LEGEND

EXISTING INTERMEDIATE CONTOUR — 252
EXISTING INDEX CONTOUR — 250
PROPOSED CONTOUR — 50
EXISTING EDGE OF PAVEMENT
PROPOSED EDGE OF PAVEMENT
EXISTING CURB & GUTTER
PROPOSED CURB AND GUTTER
EXISTING WATERLINE — W
PROPOSED WATERLINE — W
EXISTING TELEPHONE LINE — TEL.
PROPOSED TELEPHONE LINE — TEL.
EXISTING ELECTRIC SERVICE — E
PROPOSED ELECTRIC SERVICE — E
EXISTING GAS LINE — G
PROPOSED GAS LINE — G
EXISTING SANITARY SEWER — EX. SAN. SEW.
PROPOSED SANITARY SEWER — SAN. SEW.
EXISTING STORM SEWER
PROPOSED STORM SEWER
EXISTING FENCE LINE
PROPOSED FENCE LINE
EXISTING UTILITY POLE
PROPOSED UTILITY POLE
EXISTING SPOT ELEVATION — 275.50
PROPOSED SPOT ELEVATION — 75.50
PROPOSED STOP SIGN
FLOW LINE OF SWALE
PROPOSED FIRE LANE
EXISTING SIDEWALK — EX. SIDEWALK
PROPOSED SIDEWALK — SIDEWALK
EXISTING HANDICAP RAMP (CG-12)
PROPOSED HANDICAP RAMP (CG-12)
EXISTING TEST HOLE
PROPOSED TEST HOLE
FOUNDATION DRAIN (GRAVITY) — G
FOUNDATION DRAIN (PUMP) — P
EXISTING STREET LIGHT
PROPOSED STREET LIGHT
PARKING SPACE INDICATOR (TOTAL NUMBER OF SPACES) — 12
EXISTING TREE LINE TO BE REMOVED — (TBR)
PROPOSED LIMITS OF CLEARING AND GRADING AND/OR DISTURBANCE

GENERAL NOTES:

1. BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION FROM A 2009 FIELD SURVEY BY DOMINION SURVEYORS, INC. THE CONTOUR INTERVAL IS 2 FEET. TOPOGRAPHIC DATUM IS BASED ON FAIRFAX COUNTY/USGS ELEVATIONS.
2. THE PROPERTIES DELINEATED HEREIN ARE SHOWN ON FAIRFAX COUNTY TAX MAPS AS:

PARCEL I.D.	CURRENT ZONING	PROPOSED ZONING
93-1 ((18)) (D) 0117-0125	PRM, HC, CRD	C-8, HC, CRD
93-1 ((18)) (D) 0126-0129	(ALL PARCELS)	(ALL PARCELS)
93-1 ((18)) (D) 0130		
93-1 ((18)) (D) 0138-0140		

THE PROPERTIES ARE LOCATED IN THE RICHMOND HIGHWAY COMMERCIAL REVITALIZATION (CRD) DISTRICT AND THE HIGHWAY CORRIDOR OVERLAY DISTRICT (HCD).

THE PROPERTIES WERE REZONED FROM C-8 & R-3, TO PRM IN 2004, UNDER 2003-MV-059. THIS APPLICATION PROPOSES TO REZONE THE PROPERTY TO A C-8 DISTRICT.

3. THE PROJECT WILL BE SERVED BY SANITARY SEWER EXTENSIONS FROM EXISTING COUNTY SEWER MAINS LOCATED IN EAST LEE AVENUE AND PRESTON AVENUE.
4. THE PROJECT WILL BE SERVED BY WATERLINE EXTENSIONS FROM EXISTING F.C.W.A. FACILITIES IN EAST LEE AVENUE.
5. STORMWATER DETENTION AND B.M.P.S WILL BE PROVIDED BY UNDERGROUND PIPING AND A SAND FILTER, UNLESS WAIVED BY D.P.W.E.S. SEE SHEET 5 FOR THE PRELIMINARY DESIGN CALCULATIONS AND OUTFALL NARRATIVE.
6. A TRAIL IS NOT REQUIRED, PER THE COUNTY MASTER TRAIL PLAN. THE PROPOSED TRAIL AND STREETSCAPE IS IN ACCORDANCE WITH FIGURE 3, "RICHMOND HIGHWAY CROSS-SECTION" IN THE TRANSPORTATION POLICY PLAN.
7. THE COUNTY COMPREHENSIVE PLAN INDICATES THAT A SERVICE DRIVE IS PLANNED FOR THE SITE'S ROUTE 1 (RICHMOND HIGHWAY) FRONTAGE. A WAIVER OF THE SERVICE DRIVE REQUIREMENT IS REQUESTED AS PART OF THIS PLAN.
8. A WAIVER OF ROAD FRONTAGE IMPROVEMENTS FOR RICHMOND HIGHWAY IS REQUESTED AS PART OF THIS PLAN.
9. A WAIVER/MODIFICATION OF THE LANDSCAPING/TRANSITIONAL SCREENING REQUIREMENTS IS REQUESTED AS PART OF THIS PLAN.
10. THERE IS NO RESOURCE PROTECTION AREA (RPA) ON THE SITE. THE ENTIRE SITE IS WITHIN A RESOURCE MANAGEMENT AREA (RMA).
11. THERE IS NO KNOWN OR VISIBLE EVIDENCE OF A GRAVE, OBJECT OR STRUCTURE MARKING A PLACE OF BURIAL AND HAZARDOUS OR TOXIC SUBSTANCES ON THIS SITE.
12. THERE IS NO FLOODPLAIN MAPPED ON THE SITE.
13. THERE ARE NO SCENIC ASSETS OR VISTAS PRESENT ON THE SITE.
14. THERE ARE NO EASEMENTS IN EXCESS OF 25 FEET IN WIDTH ON THE SITE.
15. THE EXISTING VEGETATION AND LIMITS OF EXISTING TREE COVERAGE ARE SHOWN ON ATTACHED SHEET 2, AND CONSISTS OF MIXED DECIDUOUS AND EVERGREEN / CONIFEROUS SPECIES.
16. THE PROPOSED DEVELOPMENT IS WITHIN THE LITTLE HUNTING CREEK WATERSHED IMPROVEMENT PLANNING DISTRICT. APPROPRIATE MEASURES WILL BE APPLIED TO MEET THE POLICIES AND REQUIREMENTS OF THE P.F.M. AT THE TIME OF SITE PLAN REVIEW.
17. THE PROPOSED DEVELOPMENT SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION AND FAIRFAX COUNTY.
18. BUILDING MOUNTED AND FREESTANDING SIGNS MAY BE CONSTRUCTED, SUBJECT TO THE PROVISIONS OF ARTICLE 12 OF THE ZONING ORDINANCE.
19. THE PROPOSED DEVELOPMENT IS IN CONFORMANCE WITH THE COMPREHENSIVE PLAN.
20. ALL DIMENSIONS AND AREAS SHOWN ARE APPROXIMATE AND SUBJECT TO CHANGE WITH FINAL ENGINEERING. IN ACCORDANCE WITH ARTICLE 18 OF THE ZONING ORDINANCE, MINOR MODIFICATIONS MAY BE PERMITTED DUE TO ISSUES OF TOPOGRAPHY, DRAINAGE, UTILITY DESIGN, LAYOUT AND FINAL DESIGN AT THE TIME OF THE SITE PLAN.
21. DEVELOPMENT OF THIS PROJECT SHALL COMMENCE AT SUCH TIME AS APPROPRIATE COUNTY APPROVALS HAVE BEEN OBTAINED AND SUBJECT TO MARKET CONDITIONS.
22. EXISTING RESIDENTIAL STRUCTURES WERE CONSTRUCTED IN 1925, ACCORDING TO THE TAX ASSESSMENT RECORDS, AND ARE TO BE REMOVED.
23. RETAIL USE IS PROPOSED ON THE PROPERTY, HOWEVER, OTHER USES PERMITTED IN THE C-8 DISTRICT MAY BE CONSTRUCTED SUBJECT TO THE PROVISION OF PARKING IN ACCORDANCE WITH ARTICLE 11 OF THE ZONING ORDINANCE.
24. THE GRAPHIC ON SHEET 3A DEPICTS TWO FREESTANDING BUILDINGS. AN ALTERNATIVE PLAN SHOWING A SINGLE BUILDING IS INCLUDED AS SHEET 3B. THE APPLICANT RESERVES THE RIGHT TO REALLOCATE SQUARE FOOTAGE BETWEEN BUILDINGS PROVIDED THAT THERE IS NO DECREASE IN OPEN SPACE OR DISTANCE TO PERIPHERAL LOT LINES.

Application No. RZ 2010-MV-011 Staff KGS

APPROVED ~~DEVELOPMENT~~ PLAN
~~(DP)~~ ~~(GDP)~~ (CDP) (FDP)
SEE ~~PROFFERS~~ DATED Sep 26, 2011
Date of ~~(BOS)~~ (PC) Approval Sep 27, 2011

Sheet 1 of 8

SITE / ZONING TABULATIONS:

A. THE PROPERTY OWNER IS (ALL PARCELS):
MEMORIAL VENTURE, LLC
1200 CHADWICK AVE.
ALEXANDRIA, VA 22308

B. PARCEL AREAS:

PARCEL I.D.	AREA (S.F.)	AREA (AC.)
93-1 ((18)) (D) 0117-0125	27,350	0.6279
93-1 ((18)) (D) 0126-0129	13,000	0.2984
93-1 ((18)) (D) 0130	3,250	0.0746
93-1 ((18)) (D) 0138-0140	9,750	0.2236
TOTAL	53,350 S.F.	1.22475

C. PROPOSED RIGHT-OF-WAY DEDICATION:
8,055 S.F.

D. NET SITE AREA:
45,295 S.F.

E. ZONING REQUIREMENTS C-8:

MINIMUM LOT SIZE:	40,000 S.F.
MINIMUM LOT WIDTH:	200 FEET
NOTE: A WAIVER TO THE MINIMUM LOT WIDTH IS REQUESTED. THE EXISTING LOTS HAVE MIMUMUM LOT WIDTHS OF 25 FEET. THE CURRENT PROPERTY WIDTH IS 184.41 FEET. THE RESIDUAL PROJECT DEPTH, ALONG EAST LEE AVENUE, AFTER R.O.W. DEDICATION, WILL BE 147.66 FEET.	
MAXIMUM BUILDING HEIGHT:	40 FEET
MINIMUM YARD REQUIREMENTS:	
FRONT YARD (C-8):	CONTROLLED BY A 45 DEGREE ANGLE OF BULK PLANE, BUT NOT LESS THAN 40 FEET.
FRONT YARD (C.R.D.)	RICHMOND HIGHWAY COMMERCIAL REVITALIZATION DISTRICT 20 FEET
SIDE YARD:	NO REQUIREMENT
REAR YARD:	20 FEET
MAXIMUM FLOOR AREA RATIO:	0.50
OPEN SPACE:	15 PERCENT OF GROSS AREA SHALL BE LANDSCAPED OPEN SPACE.
TREE CANOPY:	10 PERCENT

F. SITE TABULATIONS:

PROPOSED BUILDING HEIGHT:	ALLOWABLE: 35 FEET PROPOSED: SINGLE STORY = 18 FEET
BULK REGULATIONS:	
FRONT YARD:	ALLOWABLE: 40 FEET (C-8), 20' C.R.D. PROPOSED: 59.6' FEET
SIDE YARD:	ALLOWABLE: 0 FEET PROPOSED: THERE IS NO SIDE YARD ON THIS LOT, 3 FRONT YARDS AND 1 REAR YARD.
REAR YARD:	ALLOWABLE: 20 FEET PROPOSED: 32.1 FEET
FLOOR AREA RATIO:	0.50 ALLOWABLE = 0.5(53,350) = 26,675 S.F. PROPOSED = (6000 / 53,350) = 0.1125
OPEN SPACE:	REQUIRED = 0.15(45,295) = 6,794 S.F. PROVIDED = 22,213 S.F. = 49.04%
TREE CANOPY:	REQUIRED = 0.10(45,295) = 4,529 S.F. PROVIDED = 6,600 S.F. = 14.57%
INTERIOR PARKING LOT LANDSCAPING:	REQUIRED = 5% = 0.05 (18,100 S.F.) = 905 S.F. (18,100 = GROSS PARKING LOT AREA) PROVIDED = 1,292 S.F. = 7.14%

G. PARKING TABULATIONS:

PARKING REQUIRED: SHOPPING CENTER -	4.3 SPACES PER 1000 S.F. GROSS FLOOR AREA PARKING REQUIRED = 26 SPACES WITH 20% RICHMOND HIGHWAY COMMERCIAL REVITALIZATION DISTRICT REDUCTION = 21 SPACES
PROVIDED:	TOTAL PARKING PROVIDED = 25 SPACES REGULAR SPACES = 23 SPACES HANDICAPPED (VAN ACC.)= 2 SPACES
LOADING REQUIRED:	STANDARD "B", 1 SPACE FOR FIRST 10,000 S.F. GROSS FLOOR AREA, PLUS 1 SPACE FOR EACH ADDITIONAL 10,000 G.S.F. LOADING SPACES REQUIRED = 1
LOADING PROVIDED:	LOADING SPACES PROVIDED = 1

WETLANDS CERTIFICATE

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES.

SIGNATURE Alan R Dalton

OWNER/DEVELOPER AGENT FOR OWNER

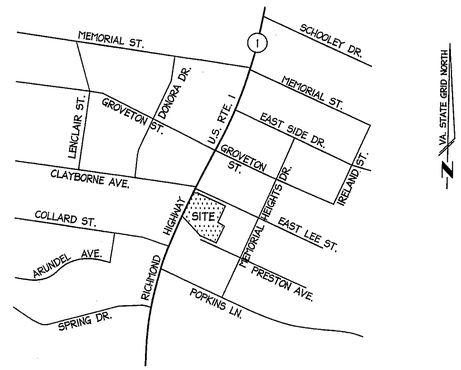
RECEIVED
Department of Planning & Zoning
JUL 12 2011
Zoning Evaluation Division

SHEET INDEX

1 COVER SHEET / SITE TABULATIONS
2 EX. CONDITIONS / EXISTING VEGETATION MAP
3A GENERALIZED DEVELOPMENT PLAN
3B GENERALIZED DEVELOPMENT PLAN - SINGLE BUILDING OPTION
3C GENERALIZED DEVELOPMENT PLAN - RIGTH TURN LANE EXHIBIT
4 LANDSCAPE / TREE COVER PLAN
5 PRELIMINARY STORMWATER PLAN / OUTFALL NARRATIVE
6 SECTION EXHIBITS

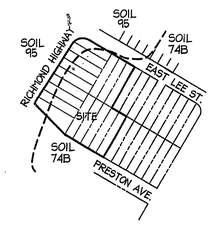
VICINITY MAP

SCALE: 1"= 500'



SOIL MAP

SCALE: 1"= 200'



SOIL INFORMATION FROM NRCS / COUNTY SOIL MAPS (2008)

SOIL ID NUMB.	SERIES NAME	PROBLEM CLASS	SOIL DRAINAGE	SUITABILITY FOR SEPTIC	SUIT. FOR INFILTR.	EROSION POTENTIAL	FOUNDATION SUPPORT
74B	GRIST MILL	III	MARG	POOR	POOR	POOR	LOW
95	URBAN LAND	N/A	N/A	N/A	N/A	N/A	N/A

A GEOTECHNICAL INVESTIGATION / REPORT IS REQUIRED.

TREE PRESERVATION / COVER SUMMARY

A. TREE PRESERVATION TARGET AND STATEMENT

A1 TREE PRESERVATION TARGET CALCULATIONS

A	PREDEVELOPMENT AREA OF EX. TREE CANOPY (FROM E.V.M.)=	9,583	SQ. FT.
B	PERCENTAGE OF GROSS SITE AREA COV. BY EX. CANOPY =	17.96	%
C	PERCENTAGE OF 10-YR CANOPY REQ'D FOR SITE =	10	%
D	PERCENTAGE OF 10-YR CANOPY THAT SHOULD BE MET THROUGH TREE PRESERVATION.	17.96	%
E	PROPOSED PERCENTAGE OF CANOPY THAT WILL BE MET THROUGH TREE PRESERVATION.	0	%
F	HAS THE TREE PRESERVATION TARGET MINIMUM BEEN MET? A DEVIATION FROM THE TREE PRESERVATION AREA COMPLIANCE REQUIREMENT IS REQUESTED. SEE SHEET 2.	NO	

B. TREE CANOPY REQUIREMENTS:

B1	IDENTIFY GROSS SITE AREA	53,350	SQ. FT.
B2	SUBTRACT PARK / RD. FRONTAGE AREA	8,055	SQ. FT.
B3	SUBTRACT EXEMPTION AREAS (ACTIVE DRAINFIELD = 1300 S.F.)	-	SQ. FT.
B4	ADJ. GROSS SITE AREA	45,295	SQ. FT.
B5	PROPOSED SITE ZONING	C-8	
B6	PERCENTAGE 10 YR. CANOPY REQ'D	10 %	
B7	AREA OF 10-YR. CANOPY REQ'D	4,530	SQ. FT.
B8	MODIFICATION OF 10-YR CANOPY REQUESTED?	NO	
B9	LOCATION OF MODIFICATION REQUEST	N/A	

C. TREE PRESERVATION:

C1	TREE PRESERVATION TARGET AREA:	814	SQ. FT.
C2	EXISTING TREE CANOPY TO REMAIN	0	SQ. FT.
C3	C2 X 1.25	0	SQ. FT.
C4	CANOPY BY VALUABLE WOODLAND	0	SQ. FT.
C5	C4 X 1.25	0	SQ. FT.
C6	CANOPY BY HERITAGE, ETC	0	SQ. FT.
C7	C6 X 1.5 TO 3.0	0	SQ. FT.
C8	CANOPY WITHIN R.P.A. & FLOODPLAINS	0	SQ. FT.
C9	C8 X 1.0	0	SQ. FT.
C10	TOTAL (C3+C5+C7+C9)	0	SQ. FT.

D. TREE PLANTING

D1	AREA OF CANOPY TO BE MET THROUGH PLANTING (B7-C10)	6,600	SQ. FT.
D17	TOTAL OF CANOPY AREA PROVIDED THROUGH TREE PLANTING	6,600	SQ. FT.
D18	IS OFFSITE PLANTING RELIEF REQUESTED?	NO	YES / NO
D19	TREE BANK OR TREE FUND	-	
D20	CANOPY TO BE PROV. THROUGH OFFSITE BANK / FUND.	-	SQ. FT.
D2	AMOUNT TO BE DEPOSITED INTO TREE PRES. / PLANTING FUND	$0.00	

E. TOTAL OF 10 YEAR CANOPY PROVIDED

E1	TOTAL OF CANOPY AREA PROV. THROUGH PRESERVATION (C10)	-	SQ. FT.
E2	TOTAL OF CANOPY AREA PROV. THROUGH TREE PLANTING (D17)	6,600	SQ. FT.
E3	TOTAL OF CANOPY AREA PROV. THROUGH OFFSITE MECHANISM (D19)	-	SQ. FT.
E4	TOTAL OF 10 YEAR CANOPY AREA PROVIDED	6,600	SQ. FT.

SEE SHEET 4 FOR PLANTING PLAN

DOMINION Surveyors Inc.®
8808-H PEAR TREE VILLAGE COURT
ALEXANDRIA, VIRGINIA 22309
703-619-6555
FAX 703-799-6412

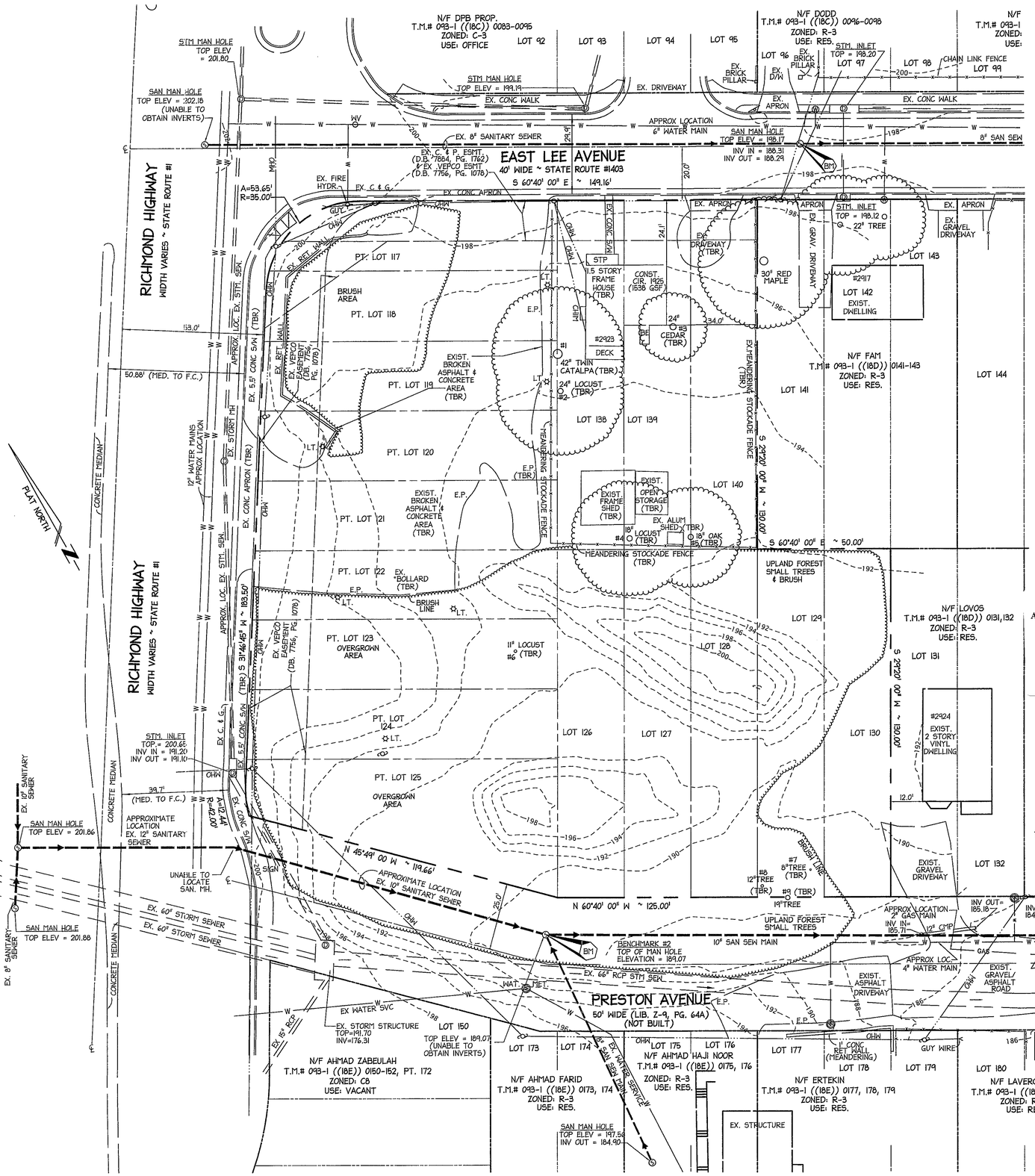
NO.	DATE	DESIGNER	REVISION DESCRIPTION SUMMARY
	8/12/10	A.R.D.	ORIGINAL PLAN, ACCEPTED FOR REVIEW
1	2/2/11	A.R.D.	REVISED PER COUNTY COMMENTS
2	3/1/11	A.R.D.	REVISED PER COUNTY COMMENTS
3	3/22/11	A.R.D.	REVISED PER COUNTY COMMENTS
4	4/29/11	A.R.D.	REVISED PER COUNTY COMMENTS
5	5/24/11	A.R.D.	REVISED PER COUNTY COMMENTS
6	6/24/11	A.R.D.	ELIM. FR. PARK., 88' ROW DEDICATION
7	7/08/11	A.R.D.	REVISE FRONT PARKING

COVER SHEET - GENERALIZED DEVELOPMENT PLAN
LOTS 117 THROUGH 130, 138 THROUGH 140
BLOCK "D"
MEMORIAL HEIGHTS
MOUNT VERNON DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS SHOWN
DATE: 8 JULY 2011
DRAWN BY: A.R.D.
DESIGNED BY: A.R.D.

COMMONWEALTH OF VIRGINIA
7/8/2011
ALAN R. DALTON
LIC. NO. 11789
PROFESSIONAL ENGINEER

JOB NO. 90811022
FILE NO. 56-09
SHEET 1 OF 6



Application No. RZ 2010-MV-011 Staff KGS

APPROVED DEVELOPMENT PLAN
(DP) (GDP) (CDP) (FDP)
SEE PROFFERS DATED Sep 26, 2011
Date of (BOS) (PC) Approval Sep 27, 2011

Sheet 2 of 8

VEGETATIVE COVER SUMMARY TABLE

COVER TYPE	PRIMARY SPECIES	SUCCESSIONAL STAGE	CONDITION	ACREAGE	COMMENTS
DEVELOPED LAND	LOCUST, OAK, CATALPA AND CEDAR	N/A	GOOD	0.22 AC.	SHADE AND EVERGREEN TREES WITH GRASS AND UNDERSTORY SHRUBS.
DEVELOPED LAND	NONE	N/A		0.39 AC.	PAVED, GRAVEL, WALKS AND STRUCTURES.
DEVELOPED LAND	NONE	N/A		0.61 AC.	GRASS / BRUSH COVER

DOMINION Surveyors Inc.
Servicing your local land surveying needs
9808-H Pear Tree Village Ct.
Alexandria, VA 22309
703.619.6555 fax: 703.799.6412
www.dominionsurveyors.com

24 June 2011

Mr. Michael Knapp, Director
Urban Forestry Management Division – DPWES
12055 Government Center Parkway
Fairfax, VA 22035

Ref: RZ 2010-MV-011 -Memorial Ventures
Lots 117-130, 138-140, Block D, Memorial Heights
Tree Preservation Target Area Deviation

Dear Mr. Knapp:

This letter request is submitted at the request of Ms. Jessica Strother, of your staff, in conjunction with the proposed Rezoning of the above referenced project. The property was previously rezoned in 2004 to "PRM" zoning, with a proffered CDP/FDP. The prior approved Development Plan preserved no trees on the property.

As part of the current Public Facilities Manual, Chapter 12, Tree Conservation, a Preservation Area Target is area is calculated and, where the project cannot comply with the target area goal, approval of a "deviation" is required. This letter request is for the approval of the "deviation" and listed below is our justification:

In accordance with PFM 12-0508.3A1, it is the opinion of the developer, and agreed to by the site engineer, that meeting the Tree Preservation Target would preclude the use of the site at its planned zoning density. The requested rezoning proposes a "C-8" zoning district with an F.A.R of 0.1125. The number of parking spaces is the minimum needed, based on standard Fairfax County parking requirements.

The potential building and parking lot locations for the site are severely constrained by the large amount of required right-of-way dedication, a single location for an entrance, a requirement to screen / buffer adjoining properties, and by the site topography.

The area of existing canopy on the site is relatively small and based on the zoning of the property the calculated preservation target area is only 814 square feet. There are only nine (9) trees that meet the size threshold, indentified on the existing vegetation map / existing conditions survey. These individual trees are shown on Sheet 2 and Sheet 3C of this plan. The location of the existing trees conflicts with the proposed buildings / access / required improvements.

Trees 1 & 3 – These trees are located in the travelway at the entrance to the site. This is the only allowable location for the entrance since access to Richmond Highway and the Preston Avenue right-of-way is not possible. The East Lee Avenue location cannot be shifted since it is the maximum possible distance from Richmond Highway.

Trees 2 & 4 – These trees are located within the building envelope of one of the proposed buildings. The building cannot be shifted due to the parking / loading / access requirements. The elimination of the building would result in the termination of the project.

Tree 5 – This tree is located approximately 7 feet from the required block screening wall, 12.5 feet from a building, and 2 feet from a sidewalk. Also, the grading of the site, in order to remove the existing large earth "mound" adjacent to the tree, and to construct the improvements, will require the removal of the tree.

Tree 6 is located immediately adjacent to a proposed building and within the path of the entry sidewalk. Trees 7, 8 and 9 are located in a fill area, where grade will slope down from the parking lot to the Preston Avenue right-of-way. The construction of the required 7 feet block wall and the storm outfall sewer would also require the removal of these trees

The developer proposes a proffered Development Plan which will result in a Tree Canopy that is well in excess of the PFM requirements. The proposed planting plan will provide a canopy of 6600 s.f. versus the 4530 s.f. required, or 45.7 percent greater than the C-8 minimum.

We believe the approval of the request is minimum necessary to afford relief and that the approval of this deviation request will not grant the owner any special privileges.

Sincerely,

Alan R Dalton

Alan R. Dalton, P.E.

DOMINION Surveyors Inc.®
8808-H PEAR TREE VILLAGE COURT
ALEXANDRIA, VIRGINIA 22309
703-619-6555
FAX 703-799-6412

NO.	DATE	REVISION DESCRIPTION
1	8/12/10	ORIGINAL PLAN, ACCEPTED FOR REVIEW
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3	3/1/11	A.R.D. REVISED PER COUNTY COMMENTS
4	3/22/11	A.R.D. REVISED PER COUNTY COMMENTS
5	4/29/11	A.R.D. REVISED PER COUNTY COMMENTS
6	5/24/11	A.R.D. REVISED PER COUNTY COMMENTS
7	6/24/11	A.R.D. ELIM. FR. PARK., 88' ROW DEDICATION
	7/08/11	A.R.D. REVISE FRONT PARKING

EXISTING CONDITIONS - EXISTING VEGETATION MAP

LOTS 117 THROUGH 130, 138 THROUGH 140
BLOCK "D"
MEMORIAL HEIGHTS
MOUNT VERNON DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1" = 20'
DATE: 8 JULY 2011
DRAWN BY: A.R.D.
DESIGNED BY: A.R.D.

COMMONWEALTH OF VIRGINIA
7/8/2011
ALAN R. DALTON
LIC. NO. 11789
PROFESSIONAL ENGINEER

JOB NO. 90811022
FILE NO. 56-09
SHEET 2 OF 6

GRAPHIC SCALE
0 20' 40' 60'
SCALE: 1" = 20'

NOTE:
THE EXISTING BUILDING, PAVEMENT, TREES, AND SIDEWALK, SHOWN AS "TO BE REMOVED (TBR) ON THE EXISTING CONDITIONS PLAN (SHEET 2), ARE NOT SHOWN ON THIS PLAN. THIS IS FOR PLAN CLARITY PURPOSES.

Application No. RZ 2010-MV-011 Staff KGS

APPROVED DEVELOPMENT PLAN
(DP) (GDP) (CDP) (FDP)
SEE PROFFERS DATED Sep 26, 2011
Date of (BOS) (PC) Approval Sep 27, 2011

Sheet 3 of 8

REVISION SUMMARY

DATE	DESIGNER	NO.	REVISION DESCRIPTION
8/12/10	A.R.D.		ORIGINAL PLAN, ACCEPTED FOR REVIEW
2/2/11	A.R.D.	1	REVISED PER COUNTY COMMENTS
3/1/11	A.R.D.	2	REVISED PER COUNTY COMMENTS
3/22/11	A.R.D.	3	REVISED PER COUNTY COMMENTS
4/29/11	A.R.D.	4	REVISED PER COUNTY COMMENTS
6/24/11	A.R.D.	5	REVISED PER COUNTY COMMENTS
6/24/11	A.R.D.	6	ELIM. FR. PARK., 88' ROW DEDICATION
7/08/11	A.R.D.	7	REVSE FRONT PARKING

DOMINION Surveyors Inc.®
8808-H PEAR TREE VILLAGE COURT
ALEXANDRIA, VIRGINIA 22309
703-619-6555
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GENERALIZED DEVELOPMENT PLAN
LOTS 117 THROUGH 130, 138 THROUGH 140
BLOCK "D"
MEMORIAL HEIGHTS
MOUNT VERNON DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1" = 20'
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COMMONWEALTH OF VIRGINIA
7/8/2011
ALAN R. DALTON
LIC. NO. 11789
Alan R. Dalton
PROFESSIONAL ENGINEER

JOB NO. 90811022
FILE NO. 56-09
SHEET 3A OF 6

GRAPHIC SCALE

0 20' 40' 60'

SCALE: 1" = 20'

NOTE:
THE EXISTING BUILDING, PAVEMENT, TREES, AND SIDEWALK, SHOWN AS "TO BE REMOVED (TBR) ON THE EXISTING CONDITIONS PLAN (SHEET 2), ARE NOT SHOWN ON THIS PLAN. THIS IS FOR PLAN CLARITY PURPOSES.

Application No. RZ 2010-MV-011 Staff KGS

APPROVED ~~DEVELOPMENT~~ PLAN
(DP) (GDP) (CDP) (FDP)
SEE ~~PROFFERS~~ DATED Sep 26, 2011
Date of (BOS) (PC) Approval Sep 27, 2011

Sheet 4 of 8

DOMINION Surveyors Inc.®
8808-H PEAR TREE VILLAGE COURT
ALEXANDRIA, VIRGINIA 22309
703-619-6555
FAX 703-799-6412

DATE	DESIGNER	NO.	REVISION DESCRIPTION
8/12/10			ORIGINAL PLAN, ACCEPTED FOR REVIEW
2/2/11	A.R.D.	1	REVISED PER COUNTY COMMENTS
3/1/11	A.R.D.	2	REVISED PER COUNTY COMMENTS
3/22/11	A.R.D.	3	REVISED PER COUNTY COMMENTS
4/29/11	A.R.D.	4	REVISED PER COUNTY COMMENTS
5/24/11	A.R.D.	5	REVISED PER COUNTY COMMENTS
6/24/11	A.R.D.	6	ELIM. FR. PARK., 88' ROW DEDICATION
7/08/11	A.R.D.	7	REVISE FRONT PARKING

GENERALIZED DEVELOPMENT PLAN - SINGLE BUILDING OPTION

LOTS 117 THROUGH 130, 138 THROUGH 140

BLOCK "D"

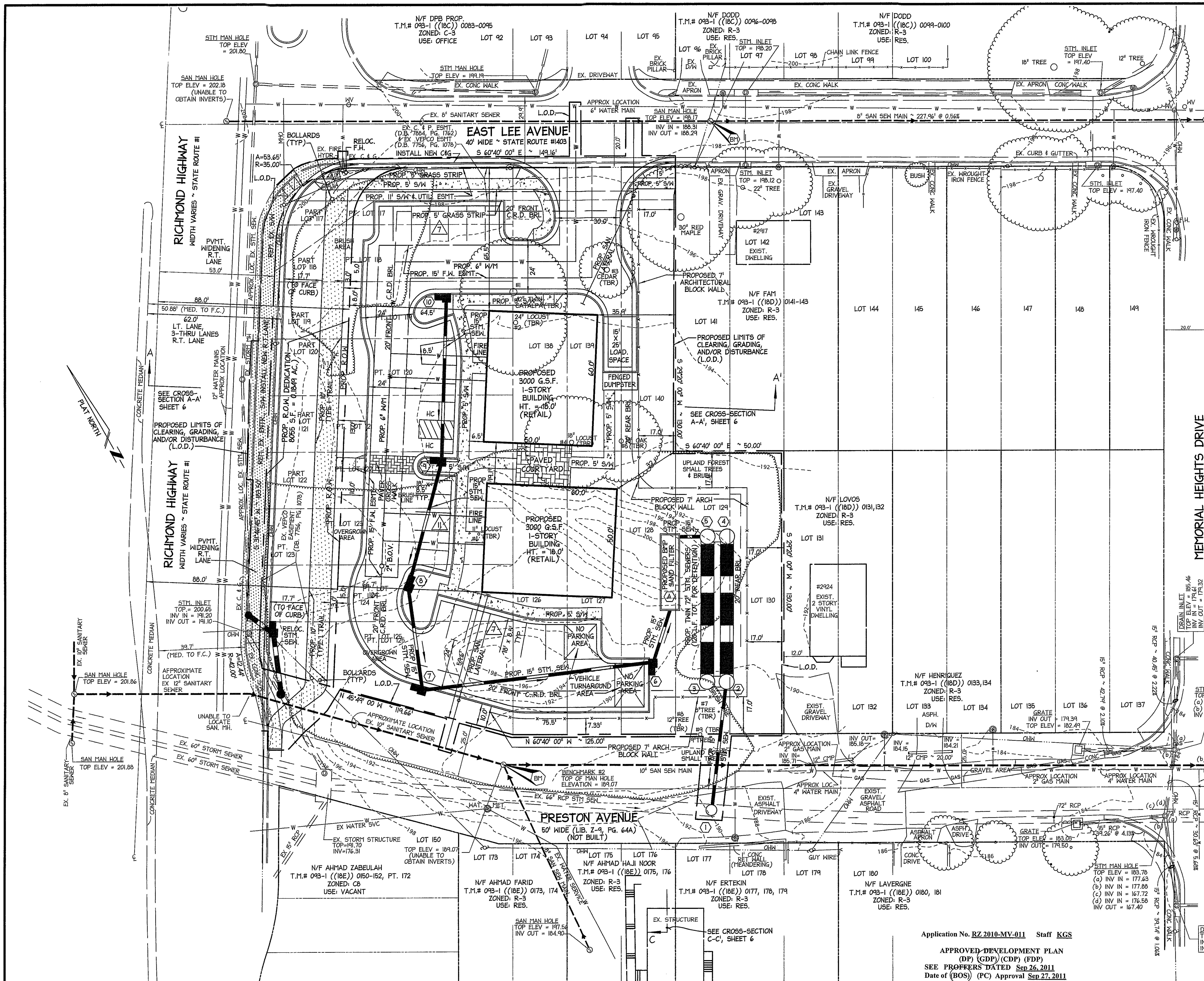
MEMORIAL HEIGHTS

MOUNT VERNON DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1" = 20'
DATE: 8 JULY 2011
DRAWN BY: A.R.D.
DESIGNED BY: A.R.D.

COMMONWEALTH OF VIRGINIA
7/8/2011
ALAN R. DALTON
LIC. NO. 11789
Alan R. Dalton
PROFESSIONAL ENGINEER

JOB NO. 90811022
FILE NO. 56-09
SHEET 3B OF 6



GRAPHIC SCALE

0 20' 40' 60'

SCALE: 1" = 20'

NOTE:
THE EXISTING BUILDING, PAVEMENT, AND SIDEWALK, SHOWN AS "TO BE REMOVED" (TBR) ON THE EXISTING CONDITIONS PLAN (SHEET 2), ARE NOT SHOWN ON THIS PLAN. THIS IS FOR PLAN CLARITY PURPOSES.

NOTE: THIS EXHIBIT SHOWS A POSSIBLE PAVEMENT WIDENING ON RICHMOND HIGHWAY FOR A RIGHT TURN LANE ONLY. IT DOES NOT SHOW THE REQUIRED UTILITY RELOCATIONS.

DOMINION Surveyors Inc.®
8808-H PEAR TREE VILLAGE COURT
ALEXANDRIA, VIRGINIA 22309
703-619-6555
FAX 703-799-6412

DATE	DESIGNER	NO.	REVISION DESCRIPTION
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6/24/11	A.R.D.	6	ELIM. FR. PARK., 88' ROW DEDICATION
7/08/11	A.R.D.	7	REVISE FRONT PARKING

GDP EXHIBIT WITH POSSIBLE RIGHT TURN LANE
LOTS 117 THROUGH 130, 138 THROUGH 140
BLOCK "D"
MEMORIAL HEIGHTS

MOUNT VERNON DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1" = 20'
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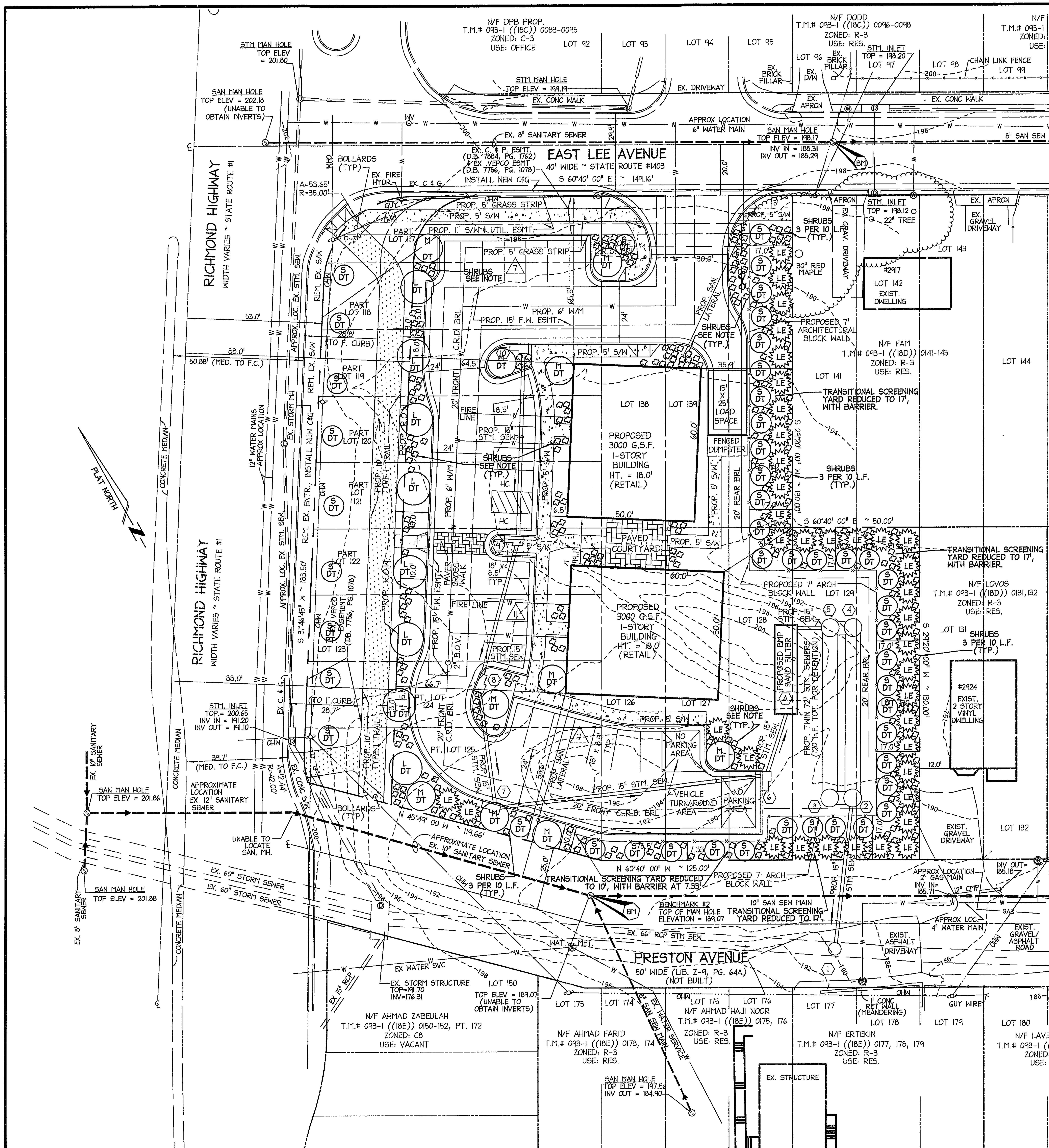
SHEET 3C OF 6

Application No. RZ 2010-MV-011 Staff KGS

APPROVED ~~DEVELOPMENT~~ PLAN
(DP) (GDP) (CDP) (FDP)
SEE ~~PROFFERS~~ DATED Sep 26, 2011
Date of (BOS) (PC) Approval Sep 27, 2011



TREE COVER & LANDSCAPING SUMMARY:

THIS PLAN PROPOSED C-8 ZONING AND RETAIL SALES USES. THE PROPOSED LANDSCAPING AND TRANSITIONAL SCREENING FOLLOWS THE CONCEPTUAL LANDSCAPING PLAN APPROVED FOR THE SITE AS PART OF REZONING 2003-MV-059.

NOTE: PROPOSED TREES IN THE ROUTE 1 R.O.W. ARE NOT COUNTED.

PERIPHERAL PARKING LOT LANDSCAPING-

PER Z.O. 13-302. THE PERIPHERAL PARKING LOT LANDSCAPING REQUIREMENTS FOR PROPERTY LINES ABUTTING LAND NOT IN A RIGHT-OF-WAY
- 4' MINIMUM WIDTH STRIP, WITH AT LEAST ONE TREE PER 50'. THIS WOULD APPLY TO THE EAST SIDE OF THE PROPERTY, BY THE EXISTING R-3 LOTS

	REQUIRED	PROVIDED
PARKING LOT / LOADING SPACE		
EAST SIDE - WIDTH	4' MIN.	17' (MIN.)
NO. OF TREES (310' LEN. @ 1 PER 50')	7 TREES	29 TREES (TRANS. SCRN., LARGE EVERGREEN) 27 TREES (TRANS. SCRN., SMALL DECID. 1")

PER Z.O. 13-302. THE PERIPHERAL PARKING LOT LANDSCAPING REQUIREMENTS FOR PROPERTY LINES ABUTTING LAND IN A RIGHT-OF-WAY
8' WIDTH PER ROUTE 1 TRANSPORATION PLAN, WITH AT LEAST ONE TREE PER 40'.

PROPOSED PARKING LOT	REQUIRED	PROVIDED
ROUTE 1 FRONTAGE - WIDTH NO. OF TREES (235' LEN. @ 1 PER 40')	10' MIN. 6 TREES	10' 8 TREES - LARGE DECID.
EAST LEE AVE. FRONTAGE - WIDTH NO. OF TREES (113' LEN. @ 1 PER 40') (ENTRANCE AREA NOT COUNTED)	10' MIN. 3 TREES	18' STRIP - 5 TREES - 3 SMALL DECIDUOUS (1") - 2 MED. DECIDUOUS (2")
PRESCOTT AVE. FRONTAGE - WIDTH NO. OF TREES (225' LEN. @ 1 PER 40')	10' MIN. 6 TREES	10' MIN. 21 TREES - 3 - 2" MED. DECID. 10 - 1" SM. DECID. 8 - LARGE EVERGREEN

INTERIOR PARKING LOT LANDSCAPING

REQUIRED = 5% = 0.05 (18,100 S.F.) = 905 S.F.
(18,100 S.F. = GROSS PARKING LOT AREA)
PROVIDED = 1292 S.F. = 7.14%

OPEN SPACE:

REQUIRED = 0.15(45,295) = 6,794 S.F.
PROVIDED = 22,213 S.F. = 49.04%
NOTE: OPEN SPACE INCLUDES SIDEWALKS AND PATIO, PER ZONING ORDINANCE DEFINITION.

Application No. RZ 2010-MV-011 Staff KGS

APPROVED DEVELOPMENT PLAN
(DP) (GDP) (CDP) (FDP)
SEE PROFFERS DATED Sep 26, 2011
Date of (BOS) (PC) Approval Sep 27, 2011

Sheet 6 of 8

TRANSITIONAL SCREENING & BARRIER:

EASTERN SIDE - ADJOINING PROPERTY IS ZONED R-3, USE RESIDENTIAL
IF RETAIL SALES -
ZONING ORDINANCE BUFFER 2, BARRIER D,E, OR F REQUIRED
IF SHOPPING CENTER W/ FAST FOOD -
ZONING ORDINANCE BUFFER 3, BARRIER E,F, OR G REQUIRED
A MODIFICATION TO ALLOW A 17' BUFFER AND REDUCED PLANTING SIMILAR TO THE LANDSCAPE PLAN APPROVED AS PART OF 2003-MV-059, IS REQUESTED.

SOUTHERN SIDE - ACROSS PRESCOTT AVENUE
A PORTION OF THE PROPERTY ACROSS PRESTON AVENUE IS ZONED C-8, AND IS VACANT, REQUIRING NO TRANSITIONAL SCREENING. A PORTION OF THE PROPERTY ACROSS PRESCOTT AVENUE IS ZONED R-3, USE RESIDENTIAL. THIS PLAN PROPOSES AN ARCHITECTURAL WALL BARRIER, LOCATED 17' FOR PART OF THE R-3 FRONTAGE AND 7.33' FOR A PORTION OF THE FRONTAGE ALONG THE UNIMPROVED RIGHT-OF-WAY. LANDSCAPING, SIMILAR TO THE PREVIOUSLY APPROVED REZONING PLAN IS PROPOSED.

WESTERN SIDE - THE PROPERTY ACROSS ROUTE 1 IS ZONED C-8, USE COMMERCIAL. NO BARRIER OR SCREENING REQ'D.

NORTHERN ACROSS EAST LEE AVENUE-
THE PROPERTY ACROSS EAST LEE AVENUE IS ZONED C-3, USE OFFICE. NO BARRIER OR SCREENING REQ'D.

TREE CANOPY:

REQUIRED = 0.10(45,295) = 4,530 S.F.
PROVIDED = 6,600 S.F. = 14.57%
SEE SHEET 1 FOR PRESERVATION / COVER SUMMARY

SHRUBS — SHRUBS ARE REQUIRED IN THE TRANSITIONAL SCREENING AREAS AND IN THE INTERIOR PARKING LOT LANDSCAPE AREAS. INDIVIDUAL SHURBS ARE NOT SHOWN, FOR CLARITY PURPOSES, AND WILL BE SHOWN ON THE DETAILED LANDSCAPING PLAN AT THE TIME OF SITE PLAN SUBMISSION. THE NUMBER AND TYPE OF SHRUBS WILL BE IN CONFORMANCE WITH THE COUNTY ORDINANCE AND SUBJECT TO COUNTY REVIEW AND APPROVAL.

NOTE: THIS PLAN IS SCHEMATIC AND CONCEPTUAL IN NATURE, TO DEMONSTRATE COMPLAINCE WITH COUNTY REQUIREMENTS. A DETAILED LANDSCAPE PLAN, INCLUDING SPECIFIC TREE / SHRUB SIZES AND SPECIES, WILL BE SUBMITTED WITH THE FINAL SITE PLAN. THE PLAN WILL CONFORM TO COUNTY REQUIREMENTS AND IS SUBJECT TO REVIEW / APPROVAL BY THE COUNTY URBAN FORESTER.

TREE PLANTING SUMMARY

	TYPE	QUANT.	SIZE	10-YR. CANOPY	SUB-TOTAL
M DT	MEDIUM DECIDUOUS TREE	10	2" CAL.	100 S.F. EACH	1000 S.F
L DT	LARGE DECIDUOUS TREE	8	2" CAL.	100 S.F. EACH (NOTE 1 BELOW)	800 S.F
S DT	SMALL DECIDUOUS TREE	39 (NOTE 2)	1" CAL.	50 S.F. EACH	1950 S.F.
LE	LARGE EVERGREEN TREE	38	6-8'	75 S.F. EACH	2850 S.F.
				TOTAL	6600 S.F.

NOTE 1: THE PORTION OF THE CANOPY THAT WILL OVERHANG. THE R.O.W. IS NOT COUNTED. TREES SHALL BE UPRIGHT, LARGE DECIDUOUS, SELECTED WITH CONCURRENCE WITH THE COUNTY URBAN FORESTER.
NOTE 2: PROPOSED TREES IN THE ROUTE 1 R.O.W. ARE NOT COUNTED.

GRAPHIC SCALE
0 20' 40' 60'
SCALE: 1" = 20'

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LANDSCAPING / TREE COVER PLAN
LOTS 117 THROUGH 130, 138 THROUGH 140
BLOCK "D"
MEMORIAL HEIGHTS
MOUNT VERNON DISTRICT
FAIRFAX COUNTY, VIRGINIA

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SHEET 4 OF 6

PRELIMINARY STORMWATER MANAGEMENT NARRATIVE:

STORMWATER DETENTION AND WATER QUALITY IMPROVEMENTS (BMPS) WILL BE PROVIDED FOR THE PROJECT THROUGH PRIVATE, ON-LOT FACILITIES. DETENTION WILL BE PROVIDED BY AN OVERSIZED, UNDERGROUND PIPE SYSTEM, AND BMPS WILL BE PROVIDE BY A SAND FILTER. PRELIMINARY DESIGN CALCULATIONS ARE SUMMARIZED BELOW:

EXISTING CONDITIONS:

PEAK DISCHARGE RATES FOR THE EXISTING SITE CONDITIONS WERE CALCULATED USING WINTR-55.

SITE AREA = (53,350 S.F.) = 1.23 ACRES
AMOUNT IMPERVIOUS AREA = 2859 S.F.
TYPE II DISTRIBUTION, 24 HR. STORM
RCN = 61
24 HR. RAINFALL:
2 YEAR STORM = 3.2 INCHES
10 YEAR STORM = 5.5 INCHES

PEAK DISCHARGE (EXISTING)
2 YEAR STORM = 0.52 CFS
10 YEAR STORM = 2.51 CFS

THIS IS THE ALLOWABLE, POST-DEVELOPMENT DISCHARGE FROM THE SITE.

PROPOSED CONDITIONS:

PEAK DISCHARGE RATES FOR THE PROPOSED SITE CONDITIONS WERE CALCULATED USING WINTR-55.

SITE AREA = (53,350 S.F.) = 1.23 ACRES
AMOUNT IMPERVIOUS AREA = 28,564 S.F. (0.656 ac.)
TYPE II DISTRIBUTION, 24 HR. STORM
RCN = 71
24 HR. RAINFALL:
2 YEAR STORM = 3.2 INCHES
10 YEAR STORM = 5.5 INCHES

PEAK DISCHARGE (TO SWM FACILITY)
2 YEAR STORM = 1.21 CFS
10 YEAR STORM = 3.71 CFS

THE SITE GRADING WILL DIRECT SITE RUNOFF TO THE ON-SITE INLET / PIPING NETWORK. RUNOFF WILL ENTER THE FACILITY THROUGH THE CURB INLETS. OFFSITE RUNOFF FROM RICHMOND HIGHWAY, EAST LEE AVENUE, AND ADJOINING PROPERTIES WILL NOT FLOW THROUGH THE SITE.

DETENTION IS PROVIDED BY AN OVERSIZED STORM SEWER NETWORK. THE OUTLET WILL LIMIT THE DISCHARGE TO THE EXISTING CONDITIONS, PRE-REDEVELOPMENT RATE. SITE RUNOFF WILL DISCHARGE FROM THE DETENTION PIPING, THEN FLOW THROUGH THE BMP SAND FILTER, AND THEN WILL BE DISCHARGED INTO THE EXISTING FAIRFAX COUNTY MAINTAINED PUBLIC STORM SEWER SYSTEM LOCATED IN THE PRESTON AVENUE RIGHT-OF-WAY.

DETENTION PIPING SUMMARY:

TOTAL PIPE DETENTION LENGTH = 120 FEET
PIPE DIAMETER = 72" (6.0')
LOW INVERT OF PIPE = 182.5'

OUTLET CONTROLS:
4" DIA. ORIFICE AT 182.4' ELEV.
6" DIA. ORIFICE AT 184.1' ELEV.

OUTLET PIPE: 15" R.C.P. CULVERT @ 5.1% SLOPE

DETENTION ROUTING

THE POST-DEVELOPMENT DISCHARGE HYDROGRAPHS FROM WINTR-55 WERE INPUT INTO THE POND ROUTING SOFTWARE "HYDRAFLOW" AND THE SUMMARIES FROM THAT SOFTWARE ARE INCLUDED ON THIS SHEET.

THE PEAK DISCHARGES FROM THE DETENTION SYSTEM ARE:

DESIGN STORM	ALLOWABLE DISCHARGE	DESIGN DISCHARGE
2 YEAR STORM	0.52 CFS	0.43 CFS
10 YEAR STORM	2.51 CFS	1.72 CFS

FLOWS IN EXCESS OF THE 10 YEAR STORM DO NOT ENTER THE STORM SEWER SYSTEM (RETRICTED BY THROAT SIZE OF CURB INLETS) AND ARE DISCHARGED FROM THE FILLED PARKING LOT BY OVERLAND RELIEF.

PROPOSED UNDERGROUND DETENTION PIPING
(NOTE: THE PIPING IS CONSIDERED AS A "POND" BY THE SOFTWARE).

Reservoir Report

Page 1

English

Reservoir No. 3 - UG Pipes - 3

Pond Data

Pipe diameter = 6.00 ft   Pipe length = 120.0 ft   Invert elevation = 182.50 ft

Stage / Storage Table

Stage ft	Elevation ft	Contour area sqft	Incr. Storage cuft	Total storage cuft
0.00	182.50	00	0	0
0.60	183.10	00	178	178
1.20	183.70	00	309	487
1.80	184.30	00	371	857
2.40	184.90	00	411	1,269
3.00	185.50	00	437	1,706
3.60	186.10	00	426	2,131
4.20	186.70	00	410	2,542
4.80	187.30	00	369	2,911
5.40	187.90	00	307	3,218
6.00	188.50	00	175	3,393

Culvert / Orifice Structures

	[A]	[B]	[C]	[D]
Rise in	= 15.0	4.0	6.0	0.0
Span in	= 15.0	4.0	6.0	0.0
No. Barrels	= 1	1	1	0
Invert El. ft	= 182.50	182.40	184.10	0.00
Length ft	= 42.0	1.0	0.0	0.0
Slope %	= 5.10	2.00	0.00	0.00
N-Value	= .013	.013	.013	.000
Orif. Coeff.	= 0.60	0.60	0.60	0.00
Multi-Stage	= -----	Yes	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len ft	= 0.00	0.00	0.00	0.00
Crest El. ft	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 3.00	0.00	0.00	0.00
Eqn. Exp.	= 1.50	0.00	0.00	0.00
Multi-Stage	= No	No	No	No

Tailwater Elevation = 0.00 ft

ELEVATION STORAGE / DISCHARGE INFORMATION

Stage / Storage / Discharge Table

Note: All outflows have been analyzed under inlet and outlet control.

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Discharge cfs
0.00	0	182.50	0.00	0.02	0.00	---	---	---	---	---	0.00
0.06	18	182.56	0.01	0.00	0.00	---	---	---	---	---	0.00
0.12	36	182.62	0.04	0.04	0.00	---	---	---	---	---	0.04
0.18	53	182.68	0.08	0.00	0.00	---	---	---	---	---	0.00
0.24	71	182.74	0.13	0.07	0.00	---	---	---	---	---	0.07
0.30	89	182.80	0.19	0.07	0.00	---	---	---	---	---	0.07
0.36	107	182.86	0.30	0.09	0.00	---	---	---	---	---	0.09
0.42	124	182.92	0.40	0.14	0.00	---	---	---	---	---	0.14
0.48	142	182.98	0.52	0.16	0.00	---	---	---	---	---	0.16
0.54	160	183.04	0.61	0.18	0.00	---	---	---	---	---	0.18
0.60	178	183.10	0.75	0.19	0.00	---	---	---	---	---	0.19
0.66	209	183.16	0.91	0.21	0.00	---	---	---	---	---	0.21
0.72	240	183.22	1.09	0.22	0.00	---	---	---	---	---	0.22
0.78	270	183.28	1.21	0.23	0.00	---	---	---	---	---	0.23
0.84	301	183.34	1.41	0.25	0.00	---	---	---	---	---	0.25
0.90	332	183.40	1.54	0.26	0.00	---	---	---	---	---	0.26
0.96	363	183.46	1.75	0.27	0.00	---	---	---	---	---	0.27
1.02	394	183.52	1.98	0.28	0.00	---	---	---	---	---	0.28
1.08	425	183.58	2.12	0.29	0.00	---	---	---	---	---	0.29
1.14	456	183.64	2.36	0.30	0.00	---	---	---	---	---	0.30
1.20	487	183.70	2.59	0.31	0.00	---	---	---	---	---	0.31
1.26	524	183.76	2.74	0.32	0.00	---	---	---	---	---	0.32
1.32	561	183.82	2.97	0.33	0.00	---	---	---	---	---	0.33
1.38	598	183.88	3.20	0.34	0.00	---	---	---	---	---	0.34
1.44	635	183.94	3.42	0.35	0.00	---	---	---	---	---	0.35
1.50	672	184.00	3.62	0.36	0.00	---	---	---	---	---	0.36
1.56	709	184.06	3.82	0.37	0.00	---	---	---	---	---	0.37
1.62	746	184.12	4.00	0.38	0.00	---	---	---	---	---	0.38
1.68	783	184.18	4.21	0.39	0.00	---	---	---	---	---	0.39
1.74	820	184.24	4.38	0.40	0.00	---	---	---	---	---	0.40
1.80	857	184.30	4.52	0.40	0.00	---	---	---	---	---	0.40
1.86	899	184.36	4.65	0.41	0.00	---	---	---	---	---	0.41
1.92	940	184.42	4.78	0.42	0.00	---	---	---	---	---	0.42
1.98	981	184.48	4.93	0.43	0.00	---	---	---	---	---	0.43
2.04	1,022	184.54	5.07	0.44	0.00	---	---	---	---	---	0.44
2.10	1,063	184.60	5.20	0.44	0.00	---	---	---	---	---	0.44
2.16	1,104	184.66	5.33	0.45	0.00	---	---	---	---	---	0.45
2.22	1,145	184.72	5.46	0.46	0.00	---	---	---	---	---	0.46
2.28	1,186	184.78	5.59	0.46	0.00	---	---	---	---	---	0.46
2.34	1,227	184.84	5.71	0.47	0.00	---	---	---	---	---	0.47
2.40	1,269	184.90	5.83	0.48	0.00	---	---	---	---	---	0.48
2.46	1,312	184.96	5.95	0.49	0.01	---	---	---	---	---	0.49
2.52	1,356	185.02	6.07	0.49	0.02	---	---	---	---	---	0.51
2.58	1,400	185.08	6.18	0.50	0.05	---	---	---	---	---	0.54
2.64	1,443	185.14	6.29	0.50	0.08	---	---	---	---	---	0.58
2.70	1,487	185.20	6.40	0.51	0.11	---	---	---	---	---	0.62
2.76	1,531	185.26	6.51	0.51	0.16	---	---	---	---	---	0.67
2.82	1,574	185.32	6.62	0.52	0.21	---	---	---	---	---	0.73
2.88	1,618	185.38	6.72	0.52	0.26	---	---	---	---	---	0.78
2.94	1,662	185.44	6.83	0.52	0.31	---	---	---	---	---	0.84
3.00	1,706	185.50	6.93	0.53	0.37	---	---	---	---	---	0.89
3.06	1,748	185.56	7.03	0.53	0.41	---	---	---	---	---	0.95
3.12	1,791	185.62	7.13	0.54	0.46	---	---	---	---	---	0.99
3.18	1,833	185.68	7.22	0.54	0.49	---	---	---	---	---	1.03
3.24	1,876	185.74	7.32	0.55	0.53	---	---	---	---	---	1.07
3.30	1,918	185.80	7.41	0.55	0.56	---	---	---	---	---	1.11
3.36	1,961	185.86	7.51	0.56	0.59	---	---	---	---	---	1.15
3.42	2,004	185.92	7.60	0.56	0.62	---	---	---	---	---	1.18
3.48	2,046	185.98	7.69	0.57	0.65	---	---	---	---	---	1.21
3.54	2,089	186.04	7.78	0.57	0.68	---	---	---	---	---	1.24
3.60	2,131	186.10	7.87	0.57	0.70	---	---	---	---	---	1.28
3.66	2,172	186.16	7.96	0.58	0.73	---	---	---	---	---	1.31
3.72	2,214	186.22	8.05	0.59	0.75	---	---	---	---	---	1.34
3.78	2,255	186.28	8.13	0.59	0.77	---	---	---	---	---	1.36
3.84	2,296	186.34	8.22	0.60	0.80	---	---	---	---	---	1.39
3.90	2,337	186.40	8.30	0.60	0.82	---	---	---	---	---	1.42
3.96	2,378	186.46	8.39	0.61	0.84	---	---	---	---	---	1.45
4.02	2,419	186.52	8.47	0.61	0.86	---	---	---	---	---	1.47
4.08	2,460	186.58	8.55	0.61	0.88	---	---	---	---	---	1.50
4.14	2,501	186.64	8.63	0.62	0.90	---	---	---	---	---	1.52
4.20	2,542	186.70	8.71	0.62	0.92	---	---	---	---	---	1.55
4.26	2,579	186.76	8.79	0.63	0.94	---	---	---	---	---	1.57
4.32	2,616	186.82	8.87	0.63	0.96	---	---	---	---	---	1.59
4.38	2,652	186.88	8.95	0.64	0.98	---	---	---	---	---	1.62
4.44	2,689	186.94	9.03	0.64	1.00	---	---	---	---	---	1.64
4.50	2,726	187.00	9.10	0.65	1.01	---	---	---	---	---	1.66
4.56	2,763	187.06	9.18	0.65	1.03	---	---	---	---	---	1.68
4.62	2,800	187.12	9.26	0.66	1.05	---	---	---	---	---	1.71
4.68	2,837	187.18	9.33	0.66	1.07	---	---	---	---	---	1.73
4.74	2,874	187.24	9.41	0.67	1.08	---	---	---	---	---	1.75
4.80	2,911	187.30	9.48	0.67	1.10	---	---	---	---	---	1.77
4.86	2,942	187.36	9.55	0.68	1.11	---	---	---	---	---	1.79
4.92	2,972	187.42	9.63	0.68	1.13	---	---	---	---	---	1.81
4.98	3,003	187.48	9.70	0.69	1.15	---	---	---	---	---	1.83
5.04	3,034	187.54	9.77	0.69	1.16	---	---	---	---	---	1.85
5.10	3,064	187.60	9.84	0.70	1.18	---	---	---	---	---	1.87
5.16	3,095	187.66	9.91	0.70	1.19	---	---	---	---	---	1.89
5.22	3,126	187.72	9.98	0.70	1.21	---	---	---	---	---	1.91
5.28	3,156	187.78	10.05	0.71	1.22	---	---	---	---	---	1.93
5.34	3,187	187.84	10.12	0.71	1.24	---	---	---	---	---	1.95
5.40	3,218	187.90	10.19	0.72	1.25	---	---	---	---	---	1.97
5.46	3,235	187.96	10.26	0.72	1.26	---	---	---	---	---	1.99
5.52	3,253	188.02	10.33	0.73	1.28	---	---	---	---	---	2.01
5.58	3,270	188.08	10.39	0.73	1.29	---	---	---	---	---	2.02
5.64	3,288	188.14	10.46	0.74	1.31	---	---	---	---	---	2.04
5.70	3,305	188.20	10.53	0.74	1.32	---	---	---	---	---	2.06
5.76	3,323	188.26	10.59	0.74	1.33	---	---	---	---	---	2.08
5.82	3,340	188.32	10.66	0.75	1.35	---	---	---	---	---	2.10
5.88	3,358	188.38	10.72	0.75	1.36	---	---	---	---	---	2.11
5.94	3,375	188.44	10.79	0.76	1.37	---	---	---	---	---	2.13

OUTFALL NARRATIVE:

THE RUNOFF FROM THE SITE WILL BE REDUCED TO BELOW THE PRE-DEVELOPMENT RATE BY ON-SITE DETENTION. THE REDUCED RUNOFF WILL BE DISCHARGED BY STORM SEWER, TO THE EXISTING 66" STORM LOCATED IN PRESTON AVENUE. THE COUNTY / STATE STORM SEWER SYSTEM IS TYPICALLY DESIGNED FOR A MINIMUM 10-YEAR STORM. DISCHARGE INTO THE COUNTY MAINTAINED STORM SEWER SYSTEM, AT RATES LESS THAN EXISTING AND DESIGN RATES, IS CONSIDERED AS AN "ADEQUATE OUTFALL" BY STATE AND COUNTY REGULATIONS.

THE EXISTING STORM SEWER OUTFALL WAS DESIGNED AND CONSTRUCTED BY FAIRFAX COUNTY AS THE "PRESTON AVENUE OUTFALL" (DPWES / UTILITIES PLANNING AND DESIGN DIVISION, CONTRACT 68515, DRAWER B-8). IT WAS DESIGNED TO INCLUDE FLOW FROM THIS SITE.

OFFSITE 100 YEAR FLOWS:

ROUTE 1 / RICHMOND HIGHWAY IS RAISED ABOVE THE ADJOINING UPSTREAM PROPERTIES AND SERVES TO BLOCK UPSTREAM FLOWS. IN ORDER FOR OVERLAND RELIEF TO CROSS RICHMOND HIGHWAY FROM THE NORTHWEST AND FLOW INTO THE PRESTON AVENUE R.O.W., AN AREA OF APPROXIMATELY 6.4 ACRES WOULD HAVE TO FLOOD / POND TO A DEPTH OF UP TO 9 FEET. THIS AREA INCLUDES NUMEROUS HOUSES. FOLLOWING THE FINAL GRADING OF THE SITE, THERE WILL BE NO OFFSITE FLOWS ENTERING THE PROPERTY. A DRAINAGE STUDY OF THE OFFSITE, PRESTON AVENUE RIGHT-OF-WAY WILL BE INCLUDED WITH THE FINAL SITE PLANS, IF REQUIRED.

2 YEAR ROUTING

2 Year Post Rout

Hydrograph type	= Reservoir	Peak discharge	= 0.43 cfs
Storm frequency	= 2 yrs	Time interval	= 6 min
Inflow hyd. No.	= 3	Reservoir name	= UG Pipes - 3
Max. Elevation	= 184.51 ft	Max. Storage	= 999 cuft

Storage Indication method used.   Total Volume = 3,118 cuft

Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Outflow cfs
11.70	0.16	182.60	0.03	0.03	-----	-----	-----	-----	-----	-----	0.02
11.80	0.42	182.90	0.38	0.13	-----	-----	-----	-----	-----	-----	0.13
11.90	1.10	183.38	1.50	0.26	-----	-----	-----	-----	-----	-----	0.26
12.00	1.21 <<	183.93	3.39	0.35	-----	-----	-----	-----	-----	-----	0.35
12.10	0.90	184.32	4.57	0.41	-----	-----	-----	-----	-----	-----	0.41
12.20	0.55	184.49	4.94	0.43	-----	-----	-----	-----	-----	-----	0.43
12.30	0.39	184.51 <<	4.99	0.43	-----	-----	-----	-----	-----	-----	0.43 <<
12.40	0.29	184.46	4.88	0.42	-----	-----	-----	-----	-----	-----	0.42
12.50	0.24	184.38	4.69	0.41	-----	-----	-----	-----	-----	-----	0.41
12.60	0.20	184.28	4.47	0.40	-----	-----	-----	-----	-----	-----	0.40
12.70	0.17	184.16	4.13	0.38	-----	-----	-----	-----	-----	-----	0.38
12.80	0.16	184.04	3.74	0.37	-----	-----	-----	-----	-----	-----	0.37
12.90	0.15	183.92	3.33	0.35	-----	-----	-----	-----	-----	-----	0.35
13.00	0.14	183.80	2.91	0.33	-----	-----	-----	-----	-----	-----	0.33
13.10	0.13	183.69	2.56	0.31	-----	-----	-----	-----	-----	-----	0.31
13.20	0.12	183.57	2.10	0.29	-----	-----	-----	-----	-----	-----	0.29
13.30	0.11	183.45	1.73	0.27	-----	-----	-----	-----	-----	-----	0.27
13.40	0.11	183.35	1.43	0.25	-----	-----	-----	-----	-----	-----	0.25
13.50	0.10	183.26	1.16	0.23	-----	-----	-----	-----	-----	-----	0.23
13.60	0.10	183.17	0.95	0.21	-----	-----	-----	-----	-----	-----	0.21
13.70	0.10	183.10	0.76	0.19	-----	-----	-----	-----	-----	-----	0.19
13.80	0.09	183.00	0.55	0.17	-----	-----	-----	-----	-----	-----	0.17
13.90	0.09	182.92	0.40	0.14	-----	-----	-----	-----	-----	-----	0.14
14.00	0.08	182.87	0.33	0.10	-----	-----	-----	-----	-----	-----	0.10
14.10	0.08	182.86	0.30	0.09	-----	-----	-----	-----	-----	-----	0.09
14.20	0.08	182.85	0.28	0.09	-----	-----	-----	-----	-----	-----	0.09
14.30	0.08	182.84	0.27	0.08	-----	-----	-----	-----	-----	-----	0.08
14.40	0.07	182.83	0.25	0.08	-----	-----	-----	-----	-----	-----	0.08
14.50	0.07	182.82	0.23	0.08	-----	-----	-----	-----	-----	-----	0.08
14.60	0.07	182.81	0.21	0.08	-----	-----	-----	-----	-----	-----	0.08
14.70	0.07	182.80	0.20	0.07	-----	-----	-----	-----	-----	-----	0.07
14.80	0.07	182.80	0.19	0.07	-----	-----	-----	-----	-----	-----	0.07
14.90	0.07	182.79	0.19	0.07	-----	-----	-----	-----	-----	-----	0.07
15.00	0.07	182.79	0.18	0.07	-----	-----	-----	-----	-----	-----	0.07
15.10	0.06	182.78	0.17	0.07	-----	-----	-----	-----	-----	-----	0.07
15.20	0.06	182.77	0.16	0.07	-----	-----	-----	-----	-----	-----	0.07
15.30	0.06	182.76	0.15	0.07	-----	-----	-----	-----	-----	-----	0.07
15.40	0.06	182.75	0.14	0.07	-----	-----	-----	-----	-----	-----	0.07
15.50	0.06	182.74	0.13	0.06	-----	-----	-----	-----	-----	-----	0.06
15.60	0.06	182.73	0.13	0.06	-----	-----	-----	-----	-----	-----	0.06
15.70	0.06	182.73	0.13	0.06	-----	-----	-----	-----	-----	-----	0.06
15.80	0.05	182.73	0.12	0.06	-----	-----	-----	-----	-----	-----	0.06
15.90	0.05	182.73	0.12	0.05	-----	-----	-----	-----	-----	-----	0.05
16.00	0.05	182.73	0.12	0.05	-----	-----	-----	-----	-----	-----	0.05
16.10	0.05	182.73	0.12	0.05	-----	-----	-----	-----	-----	-----	0.05
16.20	0.05	182.73	0.12	0.05	-----	-----	-----	-----	-----	-----	0.05
16.30	0.05	182.73	0.12	0.05	-----	-----	-----	-----	-----	-----	0.05
16.40	0.05	182.73	0.12	0.05	-----	-----	-----	-----	-----	-----	0.05
16.50	0.05	182.73	0.12	0.05	-----	-----	-----	-----	-----	-----	0.05
16.60	0.05	182.73	0.12	0.05	-----	-----	-----	-----	-----	-----	0.05
16.70	0.05	182.73	0.12	0.05	-----	-----	-----	-----	-----	-----	0.05
16.80	0.00	182.61	0.03	0.03	-----	-----	-----	-----	-----	-----	0.03
16.90	0.00	182.57	0.01	0.01	-----	-----	-----	-----	-----	-----	0.01

...End

Application No. RZ 2010-MV-011   Staff KGS

APPROVED DEVELOPMENT PLAN
(DP) (GDP) (CDP) (FDP)
SEE PROFFERS DATED Sep 26, 2011
Date of (BOS) (PC) Approval Sep 27, 2011

Sheet 7 of 8

WATER QUALITY / BMPS

WATER QUALITY IMPROVEMENTS WILL BE PROVIDED BY A SAND FILTER, LOCATED ABOVE THE INLET SIDE OF THE PIPED DETENTION NETWORK. THE PROPOSED DEVICE IS A "D.C. SAND FILTER" WHICH WILL BE DESIGNED TO BYPASS FLOWS IN EXCESS OF THE BMP VOLUME.

D.C. SAND FILTER

TRIB. IMPERV. AREA = 28,564 S.F. = 0.656 AC.
(INCLUDES TRAIL & OFFSITE AREA)

WATER QUALITY VOLUME (WQV) = 1191 C.F.
D(F) = DEPTH OF FILTER = 2.0 FT.
H = 2.0 FT.
FILTER SURF. AREA REQ'D = 179 S.F.
FILTER DIM. = 9' WIDE X 22.0' LEN. = 198 S.F.
STOR. VOL. ON TOP OF FILTER = (AREA X 2H) =792 C.F.
STORAGE VOLUME IN VOIDS = 198 C.F.
FLOW THROUGH VOLUME DURING FILLING = 33 C.F.

NET VOLUME T.B. STORED AWAITING FILTR. = 168 C.F.
(1191-792-198-33 = 168 C.F.
LEN. OF PERM POOL PORTION (LPM)= 6.4 FT.
LEN. OF SED. CHAMBER PORTION (LSM)= 7.0 FT.
FIN. LEN. OF PERM POOL PORT. LSM + 2' = 9.0' > LPM
LEN. OF CLEARWELL (LCW= 3.0 FT.

OVERALL DIMENSIONS (INTERIOR)
LENGTH = (9' + 22' + 3' +2*0.67') = 35.34'
LENGTH = (LPP + LF + LCW + INTERIOR WALLS)
WIDTH = 8.0 FT.
HEIGHT = 7.5 FEET
W.S.E. = 6.5 FT. ABOVE INVERT

ELEVATIONS / INVERTS:

STRUCTURE 6 - TOP OF CURB = 194.0
15" STM. SEW. INV. OUT = 190.0'

SAND FILTER - INVERT IN = 189.75 = POOL W.S.E.
BASE = 183.25

72" CMP - TOP = 183.19
INVERT. IN = 177.19
INVERT. OUT = 176.89

STRUCTURE 1
INVERT. IN = 176.62 (MATCH CROWNS)
INV. EX. 66" = 172.37

A SAND FILTER PROVIDES A BMP POLLUTANT REMOVAL EFFICIENCY OF 60%, PER THE P.F.M., WELL ABOVE MINIMUM 40% REQUIREMENT.

10 YEAR ROUTING

10 Year Rout

Hydrograph type	= Reservoir	Peak discharge	= 1.72 cfs
Storm frequency	= 10 yrs	Time interval	= 6 min
Inflow hyd. No.	= 1	Reservoir name	= UG Pipes - 3
Max. Elevation	= 187.15 ft	Max. Storage	= 2,819 cuft

Storage Indicator method used.   Total Volume = 10,793 cuft

Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Outflow cfs
10.80	0.06	182.59	0.02	0.02	-----	-----	-----	-----	-----	-----	0.02
10.90	0.07	182.60	0.03	0.03	-----	-----	-----	-----	-----	-----	0.03
11.00	0.09	182.60	0.03	0.03	-----	-----	-----	-----	-----	-----	0.03
11.10	0.10	182.76	0.15	0.07	-----	-----	-----	-----	-----	-----	0.07
11.20	0.12	182.81	0.21	0.08	-----	-----	-----	-----	-----	-----	0.08
11.30	0.14	182.86	0.31	0.09	-----	-----	-----	-----	-----	-----	0.09
11.40	0.16	182.91	0.39	0.13	-----	-----	-----	-----	-----	-----	0.13
11.50	0.19	182.95	0.46	0.15	-----	-----	-----	-----	-----	-----	0.15
11.60	0.32	183.06	0.64	0.18	-----	-----	-----	-----	-----	-----	0.18
11.70	0.66	183.27	1.19	0.23	-----	-----	-----	-----	-----	-----	0.23
11.80	1.30	183.75	2.72	0.32	-----	-----	-----	-----	-----	-----	0.32
11.90	2.80	184.68	5.38	0.45	-----	-----	-----	-----	-----	-----	0.45
12.00	3.71 <<	185.91	7.59	0.56	0.61	-----	-----	-----	-----	-----	1.17
12.10	2.70	186.87	8.94	0.64	0.98	-----	-----	-----	-----	-----	1.61
12.20	1.58	187.15 <<	9.30	0.66	1.06	-----	-----	-----	-----	-----	1.72 <<
12.30	1.07	186.94	9.03	0.64	1.00	-----	-----	-----	-----	-----	1.64
12.40	0.75	186.57	8.54	0.61	0.88	-----	-----	-----	-----	-----	1.49
12.50	0.58	186.18	7.99	0.58	0.74	-----	-----	-----	-----	-----	1.32
12.60	0.48	185.83	7.46	0.55	0.57	-----	-----	-----	-----	-----	1.13
12.70	0.41	185.53	6.99	0.53	0.39	-----	-----	-----	-----	-----	0.92
12.80	0.35	185.31	6.61	0.51	0.21	-----	-----	-----	-----	-----	0.72
12.90	0.33	185.16	6.33	0.50	0.09	-----	-----	-----	-----	-----	0.59
13.00	0.31	185.04	6.11	0.49	0.03	-----	-----	-----	-----	-----	0.52
13.10	0.29	184.94	5.91	0.48	0.00	-----	-----	-----	-----	-----	0.49
13.20	0.28	184.84	5.71	0.47	-----	-----	-----	-----	-----	-----	0.47
13.30	0.27	184.74	5.51	0.46	-----	-----	-----	-----	-----	-----	0.46
13.40	0.26	184.64	5.29	0.45	-----	-----	-----	-----	-----	-----	0.45
13.50	0.25	184.54	5.07	0.44	-----	-----	-----	-----	-----	-----	0.44
13.60	0.24	184.45	4.84	0.42	-----	-----	-----	-----	-----	-----	0.42
13.70	0.23	184.35	4.63	0.41	-----	-----	-----	-----	-----	-----	0.41
13.80	0.21	184.25	4.40	0.40	-----	-----	-----	-----	-----	-----	0.40
13.90	0.20	184.14	4.07	0.38	-----	-----	-----	-----	-----	-----	0.38
14.00	0.19	184.04	3.74	0.37	-----	-----	-----	-----	-----	-----	0.37
14.10	0.19	183.94	3.41	0.35	-----	-----	-----	-----	-----	-----	0.35
14.20	0.18	183.84	3.07	0.34	-----	-----	-----	-----	-----	-----	0.34
14.30	0.18	183.76	2.73	0.32	-----	-----	-----	-----	-----	-----	0.32
14.40	0.17	183.67	2.47	0.31	-----	-----	-----	-----	-----	-----	0.31
14.50	0.17	183.58	2.12	0.29	-----	-----	-----	-----	-----	-----	0.29
14.60	0.17	183.50	1.89	0.28	-----	-----	-----	-----	-----	-----	0.28
14.70	0.17	183.43	1.63	0.26	-----	-----	-----	-----	-----	-----	0.26
14.80	0.16	183.36	1.45	0.25	-----	-----	-----	-----	-----	-----	0.25
14.90	0.16	183.30	1.28	0.24	-----	-----	-----	-----	-----	-----	0.24
15.00	0.15	183.25	1.14	0.23	-----	-----	-----	-----	-----	-----	0.23
15.10	0.15	183.20	1.02	0.22	-----	-----	-----	-----	-----	-----	0.22
15.20	0.15	183.16	0.90	0.21	-----	-----	-----	-----	-----	-----	0.21
15.30	0.14	183.12	0.80	0.20	-----	-----	-----	-----	-----	-----	0.20
15.40	0.14	183.07	0.67	0.18	-----	-----	-----	-----	-----	-----	0.18
15.50	0.14	183.02	0.58	0.17	-----	-----	-----	-----	-----	-----	0.17
15.60	0.14	182.98	0.53	0.17	-----	-----	-----	-----	-----	-----	0.17
15.70	0.13	182.95	0.47	0.15	-----	-----	-----	-----	-----	-----	0.15
15.80	0.13	182.93	0.42	0.15	-----	-----	-----	-----	-----	-----	0.15
15.90	0.13	182.92	0.40	0.14	-----	-----	-----	-----	-----	-----	0.14
16.00	0.13	182.91	0.39	0.13	-----	-----	-----	-----	-----	-----	0.13
16.10	0.12	182.90	0.38	0.13	-----	-----	-----	-----	-----	-----	0.13
16.20	0.12	182.90	0.37	0.12	-----	-----	-----	-----	-----	-----	0.12
16.30	0.12	182.90	0.36	0.12	-----	-----	-----	-----	-----	-----	0.12
16.40	0.11	182.89	0.36	0.12	-----	-----	-----	-----	-----	-----	0.12
16.50	0.11	182.89	0.35	0.11	-----	-----	-----	-----	-----	-----	0.11
16.60	0.11	182.88	0.35	0.11	-----	-----	-----	-----	-----	-----	0.11
16.70	0.11	182.88	0.34	0.11	-----	-----	-----	-----	-----	-----	0.11
16.80	0.11	182.88	0.34	0.11	-----	-----	-----	-----	-----	-----	0.11
16.90	0.11	182.88	0.34	0.11	-----	-----	-----	-----	-----	-----	0.11
17.00	0.11	182.88	0.34	0.11	-----	-----	-----	-----	-----	-----	0.11
17.10	0.11	182.88	0.34	0.11	-----	-----	-----	-----	-----	-----	0.11
17.20	0.10	182.88	0.34	0.11	-----	-----	-----	-----	-----	-----	0.11
17.30	0.10	182.87	0.33	0.10	-----	-----	-----	-----	-----	-----	0.10
17.40	0.10	182.87	0.33	0.10	-----	-----	-----	-----	-----	-----	0.10
17.50	0.10	182.87	0.33	0.10	-----	-----	-----	-----	-----	-----	0.10
17.60	0.10	182.87	0.32	0.10	-----	-----	-----	-----	-----	-----	0.10
17.70	0.10	182.87	0.32	0.10	-----	-----	-----	-----	-----	-----	0.10
17.80	0.10	182.87	0.32	0.10	-----	-----	-----	-----	-----	-----	0.10
17.90	0.10	182.87	0.32	0.10	-----	-----	-----	-----	-----	-----	0.10
18.00	0.09	182.87	0.32	0.10	-----	-----	-----	-----	-----	-----	0.10
18.10	0.09	182.86	0.31	0.09	-----	-----	-----	-----	-----	-----	0.09
18.20	0.09	182.86	0.31	0.09	-----	-----	-----	-----	-----	-----	0.09
18.30	0.09	182.86	0.31	0.09	-----	-----	-----	-----	-----	-----	0.09
18.40	0.09	182.86	0.31	0.09	-----	-----	-----	-----	-----	-----	0.09
18.50	0.09	182.86	0.31	0.09	-----	-----	-----	-----	-----	-----	0.09
18.60	0.09	182.86	0.31	0.09	-----	-----	-----	-----	-----	-----	0.09
18.70	0.09	182.86	0.31	0.09	-----	-----	-----	-----	-----	-----	0.09
18.80	0.09	182.86	0.31	0.09	-----	-----	-----	-----	-----	-----	0.09
18.90	0.08	182.86	0.30	0.09	-----	-----	-----	-----	-----	-----	0.09
19.00	0.08	182.85	0.28	0.09	-----	-----	-----	-----	-----	-----	0.09
19.10	0.08	182.84	0.27	0.08	-----	-----	-----	-----	-----	-----	0.08
19.20	0.08	182.84	0.26	0.08	-----	-----	-----	-----	-----	-----	0.08
19.30	0.08	182.83	0.25	0.08	-----	-----	-----	-----	-----	-----	0.08
19.40	0.08	182.83	0.25	0.08	-----	-----	-----	-----	-----	-----	0.08
19.50	0.08	182.83	0.24	0.08	-----	-----	-----	-----	-----	-----	0.08
19.60	0.07	182.82	0.23	0.08	-----	-----	-----	-----	-----	-----	0.08
19.70	0.07	182.81	0.21	0.08	-----	-----	-----	-----	-----	-----	0.08
19.80	0.07	182.80	0.20	0.08	-----	-----	-----	-----	-----	-----	0.08
19.90	0.07	182.80	0.19	0.07	-----	-----	-----	-----	-----	-----	0.07
20.00	0.07	182.79	0.19	0.07	-----	-----	-----	-----	-----	-----	0.07
20.10	0.07	182.79	0.18	0.07	-----	-----	-----	-----	-----	-----	0.07
20.20	0.07	182.79	0.18	0.07	-----	-----	-----	-----	-----	-----	0.07
20.30	0.07	182.78	0.18	0.07	-----	-----	-----	-----	-----	-----	0.07
20.40	0.07	182.78	0.17	0.07	-----	-----	-----	-----	-----	-----	0.07
20.50	0.07	182.78	0.17	0.07	-----	-----	-----	-----	-----	-----	0.07
20.60	0.07	182.78	0.17	0.07	-----	-----	-----	-----	-----	-----	0.07
20.70	0.07	182.78	0.17	0.07	-----	-----	-----	-----	-----	-----	0.07
20.80	0.07	182.77	0.17	0.07	-----	-----	-----	-----	-----	-----	0.07
20.90	0.07	182.77	0.17	0.07	-----	-----	-----	-----	-----	-----	0.07
21.00	0.07	182.77	0.16	0.07	-----	-----	-----	-----	-----	-----	0.07
21.10	0.07	182.77	0.16	0.07	-----	-----	-----	-----	-----	-----	0.07
21.20	0.07	182.77	0.16	0.07	-----	-----	-----	-----	-----	-----	0.07
21.30	0.07	182.77	0.16	0.07	-----	-----	-----	-----	-----	-----	0.07
21.40	0.07	182.77	0.16	0.07	-----	-----	-----	-----	-----	-----	0.07
21.50	0.06	182.76	0.16	0.07	-----	-----	-----	-----	-----	-----	0.07
21.60	0.06	182.75	0.14	0.07	-----	-----	-----	-----	-----	-----	0.07
21.70	0.06	182.74	0.13	0.07	-----	-----	-----	-----	-----	-----	0.07
21.80	0.06	182.74	0.13	0.06	-----	-----	-----	-----	-----	-----	0.06
21.90	0.06	182.73	0.13	0.06	-----	-----	-----	-----	-----	-----	0.06
22.00	0.06	182.73	0.13	0.06	-----	-----	-----	-----	-----	-----	0.06
22.10	0.06	182.73	0.13	0.06	-----	-----	-----	-----	-----	-----	0.06

DOMINION Surveyors Inc.®
8808-H PEAR TREE VILLAGE COURT
ALEXANDRIA, VIRGINIA 22309
703-619-6555
FAX 703-799-6412

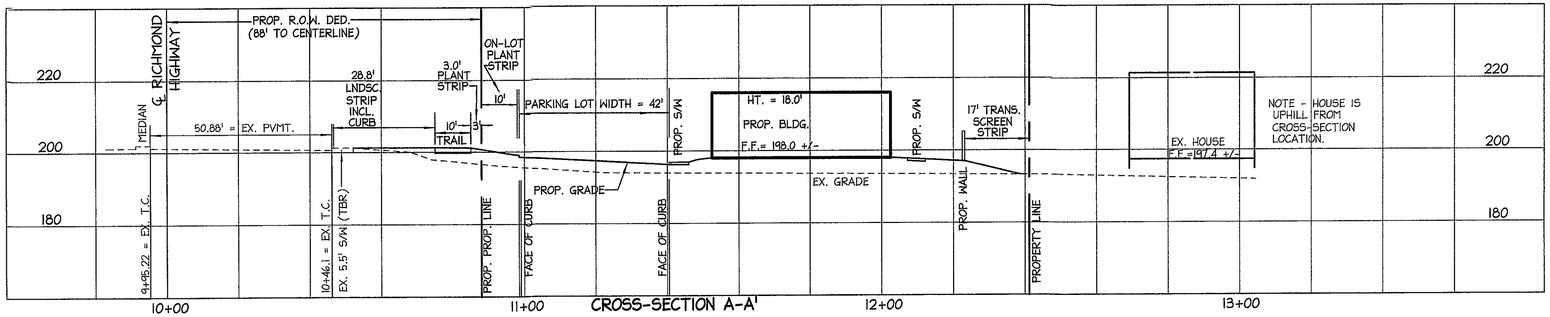
DATE	DESIGNER	NO.	REVISION DESCRIPTION
8/12/10			ORIGINAL PLAN, ACCEPTED FOR REVIEW
2/2/11	A.R.D.	1	REVISED PER COUNTY COMMENTS
3/1/11	A.R.D.	2	REVISED PER COUNTY COMMENTS
3/22/11	A.R.D.	3	REVISED PER COUNTY COMMENTS
4/29/11	A.R.D.	4	REVISED PER COUNTY COMMENTS
5/24/11	A.R.D.	5	REVISED PER COUNTY COMMENTS
6/24/11	A.R.D.	6	ELIM. FR. PARK., 88' ROW DEDICATION
7/08/11	A.R.D.	7	REVISE FRONT PARKING

PRELIMINARY STORMWATER MANAGEMENT PLAN / OUTFALL NARRATIVE
LOTS 117 THROUGH 130, 138 THROUGH 140
BLOCK "D"
MEMORIAL HEIGHTS
MOUNT VERNON DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: N/A
DATE: 8 JULY 2011
DRAWN BY: A.R.D.
DESIGNED BY: A.R.D.

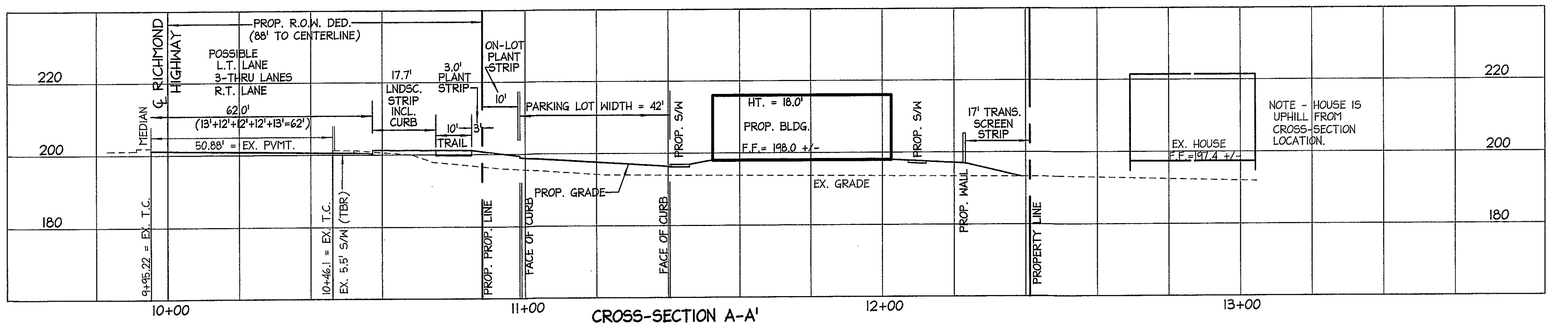
COMMONWEALTH OF VIRGINIA
7/8/2011
ALAN R. DALTON
LIC. NO. 11789
Alan R Dalton
PROFESSIONAL ENGINEER

JOB NO. 90811022
FILE NO. 56-09
SHEET 5 OF 6



CROSS-SECTION A-A'

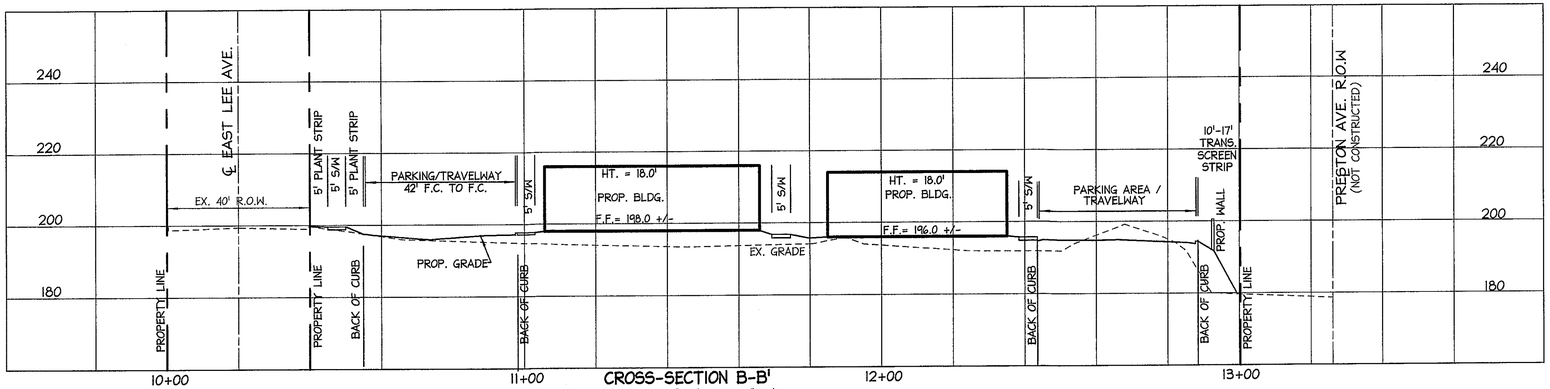
SCALE: HOR. 1"=20' VERT. 1"=20'



CROSS-SECTION A-A'

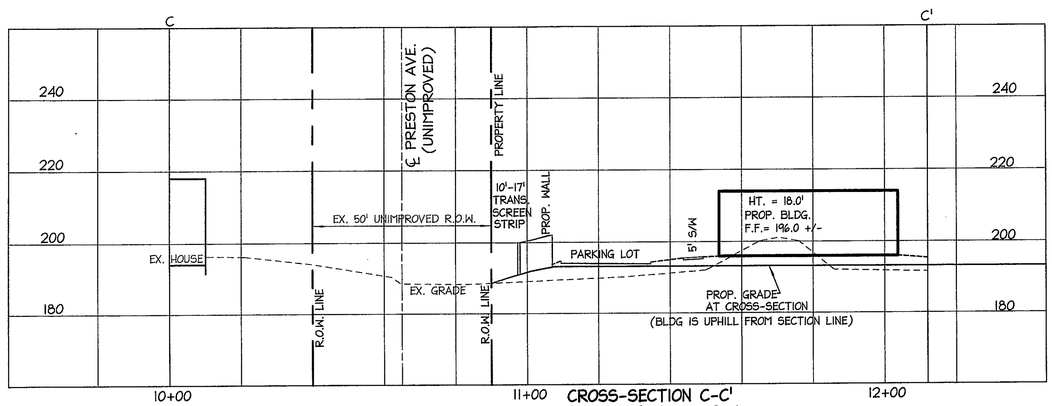
SCALE: HOR. 1"=20' VERT. 1"=20'

(WITH POSSIBLE RIGHT TURN LANE, PER SHEET 3C)



CROSS-SECTION B-B'

SCALE: HOR. 1"=20' VERT. 1"=20'



CROSS-SECTION C-C'

SCALE: HOR. 1"=20' VERT. 1"=20'

Application No. RZ 2010-MV-011 Staff KGS

APPROVED ~~DEVELOPMENT~~ PLAN
(DP) (GDP) (CDP) (FDP)
SEE ~~PROFFERS~~ DATED Sep 26, 2011
Date of (BOS) (PC) Approval Sep 27, 2011

Sheet 8 of 8

DOMINION Surveyors Inc.®
8808-H PEAR TREE VILLAGE COURT
ALEXANDRIA, VIRGINIA 22309
703-619-6555
FAX 703-799-6412

NO.	DESCRIPTION	DATE
3	ADD SHEET 6	3/22/11
4	REVISED PER COUNTY COMMENTS	4/29/11
5	REVISED PER COUNTY COMMENTS	5/24/11
6	ELIM. FR. PARK., 88' ROW DEDICATION	6/24/11
7	REVISE FRONT PARKING	7/08/11

REVISION BLOCK

CROSS SECTIONS

LOTS 117 THROUGH 130, 138 THROUGH 140
BLOCK "D"
MEMORIAL HEIGHTS
MOUNT VERNON DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: HORIZ. 1"=20'
VERT. 1"=20'

DATE: 8 JULY 2011

DRAWN BY: A.R.D.

DESIGNED BY: A.R.D.

COMMONWEALTH OF VIRGINIA
7/8/2011
ALAN R. DALTON
LIC. NO. 11789
PROFESSIONAL ENGINEER

JOB NO. 90811022

FILE NO. 56-09

SHEET 6 OF 6