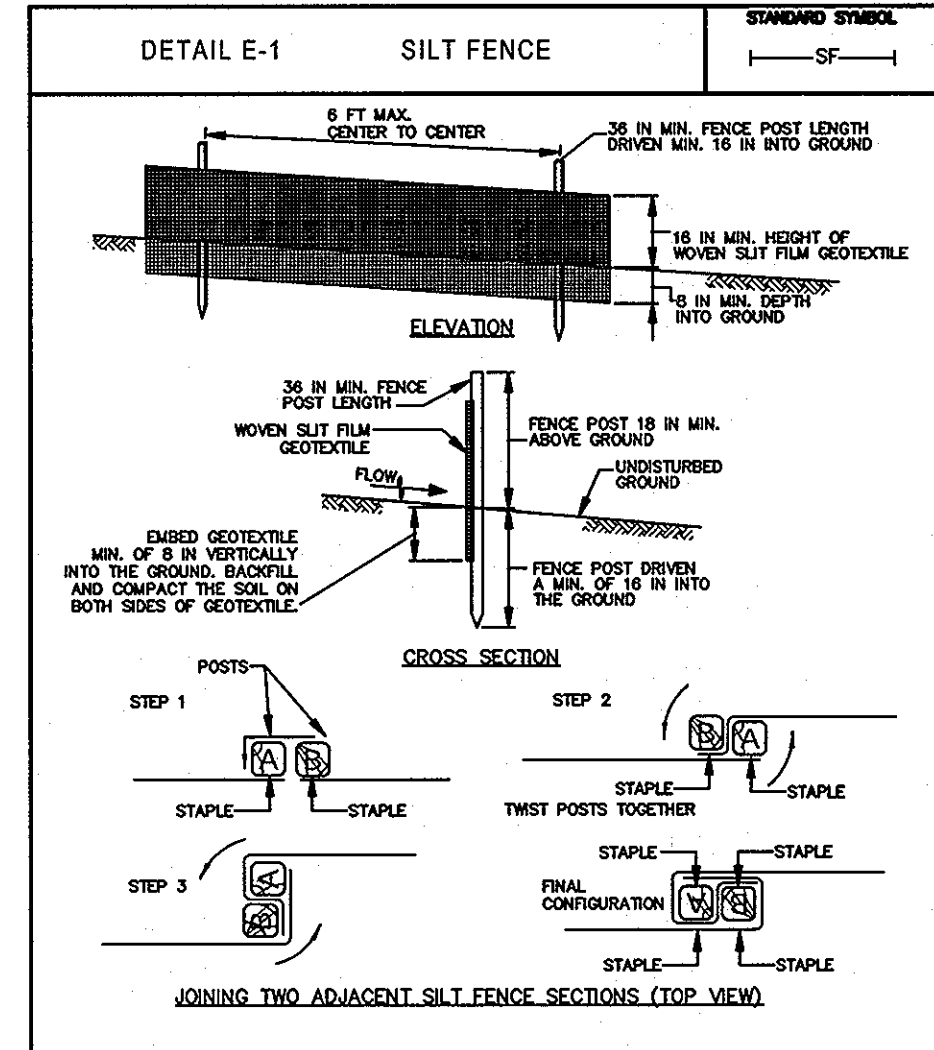
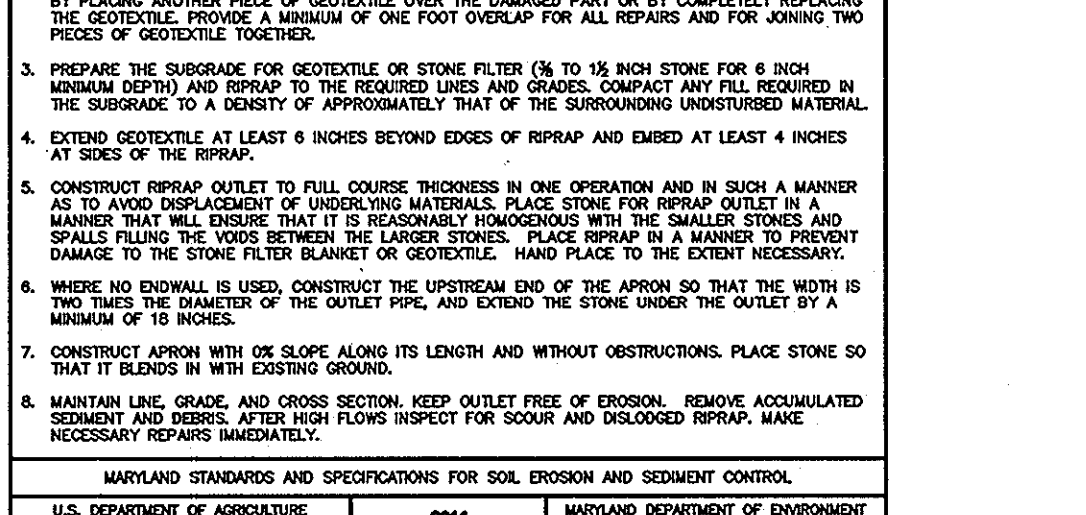
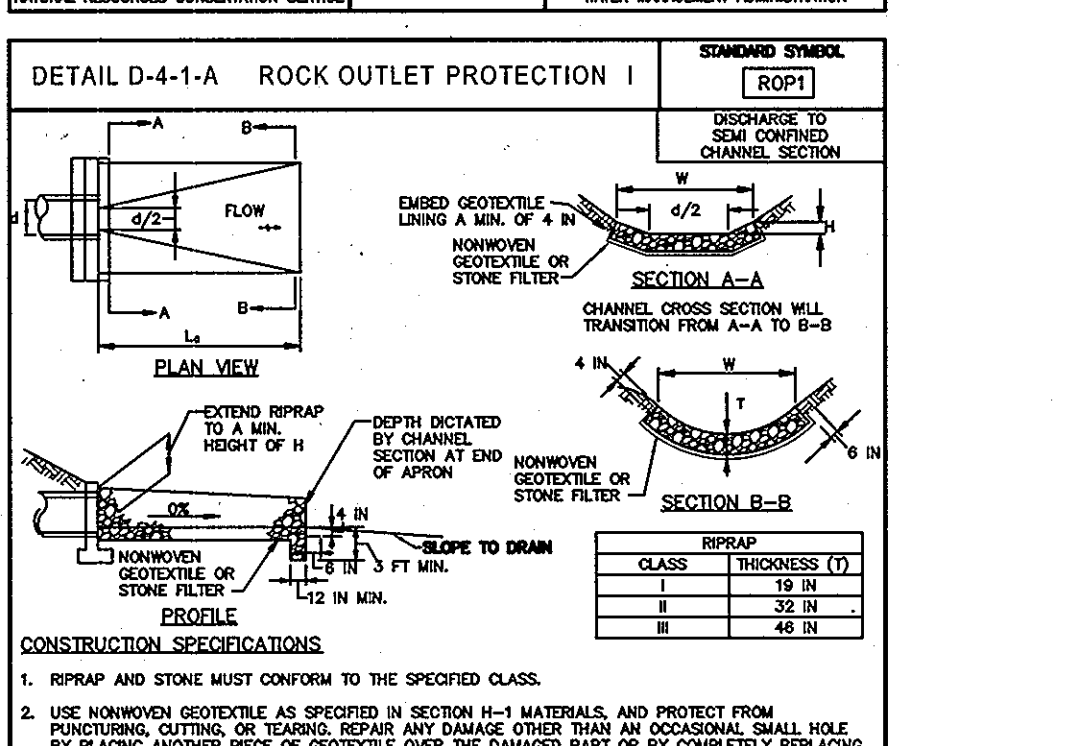
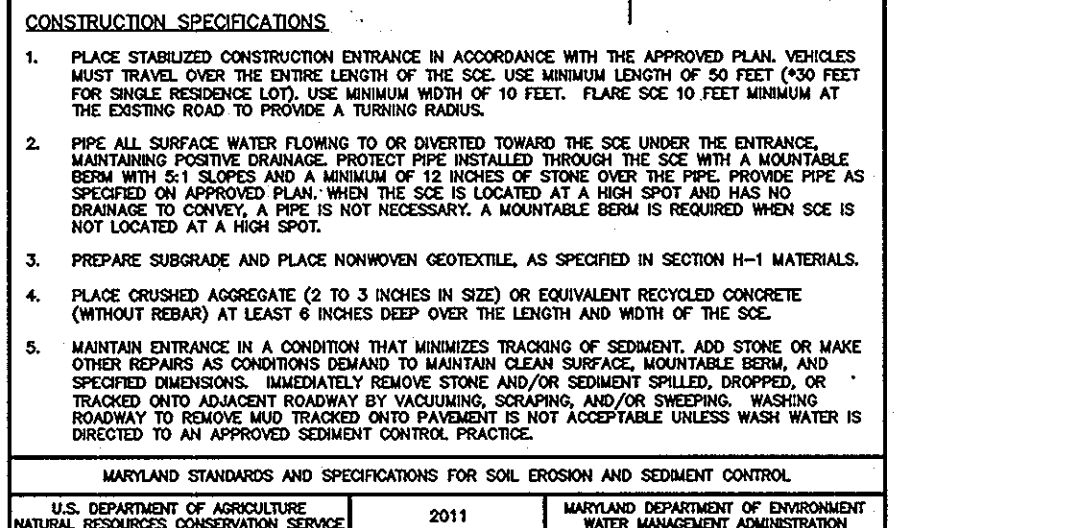
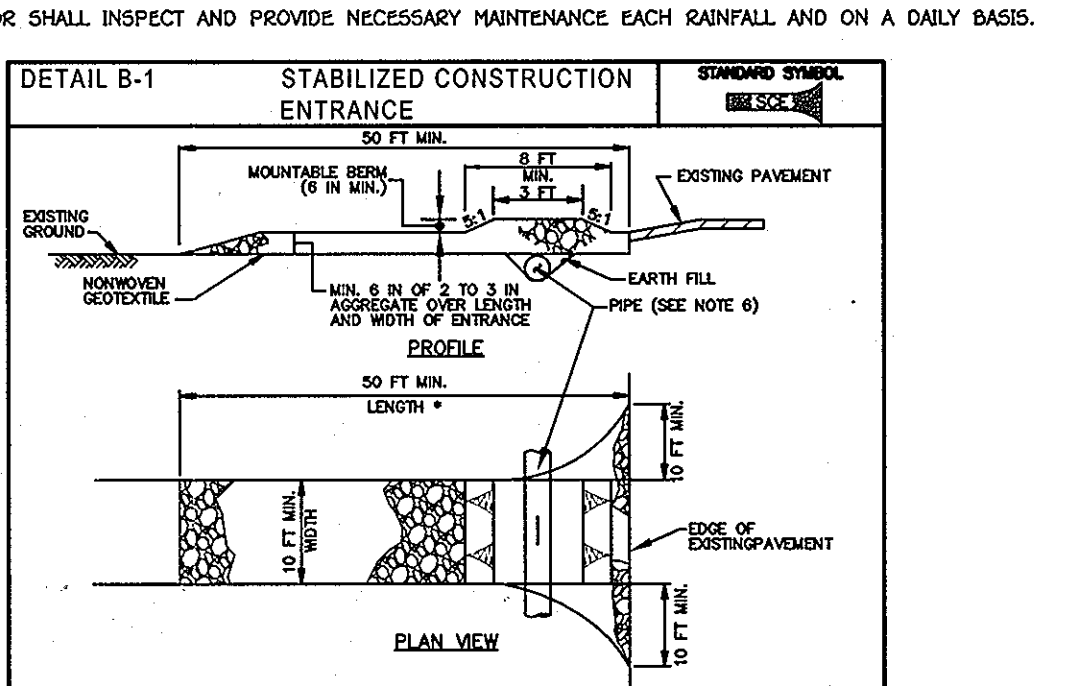
STANDARD SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (410-313-1895).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THEREOF.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 83 CALENDAR DAYS FOR ALL PERMITS SEDIMENT CONTROL STRUCTURES, DICES, PERMITS, SLOPES AND ALL SLOPES GREATER THAN 3:1. 7 DAYS AFTER ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. B-4-5). TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER SEED GERMINATION AND ESTABLISHMENT OF GRASS.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:

TOTAL AREA OF SITE AREA DISTURBED	4.21 ACRES
AREA TO BE ROOFED OR PAVED	0.51 ACRES
AREA TO BE VEGETATIVELY STABILIZED	1.01 ACRES
TOTAL CUT	2,500 CU.YDS.
TOTAL FILL	2,500 CU.YDS.
OFFSITE WASTE/BORROW AREA LOCATION	N/A
- ANY SEDIMENT CONTROL PRACTICE THAT IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERMIT EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING, OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
- ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.
- A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM AVERAGE OF 20 ACRES PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PROCEEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY, UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY. HOWEVER, THESE AREAS CHANGING MAY BE DISTURBED AT A GIVEN TIME.

SEQUENCE OF CONSTRUCTION

- OBTAIN A GRADING PERMIT. (2 WEEKS)
 - NOTIFY "HES" UTILITY AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION AT 410-313-1330 AT LEAST 24 HOURS BEFORE STARTING WORK.
 - INSTALL THE STABILIZED CONSTRUCTION ENTRANCE. INSTALL ALL TREE PROTECTION FENCE FOR TREES TO BE UNDISTURBED AS INDICATED ON THE PLANS. INSTALL SUPER-SILT FENCE. (2 DAYS)
 - INSTALL FINISHED SURFACE COURSE AND SIDEWALKS. (2 WEEKS)
 - NOTE: DURING THE INSTALLATION OF EARTH DICES, GRADING SHALL BE LIMITED TO OCCUR ONLY BETWEEN THE L.O.D. AND EARTH DIKE UNTIL ALL FINAL EARTH DIKE GRADES ARE REACHED. AT WHICH TIME, MASS GRADING MAY OCCUR UPON APPROVAL BY THE INSPECTION AGENCY IS MADE.
 - CLEAR AND GRUB TO EARTH DIKE. (1 DAY)
 - INSTALL STORM DRAIN SYSTEM, EXCEPT FOR 12" HOPE TO INLET 1-2. (3 DAYS)
 - CONSTRUCT CURB & GUTTER AND INSTALL ROAD BASE COURSE FOR WIDENING OF TALBOT'S LANDING ROAD. (1 WEEK)
 - INSTALL FINISHED SURFACE COURSE AND SIDEWALKS. (2 WEEKS)
 - INSTALL INLET PROTECTION, REMOVE EARTH DIKE, INSTALL REMAINING SEDIMENT CONTROLS. (1 WEEK)
 - CLEAR AND GRUB FOR THE REMAINDER OF THE L.O.D. AND INSTALL SEDIMENT CONTROL DRIVEWAY. (1 WEEK)
 - REMOVE DRIVEWAY ACCESS TO LICHESTER ROAD, CONSTRUCT CURB & GUTTER AND INSTALL ROAD BASE COURSE FOR WIDENING OF LICHESTER ROAD, CONSTRUCT 12" HOPE TO INLET 1-2, AND INSTALL STREET TREES ALONG BOTH SIDES. (1 WEEK)
 - ALL FINAL GRADES AND STABILIZATION SHOULD BE COMPLETED BEFORE ANY REMOVAL OF CONTROLS, WHEN ALL CONTRIBUTING AREAS TO THE SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, THE SEDIMENT CONTROL DEVICES MAY BE REMOVED AND THE REMAINING AREAS BROUGHT TO FINAL GRADE. STABILIZE ALL AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (3 DAYS)
 - NOTIFY HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS FOR FINAL INSPECTION OF THE COMPLETED PROJECT ALONG WITH SUBMISSION OF ANY REQUIRED "AS-BUILT" PLANS. (1 WEEK)
- NOTE: THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE EACH RAINFALL AND ON A DAILY BASIS.



SEDIMENT & EROSION CONTROL NOTES & DETAILS TURLEY'S MEADOW LOTS 1 THRU 4, NON-BUILDABLE PARCEL 'A' AND NON-BUILDABLE BULK PARCEL 'B' ZONED R-20 TAX MAP NO.: 31 GRID NO.: 16 PARCEL NOS.: 737, 738 & 739 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: SEPTEMBER, 2013 SHEET 8 OF 9 F-13-004

PLANTING SPECIFICATIONS AND NOTES

- PROTECTION FENCING IS TO BE INSTALLED AS A FIRST ORDER OF BUSINESS. SEE PLAN FOR LOCATIONS.
- DISTURBANCE OF SOILS SHOULD BE LIMITED TO THE PLANTING FIELD FOR EACH PLANT. AS SHOWN ON THE DETAIL VIEW, A PLANTING FIELD OF RADIUS = 5 X DIAMETER OF THE ROOT BALL OR CONTAINER IS RECOMMENDED.
- SOIL MIX FOR ALL PLANTS EXCEPT ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME OF COMPOSTED SLUDGE. SOIL MIX FOR ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME PEAT MOSS.
- ALL MIXING IN 3 AND 4 SHALL BE LIMITED TO CONTAINER GROWN OR BALL AND BURLAP STOCK ONLY AND CONFINED TO THE PLANTING FIELD AND IMMEDIATE ADJACENT SOIL SURFACE AREA AND SHALL BE DONE TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

PLANT STORAGE AND INSPECTION

- FOR CONTAINER GROWN NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN 2 WEEKS AFTER DELIVERY TO THE SITE.
- FOR BALL AND BURLAP NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN THREE DAYS AFTER DELIVERY TO THE SITE.
- PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERYMAN SPECIFICATIONS FOR SIZE, FORM, VIGOR, ROOTS, TRUNK WOUNDS, INSECTS AND DISEASE SHOULD BE REPLACED.
- UNTIL PLANTED, ALL PLANT STOCK SHALL BE KEPT IN A SHADED, COOL, AND MOISTENED ENVIRONMENT.

PLANT INSTALLATION

- THE PLANTING FIELD SHOULD BE PREPARED AS SPECIFIED (SEE DETAIL). NATIVE STOCKPILED SOILS SHOULD BE USED FOR SOIL MIX AND BACKFILL FOR PLANTING RELIEF. AFTER PLANT INSTALLATION, RAKE SOILS EVENLY OVER THE PLANTING FIELD AND COVER WITH AT LEAST 4 INCHES OF MULCH. WATER, GENEROUSLY, TO SETTLE SOIL BACKFILLED AROUND TREES.
- PLANTING FIELD DIAMETERS SHOULD BE REDUCED OR PLANTING FIELD MOVED IF IT APPEARS THAT EXCESSIVE EXISTING ROOT DAMAGE MAY OCCUR DURING DIGGING OPERATION NEAR EXISTING FOREST.

- CARE SHALL BE TAKEN WHEN DIGGING PLANTING FIELDS NOT TO CHOP THROUGH LARGER EXISTING ROOTS FROM EXISTING MATURE TREES. IF ROOTS GREATER THAN 1/2 INCH ARE ENCOUNTERED, PLEASE TRY TO DIG AROUND THEM AS MUCH AS POSSIBLE TO MINIMIZE IMPACT TO EXISTING TREES. THEY WERE HERE FIRST.
- CONTAINER GROWN STOCK SHOULD BE REMOVED FROM THE CONTAINER AND ROOTS GENTLY LOOSESED FROM THE SOIL IF THE ROOTS ENCOUNTER J-SHAPED OR KINKED ROOT SYSTEMS SHOULD ALSO BE NOTED. ROOTS MAY NOT BE TRIMMED ON EXISTING TREES.
- SOIL BORNE DISEASES:
- FOR BALL AND BURLAP STOCK, PLACE TREE IN PREPARED PLANTING FIELD AND REMOVE WIRE AND/OR STRING FROM ROOT BALL, THEN PEEL BACK BURLAP TO BASE OF ROOT BALL AND COVER ENTIRE ROOT BALL WITH TOPSOIL. MOTTLE INDICATED ABOVE AND WATER GENEROUSLY.
- FOR TREES PLANTED IN THE AFFORESTATION AREA, CONTRACTOR SHALL EVENLY DISPERSE SPECIES IN GROUPS OF TWO (2) TO FIVE (5), PER SPECIES, OVER THE ENTIRE DESIGNATED AREA TO BE PLANTED WHILE MAINTAINING AN AVERAGE RANDOM SPACING OF INDIVIDUAL TREES AT PROPER SPACING INDICATED ON PLANT LIST.
- AVOID PLANTING IN A STRAIGHT GRID PATTERN. TREES SHALL BE PLANTED ON AN AVERAGE SPACING AS INDICATED ON PLANT LISTS TO OBTAIN A MORE NATURAL APPEARANCE.
- NEWLY PLANTED TREES MAY NEED WATERING AS MUCH AS ONCE A WEEK FOR THE ENTIRE GROWING SEASON, DUE TO THE VERY DEEP, WELL DRAINED NATURE OF THE NATIVE SOILS FOUND ON THIS SITE COMBINED WITH THE LOOSENESS OF THE BACKFILLED AREA WITHIN THE PLANTING FIELD. THE NEXT TWO YEARS MAY REQUIRE WATERING ONLY A FEW TIMES A YEAR DURING SUMMER AND DRY MONTHS. AFTER THAT PERIOD, TREES SHOULD ONLY NEED WATER IN SEVERE DROUGHTS. ANY WATERING PLAN SHOULD COMPENSATE FOR RECENT RAINFALL PATTERNS.

FERTILIZING

- DO NOT FERTILIZE NEWLY PLANTED TREES WITHIN THE FIRST GROWING SEASON AFTER PLANTING. DOING SO MAY CAUSE A SPURT OF CANOPY GROWTH WHICH THE ROOTS CANNOT SUPPORT AND ADD ADDITIONAL SHOCK TO THE ALREADY DISTURBED PLANT.
- NOTHING SHOULD BE ADDED TO THE SOIL WITHOUT TESTING IT FIRST TO DETERMINE ITS NEEDS.
- IF AND WHEN IT IS TIME TO FERTILIZE, ORGANIC FERTILIZERS ARE PREFERRED TO SYNTHETIC FERTILIZERS. SOME NITROGEN OR SEAWEED BASED PRODUCTS ARE AVAILABLE COMMERCIALY AND ARE RECOMMENDED. THEY HAVE THE ABILITY TO SUPPLY NUTRIENTS TO THE PLANT AS NEEDED WHILE MINIMIZING THE RISK OF EXCESS NUTRIENTS ENTERING THE FOREST SYSTEM AND WATER SUPPLY.

MAINTENANCE SCHEDULE

- ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A THREE YEAR PERIOD.
- ASSESS TREE MORTALITY OF PLANTING STOCK, REMOVE AND REPLACE ANY DEAD OR DISEASED PLANTINGS.
- VOLUNTEER SEEDING OF NATIVE, LOCAL AND ENDEMIC VEGETATION IS TO BE EXPECTED. DO NOT DISCOURAGE THIS EFFORT UNLESS IT IS NEGATIVELY EFFECTING THE PLANTED STOCK.
- REMOVE THROUGH MANUAL MEANS (GRUBBING, PULLING, CUTTING) AGGRESSIVE, HOMOUS, INVASIVE SPECIES AND HERBACEOUS VEGETATION WITHIN A 3-FOOT RADIUS SURROUNDING THE PLANTED WOODY NURSERY STOCK.
- REMOVE AND DISPOSE OF MAN-MADE TRASH, INCLUDING ITEMS CONTAINED WITHIN ENTIRE PLANTING AREA. DO NOT REMOVE DOWN AND DEAD MATERIAL NATURALLY OCCURRING OR ACCUMULATING, UNLESS IT IS SMOTHERING SURVIVAL OF PLANTED STOCK MUST BE ACHIEVED AT THE END OF THE 24 MONTH MANAGEMENT PERIOD. IF NOT, ADDITIONAL PLANTINGS MAY BE REQUIRED TO ACHIEVE THIS GOAL.

SUPERVISION

- ALL FOREST CONSERVATION ACTIVITIES SHALL BE DONE UNDER THE DIRECT SUPERVISION OF SOMEONE FROM THE DESIGN TEAM OR OTHER "QUALIFIED PROFESSIONAL" AS DETERMINED BY THE REQUIREMENTS OF COMAR 08.18.01.01 AND THE MARYLAND DEPARTMENT OF NATURAL RESOURCES, PUBLIC LANDS AND FORESTRY DIVISION.

REFORESTATION PLANT LIST

ALTERNATIVE 1	QTY. SPECIES	SHADE TOL.	MOIST. REGIME	NET. STATUS	MIN.O.C.	SIZE & SPACING	REMARKS
60	Acer rubrum	VT	D-W	FAC	15'	CONT/B & B	1" CALIPER
60	Quercus velutina	I	M-W	FAC	15'	CONT/B & B	1" CALIPER
60	Quercus alba	MT	D-M	FAC	15'	CONT/B & B	1" CALIPER
60	Nyssa sylvatica	T	M-W	FAC	15'	CONT/B & B	1" CALIPER
32	Prunus serotina	I	M	FACU	15'	CONT/B & B	1" CALIPER
TOTAL		272 TREES					

ALTERNATIVE 2	QTY. SPECIES	SHADE TOL.	MOIST. REGIME	NET. STATUS	MIN.O.C.	SIZE & SPACING	REMARKS
100	Acer rubrum	VT	D-W	FAC	11'	SEEDLING/WHIP WITH TREE SHELTER	
100	Quercus velutina	I	M-W	FAC	11'	SEEDLING/WHIP WITH TREE SHELTER	
100	Quercus rubra	MT	D-M	FAC	11'	SEEDLING/WHIP WITH TREE SHELTER	
96	Nyssa sylvatica	T	M-W	FAC	11'	SEEDLING/WHIP WITH TREE SHELTER	
80	Prunus serotina	I	M	FACU	11'	SEEDLING/WHIP WITH TREE SHELTER	
TOTAL		476 WHIPS WITH TREE SHELTERS					

LEGEND

- EXISTING SEPTIC EASEMENT
- FOREST CONSERVATION EASEMENT (REFORESTATION) THAT SATISFY OTHER SUBDIVISION FOREST CONSERVATION OBLIGATION.
- EXISTING FOREST CONSERVATION EASEMENT (REFORESTATION) F-01-11 AVAILABLE.
- PROPOSED FOREST CONSERVATION EASEMENT FOR TURLEY MEADOW
- ▲ DENOTES FOREST CONSERVATION SIGNAGE

DEVELOPER
BURKARD HOMES, LLC.
C/O TIM BURKARD
5300 DORSEY HALL DRIVE
SUITE 102
ELLCOTT CITY, MARYLAND 21042

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division
DATE: 11-12-12

Chief, Division of Land Development
DATE: 11-13-13

NOTE :

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENTS EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, SOIL COMPACTION, OR EXCAVATION, INTRODUCTION OF TOXIC CHEMICALS OR OTHER DISTURBANCES DETRIMENTAL TO THE LIVE SPECIMEN TREES OR CRITICAL ROOT ZONES FOR THESE TREES EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

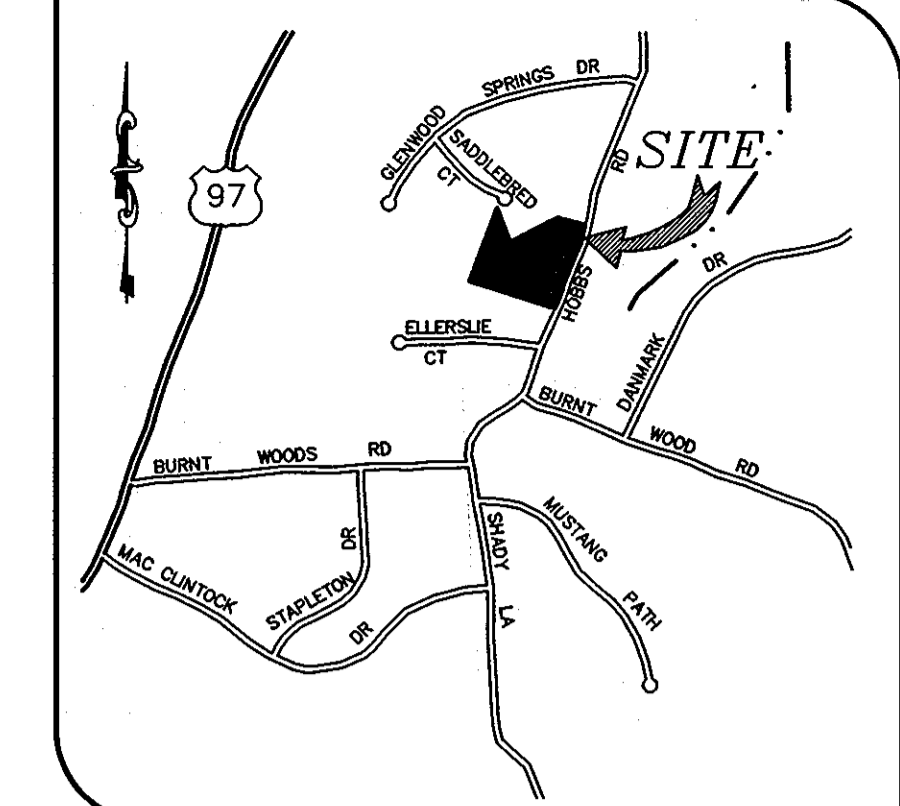
SOILS CLASSIFICATION

SYMBOL	DESCRIPTION
BaA	BAILE SILT LOAM, 0 TO 3 PERCENT SLOPES (D)
ObB	CHILLUM-RUSSETT LOAMS, 2 TO 5 PERCENT SLOPES (B)
GgA	GLENELO LOAM, 0 TO 3 PERCENT SLOPES (B)
GgB	GLENELO LOAM, 3 TO 8 PERCENT SLOPES (B)

OFF-SITE FOREST CONSERVATION EASEMENT AREAS

TOTAL EASEMENT AVAILABLE FOR PLANTING: 8.87 ACRES

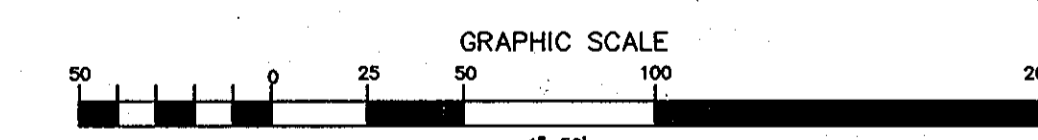
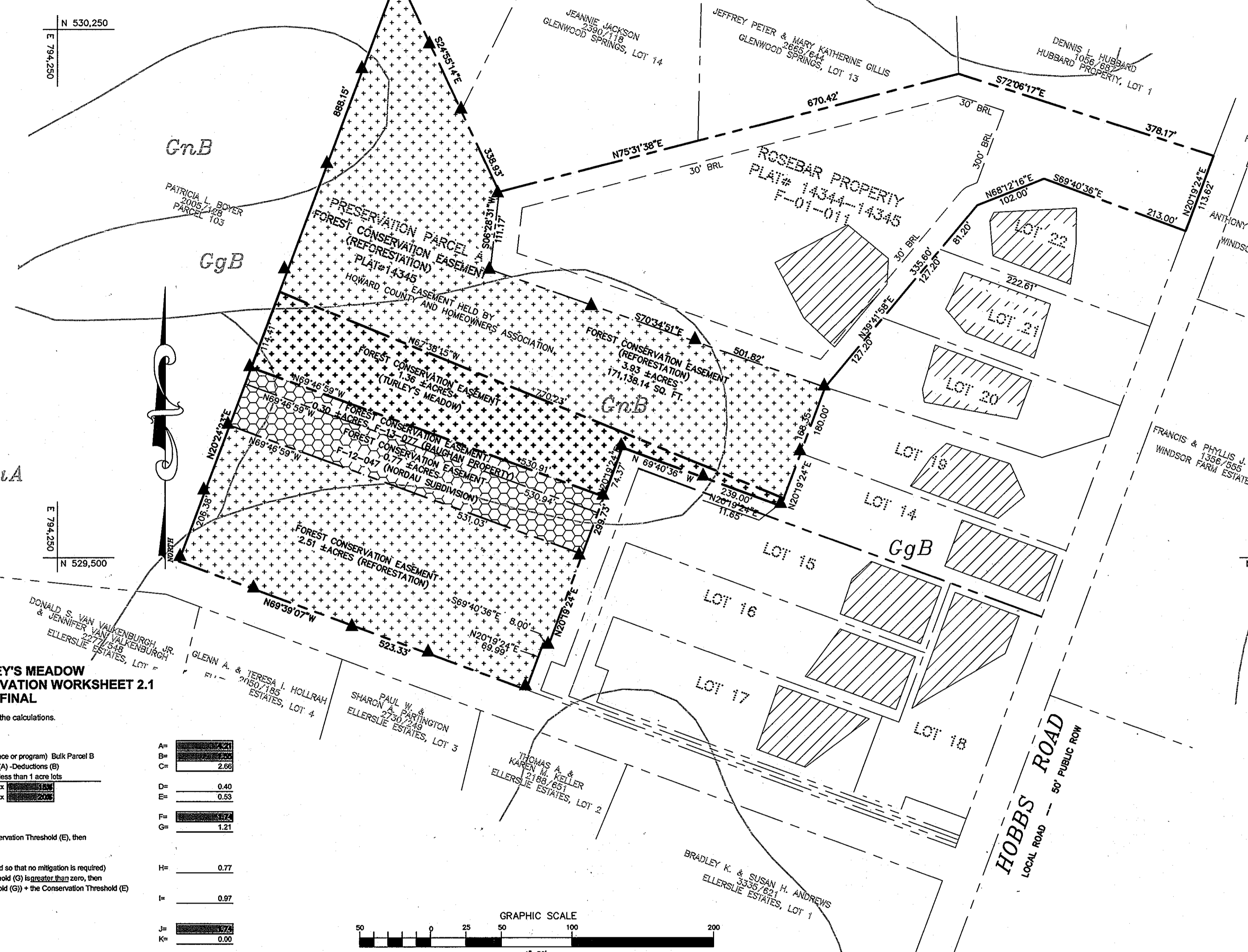
PROJECT	EASEMENT AREA PROVIDED	REMAINING EASEMENT AREA	FINAL PLAN #
NORDAU PROPERTY	0.77 ACRES	8.10 ACRES	F-12-047
BAUGHAN PROPERTY	0.30 ACRES	7.80 ACRES	F-13-077
TURLEY'S MEADOW	1.36 ACRES	6.44 ACRES	F-13-084



VICINITY MAP

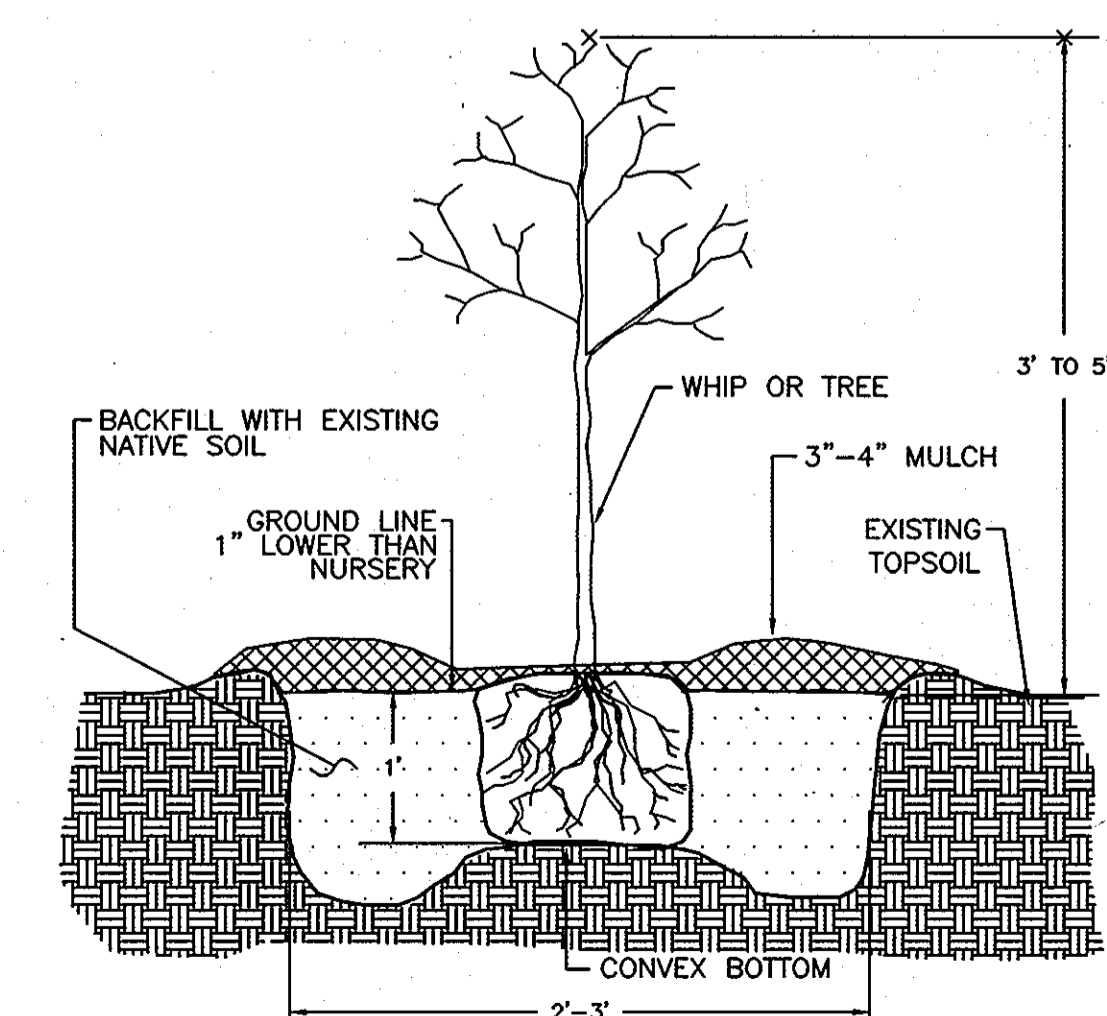
SCALE: 1" = 2000'
ADC MAP 17 B-4

PROJECT BACKGROUND:
TAX MAP: 14 - PARCEL 221, BLOCK: 23
ELECTION DISTRICT: FOURTH
ZONING: RR-DEO



FOREST CONSERVATION IN ACCORDANCE WITH SECTION 16.1202 OF THE FOREST CONSERVATION MANUAL SHALL BE PROVIDED BY PLACEMENT OF 1.36 ACRES OF REQUIRED REFORESTATION INTO AN OFF-SITE EASEMENT ON PROPERTY IDENTIFIED AS THE ROSEBAR PROPERTY, PRESERVATION PARCEL A, LOCATED ON TAX MAP NO. 14 AND IDENTIFIED AS PARCEL 221, SITUATED ON THE WEST SIDE OF HOBBES ROAD. THE ROSEBAR FOREST CONSERVATION EASEMENT HAS BEEN SHOWN ON SHEET 18 OF SDP-97-115/NEW COLONY VILLAGE, DPZ HAS DETERMINED THAT A RED-LINE REVISION SHALL BE MADE TO SDP-97-115 TO SHOW 1.36 ACRES OF REFORESTATION DEDUCTED FROM THE TOTAL FC EASEMENT LOCATED ON ROSEBAR. SURETY IN THE AMOUNT OF \$29,620.80 FOR 1.36 ACRES OF REQUIRED REFORESTATION SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR THE FINAL PLAN, F-13-084/TURLEY'S MEADOW BUILDABLE LOTS 1 THRU 4, NON-BUILDABLE PARCEL "A" AND NON-BUILDABLE BULK PARCEL "B".

MD DNR QUALIFIED PROFESSIONAL
Mashul Tringa
MASHUL TRINGA



TREE PLANTING DETAIL

CONTAINER GROWN

MILDENBERG & ASSOC., INC.
Engineers Planners Surveyors
6800 Deepwater Road, Suite 150, ElkrIDGE, Maryland 21075
(410) 997-0286 Fax

TURLEY'S MEADOW, BUILDABLE LOTS 1 THRU 4 - NON-BUILDABLE PARCEL "A" AND BULK PARCEL "B" - FOREST CONSERVATION EASEMENT GRANTED FROM ROSEBAR PROPERTY, PRESERVATION PARCEL "A" - FIRST ELECTION DISTRICT, TAX MAP: 31, PARCEL: 758, HOWARD COUNTY, MARYLAND OFFSITE FOREST CONSERVATION PLAN

Project: OCT 2013
date: 11-13-13
Illustration: MNT
scale: 1" = 50'
approval: RJH

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F-13-084