

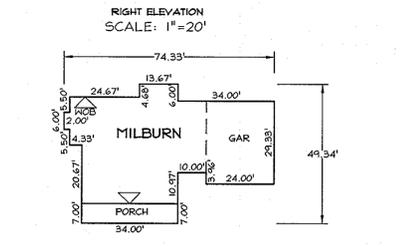
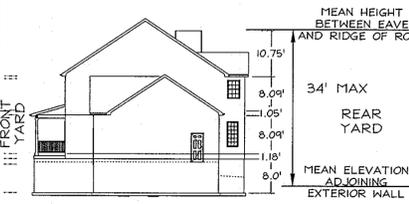
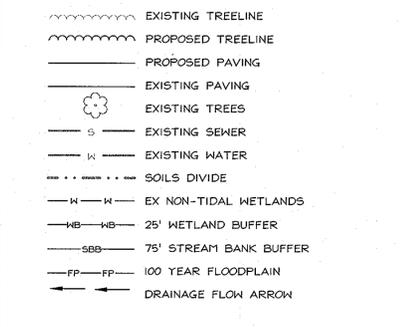
INDEX OF SHEETS	
1	SITE DEVELOPMENT PLAN
2	GRADING, SOIL EROSION & SEDIMENT CONTROL PLAN
3	GRADING, SOIL EROSION & SEDIMENT CONTROL - DETAILS
4	STORMWATER MANAGEMENT & LANDSCAPE NOTES & DETAILS

**BENCHMARKS:**  
 Control Station 31EA: Elev. 469.604  
 Brass or aluminum disc on concrete column on South side of Ilchester, Road near BGE substation.  
 Control Station 31FB: Elev. 453.398  
 Brass or aluminum disc on concrete column on South West side of Talbot's Landing between driveway entrance to #5149 and #5160.

**HATCH LEGEND**  
 EXISTING PRIVATE ACCESS EASEMENT  
 EXISTING REVERTIBLE GRADING EASEMENT

**LEGEND**  
 ---340--- EXISTING 10' CONTOUR  
 ---342--- EXISTING 2' CONTOUR  
 ---340--- PROPOSED 10' CONTOUR  
 ---342--- PROPOSED 2' CONTOUR  
 --- --- EXISTING TREELINE  
 --- --- PROPOSED TREELINE  
 --- --- PROPOSED PAVING  
 --- --- EXISTING PAVING  
 --- --- EXISTING TREES  
 --- --- EXISTING SEWER  
 --- --- EXISTING WATER  
 --- --- SOILS DIVIDE  
 --- --- EX NON-TIDAL WETLANDS  
 --- --- 25' WETLAND BUFFER  
 --- --- 75' STREAM BANK BUFFER  
 --- --- 100 YEAR FLOODPLAIN  
 --- --- DRAINAGE FLOW ARROW

**LEGEND**  
 ---340--- EXISTING 10' CONTOUR  
 ---342--- EXISTING 2' CONTOUR  
 ---340--- PROPOSED 10' CONTOUR  
 ---342--- PROPOSED 2' CONTOUR  
 --- --- EXISTING TREELINE  
 --- --- PROPOSED TREELINE  
 --- --- PROPOSED PAVING  
 --- --- EXISTING PAVING  
 --- --- EXISTING TREES  
 --- --- EXISTING SEWER  
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 --- --- SOILS DIVIDE  
 --- --- EX NON-TIDAL WETLANDS  
 --- --- 25' WETLAND BUFFER  
 --- --- 75' STREAM BANK BUFFER  
 --- --- 100 YEAR FLOODPLAIN  
 --- --- DRAINAGE FLOW ARROW



**TYPICAL HOUSE MODEL**  
 SCALE: 1"=30"

**Soil Legend**

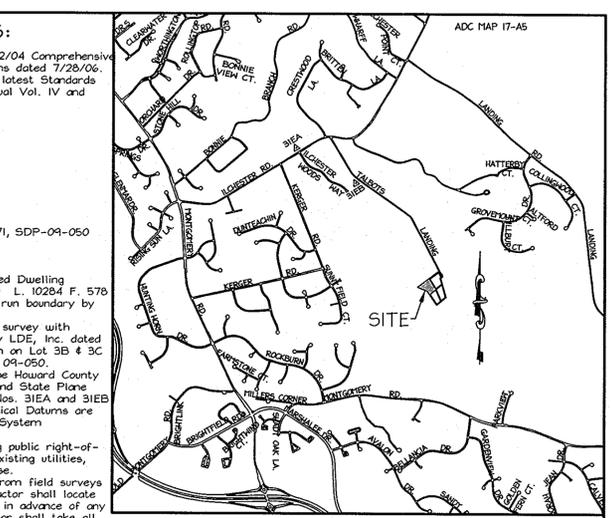
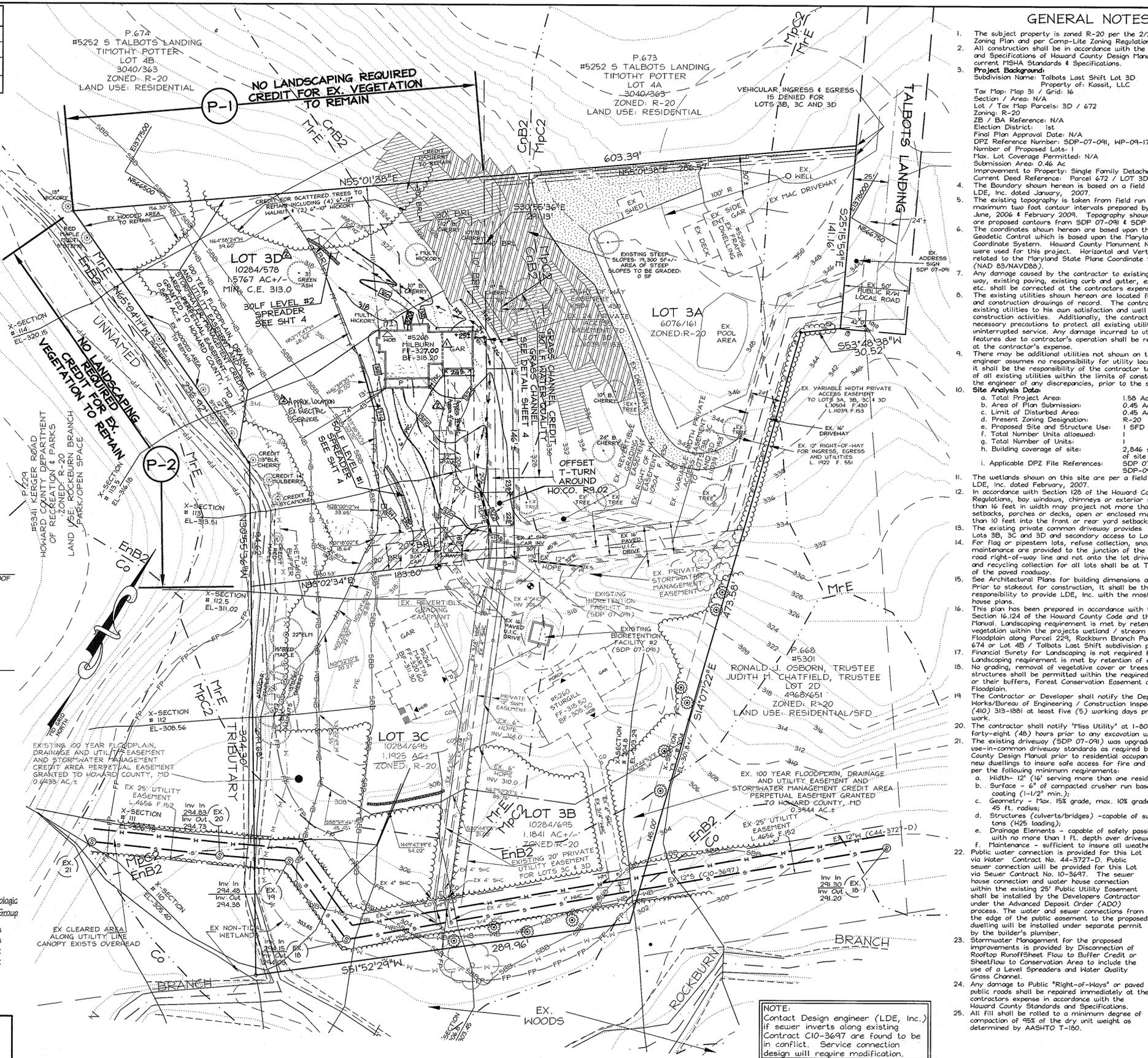
Symbol	Name	Hydrologic Soil Group
CrB2	Chillum-Fairfax loams, 1 to 5 percent slopes, moderately eroded	B
EnB2	Elleboro loam, 3 to 8 percent slopes, moderately eroded	C
MtE	Montalto and Relay soils, 15 to 45 percent slopes	B
MtC2	Montalto silt loam, 8 to 15 percent slopes, moderately eroded	C

**NOTE:**  
 REFER TO SOILS MAP NUMBER 25

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 [Signature] DATE 8/2/10  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

DEVELOPER'S / BUILDER'S CERTIFICATION  
 I certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Subdivision and Land Development Regulations and the Landscape Manual. I further certify that upon completion, a letter of notice, accompanied by an executed one year guarantee of plant materials, and a copy of this plan will be submitted to the Department of Planning and Zoning.  
 [Signature] DATE 8/12/10  
 SIGNATURE OF DEVELOPER / BUILDER

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. 19184, EXPIRES 12/31/11.  
 [Signature] DATE 8/13/10  
 SIGNATURE OF ENGINEER



**VICINITY MAP**  
 1" = 2000'

- GENERAL NOTES:**
- The subject property is zoned R-20 per the 2/2/04 Comprehensive Zoning Plan and per the Zoning Regulations dated 7/28/08.
  - All construction shall be in accordance with the latest Standards and Specifications of Howard County Design Manual Vol. IV and current MSHA Standards & Specifications.
  - Project Background: Subdivision Name: Talbot's Last Shift Lot 3D. Property of: KASIT, LLC. Tax Map: 31 / Grid: 16. Section / Area: N/A. Lot / Tax Map Parcels: 3D / 672. Zoning: R-20. ZB / BA Reference: N/A. Election District: 1st. Final Plan Approval Date: N/A. DPZ Reference Number: SDP-07-091, WP-04-171, SDP-04-050. Number of Proposed Lots: 1. Parcel Area: 0.46 Ac. Max. Lot Coverage Permitted: N/A. Submission Area: 0.46 Ac. Improvement to Property: Single Family Detached Dwelling. Current Deed Reference: Parcel 672 / LOT 3D, L. 10284 F. 578. The Boundary shown herein is based on a field run boundary by LDE, Inc. dated January, 2007.
  - The existing topography is taken from field run survey with maximum turn interval of 100 feet. Topography shown on Lot 3B & 3C are proposed contours from SDP 07-091 & SDP 04-050.
  - The coordinates shown herein are based upon the Howard County Geospatial Control which is based upon the Maryland State Plane Coordinate System, Howard County Monument Nos. 31EA and 31EB were used for this project. Horizontal and Vertical Datums are related to the Maryland State Plane Coordinate System (NAD 83) NAVD83.
  - Any damage caused by the contractor to existing public right-of-way, existing paving, existing curb and gutter, existing utilities, etc. shall be corrected at the contractor's expense.
  - The existing hedges are located from field surveys and construction drawings of record. The contractor shall locate existing utilities to his own satisfaction and well in advance of any construction activities. Additionally, the contractor shall take all necessary precautions to protect all existing utilities and maintain uninterrupted service. Any damage incurred to utilities or existing features due to contractor's operation shall be repaired immediately at the contractor's expense.
  - There may be additional utilities not shown on these plans. The engineer assumes no responsibility for utility locations not shown and it shall be the responsibility of the contractor to verify the locations of all existing utilities within the limits of construction and notify the engineer of any discrepancies, prior to the start of construction.
  - Site Analysis Data:**
    - a. Total Project Area: 1.58 Acres (68,683 s.f.)
    - b. Area of Plan Submission: 0.45 Acres +/-
    - c. Limit of Disturbed Area: 0.45 Acres +/-
    - d. Present Zoning Designation: R-20
    - e. Proposed Site and Structure Use: 1 SFD home
    - f. Total Number Units Allowed: 1
    - g. Total Number of Units: 1
    - h. Building coverage of site: 2,846 s.f. (0.065Ac), 4.1% of site area
  - Applicable DPZ File References: SDP 07-091, WP-04-171, SDP-04-050.
  - The wetlands shown on this site are per a field investigation by LDE, Inc. dated February, 2007.
  - In accordance with Section 123 of the Howard County Zoning Regulations, bay windows, chimneys or exterior stairways not more than 16 feet in width may project not more than 4 feet into any setbacks, porches or decks, open or enclosed may project not more than 10 feet into the front or rear setback.
  - The existing private common driveway provides vehicular access to Lots 3A, 3B and 3D and secondary access to Lot 3A.
  - For flag or pipeline lots, refuse collection, snow removal and road maintenance are provided to the junction of the flag or pipeline and road right-of-way line and not into the driveway. Refuse collection and recycling collection for all lots shall be at Talbot's Landing within 5' of the paved roadway.
  - See Architectural Plans for building dimensions and design details. Prior to stakeout for construction, it shall be the Architect's/Builder's responsibility to provide LDE, Inc. with the most recent set of house plans.
  - This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscaping Manual. Landscaping requirement is met by retention of existing vegetation within the project wetland / stream buffers and 100 Year Floodplain along Parcel 229, Rockburn Branch Park along the Parcel 674 or Lot 4B / Talbot's Last Shift subdivision perimeter.
  - Financial Surety for Landscaping is not required for this project. Landscaping requirement is met by retention of existing vegetation.
  - No grading, removal of vegetative cover or trees, flag or pipeline structures shall be permitted within the required wetlands, streams or their buffers, Forest Conservation Easement areas and 100 Year Floodplain.
  - Contractor or Developer shall notify the Department of Public Works/Bureau of Engineering / Construction Inspection Division at (410) 313-1881 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 forty-eight (48) hours prior to any excavation work being done.
  - The existing driveway (SDP 07-091) was upgraded to the use-in-common driveway standards as required by the Howard County Design Manual prior to residential occupancy permit for any new dwellings to insure safe access for fire and emergency vehicles per the following minimum requirements:
    - a. Width- 12' (16' serving more than one residence);
    - b. Surface - 6" of compacted crusher run base with tar and chip coating (1-1/2" min.);
    - c. Geometry - Max. 15% grade, max. 10% grade change minimum 45 ft. radius;
    - d. Structures (culverts/bridges) - capable of supporting 25 gross tons (H25 loading);
    - e. Drainage Elements - capable of safely passing 100 year flood with no more than 1 ft. depth over driveway surface;
    - f. Maintenance - sufficient to insure all weather use.
  - Public water connection is provided for this Lot via Water Contract No. 44-3727-D. Public sewer connection will be provided for this Lot via Sewer Contract No. 10-3697. The sewer house connection and water house connection within the existing 25' Public Utility Easement shall be installed by the Developer's Contractor under the Advanced Deposit Order (ADO) process. The water and sewer connections from the edge of the public easement to the proposed dwelling will be installed under separate permit by the builder's plumber.
  - Stormwater Management for the proposed improvements is provided by Disconnection of Rooftop Runoff/Sheet Flow to Buffer Credit or Sheetflow to Conservation Area to include the use of Level Spreaders and Water Quality Grass Channel.
  - Any damage to Public "Right-of-Ways" or paved public roads shall be repaired immediately at the contractor's expense in accordance with the Howard County Standards and Specifications.
  - All fill shall be rolled to a minimum degree of compaction of 98% of the dry unit weight as determined by AASHTO T-180.

**ADDRESS CHART**

Lot/Parcel#	Street Address
3D / 672	5268 TALBOTS LANDING

**PERMIT INFORMATION CHART**

Subdivision Name:	Section/Area:	Lot/Parcel No.
TALBOT'S LAST SHIFT	N/A	3D / 672
Plan# or LTF Grid No.	Zoning	Tax Map No.
10284 / 578	R-20	31
Water Code	Election District	Census Tract
D03	1st	60110
	Sewer Code	
	1254550	

**LDE Inc.**  
 Engineers, Surveyors, Planners  
 9250 Ramsey Road, Suite 106 Columbia, Maryland - 21045  
 (410)715-1070 - (410)596-3424 - FAX(410)715-8540

DESIGNED	SITE DEVELOPMENT PLAN		SCALE
EDS	PROPERTY OF KASIT, LLC		1" = 40'
DRAWN	TALBOT'S LAST SHIFT		DRAWING
LDE	LOT 3D FOR SINGLE FAMILY DWELLING		1 OF 4
CHECKED	TAX MAP 31	GRID 16	PARCEL 672
BDB	1st ELECTION DISTRICT	HOWARD COUNTY MD	JOB NO.
	Previous Submittals: SDP07-091, WP04-171, SDP04-050		06-020.1.2
DATE	OWNER/ DEVELOPER: KASIT, LLC	BUILDER: SASLOW HOMES	FILE NO.
4/2010	10211 Minors Circle, Suite 600 Columbia, MD 21044	7520 Main Street, Suite 204 Sykesville, MD 21784	SDP 10-075

**REVISIONS**

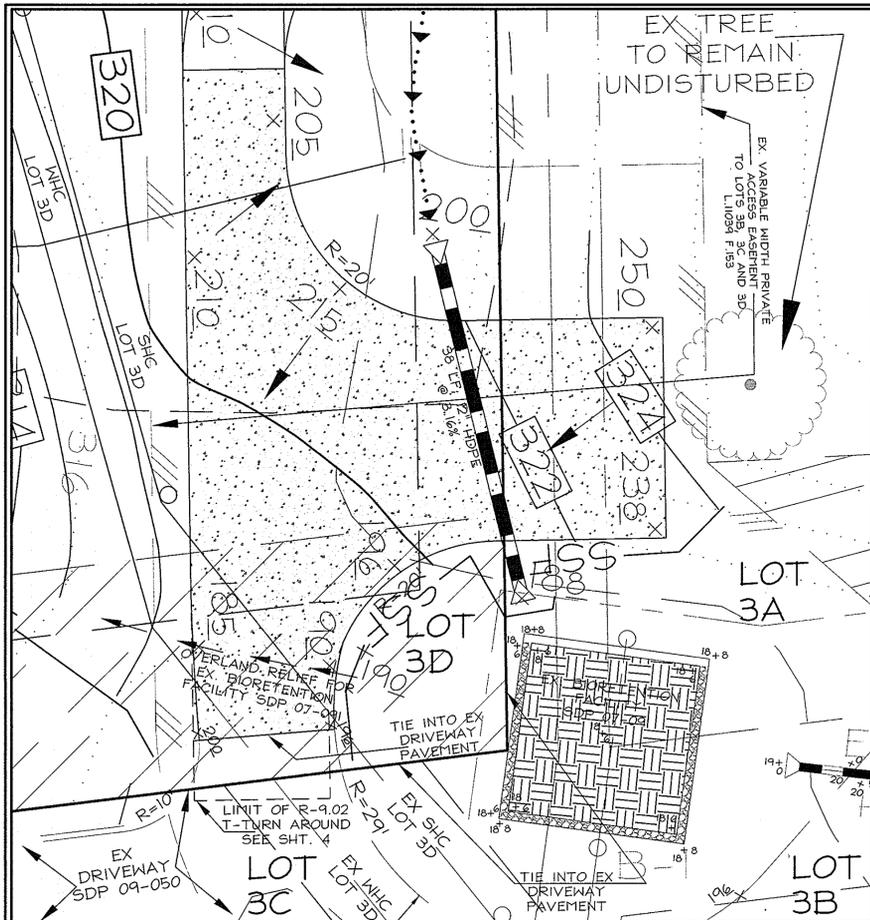
No.	Date	Description
1	11/18/2010	LDE, INC. REVISE FF GRADE, REMOVE 320' CONTOUR
2	4/13/2011	LDE, INC. REVISE LOT GRADING, ADD BUILT LOCATION/ON LOT PRIVATE UTILITIES

**NOTE:**  
 Contact Design engineer (LDE, Inc.) if sewer inverts along existing Contract C10-3697 are found to be in conflict. Service connection design will require modification.

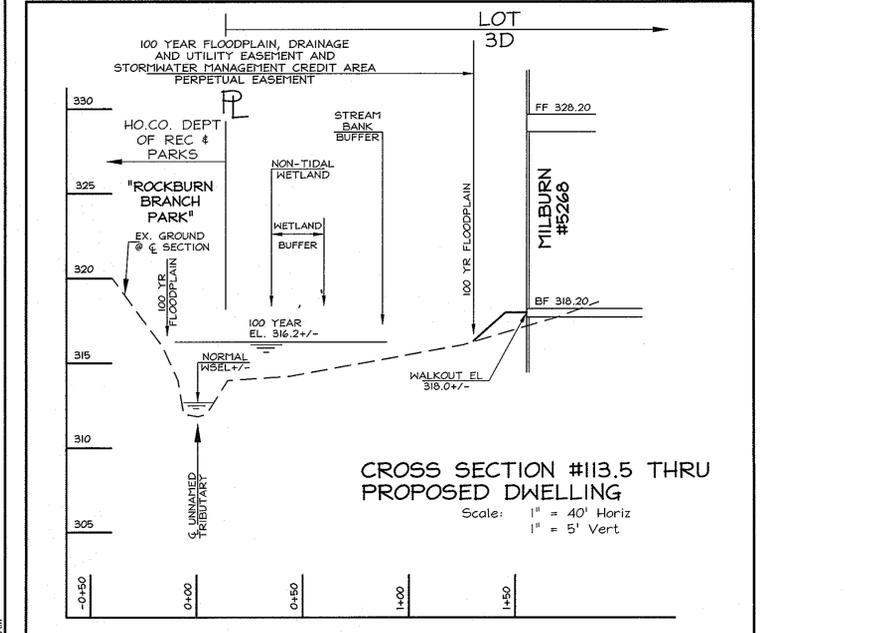
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19184, EXPIRES 12/31/11.  
 [Signature] DATE 8/13/10  
 SIGNATURE OF ENGINEER



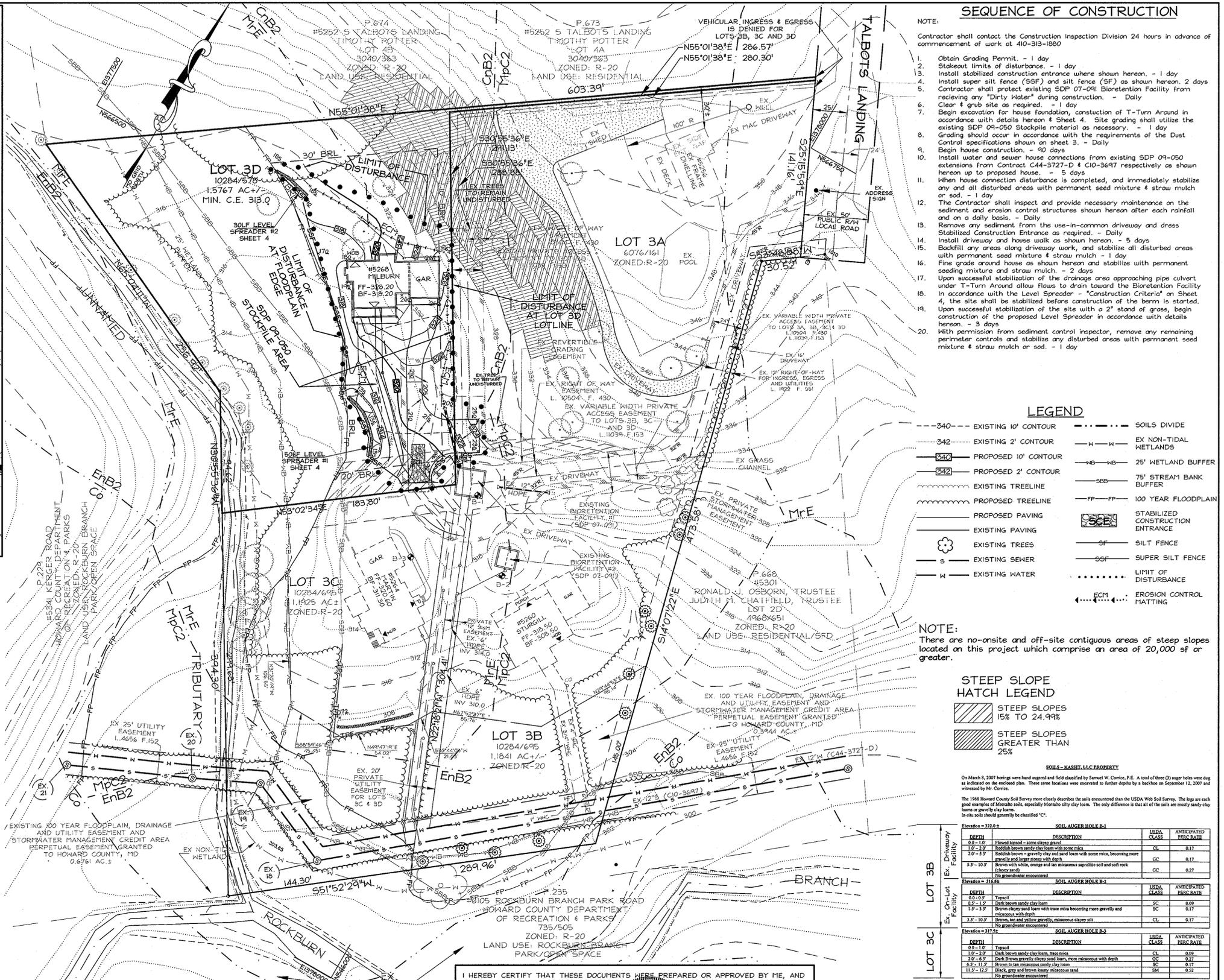
SDP-10-075



**USE-IN-COMMON DRIVEWAY EXTENSION/TURNAROUND DETAIL**  
Scale: 1" = 10'



**CROSS SECTION #113.5 THRU PROPOSED DWELLING**  
Scale: 1" = 40' Horiz  
1" = 5' Vert



**SEQUENCE OF CONSTRUCTION**

- NOTE: Contractor shall contact the Construction Inspection Division 24 hours in advance of commencement of work at 410-313-1880
1. Obtain Grading Permit. - 1 day
  2. Stakeout limits of disturbance. - 1 day
  3. Install stabilized construction entrance where shown hereon. - 1 day
  4. Install super silt fence (SSF) and silt fence (SF) as shown hereon. 2 days
  5. Contractor shall protect existing SDP 07-091 Bioretention Facility from receiving any "Dirty Water" during construction. - Daily
  6. Clear & grub site as required. - 1 day
  7. Begin excavation for house foundation, construction of T-Turn Around in accordance with details hereon & sheet 4. Site grading shall utilize the existing SDP 09-050 Stockpile material as necessary. - 1 day
  8. Grading shall occur in accordance with the requirements of the Dust Control specifications shown on sheet 3. - Daily
  9. Begin house construction. - 90 days
  10. Install water and sewer house connections from existing SDP 09-050 extensions from Contract C44-3727-D & CIO-3697 respectively as shown hereon up to proposed house. - 5 days
  11. When house connection disturbance is completed, and immediately stabilize any and all disturbed areas with permanent seed mixture & straw mulch or sod. - 1 day
  12. The Contractor shall inspect and provide necessary maintenance on the sediment and erosion control structures shown hereon after each rainfall and on a daily basis. - Daily
  13. Remove any sediment from the use-in-common driveway and dress Stabilized Construction Entrance as required. - Daily
  14. Install driveway and house walk as shown hereon. - 5 days
  15. Backfill any areas along driveway work, and stabilize all disturbed areas with permanent seed mixture & straw mulch - 1 day
  16. Fine grade around house as shown hereon and stabilize with permanent seeding mixture and straw mulch. - 2 days
  17. Upon successful stabilization of the drainage area approaching pipe culvert under T-Turn Around allow flows to drain toward the Bioretention Facility in accordance with the Level Spreader - "Construction Criteria" on Sheet 4, the site shall be stabilized before construction of the berm is started.
  18. Upon successful stabilization of the site with a 2" stand of grass, begin construction of the proposed Level Spreader in accordance with details hereon. - 3 days
  19. With permission from sediment control inspector, remove any remaining perimeter controls and stabilize any disturbed areas with permanent seed mixture & straw mulch or sod. - 1 day

**LEGEND**

--- 340 ---	EXISTING 10' CONTOUR	.....	SOILS DIVIDE
--- 342 ---	EXISTING 2' CONTOUR	- - - - -	EX NON-TIDAL WETLANDS
--- 340 ---	PROPOSED 10' CONTOUR	- - - - -	25' WETLAND BUFFER
--- 342 ---	PROPOSED 2' CONTOUR	- - - - -	75' STREAM BANK BUFFER
~~~~~	EXISTING TREELINE	- - - - -	100 YEAR FLOODPLAIN
~~~~~	PROPOSED TREELINE	- - - - -	STABILIZED CONSTRUCTION ENTRANCE
---	PROPOSED PAVING	---	SILT FENCE
---	EXISTING PAVING	---	SUPER SILT FENCE
⊗	EXISTING TREES	---	LIMIT OF DISTURBANCE
S	EXISTING SEWER	---	EROSION CONTROL HATTING
W	EXISTING WATER	---	

NOTE: There are no on-site and off-site contiguous areas of steep slopes located on this project which comprise an area of 20,000 sf or greater.

**STEEP SLOPE HATCH LEGEND**

[Hatched Box]	STEEP SLOPES 15% TO 24.9%
[Hatched Box]	STEEP SLOPES GREATER THAN 25%

**SOILS - KASSIT, LLC PROPERTY**  
On March 8, 2007 borings were hand augured and field classified by Samuel W. Conroy, P.E. A total of three (3) auger borings were dug and indicated on the enclosed plan. These same locations were excavated to further depths by a backhoe on September 12, 2007 and witnessed by Mr. Conroy.  
The 1988 Howard County Soil Survey more closely describes the soils encountered than the USDA Web Soil Survey. The logs are good examples of Kassit soils, especially Micaceous silty clay loams. The only difference is that all of the soils are mostly sandy clay loams or gravelly clay loams.  
In-situ soils should generally be classified "C".

Elevation	SOIL AUGER HOLE #	DESCRIPTION	USDA CLASS	ANTICIPATED PERC RATE
322.8	312.8	1.0-1.2' Topsoil 1.2-2.0' Fine sand - some micaceous silt 2.0-3.0' Reddish brown sandy clay loam with some mica 3.0-5.0' Reddish brown - gravelly clay and sand loam with some mica, becoming more gravelly and larger stones with depth 5.0-10.0' Brown with white, orange and tan micaceous saprolitic soil and soft rock (sandy sand) No groundwater encountered	CL	0.17
316.6	316.6	0.0-1.0' Topsoil 1.0-1.5' Dark brown sandy clay loam 1.5-3.0' Brown clay and loam with trace mica becoming more gravelly and micaceous with depth 3.0-18.0' Brown, tan and yellow (gravelly), micaceous silty clay silt No groundwater encountered	SC	0.09
317.6	317.6	0.0-1.2' Topsoil 1.2-2.0' Dark brown sandy clay loam, trace mica 2.0-3.0' Dark brown gravelly clay and sand loam, more micaceous with depth 3.0-11.0' Brown, tan and yellow (gravelly), micaceous silty clay loam 11.0-12.0' Black, gray and brown loamy micaceous sand No groundwater encountered	CL	0.17

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 [Signature]  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 8/2/10

DEVELOPER'S / BUILDER'S CERTIFICATION  
 I certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Subdivision and Land Development Regulations and the Landscape Manual. I further certify that upon completion, a letter of notice, accompanied by an executed one year guarantee of plant materials, and a copy of this plan will be submitted to the Department of Planning and Zoning.  
 [Signature]  
 SIGNATURE OF DEVELOPER / BUILDER  
 DATE: 8/12/10

ENGINEER'S CERTIFICATE  
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT.  
 [Signature]  
 SIGNATURE OF ENGINEER  
 BRUCE D. BURTON, P.E. 19184  
 DATE: 8/13/10

DEVELOPER'S CERTIFICATE  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 [Signature]  
 SIGNATURE OF DEVELOPER  
 HOWARD SASLOW  
 DATE: 8-12-10

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. 19184, EXPIRES 08/31/11.  
 [Signature]  
 SIGNED: BRUCE D. BURTON  
 DATE: 8/13/10

**REVISIONS**

No.	Date	Description

**LDE Inc.**  
 Engineers, Surveyors, Planners  
 9230 Ramsey Road, Suite 106 Columbia, Maryland - 21045  
 (410)715-1070 - (301)596-3424 - FAX (410)715-9540

DESIGNED	EDS	GRADING, SOIL EROSION & SEDIMENT CONTROL PLAN	SCALE	1" = 40'	
DRAWN	LDE	PROPERTY OF KASSIT, LLC	TALBOT'S LAST SHIFT	DRAWING	2 OF 4
CHECKED	BDB	TAX MAP 31 GRID 16 PARCEL 672	1st ELECTION DISTRICT	JOB NO.	06-020.1.2
DATE	4/2010	Previous Submittals: SDP07-091, WP04-171, SDP04-050	OWNER/DEVELOPER: KASSIT, LLC 10211 Wincopin Circle, Suite 600 Columbia, MD 21044	BUILDER: KASLOW HOMES 7520 Main Street, Suite 204 Sykesville, MD 21784	FILE NO. SDP 10-075

HOWARD SOIL CONSERVATION DISTRICT  
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 any construction. (313-1955).
- 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 thereto.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 7, of the HOWARD COUNTY DESIGN MANUAL.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (Section G) for permanent seeding, sod, temporary seeding, and mulching. Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- 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	1.58	Acres
Area Disturbed	0.45	Acres
Area to be roofed or paved	0.20	Acres
Area to be vegetatively stabilized	0.25	Acres
Total Cut	500	Cu. Yds. ±
Total Fill	500	Cu. Yds. ±

\* Contractor shall complete their own earthwork analysis - See Note 26 Sheet 1  
Offsite waste/borrow area location N/A

Excess material for Use-in-Common driveway T-Turn Around Construction may be available onsite as shown as part of the previously approved SDP 09-050 plan work.

- Any sediment control practice which 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 perimeter 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 can be back filled and stabilized within one working day, whichever is shorter.

HOWARD SOIL CONSERVATION DISTRICT  
PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, disking, or other acceptable means before seeding, if not previously loosened.

- SOIL AMENDMENTS: In lieu of soil test recommendations, use one of the following schedules:
- PREFERRED Apply 2 tons per acre dolomitic limestone (92 lbs/1000sq.ft.) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000sq.ft.).
  - ACCEPTABLE Apply 2 tons per acre dolomitic limestone (92 lbs/1000sq.ft.) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.

SEEDING For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs per acre (1.4 lbs/1000sq. ft.) of Kentucky 31 Tall Fescue and 2 lbs. per acre (.05lbs/1000sq. ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) - 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) - Use sod. Option (3) - Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch 2 tons / acre well anchored straw.

MULCHING Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000sq. ft.) for anchoring.

HOWARD SOIL CONSERVATION DISTRICT  
TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, disking, or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000sq. ft.).

SEEDING For periods March 1 thru April 30, and from August 15 thru October 15 seed with 2-12 bushels per acre of annual rye (3.2 lbs/1000sq. ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (.07 lbs/1000sq. ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

MULCHING Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000sq. ft.) of unrotted weed free small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000sq. ft.) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for additional rates and methods not covered.

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

**Definition**  
Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

**Purpose**  
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.

**Conditions Where Practice Applies**

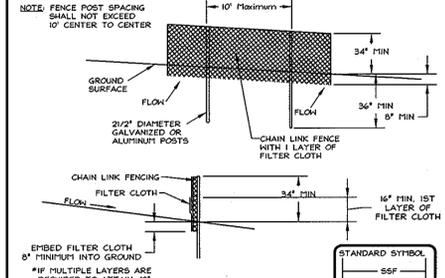
- This practice is limited to areas having 2:1 or flatter slopes where:
  - The texture of the exposed subsoil material is not adequate to produce vegetative growth.
  - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish containing supplies of moisture 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.
- For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

**Construction and Material Specifications**

- Topsoil salvaged from the existing site may be used provided that it meets the standards 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-SCS in cooperation with Maryland Agricultural Experimental Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
  - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, rocks, trash, or other materials larger than 1/2" in diameter.
  - Topsoil must be free of plants or plant parts such as Bermuda grass, spurge, Johnsongrass, nutcase, poison ivy, thistle, or others as specified.
  - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- For sites having disturbed areas under 5 acres:
  - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
- For sites having disturbed areas over 5 acres:
  - On soil meeting Topsoil specifications, obtain test results indicating fertilizer and lime amendments required to bring the soil into compliance with the following:
    - pH for topsoil shall be between 6.0 and 7.5. If the tested soil is below 6.0, apply 10-10-10 fertilizer (14 lbs/1000 sq. ft.) line shall be prescribed to raise the pH to 6.5 or higher.
    - Organic content of topsoil shall be not less than 1.5 percent by weight.
    - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
    - No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.
  - 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.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE H-25-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 33 - SUPER SILT FENCE



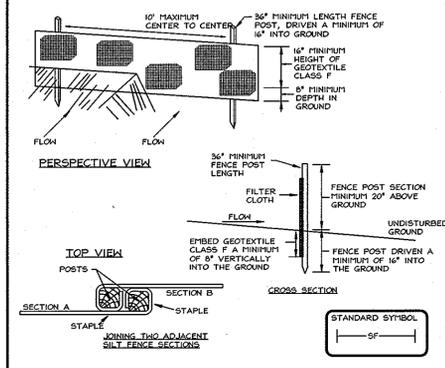
**Construction Specifications**

- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 4" fence shall be used, substituting 42" fabric and 4" length posts.
- Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
- Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 8" into the ground.
- When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and silt buildups removed when bulges develop in the silt fence, or when 1/2 of fence height silt reaches 50 percent of the top and mid section.
- Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:
 

Tensile Strength	50 lbs/in. (min.)	Test: MSHT 509
Tensile Modulus	20 lbs/in. (min.)	Test: MSHT 509
Flow Rate	0.3 gal./ft./minute (max.)	Test: MSHT 322
Filtering Efficiency	75 % (min.)	Test: MSHT 322

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE H-25-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 22 - SILT FENCE



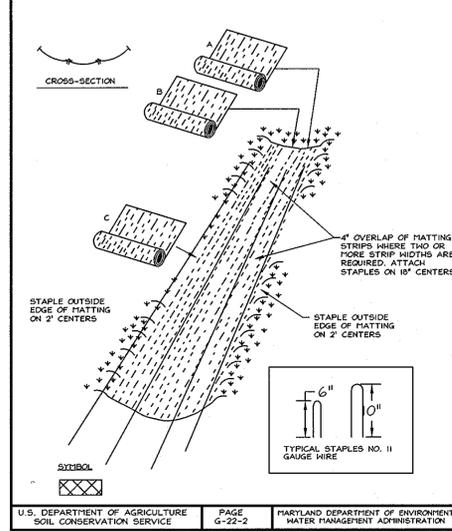
**Construction Specifications**

- Fence posts shall be a minimum of 3/4" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard U or U section weighing not less than 1.00 pound per linear foot.
- Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:
 

Tensile Strength	50 lbs/in. (min.)	Test: MSHT 509
Tensile Modulus	20 lbs/in. (min.)	Test: MSHT 509
Flow Rate	0.3 gal./ft./minute (max.)	Test: MSHT 322
Filtering Efficiency	75 % (min.)	Test: MSHT 322
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE H-25-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 30 - EROSION CONTROL MATTING



**Construction Specifications**

- Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
- Staple the 4" overlap in the channel center using an 18" spacing between staples.
- Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
- Staples shall be placed 2" apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
- Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shingle fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.

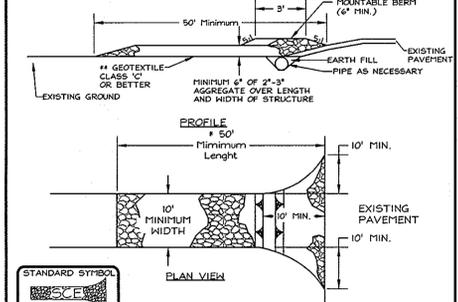
Note: If flow will enter from the edge of the matting then the area affected by the flow must be keyed-in.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE G-22-2A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

EROSION CONTROL MATTING

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE G-22-2A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



**Construction Specification**

- Length - minimum of 50' (#0' for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residence to use geotextile.
- Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a manhole berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE F-17-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SECTION 30.0 - DUST CONTROL

30.0 DUST CONTROL

**Definition**  
Controlling dust blowing and movement on construction sites and roads.

**Purpose**  
To prevent blowing and movement of dust from exposed soil surfaces, reduce on and off-site damage, health hazards, and improve traffic safety.

**Conditions Where Practice Applies**  
This practice is applicable to areas subject to dust blowing and movement where on and off-site damage is likely without treatment.

**Specifications**

- Temporary Methods**
- Mulches - See standards for vegetative stabilization with mulches only. Mulch should be crimped or tacked to prevent blowing.
  - Vegetative Cover - See standards for temporary vegetative cover.
  - Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12" apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.
  - Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow.
  - Barriers - Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 10 times their height are effective in controlling soil blowing.
  - Calcium Chloride - Apply at rates that will keep surface moist. May need retreatment.
- Permanent Methods**
- Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs must afford valuable protection if left in place.
  - Topsoiling - Covering with less erosive materials. See standards for topsoiling.
  - Stone - Cover surface with crushed stone or coarse gravel.
- References**
- Agriculture Handbook: Wind Erosion Forces in the United States and Their Use in Predicting Soil Loss.
  - Agriculture Information Bulletin 354, How to Control Wind Erosion, USDA-ARS.
- U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE H-30-1 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

NOTE:

Quantities are provided for informational purposes only and are based upon comparison of existing ground to proposed grades shown hereon. Contractor to make his own analysis prior to placing a bid on grading work / earthwork.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 8/21/10

CHIEF, DIVISION OF LAND DEVELOPMENT

DATE: 8/24/10

DIRECTOR

DATE: 8/11/10

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

DATE: 8/24/10

**ENGINEER'S CERTIFICATE**

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

DATE: 8/13/10

**DEVELOPER'S CERTIFICATE**

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DATE: 8-12-10

**REVISIONS**

No.	Date	Description

**ENGINEER'S CERTIFICATE**

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DATE: 8-12-10

**LDE Inc.**  
Engineers, Surveyors, Planners  
9230 Ramsey Road, Suite 106 Columbia, Maryland - 21045  
(410)715-1070 - (800)596-3424 - FAX (410)715-9540

DESIGNED	GRADING, SOIL EROSION & SEDIMENT CONTROL PLAN - DETAILS	SCALE	As Shown
EDS	PROPERTY OF KASSIT, LLC TALBOT'S LAST SHIFT LOT 3D FOR SINGLE FAMILY DWELLING	DRAWING	3 OF 4
LDE		JOB NO.	06-020.1.2
CHECKED	TAX MAP 31 GRID 16 PARCEL 672 1st ELECTION DISTRICT HOWARD COUNTY MD	DATE	4/2010
BDB	Previous Submittals: SDP07-091, WP04-171, SDP04-050	OWNER/DEVELOPER:	KASSIT, LLC 10211 Wilcopin Circle, Suite 600 Columbia, MD 21044
DATE	4/2010	BUILDER:	SASLOW HOMES 7520 Main Street, Suite 204 Sykesville, MD 21784
FILE NO.	SDP		10-075

SDP-10-075

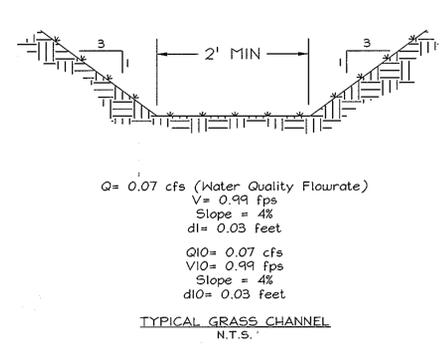
- ### GENERAL NOTES
- This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code, Landscape Manual and Forest Conservation Manual.
  - The Owner/Developer is responsible for the planting of all plant material required to meet the standards established by the Howard County Landscape Manual.
  - Financial Surety for Landscaping is not required for this project. Landscaping requirement is met by retention of existing vegetation within the projects wetland / stream buffers and 100 Year Floodplain and along P 674 perimeter. Should any tree designated for preservation for which landscaping credit is given, die prior to release of bonds, the owner will be required to replace the tree with the equivalent species or with a tree which will obtain the same height, spread and growth characteristics. The replacement tree must be a minimum of 3 inches in caliper and installed as required in the Howard County Landscape Manual.
  - The owner, tenant and/or their agents shall be responsible for maintenance of the required landscaping, including both plant materials and berms, fences and walls. All plant material shall be maintained in good growing condition, 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 and replaced.
  - At the time of installation, all shrubs and other plantings herewith listed and approved for this site, shall be of the proper height requirements in accordance with the Howard County Landscaping Manual. In addition, no substitutions or relocation of required plantings may be made without prior review and approval from the Department of Planning and Zoning. Any deviation from this 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 revision made to applicable plans and certificates.

- ### TREE PLANTING NOTES
- Notify "Miss Utility" 72 hours prior to installation of all plant material.
  - Plant installation must conform to the minimum standards cited in the latest edition of Landscape Specification Guidelines, published by the Landscape Contractors Association.
  - Plants to be located in the field by the owner or owner's representative. Notify owner 72 hours in advance of planting.
  - A certification of Landscape Installation is required as per the Howard County Landscape Ordinance.
  - The number, size, location of plants shall not be changed without the approval of the Landscape Architect. Substitutions must be included in the recommended plant list in the Howard County Landscape Ordinance.
  - Trees may not be planted within 5 feet of drain inlets, 5 feet of an open space access strip and 10 feet of a driveway.
  - Soiled and burlapped plant material shall not be accepted if ball is cracked or broken before or during planting. Protect all plants from drying by either sun or wind.
  - Tree pits shall be backfilled with 50% topsoil, 25% peat 25% sand with one pound of 10-10-10 fertilizer per pit.
  - Top soil shall be sandy loam soil free from noxious weeds or grasses, roots, clay clumps, stones, sticks, etc. Peat moss shall be commercial with pH 4.5 to 5.5, free of woody material or harmful minerals.
  - All plants shall be watered at planting with weekly watering thereafter for the first 80 days. Watering shall continue bimonthly or as necessary to maintain plants in a healthy condition during the guarantee period.
  - Maintenance shall begin immediately after planting and continue to the end of guaranteed period.
  - Maintenance consists of pruning, watering, weeding, re-mulching, resetting plants to proper grades as needed and repairing guys and stakes as needed.

### SCHEDULE A PERIMETER LANDSCAPE EDGE

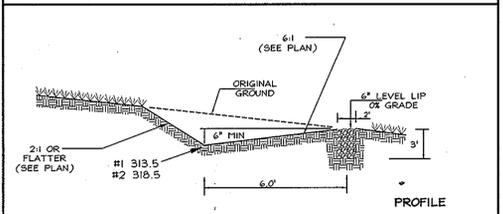
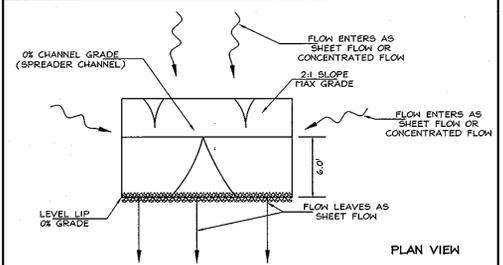
Category	Perimeter Property	Perimeter Property
Perimeter	P-1	P-2
Landscape Type	A	A
Linear Feet of Roadway Frontage / Perimeter	317 L.F.	332 L.F.
Credit for Existing Vegetation (Yes, No, Linear Feet)	Yes *	Yes **
Credit For Wall, Fence or Berm (Yes, No, Linear Feet)	No	No
Number of Plants Required Shade Trees	5	5
Number of Plants Provided		
Shade Trees	0	0
Evergreens	0	0
Shrubs	0	0

\* Credit for existing vegetation along Parcel 674 (Lot 4B) Talbot's Last Shift.  
\*\* Credit for wooded perimeter along Parcel 224 Rockburn Branch Park



### SUMMARY TABLE - STUDY POINT # 1

LOT 3D	1 Year	Qp10 Year	Qp100 Year
Drainage Area = 1.64 Acres			
Water Quality Management = SHEET FLOW TO BUFFER/CONSERVATION			
Water Quantity (Cp) Management = N/A			
Groundwater Recharge Volume (Rev) Required = 140 cu.ft.			
Groundwater Recharge Volume (Rev) Provided = 140 cu.ft. **			
Water Quality Volume (WQ) Required = 912 cu.ft.			
Water Quality Volume (WQ) Provided = 912 cu.ft. **			
Channel Protection Volume (Cp) Required = N/A cu.ft.			
Channel Protection Volume (Cp) Provided = N/A cu.ft.			
Target RCN = 62 Woods in Good Condition			
Target Pe = 1.4 inches *			
* Provided per use of "Sheet Flow to Buffer / Conservation Area" & Level Spreader			
** A 30 foot & 50 foot Level Spreader draining toward a 29,000 sf +/- "Conservation Area" below Level Spreaders provides ESD criteria for majority of Rooftop Impervious.			
Used an applied Pe equal to 0.8 for a minimum 75' width.			
- Disconnected Roof Drains x 2 @ 30' = 1000sf = Pe = LD			
- SDP 07-091 Bioretention Facility Assumed MicroPractice			
Pe = 3			
Total Pe = 1.4 Provided			
Total Existing Flow (cfs)	2.7	13.3	24.0
Total Developed Flow (cfs)	2.7	13.2	23.9



### LEVEL SPREADER (Sheet Flow to Buffer Credit)

LEVEL SPREADER NUMBER	TOP STONE ELEV	INV STONE ELEV	LEVEL LIP ELEV
1	314.0	311.0	314.0
2	319.0	316.0	319.0

### OPERATION AND MAINTENANCE SCHEDULE FOR LEVEL SPREADERS

- LEVEL SPREADERS shall be installed after the contributing site has been stabilized unless filter fabric is placed over the device immediately after construction to divert sediment from entering the device.
- After the site has been stabilized and with the inspector's approval, the fabric may be removed.
- Maintenance shall be performed on a level spreader by the lot / homeowner when sediment is visually apparent within the stone voids. The portion of the stones that are affected shall be removed and replaced by the lot / homeowner with clean stones.

**NOTE:**  
LOT 3D "SUBAREA" WILL UTILIZE SHEET FLOW TO BUFFER CREDIT FOR THE ELIMINATION OF IMPERVIOUS AREA TO MEET THE WQV & REV REQUIREMENTS BY CREDIT.  
AS PROPOSED UNDER SDP 07-091 & SDP 04-050, THE ENTIRE PROPOSED USE-IN-CORPION DRIVEWAY "SUBAREA" WILL UTILIZE GRASS CHANNEL CREDIT TO AUTOMATICALLY MEET THE REV REQUIREMENTS AND BIORETENTION FACILITY #1 TO MEET WQV.  
THIS PLAN COMPLETES THE USE-IN-CORPION DRIVEWAY OF SDP 07-091, EXTENDED BY SDP 04-050 & CONSTRUCTS THE REQUIRED T-TURN AROUND.

### Level Spreader - Sequence of Construction

- Once the individual house has been constructed and the final lot grading is complete, contact the LDE, Inc./ certifying professional engineer/professional land surveyor (LDE, Inc. 410-715-1070). Once the certifying professional has given his/her approval proceed as follows:
- Construct Level Spreader and connect downspout conveyance pipes per details herein under supervision of the certifying professional.

### INSPECTION CHART FOR DISCONNECTION OF ROOFTOP RUNOFF

STAGE	Engineer's Approval	
	Initials	Date
1. Prior to stabilization, scarify surface or rototill any compacted soil to a min. depth of 4" to ensure soil permeability. Tight, clayey soils may require soil amendments.		
2. Prior to Use & Occupancy, verify siting for treatment areas area met.		
3. Prior to Use & Occupancy, verify permanent stabilization has been established.		

\*Please notify certifying engineer 48 hours prior to commencing construction\*  
Engineer's Name: LDE, Inc.  
Phone Number: 410-715-1070

### MAINTENANCE CRITERIA FOR DISCONNECTION OF ROOFTOP RUNOFF

MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPE AREAS. THE AREAS RECEIVING RUNOFF SHOULD BE PROTECTED FROM FUTURE COMPACTION.

LOT 3D DISCONNECTED FLOWPATHS ARE MOSTLY WITHIN A PROTECTED FLOODPLAIN.

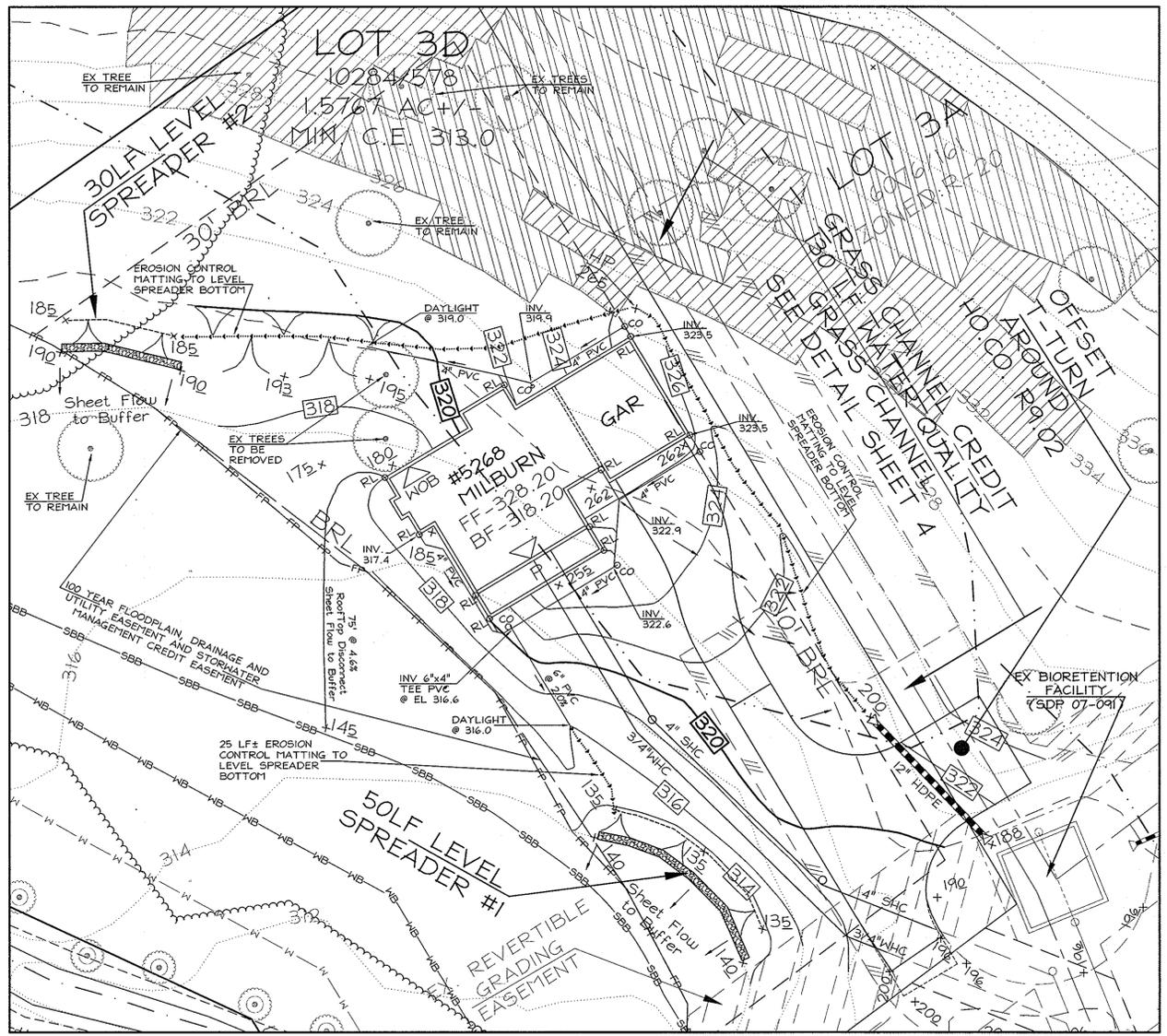
### INSPECTION CHART FOR SHEET FLOW TO CONSERVATION AREA

STAGE	Engineer's Approval	
	Initials	Date
1. Buffers clearly marked on Lot 3D to ensure no disturbance.		
2. Prior to Use & Occupancy, verify area measurements to level spreaders.		
3. Prior to Use & Occupancy, verify permanent stabilization has been established.		

\*Please notify certifying engineer 48 hours prior to commencing construction\*  
Engineer's Name: LDE, Inc.  
Phone Number: 410-715-1070

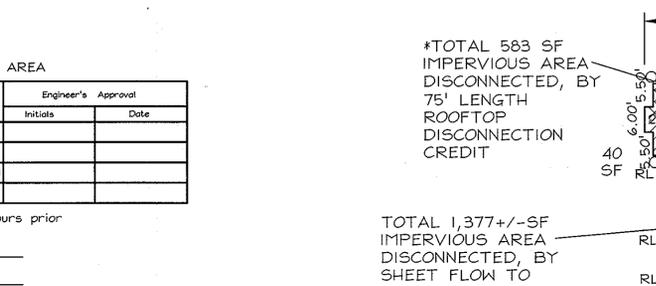
### MAINTENANCE CRITERIA FOR SHEET FLOW TO CONSERVATION AREA

CONSERVATION AREAS SHALL REMAIN UNMANAGED OTHER THAN ROUTINE DEBRIS REMOVAL AND REPAIRING AREAS OF CONCENTRATED FLOW. INVASIVE AND NOXIOUS PLANT REMOVAL AND BI-ANNUAL MOWING FOR MEADOW AREAS MAY BE NEEDED.



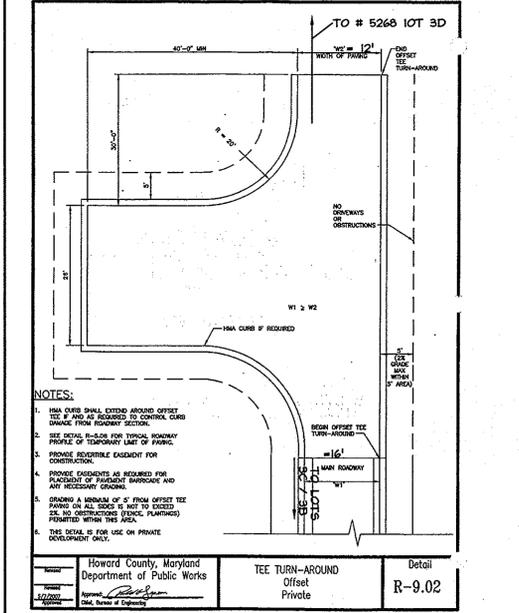
### PLAN VIEW LEVEL SPREADERS

Scale 1" = 20'



### TYPICAL AREA TO ROOF LEADERS

SCALE: 1" = 30'



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: 19184, EXPIRES 6/30/11.

SIGNED: BRUCE D. BURTON DATE: 8/13/10

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION: J.P. DATE: 8/23/10

CHIEF, DIVISION OF LAND DEVELOPMENT: DATE: 8/31/10

DIRECTOR: DATE: 9/1/10

### ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

SIGNED: BRUCE D. BURTON DATE: 8/13/10

### DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF DEVELOPER: DATE: 8-12-10

### REVISIONS

No.	Date	Description

### LDE Inc.

Engineers, Surveyors, Planners  
9250 Ramsey Road, Suite 106 Columbia, Maryland - 21045  
(410)715-1070 - (801)596-3424 - FAX (410)715-9540

DESIGNED	EDS	STORMWATER MANAGEMENT, LANDSCAPE, NOTES & DETAILS	SCALE	As Shown
DRAWN	LDE	PROPERTY OF KASSIT, LLC TALBOT'S LAST SHIFT LOT 3D FOR SINGLE FAMILY DWELLING	DRAWING	4' OF 4
CHECKED	BDB	TAX MAP 31 GRID 16 PARCEL 672 1st ELECTION DISTRICT HOWARD COUNTY MD	JOB NO.	06-020.1.2
DATE	4/2010	Previous Submittals: SDP07-091, WFO4-171, SDP04-050	FILE NO.	SDP 10-075
OWNER/DEVELOPER:	KASSIT, LLC 10211 Wilcopin Circle, Suite 204 Columbia, MD 21044	BUILDER:	SASLOW HOMES 7520 Main Street, Suite 204 Sykesville, MD 21784	