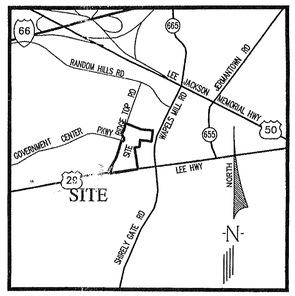
CONCEPTUAL DEVELOPMENT PLAN (CDP) AND FINAL DEVELOPMENT PLAN (FDP) (CDP/FDP # 2005-SP-0019) FOR

RIDGEWOOD

SPRINGFIELD DISTRICT
FAIRFAX COUNTY, VIRGINIA

GENERAL NOTES

1. THE PROPERTY IS IDENTIFIED ON FAIRFAX COUNTY TAX ASSESSMENT MAP: 56-2-((1))-37
2. THE ABOVE REFERENCED PROPERTY IS CURRENTLY ZONED I-5. THE PROPOSED ZONE IS PRM.
3. THE BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED BY URBAN ENGINEERING & ASSOCIATES, INC. (UEA).
4. THE TOPOGRAPHY SHOWN HEREON IS AT A TWO-FOOT CONTOUR INTERVAL, COMPILED BY UEA. ALL TOPOGRAPHY WAS OBTAINED VIA AIR SURVEY.
5. THE PROPERTY SHOWN ON THIS CDP & FDP PLAN IS LOCATED IN THE SPRINGFIELD DISTRICT, THE BLUE PLAINS SANITARY SEWER DISTRICT, AND THE DIFFICULT RUN WATERSHED.
6. THIS PROPOSED DEVELOPMENT IS IN CONFORMANCE WITH THE COMPREHENSIVE PLAN AND ALL APPLICABLE ORDINANCES, REGULATIONS AND ADOPTED CONDITIONS WITH THE EXCEPTION OF THE FOLLOWING:
   - THE APPLICANT HEREBY REQUESTS A WAIVER FOR ONSITE STORMWATER MANAGEMENT (SWM) AND BEST MANAGEMENT PRACTICES (BMP). SWM AND BMP WILL BE PROVIDED FOR THE SUBJECT SITE IN A REGIONAL OFFSITE SWM/BMP FACILITY (SEE NOTE 8 BELOW).
   - THE APPLICANT HEREBY REQUESTS A WAIVER OF THE SERVICE DRIVE REQUIREMENTS FOR LEE HIGHWAY. THE APPLICANT SHALL ESCROW FUNDS FOR THE FUTURE CONSTRUCTION OF THE SERVICE DRIVE IN ACCORDANCE WITH THE PROFFERS.
   - THE APPLICANT HEREBY REQUESTS A WAIVER OF TRANSITIONAL SCREENING REQUIREMENTS IN FAVOR OF THE LANDSCAPING SHOWN ON THE INCLUDED LANDSCAPE PLAN.
7. THIS SITE IS SERVED BY PUBLIC SEWER AND WATER.
8. STORM WATER MANAGEMENT (SWM) AND BEST MANAGEMENT PRACTICES (BMP) ARE PROVIDED BY AN OFFSITE DRY POND CONSTRUCTED WITH FAIRFAX COUNTY PLAN #7656-SP-05. SEE STORMWATER MANAGEMENT NARRATIVE AND OUTFALL NARRATIVE, THIS SHEET.
9. UTILITY LOCATIONS SHOWN ARE APPROXIMATE. THERE ARE NO KNOWN EXISTING UTILITY EASEMENTS OF 25' OR MORE IN WIDTH ON THE SITE.
10. INDIVIDUAL UTILITY PLANS AND PROFILES WILL BE SUBMITTED DURING THE SITE PLAN STAGE FOR CONSTRUCTION PURPOSES.
11. THERE ARE NO KNOWN HAZARDOUS OR TOXIC SUBSTANCES ON THIS SITE. IF ANY SUBSTANCES ARE FOUND, THE METHODS FOR DISPOSAL SHALL ADHERE TO COUNTY, STATE, OR FEDERAL LAW.
12. THERE ARE NO KNOWN BURIAL SITES OR EXISTING STRUCTURES FOUND ON THIS SITE.
13. ALL PUBLIC STREETS SHALL CONFORM TO FAIRFAX COUNTY AND/OR VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) STANDARDS AND SPECIFICATIONS. PRIVATE STREETS SHALL CONFORM TO STANDARDS SET BY THE FAIRFAX COUNTY PUBLIC FACILITIES MANUAL SECTION 7 UNLESS MODIFIED AS DESCRIBED IN GENERAL NOTE 6 ABOVE.
14. IN ACCORDANCE WITH PARAGRAPH 4 OF SECTION 16-403 OF THE ZONING ORDINANCE, MINOR MODIFICATIONS TO THE SIZE, DIMENSIONS, FOOTPRINTS, AND LOCATION OF BUILDINGS, PARKING SPACES, GARAGES AND SIDEWALKS MAY OCCUR WITH FINAL ENGINEERING AND DESIGN, PROVIDED CHANGES ARE IN SUBSTANTIAL CONFORMANCE WITH THE DEVELOPMENT PLAN.
15. THERE ARE NO DESIGNATED FLOOD PLAINS, ENVIRONMENTAL QUALITY CORRIDORS, OR RPAs ON THE SUBJECT SITE PER FAIRFAX COUNTY MAPS.
16. THERE ARE NO SCENIC ASSETS OR NATURAL FEATURES ON THE SUBJECT SITE WHICH WOULD DESERVE PROTECTION OR PRESERVATION.
17. THE ARE NO EXISTING BUILDINGS ON SITE.
18. THE SPECIAL AMENITIES PROPOSED WITH THIS SITE SHALL INCLUDE:
    * WALKING TRAILS
    * HIKER/BIKER TRAILS
    * PEDESTRIAN SIDEWALKS
19. THE DEVELOPMENT SCHEDULE SHALL BE DETERMINED BY THE APPLICANT BASED UPON MARKET CONDITIONS.
20. THE PROPOSED PUBLIC ROAD IMPROVEMENTS ILLUSTRATE THE REQUIRED IMPROVEMENTS PER THE COMPREHENSIVE PLAN. THE APPROVAL OF THIS PLAN WILL ONLY BIND THE OWNER TO CONSTRUCTING THE ROAD IMPROVEMENTS FRONTING THE SUBJECT SITE.
21. SIGNAGE WILL BE PROVIDED IN ACCORDANCE WITH THE FAIRFAX COUNTY ZONING ORDINANCE.
22. AFFORDABLE DWELLING UNITS WILL BE PROVIDED, IF REQUIRED, IN ACCORDANCE WITH ZONING ORDINANCE SECTION 2-800.
23. IT IS UNKNOWN AT THIS TIME IF ANY HAZARDOUS OR TOXIC SUBSTANCES, HAZARDOUS WASTES OR PETROLEUM PRODUCTS ARE TO BE GENERATED, UTILIZED, STORED, TREATED AND/OR DISPOSED OF ON THIS SITE. THERE ARE NO EXISTING STORAGE FACILITIES FOR SUCH PRODUCTS ON THIS SITE.
24. THE APPLICANT RESERVES THE RIGHT TO ADJUST THE RESIDENTIAL AND COMMERCIAL DENSITIES ON THE PROPERTY SUBJECT TO THE SUBSTANTIAL CONFORMANCE WITH THE CDP/FDP AND THE PROFFER CONDITIONS. THE CORRESPONDING PARKING REQUIREMENTS MAY ALSO BE ADJUSTED TO INCLUDE A NUMBER LESS THAN THAT SHOWN PROVIDED THAT ALL THE MINIMUM ZONING REQUIREMENTS SHALL BE MET.
25. TABULATIONS FOR SITE, BUILDING, PARKING AND LOADING DATA ARE PROVIDED ON SHEET #3 OF THIS PLAN.
26. PRIMARY INTERPARCEL CONNECTOR HAS BEEN SHOWN ON SHEET 3. THE PRIMARY INTERPARCEL CONNECTION IS RESERVED IN THIS AREA UP TO 170' NORTHWEST MEASURED ALONG THE ADJACENT PROPERTY LINE.
27. SPECIAL PAVING MAY INCLUDE, BUT NOT BE LIMITED TO MATERIALS SUCH AS STAMPED CONCRETE, COLORED CONCRERE, EXPOSED AGGREGATE CONCRETE, STAMPED ASPHALT, AND SIMILAR TEXTURED FINISHES.



VICINITY MAP
SCALE: 1" = 2000'

STORMWATER MANAGEMENT NARRATIVE

STORM WATER MANAGEMENT (SWM) AND BEST MANAGEMENT PRACTICES (BMP) ARE PROVIDED FOR THIS DEVELOPMENT BY THE OFFSITE DRY POND CONSTRUCTED WITH FAIRFAX COUNTY PLAN #7656-SP-005-2, ENTITLED "FAIRFAX CENTER REGIONAL STORMWATER MANAGEMENT POND #D-77," PREPARED BY BC CONSULTANTS, APPROVED ON APRIL 10, 2000. FOR INFORMATION PURPOSES, SHEETS #6-8 OF THIS APPLICATION ARE REFERENCED FROM APPROVED PLAN #7656-SP-005-2 TO DEMONSTRATE THAT THE EXISTING FACILITY SERVES THIS DEVELOPMENT. SHEET #6 IS PROVIDED TO SHOW THE POND PLAN. SHEET #7 IS INCLUDED TO SHOW THAT THE EXISTING FACILITY WAS DESIGNED TO ACCOMODATE SWM FOR USES CONSISTENT WITH THIS APPLICATION. SHEET #8 IS INCLUDED TO SHOW THAT THE EXISTING FACILITY WAS DESIGNED TO ACCOMODATE BMP FOR USES CONSISTENT WITH THIS APPLICATION.

OUTFALL NARRATIVE

THIS SITE DRAINS EAST TO WEST TO EXISTING CLOSED CONDUIT PIPES THAT CROSS RIDGE TOP ROAD. RUNOFF IS THEN CONVEYED UNDER RIDGE TOP ROAD AND THROUGH EXISTING CLOSED CONDUIT PIPES ALONG GOVERNMENT CENTER PARKWAY WHICH ULTIMATELY OUTFALL TO THE EXISTING SWM/BMP FACILITY DESCRIBED IN THE "STORMWATER MANAGEMENT NARRATIVE" ON THIS SHEET. THE EXISTING SWM/BMP FACILITY THEN OUTFALLS TO AN EXISTING CHANNEL. AS SHOWN ON SHEET #8, CROSS-SECTION A-A ANALYZES THE EXISTNG CHANNEL IMMEDIATELY DOWNSTREAM OF THE EXISTING FACILITY. FURTHER, AS SHOWN, THE DRAINAGE AREA TO CROSS-SECTION A-A IS 1.7 SQUARE MILES. THUS, AS REQUIRED, AN ADEQUATE OUTFALL IS PROVIDED FROM THIS SITE TO A POINT WITH A DRAINAGE AREA OF AT LEAST 1 SQUARE MILE.

SHEET INDEX

1.	COVER SHEET
2.	EXISTING CONDITIONS AND SOILS MAP
3.	CONCEPTUAL AND FINAL DEVELOPMENT PLAN
4.	GROUND FLOOR PLAN
5.	PERSPECTIVE EXHIBITS
5A.	BUILDING 2.1 PLAN AND SECTION
6-8.	LANDSCAPE PLAN
8A.	LANDSCAPE DETALS
9-11.	SWM/BMP DETAILS

OWNER
RIDGETOP ROAD L.L.C.
1901 N. MOORE STREET, SUITE 803
ARLINGTON, VA. 22209

DEVELOPER
KSI SERVICES
8081 WOLFTRAP ROAD, SUITE 300
VIENNA, VA. 22182-5100
PHONE: 703-641-9000

CONTRACT PURCHASER
MIDLAND ROAD LLC
8081 WOLFTRAP ROAD, SUITE 300
VIENNA, VA. 22182-5100
PHONE: 703-641-9000

RZ/FDP
Application No. 2005-SP-019 Staff H. Strauss
APPROVED DEVELOPMENT PLAN
(DP) (GDP) (CDP) (FDP)
SEE PROFFERS DATED 6-20-2006
Date of (BOS) (PC) approval 6-26-2006
Sheet 1 of 13
FDP Approval on 6-14-2006; no conditions

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PLAN DATE
04-13-05
06-20-05
08-26-05
01-03-06
02-13-06
03-30-06
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DS-1F-0C

URBAN ENGINEERING & ASSOC., INC.
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7712 LITTLE RIVER TURNPIKE
ANNANDALE, VIRGINIA 22003 (703) 642-8080

COMMONWEALTH OF VIRGINIA
ERIC S. SIEGEL
No. 023416
05/02/06
PROFESSIONAL ENGINEER

COVER SHEET

RIDGEWOOD
SPRINGFIELD DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS NOTED
C.I. = N/A
DATE: APRIL, 2005

SHEET 1 OF 11

FILE No. ZP-1614

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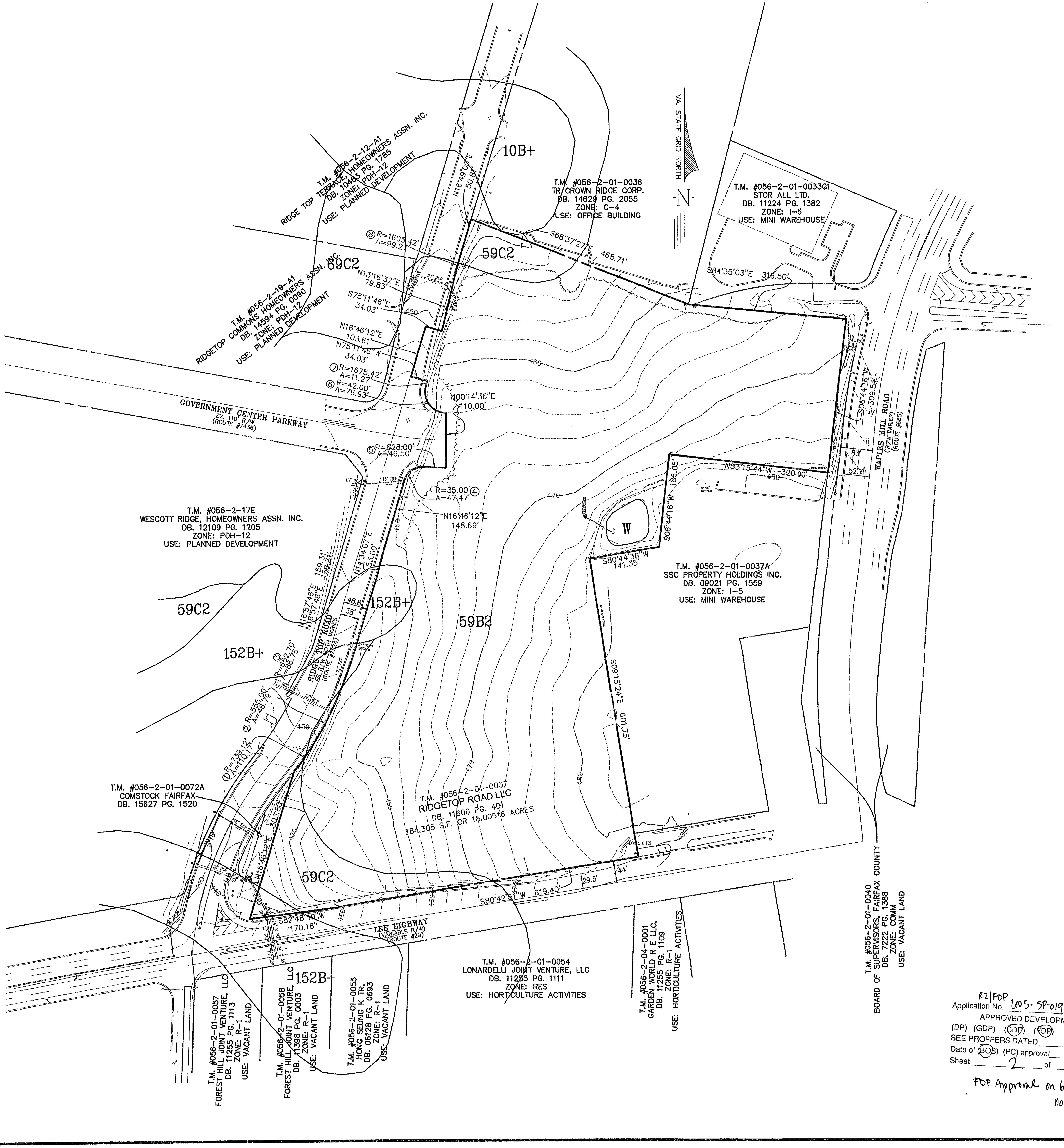

NO.	RADIUS	ARC	DELTA	TANGENT	CHORD	BEARING
1	739.12'	110.17'	8°32'26"	55.19'	110.07'	N33°22'16"E
2	555.00'	46.79'	4°49'49"	23.41'	46.77'	N26°41'08"E
3	662.70'	86.76'	7°30'03"	43.44'	86.69'	N20°31'11"E
4	35.00'	47.47'	77°42'58"	28.20'	43.92'	S55°37'41"W
5	628.00'	46.50'	4°14'34"	23.26'	46.49'	S87°38'07"E
6	42.00'	76.93'	104°56'42"	54.68'	66.62'	S37°16'59"E
7	1675.42'	11.27'	0°23'08"	5.64'	11.27'	N14°59'48"E
8	1605.42'	99.26'	03°32'48"	49.65'	99.25'	N15°02'48"E

R2/FDP
Application No. 2005-SP-019 Staff J. Strunk
APPROVED DEVELOPMENT PLAN
(DP) (GDP) (CDP) (FDP)
SEE PROFFERS DATED 6-20-2006
Date of (BOS) (PC) approval 6-26-2006
Sheet 2 of 13
FDP Approval on 6-14-2006; no conditions

SOILS LEGEND

NUMBER	NAME	CLASS
59B2	ORANGE	A
59C2	ORANGE	A
152B+	ELBERT-ORANGE	A

NOTE: SOILS DATA SOURCE IS THE COUNTY OF FAIRFAX SOILS IDENTIFICAITION MAPS.

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PLAN DATE
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02-13-06
03-13-06
03-27-06
05-18-06

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ANNANDALE, VIRGINIA 22003 (703) 642-8080

COMMONWEALTH OF VIRGINIA
ERIC S. SIEGEL
No. 023416
03/27/06
PROFESSIONAL ENGINEER

EXISTING CONDITIONS AND SOILS MAP

RIDGEWOOD

SPRINGFIELD DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=100' C.I. = 2' DATE: APRIL, 2005

SHEET 2 OF 11

FILE No. ZP-1614

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SITE TABULATIONS:

EXISTING SITE AREA	18.0052 AC. (784,305 S.F.)
PROPOSED RIGHT-OF-WAY DEDICATION	3.1846 AC. (138,723 S.F.)
PROPOSED SITE AREA LESS DEDICATION	14.8205 AC. (645,582 S.F.)
EXISTING ZONE	I-5
PROPOSED ZONE	PRM
MAXIMUM DENSITY (RESIDENTIAL)	NO MAXIMUM
OPEN SPACE REQUIRED (20% OF G.S.A.)	2.98 AC. (129,116 S.F.)
OPEN SPACE PROVIDED (30% OF G.S.A.)	4.45 AC. (193,675 S.F.) MIN.
PROPOSED BUILDING GROSS FLOOR AREA	SEE TABLE BELOW
MAXIMUM F.A.R.	3.0
PROPOSED F.A.R.	1.16
PROPOSED F.A.R. WITH OPTIONAL HOTEL	1.20
MAXIMUM BUILDING HEIGHT	NO MAXIMUM
PROPOSED BUILDING HEIGHT	SEE TABLE BELOW

A BULK PLANE REQUIREMENT DOES NOT APPLY TO THE PRM ZONE.

BUILDING DATA CHART

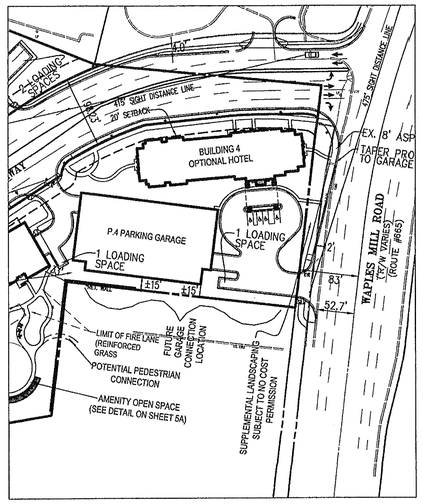
TOTAL PROGRAM*: TOTAL OFFICE = 200,001 GSF, TOTAL RETAIL = 42,100 GSF, TOTAL RESIDENTIAL = 671,166 GSF, TOTAL = 913,267 GSF
*THIS PLAN ALSO INCLUDES AN OPTIONAL 95,000 GSF OF HOTEL IN LIEU OF 50,001 GSF OF OFFICE AND 17,100 GSF OF RETAIL.

BUILDING	USE	NUMBER OF RESIDENTIAL UNITS	GROSS FLOOR AREA (ft.²)	NUMBER OF SPACES	MAXIMUM BUILDING HEIGHT
BUILDING 1	OFFICE	N/A	150,000	N/A	100'
	STREET RETAIL	N/A	5,000	N/A	
P.1 PARKING		N/A	N/A	525	60'
BUILDING 2.1	MULTI-FAMILY RESIDENTIAL	16	33,560	32	80'
BUILDING 2.2	MULTI-FAMILY RESIDENTIAL	237	346,150	N/A	90'
	STREET RETAIL	N/A	20,000	N/A	
P.2 PARKING		N/A	N/A	384	30' ☆
BUILDING 3	MULTI-FAMILY RESIDENTIAL	225	291,456	N/A	70'
P.3 PARKING		N/A	N/A	384	50'
BUILDING 4	STREET RETAIL	N/A	17,100	N/A	70'
	OFFICE	N/A	50,001	N/A	
BUILDING 4 AS OPTIONAL HOTEL	HOTEL	N/A	95,000	N/A	100'
P.4 PARKING		N/A	N/A	410	55'
TOTALS		500 MAX.	913,267 ***	1,735	

☆ THE TOP STORY IS THE PLAZA/ POOL DECK, NOT PARKING.

*** COMMERCIAL TOTAL = 242,101 GSF, DIVIDED AS:
STREET RETAIL SUBTOTAL AREA =42,100 GSF AND OFFICE SUBTOTAL AREA = 200,001 GSF

IF OPTIONAL BUILDING 4 HOTEL IS CONSTRUCTED:
TOTAL GROSS FLOOR AREA = 941,166 GSF
COMMERCIAL TOTAL = 270,000 GSF, DIVIDED AS:
STREET RETAIL SUBTOTAL AREA =25,000 GSF, OFFICE SUBTOTAL AREA = 150,000 GSF AND
HOTEL SUBTOTAL AREA = 95,000 GSF



BUILDING 4 HOTEL OPTION

SCALE: 1"=100'

PARKING/LOADING COMPUTATIONS

REQUIRED PARKING:
MULTI-FAMILY RESIDENTIAL, 500 UNITS (1.6 SP/UNIT) = 800 SPACES
+BUILDING 1 OFFICE, 150,000 GSF (2.6 SP/1000 GSF) = 390 SPACES
+BUILDING 4 OFFICE, 50,001 GSF (3.0 SP/1000 GSF) = 151 SPACES
+RETAIL, 42,100 GSF @ 4.3 SP/1st 1000 GSF = 182 SPACES
(RETAIL WILL FUNCTION AS SHOPPING CENTER USE FOR PARKING PURPOSES)
=1,523 REQUIRED SPACES

PROVIDED PARKING = 1,735 PROVIDED SPACES *

REQUIRED LOADING:
MULTI-FAMILY RESIDENTIAL, 671,166 GSF (1/25,000 + 1/100,000) = 7 SPACES
+OFFICE, 200,001 GSF (1/10,000 + 1/20,000) = 11 SPACES
+RETAIL, 42,100 GSF (1/10,000 + 1/15,000) = 4 SPACES
=22 SPACES CALCULATED
MAXIMUM REQUIREMENT PER Z.O. SECTION 11-202.15 = 5
=> 5 REQUIRED LOADING SPACES

PROVIDED LOADING = 5 LOADING SPACES TO BE PROVIDED *

IF OPTIONAL BUILDING 4 HOTEL IS CONSTRUCTED:

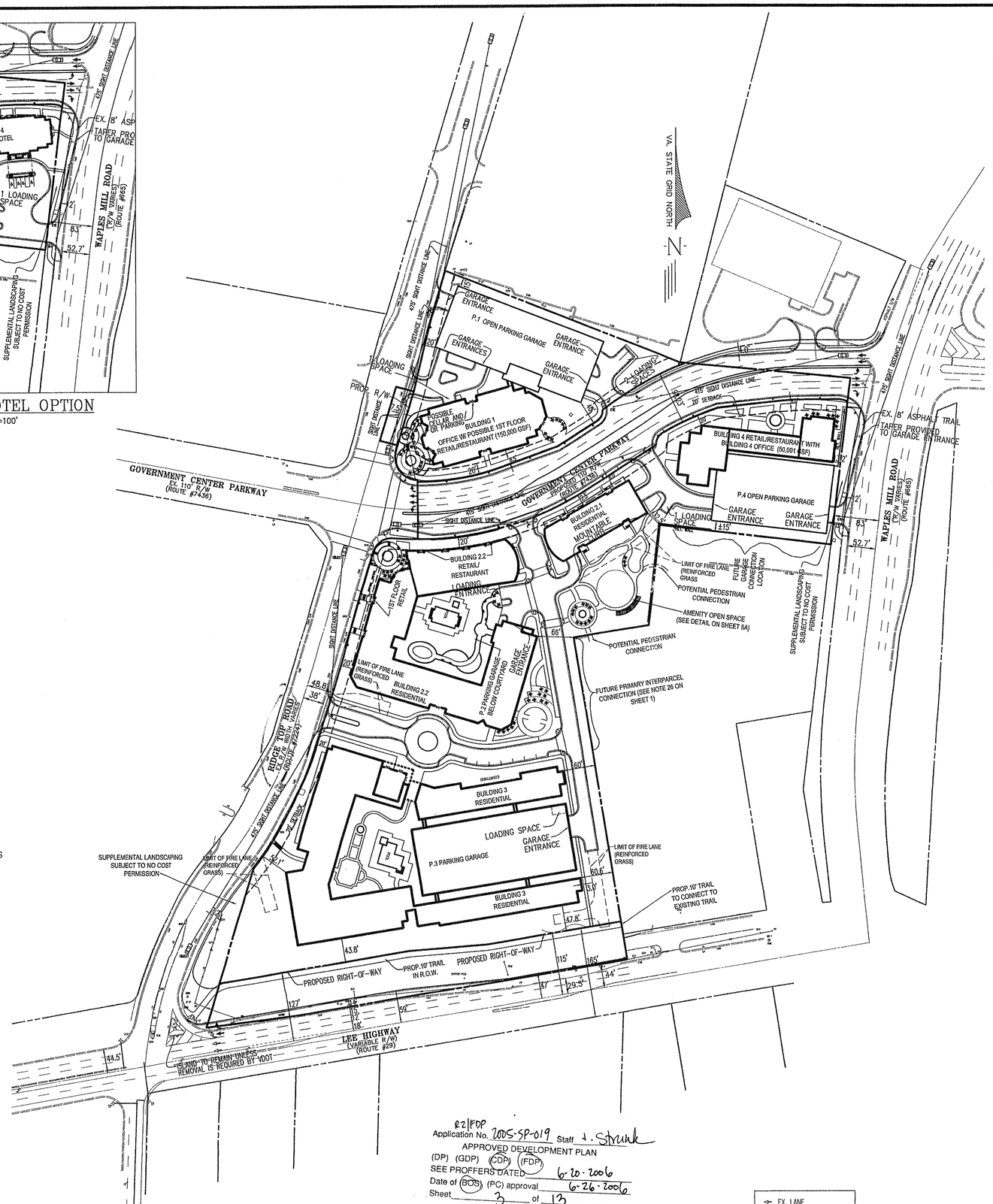
REQUIRED PARKING:
MULTI-FAMILY RESIDENTIAL, 500 UNITS (1.6 SP/UNIT) = 800 SPACES
+BUILDING 1 OFFICE, 150,000 GSF (2.6 SP/1000 GSF) = 390 SPACES
+OPTIONAL BUILDING 4 HOTEL, 95,000 GSF/136 ROOMS (1 SP/ROOM + 4 SP/50 ROOMS) = 147 SPACES
+RETAIL, 25,000 GSF @ 4.3 SP/1st 1000 GSF = 108 SPACES
(RETAIL WILL FUNCTION AS SHOPPING CENTER USE FOR PARKING PURPOSES)
=1,445 REQUIRED SPACES

PROVIDED PARKING = 1,735 PROVIDED SPACES *

REQUIRED LOADING:
MULTI-FAMILY RESIDENTIAL, 671,166 GSF (1/25,000 + 1/100,000) = 7 SPACES
+OFFICE, 150,000 GSF (1/10,000 + 1/20,000) = 8 SPACES
+RETAIL, 25,000 GSF (1/10,000 + 1/15,000) = 2 SPACES
+HOTEL, 95,000 GSF (1/10,000 + 1/100,000) = 2 SPACES
=19 SPACES CALCULATED
MAXIMUM REQUIREMENT PER Z.O. SECTION 11-202.15 = 5
=> 5 REQUIRED LOADING SPACES

PROVIDED LOADING = 6 LOADING SPACES TO BE PROVIDED *

*NOTE: PARKING AND LOADING SPACES WILL BE PROVIDED GENERALLY AS SHOWN. APPLICANT RESERVES THE RIGHT TO ADJUST THE NUMBER AND/OR LOCATION OF THE PARKING AND/OR LOADING SPACES AT TIME OF FINAL SITE PLAN, SO LONG AS THE MINIMUM NUMBERS OF SPACES ARE PROVIDED IN ACCORDANCE WITH ARTICLE 11 OF THE FAIRFAX COUNTY ZONING ORDINANCE.



82|FDP
Application No. 2005-SP-019 Staff J. Strunk
APPROVED DEVELOPMENT PLAN
(DP) (GDP) (CDP) (FDP)
SEE PROFFERS DATED 6-20-2006
Date of (BOS) (PC) approval 6-26-2006
Sheet 3 of 13
FDP Approval on 6-14-2006; no conditions

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REVISION APPROVED BY DIVISION OF DESIGN REVIEW

PLAN DATE

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7712 LITTLE RIVER TURNPIKE
ANNANDALE, VIRGINIA 22003 (703) 642-8080

COMMONWEALTH OF VIRGINIA
ERIC S. SIEGEL
No. 023418
05/18/06
PROFESSIONAL ENGINEER

CONCEPTUAL AND FINAL DEVELOPMENT PLAN

RIDGEWOOD

SPRINGFIELD DISTRICT
FAIRFAX COUNTY, VIRGINIA

DATE: APRIL, 2005

SCALE: 1"=100' C.L. = 2'

SHEET 3 OF 11

FILE No. ZP-1614

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R2/FDP
Application No. 2005-SP-019 Staff T. Strunk
APPROVED DEVELOPMENT PLAN
(DP) (GDP) (CDP) (FDP)
SEE PROFFERS DATED 6-20-2006
Date of (BOS) (PC) approval 6-26-2006
Sheet 4 of 13

FDP Approval on 6-14-2006;
No conditions

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PLAN DATE
04-13-05
06-20-05
08-26-05
02-15-06
02-16-06
03-13-06
03-27-06
03-29-06
05-02-06
05-18-06

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COMMONWEALTH OF VIRGINIA
ERIC S. SIEGEL
No. 023416
05/18/06
PROFESSIONAL ENGINEER

GROUND FLOOR PLAN

RIDGEWOOD
SPRINGFIELD DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=60' C.I. N/A DATE: APRIL, 2005

SHEET 4 OF 11

FILE No. ZP-1614

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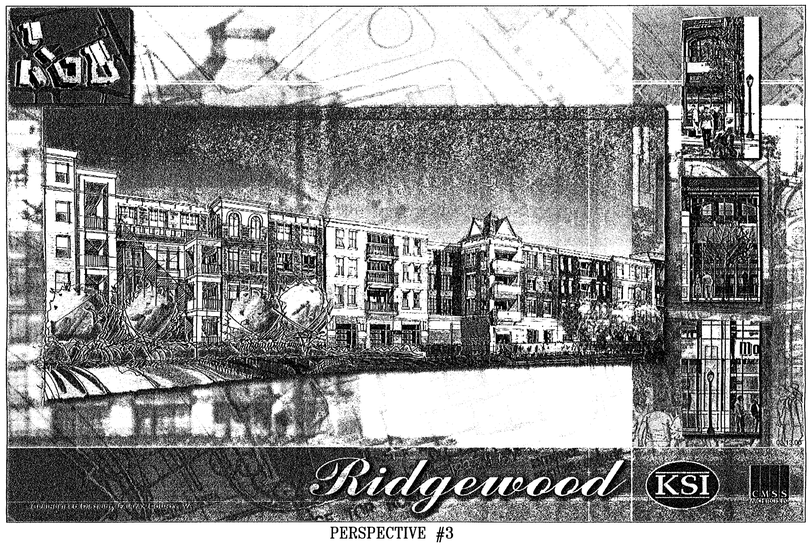
PERSPECTIVE #1



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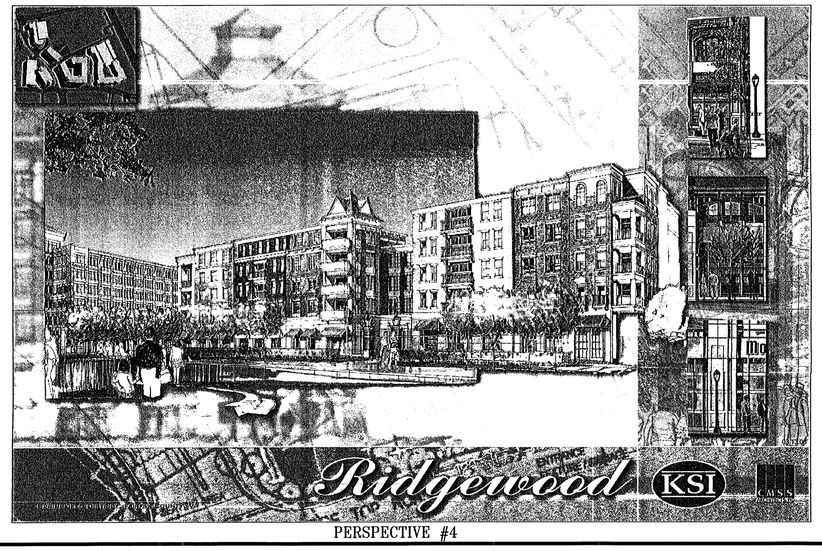

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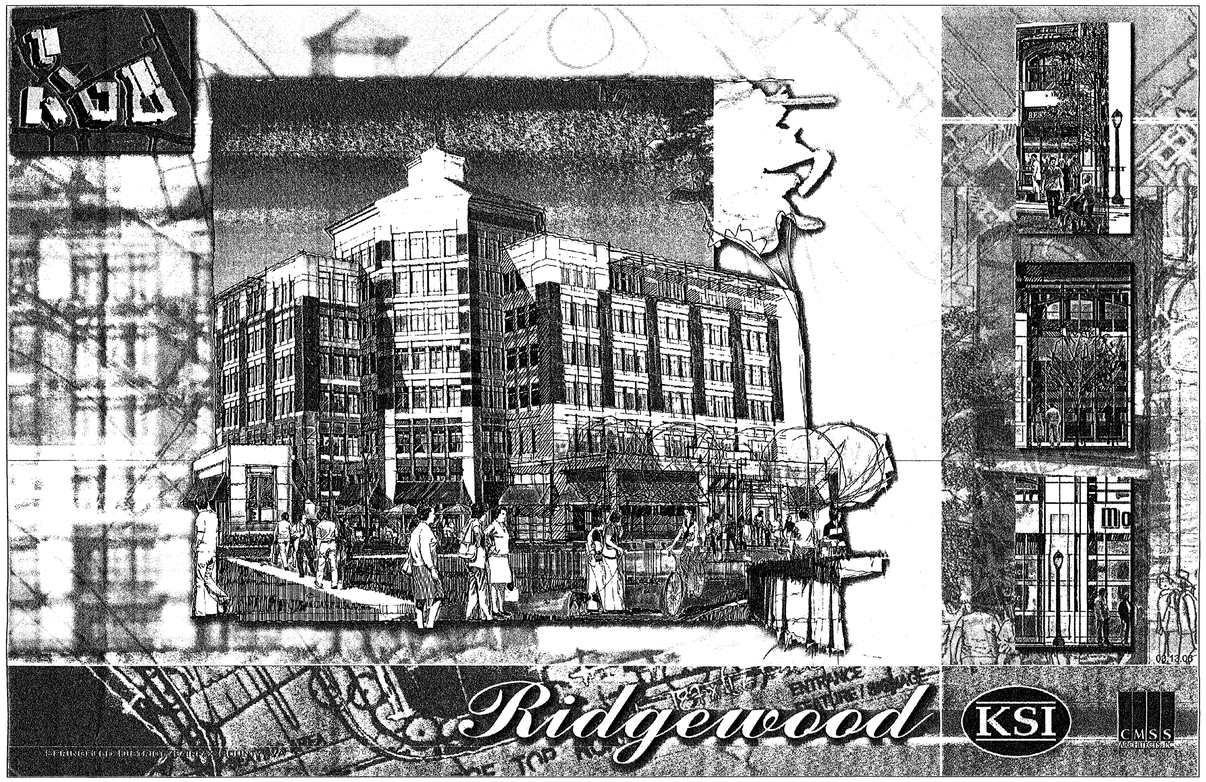

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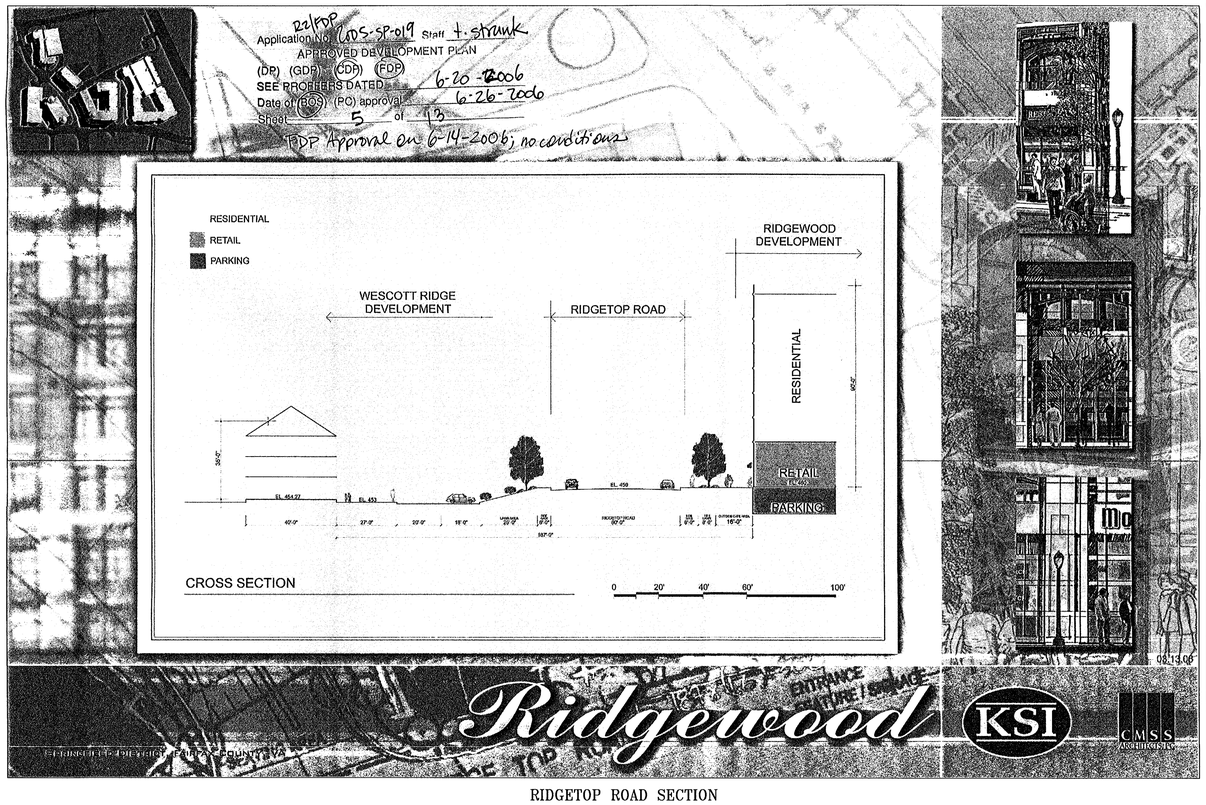

RIDGETOP ROAD SECTION

No.	DATE	DESCRIPTION	REV.BY	APPROVED	DATE

REVISION APPROVED BY DIVISION OF DESIGN REVIEW

PLAN DATE
01-03-06
02-13-06
02-14-06
02-15-06
03-29-06
04-20-06
05-19-06

URBAN ENGINEERING & ASSOC.,INC.

CIVIL ENGINEERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS
7712 LITTLE RIVER TURNPIKE
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COMMONWEALTH OF VIRGINIA
ERIC S. SIEGEL
No. 023416
4/20/06
PROFESSIONAL ENGINEER

PERSPECTIVE EXHIBITS

RIDGEWOOD
SPRINGFIELD DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: N/A
C.I. = N/A
DATE: APRIL, 2005

SHEET
5
OF
11

FILE No.
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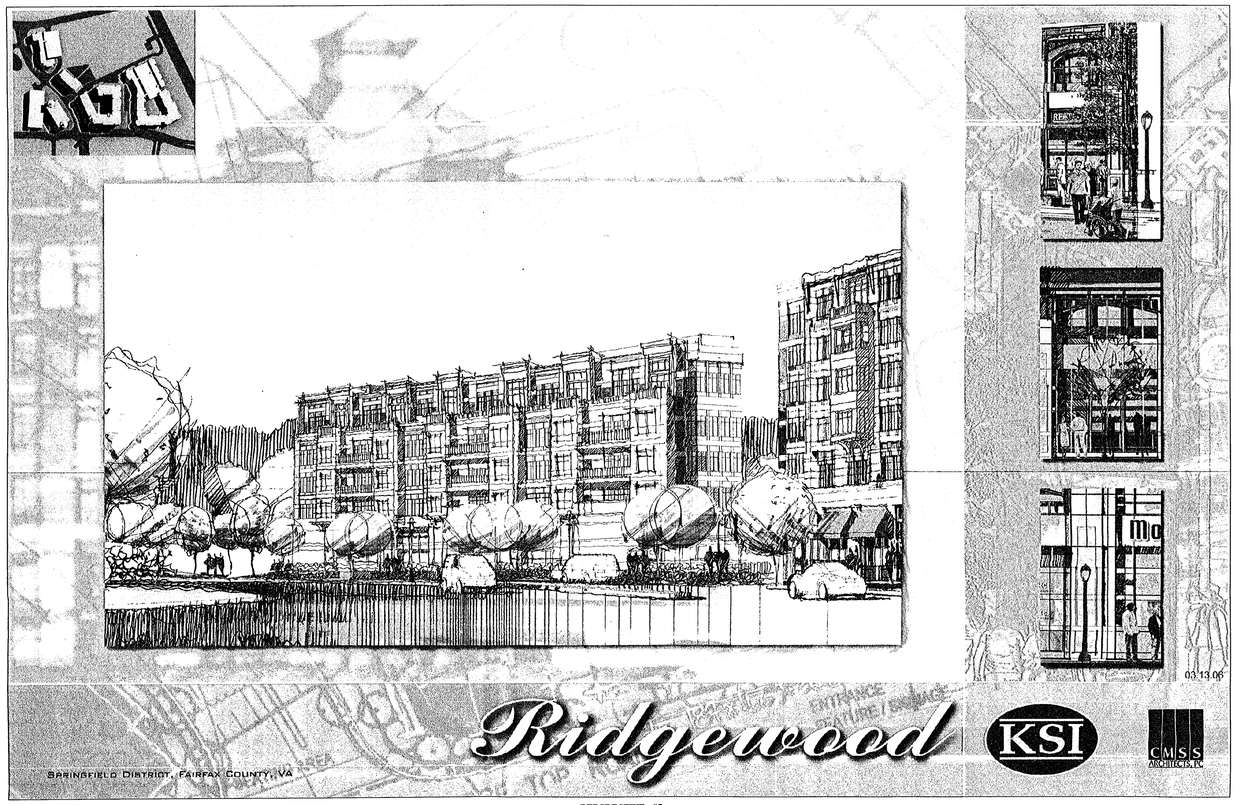
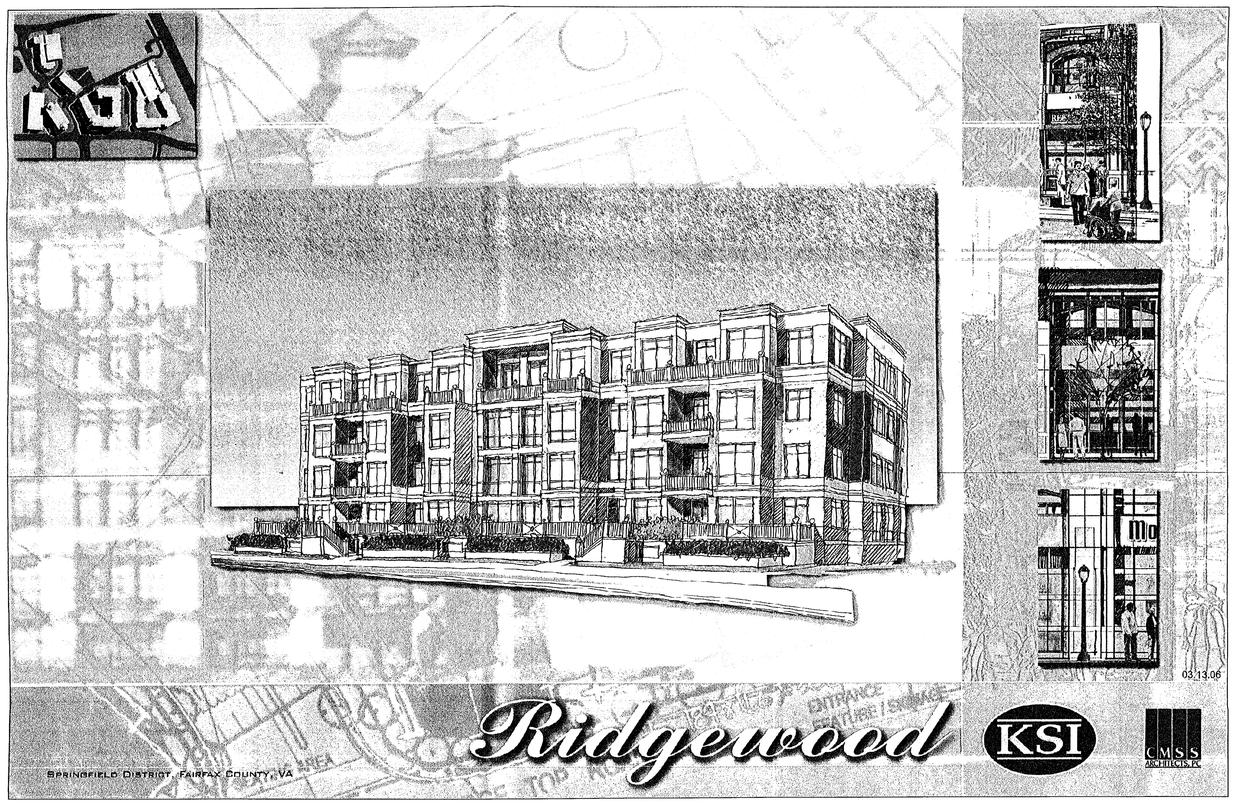


PERSPECTIVE #5



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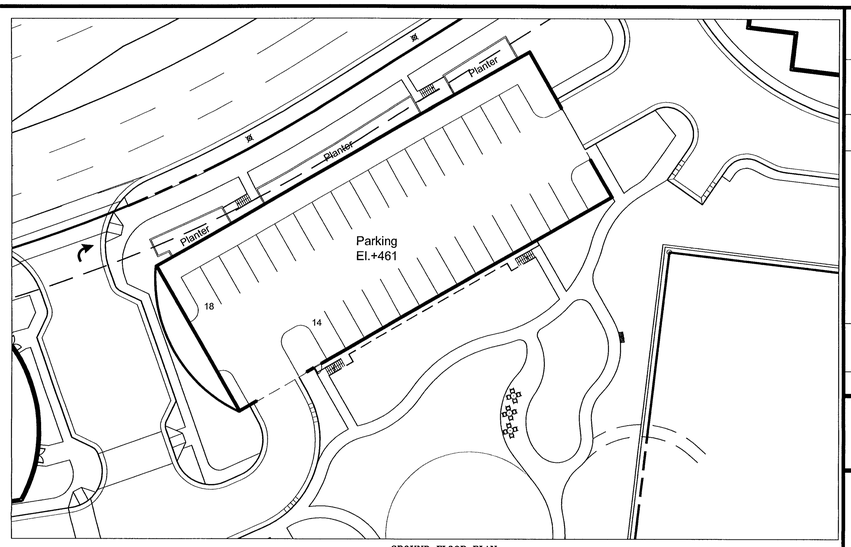
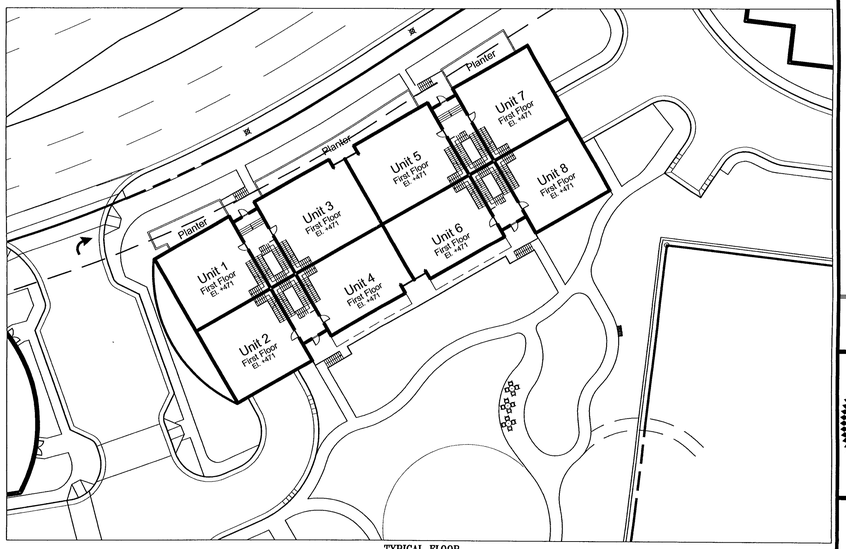
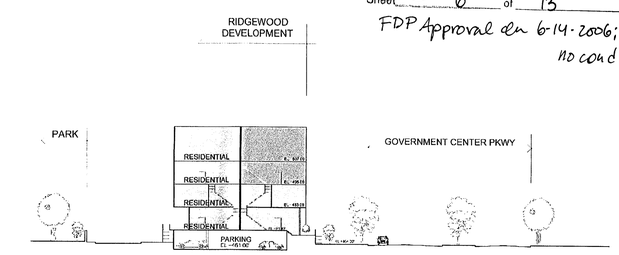


GROUND FLOOR PLAN



TYPICAL FLOOR

R2/FDP
Application No. 2005-SP-019 Staff J. Strunk
APPROVED DEVELOPMENT PLAN
(DP) (QDP) (CDP) (FDP)
SEE PROFFERS DATED 6-20-2006
Date of (BOS) (PC) approval 6-26-2006
Sheet 6 of 13
FDP Approval on 6-14-2006;
no conditions



BUILDING B.1 SECTION

BUILDING 2.1 SECTION

No.	DATE	DESCRIPTION	REV BY	APPROVED	DATE

REVISION APPROVED BY DIVISION OF DESIGN REVIEW

PLAN	DATE
	01-03-06
	02-13-06
	02-15-06
	03-13-06
	03-22-06
	03-30-06
	05-18-06

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COMMONWEALTH OF VIRGINIA
ERIC S. SIEGEL
No. 023416
05/18/06
PROFESSIONAL ENGINEER

BUILDING 2.1 PLAN AND SECTION

RIDGEWOOD
SPRINGFIELD DISTRICT
FAIRFAX COUNTY, VIRGINIA

DATE: APRIL, 2005
C.I. = N/A
SCALE: N/A

SHEET
5A
OF
11

FILE No.
ZP-1614

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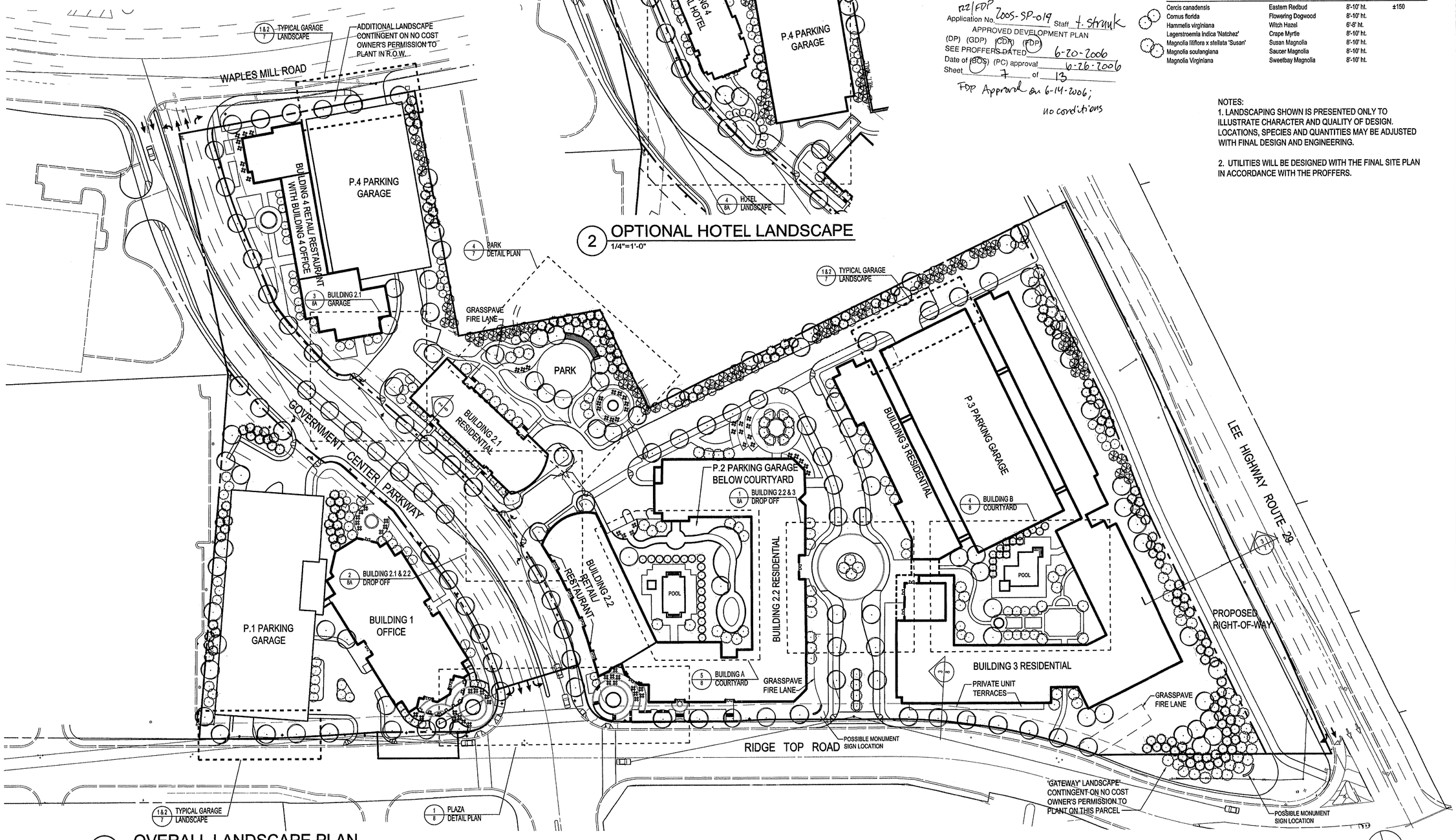
LANDSCAPING SUMMARY

REQUIRED TREE COVER = 10%:
TOTAL SITE AREA = 703,776.17 SF
LESS BUILDING FOOTPRINTS = 347,202 SF
REMAINING SITE AREA = 356,574.17 SF
TREE COVER REQUIRED = 0.10(356,574.17 SF) = 35,657 SF

PROVIDED TREE COVER:
A MINIMUM OF 35,657 SF OF TREE COVER SHALL BE PROVIDED AT TIME OF FINAL SITE PLAN.

PER NOTE #6 ON SHEET #1, THE APPLICANT SHALL PURSUE A WAIVER OF THE TRANSITIONAL SCREENING REQUIREMENTS FOR THIS APPLICATION.



1 OVERALL LANDSCAPE PLAN
1"=60'

2 OPTIONAL HOTEL LANDSCAPE
1/4"=1'-0"

RZ/FDP Application No. 2005-SP-019 Staff T. Strunk
APPROVED DEVELOPMENT PLAN
(DP) (GDP) (CDP) (FDP)
SEE PROFFERS DATED 6-20-2006
Date of (BOS) (PC) approval 6-26-2006
Sheet 7 of 13
FDP Approved on 6-14-2006; no conditions

TYPICAL PLANT PALETTE

Botanical Name	Common Name	Size	Approximate Quantity
CANOPY TREES			
Acer rubrum 'October Glory'	October Glory Red Maple	3" cal.	±80
Fraxinus americana	Seedless Green Ash	3" cal.	
Liquidamber styraciflua	Sweetgum	3" cal.	
Quercus palustris	Pin Oak	3" cal.	
Quercus phellos	Willow Oak	3" cal.	
Quercus rubra	Red Oak	3" cal.	
EVERGREEN TREES			
Abies concolor	American Holly	6'-8' ht.	±150
Ilex opaca	American Holly	6'-8' ht.	
Juniperus virginiana	Eastern Redcedar	6'-8' ht.	
Picea pungens	Colorado Blue Spruce	8'-10' ht.	
Pseduotsuga menziesii	Douglas Fir	8'-10' ht.	
ORNAMENTAL TREES			
Cercis canadensis	Eastern Redbud	8'-10' ht.	±150
Cornus florida	Flowering Dogwood	8'-10' ht.	
Hammelis virginiana	Witch Hazel	6'-8' ht.	
Lagerstroemia Indica 'Natchez'	Crape Myrtle	8'-10' ht.	
Magnolia Iilflora x stellata 'Susan'	Susan Magnolia	8'-10' ht.	
Magnolia soulangiana	Saucer Magnolia	8'-10' ht.	
Magnolia Virginiana	Sweetbay Magnolia	8'-10' ht.	

NOTES:
1. LANDSCAPING SHOWN IS PRESENTED ONLY TO ILLUSTRATE CHARACTER AND QUALITY OF DESIGN. LOCATIONS, SPECIES AND QUANTITIES MAY BE ADJUSTED WITH FINAL DESIGN AND ENGINEERING.

2. UTILITIES WILL BE DESIGNED WITH THE FINAL SITE PLAN IN ACCORDANCE WITH THE PROFFERS.

No.	DATE	DESCRIPTION	REV.BY	APPROVED	DATE

REVISION APPROVED BY DIVISION OF DESIGN REVIEW

PLAN DATE
04-13-05
06-20-05
08-26-05
01-03-06
02-15-06
02-23-06
03-27-06
03-30-06
04-03-06
05-18-06

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COMMONWEALTH OF VIRGINIA
ERIC S. SIEGEL
No. 023416
05/18/06
PROFESSIONAL ENGINEER

LANDSCAPE PLAN
RIDGEWOOD
SPRINGFIELD DISTRICT
FAIRFAX COUNTY, VIRGINIA
DATE: APRIL, 2005
SCALE: 1"=60'
C.I. N/A

SHEET 6 OF 11

FILE No. ZP-1614

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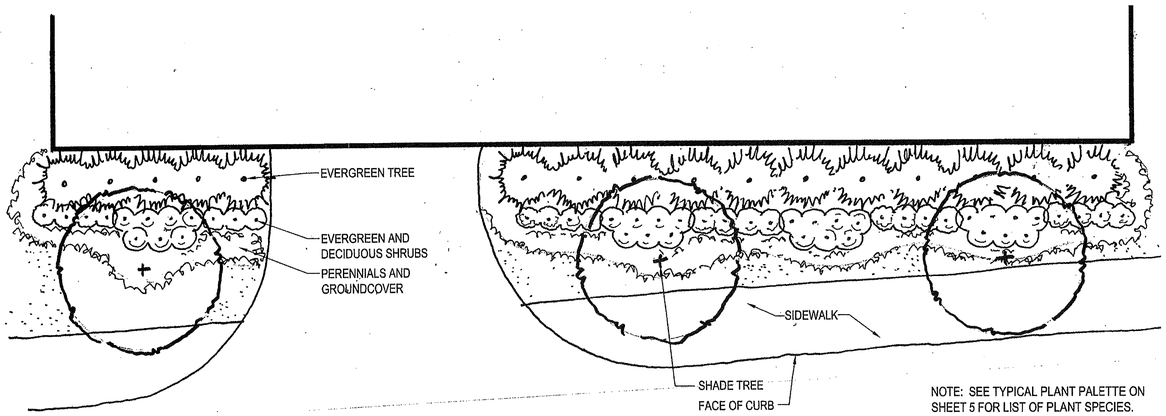
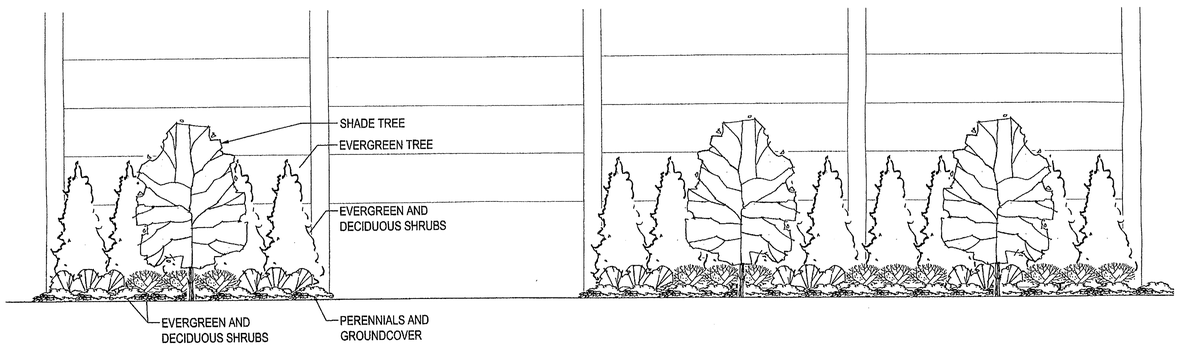


NOTE: SEE TYPICAL PLANT PALETTE ON SHEET 5 FOR LIST OF PLANT SPECIES.

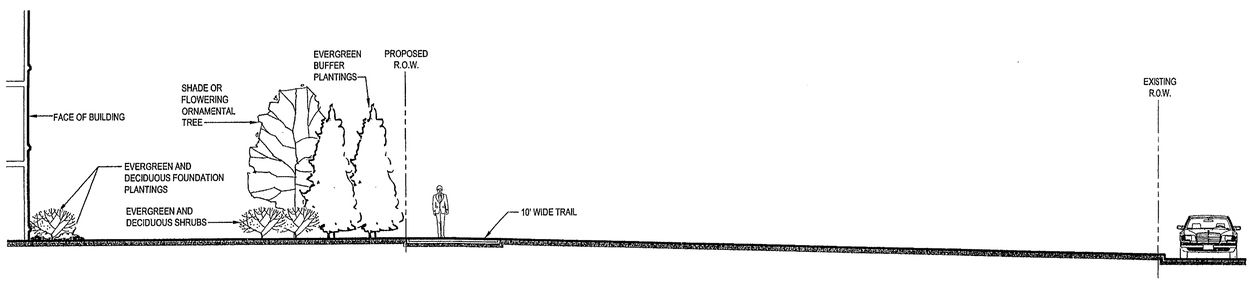
1 TYPICAL GARAGE LANDSCAPE PLAN

1/8"=1'-0"



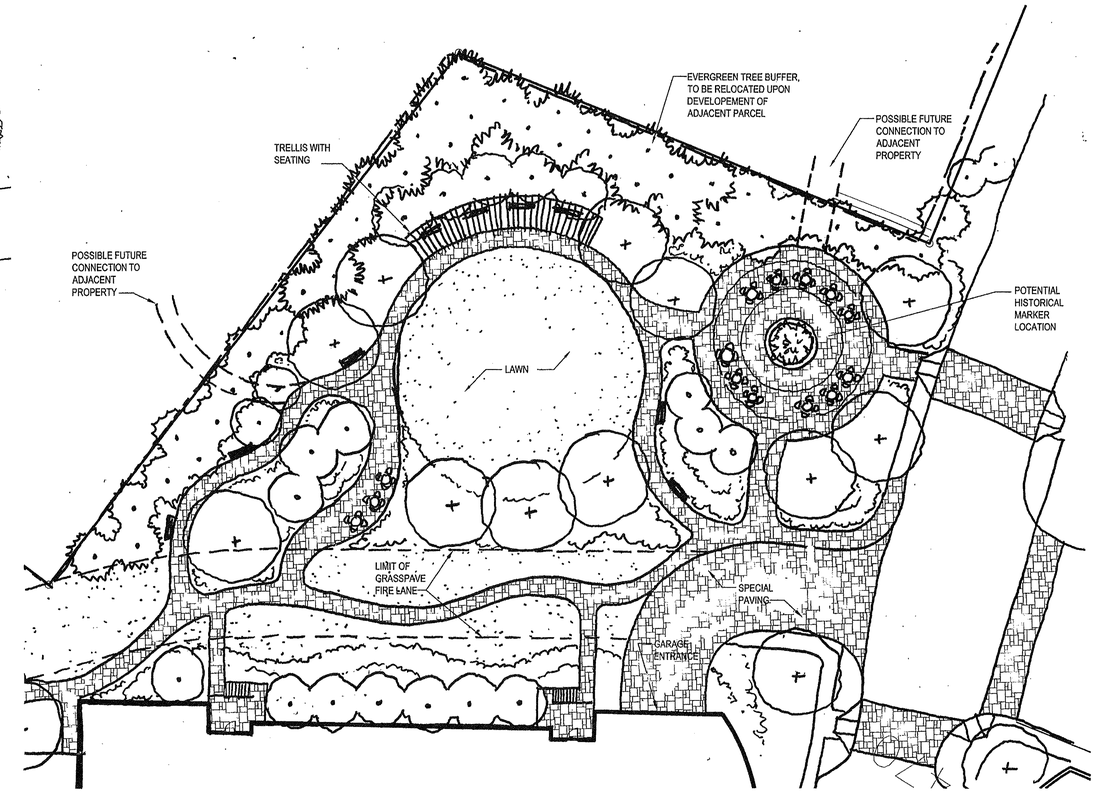
2 TYPICAL GARAGE LANDSCAPE ELEVATION

1/8"=1'-0"



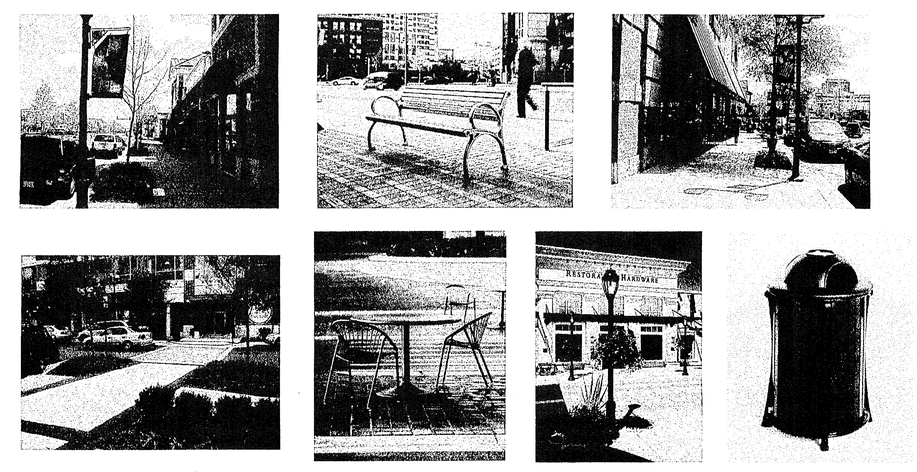
3 ROUTE 29 STREETSCAPE

1/8"=1'-0"



4 PARK DETAIL PLAN

1"=20'



5 ILLUSTRATIVE STREETSCAPE IMAGES

Application No. 2005-SP-019 (Z2/FDP) Staff J. Strunk

APPROVED DEVELOPMENT PLAN

(DP) (GDP) (CDP) (FDP)

SEE PROFFERS DATED 6-20-2006

Date of (BOS) (PC) approval 6-26-2006

Sheet 8 of 13

FDP Approval on 6-14-2006; no conditions

NOTES:
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No.	DATE	DESCRIPTION	REV BY	APPROVED	DATE
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PLAN DATE
01-03-06
02-13-06
03-17-06
03-27-06
03-30-06
05-02-06
05-18-06

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COMMONWEALTH OF VIRGINIA
ERIC S. SIEGEL
No. 023418
05/18/06
PROFESSIONAL ENGINEER

LANDSCAPE DETAILS

RIDGEWOOD
SPRINGFIELD DISTRICT
FAIRFAX COUNTY, VIRGINIA

DATE: APRIL, 2005
C.L. N/A
SCALE: As Noted

SHEET 7 OF 11

FILE No. ZP-1614

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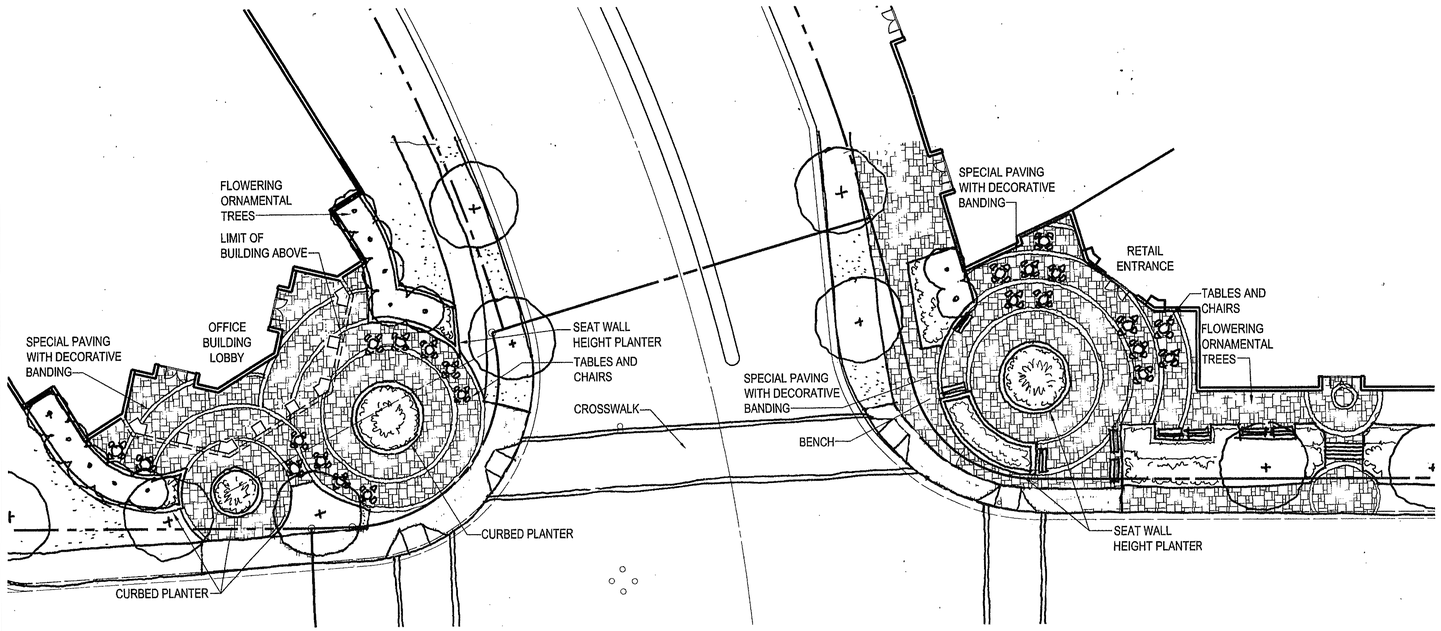
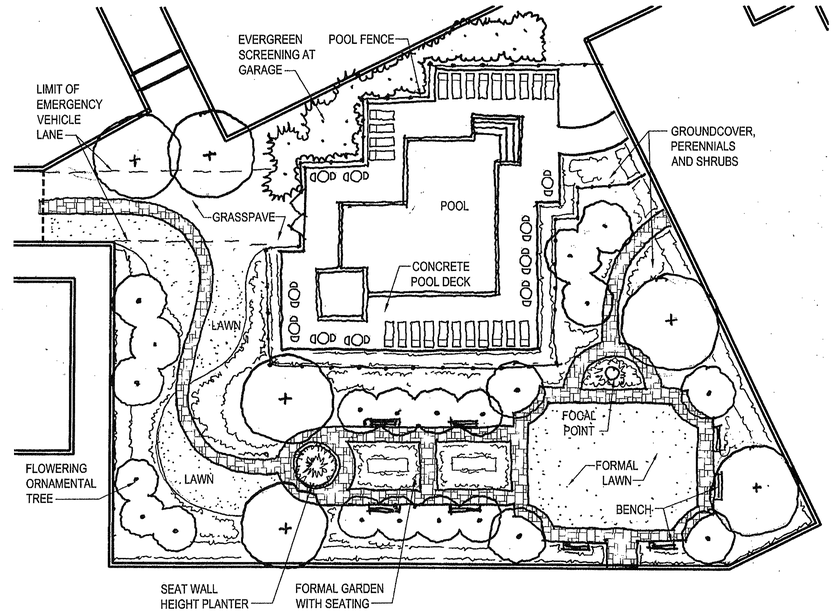
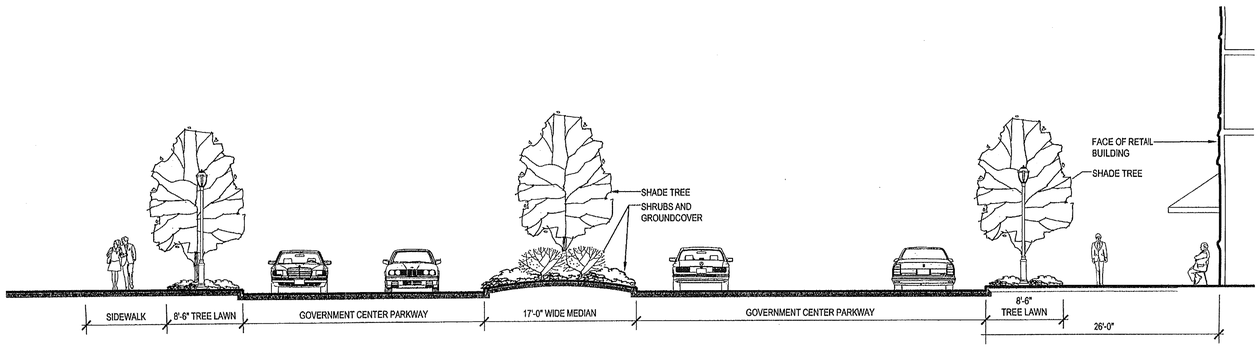


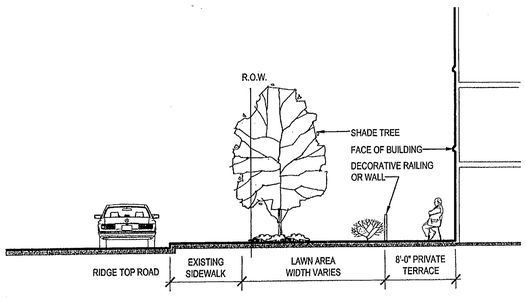
1 RIDGE TOP ROAD AND GOV. CENTER PKWY. PLAZAS
1"=20'



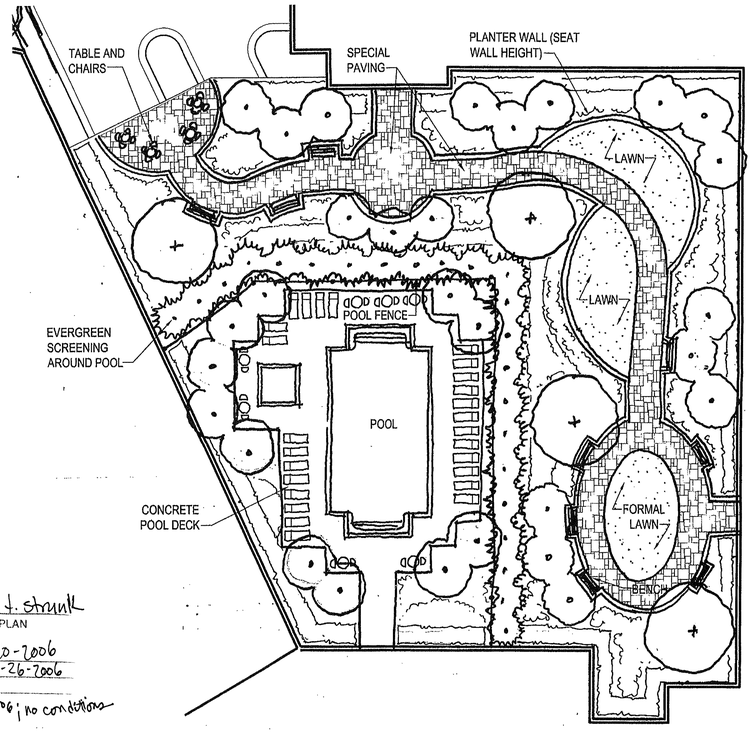
4 BUILDING 3 COURTYARD
1"=20'



2 GOVERNMENT CENTER PARKWAY SECTION
1/8"=1'-0"



3 RIDGE TOP ROAD STREETSCAPE
1/8"-1'-0"



5 BUILDING 2 COURTYARD
1"=20'

R2/FDP
Application No. 2005-SP-019 Staff J. Strunk
APPROVED DEVELOPMENT PLAN
(DP) (GDP) (CDP) (FDP)
SEE PROFFERS DATED 6-20-2006
Date of (BOS) (PC) approval 6-26-2006
Sheet 9 of 13
FDP Approval on 6-14-2006; no conditions

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No.	DATE	DESCRIPTION	REV.BY	APPROVED	DATE
		REVISION APPROVED BY DIVISION OF DESIGN REVIEW			

PLAN DATE
01-03-06
02-13-06
03-13-06
03-27-06
04-20-06
05-02-06
05-18-06

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COMMONWEALTH OF VIRGINIA
ERIC S. SIEGEL
No. 022448
05/18/06
PROFESSIONAL ENGINEER

LANDSCAPE DETAILS
RIDGEWOOD
SPRINGFIELD DISTRICT
FAIRFAX COUNTY, VIRGINIA
SCALE: 1"=60'
C.I. N/A
DATE: APRIL, 2005

SHEET 8 OF 11

FILE No. ZP-1614

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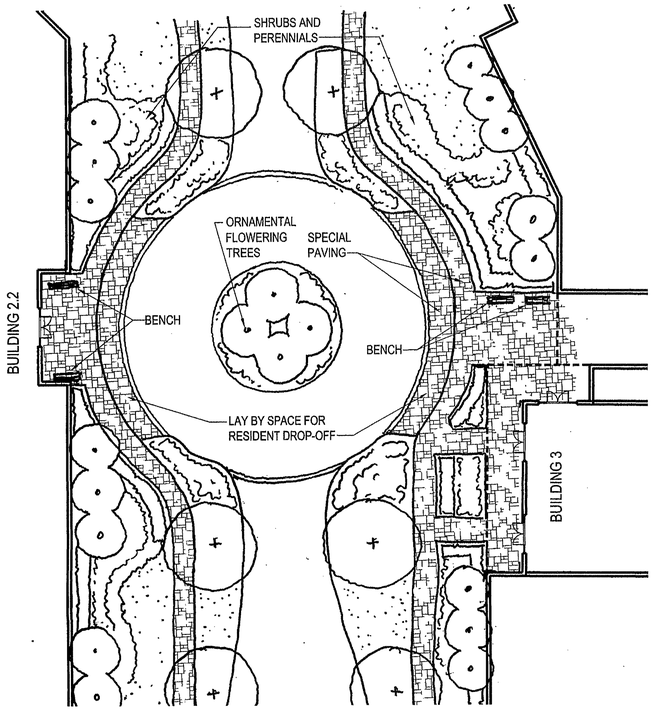
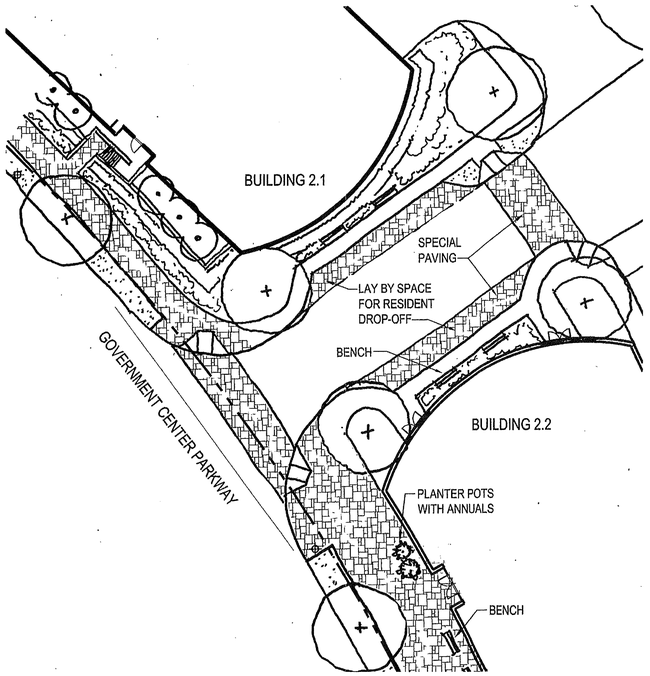
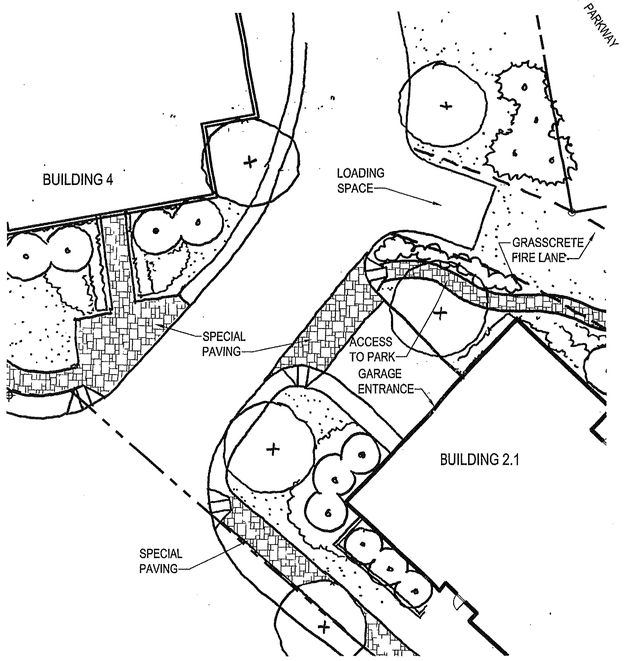
NOTES:
1. LANDSCAPING SHOWN IS PRESENTED ONLY TO ILLUSTRATE CHARACTER AND QUALITY OF DESIGN. LOCATIONS, SPECIES AND QUANTITIES MAY BE ADJUSTED WITH FINAL DESIGN AND ENGINEERING.



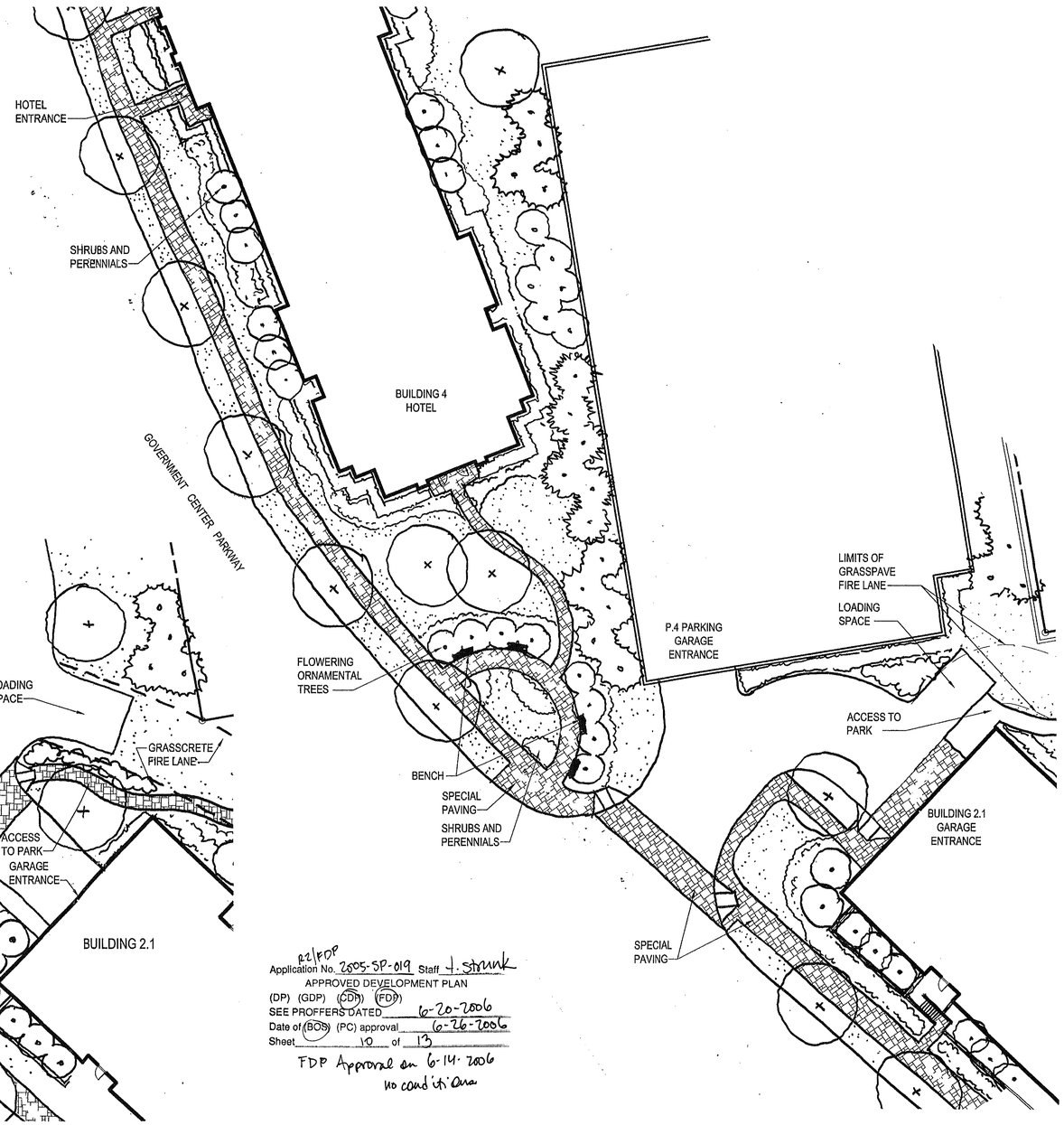
1 BUILDINGS 2.2 & 3 DROP OFF
1"=20'



2 BUILDINGS 2.1 & 2.2 DROP OFF
1"=20'



3 BUILDING 2.1 GARAGE ENTRANCE
1"=20'



4 HOTEL OPTION LANDSCAPE
1"=20'

RZ/FDP
Application No. 2005-SP-019 Staff H. Strunk
APPROVED DEVELOPMENT PLAN
(DP) (GDP) (CDP) (FDP)
SEE PROFFERS DATED 6-20-2006
Date of (BOS) (PC) approval 6-26-2006
Sheet 10 of 13
FDP Approval on 6-14-2006
no conditions

No.	DATE	DESCRIPTION	REV.BY	APPROVED	DATE

REVISION APPROVED BY DIVISION OF DESIGN REVIEW

PLAN DATE
01-03-06
02-13-06
03-13-06
03-27-06
03-30-06
05-02-06
05-16-06

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COMMONWEALTH OF VIRGINIA
ERIC S. SIEGEL
No. 023416
05/18/06
PROFESSIONAL ENGINEER

LANDSCAPE DETAILS

RIDGEWOOD
SPRINGFIELD DISTRICT
FAIRFAX COUNTY, VIRGINIA

DATE: APRIL, 2005
SCALE: 1"=60'
C.I. N/A

SHEET
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FILE No.
ZP-1614

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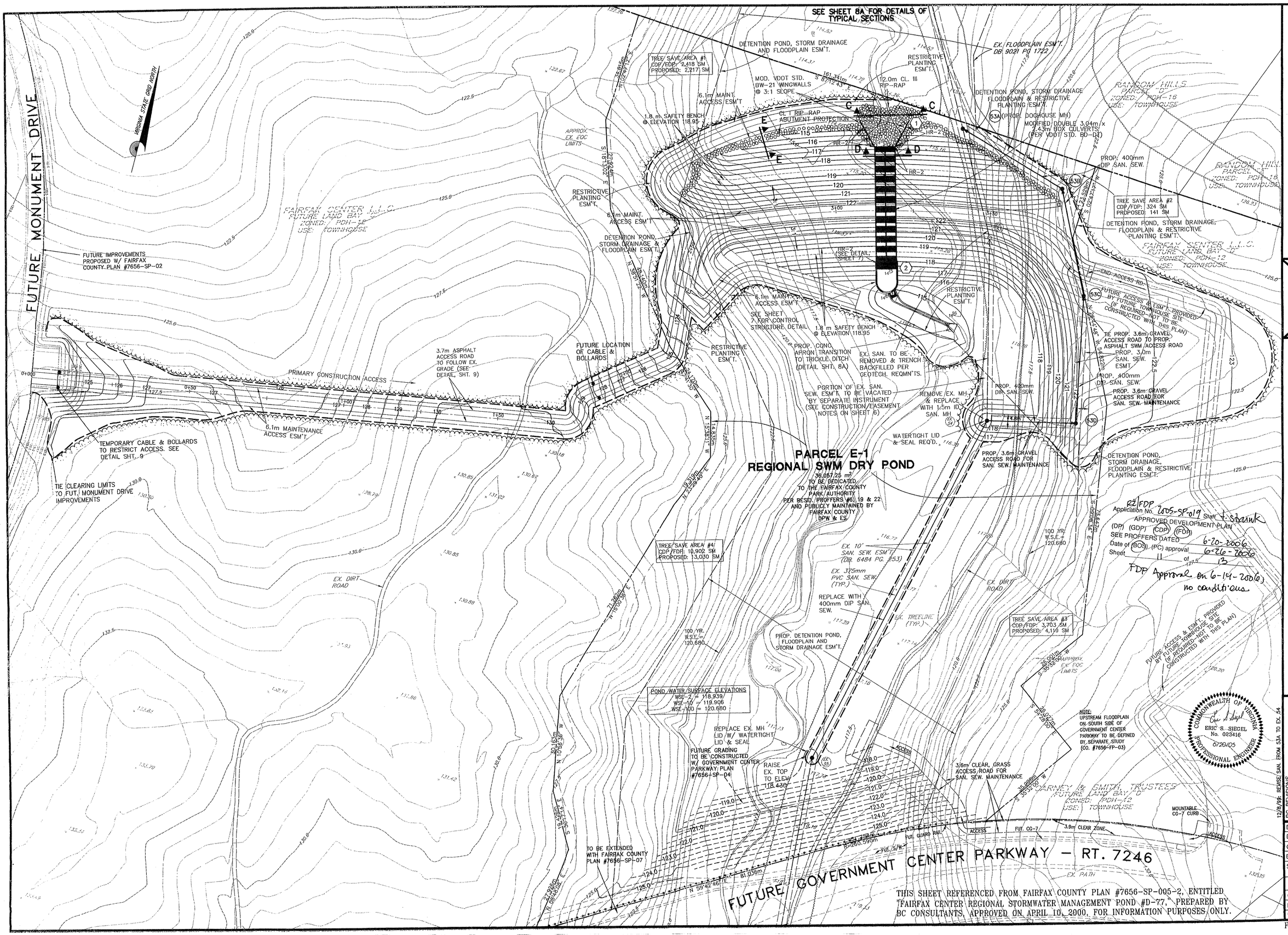


THIS SHEET REFERENCED FROM FAIRFAX COUNTY PLAN #7656-SP-005-2, ENTITLED "FAIRFAX CENTER REGIONAL STORMWATER MANAGEMENT POND #D-77," PREPARED BY BC CONSULTANTS, APPROVED ON APRIL 10, 2000, FOR INFORMATION PURPOSES ONLY.

BC Consultants
Planners • Engineers • Surveyors • Landscape Architects
12700 Fair Lakes Circle, Suite 100, Fairfax, VA 22033
(703)449-8100 (703)449-8108 (Fax)
BCcon@bccon.com

COMMONWEALTH OF VIRGINIA MICHAEL R. MICKER 12-8-99 PROFESSIONAL ENGINEER

SITE & GRADING PLAN

FAIRFAX CENTER

REGIONAL STORMWATER MANAGEMENT POND #D-77

SULLY DISTRICT
FAIRFAX COUNTY, VIRGINIA

RZ/FDP Application No. 2005-SP-019 Staff: J. Shaunk
APPROVED DEVELOPMENT PLAN
(DP) (GDP) (CDP) (FDP)
SEE PROFFERS DATED 6-20-2006
Date of (BOS) (PC) approval 6-26-2006
Sheet 11 of 13
FDP Approval on 6-14-2006 no conditions

BC REVISIONS
12/8/99: REVISE SAN. FROM 53A TO EX. 54
8/13/99: REVISE PER DPW – SAN
8/27/99: REVISE PER 1st SUBM. COMMENTS
9/30/99: REV. BOUNDARY & SITE AREA
10/19/99: REV. EX. SAN. TO BE REMOVED
12/7/99: REV. PER CO. INSERT COMMENTS

OWNER:
J.W. CARNEY & B.M. SMITH
TRUSTEES
3014 BEECHWOOD LANE
FALLS CHURCH, VA 22042

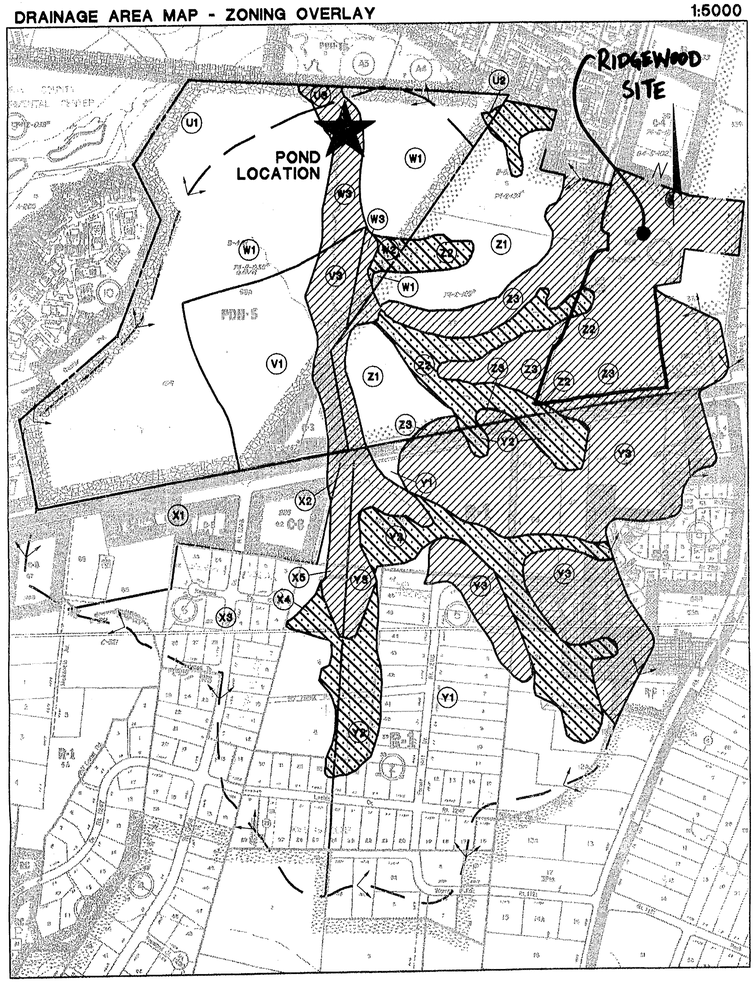
DESIGNED BY: DMS
DRAFTED BY: CAD
CHECKED BY: MRT
DATE: AUGUST, 1999
SCALE: HOR. 1:500
VERT. –

SHEET 09 OF 11
CO. NO. 7656-SP-05
FILE NO. 98000-43
CADD NAME: SWM

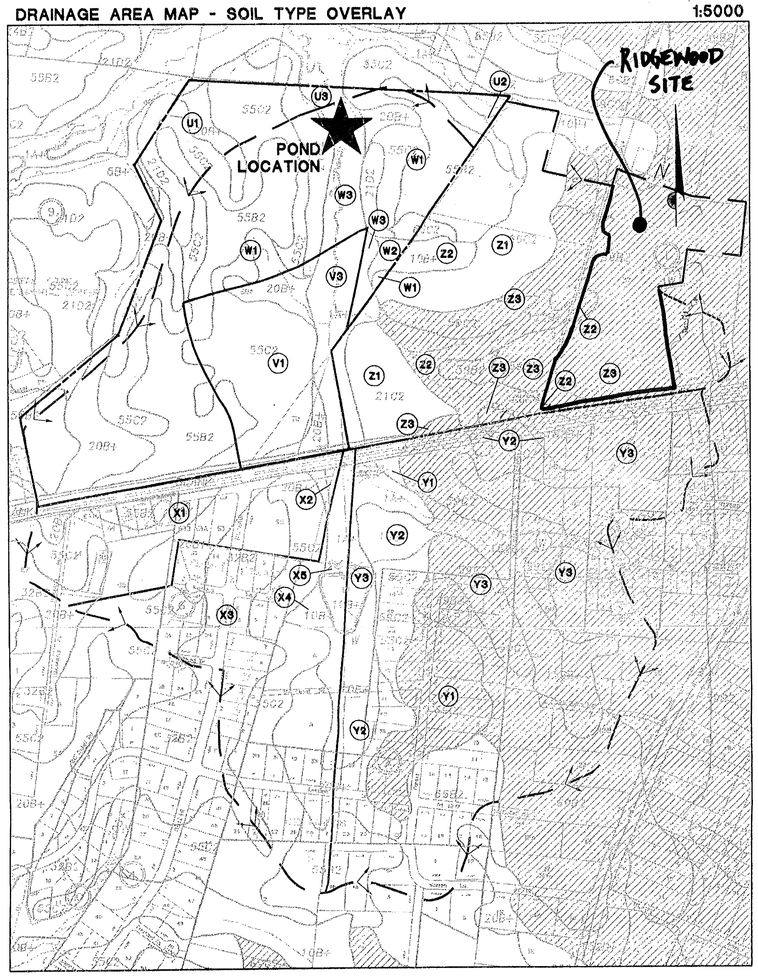
Swmsp.dwg 12-8-99 4:32:34 pm EST

FILE NO. ZP-1614

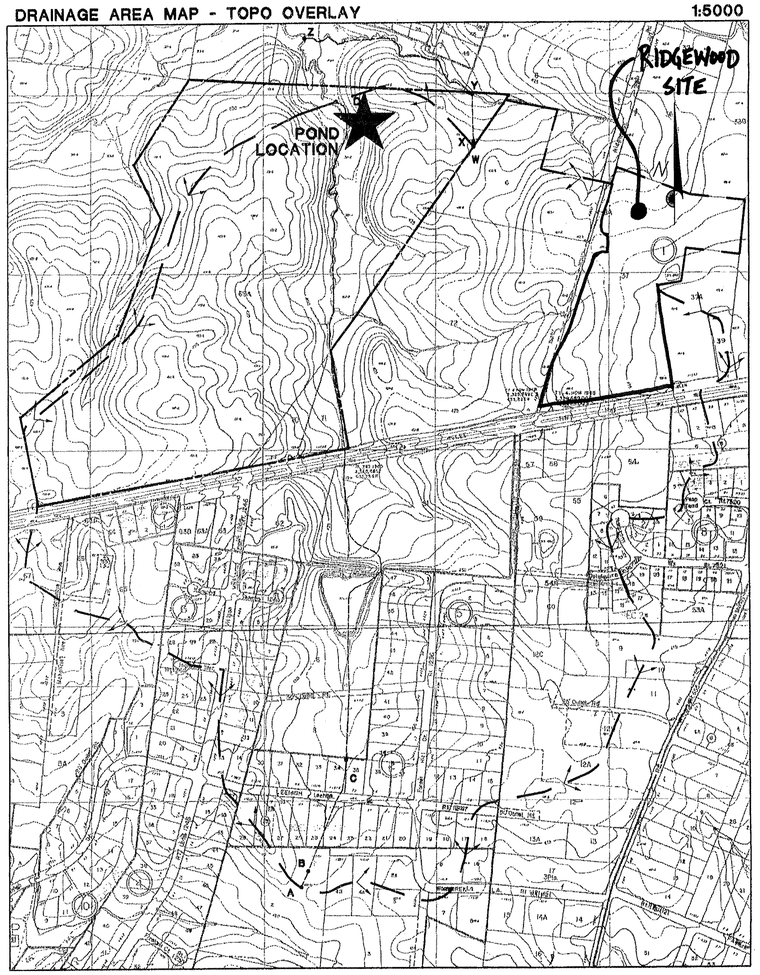
DRAINAGE AREA MAP - ZONING OVERLAY 1:5000



DRAINAGE AREA MAP - SOIL TYPE OVERLAY 1:5000



DRAINAGE AREA MAP - TOPO OVERLAY 1:5000



FAIRFAX CENTER - CN VALUES

CONTROLLED

SUBAREA	DESCRIPTION	AREA	AREA	AREA	PRE-DEVELOPMENT CN	POST-DEVELOPMENT CN
V1	ONSITE - SHOPPING CENTER - B SOILS	653,862 SF	15.01 AC	6.07 HA	65	92
V3	ONSITE - SHOPPING CENTER - D SOILS	201,394 SF	4.62 AC	1.87 HA	79	93
W1	ONSITE - SFA, MF - B SOILS	1,970,626 SF	45.24 AC	18.31 HA	65	85
W2	ONSITE - SFA, MF - C SOILS	28,380 SF	0.65 AC	0.26 HA	73	90
W3	ONSITE - SFA, MF - D SOILS	196,431 SF	4.51 AC	1.82 HA	79	92
X1	OFFSITE - COMMERCIAL & OFFICE - B SOILS	903,803 SF	20.75 AC	8.40 HA	65	85
X2	OFFSITE - COMMERCIAL & OFFICE - D SOILS	14,543 SF	0.33 AC	0.14 HA	79	92
X3	OFFSITE - 2 DU PER ACRE - B SOILS	1,344,507 SF	30.87 AC	12.49 HA	65	70
X4	OFFSITE - 2 DU PER ACRE - C SOILS	84,894 SF	1.95 AC	0.79 HA	73	80
X5	OFFSITE - 2 DU PER ACRE - D SOILS	107,948 SF	2.48 AC	1.00 HA	79	85
Y1	OFFSITE - 3 DU PER ACRE - B SOILS	1,664,096 SF	38.20 AC	15.46 HA	65	72
Y2	OFFSITE - 3 DU PER ACRE - C SOILS	796,797 SF	18.29 AC	7.40 HA	73	81
Y3	OFFSITE - 3 DU PER ACRE - D SOILS	1,703,810 SF	39.11 AC	15.83 HA	79	86
Z1	OFFSITE - SFA, MF & COMMERCIAL & OFFICE - B SOILS	814,162 SF	18.69 AC	7.56 HA	65	85
Z2	OFFSITE - SFA, MF & COMMERCIAL & OFFICE - C SOILS	451,315 SF	10.36 AC	4.19 HA	73	90
Z3	OFFSITE - SFA, MF & COMMERCIAL & OFFICE - D SOILS	1,527,623 SF	35.07 AC	14.19 HA	79	92
	TOTAL - WEIGHTED AVERAGE		286.14 AC	115.80 HA	70	83

UNCONTROLLED

SUBAREA	DESCRIPTION	AREA	AREA	AREA		
U1	ONSITE - SFA, MF - B SOILS	573,573 SF	12.86 AC	5.20 HA	65	85
U2	ONSITE - SFA, MF - C SOILS	4,594 SF	0.11 AC	0.04 HA	73	90
U3	ONSITE - SFA, MF - D SOILS	23,848 SF	0.55 AC	0.22 HA	79	92
	TOTAL - WEIGHTED AVERAGE		13.51 AC	5.47 HA	66	85

ALLOWABLE RELEASE COMPUTATIONS

STORM EVENT	ALLOWABLE RELEASE CRITERIA	(PRE-DEV. CONTROLLED)	-	(POST-DEV. UNCONTROLLED)	=	ALLOWABLE RELEASE	ACTUAL RELEASE
2-YEAR	(PREDEVELOPMENT CONTROLLED) - (POSTDEVELOPMENT UNCONTROLLED)	184 CFS	-	30 CFS	=	154 CFS	96 CFS
10-YEAR	(PREDEVELOPMENT CONTROLLED) - (POSTDEVELOPMENT UNCONTROLLED)	580 CFS	-	60 CFS	=	520 CFS	495 CFS
100-YEAR	(NONE)					N/A	1132 CFS

NOTE

SITE AREA SHOWN ON SWM/BMP COMPUTATION SHEETS INCLUDES ALL THREE PARCELS ASSOCIATED WITH REZONING APPLICATION RZ-1998-SU-041/040. (TAX MAP NUMBERS 56-2-01-69A,70&71)

RZ/FDP
Application No. 2005-SP-019 Staff J. Strunk
APPROVED DEVELOPMENT PLAN
(DP) (GDP) (CDP) (FDP)
SEE PROFFERS DATED 6-20-2006
Date of (BOS) (PC) approval 6-26-2006
Sheet 12 of 13
FDP Approval on 6-14-2006
no conditions

COMMONWEALTH OF VIRGINIA
ERIC S. SIEGEL
No. 023416
6/20/05
PROFESSIONAL ENGINEER

THIS SHEET REFERENCED FROM FAIRFAX COUNTY PLAN #7656-SP-005-2, ENTITLED "FAIRFAX CENTER REGIONAL STORMWATER MANAGEMENT POND #D-77," PREPARED BY BC CONSULTANTS, APPROVED ON APRIL 10, 2000, FOR INFORMATION PURPOSES ONLY.

BC Consultants
Planners · Engineers · Surveyors · Landscape Architects
12700 Fair Lakes Circle, Suite 100, Fairfax, VA 22033
(703)449-8100 (703)449-8108 (Fax)
BCcon@bccon.com

COMMONWEALTH OF VIRGINIA
MICHAEL R. MOCKER
No. 026
PROFESSIONAL ENGINEER

RCN COMPUTATIONS

FAIRFAX CENTER

REGIONAL STORMWATER MANAGEMENT POND #D-77

SULLY DISTRICT
FAIRFAX COUNTY, VIRGINIA

BC REVISIONS
8/27/99: REV PER 1st SUBM. COMMENTS
11/2/99: UPDATE RCN & Ac. AREAS PER CO.

OWNER
J.W. CARNEY & B.M. SMITH
TRUSTEES
3014 BEECHWOOD LANE
FALLS CHURCH, VA 22042

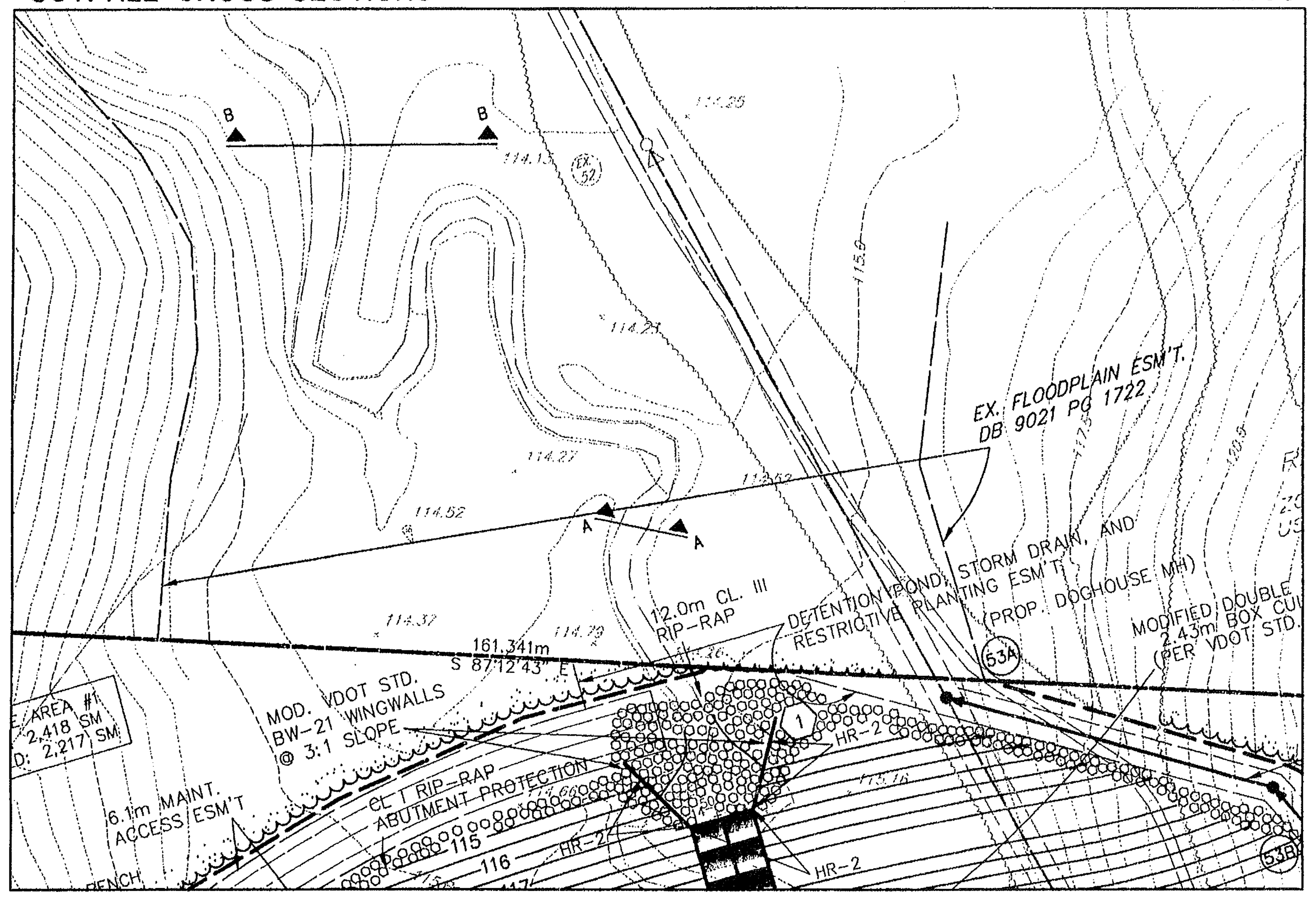
Swmrcn..wg 7-27-99 8:39:51 am EST

DESIGNED BY: DMS
DRAFTED BY: CAD
CHECKED BY: MRT
DATE: AUGUST, 1999
SCALE: HOR. 1:5000 VERT. -
SHEET 10 OF 11
CO. NO. 7656-SP-05
FILE NO. 98000-43
CADD NAME: SWMRCN.DWG

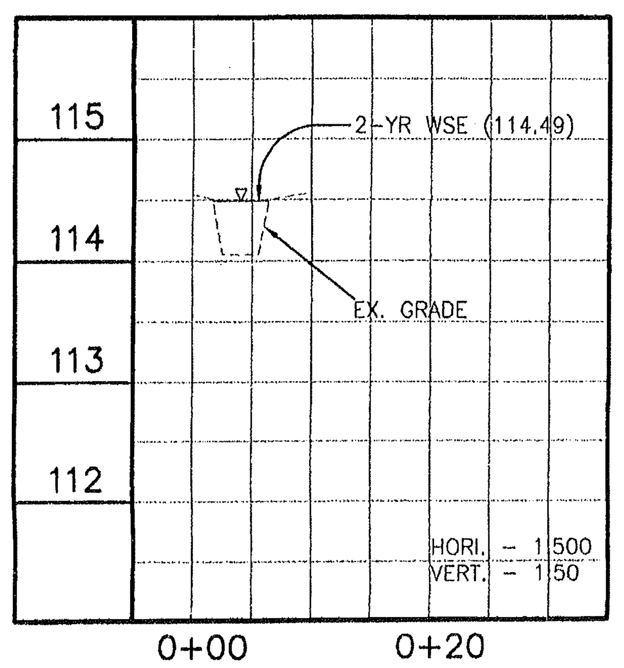
FILE NO. ZP-1614

OUTFALL CROSS-SECTIONS

1:500

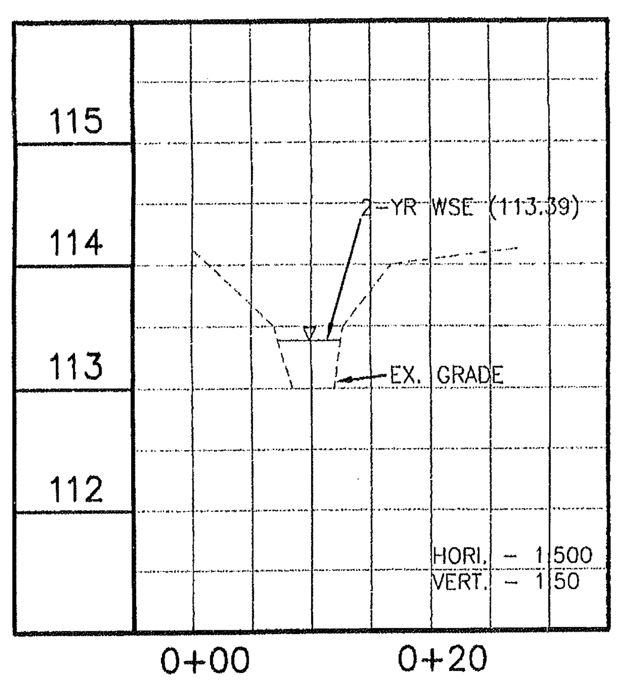


CROSS SECTION A-A



MANNINGS COEFFICIENT	0.038	
FLOW AREA	1.7	SQ. M
WETTED PERIMETER	4.89	M
TOP WIDTH	4.67	M
ACTUAL DEPTH	0.44	M
CRITICAL ELEVATION	114.41	M
CRITICAL SLOPE	0.021720	M/M
VELOCITY	1.32	M/S
VELOCITY HEAD	0.09	M
SPECIFIC ENERGY	114.58	M
FROUDE NUMBER	0.70	
FLOW TYPE	SUBCRITICAL	
SLOPE	0.010	M/M
DISCHARGE (2-YEAR RELEASE)	79.0	CFS

CROSS SECTION B-B



MANNINGS COEFFICIENT	0.035	
FLOW AREA	1.7	SQ. M
WETTED PERIMETER	5.47	M
TOP WIDTH	5.30	M
ACTUAL DEPTH	0.39	M
CRITICAL ELEVATION	113.33	M
CRITICAL SLOPE	0.019218	M/M
VELOCITY	1.31	M/S
VELOCITY HEAD	0.09	M
SPECIFIC ENERGY	113.48	M
FROUDE NUMBER	0.74	
FLOW TYPE	SUBCRITICAL	
SLOPE	0.010	M/M
DISCHARGE (2-YEAR RELEASE)	79.0	CFS

OUTFALL NARRATIVE

THIS REGIONAL STORMWATER MANAGEMENT POND ACCEPTS RUNOFF FROM SOME 271 ACRES AT THE TOP OF THE DIFFICULT RUN WATERSHED. THE DRAINAGE AREA TO THE POND IS MASTER PLANNED FOR SINGLE FAMILY ATTACHED, MULTIFAMILY, COMMERCIAL OFFICE AND RETAIL USES. ON THE SOUTH SIDE OF ROUTE 29, THE AREA IS MASTER PLANNED FOR SINGLE FAMILY DWELLINGS AT A DENSITY OF 2-3 UNITS PER ACRE. THE PEAK RELEASE FROM THIS DRAINAGE AREA WILL BE REDUCED TO BELOW PRE-DEVELOPMENT CONDITIONS FOR THE 2-YEAR AND 10-YEAR STORM. A SIDE-EFFECT OF THIS REGIONAL STORMWATER MANAGEMENT POND IS THE DETENTION OF THE 1-YEAR STORM TO BELOW PRE-DEVELOPMENT LEVELS. THE DETENTION EFFECT OF THIS STORMWATER MANAGEMENT POND WILL MAINTAIN THE QUALITY OF THE DOWNSTREAM WATERSHED.

THE OUTLET CONDUIT FROM THE STORMWATER MANAGEMENT POND CONSISTS OF TWIN BOX CULVERTS, WHICH DISCHARGE NEAR THE NORTHERN BOUNDARY LINE OF THE FAIRFAX CENTER SITE. THIS OUTFALL LOCATION SHALL BE PROVIDED WITH PERMANENT OUTLET PROTECTION IN CONFORMANCE WITH THE PUBLIC FACILITIES MANUAL. THE CROSS-SECTIONS ON THIS SHEET SHOW THAT THE EXISTING NATURAL STREAM IS ADEQUATE TO HANDLE THE 2-YEAR STORM WITHIN BED AND BANKS.

PEAK RUNOFF FROM THIS SITE HAS BEEN CONSIDERABLY REDUCED, AND THE EXISTING NATURAL CHANNEL DOWNSTREAM IS SUFFICIENT TO HANDLE THE PROPOSED FLOW. THEREFORE, IT IS THE OPINION OF THE ENGINEER THAT ADEQUATE OUTFALL EXISTS AND THAT THIS DEVELOPMENT WILL NOT DENEGRATE THE QUALITY OF THE ADJACENT WATERSHED.

BMP FACILITY DESIGN CALCULATIONS

PLAN NAME: FAIRFAX CENTER
PLAN NUMBER: 7656-SP-05

DATE: 8/6/99
ENGINEER: DMS

BMP - I. WATER QUALITY NARRATIVE

REGIONAL STORMWATER MANAGEMENT POND #D77 IS BEING CONSTRUCTED IN CONJUNCTION WITH THE FAIRFAX CENTER DEVELOPMENT. DUE TO THE REGIONAL NATURE OF THIS FACILITY, A CONSIDERABLE AMOUNT OF OFFSITE AREA IS BEING CONTROLLED BY THIS REGIONAL STORMWATER MANAGMENT POND. BMP'S ARE PROVIDED FOR ALL PROPERTIES WITHIN THE DRAINAGE SHED & THE FAIRFAX CENTER SITE AREA.

THIS EXTENDED DETENTION DRY POND WILL UTILIZE A 10" DIAMETER ORIFICE TO PROVIDE 48 HOUR DRAWDOWN. THE DRAWDOWN ORIFICE SHALL BE FITTED WITH A TRASH RACK IN ACCORDANCE WITH PFM PLATE 61-6. THE FACILITY WILL BE MAINTAINED BY FAIRFAX COUNTY.

BMP - II. WATERSHED INFORMATION

PART 1. LIST ALL OF THE SUBAREAS AND "C" FACTORS USED IN THE BMP COMPUTATIONS

		SUBAREA DESIGNATION (1)	"C" (2)	ACRES (3)	(Ha)
V1	Onsite	Shopping Center - B Soils	0.80	15.01	6.0743
V3	Onsite	Shopping Center - D Soils	0.85	4.62	1.8696
W1	Onsite	SFA, MF - B Soils	0.70	45.24	18.3080
W2	Onsite	SFA, MF - C Soils	0.75	0.65	0.2630
W3	Onsite	SFA, MF - D Soils	0.80	4.51	1.8251
X1	Offsite	Commercial & Office - B Soils	0.70	20.75	8.3972
X2	Offsite	Commercial & Office - D Soils	0.80	0.33	0.1335
X3	Offsite	2 DU per Acre - B Soils	0.45	30.87	12.4926
X4	Offsite	2 DU per Acre - C Soils	0.45	1.95	0.7891
X5	Offsite	2 DU per Acre - D Soils	0.50	2.48	1.0036
Y1	Offsite	3 DU per Acre - B Soils	0.50	38.20	15.4590
Y2	Offsite	3 DU per Acre - C Soils	0.50	18.29	7.4017
Y3	Offsite	3 DU per Acre - D Soils	0.55	39.11	15.8273
Z1	Offsite	SFA, MF & Commercial & Office - B Soils	0.70	18.69	7.5636
Z2	Offsite	SFA, MF & Commercial & Office - C Soils	0.75	10.36	4.1925
Z3	Offsite	SFA, MF & Commercial & Office - D Soils	0.80	35.07	14.1923
U1	Onsite	SFA, MF - B Soils	0.70	12.86	5.2043
U2	Onsite	SFA, MF - C Soils	0.75	0.11	0.0445
U3	Onsite	SFA, MF - D Soils	0.80	0.55	0.2226
		TOTAL DRAINAGE & ONSITE AREA =		299.65	Ac. (A)

PART 2. COMPUTE THE WEIGHTED AVERAGE "C" FACTOR FOR THE SITE

		SUBAREA DESIGNATION (1)	"C" (2)		ACRES (3)		PRODUCT (4)
V1	Onsite	Shopping Center - B Soils	0.80	x	15.01	=	12.01
V3	Onsite	Shopping Center - D Soils	0.85	x	4.62	=	3.93
W1	Onsite	SFA, MF - B Soils	0.70	x	45.24	=	31.67
W2	Onsite	SFA, MF - C Soils	0.75	x	0.65	=	0.49
W3	Onsite	SFA, MF - D Soils	0.80	x	4.51	=	3.61
X1	Offsite	Commercial & Office - B Soils	0.70	x	20.75	=	14.53
X2	Offsite	Commercial & Office - D Soils	0.80	x	0.33	=	0.26
X3	Offsite	2 DU per Acre - B Soils	0.45	x	30.87	=	13.89
X4	Offsite	2 DU per Acre - C Soils	0.45	x	1.95	=	0.88
X5	Offsite	2 DU per Acre - D Soils	0.50	x	2.48	=	1.24
Y1	Offsite	3 DU per Acre - B Soils	0.50	x	38.20	=	19.10
Y2	Offsite	3 DU per Acre - C Soils	0.50	x	18.29	=	9.15
Y3	Offsite	3 DU per Acre - D Soils	0.55	x	39.11	=	21.51
Z1	Offsite	SFA, MF & Commercial & Office - B Soils	0.70	x	18.69	=	13.08
Z2	Offsite	SFA, MF & Commercial & Office - C Soils	0.75	x	10.36	=	7.77
Z3	Offsite	SFA, MF & Commercial & Office - D Soils	0.80	x	35.07	=	28.06
U1	Onsite	SFA, MF - B Soils	0.70	x	12.86	=	9.00
U2	Onsite	SFA, MF - C Soils	0.75	x	0.11	=	0.08
U3	Onsite	SFA, MF - D Soils	0.80	x	0.55	=	0.44

(B) TOTAL = 190.70

WEIGHTED AVERAGE "C" FACTOR (B) / (A) = (C) = 0.64

PART 3. COMPUTE THE TOTAL PHOSPHORUS REMOVAL FOR THE SITE

SUBAREA DESIG. (1)	BMP TYPE (2)	REMOVAL EFF. (%) (3)		AREA* RATIO (4)		"C" RATIO (5)		PRODUCT (6)
V1	REGIONAL DRY POND	50%	x	0.0501	x	1.26	=	3.16%
V3	REGIONAL DRY POND	50%	x	0.0154	x	1.34	=	1.03%
W1	REGIONAL DRY POND	50%	x	0.1510	x	1.10	=	8.31%
W2	REGIONAL DRY POND	50%	x	0.0022	x	1.18	=	0.13%
W3	REGIONAL DRY POND	50%	x	0.0151	x	1.26	=	0.95%
X1	REGIONAL DRY POND	50%	x	0.0692	x	1.10	=	3.81%
X2	REGIONAL DRY POND	50%	x	0.0011	x	1.26	=	0.07%
X3	REGIONAL DRY POND	50%	x	0.1030	x	0.71	=	3.66%
X4	REGIONAL DRY POND	50%	x	0.0065	x	0.71	=	0.23%
X5	REGIONAL DRY POND	50%	x	0.0083	x	0.79	=	0.33%
Y1	REGIONAL DRY POND	50%	x	0.1275	x	0.79	=	5.04%
Y2	REGIONAL DRY POND	50%	x	0.0610	x	0.79	=	2.41%
Y3	REGIONAL DRY POND	50%	x	0.1305	x	0.86	=	5.61%
Z1	REGIONAL DRY POND	50%	x	0.0624	x	1.10	=	3.43%
Z2	REGIONAL DRY POND	50%	x	0.0346	x	1.18	=	2.04%
Z3	REGIONAL DRY POND	50%	x	0.1170	x	1.26	=	7.37%
U1	NONE	0%	x	0.0429	x	1.10	=	0.00%
U2	NONE	0%	x	0.0004	x	1.18	=	0.00%
U3	NONE	0%	x	0.0018	x	1.26	=	0.00%

(A) TOTAL = 47.6%

PART 4. DETERMINE COMPLIANCE WITH PHOSPHORUS REMOVAL REQUIREMENT

NECESSARY REQUIREMENT: 40% (A)
CHESAPEAKE BAY PRESERVATION AREA - NEW DEVELOPMENT
(SEE BMP MANUAL FOR GUIDE TO REQUIREMENTS)

IF 3(A) = 47.6% IS > = 4(A) 40%

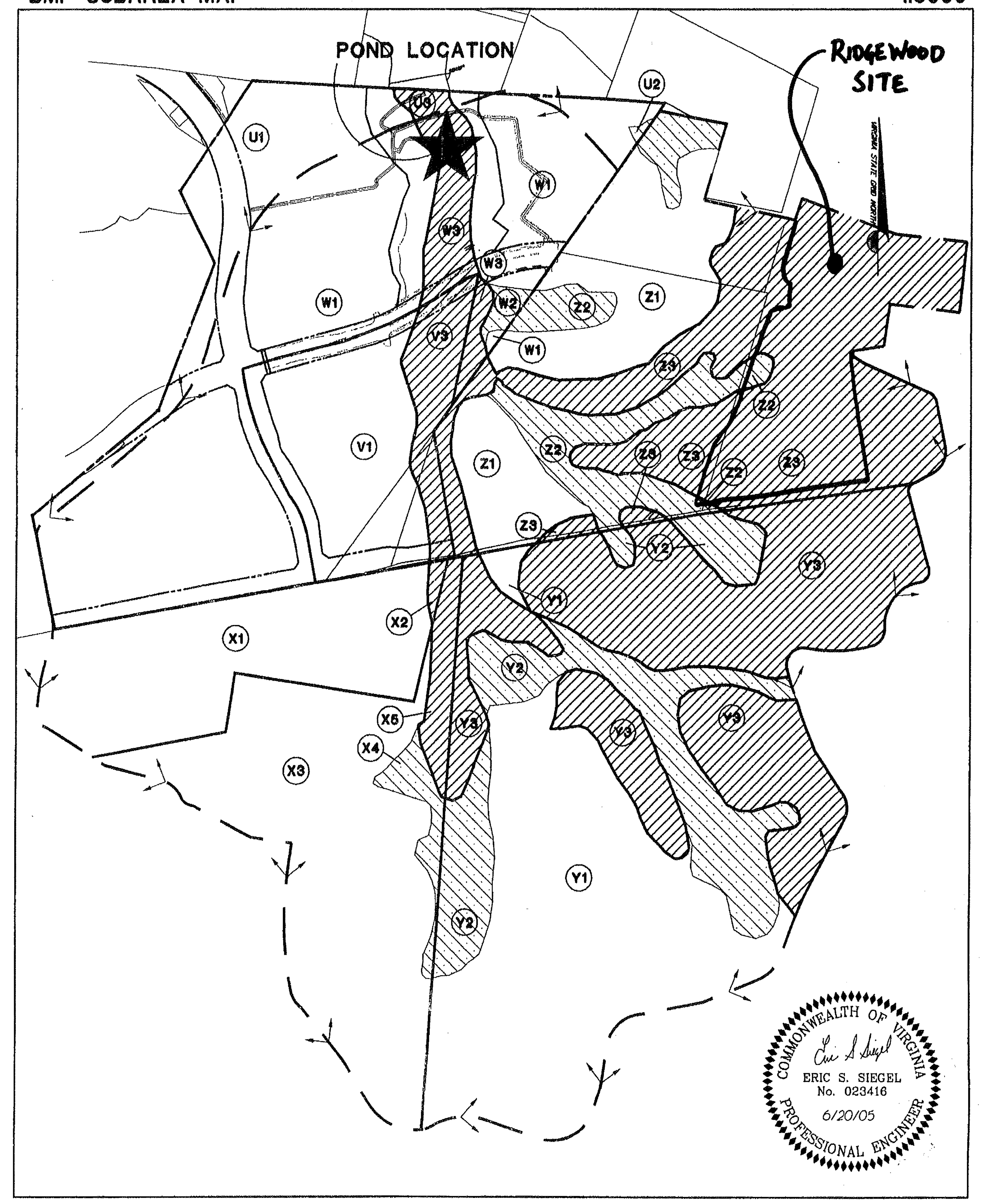
THEN PHOSPHORUS REMOVAL REQUIREMENT IS SATISFIED

RZ/FDP Application No. 2005-SP-019 Staff f. strunk
APPROVED DEVELOPMENT PLAN
(DP) (GDP) (CDP) (FDP)
SEE PROFFERS DATED 6-20-2006
Date of (BOS) (PC) approval 6-26-2006
Sheet 13 of 13

FDP Approval on 6-14-2006
no conditions

BMP SUBAREA MAP

1:5000



BMP - V. STORAGE

PART 7. COMPUTE THE WEIGHTED AVERAGE "C" FACTOR FOR EACH PROPOSED BMP FACILITY

DRY POND

	SUBAREA DESIGNATION (1)	"C" (2)		ACRES (3)		PRODUCT (4)
V1	Shopping Center - B Soils	0.80	x	15.01	=	12.01
V3	Shopping Center - D Soils	0.85	x	4.62	=	3.93
W1	SFA, MF - B Soils	0.70	x	45.24	=	31.67
W2	SFA, MF - C Soils	0.75	x	0.65	=	0.49
W3	SFA, MF - D Soils	0.80	x	4.51	=	3.61
X1	Commercial & Office - B Soils	0.70	x	20.75	=	14.53
X2	Commercial & Office - D Soils	0.80	x	0.33	=	0.26
X3	2 DU per Acre - B Soils	0.45	x	30.87	=	13.89
X4	2 DU per Acre - C Soils	0.45	x	1.95	=	0.88
X5	2 DU per Acre - D Soils	0.50	x	2.48	=	1.24
Y1	3 DU per Acre - B Soils	0.50	x	38.20	=	19.10
Y2	3 DU per Acre - C Soils	0.50	x	18.29	=	9.15
Y3	3 DU per Acre - D Soils	0.55	x	39.11	=	21.51
Z1	SFA, MF & Commercial & Office - B Soils	0.70	x	18.69	=	13.08
Z2	SFA, MF & Commercial & Office - C Soils	0.75	x	10.36	=	7.77
Z3	SFA, MF & Commercial & Office - D Soils	0.80	x	35.07	=	28.06

(A) = 286.13 (B) = 181.18
(B) / (A) = (C) = 0.63

PART 8. DETERMINE THE STORAGE REQUIRED FOR EACH PROPOSED FACILITY

EXTENDED DETENTION DRY POND

CHART A6-40 VALUE FOR BMP STORAGE PER AC {4375 x 7(C)} - 875 =1895 CF / AC (A)
DESIGN 1 (48 HOUR DRAWDOWN) {7(A) x 8(A)} = 542,300 CF

PART 9. DETERMINE THE REQUIRED ORIFICE SIZE FOR EACH EXTENDED DETENTION FACILITY

BMP STORAGE REQUIREMENT (S) = 542,300 CF
(FROM PART 8)

MAXIMUM HEAD (h) AT THE REQUIRED BMP STORAGE = 7.00 FT
(FROM ELEVATION-STORAGE CURVE)

PEAK OUTFLOW RATE (Qp) AT THE MAX. HEAD FOR 48 HR. DRAWDOWN
(Qp = S / (0.5 x 3600 x 48) = 6.29 CFS

REQUIRED ORIFICE AREA (A) = 0.49 FT
(A = Qp / (0.6 x (64.4 x h)^0.5))

DIAMETER OF A CIRCULAR ORIFICE (D) = 0.79 FT
(D = 2.0 x (A / PI) ^ 0..5)

RADIUS OF CIRCULAR ORIFICE IN INCHES (R) = 4.76 "
(R = D * 6) USE 5 " (125 mm)

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COMMONWEALTH OF VIRGINIA ... MICHAEL ... TUCKER ... 11-3-99 ... PROFESSIONAL ENGINEER

BMP COMPUTATIONS & OUTFALL NARRATIVE

FAIRFAX CENTER

REGIONAL STORMWATER MANAGEMENT POND #D-77

SULLY DISTRICT
FAIRFAX COUNTY, VIRGINIA

BC REVISIONS
8/27/99: REV. PER 1st SUBM. COMMENTS
11/2/99: REV. PER CO. INSERT COMMENTS

OWNER
FAIRFAX CENTER LLC

DESIGNED BY: DMS
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SHEET 11 OF 11
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