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3	SITE DEVELOPMENT PLAN
4	SITE DEVELOPMENT PLAN
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7	GRADING, SEDIMENT CONTROL AND DRAINAGE AREA MAP
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20	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS - PICKLEBALL COURTS

- GENERAL NOTES**
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY, MSHA STANDARDS AND SPECIFICATIONS AND APPLICABLE PORTIONS OF THE PROJECT SPECIFICATIONS PREPARED BY THE LUKWIRE PARTNERSHIP, PROJECT ARCHITECT.
 - 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 FACE OF CURB UNLESS OTHERWISE NOTED.
 - THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY RIEMER MUEGG & ASSOCIATES, INC., DATED FEBRUARY, 1998, AND BY PHR&A, JANUARY, 2004, AND PROPOSED GRADING INDICATED ON SDP-02-64.
 - 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. 0033 AND 0039 WERE USED FOR THIS PROJECT.
 - SITE WILL BE SERVED BY WELL AND SEPTIC.
 - STORMWATER MANAGEMENT QUALITY AND QUANTITY ARE PROVIDED BY TWO EXTENDED DETENTION FACILITIES THAT WILL BE OWNED AND MAINTAINED BY HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. ONE WAS CONSTRUCTED UNDER SDP-99-21, THE OTHER UNDER SDP-02-64.
 - 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 100 YEAR FLOODPLAIN IMPACTING THE DEVELOPMENT AREA OF THIS PROJECT.
 - THE WETLANDS DELINEATION STUDY FOR THIS PROJECT WAS PREPARED BY RICHARD C. PAIS, INC. DATED FEBRUARY, 1998. THERE ARE NO WETLANDS IN THE COMMUNITY CENTER AREA OF DEVELOPMENT.
 - NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT.
 - NO GEOTECHNICAL STUDY FOR STORMWATER MANAGEMENT IS REQUIRED FOR THIS PROJECT.
 - THE BOUNDARY SURVEY FOR THIS PROJECT WAS PREPARED BY HOWARD COUNTY, DATED APRIL 5, 1998.
 - SUBJECT PROPERTY ZONED RC-DEO PER 2-2-04 COMPREHENSIVE ZONING PLAN.
 - ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
 - SEE DEPARTMENT OF PLANNING AND ZONING FILE NO'S: F-79-71, SDP-99-21, WP-99-38, SDP-02-64, F-01-174, WP-02-92
 - 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 INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
 - STORM DRAIN TRENCHES WITHIN ROADWAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.E., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
 - 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 11B2.
 - SITE LIGHTING SHALL BE IN ACCORDANCE WITH THE OUTDOOR LIGHTING REQUIREMENTS OF SECTION 134 OF THE ZONING REGULATIONS AND SHALL DIRECT LIGHT DOWNWARDS AND INWARDS ON-SITE AWAY FROM ADJOINING RESIDENTIAL USE PROPERTIES AND PUBLIC ROADS.
 - LANDSCAPING HAS BEEN PROVIDED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
 - THE FOREST CONSERVATION REQUIREMENTS FOR THIS PROJECT AREA WERE PREVIOUSLY ADDRESSED UNDER SDP-02-64 AND F-01-174 WITH A BREAK-EVEN OBLIGATION OF 41.77 ACRES MET WITH THE RECORDING OF 42.54 ACRES OF ON-SITE RETENTION BASEMENT.
 - THIS SDP IS SUBJECT TO THE FIRST AMENDMENT TO THE FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS DATED OCTOBER 2, 2003 AND THE COMPREHENSIVE ZONING PLAN AND REGULATIONS ADOPTED ON FEBRUARY 2, 2004.
 - STORMWATER MANAGEMENT FOR PICKLEBALL COURTS ADDITION PROVIDED VIA ONE MICRO-BIORETENTION FACILITY WHICH WILL BE OWNED AND MAINTAINED BY HOWARD COUNTY DEPT. OF REG. AND PARKS.

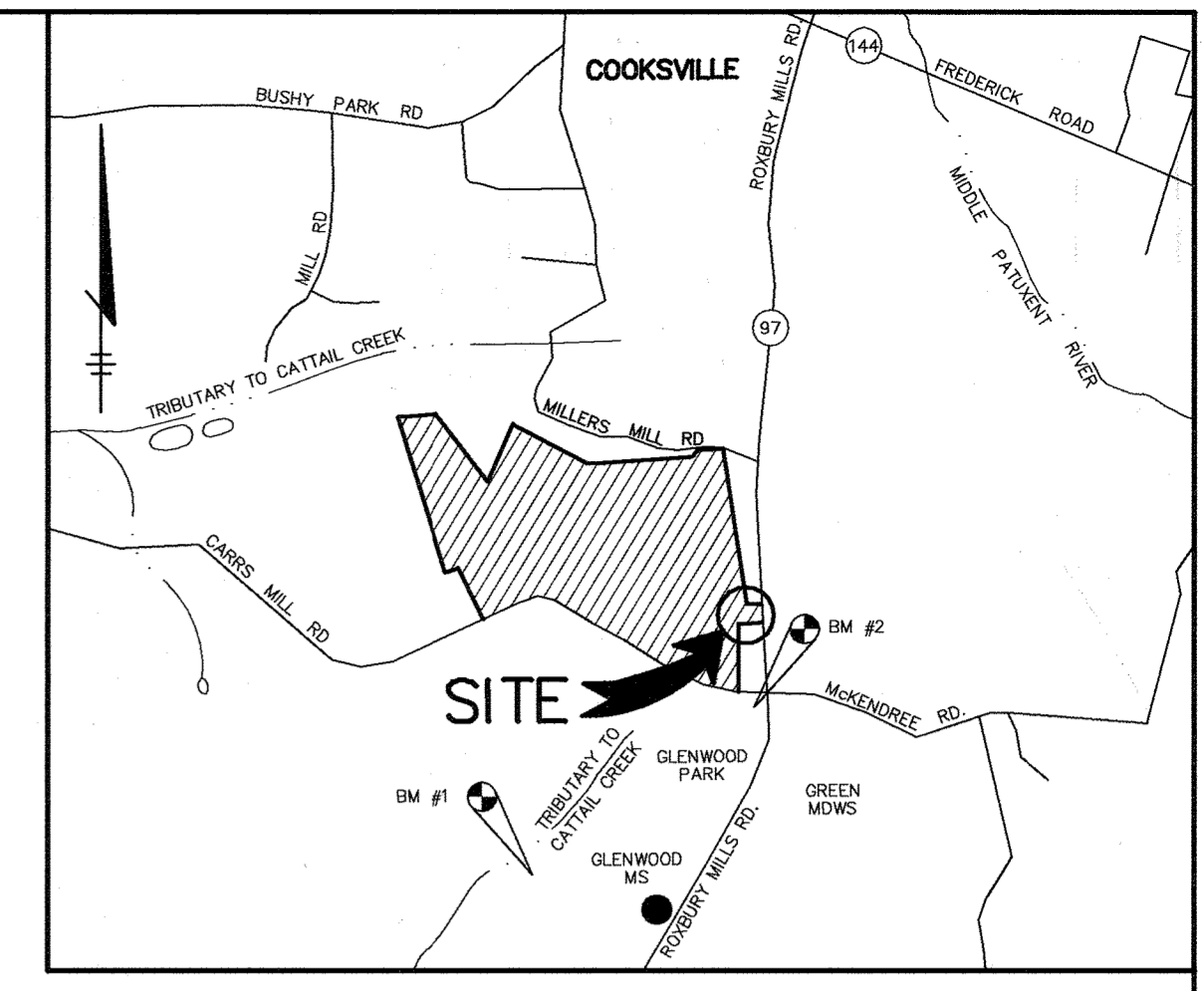
SITE DEVELOPMENT PLAN

GLENWOOD COMMUNITY CENTER

CAPITAL PROJECT C-0291

4th ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1"=2000'
COPYRIGHT ADC THE MAP PEOPLE
PERMITTED USE NO. 20894285

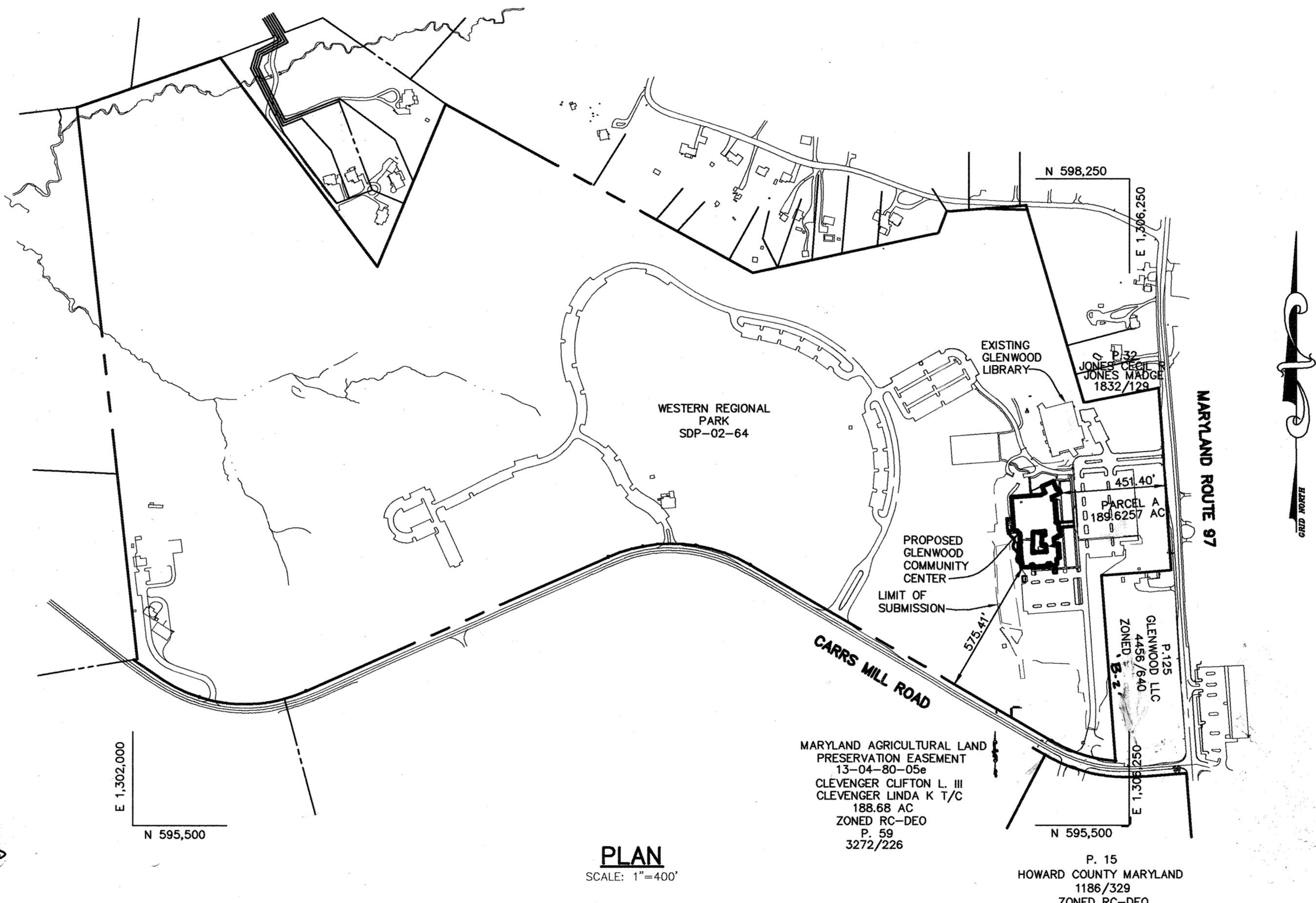
AREA TABULATION CHART

AREA OF PARCEL	189.65 ACRES
LIMIT OF DISTURBED AREA	8.23 ACRES
PRESENT ZONING	RC-DEO
PROPOSED USE	COMMUNITY CENTER (ONE STORY)
BUILDING COVERAGE	△ 54,404 SF (0.66% OF SITE)
REQUIRED PARKING*	332 SPACES
PROPOSED PARKING	332 SPACES (INCL. 26 HC SPACES) = 141 PROPOSED UNDER THIS SDP & 191 EXISTING UNDER SDP-99-21

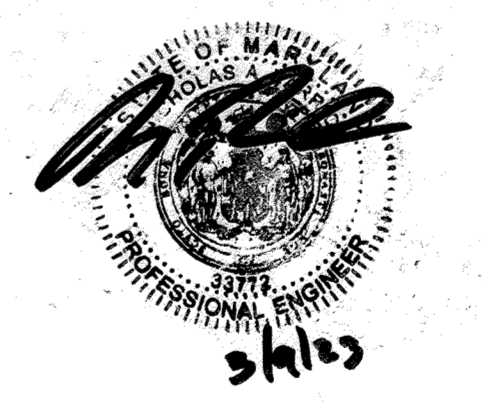
* A PARKING NEEDS ANALYSIS DATED APRIL 20, 2004, WAS SUBMITTED AND APPROVED, ALLOWING THE SHARING OF PARKING BETWEEN THE LIBRARY AND COMMUNITY CENTER. THE REQUIRED PARKING IS BASED ON OTHER SIMILAR COUNTY FACILITIES. NOTE: 694 PARKING SPACES ARE PROPOSED FOR THE WESTERN REGIONAL PARK PER APPROVED SDP-02-64.

SITE TABULATION FOR SDP-99-21
GLENWOOD LIBRARY

AREA OF PROPERTY:	183.37 ACRES
AREA OF SUBMISSION:	17.7 ACRES
PRESENT ZONING:	RC-DEO
EXISTING USE:	RURAL CONSERVATION
PROPOSED USE:	PARK AND PUBLIC LIBRARY
BUILDING AREA:	29,808 S.F.
BUILDING COVERAGE (% OF SITE):	0.37%
PARKING REQUIRED: 6 SP/1000 SF	180
PARKING PROVIDED:	191
(INCLUDES 14 HANDICAP SPACES)	6 REQUIRED
LIMIT OF SUBMISSION/DISTURBANCE	17.7 ACRES
TOTAL OCCUPANCY	343 PEOPLE



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. 32712 EXPIRATION DATE: 06/16/2023
FOR REV. NO. 2 ONLY



PRIVATE WATER AND SEWER GENERAL NOTES

- THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENTAL FOR INDIVIDUAL SEWAGE DISPOSAL (COMAR 26.0403). IMPROVEMENT OF ANY NATURE IN THIS AREA AREA RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS INTO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.
- PERC HOLES SHOWN HEREON HAVE BEEN FIELD LOCATED BY HOWARD COUNTY SURVEY DIVISION.
- SUBJECT PROPERTY ZONED RC-DEO.
- THERE ARE NO SLOPES 25% OR GREATER WITHIN 25' OF PROPOSED SEPTIC AREA.
- ALL WELLS AND SEPTIC SYSTEMS WITHIN 100' OF PROPERTY LINES HAVE BEEN SHOWN.
- GROUNDWATER APPROPRIATION PERMIT (GWAP)*40-2004-G010, EFFECTIVE DATE: JANUARY 1, 2005, EXPIRATION DATE: JANUARY 1, 2017.
- INSTALL WATER METER ON INLET SIDE OF TANK. METER TO BE MONITORED MONTHLY.
- ORENCO "NIBBLER" AERATOR TO BE INSTALLED IN SECOND CHAMBER.

SEPTIC DESIGN CALCULATIONS

BASED ON SIMILAR FACILITY ACTUAL WATER USAGE WE FIND THE FOLLOWING:
688 GPD AVERAGE FLOW FOR 30,000 SF ACTIVITY CENTER IN HARFORD COUNTY.
PEAK FLOW = 688 X 2 = 1376 GPD

THEREFORE FOR 53,961 SF FACILITY: 1376 X 53961/30000 = 2475 GPD
TRENCH LENGTH CALCULATION: 2475 GPD / 0.8 = 3093.75 / 3' TRENCH BOTTOM WIDTH = 1031' REQUIRED

SEPTIC TANK VOLUME = 1125 + .75(2475) = 4012.5 USE 4000 GALLON TANK
SEPTIC TANK: 2 CHAMBER WITH AERATING DEVICE IN SECOND CHAMBER
TRENCHES TO BE 3' WIDE, 12" ON CENTER

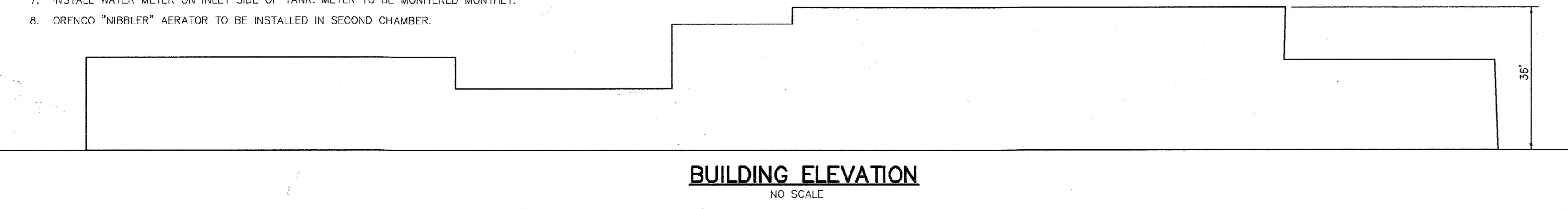
BENCHMARKS

BM #1 HOWARD CO. SURVEY CONTROL STATION: 0033	ELEV. 594.56
N 593953.2439	E 1304825.8350
NGS STAMPED CONCRETE MONUMENT	ELEV. 594.56
BM #2 HOWARD CO. SURVEY CONTROL STATION: 0039	ELEV. 620.07
N 595722.8335	E 1306481.6720
STAMPED CONCRETE MONUMENT	ELEV. 620.07

ADDRESS CHART

PARCEL NUMBER	STREET ADDRESS
A	2400 ROUTE 97

SUBDIVISION NAME	WESTERN REGIONAL PARK	SECT./AREA	-	PARCEL	249, A
PLAT NO.	15581-15585	BLOCK #	3, 4	ZONING	RC-DEO
TAX MAP NO.	14	ELECT. DIST.	4	CENSUS TRACT	6040.02
WATER CODE	-	SEWER CODE	-		



APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS.
Robert Walsh 1/19/05
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Mark A. Reagle 4/29/05
DIRECTOR

Chris Williams 1/4/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Chris Williams 1/20/05
CHIEF, DIVISION OF LAND DEVELOPMENT

3-9-23 ADD PICKLEBALL COURTS (SHEETS 14-20)
4-0-05 MODIFIED BUILDING COVERAGE

DATE	NO.	REVISION

OWNER / DEVELOPER
HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3450 COURT HOUSE DRIVE
ELLCOTT CITY, MARYLAND 21043

PROJECT
GLENWOOD COMMUNITY CENTER
PARCEL A

AREA TAX MAP 14 ZONED RC-DEO PARCEL 249
4th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

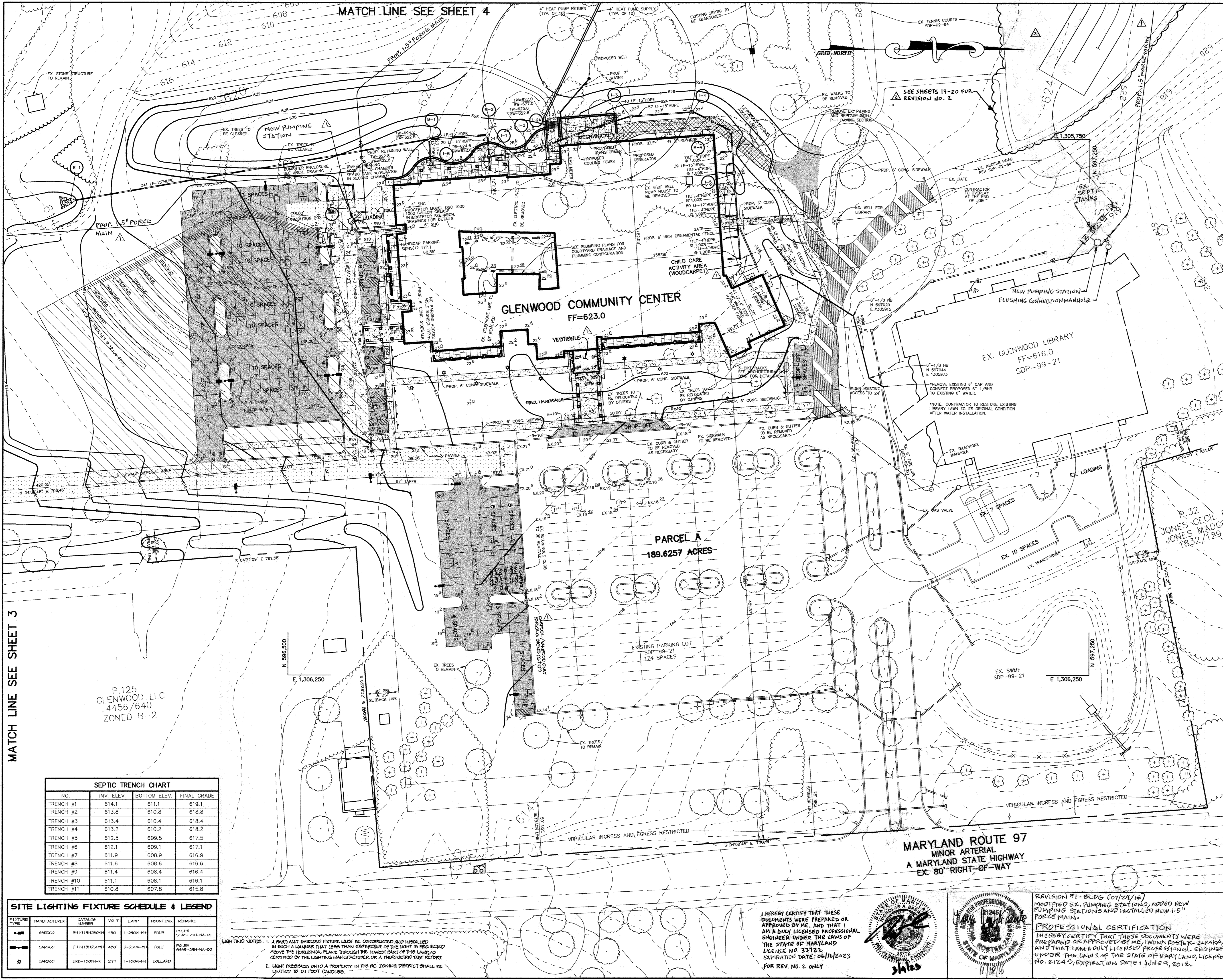
TITLE
TITLE SHEET

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

DATE: 12-22-04

DESIGNED BY: C.J.R.
DRAWN BY: MAD
PROJECT NO.: 12492/1-0/ENGR PLANS/0000COV
DATE: DECEMBER 22, 2004
SCALE: AS SHOWN
DRAWING NO.: 1 OF 20

CHRISTOPHER J. REID #19949



- NOTES:**
1. ALL RADI ARE 5' UNLESS OTHERWISE NOTED.
 2. ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDING UNLESS OTHERWISE NOTED.
 3. ALL ON-SITE ROADS ARE PRIVATE.
 4. ALL LIGHTING IS TO BE DIRECTED/REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIALLY ZONED PROPERTIES, AND BE IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
 5. * STD/REV - STANDARD TO REVERSE CURB TRANSITION.

LEGEND

EXISTING 2' CONTOUR	400
EXISTING 10' CONTOUR	400
PROPOSED 2' CONTOUR	400
PROPOSED 10' CONTOUR	400
PROPERTY LINE AND RIGHT OF WAY	
EXISTING STORM DRAIN	15"D
PROPOSED STORM DRAIN	15"D
EXISTING TREELINE	
PROPOSED TREELINE	
EXISTING TREE	
PROP. SPOT ELEVATION	13'2
SETBACK LINES	
EXISTING WATER	
EXISTING CURB	
PROPOSED CURB	

WATER NOTE
 CONTRACTOR TO ENSURE WATER LINE WORK DOES NOT OCCUR DURING LIBRARY HOURS OF OPERATION AND THAT WATER SERVICE IS MAINTAINED TO FACILITY AT ALL TIMES DURING HOURS OF OPERATION.

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS.

Robert J. Wala 1/19/05
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Mark P. Leget 1/24/05
 DIRECTOR

Walter J. ... 1/14/05
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

Andy ... 1/21/05
 CHIEF, DIVISION OF LAND DEVELOPMENT

3-9-23 ADD PICKLEBALL COURTS (SHEETS 14-20)
 4-8-05 ADD VESTIBULE, CARPOOL SPACES 1 MODIFIED PLAY AREA

OWNER / DEVELOPER
 HOWARD COUNTY
 DEPARTMENT OF PUBLIC WORKS
 3450 COURT HOUSE DRIVE
 ELLICOTT CITY, MARYLAND 21043

PROJECT
 GLENWOOD COMMUNITY CENTER
 PARCEL A

AREA TAX MAP 14 ZONED RC-DEO PARCEL 249
 4th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE
 SITE DEVELOPMENT PLAN

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

12-22-04
 DATE

DESIGNED BY : C.J.R.
 DRAWN BY : MAD
 PROJECT NO : 12492/1-0/ENGR PLANS/C400SIT
 DATE : DECEMBER 22, 2004
 SCALE : 1"=40'
 DRAWING NO. 2 OF 20

SEPTIC TRENCH CHART

NO.	INV. ELEV.	BOTTOM ELEV.	FINAL GRADE
TRENCH #1	614.1	611.1	619.1
TRENCH #2	613.8	610.8	618.8
TRENCH #3	613.4	610.4	618.4
TRENCH #4	613.2	610.2	618.2
TRENCH #5	612.5	609.5	617.5
TRENCH #6	612.1	609.1	617.1
TRENCH #7	611.9	608.9	616.9
TRENCH #8	611.6	608.6	616.6
TRENCH #9	611.4	608.4	616.4
TRENCH #10	611.1	608.1	616.1
TRENCH #11	610.8	607.8	615.8

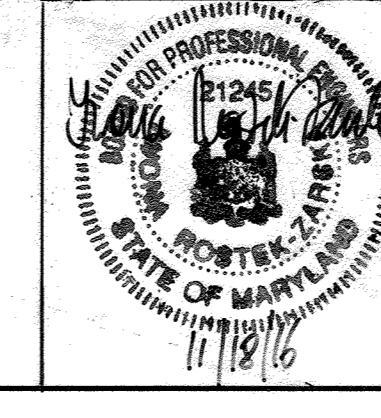
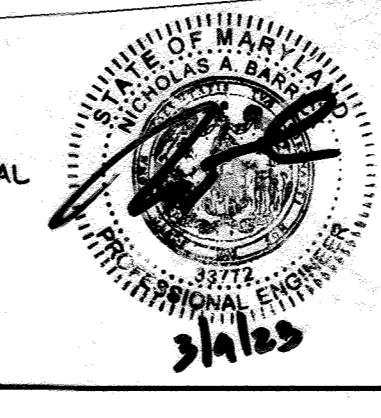
SITE LIGHTING FIXTURE SCHEDULE & LEGEND

FIXTURE TYPE	MANUFACTURER	CATALOG NUMBER	VOL.T	LAMP	MOUNTING	REMARKS
■	GARDCO	EH141SH250H	480	1-250W-HH	POLE	POLE# 56A5-25H-NA-D1
■	GARDCO	EH141SH250H	480	2-250W-HH	POLE	POLE# 56A5-25H-NA-D2
★	GARDCO	BRB-100H-R	277	1-100W-HH	BOLLARD	

LIGHTING NOTES:

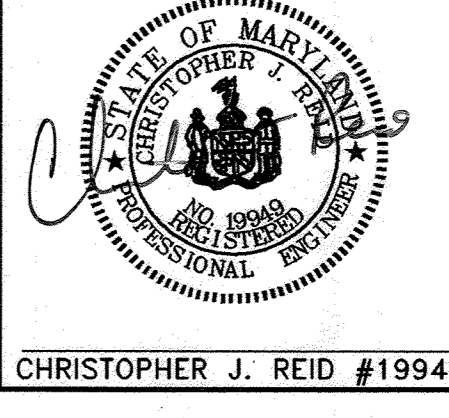
1. A PARTIALLY SHIELDED FIXTURE MUST BE CONSTRUCTED AND INSTALLED IN SUCH A MANNER THAT LESS THAN 5% OF THE LIGHT IS PRODUCED ABOVE THE HORIZONTAL PLANE THROUGH THE LOWEST PART OF THE LAMP, AS CERTIFIED BY THE LIGHTING MANUFACTURER OR A PHOTOGRAPHIC TEST REPORT.
2. LIGHT TRESPASS ONTO A PROPERTY IN THE RC ZONING DISTRICT SHALL BE LIMITED TO 01 FOOT CANDLES.

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. 33722 EXPIRATION DATE: 06/16/2023 FOR REV. NO. 2 ONLY

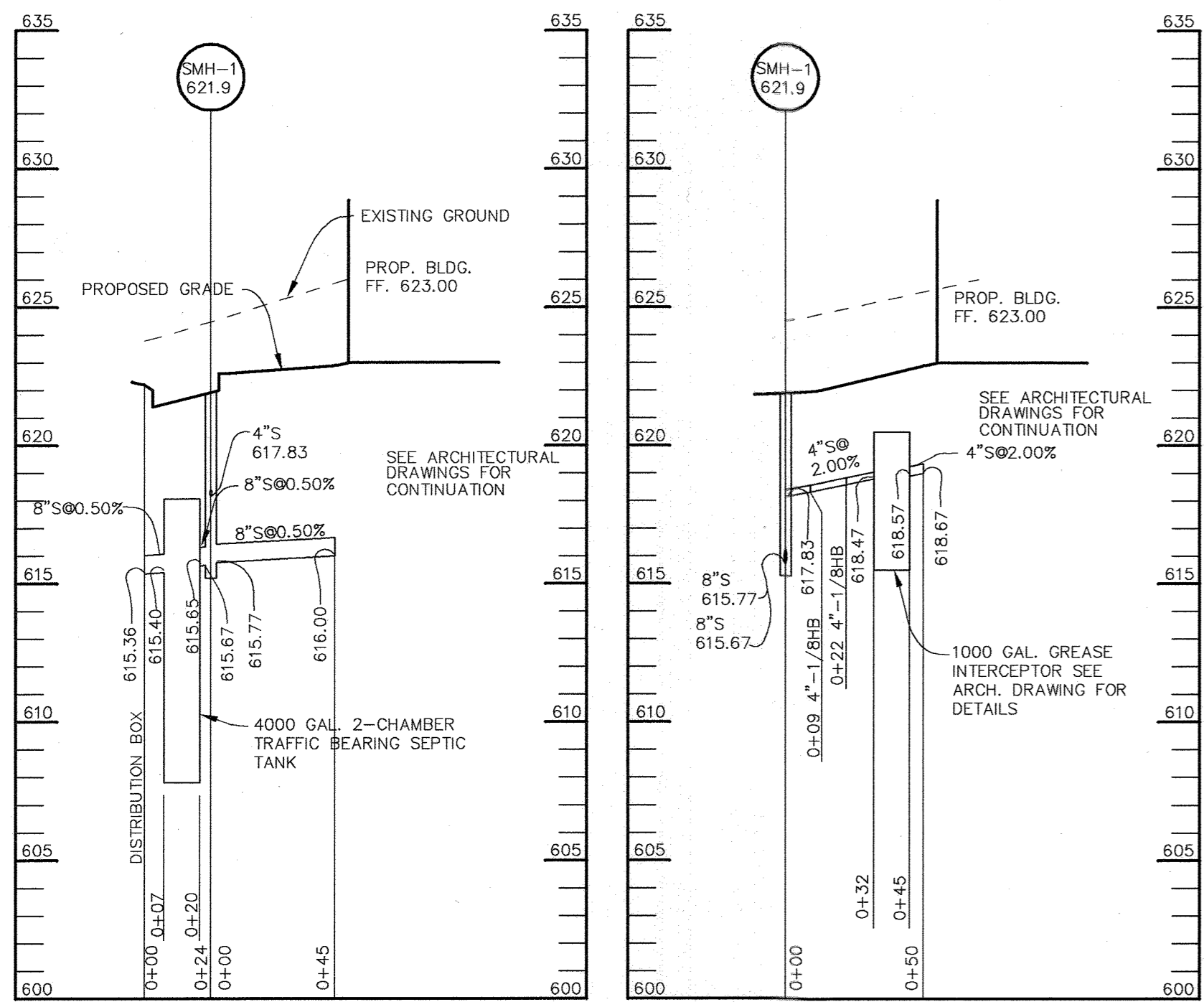


REVISION #1-BLDG (07/29/16)
 MODIFIED EX. PUMPING STATIONS, ADDED NEW PUMPING STATIONS AND INSTALLED NEW 1.5" FORCE MAIN.

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, IWONA ROSTEK-ZARSKA, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21245, EXPIRATION DATE: JUNE 9, 2018.



DESIGNED BY : C.J.R.
 DRAWN BY : MAD
 PROJECT NO : 12492/1-0/ENGR PLANS/C400SIT
 DATE : DECEMBER 22, 2004
 SCALE : 1"=40'
 DRAWING NO. 2 OF 20



SEWER PROFILE

SCALE:
HOR.-1"=50'
VERT.-1"=5'

SEWER PROFILE

SCALE:
HOR.-1"=50'
VERT.-1"=5'



MARYLAND AGRICULTURAL LAND
PRESERVATION EASEMENT
13-04-80-05e
CLEVINGER CLIFTON L. III
CLEVINGER LINDA K T/C
188.68 AC

ZONED RC-DEO
P. 59
3272/226

P. 15
HOWARD COUNTY MARYLAND
1186/329
ZONED RC-DEO

P. 125
GLENWOOD LLC
4456/640
ZONED B-2

CARRS MILL ROAD
HOWARD COUNTY PUBLIC ROAD
SCENIC ROAD

NOTE:
PLEASE SEE SDP-10-049 FOR
MORE DETAILS ABOUT EXISTING
STRUCTURES

NOTES:

1. ALL RADII ARE 5' UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDING UNLESS OTHERWISE NOTED.
3. ALL ON-SITE ROADS ARE PRIVATE.
4. ALL LIGHTING IS TO BE DIRECTED/REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIALLY ZONED PROPERTIES, AND BE IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
5. * STD/REV - STANDARD TO REVERSE CURB TRANSITION.
6. P-1 PAVING
7. P-3 PAVING
8. GRASSCRETE
9. CONCRETE

LEGEND

EXISTING 2" CONTOUR	---	400
EXISTING 10" CONTOUR	---	400
PROPOSED 2" CONTOUR	---	400
PROPOSED 10" CONTOUR	---	400
PROPERTY LINE AND RIGHT OF WAY	---	
EXISTING STORM DRAIN	==	15"D
PROPOSED STORM DRAIN	==	15"D
EXISTING TREELINE	~~~~~	
PROPOSED TREELINE	~~~~~	
EXISTING TREE	(tree symbol)	
PROP. SPOT ELEVATION	x	2
SETBACK LINES	---	
EXISTING WATER	---	
EXISTING CURB	---	
PROPOSED CURB	---	

WATER NOTE

CONTRACTOR TO ENSURE WATER LINE WORK DOES NOT OCCUR DURING LIBRARY HOURS OF OPERATION AND THAT WATER SERVICE IS MAINTAINED TO FACILITY AT ALL TIMES DURING HOURS OF OPERATION.

MATCH LINE SEE SHEET 2

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR: *Mark A. Taylor* 1/24/05 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: *Chris Deussen* 1/4/05 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT: *Condy Hamrick* 1/21/05 DATE

DATE NO. REVISION

OWNER / DEVELOPER
 HOWARD COUNTY
 DEPARTMENT OF PUBLIC WORKS
 3450 COURT HOUSE DRIVE
 ELLICOTT CITY, MARYLAND 21043

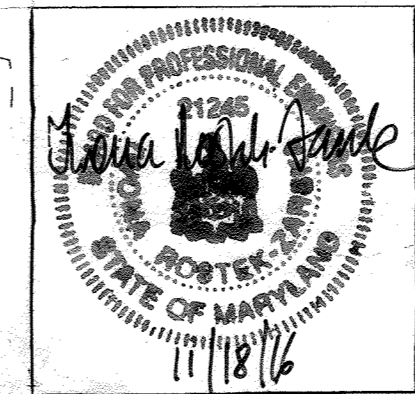
PROJECT
**GLENWOOD COMMUNITY CENTER
 PARCEL A**

AREA TAX MAP 14 ZONED RC-DEO PARCEL 249
 4th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE
SITE DEVELOPMENT PLAN

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

DATE: 12-22-04
 DESIGNED BY: C.J.R.
 DRAWN BY: MAD
 PROJECT NO: 12492/11-0/ENGR PLANS/C401SIT
 DATE: DECEMBER 22, 2004
 SCALE: 1"=40'
 DRAWING NO. 3 OF 43-A
 CHRISTOPHER J. REID #19949



REVISION #1 - BLOS (07/29/16)
 MODIFIED EX. PUMPING STATIONS, ADDED NEW PUMPING STATIONS AND INSTALLED NEW 1.5" FORCE MAIN.
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, IMONIA RUSTEK-ZARSKA, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21243, EXPIRATION DATE: JUNE 9, 2012.

MARYLAND ROUTE 97
 MINOR ARTERIAL
 A MARYLAND STATE HIGHWAY
 EX. 80' RIGHT-OF-WAY



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. 33172 EXPIRATION DATE: 04/14/2023 FOR REV. NO. 2 ONLY



APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR *Paul Dr. Wright* 1/24/15 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION *Mr. Dammann* 1/14/15 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT *Cindy Hamada* 1/21/15 DATE

DATE	NO.	REVISION
3-9-23	▲	ADD PICKLEBALL COURTS (SHEETS 14-20)

OWNER / DEVELOPER
 HOWARD COUNTY
 DEPARTMENT OF PUBLIC WORKS
 3450 COURT HOUSE DRIVE
 ELLICOTT CITY, MARYLAND 21043

PROJECT
**GLENWOOD COMMUNITY CENTER
 PARCEL A**

AREA TAX MAP 14 ZONED RC-DEO PARCEL 249
 4th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE
SITE DEVELOPMENT PLAN

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

12-22-04 DATE

DESIGNED BY : C.J.R.

DRAWN BY: MAD

PROJECT NO : 12492/1-0/ENGR PLANS/C4023IT

DATE : DECEMBER 22, 2004

SCALE : 1"=40'

DRAWING NO. 4 OF 20

CHRISTOPHER J. REID #19949

EXISTING SEDIMENT BASIN
 PER SDP-02-64 TO BE
 UTILIZED DURING CONSTRUCTION

GEOTHERMAL WELLS
 AREA 1.0 ACRES +/-

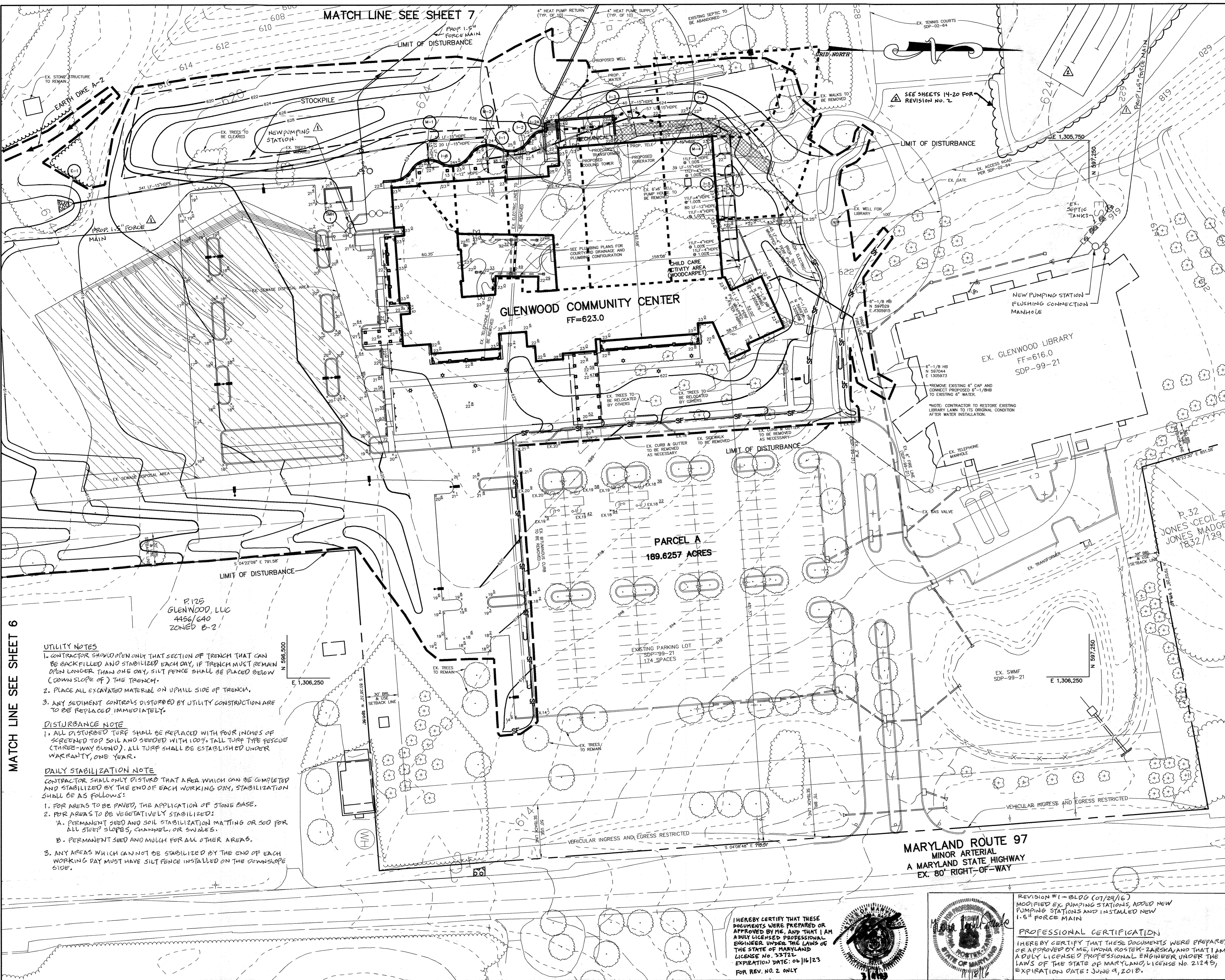
NOTE: NO GRADING PROPOSED FOR
 GEOTHERMAL WELL AREA

EX SEPTIC SYSTEM
 FOR LIBRARY
 SDP-99-21

▲ SEE SHEETS 14-20 FOR
 REVISION NO. 2

EX TENNIS COURTS
 SDP-02-64

MATCH LINE SEE SHEET 2



DRAINAGE AREA DATA			
INLET NO.	DRAINAGE AREA	C FACTOR	PERCENT INTERVIOUS
I-1	0.08 AC	0.86	100
I-2	0.19 AC	0.86	100
I-3	0.27 AC	0.78	92
I-4	0.34 AC	0.49	48
I-5	0.20 AC	0.30	20
I-6	0.04 AC	0.69	75
I-7	0.06 AC	0.50	50
I-8	0.04 AC	0.50	50

BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY 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.

Janey R 12/22/04
DEVELOPER DATE

BY THE ENGINEER :

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

Chity S Lee 12.22.04
ENGINEER DATE

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

Jim Maguire 12/28/04
NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John K. Roberts 12/28/04
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Mark M. Wright 1/24/05
DIRECTOR DATE

William Dammann 1/14/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION M&T DATE

Cindy Hammett 1/21/05
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

3-9-23 ADD PICKLEBALL COURTS (SHEETS M-20)
DATE REVISION

OWNER / DEVELOPER
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
3450 COURT HOUSE DRIVE
ELLCOTT CITY, MARYLAND 21043

PROJECT
**GLENWOOD COMMUNITY CENTER
PARCEL A**

AREA TAX MAP 14 ZONED RC-DEO PARCEL 249
4th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE **GRADING, SEDIMENT CONTROL
AND DRAINAGE AREA MAP**

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

12.22.04
DATE

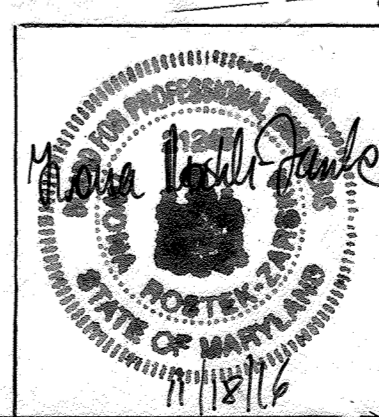
DESIGNED BY : C.J.R.
DRAWN BY: MAD
PROJECT NO : 12492/1-0/ENGR
PLANS/C200ESC
DATE : DECEMBER 22, 2004
SCALE : 1"=40'
DRAWING NO. 5 OF 20

CHRISTOPHER J. REID #19949

MATCH LINE SEE SHEET 6

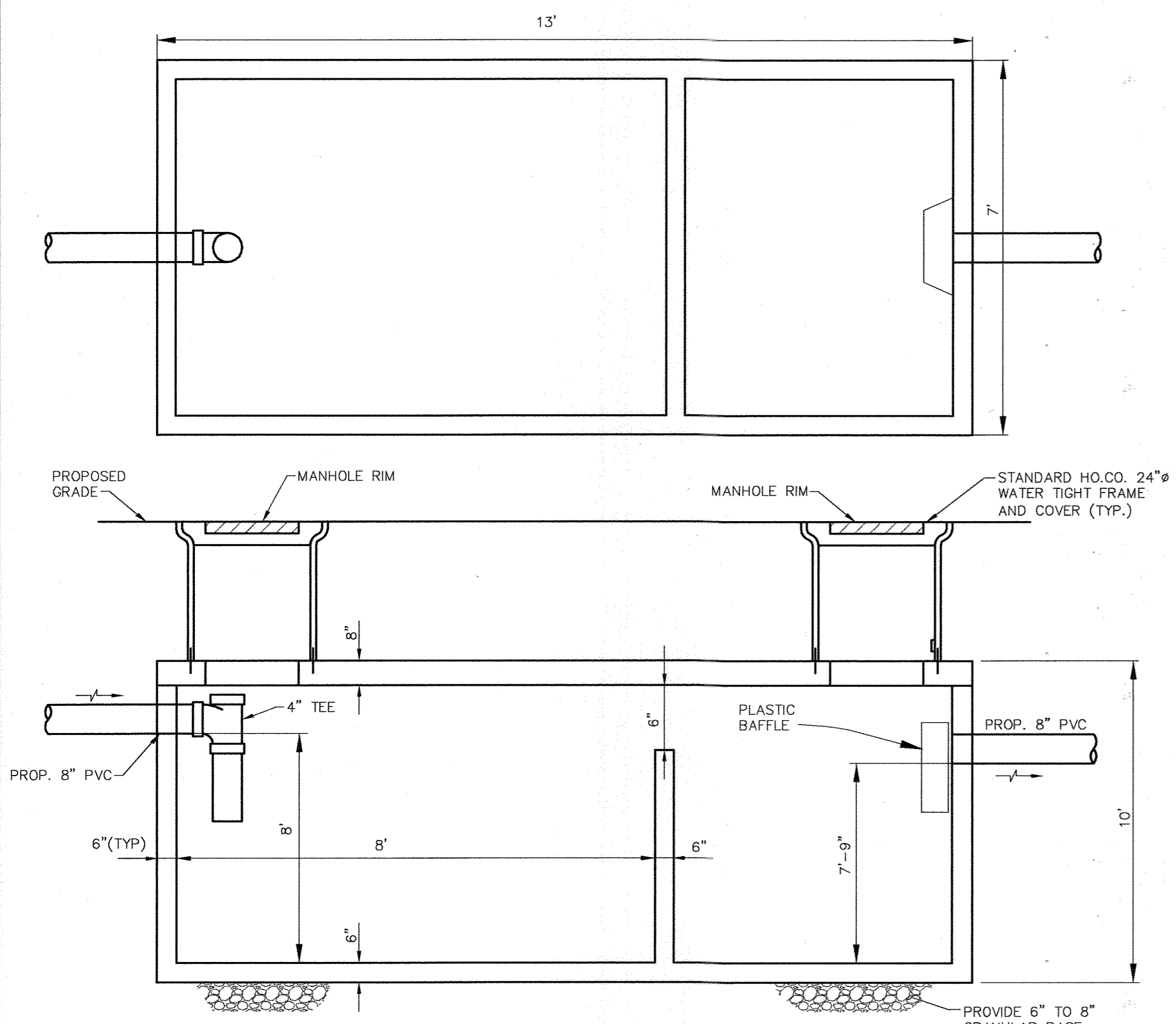
- UTILITY NOTES**
- CONTRACTOR SHALL OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACK FILLED AND STABILIZED EACH DAY, IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWN SLOPE OF) THE TRENCH.
 - PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
 - ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPLACED IMMEDIATELY.
- DISTURBANCE NOTE**
- ALL DISTURBED TURF SHALL BE REPLACED WITH FOUR INCHES OF SCREENED TOP SOIL AND SEEDED WITH 100% TALL TURF TYPE PESCUE (THREE-WAY BLENDED). ALL TURF SHALL BE ESTABLISHED UNDER WARRANTY, ONE YEAR.
- DAILY STABILIZATION NOTE**
- CONTRACTOR SHALL ONLY DISTURB THAT AREA WHICH CAN BE COMPLETED AND STABILIZED BY THE END OF EACH WORKING DAY, STABILIZATION SHALL BE AS FOLLOWS:
- FOR AREAS TO BE PAVED, THE APPLICATION OF STONE BASE.
 - FOR AREAS TO BE VEGETATIVELY STABILIZED:
 - PERMANENT SEED AND SOIL STABILIZATION MATTING OR SOD FOR ALL STEEP SLOPES, CHANNEL, OR SWALES.
 - PERMANENT SEED AND MULCH FOR ALL OTHER AREAS.
 - ANY AREAS WHICH CANNOT BE STABILIZED BY THE END OF EACH WORKING DAY MUST HAVE SILT FENCE INSTALLED ON THE DOWNSLOPE SIDE.

HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND
LICENSE NO. 37723
EXPIRATION DATE: 05/16/23
FOR REV. NO. 2 ONLY



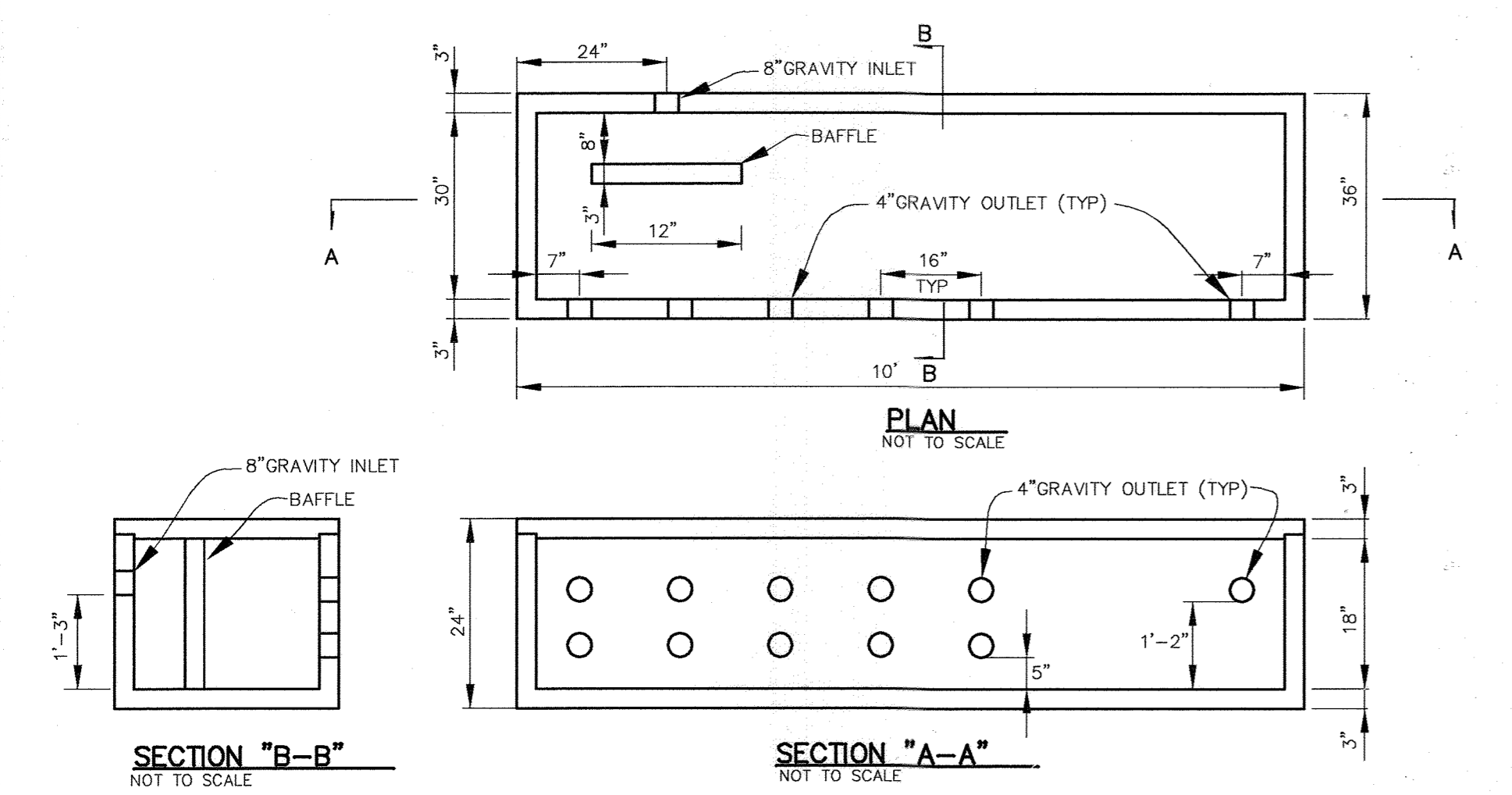
REVISION #1 - BLDG (07/24/16)
MODIFIED EX. PUMPING STATIONS, ADDED NEW PUMPING STATIONS AND INSTALLED NEW 1.5" FORCE MAIN

PROFESSIONAL CERTIFICATION
HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, IWONA ROSTEK-ZARSKA, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21249,
EXPIRATION DATE: JUNE 9, 2018.

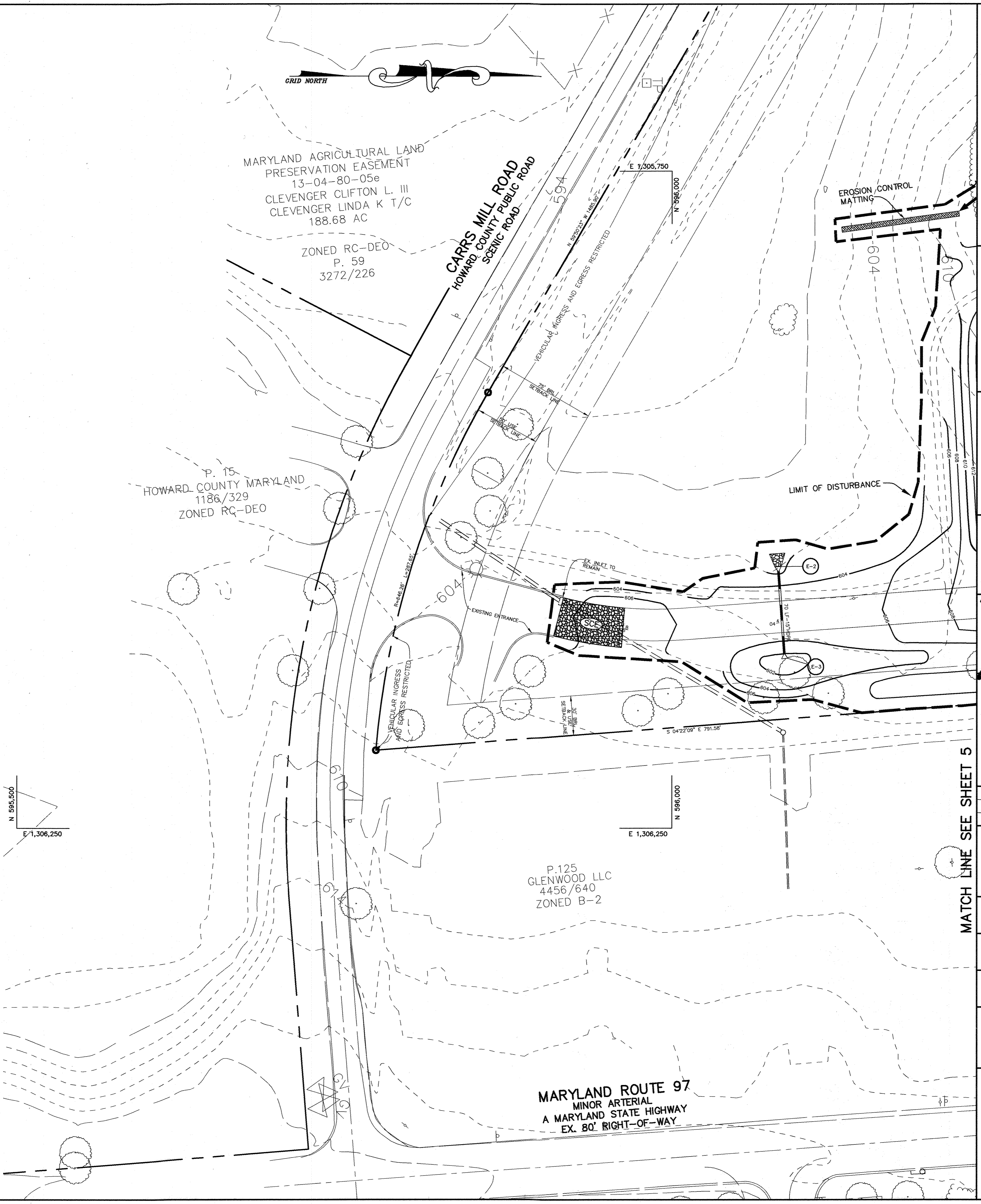


- 4000 GALLON SEPTIC TANK STRUCTURE NOTES:**
1. RISER TO BE PREFABRICATED. SHOP DRAWINGS FOR THIS PRE-CAST CONCRETE STRUCTURE SHALL MEET THE MINIMUM ASTM REQUIREMENTS FOR PRECAST STRUCTURES AND H-10 TRAFFIC LOADING. A SHOP DRAWING SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO FABRICATION AND SHALL BE SIGNED AND SEALED BY A MARYLAND REGISTERED PROFESSIONAL ENGINEER FOR STRUCTURAL CERTIFICATION FOR THE DEPTH AS SHOWN ON THE SITE PLANS.
 2. CONCRETE STRENGTH TO BE 4,000 PSI MINIMUM @ 28 DAYS.
 3. SEPTIC TANK SHALL BE PLACED ON A FIRMLY COMPACTED SUBGRADE APPROVED BY A GEOTECHNICAL ENGINEER.
 4. ALL DIMENSIONS SHOWN ABOVE ARE MINIMUM. FABRICATOR SHALL MAINTAIN 4000 GALLON VOLUME.
 5. THIS STRUCTURE SHALL BE SET WITH THE STRUCTURE FLOOR @ 0% IN ALL DIRECTIONS.
 6. INSTALL WATER METER ON INLET SIDE OF TANK. METER TO BE MONITORED MONTHLY.
 7. ORENCO "NIBBLER" AERATOR TO BE INSTALLED IN SECOND CHAMBER.

4000 GALLON CONCRETE TWO CHAMBER SEPTIC TANK
NOT TO SCALE



- OUTLET DISTRIBUTION BOX**
1. THIS STRUCTURE TO BE PRECAST CONCRETE.
 2. CONCRETE TO HAVE A 4,000 PSI MINIMUM COMPRESSION STRENGTH @ 28 DAYS.
 3. WIRE MESH SHALL BE 3" x 5" No. 8 GAUGE AND CONFORM TO ASTM-65-90 SMOOTH.
 4. THIS STRUCTURE SHALL BE SET WITH THE STRUCTURE FLOOR @ 0% IN ALL DIRECTIONS.



BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY 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.

Janet... 12/22/04
DEVELOPER DATE

BY THE ENGINEER :

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

Cliff J. Reed 12.22.04
ENGINEER DATE

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

Jim Meyer 12/28/04
NATURAL RESOURCES CONSERVATION SERVICE DATE

John E. Rhoton 12/28/04
THIS DEVELOPMENT PLAN IS FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Marsha K. Wright 1/24/05
DIRECTOR DATE

Mark Dammann 1/4/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cindy K. Harts 1/21/05
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION

OWNER / DEVELOPER
HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3450 COURT HOUSE DRIVE
ELLCOTT CITY, MARYLAND 21043

PROJECT
GLENWOOD COMMUNITY CENTER PARCEL A

AREA TAX MAP 14 ZONED RC-DEO PARCEL 249
4th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE **GRADING, SEDIMENT CONTROL AND DRAINAGE AREA MAP**

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

PHRA

12.22.04
DATE

DESIGNED BY : C.J.R.

DRAWN BY: MAD

PROJECT NO : 12492/1-0/ENGR PLANS/C201ESC

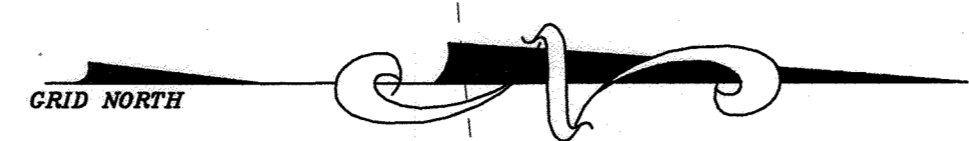
DATE : DECEMBER 22, 2004

SCALE : 1"=40'

DRAWING NO. 6 OF 20

CHRISTOPHER J. REID #19949





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. 35172. EXPIRATION DATE: 04/16/2023. FOR REV. NO. 2 ONLY.



BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY 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 A. ... 12/26/04
DEVELOPER DATE

BY THE ENGINEER :

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

Christopher J. Reid 12.22.04
ENGINEER DATE

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

Jim M. ... 12/28/04
NATURAL RESOURCE CONSTRUCTION SERVICE DATE

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

John R. ... 12/28/04
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Mark ... 1/24/05
DIRECTOR DATE

Chris ... 1/14/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION M&Z DATE

Chris ... 1/21/05
CHIEF, DIVISION OF LAND DEVELOPMENT IS DATE

3-9-23 **A** ADD PICKLEBALL COURTS (SHEETS 14-20)
DATE NO. REVISION

OWNER / DEVELOPER
HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3450 COURT HOUSE DRIVE
ELLCOTT CITY, MARYLAND 21043

PROJECT
**GLENWOOD COMMUNITY CENTER
PARCEL A**

AREA TAX MAP 14 ZONED RC-DEO PARCEL 249
4th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

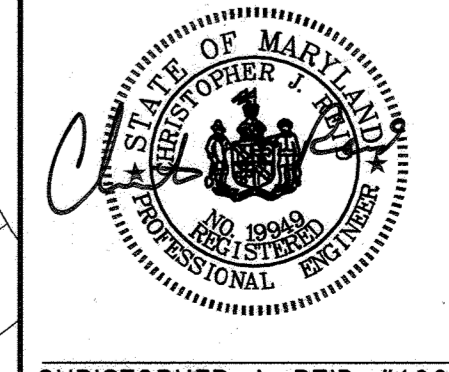
TITLE
**GRADING, SEDIMENT CONTROL
AND DRAINAGE AREA MAP**

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12.22.04
DATE

DESIGNED BY : C.J.R.
DRAWN BY: MAD
PROJECT NO : 12492/1-0/ENGR
PLANS/2025C
DATE : DECEMBER 22, 2004
SCALE : 1"=40'
DRAWING NO. 7 OF 20

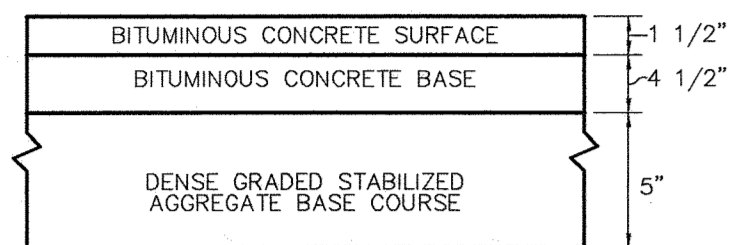
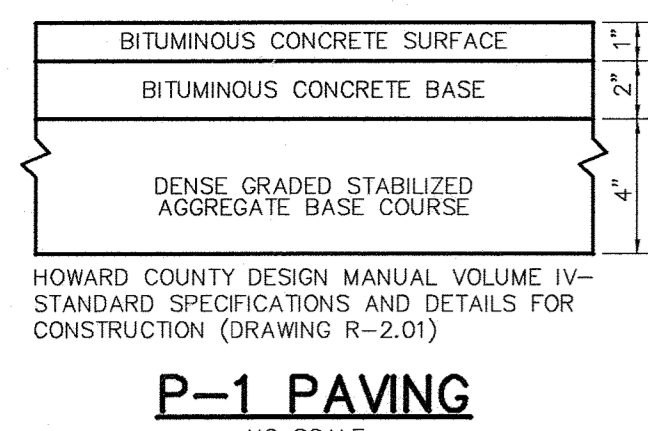
CHRISTOPHER J. REID #19949



MATCHLINE SEE SHEET 5

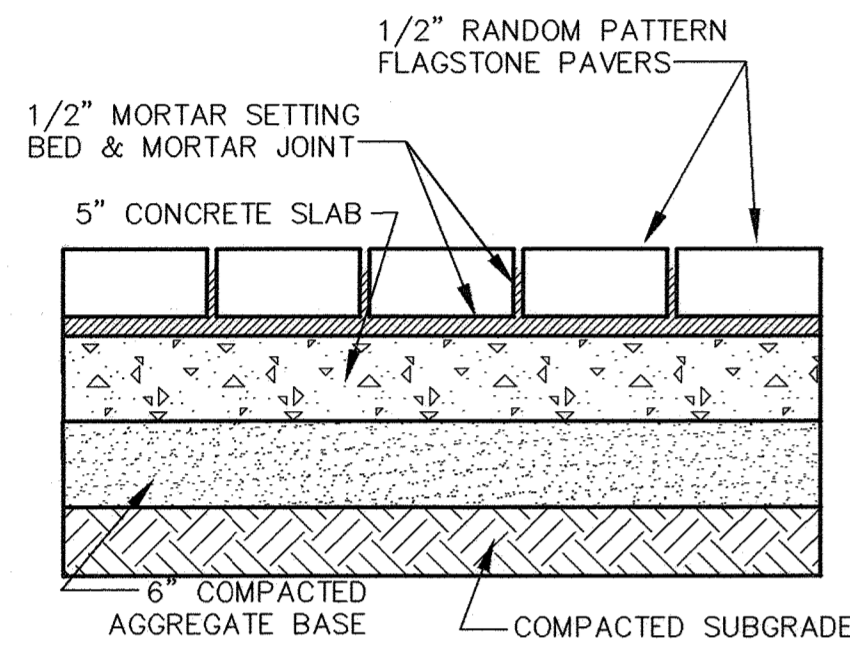
SDP-04-134

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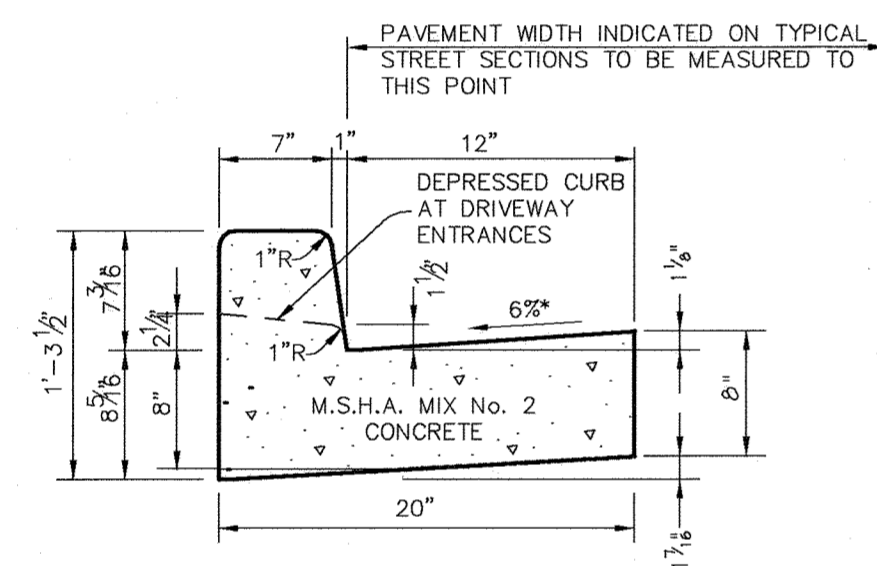


HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

FLAGSTONE PAVER DETAIL
NO SCALE



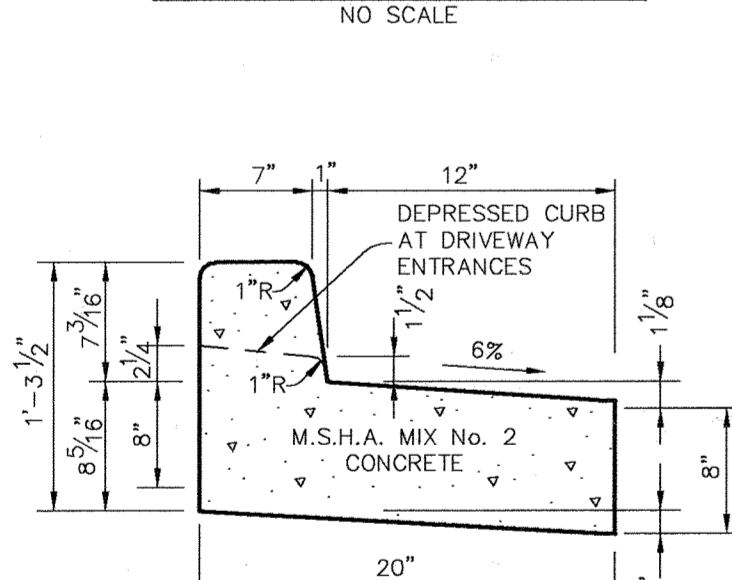
STANDARD 7" COMBINATION CURB AND GUTTER
NO SCALE



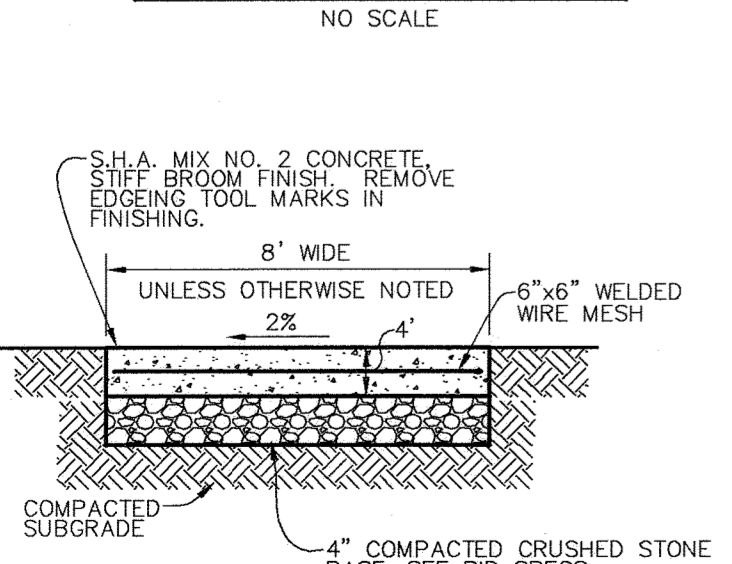
HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-3.01).

* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AS THE PAVEMENT.

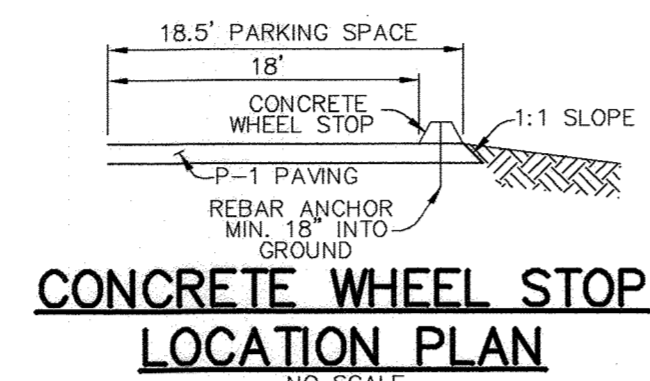
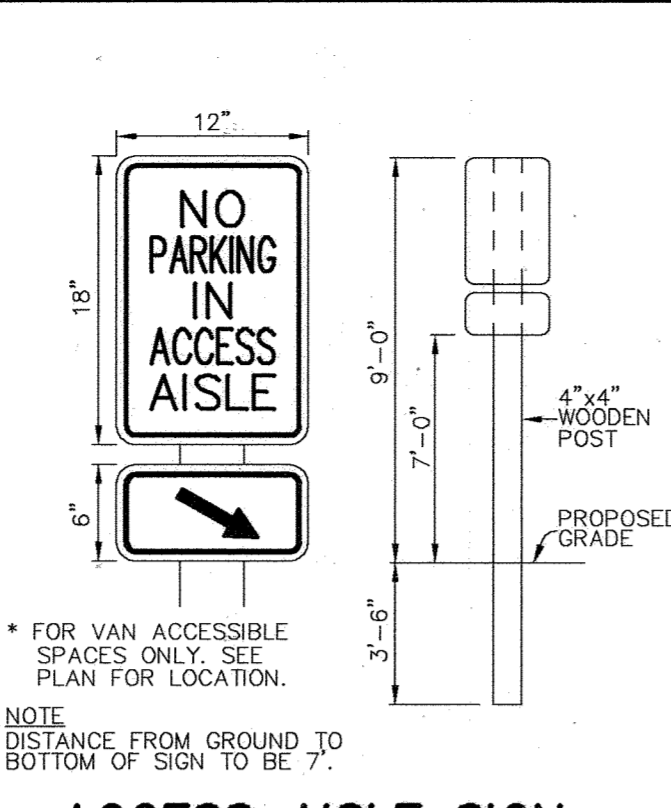
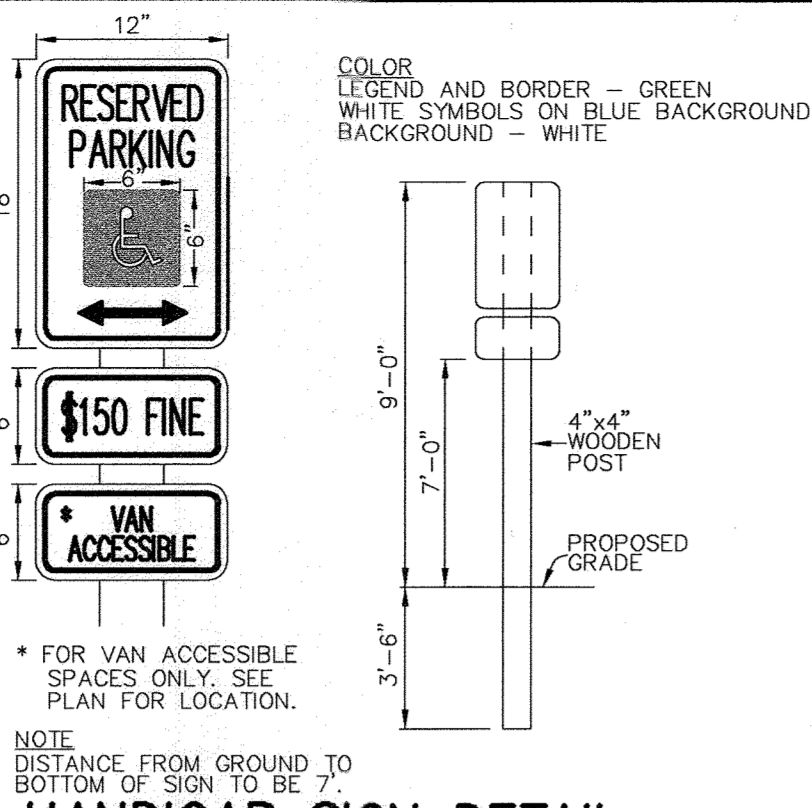
REVERSE 7" COMBINATION CURB AND GUTTER
NO SCALE



SIDEWALK w/ REINFORCING
NO SCALE



NOTES:
1. PROVIDE LATITUDINAL EXPANSION JOINTS AT 15' O.C. (MAX).
2. PROVIDE CONTRACTION (DUMMY) JOINT AT 5' O.C. INTERVALS BETWEEN EXPANSION JOINTS. SIDEWALK TO BE SCRIBED IN 5' MAX. SQUARES.



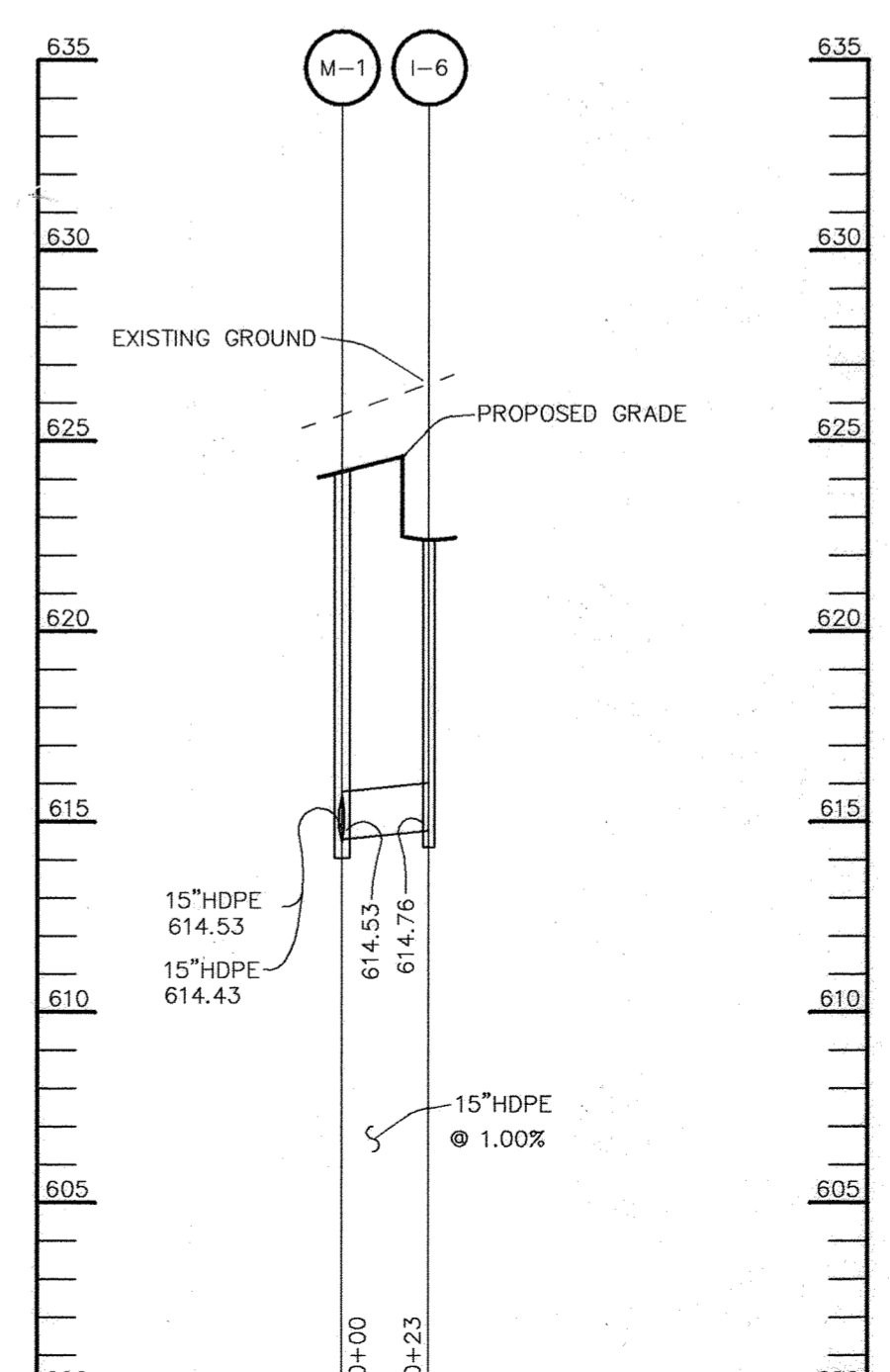
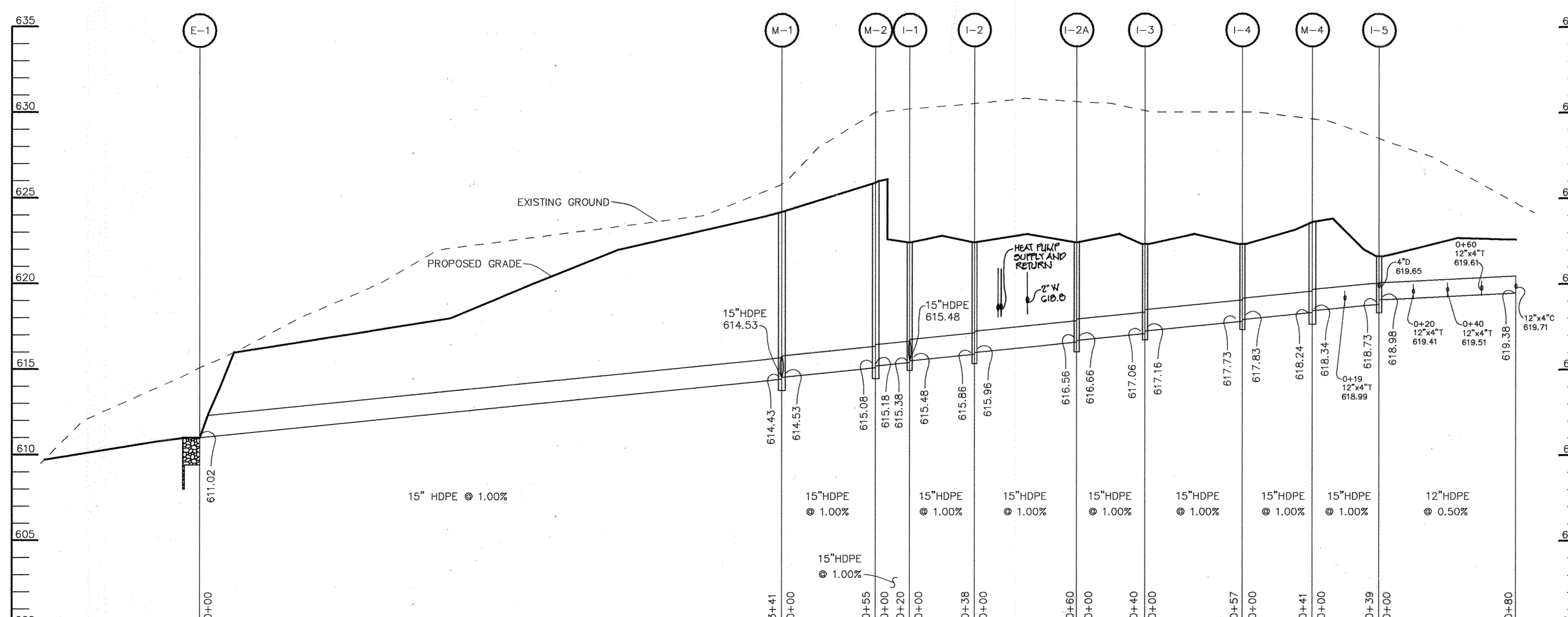
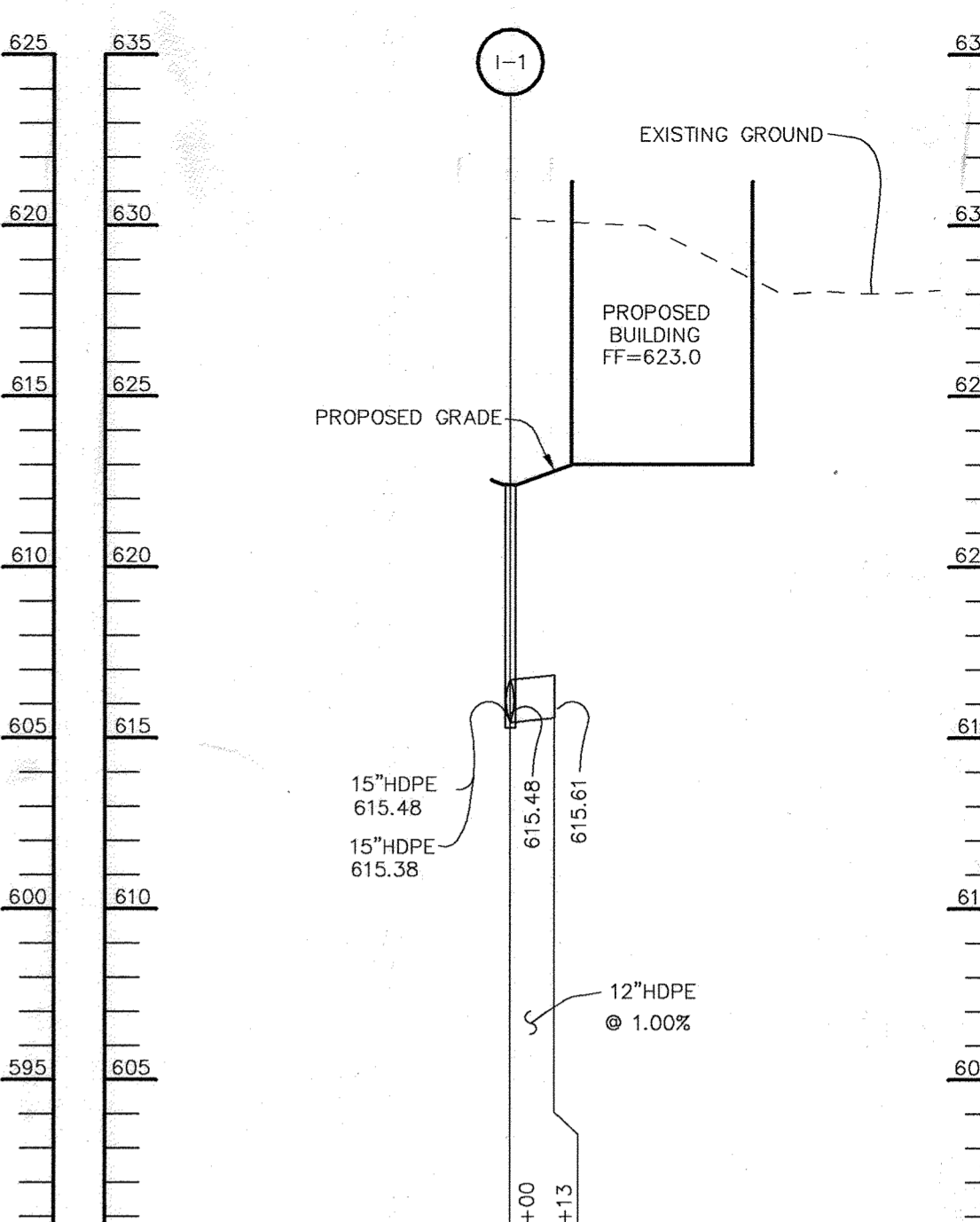
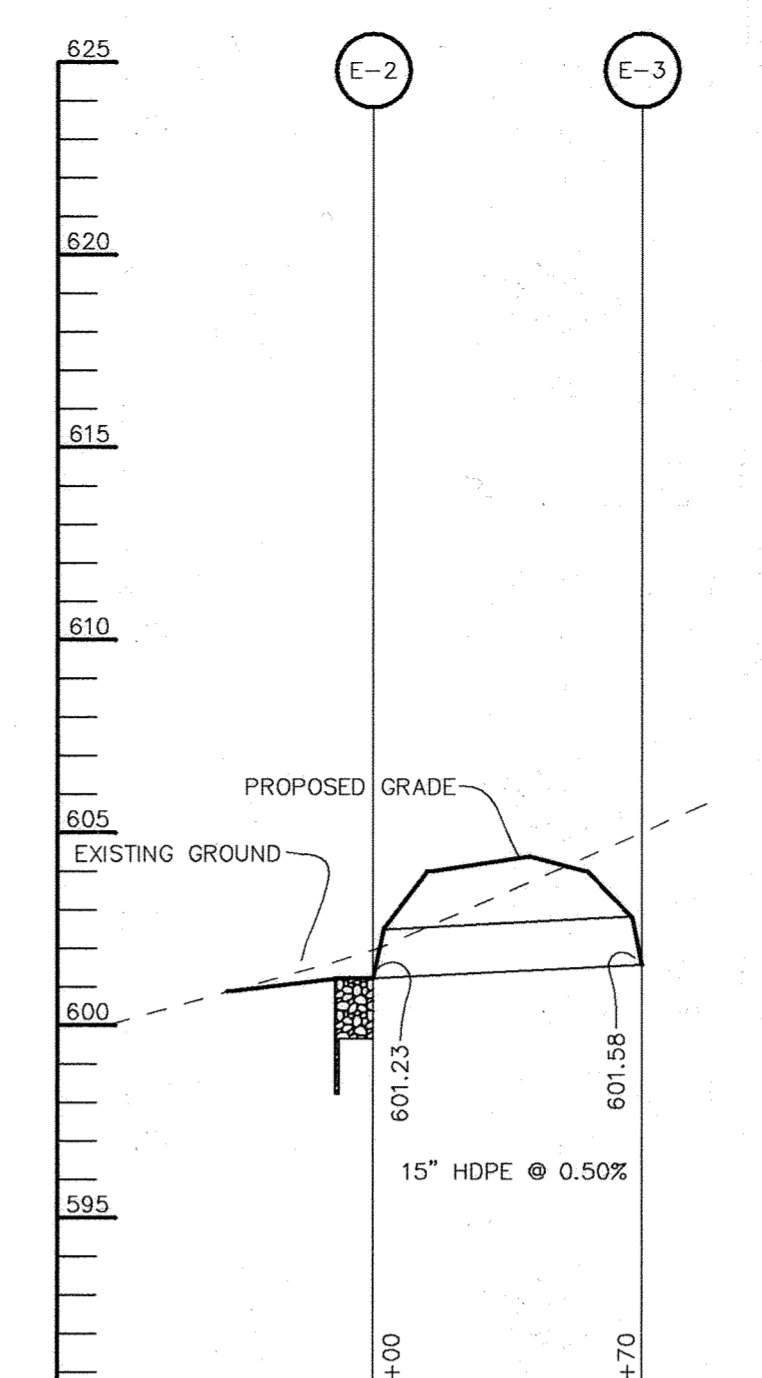
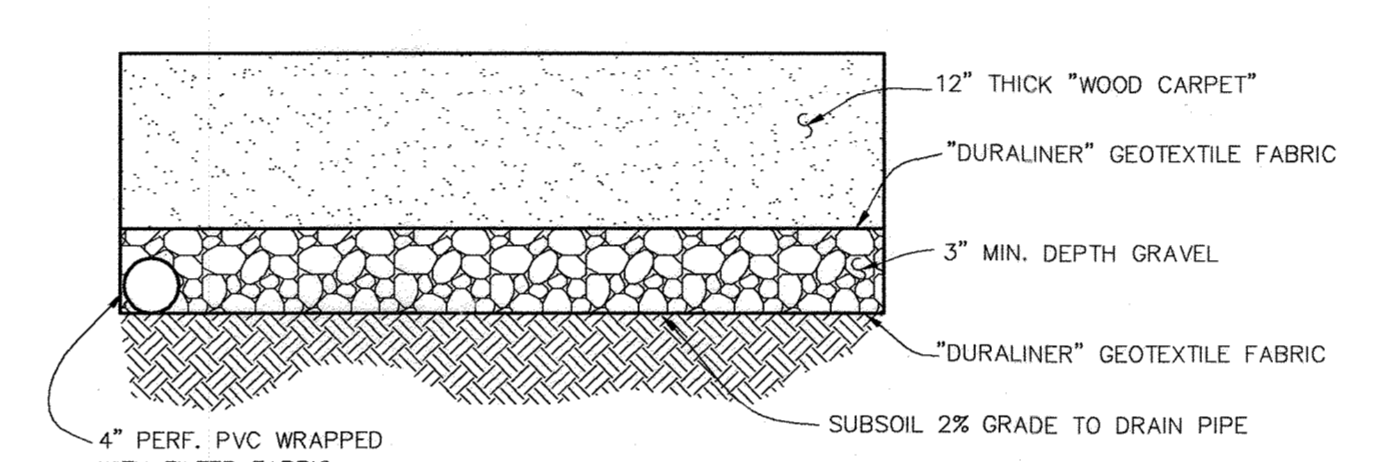
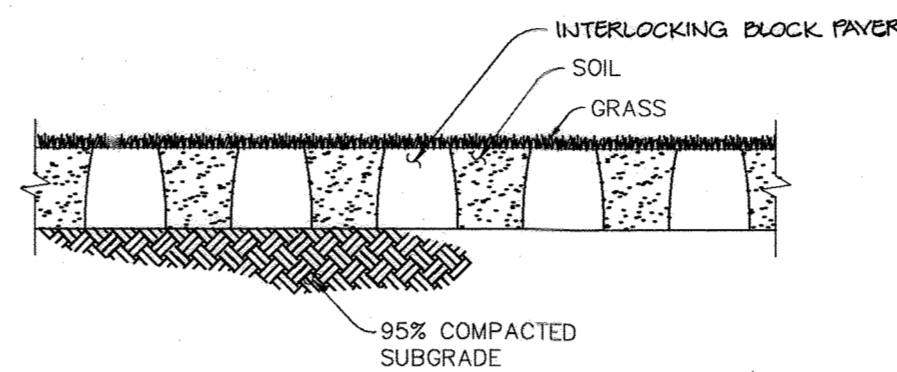
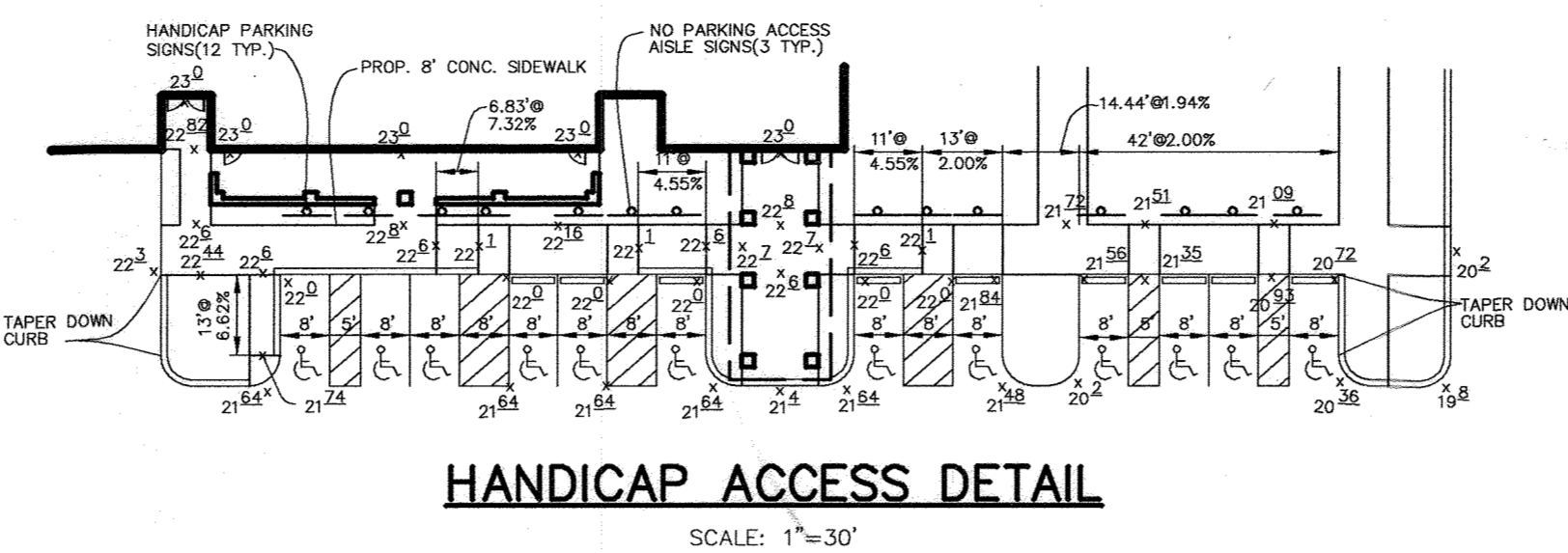
PIPE SCHEDULE

PIPE LENGTH	SIZE	TYPE
855	15"	HDPE
80	12"	HDPE

STRUCTURE SCHEDULE

STRUCTURE	TYPE	LOCATION	INV. IN	INV. OUT	TOP	REMARKS
I-1	S	N 596687 E 1305766	615.48 (12") 615.48 (15")	615.38 (15")	622.4	HOCO STD. DETAIL SD-4.22
I-2	S	N 596726 E 1305761	615.96 (15")	615.86 (15")	622.4	HOCO STD. DETAIL SD-4.22
I-2A	S	N 596782 E 1305741	616.66 (15")	616.56 (15")	622.4	HOCO STD. DETAIL SD-4.22
I-3	S	N 596820 E 1305728	617.16 (15")	617.06 (15")	622.3	HOCO STD. DETAIL SD-4.22
I-4	S	N 596877 E 1305724	617.83 (15")	617.73 (15")	622.3	HOCO STD. DETAIL SD-4.22
I-5	S	N 596917 E 1305781	619.65 (4") 618.98 (12")	618.73 (15")	621.6	HOCO STD. DETAIL SD-4.22
I-6	S	N 596632 E 1305772	-	614.76 (15")	622.4	HOCO STD. DETAIL SD-4.22
M-1	4'-0" DIA.	N 596631 E 1305750	614.53 (15") 614.53 (15")	614.43 (15")	624.0	HOCO STD. DETAIL G-5.12
M-2	4'-0" DIA.	N 596686 E 1305746	615.18 (15")	615.08 (15")	624.7	HOCO STD. DETAIL G-5.12
M-4	4'-0" DIA.	N 596914 E 1305742	618.34 (15")	618.24 (15")	623.7	HOCO STD. DETAIL G-5.12
E-1	S	N 596296 E 1305808	-	611.02	-	HOCO STD. DETAIL SD-5.61
E-2	S	N 596081 E 1306051	-	601.23	-	HOCO STD. DETAIL SD-5.61
E-3	S	N 596086 E 1306120	-	601.58	-	HOCO STD. DETAIL SD-5.61

NOTES:
FOR END SECTIONS THE LOCATION IS CENTER OF THROAT OPENING AT FACE OF STRUCTURE.
LOCATION OF INLETS AND MANHOLES IS AT CENTER OF TOP COVER.



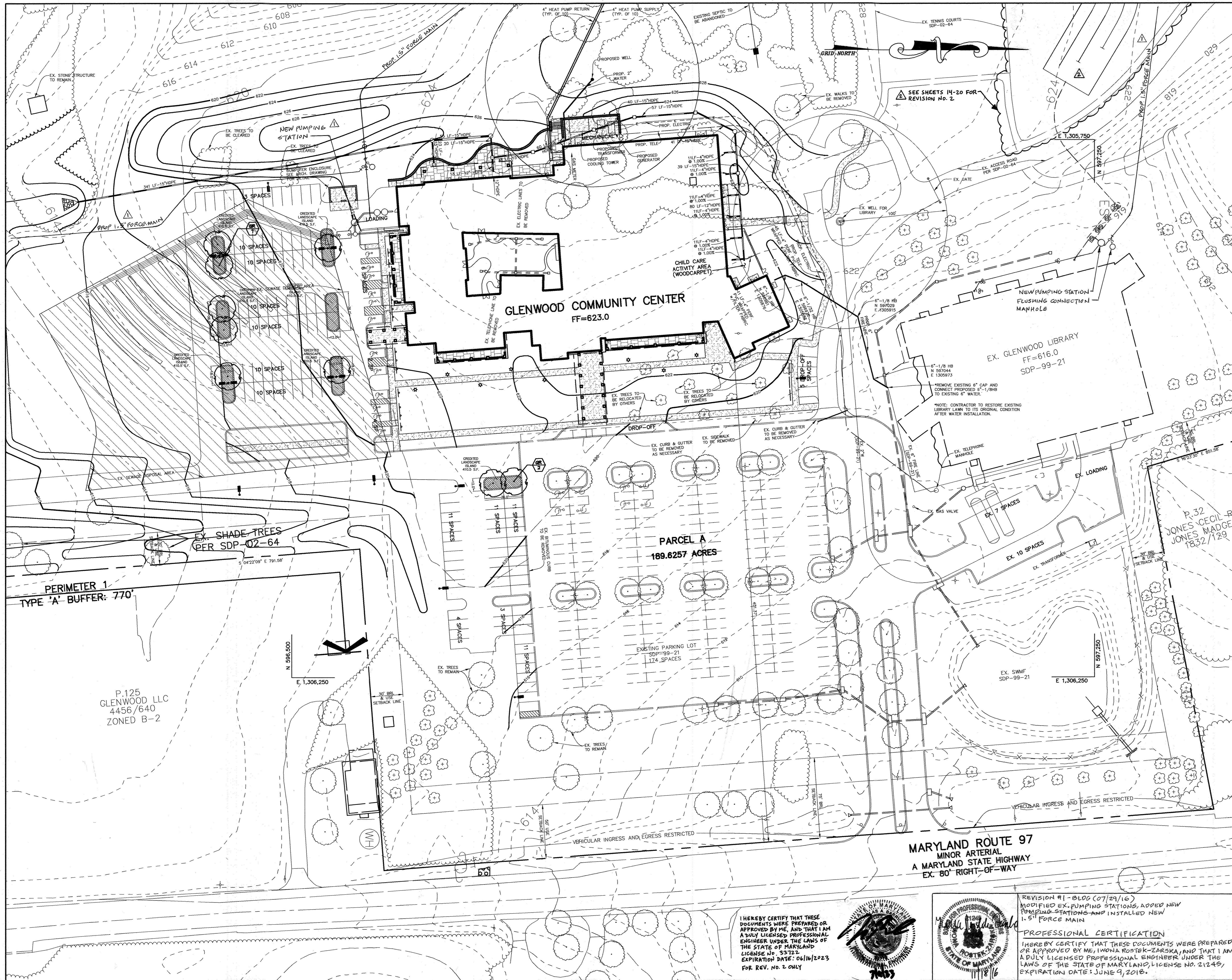
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 DIRECTOR: *Frank D. Geyer* DATE: 1/24/05
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: *Mark J. ...* DATE: 1/14/05
 CHIEF, DIVISION OF LAND DEVELOPMENT: *Cindy ...* DATE: 1/21/05

4-0-09 MODIFIED POROUS PAVING DETAIL
 OWNER / DEVELOPER: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 3450 COURT HOUSE DRIVE, ELLICOTT CITY, MARYLAND 21043

PROJECT: GLENWOOD COMMUNITY CENTER PARCEL A
 AREA: TAX MAP 14 ZONED RC-DEO PARCEL 249
 4th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

TITLE: PROFILES AND 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

DATE: 12-22-04
 DESIGNED BY: C.J.R.
 DRAWN BY: MAD
 PROJECT NO: 12492/1-0/ENGR PLANS/C700PROF
 DATE: DECEMBER 22, 2004
 SCALE: AS SHOWN
 DRAWING NO. 9 OF 29
 CHRISTOPHER J. REID #19949



LEGEND	
EX. TREELINE	
PROP. TREELINE	
PROPERTY LINE	
CONTOUR LINES	
EX. BUILDING	
PROP. SHADE TREE	
PROP. EVERGREEN TREE	
PARKING LOT LANDSCAPE REQUIREMENT	
PERIMETER LANDSCAPE REQUIREMENT	
PERIMETER LANDSCAPE EDGE LIMITS	
CREDITED LANDSCAPE ISLAND	

LANDSCAPE NOTE
 1. IF REQUIRED, REPLACE ANY EXISTING LANDSCAPE TREE(S) REMOVED FOR THE LINE INSTALLATION IN A LOCATION IN PROXIMITY OF THE ORIGINAL TREE OR AS SHOWN ON THE PLANS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Paul A. Gyles</i> DIRECTOR	1/24/05 DATE
<i>John P. ...</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	1/14/05 DATE
<i>Cindy ...</i> CHIEF, DIVISION OF LAND DEVELOPMENT	1/21/05 DATE

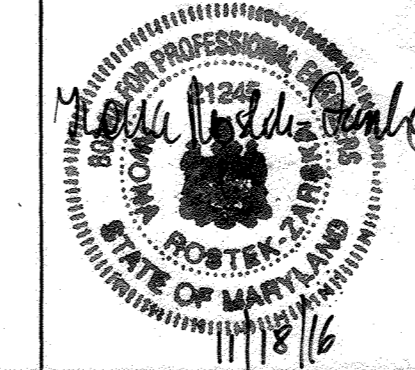
3-9-23	ADD PICKLEBALL COURTS (SHEETS 14-20)
DATE	NO. REVISION
OWNER / DEVELOPER HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS 3450 COURT HOUSE DRIVE ELLCOTT CITY, MARYLAND 21043	

PROJECT	GLENWOOD COMMUNITY CENTER PARCEL A
AREA	TAX MAP 14 ZONED RC-DEO PARCEL 249 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	LANDSCAPE PLAN

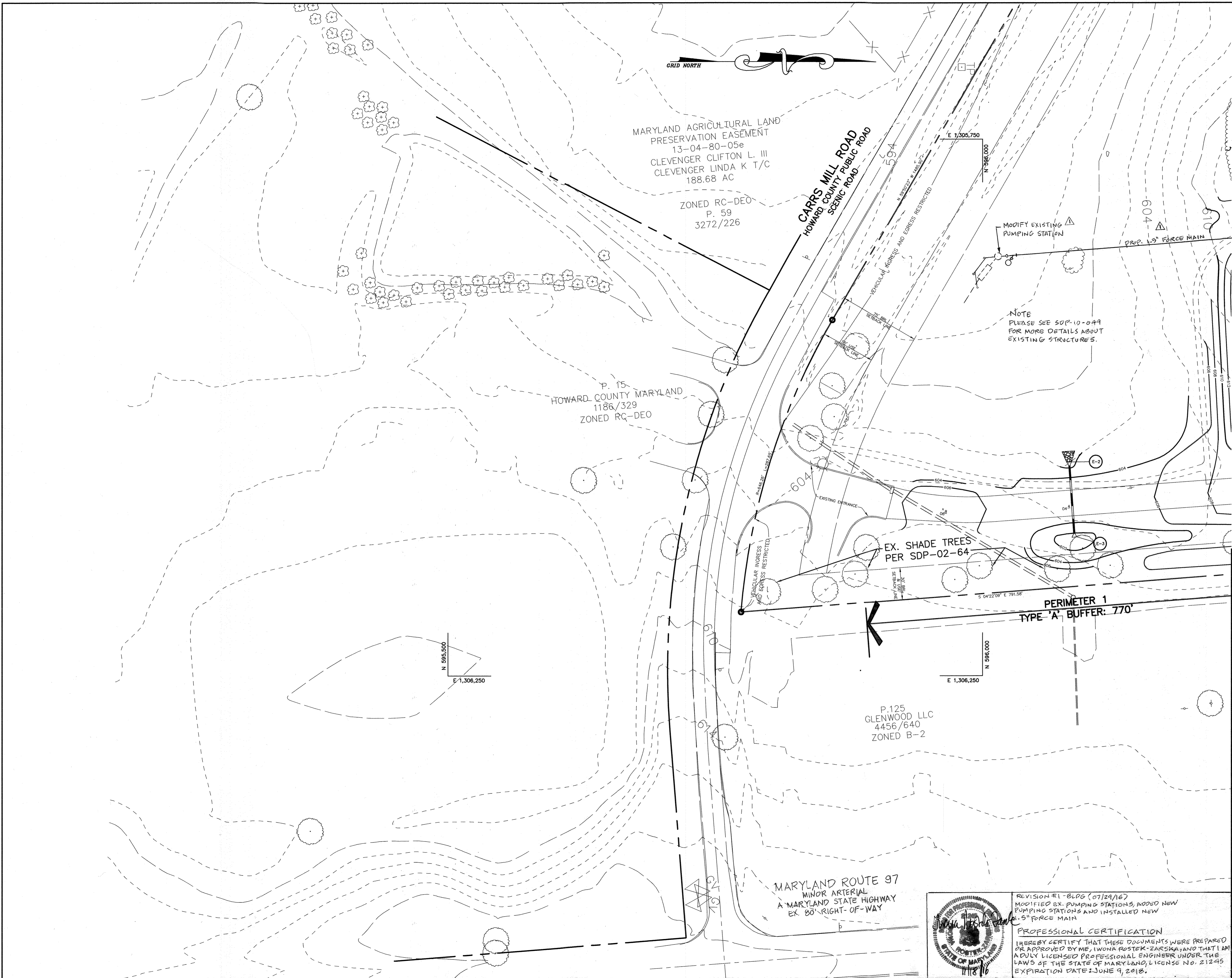
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 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
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DATE	12.22.04
DESIGNED BY :	ALC
DRAWN BY :	ALC
PROJECT NO :	12492/1-0/ENGR PLANS/L200LND
DATE :	DECEMBER 22, 2004
SCALE :	1"=40'
DRAWING NO.	10 OF 20
SCOTT R. WOLFORD #797	

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 53122, EXPIRATION DATE: 06/16/2023 FOR REV. NO. 2 ONLY



REVISION #1-BLOG (07/29/16)
 MODIFIED EX. PUMPING STATIONS, ADDED NEW PUMPING STATIONS AND INSTALLED NEW 1.5" FORCE MAIN
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, IWONA ROSTER-ZARSKA, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21248, EXPIRATION DATE: JUNE 9, 2016.



LEGEND	
EX. TREELINE	
PROP. TREELINE	
PROPERTY LINE	
CONTOUR LINES	
EX. BUILDING	
PROP. SHADE TREE	
PROP. EVERGREEN TREE	
PARKING LOT LANDSCAPE REQUIREMENT	
PERIMETER LANDSCAPE REQUIREMENT	
PERIMETER LANDSCAPE EDGE LIMITS	
CREDITED LANDSCAPE ISLAND	

LANDSCAPE NOTE
1. IF REQUIRED, REPLACE ANY EXISTING LANDSCAPE TREE(S) REMOVED FOR THE LINE INSTALLATION IN A LOCATION IN PROXIMITY OF THE ORIGINAL TREE OR AS SHOWN ON THE PLANS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Frank A. Lytle 1/24/05
DIRECTOR DATE

Mark Dammann 1/14/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION M&T DATE

Cindy Hamstra 1/21/05
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION

OWNER / DEVELOPER
HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3450 COURT HOUSE DRIVE
ELLCOTT CITY, MARYLAND 21043

PROJECT
**GLENWOOD COMMUNITY CENTER
PARCEL A**

AREA TAX MAP 14 ZONED RC-DEO PARCEL 249
4th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

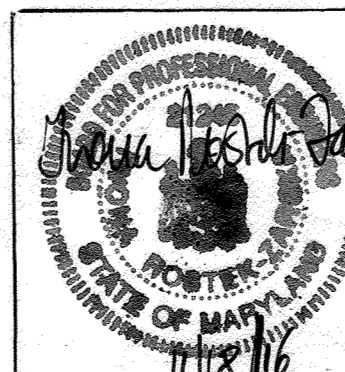
TITLE
LANDSCAPE PLAN

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

12-22-04
DATE

DESIGNED BY: ALC
DRAWN BY: ALC
PROJECT NO.: 12492/1-0/ENGR
PLANS/L201LND
DATE: DECEMBER 22, 2004
SCALE: 1"=40'
DRAWING NO.: 11 OF 13

SCOTT R. WOLFORD #797



REVISION #1 - BLPG (07/29/16)
MODIFIED EX. PUMPING STATIONS, ADDED NEW PUMPING STATIONS AND INSTALLED NEW 1.5" FORCE MAIN

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, IWONA ROSTEK-ZARSKA, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21245, EXPIRATION DATE: JUNE 9, 2018.

SCHEDULE A - PERIMETER LANDSCAPE EDGE	
	ADJACENT TO PERIMETER PROPERTIES
PERIMETER	1
LANDSCAPE TYPE	A
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	±770'
CREDIT FOR EXISTING VEGETATION (YES/NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	*YES ±770'
CREDIT FOR WALL, FENCE, BERM OR DRIVE AISLE (YES/NO/LINEAR FEET)	NO
LINEAR FEET REMAINING	0
NUMBER OF PLANTS REQUIRED	
SHADE TREES	*13
EVERGREEN TREES	-
SHRUBS	-
NUMBER OF PLANTS PROVIDED	
SHADE TREES	-
EVERGREEN TREES	-
SMALL FLOWERING TREES	-
SHRUBS	-

SCHEDULE 'A' NOTES:

REGULATIONS DO NOT REQUIRE LANDSCAPE EDGES, BUFFERING, OR SCREENING BETWEEN INTERNAL LOTS OR PARCELS WITHIN THE SAME DEVELOPMENT. (PAGE 17 OF THE HO. CO. LANDSCAPE MANUAL)

* CREDIT TAKEN FOR 13 SHADE TREES PROVIDED UNDER SDP-02-24.

SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING	
PARKING LOTS	1
NUMBER OF PARKING SPACES	141
NUMBER OF SHADE TREES REQUIRED (1/20 SPACES)	7
NUMBER OF TREES PROVIDED	
SHADE TREES	7
OTHER TREES (2:1 SUBSTITUTION)	0
NUMBER OF ISLANDS PROVIDED (200 S.F. PER ISLAND)	10

PERIMETER AND PARKING LOT PLANT LIST					
SYMBOL	QTY.	SCIENTIFIC/COMMON NAME	SIZE	ROOT	REMARKS
OR	1	Quercus Fubra Red Oak	2.5"-3" cal.	B&B	Plant as shown

PLANTING SPECIFICATIONS

- Plants, related material, and operations shall meet the detailed description, as given on the plans and as described herein. Where discrepancies exist between Standards & Guidelines referenced within these specifications and the Howard County Landscape Manual, the latter takes precedence.
- All plant material, unless otherwise specified, that is not nursery grown, uniformly branched, does not have a vigorous root system, and does not conform to the most recent edition of the American Association of Nurserymen (AAN) Standards will be rejected. Plant material that is not healthy, vigorous, free from defects, decay, disfiguring roots, sunscald injuries, abrasions of the bark, plant disease, insect pest eggs, borers and all forms of insect infestations or objectionable disfigurements will be rejected. Plant material that is weak or which has been cut back from larger grades to meet specified requirements will be rejected. Trees with forked leaders will be rejected. All B & B plants shall be freshly dug; no healed-in plants or plants from cold storage will be accepted.
- Unless otherwise specified, all general conditions, planting operations, details and planting specifications shall conform to the most recent edition of the "Landscape Specification Guidelines by the Landscape Contractors Association of MD, DC, & VA", (hereinafter "Landscape Guidelines") approved by the Landscape Contractors Association of Metropolitan Washington and the Potomac Chapter of the American Society of Landscape Architects.
- Contractor shall guarantee all plant material for a period of one year after date of acceptance in accordance with the appropriate section on the Landscape Guidelines. Contractor's attention is directed to the maintenance requirements found within the one year specifications including watering and replacement of specified plant material.
- Contractor shall be responsible for notifying all relevant and appropriate utility companies, utility contractors, and "Miss Utility" a minimum of 48 hours prior to the beginning of any work. Contractor may make minor adjustments in spacing and location of plant material to avoid conflicts with utilities. Major changes will require the approval of the landscape architect. Damage to existing structure and utilities shall be repaired at the expense of the Contractor.
- Protection of existing vegetation to remain shall be accomplished via the temporary installation of 4 foot high snow fence at the drip line, see detail.
- Contractor is responsible for installing all material in the proper planting season for each plant type. All planting is to be completed within growing season of completion of site construction. Do not plant Pinus strobus or Xcupressocyparis leylandii between November 15 and March 15. Landscape plants are not to be installed before site is graded to final grade.
- Contractor to regrade, fine grade, sod, hydroseed and straw mulch all areas disturbed by their work.
- Bid shall be based on actual site conditions. No extra payment shall be made for work arising from actual site conditions differing from those indicated on drawings and specifications.
- Plant quantities are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on plan and those shown on the plant list, the quantities on the plan take precedence. Where discrepancies on the plan exist between the symbols and the callout leader, the number of symbols take precedence.
- All shrubs and groundcover areas shall be planted in continuous planting beds, prepared as specified, unless otherwise indicated on plans. (See Specification 13). Beds to be mulched with minimum 2" and maximum 3" of composted, double-shredded hardwood mulch throughout.
- Positive drainage shall be maintained on planting beds (minimum 2 percent slope).
- Bed preparation shall be as follows: Till into a minimum depth of 6" 1 yard of Compro or Leafgro per 200 SF of planting bed, and 1 yard of topsoil per 100 SF of bed. Add 3 lbs of standard 5-10-5 fertilizer per cubic yard of planting mix and till. Ericaceous plants (Azaleas, Rhododendrons, etc.): top dress after planting with iron sulfate or comparable product according to package directions. Taxus baccata 'Repandens' (English weeping yew): Top dress after planting with 1/4 to 1/2 cup lime each.
- Planting mix: For trees not in a prepared bed, mix 50% Compro or Leafgro with 50% soil from tree hole to use as backfill, see tree planting detail.
- Seed & insect control: Incorporate a pre-emergent herbicide into the planting bed following recommended rates on the label. For tree planting, apply a pre-emergent on top of soil and root ball before mulching. Caution: For areas to be planted with a ground cover, be sure to carefully check the chemical used to assure its adaptability to the specific groundcover to be treated. Maintain the mulch weed-free for the extent of the warranty period. Under no circumstances is a pesticide containing chlorpyrifos to be used as a means of pest control.
- Water: All plant material planted shall be watered thoroughly the day of planting. All plant material not yet planted shall be properly protected from drying out until planted. At a minimum, water unplanted plant material daily and as necessary to avoid desiccation.
- Pruning: Do not heavily prune trees and shrubs at planting. Prune only broken, dead, or diseased branches.
- All areas within contract limits disturbed during or prior to construction not designated to receive plants and mulch shall be fine graded, grass seed planted, and covered with straw mulch.

NOTES:

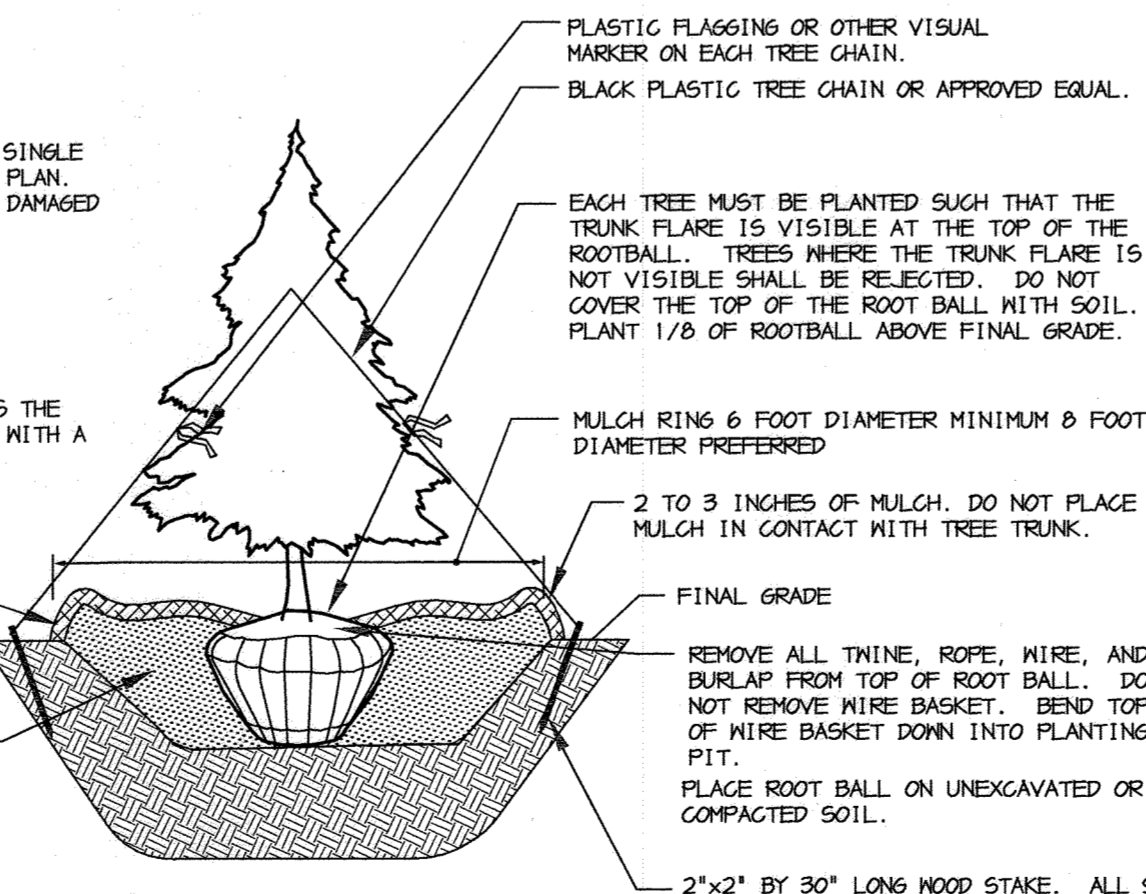
- SELECT ONLY NURSERY STOCK WITH A SINGLE LEADER UNLESS OTHERWISE SPECIFIED ON PLAN. PLANTS WITH CO-DOMINANT, MISSING, OR DAMAGED LEADERS SHALL BE REJECTED.
- STAKE TREES AS SHOWN.

- DIG PLANTING PIT TWICE AS WIDE AS THE DIAMETER OF THE TOP OF THE ROOT BALL WITH A MINIMUM PLANTING PIT DIAMETER OF 5'.

CONSTRUCT 3" SAUCER ALL AROUND PLANTING HOLE. FLOOD WITH WATER TWICE WITHIN 24 HOURS.

BACKFILL WITH PLANTING MIX (SEE PLANTING SPECIFICATIONS). TAMP SOIL AROUND ROOT BALL BASE FIRMLY WITH FOOT PRESSURE SO THAT ROOT BALL DOES NOT SHIFT.

EVERGREEN B&B TREE PLANTING DETAIL
NOT TO SCALE



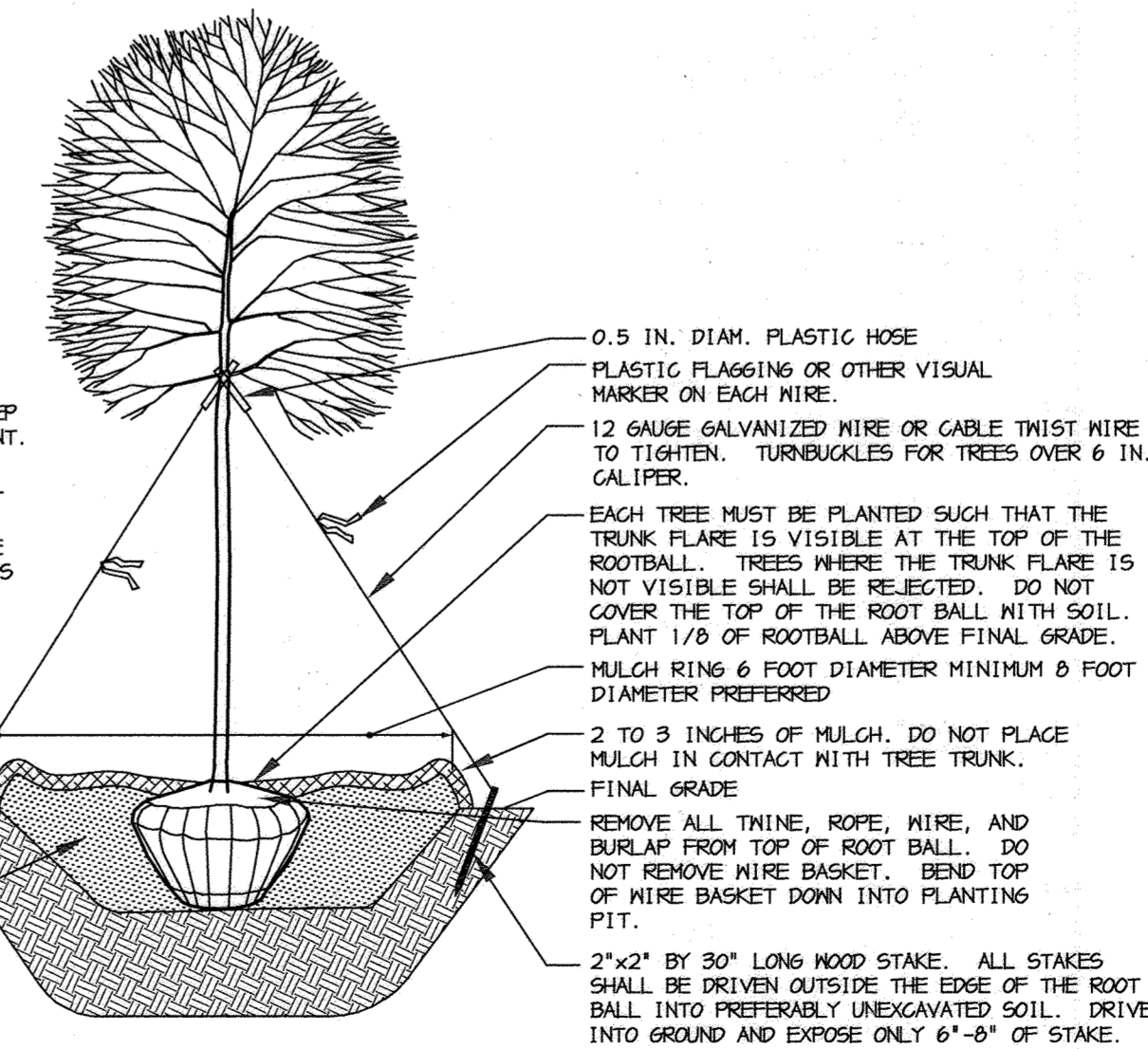
NOTES:

- DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR THIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.
- STAKE TREES AS SHOWN.
- DIG PLANTING PIT TWICE AS WIDE AS THE DIAMETER OF THE TOP OF THE ROOT BALL WITH A MINIMUM PLANTING PIT DIAMETER OF 5'.
- PLACE ROOT BALL ON UNEXCAVATED OR COMPACTED SOIL.
- TIGHTEN WIRE OR CABLE ONLY ENOUGH TO KEEP FROM SLIPPING. ALLOW FOR SOME TRUNK MOVEMENT. PLASTIC HOSE SHALL BE LONG ENOUGH TO ACCOMMODATE 1.5 IN. OF GROWTH AND BUFFER ALL BRANCHES FROM THE WIRE.
- TUCK ANY LOOSE ENDS OF THE WIRE OR CABLE INTO THE WIRE WRAP SO THAT NO SHARP WIRE ENDS ARE EXPOSED.
- INSTALL THREE GUY WIRES PER TREE, SPACED EVENLY AROUND THE TRUNK.
- ASSURE THAT THE BEARING SURFACE OF THE PROTECTIVE COVERING OF THE WIRE OR CABLE AGAINST THE TREE TRUNK IS A MINIMUM OF 0.5 IN. REMOVE STAKES AFTER ONE YEAR.

CONSTRUCT 3" SAUCER ALL AROUND PLANTING HOLE. FLOOD WITH WATER TWICE WITHIN 24 HOURS.

BACKFILL WITH PLANTING MIX (SEE PLANTING SPECIFICATIONS). TAMP SOIL AROUND ROOT BALL BASE FIRMLY WITH FOOT PRESSURE SO THAT ROOT BALL DOES NOT SHIFT.

DECIDUOUS B&B TREE PLANTING DETAIL (TREES 3" CAL. OR LARGER)
NOT TO SCALE



GENERAL NOTES:

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- ALL MATERIAL SELECTED SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE "USA STANDARD FOR NURSERY STOCK", LATEST EDITION, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- ALL MATERIAL SHALL BE PLANTED IN ACCORDANCE WITH THE MINIMUM STANDARDS CITED IN THE LATEST EDITION OF "LANDSCAPE SPECIFICATION GUIDELINES" PUBLISHED BY THE LANDSCAPE CONTRACTORS ASSOCIATION.
- AT THE TIME OF INSTALLATION, ALL SHRUBS AND OTHER PLANTINGS SHALL BE OF THE PROPER HEIGHT AND/OR SPREAD REQUIREMENTS IN ACCORDANCE WITH THIS PLAN AND THE HOWARD COUNTY LANDSCAPE MANUAL.
- NO SUBSTITUTIONS OR RELOCATION OF PLANTS MAY BE MADE WITHOUT PRIOR APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING OF HOWARD COUNTY. ANY DEVIATION FROM THIS LANDSCAPE PLAN MAY RESULT IN A REQUIREMENT FOR SUBMITTAL OF AN OFFICIAL "REDLINE REVISION" TO THE SITE DEVELOPMENT PLAN(S).

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 YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Janet De... 12/22/04
SIGNATURE DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Frank DeL... 1/24/05
DIRECTOR DATE

Mike... 1/4/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Andy... 1/21/05
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER / DEVELOPER
HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS
3450 COURT HOUSE DRIVE
ELLCOTT CITY, MARYLAND 21043

PROJECT
GLENWOOD COMMUNITY CENTER PARCEL A

AREA TAX MAP 14 ZONED RC-DEO PARCEL 249
4th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
LANDSCAPE SCHEDULES AND DETAILS

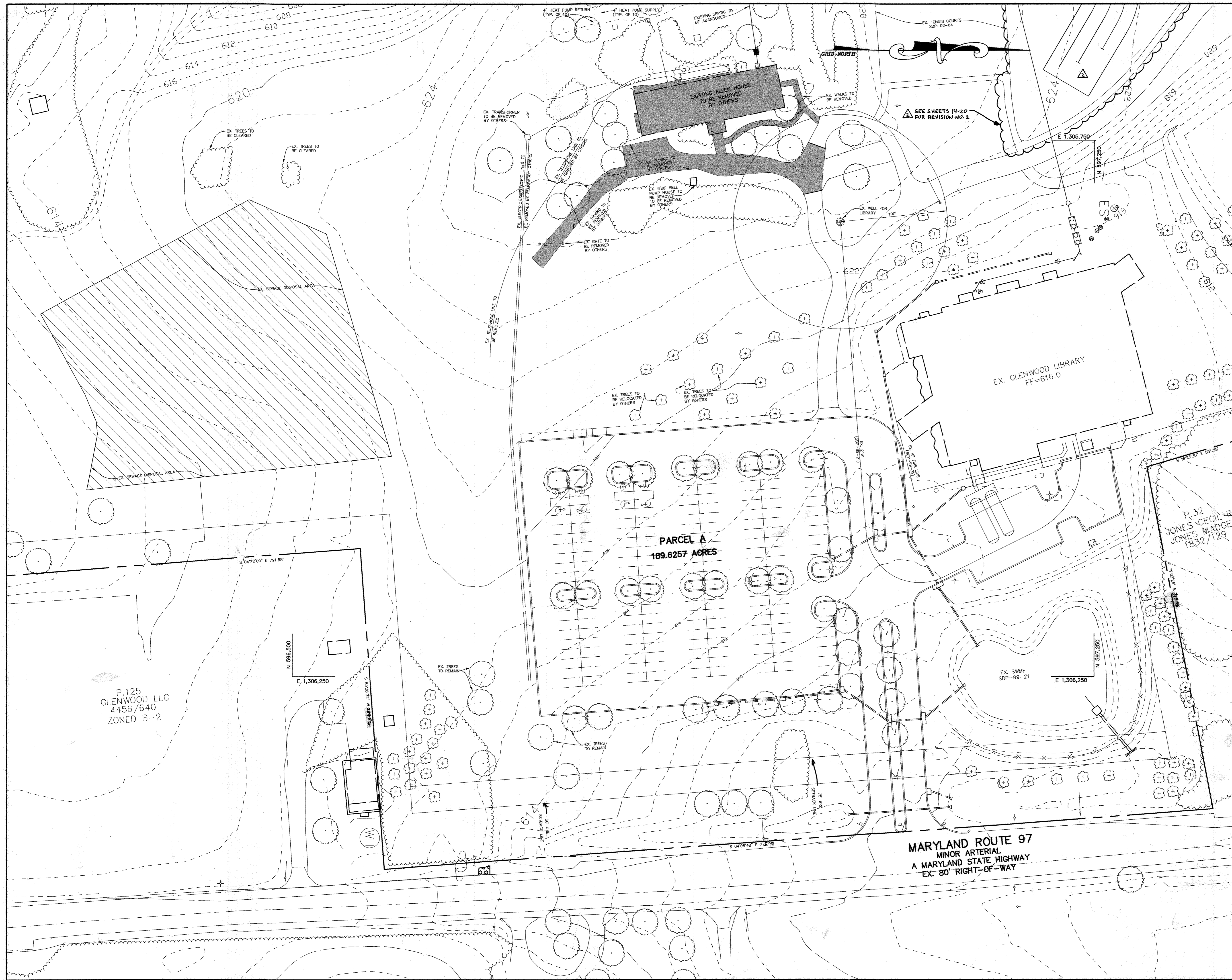
Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

12-22-04
DATE

DESIGNED BY: ALG
DRAWN BY: ALG
PROJECT NO.: 12492/1-0/ENGR PLANS/L202LND
DATE: DECEMBER 22, 2004
SCALE: NOT TO SCALE
DRAWING NO. 12 OF 13

SCOTT R. WOLFORD #797





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. 5372 EXPIRATION: 04/16/2023 FOR REV. NO. 2 ONLY

John M. Rust
 JMR

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Mark A. Lyle 1/24/05
 DIRECTOR DATE

John Dammann 1/4/05
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MAJ DATE

Cindy Samster 1/21/05
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

3-9-23 **ADD PICKLEBALL COURTS (SHEETS M-20)**
 DATE NO. REVISION

OWNER / DEVELOPER
 HOWARD COUNTY
 DEPARTMENT OF PUBLIC WORKS
 3450 COURT HOUSE DRIVE
 ELLICOTT CITY, MARYLAND 21043

PROJECT
**GLENWOOD COMMUNITY CENTER
 PARCEL A**

AREA TAX MAP 14 ZONED RC-DEO PARCEL 249
 4th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

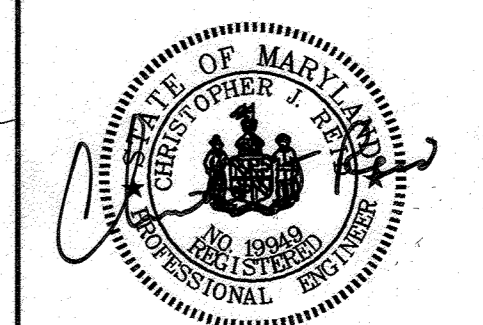
TITLE
DEMOLITION PLAN

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

12-22-04
 DATE

DESIGNED BY: C.J.R.
 DRAWN BY: MAD
 PROJECT NO: 12492/1-0/ENGR PLANS/C300DEM
 DATE: DECEMBER 22, 2004
 SCALE: 1"=40'
 DRAWING NO. 13 OF 20

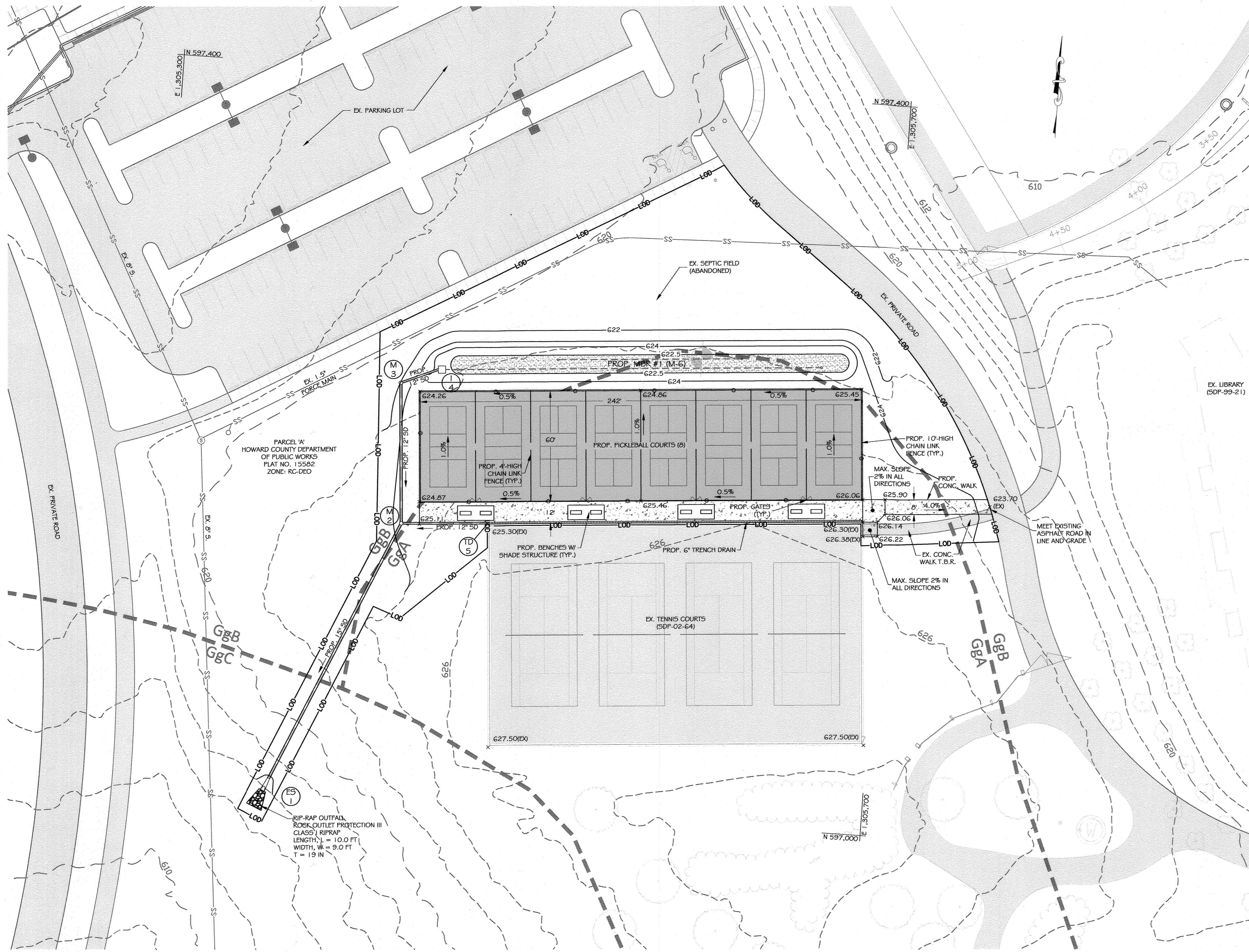
CHRISTOPHER J. REID #19949



P.125
 GLENWOOD LLC
 4456/640
 ZONED B-2

PARCEL A
 189.6257 ACRES

MARYLAND ROUTE 97
 MINOR ARTERIAL
 A MARYLAND STATE HIGHWAY
 EX. 80' RIGHT-OF-WAY



- LEGEND**
- LOD- LIMIT OF DISTURBANCE
 - 80- EX. CONTOUR
 - GgA SOIL DIVIDE
 - GgC SOIL DIVIDE
 - ==== EX. CURB & GUTTER
 - W- EX. WATER
 - SS- EX. SEWER
 - SD- EX. STORM DRAIN
 - G- EX. GAS
 - E- EX. ELECTRIC
 - ~~~ EX. TREELINE
 - - - - DRAINAGE AREA DIVIDE
 - 220- PROP. CONTOUR
 - o- PROP. FENCE
 - - - - PROP. STORM DRAIN
 - - - - PROP. TRENCH DRAIN
 - [Hatched Box] EX. ASPHALT
 - [Solid Box] PROP. ASPHALT
 - [Dotted Box] PROP. CONCRETE
 - B-1 SOIL BORING

PLAN VIEW
SCALE: 1"=30'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DIRECTOR: *[Signature]* DATE: 3/30/23

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* DATE: 3/24/23

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* DATE: 3.24.23

ENGINEER
KCI TECHNOLOGIES, INC.
11830 W. MARKET PLACE, SUITE F
FULTON, MD 20759
CONTACT: EVAN MITCHELL
EMAIL: EVAN.MITCHELL@KCI.COM
PHONE: (301) 882-9529

OWNER/DEVELOPER
HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS
7120 OAKLAND MILLS ROAD
COLUMBIA, MD 21046
ATTN: JASON THOMPSON
EMAIL: JTHOMPSON@HOWARDCOUNTYMD.GOV
PHONE: (410) 313-4031

ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS
KCI TECHNOLOGIES
11830 WEST MARKET PLACE
SUITE F
FULTON, MD 20759
TELEPHONE: (410) 792-8086
FAX: (410) 792-7419

REVISIONS			
NO.	DATE	DESCRIPTION	BY

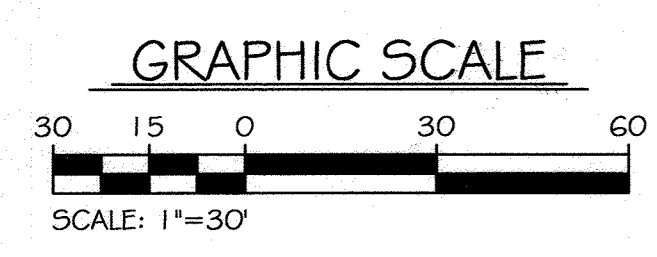
PURPOSE NOTE:
THE PURPOSE OF REVISION NO. 2 IS TO ADD THE DEVELOPMENT OF EIGHT (8) PICKLEBALL COURTS AND ASSOCIATED STORMWATER MANAGEMENT FACILITY FOR HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS.

REVISIONS
DATE: 11/21/2022
SCALE: 1"=30'
DESIGNED BY: EWM
CHECKED BY: NB

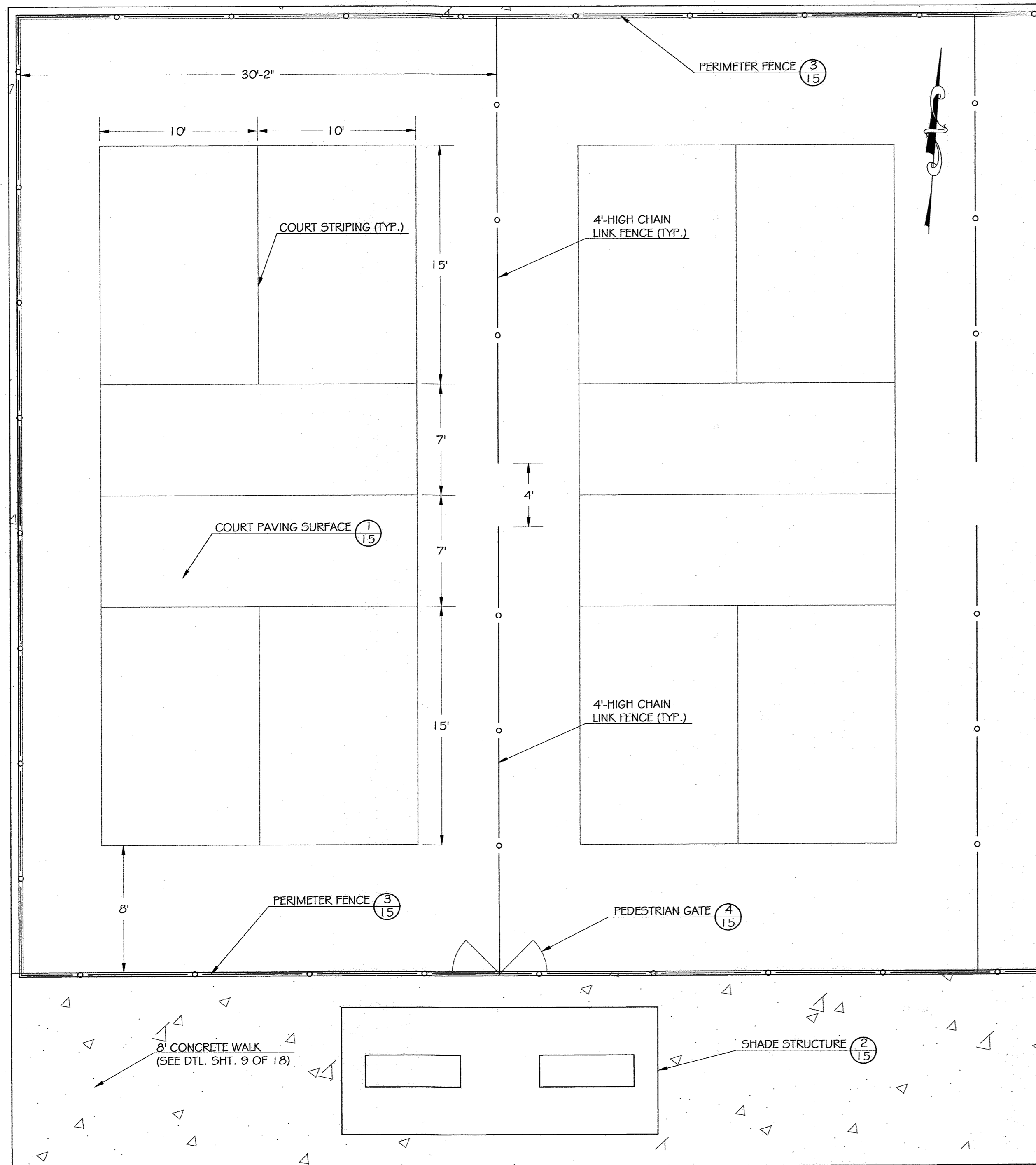
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 33772 EXP. DATE: 06/16/2023

REVISED SITE DEVELOPMENT PLAN
GLENWOOD COMMUNITY CENTER
WESTERN REGIONAL PARK
PARCEL A
PLAT NO. 15582
HOWARD COUNTY, MARYLAND
ELECTION DISTRICT 4

DRAWING NO. SHEET 14 OF 20
KCI JOB NUMBER 171705999.111
171705999.111

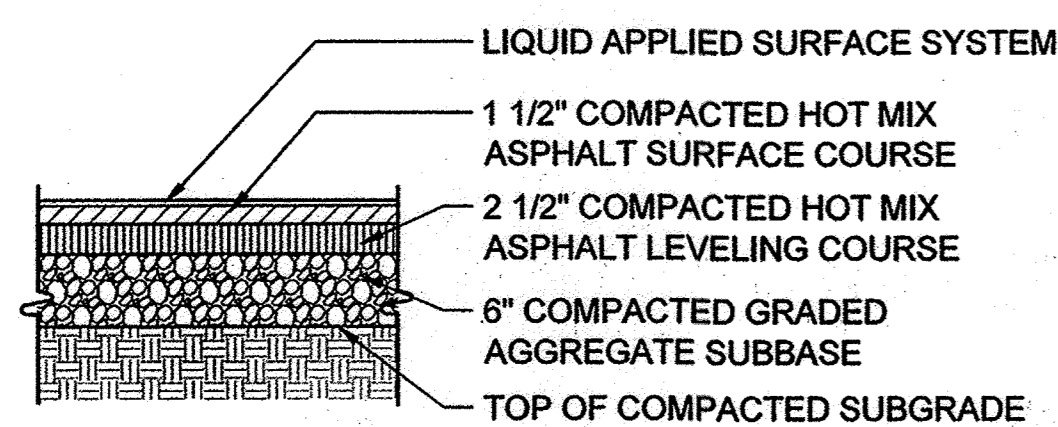


PLOTED: 3/29/23 2:01:17 PM 171705999.111 Drawing: SDP-04-134 (Revised) SDP-04-134-REV SITE PLAN.dwg

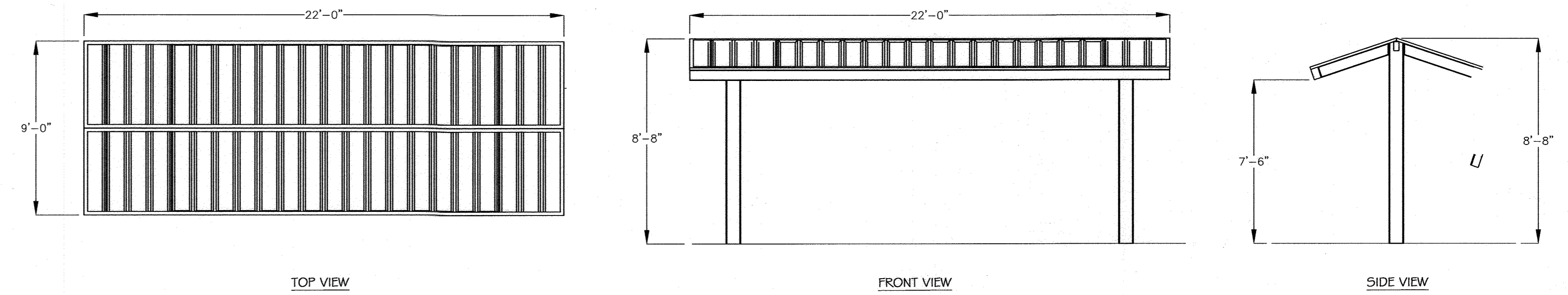


PICKLEBALL COURT DETAILS

SCALE: 1"=30'

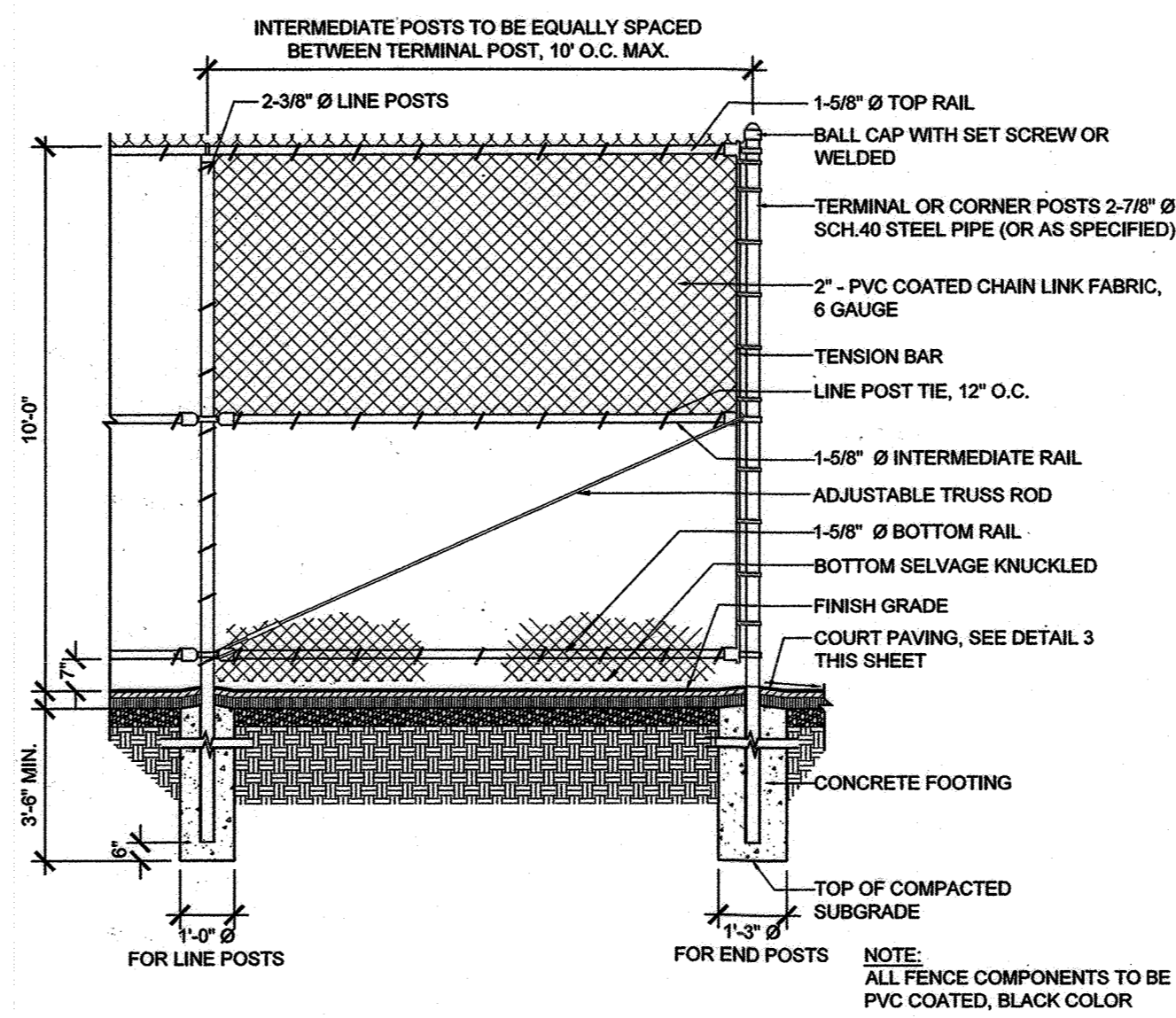


1 TYPICAL PAVING SECTION (PICKLEBALL COURTS)

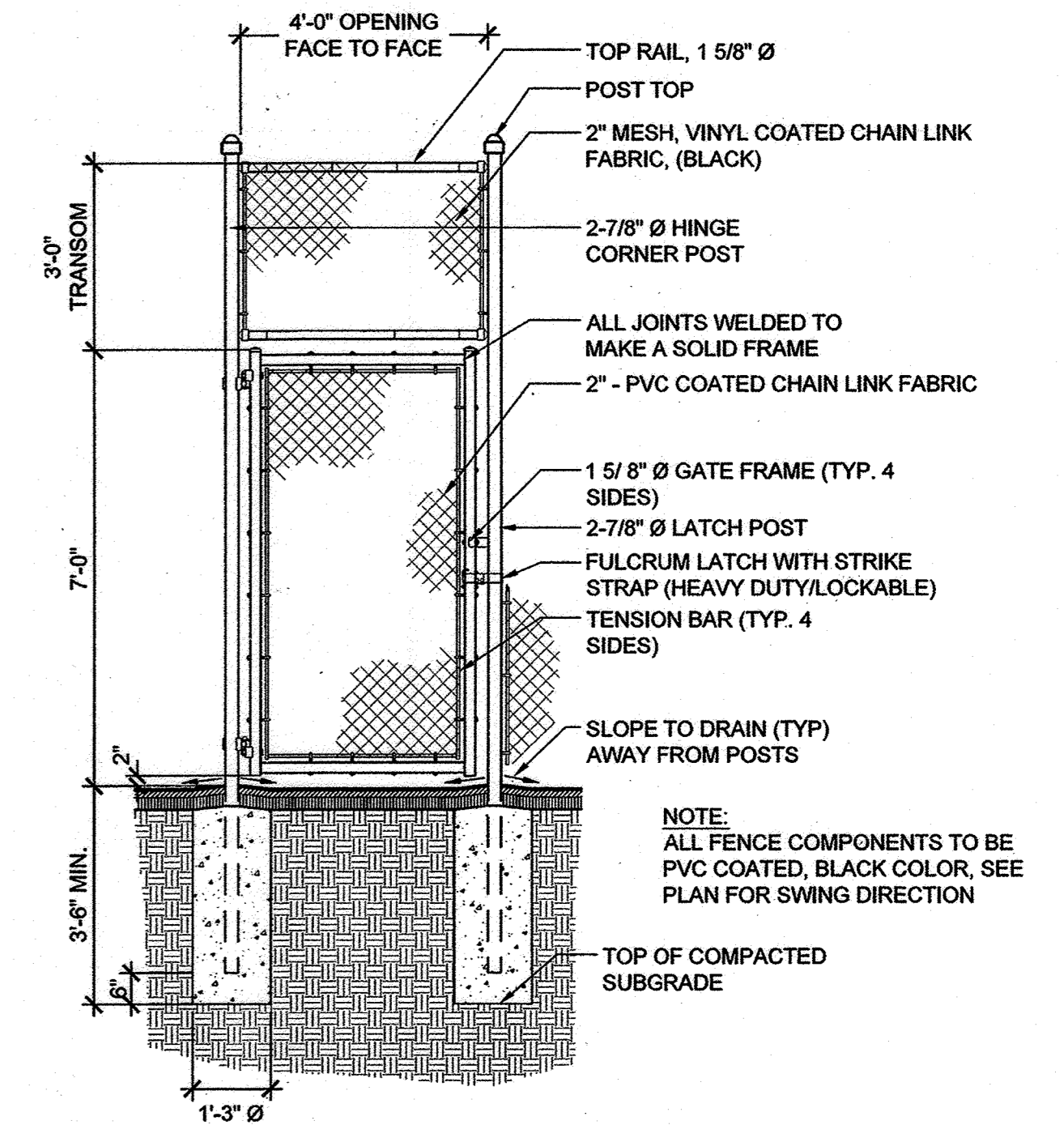


NOTE: SHADE STRUCTURE TO BE "SUPERIOR SHELTER" BY SUPERIOR RECREATIONAL PRODUCTS OR APPROVED EQUAL

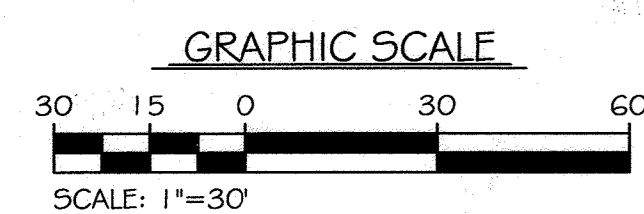
2 SHADE STRUCTURE DETAILS (PICKLEBALL COURTS)



3 PERIMETER FENCE (PICKLEBALL COURTS)



4 PEDESTRIAN GATE (PICKLEBALL COURTS)



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Ang Govea
 DIRECTOR DATE 3/30/23

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Chad Plunk
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE 3/30/23
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 3-24-23

ENGINEER
 KCI TECHNOLOGIES, INC.
 11830 W. MARKET PLACE, SUITE F
 FULTON, MD 20759
 CONTACT: EVAN MITCHELL
 EMAIL: EVAN.MITCHELL@KCI.COM
 PHONE: (301) 882-9529

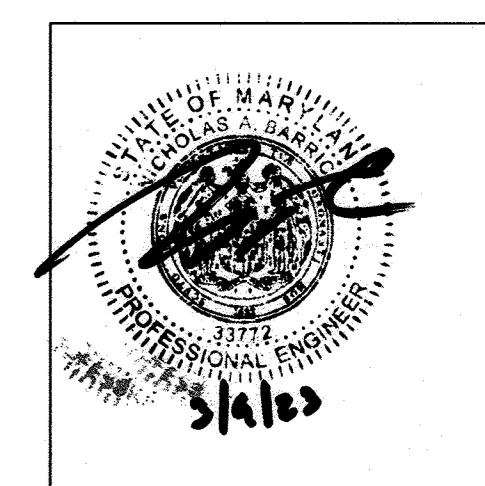
OWNER/DEVELOPER
 HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS
 7120 OAKLAND MILLS ROAD
 COLUMBIA, MD 21046
 ATTN: JASON THOMPSON
 EMAIL: JTHOMPSON@HOWARDCOUNTYMD.GOV
 PHONE: (410) 313-4031

ENGINEERS
 PLANNERS
 SCIENTISTS
 CONSTRUCTION MANAGERS
KCI
 TECHNOLOGIES
 11830 WEST MARKET PLACE
 SUITE F
 FULTON, MD 20759
 TELEPHONE: (410) 792-8086
 FAX: (410) 792-7419

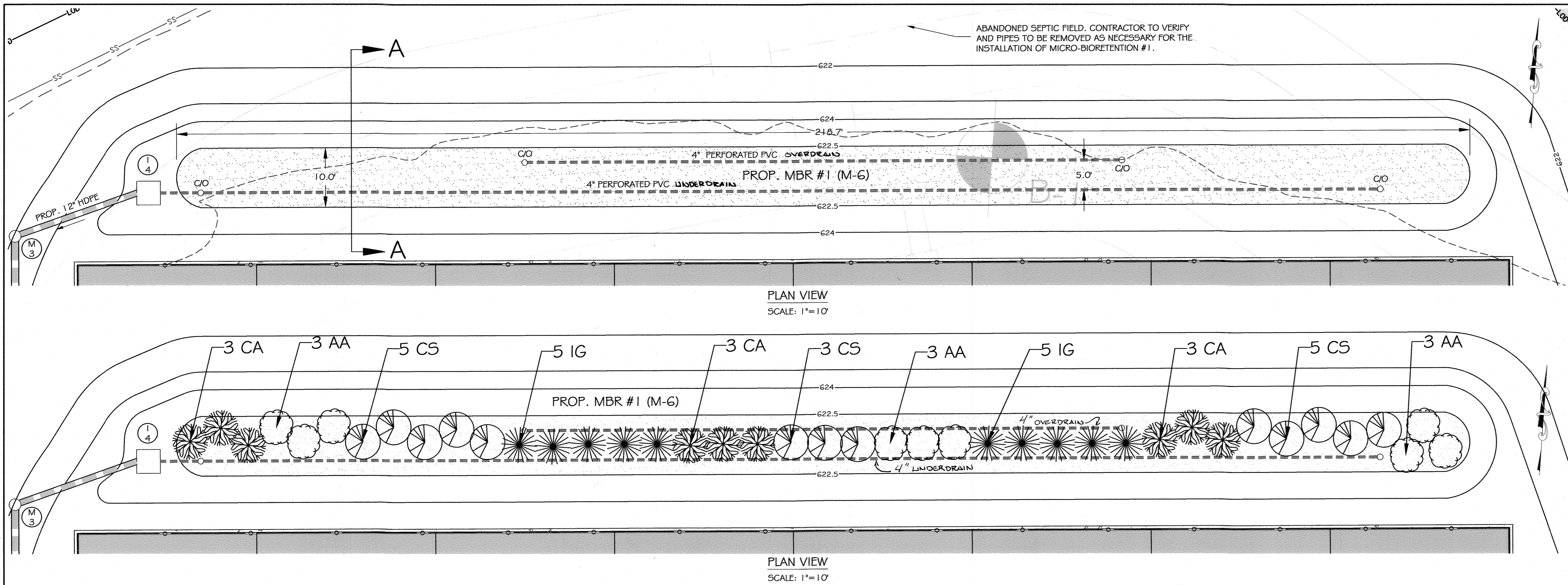
REVISIONS				DATE
NO.	DATE	DESCRIPTION	BY	11/21/2022

SITE DETAILS - PICKLEBALL COURTS
 GLENWOOD COMMUNITY CENTER
 WESTERN REGIONAL PARK
 PARCEL A
 PLAT NO. 15582
 HOWARD COUNTY, MARYLAND
 ELECTION DISTRICT 4

DRAWING NO.
 SHEET 15 OF 20
 KCI JOB NUMBER
 171705999.111
 EXP. DATE: 06/16/2023



PLOTED: 3/29/23 2:00:17 PM 171705999.111 Drawings/SDP-04-134 Rev/1/15 SDP-04-134-REV DATE DTLs.dwg



STORMWATER MANAGEMENT SUMMARY

STUDY AREA: 1.22 AC.
 PROPOSED IMPERVIOUS AREA: 0.42 AC.
 IMPERVIOUS % = 0.42 / 1.22 AC = 35%
 $R_v = 0.46$
 $PE = 1.8$ IN.

ESD_v REQUIRED:
 STUDY AREA (A) = 1.22 AC.
 $ESD_v = [(PE \times R_v \times A) / 12]$
 $ESD_v = [(1.8 \times 0.46 \times 1.22) / 12] = 2,915$ CF

RE_v REQUIRED:
 B-SOIL
 $S = 0.26$ (MDE SEC. 2.2)
 $RE_v = [ESD_v \times R_v \times A] / 12]$
 $RE_v = 421$ CF

ESD_v PROVIDED:
 MBR-1 (M-G)
 D.A. = 23,867 SF = 0.55 AC.
 IMPERVIOUS AREA IN D.A. = 17,500 SF = 0.40 AC
 $A_v = 2,166$ SF
 DEPTH = 2.0 FT
 $ESD_v = 3,805$ CF

RE_v PROVIDED:
 $RE_v = A_v \times \text{DEPTH} \times 0.40$
 $RE_v = 2,166 \text{ SF} \times 2.0 \text{ FT} \times 0.40$
 $RE_v = 1,733$ CF

AREA NO.	AREA (SF)	IMP. AREA (SF)	ESD _v (CF)	PE PROVIDED
DA-2	23,375	17,500	3,223	1.99*

LEGEND

- LOD - LIMIT OF DISTURBANCE
- EX. CONTOUR
- GgA - SOIL DIVIDE
- GgC - SOIL DIVIDE
- EX. CURB & GUTTER
- EX. WATER
- EX. SEWER
- EX. STORM DRAIN
- EX. GAS
- EX. ELECTRIC
- EX. TREELINE
- DRAINAGE AREA DIVIDE
- 220 - PROP. CONTOUR
- PROP. FENCE
- PROP. STORM DRAIN
- PROP. TRENCH DRAIN
- EX. ASPHALT
- PROP. ASPHALT
- PROP. CONCRETE
- SOIL BORING
- PROP. PLANTINGS

GRAPHIC SCALE

10 5 0 10 20
 SCALE: 1"=10'

OPERATION AND MAINTENANCE SCHEDULE FOR PUBLICLY OWNED AND MAINTAINED MICRO-BIORETENTION (M-G)

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

STORMWATER MANAGEMENT GENERAL NOTES:

THE STORMWATER MANAGEMENT OBLIGATION WAS MET WITH ESD PRACTICES INCLUDING: MICRO-BIORETENTION (M-G).

- THE ESD PRACTICES WILL BE PUBLICLY OWNED AND MAINTAINED BY HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS.
- IN ADDITION TO STANDARD MDE REQUIREMENTS, THE CONTRACTOR SHOULD BE PREPARED TO DEWATER EXCAVATIONS AND MAINTAIN TRAFFICABILITY OF THE SWM AREAS DURING CONSTRUCTION. ALL EXCAVATIONS SHOULD BE PROPERLY SHORED AND SUPPORTED IN ACCORDANCE WITH THE LATEST OSHA REQUIREMENTS. IF INFILTRATION FACILITY AREAS ARE EXCAVATED USING A LOADER, THE CONTRACTOR SHOULD USE WIDE-TRACK OR LIGHTWEIGHT EQUIPMENT WITH TURF TIRES TO MINIMIZE COMPACTION OF THE SUBGRADE SOILS. EXCESSIVE COMPACTION WITHIN THE INFILTRATION AREA WILL RESULT IN POOR PERFORMANCE.

GENERAL NOTES

- MATERIAL SPECIFICATIONS**
THE ALLOWABLE MATERIALS TO BE USED IN THESE PRACTICES ARE DETAILED IN TABLE B.4.1.
- PLANTING SOIL**
THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE MICRO-BIORETENTION PRACTICE THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVIDE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 15.08.01.05.

THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA:

- SOIL COMPONENT - LOAMY SAND OR SANDY LOAM (USDA SOIL TEXTURAL CLASSIFICATION) ORGANIC MATTER 1.5 - 4% (BY WEIGHT)
- ORGANIC CONTENT - MINIMUM 1.0% BY DRY WEIGHT (ASTM D 2974). IN GENERAL, THIS CAN BE MET WITH A MIXTURE OF LOAMY SAND (60%-65%) AND COMPOST (35% TO 40%) OR SANDY LOAM (50%), COARSE SAND (30%), AND COMPOST (40%).
- CLAY CONTENT - MEDIA SHALL HAVE A CLAY CONTENT OF LESS THAN 5%.
- PH RANGE - SHOULD BE BETWEEN 5.5-7.0. AMENDMENTS (E.G., LIME, IRON SULFATE PLUS SULFUR) MAY BE MIXED INTO THE SOIL TO INCREASE OR DECREASE PH.

THERE SHALL BE AT LEAST ONE SOIL TEST PER PROJECT. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, ADDITIONAL TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILE TOPSOIL. IF TOPSOIL IS IMPORTED, THEN A TEXTURE ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOPSOIL WAS EXCAVATED.

- COMPACTION**
IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF BIORETENTION PRACTICES AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF PRACTICES ARE EXCAVATED USING A LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TIRE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH-PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.

COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL, PLOW,

RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACURE THE SOIL PROFILE THROUGH THE 12-INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.

ROTO TILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE OPTIONAL SAND LAYER. PUMP ANY PONDED WATER BEFORE PREPARING (ROTO)TILLING BASE.

WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE. WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" TO 18". DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZELoader WITH MARSH TRACKS.

4. PLANT MATERIAL
RECOMMENDED PLANT MATERIAL FOR MICRO-BIORETENTION PRACTICES CAN BE FOUND IN APPENDIX A, SECTION A.2.3.

5. PLANT INSTALLATION
COMPOST IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLOAT, AND SHOULD BE PLACED IN THE INVERT AND OTHER LOW AREAS. MULCH SHOULD BE PLACED IN SURROUNDING TO A UNIFORM THICKNESS OF 2" TO 3". SHREDDED OR CHIPPED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. PINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.

ROOTSTOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION.

TREES SHALL BE BRACED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL.

GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS.

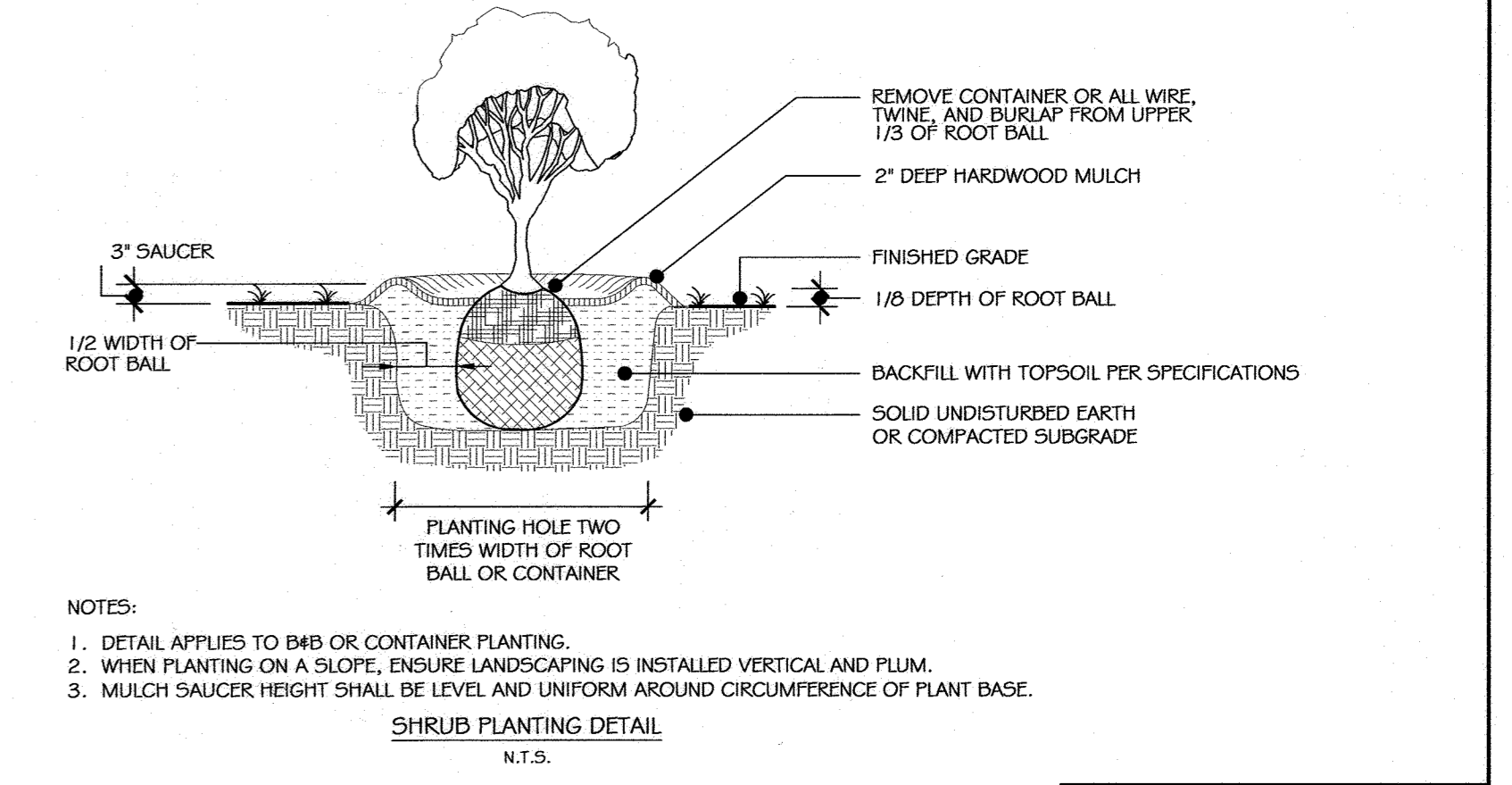
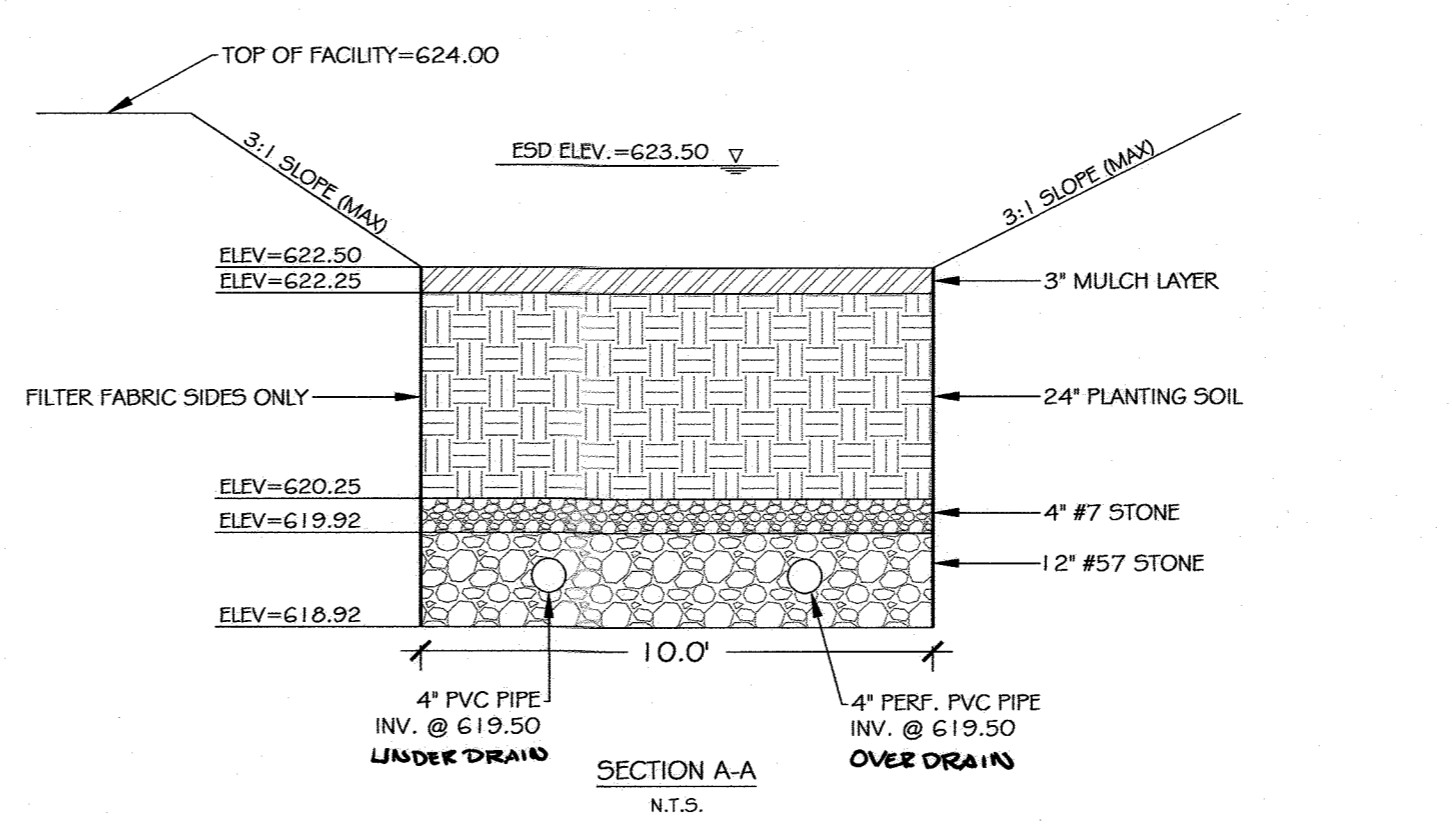
THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFATS, OR AT A MINIMUM, IMPEDES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.

6. UNDERDRAINS
UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:

- PIPE SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTM F 756, TYPE F5 26, OR AASHTO-M-278) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED, 4" RIGID PIPE (E.G., PVC OR HDPE).
- PERFORATIONS - IF PERFORATED PIPE IS USED, PERFORATIONS SHOULD BE 1/4" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/4" (NO. 4 OR 4X4) GALVANIZED HARDWARE CLOTH.
- GRAVEL - THE GRAVEL LAYER (NO. 57 STONE PREFERRED) SHALL BE AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN.
- A RIGID, NON-PERFORATED OBSERVATION WELL MUST BE PROVIDED (ONE PER EVERY 1,000 SQUARE FEET) TO PROVIDE A CLEAN-OUT PORT AND MONITOR PERFORMANCE OF THE FILTER.
- A 4" LAYER OF PEA GRAVEL (0" TO 1/4" STONE) SHALL BE LOCATED BETWEEN THE FILTER MEDIA AND UNDERDRAIN TO PREVENT MIGRATION OF FINES INTO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 24". OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).

7. MISCELLANEOUS
THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

MICRO-BIORETENTION PLANT LIST				
SYMBOL	QTY.	NAMES (BOTANICAL / SCIENTIFIC)	SIZE	ROOT / COMMENTS
	9	ARONIA ARBUTIFOLIA / RED CHOKEBERRY*	2'-3' HT.	#3 CONTAINER
	9	CLETHRA ALNIFOLIA / SWEET PEPPERBUSH	2'-3' HT.	#3 CONTAINER
	13	CORNUS SERICEA / RED TWIG DOGWOOD	2'-3' HT.	#3 CONTAINER
	10	ILEX GLABRA / INKBERRY	2'-3' HT.	#3 CONTAINER



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Ally Goman 3/30/23
 DIRECTOR DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Phil Elwood 3-24-23
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

ENGINEER
 KCI TECHNOLOGIES, INC.
 11830 W. MARKET PLACE, SUITE F
 FULTON, MD 20759
 CONTACT: EVAN MITCHELL
 EMAIL: EVAN.MITCHELL@KCI.COM
 PHONE: (301) 882-9529

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 COLUMBIA, MD 21046
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 EMAIL: JTHOMPSON@HOWARDCOUNTYMD.GOV
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 FAX: (410) 792-7419

REVISIONS		DATE
NO.	DESCRIPTION	BY

DATE: 11/21/2022
 SCALE: 1"=10'
 DESIGNED BY: EVM
 CHECKED BY: NB

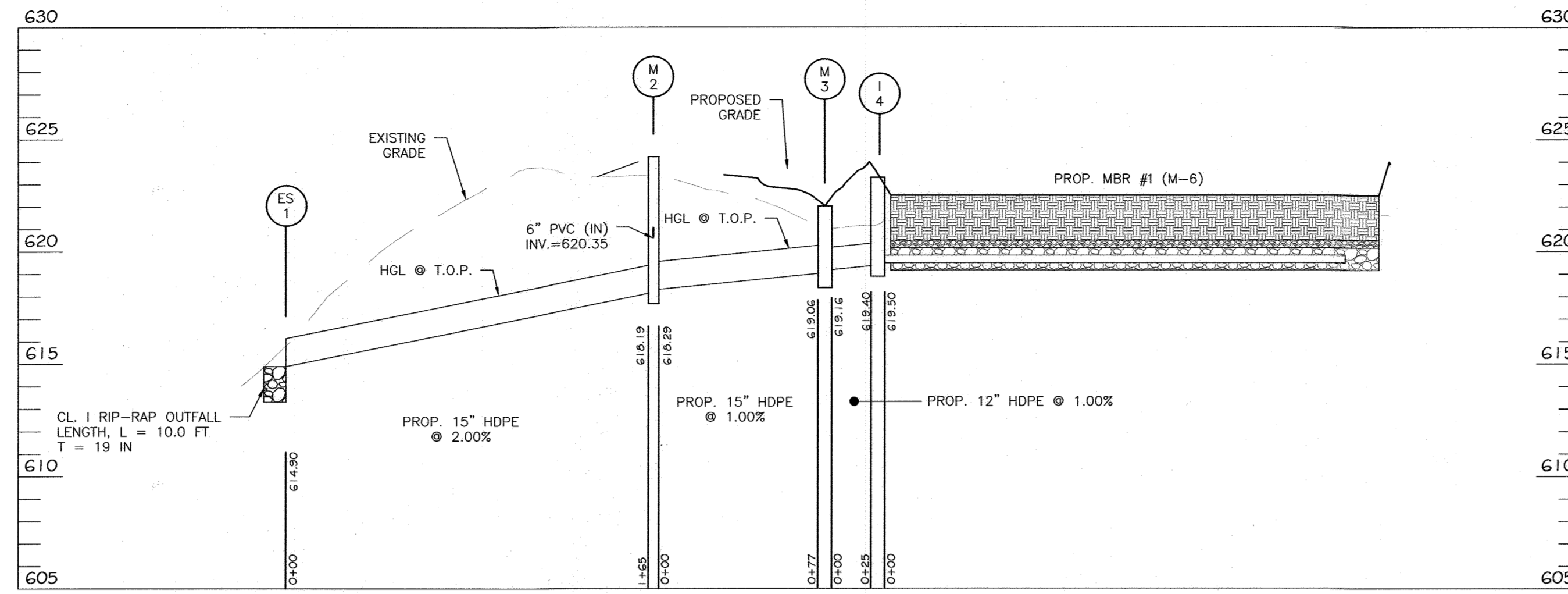
PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 33772 EXP. DATE: 06/16/2023

STORMWATER MANAGEMENT PLAN - PICKLEBALL COURTS
 GLENWOOD COMMUNITY CENTER
 WESTERN REGIONAL PARK
 PARCEL A
 PLAT NO. 15582

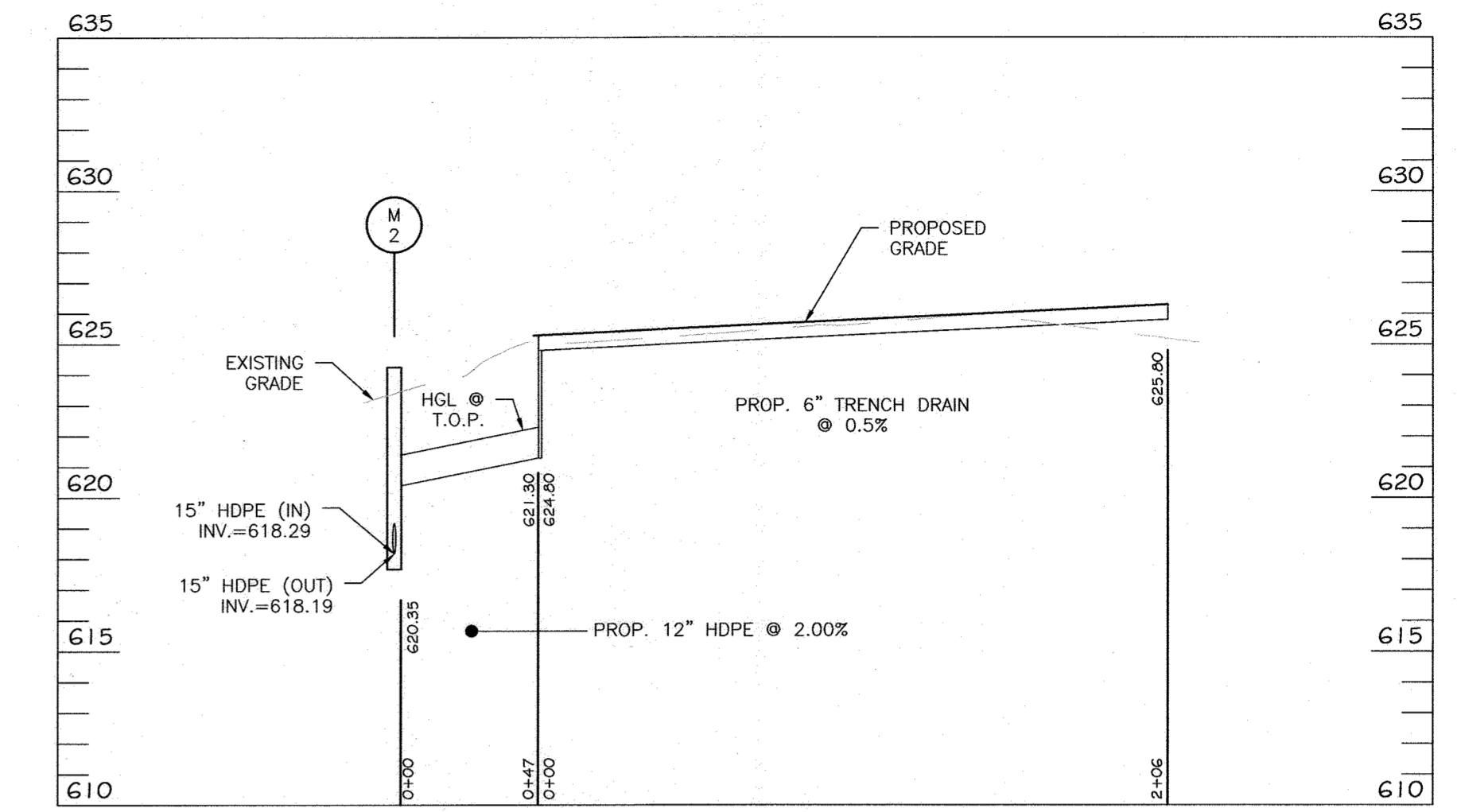
HOWARD COUNTY, MARYLAND ELECTION DISTRICT 4

DRAWING NO. SHEET 16 OF 20
 KCI JOB NUMBER 171705999.111

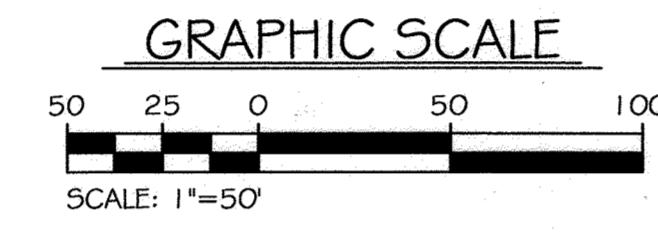
PLOT# 23-08223 210717170599.111 DrawingsSDP-04-104 DocName:15-SDP-04-104-REV SWM PLAN.dwg



STORM DRAIN PROFILE
SCALE: 1"=50' (HORIZ.)
SCALE: 1"=5' (VERT.)



STORM DRAIN PROFILE
SCALE: 1"=50' (HORIZ.)
SCALE: 1"=5' (VERT.)



PIPE SUMMARY		
SIZE	TYPE	QUANTITY (LF)
4"	PERF. PVC	304
12"	HDPE	72
15"	HDPE	242

NO.	TYPE	WIDTH (INSIDE)	TOP ELEVATION				INVERT				STD. DETAIL	LOCATION	REMARKS	
			PROPOSED		ASBUILT		PROPOSED		ASBUILT					
			UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER				
ES-1	END SECTION	15"	616.15	616.15					614.90			HO. CO. D-5.5.1	SEE SHEET 14	
M-2	NYLOPLAST DRAIN BASIN	24"	624.50	624.50					620.35	618.29		NYLOPLAST DRAIN	SEE SHEET 14	SOLID GRATE
M-3	NYLOPLAST DRAIN BASIN	24"	622.00	622.00					619.06	619.16		NYLOPLAST DRAIN	SEE SHEET 14	SOLID GRATE
I-4	TYPE 'S' INLET	48"	623.50	623.50					619.50	619.40		HO. CO. D-4.24	SEE SHEET 14	MBR #1
TD-5	TRENCH DRAIN	6"	626.30	625.30					624.80	621.30		ACO DRAIN	SEE SHEET 14	

Project No. 2017254.111		LOG OF BOREHOLE B-1		Sheet 1 of 1	
CLIENT: KCI Technologies		PROJECT: Western Regional Park			
ARCHITECT/ENGINEER:		SITE: Howard County, Maryland			
SURFACE ELEV: 624.0 ft.		DEPTH (FT)		SAMPLES	
0-2' Topsoil		3-4.5 N=9		1 SS 18/18 100% 22 69	
Moist, Firm, Orange Brown, SANDY LEAN CLAY (CL), with mica		3-5.0 N=9		2 SS 16/18 89% 17	
3.0 Moist Loose to Medium Dense, Orange Brown and Brown, SANDY SILT (ML), with mica		3-4.7 N=11		3 SS 14/18 78% 16 61	
		5-6.8 N=14		4 SS 15/18 83% 11	
10.0 End of Boring @ 10 ft		Borehole was backfilled after water level reading			
WATER LEVEL OBSERVATIONS		AB Consultants, Inc.		STARTED: 10/26/22 FINISHED: 10/26/22	
WL Dry @ 0 ft		4450 Annapolis Road		DRILL CO: ABC DRILLING CME-45	
WL Dry, cased in @ 5.5 ft @ 0 ft		Lanham, MD 20706		DRILLER: AE ASSTDILLER	
		Phone: 301-306-3091		LOGGED BY: APPROVED:	
		Fax: 301-306-3092			

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 33772 EXP. DATE: 06/16/2023

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
[Signature] 3/30/23
DIRECTOR DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
[Signature] 3/30/23
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION
[Signature] 3.24.23
DATE

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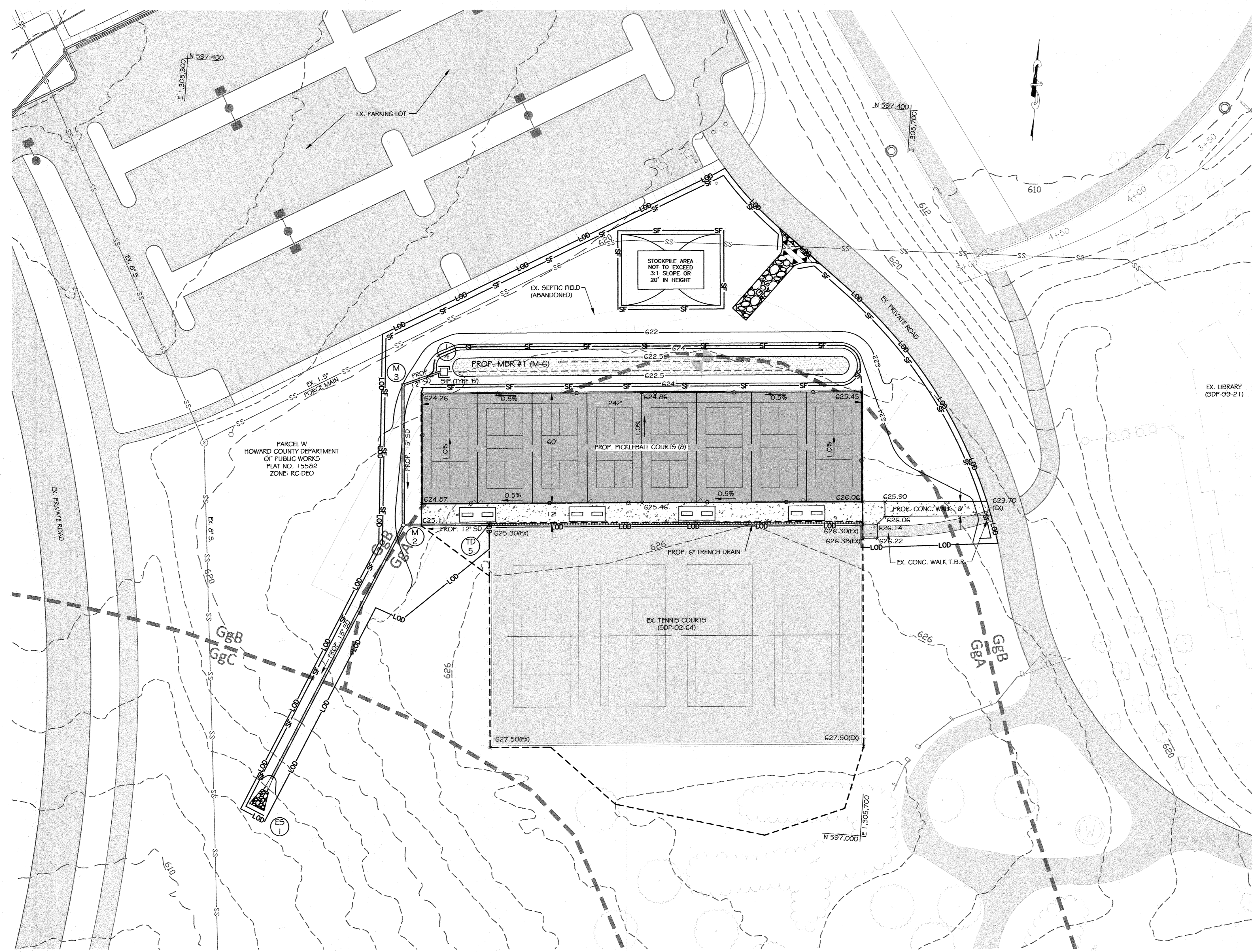
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REVISIONS			DATE	
NO.	DATE	DESCRIPTION	BY	
				11/21/2022
				SCALE 1"=40'
				DESIGNED BY EVM
				CHECKED BY NB

STORM DRAIN PROFILES - PICKLEBALL COURTS
GLENWOOD COMMUNITY CENTER
WESTERN REGIONAL PARK
PARCEL A
PLAT NO. 15582
HOWARD COUNTY, MARYLAND
ELECTION DISTRICT 4

DRAWING NO. SHEET 17 OF 20
KCI JOB NUMBER 171705999.111
171705999.111

PLOT: 2023-03-20 2:01:17 PM 171705999.111 Drawings/SDP-04-14 14.dwg 17-SDP-04-14-REV/SD PLAN.dwg



LEGEND

---	LOD	LIMIT OF DISTURBANCE
- - -	80	EX. CONTOUR
GgA		SOIL DIVIDE
GgC		SOIL DIVIDE
---	W	EX. CURB & GUTTER
---	SS	EX. WATER
---	SS	EX. SEWER
---	SD	EX. STORM DRAIN
---	C	EX. GAS
---	E	EX. ELECTRIC
---		EX. TREELINE
---	220	DRAINAGE AREA DIVIDE
---		PROP. CONTOUR
---		PROP. FENCE
---		PROP. STORM DRAIN
---		PROP. TRENCH DRAIN
---		EX. ASPHALT
---		PROP. ASPHALT
---		PROP. CONCRETE
B-1		SOIL BORING

- NOTES:**
- SILT FENCE MAY BE UPGRADED TO SUPER SILT FENCE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.
- SEQUENCE OF CONSTRUCTION**
- APPLY FOR GRADING PERMIT AND SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE COUNTY INSPECTOR. OBTAIN GRADING PERMIT FROM THE INSPECTOR AT THE MEETING. (1 DAY)
 - INSTALL STABILIZED CONSTRUCTION ENTRANCE (SCE), SILT FENCE. IF CLEARING AND GRUBBING IS REQUIRED TO INSTALL THE PERIMETER DEVICES, IT MUST BE LIMITED TO ONLY THAT AREA. (1 WEEK)
 - BEGIN MASS GRADING. (2 WEEKS)
 - INSTALL STORM DRAIN. (4 WEEKS)
 - INSTALL SIDEWALK AND PICKLEBALL COURTS. STABILIZE ALL OTHER AREAS WITH PERMANENT SEEDING. (1 MONTH)
 - FLUSH AND CLEAN STORM DRAIN.
 - CONSTRUCT THE MICRO-BIORETENTION FACILITY. (2 WEEKS)
 - WHEN PERMISSION HAS BEEN GRANTED BY THE SEDIMENT CONTROL INSPECTOR, AND ALL AREAS DRAINING TO THE SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED, REMOVE THE SEDIMENT CONTROLS. CONTRACTOR IS TO IMMEDIATELY STABILIZE AREAS DISTURBED DURING THE REMOVAL OF THE DEVICES. (1 WEEK)
- NOTE:** WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, SOME OF THE ITEMS DESCRIBED ABOVE MAY BE PERFORMED CONCURRENTLY.

OWNERS / DEVELOPERS CERTIFICATION

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE."

[Signature] 3/9/2023
OWNER / DEVELOPER SIGNATURE DATE

A. RAUL DELERME DIRECTOR
PRINTED NAME & TITLE

DESIGN CERTIFICATION

"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

[Signature] 3/4/23
DESIGNER'S SIGNATURE DATE

Nicholas A. Bannick, P.E.
PRINTED NAME MD REGISTRATION NO. 32972

SOILS

SYMBOL	SOIL NAME	HSG	K _f FACTOR
GgA	GLENELG LOAM, 0-3% SLOPES	B	0.24
GgB	GLENELG LOAM, 3-8% SLOPES	B	0.24
GgC	GLENELG LOAM, 8-15% SLOPES	B	0.24

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 3/30/23
DIRECTOR DATE

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

[Signature] 03/21/23
HOWARD S.C.D. DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT
[Signature] 5/31/23
DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION
[Signature] 3.24.23
DATE

ENGINEER

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OWNER/DEVELOPER

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ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS

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REVISIONS				DATE
NO.	DATE	DESCRIPTION	BY	11/21/2022

SCALE: 1"=30'

DESIGNED BY: EVM
CHECKED BY: NB

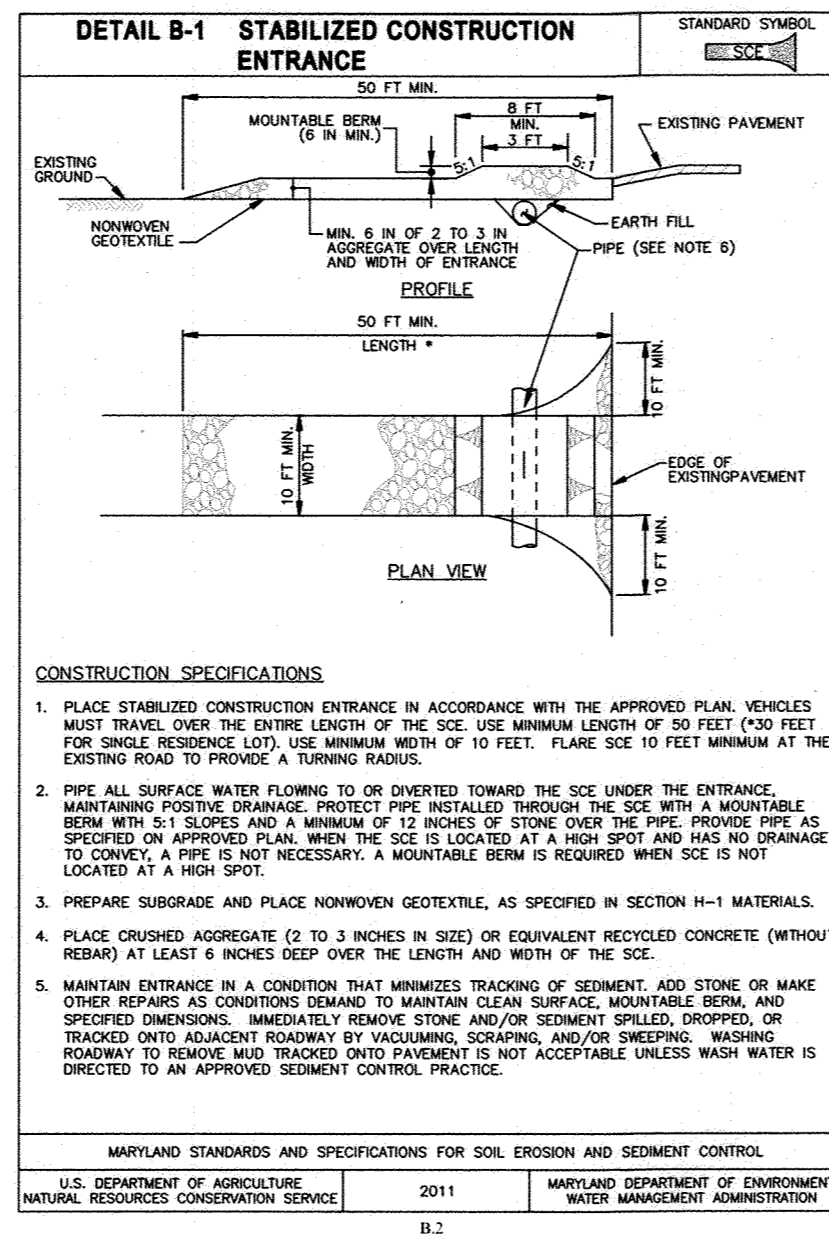
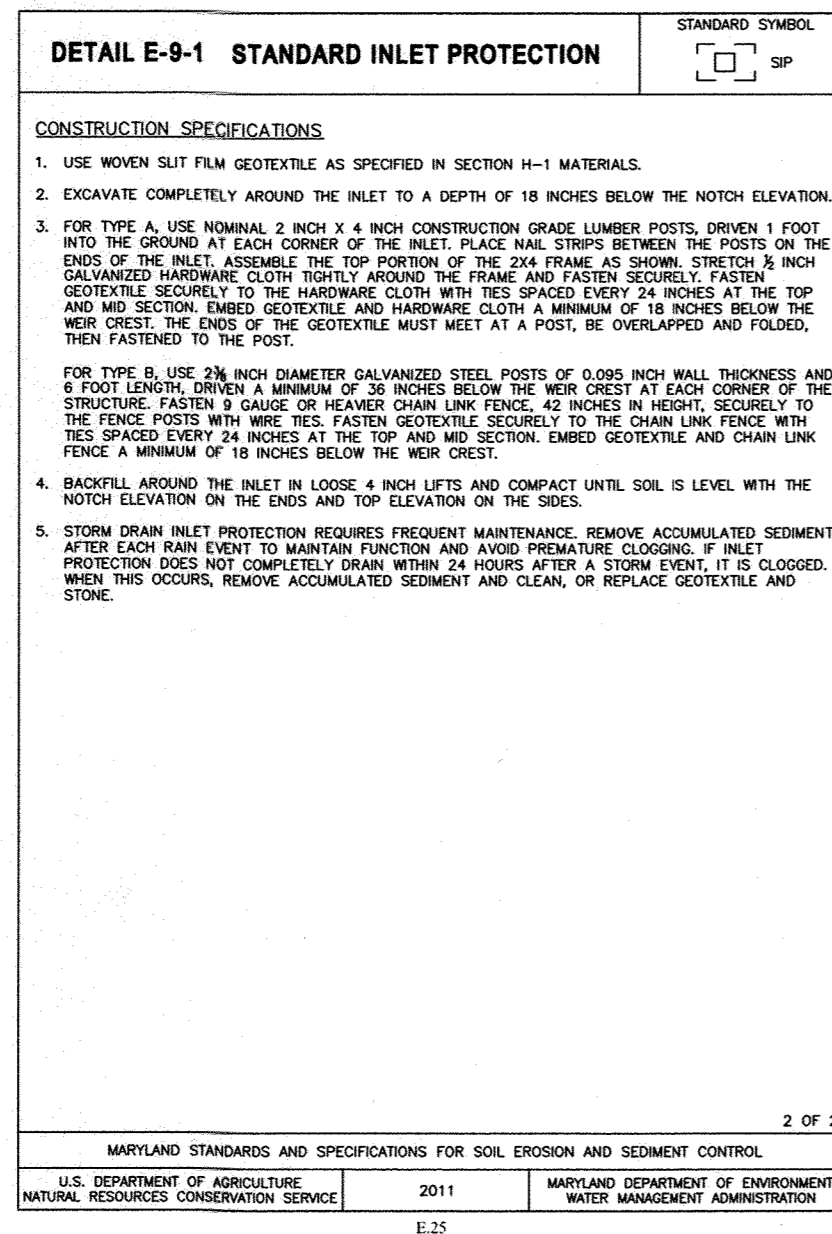
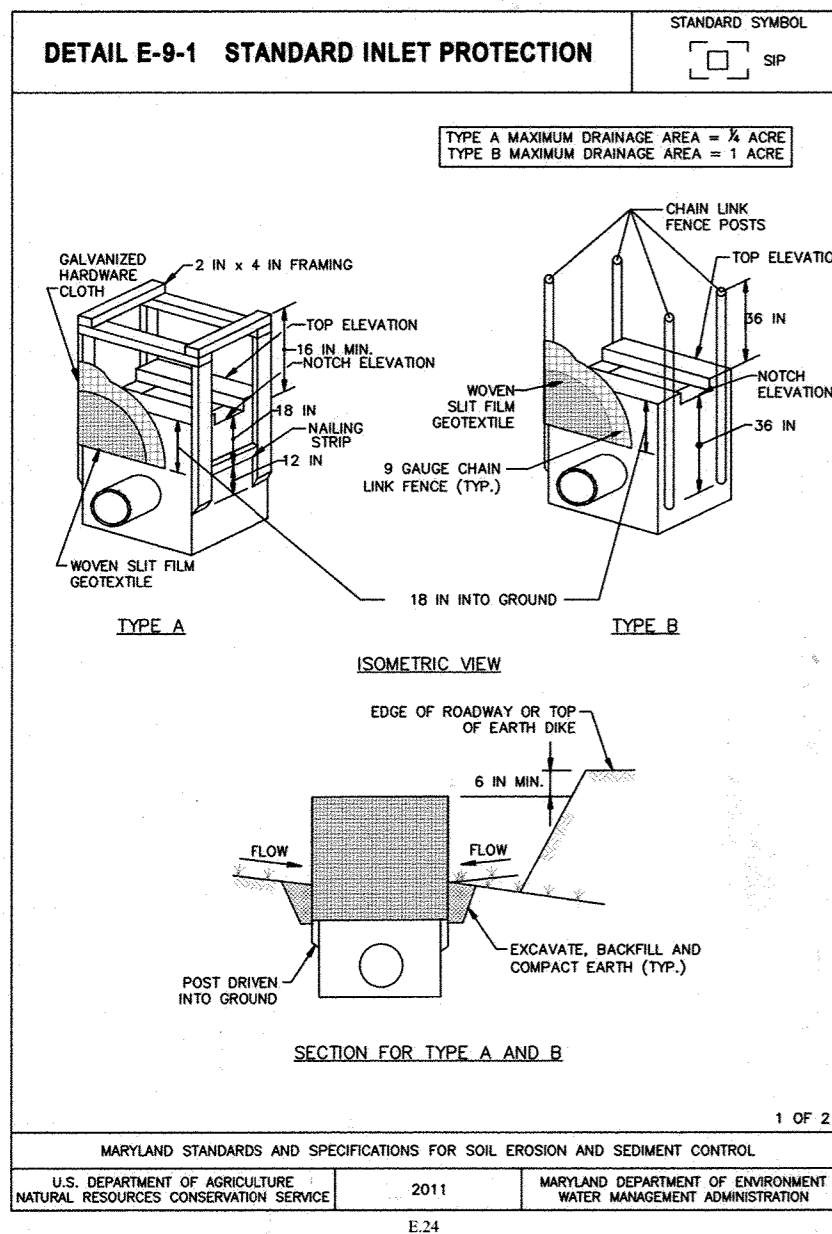
SEDIMENT & EROSION CONTROL PLAN - PICKLEBALL COURTS
GLENWOOD COMMUNITY CENTER
WESTERN REGIONAL PARK
PARCEL A
PLAT NO. 15582

HOWARD COUNTY, MARYLAND
ELECTION DISTRICT 4

DRAWING NO. SHEET 18 OF 20
KCI JOB NUMBER 171705999.111

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 33772 EXP. DATE: 06/16/2023

PLOTED: 3/29/23 2:05:17 PM 11/16/2022 1:11 Drawings\SDP-04-134 Howard\18-SDP-04-134-REV1 SEC PLAN.dwg



B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

PURPOSE
TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.

CRITERIA

- SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B.1 PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN.
- FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.
- WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.A.1.B AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

HARDINESS ZONE (FROM FIGURE B.3): 7A					FERTILIZER RATE (10-20-20)	LIME RATE
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS		
	BARLEY	96	2/15-4/30 8/15-11/30	1.0"	436 LB/AC (10LB/1000SF)	2 TONS/AC (90LB/1000SF)
	CEREAL RYE	112	2/15-4/30 8/15-12/15	1.0"		
	FOXTAIL MILLET	30	5/1-8/14	0.5"		

c. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES

WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 5B, 6A)

CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 6B)

SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 7A, 7B)

d. TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONES AND DEBRIS OVER 1 1/2 INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY.

e. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (1/2 TO 1 INCH EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASONS, OR ON ADVERSE SITES.

HARDINESS ZONE (FROM FIGURE B.3): 7A					FERTILIZER RATE (10-20-20)			LIME RATE
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	P2O5	K2O	
4	DEERTONGUE CREEPING RED FESCUE	15	3/1-5/15 8/15-10/15	0.5"	45LB/AC (1LB/1000SF)	90LB/AC (2LB/1000SF)	90LB/AC (2LB/1000SF)	2 TONS/AC (90LB/1000SF)
6	TALL FESCUE PERENNIAL RYEGRASS	40	3/1-5/15 8/15-10/15	0.5"				
9	TALL FESCUE KENTUCKY BLUEGRASS	60	3/1-5/15 8/15-10/15	0.5"				

2. SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).

A. GENERAL SPECIFICATIONS

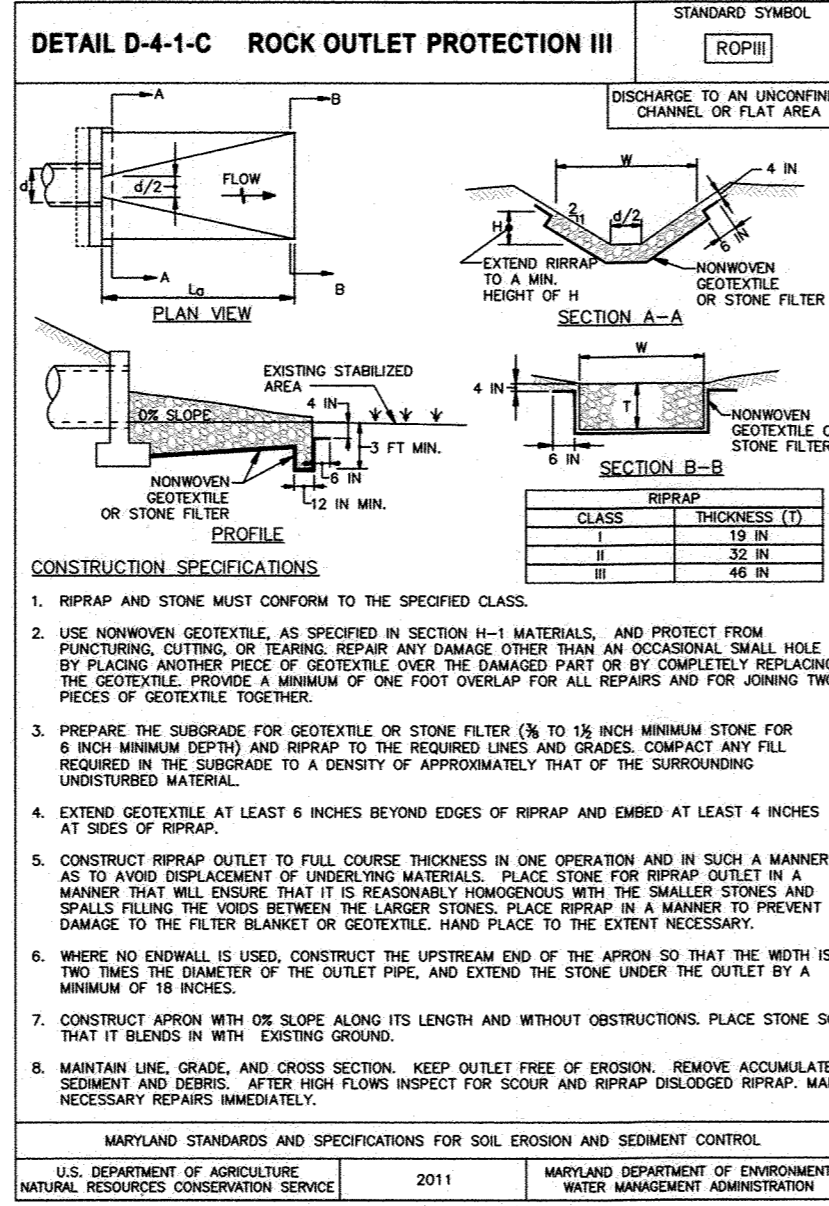
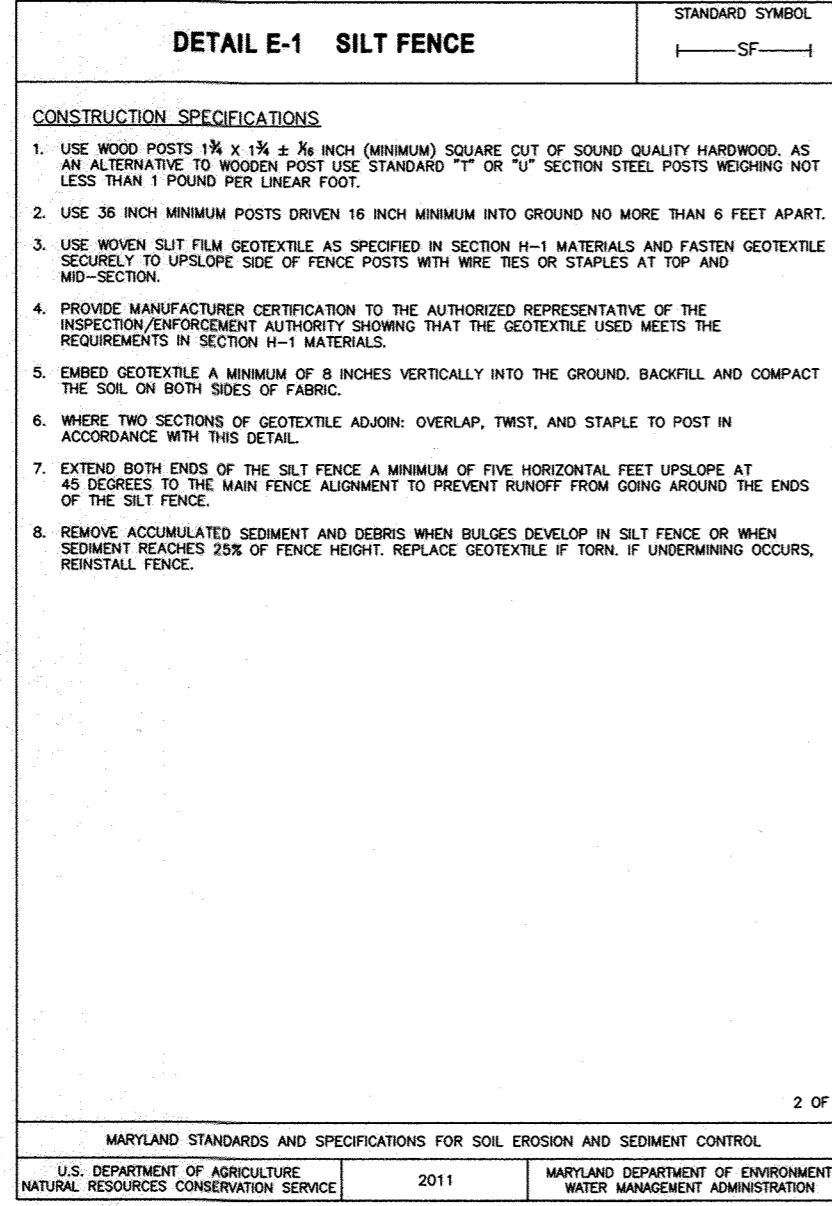
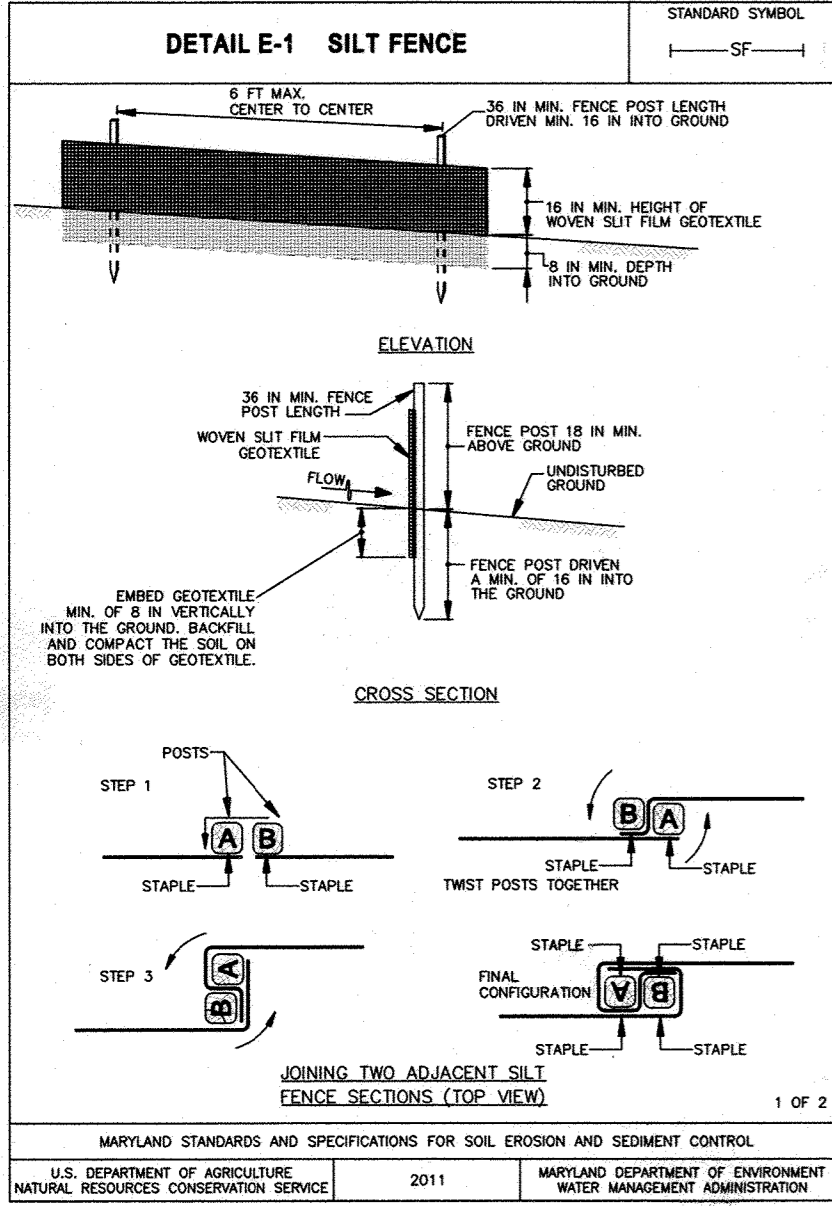
- CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD LABELS MUST BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR.
- SOD MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4 INCH, PLUS OR MINUS 1/8 INCH, AT THE TIME OF CUTTING. MEASUREMENT FOR THICKNESS MUST EXCLUDE TOP GROWTH AND THATCH. BROKEN STRAWS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTABLE.
- STANDARD SIZE SECTIONS OF SOD MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.
- SOD MUST NOT BE HARVESTED OR TRANSPANTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL.
- SOD MUST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPANTED WITHIN THIS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.

B. SOD INSTALLATION

- DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE THE SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
- LAY THE FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO IT AND TIGHTLY WEDGED AGAINST EACH OTHER. STAGGER LATERAL JOINTS TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS.
- WHEREVER POSSIBLE, LAY SOD WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERING JOINTS. ROLL AND TAMP, PEG OR OTHERWISE SECURE THE SOD TO PREVENT SLIPPAGE ON SLOPES. ENSURE SOLID CONTACT EXISTS BETWEEN SOD ROOTS AND THE UNDERLYING SOIL SURFACE.
- WATER THE SOD IMMEDIATELY FOLLOWING ROLLING AND TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD WITHIN EIGHT HOURS.

C. SOD MAINTENANCE

- IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATER SOD DURING THE HEAT OF THE DAY TO PREVENT WILTING.
- AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT.
- DO NOT MOW UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN 1/2 OF THE GRASS LEAF MUST BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLESS OTHERWISE SPECIFIED.



B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

PURPOSE
TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

CRITERIA

- SEED MIXTURES
 - GENERAL USE
 - SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
 - ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DUNES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD OFFICE GUIDE, SECTION 342 - CRITICAL AREA PLANTING.
 - FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY.
 - FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3 1/2 POUNDS PER 1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.
 - TURFGRASS MIXTURES
 - AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.
 - SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
 - KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 - KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. CERTIFIED PERENNIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 - TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN DROUGHT PRONE AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES: CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT. SEEDING RATE: 5 TO 8 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.
 - KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES: CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND 60 TO 70 PERCENT. SEEDING RATE: 1 1/2 TO 3 POUNDS PER 1000 SQUARE FEET.

NOTES:
SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND" CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE.

OWNERS / DEVELOPERS CERTIFICATION

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE."

A. Basil DeLorme 3/9/2023
OWNER / DEVELOPER SIGNATURE DATE

A. Basil DeLorme DIRECTOR
PRINTED NAME & TITLE

DESIGN CERTIFICATION

"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Nicholas Canale, P.E. 3/16/23
DESIGNER'S SIGNATURE DATE

Nicholas Canale, P.E. 33222
PRINTED NAME MD REGISTRATION NO.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Am Gow 3/30/23
DIRECTOR DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief 5/30/23
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chief 3-24-23
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

ENGINEER
KCI TECHNOLOGIES, INC.
11830 W. MARKET PLACE, SUITE F
FULTON, MD 20759
CONTACT: EVAN MITCHELL
EMAIL: EVAN.MITCHELL@KCI.COM
PHONE: (301) 882-9529

OWNER/DEVELOPER
HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS
7120 OAKLAND MILLS ROAD
COLUMBIA, MD 21046
ATTN: JASON THOMPSON
EMAIL: JTHOMPSON@HOWARDCOUNTYMD.GOV
PHONE: (410) 313-4031

ENGINEERS
PLANNERS
SCIENTISTS
CONSTRUCTION MANAGERS
11830 WEST MARKET PLACE
SUITE F
FULTON, MD 20759
TELEPHONE: (410) 792-8086
FAX: (410) 792-7419

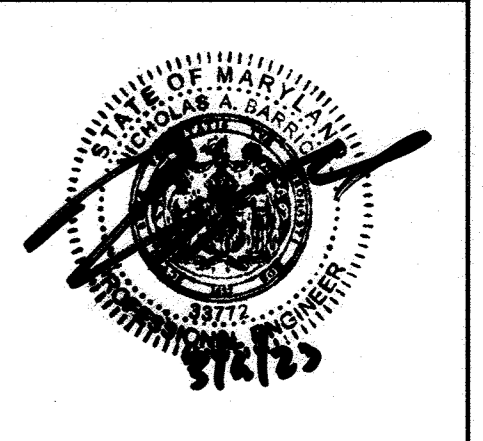
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		DESIGNED BY EWM
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SEDIMENT & EROSION NOTES AND DETAILS - PICKLEBALL COURTS

GLENWOOD COMMUNITY CENTER
WESTERN REGIONAL PARK
PARCEL A
PLAT NO. 15582

HOWARD COUNTY, MARYLAND
ERLECTION DISTRICT 4

DRAWING NO. SHEET 20 OF 20
KCI JOB NUMBER 171705989-111



PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 33772 EXP. DATE: 06/16/2023