

RIVER HILL HIGH SCHOOL

Legend

	PROPERTY LINE
	R/W LINE
	EXISTING CONTOUR
	EXISTING BUILDING
	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
	EXISTING WATER LINE
	EXISTING STORM DRAIN MANHOLE
	EXISTING STORM DRAIN
	EXISTING STORM DRAIN LINE
	EXISTING SANITARY SEWER MANHOLE
	EXISTING SANITARY SEWER LINE
	PROPOSED FENCE
	PROPOSED CURB & GUTTER
	PROPOSED CONTOUR

APPROVED: DEPARTMENT OF PLANNING & ZONING

12/30/01 DATE

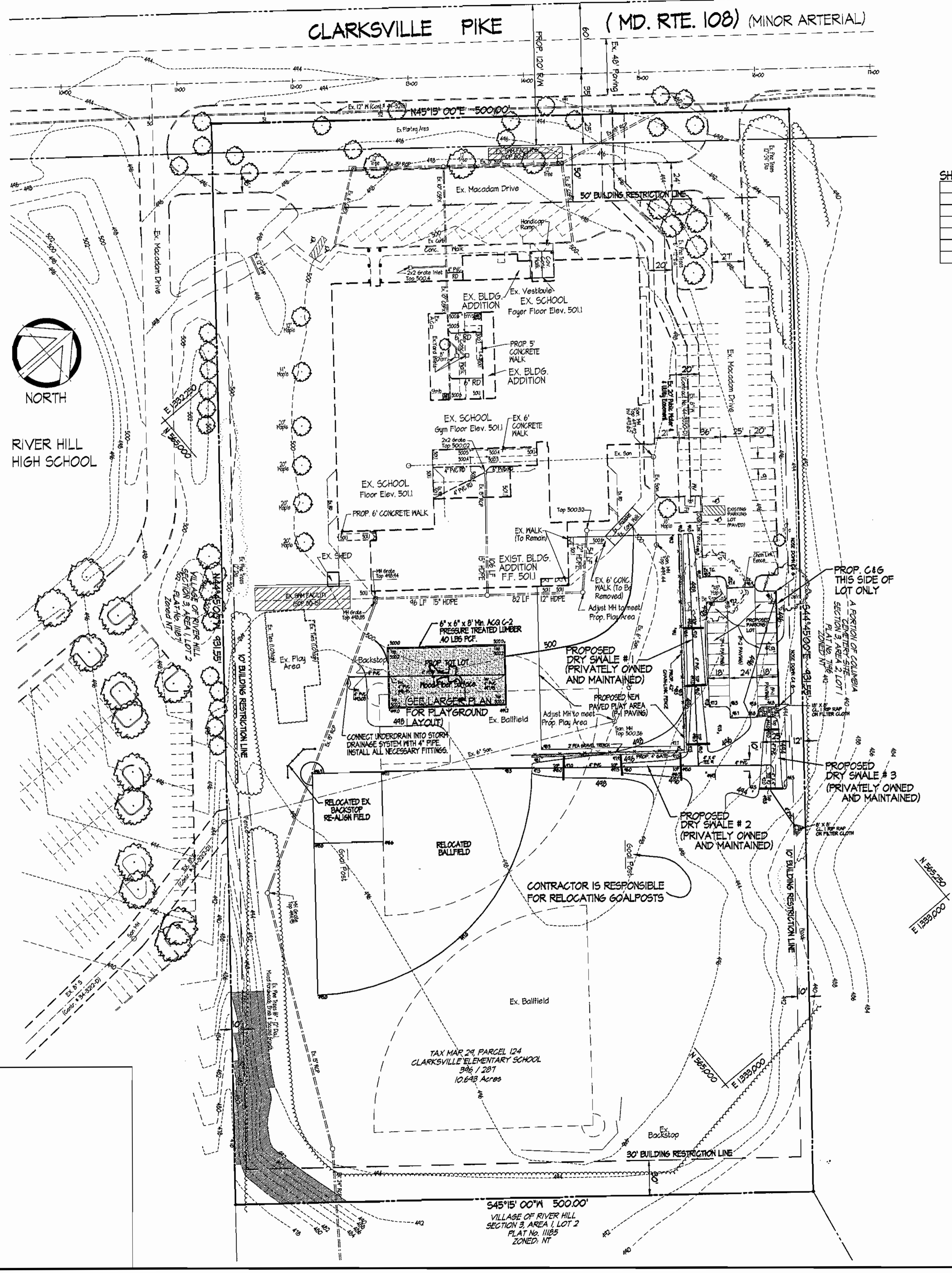
12/16/01 DATE

12/17/01 DATE

12-10-01 DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS

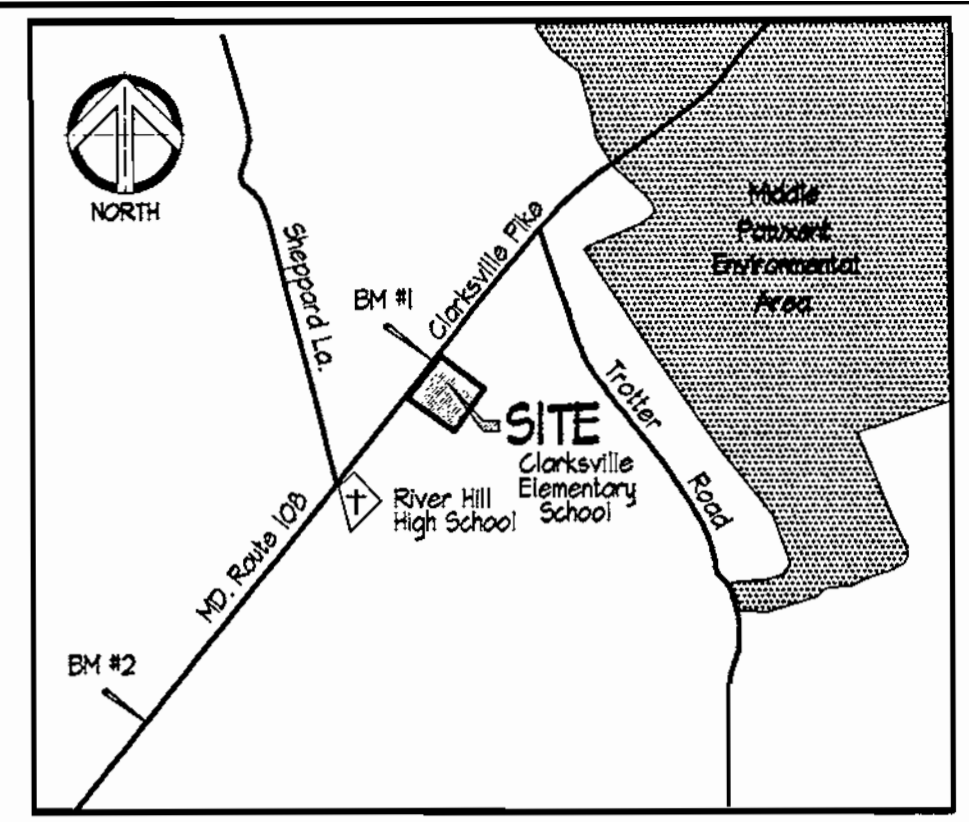
12-10-01 DATE



SHEET #	DRAWING TITLE
1	SITE DEVELOPMENT PLAN
2	SEDIMENT AND EROSION CONTROL PLAN
3	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
4	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
5	SITE DETAILS
6	WATER QUALITY PLAN & DETAILS
7	LANDSCAPE PLAN

GENERAL NOTES

- The existing topography shown was field run by Shorabarger & Lane on April 24, 2001 and supplemented by aerial topography.
- Department of Planning & Zoning reference file numbers are SDP 80-15, SDP 01-141, MP 48-44, Mp 48-128, Mp 00-111, MP-01-130 for relocatable trailers.
- All roadways are existing and private.
- The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System - Howard County Monuments No's 2731002 & 2031004.
- The contractor shall notify the Department of Public Works / Construction Inspection Division at (410) 318-1880 at least (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-251-7111 at least 48 hours prior to any excavation work.
- No clearing, grading or construction is permitted within wetlands and stream buffers or forest conservation areas.
- Vehicular ingress and egress into public right-of-way is restricted except at locations approved by the Howard County Dept. of Planning & Zoning.
- Public water and sewer exists on-site. Water contract # 44-3350 D Sewer Contract # 34-3212 D.
- No damage to county owned right-of-way to be corrected at the developer's expense.
- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
- Information concerning underground utilities was obtained from available records, but the contractor must determine the exact location of utilities by digging test pits, by hand, at all crossings prior to construction.
- No Wetland exists on-site per letter from Exploration Research, dated 5/1/01.
- Storm Water Management provided in Dry Swales and shall be privately owned and maintained.
- Forest Conservation Note: This project is subject to a Declaration of Intent is for clearing less than 40,000 SF of forest on the site. There is no forest on the site and no forest is proposed for clearing.
- No floodplains as defined by Howard County Department of Public Works exist on-site.
- There is no landscape surety for this project.
- The extent of Phase II: a new play area, shifting a ballfield and relocating the backstop. There are 21 new parking spaces, stormwater management, landscaping and grading.



THE HORIZONTAL AND VERTICAL CONTROL USED IN THIS SURVEY IS BASED ON HOWARD COUNTY GEODETIC CONTROL POINTS 2465 & 246A:

	NAD 83	NAVD 24
2465	N 568,341.204 E 1,335,942.478	EL. 388.13
2462	N 566,267.462 E 1,333,225.606	EL. 450.744

BENCHMARKS SET:

TRAV. #	NAD 83	NAVD 24	EL.
1	N 565,086.2742 E 1,332,541.3405		EL. 500.63
2	N 565,224.3042 E 1,332,751.1514		EL. 446.40

SITE ANALYSIS

- AREA OF SITE: 10,643 Ac.±
- LIMIT OF DISTURBED AREA: 2.03 Ac.±
- PRESENT ZONING DESIGNATION: R-20
- PROPOSED USE: ADDITION TO PARKING LOT & NEW PLAY AREA
- FLOOR SPACE TABULATION

	EXISTING SCHOOL	NEW PLAY AREA
TOTAL	54,130 SF	136 Ac.
TOTAL	54,130 SF	136 Ac.

- PARKING TABULATION

	EXISTING SPACES	PROPOSED SPACES	TOTAL SPACES
Parking Spaces Required	61 spaces	4 HC	
Existing Spaces	21 spaces		
Proposed Spaces		21 spaces	
TOTAL SPACES			86 spaces

- AREA TABULATION

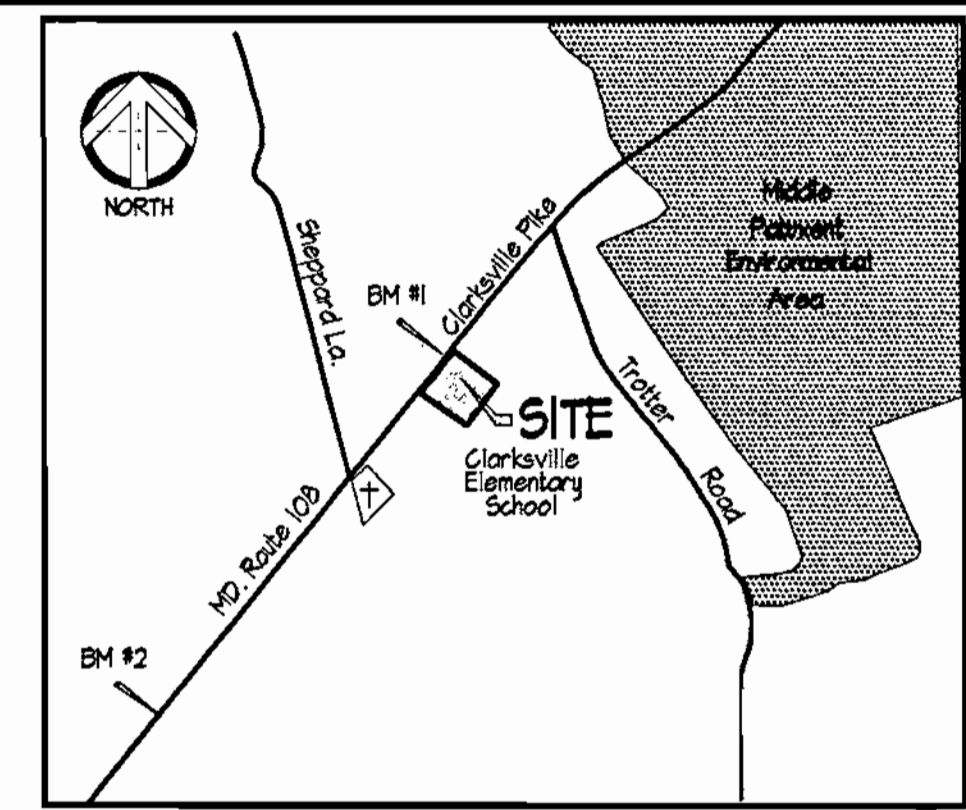
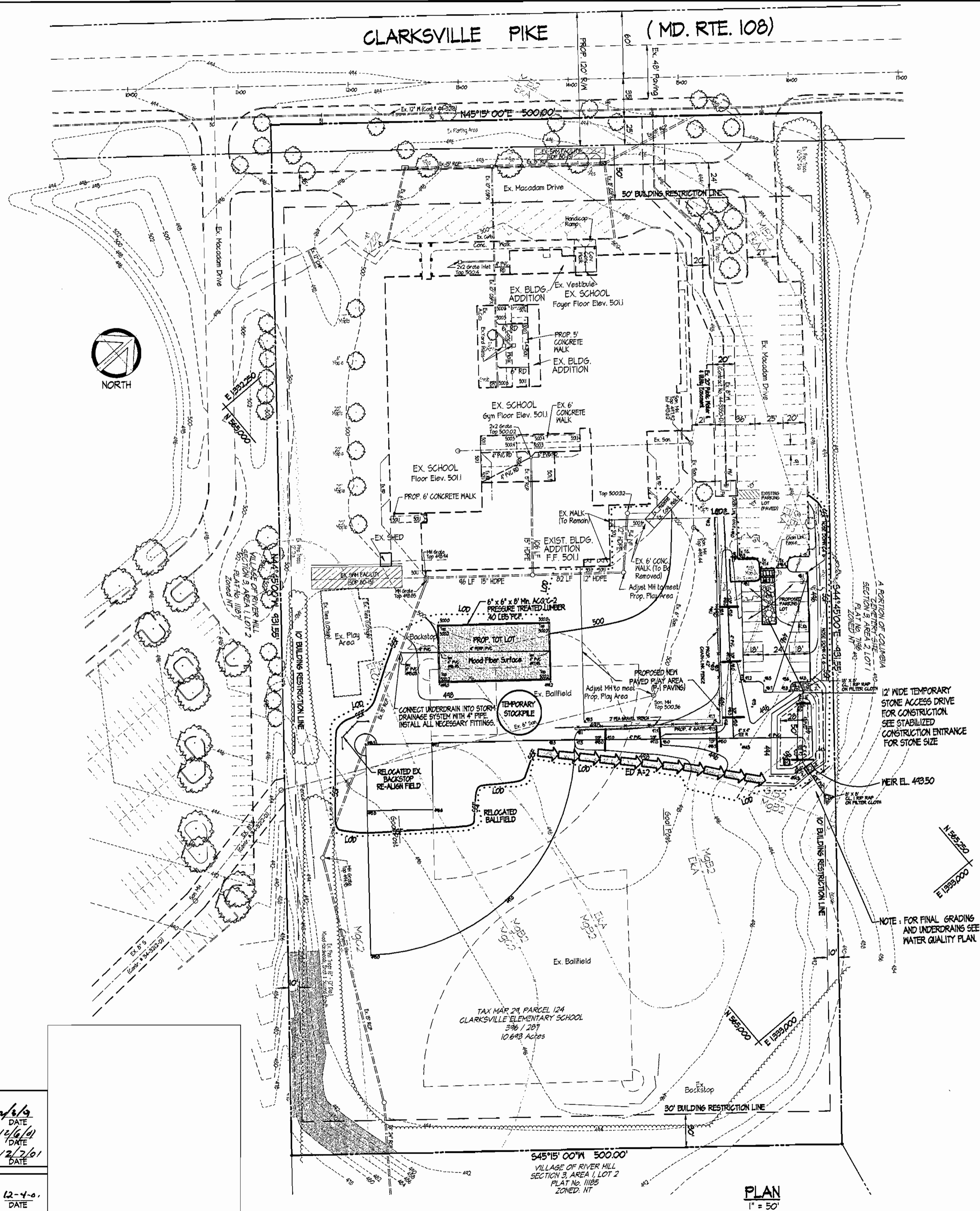
	PROPOSED BUILDING COVERAGE	PAVED PARKING AREA	GREEN AREA
Proposed Building Coverage	136 Ac.		
Paved Parking Area		135 Ac.	
Green Area			1.98 Ac. (18%)

Clarksville Elementary School Additions - Renovations
 12041 Md. Route 108 Clarksville, Maryland 21029
 5th Election District Howard County, Maryland
 Tax Map 24 Grid 14 Parcel 124 Zoning: R-20 Deed Ref: 346 / 287

Site Development Plan PH II

REVISIONS

	<p>SITE RESOURCES Incorporated</p> <p>Comprehensive Land Planning & Site Design Services</p> <p>14307 Jarrattville Pike • Phoenix, Maryland 21131 (410) 683-3388 • fax (410) 683-3389</p>
<p>CONTRACT NO.:</p> <p>SCALE: 1" = 50'</p> <p>SRI PROJECT NO: 01048</p> <p>SHEET 1 OF 7</p>	<p>Copyright: Site Resources, Inc. 05/15/01 25 AM 01048_Site_Dev_Plan.dwg</p>



VICINITY MAP
Scale: 1" = 2000'

THE HORIZONTAL AND VERTICAL CONTROL USED IN THIS SURVEY IS BASED ON HOWARD COUNTY GEODETIC CONTROL POINTS 2465 & 246A.

	NAD 83	NAD 24
2465	N 568,341.204 E 1,335,342.473	EL. 388.13
2462	N 566,867.462 E 1,333,325.606	EL. 450.741

BENCHMARKS SET:

TRAV. 1	N 565,086.2142 E 1,332,341.3405	EL. 500.63
TRAV. 2	N 565,224.3042 E 1,332,757.1574	EL. 446.40

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

Jim Myers 11/15/01
DATE

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

John Holcomb 11/15/01
DATE

HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE

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

Jeffrey Schulz 11/7/01
DATE

ENGINEER

DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

Cathleen Conley Young 11/7/01
DATE

DEVELOPER

Clarksville Elementary School Additions - Renovations
12041 Md. Route 108 Clarksville, Maryland 21024
5th Election District Howard County, Maryland
Tax Map 24 Grid 14 Parcel 124 Zoning: R-20 Deed Ref. 346 / 287

Erosion & Sediment Control Plan

REVISIONS	

	SITE RESOURCES INCORPORATED Comprehensive Land Planning & Site Design Services 14307 Jarrettsville Pike • Phoenix, Maryland 21131 (410) 683-3388 • Fax (410) 683-3389
	DRAWN BY: TPD CONTRACT NO.: DESIGNED BY: RLR SCALE: 1" = 50' CHECKED BY: JLS SRI PROJECT NO: 01048 DATE: Nov 2, 2001 SHEET 2 OF 7

Legend

	PROPERTY LINE
	RIGHT OF WAY LINE
	EXISTING CONTOURS
	PROPOSED CONTOUR
	LIMIT OF DISTURBANCE
	STABILIZED CONSTRUCTION ENTRANCE W/ MOUNTABLE BERM
	SUPER SILT FENCE
	EARTH DIKE
	TEMPORARY SUMP PIT
	TREE PROTECTION FENCE

SEDIMENT TRAP #1

TYPE: Stone Outlet Sediment Trap, ST-11

DRAINAGE AREA:	Exist. = 130 Ac.
	Prop. = 130 Ac.
NET STORAGE REQUIRED:	2340 CF
NET STORAGE PROVIDED:	2781 CF
DRY STORAGE REQUIRED:	2340 CF
DRY STORAGE PROVIDED:	2356 CF
TOTAL REQUIRED:	4680 CF
TOTAL PROVIDED:	5137 CF
CLEANOUT REQ'D:	1170 CF
CLEANOUT PROVID:	801.5 CF
NET STORAGE OUTLET ELEV:	442.50
EX. GROUND @ Q & EMBANKMENT:	442.50
TRAP BOTTOM:	441.0
NET STORAGE ZONE:	441.0-442.50
DRY STORAGE ZONE:	442.5-443.50
CREST ELEVATION:	444.5
CLEANOUT ELEVATION:	441.50
BOTTOM DIMENSION:	50'x20' (IRREGULAR)
2:1 SLOPES:	444.50
EMBANKMENT ELEVATION:	444.50
WEIR LENGTH:	8.0'

APPROVED: DEPARTMENT OF PLANNING & ZONING

[Signature] 12/6/01
DATE

CHIEF DEVELOPMENT ENGINEERS DIVISION

[Signature] 12/26/01
DATE

CHIEF DIVISION OF LAND DEVELOPMENT, JA

[Signature] 12/26/01
DATE

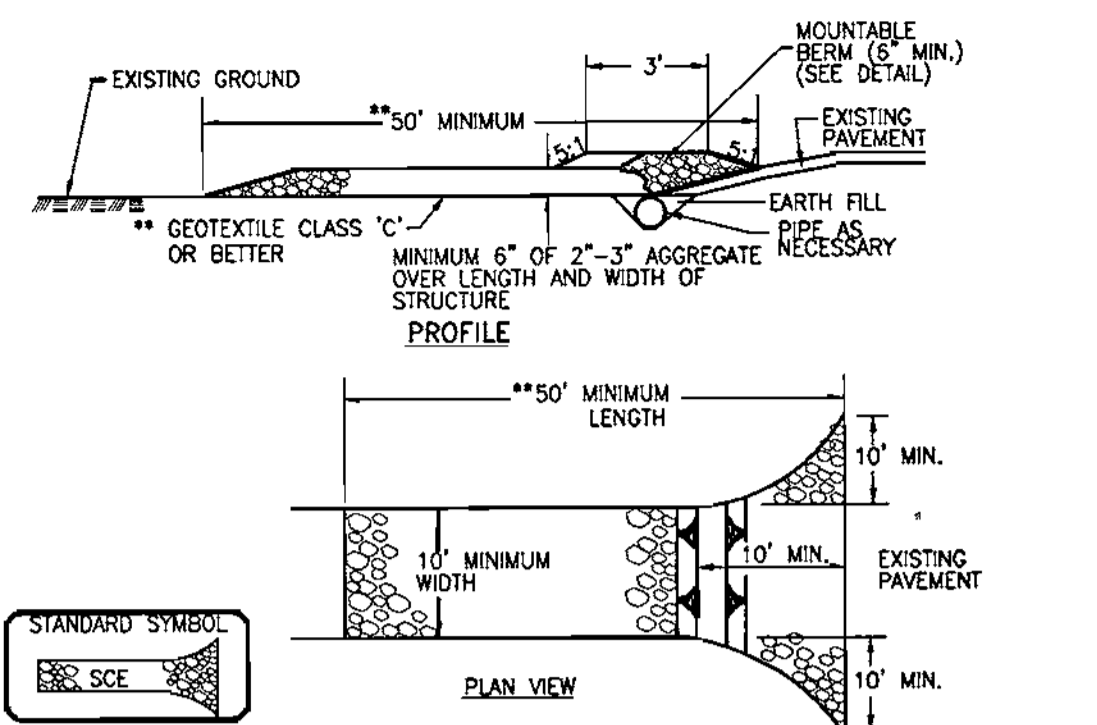
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS

[Signature] 12-4-01
DATE

COUNTY HEALTH OFFICER

HOWARD COUNTY HEALTH DEPARTMENT

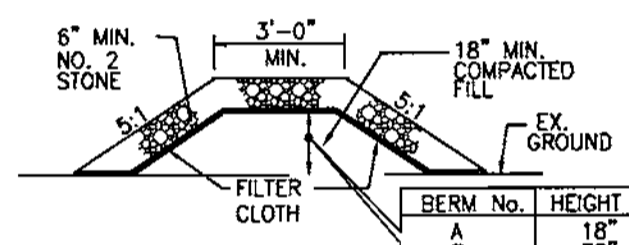
PLAN
1" = 50'



- CONSTRUCTION SPECIFICATION**
- LENGTH - MINIMUM OF 50' (+30' FOR SINGLE RESIDENCE LOT).
 - WIDTH - 10' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
 - GEOTEXTILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE. **THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE.
 - STONE - CRUSHED AGGREGATE (2" TO 3") OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE.
 - SURFACE WATER - ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 6" OF STONE OVER THE PIPE. PIPE HAS TO BE SIZED ACCORDING TO THE DRAINAGE. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE WILL NOT BE NECESSARY. PIPE SHOULD BE SIZED ACCORDING TO THE AMOUNT OF RUNOFF TO BE CONVEYED. A 6" MINIMUM WILL BE REQUIRED.
 - LOCATION - A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.

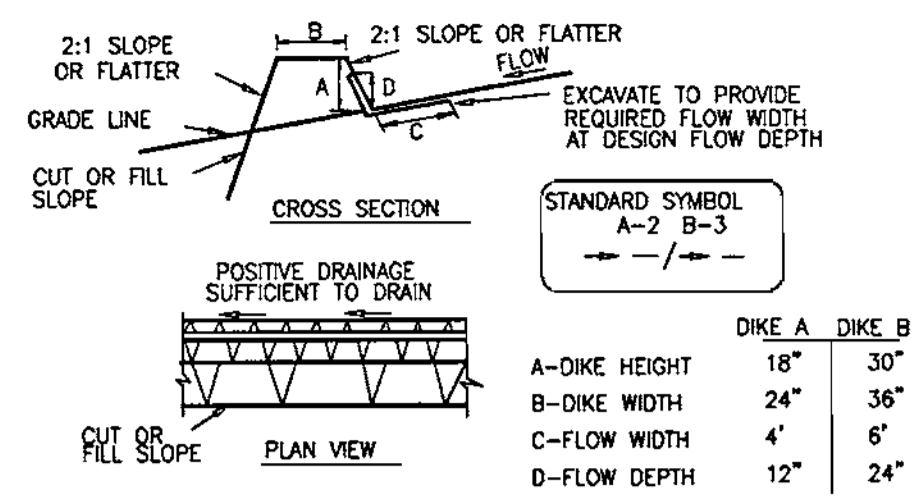
STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



MOUNTABLE BERM

NOT TO SCALE

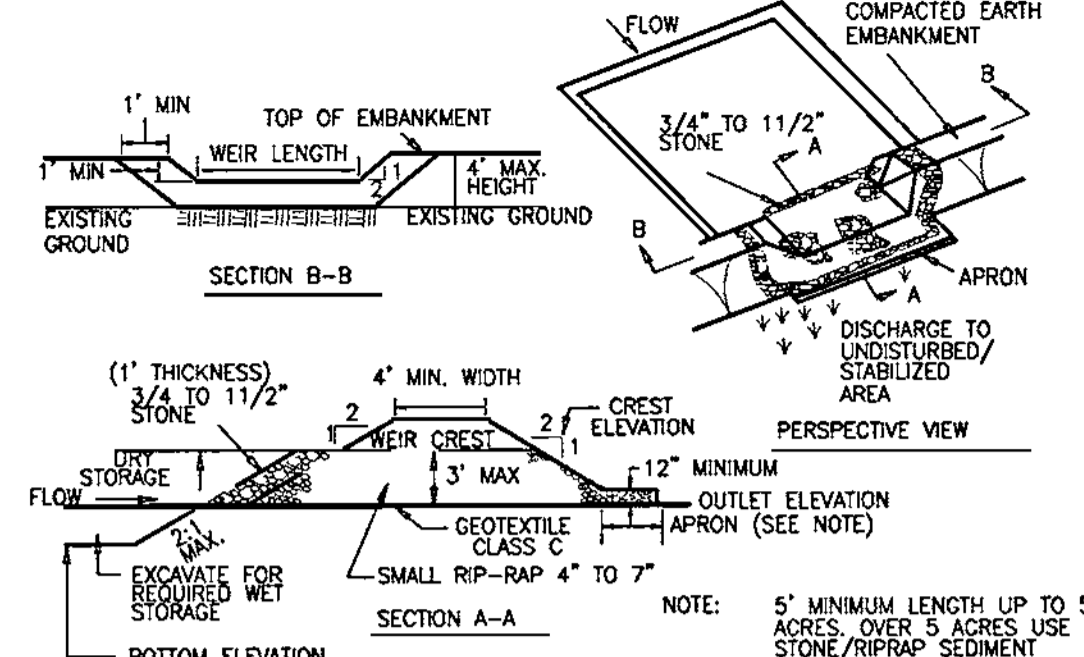


- SEED AND COVER WITH STRAW MULCH.
- SEED AND COVER WITH EROSION CONTROL MATTING OR LINE WITH SOD.
- 4" - 7" STONE OR RECYCLED CONCRETE EQUIVALENT PRESSED INTO THE SOIL 7" MINIMUM.

- CONSTRUCTION SPECIFICATIONS**
- ALL TEMPORARY EARTH DIKES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET. SPOT ELEVATIONS MAY BE NECESSARY FOR GRADES LESS THAN 1%.
 - RUNOFF DIVERTED FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
 - RUNOFF DIVERTED FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED, STABILIZED AREA AT A NON-EROSIVE VELOCITY.
 - ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONAL MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE DIKE.
 - THE DIKE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
 - FILL SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
 - ALL EARTH REMOVED AND NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE DIKE.
 - INSPECTION AND MAINTENANCE MUST BE PROVIDED PERIODICALLY AND AFTER EACH RAIN EVENT.

EARTH DIKE

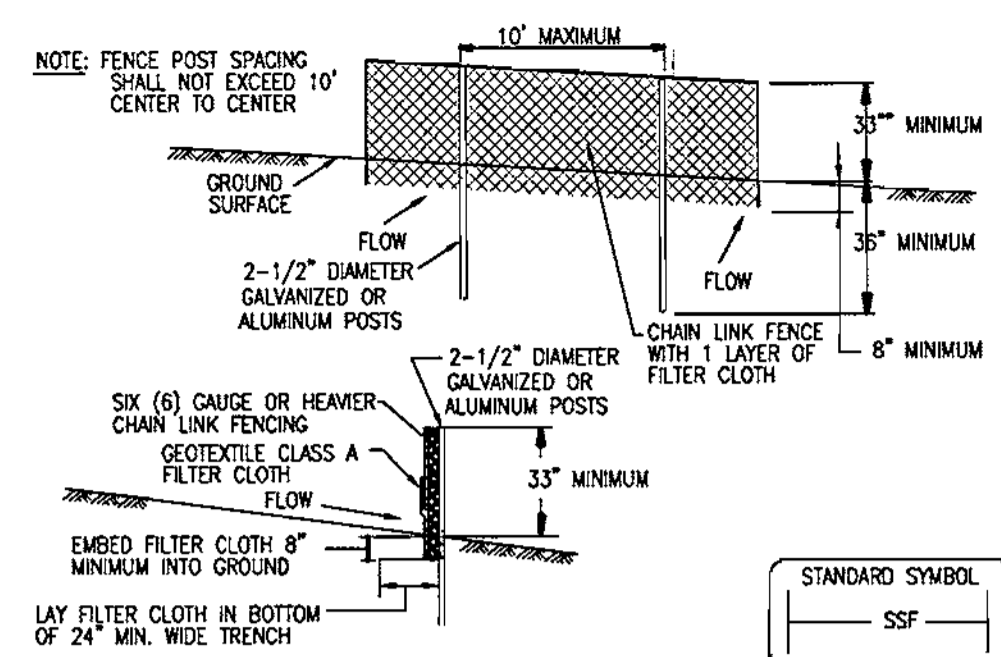
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- CONSTRUCTION SPECIFICATIONS**
- AREA UNDER EMBANKMENT SHALL BE CLEARED, CRUSHED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
 - THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONAL MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVELING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
 - ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
 - THE STONE USED IN THE OUTLET SHALL BE SMALL RIP-RAP 4" TO 7" IN SIZE WITH A 1" THICK LAYER OF 3/4" TO 1 1/2" WASHED AGGREGATE PLACED ON THE UPSTREAM FACE OF THE OUTLET. STONE FACING SHALL BE AS NECESSARY TO PREVENT CLOGGING. GEOTEXTILE CLASS C MAY BE SUBSTITUTED FOR THE STONE FACING BY PLACING IT ON THE INSIDE FACE OF THE STONE OUTLET.
 - SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF OF THE WET STORAGE DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
 - THE STRUCTURE SHALL BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
 - CONSTRUCTION OF TRAPS SHALL BE CARRIED OUT IN SUCH A MANNER THAT SEDIMENT POLLUTION IS ABATED. ONCE CONSTRUCTED, THE TOP AND OUTSIDE FACE OF THE EMBANKMENT SHALL BE STABILIZED WITH SEED AND MULCH. POINTS OF CONCENTRATION RUNOFF SHALL BE PROTECTED IN ACCORDANCE WITH GRADE STABILIZATION STRUCTURE CRITERIA. THE REMAINDER OF THE INTERIOR SLOPES SHOULD BE STABILIZED (ONE TIME) WITH SEED AND MULCH UPON TRAP COMPLETION AND MONITORED AND MAINTAINED EROSION FREE DURING THE LIFE OF THE TRAP.
 - THE STRUCTURE SHALL BE DEWATERED BY APPROVED METHODS, REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
 - REFER TO SECTION D FOR SPECIFICATIONS CONCERNING TRAP DEWATERING.
 - MINIMUM TRAP DEPTH SHALL BE MEASURED FROM THE WEIR ELEVATION.
 - THE ELEVATION OF THE TOP OF ANY DIKE DIRECTING WATER INTO THE TRAP MUST EQUAL OR EXCEED THE ELEVATION OF THE TRAP EMBANKMENT.
 - GEOTEXTILE CLASS C SHALL BE PLACED OVER THE BOTTOM AND SIDES OF THE OUTLET CHANNEL. PRIOR TO THE PLACEMENT OF STONE SECTIONS OF FILTER CLOTH MUST OVERLAP AT LEAST 1' WITH THE SECTION NEAREST THE ENTRANCE PLACED ON TOP. THE FILTER CLOTH SHALL BE EMBEDDED AT LEAST 6" INTO EXISTING GROUND AT THE ENTRANCE OF THE OUTLET CHANNEL.
 - OUTLET - AN OUTLET SHALL BE PROVIDED, INCLUDING A MEANS OF CONVEYING THE DISCHARGE IN AN EROSION FREE MANNER TO AN EXISTING STABLE CHANNEL.

STONE OUTLET SEDIMENT TRAP - ST-II

NOT TO SCALE



- CONSTRUCTION SPECIFICATIONS**
- FENCING SHALL BE 42" IN HEIGHT AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST MARYLAND STATE HIGHWAY DETAILS FOR CHAIN LINK FENCING. THE SPECIFICATION FOR A 6" FENCE SHALL BE USED, SUBSTITUTING 42" FABRIC AND 6" LENGTH POSTS.
 - THE POSTS DO NOT NEED TO BE SET IN CONCRETE.
 - CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES OR STAPLES. THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, DRIVE ANCHORS AND POST CAPS ARE NOT REQUIRED EXCEPT ON THE ENDS OF THE FENCE. THE CHAIN LINK FENCING SHALL BE SIX (6) GAUGE OR HEAVIER.
 - FILTER CLOTH SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT THE TOP AND MID SECTION.
 - FILTER CLOTH SHALL BE EMBEDDED A MINIMUM OF 8" INTO THE GROUND.
 - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT BUILDUPS REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE, OR WHEN SILT REACHES 50% OF FENCE HEIGHT.

DETAIL H-26-3 SUPER SILT FENCE

NOT TO SCALE

CLARKSVILLE ELEMENTARY SCHOOL STANDARD SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (410-313-1955).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THEREOF.
- FOLLOWING INITIAL SOIL DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND SLOPES STEEPER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH NO. 1, CHAPTER 7 OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SEC. G). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:

TOTAL AREA OF SITE	10.69	ACRES
AREA DISTURBED	2.03	ACRES
AREA TO BE ROOFED OR PAVED	0.65	ACRES
AREA TO BE VEGETATIVELY STABILIZED	1.38	ACRES
TOTAL CUT	1200	CU. YDS.
TOTAL FILL	1200	CU. YDS.
LINEAR FEET SUPER SILT FENCE	610	LF.
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACKFILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

Jim Myers 11/15/01
 USDA - NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John M. Robinson 11/15/01
 HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE

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

Jeffrey J. Schmitt 11/7/01
 ENGINEER DATE

DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

Cathleen Conroy Young 11/7/01
 DEVELOPER DATE

Clarksville Elementary School Additions - Renovations

12041 Md. Route 108 Clarksville, Maryland 21029
 5th Election District Howard County, Maryland
 Tax Map 24 Grid 14 Parcel 124 Zoning: R-20 Deed Ref. 346 / 287

Erosion & Sediment Control Notes & Details

REVISIONS

	SITE RESOURCES Incorporated Comprehensive Land Planning & Site Design Services 14307 Laurelville Pike • Phoenix, Maryland 21131 (410) 683-3388 • Fax (410) 683-3389
	DRAWN BY: TPD CONTRACT NO.: DESIGNED BY: RLR SCALE: N/A CHECKED BY: JLS SRI PROJECT NO: 01048 DATE: Nov 2, 2001 SHEET 3 OF 7

APPROVED: DEPARTMENT OF PLANNING & ZONING

Conny Kramila 11/16/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

John J. Smith 12/7/01
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

John J. Smith 12/7/01
 DIRECTOR DATE

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS

David J. Mattingly M.D. F.S. 12-4-01
 COUNTY HEALTH OFFICER DATE

HOWARD COUNTY HEALTH DEPARTMENT

Section I : Vegetative Stabilization Methods and Materials

- Site Preparation**
- I. Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
 - II. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
 - III. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.
- Soil Amendments (Fertilizer and Lime Specifications)**
- I. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
 - II. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Names may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warranty of the producer.
 - III. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 95% - 100% percent will pass through a #20 mesh sieve.
 - IV. Incorporate lime and fertilizer into the top 3" - 5" of soil by disk or other suitable means.

- Seed Specifications**
- I. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.
 - Note: Seed tags shall be made available to the Inspector to verify type and rate of seed used.
 - II. Inoculant: The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use the rates the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75-80 degrees F. can weaken bacteria and make the inoculant less effective.

- Methods of Seeding**
- I. **Hydroseeding:** Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeder, or a cultipacker seeder.
 - a. If fertilizer is being applied at the time of seeding, the application rates will not exceed the following: N (Nitrogen): max. of 100 lbs/acre total of soluble nitrogen; P2O5 (Phosphorus): 300 lbs/acre; K2O (Potassium): 200 lbs/acre.
 - b. Lime: use only ground agricultural limestone (up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
 - c. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
 - II. **Dry Seeding:** This includes use of conventional drop or broadcast spreaders.
 - a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Tables. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
 - b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
 - III. **Drill or Cultipacker Seeding:** Mechanized seeders that apply and cover seed with soil.

- a. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4" of soil covering. Seedbed must be firm after planting.
 - b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
- F. Mutch Specifications (In order of preference)**
- I. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonably bright in color and shall not be moldy, rotting, decayed, or excessively dirty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
 - II. Wood Cellulose Fiber Mutch (MCFM)
 - a. MCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
 - b. MCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
 - c. MCFM, including dye, shall contain no germination or growth inhibiting factors.
 - d. MCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application having moisture absorption and perspiration properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
 - e. MCFM material shall contain no elements or compounds at concentration levels that will be phytotoxic.
 - f. MCFM must conform to the following physical requirements: fiber length to approximately 10 mm, diameter approximately 1 mm, pH range of 4.0 to 8.5, ash content of 16 percent maximum and water holding capacity of 40 percent minimum.

- Note: Only sterile straw mulch should be used in areas where one species of grass is desired.
6. **Mulching Seeded Areas:** Mutch shall be applied to all seeded areas immediately after seeding.
 - I. If grading is completed outside of the seeding season, mulch alone shall be applied as seeding in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.
 - II. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mutch shall be applied to a uniform loose depth of between 1" and 2". Mutch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.
 - III. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.

- H. **Securing Straw Mutch (Mutch Anchoring):** Mutch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion hazard.
 - I. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should be used on the contour if possible.
 - II. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 lbs/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.
 - III. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. The remainder of area should appear uniform after binder application. Synthetic binders such as Acrylic DLR (Agra-Tack), DCA-10, Polytress, Terra-Tax II, Terra-Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.
 - IV. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000 feet long.

Section II : Sod. To provide quick cover on disturbed areas (2:1 grade or flatter).

- A. General specifications**
- I. Class of turfgrass sod shall be Maryland or Virginia State Certified or Approved. Sod labels shall be made available to the job foreman and inspector.
 - II. Sod shall be machine cut at a uniform soil thickness of 3/4", plus or minus 1/4", at the time of cutting. Measurement for thickness shall exclude top growth and thatch. Individual pieces of sod shall be cut to the suppliers width and length. Maximum allowable deviation from standard widths and lengths shall be 5 percent. Broken pods and torn or uneven ends will not be acceptable.
 - III. Standard size sections of sod shall 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.
 - IV. Sod shall not be harvested or transported when moisture content (excessively dry or wet) may adversely affect its survival.
 - V. Sod shall be harvested, delivered, and installed within a period of 36 hours. Sod not transported within this period shall be approved by an agronomist or soil scientist prior to its installation.
- B. Sod Installation**
- I. During periods of excessively high temperature or in areas having dry subsoil, the subsoil shall be lightly irrigated immediately prior to laying the sod.
 - II. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are bedded tight in order to prevent voids which would cause air drying of the roots.
 - III. Whenever possible, sod shall be laid with the long edges parallel to the contour and with staggering joints. Sod shall be rolled and tamped, pegged or otherwise secured to prevent slippage on slopes and to ensure solid contact between sod roots and the underlying soil surface.
 - IV. Sod shall be watered immediately following rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. The operations of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.
- C. Sod Maintenance**
- I. In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first week and in sufficient quantities to maintain moist soil to a depth of 4". Watering should be done during the heat of the day to prevent wilting.
 - II. After the first week, sod watering is required as necessary to maintain adequate moisture content.
 - III. The first mowing of sod should not be attempted until the sod is firmly rooted. No more than 1/3 of the grass leaf shall be removed by the initial cutting or subsequent cuttings. Grass height shall be maintained between 2" and 3" unless otherwise specified.

MATERIALS SPECIFICATIONS
Geotextile Fabrics

CLASS	APPARENT OPENING SIZE MM. MAX.	GRAB TENSILE STRENGTH LB. MIN.	BURST STRENGTH PSI. MIN.
A	0.30**	250	500
B	0.60	200	320
C	0.30	200	320
D	0.60	90	145
E	0.30	90	145
F (SILT FENCE)	0.40-0.80*	90	190

- *US Std Sieve GN-02215 **50 mm. max. for Super Silt Fence
- The properties shall be determined in accordance with the following procedures:
- Apparent opening size MMT 323
 - Grab tensile strength ASTM D 1682: 4x8" specimen, 1x2" clamps, 12"/min. strain rate in both principal directions of geotextile fabric.
 - Burst strength ASTM D 3786

The fabric shall be inert to commonly encountered chemicals and hydrocarbons, and will be rot and mildew resistant. It shall be manufactured from fibers consisting of long chain synthetic polymers, and composed of a minimum of 85% by weight of polyolefins, polyesters, or polyamides. The geotextile fabric shall resist deterioration from ultraviolet exposure.

In addition, Classes A through E shall have a 0.01 cm/sec. minimum permeability when tested in accordance with MMT 301, and an apparent minimum elongation of 20 percent (20%) when tested in accordance with the grab tensile strength requirements listed above.

Silt Fence
Class F geotextile fabrics for silt fence shall have a 50 lb./in. minimum tensile strength and a 20 lb./in. minimum tensile modulus when tested in accordance with MMT 504. The material shall also have a 0.3 gal./ft./min. flow rate and seventy-five percent (75%) minimum filtering efficiency when tested in accordance with MMT 322.

Geotextile fabrics used in the construction of silt fence shall resist deterioration from ultraviolet exposure. The fabric shall contain sufficient amounts of ultraviolet ray inhibitors and stabilizers to provide a minimum of 12 months of expected usable construction life at a temperature range of 0 to 120 degrees F.

SEQUENCE OF CONSTRUCTION **NUMBER OF DAYS**

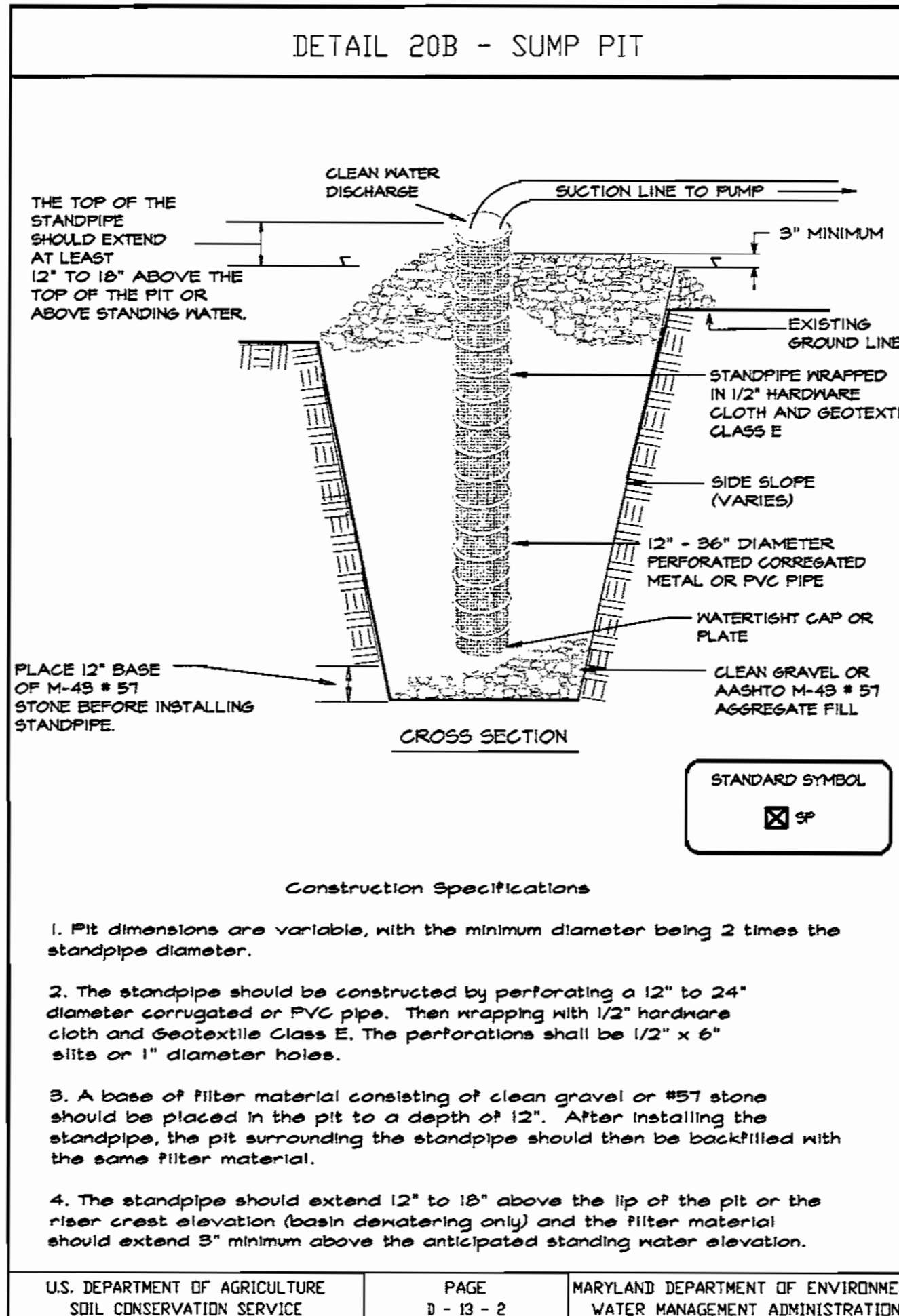
1. Obtain grading permit. 7
2. Install line protection fence where shown. 7
3. Install sediment and erosion control devices and stabilize. 7
4. Excavate and install parking lot, curb & gutter. 14
5. Establish playground subgrade and install underdrain. Install wood curb, playground equipment and safety surface. 6
6. Construct swales for water quality facilities. 30
7. Fine grade and stabilize all disturbed areas on site, in accordance with standards and specs. 30
8. Upon approval of the Howard County sediment control inspector, remove sediment and erosion control measures and stabilize.

PERMANENT SEEDING NOTES

- Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.
- Seedbed Preparation:** Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.
- Soil Amendments:** In lieu of soil test recommendations, use one of the following schedules:
1. Preferred -- Apply 2 tons/acre dolomitic limestone (42 lbs/1000 sq. ft.) and 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs/acre 30-0-0 ureaform fertilizer (4 lbs/1000 sq. ft.)
 2. Acceptable -- Apply 2 tons/acre dolomitic limestone (42 lbs/1000 sq. ft.) and 1000 lbs/acre 10-10-10 fertilizer (23 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.
- Seeding** -- For the periods March 1 -- April 30, and August 1 -- October 15, seed with 60 lbs/acre (1.4 lbs/1000 sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 -- July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 bushels (05 lbs/1000 sq. ft.) of reeping lovegrass. During the period of October 16 -- February 28, protect site by Option 1 -- Two tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option 2 -- Use sod. Option 3 -- Seed with 60 lbs/acre Kentucky 30 Tall Fescue and mulch with 2 tons/acre well anchored straw.
- Mulching** -- Apply 1-1/2 to 2 tons per acre (10 to 40 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2lb gallons per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 feet or higher, use 3lb gallons per acre (8 gal/1000 sq. ft.) for anchoring.
- Maintenance** -- Inspect all seeding areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

- Apply to graded or cleared areas likely to be re-disturbed where a short-term vegetative cover is needed.
- Seedbed Preparation:** Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.
- Soil Amendments:** -- Apply 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.)
- Seeding** -- For the periods March 1 -- April 30, and August 1 -- October 15, seed with 2-1/2 bushel per acre of annual ryegrass (05 lbs/1000 sq. ft.). For the period May 1 -- August 14, seed with 3 lbs/acre of reeping lovegrass (07 lbs/1000 sq. ft.). For the period November 16 -- February 28, protect site by apply 2 tons/acre of well anchored straw mulch and seed as soon as possible in the spring or use sod.
- Mulching** -- Apply 1-1/2 to 2 tons per acre (10 to 40 lbs/1000 sq. ft.) of unrotted weed-free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2lb gallons per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 feet or higher, use 3lb gallons per acre (8 gal/1000 sq. ft.) for anchoring.
- Refer to the 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for additional rates and methods not covered.



APPROVED: DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 11/14/01

CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 11/16/01

DIRECTOR DATE: 12/16/01

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS

DATE: 12-14-01

DATE: 12-16-01

REVIEWED FOR HOWARD SOIL AND MEETS TECHNICAL REQUIREMENTS.

Jim Myers 11/15/01
USDA NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John W. Winters 11/15/01
HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE

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

Jeffrey J. Schulz 11/16/01
ENGINEER DATE

DEVELOPER'S CERTIFICATE

I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.

Cathleen Conley Young 11/7/01
DEVELOPER DATE

Clarksville Elementary School
Additions - Renovations
12041 Md. Route 108 Clarksville, Maryland 21029
5th Election District Howard County, Maryland
Tax Map 24 Grid 19 Parcel 124 Zoning R-20 Deed Ref. 346 / 287

Erosion & Sediment Control
Notes & Details

REVISIONS

STATE OF MARYLAND PROFESSIONAL ENGINEER

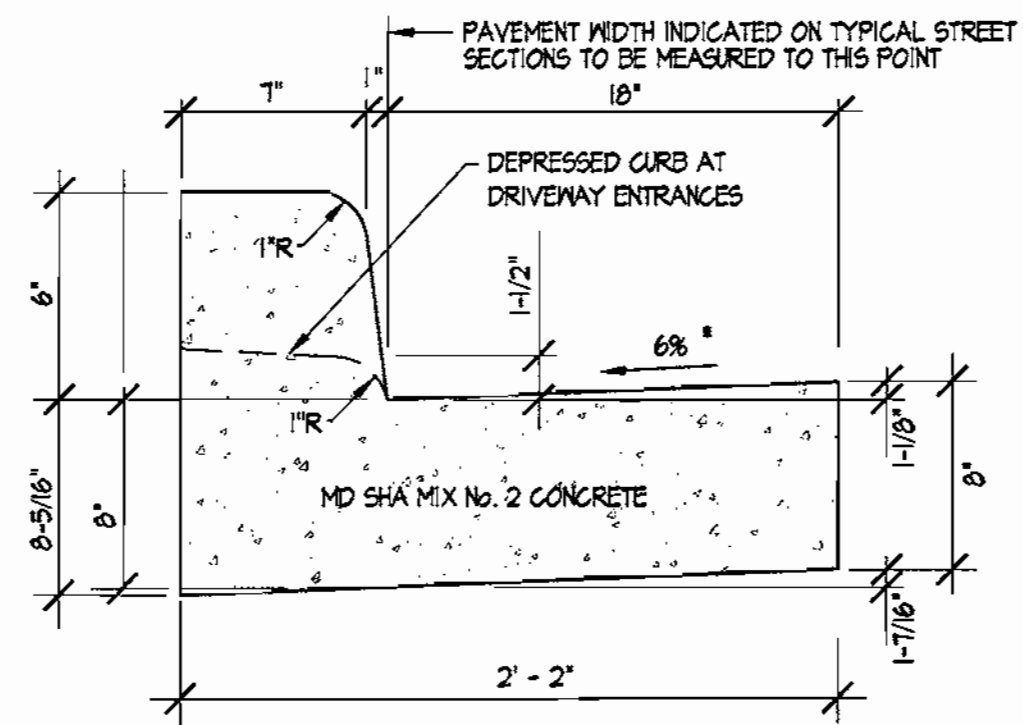
SITE RESOURCES
Incorporated
Comprehensive Land Planning & Site Design Services
14307 Arrettenville Pike • Phoenix, Maryland 21131
(410) 683-3388 • fax (410) 683-3389

DRAWN BY: TPD CONTRACT NO.:

DESIGNED BY: RLR SCALE: N/A

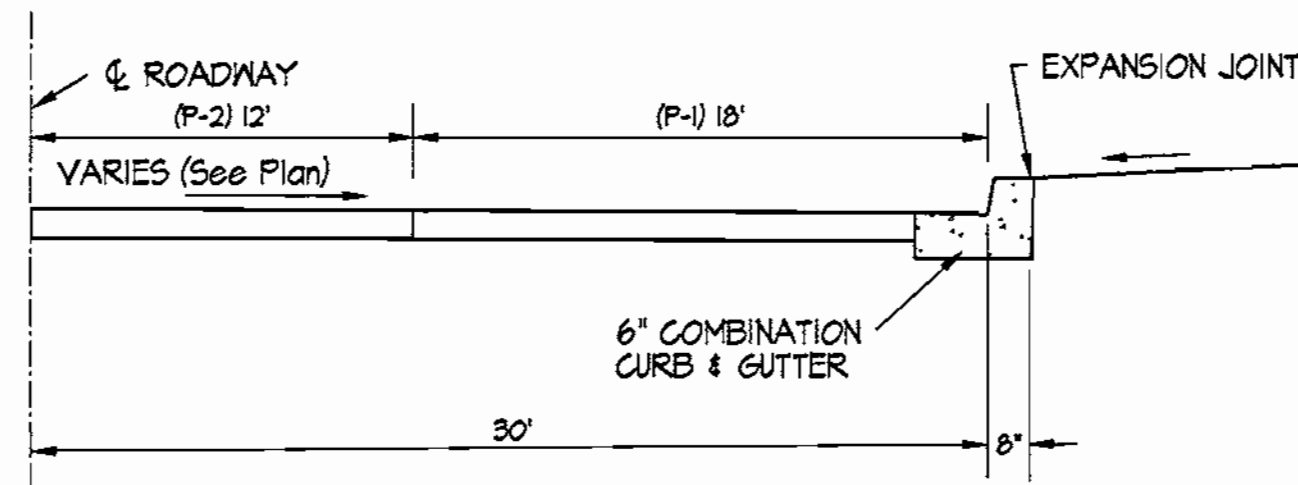
CHECKED BY: JLS SRI PROJECT NO: 01048

DATE: Nov 2, 2001 SHEET 4 OF 7

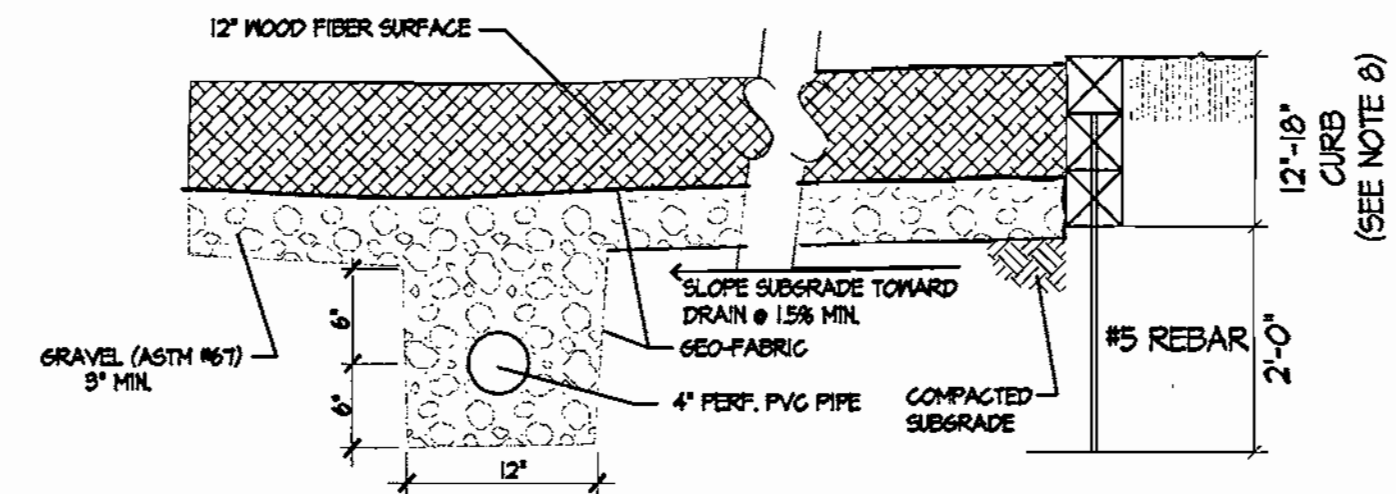


* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AND IN THE SAME DIRECTION AS THE PAVEMENT. MATCH PAVEMENT CROSS SLOPE WHEN CURB IS LOCATED ON THE LOW SIDE OF SUPERELEVATED SECTION AND THE RATE OF SUPERELEVATION IS GREATER THAN 3% FOR MODIFIED CURB AND GUTTER.

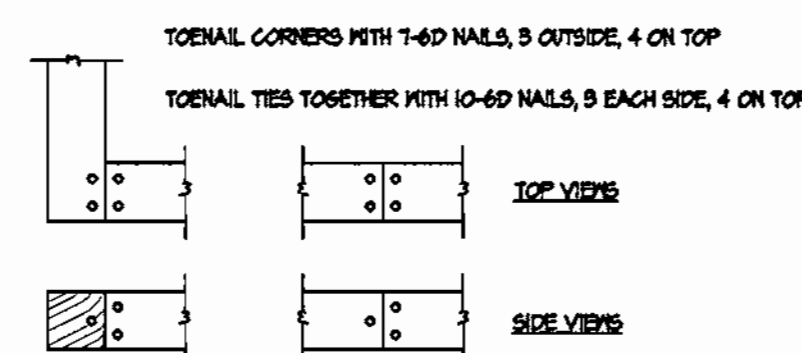
① **STD. 6" COMB. CURB & GUTTER**
NOT TO SCALE



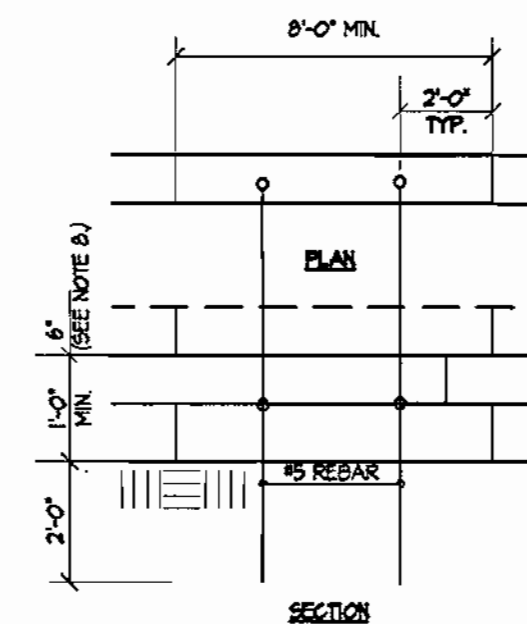
② **TYPICAL PARKING SECTION**
NOT TO SCALE



Wood curb shall be 6"x 6" ACQ C-2 pressure treated lumber, 40 lbs. per cubic foot. Length shall be 8'-0" minimum.



WOOD CURB JOINT DETAIL
NOT TO SCALE



WOOD CURB ANCHOR DETAIL
NOT TO SCALE

③ **TOT LOT EDGING, SURFACE, STONE BASE & DRAINAGE DETAIL**
NOT TO SCALE

SECTION #	ROAD & STREET CLASSIFICATION	PAVEMENT MATERIALS	
		FULL DEPTH BIT. CONG. ALTERNATE	GRANULAR BASE ALTERNATES
P-1	PARKING BAYS APARTMENTS AND COMMERCIAL-INDUSTRIAL ZONES WITH NO HEAVY TRUCKS	1" BIT. CONG. SURFACE	1" BIT. CONG. SURFACE
	TRAVELWAYS FOR APARTMENTS AND COMMERCIAL INDUSTRIAL ZONES WITH NO HEAVY TRUCKS	4" BIT. CONG. BASE	4" GRADED AGGREGATE BASE (GAB)
P-2	RESIDENTIAL ZONES LOCAL, CUL-DE-SAC STS, ALLEYS AND PRIVATE ROADS SERVING INDIVIDUAL LOTS HEAVY TRUCKS	1 1/2" BIT. CONG. SURFACE	1 1/2" BIT. CONG. SURFACE
	TRAVELWAYS FOR APARTMENTS AND COMMERCIAL INDUSTRIAL ZONES WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY	5" BIT. CONG. BASE	6" GRADED AGGREGATE BASE (GAB)

④ **PAVING SECTIONS**
NOT TO SCALE

APPROVED: DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LAND DEVELOPMENT

DIRECTOR

12/12/01
DATE
12/12/01
DATE
12/12/01
DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS

COUNTY HEALTH OFFICER

HOWARD COUNTY HEALTH DEPARTMENT

12-4-01
DATE

Clarksville Elementary School Additions - Renovations
12041 Md. Route 108 Clarksville, Maryland 21029
5th Election District Howard County, Maryland
Tax Map 24 Grid 14 Parcel 124 Zoning: R-20 Deed Ref. 346 / 287

Site Details

REVISIONS



SITE RESOURCES
INCORPORATED
Comprehensive Land Planning & Site Design Services

14307 Arrettsville Pike • Phoenix, Maryland 21131
(410) 883-3308 • Fax (410) 883-3309

DRAWN BY: TPD

DESIGNED BY: RLR

CHECKED BY: JLS

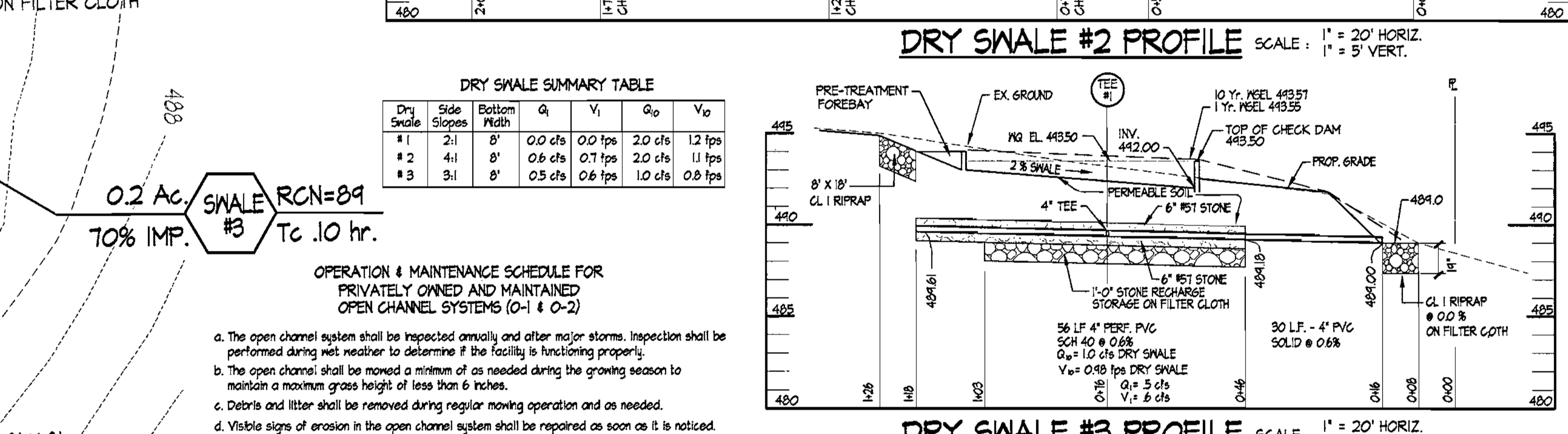
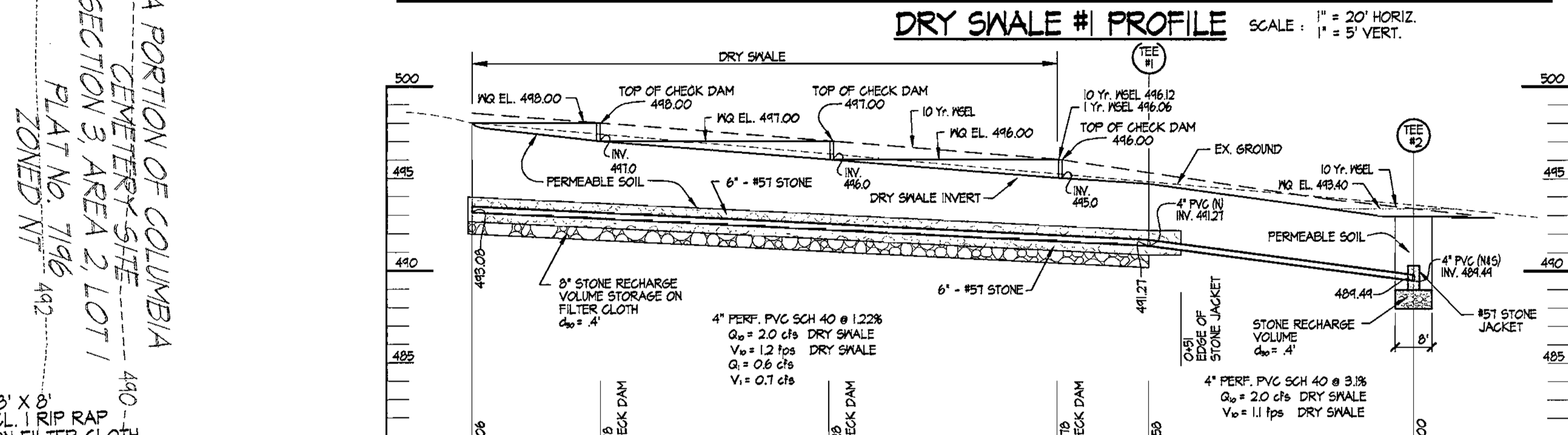
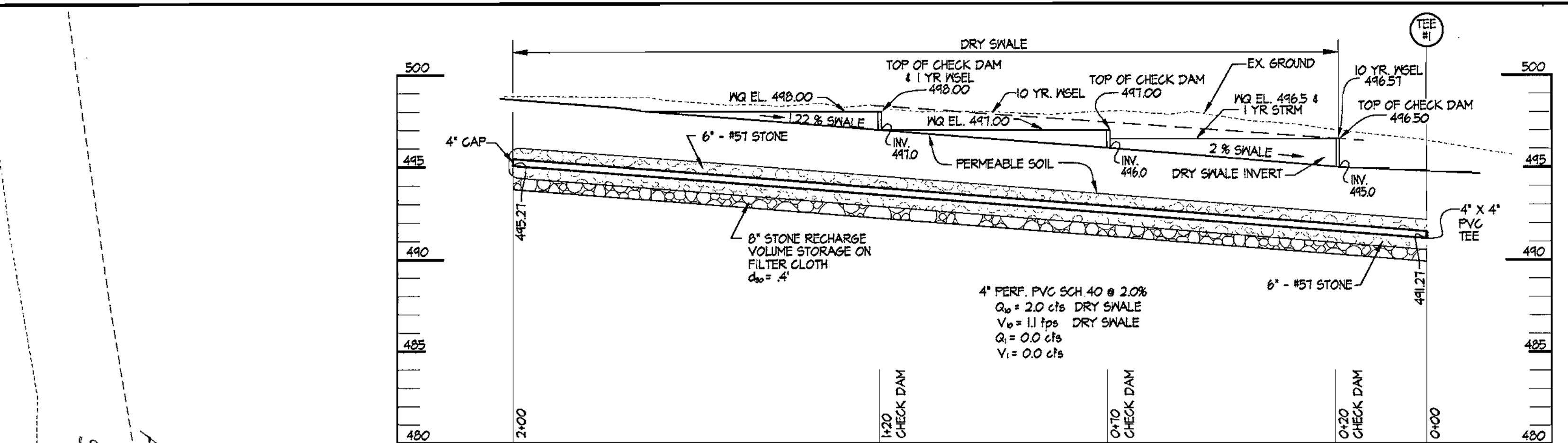
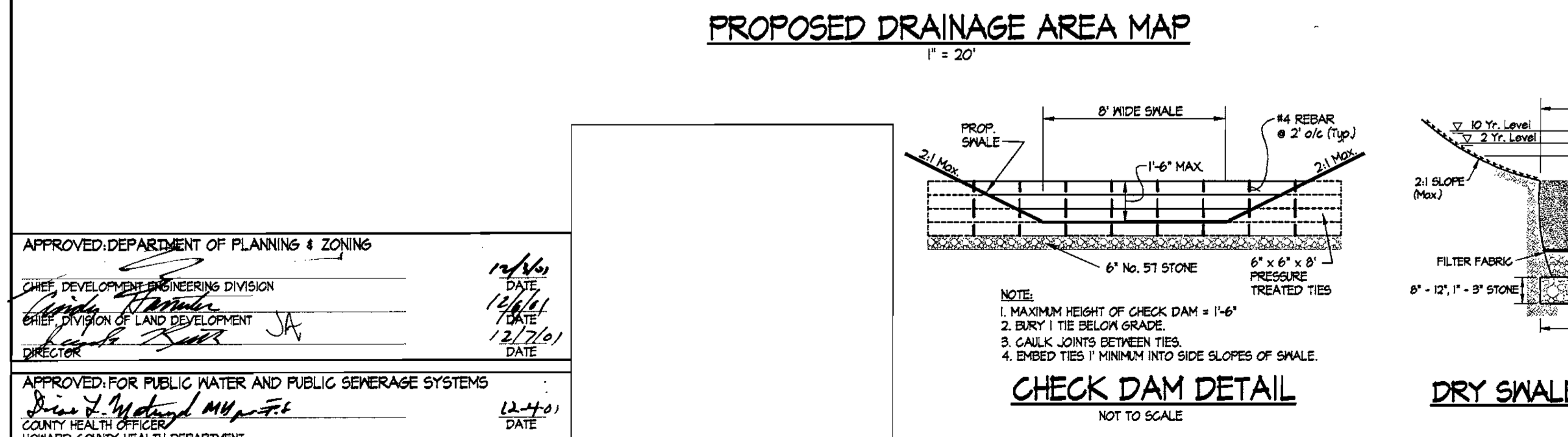
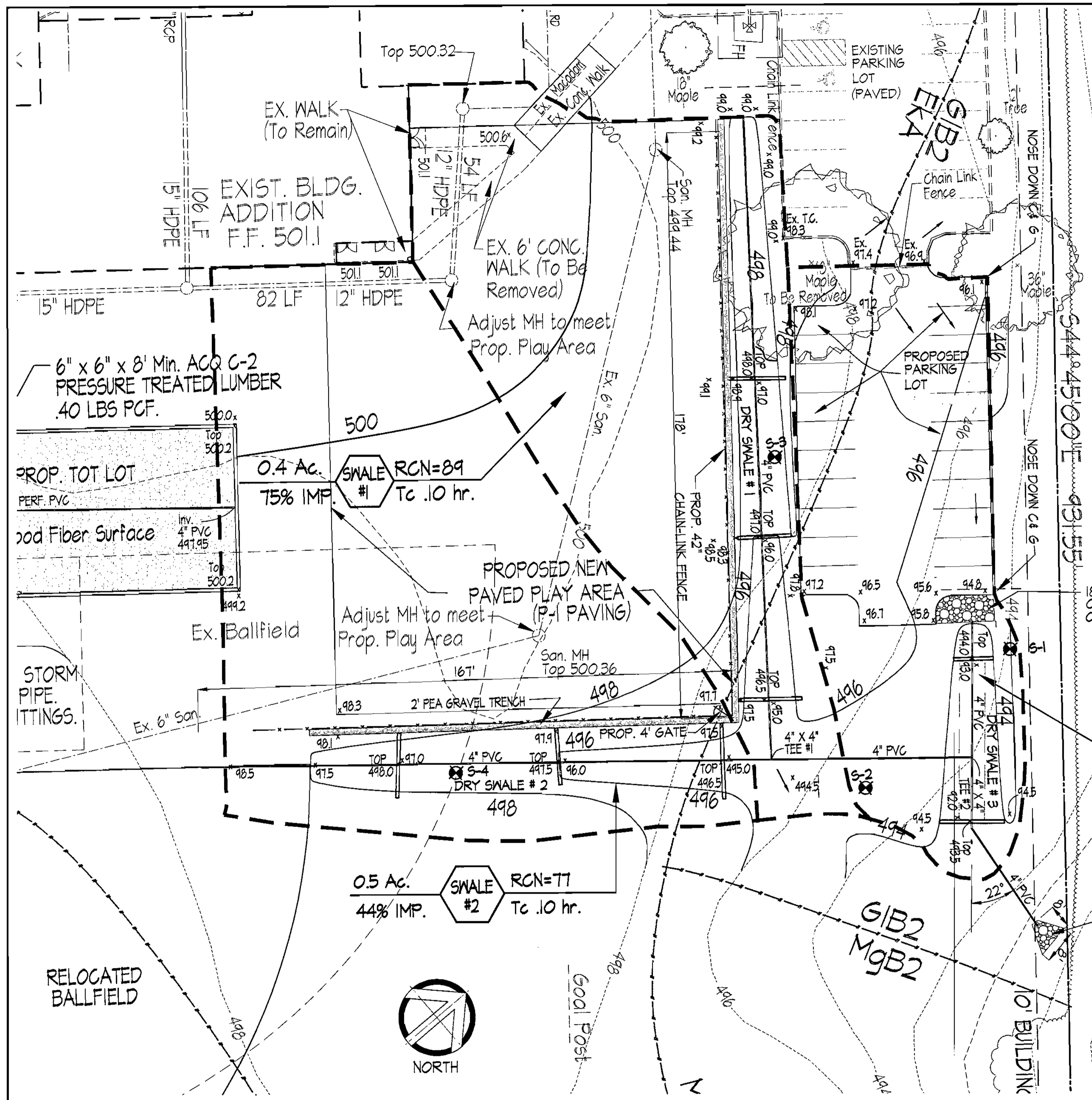
DATE: Nov 2, 2001

CONTRACT NO.:

SCALE: AS SHOWN

SRI PROJECT NO: 01048

SHEET 5 OF 7

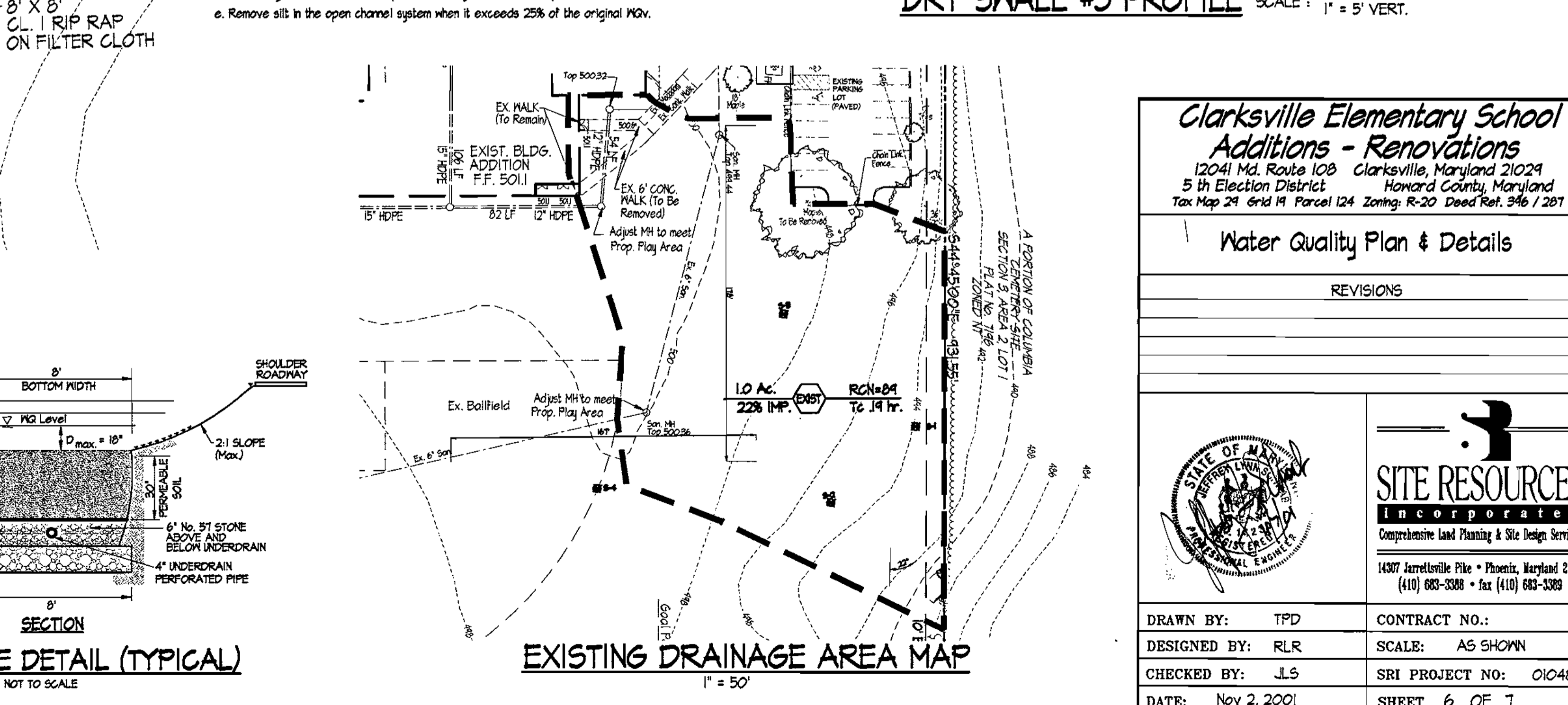


DRY SWALE SUMMARY TABLE

Dry Swale	Side Slopes	Bottom Width	Q ₁	V ₁	Q ₂	V ₂
#1	2:1	8'	0.0 cfs	0.0 fps	2.0 cfs	1.2 fps
#2	4:1	8'	0.6 cfs	0.7 fps	2.0 cfs	1.1 fps
#3	3:1	8'	0.5 cfs	0.6 fps	1.0 cfs	0.8 fps

OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED OPEN CHANNEL SYSTEMS (O-1 & O-2)

- The open channel system shall be inspected annually and after major storms. Inspection shall be performed during wet weather to determine if the facility is functioning properly.
- The open channel shall be mowed a minimum of as needed during the growing season to maintain a maximum grass height of less than 6 inches.
- Debris and litter shall be removed during regular mowing operation and as needed.
- Visible signs of erosion in the open channel system shall be repaired as soon as it is noticed.
- Remove silt in the open channel system when it exceeds 25% of the original MGV.



Clarksville Elementary School Additions - Renovations
12041 Md. Route 108 Clarksville, Maryland 21029
5th Election District Howard County, Maryland
Tax Map 24 Grid 14 Parcel 124 Zoning: R-20 Deed Ref. 346 / 287

Water Quality Plan & Details

REVISIONS

SITE RESOURCES Incorporated
Comprehensive Land Planning & Site Design Services
14307 Jarnettville Pike • Phoenix, Maryland 21131
(410) 683-3388 • fax (410) 683-3389

DRAWN BY: TPD CONTRACT NO.:
DESIGNED BY: RLR SCALE: AS SHOWN
CHECKED BY: JLS SRI PROJECT NO: 01048
DATE: Nov 2, 2001 SHEET 6 OF 7

APPROVED: DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
[Signature]
DATE: 12/6/01

CHIEF, DIVISION OF LAND DEVELOPMENT
[Signature]
DATE: 12/7/01

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
[Signature]
DATE: 12/4/01

Landscape Notes:

- Quantities shown on the plant list are estimates only; the contractor is required to install the quantities labeled in plan view. Contractor shall notify Site Resources of any discrepancy between the quantities listed in the chart and quantities shown in plan view.
- Plant material substitutions are subject to approval by the owner's representative.
- Locations of all plant material shall be staked for approval by the owner's representative. Owner reserves the right to shift stakeout locations.
- All shrub and groundcover areas shall be planted in continuous prepared beds, mulched with composted hardwood mulch as detailed and specified.
- Planting beds shall have positive drainage with a minimum 2 percent slope.
- Contractor shall verify accuracy of base information and existing conditions in the field to his own satisfaction. Bid shall be based on actual site conditions. No extra shall be made for work arising from site conditions differing from those indicated on drawings and specifications.
- The contractor shall notify Miss Utility at 1-800-251-1111 a minimum of two working days prior to beginning planting and construction.
- Damage to existing conditions and utilities shall be repaired and restored at the expense of the contractor.
- All plant material shall be nursery grown and shall conform to American Association of Nurserymen, Inc. standards.
- All planting procedures shall conform to the latest edition of Landscape Contractor Association Guidelines for the Baltimore/Washington metropolitan area, latest edition.
- A minimum of 96" headroom is required for all handicap accessible spaces per ADA44-65.
- Financial surety for the required landscaping has not been posted as part of the DPM developer's agreement. (Public School)

SCHEDULE A PERIMETER LANDSCAPE EDGE

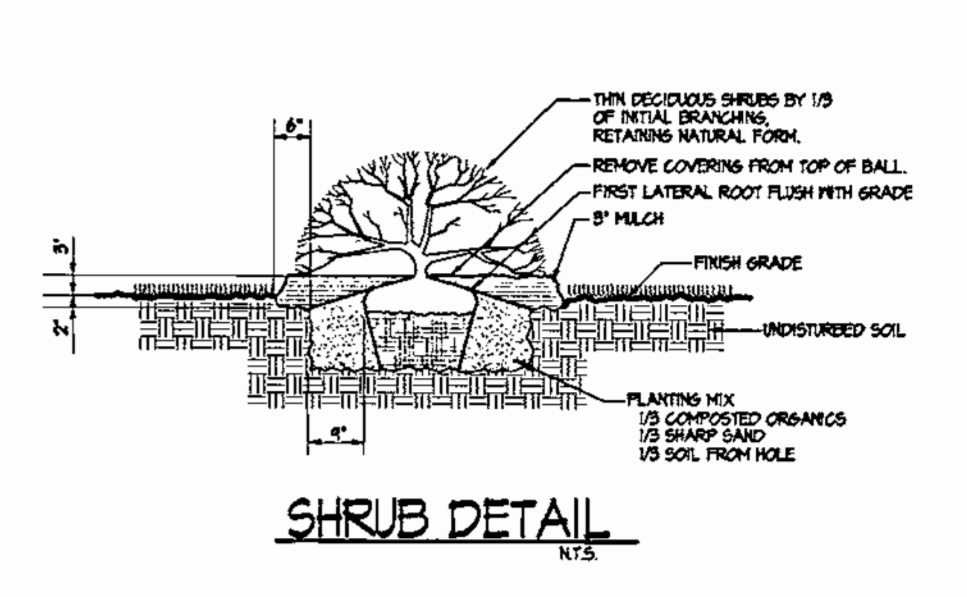
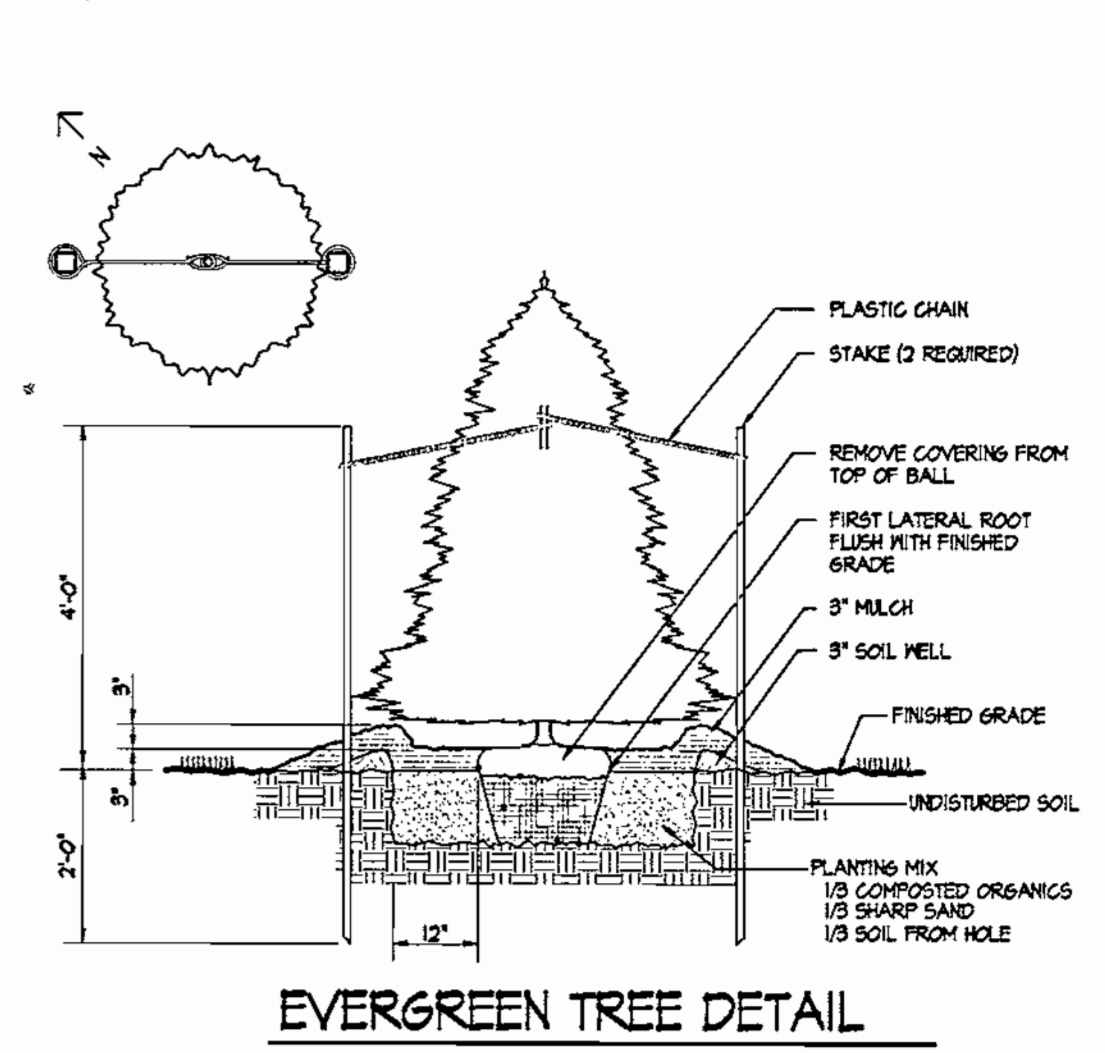
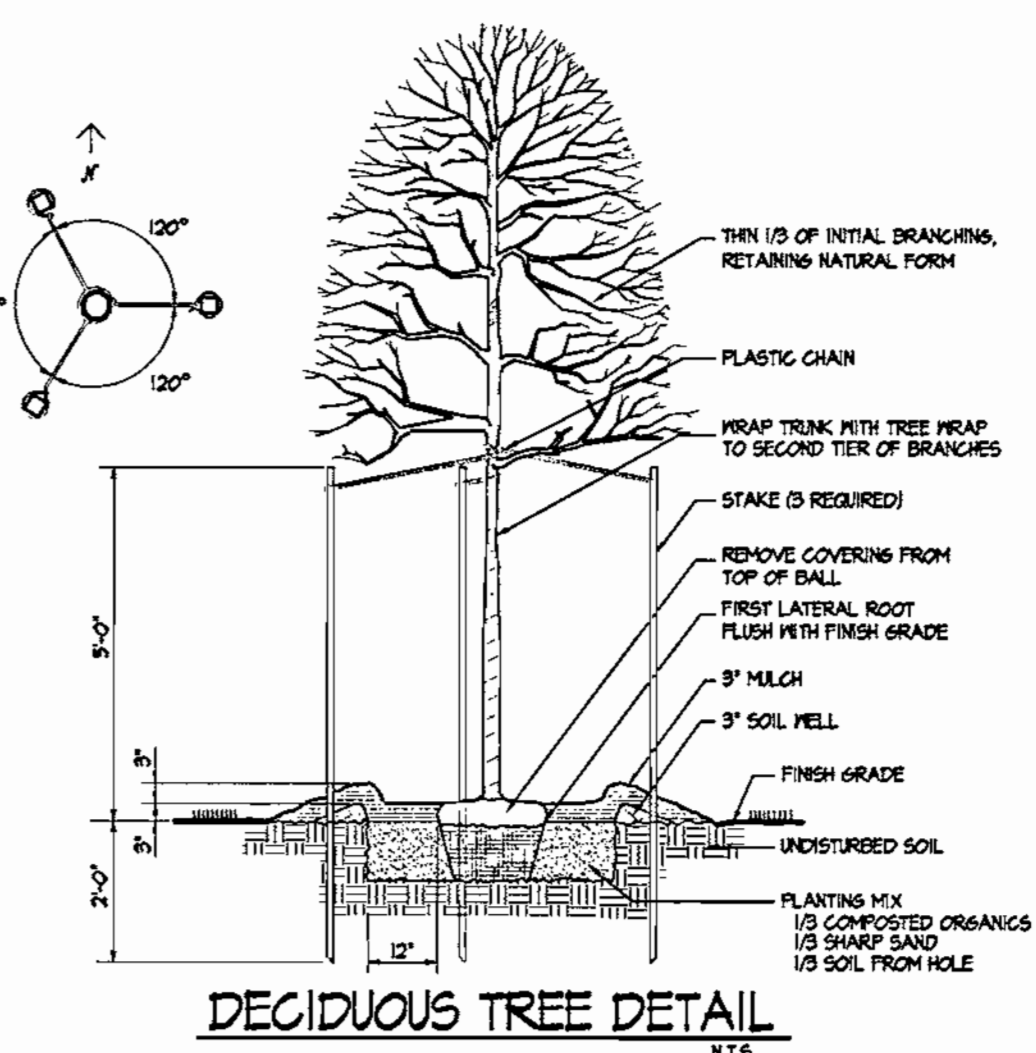
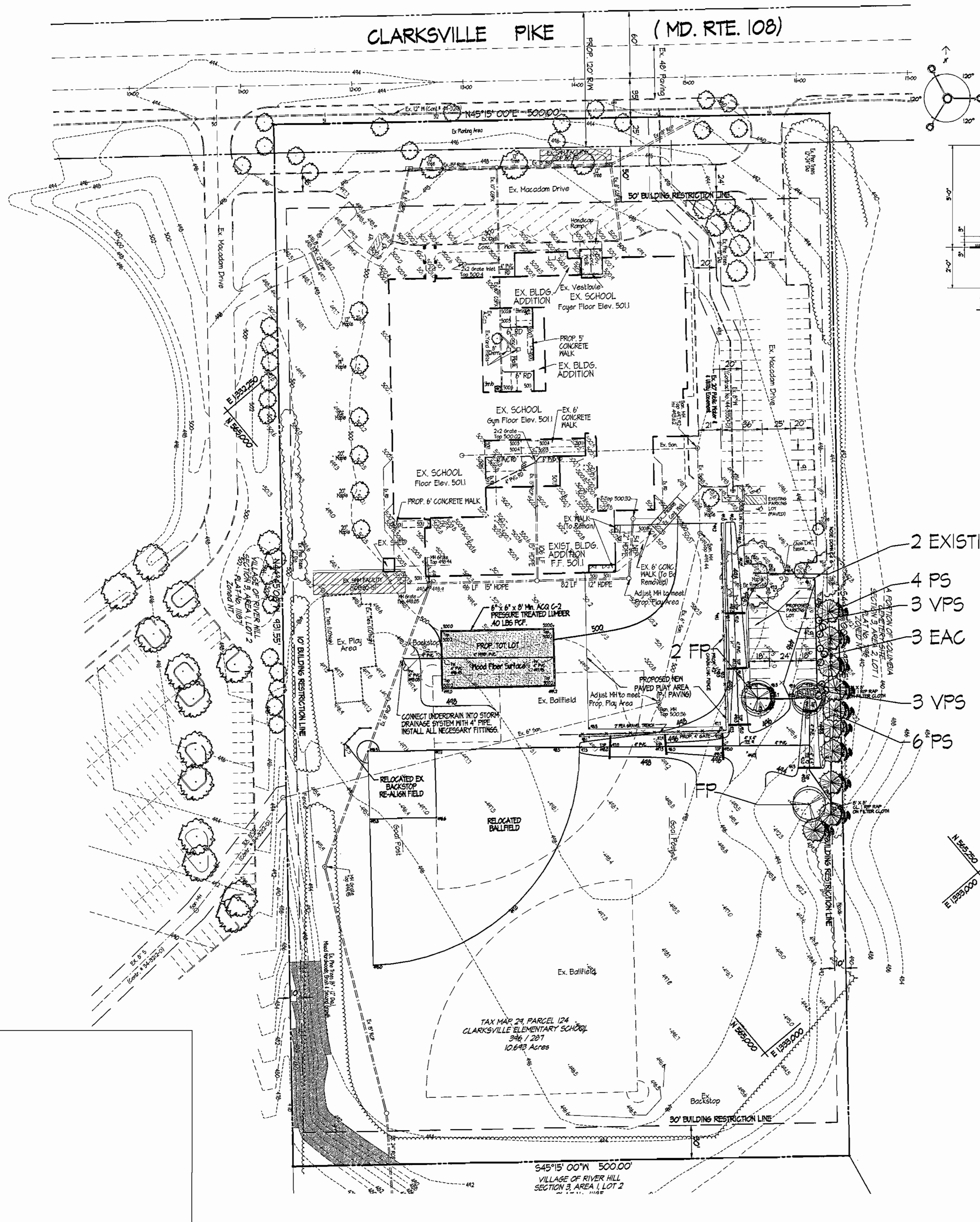
CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	N/A	A
LINEAR FEET OF ROADWAY FRONTAGE / PERIMETER	N/A	170
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	N/A	NO
CREDIT FOR MALL, FENCE, OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	N/A	NO
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	N/A	170 / 60 = 2.8 3 0 0
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	N/A	21 EXISTING TREES 4 EVERGREEN TREES 4 SHRUBS

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	21
NUMBER OF TREES REQUIRED	1 PER 20 SPACES = 1
NUMBER OF TREES PROVIDED SHADE TREES OTHER TREES (2:1 SUBSTITUTION)	2

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING

LINEAR FEET OF PERIMETER	120 FT
NUMBER OF TREES REQUIRED SHADE TREES EVERGREEN TREES	120 / 40 = 3
CREDIT FOR EXISTING VEGETATION (YES, NO, AND %)	NO
CREDIT FOR OTHER LANDSCAPING (YES, NO, AND %)	NO
NUMBER OF TREES PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION)	1 5



- 2 EXISTING AS
- 4 PS
- 3 VPS
- 3 EAC
- 3 VPS
- 6 PS

Plant List

THIS PLANTING LIST INCLUDES PLANTS FROM ALL PLANTING PLANS. PLANT KEY ABBREVIATIONS AND NAMES ARE INCLUDED ON OTHER PLANTING PLANS SOLELY FOR CONTRACTOR'S CONVENIENCE.

KEY BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY
MAJOR DECIDUOUS TREES			
FP FRAXINUS PENNSYLVANICA SUMMIT	GREEN ASH	2\"/>	

Clarksville Elementary School Additions - Renovations
 12041 Md. Route 108 Clarksville, Maryland 21024
 5th Election District Howard County, Maryland
 Tax Map 24 Grid 14 Parcel 124 Zoning: R-20 Deed Ref. 946 / 287

Landscape Plan

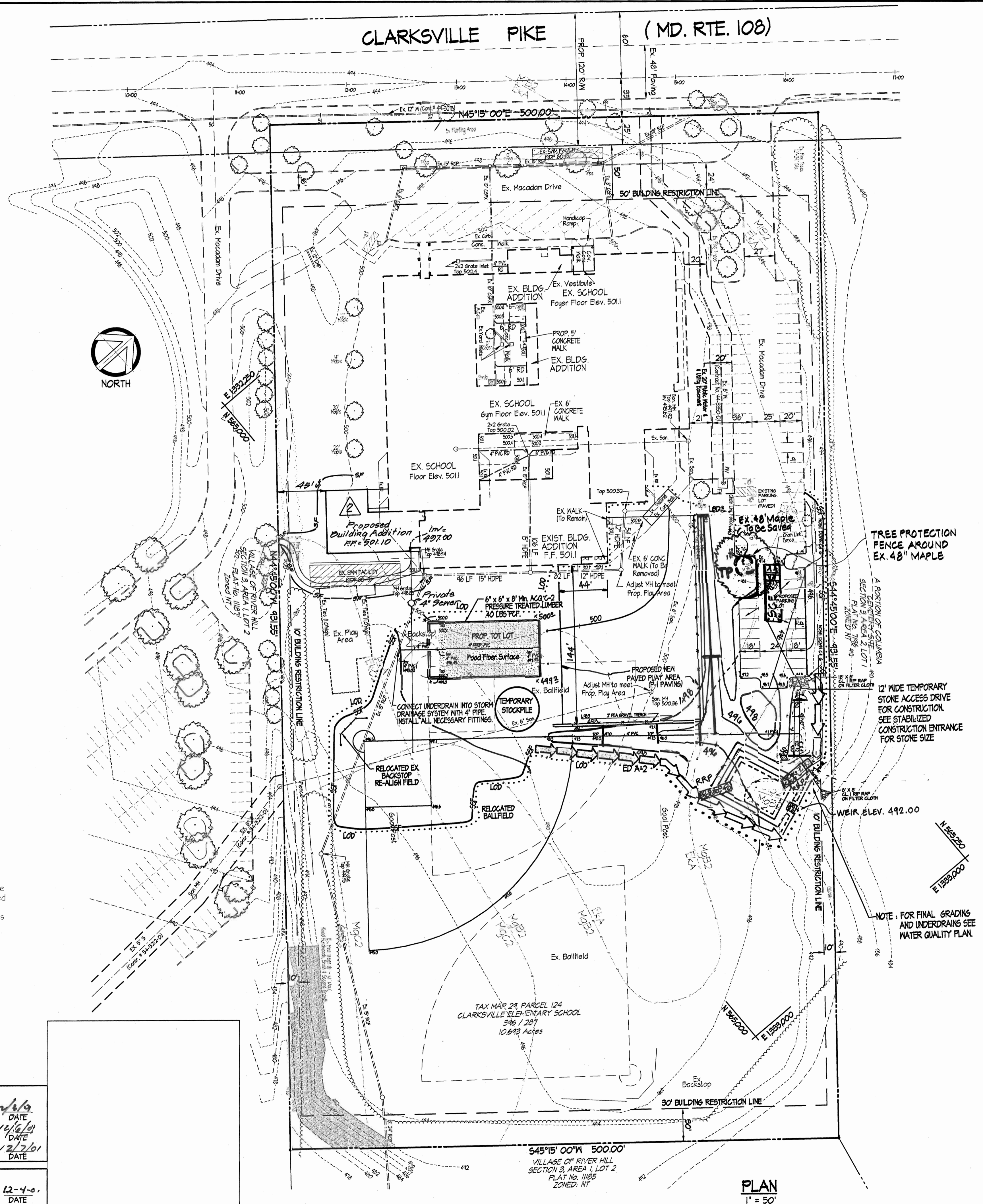
REVISIONS

SITE RESOURCES Incorporated
 Comprehensive Land Planning & Site Design Services
 14307 Arrettsville Pike • Phoenix, Maryland 21131
 (410) 683-3388 • Fax (410) 683-3389

DRAWN BY: TPD	CONTRACT NO.:
DESIGNED BY: RLR	SCALE: 1" = 50'
CHECKED BY: JLS	SRI PROJECT NO: 01048
DATE: Nov 2, 2001	SHEET 7 OF 7

APPROVED: DEPARTMENT OF PLANNING & ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: [Signature] DATE: 11/13/01
 CHIEF, DIVISION OF LAND DEVELOPMENT: [Signature] DATE: 11/14/01
 DIRECTOR: [Signature] DATE: 12/7/01

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
 COUNTY HEALTH OFFICER: [Signature] DATE: 12-24-01
 HOWARD COUNTY HEALTH DEPARTMENT

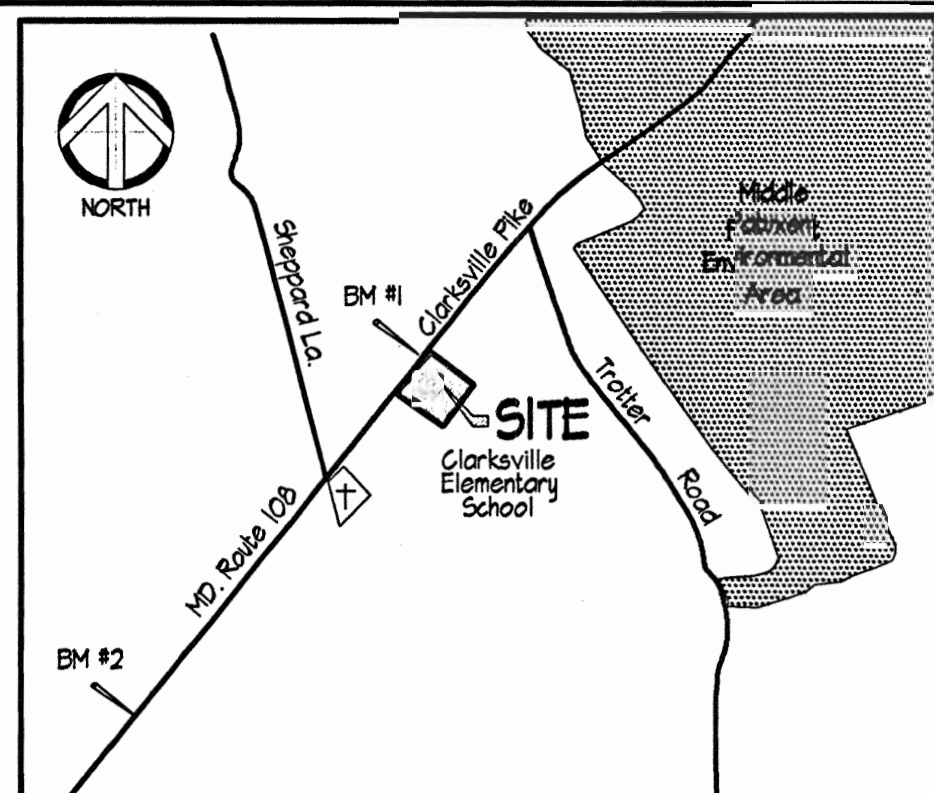


FULL DAY KINDERGARTEN ADDITION CONSTRUCTION SEQUENCE

1. Obtain grading permit.
2. Install Sediment Control measures and receive permission from the Sediment Control Inspector to proceed without grading for the Full Day Kindergarten Addition.
3. Construct Full Day Kindergarten Addition and Walkways.
4. Upon Completion Of fine grading, All disturbed areas shall be stabilized immediately.
5. When the contributing areas to the sediment Control devices have been stabilized and with permission of the sediment Control Inspector the devices may be removed and these disturbed areas stabilized.
6. Notify Howard County Office Of Inspections And permits For Final Inspection.

APPROVED: DEPARTMENT OF PLANNING & ZONING
 DATE: 12/2/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 12/6/01
 CHIEF, DIVISION OF LAND DEVELOPMENT & ZONING
 DATE: 12/7/01
 DIRECTOR

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
 DATE: 12-4-01
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT



VICINITY MAP
 Scale: 1" = 2000'

THE HORIZONTAL AND VERTICAL CONTROL USED IN THIS SURVEY IS BASED ON HOWARD COUNTY GEODETIC CONTROL POINTS 2465 & 246A.

	NAD 83	NSVD 23
2465	N 568341.209 E 1335342.475	EL. 388.13
2462	N 566261.462 E 1333325.606	EL. 450.744

BENCHMARKS SET:
 TRAV. 1 N 565086.2142 E 1332591.3405 EL. 500.63
 TRAV. 2 N 565224.3092 E 1332151.1514 EL. 446.40

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.
 DATE: 11/15/01
 REVIEWED FOR NRC AND MEETS TECHNICAL REQUIREMENTS.
 DATE: 11/15/01

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 DATE: 11/15/01

ENGINEER'S CERTIFICATE
 I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
 DATE: 11/7/01

DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance of 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 inspection by the Howard Soil Conservation District.
 DATE: 11/7/01

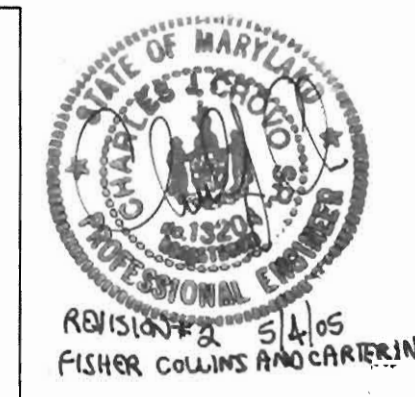
Clarksville Elementary School Additions - Renovations
 12041 Md. Route 108 Clarksville, Maryland 21024
 5th Election District Howard County, Maryland
 Tax Map 24 Grid 14 Parcel 124 Zoning: R-20 Deed Ref. 346 / 287

Erosion & Sediment Control Plan

REVISION #1
 3/11/02 MOVED TRAP, ADDED RIPRAP INFLOW PROTECTION, INCREASED LOD, MOVED DRY SWALE #2.
 Rev. #2 Added full kindergarten addition, conc. & asphalt s.w., 5'-4" DE. elim. ex. shed, ex. 6" x 6" ex. 2" maple trees, added F.C.D. S.F. & Sep. of Const. Notes.

SEDIMENT TRAP #1

TYPE: Stone Outlet Sediment Trap, ST-II	
DRAINAGE AREA: Exist. = 130 AC.	Prop. = 130 AC.
NET STORAGE REQUIRED: 2340 CF	
NET STORAGE PROVIDED: 4,019 CF	
DRY STORAGE REQUIRED: 2340 CF	
DRY STORAGE PROVIDED: 2,409 CF	
TOTAL REQUIRED: 4680 CF	
TOTAL PROVIDED: 6,424 CF	
CLEANOUT REQ'D: 1170 CF	
CLEANOUT PROVIDED: 907 CF	
NET STORAGE OUTLET ELEV: 491.00	
EX. GROUND @ 6' EMBANKMENT: 491.00	
TRAP BOTTOM: 489.00	
NET STORAGE ZONE: 489.0 - 491.00	
DRY STORAGE ZONE: 491.0 - 499.00	
CREST ELEVATION: 492.00	
CLEANOUT ELEVATION: 488.50	
BOTTOM DIMENSION: 50'x30' (IRREGULAR)	
2:1 SLOPES	
EMBANKMENT ELEVATION: 499.00	
WEIR LENGTH: 8.0'	



SITE RESOURCES
 incorporated
 Comprehensive Land Planning & Site Design Services

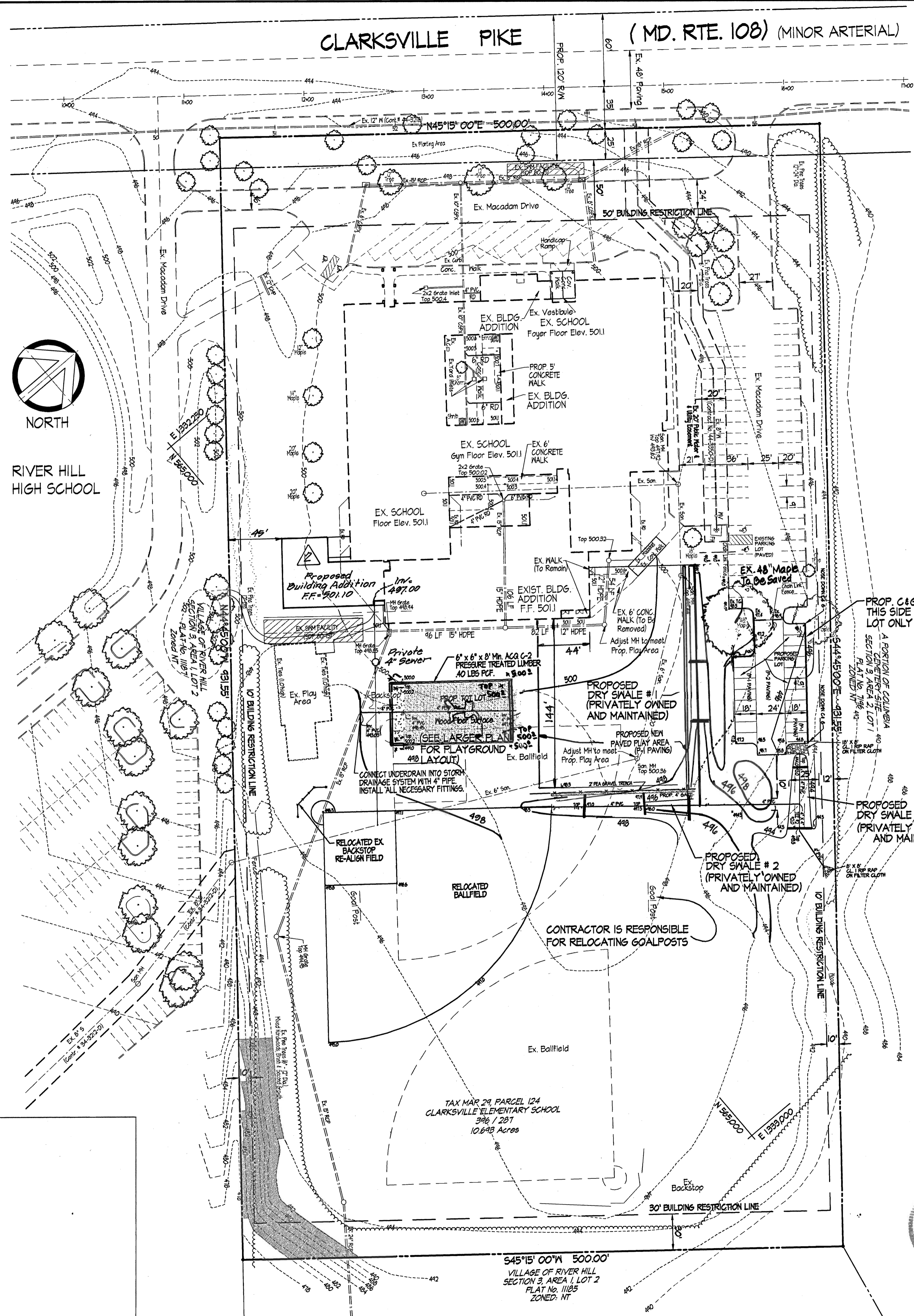
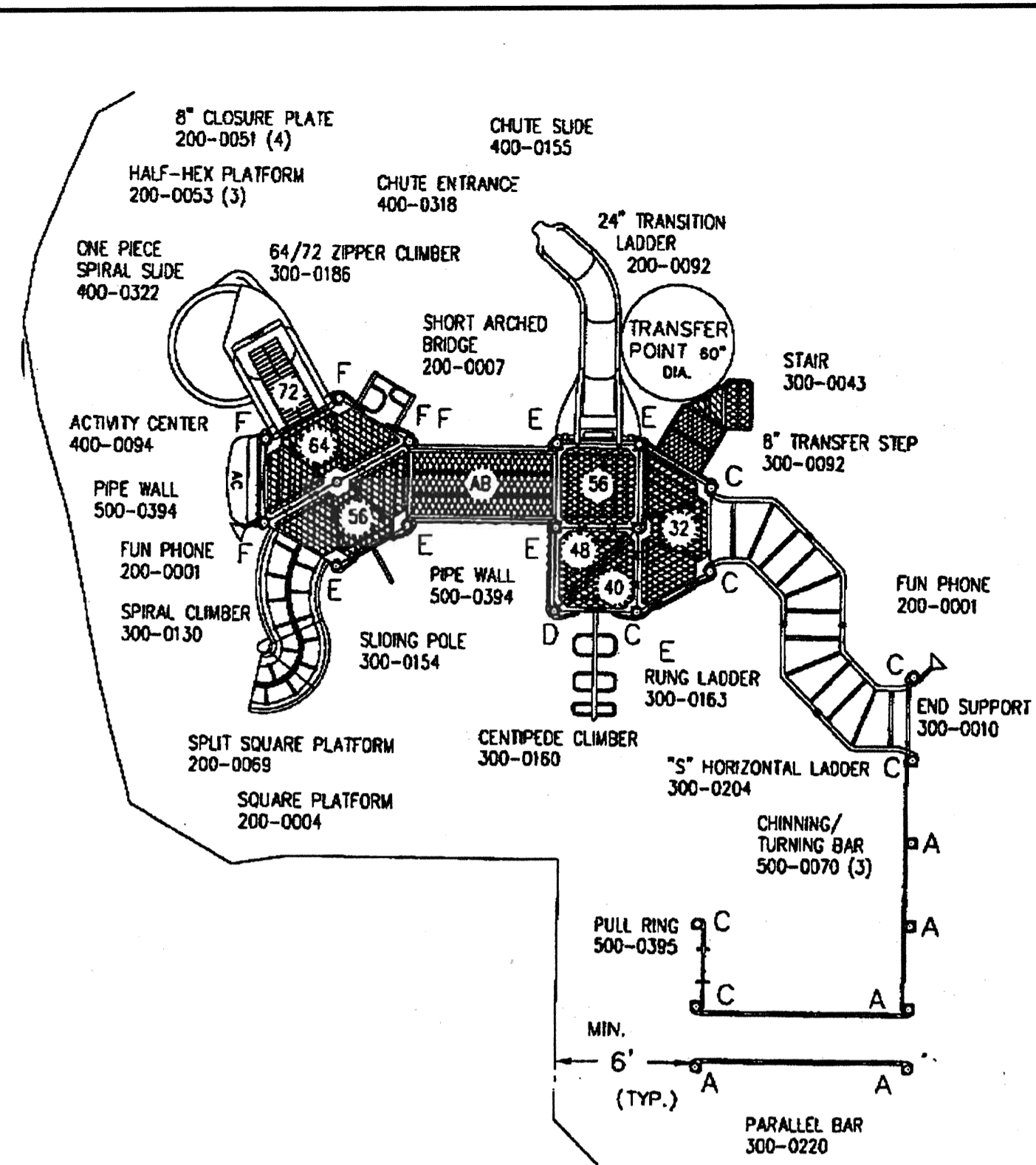
14977 Jarrattville Pike • P.O. Box 111, Maryland 21151
 (410) 683-3388 • Fax (410) 683-3389

DRAWN BY: TPD CONTRACT NO.:

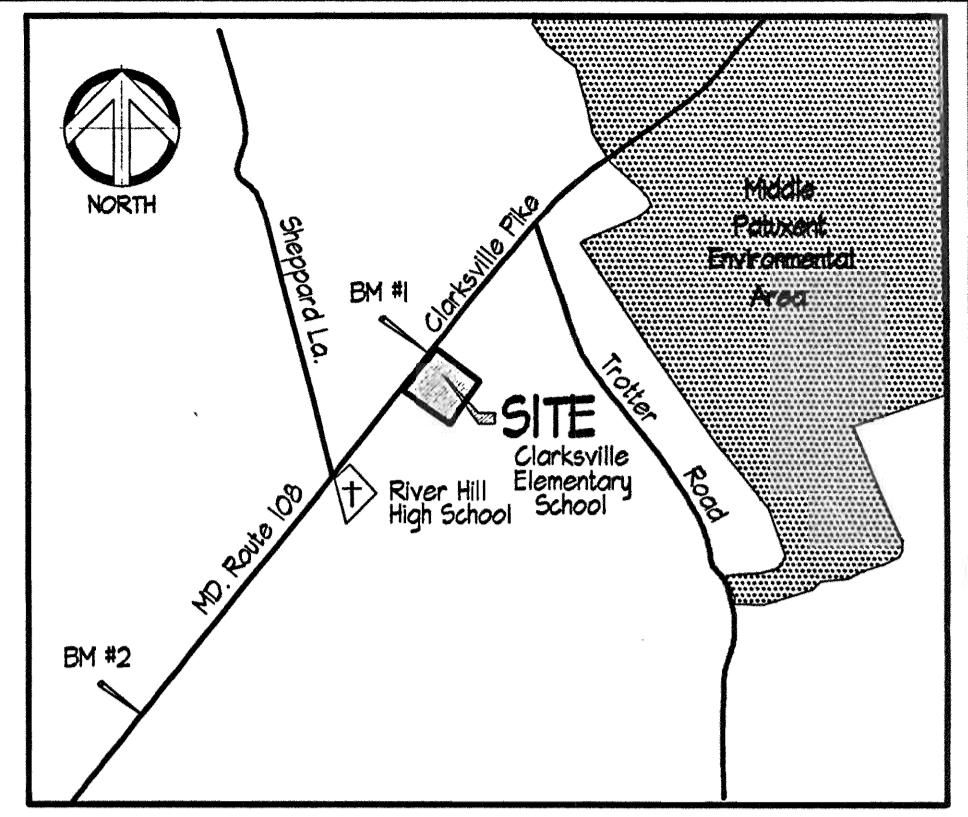
DESIGNED BY: RLR SCALE: 1" = 50'

CHECKED BY: JLS SRI PROJECT NO: 01048

DATE: Nov 2, 2001 SHEET 2 OF 7



SHEET #	DRAWING TITLE
1	SITE DEVELOPMENT PLAN
2	SEDIMENT AND EROSION CONTROL PLAN
3	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
4	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
5	SITE DETAILS
6	WATER QUALITY PLAN & DETAILS
7	LANDSCAPE PLAN



THE HORIZONTAL AND VERTICAL CONTROL USED IN THIS SURVEY IS BASED ON HOWARD COUNTY GEODETIC CONTROL POINTS 2465 & 246A.

	NAD 83	NAD 24
2465	N 566341.204 E 1332542.473	EL. 308.13
2462	N 566261.462 E 1333225.606	EL. 450.144

BENCHMARKS SET:

TRAV. 1	N 565286.2142 E 1332541.3405	EL. 500.63
TRAV. 2	N 565224.3042 E 1332751.1574	EL. 446.40

GENERAL NOTES

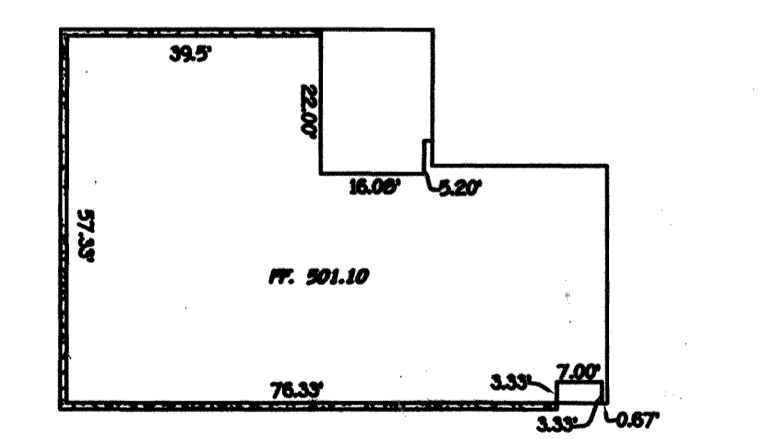
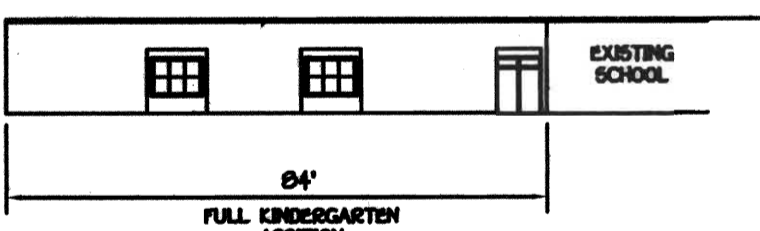
- The existing topography shown was field run by Shoberger & Lane on April 24, 2001 and supplemented by aerial topography.
- Department of Planning & Zoning reference file numbers are SDP 80-15, SDP 01-41, MP 43-44, MP 43-128, MP 00-117, MP 01-130 for relocatable trailers.
- All roadways are existing and private.
- The coordinates shown herein are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System - Howard County Monuments No's 2131002 & 2031004.
- The contractor shall notify the Department of Public Works / Construction Inspection Division at (410) 313-1800 at least (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-251-TITI at least 48 hours prior to any excavation work.
- No clearing, grading or construction is permitted within wetlands and stream buffers or forest conservation areas.
- Vehicle ingress and egress into public right-of-way is restricted except at locations approved by the Howard County Dept. of Planning & Zoning.
- Public water and sewer exists on-site. Water contract # 44-3350 D Sewer Contract # 34-3212 D.
- Any damage to county owned right-of-way to be corrected at the developer's expense.
- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
- Information concerning underground utilities was obtained from available records, but the contractor must determine the exact location of utilities by digging test pits, by hand, at all crossings prior to construction.
- No Wetland exists on site per letter from Exploration Research, dated 5/1/01.
- Storm Water Management provided in Dry Swales and shall be privately owned and maintained.
- Forest Conservation Note: This project is subject to a Declaration of Intent for clearing less than 40,000 SF of forest on the site. There is no forest on the site and no forest is proposed for clearing.
- No floodplains as defined by Howard County Department of Public Works exist on-site.
- There is no landscape surety for this public project.
- The extent of Phase II: a new play area, shifting a ballfield and relocating the backstop. There are 14 new parking spaces, stormwater management, landscaping and grading.

SITE ANALYSIS

- AREA OF SITE: 10.613 Ac.±
 - LIMIT OF DISTURBED AREA: 2.07 Ac.±
 - PRESENT ZONING DESIGNATION: R-20
 - PROPOSED USE: ADDITION TO PARKING LOT 4 NEW PLAY AREA
 - FLOOR SPACE TABULATION
- | EXISTING SCHOOL | 09.010 SF | 1.49 Ac. |
|-----------------|-----------|----------|
| TOTAL | 09.010 SF | 1.49 Ac. |
- PARKING TABULATION
- | Parking Spaces Required | Existing Spaces | Proposed Spaces | TOTAL SPACES |
|-------------------------|-----------------|-----------------|--------------|
| 61 spaces | 61 spaces | 14 spaces | 84 spaces |
- AREA TABULATION
- | Proposed Building Coverage | 1.49 Ac. |
|----------------------------|----------------|
| Paved Parking Area | 1.25 Ac. |
| Green Area | 1.49 Ac. (75%) |

Legend

—	PROPERTY LINE
- - -	R/W LINE
- - -	EXISTING CONTOUR
—	EXISTING BUILDING
—	EXISTING WATER VALVE
—	EXISTING FIRE HYDRANT
—	EXISTING WATER LINE
—	EXISTING STORM DRAIN MANHOLE
—	EXISTING STORM DRAIN
—	EXISTING STORM DRAIN LINE
—	EXISTING SANITARY SEWER MANHOLE
—	EXISTING SANITARY SEWER LINE
—	PROPOSED FENCE
—	PROPOSED CURB & GUTTER
—	PROPOSED CONTOUR



ADDRESS CHART

PARCEL #	STREET ADDRESS
124	12041 Clarksville Pike Route 108

PERMIT INFORMATION CHART

REVISION NAME	SECTION / AREA	LOTS / PARCELS
CLARKSVILLE ELEMENTARY SCHOOL	N/A	

PLAT No. of L.P.	GRID No.	ZONE	TAX MAP No.	ELECT. DIST.	CONDS. TRACT
346 / 281	19	R20	24	5th	602501

WATER CODE: T01 SEWER CODE: 6483500

APPROVED: DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 12/10/01

CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 12/10/01

DIRECTOR
 DATE: 12/10/01

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS

DATE: 12/10/01

COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT

Clarksville Elementary School Additions - Renovations
 12041 Md. Route 108 Clarksville, Maryland 21024
 5th Election District Howard County, Maryland
 Tax Map 24 Grid 19 Parcel 124 Zoning: R-20 Deed Ref. 346 / 281

Site Development Plan PH II

REVISION #1	REVISIONS
3/11/02	RELOCATED DRY SWALE #1, MOVED NEW PLAY AREA, REMOVED TWO PARKING SPACES.
Rev. #2	Added full kindergarten addition, cone & 5'-4" asphalt sidewalks, eliminated ex. shed, ex. F.O.C. sidewalks & 2 ex. 20" Maple trees.

DRAWN BY: TPD CONTRACT NO.:

DESIGNED BY: RLR SCALE: 1" = 50'

CHECKED BY: JLS SRI PROJECT NO: 01048

DATE: Nov 2, 2001 SHEET 1 OF 7

SITE RESOURCES
 Incorporated
 Comprehensive Land Planning & Site Design Services
 14307 Arrettsville Pike • Phoenix, Maryland 21101
 (410) 683-3388 • fax (410) 683-3389



Landscape Notes:

- Quantities shown on the plant list are estimates only, the contractor is required to install the quantities labeled in plan view. Contractor shall notify Site Resources of any discrepancy between the quantities listed in the chart and quantities shown in plan view.
- Plant material substitutions are subject to approval by the owner's representative.
- Locations of all plant material shall be staked for approval by the owner's representative. Owner reserves the right to shift stakeout locations.
- All shrub and groundcover areas shall be planted in continuous prepared beds, mulched with composted hardwood mulch as detailed and specified.
- Planting beds shall have positive drainage with a minimum 2 percent slope.
- Contractor shall verify accuracy of base information and existing conditions in the field to his own satisfaction. Bid shall be based on actual site conditions. No extra shall be made for work arising from site conditions differing from those indicated on drawings and specifications.
- The contractor shall notify Miss Utility at 1-800-251-1111 a minimum of two working days prior to beginning planting and construction.
- Damage to existing conditions and utilities shall be repaired and restored at the expense of the contractor.
- All plant material shall be nursery grown and shall conform to American Association of Nurserymen, Inc. standards.
- All planting procedures shall conform to the latest edition of Landscape Contractor Association Guidelines for the Baltimore/Washington metropolitan area, latest edition.
- A minimum of 46" headroom is required for all handicap accessible spaces per ADA64.65.
- Financial surety for the required Landscaping has not been posted as part of the DPM developer's agreement. (Public School)

**SCHEDULE A
PERIMETER LANDSCAPE EDGE**

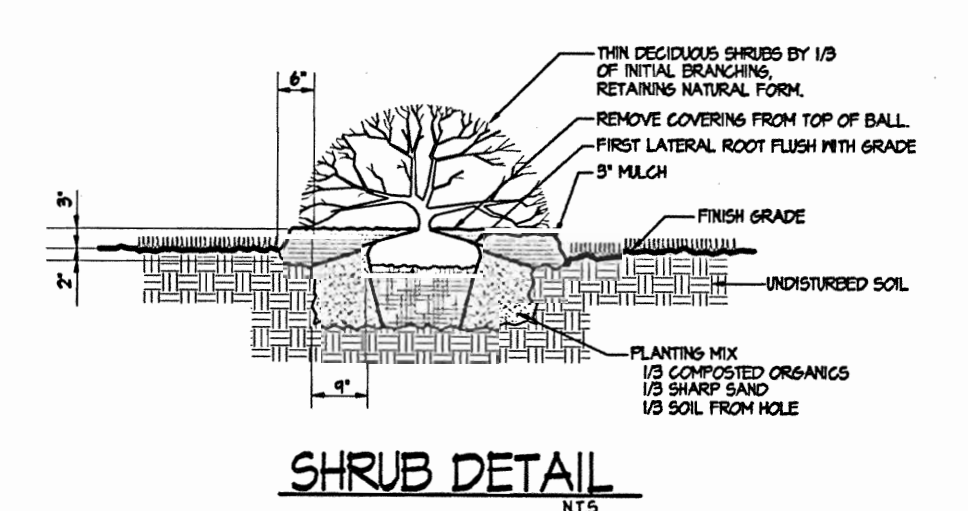
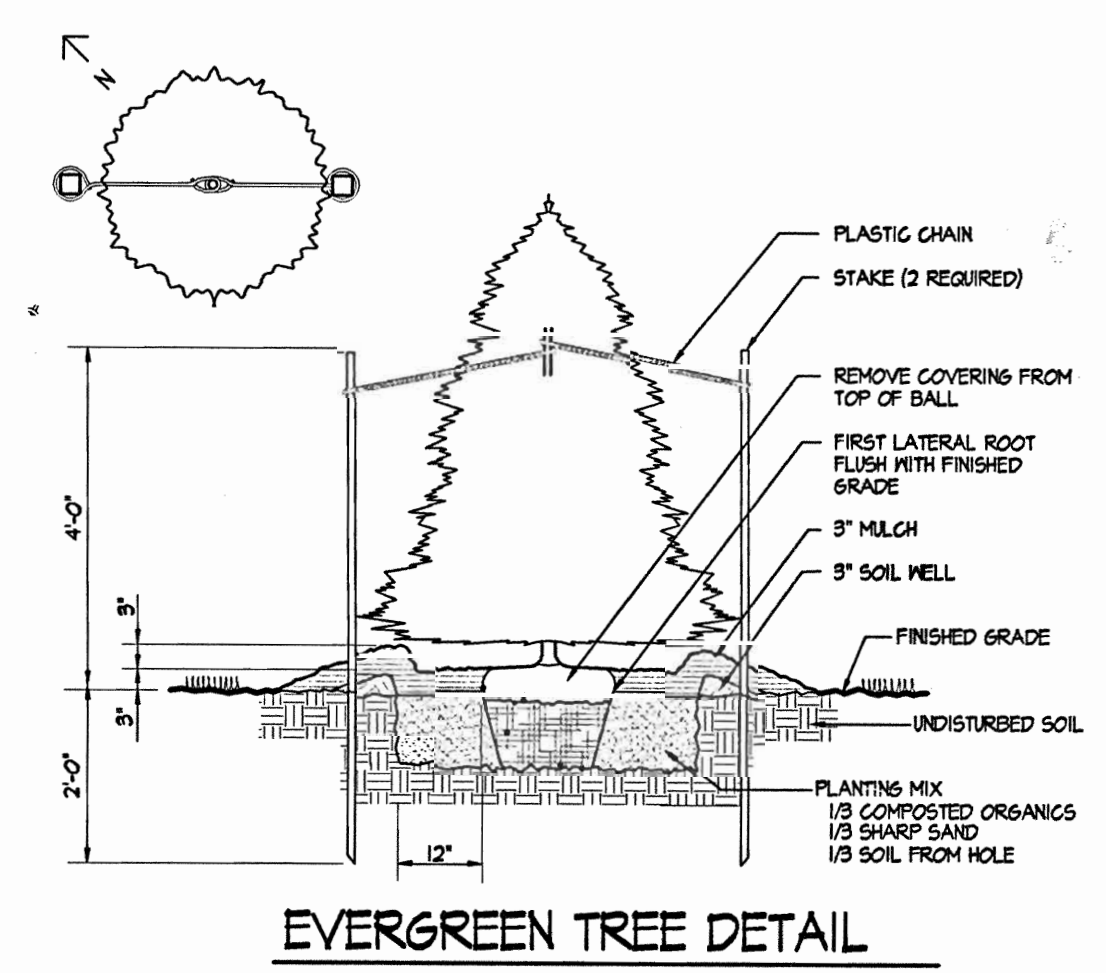
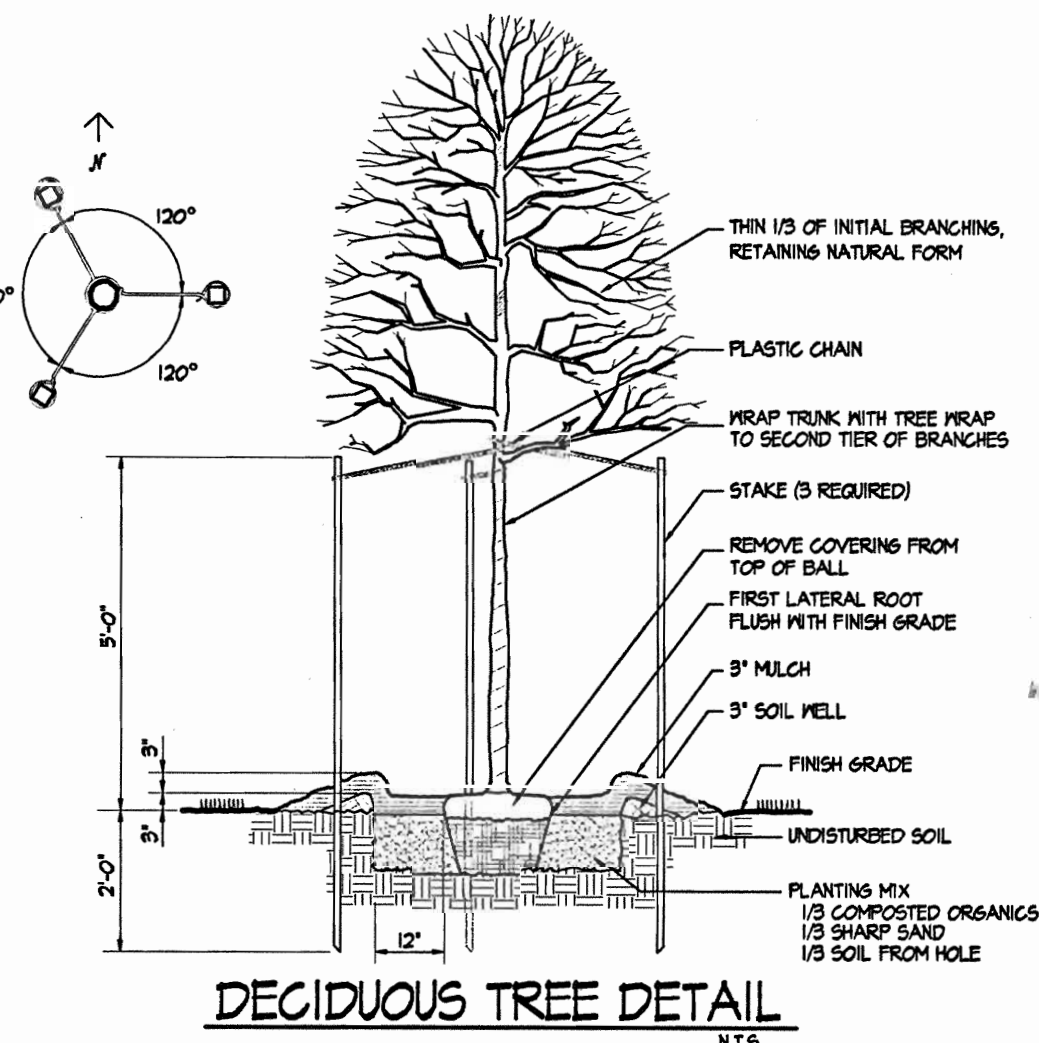
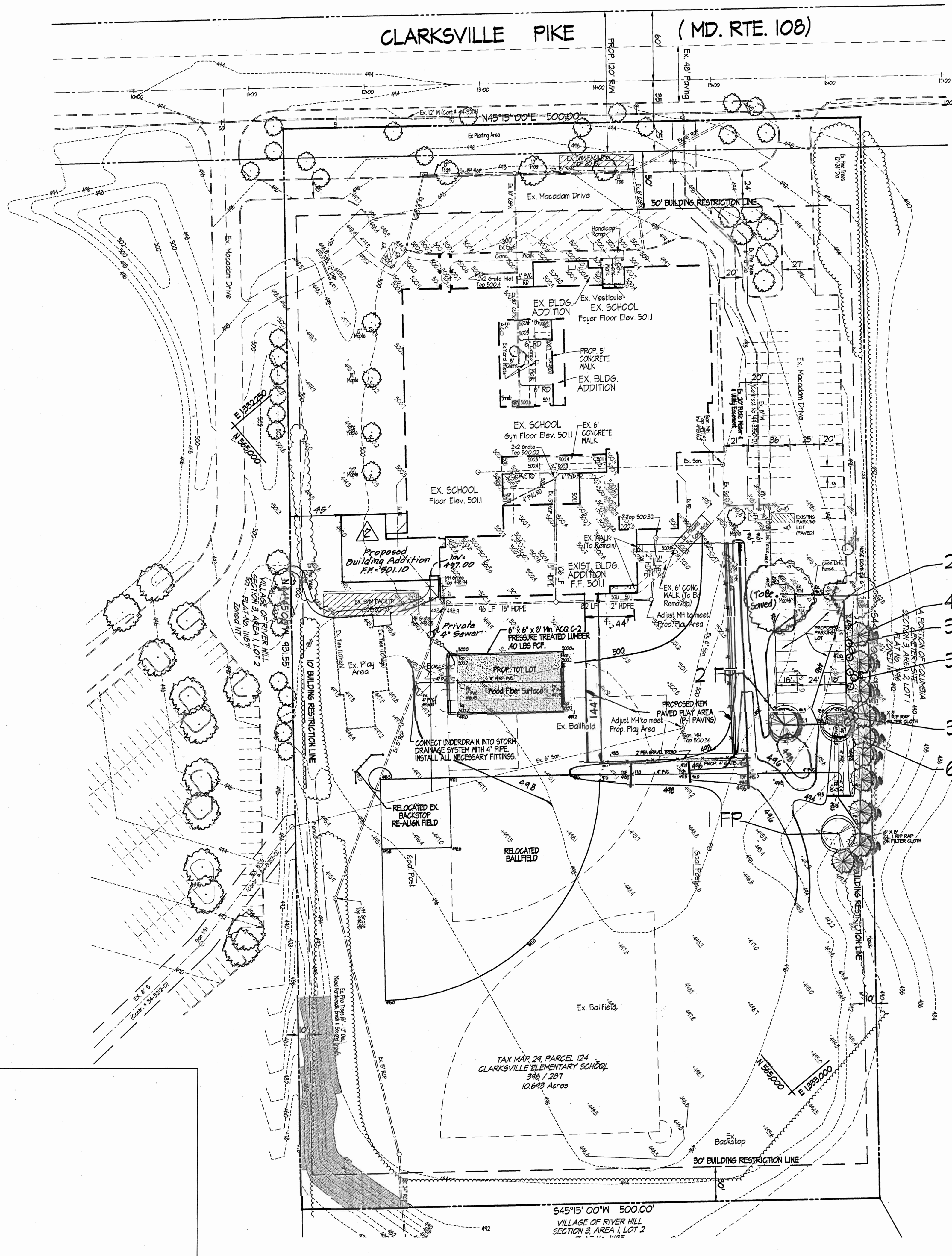
CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	N/A	A
LINEAR FEET OF ROADWAY FRONTAGE / PERIMETER	N/A	170
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	N/A	NO
CREDIT FOR MALL, FENCE, OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	N/A	NO
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	N/A	170 / 60 = 2.8 3 0 0
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	N/A	21 EXISTING TREES 4 EVERGREEN TREES 4 SHRUBS

**SCHEDULE B
PARKING LOT INTERNAL LANDSCAPING**

NUMBER OF PARKING SPACES	21
NUMBER OF TREES REQUIRED	1 PER 20 SPACES = 1
NUMBER OF TREES PROVIDED SHADE TREES OTHER TREES (2:1 SUBSTITUTION)	2

**SCHEDULE D
STORMWATER MANAGEMENT AREA LANDSCAPING**

LINEAR FEET OF PERIMETER	120 FT
NUMBER OF TREES REQUIRED SHADE TREES EVERGREEN TREES	120 / 40 = 3
CREDIT FOR EXISTING VEGETATION (YES, NO, AND %)	NO
CREDIT FOR OTHER LANDSCAPING (YES, NO, AND %)	NO
NUMBER OF TREES PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION)	1 5



- 2 EXISTING AS
- 4 PS
- 3 VPS
- 3 EAC
- 3 VPS
- 6 PS

Plant List

THIS PLANTING LIST INCLUDES PLANTS FROM ALL PLANTING PLANS. PLANT KEY ABBREVIATIONS AND NAMES ARE INCLUDED ON OTHER PLANTING PLANS SOLELY FOR CONTRACTOR'S CONVENIENCE.

KEY	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY
MAJOR DECIDUOUS TREES	FRAXINUS PENNSYLVANICA 'SUMMIT'	GREEN ASH	2' CAL	3
EVERGREEN TREES	PINUS STROBUS	WHITE PINE	6' - 8' HT.; FULL, NATURAL	10
SHRUBS	EUONYMUS ALATUS COMPACTUS	DIARF HINSED EUONYMUS	30" - 36" HT	3
	VIORUM FLICATUM 'SHASTA'	'SHASTA' DOUBLEFILED VIBURNUM	30"-36" HT	6
EXISTING TREES	ACER SACCARRIM	SUGAR MAPLE	36" CAL	2

APPROVED: DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 11/16/09

CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 12/17/09

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
 DATE: 12-14-09

Clarksville Elementary School Additions - Renovations
 12041 Md. Route 108 Clarksville, Maryland 21024
 5th Election District Howard County, Maryland
 Tax Map 24 Grid 14 Parcel 124 Zoning: R-20 Dead Ref. 346 / 201

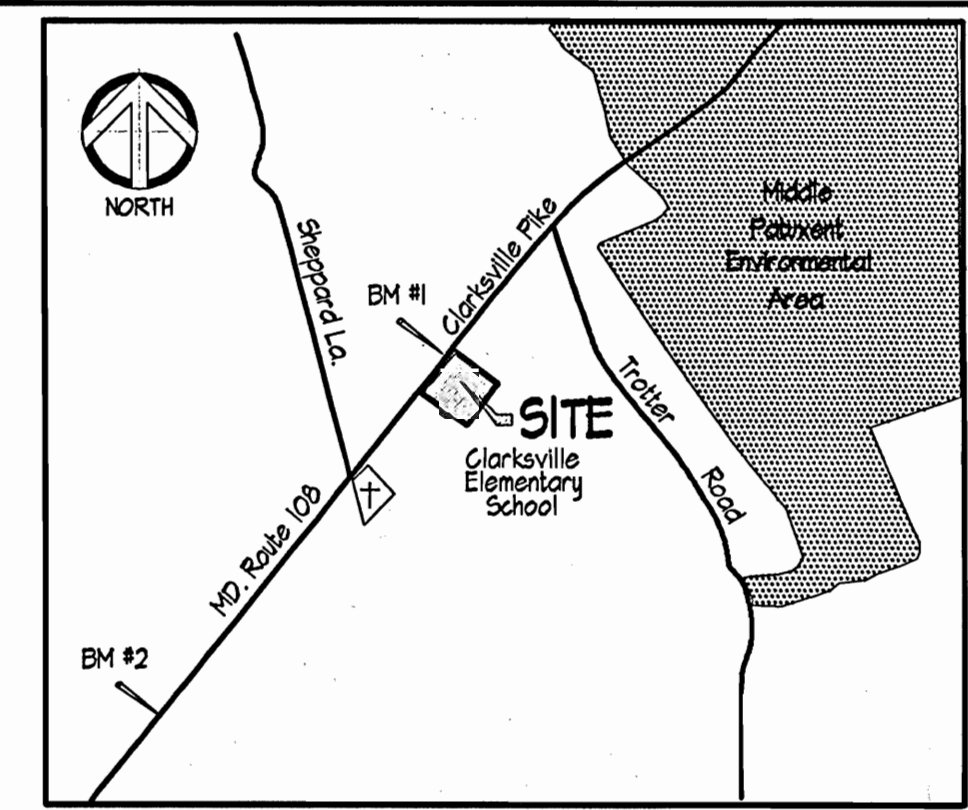
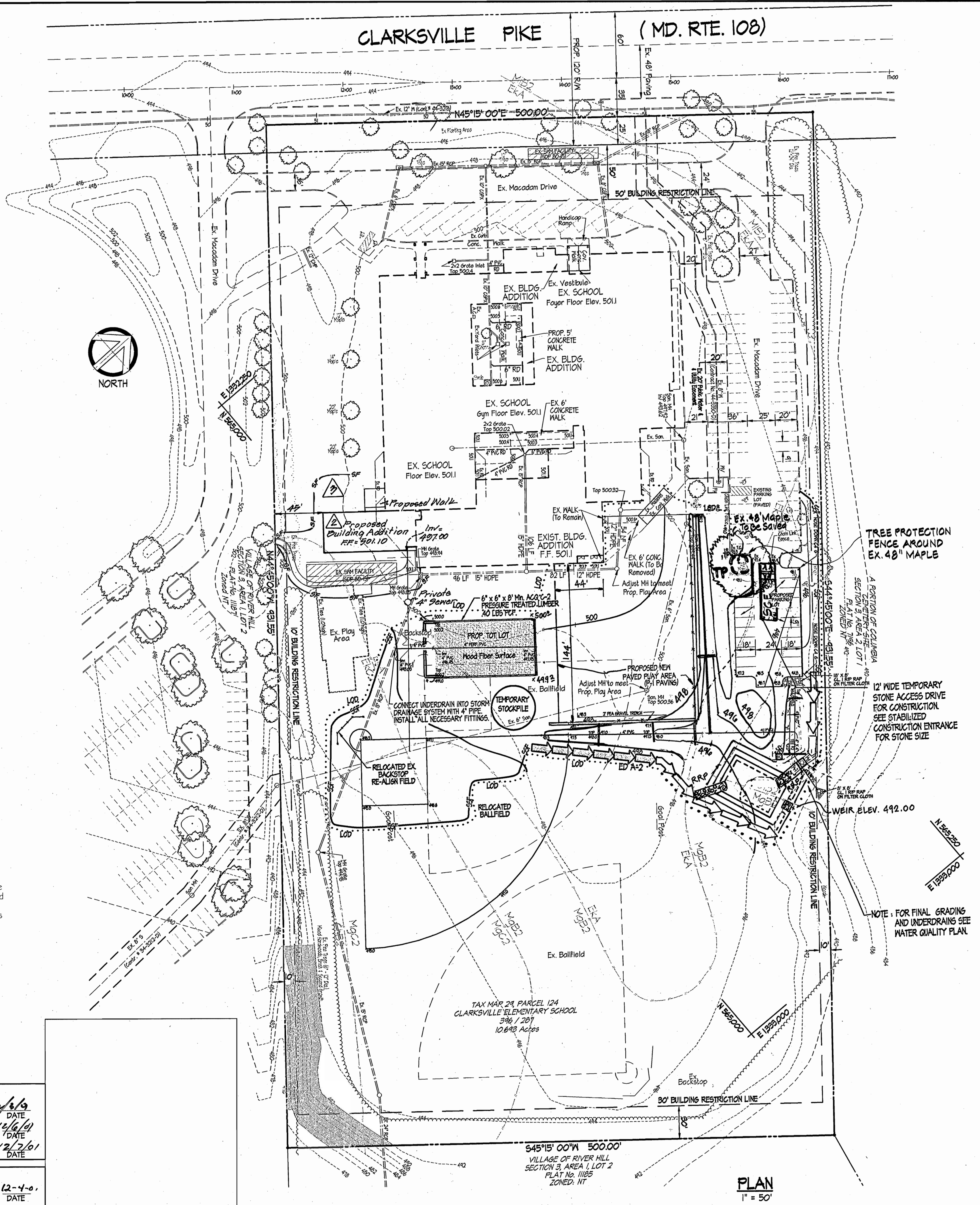
Landscape Plan

No.	REVISIONS	Date
1	Added full kindergarten addition, conc. FGA & asphalt sidewalks; eliminated ex. shed, ex. sidewalks & 2 of 10 Maple trees.	8-1-09

STATE OF MARYLAND PROFESSIONAL ENGINEER
 FISHER COLLINS AND CARTER, INC.
 R.S. (S) 133 P. 51405

SITE RESOURCES Incorporated
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DRAWN BY: TPD CONTRACT NO.:
 DESIGNED BY: RLR SCALE: 1" = 50'
 CHECKED BY: JLS SRI PROJECT NO: 01048
 DATE: Nov 2, 2009 SHEET 7 OF 7



VICINITY MAP
Scale: 1" = 2000'

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	NAD 83	NVD 74
2465	N 568,341.204 E 1333,342.413	EL. 380.13
2462	N 566,867.462 E 1333,325.606	EL. 450.141

BENCHMARKS SET:
TRAV. 1 N 565,086.2142 E 1332,541.5405 EL. 500.663
TRAV. 2 N 565,224.3042 E 1332,151.5194 EL. 446.40

No.	Revision	Date
9	Eliminated 1 classroom from the proposed building addition by FCC.	7/11/05

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

Jim Myers 11/15/01
DATE

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

John Holzman 11/15/01
DATE

ENGINEER'S CERTIFICATE

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

Jeffery Schuch 11/7/01
DATE

DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

Cathleen Conley Jung 11/7/01
DATE

Clarksville Elementary School Additions - Renovations
12041 Md. Route 108 Clarksville, Maryland 21029
5th Election District Howard County, Maryland
Tax Map 24 Grid 19 Parcel 124 Zoning: R-20 Deed Ref. 346 / 281

Erosion & Sediment Control Plan

REVISION #1

REVISIONS
3/11/02 MOVED TRAP, ADDED RIP RAP INFLOW PROTECTION, INCREASED LOD, MOVED DRY SWALE #2.
Rev. #2 Added full kindergarten addition, conc. & asphalt s.w., 5'-4" dia. elim. ex. shed, ex. 6" x 6" & 2" x 12" Maple trees; added FCC. S.F. & Sup. of Const. Notes.

SEDIMENT TRAP #1

TYPE: Stone Outlet Sediment Trap, ST-11	Exist. = 130 Ac.
DRAINAGE AREA:	Prop. = 130 Ac.
NET STORAGE REQUIRED:	2340 CF
NET STORAGE PROVIDED:	4,019 CF
DRY STORAGE REQUIRED:	2340 CF
DRY STORAGE PROVIDED:	2,405 CF
TOTAL REQUIRED:	4680 CF
TOTAL PROVIDED:	6,424 CF
CLEANOUT RECD:	1170 CF
CLEANOUT PROVID:	807 CF
NET STORAGE OUTLET ELEV.:	491.00
EX. GROUND @ 6' EMBANKMENT TRAP BOTTOM:	491.00
NET STORAGE ZONE:	489.0 - 491.00
DRY STORAGE ZONE:	491.0 - 492.00
CREST ELEVATION:	492.00
CLEANOUT ELEVATION:	489.50
BOTTOM DIMENSION:	50'x30' (IRREGULAR)
2:1 SLOPES	
EMBANKMENT ELEVATION:	493.00
WEIR LENGTH:	8.0'

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TOTAL REQUIRED: 4680 CF

TOTAL PROVIDED: 6,424 CF

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CLEANOUT PROVID: 807 CF

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NET STORAGE ZONE: 489.0 - 491.00

DRY STORAGE ZONE: 491.0 - 492.00

CREST ELEVATION: 492.00

CLEANOUT ELEVATION: 489.50

BOTTOM DIMENSION: 50'x30' (IRREGULAR)

2:1 SLOPES

EMBANKMENT ELEVATION: 493.00

WEIR LENGTH: 8.0'

- FULL DAY KINDERGARTEN ADDITION CONSTRUCTION SEQUENCE**
1. Obtain grading permit.
 2. Install Sediment Control measures and receive permission from the Sediment Control Inspector to proceed without grading for the Full Day Kindergarten Addition.
 3. Construct Full Day Kindergarten Addition And Walkways.
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 6. Notify Howard County Office Of Inspections And permits For Final Inspection.

APPROVED: DEPARTMENT OF PLANNING & ZONING

12/6/01 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION

12/6/01 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT

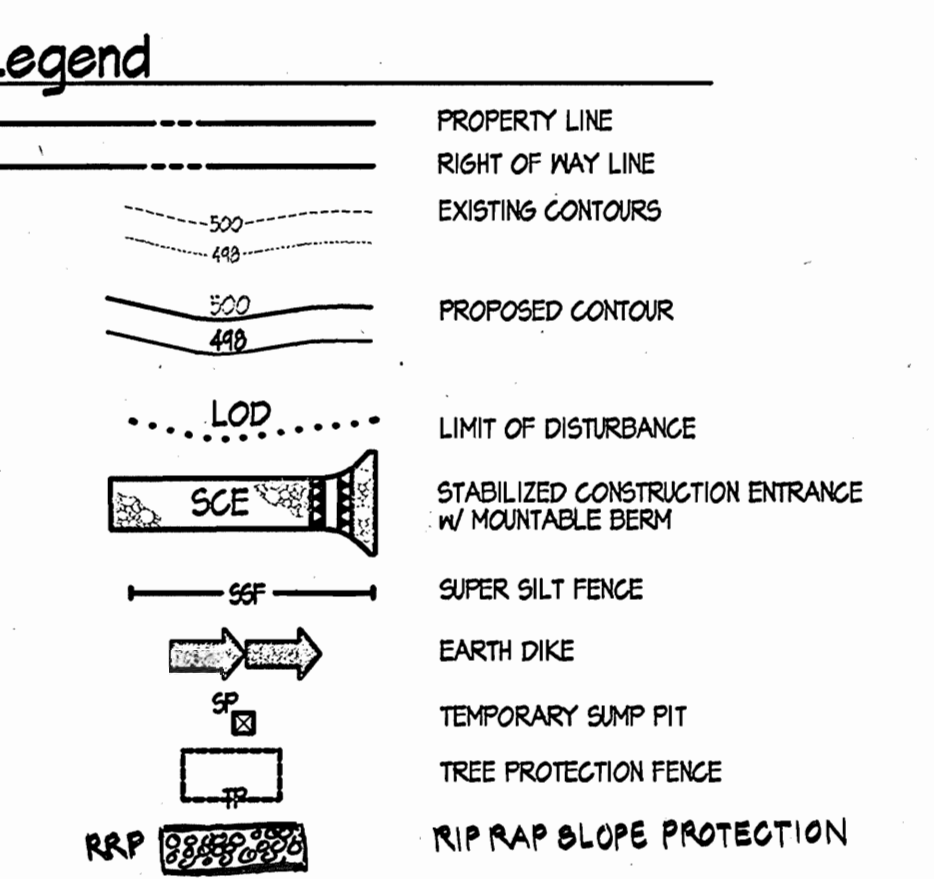
12/20/01 DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS

12-4-01 DATE

COUNTY HEALTH OFFICER

HOWARD COUNTY HEALTH DEPARTMENT



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TOTAL REQUIRED: 4680 CF

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DRY STORAGE ZONE: 491.0 - 492.00

CREST ELEVATION: 492.00

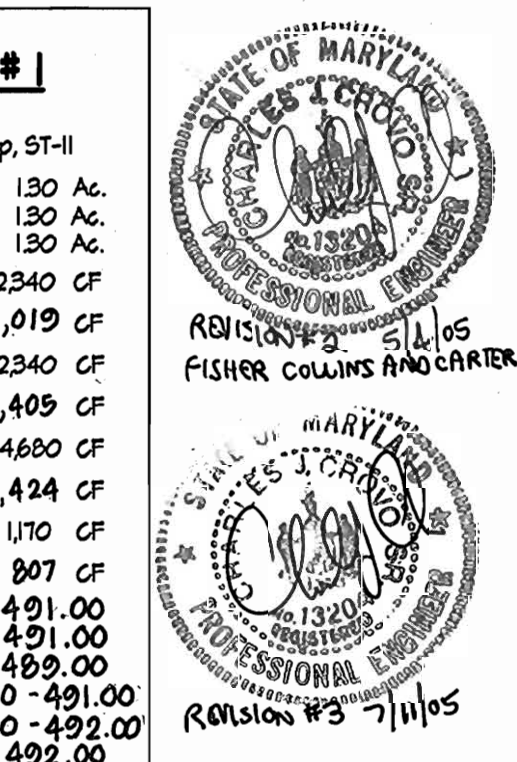
CLEANOUT ELEVATION: 489.50

BOTTOM DIMENSION: 50'x30' (IRREGULAR)

2:1 SLOPES

EMBANKMENT ELEVATION: 493.00

WEIR LENGTH: 8.0'



SITE RESOURCES
INCORPORATED

Comprehensive Land Planning & Site Design Services

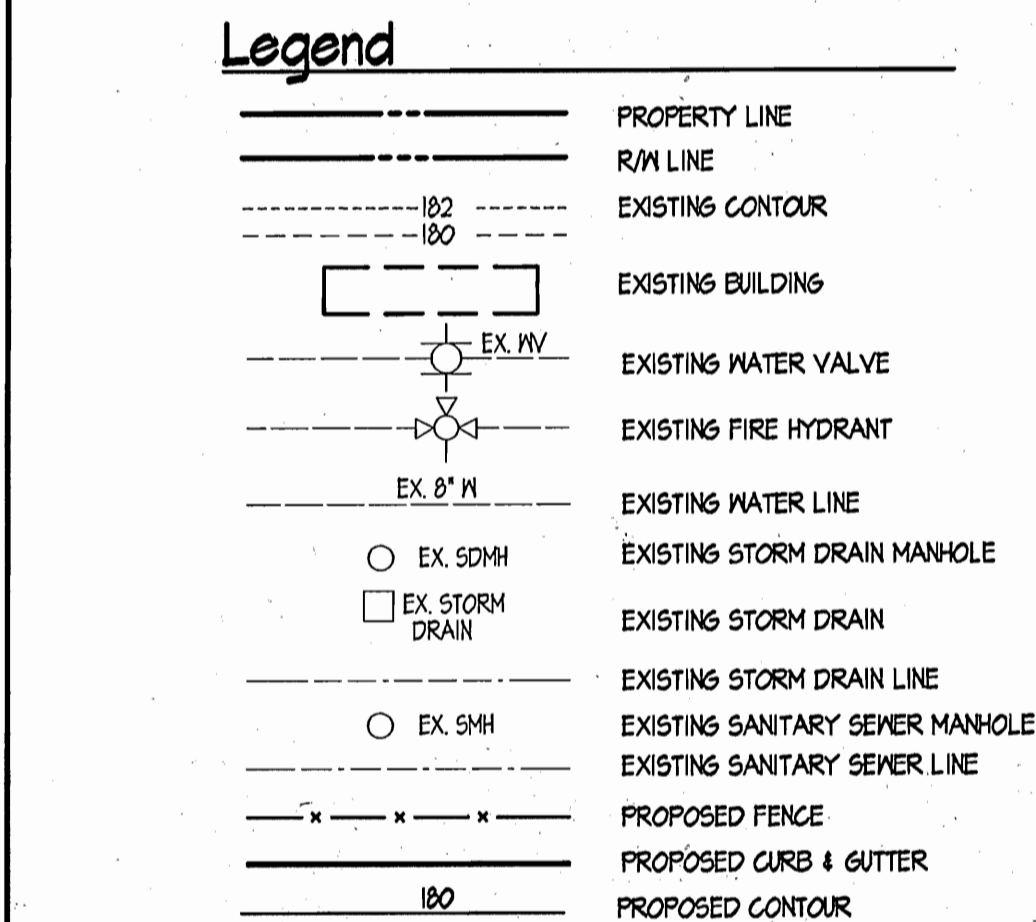
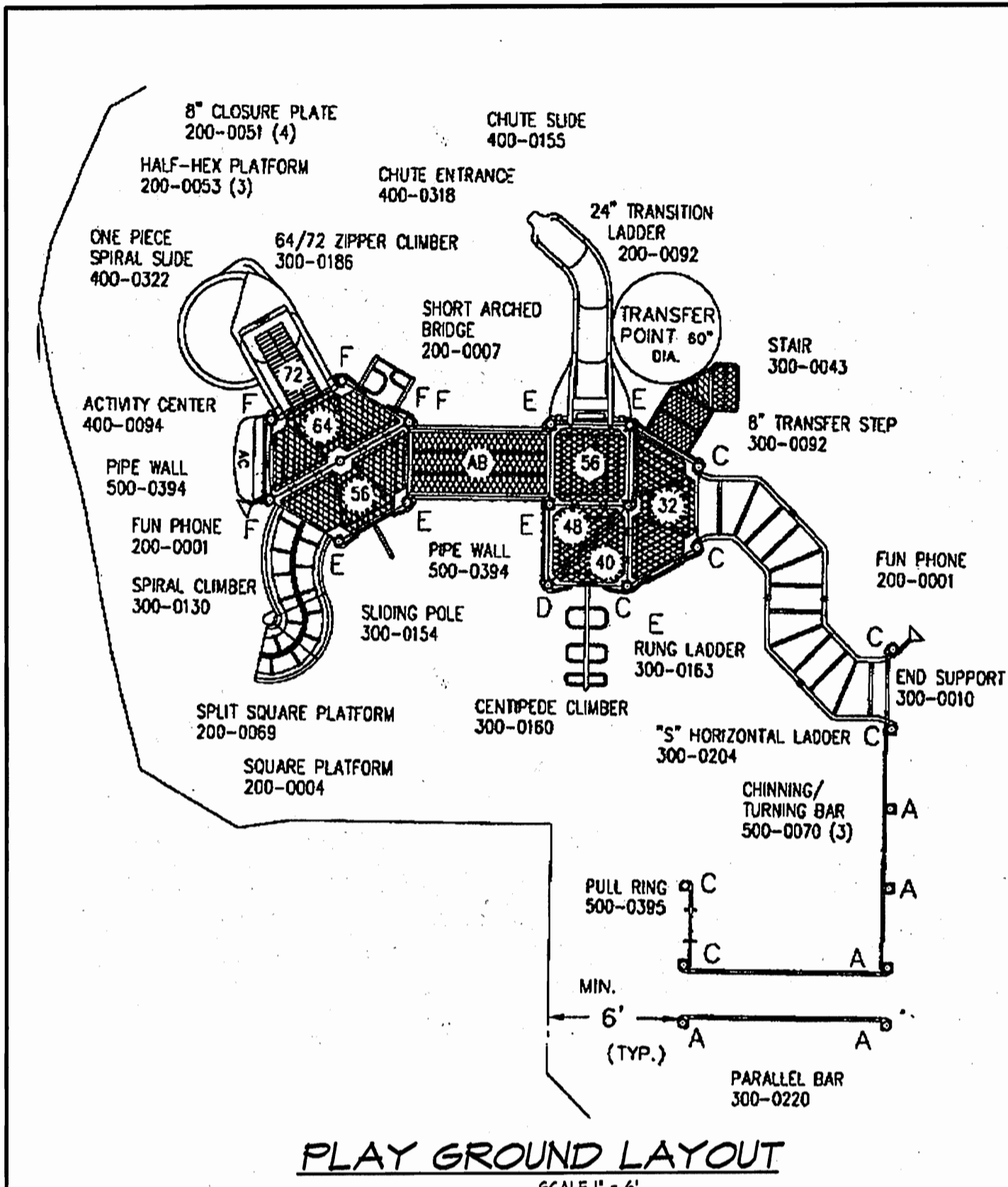
14307 Jarrettville Pike • Phoenix, Maryland 21131
(410) 683-3388 • Fax (410) 683-3389

DRAWN BY: TPD CONTRACT NO.:

DESIGNED BY: RLR SCALE: 1" = 50'

CHECKED BY: JLS SRI PROJECT NO: 01048

DATE: Nov 2, 2001 SHEET 2 OF 7

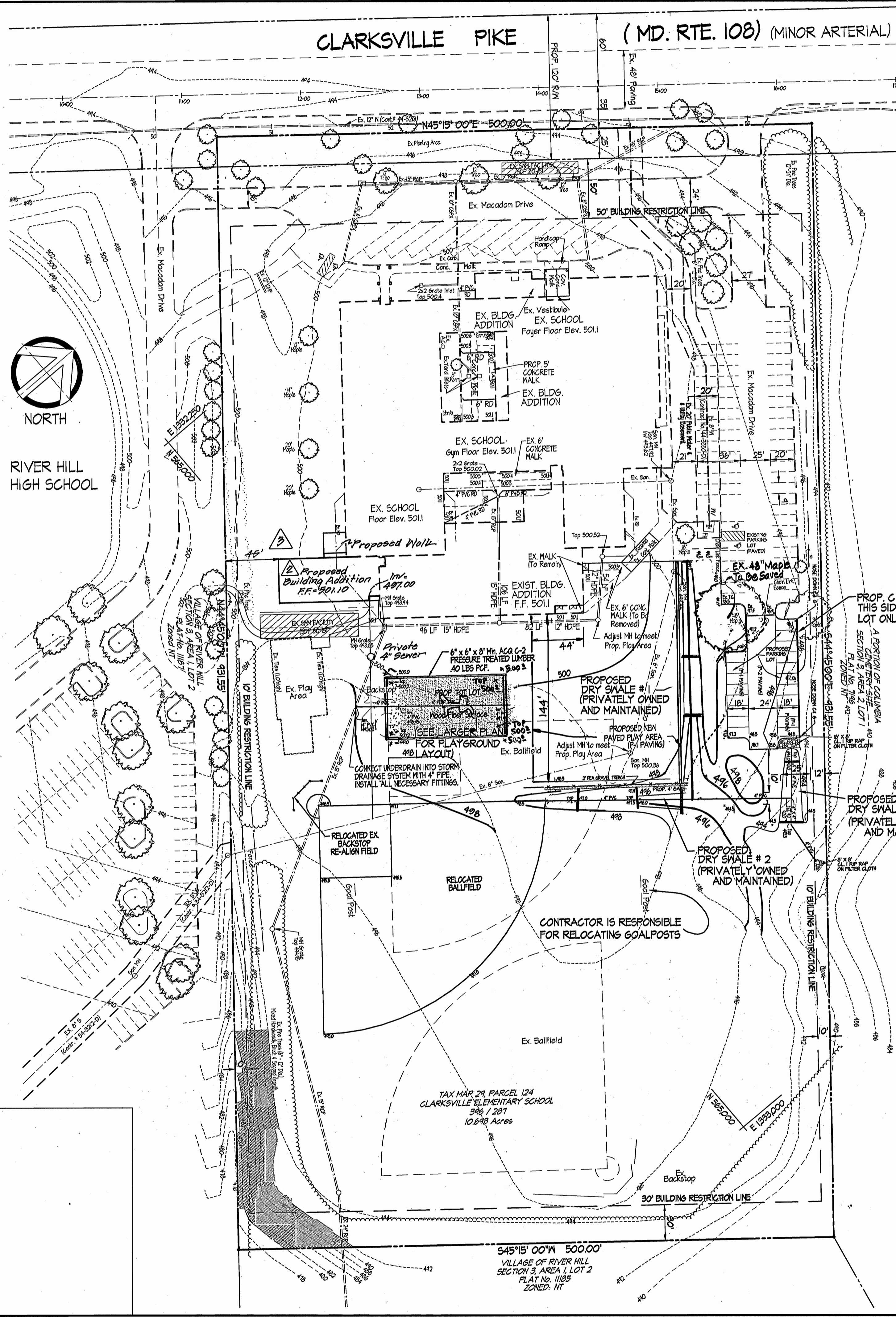


APPROVED: DEPARTMENT OF PLANNING & ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DIRECTOR

12/10/01 DATE
 12/16/01 DATE
 12/21/01 DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT

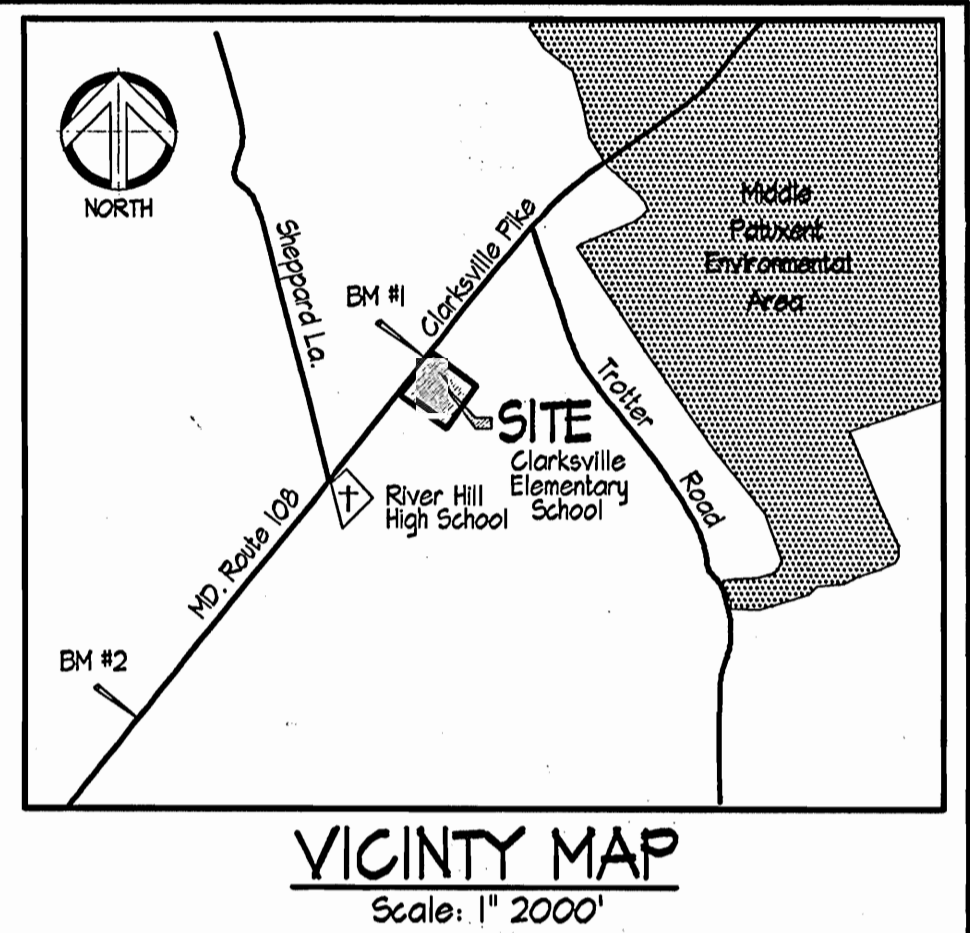
12-4-01 DATE



SHEET #	DRAWING TITLE
1	SITE DEVELOPMENT PLAN
2	SEDIMENT AND EROSION CONTROL PLAN
3	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
4	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
5	SITE DETAILS
6	WATER QUALITY PLAN & DETAILS
7	LANDSCAPE PLAN

GENERAL NOTES

- The existing topography shown was field run by Shorabarger & Lane on April 24, 2001 and supplemented by aerial topography.
- Department of Planning & Zoning reference file numbers are SDP 80-15, SDP 01-141, NP 48-44, NP 48-128, NP 00-117, NP-01-130 for relocatable trailers.
- All roadways are existing and private.
- The coordinates shown herein are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System - Howard County Monuments No's 2131002 & 2031004.
- The contractor shall notify the Department of Public Works / Construction Inspection Division at (410) 313-1800 at least (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-257-TTTT at least 48 hours prior to any excavation work.
- No clearing, grading or construction is permitted within wetlands and stream buffers or forest conservation areas.
- Vehicular ingress and egress into public right-of-way is restricted except at locations approved by the Howard County Dept. of Planning & Zoning.
- Public water and sewer exists on-site. Water contract # 44-3350 D Sewer Contract # 34-3212 D.
- Any damage to county owned right-of-way to be corrected at the developer's expense.
- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
- Information concerning underground utilities was obtained from available records, but the contractor must determine the exact location of utilities by digging test pits, by hand, at all crossings prior to construction.
- No Wetlands exist onsite per letter from Exploration Research, dated 5/7/01.
- Storm Water Management provided in Dry Swales and shall be privately owned and maintained.
- Forest Conservation Note: This project is subject to a Declaration of Intent is for clearing less than 40,000 SF of forest on the site. There is no forest on the site and no forest is proposed for clearing.
- No floodplains as defined by Howard County Department of Public Works exist on-site.
- The extent of Phase II: a new play area, shifting a ballfield and relocating the backstop. There are 14 new parking spaces, stormwater management, landscaping and grading.



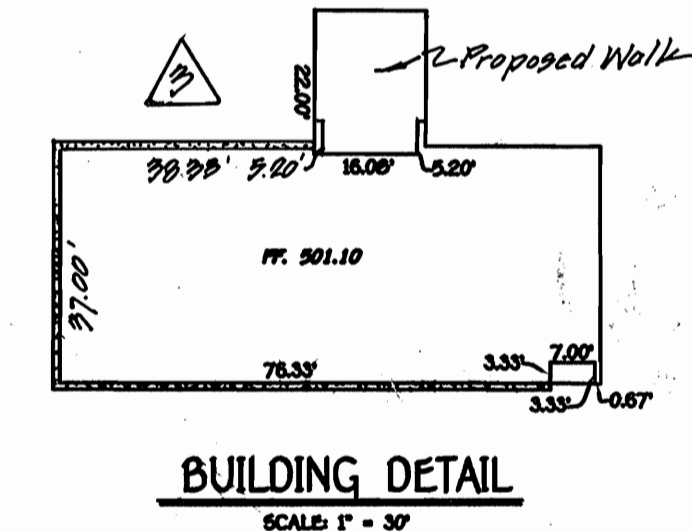
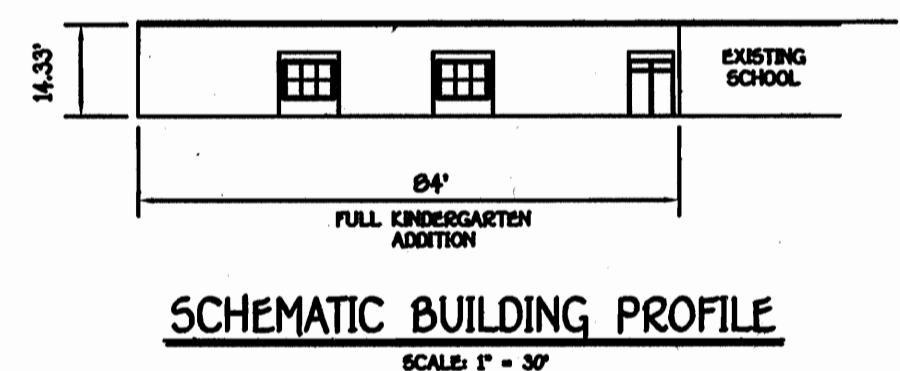
THE HORIZONTAL AND VERTICAL CONTROL USED IN THIS SURVEY IS BASED ON HOWARD COUNTY GEODETIC CONTROL POINTS 2465 & 2464.

	NAD 83	NGVD '21
2465	N 568,341.204	E 1335,342.473
2462	N 566,861.462	E 1333,325.606

BENCHMARKS SET:
 TRAV. 1 N 565,086.2142 E 1332,541,3405 EL. 500.63
 TRAV. 2 N 565,224.3042 E 1332,151,1514 EL. 446.40

SITE ANALYSIS

a. AREA OF SITE:	10,643 Ac.±
b. LIMIT OF DISTURBED AREA:	207 Ac.±
c. PRESENT ZONING DESIGNATION:	R-20
d. PROPOSED USE: ADDITION TO PARKING LOT & NEW PLAY AREA	
e. FLOOR SPACE TABULATION	
EXISTING SCHOOL	89,010 SF 1.45 Ac. (A)
TOTAL	89,010 SF 1.45 Ac. (A)
f. PARKING TABULATION	
Parking Spaces Required	61 spaces 4 HC
Existing Spaces:	19 spaces
Proposed Spaces:	42 spaces
TOTAL SPACES:	64 spaces
g. AREA TABULATION:	
Proposed Building Coverage	1.45 Ac.
Paved Parking Area	1.25 Ac.
Green Area	7.94 Ac. (75%) (B)



ADDRESS CHART

PARCEL #	STREET ADDRESS
124	12041 Clarksville Pike Route 10B

PERMIT INFORMATION CHART

SUBDIVISION NAME	SECTION / AREA	LOTS / PARCELS
CLARKSVILLE ELEMENTARY SCHOOL	104	1

FLAT No. 01 LF 14 GRID No. 14 ZONE TAX MAP No. 114 ELECT. DIST. 5 19 CORRES. TRACT 346 / 281 14 R20 21 5 19 6255-01 SEWER CODE 6653300

Clarksville Elementary School Additions - Renovations
 12041 Md. Route 10B Clarksville, Maryland 21024
 5th Election District Howard County, Maryland
 Tax Map 24 Grid 14 Parcel 124 Zoning: R-20 Deed Ref. 346 / 281

Site Development Plan PH II

REVISION #1 REVISIONS
 9/11/02 RELOCATED DRY SWALE #1, MOVED NEW PLAY AREA, REMOVED TWO PARKING SPACES.
 Rev. #2 Added full kindergarten addition, conc. & asphalt sidewalks, eliminated ex. shed, ex. side walks & 2 ex. 20" Maple trees.

SITE RESOURCES
 Comprehensive Land Planning & Site Design Services
 14307 Armettsville Pike • Phoenix, Maryland 21151
 (410) 683-3388 • Fax (410) 683-3389

DRAWN BY: TPD CONTRACT NO.:
 DESIGNED BY: RLR SCALE: 1" = 50'
 CHECKED BY: JLS SRI PROJECT NO: 01048
 DATE: Nov 2, 2001 SHEET 1 OF 7



Landscape Notes:

- Quantities shown on the plant list are estimates only; the contractor is required to install the quantities labeled in plan view. Contractor shall notify Site Resources of any discrepancy between the quantities listed in the chart and quantities shown in plan view.
- Plant material substitutions are subject to approval by the owner's representative.
- Locations of all plant material shall be staked for approval by the owner's representative. Owner reserves the right to shift stakeout locations.
- All shrubs and groundcover areas shall be planted in continuous prepared beds, mulched with composted hardwood mulch as detailed and specified.
- Planting beds shall have positive drainage with a minimum 2 percent slope.
- Contractor shall verify accuracy of base information and existing conditions in the field to his own satisfaction. Bid shall be based on actual site conditions. No extra shall be made for work arising from site conditions differing from those indicated on drawings and specifications.
- The contractor shall notify Miss Utility at 1-800-251-TUTT a minimum of two working days prior to beginning planting and construction.
- Damage to existing conditions and utilities shall be repaired and restored at the expense of the contractor.
- All plant material shall be nursery grown and shall conform to American Association of Nurserymen, Inc. standards.
- All planting procedures shall conform to the latest edition of Landscape Contractor Association Guidelines for the Baltimore/Washington metropolitan area, latest edition.
- A minimum of 96" headroom is required for all handicap accessible spaces per ADAAG-4.6.5.
- Financial surety for the required Landscaping has not been posted as part of the DPK developer's agreement. (Public School)

**SCHEDULE A
PERIMETER LANDSCAPE EDGE**

CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	N/A	A
LINEAR FEET OF ROADWAY FRONTAGE / PERIMETER	N/A	170
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	N/A	NO
CREDIT FOR MALL, FENCE, OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	N/A	NO
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	N/A	170 / 60 = 28 3 0 0
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	N/A	21 EXISTING TREES 4 EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION) 4 SHRUBS

**SCHEDULE B
PARKING LOT INTERNAL LANDSCAPING**

NUMBER OF PARKING SPACES	21
NUMBER OF TREES REQUIRED	1 PER 20 SPACES = 1
NUMBER OF TREES PROVIDED SHADE TREES OTHER TREES (2:1 SUBSTITUTION)	2

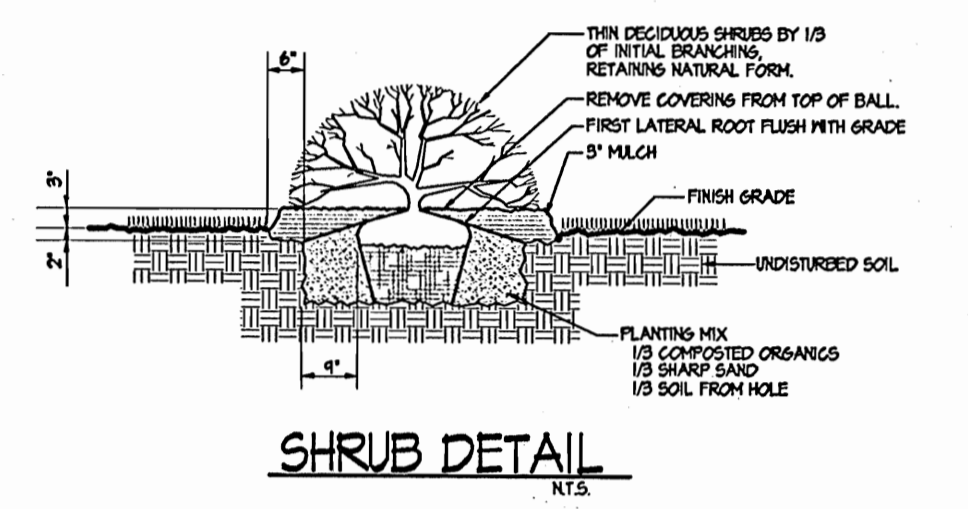
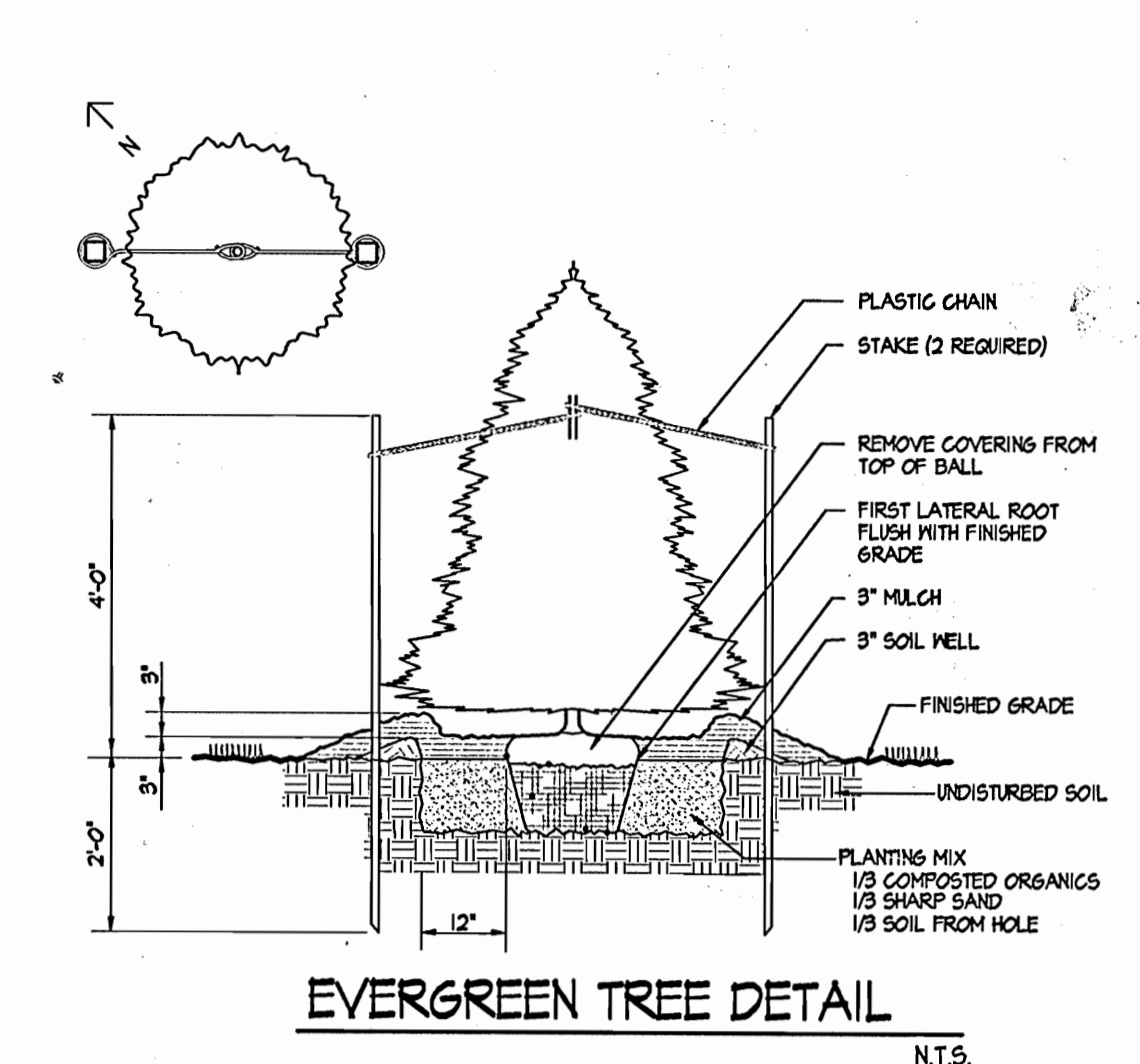
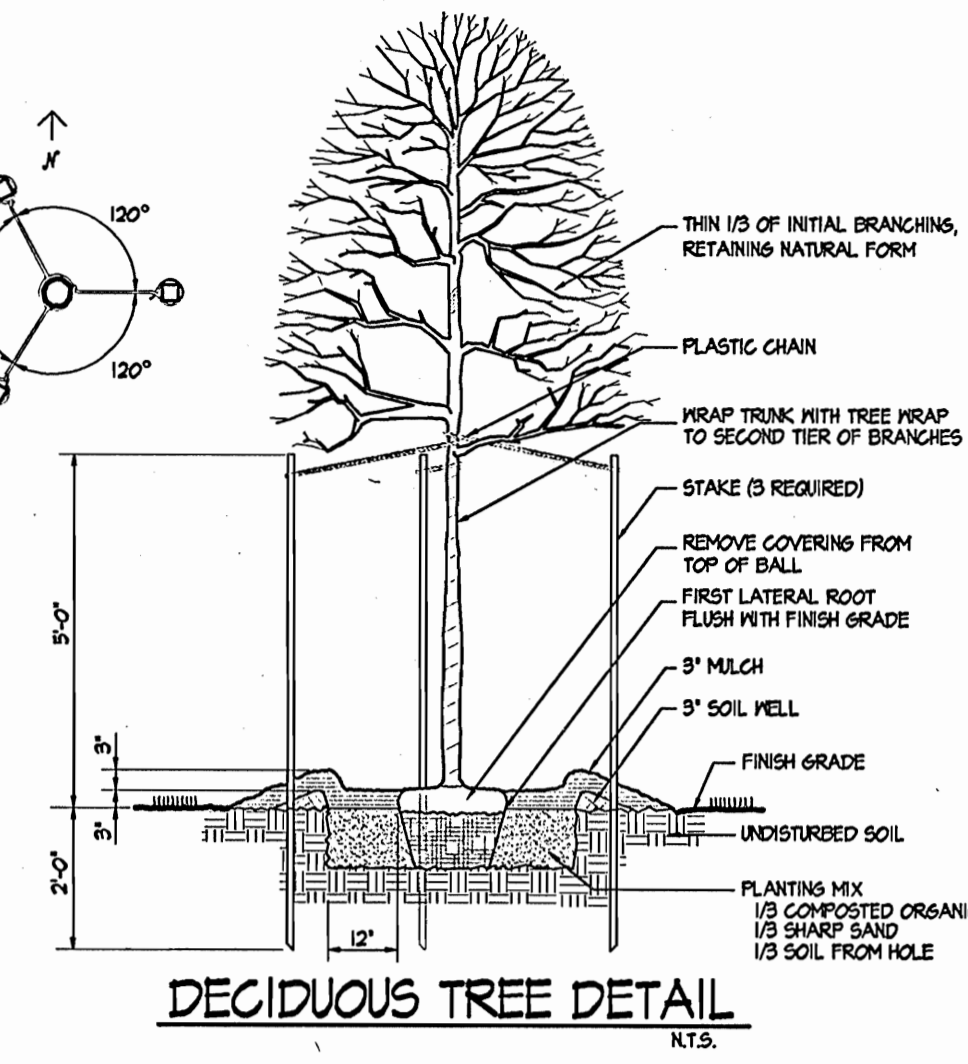
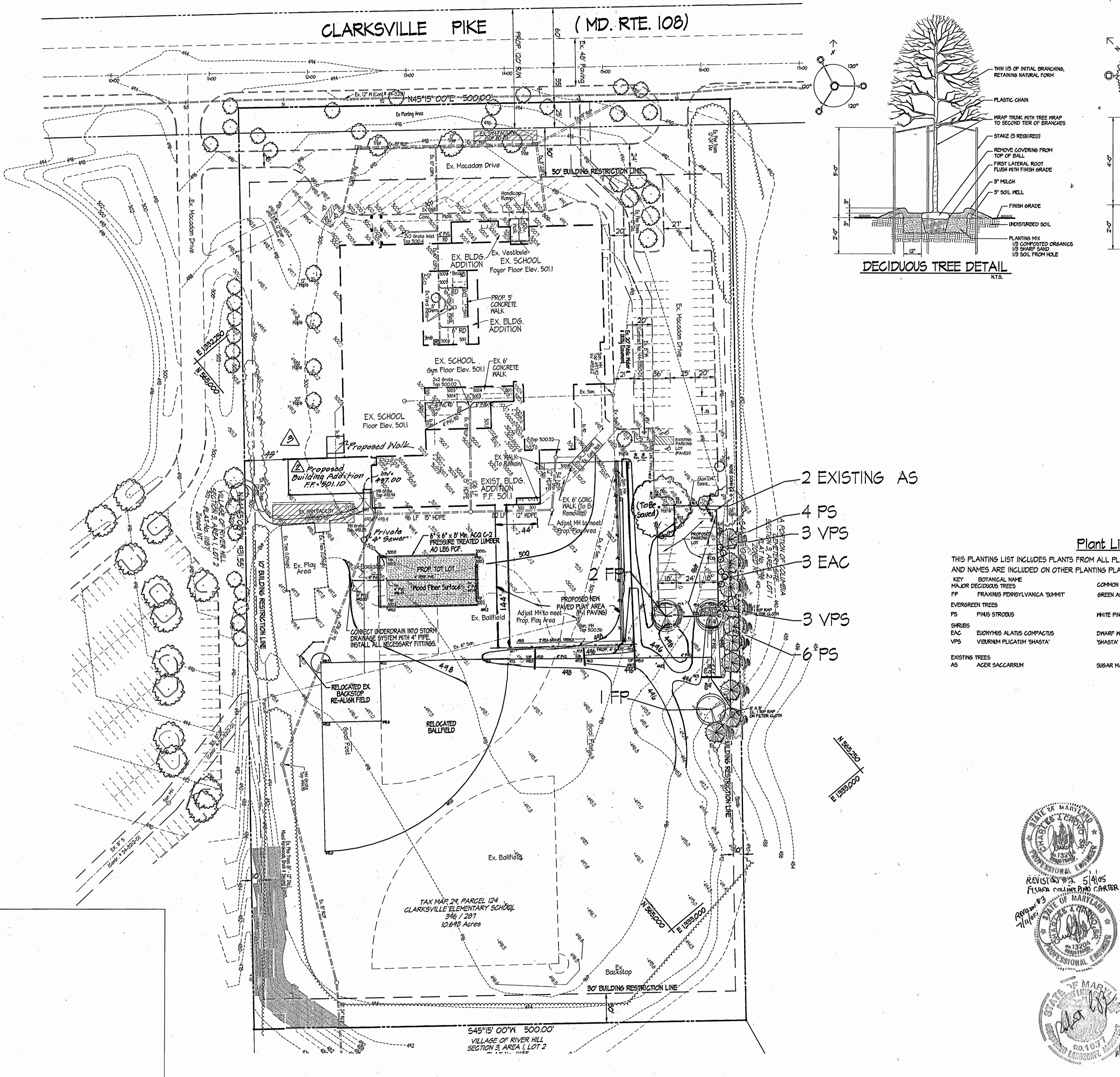
**SCHEDULE D
STORMWATER MANAGEMENT AREA LANDSCAPING**

LINEAR FEET OF PERIMETER	120 FT
NUMBER OF TREES REQUIRED SHADE TREES EVERGREEN TREES	120 / 40 = 3
CREDIT FOR EXISTING VEGETATION (YES, NO, AND %)	NO
CREDIT FOR OTHER LANDSCAPING (YES, NO, AND %)	NO
NUMBER OF TREES PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION)	1 5

APPROVED: DEPARTMENT OF PLANNING & ZONING

12/1/09 DATE
12/6/09 DATE
12/7/09 DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
12-4-09 DATE



- 2 EXISTING AS
- 4 PS
- 3 VPS
- 3 EAC
- 3 VPS
- 6 PS

Plant List

THIS PLANTING LIST INCLUDES PLANTS FROM ALL PLANTING PLANS. PLANT KEY ABBREVIATIONS AND NAMES ARE INCLUDED ON OTHER PLANTING PLANS SOLELY FOR CONTRACTOR'S CONVENIENCE.

KEY	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY
FP	FRAXINUS PENSYLVANICA 'SUMMIT'	GREEN ASH	2" CAL.	3
PS	PINUS STROBUS	WHITE PINE	6" - 8" HT., FULL, NATURAL	10
EAC	EVONYMUS ALATUS COMPACTUS	DWARF KINDED EVONYMUS	30" - 36" HT	3
VPS	VIBURNUM FLICATUM 'SHASTA'	'SHASTA' DOUBLEFILE VIBURNUM	30" - 36" HT	6
AS	ACER SACCARRUM	SUGAR MAPLE	36" CAL.	2

**Clarksville Elementary School
Additions - Renovations**
12041 Md. Route 108 Clarksville, Maryland 21024
5th Election District Howard County, Maryland
Tax Map 24 Grid 14 Parcel 124 Zoning: R-20 Deed Ref. 346 / 287

Landscape Plan

No.	REVISIONS	Date
2	Added full kindergarten addition, conc. & asphalt sidewalks, eliminated ex. shed, ex. sidewalks & 2 ex. 12" Maple trees.	8-7-09
	Eliminated 1 classroom from the FCC proposed building addition	7-11-08

REVISION #3 5/14/05
FISHER COLLINS AND CARTER INC.

PROJ # 23
7/11/08

SITE RESOURCES
Incorporated
Comprehensive Land Planning & Site Design Services
14377 Jarrettsville Pike • Phoenix, Maryland 21124
(410) 683-3388 • fax (410) 683-3389

DRAWN BY: TPD CONTRACT NO.:
DESIGNED BY: RLR SCALE: 1" = 50'
CHECKED BY: JLS SRI PROJECT NO: 01048
DATE: Nov 2, 2001 SHEET 7 OF 7

Landscape Notes:

- Quantities shown on the plant list are estimates only; the contractor is required to install the quantities labeled in plan view. Contractor shall notify Site Resources of any discrepancy between the quantities listed in the chart and quantities shown in plan view.
- Plant material substitutions are subject to approval by the owner's representative.
- Locations of all plant material shall be staked for approval by the owner's representative. Owner reserves the right to shift stakeout locations.
- All shrub and groundcover areas shall be planted in continuous prepared beds, mulched with composted hardwood mulch as detailed and specified.
- Planting beds shall have positive drainage with a minimum 2 percent slope.
- Contractor shall verify accuracy of base information and existing conditions in the field to his own satisfaction. Bid shall be based on actual site conditions. No extra shall be made for work arising from site conditions differing from those indicated on drawings and specifications.
- The contractor shall notify Miss Utility at 1-800-251-TTTT a minimum of two working days prior to beginning planting and construction.
- Damage to existing conditions and utilities shall be repaired and restored at the expense of the contractor.
- All plant material shall be nursery grown and shall conform to American Association of Nurserymen, Inc. standards.
- All planting procedures shall conform to the latest edition of Landscape Contractor Association Guidelines for the Baltimore/Washington metropolitan area, latest edition.
- A minimum of 46" headroom is required for all handicap accessible spaces per ADA464.65.
- Financial surety for the required Landscaping has not been posted as part of the DFM developer's agreement. (Public School)

**SCHEDULE A
PERIMETER LANDSCAPE EDGE**

CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	N/A	A
LINEAR FEET OF ROADWAY FRONTAGE / PERIMETER	N/A	170
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	N/A	NO
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	N/A	NO
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	N/A	170 / 60 + 20 3 0 0
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	N/A	21 EXISTING TREES 4 EVERGREEN TREES 0 9 SHRUBS

**SCHEDULE B
PARKING LOT INTERNAL LANDSCAPING**

NUMBER OF PARKING SPACES	21
NUMBER OF TREES REQUIRED	1 PER 20 SPACES = 1
NUMBER OF TREES PROVIDED SHADE TREES OTHER TREES (2:1 SUBSTITUTION)	2

**SCHEDULE D
STORMWATER MANAGEMENT AREA LANDSCAPING**

LINEAR FEET OF PERIMETER	120 FT
NUMBER OF TREES REQUIRED SHADE TREES EVERGREEN TREES	120 / 40 + 3
CREDIT FOR EXISTING VEGETATION (YES, NO, AND %)	NO
CREDIT FOR OTHER LANDSCAPING (YES, NO, AND %)	NO
NUMBER OF TREES PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION)	1 5

APPROVED: DEPARTMENT OF PLANNING & ZONING

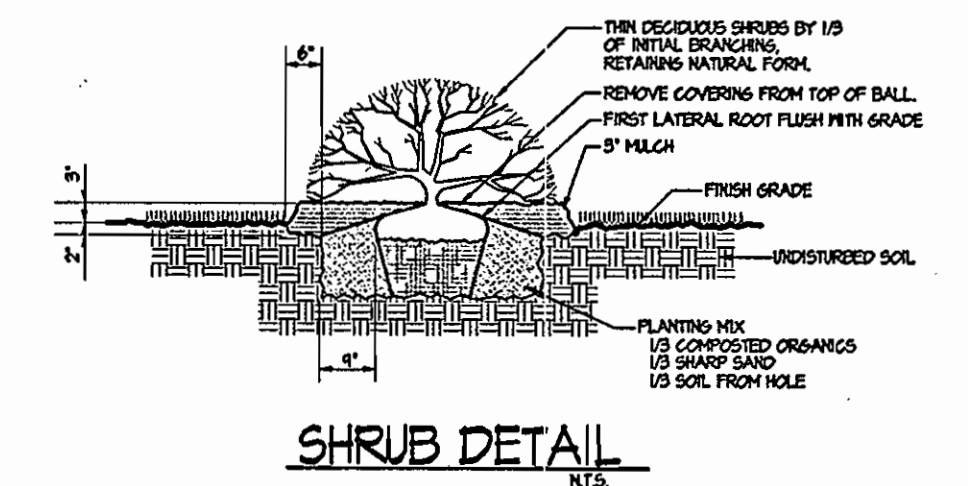
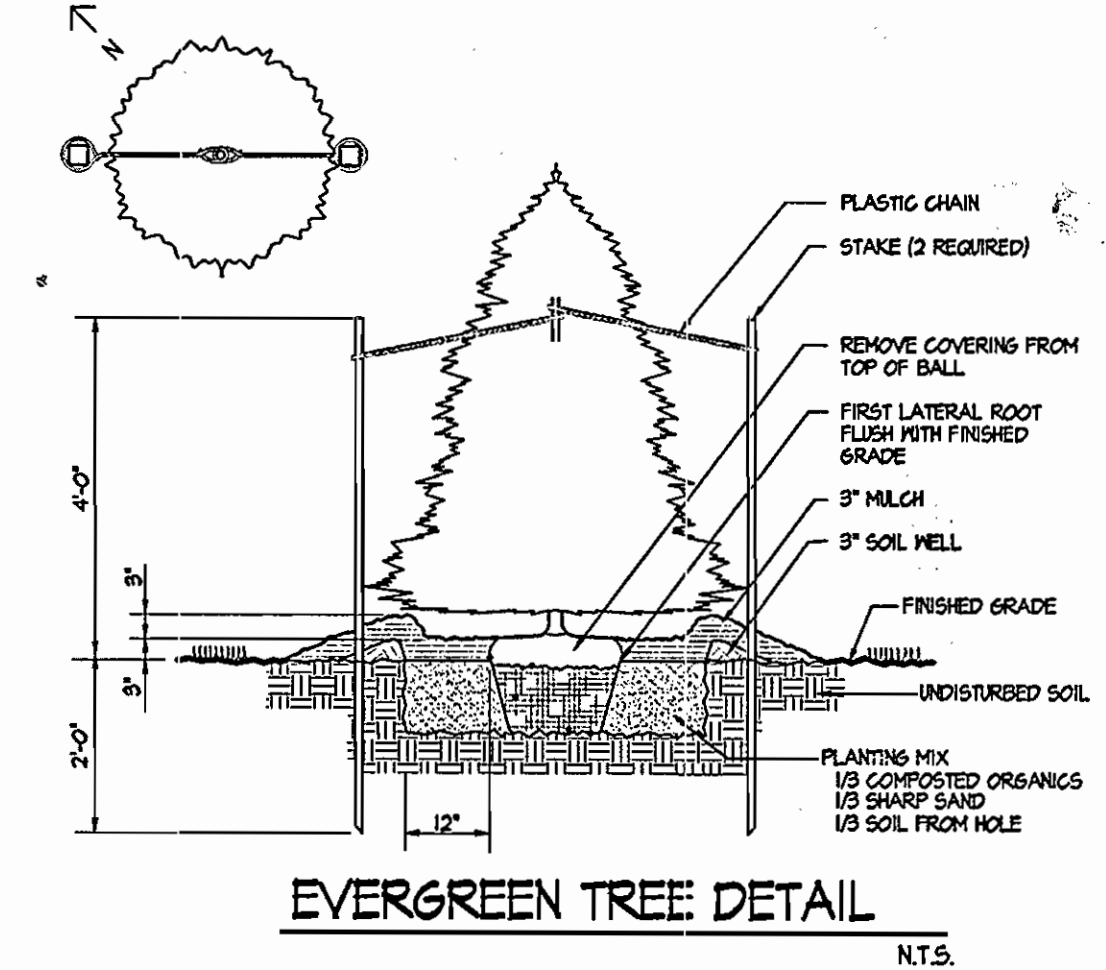
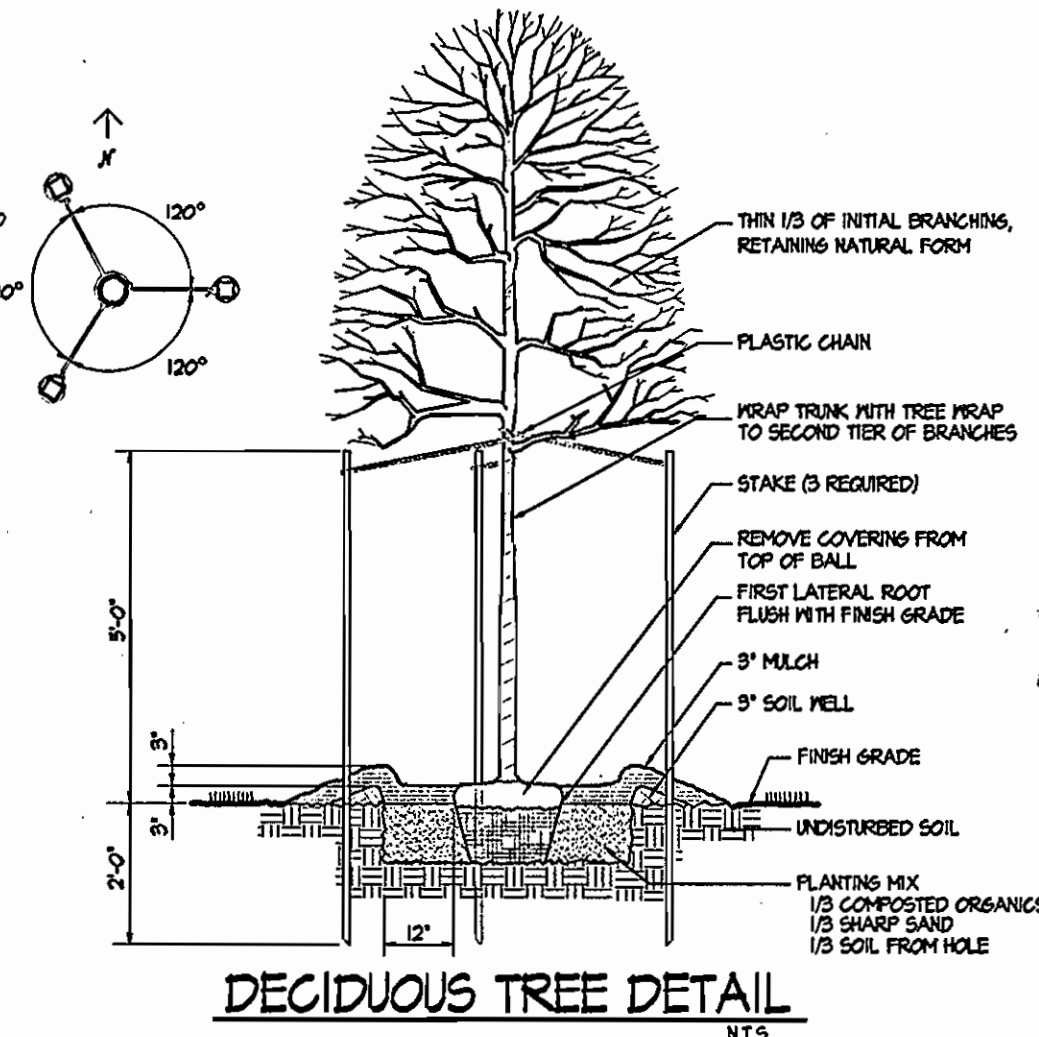
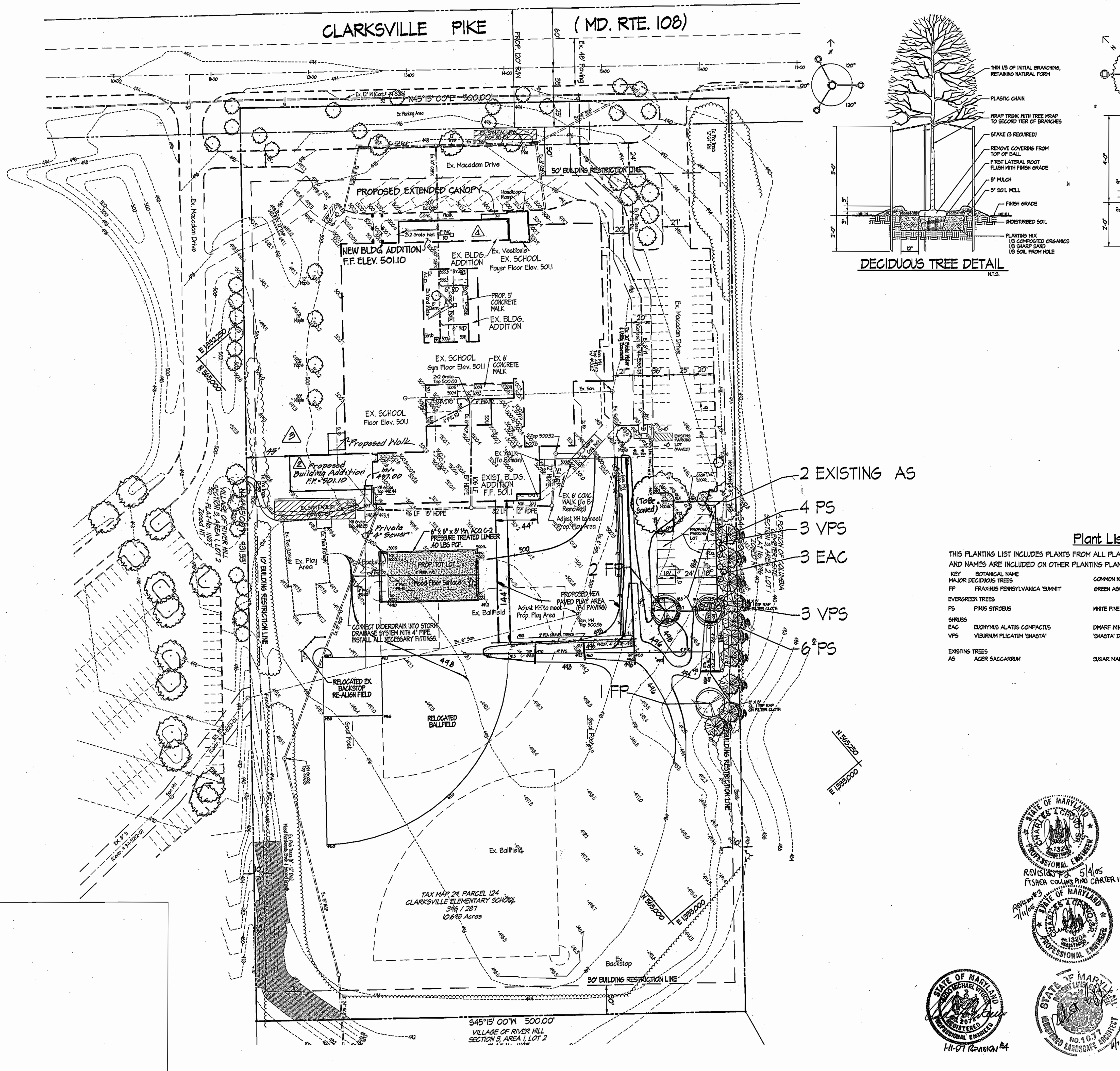
CHIEF, DEVELOPMENT-ENGINEERING DIVISION
DATE: 12/6/01

CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 12/7/01

DIRECTOR

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
DATE: 12-4-01

COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT



- 2 EXISTING AS
- 4 PS
- 3 VPS
- 3 EAC
- 3 VPS
- 6 PS

Plant List

THIS PLANTING LIST INCLUDES PLANTS FROM ALL PLANTING PLANS. PLANT KEY ABBREVIATIONS AND NAMES ARE INCLUDED ON OTHER PLANTING PLANS SOLELY FOR CONTRACTOR'S CONVENIENCE.

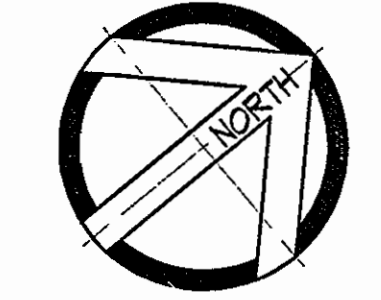
KEY	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY
MAJOR DECIDUOUS TREES	FRAXINUS PENNSYLVANICA 'EMPT'	GREEN ASH	2" CAL.	9
EVERGREEN TREES	PINUS STROBUS	WHITE PINE	6' - 8' HT., FULL, NATURAL	10
SHRUBS	BUXINUS ALATIS COMPACTUS	DIARF PINNED BUXINUS	30" - 36" HT.	3
	VIBURNUM PLICATUM 'SHASTA'	'SHASTA' DOUGLETTLE VIBURNUM	30" - 36" HT.	6
EXISTING TREES	ACER SACCHARUM	SUGAR MAPLE	36" CAL.	2

4	ADDED BUILDING ADDITION, EXTENDED CANOPY, REMOVED GRATE INLETS ALONG WITH 4" ROOF DRAINS	1-11-07
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**Clarksville Elementary School
Additions - Renovations**
12041 Md. Route 108 Clarksville, Maryland 21024
5th Election District Howard County, Maryland
Tax Map 24 Grid 14 Parcel 124 Zoning: R-20 Deed Ref: 346 / 287

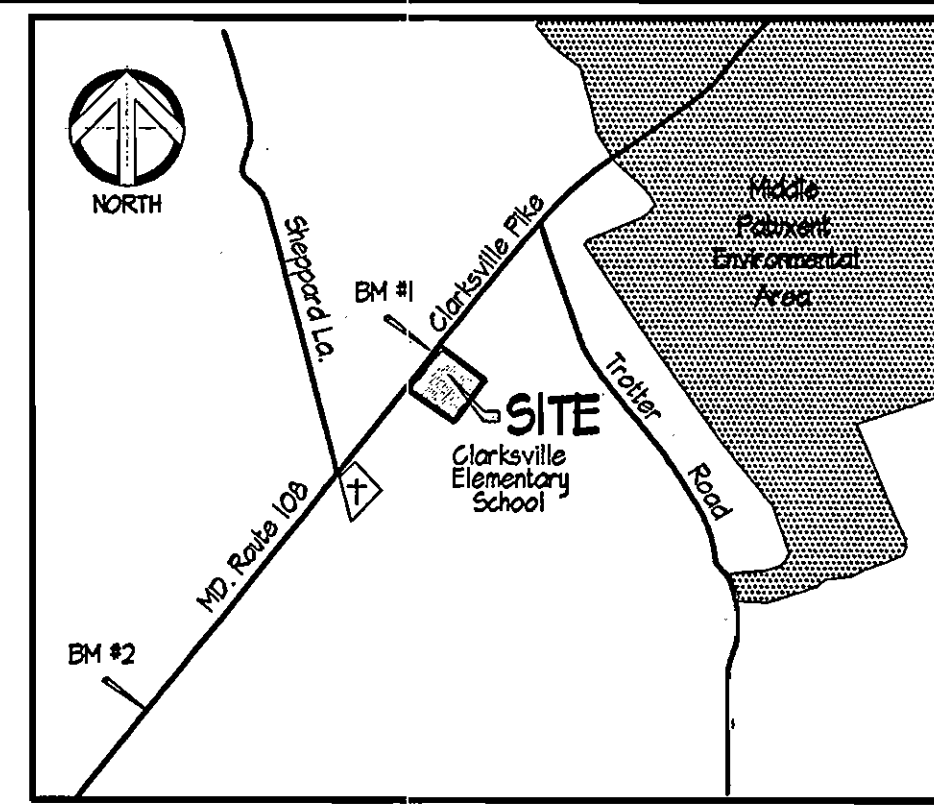
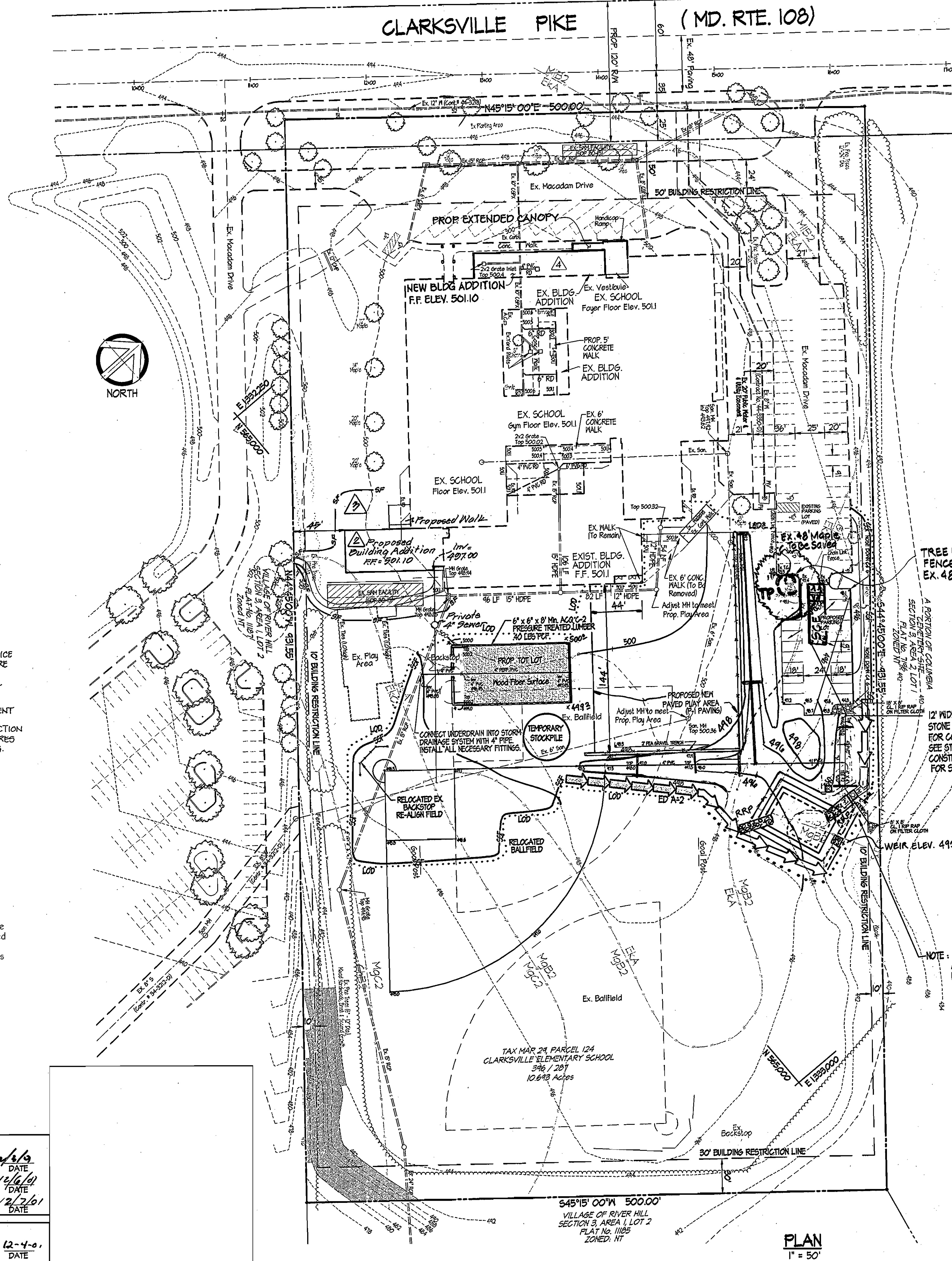
Landscape Plan

No.	REVISIONS	Date
1	Added full kindergarten addition, conc. F.O.C. & asphalt sidewalks, eliminated 6' shed, sidewalks & 2 of 2 Maple trees	5-4-05
2	Eliminated 1 classroom from the F.O.C. proposed building addition	7-11-05



**SITE RESOURCES
INCORPORATED**
Comprehensive Land Planning & Site Design Services
14307 Jarrettsville Pike • Poolesville, Maryland 21131
(410) 683-3388 • Fax (410) 683-3389

DRAWN BY: TPD	CONTRACT NO.:
DESIGNED BY: RLR	SCALE: 1" = 50'
CHECKED BY: JLS	SRI PROJECT NO: 01048
DATE: Nov 2, 2001	SHEET 7 OF 7



VICINITY MAP
Scale: 1" = 2000'

THE HORIZONTAL AND VERTICAL CONTROL USED IN THIS SURVEY IS BASED ON HOWARD COUNTY GEODETIC CONTROL POINTS 2465 & 246A:

	NAD 83	NAD 23	NOVD 21
2465	N 568341.204	E 1335242.475	EL. 388.15
2462	N 568261.462	E 1335225.606	EL. 450.144

BENCHMARKS SET:
 TRAV. 1 N 565086.2742 E 1332541.3405 EL. 500.63
 TRAV. 2 N 565224.3042 E 1332751.5171 EL. 446.40

No.	Revision	Date
3	Eliminated 1 classroom from the proposed building addition by F.C.D.	7/11/05
4	ADDED BUILDING ADDITION, EXTENDED CANOPY, REMOVED GRATE INLETS ALONG WITH 4" ROOF DRAIN PIPES	1-11-07

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

Jim Myers 11/15/01
 NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John Holbert 11/15/01
 HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE

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

Jeffrey J. Shank 11/7/01
 ENGINEER DATE

DEVELOPER'S CERTIFICATE

I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.

Cathleen Corley Jung 11/7/01
 DEVELOPER DATE

Clarksville Elementary School Additions - Renovations
 12041 Md. Route 108 Clarksville, Maryland 21024
 5th Election District Howard County, Maryland
 Tax Map 24 Grid 19 Parcel 124 zoning: R-20 Dead Reel 346 / 287

Erosion & Sediment Control Plan

REVISION #1 REVISIONS
 3/11/02 MOVED TRAP, ADDED RIPRAP INFLOW PROTECTION, INCREASED LOD, MOVED DRY SWALE # 2.
 Rev. #2 Added full kindergarten addition, conc. & asphalt s.w., 5-4-05 e.l.m. ex. shed, ex. 6" x 8" & 8" x 10" Maple trees, added F.C.D. S.F. & Sag. w/ Const. Notes.

 REVISION #3 7/11/05 FISHER, COLLINS AND CARTER, INC.	 REVISION #2 7/11/05 FISHER, COLLINS AND CARTER, INC.
 REVISION #1 7/11/05 FISHER, COLLINS AND CARTER, INC.	 REVISION #1 7/11/05 FISHER, COLLINS AND CARTER, INC.

SITE RESOURCES INCORPORATED
 Comprehensive Land Planning & Site Design Services
 14307 Jarrattville Pike • Phoenix, Maryland 21131
 (410) 683-3388 • Fax (410) 683-3389

DRAWN BY: TPD	CONTRACT NO.:
DESIGNED BY: RLR	SCALE: 1" = 50'
CHECKED BY: JLS	SRI PROJECT NO: 01048
DATE: Nov 2, 2001	SHEET 2 OF 7

CONSTRUCTION SEQUENCE FOR BUILDING AND CANOPY ADDITION

- OBTAIN GRADING PERMIT.
- NOTIFY "MISS UTILITY" AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION AT 410-313-1230 24 HOURS BEFORE STARTING WORK.
- GRADE TO SUBGRADE ADDITION AREA. INSTALL SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS. 1 WEEK
- CONSTRUCT ADDITION. 3 MONTHS
- FINE GRADE DISTURBED AREAS AND STABILIZE WITH PERMANENT SEEDING.
- NOTIFY HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION FOR PERMISSION FOR REMOVAL OF SEDIMENT CONTROL MEASURES AND STABILIZE DISTURBED AREAS WITH PERMANENT SEEDING.

FULL DAY KINDERGARTEN ADDITION CONSTRUCTION SEQUENCE

- Obtain grading permit.
- Install sediment control measures and receive permission from the Sediment Control Inspector to proceed without grading for the Full Day Kindergarten Addition.
- Construct Full Day Kindergarten Addition and Walkways.
- Upon completion of fine grading, all disturbed areas shall be stabilized immediately.
- When the contributing areas to the sediment control devices have been stabilized and with permission of the sediment control inspector the devices may be removed and these disturbed areas stabilized.
- Notify Howard County Office of Inspections and permits for final inspection.

Legend

- PROPERTY LINE
- RIGHT OF WAY LINE
- EXISTING CONTOURS
- PROPOSED CONTOUR
- LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE w/ MOUNTABLE BERM
- SUPER SILT FENCE
- EARTH DIKE
- TEMPORARY SUMP PIT
- TREE PROTECTION FENCE
- RIP RAP SLOPE PROTECTION

SEDIMENT TRAP #1

TYPE: Stone Outlet Sediment Trap, ST-11

DRAINAGE AREA:	Exist. = 130 Ac.
	Prop. = 130 Ac.
	In. = 130 Ac.
NET STORAGE REQUIRED:	2340 CF
NET STORAGE PROVIDED:	4,019 CF
DRY STORAGE REQUIRED:	2340 CF
DRY STORAGE PROVIDED:	2,409 CF
TOTAL REQUIRED:	4680 CF
TOTAL PROVIDED:	6,424 CF
CLEANOUT REQ'D:	1170 CF
CLEANOUT PROVIDED:	807 CF
NET STORAGE OUTLET ELEV.:	491.00
EX. GRADING & EMBANKMENT TRAP BOTTOM:	489.00
NET STORAGE ZONE:	489.0 - 491.00
DRY STORAGE ZONE:	491.0 - 492.00
CREST ELEVATION:	492.00
CLEANOUT ELEVATION:	489.50
BOTTOM DIMENSION:	50'x30' (IRREGULAR)
2:1 SLOPES EMBANKMENT ELEVATION:	493.00
WEIR LENGTH:	8.0'

APPROVED: DEPARTMENT OF PLANNING & ZONING

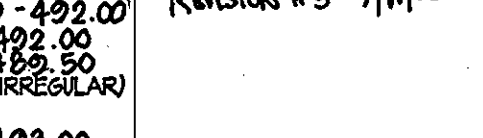
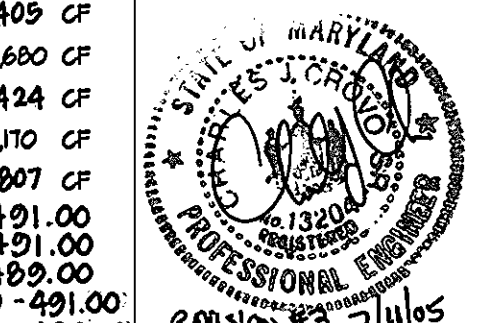
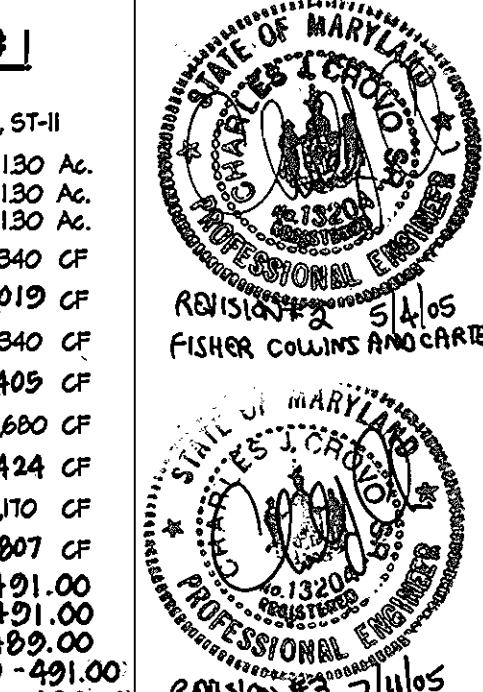
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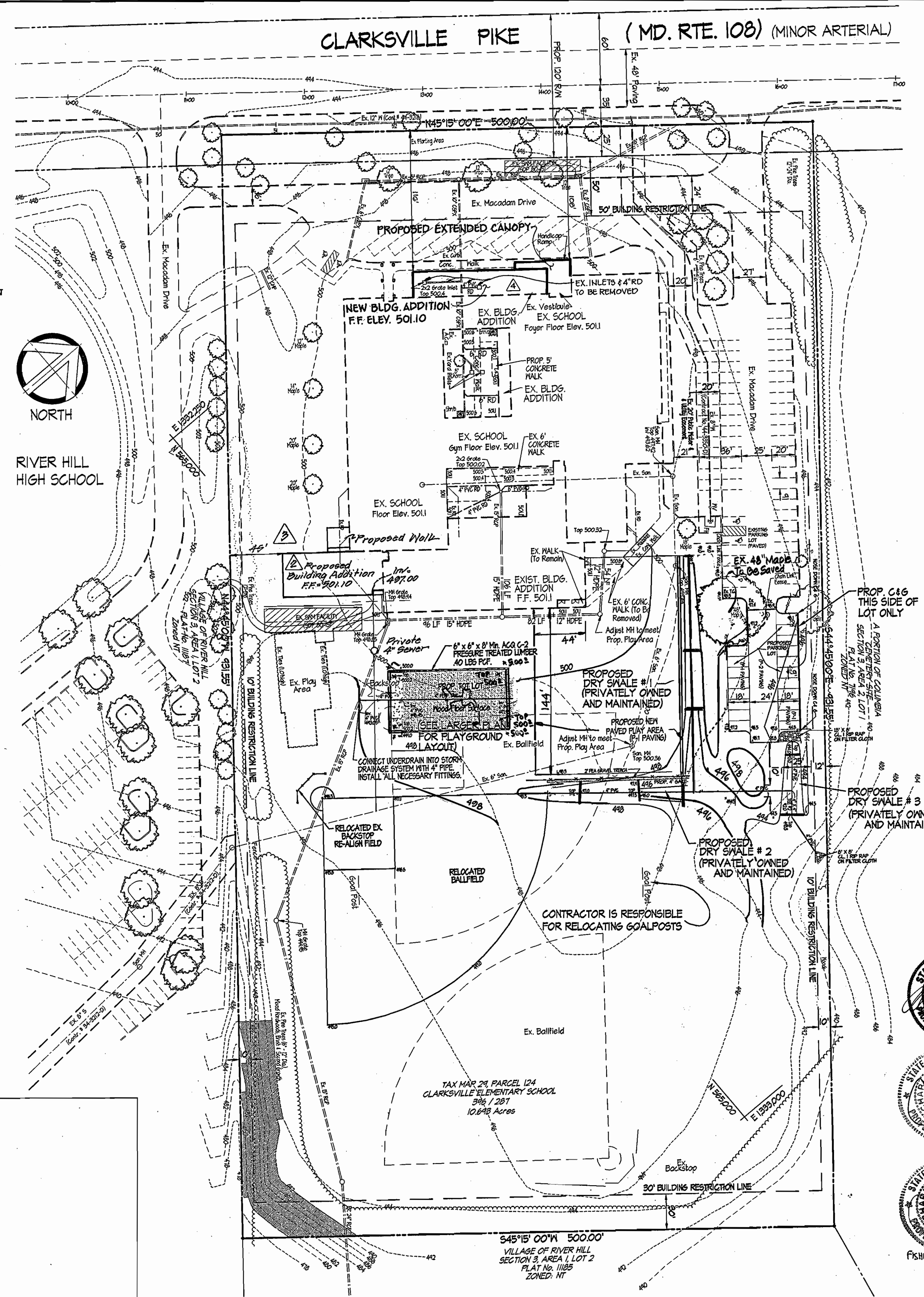
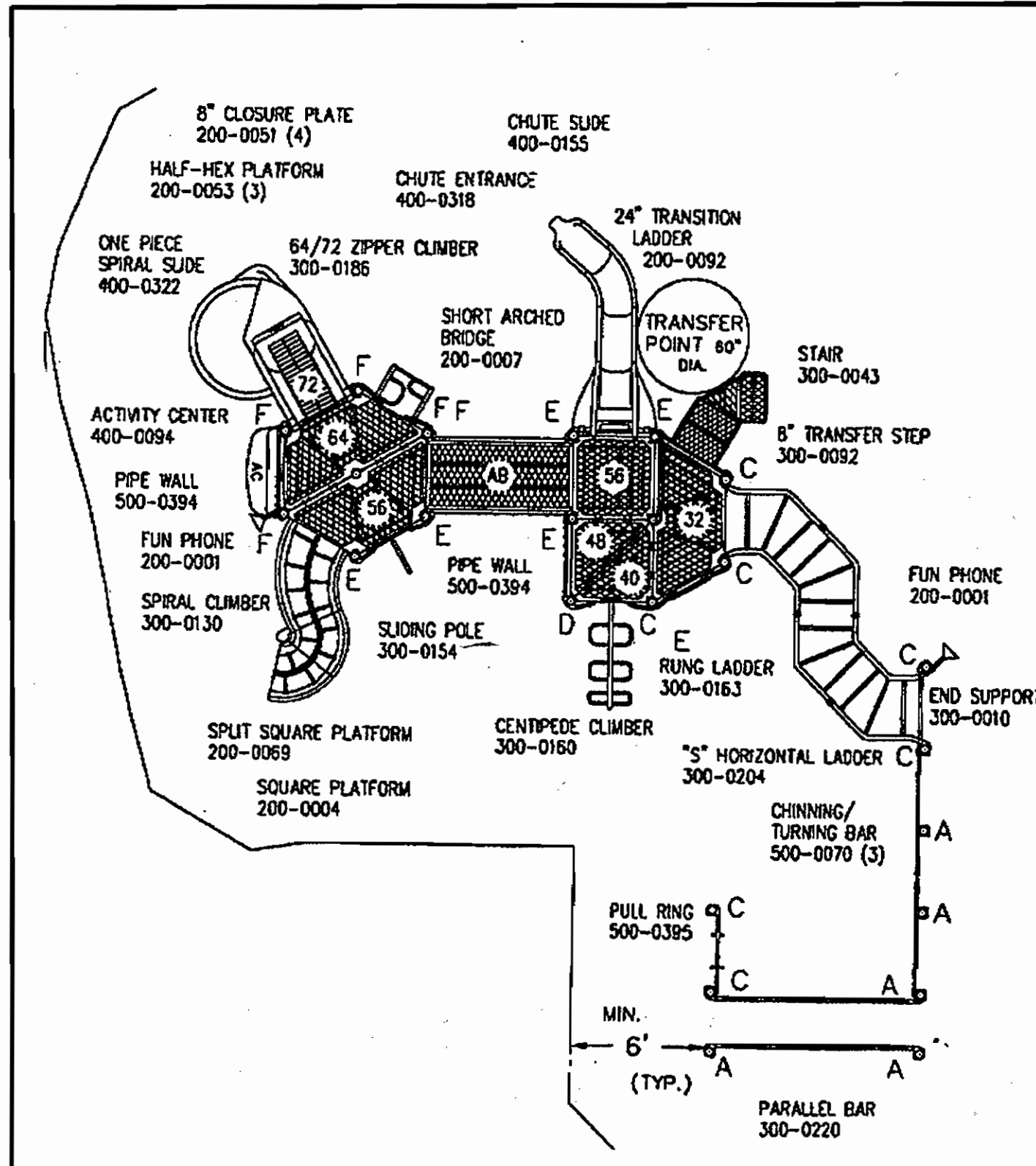
CHIEF DEVELOPMENT ENGINEERING DIVISION

CHIEF DIVISION OF LAND DEVELOPMENT

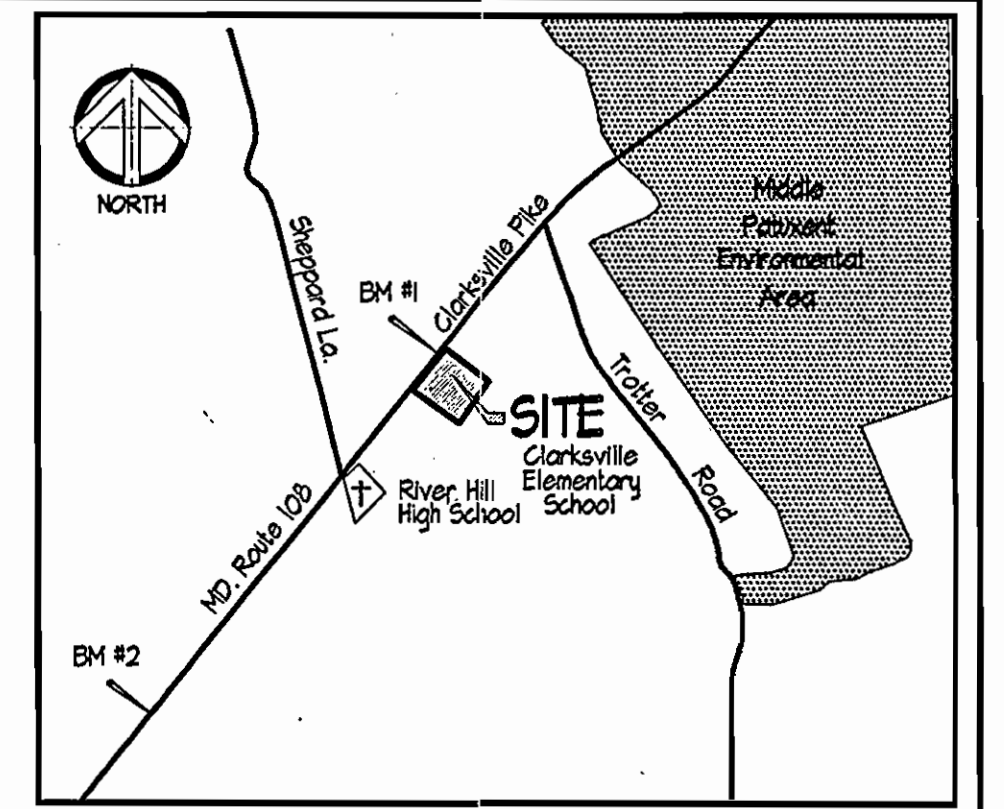
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS

DATE: 12-4-01





SHEET #	DRAWING TITLE
1	SITE DEVELOPMENT PLAN
2	SEDIMENT AND EROSION CONTROL PLAN
3	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
4	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
5	SITE DETAILS
6	WATER QUALITY PLAN & DETAILS
7	LANDSCAPE PLAN



THE HORIZONTAL AND VERTICAL CONTROL USED IN THIS SURVEY IS BASED ON HOWARD COUNTY GEODETIC CONTROL POINTS 2465 & 2464:

	NAD '83	NOVD '24
2465	N 568,341.204 E 1,335,942.473	EL. 388.13
2462	N 566,861.462 E 1,333,325.606	EL. 450.144

BENCHMARKS SET:

TRAV. 1	N 565,086.2142 E 1,332,541.3405	EL. 500.63
TRAV. 2	N 565,224.3042 E 1,332,751.5171	EL. 446.40

GENERAL NOTES

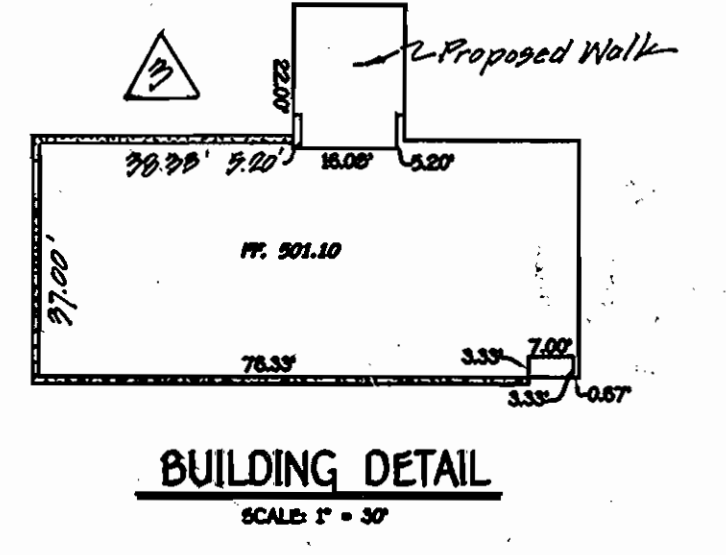
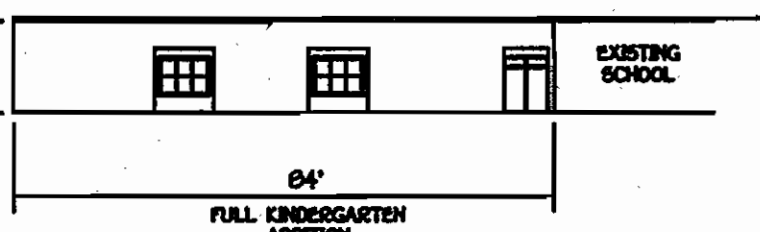
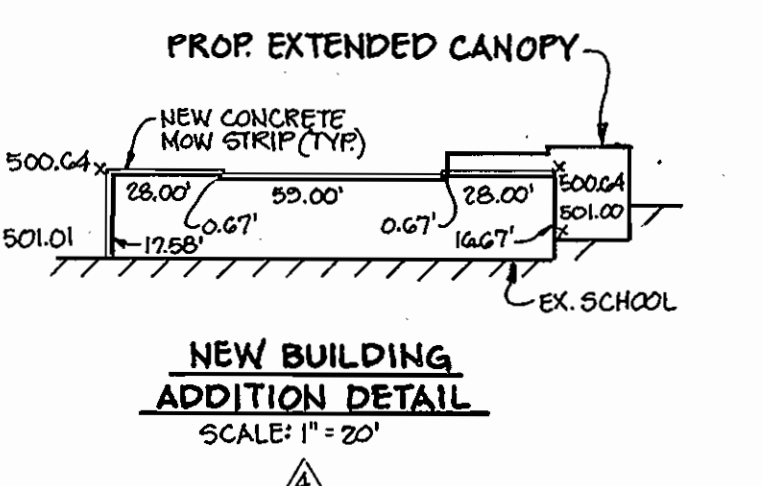
- The existing topography shown was field run by Shonberger & Lane on April 24, 2001 and supplemented by aerial topography.
- Department of Planning & Zoning reference file numbers are SDP 80-15, SDP 01-14, NP 93-44, NP 93-120, NP 00-117, NP 01-130 for relocatable trailers.
- All roadways are existing and private.
- The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System - Howard County Monuments No's 2137002 & 2031004.
- The contractor shall notify the Department of Public Works / Construction Inspection Division at (410) 318-1880 at least (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-251-TTTT at least 48 hours prior to any excavation work.
- No clearing, grading or construction is permitted within wetlands and stream buffers or forest conservation areas.
- Vehicle ingress and egress into public right-of-way is restricted except at locations approved by the Howard County Dept. of Planning & Zoning.
- Public water and sewer exists on-site. Water contract # 44-3350 D Sewer Contract # 34-3212 D.
- Any damage to county owned right-of-way to be corrected at the developer's expense.
- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
- Information concerning underground utilities was obtained from available records, but the contractor must determine the exact location of utilities by digging test pits, by hand, at all crossings prior to construction.
- No Wetland/soils onsite per letter from Exploration Research, dated 5/10/01.
- Storm Water Management provided in Dry Swales and shall be privately owned and maintained.
- Forest Conservation Note: This project is subject to a Declaration of Intent is for clearing less than 40,000 SF of forest on the site. There is no forest on the site and no forest is proposed for clearing.
- No floodplains as defined by Howard County Department of Public Works exist on-site.
- There is no landscape surety for this public project.
- The extent of Phase II: a new play area, shifting a ballfield and relocating the backstop. There are 14 new parking spaces, stormwater management, landscaping and grading.

SITE ANALYSIS

- AREA OF SITE: 10.648 Ac.±
 - LIMIT OF DISTURBED AREA: 2.07 Ac.±
 - PRESENT ZONING DESIGNATION: R-20
 - PROPOSED USE: ADDITION TO PARKING LOT & NEW PLAY AREA
 - FLOOR SPACE TABULATION
- | EXISTING SCHOOL | G.S. 5,503 SF 1.50 Ac. |
|-----------------|--------------------------|
| TOTAL | G.S. 5,503 SF 1.50 Ac. ± |
- PARKING TABULATION
- | Parking Spaces Required | 61 spaces | 4 HC |
|-------------------------|-----------|------|
| Existing Spaces: | 61 spaces | |
| Proposed Spaces: | 19 spaces | |
| TOTAL SPACES: | 84 spaces | |
- AREA TABULATION:
- | Proposed Building Coverage | 1.50 Ac. |
|----------------------------|----------------|
| Paved Parking Area | 1.59 Ac. |
| Green Area | 7.54 Ac. (73%) |

Legend

---	PROPERTY LINE
- - - -	R/W LINE
- - - -	EXISTING CONTOUR
---	EXISTING BUILDING
○ EX. W	EXISTING WATER VALVE
○ EX. F	EXISTING FIRE HYDRANT
○ EX. W	EXISTING WATER LINE
○ EX. S	EXISTING STORM DRAIN MANHOLE
---	EXISTING STORM DRAIN
---	EXISTING STORM DRAIN LINE
○ EX. S	EXISTING SANITARY SEWER MANHOLE
---	EXISTING SANITARY SEWER LINE
---	PROPOSED FENCE
---	PROPOSED CURB & GUTTER
---	PROPOSED CONTOUR



ADDRESS CHART

PARCEL #	STREET ADDRESS
124	12041 Clarksville Pike Route 108

PERMIT INFORMATION CHART

SECTION	AREA	LOTS / PARCELS
SECTION 3, AREA 1, LOT 2	1	1

FLAT No. or L.P.	GRID No.	ZONE	TAX MAP No.	ELECT. DIST.	CENSUS TRACT
346 / 281	14	R20	24	5th	60283.01

WATER CODE	SEWER CODE
TC1	6483500

Clarksville Elementary School Additions - Renovations
 12041 Md. Route 108 Clarksville, Maryland 21024
 5th Election District Howard County, Maryland
 Tax Map 29 Grid 14 Parcel 124 Zoning: R-20 Deed Ref. 346 / 281

Site Development Plan PH II

REVISION #1	REVISIONS	DATE
3/11/02	RELOCATED DRY SWALE #1, MOVED NEW PLAY AREA, REMOVED TWO PARKING SPACES.	7-11-02
Rev. #2	Added full kindergarten addition, cane & asphalt sidewalks, eliminated ex. shed, ex. F.G.G. side walks & 2 ex. 20' Maple trees.	1-11-07

SITE RESOURCES
 Incorporated
 Comprehensive Land Planning & Site Design Services

14397 Arrettsville Pike • Phoenix, Maryland 21134
 (410) 683-3388 • fax (410) 683-3389

DRAWN BY: TPD CONTRACT NO.:
 DESIGNED BY: RLR SCALE: 1" = 50'
 CHECKED BY: JLS SRI PROJECT NO: O1048
 DATE: Nov 2, 2001 SHEET 1 OF 7

APPROVED: DEPARTMENT OF PLANNING & ZONING

DATE: 12/2/01
 DATE: 12/2/01
 DATE: 12/2/01

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS

DATE: 12-2-01
 DATE: