

| SHEET INDEX | |
|-------------|--|
| NO. | DESCRIPTION |
| 1 | TITLE SHEET |
| 2 | EXISTING CONDITIONS PLAN AND SOILS MAP |
| 3 | SITE DEVELOPMENT PLAN |
| 4 | FINAL GRADING AND SEDIMENT CONTROL PLAN |
| 5 | SEDIMENT CONTROL AND STORM WATER NOTES AND DETAILS |
| 6 | WATER AND SEWER PROFILES |

SITE DEVELOPMENT PLAN

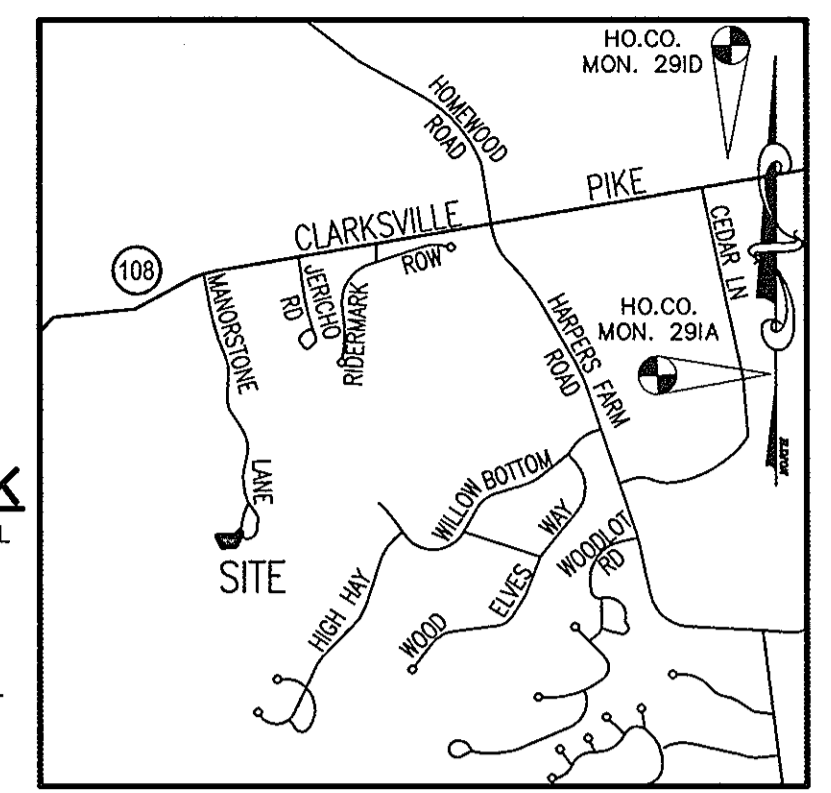
VILLAGE OF HARPERS CHOICE

SEC. 5, AREA 9, LOT 15

5TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

- GENERAL NOTES**
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
 - 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 SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
 - ALL PLAN DIMENSIONS ARE TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
 - THE PROPERTY BOUNDARY AND EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY PATTON HARRIS RUST & ASSOCIATES DATED JUNE 2006.
 - THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM, HOWARD COUNTY MONUMENT NOS. 2965 AND 296A WERE USED FOR THIS PROJECT.
 - WATER IS PUBLIC.
 - SEWER IS PUBLIC.
 - THE EXISTING UTILITIES ARE BASED ON INFORMATION GATHERED FROM THE DEPT. OF PUBLIC WORKS; CONTRACT NO. 34-3307-D
 - ANY DAMAGED TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
 - SHC ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY.
 - THE STORMWATER MANAGEMENT REQUIREMENTS FOR THIS SITE WILL BE MET BY THE USE OF STORMWATER CREDITS IN ACCORDANCE WITH THE MARYLAND 2000 STORMWATER MANAGEMENT DESIGN MANUAL AND THE HOWARD COUNTY DESIGN MANUAL. CREDITS INCLUDE ROOFTOP AND NON-ROOFTOP DISCONNECT AND GRASS CHANNEL CREDITS.
 - APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
 - THERE IS NO FLOODPLAIN ON THIS SITE BASED ON FIRM MAP # 240044, PANEL 0027.
 - THE SUBJECT PROPERTY ZONED (NT) NEW TOWN PER THE 2/2/04 COMPREHENSIVE ZONING PLAN AND PER THE "COMP LITE" ZONING REGULATION AMENDMENTS EFFECTIVE 7/28/06.
 - ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
 - THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
 - CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
 - PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
 - NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
 - PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
 - ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T160.
 - GRADING, REMOVAL OF VEGETATIVE COVER AND TREES AND PAVING ARE NOT PERMITTED IN WETLANDS, STREAMS, WETLAND BUFFERS, STREAM BUFFERS, FLOODPLAIN, OR STEEP SLOPES.
 - BASED ON AVAILABLE COUNTY MAPS AND RECORDS, THERE ARE NO HISTORIC STRUCTURES OR KNOWN CEMETERIES LOCATED ON THE SUBJECT PROPERTY.
 - THIS SITE IS EXEMPT FROM FOREST CONSERVATION (AS PER SECTION 16.1202(b)(1)(iv) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS) DUE TO THE FACT THAT IT IS PART OF A PLANNED UNIT DEVELOPMENT WHICH HAS PRELIMINARY DEVELOPMENT PLAN APPROVAL AND 50% OR MORE OF THE LAND IS RECORDED AND SUBSTANTIALLY DEVELOPED BEFORE DECEMBER 31, 1992.
 - THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF THE HOWARD COUNTY LANDSCAPE MANUAL, WHICH HAS NO REQUIREMENTS FOR LANDSCAPING FOR THIS SITE.
 - FOR FLAG OR PIPE STEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPE STEM AND THE ROAD RIGHT-OF-WAY LINE ONLY AND NOT ONTO THE FLAG OR PIPE STEM LOT DRIVEWAY.
 - THIS LOT SHOWN COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT AND HOWARD COUNTY.
 - THE EXISTING SITE INFORMATION CONTAINS NO STEEP SLOPES OR MARLBORO CLAYS, WHICH WAS VERIFIED BY FIELD SURVEY.
 - SEE DEPT. OF PLANNING AND ZONING FILE NO.: F-94-11, FDP-194-A, SP-92-21, WP-92-218, WP-94-20, F-93-141.
 - IN ACCORDANCE WITH FDP PHASE 194-A, BAY WINDOWS OR CHIMNEYS NOT MORE THAN 10 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS MAY PROJECT NOT MORE THAN 3 FEET INTO THE FRONT OR REAR YARD SETBACKS. EXTERIOR BASEMENT AREAWAYS/STAIRWAYS MAY NOT ENCRoACH INTO ANY BRL (APPLIES TO NEW TOWN RESIDENTIAL SDP'S).
 - DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 - WIDTH - 12' (16' SERVING MORE THAN ONE RESIDENCE);
 - SURFACE - 6" OF COMPACTED CRUSHER RUN BASE W/TAR AND CHIP COATING (1-2" MIN.);
 - GEOMETRY - MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. 45' TURNING RADIUS;
 - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (125 LOADINGS);
 - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE;
 - MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
 - THE DRIVEWAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD DETAIL R-605.



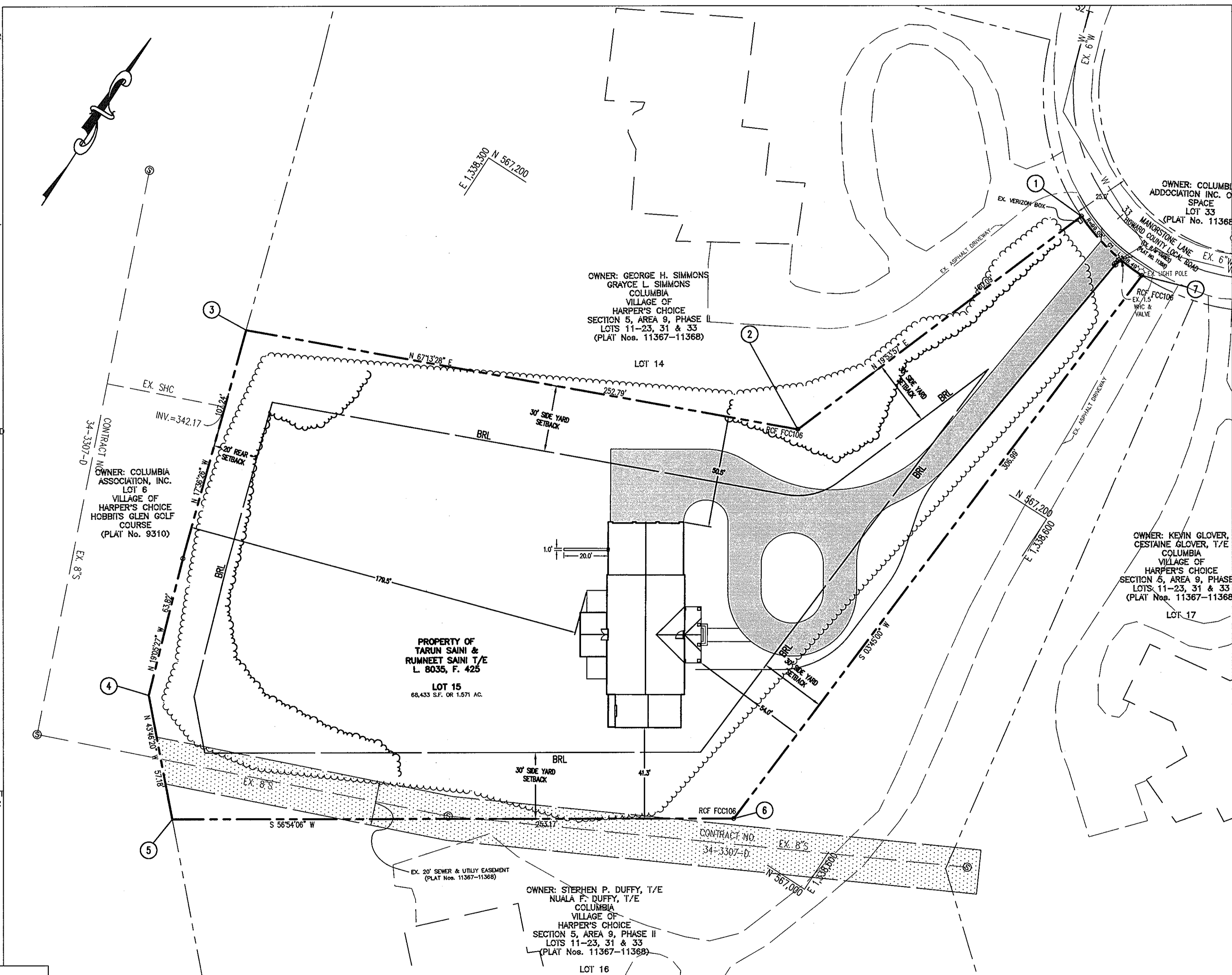
BENCH MARK
 HOWARD COUNTY CONTROL
 STATION 2910
 N 571,234.369
 E 1,343,193.07
 ELEV. 473.938
 HOWARD COUNTY CONTROL
 STATION 291A
 N 568,986.053
 E 1,343,640.14
 ELEV. 482.291

VICINITY MAP
 ADC MAP COORDINATES
 SCALE: 1" = 2000' MAP No. 14 - K4

| COORDINATE LIST | | |
|---------------------|------------|--------------|
| PROPERTY CORNER NO. | NORTHING | EASTING |
| (1) | 567,323.40 | 1,338,538.42 |
| (2) | 567,172.90 | 1,338,483.94 |
| (3) | 567,075.04 | 1,338,250.87 |
| (4) | 566,912.51 | 1,338,304.18 |
| (5) | 566,871.22 | 1,338,343.73 |
| (6) | 567,009.48 | 1,338,555.82 |
| (7) | 567,315.72 | 1,338,575.90 |

LEGEND

| | | | |
|---------------------|--|-------------------------------------|--|
| PROPERTY LINE | | PROPOSED DRIVEWAY | |
| EXISTING TREELINE | | EXISTING 20' SEWER UTILITY EASEMENT | |
| PROPOSED TREELINE | | EXISTING BUILDING | |
| PROPOSED LOT LINE | | PROPOSED BUILDING | |
| EXISTING CONTOURS | | EXISTING SOILS | |
| PROPOSED CONTOURS | | EXISTING EDGE OF PAVEMENT | |
| PROPERTY CORNER NO. | | | |



APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Old De... 10/9/07
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cindy... 10/2/07
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Paul... 1/16/07
 DIRECTOR DATE

| DATE | NO. | REVISION |
|--|-------------------|----------|
| | | |
| OWNER | | |
| TARUN SAINI 5131 HARPERS FARM ROAD COLUMBIA, MARYLAND 21044 (410) 997-5160 | | |
| DEVELOPER | | |
| JST BUILDERS JOHN STARRT 6030 DAYBREAK CIRCLE CLARKSVILLE, MD 21029 W: (410) 884-0334 | | |
| PROJECT | | |
| SINGLE FAMILY DETACHED RESIDENCE VILLAGE OF HARPERS CHOICE, FDP-194-A SECTION 5, AREA 9, PHASE II, LOT 15 | | |
| AREA | | |
| TAX MAP 29, GRID 21 | PARCEL 370 | |
| 5TH ELECTION DISTRICT | ZONED NT-NEW TOWN | |
| HOWARD COUNTY, MARYLAND | | |

TITLE SHEET

Patton Harris Rust & Associates, pc
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

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. 10586, EXPIRATION DATE 6/28/2008.

DESIGNED BY : PHRA

DRAWN BY : JML

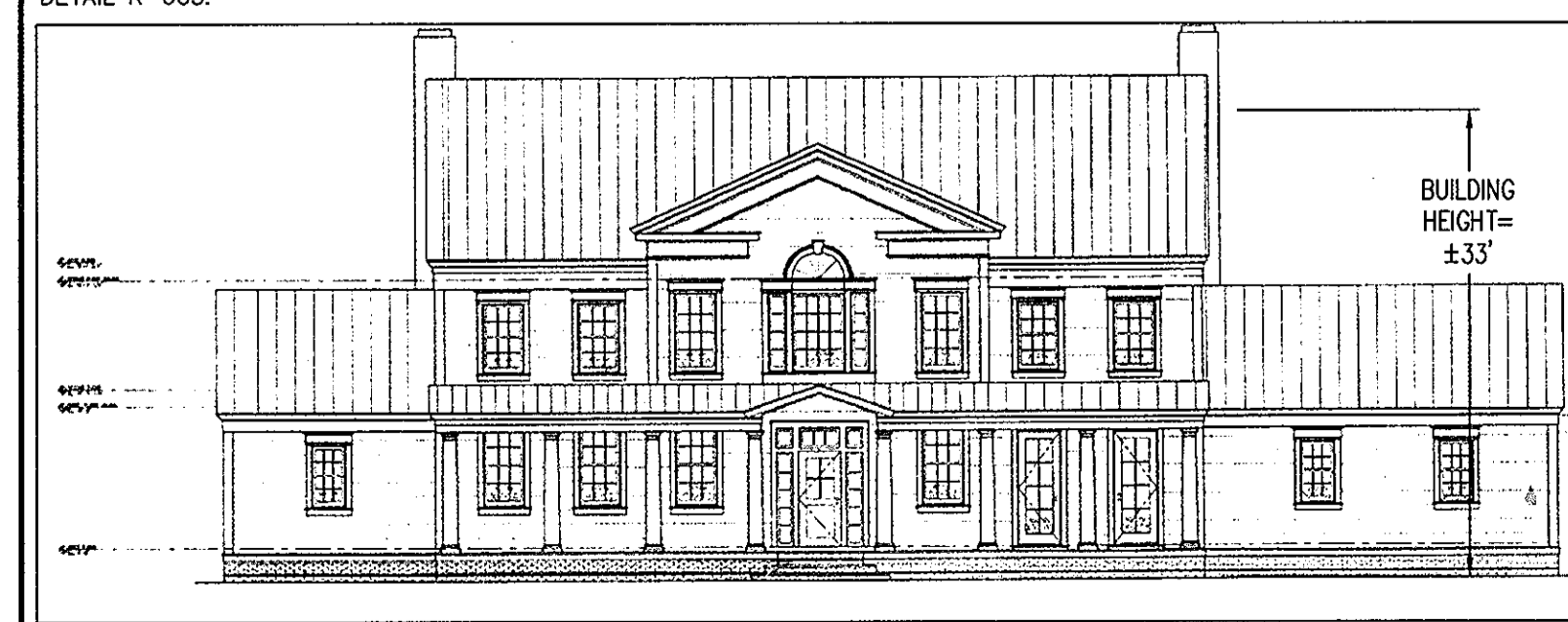
PROJECT NO. : 14426-1-0

DATE : SEPT. 27, 2007

SCALE : AS SHOWN

DRAWING NO. : 1 OF 6

SDP-07-132



OVERALL SITE PLAN
 SCALE: 1" = 30'

SITE ANALYSIS DATA CHART

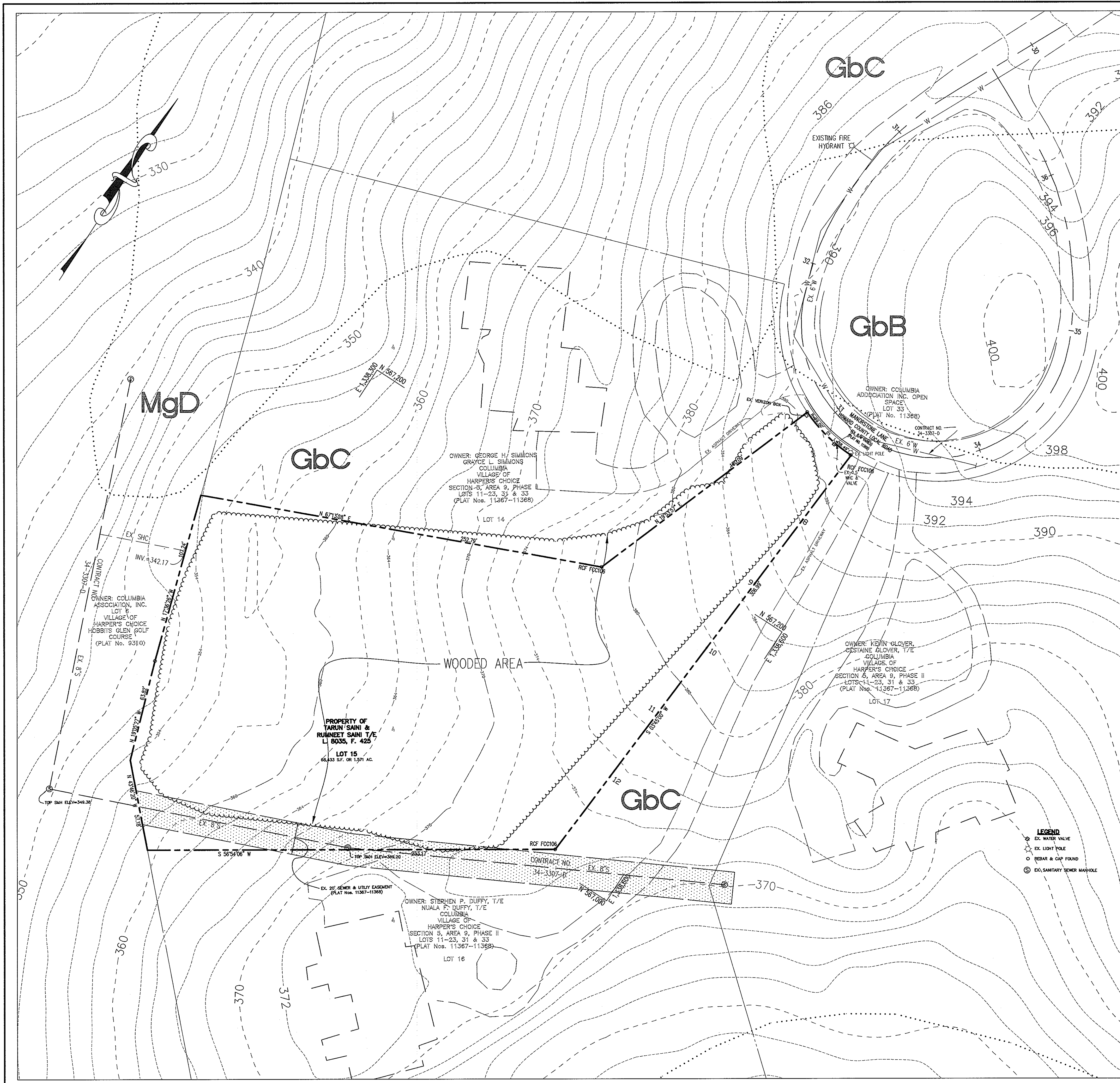
| | |
|--------------------------------|------------------------|
| EXISTING ZONING: | NT (NEW TOWN) |
| GROSS AREA OF SITE: | 1.57 ACRES (68,433 SF) |
| NET TRACT AREA: | 1.57 ACRES |
| PROPOSED WATER AND SEWER: | PUBLIC |
| EXISTING USES: | VACANT |
| PROPOSED USES: | SINGLE-FAMILY DETACHED |
| TOTAL NUMBER OF UNITS: | 1 DU |
| LIMIT OF DISTURBED AREA: | 1.18 ACRES |
| BUILDING COVERAGE OF THE SITE: | 15% (10,258 SF) |

PERMIT INFORMATION CHART

| | | | | | |
|----------------------------|------------|-------------------|-------------|--------------|--------------|
| SUBDIVISION NAME | | SECT./AREA | | LOT NO. | |
| VILLAGE OF HARPER'S CHOICE | | SECTION 5, AREA 9 | | 15 | |
| PLAT NO. | GRID # | ZONING | TAX MAP NO. | ELECT. DIST. | CENSUS TRACT |
| 11367, 11368 | 21 | NT | 29, GRID 15 | FIFTH | 605502 |
| WATER CODE | SEWER CODE | FCP NO. | | FDP NO. | |
| 103 | | 6740000 | | FDP-194-A | |

ADDRESS CHART

| LOT NUMBER | STREET ADDRESS |
|------------|---|
| 15 | 11556 MANORSTONE LANE, COLUMBIA, MD 21040 |



| SOILS CHART | | | | | |
|-------------|-------------------------------------|--|----------------|--------|-----------|
| MAP SYMBOL | NAME | STRUCTURAL LIMITATIONS | EROSION HAZARD | HYDRIC | SLOPE (%) |
| MgD | Manor-Bannertown sandy loams, rocky | Dwellings w/ Basements Severe: high water table | Severe | Y | 15-25 |
| GbB | Gladstone loam | Moderate | Moderate | N | 3-8 |
| GbC | Gladstone loam | Moderate | Moderate | N | 8-15 |

SOURCE: SOIL INFORMATION TAKEN FROM USDA-NRCS WEBSITE.

APPROVED: HOWARD COUNTY SOIL CONSERVATION DISTRICT
 HOWARD SOIL CONSERVATION DISTRICT DATE
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 DIRECTOR *Paul L. Coyle* 2/16/09 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION *John Startt* 10/1/07 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT *Wendy Thomas* 10/12/09 DATE

| DATE | NO. | REVISION |
|------|-----|----------|
| | | |

OWNER
 TARUN SAINI
 5131 HARPERS FARM ROAD
 COLUMBIA, MARYLAND 21044
 (410) 997-5160

DEVELOPER
 JST BUILDERS
 JOHN STARTT
 6030 DAYBREAK CIRCLE
 CLARKSVILLE, MD 21029
 W: (410) 884-0334

PROJECT
 SINGLE FAMILY DETACHED RESIDENCE
VILLAGE OF HARPERS CHOICE, FDP-194-A
 SECTION 5, AREA 9, PHASE II, LOT 15

AREA
 TAX MAP 29, GRID 21 PARCEL 370
 5TH ELECTION DISTRICT ZONED NT-NEW TOWN
 HOWARD COUNTY, MARYLAND

TITLE
EXISTING CONDITIONS PLAN AND SOILS MAP

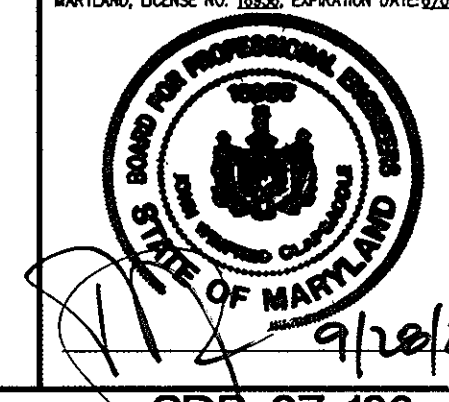
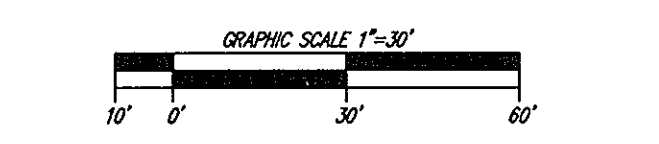
Patton Harris Rust & Associates, pc
 Engineers, Surveyors, Planners, Landscape Architects.
 8815 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

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. 10255, EXPIRATION DATE: 6/29/26

DESIGNED BY: PHRA
 DRAWN BY: JML
 PROJECT NO: 14426-1-0
 DATE: SEPT. 27, 2007
 SCALE: 1" = 30'
 DRAWING NO. 2 OF 6

LEGEND

- PROPERTY LINE
- EXISTING WOODS LINE
- EXISTING CONTOURS
- EXISTING BUILDING
- EXISTING SOILS
- EXISTING 20' SEWER & UTILITY EASEMENT
- EXISTING EDGE OF PAVEMENT
- EXISTING SEWER LINE



SDP-07-132

| Summary Table | | | | | | | | |
|------------------------|------------|------------------------|------------------------|------------------------|------------------------|--------------|--------------|--------------|
| Area Name | Area (Ac.) | Rev Required (Cu. Ft.) | Rev Provided (Cu. Ft.) | WQv Required (Cu. Ft.) | WQv Provided (Cu. Ft.) | CPv Required | Op10 | Op100 |
| Grass Channel | 0.45 | 74 | Provided by SWM Credit | 572 | Provided by SWM Credit | Not Required | Not Required | Not Required |
| Rooftop Disconnect | 0.05 | 21 | Provided by SWM Credit | 162 | Provided by SWM Credit | Not Required | Not Required | Not Required |
| Non-Rooftop Disconnect | 0.03 | 11 | Provided by SWM Credit | 86 | Provided by SWM Credit | Not Required | Not Required | Not Required |
| Equal Area | .03 | 14 | Provided by SWM Credit | 07 | Provided by SWM Credit | Not Required | Not Required | Not Required |

| LEGEND | |
|---------------------|-------------------------------------|
| PROPERTY LINE | PROPOSED DRIVEWAY |
| EXISTING WOODS LINE | EXISTING 20" SEWER/UTILITY EASEMENT |
| PROPOSED TREELINE | EXISTING BUILDING |
| EXISTING LOT LINE | PROPOSED BUILDING |
| EXISTING CONTOURS | EXISTING EDGE OF PAVEMENT |
| PROPOSED CONTOURS | |

- GENERAL NOTES:**
1. THE PROPERTY IS ZONED NT (NEW TOWN).
 2. THE BOUNDARY SURVEY AND TOPOGRAPHIC SURVEY FOR THIS PLAN WAS PREPARED BY PHRA
 3. GROSS TRACT AREA= 68,389 SF (1.57 AC)
 4. 5TH ELECTION DISTRICT
 5. PLANNING AREA: NO. 9 HARPER'S CHOICE
 6. TAX MAP NO. 29
 7. ADC MAP: HOWARD MAP #14, GRID K-4
 8. PROPOSED USE: SINGLE FAMILY DETACHED RESIDENTIAL
 9. PLANNER/ENGINEER: Patton Harris Rust + Associates, Inc. 8818 Centre Park Drive, Suite 200 Columbia, Maryland 21045 T: 410.997.8900 F: 410.997.9282

APPROVED : HOWARD COUNTY SOIL CONSERVATION DISTRICT
 HOWARD SOIL CONSERVATION DISTRICT DATE
 APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 DIRECTOR *Mark J. Leger* 10/16/07 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION *John P. ...* 10/16/07 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT *Cindy Hamt* 10/16/07 DATE

12-12-08 | Grading Revision Lot 15
 DATE NO. REVISION

OWNER
 TARUN SAINI
 5131 HARPER'S FARM ROAD
 COLUMBIA, MARYLAND 21044
 (410) 997-5160

DEVELOPER
 JST BUILDERS
 JOHN STARTT
 6030 DAYBREAK CIRCLE
 CLARKSVILLE, MD 21029
 W: (410) 884-0334

PROJECT
 SINGLE FAMILY DETACHED RESIDENCE
VILLAGE OF HARPER'S CHOICE, FDP-194-A
 SECTION 5, AREA 9, PHASE II, LOT 15

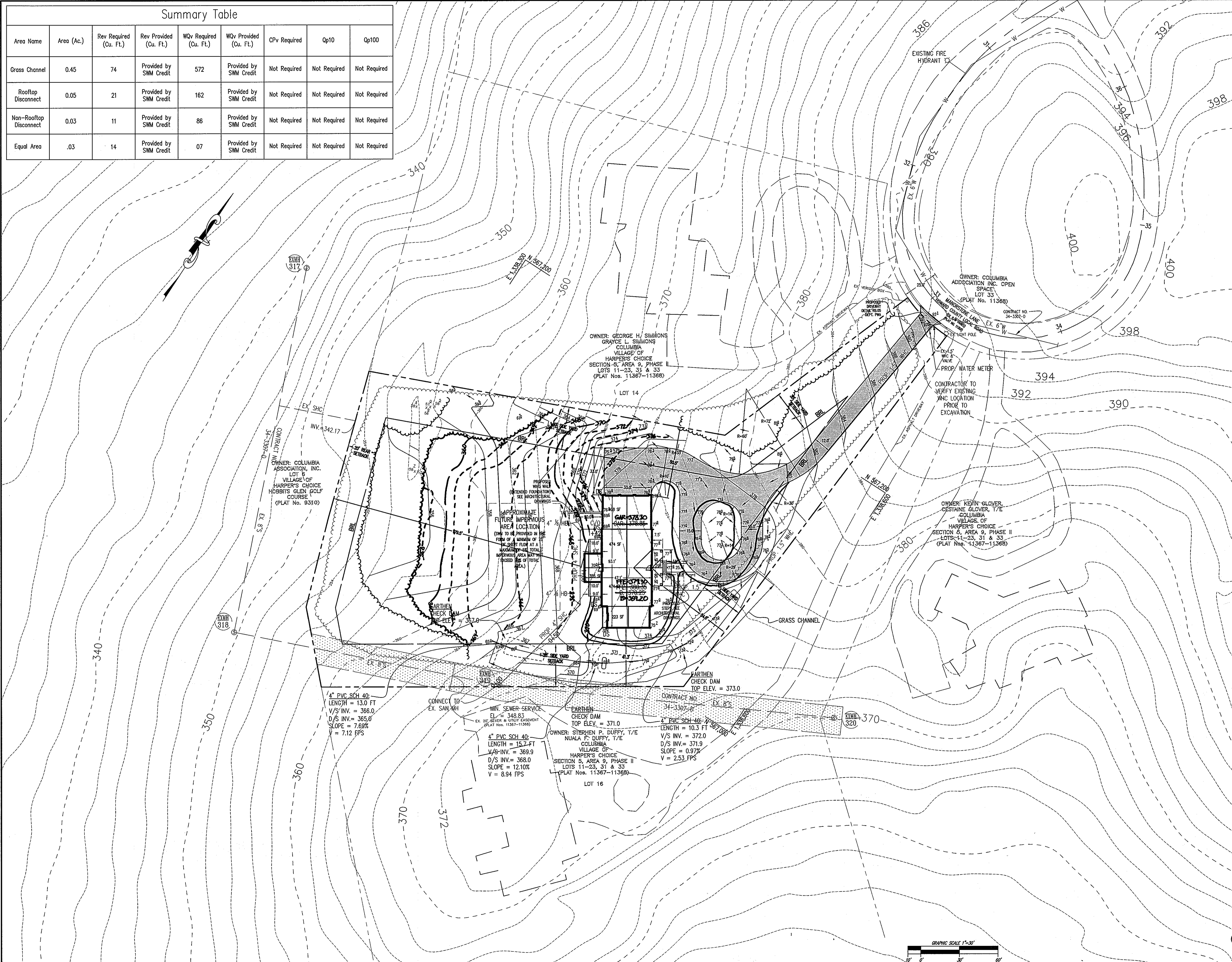
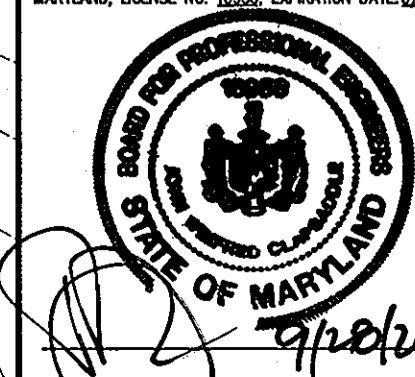
AREA TAX MAP 29, GRID 21 PARCEL 370
 5TH ELECTION DISTRICT ZONED NT-NEW TOWN
 HOWARD COUNTY, MARYLAND

TITLE
SITE DEVELOPMENT PLAN

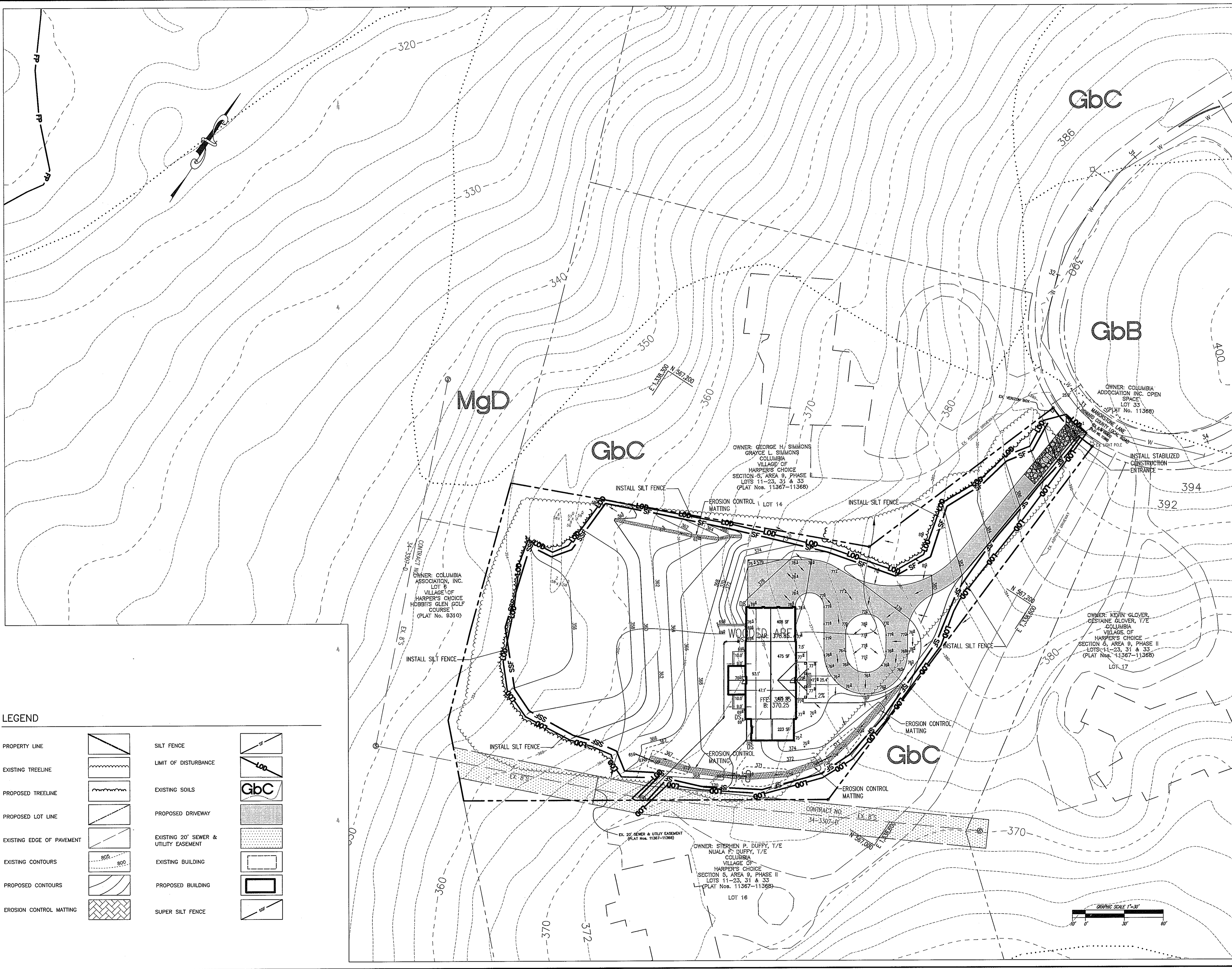
Patton Harris Rust & Associates, pc
 Engineers, Surveyors, Planners, Landscape Architects.
PHRA
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

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. 16556, EXPIRATION DATE: 6/29/2008.

DESIGNED BY : NB
 DRAWN BY : CT
 PROJECT NO : 14426-1-0
 DATE : SEPT. 27, 2007
 SCALE : 1"=30'
 DRAWING NO. 3 OF 6



P:\Project\14426\1-0\PLANS\C00051.DWG



LEGEND

| | | | |
|---------------------------|--|---------------------------------------|--|
| PROPERTY LINE | | SILT FENCE | |
| EXISTING TREELINE | | LIMIT OF DISTURBANCE | |
| PROPOSED TREELINE | | EXISTING SOILS | |
| PROPOSED LOT LINE | | PROPOSED DRIVEWAY | |
| EXISTING EDGE OF PAVEMENT | | EXISTING 20' SEWER & UTILITY EASEMENT | |
| EXISTING CONTOURS | | EXISTING BUILDING | |
| PROPOSED CONTOURS | | PROPOSED BUILDING | |
| EROSION CONTROL MATTING | | SUPER SILT FENCE | |

BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND 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.

John S. Startt 9/28/2007
 DEVELOPER (PRINT NAME BELOW SIGNATURE) DATE
 John S. Startt

BY THE ENGINEER :

I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION 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.

John W. Clappadole 9/28/2007
 ENGINEER (PRINT NAME BELOW SIGNATURE) DATE
 John W. Clappadole

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

John W. Clappadole 10/1/07
 NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John W. Clappadole 9/28/07
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : HOWARD COUNTY SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Paul L. Wynn 10/16/07
 DIRECTOR DATE

John W. Clappadole 10/1/07
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

John W. Clappadole 10/12/07
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

| DATE | NO. | REVISION |
|------|-----|----------|
| | | |

OWNER
 TARUN SAINI
 5131 HARPERS FARM ROAD
 COLUMBIA, MARYLAND 21044
 (410) 997-5160

DEVELOPER
 JST BUILDERS
 JOHN STARTT
 6030 DAYBREAK CIRCLE
 CLARKSVILLE, MD 21029
 W: (410) 884-0334

PROJECT
 SINGLE FAMILY DETACHED RESIDENCE
VILLAGE OF HARPERS CHOICE, FDP-104-A
 SECTION 5, AREA 9, PHASE II, LOT 15

AREA
 TAX MAP 29, GRID 21 PARCEL 370
 5TH ELECTION DISTRICT ZONED NT-NEW TOWN
 HOWARD COUNTY, MARYLAND

TITLE
**FINAL GRADING
 AND SEDIMENT CONTROL PLAN**

Patton Harris Rust & Associates, p.c.
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

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. 15556, EXPIRATION DATE: 02/28/08.

DESIGNED BY : HS
 DRAWN BY : JML
 PROJECT NO : 14426-1-0
 DATE : SEPT. 27, 2007
 SCALE : 1"=30'
 DRAWING NO. 4 OF 6



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
 I. THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 --a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 --b. 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.
 --c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 --d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

II. 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
 I. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT 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-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTATION STATION.

II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
 --i. 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, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1-1/2" IN DIAMETER.

--ii. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 --iii. WHERE 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.

III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
 --i. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

IV. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
 --i. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
 --a. PH FOR TOPSOIL SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE PH TO 6.5 OR HIGHER.
 --b. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
 --c. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
 --d. NO SOIL 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 PHYTO-TOXIC MATERIALS.

NOTE: TOPSOIL SUBSTITUTES TO 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.

II. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
 V. TOPSOIL APPLICATION
 --i. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
 --ii. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4" - 8" HIGHER IN ELEVATION.
 --iii. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" - 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
 --iv. TOPSOIL SHALL NOT BE PLACED WHILE 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 SEEDBED PREPARATION.

VI. ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:
 --i. COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
 --a. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS THAT ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
 --b. COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
 --c. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
 --d. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE. REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING, MD-VA, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES, REVISED 1973.

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 (313-1855).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 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 107 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3:1, 8) 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 THE PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- 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 FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SEC. G.). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHED 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 | 1.57 ACRES |
| AREA DISTURBED | 1.18 ACRES |
| AREA TO BE ROOFED OR PAVED | 0.25 ACRES |
| AREA TO BE VEGETATIVELY STABILIZED | 1.32 ACRES |
| TOTAL CUT | 168 CU. YARDS |
| TOTAL FILL | 168 CU. YARDS |

OFFSITE WASTE AREA LOCATION TO HAVE ACTIVE GRADING PERMIT

- 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 CONTROLS 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 SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
- SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
- SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT ELEVATION SHOWN ON THE PLANS.
- CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT REPRESENT BID QUANTITIES. THESE QUANTITIES DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL OR EMBANKMENT MATERIAL, NOR DO THEY REFLECT CONSIDERATION OF UNDERCUTTING OR REMOVAL OF UNSUITABLE MATERIAL. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH SITE CONDITIONS WHICH MAY AFFECT THE WORK.

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT, SCHEDULE AND ATTEND THE PRECONSTRUCTION MEETING. (1 DAY)
- INSTALL THE STABILIZED CONSTRUCTION ENTRANCE AS SHOWN ON THE PLAN. (1 DAY)
- INSTALL SILT FENCE WITHIN LIMIT OF DISTURBANCE AS SHOWN ON THE APPROVED PLAN. (2 DAYS)
- AFTER OBTAINING PERMISSION FROM THE INSPECTOR, BEGIN CLEARING AND GRADING THE SITE. THE SWALES ALONG THE DRIVEWAY AND AT THE BACK OF THE HOUSE WILL NOT BE GRADED UNTIL EVERYTHING ELSE HAS BEEN INSTALLED ON SITE AND THE HOUSE HAS BEEN CONSTRUCTED TO AVOID SHALLOW CONCENTRATED FLOW ON THE SITE WHILE GRADING OPERATIONS ARE BEING PERFORMED ON THE SITE. ALSO, DELAY THE CONSTRUCTION OF BIO-RETENTIONS ON THE SITE. (2 WEEKS)
- INSTALL WATER & SEWER HOUSE CONNECTIONS ON-SITE. STABILIZE ALL THE DISTURBED AREAS WITH APPROPRIATE TEMPORARY SEEDING. (1 WEEK)
- CONSTRUCT SUBGRADE FOR THE DRIVEWAY; DELAY THE FINAL PAVING UNTIL THE HOUSE HAS BEEN CONSTRUCTED AND ALL THE HEAVY MACHINERY HAS LEFT THE SITE. (1 WEEK)
- BEGIN HOUSE CONSTRUCTION AND FINISH CONSTRUCTING ALL THE ITEMS ON THE SITE. (6 WEEKS)
- IMMEDIATELY STABILIZE ALL THE DISTURBED AREAS ON-SITE WITH PERMANENT SEEDING AS PER SPECIFICATIONS. (2 DAYS)
- APPLY FINAL PAVING ON THE DRIVEWAY. (1 WEEK)
- GRADE THE SWALES ON THE SITE (ALONG THE DRIVEWAY) AND THE CHECK DAMS AS SHOWN ON THE APPROVED PLAN. (1 WEEK)
- STABILIZE ALL THE DISTURBED AREAS WITH PERMANENT SEEDING. (2 DAYS)
- WITH THE PERMISSION OF SEDIMENT CONTROL INSPECTOR, REMOVE THE SEDIMENT CONTROL DEVICES INSTALLED ON THE SITE (SILT FENCE AND STABILIZED CONSTRUCTION ENTRANCE). (2 DAYS)

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.
SEEDBED PREPARATION - LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
SOIL AMENDMENTS - APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS. PER 1000 SQ.FT.).
SEEDING - FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS. PER 1000 SQ.FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (0.07 LBS. PER 1000 SQ.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. PER 1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL. PER 1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 347 GAL. PER ACRE (8 GAL. PER 1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

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, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
SOIL AMENDMENTS - IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

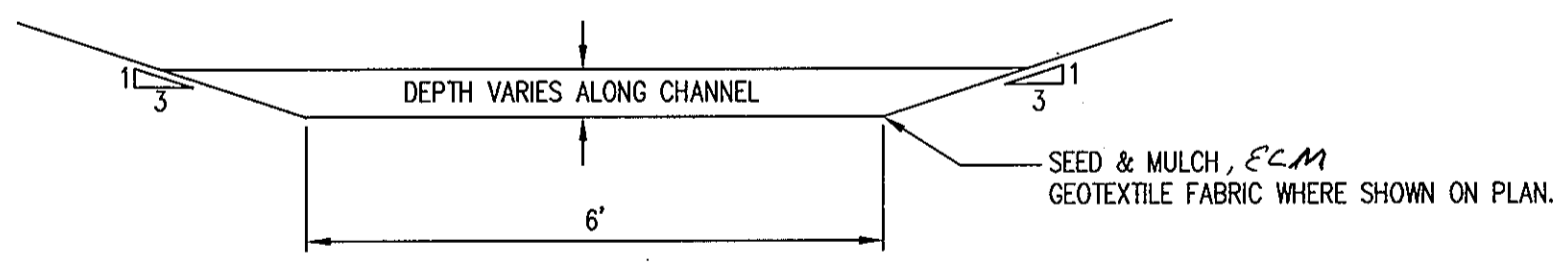
- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS. PER 1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS. PER 1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS. PER 1000 SQ.FT.).
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS. PER 1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS. PER 1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIOD MARCH 1 THRU APRIL 30 AND FROM AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS. PER 1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (0.05 LBS. PER 1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY ONE OF THE FOLLOWING OPTIONS:

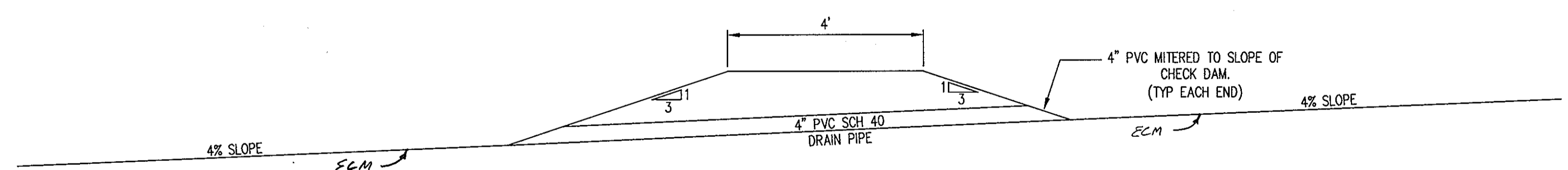
- 2 TONS PER ACRE OF WELL-ANCHORED MULCH STRAW AND SEED AS SOON AS POSSIBLE IN THE SPRING.
- USE SOD.
- SEED WITH 60 LBS. PER ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS. PER 1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL. PER 1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 347 GAL. PER ACRE (8 GAL. PER 1000 SQ.FT.) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.



GRASS CHANNEL TYPICAL SECTION
 NOT TO SCALE



EARTHEN CHECK DAM TYPICAL SECTION
 NOT TO SCALE

BY THE DEVELOPER :
 I/WE CERTIFY THAT ALL DEVELOPMENT AND 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.

John S. Startt 9/28/2007
 DEVELOPER (PRINT NAME BELOW SIGNATURE) DATE

BY THE ENGINEER :
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION 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.

John W. Casapara 9/28/2007
 ENGINEER (PRINT NAME BELOW SIGNATURE) DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Jim Mays 10/4/07
 NATURAL RESOURCES CONSERVATION SERVICE DATE

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

Paul Sch... 10/4/07
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : HOWARD COUNTY SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Paul D. Leyle 11/14/07
 DIRECTOR DATE

John Startt 10/4/07
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Condy Hamer 10/12/07
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER: TARUN SAINI
 5131 HARPERS FARM ROAD
 COLUMBIA, MARYLAND 21044
 (410) 997-5160

DEVELOPER: JST BUILDERS
 JOHN STARTT
 6030 DAYBREAK CIRCLE
 CLARKSVILLE, MD 21029

W: (410) 884-0334

PROJECT: SINGLE FAMILY DETACHED RESIDENCE
VILLAGE OF HARPERS CHOICE, FDP-194-A
 SECTION 5, AREA 9, PHASE II, LOT 15

AREA: TAX MAP 29, GRID 21 PARCEL 370
 5TH ELECTION DISTRICT ZONED NT-NEW TOWN
 HOWARD COUNTY, MARYLAND

TITLE: **SEDIMENT CONTROL AND STORM WATER NOTES & DETAILS**

Patton Harris Rust & Associates, PC
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

DESIGNED BY: HS

DRAWN BY: HS

PROJECT NO.: 14426-1-0

DATE: SEPT. 27, 2007

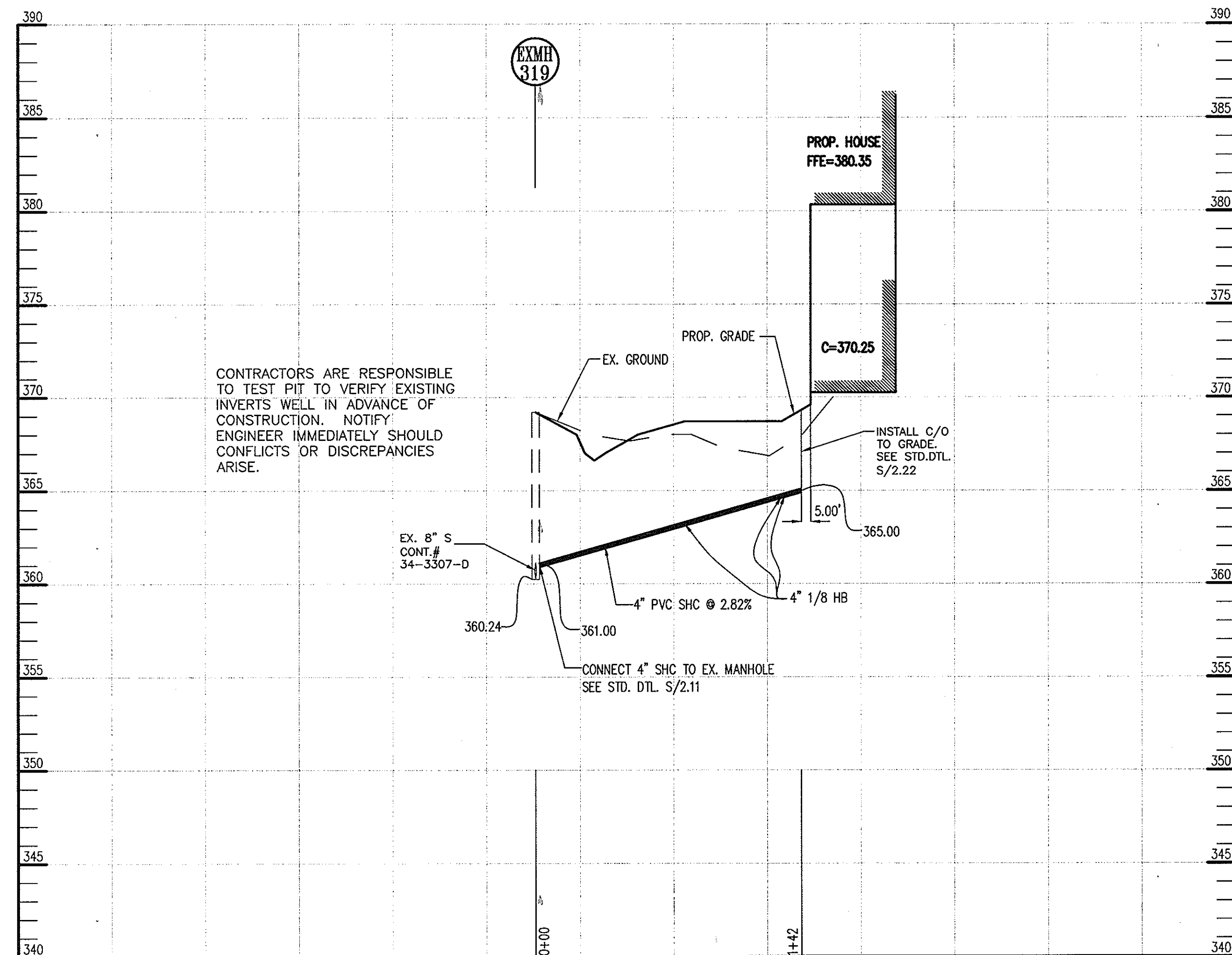
SCALE: NOT TO SCALE

DRAWING NO. 5 OF 6

SDP-07-132

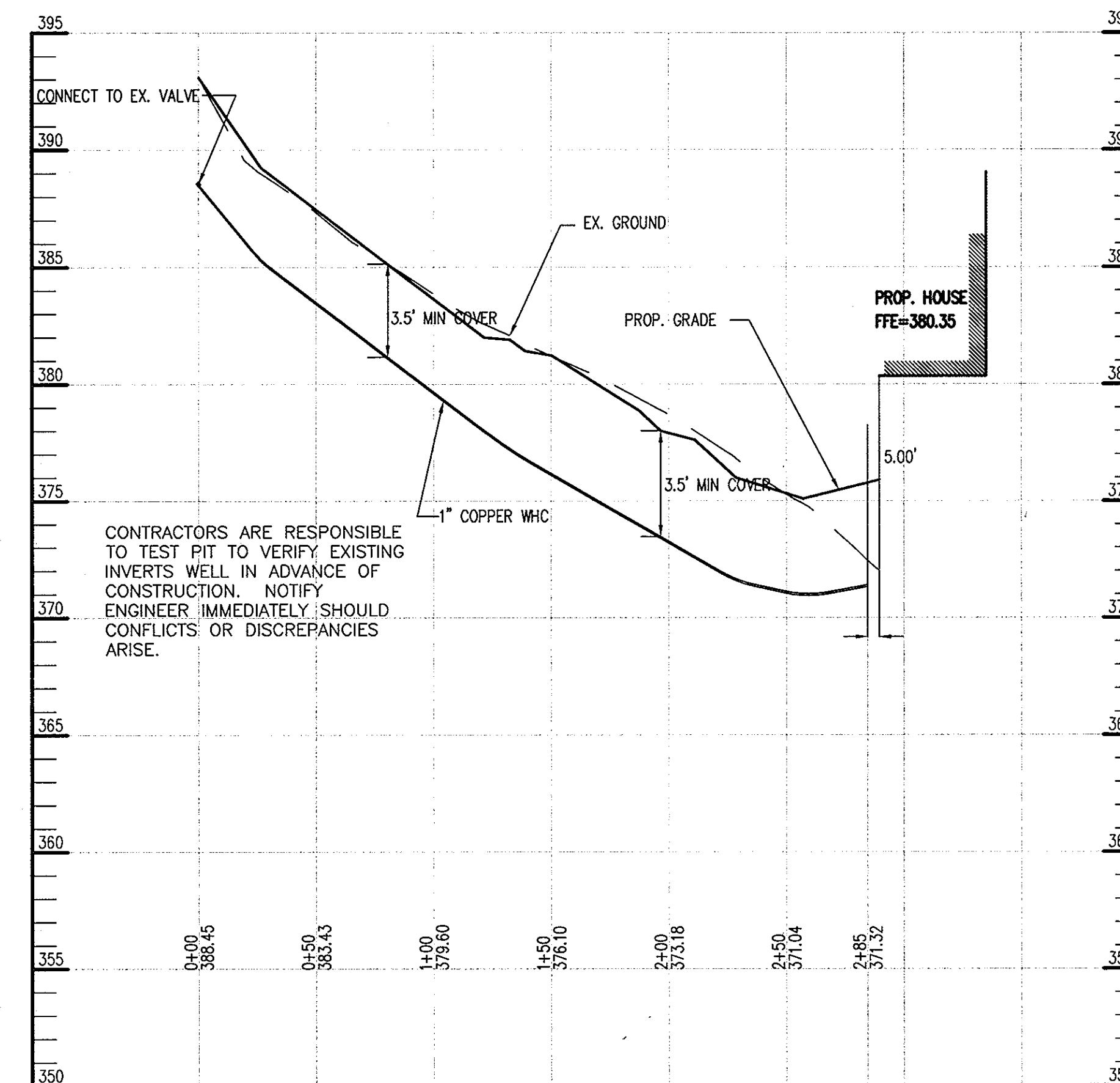


P:\Project\14426-1-0\PLANS\CD005E0202.DWG



SEWER HOUSE CONNECTION PROFILE

SCALE: HORIZ: 1"=50'
VERT: 1"=5'



WATER HOUSE CONNECTION PROFILE

SCALE: HORIZ: 1"=50'
VERT: 1"=5'

| PIPE SCHEDULE | | |
|---------------|-------------|-----|
| LENGTH | TYPE | W/S |
| 142 | 4" PVC | S |
| 285 | 1.5" COPPER | W |

| STRUCTURE / FITTING SCHEDULE | | |
|------------------------------|-------------|-----|
| QUANTITY | TYPE | W/S |
| 1 | CO/S 2.22 | S |
| 3 | 4" X 1/8 HB | S |
| | | |
| | | |

APPROVED: HOWARD COUNTY SOIL CONSERVATION DISTRICT

HOWARD COUNTY SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Meredith A. Cagle 10/16/07
DIRECTOR DATE

William D. ... 10/16/07
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cindy Hamble 10/22/07
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

| DATE | NO. | REVISION |
|------|-----|----------|
| | | |

OWNER
TARUN SAINI
5131 HARPERS FARM ROAD
COLUMBIA, MARYLAND 21044
(410) 997-5160

DEVELOPER
JST BUILDERS
JOHN STARTT
6030 DAYBREAK CIRCLE
CLARKSVILLE, MD 21029
W: (410) 884-0334

PROJECT
SINGLE FAMILY DETACHED RESIDENCE
VILLAGE OF HARPERS CHOICE, FDP-184-A
SECTION 5, AREA 9, PHASE II, LOT 15

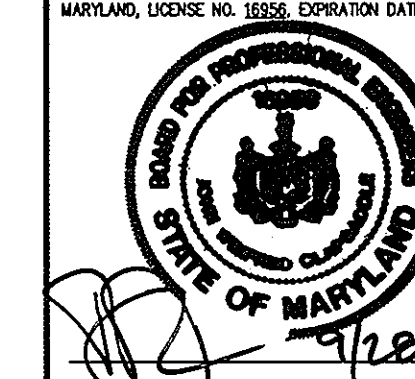
AREA
TAX MAP 29, GRID 21 PARCEL 370
5TH ELECTION DISTRICT ZONED NT-NEW TOWN
HOWARD COUNTY, MARYLAND

TITLE
WATER & SEWER PROFILES

Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

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. 12256, EXPIRATION DATE: 6/20/08.

DESIGNED BY: HS
DRAWN BY: HS
PROJECT NO: 14426-1-0
DATE: SEPT. 27, 2007
SCALE: AS SHOWN
DRAWING NO. 6 OF 6



P:\Project\14426\1-0\PLANS\C800WKS.DWG