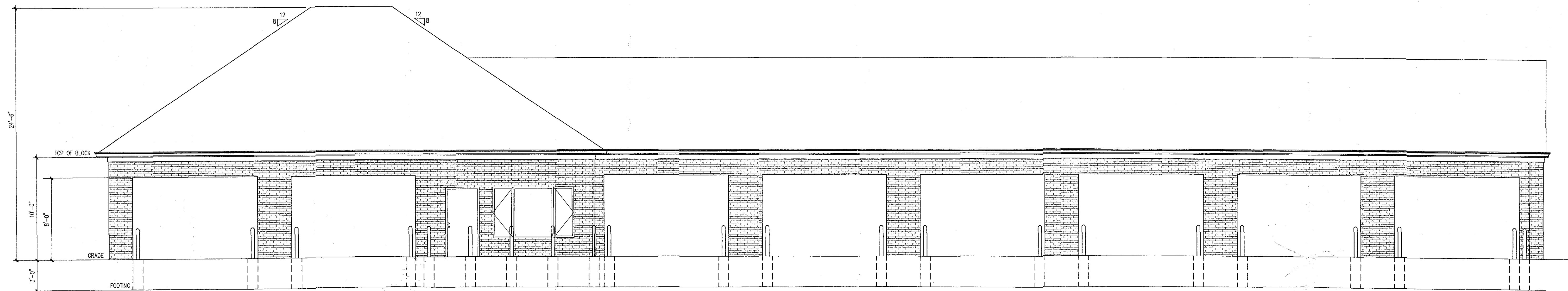


DOUTY CAR WASH SITE PLAN

LEE DISTRICT
COUNTY OF FAUQUIER, VIRGINIA
SPMA 04-LE-001
PIN: 6899-24-9836-000

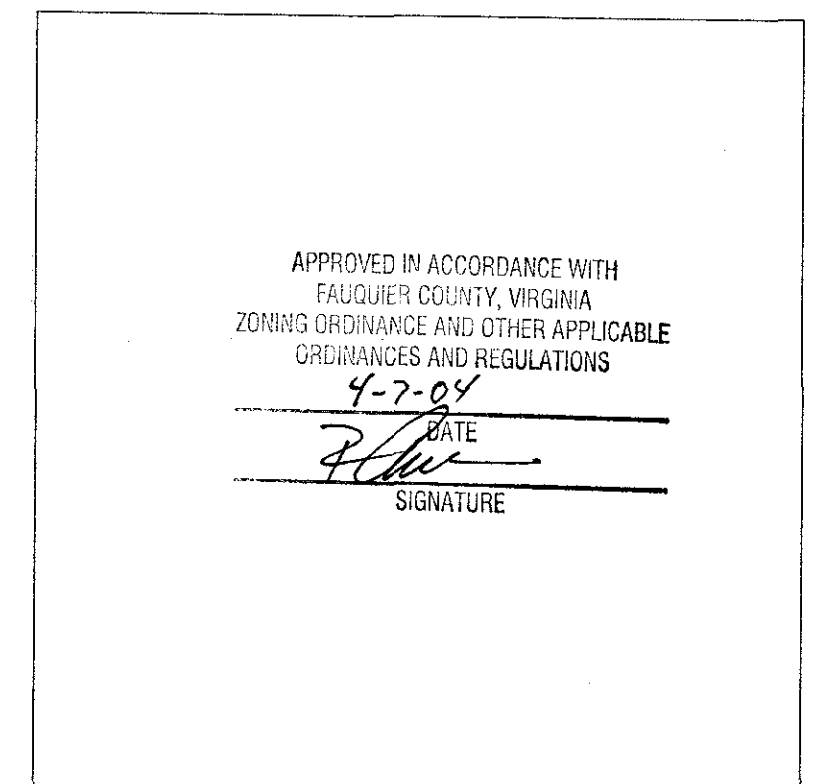
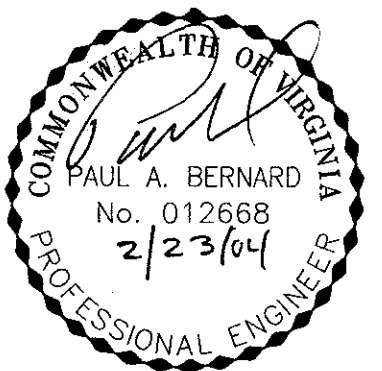
SHEET NO.	TITLE
1	COVER SHEET
2	SITE OVERVIEW AND DRAINAGE DIVIDES, SWM/BMP NARRATIVES
3	SITE GEOMETRY, GRADING AND UTILITIES
4	SITE DETAILS, WASTE WATER NARRATIVES, DETAILS, AND COMPS
5	PHASE 1 EROSION & SEDIMENTATION CONTROL PLAN AND NARRATIVE
6	PHASE 2 EROSION & SEDIMENTATION CONTROL PLAN AND DETAILS
7	LANDSCAPING, LIGHTING, SIGNAGE, AND PAVEMENT MARKING PLAN
8	LIBERTY STATION SOIL MAP
9	ADJACENT LANDOWNERS



Building Front Elevation

SCALE: 1" = 5'

**DOUTY CAR WASH
SITE PLAN**
LEE DISTRICT
COUNTY OF FAUQUIER, VIRGINIA



CONTRACT OWNER & DEVELOPER

DOUTY ENTERPRISES, LLC
3243 CISMONT COURT
WOODBIDGE, VA 22192
703-491-1237

PARKING TABULATION

Fauquier County Zoning Ordinance Section 7-104
Required Parking for Car Wash:
4 Spaces per bay/stall
Plus 1 space per employee
Plus 10 Stacking spaces per automated bay

For this site, the ordinance requires:
*20 Stacking Spaces (10 x 2 Automated bays)
*24 Parking Spaces (4x6 Self serve bays)

* Parking for self serve bays is accommodated by stacking spaces.

There are no employees on-site.

See sheet 7 for delineation of stacking/parking.

FAUQUIER COUNTY BOND

Subtotal: \$ 39,666.13
Admin & Contig 25%: \$ 9,916.53
Total Cost: \$ 49,582.66

APPROVAL BLOCK Rickmond Engineering, Inc.

Engineering Surveying Land Planning
Vint Hill • P.O. Box 861647
Warrenton, VA 20187
Voice: (540)349-7730
Fax: (540)349-7731
www.rickmond.com
1643 Merrimac Trail
Williamsburg, VA 23185
Voice: (757)229-1776
Fax: (757)229-4683

Revised

No.	By	Revision	App.	Date
3	SLB	3rd REVIEW COMMENTS	PAB	2/18/2004
2	SAG	2nd REVIEW COMMENTS	JWS	11/4/2003
1	SLB	1st REVIEW COMMENTS	JWS	9/26/2003

Date: 12 MAY 2003

Project No.: 03511

Sheet No.: 1 OF 9

BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA AT 1 - 800 - 552 - 7001

3. THIS SITE PLAN IS FOR THE CONSTRUCTION OF A CAR WASH FACILITY WITH VACUUM STATIONS, ITS ASSOCIATED TRAVELEDWAYS, PARKING, AND UTILITY INFRASTRUCTURE.
2. THE BOUNDARY INFORMATION SHOWN HEREON, IS TAKEN FROM A PLAT PREPARED BY MARSH & LEGGE, LAND SURVEYORS, P.L.C., DATED APR. 10, 2002, UNDER THE DIRECTION OF RICKMOND ENGINEERING, INC. RECORDED IN DEED BOOK 1081 ON PAGE 619.
3. THE EXISTING CONDITIONS SHOWN HEREON, ARE AN AMALGAMATION OF EXISTING CONDITIONS, CONDITIONS CURRENTLY UNDER CONSTRUCTION, AND A SITE PLAN (LIBERTY STATION - MAS 03-L-03) RECENTLY APPROVED BY FAUQUIER COUNTY.
4. THE PROPERTY SHOWN HEREON IS KNOWN AS THE COMMERCIAL PROPERTY OF REYNARD'S CROSSING. IT IS 0.775 ACRES. IT IS ZONED C-2, COMMERCIAL HIGHWAY. THE ABOVE MENTIONED EXISTING CONDITIONS (LIBERTY STATION SITE PLAN) ARE TIED TO THE CONCEPT DEVELOPMENT PLAN (R2 89-L-04), MODIFIED PER DISCUSSIONS WITH THE COUNTY SUPERVISOR, DIRECTOR OF PLANNING AND COMMUNITY DEVELOPMENT AND THE ZONING ADMINISTRATOR TO MORE CLOSELY MATCH RECOMMENDATIONS FOR THE NEW COMPREHENSIVE PLAN CURRENTLY PROPOSED. THIS IS A "BY-RIGHT" DEVELOPMENT UNDER THE CONDITIONS OF THE ABOVE MENTIONED REZONING CASE.
5. THIS PROPERTY FALLS IN ZONE C AS SHOWN ON PANEL 510058 0360 OF THE FLOOD INSURANCE RATE MAPS FOR THE COUNTY OF FAUQUIER, EFFECTIVE DATE 11-17-79. THERE IS NO 100 YEAR FLOOD PLAIN ON THIS SITE.
6. THE CONTRACTOR SHALL OBTAIN, AT HIS OWN EXPENSE, ANY PERMITS, BONDS, OR INSPECTIONS, IF REQUIRED BY ANY GOVERNMENT AGENCY.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE COUNTY AND THE ENGINEER OF ANY CHANGES OR CONDITIONS ATTACHED TO PERMITS OBTAINED.
8. DETAILS AND MATERIALS, WHERE INDICATED, REFER TO VDOT, FCWSA AND OR COUNTY OF FAUQUIER STANDARDS.
9. RICKMOND ENGINEERING, INC. DOES NOT CERTIFY TO THE LOCATION OF OR THE EXISTENCE OF ANY UNDERGROUND UTILITIES. THE UNDERGROUND UTILITIES SHOWN ARE FROM AVAILABLE RECORDS. THIS DOES NOT CONSTITUTE A GUARANTEE OF THEIR ACTUAL LOCATION OR THAT THEY HAVE ALL BEEN SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DIGGING OF TEST HOLES AT THE PROPOSED CROSSINGS, PRIOR TO BEGINNING ANY CONSTRUCTION. THESE TEST HOLES WILL BE MADE TO VERIFY ALL EXISTING CONDITIONS. IF CONDITIONS ARE FOUND IN THE FIELD WHICH ARE MATERIALLY DIFFERENT FROM THE PLANS, OR WHICH WILL PREVENT INSTALLATION OF PROPOSED UTILITIES IN ACCORDANCE WITH THE PLAN, THE CONTRACTOR SHALL NOTIFY RICKMOND ENGINEERING, INC. AT (540) 349-7730 SO THE APPROPRIATE REVISIONS CAN BE MADE TO THE PLANS.
10. CONTRACTOR SHALL NOTIFY OPERATIONS WHO MAINTAIN EXISTING UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION OR BLASTING AT LEAST TWO (2) WORKING DAYS, BUT NOT MORE THAN TEN (10) WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION. CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 1-800-257-7777 PRIOR TO COMMENCEMENT OF ANY EXCAVATION.
11. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS FOR CLEANING TRUCKS AND/OR EQUIPMENT OF MUD, PRIOR TO ENTERING THE RIGHT-OF-WAY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN STREETS OF MUD AND/OR ALLAY DUST OR TAKE WHATEVER MEASURE NECESSARY TO ENSURE THAT THE STREETS ARE KEPT IN A CLEAN AND DUST FREE CONDITION AT ALL TIME.
12. SUBBASE DEPTH IS BASED ON A CBR VALUE OF 6, BASED ON AN ACTUAL DETERMINATION PER SOIL TESTS (OR) AN ESTIMATE WHICH WILL BE REVISED ONCE THE SOIL TESTS OF SUBGRADE ARE PERFORMED. ALL SUBGRADE TO BE COMPACTED TO A MINIMUM OF 95%, WITH THE FINAL 1' OF FILL BEING COMPACTED TO A MINIMUM 100 % OF THEORETICAL DENSITY AT WITHIN 20 % OF OPTIMUM MOISTURE CONTENT PER AASHTO-T99 METHOD A.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ANY DISCONNECTION OF EXISTING UTILITIES AS NECESSARY.
14. THE CONTRACTOR SHALL NOTIFY THE FCWSA INSPECTOR (349-2092) A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION OF WATER AND SEWER UTILITIES.
15. DURING CONSTRUCTION OPERATIONS, AN EXPERIENCED GEOTECHNICAL ENGINEER SHOULD BE UTILIZED TO IDENTIFY PLASTIC CLAY SOILS WHICH REQUIRE UNDERCUTTING AND/OR REPLACEMENT
16. CONTROLLED FILLS:
 - A.) CONTROLLED COMPACTION SHALL OCCUR IN ALL SUBGRADE AREAS FOR PAVEMENT, TRENCHES FOR UTILITIES, AND IN ANY OTHER AREA SO DESIGNATED ON THE DRAWINGS.
 - B.) CONTROLLED FILLS MUST BE COMPACTED TO A MINIMUM OF 95 %, WITH THE FINAL 1' OF FILL BEING COMPACTED TO A MINIMUM 100 % OF THEORETICAL DENSITY AS DETERMINED BY METHODS AS PER STANDARD PROCTOR AASHTO-T99 OR ASTM-D698. DENSITY MUST BE VERIFIED BY A QUALIFIED GEOTECHNICAL ENGINEER.
 - C.) CONTROLLED FILLS SHALL BE COMPACTED IN EIGHT (8) INCH LIFTS (LOOSE THICKNESS) AND MOISTURE CONDITIONED TO WITHIN 20 % OF THE OPTIMUM MOISTURE CONTENT, TO THE SPECIFIED DENSITY, BEGINNING FROM THE EXISTING GROUND SURFACE, UNLESS OTHERWISE APPROVED IN WRITING BY A QUALIFIED GEOTECHNICAL ENGINEER.
 - D.) ALL VEGETATION AND TOPSOIL MUST BE REMOVED FROM THE SURFACE OF ANY AREA TO RECEIVE CONTROLLED FILL. FILL FOR AREAS OF LESS THAN FIVE (5) FEET IS TO BE DENUDED OF ALL VEGETATION AND SCARIFIED AND COMPACTED TO A DEPTH OF SIX (6) INCHES TO THE SAME DENSITY AS THE CONTROLLED FILL TO BE PLACED THEREON.

THIS SITE IS PLANNED TO BE DEVELOPED IN CONJUNCTION WITH THE PROPOSED LIBERTY STATION SITE PLAN (MAS 03-I-03), WHICH ARE SHOWN AS EXISTING CONDITIONS IN THIS SITE PLAN. THE LIBERTY STATION DEVELOPMENT HAS A DRY POND AS ITS PROPOSED SWM/BMP FACILITY. THE LIBERTY STATION DRY POND WAS DESIGNED TO ACCOMMODATE THE INCREASED STORMWATER RUNOFF FROM THIS CAR WASH FACILITY, AS WELL AS TO TREAT THE RUNOFF IN ACCORDANCE WITH THE FAUQUIER COUNTY BMP REQUIREMENTS. THIS POND WILL PEAK SHAVE THE RUNOFF FROM THIS SITE (SEE RUNOFF CALCULATIONS BELOW), AND ACHIEVE A 40 % POLLUTANT REMOVAL EFFICIENCY FOR PORTIONS OF THE SITE WHICH DRAIN INTO IT (SEE ATTACHED CALCULATIONS BELOW, WHICH IS THE LIBERTY STATION BMP FACILITY). ALL PROPOSED IMPERVIOUS AREA FROM THE CAR WASH FACILITY WILL DRAIN, BY WAY OF A GRASSED SWALE, INTO THE LIBERTY STATION DRY POND. SEE SHEET 5 FOR DRAINAGE DIVIDES.

Carwash Site Stormwater Management Computations (Rational Method)		
Total Site Area	0.7748	Acres
Proposed Impervious Area	0.5303	Acres
Proposed Pervious Area	0.2245	Acres
Proposed Composite "C"	0.72	
2 Year Storm Intensity	5.4	In / Hour
10 Year Storm Intensity	7.27	In / Hour
Time of Concentration	5	Minutes
Predevelopment Runoff Rates		
2 Year Storm	1.46	CFS
10 Year Storm	2.25	CFS
Post Development Runoff Rates		
2 Year Storm	3.00	CFS
10 Year Storm	4.04	CFS
<p>This indicates an increase in stormwater runoff in the post development. This increase will be routed through the existing storm SWM/BMP pond (see chart to right) for water quality and peakshaving.</p>		

Liberty Station's SWM/BMP Pond Stage Storage Discharge Table							
Stage(h)	Elev(ft)	Total Storage (cu ft)	SWM Storage (cu ft)	Discharge from 21" x 22" Slot Invert = 307.06	Emergency Overflow: D-71 Grate Inlet Top=306.00	Discharge from 27" Culvert Pipe Invert = 305.20	Comments
0.0	305.2	0	0	0	0	0	
0.1	305.28	697	0	0	0	0	
0.3	305.52	2,386	0	0	0	0	
0.5	305.68	3,573	0	0	0	0	
0.7	305.92	5,369	0	0	0	0	
0.9	306.1	7,701	0	0	0	0	
1.1	306.13	11,172	0	0	0	0	
1.3	306.5	14,643	0	0	0	0	
1.5	306.7	18,113	0	0	0	0	
1.7	306.9	21,584	0	0	0	0	
1.8	307	23,320	0	0	0	0	BMP Vol
1.9	307.1	26,052	2,732	0.07	0	0	0.07
2.1	307.3	31,518	6,198	0.78	0	0	0.78
2.3	307.5	36,984	11,664	1.26	0	0	1.26
2.5	307.7	42,450	16,130	1.60	0	0	1.60
2.6	307.9	47,916	24,596	1.88	0	0	1.88
2.8	308	50,969	27,328	2.00	0	0	2.00
3.0	308.2	61,178	37,858	1.98	2.98	4.95	100-yr Stm
3.2	308.4	71,707	48,387	1.84	8.43	10.37	
3.4	308.6	82,237	58,917	1.76	15.46	17.24	
3.6	308.8	92,766	69,446	1.50	21.08	22.59	
3.8	309	103,295	79,975	1.30	24.58	26.26	

Liberty Station SWM Computations (from Liberty Station Site Plan)

NOTE: The site area of the Car Wash was included in the overall site area for the Liberty Station SWM Pond

Total Predevelopment Site Runoff Rates		
2 Year Storm	21.01	CFS
10 Year Storm	29.42	CFS
Total Post-Development Site Discharge Rates		
2 Year Storm	11.93	CFS
10 Year Storm	15.73	CFS

This indicates a net decrease from the entire Liberty Station site for both 2-year and 10-year run-off conditions.

Soils delineation line ---
See sheet 8 for soils plan.

HORIZONTAL ORIENTATION IS BASED ON VA NAD 83(93)
NORTH ZONE STATE GRID; VERTICAL DATUM IS BASED
ON NAVD 88 ELEVATIONS ESTABLISHED BY GPS
METHODS.

C2-CAR WASH-PERMITTED USE
3-314 MOTOR VEHICLE RELATED USES
(CATEGORY 14)

(IN ACCORDANCE WITH ARTICLE 3 OF PART 4 OF THE FAUQUIER COUNTY ZONING ORDINANCE)

MINIMUM LOT SIZE REQUIRED: 30,000 SF
MINIMUM LOT SIZE PROVIDED: 33,750 SF
MINIMUM LOT WIDTH REQUIRED: 100 FT
MINIMUM LOT WIDTH PROVIDED: 150 FT
MAXIMUM BUILDING HEIGHT ALLOWED: 65 FT
MAXIMUM BUILDING HEIGHT PROPOSED: <30 FT
MAXIMUM LOT COVERAGE ALLOWED: 45 %
MAXIMUM LOT COVERAGE PROPOSED: 10.96 %
MINIMUM LANDSCAPED GREEN SPACE REQUIRED: 10 % OR 3,375 SF
MINIMUM LANDSCAPED GREEN SPACE PROPOSED: 22.22 % OR 7,500 SF

FRONT (NORTH) YARD PROVIDED: 107' FROM CL OF VILLAGE CENTER DRIVE (77' FROM RIGHT OF WAY)

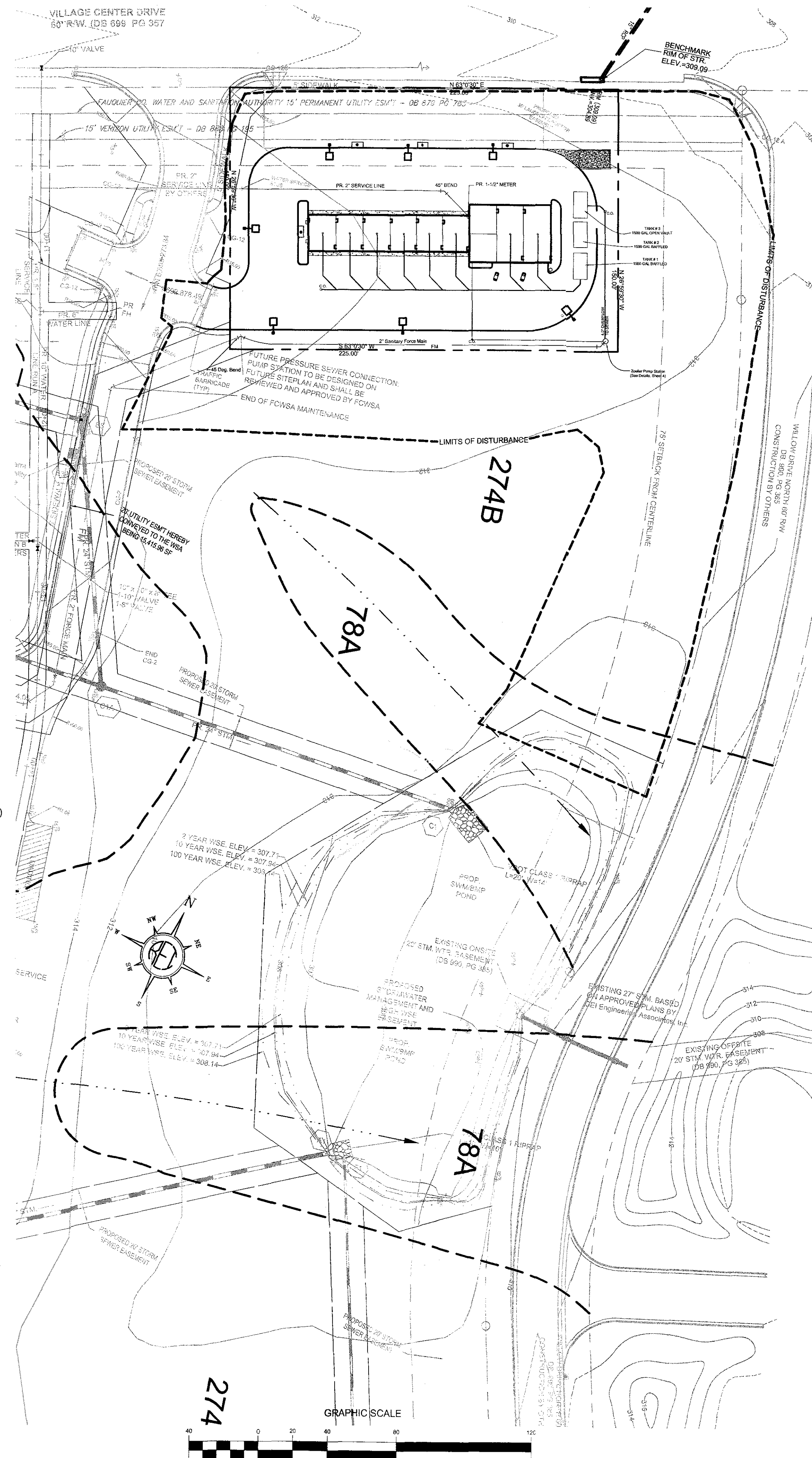
WEST SIDE YARD REQUIRED: 0'
WEST SIDE YARD PROVIDED: 38.83' TO BLDG.

EAST SIDE YARD REQUIRED: 0'
EAST SIDE YARD PROVIDED: 45' TO BLDG

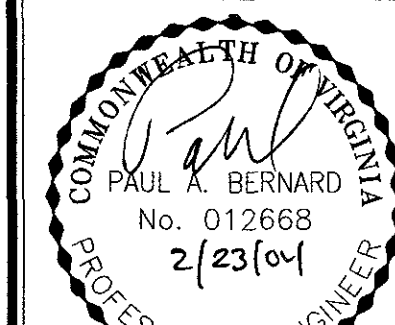
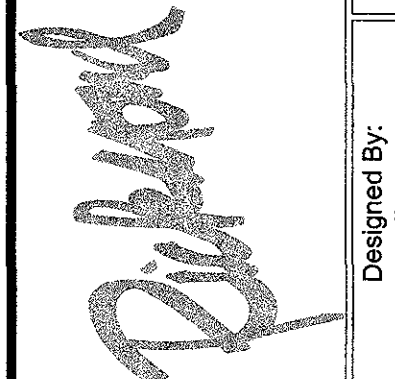
REAR (SOUTH) YARD REQUIREMENT: 0'
REAR (SOUTH) YARD PROVIDED: 40' TO BLDG.

EX. CULVERT COMPUTATIONS																												(IN FEET)				
																												1 inch = 40 ft				
DRAINAGE AREA, RUNOFF INFORMATION							CULVERT GEOMETRY						INLET CONTROL						OUTLET CONTROL						CONTROLLING		OUTLET PROTECTION					
CULVERT NAME	DRAINAGE AREA	RUN-OFF COEFF.	C/A	TIME OF CONCN.	10 YR RAINFALL INTENSITY	10 YR RUNOFF	NO. OF BARRELS	BARREL DIAMETER	MATERIAL	BARREL LENGTH	INVERTS	SLOPE	FLOW/ BARREL	AREA OF BARREL	C	Y	W	INLET CONTROL HEADWATER	VELOCITY	ENTRANCE LOSS COEFFICIENT	FRICTION LOSS	MANINGSS LOSS	OUTLET LOSS	TAIL WATER	OUTLET CONTROL HEADWATER	INLET/OUTLET CONTROL	CONTROLLING HEADWATER	OUTLET PROTECTION				
EX. CULVERT VEG. CONTR. OR	(ACRES)	(C)		(MIN)	(IN/HR)	(CFS)		(FT)		(FT)	IN INVERT OUT	(F/100)	(GPM)	(SQ. FT.)				(FT)	(FPS)		(%)	(%)	(%)	(FT)	(FT)	(FT)	(ELEV)					
PRIE. DEV.	1.11	0.62	0.58	5	7.27	4.20	1	1.25	CMP	61	304.89	304.47	0.007	4.20	1.23	0.0379	0.69	-0.5	0.68	305.57	3.42	0.0078	0.00	0.025	0.62	0.18	0.00	0.70	305.17	INLET	305.67	NOT REQUIRED
POST. DEV.	0.61	0.68	0.41	5	7.27	3.02	1	1.25	CMP	61	304.89	304.47	0.007	3.02	1.23	0.0379	0.69	-0.5	0.47	306.36	2.46	0.0078	0.00	0.025	0.27	0.09	0.00	0.36	304.83	INLET	305.36	NOT REQUIRED

BEFORE DIGGING CALL "MISS UTILITY"
OF VIRGINIA AT 1-800-552-7001



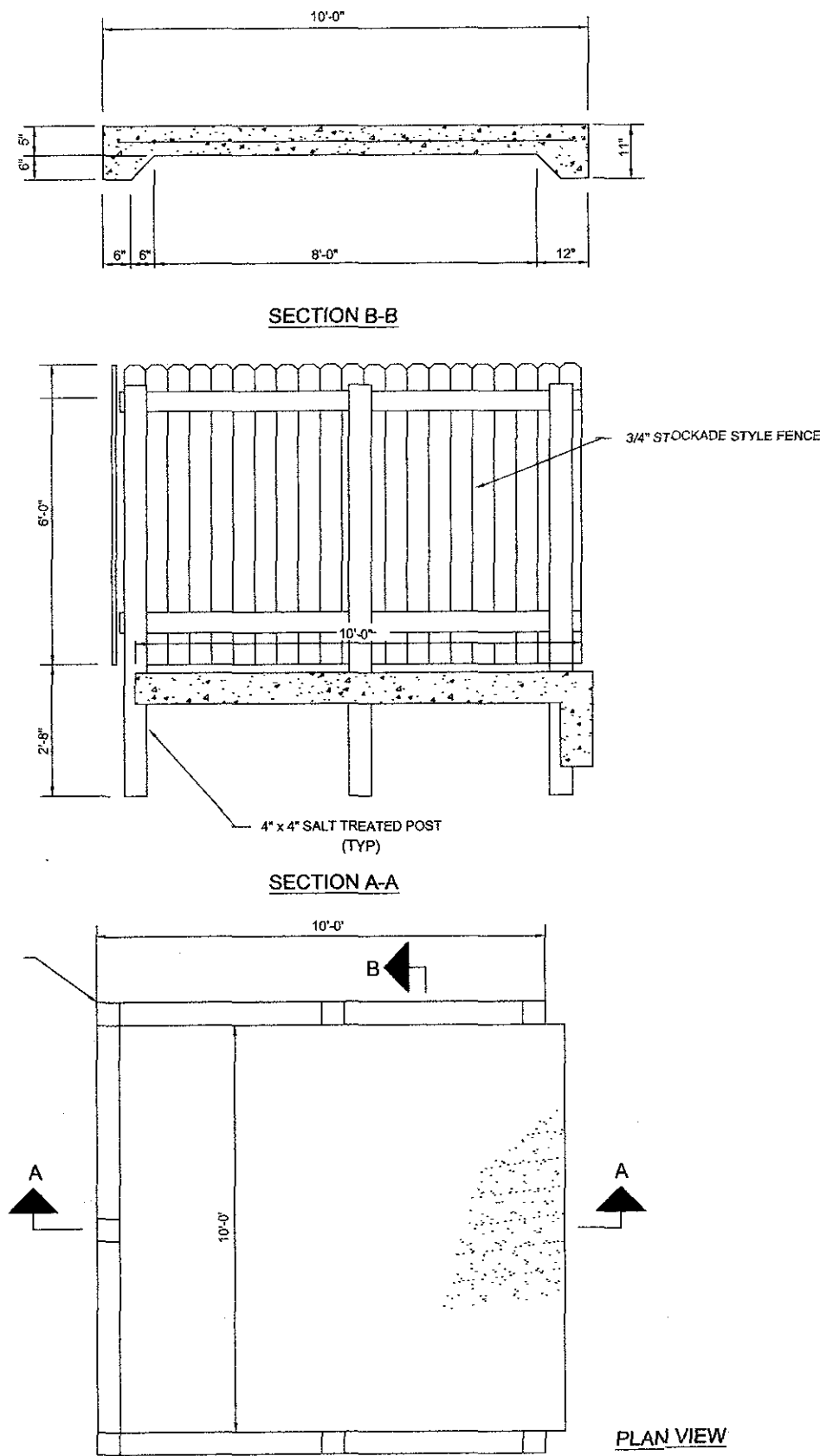
Engineering	Surveying	Land Planning
1643 Merrimac	Vint Hill	P.O. Box 867
Trails	Warrenton	VA 23165
Voice: (757)228-1776	Voice: (540)349-7730	Fax: (540)349-7731
Fax: (757)228-4683	www.riskmond.com	
Drawn By:	Scale:	Date:
JDD	1" = 40'	10 July 2001



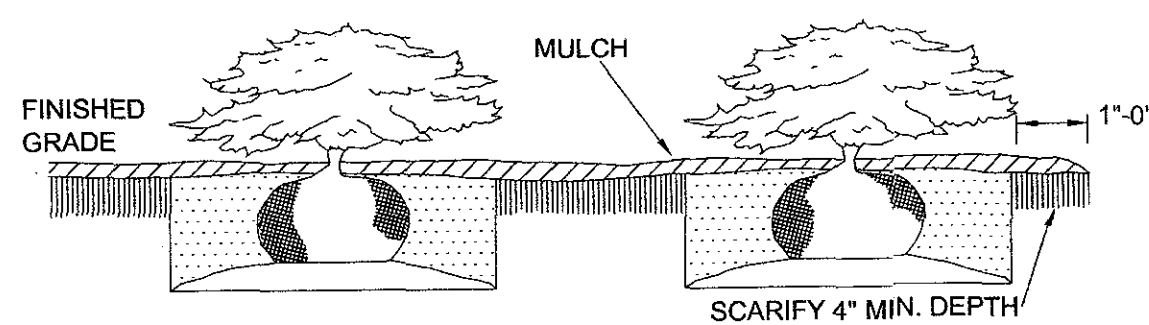
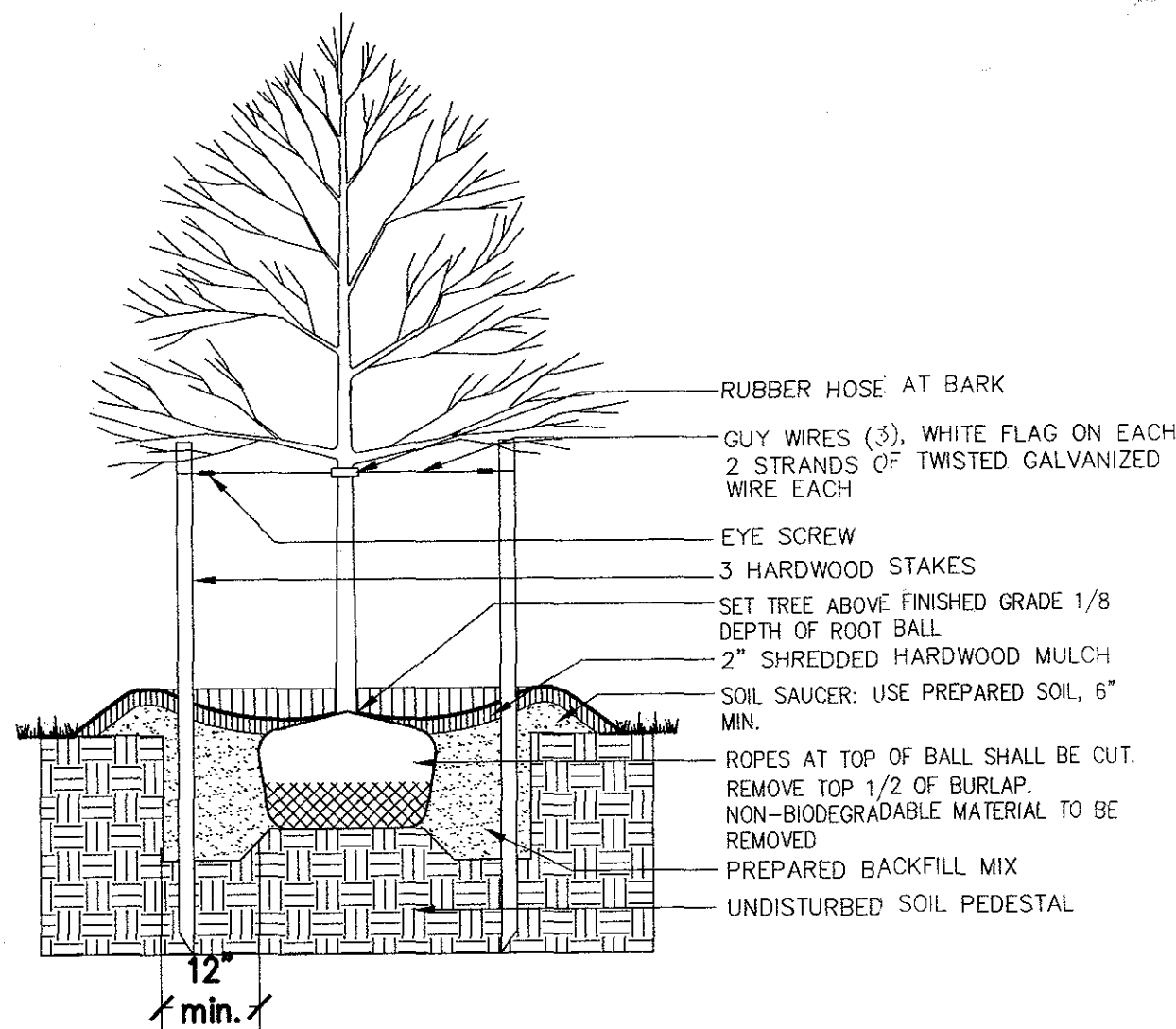
No.	By	Revision	Date
2	SUB 3rd REVIEW COMMENTS	PAB	02/18/2004
1	SUB 1st REVIEW COMMENTS	JWS	09/26/2003
		App.	

Site Plan
Car Wash
Site Overview and
SWM and BMP Narratives and Comps

Job Number 03511	Sheet No. 2 of 9
---------------------	---------------------



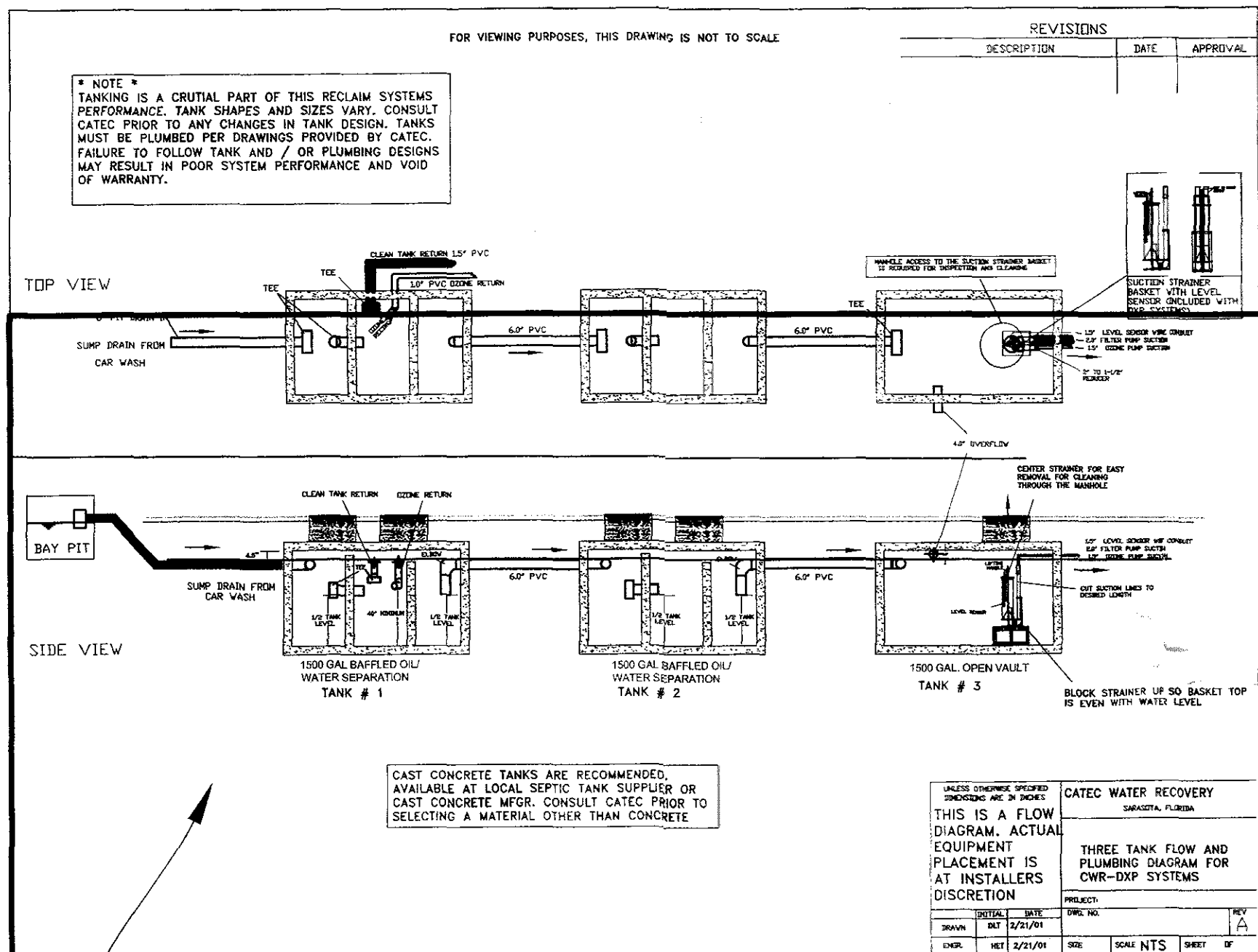
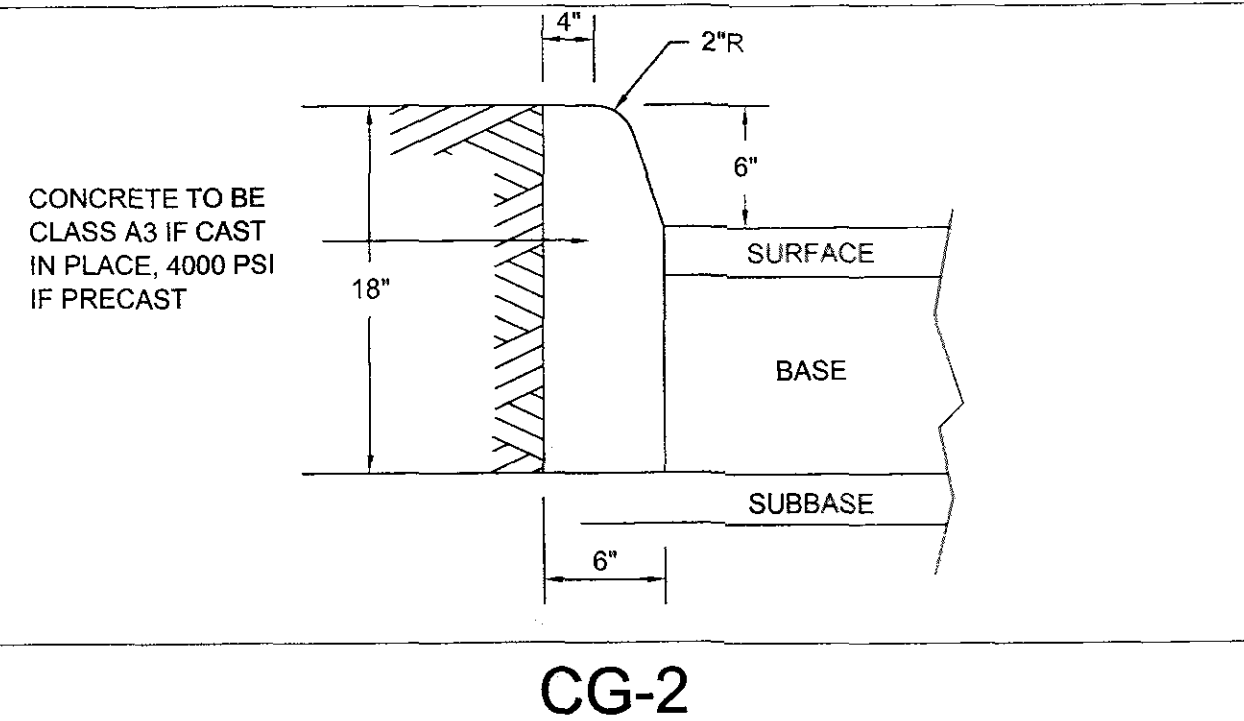
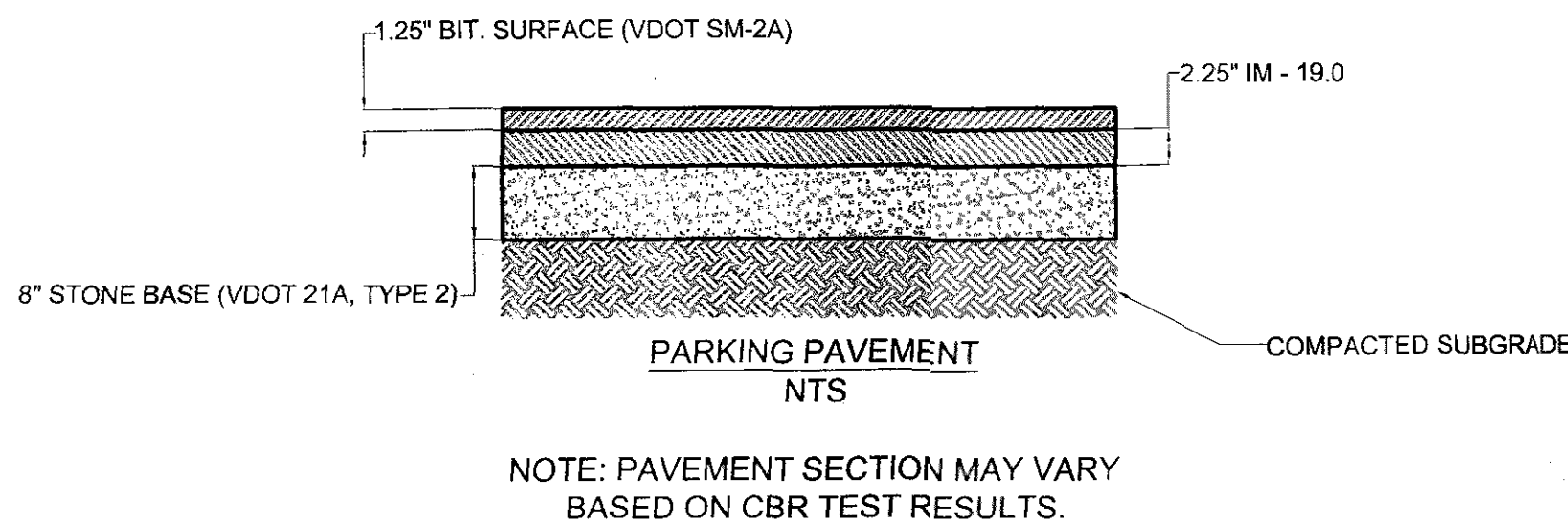
DUMPSTER PAD DETAIL



- * WHEN A PORTION OF A PLANT BED EXTENDS INTO AN AREA STEEPER THAN 4:1, SCARIFYING OF THAT PORTION WILL BE OMITTED AND THE ENTIRE AREA BETWEEN PLANTS SHALL BE MULCHED TO BLEND IN WITH THE SCARIFIED BED.
- * IN AREAS WHERE SCARIFICATION IS OMITTED, EXISTING GRASS AND WEED GROWTH SHALL BE REDUCED TO A MAXIMUM 2" IN HEIGHT BY MOWING.
- * SFM FOLLOWING BED DESIGNATION STANDS FOR SQUARE FEET OF MULCH AT THE INDICATED QUANTITY.

PLANTING DETAIL

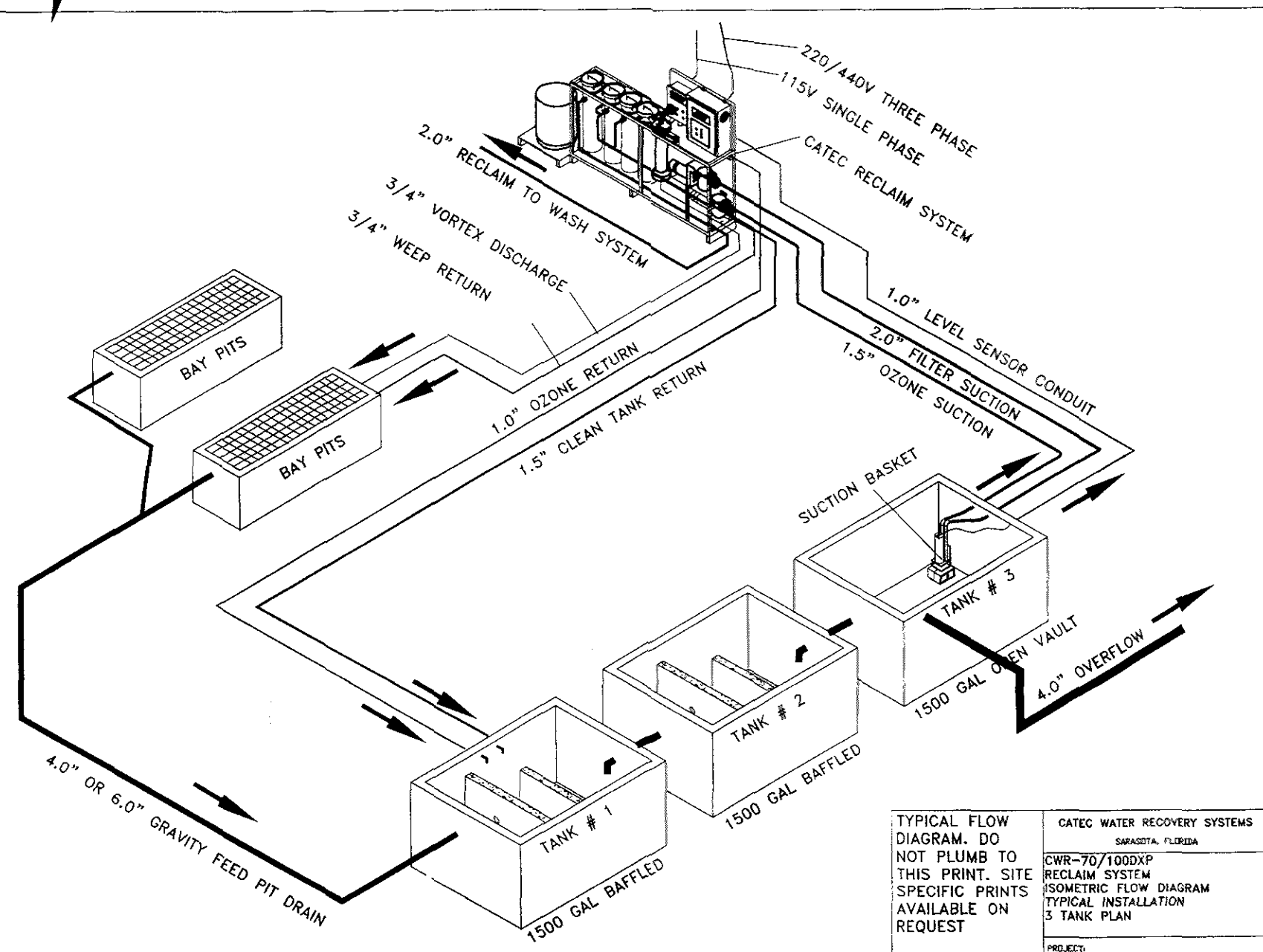
NOT TO SCALE



NOTES:
THE OVERFLOW FROM THE RECYCLE TANKS WILL NOT BE DISCHARGED INTO THE SWM/BMP FACILITIES.

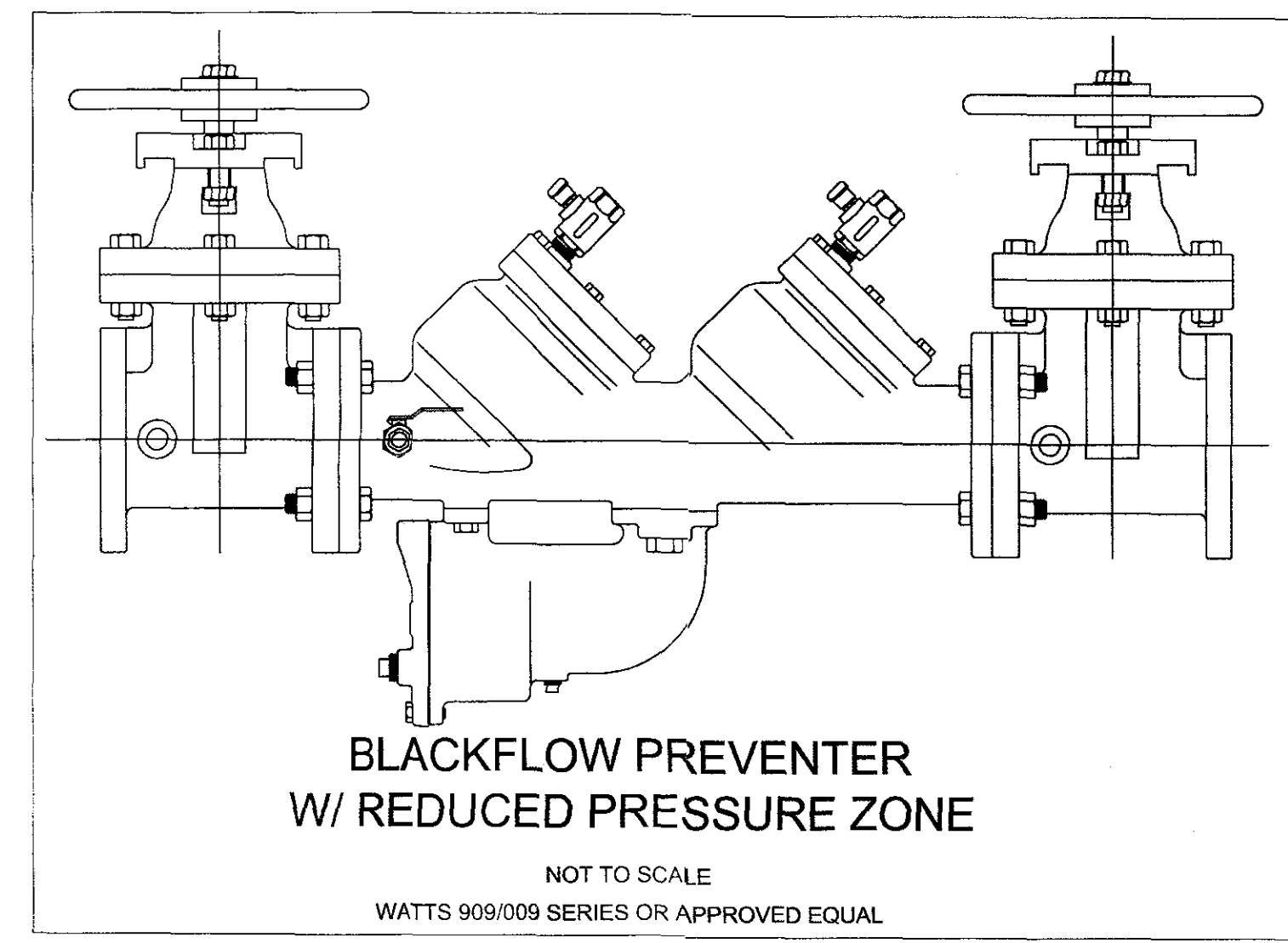
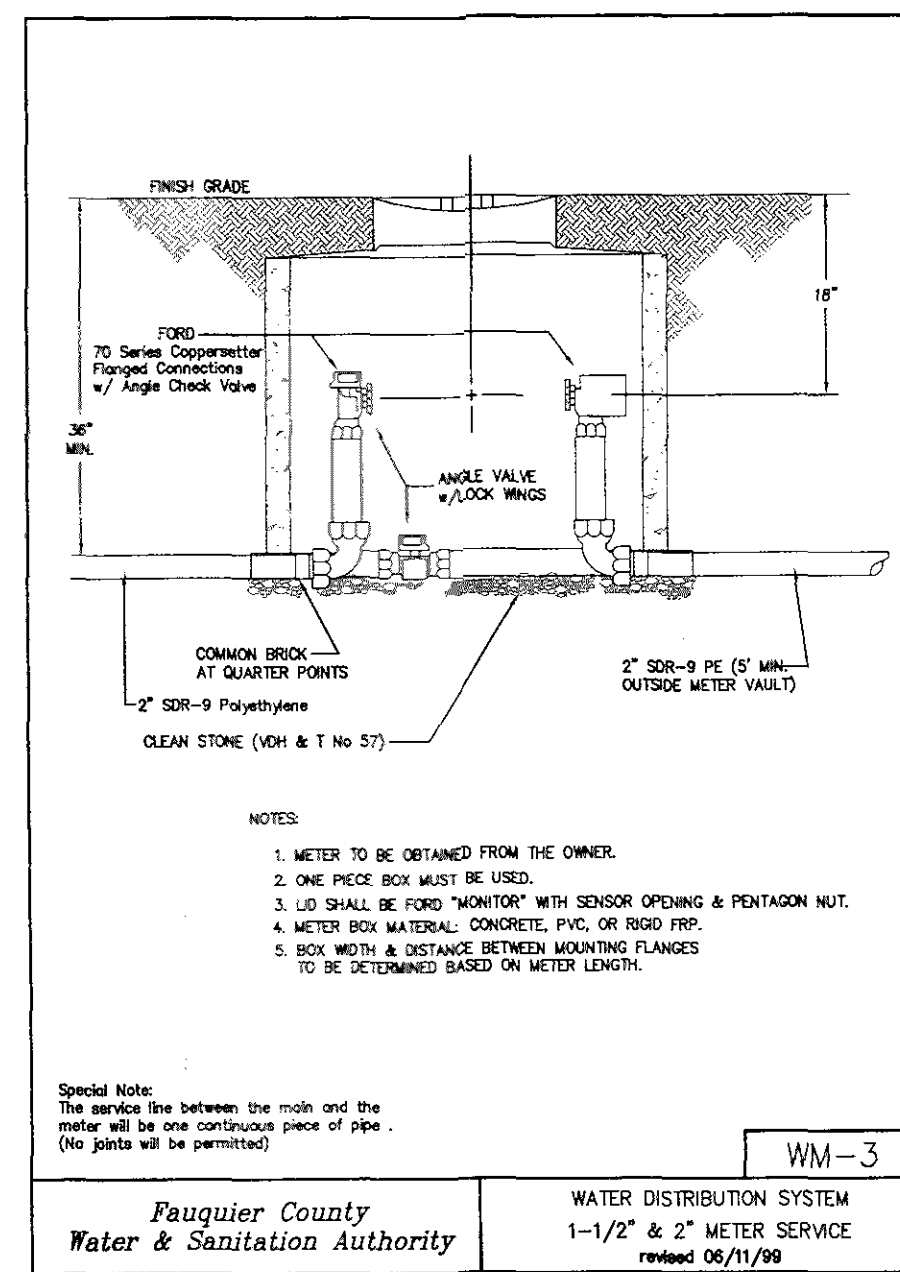
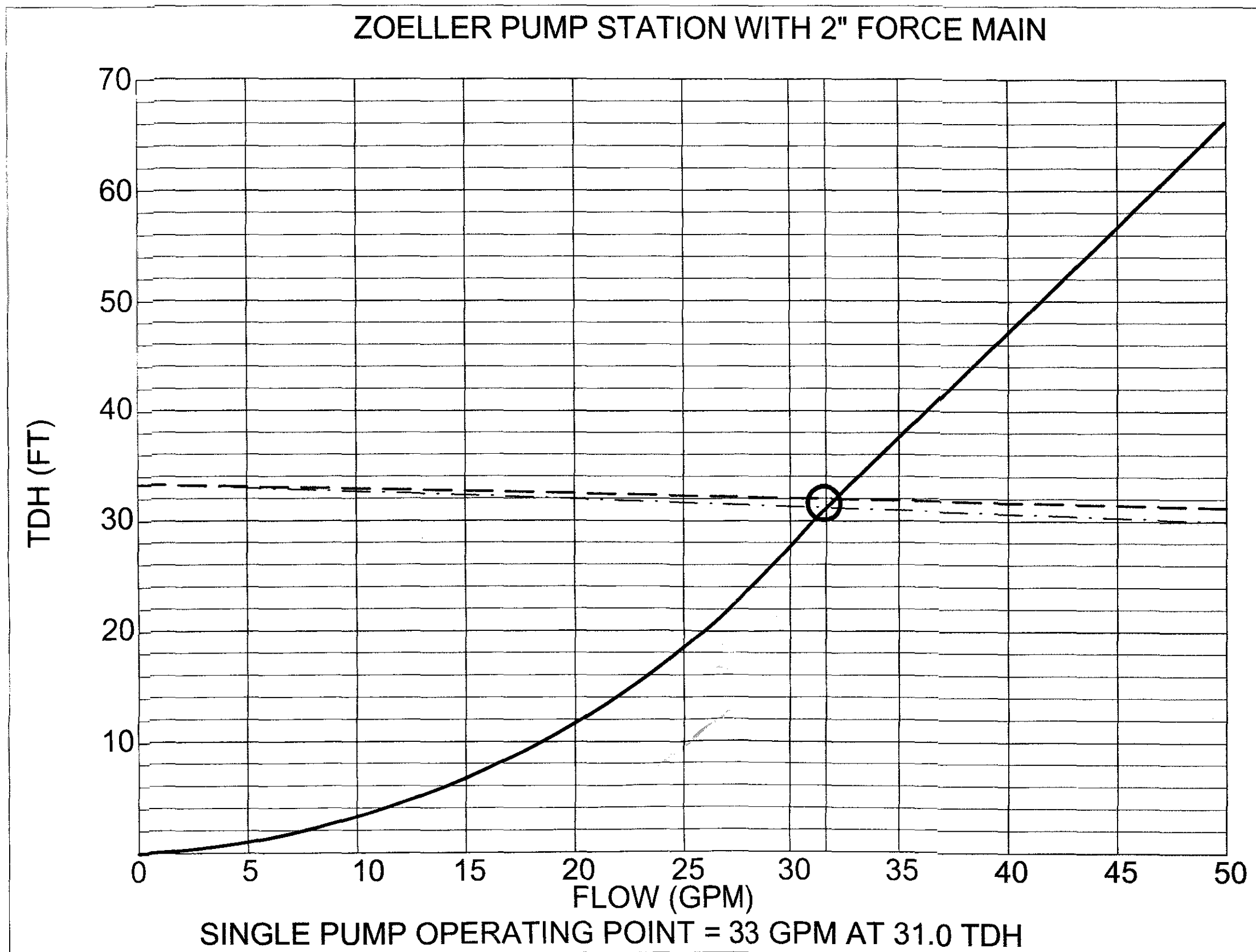
WASH-WATER RECLAIM SYSTEM DETAILS PROVIDED BY AND WILL BE DESIGNED BY OTHERS.

PLAN VIEW CAN BE SEEN ON UTILITIES PLAN



SANITARY PUMP STATION INFORMATION & DETAILS

Doury Car Wash Pump Station & Force Main Calculations	
Primary Force Main Diameter =	2"
C =	110
Force Main Information	
Section Diameter	FM Length on Site Plan
Section Length (LF)	720.00 LF
Section Total Equiv Length of Fittings (LF)	72.00 LF
Total Section Length (LF)	792.00 LF
Section Equivalent Length @ Primary Diameter (LF)	792.00 LF
Total Equivalent 2" Force Main Length(LF) = 792.00 LF	



BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA AT 1-800-552-7001

Rickmond Engineering, Inc.
Engineering
1643 Memmac Trail
Williamsburg, VA 23185
Voice: (540) 842-7730
Fax: (540) 842-7731
www.rickmond.com

Land Planning
Surveying
Date: 10 July 2003
Scale: N/A
Drawn By: JDD
Designed By: JDD

COMMONWEALTH OF VIRGINIA
PAUL A. BERNARD
No. 012668
2/23/04
PROFESSIONAL ENGINEER

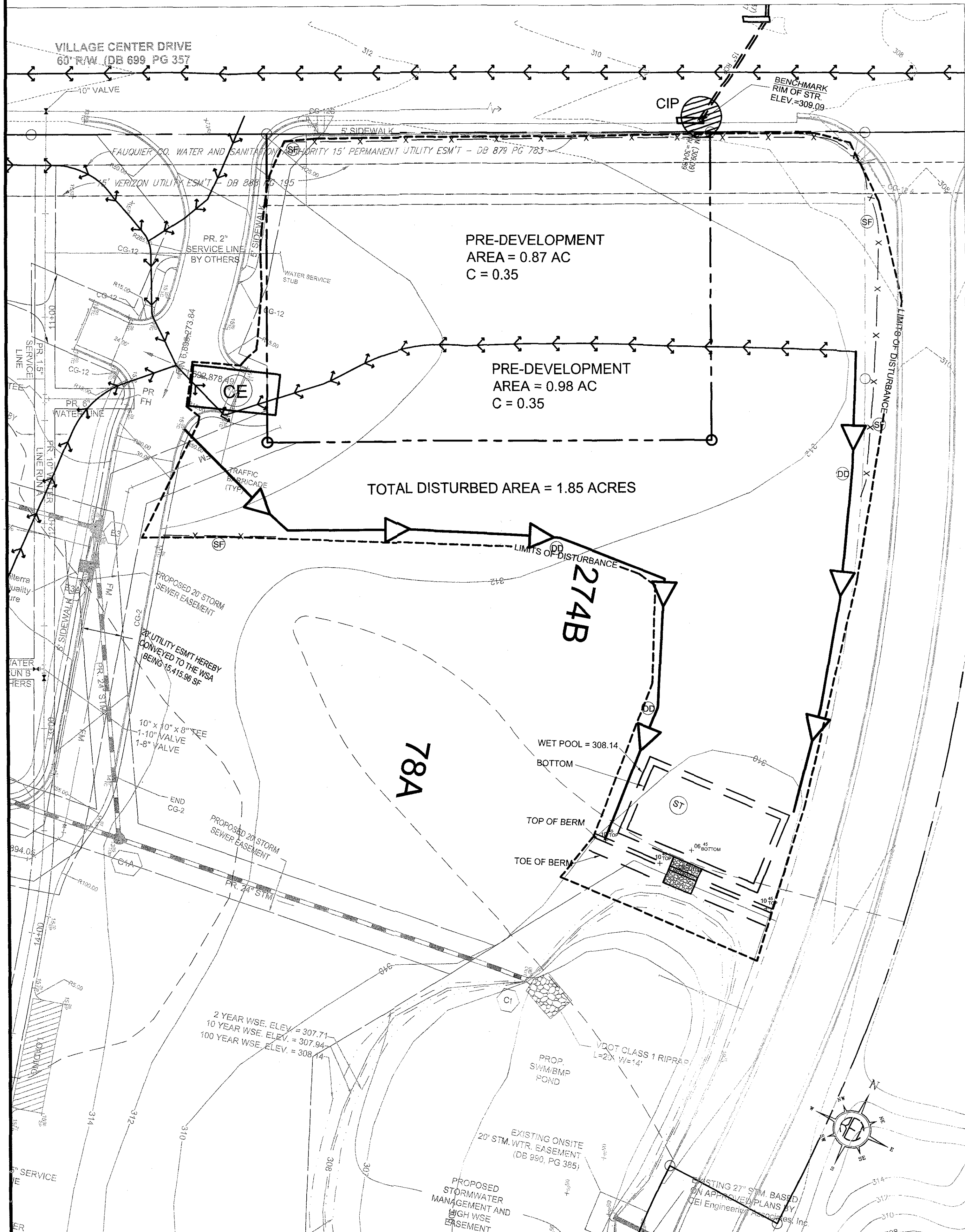
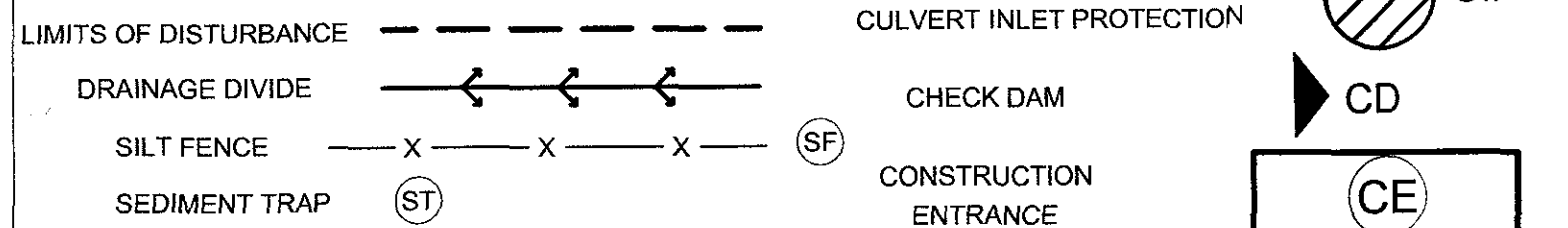
No.	By	App.	Date
2	SLB	3rd REVIEW COMMENTS	PAB 02/18/2004
1	SLB	1st REVIEW COMMENTS	JWS 09/26/2003

Site Plan
Car Wash
Site Details and
Sanitary Pump Station Information

Fauquier County, VA
Lee Magisterial District

Job Number	03511
Sheet No.	4 of 9

LEGEND



EROSION AND SEDIMENT CONTROL NARRATIVE

- 1. PROJECT DESCRIPTION**
THIS PROJECT CONSISTS OF APPROXIMATELY 1.85 ACRES OF DISTURBED AREA. THE AREA BEING DISTURBED IS FOR THE CONSTRUCTION OF A 4,100 SF CARWASH, ITS ASSOCIATED PARKING, AND UTILITY INFRASTRUCTURE.
- 2. EXISTING SITE CONDITIONS AND SOILS NOTE:**
THE SITE PROPOSED IS IN A FIELD CONDITION AND IT SLOPES FROM EAST TO WEST. THE TOPOGRAPHY OF THE SITE SLOPES FROM 1.5 TO 20 %. (THESE CONDITIONS ARE THE PROPOSED IMPROVEMENTS ON THE SITE PLAN MAS 03-03, LIBERTY STATION). THERE ARE NO KNOWN CRITICAL AREAS ON THIS SITE.
- 3. ADJACENT AREAS**
THIS SITE IS BORDERED BY VILLAGE CENTER DRIVE TO THE NORTH, ROUTE 17 TO THE WEST, AND TO THE SOUTH AND EAST BY THE LIBERTY STATION DEVELOPMENT (MAS 03-03).
- 4. DATES OF CONSTRUCTION**
CONSTRUCTION IS SCHEDULED TO BEGIN IN THE FALL OF 2003.
- 5. OFF-SITE AREAS**
THERE ARE OFF-SITE AREAS TO BE DISTURBED WITH THIS PROJECT.
- 6. SOILS**
SEE SHEET 7 FOR SOILS INFORMATION.
- 7. CRITICAL AREAS**
THERE ARE NO CRITICAL AREAS ON THIS SITE.
- 8. EROSION AND SEDIMENT CONTROL MEASURES, AND MINIMUM STANDARDS**
 - A. STONE CONSTRUCTION ENTRANCE TO REMOVE SOIL FROM TRUCK TIRES BEFORE LEAVING SITE.**
 - B. CULVERT INLET PROTECTION TO PROTECT EXISTING CULVERTS FROM SILT LADDED WATER.**
 - C. SILT FENCE TO RETAIN SILT WHILE ALLOWING WATER TO FLOW THROUGH.**
 - D. SEDIMENT TRAP IS USED TO TRAP SILT FROM CONCENTRATED FLOWS BY STORING SILT LADDED WATER AND ALLOWING THE SILT TO SETTLE TO THE BOTTOM OF THE TRAP.**
 - E. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN 7 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN 7 DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN 1 YEAR.**
 - F. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.**
 - G. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.**
 - H. SEDIMENT TRAPS AND SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.**
 - a. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS OF LESS THAN 3 ACRES.**
 - I. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN 1 YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.**
 - J. BEFORE NEWLY CONSTRUCTED STORM WATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE AND RECEIVING CHANNEL.**
 - MS-16. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:**
 - a. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPEN AT ONE TIME.**
 - b. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF THE TRENCHES.**
 - c. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF SITE PROPERTY.**
 - d. MATERIAL USED FOR BACK FILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.**
 - e. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.**
 - L. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS LARGER LAND DISTURBING ACTIVITIES.**
 - M. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.**
 - N. PROPERTIES AND WATER WAYS DOWN STREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORM WATER RUN OFF FOR THE STATED FREQUENCY STORM OF 24 HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA:**
- 9. PERMANENT STABILIZATION**
THE SITE WILL BE SODDED AND SPRINKLED TO PROMOTE STABILITY OF GRASSED AREAS.
- 10. STORM WATER RUN-OFF CONSIDERATIONS**
STORM WATER RUN-OFF COMPUTATIONS ARE PROVIDED ON SHEET 2.
- 11. CALCULATIONS**
SEE SHEET 2 FOR SWMM/BMP CALCULATIONS AND SHEET 6 FOR SEDIMENT TRAP COMPUTATION.
- 12. RESPONSIBLE LAND DISTURBER**
EDWARD LUNCEFORD #403C
- 13. PHASING OF LAND DISTURBING ACTIVITIES**
 - A. STAGE I**
 1. CONTACT MISS UTILITY TO LOCATE EXISTING UTILITIES, THEN HAND DIG TEST PITS OVER EXISTING UTILITIES.
 2. CONSTRUCT THE TEMPORARY CONSTRUCTION ENTRANCE WITH WASH RACK IN REQUIRED AS SHOWN ON THE PHASE 1 EROSION AND SEDIMENTATION CONTROL PLAN.
 3. INSTALL CULVERT INLET PROTECTION FOR EXISTING CULVERT ALONG VILLAGE CENTER DRIVE.
 4. INSTALL SEDIMENT TRAP (SEE SEDIMENT TRAP NOTE ON SHEET 5) AND SILT FENCE AS SHOWN ON THE PHASE 1 EROSION AND SEDIMENTATION CONTROL PLAN.
 5. CLEAR AND GRUB THE REST OF THE SITE.
 - B. STAGE II**
 1. CLEAR REMAINDER OF SITE.
 2. ROUGH GRADE THE SITE.
 3. CONSTRUCT BUILDINGS, UTILITIES, AND ASSOCIATED INFRASTRUCTURE.
 4. FINAL GRADE THE SITE.
 5. STABILIZE CRITICAL SLOPE AREAS.
 6. CLEAR AND DISPOSE OF SEDIMENT IN POND.

14. MAINTENANCE PROGRAM

- A.) CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS OF WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REWORKING OF EXISTING STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED ONTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.**
- B.) SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM END RUNS AND UNDER CUTTING. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHTS OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.**
- C.) CULVERT INLET PROTECTION SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED. AGGREGATE SHALL BE REPLACED OR CLEANED WHEN INSPECTION REVEALS THAT CLOGGED VOIDS ARE CAUSING PONDING PROBLEMS WHICH INTERFERE WITH ON-SITE CONSTRUCTION. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. TEMPORARY STRUCTURES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UP SLOPE AREA DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED.**
- D.) TRAP SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN VOLUME OF THE WET STORAGE. SEDIMENT REMOVAL FROM THE BASIN SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE OR CAUSE SEDIMENTATION PROBLEMS. SILT TRAP, OUTLET STONE SHALL BE CHECKED REGULARLY TO ENSURE THAT FILTRATION PERFORMANCE IS MAINTAINED. STONE CHOKED WITH SEDIMENT SHALL BE REMOVED AND CLEANED OR REPLACED. THE STRUCTURE SHOULD BE CHECKED REGULARLY TO ENSURE THAT IT IS STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT. THE HEIGHT OF THE STONE OUTLET SHOULD BE CHECKED TO ENSURE THAT ITS CENTER IS AT LEAST 1 FOOT BELOW THE TOP OF THE EMBANKMENT.**
- E.) CONTROLS MAY BE REMOVED AFTER THE AREAS ABOVE THEM HAVE BEEN STABILIZED AND WITH THE APPROVAL OF THE SITE INSPECTOR.**
- F.) DEVICES SHOWN ARE TO BE CONSIDERED MINIMUM EROSION AND SEDIMENTATION CONTROLS. ADDITIONAL CONTROLS MAY BE NECESSARY DUE TO THE CONTRACTOR'S PHASING OR OTHER UNANTICIPATED CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADDITIONAL DEVICES AS NECESSARY TO THOSE SHOWN IN ORDER TO CONTROL EROSION AND SEDIMENTATION. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.**
- G.) THE CONTRACTOR IS TO PROVIDE ADEQUATE MEANS OF CLEANING AND REMOVING ALL LAYING DUST AS NECESSARY, BY APPLYING EITHER MOISTURE, CALCIUM CHLORIDE, OR BOTH MATERIALS, ALONG THOSE SECTION OF THE PROJECT ADJACENT TO EXISTING DWELLINGS OR PUBLIC ACCESS.**

15. PERMANENT STABILIZATION

ONCE ALL EARTHWORK HAS BEEN COMPLETED AND THE SITE IS STABILIZED, PERMANENT SEEDING IS TO BE CONDUCTED AS STATED BELOW, AND IN ACCORDANCE WITH SECTION 3.32 OF THE 1992 VIRGINIA EROSION AND SEDIMENTATION CONTROL HANDBOOK, FOR THE PIEDMONT AREA. SEE DETAILS ON SHEET 6 FOR QUANTITY REQUIREMENTS.

16. MINIMUM STANDARDS:

MS 2
DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

MS 4

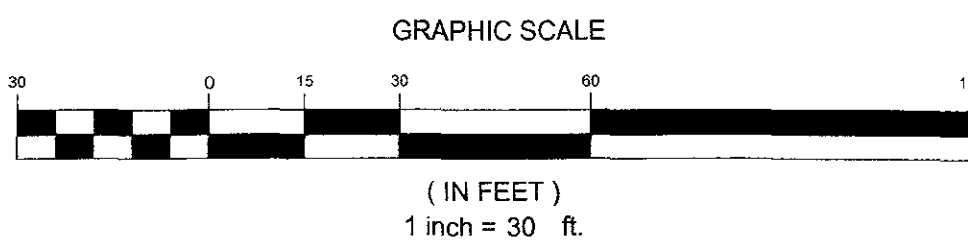
SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.

MS 10

ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

MS 19 REQUIREMENT

THIS PROJECT WILL CONTROL STORMWATER RUNOFF FROM THIS SITE USING A PERMANENT STORMWATER MANAGEMENT CONTROL SYSTEM. REFER TO STORMWATER MANAGEMENT NARRATIVE SECTION OF THESE PLANS.

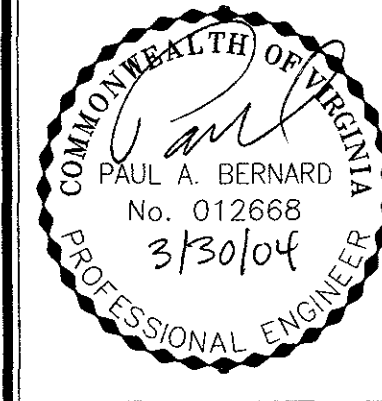


BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA AT 1-800-552-7001

Rickmond Engineering, Inc.

Land Planning
Surveying
Vini Hill • P.O. Box 861647
Warrenton, VA 20187
Voice: (540)949-7730
Fax: (540)949-7731
www.rickmond.com

Paul A. Bernard



No.	By	Revision	Date
1	JWS	09/26/2003	
2	PAB	02/16/2004	
3	PAB	03/30/2004	

Site Plan
Car Wash
Phase 1 Erosion & Sedimentation
Control Plan & Narrative
Lee Magisterial District

Job Number
03511
Sheet No.
5 of 9

I:\03511 - Liberty Station - Doury Car Wash Site Plan Sheet Files\06 - 03511 - Phase 2 E&S Controls.dwg, SHEET 6, 3/30/2004 6:09:26 PM, pbernard

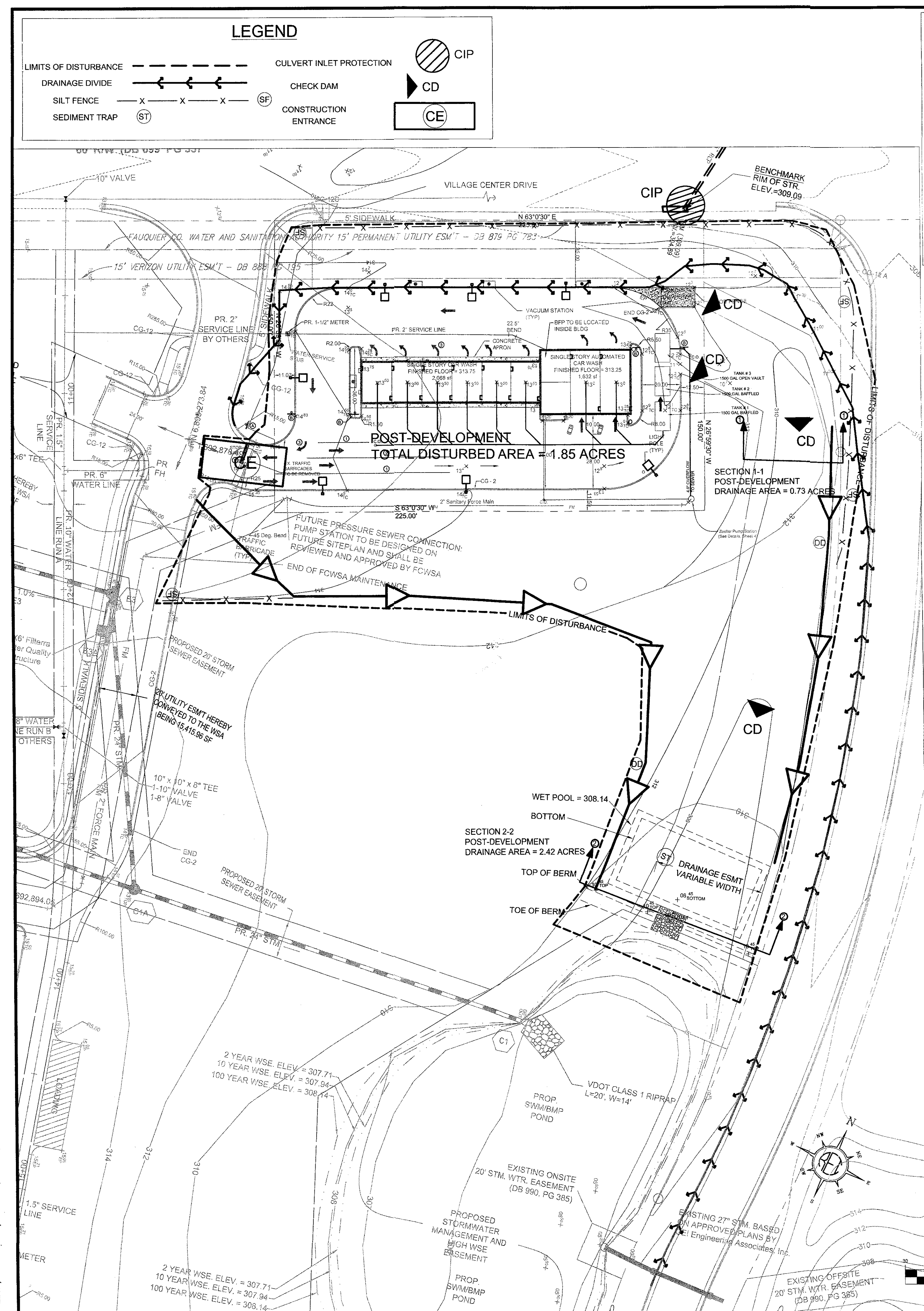


TABLE 3.31-B
ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS
"QUICK REFERENCE FOR ALL REGIONS"

Planting Dates	Species	Rate (lbs./acre)
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (<i>Lolium multi-florum</i>) & Cereal (Winter) Rye (<i>Secale cereale</i>)	50 - 100
Feb. 16 - Apr. 30	Annual Ryegrass (<i>Lolium multi-florum</i>)	60 - 100
May 1 - Aug 31	German Millet (<i>Setaria italica</i>)	50

TABLE 3.32-D
SITE SPECIFIC SEEDING MIXTURES FOR PIEDMONT AREA

	Total Lbs. Per Acre
Minimum Care Lawn	
- Commercial or Residential	175-200 lbs.
- Kentucky 31 or Turf-Type Tall Fescue	95-100%
- Improved Perennial Ryegrass	0-5%
- Kentucky Bluegrass	0-5%
High-Maintenance Lawn	200-250 lbs.
- Kentucky 31 or Turf-Type Tall Fescue	100%
General Slope (3:1 or less)	
- Kentucky 31 Fescue	128 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop *	20 lbs.
Low-Maintenance Slope (Steeper than 3:1)	
- Kentucky 31 Fescue	108 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop *	20 lbs.
- Crownvetch **	150 lbs.

* Use seasonal nurse crop in accordance with seeding dates as stated below:
February 16th through April Annual Rye
May 1st through August 15th Foxtail Millet
August 16th through October Annual Rye
November through February 15th Winter Rye

** Substitute Sericea pedunculata for Crownvetch east of Farmville, Va. (May through September use hulled Sericea, all other periods, use unhulled Sericea). If Flatpea is used in lieu of Crownvetch, increase rate to 30 lbs./acre. All legume seed must be properly inoculated. Weeping Lovegrass may be added to any slope or low-maintenance mix during warmer seeding periods; add 10-20 lbs./acre in mixes.

Trap # 1

Required Storage Volumes	
Drainage Area (Ac.)	2.42
Cleanout (Cu. Yd.)	80
Wet Storage (Cu. Yd.)	162
Dry Storage (Cu. Yd.)	162
Total Storage (Cu. Yd.)	324
Drainage Area Check	OK

Volume Provided Calculations

Total Depth (Ft.)	3.00
Interior Side Slopes (X H:1 V)	2.00
Trap Length:Width Ratio	2.00
Width (Ft.)	34
Length (Ft.)	68
Total Storage (Cu. Ft.)	330
Wet Storage Depth (Ft.)	1.69
Wet Storage (Cu. Ft.)	168
Cleanout Depth (Ft.)	0.91
Cleanout Storage (Cu. Ft.)	85

Outlet Design

Outlet Type	Rock
Rock Outlet Length (Ft.)	14.52
Height (Ft.)	1.31
Pipe Outlet Drawdown Time (Hr.)	N/A
Dewatering Orifice Size (Sq. In.)	N/A
Number of Orifices	N/A

Embankment Design

Minimum Height (Ft.)	2.31
Minimum Top Width (Ft.)	2.00

Design Elevations

Existing Ground (Elev.)	308.14
Bottom Elevation (Elev.)	306.45
Invert of Pipe Outlet (Elev.)	N/A
Cleanout (Elev.)	307.23
Wet Storage (Elev.)	308.14
Invert of Rock Outlet (Elev.)	308.14
Dewatering Orifice Invert (Elev.)	N/A
Dry Storage (Elev.)	309.45
Crest of Rock Outlet (Elev.)	309.45
Crest of Dewatering Riser (Elev.)	N/A
Top of Embankment (Elev.)	310.45

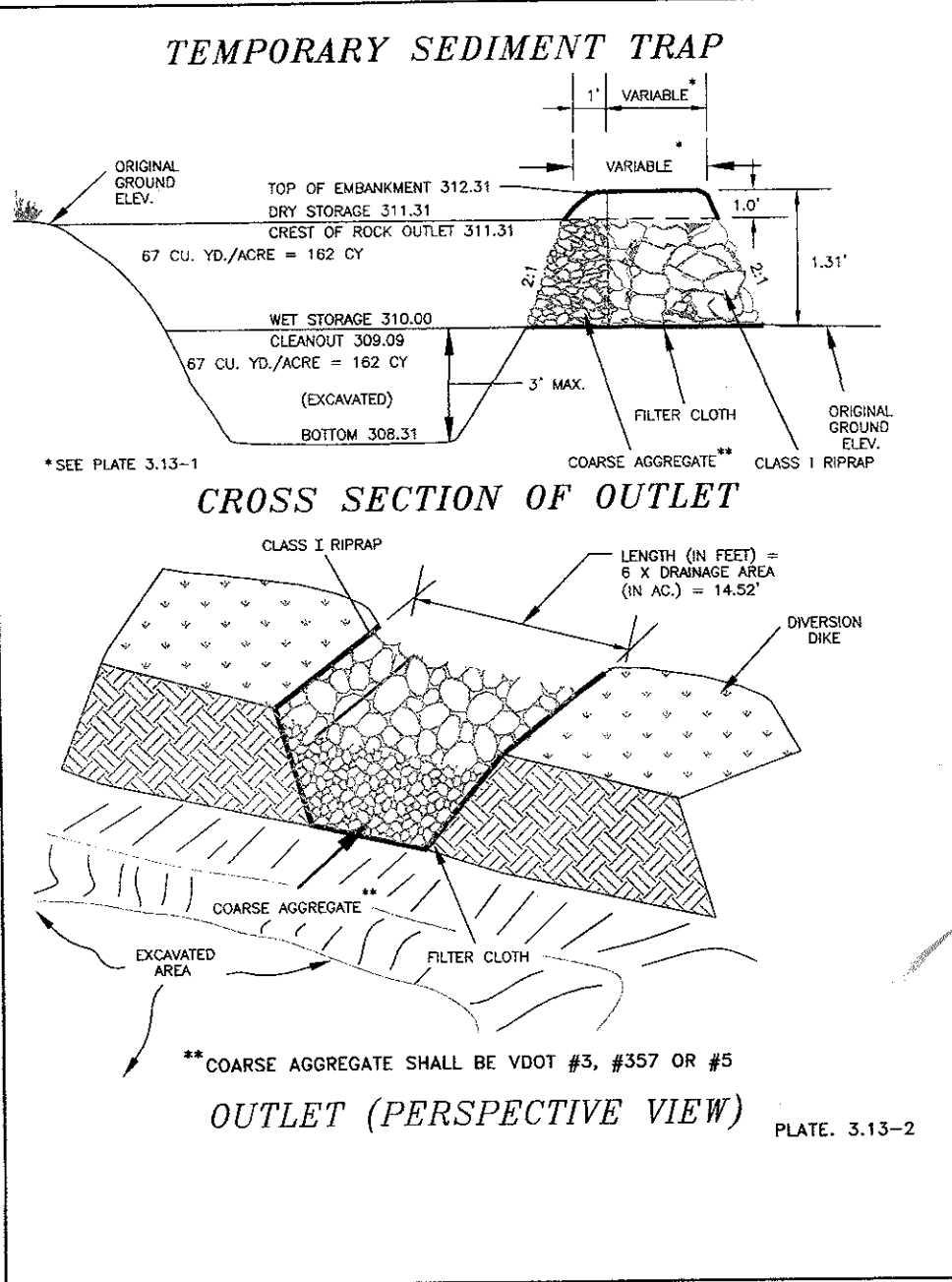
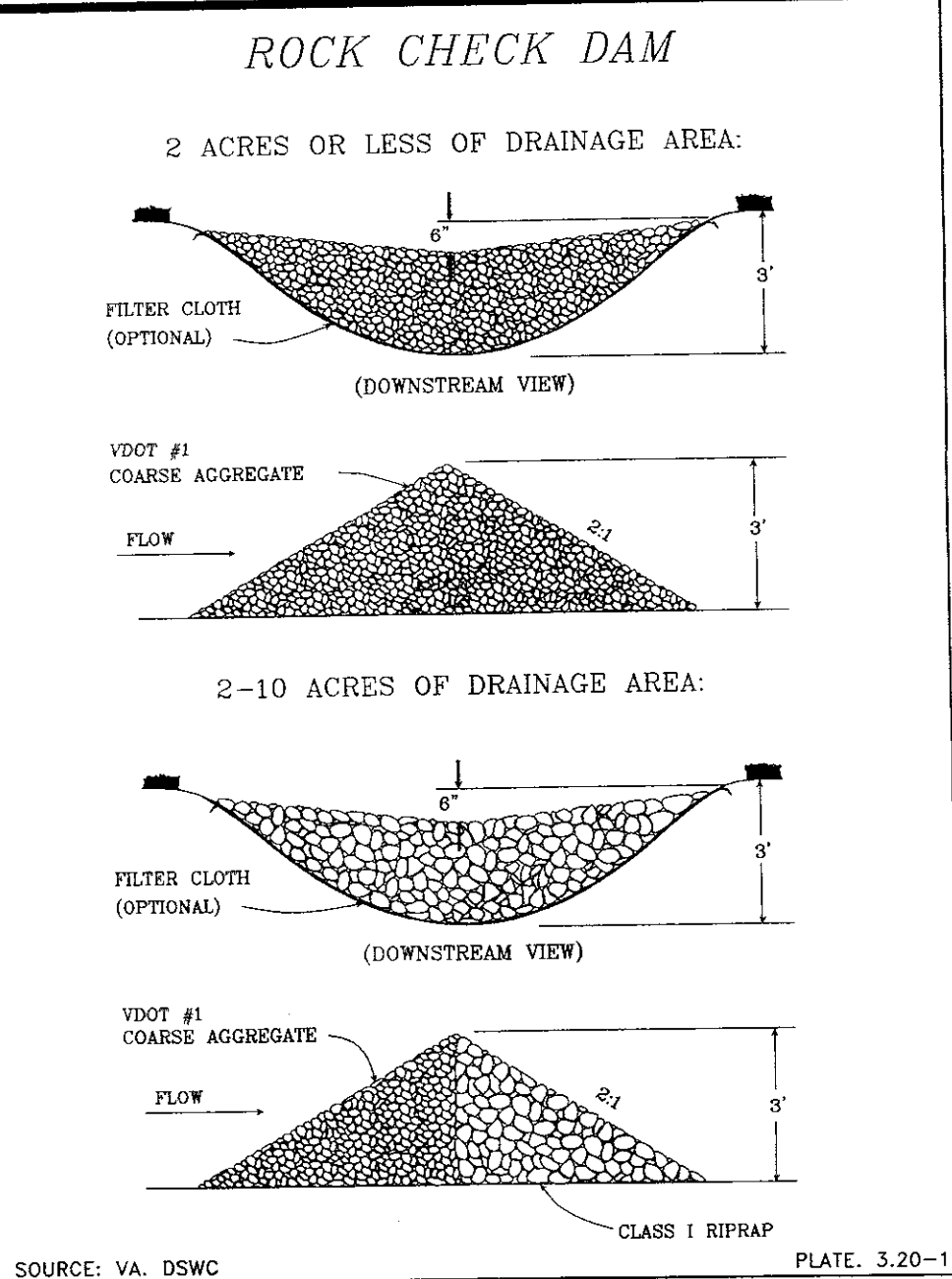
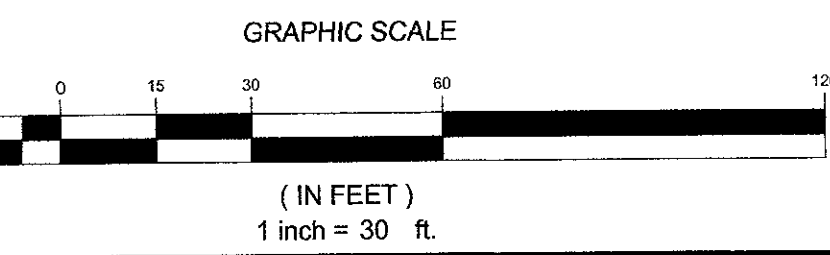
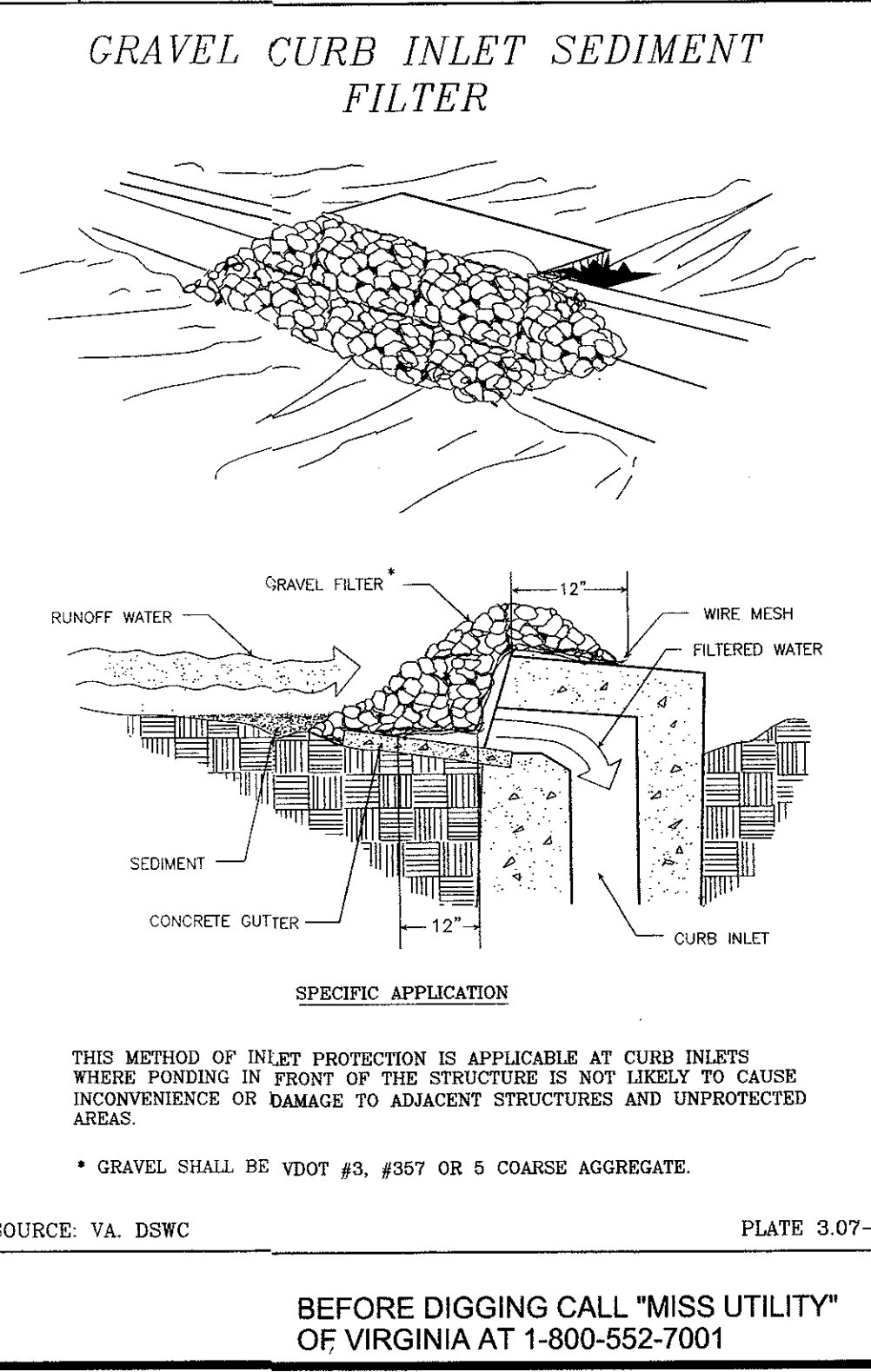
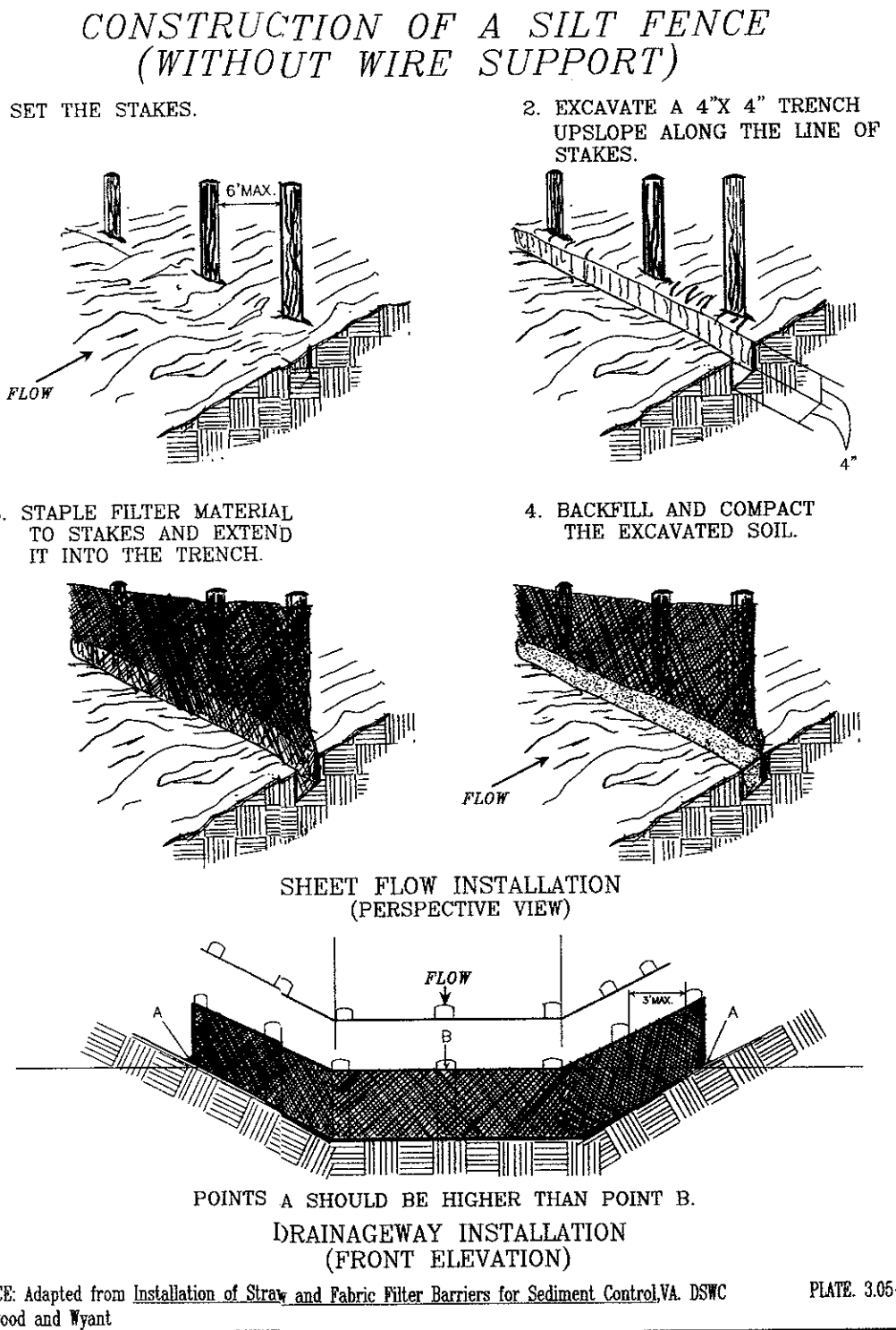
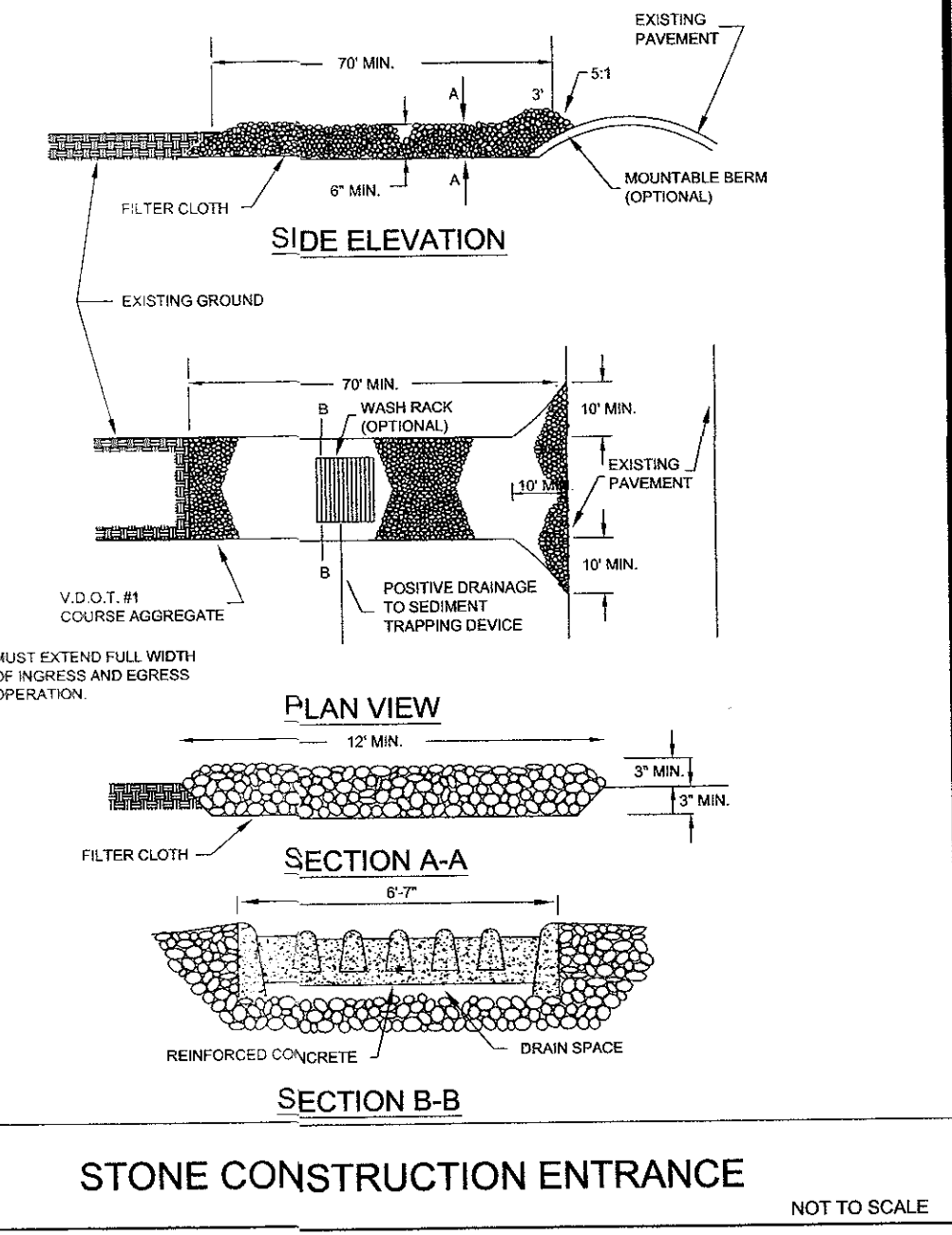
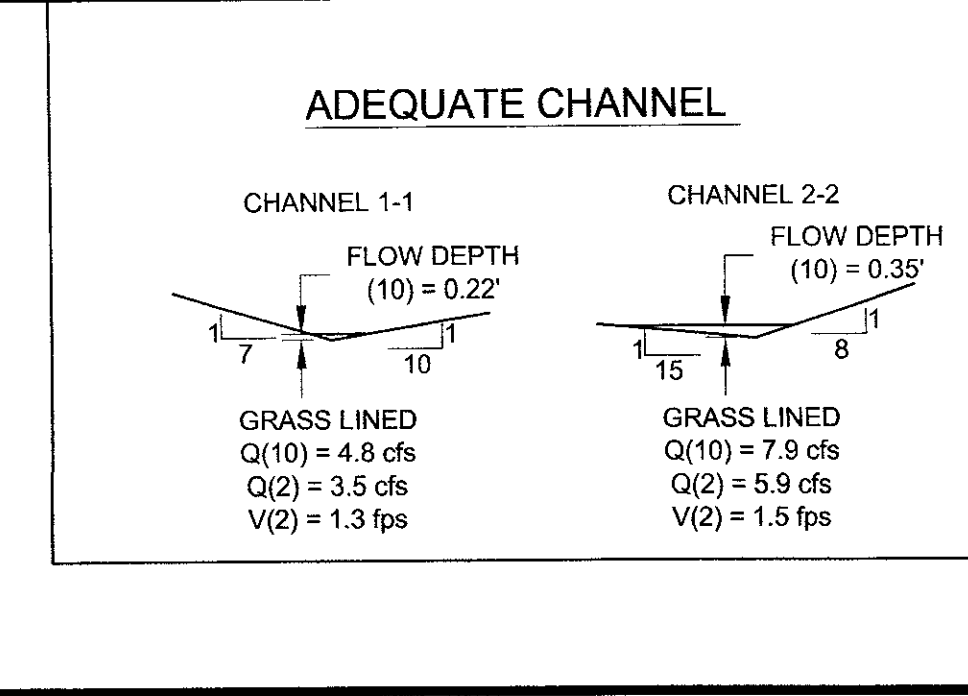


TABLE 3.35-A
ORGANIC MULCH MATERIALS AND APPLICATION RATES

MULCHES	PER ACRE	PER 1000 SQ FT	NOTES
STRAW OR HAY	1 1/2 - 2 TONS (MIN. 2 TONS FOR WINTER COVER)	70-90 LBS	FREE FROM WEEDS AND COARSE MATTER. MUST BE ANCHORED. SPREAD WITH MULCH BLOWER OR BY HAND.
FIBER MULCH	MIN. 1500 LBS	35 LBS	DO NOT USE AS MULCH FOR WINTER COVER OR DURING HOT, DRY PERIODS. APPLY AS SLURRY.
CORN STALKS	4-6 TONS	185-275 LBS	CUT OR SHREDDED IN 4-6" LENGTHS. AIR DRIED. DO NOT USE IN FINE TURF AREAS. APPLY WITH MULCH BLOWER OR BY HAND.
WOOD CHIPS	4-6 TONS	185-275 LBS	FREE OF COARSE MATTER. AIR DRIED. DO NOT USE IN FINE TURF AREAS. APPLY WITH MULCH BLOWER, CHIP HANDLER, OR BY HAND.
BARK CHIPS OR SHREDDED BARK	50-70 CU YD	1-2 CU YD	FREE OF COARSE MATTER. AIR DRIED. DO NOT USE IN FINE TURF AREAS. APPLY WITH MULCH BLOWER, CHIP HANDLER, OR BY HAND.

* WHEN FIBER MULCH IS THE ONLY AVAILABLE MULCH DURING PERIODS WHEN STRAW SHOULD BE USED, APPLY AT A MINIMUM RATE OF 2000 LBS/AC OR 45 LBS/1000 SQ FT.



Rickmond Engineering, Inc.

Land Planning
Surveying
Engineering

Vint Hill • P.O. Box 861647
Warrenton, VA 20187
Voice: (540)349-7730
Fax: (540)349-7731

www.rickmond.com

Paul A. BERNARD
No. 012668
3/30/04
PROFESSIONAL ENGINEER

Site Plan
Car Wash
Phase 2 Erosion & Sedimentation
Control Plan, Details, & Narrative

Job Number: 03511
Sheet No.: 6 of 9

Scale: 1" = 30'
Drawn By: JDD
Designed By: JDD
Date: 10 July 2003

Canopy Requirements			
Pre-Development Coverage	(sq. ft.)	33,759	
Total Site Area	(sq. ft.)	0	
Total Canopy Coverage	(sq. ft.)	0.00	
Post-Development Required	%	10.00	
Total Required Canopy	%	24.44	
Post-Development Coverage	(sq. ft.)	0	
Undisturbed Canopy	(sq. ft.)	8,250	
Additional Plantings	(sq. ft.)	8,250	
Total Canopy Coverage	(sq. ft.)	24.44	
Total Canopy Coverage	%	0.00	
Pre-Devel. Coverage	%	24.44	
Post Devel. Coverage	%		

LANDSCAPE SCHEDULE AND TABULATIONS						
Symbol	Botanial Name	Common Name	10 Year Canopy (sf)	Size	Condition	Quantity
Shrubs						
○	Rhododendron	Azalea		30" min.		40
⊗	Buxus Sempervirens	Old English Boxwood		30" min.		47
⊙	Taxus Cuspitata Capitata	Japanese Yew		30" min.		29
						Total Shrubs
						116
Deciduous Understory Tree						
⊗	Prunus Serulata Kwanzan	Kwanzan Cherry	250	2 1/4" cal. min.	B & B	18
Understory Tree Canopy (sf)			4,500	Total Understory Trees		18
Deciduous Canopy Trees						
⊙	Quercus Rubra	Red Oak	250	2 1/4" cal. min.	B & B	8
⊙	Acer Rubrum	Red Maple	250	2 1/4" cal. min.	B & B	7
Canopy Tree Canopy (sf)			3,750	Total Canopy Trees		15
Total Tree Canopy (sf)			8,250	Total Deciduous Trees		33

BUFFER YARD REQUIRED IN FAUQUIER CO. ZONING ORDINANCE (PER 100 LINEAR FEET)
 FRONT 20' STRIP - 3 CANOPY TREES
 3 UNDERSTORY TREES
 24 SHRUBS
 SIDE 20' STRIP - 2 CANOPY TREE
 5 UNDERSTORY TREES
 20 SHRUBS
 SIDE 20' STRIP - 2 CANOPY TREE
 5 UNDERSTORY TREES
 20 SHRUBS
 REAR 25' STRIP - 4 CANOPY TREE
 7 UNDERSTORY TREES
 30 SHRUBS
 MINOR REVISIONS HAVE BEEN MADE TO THE FRONT 35' BUFFER MODIFICATION REQUEST DATE 08/28/2003. THE CURRENT FRONT 35' BUFFER EXCEEDS THE PREVIOUS REQUEST IN ORDER TO MORE CLOSELY MEET THE CURRENT ZONING REQUIREMENT.

BUFFER YARD MODIFICATION REQUEST (PER 100 LINEAR FEET)
 FRONT 35' STRIP - 3.5 CANOPY TREES
 4 UNDERSTORY TREES
 26.5 SHRUBS
 SIDE 10' STRIP - 1 CANOPY TREE
 2 UNDERSTORY TREES
 10 SHRUBS
 SIDE 10' STRIP - 1 CANOPY TREE
 2 UNDERSTORY TREES
 10 SHRUBS
 REAR 10' STRIP - 2 CANOPY TREE
 3 UNDERSTORY TREES
 10 SHRUBS

ZONING REQUIREMENTS FOR LIGHTING
 ALL PARKING LOTS, LOADING AND DISPLAY AREAS. THIS LIGHTING REQUIREMENT APPLIES TO TOWNHOUSE AND MULTI-FAMILY, EDUCATIONAL, INSTITUTIONAL, COMMERCIAL RECREATION, PUBLIC, COMMERCIAL BUSINESS AND RETAIL, MOTOR VEHICLE RELATED, WHOLESALING, AND LIMITED AND GENERAL INDUSTRIAL USE CATEGORIES IDENTIFIED WITHIN THE ZONING ORDINANCE.

a. LIGHTING FOR ALL PARKING, DISPLAY AND LOADING AREAS SHALL NOT EXCEED AN AVERAGE HORIZONTAL ILLUMINATION LEVEL OF 2.5 FOOTCANDLES. ALL LIGHTING FIXTURES SERVING THOSE AREAS SHALL BE CUT-OFF FIXTURES AS DEFINED BY THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA);

b. MAXIMUM MOUNTING HEIGHT*

RESIDENTIAL: 20 FEET
 NON-RESIDENTIAL: 25 FEET

*HEIGHT IS MEASURED FROM THE GROUND SURFACE TO THE BOTTOM OF THE LIGHTING FIXTURE.

ADDITIONAL EQUIPMENT: (7) PS4S19C1BZ POLES
 POLES OK FOR 120 MPH SUSTAINED WINDS WITH SPECIFIED EQUIPMENT

AC FIXTURE MOUNTING HEIGHT: 21' AFG
 (19' POLE + 2' CONCRETE BASE)
 FIXTURE TILT ANGLE: 0 DEGREES
 WO- WALL FIXTURE MOUNTING HEIGHT: 9' AFG

PAVEMENT MARKING LEGEND

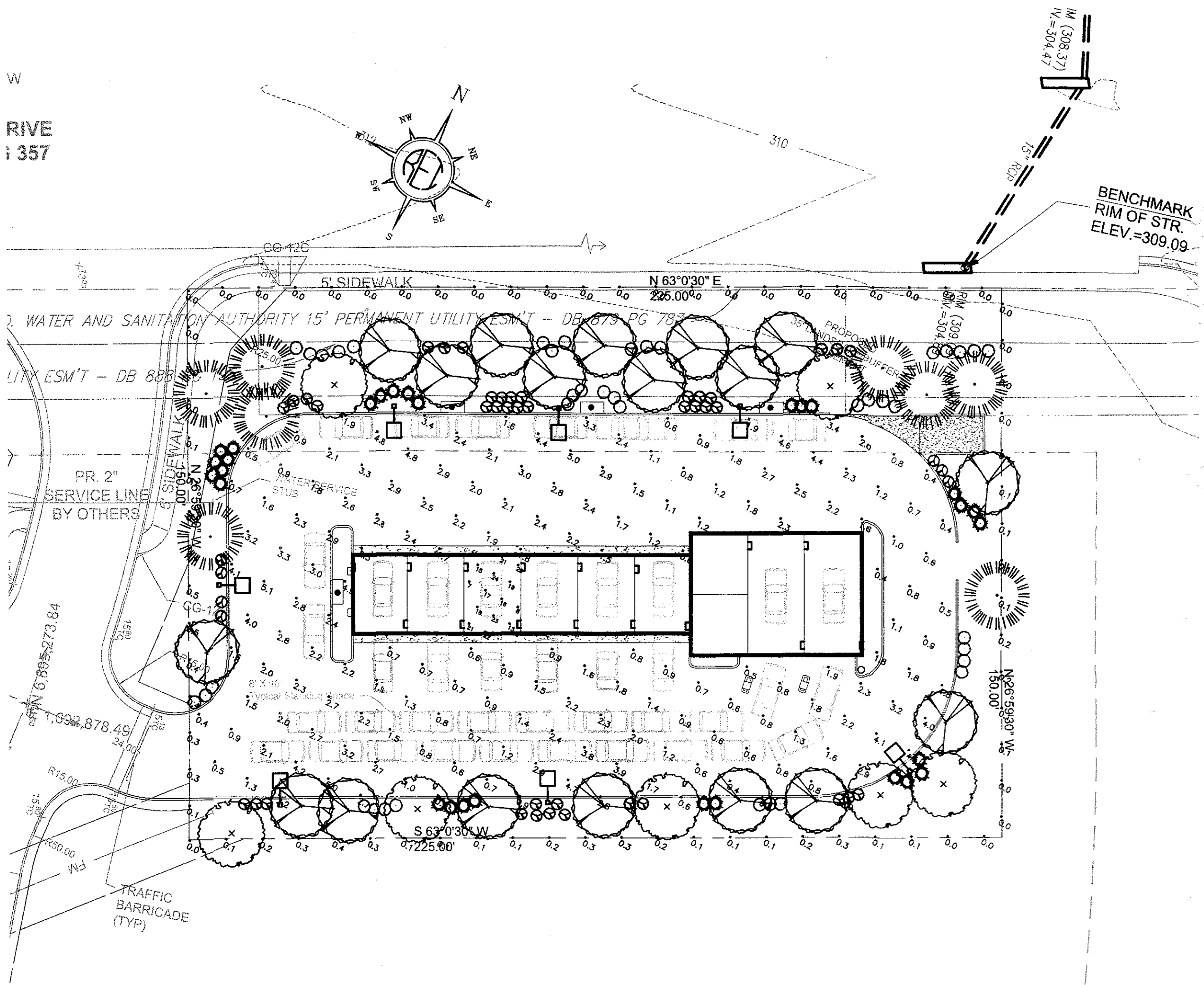
- TYPE B, CLASS 1, WHITE, 4" WIDTH
- TYPE B, CLASS 1, WHITE, 24" WIDTH
- TYPE B, CLASS 1, WHITE, ELONGATED ARROW

Date: 9/23/03	Scale: 1"=20'	Engineer: Eric Hardesty
Project Name: DOUTY CARWASH		
MAINTAINED FOOTCANDLES SHOWN AT FLOOR/ GRADE		
Numeric Summary		
Project: All Projects		
Label	Avg	Max
PROPERTY LINE	0.11	0.5
LOT	1.95	5.1
WASH BAY	17.43	24

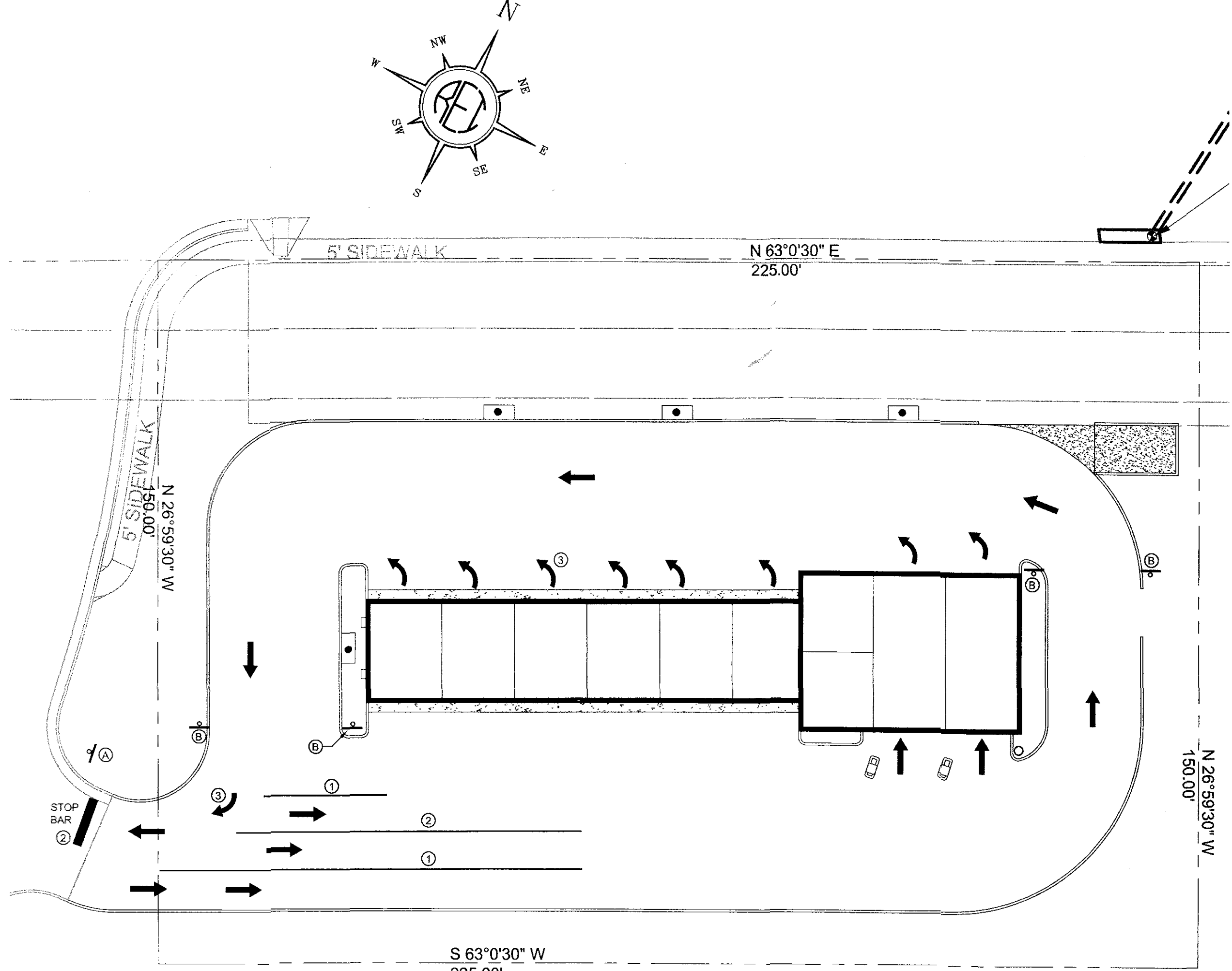
Luminaire Schedule					
Symbol	Qty	Label	Lumens	LLF	Description
⊗	16	W0	19100	0.650	W0425-M (250w MH)
⊗	7	AC	19100	0.650	AC2425-M (250w MH) + SBL-16

SIGN LEGEND

A	B
R1-1	R5-1
30"x30"	30"x30"

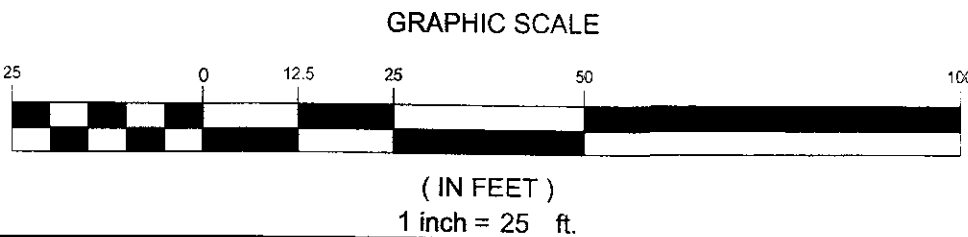


LANDSCAPE, LIGHTING AND STACKING PLAN



PAVEMENT MARKING AND SIGNAGE PLAN

SCALE: 1"=20'



BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA AT 1-800-552-7001

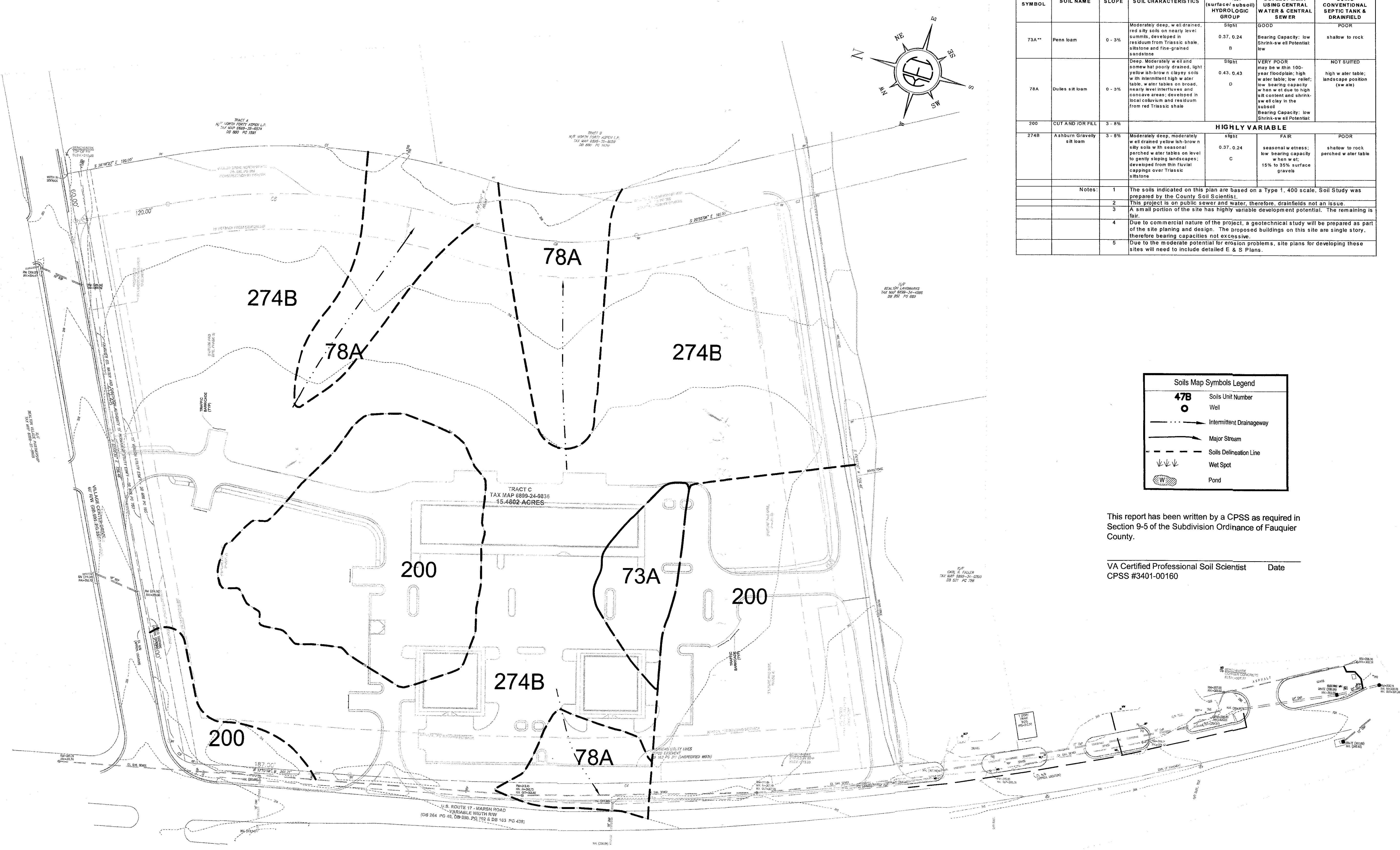
Rickmond Engineering, Inc.
 Land Planning
 Surveying
 Vint Hill - P.O. Box 861647
 Williamsburg, VA 23185
 Voice: (540) 846-7730
 Fax: (540) 846-7731
 www.rickmond.com
 Date: 10 July 2003
 Scale: 1"=25'
 Drawn By: SAG
 Designed By: SAG

COMMONWEALTH OF VIRGINIA
 PAUL A. BERNARD
 No. 012668
 2/23/04
 PROFESSIONAL ENGINEER

No.	By	Revision	Date
3	SLE	3rd REVIEW COMMENTS	PAB 02/18/2004
2	SAG	2nd REVIEW COMMENTS	JWS 11/04/2003
1	SLE	1st REVIEW COMMENTS	JWS 09/23/2003

Site Plan
Car Wash
Landscape and Lighting Plan
 LEE MAGISTERIAL DISTRICT
 FAUQUIER COUNTY, VA

Job Number	Sheet No.
03511	7 of 9



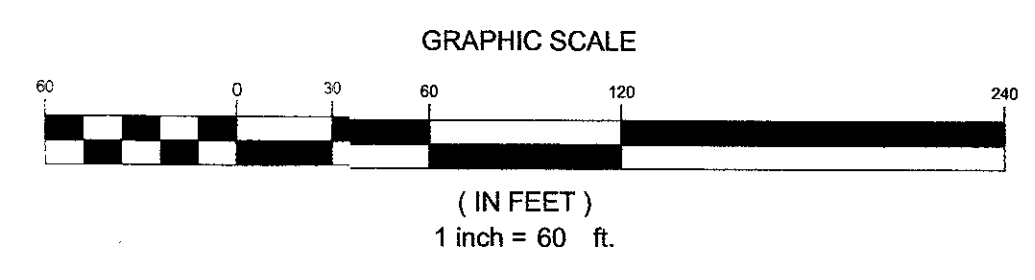
MAP UNIT SYMBOL	SOIL NAME	SLOPE	SOIL CHARACTERISTICS	EROSION HAZARD K Factor (surface/subsoil) HYDROLOGIC GROUP	USE POTENTIAL LAND GENERAL DEVELOPMENT USING CENTRAL WATER & CENTRAL SEWER	POTENTIAL FOR DEVELOPMENT USING CONVENTIONAL SEPTIC TANK & DRAINFIELD
73A**	Penn loam	0 - 3%	Moderately deep, well drained, red silty soils on nearly level summits, developed in residuum from Triassic shale, siltstone and fine-grained sandstone	Slight 0.37, 0.24 B	GOOD Bearing Capacity: low Shrink-swell Potential: low	POOR shallow to rock
78A	Dukes silt loam	0 - 3%	Deep, Moderately well and somewhat poorly drained, light yellowish-brown clayey soils with intermittent high water table, water tables on broad, nearly level interfluves and concave areas; developed in local colluvium and residuum from red Triassic shale	Slight 0.43, 0.43 D	VERY POOR may be within 100-year floodplain; high water table, low relief; low bearing capacity when wet due to high silt content and shrink-swell clay in the subsoil Bearing Capacity: low Shrink-swell Potential:	NOT SUITED high water table; landscape position (swale)
200	CUT AND/OR FILL	3 - 8%	HIGHLY VARIABLE			
274B	Ashburn Gravelly silt loam	3 - 8%	Moderately deep, moderately well drained yellowish-brown silty soils with seasonal perched water tables on level to gently sloping landscapes; developed from thin fluvial cappings over Triassic siltstone	Slight 0.37, 0.24 C	FAIR seasonal wetness; low bearing capacity when wet; 15% to 35% surface gravels	POOR shallow to rock perched water table
Notes:						
			1 The soils indicated on this plan are based on a Type 1, 400 scale, Soil Study was prepared by the County Soil Scientist.			
			2 This project is on public sewer and water, therefore, drainfields not an issue.			
			3 A small portion of the site has highly variable development potential. The remaining is fair.			
			4 Due to commercial nature of the project, a geotechnical study will be prepared as part of the site planning and design. The proposed buildings on this site are single story, therefore bearing capacities not excessive.			
			5 Due to the moderate potential for erosion problems, site plans for developing these sites will need to include detailed E & S Plans.			

Soils Map Symbols Legend

- 47B** Soils Unit Number
- Well
- Intermittent Drainageway
- Major Stream
- Soils Delineation Line
- Wet Spot
- Pond

This report has been written by a CPSS as required in Section 9-5 of the Subdivision Ordinance of Fauquier County.

VA Certified Professional Soil Scientist Date
CPSS #3401-00160



THIS SHEET PROVIDED FOR SOILS INFORMATION FROM APPROVED
LIBERTY STATION MAS03-L-03

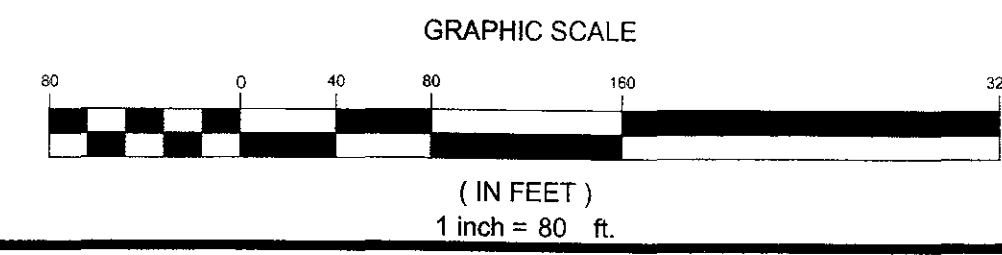
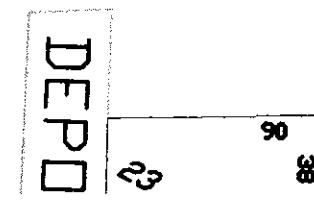
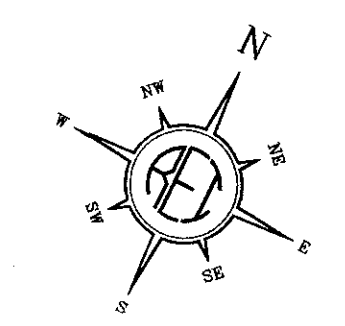
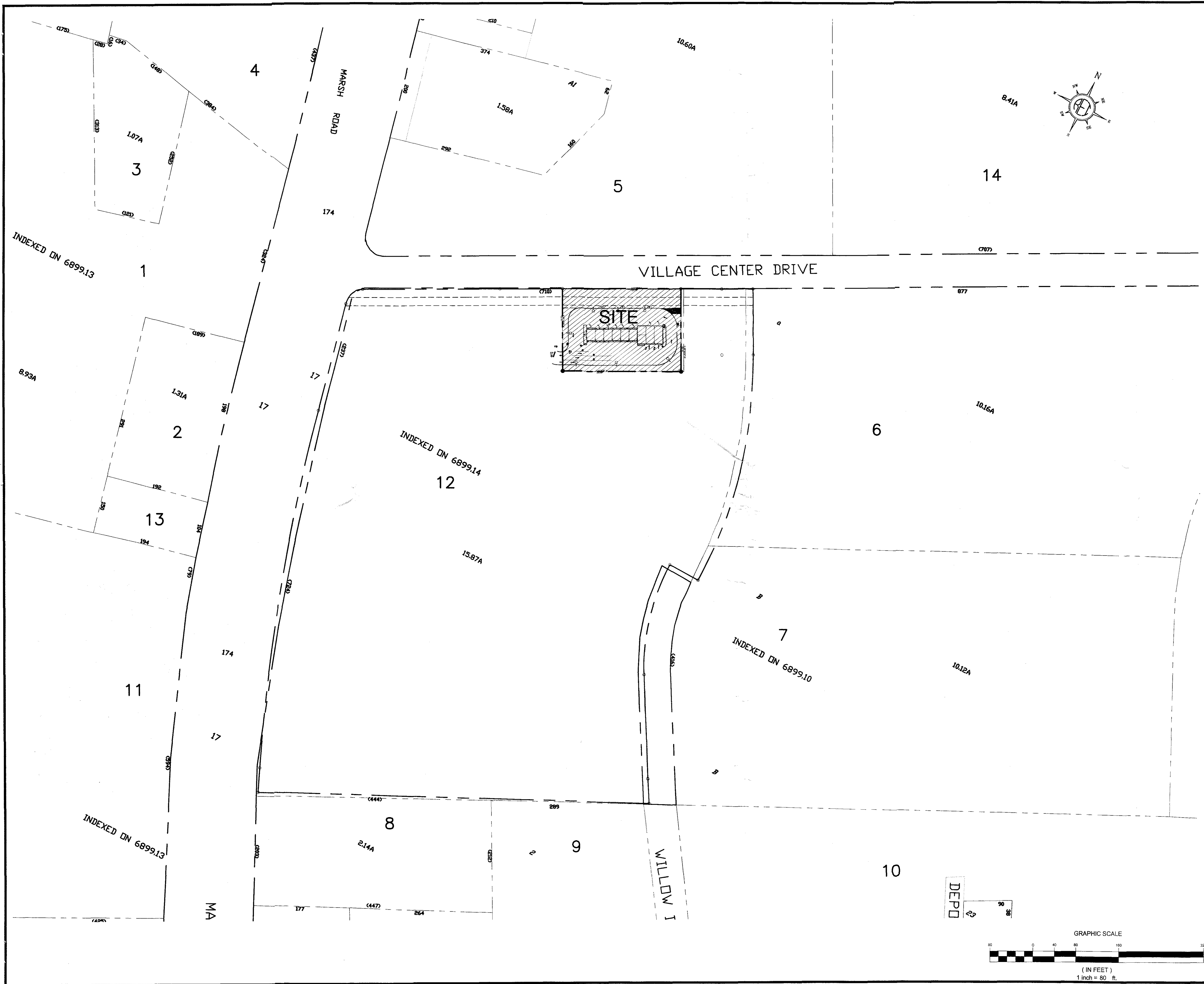
Rickmond Engineering, Inc.
Engineering Land Planning Surveying
1643 Merrimac Trail
Williamsburg, VA 23185
Voice: (540) 549-7730
Fax: (540) 549-7731
www.rickmond.com

COMMONWEALTH OF VIRGINIA
PAUL A. BERNARD
No. 012668
2/23/04
PROFESSIONAL ENGINEER

No.	1	SLB 1st REVIEW COMMENTS	JWS 09/26/2003	Date
By				
Revision				

LEE DISTRICT FAUQUIER COUNTY, VA

Job Number Sheet No.
02509 8 of 9



- 1 Carter W. Kehoe
POB 2
Bealeton, VA 22712
Deed Book 273 Page 591
Zone: R4
Use: Residential
Acreage: 8.93
- 2 Wendell P. Ennis
6275 Beach Rd.
Midland, VA 22728
Deed Book 538 Page 494
PIN: 6899-24-3818
Zone: C1C
Use: Office
Acreage: 1.3146
- 3 Wendell P. Ennis
6275 Beach Rd.
Midland, VA 22728
Deed Book 273 Page 591
PIN: 6899-25-0237
Zone: R4
Use: Residential
Acreage: 1.07
- 4 Cedar Grove Cemetery Co.
Marsh Rd.
Bealeton, VA 22712
Cedar Grove Cemetery Company
P.O. Box 342
Bealeton, Virginia 22712
Deed Book 69 Page 169
PIN: 6899-25-0575
Zone: R4
Use: Cemetery
Acreage: 2.00
- 5 Bealeton Village Partnership
5272 River Rd. #360
Bethesda, MD 20816
Deed Book 724 Page 1781
PIN: 6899-25-8868
Zone: C3
Use: Commercial Retail
Acreage: 10.5972
- 6 North Forty Aspen LP
611 Research Rd. Ste C
Richmond, VA 23236
Deed Book 880 Page 1591
PIN: 6899-35-6574
Zone: Not Listed
Use: Multi-Family Residential
Acreage: 10.0802
- 7 North Forty Aspen Plus LP
1642 Pleasure House Rd. Ste. 104
Virginia Beach, VA 23455
Deed Book 880 Page 1620
PIN: 6899-35-8059
Zone: Prryyy
Use: Multi-Family Residential
Acreage: 10.12
- 8 Carl R. Fuller
POB 96
Bealeton, VA 22712
Deed Book 521 Page 756
PIN: 6899-34-0300
Zone: C1
Use: Retail
Acreage: 2.14
- 9 Bealeton Landmarks LLC
11166 Willow Dr.
Bealeton, VA 22712
P.O. Box 17
Philo, CA 95466
Deed Book 852 Page 689
PIN: 6899-34-4286
Zone: C1PyC1
Use: Vacant
Acreage: 4.5764
- 10 Washington Homes Inc. of Virginia
4090-A Lafayette Center Dr.
Chantilly, VA 20151
Deed Book 954 Page 555
PIN: 6899-44-6708
Zone: R4y
Use: Single-Family Residential
Acreage: 24.2305
- 11 Revathi Rathinasamy
10840 Jennifer Marie Pl.
Fairfax Station, VA 22039
Deed Book 756 Page 438
PIN: 6899-14-2426
Zone: R4
Use: Residential
Acreage: 52.24
- 12 Cranes Corner, LLC
P.O. Box 1065
Warrenton, VA 20188
Deed Book 948 Page 1833
PIN: 6899-24-9836
Zone: Czyyyy
Use: Commercial
Acreage: 15.459
- 13 Donald Gibson
11088 Marsh Road
Bealeton, VA 22712
Deed Book Page
PIN: 6899-24-3666
Zone: C1C
Use: Residential
Acreage: 0.4592
- 14 Elaine Milestone
5272 River Road, #360
Bethesda, MD 20816
Deed Book 686 Page 134
PIN: 6899-36-4057
Zone: C3C
Use: Multi-Family Residential
Acreage: 8.406

Rickmond Engineering, Inc.
Engineering
1643 Merrimac Trail
Williamsburg, VA 23185
Voice: (757) 222-7776
Fax: (757) 222-4685
www.rickmond.com

Land Planning
Vint Hill • P.O. Box 861847
Warrenton, VA 20187
Voice: (757) 222-7776
Fax: (540) 949-7731

Surveying

Designed By:
SAG

Drawn By:
SAG

Date:
10 July 2003

COMMONWEALTH OF VIRGINIA
PAUL A. BERNARD
No. 012668
2/23/14
PROFESSIONAL ENGINEER

No.	By	Revision	Date
3	SLB	3rd REVIEW COMMENTS	PAB 02/18/2004
2	SAG	2nd REVIEW COMMENTS	JWS 11/04/2003
1	SLB	1st REVIEW COMMENTS	JWS 02/28/2003

Site Plan
Car Wash

Adjacent Land Owners Plan

FAUQUIER COUNTY, VA
LEE MAGISTERIAL DISTRICT

Job Number
03511

Sheet No.
9 of 9

BEFORE DIGGING CALL "MISS UTILITY"
OF VIRGINIA AT 1-800-552-7001