

GENERAL NOTES

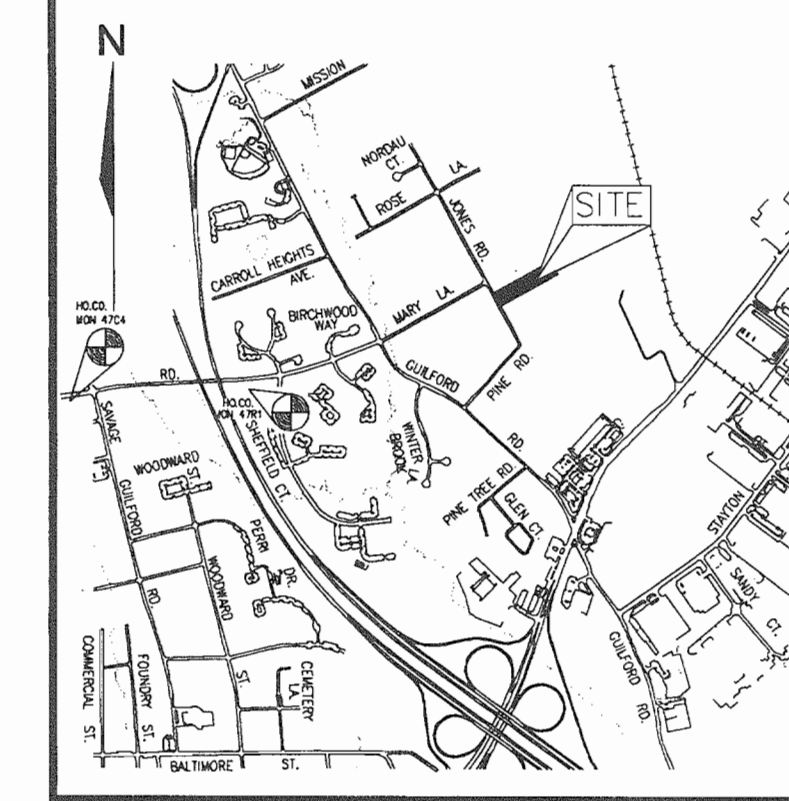
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
 - MISS UTILITY 1-800-257-7777
 - VERIZON 725-9976
 - HOWARD COUNTY BUREAU OF UTILITIES: 313-2366
 - AT&T CABLE LOCATION DIVISION: 393-3553
 - B.G.&E. CO. CONTRACTOR SERVICES: 850-4620
 - B.G.&E. CO. UNDERGROUND DAMAGE CONTROL: 787-4620
 - STATE HIGHWAY ADMINISTRATION: 531-4533
- THE SUBJECT PROPERTY IS ZONED R-12 AS PER THE 02/02/2004 COMPREHENSIVE ZONING PLAN.
- SITE ANALYSIS:
 - TOTAL PROJECT AREA: 5.12± AC
 - NET PROJECT AREA: 3.12 AC
 - PRESENT ZONING: R-12
 - TOTAL NUMBER OF REQUIRED PARKING SPACES: 2 SPACES PER DWELLING UNIT X 26 UNITS = 52
 - TOTAL NUMBER OF PROVIDED PARKING SPACES: 26 SINGLE CAR GARAGES + 26 SPACES ON DRIVEWAYS + 2 COMMUNITY CENTER PARKING SPACES (1 HANDICAP) = 54 SPACES
 - AREA OF REQUIRED OPEN SPACE: 1.79 AC. (35% X 5.12 AC.)
 - AREA OF PROVIDED OPEN SPACE: 2.48 AC.
 - AREA OF PROPOSED BUILDING COVERAGE (26 UNITS & COMMUNITY CENTER): 1.17 AC. (1877.3 SF PER UNIT X 27 UNITS)
 - LIMIT OF DISTURBANCE: 5.0 AC±
 - PROPOSED USE OF SITE: AGE RESTRICTED ADULT HOUSING
 - TOTAL UNITS RESIDENTIAL UNITS ALLOWED: 0 UNITS (6 UNITS PER NET ACRE X 4.55 AC.)
 - TOTAL RESIDENTIAL UNITS PROPOSED: 26 UNITS (SPECIAL EXCEPTION)
 - COMMUNITY CENTER REQUIRED FLOOR SPACE = 26 DU X 20 SF FLOOR AREA/DU = 520 SF
 - COMMUNITY CENTER FLOOR SPACE PROVIDED = 1629 SF
 - RECREATIONAL OPEN SPACE REQUIRED: 10,400 SF. (400 SF/ UNIT X 26 UNITS)
 - RECREATIONAL OPEN SPACE PROVIDED: 7,750 SF
 - COMMUNITY REC CENTER (2 STORY): 3,258 SF
 - TOTAL RECREATIONAL OPEN SPACE PROVIDED: 11,008 SF
 - RECREATIONAL OPEN SPACE IS PROVIDED WITH THE USE OF PATHWAYS AND SEATING AREA.
- PROJECT BACKGROUND:
 - LOCATION: TAX MAP: 42 PARCEL: '143' BLOCK:24
 - ZONING: R-12
 - DEED REFERENCE: LIBER 198/FOLIO 201
 - DPZ REFERENCE: BA CASE NO. 03-26C, F06-40.
- 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 START OF WORK.
- ANY DAMAGE TO PUBLIC RIGHTS-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE TO THE COUNTY'S RIGHT OF WAY INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- 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.
- ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
- STORMWATER MANAGEMENT HAS BEEN BY INFILTRATING DRYWELLS, GRASS SWALES AND A DRY POND TO PROVIDE THE REQUIRED C_{in} , W_{in} AND R_{in} FOR THIS SITE. THE SWM FACILITY IS LOCATED ON OPEN SPACE 1 AND WILL BE PRIVATELY OWNED AND MAINTAINED BY THE HOA. THE FACILITY IS HAZARD CLASS 'A'.
- STORMWATER MANAGEMENT AND DRYWALL BORINGS FOR THIS SITE ARE BASED ON A GEOTECHNICAL ANALYSIS PREPARED BY REULING ASSOCIATES, INC., DATED AUGUST 2003.
- SOIL COMPACTION SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER. GEOTECHNICAL ENGINEER TO CONFIRM ACCEPTABILITY OF PROPOSED PAVING SECTION, BASED ON SOILS TEST.
- COORDINATES AND ELEVATIONS ARE BASED ON HOWARD COUNTY MONUMENT NO'S. 47C4 AND 47R1.
- EXISTING TOPOGRAPHY IS BASED ON TOPOGRAPHICAL SURVEY PREPARED BY FREDERICK WARD ASSOCIATES, DATED JULY 2003.
- THE BOUNDARY IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PREPARED BY FREDERICK WARD ASSOCIATES DATED JULY 2003.
- ACCESS TO WATER AND SEWER HAS BEEN PROVIDED UNDER CONTRACT NO. W-8694 & 24-3312. WATER FOR THIS PROJECT WILL BE PUBLIC. SEWER WILL BE PRIVATE.
- 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' (14' SERVING MORE THAN ONE RESIDENCE)
 - SURFACE-6" OF COMPACTED CRUSHER RUN BASE W/TAR CHIP COATING (1-1/2" MIN.)
 - GEOMETRY-MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. 45' TURNING RADIUS
 - STRUCTURES (CULVERTS/BRIDGES)-CAPABLE OF SUPPORTING 225 GROSS TONS (125 LOADING)
 - DRAINAGE ELEMENTS-CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1' DEPTH OVER DRIVEWAY SURFACE
 - MAINTENANCE-SUFFICIENT TO INSURE ALL WEATHER USE
- NO BURIAL GROUNDS OR CEMETERIES ARE LOCATED ON THIS PROPERTY.
- IN ACCORDANCE WITH SECTION 128 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 YARD SETBACK OR PROJECT BOUNDARY SETBACK.
- IN ACCORDANCE WITH SECTION 16.124 OF THE LANDSCAPE MANUAL, PUBLIC & PRIVATE STREET TREES, PERIMETER & INTERNAL LANDSCAPING AND STORMWATER MANAGEMENT LANDSCAPING SHALL BE PROVIDED AS SHOWN ON THIS SITE PLAN. SURETY FOR 101 SHADE TREES, 84 EVERGREENS AND 370 SHRUBS IN THE AMOUNT OF \$54,000.00 SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT.
- FOREST CONSERVATION IN ACCORDANCE WITH SECTION 16.1202 OF THE FOREST CONSERVATION MANUAL SHALL BE PROVIDED BY THE PLACEMENT OF 0.4637 ACRES OF REFORESTATION (20,198.77 sq ft x .50) AND 0.0742 ACRES OF RETENTION (3,232.15 sq ft x .20) IN A FOREST CONSERVATION EASEMENT. SURETY FOR THE REFORESTATION AND RETENTION EASEMENT AREAS IN THE AMOUNT OF \$10,745.82 SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT. A FEE IN-LIEU FOR THE REMAINDER OF 2.39 ACRES OF REQUIRED REFORESTATION IN THE AMOUNT OF \$52,054.20 SHALL BE PAID TO THE FOREST CONSERVATION FUND.
- GARAGES SHALL BE USED FOR PARKING PURPOSES ONLY AND ARE NOT PERMITTED TO BE CONVERTED TO OTHER USES PER THE HOWARD COUNTY ZONING REGULATIONS, UNLESS THE 2 OFF-STREET PARKING SPACES ARE PROVIDED WITHIN THE RESIDENTIAL UNIT DRIVEWAY.
- REFUSE COLLECTION FOR THIS SITE WILL BE PRIVATE. THERE WILL BE NO COMMUNITY TRASH DUMPSTERS FOR THIS PROJECT.
- BASED ON A FIELD INVESTIGATION BY FREDERICK WARD ASSOCIATES, THERE ARE NO WETLANDS ON SITE.
- WASTE DISPOSAL AND REMOVAL FOR THIS PROJECT WILL BE PROVIDED WITH PRIVATE CURB SIDE PICK UP.
- THE HOWARD COUNTY BOARD OF APPEALS HEARING EXAMINER GRANTED APPROVAL OF BOA CASE NO. 03-26C FOR A CONDITIONAL USE FOR AGE-RESTRICTED HOUSING IN AN R-12 ZONING DISTRICT SIGNED OCTOBER 27, 2003. THE CONDITIONAL USE APPLIES ONLY TO THE USES AND STRUCTURES DESCRIBED IN THE PETITION SUBMITTED BY SK PROPERTIES, LTD. AND THE ACCOMPANYING CONDITIONAL USE PLAN.
- IN ACCORDANCE WITH SECTION 131.N.1 OF THE HOWARD COUNTY ZONING REGULATION 3 UNITS (14%) WILL BE MODERATE INCOME HOUSING UNITS.
- THE AGE-RESTRICTED COVENANTS FOR THIS SUBDIVISION HAVE BEEN RECORDED IN THE LAND RECORDS OFFICE OF HOWARD COUNTY, MARYLAND, DATED MARCH 31, 2005. (RECORDING REF. NO. L-09128, F.601-608)
- THE SUBDIVISION IS SUBJECT TO SECTION 131.N. OF THE HOWARD COUNTY ZONING REGULATIONS AND UNIVERSAL DESIGN STANDARDS TO FACILITATE EASE OF USE BY THE ELDERLY POPULATION HAVE BEEN INCORPORATED INTO THE DESIGN.
- THE SUBDIVISION PLAN IS IN COMPLIANCE WITH THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS
- ALL OUTDOOR LIGHTING FOR THIS SUBDIVISION SHALL BE IN ACCORDANCE WITH SECTION 134 OF THE ZONING REGULATIONS
- DUE TO THE DATE THAT THE DECISION AND ORDER IN CASE NO. 03-26C WAS SIGNED (OCTOBER 27, 2003), THIS SITE IS GRANDFATHERED FROM COMPLIANCE WITH THE NEW SETBACKS REQUIREMENT OF SECTION 131.N.1.D.(2) OF THE ZONING REGULATIONS AMENDED UNDER COUNCIL BILL 49-2003.
- THE MAXIMUM IMPERVIOUS AREA ALLOWED ON THE SITE IS 43%.
- THE HEARINGS EXAMINER APPROVED AN ADMINISTRATIVE ADJUSTMENT (AA CASE NO. 04-31) ON DEC. 8, 2004 FOR A TEE TURNAROUND ENCRoACHING 10 FT (4") INTO THE USE SETBACK.
- THE HOMEOWNER'S ASSOCIATION DOCUMENTS HAVE BEEN RECORDED WITH THE MARYLAND STATE DEPARTMENT OF ASSESSMENTS AND TAXATION ON APRIL 21, 2005 AS RECORDING NUMBER LIBER 09128 FOLIO 601 TO 612.

SITE DEVELOPMENT PLAN

JONES ROAD

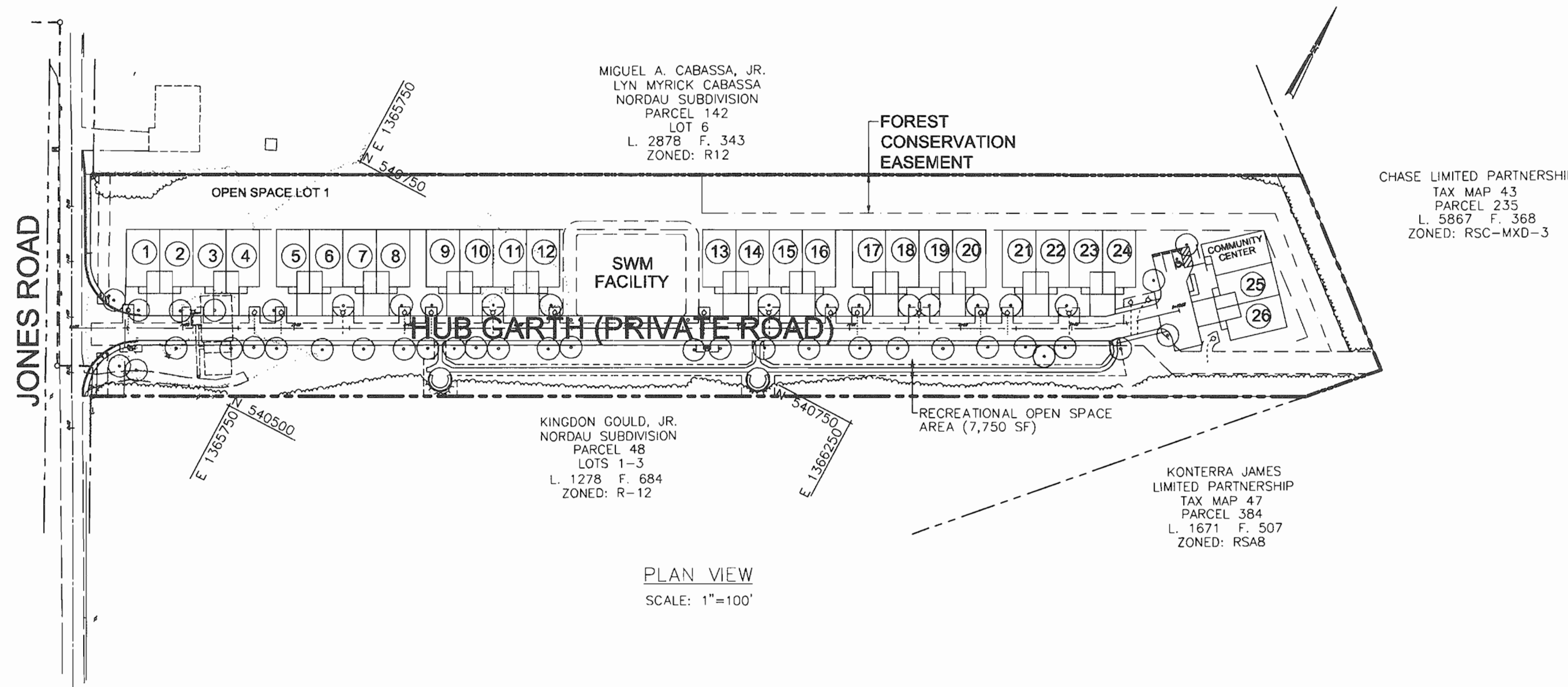
AGE RESTRICTED ADULT HOUSING

HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1"=2000'

BENCHMARK NO. 1: COUNTY MONUMENT #47C4
TYPICAL HOWARD COUNTY CONCRETE MONUMENT
N 539,645.6687, E 1,361,379.3637
ELEV. = 288.845
BENCHMARK NO. 2: COUNTY MONUMENT #47R1
TYPICAL HOWARD COUNTY CONCRETE MONUMENT
N 539,734.5080, E 1,363,098.8714
ELEV. = 282.440



PLAN VIEW
SCALE: 1"=100'

UNIVERSAL DESIGN GUIDELINES

- REQUIRED:**
- FOR MULTI-FAMILY APARTMENT OR CONDO DEVELOPMENTS, AN ACCESSIBLE PATH BETWEEN PARKING, DWELLING UNITS, AND COMMON AREAS THAT MEET ADA STANDARDS.
 - FOR SINGLE FAMILY DETACHED AND ATTACHED DEVELOPMENTS, A "NO-STEP" ACCESS TO THE FRONT ENTRANCE TO THE COMMUNITY BUILDING AND ALL DWELLINGS (A NO-STEP ENTRANCE IS DESIRABLE, BUT NOT REQUIRED AT OTHER ENTRANCES).
 - 36" WIDE FRONT DOOR WITH EXTERIOR LIGHTING OF THE ENTRANCE.
 - ALL INTERIOR DOORWAYS AT LEAST 32" WIDE (36" IS PREFERABLE).
 - HALLWAYS AT LEAST 36" WIDE, (40-42" IS PREFERABLE).
 - COMPLETE LIVING AREA INCLUDING MASTER BEDROOM & BATH ON FIRST FLOOR (OR ELEVATOR ACCESS IF MULTI-STORY RENTAL/CONDO APARTMENTS).
 - LEVER HANDLES ON INTERIOR AND EXTERIOR DOORS.
 - BLOCKING FOR GRAB BARS IN WALLS IN BATHROOM WALLS NEAR TOILET AND SHOWER.

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COORDINATE TABLE (NAD 83)		
NO.	NORTHING	EASTING
1	540411.09	1364937.14
2	539987.29	1365163.31
3	539800.99	1364989.59
4	540109.63	1364657.79
5	540222.72	1364595.94

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Cecilia Hanna 5/16/06
CHIEF, DIVISION OF LAND DEVELOPMENT & DATE

Slubg
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Paul Meyer 5/16/06
DIRECTOR DATE

OWNER

SK KING GEORGE, LLC
8013 JONES ROAD
JESSUP, MD 20789

DEVELOPER

SK PROPERTIES, LTD.
C/O WILLIAM KNOTT
57 WEST TIMONIUM RD, SUITE 106
TIMONIUM, MD 21093
(443) 271-5646

ADDRESS CHART			
UNIT	STREET ADDRESS	UNIT	STREET ADDRESS
1	8805 HUB GARTH	14	8857 HUB GARTH
2	8807 HUB GARTH	15	8859 HUB GARTH
3	8809 HUB GARTH	16	8861 HUB GARTH
4	8811 HUB GARTH	17	8865 HUB GARTH
5	8815 HUB GARTH	18	8867 HUB GARTH
6	8817 HUB GARTH	19	8869 HUB GARTH
7	8819 HUB GARTH	20	8871 HUB GARTH
8	8821 HUB GARTH	21	8875 HUB GARTH
9	8825 HUB GARTH	22	8877 HUB GARTH
10	8827 HUB GARTH	23	8879 HUB GARTH
11	8829 HUB GARTH	24	8881 HUB GARTH
12	8831 HUB GARTH	25	8887 HUB GARTH
13	8855 HUB GARTH	26	8889 HUB GARTH
		CC	8885 HUB GARTH

PERMIT INFORMATION CHART					
PROJECT NAME		SECTION/AREA	PARCEL NUMBER		
JONES ROAD		N/A	143		
DEED REF. 198/201 18186-18188	BLOCK NO. 24	ZONE R-12	TAX MAP 42	ELECT. DIST. 6TH	CENSUS TR. 606901
WATER CODE:		SEWER CODE:			

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN
COVER SHEET
JONES ROAD
AGE RESTRICTED ADULT HOUSING
UNITS 1-26 & COMMUNITY CENTER

TAX MAP 42 GRID 24
6TH ELECTION DISTRICT

PARCEL 143
HOWARD COUNTY, MARYLAND

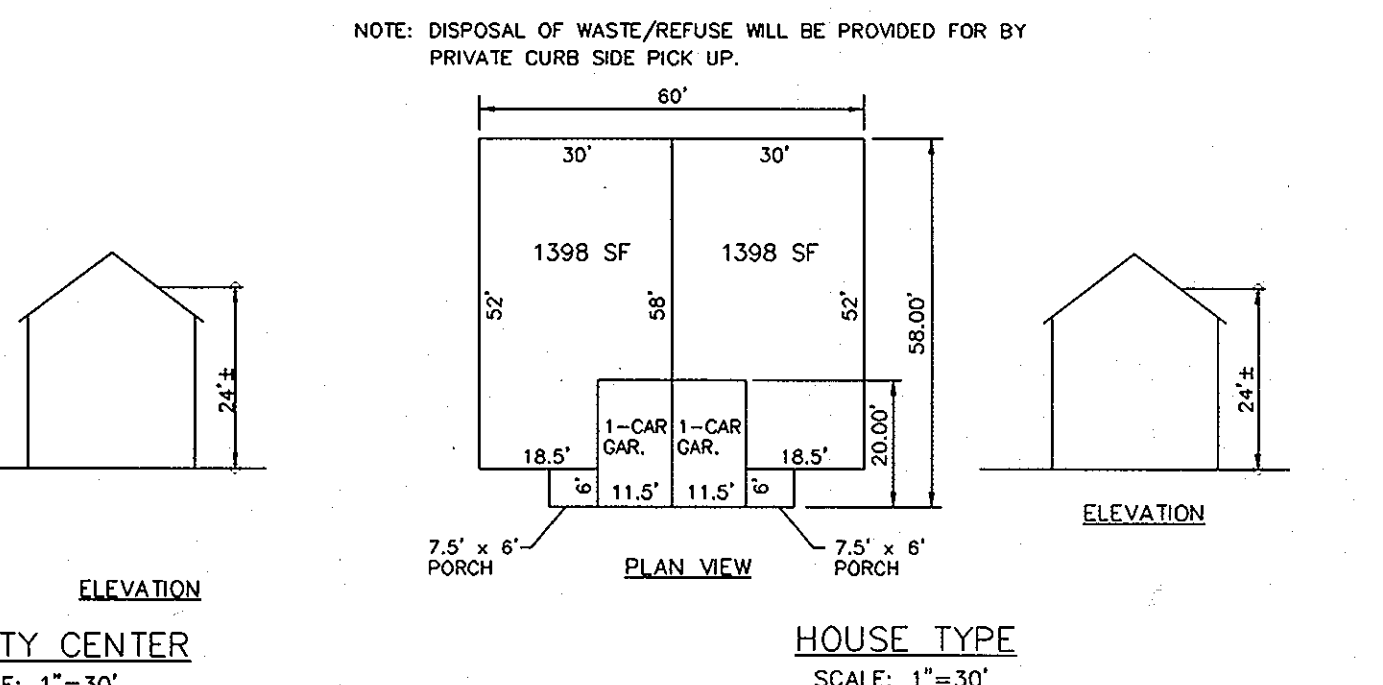
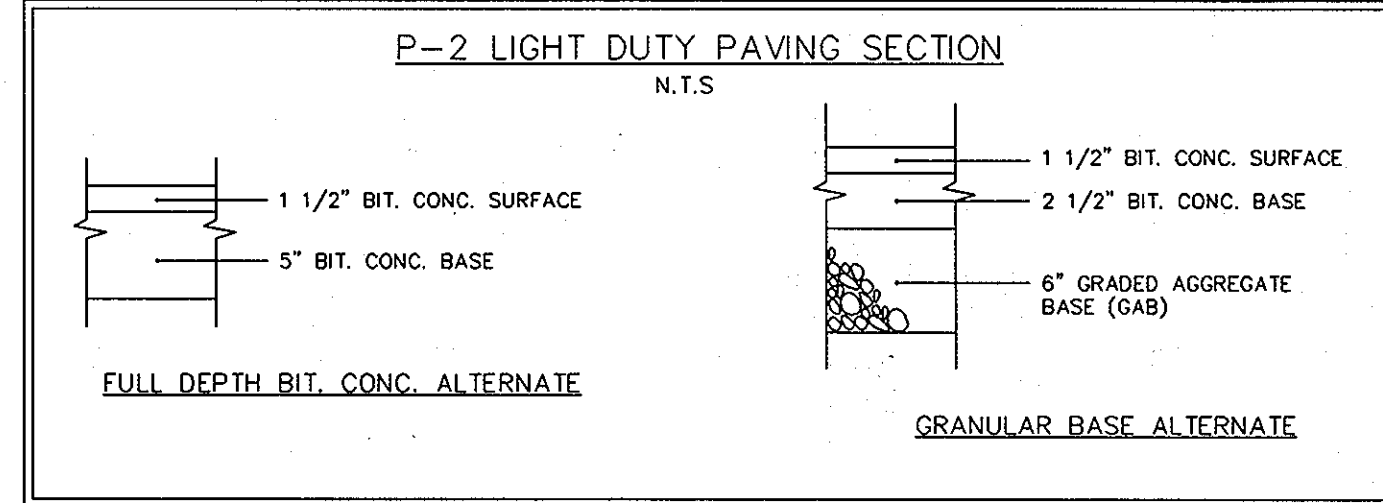
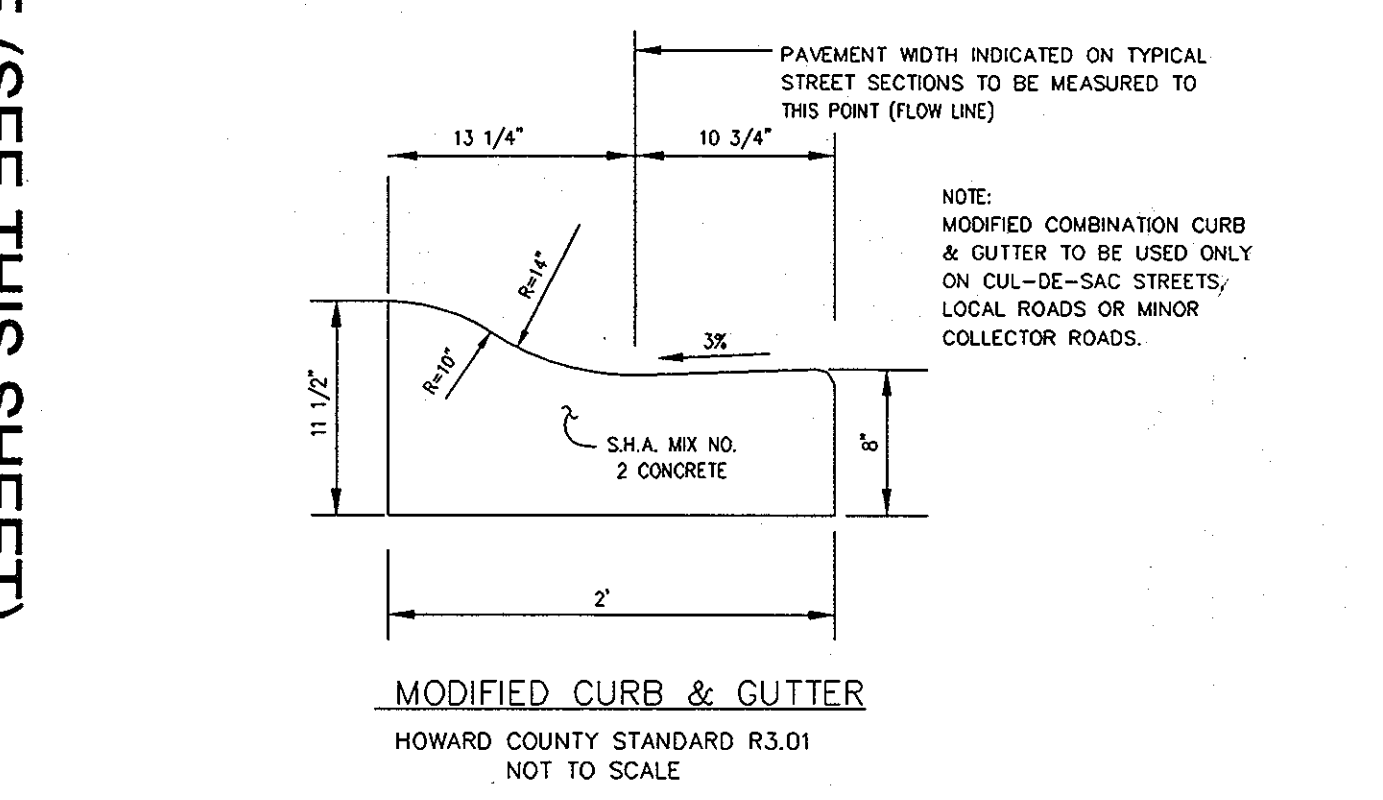
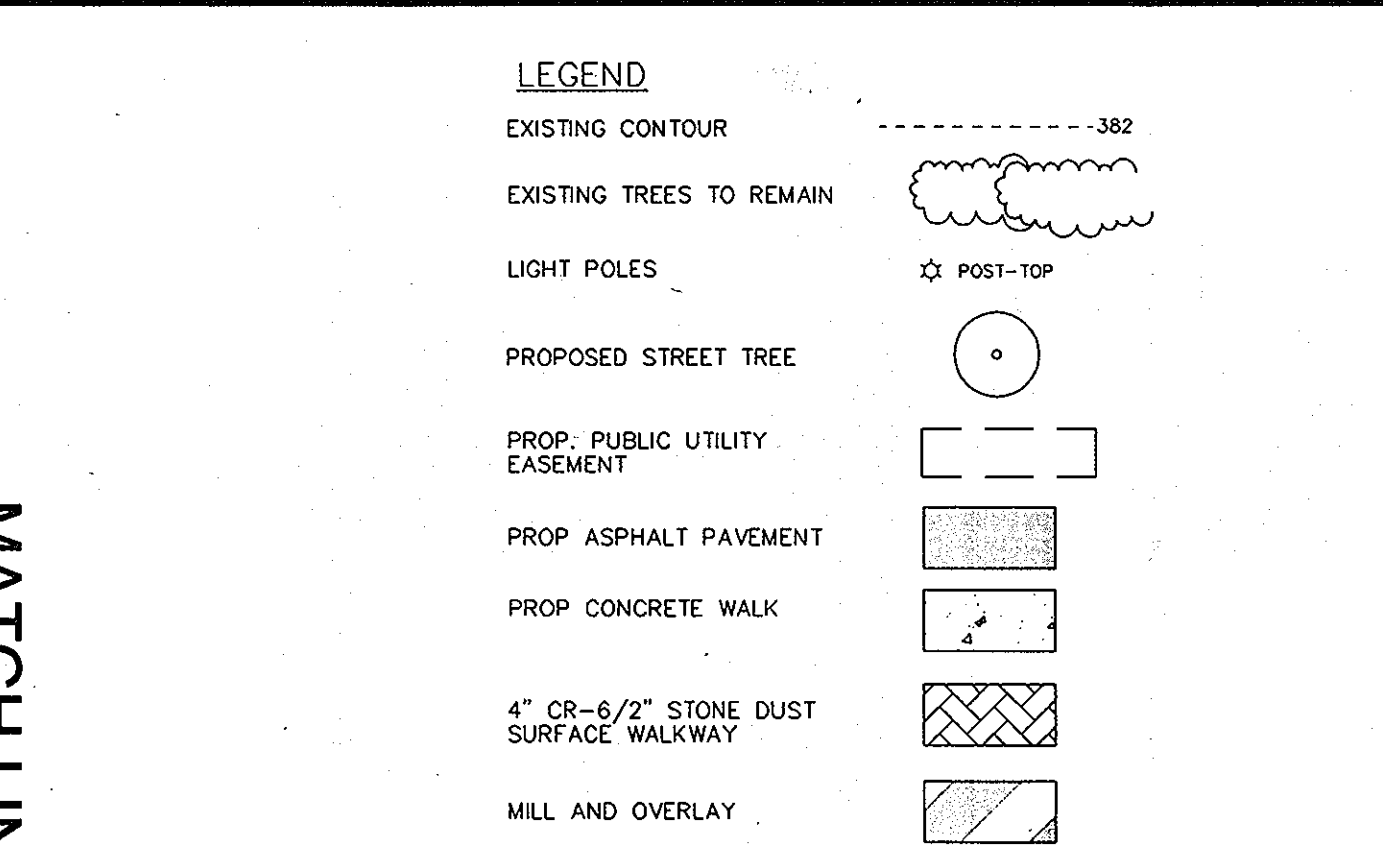
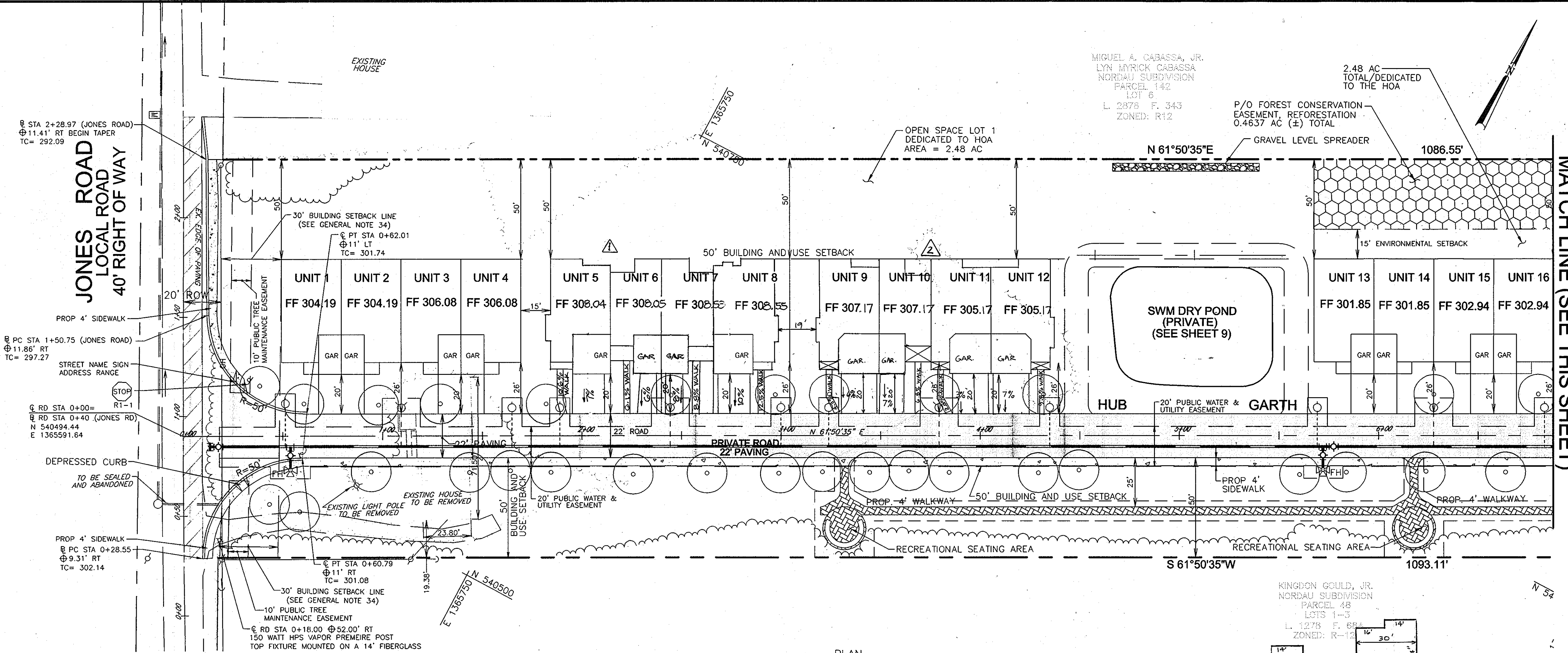
FWA
FREDERICK WARD ASSOCIATES, INC.

ARCHITECTS ENGINEERS PLANNERS SURVEYORS www.frederickward.com

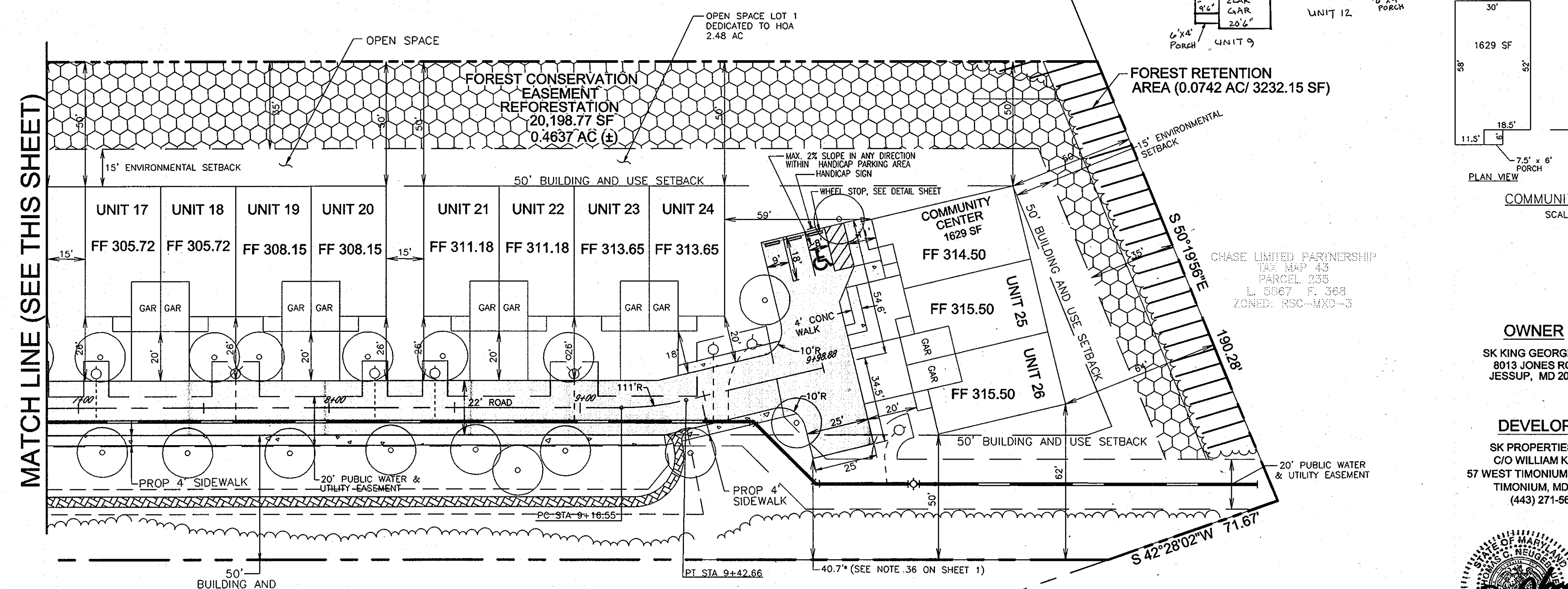
P.O. BOX 727, S SOUTH MAIN STREET
BEL AIR, MARYLAND 21014
410-837-7000
410-833-1243 fax

DESIGN BY: SS
DRAWN BY: MPB
CHECKED BY: SJG
DATE: 07/07/05
SCALE: AS SHOWN
W.O. NO.: 2034026.00

STEPHEN J. GORSKI, P.E.



- NOTES:
- ROAD FRONTAGE IMPROVEMENTS WILL BE DONE IN ACCORDANCE WITH R-10.01 OF THE HOWARD COUNTY DESIGN MANUAL VOLUME I.
 - FOR MAINTENANCE OF TRAFFIC DETAILS, SEE SHEET 5.



APPROVED: DEPARTMENT OF PLANNING AND ZONING

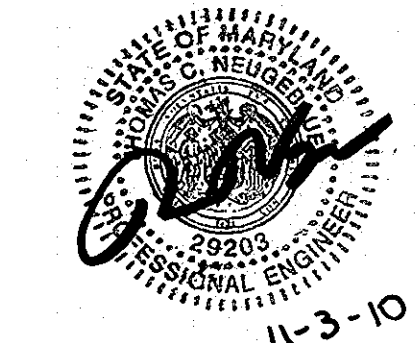
Cindy Hunter 5/16/06
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Mark P. Leight 5/16/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Mark P. Leight 5/16/06
DIRECTOR DATE

OWNER
SK KING GEORGE, LLC
8013 JONES ROAD
JESSUP, MD 20789

DEVELOPER
SK PROPERTIES, LTD.
C/O WILLIAM KNOTT
57 WEST TIMONIUM RD, SUITE 106
TIMONIUM, MD 21093
(443) 271-5646



NO.	REVISION	DATE
02-11	REVISE UNIT DRIVEWAY LAYOUT & SIZE UNITS 9-12	02-11
11-10	AS-BUILT FOOTPRINT REVISIONS FOR UNITS 5-8	11-10

SITE DEVELOPMENT PLAN
SITE PLAN
JONES ROAD
AGE RESTRICTED ADULT HOUSING
UNITS 1-26 & COMMUNITY CENTER

TAX MAP 42 GRID 24 PARCEL 143
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
ARCHITECTS ENGINEERS PLANNERS SURVEYORS
www.fredrickward.com

DESIGN BY: SS
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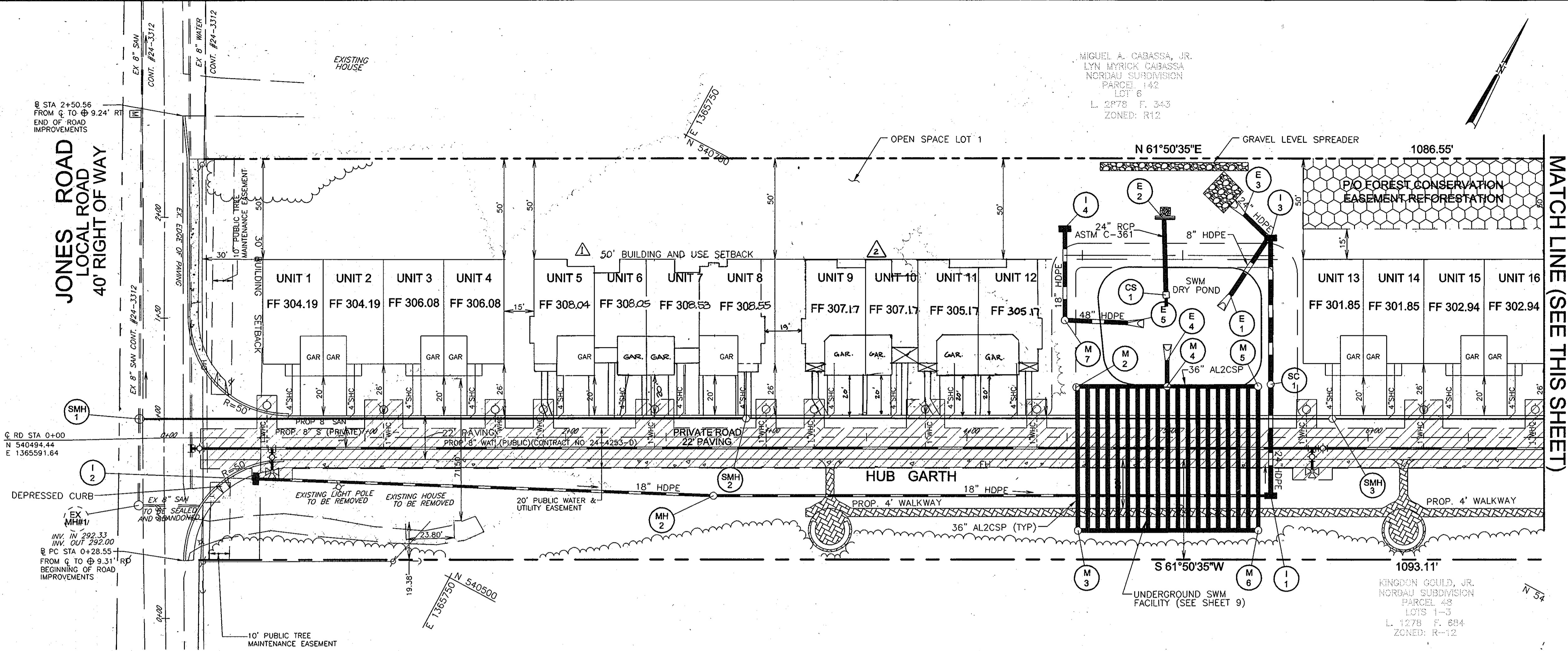
STEPHEN J. GORSKI, P.E. 5-2-06

2 SHEET OF 16

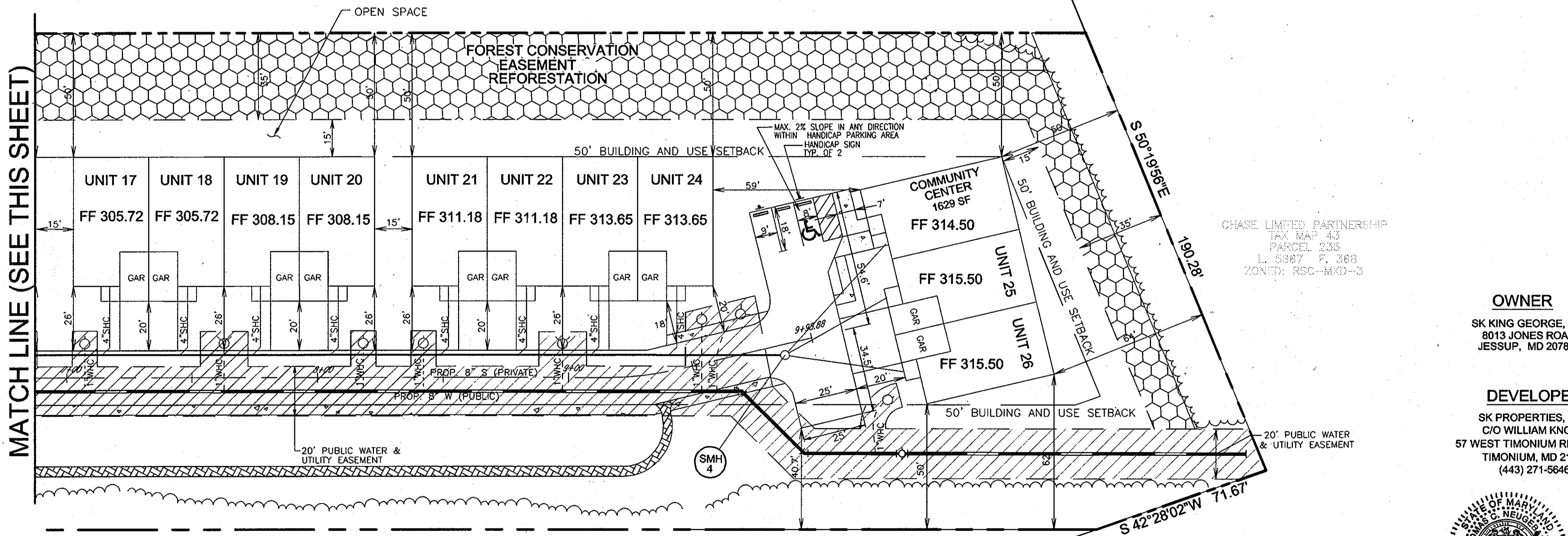
MIGUEL A. CABASSA, JR.
 LYNN MYRICK CABASSA
 NORBAU SUBDIVISION
 PARCEL 142
 LOT 6
 L. 2878 F. 343
 ZONED: R12

LEGEND

- EXISTING CONTOUR
- EXISTING TREES TO REMAIN
- L.H.T. POLES
- PROPOSED STREET TREE
- PROP. PUBLIC UTILITY EASEMENT



PLAN
 SCALE: 1"=30'

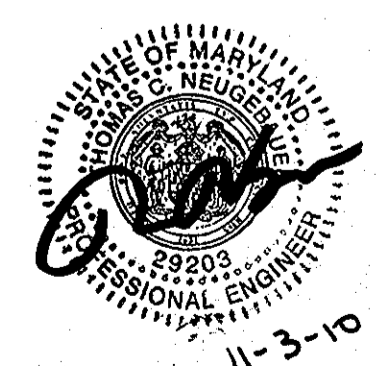


PLAN
 SCALE: 1"=30'

NO.	REVISION	DATE
1	REVISE UNIT/DRIVEWAY LAYOUT & SIZE UNITS 9-12	2-11
2	AS-BUILT FOOTPRINT REVISIONS FOR UNITS 5-8	11-10

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FOR REV. ONLY
 LICENSE EXPIRES 06-16-11

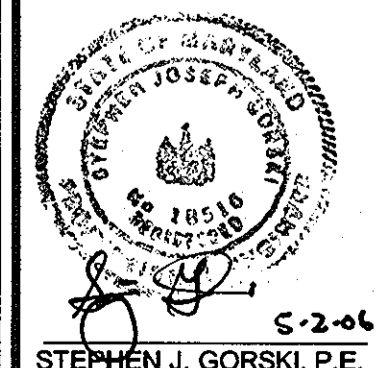
**SITE DEVELOPMENT PLAN
 UTILITY PLAN
 JONES ROAD
 AGE RESTRICTED ADULT HOUSING
 UNITS 1-26 & COMMUNITY CENTER**

TAX MAP 42 GRID 24 PARCEL 143
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



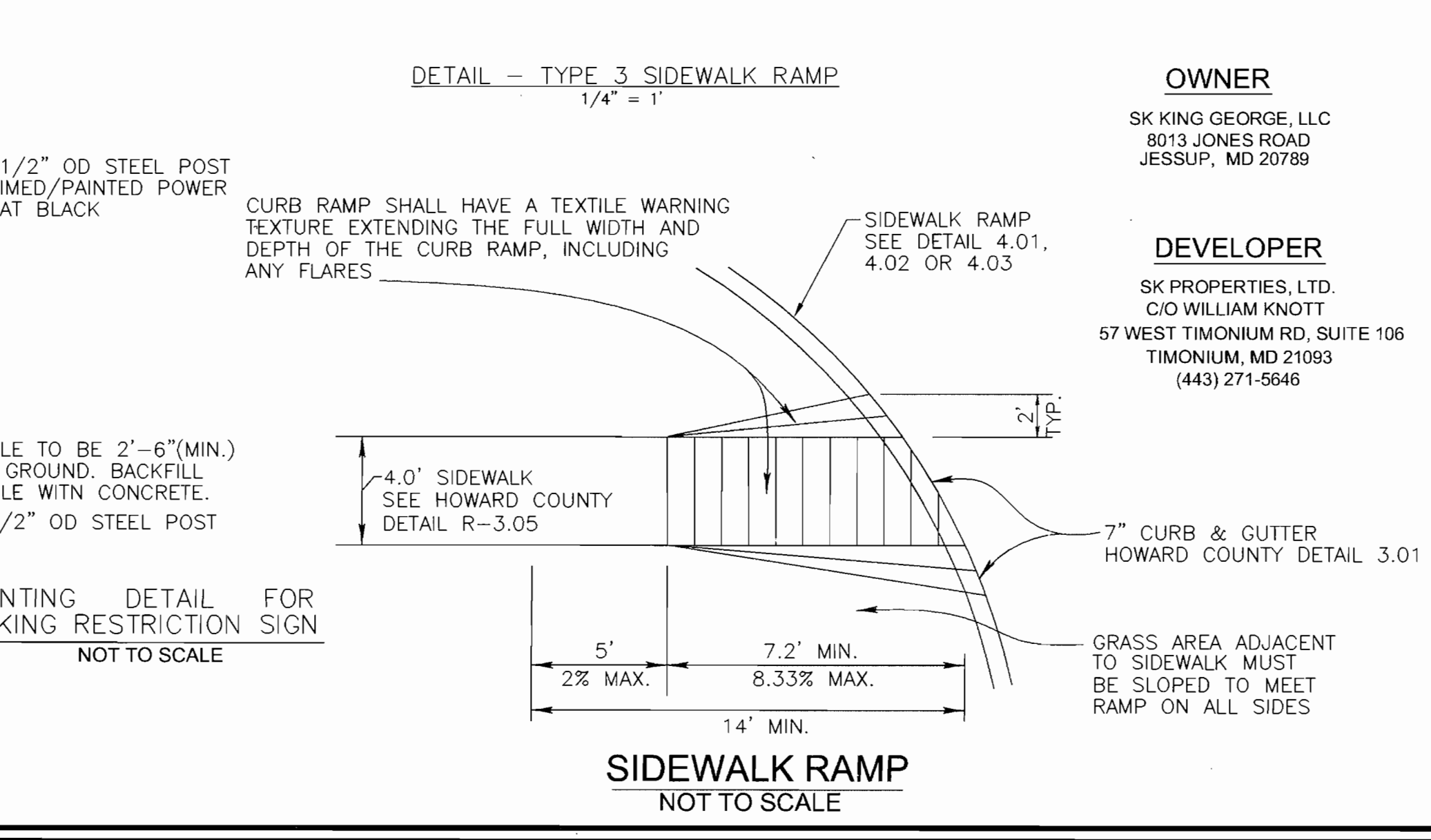
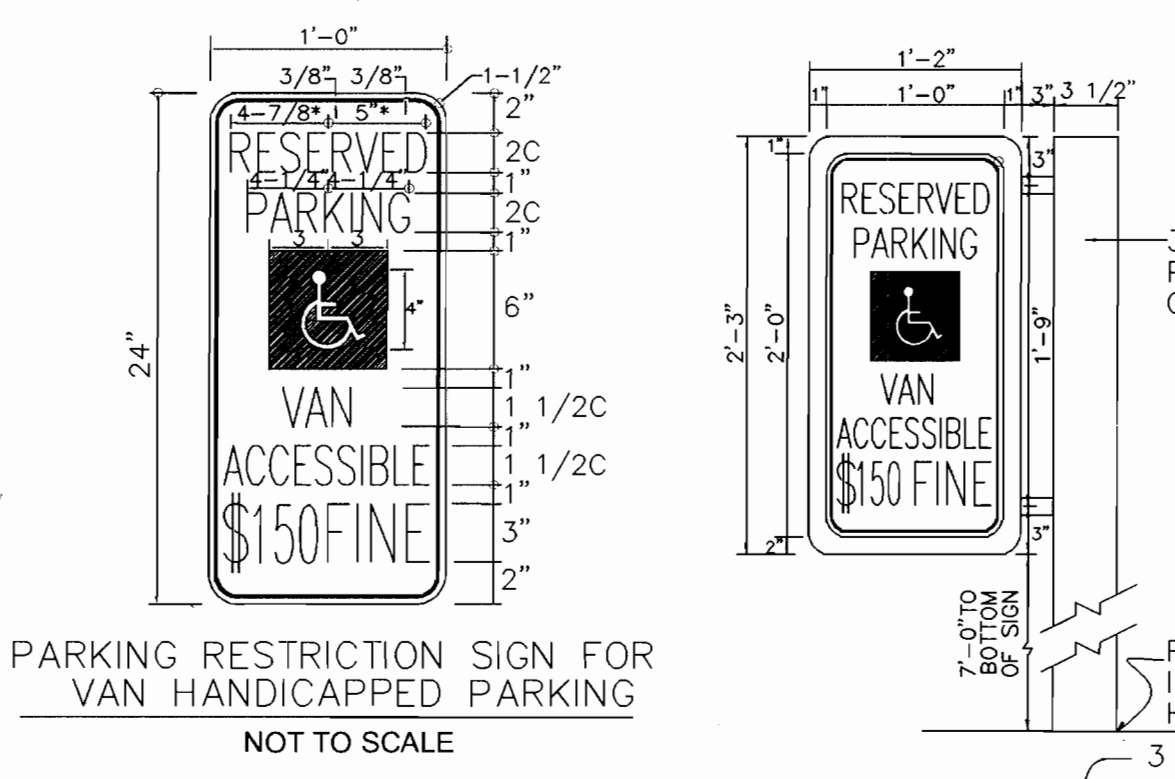
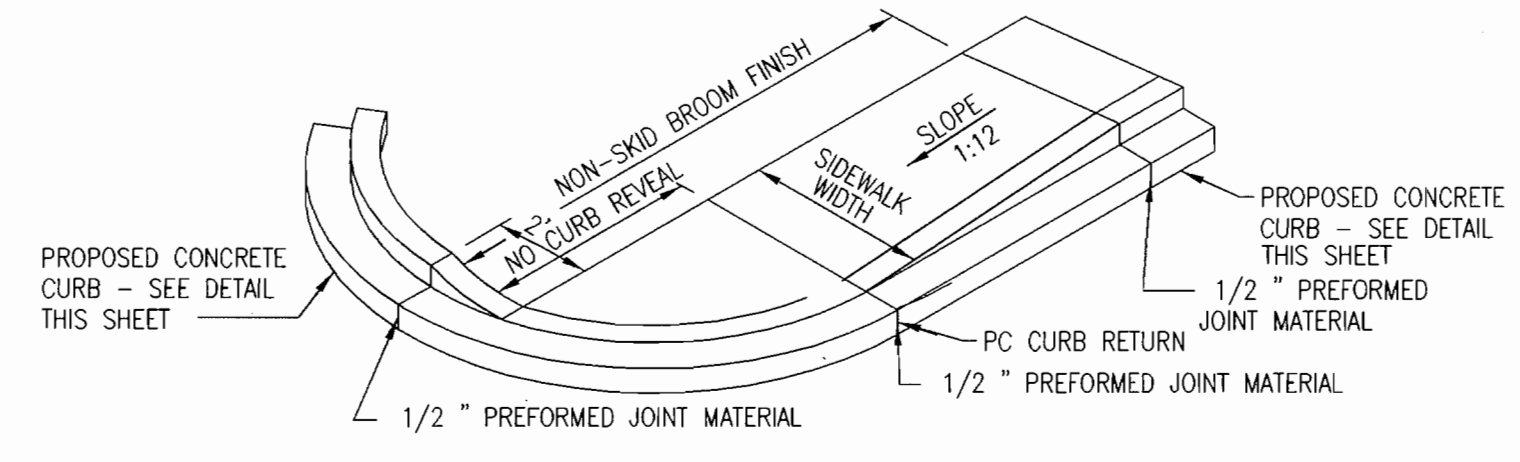
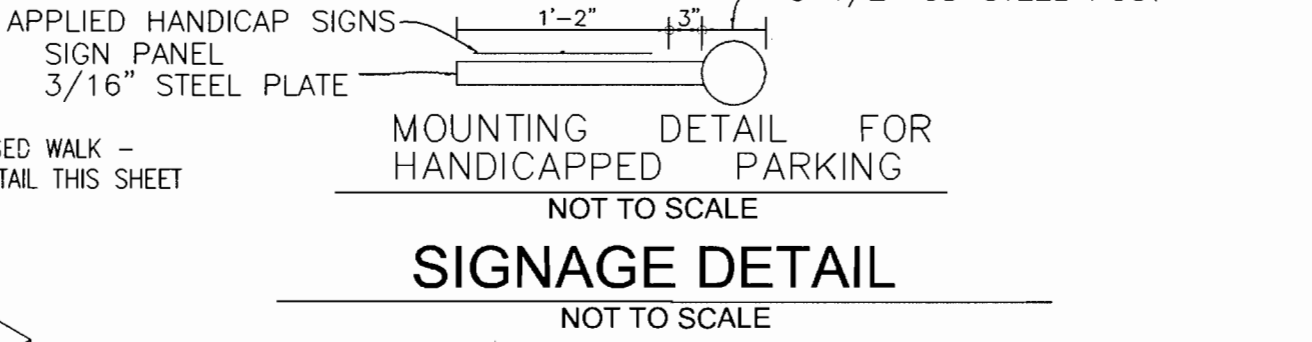
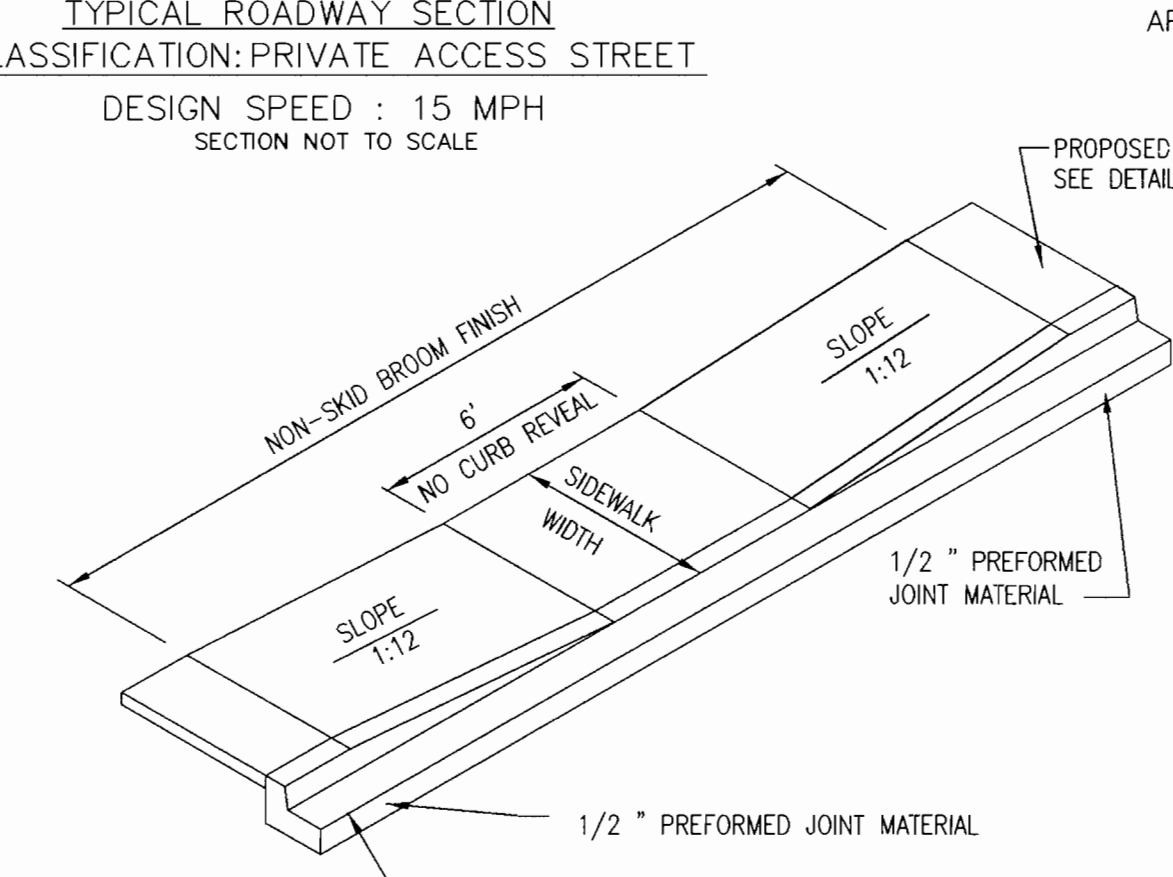
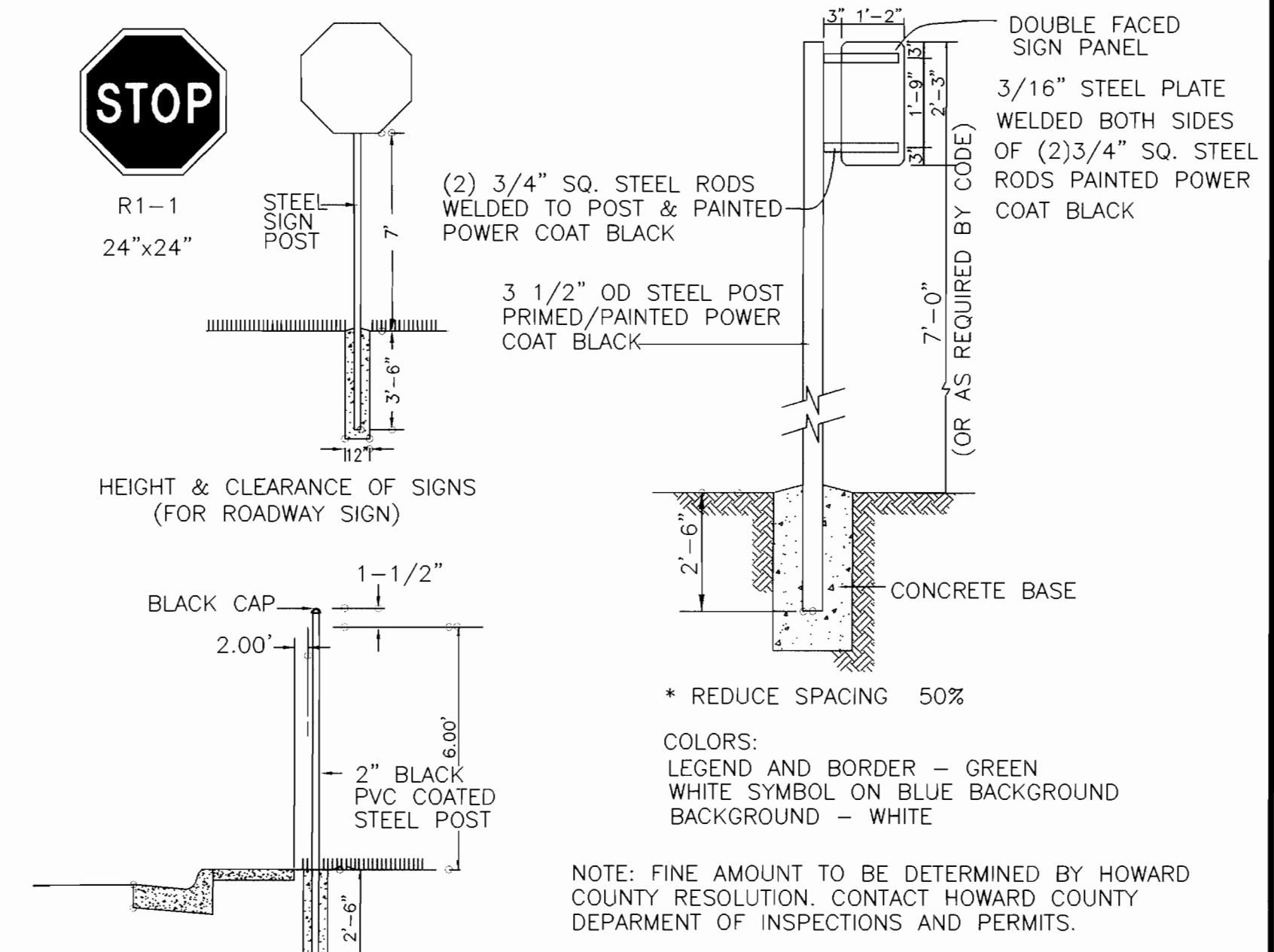
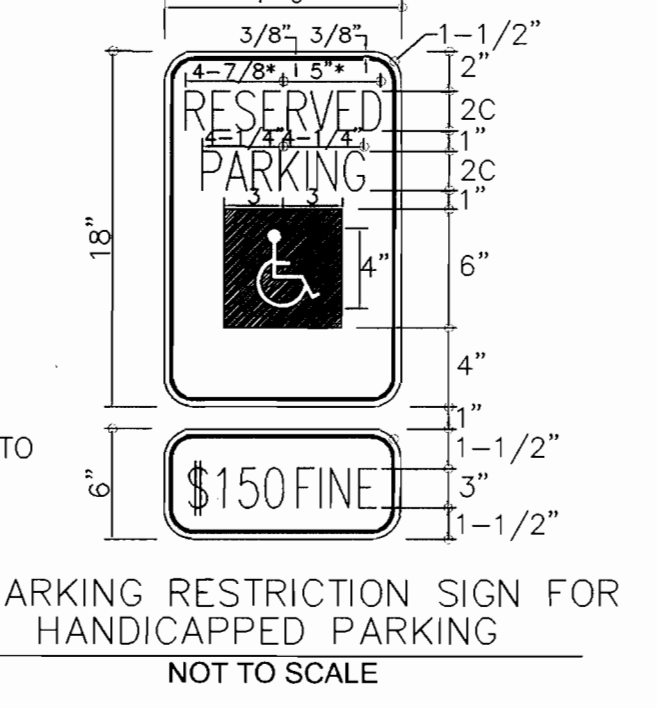
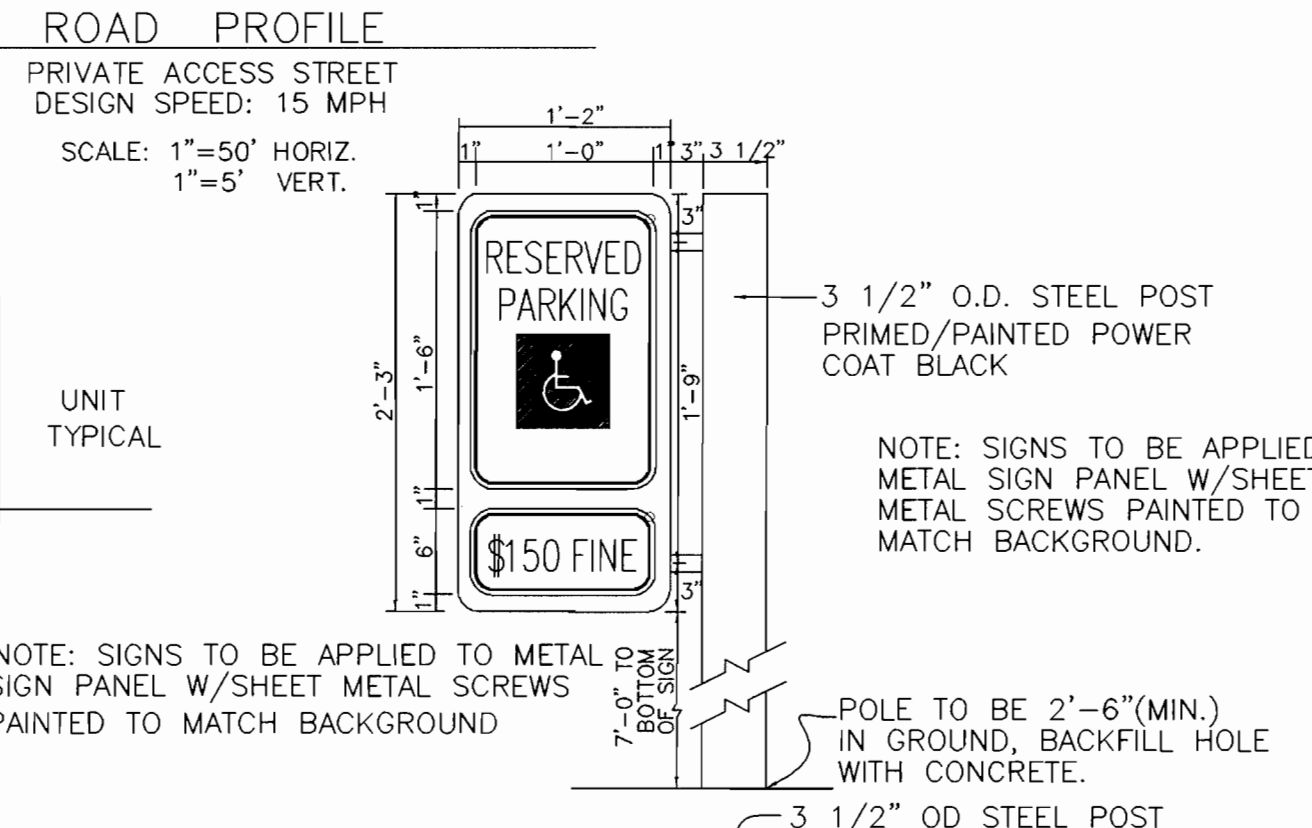
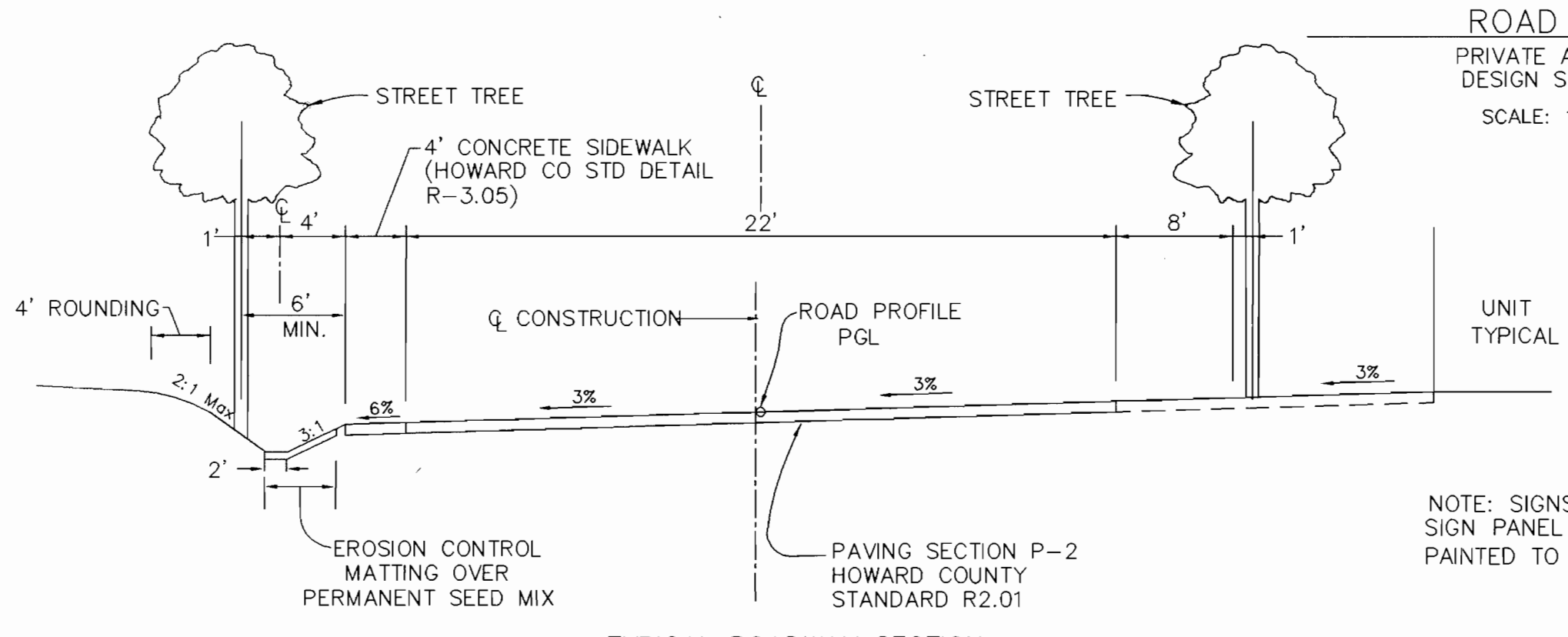
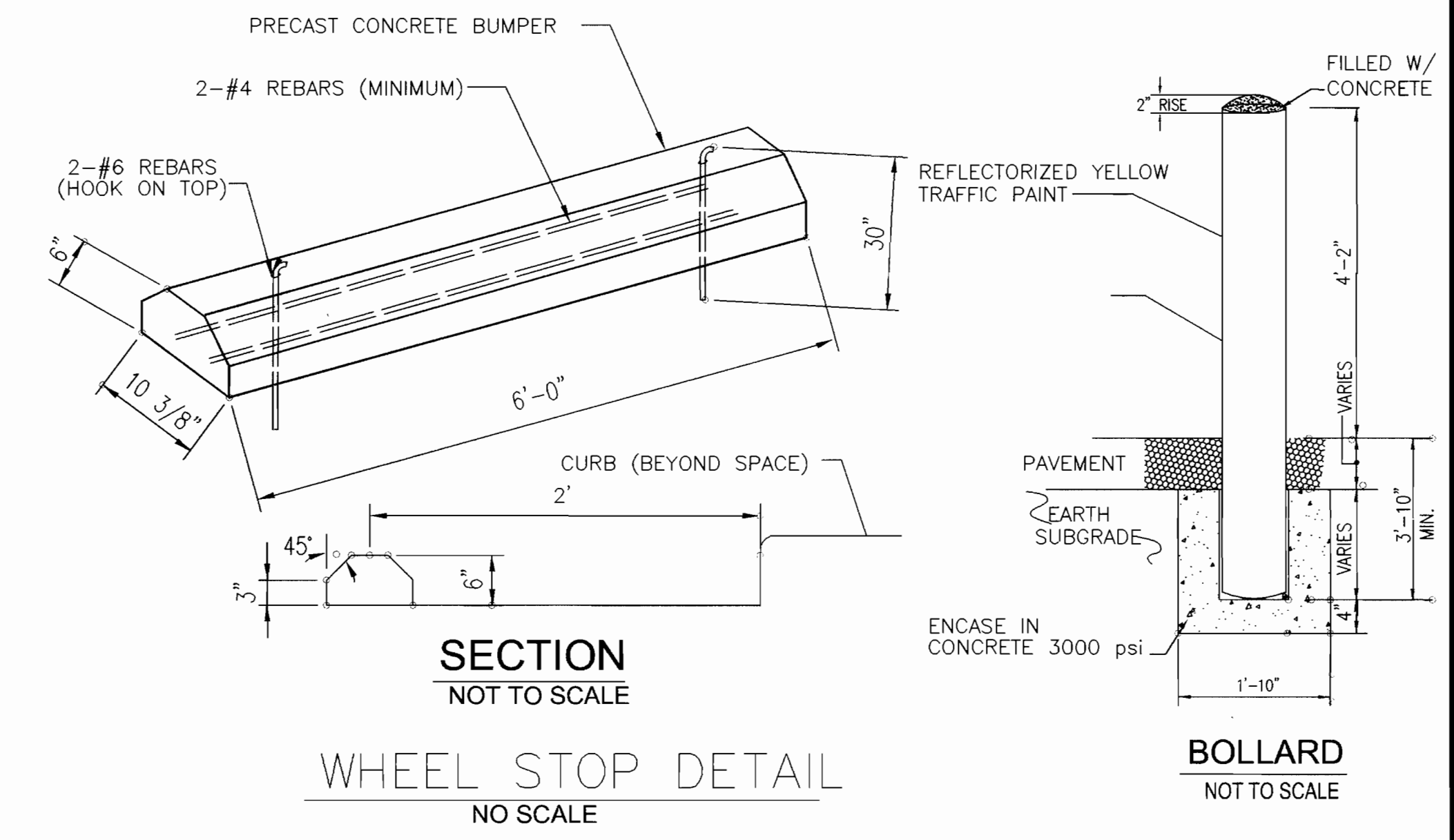
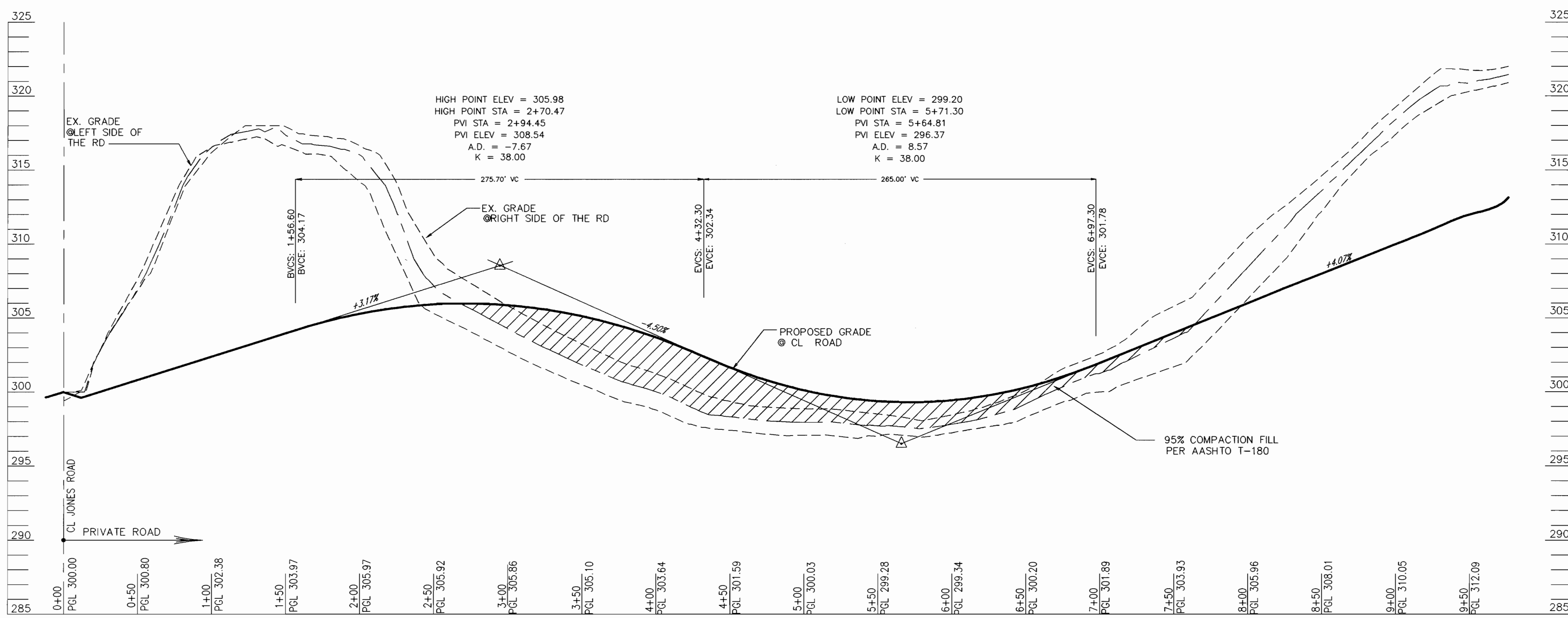
FREDERICK WARD ASSOCIATES, INC.
 ARCHITECTS | ENGINEERS | PLANNERS | SURVEYORS | www.frederickward.com

DESIGN BY: SS
 DRAWN BY: MPB
 CHECKED BY: SJG
 DATE: 07/07/05
 SCALE: AS SHOWN
 W.O. NO.: 2034026.00



3 SHEET OF 16

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Land Development & DATE 5/16/06
 Chief, Development Engineering Division DATE 5/16/06
 Director DATE 5/16/06



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Cindy Hamilton 5/16/06
CHIEF, DIVISION OF LAND DEVELOPMENT & DATE

John P. ... 5/16/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Paul ... 5/16/06
DIRECTOR DATE

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JESSUP, MD 20798

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C/O WILLIAM KNOTT
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TIMONIUM, MD 21093
(443) 271-5646

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN
SITE AND UTILITY DETAILS
JONES ROAD
AGE RESTRICTED ADULT HOUSING
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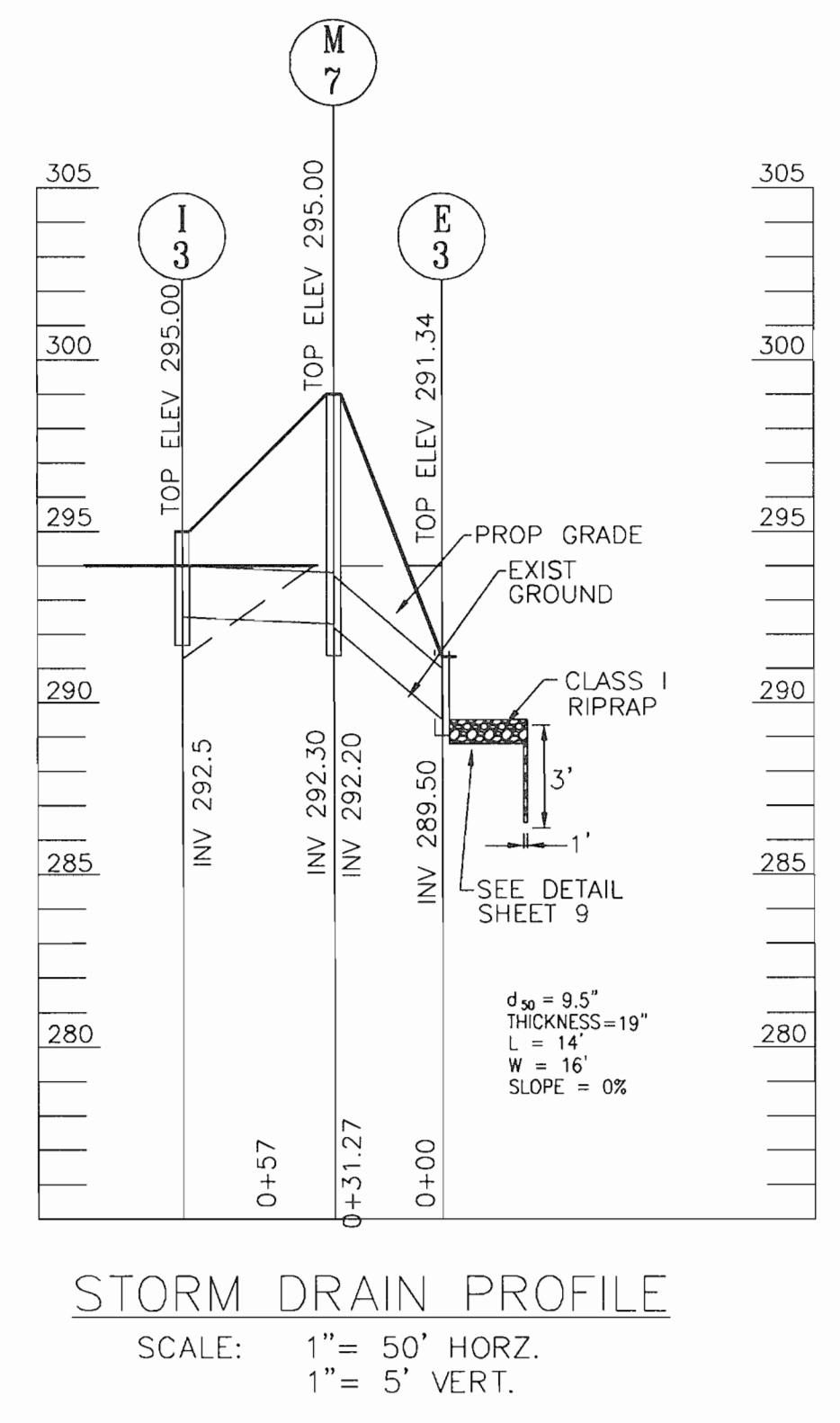
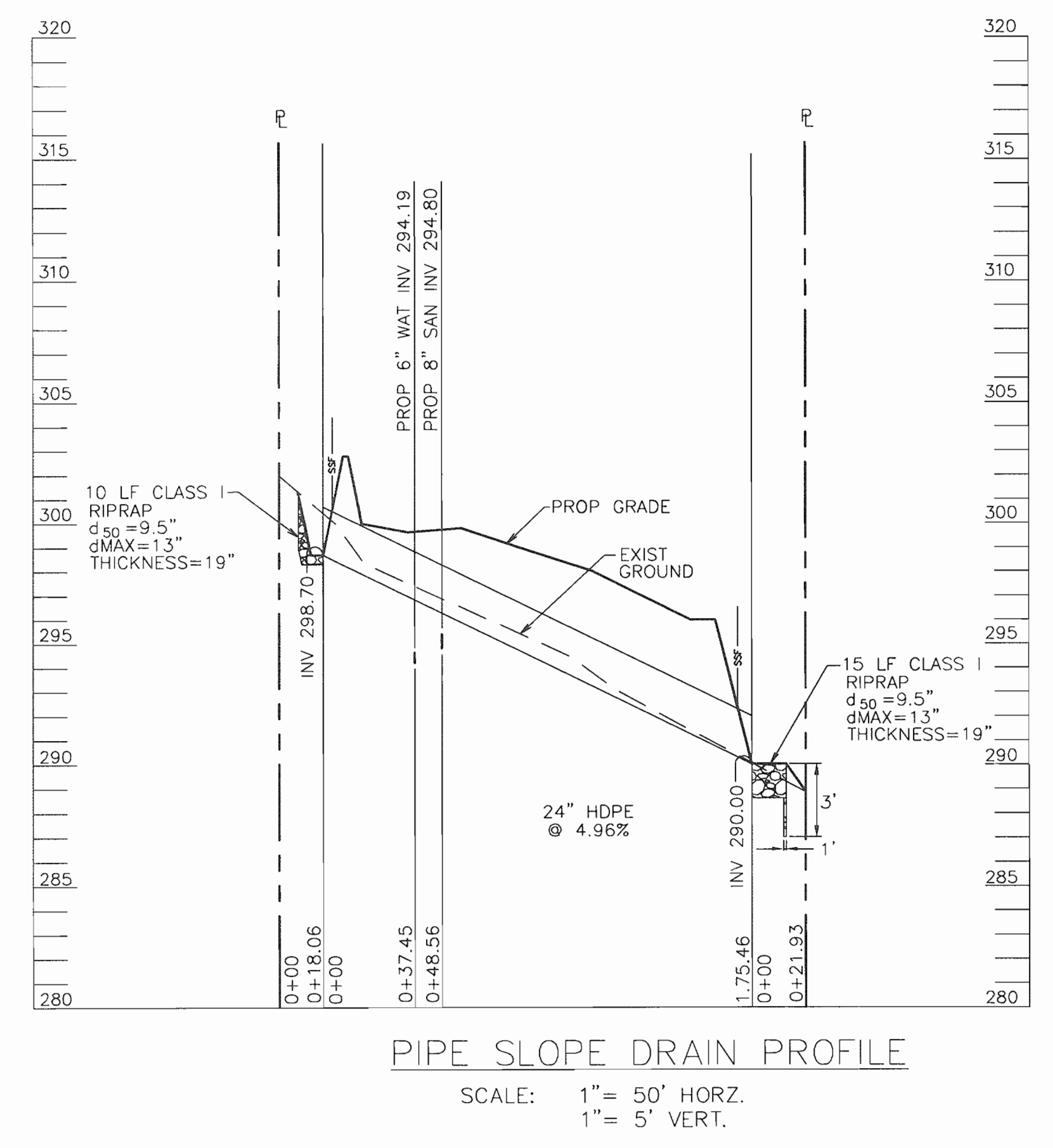
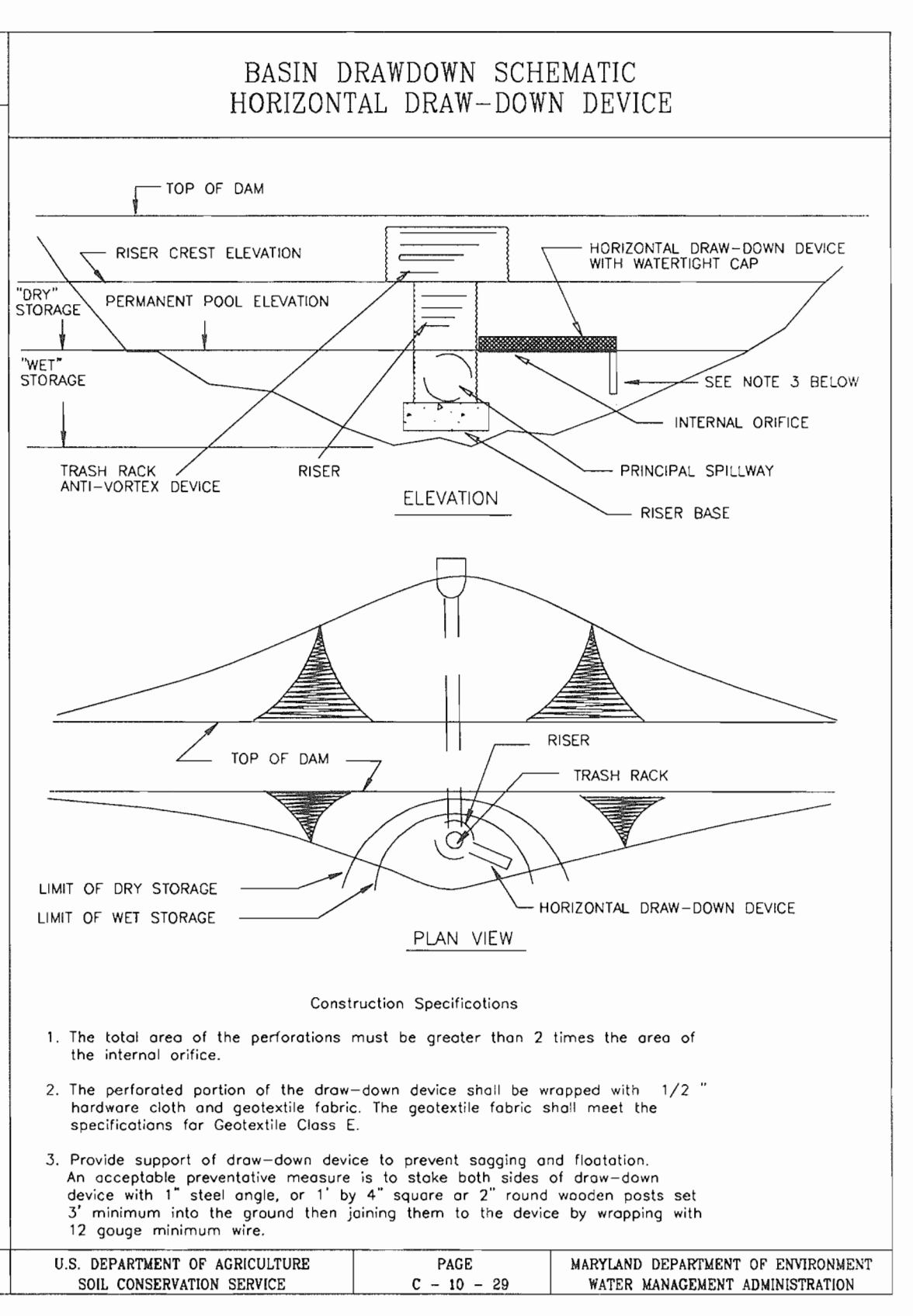
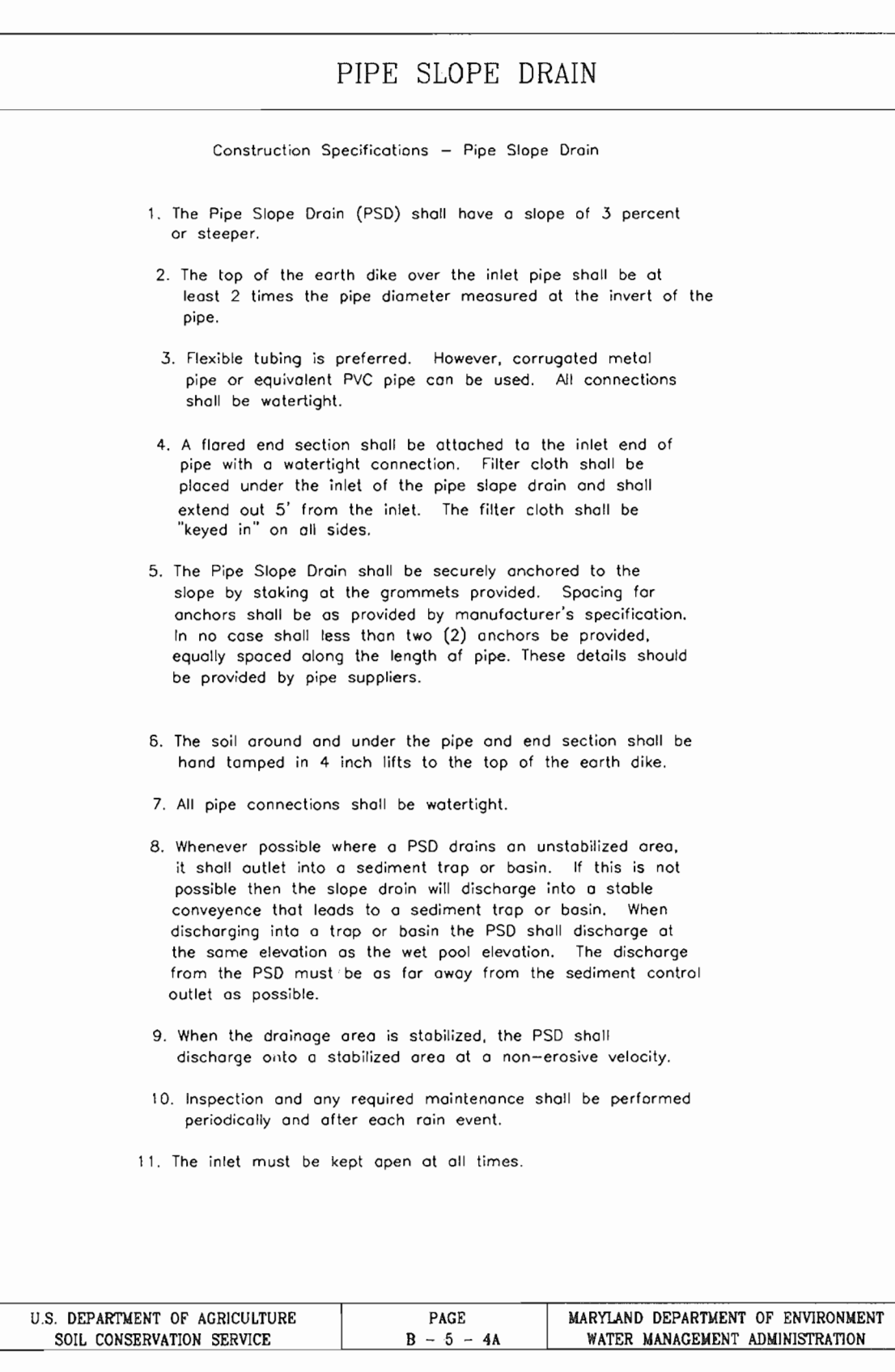
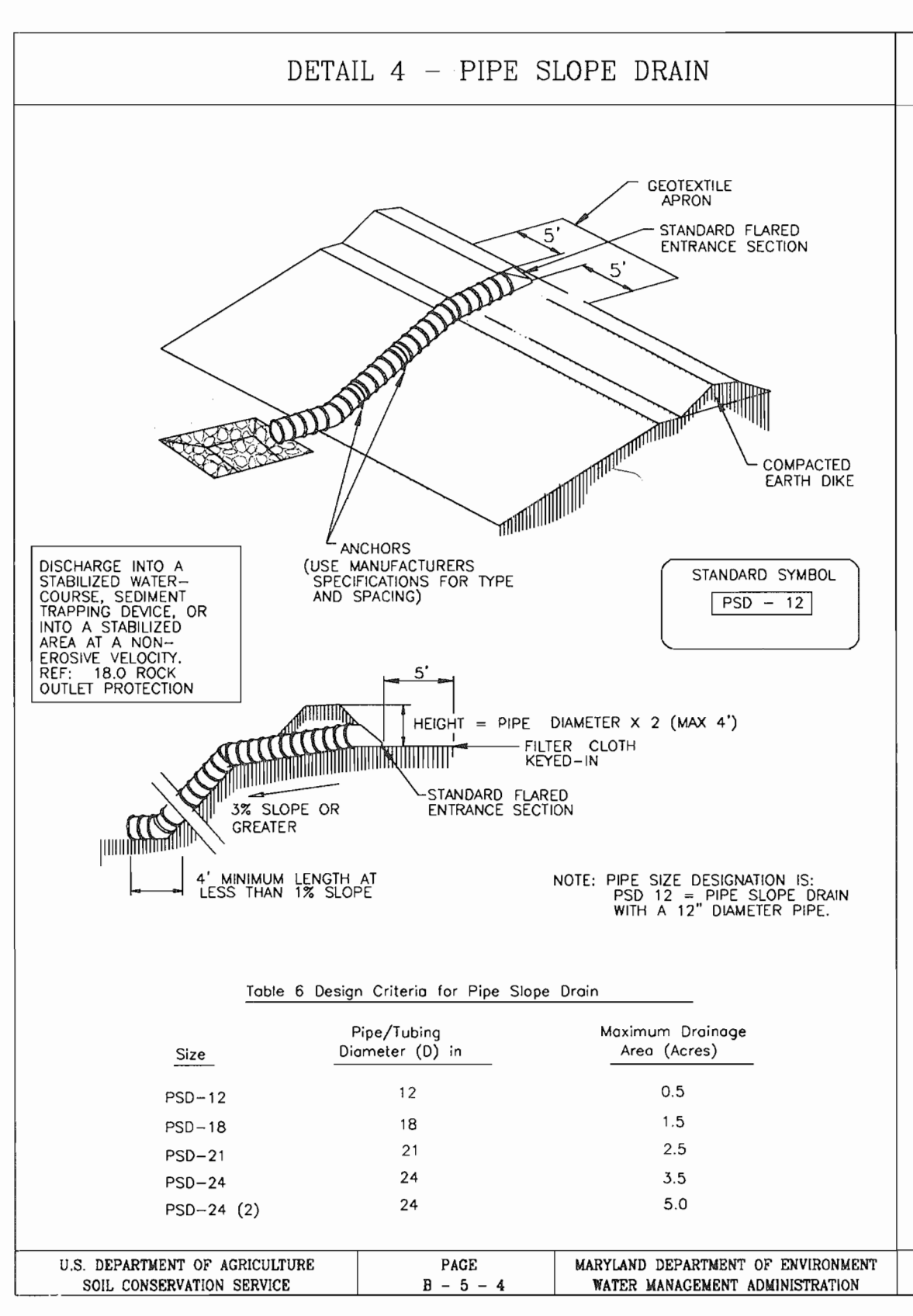
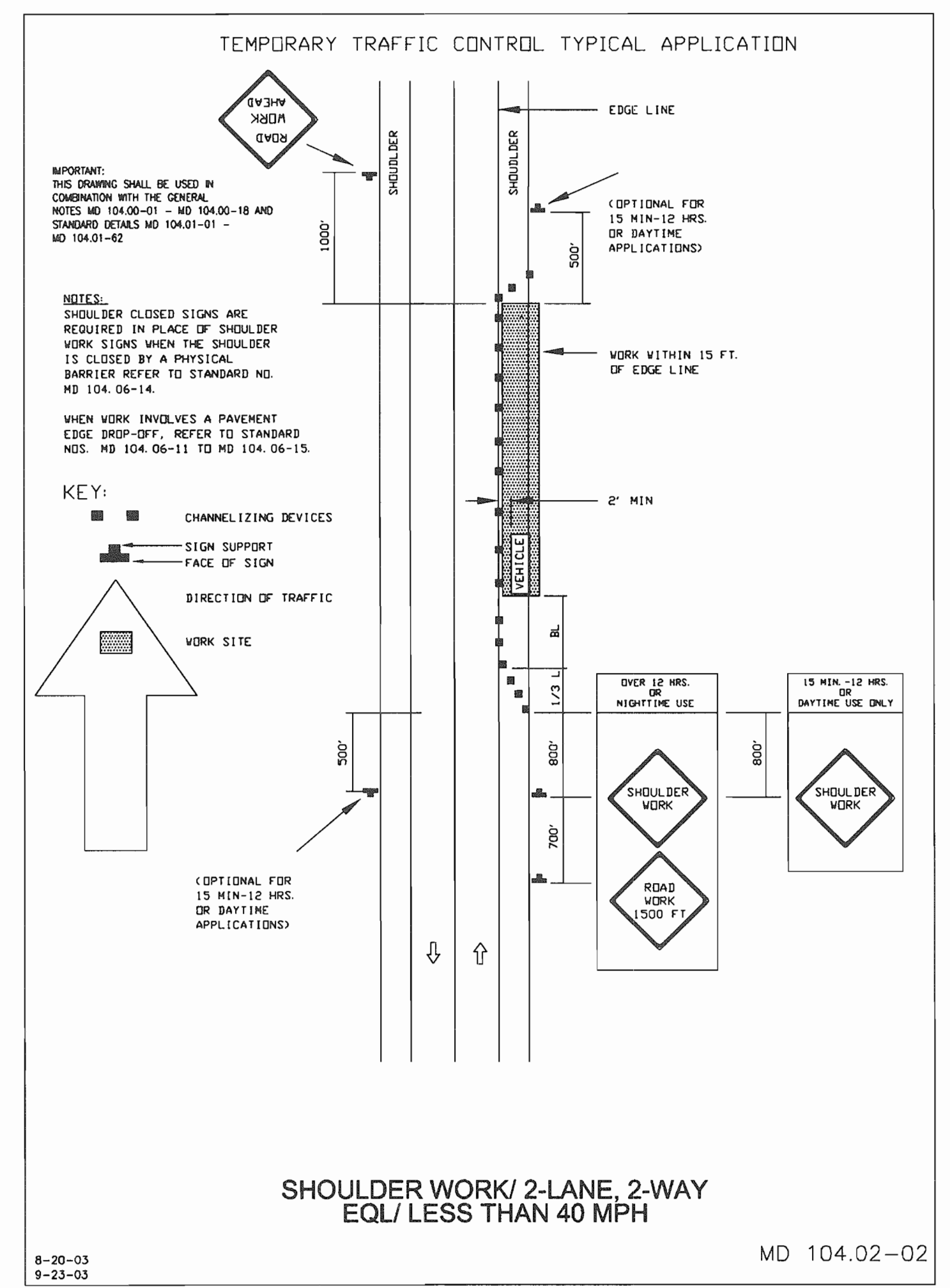
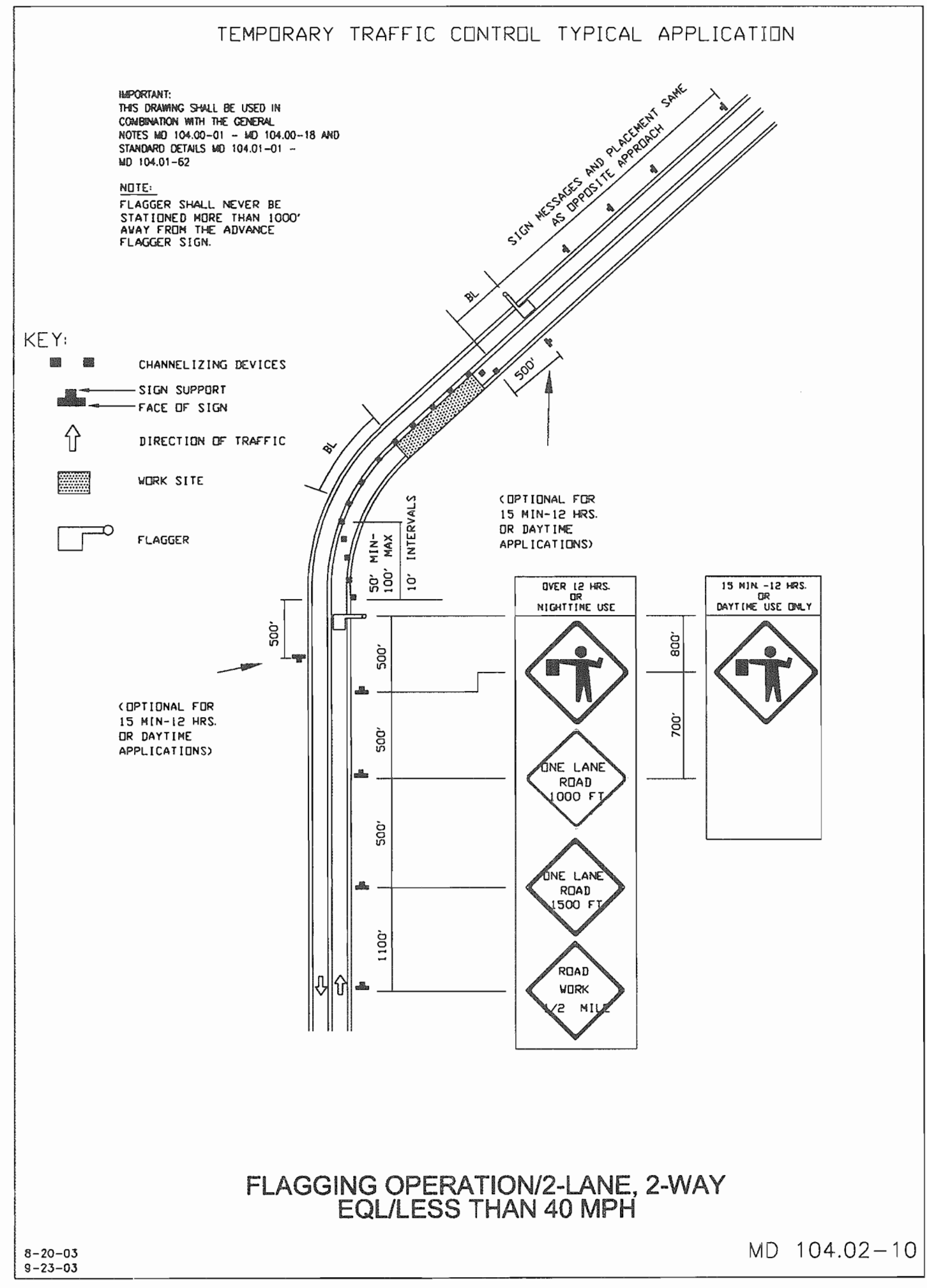
TAX MAP 42 GRID 24 PARCEL 143
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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4 SHEET OF 16



APPROVED: DEPARTMENT OF PLANNING AND ZONING.

Cindy Harris
CHIEF, DIVISION OF LAND DEVELOPMENT 5/16/06 DATE

William Knott
CHIEF, DEVELOPMENT ENGINEERING DIVISION 5/16/06 DATE

Mark McCarty
DIRECTOR 5/16/06 DATE

OWNER
SK KING GEORGE, LLC
8013 JONES ROAD
JESSUP, MD 20789

DEVELOPER
SK PROPERTIES, LTD.
C/O WILLIAM KNOTT
57 WEST TIMONIUM RD, SUITE 106
TIMONIUM, MD 21093
(443) 271-5646

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN
TRAFFIC DETAILS & SEDIMENT CONTROL PROFILE & DETAILS
JONES ROAD
AGE RESTRICTED ADULT HOUSING
UNITS 1-26 & COMMUNITY CENTER

TAX MAP 42 GRID 24 PARCEL 143
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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STEPHEN J. GORSKI, P.E.

5 SHEET OF 16

R STA 2+50.56
FROM C TO @ 9.24' RT
END OF ROAD
IMPROVEMENTS

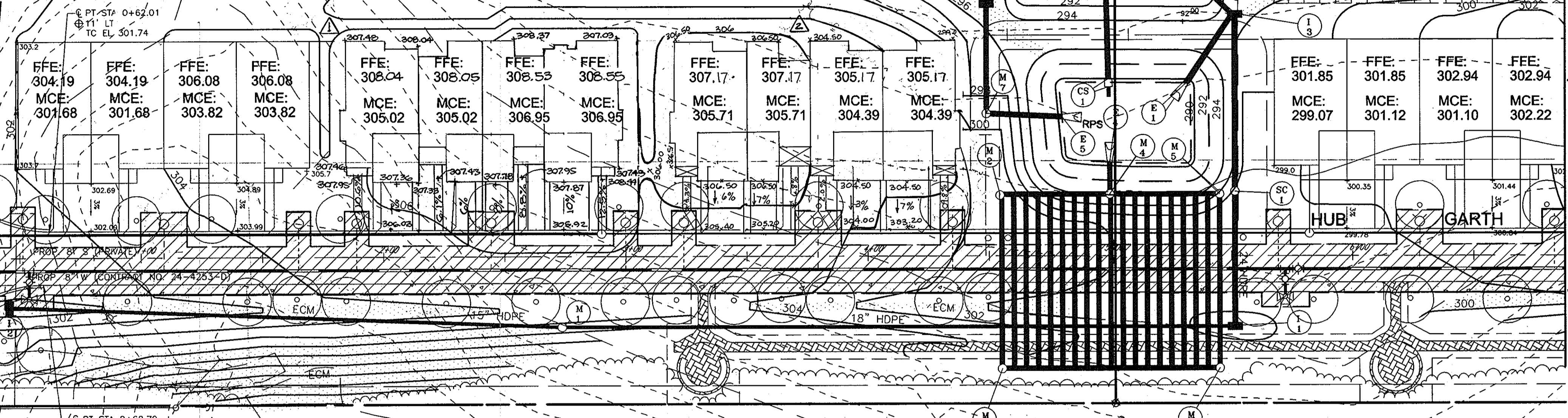
P.C. STA 0+28.55
FROM C TO @ 9.31' RT
BEGINNING OF ROAD
IMPROVEMENTS

MIGUEL A. CABASSA, JR.
LYN MYRICK CABASSA
NORDAU SUBDIVISION
PARCEL 286-4C
LOT 6
L. 2878 F. 343
ZONED: R12

SHM FACILITY
TO BE PRIVATELY
OWNED AND MAINTAINED
BY H.O.A.

GRAVEL LEVEL SPREADER

MATCHLINE (SEE THIS SHEET)



PLAN
SCALE: 1"=30'

NOTE: CONTRACTOR SHALL ENSURE THAT THE REAR ROOF DRAINS
DRAIN TO THE FRONT OF THE UNITS.
NOTE: FOR STEEP SLOPE AREAS, SEE SHEET 14.

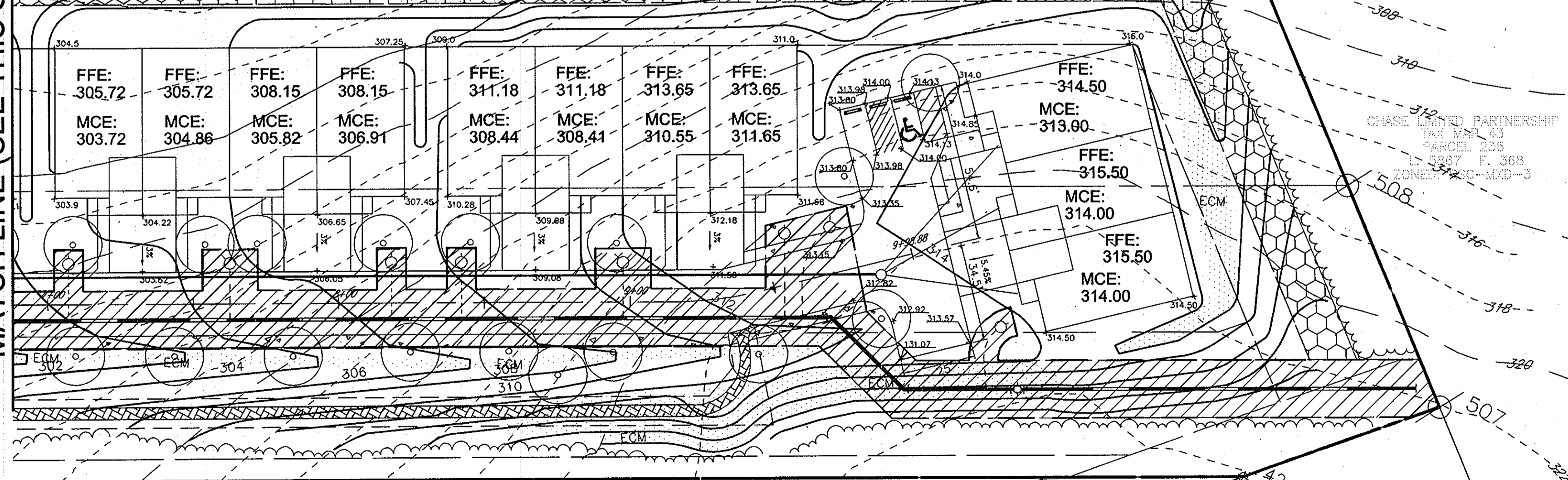
LEGEND

- EXISTING CONTOUR ——— 440 ———
- PROPOSED CONTOUR ——— (412) ———
- SPOT ELEVATION +825.3
- EXISTING TREES TO REMAIN
- LIGHT POLES POST-TOP
- PROPOSED STREET TREE
- SOILS SIB2 SsE
- PROP. PUBLIC UTILITY EASEMENT

REFORESTATION AREA
(0.4637 AC/ 20,198.77 SF)

50% FOREST RETENTION
AREA (0.0742 AC/ 3232.15 SF)

MATCH LINE (SEE THIS SHEET)



PLAN
SCALE: 1"=30'

APPROVED: DEPARTMENT OF PLANNING AND ZONING		
	5/11/06	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	88	
	5/11/06	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	4	
	5/11/06	DATE
DIRECTOR		

	GRADING REVISIONS FOR UNITS 9-12	2-11
	AS-BUILT FOOTPRINT & GRADING REVISIONS FOR UNITS 5-8	11-10
NO.	REVISION	DATE

OWNER
SK KING GEORGE, LLC
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C/O WILLIAM KNOTT
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TIMONIUM, MD 21093
(443) 271-5646



FOR REV. ONLY
LICENSE EXPIRES 06-10-11

**SITE DEVELOPMENT PLAN
GRADING PLAN
JONES ROAD
AGE RESTRICTED ADULT HOUSING
UNITS 1-26 & COMMUNITY CENTER**

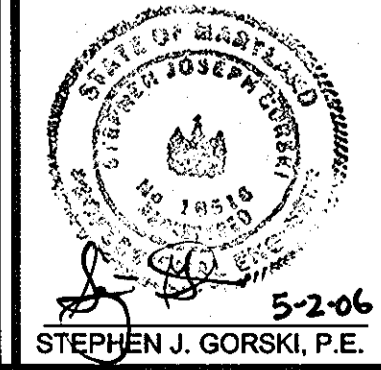
TAX MAP 42 GRID 24
6TH ELECTION DISTRICT

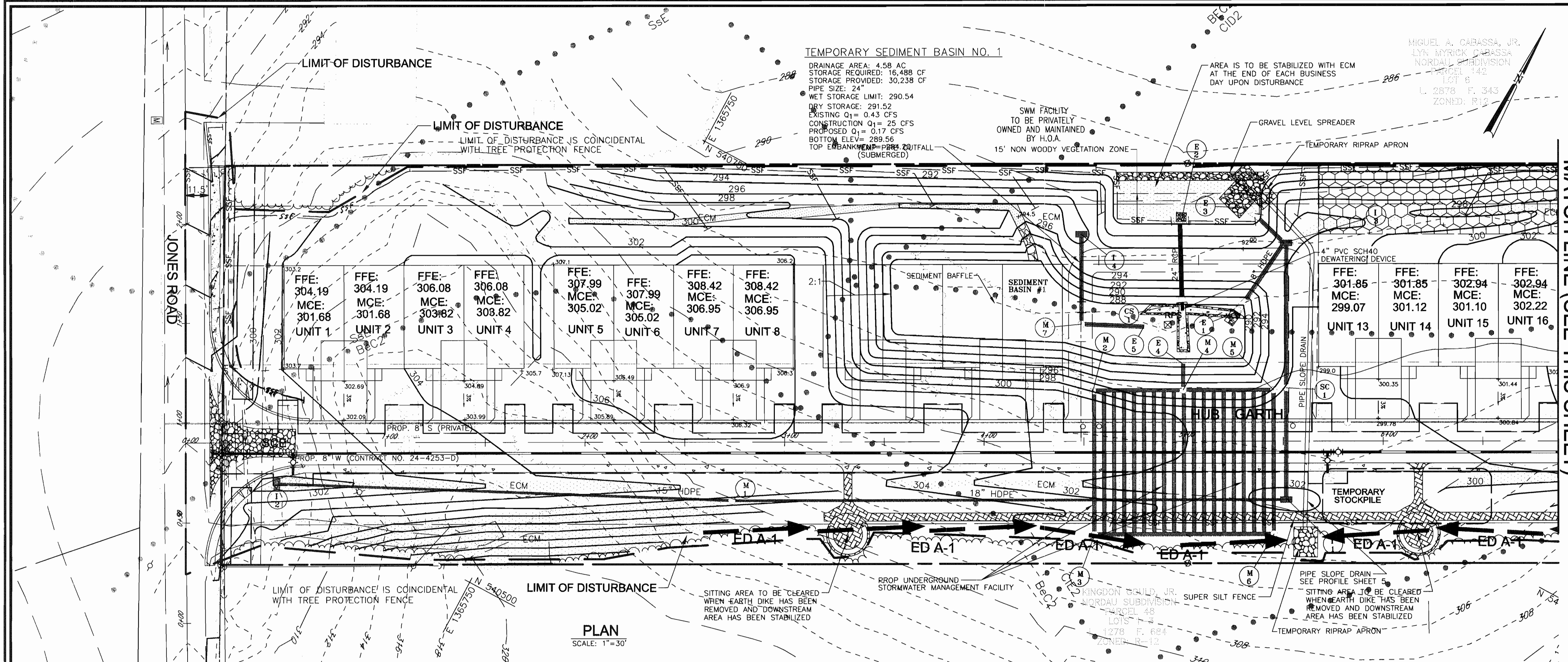
PARCEL 143
HOWARD COUNTY, MARYLAND

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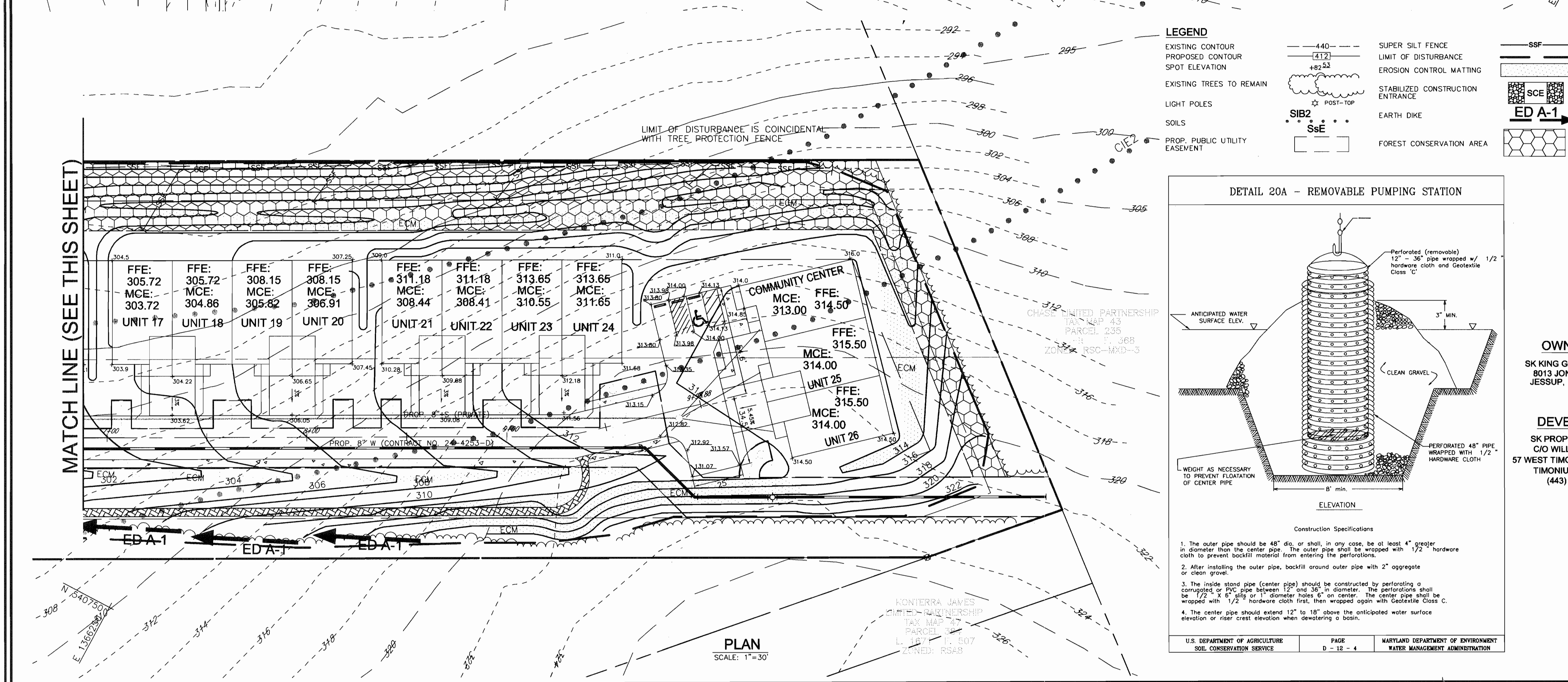
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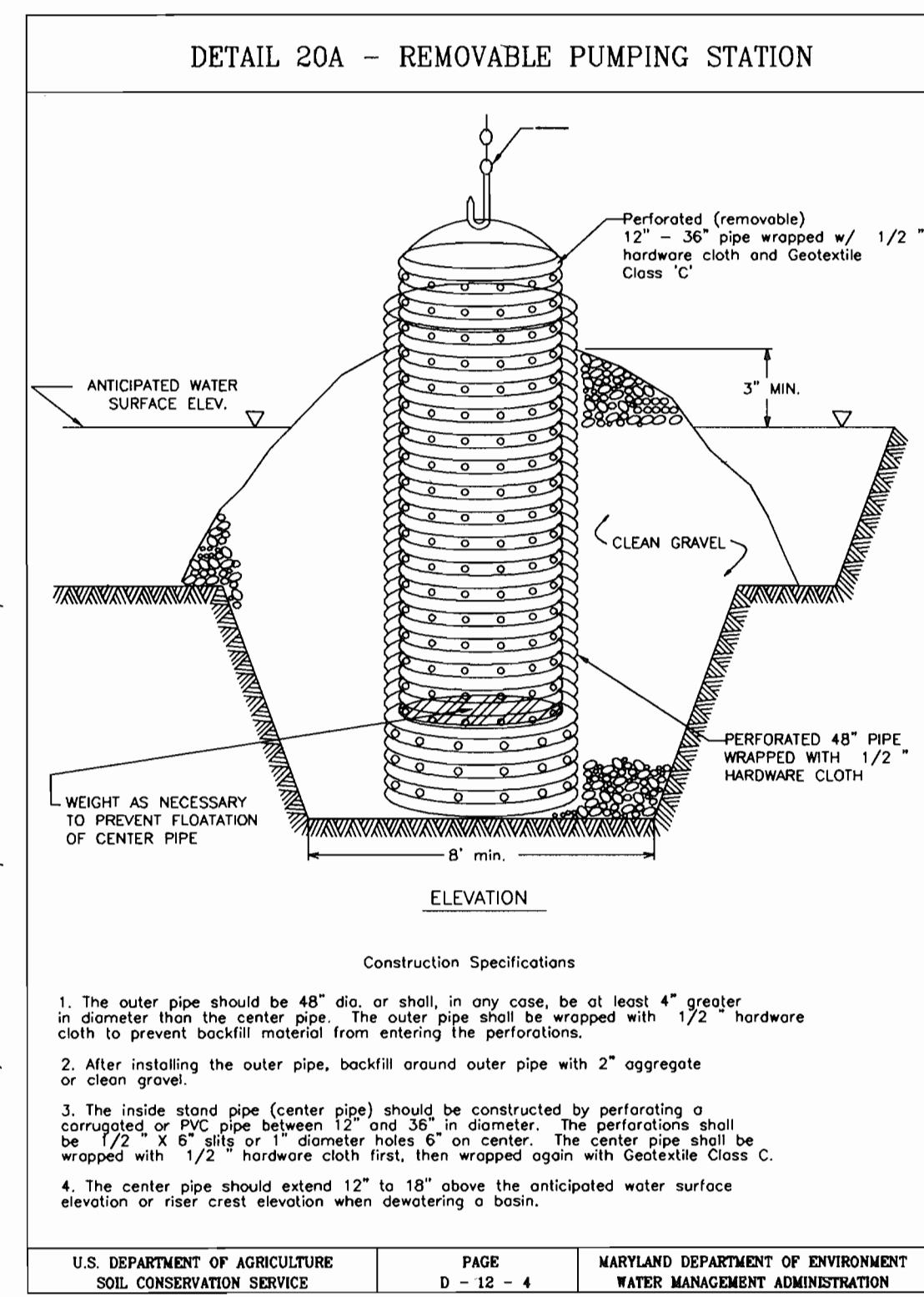
MATCH LINE (SEE THIS SHEET)



MATCH LINE (SEE THIS SHEET)

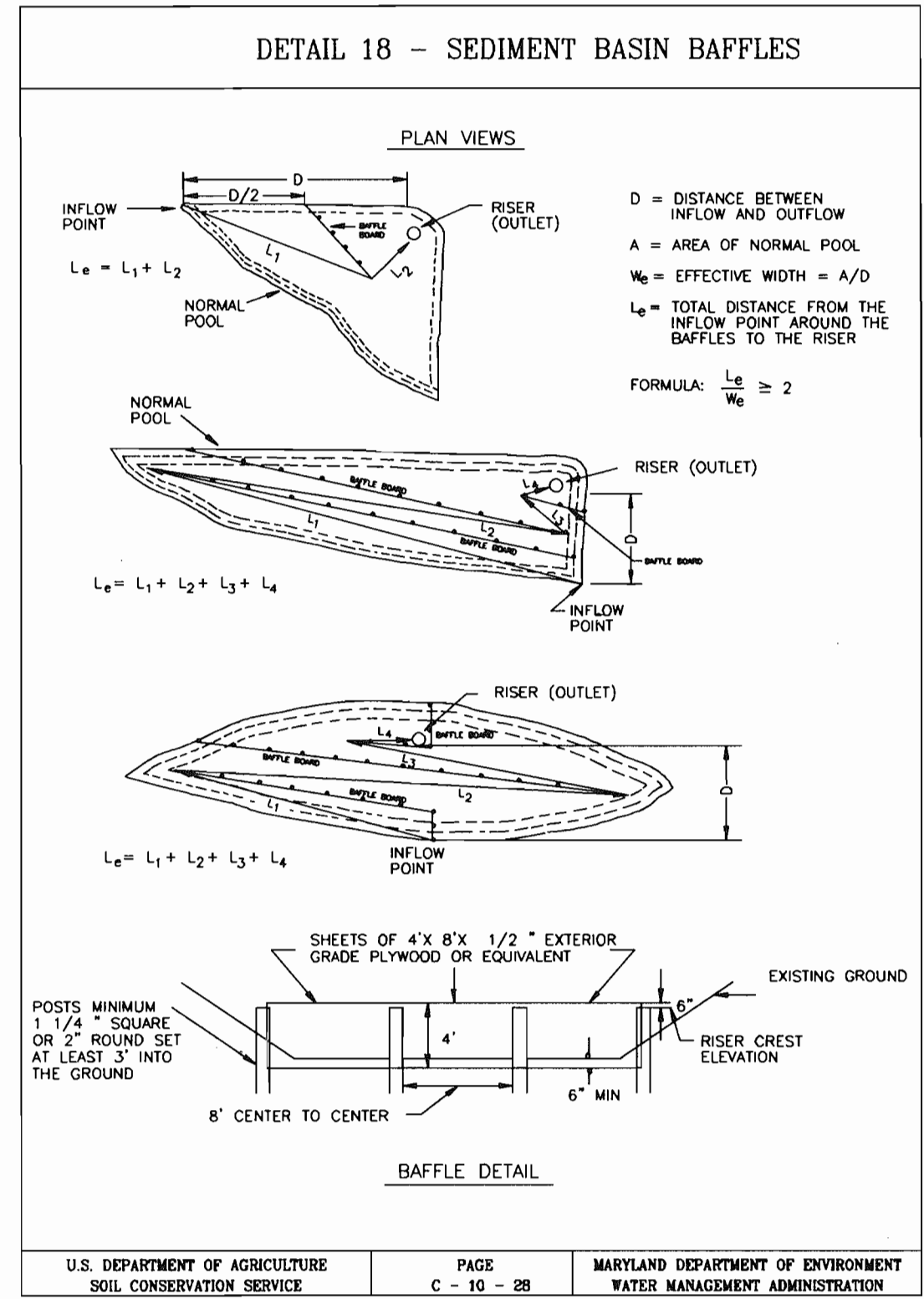
LEGEND

EXISTING CONTOUR	--- 440 ---	SUPER SILT FENCE	SSF
PROPOSED CONTOUR	--- 412 ---	LIMIT OF DISTURBANCE	---
SPOT ELEVATION	+82.53	EROSION CONTROL MATTING	ECM
EXISTING TREES TO REMAIN	(Tree symbol)	STABILIZED CONSTRUCTION ENTRANCE	SCE
LIGHT POLES	(Star symbol)	EARTH DIKE	ED A-1
SOILS	SIB2, SsE	FOREST CONSERVATION AREA	(Hatched area)
PROP. PUBLIC UTILITY EASEMENT	(Line symbol)		



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 8013 JONES ROAD
 JESSUP, MD 20789

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 TIMONIUM, MD 21093
 (443) 271-5646



APPROVED: DEPARTMENT OF PLANNING AND ZONING

Wanda Howard 5/14/06
 CHIEF, DIVISION OF LAND DEVELOPMENT 98 DATE

Chris DeCristofano 5/11/06
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 8 DATE

David J. Langley 5/14/06
 DIRECTOR DATE

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION AND SOIL EROSION AND SEDIMENT CONTROL

Jim Meyer 5/9/06
 USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

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

Howard Knott 5/9/06
 HOWARD DATE

NO.	REVISION	DATE

**SITE DEVELOPMENT PLAN
 SEDIMENT EROSION CONTROL PLAN
 JONES ROAD
 AGE RESTRICTED ADULT HOUSING
 UNITS 1-26 & COMMUNITY CENTER**

TAX MAP 42 GRID 24 PARCEL 143
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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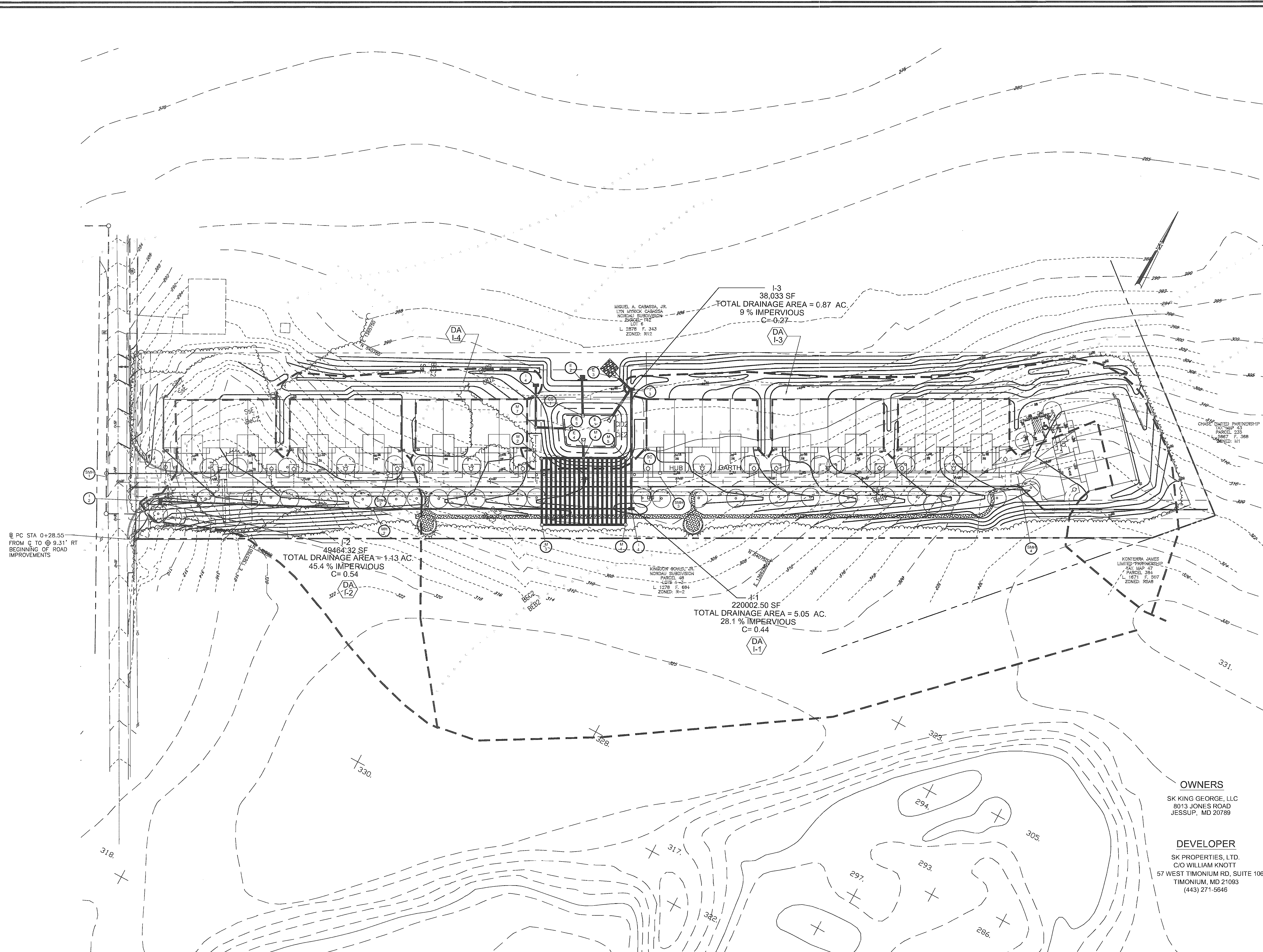
7 SHEET OF 16

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Cindy Howard
 CHIEF, DIVISION OF LAND DEVELOPMENT 3B 5/16/06
 DATE

John Damm
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 5/16/06
 DATE

James H. Coyle
 DIRECTOR 5/16/06
 DATE



SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP
B6e2	BELTSVILLE SILT LOAM, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED	C
B6c2	BELTSVILLE SILT LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED	C
GID2	CHILLUM GRAVELLY LOAM, 10 TO 15 PERCENT SLOPES, MODERATELY ERODED	C
OE2	CHILLUM GRAVELLY LOAM, 15 TO 30 PERCENT SLOPES, MODERATELY ERODED	C
SIC2	SASSAFRAS LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED	B
S5E	SASSAFRAS LOAM, 15 TO 40 PERCENT SLOPES	B

PAGE 34 OF THE HOWARD COUNTY SOIL SURVEY

PLAN
 SCALE: 1"=50'

OWNERS
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 8013 JONES ROAD
 JESSUP, MD 20789

DEVELOPER
 SK PROPERTIES, LTD.
 C/O WILLIAM KNOTT
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 TIMONIUM, MD 21093
 (443) 271-5646

NO.	REVISION	DATE

**SITE DEVELOPMENT PLAN
 STORM DRAIN DRAINAGE AREA MAP
 JONES ROAD
 AGE RESTRICTED ADULT HOUSING
 UNITS 1-26 & COMMUNITY CENTER**

TAX MAP 42 GRID 24 PARCEL 143
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

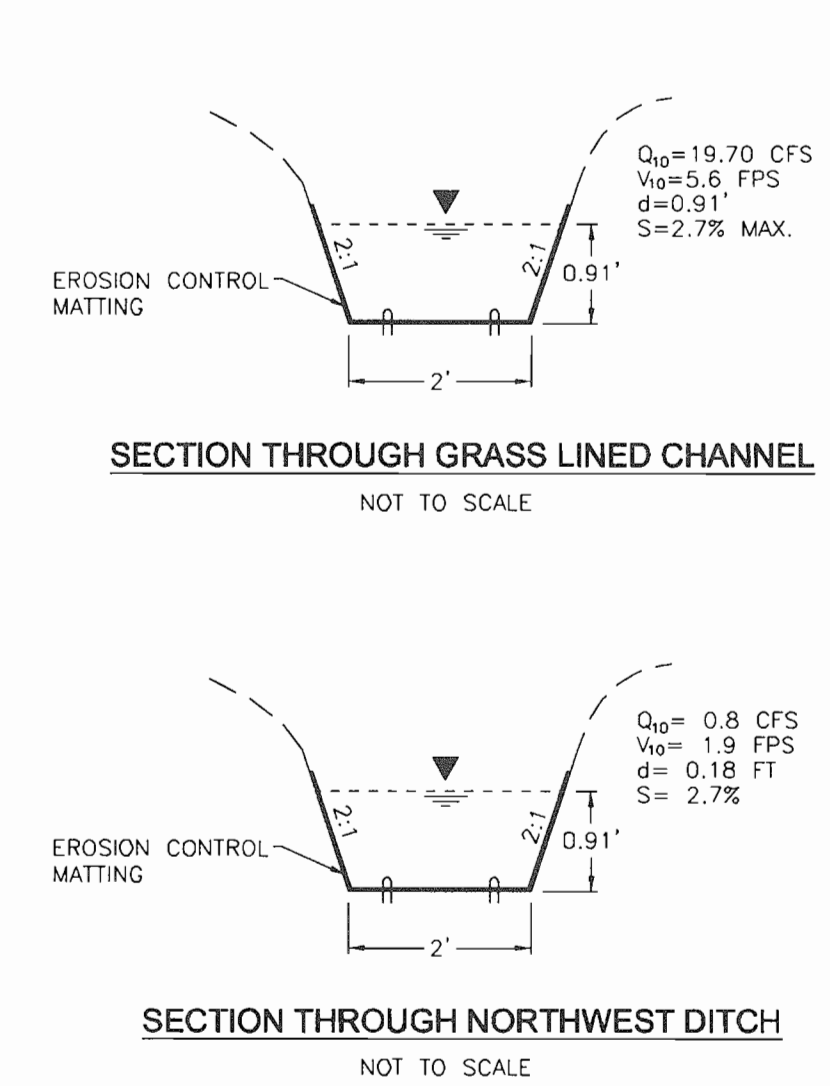
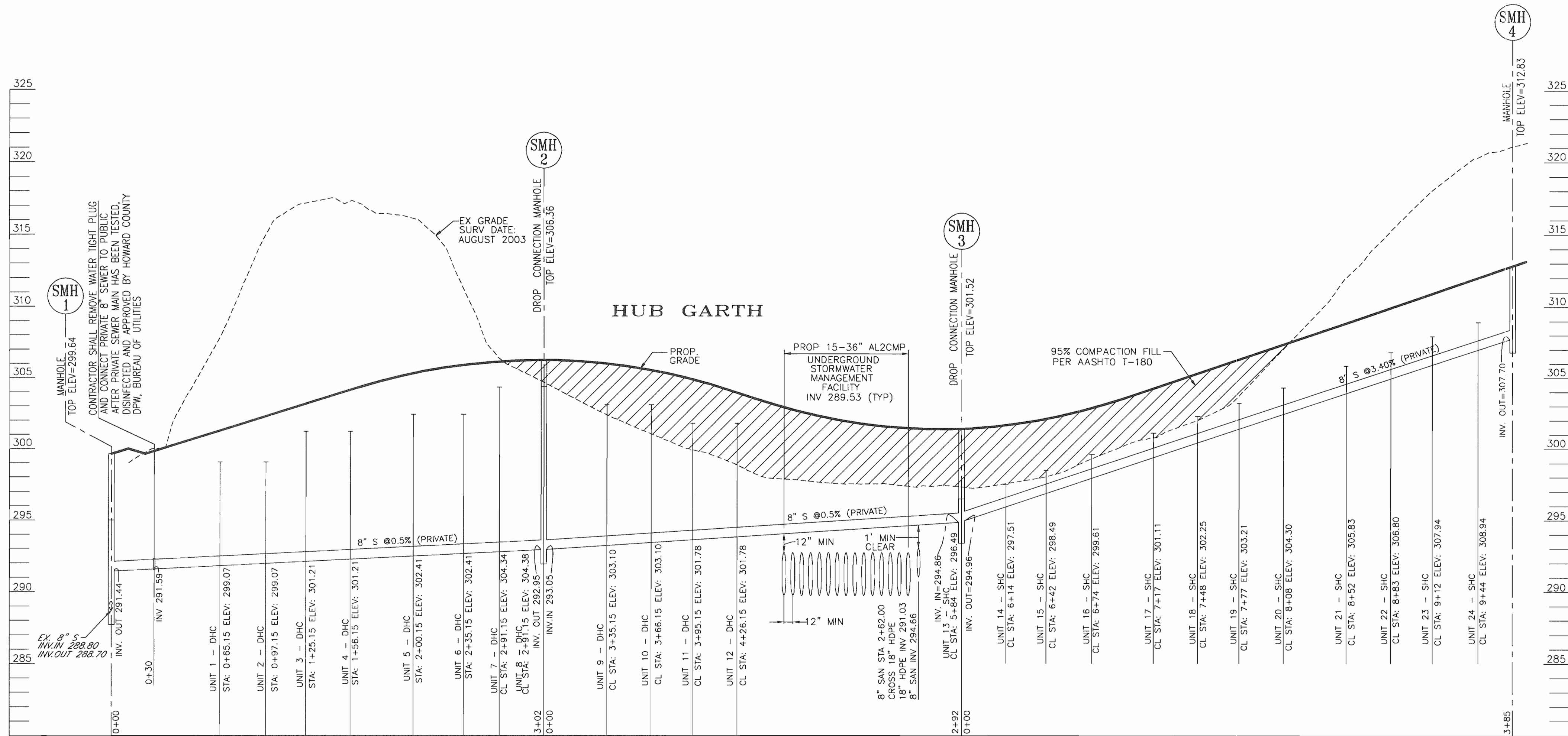
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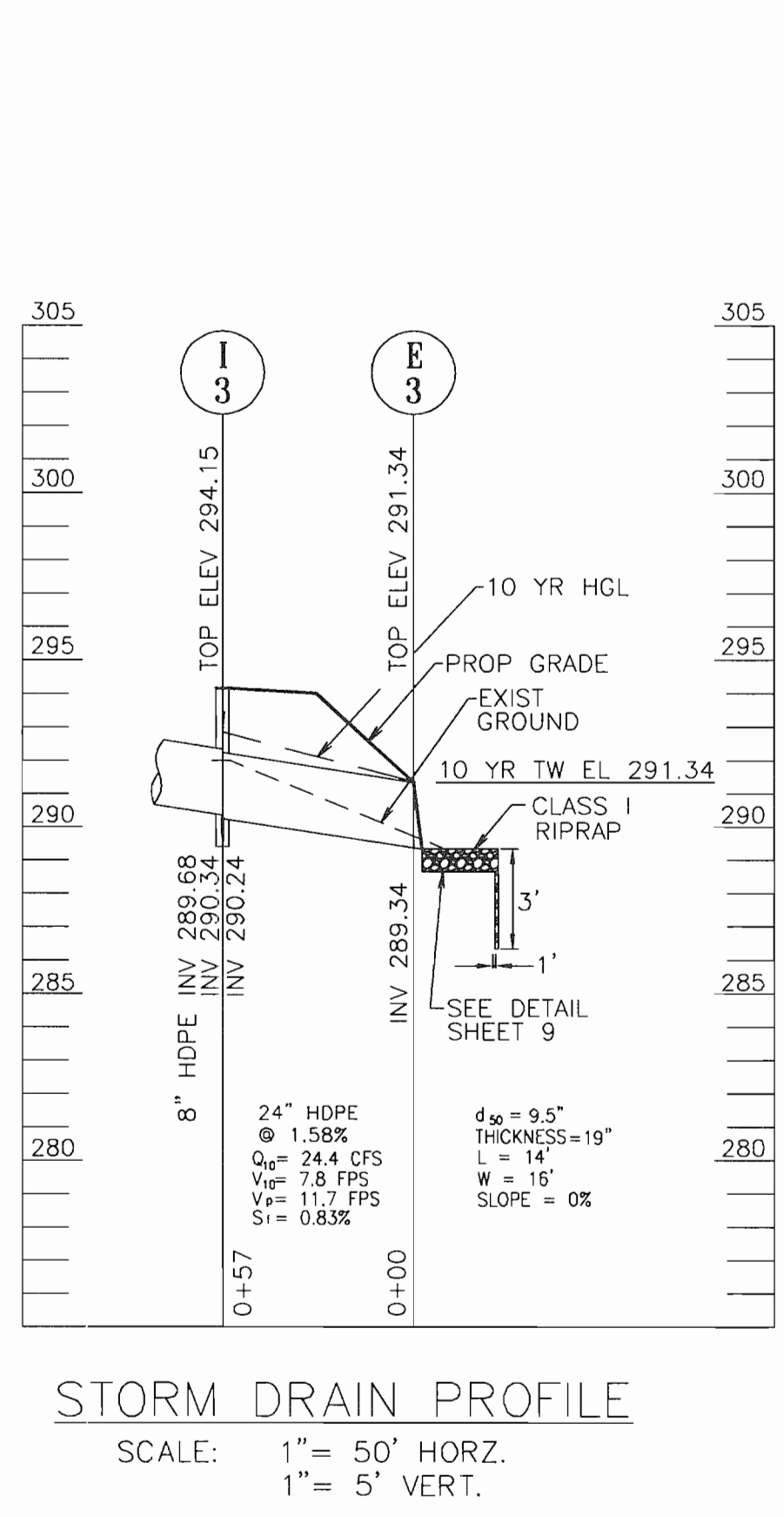
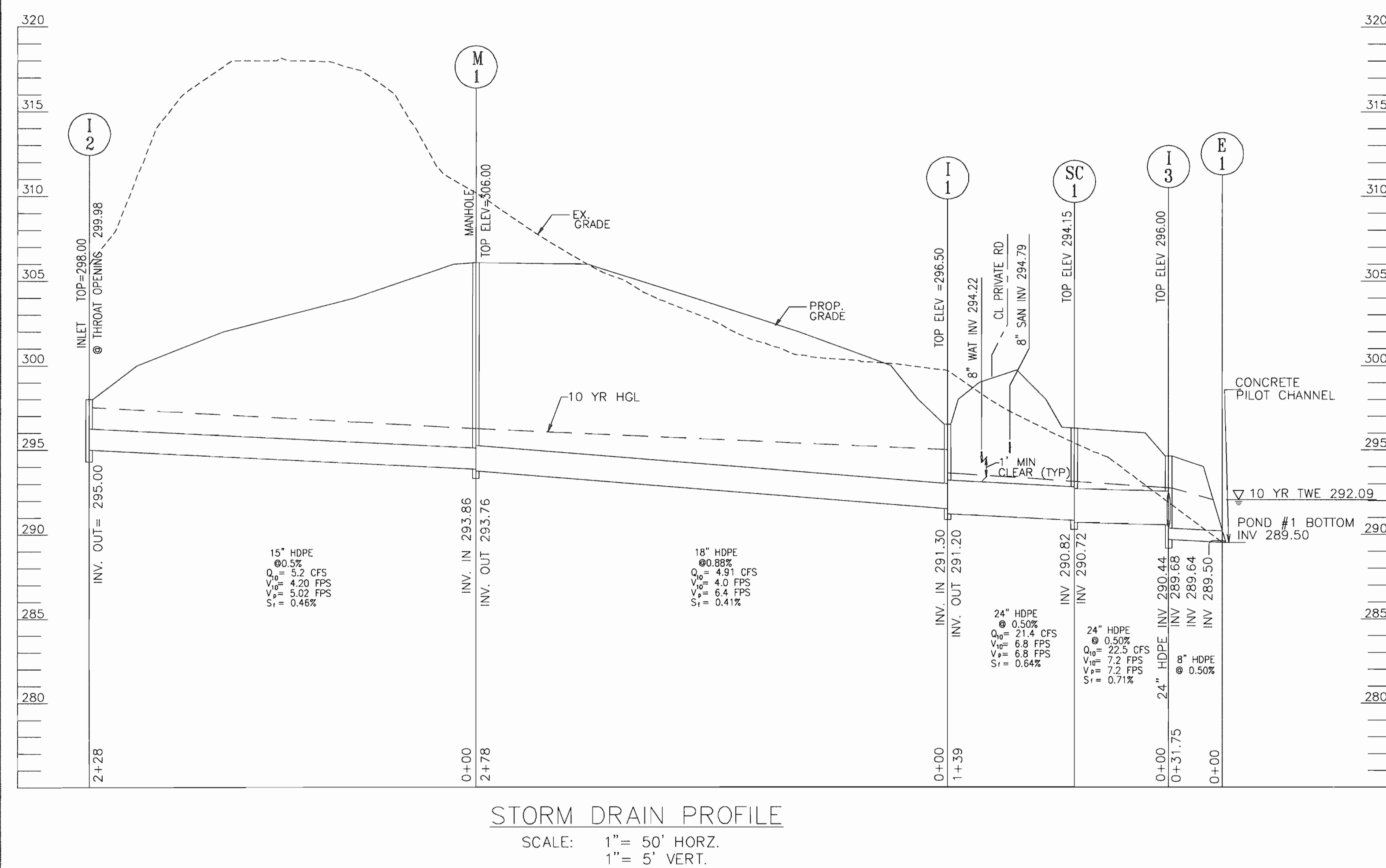
9 SHEET OF 16



SEWER HOUSE CONNECTION SCHEDULE					
UNIT NO.	TYPE	F.F. ELEV.	INV. OUT ELEV@UNIT	SLOP	ELEV. @MAIN
1	DHC	301.68	300.68	32.2' @5%	299.07
2	DHC	301.68	300.68	32.2' @5%	299.07
3	DHC	306.08	302.82	32.2' @5%	301.21
4	DHC	306.08	302.82	32.2' @5%	301.21
5	DHC	307.99	304.02	32.2' @5%	302.41
6	DHC	307.99	304.02	32.2' @5%	302.41
7	DHC	308.42	305.95	32.2' @5%	304.34
8	DHC	308.42	305.95	32.2' @5%	304.38
9	DHC	307.88	304.71	32.2' @5%	303.10
10	DHC	307.88	304.71	32.2' @5%	303.10
11	DHC	305.78	303.39	32.2' @5%	301.78
12	DHC	305.78	303.39	32.2' @5%	301.78
13	SHC	301.85	298.07	31.54' @5%	296.49
14	SHC	301.85	299.12	32.2' @5%	297.51
15	SHC	302.94	300.10	32.2' @5%	298.49
16	SHC	302.94	301.22	32.2' @5%	299.61
17	SHC	305.72	302.72	32.2' @5%	301.11
18	SHC	305.72	303.86	32.2' @5%	302.25
19	SHC	308.15	304.82	32.2' @5%	303.21
20	SHC	308.15	305.91	32.2' @5%	304.30
21	SHC	311.18	307.44	32.2' @5%	305.83
22	SHC	311.18	308.41	32.2' @5%	306.80
23	SHC	313.65	309.55	32.2' @5%	307.94
24	SHC	313.65	310.55	32.2' @5%	308.94
25	SHC	315.50	313.00	64.21' @5%	309.79
26	SHC	315.50	313.00	66.05' @5%	309.70
CC	SHC	314.50	312.00	77.0' @5%	308.15

SEWER MANHOLE SCHEDULE					
NO.	TYPE	LOCATION	TOP ELEV.	INV. IN.	INV. OUT
SMH 1	STD. PRECAST MH HO. CO. STD. DET. GS.12	N 54087.12 E 1365576.33	299.64	8"-291.44	-
SMH 2	STD. PRECAST MH HO. CO. STD. DET. GS.12	CL STA. PRIVATE RD 2+90 9.6' LT.	306.36	293.05	292.95
SMH 3	STD. PRECAST MH HO. CO. STD. DET. GS.12	CL STA. PRIVATE RD 5+82 9.6' LT.	301.52	294.61	294.51
SMH 4	STD. PRECAST MH HO. CO. STD. DET. GS.12	CL STA. PRIVATE RD 9+67 3.2' RT.	312.83	-	307.70

STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	TOP ELEV.	INV. IN.	INV. OUT	REMARKS
E-1	8" HDPE END SECTION	N 54087.95, E 1363026.37	292.50	8" 289.50	289.50	SD 5.61
I-1	TYPE 'S' INLET	CL STA. 5+51, 29' RT.	296.50	18" 292.87	18" 292.27	MODIFIED
M-1	STANDARD 5' MANHOLE	CL STA. 2+74, 29' RT.	306.00	18" 293.86	18" 293.76	
I-2	TYPE 'S' INLET	CL STA. 0+45, 21' RT.	298.00	15" 295.00	-	SD 4.22
I-3	TYPE 'S' INLET	CL STA. 5+51.44, 99.50' LT	294.15	24" 290.34	24" 280.24	SD 4.22
E-2	24" CONCRETE END WALL	(SEE SWM PLANS)	292.34	24" 289.34	24" 289.00	
M-2	STANDARD 5' MANHOLE	CL STA. 4+57.70 @ 31' LT.	306.24	36" 293.05	36" 292.95	
M-3	STANDARD 5' MANHOLE	CL STA. 4+57.70 @ 41' RT.	301.40	36" 294.86	36" 294.51	
M-4	STANDARD 5' MANHOLE	CL STA. 5+01.45 @ 31' LT.	312.83	-	36" 307.70	
M-5	STANDARD 5' MANHOLE	CL STA. 5+45.15 @ 31' LT.	294.00	36" 298.51	36" 289.51	
M-6	STANDARD 5' MANHOLE	CL STA. 5+45.15 @ 41' RT.	294.00	36" 298.51	36" 289.51	
E-3	STANDARD 24" HDPE END SECTION	CL STA. 4+99.85 @ 38.62' LT.	292.00	-	-	
E-4	STANDARD 36" AL2CMP END SECTION	CL STA. 5+38.24 @ 111.24' LT.	292.70	289.70	289.70	MD SHM SD 354.01
E-5	18" HDPE END SECTION	CL STA. 4+80.14 @ 57.39' LT.	291.00	289.50	289.50	
I-4	TYPE 'S' INLET	CL STA. 4+48.83 @ 104.31' LT.	295.00	-	292.50	
M-7	STANDARD 4' MANHOLE	CL STA. 4+48.89 @ 58.73' LT.	299.00	292.30	292.20	SD 4.22
SC-1	STORMCEPTOR	CL STA. 5+51.45 @ 12.57' LT.	294.18	290.82	290.72	STC 1200



PIPE SCHEDULE		
PIPE SIZE	TYPE	TOTAL LENGTH
15"	HDPE	228 LF
18"	HDPE	278 LF
24"	HDPE	200 LF
24"	RCP ASTM C-361	15 LF
8"	HDPE	27 LF
36"	AL2CSP	1268 LF

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(443) 271-5646

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS

COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT

DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Carolee Hammett 5/16/06
CHIEF, DIVISION OF LAND DEVELOPMENT

Chad Deussen 5/16/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION

David K. Gault 5/16/06
DIRECTOR

SITE DEVELOPMENT PLAN
PROFILES
JONES ROAD
AGE RESTRICTED ADULT HOUSING
UNITS 1-26 & COMMUNITY CENTER

TAX MAP 42 GRID 24
6TH ELECTION DISTRICT

PARCEL 143
HOWARD COUNTY, MARYLAND

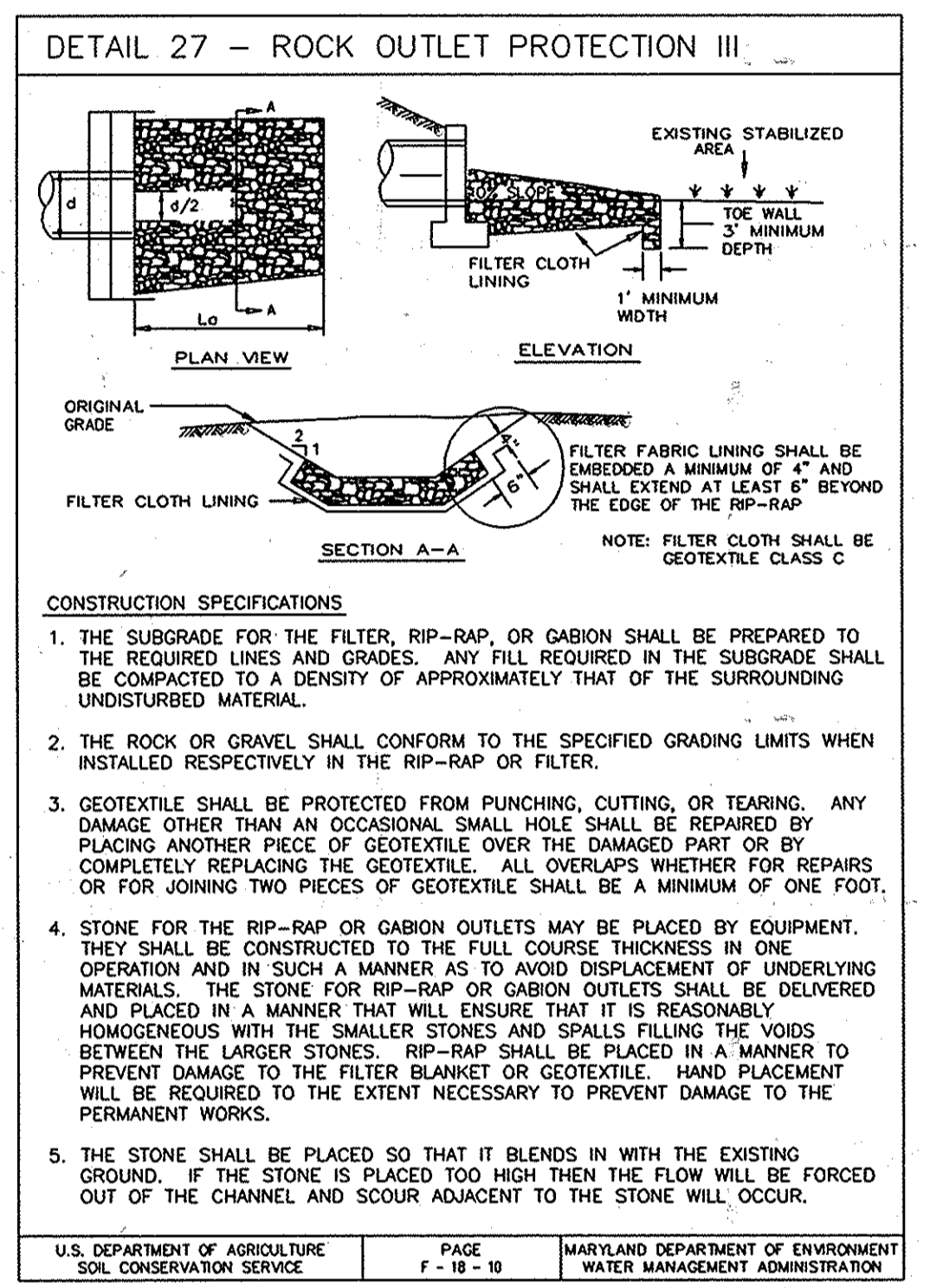
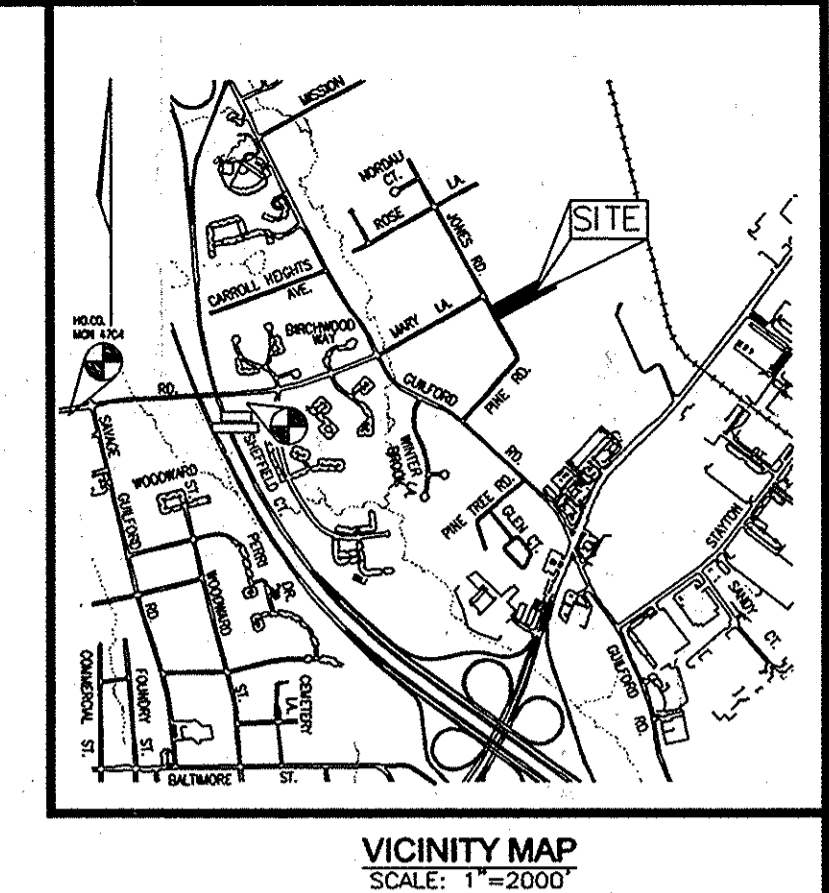
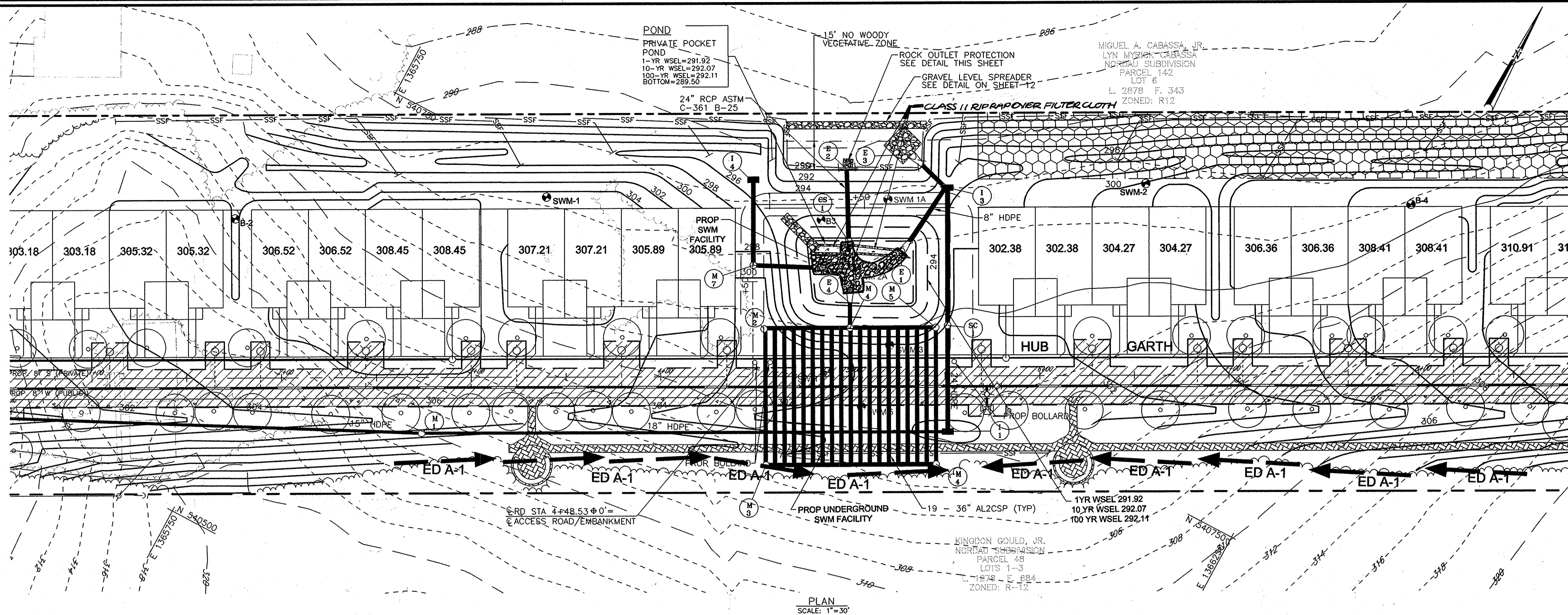
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10 SHEET OF 16



SUMMARY TABLE DRAINAGE AREA 1

AREA	REQUIREMENT	VOLUME REQUIREMENT W/O CREDITS	CREDITS	VOLUME REQUIREMENT AFTER CREDITS	NOTES
0.41 AC.					
1	WATER QUALITY VOLUME WQV	0.003 AC.FT.	N/A	0.003 AC. FT.	
2	RECHARGE VOLUME REV	0.0006 AC.FT.	N/A	0.0006 AC. FT.	
3	CHANNEL PROTECTION VOLUME CPV	N/A	N/A	N/A	
4	OVERHEAD FLOOD PROTECTION, Q10P	N/A	N/A	N/A	
5	EXTREME FLOOD VOLUME, Q100P	N/A	N/A	N/A	

SUMMARY TABLE DRAINAGE AREA 2

AREA	REQUIREMENT	VOLUME REQUIREMENT W/O CREDITS	CREDITS	VOLUME REQUIREMENT AFTER CREDITS	NOTES				
0.15 AC.									
1	WATER QUALITY VOLUME WQV	0.0032 AC.FT.	N/A	0.0032 AC. FT.					
2	RECHARGE VOLUME REV	0.00018 AC.FT.	N/A	0.00018 AC. FT.					
3	CHANNEL PROTECTION VOLUME CPV	N/A	N/A	N/A					
4	OVERHEAD FLOOD PROTECTION, Q10P	N/A	N/A </tr <tr> <td>5</td> <td>EXTREME FLOOD VOLUME, Q100P</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td></td> </tr>	5	EXTREME FLOOD VOLUME, Q100P	N/A	N/A	N/A	
5	EXTREME FLOOD VOLUME, Q100P	N/A	N/A	N/A					

SUMMARY TABLE DRAINAGE AREA 3

AREA	REQUIREMENT	VOLUME REQUIREMENT W/O CREDITS	CREDITS	VOLUME REQUIREMENT AFTER CREDITS	NOTES
7.97 AC.					
1	WATER QUALITY VOLUME WQV	0.15 AC.FT.	GRASS LINED CHANNEL	0.018 AC. FT.	PROVIDED IN GRASS LINED CHANNEL
2	RECHARGE VOLUME REV	0.61 AC.FT.	GRASS LINED CHANNEL	0 AC. FT.	PROVIDED IN GRASS LINED CHANNEL
3	CHANNEL PROTECTION VOLUME CPV	0.295 AC FT	N/A	0.295 AC FT	DRY POND
4	OVERHEAD FLOOD PROTECTION, Q10P	N/A	N/A	N/A	
5	EXTREME FLOOD VOLUME, Q100P	N/A	N/A	N/A	

NOTE: SWM PROVIDED BY A DRY POND AND GRASSED LINED CHANNEL

SUMMARY TABLE DRAINAGE AREA 4

AREA	REQUIREMENT	VOLUME REQUIREMENT W/O CREDITS	CREDITS	VOLUME REQUIREMENT AFTER CREDITS	NOTES
0.28 AC.					
1	WATER QUALITY VOLUME WQV	0.0047 AC.FT.	N/A	0.0047 AC. FT.	
2	RECHARGE VOLUME REV	0.0002 AC.FT.	N/A	0.0002 AC. FT.	
3	CHANNEL PROTECTION VOLUME CPV	N/A	N/A	N/A	
4	OVERHEAD FLOOD PROTECTION, Q10P	N/A	N/A	N/A	
5	EXTREME FLOOD VOLUME, Q100P	N/A	N/A	N/A	

SUMMARY TABLE DRAINAGE AREA 5

AREA	REQUIREMENT	VOLUME REQUIREMENT W/O CREDITS	CREDITS	VOLUME REQUIREMENT AFTER CREDITS	NOTES
0.023 AC.					
1	WATER QUALITY VOLUME WQV	0.003 AC.FT.	N/A	0.003 AC. FT.	
2	RECHARGE VOLUME REV	0 AC.FT.	N/A	0.0006 AC. FT.	
3	CHANNEL PROTECTION VOLUME CPV	N/A	N/A	N/A	
4	OVERHEAD FLOOD PROTECTION, Q10P	N/A	N/A	N/A	
5	EXTREME FLOOD VOLUME, Q100P	N/A	N/A	N/A	

FOR REVISION #1 ONLY

STATE OF MARYLAND
ROBERT H. NOBEL, P.E.
 PROFESSIONAL ENGINEER
 RE. NO 16193

OWNER
 SK KING GEORGE, LLC
 8013 JONES ROAD
 JESSUP, MD 20789

DEVELOPER
 SK PROPERTIES, LTD.
 C/O WILLIAM KNOTT
 57 WEST TIMONIUM RD, SUITE 106
 TIMONIUM, MD 21093
 (443) 271-5646

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Andy Hantz
 CHIEF, DIVISION OF LAND DEVELOPMENT 5/10/06 DATE

Chris Dammann
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 5/10/06 DATE

David McLaughlin
 DIRECTOR 5/10/06 DATE

NO.	REVISION	DATE
1	REVISE PLAN TO DELETE THE CONCRETE PILOT CHANNEL AND REPLACE WITH RIP RAP	3/21/16

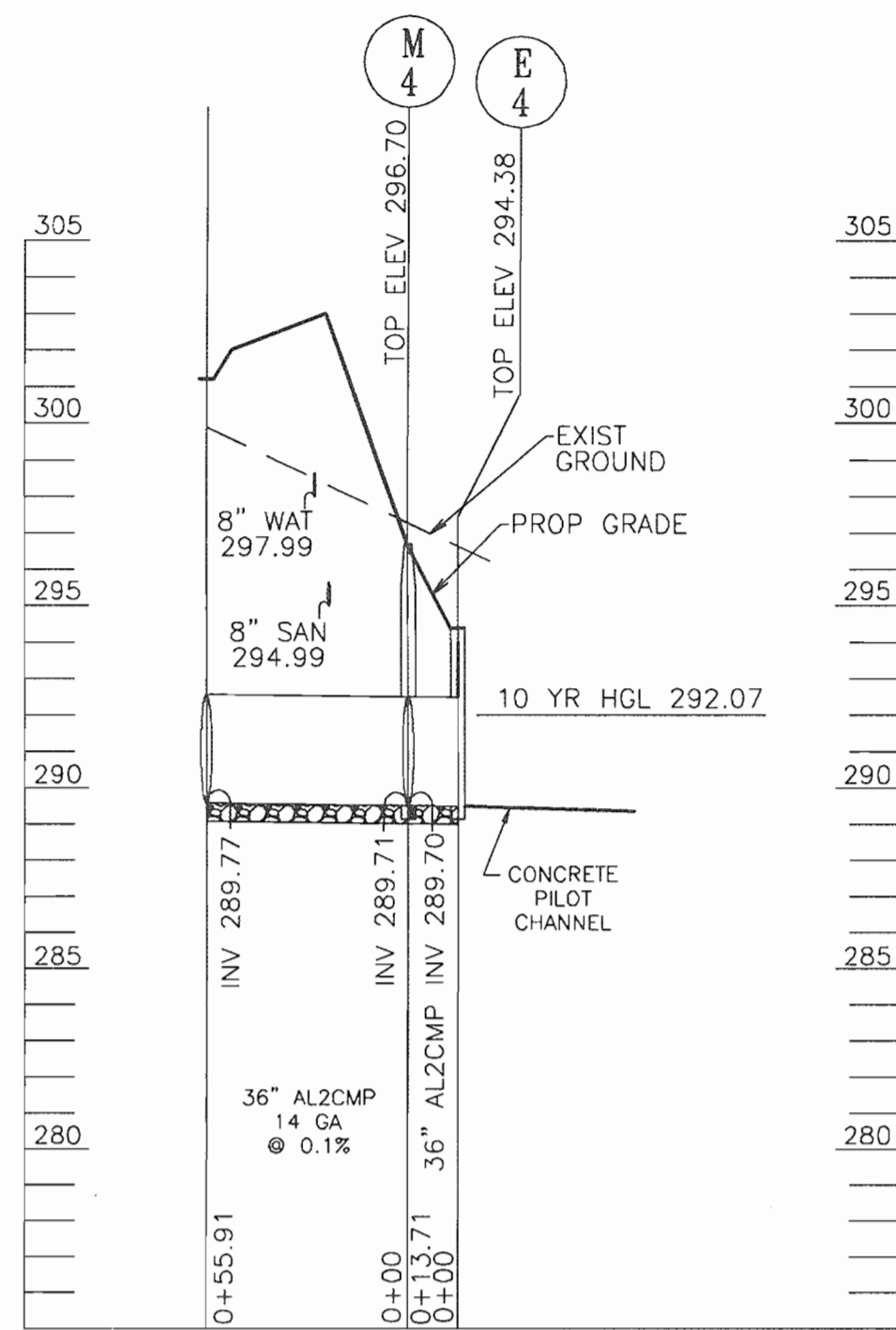
SITE DEVELOPMENT PLAN
STORMWATER MANAGEMENT PLAN
JONES ROAD
AGE RESTRICTED ADULT HOUSING
UNITS 1-26 & COMMUNITY CENTER

TAX MAP 42 GRID 24 PARCEL 143
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
 ARCHITECTS ENGINEERS PLANNERS SURVEYORS www.frederickward.com

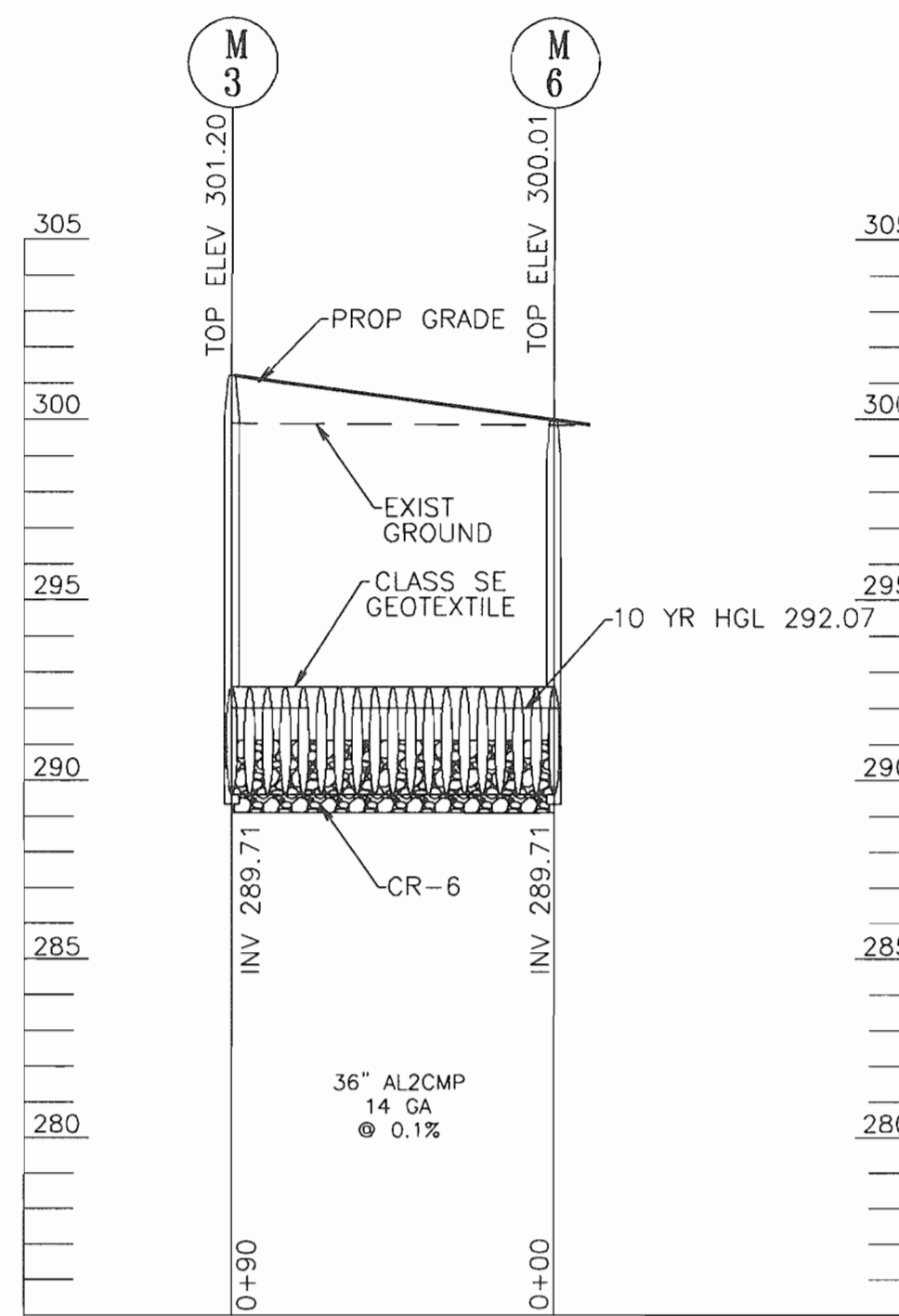
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 DRAWN BY: MPB
 CHECKED BY: S.J.G.
 DATE: 07/07/05
 SCALE: AS SHOWN
 W.O. NO.: 2034026.00

STEPHEN J. GORSKI, P.E.



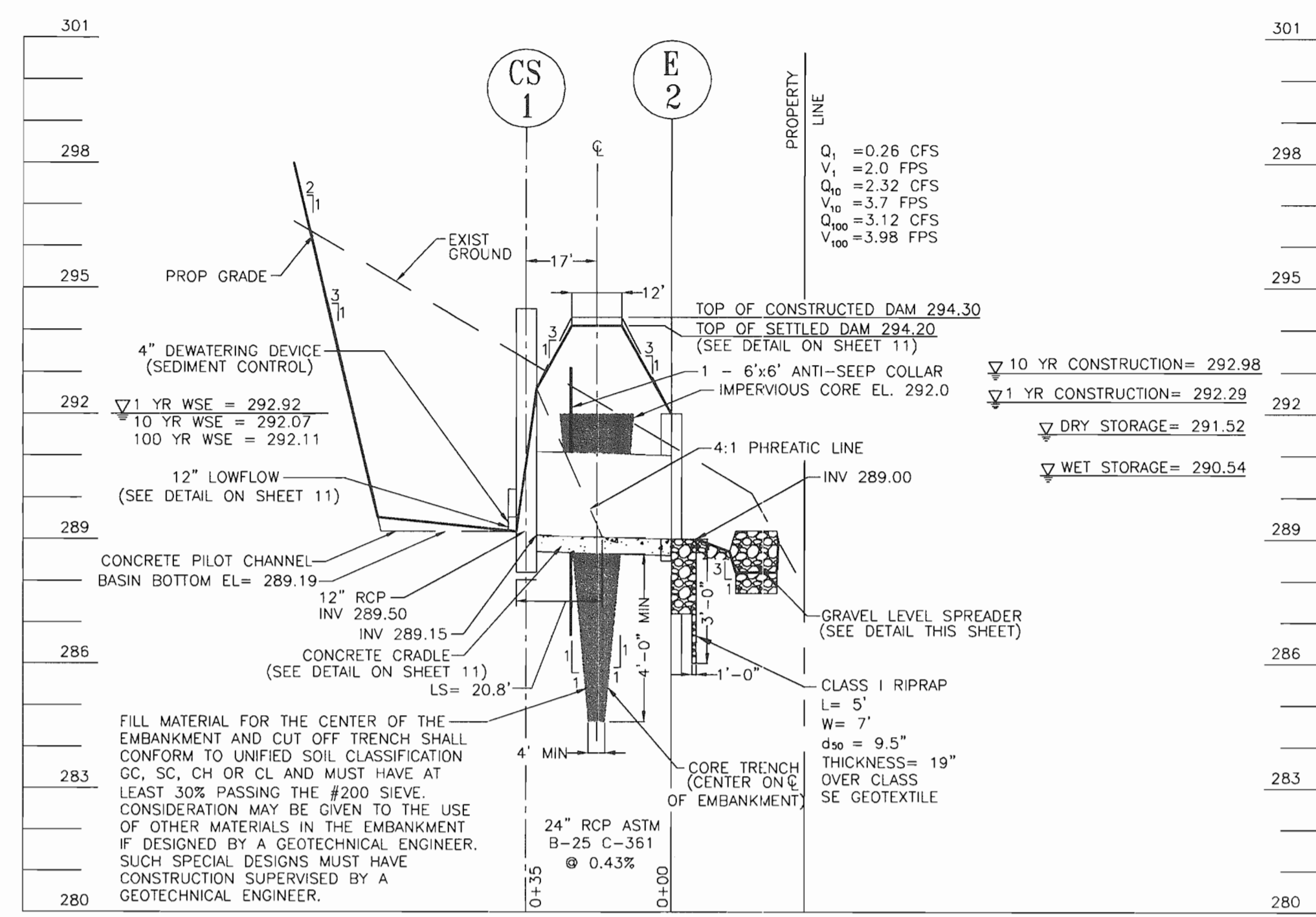
UNDERGROUND SWM PROFILE

SCALE: 1" = 50' HORZ.
1" = 5' VERT.



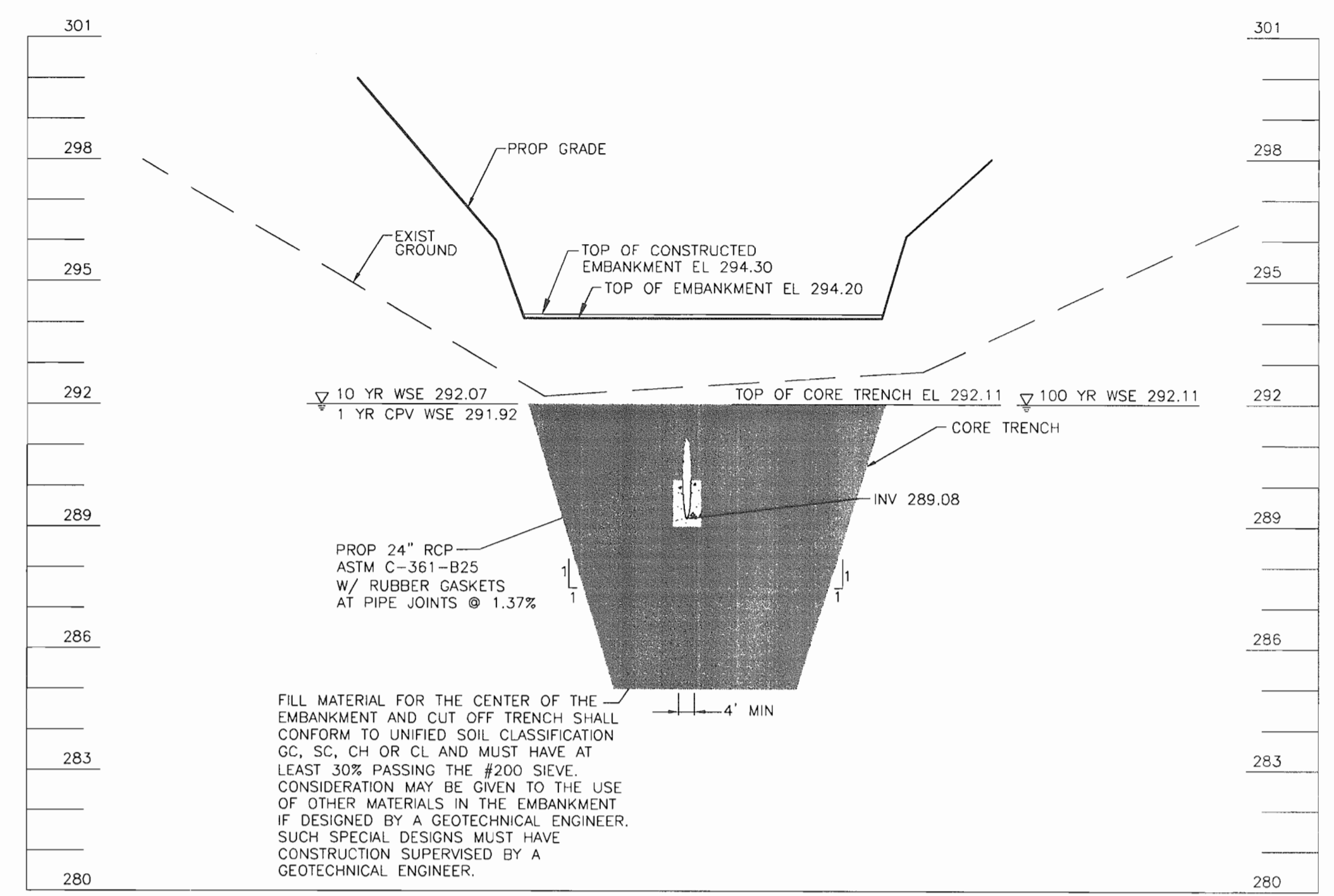
UNDERGROUND SWM PROFILE

SCALE: 1" = 50' HORZ.
1" = 5' VERT.



PRINCIPAL SPILLWAY PROFILE

SCALE: 1" = 30' HORZ.
1" = 3' VERT.



CENTERLINE OF DAM PROFILE

SCALE: 1" = 30' HORZ.
1" = 3' VERT.

Reuling Associates, Inc. Boring Log Page 1 of 7

PROJECT: Jones Road Age Restricted Housing
 DATE START: 6/7/2005 PROJECT No.: BORING No.: S-3
 FINISH: 6/7/2005 ELEV: 294.4 INSPECTOR:
 HAMMER WT.: 140 lb SPOON O.D.: 2" FOREMAN: E. Taylor
 BORING METHOD: HSA ROCK CORE DIA.: HAMMER DROP: 30 in.

Scale	Elev	Description	Depth	Scale	No	Blows / ft	Type	REC	Notes
	79'	Reddish br / brown, moist Dense sand w/ gravel	0		1	12-18-24	DS	18"	Topsoil 2"
		Very Dense	2		2	40-1000"	DS	0"	
	79'	Gray / Reddish br., moist Dense silty sand	3		3	14-18-28	DS	4"	
			4		4	14-17-18	DS	18"	
	120'	End of Boring	10						

LEGEND
 DS DRIVEN SPOON
 ST SHELBY
 PS PISTON SAMPLE
 RC ROCK CORE
 HSA HOLLOW STEM AUGER
 MD MUD DRILLING

GROUND WATER
 WATER ON RODS:
 WATER AT COMPLETION:
 CAVED
 WATER AT 24 HOURS:
 0 DRY
 111" N/A

Reuling Associates, Inc. Boring Log Page 1 of 10

PROJECT: Jones Road Adult Housing
 DATE START: 9/21/2004 PROJECT No.: BORING No.: SW-1A
 FINISH: 9/21/2004 ELEV: 294.4 INSPECTOR:
 HAMMER WT.: 140 lb SPOON O.D.: 2" FOREMAN: E. Taylor
 BORING METHOD: HSA ROCK CORE DIA.: HAMMER DROP: 30 in.

Scale	Elev	Description	Depth	Scale	No	Blows / ft	Type	REC	Notes
	79'	Reddish brown, moist, dense sand & heavy gravel, some silt	1		1	5-18-27	DS	18"	Topsoil 2"
		Very Dense	2		2	12-40-62	DS	18"	
	79'	Dense	3		3	20-19-22	DS	18"	
		Gray & reddish brown, moist, very dense, silt with sand & gravel	4		4	17-24-27	DS	18"	
	79'	Brown, reddish brown moist, dense, sand & silt & gravel	5		5	12-18-13	DS	18"	
		End of Boring	10						

LEGEND
 DS DRIVEN SPOON
 ST SHELBY
 PS PISTON SAMPLE
 RC ROCK CORE
 HSA HOLLOW STEM AUGER
 MD MUD DRILLING

GROUND WATER
 WATER ON RODS:
 WATER AT COMPLETION:
 CAVED
 WATER AT 24 HOURS:
 N/A Dry
 61" DRY

Reuling Associates, Inc. Boring Log Page 2 of 10

PROJECT: Jones Road Adult Housing
 DATE START: 9/21/2004 PROJECT No.: BORING No.: SW-2A
 FINISH: 9/21/2004 ELEV: 294.4 INSPECTOR:
 HAMMER WT.: 140 lb SPOON O.D.: 2" FOREMAN: E. Taylor
 BORING METHOD: HSA ROCK CORE DIA.: HAMMER DROP: 30 in.

Scale	Elev	Description	Depth	Scale	No	Blows / ft	Type	REC	Notes
	49'	Reddish brown, moist, very dense, sand & heavy gravel, some silt	1		1	9-35-68	DS	18"	Topsoil 2"
		Dense	2		2	14-21-37	DS	14"	
	49'	Gray & reddish brown, moist, med. dense, silt with sand & gravel	3		3	21-15-13	DS	14"	
		Dense	4		4	2-18-23	DS	14"	
	49'	Brown, reddish brown moist, dense, sand & silt & gravel	5		5	12-15-20	DS	18"	
		End of Boring	10						

LEGEND
 DS DRIVEN SPOON
 ST SHELBY
 PS PISTON SAMPLE
 RC ROCK CORE
 HSA HOLLOW STEM AUGER
 MD MUD DRILLING

GROUND WATER
 WATER ON RODS:
 WATER AT COMPLETION:
 CAVED
 WATER AT 24 HOURS:
 N/A Dry
 61" DRY

Reuling Associates, Inc. Boring Log Page 3 of 10

PROJECT: Jones Road Adult Housing
 DATE START: 9/21/2004 PROJECT No.: BORING No.: SW-3A
 FINISH: 9/21/2004 ELEV: 294.4 INSPECTOR:
 HAMMER WT.: 140 lb SPOON O.D.: 2" FOREMAN: E. Taylor
 BORING METHOD: HSA ROCK CORE DIA.: HAMMER DROP: 30 in.

Scale	Elev	Description	Depth	Scale	No	Blows / ft	Type	REC	Notes
	39'	Brown, reddish brown, moist, very dense, sand with heavy gravel & silt	1		1	8-27-44	DS	14"	Topsoil 2"
		Reddish brown, moist, very dense, sand & gravel w/ silt	2		2	15-33-23	DS	17"	
	39'	Red, reddish brown, light brown, moist, dense sand & silt with some gravel	3		3	21-18-20	DS	18"	
	39'	Light brown, reddish brown moist, dense, silt & sand	4		4	25-17-22	DS	18"	
		Dense	5		5	10-18-25	DS	18"	
		End of Boring	10						

LEGEND
 DS DRIVEN SPOON
 ST SHELBY
 PS PISTON SAMPLE
 RC ROCK CORE
 HSA HOLLOW STEM AUGER
 MD MUD DRILLING

GROUND WATER
 WATER ON RODS:
 WATER AT COMPLETION:
 CAVED
 WATER AT 24 HOURS:
 N/A Dry
 73" DRY

Reuling Associates, Inc. Boring Log Page 4 of 10

PROJECT: Jones Road Adult Housing
 DATE START: 9/21/2004 PROJECT No.: BORING No.: SW-4A
 FINISH: 9/21/2004 ELEV: 294.4 INSPECTOR:
 HAMMER WT.: 140 lb SPOON O.D.: 2" FOREMAN: E. Taylor
 BORING METHOD: HSA ROCK CORE DIA.: HAMMER DROP: 30 in.

Scale	Elev	Description	Depth	Scale	No	Blows / ft	Type	REC	Notes
	19'	Brown, reddish brown, moist, very dense, sand with heavy gravel & silt	1		1	4-6-11	DS	18"	Topsoil 2"
		Reddish brown, light brown moist, very dense, sand with heavy gravel	2		2	21-1000"	DS	8"	
	19'	Dense	3		3	48-45-45	DS	18"	
	19'	Light brown, reddish brown moist, dense, silt & sand	4		4	23-27-21	DS	18"	
		End of Boring	10						

LEGEND
 DS DRIVEN SPOON
 ST SHELBY
 PS PISTON SAMPLE
 RC ROCK CORE
 HSA HOLLOW STEM AUGER
 MD MUD DRILLING

GROUND WATER
 WATER ON RODS:
 WATER AT COMPLETION:
 CAVED
 WATER AT 24 HOURS:
 N/A Dry
 73" DRY

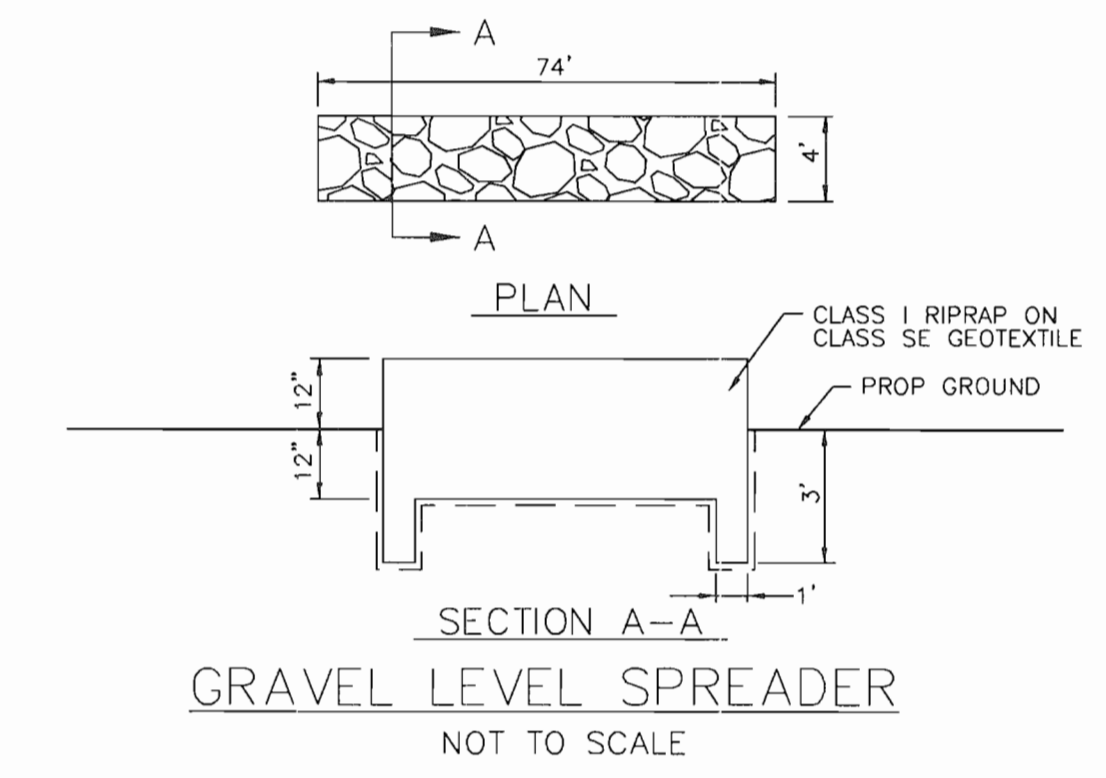
Reuling Associates, Inc. Boring Log Page 5 of 10

PROJECT: Jones Road Adult Housing
 DATE START: 9/21/2004 PROJECT No.: BORING No.: SW-5A
 FINISH: 9/21/2004 ELEV: 294.4 INSPECTOR:
 HAMMER WT.: 140 lb SPOON O.D.: 2" FOREMAN: E. Taylor
 BORING METHOD: HSA ROCK CORE DIA.: HAMMER DROP: 30 in.

Scale	Elev	Description	Depth	Scale	No	Blows / ft	Type	REC	Notes
	9'	Light brown, reddish brown moist, dense sand & heavy gravel	1		1	11-17-30	DS	18"	Topsoil 2"
		Very dense	2		2	9-1000"	DS	7"	
	9'	Dense	3		3	29-49-70	DS	18"	
	9'	Reddish brown, light brown moist, dense, silt with fine sand	4		4	15-21-24	DS	18"	
	140'	Light brown, gray, reddish brown, moist, dense, silt with fine sand	5		5	13-21-20	DS	18"	
		End of Boring	10		6	16-21-20	DS	18"	

LEGEND
 DS DRIVEN SPOON
 ST SHELBY
 PS PISTON SAMPLE
 RC ROCK CORE
 HSA HOLLOW STEM AUGER
 MD MUD DRILLING

GROUND WATER
 WATER ON RODS:
 WATER AT COMPLETION:
 CAVED
 WATER AT 24 HOURS:
 N/A Dry
 123" DRY



GRAVEL LEVEL SPREADER
NOT TO SCALE

APPROVED: DEPARTMENT OF PLANNING AND ZONING.

Cynthia Hamrick
 CHIEF, DIVISION OF LAND DEVELOPMENT 5/11/06 DATE

John Deussen
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 5/11/06 DATE

Thomas P. Cagle
 DIRECTOR 5/16/06 DATE

OWNER
 SK KING GEORGE, LLC
 8013 JONES ROAD
 JESSUP, MD 20788

DEVELOPER
 SK PROPERTIES, LTD.
 C/O WILLIAM KNOTT
 57 WEST TIMONIUM RD, SUITE 106
 TIMONIUM, MD 21093
 (443) 271-5646

NO. REVISION DATE

SITE DEVELOPMENT PLAN
STORMWATER MANAGEMENT PROFILES & BORING LOGS
JONES ROAD
AGE RESTRICTED ADULT HOUSING
UNITS 1-26 & COMMUNITY CENTER

TAX MAP 42 GRID 24
 6TH ELECTION DISTRICT

PARCEL 143
 HOWARD COUNTY, MARYLAND

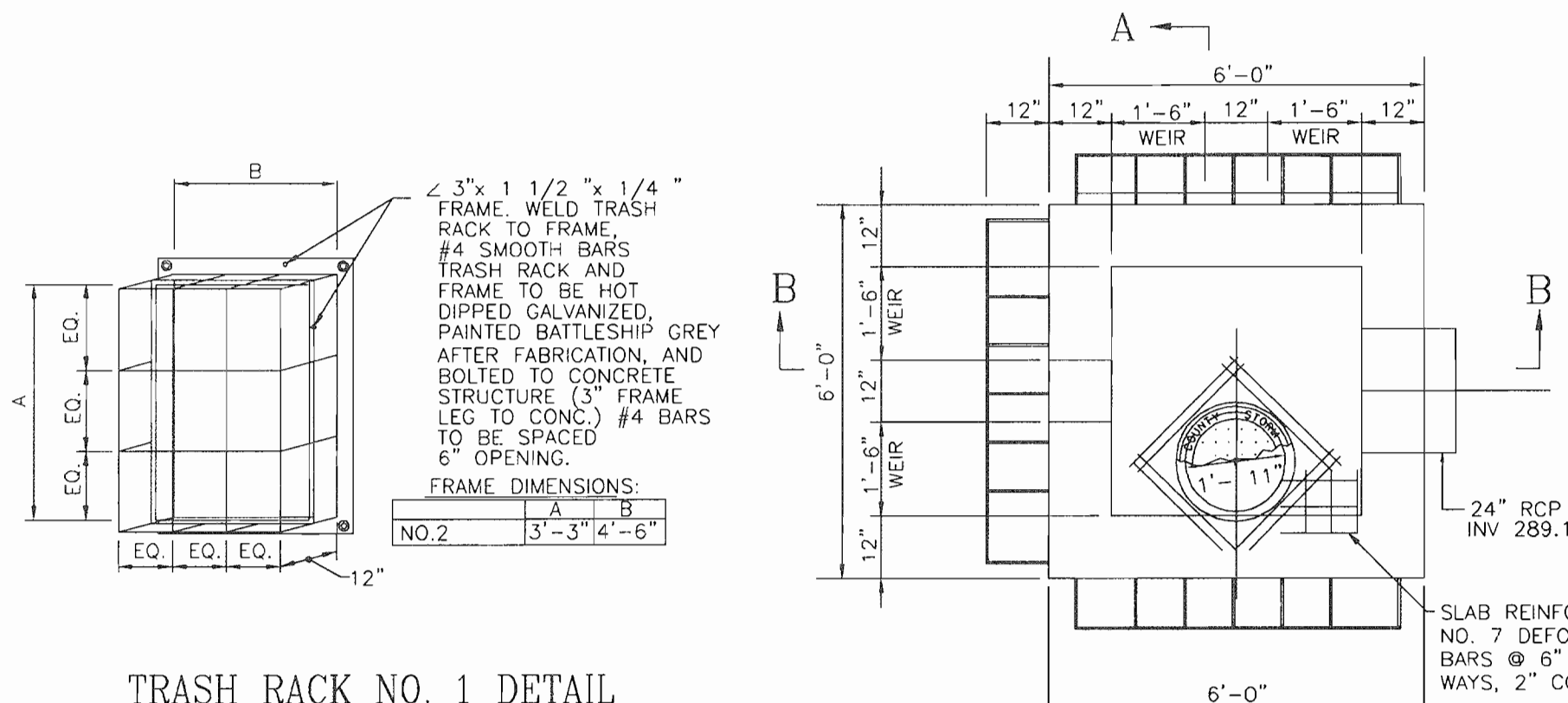
P.O. BOX 727, 5 SOUTH MAIN STREET
 BEL AIR, MARYLAND 21014
 410-838-1900
 410-893-1243 fax

FREDERICK WARD ASSOCIATES, INC.
 ARCHITECTS | ENGINEERS | PLANNERS | SURVEYORS | www.frederickward.com

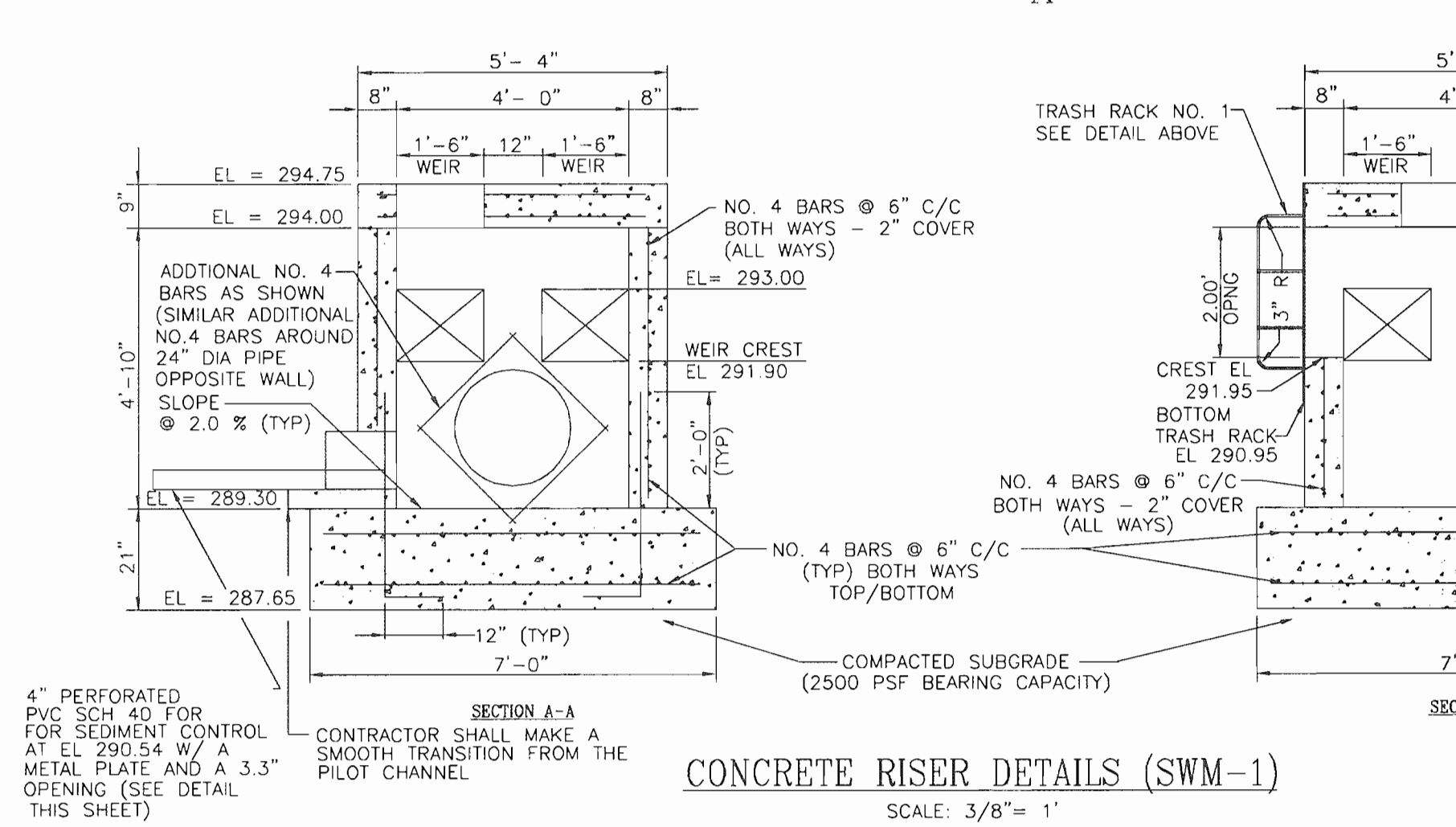
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 DRAWN BY: MPB
 CHECKED BY: SJG
 DATE: 07/07/05
 SCALE: AS SHOWN
 W.O. NO.: 2034026.00

12 SHEET OF 16

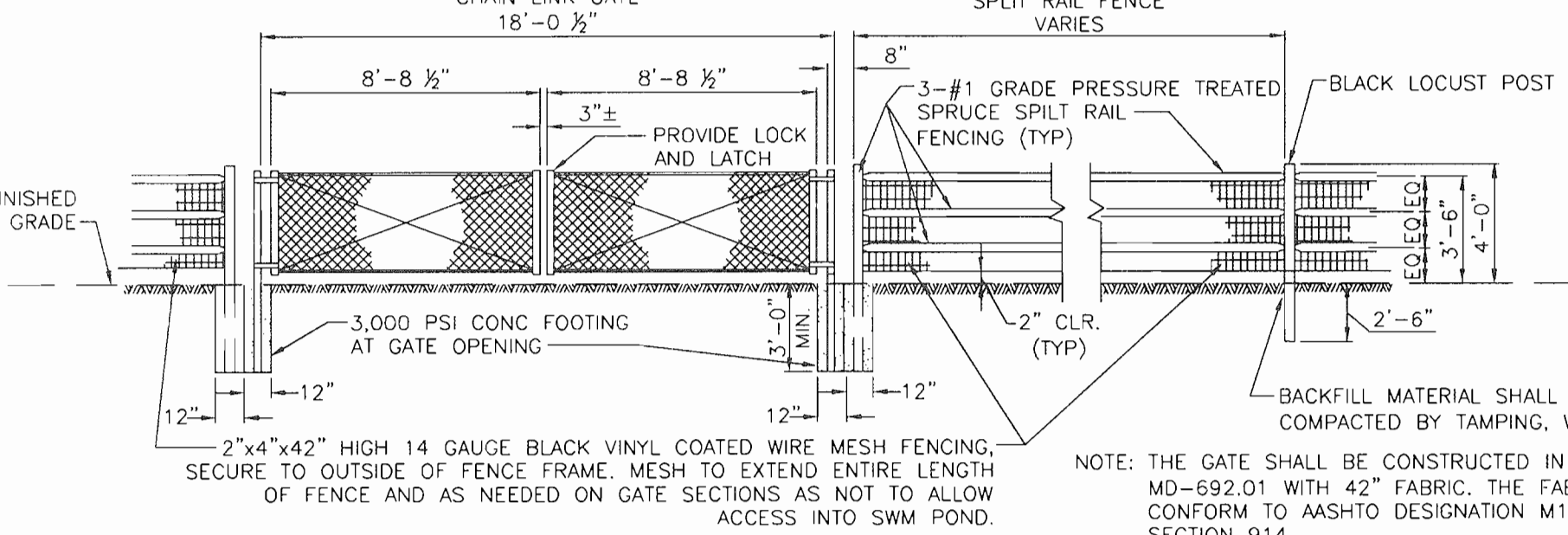
STEPHEN J. GORSKI, P.E.



TRASH RACK NO. 1 DETAIL
SCALE: 3/8" = 1"

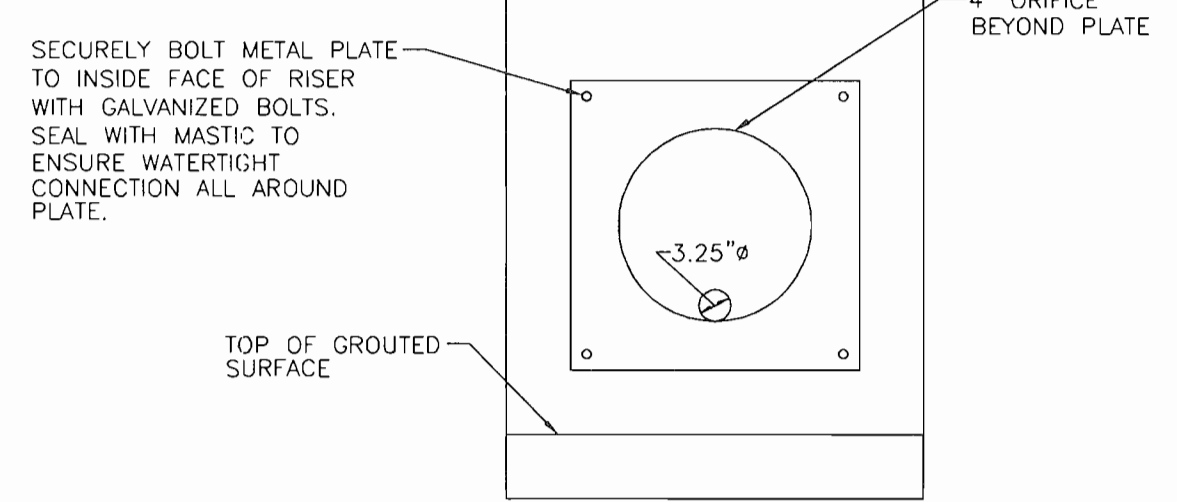


CONCRETE RISER DETAILS (SWM-1)
SCALE: 3/8" = 1"

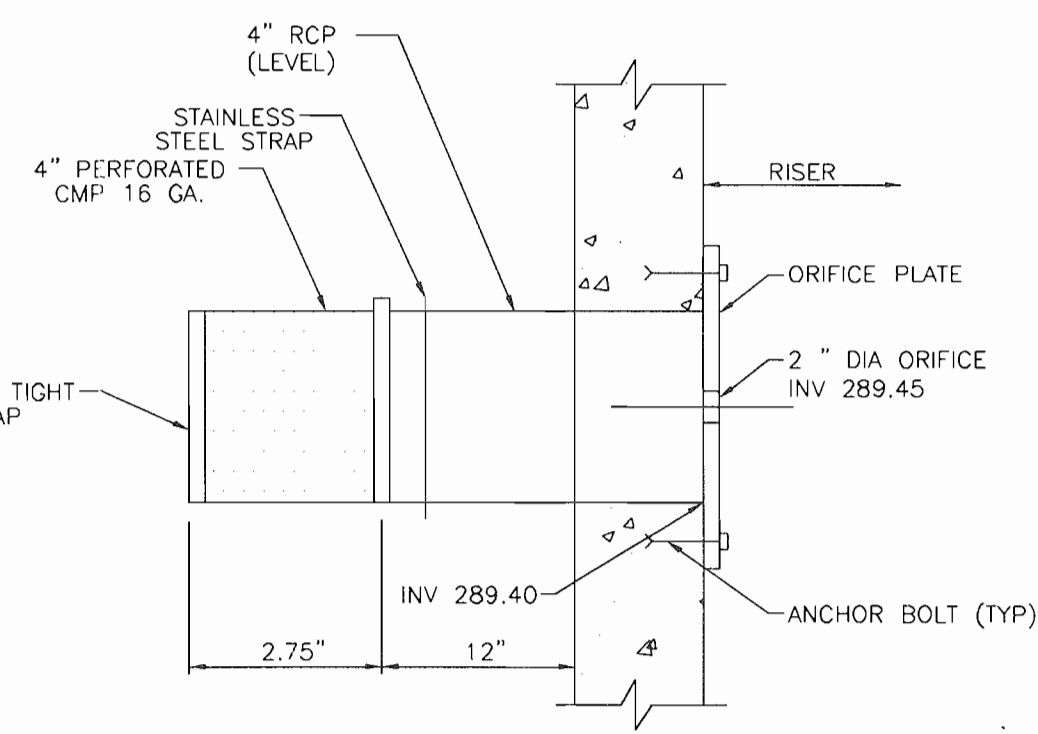


DETAIL - SWM POND SPLIT RAIL FENCE WITH CHAIN LINK GATE
SCALE: 3/8" = 1"

- STRUCTURAL NOTES
1. CONCRETE CONSTRUCTION SHALL BE DESIGNED, REINFORCED AND CONSTRUCTED IN ACCORDANCE WITH ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE."
 2. CONCRETE SHOWN ON THIS DRAWING SHALL BE 3500 PSI MINIMUM 28 DAY COMPRESSIVE STRENGTH.
 3. REINFORCING STEEL SHALL BE DEFORMED STEEL BARS CONFORMING TO ASTM A615, GRADE 60.
 4. CONCRETE EXPOSED TO WEATHER SHALL HAVE 5% MINIMUM ENTRAINED AIR.
 5. CONTRACTOR MAY (AT HIS OPTION) FURNISH THE RISER STRUCTURE AS A PRECAST UNIT, PROVIDED THAT SHOP DRAWINGS OF THE PRECAST STRUCTURE ARE SUBMITTED TO, AND APPROVED BY FREDERICK WARD ASSOCIATES, INC. PRIOR TO CONSTRUCTION.
 6. CHAMFER ALL EXPOSED CONCRETE EDGES 3/4-INCH.
 7. TRASH RACK & WEIR GRATING ASSEMBLIES SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION. ALL POINTS OF CONTACT BETWEEN GRATE AND FRAME ARE TO BE WELDED.
 8. IF RISER IS PRECAST, PROVIDE A 1/8" CONCRETE WATER TIGHT COLLAR AT BARREL PIPE CONNECTION TO RISER. IF RISER IS CAST IN PLACE, CAST WALL DIRECTLY AROUND BARREL PIPE TO FORM WATER TIGHT SEAL.
 9. STRUCTURAL SUBGRADE SHALL BE COMPACTED PER MD-378 SPECIFICATIONS.
 10. IF RISER IS PRECAST, THE RISER UNIT MUST BE ONE SINGLE SECTION.

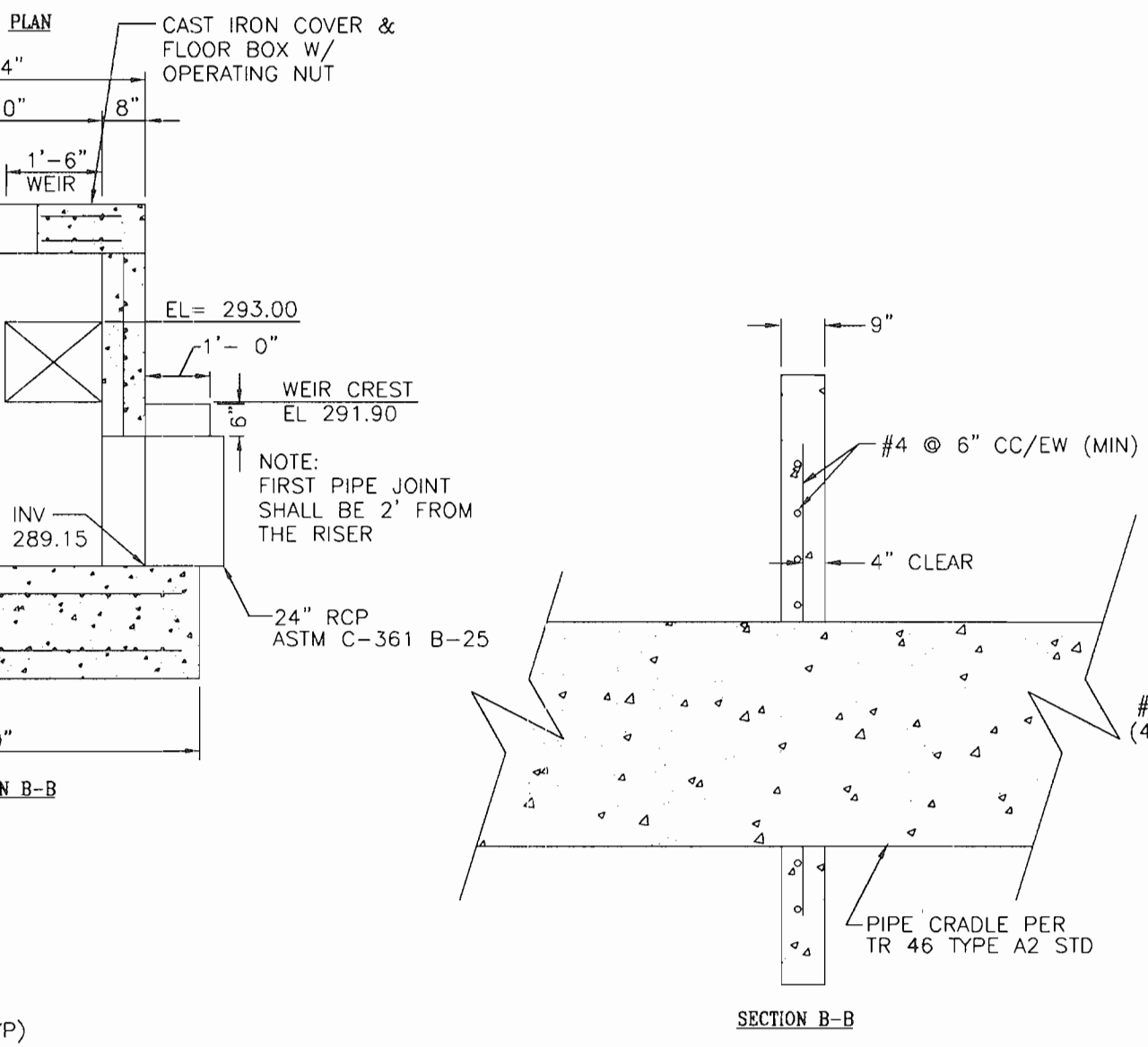


DETAIL: METAL PLATE INSIDE RISER FOR SEDIMENT CONTROL
SCALE: 1" = 1"



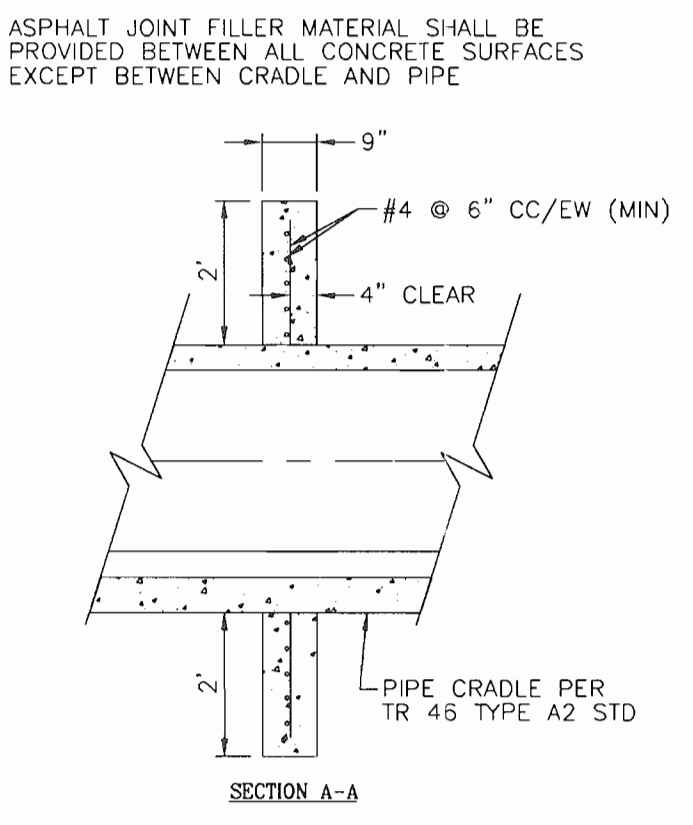
HORIZONTAL DRAW DOWN DEVICE DETAIL FOR SEDIMENT CONTROL
SCALE: 1" = 1"

- CONSTRUCTION SPECIFICATIONS
1. THE PERFORATIONS SHALL BE 1" DIAMETER SPACED 3" ON CENTER.

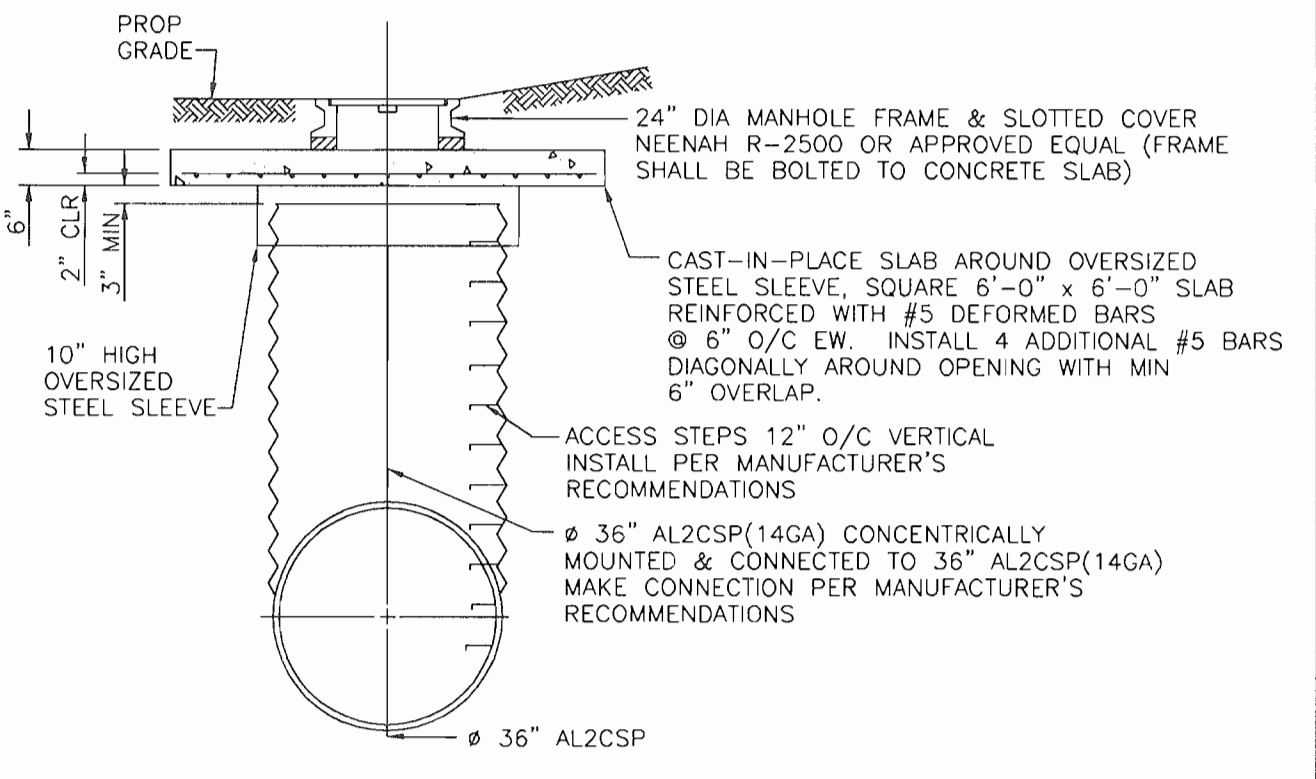


- NOTES:
1. ANTI SEEP COLLARS SHALL BE PLACED WITHIN THE SATURATION ZONE.
 2. ALL ANTI-SEEP COLLARS AND THEIR CONNECTIONS TO THE CONDUIT SHALL BE WATER TIGHT AND MADE OF COMPATIBLE WITH THE CONDUIT.
 3. COLLAR DIMENSIONS SHALL EXTEND A MIN. OF 2" IN ALL DIRECTIONS.
 4. ANTI-SEEP COLLARS SHALL BE PLACED A MIN OF 2' FROM PIPE JOINTS EXCEPT WHERE FLANGED JOINTS ARE USED.

ANTI-SEEP COLLAR AND CONCRETE CRADLE DETAIL
SCALE: 3/8" = 1"



FIELD CONNECTION DETAIL - AL2CSP
SCALE: 3/8" = 1"



ACCESS MANHOLE DETAIL
SCALE: 3/8" = 1"

- OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED STORMCEPTOR WATER QUALITY DEVICE
- A. THE STORMCEPTOR WATER QUALITY STRUCTURE SHALL BE PERIODICALLY INSPECTED AND CLEANED TO MAINTAIN OPERATION AND FUNCTION. THE OWNER SHALL INSPECT THE STORMCEPTOR UNIT YEARLY AT A MINIMUM, UTILIZING THE STORMCEPTOR INSPECTION/MONITORING FORM. INSPECTIONS SHALL BE DONE BY USING A CLEAR PLEXIGLAS TUBE ("SLUDGE JUDGE") TO EXTRACT A WATER COLUMN SAMPLE. WHEN THE SEDIMENT DEPTHS EXCEED THE LEVEL SPECIFIED IN TABLE 6 OF THE STORMCEPTOR TECHNICAL MANUAL, THE UNIT MUST BE CLEANED.
 - B. THE STORMCEPTOR WATER QUALITY STRUCTURE SHALL BE CHECKED AND CLEANED IMMEDIATELY AFTER PETROLEUM SPILLS. THE OWNER SHALL CONTACT THE APPROPRIATE REGULATORY AGENCIES.
 - C. THE MAINTENANCE OF THE STORMCEPTOR UNIT SHALL BE DONE USING A VACUUM TRUCK WHICH WILL REMOVE THE WATER, SEDIMENT, FLOATING HYDROCARBONS AND OTHER MATERIALS IN THE UNIT. PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIALS AND LIQUID MUST BE FOLLOWED BY THE OWNER.
 - D. THE INLET AND OUTLET PIPES SHALL BE CHECKED FOR ANY OBSTRUCTIONS AT LEAST ONCE EVERY SIX MONTHS. IF OBSTRUCTIONS ARE FOUND THE OWNER SHALL HAVE THEM REMOVED. STRUCTURAL PARTS OF THE STORMCEPTOR UNIT SHALL BE REPAIRED AS NEEDED.
 - E. THE OWNER SHALL RETAIN AND MAKE THE STORMCEPTOR INSPECTION/MONITORING FORMS AVAILABLE TO THE HOWARD COUNTY OFFICIALS UPON REQUEST.

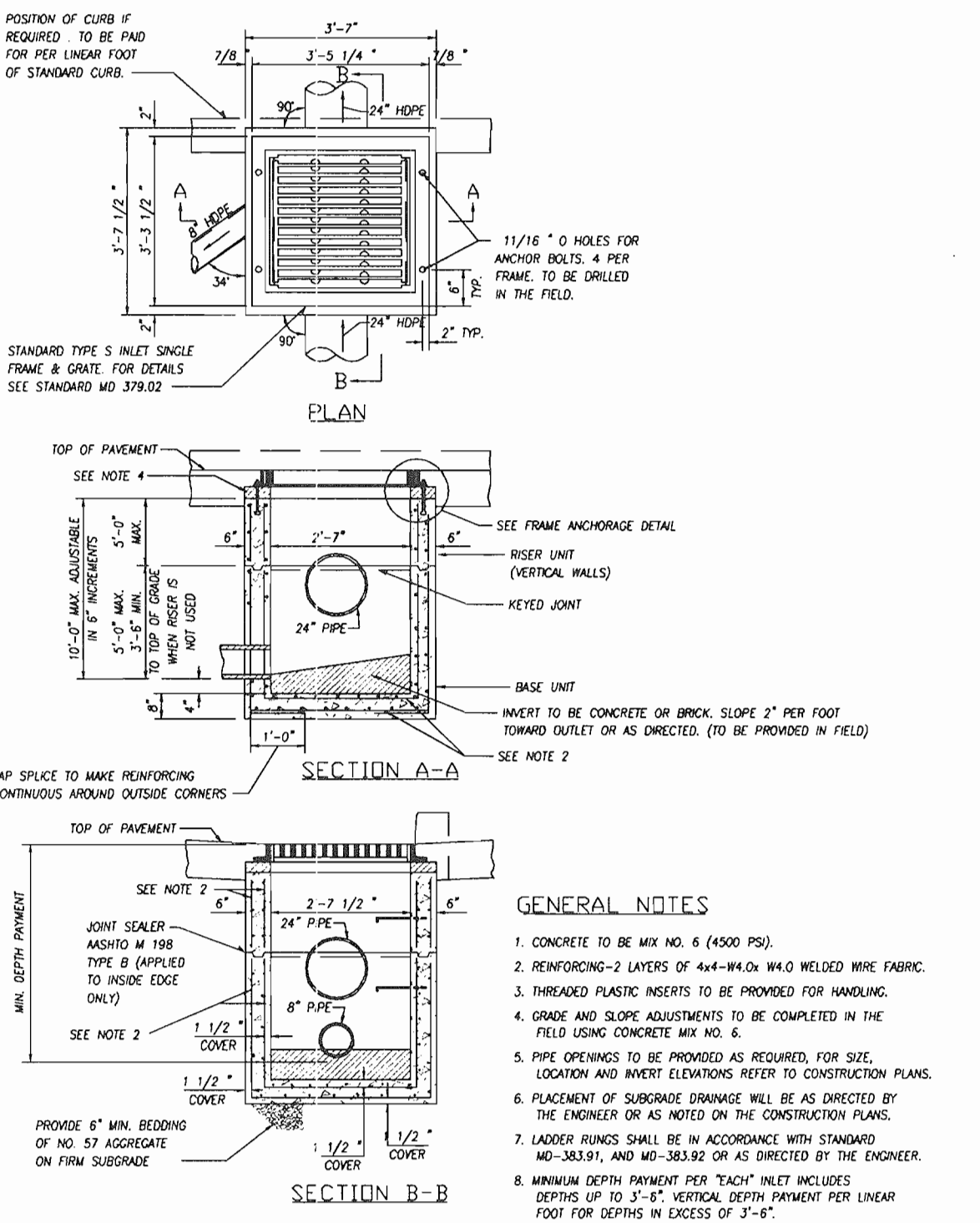
- OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED OPEN CHANNEL SYSTEMS
1. THE OPEN CHANNEL SYSTEM SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTION SHALL BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE FACILITY IS FUNCTIONING PROPERLY.
 2. THE OPEN CHANNEL SHALL BE MOWED AS NEEDED DURING THE GROWING SEASON TO MAINTAIN A MAXIMUM GRASS HEIGHT OF LESS THAN 6 INCHES.
 3. DEBRIS AND LITTER SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
 4. VISIBLE SIGNS OR EROSION IN THE OPEN CHANNEL SYSTEM SHALL BE REPAIRED AS SOON AS IT IS NOTICED.
 5. REMOVE SILT IN THE OPEN CHANNEL SYSTEM WHEN IT EXCEEDS 25% OF THE ORIGINAL WQV.

- NON-ROUTINE MAINTENANCE:
1. STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, THE RISER, AND THE PIPES SHALL BE REPAIRED UPON THE DETECTION OF ANY DAMAGE. THE COMPONENTS SHALL BE INSPECTED DURING ROUTINE MAINTENANCE OPERATIONS.
 2. SEDIMENT SHALL BE REMOVED FROM THE POND, AND FOREBAY, NO LATER THAN WHEN THE CAPACITY OF THE POND, FOREBAY, IS HALF OF SEDIMENT, OR, WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, UPON APPROVAL FROM THE DEPARTMENT OF PUBLIC WORKS.

- OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED UNDERGROUND FACILITIES
1. THE UNDERGROUND STORMWATER MANAGEMENT FACILITY IS PRIVATELY OWNED AND IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO PERIODICALLY INSPECT AND CLEAN THE FACILITY TO MAINTAIN ITS OPERATION AND FUNCTION.
 2. THE UNDERGROUND STORMWATER MANAGEMENT FACILITY SHALL BE INSPECTED YEARLY AT A MINIMUM AND AFTER ESPECIALLY SEVERE STORM EVENTS.
 3. WHEN SEDIMENT ACCUMULATION OF MORE THAN 2" IS OBSERVED OR ANY DEBRIS THAT MIGHT OBSTRUCT THE OUTFALL IS OBSERVED, THE FACILITY SHALL BE CLEANED.
 4. THE FACILITY SHALL BE CLEANED IMMEDIATELY AFTER PETROLEUM SPILLS. THE OWNER SHALL CONTACT THE APPROPRIATE REGULATORY AGENCIES NOTIFYING THEM OF THE SPILL AND CLEANUP OPERATION.
 5. THE SEDIMENT AND DEBRIS SHALL BE REMOVED FROM THE UNDERGROUND STORMWATER MANAGEMENT FACILITY BY VACUUM TRUCK OR OTHER MANUAL MEANS. THE OWNER SHALL FOLLOW PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIAL AND LIQUID.
 6. THE INLET AND OUTLET PIPES SHALL BE CHECKED FOR ANY OBSTRUCTIONS AT LEAST ONCE EVERY SIX (6) MONTHS. IF OBSTRUCTIONS ARE FOUND, THE OWNER SHALL HAVE THEM REMOVED AND PROPERLY DISPOSED OF.

OPENING	QUANTITIES FOR ESTIMATING PURPOSES ONLY									
	AREA	PERIMETER	C	F	H	L	CONC	STEEL	PIPE	VALVE
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
STANDARD TYPE C ENDWALL
METAL OR CONCRETE ROUND PIPE
STANDARD NO. MD 354.01



INLET 1-3 DETAIL
NOT TO SCALE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Conrad... 5/16/06
CHIEF, DIVISION OF LAND DEVELOPMENT & DATE

... 5/16/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION/DATE

... 5/16/06
DIRECTOR

OWNER
SK KING GEORGE, LLC
8013 JONES ROAD
JESSUP, MD 20789

DEVELOPER
SK PROPERTIES, LTD.
C/O WILLIAM KNOTT
57 WEST TIMONIUM RD, SUITE 106
TIMONIUM, MD 21093
(443) 271-5646

SITE DEVELOPMENT PLAN
STORMWATER MANAGEMENT DETAILS
JONES ROAD
AGE RESTRICTED ADULT HOUSING
UNITS 1-26 & COMMUNITY CENTER

TAX MAP 42 GRID 24 PARCEL 143
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
ARCHITECTS ENGINEERS PLANNERS SURVEYORS
www.frederickward.com

P.O. BOX 727, 5 SOUTH MAIN STREET
BEL AIR, MARYLAND 21034
410-838-7000
410-883-1263 fax

DESIGN BY: SS
DRAWN BY: MPB
CHECKED BY: SJG
DATE: 07/07/05
SCALE: AS SHOWN
W.O. NO.: 2034026.00

13 SHEET OF 16

CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the embankment.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush, and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 25-foot radius around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment, and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL and must have at least 30% passing the #200 sieve. Considerations may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer.

Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble, yet not be so wet that water can be squeezed out.

When required by the reviewing agency the minimum required density shall not be less than 95% of maximum dry density with a moisture content within ±2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

Cut Off Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Embankment Core - The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1 to 1 or flatter. The core shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 313 as modified. The mixture shall have a 100-200 psi; 28 day unconfined compressive strength. The flowable fill shall have a minimum pH of 4.0 and a minimum resistivity of 2,000 ohm-cm. Material shall be placed such that a minimum of 6" (measured perpendicular to the outside of the pipe) of flowable fill shall be under (bedding), over and, on the sides of the pipe. It only needs to extend up to the spring line for rigid conduits. Average slump of the fill shall be 7" to assure flowability of the material. Adequate measures shall be taken (sand bags, etc.) to prevent floating the pipe. When using flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment.

The material shall completely fill all voids adjacent to the flowable fill zone. The material shall completely fill all voids adjacent to the flowable fill zone. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Backfill (flowable fill) zone shall be of the type and quality conforming to that specified for the core of the embankment or other embankment materials.

Pipe Conduits

All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

Materials - (Polymer Coated Steel Pipe) - Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. This pipe and its appurtenances shall conform to the requirements of AASHTO Specifications M-245 & M-246 with watertight coupling bands or flanges.

Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Aluminum Coated Steel Pipe, when used with flowable fill or when soil and/or water conditions warrant the need for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt.

Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges.

Aluminum Pipe, when used with flowable fill or when soil and/or water conditions warrant for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromatic primer or two coats of asphalt. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material and coatings as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the bandwidth. The following type connections are acceptable for pipes less than 24 inches in diameter; flanges on both ends of the pipe with a circular 3/8 inch closed cell neoprene gasket, prepunched to the flange bolt circle, sandwiched between adjacent flanges; a 12-inch wide standard lap type band with 12-inch wide by 3/8-inch thick closed cell circular neoprene gasket; and a 12-inch wide hugger type band with o-ring gaskets having a minimum diameter of 1/2 inch greater than the corrugation depth. Pipes 24 inches in diameter and larger shall be connected by a 24 inch long annular corrugated band using a minimum of 4 (four) rods and lugs, 2 on each connecting pipe end. A 24-inch wide by 3/8-inch thick closed cell circular neoprene gasket will be installed with 12 inches on the end of each pipe.

Flanged joints with 3/8 inch closed cell gaskets the full width of the flange is also acceptable.

Helically corrugated pipe shall have either continuously welded seams or have lock seams with internal caulking or a neoprene bead.

Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

Backfilling shall conform to "Structure Backfill".

Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced concrete pipe:

Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM C-361.

Bedding - Reinforced concrete pipe conduits shall be laid in a concrete bedding / cradle for their entire length. This bedding / cradle shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 50% of its outside diameter with a minimum thickness of 6 inches. Where a concrete cradle is not needed for structural reasons, flowable fill may be used as described in the "Structure Backfill" section of this standard. Gravel bedding is not permitted.

Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 4 feet from the riser.

Backfilling shall conform to "Structure Backfill".

Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Plastic Piping - The following criteria shall apply for plastic pipe:

Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241. Corrugated High Density Polyethylene (HDPE) pipe, couplings and fittings shall conform to the following: 4"-10" inch pipe shall meet the requirements of AASHTO M252 Type S, and 12" through 24" inch shall meet the requirements of AASHTO M294 Type S.

Joints and connections to anti-seep collars shall be completely watertight.

Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

Backfilling shall conform to "Structure Backfill".

Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Drainage Diaphragms - When a drainage diaphragm is used, a registered professional engineer will supervise the design and construction inspection.

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414, Mix No. 3.

Rock Riprap

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration standard Specifications for Construction and Materials, Section 311.

Geotextile shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 921.09, Class C.

Care of Water during Construction

All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purposes, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works.

The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water sumps from which the water shall be pumped.

Stabilization

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Natural Resources Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

Erosion and Sediment Control

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures.

Operation and Maintenance

An operation and maintenance plan in accordance with Local or State Regulations will be prepared for all ponds. As a minimum, the dam inspection checklist located in Appendix A shall be included as part of the operation and maintenance plan and performed at least annually. Written records of maintenance and major repairs needs to be retained in a file. The issuance of a Maintenance and Repair Permit for any repairs or maintenance that involves the modification of the dam or spillway from its original design and specifications is required. A permit is also required for any repairs or reconstruction that involve a substantial portion of the structure. All indicated repairs are to be made as soon as practical.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chris Hamrick 5/16/06
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

John Drummond 5/11/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Frank K. Gorski 5/16/06
DIRECTOR DATE

NO.	REVISION	DATE

Precast Concrete Stormceptor® Order Request Form

CONTRACTOR INFORMATION
Name _____
Address _____
City _____
State _____
Zip _____
Contact _____
Phone _____
Fax _____

GENERAL/PRIME CONTRACTOR
Name _____
Phone _____
Fax _____

OWNER INFORMATION
Name SK PROPERTIES
Phone (443) 271-5646
Fax (410) 308-2710

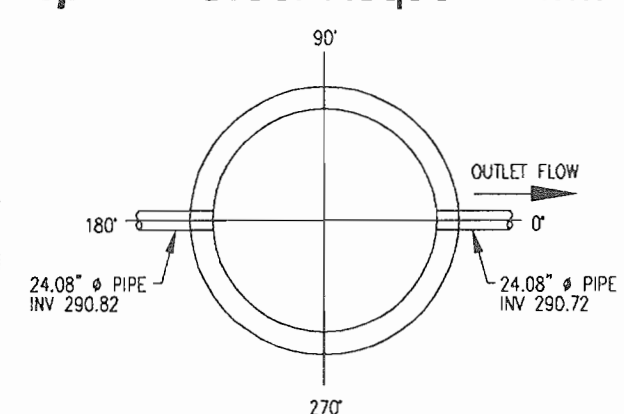
Stormceptor® Model
450 2400 7200
900 3600 11000*
1200 4800 13000*
1800 6000 16000*

Month Number
Top Elevation (ft) 294.15
Inlet Pipe Invert (ft) 280.82
Outlet Pipe Invert (ft) 280.72
#2 Inlet Pipe Invert (ft) * -
#2 Outlet Pipe Invert (ft) * -
Pipe Type HDPE
Inlet Pipe Inside Diameter (ID) 24.08"
Inlet Pipe Outside Diameter (OD) 27.80"
Outlet Pipe Inside Diameter (ID) 24.08"
Outlet Pipe Outside Diameter (OD) 27.80"
* for use with series units only

Project Name * _____
Banded? No Banding Company _____ Telephone _____ Band # _____
Tax Exempt? NO _____ Approximate time frame of delivery (weeks) _____
Delivery Address Street (For Permits) * 8013 JONES ROAD
City: * JESSUP State: * MD Zip Code * 20794
Designer Company FREDERICK WARD ASSOCIATES
Designer Contact SHAFFIQ SOMANI Phone (410) 838-7900 Fax (410) 893-1243
* These fields must be filled out for processing.

HYDRO CONDUIT

PLEASE FILL OUT COMPLETELY AND FAX TO:
ATTN: BRIAN GINGRICH FAX: (301)698-5351, PHONE: (800)414-7960 EXT. 240



STEPHEN JOSEPH GORSKI 18516
Engineer-in-charge PE # _____ Date _____
5 S. MAIN ST., BEL AIR, MD 21014 (410)838-7900
Address Telephone

SK PROPERTIES LTD. _____
Owner Date _____
57 W. TIMONIUM RD SUITE 106, TIMONIUM, MD 21093 (443)271-5646
Address Telephone

Signature *[Signature]* Date 12/15/05

SEQUENCE OF CONSTRUCTION AND INSPECTORS CHECK-OFF LIST FOR SWM PONDS [1]

STAGE	DEVELOPERS/ENGINEERS APPROVAL	
	INITIALS	DATE
1. CLEARING AND GRUBBING		
2. SEDIMENT CONTROL [2]		
3. CUTOFF TRENCH EXCAVATING AND DEWATERING †		
4. CUTOFF TRENCH BACKFILL †		
5. CONSTRUCTION OF PRINCIPAL SPILLWAY (PIPE & RISER) †		
6. BACKFILLING OF PRINCIPAL SPILLWAY †		
7. CONSTRUCTION OF EMBANKMENT †		
8. IMPERVIOUS LINER (IF NECESSARY) †		
9. CHANNELIZATION WORK & OUTLET PROTECTION		
10. VEGETATIVE STABILIZATION		
11. FINAL INSPECTION †		

[1] SEE CONSTRUCTION SPECIFICATIONS & STANDARDS FOR CLARIFICATION
[2] SEE SEDIMENT CONTROL PLAN FOR DETAILS

† MANDATORY NOTIFICATION OF DPW INSPECTOR, GEOTECHNICAL ENGINEER AND ENGINEER-IN-CHARGE AT FREDERICK WARD ASSOCIATES, INC. PRIOR TO COMPLETION OF EACH INDIVIDUAL STAGE.
CALL (410) 638-3127, ENGINEER-IN-CHARGE, PHONE (410) 838-7900.

NOTE: ALL CONSTRUCTION MATERIALS AND DETAILS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY "STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION" UNLESS OTHERWISE SPECIFIED ON THESE PLANS.

OWNER
SK KING GEORGE, LLC
8013 JONES ROAD
JESSUP, MD 20789

DEVELOPER
SK PROPERTIES, LTD.
C/O WILLIAM KNOTT
57 WEST TIMONIUM RD, SUITE 106
TIMONIUM, MD 21093
(443) 271-5646

SEDIMENT AND EROSION CONTROL IS PROVIDED FOR THIS CONTRACT UNDER GRADING PERMIT NO. _____

SITE DEVELOPMENT PLAN
STORMWATER MANAGEMENT NOTES
JONES ROAD
AGE RESTRICTED ADULT HOUSING
UNITS 1-26 & COMMUNITY CENTER

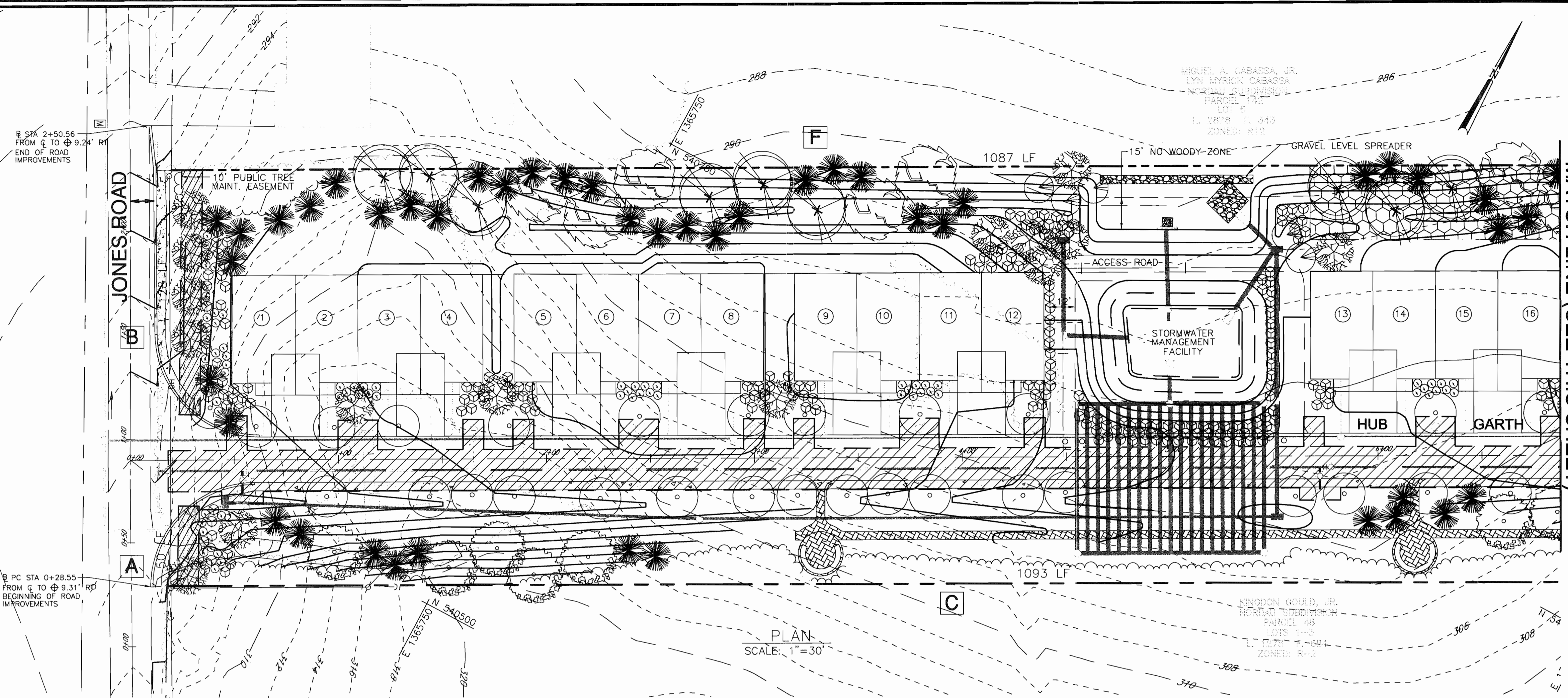
TAX MAP 42 GRID 24 PARCEL 143
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
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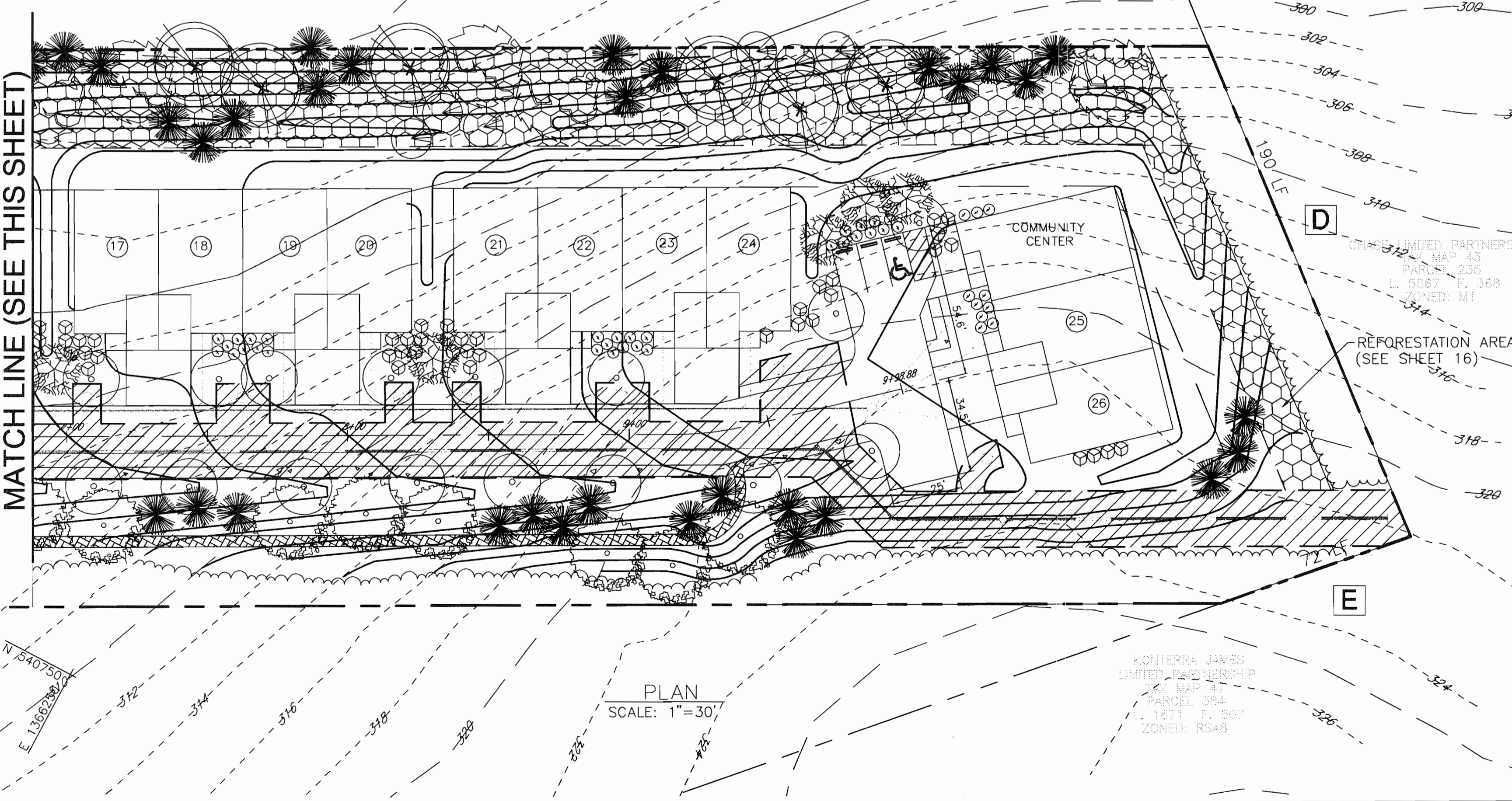
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PLAN
SCALE: 1"=30'



PLAN
SCALE: 1"=30'

MIGUEL A. CABASSA, JR.
LYN MYRICK CABASSA
NORFOLK COUNTY, VIRGINIA
PARCEL 143
LOT 6
L. 2878 F. 343
ZONED: R12

KINGDON GUILD, JR.
NORFOLK COUNTY, VIRGINIA
PARCEL 49
LOTS 1-3
L. 2878 F. 343
ZONED: R-2

KONTERIA JAMES
LIMITED PARTNERSHIP
TAX MAP 42
PARCEL 384
L. 1871 F. 507
ZONED: RS4B

NOTE:
IN ACCORDANCE WITH SECTION 16.124 OF THE LANDSCAPE MANUAL, PUBLIC & PRIVATE STREET TREES, PERIMETER & INTERNAL LANDSCAPING AND STORMWATER MANAGEMENT LANDSCAPING SHALL BE PROVIDED AS SHOWN ON THIS SITE PLAN. SURETY FOR 101 SHADE TREES, 84 EVERGREENS AND 370 SHRUBS IN THE AMOUNT OF \$54,000 SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT.

SCHEDULE D: STORMWATER MANAGEMENT AREA LANDSCAPING-TYPE 'B' BUFFER

LINEAR FEET OF PERIMETER	482 LF
CREDIT FOR EXISTING VEGETATION (NO, YES AND LINEAR FEET)	NO
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	NO
NUMBER OF TREES REQUIRED	10 SHADE TREES 12 EVERGREEN TREES
NUMBER OF TREES PROVIDED	0 SHADE TREES 0 EVERGREEN TREES 110 SHRUBS
*EXISTING WOODS TO REMAIN	

**SCHEDULE C
RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING**

NUMBER OF DWELLING UNITS	26
NUMBER OF TREES REQUIRED (1:DU SFA; 1:3 DU APTS)	26
NUMBER OF TREES PROVIDED	8
SHADE TREES	0
OTHER TREES (2:1 SUBSTITUTION)	180
SHRUBS (10:1 SUBSTITUTION)	

NOTE:
AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.

LANDSCAPE CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE(1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DEVELOPER'S NAME: *[Signature]* DATE: 3/6/06

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 5/16/06
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 5/16/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 5/16/06
DIRECTOR DATE

PLANT LIST

KEY	QUAN.	BOTANICAL NAME	SIZE	REM.
AR	15	ACER RUBRUM 'OCTOBER GLORY' OCTOBER GLORY RED MAPLE	2 1/2"-3" Cal.	B & B
TL	11	TILIA TOMENTOSA SILVER LINDEN	6' - 8' HL.	B & B
PA	11	PICEA ABIES NORWAY SPRUCE	5' - 6' HL.	B & B
PI	78	PINUS STROBUS EASTERN WHITE PINE	6' - 8' HL.	B & B
ZK	14	ZELKOVA SERRATA 'GREEN VASE' ZALKOVA	2 1/2"-3" Cal.	B & B
QP	14	QUERCUS PALUSTRIS 'GREEN PILLAR' COLUMNAR PIN OAK	2 1/2"-3" CAL.	B & B
EU	261	EUONYMUS ALATUS WINGED EUONYMUS	30" X 36" HT	B & B
IL	109	ILEX GLABRA INKBERRY	30" X 36" HT	B & B

- ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT AAS SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH LANDSCAPE PLANTING SPECIFICATIONS.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
- FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
- CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.

SCHEDULE A: PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS		ADJACENT TO PERIMETER PROPERTIES			
	A	B	C	D	E	F
PERIMETER FRONTAGE DESIGNATION	1	2	3	4	5	6
LANDSCAPE TYPE	C	C	C	C	C	C
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	50'	128'	1087'	190'	72'	1093'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	NO	NO	YES* 41	YES* 190'	YES* 72'	YES* 546'
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED(LF REMAINING)	50'	128'	1046'	0'	0'	547'
SHADE TREES	1:40 1	1:40 3	1:40 26	1:40 0	1:40 0	1:40 14
EVERGREEN TREES	1:20 3	1:20 6	1:20 52	1:20 0	1:20 0	1:20 27
SHRUBS	-	-	-	-	-	-
NUMBER OF PLANTS PROVIDED	-	-	26	0	0	14
SHADE TREES	-	-	52	-	-	27
EVERGREEN TREES	-	-	-	-	-	-
OTHER TREES (2:1 SUBSTITUTION)	-	-	-	-	-	-
SHRUBS (10:1 SUBSTITUTION)	40	40	-	-	-	-
DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED						
* EXISTING WOODS OR TREE TO REMAIN						

STREET TREE CALCULATIONS

STREET NAME	LINEAR FEET	NO. REQUIRED	NO. PROVIDED
PRIVATE ROAD	1,954/40	48	48
IMPROVEMENTS TO JONES RD	178/40	5	5

STREET TREE SCHEDULE

KEY	QUAN.	BOTANICAL NAME	SIZE	REM.
○	48	CARDIOPHYLLUM JAPONICUM 'KATSURATREE'	2 1/2"-3" CAL.	B & B
●	5	QUERCUS PALUSTRIS 'GREEN PILLAR' COLUMNAR PIN OAK	2 1/2"-3" CAL.	B & B

NO.	REVISION	DATE

**SITE DEVELOPMENT PLAN
LANDSCAPE PLAN
JONES ROAD
AGE RESTRICTED ADULT HOUSING
UNITS 1-26 & COMMUNITY CENTER**

TAX MAP 42 GRID 24 PARCEL 143
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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ARCHITECTS ENGINEERS PLANNERS SURVEYORS www.frederickward.com

P.O. BOX 727, 5 SOUTH MAIN STREET
BEL AIR, MARYLAND 21014
410-838-7900
410-883-1243 fax

DESIGN BY: SS
DRAWN BY: MPB
CHECKED BY: SJG
DATE: 07/07/05
SCALE: AS SHOWN
W.O. NO.: 2034026.00

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APPROVED FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Cindy Hamer
CHIEF, DIVISION OF LAND DEVELOPMENT 5/16/06 DATE

W.D. ...
CHIEF, DEVELOPMENT ENGINEERING DIVISION 5/16/06 DATE

Mark ...
DIRECTOR 5/16/06 DATE

REFORESTATION PLANTINGS

SYMBOL	QUAN.	BOTANICAL NAME	COMMON NAME	MIN. SIZE	SPACING	NOTES
	42	Acer rubrum	Red Maple	4'-5'	11' O.C.	CONTAINER
	41	Liriodendron tulipifera	Tulip Poplar	4'-5'	11' O.C.	CONTAINER
	41	Fraxinus pennsylvanica	Green Ash	4'-5'	11' O.C.	CONTAINER
	41	Quercus rubra	Red Oak	4'-5'	11' O.C.	CONTAINER

NOTE: DO NOT PLANT TREES WITHIN 2' OF SWALE BOTTOM.

HOWARD COUNTY
FOREST CONSERVATION WORKSHEET

ZONED R-12

NET TRACT AREA: 5.12 AC

A. TOTAL TRACT AREA = 5.12 AC
B. AREA WITHIN 100 YEAR FLOODPLAIN = 0.00 AC
C. AREA TO REMAIN IN AGRICULTURAL PRODUCTION = 0.00 AC
D. NET TRACT AREA = 5.12 AC

LAND USE CATEGORY

INPUT THE NUMBER "1" UNDER THE APPROPRIATE LAND USE ZONING, AND LIMIT TO ONLY ONE ENTRY. ZONED R-ED.

ARA	MDR	IDA	HDR	MPD	CIA
0	0	0	1	0	0

E. AFFOREST THRESHOLD = 15% X D = 0.77 AC
F. CONSERVATION THRESHOLD = 20% X D = 1.02 AC

EXISTING FOREST COVER:

G. EXISTING FOREST COVER (EXCLUDING FLOODPLAIN) = 4.74 AC
H. AREA OF FOREST ABOVE AFFORESTATION THRESHOLD = 3.97 AC
I. AREA OF FOREST ABOVE CONSERVATION THRESHOLD = 3.72 AC

BREAK EVEN POINT:
(0.2 X I) + F = BREAK EVEN POINT (0.73 AC)

J. FOREST RETENTION WITH NO MITIGATION = 1.76 AC
K. CLEARING PERMITTED WITHOUT MITIGATION = 2.98 AC

PROPOSED FOREST CLEARING:

L. TOTAL AREA OF FOREST TO BE CLEARED = 4.68 AC
M. TOTAL AREA OF FOREST TO BE RETAINED = 0.06 AC

PLANTING REQUIREMENTS:

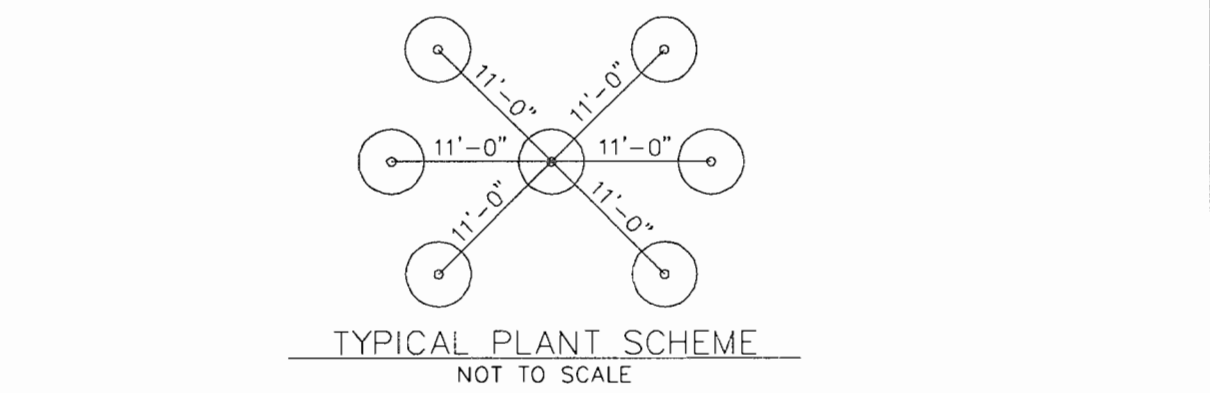
N. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD = 0.93 AC
P. REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD = 1.92 AC
Q. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD = 0.00 AC
R. TOTAL REFORESTATION REQUIRED (N+P-Q) = 2.85 AC
S. TOTAL AFFORESTATION REQUIRED = 0.00 AC
T. TOTAL REFORESTATION AND AFFORESTATION REQUIRED = 2.85 AC

TOTAL REQUIRED FOREST CONSERVATION OBLIGATION IS 2.85 ACRES.
(REFORESTATION AREA - 0.4637 ACRES)

COST ESTIMATE: (For bonding purposes, only)

REFORESTATION ON SITE 0.46 ACRES
(20,198.77 SF X 0.50) = \$10,099.39

THE REMAINING 2.39 AC OF REFORESTATION WILL BE SATISFIED THROUGH FEE-IN-LIEU IN THE AMOUNT OF:
(104,108.40 SF X 0.50) \$52,054.20

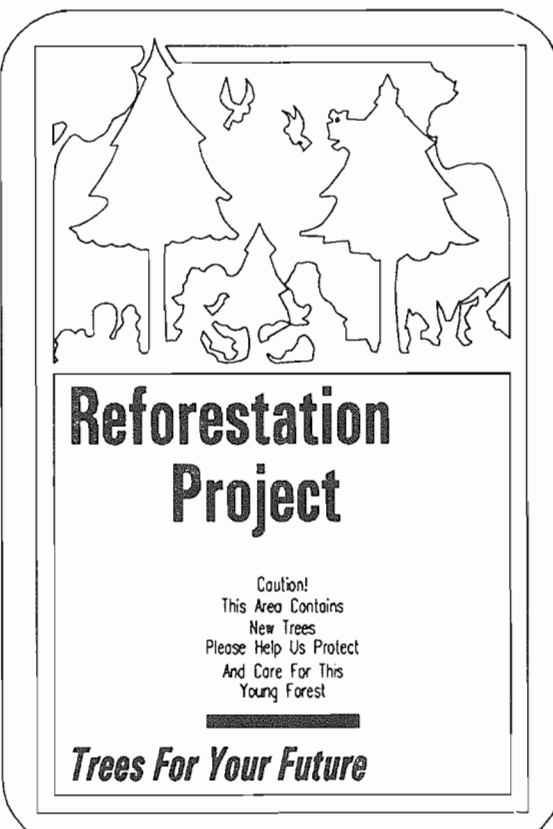


NOTE: FOREST CONSERVATION IN ACCORDANCE WITH SECTION 16.1202 OF THE FOREST CONSERVATION MANUAL SHALL BE PROVIDED BY THE PLACEMENT OF 0.4637 ACRES OF REFORESTATION (20,198.77 sq ft X 0.50) AND 0.0742 ACRES OF RETENTION (3,232.15 sq ft X 0.20) IN A FOREST CONSERVATION EASEMENT SURETY FOR THE REFORESTATION AND RETENTION EASEMENT AREAS IN THE AMOUNT OF \$10,745.82 SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT. A FEE-IN-LIEU FOR THE REMAINDER OF 2.39 ACRES OF REQUIRED REFORESTATION IN THE AMOUNT OF \$52,054.20 SHALL BE PAID TO THE FOREST CONSERVATION FUND.

NO.	REVISION	DATE

OWNERS
SK KING GEORGE, LLC
8013 JONES ROAD
JESSUP, MARYLAND 20789

DEVELOPER
SK PROPERTIES
C/O WILLIAM KNOTT
15 WEST AYLESBURY ROAD
TIMONIUM, MD 21093
(410) 308-2710



REFORESTATION SIGN
NOT TO SCALE

Chuck Schneider
CHUCK SCHNEIDER
DNR QUALIFIED FOREST PROFESSIONAL

SITE DEVELOPMENT PLAN
FOREST CONSERVATION PLAN
JONES ROAD
AGE RESTRICTED ADULT HOUSING

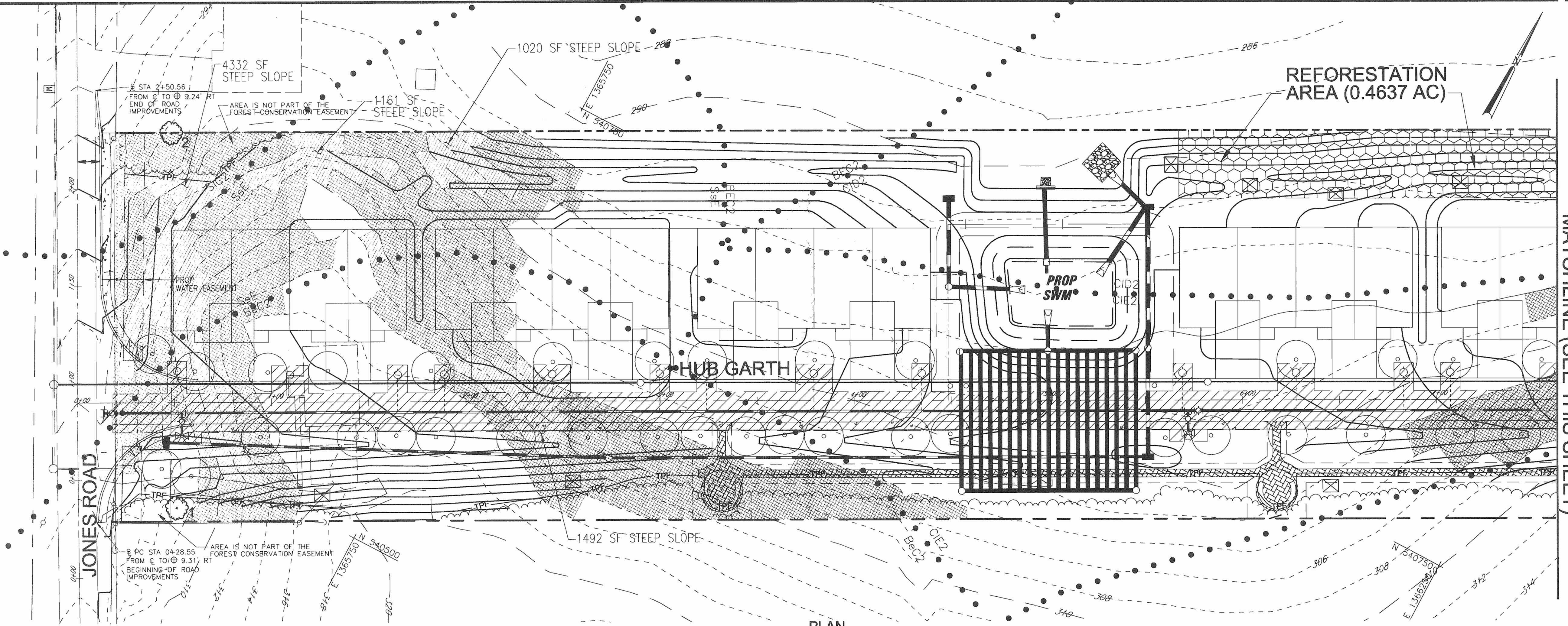
TAX MAP 42 GRID 24 PARCEL 143
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

P.O. BOX 727, 5 SOUTH MAIN STREET
BEL AIR, MARYLAND 21014
410.838.7800
410.899.1243 fax

FREDERICK WARD ASSOCIATES, INC.
ARCHITECTS ENGINEERS PLANNERS SURVEYORS www.frederickward.com

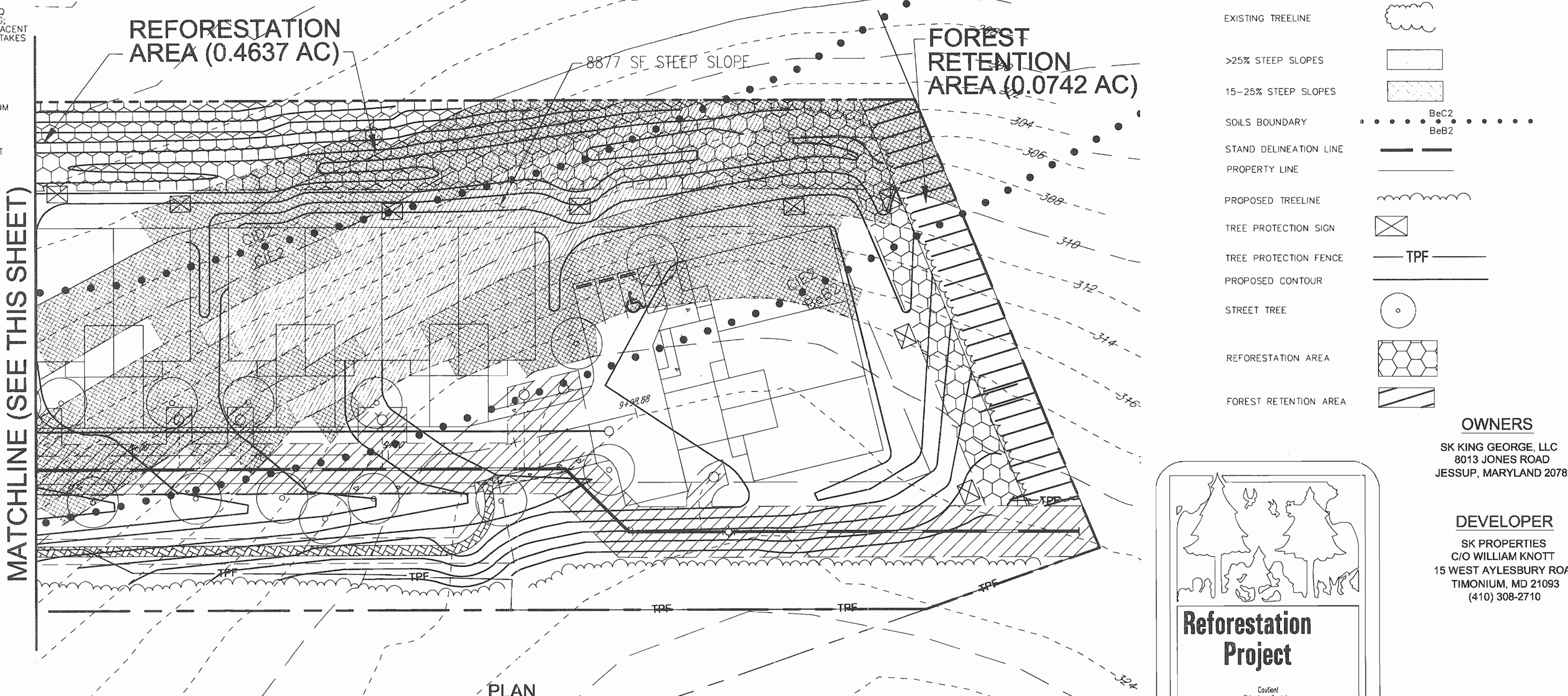
REVISION DATE	DESIGN BY:	SCALE:
10/05/04 REVISED PER COMMENTS FROM HOWARD COUNTY PLANNING & ZONING	ACS	1" = 30'
11/15/04 COMMENTS PER PER HOWARD COUNTY PLANNING & ZONING	JSS	

W.D. NO.: 2034026.00



MATCHLINE (SEE THIS SHEET)

PLAN
SCALE: 1"=30'



PLAN
SCALE: 1"=30'

MATCHLINE (SEE THIS SHEET)

THIN 1/3 OF INITIAL BRANCHING, RETAINING NATURAL FORM

RUBBER HOSE OVER WIRE, 2" SO HARDWOOD STAKES, MIN 8' LONG PLACE STAKES PARALLEL TO ADJACENT WALKS AND BUILDINGS EXTEND STAKES TO FIRM BEARING AS NEEDED

SET 1/8 OF ROOTBALL ABOVE FINISHED GRADE UNLESS OTHERWISE REQ'D BY SOIL CONDITIONS

CUT AND REMOVE COVERING FROM TOP 1/3 OF ROOT BALL

3" MULCH

3" HT SAUCER AROUND TREE PIT

FINISHED GRADE

UNDISTURBED EARTH

TOPSOIL MIX

DECIDUOUS TREE PLANTING

NOTE: LANDSCAPE FABRIC TO BE INSTALLED BENEATH MULCH IN ALL PLANTING BEDS UNLESS OTHERWISE NOTED

ORANGE COLOR HIGHLY VISIBLE FLAGGING

ANCHOR POSTS SHOULD BE MINIMUM 2" STEEL CHANNEL OR 2" X 2" TIMBER, 6' IN LENGTH

USE 2" x 4" LUMBER FOR CROSS BRACING

ANCHOR POSTS MUST BE INSTALLED TO A DEPTH OF NO LESS THAN 1/3 OF THE TOTAL HEIGHT OF POST

USE 8" WIRE 'U' TO SECURE FENCE BOTTOM

NO'S:

- FOREST PROTECTION DEVICE ONLY
- RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
- BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
- ROOT DAMAGE SHOULD BE AVOIDED.
- PROTECTIVE SIGNAGE MAY ALSO BE USED.
- DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

DETAIL - FOREST PROTECTION OPTION: PLASTIC MESH FENCING
NOT TO SCALE

COST ESTIMATE FOR JONES ROAD PROJECT
LAUREL, HOWARD COUNTY, MARYLAND

REFORESTATION PLANTINGS

17 RED MAPLE (4'-5")	\$7.50	=	\$127.50
17 TULIP POPLAR (4'-5")	\$9.50	=	\$161.50
17 SYCAMORE (4'-5")	\$7.50	=	\$127.50
17 PIN OAK (4'-5")	\$13.00	=	\$220.50
TOTAL PLANT COST			\$637.50
TREE INSTALLATION/MAINTENANCE (3X)		=	\$1,912.50
TOTAL			\$2,550.00

SPECIMEN TREE CHART

NO.	DBH	COMMON NAME	RETAIN/REMOVE
1	34	CHESTNUT OAK	RETAIN
2	34	CHESTNUT OAK	RETAIN

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP
BeB2	BELTSVILLE SILT LOAM, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED	C
BeC2	BELTSVILLE SILT LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED	C
ChC2	CHILLUM GRAVELLY LOAM, 10 TO 15 PERCENT SLOPES, MODERATELY ERODED	C
ChE2	CHILLUM GRAVELLY LOAM, 15 TO 30 PERCENT SLOPES, MODERATELY ERODED	C
Sic2	SASSAFRAS LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED	B
SsE	SASSAFRAS LOAM, 15 TO 40 PERCENT SLOPES	B

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